PART 1 — GENERAL (GEN)

GEN 0

GEN 0.1 PREFACE

1. NAME OF THE PUBLISHING AUTHORITY

The Oman Aeronautical Information Publication (AIP) is published by The Civil Aviation Authority (CAA).

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Civil Aviation Authority (CAA)

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2. APPLICABLE ICAO DOCUMENTS

This AIP has been prepared in accordance with the Standards and Recommended Practices (SARPs) of Annex 15 to the Chicago Convention and, in general, conforms to the guidance material in the Aeronautical Information Services Manual (ICAO Doc 8126 - AN/ 872). Charts contained in the AIP are produced in accordance with Annex 4 to the Chicago Convention and the Aeronautical Chart Manual (ICAO Doc 8697 - AN/889).

Differences from ICAO Standards, Recommended Practices and Procedures are given in Section GEN 1.7.

3. THE AIP STRUCTURE AND ESTABLISHED REGULAR AMENDMENT INTERVAL

3.1 The AIP structure

This AIP forms part of the Integrated Aeronautical Information Package, details of which are given at Section GEN 3.1. The principal AIP structure is shown in graphic form on page GEN 0.1-3.

The AIP is divided into three parts, General (GEN), Enroute (ENR) and Aerodromes (AD), each divided into sections and sub-sections, containing various types of information subjects.

3.1.1 Part 1 - General (GEN)

Part 1 consists of five sections containing information briefly described hereafter.

GEN 0.

Preface; Record of AIP Amendments; Record of AIP Supplements; Checklist of AIP pages; List of hand amendments to the AIP; and the Table of Contents to Part 1.

GEN 1. National regulations and requirements

Designated Authorities; Entry, Transit and Departure of Aircraft; Entry, Transit and Departure of Passengers and Crew; Entry, Transit and Departure of Cargo; Aircraft Instruments, Equipment and Flight Documents; Summary of National Regulations; and Differences from ICAO Standards, Recommended Practices and Procedures.

GEN 2. Tables and Codes

Measuring System, Aircraft Marking, Holidays; Abbreviations;Chart Symbols; Location Indicators; List of Radio Navigation Aids; Conversion Tables; SunriseSunset Tables.

GEN 3. Services

Aeronautical Information Services; Aeronautical Charts; Air Traffic Services; Communication Services; Meteorology; and Search and Rescue.

GEN 4. Charges for aerodromes/heliports and air navigation services

Aerodrome Charges; Air Navigation Services Charges;and Flight Safety Standards Fees.

3.1.2 Part 2 - En-route (ENR)

Part 2 consists of seven sections containing the information briefly described hereafter.

ENR 0.

Table of contents to Part 2.

ENR 1. General Rules and Procedures

General Rules; Visual Flight Rules; Instrument Flight Rules; ATS Airspace Classification; Holding, Approach and Departure Procedures; Radar Services and Procedures; Altimeter Setting Procedures; Regional Supplementary Procedures; Flight Planning; Addressing of Flight Plan Messages; Interception of Civil Aircraft;Unlawful Interference; and Air Traffic Incidents.

ENR 2. Air traffic services airspace

Detailed description of Flight Information Regions (FIR), Upper Flight Information Regions (UIR), Terminal Control Areas (TMA); and Other Regulated Airspace.

ENR 3. ATS routes

Detailed description of Conventional Navigation Routes; Area Navigation Routes; Other Routes; EnRoute Holding .

Note: Other types of routes which are specified in connection with procedures for traffic to and from aerodromes/heliports are described in the relevant section of the Part 3 - Aerodromes.

ENR 4. Radio Navigation Aids/Systems

Radio Navigation Aids - En-route; Name-code Designators for Significant Points.

ENR 5. Navigation Warnings

Prohibited, Restricted and Danger Areas; Military Exercise and Training Areas; Other Activities of Dangerous Nature; Air Navigation Obstacles - En-route; Aerial Sporting and Recreational Activities; and Bird Migration and Areas with Sensitive Fauna.

ENR 6. En-route charts

En-route Chart - ICAO and Index Charts.

3.1.3 Part 3 - Aerodromes (AD)

Part 3 consists of four sections containing information as briefly described hereafter.

AD 0.

Table of Contents to Part 3.

AD 1. Aerodromes/Heliports - Introduction

Aerodrome availability; Rescue and Fire Fighting Services and Snow Plan; Index to Aerodromes and Heliports; Grouping of Aerodromes/Heliports; Status of Certification of Aerodromes.

AD 2. Aerodromes

Detailed information about aerodromes, including helicopter landing areas, if located at the aerodromes, listed under 24 subsections.

AD 3. Heliports
To be constructed.

3.2 Regular amendment interval

The Oman AIP will be updated on regular basis according to the AIRAC calendar published in GEN 3.1. Whenever AIRAC AMDT is published, a trigger NOTAM will be issued at least 28 days before the effective date giving a brief description of the contents and come into force on the same effective date and time of the AIRAC. It remains valid for a period of 14 days.

If no information was submitted for publication at the AIRAC date, a NIL notification will be issued by the NOTAM

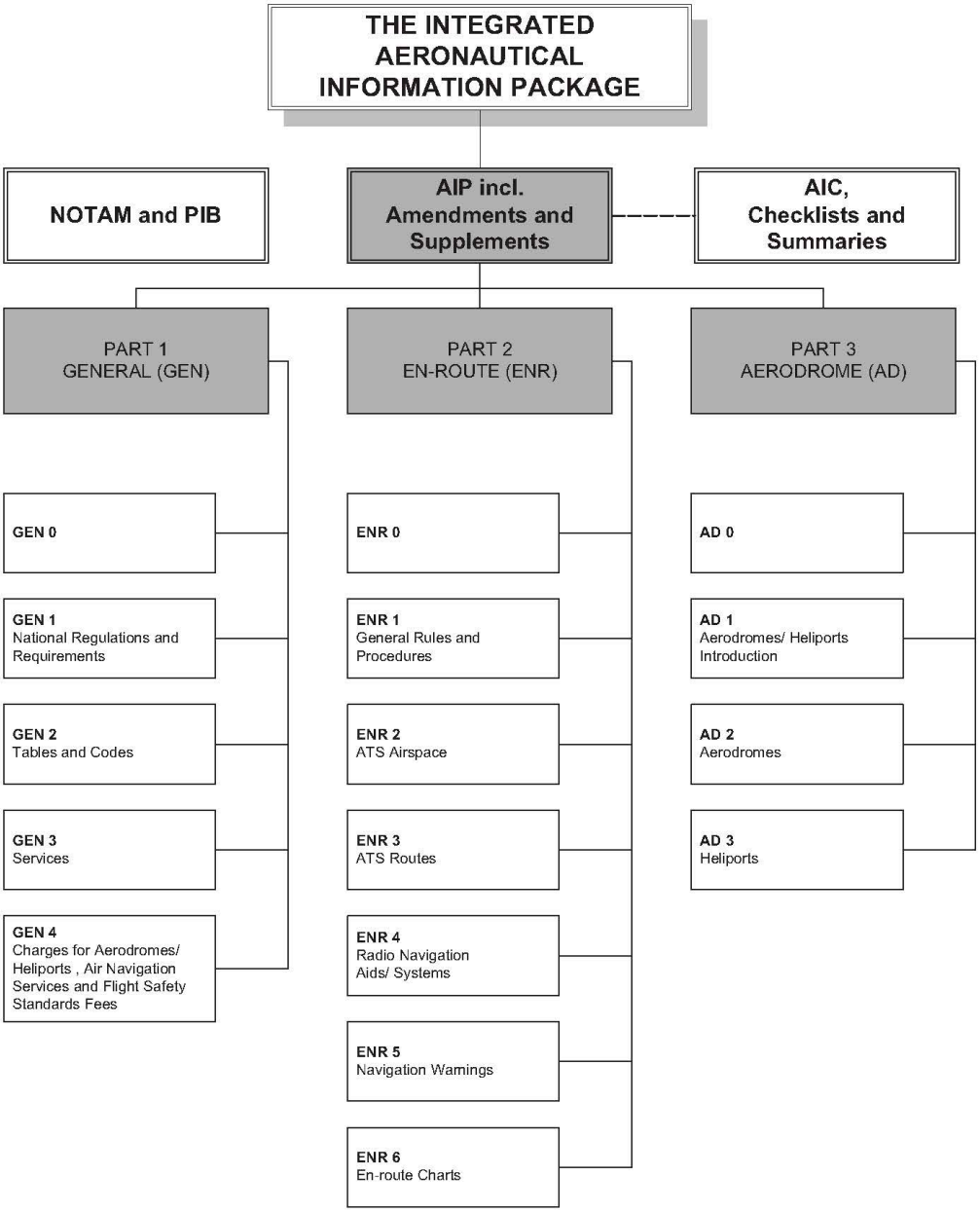
checklist at least one cycle (28 days) before the AIRAC effective date concerned.

3.3 Notification

For the purpose of this document “NOTIFIED” means set forth in a document, published by the CAA, entitled either AIP Oman or NOTAM Oman which is, for the time being, in force and which relates to the portion of the relevant legislation specified therein.

4. SERVICE TO CONTACT IN CASE OF DETECTED AIP ERRORS OR OMISSIONS

In the compilation of this AIP, care has been taken to ensure that the information contained herein is accurate and complete. Any errors or omissions which may nevertheless be detected, as well as any correspondence concerning the Integrated Aeronautical Information Package, should be referred to the CAA at the address given in 1.



THE INTEGRATED AERONAUTICAL INFORMATION PACKAGE

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GEN 0.2 RECORD OF AIP AMENDMENTS

AIP AMDT			
NO./Year	**Publication Date**	**Date Inserted**	**Inserted By**
1-09	24 SEP 09		
1-16	1 APR 16		
1-24	9 MAY 24		

AIRAC AIP AMDT			
No./Year	**Publication Date**	**Effective Date**	**Inserted By**
1-08	5 JUN 08	3 JUL 08	
2-08	25 SEP 08	23 OCT 08	
1-10	3 JUN 10	1 JUL 10	
2-10	21 OCT 10	18 NOV 10	
1-11	13 JAN 11	10 FEB 11	
2-11	17 NOV 11	15 DEC 11	
1-12	28 JUN 12	26 JUL 12	
2-12	23 AUG 12	20 SEP 12	
3-12	15 NOV 12	13 DEC 12	
1-13	27 JUN 13	25 JUL 13	
1-14	3 APR 14	29 MAY 14	
2-14	1 MAY 14	26 JUN 14	
3-14	21 AUG 14	16 OCT 14	
4-14	18 SEP 14	13 NOV 14	
5-14	16 OCT 14	11 DEC 14	
1-15	28 MAY 15	23 JUL 15	
2-15	17 SEP 15	12 NOV 15	
1-16	7 JAN 16	3 MAR 16	
2-16	18 AUG 16	13 OCT 16	
1-17	2 MAR 17	27 APR 17	
2-17	14 SEP 17	9 NOV 17	
1-18	1 MAR 18	26 APR 18	
2-18	16 AUG 18	11 OCT 18	
1-19	28 FEB 19	25 APR 19	
2-19	15 AUG 19	10 OCT 19	
1-20	27 FEB 20	23 APR 20	
2-20	13 AUG 20	8 OCT 20	
1-21	25 FEB 21	22 APR 21	

AIP AMDT			
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AIRAC AIP AMDT			
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2-21	12 AUG 21	7 OCT 21	
1-22	24 FEB 22	21 APR 22	
2-22	11 AUG 22	6 OCT 22	
1-23	23 MAR 23	18 MAY 23	
2-23	10 AUG 23	5 OCT 23	
1-24	16 MAY 24	13 JUN 24	
2-24	8 AUG 24	5 SEP 24	

GEN 0.3 RECORD OF AIP SUPPLEMENTS

Record of valid AIP Supplements are published on the CAA website:
https://www.caa.gov.om/en/aim-publications

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GEN 0.4-6	5 SEP 24
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GEN 0.6-1	9 MAY 24

GEN 1

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GEN 2

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GEN 3

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GEN 3.1-4	9 MAY 24
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GEN 3.6-2	13 JUN 24
GEN 3.6-3	13 JUN 24
GEN 3.6-4	9 MAY 24
GEN 3.6-5	13 JUN 24

GEN 4

GEN 4.1-1	9 MAY 24
GEN 4.1-2	9 MAY 24
GEN 4.1-3	9 MAY 24
GEN 4.1-4	9 MAY 24
GEN 4.2-1	9 MAY 24
GEN 4.2-2	9 MAY 24
GEN 4.2-3	9 MAY 24
GEN 4.2-4	9 MAY 24

PART -2 EN-ROUTE (ENR)

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PART -3 AERODROMES (AD)

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AD 0.4-1 9 MAY 24
AD 0.5-1 9 MAY 24
AD 0.6-1 9 MAY 24

AD 1

AD 1.1-1 9 MAY 24
AD 1.1-2 9 MAY 24
AD 1.1-3 9 MAY 24
AD 1.1-4 9 MAY 24
AD 1.1-5 9 MAY 24
AD 1.1-6 9 MAY 24
AD 1.2-1 9 MAY 24
AD 1.3-1 9 MAY 24
AD 1.3-3 18 MAY 23
AD 1.4-1 9 MAY 24
AD 1.5-1 13 JUN 24

AD 2

AD 2.OOBR-1 9 MAY 24
AD 2.OOBR-2 9 MAY 24
AD 2.OOBR-3 9 MAY 24
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AD 2.OOBR-5 9 MAY 24
AD 2.OOBR-6 9 MAY 24
AD 2.OOBR-7 9 MAY 24

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AD 2.OODQ-3 13 JUN 24
AD 2.OODQ-4 9 MAY 24
AD 2.OODQ-5 13 JUN 24
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AD 2.OODQ-9 13 JUN 24
AD 2.OODQ-10 13 JUN 24
AD 2.OODQ-11 13 JUN 24
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AD 2.OODQ-15 6 OCT 22
AD 2.OODQ-17 6 OCT 22
AD 2.OODQ-19 23 APR 20
AD 2.OODQ-21 23 APR 20

AD 2.OODQ-22	23 APR 20	AD 2.OOGB-13	23 APR 20	AD 2.OOMK-4	9 MAY 24
AD 2.OODQ-23	23 APR 20	AD 2.OOGB-15	5 OCT 23	AD 2.OOMK-5	9 MAY 24
AD 2.OODQ-24	23 APR 20	AD 2.OOGB-17	5 OCT 23	AD 2.OOMK-6	9 MAY 24
AD 2.OODQ-25	23 APR 20	AD 2.OOGB-19	6 OCT 22	AD 2.OOMK-7	13 JUN 24
AD 2.OODQ-26	23 APR 20	AD 2.OOGB-20	27 APR 17	AD 2.OOMK-8	13 JUN 24
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AD 2.OODQ-30	23 APR 20	AD 2.OOGB-24	27 APR 17	AD 2.OOMK-13	5 OCT 23
AD 2.OODQ-31	23 APR 20	AD 2.OOGB-25	6 OCT 22	AD 2.OOMK-15	5 OCT 23
AD 2.OODQ-32	23 APR 20	AD 2.OOGB-26	27 APR 17	AD 2.OOMK-17	5 OCT 23
		AD 2.OOGB-27	11 OCT 18	AD 2.OOMK-19	5 OCT 23
AD 2.OOFD-1	13 JUN 24	AD 2.OOGB-28	11 OCT 18	AD 2.OOMK-20	3 MAR 16
AD 2.OOFD-2	13 JUN 24	AD 2.OOGB-29	11 OCT 18	AD 2.OOMK-21	5 OCT 23
AD 2.OOFD-3	13 JUN 24	AD 2.OOGB-30	11 OCT 18	AD 2.OOMK-22	3 MAR 16
AD 2.OOFD-4	13 JUN 24			AD 2.OOMK-23	5 OCT 23
AD 2.OOFD-5	13 JUN 24	AD 2.OOIZ-1	9 MAY 24	AD 2.OOMK-24	3 MAR 16
AD 2.OOFD-6	13 JUN 24	AD 2.OOIZ-2	9 MAY 24	AD 2.OOMK-25	5 OCT 23
AD 2.OOFD-7	13 JUN 24	AD 2.OOIZ-3	9 MAY 24	AD 2.OOMK-26	3 MAR 16
AD 2.OOFD-8	13 JUN 24	AD 2.OOIZ-4	9 MAY 24	AD 2.OOMK-27	5 OCT 23
AD 2.OOFD-9	13 JUN 24	AD 2.OOIZ-5	9 MAY 24	AD 2.OOMK-28	11 OCT 18
AD 2.OOFD-10	13 JUN 24	AD 2.OOIZ-6	9 MAY 24	AD 2.OOMK-29	5 OCT 23
AD 2.OOFD-11	21 APR 22	AD 2.OOIZ-7	9 MAY 24	AD 2.OOMK-30	11 OCT 18
AD 2.OOFD-13	21 APR 22				
AD 2.OOFD-15	21 APR 22	AD 2.OOJA-1	9 MAY 24	AD 2.OOMS-1	13 JUN 24
AD 2.OOFD-17	21 APR 22	AD 2.OOJA-2	9 MAY 24	AD 2.OOMS-2	13 JUN 24
AD 2.OOFD-19	6 OCT 22	AD 2.OOJA-3	13 JUN 24	AD 2.OOMS-3	13 JUN 24
AD 2.OOFD-20	21 APR 22	AD 2.OOJA-4	13 JUN 24	AD 2.OOMS-4	13 JUN 24
AD 2.OOFD-21	6 OCT 22	AD 2.OOJA-5	13 JUN 24	AD 2.OOMS-5	13 JUN 24
AD 2.OOFD-22	21 APR 22	AD 2.OOJA-6	13 JUN 24	AD 2.OOMS-6	13 JUN 24
AD 2.OOFD-23	6 OCT 22	AD 2.OOJA-7	13 JUN 24	AD 2.OOMS-7	5 SEP 24
AD 2.OOFD-24	21 APR 22	AD 2.OOJA-8	9 MAY 24	AD 2.OOMS-8	5 SEP 24
AD 2.OOFD-25	6 OCT 22	AD 2.OOJA-9	29 MAY 14	AD 2.OOMS-9	5 SEP 24
AD 2.OOFD-26	21 APR 22	AD 2.OOJA-11	29 MAY 14	AD 2.OOMS-10	5 SEP 24
AD 2.OOFD-27	21 APR 22	AD 2.OOJA-13	29 MAY 14	AD 2.OOMS-11	5 SEP 24
AD 2.OOFD-28	21 APR 22	AD 2.OOJA-15	29 MAY 14	AD 2.OOMS-12	5 SEP 24
AD 2.OOFD-29	21 APR 22	AD 2.OOJA-17	29 MAY 14	AD 2.OOMS-13	5 SEP 24
AD 2.OOFD-30	21 APR 22			AD 2.OOMS-14	5 SEP 24
		AD 2.OOKB-1	9 MAY 24	AD 2.OOMS-15	5 SEP 24
AD 2.OOGB-1	13 JUN 24	AD 2.OOKB-2	9 MAY 24	AD 2.OOMS-16	5 SEP 24
AD 2.OOGB-2	13 JUN 24	AD 2.OOKB-3	9 MAY 24	AD 2.OOMS-17	5 SEP 24
AD 2.OOGB-3	13 JUN 24	AD 2.OOKB-4	9 MAY 24	AD 2.OOMS-18	5 SEP 24
AD 2.OOGB-4	13 JUN 24	AD 2.OOKB-5	9 MAY 24	AD 2.OOMS-19	5 SEP 24
AD 2.OOGB-5	13 JUN 24	AD 2.OOKB-6	13 JUN 24	AD 2.OOMS-20	5 SEP 24
AD 2.OOGB-6	13 JUN 24	AD 2.OOKB-7	13 JUN 24	AD 2.OOMS-21	5 SEP 24
AD 2.OOGB-7	13 JUN 24	AD 2.OOKB-8	13 JUN 24	AD 2.OOMS-22	13 JUN 24
AD 2.OOGB-8	13 JUN 24			AD 2.OOMS-23	13 JUN 24
AD 2.OOGB-9	13 JUN 24	AD 2.OOMK-1	9 MAY 24	AD 2.OOMS-24	13 JUN 24
AD 2.OOGB-10	13 JUN 24	AD 2.OOMK-2	9 MAY 24	AD 2.OOMS-25	13 JUN 24
AD 2.OOGB-11	13 JUN 24	AD 2.OOMK-3	9 MAY 24	AD 2.OOMS-26	13 JUN 24

AD 2.OOMS-27	13 JUN 24	AD 2.OOMX-1	13 JUN 24	AD 2.OOSA-21	21 APR 22
AD 2.OOMS-29	13 JUN 24	AD 2.OOMX-2	9 MAY 24	AD 2.OOSA-23	23 APR 20
AD 2.OOMS-30	13 JUN 24	AD 2.OOMX-3	9 MAY 24	AD 2.OOSA-25	23 APR 20
AD 2.OOMS-31	13 JUN 24	AD 2.OOMX-4	13 JUN 24	AD 2.OOSA-27	23 APR 20
AD 2.OOMS-33	13 JUN 24	AD 2.OOMX-5	13 JUN 24	AD 2.OOSA-29	9 NOV 17
AD 2.OOMS-34	5 OCT 23	AD 2.OOMX-6	13 JUN 24	AD 2.OOSA-31	9 NOV 17
AD 2.OOMS-35	5 OCT 23	AD 2.OOMX-7	13 JUN 24	AD 2.OOSA-33	25 APR 19
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AD 2.OOMS-39	13 JUN 24	AD 2.OOMX-9	13 JUN 24	AD 2.OOSA-36	9 NOV 17
AD 2.OOMS-41	13 JUN 24	AD 2.OOMX-10	9 MAY 24	AD 2.OOSA-37	25 APR 19
AD 2.OOMS-43	13 JUN 24	AD 2.OOMX-11	9 MAY 24	AD 2.OOSA-39	25 APR 19
AD 2.OOMS-45	5 OCT 23	AD 2.OOMX-12	13 JUN 24	AD 2.OOSA-40	9 NOV 17
AD 2.OOMS-47	5 OCT 23	AD 2.OOMX-13	9 MAY 24	AD 2.OOSA-41	25 APR 19
AD 2.OOMS-49	13 JUN 24	AD 2.OOMX-14	9 MAY 24	AD 2.OOSA-43	25 APR 19
AD 2.OOMS-51	5 SEP 24	AD 2.OOMX-15	6 OCT 22	AD 2.OOSA-45	9 NOV 17
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AD 2.OOMS-56	5 OCT 23	AD 2.OOMX-21	23 APR 20	AD 2.OOSA-49	25 APR 19
AD 2.OOMS-57	13 JUN 24	AD 2.OOMX-23	6 OCT 22	AD 2.OOSA-51	9 NOV 17
AD 2.OOMS-59	13 JUN 24	AD 2.OOMX-24	23 APR 20	AD 2.OOSA-52	9 NOV 17
AD 2.OOMS-61	5 OCT 23	AD 2.OOMX-25	6 OCT 22	AD 2.OOSA-53	25 APR 19
AD 2.OOMS-62	5 OCT 23	AD 2.OOMX-26	23 APR 20	AD 2.OOSA-55	22 APR 21
AD 2.OOMS-63	5 OCT 23	AD 2.OOMX-27	6 OCT 22	AD 2.OOSA-57	22 APR 21
AD 2.OOMS-65	13 JUN 24	AD 2.OOMX-28	23 APR 20	AD 2.OOSA-59	23 APR 20
AD 2.OOMS-67	13 JUN 24	AD 2.OOMX-29	6 OCT 22	AD 2.OOSA-61	23 APR 20
AD 2.OOMS-69	5 OCT 23	AD 2.OOMX-30	23 APR 20	AD 2.OOSA-63	25 APR 19
AD 2.OOMS-70	5 OCT 23	AD 2.OOMX-31	6 OCT 22	AD 2.OOSA-64	11 OCT 18
AD 2.OOMS-71	13 JUN 24	AD 2.OOMX-32	23 APR 20	AD 2.OOSA-65	25 APR 19
AD 2.OOMS-73	13 JUN 24	AD 2.OOMX-33	6 OCT 22	AD 2.OOSA-66	11 OCT 18
AD 2.OOMS-75	13 JUN 24	AD 2.OOMX-34	23 APR 20	AD 2.OOSA-67	25 APR 19
AD 2.OOMS-76	13 JUN 24			AD 2.OOSA-69	25 APR 19
AD 2.OOMS-77	13 JUN 24	AD 2.OOSA-1	9 MAY 24	AD 2.OOSA-71	25 APR 19
AD 2.OOMS-79	5 OCT 23	AD 2.OOSA-2	13 JUN 24		
AD 2.OOMS-80	5 OCT 23	AD 2.OOSA-3	13 JUN 24	AD 2.OOSH-1	9 MAY 24
AD 2.OOMS-81	13 JUN 24	AD 2.OOSA-4	13 JUN 24	AD 2.OOSH-2	9 MAY 24
AD 2.OOMS-83	13 JUN 24	AD 2.OOSA-5	13 JUN 24	AD 2.OOSH-3	13 JUN 24
AD 2.OOMS-85	5 OCT 23	AD 2.OOSA-6	13 JUN 24	AD 2.OOSH-4	13 JUN 24
AD 2.OOMS-86	5 OCT 23	AD 2.OOSA-7	13 JUN 24	AD 2.OOSH-5	13 JUN 24
AD 2.OOMS-87	13 JUN 24	AD 2.OOSA-8	13 JUN 24	AD 2.OOSH-6	9 MAY 24
AD 2.OOMS-89	13 JUN 24	AD 2.OOSA-9	13 JUN 24	AD 2.OOSH-7	9 MAY 24
AD 2.OOMS-91	13 JUN 24	AD 2.OOSA-10	13 JUN 24	AD 2.OOSH-8	13 JUN 24
AD 2.OOMS-93	13 JUN 24	AD 2.OOSA-11	13 JUN 24	AD 2.OOSH-9	13 JUN 24
AD 2.OOMS-95	13 JUN 24	AD 2.OOSA-12	13 JUN 24	AD 2.OOSH-10	13 JUN 24
AD 2.OOMS-96	13 JUN 24	AD 2.OOSA-13	13 JUN 24	AD 2.OOSH-11	13 JUN 24
AD 2.OOMS-97	13 JUN 24	AD 2.OOSA-14	13 JUN 24	AD 2.OOSH-12	13 JUN 24
AD 2.OOMS-98	5 OCT 23	AD 2.OOSA-15	13 JUN 24	AD 2.OOSH-13	13 JUN 24
AD 2.OOMS-99	13 JUN 24	AD 2.OOSA-16	9 MAY 24	AD 2.OOSH-14	13 JUN 24
AD 2.OOMS-101	13 JUN 24	AD 2.OOSA-17	9 MAY 24	AD 2.OOSH-15	5 OCT 23
AD 2.OOMS-103	13 JUN 24	AD 2.OOSA-18	9 MAY 24	AD 2.OOSH-17	13 JUN 24
AD 2.OOMS-104	5 OCT 23	AD 2.OOSA-19	21 APR 22	AD 2.OOSH-19	13 JUN 24

AD 2.OOSH-21	7 OCT 21
AD 2.OOSH-23	7 OCT 21
AD 2.OOSH-25	6 OCT 22
AD 2.OOSH-26	7 OCT 21
AD 2.OOSH-27	6 OCT 22
AD 2.OOSH-28	7 OCT 21
AD 2.OOSH-29	6 OCT 22
AD 2.OOSH-30	7 OCT 21
AD 2.OOSH-31	6 OCT 22
AD 2.OOSH-32	7 OCT 21
AD 2.OOSH-33	7 OCT 21
AD 2.OOSH-34	7 OCT 21
AD 2.OOSH-35	7 OCT 21
AD 2.OOSH-36	7 OCT 21
AD 2.OOSQ-1	9 MAY 24
AD 2.OOSQ-2	9 MAY 24
AD 2.OOSQ-3	9 MAY 24
AD 2.OOSQ-4	9 MAY 24
AD 2.OOSQ-5	9 MAY 24
AD 2.OOSQ-6	9 MAY 24

AD 3

AD 3-1	9 MAY 24

GEN 0.5 LIST OF HAND AMENDMENTS TO THE AIP

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GEN 1 NATIONAL REGULATIONS AND REQUIREMENTS

GEN 1.1 DESIGNATED AUTHORITIES

1. CIVIL AVIATION

Postal Address :

Civil Aviation Authority

P. O. Box 758 POSTAL CODE 111 MUSCAT

Sultanate of Oman

TEL : *(968) 24 354955*

TeleFax : *968 24 354535*

AFS : *OOMSYAYX*

Email : *sdc@caa.gov.om*

Website : *Nil*

2. METEOROLOGY

Postal Address :

Civil Aviation Authority

P. O. Box 1 POSTAL CODE 111 MUSCAT

Sultanate of Oman

TEL : *(968) 24 354660*

TeleFax : *968 24 348501*

AFS : *OOMSYMYX*

Email : *met_dir@met.gov.om*

Website : *Nil*

3. CUSTOMS

Postal Address :

Directorate General of Customs

P. O. Box 1599 POSTAL CODE 114 MUTTRAH

Sultanate of Oman

TEL : *Nil*

TeleFax : *968 24 712199*

AFS : *Nil*

Email : *Nil*

Website : *Nil*

4. IMMIGRATION

Postal Address :

Principal Immigration Officer

P. O. Box 2 POSTAL CODE 113 MUSCAT

Sultanate of Oman

TEL : *Nil*

TeleFax : *968 24 560540*

AFS : *Nil*

Email : *Nil*

Website : *Nil*

5. HEALTH

Postal Address :

Ministry of Health Directorate General of Health Affairs

Department of Surveillance & Disease Control P. O. Box 393 POSTAL CODE 113 MUSCAT

Sultanate of Oman

TEL : *Nil*

TeleFax : *968 24 560540*

AFS : *Nil*

Email : *Nil*

Website : *Nil*

6. EN-ROUTE AND AERODROME/HELIPORT CHARGES

Postal Address :

Oman Airports Muscat International Airport

P. O. Box 1707 POSTAL CODE 111

MUSCAT Sultanate of Oman

TEL : *(968) 24 352094*

TeleFax : *968 24 352001*

AFS : *Nil*

Email : *aero@omanairports.com*

Website : *Nil*

7. AGRICULTURAL QUARANTINE

Postal Address :

Ministry of Agriculture & Fisheries

P. O. Box 467 POSTAL CODE 113 MUSCAT

Sultanate of Oman

TEL : *Nil*

TeleFax : *968 24 696271*

AFS : *Nil*

Email : *Nil*

Website : *Nil*

8. AIRCRAFT ACCIDENTS INVESTIGATION

Postal Address :

Ministry of Transport, Communications and Information Technology (MTCIT)
Oman Transport Safety Bureau (OTSB)

P. O. Box 684 ZIP CODE 100 MUSCAT

Sultanate of Oman

TEL : *(968) 72111135 (HOTLINE)*

TeleFax : *Nil*

AFS : *Nil*

Email : *OTSB@mtcit.gov.om*

Website : *https://www.mtcit.gov.om*

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GEN 1.2 ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT

1. GENERAL

1.1 All flights into, from or over the territory of Oman and landings in such territory will be carried out in accordance with the valid regulations of Oman regarding civil aviation.

1.2 Aircraft landing in or departing from the territory of Oman must first land at and finally depart from Muscat International Airport (see AD 2.OOMS) unless a special dispensation has been applied for and granted by the CAA in advance.

2. SCHEDULED FLIGHTS

2.1 General

For regular international scheduled flights operated by foreign airlines into, from or over the territory of Oman,the following requirements must be met:

a) the State of the airline must be a party to the International Air Services Transit Agreement and/or the International Air Transport Agreement; Oman is a party to both Agreements; and

b) the airline must be eligible to make the flights under the provisions of a bilateral or multilateral agreement,to which the State of the airline and Oman are contracting parties, and be in possession of a permit authorizing the operation pursuant to the said agreement.

2.2 Application for permits will be submitted to CAA as detailed below:

a) For scheduled operations into Oman, chartered flights, additional landing flights, technical landings and/or amend flight times, routes and/or operated aircrafts shall be addressed to:

Postal Address :

Directorate of Air Transport

Civil Aviation Authority (CAA)

P. O. Box 1

POSTAL CODE 111 MUSCAT Sultanate of Oman

TEL : *(968) 24 354028 & 354062*

Telefax: *NIL*

AFS : *NIL*

Email : *permits@caa.gov.om*

Website : *NIL*

b) For scheduled overflying flights, additional overflying flights, single overflying flights and/or to amend overflying flight times, routes and/or aircraft shall be addressed to:

Postal Address :

Directorate of Air Transport

Civil Aviation Authority (CAA)

P. O. Box 1

POSTAL CODE 111 MUSCAT Sultanate of Oman

TEL : *(968) 24 354028 & 354062*

Telefax:*NIL*

AFS : *NIL*

Email : *permits-om@caa.gov.om*

Website : *NIL*

3. NON-SCHEDULED FLIGHTS

3.1 General

Operators must obtain permission to carry out nonscheduled flights into, from or over the territory of Oman, whether or not for the purpose of taking on or discharging passengers, cargo or mail.

All Non-scheduled aircraft overflying the Sultanate of Oman and operating into Muscat Intl and Salalah airports shall quote the permit number granted on each and every Flight Plan.

3.2 Information required

Applications for such permission will be submitted to the CAA at the address given in GEN 1.2-1 paragraph 2.2 a) in sufficient time to arrive not less than seventytwo hours in advance of the intended landing or overflight.

Applications for non-scheduled flights must include the following information in the order shown:

1) Name of operator and full mailing address (including telephone/fax/e-mail)

2) Type of aircraft, MTOW, registration marks and availability of ACAS-II and serviceable transponder

3) Callsign/flight number (ICAO 3 letter code)

4) Operator’s IATA Code

5) Dates and times of arrival at and departure from Muscat Intl Airport/Salalah Airport

6) Entry/exit points within Muscat FIR, itinerary schedule ETD/ETA

7) Place or places of embarkation or disembarkation abroad, as the case may be, of passenger and/or freight

8) Purpose of flight, number of passengers and/or nature and amount of freight

9) Name, address and business of charterer if any

10) Names of crew members

11) Valid and clear copies of the following documents (not required for private and overflying flights and/or technical stops):

- air operator certificate with the specifications

- certificate of air worthiness

- certificate of registration

- certificate of insurance

- aircraft noise certificate

- radio licenses certificate

12) Responsible authority for air navigation, landing and parking charges:

- head of accounts dept. with full mailing address

- account payable

- telephone/fax and e-mail address

4. PRIVATE FLIGHTS

4.1 General

Operators must obtain permission to carry out private flights into, from or over the territory of Oman.

4.2 Information required

Application for such permission will be submitted in accordance with the requirements of paragraph 3.2 non-scheduled flights, and is to be addressed to the Directorate of Air Transport at the address given in sub-paragraph 2.2 (b) (no copies of certificates required).

5. MILITARY AND DIPLOMATIC FLIGHTS

5.1 Applications for permission for military, diplomatic and government aircraft to overfly or land in Oman must be submitted fifteen (15) days in advance through diplomatic channels.

6. DOCUMENTARY REQUIREMENTS

6.1 Aircraft documents required

It is necessary that the undermentioned aircraft documents be submitted by all operators on entry and departure of their aircraft to and from Oman. All documents listed below must follow the ICAO standard format, as set forth in the relevant Appendices to Annex 9, and are acceptable when furnished in English or Arabic and completed in legible handwriting. No visas are required in connection with such documents.

Aircraft documents required (arrival/transit/departure)

Document Required	**General Declaration**			**Passenger Manifest**			**Cargo Manifest**		
by - for	**Arr**	**Trans**	**Dep**	**Arr**	**Trans**	**Dep**	**Arr**	**Trans**	**Dep**
Immigr. Health Customs	3 1 1	3 0 1	2 1 1	3 2 1	3 0 0	3 2 1	1 1 2	0 0 2	1 1 2
Total	5	4	4	6	3	6	4	2	4

Note:
a) One copy of the General Declaration is endorsed and returned by Customs, signifying clearance.
b) For the purposes of this regulation, a transit flight is deemed to be one when no passengers embark or disembark and no articles are loaded or unloaded.In the latter case, a - NIL - Cargo Manifest satisfies
the requirement.

6.2 Public Health measures applied to aircraft

No Public Health measures are normally required to be carried out in respect of aircraft entering Oman. When circumstances necessitate such measures being taken, responsible authorities will receive adequate prior notification.

GEN 1.3 ENTRY, TRANSIT AND DEPARTURE OF PASSENGERS AND CREW

1. IMMIGRATION REQUIREMENTS

1.1 Arriving passengers

a) A person entering Oman for a visit or employment must hold a valid passport and either a valid visa or a no-objection certificate (NOC). A business visit visa may be obtained from Embassies or Consulates of the Sultanate of Oman abroad.

b) Nationals of Gulf Co-operation Council (G.C.C.Bahrain, Kuwait, Qatar, Saudi Arabia and The United Arab Emirates) do not require visas.

c) Certain specified professionals holding residence permits of any G.C.C. Country valid for at least 6 months and who have resided there for at least one year do not require a visa as long as they have their passports and original labour cards with them. (For a listing of the professions refer to Omani embassies / consulates, Royal Oman Police Immigration Authorities, travel agents or the Royal Oman Police Web site www.rop.gov.om)

d) Other Nationalities should access The Royal Oman Police Web site: www.rop.gov.om for information about the issuance of Visas upon arrival.

1.2 Departing passengers

All persons leaving Oman must present a valid passport for inspection.

1.3 Transit passengers

No documents or visas are required of passengers arriving and departing on the same through flight or transferring to another flight at the same airport without entering Oman.

1.4 Arriving, departing and transit crew

Members of operating or positioning crews of aircraft engaged in scheduled international air services and non-scheduled international air transport operations, who remain at the airport where the aircraft has stopped or within the confines of the cities adjacent thereto and depart on the same or next regularly scheduled flight out of Oman, are exempt from the requirement to hold a visa provided that they travel in uniform and carry a valid passport. Crew members travelling under any other circumstances, including those of aircraft engaged in private flights, shall be regarded as passengers for immigration purposes and, as such, shall comply with the relevant conditions prescribed in the foregoing paragraphs.

1.5 Notification

Paragraphs 1.1, 1.2, 1.3 and 1.4 are hereby notified for the purposes of the appropriate sections of the Aliens Residence Decree of 1974.

2. CUSTOMS REQUIREMENTS

2.1 Arriving passengers and crew

Personal baggage and belongings are immediately released except for those selected by the Customs Authorities for inspection.

2.2 Departing and transit passengers and crew

No customs formalities are normally required on departure or in transit.

3. PUBLIC HEALTH REQUIREMENTS

3.1 Arriving and transit passengers and crew

a) Smallpox. A current certificate of vaccination against Smallpox is no longer required.

b) Cholera. A Cholera vaccination certificate is not normally required, but the Public Health Authorities reserve the right to administer vaccination and/or chemoprophylaxis to persons arriving from infected or endemic areas.

c) Yellow Fever. A current certificate of vaccination against Yellow Fever is required for persons arriving from endemic areas.

N. B. For the purpose of paragraph 3.1, transit passengers are deemed to be those who leave the aircraft and enter the terminal building.

3.2 Departing passengers and crew

A current certificate of vaccination against Yellow Fever is required at destination for persons entering or in transit through endemic areas. No other health formalities are required.

GEN 1.4 ENTRY, TRANSIT AND DEPARTURE OF CARGO

1. CUSTOMS REQUIREMENTS CONCERNING CARGO AND OTHER ARTICLES

1.1 All cargo imports are subject to customs formalities.

1.2 Transhipment of cargo from one flight to another flight, at the same airport, must be carried out under customs supervision.

1.3 All cargo exports are subject to customs formalities.

1.4 Customs procedures in force are in accordance with those laid down by the Customs Cooperation Council in Brussels (CCCN) and conform to the Standard International Trade Classification (SITC).

1.5 Detailed information regarding the documentation and formalities pertaining to the import, transhipment and export of cargo should be sought from the Director General of Customs, at the following address when application is made for the operation of the flight:

Postal Address: Directorate General of Customs
P. O. Box 205
MUSCAT
POSTAL CODE 113
Sultanate of Oman
Telefax: (968) 24712199

1.6 Notification

Paragraphs 1.1, 1.2 and 1.3 are hereby notified for the purposes of the appropriate sections of the Customs Management Act of 1978.

2. AGRICULTURAL AND VETERINARY QUARANTINE REQUIREMENTS

2.1 General

a) The formalities specified in paragraphs 2.2 to 2.7 inclusive are applicable to the importation of all animals and birds, live or dead, whether or not for slaughter, and all animals and bird products, fresh or frozen, including eggs and semen.

b) The formalities specified in paragraphs 2.8 to 2.11 inclusive are applicable to the importation, transit and exportation of all agricultural goods and materials including inter alia, seeds, seedlings and living plants including soil, cut flowers, fresh and dried vegetables, fruit and nuts, grain, flour, tobacco leaves and wood samples.

c) Detailed information regarding the documentation and formalities referred to should be sought from the Ministry of Agriculture and Fisheries, at the address given in GEN 1.1 paragraph 7.

2.2 Documentary requirements for Veterinary Quarantine

a) Import permit. An import permit shall be obtained from the Ministry of Agriculture and Fisheries, prior to shipment from the country of origin, for all live animals, birds and animal/bird products.

b) Veterinary health certificate. A specific original health certificate, in the format prescribed by the Disease of Animals Control Order 1977 and signed by a duly authorized veterinarian, shall accompany each import.

c) Rabies vaccination certificate. A valid certificate showing vaccination for Rabies should accompany each cat, dog or other specified mammal. This certificate is considered valid if it has been carried out not less than one month but no more than six months prior to the entry time of the animal.

d) Release permit. This is issued at the port of entry, subject to the documentation referred to in (a), (b) and (c) above and the examination referred to in 2.3 below being satisfactory, by the Veterinary Quarantine Officer responsible.

2.3 Examination

All imports shall be examined by a duly authorized Quarantine Officer of the Veterinary Department of the Ministry of Agriculture and Fisheries, on arrival at the port of entry.

2.4 Payment of fees

All fees due in respect of veterinary examination and/or certification shall be paid prior to the release of the import.

2.5 Ports of entry

Dogs and cats shall only be permitted entry through Muscat Intl Airport. All other animals, birds and products shall be permitted entry at Muscat Intl Airport and Salalah Airport.

2.6 Prohibition

In the event of non-compliance with these regulations imports shall be prohibited and may result in re-export, condemnation of the animal, etc.

2.7 Penalties

Violation of the regulations specified in paragraphs 2.2 to 2.6 inclusive shall result in a fine not exceeding OMR 1000 being imposed and, in respect of live animals and birds, may result in immediate euthanasia.

2.8 Documentary requirements for Plant Quarantine

a) Import permit. An import permit shall be obtained from the Ministry of Agriculture and Fisheries, prior to shipment from the country of origin, for date and coconut palms, citrus, banana and tobacco plants (N.B. the fruit of these plants are allowed without a permit), live insects, honey bees, spiders, nematodes, bacteria, viruses, fungi and algae.

b) Customs form. Required for endorsement with the results of the examination referred to in paragraph 2.9.

c) Phytosanitary certificate. Seeds and live plants shall be accompanied by an official certificate, issued by the country of origin, stating that the consignment is free from agricultural pests and diseases. In respect of live plants, the certificate shall specify the type of sterilization treatment applied, to the soil in which they are rooted, by the country of origin.

2.9 Examination

All consignments shall be examined, by a duly authorized Plant Quarantine Officer, to ensure that they are free from pests and diseases.

2.10 Prohibitions and restrictions

a) The import, transit and export of animal manures is prohibited.

b) The import of untreated or unsterilized natural soil is prohibited.

c) The import of treated or sterilized natural soil is permitted, only insofar as live plants are rooted in it, subject to satisfactory certification of the treatment referred to in paragraph 2.8 c) and to the proviso that further treatment is administered by a duly authorized Plant Quarantine Officer prior to release.

d) Imports found to be diseased or pest-infested shall either be returned to the country of origin, within one week from the date of arrival, or destroyed.

e) Plants and plant products shall not remain in transit for longer than one week, unless the Minister of Agriculture and Fisheries directs otherwise.

2.11 Penalties

Violations of the regulations specified in paragraphs 2.8 to 2.10 inclusive shall result in a fine not exceeding OMR 1000.

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GEN 1.5 AIRCRAFT INSTRUMENTS, EQUIPMENT AND FLIGHT DOCUMENTS

1. GENERAL

Commercial air transport aircraft operating in the Sultanate of Oman must adhere to the provisions of ICAO Annex 6 Operation of Aircraft, and any differences thereto as notified by the Sultanate of Oman.

2. INSTRUMENTS TO BE CARRIED

Specific details of the requirements of Annex 6 are contained in the Oman Civil Aviation Regulations.

Details of the minimum requirements for the carriage of radio equipment are listed on the page GEN 3.4-1 para 4.2.

3. FLIGHT DOCUMENTS TO BE CARRIED

3.1 The aircraft flight manual or other documents or information concerning any operating limitations prescribed for the aircraft by the certificating authority of the State of Registry.

3.2 Current and suitable charts for the route of the proposed flight and all routes along which it is reasonable to expect that they may divert the flight.

3.3 Procedures, as prescribed in Annex 2, for pilots-incommand of intercepted aircraft.

3.4 A list of visual signals for use by intercepting and intercepted aircraft, as contained in Annex 2.

4. REQUIREMENT TO CARRY AN AIRBORNE COLLISION AVOIDANCE SYSTEM (ACAS II) IN THE MUSCAT FIR

4.1 Introduction

4.1.1 In accordance with Civil Aviation Regulation CAR OPS-1.668 of The Sultanate of Oman, all turbine-powered aircraft having a certified take-off mass in excess of 5700 KG, or a maximum approved passenger seating configuration of more than 19, are required to be equipped with a serviceable Airborne Collision Avoidance System (ACAS) in the Muscat FIR.

4.1.2 The minimum system performance of the equipment must meet the requirements of ICAO Annex 10 Volume IV.

4.1.3 In the event of failure of ACAS equipment on aircraft that are away from their maintenance base, that aircraft may be dispatched with an unserviceable ACAS equipment if authorised by the State of Registry (i.e.approved MEL item) and if acceptable to the ATC unit (providing en-route or approach procedures do not require its use). Aircraft operating with unserviceable ACAS under this MEL dispensation shall indicate the unserviceability in Item 18 of the flight plan (Other information).

4.1.4 The following conditions apply against this MEL dispensation to return the aircraft to base:

a) The aircraft navigation system shall be equipped with at least one GPS receiver;

b) Where agreed Regulations and Procedures exist, these shall be maintained;

c) The application of an internal Rectification Interval Extension (RIE) by the operator as per CAR MEL.013(a), is not permissible with this equipment type failure;

d) An ICAO compliant altitude reporting transponder must be fitted and serviceable before departure;

e) An ACAS MEL dispensation will be valid for a period from the time of entry in the Technical log as an approved MEL item;

f) Conditions may be imposed by one or more States, which may include:

i operating within certain restrictive hours, or

ii via specific routes, or

iii at stated flight levels (for safety reasons or otherwise).

g) The flight must be conducted along the most direct (or permissible) route to the delivery or maintenance destination airport.

4.1.5 Aircraft operators are to ensure compliance with the above conditions, the MEL dispensation flight is in accordance with the operator's originally stated intentions, and that it must comply with any conditions laid down by the CAA and subsequently by the ATC authorities.

4.1.6 Operators of aircraft intending to operate under the provisions of this MEL approved item must seek approval to conduct the flights through the airspace of other ATC units from the appropriate State authorities.

4.1.7 In the event when ACAS is inoperative, any aircraft with an unserviceable transponder as well as an unserviceable TCAS will not be permitted within the Oman FIR for which mandatory carriage of a transponder is required.

4.2 Procedures

4.2.1 The following in-flight procedures shall be followed by flight crews in the operation of ACAS:

a) The ACAS equipment shall be kept on while operating in the Muscat FIR.

b) In the event of a Traffic Advisory (TA), the pilot should attempt to establish visual contact with the approaching traffic and change the flight path only if a collision risk is visually established;

c) In the event of a Resolution Advisory (RA), the pilot should respond in accordance with the collision avoidance manoeuvre prescribed by the ACAS system. In addition, the pilot should undertake a visual search for the conflicting traffic and a scan of the airspace into which his own aircraft might manoeuvre;

d) The alteration of the flight path shall be limited to the minimum extent necessary to comply with the RA;

e) Pilots who deviate from an ATC instruction or clearance in response to a RA shall promptly return to the terms of that instruction or clearance when the conflict is resolved;

f) Pilots shall, as soon as possible, notify the appropriate ATC unit any RA which requires a deviation from the current ATC instruction or clearance and, when the conflict is resolved, of returning to the terms of the original ATC instruction or

clearance;

g) Written notification of the RA is to be submitted promptly to The Civil Aviation Authority of Oman.

4.3 General

4.3.1 Nothing in the procedures specified in section 4.2 above shall prevent pilots-in-command from exercising their best judgement and full authority in the choice of the best course of action to resolve a traffic conflict.

4.3.2 In accordance with the requirements of ICAO Annex 2 and Civil Aviation Regulation 91.123 of The Sultanate of Oman, the departure of an aircraft from the terms of its ATC instruction or clearance in response to a RA is sanctioned, provided that the ACAS equipment and its installation are certified by the state of Registry and that its operation by flight crew is in accordance with the instructions for the use of this equipment specified in the company's operations manual or equivalent document, if not the holder of an Air Operator's Certificate.

4.3.3 Once an aircraft departs from an ATC instruction or clearance, the controller ceases to be responsible for providing standard separation between that aircraft and other aircraft affected as a direct consequence of that RA manoeuvre. The controller's responsibility resumes when either:

a) The controller acknowledges a report from the flight crew of the aircraft that had reported the RA that it has resumed its assigned instruction or clearance; or

b) The controller acknowledges a report from the flight crew of an aircraft that had reported the RA that it is returning to its assigned instruction or clearance and then issues an alternative clearance which has been acknowledged by the flight crew.

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GEN 1.6 SUMMARY OF NATIONAL REGULATIONS AND INTERNATIONAL AGREEMENTS/CONVENTIONS

1. GENERAL

1.1 The following is a listing of civil aviation legislation and regulations, in force in the Sultanate of Oman, for civil aviation operations. It is essential that persons engaged in civil air operations in this country be acquainted with the relevant regulations.

1.2 These documents can be obtained from:

Civil Aviation Authority
P.O. Box 1
POSTAL CODE 111
MUSCAT
Sultanate of Oman
Telephone: (968) 24 354433
web: http://www.caa.gov.om/

Electronic copies of these documente may be obtained from: http://www.caa.gov.om/regulations

2. LIST OF CIVIL AVIATION LEGISLATION AND REGULATION

TITLE	CONTENTS
Civil Aviation Law Royal Decree 76/2019	Administration, Aircraft Operation, Rules of the Air, Licenses, Charges, Registration/Airworthiness, Commercial Air Transport, Aircraft Accidents, Search and Rescue, Criminal Offences, Penalties.
Civil Aviation Regulations	CAR 1 - DEFINITIONS AND ABBREVIATIONS CAR 10 - EXEMPTIONS CAR 11 - RULEMAKING PROCEDURE CAR 12 - ENFORCEMENT PROCEDURES CAR 13 - AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION CAR 15 - APPOINTMENT OF AUTHORIZED PERSONS AND REVIEW OF DECISIONS CAR 21 - AIRWORTHINESS AND ENVIRONMENTAL CERTIFICATION OF AIRCRAFT, THE ACCEPTABILITY OF RELATED PRODUCTS, PARTS AND APPLIANCES, AIRCRAFT COMPONENTS AND MATERIALS CAR 39 - AIRWORTHINESS DIRECTIVES CAR 47 - AIRCRAFT REGISTRATION AND REGISTRATION MARKINGS AND AIRCRAFT DEREGISTRATION CAR 66 - AIRCRAFT MAINTENANCE LICENSE REQUIREMENTS CAR 77 - MANNED BALLOON OPERATIONS CAR 92 - DANGEROUS GOODS CAR 99 - DRUGS AND ALCOHOL MANAGEMENT PLAN (DAMP)

TITLE	CONTENTS
	CAR 100 - SAFETY MANAGEMENT SYSTEM CAR 101 - AIR RECREATIONAL ACTIVITIES CAR 102 - REMOTE PILOTED AIRCRAFT (DRONES) CAR 129 - AIR OPERATIONS OF FOREIGN OPERATORS CAR 139 P1 - AERODROMES - CERTIFICATION, DESIGN AND OPERATION CAR 139 P2 - HELIPORTS AND WATER AERODROMES CAR 145 - APPROVED MAINTENANCE ORGANIZATIONS CAR 147 - APPROVED MAINTENANCE TRAINING ORGANIZATIONS CAR 171 - AERONAUTICAL TELECOMMUNICATION SERVICE PROVIDER CAR 172 - AIR TRAFFIC SERVICE CAR 173 - INSTRUMENT FLIGHT PROCEDURE DESIGN REQUIREMENTS CAR 174 - AVIATION METEOROLOGICAL ORGANIZATIONS-CERTIFICATION CAR 175 - AERONAUTICAL INFORMATION SERVICE CAR 176 - SEARCH AND RESCUE CAR 177 - AERONAUTICAL CHARTS CAR 178 - UNITS OF MEASUREMENT CAR 179 - AERODROME FLIGHT INFORMATION SERVICE CAR 180 - RULES OF THE AIR CAR AEW - AERIAL WORK REGULATIONS CAR-FCL - FLIGHT CREW LICENSING CAR-FCL 3 - AVIATION MEDICAL REQUIREMENTS CAR-FCL SUPP - SUPPLEMENT CAR M - CONTINUING AIRWORTHINESS CAR MLA - MICROLIGHT AEROPLANES CAR-OPS 1 - COMMERCIAL AIR TRANSPORTATION (AEROPLANES) CAR-OPS 2 - GENERAL AVIATION (AEROPLANES) CAR-OPS 3 - COMMERCIAL AIR TRANSPORTATION (HELICOPTERS) CAR-OPS 4 - GENERAL AVIATION (HELICOPTERS) CAR MEL - MINIMUM EQUIPMENT LIST CAR ORA - ORGANIZATION REQUIREMENTS FOR AIRCREW CAR - ATCO Air Traffic Controller Licensing & ATC Training Organizations
Airport Operations Manual	Regulations concerning the use of Muscat International aerodrome area by personnel and vehicles.
Customs Management Decree, 1978	Regulations concerning the formalities associated with import, transhipment and export of goods and associated duties, offences and penalties.
Aliens Residence Law	Immigration Regulation.
Diseases of Animals, Control Order 1977 Regulations 1, 3 and 4 and Schedules 1 to 6 inclusive hereto	Conditions of importation for live or dead animals, birds and products from it and associated penalties.
Rabies (Importation of Dogs, Cats and other Mammals)	Prohibition, conditions of import, health certification and

TITLE	CONTENTS
Order 1978	associated penalties.
Plant Quarantine Law 49/77	Regulations relating to plants and plant products.
Ministry Agricultural Quarantine Orders 9/79 and 11/79	Regulations relating to agricultural goods other than plants.
Airport Emergency Plan	Manual dealing with responsibilities and actions of all agencies and personnel involved dealing with aircraft emergencies and/or other emergencies affecting Muscat International aerodrome.
Muscat International aerodrome fire orders and evacuation plans	Acquaint Muscat aerodrome staff with the correct emergency actions required to help safeguard themselves and aerodrome passengers in case of fire or other serious emergency.

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GEN 1.7 DIFFERENCES FROM ICAO STANDARDS, RECOMMENDED PRACTICES AND PROCEDURES

ANNEX 1 - PERSONNEL LICENSING (FOURTEENTH EDITION)

Reference	Difference
Nil.	Nil.

ANNEX 2 - RULES OF THE AIR (TENTH EDITION)

Reference	Difference
4.4	No VFR flights above FL150.

ANNEX 3 – METEOROLOGY SERVICE FOR INTERNATIONAL AIR NAVIGATION (TWENTIETH EDITION)

Reference	Difference
1.2	To avoid confusion between the Regulatory Authority and the ICAO term of Meteorological Authority, within Oman the term “Meteorological Authority” is not used. The term “Aviation Meteorological Service Provider” is used to identify the entity that is responsible for the arrangement and provision of meteorological services to meet the obligations of the Sultanate as per Article 28 of the Convention and such entity is designated in the Oman AIP GEN 3.5 section.

ANNEX 4 - AERONAUTICAL CHARTS (ELEVENTH EDITION)

Reference	Difference
1.2.2	Charts comply with the standards and recommended practices of Annex 4, except those to which a difference has been notified to ICAO.
2.1.8	The sheet size of the charts is 210 x 297mm (A4).
5.2	The Aerodrome Terrain and Obstacle Chart - ICAO (Electronic) is not provided.
11.4	The sheet size is 210 x 297mm (8.27 x 11.69in) (A4).
12.4	The sheet size is 210 x 297mm (8.27 x 11.69in) (A4).

Reference	Difference
17.1	The Aeronautical Chart - ICAO 1:500 000 is not provided.
18.1	The Aeronautical Navigation Chart - ICAO small scale is not provided.
19.1	The Plotting Chart - ICAO is not provided.
20.1	The Electronic Aeronautical Chart Display - ICAO is not provided.

ANNEX 5 - UNITS OF MEASUREMENT TO BE USED IN AIR AND GROUND OPERATIONS (FIFTH EDITION)

Reference	Difference
Nil.	Nil.

ANNEX 6 - OPERATION OF AIRCRAFT (PART I, TWELFTH EDITION, PART II, ELEVENTH EDITION, PART III, ELEVENTH EDITION)

Reference	Difference
PART I	Nil.
PART II	Nil.
PART III	Nil.

ANNEX 7 - AIRCRAFT NATIONALITY AND REGISTRATION MARKS (SIXTH EDITION)

Reference	Difference
Nil.	Nil.

ANNEX 8 - AIRWORTHINESS OF AIRCRAFT (THIRTEENTH EDITION)

Reference	Difference
Nil.	Nil.

ANNEX 9 - FACILITATION (SIXTEENTH EDITION)

Reference	Difference
2.5	A General Declaration is required.
2.7.2	A Passenger Manifest is required.
2.9	A Cargo Manifest is required.
2.13	Four copies of the General Declaration are required. Six copies of the Passenger Manifest are required. Four copies of the Cargo Manifest are required.
2.16	Five copies of the General Declaration are required. Six copies of the Passenger Manifest are required. Four copies of the Cargo Manifest are required.
2.19	Documents accepted in English or Arabic only.
2.37	Seventy-two-hour notice is required for all non-scheduled international flights, and is subject to approval from the CAA.
3.5	Visas required for all foreign nationals (see exceptions on page GEN 1.3-1 paragraph 1.1.)
3.6	A charge is usually made for the issue of a visa.
3.8.3	Visas for temporary visitors normally valid for three months and one entry only.
3.23	No facilities exist.
3.25	A valid passport is the only document acceptable; all crew members must travel in uniform.
3.39.5	The operator of an aircraft may be fined, at the discretion of the immigration authority, if he transports to the Sultanate of Oman any person not in possession of the requisite entry documents. Additionally, the operator will also be required to repatriate such persons at his own expense.
6.37.1	Left luggage facilities available.

ANNEX 10 - AERONAUTICAL TELE-COMMUNICATIONS (VOL I, EIGHTH EDITION, VOL II, SEVENTH EDITION, VOL III, SECOND EDITION, VOL IV, FIFTH EDITION, VOL V, THIRD EDITION)

Reference	Difference
VOL I	Nil.
VOL II	Nil.
VOL III	Nil.
VOL IV	Nil.
VOL V	Nil.

ANNEX 11 - AIR TRAFFIC SERVICES (FIFTEENTH EDITION)

Reference	Difference
Nil.	Nil.

11.1 PROCEDURES FOR AIR NAVIGATION SERVICES - AND AIR TRAFFIC MANAGEMENT (PANS-ATM, DOC 4444) (SIXTEENTH EDITION)

Reference	Difference
Nil.	Nil.

ANNEX 12 - SEARCH AND RESCUE (EIGHTH EDITION)

Reference	Difference
Nil.	Nil.

ANNEX 13 - AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION (TWELFTH EDITION)

Reference	Difference
Nil.	Nil.

ANNEX 14 - AERODROMES (VOL I, NINTH EDITION, VOL II, FIFTH EDITION)

Reference	Difference
VOL I	Nil.
VOL II	Nil.

ANNEX 15 - AERONAUTICAL INFORMATION SERVICES (SIXTEENTH EDITION)

Reference	Difference
Nil.	Nil.

15.1 PROCEDURES FOR AIR NAVIGATION SERVICES - AERONAUTICAL INFORMATION MANAGEMENT (PANS-AIM, DOC 10066) (FIRST EDITION)

Reference	Difference
Nil.	Nil.

ANNEX 16 - ENVIRONMENTAL PROTECTION (VOL I, EIGHTH EDITION, VOL II, FIFTH EDITION, VOL III FIRST EDITION, VOL IV SECOND EDITION)

Reference	Difference
VOL I	Nil.
VOL II	Nil.
VOL III	Nil.
VOL IV	Nil.

ANNEX 17 - SECURITY - SAFEGUARDING INTER- NATIONAL CIVIL AVIATION AGAINST ACTS OF UNLAWFUL INTERFERENCE (TWELFTH EDITION)

Reference	Difference
Nil.	Nil.

ANNEX 18 - THE SAFE TRANSPORT OF DANGEROUS GOODS BY AIR (FOURTH EDITION)

Reference	Difference
Nil.	Nil.

ANNEX 19 - SAFETY MANAGEMENT (SECOND EDITION)

Reference	Difference
Nil.	Nil.

20. REGIONAL SUPPLEMENTARY PROCEDURES (DOC 7030) (FIFTH EDITION)

Reference	Difference
1.1	Visual Flight Rules (VFR) (Annex2 - 4.8): VFR flight to be operated within a CTR established at an aerodrome with air traffic services and in specified portions of a TMA and CTA established around an International Airport will: (1) have two-way radio communications; (2) obtain permission from the appropriate ATS unit; (3) report position as required; and (4) not operate above FL150.
3.1.3	Position reports (A2 - Chapter 3 and 5; P- ATM - Chapter 4): Oman has established reporting points at locations fulfilling operational requirements along ATS routes. Status of reporting points is indicated in ENR 3.
4.1.1.2.1	The area navigation specifications for en-route operations conducted under IFR on designated routes shall comply with RNAV 1 and RNAV 5 as indicated in ENR 3.2.
12.1.1	Oman does not use air-ground data link and ADS to obtain aircraft observations and reports.

GEN 2 TABLES AND CODES

GEN 2.1 MEASURING SYSTEM, AIRCRAFT MARKINGS, HOLIDAYS

1. UNITS OF MEASUREMENT

The table of units of measurement shown below will be used by aeronautical stations within Muscat FIR for air and ground operations.

FOR MEASUREMENT OF	UNITS USED
Distance used in navigation, position reporting, etc. generally in excess of 2 nautical miles	* Nautical Miles and tenths
Relatively short distances such as those relating to aerodromes (e.g., runway lengths)	Metres
Altitudes, elevations and heights	Feet
Horizontal speed including wind speed	Knots
Vertical speed	Feet per minute
Wind direction for landing and taking off	Degrees Magnetic
Wind direction except for landing and taking off	Degrees True
Visibility including runway visual range	Kilometres or Metres
Altimeter setting	Hectopascal
Temperature	Degrees Celsius (Centigrade)
Weight	Metric tons or Kilograms
Time	Hours and Minutes, beginning at midnight UTC

* International nautical miles, for which conversion into metres can be expressed by:

1 NM = 1852 M

2. TEMPORAL REFERENCE SYSTEM

Co-ordinated Universal Time (UTC) and the Gregorian calendar are used by air navigation services and in publications issued by the Aeronautical Information Service.

Reporting of time is expressed to the nearest minute,e.g., 12:40:35 is reported as 1241.

3. HORIZONTAL REFERENCE SYSTEM

3.1 Name/designation of system

All published geographical coordinates indicating latitude and longitude are expressed in terms of the World Geodetic System - 1984 (WGS-84) geodetic reference datum.

3.2 Parameters of the Projection

Projection is expressed in term of Universal Transverse Mercator (UTM).

3.3 Ellipsoid

An ellipsoid is expressed in terms of the World Geodetic System - 1984 (WGS-84) ellipsoid.

3.4 Datum

The World Geodetic System - 1984 (WGS-84) is used.

3.5 Area of application

The area of application for the published geographical coordinates coincides with the area of responsibility of the AIM, i.e., the entire territory of the Sultanate of Oman as well as the airspace over the high sea encompassed by the Muscat FIR in accordance with the regional air navigation agreement.

3.6 Use of an asterisk to identify published geographical coordinates

An asterisk (*) will be used to identify those published geographical coordinates that have been transformed into WGS-84 coordinates but whose accuracy of original field work does not meet the accuracy requirements in Annex 11, Chapter 2 and Annex 14, Volumes I and II, Chapter 2.

4. VERTICAL REFERENCE SYSTEM

4.1 Name/designation of system

The vertical reference system corresponds to mean sea level (MSL).

4.2 Geoid model

The geoid model used is the Earth Gravitational Model 1996 - (EGM-96).

5. AIRCRAFT NATIONALITY AND REGISTRATION MARKS

The nationality mark for aircraft registered in Oman is the letter A, followed by the figure 4, followed by the letter O, i.e. A4O. The nationality mark is followed by a hyphen and registration mark consisting of a two or three letter group e.g. A4O-AA.

6. PUBLIC HOLIDAYS

Friday and Saturday are the weekend for both public and private sectors. Other public holidays are not on fixed dates and will be announced by government with advanced notice.

GEN 2.2 ABBREVIATIONS USED IN AIS PUBLICATIONS

Abbreviation Code	Abbreviation Description
A	Amber
AAA	(or AAB, AAC...etc., in sequence) Amended meteorological message (message type designator)
A/A	Air-to-air
AAL	Above aerodrome level
ABM	Abeam
ABN	Aerodrome beacon
ABT	About
ABV	Above
AC	Altocumulus
ACARS	(to be pronounced “AY-CARS”) Aircraft communication addressing and reporting system
ACAS	Airborne collision avoidance system
ACC	Area control centre or area control
ACCID	Notification of an aircraft accident
ACFT	Aircraft
ACK	Acknowledge
ACL	Altimeter check location
ACN	Aircraft classification number
ACP	Acceptance (message type designator)
ACPT	Accept or accepted
ACT	Active or activated or activity
AD	Aerodrome
ADA	Advisory area
ADC	Aerodrome Chart
ADDN	Addition or additional
ADF	Automatic direction-finding equipment
ADIZ	(to be pronounced "AY-DIZ") Air defence identification zone
ADJ	Adjacent
ADO	Aerodrome office (specify service)
ADR	Advisory route

Abbreviation Code	Abbreviation Description
ADS	Address (when this abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI ADS) (to be used in AFS as a procedure signal)
ADS-B	Automatic dependent surveillance - broadcast
ADS-C	Automatic dependent surveillance - contract
ADSU	Automatic dependent surveillance unit
ADVS	Advisory service
ADZ	Advise
AES	Aircraft earth station
AFIL	Flight plan filed in the air
AFIS	Aerodrome flight information service
AFM	Yes or affirm or affirmative or that is correct
AFS	Aeronautical fixed service
AFT	After... (time or place)
AFTN	Aeronautical fixed telecommunication network
A/G	Air-to-ground
AGA	Aerodromes, air routes and ground aids
AGCC*	Arab Gulf Cooperation Council
AGL	Above ground level
AIC	Aeronautical information circular
AIM	Aeronautical information management
AIP	Aeronautical information publication
AIRAC	Aeronautical information regulation and control
AIREP	Air-report
AIRMET	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations
AIS	Aeronautical information services
ALA	Alighting area
ALERFA	Alert phase
ALR	Alerting (message type designator)
ALRS	Alerting service
ALS	Approach lighting system
ALT	Altitude
ALTN	Alternate or alternating (light alternates in colour)

Abbreviation Code	Abbreviation Description
ALTN	Alternate (aerodrome)
AMA	Area minimum altitude
AMD	Amend or amended (used to indicate amended meteorological message; message type designator)
AMDT	Amendment (AIP amendment)
AMS	Aeronautical mobile service
AMSL	Above mean sea level
AMSS	Aeronautical mobile satellite service
ANC	Aeronautical chart - 1:500 000 (followed by name/ title)
ANS	Answer
AO	Aircraft operator
AOC	Aerodrome obstacle chart
AP	Airport
APAPI	(to be pronounced “AY-PAPI”) Abbreviated precision approach path indicator
APCH	Approach
APN	Apron
APP	Approach control office or approach control or approach control service
APR	April
APRX	Approximate or approximately
APSG	After passing
APU	Auxiliary power unit
APV	Approach procedure with vertical guidance
ARFOR	Area forecast (in aeronautical meteorological code)
ARNG	Arrange
ARO	Air traffic services reporting office
ARP	Aerodrome reference point
ARP	Air-report (message type designator)
ARQ	Automatic error correction
ARR	Arrive or arrival
ARR	Arrival (message type designator)
ARST	Arresting (specify (part of) aircraft arresting equipment)
AS	Altostratus
ASAP	As soon as possible

Abbreviation Code	Abbreviation Description
ASC	Ascend or ascending to
ASDA	Accelerate-stop distance available
ASPH	Asphalt
ASR*	Altimeter setting region
AT...	At (followed by time at which weather change is forecast to occur)
ATA	Actual time of arrival
ATC	Air traffic control (in general)
ATD	Actual time of departure
ATFM	Air traffic flow management
ATIS	Automatic terminal information service
ATM	Air traffic management
ATN	Aeronautical telecommunication network
ATP	At... (time or place)
ATS	Air traffic services
ATTN	Attention
ATZ	Aerodrome traffic zone
AUG	August
AUTH	Authorized or authorization
AUW	All-up weight
AUX	Auxiliary
AVASIS	Abbreviated visual approach slope indicator system
AVBL	Available or availability
AVG	Average
AVGAS	Aviation gasoline
AVTUR*	Aviation turbine fuel
AWTA	Advise at what time able
AWY	Airway
AZM	Azimuth
B	Blue
BA	Braking action
BASE	Cloud base
BCFG	Fog patches
BCN	Beacon (aeronautical ground light)

Abbreviation Code	Abbreviation Description
BCST	Broadcast
BDRY	Boundary
BECMG	Becoming
BFR	Before
BKN	Broken
BL...	Blowing (followed by DU=dust, SA=sand or SN=snow)
BLDG	Building
BLO	Below clouds
BLW	Below...
BOMB	Bombing
BR	Mist
BRF	Short (used to indicate the type of approach desired or required)
BRG	Bearing
BRKG	Braking
BS	Commercial broadcasting station
BTL	Between layers
BTN	Between
...C	Centre (preceded by runway designation number to identify a parallel runway)
C	Degrees Celsius (Centigrade)
C	Degrees Celsius (Centigrade)
CAA	Civil aviation authority or civil aviation administration
CAS	Controlled airspace
CAT	Category
CAT	Clear air turbulence
CAVOK	(to be pronounced "KAV-OH-KAY") Visibility, cloud and present weather better than prescribed values or conditions
CB	(to be pronounced "CEE BEE") Cumulonimbus
CC	Cirrocumulus
CCA	(or CCB, CCC...etc., in sequence) Corrected meteorological message (message type designator)
CD	Candela
CDN	Co-ordination (message type designator)
CF	Change frequency to...

Abbreviation Code	Abbreviation Description
CFM	Confirm or I confirm (to be used in AFS as a procedure signal)
CGL	Circling guidance light(s)
CH	Channel
CHG	Modification (message type designator)
CI	Cirrus
CIDIN	Common ICAO data interchange network
CIT	Near or over large towns
CIV	Civil
CK	Check
CL	Centre line
CLA	Clear type of ice formation
CLBR	Calibration
CLD	Cloud
CLG	Calling
CLR	Clear(s) or cleared to... or clearance
CLSD	Close or closed or closing
CM	Centimetre
CMB	Climb to or climbing to
CMPL	Completion or completed or complete
CNL	Cancel or cancelled
CNL	Flight plan cancellation (message type designator)
CNS	Communications, navigation and surveillance
COM	Communications
CONC	Concrete
COND	Condition
CONS	Continuous
CONST	Construction or constructed
CONT	Continue(s) or continued
COOR	Coordinate or coordination
COORD	Coordinates
COP	Change-over point
COR	Correct or correction or corrected (used to indicate corrected meteorological message; (message type designator)

Abbreviation Code	Abbreviation Description
COT	At the coast
COV	Cover or covered or covering
CPDLC	Controller-pilot data link communications
CPL	Current flight plan (message type designator)
CRP	Compulsory reporting point
CRZ	Cruise
CS	Cirrostratus
CS	Call sign
CTA	Control area
CTAM	Climb to and maintain
CTC	Contact
CTL	Control
CTN	Caution
CTR	Control zone
CU	Cumulus
CUF	Cumuliform
CUST	Customs
CW	Continuous wave
CWY	Clearway
D	Danger area (followed by identification)
D	Downward (tendency in RVR during previous 10 minutes)
DA	Decision altitude
DCD	Double channel duplex
DCKG	Docking
DCS	Double channel simplex
DCT	Direct (in relation to flight plan clearances and type of approach)
DEC	December
DEG	Degrees
DENEB	Fog dispersal operations
DEP	Depart or departure
DEP	Departure (message type designator)
DES	Descend to or descending to
DEST	Destination

Abbreviation Code	Abbreviation Description
DETRESFA	Distress phase
DEV	Deviation or deviating
DFTI	Distance from touchdown indicator
DH	Decision height
DIF	Diffuse
DIST	Distance
DIV	Divert or diverting
DLA	Delay (message type designator)
DLA	Delay or delayed
DLY	Daily
DME	Distance measuring equipment
DNG	Danger or dangerous
DOD*	Department of Defence
DOF	Date of flight
DOM	Domestic
DP	Dew point temperature
DPT	Depth
DR	Dead reckoning
DR	Low drifting (followed by DU=dust, SA=sand or SN=snow)
DRG	During
DRU*	Desert Rescue Unit
DS	Duststorm
DSB	Double sideband
DTAM	Descend to and maintain
DTG	Date-time group
DTRT	Deteriorate or deteriorating
DTW	Dual tandem wheels
DU	Dust
DUC	Dense upper cloud
DUR	Duration
DVOR	Doppler VOR
DW	Dual wheels
DZ	Drizzle

Abbreviation Code	Abbreviation Description
E	East or eastern longitude
EAT	Expected approach time
EB	Eastbound
EET	Estimated elapsed time
EFC	Expect further clearance
ELBA	Emergency location beacon-aircraft
ELEV	Elevation
ELR	Extra long range
ELT	Emergency locator transmitter
EMBD	Embedded in layer (to indicate cumulonimbus embedded in layers of other clouds)
EMERG	Emergency
END	Stop-end (related to RVR)
ENE	East north east
ENG	Engine
ENRT	En route
EOBT	Estimated off-block time
EQPT	Equipment
ER	Here... or herewith
ESE	East south east
EST	Estimate or estimated or estimate (message type designator)
ETA	Estimated time of arrival or estimating arrival
ETD	Estimated time of departure or estimating departure
ETO	Estimated time over significant point
EV	Every
EXC	Except
EXER	Exercises or exercising or to exercise
EXP	Expect or expected or expecting
EXTD	Extend or extending
EXTN*	Extension
F	Fixed
FAC	Facilities
FAF	Final approach fix
FAL	Facilitation of international air transport

Abbreviation Code	Abbreviation Description
FAP	Final approach point
FAS	Final approach segment
FATO	Final approach and takeoff area
FAX	Facsimile transmission
FBL	Light (used to indicate the intensity of weather phenomena, interference or static reports, e.g. FBL RA=light rain)
FC	Funnel cloud (tornado or water spout)
FCST	Forecast
FCT	Friction coefficient
FEB	February
FG	Fog
FIC	Flight information centre
FIR	Flight information region
FIS	Flight information service
FISA	Automated flight information service
FL	Flight level
FLD	Field
FLG	Flashing
FLR	Flares
FLT	Flight
FLTCK	Flight check
FLUC	Fluctuating or fluctuation or fluctuated
FLW	Follow(s) or following
FLY	Fly or flying
FM	From
FM...	From (followed by time weather change is forecast to begin)
FMC	Flight management computer
FMS	Flight management system
FLU	Flow management unit
FNA	Final approach
FPAP	Flight path alignment point
FPL	Flight plan
FPM	Feet per minute

Abbreviation Code	Abbreviation Description
FPR	Flight plan route
FR	Fuel remaining
FREQ	Frequency
FRI	Friday
FRNG	Firing
FRONT	Front (relating to weather)
FRQ	Frequent
FSL	Full stop landing
FSS	Flight service station
FST	First
FT	Feet (dimensional unit)
FU	Smoke
FZ	Freezing
FZDZ	Freezing drizzle
FZFG	Freezing fog
FZRA	Freezing rain
G	Green
G/A	Ground-to-air
G/A/G	Ground-to-air and air-to-ground
GA	General aviation
GALL	Imperial gallons
GBAS	(to be pronounced “GEE-BAS”) Ground-based augmentation system
GCA	Ground controlled approach system or ground controlled approach
GEN	General
GEO	Geographic or true
GES	Ground earth station
GLD	Glider
GND	Ground
GNDCK	Ground check
GNSS	Global navigation satellite system
GOV	Government
GP	Glide path
GPS	Global positioning system

Abbreviation Code	Abbreviation Description
GPU	Ground power unit
GPWS	Ground proximity warning system
GR	Hail
GRASS	Grass landing area
GRID	Processed meteorological data in the form of grid point values (in aeronautical meteorological code)
GRVL	Gravel
GS	Ground speed
GS	Small hail and/or snow pellets
GUND	Geoid Undulation
H24	Continuous day and night service
HAA*	Height above aerodrome
HAT*	Height above threshold
HAPI	Helicopter approach path indicator
HBN	Hazard beacon
HDG	Heading
HDF	High frequency direction-finding station
HEL	Helicopter
HF	High frequency (3 000 to 30 000 KHz)
HGT	Height or height above
HIALS	High intensity approach light system
HIRL	High intensity runway lights
HJ	Sunrise to sunset
HLDG	Holding
HN	Sunset to sunrise
HO	Service available to meet operational requirements
HOL	Holiday
HOSP	Hospital aircraft
HPA	Hectopascal
HQ*	Headquarters
HR	Hours
HS	Service available during hours of scheduled operations
HURCN	Hurricane
HVDF	High and very high frequency direction-finding stations (at the same location)

Abbreviation Code	Abbreviation Description
HVY	Heavy
HVY	Heavy (used to indicate the intensity of weather phenomena, e.g. HVY RA=heavy rain)
HX	No specific working hours
HYR	Higher
HZ	Haze
HZ	Hertz (cycle per second)
IAC	Instrument approach chart
IAF	Initial approach fix
IAO	In and out of clouds
IAP	Instrument approach procedure
IAR	Intersection of air routes
IAS	Indicated air speed
IBN	Identification beacon
IC	Diamond dust (very small ice crystals in suspension)
ICAO	International Civil Aviation Organization
ICE	Icing
ID	Identifier or identify
IDENT	Identification
IF	Intermediate approach fix
IFF	Identification friend/foe
IFR	IFR Instrument flight rules
IGA	International general aviation
ILS	Instrument landing system
IM	Inner marker
IMC	Instrument meteorological conditions
IMG	Immigration
IMPR	Improve or improving
IMT	Immediate or immediately
INA	Initial approach
INBD	Inbound
INC	In cloud
INCERFA	Uncertainty phase
INCL*	Inclusive

Abbreviation Code	Abbreviation Description
INCORP	Incorporated
INFO	Information
INOP	Inoperative
INP	If not possible
INPR	In progress
INS	Inches (dimensional unit)
INS	Inertial navigation system
INSTL	Install or installed or installation
INSTR	Instrument
INT	Intersection
INTL	International
INTRG	Interrogator
INTRP	Interrupt or interruption or interrupted
INTSF	Intensify or intensifying
INTST	Intensity
IR	Ice on runway
ISA	International standard atmosphere
ISB	Independent sideband
ISOL	Isolated
I/V	Instrument/visual
JAN	January
JTST	Jet stream
JUL	July
JUN	June
KG	Kilograms
KHZ	Kilohertz
KM	Kilometres
KMH	Kilometres per hour
KPA	Kilopascal
KT	Knots
KW	Kilowatts
L	Left (runway identification)
L	Locator (see LM, LO)
LAM	Logical acknowledgement (message type designator)

Abbreviation Code	Abbreviation Description
LAN	Inland
LAT	Latitude
LCTR*	Locator
LDA	Landing distance available
LDAH	Landing distance available, helicopter
LDG	Landing
LDI	Landing direction indicator
LEN	Length
LF	Low frequency (30 to 300 KHz)
LGT	Light or lighting
LGTD	Lighted
LIH	Light intensity high
LIL	Light intensity low
LIM	Light intensity medium
LM	Locator, middle
LMT	Local mean time
LNAV	(to be pronounced “EL-NAV”) Lateral navigation
LNG	Long (used to indicate the type of approach desired or required)
LO	Locator, outer
LOC	Localizer
LOC	Local or locally or location or located
LONG	Longitude
LORAN	LORAN (long range air navigation system)
LRG	Long range
LRU*	Land Rescue Unit
LSQ	Line squall
LTD	Limited
LTT	Landline teletypewriter
LV	Light and variable (relating to wind)
LVE	Leave or leaving
LVL	Level
LYR	Layer or layered
LTRS	Litres

Abbreviation Code	Abbreviation Description
M	Mach number (followed by figures)
M	Metres (preceded by figures)
MAA	Maximum authorized altitude
MAG	Magnetic
MAINT	Maintenance
MAP	Aeronautical maps and charts
MAPT	Missed approach point
MAR	At sea
MAR	March
MAS	Manual A1 simplex
MAX	Maximum
MAY	May
MCA	Minimum crossing altitude
MCW	Modulated continuous wave
MDA	Minimum descent altitude
MDF	Medium frequency direction-finding station
MDH	Minimum descent height
MEA	Minimum en-route altitude
MEHT	Minimum eye height above threshold (for visual approach slope indicator systems)
MEL	Minimum Equipment List
MET	Meteorological or meteorology
METAR	Aerodrome routine meteorological report (in meteorological code)
MF	Medium frequency (300 to 3 000 KHz)
MHA	Minimum holding altitude
MHDF	Medium and high frequency direction-finding stations (at the same location)
MHVDF	Medium, high and very high frequency direction-finding stations (at the same location)
MHZ	Megahertz
MID*	Middle East
MID	Mid-point (related to RVR)
MIFG	Shallow fog
MIL	Military

Abbreviation Code	Abbreviation Description
MIN	Minutes
MKR	Marker radio beacon
MLS	Microwave landing system
MM	Middle marker
MNM	Minimum
MNPS	Minimum navigation performance specifications
MNT	Monitor or monitoring or monitored
MNTN	Maintain
MOA	Military operating area
MOC	Minimum obstacle clearance (required)
MOD	Moderate (used to indicate the intensity of weather phenomena, interference or static reports, e.g. MOD RA=moderate rain)
MOD*	Ministry of Defence
MON	Above mountains
MON	Monday
MOTNE	Meteorological Operational Telecommunications Network Europe
MOV	Move or moving or movement
MPS	Metres per second
MRA	Minimum reception altitude
MRG	Medium range
MRP	ATS/MET reporting point
MRT*	Mountain Rescue Team
MS	Minus
MSA	Minimum sector altitude
MSAW	Minimum safe altitude warning
MSG	Message
MSL	Mean sea level
MT	Mountain
MTU	Metric units
MTW	Mountain waves
MVDF	Medium and very high frequency direction-finding stations (at the same location)
MWO	Meteorological watch office

Abbreviation Code	Abbreviation Description
MX	Mixed type of ice formation (white and clear)
N	North or northern latitude
N	No distinct tendency (in RVR during previous 10 minutes)
N/A*	Not applicable
NAT	North Atlantic
NAV	Navigation
NB	Northbound
NBFR	Not before
NC	No change
NDB	Non-directional radio beacon
NE	North-east
NEB	North-eastbound
NEG	No or negative or permission not granted or that is not correct
NGT	Night
NIL	None or I have nothing to send to you
NM	Nautical miles
NML	Normal
NNE	North north east
NNW	North north west
NOC*	No objection certificate
NOF	International NOTAM office
NOSIG	No significant change (used in trend-type landing forecasts)
NOTAM	A notice containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations
NOV	November
NR	Number
NRH	No reply heard
NS	Nimbostratus
NSC	Nil significant cloud
NSW	Nil significant weather
NW	North-west

Abbreviation Code	Abbreviation Description
NWB	North-westbound
NXT	Next
OAC	Oceanic area control centre
OAMC*	Oman Airports Management Company S.A.O.C
OAS	Obstacle assessment surface
OAS*	Oman Aviation Service Company
OBS	Observe or observed or observation
OBSC	Obscure or obscured or obscuring
OBST	Obstacle
OCA	Obstacle clearance altitude
OCA	Oceanic control area
OCC	Occulting (light)
OCH	Obstacle clearance height
OCL	Obstacle clearance limit
OCNL	Occasional or occasionally
OCR*	Oman Coastal Regiment
OCS	Obstacle clearance surface
OCT	October
OFTS*	Operational fixed telecommunication service
OFZ	Obstacle free zone
OHD	Overhead
OM	Outer marker
OMR*	Rial Omani
OPA	Opaque, white type of ice formation
OPC	The control indicated is operational control
OPMET	Operational meteorological (information)
OPN	Open or opening or opened
OPR	Operator or operate or operative or operating or operational
OPS	Operations
O/R	On request
ORD	Indication of an order
OSV	Ocean station vessel
OTLK	Outlook (used in SIGMET messages for volcanic ash and tropical cyclones)

Abbreviation Code	Abbreviation Description
OTP	On top
OTS	Organized track system
OUBD	Outbound
OVC	Overcast
P...	Prohibited area (followed by identification)
PACA	Public Authority for Civil Aviation
PALS	Precision approach lighting system (specify category)
PANS	Procedures for air navigation services
PAPI	Precision approach path indicator
PAR	Precision approach radar
PARL	Parallel
PAX	Passenger(s)
PCD	Proceed or proceeding
PCN	Pavement classification number
PDO*	Petroleum Development (Oman) Limited
PE	Ice pellets
PER	Performance
PERM	Permanent
PJE	Parachute jumping exercise
PLA	Practice low approach
PLVL	Present level
PN	Prior notice required
PNR	Point of no return
PO	Dust devils
PO*	Post Office
POB	Persons on board
POSS	Possible
PPI	Plan position indicator
PPR	Prior permission required
PPSN	Present position
PRI	Primary
PRKG	Parking
PROB	Probability
PROC	Procedure

Abbreviation Code	Abbreviation Description
PROV	Provisional
PS	Plus
PSG	Passing
PSN	Position
PSP	Pierced steel plank
PTN	Procedure turn
PTS	Polar track structure
PWR	Power
QBI	Compulsory IFR flight
QDM	Magnetic heading (zero wind)
QDR	Magnetic bearing
QFE	Atmospheric pressure at aerodrome elevation (or at runway threshold)
QFU	Magnetic orientation of runway
QNH	Altimeter sub-scale setting to obtain elevation when on the ground
QTE	True bearing
QUAD	Quadrant
R	Red
R...	Restricted area (followed by identification)
R	Right (runway identification)
RA	Rain
RAFC	Regional area forecast centre
RAFO*	Royal Air Force Oman
RAD*	Approach radar control
RAG	Ragged
RAG	Runway arresting gear
RAO*	Royal Army of Oman
RB	Rescue boat
RCA	Reach cruising altitude
RCC	Rescue co-ordination centre
RCF	Radio communication failure (message type designator)
RCH	Reach or reaching
RCL	Runway centre line
RCLL	Runway centre line light(s)

Abbreviation Code	Abbreviation Description
RCLR	Recleared
RDH	Reference datum height (for ILS)
RDL	Radial
RDO	Radio
RE...	Recent (used to qualify weather phenomena, e.g. RERA=recent rain)
REC	Receive or receiver
REDL	Runway edge light(s)
REF	Reference to ... or refer to ...
REG	Registration
RENL	Runway end light(s)
REP	Report or reporting or reporting point
REQ	Request or requested
RERTE	Reroute
RETIL	Rapid exit taxiway indicator lights
RF*	Royal Flight of Oman
RG	Range (lights)
RIF	Reclearance in flight
RITE	Right (direction of turn)
RIV*	Rapid intervention vehicle
RL	Report leaving
RLA	Relay to
RLCE	Request level change en route
RLLS	Runway lead-in lighting system
RLNA	Request level not available
RMK	Remark
RNAV	(to be pronounced "AR_NAV") Area navigation
RNG	Radio range
RNO*	Royal Navy of Oman
RNP	Required navigation performance
ROBEX	Regional OPMET bulletin exchange (scheme)
ROC	Rate of climb
ROD	Rate of descent
ROFOR	Route forecast (in aeronautical meteorological code)

Abbreviation Code	Abbreviation Description
RON	Receiving only
ROP*	Royal Oman Police
RPL	Repetitive flight plan
RPLC	Replace or replaced
RPS	Radar position symbol
RQMNTS	Requirements
RQP	Request flight plan (message type designator)
RQS	Request supplementary flight plan (message type designator)
RR	Report reaching
RRA	(or RRB, RRC ... etc., in sequence) Delayed meteorological message (message type designator)
RSC	Rescue sub-centre
RSCD	Runway surface condition
RSP	Responder beacon
RSR	En-route surveillance radar
RTD	Delayed (used to indicate delayed meteorological message; message type designator)
RTE	Route
RTF	Radiotelephone
RTG	Radiotelegraph
RTHL	Runway threshold light(s)
RTIL	Runway threshold identification light(s)
RTN	Return or returned or returning
RTS	Return to service
RTT	Radio teletypewriter
RTZL	Runway touchdown zone light(s)
RUT	Standard regional route transmitting frequencies
RV	Rescue vessel
RVR	Runway visual range
RWY	Runway
S	South or southern latitude
SA	Sand
SALS	Simple approach lighting system
SAN	Sanitary

Abbreviation Code	Abbreviation Description
SAR	Search and rescue
SARPS	Standards and Recommended Practices (ICAO)
SAT	Saturday
SATCOM	Satellite communication
SB	Southbound
SC	Stratocumulus
SCT	Scattered
SDBY	Stand by
SE	South-east
SEA*	South East Asia
SEB	South-eastbound
SEC	Seconds
SECT	Sector
SELCAL	Selective calling system
SEP	September
SER	Service or servicing or served
SEV	Severe (used e.g. to qualify icing and turbulence reports)
SFC	Surface
SG	Snow grains
SGL	Signal
SH	... Showers (followed by RA=rain, SN=snow, PE=ice pellets, GR=hail, GS=small hail and/or snow pellets or combinations thereof, e.g. SHRASN=showers of rain and snow)
SHF	Super high frequency (3 000 to 30 000 MHz)
SID	Standard instrument departure
SIF	Selective identification feature
SIGMET	Information concerning en-route weather phenomena which may affect the safety of aircraft operations
SIGWX	Significant weather
SIMUL	Simultaneous or simultaneously
SITA*	Societe Internationale de Telecommunications Aeronautiques
SIWL	Single isolated wheel load
SKC	Sky clear
SKED	Schedule or scheduled

Abbreviation Code	Abbreviation Description
SLOP	Strategic lateral offset procedures
SLP	Speed limiting point
SLW	Slow
SMC	Surface movement control
SMR	Surface movement radar
SN	Snow
SOA*	Sultan of Oman Artillery
SOPR*	Sultan of Oman's Parachute Regiment
SPECI	Aerodrome special meteorological report (in meteorological code)
SPECIAL	Local special meteorological report (in abbreviated plain language)
SPL	Supplementary flight plan (message type designator)
SPOT	Spot wind
SQ	Squall
SR	Sunrise
SRA	Surveillance radar approach
SRE	Surveillance radar element of precision approach radar system
SRG	Short range
SRR	Search and rescue region
SRY	Secondary
SS	Sandstorm
SS	Sunset
SSB	Single sideband
SSE	South south east
SSR	Secondary surveillance radar
SST	Supersonic transport
SSW	South south west
ST	Stratus
STA	Straight in approach
STAR	Standard instrument arrival
STD	Standard
STF	Stratiform
STN	Station

Abbreviation Code	Abbreviation Description
STNR	Stationary
STOL	Short take-off and landing
STS	Status
STWL	Stopway light(s)
SUBJ	Subject to
SUN	Sunday
SUP	Supplement (AIP Supplement) SUPPS Regional supplementary procedures
SVC	Service message
SVCBL	Serviceable
SVFR*	Special visual flight rules
SW	South-west
SWB	South-westbound
SWY	Stopway
T	Temperature
TA	Transition altitude
TACAN	UHF tactical air navigation aid
TAF	Aerodrome forecast
TAIL	Tail wind
TAR	Terminal area surveillance radar
TAS	True airspeed
TAX	Taxiing or taxi
TC	Tropical cyclone
TCH	Threshold crossing height
TCU	Towering cumulus
TDO	Tornado
TDZ	Touchdown zone
TECR	Technical reason
TEL	Telephone
TEMPO	Temporary or temporarily
TEND	Trend forecast
TFC	Traffic
TGL	Touch-and-go landing
TGS	Taxiing guidance system

Abbreviation Code	Abbreviation Description
THR	Threshold
THRU	Through
THU	Thursday
TIL	Until
TIP	Until past ... (place)
TKOF	Take-off
TL	... Till (followed by time by which weather change is forecast to end)
TLOF	Touchdown and lift-off area
TMA	Terminal control area
TNA	Turn altitude
TNH	Turn height
TO	To ... (place)
TOC	Top of climb
TODA	Take-off distance available
TODAH	Take-off distance available, helicopter
TOP	Cloud top
TORA	Take-off run available
TP	Turning point
TR	Track
TRA	Temporary reserved airspace
TRANS	Transmits or transmitter
TRL	Transition level
TROP	Tropopause TS Thunderstorm (in aerodrome reports and forecasts, TS used alone means thunder heard but no precipitation at the aerodrome)
TS	... Thunderstorm (followed by RA=RAIN, SN=snow, PE=ice pellets, GR=hail, GS=small hail and/or snow pellets or combinations thereof, e.g. TSRASN=thunderstorm with rain and snow)
TT	Teletypewriter
TUE	Tuesday
TURB	Turbulence
TVOR	Terminal VOR
TWR	Aerodrome control tower or aerodrome control
TWY	Taxiway

Abbreviation Code	Abbreviation Description
TWYL	Taxiway-link
TYP	Type of aircraft
TYPH	Typhoon
U	Upward (tendency in RVR during previous 10 minutes)
UA	Unmanned aircraft
UAB	Until advised by ...
UAC	Upper area control centre
UAR	Upper air route
UDF	Ultra high frequency direction-finding station
UFN	Until further notice
UHDT	Unable higher due traffic
UHF	Ultra high frequency (300-3 000 MHz)
UIC	Upper information centre
UIR	Upper flight information region
UK*	United Kingdom
ULR	Ultra long range
UNA	Unable
UNAP	Unable to approve
UNL	Unlimited
UNLGTD*	Unlighted
UNREL	Unreliable
U/S	Unserviceable
UTA	Upper control area
UTC	Co-ordinated Universal Time
VA	Volcanic ash
VAC	Visual approach chart
VAL	In valleys
VAN	Runway control van
VAR	Magnetic variation
VAR	Visual-aural radio range
VASIS	Visual approach slope indicator system
VC	Vicinity of the aerodrome (followed by FG=fog, FC=funnel cloud, SH=showers, PO=dust/sand whirls, BLDU=blowingdust, BLSA=blowing sand or BLSN=blowing snow, e.g. VCFG=vicinity fog)

Abbreviation Code	Abbreviation Description
VCY	Vicinity
VDF	Very high frequency direction-finding station
VER	Vertical
VFR	Visual flight rules
VHF	Very high frequency (30-300 MHz)
VIA	By way of...
VIP	Very important person
VIS	Visibility
VLF	Very low frequency (3 to 30 KHz)
VLR	Very long range
VMC	Visual meteorological conditions
VNAV	(to be pronounced “VEE-NAV”) Vertical Navigation
VOLMET	Meteorological information for aircraft in flight
VOR	VHF omnidirectional radio range
VORTAC	VOR and TACAN combination
VOT	VOR airborne equipment test facility
VRB	Variable
VSA	By visual reference to the ground
VSP	Vertical speed
VTOL	Vertical take-off and landing
W	West or western longitude
W	White
WAC	World aeronautical chart - ICAO 1:1 000 000
WAFC	World area forecast centre
WB	Westbound
WBAR	Wing bar lights
WDI	Wind direction indicator
WDSPR	Widespread
WED	Wednesday
WEF	With effect from or effective from
WGS-84	World Geodetic System - 1984
WHO*	World Health Organisation
WI	Within
WID	Width

Abbreviation Code	Abbreviation Description
WIE	With immediate effect or effective immediately
WILCO	Will comply
WINTEM	Forecast upper wind and temperature for aviation
WIP	Work in progress
WKN	Weaken or weakening
WNW	West north west
WO	Without
WPT	Way-point
WRNG	Warning
WS	Wind shear
WSW	West south west
WT	Weight
WTSPT	Waterspout
WX	Weather
WXR	Weather radar
X	Cross
XBAR	Crossbar (of approach lighting system)
XNG	Crossing
XS	Atmospherics
Y	Yellow
YCZ	Yellow caution zone (runway lighting)
YR	Your
Z	Co-ordinated Universal Time (in meteorological messages)

*Not ICAO

GEN 2.3 CHART SYMBOLS

CHART SYMBOLS

Runway Pattern

Civil Aerodrome

Aerodrome with no facilities

Abandoned Aerodrome

Heliport or Helicopter Alighting Area on an Aerodrome

VOR

VOR/DME

NDB or Locator

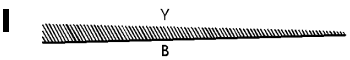
NDB or Locator plus Marker

Marker

Radio Facility

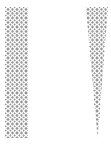
Navaid facility box used for instrument approach procedure includes facility type, name, frequency and ident.

Navaid facility box **not** used for instrument approach procedure includes facility type, name, frequency and ident.



ILS LOC

Profile section (IAL) ILS GP



Profile section (IAL) VOR, VOR/DME, NDB, Locator, Marker

Prohibited/Restricted/ Danger Areas

Two areas with common boundary

Obstruction

Lighted Obstruction

Spot Elevation

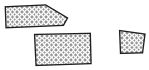
Highest Elevation on Chart

Aeronautical Ground Light

Transmission Line or overhead Cable

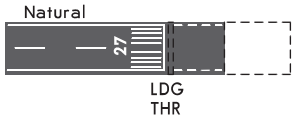
Road

Dual or Triple Highway

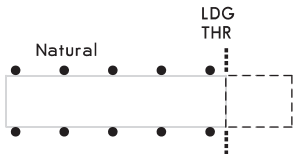


Built-Up Area

Buildings



Paved Runway with Stopway and displaced Landing Threshold



Unpaved Runway with Stopway and displaced Landing Threshold

Runway under Construction

Disused Movement Area

Taxiway with Designation, Apron

Taxiway/Apron under Construction

Runway Visual range (RVR) Observation Site

Runway-holding positions

Pattern A

Pattern B
(used when instructed by ATC)

Intermediate taxiway holding position

RNAV Fly-Over compulsory WPT

RNAV Fly-Over non-compulsory WPT

RNAV Fly-By compulsory WPT

RNAV Fly-By non-compulsory WPT

GEN 2.4 LOCATION INDICATORS

Location indicators marked with an asterisk (*) cannot be used in the address component in AFS messages.

1. ENCODE	
Indicator	**Location**
OOAD	Adam
OOBB*	Butabul
OOBR*	Buraimi
OODQ*	Duqm
OOFD*	Fahud
OOGB*	Qarn Alam
OOIA*	Ibra
OOII*	Ibri
OOIZ*	Izki
OOJA*	Ja’aluni
OOJN*	Jarf North
OOKB*	Khasab
OOLK*	Lekhwair
OOMA*	Masirah
OOMK*	Mukhaizna
OOMM	MUSCAT FIR
OOMN*	Musana
OOMS	MUSCAT / Muscat Intl
OOMX*	Marmul
OONZ*	Nizwa
OORQ*	Rostaq
OOSA	Salalah
OOSH*	Suhar
OOSQ*	Saiq
OOTH*	Thumrait

2. DECODE	
Location	**Indicator**
Adam	OOAD
Butabul	OOBB*
Buraimi	OOBR*
Duqm	OODQ*
Fahud	OOFD*
Ibra	OOIA*
Ibri	OOII*
Izki	OOIZ*
Ja’aluni	OOJA*
Jarf North	OOJN*
Khasab	OOKB*
Lekhwair	OOLK*
Marmul	OOMX*
Masirah	OOMA*
Mukhaizna	OOMK*
Musana	OOMN*
MUSCAT FIR	OOMM
MUSCAT / Muscat Intl	OOMS
Nizwa	OONZ*
Qarn Alam	OOGB*
Rostaq	OORQ*
Saiq	OOSQ*
Salalah	OOSA
Suhar	OOSH*
Thumrait	OOTH*

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GEN 2.5 LIST OF RADIO NAVIGATION AIDS

ID	STATION	FACILITY	PURPOSE
ADM	Adam	DVOR/DME	A
HAI	HAIMA	DVOR/DME	E
IZK	IZKI	VOR/DME	E
MCT	MUSCAT	DVOR/DME	A,E
SLL	SALALAH	DVOR/DME	A,E
SUR	SUR	VOR/DME	E

STATION	FACILITY	ID	PURPOSE
Adam	DVOR/DME	ADM	A
HAIMA	DVOR/DME	HAI	E
IZKI	VOR/DME	IZK	E
MUSCAT	DVOR/DME	MCT	A,E
SALALAH	DVOR/DME	SLL	A,E
SUR	VOR/DME	SUR	E

Note: A - used for aerodrome purpose (for details see the respective AD 2 section)

E - used for enroute purpose (for details see ENR 4.1)

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GEN 2.6 CONVERSION OF UNITS OF MEASUREMENT

NM to KM 1 NM = 1.852 KM	
NM	**KM**
0.1	0.185
0.2	0.370
0.3	0.556
0.4	0.741
0.5	0.926
0.6	1.111
0.7	1.296
0.8	1.482
0.9	1.667
1.0	1.852
2.0	3.704
3.0	5.556
4.0	7.408
5.0	9.260
6.0	11.112
7.0	12.964
8.0	14.816
9.0	16.668
10.0	18.520
20.0	37.040
30.0	55.560
40.0	74.080
50.0	92.600
60.0	111.120
70.0	129.640
80.0	148.160
90.0	166.680
100.0	185.200
200.0	370.400
300.0	555.600
400.0	740.800
500.0	926.000

KM to NM 1 KM = 0.54 NM	
KM	**NM**
0.1	0.05
0.2	0.11
0.3	0.16
0.4	0.22
0.5	0.27
0.6	0.32
0.7	0.38
0.8	0.43
0.9	0.49
1.0	0.54
2.0	1.08
3.0	1.62
4.0	2.16
5.0	2.70
6.0	3.24
7.0	3.78
8.0	4.32
9.0	4.86
10.0	5.40
20.0	10.80
30.0	16.20
40.0	21.60
50.0	27.00
60.0	32.40
70.0	37.80
80.0	43.20
90.0	48.60
100.0	54.00
200.0	107.99
300.0	161.99
400.0	215.98
500.0	269.98

FT to M 1 FT = 0.3048 M	
FT	**M**
1	0.305
2	0.610
3	0.914
4	1.219
5	1.524
6	1.829
7	2.134
8	2.438
9	2.743
10	3.048
20	6.096
30	9.144
40	12.192
50	15.240
60	18.288
70	21.336
80	24.384
90	27.432
100	30.480
200	60.960
300	91.440
400	121.920
500	152.400
600	182.880
700	213.360
800	243.840
900	274.320
1000	304.800
2000	609.600
3000	914.400
4000	1219.200
5000	1524.000
6000	1828.800
7000	2133.600
8000	2438.400
9000	2743.200
10000	3048.000

M to FT 1 M = 3.28 FT	
M	**FT**
1	3.28
2	6.56
3	9.84
4	13.12
5	16.40
6	19.69
7	22.97
8	26.25
9	29.53
10	32.81
20	65.62
30	98.43
40	131.23
50	164.04
60	196.85
70	229.66
80	262.47
90	295.28
100	328.08
200	656.17
300	984.25
400	1312.34
500	1640.42
600	1968.50
700	2296.59
800	2624.67
900	2952.76
1000	3280.84
2000	6561.68
3000	9842.52
4000	13123.36
5000	16404.20

From decimal minutes of an arc to seconds of an arc	
MIN	**SEC**
0.01	0.60
0.02	1.20
0.03	1.80
0.04	2.40
0.05	3.00
0.06	3.60
0.07	4.20
0.08	4.80
0.09	5.40
0.10	6.00
0.11	6.60
0.12	7.20
0.13	7.80
0.14	8.40
0.15	9.00
0.16	9.60
0.17	10.20
0.18	10.80
0.19	11.40
0.20	12.00
0.21	12.60
0.22	13.20
0.23	13.80
0.24	14.40
0.25	15.00
0.26	15.60
0.27	16.20
0.28	16.80
0.29	17.40
0.30	18.00
0.31	18.60
0.32	19.20

From seconds of an arc to decimal minutes of an arc	
SEC	**MIN**
1	0.02
2	0.03
3	0.05
4	0.07
5	0.08
6	0.10
7	0.12
8	0.13
9	0.15
10	0.17
11	0.18
12	0.20
13	0.22
14	0.23
15	0.25
16	0.27
17	0.28
18	0.30
19	0.32
20	0.33
21	0.35
22	0.37
23	0.38
24	0.40
25	0.42
26	0.43
27	0.45
28	0.47
29	0.48
30	0.50
31	0.52
32	0.53

From decimal minutes of an arc to seconds of an arc	
MIN	**SEC**
0.33	19.80
0.34	20.40
0.35	21.00
0.36	21.60
0.37	22.20
0.38	22.80
0.39	23.40
0.40	24.00
0.41	24.60
0.42	25.20
0.43	25.80
0.44	26.40
0.45	27.00
0.46	27.60
0.47	28.20
0.48	28.80
0.49	29.40
0.50	30.00
0.51	30.60
0.52	31.20
0.53	31.80
0.54	32.40
0.55	33.00
0.56	33.60
0.57	34.20
0.58	34.80
0.59	35.40
0.60	36.00
0.61	36.60
0.62	37.20
0.63	37.80
0.64	38.40

From seconds of an arc to decimal minutes of an arc	
SEC	**MIN**
33	0.55
34	0.57
35	0.58
36	0.60
37	0.62
38	0.63
39	0.65
40	0.67
41	0.68
42	0.70
43	0.72
44	0.73
45	0.75
46	0.77
47	0.78
48	0.80
49	0.82
50	0.83
51	0.85
52	0.87
53	0.88
54	0.90
55	0.92
56	0.93
57	0.95
58	0.97
59	0.98

From decimal minutes of an arc to seconds of an arc	
MIN	**SEC**
0.65	39.00
0.66	39.60
0.67	40.20
0.68	40.80
0.69	41.40
0.70	42.00
0.71	42.60
0.72	43.20
0.73	43.80
0.74	44.40
0.75	45.00
0.76	45.60
0.77	46.20
0.78	46.80
0.79	47.40
0.80	48.00
0.81	48.60
0.82	49.20
0.83	49.80
0.84	50.40
0.85	51.00
0.86	51.60
0.87	52.20
0.88	52.80
0.89	53.40
0.90	54.00
0.91	54.60
0.92	55.20
0.93	55.80
0.94	56.40
0.95	57.00
0.96	57.60

From decimal minutes of an arc to seconds of an arc	
MIN	**SEC**
0.97	58.20
0.98	58.80
0.99	59.40

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GEN 2.7 SUNRISE SUNSET

The times in these tables are given in UTC for sunrise (SR) and sunset (SS) and are from the years 2021 to 2025 inclusive. The year 2023 is used as an "average year" for this period. During this period the times for an arbitrary date and place will deviate less than 2 minutes from time on the same date and place in the "average year".

ALPHABETIC INDEX			
Location	**Page**	**Location**	**Page**
MUSCAT/Muscat Intl	GEN 2.7	SALALAH/Salalah	GEN 2.7

MUSCAT/Muscat International					
OOMS					
233600.72 N 0581700.96 E					
MONTH	**DAY**	**TWIL FROM**	**SR**	**SS**	**TWIL TO**
JAN	3	NULL	250	1333	NULL
	8	NULL	251	1336	NULL
	13	NULL	251	1340	NULL
	18	NULL	251	1343	NULL
	23	NULL	250	1347	NULL
	28	NULL	249	1350	NULL
FEB	3	NULL	247	1354	NULL
	8	NULL	244	1358	NULL
	13	NULL	241	1401	NULL
	18	NULL	238	1404	NULL
	23	NULL	234	1406	NULL
	28	NULL	230	1409	NULL
MAR	3	NULL	227	1410	NULL
	8	NULL	223	1413	NULL
	13	NULL	218	1415	NULL
	18	NULL	213	1417	NULL
	23	NULL	208	1419	NULL
	28	NULL	203	1421	NULL
APR	3	NULL	158	1423	NULL
	8	NULL	153	1425	NULL

MUSCAT/Muscat International					
OOMS					
233600.72 N 0581700.96 E					
MONTH	**DAY**	**TWIL FROM**	**SR**	**SS**	**TWIL TO**
	13	NULL	148	1427	NULL
	18	NULL	144	1429	NULL
	23	NULL	139	1431	NULL
	28	NULL	135	1434	NULL
MAY	3	NULL	132	1436	NULL
	8	NULL	129	1438	NULL
	13	NULL	126	1441	NULL
	18	NULL	124	1443	NULL
	23	NULL	122	1445	NULL
	28	NULL	120	1448	NULL
JUNE	3	NULL	119	1450	NULL
	8	NULL	119	1452	NULL
	13	NULL	119	1454	NULL
	18	NULL	120	1456	NULL
	23	NULL	121	1457	NULL
	28	NULL	122	1458	NULL
JULY	3	NULL	124	1458	NULL
	8	NULL	126	1458	NULL
	13	NULL	128	1457	NULL
	18	NULL	130	1456	NULL
	23	NULL	132	1454	NULL
	28	NULL	135	1452	NULL
AUG	3	NULL	137	1449	NULL
	8	NULL	139	1445	NULL
	13	NULL	141	1442	NULL
	18	NULL	143	1438	NULL
	23	NULL	145	1433	NULL
	28	NULL	147	1429	NULL
SEPT	3	NULL	149	1423	NULL
	8	NULL	151	1418	NULL

MUSCAT/Muscat International					
OOMS					
233600.72 N 0581700.96 E					
MONTH	**DAY**	**TWIL FROM**	**SR**	**SS**	**TWIL TO**
	13	NULL	152	1413	NULL
	18	NULL	154	1408	NULL
	23	NULL	156	1403	NULL
	28	NULL	157	1357	NULL
OCT	3	NULL	159	1352	NULL
	8	NULL	201	1348	NULL
	13	NULL	203	1343	NULL
	18	NULL	205	1339	NULL
	23	NULL	208	1334	NULL
	28	NULL	210	1331	NULL
NOV	3	NULL	213	1327	NULL
	8	NULL	216	1324	NULL
	13	NULL	220	1322	NULL
	18	NULL	223	1321	NULL
	23	NULL	226	1320	NULL
	28	NULL	230	1319	NULL
DEC	3	NULL	233	1319	NULL
	8	NULL	237	1320	NULL
	13	NULL	240	1322	NULL
	18	NULL	243	1324	NULL
	23	NULL	245	1326	NULL
	28	NULL	247	1329	NULL

SALALAH/Salalah					
OOSA					
170219.42 N 0540528.67 E					
MONTH	**DAY**	**TWIL FROM**	**SR**	**SS**	**TWIL TO**
JAN	3	NULL	253	1402	NULL
	8	NULL	255	1405	NULL
	13	NULL	255	1408	NULL

SALALAH/Salalah					
OOSA					
170219.42 N 0540528.67 E					
MONTH	**DAY**	**TWIL FROM**	**SR**	**SS**	**TWIL TO**
	18	NULL	256	1411	NULL
	23	NULL	256	1414	NULL
	28	NULL	255	1417	NULL
FEB	3	NULL	254	1420	NULL
	8	NULL	253	1422	NULL
	13	NULL	251	1424	NULL
	18	NULL	248	1426	NULL
	23	NULL	245	1428	NULL
	28	NULL	242	1429	NULL
MAR	3	NULL	240	1430	NULL
	8	NULL	237	1431	NULL
	13	NULL	233	1433	NULL
	18	NULL	229	1434	NULL
	23	NULL	225	1435	NULL
	28	NULL	221	1435	NULL
APR	3	NULL	217	1436	NULL
	8	NULL	213	1437	NULL
	13	NULL	209	1438	NULL
	18	NULL	206	1440	NULL
	23	NULL	203	1441	NULL
	28	NULL	200	1442	NULL
MAY	3	NULL	157	1443	NULL
	8	NULL	155	1445	NULL
	13	NULL	153	1447	NULL
	18	NULL	151	1448	NULL
	23	NULL	150	1450	NULL
	28	NULL	149	1452	NULL
JUNE	3	NULL	149	1454	NULL
	8	NULL	149	1456	NULL
	13	NULL	149	1457	NULL

SALALAH/Salalah					
OOSA					
170219.42 N 0540528.67 E					
MONTH	**DAY**	**TWIL FROM**	**SR**	**SS**	**TWIL TO**
	18	NULL	150	1459	NULL
	23	NULL	151	1500	NULL
	28	NULL	152	1500	NULL
JULY	3	NULL	154	1501	NULL
	8	NULL	155	1501	NULL
	13	NULL	157	1501	NULL
	18	NULL	159	1500	NULL
	23	NULL	200	1459	NULL
	28	NULL	202	1457	NULL
AUG	3	NULL	203	1455	NULL
	8	NULL	205	1453	NULL
	13	NULL	206	1450	NULL
	18	NULL	207	1447	NULL
	23	NULL	208	1443	NULL
	28	NULL	209	1440	NULL
SEPT	3	NULL	210	1435	NULL
	8	NULL	210	1431	NULL
	13	NULL	211	1427	NULL
	18	NULL	212	1423	NULL
	23	NULL	212	1419	NULL
	28	NULL	213	1415	NULL
OCT	3	NULL	214	1411	NULL
	8	NULL	214	1407	NULL
	13	NULL	215	1403	NULL
	18	NULL	217	1400	NULL
	23	NULL	218	1357	NULL
	28	NULL	220	1354	NULL
NOV	3	NULL	222	1351	NULL
	8	NULL	224	1350	NULL
	13	NULL	226	1348	NULL

SALALAH/Salalah					
OOSA					
170219.42 N 0540528.67 E					
MONTH	**DAY**	**TWIL FROM**	**SR**	**SS**	**TWIL TO**
	18	NULL	229	1347	NULL
	23	NULL	232	1347	NULL
	28	NULL	234	1347	NULL
DEC	3	NULL	237	1348	NULL
	8	NULL	240	1349	NULL
	13	NULL	243	1351	NULL
	18	NULL	246	1353	NULL
	23	NULL	249	1355	NULL
	28	NULL	251	1358	NULL

GEN 3 SERVICES

GEN 3.1 AERONAUTICAL INFORMATION SERVICES

1. RESPONSIBLE SERVICE

The Aeronautical Information Management which forms part of CAA ensures the flow of information necessary for the safety, regularity and efficiency of international and national air navigation within the area of its responsibility as shown under GEN 3.1 paragraph 2.

1.1 AIM Department

Postal Address: P. O. Box 758
POSTAL CODE 111
MUSCAT
Sultanate of Oman
Telephone: (968) 24 354955
Email: sdc@caa.gov.om

1.2 NOTAM Office (NOF)

Postal Address: P. O. Box 758
POSTAL CODE 111
MUSCAT
Sultanate of Oman
AFS Address: OOMSYNYX
Telephone: (968) 24 354949
(968) 24 354948
Email: briefing@caa.gov.om

2. AREA OF RESPONSIBILITY

The AIM is responsible for the collection and dissemination of information for the entire territory of Oman and for the airspace over the high seas encompassed by the Muscat Flight Information Region.

3. AERONAUTICAL PUBLICATION

3.1 The aeronautical information is provided in the form of aeronautical information products in a standardized presentation consisting of the following elements:

a) Aeronautical Information Publication (AIP);

b) AIP Amendment Service (AIP AMDT);

c) AIP Supplement (AIP SUP);

d) NOTAM;

e) Aeronautical Information Circulars (AICs); and

f) Aeronautical Charts.

NOTAM and the relatetd monthly checklists are issued via the AFS.

4. DISTRIBUTION OF PUBLICATIONS

4.1 AIP and AIP Amendments

All publications of the AIM are available from the AIM at CAA ATM Complex (address given in paragraph 1.).

The AIP is available at an initial cost of 65 Omani Rials plus 10 Rials for postal service charge that include the provision of an amendment service to the following 30 DEC. Afterwards, the amendment service is available on an annual subscription basis, at a cost of 25 Omani Rials, payable in advance.

Note: Annual subsription starts from 1 JAN to 30 DEC.

4.2 AIP Supplements

Each AIP Supplement will be allocated a serial number which shall be consecutive and based on the calendar year. A checklist of valid Supplements will be issued at intervals of not more than one month as part of the NOTAM checklist.

Note: For latest AIP Supplements refer to: https://www.caa.gov.om/en/aim-publications

4.3 Aeronautical Information Circulars (AIC)

Each AIC is numbered consecutively within each series on a calendar year basis. A checklist of valid AIC will be issued at least once a year distributed as an AIC.

Note: For latest AIC refer to: https://www.caa.gov.om/en/aim-publications

4.4 NOTAM

NOTAM are used mainly for notification of temporary information of timely significance, unforeseen changes in service abilities etc., or any other emergency; they are distributed by NOF as follows:

a) Series A-NOTAM containing full information on all airports, facilities and procedures available for use by international civil aviation, promulgated both internationally and nationally.

b) Series B-NOTAM containing information of concern to aircraft other than those engaged in international civil aviation, promulgated nationally.

c) Series S-SNOWTAM information providing a runway surface condition report notifying the

presence or cessation of hazardous condition due to standing water on the movement area. SNOWTAM are prepared in accordance with PANS-AIM, Appendix 4, and are issued for individual aerodrome by Muscat NOF with separate serial number.

The international NOTAM office will allocate to each NOTAM a series identified by a letter and a four-digit number followed by a stroke and a two-digit number of the year. The four-digit number will be consecutive and based on the calendar year.

A checklist of valid NOTAM is issued as a NOTAM checklist at intervals of not more than one month.

NOTAMs are exchanged between Muscat NOF and other NOF as follows:

SENT TO NOF

Abu Dhabi	Dar Es Salaam	Nairobi
Addis Ababa	Delhi	Nicosia
Amman	Dhaka	Paris
Amsterdam	Djibouti	Perth
Ankara	Frankfurt	Rome
Athens	Helsinki	Sanaa
Baghdad	Hong Kong	Shannon
Bahrain	Jeddah	Singapore
Bangkok	Karachi	Stockholm
Beijing	Katunayake	Sydney
Beirut	Kolkata	Tehran
Belgrade	Kuala Lumpur	Vienna
Berlin	Kuwait	Zurich
Brussels	London	Brunei
Bucharest	Madrid	Jakarta
Cairo	Manila	Maldives
Chennai	Mogadishu	Morocco
Copenhagen	Moscow	Seychelles
Damascus	Mumbai	USA

RECEIVED FROM NOF

Abu Dhabi	Dar Es Salaam	Mogadishu
Addis Ababa	Delhi	Mumbai
Amman	Dhaka	Nairobi
Amsterdam	Djibouti	Nicosia

Ankara	Frankfurt	Sanaa
Athens	Hong Kong	Shannon
Baghdad	Jakarta	Singapore
Bahrain	Jeddah	Tehran
Bangkok	Karachi	Vienna
Beirut	Katunayake	Yangon
Belgrade	Khartoum	Zurich
Brussels	Kolkata	
Cairo	Kuala Lumpur	Brunei
Chennai	Kuwait	Seychelles
Damascus	London	

5. THE AIRAC SYSTEM

5.1 In order to control and regulate the flow of changes requiring amendments to charts, route-manuals etc., such changes, whenever possible, will be issued.

5.2 AIRAC information will be issued so that the information will be received by the user not later than 28 days, and for major changes not later than 56 days, before the effective date.

SCHEDULE OF AIRAC EFFECTIVE DATES

2023	2024	2025	2026	2027
26 JAN	25 JAN	23 JAN	22 JAN	21 JAN
23 FEB	22 FEB	20 FEB	19 FEB	18 FEB
23 MAR	21 MAR	20 MAR	19 MAR	18 MAR
20 APR	18 APR	17 APR	16 APR	15 APR
18 MAY	16 MAY	15 MAY	14 MAY	13 MAY
15 JUN	13 JUN	12 JUN	11 JUN	10 JUN
13 JUL	11 JUL	10 JUL	09 JUL	08 JUL
10 AUG	08 AUG	07 AUG	06 AUG	05 AUG
07 SEP	05 SEP	04 SEP	03 SEP	02 SEP
05 OCT	03 OCT	02 OCT	01 OCT	30 SEP
02 NOV	31 OCT	30 OCT	29 OCT	28 OCT
30 NOV	28 NOV	27 NOV	26 NOV	25 NOV
28 DEC	26 DEC	25 DEC	24 DEC	23 DEC

6. PRE-FLIGHT INFORMATION SERVICE ATAERODROMES

A self-briefing pre-flight information service is available at each of the following aerodromes, with the coverage indicated.

Aerodrome	Coverage
MUSCAT/Muscat International and Salalah	Belgium, Cyprus, Egypt, France, Germany, Greece, India, Iran, Kenya, Kuwait, Malaysia, Netherlands, Pakistan, Saudi Arabia, Serbia, Spain, Switzerland, Sri Lanka, Turkey, UAE, UK, Georgia.

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GEN 3.2 AERONAUTICAL CHARTS

1. RESPONSIBLE AUTHORITY

1.1 The CAA provides a wide range of aeronautical charts for use by all types of civil aviation. The AIM produces the charts which are part of the AIP. Charts suitable for pre-flight planning and briefing are available for reference at the AIS office at Muscat International and Salalah International Airports.

1.2 The charts are produced in accordance with the provisions in the following ICAO documents:

Annex4	Aeronautical Charts.
Doc 8697	Aeronautical Chart Manual
Doc 8168	Aircraft Operations, Vol. II (Construction of visual and instrument flight procedures)

1.3 Differences from ICAO Standards Recommended Practices and Procedures are given in GEN 1.7.

2. MAINTENANCE OF CHARTS

2.1 The charts listed in 4.1 are regularly kept up to date or are replaced by AIP amendments. Significant amendments or revisions will be promulgated by AIP SUPPLEMENTS or NOTAM and included in subsequent AIP amendments, if appropriate. Information concerning new aeronautical charts will be notified by AIC.

2.2 Items of information found, after publication, to have been incorrect at the aeronautical information date are corrected immediately by NOTAM if they are of operational significance, attention being directed to that chart affected.

3. PURCHASE ARRANGEMENTS

3.1 The charts listed in 4.1 may be obtained from the:

Civil Aviation Authority
P. O. Box 1
POSTAL CODE 111
MUSCAT
Sultanate of Oman

A limited supply of these charts is also available from the NOF at Muscat Intl Airport.

4. AERONAUTICAL CHARTS SERIES AVAILABLE

4.1 The following are produced and published by the CAA:

a) Aerodrome Obstacle Chart - ICAO Type A

b) Aerodrome Obstacle Chart - ICAO Type B

c) Precision Approach Terrain Chart - ICAO

d) Enroute Charts - ICAO

e) Terminal Area Chart - ICAO

f) Standard Departure Chart Instrument (SID) - ICAO

g) Standard Arrival Chart Instrument (STAR) - ICAO

h) Instrument Approach Chart - ICAO

i) Visual Approach Chart - ICAO

j) Aerodrome Chart - ICAO

k) Aerodrome Ground Movement Chart - ICAO

l) Aircraft Parking/Docking Chart - ICAO

m) World Aeronautical Chart - ICAO 1:1 000 000

n) ATC Surveillance Minimum Altitude Chart - ICAO

Note: Not all these charts are produces for each aerodrome. Charts are produced when required in accordance with Annex 4 Standards and Recommended Practices.

5 GENERAL DESCRIPTION OF EACH SERIES

5.1 Aerodrome Obstacle Chart - ICAO Type A

These are available for ADs designated for use by international commercial air transport. The scales used are 1 : 20 000 (horizontal) and 1 : 2 000 (vertical). The charts, showing a plan and profile of each RWY (including any associated SWY and CWY), take-off flight path area, any significant obstructions and relevant declared distances, are included in AD 2.

5.2 Aerodrome Obstacle Chart - ICAO Type B

These charts at scale of 1:20 000 show the topography and the obstacles in the vicinity of the airport. They are intended to be used by and to assist flight crews in determination of the minimum safe altitude/height during departure and arrival phase including those for circling procedures the

pre-determination of procedures for use in the event of an emergency during take-off or landing and are included in AD 2.

5.3 Precision Approach Terrain Chart - ICAO

These charts provide detailed terrain profile information within a defined portion of the final approach so as to enable aircraft operating agencies to assess the effect of the terrain on decision height determination by the use of radio altimeters. Those published are included in AD 2.

5.4 Enroute Charts - ICAO

This chart is produced for the entire Oman FIR. The aeronautical data include all aerodrome, prohibited, restricted and danger areas and the air traffic service systems in detail. The chart provides the flight crew with information that will facilitate navigation along ATS routes in compliance with air traffic services procedures.

5.5 Terminal Area Chart - ICAO

These are available for Muscat TMA and depict arrival, departure and transit routes and holding patterns. They are designed to facilitate transition between Radio Navigation Charts and Instrument Approach Charts and are included in AD 2.

5.6 Standard Departure Chart Instrument (SID) - ICAO

These charts are produced whenever a standard departure route - instrument has been established and cannot be shown with sufficient clarity on the Area Chart - ICAO.

The aeronautical data shown include the aerodrome of departure, aerodrome(s) which affect the designated standard departure route - instrument, prohibited, restricted and danger areas and the air traffic services system. This chart provides the flight crew with information that will be enable them to comply with the designated standard departure route - instrument from the take-off phase to the enroute phase. Those published are included in AD 2.

5.7 Standard Arrival Chart Instrument (STAR) - ICAO

These charts are produced whenever a standard arrival route - instrument has been established and cannot be shown with sufficient clarity on the Area Chart - ICAO.

The aeronautical data shown include the aerodrome of landing, aerodrome(s) which affect the designated standard arrival route - instrument, prohibited, restricted and danger areas and the air traffic services system. This chart provides flight crew with information that will enable them to comply with the designated standard arrival route - instrument from the enroute phase to the approach phase. Those published are included in AD 2.

5.8 Instrument Approach Chart - ICAO

These are available for ADs where instrument approach procedures have been established and approved by the Flight Operations Section of the CAA. A separate chart is published for each procedure showing plan and profile views of holding, approach and missed approach, radio facilities and relevant topographical information. Those published are included in AD 2.

5.9 Visual Approach Chart - ICAO

These are designed to provide pilots with a graphic presentation of approaches to ADs by visual reference, whether or not previous reference has been made to either a Radio or Visual Navigation Chart. Those published are included in AD 2.

5.10 Aerodrome Chart - ICAO

These are available for ADs designated for use by international commercial air transport and are designed to facilitate ground movement between RWYs and aprons. They show a plan view of the movement area and depict visual aids, radio installations, terminal buildings, ARP, RWY marking, lighting and, at an enlarged scale TWY and apron marking.

5.11 Aerodrome Ground Movement Chart - ICAO

This supplementary chart shall provide flight crews with detailed information to facilitate the ground movement of aircraft to and from the aircraft stands and the parking/ docking of aircraft.

5.12 Aircraft Parking/Docking Chart - ICAO

This chart is produced for those aerodromes where, due to complexity of the terminal facilities, the information cannot be shown with sufficient clarity on the Aerodrome/ Heliport Chart - ICAO.

This supplementary chart provides flight crews with detailed information to facilitate the ground movement of aircraft between the taxiways and the aircraft stands and the parking/docking of aircraft. Those published are included in AD 2.

5.13 World Aeronautical Chart - ICAO 1 : 1 000 000

These are published by Oman Authorities and available from the Civil Aviation Authority listed in 3.1. They constitute the Oman territory. Designed for pre-flight planning and pilotage, they are constructed on the Lambert Conformal Conic Projection and depict the main planimetric features and relief data and basic aeronautical information.

5.14 ATC Surveillance Minimum Altitude Chart - ICAO

This chart is supplementary to the Area Chart and provides information which will enable flight crews to monitor and cross-check altitudes assigned while under radar control.

6. LIST OF AERONAUTICAL CHARTS

TITLE OF SERIES	SCALE	CHART NAME AND/OR NUMBER		PRICE PER SHEET RO.	DATE
Aerodrome Obstacle Chart-ICAO Type A (AOC)	1:20 000	DUQM/Duqm RWY 04/22	AD 2.OODQ - 17		6 OCT 22
	1:20 000	FAHUD/Fahud RWY 13/31	AD 2.OOFD - 15		21 APR 22

TITLE OF SERIES	SCALE	CHART NAME AND/OR NUMBER		PRICE PER SHEET RO.	DATE
	1:15 000	JA'ALUNI/Ja'aluni RWY 03/21	AD 2.OOJA - 13		29 MAY 14
	1:20 000	MARMUL/Marmul RWY 14/32	AD 2.OOMX - 19		23 APR 20
	1:20 000	MUKHAIZNA/Mukhaizna RWY 14/32	AD 2.OOMK - 15		5 OCT 23
	1:20 000	MUSCAT/Muscat Intl RWY 08L/26R	AD 2.OOMS - 39		13 JUN 24
	1:20 000	MUSCAT/Muscat Intl RWY 08R/26L	AD 2.OOMS - 41		13 JUN 24
	1:15 000	QARN ALAM/Qarn Alam RWY 12/30	AD 2.OOGB - 15		5 OCT 23
	1:20 000	SALALAH/Salalah RWY 07/25	AD 2.OOSA - 25		23 APR 20
	1:20 000	SUHAR/Suhar RWY 15/33	AD 2.OOSH - 21		7 OCT 21
Aerodrome Obstacle Chart-ICAO Type B (AOC)	1:20 000	DUQM/Duqm	AD 2.OODQ - 19		23 APR 20
	1:20 000	FAHUD/Fahud	AD 2.OOFD - 17		21 APR 22
	1:20 000	JA'ALUNI/Ja'aluni	AD 2.OOJA - 15		29 MAY 14
	1:20 000	MARMUL/Marmul	AD 2.OOMX - 21		23 APR 20
	1:20 000	MUKHAIZNA/Mukhaizna	AD 2.OOMK - 17		5 OCT 23
	1:20 000	MUSCAT/Muscat Intl	AD 2.OOMS - 43		13 JUN 24
	1:20 000	QARN ALAM/Qarn Alam	AD 2.OOGB - 17		5 OCT 23
	1:20 000	SALALAH/Salalah	AD 2.OOSA - 27		23 APR 20
	1:20 000	SUHAR/Suhar	AD 2.OOSH - 23		7 OCT 21
Precision Approach Terrain Chart-ICAO (PATC)	1:2 500	MUSCAT/Muscat Intl RWY 08L	AD 2.OOMS - 45		5 OCT 23
	1:2 500	MUSCAT/Muscat Intl RWY 26R	AD 2.OOMS - 47		5 OCT 23
	1:2 500	SALALAH/Salalah RWY 07	AD 2.OOSA - 29		9 NOV 17

TITLE OF SERIES	SCALE	CHART NAME AND/OR NUMBER		PRICE PER SHEET RO.	DATE
	1:2 500	SALALAH/Salalah RWY 25	AD 2.OOSA - 31		9 NOV 17
Terminal Area Chart-ICAO (TAC)	MUSCAT/Muscat Intl				
	1:750 000	TMA Chart Muscat	AD 2.OOMS - 49		13 JUN 24
	1:1 500 000	DEP/ARR Standard RNAV Routes	AD 2.OOMS - 51		5 SEP 24
	SALALAH/Salalah				
	1:750 000	ATC Surveillance Minimum Altitude Chart	AD 2.OOSA - 33		25 APR 19
Standard Departure Chart Instrument-ICAO (SID)	DUQM/Duqm				
	1:750 000	RNAV (GNSS) RWY 04	AD 2.OODQ - 21		23 APR 20
	1:750 000	RNAV (GNSS) RWY 22	AD 2.OODQ - 23		23 APR 20
	FAHUD/Fahud				
	1:500 000	RNAV (GNSS) RWY 13	AD 2 OOFD - 19		6 OCT 22
	1:1 000 000	RNAV (GNSS) RWY 31	AD 2.OOFD - 21		6 OCT 22
	MARMUL/Marmul				
	1:500 000	RNAV (GNSS) RWY 14	AD 2.OOMX - 23		6 OCT 22
	1:500 000	RNAV (GNSS) RWY 32	AD 2.OOMX - 25		6 OCT 22
	MUKHAIZNA/Mukhaizna				
	1:500 000	RNAV (GNSS) RWY 14	AD 2.OOMK - 19		5 OCT 23
	1:500 000	RNAV (GNSS) RWY 32	AD 2.OOMK - 21		5 OCT 23
	MUSCAT/Muscat Intl				
	1:750 000	RNAV (GNSS) RWY 08L	AD 2.OOMS - 53		13 JUN 24
	1:750 000	RWY 08L	AD 2.OOMS - 57		13 JUN 24
	1:750 000	RNAV (GNSS) RWY 26R	AD 2.OOMS - 59		13 JUN 24
	1:750 000	RWY 26R	AD 2.OOMS - 65		13 JUN 24

TITLE OF SERIES	SCALE	CHART NAME AND/OR NUMBER		PRICE PER SHEET RO.	DATE
	QARN ALAM/Qarn Alam				
	1:600 000	RNAV (GNSS) RWY 12	AD 2.OOGB - 19		6 OCT 22
	1:600 000	RNAV (GNSS) RWY 30	AD 2.OOGB - 21		6 OCT 22
	SALALAH/Salalah				
	1:500 000	RNAV (GNSS) RWY 07	AD 2.OOSA - 35		25 APR 19
	1:500 000	RWY 07	AD 2.OOSA - 37		25 APR 19
	1:500 000	RNAV (GNSS) RWY 25	AD 2.OOSA - 39		25 APR 19
	1:500 000	RWY 25	AD 2.OOSA - 41		25 APR 19
	SUHAR/Suhar				
	1:600 000	RNAV (GNSS) RWY 15	AD 2.OOSH - 25		6 OCT 22
	1:600 000	RNAV (GNSS) RWY 33	AD 2.OOSH - 27		6 OCT 22
Standard Arrival Chart Instrument-ICAO (STAR)	DUQM/Duqm				
	1:750 000	RNAV (GNSS) RWY 04	AD 2.OODQ - 25		23 APR 20
	1:750 000	RNAV (GNSS) RWY 22	AD 2.OODQ - 27		23 APR 20
	FAHUD/Fahud				
	1:800 000	RNAV (GNSS) RWY 13	AD 2.OOFD - 23		6 OCT 22
	1:800 000	RNAV (GNSS) RWY 31	AD 2.OOFD - 25		6 OCT 22
	MARMUL/Marmul				
	1:500 000	RNAV (GNSS) RWY 14	AD 2.OOMX - 27		6 OCT 22
	1:500 000	RNAV (GNSS) RWY 32	AD 2.OOMX - 29		6 OCT 22
	MUKHAIZNA/Mukhaizna				
	1:750 000	RNAV (GNSS) RWY 14	AD 2.OOMK - 23		5 OCT 23
	1:750 000	RNAV (GNSS) RWY 32	AD 2.OOMK - 25		5 OCT 23
	MUSCAT/Muscat Intl				
	1:750 000	RNAV (GNSS)	AD 2.OOMS - 67		13 JUN 24

TITLE OF SERIES	SCALE	CHART NAME AND/OR NUMBER		PRICE PER SHEET RO.	DATE
		RWY 08L			
	1:750 000	RWY 08L	AD 2.OOMS - 71		13 JUN 24
	1:400 000	RWY 08L (TRANSITION)	AD 2.OOMS - 73		13 JUN 24
	1:750 000	RNAV (GNSS) RWY 26R	AD 2.OOMS - 77		13 JUN 24
	1:750 000	RWY 26R	AD 2.OOMS - 81		13 JUN 24
	1:400 000	RWY 26R (TRANSITION)	AD 2.OOMS - 83		13 JUN 24
Standard Arrival Chart Instrument-ICAO (STAR)	QARN ALAM/Qarn Alam				
	1:500 000	RNAV (GNSS) RWY 12	AD 2.OOGB - 23		6 OCT 22
	1:500 000	RNAV (GNSS) RWY 30	AD 2.OOGB - 25		6 OCT 22
	SALALAH/Salalah				
	1:750 000	RNAV (GNSS) RWY 07	AD 2.OOSA - 43		25 APR 19
	1:750 000	RWY 07	AD 2.OOSA - 47		25 APR 19
	1:750 000	RNAV (GNSS) RWY 25	AD 2.OOSA - 49		25 APR 19
	1:750 000	RWY 25	AD 2.OOSA - 53		25 APR 19
	SUHAR/Suhar				
	1:600 000	RNAV (GNSS) RWY 15	AD 2.OOSH - 29		6 OCT 22
	1:600 000	RNAV (GNSS) RWY 33	AD 2.OOSH - 31		6 OCT 22
Instrument Approach Chart-ICAO (IAC)	DUQM/Duqm				
	1:400 000	RNP RWY 04	AD 2.OODQ - 29		23 APR 20
	1:400 000	RNP RWY 22	AD 2.OODQ - 31		23 APR 20
	FAHUD/Fahud				
	1:300 000	RNP RWY 13	AD 2.OOFD - 27		21 APR 22
	1:300 000	RNP RWY 31	AD 2.OOFD - 29		21 APR 22
	MARMUL/Marmul				
	1:250 000	RNP RWY 14	AD 2.OOMX - 31		6 OCT 22
	1:300 000	RNP RWY 32	AD 2.OOMX - 33		6 OCT 22
	MUKHAIZNA/Mukhaizna				
	1:400 000	RNP RWY 14	AD 2.OOMK - 27		5 OCT 23

TITLE OF SERIES	SCALE	CHART NAME AND/OR NUMBER		PRICE PER SHEET RO.	DATE
	1:400 000	RNP RWY 32	AD 2.OOMK - 29		5 OCT 23
	MUSCAT/Muscat Intl				
	1:500 000	ILS RWY 08L	AD 2.OOMS - 87		13 JUN 24
	1:600 000	ILS RWY 26R	AD 2.OOMS - 89		13 JUN 24
	1:500 000	LOC RWY 08L	AD 2.OOMS - 91		13 JUN 24
	1:600 000	LOC RWY 26R	AD 2.OOMS - 93		13 JUN 24
	1:500 000	RNP RWY 08L	AD 2.OOMS - 95		13 JUN 24
	1:600 000	RNP RWY 26R	AD 2.OOMS - 97		13 JUN 24
	1:400 000	VOR RWY 08L	AD 2.OOMS - 99		13 JUN 24
	1:400 000	VOR RWY 26R	AD 2.OOMS - 101		13 JUN 24
	QARN ALAM/Qarn Alam				
	1:300 000	RNP RWY 12	AD 2.OOGB - 27		11 OCT 18
	1:300 000	RNP RWY 30	AD 2.OOGB - 29		11 OCT 18
	SALALAH/Salalah				
	1:500 000	ILS RWY 07	AD 2.OOSA - 55		22 APR 21
	1:700 000	ILS RWY 25	AD 2.OOSA - 57		22 APR 21
	1:500 000	LOC RWY 07	AD 2.OOSA - 59		23 APR 20
	1:700 000	LOC RWY 25	AD 2.OOSA - 61		23 APR 20
	1:500 000	RNP RWY 07	AD 2.OOSA - 63		25 APR 19
	1:700 000	RNP RWY 25	AD 2.OOSA - 65		25 APR 19
	1:500 000	VOR RWY 07	AD 2.OOSA - 67		25 APR 19
	1:700 000	VOR RWY 25	AD 2.OOSA - 69		25 APR 19
	SUHAR/Suhar				
	1:400 000	RNP RWY 15	AD 2.OOSH - 33		7 OCT 21
	1:400 000	RNP RWY 33	AD 2.OOSH - 35		7 OCT 21
Visual Approach Chart-ICAO (VAC)	1:300 000	VAC Ja'aluni	AD 2.OOJA - 17		29 MAY 14
	1:250 000	VFR Routes Muscat	AD 2.OOMS - 103		13 JUN 24
	1:250 000	VAC Salalah	AD 2.OOSA - 71		25 APR 19
Aerodrome Chart-ICAO (ADC)	1:20 000	DUQM/Duqm	AD 2.OODQ - 13		6 OCT 22
	1:20 000	FAHUD/Fahud	AD 2.OOFD - 11		21 APR 22
	1:15 000	JA'ALUNI/Ja'aluni	AD 2.OOJA - 9		29 MAY 14

TITLE OF SERIES	SCALE	CHART NAME AND/OR NUMBER		PRICE PER SHEET RO.	DATE
	1:12 000	MARMUL/Marmul	AD 2.OOMX - 15		6 OCT 22
	1:15 000	MUKHAIZNA/Mukhaizna	AD 2.OOMK - 11		5 OCT 23
	1:20 000	MUSCAT/Muscat Intl	AD 2.OOMS - 27		13 JUN 24
	1:20 000	QARN ALAM/Qarn Alam	AD 2.OOGB - 11		13 JUN 24
	1:20 000	SALALAH/Salalah	AD 2.OOSA - 19		21 APR 22
	1:25 000	SUHAR/Suhar	AD 2.OOSH - 15		5 OCT 23
Aircraft Parking/Docking Chart-ICAO (PDC)	1:3 500	DUQM/Duqm	AD 2.OODQ - 15		6 OCT 22
	1:2 400	FAHUD/Fahud	AD 2.OOFD - 13		21 APR 22
	1:4 000	JA'ALUNI/Ja'aluni	AD 2.OOJA - 11		29 MAY 14
	1:2 400	MARMUL/Marmul	AD 2.OOMX - 17		6 OCT 22
	1:2 500	MUKHAIZNA/Mukhaizna	AD 2.OOMK - 13		5 OCT 23
	1:8 000	MUSCAT/Muscat Intl (South Civil & General Aviation Aprons)	AD 2.OOMS - 29		13 JUN 24
	1:7 000	MUSCAT/Muscat Intl (North Civil Apron)	AD 2.OOMS - 33		13 JUN 24
	1:5 000	MUSCAT/Muscat Intl (Cargo Apron)	AD 2.OOMS - 37		13 JUN 24
	1:2 400	QARN ALAM/Qarn Alam	AD 2.OOGB - 13		23 APR 20
	1:5 000	SALALAH/Salalah (N-Aprons)	AD 2.OOSA - 21		21 APR 22
	1:4 000	SALALAH/Salalah (S-Apron)	AD 2.OOSA - 23		23 APR 20
	1:3 500	SUHAR/Suhar	AD 2.OOSH - 17		13 JUN 24
	1:3 500	SUHAR/Suhar (GA Apron)	AD 2.OOSH - 19		13 JUN 24
World Aeronautical Chart-ICAO	1:1 000 000	WORLD AERONAUTICAL CHART	2548-2563 2669-2670	70 OMR	5 OCT 23

TITLE OF SERIES	SCALE	CHART NAME AND/OR NUMBER		PRICE PER SHEET RO.	DATE
(WAC)					

7. TOPOGRAPHICAL CHARTS

Not available.

8. CORRECTIONS OF CHARTS NOT CONTAINED IN THE AIP

8.1 Amendments to aeronautical data are included in other sections of this AIP without specific reference to the charts affected. Only obstacles of a height of 100M (328 FT) or more above ground (AGL) are depicted on WAC. The coordinates used are not necessarily derived from a WGS-84 survey made to aeronautical data quality standards.

8.2 Obstacles exceeding heights of 100M (328 FT) AGL) reported to AIM Department that are not depicted on the WAC:

Nil

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GEN 3.3 AIR TRAFFIC SERVICES

1. RESPONSIBLE AUTHORITY

The authority responsible for the overall administration of ATS provided for international civil aviation within the Muscat FIR is the CAA.

Postal Address: Civil Aviation Authority (CAA)
P. O. Box 1
POSTAL CODE 111
MUSCAT
Sultanate of Oman
Telephone: (968) 24 354860
Telefax ACC: (968) 24 354533
Telefax COMM: (968) 24 354535
Email: Nil

2. AREA OF RESPONSIBILITY

ATS, as indicated in the following paragraphs, are provided for the entire territory including its territorial waters of Oman as well as the airspace over the high seas encompassed by Muscat FIR.

In some cases, in accordance with the regional air navigation agreement, air traffic services are provided, under the delegated authority, in the airspace within another bordering FIR.Details of such services are provided in section ENR 2.

3. TYPES OF SERVICE

The following types of services are provided:

a) Approach Control (APP) (Surveillance)

b) Area Control (ACC) (Surveillance); and

c) Flight Information Service (FIS) and Alerting Service (ALRS).

With the exception of services provided at military air bases, the following types of services are provided at aerodromes:

a) Aerodrome Control (TWR);

b) Aerodrome Flight Information Service (AFIS); and

c) Automatic Terminal Information Service (ATIS), at certain aerodromes.

4 AIR TRAFFIC SERVICES

4.1 With the exception of certain military aerodromes, ATS in the Muscat FIR are provided by the CAA. Aerodrome Flight Information Services are provided by certain private aerodrome operators as notified in AD 2.

4.2 ATC Service within the Muscat FIR is exercised:

a) on AWYs covering the main ATS routes; and

b) in UTA, TMA, CTR and at controlled aerodromes equipped with approach and landing aids.

4.3 Flight information and alerting services within the FIR and ATC service within CTA is provided by one centre (ACC Muscat). IFR are mandatory at FL150 and above. The axis of each airway is constituted by a line connecting significant points.

4.4 Air traffic control, flight information and alerting services are provided by:

a) ACC Muscat along the airways, including those parts traversing terminal control areas.

b) The relevant APP and TWR units, in coordination with ACC Muscat as necessary, for arriving and departing aircraft.

4.5 Radar service is an integral part of the ATS system. A description of radar services and procedures is provided in ENR 1.6. Additional procedures applicable to CTR Salalah are contained in AD 2.OOSA.

4.6 The description of the airspace designated for ATS purposes, either in chart or tabular form, is found in ENR 2, 3 or ENR 6, as appropriate.

4.7 In general, the air traffic rules and procedures in force and the organization of ATS are in conformity with ICAO SARPS, PANS and SUPPS. Differences between national and international rules and procedures are given in GEN 1.7, the SUPPS and altimeter setting procedures being reproduced in full with an indication wherein there is a difference. Prohibited, Restricted and Danger Areas established within the Muscat FIR are shown in ENR 5. Activation of areas, subject to intermittent activity, is notified well in advance by NOTAM, giving reference to the area only by its identification.

4.8 Areas in which flight training activities are regularly conducted adjacent to controlled airspace are notified as Training Areas if designation as either Restricted or Danger Area is appropriate. Such areas are active as per the hours notified in ENR 5 or by NOTAM and are depicted on relevant charts in ENR 6.

4.9 Interception procedures and signals for use in the event of interception over the Sultanate of Oman and territorial waters are shown in ENR 1.12.

4.10 Aerodrome Flight Information Service (AFIS)

Aerodrome Flight Information Service (AFIS) is an information service provided at certain aerodromes by an Aerodrome Flight Information Officer (AFISO) to give information useful for the safe and efficient conduct of flights in the immediate aerodrome vicinity and to give taxi instructions on the apron and manoeuvring area. The service is easily identifiable by the call sign

suffix 'INFORMATION'. AFIS is available at aerodromes during the hours of operation indicated at AD 2. AFISO may pass ATC clearances on behalf of the Muscat ACC, and in so doing will clearly include in the message the callsign of the ATS issuing the clearance.

The AFISO is responsible for:

a. Issuing information to aircraft flying in the immediate aerodrome vicinity to assist pilots in preventing collisions;

b. issuing instructions and information to aircraft on the apron and manoeuvring area to assist pilots in preventing collisions between aircraft and vehicles/ obstructions on the manoeuvring area, or between aircraft moving on the apron;

c. issuing instructions to vehicles and persons on the manoeuvring area;

d. informing aircraft of essential aerodrome information (i.e. the state of the aerodrome and its facilities);

e. provision of an alerting service;

f. initiating overdue action.

5. COORDINATION BETWEEN THE OPERATOR AND ATS

5.1 This is effected in accordance with Annex 11, paragraph 2.15 and relevant portions of PANS-ATM (Doc 4444-ATM/501) Chapter 10, paragraph 10.2. Operators requiring the service prescribed in Annex 11, paragraph 2.12.1 and PANS-ATM Chapter 10, paragraph 10.2 should advise the CAA accordingly.

5.2 RPLs are no longer accepted in the Muscat FIR.

6. MINIMUM FLIGHT ALTITUDE

The minimum en-route levels on the AWY listed in ENR 3 have been determined so as to ensure on the basis of the lowest known MSL pressure values for the areas concerned, at least 2000 FT vertical clearance over mountainous terrain and 1000 FT elsewhere, above the highest obstacle within the AWY lateral limits and a 5 NM buffer area. Mountainous terrain is defined as all that which attains or exceeds an elevation of 5000 FT AMSL.

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GEN 3.4 COMMUNICATION SERVICES

1. RESPONSIBLE AUTHORITY

The authority responsible for the administration of CNS Services in the Muscat FIR is the CAA, a department of the Ministry of Transport and Communications.

Postal Address: Civil Aviation Authority
P. O. Box 1
POSTAL CODE 111
MUSCAT
Sultanate of Oman
Telephone: (968) 24 354865
Telefax: (968) 24 354506
Email: Nil

2. AREA OF RESPONSIBILITY

The communication services listed in paragraph 3. following are provided for aeronautical users within the Muscat FIR. Responsibility for the day-to-day operation of these services is vested in department of CNS, CAA. Inquiries, suggestions or complaints regarding aeronautical telecommunications services should be referred to the said officer or to CAA, as appropriate.

3. TYPES OF SERVICE

3.1 Radio Navigation Service

The following types of radio aids to navigation are available:

Instrument Landing System (ILS)

VHF Omnidirectional Radio Range (VOR)

Distance-Measuring Equipment (DME)

Surveillance Radar Element (SRE)

3.2 Mobile Service

The aeronautical stations maintain a continuous watch on their stated frequencies during the published hours of service unless otherwise notified.

An aircraft should normally communicate with the A/G control radio station that exercises control in the area in which the aircraft is flying. Aircraft shall maintain a continuous watch on the appropriate frequency of the control station and shall not abandon watch, except in an emergency, without informing the control radio station.

3.3 Fixed Service

Messages to be transmitted over the AFS (AFTN/ AMHS) are accepted only if they satisfy the requirements of:

a) Annex 10, Vol II, Chapter 3, 3.3;

b) are prepared in the form specified in ICAO Annex 10;

c) the text of an individual AFS message does not exceed 200 groups.

3.4 Broadcasting Service

Nil.

3.5 Interpilot Air-to-Air Communication

In accordance with regional agreements, 123.450 MHz is designated as the air-to-air VHF communications channel. Use of this channel will enable aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problems.

3.6 Language used: English.

4. REQUIREMENTS AND CONDITIONS

4.1 The requirements of the CAA for the carriage of radio equipment is contained in the Civil Aviation Regulations.

4.2 The prescribed radio equipment listed in Column 1 of the following table is hereby notified for the purposes of the aforementioned CAR in respect of flights conducted in the circumstances listed in Column 2 of the said table. The said equipment shall be serviceable at the time of flight. Unserviceability of equipment that precludes compliance with the following table requires immediate notification to the appropriate ATS unit.

Radio Equipment to be carried	Circumstances of Flight
Column1	**Column 2**
VHF RTF with appropriate frequencies listed in ENR 3 and the respective AD 2 section	IFR/VFR in CAS; SVFR in Salalah and Muscat CTR
VOR* ADF	IFR in CAS
DME*	IFR in CAS
SSR Transponder with Mode A 4096 Codes and Mode C capability	All aircraft entering or operating within the Muscat FIR.
ILS and MKR Receiver	When landing at Muscat or Salalah airports if prevailing meteorological conditions would require an instrument approach procedure to be carried out.

For the purpose of this sub-paragraph, CAS is deemed to include all AWYs on which a Control

Service is provided.

* Unless the appropriate air traffic control unit otherwise permits in relation to the particular flight and provided that the aircraft complies with any instructions which the air traffic control unit may give in the particular case.

5. APPLICABLE ICAO DOCUMENTS

The SARPS, PANS and SUPPS contained in the following documents are applied, with the exceptions (Differences) noted hereunder:

Annex 10	Aeronautical Telecommunications
Doc 7030	Regional Supplementary Procedures (SUPPS), Part 2
Doc 7910	Location Indicators
Doc 8400	ICAO Abbreviations and Codes (PANS-ABC)
Doc 8585	Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services
Doc 8643	Aircraft Type Designators

5.1 Differences from ICAO SARPS, PANS and SUPPS

Nil.

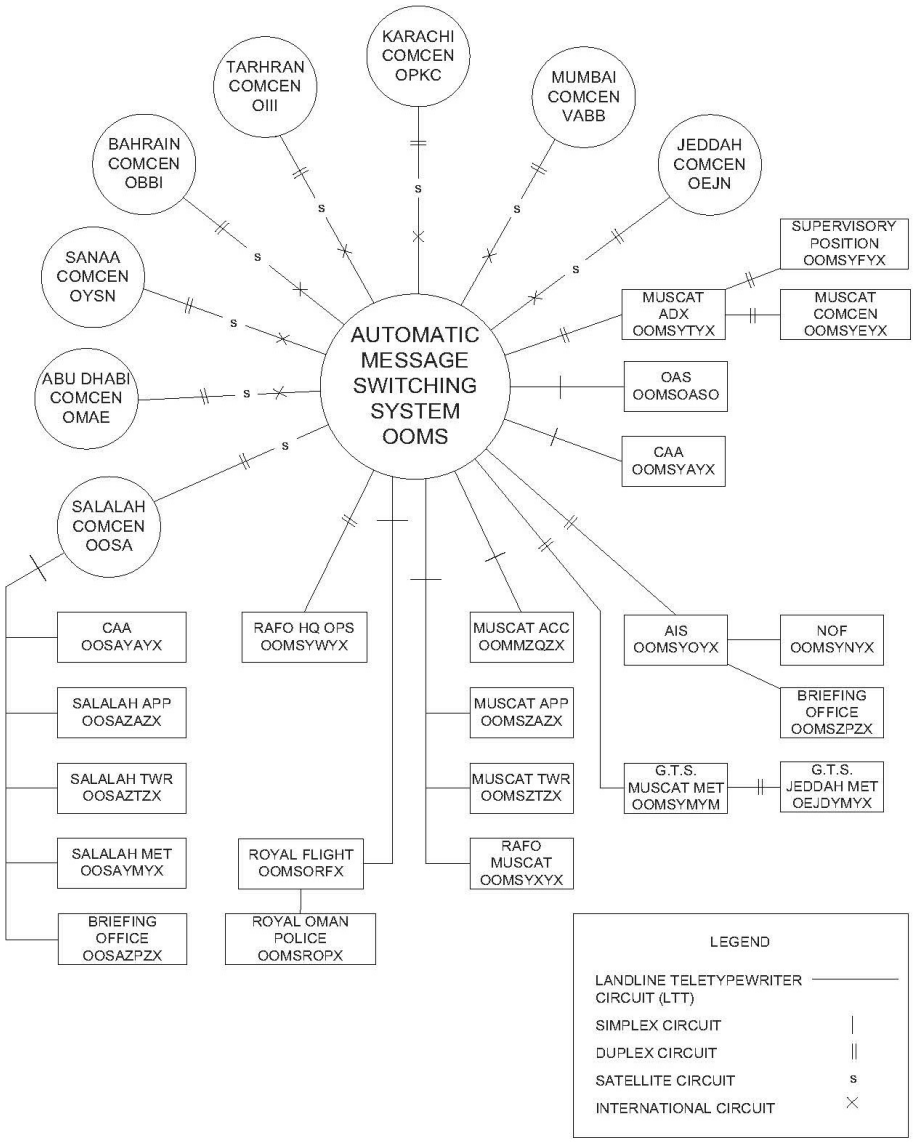
6. EXPLANATION OF ENR 4.1 AND TABLES 18 AND 19 IN CHAPTER AD 2.

The coordinates listed in those tables refer to the transmitting antenna. With the exception of VHF marker beacons associated with ILS, geographical coordinates are provided for all radio navigation facilities. For the convenience of users a MAG bearing and distance from the ARP, or other appropriate location, is additionally provided in the remarks-column for facilities utilized in instrument approach procedures.

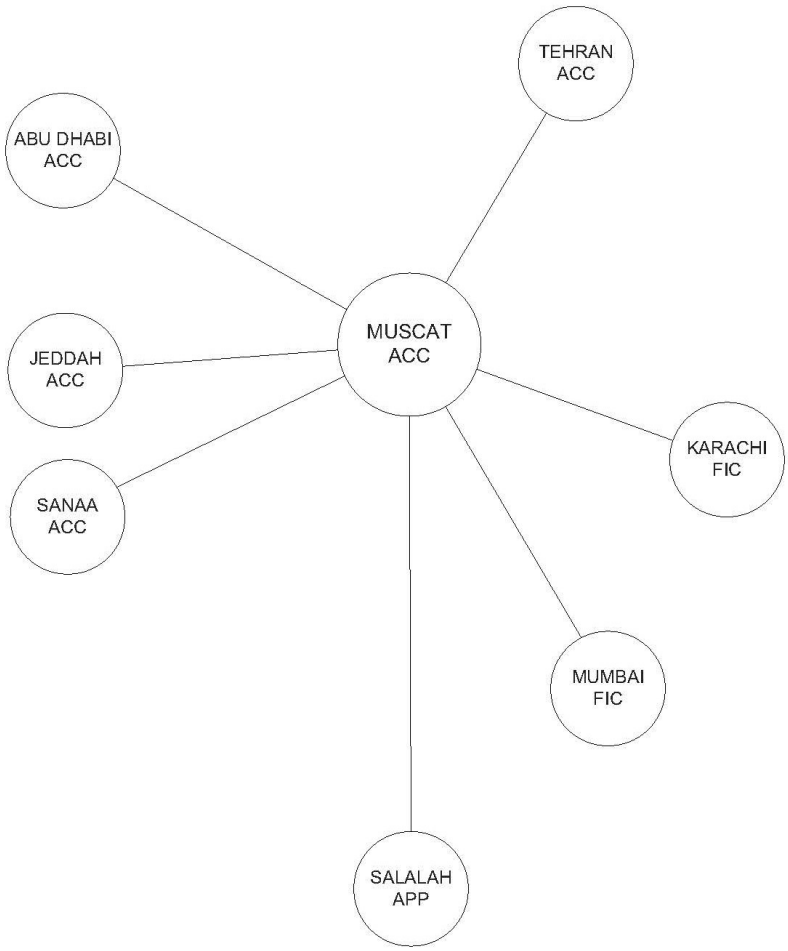
All facilities are operated by the CAA with the exception of those otherwise indicated in the remarks-column.

Facilities marked *are not approved for IFR operation and do not conform to CAA standards of maintenance and/or flight checks. Use of these facilities is at the risk of the user and the CAA accepts no responsibility for their use.

Unless otherwise specified, description of VOR/DME restrictions in the remarks-column relate to inclusive radials, clockwise directions and



AERONAUTICAL FIXED SERVICES - TELEGRAPH



AERONAUTICAL FIXED SERVICES - TELEPHONE

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GEN 3.5 METEOROLOGICAL SERVICES

1. RESPONSIBLE AUTHORITY

The meteorological services for civil aviation are provided by the Civil Aviation Authority.

Postal Address :

Directorate General of Meteorology (DGMet)

Civil Aviation Authority

P. O. Box 1, POSTAL CODE 111

MUSCAT, Sultanate of Oman

TEL : *(968) 24 354660*

Telefax:*(968) 24 348501*

AFS : *OOMSYMYX*

Email : *met_dir@met.gov.om*

Website :*www.met.gov.om*

2. AREA OF RESPONSIBILITY

Area meteorological watch is provided for the Muscat FIR.

3. TYPES OF SERVICE PROVIDED

Briefing and consultation for flight crew members is provided at Muscat International aerodrome and normally given by telephone. Personal briefing and consultation is available.

Flight documentation is provided on request for domestic flights. For international flights the flight documentation comprises a significant weather chart, an upper wind/air temperature chart and the latest available aerodrome forecast for the destination and, if required, for its alternate aerodromes.

In addition flight documentation is now available on our web site. Airline operators can access and download their flight documentation at any time they desire. However, Airline Operators will have to contact the Department of Meteorology to get their Username and Password respectively.

4. NOTIFICATION REQUIRED FROM OPERATORS

Notification from operators in respect of requirements for flight documentation is as follows:

a) International flights in excess of 1.000 NM - 2 hours prior to ETD;

b) International flights up to 1.000 NM - 1 1/2 hours prior to ETD;

c) Domestic flights - 1 hour prior to ETD.

5. OBSERVING SYSTEM AND OPERATING PROCEDURES

Surface wind is measured by Ultrasonic Wind Sensor normally located at a lateral distance of 150 M from the runway centreline.

Wind indicators are located in meteorological stations and in the appropriate ATS units (where established).

Visibility is normally estimated.

RVR is reported in steps of 25 M below 400 M. 50 M between 400 M to 800 M. Thereafter in steps of 100 M upto 1500 M.

Cloud heights are normally estimated. A ceilometer located at the ILS MM is utilized at Muscat and Salalah aerodromes.

Upper air analysis of atmospheric parameters at Muscat / Salalah aerodromes is achieved by Radiosonde stations located at Muscat and Salalah aerodromes.

Satellite images and meteorological data are received through Meteorological satellite ground receiving stations and sFTP Distribution System (SADIS) at Muscat International and Salalah aerodromes.

GTS, AFTN and Internet allows exchange of data between countries on an hourly basis.

Remotely sited sensors located as close as possible to the main runway are used to measure air temperature.

6. DATA PROCESSING AND FORECASTING SYSTEMS

A SADIS Workstation is used to intercept World Area Forecast System Products as well as OPMET data which is broadcast by UK Met Office.

A High Resolution Meso-Scale Regional Numerical Model has been operational since 1999. We run two domains of the Model. One is a 7 KM mesh resolution and the other one is a 2.8 KM mesh resolution. The forecast generated from the Model is up to 120 hours ahead. Beside we also run a Module Output Statistic in parallel to the output generated by the Models. The forecast generated by the Model gives a very useful guidance and early warning on occurrence of weather over Oman and Adjoining Countries as well over the surrounding Seas.

7. AIRCRAFT REPORTS REQUIRED FROM OPERATORS

Pursuant to Annex 3, 5.3.1, the making and transmission of AIREP is required at the following ATS reporting point: LOTAV.

The ATS/MET reporting points in respect of routes crossing the FIR are indicated in ENR 3.

8. APPLICABLE ICAO DOCUMENTS

The SARPS and SUPPS contained in the following documents are applied with the exceptions (Differences) noted hereunder:

Annex 3	Meteorological Service for International Air Navigation
Doc 7030	Regional Supplementary Procedures, Part 3

9. CLIMATOLOGICAL DATA

Climatological tables and summaries are available on request for most of the aeronautical stations.

10. METEOROLOGICAL OBSERVATIONS AND REPORTS

Name of station/ Location Indicator	Type & frequency of observation, autom. equip.	Types of MET reports Suppl. Info. incl.	Observation System & Site(s)	Hours of operation	Climatological INFO AVBL
1	2	3	4	5	6
MUSCAT / Muscat International OOMS	Special obs, Hourly, AUTOMATIC WEATHER STATION	METAR, SPECI Suppl.: NIL	Wind sensors (speed/direction) adjacent to runways 08L/26R, 08R/26L touchdown zones. Visibility and cloud base estimated. Wind speed/direction, air temp, humidity, pressure, visibility, ground temp, sun detector, global radiation inst. 1min av.; 10 min avg, rain gauge.	H24	AVBL
SALALAH / Salalah OOSA	Special obs, Hourly, AUTOMATIC WEATHER STATION	METAR, SPECI Suppl.: NIL	Wind sensors (speed/direction) adjacent to runway 07/25 touchdown zones. Ceilometer. Wind speed/direction, air temp,	H24	AVBL

Name of station/ Location Indicator	Type & frequency of observation, autom. equip.	Types of MET reports Suppl. Info. incl.	Observation System & Site(s)	Hours of operation	Climatological INFO AVBL
1	2	3	4	5	6
			humidity, pressure, visibility, ground temp, sun detector, global radiation inst. 1min av.; 10 min avg, rain gauge.		
KHASAB / Khasab OOKB	Hourly, Semi-automatic	METAR, SPECI Suppl.: NIL	Wind sensors (speed/direction), air temp, pressure, humidity, global radiation, sun detector, rain gauge.	H24	AVBL

11. VOLMET

11.1 VOLMET broadcasts are prefixed by the designator VOLMET and may contain:

a) METARs, SPECI and Trend Type Forecasts (TTF) and

b) advice regarding the availability of SIGMET.

11.2 Individual VOLMET broadcasts will not exceed 15 minutes duration.

11.3 Cloud types excepting cumulonimbus, will not be included in VOLMET broadcasts.

11.4 Reference to the need to amend the current aerodrome forecasts is not included in VOLMET broadcasts of trend type forecasts.

Specific information regarding VOLMET broadcasts is detailed in the following table.

Name of Station	Call Sign	Frequency MHz	Broadcast period	Hours of Service	Aerodrome included	Contents and Remarks
1	2	3	4	5	6	7
MUSCAT	MUSCAT VOLMET	127.400 MHz	H24	H24	Muscat and Salalah International,	METAR

Name of Station	Call Sign	Frequency MHz	Broadcast period	Hours of Service	Aerodrome included	Contents and Remarks
1	2	3	4	5	6	7
					UAE aerodromes, Bahrain, Doha, Kuwait, Riyadh, Dammam, Jeddah	

12. SADIS CHARGES

12.1 All Domestic and International flights Landing and Taking off from Oman Airports will be subject to a minimal SADIS charge of USD 8 only.

12.2 IATA ATC EF Service based in GENEVA will be collecting the SADIS charges in addition to the Air Navigation charges in one bill on behalf of CAA at the following address:

Postal Address: International Air Transport
Association
Route de l´Aeroport 33
P. O. Box 416
1215 Geneva Airport
Switzerland
Telephone: (41) 22 770 2525
Email: info.ch@iata.org

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GEN 3.6 SEARCH AND RESCUE

1. RESPONSIBLE AUTHORITY

The SAR service in the Muscat FIR is organised on behalf of the CAA by RAFO, which has responsibility for making the necessary facilities available.

Postal Address: Search and Rescue Coordination Centre HQ RAFO
P.O. Box 722
POSTAL CODE 111
MUSCAT
Sultanate of Oman
AFS Address: OOMSYCYX
FAX: (968) 24 334776

2. TYPES OF SERVICE

2.1 Details of the RCC and related rescue units are given in paragraph 7. In addition, various elements of ROP Directorate of Police Aviation, ROP Coast guard, RAO, RNO and merchant marine are available for SAR missions when required. The aeronautical, maritime and public telecommunications services are available to the SAR organization.

2.2 With the exception of a limited number of float equipped helicopters, amphibious aircraft are not available. Fixed wing aircraft are capable of carrying equipment for air dropping. This equipment consists of inflatable rubber dinghies, medical supplies, emergency rations and survival radio equipment.

2.3 Aircraft are equipped to communicate on 121.500 MHz, 123.100 MHz, 243.000 MHz and on 2182 KHz for communication with marine craft. UHF/DF is carried by aircraft.

3. SAR AGREEMENTS

Requests for entry of aircraft, equipment and personnel from other States to engage in search for aircraft in distress or to rescue survivors of aircraft accidents, should be transmitted to the RCC. Instructions as to the control which will be exercised on entry of such aircraft and/or personnel will be given by the RCC in accordance with a standing plan for the conduct of SAR in its area.

4. GENERAL CONDITIONS OF AVAILABILITY

Facilities dedicated solely for SAR purposes are not available. All facilities are adapted for SAR by training and equipment. The DRU, LRUs and MRT comprise trained volunteers and are activated as necessary.

5. APPLICABLE ICAO DOCUMENTS

The SARPS and SUPPS contained in the following documents are applied with the exceptions (Differences) noted hereunder:

Annex 12	Search and Rescue
Annex 13	Aircraft Accident Inquiry
Doc 7030	SUPPS, Part 1,7. Alerting and SAR Services applicable in the MID/SEA Region (page RAC 1-15)

6. DIFFERENCES FROM ICAO SARPS AND SUPPS

Differences from ICAO SARPS and SUPPS are given in GEN 1.7.

7. RESCUE COORDINATION CENTRE

7.1 Postal Address: Rescue Coordination Centre

HQ RAFO
P.O. Box 722
POSTAL CODE 111
MUSCAT
Sultanate of Oman
AFS Address: OOMSYCYX
Telephone: (968) 24 334211, 24 334212
Telefax: (968) 24 334776
E-mail: Rafo.aoc@mod.gov.om

7.2 SAR Area: Sultanate of Oman land and territorial water areas and the high seas within Muscat FIR. The contact point for Muscat FIR SAR COSPAS-SARSAT is the Oman Rescue Coordination Centre.

7.3 Responsible agency or department: RAFO

7.4 Name and location of RSC:

- RSC KHASAB

- RSC MASIRAH

- RSC MUSANA

- RSC SALALAH

7.5 Search and Rescue Units

Name	Location	Facilities	Remarks
1	**2**	**3**	**4**
KHASAB	See GEN 3.6-5	HEL-M (SRG)	

Name	Location	Facilities	Remarks
1	2	3	4
MASIRAH	See GEN 3.6-5	HEL-M (SRG) LRU RB	
MUSANA	See GEN 3.6-5	HEL-M (SRG) C 130 (LRG) C 235 (MRG) LRU MRT	
SALALAH	See GEN 3.6-5	HEL-M (SRG) C-235 (MRG)	

8. PROCEDURES AND/OR SIGNALS EMPLOYED BY RESCUE AIRCRAFT

8.1 Procedures

Procedures for pilots-in-command observing an accident or intercepting a distress call and/or message as outlined in Annex 12, Chapter 5.

8.2 Communications

8.2.1 Transmission and reception of distress messages within the Oman SRR are handled in accordance with Annex 10, Chapter 5, 5.3.

8.2.2 For communication during SAR operations, the codes and abbreviations published in PANS-ABC (Doc 8400) are used.

8.2.3 Information concerning positions, call-signs, frequencies and hours of operation of Oman aeronautical stations is published in ENR 2.1 and in the AD 2 section of the respective aerodrome.

8.2.4 The frequency 121.500 MHz is guarded continuously by the ATSU at Muscat International airport and, during hours of service by Salalah ATSU.

8.2.5 When engaged in SAR activities, aircraft will use the prefix "RESCUE", followed by a serial number.

Example: "RESCUE 1", RESCUE 2" etc.

8.3 Search and Rescue Signals

8.3.1 The SAR signals to be used are those prescribed in Annex 12, Chapter 5, 5.10 and are shown below. Symbols shall be at least 2.5 metres (8 feet) long and shall be made as conspicuous as possible.

8.3.2 Symbols may be formed by any means such as strips of fabric, parachute material, pieces of wood, stones or similar material; marking the surface by trampling, or staining with oil, etc.

8.3.3 Attention to the signals may be attracted by other means such as radio, flares, smoke, reflected light, etc.

GROUND-AIR VISUAL SIGNAL CODE FOR USE BY SURVIVORS

No.	Message	Code Symbol
1	Require assistance	V
2	Require medical assistance	X
3	No or negative	N
4	Yes or affirmative	Y
5	Proceeding in this direction	↑

GROUND-AIR VISUAL SIGNAL CODE FOR USE BY RESCUE UNITS

No.	Message	Code Symbol
1	Operation completed	LLL
2	We have found all personnel	LL
3	We have found only some personnel	+ +
4	We are not able to continue. Returning to base.	X X
5	Have divided into two groups.Each proceeding in direction indicated.	
6	Information received that aircraft is inthis directi	→ →
7	Nothing found. Will continue tosearch.	N N

9. AIR TO GROUND SIGNALS

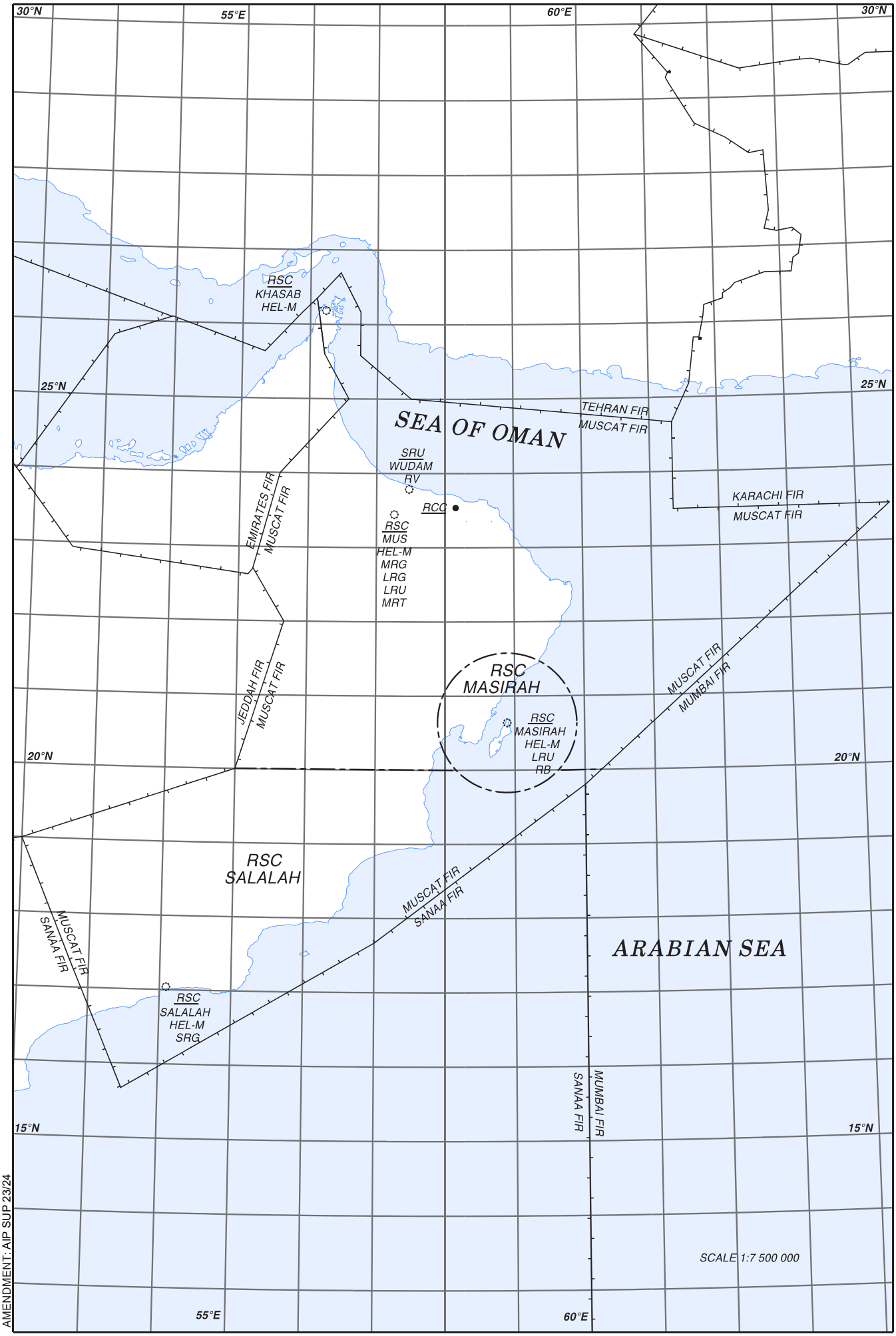
The following signals by aircraft mean that the ground signals have been understood:

a) HJ - rocking the aircraft's wings.

b) HN - flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.

Lack of the above signal indicates that the ground signal is not understood.

SEARCH AND RESCUE FACILITIES AND AREAS OF RESPONSIBILITY



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GEN 4 CHARGES FOR AERODROMES/HELIPORT AND AIR NAVIGATION SERVICES

GEN 4.1 AERODROME/HELIPORT CHARGES

1. GENERAL

The charges set out hereunder are common to all CAA administered aerodromes except where it is stated to the contrary. Charges for services and facilities not mentioned (e.g., for carriage of baggage between aircraft and terminal buildings) may vary from aerodrome to aerodrome and information concerning such charges may be obtained at the aerodromes.

2. LANDING CHARGES

2.1 Basis

Landing charge shall be paid for the use of the runways and/or taxiways of an airport (including the lighting charges) and for the use of radio. The basis for the charge is the Maximum Take-Off Weight (MTOW) in the Certificate of Airworthiness what shall be provided by the airport user.

2.2 Calculation of the charge

In case of occasional, individual flights the mass of the given aircraft type derived from the ICAO Doc 7100 - Manual of Airport and Air Navigation Facility Tariffs, Selective Lift of maximum Licensed Take-Off Weights for Aircraft (Page 1-13 to 1-17) will be used for the calculation. Those airport users operating flights regularly, can submit the data (registration number, aircraft typemodel, take-off weight, noise emission data) of the aircraft they intend to operate at the airport in a format approved by the airport operator. The airport operator shall not be liable for damages arising from a failure to submit data, from the missing of the deadline for data submission, or from the submission of incorrect data; and the airport user cannot claim damages therefore. The list should be submitted to:

Oman Airports Management Company SAOC
Muscat Intl Airport
P.O. Box 1707
POSTAL CODE 111
MUSCAT
Sultanate of Oman

In case when the required data have not been submitted to the airport operator, by an operator having regular flights in Oman, aircraft's mass data derived from ICAO Doc 7100 will be used for calculation. The landing charge is payable for each 1,000 KGs of the aircraft's take-off mass. Each fraction of 1 metric ton (1,000 KGs) shall be counted as a whole metric ton. The landing charge shall also be paid if the aircraft touches down, including touch-and-go actions. Every 1,000 KG commenced shall be regarded as a whole.

Weight of Aircraft in KGs	Rate in OMR
up to 5,000	5.000 (minimum fee)
5,001 - 50,000	1.250
50,000 and above	1.375

Note: The calculation of the landing charges, will be made according to the respective band. For example, if an aircraft's MTOW 78 tons then each ton is multiplied by OMR 1.375.

2.3 Reductions

A rebate of 50% of the landing charge may be granted in respect of flights as follows:

a) Scheduled domestic operations, where commencement, intermediate and terminal points of the flight are within the Sultanate territory, provided application has been made in advance;

b) touch-and-go flights;

c) bona fide training or test flights, subject to prior notification to and approved by CAA;

d) aircraft compelled to return due to technical reasons or weather condition.

2.4 Exemptions:

The following aircraft shall be exempted from landing charge:

a) Royal, diplomatic or state aircraft on a reciprocal basis;

b) United Nations and Arab League aircraft;

c) Military aircraft of the United Arab Emirates, Bahrain, Qatar, Kuwait, Saudi Arabia and the United Kingdom on a reciprocal basis;

d) Aircraft engaged in Search and Rescue operations when providing a free service;

e) Test flights for calibration of airport instruments approved by the airport authority.

3. PARKING, HANGARAGE AND LONG-TERM STORAGE OF AIRCRAFT

3.1 Basis of calculation

All users of the airport shall be obliged to pay a parking charge based on the category of aircraft.

3.2 Aircraft Parking Rates

3.2.1 Remote stands:

First two (2) hours of parking is free of charge. Every additional four (4) hours thereafter:

Category of Aircraft	Rate in OMR
Category A, B,C	13.540
Category D, E,F	43.780

Irrespective of whether aircraft parking takes place in several remote stands (in this case the time spent on different parking positions is cumulative), parking for a period not exceeding two (2) hours shall be free of charge. For every four (4) hours thereafter the parking rate above will be charged.

In the case of parking for more than two (2) hours, the operator of the flight shall not be entitled to receive any discounts, therefore parking charges must be paid in full. In such cases, the basis for calculating the parking charge shall be the time of the aircraft’s occupying the stand.

3.2.2 Contact stands:

Contact stands are equipped with an aerobridge and this charge is payable when such stand is occupied regardless of using aerobridge or not. This charge includes the usage of 400 Hz power and air conditioning.

Aircraft weight in KGs	First 90 minutes (in OMR)	Every additional 30 minutes (in OMR)
Up to 100,000	40	25
Over 100,000	60	40

Aircraft parked both on a contact stand and on a remote position within a turnaround shall pay the relevant charge pursuant to this section 3.

3.3 Use of Visual Docking Guidance System (VDGS)

Regardless if the aircraft parked on remote or contact stand, OMR 6 is payable on departure for the use of VDGS.

3.4 Hangar Rates

None specified.

3.5 Long Term Parking

Aircraft operators intend to use the aerodrome as a base and park their aircraft frequently longer than 24 hours shall agree with the airport operator in a separate agreement. Otherwise the airport operator has the right to refuse to provide parking position. Technical AOG flights are exempt as long as the maintenance or the repair is not completed.

3.6 Reductions, applicable for using Remote stand (under point 3.2.1)

A rebate of 50% of the parking charge may be granted in respect of flights as follows:

a) Scheduled domestic operations, where commencement, intermediate and terminal points of the flight are within the Sultanate territory, provided application has been made in advance;

b) Bona fide training or test flights, subject to prior notification to and approved by CAA;

c) Aircraft compelled to return due to technical reasons or weather condition;

d) Test flights for calibration of airport instruments approved by the airport authority.

4. PASSENGER SERVICE CHARGE

4.1 Passenger service charge is payable by the airport users for every departing and departing transfer passenger:

4.2 Passenger Service Charge

Per Departing Passenger	Rate in OMR
International	10
Domestic	2
Transfer	5

Note: A transfer passenger is a passenger who changes flights at the airport within 24 hours from arrival, i.e. who arrives at the airport by a different flight to the one he leaves on.

Domestic transfer passenger is a transfer passenger who either arrive on a domestic or on an international flight and continue his/her journey on a domestic flight with the Sultanate territory.

4.3 Exemptions

a) Children under the age of 2;

b) Transit passengers;

c) Crew on duty.

Note: A transit passenger is a passenger who continues his/her journey by the aircraft of the same flight number as the one he/she has arrived on and do not leave the transit area of the airport.

5. INFRASTRUCTURE CHARGE

5.1 This charge is collected for the equipment and service provided to support passenger processing at any common touchpoint at the terminal building (check in desks, boarding gates, etc.) and for the use of baggage handling system.
5.2 It is payable by the airport users for every departing and departing transfer passenger:

Infrastructure Charge is OMR 2.2 / Embarking Passenger.

5.3 Exemptions

a) Children under the age of 2;

b) Transit passengers;

c) General Aviation Passengers.

Note: A General Aviation passenger is a passenger who arrives or departs to/from the airport on private or business jet/aircraft and do not hold any flight ticket.

6. CHARGES FOR INSPECTION SERVICES

None specified.

7. METHODS OF PAYMENT

7.1 Unless an alternative arrangement has been made, all charges for the use of the are payable by the pilot of the aircraft at the time of using the aerodrome or by pre-payment prior take-off. In addition to the currency specified, payment will be accepted in Pounds Sterling or American Dollars cash. Travelers cheques may be exchanged at the bank on arrivals.
7.2 In the case of approved regular users who have been granted credit facilities, on demand at the end of each calendar month in respect of charges accruing, during that month.
7.3 Until the settlement of the due charges, the aerodrome operator is entitled to prevent take-off, with regard to the safety of the flight.
7.4 In case of claims against the legal basis of the charges, payment and recovery, the Laws of Oman is to be applied.

GEN 4.2 AIR NAVIGATION SERVICES CHARGES

1. AIR NAVIGATION FACILITY CHARGES

1.1 Route Air Navigation Charges – Method of Calculation

(Aircraft weight factor) x (Great circle distance flown / 100) x (Unit rate of charge)

1.1.1 Aircraft weight factor

Aircraft weight factor is based on the group categories listed below:

Group A: Aircraft weight factor = 0.69

All helicopter types, ASTR, AT42, AT43, AT45, AT72, B350, BE10, BE20, BE40, C510, C525, C550, C56X, C650, C680, C750, CL30, CL60, CRJ2, DH8(X) (all series), E110, E120, E135, E145, E55P, F2TH, F900, FA20, FA50, GALX, H25(X) (all series), HA4T, J328, LJ55, LJ60, PAY1, SB20, SF34.

Group B: Aircraft weight factor = 0.89

AN74, B46(X) (all series), CRJ7, E170, E175, E190, FA7X, GL5T, GLEX, GLF(X) (all series), T134.

Group C: Aircraft weight factor = 1.15

A318, A319, A320, AN12, B73(X) (all series), IL18, MD8(X) (all series), MD90.

Group D: Aircraft weight factor = 1.22

A321, B72(X) (all series).

Group E: Aircraft weight factor = 1.44

A310, B75(X) (all series).

Group F: Aircraft weight factor = 1.54

A30(X) (all series), B76(X) (all series), DC8(X) (all series), IL76.

Group G: Aircraft weight factor = 1.71

A33(X) (all series), B78(X) (all series), L101.

Group H: Aircraft weight factor = 1.80

A340, A342, A343, A35(X) (all series), DC10, MD11.

Group I: Aircraft weight factor = 1.95

B741, B74R, B74S, B77(X) (all series).

Group J: Aircraft weight factor = 2.04

A345, A346, B742, B743, B744, B747.

Group K: Aircraft weight factor = 2.14

A124, B748.

Group L: Aircraft weight factor = 2.33

A225, A38(X) (all series).

Note: For aircraft types that are not included in groups A to L, the aircraft maximum take-off weight (MTOW) shall be applied as follows:

MTOW (kg)	Aircraft weight factor
0 to 25 000	0.69
25 001 to 50 000	0.89
50 001 to 75 000	1.15
75 001 to 100 000	1.22
100 001 to 150 000	1.44
150 001 to 200 000	1.54
200 001 to 250 000	1.71
250 001 to 300 000	1.80
300 001 to 350 000	1.95
350 001 to 400 000	2.04
400 001 to 450 000	2.14
450 001 or more	2.33

1.1.2 Great circle distance flown

a) In respect of an aircraft transiting the Muscat Flight Information Region (FIR), the great circle distance flown is the shortest distance in kilometres between the entry and exit points of the Muscat FIR.

b) In respect of an aircraft entering the Muscat FIR and landing at an airport within the Muscat FIR, the great circle distance flown is the shortest distance in kilometres between the FIR entry point and the aerodrome.

c) In respect of an aircraft departing an aerodrome within the Muscat FIR and exiting the Muscat

FIR, the great circle distance flown is the shortest distance in kilometres between the aerodrome and the FIR exit point.

d) In respect of an aircraft both departing from and arriving at an aerodrome within the Muscat FIR, the great circle distance flown is the shortest distance in kilometres between the aerodromes.

Note: The calculation of the (great circle distance flown/100) shall be carried to 2 decimal places.

1.1.3 Unit rate of charge

The unit rate of charge is 31.34 US Dollars ($).

1.1.4 Reductions

A reduction of 50% of the route air navigation charge will be granted in respect of international flights either departing from or arriving at an aerodrome within the Muscat FIR.

Domestic flights that are both departing from and arriving at an aerodrome within the Muscat FIR shall only be granted a single 50% reduction.

1.1.5 Route A 791 Flat Rate Charge

For aircraft utilizing route A 791 in either direction between LALDO and IMLOT there is a flat rate charge of 325.00 US Dollars ($).

1.1.6 Minimum charge

In all cases the minimum route air navigation charge of 100.00 US Dollars ($) shall apply.

1.2 Meteorology Charge

A meteorology charge of 13.00 US Dollars ($) will be applied to arriving, departing and overflying flights.

1.3 Charges billing and collection

Under the authority of the Minister of Transport and Communications air navigation services charges of the Sultanate of Oman will be billed and collected by the International Air Transport Association (IATA) on behalf of the Civil Aviation Authority (CAA) of the Ministry of Transport and Communications at the following address:

Postal Address: International Air Transport
Association
Route de l'Aeroport 33
P.O. Box 672
1215 Geneva 15 - Airport
Switzerland
AFS Address: LSGGIHIH
Telex Number: 415 586
FAX: +41 (22) 799 2678

SITA Text: GVALDXH

1.4 Exemptions

The following aircraft will be exempt from air navigation services charges:

a) Flights operated according to VFR.

b) State aircraft, on a reciprocal basis.

c) Military aircraft operated by the Arab Gulf Cooperation Council States.

d) United Nations or Arab League aircraft.

e) Aircraft engaged on SAR operations, when providing a free service.

PART 2 — EN-ROUTE (ENR)

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ENR 0.1 PREFACE

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ENR 0.3 RECORD OF AIP SUPPLEMENTS

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ENR 0.5 LIST OF HAND AMENDMENTS TO THE AIP

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ENR 1 GENERAL RULES AND PROCEDURES

ENR 1.1 GENERAL RULES

1. GENERAL

The rules and procedures applicable to air traffic in Oman generally conform with Annexes 2 and 11 to the Convention on International Civil Aviation (Chicago Convention) and those portions, applicable to aircraft, of the Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM, Doc 4444) and the Regional Supplementary Procedures (Doc 7030) in force for the MID part of the MID/ASIA Region.

2. AIR TRAFFIC CONTROL CLEARANCE

An air traffic clearance constitutes authorisation for an aircraft to proceed under conditions specified by an air traffic control unit to a clearance limit under specified conditions. Further clearance is required upon reaching the limit in the clearance.

Clearances are issued solely for expediting and separating air traffic and are based on known traffic conditions which affect safety in aircraft operation. Such traffic conditions include not only aircraft in the air and on the manoeuvring area over which control is being exercised, but also any vehicular traffic or other obstructions not permanently installed on the manoeuvring area in use.

If an air traffic control clearance is not suitable to the pilot-in-command of an aircraft, the flight crew may request and, if practicable, obtain an amended clearance.

ATC clearances do not constitute authority to violate any applicable regulations for promoting the safety of flight operations or for any other purpose; neither do clearances relieve a pilot-in-command of any responsibility whatsoever in connection with a possible violation of applicable rules and regulations.

3. ADHERENCE TO CLEARANCE FOR IMMEDIATE TAKE-OFF

All operators are reminded that when ATC clears an aircraft for IMMEDIATE TAKE-OFF, the aircraft is to enter the runway and commence its take-off roll without stopping. If unable to comply with this instruction, ATC shall be notified before the aircraft enters the runway.

4. AIR TRAFFIC CONTROL INSTRUCTIONS

Air traffic control instructions are directives issued by air traffic control for the purpose of requiring a pilot to take a specific action. A pilot is required to comply with an ATC instruction or shall inform ATC if unable.

5. READBACK OF ATC CLEARANCE AND INSTRUCTIONS

5.1 The flight crew shall read back to the air traffic controller safety-related parts of ATC

clearances and instructions which are transmitted by voice. The following items shall always be read back:

a) ATC route clearances;

b) clearances and instructions to enter, land on, take off from, hold short of, cross, taxi and backtrack on any runway; and

c) runway-in-use, altimeter settings, SSR codes, level instructions, heading and speed instructions and, whether issued by the controller or contained in Automatic Terminal Information Service (ATIS) broadcasts, transition levels.

5.2 Other clearances or instructions, including conditional clearances, shall be read back or acknowledged in a manner to clearly indicate that they have been understood and will be complied with.

6. CLEARANCE TO FLY MAINTAINING OWN SEPARATION

In Class A and C Airspace clearance to fly maintaining own separation in VMC will NOT be granted.

In Class D airspace, when so requested by an aircraft and provided it is agreed by the pilot of the other aircraft, an ATC unit may clear a controlled flight, including departing and arriving flights, operating in visual meteorological conditions during the hours of daylight to fly subject to maintaining own separation to one other aircraft and remaining in visual meteorological conditions provided the clearance shall be for a specified portion of the flight

i) at or below 10000 FT AMSL, during climb or descent; and

ii) the separation is achieved before entering Class A or C Airspace.

The pilot of an IFR flight, on observing that conditions are deteriorating and considering that operation in VMC will become impossible, shall inform ATC before entering instrument meteorological conditions (IMC) and shall proceed in accordance with the alternative instructions given.

Over the high seas flights may encounter State aircraft operating with due regard. Such traffic is not subject to an ATC Clearance and traffic information will be passed to other operating traffic if available.

7. HORIZONTAL SPEED CONTROL INSTRUCTIONS

In order to facilitate a safe and orderly flow of traffic, aircraft may, subject to conditions specified by the appropriate authority, be instructed to adjust speed in a specified manner.

Speed control instructions shall remain in effect unless explicitly cancelled or amended by the controller. The pilot shall inform the ATC unit concerned if at any time they are unable to comply with a speed instruction. Pilots shall adhere to the speed limits associated with airspace classifications and the speed restrictions notified in procedures published in AD 2. Pilots shall also

adhere to the speed (IAS or Mach Number) approved or assigned by ATC and shall request ATC approval before making any changes thereto. If it is essential to make an immediate temporary change in speed (e.g. due to turbulence), ATC shall be notified as soon as possible that such a change has been made.

Pilots of aircraft unable to maintain the last assigned speed during any particular phase of flight (e.g. for aircraft performance reasons) shall inform ATC as soon as possible in order that another speed/alternative clearance can be issued.

At levels at or above FL280, speed adjustments for aircraft in the cruise will be expressed in multiples of 0.01 Mach. At levels below FL280, speed adjustments will be expressed in multiples of 10 KT based on indicated airspeed (IAS).

For aircraft at or above FL280 that have been cleared to descend to levels below FL280, speed adjustments may be based on IAS.

8. VERTICAL SPEED CONTROL INSTRUCTIONS

In order to facilitate a safe and orderly flow of traffic, aircraft may be instructed to adjust rate of climb or rate of descent. Vertical speed control may be applied between two climbing aircraft or two descending aircraft in order to establish or maintain a specific vertical separation minimum.

The flight crew shall inform the ATC unit concerned if unable, at any time, to comply with a specified rate of climb or descent.

9. POSITION REPORTING

Pilots are to make a position report in the following circumstances:

a) after transfer of communication;

b) on reaching the limit of ATS clearance;

c) when instructed by Air Traffic Control;

The position reports shall contain the following elements of information:

a) aircraft identification;

b) position (and time if required by ATC);

c) flight level or altitude, including passing level and cleared level if not maintaining the cleared level;

d) When assigned a speed to maintain, the flight crew shall include this speed in their position reports. The assigned speed shall also be included in the initial call after a change of air-ground voice communication channel, whether or not a full position report is required.

10. AERODROME FLIGHT INFORMATION SERVICE (AFIS)

Aerodrome Flight Information Service (AFIS) is the term used to describe the provision of information useful for the safe efficient conduct of aerodrome traffic at those aerodromes where the provision of aerodrome control service is not justified. Accordingly, AFIS units have been established at certain aerodromes to provide flight information service and alerting service to aerodrome traffic.

Note: An AFIS unit does not provide an Aerodrome Control Service

It is therefore the responsibility of pilots using the service provided by this unit to maintain proper separation in conformity with the rules of the air. When operating in the vicinity of an aerodrome where AFIS is provided, pilots must, on the basis of the information received from the AFIS unit, combined with their own knowledge and observations, decide on the course of action to be taken to ensure separation from other aircraft, ground vehicles and obstacles.

Aircraft operating within an Aerodrome that provides AFIS are required to maintain two-way radio communications with the AFIS unit on the prescribed frequency.

The AFIS unit will provide information enabling the pilot to select the most suitable runway for use. Such information should include, in addition to the current surface wind direction and speed, the 'preferred runway' and traffic pattern and, on request by the pilot, the length of the runway and/or the distance between an intersection and the end of the runway;

Note: The term 'preferred runway' is used to indicate the most suitable runway at a particular time, taking into account the current surface wind direction and speed and other relevant factors such as the traffic pattern and the runway used by other aircraft, with the intention of establishing and maintaining an orderly flow of aerodrome traffic.

AFIS units will provide the following basic information to aircraft:

a) Meteorological information for aircraft about to take off or land, including SIGMET/AIRMET information;

b) Current surface wind direction and speed, including significant variations, indicating the "preferred runway";

c) The current QNH altimeter setting;

d) The air temperature, when requested, in the case of take off by turbine engine aircraft;

e) The current visibility in the direction of take-off and initial climb, or in the approach and landing area if less than 10 KM, or the RVR (if available);

f) Significant meteorological conditions in the take off and climb out area, or in the approach and landing area;

g) The present weather and the amount and the height of the base of low cloud, in the case of aircraft making an approach in IMC;

h) Information on other known aircraft, vehicles or personnel on or near the manoeuvring area that may constitute a hazard;

i) Information on aerodrome conditions, status of navigation aids, messages, including clearances received from ATS units for relay to aircraft; and

j) Any other information contributing to safety.

AFIS units do not provide clearances to land or take-off however pilots shall confirm with AFISO that runway is clear for Landing & Take-off before commencing the take-off roll or landing.

AFIS units control ground movement by means of AFIS instructions. Pilots shall readback such safety related parts of such instructions and comply with the instructions unless advising the AFIS unit that they are unable.

Entering and Backtracking a runway is done at pilot's discretion, however the pilot should confirm with the AFIS unit if there is any traffic that may affect. Pilots should hold short of all runways until confirming that there is not traffic to affect them entering the runway.

11. FLIGHT INFORMATION SERVICE

Enroute aircraft when flying in Class G airspace and in radio contact with an air traffic services unit will receive flight information (FIS) on other aircraft known to be in their vicinity. When within radar Coverage from Muscat Control or Muscat a radar derived advisory service may be provided to IFR and VFR flights operation outside CAS.

12. TESTING OF EMERGENCY LOCATOR TRANSMITTER (ELT)

12.1 General

The following standard procedures shall be used for testing of Emergency Locator TRANSMITTER (ELT) within the MUSCAT FIR. To preclude unnecessary activation of relevant ATS/SAR services, all aircraft operators are requested to comply.

12.2 ELT Testing

Caution should be exercised to prevent inadvertent actuation of locator beacons in the air or on the ground. Operational testing of beacons should be carried out only in shielded areas under controlled conditions. False signals on the distress frequencies can interfere with the distress transmission as well as decrease the degree of urgency attached to such signals. Aircraft operational testing is authorized as follows:

a) Test should be no longer than 3 audio sweeps;

b) If the antenna is removable, a dummy load should be substituted during test procedures;

b) Tests should be conducted only within the first five minutes of each hour. Emergency tests outside of this time shall be coordinated with the nearest ATC unit. Airborne ELT tests are not authorized.

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ENR 1.2 VISUAL FLIGHT RULES

1. AIRCRAFT EQUIPMENT

VFR flights are required to carry a functioning mode C SSR transponder when operating in class C or class D airspace.

2. MAXIMUM LEVEL FOR VFR

2.1 VFR Flights not permitted above FL150.

2.2 The highest altitude at which a VFR flight may operate within MUSCAT FIR is 12500 FT (see ENR 1.7)

2.3 State Aircraft intending to operate VFR over the high seas above FL150 in the Muscat FIR are not issued with a clearance for this activity and operate with “Due regard” to other traffic.

3. VFR FLIGHTS AT AERODROMES WITH AIR TRAFFIC SERVICES

3.1 VFR flight to be operated within a CTR or ATZ established at an aerodrome where Air Traffic Services (Aerodrome Control or Aerodrome Flight Information Services) are in operation and in specified portions of a TMA and CTA established around an International Airport are required to:

a) have two-way radio communications;

b) obtain permission from the appropriate ATC unit;

c) report position as required.

4. SPECIAL VFR (SVFR)

4.1 When traffic conditions permit, special VFR flights may be authorized subject to the approval of the unit providing approach control service and the provisions of 4.4.

4.2 Requests for such authorization shall be handled individually.

4.3 Separation shall be effected between all IFR flights and special VFR flights in accordance with the separation minima specified in “PANS-ATM (ICAO DOC 4444) Chapter (5) and (6).

4.4 When the ground visibility is not less than 1500 M, special VFR flights may be authorized to: enter a control zone for the purpose of landing, take off and depart from a control zone, cross a control zone or operate locally within a control zone.

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ENR 1.3 INSTRUMENT FLIGHT RULES

1. RULES APPLICABLE TO ALL IFR FLIGHTS

1.1 Aircraft Equipment

Aircraft shall be equipped with suitable instruments and with navigation equipment appropriate to the route to be flown.

1.2 Minimum Levels

Except when necessary for take-off or landing or when specifically, authorised by the appropriate authority, an IFR flight shall be flown at a level which is not below the minimum flight altitude established by the State whose territory is overflown, or, where no such minimum flight altitude has been established:

a) over high terrain or in mountainous areas, at a level which is at least 2000 FT above the highest obstacle located within 8 KM of the estimated position of the aircraft;

b) elsewhere than as specified in(a), at a level which is at least 1000 FT above the highest obstacle located within 8 KM of the estimated position of the aircraft.

Note: The estimated position of the aircraft will take account of the navigational accuracy which can be achieved on the relevant route segment, having regard to the navigational facilities available on the ground and in the aircraft.

1.3 Climb and Descent

1.3.1 Minimum Rates

Pilots climbing or descending in accordance with an ATC clearance shall inform the controller whenever it is anticipated that the vertical speed during the level change will be less than 500 FT per minute or if the actual speed in the climb or descent is less than 500 FT per minute.

1.3.2 Leaving (Vacating) a Level

When instructed to report leaving a level, pilots shall only advise ATC that they left the assigned level once the aircraft’s altimeter indicates that the aircraft has actually left the assigned level and is maintaining a positive rate of climb or descent.

1.4 Change from IFR flight to VFR flight

1.4.1 An aircraft electing to change the conduct of its flight from compliance with the instrument flight rules to compliance with the visual flight rules shall notify the appropriate air traffic services unit specifically that the IFR flight is cancelled and communicate thereto the changes to be made to its current flight plan.

1.4.2 When an aircraft operating under the instrument flight rules is flown in or encounters visual meteorological conditions, it shall not cancel its IFR flight unless it is anticipated, and intended,

that the flight will be continued for a reasonable period of time in uninterrupted visual meteorological conditions.

2. RULES APPLICABLE TO IFR FLIGHTS WITHIN CONTROLLED AIRSPACE

2.1 IFR flights shall comply with the provisions of 3.6 of ICAO Annex 2 to the Convention on International Civil Aviation when operated in controlled airspace.

2.2 Except whenever otherwise indicated in air traffic control clearances or specified in the Aeronautical Information Publication (AIP), an IFR flight operating in cruising flight in controlled airspace shall be flown at a cruising level, or, if authorized to employ cruise climb techniques, between two levels or above a level, selected from:

a) the table of cruising levels in Appendix 3 of ICAO Annex 2; or

b) a modified table of cruising levels, when so prescribed in accordance with Appendix 3 of ICAO Annex 2 for flight above FL410.

2.3 All IFR flights are required to carry a functioning Mode C SSR transponder when operating in class A, C or class D airspace.

2.4 Non-functioning SSR transponder equipment must be reported to ATC immediately. ATC radar procedures are based on the carriage of this equipment and may require certain restrictions in the case of non-functioning equipment.

2.5 An aircraft, intending to depart from an aerodrome or landing site without an ATS unit which will subsequently require an IFR clearance but has been unable to obtain the clearance shall remain outside of controlled airspace until receiving such clearance, except where remaining outside of controlled airspace would require the aircraft to remain below the minimum level described in 1.2, in such cases the aircraft may climb to the minimum level applicable for the safe conduct of the flight.

2.6 Flights operating at FL280 or above

Flights operating at FL280 or above within Muscat UTA and in controlled airspace and airways outside the UTA within the Muscat FIR shall be operated in accordance with RNAV1/RNAV5 navigation requirements.

2.7 SID and STAR

The flight crew shall comply with published SID and STAR speed restrictions unless the restrictions are explicitly cancelled or amended by the controller.

2.8 Instrument Approach

The approach control unit shall specify the instrument approach procedure to be used by arriving aircraft. A pilot may request an alternative procedure and, if circumstances permit, should be cleared accordingly.

2.9 Visual Approach

2.9.1 An IFR flight may be cleared to execute a visual approach provided the pilot can maintain visual reference to the terrain and:

a) the reported ceiling is at or above the level of the beginning of the initial approach segment for the aircraft so cleared; or

b) the pilot reports at the level of the beginning of the initial approach segment or at any time during the instrument approach procedure that the meteorological conditions are such that with reasonable assurance a visual approach and landing can be completed.

2.9.2 Visual approaches by night will not be authorized unless the pilots' reports show that they have and can maintain the aerodrome in sight.

2.9.3 Pilots are responsible for their own terrain clearance when executing a visual approach and should ensure that the flight remains within controlled airspace while manoeuvring for the visual approach.

Note: ATC may limit the descent of any flight that meets the requirements for a visual approach by using the phrase:

• MAINTAIN (level) [TO (significant point)];

• MAINTAIN (level) UNTIL PASSING (significant point);

• CROSS (significant point) AT (or ABOVE, or BELOW) (level);

• NOT BELOW (feet) Until established [Position].

2.9.4 ATC will provide separation between an aircraft cleared for a visual approach and all other aircraft unless reduced separation minima in the vicinity of aerodromes is being applied according to DOC 4444 Chapter 6, 6.1 applies.

3. RULES APPLICABLE TO IFR FLIGHTS OUTSIDE CONTROLLED AIRSPACE

3.1 Cruising Levels

An IFR flight operating in level cruising flight outside of controlled airspace shall be flown at a cruising level appropriate to its track as specified in:

a) the table of cruising levels in Appendix 3 of ICAO Annex 2, except when otherwise specified by the ATS Unit for flight at or below 3000 FT above mean sea level; or

b) a modified table of cruising levels, when so prescribed in accordance with Appendix 3 of ICAO Annex 2 for flight above FL410.

3.2 Communications

An IFR flight operating outside controlled airspace but within or into areas, or along routes, designated in the AIP, shall maintain a listening watch on the appropriate radio frequency and

establish two-way communication, as necessary, with the air traffic services unit providing flight information service.

3.3 Position Reports

An IFR flight operating outside controlled airspace shall report position as specified in 3.6.3 of ICAO Annex 2 for controlled flights and is required to:

a) submit a flight plan, and

b) maintain a listening watch on the appropriate radio frequency and establish two-way communication, as necessary, with the air traffic services unit providing flight information service.

ENR 1.4 ATS AIRSPACE CLASSIFICATION AND DESCRIPTION

1. GENERAL

ATS airspaces are classified and designated in accordance with the following:

1.1 Class A

IFR flights are only permitted, all flights are subject to air traffic control service and are separated from each other.

1.2 Class B (not used in the Muscat FIR)

IFR and VFR flights are permitted, all flights are subject to air traffic control service and are separated from each other.

1.3 Class C

IFR and VFR flights are permitted, all flights are subject to air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights.

1.4 Class D

IFR and VFR flights are permitted and all flights are subject to air traffic control service, IFR flights are separated from other IFR flights and receive traffic information in respect of VFR flights, VFR flights receive traffic information in respect of all other flights.

1.5 Class E (not used in the Muscat FIR)

IFR and VFR flights are permitted, IFR flights are subject to air traffic control service and are separated from other IFR flights. All flights receive traffic information as far as practicable.

1.6 Class F (not used in the Muscat FIR)

IFR and VFR flights are permitted, all participating IFR flights receive an air traffic advisory service and all flights receive flight information service if requested.

1.7 Class G

IFR and VFR flights are permitted and receive flight information service if requested.

2. REQUIREMENTS FOR FLIGHTS

The requirements for flights within each class of airspace are as shown in the table on pages ENR 1.4-2 and ENR 1.4-3.

Class	Type of Flight	Separation Provided	Service Provided	VMC Visibility and Distance from Cloud Minima	Speed Limitation	Radio Communication Requirement	ATC Clearance
A	IFR only	All aircraft	Air traffic control service	Not applicable	Not applicable	Continuous two-way	Yes
B(3)	IFR	All aircraft	Air traffic control service	Not applicable	Not applicable	Continuous two-way	Yes
	VFR	All aircraft	Air traffic control service	8 KM at and above 3050 M (10000 FT) AMSL 5 KM below 3050 M (10000 FT) AMSL Clear of clouds	Not applicable	Continuous two-way	Yes
C	IFR	IFR from IFR IFR from VFR	Air traffic control service	Not applicable	250 KT IAS below 3050 M (10000 FT) AMSL, unless advised by ATC.	Continuous two-way	Yes
	VFR	VFR from IFR	1) Air traffic control service for separation from IFR; 2) VFR/VFR traffic information (and traffic avoidance advice on request)	8 KM at and above 3050 M (10000 FT) AMSL 5 KM below 3050 M (10000 FT) AMSL 1500 M horizontal; 300 M vertical distance from cloud	250 KT IAS below 3050 M (10000 FT) AMSL	Continuous two-way	Yes
D	IFR	IFR from IFR	Air traffic control service including traffic information about VFR flights (and traffic avoidance advice on request)	Not applicable	250 KT IAS below 3050 M (10000 FT) AMSL	Continuous two-way	Yes
	VFR	Nil	Traffic	8 KM at and	250 KT IAS	Continuous	Yes

Class	Type of Flight	Separation Provided	Service Provided	VMC Visibility and Distance from Cloud Minima	Speed Limitation	Radio Communication Requirement	ATC Clearance
			information between VFR and IFR flights (and traffic avoidance advice on request)	above 3050 M (10000 FT) AMSL 5 KM below 3050 M (10000 FT) AMSL 1500 M horizontal; 300 M vertical \ distance from cloud	below 3050 M (10000 FT) AMSL	two-way	
E(3)	IFR	IFR from IFR	Air traffic control service and traffic information about VFR flights as far as practical	Not applicable	250 KT IAS below 3050 M (10000 FT) AMSL	Continuous two-way	Yes
	VFR	Nil	Traffic information as far as practical	8 KM at and above 3050 M (10000 FT) AMSL 5 KM below 3050 M (10000 FT) AMSL 1500 M horizontal; 300 M vertical distance from cloud	250 KT IAS below 3050 M (10000 FT) AMSL	No	No
F(3)	IFR	IFR from IFR as far as practical	Air traffic advisory service; flight information service, radar advisory service.	Not applicable	250 KT IAS below 3050 M (10000 FT) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service, radar advisory service.	8 KM at and above 3050 M (10000 FT) AMSL 5 KM below 3050 M	250 KT IAS below 3050 M (10000 FT) AMSL	No	No

Class	Type of Flight	Separation Provided	Service Provided	VMC Visibility and Distance from Cloud Minima	Speed Limitation	Radio Communication Requirement	ATC Clearance
				(10000 FT) AMSL 1500 M horizontal; 300 M vertical distance from cloud. At and below 900 M AMSL or 300 M above terrain whichever is higher - 5 KM, clear of cloud and in sight of ground or water			
G	IFR	Nil	Flight information service	Not applicable	250 KT IAS below 3050 M (10000 FT) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service	8 KM at and above 3050 M (10000 FT) AMSL 5 KM below 3050 M (10000 FT) AMSL 1500 M horizontal; 300 M vertical distance from cloud. At and below 900 M AMSL or 300 M above terrain whichever is higher - 5 KM (1), clear of cloud and in sight of ground or water	250 KT IAS below 3050 M (10000 FT) AMSL(2)	No (Except continuous two-way required when operating in Class G at an aerodrome with ATS)	No

(1) When so prescribed by the appropriate ATS authority:

(a) Lower flight visibilities to 1500 M may be permitted for flights operating:

1) at speeds that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision; or

2) in circumstances in which the probability of encounters with other traffic would normally be low, e.g., in areas of low traffic volume and for aerial work at low levels;

b) Helicopters may be permitted to operate in less than 1500 M flight visibility, if maneuvered at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.

(2) Military operations are exempted from prescribed IAS restrictions below 10000 FT, provided that all the time a flight visibility of at least 8 KM is maintained.

(3) Classes of airspace B, E and F are not used in the Muscat FIR.

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ENR 1.5 HOLDING, APPROACH AND DEPARTURE PROCEDURES

1. GENERAL

1.1 The holding, approach and departure procedures in use are based on those contained in the latest edition of ICAO Doc 8168 — Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS).

1.2 The holding and approach procedures in use have been based on the values and factors contained in Parts III and IV of Vol. I of the PANS-OPS. The holding patterns shall be entered and flown as indicated on the relevant chart.

1.3 Minimum Holding Altitudes (MHA), maximum holding levels and holding speed restrictions are indicated on the relevant chart. Aircraft wishing to hold at higher levels or speeds require clearance to do so from the relevant ATC unit.

2. ARRIVING FLIGHTS

2.1 IFR flights entering a TMA or CTR for landing will be cleared to a specified holding point at a specified level by the ACC. This clearance will be adhered to until further instructions are received. At the specified time, position or level, control of flights shall be transferred to the relevant APP unit that will issue further instructions. If the clearance limit is reached before further instructions have been received, the published holding procedure will be carried out, at the last assigned level, until clearance to commence an approach is issued. Normally, an EAT will be given with the initial clearance if holding is anticipated. If no holding procedure is published, the standard en route holding procedure will be flown, inbound on the published airway centerline, right turns, timing and level as appropriate.

2.2 Due to the limited airspace available, it is essential that approaches to and flying of holding patterns are conducted as precisely as possible, according to published procedures. If, for any reason, pilots are unable to comply with this requirement, they will notify ATC immediately and request an alternative clearance, to ensure that airspace protected by the holding area is not infringed.

2.3 Instrument approach procedures for MUSCAT / Muscat International Airport and for Salalah are depicted in section AD 2.OOMS and AD 2.OOSA respectively.

3. DEPARTING FLIGHTS

3.1 IFR flights departing from controlled aerodromes will receive initial ATC clearance from the local aerodrome control tower together with any additional instructions necessary due to local traffic conditions and/or procedures in force. The clearance limit will normally be the aerodrome of destination. For flights leaving CAS, this will not be taken to imply the provision of a control service beyond the relevant CAS boundary; neither does it relieve the aircraft commander of the responsibility for obtaining the necessary clearance prior to reentering that or any other CAS.

3.2 IFR flights departing uncontrolled ADs will either:

3.2.1 Obtain ATC Clearance from Muscat Control via the ATSU at the departure AD when one is established; or

3.2.2 Obtain traffic information from FIC or Muscat Control prior to entering CAS and if the flight is planned to enter CAS, obtain the necessary clearance, prior to entry from the ACC or;

3.2.3 If Clearance has not been received from Muscat Control shall:

a) remain outside CAS until clearance is obtained;

b) comply with VFR; or

c) where VFR cannot be maintained, comply with IFR and climb to the lowest usable IFR cruising level applicable for the area or route;

d) operate the pressure-altitude reporting SSR transponder on code 2000;

e) Continue to attempt to contact Muscat Control for further clearance.

ENR 1.6 ATS SURVEILLANCE SERVICES AND PROCEDURES

1. GENERAL

1.1 Radar units are operated as an integral part of the parent ATS unit and provide radar service to aircraft to the maximum practicable extent, to meet the operational requirements. Factors, such as radar coverage, controller workload and equipment capabilities, affect these services, and the radar controller will determine whether he can provide, or continue to provide, radar services in any specific case.

1.2 Pilots will be advised on commencement and termination of radar services.

2. RADAR COVERAGE

Total radar coverage within the Muscat FIR.

Oman Primary Radars		
Location	**Type**	**Max Range (NM)**
Muscat	PSR	100
Salalah	PSR	100

Oman Secondary Radars		
Location	**Type**	**Max Range (NM)**
Muscat	MSSR	250
Wudam		
Ras Al-Had		
Jalaan		
Al-Duqm		
Qairoon Hiriti		
Salalah		

3. APPLICATION OF RADAR CONTROL SERVICE

3.1 Radar identification is achieved to provisions specified by ICAO.
3.2 Radar control services are provided in all controlled airspace. This service may include:

a) radar separation of arriving, departing and en route traffic;

b) radar monitoring of arriving, departing and en route traffic to provide information on any significant deviation from the normal flight path;

c) radar vectoring when required;

d) assistance to aircraft in an emergency;

e) assistance to aircraft crossing controlled airspace;

f) warnings and position information on other aircraft considered constituting a hazard;

g) information to assist in the navigation of aircraft;

h) information on observed weather.

3.3 The minimum horizontal radar separations are:

a) 5 NM en route;

b) 5 NM within Muscat CTR and TMA;

c) 5 NM within Salalah CTR and TMA;

These minimum horizontal radar separation values may be increased:

a) at the controller's discretion;

b) when wake turbulence is known;

c) at the request of the pilot.

3.4 Levels assigned by the radar controller to pilots will provide a minimum terrain clearance according to the phase of flight.

4. SECONDARY SURVEILLANCE RADAR (SSR)

4.1 Operating procedures

4.1.1 Except as provided below, pilots will operate transponders and select modes and codes according to ATC instructions. In particular, when entering the Muscat FIR, pilots who have already received specific instructions from ATC concerning the setting of the transponder, will maintain that setting until otherwise instructed. Mode C will be selected at all times unless otherwise instructed or in exceptional cases as stated below.

4.1.2 Pilots of aircraft operating in or about to enter the Muscat FIR who have not received specific instructions from ATC concerning the setting of the transponder, will operate the transponder on mode A/3 code 2000 and maintain that code setting unless otherwise instructed.

4.1.3 Mode C will be selected at all times unless otherwise instructed.

4.1.4 System of SSR Code Assignment

a) Muscat uses code blocks assigned under the originating region code allocation method.

(ORCAM)

b) Aircraft entering the Muscat FIR shall retain the SSR code previously issued by ATC in an adjacent FIR (except for flights from Mumbai, Karachi and Sanaa FIR).

c) The following Transit SSR codes (Mode A) will be assigned by Muscat ACC for flights entering Muscat from Mumbai, Karachi and Sanaa FIR and flights departing Oman airports intending to leave Muscat FIR: 3500 to 3577, 4000 to 4077, 4700 to 4777.

d) The following Domestic SSR codes (Mode A) will be assigned by Muscat ACC for flights remaining within the Muscat FIR: 1200 to 1277, 4600 to 4677.

4.2 Emergency procedures

4.2.1 If the pilot of an aircraft encountering a state of emergency has previously been directed by ATC to operate the transponder on a specific code, this code setting will be maintained until otherwise advised. In all other emergency circumstances, the transponder will be set as follows:

a) Mode A/3 code 7500 - Unlawful interference.

b) Mode A/3 code 7600 - Radio communication failure.

c) Mode A/3 code 7700 - Other states of emergency.

4.2.2 Notwithstanding the procedure in paragraph 4.1.1 above, a pilot may select mode A/3 code 7500, 7600 or 7700, as appropriate, whenever the nature of emergency is such that this appears to him to be the most suitable course of action.

5. RADAR AND RADIO FAILURE PROCEDURES

5.1 Radar Failure

In case of radar failure or loss of radar identification, instructions will be issued to restore non-radar standard separation and the pilot will be instructed to communicate with the parent ATS unit.

5.2 Radio Failure

5.2.1 Aircraft not equipped with transponder

The radar controller will establish whether the aircraft radio receiver is working by instructing the pilot to perform a turn, maintain the new heading for a period of time (specified) and then resume normal navigation. The magnitude of the turn will be such as to enable the identification to be achieved should the aircraft not previously have been identified. The direction of the turn will be determined by the operational requirements.

5.2.2 Aircraft equipped with transponder

The radar controller will establish whether the aircraft radio receiver is working by instructing the pilot to perform one or more of the following:

a) change transponder mode,

b) change transponder code,

c) operate the SPI feature.

The method used will be such as to enable the identification to be achieved should the aircraft not previously have been identified.

5.2.3 Action by radar control

a) If subsequent movement of the radar echo or subsequent radar responses indicate that the aircraft radio receiver is working, the radar controller will assume or resume radar control, as the case may be, and continue to pass instructions as for a normal radar service.

b) If subsequent movements of the radar echo or subsequent radar responses indicate that the aircraft radio receiver is not working, the radar controller will take action, according to the circumstances prevailing, as detailed in paragraph 5.2.3.c) and d) below as appropriate.

c) If, prior to the communication failure, the radio failure aircraft was identified, the radar controller will ensure that all known traffic is provided with a minimum of 5 NM horizontal radar separation from the radio failure aircraft, performing identification as necessary, until such time as the radio failure leaves radar coverage or lands.

d) If, prior to the communication failure, the radio failure aircraft was not identified or its position is not known, the radar controller will continue to provide a radar service to the identified aircraft only, provided that primary radar coverage is sufficient for him to ensure a minimum of 5 NM horizontal radar separation from all unknown traffic, until such time as the radio failure aircraft is known to have left the area or landed.

5.2.4 Action by aircraft

a) Aircraft able to receive transmissions from radar control will comply with such instructions as are issued, acknowledging as indicated by the radar controller, as detailed in paragraph 5.2.3 a) above.

b) Aircraft not able to receive transmissions will comply with the ICAO radio communication failure procedures as prescribed in Annex 2, 3.6.5.2 and PANS-ATM Chapter 15.2 and those detailed in: AD 2.OOMS section 22 for Muscat and AD 2.OOSA section 22 for Salalah.

c) It is essential that the procedures as detailed above, as appropriate, are rigidly adhered to as the action by radar control, detailed above, are based upon aircraft compliance therewith; failure to comply may result in loss of separation.

5.2.5 Action in the event of air-ground communication failure

As soon as it is known that two-way communications has failed, ATC shall maintain separation between the aircraft having the communication failure and other aircraft based on the assumption that the aircraft will operate in accordance with 5.2.6 and 5.2.7.

Note: The following expands upon the requirements contained in Annex 2, 3.6.5.2 and the PANSATM, 8.8.3 and 15.2 and specifies additional details regarding air-ground communications failure.

5.2.6 Visual meteorological condition (VMC)

Except as provided in 5.2.7, a controlled flight experiencing communications failure in VMC shall:

a) set transponder to code 7600;

b) continue to fly in VMC;

c) land at the nearest suitable aerodrome; and

d) report its arrival time by the most expeditious means to the appropriate air traffic control unit.

5.2.7 Instrument meteorological conditions (IMC)

A controlled IFR flight experiencing communications failure in IMC or in VMC when it does not appear feasible to continue in VMC within the Muscat FIR shall:

a) set transponder to code 7600; and

b) maintain the last assigned speed and level or the minimum flight altitude, if the minimum flight altitude is higher than the last assigned level, for a period of 7 minutes.
The period 7 minutes commences:

1) if operating on a route without compulsory reporting points or has been instructed to omit position

report:

a) at the time the last assigned level or minimum flight altitude is reached, or

b) at the time the aircraft sets transponder to code 7600,

whichever is later; or

2) if operating on a route with compulsory reporting points and no instructions to omit position reports has been received:

a) at the time the last assigned level or minimum flight altitude is reached, or

b) at the previously reported pilot estimate for the compulsory reporting point, or

c) at the time the aircraft fails to report its position over a compulsory reporting point, whichever is later, or

c) thereafter, adjust level and speed in accordance with the filed flight plan;

Note: With regard to changes to levels and speed, the filed flight plan, which is the flight plan as filed with an ATS unit by the pilot or designated representative without any subsequent changes, will be used.

d) if being radar vectored or proceeding offset according to RNAV without a specified limit, proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude;

Note: With regard to the route to be flown or the time to begin descent to the arrival aerodrome, the current flight plan, which is the flight plan, including changes, if any, brought by subsequent clearances, will be used.

e) proceed according to the current flight plan to the appropriate designated navigation aid serving the destination aerodrome and, when required to ensure compliance with 5.2.7 f), hold over this aid until commencement of decent;

f) commence descent from the navigation aid specified in 5.2.7 e) at, or as close as possible to, the expected approach time last received and acknowledged or, if no expected approach time has been received and acknowledged, at, or as close as possible to, the estimated time of arrival resulting from the current flight plan;

g) complete a normal instrument approach procedure as specified for the designated navigation aid; and

h) land, if possible, within thirty minutes after the estimated time of arrival specified in 5.2.7 f) or the last acknowledged expected approach time, which ever is later.

Note: Pilots are reminded that the aircraft may not be in an area of secondary surveillance radar coverage.

ENR 1.7 ALTIMETER SETTING PROCEDURES

1. INTRODUCTION

1.1. The altimeter setting procedures in use generally conform to those contained in PANS-OPS ICAO Doc 8168-OPS/611 Volume III, section 2, and only differences are stated.

1.2. Transition Altitude (TA) is given on the instrument approach charts.

1.3. QNH reports and temperature information for use in determining adequate terrain clearance are provided in the Operational Flight Information Service (OFIS) broadcasts and are available on request from the Air Traffic Services Units (ATSUs).

1.4. QNH values are given in Hectopascal (hPa) and rounded down to the nearest whole hPa.

2. BASIC ALTIMETER SETTING PROCEDURES

2.1 General

2.1.1 System of flight levels

2.1.1.1. FL zero is located at the atmospheric pressure level of 1013.25 hPa (29.92 IN inches Hg). Consecutive FLs are separated by a pressure interval corresponding to 500 FT in the Standard Atmosphere.

2.1.1.2. Flight levels shall be numbered according to Table 4.7.

2.1.2. Transition Altitude (TA)

2.1.2.1. Muscat FIR Transition Altitude (TA) is common and specified as 13000 FT.

2.1.2.2. Transition Altitude (TA) is published in Aeronautical Information Publications and shown on the instrument approach charts.

2.1.3 Transition level (TL)

2.1.3.1. Muscat FIR Transition level (TL) is common and specified as FL 150.

2.1.4 References to vertical position

2.1.4.1. The Vertical positioning of aircraft operating at or below the TA shall be expressed in terms of Altitude (ALT).

2.1.4.2. The Vertical positioning of aircraft operating at or above the TL is expressed in terms of Flight Levels (FL).

2.1.4.3. Vertical positioning of aircraft while passing through the Transition Layer, shall be expressed in terms of:

a) altitude when descending and,

b) flight levels when climbing.

2.1.5 The terminology TA/TL applies during:

a) climb;

b) en-route flight; and

c) approach and landing

Note.— This does not preclude a pilot using a QFE setting for terrain clearance purposes during the final approach to the runway.

2.2 Take-off and climb.

2.2.1 A QNH altimeter setting is made available to aircraft in taxi clearance prior to take-off.

2.2.2 During climb, all references in A/G communication to vertical position shall be in terms of:

a) FL when at or above TA; or

b) ALTs when at or below TA.

2.2.3 The altimeter subscale setting shall be changed from QNH to 1013.25 (ISA) on leaving or passing the TA.

2.3 Enroute

2.3.1 Vertical separation enroute is assessed in terms of:

a) ALT, when at and below the TA; and

b) FL, when at and above the TL.

Note: Transition Level for Muscat FIR is fixed at FL150. Transition Altitude for the Muscat FIR is fixed at 13000 FT. Highest usable cruising altitude 13000 FT. Lowest usable cruising level FL150. ACFT at or below the TA arriving at or departing from controlled airfields are to change from regional to airfield QNH or vice versa at 50 NM or on entering or leaving controlled airspace.

2.3.2 Terrain clearance

2.3.2.1 Terrain clearance shall be assessed on the basis of the latest Regional QNH obtainable from ATC.

2.4 Approach and landing

2.4.1 A QNH altimeter setting shall be made available to aircraft in approach clearance and in clearance to enter the traffic circuit.

2.4.2 A QFE altimeter settings are clearly identified by ATS for AD ELEV and THR ELEV if 7 FT or more below AD ELEV and are available in approach and landing clearances on request.

2.4.3 Vertical positioning of aircraft during approach is controlled by reference to:

a) FL, until reaching the TL; and

b) ALT, when below the TL.

Note: This does not preclude a pilot using either:

a) QNH setting from top of descent when cleared for uninterrupted descent to a level below TL; or

b) QFE setting for terrain clearance purposes during final approach to the runway.

2.5 Missed approach

2.5.1 The relevant parts parts of 2.1.4, 2.2, “Take-off and climb” and 2.4, “Approach and landing” shall be applied in the event of a missed approach.

3. ALTIMETER SETTING REGIONS (ASR).

3.1. For terrain clearance purposes, a Regional QNH, i.e., the lowest forecast MSL pressure value, valid for a period of 3 hours and amended as necessary by actual reports, is available from ATSUs.

3.2. The Muscat FIR is divided into three altimeter setting regions. As depicted on ENR 1.7-3 they are designated as

a) ASR Muscat between 25N and 20N,

b) ASR Dhofar South of 20N and

c) ASR Mussandam North of 25N

4. PROCEDURES APPLICABLE TO OPERATORS (INCLUDING PILOTS).

4.1 Flight planning

4.1.1 The levels at which a flight is to be conducted shall be specified in a flight plan in terms of :

a) Flight Levels (FL) if the flight is to be conducted at or above the Transition Level (TL) (or the lowest usable flight level, if applicable); and

b) Altitudes (ALTs) if the flight is to be conducted in the vicinity of an aerodrome and at or below the Transition Altitude (TA).

4.1.2 The altitudes or flight levels selected for flight should:

a) ensure adequate terrain clearance at all points along of the entire route; and

b) be compatible with the table of cruising levels as shown on page ENR 1.7-1. satisfy ATC requirements; and

c) be compatible with the table of cruising levels as shown in Table **4.2**

4.2 Table of cruising levels

4.2.1 The cruising levels to be observed when so required are as follows:

a) In areas where, on the basis regional air navigation agreement and in accordance with conditions specified therein, a vertical separation minimum (VSM) of 300 m (1000 ft) is applied between FL290 and FL 410 inclusive.

<table>
<tr><th colspan="10">Table of Cruising Levels</th></tr>
<tr><th colspan="5">From 000° to 179°</th><th colspan="5">From 180° to 359°</th></tr>
<tr><th colspan="3">IFR Flights</th><th colspan="2">VFR Flights</th><th colspan="3">IFR Flights</th><th colspan="2">VFR Flights</th></tr>
<tr><th rowspan="2">FL</th><th colspan="2">Altitude</th><th rowspan="2">FL</th><th colspan="2">Altitude</th><th rowspan="2">FL</th><th colspan="2">Altitude</th><th rowspan="2">FL</th><th colspan="2">Altitude</th></tr>
<tr><th>Metres</th><th>Feet</th><th>Metres</th><th>Feet</th><th>Metres</th><th>Feet</th><th>Metres</th><th>Feet</th></tr>
<tr><td></td><td>300</td><td>1000</td><td></td><td>450</td><td>1500</td><td></td><td>600</td><td>2000</td><td></td><td>750</td><td>2500</td></tr>
<tr><td></td><td>900</td><td>3000</td><td></td><td>1050</td><td>3500</td><td></td><td>1200</td><td>4000</td><td></td><td>1350</td><td>4500</td></tr>
<tr><td></td><td>1500</td><td>5000</td><td></td><td>1700</td><td>5500</td><td></td><td>1850</td><td>6000</td><td></td><td>2000</td><td>6500</td></tr>
<tr><td></td><td>2150</td><td>7000</td><td></td><td>2300</td><td>7500</td><td></td><td>2450</td><td>8000</td><td></td><td>2600</td><td>8500</td></tr>
<tr><td></td><td>2750</td><td>9000</td><td></td><td>2900</td><td>9500</td><td></td><td>3050</td><td>10000</td><td></td><td>3200</td><td>10500</td></tr>
<tr><td></td><td>3350</td><td>11000</td><td></td><td>3500</td><td>11500</td><td></td><td>3650</td><td>12000</td><td></td><td>3800</td><td>12500</td></tr>
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<tr><td>150</td><td>4550</td><td>15000</td><td colspan="3" rowspan="13">Class A Airspace

No VFR flights above ALT 11500 FT</td><td>160</td><td>4900</td><td>16000</td><td colspan="3" rowspan="13">Class A Airspace

No VFR flights above ALT 12500 FT</td></tr>
<tr><td>170</td><td>5200</td><td>17000</td><td>180</td><td>5500</td><td>18000</td></tr>
<tr><td>190</td><td>5800</td><td>19000</td><td>200</td><td>6100</td><td>20000</td></tr>
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<tr><td>410</td><td>12500</td><td>41000</td><td>360</td><td>10950</td><td>36000</td></tr>
<tr><td>450</td><td>13700</td><td>45000</td><td>380</td><td>11600</td><td>38000</td></tr>
</table>

Table of Cruising Levels												
From 000° to 179°						From 180° to 359°					
IFR Flights			VFR Flights			IFR Flights			VFR Flights		
FL	Altitude		FL	Altitude		FL	Altitude		FL	Altitude	
	Metres	Feet		Metres	Feet		Metres	Feet		Metres	Feet
490	14950	49000				400	12200	40000			
etc.	etc.	etc.				430	13100	43000			
						470	14350	47000			
						510	15550	51000			
						etc.	etc.	etc.			

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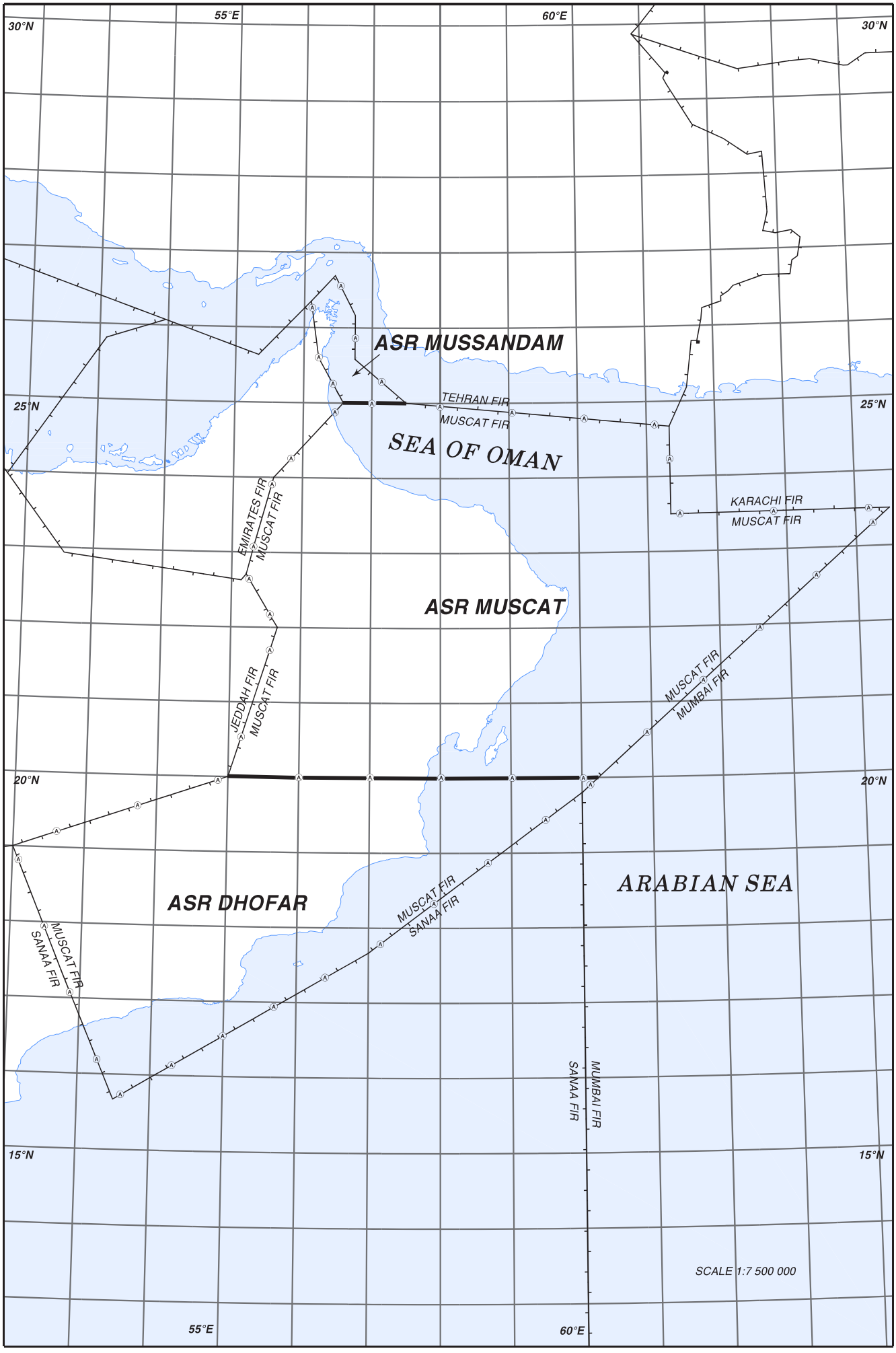
ALTIMETER SETTING REGIONS



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ENR 1.8 REGIONAL SUPPLEMENTARY PROCEDURES

These supplementary procedures are taken from ICAO Doc 7030 – Supplementary Procedures – and relating to the MID-ASIA Region are given in their entirety. For differences applied in Oman, see GEN 1.7.

These procedures are supplementary to the provisions contained in ICAO Annex 2, Annex 6 (Part II), Annex 11, PANS-ATM (Doc 4444) and PANS-OPS (Doc 8168).

1. FLIGHT RULES

1.1 Visual Flight Rules (VFR)

(Relating to Annex 2 - 4.7 and 4.8)

1.1.1 Special Application

Oman requires VFR flights that operate at any aerodrome with Air Traffic Services shall have two-way radio communications (See ENR 1.2.3)

1.2 Instrument Flight Rules (IFR)

(Relating to Annex 2.2 and Chapter 5)

Note: Annex 2, 2.2 permits a choice for a flight to comply with either the instrument flight rules or the visual flight rules when operating in visual meteorological conditions subject to certain limitations in Chapter 4 of the Annex. The following indicates certain further restrictions to that choice.

1.2.1 Special Application of Instrument Flight Rules

1.2.1.1 Flights shall be conducted in accordance with the Instrument Flight Rules (even when not operating in instrument meteorological conditions) when operated:

1. more than 100 NM seaward from the shoreline within controlled airspace; or

2. above flight level 150.

2. FLIGHT PLANS

2.1 Content - General

(Relating to Annex 2 – Chapter 3; P-ATM – Chapter 4 and Appendix 2)

2.1.1 Reduced Vertical Separation Minimum (RVSM)- Approved Aircraft

2.1.1.1 The aircraft registration shall be inserted in Item 18 of the ICAO flight plan form.

2.1.1.2 Operators of formation flights of State aircraft shall not insert the letter W in Item 10 of the

ICAO flight plan form, regardless of the RVSM approval status of the aircraft concerned. Operators of formation flights of State aircraft intending to operate within the RVSM airspace specified in 4.1 b) 2 shall include STS/NONRVSM in Item 18 of the ICAO flight plan form.

2.1.2 Non-RVSM - Approved Aircraft

2.1.2.1 Civil operators of non-RVSM-approved aircraft shall flight plan to operate outside the RVSM airspace specified in 4.1.

2.1.3 Mach Number

2.1.3.1 For turbo-jet aircraft intending to operate within airspace and on air routes to which longitudinal separation minima utilizing Mach number technique will be applied, the planned true Mach number shall be specified in Item 15 of the flight plan.

3. COMMUNICATIONS

3.1 Air-Ground Communications and In-Flight Reporting

3.1.1 Continuous listening watch in uncontrolled airspace (Relating to Annex 2 – Chapters 3 and 5; P-ATM – Chapter 4)

3.1.1.1 All VFR flights, and IFR flights outside controlled airspace, shall maintain a listening watch on the frequency where flight information service is provided and report position unless otherwise authorized by the State overflown.

4. REDUCED VERTICAL SEPARATION MINIMUM (RVSM)

4.1 Area of Applicability

RVSM shall be applicable in that volume of airspace between FL290 and FL410 inclusive in the Muscat FIR/ UIR, as described in ENR 2.1.

Within this airspace, the vertical separation minimum shall be:

a) 1000 FT between RVSM approved aircraft;

b) 2000 FT between:

1) non-RVSM approved State aircraft and any other aircraft operating within the RVSM airspace;

2) formation flights of State aircraft and any other aircraft operating within the RVSM airspace;

3) an aircraft experiencing a communication failure in flight and any other aircraft, when both aircraft are operating within RVSM airspace.

5. PHRASEOLOGY

(P-ATM – Chapter 12)

5.1 RNAV

5.1.1 The phrase “UNABLE RNAV DUE EQUIPMENT” shall be included by the pilot immediately following the aircraft call sign whenever initial contact on an ATC frequency is established by an aircraft experiencing a failure or degradation of the RNAV system.

5.1.2 The phrase “NEGATIVE RNAV” shall be included by the pilot immediately following the aircraft call sign whenever initial contact on an ATC frequency is established by a State aircraft not equipped with RNAV.

6. INTERNATIONAL GENERAL AVIATION (IGA)

(Relating to Annex 6, Part II – Chapter 6)

6.1 General aviation aircraft operating over designated areas, land or sea, where search and rescue operations would be difficult, should:

a) carry appropriate survival equipment; and

b) follow the routes or specified procedures if not equipped with two-way radio, except that under special circumstances, the appropriate authority may grant specific exemptions from this requirement.

7. WEATHER DEVIATION PROCEDURES IN THE MUSCAT FIR

7.1 General

Note: The following procedures are intended for deviations around adverse meteorological conditions.

7.1.1 When weather deviation is required, the pilot should initiate communications with ATC via voice. A rapid response may be obtained by stating “WEATHER DEVIATION REQUIRED” to indicate that priority is desired on the frequency and for ATC response.

7.1.2 When necessary, the pilot should initiate the communications using the urgency call “PAN PAN” (preferably spoken three times).

7.1.3 The pilot shall inform ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to its cleared route.

7.2 Actions to be taken when controller-pilot communications are established

7.2.1 The pilot should notify ATC and request clearance to deviate from track or ATS route, advising, when possible, the extent of the deviation requested. The flight crew will use whatever means are appropriate to communicate during a weather deviation.

Note: Pilots are advised to contact ATC as soon as possible with requests for clearance in order to provide adequate time for the request to be assessed and acted upon.

7.2.2 After communicating with ATC, the pilot should take the following actions:

a) comply with the ATC clearance issued; or

b) advise ATC of intentions and execute the procedures detailed in 7.3

7.3 Actions to be taken if a revised ATC Clearance cannot be obtained

7.3.1 If the aircraft is required to deviate from track or ATS route to avoid adverse meteorological conditions and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received, the pilot shall take the following actions:

a) if possible, deviate away from an organized track or ATS route system;

b) establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: aircraft identification, flight level, position (including ATS route designator or the track code) and intentions, on the frequency in use and on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz);

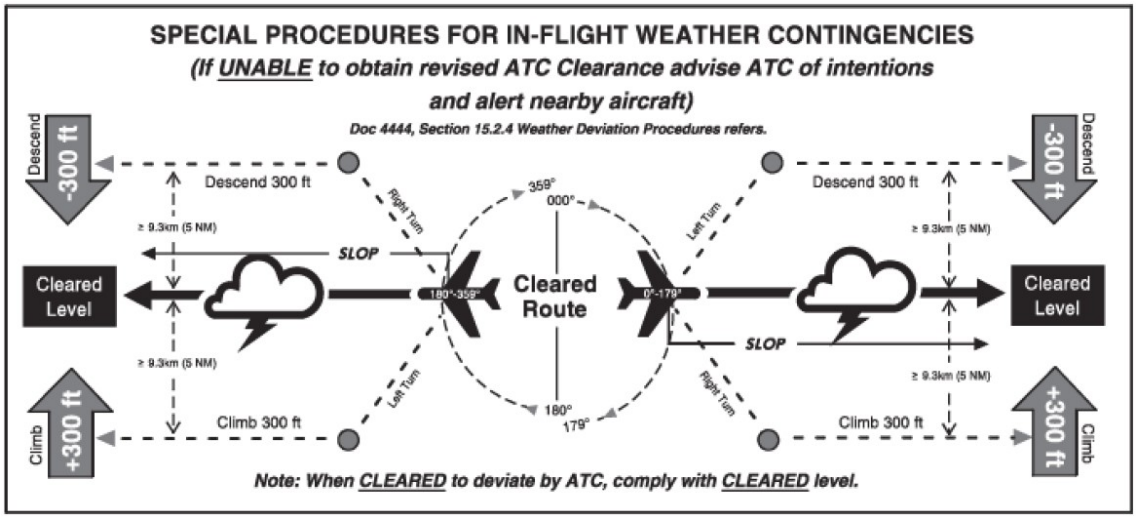
c) watch for conflicting traffic both visually and by reference to ACAS (if equipped);

d) turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

e) for deviations of less than 5.0 NM from the originally cleared track or ATS route, remain at a level assigned by ATC;

f) for deviations greater than, or equal to 5.0 NM from the originally cleared track or ATS route, when the aircraft is approximately 5.0 NM from track, initiate a level change in accordance with the following table:

Originally cleared track or ATS route centreline	**Deviations greater than 5NM**	**Level change**
EAST 000-179 MAG	LEFT RIGHT	DESCEND 300 FT CLIMB 300 FT
WEST 180-359 MAG	LEFT RIGHT	CLIMB 300 FT DESCEND 300 FT



g) if the pilot receives clearance to deviate from cleared track or ATS route for a specified distance and, subsequently, requests, but cannot obtain a clearance to deviate beyond that distance, the pilot should apply an altitude offset in accordance with the table above before deviating beyond the cleared distance;

h) when returning to track or ATS route, be at its assigned flight level when the aircraft is within approximately 5.0 NM of the centreline; and

i) if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

Note: If, as a result of actions taken under the provisions of 2.6, the pilot determines that there is another aircraft at or near the same flight level with which a conflict may occur, then the pilot is expected to adjust the path of the aircraft, as necessary, to avoid conflict.

8. SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES

8.1 General

The following general procedures apply to both subsonic and supersonic aircraft. Although all possible contingencies cannot be covered, they provide for cases of inability to maintain assigned level due to weather, aircraft performance, pressurization failure and problems associated with high-level supersonic flight. They are applicable primarily when rapid descent and/or turn-back or diversion to an alternate airport are required. The pilot's judgment shall determine the sequence of actions taken, taking into account specific circumstances.

If an aircraft is unable to continue flight in accordance with its ATC clearance, a revised clearance shall, whenever possible, be obtained prior to initiating any action, using a distress or urgency signal as appropriate.

If prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time and, until a revised clearance is received, the pilot shall:

a) if possible deviate away from an organized track or route system before commencing descent;

b) establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: aircraft identification, flight level, aircraft position (including the ATS route designator or the track code) and intentions, on the frequency in use, as well as on frequency 121.50 MHz (or, as a back-up, the VHF inter-pilot air-to-air frequency 123.450 MHz);

c) watch for conflicting traffic both visually and by reference to ACAS (if equipped);

d) turn on all aircraft exterior lights; (commensurate with appropriate operating limitations);

e) advise the appropriate air traffic control unit as soon as possible of the emergency descent;

f) set the transponder to Code 7700 and select emergency mode on automatic dependent surveillance/ controller-pilot data link communications (ADS/ CPDLC) system, if applicable; and

g) coordinate further intentions with the appropriate ATC unit.

The aircraft shall not descend below the lowest published minimum altitude which will provide a minimum vertical clearance of 300 M (1000 FT) or in designated mountainous terrain 600 M (2000 FT) above all obstacles located in the area specified.

9. ACTION BY THE AIR TRAFFIC CONTROL UNIT

Immediately upon recognizing that an emergency descent is in progress, ATC units shall acknowledge the emergency on radiotelephony (RTF) and take all necessary action to safeguard all aircraft concerned.

In particular, they may, as required by the situation:

a) suggest a heading to be flown, if able, by the aircraft carrying out the emergency descent in order to achieve spacing from other aircraft concerned.

b) state the minimum altitude for the area of operation, only if the level-off altitude stated by the pilot is below such minimum altitude, together with the applicable QNH altimeter setting.

c) as soon as possible, provide separation with conflicting traffic, or issue essential traffic information, as appropriate.

When deemed necessary, air traffic control will broadcast an emergency message, or cause such message to be broadcast, to other aircraft concerned to warn them of the emergency descent.

10. SPECIAL PROCEDURES FOR SUBSONIC AIRCRAFT REQUIRING RAPID DESCENT AND/OR TURN-BACK OR DIVERSION TO AN ALTERNATE AIRPORT DUE TO AIRCRAFT SYSTEM MALFUNCTION OR OTHER CONTINGENCIES

Note: Additional procedures for in-flight contingencies involving a loss of vertical navigation performance required for flights within the RVSM airspace are contained in 11.

10.1 Initial Action

If unable to comply with the provision of 8.1 to obtain a revised ATC clearance, the aircraft should leave its assigned route or track by turning 90 degrees to the right or left whenever this is possible, The direction of the turn should, where possible, be determined by the position of the aircraft relative to any organized route or track system, e.g. whether the aircraft is outside, at the edge of, or within the system. Other factors to consider are the direction of the alternate airport, terrain clearance and the levels allocated to adjacent routes or tracks.

10.2 Subsequent Action (RVSM Airspace)

In RVSM airspace, an aircraft able to maintain its assigned flight level should turn to acquire and maintain in either direction a track laterally separated by 46 KM (25 NM) from its assigned route or track in a multi-track system spaced at 93 KM (50 NM) or otherwise, at a distance which is the mid-point from the adjacent parallel route or track; and

a) if above FL410, climb or descend 300 M (1000 FT); or

b) if below FL410, climb or descend 150 M (500 FT); or

c) if at FL410, climb 300 M (1000 FT) or descend 150 M (500 FT).

An aircraft that is unable to maintain its assigned flight level should:

a) initially minimize its rate of descent to the extent that is operationally feasible;

b) turn while descending to acquire and maintain in either direction a track laterally separated by 46 KM (25 NM) from its assigned route or track in a multitrack system spaced 93 KM (50 NM) or otherwise, at a distance which is the mid-point from the adjacent parallel route or track; and

c) for the subsequent level flight, select a level which differs from those normally used by 300 M (1000 FT) if above FL410, or by 150 M (500 FT) if below FL410.

11. DIVERSION ACROSS THE FLOW OF ADJACENT TRAFFIC

11.1 Before diverting across the flow of adjacent traffic, the aircraft should: climb above FL410 or descend below FL280 using the procedures specified in 10.1 or 10.2. However, if the pilot is unable or unwilling to carry out a major climb or descent, the aircraft should be flown at a level as defined in 10.2 or until a revised ATC clearance is obtained.

11.2 Extended range operations by aeroplanes with two turbine power-units (ETOPS) aircraft.

If these contingency procedures are employed by a twin-engine aircraft as a result of an engine shutdown or failure of an ETOPS critical system, the pilot should advise ATC as soon as practicable of the situation, reminding ATC of the type of aircraft involved, and request expeditious handling.

11.3 Special procedures for in-flight contingencies involving a loss of vertical navigation performance.

a) Degradation of aircraft equipment - pilot reported

1) When informed by the pilot of an RVSM approved aircraft operating in the RVSM airspace that the aircraft's equipment no longer meets the RVSM MASPS, ATC shall consider the aircraft as non-RVSM approved.

2) ATC shall take action immediately to provide a minimum vertical separation of 600 M (2000 FT) or an appropriate horizontal separation from all other aircraft concerned that are operating in the RVSM airspace. An aircraft rendered non-RVSM approved shall normally be cleared out of the RVSM airspace by ATC when it is possible to do so.

3) Pilots shall inform ATC, as soon as practicable, of any restoration of the proper functioning of equipment required to meet the RVSM MASPS.

b) Severe turbulence - not forecast

1) When an aircraft operating in the RVSM airspace encounters severe turbulence due to weather or wake vortex that the pilot believes will impact the aircraft's capability to maintain its cleared flight level, the pilot shall inform ATC.

11.4 Weather deviation procedures for oceanic-controlled airspace

a) General

1) The following procedures are intended to provide guidance. All possible circumstances cannot be covered. The pilot's judgment shall ultimately determine the sequence of actions taken, and ATC shall render all possible assistance.

2) If the aircraft is required to deviate from track to avoid weather and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received, the aircraft shall follow the procedures detailed in 11.4 d) below.

3) The pilot shall advise ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to the centre line of its cleared route.

b) Obtaining priority from ATC when weather deviation is required:

1) When the pilot initiates communications with ATC, rapid response may be obtained by stating "WEATHER DEVIATION REQUIRED" to indicate that priority is desired on the frequency and for ATC response.

2) The pilot still retains the option of initiating the communications using the urgency call "PAN PAN" (preferably spoken three times) to alert all listening parties to a special handling condition which will receive ATC priority for issuance of a clearance or assistance.

c) Actions to be taken when controller-pilot communications are established.

1) Pilot notifies ATC and requests clearance to deviate from track. advising, when possible, the extent of the deviation expected.

2) ATC takes one of the following actions:

a) if there is no conflicting traffic in the horizontal dimension, ATC will issue clearance to deviate from track; or

b) if there is conflicting traffic in the horizontal dimension, ATC separates aircraft by establishing vertical separation; or

c) if there is conflicting traffic in the horizontal dimension and ATC is unable to establish appropriate separation, ATC shall:

- advise the pilot of inability to issue clearance for requested deviation; and

- advise pilot of conflicting traffic; and

- request pilot's intentions.

SAMPLE PHRASEOLOGY

UNABLE (request deviation), TRAFFIC IS (call sign, position, altitude, direction) ADVISE INTENTIONS

3) Pilot will take following actions:

a) advise ATC of intentions by the most expeditious means available; and

b) comply with air traffic control clearance issued; or

c) execute the procedures detailed in 11.4 d) below (ATC will issue essential traffic information to all affected aircraft); and

d) if necessary, establish voice communications with ATC to expedite dialogue on the situation.

d) Actions to be taken if a revised ATC clearance cannot be obtained.

1) The provisions of this section apply to situations where the pilot has the need to exercise the authority of a pilot-in-command under the provisions of Annex 2, 2.3.1

2) If a revised ATC clearance cannot be obtained and deviation from track is required to avoid weather, the pilot shall take the following actions:

a) if possible, deviate away from an organized track or route system;

b) establish communication with and alert nearby aircraft by broadcasting at suitable intervals: aircraft identification, flight level, aircraft position (including the ATS route designator or the track code) and intentions (including the magnitude of the deviation expected) on the frequency in use, as well as on frequency 121.50 MHz (or as a backup the VHF inter-pilot air-to-air frequency 123.450 MHz);

c) watch for conflicting traffic both visually and by reference to ACAS (if equipped);

Note If as a result of action taken under 11.4 d) 2) b) and c) above, the pilot determines that there is another aircraft at or near the same flight level with which a conflict may occur, then the pilot is expected to adjust the path of the aircraft, as necessary, to avoid conflict.

d) turn on aircraft exterior lights (commensurate with appropriate operating limitations);

e) for deviations less than 19 KM (10 NM) aircraft should remain at a level assigned by ATC;

f) for deviations of greater than 19 KM (10 NM), when the aircraft is approximately 19 KM (10 NM) from track, initiate a level change based on the critical in Table below;

g) when returning to track, be at its assigned level, when the aircraft is within approximately 19 KM (10 NM) of centre line; and

h) if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

12. WAKE TURBULENCE PROCEDURES

12.1 The following special procedures are applicable to mitigate wake turbulence encounters in airspace where RVSM is applied.

a) An aircraft that encounters wake turbulence should notify (ATC) and request a revised clearance. However, in situations where a revised clearance is not possible or practicable:

1) the pilot should establish contact with other aircraft, if possible, on the appropriate VHF interpilot air-to-air frequency; and

2) one (or both) aircraft may initiate lateral offset(s) not to exceed 2 NM from the assigned route(s) or track(s), provided that:

a) as soon as it is practicable to do so, the offsetting aircraft notify ATC that temporary lateral offset has been taken and specify the reason for doing so; and

b) the offsetting aircraft notify ATC when reestablished on assigned route(s) or track(s).

Note: In the contingency circumstances above, ATC will not issue clearances for lateral offsets and will not normally respond to action taken by pilots.

Route centre line track	Deviations > 19 KM (10 NM)	Level change
EAST 000-179 MAG	LEFT RIGHT	DESCEND 90 M (300 FT) CLIMB 90 M (300 FT)
WEST 180-359 MAG	LEFT RIGHT	CLIMB 90 M (300 FT) DESCEND 90 M (300 FT)

12.2 Wake Turbulence Categories

With the purpose to preserve safety and to limit the effects of the separation prescriptions on airports capacity, air traffic control applies the following categories to separate aircraft in the approach and departure phases of flight:

Category	MTOM in KG
LIGHT L	7000 KG or less
MEDIUM M	more than 7 000 KG and less than 136 000 KG
HEAVY H	136 000 KG and more

12.3 Separation Criteria

For wake turbulence separation purposes, two parallel runways less than 760 M apart, or a helipad less than 760 M from a runway, will be considered as one runway.

The appropriate wake turbulence radar separation, as shown in the table below, are applied between aircraft in the approach and departure phases of flight, when:

a) an aircraft is operating directly behind another aircraft at the same altitude or less than 1000 FT below; or

b) an aircraft is crossing behind another aircraft at the same altitude or less than 1000 FT below; or both

c) are using the same runway, or parallel runways separated by less than 760 M.

	Lead			
Follow	**HEAVY**	**MEDIUM**	**SMALL**	**LIGHT**
HEAVY	4 NM	N/A	N/A	N/A
MEDIUM	5 NM	N/A	N/A	N/A
LIGHT	6 NM	5 NM	N/A	N/A

Aircraft carrying out missed approaches or low goarounds are considered as a departure relating to separation. In case of a missed approach procedure or a low go-around in the opposite direction of the succeeding departure, a separation of 2 minutes is applied between an aircraft of category M or L and an overflying aircraft of category H.

WAKE VORTEX ENCOUNTER REPORTING FORM

Date and Time	Date of incident	
	Time (UTC)	
Aircraft Type	Make	
	Model	
	Series	
Altitude	Height	❑ m or ❑ ft
	Altitude	❑ m or ❑ ft
	Flight Level	
Geographic Position	Phase of flight	❑ take-off
		❑ initial climb
		❑ climb
		❑ cruise
		❑ descent
		❑ holding
		❑ approach
		❑ final
		❑ touch-down
		❑ taxiing
		❑ other
	Were you turning?	❑ yes ❑ no ❑ L ❑ R
	Which holding pattern were you in, if any?	
	Were you:	❑ high ❑ low ❑ on the glide path
	Were you:	❑ left of ❑ right of ❑ on the centre-line
	Weight	kg
	IAS	kts
	Heading	degrees
Other	What led you to suspect wake vortex as the cause of the disturbance?	
Did you experience vertical acceleration?	❑ yes ❑ no	Please describe:
What was the change in attitude? Please estimate angle.	Pitch:	
	Roll:	
	Yaw:	

WAKE VORTEX ENCOUNTER REPORTING FORM

Was there any change in altitude?	❑ yes Please describe:
	❑ no
	❑ n/a
Was there buffeting?	❑ yes
	❑ no
	❑ n/a
Was there stall warning?	❑ yes
	❑ no
	❑ n/a
Was the autopilot engaged?	❑ yes
	❑ no
	❑ n/a
What control action was taken?	❑ none
	❑ go-around
	❑ runway change
	❑ other
	Please describe briefly:
Could you see the aircraft suspected of generating the wake vortex?	❑ yes
	❑ no
	❑ n/a
If yes, what was it?	Make -
	Model -
	Series -
Where was it relative to your position?	Separation distance:
	clock reference:
Were you aware of the preceding aircraft type before the encounter?	❑ yes
	❑ no
	❑ n/a

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ENR 1.9 AIR TRAFFIC FLOW MANAGEMENT (ATFM) AND AIRSPACE MANAGEMENT

1. TRANSITING ROUTES

The following standard routings apply for traffic transiting Muscat FIR:

Departure airport	Destination	Route/Exit point
Northern and southern UAE airports	VOGO, VCBI, VOBL, VOCB, VOCL, VOCI, VOML, VOTR, VOTV	KITAL, LOTAV, REXOD, TOTOX
	VAPO, VOMM	PARAR, TOTOX
	VOHS	RASKI
	VABB, VABF	RASKI, PARAR

Entry point/Departure	Route	Exit point/Arrival
DAPOL	DAPOL - L692- GISKA - N569 - UMILA - L883 - REXOD	REXOD
	DAPOL - L692- GISKA - N569 - LOTAV	LOTAV
	DAPOL - L692 - GISKA - N569 - GOLNI - P570 - KITAL	KITAL
DENDA	DENDA - R462 - VUSET - M877 - KUSRA - G652 - TULBU - M628 - LUDID	LUDID / OEJN, OEMA
	DENDA - R462 - VUSET - A454 - PASOV - M564 - VAXAS	VAXAS / OMDW, OMDM
	DENDA - R462 - VUSET - N571 - MENSA	MENSA / OMSJ, OMRK
GOMTA / UAE North Departures	GOMTA - M428 - MUNGA - A777 - VAXIM - L301 - RASKI	RASKI / VABB, VOHS
	GOMTA - M428 - MUNGA - A777 - VAXIM - P307 - PARAR	PARAR / VABB, VAPO, VOMM
	GOMTA - M428 - TARBO - M681 - DAMUM - B524 - ALPOR	ALPOR
	GOMTA - M428 - TARBO - N430 - ITLOB - B505 - APELO	APELO
	GOMTA - M428 - TARBO - N430 - ITLOB - B505 - EGTAL - R462 - DENDA	DENDA
IMKAD	IMKAD - B400 - DAXAM - P316 - DEDSO - R401 - DOLFI - Z855 - SODEX	SODEX
KAPET	KAPET - UB535/B535 - SLL - P316 - DEDSO - R401 - DOLFI - Z855 - SODEX	SODEX

Entry point/Departure	Route	Exit point/Arrival
KITAL	KITAL - P570 - EMURU - N563 - SODEX	SODEX / overflying OMAE (3)
	KITAL - P570 - MIXAM - P574 - SOLUD	SOLUD / overflying OMAE (4)
	KITAL - P570 - EMURU - N563 - TULBU - Z855 - SODEX	SODEX / OMAA, OMAD, OMAM
	KITAL - P570 - MIXAM - P899 - ITRAX	ITRAX / OMAL
	KITAL - P570 - MIXAM - P513 - GERAR - B540 - PASOV- KUPMA	PASOV / OMSJ, OMRK
	KITAL - P570 - ITURA - M762 - TAPRA - VAXAS	VAXAS (1)
KIVEL	KIVEL - R401 - DOLFI - Z855 - SODEX	SODEX
LABRI (5)	LABRI - N318 - TOLDA - L555 - TOTOX	TOTOX
	LABRI - N318 - TOLDA - P570 - KITAL	KITAL
LABRI	LABRI - N318 - GEVED - N881 - AMBOS - Q620 - PARAR	PARAR
LALDO / UAE North Departures	LALDO - B505 - NADSO - A777 - VAXIM - L301 - RASKI	RASKI / VABB, VOHS
	LALDO - B505 - NADSO - A777 - VAXIM - P307 - PARAR	PARAR / VABB, VAPO, VOMM
LALDO (at or below FL250)	LALDO - B505 - NADSO - B524 - ASLOM - ALPOR	ALPOR
	LALDO - B505 - NADSO - EGTAL - APELO	APELO
	LALDO - B505 - NADSO - EGTAL - R462 - DENDA	DENDA
LOTAV	LOTAV - M300 - EMURU - N563 - SODEX	SODEX / overflying OMAE
	LOTAV- M300 - EMURU - N563 - TULBU - Z855 - SODEX	SODEX / OMAA, OMAD, OMAM
	LOTAV - M300 - EMURU - P570 - MIXAM - P574 - SOLUD	SOLUD / overflying OMAE (4)
	LOTAV - M300 - EMURU - P570 - MIXAM - P899 - ITRAX	ITRAX / OMAL
	LOTAV via P570 - MIXAM - P513 - GERAR - B540 - PASOV- KUPMA	PASOV / OMSJ, OMRK
MIDGU	MIDGU - M440 - TULBU - N881 - AMBOS - Q620 - PARAR	PARAR
	MIDGU - Z515	northern OMAN airports

Entry point/Departure	Route	Exit point/Arrival
PARAR	PARAR - M628 - LOSIM - P574 - MIXAM - P899 - ITRAX	ITRAX / OMAL
	PARAR - N571 - MENSA	MENSA / overflying OMAE (2)
	PARAR - N571 - MENSA	MENSA / OMSJ, OMRK
	PARAR - N571 - VUSET - A454 - PASOV - B540 - KUPMA	KUPMA (1)
	PARAR - N571 - VUSET - A454 - PASOV - M564 - VAXAS	VAXAS / OMDW, OMDM
	PARAR - M628 - TULBU - Z855 - SODEX	SODEX / OMAA, OMAD, OMAM
RASKI	RASKI - L301 - RAGMA - N571 - MENSA	MENSA / overflying OMAE (2)
	RASKI - L301 - RAGMA - N571 - MENSA	MENSA / OMSJ, OMRK
	RASKI - N881 - KIPOL - L444 - KAXEM - P574 - MIXAM - P899 - ITRAX	ITRAX / OMAL
	RASKI - L301 - RAGMA - N571 - VUSET - A454 - PASOV - M564 - VAXAS	VAXAS / OMDW, OMDM
	RASKI - N881 - KIPOL - L444 - TOLDA - M628 - TULBU - Z855 - SODEX	SODEX / OMAA, OMAD, OMAM
REXOD	REXOD - M762 - ITURA - P570 - MIXAM - P513 - GERAR - B540 - PASOV - KUPMA	PASOV / OMSJ, OMRK
	REXOD - A775 - KUSRA - P574 - SOLUD	SOLUD / overflying OMAE and (4)
	REXOD - N563 - SODEX	SODEX / overflying OMAE
	REXOD - N563 - TULBU - Z855 - SODEX	SODEX / OMAA, OMAD, OMAM
	REXOD - M762 - ITURA - P570 - MIXAM - P899 - ITRAX	ITRAX / OMAL
SABEL	SABEL - UB424 - VELIK - R401 - DOLFI - Z855 - SODEX	SODEX
TAPDO	TAPDO - G652 - TULBU - M628 - LUDID	LUDID / OEJN, OEMA
	TAPDO - A454 - VUSET - A454 - PASOV - M564 - VAXAS	VAXAS / OMDW, OMDM
	TAPDO - A454 - VUSET - N571 - MENSA	MENSA / OMSJ, OMRK
TARDI	TARDI - N629 - GIDAN - P570 - TOLDA - N318 - REXOD	REXOD

Entry point/Departure	Route	Exit point/Arrival
	TARDI - N629 - GIDAN - P570 - KITAL	KITAL
	TARDI - N629 - GIDAN - P570 - EMURU - M300 - LOTAV	LOTAV
	TARDI - N629 - TOTOX	TOTOX
TONVO overflying OMAE (FL270 - UNL)	TONVO - A777 - NADSO - B505 - EGTAL - R462 - DENDA	DENDA
	TONVO - A777 - NADSO - B505 - APELO	APELO
	TONVO - A777 - NADSO - B524 - ALPOR	ALPOR
TONVO overflying OMAE	TONVO - P307 - VAXIM - P307 - PARAR	PARAR / VABB, VAPO, VOMM & overflying India
	TONVO - P307 - VAXIM - L301 - RASKI	RASKI / VABB, VOHS & overflying India
TONVO / OMFJ	TONVO - A777 - BUBAS - P513 - MIXAM - P570	TOTOX, REXOD, LOTAV, KITAL
TOTOX	TOTOX - P574 - PAROK - L695 - ITURA - P570 - MIXAM - P513 - GERAR - B540 - PASOV - KUPMA	PASOV / OMSJ, OMRK
	TOTOX - P574 - PAROK - L695 - ITURA - M762 - TAPRA - VAXAS	VAXAS / northern UAE airports
	TOTOX - L555 - TOLDA - M628 - TULBU - N563 - SODEX	SODEX / overflying OMAE (3)
	TOTOX - L555 - TOLDA - P570 - MIXAM - P574 - SOLUD	SOLUD / overflying OMAE (4)
	TOTOX - P574 - SOLUD	SOLUD / overflying OMAE (4)
	TOTOX - P574 - MIXAM - P899 - ITRAX	ITRAX / OMAL
	TOTOX - L555 - TOLDA - M628 - TULBU - Z855 - SODEX	SODEX / OMAA, OMAD, OMAM
OYSC FIR (ASPUX, KIVEL, IMKAD, KAPET, PUTRA, SABEL)	R401 - MUSAP	MUSAP / OMDW, OMDM, OMDB, OMSJ, OMRK

Note: For further restrictions see full route details in ENR 3 section.
Note 1: For traffic landing in northern UAE.
Note 2: Except for traffic intending to exit via LUDID.
Note 3: Unless traffic is planning to route through the Tehran FIR.
Note 4: Planning to route through the Tehran FIR.
Note 5: LABRI is not available for traffic overflying OMAE FIR exiting OOMM FIR via DENDA, APELO, ALPOR, RASKI and PARAR.

2. DEPARTING ROUTES

The following standard routings apply for traffic departing in Muscat FIR:

Departure airport	Destination	Route/Exit point
OOMS	VAGO, VCBI, VOBL, VOCB, VOCL, VOCI, VOML, VOTR, VOTV	KITAL, LOTAV, REXOD, TOTOX
	VAPO, VOMM	PARAR, TOTOX
	VOHS	RASKI
	VABB	RASKI, PARAR
	Northwestbound (1,2)	Q978 - ITRAX (3)
	OMSJ, OMRK	T508 - DAPOK - T509 - PASOV - B540 - KUPMA
	OMDB	T508 - SOLUD - GISMO
	OMDW, OMDM	T508 - DAPOK - T507 - TAPRA - M762 - VAXAS
	Northern UAE airports	T508 - DAPOK - T507/T509
	OOKB	P513-BUBAS
OOSA	OOMS, OOMN	OOSA - DAXAM - P316 - MCT (DVOR/DME)
	Northern UAE airports	OOSA - DAXAM - P316 - DEDSO - R401 - MUSAP
	Southern UAE airports	OOSA - DAXAM - P316 - DEDSO - R401 - DOLFI - Z855 - SODEX
	Northbound	OOSA - DAXAM - P316 - DEDSO - R401 - HAI (DVOR/DME) - then planned route
	OOSH	OOSA - DAXAM - P316 - DEDSO - R401 - VELIK - P304 - EMISO - Q730 - LADBI
OOTH	OMDB, OMRK, OMSJ	R401 - MUSAP
OOSH	Southbound and Eastbound	BOTAM - Y855 - LAKLU then planned route
	Northern UAE airports	VAXAS
	Southern UAE airports	ITRAX
	OOSA	OOSH - BOTAM - Y855 - LAKLU - R402 - HAI (DVOR/DME) - B400 - ASTUN

Note 1: T507 - ATC may re-route traffic to PASOV (B540) to facilitate the efficient flow or traffic into northern UAE airports.
Note 2: T509 - ATC may re-route traffic to TAPRA (M762) to facilitate the efficient flow or traffic into northern UAE airports.
Note 3: Flights overflying OIIX FIR exit via SOLUD.

3. ARRIVING ROUTES

The following standard routings apply for traffic arriving in Muscat FIR:

Arrival airport	From	Entry point/Route
OOMS	DAXAM	OOSA - DAXAM - P316 (2)
	OYSC FIR	KAPET - UB535 - SLL (DVOR/DME) - P316 - MCT (DVOR/DME)
	OMAE FIR (1)	RETAS - N685 - PUTSO - LAKLU - G216 - MCT (DVOR/DME)
	OMAE FIR (1)	TARDI - N629 - MUSUK - T511 - MCT (DVOR/ DME) (3)
	VABF FIR via L444 and N881	RASKI - N881 - KIPOL - L444 - VUSIN - N767 - ELIGO - L631 - MCT (DVOR/DME)
	UB424	UB424 - GISKA - P316 - MCT (DVOR/DME)
	OOKB, OMFJ, Northern Arrivals	P513 - MCT (DVOR/DME)
OOSH	OOMS	OOMS - P513 - MIXAM - P574 - DAPOK - Y623 - GIVLA (OOSH ARR)
	OOSA	OOSA - DAXAM - P316 - DEDSO - R401 - VELIK - P304 - EMISO - Q730 - LADBI
	RETAS	RETAS - N685 - KOBIM - Q730 - LADBI

Note 1: Eastbound traffic overflying OMAE FIR intending to land at OOMS.
Note 2: For overfly use B400 or R401, after DEDSO traffic landing OOMS continue on P316.

ENR 1.10 FLIGHT PLANNING

(Restriction, limitation or advisory information)

1. REQUIREMENT FOR THE SUBMISSION OF A FLIGHT PLAN

1.1 i Operators of all flights within the Muscat FIR are required to submit a flight plan;

ii Operators of local flights, i.e., those which will remain within the Muscat TMA or Salalah CTR may satisfy the above requirements by notifying the appropriate ATSU of:

a) the aircraft call sign (and registration, if different);

b) the ETD and brief details of the intended flight;

c) the destination.

1.2 All Aircraft operators shall submit their Flight Plans in accordance with the ICAO format not more than 120 hours and at least 60 minutes prior to estimated offblocks time (EOBT) and / or entering the Muscat FIR.

Note: Oman does not use the Intermediate Stop procedure as detailed in ICAO Doc. 4444 – Section 11, paragraph 11.4.2.2.2.3

1.3 Flights inbound to or overflying Muscat FIR airspace with no flight plan (FPL) are subject to be held at the boundary or denied access to the airspace until FPL is received.

1.4 Time of submission

A flight plan shall be submitted at least 60 minutes prior to departure, taking into account the requirements for timely information to ATS units within the airspace along the proposed route to be flown, including requirements for early flight plan submission for Air Traffic Flow Management (ATFM) purposes.

Note: Due to automation within the Muscat ACC it is imperative that all operators operating within or overflying the MUSCAT FIR file delay messages of 30 min or more from the dep time given in the FPL. Failure to do so will result in the termination of flight plan data and a subsequent delay to the operation of that particular flight.

1.5 Place of submission

a) Flight plans shall be submitted via the Air Traffic Services Reporting Office (ARO) at the departure aerodrome.

b) All flight plans shall be submitted by AFTN or email

Note 1: All FPLs shall be submitted to the following addresses:

AFS: Refer to ENR 1.11 - Addressing of Flight Plan messages

Email:

Muscat: briefing@caa.gov.om

Salalah: SLL-AIS@caa.gov.om

Note 2: ARO will distribute the FPLs to all related FIRs, Destination and Alternate Aerodromes.

c) For VFR flights between uncontrolled aerodromes, operating along designated VFR routes in a TMA, a flight plan shall be submitted by email to the nearest ARO.

d) For domestic flights from an uncontrolled to a controlled aerodrome a flight plan shall be submitted by email to the ARO at the destination.

1.6 VFR flight plan for alerting service only

Alerting service is, in principle, provided to flights for which a flight plan has been submitted.

1.7 Contents and form of a flight plan

a) ICAO flight plan forms are available at AROs and airport offices at uncontrolled aerodromes. The instructions for completing those forms shall be complied with.

b) Flight plans concerning IFR flights along ATS routes need not include FIR-boundary estimates. Inclusion of FIR-boundary estimates is, however required for off-route IFR flights and international VFR flights.

c) When a flight plan is submitted by telephone, teletype or telefax, the sequence of items of the flight plan-form shall be strictly followed.

1.8 Adherence to ATS route structure

No flight plans shall be filed for routes deviating from the published ATS route structure, unless prior permission has been obtained from the appropriate ATC authorities.

1.9 Authorization for special flights

Flights of a specific character such as survey flights, scientific research flights, etc., may be exempted from the restriction specified above.

Request for exemption shall be mailed so as to be received at least one week before the intended day of operation to:

Postal Address:
Civil Aviation Authority
P. O. Box 1
POSTAL CODE 111
MUSCAT

Sultanate of Oman

AFS Address: OOMSYAYX

Telefax: (968) 24 510122

1.10 Maximum cruising levels for short-range flights

It is generally recommended not to select levels above FL240 for flights up to a distance of 300 NM.

2. OPERATION OF REPETITIVE FLIGHT PLAN (RPL)

RPLs are not accepted and all operators are required to file a full flight plan in accordance with ENR 1.10.

3. CHANGES TO THE SUBMITTED FLIGHT PLAN

3.1 All changes to a flight plan submitted for an IFR flight or a controlled VFR flight and significant changes to a flight plan submitted for an uncontrolled VFR flight shall be reported as soon as possible to the appropriate ATS unit. In the event of a delay in departure of 30 minutes or more for a flight for which a flight plan has been submitted, the flight plan shall be amended or a new flight plan shall be submitted after the old plan has been canceled. It is imperative that standard ICAO CHG, DLA, CNL protocols are used.

Note 1: If a delay in departure of a controlled flight is not properly reported, the relevant flight plan data may no longer be readily available to the appropriate ATS unit when a clearance is ultimately requested, which will consequently result in extra delay for the flight.

Note 2: If a delay in departure (or cancellation) of an uncontrolled VFR flight is not properly reported, alerting or search and rescue action may be unnecessarily initiated when the flight fails to arrive at the destination aerodrome within 30 minutes after its current ETA.

3.2 Whenever a flight, for which a flight plan has been submitted, is canceled, the appropriate ATS unit shall be informed immediately.

3.3 Changes to a current flight plan for a controlled flight during flight shall be reported or requested, subject to the provisions in ICAO Annex 2, 3.6.2. (Adherence to flight plan). Significant changes to a flight plan for an uncontrolled VFR flight include changes in endurance or in the total number of persons on board and changes in time estimates of 3 minutes or more.

3.4 Arrival report (closing a flight plan)

A report of arrival shall be made at the earliest possible moment after landing to the airport office of the arrival aerodrome by any flight for which a flight plan has been submitted except when the arrival has been acknowledged by the local ATS unit. After landing at an aerodrome which is not the destination aerodrome (diversionary landing), the local ATS unit shall be specifically informed accordingly. In the absence of a local ATS unit at the aerodrome of diversionary landing, the pilot is responsible for passing the arrival report to the destination aerodrome.

Arrival reports shall contain the following elements of information:

a) aircraft identification

b) departure aerodrome

c) destination aerodrome

d) time of arrival

In the case of diversion, insert the "arrival aerodrome" between "destination aerodrome" and "time of arrival".

4. FLIGHT PLAN

4.1 Flight Plan Form

4.1.1 An operator shall, prior to departure

a) ensure that, where the flight is intended to operate on a route or in an area where a navigation specification is prescribed, it has an appropriate RNP approval, and that all conditions applying to that approval will be satisfied;

b) ensure that, where operation in reduced vertical separation minimum (RVSM) airspace is planned, it has the required RVSM approval;

c) ensure that, where the flight is intended to operate where a RCP specification is prescribed, it has an appropriate approval, and that all conditions applying to that approval will be satisfied; and

d) ensure that, where the flight is intended to operate where a RSP specification is prescribed, it has an appropriate RSP approval, and that all conditions applying to that approval will be satisfied.

4.2 Description of air traffic control clearances

4.2.1 Route of flight

The route of flight shall be detailed in each clearance when deemed necessary. The phrase “cleared flight planned route” may be used to describe any route or portion thereof, provided the route or portion thereof is identical to that filed in the flight plan and sufficient routing details are given to definitely establish the aircraft on its route. The phrases “cleared (designation) departure” or “cleared (designation) arrival” may be used when standard departure or arrival routes have been established by the appropriate ATS authority and published in Aeronautical Information Publication (AIP).

5. RNAV OPERATIONS

For Flight Planning purposes all RNAV 5 operators will also be permitted to file Flight Plans routing via all new RNAV 1 routes within the Muscat FIR.

6. INSTRUCTIONS FOR COMPLETING ICAO FLIGHT PLAN FORM

6.1 Record flight plan data on ICAO Flight Plan Form (see page ENR 1.10-21). Adhere closely to the prescribed formats and manner of specifying data.

6.2 Complete Items 7 to 19 as indicated hereunder. Where excess space is available, leave unused spaces blank. Insert all clock times in 4 figures UTC. Insert all estimated elapsed times in 4 figures (hours and minutes).

6.3 Contents of ICAO Flight Plan including the amendment 1 to the 16th Edition of the Doc 4444.

6.3.1 Item 7. AIRCRAFT IDENTIFICATION (MAXIMUM 7 CHARACTERS):

Insert one of the following aircraft identifications, not exceeding 7 alphanumeric characters and without hyphens or symbols:

a) ICAO designator for the aircraft operating agency followed by the flight identification (e.g. KLM511, NGA213, JTR25) when in radiotelephony the call sign to be used by the aircraft will consist of the ICAO telephony designator for the operating agency followed by the flight identification (e.g. KLM511, NIGERIA 213, JESTER 25); or

b) the nationality or common mark and registration mark of the aircraft (e.g. EIAKO, 4XBCD, N2567GA), when:

1) in radiotelephony the call sign to be used by the aircraft will consist of this identification alone (e.g. CGAJS), or preceded by the ICAO telephony designator for the aircraft operating agency (e.g. BLIZZARD CGAJS);

2) the aircraft is not equipped with radio.

Note 1) Standards for nationality, common and registration marks to be used are contained in Annex 7, Chapter 2.

Note 2) Provisions for the use of radiotelephony call signs are contained in Annex 10, Volume II, Chapter 5. ICAO designators and telephony designators for aircraft operating agencies are contained in Doc 8585 — Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services.

6.3.2 Item 8. FLIGHT RULES AND TYPE OF FLIGHT (ONE OR TWO CHARACTERS):

Flight rules

Insert one of the following letters to denote the category of flight rules with which the pilot intends to comply:

I if it is intended that the entire flight will be operated under the IFR

V if it is intended that the entire flight will be operated under the VFR

Y if the flight initially will be operated under the IFR, followed by one or more subsequent changes of flight rules or

Z if the flight initially will be operated under the VFR, followed by one or more subsequent changes of flight rules

Specify in Item 15 the point or points at which a change of flight rules is planned.

Type of Flight

Insert one of the following letters to denote the type of flight when so required by the appropriate ATS authority:

S if scheduled air service

N if non-scheduled air transport operation

G if general aviation

M if military

X if other than any of the defined categories above.

Specify status of a flight following the indicator STS in Item 18, or when necessary to denote other reasons for specific handling by ATS, indicate the reason following the indicator RMK in Item 18.

6.3.3 Item 9. NUMBER AND TYPE OF AIRCRAFT AND WAKE TURBULENCE CATEGORY:

Number of aircraft (1 or 2 characters)

Insert the number of aircraft, if more than one.

Type of aircraft (2 or 4 characters)

Insert the appropriate designator as specified in ICAO Doc 8643, Aircraft Type Designators,

or, if no such designator has been assigned, or in case of formation flights comprising more than one type, insert ZZZZ, and SPECIFY in Item 18, the (numbers and) type(s) of aircraft preceded by TYP/.

Wake turbulence category (1 character)

Insert an oblique stroke followed by one of the following letters to indicate the wake turbulence category of the aircraft:

H HEAVY, to indicate an aircraft type with a maximum certificated take-off mass of 136 000 KG or more;

M MEDIUM, to indicate an aircraft type with a maximum certificated take-off mass of less than 136 000 KG but more than 7000 KG;

L LIGHT, to indicate an aircraft type with a maximum certificated take-off mass of 7000 KG or less.

6.3.4 Item 10. EQUIPMENT AND CAPABILITIES

Capabilities comprise the following elements:

a) presence of relevant serviceable equipment on board the aircraft;

b) equipment and capabilities commensurate with flight crew qualifications; and

c) where applicable, authorization from the appropriate authority.

Radio communication, navigation and approach aid equipment and capabilities

Insert one letter as follows:

N if no COM/NAV/approach aid equipment for the route to be flown is carried, or the equipment is unserviceable, or

S if standard COM/NAV/approach aid equipment for the route to be flown is carried and serviceable (see Note 1),

and/or: Insert one or more of the following letters to indicate the serviceable COM/NAV/approach aid equipment and capabilities available:

A	GBAS landing system
B	LPV (APV with SBAS)
C	LORAN C
D	DME
E1	FMC WPR ACARS
E2	D-FIS ACARS
E3	PDC ACARS
F	ADF
G	GNSS (See Note 2)
H	HF RTF
I	Inertial Navigation
J1	CPDLC ATN VDL Mode 2 (See Note 3)
J2	CPDLC FANS 1/A HFDL
J3	CPDLC FANS 1/A VDL Mode 4
J4	CPDLC FANS 1/A VDL Mode 2
J5	CPDLC FANS 1/A SATCOM (INMARSAT)

J6	CPDLC FANS 1/A SATCOM (MTSAT)
J7	CPDLC FANS 1/A SATCOM (Iridium)
K	MLS
L	ILS
M1	ATC SATVOICE (INMARSAT)
M2	ATC SATVOICE (MTSAT)
M3	ATC SATVOICE (Iridium)
O	VOR
P1	CPDLC RCP 400 (See Note 7)
P2	CPDLC RCP 240 (See Note 7)
P3	SATVOICE RCP 400 (See Note 7)
P4-P9	Reserved for RCP
R	PBN approved (See Note 4)
T	TACAN
U	UHF RTF
V	VHF RTF
W	RVSM approved
X	MNPS approved
Y	VHF with 8.33 KHz channel spacing capability
Z	Other equipment carried or other capabilities (See Note 5)

Any alphanumeric characters not indicated above are reserved.

Note 1) If the letter S is used, standard equipment is considered to be VHF RTF, VOR and ILS, unless another combination is prescribed by the appropriate ATS authority.

Note 2) If the letter G is used, the types of external GNSS augmentation, if any, are specified in Item 18 following the indicator NAV/ and separated by a space.

Note 3) See RTCA/EUROCAE Interoperability Requirements Standard for ATN Baseline 1 (ATN B1 INTEROP Standard – DO-280B/ED-110B) for data link services air traffic control clearance and information/air traffic control communications management/air traffic control microphone check.

Note 4) If the letter R is used, the performancebased navigation levels that can be met are specified in Item 18 following the indicator PBN/. Guidance material on the application of performance-based navigation to a specific route segment, route or area is contained in the Performancebased Navigation (PBN) Manual (Doc 9613).

Note 5) If the letter Z is used, specify in Item 18 the other equipment carried or other capabilities, preceded by COM/, NAV/ and/or DAT, as appropriate.

Note 6) Information on navigation capability is provided to ATC for clearance and routing purposes.

Note 7) Guidance material on the application of performance-based communication, which prescribes RCP to an air traffic service in a specific area, is contained in the Performance-based Communication and Surveillance (PBCS) Manual (DOC 9869).

Surveillance equipment and capabilities

Insert N if no surveillance equipment for the route to be flown is carried, or the equipment is unserviceable,

or, insert one or more of the following descriptors, to a maximum of 20 characters, to describe the serviceable surveillance equipment and/or capabilities on board:

SSR Modes A and C

A Transponder — Mode A (4 digits — 4 096 codes)

C Transponder — Mode A (4 digits — 4 096 codes) and Mode C

SSR Mode S

E Transponder — Mode S, including aircraft identification, pressure-altitude and extended squitter (ADS-B) capability

H Transponder — Mode S, including aircraft identification, pressure-altitude and enhanced surveillance capability

I Transponder — Mode S, including aircraft identification, but no pressure-altitude capability

L Transponder — Mode S, including aircraft identification, pressure-altitude, extended squitter (ADSB) and enhanced surveillance capability

P Transponder — Mode S, including pressure-altitude, but no aircraft identification capability

S Transponder — Mode S, including both pressure-altitude and aircraft identification capability

X Transponder — Mode S with neither aircraft identification nor pressure-altitude capability

Note) Enhanced surveillance capability is the ability of the aircraft to down-link aircraft derived data via a Mode S transponder.

ADS-B

B1 ADS-B with dedicated 1 090 MHz ADS-B “out” capability

B2 ADS-B with dedicated 1 090 MHz ADS-B “out” and “in” capability

U1 ADS-B “out” capability using UAT

U2 ADS-B “out” and “in” capability using UAT

V1 ADS-B “out” capability using VDL Mode 4

V2 ADS-B “out” and “in” capability using VDL Mode 4

ADS-C

D1 ADS-C with FANS 1/A capabilities

G1 ADS-C with ATN capabilities

Alphanumeric characters not indicated above are reserved.

Example: ADE3RV/HB2U2V2G1

Note 1) The RSP specification(s), if applicable, will be listed in Item 18 following the indicator SUR/. Guidance material on the application of performance-based surveillance, which prescibes the RSP to an air traffic service in a specific area, is contained in the Performance-based Communication and Surveillance (PBCS) Manual (DOC 9869).

Note 2) Additional surveillance equipment or capabilities will be listed in Item 18 following the indicator SUR/, as required by the appropriate ATS authority.

6.3.5 Item 13. DEPARTURE AERODROME AND TIME (8 CHARACTERS):

Insert the ICAO four-letter location indicator of the departure aerodrome as specified in Doc 7910, Location Indicators

or, if no location indicator has been assigned, Insert ZZZZ and SPECIFY, in Item 18, the name and location of the aerodrome preceded by DEP/,

or, the first point of the route or the marker radio beacon preceded by DEP/…, if the aircraft has not taken off from the aerodrome,

or, if the flight plan is received from an aircraft in flight, insert AFIL, and SPECIFY, in Item 18, the ICAO four-letter location indicator of the location of the ATS unit from which supplementary flight plan data can be obtained, preceded by DEP/.

then, without a space, insert for a flight plan submitted before departure, the estimated off-block time (EOBT),

or, for a flight plan received from an aircraft in flight, the actual or estimated time over the first point of the route to which the flight plan applies.

6.3.6 Item 15. ROUTE:

Insert the first cruising speed as in (a) and the first cruising level as in (b), without a space between them.

then, following the arrow, insert the route description as in (c).

(a) Cruising speed (maximum 5 characters)

Insert the True airspeed for the first or the whole cruising portion of the flight, in terms of:

Kilometres per hour, expressed as K followed by 4 figures (e.g. K0830), or

Knots, expressed as N followed by 4 figures (e.g. N0485), or

True Mach number, when so prescribed by the appropriate ATS authority, to the nearest hundredth of unit Mach, expressed as M followed by 3 figures (e.g. M082).

(b) Cruising level (maximum 5 characters)

Insert the planned cruising level for the first or the whole portion of the route to be flown, in terms of:

Flight level, expressed as F followed by 3 figures (e.g. F085; F330), or *Standard metric level in tens of metres, expressed as S followed by 4 figures (e.g. S1130), or

Altitude in hundreds of feet, expressed as A followed by 3 figures (e.g. A045; A100), or

Altitude in tens of metres, expressed as M followed by 4 figures (e.g. M0840), or

for uncontrolled VFR flights, the letters VFR.

* When so prescribed by the appropriate ATS authorities

(c) Route (including changes of speed, level and/or flight rules)

Flights along designated ATS routes

Insert if the departure aerodrome is located on or connected to the ATS route, the designator of the first ATS route,

or, if the departure aerodrome is not on or connected to the ATS route, the letters DCT followed by the point of joining the first ATS route, followed by the designator of the ATS route.

then, insert each point at which either a change of speed and/or level is planned to commence, or a change of ATS route, and/or a change of flight rules is planned,

Note) When a transition is planned between a lower and upper ATS route and the routes are oriented in the same direction, the point of transition need not be inserted.

Followed in each case

By the designator of the next ATS route segment, even if the same as the previous one,

or, by DCT, if the flight to the next point will be outside a designated route, unless both points are defined by geographical coordinates.

Flights outside designated ATS routes

Insert points normally not more than 30 minutes flying time or 370 KM (200 NM) apart, including each point at which a change of speed or level, a change of track, or a change of flight rules is planned.

or, when required by appropriate ATS authority (ies),

Define the track of flights operating predominantly in an east-west direction between 70°N and 70°S by reference to significant points formed by the intersections of half or whole degrees of latitude with meridians spaced at intervals of 10 degrees of longitude. For flights operating in areas outside those latitudes the tracks shall be defined by significant points formed by the intersection of parallels of latitude with meridians normally spaced at 20 degrees of longitude. The distance between significant points shall, as far as possible, not exceed one hour's flight time. Additional significant points shall be established as deemed necessary.

For flights operating predominantly in a north-south direction, define tracks by reference to significant points formed by the intersection of whole degrees of longitude with specified parallels of latitude which are spaced at 5 degrees.

Insert DCT between successive points unless both points are defined by geographical coordinates or by bearing and distance.

Use only: the conventions in (1) to (5) below and SEPARATE each sub-item by a space.

(1) ATS route (2 to 7 characters)

The coded designator assigned to the route or route segment including, where appropriate, the coded designator assigned to the standard departure or arrival route (e.g. BCN1, Bl, R14, UB10, KODAP2A).

Note) Provisions for the application of route designators are contained in Annex 11, Appendix 1.

(2) Significant point (2 to 11 characters)

The coded designator (2 to 5 characters) as-signed to the point (e.g. LN, MAY, HADDY),

or, if no coded designator has been assigned, one of the following ways:

- Degrees only (7 characters):

2 figures describing latitude in degrees, followed by "N" (North) or "S" (South), followed by 3 figures describing longitude in degrees, followed by "E" (East) or "W" (West). Make up the correct number of figures, where necessary, by insertion of zeros, e.g. 46N 078W.

- Degrees and minutes (11 characters):

4 figures describing latitude in degrees and tens and units of minutes followed by “N” (North) or “S” (South), followed by 5 figures describing longitude in degrees and tens and units of minutes, followed by “E” (East) or “W” (West). Make up the correct number of figures, where necessary, by insertion of zeros, e.g. 4620N 07805W.

- Bearing and distance from a reference point:

The identification of the reference point, followed by the bearing from the point in the form of 3 figures giving degrees magnetic, followed by the distance from the point in the form of 3 figures expressing nautical miles. In areas of high latitude where it is determined by the appropriate authority that reference to degrees magnetic is impractical, degrees true may be used. Make up the correct number of figures, where necessary, by insertion of zeros — e.g. a point 180° magnetic at a distance of 40 nautical miles from VOR “DUB” should be expressed as DUB180040.

(3) Change of speed or level (maximum 21 characters)

The point at which a change of speed (5% TAS or 0.01 Mach or more) or a change of level is planned to commence, expressed exactly as in (2) above, followed by an oblique stroke and both the cruising speed and the cruising level, expressed exactly as in (a) and (b) above, without a space between them, even when only one of these quantities will be changed.

Examples:
LN/N0284A045
MAY/N0305Fl80
HADDY/N0420F330
4602N07805W/N0500F350
46N078W/M082F330
DUB180040/N0350M0840

(4) Change of flight rules (maximum 3 characters)

The point at which the change of flight rules is planned, expressed exactly as in (2) or (3) above as appropriate, followed by a space and one of the following:

VFR if from IFR to VFR

IFR if from VFR to IFR

Examples:
LN VFR
LN/N0284A050 IFR

(5) Cruise climb (maximum 28 characters)

The letter C followed by an oblique stroke; THEN the point at which cruise climb is planned to start, expressed exactly as in (2) above, followed by an oblique stroke; THEN the speed to be maintained during cruise climb, expressed exactly as in (a) above, followed by the two levels defining the layer to be occupied during cruise climb, each level expressed exactly as in (b) above, or the level above which cruise climb is planned followed by the letters PLUS, without a space between them.

Examples:
C/48N 050W/M082F290F350
C/48N 050W/M082F290PLUS
C/52N 050W/M220F580F620.

6.3.7 Item 16. DESTINATION AERODROME AND TOTAL ESTIMATED ELAPSED TIME, DESTINATION ALTERNATE AERODROME(S)

Destination aerodrome and total estimated elapsed time (8 characters)

Insert the ICAO four-letter location indicator of the destination aerodrome as specified in Doc 7910, Location Indicators,

or, if no location indicator has been assigned, Insert ZZZZ and SPECIFY in Item 18 the name and location of the aerodrome, preceded by DEST/.

then without a space insert the total estimated elapsed time.

Note) For a flight plan received from an aircraft in flight, the total estimated elapsed time is the estimated time from the first point of the route to which the flight plan applies to the termination point of the flight plan.

Destination alternate aerodrome(s)

Insert the ICAO four-letter location indicator(s) of not more than two destination alternate aerodromes, as specified in Doc 7910, Location Indicators, separated by a space,

or, if no location indicator has been assigned to the destination alternate aerodrome(s),

Insert ZZZZ and SPECIFY in Item 18 the name and location of the destination alternate aerodrome(s), preceded by ALTN/.

6.3.8 Item 18. OTHER INFORMATION

Note) Use of indicators not included under this item may result in data being rejected, processed incorrectly or lost.

Hyphens or oblique strokes should only be used as prescribed below.

Insert 0 (zero) if no other information,

or, any other necessary information in the sequence shown hereunder, in the form of the appropriate indicator selected from those defined hereunder followed by an oblique stroke and the information to be recorded:

STS/ Reason for special handling by ATS, e.g. a search and rescue mission, as follows:

ALTRV	for a flight operated in accordance with an altitude

	reservation;
ATFMX	for a flight approved for exemption from ATFM measures by the appropriate ATS authority;
FFR	fire-fighting
FLTCK	flight check for calibration of navaids;
HAZMAT	for a flight carrying hazardous material;
HEAD	a flight with Head of State status;
HOSP	for a medical flight declared by medical authorities;
HUM	for a flight operating on a humanitarian mission;
MARSA	for a flight for which a military entity assumes responsibility for separation of military aircraft;
MEDEVAC	for a life critical medical emergency evacuation;
NONRVSM	for a non-RVSM capable flight intending to operate in RVSM airspace;
SAR	for a flight engaged in a search and rescue mission; and
STATE	for a flight engaged in military, customs or police services.

Other reasons for special handling by ATS shall be denoted under the designator RMK/.

PBN/ Indication of RNAV and/or RNP capabilities. Include as many of the descriptors below, as apply to the flight, up to a maximum of 8 entries, i.e. a total of not more than 16 characters.

	RNAV SPECIFICATIONS
A1	RNAV 10 (RNP 10)
B1	RNAV 5 all permitted sensors
B2	RNAV 5 GNSS
B3	RNAV 5 DME/DME
B4	RNAV 5 VOR/DME
B5	RNAV 5 INS or IRS
B6	RNAV 5 LORANC
C1	RNAV 2 all permitted sensors
C2	RNAV 2 GNSS
C3	RNAV 2 DME/DME
C4	RNAV 2 DME/DME/IRU
D1	RNAV 1 all permitted sensors
D2	RNAV 1 GNSS
D3	RNAV 1 DME/DME
D4	RNAV 1 DME/DME/IRU

	RNP SPECIFICATIONS
L1	RNP 4
O1	Basic RNP 1 all permitted sensors
O2	Basic RNP 1 GNSS
O3	Basic RNP 1 DME/DME
O4	Basic RNP 1 DME/DME/IRU
S1	RNP APCH
S2	RNP APCH with BARO-VNAV
T1	RNP AR APCH with RF (special authorization required)
T2	RNP AR APCH with RF (special authorization required)

Combinations of alphanumeric characters not indicated above are reserved.

NAV/ Significant data related to navigation equipment, other than specified in PBN/, as required by the appropriate ATS authority. Indicate GNSS augmentation under this indicator, with a space between two or more methods of augmentation, e.g. NAV/ GBAS SBAS.

COM/ Indicate communications equipment and capabilities not specified in Item 10 a).

DAT/ Indicate data equipment and capabilities not specified in 10 a).

SUR/ Indicate surveillance equipment and capabilities not specified in Item 10 b). Indicate as many RSP specification(s) as apply to the flight, using designator(s) with no space. Multiple RSP specifications are separated by a space. Example: RSP180 RSP400.

DEP/ Name and location of departure aerodrome, if ZZZZ is inserted in Item 13, or the ATS unit from which supplementary flight plan data can be obtained, if AFIL is inserted in Item 13. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location as follows:

With 4 figures describing latitude in degrees and tens and units of minutes followed by “N” (North) or “S” (South), followed by 5 figures describing longitude in degrees and tens and units of minutes, followed by “E” (East) or “W” (West). Make up the correct number of figures, where necessary, by insertion of zeros, e.g. 4620N 07805W (11 characters).

or, Bearing and distance from the nearest significant point, as follows:

The identification of the significant point followed by the bearing from the point in the form of 3 figures giving degrees magnetic, followed by the distance from the point in the form of 3 figures expressing nautical miles. In areas of high latitude where it is determined by the appropriate authority that reference to degrees magnetic is impractical, degrees true may be used. Make up the correct number of figures, where necessary, by insertion of zeros, e.g. a point of 180° magnetic at a distance of 40 nautical miles from VOR “DUB” should be expressed as DUB180040.

or, The first point of the route (name or LAT/ LONG) or the marker radio beacon, if the aircraft has

not taken off from an aerodrome.

DEST/ Name and location of destination aerodrome, if ZZZZ is inserted in Item 16. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/ LONG or bearing and distance from the nearest significant point, as described under DEP/ above.

DOF/ The date of flight departure in a six-figure format (YYMMDD, where YY equals the year, MM equals the month and DD equals the day).

REG/ The nationality or common mark and registration mark of the aircraft, if different from the aircraft identification in Item 7.

EET/ Significant points or FIR boundary designators and accumulated estimated elapsed times from take-off to such points or FIR boundaries, when so prescribed on the basis of regional air navigation agreements, or by the appropriate ATS authority.

Examples:
EET/CAP0745 XYZ0830
EET/EINN0204

SEL/ SELCAL Code, for aircraft so equipped.

TYP/ Type(s) of aircraft, preceded if necessary without a space by number(s) of aircraft and separated by one space, if ZZZZ is inserted in Item 9.

Example: TYP/2F15 5F5 3B2

CODE/ Aircraft address (expressed in the form of an alphanumerical code of six hexadecimal characters) when required by the appropriate ATS authority.

Example: “F00001” is the lowest aircraft address contained in the specific block administered by ICAO.

DLE/ En-route delay or holding, insert the significant point(s) on the route where a delay is planned to occur, followed by the length of delay using four figure time in hours and minutes (hhmm).

Example: DLE/MDG0030

OPR/ ICAO designator or name of the aircraft operating agency, if different from the aircraft identification in Item 7.

ORGN/ The originator’s 8 letter AFTN address or other appropriate contact details, in cases where the originator of the flight plan may not be readily identified, as required by the appropriate ATS authority.

Note) In some areas, flight plan reception centres may insert the ORGN/ identifier and originator’s AFTN address automatically.

PER/ Aircraft performance data, indicated by a single letter as specified in the Procedures for Air

Navigation Services — Aircraft Operations (PANS-OPS, Doc 8168), Volume I — Flight Procedures, if so prescribed by the appropriate ATS authority.

ALTN/ Name of destination alternate aerodrome(s), if ZZZZ is inserted in Item 16. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/ LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

RALT/ ICAO four letter indicator(s) for En-route alternate(s), as specified in Doc 7910, Location Indicators, or name(s) of en-route alternate aerodrome(s), if no indicator is allocated. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

TALT/ ICAO four letter indicator(s) for take-off alternate, as specified in Doc 7910, Location Indicators, or name of take-off alternate aerodrome, if no indicator is allocated. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

RIF/ The route details to the revised destination aerodrome, followed by the ICAO four-letter location indicator of the aerodrome. The revised route is subject to reclearance in flight.

Examples:
RIF/DTA HEC KLAX
RIF/ESP G94 CLA YPPH

RMK/ Any other plain-language remarks when required by the appropriate ATS authority or deemed necessary.

6.3.9 Item 19: SUPPLEMENTARY INFORMATION

Endurance

After E/ Insert a 4-figure group giving the fuel endurance in hours and minutes.

Persons on board

After P/ Insert the total number of persons (passengers and crew) on board, when required by the appropriate ATS authority. Insert TBN (to be notified) if the total number of persons is not known at the time of filing.

Emergency and survival equipment

R/ (RADIO)

CROSS OUT U if UHF on frequency 243.00 MHz is not available.

CROSS OUT V if VHF on frequency 121.50 MHz is not available.

CROSS OUT E if emergency locator transmitter (ELT) is not available.

S/ (SURVIVAL EQUIPMENT)

CROSS OUT all indicators if survival equipment is not carried.

CROSS OUT P if polar survival equipment is not carried.

CROSS OUT D if desert survival equipment is not carried.

CROSS OUT M if maritime survival equipment is not carried.

CROSS OUT J if jungle survival equipment is not carried.

J/ (JACKETS)

CROSS OUT all indicators if life jackets are not carried.

CROSS OUT L if life jackets are not equipped with lights.

CROSS OUT F if life jackets are not equipped with fluorescein.

CROSS OUT U or V or both as in R/ above to indicate radio capability of jackets, if any.

D/ (DINGHIES) (NUMBER)

CROSS OUT indicators D and C if no dinghies are carried, or INSERT number of dinghies carried; and

(CAPACITY)

Insert total capacity, in persons, of all dinghies carried; and

(COVER)

CROSS OUT indicator C if dinghies are not covered; and

(COLOUR)

INSERT colour of dinghies if carried.

A/ (AIRCRAFT COLOUR AND MARKINGS)

INSERT colour of aircraft and significant markings.

N/ (REMARKS)

CROSS OUT indicator N if no remarks, or INDICATE any other survival equipment carried and any other remarks regarding survival equipment.

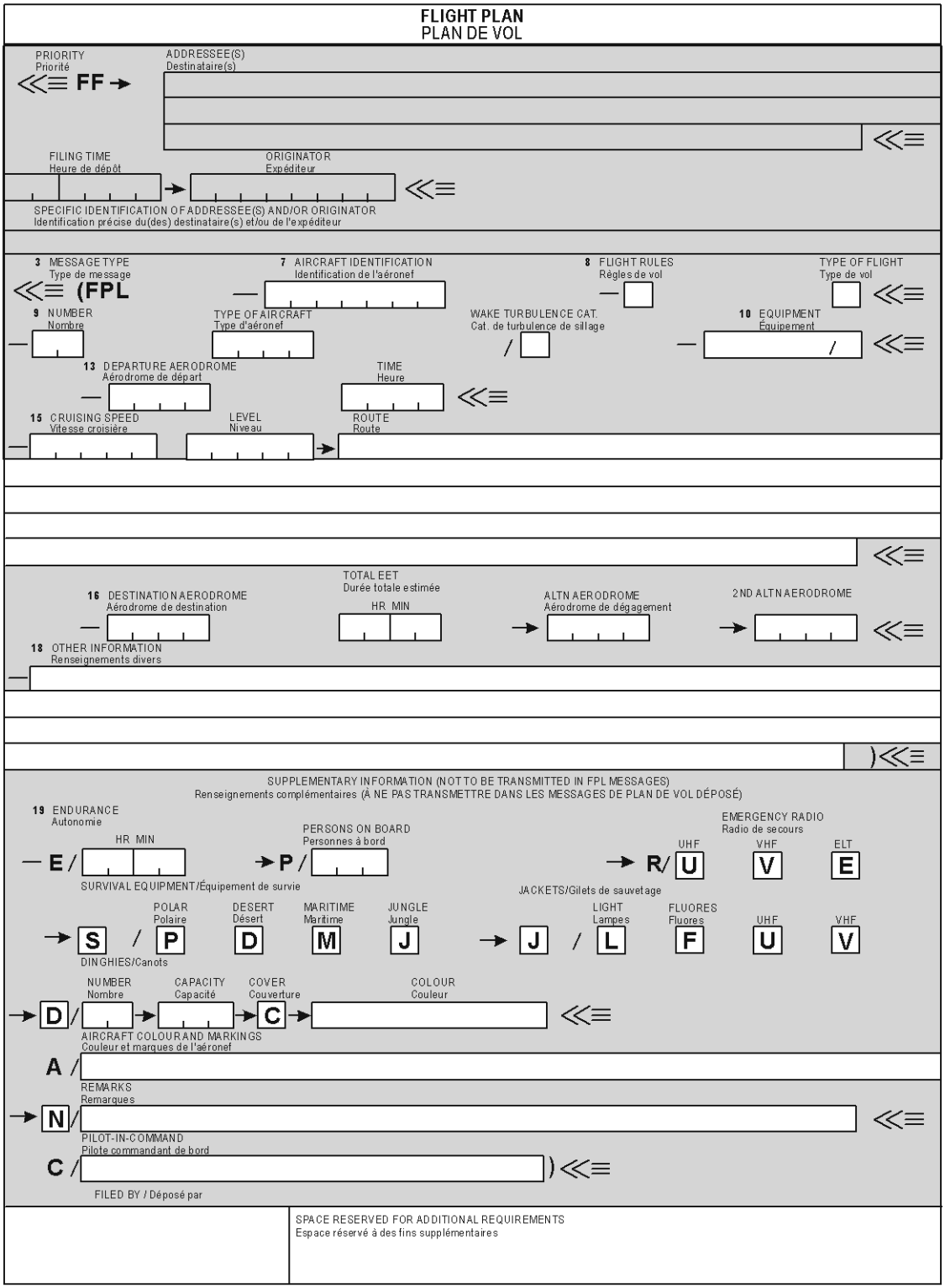
C/ (PILOT)

INSERT name of pilot-in-command.

Filed by

Insert the name of the unit, agency or person filing the flight plan.

1. ICAO model flight plan form



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ENR 1.11 ADDRESSING OF FLIGHT PLAN MESSAGES

1. GENERAL

Flight movement messages relating to traffic into or via the Muscat FIR shall be addressed as stated below in order to warrant correct relay and delivery.

Note: Flight movement messages in this context comprise flight plan messages, amendment messages relating thereto and flight plan cancellation messages (ICAO PANS-ATM, Doc 4444, Chapter 10, 10.2 refers).

CATEGORY OF FLIGHT	ROUTE	MESSAGE ADDRESS
1	**2**	**3**
IFR	into or via MUSCAT FIR and, in addition, for flights:	OOMMZQZX
	- into MUSCAT TMA	OOMSZTZX
	- into SALALAH CTR	OOSAZTZX
VFR	NIL	OOMMZFZX

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ENR 1.12 INTERCEPTION OF CIVIL AIRCRAFT

1. GENERAL

The following procedures and visual signals apply over the territory and territorial waters of the Sultanate of Oman in the event of interception of an aircraft.

1.1 An aircraft which is intercepted by another aircraft shall immediately:

a) follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications;

b) notify, if possible, the ATS unit responsible for the airspace in which the aircraft is flying;

c) make a general call on the emergency frequency 121.500 MHz to attempt to establish radio communication with the intercepting aircraft or with the appropriate intercept control unit, giving the identity of the intercepted aircraft, the nature of the flight, and if no contact has been established and it is practical, repeat the call on the emergency frequency 243.000 MHz;

d) if equipped with SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate ATS unit.
1.2 If radio contact is established during interception but communication in a common language is not possible, attempts shall be made to convey instructions, acknowledgment of instructions and essential information by using the phrases and pronunciations in the following table and transmitting each phrase twice:

Phrase	Pronunciation[1]	Meaning
CALL SIGN (call sign[2])	KOL -SA-IN (call sign)	My call sign is (call sign)
WILCO	VILL -KO	Understood. Will comply
CAN NOT	KANN NOTT	Unable to comply
REPEAT	REE-PEET	Repeat your instruction
AM LOST	AM LOSST	Position unknown
MAYDAY	MAYDAY	I am in distress
HIJACK[3]	HI-JACK	I have been hijacked
LAND (place name)	LAAND (place name)	I request to land at (place name)
DESCEND	DEE SEND	I require descend

1.2.1 The following phrases shall be used by the intercepting aircraft and transmitted twice in the circumstances described in the preceding paragraph:

Phrase	Pronunciation[1]	Meaning
CALL SIGN	KOL -SA-IN	What is your call sign?
FOLLOW	FOL -LO	Follow me
DESCEND	DEE SEND	Descend for landing
YOU LAND	YOU LAAND	Land at this aerodrome

Phrase	Pronunciation[1]	Meaning
PROCEED	PRO-SEED	You may proceed

[1] Syllables to be emphasized are printed in bold letters.

[2] The call sign required to be given is that used in radiotelephony communications with air traffic services units and corresponding to the aircraft identification in the flight plan.

[3] Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK".

1.3 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft is required to request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

1.4 If instructions received by radio from any source conflict with those given by the intercepting aircraft by radio, the intercepted aircraft is required to request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

1.5 The visual signals detailed in the table "SIGNALS FOR USE IN THE EVENT OF INTERCEPTION" shall be used.

2. SIGNALS FOR USE IN THE EVENT OF INTERCEPTION

A. Signals Initiated by the Intercepting Aircraft and Responses by the Intercepted Aircraft				
	Signals/Commands of INTERCEPTING Aircraft		Signals/Responses of INTERCEPTED Aircraft	
Series	Meaning	Actions by Intercepting Aircraft	Meaning	Actions by Intercepted Aircraft
1	You have been intercepted. Follow Me.	AIRPLANES AND HELICOPTERS: DAY - Rocking wings from a position in front and, normally, to the left of the intercepted aircraft and, after acknowledgment, a slow level turn, normally to the left, on the desired heading. NIGHT - Same actions as by day and, in addition, flashing navigational lights at irregular intervals. Note 1: Meteorological conditions or terrain may require the intercepting aircraft to take up a position in front and to the right	Understood, will comply.	AIRPLANES: DAY - Rocking wings and following the intercepting aircraft. NIGHT - Same actions as by day and, in addition, flashing navigational lights at irregular intervals. HELICOPTERS: DAY OR NIGHT - Rocking aircraft, flashing navigational lights at irregular intervals and following the intercepting aircraft. Note: Additional action may be taken by the intercepted aircraft as prescribed above.

A. Signals Initiated by the Intercepting Aircraft and Responses by the Intercepted Aircraft				
	Signals/Commands of INTERCEPTING Aircraft		Signals/Responses of INTERCEPTED Aircraft	
Series	**Meaning**	**Actions by Intercepting Aircraft**	**Meaning**	**Actions by Intercepted Aircraft**
		of the intercepted aircraft and to make the subsequent turn to the right. Note 2: If the intercepted aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of race-track patterns and to rock its wings each time it passes the intercepted aircraft.		
2	You may proceed.	AIRPLANES AND HELICOPTERS: DAY OR NIGHT - An abrupt breakaway manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft.	Understood, will comply.	AIRPLANES: DAY OR NIGHT - Rocking wings. HELICOPTERS: DAY OR NIGHT - Same as Series 1 helicopter signal.
3	Land at this aerodrome.	AIRPLANES AND HELICOPTERS: DAY - Circling aerodrome, lowering landing gear and overflying runway in direction of landing or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. NIGHT - Same as in the daytime and, in addition, showing steady landing lights.	Understood, will comply.	AIRPLANES: DAY - Lowering landing gear, following the intercepting aircraft and, if after overflying the runway landing is considered safe, proceeding to land. NIGHT - Same as in the daytime and, in addition, showing steady landing lights (if carried). HELICOPTERS: DAY OR NIGHT -

A. Signals Initiated by the Intercepting Aircraft and Responses by the Intercepted Aircraft				
	Signals/Commands of INTERCEPTING Aircraft		Signals/Responses of INTERCEPTED Aircraft	
Series	**Meaning**	**Actions by Intercepting Aircraft**	**Meaning**	**Actions by Intercepted Aircraft**
				Following the intercepting aircraft and proceeding to land, showing steady landing lights (if carried).

B. Signals Initiated by the Intercepted Aircraft and Responses by the Intercepting Aircraft				
	Signals/Responses of INTERCEPTED Aircraft		Signals/Commands of INTERCEPTING Aircraft	
Series	**Meaning**	**Actions by Intercepted Aircraft**	**Meaning**	**Actions by Intercepting Aircraft**
4	The aerodrome you have designated is inadequate for landing.	AIRPLANES: DAY - Raising the landing gear while passing over the landing runway at a height exceeding 1000 FT but not exceeding 2000 FT above the aerodrome level, and continuing to circle the aerodrome. NIGHT - Flashing landing lights while passing over the landing runway at a height exceeding 1000 FT but not exceeding 2000 FT above the aerodrome level, and continuing to circle the aerodrome. If unable to flash landing lights, flash any other lights available.	Understood, follow me. Understood, you may proceed.	AIRPLANES: DAY OR NIGHT - If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear and uses the Series 1 signals prescribed for intercepting aircraft. DAY OR NIGHT - If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.
5	Cannot comply.	AIRPLANES: DAY OR NIGHT - regular switching on and off of all	Understood.	AIRPLANES: DAY OR NIGHT - Use Series 2 signals prescribed for

B. Signals Initiated by the Intercepted Aircraft and Responses by the Intercepting Aircraft				
	Signals/Responses of INTERCEPTED Aircraft		Signals/Commands of INTERCEPTING Aircraft	
Series	**Meaning**	**Actions by Intercepted Aircraft**	**Meaning**	**Actions by Intercepting Aircraft**
		available lights but in such a manner as to be distinct from flashing lights.		intercepting aircraft.
6	In distress.	AIRPLANES AND HELICOPTERS: DAY OR NIGHT - Irregular flashing of all available lights.	Understood.	AIRPLANES AND HELICOPTERS: DAY OR NIGHT - Use Series 2 signals prescribed for intercepting aircraft.

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ENR 1.13 UNLAWFUL INTERFERENCE

1. GENERAL

The following procedures are intended for use by aircraft when unlawful interference occurs and the aircraft is unable to notify an ATS unit of this fact.

2. PROCEDURES

Unless considerations aboard the aircraft dictate otherwise, the pilot-in-command should attempt to continue flying on the assigned track and at the assigned cruising level at least until able to notify an ATS unit or within radar coverage.

When an aircraft subjected to an act of unlawful interference must depart from its assigned track or its assigned cruising level without being able to make radiotelephony contact with ATS, the pilot-in-command should, whenever possible:

a) attempt to broadcast warnings on the VHF emergency frequency and other appropriate frequencies, unless considerations aboard the aircraft dictate otherwise. Other equipment such as onboard transponders, data links, etc., should also be used when it is advantageous to do so and circumstances permit. The transponder shall be set to mode A/3 code 7500; and

b) proceed in accordance with applicable special procedures for in-flight contingencies, where such procedures have been established and promulgated in DOC 7030 - Regional Supplementary Procedures; or

c) if no applicable regional procedures have been established, proceed at a level which differs from the cruising levels normally used for IFR flight in the area by 300 M (1 000 FT) if above FL410 or by 150 M (500 FT) if below FL410.

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ENR 1.14 AIR TRAFFIC INCIDENTS

1. DEFINITION OF AIR TRAFFIC INCIDENTS

1.1 Air traffic incident is used to mean a serious occurrence related to the provision of air traffic services, such as:

a) aircraft proximity (AIRPROX),

b) serious difficulty resulting in a hazard to aircraft caused, for example, by:

1) faulty procedures

2) non-compliance with procedures, or

3) failure of ground facilities.

c) damages due to birdstrikes.

1.1.1 Definitions for aircraft proximity and AIRPROX.

Aircraft proximity. A situation in which, in the opinion of the pilot or the air traffic services personnel, the distance between aircraft, as well as their relative positions and speed, has been such that the safety of the aircraft involved may have been compromised. Aircraft proximity is classified as follows:

Risk of collision. The risk classification of aircraft proximity in which serious risk of collision has existed.

Safety not assured. The risk classification of aircraft proximity in which the safety of the aircraft may have been compromised.

No risk of collision. The risk classification of aircraft proximity in which no risk of collision has existed.

Risk not determined. The risk classification of aircraft proximity in which insufficient information was available to determine the risk involved, or inconclusive or conflicting evidence precluded such determination.

AIRPROX. The code word used in an air traffic incident report to designate aircraft proximity.

1.2 Air traffic incidents are designated and identified in reports as follows:

TYPE	DESIGNATION
Air traffic incident	Incident
as a) above	AIRPROX (aircraft proximity)

TYPE	DESIGNATION
as b) 1) and 2) above	Procedure
as b) 3) above	Facility
as c) above	Birdstrike Collision

2. USE OF THE AIR TRAFFIC INCIDENT REPORT FORM

The Air Traffic Incident Report Form (see model on pages ENR 1.14-2 to 1.14-5) is intended for use:

a) by a pilot for filing a report on an air traffic incident after arrival or for confirming a report made initially by radio during flight.

Note: The form, if available on board, may also be of use in providing a pattern for making the initial report in flight.

b) by an ATS unit for recording an air traffic incident report received by radio, telephone or teleprinter.

Note: The form may be used as the format for the text of a message to be transmitted over the AFS network.

3. REPORTING PROCEDURES (INCLUDING IN-FLIGHT PROCEDURES)

3.1 The following are the procedures to be followed by a pilot who is or has been involved in an incident:

a) during flight, use the appropriate air/ground frequency for reporting an incident of major significance, particularly if it involves other aircraft, so as to permit the facts to be ascertained immediately,

b) as promptly as possible after landing submit a completed Air Traffic Incident Report Form

1) for confirming a report of an incident made initially as in a) above , or for making the initial report on such an incident if it had not been possible to report it by radio;

2) for reporting an incident which did not require immediate notification at the time of occurrence.

c) the birdstrike report form supplied by the airport authority is to be completed after landing.

3.2 An initial report made by radio should contain the following information:

a) aircraft identification;

b) type of incident, e.g. aircraft proximity,

c) the incident; 1. a) and b); 2. a), b), c), d), n); 3. a), b), c), i); 4. a), b);

d) miscellaneous: 1. e).

3.3 The confirmatory report on an incident of major significance initially reported by radio or the initial report on any other incident should be submitted to:

Postal Address:
Civil Aviation Authority
P. O. Box 1
POSTAL CODE 111
MUSCAT
Sultanate of Oman

AFS Address: OOMSYAYX

Telephone: (968) 24 519225 or 24 519315

Telefax: (968) 24 519707

Email: dirfs@caa.gov.om

The pilot should complete the Air Traffic Incident Report Form, supplementing the details of the initial reports as necessary.

Note: Where there is no ATS Flight Information Service, the report may be submitted to another ATS unit.

4. PURPOSE OF REPORTING AND HANDLING OF THE FORM

4.1 The purpose of the reporting of aircraft proximity incidents and their investigation is to promote the safety of aircraft. The degree of risk involved in an aircraft proximity incident should be determined in the incident investigation and classified as "risk of collision", "safety not assured" or "risk not determined".

4.2 The purpose of the form is to provide investigatory authorities with as complete information on an air traffic incident as possible and to enable them to report back, with the least possible delay to the pilot or operator concerned, the result of the investigation of the incident and, if appropriate, the remedial action taken.

5. AIR TRAFFIC INCIDENT REPORT

For use when submitting and receiving reports on air traffic incidents. In an initial report by radio, items with an asterisk (*) should be included.

A - AIRCRAFT IDENTIFICATION*	**B - TYPE OF INCIDENT***
	AIRPROX / PROCEDURE / FACILITY [1)]

C - THE INCIDENT*

1.	**General***						
	a)*	Date / time of incident.....UTC					
	b)*	Position.....					
2.	**Own aircraft**						
	a)*	Heading and route.....					
	b)*	True airspeed.....measured in ( ) kt___ ( ) km/h___					
	c)*	Level and altimeter setting.....					
	d)*	Aircraft climbing or descending					
		( )	Level flight	( )	Climbing	( )	Descending
	e)	Aircraft bank angle					
		( )	Wings level	( )	Slight bank	( )	Moderate bank
		( )	Steep bank	( )	Inverted	( )	Unknown
	f)	Aircraft direction of bank					
		( )	Left	( )	Right	( )	Unknown
	g)	Restrictions to visibility (select as many as required)					
		( )	Sun glare	( )	Windscreen pillar	( )	Dirty windscreen
		( )	Other cockpit structure	( )	None		
	h)	Use of aircraft lighting (select as many as required)					
		( )	Navigation lights	( )	Strobe lights	( )	Cabin lights
		( )	Red anti-collision lights	( )	Landing / taxi lights	( )	Logo (tail fin) lights
		( )	Other	( )	None		
	i)	Traffic avoidance advice issued by ATS					
		( )	Yes, based on radar	( )	Yes, based on visual sighting		
		( )	Yes, based on other information	( )	No		
	j)	Traffic information issued					
		( )	Yes, based on radar	( )	Yes, based on visual sighting	( )	Yes, based on other information
		( )	No				
	k)	Airborne collision avoidance system - ACAS					
		( )	Not carried	( )	Type	( )	Traffic advisory issued
		( )	Resolution advisory issued	( )	Traffic advisory or resolution advisory not issued		
	l)	Radar identification					
		( )	No radar available	( )	Radar identification	( )	No radar identification
	m)	Other aircraft sighted					
		( )	Yes	( )	No	( )	Wrong aircraft sighted

[1)] Delete as appropriate

	n)*	Avoiding action taken					
		( )	Yes	( )	No		
	o)		Type of flight plan		IFR / VFR/none [1)]		
3.	**Other aircraft**						
	a)*	Type and call sign / registration (if known)					
	b)*	If a) above not known, describe below					
		( )	High wing	( )	Mid Wing	( )	Low wing
		( )	Rotorcraft				
		( )	1 engine	( )	2 engine	( )	3 engine
		( )	4 engine	( )	More than 4 engines		
	Marking colour or other available details						
	c)*	Aircraft climbing or descending					
		( )	Level flight	( )	Climbing	( )	Descending
		( )	Unknown				
	d)	Aircraft bank angle					
		( )	Wings level	( )	Slight bank	( )	Moderate bank
		( )	Steep bank	( )	Inverted	( )	Unknown
	e)	Aircraft direction of bank					
		( )	Left	( )	Right	( )	Unknown
	f)	Lights displayed					
		( )	Navigation lights	( )	Strobe lights	( )	Cabin lights
		( )	Red anti-collision lights	( )	Landing / taxi lights	( )	Logo (tail fin) lights
		( )	Other	( )	None	( )	Unknown
	g)	Traffic avoidance advice issued by ATS					
		( )	Yes, based on radar	( )	Yes, based on visual sighting	( )	Yes, based on other information
		( )	No				
	h)	Traffic information issued					
		( )	Yes, based on radar	( )	Yes, based on visual sighting	( )	Yes, based on other information
		( )	No	( )	Unknown		
	i)*	Avoiding action taken					
		( )	Yes	( )	No		
4.	**Distance***						
	a)*	Closest horizontal distance.....					
	b)*	Closest vertical distance.....					
5.	**Flight weather conditions**						
	a)	IMC / VMC [1)]					
	b)	Above / below [1)] clouds / fog / haze or between layers [1)]					

[1)] Delete as appropriate

	c)	Distance vertically from cloud.....m / ft [1] below.....m / ft [1] above
	d)	In cloud / rain / snow / sleet / fog / haze [1]
	e)	Flying into / out of [1] sun
	f)	Flight visibility.....m / km [1]

6. Any other information considered important by the pilot-in-command

D - MISCELLANEOUS

1. Information regarding reporting aircraft

a)	Aircraft registration.....
b)	Aircraft type.....
c)	Operator.....
d)	Aerodrome of departure.....
e)*	Aerodrome of first landing.....destination.....
f)	Reported by radio or other means to.....(name of ATS unit) at time.....UTC
g)	Date / time / place of completion of form.....

2. Function, address and signature of person submitting report

a)	Function.....
b)	Address.....
c)	Signature.....
c)	Telephone number.....

3. Function and signature of person receiving report

a)	Function.....	b)	Signature.....

E - SUPPLEMENTARY INFORMATION BY ATS UNIT CONCERNED

1. Receipt of report

a)	Report received via AFS / radio / Telephone / other (specify) [1].....
b)	Report received by.....(name of ATS unit)

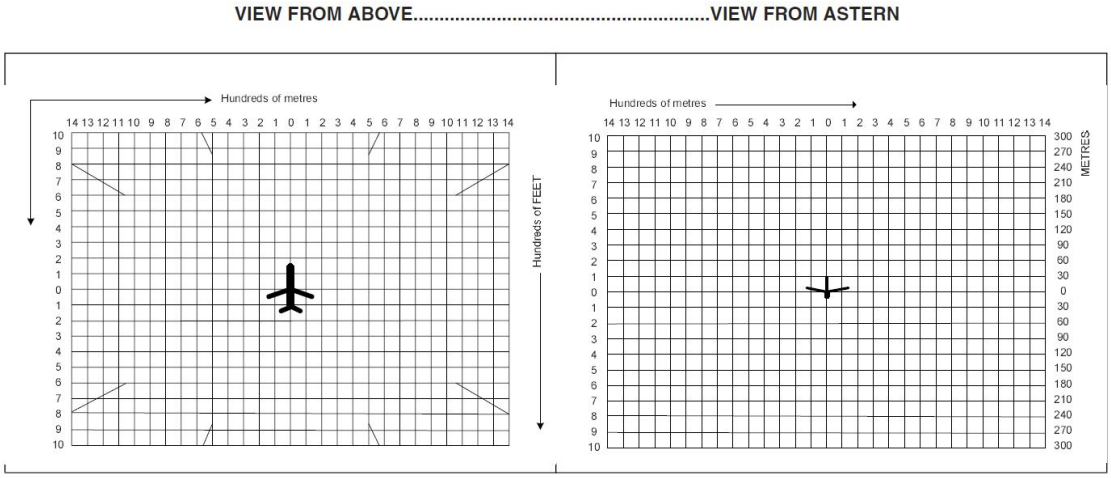
2. Details of ATS action

	Clearance, incident seen (radar / visually, warning given, result of local enquiry, etc.)

[1] Delete as appropriate

6. DIAGRAMS OF AIRPROX

Mark passage of other aircraft relative to you, in plan on the left and in elevation on the right, assuming YOU are at the center of each diagram. Include first sighting and passing distance.



Instructions for the completion of the Air Traffic Incident Report Form

Item	
A	Aircraft identification of the aircraft filing the report.
B	An AIRPROX report should be filed immediately by radio.
C1	Date / time UTC and position in bearing and distance from a navigation aid or in LAT/LONG.
C2	Information regarding aircraft filing the report, tick as necessary.
C2 c)	e. g. FL350 / 1013 hPa or 2500 FT / QNH 1007 hPa or 1200 FT / QFE 998 hPa.
C3	Information regarding the other aircraft involved.
C4	Passing distance - state units used.
C6	Attach additional papers as required. The diagrams may be used to show aircraft's positions.
D1 f)	State name of ATS unit and date time / time in UTC
D1 g)	Date and time in UTC.
E2	Include details of ATS unit such as service provided, radiotelephony frequency, SSR Codes assigned and altimeter setting. Use diagram to show the aircraft's position and attach additional papers as required.

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ENR 2 AIR TRAFFIC SERVICES AIRSPACE

ENR 2.1 FIR, UIR,TMA AND CTA

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
MUSCAT FLIGHT INFORMATION REGION N250000 E0563500 - N253600 E0561300 - N262100 E0560600 - N264100 E0562700 - N261000 E0564500 - N253500 E0564500 - N250000 E0573000 - N244000 E0612000 - N233000 E0612000 - N233000 E0643000 - N194800 E0600000 - N174000 E0570000 - N154000 E0533000 - N163800 E0530400 - N172200 E0524400 - N190000 E0520000 - common national boundary Sultanate of Oman/Kingdom of Saudi Arabia - common national boundary Sultanate of Oman/ United Arab Emirates - N224200 E0551200 - N240000 E0553500 - N250000 E0563500 Upper limit: UNL Lower limit: SFC Class: G (except within control areas, control zones and airways). Airways FL150-UNL class A Airways below FL150 class C	Muscat ACC	Muscat Control English H24	See ACC Sector frequencies as below	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
SECTOR MUSCAT (WEST) N264100 E0562700 – N261000 E0564500 – N253500 E0564500 – N250000 E0573000 – N244926 E0593953 – N242739 E0593926 – N235156 E0573440 – N235659 E0571018 – N242218 E0563418 – N243847 E0561337 – N250000 E0563500 – N253600 E0561300 – N262100 E0560600 – N264100 E0562700 Upper limit: UNL Lower limit: SFC Class: A, C, G	Muscat ACC	Muscat Control West / Information English H24	119.800 MHz (Primary for FIR entry IMLOT, LALDO, TONVO) 121.500 MHz (Emergency)	Airspace classification is Classes A, C and G; excluding Muscat TMA/CTR AND Suhar ATZ
SECTOR MUSCAT (NORTH) N244926 E0593953 – N244000 E0612000 – N233000 E0612000 – N233700 E0591700 - N232458 E0590848 – N232339 E0590150 - N231400 E0581300 – N235659 E0571018 - N235156 E0573440 – N242739 E0593926 - N244926 E0593953 Upper limit: UNL Lower limit: SFC Class: A, C, G	Muscat ACC	Muscat Control North / Information English H24	128.150 MHz (Primary for FIR entry MESPO, DENDA, TAPDO) 121.500 MHz (Emergency)	Airspace classification is Classes A, C and G; excluding Muscat TMA/CTR
SECTOR (CENTRAL) N243847 E0561338 – N242218 E0563418 -	Muscat ACC	Muscat Control Central / Information English H24	124.700 MHz (Primary for FIR entry MEMTU, LABRI, TARDI, RETAS, MIDGU)	Airspace classification is Classes A, C and G; excluding Muscat TMA/CTR and Suhar ATZ

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
N235659 E0571018 – N231400 E0581300 - N225400 E0581800 – N220300 E0581313 - N220008 E0581122 – N221940 E0572821 - N224427 E0565919 – N224502 E0563403 - N221543 E0552933 – N224200 E0551200 - N240000 E0553500 – N243847 E0561338 Upper limit: UNL Lower limit: SFC Class: A, C, G			121.500 MHz (Emergency)	
SECTOR (ALPHA) N233700 E0591700 – N233000 E0612000 - N233000 E0643000 – N221810 E0630006 - N224927 E0601220 – N232339 E0590150 - N232458 E0590848 – N233700 E0591700 Upper limit: UNL Lower limit: SFC Class: A, C, G	Muscat ACC	Muscat Control Alpha /Information English H24	135.600 MHz (Primary for FIR entry PARAR, RASKI) 121.500 MHz (Emergency)	Airspace classification is Classes A, C and G; excluding Muscat TMA/CTR
SECTOR (BRAVO) N232339 E0590150 – N224927 E0601220 - N221810 E0630006 – N205820 E0612309 - N213015 E0602052 – N214435 E0584509 - N220008 E0581122 – N220300 E0581313 - N225400 E0581800 – N231400 E0581300 - N232339 E0590150 Upper limit: UNL	Muscat ACC	Muscat Control Bravo /Information English H24	126.550 MHz (Primary for FIR entry REXOD, TOTOX) 121.500 MHz (Emergency)	Airspace classification is Classes A, C and G; excluding Muscat TMA/CTR

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
Lower limit: SFC Class: A, C, G				
SECTOR (MIDDLE) N221543 E0552933 – N224502 E0563403 – N224427 E0565919 – N221940 E0572821 – N220008 E0581122 – N214435 E0584509 – N213015 E0602052 – N205820 E0612309 – N194800 E0600000 – N184649 E0583254 – N194650 E0572538 – N203618 E0551159 – N220000 E0554000 – N221543 E0552933 Upper limit: UNL Lower limit: SFC Class: A, C, G	Muscat ACC	Muscat Control Middle / Information English H24	118.325 MHz (Primary for FIR entry DAPOL, KITAL, LOTAV) 121.500 MHz (Emergency)	Airspace classification is Classes A, C and G; excluding Duqm ATZ
SECTOR (SOUTH) N203618 E0551159 – N194650 E0572538 - N184649 E0583254 – N174000 E0570000 - N154000 E0533000 – N162553 E0530927 - N165807 E0525452 – N190000 E0520000 - N200000 E0550000 – N203618 E0551159 – Upper limit: UNL Lower limit: SFC Class: A, C, D, G	Muscat ACC	Muscat Control South / Information English H24	123.950 MHz (Primary for FIR entry ASPUX, GOBRO, IMDAM, IMKAD, KAPET, KIVEL, PUTRA, SABEL, SITOL) 121.500 MHz (Emergency)	Airspace classification is Classes A, C, D and G; excluding Salalah TMA/CTR and Duqm ATZ
MUSCAT UPPER TERMINAL AREA (UTA)	Muscat ACC	Muscat Information/ Control English		For details on Radio COM refer to appropriate sector.

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
MUSCAT UTA (A) N250000 E0573000 – N244000 E0612000 - N233000 E0612000 – N233000 E0643000 - N203030 E0604959 – N222000 E0580500 - N224500 E0574200 – N233511 E0560032 - N234018 E0561318 – N235648 E0564812 - N244224 E0573000 – N250000 E0573000 excluding Muscat TMA Upper limit: UNL Lower limit: FL150 Class: A Upper limit: FL150 Lower limit: 11000 FT AMSL Class: C		H24		
MUSCAT UPPER TERMINAL AREA (UTA) MUSCAT UTA (B) N232004 E0552310 – N240000 E0553500 - N250000 E0563500 – N253600 E0561300 - N262100 E0560600 – N264100 E0562700 - N261000 E0564500 – N253500 E0564500 - N250000 E0573000 – N244224 E0573000 - N235648 E0564812 – N234018 E0561318 - N232004 E0552310	Muscat ACC	Muscat Information/ Control English H24		For details on Radio COM refer to appropriate sector.

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
Upper limit: UNL Lower limit: FL150 Class: A Upper limit: FL150 Lower limit: 7500 FT AMSL Class: C				
MUSCAT TMA A Circle radius 10 NM centered on Muscat DVOR/DME at N233528.04 E0581536.48 Upper limit: FL150 Lower limit: 5500 FT AMSL Class: C	Muscat APP	Muscat Approach English H24	121.200 MHz (Primary) 121.500 MHz (Emergency)	
MUSCAT TMA B Sector bounded by arcs of circle, between 10 NM and 50 NM radius, centered on Muscat DVOR/DME at N233528.04 E0581536.48 between radials 290° and 072°. Upper limit: FL150 Lower limit: 2000 FT AMSL Class: C	Muscat APP	Muscat Approach English H24	121.200 MHz (Primary) 121.500 MHz (Emergency)	
MUSCAT TMA C Sector bounded by arcs of circle, between 10 NM and 50 NM radius, centered on Muscat DVOR/DME	Muscat APP	Muscat Approach English H24	121.200 MHz (Primary) 121.500 MHz (Emergency)	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
at N233528.04 E0581536.48 between radials 072° and 088°. Upper limit: FL150 Lower limit: 2000 FT AMSL Class: C				
MUSCAT TMA D Sector bounded by arcs of circle, between 10 NM and 25 NM radius, centered on Muscat DVOR/DME at N233528.04 E0581536.48 between radials 088° and 130°. Upper limit: FL150 Lower limit: 4000 FT AMSL Class: C	Muscat APP	Muscat Approach English H24	121.200 MHz (Primary) 121.500 MHz (Emergency)	
MUSCAT TMA E Sector bounded by arcs of circle, between 10 NM and 25 NM radius, centered on Muscat DVOR/DME at N233528.04 E0581536.48 between radials 130° and 215°. Upper limit: FL150 Lower limit: 6500 FT AMSL Class: C	Muscat APP	Muscat Approach English H24	121.200 MHz (Primary) 121.500 MHz (Emergency)	
MUSCAT TMA F Sector bounded by arcs of circle, between	Muscat APP	Muscat Approach English H24	121.200 MHz (Primary)	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
10 NM and 15 NM radius, centered on Muscat DVOR/DME at N233528.04 E0581536.48 between radials 215° and 255°. Upper limit: FL150 Lower limit: 5000 FT AMSL Class: C			121.500 MHz (Emergency)	
MUSCAT TMA G Sector bounded by arcs of circle, between 15 NM and 25 NM radius, centered on Muscat DVOR/DME at N233528.04 E0581536.48 between radials 215° and 255°. Upper limit: FL150 Lower limit: 8000 FT AMSL Class: C	Muscat APP	Muscat Approach English H24	121.200 MHz (Primary) 121.500 MHz (Emergency)	
MUSCAT TMA H Sector bounded by arcs of circle, between 10 NM and 25 NM radius, centered on Muscat DVOR/DME at N233528.04 E0581536.48 between radials 255° and 290°. Upper limit: FL150 Lower limit: 2000 FT AMSL Class: C	Muscat APP	Muscat Approach English H24	121.200 MHz (Primary) 121.500 MHz (Emergency)	
MUSCAT TMA I	Muscat APP	Muscat Approach	121.200 MHz	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
Sector bounded by arcs of circle, between 25 NM and 50 NM radius, centered on Muscat DVOR/DME at N233528.04 E0581536.48 between radials 088° and 130°. Upper limit: FL150 Lower limit: 5500 FT AMSL Class: C		English H24	(Primary) 121.500 MHz (Emergency)	
MUSCAT TMA J Sector bounded by arcs of circle, between 25 NM and 50 NM radius, centered on Muscat DVOR/DME at N233528.04 E0581536.48 between radials 130° and 215°. Upper limit: FL150 Lower limit: 8000 FT AMSL Class: C	Muscat APP	Muscat Approach English H24	121.200 MHz (Primary) 121.500 MHz (Emergency)	
MUSCAT TMA K Sector bounded by arcs of circle, between 25 NM and 50 NM radius, centered on Muscat DVOR/DME at N233528.04 E0581536.48 between radials 215° and 255°. Upper limit: FL150 Lower limit: 9500 FT AMSL Class: C	Muscat APP	Muscat Approach English H24	121.200 MHz (Primary) 121.500 MHz (Emergency)	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
MUSCAT TMA L Sector bounded by arcs of circle, between 25 NM and 50 NM radius, centered on Muscat DVOR/DME at N233528.04 E0581536.48 between radials 255° and 290°. Upper limit: FL150 Lower limit: 4500 FT AMSL Class: C	Muscat APP	Muscat Approach English H24	121.200 MHz (Primary) 121.500 MHz (Emergency)	
SALALAH TMA N173411 E0543318, then along R-038 SLL (outbound) to N174945 E0544632, then along 60 DME ARC SLL clockwise to N164917 E0550754, then along R-102 SLL (inbound) to N165353 E0544736, then along 40 DME ARC SLL clockwise to N163847 E0533341 - N162605 E0530949 - N165809 E0525507 - N170213 E0532513 - N173411 E0543318. Upper limit: FL150 Lower limit: 1000 FT AGL Class: C	Salalah APP Salalah TWR	Salalah Approach English H24 Salalah Tower English H24	119.100 MHz (Primary) 121.500 MHz (Emergency) 118.200 MHz (Primary) 121.500 MHz (Emergency)	
FUJAIRAH CONTROL AREA (I) From N253605.65	Fujairah Approach	Fujairah Approach English	129.400 MHz	Area located within Oman FIR

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
E0562151.39 clockwise along an arc of 30 NM radius centred on N250600.00 E0562103.00 –N243644.15 E0562847.71 –N250600.00 E0562103.00 – N252603.78 E0562135.23 –N253605.65 E0562151.39. Upper limit: 7500 FT AMSL Lower limit: 1500 FT AMSL Class: C				
FUJAIRAH CONTROL AREA (II) From N244606.37 E0562357.52 clockwise along an arc of 20 NM radius centred on N250600.00 E0562103.00 – N245420.06 E0560307.82 – N251014.00 E0560656.00 – N252300.00 E0561000.00 –N252318.22 E0560952.37 then clockwise along an arc of 20 NM radius centred on N250600.00 E0562103.00 –N252603.78 E0562135.23 –N250600.00 E0562103.00	Fujairah Approach	Fujairah Approach English	129.400 MHz	Area located within Oman FIR

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose/ SATVOICE number	Remarks
1	2	3	4	5
–N244606.37 E0562357.52. Upper limit: 7500 FT AMSL Lower limit: 2000 FT AMSL Class: C				
GIZRA BOX - Delegated Airspace to UAE Sector bounded by a line joining the following points: N245608.00 E0563113 – N244218.00 E0565415 – N242218.00 E0563418 – N243844.00 E0561342 – N245608.00 E0563113. Upper limit: FL 270 Lower limit: FL 145 Class: A	UAE ACC	UAE Control/ Radar English H24	125.725 MHz	Airspace Delegated to Emirates Control for provision of ATS in order to expedite traffic flow

ENR 2.2 OTHER REGULATED AIRSPACE

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ENR 3 ATS ROUTES

ENR 3.1 CONVENTIONAL NAVIGATION ROUTES

NIL

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ENR-3.2 AREA NAVIGATION ROUTES

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
A454 ((RNAV 5))						
◆ TAPDO (FIR Boundary) 242400.00N 0612000.00E						X-ing G652 FIR OOMM, OPKR
	255° 124 NM	10 NM	UNL FL150 Class A		EVEN ↓	MOCA 3000FT
◇ VUSET 235540.00N 0590812.00E						X-ing M877, N571, R462, T500
	288° 32 NM	10 NM	UNL FL150 Class A		EVEN ↓	MOCA 3000FT
◇ UMEKO 240620.00N 0583450.00E						
	288° 62 NM	10 NM	UNL FL150 Class A		EVEN ↓	MOCA 3000FT
◇ BORER 242623.00N 0573048.00E						
	287° 39 NM	10 NM	UNL FL150 Class A		EVEN ↓	MOCA 3000FT
◆ PASOV 243841.00N 0565037.00E						X-ing B540, M564, T509 Transfer of control point between OOMM and OMAE.
Muscat Control 128.15 MHz Flight Restrictions: Note 1: For traffic landing at northern UAE airports or overflying the northern UAE below FL200. Traffic will be required to cross fix PASOV at FL270 or below. All traffic destination OMDB via PASOV expect FL230 at PASOV. ATC may re-route traffic to TAPRA (M762) to facilitate the efficient flow of traffic into northern UAE						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
airports. All traffic destination OMDW or OMDM expect FL180 at TAPRA, all traffic destination OMDB expect FL240 at TAPRA. Note 2: All traffic from TAPDO destination OMDW or OMDM shall route from PASOV-M564 via PUXIL to VAXAS. All traffic expect FL190 at PASOV. Note 3: All traffic from TAPDO destination OMSJ or OMRK shall route from VUSET via N571 to MENSA. All traffic expect FL160 at MENSA.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
A775 (RNAV 5)						
◆ REXOD (FIR boundary) 211230.00N 0613830.00E						X-ing L883, M762, N318, N563 FIR OOMM, VABF
	306° / 126° 118 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
◇ TUMET 222307.00N 0595702.00E						X-ing L555, T503
	306° / 126° 40 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
◇ IMDEK 224647.00N 0592217.00E						X-ing L444
	306° / 126° 26 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
◇ OBTIN 230216.00N						X-ing N881

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
0585920.00E						
	306° 38 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 11000 FT
KUSRA 232426.00N 0582611.00E						X-ing G652, M877, P574 Muscat Control 128.15 MHz
Muscat Control 126.55 MHz Flight Restriction: Note: Traffic entering the OOMM FIR at REXOD intending to land in OOMS or continuing to SOLUD for overlying OMAE FIR.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
A777 (RNAV 5)						
TONVO (FIR boundary) 250500.00N 0563200.00E						X-ing P307 FIR OOMM, OMAE
	101° 26 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
BUBAS 245938.00N 0570003.00E						X-ing P513
	102° 46 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
NADSO 244957.00N 0574926.00E						X-ing B505, B524
	116° 57 NM	10 NM	UNL FL150	ODD		MOCA 3000

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
			CLASS A	↓		FT
MUNGA 242516.00N 0584533.00E						X-ing M428
	116° 45 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
MIXOL 240523.00N 0592959.00E						X-ing R462
	116° 104 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
VAXIM 231900.00N 0611100.00E						X-ing L301, L430, P307
Muscat Control 119.80 MHz Flight Restriction: Note: Eastbound traffic from FL270-UNL overflying OMAE FIR and exiting OOMM FIR via DENDA, APELO or ALPOR shall route via TONVO-A777-NADSO and then B505 to EGTAL-R462 to DENDA or to continue on B505 to APELO or B524 to ALPOR. For traffic at or below FL250 route via LALDO-B505-EGTAL-R462-DENDA and LALDO-B505-APELO or LALDO-B505-NADSO-B524-ALPOR.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
A791 (RNAV 5)						
KUSEN (FIR BOUNDARY) 251828.00N 0562340.00E						FIR OOMM, OMAETraffic entering the OOMM FIR via waypoints LALDO and

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
						IMLOT shall contact Muscat Control on 119.80 MHz.
	090° / 270° 11 NM	20 NM	UNL 5500 FT CLASS A+C	ODD ↓	EVEN ↑	MOCA 5000 FT
✦ LALDO 251806.00N 0563600.00E						X-ing B505 Transfer of control point between OMAE and OOMM.
	090° / 270° 12 NM	20 NM	UNL 5500 FT CLASS A+C	ODD ↓	EVEN ↑	MOCA 5000 FT
✦ GIDIL 251742.00N 0564923.00E						
	090° / 270° 17 NM	20 NM	UNL 5500 FT CLASS A+C	ODD ↓	EVEN ↑	MOCA 5000 FT
✦ IMLOT (FIR boundary) 251708.00N 0570804.00E						FIR OIIX, OOMMTransfer of control pointbetween OIXX and OOMM.
Muscat Control 119.80 MHz Flight Restrictions: Note 1: Eastbound only below FL255. Note 2: Eastbound traffic overflying OMAE FIR on A791 between LALDO and IMLOT in the OOMM FIR: Only FL330 and FL390 available. Note 3: Traffic departing from northern UAE airports and routing via A791 can expect FL270.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
B400 (RNAV 5)						
 MCT DVOR/DME 233528.04N 0581536.48E						X-ing G216, L631, M303, P316, P513, Q978, T500, T502, T503, T505, T506, T508, T511
	212° / 032° 14 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
 ITURA 232351.00N 0580720.00E						X-ing L695, M762, P570
	212° / 032° 11 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
 GEPOT 231446.00N 0580053.00E						X-ing G652, N629
	212° / 032° 16 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
 GEVED 230105.00N 0575111.00E						X-ing N318, N881
	213° / 033° 9 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
 IZK VOR/DME 225318.60N 0574542.73E						X-ing M628
	205° / 025° 37 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 4500 FT
 DARAT 222000.00N 0572830.00E						
	205° / 025° 40 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 4500 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
KEBAS 214330.00N 0570948.00E						X-ing N569
	205° / 025° 7 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 4500 FT
ITSAG 213720.00N 0570640.00E						X-ing L692
	205° / 025° 23 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 4500 FT
MEVLI 211632.00N 0565606.00E						X-ing L883
	205° / 025° 25 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 4500 FT
VUTAP 205411.00N 0564449.00E						X-ing UB424
	205° / 025° 34 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 4500 FT
ORSIT 202306.00N 0562915.00E						X-ing N315
	205° / 025° 27 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 4500 FT
HAI DVOR/DME 195813.31N 0561650.82E						X-ing L556, R401, R402
	209° 32 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4500 FT
KUKDI 193022.00N 0555953.00E						X-ing L710
	209° 31 NM	10 NM	UNL FL150		EVEN	MOCA 4500

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
			CLASS A		↓	FT
ITUVO 190315.00N 0554328.00E						X-ing UL425
	209° 48 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4500 FT
LABED 182135.00N 0551827.00E						
	209° 15 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4500 FT
ASTUN 180832.00N 0551040.00E						X-ing B535, UB535
	204° 57 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 7500 FT
DAXAM 171612.00N 0544715.00E						X-ing M551, P316
	212° / 034° 27 NM	10 NM	UNL FL190 CLASS A	ODD ↑	EVEN ↓	MOCA 7500 FT
MUTVA 165325.00N 0543201.00E						X-ing B549
	212° / 034° 72 NM	10 NM	UNL FL190 CLASS A	ODD ↑	EVEN ↓	MOCA 7500 FT
IMKAD (FIR boundary) 155245.00N 0535147.00E						Muscat Control 123.95 MHzFIR OOMM, OYSC
Flight Restrictions: Note 1: Traffic landing OOMS shall use P316 at DAXAM. Northbound traffic from SLL and Eastbound traffic shall use P316 from DAXAM to DEDSO then as planned Route. Note 2: Traffic entering OOMM FIR at IMKAD destination OMDW or OMDM shall route via DAXAM-P316-DEDSO-R401-MUSAP and expect FL150 at MUSAP.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Note 3: Traffic entering OOMM FIR at IMKAD destination OMDB, OMSJ or OMRK shall route via DAXAM-P316-DEDSO-R401-MUSAP and expect to cross MUSAP below FL250.					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
B505 (RNAV 1, RNAV 5)						
◆ LALDO 251806.00N 0563600.00E						X-ing A791Transfer of control point between OOMM and OMAE.RNAV 1 on segment LALDO-ITLOB
	112° 72 NM	1 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
◇ NADSO 244957.00N 0574926.00E						X-ing A777, B524
	095° 71 NM	1 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
◇ ITLOB 244325.00N 0590701.00E						X-ing N430
	096° 83 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
◇ EGTAL 243458.00N						X-ing R462 Between EGTAL and

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
0603724.00E						APELO only available FL190, FL210, FL270 and FL290.
	089° 39 NM	10 NM	FL290 FL190 CLASS A	ODD ↓		MOCA 3000 FT
✦ APELO (FIR boundary) 243455.00N 0612000.00E						FIR OOMM, OPKR Muscat Control 128.15 MHz
Muscat Control 119.80 MHz Flight Restrictions: Note 1: Entry at LALDO only for traffic departing northern UAE airports. Note 2: Flights intending to enter VABF FIR shall exit OOMM FIR via RASKI or PARAR. Note 3: Eastbound traffic from FL270-UNL overflying OMAE FIR and exiting OOMM FIR via DENDA, APELO or ALPOR shall route via TONVO-A777-NADSO and then B505 to EGTAL-R462 to DENDA or to continue on B505 to APELO or B524 to ALPOR. For traffic at or below FL250 route via LALDO-B505- EGTAL-R462-DENDA and LALDO-B505-APELO or LALDO-B505-NADSO-B524-ALPOR.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
B524 (RNAV 1, RNAV 5)						
◈ NADSO 244957.00N 0574926.00E						X-ing A777, B505
	103° 78 NM	1 NM	UNL FL150 CLASS A	ODD ↓		RNAV 1 on segment NADSO-DAMUM. MOCA

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
						3000FT
◇ DAMUM 243236.00N 0591307.00E						X-ing M681
	102° 49 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
◇ ASLOM 242113.00N 0600552.00E						X-ing L430, R462
	102° 36 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
◇ VEKAN 241235.00N 0604454.00E						X-ing G652
	103° 33 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
◆ ALPOR (FIR boundary) 240441.00N 0612000.00E						X-ing G216 FIR OOMM, OPKR Muscat Control 128.15 MHz
Flight Restriction: Note: Eastbound traffic from FL270-UNL overflying OMAE FIR and exiting OOMM FIR via DENDA, APELO or ALPOR shall route via TONVO-A777-NADSO and then B505 to EGTAL-R462 to DENDA or to continue on B505 to APELO or B524 to ALPOR. For traffic at or below FL250 route via LALDO-B505-EGTAL-R462-DENDA and LALDO-B505-APELO or LALDO-B505-NADSO-B524-ALPOR.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
B535 (RNAV 5)					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
◆ KAPET (FIR boundary) 163322.00N 0530614.00E						X-ing UB535FIR OOMM, OYSC
	063° / 243° 44 NM	10 NM	FL270 FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 7000 FT
◇ LADAR 165324.00N 0534655.00E						X-ing B549, UB535
	063° / 244° 21 NM	10 NM	FL270 FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 7000 FT
◇ SLL DVOR/DME 170259.36N 0540656.97E						X-ing P316
	222° 59 NM	10 NM	FL270 FL150 CLASS A		EVEN ↑	MOCA 7000 FT
◇ DARAB 174632.00N 0544902.00E						
	223° 30 NM	10 NM	FL270 FL150 CLASS A		EVEN ↑	MOCA 7000 FT
◇ ASTUN 180832.00N 0551040.00E						X-ing B400, UB535
Muscat Control 123.95 MHz Flight Restrictions: Note 1: Traffic entering OOMM FIR at KAPET destination OMDW, OMDM shall route via SLL-P316- DEDSO-R401-MUSAP and expect FL150 at MUSAP. Note 2: Traffic entering OOMM FIR at KAPET destination OMDB, OMSJ or OMRK shall route via SLL-P316-DEDSO-R401-MUSAP and expect to cross MUSAP below FL250.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
B540 (RNAV 5)						
◇ GERAR 240600.00N 0573616.00E						X-ing P513
	307° 35 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◆ DEGNU 242734.00N 0570613.00E						
	307° 18 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◆ PASOV 243841.00N 0565037.00E						X-ing A454, M564, T509 Transfer of control point between OOMM and OMAE. Cross fix PASOV at FL255 or below. U.A.E. Centre 125.725 MHz
	301° 25 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◇ KUPMA (FIR boundary) 245148.00N 0562648.00E						
Muscat Control 119.80 MHz Flight Restrictions: Note 1: For traffic landing at northern UAE airports or overflying the northern UAE below FL255. ATC may re-route traffic to TAPRA (M762) to facilitate the efficient flow of traffic into northern UAE airports. Note 2: Traffic destination OMSJ or OMRK exiting OOMM FIR via PASOV expect FL180 at PASOV. Note 3: Traffic destination OMDB exiting OOMM FIR via PASOV expect FL230 at PASOV. Note 4: Traffic destination OMDW or OMDM exiting OOMM FIR via PASOV expect FL190 at PASOV.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
B549 (RNAV 5)						
◆ PUTRA (FIR boundary) 165432.00N 0525631.00E						FIR OOMM, OYSC
	273° / 092° 48 NM	10 NM	UNL FL190 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
◇ LADAR 165324.00N 0534655.00E						X-ing B535, UB535
	271° / 091° 43 NM	10 NM	UNL FL190 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
◇ MUTVA 165325.00N 0543201.00E						X-ing B400
	271° / 091° 62 NM	10 NM	UNL FL190 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
◆ KIVEL (FIR boundary) 165306.00N 0553633.00E						X-ing M551, R401 FIR OOMM, OYSC
Muscat Control 123.95 MHz Flight Restrictions: Note 1: Traffic entering OOMM FIR at PUTRA destination OMDW or OMDM shall route via DEDSO-R401- MUSAP and expect FL150 at MUSAP. Note 2: Traffic entering OOMM FIR at PUTRA destination OMDB, OMSJ or OMRK shall route via DEDSO-R401-MUSAP and expect to cross MUSAP below FL250.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
G216					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
(RNAV 5)						
LAKLU 232235.00N 0570401.00E						X-ing N318, N685, R402, Y855 Muscat Control 124.70 MHz
	077° 35 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 12000 FT
IVAKU 232919.00N 0574103.00E						X-ing N629
	077° 32 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 12000 FT
MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, L631, M303, P316, P513, Q978, T500, T502, T503, T505, T506, T508, T511 Muscat Control 128.15 MHz
	079° 30 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
ITILA 234055.00N 0584817.00E						X-ing M877
	079° 39 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
SODEB 234747.00N 0593023.00E						X-ing G652
	078° 16 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
DERTO 235033.00N						X-ing P307

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
0594746.00E						
	079° 86 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
◆ ALPOR (FIR boundary) 240441.00N 0612000.00E						X-ing B524 FIR OOMM, OPKR
Flight Restriction: Note: The maximum Flight Level departing Muscat Intl for destination OPKC is FL310.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
G652 (RNAV 5)						
◆ TAPDO (FIR boundary) 242400.00N 0612000.00E						X-ing A454 FIR OOMM, OPKR
	248° 34 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 3000 FT
◇ VEKAN 241235.00N 0604454.00E						X-ing B524
	248° 72 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 3000 FT
◇ SODEB 234747.00N 0593023.00E						X-ing G216
	247° / 067° 63 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
◇						X-ing A775, M877, P574

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
KUSRA 232426.00N 0582611.00E						
	246° / 066° 25 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 12000 FT
◇ GEPOT 231446.00N 0580053.00E						X-ing B400, N629
	249° / 069° 42 NM	10 NM	UNL FL260 CLASS A	ODD ↑	EVEN ↓	MOCA 12000 FT
◇ TULBU 230005.00N 0571827.00E						X-ing M440, M628, N563, N881, T506, Z855
	241° / 061° 23 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 5000 FT
◇ NALKI 224928.00N 0565614.00E						X-ing R402
	242° 35 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 5000 FT
◇ NAMVA 223309.00N 0562223.00E						X-ing P304
	242° 22 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 5000 FT
◇ DATBU 222243.00N 0560054.00E						X-ing R401
	241° 15 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 5000 FT
◇ DEBAV 221532.00N 0554617.00E						X-ing L710
	241° 13 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 5000 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
◆ TOKRA (FIR boundary) 220925.00N 0553350.00E						X-ing N569 FIR OOMM, OEJD Muscat Control 123.95 MHz
Muscat Control 128.15 MHz Flight Restrictions: Note 1: Overflying westbound traffic destined OEJN or OEMA entering the OOMM FIR at TAPDO or DENDA shall route as follows: (1) TAPDO-G652-TULBU-M628-LUDID. (2) EGTAL-R462-VUSET-M877-KUSRA-G652-TULBU-M628-LUDID. Note 2: Only FL300 and FL320 are available for traffic exiting OOMM FIR via TOKRA on route G652 to OYSC FIR. Note 3: All traffic from TAPDO destination OMDW and OMDM shall route via A454-PASOV-M564 via PUXIL to VAXAS. All traffic expect FL190 at PASOV. Note 4: Traffic destination OMSJ or OMRK entering OOMM FIR at TAPDO shall route via A454-VUSET-N571-MENSA and expect FL160 at MENSA.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L301 (RNAV 5)						
◆ RASKI (FIR boundary) 230330.00N 0635200.00E						X-ing N881FIR OOMM, VABF
	274° / 094° 149 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 3000 FT
◇ VAXIM 231900.00N 0611100.00E						X-ing A777, L430, P307
	277° 30 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 3000 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
RAGMA 232301.00N 0603846.00E						X-ing N571
Muscat Control 135.60 MHz Flight Restrictions: Note 1: Westbound traffic entering the OOMM FIR at RASKI and overflying the OMAE FIR shall route via N571 to MENSA. Except for traffic intending to exit via LUDID, then route via N881. Note 2: All traffic from RASKI destination OMSJ or OMRK shall route via N571 to MENSA. All traffic expect FL160 at MENSA. Note 3: All traffic from RASKI destination OMDW and OMDM shall route via N571-VUSET-A454-PASOV-M564 via PUXIL to VAXAS. All traffic expect FL190 at PASOV. Note 4: Traffic entering the OOMM FIR at RASKI destination OMAA, OMAD or OMAM shall route via TULBU-Z855-SODEX.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L430 (RNAV 5)						
MESPO (FIR boundary) 244817.00N 0595040.00E						FIR OOMM, OIIX
	151° / 331° 30 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 3000 FT
ASLOM 242113.00N 0600552.00E						X-ing B524, R462
	134° / 314° 86 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 3000 FT
VAXIM 231900.00N 0611100.00E						X-ing A777, L301, P307
Muscat Control 128.15 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Flight Restriction: Note: Westbound FL280 and FL340 only available.					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
L444 (RNAV 5)					
KIPOL 230410.00N 0612903.00E					X-ing M303, N881
	262° 32 NM	10 NM	UNL FL150 CLASS A	EVEN ↓	MOCA 4000 FT
VUSIN 225940.00N 0605510.00E					X-ing N767
	262° 39 NM	10 NM	UNL FL150 CLASS A	EVEN ↓	MOCA 4000 FT
MIBSA 225400.00N 0601338.00E					X-ing L631
	261° 19 NM	10 NM	UNL FL150 CLASS A	EVEN ↓	MOCA 4000 FT
KAXEM 225103.00N 0595243.00E					X-ing P574
	261° 28 NM	10 NM	UNL FL150 CLASS A	EVEN ↓	MOCA 12000 FT
					X-ing A775

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
IMDEK 224647.00N 0592217.00E						
	261° 43 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 12000 FT
TOLDA 224008.00N 0583624.00E						X-ing L555, M628, N318, P570
Muscat Control 135.60 MHz Flight Restriction: Note: Traffic entering the OOMM FIR at RASKI and landing at OOMS shall route via N881-KIPOL-L444- VUSIN-N767-ELIGO-L631-MCT (DVOR/DME).						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L555 (RNAV 5)						
TOLDA 224008.00N 0583624.00E						X-ing L444, M628, N318, P570
	101° / 281° 76 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 8000 FT
TUMET 222307.00N 0595702.00E						X-ing A775, T503
	102° / 282° 139 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 8000 FT
TOTOX (FIR boundary) 215030.00N 0622230.00E						X-ing L631, N629, P574 FIR OOMM, VABF Muscat

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
						Control 126.55 MHz
Flight Restrictions: Note 1: Traffic entering the OOMM FIR at TOTOX for overflying OMAE FIR shall route via TOLDA-M628- TULBU-N563-SODEX (unless traffic is planning through OIIX FIR). Note 2: Traffic entering the OOMM FIR at TOTOX destination OMAA, OMAD or OMAM shall route via TOLDA-M628-TULBU-Z855-SODEX. Note 3: Traffic entering the OOMM FIR at TOTOX destination OMSJ or OMRK shall route via TOTOX-P574-PAROK-L695-ITURA-P570-MIXAM-P513-GERAR-B540-PASOV-KUPMA. All traffic expect FL180 at PASOV. Note 4: Traffic entering the OOMM FIR at TOTOX for overflying OMAE FIR and intending to route via OIIX FIR shall route via TOTOX-P574-SOLUD. Note 5: Overflying traffic intending to exit OOMM FIR via TOTOX shall route via LABRI-N318-TOLDA-L555-TOTOX or TARDI-N629-TOTOX or MIDGU-M440-TULBU-M628-TOLDA-L555-TOTOX. Note 6: FL330 is not available via TOTOX.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L556 (RNAV 5)						
 IMDAM (FIR boundary) 202416.00N 0550801.00E						FIR OOMM, OEJD
	111° 38 NM	10 NM	UNL FL270 CLASS A	ODD ↓		MOCA 7500 FT
 OTISA 201000.00N 0554556.00E						X-ing UB424
	111° 13 NM	10 NM	UNL FL270 CLASS A	ODD ↓		MOCA 7500 FT
 KEDON 200503.00N 0555901.00E						X-ing L710
	111° 18 NM	10 NM	UNL FL270	ODD		MOCA 7500

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
			CLASS A	↓		FT
◆ HAI DVOR/DME 195813.31N 0561650.82E						X-ing B400, R401, R402
	121° 16 NM	10 NM	UNL FL270 CLASS A	ODD ↓		MOCA 7500 FT
◇ GIVNO 195011.00N 0563059.00E						X-ing P316
	121° 128 NM	10 NM	UNL FL270 CLASS A	ODD ↓		MOCA 7500 FT
◆ KUTVI (FIR boundary) 184306.00N 0582642.00E						X-ing N315 FIR OOMM, OYSC
Muscat Control 123.95 MHz Flight Restriction: Note: FL330 is not available via ASPUX.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L631 (RNAV 5)						
◆ TOTOX (FIR boundary) 215030.00N 0622230.00E						X-ing L555, N629, P574 FIR OOMM, VABF
	298° 92 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4000 FT
◇						X-ing M628

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
IVOMA 223408.00N 0605430.00E						
	298° 20 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4000 FT
◆ DEBDA 224327.00N 0603525.00E						
	298° 23 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4000 FT
◇ MIBSA 225400.00N 0601338.00E						X-ing L444
	298° 20 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4000 FT
◇ AMBOS 230324.00N 0595405.00E						X-ing N881, Q620
	298° 47 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4000 FT
◇ ELIGO 232458.00N 0590848.00E						X-ing N767
	294° 14 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4000 FT
◇ KARAR 233042.00N 0585438.00E						X-ing T504
	278° 36 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4000 FT
◇ MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, M303, P316, P513, Q978, T500, T502, T503, T505, T506, T508,

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
						T511
Note 1: Traffic entering the OOMM FIR via TOTOX is required to call Muscat Control on 126.55 MHz. Note 2: Only for traffic landing OOMS.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L692 (RNAV 5)						
◆ DAPOL (FIR boundary) 214301.00N 0553416.00E						Transfer of control point between OOMM and OEJD. FIR OOMM, OEJD
	092° 14 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
◇ EMAVA 214208.00N 0554936.00E						X-ing L710
	092° 72 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
◇ ITSAG 213720.00N 0570640.00E						X-ing B400
	093° 31 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
◇ GISKA 213503.00N 0574014.00E						X-ing N569, P316, UB424
Muscat Control 118.325 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Flight Restriction: Note: Traffic entering via DAPOL is for traffic exiting OOMM FIR via REXOD, LOTAV and KITAL only.					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L695 (RNAV 5)						
◆ PAROK 231030.00N 0590245.00E						X-ing P574
	285° 53 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 11000 FT
◇ ITURA 232351.00N 0580720.00E						X-ing B400, M762, P570 Muscat Control 128.15 MHz
Muscat Control 135.60 MHz Flight Restriction: Note: Traffic entering the OOMM FIR at TOTOX destination in the northern UAE airports shall route via P574-PAROK-L695-ITURA-M762-VAXAS.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
L710 (RNAV 5)					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
◆ MEMTU (FIR boundary) 232517.00N 0552443.00E						Transfer of control point between OOMM and OMAE. FIR OOMM, OMAE
	162° 24 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
◇ GOGMI 230215.00N 0553159.00E						X-ing M628
	162° 26 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
◇ ITKUN 223731.00N 0553934.00E						X-ing Z515
	162° 23 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
◇ DEBAV 221532.00N 0554617.00E						X-ing G652
	173° 33 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
◇ EMAVA 214208.00N 0554936.00E						X-ing L692
	173° 26 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
◇ ITETA 211618.00N 0555208.00E						X-ing L833
	173° 24 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
◇						X-ing N315

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
IVENI 205158.00N 0555430.00E						
	173° 33 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
KASIN 201853.00N 0555742.00E						X-ing UB424
	174° 14 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
KEDON 200503.00N 0555901.00E						X-ing L556
	177° 35 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
KUKDI 193022.00N 0555953.00E						X-ing B400
	178° 32 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
DEDSO 185811.00N 0560041.00E						X-ing P316, R401, UL425
Muscat Control 124.70 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
L883 (RNAV 5)					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
◆ SITOL (FIR boundary) 211604.00N 0552514.00E						X-ing N315 FIR OOMM, OEJD
	268° 25 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
◇ ITETA 211618.00N 0555208.00E						X-ing L710
	268° 17 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
◇ ALNUN 211625.00N 0561041.00E						X-ing R401
	268° 8 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
◇ KUROV 211627.00N 0561853.00E						X-ing P304
	269° 35 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
◇ MEVLI 211632.00N 0565606.00E						X-ing B400
	270° 104 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
◇ UMILA 211555.00N 0584738.00E						X-ing N569
	090° / 270° 41 NM	10 NM	UNL FL265 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
◇ TAVKO 211519.00N 0593147.00E						X-ing P570
	090° / 270°	10 NM	UNL FL265	ODD	EVEN	MOCA 7500

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
	35 NM		CLASS A	↓	↑	FT
GADMA 211439.00N 0600938.00E						X-ing M300
	090° / 270° 83 NM	10 NM	UNL FL265 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
REXOD (FIR boundary) 211230.00N 0613830.00E						X-ing A775, M762, N318, N563 FIR OOMM, VABF Muscat Control 126.55 MHz
Muscat Control 123.95 MHz Flight Restrictions: Note 1: FL330 is not available via REXOD. Note 2: Only FL340, FL360, FL400 and FL430 available for westbound traffic exiting OOMM FIR via SITOL.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M300 (RNAV 5)						
LOTAV (FIR boundary) 203700.00N 0605700.00E						X-ing N569FIR OOMM, VABF
	309° / 129° 58 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 3000 FT
GADMA 211439.00N 0600938.00E						X-ing L883

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
	309° / 129° 29 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 3000 FT
GOLBA 213318.00N 0594600.00E						
	309° / 129° 63 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 8000 FT
EMURU 221357.00N 0585338.00E						X-ing N563, P570, T505
Muscat Control 118.325 MHz Flight Restrictions: Note 1: Traffic entering the OOMM FIR at LOTAV destination OMAL shall route via EMURU-P570-MIXAM-P899- ITRAX. Note 2: Traffic entering the OOMM FIR at LOTAV destination OMSJ or OMRK shall route via EMURU-P570-MIXAM-P513-GERAR-B540-PASOV-KUPMA. All traffic expect FL180 at PASOV. Note 3: Traffic routing via LOTAV for overfly OMAE FIR shall fly via EMURU-TULBU-N563-SODEX. Note 4: Traffic entering the OOMM FIR at LOTAV for overflying OMAE FIR and intending to route via OIIX FIR shall route via EMURU-P570-MIXAM-P574-SOLUD. Note 5: Traffic entering the OOMM FIR at LOTAV intending to land in OMAA, OMAD or OMAM shall use route Z855 via TULBU. Note 6: FL330 not available via LOTAV.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M303 (RNAV 5)						
MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, L631, P316, P513, Q978, T500, T502, T503, T505, T506, T508, T511

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
	092° 51 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 4000 FT
SEVLA (Turning Point) 233321.00N 0591122.00E						
	103° 130 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 4000 FT
KIPOL 230410.00N 0612903.00E						X-ing L444, N881
Note: Only for traffic departing OOMS. Muscat Control 135.60 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M428 (RNAV 1)						
GOMTA 251115.00N 0563447.00E						Transfer of control pointbetween OOMM and OMAE.
	113° 71 NM	1 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
TARBO 244351.00N 0574637.00E						X-ing M681, N430
	109° 57 NM	1 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
◇ MUNGA 242516.00N 0584533.00E						X-ing A777
Muscat Control 119.80 MHz Flight Restrictions: Note 1: Only for traffic departing northern UAE airports. Note 2: All UAE departures intending to enter VABF FIR shall exit OOMM FIR via RASKI or PARAR. Note 3: All UAE departures exiting OOMM FIR via DENDA, APELO or ALPOR shall route via GOMTA-M428-TARBO and then N430 to ITLOB-B505-EGTAL-R462 to DENDA or to continue on B505 to APELO or M681-DAMUM-B524 to ALPOR.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M440 (RNAV 5)						
◆ MIDGU (FIR boundary) 222706.00N 0552230.00E						Transfer of control point between OOMM and OEJD. X-ing Z515 FIR OOMM, OEJD
	068° 61 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
◇ DEMKI 224941.00N 0562308.00E						X-ing P304
	078° 52 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
◇ TULBU 230005.00N						X-ing G652, M628, N563, N881,

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
0571827.00E						T506, Z855
Muscat Control 124.70 MHz Flight Restriction: Note 1: All traffic shall expect FL310 or above at MIDGU. Note 2: Traffic from TULBU intending to exit OOMM FIR at PARAR shall route via N881-AMBOS-Q620- PARAR.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M551 (RNAV 5)						
 DAXAM 171612.00N 0544715.00E						X-ing B400, P316
	117° / 297° 53 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
 KIVEL (FIR boundary) 165306.00N 0553633.00E						X-ing B549, R401 FIR OOMM, OYSC Muscat Control 123.95 MHz

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M564 (RNAV 1)						
◆ PASOV 243841.00N 0565037.00E						Transfer of control point between OOMM and OMAE. X-ing A454, B540, T509
	277° 17 NM	1 NM	UNL FL150 CLASS A		EVEN ↓	
◇ PUXIL 244117.00N 0563145.00E						X-ing P574
	277° 13 NM	1 NM	UNL FL150 CLASS A		EVEN ↓	
◇ VAXAS (FIR boundary) 244308.00N 0561807.00E						X-ing M762 FIR OOMM, OMAE
U.A.E. Centre 125.725 MHz Flight Restriction: Note: All traffic from DENDA, TAPDO, RASKI and PARAR destination OMDW or OMDM shall route from VUSET to A454-PASOV-M564 via PUXIL to VAXAS. All traffic expect FL190 at PASOV.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M628 (RNAV 5)						
◆ LUDID (FIR boundary) 230227.00N 0551800.00E						FIR OOMM, OMAE

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
	269° 13 NM	10 NM	UNL FL255 CLASS A		EVEN ↑	MOCA 5000 FT
GOGMI 230215.00N 0553159.00E						X-ing L710
	269° 21 NM	10 NM	UNL FL255 CLASS A		EVEN ↑	MOCA 5000 FT
LABSA 230153.00N 0555505.00E						X-ing R401
	270° 22 NM	10 NM	UNL FL255 CLASS A		EVEN ↑	MOCA 5000 FT
EGVAN 230127.00N 0561907.00E						X-ing Q730, Z515
	270° 37 NM	10 NM	UNL FL255 CLASS A		EVEN ↑	MOCA 5000 FT
KUNGO 230034.00N 0565850.00E						X-ing R402, Z855
	270° 18 NM	10 NM	UNL FL255 CLASS A		EVEN ↑	MOCA 5000 FT
TULBU 230005.00N 0571827.00E						X-ing G652, M440, N563, N881, T506, Z855
	105° / 285° 26 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 12000 FT
IZK VOR/DME 225318.60N 0574542.73E						X-ing B400
	106° / 286° 49 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 12000 FT
						X-ing L444, L555, N318,

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
TOLDA 224008.00N 0583624.00E						P570
	273° 64 NM	10 NM	UNL FL150 CLASS A		EVEN ↑	MOCA 12000 FT
◇ LOXOP 223722.00N 0594548.00E						X-ing N629
	273° 43 NM	10 NM	UNL FL150 CLASS A		EVEN ↑	MOCA 4500 FT
◇ LOSIM 223513.00N 0603238.00E						X-ing P574
	273° 20 NM	10 NM	UNL FL150 CLASS A		EVEN ↑	MOCA 4500 FT
◇ IVOMA 223408.00N 0605430.00E						X-ing L631
	274° 123 NM	10 NM	UNL FL150 CLASS A		EVEN ↑	MOCA 4500 FT
◆ PARAR (FIR boundary) 222630.00N 0630700.00E						X-ing N571, N767, P307, Q620 Traffic entering the OOMM FIR via PARAR is required to call Muscat Control 135.60 MHz. FIR OOMM, VABF

Flight Restrictions: Note 1: Traffic entering the OOMM FIR at PARAR destination OMAA, OMAM and OMAD shall route via TULBU-Z855-SODEX.

Note 2: Traffic entering the OOMM FIR at PARAR destination OMAL shall route via LOSIM-P574-MIXAM-P899-ITRAX.

Note 3: Westbound traffic entering the OOMM FIR at PARAR and overflying the OMAE FIR shall route via N571 to MENSA. Except for traffic intending to exit via LUDID.

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Note 4: All traffic from PARAR destination OMDW and OMDM shall route via N571 from VUSET to A454- PASOV-M564 via PUXIL to VAXAS. All traffic expect FL190 at PASOV. Note 5: All traffic from PARAR destination OMSJ or OMRK shall route via N571 to MENSA. All traffic expect FL160 at MENSA. Note 6: Traffic from TULBU intending to exit OOMM FIR at PARAR shall route via N881-AMBOS-Q620- PARAR.					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M681 (RNAV 1)						
TARBO 244351.00N 0574637.00E						X-ing M428, N430
	098° 79 NM	1 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
DAMUM 243236.00N 0591307.00E						X-ing B524
Note: Only for traffic departing northern UAE airports. Muscat Control 119.80 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
M762					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
(RNAV 5)						
◆ REXOD (FIR boundary) 211230.00N 0613830.00E						X-ing A775, L883, N318, N563FIR OOMM, VABF
	304° 144 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 3000 FT
◇ SUR VOR/DME 223247.90N 0592929.70E						X-ing T504
	304° 41 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 11000 FT
◆ DELSO 225606.00N 0585233.00E						
	304° 50 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 11000 FT
◇ ITURA 232351.00N 0580720.00E						X-ing B400, L695, P570
	304° 20 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 11000 FT
◇ ALMOG 233524.00N 0574940.00E						X-ing Q978
	306° 18 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◇ VELOD 234611.00N 0573435.00E						X-ing P899
	306° 44 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◆ GEXAN 241257.00N						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
0565649.00E						
	307° 22 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
✦ TAPRA 242607.00N 0563803.00E						X-ing T507 Transfer of control point between OOMM and OMAE. U.A.E. Centre 125.725 MHz
	313° 25 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◇ VAXAS (FIR boundary) 244308.00N 0561807.00E						X-ing M564 FIR OOMM, OMAE
Muscat Control 126.55 MHz Flight Restrictions: Note 1: Traffic entering the OOMM FIR at REXOD destination OMAL shall route via ITURA-P570-MIXAM-P899- ITRAX. Note 2: Traffic entering the OOMM FIR at REXOD destination OMAA, OMAM or OMAD shall route via N563-TULBU-Z855-SODEX. Note 3: Traffic entering the OOMM FIR at REXOD destination OMSJ or OMRK shall route via ITURA-P570-MIXAM-P513-GERAR-B540-PASOV-KUPMA. All traffic expect FL180 at PASOV. Note 4: Traffic entering the OOMM FIR at REXOD for overfly OMAE FIR shall route via N563-TULBU-N563-SODEX. Note 5: For traffic landing at northern UAE airports or overflying the northern UAE below FL255. ATC may re-route traffic to PASOV (B540) to facilitate the efficient flow of traffic. Note 6: Traffic destination OMDW or OMDM exiting via TAPRA expect FL180 at TAPRA. Note 7: Traffic destination OMDB exiting via TAPRA expect FL240 at TAPRA.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M877 (RNAV 5)						
VUSET 235540.00N 0590812.00E						X-ing A454, N571, R462, T500
	230° / 050° 23 NM	10 NM	UNL FL270 CLASS A	ODD ↑	EVEN ↓	MOCA 3000 FT
ITILA 234055.00N 0584817.00E						X-ing G216
	230° / 050° 26 NM	10 NM	UNL FL270 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
KUSRA 232426.00N 0582611.00E						X-ing A775, G652, P574
Muscat Control 128.15 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N315 (RNAV 5)						
SITOL (FIR boundary) 211604.00N 0552514.00E						X-ing L883FIR OOMM, OEJD
	310° 36 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
IVENI 205158.00N 0555430.00E						X-ing L710

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
	310° 28 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
◇ VELIK 203322.00N 0561656.00E						X-ing P304, R401, UB424
	312° 15 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
◇ ORSIT 202306.00N 0562915.00E						X-ing B400
	312° 19 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
◇ MOBAB 201032.00N 0564415.00E						X-ing P316
	312° 130 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
◆ KUTVI (FIR boundary) 184306.00N 0582642.00E						X-ing L556 FIR OOMM, OYSC ACC Muscat Control
	123° / 303° 107 NM	10 NM	UNL FL265 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
◆ ASPUX (FIR boundary) 174404.00N 0600004.00E						X-ing UL425 FIR OYSC, VABF Muscat Control 123.95 MHz

Flight Restrictions: Note 1: Only FL340, FL360, FL400 and FL430 available for westbound traffic exiting OOMM FIR via SITOL.

Note 2: Traffic entering OOMM FIR at ASPUX destination OMDW or OMDM shall route via VELIK-R401- MUSAP and expect FL150 at MUSAP.

Note 3: Traffic entering OOMM FIR at ASPUX destination OMDB, OMSJ or OMRK shall route via VELIK-R401-MUSAP and expect to cross MUSAP below FL250.

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N318 (RNAV 1, RNAV 5)						
◆ LABRI (FIR boundary) 240344.00N 0553842.00E						FIR OOMM, OMAE
	117° 23 NM	1 NM	UNL FL150 CLASS A	ODD ↓		RNAV 1 on segment LABRIGEVED MOCA 12000 FT
◇ EGROK 235253.00N 0560126.00E						X-ing P304
	117° 65 NM	1 NM	UNL FL150 CLASS A	ODD ↓		MOCA 12000 FT
◇ LAKLU 232235.00N 0570401.00E						X-ing G216, N685, R402, Y855
	116° 48 NM	1 NM	UNL FL260 CLASS A	ODD ↓		MOCA 12000 FT
◇ GEVED 230105.00N 0575111.00E						X-ing B400, N881
	116° 47 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 9500 FT
◇ TOLDA 224008.00N 0583624.00E						X-ing L444, L555, M628, P570
	116° 191 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 9500 FT
◆ REXOD (FIR boundary) 211230.00N 0613830.00E						X-ing A775, L883, M762, N563 FIR OOMM, VABF

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Muscat Control 124.70 MHz Flight Restrictions: Note 1: FL330 not available via REXOD. Note 2: Traffic from LAKLU intending to exit OOMM FIR at PARAR shall route via N318-GEVED-N881- AMBOS-Q620-PARAR. Note 3: LABRI is not available for traffic overflying OMAE FIR exiting OOMM FIR via DENDA, APELO, ALPOR, RASKI and PARAR.					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N430 (RNAV 1)						
TARBO 244351.00N 0574637.00E						X-ing M428, M681
	090° 73 NM	1 NM	UNL FL150 CLASS A	ODD ↓		MOCA 4500 FT
ITLOB 244325.00N 0590701.00E						X-ing B505
Note: Only for traffic departing northern UAE airports. Muscat Control 119.80 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N563 (RNAV 1, RNAV 5)						
◆ REXOD (FIR boundary) 211230.00N 0613830.00E						X-ing A775, L883, M762, N318FIR OOMM, VABF
	291° 165 NM	1 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◇ EMURU 221357.00N 0585338.00E						X-ing M300, P570, T505
	297° 99 NM	1 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 12000 FT
◇ TULBU 230005.00N 0571827.00E						X-ing G652, M440, M628, N881, T506, Z855 RNAV 1 on segment TULBUSO DEX
	297° 73 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCO 12000 FT
◇ MEKNA 233309.00N 0560815.00E						X-ing P304
	297° 20 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 12000 FT
◇ KURTA 234205.00N 0554900.00E						X-ing R401
	297° 17 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 12000 FT
◆ SODEX (FIR boundary) 234954.00N 0553202.00E						X-ing Z855 FIR OOMM, OMAE

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Muscat Control 126.55 MHz Flight Restrictions: Note 1: Traffic on segment between SODEX and TULBU is for overflying OMAE FIR only. Note 2: Traffic entering the OOMM FIR at REXOD destination OMAA, OMAM or OMAD shall route via TULBU-Z855-SODEX. Note 3: Traffic entering the OOMM FIR at REXOD destination OMSJ or OMRK shall route REXOD-M762- ITURA-P570-MIXAM-P513-GERAR-B540-PASOV-KUPMA. All traffic expect FL180 at PASOV. Note 4: Traffic entering the OOMM FIR at REXOD destination OMAL shall route REXOD-M762-ITURA-P570-MIXAM-P899-ITRAX. Note 5: Traffic entering the OOMM FIR at REXOD for overflying OMAE FIR and intending to route via OIIX FIR shall route REXOD-A775-KUSRA-P574-SOLUD-GISMO.					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N569 (RNAV 5)						
◆ TOKRA (FIR boundary) 220925.00N 0553350.00E						X-ing G652 FIR OOMM, OEJD
	285° 29 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
◇ SUTLI 220121.00N 0560404.00E						X-ing R401
	285° 16 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
◇ TOPSO 215653.00N 0562043.00E						X-ing P304
	285° 21 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
MOGOK 215057.00N 0564236.00E						X-ing R402
	285° 26 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
KEBAS 214330.00N 0570948.00E						X-ing B400
	285° 30 NM	10 NM	UNL FL265 CLASS A		EVEN ↑	MOCA 7500 FT
GISKA 213503.00N 0574014.00E						X-ing L692, P316, UB424
	105° / 286° 66 NM	10 NM	UNL FL265 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
UMILA 211555.00N 0584738.00E						X-ing L883
	106° / 286° 53 NM	10 NM	UNL FL265 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
GOLNI 210014.00N 0594130.00E						X-ing P570
	107° / 288° 74 NM	10 NM	UNL FL265 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
LOTAV (FIR boundary) 203700.00N 0605700.00E						X-ing M300 FIR OOMM, VABF Muscat Control 118.325 MHz
Muscat Control 123.95 MHz Flight Restrictions: Note 1: FL330 not available via LOTAV. Note 2: Traffic entering the OOMM FIR at LOTAV destination OMAA, OMAD or OMAM shall route via EMURU-N563-TULBU-Z855-SODEX.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Note 3: Traffic entering the OOMM FIR at LOTAV destination OMSJ or OMRK shall route via EMURU-P570-MIXAM-P513-GERAR-B540-PASOV-KUPMA. All traffic expect FL180 at PASOV.					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N571 (RNAV 5)						
◆ PARAR (FIR boundary) 222630.00N 0630700.00E						X-ing M628, N767, P307, Q620 FIR OOMM, VABF
	291° 148 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 3000 FT
◇ RAGMA (Turning Point) 232301.00N 0603846.00E						X-ing L301
	290° 89 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 3000 FT
◇ VUSET 235540.00N 0590812.00E						X-ing A454, M877, R462, T500
	294° 28 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
◇ TOVDI 240733.00N 0584021.00E						
	293° 54 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
◇						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
KIROP (Turning Point) 243000.00N 0574700.00E						
	292° 26 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
ASNIB 243949.00N 0572105.00E						
	292° 47 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	
MENSA (FIR boundary) 245750.00N 0563249.00E						X-ing T509 FIR OOMM, OMAE
Muscat Control 135.60 MHz Flight Restrictions: Note 1: Traffic landing northern UAE airports and overflying OMAE FIR below FL200, shall route via A454- B540 (VUSET-PASOV-KUPMA). Note 2: Westbound traffic entering the OOMM FIR at PARAR and overflying the OMAE FIR shall route via N571 to MENSA. Except for traffic intending to exit via LUDID. Note 3: All traffic from PARAR destination OMDW or OMDM shall route from VUSET to A454-PASOV-M564 via PUXIL to VAXAS. All traffic expect FL190 at PASOV. Note 4: All traffic from PARAR destination OMSJ or OMRK shall route via MENSA. All traffic expect FL160 at MENSA. Note 5: Traffic entering the OOMM FIR at PARAR destination OMAA, OMAD or OMAM shall route via M628 - TULBU-Z855-SODEX.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N629 (RNAV 5)						
TARDI (FIR boundary)						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
243418.00N 0560915.00E						
	130° 25 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 11000 FT
NOSMI (Turning Point) 241757.00N 0563002.00E						
	124° 26 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 11000 FT
BOTAM 240227.00N 0565320.00E						X-ing Y855
	124° 15 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 11000 FT
ELIVA 235335.00N 0570634.00E						
	124° 17 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 11000 FT
MUSUK 234320.00N 0572148.00E						X-ing T511
	127° 23 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 11000 FT
IVAKU 232919.00N 0574103.00E						X-ing G216
	127° 23 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 11000 FT
GEPOT 231446.00N 0580053.00E						X-ing B400, G652
	124° 24 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 11000 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
GIDAN 230104.00N 0582232.00E						X-ing N881, P570
	107° 80 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 11000 FT
LOXOP 223722.00N 0594548.00E						X -ing M628
	107° 152 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 11000 FT
TOTOX (FIR boundary) 215030.00N 0622230.00E						X-ing L555, L631, P574 FIR OOMM, VABF
Muscat Control 124.70 MHz Flight Restrictions: Note 1: Route not available for traffic exiting OOMM FIR via N881 (RASKI) or M628 (PARAR). Note 2: Overflying traffic entering the OOMM FIR via TARDI and intending to exit via LOTAV, KITAL, REXOD or TOTOX shall route as follows: (1) TARDI-N629-GIDAN-P570- EMURU-M300-LOTAV. (2) TARDI-N629-GIDAN-P570-KITAL. (3) TARDI-N629-TOTOX. (4) TARDI-N629-GIDAN-P570-TOLDA-N318-REXOD.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N685 (RNAV 1)						
RETAS (FIR boundary) 235754.00N 0553423.00E						FIR OOMM, OMAE

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
	115° 54 NM	1 NM	UNL FL150 CLASS A	ODD ↓		MOCA 12000 FT
◇ KOBIM 233309.00N 0562701.00E						X-ing Q730
	115° 27 NM	1 NM	UNL FL150 CLASS A	ODD ↓		MOCA 12000 FT
◇ PUTSO (Turning Point) 232037.00N 0565322.00E						X-ing Z515
	079° 10 NM	1 NM	UNL FL150 CLASS A	ODD ↓		MOCA 12000 FT
◇ LAKLU 232235.00N 0570401.00E						X-ing G216, N318, R402, Y855
Note: Only for traffic landing OOMS and OOSH. Muscat Control 124.70 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N767 (RNAV 5)						
◆ PARAR (FIR boundary) 222630.00N 0630700.00E						X-ing M628, N571, P307, Q620 FIR OOMM, VABF
	286° 126 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4000 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
◇ VUSIN 225940.00N 0605510.00E						X-ing L444
	285° 16 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4000 FT
◇ ATBED 230352.00N 0603752.00E						X-ing N881
	285° 85 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4000 FT
◇ ELIGO 232458.00N 0590848.00E						X-ing L631
Note 1: Only for traffic landing OOMS. Note 2: Traffic entering the OOMM FIR via PARAR is required to call Muscat Control on 135.60 MHz.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N881 (RNAV 5)						
◆ RASKI (FIR boundary) 230330.00N 0635200.00E						X-ing L301FIR OOMM, VABF
	269° / 089° 118 NM	10 NM	UNL FL270 CLASS A	ODD ↑	EVEN ↓	MOCA 4500 FT
◇ SETSI 230412.00N 0614410.00E						X-ing P307

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
	269° / 089° 14 NM	10 NM	UNL FL270 CLASS A	ODD ↑	EVEN ↓	MOCA 4500 FT
KIPOL 230410.00N 0612903.00E						X-ing L444, M303
	089° 47 NM	10 NM	UNL FL270 CLASS A	ODD ↑		MOCA 4500 FT
ATBED 230352.00N 0603752.00E						X-ing N767
	089° 40 NM	10 NM	UNL FL270 CLASS A	ODD ↑		MOCA 4500 FT
AMBOS 230324.00N 0595405.00E						X-ing L631, Q620
	089° 29 NM	10 NM	UNL FL270 CLASS A	ODD ↑		MOCA 4500 FT
MUSRU 230256.00N 0592223.00E						X-ing P574, T502
	088° 21 NM	10 NM	UNL FL270 CLASS A	ODD ↑		MOCA 12000 FT
OBTIN 230216.00N 0585920.00E						X-ing A775
	088° 34 NM	10 NM	UNL FL270 CLASS A	ODD ↑		MOCA 12000 FT
GIDAN 230104.00N 0582232.00E						X-ing N629, P570
	089° 29 NM	10 NM	UNL FL270 CLASS A	ODD ↑		MOCA 12000 FT
						X-ing B400, N318

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
GEVED 230105.00N 0575111.00E						
	088° 30 NM	10 NM	UNL FL270 CLASS A	ODD ↑		MOCA 12000 FT
TULBU 230005.00N 0571827.00E						X-ing G652, M440, M628, N563, T506, Z855
Muscat Control 135.60 MHz Flight Restrictions: Note 1: Traffic entering the OOMM FIR at RASKI destination OMAA, OMAD or OMAM shall route via KIPOL-L444-TOLDA-M628-TULBU-Z855-SODEX. Note 2: Traffic entering the OOMM FIR at RASKI destination OMAL shall route via KIPOL-L444-KAXEM-P574-MIXAM-P899-ITRAX. Note 3: Traffic entering the OOMM FIR at RASKI and landing at OOMS shall route via KIPOL-L444-VUSIN-N767-ELIGO-L631-MCT (DVOR/DME). Note 4: Westbound traffic entering the OOMM FIR at RASKI and overflying the OMAE FIR shall route via N571 to MENSA. Except for traffic intending to exit via LUDID. Note 5: All traffic from RASKI destination OMSJ or OMRK shall route via N571 to MENSA. All traffic expect FL160 at MENSA. Note 6: All traffic from RASKI destination OMDW or OMDM shall route via L301-RAGMA-N571-VUSET to A454-PASOV-M564 via PUXIL to VAXAS. All traffic expect FL190 at PASOV. Note 7: Traffic from TULBU intending to exit OOMM FIR at PARAR shall route via TULBU-N881-AMBOS-Q620-PARAR.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
P304 (RNAV 5)						
VELIK 203322.00N 0561656.00E						X-ing N315, R401, UB424
	001° / 181° 43 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 8000 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
KUROV 211627.00N 0561853.00E						X-ing L883
	001° / 181° 40 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 8000 FT
TOPSO 215653.00N 0562043.00E						X-ing N569
	001° / 181° 36 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 8000 FT
NAMVA 223309.00N 0562223.00E						X-ing G652
	001° / 181° 17 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 8000 FT
DEMKI 224941.00N 0562308.00E						X-ing M440
	358° / 178° 28 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 8000 FT
EMISO 231734.00N 0562307.00E						X-ing Q730
Muscat Control 123.95 MHz For OOSH arrival from the South. Southbound traffic mainly will be OOFD departure to the South.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
P307					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
(RNAV 1, RNAV 5)						
◆ TONVO (FIR boundary) 250500.00N 0563200.00E						X-ing A777
	112° 71 NM	1 NM	UNL FL150 CLASS A	ODD ↓		FIR OOMM, OMAE RNAV 1 on segment TONVO PURNI MOCA 3000 FT
◇ PURNI 243804.00N 0574354.00E						
	113° 48 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
◇ KUNUS 241927.00N 0583226.00E						
	113° 47 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
◇ ALSAS 240054.00N 0591955.00E						X-ing R462
	110° 27 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
◇ DERTO 235033.00N 0594746.00E						X-ing G216
	110° 83 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 3000 FT
◇ VAXIM 231900.00N 0611100.00E						X-ing A777, L301, L430
	115° / 295°	10 NM	UNL FL150	ODD	EVEN	MOCA 3000

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
	34 NM		CLASS A	↓	↑	FT
◇ SETSI 230412.00N 0614410.00E						X-ing N881
	114° / 294° 85 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 3000 FT
◆ PARAR (FIR boundary) 222630.00N 0630700.00E						X-ing M628, N571, N767, Q620 FIR OOMM, VABF
Muscat Control 135.60 MHz. Traffic entering the OOMM FIR via TONVO shall contact Muscat Control on 119.80 MHz. Flight Restrictions: Note 1: Westbound traffic entering the OOMM FIR at PARAR and overflying the OMAE FIR shall route via N571 to MENSA. Except for traffic intending to exit via LUDID. Note 2: Eastbound traffic from FL270-UNL overflying OMAE FIR and exiting OOMM FIR via DENDA, APELO or ALPOR shall route via TONVO-A777-NADSO and then B505 to EGTAL-R462 to DENDA or to continue on B505 to APELO or B524 to ALPOR. For traffic at or below FL250 route via LALDO-B505- EGTAL-R462-DENDA and LALDO-B505-APELO or LALDO-B505-NADSO-B524-ALPOR. Note 3: All UAE departures intending to enter VABF FIR shall exit OOMM FIR via RASKI or PARAR. Note 4: All traffic from PARAR destination OMDW or OMDM shall route via N571 from VUSET to A454- PASOV-M564 via PUXIL to VAXAS. All traffic expect FL190 at PASOV. Note 5: All traffic from PARAR destination OMSJ or OMRK shall route via N571 to MENSA. All traffic expect FL160 at MENSA. Note 6: Traffic entering the OOMM FIR at PARAR destination OMAA, OMAD or OMAM shall route via M628-TULBU-Z855-SODEX.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
P316 (RNAV 5)					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
SLL DVOR/DME 170259.36N 0540656.97E						X-ing B535, UB535
	071° / 251° 41 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
DAXAM 171612.00N 0544715.00E						X-ing B400, M551
	035° 36 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 7500 FT
KAPOP 174544.00N 0550930.00E						
	035° 24 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 7500 FT
GAGLA 180505.00N 0552410.00E						
	033° 18 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 7500 FT
NALTI 182012.00N 0553431.00E						
	033° 45 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 7500 FT
DEDSO 185811.00N 0560041.00E						X-ing L710, R401, UL425
	030° 59 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 7500 FT
GIVNO 195011.00N 0563059.00E						X-ing L556
	031° 24 NM	10 NM	UNL FL150	ODD		MOCA 7500

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
			CLASS A	↓		FT
◇ MOBAB 201032.00N 0564415.00E						X-ing N315
	031° 99 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 7500 FT
◇ GISKA 213503.00N 0574014.00E						X-ing L692, N569, UB424
	031° 39 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 7500 FT
◇ RADAX (Turning Point) 220809.00N 0580230.00E						
	007° 88 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 7500 FT
◇ MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, L631, M303, P513, Q978, T500, T502, T503, T505, T506, T508, T511
Note: Route between DEDSO and MCT to be used only for traffic landing at OOMS. Muscat Control 123.95 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
P513 (RNAV 5)					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
BUBAS 245938.00N 0570003.00E						X-ing A777
	148° / 328° 63 NM	10 NM	UNL 3000 FT CLASS A	ODD ↓	EVEN ↑	
GERAR 240600.00N 0573616.00E						X-ing B540
	143° / 323° 30 NM	10 NM	UNL 3000 FT CLASS A	ODD ↓	EVEN ↑	
MIXAM 234139.00N 0575523.00E						X-ing P570, P574, P899, R462, T508
	108° / 288° 19 NM	10 NM	UNL 3000 FT CLASS A	ODD ↓	EVEN ↑	
MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, L631, M303, P316, Q978, T500, T502, T503, T505, T506, T508, T511
Muscat Control 119.80 MHz Flight Restriction: Note: To be used only by traffic: (1) To/from OOKB. (2) Arrivals to OOMS from North. (3) Section BUBAS-GERAR-MIXAM available for eastbound traffic departing from OMFJ. (4) Section MIXAM-GERAR available for westbound traffic destination OMSJ, OMRK and OMFJ exiting OOMM FIR via PASOV.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
P570 (RNAV 5)						
◆ KITAL (FIR boundary) 200300.00N 0601800.00E						FIR OOMM, VABF
	329° / 149° 66 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 3000 FT
◇ GOLNI 210014.00N 0594130.00E						X-ing N569
	328° / 148° 17 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 3000 FT
◇ TAVKO 211519.00N 0593147.00E						X-ing L883
	328° / 148° 25 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
◆ BONOM 213636.00N 0591800.00E						
	328° / 148° 44 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
◇ EMURU 221357.00N 0585338.00E						X-ing M300, N563, T505
	327° / 147° 30 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
◇ TOLDA 224008.00N 0583624.00E						X-ing L444, L555, M628, N318
	328° / 148° 24 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
◇ GIDAN 230104.00N						X-ing N629, N881

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
0582232.00E						
	327° / 147° 27 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 11000 FT
ITURA 232351.00N 0580720.00E						X-ing B400, L695, M762
	327° / 147° 21 NM	10 NM	UNL FL280 CLASS A	ODD ↑	EVEN ↓	MOCA 8000 FT
MIXAM 234139.00N 0575523.00E						X-ing P513, P574, P899, R462, T508
Muscat Control 118.325 MHz Flight Restrictions: Note 1: Traffic intending to land or overfly northern UAE airports below FL255 shall use route M762 (ITURA-TAPRA-VAXAS) to enter the OMAE FIR. Note 2: Traffic entering the OOMM FIR at KITAL destination OMAL will be required to fly via MIXAM-P899-ITRAX. Note 3: Traffic entering the OOMM FIR at KITAL destination OMSJ or OMRK shall route via MIXAM-P513-GERAR-B540-PASOV-KUPMA. All traffic expect FL180 at PASOV. Note 4: Traffic routing via KITAL for overflying OMAE FIR shall route via EMURU-N563-SODEX. Note 5: Traffic entering the OOMM FIR at KITAL for overflying OMAE FIR and intending to route via OIIX FIR shall route via MIXAM-P574-SOLUD. Note 6: Overflying traffic intending to exit OOMM FIR at KITAL shall route via LABRI-N318-TOLDA-P570- KITAL or TARDI-N629-GIDAN-P570-KITAL. Note 7: FL330 not available via KITAL. Note 8: Traffic entering the OOMM FIR at KITAL destination OMAA, OMAD or OMAM shall use route Z855 via TULBU.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
P574 (RNAV 5)					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
◆ TOTOX (FIR boundary) 215030.00N 0622230.00E						X-ing L555, L631, N629 FIR OOMM, VABF
	294° / 113° 111 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 8000 FT
◇ LOSIM 223513.00N 0603238.00E						X-ing M628
	293° / 113° 40 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 8000 FT
◇ KAXEM 225103.00N 0595243.00E						X-ing L444
	293° / 113° 30 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 8000 FT
◇ MUSRU 230256.00N 0592223.00E						X-ing N881, T502
	293° / 113° 20 NM	10 NM	UNL FL280 CLASS A		EVEN ↓	MOCA 8000 FT
◇ PAROK 231030.00N 0590245.00E						X-ing L695
	293° 36 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◇ KUSRA 232426.00N 0582611.00E						X-ing A775, G652, M877
	300° 33 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◇ MIXAM 234139.00N 0575523.00E						X-ing P513, P570, P899, R462,T508
	307° 30 NM	10 NM	UNL FL150		EVEN	MOCA 8000

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
			CLASS A		↓	FT
◇ DAPOK 235956.00N 0572959.00E						X-ing T507, T508, T509, Y623
	306° 38 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◆ EMATA 242309.00N 0565721.00E						
	306° 15 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◆ SOLUD 243223.00N 0564421.00E						X-ing T508 Transfer of control point between OOMM and OMAE. U.A.E. Centre 125.725 MHz
	306° 15 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◇ PUXIL 244117.00N 0563145.00E						X-ing M564
	306° 11 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◇ GISMO (FIR boundary) 244743.00N 0562236.00E						FIR OOMM, OMAE
Muscat Control 126.55 MHz Flight Restrictions: Note 1: Traffic entering the OOMM FIR at TOTOX destination OMAL shall route via MIXAM-P899-ITRAX. Note 2: Traffic entering the OOMM FIR at TOTOX destination OMSJ or OMRK shall route via P574-PAROK-L695-ITURA-P570-MIXAM-P513-GERAR-B540-PASOV-KUPMA. All traffic expect FL180 at PASOV. Note 3: Traffic entering the OOMM FIR at TOTOX destination in the northern UAE airports shall route via PAROK-L695-ITURA-M762-VAXAS.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Note 4: Traffic entering the OOMM FIR at TOTOX destination OMAA, OMAD or OMAM shall use route via L555-TOLDA-M628-TULBU-Z855-SODEX. Note 5: Traffic entering the OOMM FIR at TOTOX for overflying OMAE FIR shall fly via L555-TOLDA-M628-TULBU-N563-SODEX (unless traffic is planning through OIIX FIR). Note 6: Traffic entering the OOMM FIR at TOTOX for overflying OMAE FIR and intending to route via OIIX FIR shall route via MIXAM-P574-SOLUD. Note 7: FL330 not available via TOTOX.					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
P899 (RNAV 5)						
 MIXAM 234139.00N 0575523.00E						X-ing P513, P570, P574, R462, T508
	282° 20 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 11000 FT
 VELOD 234611.00N 0573435.00E						X-ing M762
	282° 73 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 11000 FT
 PAXIM 240245.00N 0561631.00E						
	291° 28 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 11000 FT
 ITRAX (FIR boundary) 241248.00N 0554749.00E						X-ing Q978 FIR OOMM, OMAE
Muscat Control 124.70 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Flight Restrictions: Note 1: Only available for traffic overflying OOMM FIR and landing at southern UAE airports. Note 2: Not available for OOMS departures. These flights shall route via Q978 to ITRAX.					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
Q620 (RNAV 5)						
✦ AMBOS 230324.00N 0595405.00E						X-ing L631, N881
	099° 182 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
✦ PARAR (FIR boundary) 222630.00N 0630700.00E						X-ing M628, N571, N767, P307 FIR OOMM, VABF

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Q730 (RNAV 5)					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
EGVAN 230127.00N 0561907.00E						X-ing M628, Z515
	011° 16 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
EMISO 231734.00N 0562307.00E						X-ing P304
	011° 16 NM	10 NM	UNL 11000 CLASS A/C	ODD ↓		
KOBIM 233309.00N 0562701.00E						X-ing N685
	011° 17 NM	10 NM	UNL 11000 CLASS A/C	ODD ↓		
DESPI 234951.00N 0563110.00E						
	011° 18 NM	10 NM	UNL 8000 CLASS A/C	ODD ↓		
KUNRA 240715.00N 0563531.00E						
	012° 26 NM	10 NM	UNL 8000 CLASS A/C	ODD ↓		
LADBI 243224.00N 0564117.00E						
Note: Only for traffic destination OOSH.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
Q978 (RNAV 1)						
 MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, L631, M303, P316, P513, T500, T502, T503, T505, T506, T508, T511
	269° 24 NM	1 NM	UNL FL150 CLASS A		EVEN ↓	
 ALMOG 233524.00N 0574940.00E						X-ing M762
	269° 39 NM	1 NM	UNL FL150 CLASS A		EVEN ↓	
 IVETO 233520.00N 0570704.00E						
	293° 53 NM	1 NM	UNL FL150 CLASS A		EVEN ↓	
 LOPIL 235642.00N 0561400.00E						
	304° 29 NM	1 NM	UNL FL150 CLASS A		EVEN ↓	
 ITRAX (FIR boundary) 241248.00N 0554749.00E						X-ing P899 FIR OOMM, OMAE
Flight Restrictions: Note 1: For traffic departing OOMS and exit OOMM FIR at ITRAX. Note 2: The maximum flight level departing OOMS destination OTHH or OBBI is FL320.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
R401 (RNAV 5)						
◆ KIVEL (FIR boundary) 165306.00N 0553633.00E						X-ing B549, M551 FIR OOMM, OYSC
	008° / 188° 66 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
⟐ ERDAX 175903.00N 0554458.00E						
	015° / 195° 61 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
⟐ DEDSO 185811.00N 0560041.00E						X-ing L710, P316, UL425
	015° / 195 62 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
◆ HAI DVOR/DME 195813.31N 0561650.82E						X-ing B400, L556, R402
	001° / 179° 35 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 7500 FT
⟐ VELIK 203322.00N 0561656.00E						X-ing N315, P304, UB424
	352° 43 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 7500 FT
⟐ ALNUN 211625.00N 0561041.00E						X-ing L883
	351° 45 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 7500 FT
⟐ SUTLI 220121.00N						X-ing N569

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
0560404.00E						
	351° 22 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 7500 FT
◇ DATBU 222243.00N 0560054.00E						X-ing G652
	351° 26 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 7500 FT
◇ KATAK 224811.00N 0555708.00E						X-ing Z515
	350° 14 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 7500 FT
◇ LABSA 230153.00N 0555505.00E						X-ing M628
	350° 31 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 7500 FT
◆ DOLFI 233253.00N 0555024.00E						X-ing Z855
	350° 9 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 7500 FT
◇ KURTA 234205.00N 0554900.00E						X-ing N563
	005° 36 NM	10 NM	UNL 7500 FT CLASS A		EVEN ↓	MOCA 7500 FT
◆ MUSAP (FIR boundary) 241754.00N 0555245.00E						FIR OOMM, OMAE
Muscat Control 123.95 MHz Flight Restrictions: Note 1: Airway between KURTA and MUSAP only available for traffic landing or overflying						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
northern UAE airports. Traffic destination OMDB, OMRK and OMSJ expect to cross MUSAP below FL250. Traffic destination OMDW or OMDM expect FL150 at MUSAP. Note 2: All traffic on R401 intending to enter OMAE FIR shall route via DOLFI-Z855-SODEX.					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
R402 (RNAV 5)						
◇ LAKLU 232235.00N 0570401.00E						X-ing, G216, N318, N685, Y855
	192° / 012° 23 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 7500 FT
◆ KUNGO 230034.00N 0565850.00E						X-ing M628, Z855
	192° / 012° 11 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 7500 FT
◇ NALKI 224928.00N 0565614.00E						X-ing G652
	192° 60 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 7500 FT
◇ MOGOK 215057.00N 0564236.00E						X-ing N569
	192° 72 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 7500 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
TUBSA 204029.00N 0562626.00E						X-ing UB424
	192° 43 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 7500 FT
HAI DVOR/DME 195813.31N 0561650.82E						X-ing B400, L556, R401
Muscat Control 124.70 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
R462 (RNAV 5)						
DENDA (FIR boundary) 244230.00N 0605451.00E						FIR OOMM, OIIX
	242° / 062° 18 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 3000 FT
EGTAL 243458.00N 0603724.00E						X-ing B505
	243° / 063° 32 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 3000 FT
ASLOM 242113.00N 0600552.00E						X-ing B524, L430
	243° / 063° 36 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 3000 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
MIXOL 240523.00N 0592959.00E						X-ing A777
	242° / 062° 10 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 3000 FT
ALSAS 240054.00N 0591955.00E						X-ing P307
	243° / 063° 12 NM	10 NM	UNL FL150 CLASS A	ODD ↑	EVEN ↓	MOCA 3000 FT
VUSET 235540.00N 0590812.00E						X-ing A454, M877, N571, T500
	257° 68 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 3000 FT
MIXAM 234139.00N 0575523.00E						X-ing P513, P570, P574, P899, T508
Muscat Control 128.15 MHz Flight Restrictions: Note 1: All traffic from DENDA destination OMDW or OMDM shall route from VUSET to A454-PASOV-M564 via PUXIL to VAXAS. All traffic expect FL190 at PASOV. Note 2: All traffic from DENDA destination OMSJ or OMRK shall route from VUSET via N571 to MENSA. All traffic expect FL160 at MENSA.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
T500 (RNAV 5)					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, L631, M303, P316, P513, Q978, T502, T503, T505, T506, T508, T511
	066° / 246° 52 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 3000 FT
VUSET 235540.00N 0590812.00E						X-ing A454, M877, N571, R462
Note 1: Only for departing and arriving traffic OOMS. Note 2: The maximum Flight Level departing Muscat Intl for destination OPKC is FL310. Muscat Control 128.15 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T502 (RNAV 5)						
MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, L631, M303, P316, P513, Q978, T500, T503, T505, T506, T508, T511
	117° 70 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 10000 FT
MUSRU 230256.00N 0592223.00E						X-ing N881, P574
Note: Only for traffic departing OOMS.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Muscat Control 135.60 MHz					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T503 (RNAV 5)						
◈ MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, L631, M303, P316, 513, Q978, T500, T502, T505, T506, T508, T511
	126° 118 NM	10 NM	UNL FL150 CLASS A	ODD ↓		MOCA 11000 FT
◈ TUMET 222307.00N 0595702.00E						X-ing A775, L555
Note 1: Only for traffic departing OOMS. Note 2: FL330 not available via REXOD. Muscat Control 135.60 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
T504 (RNAV 5)					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
SUR VOR/DME 223247.90N 0592929.70E						X-ing M762
	331° 47 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 10000 FT
TARVI 231400.00N 0590444.00E						
	331° 19 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 4000 FT
KARAR 233042.00N 0585438.00E						X-ing L631
Note: Only for traffic landing OOMS. Muscat Control 135.60 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T505 (RNAV 5)						
MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, L631, M303, P316, P513, Q978, T500, T502, T503, T506, T508, T511
	156° / 336° 88 NM	10 NM	UNL FL150 CLASS A	ODD ↓	EVEN ↑	MOCA 11000 FT
EMURU 221357.00N						X-ing M300, N563, P570

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
0585338.00E						
Note 1: Only for traffic departing and arriving OOMS. Note 2: FL330 not available via LOTAV and KITAL. Muscat Control 135.60 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T506 (RNAV 5)						
MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, L631, M303, P316, P513, Q978, T500, T502, T503, T505, T508, T511
	235° 63 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 12000 FT
TULBU 230005.00N 0571827.00E						X-ing G652, M440, M628, N563, N881, Z855
Muscat Control 124.70 MHz Flight Restriction: Note: Only for traffic departing OOMS exiting OOMM FIR via LUDID or TOKRA.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T507 (RNAV 5)						
◇ DAPOK 235956.00N 0572959.00E						X-ing P574, T508, T509, Y623
	298° 54 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◆ TAPRA 242607.00N 0563803.00E						X-ing M762 Transfer of control point between OOMM and OMAE.
Muscat Control 119.80 MHz Flight Restriction: Note 1: Only for traffic departing OOMS. Note 2: Only for traffic destination OMDW or OMDM shall route via TAPRA-M762-VAXAS and expect FL180 at TAPRA. ATC may re-route traffic to PASOV (B540) to facilitate the efficient flow of traffic into northern UAE airports.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T508 (RNAV 5)						
◇ MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, L631, M303, P316, P513, Q978, T500, T502, T503, T505, T506, T511
	288° 19 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
◇ MIXAM 234139.00N 0575523.00E						X-ing P513, P570, P574, P899, R462
	307° 29 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◇ DAPOK 235956.00N 0572959.00E						X-ing P574, T507, T509, Y623
	307° 53 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 8000 FT
◆ SOLUD 243223.00N 0564421.00E						X-ing P574 Transfer of control point between OOMM and OMAE.
Muscat Control 119.80 MHz Flight Restrictions: Note 1: Only for traffic departing OOMS destination OMDB at FL200 or below. Note 2: Traffic departing OOMS transiting OMAE FIR entering OIIX FIR.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T509 (RNAV 5)						
◇ DAPOK 235956.00N 0572959.00E						X-ing P574, T507, T508, Y623
	316° 53 NM	10 NM	UNL FL150 CLASS A		EVEN ↓	MOCA 3000 FT
◆						X-ing A454, B540, M564

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
PASOV 243841.00N 0565037.00E						Transfer of control point between OOMM and OMAE.
	319° 25 NM	10 NM	13000 FT 3500 FT CLASS C		EVEN ↓	MOCA 3000 FT
MENSA (FIR boundary) 245750.00N 0563249.00E						X-ing N571
	307° 13 NM	10 NM	13000 FT 3500 FT CLASS C		EVEN ↓	MOCA 3000 FT
FJV DVOR/DME 250603.00N 0562116.00E						Emirates ACC 125.725 MHz
Muscat Control 119.80 MHz Flight Restriction: Note 1: Only available for traffic departing OOMS and landing at OMSJ, OMRK or OMFJ at FL180 or below. ATC may re-route traffic to TAPRA (M762) to facilitate the efficient flow of traffic into northern UAE airports. Note 2: Route between PASOV and FJV only available for traffic landing at OMFJ.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T511 (RNAV 5)						
MUSUK 234320.00N 0572148.00E						X-ing N629
	099° 50 NM	10 NM	UNL FL150 CLASS A	ODD		MOCA 11000 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
				↓		
 MCT DVOR/DME 233528.04N 0581536.48E						X-ing B400, G216, L631, M303, P316, P513, Q978, T500, T502, T503, T505, T506, T508
Note: Only for traffic landing OOMS. Muscat Control 119.80 MHz						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
UB424 (RNAV 5)						
 GISKA 213503.00N 0574014.00E						X-ing L692, N569, P316
	051° 66 NM	10 NM	UNL FL270 CLASS A	ODD ↑		MOCA 7500 FT
 VUTAP 205411.00N 0564449.00E						X-ing B400
	231° / 051° 22 NM	10 NM	UNL FL270 CLASS A	ODD ↑	EVEN ↓	MOCA 7500 FT
 TUBSA 204029.00N 0562626.00E						X-ing R402
	231° / 051° 11 NM	10 NM	UNL FL270 CLASS A	ODD ↑	EVEN ↓	MOCA 7500 FT

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
◇ VELIK 203322.00N 0561656.00E						X-ing N315, P304, R401
	230° / 050° 23 NM	10 NM	UNL FL270 CLASS A	ODD ↑	EVEN ↓	MOCA 7500 FT
◇ KASIN 201853.00N 0555742.00E						X-ing L710
	230° / 050° 14 NM	10 NM	UNL FL270 CLASS A	ODD ↑	EVEN ↓	MOCA 7500 FT
◇ OTISA 201000.00N 0554556.00E						X-ing L556
	250° / 070° 108 NM	10 NM	UNL FL270 CLASS A	ODD ↑	EVEN ↓	MOCA 7500 FT
◇ NOVNO 193313.00N 0535858.00E						X-ing UL425
	250° / 070° 117 NM	10 NM	UNL FL270 CLASS A	ODD ↑	EVEN ↓	MOCA 7500 FT
◆ SABEL (FIR boundary) 185158.00N 0520339.00E						FIR OOMM, OYSC Muscat Control 123.95 MHz
Flight Restrictions: Note 1: Traffic intending to land at OOMS shall use P316 from GISKA. Note 2: Traffic entering OOMM FIR at SABEL destination OMDW or OMDM shall route via VELIK-R401- MUSAP and expect FL150 at MUSAP. Note 3: Traffic entering OOMM FIR at SABEL destination OMDB, OMSJ or OMRK shall route via VELIK-R401- MUSAP and expect to cross MUSAP below FL250.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
UB535 (RNAV 5)						
◆ KAPET (FIR boundary) 163322.00N 0530614.00E						X-ing B535 FIR OOMM, OYSC
	063° / 243° 44 NM	10 NM	UNL FL280 CLASS A	ODD ↓	EVEN ↑	MOCA 7000 FT
◇ LADAR 165324.00N 0534655.00E						X-ing B549, B535
	063° / 244° 21 NM	10 NM	UNL FL280 CLASS A	ODD ↓	EVEN ↑	MOCA 7000 FT
◇ SLL DVOR/DME 170259.36N 0540656.97E						X-ing P316
	223° 89 NM	10 NM	UNL FL280 CLASS A		EVEN ↑	MOCA 7000 FT
◇ ASTUN 180832.00N 0551040.00E						X-ing B400, B535
Muscat Control 123.95 MHz Flight Restrictions: Note 1: Aircraft intending to land OOMS shall use route P316. Note 2: Eastbound traffic shall use P316 from SLL to DEDSO then as planned Route. Note 3: Traffic entering OOMM FIR at KAPET or departing at OOSA destination OMDW or OMDM shall route via SLL-P316-DEDSO-R401-MUSAP and expect FL150 at MUSAP. Note 4: Traffic entering OOMM FIR at KAPET or departing at OOSA destination OMDB, OMSJ or OMRK shall route via SLL-P316-DEDSO-R401-MUSAP and expect to cross MUSAP below FL250.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
UL425 (RNAV 5)						
◆ GOBRO (FIR boundary) 193622.00N 0534741.00E						FIR OOMM, OEJD
	107° / 287° 11 NM	10 NM	UNL FL255 CLASS A	ODD ↓	EVEN ↑	MOCA 8000 FT
◇ NOVNO 193313.00N 0535858.00E						X-ing UB424
	107° / 287° 104 NM	10 NM	UNL FL255 CLASS A	ODD ↓	EVEN ↑	MOCA 8000 FT
◇ ITUVO 190315.00N 0554328.00E						X-ing B400
	107° / 287° 17 NM	10 NM	UNL FL270 CLASS A	ODD ↓	EVEN ↑	MOCA 8000 FT
◇ DEDSO 185811.00N 0560041.00E						X-ing L710, P316, R401
	108° / 288 118 NM	10 NM	UNL FL270 CLASS A	ODD ↓	EVEN ↑	MOCA 8000 FT
◆ BOVOS (FIR boundary) 182230.00N 0575844.00E						FIR OOMM, OYSC ACC Muscat Control
	108° / 288 122 NM	10 NM	UNL FL270 CLASS A	ODD ↓	EVEN ↑	MOCA 8000 FT
◆ ASPUX (FIR boundary) 174404.00N 0600004.00E						X-ing N315 FIR OYSC, VABF Muscat Control 123.95 MHz
Muscat Control 123.95 MHz Flight Restrictions: Note 1: FL330 not available for eastbound traffic via ASPUX.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
Note 2: Only FL340 and above available for westbound traffic exiting OOMM FIR via GOBRO.					

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
Y623 (RNAV 1)						
 DAPOK 235956.00N 0572959.00E						X-ing P574, T507, T508, T509
	290° 29 NM	1 NM	UNL 8000 CLASS A/C		EVEN ↓	
 GIVLA 241020.00N 0570032.00E						
Note: For traffic landing OOSH only.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
Y855 (RNAV 1)						
 BOTAM 240227.00N 0565320.00E						X-ing N629
	166° 41 NM	1 NM	UNL 11000	ODD		

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
			CLASS A/C	↓		
◇ LAKLU 232235.00N 0570401.00E						X-ing G216, N318, N685, R402
Note: For departures from OOSH only. Flight Restriction: Note: Traffic from LAKLU intending to exit OOMM FIR at PARAR shall route via N318-GEVED-N881- AMBOS-Q620-PARAR.						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
Z515 (RNAV 5)						
◆ MIDGU (FIR boundary) 222706.00N 0552230.00E						X-ing M440
	055° 19 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
◇ ITKUN 223731.00N 0553934.00E						X-ing L710
	055° 19 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
◇ KATAK 224811.00N 0555708.00E						X-ing R401
	055° 24 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
◇						X-ing M628, Q730

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
EGVAN 230127.00N 0561907.00E						
	058° 19 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
◇ GENIR 231111.00N 0563630.00E						
	058° 18 NM	10 NM	UNL FL150 CLASS A	ODD ↓		
◇ PUTSO 232037.00N 0565322.00E						X-ing N685
Muscat Control 124.70 MHz Note: Only available for traffic landing in Oman's airports and shall expect flight levels between FL310 and FL370 inclusive at MIDGU. Transfer of control point between OOMM and OEJD. FIR OOMM, OEJD						

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
Z855 (RNAV 1)						
◇ TULBU 230005.00N 0571827.00E						X-ing G652, M440, M628, N563, N881, T506
	270° 18 NM	1 NM	UNL FL150 CLASS A		EVEN ↓	
◆ KUNGO 230034.00N 0565850.00E						X-ing M628, R402

Route Designator (RNP Type) Name of Significant Points Coordinates	Way-point IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Geodesic DIST NM	Upper Limit Lower Limit Airspace classification	Direction of Cruising Levels		Remarks Controlling unit channel Logon address
1	2	3	4	5		6
	297° 71 NM	1 NM	UNL FL150 CLASS A		EVEN ↓	
✦ DOLFI 233253.00N 0555024.00E						X-ing R401
	315° 24 NM	1 NM	UNL FL150 CLASS A		EVEN ↓	
✦ SODEX (FIR boundary) 234954.00N 0553202.00E						X-ing N563 FIR OOMM, OMAE
Note: For traffic landing at OMAA, OMAD & OMAM.						

INTENTIONALLY

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ENR 3.3 OTHER ROUTES

NIL

INTENTIONALLY

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ENR 3.4 ENROUTE HOLDING

NIL

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ENR 4.1 RADIO NAVIGATION AIDS - EN-ROUTE

Name of station (VOR/VAR)	Id	Frequency (CH)	Hours of operation	Co-ordinates	ELEV DME antenna	Remarks
1	2	3	4	5	6	7
HAIMA DVOR/DME 1.0°E	HAI	113.30 MHz (CH80X)	H24	195813.31N 0561650.82E	459 Feet	VOR/DME not monitored by ATS.
IZKI VOR/DME 1.0°E	IZK	113.50 MHz (CH82X)	H24	225318.60N 0574542.73E	1676 Feet	VOR/DME unusable as follows: a) RDL 010 - RDL 049 beyond 10 NM below FL90 b) RDL 050 - RDL 090 unusable c) RDL 240 - RDL 320 beyond 17 NM below FL140 d) RDL 320 - RDL 010 beyond 20 NM below FL160
SALALAH DVOR/DME 1.0°E	SLL	112.80 MHz (CH75X)	H24	170259.36N 0540656.97E	89.17 Feet	VOR unusable as follows: a) RDL 270 - RDL 300 beyond 20 NM below 6000 FT b) RDL 300 - RDL 320 beyond 30 NM below 7000 FT c) RDL 320 - RDL 340 beyond 20 NM below 6000 FT DME unusable as follows: (SLL DVOR radials) a) RDL 265 - RDL 275 beyond 20 NM below 6000 FT b) RDL 275 - RDL 295

Name of station (VOR/VAR)	Id	Frequency (CH)	Hours of operation	Co-ordinates	ELEV DME antenna	Remarks
1	2	3	4	5	6	7
						beyond 20 NM below 7000 FT c) RDL 295 - RDL 305 beyond 20 NM below 8000 FT d) RDL 305 - RDL 315 beyond 20 NM below 9000 FT
MUSCAT DVOR/DME 2.0°E	MCT	114.50 MHz (CH92X)	H24	233528.04N 0581536.48E	74 Feet	Maintenance: 2nd WED 1000 / 1400. VOR unusable as follows: a) RDL 080 - RDL 095 beyond 25 NM below 6000 FT b) RDL 095 - RDL 108 beyond 25 NM below 7000 FT c) RDL 108 - RDL 140 beyond 20 NM below 9000 FT d) RDL 140 - RDL 210 beyond 20 NM below 14000 FT e) RDL 218 - RDL 250 beyond 35 NM below 12000 FT f) RDL 250 - RDL 300 beyond 20 NM below 3000 FT
SUR VOR/DME 1.0°E	SUR	117.50 MHz (CH122X)	H24	223247.90N 0592929.70E	153 Feet	VOR/DME should not be used below 11,000 FT; in sectors with mountainous terrain.
FUJAIRAH	FJV	114.250 MHz	H24	250602.60N	48 Feet	1. Operating Authority : OMFJ,

Name of station (VOR/VAR)	Id	Frequency (CH)	Hours of operation	Co-ordinates	ELEV DME antenna	Remarks
1	2	3	4	5	6	7
DVOR/DME 2.0°E		(CH 85X)		0562116.40E		Fujairah DCA 2. Only available for traffic departing OOMS and landing at OMSJ, OMRK or OMFJ at FL180 or below. ATC may re-route traffic to TAPRA (M762) to facilitate the efficient flow of traffic into northern UAE airports. 3. Route between PASOV and FJV only available for traffic landing at OMFJ.

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ENR 4.2 SPECIAL NAVIGATION SYSTEMS

NIL

INTENTIONALLY

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ENR 4.3 GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)

NIL

INTENTIONALLY

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ENR 4.4 NAME-CODE DESIGNATORS FOR SIGNIFICANT POINTS

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
ALMOG	233524.00N 0574940.00E	M762 , Q978	NIL
ALNUN	211625.00N 0561041.00E	L883 , R401	NIL
ALPOR	240441.00N 0612000.00E	G216 , B524	NIL
ALSAS	240054.00N 0591955.00E	P307 , R462	NIL
AMBOS	230324.00N 0595405.00E	Q620 , L631 , N881	NIL
APELO	243455.00N 0612000.00E	B505	NIL
ASLOM	242113.00N 0600552.00E	L430 , B524 , R462	NIL
ASMON	190131.00N 0580522.00E	OODQ STAR RWY 04 OODQ STAR RWY 22	NIL
ASNIB	243949.00N 0572105.00E	N571	NIL
ASPUX	174404.00N 0600004.00E	N315 , UL425	NIL
ASTUN	180832.00N 0551040.00E	B400 , B535 , UB535 OOSA STAR RWY 07 OOSA STAR RWY 25	NIL
ATBED	230352.00N 0603752.00E	N767 , N881	NIL
BONOM	213636.00N 0591800.00E	P570	NIL
BORER	242623.00N 0573048.00E	A454	NIL
BOTAM	240227.00N 0565320.00E	Y855 , N629 OOSH SID RWY 15 OOSH SID RWY 33	NIL
BOTID	233435.91N 0575358.73E	OOMS ILS RWY 08L OOMS STAR RWY 08L OOMS RNP RWY 08L	NIL
BOVOS	182230.00N	UL425	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
	0575844.00E		
BUBAS	245938.00N 0570003.00E	A777 , P513	NIL
BUBIL	233432.00N 0574739.00E	OOMS STAR RWY 08L OOMS STAR RWY 26R OOMS ILS RWY 08L OOMS LOC RWY 08L	NIL
DAMUM	243236.00N 0591307.00E	M681 , B524	NIL
DAPES	193529.00N 0565639.00E	OODQ STAR RWY 04 OODQ STAR RWY 22	NIL
DAPOK	235956.00N 0572959.00E	P574 , T509 , T508 , T507 , Y623 OOMS SID RWY 08L OOMS SID RWY 26R	NIL
DAPOL	214301.00N 0553416.00E	L692	NIL
DARAB	174632.00N 0544902.00E	B535 OOMX SID RWY 14 OOMX SID RWY 32	NIL
DARAT	222000.00N 0572830.00E	B400	NIL
DATBU	222243.00N 0560054.00E	G652 , R401	NIL
DATIL	185729.00N 0580212.00E	OODQ SID RWY 04 OODQ SID RWY 22	NIL
DAXAM	171612.00N 0544715.00E	B400 , M551 , P316 OOSA SID RWY 07 OOSA SID RWY 25 OOSA STAR RWY 07 OOSA STAR RWY 25 OOSA ILS RWY 25 OOSA LOC RWY 25 OOSA RNP RWY 25 OOSA VOR RWY 25	NIL
DEBAV	221532.00N 0554617.00E	G652 , L710	NIL
DEBDA	224327.00N 0603525.00E	L631	NIL
DEDSO	185811.00N	UL425 , R401 , L710 , P316	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
	0560041.00E		
DEGNU	242734.00N 0570613.00E	B540	NIL
DELSO	225606.00N 0585233.00E	M762	NIL
DEMKI	224941.00N 0562308.00E	M440 , P304 OOFD STAR RWY 13 OOFD STAR RWY 31	NIL
DENDA	244230.00N 0605451.00E	R462	NIL
DERTO	235033.00N 0594746.00E	P307 , G216	NIL
DESPI	234951.00N 0563110.00E	Q730	NIL
DOLFI	233253.00N 0555024.00E	Z855 , R401	NIL
EGNUS	195523.00N 0570214.00E	OODQ SID RWY 04 OODQ SID RWY 22	NIL
EGROK	235253.00N 0560126.00E	N318	NIL
EGTAL	243458.00N 0603724.00E	B505 , R462	NIL
EGTAM	192529.00N 0574416.00E	OODQ STAR RWY 04 OODQ STAR RWY 22 OODQ RNP RWY 04 OODQ RNP RWY 22	NIL
EGVAN	230127.00N 0561907.00E	Z515 , M628 , Q730	NIL
ELIGO	232458.00N 0590848.00E	N767 , L631 OOMS STAR RWY 08L OOMS STAR RWY 26R	NIL
ELIVA	235335.00N 0570634.00E	N629 OOSH SID RWY 15 OOSH SID RWY 33	NIL
EMATA	242309.00N 0565721.00E	P574	NIL
EMAVA	214208.00N 0554936.00E	L692 , L710	NIL
EMINO	192543.00N 0572333.00E	OODQ STAR RWY 04 OODQ STAR RWY 22	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
		OODQ RNP RWY 04 OODQ RNP RWY 22	
EMISO	231734.00N 0562307.00E	P304 , Q730	NIL
EMURU	221357.00N 0585338.00E	T505 , M300 , N563 , P570 OOMS SID RWY 08L OOMS SID RWY 26R OOMS STAR RWY 08L OOMS STAR RWY 26R	NIL
ERDAX	175903.00N 0554458.00E	R401	NIL
GADMA	211439.00N 0600938.00E	L883 , M300	NIL
GAGLA	180505.00N 0552410.00E	P316	NIL
GENIR	231111.00N 0563630.00E	Z515	NIL
GEPOT	231446.00N 0580053.00E	B400 , G652 , N629 OOMS SID RWY 08L	NIL
GERAR	240600.00N 0573616.00E	B540 , P513 OOMS SID RWY 08L OOMS SID RWY 26R OOMS STAR RWY 08L OOMS STAR RWY 26R	NIL
GEVED	230105.00N 0575111.00E	B400 , N318 , N881 OOMS SID RWY 08L	NIL
GEVIL	220000.00N 0575700.00E	OOFD SID RWY 13 OOFD SID RWY 31	NIL
GEXAN	241257.00N 0565649.00E	M762	NIL
GIDAN	230104.00N 0582232.00E	N629 , N881 , P570	NIL
GIDIL	251742.00N 0564923.00E	A791	NIL
GISKA	213503.00N 0574014.00E	N569 , L692 , UB424 , P316 OOGB SID RWY 12 OOGB SID RWY 30	NIL
GISMO	244743.00N 0562236.00E	P574	NIL
GIVLA	241020.00N	Y623	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
	0570032.00E	OOSH STAR RWY 15 OOSH STAR RWY 33	
GIVNO	195011.00N 0563059.00E	L556 , P316 OOMK SID RWY 32	NIL
GOBRO	193622.00N 0534741.00E	UL425	NIL
GOGMI	230215.00N 0553159.00E	M628 , L710	NIL
GOLBA	213318.00N 0594600.00E	M300	NIL
GOLNI	210014.00N 0594130.00E	N569 , P570	NIL
GOMTA	251115.00N 0563447.00E	M428	NIL
IMDAM	202416.00N 0550801.00E	L556	NIL
IMDEK	224647.00N 0592217.00E	A775 , L444	NIL
IMKAD	155245.00N 0535147.00E	B400	NIL
IMLOT	251708.00N 0570804.00E	A791	NIL
IMREM	222044.00N 0571649.00E	OOFD STAR RWY 13 OOFD STAR RWY 31	NIL
ITETA	211618.00N 0555208.00E	L883 , L710	NIL
ITILA	234055.00N 0584817.00E	M877 , G216	NIL
ITKAK	243826.00N 0562339.00E	OOSH SID RWY 15 OOSH SID RWY 33	NIL
ITKUN	223731.00N 0553934.00E	Z515 , L710	NIL
ITLAK	233518.00N 0580228.00E	OOMS STAR RWY 08L OOMS ILS RWY 08L OOMS LOC RWY 08L OOMS RNP RWY 08L	NIL
ITLOB	244325.00N 0590701.00E	N430 , B505	NIL
ITRAX	241248.00N 0554749.00E	Q978 , P899	NIL
ITSAG	213720.00N	B400 , L692	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
	0570640.00E		
ITURA	232351.00N 0580720.00E	B400 , L695 , M762 , P570	NIL
ITUVO	190315.00N 0554328.00E	B400 , UL425	NIL
IVAKU	232919.00N 0574103.00E	G216 , N629	NIL
IVENI	205158.00N 0555430.00E	N315 , L710	NIL
IVETO	233520.00N 0570704.00E	Q978 OOMS SID RWY 08L OOMS SID RWY 26R	NIL
IVIVA	245945.00N 0574958.00E	FIR Boundary	NIL
IVOMA	223408.00N 0605430.00E	M628 , L631	NIL
KANOL	235258.00N 0574504.00E	OOMS STAR RWY 08L OOMS STAR RWY 26R OOMS ILS RWY 08L OOMS LOC RWY 08L	NIL
KAPET	163322.00N 0530614.00E	B535 , UB535 OOSA STAR RWY 07 OOSA STAR RWY 25	NIL
KAPOP	174544.00N 0550930.00E	P316 OOMX STAR RWY 14 OOMX STAR RWY 32 OOSA STAR RWY 07 OOSA STAR RWY 25	NIL
KARAR	233042.00N 0585438.00E	T504 , L631	NIL
KASIN	201853.00N 0555742.00E	UB424 , L710	NIL
KATAD	243406.00N 0562324.00E	OOSH STAR RWY 15 OOSH RNP RWY 15	NIL
KATAK	224811.00N 0555708.00E	Z515 , R401	NIL
KAXEM	225103.00N 0595243.00E	P574 , L444	NIL
KEBAS	214330.00N 0570948.00E	B400 , N569 OOGB STAR RWY 12 OOGB STAR RWY 30	NIL
KEDON	200503.00N 0555901.00E	L710 , L556	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
KIPOL	230410.00N 0612903.00E	M303 , L444 , N881	NIL
KIROP	243000.00N 0574700.00E	N571	NIL
KITAL	200300.00N 0601800.00E	P570	NIL
KIVEL	165306.00N 0553633.00E	M551 , B549 , R401 OOSA STAR RWY 07 OOSA STAR RWY 25	NIL
KOBIM	233309.00N 0562701.00E	Q730 , N685	NIL
KUKDI	193022.00N 0555953.00E	B400 , L710	NIL
KUNGO	230034.00N 0565850.00E	R402 , Z855 , M628	NIL
KUNRA	240715.00N 0563531.00E	Q730 OOSH STAR RWY 33 OOSH RNP RWY 33	NIL
KUNUS	241927.00N 0583226.00E	P307	NIL
KUPMA	245148.00N 0562648.00E	B540	NIL
KUROV	211627.00N 0561853.00E	L883 , P304	NIL
KURTA	234205.00N 0554900.00E	N563 , R401	NIL
KUSEN	251828.00N 0562340.00E	A791 FIR Boundary	NIL
KUSRA	232426.00N 0582611.00E	M877 , P574 , A775 , G652	NIL
KUTVI	184306.00N 0582642.00E	N315 , L556	NIL
LABED	182135.00N 0551827.00E	B400 OOMX STAR RWY 14 OOMX STAR RWY 32 OOMX RNP RWY 14	NIL
LABRI	240344.00N 0553842.00E	N318	NIL
LABSA	230153.00N 0555505.00E	M628 , R401 OOFD SID RWY 31	NIL
LADAR	165324.00N 0534655.00E	B535 , B549 , UB535 OOSA SID RWY 07 OOSA SID RWY 25	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
		OOSA STAR RWY 07 OOSA STAR RWY 25 OOSA ILS RWY 07 OOSA LOC RWY 07 OOSA RNP RWY 07 OOSA VOR RWY 07	
LADBA	234931.00N 0585145.00E	OOMS STAR RWY 08L OOMS STAR RWY 26R OOMS ILS RWY 26R OOMS LOC RWY 26R	NIL
LADBI	243224.00N 0564117.00E	Q730 OOSH STAR RWY 15 OOSH RNP RWY 15	NIL
LAKLU	232235.00N 0570401.00E	R402 , G216 , Y855 , N318 , N685 OOMS STAR RWY 08L OOMS STAR RWY 26R	NIL
LALDO	251806.00N 0563600.00E	A791 , B505	NIL
LOPIL	235642.00N 0561400.00E	Q978	NIL
LOREM	241258.00N 0564848.00E	OOSH STAR RWY 33 OOSH RNP RWY 33	NIL
LOSIM	223513.00N 0603238.00E	P574 , M628	NIL
LOTAV	203700.00N 0605700.00E	N569 , M300	NIL
LOXOP	223722.00N 0594548.00E	M628 , N629	NIL
LUDID	230227.00N 0551800.00E	M628	NIL
MEKNA	233309.00N 0560815.00E	N563	NIL
MEMTU	232517.00N 0552443.00E	L710	NIL
MENSA	245750.00N 0563249.00E	N571 , T509	NIL
MESPO	244817.00N 0595040.00E	L430	NIL
MEVLI	211632.00N 0565606.00E	B400 , L883	NIL
MIBSA	225400.00N 0601338.00E	L444 , L631	NIL
MIDGU	222706.00N	M440 , Z515	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
	0552230.00E		
MIGMO	232753.00N 0585354.00E	OOMS STAR RWY 08L OOMS STAR RWY 26R OOMS ILS RWY 26R OOMS LOC RWY 26R	NIL
MIXAM	234139.00N 0575523.00E	P574 , T508 , R462 , P899 , P570 , P513	NIL
MIXOL	240523.00N 0592959.00E	A777 , R462	NIL
MOBAB	201032.00N 0564415.00E	N315 , P316 OOMK SID RWY 14 OOMK SID RWY 32	NIL
MOGOK	215057.00N 0564236.00E	N569 , R402 OOFD SID RWY 13 OOFD SID RWY 31 OOFD STAR RWY 13 OOFD STAR RWY 31 OOGB SID RWY 12 OOGB SID RWY 30 OOGB STAR RWY 12 OOGB STAR RWY 30	NIL
MUNGA	242516.00N 0584533.00E	A777 , M428	NIL
MURMA	233734.00N 0583045.00E	OOMS RNP RWY 26R	NIL
MUSAP	241754.00N 0555245.00E	R401	NIL
MUSRU	230256.00N 0592223.00E	P574 , T502 , N881 OOMS SID RWY 08L OOMS SID RWY 26R	NIL
MUSUK	234320.00N 0572148.00E	T511 , N629 OOMS STAR RWY 08L OOMS STAR RWY 26R	NIL
MUTVA	165325.00N 0543201.00E	B400 , B549 OOSA SID RWY 07 OOSA SID RWY 25	NIL
NADSO	244957.00N 0574926.00E	A777 , B505 , B524	NIL
NALKI	224928.00N 0565614.00E	R402 , G652 OOFD SID RWY 13 OOFD SID RWY 31 OOFD STAR RWY 13 OOFD STAR RWY 31	NIL
NALTI	182012.00N 0553431.00E	P316 OOMX SID RWY 14	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
		OOMX SID RWY 32	
NAMVA	223309.00N 0562223.00E	G652 , P304	NIL
NONKA	232735.00N 0583512.00E	OOMS STAR RWY 08L OOMS STAR RWY 26R	NIL
NOSMI	241757.00N 0563002.00E	N629 OOSH STAR RWY 33	NIL
NOVNO	193313.00N 0535858.00E	UB424 , UL425	NIL
OBTIN	230216.00N 0585920.00E	A775 , N881	NIL
ORSIT	202306.00N 0562915.00E	B400 , N315 OOMK STAR RWY 14 OOMK STAR RWY 32	NIL
OTISA	201000.00N 0554556.00E	UB424 , L556	NIL
PARAR	222630.00N 0630700.00E	P307 , N571 , M628 , N767 , Q620	NIL
PAROK	231030.00N 0590245.00E	P574 , L695	NIL
PASOV	243841.00N 0565037.00E	B540 , T509 , A454 , M564	NIL
PAVEM	164303.00N 0541404.00E	OOSA STAR RWY 07 OOSA STAR RWY 25 OOSA ILS RWY 07 OOSA ILS RWY 25 OOSA LOC RWY 07 OOSA LOC RWY 25 OOSA RNP RWY 07 OOSA RNP RWY 25 OOSA VOR RWY 07 OOSA VOR RWY 25	NIL
PAXIM	240245.00N 0561631.00E	P899	NIL
PURNI	243804.00N 0574354.00E	P307	NIL
PUTRA	165432.00N 0525631.00E	B549 OOSA STAR RWY 07 OOSA STAR RWY 25	NIL
PUTSO	232037.00N 0565322.00E	Z515 , N685	NIL
PUXIL	244117.00N 0563145.00E	P574 , M564	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
RADAX	220809.00N 0580230.00E	P316 OOMS STAR RWY 08L OOMS STAR RWY 26R	NIL
RAGMA	232301.00N 0603846.00E	N571 , L301	NIL
RASKI	230330.00N 0635200.00E	L301 , N881	NIL
RETAS	235754.00N 0553423.00E	N685	NIL
REXOD	211230.00N 0613830.00E	A775 , M762 , L883 , N563 , N318	NIL
SABEL	185158.00N 0520339.00E	UB424	NIL
SETSI	230412.00N 0614410.00E	P307 , N881	NIL
SEVLA	233321.00N 0591122.00E	M303 OOMS SID RWY 08L OOMS SID RWY 26R	NIL
SILTA	163215.00N 0541755.00E	OOSA SID RWY 07 OOSA SID RWY 25 OOSA STAR RWY 07 OOSA STAR RWY 25	NIL
SITOL	211604.00N 0552514.00E	N315 , L883	NIL
SODEB	234747.00N 0593023.00E	G216 , G652 OOMS SID RWY 08L OOMS SID RWY 26R	NIL
SODEX	234954.00N 0553202.00E	Z855 , N563	NIL
SOLUD	243223.00N 0564421.00E	P574 , T508	NIL
SUTLI	220121.00N 0560404.00E	N569 , R401	NIL
TAPDO	242400.00N 0612000.00E	A454 , G652	NIL
TAPRA	242607.00N 0563803.00E	T507 , M762	NIL
TARBO	244351.00N 0574637.00E	N430 , M681 , M428	NIL
TARDI	243418.00N 0560915.00E	N629 OOSH STAR RWY 15 OOSH STAR RWY 33	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
TARVI	231400.00N 0590444.00E	T504	NIL
TAVKO	211519.00N 0593147.00E	L883 , P570	NIL
TOKRA	220925.00N 0553350.00E	N569 , G652	NIL
TOLDA	224008.00N 0583624.00E	L444 , L555 , M628 , N318 , P570	NIL
TONVO	250500.00N 0563200.00E	A777 , P307	NIL
TOPSO	215653.00N 0562043.00E	N569 , P304 OOFD SID RWY 13 OOFD SID RWY 31 OOFD STAR RWY 13 OOFD STAR RWY 31	NIL
TOTOX	215030.00N 0622230.00E	P574 , L555 , N629 , L631	NIL
TOVDI	240733.00N 0584021.00E	N571	NIL
TUBSA	204029.00N 0562626.00E	R402 , UB424	NIL
TULBU	230005.00N 0571827.00E	M440 , T506 , G652 , Z855 , M628 , N563 , N881 OOMS SID RWY 08L OOMS SID RWY 26R OOMS STAR RWY 08L OOMS STAR RWY 26R	NIL
TUMET	222307.00N 0595702.00E	A775 , L555 , T503 OOMS STAR RWY 08L OOMS STAR RWY 26R	NIL
ULDUN	262429.00N 0560924.00E	FIR Boundary	NIL
UMEKO	240620.00N 0583450.00E	A454	NIL
UMILA	211555.00N 0584738.00E	N569 , L883	NIL
VAXAS	244308.00N 0561807.00E	M762 , M564 OOSH SID RWY 15 OOSH SID RWY 33	NIL
VAXIM	231900.00N 0611100.00E	A777 , P307 , L430 , L301	NIL
VEKAN	241235.00N 0604454.00E	B524 , G652	NIL

Name-code designator	Co-ordinates	ATS route or other route	Remark
1	2	3	4
VELIK	203322.00N 0561656.00E	N315 , UB424 , P304 , R401	NIL
VELOD	234611.00N 0573435.00E	M762 , P899	NIL
VUSET	235540.00N 0590812.00E	T500 , M877 , N571 , A454 , R462 OOMS SID RWY 08L OOMS SID RWY 26R OOMS STAR RWY 08L OOMS STAR RWY 26R	NIL
VUSIN	225940.00N 0605510.00E	L444 , N767	NIL
VUTAP	205411.00N 0564449.00E	B400 , UB424 OOGB SID RWY 12 OOGB SID RWY 30 OOGB STAR RWY 12 OOGB STAR RWY 30	NIL

INTENTIONALLY

LEFT

BLANK

ENR 4.5 AERONAUTICAL GROUND LIGHTS - EN-ROUTE

NIL

INTENTIONALLY

LEFT

BLANK

ENR 5 NAVIGATION WARNINGS

ENR 5.1 PROHIBITED, RESTRICTED AND DANGER AREAS

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
PROHIBITED AREAS		
OO P1 WADI SARIN Area bounded by lines joining successively the following points: N231100 E0584400 - N230800 E0584400 - N231300 E0582400 - N231700 E0583100 - N231100 E0584400	2000 FT AGL / SFC	Wildlife reserve Permanent.
OO P2 HAJAR Circle radius 0.5 NM centred at N233030 E0583000	3500 FT / SFC	High frequency radio transmission Permanent.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
RESTRICTED AREAS		
OO R 3 AL MULADDAH Circle radius 3 NM centred at N234100 E0573230	4000 FT / SFC	Parachute descent exercises Permanent. Controlling authority: SOPR, RAFO, TEL: 26875005.
OO R 5 THUMRAIT Circle radius 15 NM centred at	FL 150 / SFC	Permanent. Controlling authority: HQ RAFO, TEL: 24334211.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
N174006 E0540118		
OO R 6 SALALAH Area enclosed within Salalah/Arzat road / coastline and E0541000 / E0541300	800 FT / SFC	Permanent. Controlling authority: ATC Salalah, TEL: 23291304.
OO R 7 BARKA Circle radius 2 NM centred at N234240 E0580525	3500 FT / SFC	Government operations PPR. Controlling authority: 'Operations' 131.200 MHz, TEL: 24510111 or 24516211.
OO R 8 SIB Circle radius 0.5 NM centred at N234011 E0581021	3500 FT / SFC	Government operations Same as OO R 7.
OO R 9 MUSCAT Arc of a circle radius 0.5 NM centred at N233700 E0583530 from 090° (True) clockwise to 270° (True)	3500 FT / SFC	Government operations Same as OO R 7. HEL operating at Fort Jalali must approach from and depart towards East.
OO R 10 MAMURAH Circle radius 0.5 NM centred at N170320 E0541410	1400 FT / SFC	Government operations PPR. Controlling authority: 'Operations' 131.200 MHz, TEL: 23290844.
OO R 11 UM AL GHAWARIF Arc of a circle radius 0.5 NM centred at N170120 E0540815 from 085° (True) clockwise to 265° (True)	800 FT / SFC	Government operations Same as OO R 10.
OO R 12 AL HISN Circle radius 0.5 NM centred at N165940 E0540600	1500 FT / SFC	Government operations PPR. Controlling authority: 'Operations' 131.200 MHz, TEL: 23290884.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
OO R 14 HAZM Circle radius 3 NM centred at N233400 E0573000	12000 FT / SFC	Parachute descent exercises Permanent. Controlling authority: SOPR, TEL: 26875005.
OO R 15 JAZIRAT AL GHANAM Arc of a circle radius 5 NM centred at N262400 E0562300 from 040° (True) clockwise to 250° (True), and arc of a circle radius 10 NM from 250° (True) clockwise to 040° (True)	FL400 / SFC	Naval firing Permanent. Controlling authority: HQ RNO, TEL: 24338805.
OO R 76 AL ANZAR Circle radius 2 NM centred at N241807 E0564508	2000 FT / SFC	Government operations PPR. Controlling authority: ‘Operations', 131.200 MHz, TEL: 24510111 or 24516211.
OO R 78 SOUTHERN TRAINING AREA Area bounded by lines joining successively the following points: N233215 E0581230 - N233045 E0581600 - N232830 E0581600 - N232830 E0581145 - N233045 E0581115 - N233115 E0581115 - N233215 E0581230	2000 FT / SFC	Low level flying Aircraft Permanent. Controlling authority: HQ RAFO, TEL: 24334211.
OO R 95 MASIRAH WESTERN TRAINING AREA Area bounded by lines joining successively the following points: N211100 E0583900 - N210151E0591024 - N202600 E0591045 - N201725 E0585716 - N203102 E0584235 - N201822 E0582916 - N195736 E0580701 - N194345 E0582141 - N190823 E0580908 - N201407 E0565436 - N211100 E0573144 - N211100 E0583900	UNL / SFC	Military Training Area Permanent. Controlling authority: RAFO Masirah OPS, TEL: 25482341 HQ RAFO, TEL: 24334211

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
OO R 96 BUR ZAMAN TRAINING AREA Area bounded by lines joining successively the following points: N212300 E0584200 - N212215 E0591830 - N221220 E0584510 - N222903 E0581105 - N220648 E0580745 - N213829 E0575005 - N212300 E0584200	UNL / SFC	Military Training Area Permanent. Controlling authority: HQ RAFO, TEL: 24334211
OO R 97 THAMOOD TRAINING AREA Area bounded by an ARC centre joining successively the following points: N174830 E0541415 - (N175323 E0540833 ARC CENTRE) - N175506 - E0540118 - (N174050 E0534541 ARC CENTRE) - N172940 E0535006. Then bounded by lines joining succesively the following points: N172940 E0535006 - N172238 E0535100- N171108 E0530243 - N185051 E0521730 - N192737 E0535753 - N185938 E0553330 - N181300 E0550500 - N173803 E0542415 - N174830 E0541415	UNL / SFC	Military Training Area Permanent. Controlling authority: RAFO Thumrait OPS, TEL: 23466100 HQ RAFO, TEL: 24334211
OO R 98 RAMLAT SAHMAH TRAINING AREA Area bounded by lines joining successively the following points: N194945 E0555230 - N193110 E0555230 - N191000 E0553900 - N193426 E0541651 - N200500 E0554345 - N200100 E0555230 - N195615 E0555230 - N195615 E0554345 - N194945 E0554345 - N194945 E0555230	UNL / SFC	Military Training Area Notified. Controlling authority: HQ RAFO, TEL: 24334211
OO R 99 SAWQARAH WESTERN TRAINING AREA	UNL / SFC	Military Training Area 0300/1200 UTC SUN through THU Outside these hours will be Notified. Controlling authority: HQ RAFO, TEL: 24334211

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
Area bounded by lines joining successively the following points: N175754 E0555200 - N184852 E0560509 - N183349 E0565500 - N180900 E0564430 - N174724 E0563211 - N175754 E0555200		
OO R 100 WESTERN TRAINING AREA Area bounded by lines joining successively the following points: N165700 E0535140 - N165700 E0535230 - N165500 E0535230 - N165500 E0535100 - N165635 E0535100 - N165700 E0535140	3000 FT AGL / SFC	Helicopter Training Area Permanent. Controlling authority: RAFO Salalah OPS, TEL: 23467 155 HQ RAFO, TEL: 24334211
OO R 101 DASIR. Circle radius 2NM centred at N2314 E05807	2000 FT AGL / SFC	Government operations Permanent. Controlling authority: ROP HQ, TEL: 24560009
OO R 102 SUR - QALHAT. Area bounded by lines joining successively the following points: N223953 E0592504 - N223902 E0592430 - N223859 E0592417 - N223939 E0592304 - N223952 E0592301 - N224044 E0592335 - N223953 E0592504	2000 FT AGL / SFC	Liquid Nitrogen Gas operations Permanent. Oman LNG Security, TEL: 25547600
OO R 103 MUSANA Circle radius 15NM centred at N233825 E0572915	6000 FT AMSL / SFC	Permanent. Controlling authority: RAFO Musana TEL: 26349100
OO R 106 PALACE OFFICE. Area bounded by lines joining successively the following points: N233526 E0582758 - N233600 E0582942 - N233535 E0583058 - N233455 E0583041 - N233450	1500 FT / SFC	Government operations Permanent.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
E0582812 - N233526 E0582758		
OO R 107 WUDAM NAVAL BASE. Circle radius 1NM centred at N234924 E0573130	1500 FT AMSL / SFC	Government operations Permanent. Controlling authority: BATNAC Operations - Sultan Bin Said Naval Base TEL: 26345510/26346020
OO R 108 ADAM AREA. Circle radius 17 NM centred at N222932 E0572300	12500 FT / SFC	Permanent. Controlling authority: RAFO ADAM, TEL: 25472125.
OO R 109 JEBEL SIFA RESORT. Area bounded by lines joining successively the following points: N233040.86 E0584503.03 - N232423.97 E0584618.35 - N231821.26 E0585449.04 - N231935.73 E0585600.21 - N232532.64 E0584816.70 - N233107.88 E0584628.79 - N233040.86 E0584503.03	1000 FT / SFC	Microlight Operations SR - SS Controlling authority: AWAMIL UNITED LLC, TEL: 95727944.
OO R110 ALSHOMOK FORTRESS Circle radius 3NM centred at N224519 E0573339	3500FT AGL / SFC	Government operations Permanent FL 150 PPR. Controlling authority Operations, 131.200MHZ, TEL:24510111 or 24516211

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
DANGER AREAS		
OO D 17 GHALLAH.	4000 FT AGL / SFC	Small arms and Mortar firing Permanent.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
Arc of a circle radius 4.5 NM centred at N233245 E0582300 from 120° (True) clockwise to 226° (True)		
OO D 19 BID BID TWO. Circle radius 1 NM centred at N232506 E0580730	1500 FT AGL / SFC	Small arms firing Permanent.
OO D 20 ABU RASAS. Area bounded by lines joining successively the following points: N195736 E0580701 - N194345 E0582141 - N200450 E0584357 - N201822 E0582916 - N195736 E0580701	FL250 / SFC	Air to air firing Notified. Controlling authority: RAFO Masirah OPS, TEL: 25482341 HQ RAFO, TEL: 24334211
OO D 21 JAMMA. Area bounded by lines joining successively the following points: N233200 E0573400 - N233100 E0573600 - N233600 E0574000 - N233700 E0573700 - N233200 E0573400	2000 FT / SFC	Parachute descent exercises Permanent.
OO D 22 NIZWA. Circle radius 1 NM centred at N225424 E0573300	4000 FT AGL / SFC	Small arms firing Permanent.
OO D 24 ROSTAQ ONE. Circle radius 1 NM centred at N232500 E0572400	2000 FT AGL / SFC	Small arms firing Permanent.
OO D 25 WADI HATAT. Area bounded by lines joining	2500 FT / SFC	Explosives and small arms firing Permanent.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
successively the following points: N232330 E0582200 - N232330 E0582600 - N232115 E0582600 - N232115 E0582200 - N232330 E0582200		
OO D 26 IZKI. Circle radius 1 NM centred at N225800 E0574820	1500 FT AGL / SFC	Small arms firing Permanent.
OO D 28 IBRI THREE. Circle radius 1 NM centred at N231400 E0563124	2000 FT AGL / SFC	Small arms firing Permanent.
OO D 29 SUHAR. Circle radius 2 NM centred at N241800 E0563845	1500 FT AGL / SFC	Small arms firing 0200 - 1000 UTC
OO D 30 WUDAM. Arc of a circle radius 2 NM centred at N234630 E0573130 from 180° (True) clockwise to 290° (True)	1500 FT / SFC	Small arms firing Permanent.
OO D 31 BURAIMI TWO. Circle radius 1 NM centred at N241600 E0555450	2000 FT AGL / SFC	Small arms firing Permanent.
OO D 32 KHASAB. Circle radius 1 NM centred at N260500 E0561900	2500 FT AGL / SFC	Small arms firing Permanent.
OO D 33 MASIRAH ISLAND.	FL300 / SFC	Jet training, air to ground and ground to air firing Permanent. Controlling authority: RAFO Masirah OPS, TEL: 25482341 HQ RAFO, TEL: 24334211

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
Area bounded by lines joining successively the following points: N201822 E0582916 - N200450 - E0584357 - N201725 E0585716 - N203102 - E0584235 - N201822 E0582916		
OO D 37 TAHR RANGE. Area bounded by lines joining successively the following points: N241800 E0574000 - N240000 E0583900 - N235145 E0582000 - N235145 E0580600 - N240900 E0574000 - N241800 E0574000	UNL / SFC	Gun/missile firing Notified. Controlling authority: Royal Navy of Oman, TEL: 24338805
OO D 38 UMM AL FAYYARAIN. Area bounded by following points: N262000 E0563400 - cw along arc of a circle radius 9.7 NM centred at N261100 E0563000 - N260736 E0564006 - N260000 E0564006 - N260000 E0563000 - N261100 E0563000 - N262000 E0563400	FL400 / SFC	Naval firing Permanent.
OO D 40 SUFRAT AD DAWH. Area bounded by lines joining successively the following points: N223800 E0574600 - N223700 E0574900 - N223000 E0575700 - N222500 E0575600 - N222200 E0574600 - N222500 E0574200 - N223500 E0574200 - N223800 E0574600	FL150 / SFC	Gun/missile, air to ground firing Permanent.
OO D 41 AL HADRI. Circle radius 1 NM centred at N203520 E0585308	2000 FT / SFC	Small arms firing Notified.
OO D 42 SAIQ.	FL250 / SFC	Mortar firing Permanent.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
Circle radius 2 NM centred at N230600 E0574000		
OO D 43 IBRA. Circle radius 1 NM centred at N224500 E0582600	4000 FT AGL / SFC	Small arms firing Permanent.
OO D 44 QABIL. Circle radius 1 NM centred at N235730 E0554740	1500 FT AGL / SFC	Small arms firing Permanent.
OO D 45 GAR MAM. Circle radius 1 NM centred at N233300 E0581500	1000 FT AGL / SFC	Small arms firing Permanent.
OO D 50 RUBKUT RANGE. Area bounded by lines joining successively the following points: N173515 E0540300 - N173515 E0540900 - N172810 E0540900 - N172810 E0540300 - N173125 E0540345 - N173515 E0540300	UNL / SFC	Air to ground, ground to air, artillery, tank and small arms firing Permanent.
OO D 52 SARFAIT. Circle radius 1 NM centred at N164400 E0530700	5000 FT / SFC	Small arms firing Permanent.
OO D 54 RAYSUT CHARLIE. Area bounded by lines joining successively the following points: N165855 E0535350 - N165855 E0535520 - N165735 E0535540 - N165732 E0535450 - N165748 E0535355 - N165855 E0535350	2000 FT AGL / SFC	Small arms firing Permanent.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
OO D 56 ADUWAB. Circle radius 1.5 NM centred at N173930 E0535648	3500 FT AGL / SFC	Small arms firing Permanent.
OO D 57 JASIRAT GHAZANT. Area enclosed within an arc of a circle radius 10 NM centred at N173642 E0560812, commencing at N173550 E0555745 clockwise to N172830 E0561413, then straight line to N173550 E0555745	FL410 / SFC	Naval gun firing/Air to SFC missile firing Permanent.
OO D 58 WADI ANDHUR. Circle radius 5 NM centred at N174100 E0544000	10000 FT / SFC	Small arms firing Notified.
OO D 59 HEIRON RANGE. Area bounded by lines joining successively the following points: N170200 E0532130 - N170830 E0532130 - N170830 E0532630 - N170200 E0532630 - N170200 E0532130	FL175 / SFC	Air to ground and Mortar firing Permanent.
OO D 65 MIRBAT RANGE. Area bounded by lines joining successively the following points: N165300 E0543000 - N165300 E0551000 - N161300 E0551000 - N161300 E0543000 - N165300 E0543000	FL150 / SFC	Air to air firing Notified.
OO D 66 ARAM RANGE. Circle radius 1 NM centred at N170530 E0542315	2500 FT / SFC	Small arms firing Permanent.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
OO D 67 RA'S HAMAR. Area bounded by lines joining successively the following points: N164200 E0535500 - N164000 E0533400 - N162500 E0533700 - N162800 E0535800 - N164200 E0535500	FL410 / SFC	Naval gun firing 0400/1200 SUN through THU
OO D 69 SAHALNAWT. Circle radius 1 NM centred at N170100 E0541100	800 FT / SFC	14.5 MM low velocity artillery simulator Permanent.
OO D 70 HABARUT. Circle with a radius of 1 NM centred at N172000 E0524650	7500 FT / SFC	Small arms firing Permanent.
OO D 72 RAMLAT ES SAHMAH. Area bounded by lines joining successively the following points: N195615 E0554345 - N195615 E0555230 - N194945 E0555230 - N194945 E0554345 - N195615 E0554345	FL200 / SFC	Air to ground firing Notified.
OO D 73 ADONAB. Area bounded by lines joining successively the following points: N165700 E0534845 - N165700 E0535055 - N165555 E0535055 - N165555 E0534845 - N165700 E0534845	2500 FT AGL / SFC	Demolition of explosives Permanent.
OO D 74 ZEAK. Area bounded by lines joining successively the following points:	5000 FT / SFC	Small arms firing Permanent.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
N172200 E0540500 - N172200 E0540900 - N172000 E0541100 - N171500 E0540600 - N171500 E0540500 - N172200 E0540500		
OO D 77 AQZAYL RANGE. Area bounded by lines joining successively the following points: N173415 E0540845 - N174225 E0540845 - N174225 E0542003 - N173425 E0542003 - N173415 E0540845	FL350 / SFC	Air to ground firing, ground to air firing, ground Mortars and small arms firing Permanent. Controlling authority: HQ RAFO, TEL: 24334211 or Thumrait OPS, TEL: 23466100. Transit ACFT not using the range are not to enter the area unless cleared by Thumrait RADAR on VHF 125.0 MHz or Thumrait OPS on UHF 300.0 MHz.
OO D 79 SHAAFA CAMP (Sultan Bin Seif). Circle radius 2.5 NM centred at N224300 E0574248	3500 FT AGL / SFC	Mortar firing Permanent.
OO D 80 AHMED BIN MAJED CAMP (Ibri). Circle radius 2.5 NM centred at N231106 E0562606	3500 FT AGL / SFC	Small arms firing Permanent.
OO D 81 AHMED BIN SAID (Ibra). Circle radius 2.5 NM centred at N224500 E0583000	3500 FT AGL / SFC	Small arms firing Permanent.
OO D 82 LANSAB. Circle radius 1 NM centred at N233200 E0581910	2500 FT / SFC	Small arms firing Controlling authority: HQ RAFO, TEL: 24334211.
OO D 83 HALBAN. Area bounded by lines joining successively the following points: N233545 E0580500 - N233550 E0580440 - N233445 E0580350 - N233425 E0580420 - N233545	500 FT AGL / SFC	Small arms firing Controlling authority: Royal Guard of Oman, TEL: 24420314.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
E0580500		
OO D 84 ALFELEIJ. Area bounded by lines joining successively the following points: N233445 E0575920 - N233340 E0575815 - N233545 E0575745 - N233555 E0575805 - N233445 E0575920	600 FT AGL / SFC	Small arms firing Controlling authority: Royal Guard of Oman, TEL: 24420314.
OO D 85 ABEER. Area bounded by lines joining successively the following points: N221000 E0574200 - N222300 E0574200 - N222300 E0575600 - N221000 E0575600 - N221000 E0574200	UNL / SFC	Artillery firing Permanent. Controlling authority: HQ SOA, TEL: 25473400.
OO D 86 IBRI FIELD RANGE. Circle radius 5 NM centred at N231700 E0562445	6500 FT AGL / SFC	Small arms and Mortar firing Permanent. Operating authority: HQ 23 INF Brigade, TEL: 24338296. Duty officer, TEL: 24334316.
OO D 87 MUASKAR AS SAMOUD. Area bounded by lines joining successively the following points: N233050 E0580100 - N233450 E0580100 - N233450 E0580440 - N233050 E0580440 - N233050 E0580100	500 FT / SFC	Small Arms firing The Sultan's Special Force, TEL: 26348609/ 26348888.
OO D 88 IZZ RANGE. Area bounded by lines joining successively the following points: N222542 E0572024 - N223914 E0572024 - N224513 E0571400 - N225248 E0571400 - N225248 E0572240 - N224932 E0572240 - N224932 E0573025 - N224755	UNL / SFC	Artillery and air to air firing Permanent. Controlling authority: HQ SOA Duty Officer, TEL: 25470303.

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
E0573025 - N224755 E0573246 - N224025 E0573246 - N222542 E0572321 - N222542 E0572024		
OO D 89 THUMRAIT RANGE. Circle radius 1 NM centred at N173546 E0540433	2000 FT AGL / SFC	Small Arms firing Permanent.
OO D 92 SUR SHIYYA FIRING RANGE. Area bounded by the lines joining successively the following points: N222700 E0593900 - N222700 E0593400 - N222100 E0593400 - N222100 E0593900 - N222700 E0593900.	2500 FT AGL / SFC	Small Arms firing Permanent. Controlling authority: HQ 23 Infantry Brigade, TEL: 24338296. Duty Officer, TEL: 24334316.
OO D 93 MASNA TRAINING AREA. Area enclosed between arcs of radius 25 & 50 NM MCT DVOR from R-044 N235240 E0583436 to N241028 E0585424, R-072 N234227 E0584107 to N234938 E0590738.	6000 FT AGL / SFC	Fixed wing aircraft training area Permanent. Controlling authority: Muscat Approach
OO D 94 MAZYUNNA. Circle radius 1 NM centred at N175317 E0524148	4000 FT AGL / SFC	Small Arms firing Permanent.
OO D 95 MASIRAH EASTERN TRAINING AREA. Area bounded by lines successively joining the following points: N210151 E0591024 - N205439 E0593450 - N200245 E0600643 - N185056 E0582838 - N190823 E0580908 - N194345 E0582141 - N200450 E0584357 - N201725 E0585716 - N202600 E0591045 - N210151 E0591024	UNL / SFC	Military Training Area Permanent. Controlling authority: RAFO Masirah OPS, TEL: 25482341/ HQ RAFO, TEL: 24334211

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard,risk of interception)
1	2	3
OO D 99 RAS SAWQARAH EASTERN TRAINING AREA. Area bounded by lines joining successively the following points: N174724 E0563211 - N180900 E0564430 - N183349 E0565500 - N181833 E0574436 - N174127 E0565436 - N174724 E0563211	UNL / SFC	Military Training Area 0300/1200 UTC SUN through THU. Outside these hours will be notified. Controlling authority: RAFO, TEL: 24334211
OO D 104 SHITAL. Area bounded by lines joining successively the following points: N201220 E0573500 - N200620 E0573500 N200620 E0574055 - N200755 E0574230 N201220 E0574230 - N201320 E0574155 N201320 E0573535 - N201220 E0573500	5000 FT AGL / SFC	Live firing Permanent. Controlling authority: Sultan's Special Force TEL: 24590158
OO D 105 ZAULIYA. Area bounded by lines joining successively the following points: N202455 E0554855 - N202030 E0554855 - N202030 E0554930 - N202300 E0555330 - N202455 E0555330 - N202455 E0554855	5000 FT AGL / SFC	Live firing Permanent. Controlling authority: Sultan's Special Force TEL: 24590158
OO D 107 Area bounded by lines joining successively the following points: N233156 E0581549 - N233051 E0581549 - N233050 E0581810 - N233155 E0581810	3500 FT / SFC	Demolition of explosives Every MON and THU between 0400/0800
OO D 108 SAMAIL. Circle radius 1 NM centred at N232020 E0580911	2000 FT AGL / SFC	Small Arms firing Permanent.

ENR 5.2 MILITARY EXERCISE AND TRAINING AREAS AND AIR DEFENCE IDENTIFICATION ZONE (ADIZ)

1. GENERAL

All airspace in which a potential hazard to aircraft operations may exist and all areas over which the operation of civil aircraft may, for any reason, be restricted, either temporarily or permanently, are all enclosed within prohibited, restricted or danger areas. These areas, including their times of activity, are listed in ENR 5.1.

2. SYSTEM AND METHOD OF ACTIVATION

NOTAMs are issued to notify activation of areas which are activated on a non-scheduled basis.

3. REMARKS

Nil

Name **Lateral limits**	**Upper / lower limits and system / means of activation announcement INFO for CIV FLT**	**Remarks / Time of ACT / Risk of interception (ADIZ)**
1	**2**	**3**
SUHAR TRAINING AREA (Provisional). Area bounded by lines joining the following points: N242819 E0561024 - N241710 E0562552 - N240626 E0563138 - N234532 E0562654 - N235222 E0561100 - N240307 E0560408 - N241448 E0555824 - N241910 E0560433 - N242819 E0561024	7000 FT / SFC PERM Active during HJ VFR Routing to/from Training Area 1. Traffic entering the Training Area from Suhar Aerodrome to enter via VFR Reporting Point COPPER (N24°18’30” E056°25’24”) north of Route 7 not below 3500FT AMSL (weather permitting) 2. Traffic exiting the Training Area to Suhar should exit via OMGRIT (OMAN ABRASIVE PLANT) (N24°17’10” E056°25’52”) and route to the south of Route 7 at or below 2500FT. (weather and terrain permitting)	Conditions of use. 1. The airspace designated as Suhar Training Area is airspace in which extensive local flying and training flights will take place with fixed wing aircraft. 2. The Training Areas are uncontrolled airspaces. It will be the responsibility of all pilots to maintain adequate separation with other aircraft. 3. Pilots are required to maintain a listening watch on TIBA Frequency 122.225 MHz and make regular position reports on the TIBA frequency to ensure adequate traffic deconfliction. 4. Pilots of all aircraft operating within the training area are required to keep a listening watch on the appropriate Muscat Control Frequency. 5. Flight Information Services (FIS) are not provided by Muscat Control within the Training Area.

Name Lateral limits	Upper / lower limits and system / means of activation announcement INFO for CIV FLT	Remarks / Time of ACT / Risk of interception (ADIZ)
1	2	3
		6. All flights in the Training Areas are to be conducted on Muscat Regional QNH. This value can be obtained from Suhar AFIS on 118.725 MHz or Muscat Control on 124.7 MHz. 7. VFR Traffic may transit the training area however should be aware of the possibility of encountering increased numbers of aircraft conducting flight training and not necessarily maintaining an orderly direction or level during flight. 8. Training Flights are to be conducted during DAYLIGHT hours and in VMC ONLY. 9. Flight Training exercises to be conducted within the designated areas and aircraft not to stray out of the areas or intrude into adjacent airspaces as these infringe on the protection areas of Instrument Flight Procedures. 10. Aerobatics flights are prohibited in Training Areas. 11. Traffic experiencing an emergency or requiring navigation assistance may contact Muscat Control on 124.7 MHz Limited radio and surveillance coverage is available from Muscat Control in the Training Area. On receipt of the information from Muscat Control, it shall be the responsibility of the pilot to decide whether his intended flight can be carried out safely in view of the prevailing air traffic. Active: HJ and VMC ONLY.

VFR Reporting Points		
Name	**Coordinates**	**Associated Aerodrome**
1	**2**	**3**
COPPER	N241830 E0562524	OOSH
OMGRIT	N241710 E0562552	OOSH

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ENR 5.3 OTHER ACTIVITIES OF A DANGEROUS NATURE AND OTHER POTENTIAL HAZARDS

1. GENERAL

There are no activities of a dangerous nature taking place outside of prohibited, restricted or danger areas.

2. SYSTEM AND METHOD OF ACTIVATION

NOTAMs are issued to notify activation of areas which are activated on a non-scheduled basis.

3. REMARKS

NIL.

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ENR 5.4 AIR NAVIGATION OBSTACLES – AREA 1

1. GENERAL

En-route air navigation obstacles are depicted on the World Aeronautical Chart - ICAO 1 : 1 000 000. Obstacles exceeding heights of 100 M AGL (328 FT) AGL) not shown on the above chart are listed in GEN 3.2.8 and table below.

AIR NAVIGATION OBSTACLES - EN-ROUTE (HEIGHT 100M (328FT) AGL OR MORE)

OBST ID or Designation	OBST type	OBST position	ELEV/HGT (M)	OBST LGT Type/colour	Remarks
1	2	3	4	5	6
1	MAST	241530.00 N 0554615.00 E	400 / 1350	OBST / R	Nil
2	MAST	241700.00 N 0562600.00 E	328 / 1204	OBST / R	Nil
3	MAST	241900.00 N 0564330.00 E	550 / 650	OBST / R	Nil
4	MAST	202252.00 N 0553812.00 E	328 AGL	OBST / R	Nil
5	MAST	231118.00 N 0552749.00 E	344 / 750	OBST / R	Nil
6 - Bidiya	MAST	222705.00 N 0585420.00 E	888 AGL	OBST / R	Nil
7 - Bahla	MAST	225250.00 N 0570325.00 E	396 AGL	OBST / R	Nil
8 - Barka	2 MASTS	233429.00 N 0574948.00 E	411 AGL	OBST / R	Nil
9	MAST	174800.00 N 0543800.00 E	350 / 1735	OBST / R	Nil
10	MAST	180000.00 N 0550000.00 E	500 / 1485	OBST / R	Nil
11	MAST	183916.00 N 0540454.00 E	328 / 1063	OBST / R	Nil
12	MAST	195721.00 N 0561703.00 E	328 / 758	OBST / R	Nil
13	MAST	190715.00 N 0563709.00 E	919 AMSL	OBST	Nil
14	MAST	195526.00 N 0565233.00 E	978 AMSL	OBST	Nil
15 - Duqm	WINDMILL	192848.00 N 0565148.00 E	466 AGL / 932	OBST	Nil

OBST ID or Designation	OBST type	OBST position	ELEV/HGT (M)	OBST LGT Type/colour	Remarks
1	2	3	4	5	6
15 - Duqm	WINDMILL	190826.00 N 0573154.00 E	466 AGL / 610	OBST	Nil
15 - Duqm	WINDMILL	184729.00 N 0562813.00 E	466 AGL / 971	OBST	Nil
15 - Duqm	WINDMILL	183252.00 N 0561127.00 E	466 AGL / 1138	OBST	Nil
15 - Duqm	WINDMILL	181629.00 N 0560016.00 E	466 AGL / 1266	OBST	Nil
15 - Duqm	WINDMILL	174517.00 N 0542812.00 E	466 AGL / 1824	OBST	Nil
15 - Duqm	MAST	184723.00 N 0562814.00 E	460 AGL / 965	OBST	Nil
15 - Duqm	MAST	183240.00 N 0561125.00 E	460 AGL / 1126	OBST	Nil
15 - Duqm	MAST	181623.00 N 0560016.00 E	460 AGL / 1267	OBST	Nil

ENR 5.5 AERIAL SPORTING AND RECREATIONAL ACTIVITIES

1. GENERAL

Name and Lateral Limits	Upper Limit / LowerLimit	Type of Restriction / Hazard	Remarks
1	2	3	4
HAWANA SALALAH. Area bounded by lines joining successively the following points: N170137 E0541712 - N170152 E0541935 - N170017 E0541955 - N170011 E0541731 - N170137 E0541712	200 FT / SFC	Para-Sailing	0400 - 1400

2. SYSTEM AND METHOD OF ACTIVATION

Temporary events are notified by NOTAM.

3. REMARKS

NIL.

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ENR 5.6 BIRD MIGRATION AND AREAS WITH SENSITIVE FAUNA

1. BIRD MIGRATION

Muscat/Muscat International and Salalah: Large solitary predatory birds (eagles, vultures etc.) present a hazard to air navigation at all times on the coastal plain in the vicinity of these airports. Pilots are advised to exercise extreme caution when approaching or departing, particularly below ALT 3000 FT. ATC will endeavor to keep pilots advised of bird concentrations, but single birds circling at any height are very difficult to observe from ATC. Pilot reports of bird concentrations are requested. These reports are very useful in planning a programme to attempt a reduction of bird strike hazards.

2. AREAS OF SENSITIVE FAUNA

Areas of sensitive fauna are listed in ENR 5.1 as Prohibited areas.

3. REMARKS

Nil.

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ENR 6 EN-ROUTE CHARTS

6.1 AIR TRAFFIC SERVICE SYSTEM	6.1 AIR TRAFFIC SERVICE SYSTEM
MUSCAT UTA	MUSCAT UTA
6.2 PROHIBITED, RESTRICTED AND DANGER AREAS	6.2 PROHIBITED, RESTRICTED AND DANGER AREAS
6.3 RADIO FACILITY - INDEX CHART	6.3 RADIO FACILITY - INDEX CHART
6.4 AERIAL SPORTING AND RECREATIONAL ACTIVITIES - INDEX CHART	6.4 AERIAL SPORTING AND RECREATIONAL ACTIVITIES - INDEX CHART
6.5 MILITARY EXERCISE AND TRAINING AREAS - INDEX CHART	6.5 MILITARY EXERCISE AND TRAINING AREAS - INDEX CHART

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ENROUTE CHART - ICAO AIR TRAFFIC SERVICE SYSTEM

FOR AIRWAY RESTRICTIONS AND AVAILABILTY OPERATORS SHOULD REFER TO THE RESPECTIVE ENR 1.9 ANR ENR 3.2 PAGES

FOR DETAILS ON MUSCAT TMA SECTORS REFER TO CHART AD 2.OOMS-49

FOR 'T' AIRWAYS REFER TO CHART AD 2.OOMS-51

FOR WAYPOINT COORDINATES REFER TO ENR 3.2 AND 4.4.

FOR DETAILS OF PROHIBITED, RESTRICTED AND DANGER AREAS REFER ENR 6.2-1

LEGEND

- VOR/DME
- Aerodrome
- ATZ
- CTR
- Control Area
- AMA (Area Min Hum Altitude)
- Route Designator
- Distance in NM
- ATS Route
- Upper Limit
- Lower Limit
- Magnetic Track
- Delegated Airspace
- Compulsory Reporting Point
- Non-Compulsory Rep. Point
- MET Compulsory Rep. Point
- Flight Information Region (FIR)
- TMA
- UTA
- International Boundary
- Communication Sector
- Isogonic Line

SCALE: 1 : 1 700 000

KM 0 10 20 30 40 50 60 70 80 90 100

NM 0 10 20 30 40 50 60

Map Projection: Lambert Conformal Conic (LCC)

Amendment: UTA Upper & Lower limit updated, Communication Sectors added.

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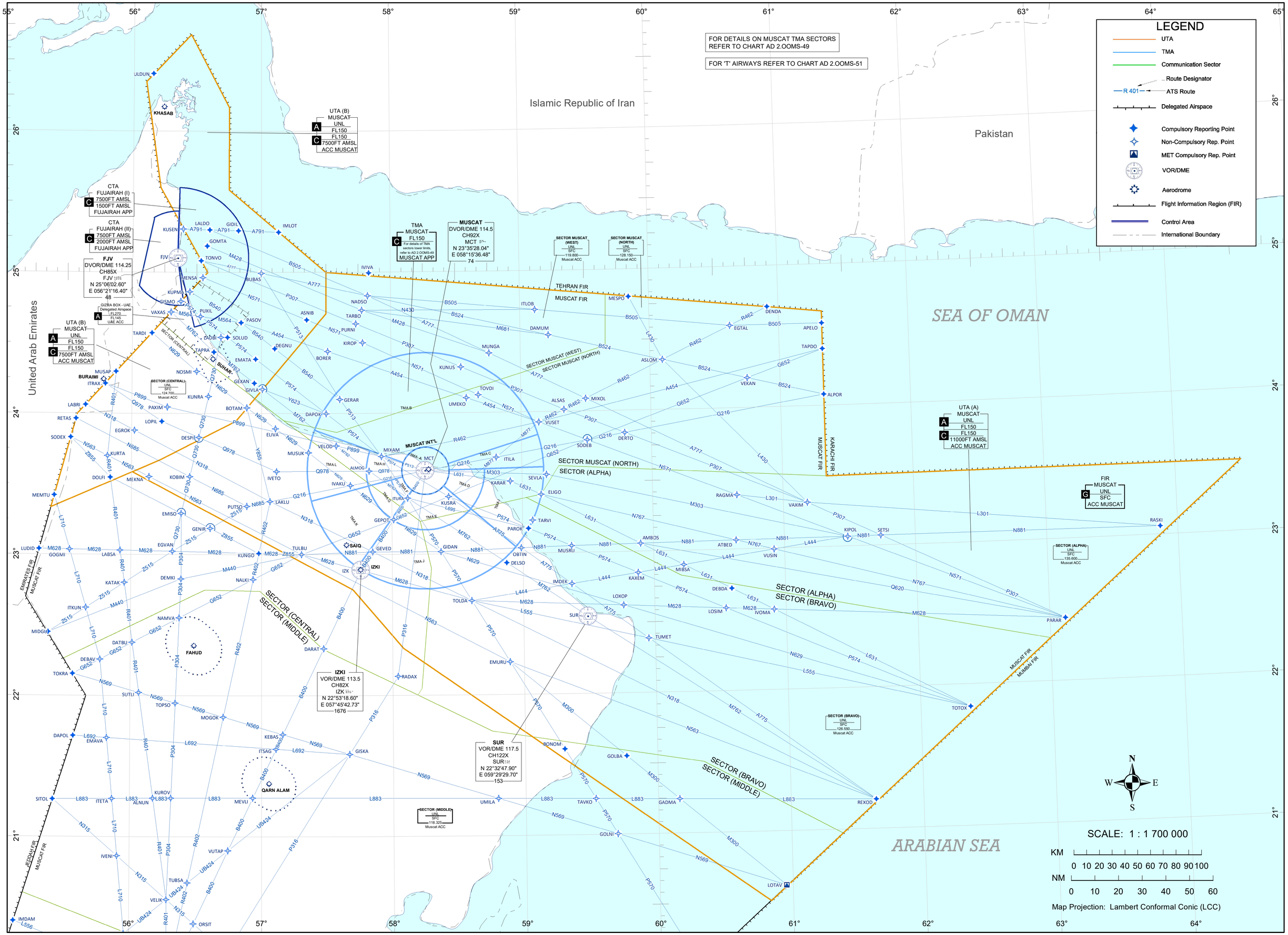
MUSCAT UTA



Amendment: UTA Upper & Lower limit updated, Communication Sectors added.

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SEA OF OMAN

ARABIAN SEA

ARABIAN SEA

FOR 'T' AIRWAYS REFER TO CHART AD 2.OOMS-51

SCALE: 1 : 2 500 000
ALTITUDES IN FEET

SCALE: 1 : 1 000 000
ALTITUDES IN FEET

LEGEND

VOR/DME

PROHIBITED/ RESTRICTED/ DANGER AREA

ROUTE DESIGNATOR

R 401 — ATS ROUTE

FLIGHT INFORMATION REGION (FIR)

AIRPORTS

COMPULSORY REPORTING POINT

NON-COMPULSORY REP. POINT

MET COMPULSORY REP. POINT

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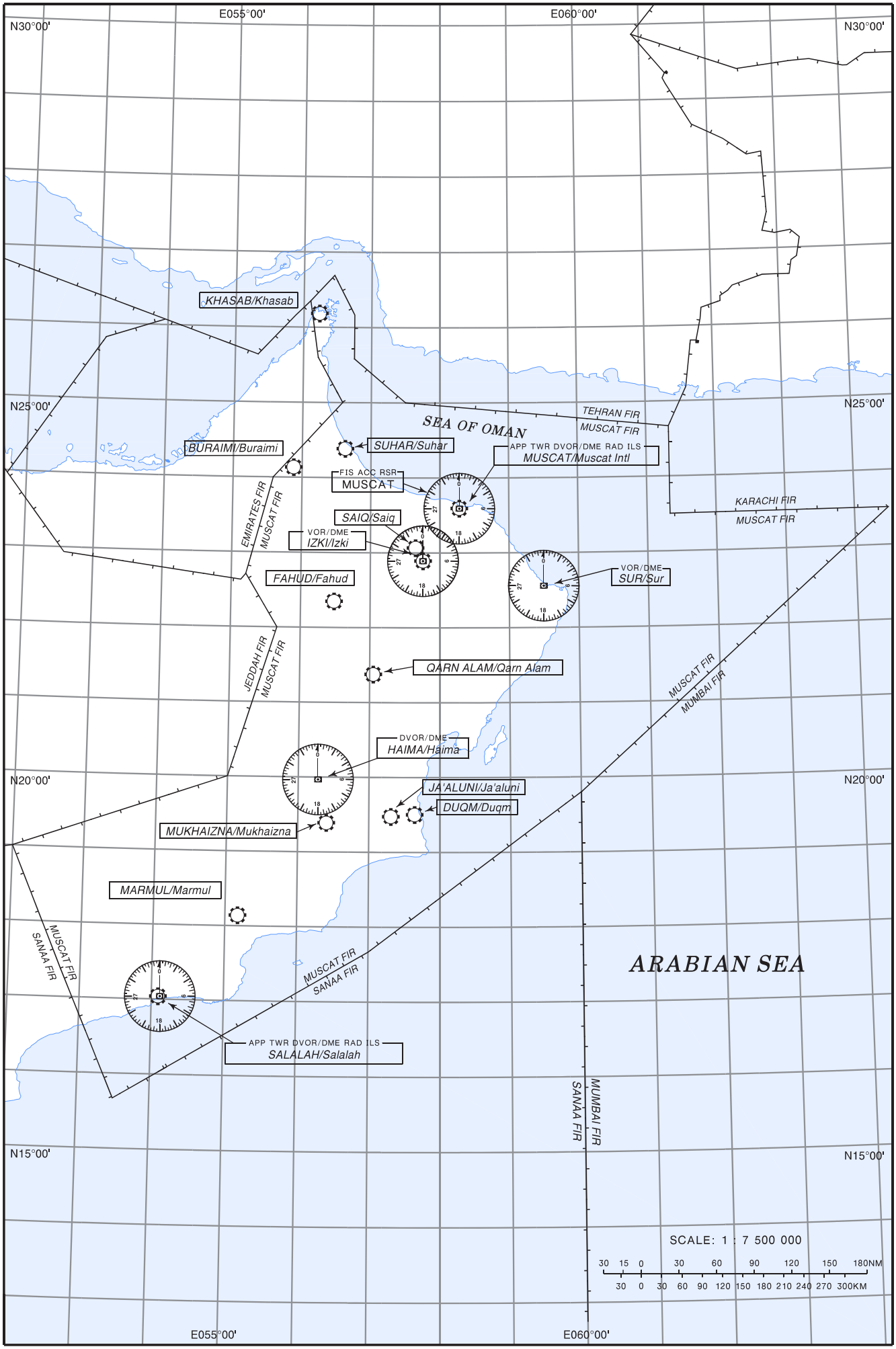
E055°00'
E060°00'
N30°00'
N25°00'
N20°00'
N15°00'
KHASAB/Khasab
BURAIMI/Buraimi
SUHAR/Suhar
APP TWR DVOR/DME RAD ILS
MUSCAT/Muscat Intl
FIS ACC RSR
MUSCAT
SAIQ/Saiq
VOR/DME
IZKI/Izki
FAHUD/Fahud
VOR/DME
SUR/Sur
QARN ALAM/Qarn Alam
DVOR/DME
HAIMA/Haima
JA'ALUNI/Ja'aluni
DUQM/Duqm
MUKHAIZNA/Mukhaizna
MARMUL/Marmul
APP TWR DVOR/DME RAD ILS
SALALAH/Salalah
SEA OF OMAN
ARABIAN SEA
TEHRAN FIR
MUSCAT FIR
KARACHI FIR
MUSCAT FIR
EMIRATES FIR
MUSCAT FIR
JEDDAH FIR
MUSCAT FIR
MUSCAT FIR
MUMBAI FIR
MUSCAT FIR
SANAA FIR
MUSCAT FIR
SANAA FIR
SANAA FIR
MUMBAI FIR
SCALE: 1 : 7 500 000
30 15 0 30 60 90 120 150 180NM
30 0 30 60 90 120 150 180 210 240 270 300KM

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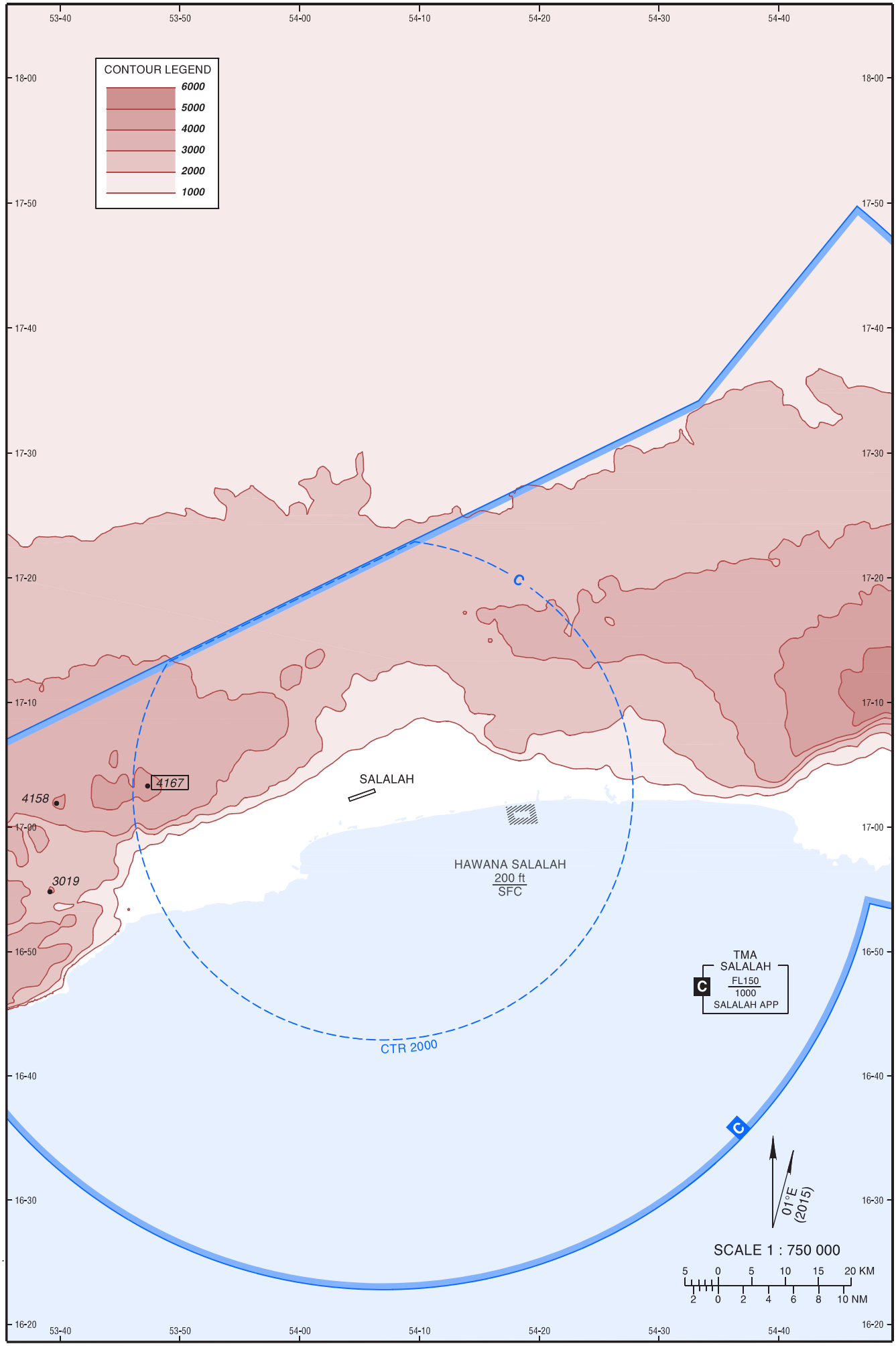
AERIAL SPORTING AND RECREATIONAL ACTIVITIES - INDEX CHART



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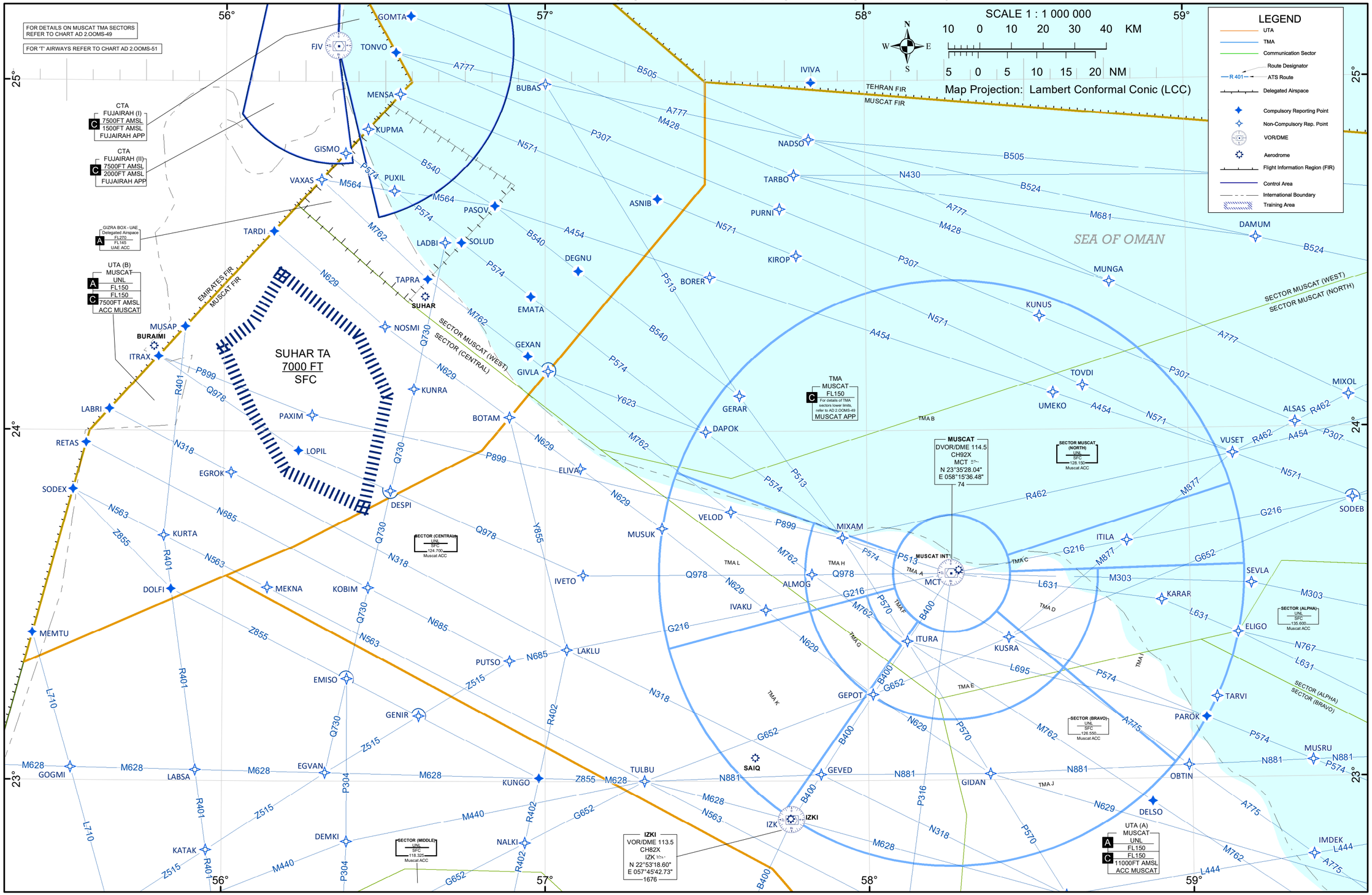
MILITARY EXERCISE AND TRAINING AREAS - INDEX CHART



Amendment: UTA Upper & Lower limit updated, Communication Sectors added

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PART 3 — AERODROMES (AD)

AD 0

AD 0.1 PREFACE — NOT APPLICABLE

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AD 0.2 RECORD OF AIP AMENDMENTS — NOT APPLICABLE

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AD 0.3 RECORD OF AIP SUPPLEMENTS — NOT APPLICABLE

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AD 0.4 CHECKLIST OF AIP PAGES — NOT APPLICABLE

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AD 0.5 LIST OF HAND AMENDMENTS TO THE AIP — NOT APPLICABLE

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AD 0.6 TABLE OF CONTENTS TO PART 3

AD 0.1 [NIL] PREFACE
AD 0.2 [NIL] RECORD OF AIP AMENDMENTS
AD 0.3 [NIL] RECORD OF AIP SUPPLEMENTS
AD 0.4 [NIL] CHECKLIST OF AIP PAGES
AD 0.5 [NIL] LIST OF HAND AMENDMENTS TO THE AIP
AD 0.6 TABLE OF CONTENTS TO PART 3
AD 1 **AERODROMES/HELIPORTS - INTRODUCTION**
AD 1.1 AERODROME AVAILABILITY
AD 1.2 RESCUE AND FIRE FIGHTING SERVICES
AD 1.3 INDEX TO AERODROMES
AD 1.4 GROUPING OF AERODROMES
AD 1.5 STATUS OF CERTIFICATION OF AERODROMES
AD 2 **AERODROMES**
OOBR
OODQ
OOFD
OOGB
OOIZ
OOJA
OOKB
OOMK
OOMS
OOMX
OOSA
OOSH
OOSQ
AD 3 **HELIPORTS**

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AD 1 AERODROMES/HELIPORTS - INTRODUCTION

AD 1.1 AERODROME/HELIPORT AVAILABILITY AND CONDITIONS OF USE

1. GENERAL CONDITIONS UNDER WHICH AERODROMES/HELIPORTS AND ASSOCIATED FACILITIES ARE AVAILABLE FOR USE

The conditions under which aircraft may land, are parked, housed or otherwise dealt with, at any of the aerodromes under the control of, or operated on behalf of the CAA, in addition to those prescribed in the legislation listed in GEN 1.6, shall be as follows:

a) the fees and charges for the landing, parking or housing of aircraft shall be those published, from time to time, by the Director General of Air Navigation (referred to herein as "the CAA") in either AIP or NOTAM. The fees and charges for any supplies or services which may be furnished to the aircraft, at any aerodrome under the control of the CAA, or the designated Airport Operating Agency, be such reasonable fees and charges as may, from time to time, be determined by the CAA or the designated Airport Operating Agency for that aerodrome. The fees and charges referred to in this paragraph shall accrue from day to day and shall be payable to the CAA or the designated Airport Operating Agency on demand.

b) the CAA shall have a lien on the aircraft, its parts and accessories, for such fees and charges as aforesaid.

c) if payment of such fees and charges is not made to the CAA within fourteen days after a letter demanding payment thereof has been sent by mail to the address of the registered owner of the aircraft, the CAA shall be entitled to sell, remove, destroy or otherwise dispose of the said aircraft and any of its parts and accessories and to apply the proceeds therefrom to the payment of such fees and charges.

d) neither the CAA nor any servant or agent of the government shall be liable for loss of or damage to the aircraft, its parts or accessories or any property contained in the aircraft, howsoever such loss or damage may arise, occurring while the aircraft is on any of the aerodromes under the control of the CAA or the designated Airport Operating Agency or is in the course of landing or taking off at any such aerodromes or of being removed or dealt with elsewhere for the purpose of paragraph c) above of these conditions.

1.1 Landings made elsewhere than at international airports

1.1.1 If a landing is made at other than a designated international airport, the pilot in command shall report the landing, as soon as practicable, to the health, customs and immigration authorities at the international airport at which the landing was scheduled to take place, by the most expeditious means of communication available.

1.1.2 The pilot in command shall be responsible for ensuring that:

a) if pratique has not been granted to the aircraft at the previous landing, contact, between the passengers and crew on one hand and other persons on the other hand, is avoided.

b) no cargo, baggage or mail is removed from the aircraft, except as provided in c) below.

c) no foodstuff of overseas origin, nor any plant material, is removed from the aircraft, except where local food is unobtainable. All food refuse, including peelings, cores, fruit stones, etc. must be collected and returned to the galley refuse container, the contents of which shall not be removed from the aircraft except for hygienic reasons; in which case they shall be destroyed by burning or deep burial.

Paragraphs 1.1.1 and 1.1.2 are hereby notified for the purpose of Article 20 of the Civil Aviation Law.

1.2 Traffic of persons and vehicles on aerodromes

1.2.1 Airport areas

All aerodromes available for public use and under the control of CAA or operated on behalf of the CAA, which lie within legally defined airport areas, details of which are contained in the relevant Aerodrome Manual and Airport Security Plan.

1.2.2 Demarcation of zones

Each airport is divided into two zones:

a) a public zone, to which access is not restricted in any way, and

b) a restricted zone comprising the remainder of the airport area.

1.3 Movement of persons

Only those personnel authorized by the ROP, or the Aerodrome Operator, as applicable and stated in the relevant Aerodrome Manual under and in accordance with those conditions prescribed in the relevant legislation, are permitted access to restricted zones as follows:

Staff of public authorities, airlines and handling agents and other authorized persons in pursuit of their duties shall have access to those portions of a restricted zone as necessary. The customs, police and health offices and the premises assigned to arriving, departing and transit traffic are, in addition, accessible to properly cleared passengers. The movement of personnel having access to a restricted zone is subject to the conditions prescribed in the relevant legislation. This paragraph is hereby notified to the purposes of article 21 (2) of the Civil Aviation Law and relevant Civil Aviation Regulations.

1.4 Movement of vehicles

Only those Vehicles authorized by the ROP, or the Aerodrome Operator, as applicable and stated in the relevant Aerodrome Manual under and according to those conditions prescribed in the relevant legislation, and Aerodrome Manual are permitted access to restricted zones as follows:

a) Access to a restricted zone is prohibited to all vehicles not displaying an Aerodrome Vehicle Permit.

b) All vehicle drivers, regardless of vehicle type, when driving within the confines of an aerodrome, shall respect the direction of traffic, traffic signs and signals, posted speed limits and generally comply with the highway code and relevant Aerodrome Manual. This paragraph is hereby notified to the purposes of article 21 (2) of the Civil Aviation Law and relevant Civil Aviation Regulations.

c) No person shall operate a vehicle on the manoeuvring area (Runway and Taxiways) or Civil Aprons unless they are in possession of a valid air-side driving permit issued by the Aerodrome Operator. A nominal fee may be charged for this permit.

1.5 Policing

While all possible measures have been taken to ensure the security of the airport, the Sultanate of Oman and/or any concessionaire shall not be held responsible for either:

a) the care and protection of aircraft, vehicles, equipment and goods for which the aerodrome facilities are used or

b) any loss or damage, unless such loss or damage is incurred as a result of an action by the Sultanate of Oman or a concessionaire or their respective agents.

1.6 Aerodrome operating minima

1.6.1 Oman determines and publishes aerodrome operating minima as MDH/DH and RVR/Visibility for the following procedures:

- Category II precision approaches with DH greater than or equal to 100 ft;

- Category I precision approaches with DH greater than or equal to 200 ft;

- Approaches with vertical guidance (APV);

- Non precision approaches; and

- Visual manoeuvres.

1.6.2 These minima are published on instrument approach charts. They constitute the lowest operating minima that can be used without an operational approval by the aircraft operator's surveillance authority.

1.6.3 For AFIS aerodromes, Minimum visibility for take-off & landing are included in AD 2.2 section of each aerodrome.

1.6.4 Operators must establish AOM for each aerodrome to be used for operations. After consideration of the factors listed below, operators may determine that their AOM should be higher than the published minima:

a) the type, performance and handling characteristics of the aeroplane;

b) the composition of the flight crew, their competence and experience;

c) the dimensions and characteristics of the runways which may be selected for use;

d) the adequacy and performance of the available visual and non-visual ground aids;

e) the equipment available on the aeroplane for the purpose of navigation and/or control of the flight path, as appropriate, during the take-off, the approach, the flare, the landing, roll-out and the missed approach;

f) the obstacles in the approach, missed approach and the climb-out areas required for the execution of contingency procedures and necessary clearance;

g) the obstacle clearance altitude/height for the instrument approach procedures;

h) the means to determine and report meteorological conditions; and

i) the flight technique to be used during the final approach.

2. APPLICABLE ICAO DOCUMENTS

The standards and recommended practices of the following documents are applied. Differences to the documents listed below are noted in chapter GEN 1.7

Annex 3	Meteorological Service for International Air Navigation.
Annex 4	Aeronautical Charts
Annex 9	Facilitation
Annex 10	Aeronautical Telecommunications
Annex 14	Aerodromes
Doc 7030	Regional Supplementary - Procedures, part 2 and part 3
Doc 7910	Location Indicators
Doc 8168	Aircraft Operations, VOL II (Construction of visual and instrument flight procedures)
Doc 8400	ICAO Abbreviations and Codes
Doc 8585	Designators for Aircraft Operating Agencies, Authorities and Services
Doc 8643	Aircraft Type Designators

3. CIVIL USE OF MILITARY AIR BASES

3.1 General

Civil aircraft are not permitted to land at any aerodrome not listed in this AIP except in cases of a real emergency or where special permission has been granted.

3.2 Submission of application

All requests for use of listed military aerodromes should be made to:

Postal Address: HQ RAFO
P.O. Box 722
POSTAL CODE 111
MUSCAT
Sultanate of Oman
Telephone: (968) 24 334211
Telefax: (968) 24 334776
Telex: 5592 RAFOOMAN ON.

4. CAT II/III OPERATIONS AT AERODROMES

Nil

5. FRICTION MEASUREMENT DEVICE USED AND FRICTION LEVEL BELOW WHICH RWY IS DECLARED SLIPPERY WHEN IT IS WET

5.1 Aerodrome operators are required to conduct periodic surveys of the friction characteristics of their runway surfaces. The purpose of these surveys is to predict the need for maintenance of the runway surface to prevent an unacceptable deterioration of friction as detailed in Table 1. The recognized Continuous Friction Measuring Equipment (CFME) devices in the Sultanate of Oman are the Mu-Meter, Griptester, Surface Friction Tester Vehicle and Runway Friction Tester Vehicle. These surveys start with the new construction of a runway surface at which the friction level is required to equal or exceed the values stated in the table for the Design Objective for New Surface.

5.2 If a survey indicates that the runway surface friction characteristics have deteriorated below the specified Minimum Friction Level (MFL), then that runway will be notified by NOTAM as a runway that ‘may be slippery when wet’.

5.3 When a runway is notified as ‘may be slippery when wet’, aircraft operators may request additional information relating to that notification from the aerodrome operator. However, any performance calculations or adjustment made as a result of this information are the responsibility of the aircraft operator.

Friction Levels						
Continuous Friction Measuring Equipment (CFME)	**Test tire**		**Test Speed (km/h)**	**Test Water depth (mm)**	**Design objective for new surface**	**Minimum Friction Level (MFL)**
Continuous Friction Measuring Equipment (CFME)	**Type**	**P (kPa)**	**Test Speed (km/h)**	**Test Water depth (mm)**	**Design objective for new surface**	**Minimum Friction Level (MFL)**
Mu-Meter	A	70	65	1.0	0.72	0.42

Friction Levels						
Continuous Friction Measuring Equipment (CFME)	**Test tire**		**Test Speed (km/h)**	**Test Water depth (mm)**	**Design objective for new surface**	**Minimum Friction Level (MFL)**
Continuous Friction Measuring Equipment (CFME)	**Type**	**P (kPa)**	**Test Speed (km/h)**	**Test Water depth (mm)**	**Design objective for new surface**	**Minimum Friction Level (MFL)**
	A	70	95	1.0	0.66	0.26
Griptester	C	140	65	1.0	0.74	0.43
	C	140	95	1.0	0.64	0.24
Surface Friction Tester Vehicle	B	210	65	1.0	0.82	0.50
	B	210	95	1.0	0.74	0.34
Runway Friction Tester Vehicle	B	210	65	1.0	0.82	0.50
	B	210	95	1.5	0.74	0.41

6. OTHER INFORMATION

Nil

AD 1.2 RESCUE AND FIRE FIGHTING SERVICES AND SNOW PLAN

1. RESCUE AND FIRE FIGHTING SERVICES

Adequate rescue and fire fighting vehicles, equipment and personnel have been provided at all certified aerodromes. The scale of protection has been determined in accordance with the standards and recommended practices in chapter 9 of ICAO Annex 14 Volume 1, and the guidance in Attachment A to Annex 14, and is indicated in terms of each certified aerodrome in AD 2. The number of trained personnel available is determined by the Aerodrome Operator in consultation with the CAA. Each rescue and fire fighting unit is operated by the Aerodrome Operator. Full service on a 24 hour basis is normally provided only at Muscat International Airport and Salalah Airport.

2. SNOWPLAN

Not applicable

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AD 1.3 INDEX TO AERODROMES AND HELIPORTS

Aerodrome/heliport name Location indicator	Type of traffic permitted to use the aerodrome/heliport			Reference to AD Section and remarks
	International - National (INTL-NTL)	IFR-VFR	S = Scheduled NS = Non-scheduled P = Private MIL = Military	
1	2	3	4	5
AERODROME				
BURAIMI/Buraimi OOBR	NTL	VFR	S	AD 2 OOBR
DUQM/Duqm OODQ	INTL*-NTL	IFR-VFR	S-NS-P	AD 2 OODQ
FAHUD/Fahud OOFD	NTL	IFR-VFR	S	AD 2 OOFD
QARN ALAM/Qarn Alam OOGB	NTL	IFR-VFR	S	AD 2 OOGB
IZKI/Izki OOIZ	NTL	VFR	S	AD 2 OOIZ
JA'ALUNI/Ja'aluni OOJA	NTL	VFR	P	AD 2 OOJA
KHASAB/Khasab OOKB	NTL	VFR	S	AD 2 OOKB
MUKHAIZNA/Mukhaizna OOMK	NTL	IFR-VFR	S-NS-P	AD 2 OOMK
MUSCAT/Muscat International OOMS	INTL-NTL	IFR-VFR	S-NS-P	AD 2 OOMS
MARMUL/Marmul OOMX	NTL	IFR-VFR	S	AD 2 OOMX
SALALAH/Salalah OOSA	INTL-NTL	IFR-VFR	S-NS-P	AD 2 OOSA
SUHAR/Suhar OOSH	INTL*-NTL	IFR-VFR	S-NS-P	AD 2 OOSH
SAIQ/Saiq OOSQ	NTL	VFR	S	AD 2 OOSQ

* When used for international air traffic, a prior permission is required (Secondary Intl Aerodrome).

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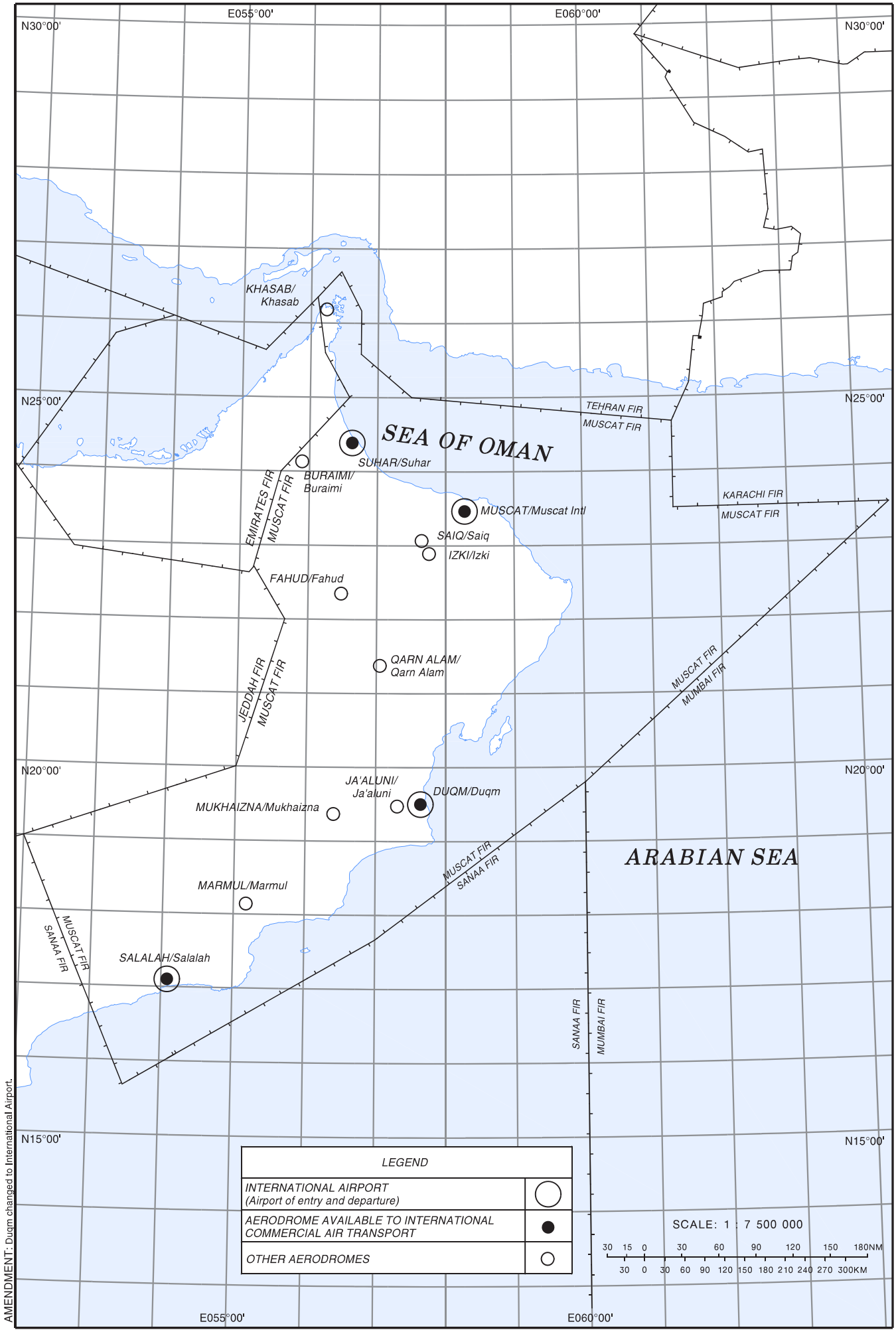
AERODROME INDEX CHART - ICAO



AMENDMENT : Duqm changed to International Airport.

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AD 1.4 GROUPING OF AERODROMES/HELIPORTS

The criteria applied by the Sultanate of Oman in grouping aerodromes for the provision of information in this AIP are as follows:

1. INTERNATIONAL AERODROME

Aerodromes of entry and departure for international air traffic, where all formalities concerning customs, immigration, health, animal and plant quarantine and similar procedures are carried out and where air traffic services are available on a regular basis.

2. SECONDARY/OTHER INTERNATIONAL AERODROME

Other aerodrome available for entry or departure of international air traffic, at which the formalities of customs, immigration, health and similar procedures and air traffic services are made available on a restricted basis to flights, with prior approval only.

3. NATIONAL AERODROME/HELIPORT

An aerodrome available only for domestic air traffic, including those military aerodromes/heliports where civil air traffic is allowed under certain conditions.

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AD 1.5 STATUS OF CERTIFICATION OF AERODROMES

Aerodrome name Location indicator	Certification date	Certificate validity	Remarks
1	2	3	4
BURAIMI/Buraimi OOBR	Nil	-	Military Aerodrome
DUQM/Duqm OODQ	Certified (Initial) 12 October 2017	-	VMC Day use only
FAHUD/Fahud OOFD	Certified (Initial) 17 May 2008	-	VMC Day use only
QARN ALAM/Qarn Alam OOGB	Certified (Initial) 7 July 2008	-	VMC Day use only
IZKI/Izki OOIZ	Nil	-	Military Aerodrome
JA'ALUNI/Ja'aluni OOJA	Nil	-	Royal Oman Police
KHASAB/Khasab OOKB	Nil	-	Military Aerodrome
MUKHAIZNA/Mukhaizna OOMK	Certified (Initial) 23 October 2015	-	VMC Day use only
MUSCAT/Muscat International OOMS	Certified (Initial) 31 May 2010	-	Nil
MARMUL/Marmul OOMX	Certified (Initial) 29 March 2008	-	VMC Day use only
SALALAH/Salalah OOSA	Certified (Initial) 13 November 2013	-	Nil
SUHAR/Suhar OOSH	Certified (Initial) 22 June 2017	-	VMC
SAIQ/Saiq OOSQ	Nil	-	Military Aerodrome

Note: Dash (—) indicates that the Civil Aviation Authority may grant a certificate for a maximum period of 5 years and renewed thereafter, unless cancelled, suspended or revoked.

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AD 2 AERODROMES

OOBR AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOBR BURAIMI/Buraimi

OOBR AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	241430.00 N 0554652.00 E
2	Direction and distance from (city)	NIL
3	Elevation/Reference temperature	970 FT/Nil
4	Geoid undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	NIL
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	NIL
7	Types of traffic permitted (IFR/VFR)	VFR
8	Remarks	NIL

OOBR AD 2.3 OPERATIONAL HOURS

1	AD Administration	HJ
2	Customs and immigration	NIL
3	Health and sanitation	NIL
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	NIL
7	ATS	NIL
8	Fuelling	NIL
9	Handling	NIL
10	Security	NIL
11	De-icing	NIL
12	Remarks	RAFO. PPR.

OOBR AD 2.4 HANDLING SERVICES AND FACILITIES

NIL

OOBR AD 2.5 PASSENGER FACILITIES

NIL

OOBR AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	NIL
2	Rescue equipment	Adequate rescue and fire fighting vehicles, equipment and personnel provided.
3	Capability for removal of disabled aircraft	Limited
4	Remarks	Full service provided HJ only.

OOBR AD 2.7 SEASONAL AVAILABILITY — CLEARING

1	Types of clearing equipment	NIL
2	Clearance priorities	NIL
3	Remarks	AD available all seasons.

OOBR AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

NIL

OOBR AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	NIL
2	RWY and TWY markings and LGT	Available lighting: RWY, THR 11, other
3	Stop bars	NIL
4	Other runway protection measures	NIL
5	Remarks	NIL

OOBR AD 2.10 AERODROME OBSTACLES

NIL

OOBR AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

NIL

OOBR AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
11/29	NIL	880 X 30	5700KG/0.55 Mpa Sand/Gravel	NIL	NIL
18/36	NIL	533 X 30	Strength not determined, Surface Sand/Gravel	NIL	NIL

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
11/29	NIL	NIL	30	NIL	NIL
18/36	NIL	NIL	NIL	NIL	NIL

Designations RWY NR	Location and description of engineering material arresting system(EMAS)	OFZ	Remark
1	12	13	14
11/29	NIL	NIL	RWY 11 threshold displaced by 53 M.
18/36	NIL	NIL	NIL

OOBR AD 2.13 DECLARED DISTANCES

NIL

OOBR AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
11	Yes	Yes	NIL	NIL	NIL	Yes	NIL	NIL	NIL
29	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
18/36	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

OOBR AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

NIL

OOBR AD 2.16 HELICOPTER LANDING AREA

NIL

OOBR AD 2.17 ATS AIRSPACE

NIL

OOBR AD 2.18 ATS COMMUNICATION FACILITIES

NIL

OOBR AD 2.19 RADIO NAVIGATION AND LANDING AIDS

NIL

OOBR AD 2.20 LOCAL AERODROME REGULATIONS

20.1 AIRPORT REGULATIONS

Local flying restrictions: PPR

20.2 TAXIING TO AND FROM STANDS

NIL

20.3 PARKING AREA FOR SMALL AIRCRAFT (GENERAL AVIATION)

NIL

20.4 PARKING AREA FOR HELICOPTERS

NIL

20.5 APRON - TAXIING DURING WINTER CONDITIONS

NIL

20.6 TAXIING LIMITATIONS

NIL

20.7 SCHOOL AND TRAINING FLIGHTS - TECHNICAL TEST FLIGHTS - USE OF RUNWAYS

NIL

20.8 HELICOPTER TRAFFIC - LIMITATION

NIL

20.9 REMOVAL OF DISABLED AIRCRAFT FROM RUNWAYS

NIL

OOBR AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OOBR AD 2.22 FLIGHT PROCEDURES

NIL

OOBR AD 2.23 ADDITIONAL INFORMATION

NIL

OOBR AD 2.24 CHARTS RELATED TO AN AERODROME

NIL

OOBR AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

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OODQ AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OODQ DUQM/Duqm

OODQ AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	193000.05 N 0573834.19 E Midpoint of RWY centreline
2	Direction and distance from (city)	14 KM south-east of Al Duqm City
3	Elevation/Reference temperature	383 FT/37.5°C
4	Geoid undulation at AD ELEV PSN	-113 FT
5	MAG VAR/Annual change	1°E (2020)/0.05° increasing
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	Oman Airports Management Company S.A.O.C. Muscat International Airport P.O. Box 1707 Postal Code 111 Muscat Sultanate of Oman Website: www.omanairports.co.om Email: oamcinfo@omanairports.com Admin: Tel.: (968) 24 352400 (Muscat) (968) 99 351970 Duqm Tel.: (968) 93 944983 (968) 93 944981 Sat: (968) 98 586391 Airport Tel.: (968) 92 599223 Manager ATC provided by Nil AIS provided by Directorate General of Air Navigation (DGAN) Tel.: (968) 24 354949 (968) 24 354948 Fax: (968) 24 354947 Email: briefing@caa.gov.om Meteorology provided by Directorate General of Meteorology (DGMet) Weather Forecasting Centre Tel.: (968) 24 354660 Fax: (968) 24 348501 Email: met_dir@met.gov.om
7	Types of traffic permitted (IFR/VFR)	IFR/VFR - HJ Minimum visibility for take-off & landing: 5000 M

8	Remarks	NIL

OODQ AD 2.3 OPERATIONAL HOURS

1	AD Administration	0330 - 1200
2	Customs and immigration	Available
3	Health and sanitation	Available by prior request
4	AIS Briefing Office	Not available
5	ATS Reporting Office (ARO)	Not available
6	MET Briefing Office	Not available
7	ATS	Available by prior request
8	Fuelling	Available by prior request
9	Handling	Available by prior request
10	Security	H24
11	De-icing	Not available
12	Remarks	For unscheduled flights (PPR)

OODQ AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	MDL and Forklift
2	Fuel/oil types	Jet A1
3	Fuelling facilities/capacity	140000 LTRS
4	De-icing facilities	Not available
5	Hangar space for visiting aircraft	Not available
6	Repair facilities for visiting aircraft	Not available
7	Remarks	NIL

OODQ AD 2.5 PASSENGER FACILITIES

1	Hotels	Crowne Plaza 28 km from the airport Park Inn 27 km from the airport
2	Restaurants	At airport
3	Transportation	At airport Rental car counter
4	Medical facilities	Available by prior request
5	Bank and Post Office	Not available
6	Tourist Office	Not available

7	Remarks	NIL

OODQ AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 8
2	Rescue equipment	4 fire trucks
3	Capability for removal of disabled aircraft	Specialized equipment available in Muscat (747-400 one side) Basic recovery jack- 50 tons available in Duqm can handle up to Code C aircraft with availability of aircraft spare tire
4	Remarks	Direct communication available with rescue and firefighting service on frequency 121.600 MHz in cases of emergency.

OODQ AD 2.7 SEASONAL AVAILABILITY — CLEARING

NIL

OODQ AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	Apron	Surface: Strength:	Concrete PCN 85/R/B/W/T
2	Taxiway width, surface and strength		Width: Surface: Strength:	25M Asphalt PCN 72/F/A/W/T
3	ACL and elevation	NIL		
4	VOR checkpoint	Not available		
5	INS checkpoint	NIL		
6	Remarks	NIL		

OODQ AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Marshalling guidance provided onto stand.
2	RWY and TWY markings and LGT	TWY & Apron: Centreline marking & edge line. RWY: Centreline, THR designators, TDZ, side strip, aiming point markings & edge line.
3	Stop bars	NIL
4	Other runway protection measures	NIL
5	Remarks	Follow me service is provided for unscheduled traffics

OODQ AD 2.10 AERODROME OBSTACLES

In Area 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
OODQ1713	ATC Tower Antenna	193015.26 N0573818.27 E	537.52 FT	lit	Nil
Nil	Mast	193024.00 N0573824.00 E	480.00 FT	lit	Nil
	High Mast 1	193013.47 N0573817.97 E	387.01 FT (117.96 M)	Nil	Nil
	High Mast 2	193012.30 N0573816.70 E	387.01 FT (117.96 M)	Nil	Nil
	High Mast 3	193010.40 N0573814.70 E	387.01 FT (117.96 M)	Nil	Nil
	High Mast 4	193008.60 N0573812.80 E	394.00 FT (120.09 M)	Nil	Nil
	High Mast 5	193007.10 N0573811.20 E	383.99 FT (117.04 M)	Nil	Nil

In Area 3					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
Nil	Nil	Nil	Nil	Nil	Nil

OODQ AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Weather observation is provided for each movement.
2	Hours of service MET Office outside hours	NIL
3	Office responsible for TAF preparation Periods of validity	NIL
4	Trend forecaste Interval of issuance	NIL
5	Briefing/consultation provided	NIL

6	Flight documentation Language(s) used	English
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	NIL
9	ATS units provided with information	Meteorological information
10	Additional information	NIL

OODQ AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
04	045.21° T 044° M	4002 X 60	72/F/A/W/T Asphalt	192914.20 N 0573745.48 E 193045.89 N 0573922.90 E GUND -113 FT	THR 376.6 FT TDZ NIL
22	225.22° T 224° M	4002 X 60	72/F/A/W/T Asphalt	193045.89 N 0573922.90 E 192914.20 N 0573745.48 E GUND -113 FT	THR 338.4 FT TDZ NIL

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
04	0.95% down	NIL	NIL	4122 X 300	240 M x 150 M
22	0.95% up	NIL	NIL	4122 X 300	240 M x 150 M

Designations RWY NR	Location and description of engineering material arresting system (EMAS)	OFZ	Remarks
1	12	13	14
04	NIL	NIL	NIL
22	NIL	NIL	NIL

OODQ AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
04	4002	4002	4002	4002	NIL
22	4002	4002	4002	4002	NIL

OODQ AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
04	NIL	NIL	PAPI left side / 3.05° MEHT 68.9 FT 420 M from THR	NIL	Yes	LIH	Red LIH	NIL	NIL
22	LIH 900 M	Green	PAPI left side / 3.07° MEHT 68.2 FT 375 M from THR	LIH	Yes	LIH	Red LIH	NIL	NIL

OODQ AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	NIL
2	LDI location and LGT Anemometer location and LGT	Ground signaling devices: WDI 3 Anemometer south abeam TDZ RWY 22 south abeam TDZ RWY 04 south abeam RWY center
3	TWY edge and centre line lighting	NIL
4	Secondary power supply/switch-over time	Available/ Switch over time: 12 Seconds
5	Remarks	NIL

OODQ AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO Geoid undulation	NIL
2	TLOF and/or FATO elevation M/FT	NIL
3	TLOF and FATO area dimensions, surface, strength, marking	NIL
4	True BRG of FATO	NIL
5	Declared distance available	NIL
6	APP and FATO lighting	NIL
7	Remarks	Helicopter is treated as Fixed Wing Traffic

OODQ AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	NIL
2	Vertical limits	NIL
3	Airspace classification	G
4	ATS unit call sign Language(s)	AFIS, Duqm Information English
5	Transition altitude/Transition level	13 000 FT/FL150
6	Hours of applicability (or activation)	NIL
7	Remarks	NIL

OODQ AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	**2**	**3**	**4**	**5**
AFIS	Duqm Information	118.000 MHz	HJ	NIL

OODQ AD 2.19 RADIO NAVIGATION AND LANDING AIDS

NIL

OODQ AD 2.20 LOCAL AERODROME REGULATIONS

20.1 AERODROME REGULATIONS

NIL

20.2 TAXIING TO AND FROM STANDS

NIL

20.3 PARKING AREA FOR SMALL AIRCRAFT (GENERAL AVIATION)

NIL

20.4 PARKING AREA FOR HELICOPTERS

NIL

20.5 APRON - TAXIING DURING WINTER CONDITIONS

NIL

20.6 TAXIING LIMITATIONS

NIL

20.7 SCHOOL AND TRAINING FLIGHTS - TECHNICAL TEST FLIGHTS - USE OF RUNWAYS

NIL

20.8 HELICOPTER TRAFFIC - LIMITATION

NIL

20.9 REMOVAL OF DISABLED AIRCRAFT FROM RUNWAYS

Kit available at Muscat airport.

OODQ AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OODQ AD 2.22 FLIGHT PROCEDURES

22.1 INBOUND

a) Request descent from Muscat ACC.

b) Muscat ACC will provide FIS below FL150 and advise aircraft to report once two way communication established with DUQM Information.

c) Contact MASIRAH RADAR on 121.300 MHz to identify and advise level or altitude passing and seek traffic information.

d) Contact DUQM Information on 118.000 MHz for weather information and provide POB and ETA Duqm before crossing Haima.

e) Advise Muscat ACC that two way communications are established with DUQM Information before changing over but monitor MUSCAT CONTROL on 123.950 MHz on VHF #2.

f) Advise DUQM Information of ETA and request weather.

g) On reporting field in site, DUQM Information will pass wind speed, direction and runway condition and availability.

22.2 OUTBOUND

a) Advise DUQM Information starting and provide runway to be used.

b) Pass POB and fuel endurance to DUQM Information.

c) DUQM Information call ACC Tel.: 24 359015 giving requested flight level by the pilot and require SSR and flight level.

d) Inform DUQM Information on taxi for departure.

e) After take off report off chock time, airborne time, ETA to Muscat and when two way communication is established with MUSCAT CONTROL on 123.950 MHz.

f) Contact MASIRAH RADAR on 121.300 MHz to identify flight, advise altitude and request traffic information.

g) Remain outside controlled airspace until two contact is established with Muscat ACC.

OODQ AD 2.23 ADDITIONAL INFORMATION

NIL

OODQ AD 2.24 CHARTS RELATED TO AN AERODROME

AERODROME CHART - ICAO	AERODROME CHART - ICAO
AIRCRAFT PARKING/DOCKING CHART - ICAO	AIRCRAFT PARKING/DOCKING CHART - ICAO
AERODROME OBSTACLE CHART - ICAO - TYPE A	AERODROME OBSTACLE CHART - ICAO - TYPE A
AERODROME OBSTACLE CHART - ICAO - TYPE B	AERODROME OBSTACLE CHART - ICAO - TYPE B
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 04	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 04
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 22	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 22
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 04	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 04
STANDARD ARRIVAL CHART INSTRUMENT - ICAO -	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 22

RNAV (GNSS) RWY 22	
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 04	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 04
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 22	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 22

OODQ AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

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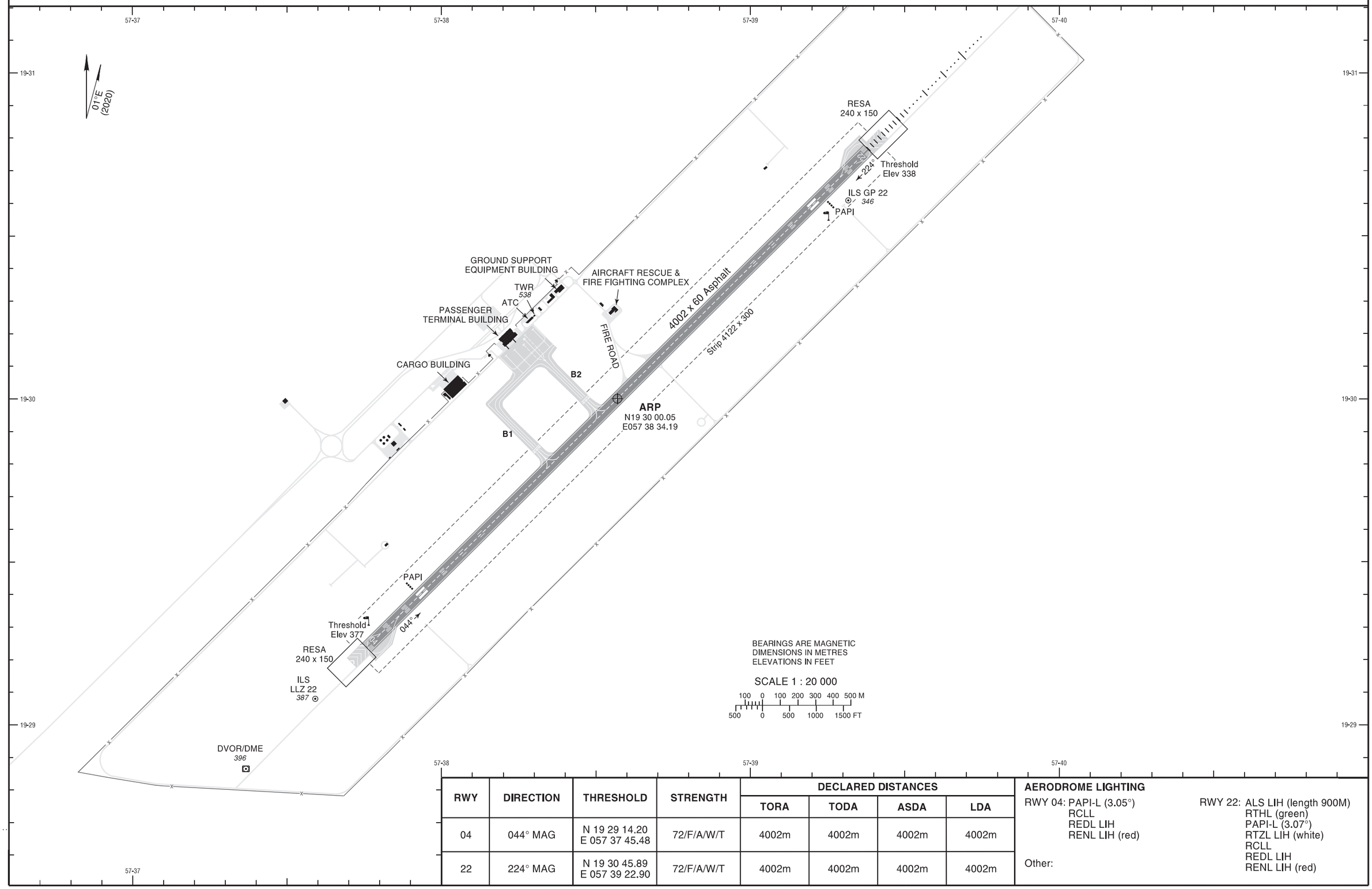
AERODROME CHART - ICAO

AERODROME CHART - ICAO | WGS-84 | **AD ELEV** 383 FT | Duqm Information 118.000 | Duqm Fire 121.600 | **DUQM/Duqm OMAN**



BEARINGS ARE MAGNETIC
DIMENSIONS IN METRES
ELEVATIONS IN FEET

SCALE 1 : 20 000

100 0 100 200 300 400 500 M
500 0 500 1000 1500 FT

RWY	DIRECTION	THRESHOLD	STRENGTH	DECLARED DISTANCES			
				TORA	TODA	ASDA	LDA
04	044° MAG	N 19 29 14.20 E 057 37 45.48	72/F/A/W/T	4002m	4002m	4002m	4002m
22	224° MAG	N 19 30 45.89 E 057 39 22.90	72/F/A/W/T	4002m	4002m	4002m	4002m

AERODROME LIGHTING

RWY 04: PAPI-L (3.05°)
RCLL
REDL LIH
RENL LIH (red)

RWY 22: ALS LIH (length 900M)
RTHL (green)
PAPI-L (3.07°)
RTZL LIH (white)
RCLL
REDL LIH
RENL LIH (red)

Other:

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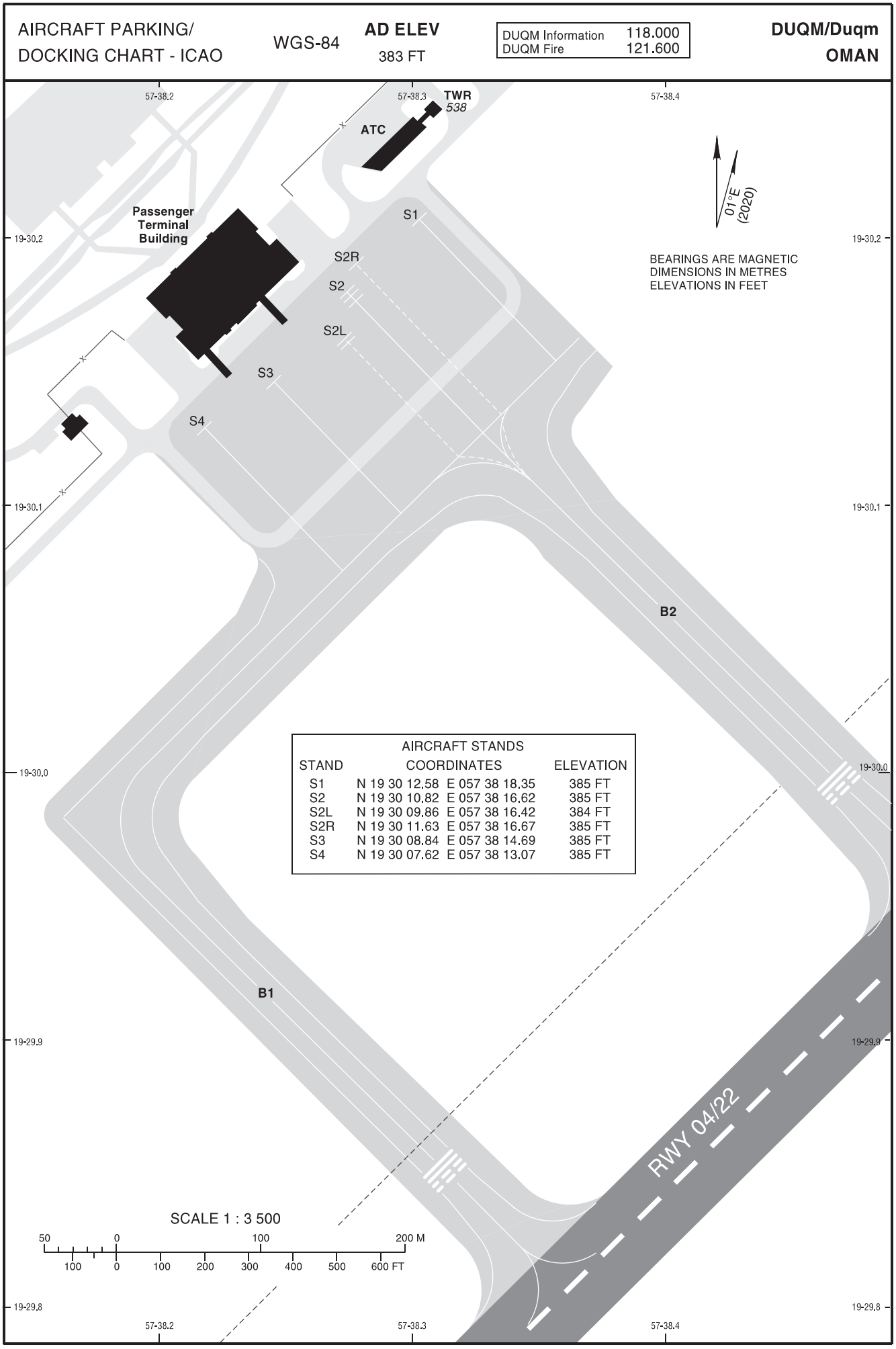
AIRCRAFT PARKING/DOCKING CHART - ICAO



AIRCRAFT STANDS

STAND	COORDINATES	ELEVATION
S1	N 19 30 12.58 E 057 38 18.35	385 FT
S2	N 19 30 10.82 E 057 38 16.62	385 FT
S2L	N 19 30 09.86 E 057 38 16.42	384 FT
S2R	N 19 30 11.63 E 057 38 16.67	385 FT
S3	N 19 30 08.84 E 057 38 14.69	385 FT
S4	N 19 30 07.62 E 057 38 13.07	385 FT

INTENTIONALLY

LEFT

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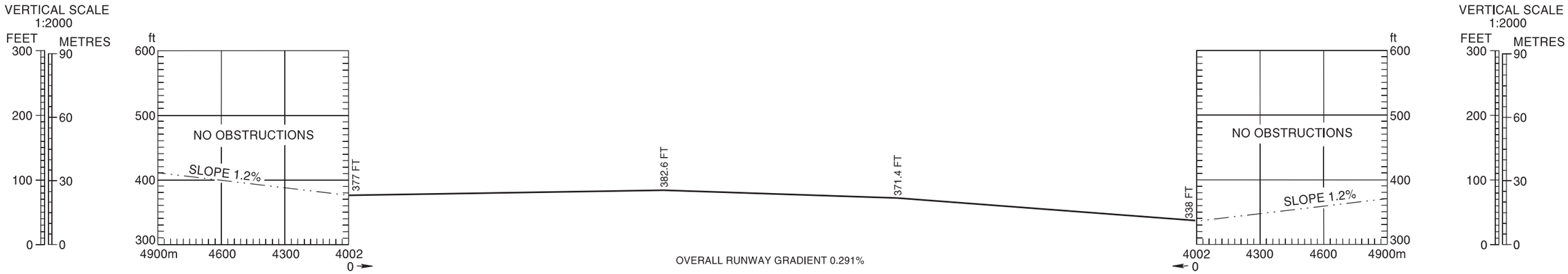
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

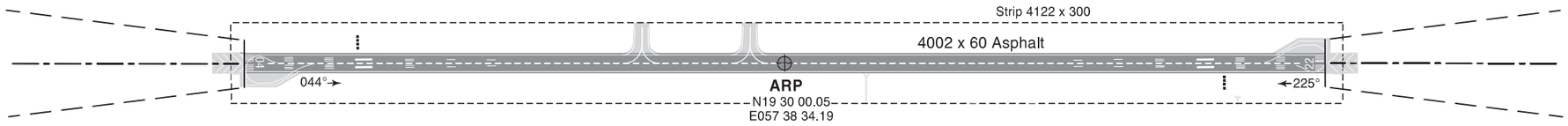
DUQM/Duqm
OMAN

DISTANCES IN METRES, ELEVATIONS IN FEET
MAGNETIC VARIATION 1°E, 2020

RWY 04-22

DECLARED DISTANCES		
RWY 04		**RWY 22**
4002	TAKE-OFF RUN AVAILABLE	**4002**
4002	TAKE-OFF DISTANCE AVAILABLE	**4002**
4002	ACCELERATE STOP DISTANCE AVAILABLE	**4002**
4002	LANDING DISTANCE AVAILABLE	**4002**





HORIZONTAL SCALE 1 : 20 000

ORDER OF ACCURACY
HORIZONTAL -/+ 3 M
VERTICAL -/+ 1 FT
Aerodrome information MAR 2017
Survey data MAR 2017

AMENDMENT RECORD		
No.	Date	Entered by

LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
GROUND LEVEL	▲	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
TREE	*	
MOBILE		

INTENTIONALLY

LEFT

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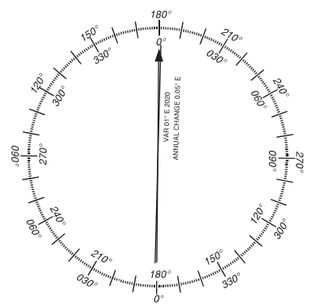
AERODROME OBSTACLE CHART - ICAO | WGS-84 | **AD ELEV** 383 FT | **ARP** N19 30 00.05 E057 38 34.19 | **AERODROME OBSTACLE CHART - ICAO TYPE B** | **DUQM/Duqm OMAN**



Obstacles shown are those which penetrate the surfaces specified in Annex 4, Volume 1, Chapter 4

ORDER OF ACCURACY:
Horizontal 3m
Vertical 1ft

535'
527'
538'
489'
504'
504'
504'
504'
504'

4002 x 60 Asphalt

Strip 4122 x 300

ARP
N19 30 00.05
E057 38 34.19

224°

346'

366'

TAKE-OFF CLIMB SURFACE; SLOPE 1 : 62.5 (1.6%)

APPROACH SURFACE; SLOPE 1 : 50 (2.0%)

TRANSITIONAL SURFACE 1:7 (14.3%)

394'

044°

APPROACH SURFACE; SLOPE 1 : 50 (2.0%)

TAKE-OFF CLIMB SURFACE; SLOPE 1 : 62.5 (1.6%)

INNER HORIZONTAL SURFACE
45m above lowest
threshold elevation

01°E (2020)

BEARINGS ARE MAGNETIC
DIMENSIONS IN METRES
ELEVATIONS IN FEET

SCALE 1 : 20 000

100 0 100 200 300 400 500 M
500 0 500 1000 1500 FT

AMENDMENT RECORD

No.	Date	Entered by

LEGEND

Area Minimum Altitude (AMA)

Example: 2900 feet **29**

Each 1^ quadrilateral contains an area minimum altitude (AMA) which represents the lowest altitude which may be used under instrument metereological conditions (IMC). The AMA provides a minimum clearance of 1000 feet above all obstacles in the quadrilateral. It is represented in thousends and tens of feet above mean sea level.

Elevation	538'
Obstacle	
Mast/Tower	
Obstacle	
Ground / Terrain Spot	•

INTENTIONALLY

LEFT

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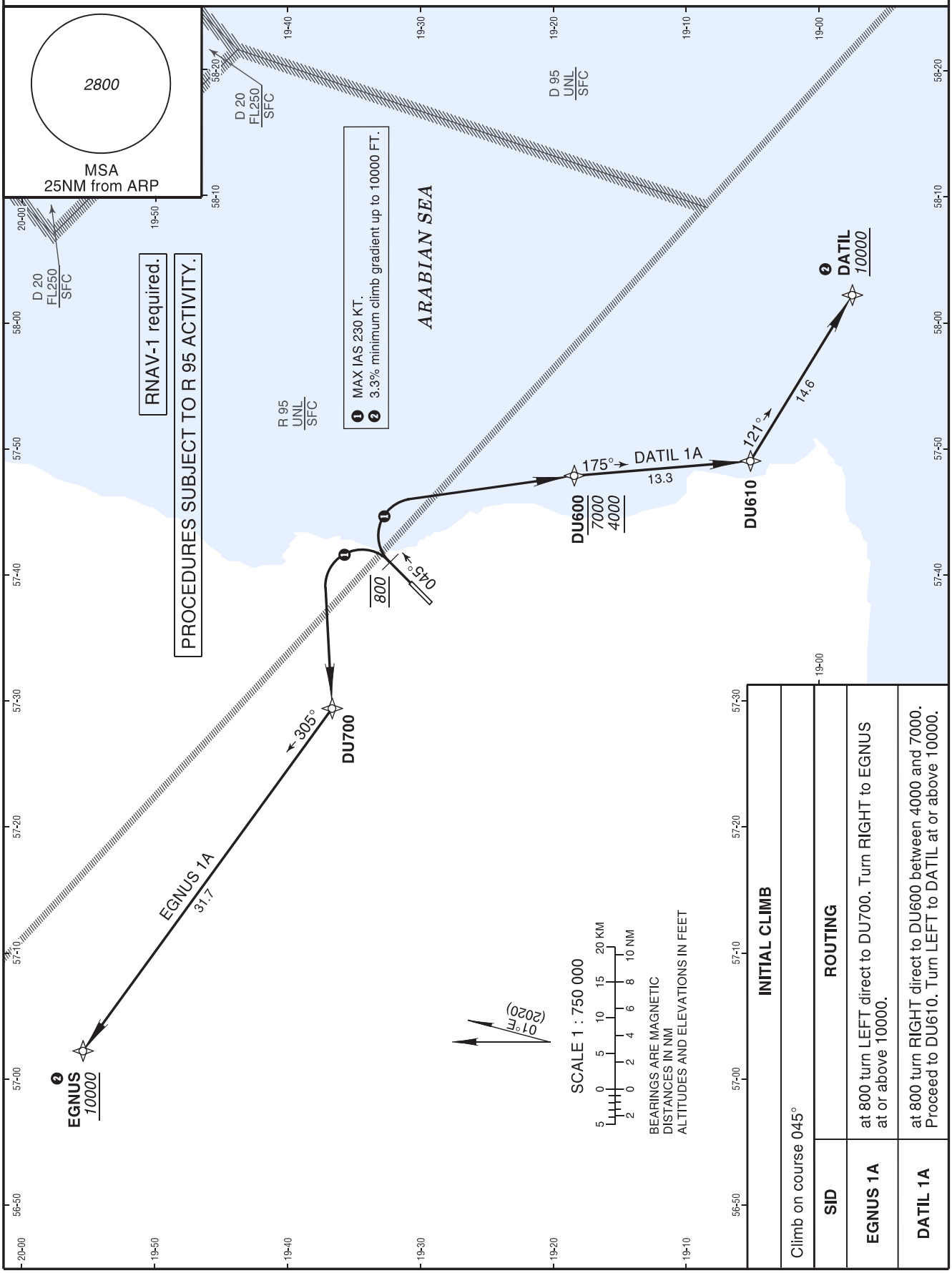
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	383 FT	DUQM Information	118.000	**DUQM/Duqm OMAN** RWY 04
	Trans Alt	*13000*	MUSCAT Control	123.950	
	Trans Level	*FL150*	MASIRAH Radar	121.300	

EGNUS 1A, DATIL 1A RNAV (GNSS) DEPARTURE



INITIAL CLIMB

Climb on course 045°

SID	ROUTING
EGNUS 1A	at 800 turn LEFT direct to DU700. Turn RIGHT to EGNUS at or above 10000.
DATIL 1A	at 800 turn RIGHT direct to DU600 between 4000 and 7000. Proceed to DU610. Turn LEFT to DATIL at or above 10000.

Route Description: RNAV (GNSS) DEPARTURE RWY 04

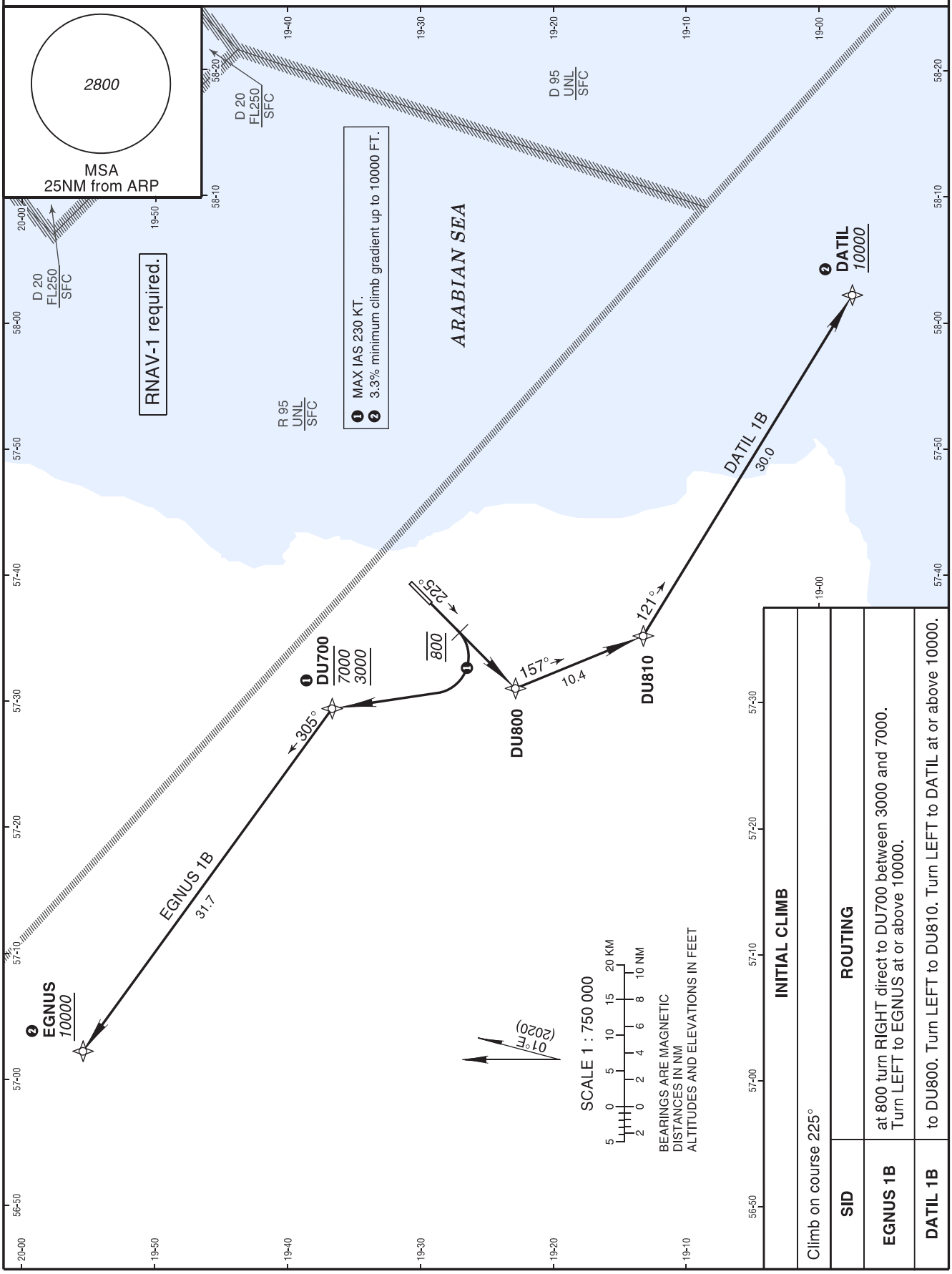
Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
EGNUS 1A DEPARTURE									
CA			045° (045.2°)		@800	230 KT	1°E		RNAV 1
DF	DU700			L			1°E		RNAV 1
TF	EGNUS		305° (306.1°)	R	+10000		1°E	31.7	RNAV 1
DATIL 1A DEPARTURE									
CA			045° (045.2°)		@800	230 KT	1°E		RNAV 1
DF	DU600			R	- 7000 +4000		1°E		RNAV 1
TF	DU610		175° (175.2°)				1°E	13.3	RNAV 1
TF	DATIL		121° (121.5°)	L	+10000		1°E	14.6	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 04

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
DU700	N19°36'40.0"	E057°29'24.0"	N19°36.667'	E057°29.400'	
EGNUS	N19°55'22.6"	E057°02'13.5"	N19°55.377'	E057°02.225'	
DU600	N19°18'27.0"	E057°47'52.0"	N19°18.450'	E057°47.867'	
DU610	N19°05'10.1"	E057°49'02.2"	N19°05.168'	E057°49.037'	
DATIL	N18°57'28.9"	E058°02'11.9"	N18°57.482'	E058°02.198'	

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	383 FT	DUQM Information 118.000 MUSCAT Control 123.950 MASIRAH Radar 121.300	**DUQM/Duqm OMAN**
	Trans Alt	*13000*		
	Trans Level	*FL150*		RWY 22

EGNUS 1B, DATIL 1B RNAV (GNSS) DEPARTURE



INITIAL CLIMB	
Climb on course 225°	
SID	**ROUTING**
EGNUS 1B	at 800 turn RIGHT direct to DU700 between 3000 and 7000. Turn LEFT to EGNUS at or above 10000.
DATIL 1B	to DU800. Turn LEFT to DU810. Turn LEFT to DATIL at or above 10000.

Route Description: RNAV (GNSS) DEPARTURE RWY 22

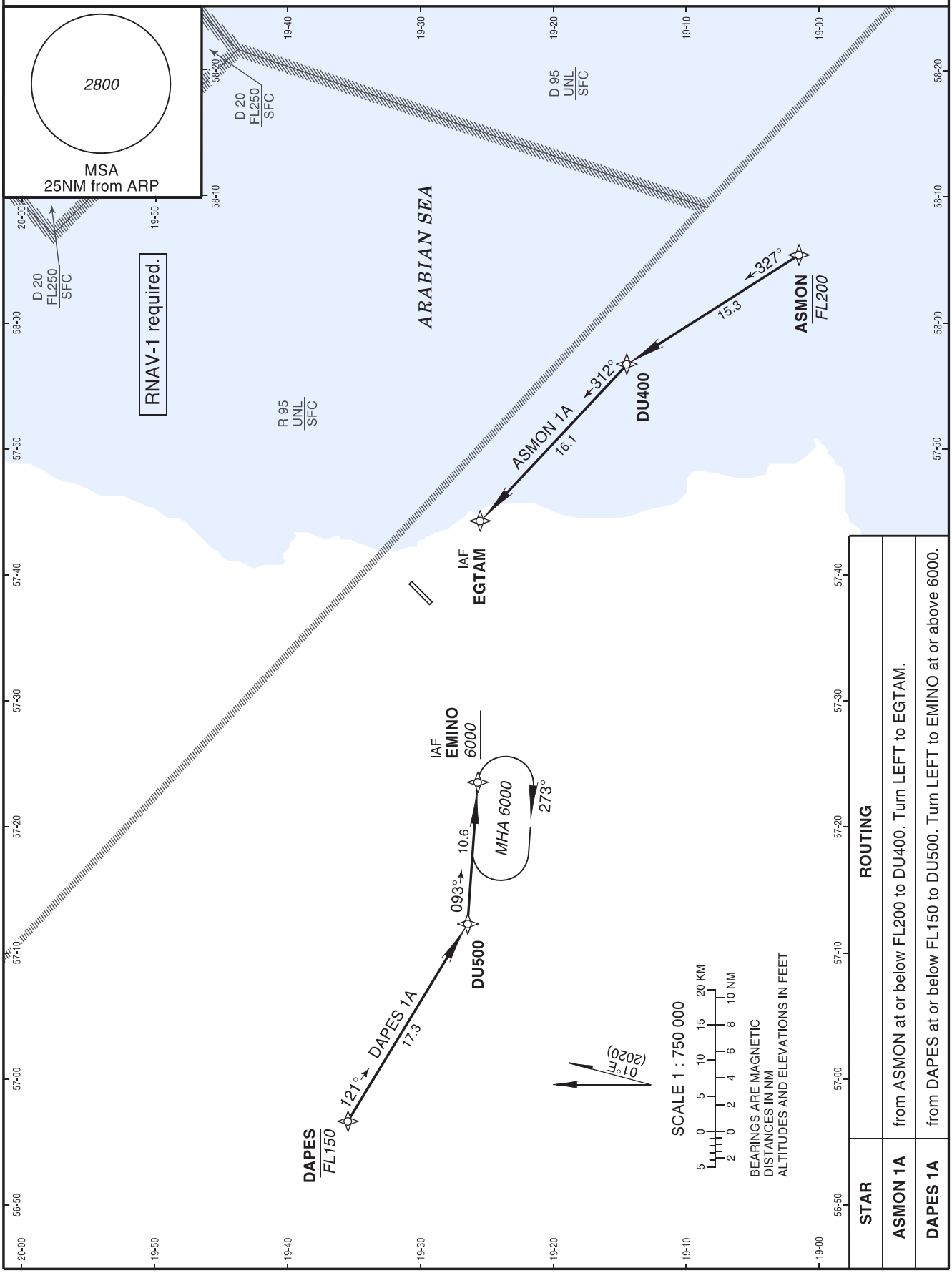
Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
EGNUS 1B DEPARTURE									
CA			225° (225.2°)		@800	230 KT	1°E		RNAV 1
DF	DU700			R	- 7000 +3000	230 KT	1°E		RNAV 1
TF	EGNUS		305° (306.1°)	L	+10000		1°E	31.7	RNAV 1
DATIL 1B DEPARTURE									
CF	DU800		225° (225.2°)				1°E		RNAV 1
TF	DU810		157° (157.7°)	L			1°E	10.4	RNAV 1
TF	DATIL		121° (121.4°)	L	+10000		1°E	30.0	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 22

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
DU700	N19°36'40.0"	E057°29'24.0"	N19°36.667'	E057°29.400'	
EGNUS	N19°55'22.6"	E057°02'13.5"	N19°55.377'	E057°02.225'	
DU800	N19°22'52.2"	E057°31'00.0"	N19°22.870'	E057°31.000'	
DU810	N19°13'14.7"	E057°35'09.4"	N19°13.245'	E057°35.157'	
DATIL	N18°57'28.9"	E058°02'11.9"	N18°57.482'	E058°02.198'	

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO	AD ELEV	383 FT	DUQM Information 118.000 MUSCAT Control 123.950 MASIRAH Radar 121.300	**DUQM/Duqm OMAN** RWY 04
	Trans Alt	*13000*		
	Trans Level	*FL150*		

ASMON 1A, DAPES 1A RNAV (GNSS) ARRIVAL



Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 04

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	EMINO	093° (094.0°)	1 MIN	R	6000		230 KT	1°E	

Route Description: RNAV (GNSS) ARRIVAL RWY 04

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
ASMON 1A ARRIVAL									
IF	ASMON				-FL200		1°E		RNAV 1
TF	DU400		327° (327.6°)				1°E	15.3	RNAV 1
TF	EGTAM		312° (313.1°)	L			1°E	16.1	RNAV 1
DAPES 1A ARRIVAL									
IF	DAPES				-FL150		1°E		RNAV 1
TF	DU500		121° (121.2°)				1°E	17.3	RNAV 1
TF	EMINO		093° (094.0°)	L	+6000		1°E	10.6	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 04

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
ASMON	N19°01'30.6"	E058°05'22.4"	N19°01.510'	E058°05.373'	
DU400	N19°14'26.9"	E057°56'42.8"	N19°14.448'	E057°56.713'	
EGTAM	N19°25'29.1"	E057°44'16.3"	N19°25.485'	E057°44.272'	
DAPES	N19°35'29.2"	E056°56'39.2"	N19°35.487'	E056°56.653'	
DU500	N19°26'28.4"	E057°12'18.5"	N19°26.473'	E057°12.308'	
EMINO	N19°25'42.9"	E057°23'32.7"	N19°25.715'	E057°23.545'	

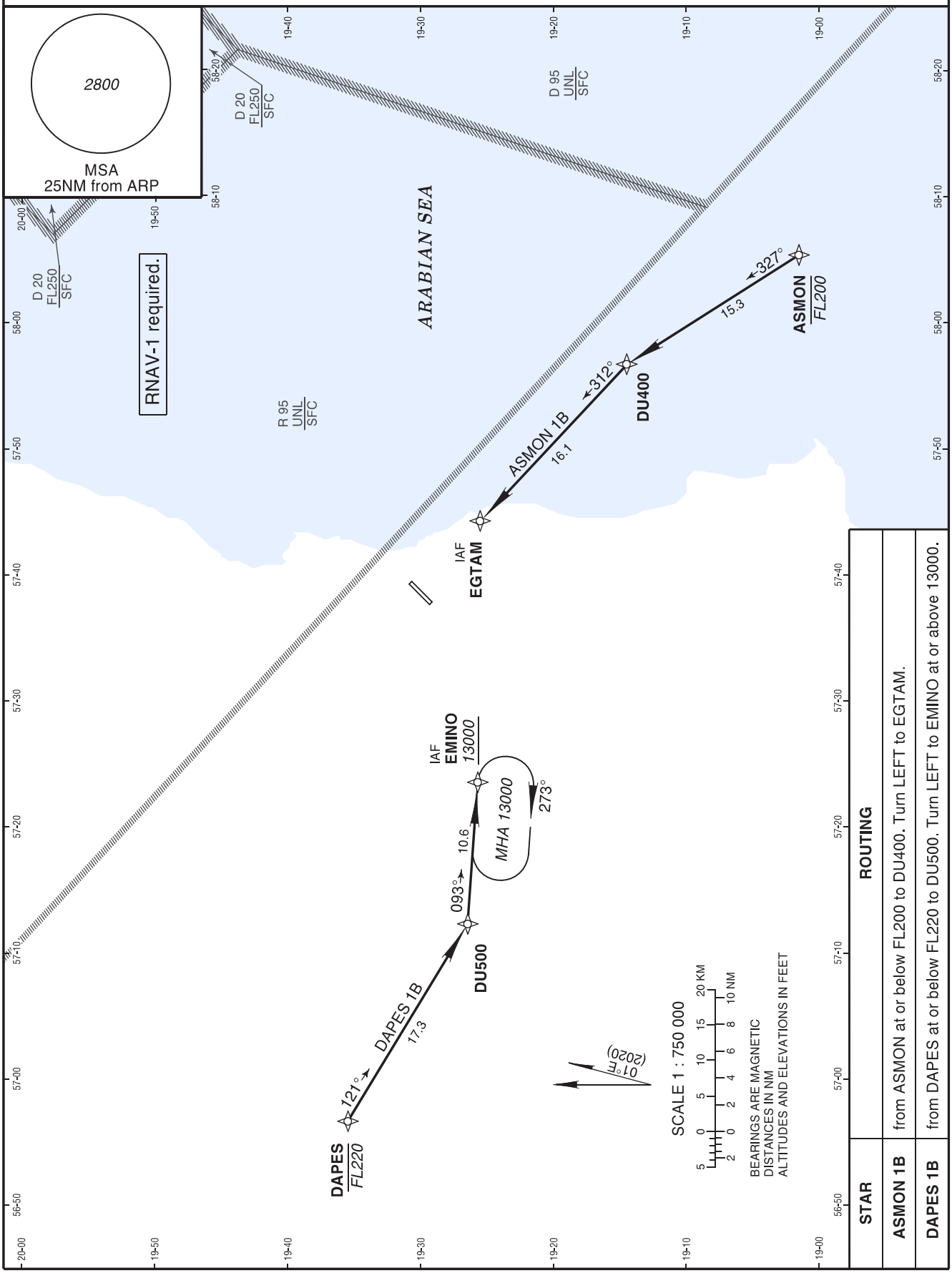
STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

AD ELEV 383 FT
Trans Alt 13000
Trans Level FL150

DUQM Information	118.000
MUSCAT Control	123.950
MASIRAH Radar	121.300

DUQM/Duqm
OMAN
RWY 22

ASMON 1B, DAPES 1B RNAV (GNSS) ARRIVAL



STAR	ROUTING
ASMON 1B	from ASMON at or below FL200 to DU400. Turn LEFT to EGTAM.
DAPES 1B	from DAPES at or below FL220 to DU500. Turn LEFT to EMINO at or above 13000.

Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 22

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	EMINO	093° (094.0°)	1 MIN	R	13000		230 KT	1°E	

Route Description: RNAV (GNSS) ARRIVAL RWY 22

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
ASMON 1B ARRIVAL									
IF	ASMON				-FL200		1°E		RNAV 1
TF	DU400		327° (327.6°)				1°E	15.3	RNAV 1
TF	EGTAM		312° (313.1°)	L			1°E	16.1	RNAV 1
DAPES 1B ARRIVAL									
IF	DAPES				-FL220		1°E		RNAV 1
TF	DU500		121° (121.2°)				1°E	17.3	RNAV 1
TF	EMINO		093° (094.0°)	L	+13000		1°E	10.6	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 22

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
ASMON	N19°01'30.6"	E058°05'22.4"	N19°01.510'	E058°05.373'	
DU400	N19°14'26.9"	E057°56'42.8"	N19°14.448'	E057°56.713'	
EGTAM	N19°25'29.1"	E057°44'16.3"	N19°25.485'	E057°44.272'	
DAPES	N19°35'29.2"	E056°56'39.2"	N19°35.487'	E056°56.653'	
DU500	N19°26'28.4"	E057°12'18.5"	N19°26.473'	E057°12.308'	
EMINO	N19°25'42.9"	E057°23'32.7"	N19°25.715'	E057°23.545'	

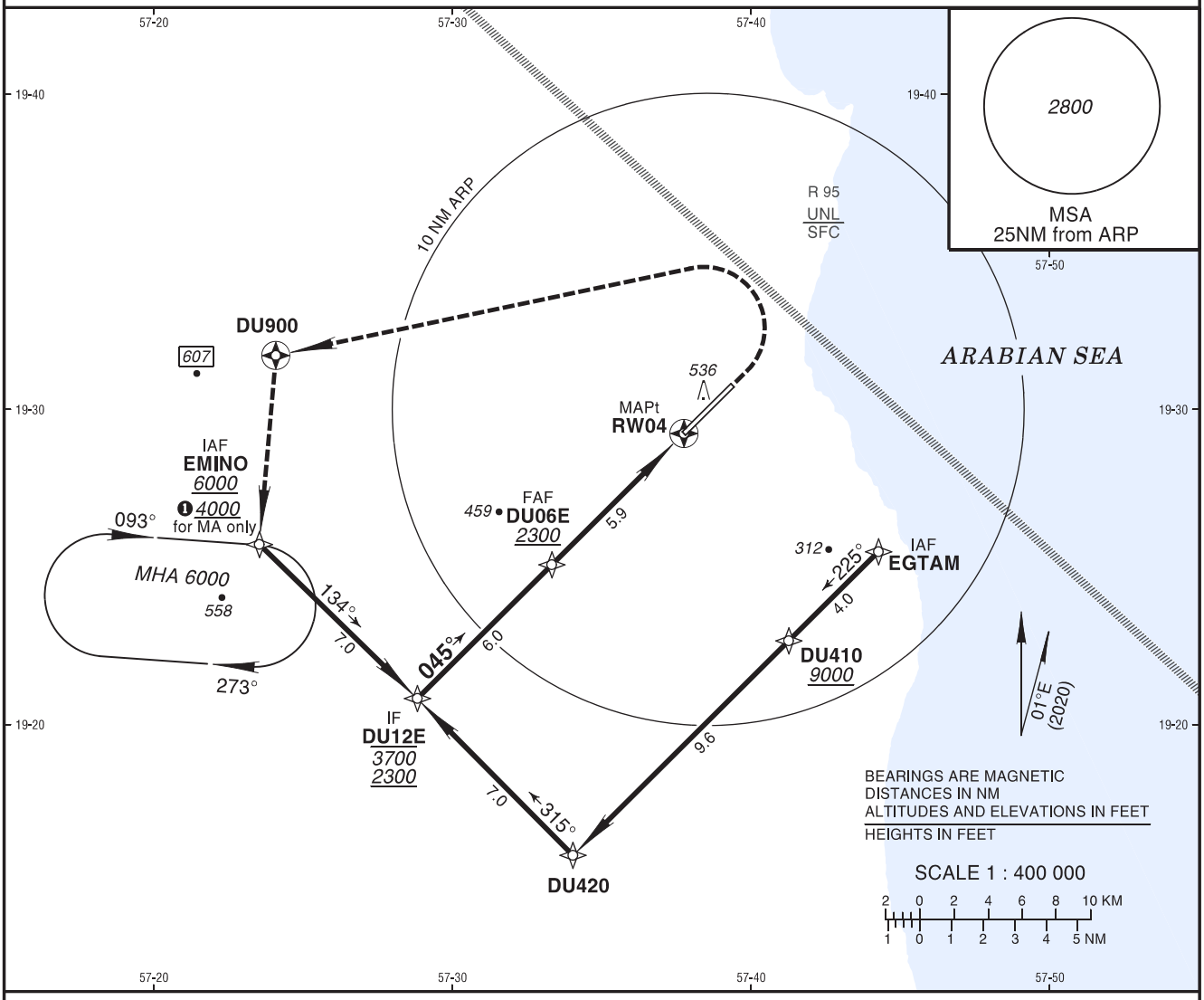
INSTRUMENT APPROACH CHART - ICAO

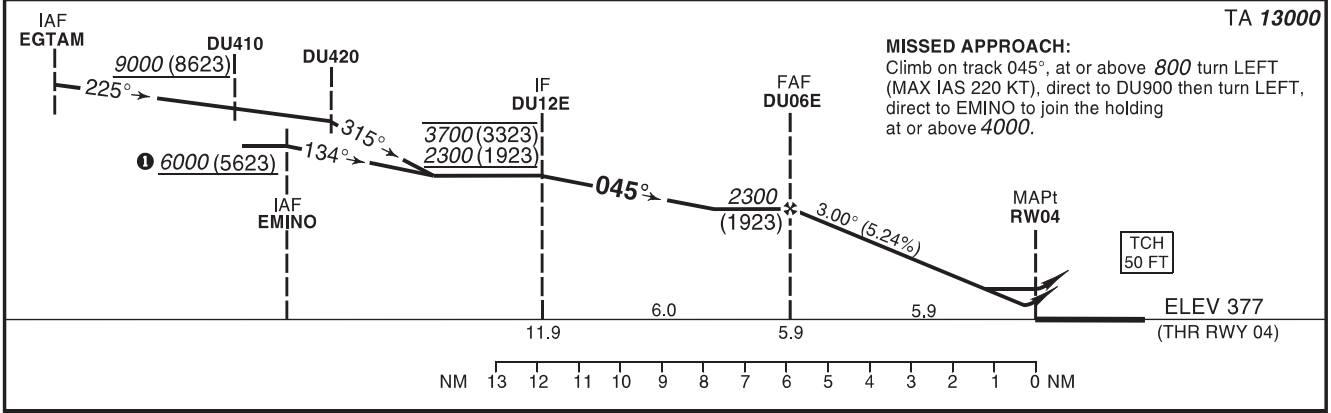
AD ELEV 383 FT

HEIGHTS RELATED TO THR RWY 04 ELEV 377 FT

DUQM Information 118.000

DUQM/Duqm
OMAN
RNP RWY 04





MISSED APPROACH:
Climb on track 045°, at or above *800* turn LEFT (MAX IAS 220 KT), direct to DU900 then turn LEFT, direct to EMINO to join the holding at or above *4000*.

STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	289	301	309	320
	DA(H)	*670* (290)	*690* (310)	*690* (310)	*700* (320)
LNAV	OCH	420			
	MDA(H)	*790* (420)			
CIRCLING (HAA)*		A	B	C	D
	OCH	470	500	600	800
	MDA(H)	*850* (470)	*880* (500)	*980* (600)	*1180* (800)

ADVISORY INFORMATION ONLY					
NM to RW04	5	4	3	2	
ALT (HGT)	*2020* (1650)	*1700* (1330)	*1390* (1010)	*1070* (690)	
GS	kt	80	100	120	140	160	180
FAF-MAPt❷	min:s						
ROD: 5.24%	ft/min	424	530	636	742	848	954

❶ Missed approach minimum altitude 4000.
❷ Timing not authorized for defining the MAPt.
RNP Approach required.
LNAV/VNAV Temperature: Min -15°C
Max 50°C

Holding Instruction/Areas RNP RWY 04

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	EMINO	093° (094.0°)	1 MIN	R	6000		230 KT	1°E	

Route Description: RNP RWY 04

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	EMINO				+6000		1°E		RNP APCH
TF	DU12E		134° (134.2°)		-3700 +2300		1°E	7.0	RNP APCH
TF	DU06E		045° (045.2°)	L	+2300		1°E	6.0	RNP APCH
TF	RW04	Y	045° (045.2°)		+427		1°E	5.9	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	EGTAM						1°E		RNP APCH
TF	DU410		225° (225.2°)		+9000		1°E	4.0	RNP APCH
TF	DU420		225° (225.2°)				1°E	9.6	RNP APCH
TF	DU12E		315° (315.2°)	R	-3700 +2300		1°E	7.0	RNP APCH
TF	DU06E		045° (045.2°)	R	+2300		1°E	6.0	RNP APCH
TF	RW04	Y	045° (045.2°)		+427		1°E	5.9	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
CA			045° (045.2°)		@800	220 KT	1°E		RNP APCH
DF	DU900	Y		L			1°E		RNP APCH
DF	EMINO			L	+4000		1°E		RNP APCH
HM	EMINO		093° (094.0°)	R	+4000	230 KT	1°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 04

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
EGTAM (IAF)	N19°25’29.1”	E057°44’16.3”	N19°25.485’	E057°44.272’	
DU410	N19°22’39.4”	E057°41’16.1”	N19°22.567’	E057°41.268’	
DU420	N19°15’50.4”	E057°34’02.5”	N19°15.840’	E057°34.042’	
EMINO (IAF)	N19°25’42.9”	E057°23’32.7”	N19°25.715’	E057°23.545’	
DU12E (IF)	N19°20’49.5”	E057°28’50.0”	N19°20.825’	E057°28.833’	
DU06E (FAF)	N19°25’04.3”	E057°33’20.1”	N19°25.072’	E057°33.335’	
RW04 (MAPT)	N19°29’14.2”	E057°37’45.5”	N19°29.237’	E057°37.758’	
DU900	N19°31’43.0”	E057°24’06.0”	N19°31.717’	E057°24.100’	

Non precision final approach 3.00° (5.24%) / TCH 50 FT(15 M).

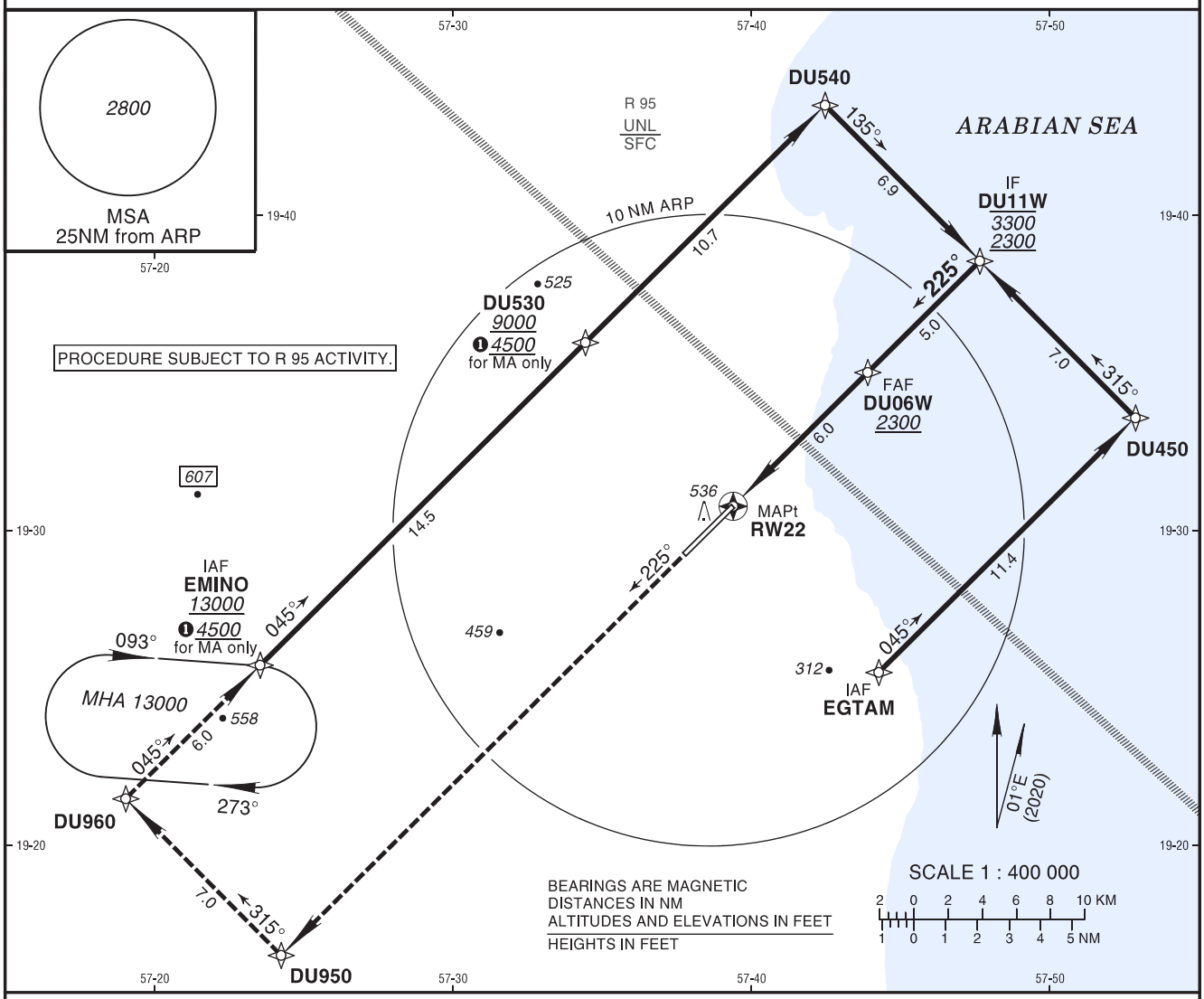
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 383 FT

HEIGHTS RELATED TO THR RWY 22 ELEV 338 FT

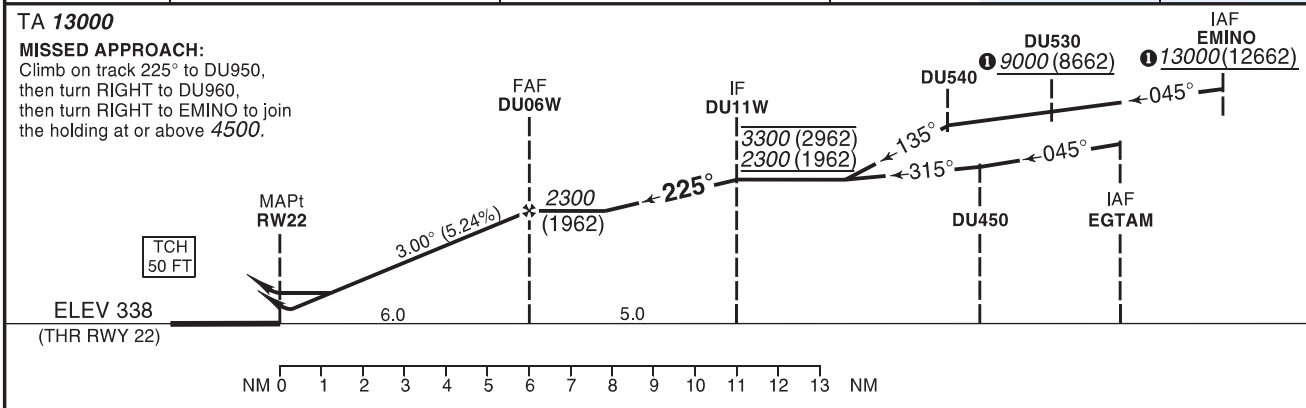
DUQM Information 118.000

DUQM/Duqm
OMAN
RNP RWY 22



TA ***13000***

MISSED APPROACH:
Climb on track 225° to DU950,
then turn RIGHT to DU960,
then turn RIGHT to EMINO to join
the holding at or above *4500*.



STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	328	340	348	359
	DA(H)	*670* (330)	*680* (340)	*690* (350)	*700* (360)
LNAV	OCH	460			
	MDA(H)	*790* (460)			
CIRCLING (HAA)*		A	B	C	D
	OCH	470	500	600	800
	MDA(H)	*850* (470)	*880* (500)	*980* (600)	*1180* (800)

ADVISORY INFORMATION ONLY				
NM to RW22	2	4	4	5
ALT (HGT)	*1030* (690)	*1350* (1010)	*1670* (1330)	*1980* (1650)

GS	kt	80	100	120	140	160	180
FAF-MAPt❷	min:s						
ROD: 5.24%	ft/min	424	530	636	742	848	954

❶ Missed approach minimum altitude 4500.
❷ Timing not authorized for defining the MAPt.
RNP Approach required.
LNAV/VNAV Temperature: Min -15°C
Max 50°C

Holding Instruction/Areas RNP RWY 22

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	EMINO	093° (094.0°)	1 MIN	R	13000		230 KT	1°E	
Hold MA	EMINO	093° (094.0°)	1 MIN	R	4500		230 KT	1°E	

Route Description: RNP RWY 22

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	EMINO				+13000		1°E		RNP APCH
TF	DU530		045° (045.2°)		+9000		1°E	14.5	RNP APCH
TF	DU540		045° (045.3°)				1°E	10.7	RNP APCH
TF	DU11W		135° (135.2°)	R	-3300 +2300		1°E	6.9	RNP APCH
TF	DU06W		225° (225.2°)	R	+2300		1°E	5.0	RNP APCH
TF	RW22	Y	225° (225.2°)		+388		1°E	6.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	EGTAM						1°E		RNP APCH
TF	DU450		045° (045.2°)				1°E	11.4	RNP APCH
TF	DU11W		315° (315.2°)	L	-3300 +2300		1°E	7.0	RNP APCH
TF	DU06W		225° (225.2°)	L	+2300		1°E	5.0	RNP APCH
TF	RW22	Y	225° (225.2°)		+388		1°E	6.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
CF	DU950		225° (225.2°)				1°E		RNP APCH
TF	DU960		315° (315.2°)	R			1°E	7.0	RNP APCH
TF	EMINO		045° (045.2°)	R	+4500		1°E	6.0	RNP APCH
HM	EMINO		093° (094.0°)	R	+4500	230 KT	1°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 22

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
EGTAM (IAF)	N19°25'29.1''	E057°44'16.3''	N19°25.485'	E057°44.272'	
DU450	N19°33'34.3''	E057°52'52.2''	N19°33.571'	E057°52.870'	
EMINO (IAF)	N19°25'42.9''	E057°23'32.7''	N19°25.715'	E057°23.545'	
DU530	N19°35'57.8''	E057°34'26.7''	N19°35.963'	E057°34.445'	
DU540	N19°43'29.6''	E057°42'28.5''	N19°43.493'	E057°42.475'	
DU11W (IF)	N19°38'33.0''	E057°47'39.5''	N19°38.550'	E057°47.658'	
DU06W (FAF)	N19°35'00.9''	E057°43'53.9''	N19°35.015'	E057°43.898'	
RW22 (MAPT)	N19°30'45.9''	E057°39'22.9''	N19°30.765'	E057°39.382'	
DU950	N19°16'29.4''	E057°24'14.7''	N19°16.490'	E057°24.245'	
DU960	N19°21'28.3''	E057°19'02.4''	N19°21.472'	E057°19.040'	

Non precision final approach 3.00° (5.24%) / TCH 50 FT(15 M).

OOFD AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOFD FAHUD/Fahud

OOFD AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	222115.88 N 0562905.34 E Midpoint of RWY centreline
2	Direction and distance from (city)	Fahud Airport is located approximately 2.5 KM/1.3 NM north of Fahud Camp in the North of Oman.
3	Elevation/Reference temperature	565 FT/44.7°C
4	Geoid undulation at AD ELEV PSN	-111 FT Height of Geoid (MSL) above reference ellipsoid (WGS-84)
5	MAG VAR/Annual change	2°E (2021)/0.03° E increasing
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	Address: Oman Airports Management Company S.A.O.C Muscat International Airport P.O.Box 1707 Postal Code 111 Muscat, Sultanate of Oman During working hours: Fahud Airport Manager Office: (968) 24383761 Fahud Airport RFFS Office: (968) 2438 4164 \ 2438 4819 After Working Hours: Fahud Airport Manager Mobile: (968) 99205147 PDO Fire Station commander Mobile: (968) 71110347 Fahud AFIS Specialist Mobile: (968) 91368935 Oman Airports Muscat (HQ): Chief Executive Officer CEO (968) 24250005 \99222244 Chief Operation Officer COO (968) 24353800 \99481801 VP regional Airports (968) 99422350 IMS director (968) 24352231
7	Types of traffic permitted (IFR/VFR)	VFR/IFR only in visual meteorological conditions (VMC). Minimum visibility for take-off & landing: 5000 M. Minimum cloud ceiling: 1500 FT. Aircraft Code C (Wingspan up to but not including 36 M; Outer main gear span up to but not including 9 M). Use restricted to aircraft with a wheelbase of less than 18 M. Only flights operating on behalf of PDO will be allowed to land and depart except by prior permission from the Airport Manager

		or in an aircraft emergency.
8	Remarks	NIL

OOFD AD 2.3 OPERATIONAL HOURS

1	AD Administration	From Sunrise to Sunset - HJ. Approach and/or landing by prior permission only. Minimum of 24 hours notice is required for non-scheduled flights.
2	Customs and immigration	NIL
3	Health and sanitation	NIL
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	NIL
7	ATS	HJ - Flight Information is operated for scheduled and pre-arranged flights (Day Operation Only).
8	Fuelling	NIL
9	Handling	As AD hours
10	Security	Security and safety services (SSS) 24 hours and ROP security during operation hours.
11	De-icing	NIL
12	Remarks	Esbaar (Drone Flight Survey) operated as AD hours

OOFD AD 2.4 HANDLING SERVICES AND FACILITIES

NIL

OOFD AD 2.5 PASSENGER FACILITIES

1	Hotels	There is accommodation available at the PDO Fahud camp and contractors motel (PAC). Accomodation is available only by prior arrangement.
2	Restaurants	There is a canteen available at the PDO Fahud camp and motel (PAC) at contractor camp. This facility is available only by prior arrangement. Restaurants and coffee shops available located in Fahud area.
3	Transportation	Transportation can be made available by prior arrangement.
4	Medical facilities	There is a Clinic at the PDO Fahud camp. The nearest hospitals are at Nizwa, approx 165 KM/89.1 NM by road and Ibri, approx 145 KM/78.3 NM by road.

5	Bank and Post Office	There are Muscat Bank and Sohar International bank ATM located in Fahud area.
6	Tourist Office	NIL
7	Remarks	Supermarkets are available in Fahud area.

OOFD AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Cat 7
2	Rescue equipment	Two 8x8 foam tenders, carries total 20000 LTRS water, 5000 LTRS type 'PFFF' foam and 1000 KG dry powder. Additional one 6x6 foam tender carrying 12 500 LTRS water, 1500 LTRS type 'PFFF' foam available and 225 KG dry powder. Emergency water supplies available, 50 000 LTRS overhead tank at apron and additional water tanker 20000 LTRS WATER Open source 12 000 LTRS tank at each runway end
3	Capability for removal of disabled aircraft	Limited to GSE on-site and Recovery Kit available in Muscat up to B747 capacity will be arranged as required.
4	Remarks	NIL

OOFD AD 2.7 SEASONAL AVAILABILITY — CLEARING

NIL

OOFD AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	Apron	Surface: Strength:	Concrete PCN 120/R/B/W/T
2	Taxiway width, surface and strength	A	Width: Surface: Strength:	23 M Asphalt (flexible pavement) PCN 68/F/A/W/T
		B	Width: Surface: Strength:	23 M Asphalt (flexible pavement) PCN 67/F/A/W/T
3	ACL and elevation	Apron area, elev 565 FT AMSL		
4	VOR checkpoint	NIL		
5	INS checkpoint	NIL		
6	Remarks	NIL		

OOFD AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Painted aircraft stand markings Yellow painted centrelines No visual docking system
2	RWY and TWY markings and LGT	RWY: LGT: See AD 2.14 for detail Markings: Runway designation markings, painted centreline, threshold markings, touchdown zone markings, painted edge markings TWY: Markings: Painted centreline, runway holding position markings Apron: Markings: Painted centreline, aircraft stop markings Signage: Markings: Apron directional illuminated Runway hold position markings, runway exit signs
3	Stop bars	NIL
4	Other runway protection measures	NIL
5	Remarks	NIL

OOFD AD 2.10 AERODROME OBSTACLES

There is a mountainous area to the south of the airport, there are a number of overhead power lines and flares in this locality. A telecommunications tower is located on top of the mountain at N22 18 25.55” E056 28 16.10”.

In AREA 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
RWY 13 Approach / RWY 31 Departure					
1926	Pole	222149.24 N0562815.23 E	172.48 M (566 FT)	not marked not lit	Type-A
1927	Pole	222150.14 N0562815.65 E	172.61 M (566 FT)	not marked not lit	Type-A
1655	Pole	222155.29 N0562820.34 E	172.17 M (565 FT)	not marked not lit	Type-A
1656	Pole	222155.83 N0562821.20 E	172.14 M (565 FT)	not marked not lit	Type-A
RWY 31 Approach / RWY 13 Departure					
1791	Pole	222036.64 N0562950.27 E	181.20 M (594 FT)	not marked not lit	Type-A
1787	Pole	222038.48 N0562952.39 E	179.32 M (588 FT)	not marked not lit	Type-A
1540	Pole	222023.64 N0563002.52 E	187.82 M (616 FT)	not marked not lit	Type-A

In AREA 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
1386	Pole	222022.61 N0563005.19 E	187.90 M (616 FT)	not marked not lit	Type-A
1385	Pole	222021.55 N0563007.94 E	188.09 M (617 FT)	not marked not lit	Type-A
1384	Pole	222020.49 N0563010.69 E	188.15 M (617 FT)	not marked not lit	Type-A
1393	Pole	222018.13 N0563009.69 E	193.55 M (635 FT)	not marked not lit	Type-A
1383	Pole	222019.45 N0563013.41 E	188.14 M (617 FT)	not marked not lit	Type-A
1380	Pole	222015.47 N0563018.03 E	192.72 M (632 FT)	not marked not lit	Type-A
1377	Pole	222013.95 N0563017.80 E	194.31 M (638 FT)	not marked not lit	Type-A
1376	Pole	222012.78 N0563017.48 E	195.18 M (640 FT)	not marked not lit	Type-A
1372	Pole	222013.27 N0563019.88 E	194.78 M (639 FT)	not marked not lit	Type-A
1371	Pole	222013.52 N0563021.23 E	194.69 M (639 FT)	not marked not lit	Type-A
1350	Pole	222012.10 N0563021.42 E	194.78 M (639 FT)	not marked not lit	Type-A
1298	HV Pylon	221942.86 N0563047.15 E	213.17 M (699 FT)	not marked not lit	Type-A
1300	HV Pylon	221944.55 N0563050.63 E	212.99 M (699 FT)	not marked not lit	Type-A
1344	Mast	221931.90 N0563102.73 E	212.46 M (697 FT)	not marked not lit	Type-A
Refer to Aerodrome Obstacle Charts (Type A). Note: Obstacle list is available on request from OAMC, refer to section 2 subsection 6 for contact details.					

OOFD AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	A MET observation service is provided by trained (AFISO) airport staff.
2	Hours of serviceMET Office outside hours	As AD hours
3	Office responsible for TAF preparationPeriods of validity	NIL

4	Trend forecasteInterval of issuance	NIL
5	Briefing/consultation provided	NIL
6	Flight documentation Language(s) used	NIL
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	NIL
9	ATS units provided with information	NIL
10	Additional information	NIL

OOFD AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
13	130° T 128° M	2560 X 45	69/F/A/W/T Asphalt (flexible pavement)	222142.54 N 0562830.97 E 222049.22 N 0562939.71 E GUND -111 FT	THR 549 FT TDZ NIL
31	310° T 308° M	2560 X 45	69/F/A/W/T Asphalt (flexible pavement)	222049.22 N 0562939.71 E 222142.54 N 0562830.97 E GUND -111 FT	THR 565 FT TDZ NIL

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
13	0.19% up	NIL	NIL	2680 X 280	240 M x 90 M
31	0.19% down	NIL	NIL	2680 X 280	240 M x 90 M

Designations RWY NR	Location and description of engineering material arresting system (EMAS)	OFZ	Remarks
1	12	13	14
13	NIL	NIL	NIL

Designations RWY NR	Location and description of engineering material arresting system (EMAS)	OFZ	Remarks
1	12	13	14
31	NIL	NIL	NIL

Runway 13/31 has paved shoulders 7.5 M wide.

OOFD AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
13	2560	2560	2560	2560	NIL
31	2560	2560	2560	2560	NIL

OOFD AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
13	Extended Centreline 420 M, crossbar at 300 M LIH	LIH Green No wingbars	PAPI LHS 3.00° / 303M from THR MEHT 49.14FT	NIL	NIL	60 M White, last 600 M Yellow LIH	LIH Red No wingbars	NIL	NIL
31	Extended Centreline 420 M, crossbar at 300 M LIH	LIH Green No wingbars	PAPI LHS 3.00° / 323M from THR MEHT 49.09FT	NIL	NIL	60 M White, last 600 M Yellow LIH	LIH Red No wingbars	NIL	NIL

OOFD AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics andhours of operation	NIL
2	LDI location and LGT Anemometer location and LGT	Wind direction indicators adjacent to both runway aiming points, on the left side.
3	TWY edge and centre line lighting	NIL
4	Secondary power supply/switch-over time	UPS secondary power supply/ Generators
5	Remarks	NIL

OOFD AD 2.16 HELICOPTER LANDING AREA

NIL

OOFD AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	Fahud ATZ An ARC, radius 13 NM centered on N222300 E0562651 starting from N221258 E0561753 clockwise N223301 E0563551 joining an ARC centered on N221932 E0563119 connecting from N222933 E0564019 clockwise to N220931 E0562221 then to N221258 E0561753.
2	Vertical limits	SFC/8000 FT AMSL
3	Airspace classification	G
4	ATS unit call signLanguage(s)	Fahud AFIS; Fahud Information English
5	Transition altitude/Transition level	13 000 FT/FL150
6	Hours of applicability (or activation)	NIL
7	Remarks	- See chart for details. - Continuous two-way VHF Communication Mandatory.

OOFD AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	**2**	**3**	**4**	**5**
Aerodrome Flight Information Service	Fahud Information	122.750 MHz	HJ - For scheduled and pre-arranged flights only.	NIL

OOFD AD 2.19 RADIO NAVIGATION AND LANDING AIDS

NIL

OOFD AD 2.20 LOCAL AERODROME REGULATIONS

NIL

OOFD AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OOFD AD 2.22 FLIGHT PROCEDURES

NIL

OOFD AD 2.23 ADDITIONAL INFORMATION

AFIS operator has limited visibility of aerodrome traffic circuit. The AFIS operator is unable to see the South of the aerodrome from the AFIS Centre.

OOFD AD 2.24 CHARTS RELATED TO AN AERODROME

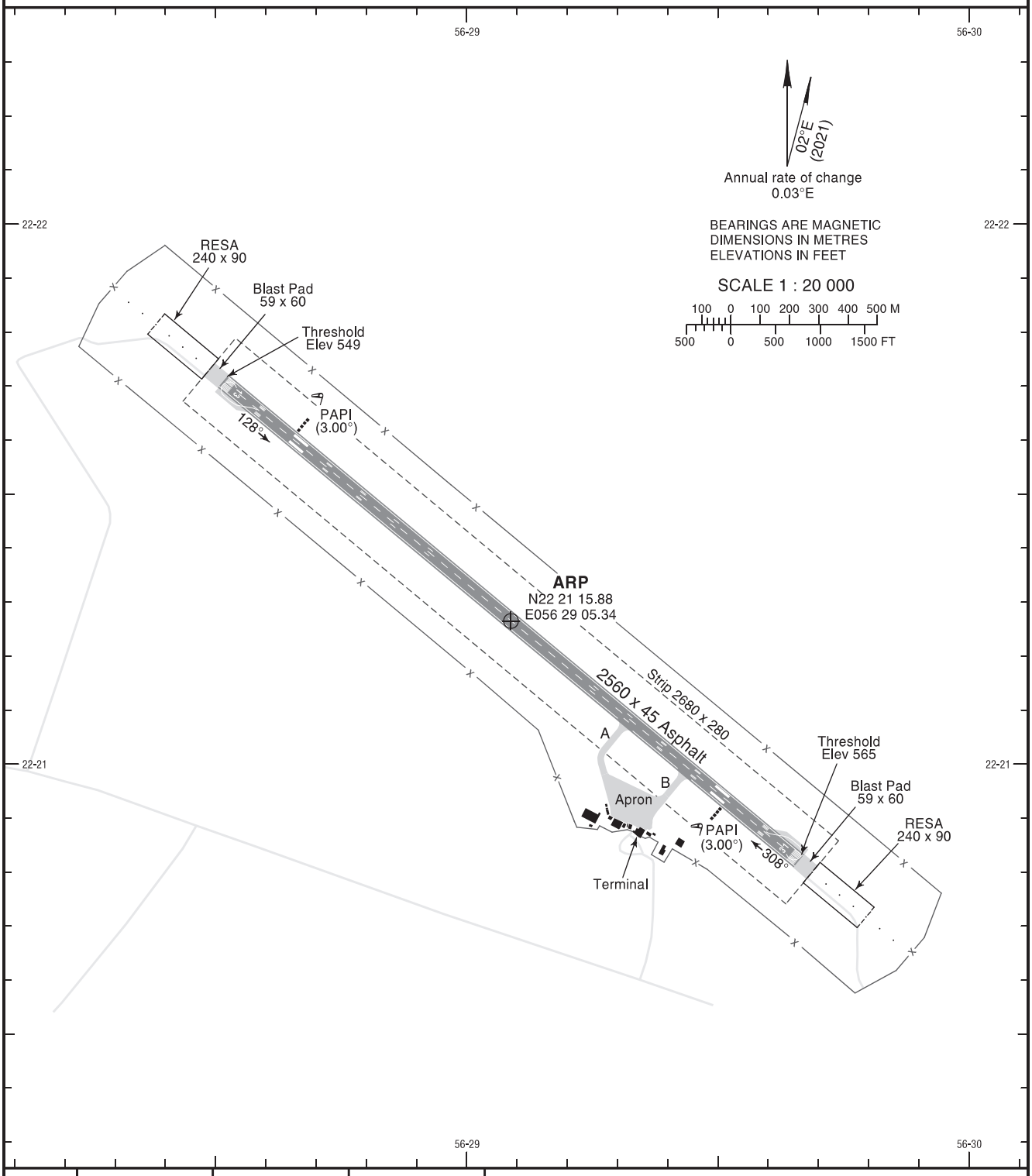
AERODROME CHART - ICAO	AERODROME CHART - ICAO
AIRCRAFT PARKING/DOCKING CHART - ICAO	AIRCRAFT PARKING/DOCKING CHART - ICAO
AERODROME OBSTACLE CHART - ICAO - TYPEA	AERODROME OBSTACLE CHART - ICAO - TYPEA
AERODROME OBSTACLE CHART - ICAO - TYPEB	AERODROME OBSTACLE CHART - ICAO - TYPEB
STANDARD DEPARTURE CHART INSTRUMENT	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 13

- ICAO - RNAV (GNSS) RWY 13	
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 31	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 31
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 13	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 13
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 31	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 31
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 13	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 13
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 31	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 31

OOFD AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

AERODROME CHART - ICAO | WGS-84 | **AD ELEV** 565 FT | FAHUD Information 122.750 | **FAHUD/Fahud OMAN**



RWY	DIRECTION	THRESHOLD	STRENGTH	DECLARED DISTANCES			
				TORA	TODA	ASDA	LDA
13	128° MAG	N 22 21 42.54 E 056 28 30.97	PCN 69/F/A/W/T	2560m	2560m	2560m	2560m
31	308° MAG	N 22 20 49.22 E 056 29 39.71	PCN 69/F/A/W/T	2560m	2560m	2560m	2560m

AERODROME LIGHTING RWY 13/31: Extended Centreline LIH
RTHL LIH (green)
PAPI-L (3.00°)
REDL LIH
RENL LIH (red)

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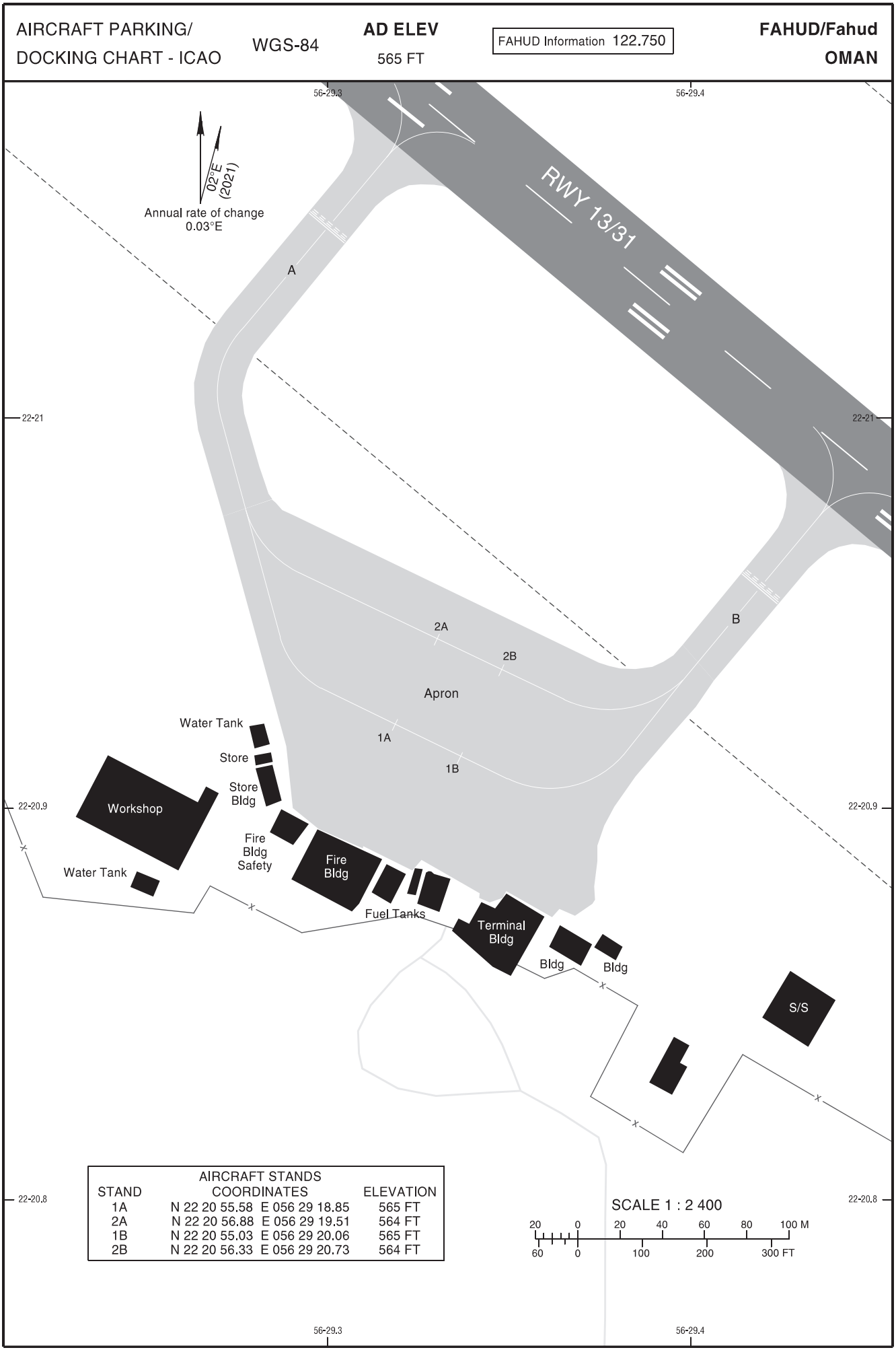
AIRCRAFT PARKING/
DOCKING CHART - ICAO
WGS-84
AD ELEV
565 FT
FAHUD Information 122.750
FAHUD/Fahud
OMAN
56-29.3
56-29.4
02°E (2021)
Annual rate of change
0.03°E
RWY 13/31
A
B
22-21
22-20.9
22-20.8
2A
2B
Apron
1A
1B
Water Tank
Store
Store Bldg
Workshop
Water Tank
Fire Bldg Safety
Fire Bldg
Fuel Tanks
Terminal Bldg
Bldg
Bldg
S/S
AIRCRAFT STANDS
STAND | COORDINATES | ELEVATION
1A | N 22 20 55.58 E 056 29 18.85 | 565 FT
2A | N 22 20 56.88 E 056 29 19.51 | 564 FT
1B | N 22 20 55.03 E 056 29 20.06 | 565 FT
2B | N 22 20 56.33 E 056 29 20.73 | 564 FT
SCALE 1 : 2 400
20 0 20 40 60 80 100 M
60 0 100 200 300 FT

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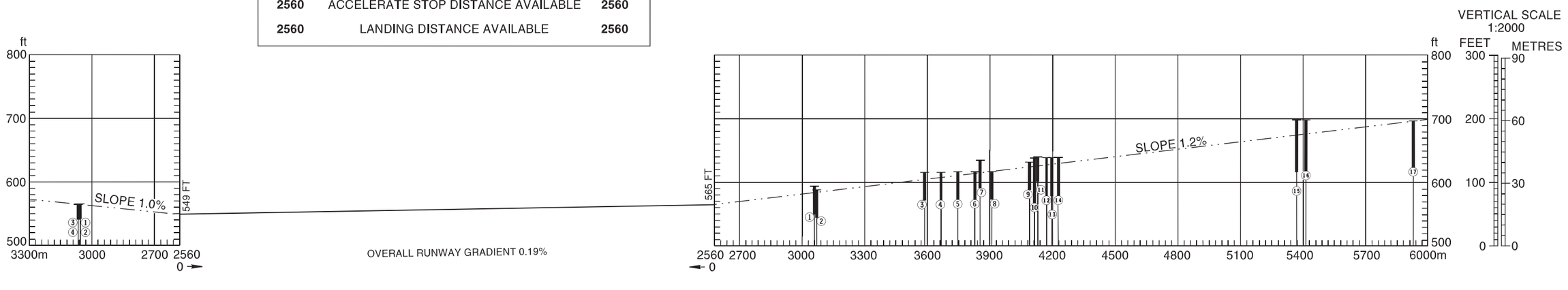
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

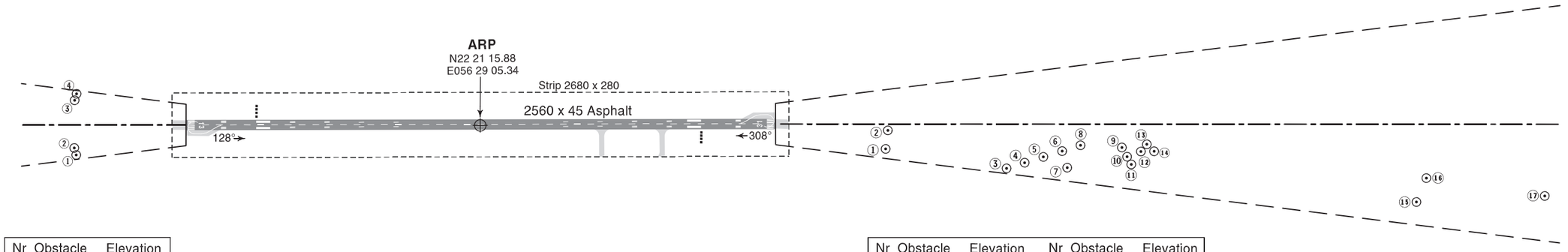
FAHUD/Fahud
OMAN

DISTANCES IN METRES, ELEVATIONS IN FEET
MAGNETIC VARIATION 2°E, 2021

RWY 13-31

DECLARED DISTANCES		
RWY 13		**RWY 31**
2560	TAKE-OFF RUN AVAILABLE	**2560**
2560	TAKE-OFF DISTANCE AVAILABLE	**2560**
2560	ACCELERATE STOP DISTANCE AVAILABLE	**2560**
2560	LANDING DISTANCE AVAILABLE	**2560**





Nr	Obstacle	Elevation
①	Pole	566
②	Pole	566
③	Pole	565
④	Pole	565

Nr	Obstacle	Elevation	Nr	Obstacle	Elevation
①	Pole	594	⑩	Pole	638
②	Pole	588	⑪	Pole	640
③	Pole	616	⑫	Pole	639
④	Pole	616	⑬	Pole	639
⑤	Pole	617	⑭	Pole	639
⑥	Pole	617	⑮	HV Pylon	699
⑦	Pole	635	⑯	HV Pylon	699
⑧	Pole	617	⑰	Mast	697
⑨	Pole	632			

AMENDMENT RECORD		
No.	Date	Entered by

HORIZONTAL SCALE 1 : 20 000

LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	①	①
GROUND LEVEL	▲	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
TREE	✱	
MOBILE		

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AERODROME OBSTACLE CHART - ICAO

WGS-84/ Obst Elevation EGM96

AD ELEV 565 FT

ARP N22 21 15.88 E056 29 05.34

AERODROME OBSTACLE CHART - ICAO TYPE B

FAHUD/Fahud
OMAN

CONICAL SURFACE
20:1 (5%) slope up to
100 metres above Inner
Horizontal Surface elevation

INNER HORIZONTAL SURFACE
45 metres above lowest
threshold elevation

APPROACH SURFACE SLOPE 1:40 (2.5%)

APPROACH SURFACE SLOPE 1:50 (2%)

TAKE-OFF CLIMB SURFACE SLOPE 1:62.5 (1.6%)

TRANSITIONAL SURFACE 7:1 SLOPE (14.3%)

TRANSITIONAL SURFACE 7:1 SLOPE (14.3%)

RESA 240 x 90
Blast Pad 59 x 60
Threshold Elev 549'
PAPI (9.00°)
12m
ARP N22 21 15.88 E056 29 05.34
Strip 3566 x 286
2560 x 45 Asphalt
Apron
Terminal
Threshold Elev 565'
Blast Pad 59 x 60
RESA 240 x 90
PAPI (3.00°)
12m

High Way

2°E

BEARINGS ARE MAGNETIC
ALTITUDES & ELEV IN FEET
DIMENSIONS IN METRES

HORIZONTAL SCALE 1:20 000

400 200 0 500 1000 1500 2000 2500 METRES
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000 FEET

VAR 2° E 2023 ANNUAL CHANGE 0.07° E

Obstacles shown are those which penetrate the surfaces specified in Annex 4, Volume 1, Chapter 4

Note: Rwy 31 take-off climb surface, slope 1:62.5

CONTOUR LEGEND

	1000
	800

595'
735'
737'
713'
736'
732'
704'
728'
781'
701'
777'
850'
786'
781'
802'
1095'
1098'
1101'
1115'
1102'
1318'
1109'
1220'
1068'
1013'

LEGEND

Area Minimum Altitude (AMA)

Example: 2900 feet — 29

Each 1° quadrilateral contains an area minimum altitude (AMA) which represents the lowest altitude which may be used under emergency conditions (ICAO PANS-OPS). The AMA provides a minimum clearance of 1000 feet above all obstacles in the quadrilateral. It is represented in thousands and tens of feet above mean sea level.

Elevation / Obstacle	588'
Mast/Tower	
Obstacle	
Ground / Terrain Spot	
Terrain	

AMENDMENT RECORD

No.	Date	Entered by

INTENTIONALLY

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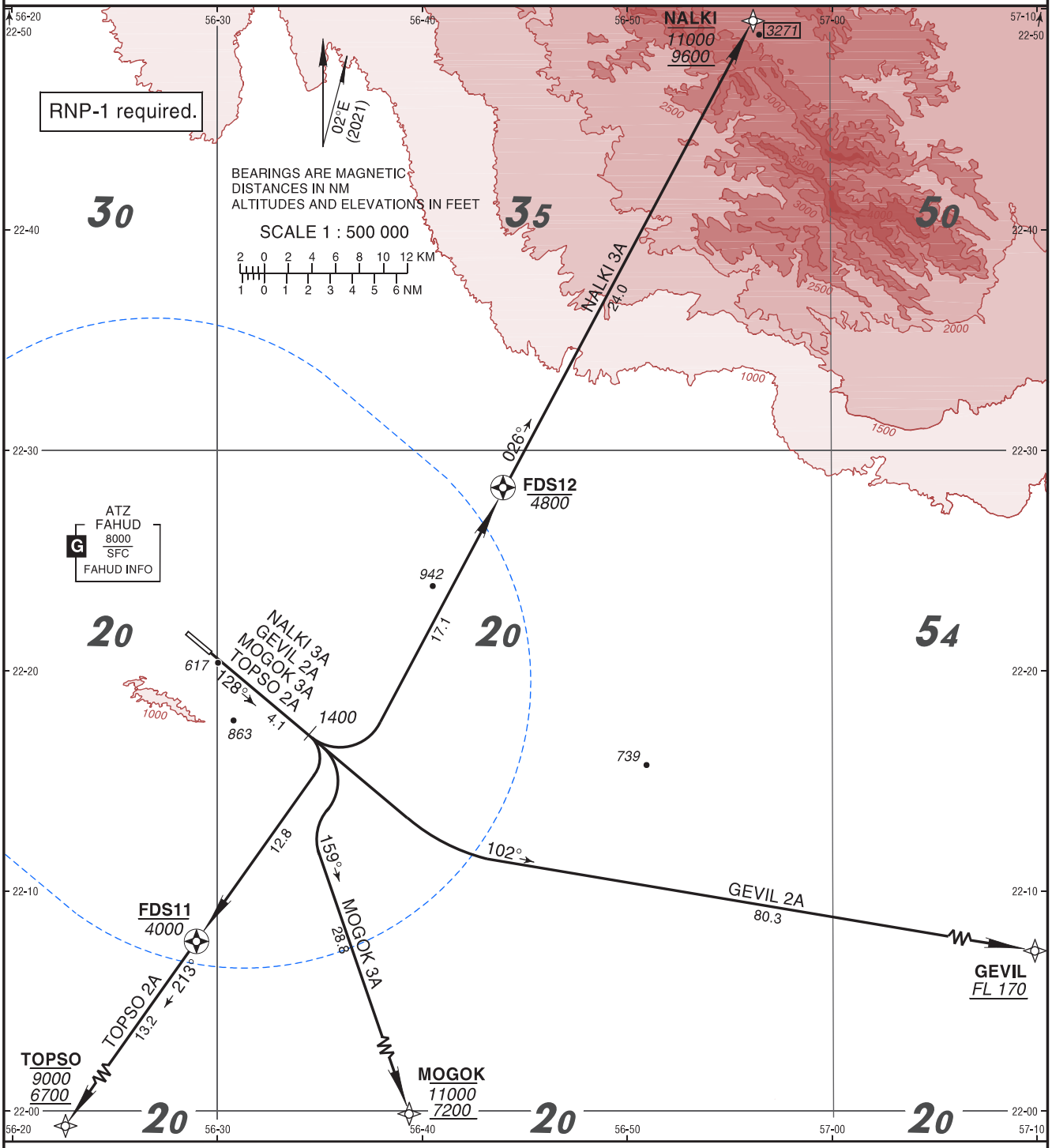
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV Trans Alt Trans Level	565 FT *13000* *FL150*	MUSCAT Control 124.700 FAHUD Information 122.750	**FAHUD/Fahud** **OMAN** RWY 13

NALKI 3A, GEVIL 2A, MOGOK 3A, TOPSO 2A RNAV (GNSS) DEPARTURE



INITIAL CLIMB	
	Climb on track 128°, at or above 1400, then
SID	**ROUTING**
NALKI 3A	turn LEFT direct to FDS12 at or below 4800, then to NALKI between 9600 and 11000.
GEVIL 2A	turn LEFT to GEVIL at or above FL 170 on course 102°.
MOGOK 3A	turn RIGHT to MOGOK between 7200 and 11000 on course 159°.
TOPSO 2A	turn RIGHT direct to FDS11 at or below 4000, then to TOPSO between 6700 and 9000.

Route Description: RNAV (GNSS) DEPARTURE RWY 13

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
INITIAL CLIMB									
CA			128° (129.8°)		+1400		2°E	4.09	RNP 1
NALKI 3A DEPARTURE									
DF	FDS12	Y		L	-4800		2°E	17.05	RNP 1
TF	NALKI		026° (028.4°)		-11000 +9600		2°E	23.95	RNP 1
GEVIL 2A DEPARTURE									
CF	GEVIL		102° (104.1°)	L	+FL170		2°E	80.31	RNP 1
MOGOK 3A DEPARTURE									
CF	MOGOK		159° (161.2°)	R	-11000 +7200		2°E	28.79	RNP 1
TOPSO 2A DEPARTURE									
DF	FDS11	Y		R	-4000		2°E	12.84	RNP 1
TF	TOPSO		213° (215.3°)		-9000 +6700		2°E	13.24	RNP 1

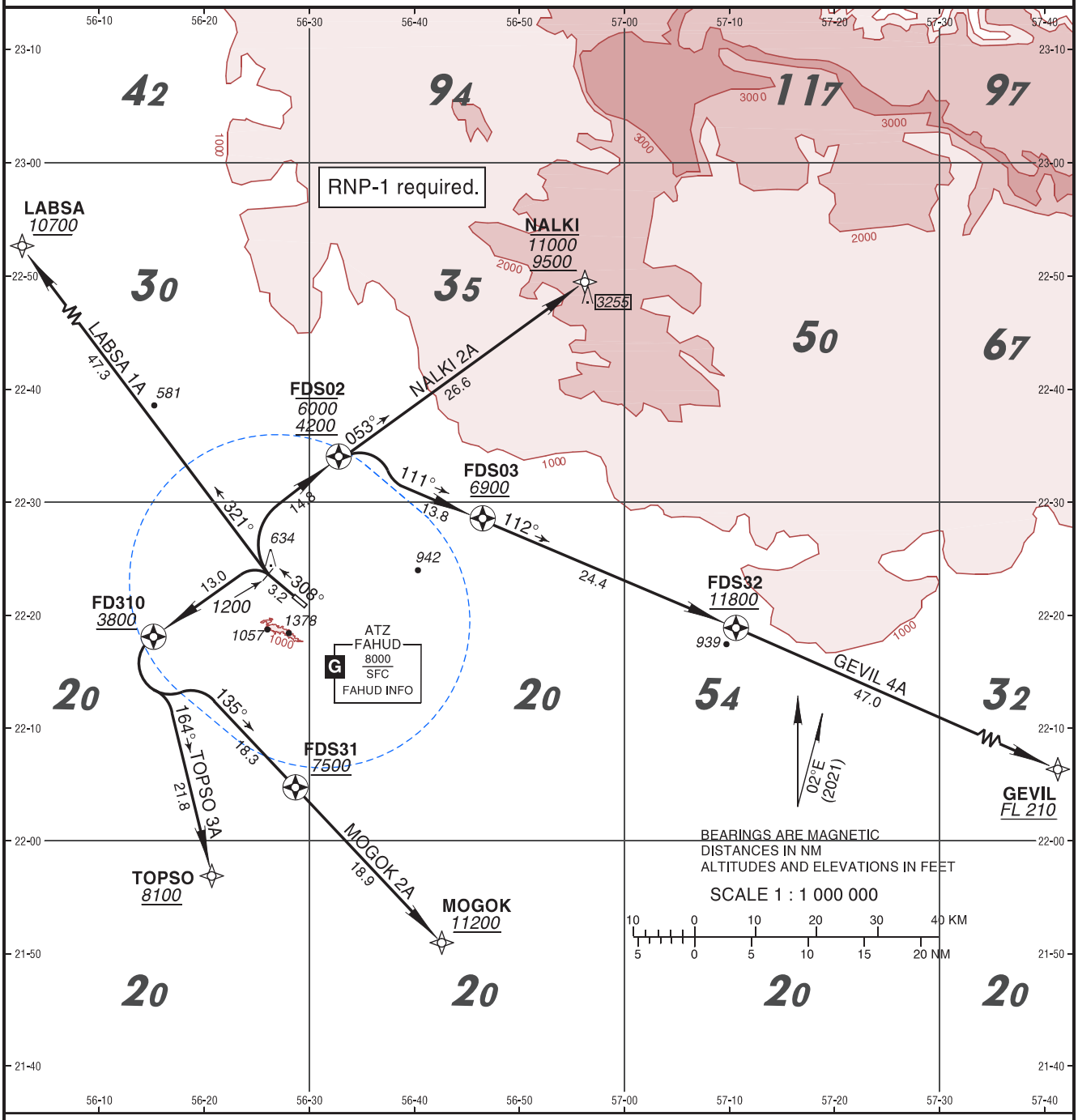
Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 13

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
FDS12	N22°28'18.48''	E056°43'56.66''	N22°28.308'	E056°43.944'	
NALKI	N22°49'28.00''	E056°56'14.00''	N22°49.467'	E056°56.233'	
GEVIL	N22°00'00.00''	E057°57'00.00''	N22°00.000'	E057°57.000'	
MOGOK	N21°50'57.00''	E056°42'36.00''	N21°50.950'	E056°42.600'	
FDS11	N22°07'43.28''	E056°28'57.71''	N22°07.721'	E056°28.962'	
TOPSO	N21°56'53.00''	E056°20'43.00''	N21°56.883'	E056°20.717'	

Aircrew should contact Fahud Information 122.750 MHz to receive RWY in use, wind direction & speed, visibility, temperature and QNH data for the time of descent. The pilot shall inform Muscat ACC that he will be leaving the frequency and continue with Fahud aerodrome QNH.

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV 565 FT Trans Alt *13000* Trans Level *FL150*	MUSCAT Control 124.700 FAHUD Information 122.750	**FAHUD/Fahud** **OMAN** RWY 31

LABSA 1A, NALKI 2A, GEVIL 4A, MOGOK 2A, TOPSO 3A RNAV (GNSS) DEPARTURE



INITIAL CLIMB

	Climb on track 308°, at or above 1200, then
SID	**ROUTING**
LABSA 1A	turn RIGHT direct to LABSA at or above 10700.
NALKI 2A	turn RIGHT direct to FDS02 between 4200 and 6000, then to NALKI between 9500 and 11000.
GEVIL 4A	turn RIGHT direct to FDS02 between 4200 and 6000, then to FDS03 at or above 6900, then to FDS32 at or above 11800, then to GEVIL at or above FL 210.
MOGOK 2A	turn LEFT direct to FD310 at or above 3800, then turn LEFT to FDS31 at or above 7500, then to MOGOK at or above 11200.
TOPSO 3A	turn LEFT direct to FD310 at or above 3800, then turn LEFT to TOPSO at or above 8100.

Route Description: RNAV (GNSS) DEPARTURE RWY 31

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
INITIAL CLIMB									
CA			308° (309.8°)		+1200		2°E	3.18	RNP 1
LABSA 1A DEPARTURE									
DF	LABSA				+10700		2°E	47.34	RNP 1
NALKI 2A DEPARTURE									
DF	FDS02	Y		R	-6000 +4200		2°E	14.82	RNP 1
TF	NALKI		053° (054.7°)		-11000 +9500		2°E	26.55	RNP 1
GEVIL 4A DEPARTURE									
DF	FDS02	Y		R	-6000 +4200		2°E	14.82	RNP 1
TF	FDS03	Y	111° (113.3°)	R	+6900		2°E	13.81	RNP 1
TF	FDS32	Y	112° (113.5°)		+11800		2°E	24.35	RNP 1
TF	GEVIL		112° (113.8°)		+FL210		2°E	46.98	RNP 1
MOGOK 2A DEPARTURE									
DF	FD310	Y		L	+3800		2°E	13.04	RNP 1
TF	FDS31	Y	135° (136.7°)	L	+7500		2°E	18.29	RNP 1
TF	MOGOK		135° (136.8°)		+11200		2°E	18.87	RNP 1
TOPSO 3A DEPARTURE									
DF	FD310	Y		L	+3800		2°E	13.04	RNP 1
TF	TOPSO		164° (166.4°)	L	+8100		2°E	21.76	RNP 1

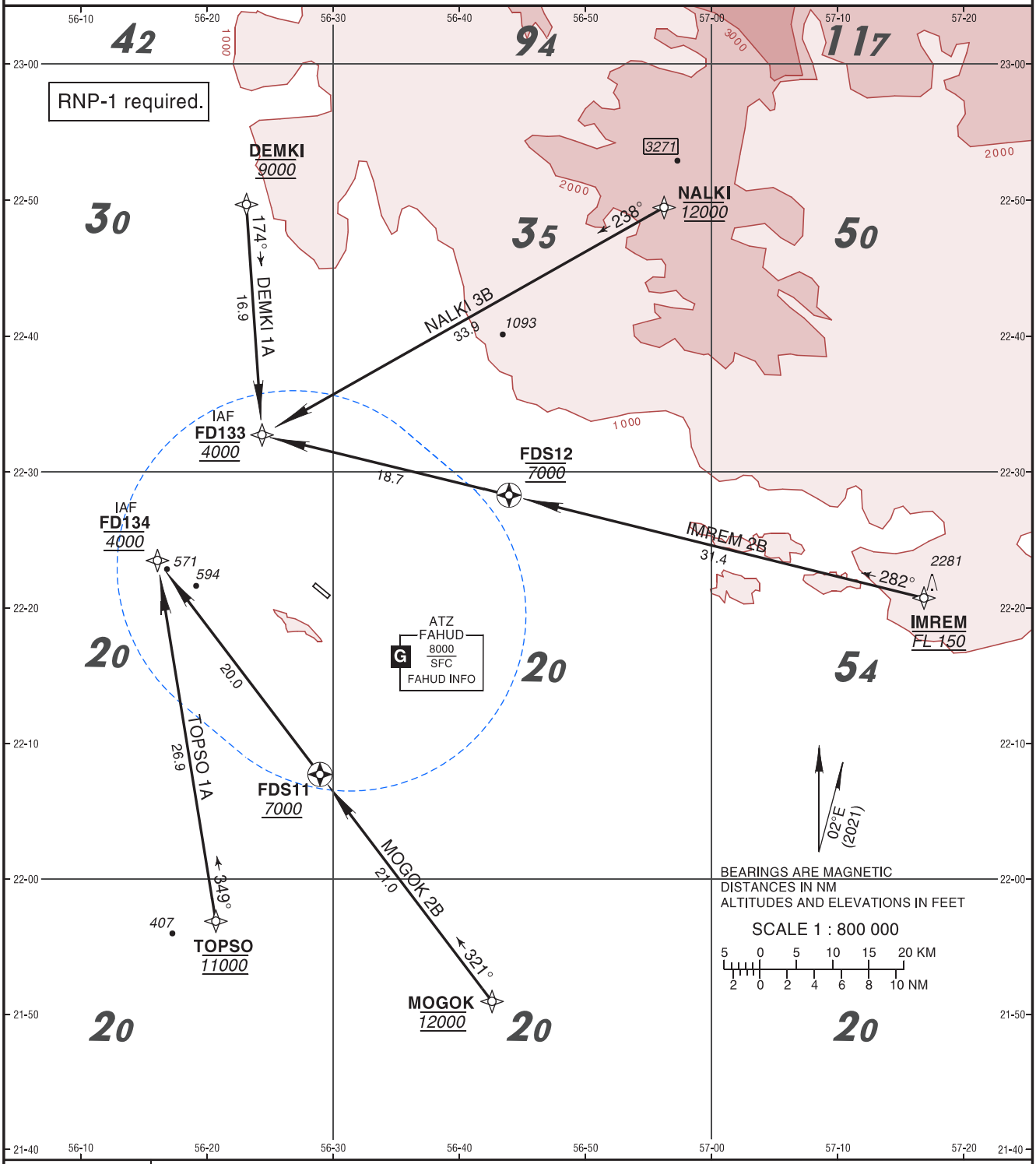
Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 31

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
LABSA	N23°01'53.00''	E055°55'05.00''	N23°01.883'	E055°55.083'	
FDS02	N22°34'03.25''	E056°32'48.55''	N22°34.054'	E056°32.809'	
NALKI	N22°49'28.00''	E056°56'14.00''	N22°49.467'	E056°56.233'	
FDS03	N22°28'34.80''	E056°46'30.72''	N22°28.580'	E056°46.512'	
FDS32	N22°18'52.90''	E057°10'37.62''	N22°18.882'	E057°10.627'	
GEVIL	N22°00'00.00''	E057°57'00.00''	N22°00.000'	E057°57.000'	
FD310	N22°18'06.21''	E056°15'10.63''	N22°18.103'	E056°15.177'	
FDS31	N22°04'44.73''	E056°28'41.96''	N22°04.746'	E056°28..699'	
MOGOK	N21°50'57.00''	E056°42'36.00''	N21°50.950'	E056°42.600'	
TOPSO	N21°56'53.00''	E056°20'43.00''	N21°56.883'	E056°20.717'	

Aircrew should contact Fahud Information 122.750 MHz to receive RWY in use, wind direction & speed, visibility, temperature and QNH data for the time of descent. The pilot shall inform Muscat ACC that he will be leaving the frequency and continue with Fahud aerodrome QNH.

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO	AD ELEV	565 FT	MUSCAT Control 124.700 FAHUD Information 122.750	**FAHUD/Fahud OMAN** RWY 13
	Trans Alt	*13000*		
	Trans Level	*FL150*		

DEMKI 1A, NALKI 3B, IMREM 2B, MOGOK 2B, TOPSO 1A RNAV (GNSS) ARRIVAL



STAR	ROUTING
DEMKI 1A	From DEMKI at 9000 to FD133 at 4000.
NALKI 3B	From NALKI at 12000 to FD133 at 4000.
IMREM 2B	From IMREM at FL 150 to FDS12 at 7000, then to FD133 at 4000.
MOGOK 2B	From MOGOK at 12000 to FDS11 at or above 7000, then to FD134 at 4000.
TOPSO 1A	From TOPSO at 11000 to FD134 at 4000.

Route Description: RNAV (GNSS) ARRIVAL RWY 13

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
DEMKI 1A ARRIVAL									
IF	DEMKI				@9000		2°E		RNP 1
TF	FD133		174° (176.1°)		@4000		2°E	16.90	RNP 1
NALKI 3B ARRIVAL									
IF	NALKI				@12000		2°E		RNP 1
TF	FD133		238° (240.4°)		@4000		2°E	33.85	RNP 1
IMREM 2B ARRIVAL									
IF	IMREM				@FL150		2°E		RNP 1
TF	FDS12	Y	282° (283.8°)		@7000		2°E	31.38	RNP 1
TF	FD133		282° (283.7°)		@4000		2°E	18.66	RNP 1
MOGOK 2B ARRIVAL									
IF	MOGOK				@12000		2°E		RNP 1
TF	FDS11	Y	321° (322.8°)		+7000		2°E	20.98	RNP 1
TF	FD134		321° (322.7°)		@4000		2°E	19.75	RNP 1
TOPSO 1A ARRIVAL									
IF	TOPSO				@11000		2°E		RNP 1
TF	FD134		349° (350.8°)		@4000		2°E	26.87	RNP 1

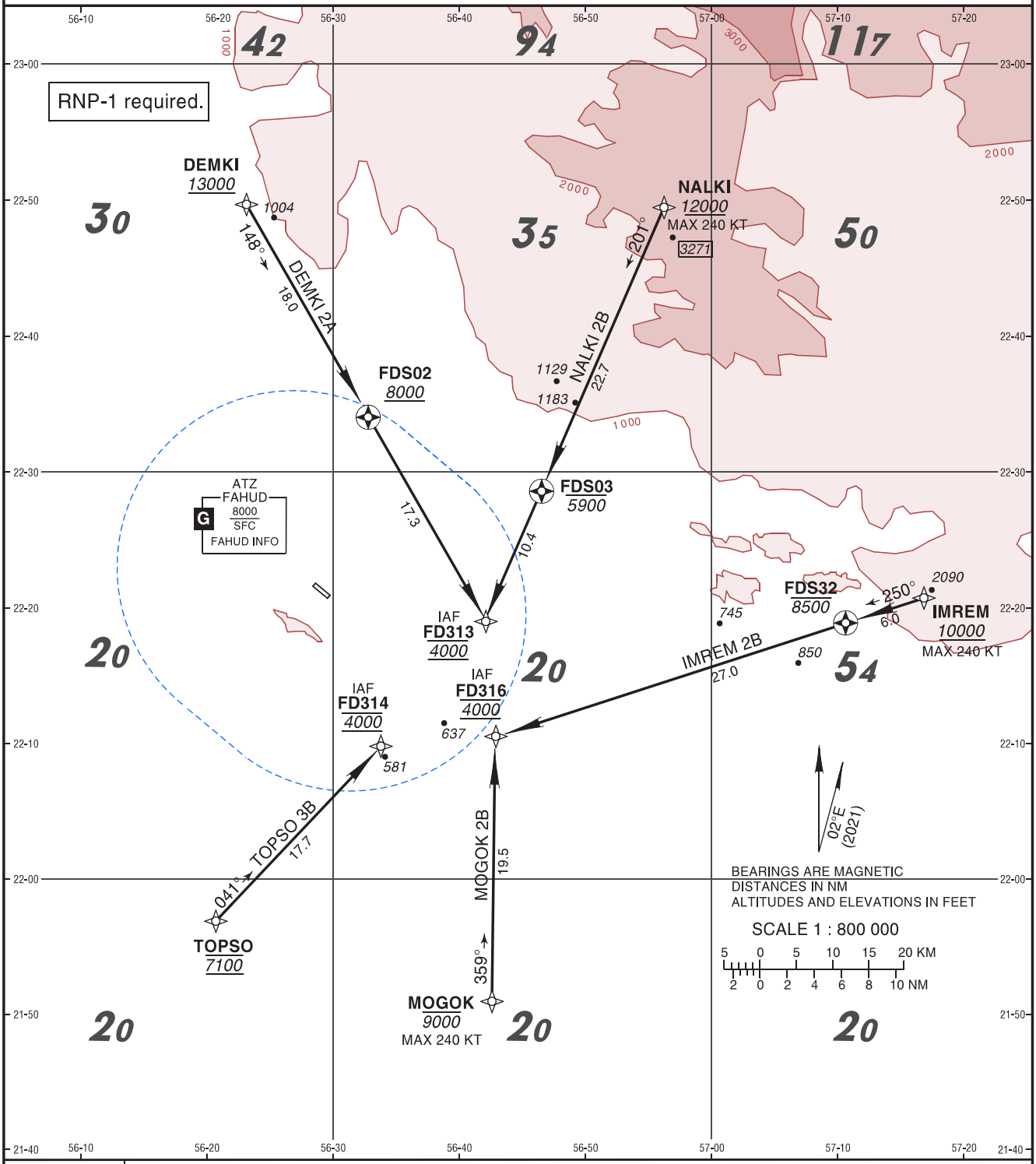
Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 13

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
DEMKI	N22°49'41.00''	E056°23'08.00''	N22°49.683'	E056°23.133'	
NALKI	N22°49'28.00''	E056°56'14.00''	N22°49.467'	E056°56.233'	
IMREM	N22°20'44.00''	E057°16'49.00''	N22°20.733'	E057°16.817'	
FDS12	N22°28'18.48''	E056°43'56.66''	N22°28.308'	E056°43.944'	
FD133	N22°32'45.55''	E056°24'22.16''	N22°32.749'	E056°24.369'	
MOGOK	N21°50'57.00''	E056°42'36.00''	N21°50.950'	E056°42.600'	
FDS11	N22°07'43.28''	E056°28'57.71''	N22°07.721'	E056°28.962'	
TOPSO	N21°56'53.00''	E056°20'43.00''	N21°56.883'	E056°20.717'	
FD134	N22°23'30.23''	E056°16'04.87''	N22°23.504'	E056°16.081'	

Aircrew should contact Fahud Information 122.750 MHz to receive RWY in use, wind direction & speed, visibility, temperature and QNH data for the time of descent. The pilot shall inform Muscat ACC that he will be leaving the frequency and continue with Fahud aerodrome QNH.

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO	AD ELEV	565 FT	MUSCAT Control 124.700 FAHUD Information 122.750	**FAHUD/Fahud OMAN** RWY 31
	Trans Alt	*13000*		
	Trans Level	*FL150*		

DEMKI 2A, NALKI 2B, IMREM 2B, MOGOK 2B, TOPSO 3B RNAV (GNSS) ARRIVAL



STAR	ROUTING
DEMKI 2A	From DEMKI at or above 13000 to FDS02 at or above 8000 on course 148°, then to FD313 at 4000 on course 148°.
NALKI 2B	From NALKI at or above 12000 to FDS03 at or below 5900 on course 201°, then to FD313 at 4000 on course 201°.
IMREM 2B	From IMREM at or above 10000 to FDS32 at or below 8500 on course 250°, then to FD316 at 4000 on course 250°.
MOGOK 2B	From MOGOK at or below 9000 to FD316 at 4000 on course 359°.
TOPSO 3B	From TOPSO at 7100 to FD314 at 4000 on course 041°.

Route Description: RNAV (GNSS) ARRIVAL RWY 31

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
DEMKI 2A ARRIVAL									
IF	DEMKI				+13000		2°E		RNP 1
CF	FDS02	Y	148° (150.3°)		+8000		2°E	17.96	RNP 1
CF	FD313		148° (150.3°)		@4000		2°E	17.27	RNP 1
NALKI 2B ARRIVAL									
IF	NALKI				+12000	240 KT	2°E		RNP 1
CF	FDS03	Y	201° (203.3°)		-5900		2°E	22.67	RNP 1
CF	FD313		201° (203.3°)		@4000		2°E	10.38	RNP 1
IMREM 2B ARRIVAL									
IF	IMREM				+10000	240 KT	2°E		RNP 1
CF	FDS32	Y	250° (252.2°)		-8500		2°E	6.03	RNP 1
CF	FD316		250° (252.2°)		@4000		2°E	27.04	RNP 1
MOGOK 2B ARRIVAL									
IF	MOGOK				-9000	240 KT	2°E		RNP 1
CF	FD316		359° (001.2°)		@4000		2°E	19.51	RNP 1
TOPSO 3B ARRIVAL									
IF	TOPSO				@7100		2°E		RNP 1
CF	FD314		041° (043.3°)		@4000		2°E	17.68	RNP 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 31

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
DEMKI	N22°49'41.00''	E056°23'08.00''	N22°49.683'	E056°23.133'	
FDS02	N22°34'03.25''	E056°32'48.55''	N22°34.054'	E056°32.809'	
NALKI	N22°49'28.00''	E056°56'14.00''	N22°49.467'	E056°56.233'	
FDS03	N22°28'34.80''	E056°46'30.72''	N22°28.580'	E056°46.512'	
FD313	N22°19'00.56''	E056°42'05.29''	N22°19.009'	E056°42.088'	
IMREM	N22°20'44.00''	E057°16'49.00''	N22°20.733'	E057°16.817'	
FDS32	N22°18'52.90''	E057°10'37.62''	N22°18.882'	E057°10.627'	
MOGOK	N21°50'57.00''	E056°42'36.00''	N21°50.950'	E056°42.600'	
FD316	N22°10'31.68''	E056°42'53.97''	N22°10.528'	E056°42.900'	
TOPSO	N21°56'53.00''	E056°20'43.00''	N21°56.883'	E056°20.717'	
FD314	N22°09'46.13''	E056°33'47.64''	N22°09.769'	E056°33.794'	

Aircrew should contact Fahud Information 122.750 MHz to receive RWY in use, wind direction & speed, visibility, temperature and QNH data for the time of descent. The pilot shall inform Muscat ACC that he will be leaving the frequency and continue with Fahud aerodrome QNH.

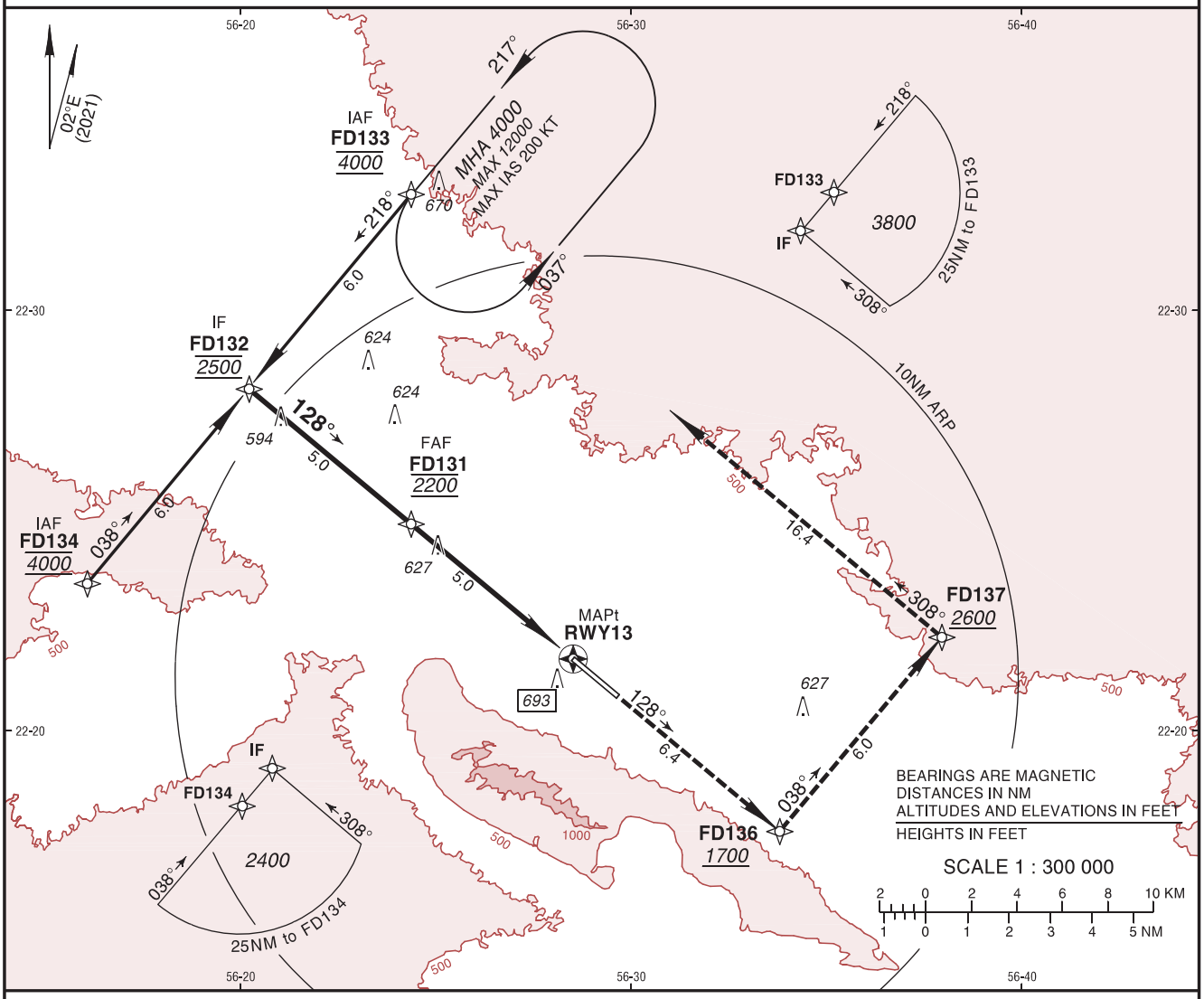
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 565 FT

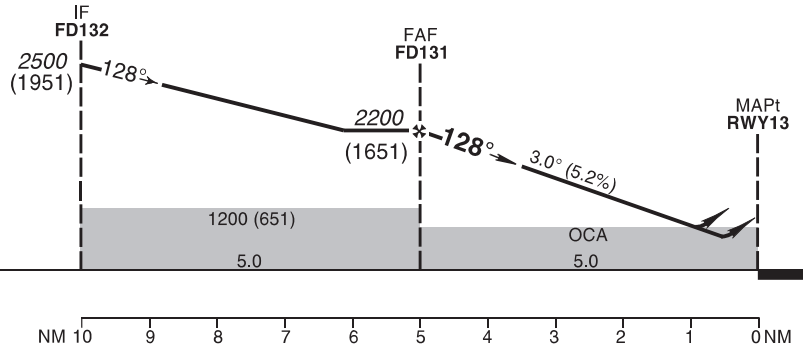
HEIGHTS RELATED TO THR RWY 13 ELEV 549 FT

MUSCAT Control	124.700
FAHUD Information	122.750

FAHUD/Fahud
OMAN
RNP RWY 13



TA ***13000***



MISSED APPROACH:
Climb direct to FD136 at or above *1700*, on course 128°, then turn LEFT to FD137 at or above *2600*, then turn LEFT climbing to *4000* to FD133 and hold.
MAX IAS 195 KT until FD133.

TCH 50 FT

STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	308			Not Authorized
	DA(H)	*860* (310)			
LNAV	OCH	333			Not Authorized
	MDA(H)	*880* (340)			
CIRCLING (HAA)*		A	B	C	D
	OCH	445	1115	1215	Not Authorized
	MDA(H)	*1010* (450)	*1680* (1120)	*1780* (1220)	

ADVISORY INFORMATION ONLY							
NM to RW13	5	4	3	2			
ALT (HGT)	*2200* (1651)	*1880* (1331)	*1560* (1011)	*1250* (701)			
GS	kt	80	100	120	140	160	180
FAF-MAPt❶	min:s						
ROD: 5.2%	ft/min	440	550	660	770	880	990

❶ Timing not authorized for defining the MAPt.

RNP Approach required.

BARO VNAV Not authorized below 5°C or above 50°C.

Holding Instruction/Areas RNP RWY 13

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	FD133	217° (219.0°)	1 MIN	L	4000	12000	200 KT	2°E	

Route Description: RNP RWY 13

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	FD133				@4000		2°E		RNP APCH
TF	FD132		218° (219.8°)		@2500		2°E	6.0	RNP APCH
TF	FD131		128° (129.8°)	L	@2200		2°E	5.0	RNP APCH
TF	RWY13	Y	128° (129.8°)		+597		2°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	FD134				@4000		2°E		RNP APCH
TF	FD132		038° (039.8°)		@2500		2°E	6.0	RNP APCH
TF	FD131		128° (129.8°)	R	@2200		2°E	5.0	RNP APCH
TF	RWY13	Y	128° (129.8°)		+597		2°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
CF	FD136		128° (129.9°)		+1700	195 KT	2°E	6.38	RNP APCH
TF	FD137		038° (039.9°)	L	+2600	195 KT	2°E	6.00	RNP APCH
TF	FD133	Y	308° (309.8°)	L	@4000	195 KT	2°E	16.38	RNP APCH
HM	FD133	Y	217° (219.0°)	L	+4000	200 KT	2°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 13

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
FD133 (IAF)	N22°32'45.55''	E056°24'22.16''	N22°32.759'	E056°24.369'	
FD134 (IAF)	N22°23'30.23''	E056°16'04.87''	N22°23.504'	E056°16.081'	
FD132 (IF)	N22°28'07.94''	E056°20'13.38''	N22°28.132'	E056°20.223'	
FD131 (FAF)	N22°24'55.31''	E056°24'22.24''	N22°24.922'	E056°24.371'	
RWY13 (MAPT)	N22°21'42.54''	E056°28'30.97''	N22°21.709'	E056°28.516'	
FD136 (MATP)	N22°17'36.38''	E056°33'48.09''	N22°17.606'	E056°33.802'	
FD137	N22°22'13.64''	E056°37'57.00''	N22°22.227'	E056°37.950'	

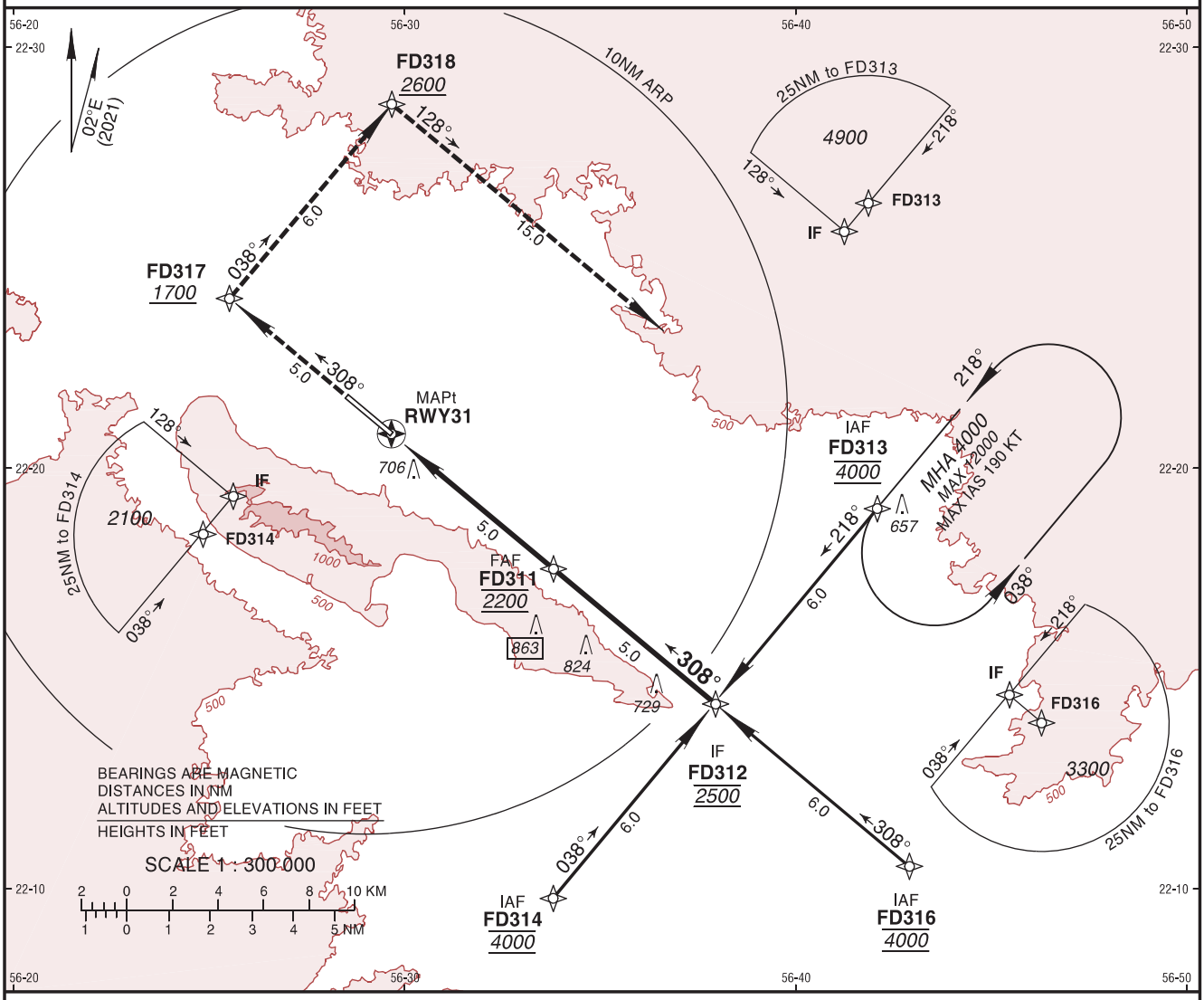
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 565 FT

HEIGHTS RELATED TO THR RWY 31 ELEV 565 FT

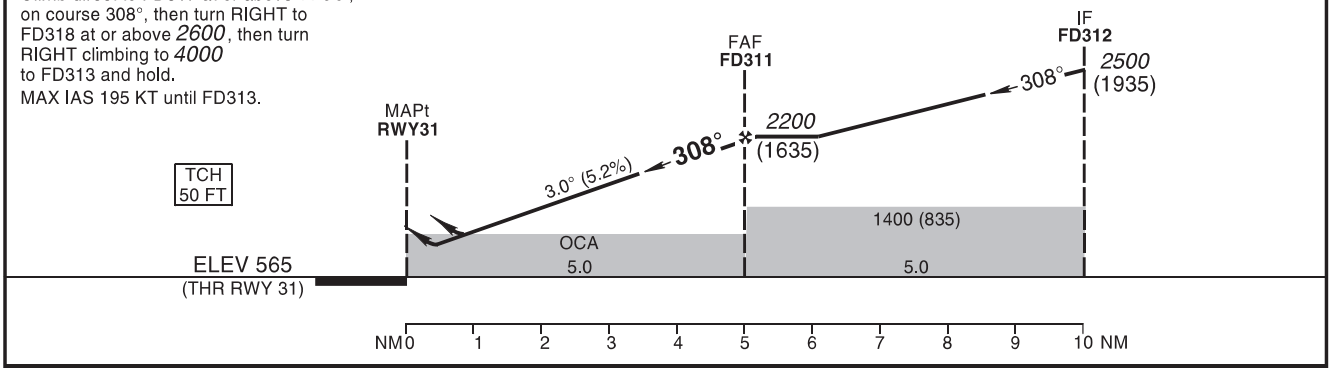
MUSCAT Control 124.700
FAHUD Information 122.750

FAHUD/Fahud
OMAN
RNP RWY 31



MISSED APPROACH:
Climb direct to FD317 at or above *1700*, on course 308°, then turn RIGHT to FD318 at or above *2600*, then turn RIGHT climbing to *4000* to FD313 and hold.
MAX IAS 195 KT until FD313.

TA ***13000***



STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	303			Not Authorized
	DA(H)	*870* (310)			
LNAV	OCH	515			Not Authorized
	MDA(H)	*1080* (520)			
CIRCLING (HAA)*		A	B	C	D
	OCH	515	1115	1215	Not Authorized
	MDA(H)	*1080* (520)	*1680* (1120)	*1780* (1220)	

ADVISORY INFORMATION ONLY					
NM to RW31	2	3	4	5	
ALT (HGT)	*1250* (685)	*1560* (995)	*1880* (1315)	*2200* (1635)	
GS	kt	80	100	120	140	160	180
FAF-MAPt❶	min:s						
ROD: 5.2%	ft/min	430	540	650	760	870	980

❶ Timing not authorized for defining the MAPt.

RNP Approach required.

BARO VNAV Not authorized below 5°C or above 50°C.

Holding Instruction/Areas RNP RWY 31

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	FD313	218° (220.3°)	1 MIN	L	4000	12000	190 KT	2°E	

Route Description: RNP RWY 31

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	FD313				@4000		2°E		RNP APCH
TF	FD312		218° (219.9°)		@2500		2°E	6.0	RNP APCH
TF	FD311		308° (309.9°)	R	@2200		2°E	5.0	RNP APCH
TF	RWY31	Y	308° (309.8°)		+615		2°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	FD314				@4000		2°E		RNP APCH
TF	FD312		038° (039.9°)		@2500		2°E	6.0	RNP APCH
TF	FD311		308° (309.9°)	L	@2200		2°E	5.0	RNP APCH
TF	RWY31	Y	308° (309.8°)		+615		2°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	FD316				@4000		2°E		RNP APCH
TF	FD312		308° (309.9°)		@2500		2°E	6.0	RNP APCH
TF	FD311		308° (309.9°)		@2200		2°E	5.0	RNP APCH
TF	RWY31	Y	308° (309.8°)		+615		2°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
CF	FD317		308° (310.3°)		+1700	195 KT	2°E	5.0	RNP APCH
TF	FD318		038° (039.8°)	R	+2600	195 KT	2°E	6.0	RNP APCH
TF	FD313	Y	128° (129.9°)	R	@4000	195 KT	2°E	15.0	RNP APCH
HM	FD313	Y	218° (220.3°)	L	+4000	190 KT	2°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 31

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
FD313 (IAF)	N22°19'00.56''	E056°42'05.29''	N22°19.009'	E056°42.088'	
FD316 (IAF)	N22°10'31.68''	E056°42'53.97''	N22°10.528'	E056°42.900'	
FD314 (IAF)	N22°09'46.13''	E056°33'47.64''	N22°09.769'	E056°33.794'	
FD312 (IF)	N22°14'23.40''	E056°37'56.33''	N22°14.390'	E056°37.939'	
FD311 (FAF)	N22°17'36.38''	E056°33'48.09''	N22°17.606'	E056°33.802'	
RWY31 (MAPT)	N22°20'49.22''	E056°29'39.71''	N22°20.820'	E056°29.662'	
FD317 (MATP)	N22°24'02.02''	E056°25'31.03''	N22°24.034'	E056°25.517'	
FD318	N22°28'39.49''	E056°29'39.87''	N22°28.658'	E056°29.665'	

OOGB AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOGB QARN ALAM/Qarn Alam

OOGB AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	212237.05 N 0570323.49 E Midpoint of RWY centreline
2	Direction and distance from (city)	Qarn Alam Airport is located approximately 6.5 KM/3.5 NM northnorth- west of Qarn Alam Camp in the North of Oman.
3	Elevation/Reference temperature	442 FT/44.2°C
4	Geoid undulation at AD ELEV PSN	-109 FT Height of Geoid (MSL) above reference ellipsoid (WGS-84)
5	MAG VAR/Annual change	1°E (2020)/0.05° increasing
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	Qarn Alam Airport Oman Airports Management Company S.A.O.C. P.O. Box 1707 Postal Code 111 Muscat Sultanate of Oman Tel.: (968) 24 350000 Fax: (968) 24 250003 During working hours: Qarn Alam Airport Manager Mobile: (968) 90 623738 Office: (968) 24 385672 / 385938 Operations and Fire: Mobile: (968) 90 178194 After Working hours: Mobile: (968) 90 623738 Oman Airports Muscat (HQ): Tel. (Office): (968) 24 352400/ 52414/ 52435
7	Types of traffic permitted (IFR/VFR)	VFR/IFR only in visual meteorological conditions (VMC). Minimum visibility for take-off & landing: 5000 M. Minimum cloud ceiling: 1500 FT. Aircraft Code C (Wingspan up to but not including 36 M; Outer main gear span up to but not including 9 M.) Use restricted to aircraft with a wheelbase of less than 18 M. Only flights operating on behalf of PDO will be allowed to land and depart except by prior permission from the Airport Manager or in an aircraft emergency. Night-time flights will only be permitted with prior permission from the Airport Manager based on CAA approval.

8	Remarks	NIL

OOGB AD 2.3 OPERATIONAL HOURS

1	AD Administration	From Sunrise to Sunset - HJ. Approach and/or landing by prior permission only. Minimum of 24 hours notice is required for non-scheduled flights.
2	Customs and immigration	NIL
3	Health and sanitation	NIL
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	NIL
7	ATS	HJ - Flight Information is operated for scheduled and pre-arranged flights.
8	Fuelling	NIL
9	Handling	As AD hours
10	Security	SSS security 24 hours and ROP security during operation hours.
11	De-icing	NIL
12	Remarks	NIL

OOGB AD 2.4 HANDLING SERVICES AND FACILITIES

NIL

OOGB AD 2.5 PASSENGER FACILITIES

1	Hotels	There is accommodation available at the PDO Qarn Alam camp and contractors motel (PAC). Accomodation is available only by prior arrangement. Al Tawoos PAC 8 KM/4.3 NM from aerodrome.
2	Restaurants	There is a canteen available at the PDO Qarn Alam camp and motel (PAC) at contractor camp. This facility is available only by prior arrangement.
3	Transportation	Transportation can be made available by prior arrangement. Luxury buses.
4	Medical facilities	There is a Clinic at the PDO Qarn Alam camp. The nearest hospitals are at Adam, approx 150 KM/81 NM away by road and Nizwa, approx 200 KM/108 NM by road.
5	Bank and Post Office	Bank Muscat at Al Tawoos PAC.
6	Tourist Office	NIL
7	Remarks	NIL

OOGB AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 7 RFFS cover available at the airport 1 hour prior scheduled flight arrival. Cover for non-scheduled flights is available by prior arrangement.
2	Rescue equipment	Two 8x8 foam tenders carry total 20,000L water, 50000L type PFFF foam, 1000KG dry powder and fully equipped with rescue equipment in accordance with regulation. Emergency water supplies available: 20,000L water tanker and 12,000L underground tanks at each runway end
3	Capability for removal of disabled aircraft	Limited to GHSE on-site and Recovery Kit available in Muscat up to B747 capacity will be arranged as required.
4	Remarks	NIL

OOGB AD 2.7 SEASONAL AVAILABILITY — CLEARING

NIL

OOGB AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	Apron	Surface: Strength:	Asphalt (flexible pavement) PCN 140/F/A/W/T
2	Taxiway width, surface and strength	A,B	Width: Surface: Strength:	15 M Asphalt (flexible pavement) PCN 140/F/A/W/T
3	ACL and elevation	Apron area; 435 FT AMSL		
4	VOR checkpoint	NIL		
5	INS checkpoint	NIL		
6	Remarks	NIL		

OOGB AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Painted aircraft stand markings Yellow painted centrelines No visual docking system
2	RWY and TWY markings and LGT	RWY: LGT: See AD 2.14 for details Markings: Runway designation markings, painted centreline, threshold markings, touchdown zone markings, painted edge markings TWY: Markings: Edge lighting, painted centreline, Runway holding position markings Apron: Markings: Edge lighting, painted centreline, aircraft stop markings Signage: Markings: Apron directional illuminated Runway hold position markings, runway exit signs
3	Stop bars	NIL

4	Other runway protection measures	NIL
5	Remarks	Aiming Point marking does not coincide with PAPI slope origin.

OOGB AD 2.10 AERODROME OBSTACLES

In Area 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
RWY 12 Approach / RWY 30 Departure					
NIL	NIL	NIL	NIL	NIL	NIL
RWY 30 Approach / RWY 12 Departure					
OOGB1272	Fence	212202.83 N 0570411.32 E	135.014M (443.0FT)	Nil	Type-A
OOGB1270	Fence	212206.50 N 0570415.52 E	135.165M (443.5FT)	Nil	Type-A
OOGB1067	HV pylon	212128.96 N 0570523.45 E	163.595M (536.7FT)	Nil	Type-A
OOGB1068	HV pylon	212130.05 N 0570525.76 E	167.783M (550.5FT)	Nil	Type-A
OOGB1069	HV pylon	212121.62 N 0570522.23 E	168.798M (553.8FT)	Nil	Type-A
Refer to Aerodrome Obstacle Charts (Type A) and (Type B) Note: They are penetrating inner horizontal surface					

OOGB AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	A MET observation service is provided by trained (AFISO) airport staff.
2	Hours of service MET Office outside hours	As AD hours
3	Office responsible for TAF preparation Periods of validity	NIL

4	Trend forecaste Interval of issuance	NIL
5	Briefing/consultation provided	NIL
6	Flight documentation Language(s) used	NIL
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	NIL
9	ATS units provided with information	NIL
10	Additional information	NIL

OOGB AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
12	125° T 124° M	2560 X 45	100/F/A/W/T Asphalt (flexible pavement)	212300.94 N 0570246.98 E 212213.42 N 0570359.99 E GUND -109 FT	THR 442 FT TDZ NIL
30	305° T 304° M	2560 X 45	100/F/A/W/T Asphalt (flexible pavement)	212213.42 N 0570359.99 E 212300.94 N 0570246.98 E GUND -109 FT	THR 436 FT TDZ NIL

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
12	0.0728% down	NIL	300 X 150	2680 X 300	240 M x 150 M
30	0.0728% up	NIL	300 X 150	2680 X 300	240 M x 150 M

Designations RWY NR	Location and description of engineering material arresting system (EMAS)	OFZ	Remarks
1	12	13	14
12	NIL	NIL	NIL
30	NIL	NIL	NIL

Non-precision approach code 4C

OOGB AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
12	2560	2860	2560	2560	NIL
30	2560	2860	2560	2560	NIL

OOGB AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
12	Extended Centreline LIH 420 M crossbar at 300 M	LIH Green No wingbars	PAPI LHS 3.00° / 313 M from THR MEHT 50.03 FT	NIL	NIL	60 M White, Last 600 M Yellow LIH	LIH Red No wingbars	NIL	NIL
30	Extended Centreline LIH 420 M crossbar at 300 M	LIH Green No wingbars	PAPI LHS 3.00° / 309 M from THR MEHT 50.03 FT	NIL	NIL	60 M White, Last 600 M Yellow LIH	LIH Red No wingbars	NIL	NIL

OOGB AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	NIL
2	LDI location and LGT Anemometer location and LGT	Illuminated wind direction indicators adjacent to both runway aiming points, on the left side.
3	TWY edge and centre line lighting	Low intensity blue taxiway and apron edge lights
4	Secondary power supply/switch-over time	UPS secondary power supply
5	Remarks	NIL

OOGB AD 2.16 HELICOPTER LANDING AREA

NIL

OOGB AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	Qarn Alam ATZ An ARC, radius 13 NM centered on N212410 E0570101 starting from N211326 E0565305 clockwise N213453 E0570859 joining an ARC centered on N212105 E0570546 connecting from N213147 E0571343 clockwise to N211021 E0565749 then to N211326 E0565305.
2	Vertical limits	SFC/8000 FT AMSL
3	Airspace classification	G
4	ATS unit call sign Language(s)	Qarn Alam AFIS; Qarn Alam Information English
5	Transition altitude/Transition level	13 000 FT/FL150
6	Hours of applicability (or activation)	NIL
7	Remarks	- See chart for details. - Continuous two-way VHF Communication Mandatory.

OOGB AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
Aerodrome Flight Information Service	Qarn Alam Information	122.750 MHz	HJ – For scheduled and pre-arranged flights only.	NIL

OOGB AD 2.19 RADIO NAVIGATION AND LANDING AIDS

NIL

OOGB AD 2.20 LOCAL AERODROME REGULATIONS

NIL

OOGB AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OOGB AD 2.22 FLIGHT PROCEDURES

NIL

OOGB AD 2.23 ADDITIONAL INFORMATION

NIL

OOGB AD 2.24 CHARTS RELATED TO AN AERODROME

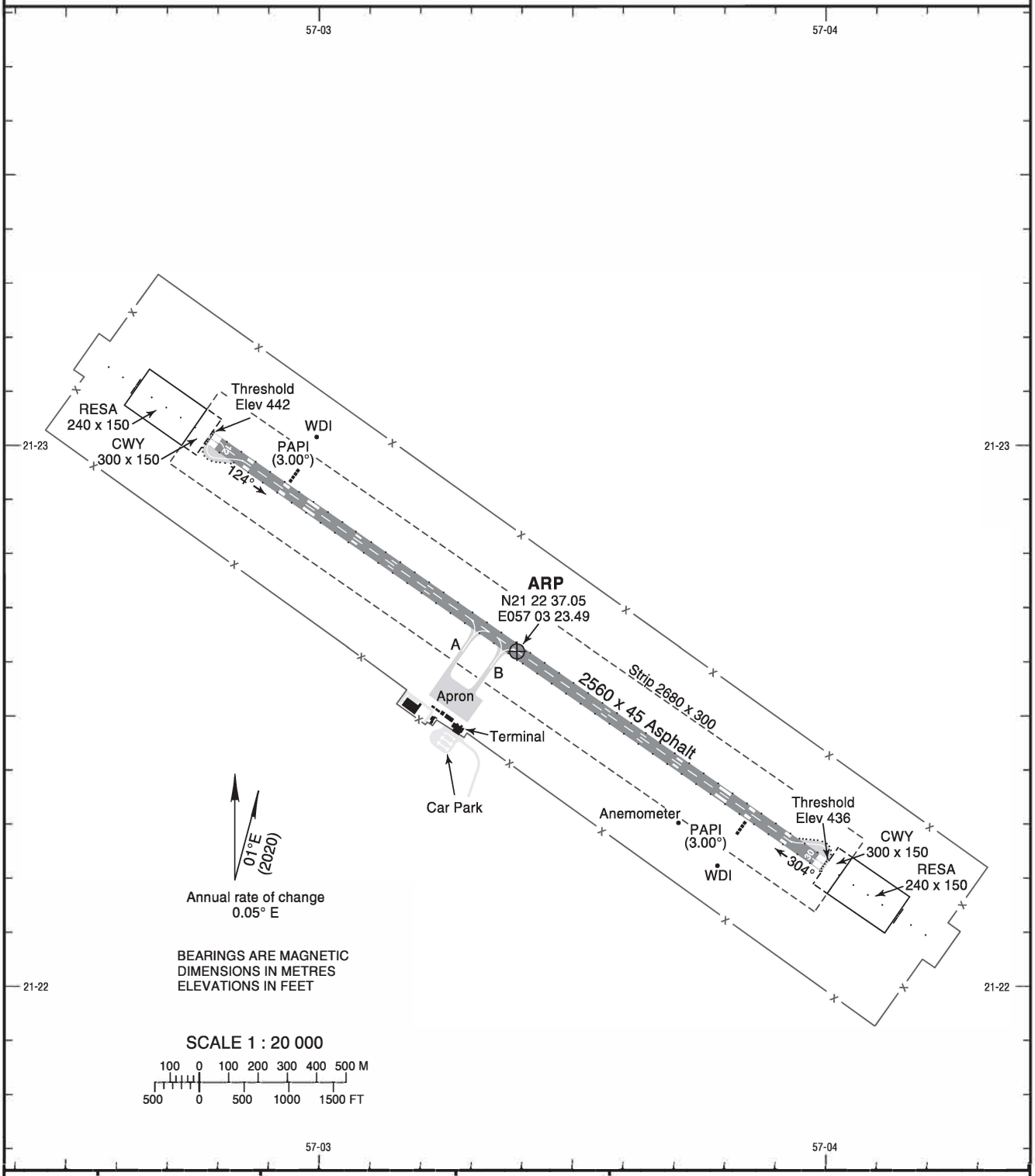
AERODROME CHART - ICAO	AERODROME CHART - ICAO
AIRCRAFT PARKING/DO	AIRCRAFT PARKING/DOCKING CHART - ICAO

CKING CHART - ICAO	
AERODROME OBSTACLE CHART - ICAO - TYPEA	AERODROME OBSTACLE CHART - ICAO - TYPEA
AERODROME OBSTACLE CHART - ICAO - TYPEB	AERODROME OBSTACLE CHART - ICAO - TYPEB
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 12	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 12
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 30	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 30
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 12	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 12
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 30	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 30
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 12	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 12
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 30	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 30

OOGB AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

AERODROME CHART - ICAO | WGS-84 | **AD ELEV** 442 FT | QARN ALAM Information 122.750 | **QARN ALAM/Qarn Alam OMAN**



RWY	DIRECTION	THRESHOLD	STRENGTH	DECLARED DISTANCES			
				TORA	TODA	ASDA	LDA
12	124° MAG	N 21 23 00.94 E 057 02 46.98	PCN 100/F/A/W/T	2560m	2860m	2560m	2560m
30	304° MAG	N 21 22 13.42 E 057 03 59.99	PCN 100/F/A/W/T	2560m	2860m	2560m	2560m

AERODROME LIGHTING

RWY 12/30: Extended Centreline LIH
RTHL LIH (green)
PAPI-L (3.00°)
REDL LIH
RENL LIH (red)

Other: Taxiway and Apron Edge Lights LIH (blue)

AMENDMENT: STRENGTH CHANGED

INTENTIONALLY

LEFT

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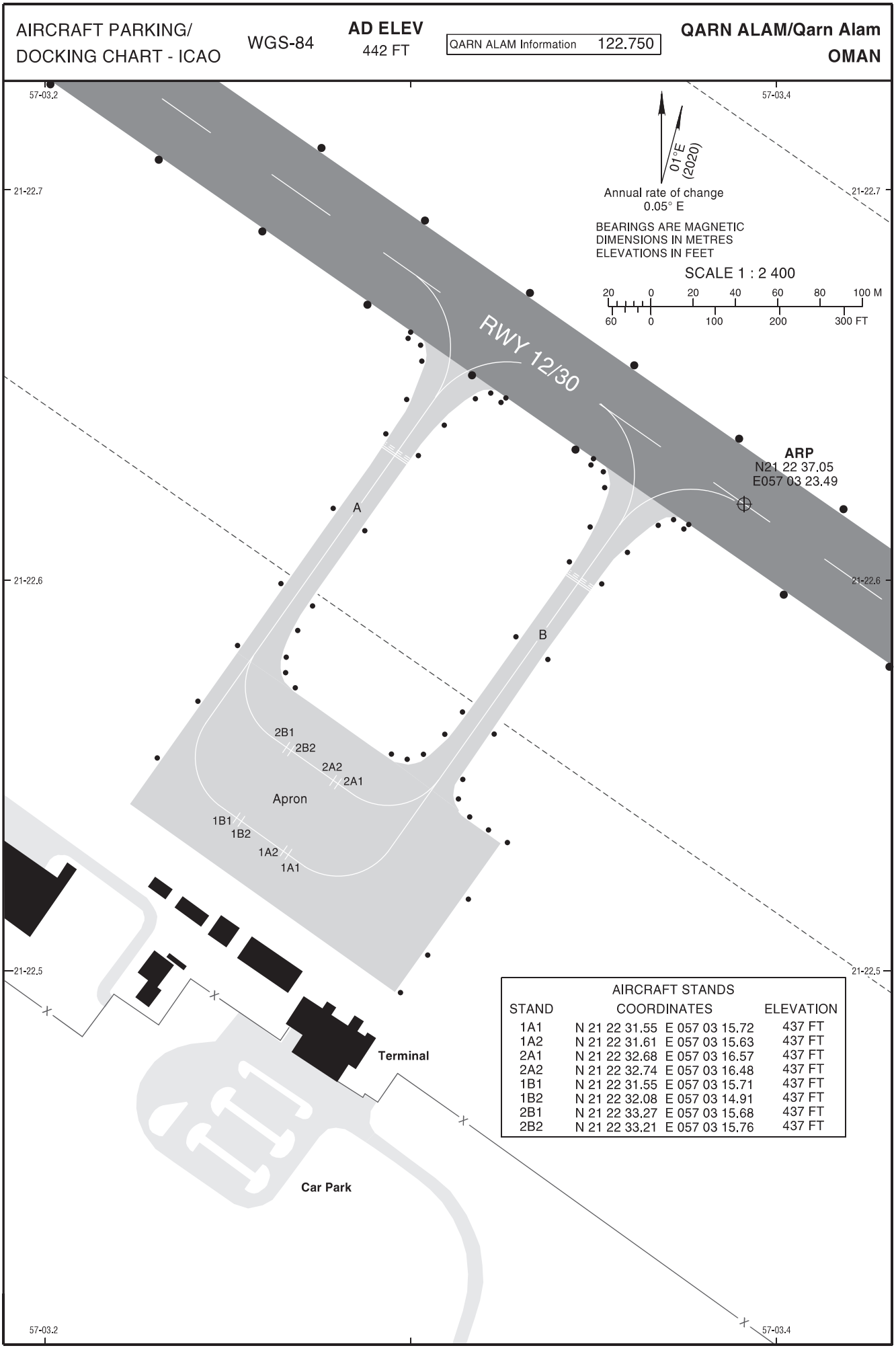
AIRCRAFT PARKING/DOCKING CHART - ICAO



AIRCRAFT STANDS

STAND	COORDINATES	ELEVATION
1A1	N 21 22 31.55 E 057 03 15.72	437 FT
1A2	N 21 22 31.61 E 057 03 15.63	437 FT
2A1	N 21 22 32.68 E 057 03 16.57	437 FT
2A2	N 21 22 32.74 E 057 03 16.48	437 FT
1B1	N 21 22 31.55 E 057 03 15.71	437 FT
1B2	N 21 22 32.08 E 057 03 14.91	437 FT
2B1	N 21 22 33.27 E 057 03 15.68	437 FT
2B2	N 21 22 33.21 E 057 03 15.76	437 FT

INTENTIONALLY

LEFT

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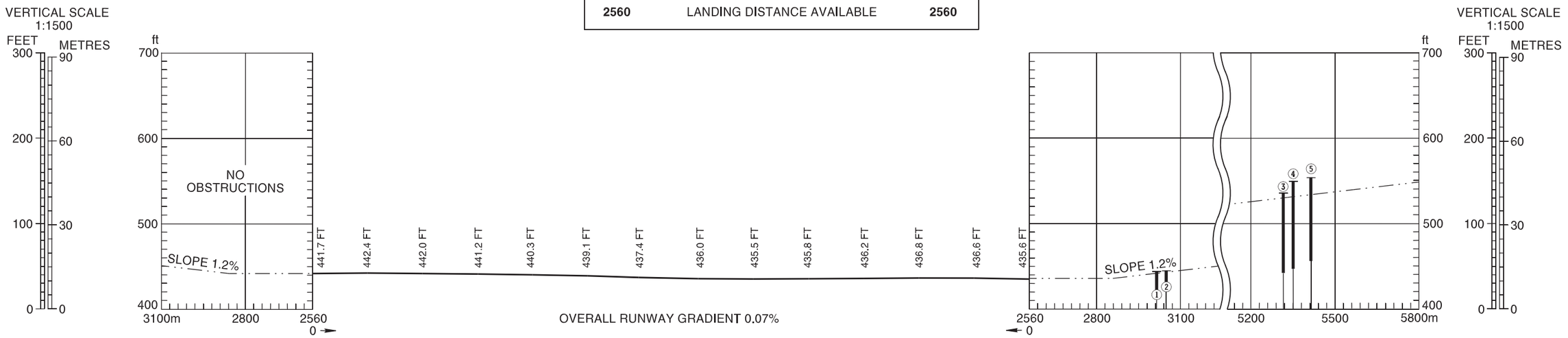
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

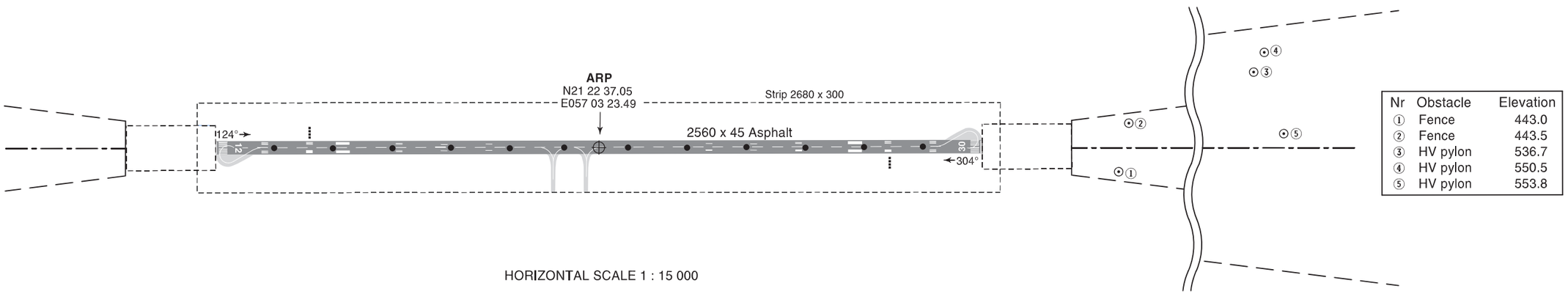
QARN ALAM/Qarn Alam
OMAN

DISTANCES IN METRES, ELEVATIONS IN FEET
MAGNETIC VARIATION 1°E, 2020

RWY 12-30

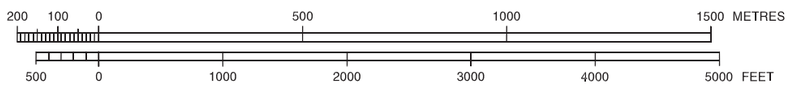
DECLARED DISTANCES		
RWY 12		**RWY 30**
2560	TAKE-OFF RUN AVAILABLE	**2560**
2860	TAKE-OFF DISTANCE AVAILABLE	**2860**
2560	ACCELERATE STOP DISTANCE AVAILABLE	**2560**
2560	LANDING DISTANCE AVAILABLE	**2560**





Nr	Obstacle	Elevation
①	Fence	443.0
②	Fence	443.5
③	HV pylon	536.7
④	HV pylon	550.5
⑤	HV pylon	553.8

HORIZONTAL SCALE 1 : 15 000



ORDER OF ACCURACY
HORIZONTAL -/+ 3 M
VERTICAL -/+ 1 FT
Aerodrome information OCT 2023
Survey data SEP 2019

AMENDMENT RECORD		
No.	Date	Entered by

LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	①	①
GROUND LEVEL	▲	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
TREE	✱	
MOBILE		

INTENTIONALLY

LEFT

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AERODROME OBSTACLE CHART - ICAO | WGS-84 | AD ELEV 442 FT | **ARP** N21 22 37.05 E057 03 23.49 | **AERODROME OBSTACLE CHART - ICAO TYPE B** | **QARN ALAM/Qarn Alam OMAN**

56-58 56-59 57-00 57-01 57-02 57-03 57-04 57-05 57-06 57-07 57-08 57-09

21-27 21-26 21-25 21-24 21-23 21-22 21-21 21-20 21-19

APPROACH SURFACE HORIZONTAL SECTION 150M ABOVE THE D ELEVATION

APPROACH SURFACE SECTION 2 20:1 SLOPE (5%)

APPROACH SURFACE SECTION 1 20:1 SLOPE (5%)

TAKE-OFF CLIMB SURFACE, SLOPE 1: 8(11.8%)

TRANSITIONAL SURFACE 1:7, SLOPE (14.3%)

INNER HORIZONTAL SURFACE
45 metres above lowest threshold elevation

CONICAL SURFACE
20:1 (5%) slope up to 100 metres above Inner Horizontal Surface elevation

584'
584'

RESA 240 x 190
Threshold Elev 442'
WDI RWY 13/31 (5.00°)
CWY 300 x 150
ARP N21 22 37.05 E057 03 23.49
440'
439'
439'
438'
Strip 2980 x 390
2560 x 45 Asphalt
443'
443'
Anemometer 470'
Threshold Elev 436'
CWY 300 x 150
RESA 240 x 190

VAR/ T E 2020 ANNUAL CHANGE 0.00° E

180° 0° 150° 330° 210° 030° 240° 060° 270° 090° 300° 120°

01°E (2020)

BEARINGS ARE MAGNETIC
ALTITUDES & ELEV IN FEET
DIMENSIONS IN METRES

HORIZONTAL SCALE 1:20 000

400 200 0 500 1000 1500 2000 2500 METRES
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000 FEET

Obstacles shown are those which penetrate the surfaces specified in Annex 4, Volume 1, Chapter 4

ORDER OF ACCURACY:
Horizontal 3m
Vertical 1ft

LEGEND

Area Minimum Altitude (AMA)

Example: 2900 feet **29**

Each 1° quadrilateral contains an area minimum altitude (AMA) which represents the lowest altitude which may be used under instrument meteorological conditions (IMC). The AMA provides a minimum clearance of 1000 feet above all obstacles in the quadrilateral. It is represented in thousands and tens of feet above mean sea level.

Elevation	584'
Obstacle	
Mast/Tower	
Obstacle	
Ground / Terrain Spot	

AMENDMENT RECORD

No.	Date	Entered by

INTENTIONALLY

LEFT

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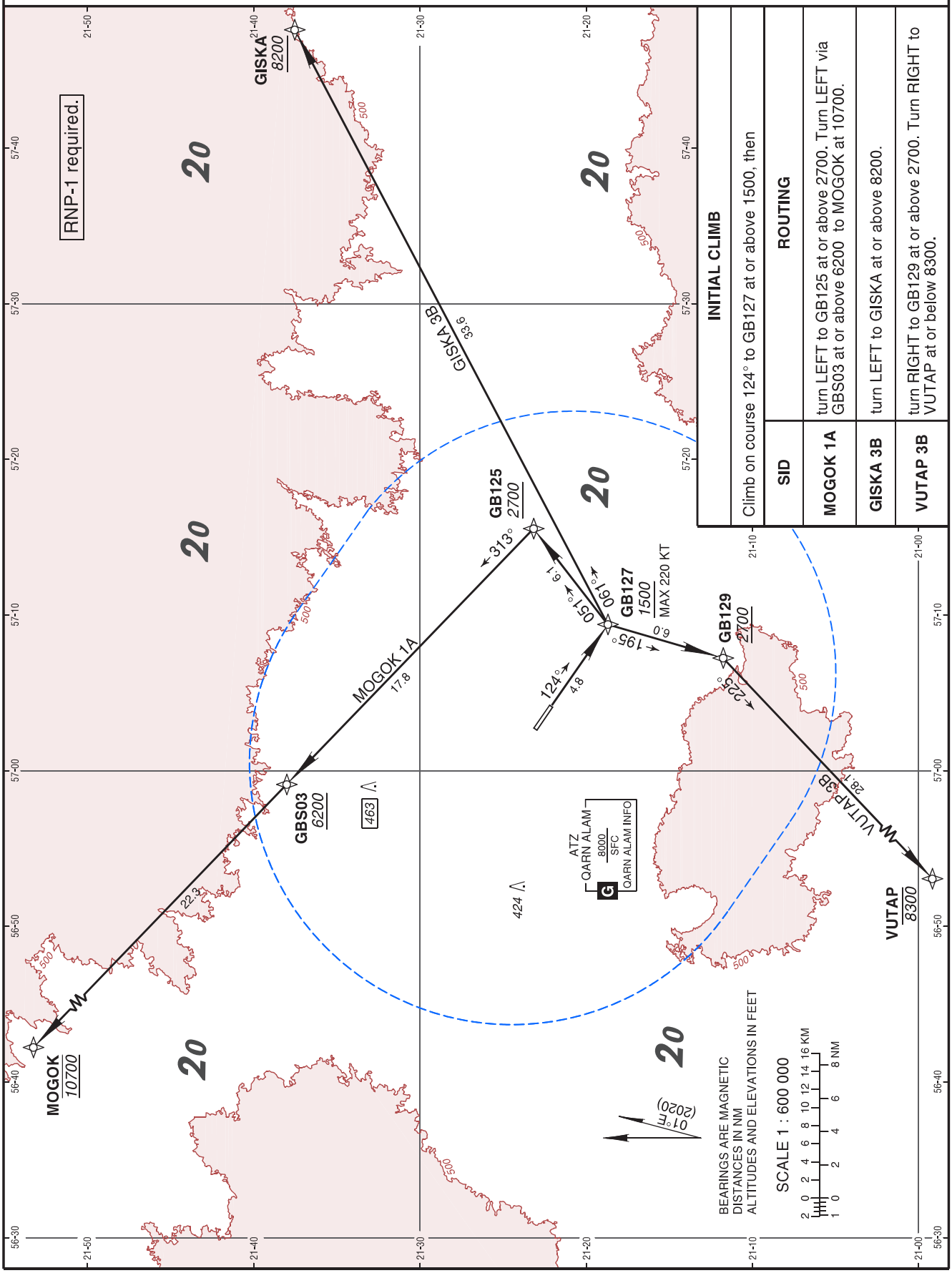
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

AD ELEV 442 FT
Trans Alt *13000*
Trans Level *FL150*

MUSCAT Control 124.700
QARN ALAM Information 122.750

QARN ALAM/Qarn Alam
OMAN
RWY 12

MOGOK 1A, GISKA 3B, VUTAP 3B RNAV (GNSS) DEPARTURE



INITIAL CLIMB	ROUTING
Climb on course 124° to GB127 at or above 1500, then	
SID	
MOGOK 1A	turn LEFT to GB125 at or above 2700. Turn LEFT via GBS03 at or above 6200 to MOGOK at 10700.
GISKA 3B	turn LEFT to GISKA at or above 8200.
VUTAP 3B	turn RIGHT to GB129 at or above 2700. Turn RIGHT to VUTAP at or below 8300.

Route Description: RNAV (GNSS) DEPARTURE RWY 12

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
INITIAL CLIMB									
CF	GB127		124° (124.8°)		+1500	220 KT	1°E	4.84	RNP 1
MOGOK 1A DEPARTURE									
	GB127					220 KT	1°E		RNP 1
TF	GB125		051° (052.2°)	L	+2700		1°E	6.05	RNP 1
TF	GBS03		313° (314.0°)	L	+6200		1°E	17.75	RNP 1
TF	MOGOK		313° (313.9°)		@10700		1°E	22.27	RNP 1
GISKA 3B DEPARTURE									
	GB127					220 KT	1°E		RNP 1
TF	GISKA		061° (062.3°)	L	+8200		1°E	33.56	RNP 1
VUTAP 3B DEPARTURE									
	GB127					220 KT	1°E		RNP 1
TF	GB129		195° (196.3°)	R	+2700		1°E	6.00	RNP 1
TF	VUTAP		225° (226.4°)	R	-8300		1°E	28.08	RNP 1

Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 12

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
GB127	N21°19'21.56''	E057°08'23.86''	N21°19.359'	E057°08.398'	
GB125	N21°23'04.93''	E057°13'31.38''	N21°23.082'	E057°13.523'	
GBS03	N21°35'27.34''	E056°59'49.84''	N21°35.456'	E056°59.831'	
MOGOK	N21°50'57.00''	E056°42'36.00''	N21°50.950'	E056°42.600'	
GISKA	N21°35'03.00''	E057°40'14.00''	N21°35.050'	E057°40.233'	
GB129	N21°13'34.77''	E057°06'35.71''	N21°13.580'	E057°06.595'	
VUTAP	N20°54'11.00''	E056°44'49.00''	N20°54.183'	E056°44.817'	

Aircrew should contact Qarn Alam Information 122.750 MHz to receive RWY in use, wind direction & speed, visibility, temperature, due point and QNH data for the time of descent. The pilot shall inform Muscat ACC that he will be leaving the frequency and continue with Qarn Alam aerodrome QNH.

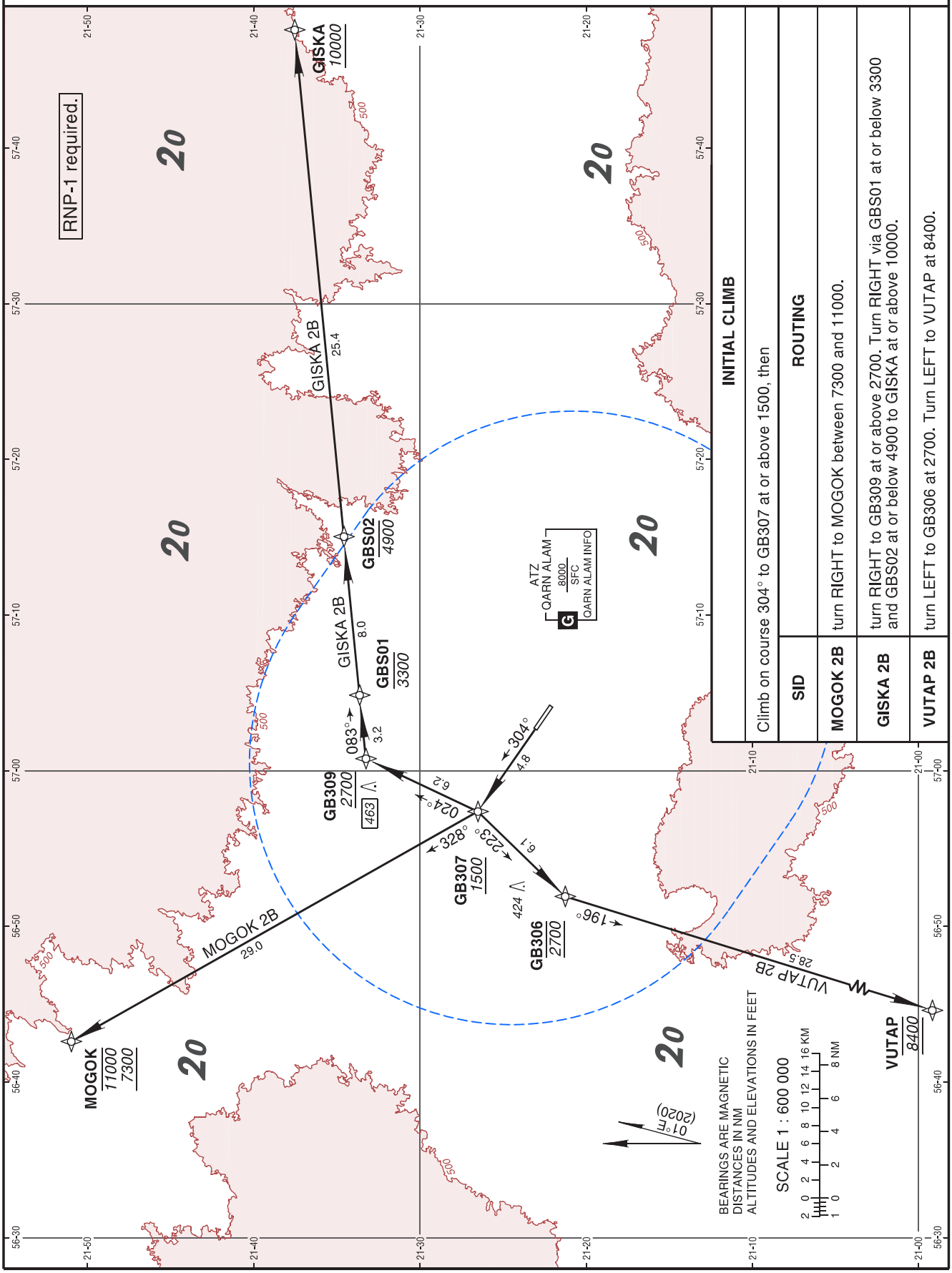
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

AD ELEV 442 FT
Trans Alt *13000*
Trans Level *FL150*

MUSCAT Control 124.700
QARN ALAM Information 122.750

QARN ALAM/Qarn Alam
OMAN
RWY 30

MOGOK 2B, GISKA 2B, VUTAP 2B RNAV (GNSS) DEPARTURE



Route Description: RNAV (GNSS) DEPARTURE RWY 30

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
INITIAL CLIMB									
CF	GB307		304° (304.8°)		+1500		1°E	4.84	RNP 1
MOGOK 2B DEPARTURE									
	GB307						1°E		RNP 1
TF	MOGOK		328° (329.5°)	R	-11000 +7300		1°E	28.99	RNP 1
GISKA 2B DEPARTURE									
	GB307						1°E		RNP 1
TF	GB309		024° (025.3°)	R	+2700		1°E	6.18	RNP 1
TF	GBS01		083° (084.3°)	R	-3300		1°E	3.18	RNP 1
TF	GBS02		083° (084.4°)		-4900		1°E	7.95	RNP 1
TF	GISKA		083° (084.6°)		+10000		1°E	25.41	RNP 1
VUTAP 2B DEPARTURE									
	GB307						1°E		RNP 1
TF	GB306		223° (224.2°)	L	@2700		1°E	6.08	RNP 1
TF	VUTAP		196° (197.2°)	L	@8400		1°E	28.50	RNP 1

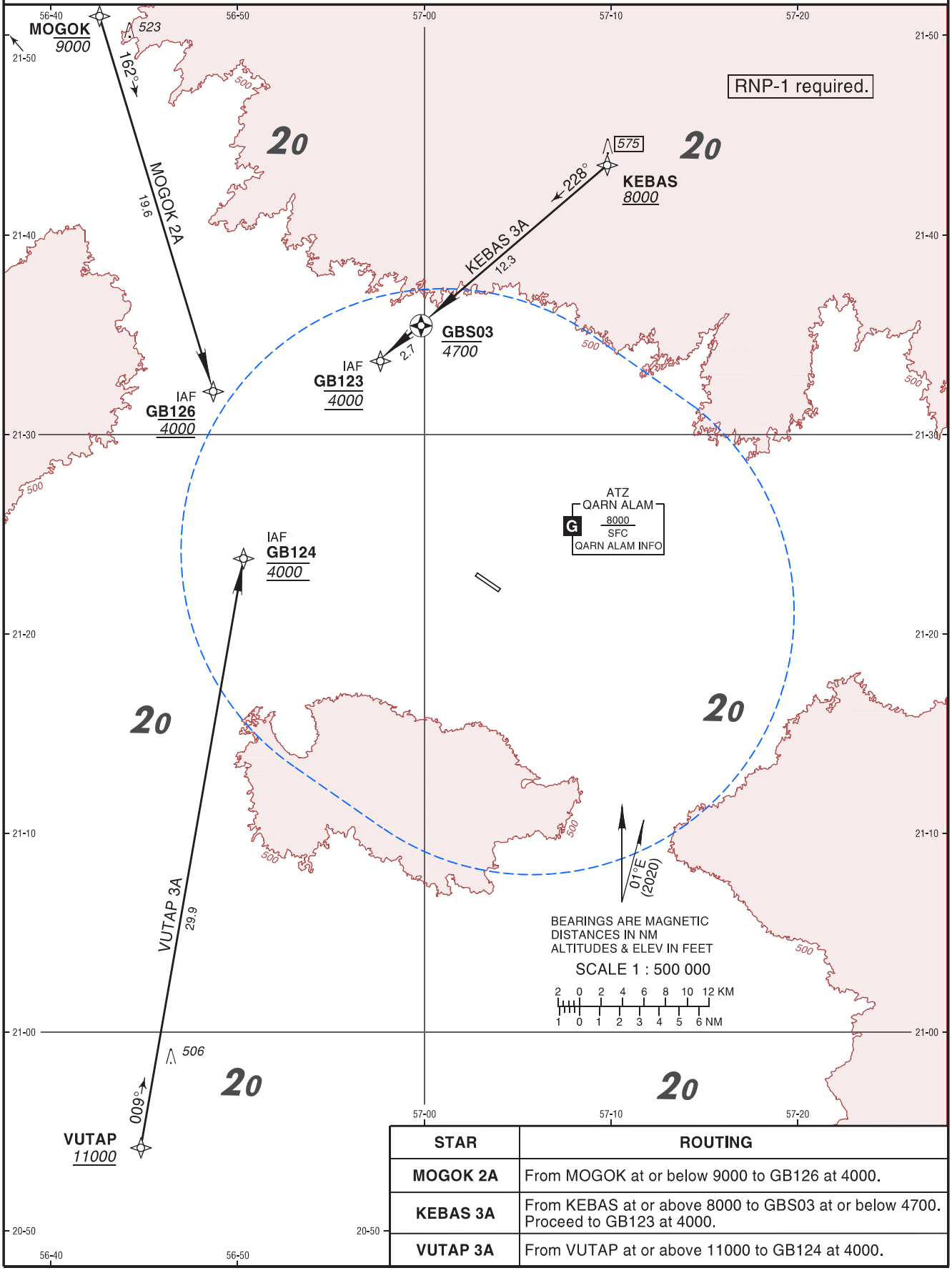
Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 30

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
GB307	N21°25'52.65''	E056°58'22.88''	N21°25.878'	E056°58.381'	
MOGOK	N21°50'57.00''	E056°42'36.00''	N21°50.950'	E056°42.600'	
GB309	N21°31'29.26''	E057°01'12.56''	N21°31.488'	E057°01.209'	
GBS01	N21°31'48.24''	E057°04'36.47''	N21°31.804'	E057°04.608'	
GBS02	N21°32'35.36''	E057°13'05.89''	N21°32.589'	E057°13.098'	
GISKA	N21°35'03.00''	E057°40'14.00''	N21°35.050'	E057°40.233'	
GB306	N21°21'30.23''	E056°53'50.03''	N21°21.504'	E056°53.834'	
VUTAP	N20°54'11.00''	E056°44'49.00''	N20°54.183'	E056°44.817'	

Aircrew should contact Qarn Alam Information 122.750 MHz to receive RWY in use, wind direction & speed, visibility, temperature, due point and QNH data for the time of descent. The pilot shall inform Muscat ACC that he will be leaving the frequency and continue with Qarn Alam aerodrome QNH.

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO	AD ELEV 442 FT Trans Alt *13000* Trans Level *FL150*	MUSCAT Control 124.700 QARN ALAM Information 122.750	**QARN ALAM/Qarn Alam** **OMAN** RWY 12

MOGOK 2A, KEBAS 3A, VUTAP 3A RNAV (GNSS) ARRIVAL



STAR	ROUTING
MOGOK 2A	From MOGOK at or below 9000 to GB126 at 4000.
KEBAS 3A	From KEBAS at or above 8000 to GBS03 at or below 4700. Proceed to GB123 at 4000.
VUTAP 3A	From VUTAP at or above 11000 to GB124 at 4000.

Route Description: RNAV (GNSS) ARRIVAL RWY 12

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MOGOK 2A ARRIVAL									
IF	MOGOK				- 9000		1°E		RNP 1
TF	GB126		162° (163.2°)		@4000		1°E	19.56	RNP 1
KEBAS 3A ARRIVAL									
IF	KEBAS				+8000		1°E		RNP 1
TF	GBS03	Y	228° (229.2°)		- 4700		1°E	12.27	RNP 1
TF	GB123		228° (229.2°)		@4000		1°E	2.70	RNP 1
VUTAP 3A ARRIVAL									
IF	VUTAP				+11000		1°E		RNP 1
TF	GB124		009° (009.9°)		@4000		1°E	29.94	RNP 1

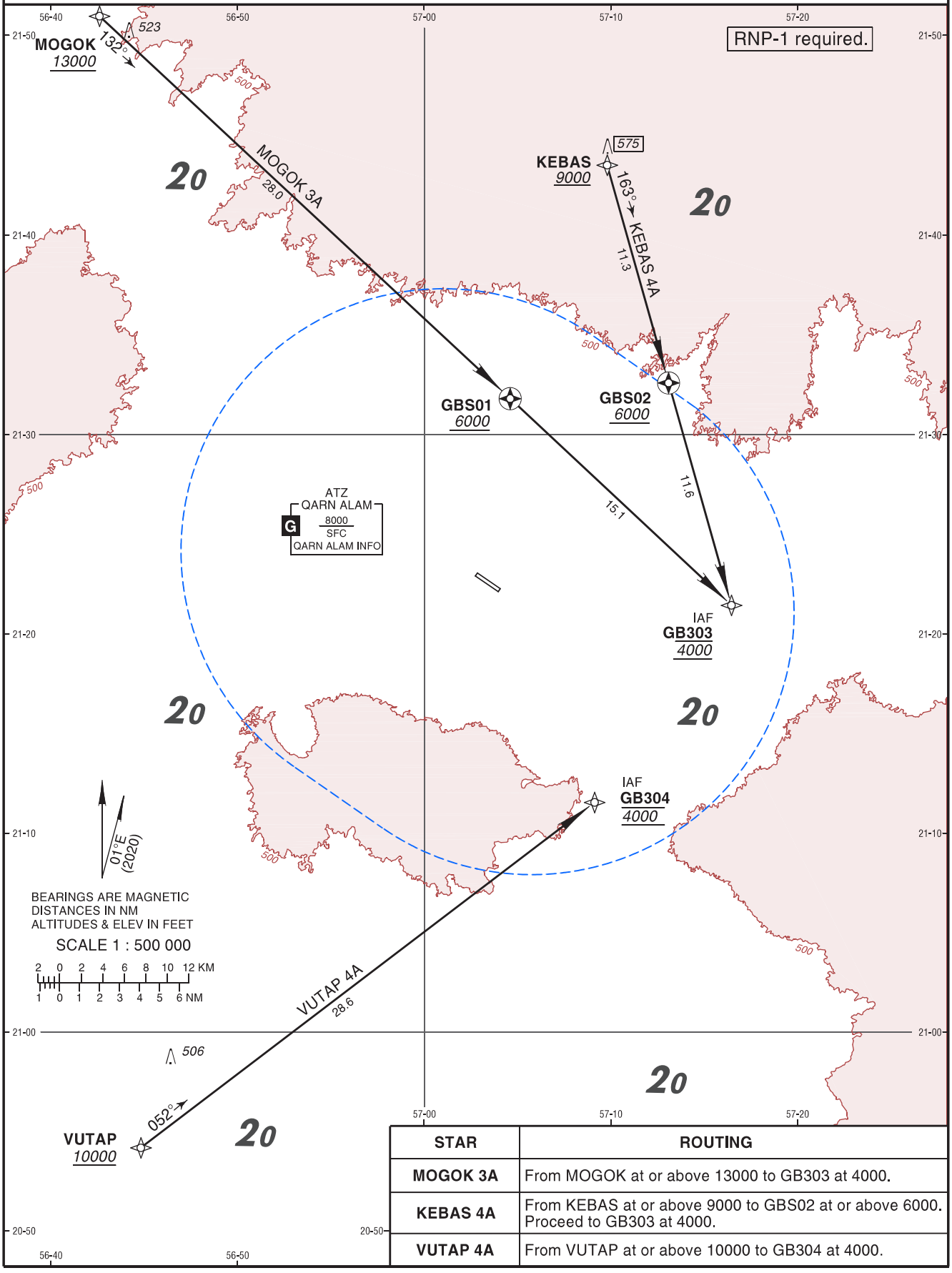
Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 12

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
MOGOK	N21°50’57.00’’	E056°42’36.00’’	N21°50.950’	E056°42.600’	
GB126	N21°32’10.01’’	E056°48’41.28’’	N21°32.167’	E056°48.688’	
KEBAS	N21°43’30.00’’	E057°09’48.00’’	N21°43.500’	E057°09.800’	
GBS03	N21°35’27.34’’	E056°59’49.84’’	N21°35.456’	E056°59.831’	
GB123	N21°33’41.20’’	E056°57’38.54’’	N21°33.687’	E056°57.642’	
VUTAP	N20°54’11.00’’	E056°44’49.00’’	N20°54.183’	E056°44.817’	
GB124	N21°23’47.21’’	E056°50’18.95’’	N21°23.787’	E056°50.316’	

Aircrew should contact Qarn Alam Information 122.750 MHz to receive RWY in use, wind direction & speed, visibility, temperature, due point and QNH data for the time of descent. The pilot shall inform Muscat ACC that he will be leaving the frequency and continue with Qarn Alam aerodrome QNH.

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO	AD ELEV 442 FT Trans Alt *13000* Trans Level *FL150*	MUSCAT Control 124.700 QARN ALAM Information 122.750	**QARN ALAM/Qarn Alam** **OMAN** RWY 30

MOGOK 3A, KEBAS 4A, VUTAP 4A RNAV (GNSS) ARRIVAL



STAR	ROUTING
MOGOK 3A	From MOGOK at or above 13000 to GB303 at 4000.
KEBAS 4A	From KEBAS at or above 9000 to GBS02 at or above 6000. Proceed to GB303 at 4000.
VUTAP 4A	From VUTAP at or above 10000 to GB304 at 4000.

Route Description: RNAV (GNSS) ARRIVAL RWY 30

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MOGOK 3A ARRIVAL									
IF	MOGOK				+13000		1°E		RNP 1
TF	GBS01	Y	132° (133.0°)		+6000		1°E	28.00	RNP 1
TF	GB303		132° (133.1°)		@4000		1°E	15.13	RNP 1
KEBAS 4A ARRIVAL									
IF	KEBAS				+9000		1°E		RNP 1
TF	GBS02	Y	163° (164.2°)		+6000		1°E	11.30	RNP 1
TF	GB303		163° (164.3°)		@4000		1°E	11.55	RNP 1
VUTAP 4A ARRIVAL									
IF	VUTAP				+10000		1°E		RNP 1
TF	GB304		052° (052.8°)		@4000		1°E	28.57	RNP 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 30

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
MOGOK	N21°50’57.00”	E056°42’36.00”	N21°50.950’	E056°42.600’	
GBS01	N21°31’48.24”	E057°04’36.47”	N21°31.804’	E057°04.608’	
GB303	N21°21’26.25”	E057°16’27.62”	N21°21.438’	E057°16.460’	
KEBAS	N21°43’30.00”	E057°09’48.00”	N21°43.500’	E057°09.800’	
GBS02	N21°32’35.36”	E057°13’05.89”	N21°32.589’	E057°13.098’	
VUTAP	N20°54’11.00”	E056°44’49.00”	N20°54.183’	E056°44.817’	
GB304	N21°11’32.82”	E057°09’07.75”	N21°11.547’	E057°09.129’	

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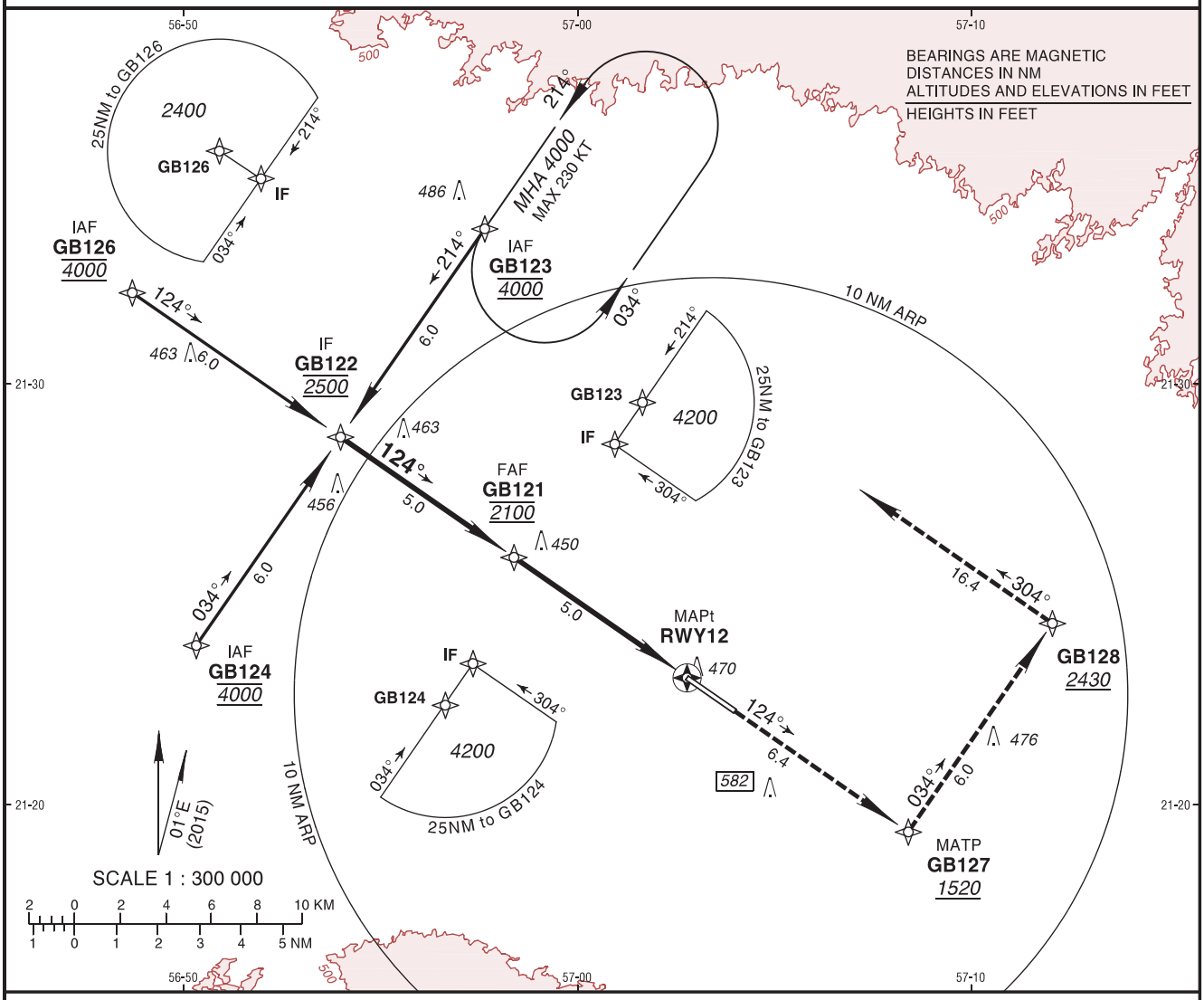
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 442 FT

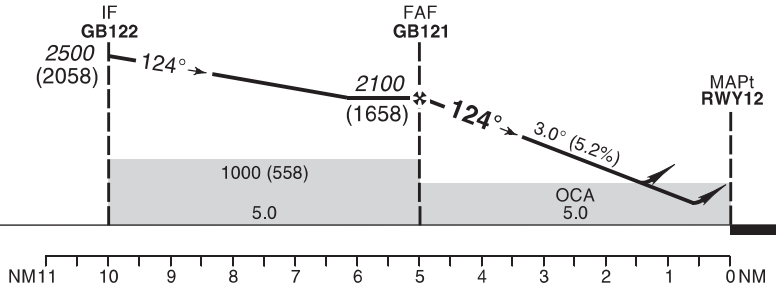
HEIGHTS RELATED TO THR RWY 12 ELEV 442 FT

QARN ALAM Information	122.750
MUSCAT Control	124.700

QARN ALAM/Qarn Alam
OMAN
RNP RWY 12



TA **13000**



MISSED APPROACH:
Climb direct to GB127 at or above *1520*. Turn LEFT to GB128 at or above *2430*. Turn LEFT climbing *4000* to GB123 and hold.
MAX IAS 195 KT until GB123.

STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	191			Not Authorized
	DA(H)	*700* (250)			
LNAV	OCH	278			Not Authorized
	MDA(H)	*750* (300)			
CIRCLING (HAA)*		A	B	C	D
	OCH	398	498	598	Not Authorized
	MDA(H)	*840* (400)	*940* (500)	*1040* (600)	

ADVISORY INFORMATION ONLY						
NM to RW12	5	4	3	2	1
ALT (HGT)	*2100* (1658)	*1770* (1328)	*1450* (1008)	*1130* (688)	*810* (368)

GS	kt	80	100	120	140	160	180
FAF-MAPt ❶	min:s						
ROD: 5.2%	ft/min	440	550	660	770	880	990

❶ Timing not authorized for defining the MAPt.

RNP Approach required.

BARO VNAV Not authorized below 5°C or above 50°C.

Holding Instruction/Areas RNP RWY 12

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	GB123	214° (214.7°)	1 MIN	L	4000		230 KT	1°E	

Route Description: RNP RWY 12

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	GB124				@4000		1°E		RNP APCH
TF	GB122		034° (034.7°)		@2500		1°E	6.0	RNP APCH
TF	GB121		124° (124.8°)	R	@2100		1°E	5.0	RNP APCH
TF	RWY12	Y	124° (124.8°)		@492		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	GB126				@4000		1°E		RNP APCH
TF	GB122		124° (124.7°)		@2500		1°E	6.0	RNP APCH
TF	GB121		124° (124.8°)		@2100		1°E	5.0	RNP APCH
TF	RWY12	Y	124° (124.8°)		@492		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	GB123				@4000		1°E		RNP APCH
TF	GB122		214° (214.7°)		@2500		1°E	6.0	RNP APCH
TF	GB121		124° (124.8°)	L	@2100		1°E	5.0	RNP APCH
TF	RWY12	Y	124° (124.8°)		@492		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
DF	GB127		124° (124.8°)		+1520	195 KT	1°E	6.38	RNP APCH
TF	GB128		034° (034.7°)	L	+2430	195 KT	1°E	6.00	RNP APCH
TF	GB123		304° (304.8°)	L	@4000	195 KT	1°E	16.37	RNP APCH
HM	GB123	Y	214° (214.7°)	L	+4000	230 KT	1°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 12

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
GB123 (IAF)	N21°33'41.20''	E056°57'38.54''	N21°33.687'	E056°57.642'	
GB124 (IAF)	N21°23'47.21''	E056°50'18.95''	N21°23.787'	E056°50.316'	
GB126 (IAF)	N21°32'10.01''	E056°48'41.28''	N21°32.167'	E056°48.688'	
GB122 (IF)	N21°28'44.25''	E056°53'58.62''	N21°28.738'	E056°53.977'	
GB121 (FAF)	N21°25'52.65''	E056°58'22.88''	N21°25.878'	E056°58.381'	
RWY12 (MAPT)	N21°23'00.93''	E057°02'46.98''	N21°23.016'	E057°02.783'	
GB127 (MATP)	N21°19'21.56''	E057°08'23.86''	N21°19.359'	E057°08.398'	
GB128	N21°24'18.52''	E057°12'03.55''	N21°24.309'	E057°12.059'	

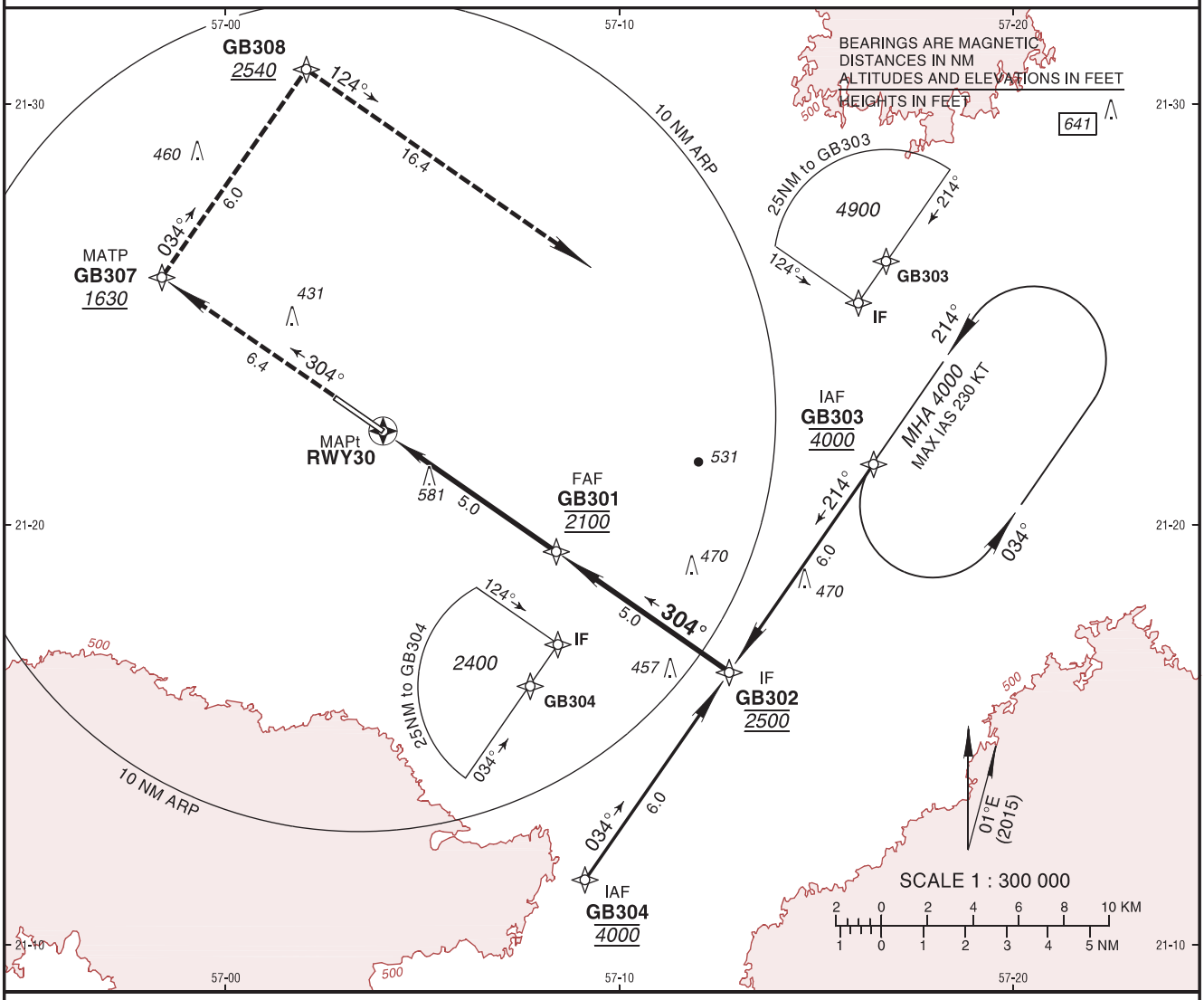
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 442 FT

HEIGHTS RELATED TO THR RWY 30 ELEV 436 FT

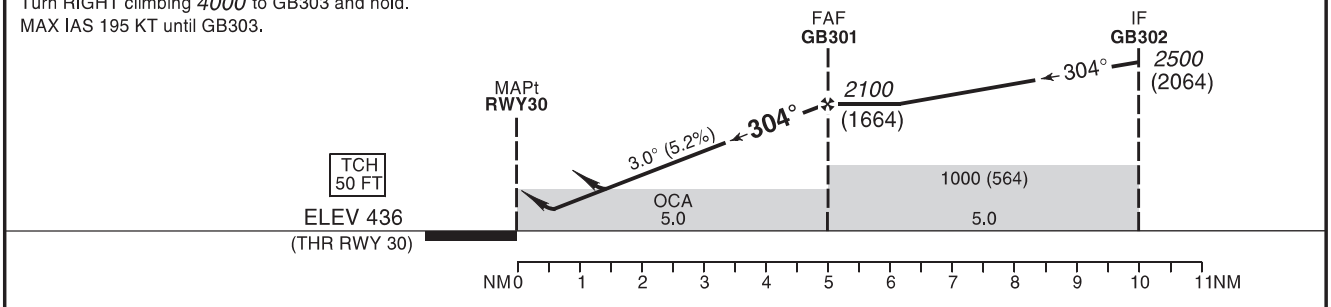
QARN ALAM Information	122.750
MUSCAT Control	124.700

QARN ALAM/Qarn Alam
OMAN
RNP RWY 30



MISSED APPROACH:
Climb direct to GB307 at or above *1630*.
Turn RIGHT to GB308 at or above *2540*.
Turn RIGHT climbing *4000* to GB303 and hold.
MAX IAS 195 KT until GB303.

TA ***13000***



STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	186			Not Authorized
	DA(H)	*690* (250)			
LNAV	OCH	394			Not Authorized
	MDA(H)	*830* (400)			
CIRCLING (HAA)*		A	B	C	D
	OCH	398	498	598	Not Authorized
	MDA(H)	*840* (400)	*940* (500)	*1040* (600)	

ADVISORY INFORMATION ONLY						
NM to RW30	1	2	3	4	5	
ALT (HGT)	*800* (364)	*1130* (694)	*1450* (1014)	*1770* (1334)	*2100* (1664)	

GS	kt	80	100	120	140	160	180
FAF-MAPt❶	min:s						
ROD: 5.2%	ft/min	440	550	660	770	880	990

❶ Timing not authorized for defining the MAPt.

RNP Approach required.

BARO VNAV Not authorized below 5°C or above 50°C.

Holding Instruction/Areas RNP RWY 30

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	GB303	214° (214.9°)	1 MIN	L	4000		230 KT	1°E	

Route Description: RNP RWY 30

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	GB303				@4000		1°E		RNP APCH
TF	GB302		214° (214.8°)		@2500		1°E	6.0	RNP APCH
TF	GB301		304° (304.8°)	R	@2100		1°E	5.0	RNP APCH
TF	RWY30	Y	304° (304.8°)		@486		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	GB304				@4000		1°E		RNP APCH
TF	GB302		034° (034.8°)		@2500		1°E	6.0	RNP APCH
TF	GB301		304° (304.8°)	L	@2100		1°E	5.0	RNP APCH
TF	RWY30	Y	304° (304.8°)		@486		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
DF	GB307		304° (304.8°)		+1630	195 KT	1°E	6.4	RNP APCH
TF	GB308		034° (034.8°)	R	+2540	195 KT	1°E	6.0	RNP APCH
TF	GB303		124° (124.9°)	R	@4000	195 KT	1°E	16.4	RNP APCH
HM	GB303	Y	214° (214.9°)	L	+4000	230 KT	1°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 30

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
GB303 (IAF)	N21°21'26.25''	E057°16'27.62''	N21°21.438'	E057°16.460'	
GB304 (IAF)	N21°11'32.82''	E057°09'07.75''	N21°11.547'	E057°09.129'	
GB302 (IF)	N21°16'29.58''	E057°12'47.56''	N21°16.493'	E057°12.793'	
GB301 (FAF)	N21°19'21.56''	E057°08'23.86''	N21°19.359'	E057°08.398'	
RWY30 (MAPT)	N21°22'13.42''	E057°03'59.98''	N21°22.224'	E057°04.000'	
GB307 (MATP)	N21°25'52.65''	E056°58'22.88''	N21°25.878'	E056°58.381'	
GB308	N21°30'49.32''	E057°02'03.18''	N21°30.822'	E057°02.053'	

OOIZ AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOIZ IZKI/Izki

OOIZ AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	225330.00 N 0574530.00 E
2	Direction and distance from (city)	NIL
3	Elevation/Reference temperature	1700 FT/Nil
4	Geoid undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	NIL
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	NIL NIL NIL
7	Types of traffic permitted (IFR/VFR)	VFR
8	Remarks	NIL

OOIZ AD 2.3 OPERATIONAL HOURS

1	AD Administration	HJ
2	Customs and immigration	NIL
3	Health and sanitation	NIL
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	NIL
7	ATS	NIL
8	Fuelling	NIL
9	Handling	NIL
10	Security	NIL
11	De-icing	NIL
12	Remarks	RAFO. PPR.

OOIZ AD 2.4 HANDLING SERVICES AND FACILITIES

NIL

OOIZ AD 2.5 PASSENGER FACILITIES

NIL

OOIZ AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	NIL
2	Rescue equipment	Adequate rescue and fire fighting vehicles, equipment and personnel provided.
3	Capability for removal of disabled aircraft	Limited
4	Remarks	Full service provided HJ only.

OOIZ AD 2.7 SEASONAL AVAILABILITY — CLEARING

1	Types of clearing equipment	NIL
2	Clearance priorities	NIL
3	Remarks	AD available all seasons.

OOIZ AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

NIL

OOIZ AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

NIL

OOIZ AD 2.10 AERODROME OBSTACLES

NIL

OOIZ AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

NIL

OOIZ AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
01/19	NIL	1889 X 39	Strength not determined, Surface: Sand/Gravel	NIL	THR NIL TDZ NIL

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
01/19	NIL	NIL	NIL	NIL	NIL

Designations RWY NR	Location and description of engineering material arresting system(EMAS)	OFZ	Remark
1	12	13	14
01/19	NIL	NIL	NIL

OOIZ AD 2.13 DECLARED DISTANCES

NIL

OOIZ AD 2.14 APPROACH AND RUNWAY LIGHTING

NIL

OOIZ AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

NIL

OOIZ AD 2.16 HELICOPTER LANDING AREA

NIL

OOIZ AD 2.17 ATS AIRSPACE

NIL

OOIZ AD 2.18 ATS COMMUNICATION FACILITIES

NIL

OOIZ AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR, Type of supported OPS (for VOR/ILS/MLS, give declination),facility_classification	ID	Frequency (CH)	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
VOR/DME 1.0°E	IZK	113.50 MHz (CH82X)	H24	225318.60N 0574542.73E	1676 Feet	VOR/DME unusable as follows: a) RDL 010 - RDL 049 beyond 10 NM below FL90 b) RDL 050 - RDL 090 unusable c) RDL 240 - RDL 320 beyond 17 NM below FL140 d) RDL 320 -

Type of aid, MAG VAR, Type of supported OPS (for VOR/ILS/MLS, give declination),facility_classification	ID	Frequency (CH)	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
						RDL 010 beyond 10 NM below FL160

OOIZ AD 2.20 LOCAL AERODROME REGULATIONS

20.1 AIRPORT REGULATIONS

Local flying restrictions: PPR

20.2 TAXIING TO AND FROM STANDS

NIL

20.3 PARKING AREA FOR SMALL AIRCRAFT (GENERAL AVIATION)

NIL

20.4 PARKING AREA FOR HELICOPTERS

NIL

20.5 APRON - TAXIING DURING WINTER CONDITIONS

NIL

20.6 TAXIING LIMITATIONS

NIL

20.7 SCHOOL AND TRAINING FLIGHTS - TECHNICAL TEST FLIGHTS - USE OF RUNWAY

NIL

20.8 HELICOPTER TRAFFIC - LIMITATION

NIL

20.9 REMOVAL OF DISABLED AIRCRAFT FROM RUNWAYS

NIL

OOIZ AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OOIZ AD 2.22 FLIGHT PROCEDURES

NIL

OOIZ AD 2.23 ADDITIONAL INFORMATION

NIL

OOIZ AD 2.24 CHARTS RELATED TO AN AERODROME

NIL

OOIZ AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

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OOJA AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOJA JA'ALUNI/Ja'aluni

OOJA AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	192826.43 N 0571828.03 E Midpoint of RWY centreline
2	Direction and distance from (city)	40 KM west of Duqm
3	Elevation/Reference temperature	561 FT/Nil
4	Geoid undulation at AD ELEV PSN	-110 FT
5	MAG VAR/Annual change	1.0°E (2012)/0.05° increasing
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	Royal Oman Police Tel.: (968) 24 519574 (968) 24 5198081 AIS provided by NIL Directorate General of Air Navigation (DGAN) Tel.: (968) 24 354949 Tel.: (968) 24 354948 Fax: (968) 24 354947 Email: briefing@caa.gov.om Meteorology provided by Directorate General of Meteorology (DGMet) Weather Forecasting Centre Tel.: (968) 24 354660 Fax: (968) 24 348501 Email: met_dir@met.gov.om
7	Types of traffic permitted (IFR/VFR)	VFR - HJ
8	Remarks	Airport is not certified or available to commercial aircraft.

OOJA AD 2.3 OPERATIONAL HOURS

1	AD Administration	Flight operations by prior arrangement (PPR).
2	Customs and immigration	NIL
3	Health and sanitation	NIL
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	NIL
7	ATS	NIL
8	Fuelling	Not available

9	Handling	On request
10	Security	Available H24
11	De-icing	NIL
12	Remarks	NIL

OOJA AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Limited
2	Fuel/oil types	NIL
3	Fuelling facilities/capacity	NIL
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	NIL

OOJA AD 2.5 PASSENGER FACILITIES

1	Hotels	Duqm, City Hotel: (968) 25 214900 Duqm, Crown Plaza: (968) 25 214444
2	Restaurants	In Duqm
3	Transportation	NIL
4	Medical facilities	Duqm Hospital
5	Bank and Post Office	NIL
6	Tourist Office	NIL
7	Remarks	NIL

OOJA AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 6
2	Rescue equipment	One 6x6 with water capacity 10 000 LTRS One 4x4 with water capacity 5000 LTRS
3	Capability for removal of disabled aircraft	NIL
4	Remarks	Full service provided HJ only.

OOJA AD 2.7 SEASONAL AVAILABILITY — CLEARING

NIL

OOJA AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	Apron	Surface: Strength:	Asphalt PCN 45/F/B/X/U
2	Taxiway width, surface and strength	NIL	Width: Surface: Strength:	20 M Asphalt PCN 45/F/B/X/U
3	ACL and elevation	THR 21 N192901.11 E0571846.51, 561.3 FT NIL		
4	VOR checkpoint	NIL		
5	INS checkpoint	NIL		
6	Remarks	NIL		

OOJA AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Marshalling guidance provided onto stand.
2	RWY and TWY markings and LGT	TWY & Apron: Centreline marking RWY: Centreline, THR designators, TDZ, side strip, aiming point markings
3	Stop bars	NIL
4	Other runway protection measures	NIL
5	Remarks	NIL

OOJA AD 2.10 AERODROME OBSTACLES

NIL

OOJA AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Weather observation is provided for each movement.

2	Hours of service MET Office outside hours	NIL
3	Office responsible for TAF preparation Periods of validity	NIL
4	Trend forecaste Interval of issuance	NIL
5	Briefing/consultation provided	NIL
6	Flight documentation Language(s) used	NIL
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	NIL
9	ATS units provided with information	NIL
10	Additional information	NIL

OOJA AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
03	026.70° T 025.70° M	2389 X 45	45/F/B/X/U Asphalt	192751.75 N 0571809.56 E GUND -110 FT	THR 545.5 FT TDZ NIL
21	206.70° T 205.70° M	2389 X 45	45/F/B/X/U Asphalt	192901.11 N 0571846.51 E GUND -110 FT	THR 561.3 FT TDZ NIL

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
03	0.21% up	NIL	NIL	2509 X 300	240 M x 150 M
21	0.21% down	NIL	NIL	2509 X 300	240 M x 150 M

Designations RWY NR	Location and description of engineering material arresting system (EMAS)	OFZ	Remarks
1	12	13	14
03	NIL	NIL	NIL

Designations RWY NR	Location and description of engineering material arresting system (EMAS)	OFZ	Remarks
1	12	13	14
21	NIL	NIL	NIL

OOJA AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
03	2389	2389	2389	2389	NIL
21	2389	2389	2389	2389	NIL

OOJA AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
03	NIL	NIL	PAPI left side / 3.0° MEHT 65 FT 400 M from THR	NIL	NIL	NIL	NIL	NIL	NIL
21	NIL	NIL	PAPI left side / 3.0° MEHT 59.7 FT 400 M from THR	NIL	NIL	NIL	NIL	NIL	NIL

OOJA AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	NIL
2	LDI location and LGT Anemometer location and LGT	Ground signaling devices: WDI
3	TWY edge and centre line lighting	NIL

4	Secondary power supply/switch-over time	NIL
5	Remarks	NIL

OOJA AD 2.16 HELICOPTER LANDING AREA

NIL

OOJA AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	NIL
2	Vertical limits	NIL
3	Airspace classification	NIL
4	ATS unit call sign Language(s)	AFIS, Ja'aluni Radio English
5	Transition altitude/Transition level	13 000 FT/FL150
6	Hours of applicability (or activation)	NIL
7	Remarks	NIL

OOJA AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	**2**	**3**	**4**	**5**
AFIS	Ja'aluni Radio	118.875 MHz	On request	NIL

OOJA AD 2.19 RADIO NAVIGATION AND LANDING AIDS

NIL

OOJA AD 2.20 LOCAL AERODROME REGULATIONS

NIL

OOJA AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OOJA AD 2.22 FLIGHT PROCEDURES

NIL

OOJA AD 2.23 ADDITIONAL INFORMATION

NIL

OOJA AD 2.24 CHARTS RELATED TO AN AERODROME

AERODROME CHART - ICAO	AERODROME CHART - ICAO
AIRCRAFT PARKING/DOCKING CHART	AIRCRAFT PARKING/DOCKING CHART
AERODROME OBSTACLE CHART - ICAO TYPE A	AERODROME OBSTACLE CHART - ICAO TYPE A
AERODROME OBSTACLE CHART - ICAO TYPE B	AERODROME OBSTACLE CHART - ICAO TYPE B
VISUAL APPROACH CHART - ICAO	VISUAL APPROACH CHART - ICAO

OOJA AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

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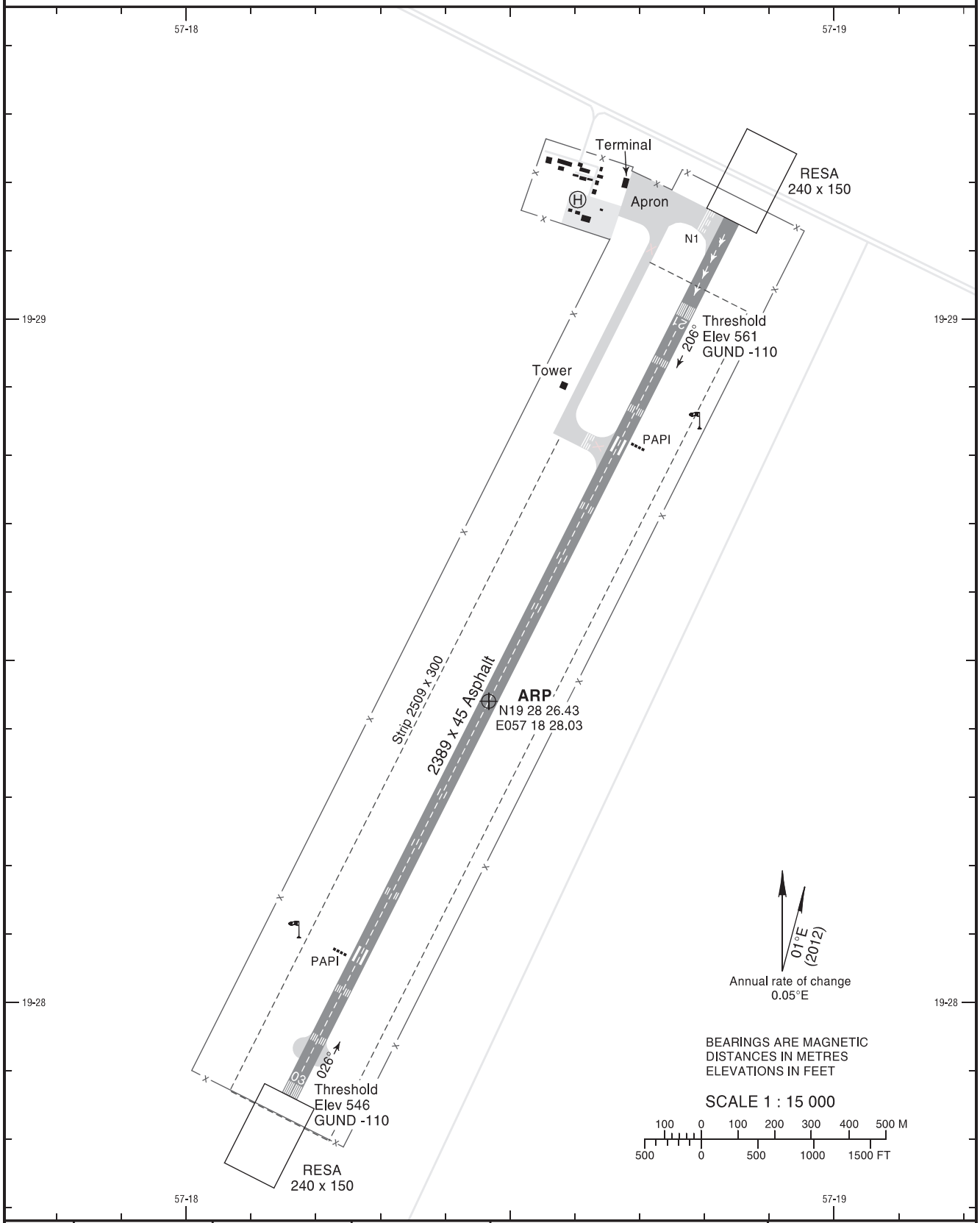
AERODROME CHART - ICAO

AERODROME CHART - ICAO | WGS-84 | **AD ELEV** 561 FT | JA'ALUNI Radio 118.875 | **JA'ALUNI/Ja'aluni OMAN**



RWY	DIRECTION	THRESHOLD	STRENGTH	DECLARED DISTANCES				AERODROME LIGHTING
				TORA	TODA	ASDA	LDA	
03	026° MAG	N 19 27 51.75 E 057 18 09.56	PCN 45/F/B/X/U	2389m	2389m	2389m	2389m	RWY 03/21: PAPI-L (3.00°)
21	206° MAG	N 19 29 01.11 E 057 18 46.51	PCN 45/F/B/X/U	2389m	2389m	2389m	2389m	

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AIRCRAFT PARKING/DOCKING CHART - ICAO

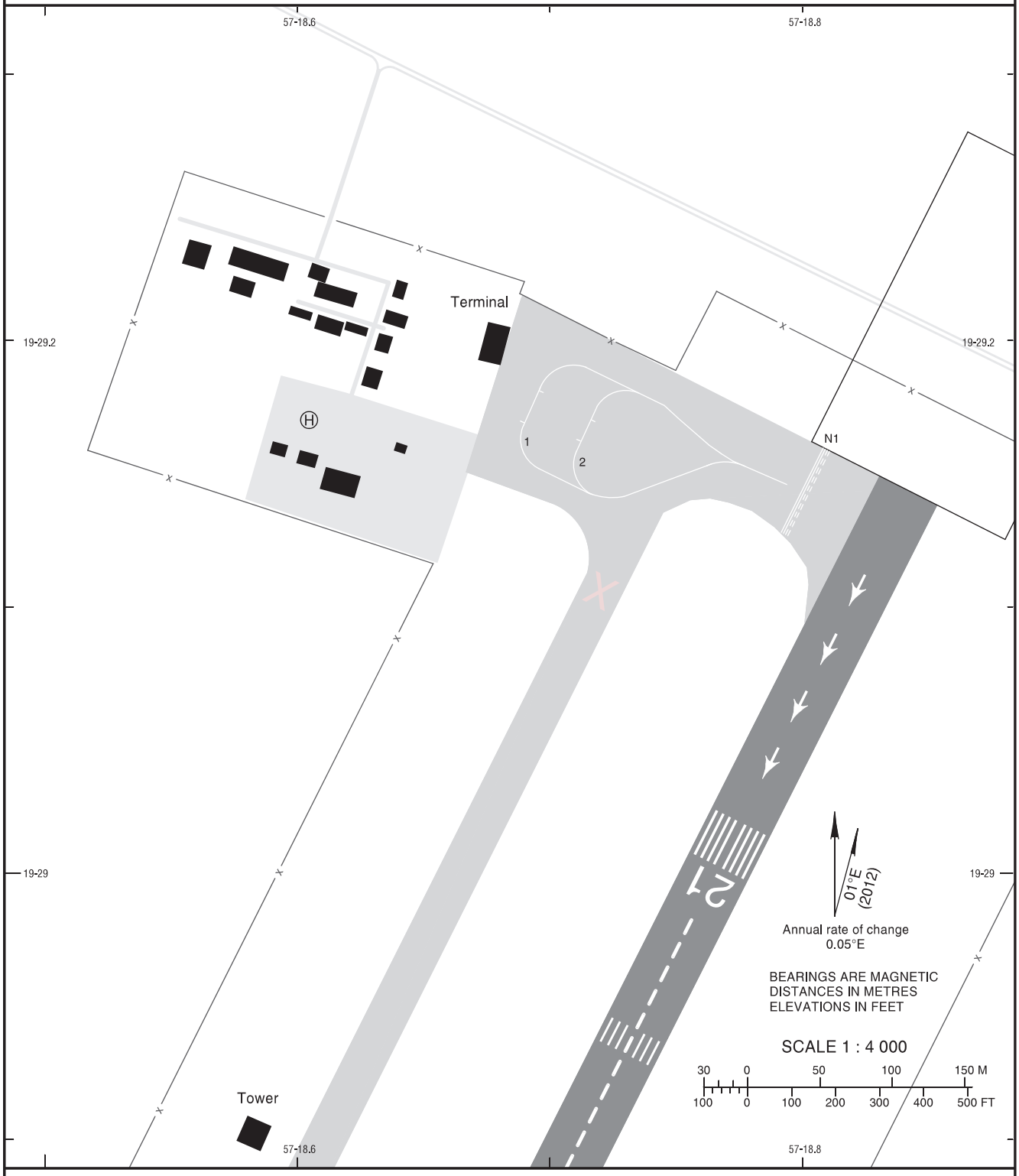
AIRCRAFT PARKING/
DOCKING CHART - ICAO

WGS-84

AD ELEV
561 FT

JA'ALUNI Radio 118.875

JA'ALUNI/Ja'aluni
OMAN



INS CHECKPOINTS APRON, RESTRICTIONS

STAND	LATITUDE	LONGITUDE	ELEV (FT)	ACFT
1	-	-	-	- A320, B737, E175, ATR, CASA
2	-	-	-	- C130, CASA, ATR when C130 on Stand 2, then Stand 1 is closed

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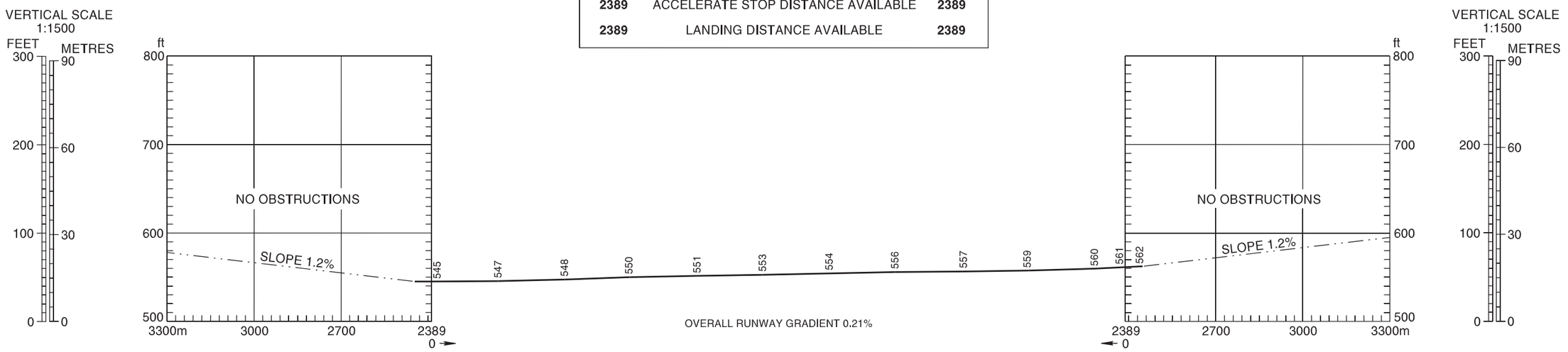
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

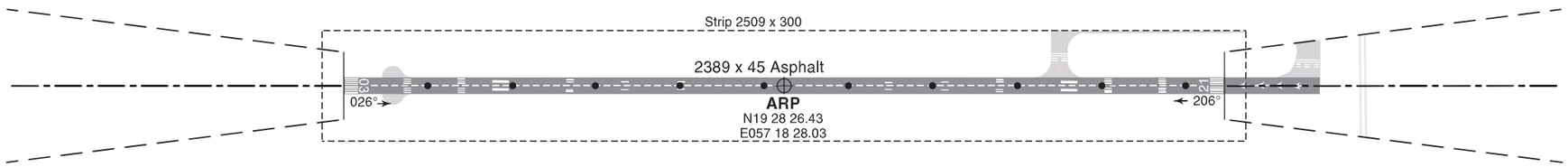
JA'ALUNI/Ja'aluni
OMAN

DISTANCES IN METRES, ELEVATIONS IN FEET
MAGNETIC VARIATION 1° E, 2012

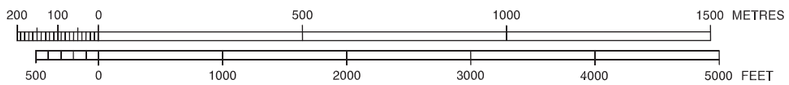
RWY 03-21

DECLARED DISTANCES		
RWY 03		**RWY 21**
2389	TAKE-OFF RUN AVAILABLE	**2389**
2389	TAKE-OFF DISTANCE AVAILABLE	**2389**
2389	ACCELERATE STOP DISTANCE AVAILABLE	**2389**
2389	LANDING DISTANCE AVAILABLE	**2389**





HORIZONTAL SCALE 1 : 15 000



AMENDMENT RECORD		
No.	Date	Entered by

LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	①	①
GROUND LEVEL	▲	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
TREE	*	
MOBILE		

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AERODROME OBSTACLE CHART - ICAO

WGS-84

AD ELEV
561 FT

ARP
N19 28 26.43
E057 18 28.03

AERODROME OBSTACLE CHART - ICAO TYPE B

JA'ALUNI/Ja'aluni
OMAN

57-13 57-14 57-15 57-16 57-17 57-18 57-19 57-20 57-21 57-22 57-23 57-24

19-34 19-33 19-32 19-31 19-30 19-29 19-28 19-27 19-26 19-25 19-24 19-23

MAG VAR 2.5°E
ANNUAL CHANGE 0.08°E

CONICAL SURFACE
20:1 (5%) slope up to
100 meters above inner
Horizontal Surface elevation

INNER HORIZONTAL SURFACE
45 meter above lowest
threshold elevation.

TRANSITIONAL SURFACE (1:7 (14.3%))

APPROACH SURFACE, SLOPE 1 (50 (2%))

TAKE-OFF CLIMB SURFACE, SLOPE 1 (50 (2%))

APPROACH SURFACE, SLOPE 1 (40 (2.5%))

TAKE-OFF CLIMB SURFACE, SLOPE 1 (40 (2.5%))

APPROACH SURFACE, SLOPE 1 (40 (2.5%))

Terminal

RESA 240 x 150

Threshold Elev 561 (SUND +110)

Tower

PAPI

Strip WIDTH 300

2500 x 45 ASPHALT

ARP
N19 28 26.43
E057 18 28.03

PAPI

Threshold Elev 546 (SUND +110)

RESA 240 x 150

7°E

BEARINGS ARE MAGNETIC
ALTITUDES & ELEV IN FEET
DIMENSIONS IN METRES

HORIZONTAL SCALE 1:20 000

400 200 0 500 1000 1500 2000 2500 METRES
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000 FEET

LEGEND

Area Minimum Altitude (AMA)

Example: 2900 feet **29**

Each 1° quadrilateral contains an area minimum altitude (AMA) which represents the lowest altitude which may be used under instrument meteorological conditions (IMC). The AMA provides a minimum clearance of 1000 feet above all obstacles in the quadrilateral. It is represented in thousands and tens of feet above mean sea level.

Height Obstacle Obstacle Identification	588' Tower
Mast/Tower	
Obstacle	
Ground / Terrain Spot	
Terrain	

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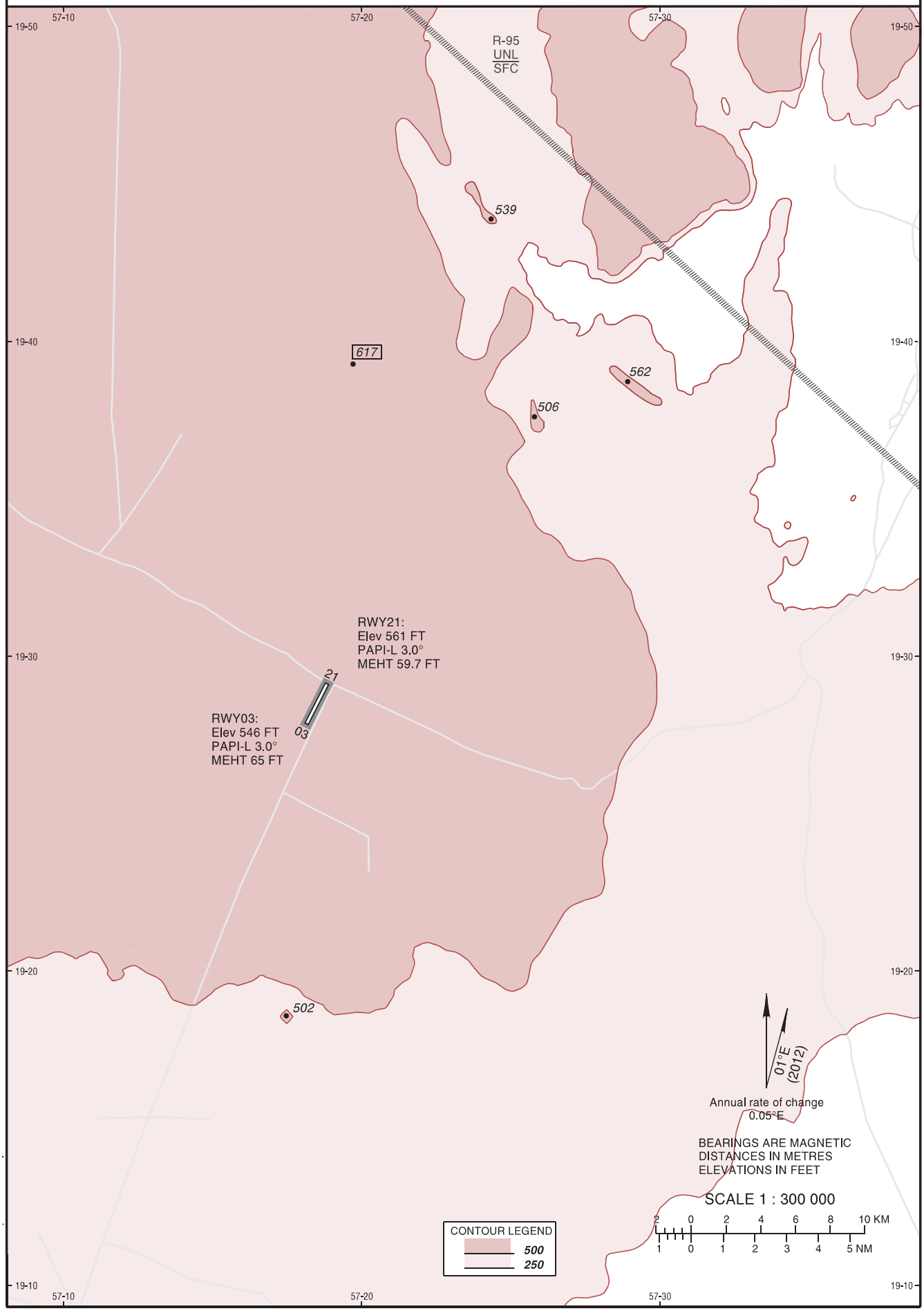
VISUAL APPROACH CHART - ICAO

VISUAL APPROACH CHART - ICAO | WGS-84 | **AD ELEV** 561 FT | JA'ALUNI Radio 118.875 | **JA'ALUNI/Ja'aluni OMAN**



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OOKB AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOKB KHASAB/Khasab

OOKB AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	261018.00 N 0561425.00 E
2	Direction and distance from (city)	South of Khasab City
3	Elevation/Reference temperature	100 FT/Nil
4	Geoid undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	1.3°E/0.01° increasing
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	RAFO Khasab airbase P.O. Box 720 Postal Code 111 Muscat Sultanate of Oman
7	Types of traffic permitted (IFR/VFR)	VFR
8	Remarks	NIL

OOKB AD 2.3 OPERATIONAL HOURS

1	AD Administration	0300-0900 SUN-THU
2	Customs and immigration	available for scheduled and approved non-scheduled flights
3	Health and sanitation	NIL
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	NIL
7	ATS	0300-0900 SUN-THU
8	Fuelling	0300-0900 SUN-THU
9	Handling	NIL
10	Security	HJ
11	De-icing	NIL
12	Remarks	RAFO. PPR 48 HR.

OOKB AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	NIL

2	Fuel/oil types	NIL
3	Fuelling facilities/capacity	NIL
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	Limited

OOKB AD 2.5 PASSENGER FACILITIES

1	Hotels	Available
2	Restaurants	NIL
3	Transportation	NIL
4	Medical facilities	NIL
5	Bank and Post Office	NIL
6	Tourist Office	NIL
7	Remarks	NIL

OOKB AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Cat 7
2	Rescue equipment	Adequate rescue and fire fighting vehicles, equipment and personnel provided.
3	Capability for removal of disabled aircraft	Limited
4	Remarks	Full service provided HJ only.

OOKB AD 2.7 SEASONAL AVAILABILITY — CLEARING

1	Types of clearing equipment	NIL
2	Clearance priorities	NIL
3	Remarks	AD available all seasons.

OOKB AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	General aviation apron	Surface:	asphalt and concrete
2	Taxiway width, surface and strength	NIL		
3	ACL and elevation	NIL		

4	VOR checkpoint	NIL
5	INS checkpoints	NIL
6	Remarks	NIL

OOKB AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Short taxiway and apron - centreline marking indicators.
2	RWY and TWY markings and LGT	NIL
3	Stop bars	NIL
4	Other runway protection measures	NIL
5	Remarks	Civil aircraft will be marshalled Some surface markings are not ICAO standards

OOKB AD 2.10 AERODROME OBSTACLES

NIL

OOKB AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

NIL

OOKB AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
01	012° T	2778 X 45	LCN 50 mil ops only 66 /F /A /X /U non mil ops. Asphalt	NIL	THR 47.49 FT TDZ NIL
19	192° T	2778 X 45	LCN 50 mil ops only 66 /F /A /X /U non mil ops. Asphalt	NIL	THR 108.69 FT TDZ NIL

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
01	0.90% up	118 x 45	NIL	2898 X 300	NIL
19	0.90% down	233 X 45	NIL	2898 X 300	NIL

Designations RWY NR	Location and description of engineering material arresting system(EMAS)	OFZ	Remark
1	12	13	14
01	NIL	NIL	NIL
19	NIL	NIL	NIL

OOKB AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
01	2660	2660	2778	2427	Stopway is graded natural surface
19	2545	2545	2778	2277	Stopway is graded natural surface

OOKB AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
01	NIL	Red halogen	Available	NIL	NIL	Available halogen	Red LED	NIL	NIL
19			Available	NIL					NIL

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
	CAT 1 halogen	Red halogen			NIL	Available halogen	Red LED	NIL	

OOKB AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics andhours of operation	NIL
2	LDI location and LGT Anemometer location and LGT	Ground signaling devices: WDI
3	TWY edge and centre line lighting	Blue INCENT lights
4	Secondary power supply/switch-over time	NIL
5	Remarks	NIL

OOKB AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO Geoid undulation	NIL
2	TLOF and/or FATO elevation M/FT	NIL
3	TLOF and FATO area dimensions, surface, strength, marking	NIL
4	True BRG of FATO	NIL
5	Declared distance available	NIL
6	APP and FATO lighting	NIL
7	Remarks	available as instructed by ATC

OOKB AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	NIL
2	Vertical limits	NIL
3	Airspace classification	NIL

4	ATS unit call signLanguage(s)	NIL
5	Transition altitude/Transition level	13 000 FT/FL150
6	Hours of applicability (or activation)	NIL
7	Remarks	NIL

OOKB AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
RAD	Khasab Radar	125.000 MHz 310.700 MHz	NIL	NIL
TWR	Khasab Tower	124.350 MHz 355.000 MHz	NIL	NIL

OOKB AD 2.19 RADIO NAVIGATION AND LANDING AIDS

NIL

OOKB AD 2.20 LOCAL AERODROME REGULATIONS

20.1 AIRPORT REGULATIONS

Local flying restrictions:

PPR 48 HR.
HEL OPS outside operating hours.
TURB when surface wind SW.

20.2 TAXIING TO AND FROM STANDS

NIL

20.3 PARKING AREA FOR SMALL AIRCRAFT (GENERAL AVIATION)

NIL

20.4 PARKING AREA FOR HELICOPTERS

Consists of marked stand (H) within the general aviation apron.

20.5 APRON - TAXIING DURING WINTER CONDITIONS

NIL

20.6 TAXIING LIMITATIONS

NIL

20.7 SCHOOL AND TRAINING FLIGHTS - TECHNICAL TEST FLIGHTS - USE OF RUNWAYS

NIL

20.8 HELICOPTER TRAFFIC - LIMITATION

NIL

20.9 REMOVAL OF DISABLED AIRCRAFT FROM RUNWAYS

NIL

OOKB AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OOKB AD 2.22 FLIGHT PROCEDURES

NIL

OOKB AD 2.23 ADDITIONAL INFORMATION

NIL

OOKB AD 2.24 CHARTS RELATED TO AN AERODROME

NIL

OOKB AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

OOMK AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOMK MUKHAIZNA/Mukhaizna

OOMK AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	192323.96 N 0562352.05 E Midpoint of RWY centreline
2	Direction and distance from (city)	4 NM/7.4 KM West of the Mukhaizna Oilfield Production Camp. The Mukhaizna Field is located in South Central Oman some 650 KM south-west of Muscat. 90 KM south-west of Haima.
3	Elevation/Reference temperature	479 FT / 44°C
4	Geoid undulation at AD ELEV PSN	-115.6 FT
5	MAG VAR/Annual change	1°E (2020)/2' increasing
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	Mukhaizna Aerodrome Block 53 (Mukhaizna) c/o Occidental Mukhaizna LLC. P.O. Box 717 PC 130 Al-Athaybah Sultanate of Oman Field Manager - Mukhaizna Tel: (968) 24 588302 Fax: (968) 24 588352 Email: fm_mukhaizna@oxy.com Airport Supervisor: Tel: (968) 24 588401 GSM: (968) 92 822953 Fax: (968) 24 588404 Email: Mukhaizna_Airport@oxy.com
7	Types of traffic permitted (IFR/VFR)	IFR (PBN) by suitably trained pilots and equipped aircraft. Minimum visibility for take-off and landing 2500 M. Minimum cloud ceiling: 1500 FT. Aircraft Code 4C (Wingspan up to but not including 36 M; Outer main gear span up to but not including 9 M). VFR only in Visual Meteorological Conditions (VMC) by day. Minimum visibility: 5000 M. Minimum cloud ceiling: 1500 FT.
8	Remarks	Only flights operating on behalf of OXY will be allowed to operate into Mukhaizna. All other flights require prior permission (PPR) from Airport Operations.

OOMK AD 2.3 OPERATIONAL HOURS

1	AD Administration	During operational hours 0215 - 1400 UTC Except Fridays Night operations and emergency flights by prior prearrangement only (PPR)
2	Customs and immigration	NIL
3	Health and sanitation	NIL
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	Local weather observations only
7	ATS	AFIS during operational hours
8	Fuelling	NIL
9	Handling	Swissport during operational hours
10	Security	SSS security 24 hours and ROP security during operation hours
11	De-icing	NIL
12	Remarks	Occidental Mukhaizna PPR

OOMK AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	By arrangement with Swissport and the airline
2	Fuel/oil types	NIL
3	Fuelling facilities/capacity	NIL
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	NIL

OOMK AD 2.5 PASSENGER FACILITIES

1	Hotels	Nil Accommodation available at Mukhaizna Camp, by prior arrangement with Occidental LLC.
2	Restaurants	Available at Oxy Camp only by prior arrangement.
3	Transportation	By prior arrangement with Occidental LLC.
4	Medical facilities	Oxy Clinic at Oxy camp 8 KM from aerodrome, The nearest hospital at Haima, approximately 90 KM by road.
5	Bank and Post Office	ATM available at Oman Oil Petrol Station.
6	Tourist Office	NIL
7	Remarks	NIL

OOMK AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Cat 7
2	Rescue equipment	Two primary fire tenders. (1500 LTRS foam agent, 225 KG dry powder and 12 500 LTRS water) Supplementary Water Vehicle 15 000 LTRS Static Water Tank 50 000 LTRS
3	Capability for removal of disabled aircraft	Salam Air
4	Remarks	NIL

OOMK AD 2.7 SEASONAL AVAILABILITY — CLEARING

NIL

OOMK AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength		Surface: Strength:	Concrete (block pavers) Stands 1 and 2 PCN 43/F/A/X/T
2	Taxiway width, surface and strength	TWY A and B	Width: Surface: Strength	18 M Asphalt PCN 43/F/A/X/T
3	ACL and elevation		Stand: Elevation: Coordinates:	1 476 FT AMSL N192329.76 E0562400.39
4	VOR checkpoint	NIL		
5	INS checkpoints	NIL		
6	Remarks	Length 325 M		

OOMK AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Painted aircraft stands Yellow painted centrelines Marshalling service No visual guidance docking system
2	RWY and TWY markings and LGT	Runway: LGT: See AD 2.14 for details Marking: RWY designator, painted threshold, centreline, edge, touchdown zone, aiming point, stop end, turnpad centreline and chevrons in RWY end strip Taxiway: LGT: See AD 2.15 for details Elevated edge lighting and RWY guard lights

		Marking: painted centreline, edge, edge strip, pattern A RWY hold position Apron: Painted stand marking line, lead in and stop position, stand safety line Signage: Illuminated apron directional, RWY hold position, RWY exit signs.
3	Stop bars	NIL
4	Other runway protection measures	NIL
5	Remarks	RWY Hold Position Signs : Sign either side of apron to taxiway access.

OOMK AD 2.10 AERODROME OBSTACLES

In Area 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
RWY 14 Approach / RWY 32 Departure					
OOMK078	Light	192356.20 N 0562319.63 E	146.48 M (481 FT)	NIL	NIL
RWY 32 Approach / RWY 14 Departure					
OOMK124	Mast	192115.56 N 0562538.19 E	182.46 M (599 FT)	Marked and lit red	NIL
Note1: There are numbers of overhead power lines outside the airport. Note2: Telecommunications tower is located at Oxy Camp. Refer to Aerodrome Obstacle Charts (Type A) and (Type B)					

In Area 3					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
NIL	NIL	NIL	NIL	NIL	NIL

OOMK AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Weather observation is given for each movement.
2	Hours of serviceMET Office outside hours	NIL
3	Office responsible for TAF preparationPeriods of validity	NIL
4	Trend forecasteInterval of issuance	VMC

5	Briefing/consultation provided	NIL
6	Flight documentationLanguage(s) used	English
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	NIL
9	ATS units provided with information	NIL
10	Additional information	NIL

OOMK AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
14	136° T 135° M	2500 X 45	43 /F /A /X /T Asphalt Flexible	192353.37 N 0562322.45 E GUND: -115.6 FT	THR 479 FT TDZ NIL
32	316° T 315° M	2500 X 45	43 /F /A /X /T Asphalt Flexible	192254.54 N 0562421.64 E GUND: -115.4 FT	THR 475 FT TDZ NIL

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
14	0.03% down	NIL	NIL	2620 X 280	240 M X 150 M
32	level	NIL	NIL	2620 X 280	240 M X 150 M

Designations RWY NR	Location and description of engineering material arresting system(EMAS)	OFZ	Remark
1	12	13	14
14	NIL	Not required	NIL
32	NIL	Not required	NIL

OOMK AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
14	2500	2500	2500	2500	NIL
32	2500	2500	2500	2500	NIL

OOMK AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
14	LIH Extended elevated centreline 420 M. 2 cross bars at 150 M and 300 M	LIH Green No WBAR	PAPI left side / 3° MEHT 48.56 FT 306.35 M from THR	NIL	NIL	60 M Omni-Directional LIH White, last 600 M yellow	Red LIH No WBAR	NIL	RTIL White in landing direction. Both RTIL lit as landing direction at discretion of pilot.
32	LIH Extended elevated centreline 420 M. 2 cross bars at 150 M and 300 M	LIH Green No WBAR	PAPI left side / 3° MEHT 48.56 FT 297.81 M from THR	NIL	NIL	60 M Omni-Directional LIH White, last 600 M yellow	Red LIH No WBAR	NIL	RTIL White in landing direction. Both RTIL lit as landing direction at discretion of pilot.

OOMK AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics andhours of operation	Nil
2	LDI location and LGT Anemometer location and LGT	Iluminated wind direction indicators adjacent to both runway aiming points on left hand side.
3	TWY edge and centre line lighting	Elevated Blue edge LIH
4	Secondary power supply/switch-over time	Available 500 KVA starts automatically within 15 seconds.

5	Remarks	Automatic Standby Generator provides power for AGL and Operations equipment. Turn pad lighting at each threshold.

OOMK AD 2.16 HELICOPTER LANDING AREA

NIL

OOMK AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	Mukhaizna ATZ A Circle radius 5 NM centered on ARP N192323.96 E0562352.05
2	Vertical limits	SFC/5000 FT AMSL
3	Airspace classification	G
4	ATS unit call sign Language(s)	Mukhaizna AFIS, Mukhaizna Information English
5	Transition altitude/Transition level	13 000 FT/FL150
6	Hours of applicability (or activation)	NIL
7	Remarks	- Continuous two-way VHF Communication Mandatory.

OOMK AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	**2**	**3**	**4**	**5**
AFIS	Mukhaizna Information	130.000 MHz	0215-1400 UTC except Friday	NIL

OOMK AD 2.19 RADIO NAVIGATION AND LANDING AIDS

NIL

OOMK AD 2.20 LOCAL AERODROME REGULATIONS

20.1 AIRPORT REGULATIONS

Nil

20.2 TAXIING TO AND FROM STANDS

Permission has to be given by FISO/Airport Supervisor

20.3 PARKING AREA FOR SMALL AIRCRAFT (GENERAL AVIATION)

Nil

20.4 PARKING AREA FOR HELICOPTERS

Nil

20.5 APRON - TAXIING DURING WINTER CONDITIONS

Nil

20.6 TAXIING LIMITATIONS

Permission has to be given by FISO/Airport Supervisor

20.7 SCHOOL AND TRAINING FLIGHTS - TECHNICAL TEST FLIGHTS - USE OF RUNWAY

Nil

20.8 HELICOPTER TRAFFIC - LIMITATION

PPR

20.9 REMOVAL OF DISABLED AIRCRAFT FROM RUNWAYS

Provided by Oman Air if it is Oman Air aircraft. Otherwise Nil.

OOMK AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OOMK AD 2.22 FLIGHT PROCEDURES

NIL

OOMK AD 2.23 ADDITIONAL INFORMATION

No significant bird activity recorded prior to AIP publication.

OOMK AD 2.24 CHARTS RELATED TO AN AERODROME

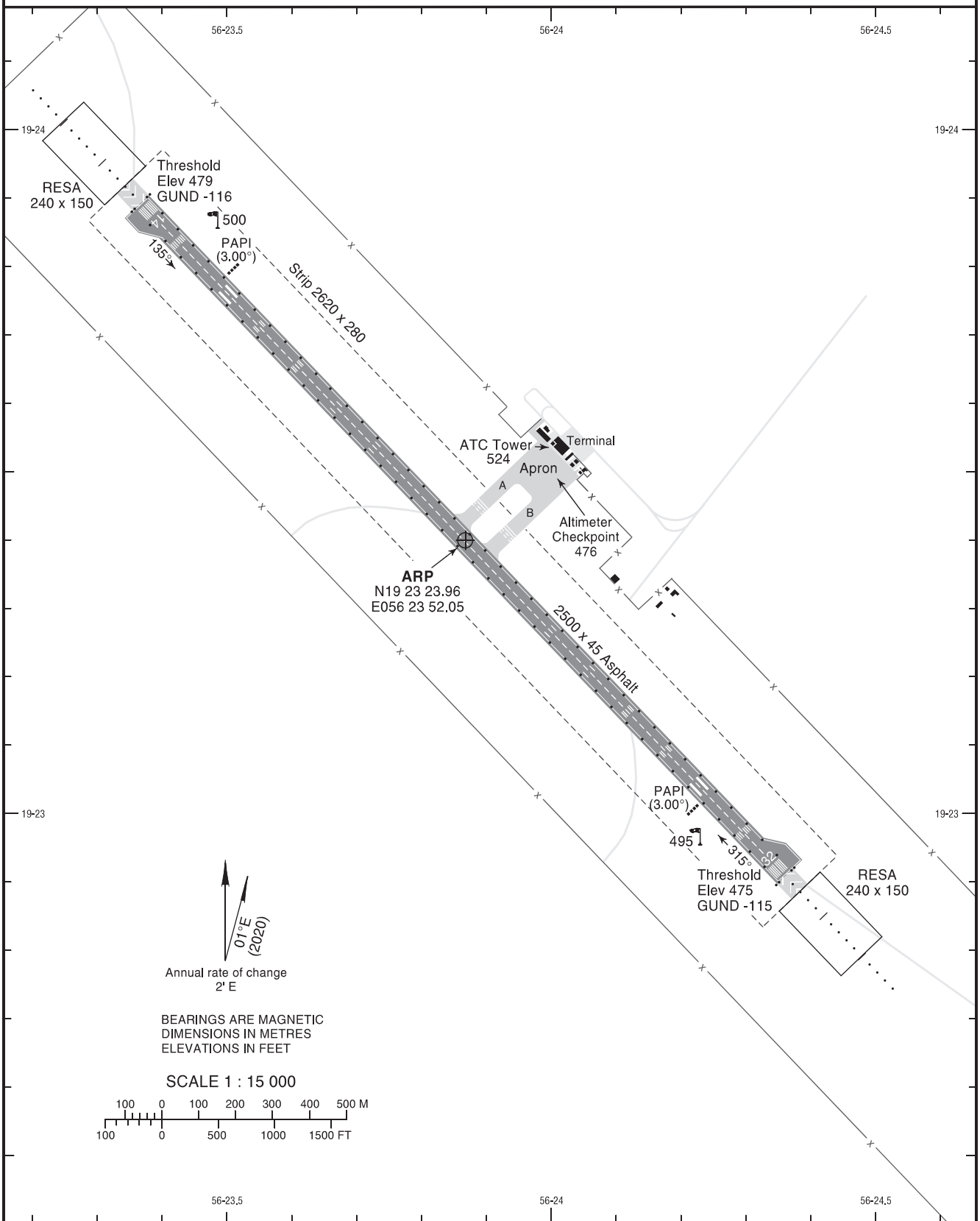
AERODROME CHART - ICAO	AERODROME CHART - ICAO
AIRCRAFT PARKING/DOCKING CHART - ICAO	AIRCRAFT PARKING/DOCKING CHART - ICAO
AERODROME OBSTACLE CHART - ICAO TYPEA	AERODROME OBSTACLE CHART - ICAO TYPEA
AERODROME OBSTACLE CHART - ICAO TYPEB	AERODROME OBSTACLE CHART - ICAO TYPEB
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 14	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 14
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 32	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 32
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 14	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 14
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 32	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 32
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 14	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 14
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 32	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 32

OOMK AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

AERODROME CHART - ICAO

AERODROME CHART - ICAO | WGS-84 | **AD ELEV** 479 FT | MUKHAIZNA Information 130.000 | **MUKHAIZNA/Mukhaizna OMAN**



RWY	DIRECTION	THRESHOLD	STRENGTH	DECLARED DISTANCES				AERODROME LIGHTING
				TORA	TODA	ASDA	LDA	
14	135° MAG	N 19 23 53.37 E 056 23 22.45	PCN 43/F/A/X/T	2500m	2500m	2500m	2500m	RWY 14/32: ALS LIH (length 420m) PAPI-L (3.00°) REDL LIH RTHL (green), RTIL (white) RENL LIH Apron/TWY: Edgelights LIL (blue), Rwy guard lights
32	315° MAG	N 19 22 54.54 E 056 24 21.64	PCN 43/F/A/X/T	2500m	2500m	2500m	2500m	

INTENTIONALLY

LEFT

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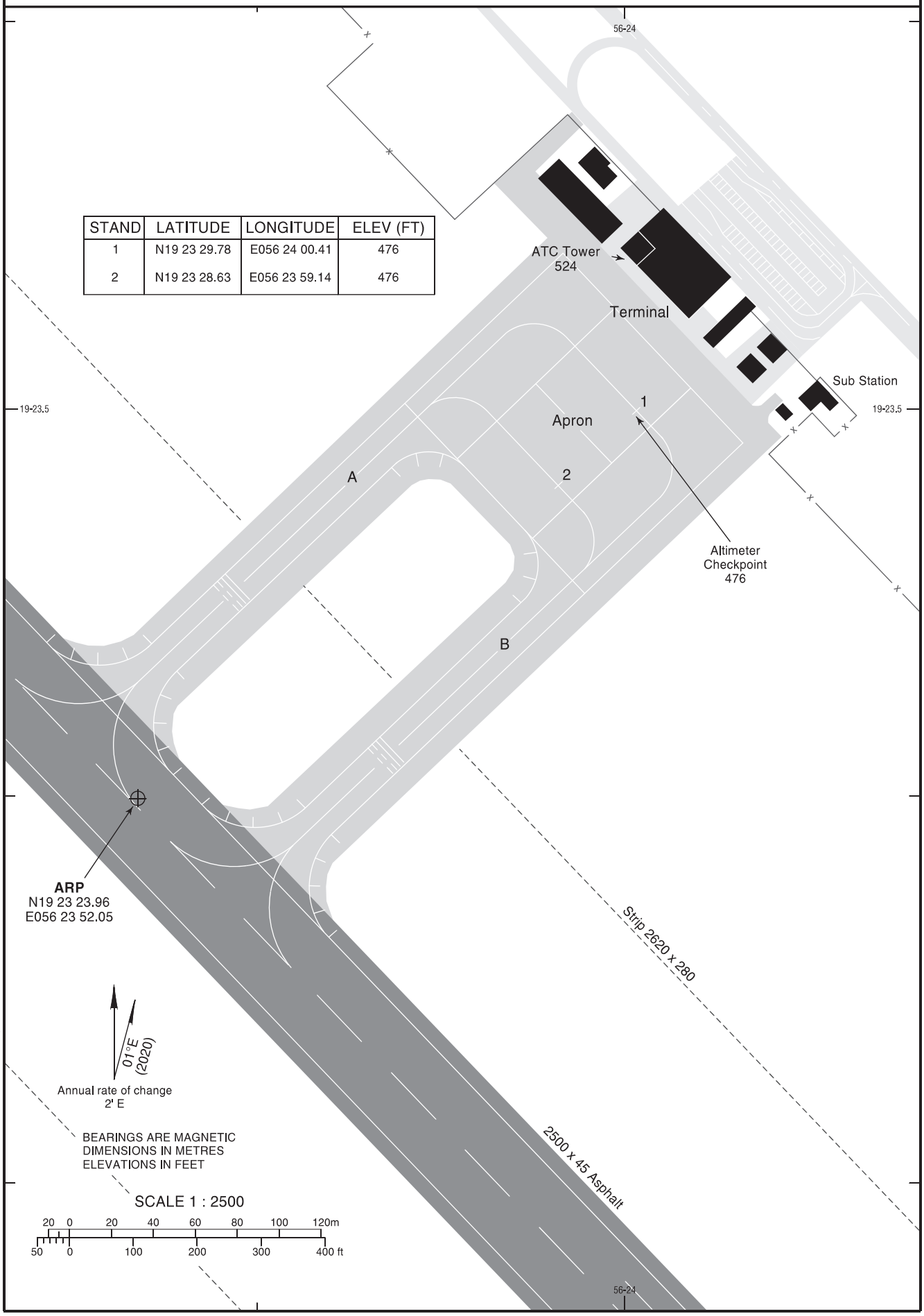
AIRCRAFT PARKING/ DOCKING CHART - ICAO | WGS-84 | **AD ELEV** 479 FT | MUKHAIZNA Information 130.000 | **MUKHAIZNA/Mukhaizna OMAN**



STAND	LATITUDE	LONGITUDE	ELEV (FT)
1	N19 23 29.78	E056 24 00.41	476
2	N19 23 28.63	E056 23 59.14	476

INTENTIONALLY

LEFT

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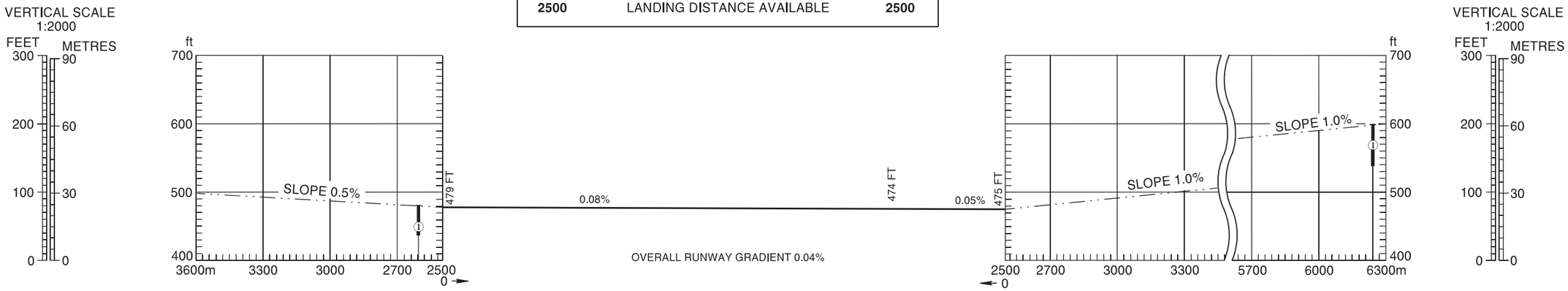
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

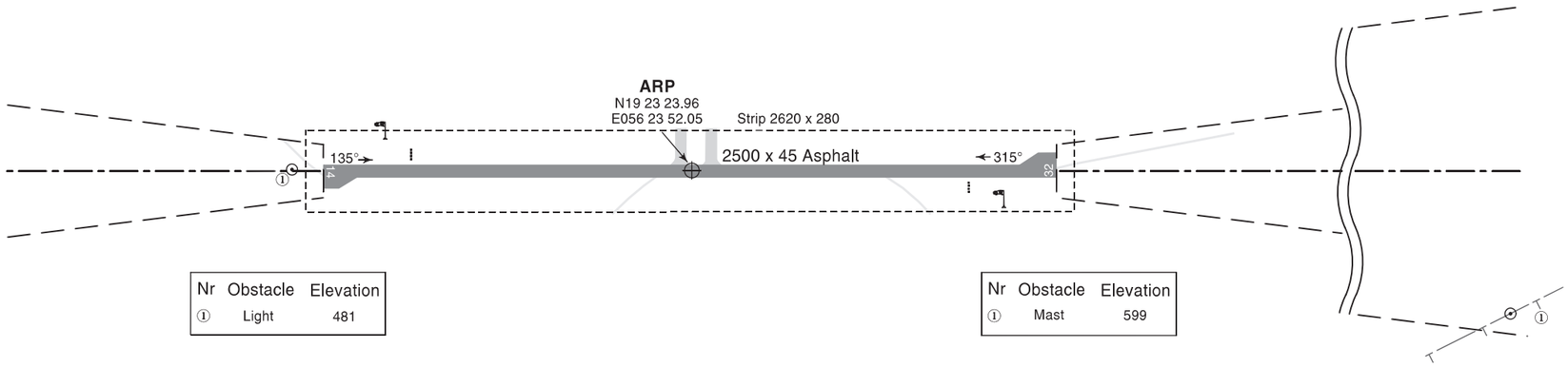
MUKHAIZNA/Mukhaizna
OMAN

DISTANCES IN METRES, ELEVATIONS IN FEET
MAGNETIC VARIATION 1°E, 2020

RWY 14-32

DECLARED DISTANCES		
RWY 14		**RWY 32**
2500	TAKE-OFF RUN AVAILABLE	**2500**
2500	TAKE-OFF DISTANCE AVAILABLE	**2500**
2500	ACCELERATE STOP DISTANCE AVAILABLE	**2500**
2500	LANDING DISTANCE AVAILABLE	**2500**

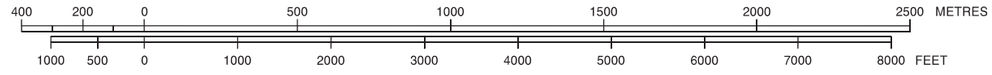




Nr	Obstacle	Elevation
1	Light	481

Nr	Obstacle	Elevation
1	Mast	599

HORIZONTAL SCALE 1 : 20 000



ORDER OF ACCURACY
HORIZONTAL -/+ .03 M
VERTICAL -/+ .04 M

AMENDMENT RECORD		
No.	Date	Entered by

LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	1	
GROUND LEVEL	▲	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
TREE	*	
MOBILE		

INTENTIONALLY

LEFT

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AERODROME OBSTACLE CHART - ICAO

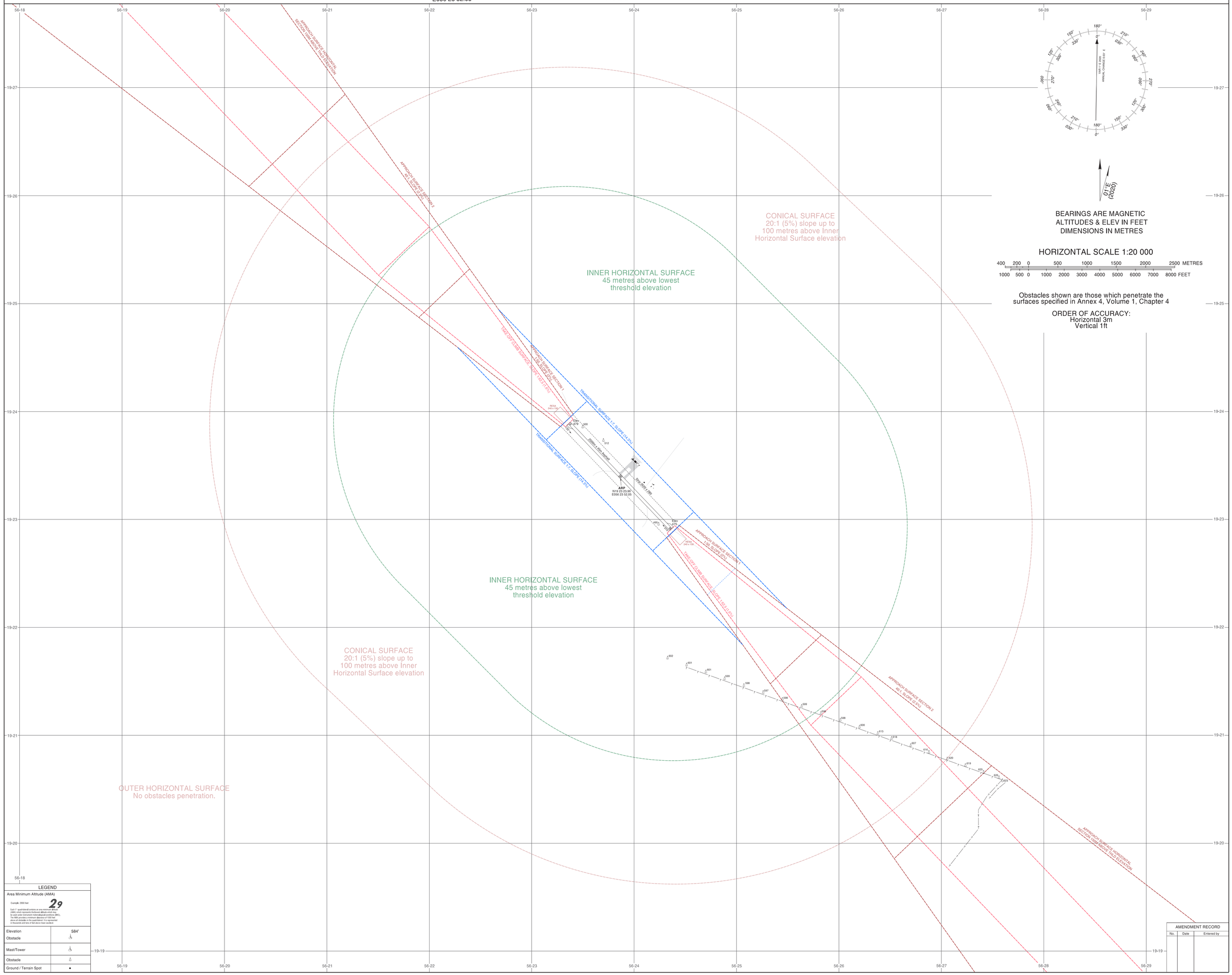
WGS-84

AD ELEV
479 FT

ARP
N19 23 23.96
E056 23 52.05

AERODROME OBSTACLE CHART - ICAO
TYPE B

MUKHAIZNA/Mukhaizna
OMAN



BEARINGS ARE MAGNETIC
ALTITUDES & ELEV IN FEET
DIMENSIONS IN METRES

HORIZONTAL SCALE 1:20 000

400 200 0 500 1000 1500 2000 2500 METRES
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000 FEET

Obstacles shown are those which penetrate the surfaces specified in Annex 4, Volume 1, Chapter 4

ORDER OF ACCURACY:
Horizontal 3m
Vertical 1ft

LEGEND	
Area Minimum Altitude (AMA)	
Example: 2900 feet **29** Each 1° quadrilateral contains an area minimum altitude (AMA) which represents the highest altitude which may be used over the entire area bounded by the meridians and parallels. The AMA provides a minimum clearance of 1000 feet above all obstacles in the quadrilateral. It is represented in thousands and tens of feet above mean sea level.	
Elevation / Obstacle	584'
Mast/Tower	
Obstacle	
Ground / Terrain Spot	

AMENDMENT RECORD		
No.	Date	Entered by

INTENTIONALLY

LEFT

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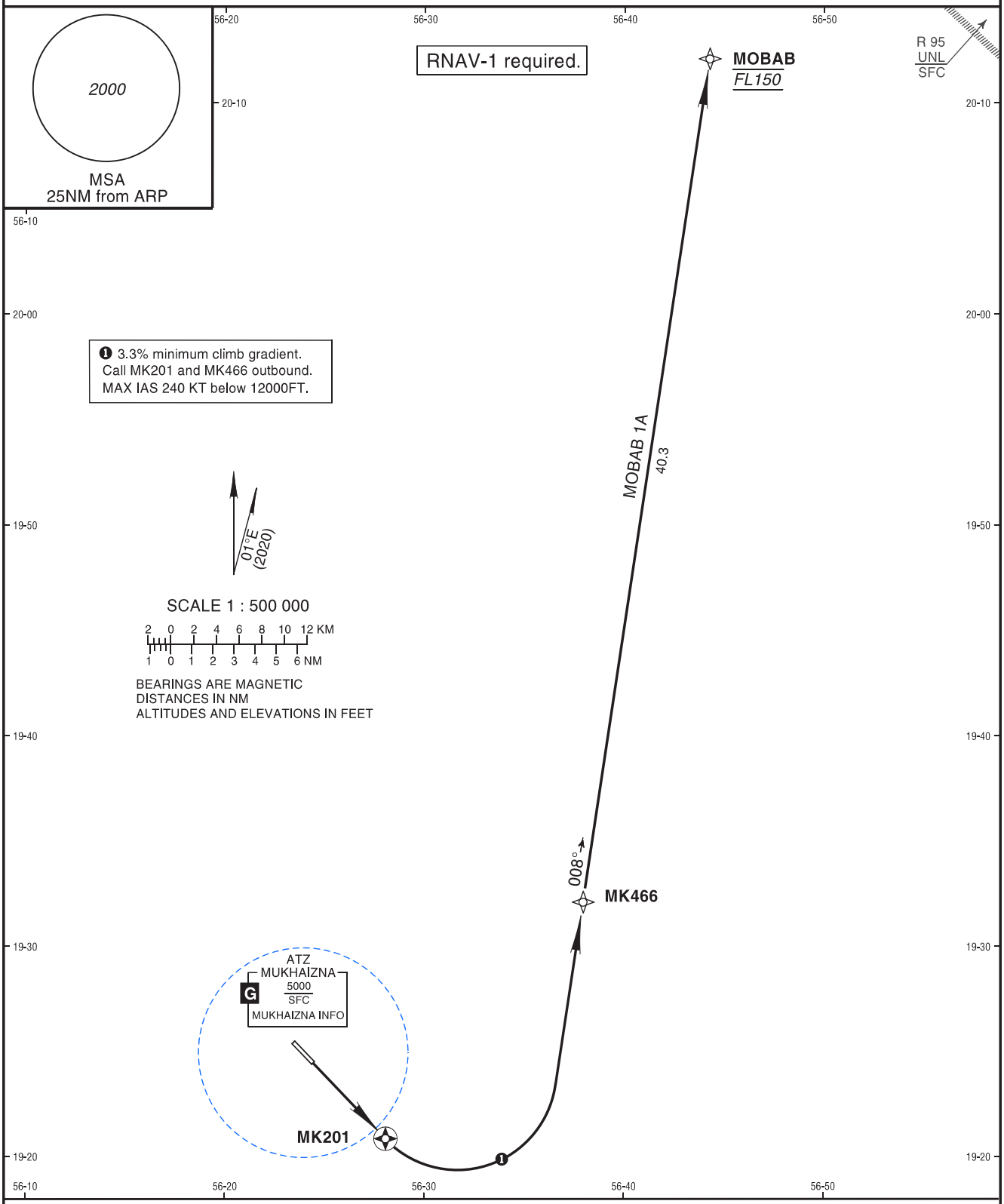
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	479 FT	MUKHAIZNA Information 130.000	**MUKHAIZNA/Mukhaizna OMAN** RWY 14
	Trans Alt	*13000*		
	Trans Level	*FL150*		

MOBAB 1A RNAV (GNSS) DEPARTURE



INITIAL CLIMB

Climb direct to MK201, then

SID	ROUTING
MOBAB 1A	turn LEFT direct to MK466, then track 008° to MOBAB. Climb to cross MOBAB at FL150 or as cleared by ATC.

-

Route Description: RNAV (GNSS) DEPARTURE RWY 14

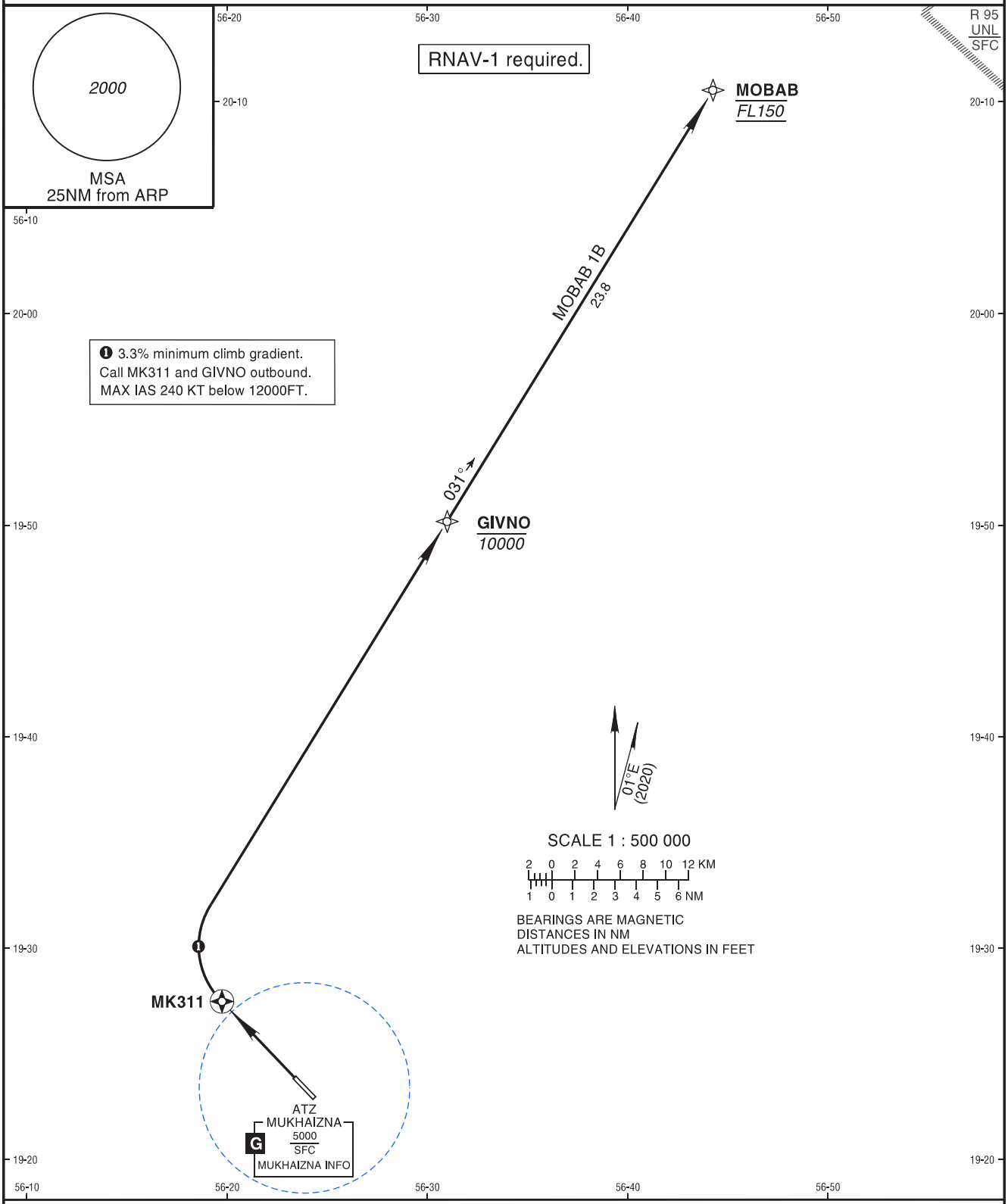
Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MOBAB 1A DEPARTURE									
DF	MK201	Y					1°E		RNAV 1
DF	MK466			L			1°E		RNAV 1
TF	MOBAB		008° (008.5°)		@FL150		1°E	40.3	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 14

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
DER14	N19°22'54.54''	E056°24'21.64''	N19°22.909'	E056°24.361'	
MK201	N19°19'18.08''	E056°27'59.29''	N19°19.301'	E056°27.988'	
MK466	N19°30'32.87''	E056°37'53.52''	N19°30.548'	E056°37.892'	
MOBAB	N20°10'32.00''	E056°44'15.00''	N20°10.533'	E056°44.250'	

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	479 FT	MUKHAIZNA Information 130.000	**MUKHAIZNA/Mukhaizna OMAN**
	Trans Alt	*13000*		RWY 32
	Trans Level	*FL150*		

MOBAB 1B RNAV (GNSS) DEPARTURE



INITIAL CLIMB

Climb direct to MK311, then

SID	ROUTING
MOBAB 1B	turn RIGHT direct to GIVNO, cross GIVNO below 10000. Track 031° to MOBAB. Climb to cross MOBAB at FL150 or as cleared by ATC.

Route Description: RNAV (GNSS) DEPARTURE RWY 32

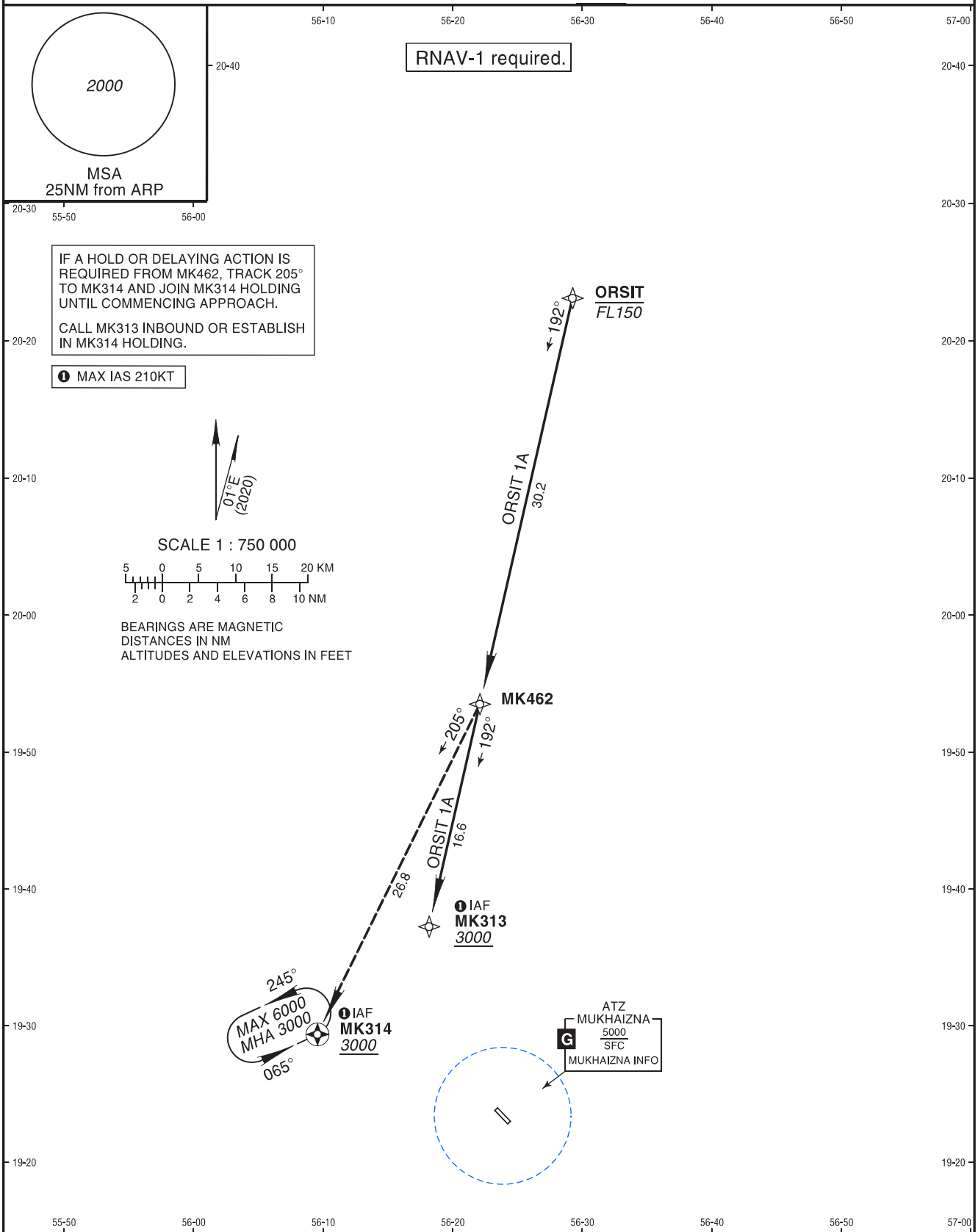
Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MOBAB 1B DEPARTURE									
DF	MK311	Y					1°E		RNAV 1
DF	GIVNO			R	-10000		1°E		RNAV 1
TF	MOBAB		031° (031.6°)		@FL150		1°E	23.8	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 32

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
DER32	N19°23'53.37''	E056°23'22.45''	N19°23.890'	E056°23.374'	
MK311	N19°27'29.08''	E056°19'45.25''	N19°27.485'	E056°19.754'	
GIVNO	N19°50'11.00''	E056°30'59.00''	N19°50.183'	E056°30.983'	
MOBAB	N20°10'32.00''	E056°44'15.00''	N20°10.533'	E056°44.250'	

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO	AD ELEV 479 FT Trans Alt *13000* Trans Level *FL150*	MUKHAIZNA Information 130.000	**MUKHAIZNA/Mukhaizna OMAN** RWY 14

ORSIT 1A RNAV (GNSS) ARRIVAL



STAR	ROUTING
ORSIT 1A	from ORSIT track 192° to MK462, then track 192° to MK313. Cross MK313 at or above 3000.

Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 14

Path descrip-tor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	MK314	065° (066.3°)	1 MIN	L	3000	6000	210 KT	1°E	

Route Description: RNAV (GNSS) ARRIVAL RWY 14

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
ORSIT 1A ARRIVAL									
IF	ORSIT				-FL150		1°E		RNAV 1
TF	MK462		192° (192.9°)				1°E	30.2	RNAV 1
TF	MK313		192° (192.9°)		+3000	210 KT	1°E	16.6	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 14

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
ORSIT	N20°23'06.00''	E056°29'15.00''	N20°23.100'	E056°29.250'	
MK462	N19°53'30.37''	E056°22'05.41''	N19°53.506'	E056°22.090'	
MK313	N19°37'14.72''	E056°18'10.47''	N19°37.245'	E056°18.175'	
MK314	N19°29'25.11''	E056°09'32.59''	N19°29.419'	E056°09.543'	

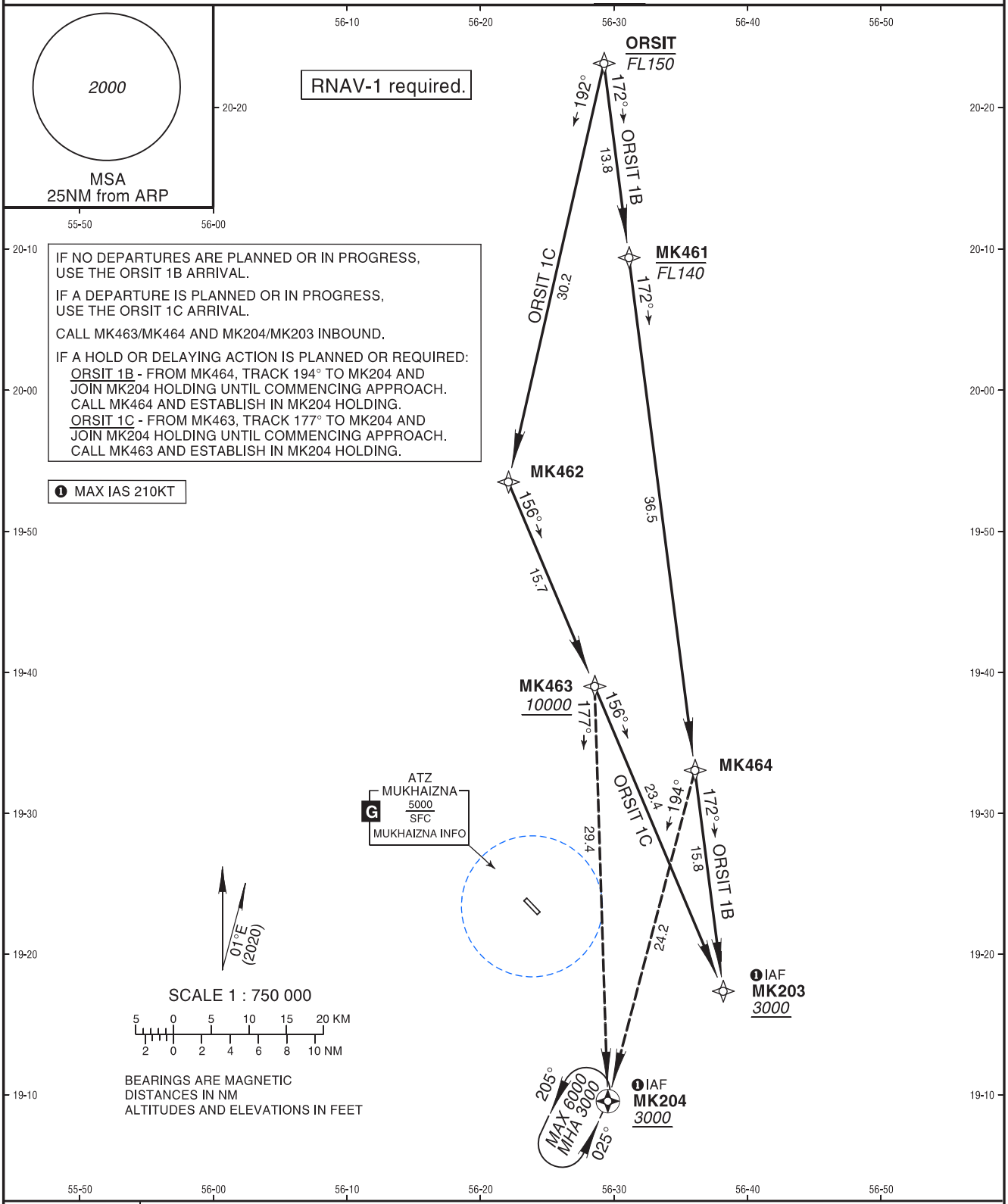
STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

AD ELEV 479 FT
Trans Alt *13000*
Trans Level *FL150*

MUKHAIZNA Information 130.000

MUKHAIZNA/Mukhaizna
OMAN
RWY 32

ORSIT 1B, ORSIT 1C RNAV (GNSS) ARRIVAL



STAR	ROUTING
ORSIT 1B	from ORSIT track 172° to MK461, cross MK461 at or below 14000. Then track 172° to MK464, then track 172° to MK203. Cross MK203 at or above 3000.
ORSIT 1C	from ORSIT track 192° to MK462, then turn LEFT track 156° to MK463, cross MK463 at or above 10000. Then track 156° to MK203, cross MK203 at or above 3000.

-

Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 32

Path descrip-tor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	MK204	025° (026.4°)	1 MIN	L	3000	6000	210 KT	1°E	

Route Description: RNAV (GNSS) ARRIVAL RWY 32

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
ORSIT 1B ARRIVAL									
IF	ORSIT				-FL150		1°E		RNAV 1
TF	MK461		172° (172.6°)		-14000		1°E	13.8	RNAV 1
TF	MK464		172° (172.7°)				1°E	36.5	RNAV 1
TF	MK203		172° (172.7°)		+3000	210 KT	1°E	15.8	RNAV 1
ORSIT 1C ARRIVAL									
IF	ORSIT				-FL150		1°E		RNAV 1
TF	MK462		192° (192.9°)				1°E	30.2	RNAV 1
TF	MK463		156° (157.1°)	L	+10000		1°E	15.7	RNAV 1
TF	MK203		156° (157.1°)		+3000	210 KT	1°E	23.4	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 32

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
ORSIT	N20°23'06.00''	E056°29'15.00''	N20°23.100'	E056°29.250'	
MK461	N20°09'22.45''	E056°31'07.54''	N20°09.374'	E056°31.126'	
MK462	N19°53'30.37''	E056°22'05.41''	N19°53.506'	E056°22.090'	
MK463	N19°39'00.43''	E056°28'33.59''	N19°39.007'	E056°28.560'	
MK464	N19°33'02.99''	E056°36'03.66''	N19°33.050'	E056°36.061'	
MK203	N19°17'21.23''	E056°38'10.86''	N19°17.354'	E056°38.181'	
MK204	N19°09'32.56''	E056°29'33.02''	N19°09.543'	E056°29.550'	

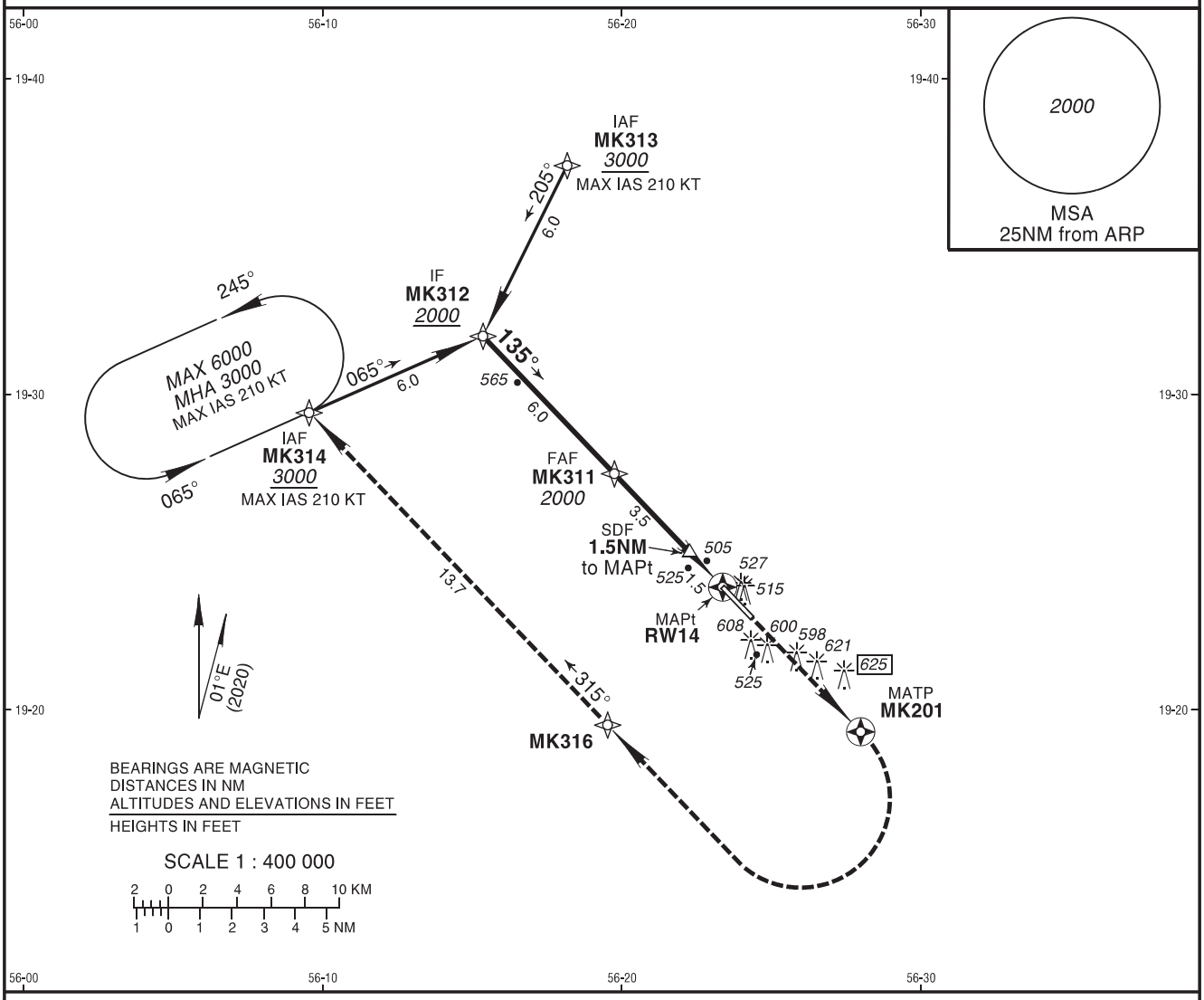
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 479 FT

HEIGHTS RELATED TO THR RWY 14 ELEV 479 FT

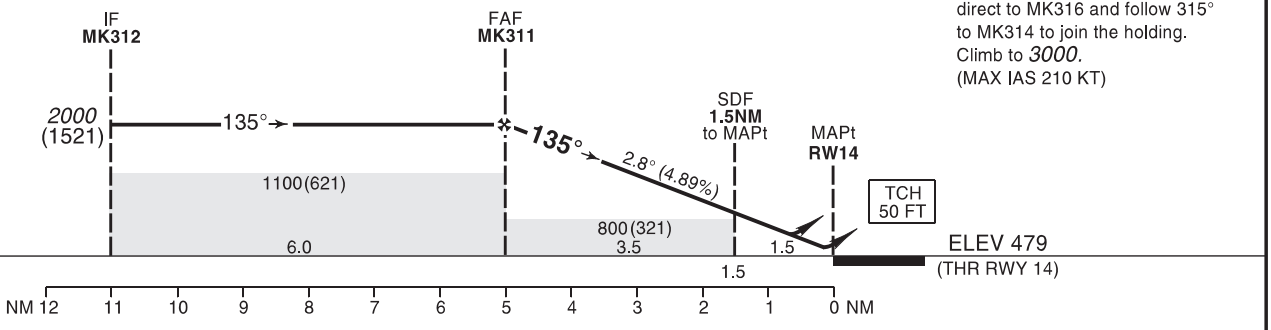
MUKHAIZNA Information 130.000

MUKHAIZNA/Mukhaizna
OMAN
RNP RWY 14



TA ***13000***

MISSED APPROACH:
Climb direct to MK201, turn RIGHT direct to MK316 and follow 315° to MK314 to join the holding.
Climb to *3000*.
(MAX IAS 210 KT)



STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV ❶	OCH	161	171	181	Not Authorized
	DA(H)	*730* (250)			
LNAV	OCH	301			Not Authorized
	MDA(H)	*780* (310)			
CIRCLING (HAA)* ❷		A	B	C	D
	OCH	421	491	591	Not Authorized
	MDA(H)	*900* (430)	*970* (500)	*1070* (600)	

ADVISORY INFORMATION ONLY						
NM to RW14	5	4	3	2	1	
ALT (HGT)	*2000* (1521)	*1717* (1238)	*1420* (941)	*1122* (643)	*825* (346)	
GS	kt	80	100	120	140	160	180
FAF-MAPt	min:s	Timing not authorized.					
ROD: 4.9%	ft/min	396	495	594	693	792	891

❶ LNAV/VNAV Minimum Operational DA(H) ***729*** (250).
❷ Circling not authorized North East of rwy 14/32.

RNP Approach required.

LNAV/VNAV Temperature: Min 5°C
Max 50°C

Holding Instruction/Areas RNP RWY 14

Path descrip-tor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	MK314	065° (066.3°)	1 MIN	L	3000	6000	210 KT	1°E	RNAV 1

-

Route Description: RNP RWY 14

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	MK314				+3000	210 KT	1°E		RNP APCH
TF	MK312		065° (066.3°)		+2000		1°E	6.0	RNP APCH
TF	MK311		135° (136.3°)	R	@000		1°E	6.0	RNP APCH
TF	RW14	Y	135° (136.3°)		@529		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	MK313				+3000	210 KT	1°E		RNP APCH
TF	MK312		205° (206.3°)		+2000		1°E	6.0	RNP APCH
TF	MK311		135° (136.3°)	L	@2000		1°E	6.0	RNP APCH
TF	RW14	Y	135° (136.3°)		@529		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
DF	MK201	Y				210 KT	1°E		RNP APCH
DF	MK316			R		210 KT	1°E		RNP APCH
TF	MK314	Y	315° (316.3°)		+3000	210 KT	1°E		RNP APCH
HM	MK314	Y	065° (066.3°)	L	+3000	210 KT	1°E		RNP APCH

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Aeronautical Data Tabulation: RNP RWY 14

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
MK314 (IAF)	N19°29'25.11''	E056°09'32.59''	N19°29.419'	E056°09.543'	
MK313 (IAF)	N19°37'14.72''	E056°18'10.47''	N19°37.245'	E056°18.175'	
MK312 (IF)	N19°31'50.62''	E056°15'21.56''	N19°31.844'	E056°15.359'	
MK311 (FAF)	N19°27'29.08''	E056°19'45.25''	N19°27.485'	E056°19.754'	
1.5 NM to RW14 (SDF)	N19°24'58.73''	E056°22'16.67''	N19°24.979'	E056°22.278'	
RW14 (MAPT)	N19°23'53.37''	E056°23'22.45''	N19°23.890'	E056°23.374'	
MK201 (MATP)	N19°19'18.08''	E056°27'59.29''	N19°19.301'	E056°27.988'	
MK316	N19°19'30.88''	E056°19'31.64''	N19°19.515'	E056°19.527'	

Non precision final approach 2.8° (4.89%) / TCH 50 FT(15 M).

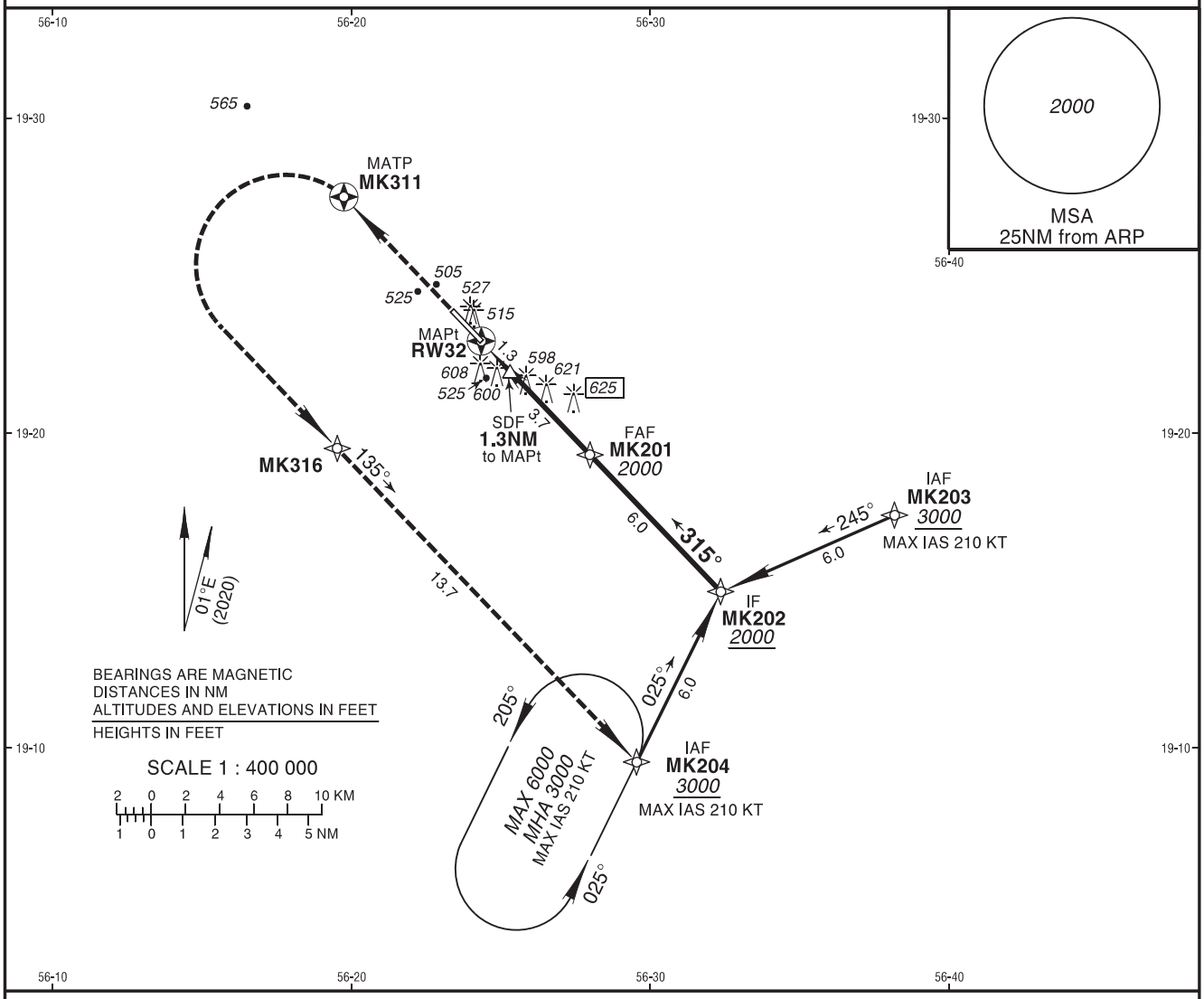
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 479 FT

HEIGHTS RELATED TO THR RWY 32 ELEV 475 FT

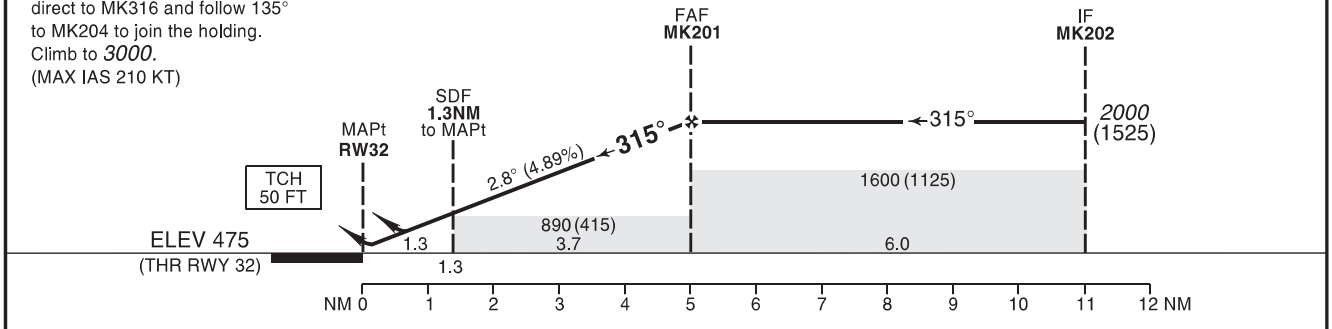
MUKHAIZNA Information 130.000

MUKHAIZNA/Mukhaizna
OMAN
RNP RWY 32



MISSED APPROACH:
Climb direct to MK311, turn LEFT direct to MK316 and follow 135° to MK204 to join the holding.
Climb to *3000*.
(MAX IAS 210 KT)

TA ***13000***



STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV ❶	OCH	175	185	195	Not Authorized
	DA(H)	*730* (250)			
LNAV	OCH	295			Not Authorized
	MDA(H)	*770* (300)			
CIRCLING (HAA)* ❷		A	B	C	D
	OCH	421	491	591	Not Authorized
	MDA(H)	*900* (430)	*970* (500)	*1070* (600)	

ADVISORY INFORMATION ONLY							
NM to RW32		1	2	3	4	5	
ALT (HGT)		*822* (347)	*1119* (644)	*1416* (941)	*1714* (1239)	*2000* (1525)	
GS	kt	80	100	120	140	160	180
FAF-MAPt	min:s	Timing not authorized.					
ROD: 4.9%	ft/min	396	495	594	693	792	891

❶ LNAV/VNAV Minimum Operational DA(H) ***725*** (250).
❷ Circling not authorized North East of rwy 14/32.

RNP Approach required.

LNAV/VNAV Temperature: Min 5°C
Max 50°C

Holding Instruction/Areas RNP RWY 32

Path descrip-tor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	MK204	025° (026.4°)	1 MIN	L	3000	6000	210 KT	1°E	RNAV 1

Route Description: RNP RWY 32

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	MK204				+3000	210 KT	1°E		RNP APCH
TF	MK202		025° (026.4°)		+2000		1°E	6.0	RNP APCH
TF	MK201		315° (316.4°)	L	@2000		1°E	6.0	RNP APCH
TF	RW32	Y	315° (316.3°)		@525		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	MK203				+3000	210 KT	1°E		RNP APCH
TF	MK202		245° (246.4°)		+2000		1°E	6.0	RNP APCH
TF	MK201		315° (316.4°)	R	@2000		1°E	6.0	RNP APCH
TF	RW32	Y	315° (316.3°)		@525		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
DF	MK311	Y				210 KT	1°E		RNP APCH
DF	MK316			L		210 KT	1°E		RNP APCH
TF	MK204	Y	135° (136.3°)		+3000	210 KT	1°E		RNP APCH
HM	MK204	Y	025° (026.4°)	L	+3000	210 KT	1°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 32

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
MK204 (IAF)	N19°09'32.56''	E056°29'33.02''	N19°09.543'	E056°29.550'	
MK203 (IAF)	N19°17'21.23''	E056°38'10.86''	N19°17.354'	E056°38.181'	
MK202 (IF)	N19°14'56.46''	E056°32'22.04''	N19°14.941'	E056°32.367'	
MK201 (FAF)	N19°19'18.08''	E056°27'59.29''	N19°19.301'	E056°27.988'	
1.3 NM to RW32 (SDF)	N19°21'57.90''	E056°25'18.64''	N19°21.965'	E056°25.311'	
RW32 (MAPT)	N19°22'54.54''	E056°24'21.64''	N19°22.909'	E056°24.361'	
MK311 (MATP)	N19°27'29.08''	E056°19'45.25''	N19°27.485'	E056°19.754'	
MK316	N19°19'30.88''	E056°19'31.64''	N19°19.515'	E056°19.527'	

Non precision final approach 2.8° (4.89%) / TCH 50 FT(15 M).

OOMS AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOMS MUSCAT/Muscat International

OOMS AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	233600.72 N 0581700.96 E ATC tower
2	Direction and distance from (city)	32 KM west of Muscat
3	Elevation/Reference temperature	49 FT/42.7°C
4	Geoid undulation at AD ELEV PSN	-90 FT
5	MAG VAR/Annual change	2.0°E (2025)/ 0.05°E
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	Oman Airports Management Company S.A.O.C. (OAMC) Muscat International Airport P.O. Box 1707 Postal Code 111 Muscat, Sultanate of Oman Website: www.omanairports.co.om Email: feedback@omanairports.com Admin: Tel: (968) 24 351234 Fax: (968) 23 368005 H24: Tel: (968) 24 352555 (968) 99 422495 Fax: (968) 23 368005 SITA: MCTAVXH ATC provided by Civil Aviation Authority (CAA) Directorate General of Air Navigation (DGAN) Tel: (968) 24 354888 - ACC (968) 24 359001 Fax: (968) 24 519939 TWR: Tel: (968) 24 518737 - ADC (968) 24 354904 Fax: (968) 24 354537 AFS: OOMSYTYX AIS provided by Directorate General of Air Navigation (DGAN) AIS: Tel: (968) 24 354949 (968) 24 354948 Fax: (968) 24 354947 Email:briefing@caa.gov.om COMM: Tel: (968) 24 354414 (968) 24 354413 Fax: (968) 24 354535 Meteorology provided by Directorate General of Meteorology (DGMet) Weather Forecasting Centre Tel: (968) 24 354660

		Fax: (968) 24 348501 Email:met_dir@met.gov.om
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	AD limited to operate above RVR 550M (for RWY 08L/26R) and RVR 800M (for RWY 08R/26L) due to no LVP in force.

OOMS AD 2.3 OPERATIONAL HOURS

1	AD Administration	H24
2	Customs and immigration	H24
3	Health and sanitation	H24
4	AIS Briefing Office	H24
5	ATS Reporting Office (ARO)	H24
6	MET Briefing Office	H24
7	ATS	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24
11	De-icing	NIL
12	Remarks	NIL

OOMS AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Available
2	Fuel/oil types	JET A1
3	Fuelling facilities/capacity	Fuel Hydrant System (FHS) available at contact & remote stands at North Apron. Fueling by bowser at south remote stands. Fueling Companies: Shell: One bowser with total capacity: 60 000 LTRS Seven Fuel Dispensers Oman Oil: Five bowsers Total Capacity: 229 000 LTRS Eight Fuel Dispensers Al-Maha: Two fuel Bowsers total capacity: 70 000 LTRS Seven Fuel Dispensers Fuel Farm Total capacity: 29 200 000 LTRS
4	De-icing facilities	Nil
5	Hangar space for visiting aircraft	Unavailable

6	Repair facilities for visiting aircraft	Oman Air Support Available Tel: (968) 24 519575 (968) 72 223090 Fax: (968) 24 510162
7	Remarks	Compressed Oxygen available - contact Oman Air Passenger Boarding Bridges are available Pop-out systems (GPU & PCA) available at contact Stands only around PTB

OOMS AD 2.5 PASSENGER FACILITIES

1	Hotels	10 KM from airport, unlimited in city
2	Restaurants	Available
3	Transportation	Taxis, scheduled bus service, car rentals
4	Medical facilities	Airport Clinic, Ambulance, First Aid Nearest hospital 14 KM from aerodrome
5	Bank and Post Office	National Bank of Oman & Dhofar Branch available Cash dispensers available in Terminal Unavailable
6	Tourist Office	Available
7	Remarks	Nil

OOMS AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 10
2	Rescue equipment	Three 8x8 with water capacity of 16 800 LTRS Five 6x6 with water capacity of 12 500 LTRS Two Water Tanker with capacity of 25 000 LTRS
3	Capability for removal of disabled aircraft	At Muscat International Airport, it is mandatory for all airlines to have a Disabled Aircraft Recovery plan in place and to activate their recovery plan, whenever required, within 12 hours from the time where the incident/accident occurs and airline representative to confirm their ability to respond within 1 hour. In case that the airlines are not able to activate their recovery plan within the given time, the airport operator will then take responsibility for deploying their Disabled Aircraft Recovery Kit to recover the disabled aircraft. Consequently, airlines will be subject to charges based on the disable aircraft recovery charging list Specialized equipment available on-site for up to Boeing-747-400 size one side.
4	Remarks	Sea rescue facility available.

OOMS AD 2.7 SEASONAL AVAILABILITY — CLEARING

1	Types of clearing equipment	Nil

2	Clearance priorities	Nil
3	Remarks	AD available all seasons.

OOMS AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	a. North Civil Apron:	Surface: Strength:	Concrete PCN 115/R/A/W/T
		Except for Remote Stands (152, 151, 651, 652) and Cargo Apron	Surface: Strength:	Concrete PCN 84/R/A/W/T
		b. South Civil Apron:	Surface: Strength:	Asphalt and concrete PCN 56/R/A/W/U
		c. Royal Flight Apron:	Surface: Strength:	Asphalt and concrete PCN 56/R/A/W/T
		d. Police Aviation Apron:	Surface: Strength:	Asphalt and concrete PCN 56/R/A/W/T
		e.MRO Apron:	Surface: Strength:	Concrete PCN 78/R/B/W/T
2	Taxiway width, surface and strength		Width: Surface: Strength:	23 M plus 13.5 M paved shoulders southern maneuvering area (South of N1 & R1): Asphalt PCN 72/F/A/W/T
			Width: Surface: Strength:	25 M plus 17.5 M paved shoulders northern maneuvering area (North of N1 & R1): Asphalt PCN 91/F/A/W/T
		A, AP1, AP2, AR1, AR2, AR3, AR4, AS1, AS2, AS3, C1, C2, C3, C4, C5, C6, C7, C8, C9, C10	Width: Surface: Strength:	NIL NIL PCN 72 /F /A /W /T
		D1, D2, D3, D5, D6, D7, D9	Width: Surface: Strength:	NIL NIL PCN 94 /F /A /W /T

		E1, E2, E3, E4, E5, E6, E7, E8, E9	Width:	NIL
			Surface:	NIL
			Strength:	PCN 99 /F /A /W /T
		Y1 - Y6 & V1 - V2	Width:	NIL
			Surface:	NIL
			Strength:	PCN 105 /F /A /W /T
		Y7, Y8, L, G, M, V3 - V8, W, S, U, T, N, R, H	Width:	NIL
			Surface:	NIL
			Strength:	PCN 112 /F /A /W /T
3	ACL and elevation	A1 48 FT A2 48 FT L1 26 FT T1 24 FT West Apron 46 FT East Apron 42 FT Royal Flight Apron 57 FT Police Aviation Apron 57 FT		
4	VOR checkpoint	NIL		
5	INS checkpoint	(See Aircraft Parking/Docking Chart-ICAO)		
6	Remarks	NIL		

OOMS AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Taxiing guidance system: a. Cockpit guidelines on taxiway and aprons b. Stand ID markings on ground c. Directional marking reflecting the signage on ground d. Supplementary stands are marked by broken lead-in marking e. Marshallers guidance f. Visual Docking Guidance System (VDGS) is installed and operational on contact & remote stands at North Apron and Cargo Apron.
2	RWY and TWY markings and LGT	RWY 08L: LGT: Edge, end-inset, THR-inset, WBAR, TDZ, centreline, RTIL, VRB LIH. Markings: THR, RWY designators, TDZ, centreline, side stripes. RWY 08R: LGT: Edge, end-inset, THR-inset, WBAR, RTIL,

		VRB LIH. Markings: Displaced THR, RWY designators, TDZ, centreline, side stripes. RWY 26R: LGT: Edge, end-inset, THR-inset, WBAR, TDZ, centreline, RTIL, VRB LIH. Markings: Displaced THR, RWY designators, TDZ, centreline, side stripes. RWY 26L: LGT: Edge, end-inset, THR-inset, WBAR, RTIL, VRB LIH. Markings: RWY designators, TDZ, centreline, side stripes. TWY: LGT: Edge lights elevated/inset blue all TWYs. Centerline lights inset green all TWYs except TWY A Illuminated signs for TWY designators and direction signs. Markings: Runway 08L/26R holding positions (Y1, Y2, Y3, Y4, Y5, Y6,Y7, Y8 & Z1). Runway 08R/26L holding positions (D1, D2, D3, D5, D6, D7,D9, E1, E2, E3, E4, E5, E6, E7, E8 &E9). Intermediate holding positions on TWY A (AP1, AP2, AR1,AR2, AR3, AR4, AS1, AS2, AS3, C1, C2, C3, C4, C5, C6, C7, C8,C9, C10). Intermediate holding positions on TWY V and TWY W (V1, V2,V3, V4, V5, V6, V7, V8 & W1, W2, W3, W4). Intermediate holding positions on TWY H, TWY G, TWY N & TWY R (H1, H2, H3, H4, H5, H6, H7, H8, G1, G2, G3, G4, G5, G6, GB1, N1, N2, R1, R2)
3	Stop bars	D1, D2, D3, D5, D6, D7, D9, E1, E2, E3, E4, E5, E6, E7, E8 & E9, G1, G6, GB1, H2, H3, H6, H8, N1, N2, R1, R2, W1, W2, W3, W4,V1, V2, V3, V4, V5, V6, V7, V8, Y1, Y2, Y3, Y4, Y5, Y6, Y7, Y8 & Z1.
4	Other runway protection measures	NIL
5	Remarks	- TWY Y1 is not permitted for Aircraft exit from RWY 08L/26R. - TWY AP1 - up to code F ACFTs - TWY AP2 -up to code E ACFTs - TWYs AS1, AS2, AS3 – up to code D ACFTs - TWYs AR1, AR2, AR3, AR4 – up to code F ACFTs - TWYs C1, C2, C3, C4, C7, C8, C9 and C10 - up to code F, up to A380 and B748 - TWYs C5 and C6– up to code C ACFTS - TWYs D2, D3,D5 and D6 – up to code E ACFTs - TWY E7 up to code E ACFTs - TWY E8 – up to code D ACFTs

OOMS AD 2.10 AERODROME OBSTACLES

In Area 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
RWY 08L Approach / RWY 26R Departure					
OOMS3328	Tree	233612.26 N 0581458.09 E	21.11 M (73 FT)	not marked not lit	Nil
OOMS3330	Tree	233614.34 N 0581457.12 E	22.66 M (74 FT)	not marked not lit	Nil
OOMS3331	Tree	233614.89 N 0581456.98 E	24.54 M (81 FT)	not marked not lit	Nil
OOMS1715	Light	233613.20 N 0581456.61 E	26.54 M (87 FT)	not marked lit	Nil
OOMS_2689	Building	233609.89 N 0581448.64 E	30.21	not marked not lit	NIL
OOMS_0018	Pole	233616.96 N 0581455.51 E	26.06	not marked not lit	NIL
OOMS_2658	Tree	233614.04 N 0581455.40 E	26.30	not marked not lit	NIL
OOMS_0019	Pole	233615.72 N 0581455.89 E	26.13	not marked not lit	NIL
OOMS_2644	Tree	233614.92 N 0581456.98 E	25.62	not marked not lit	NIL
OOMS_0020	Pole	233614.47 N 0581456.25 E	26.23	not marked not lit	NIL
OOMS_2657	Tree	233615.01 N 0581455.09 E	26.86	not marked not lit	NIL
OOMS_0021	Pole	233613.21 N 0581456.60 E	26.32	not marked not lit	NIL
OOMS_0022	Pole	233611.97 N 0581456.94 E	26.37	not marked not lit	NIL
OOMS_0023	Pole	233610.69 N 0581457.29 E	26.51	not marked not lit	NIL
RWY 26R Approach / RWY 08L Departure					
OOMS2533	ILS antenna	233633.87 N 0581805.56 E	12.37 M (41 FT)	not marked lit	Nil
Transitional RWY 26R/08L and RWY 26L/08R					
OOMS_0112	Pole	233636.94 N 0581813.77 E	12.39	not marked not lit	NIL
OOMS_0113	Pole	233636.66 N 0581814.70 E	12.41	not marked not lit	NIL
OOMS_0114	Sign	233636.61 N	14.47	not marked not lit	NIL

In Area 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
		0581814.81 E			
OOMS_0352	Antenna	233641.86 N 0581805.63 E	24.18	not marked not lit	NIL
OOMS_0405	Weather station	233636.86 N 0581732.83 E	13.76	not marked not lit	NIL
OOMS_0019	Pole	233615.72 N 0581455.89 E	26.13	not marked not lit	NIL
OOMS_2645	Tree	233616.32 N 0581456.59 E	21.28	not marked not lit	NIL
OOMS_0405	Weather station	233636.86 N 0581732.83 E	13.76	not marked not lit	Frangible
OOMS_0085	Pole	233540.83 N 0581847.35 E	15.33	not marked not lit	NIL
OOMS_0078	Pole	233545.76 N 0581846.88 E	14.98	not marked not lit	NIL
OOMS_0565	RVR	233531.56 N 0581721.80 E	13.13	not marked not lit	Frangible
OOMS_2799	Fuel Shed	233535.02 N 0581837.56 E	22.29	not marked not lit	NIL
OOMS_2796	Fuel Shed	233534.94 N 0581836.58 E	22.28	not marked not lit	NIL
OOMS_0595	Mast	233520.33 N 0581638.42 E	49.95	not marked lit	NIL
OOMS-0444	RVR	233527.68 N 0581632.02 E	17.18	not marked not lit	Frangible
OOMS_0458	Building	233524.56 N 0581800.67 E	60.53	not marked lit	NIL
OOMS-0424	Windsock	233536.00 N 0581814.15 E	14.30	not marked lit	Frangible
OOMS-0447	Weather station	233535.06 N 0581810.36 E	17.93	not marked lit	Frangible
OOMS-0425	Windsock	233536.93 N 0581627.96 E	20.10	not marked lit	Frangible
OOMS-0446	Weather station	233531.56 N 0581721.80 E	13.13	not marked not lit	Frangible
Refer to Aerodrome Obstacle Charts (Type A) and (Type B) Note 1: Obstacle list is available on request from OAMC, refer to section 2 subsection 6 for contact details.					

In Area 3					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
OOMS3303	Light	233523.57 N 0581753.78 E	61.30 M (201.1 FT)	not marked lit	NIL
OOMS3349	Light	233520.50 N 0581754.12 E	62.15 M (203.9 FT)	not marked lit	NIL
OOMS3350	Light	233521.10 N 0581800.88 E	61.22 M (200.85 FT)	not marked lit	NIL
OOMS3300	Light	233524.12 N 0581800.65 E	61.30 M (201.1 FT)	not marked lit	NIL

OOMS AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	MUSCAT/Muscat International
2	Hours of serviceMET Office outside hours	H24
3	Office responsible for TAF preparationPeriods of validity	Muscat H24
4	Trend forecasteInterval of issuance	Trend type routine
5	Briefing/consultation provided	Self-briefing display, telephone, personal consultation web: www.met.gov.om
6	Flight documentationLanguage(s) used	Charts, tabular forms, textEnglish
7	Charts and other information available for briefing or consultation	Surface analysis, prognostic upper air chart, significant weather chart, satellite images
8	Supplementary equipment available for providing information	Primary data user system (PDUS) High resolution satellite (HRPT) Satellite distribution system for aviation charts (SADIS)
9	ATS units provided with information	Muscat FIC/ACC/RCC
10	Additional information	Tel.: (968) 24 354660, (968) 24 348501 (Forecaster)

OOMS AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	**TRUE BRG**	**Dimensions of RWY (M)**	**Strength (PCN) and surface of RWY and SWY**	**THR coordinates RWY end coordinate THR geoid undulation**	**THR elevation and highest elevation of TDZ of precision APP RWY**
1	**2**	**3**	**4**	**5**	**6**
08L	085° T 083° M	4000 X 60	91/F/A/W/T Asphalt and Concrete	233621.27 N 0581528. 63 E 233632.57 N	THR 26 FT TDZ 25.4 FT

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
				0581749.30 E GUND -90 FT	
26R	265° T 263° M	4000 X 60	91/F/A/W/T Asphalt and Concrete	233632.57 N 0581749.30 E 233621.27 N 0581528.63 E GUND -90 FT	THR 19.6 FT TDZ 19.6 FT
08R	085° T 083° M	4080 X 45	91/F/A/W/T Asphalt	233530.02 N 0581600.92 E 233541.54 N 0581824.31 E GUND -90 FT	THR 48.9 FT TDZ 49 FT
26L	265° T 263° M	4080 X 45	91/F/A/W/T Asphalt	233541.54 N 0581824.31 E 233530.02 N 0581600.92 E GUND -90 FT	THR 24.2 FT TDZ 26 FT

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
08L	0.05% down	NIL	NIL	4120 X 280	240 x 140 M
26R	0.05% up	NIL	NIL	4120 X 280	240 x 140 M
08R	0.19% down	NIL	NIL	4200 X 280	240 x 140 M
26L	0.19% up	NIL	NIL	4200 X 280	240 x 140 M

Designations RWY NR	Location and description of engineering material arresting system (EMAS)	OFZ	Remarks
1	12	13	14
08L	NIL	yes	NIL
26R	NIL	yes	NIL
08R	NIL	yes	NIL
26L	NIL	yes	NIL

a. Runway 26R THR displaced by 160 M. DTHR Coordinates: N233632.12 E0581743.66, DTHR ELEV 19.7 FT.

b. Runway 08R THR displaced by 480 M. DTHR Coordinates: N233531.38 E0581617.79, DTHR ELEV 49 FT.

c. Runway 08L/26R has paved shoulders 15 M wide.

d. Runway 08R/26L has paved shoulders 15 M wide.

OOMS AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
08L	4000	4000	4000	4000	Nil
Intersection Y3	3312	3312	3312	NIL	Nil
26R	4000	4000	4000	3840	Nil
Intersection Y6	3306	3306	3306	NIL	Nil
08R	4080	4080	4080	3600	Nil
Intersection E2	3690	3690	3690	NIL	Nil
Intersection D2	3140	3140	3140	NIL	Nil
Intersection D3	2568	2568	2568	NIL	Nil
26L	4080	4080	4080	4080	Nil
Intersection E8	3985	3985	3985	NIL	Nil
Intersection E7,D7	3585	3585	3585	NIL	Nil
Intersection D6	3069	3069	3069	NIL	Nil
Intersection D5	2455	2455	2455	NIL	Nil

OOMS AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
08L	LIH Variable white 900 M	Green WBAR	PAPI left side / 3° MEHT 65 FT 424 M	900 M from THR Uni-Direction	Yes	60 M Uni-Directional	Red LIH No WBAR	Nil	WARNING: Unless otherwise notified

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
	Coded centreline with 5 cross bars at 150 M intervals		from THR	al VRB LIH White spacing 30 M		LIH White Bi-Directional LIH last 600 M yellow			by ATC, pilots should only land on the runway in use that is indicated by the flashing white RTIL. Closed runway will be marked by an illuminated white X and should not be used for landing under any circumstances.
26R	LIH Variable white 900 M Coded centreline with 5 cross bars at 150 M intervals	Green WBAR	PAPI left side / 3° MEHT 66 FT 434 M from THR	900 M from THR Uni-Directional VRB LIH White spacing 30 M	Yes	60 M Uni-Directional LIH White Bi-Directional LIH last 600 M yellow Red between the beginning of the RWY and Displ THR in the	Red LIH No WBAR	Nil	WARNING: Unless otherwise notified by ATC, pilots should only land on the runway in use that is indicated by the flashing white RTIL. Closed runway will be marked by an

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
						Approach direction			illuminated white X and should not be used for landing under any circumstances.
08R	LIH Variable white 900 M Coded centreline with 5 cross bars at 150 M intervals	Green WBAR	PAPI left side / 3° MEHT 17.3 FT 431 M from THR	N/A	N/A	60 M Directional White Yellow/ Yellow/ Red	Red LIH No WBAR	Nil	RTIL (white)
26L	LIH Variable white 900 M Coded centreline with 5 cross bars at 150 M intervals	Green WBAR	PAPI left side / 3° MEHT 17.3 FT431 M from THR	N/A	N/A	60 M Directional White Yellow/ Yellow/ Red	Red LIH No WBAR	Nil	RTIL (white)

OOMS AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics andhours of operation	Nil
2	LDI location and LGT Anemometer location and LGT	RWY 08L/26R Indicators and ground signaling devices: WDI (lighted at night): North of RWY abeam TDZ RWY 08L South of RWY abeam TDZ RWY 26R RWY 08R/26L Indicators and ground signaling devices: WDI (lighted at night): south of RWY abeam TDZ RWY 08R South of RWY abeam TDZ RWY 26L

		Anemometer: RWY 08L/26R (3 anemometer): both RWY ends abeam TDZs and mid of RWY (north of the RWY) RWY 08R/26L (3 anemometer): both RWY ends abeam TDZs and mid of RWY (south of the RWY)
3	TWY edge and centre line lighting	Edge: Elevated/inset blue in turns Centreline: inset green
4	Secondary power supply/switch-over time	UPS and diesel generators/1 SEC
5	Remarks	Nil

OOMS AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO Geoid undulation	233524.50 N 0581623.60 E FATO ALFA ROMEO 2	233541.80 N 0581614.00 E FATO HOTEL
2	TLOF and/or FATO elevation M/FT	50.36 FT	37.60 FT
3	TLOF and FATO area dimensions, surface, strength, marking	East 617 x 35 M West 517 x 35 M Asphalt PCN 60/F/A/X/U white	East 623 x 23 M West 623 x 23 M Asphalt PCN 91/F/A/W/T white
4	True BRG of FATO	085° (T), 084° (M) 265° (T), 264° (M)	085° (T), 084° (M) 265° (T), 264° (M)
5	Declared distance available	TODAH: East 600 M; West 500 M RTODAH: East 600 M; West 500 M LDAH: 35 M	TODAH: East 623 M; West 623 M RTODAH: East 623 M; West 623 M LDAH: 23 M
6	APP and FATO lighting	NIL	NIL
7	Remarks	Non instrument, visual conditions, Daytime only. Max Helicopter length 23.2 M (see Notes and refer to paragraph 20.4, 20.8, 22.4).	Non instrument, visual conditions,Daytime only. Max Helicopter length 23.2 M

Notes: 1. During VFR operations, helicopters of 23.2 meters overall length or less may be directed to land and depart from designated area on Taxiway A. Helicopters longer than 23.2 meters will be treated as fixed wing aircraft and will use the runway, as appropriate.

2. Helicopters longer than 23.2 meters shall advise Aerodrome Control on first contact.

3. The final approach take off area combined with touchdown and lift off area on Taxiway A is marked as shown on the Aerodrome Chart AD 2.OOMS-15. It is designated as FATO ALFA ROMEO 2.

4. Helicopter final approach take-off area ALFA ROMEO 2 can be used for arrivals and departures in both directions - 085° T and 265° T.

5. Aerodrome Control will endeavour to use the helicopter landing areas nearest to the appropriate apron whenever possible, subject to traffic.

6. Helicopters are considered as taxiing aircraft when either on the taxiway or when air taxiing in ground effect and at a speed of 20 KT or less.

7. When meteorological conditions go below following parameters:

a) Visibility less than 5000 M

b) Ceiling unable to remain more than 1000 FT below cloud

c) Forward visibility of 1500 M and during hrs of darkness, all helicopter operations shall take place to and from the runway.

8. FATO HOTEL is available when TWY H is clear of movement, if there is any operations commenced in the compass pad the approach of FATO HOTEL shall be commenced from East (RWYs 26 direction landing).

OOMS AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	Muscat CTR Circle radius 10 NM centered on Muscat DVOR/DME.(N233528.04 E0581536.48).
2	Vertical limits	SFC-5500 FT AMSL
3	Airspace classification	C
4	ATS unit call signLanguage(s)	Muscat Approach/Muscat Tower English
5	Transition altitude/Transition level	13 000 FT/FL150
6	Hours of applicability (or activation)	H24
7	Remarks	1. Establish radio communication with ATC prior to entering CTR. 2. CTR airspace from Surface (SFC) to 2000 FT delegated to Muscat Tower Control during SUNRISE-SUNSET (HJ) in VMC, excluding the Final Approach Path areas.

OOMS AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP/RAD	Muscat Approach	121.200 MHz 119.500 MHz 121.500 MHz	H24	Primary Secondary Emergency
TWR	Muscat Tower North	118.825 MHz 129.575 MHz 121.500 MHz	H24	Primary Secondary Emergency
	Muscat Tower South	118.400 MHz 129.575 MHz 121.500 MHz		Primary Secondary Emergency

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
SMC	Muscat Ground North Muscat Ground South	127.875 MHz 129.575 MHz 121.800 MHz 129.575 MHz	H24	Primary Secondary Primary Secondary
CLD	Muscat Clearance Delivery	125.575 MHz 129.575 MHz	H24	Primary Secondary
ATIS	Muscat Information	126.800 MHz	H24	NIL

OOMS AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR, Type of supported OPS (for VOR/ILS/MLS, give declination),facility_classification	ID	Frequency (CH)	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
DVOR/DME 2.0°E (2025)	MCT	114.500 MHz CH 92X	H24	233528.04N05 81536.48E	74 Feet	NIL
LOC RWY 08L ILS CAT I 2.0°E (2025)	IML	108.900 MHz	H24	233633.57N05 81802.26E		
GP RWY 08L		329.300 MHz	H24	233626.23N05 81540.06E		Angle: 3.0°, RDH 55 FT
ILS DME RWY 08L	IML	CH 26X	H24	233626.23N05 81540.06E	29 Feet	
LOC RWY 26R ILS CAT I 2.0°E (2025)	IMR	110.700 MHz	H24	233619.16N05 81502.83E		
GP RWY 26R		330.200 MHz	H24	233635.20N05 81731.71E		Angle: 3.0°, RDH 57 FT
ILS DME RWY 26R	IMR	CH 44X	H24	233635.20N05 81731.71E	23 Feet	
LOC RWY 08R ILS CAT I (2.0˚E/2025)	IMW	108.300 MHz	H24	233542.60N 0581837.30E		

Type of aid, MAG VAR, Type of supported OPS (for VOR/ILS/MLS, give declination),facility_classification	ID	Frequency (CH)	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
GP RWY 08R		334.100 MHz	H24	233528.30N 0581629.90E		Angle: 3°, RDH 57.3ft
ILS DME RWY 08R	IMW	CH 20X	H24	233528.30N 0581629.90E	56 Feet	
LOC RWY 26L ILS CAT 1 (2.0˚E/2025)	ISB	110.300 MHz	H24	233528.70N 0581544.30E		
GP RWY 26L		335.000 MHz	H24	233536.50N 0581812.70E		Angle: 3°, RDH 57.3ft
ILS DME RWY 26L	ISB	CH 40X	H24	233536.50N 0581812.70E	34 Feet	

OOMS AD 2.20 LOCAL AERODROME REGULATIONS

20.1 AERODROME REGULATIONS

General:

AD is restricted to aircraft capable of maintaining twoway radio communications with ATC Muscat.

Local flying restrictions:

a) Non-scheduled and private flights PPR 72 hrs.

b) Traffic circuits Rwy 26R - RIGHT, Rwy 08L - LEFT

c) Pilots intending to conduct local flights are required to obtain prior permission from CAA.

Movement areas - Aprons:

Civil Apron handling requirements:

Operators are responsible for ensuring that aircraft which park on the Civil Apron are provided with:

a) Chocks under wheels.

Wheel chocks are available from handling companies. Fire cover may be provided by the operator, handling company or

Airport Fire Department. If the services of the Airport Fire Department are required, the operator should notify the duty officer (Tel.: (968) 24 519718) at least 10 Minutes prior to start-up.Wearing high visibility jacket is required in the apron area.

20.2 TAXIING TO AND FROM STANDS

See Aerodrome and Parking Chart - ICAO

20.3 PARKING AREA FOR SMALL AIRCRAFT (GENERAL AVIATION)

Stands are allocated by OAMC and information is relayed to Aircraft by ATC.
See Aerodrome and Parking Chart - ICAO

20.4 PARKING AREA FOR HELICOPTERS

Helicopters are treated as fixed-wing aircraft.

20.5 APRON - TAXIING DURING WINTER CONDITIONS

Not applicable.

20.6 TAXIING LIMITATIONS

Nil

20.7 SCHOOL AND TRAINING FLIGHTS - TECHNICAL TEST FLIGHTS - USE OF RUNWAYS

No instrument training flights allowed daily between 0300 - 0900 for CAT A and B.

20.8 HELICOPTER TRAFFIC - LIMITATION

Nil

20.9 REMOVAL OF DISABLED AIRCRAFT FROM RUNWAYS

Refer to section 6 subsection 3

OOMS AD 2.21 NOISE ABATEMENT PROCEDURES

21.1 OPERATORS PROCEDURES

21.1.1 To reduce aircraft noise disturbance to residents around the airport without compromising the safety of aircraft operations, it is recommended that aircraft avoid exceeding idle reverse thrust when using engine reverse upon landing on RWY 08L between 1600 and 0200 UTC.

21.1.2 Unless it is necessary for operational or safety reasons, when using engine reverse, arrivals on RWY 08L between 1600 and 0200 UTC may not exceed idle reverse thrust.

OOMS AD 2.22 FLIGHT PROCEDURES

22.1 SPECIAL PROCEDURES FOR MUSCAT CTR

The arrival, departure and transit routes shown on AD 2.OOMS-87 are mandatory to all VFR flights unless otherwise instructed by ATC.

22.2 RADAR SERVICES AND PROCEDURES

Aircraft will be vectored and sequenced to the appropriate final approach track (ILS, VOR, visual) so as to ensure an expeditious flow of traffic. Radar vectors and flight levels / altitudes will be issued, as required, for spacing and separating the aircraft so that correct landing intervals are maintained, taking into account various factors including aircraft characteristics.

Radar coverage - Muscat APP operates:

RAD at Muscat International Airport - Range 100 NM

Note: Pilots should operate SSR transponder equipment as follows:

a) Operation of transponders on apron areas is not permitted, except with ATC approval.

b) Departing acft shall squawk standby until take-off clearance is received.

22.3 RADIO COMMUNICATION FAILURE PROCEDURE

22.3.1 At or above 9000 FT QNH:

a) If in VMC, continue flight in VMC;

b) If in IMC, proceed direct to Muscat DVOR/DME at last assigned level and comply with ICAO procedure referenced in ENR 1.6. If unable to land, climb in DVOR/DME holding pattern and depart controlled airspace at applicable minimum en-route level, proceed to alternate.

22.3.2 Below 9000 FT QNH:
a) If in VMC, continue flight in VMC;

b) If in IMC, climb immediately to the applicable minimum safe altitude, proceed direct to the Muscat DVOR/DME and comply with ICAO procedure referenced in ENR 1.6. If unable to land, climb in the DVOR/DME holding pattern and depart controlled airspace at applicable minimum en-route level, proceed to alternate.

c) If in IMC, when on a heading to intercept RWY 08L/ 26R extended centerline and a failure is experienced or suspected, make the shortest turn onto a heading of 020° MAG, climb to 5000 FT QNH, proceed to Muscat DVOR/DME and comply

with ICAO procedure referenced in ENR 1.6. If unable to land, climb in the DVOR/DME holding pattern and depart controlled airspace at applicable minimum en-route level, proceed to alternate.

Note: Due to terrain South of RWY 08L/26R extended centerline, pilots must monitor position on DVOR/DME or LOC when on intercepting heading. Pilots must ensure that they do not proceed through the extended centreline unless positively instructed to by ATC.

22.4 HELICOPTER PROCEDURE

Helicopters will be directed from the VFR routes to the appropriate landing area.

OOMS AD 2.23 ADDITIONAL INFORMATION

23.1 BIRD CONCENTRATION IN THE VICINITY OF THE AIRPORT

Large solitary predatory birds (eagles, vultures etc.) present a hazard to air navigation at all times on the coastal plain near the vicinity of the airport. Pilots are advised to exercise extreme caution when approaching or departing, particularly below 3000 FT QNH. ATC will endeavor to keep pilots advised of bird concentrations, but single birds circling at any height are very difficult to observe by ATC. Pilot reports of bird concentrations are requested. These reports are very useful in planning a programme to attempt a reduction of bird strike hazards.

23.2 GENERAL SAFETY MEASURES FOR VISUAL DOCKING GUIDANCE SYSTEM (VDGS) OPERATIONS

23.2.1 The VDGS has a built-in error detection program to inform the aircraft pilot of impending dangers during the docking procedures.

23.2.2 If the pilot is unsure of the information being shown on the VDGS display unit, pilot must immediately stop the aircraft and obtain further information for clearance.

23.2.3 The pilot shall not enter the stand area, unless the docking system first is showing vertical running arrows. The pilot must not proceed beyond the bridge, unless these arrows have been superseded by the closing rate bar.

23.2.4 The pilot shall not enter the stand area, unless the aircraft type displayed is equal to approaching aircraft.

23.2.5 When using the docking system, pilots are advised to taxi into the aircraft stand at minimum speed. The system will display “SLOW DOWN” to inform the pilot if the aircraft’s taxiing speed is too fast.

23.2.6 To avoid overshooting, pilots are advised to approach the stop position slowly and observe the closing rate information displayed. Pilots should stop the aircraft immediately when seeing the “STOP” display or when given the “STOP” sign by the aircraft marshaller.

23.2.7 The FAILED MESSAGE - The message FAILED means that docking has been interrupted and has to be resumed only by manual guidance. Do not try to resume docking without manual guidance.

23.3 VDGS-STANDS DOCKING PROCEDURE IN NORTH APRON

Do not enter the stand if the display is blank or shows WAIT, STOP, FAILED, ERR or an incorrect aircraft, unless a

marshaller is present. Contact GROUND for assistance. During the aircraft approach to the stand, the docking guidance system automatically confirms the identification of the aircraft. The aircraft must be identified at least 12m before the correct stop position. If this does not occur, the system displays “STOP” and then “WAIT”. While the aircraft is stopped, the system will attempt to identify it. If successful, the docking procedure will continue. If not, “WAIT” will be replaced with “STOP”.

Check that the correct aircraft type is displayed. The scrolling arrows indicate that the system is activated.

Follow the lead in line. When the solid yellow closing rate field appears, the aircraft has been caught by the scanning unit. The scanning unit now checks that the aircraft is the correct type and the display provides azimuth guidance information.

Look for the flashing red arrow and solid yellow arrow which provide azimuth guidance information. The flashing red arrow shows which direction to steer, while solid yellow arrow gives an indication of how far the aircraft is off of the centreline.

When the aircraft is 12M from the stop position, closing rate information is given. "Distance to go" is indicated by turning off one row of LEDs for each one half metre that the aircraft advances toward the stop position.

When the aircraft is approaching with too high speed, display will indicate "SLOW".

When the correct stop position is reached all of the LEDs for the closing rate field will be off, the word "STOP" will appear in the display.

If the aircraft stops in the correct position, "OK" will be displayed after a few seconds.

If the aircraft has gone past the correct stop position, the display will show "TOO FAR".

23.4 LASER BEAM EMISSION

Laser light pointing Northwest will be operating at N233750 E0581152 (AL KHUDH) from SFC to 500ft AMSL daily between 1300-1700.

OOMS AD 2.24 CHARTS RELATED TO AN AERODROME

AERODROME CHART - ICAO	AERODROME CHART - ICAO
AIRCRAFT PARKING-DOCKING CHART - ICAO (SOUTH CIVIL AND GENERAL AVIATION APRONS)	AIRCRAFT PARKING-DOCKING CHART - ICAO (SOUTH CIVIL AND GENERAL AVIATION APRONS)
AIRCRAFT PARKING-DOCKING CHART - ICAO (NORTH CIVIL APRON)	AIRCRAFT PARKING-DOCKING CHART - ICAO (NORTH CIVIL APRON)
AIRCRAFT PARKING-DOCKING CHART - ICAO (CARGO APRON)	AIRCRAFT PARKING-DOCKING CHART - ICAO (CARGO APRON)
AERODROME OBSTACLE CHART - ICAO - TYPE A 08L-26R	AERODROME OBSTACLE CHART - ICAO - TYPE A 08L-26R
AERODROME OBSTACLE CHART - ICAO - TYPE A 08R-26L	AERODROME OBSTACLE CHART - ICAO - TYPE A 08R-26L
AERODROME OBSTACLE CHART - ICAO - TYPEB	AERODROME OBSTACLE CHART - ICAO - TYPEB
PRECISION APPROACH TERRAIN CHART - ICAO - RWY 08L	PRECISION APPROACH TERRAIN CHART - ICAO - RWY 08L
PRECISION APPROACH TERRAIN CHART - ICAO - RWY	PRECISION APPROACH TERRAIN CHART - ICAO - RWY 26R

26R	
TERMINAL AREA CHART MUSCAT - ICAO	TERMINAL AREA CHART MUSCAT - ICAO
DEP-ARR STANDARD RNAV ROUTES - ICAO	DEP-ARR STANDARD RNAV ROUTES - ICAO
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 08L	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 08L
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 08L	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 08L
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 26R	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 26R
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 26R	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 26R
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 08L	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 08L
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 08L	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 08L
STANDARD ARRIVAL CHART (TRANSITION) INSTRUMENT - ICAO - RWY 08L	STANDARD ARRIVAL CHART (TRANSITION) INSTRUMENT - ICAO - RWY 08L
STANDARD ARRIVAL	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 26R

CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 26R	
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 26R	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 26R
STANDARD ARRIVAL CHART (TRANSITION) INSTRUMENT - ICAO - RWY 26R	STANDARD ARRIVAL CHART (TRANSITION) INSTRUMENT - ICAO - RWY 26R
INSTRUMENT APPROACH CHART - ICAO - ILS RWY 08L	INSTRUMENT APPROACH CHART - ICAO - ILS RWY 08L
INSTRUMENT APPROACH CHART - ICAO - ILS RWY 26R	INSTRUMENT APPROACH CHART - ICAO - ILS RWY 26R
INSTRUMENT APPROACH CHART - ICAO - LOC RWY 08L	INSTRUMENT APPROACH CHART - ICAO - LOC RWY 08L
INSTRUMENT APPROACH CHART - ICAO - LOC RWY 26R	INSTRUMENT APPROACH CHART - ICAO - LOC RWY 26R
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 08L	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 08L
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 26R	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 26R
INSTRUMENT APPROACH CHART - ICAO - VOR RWY 08L	INSTRUMENT APPROACH CHART - ICAO - VOR RWY 08L
INSTRUMENT APPROACH CHART - ICAO - VOR RWY 26R	INSTRUMENT APPROACH CHART - ICAO - VOR RWY 26R

VFR ROUTES - MUSCAT CTR	VFR ROUTES - MUSCAT CTR

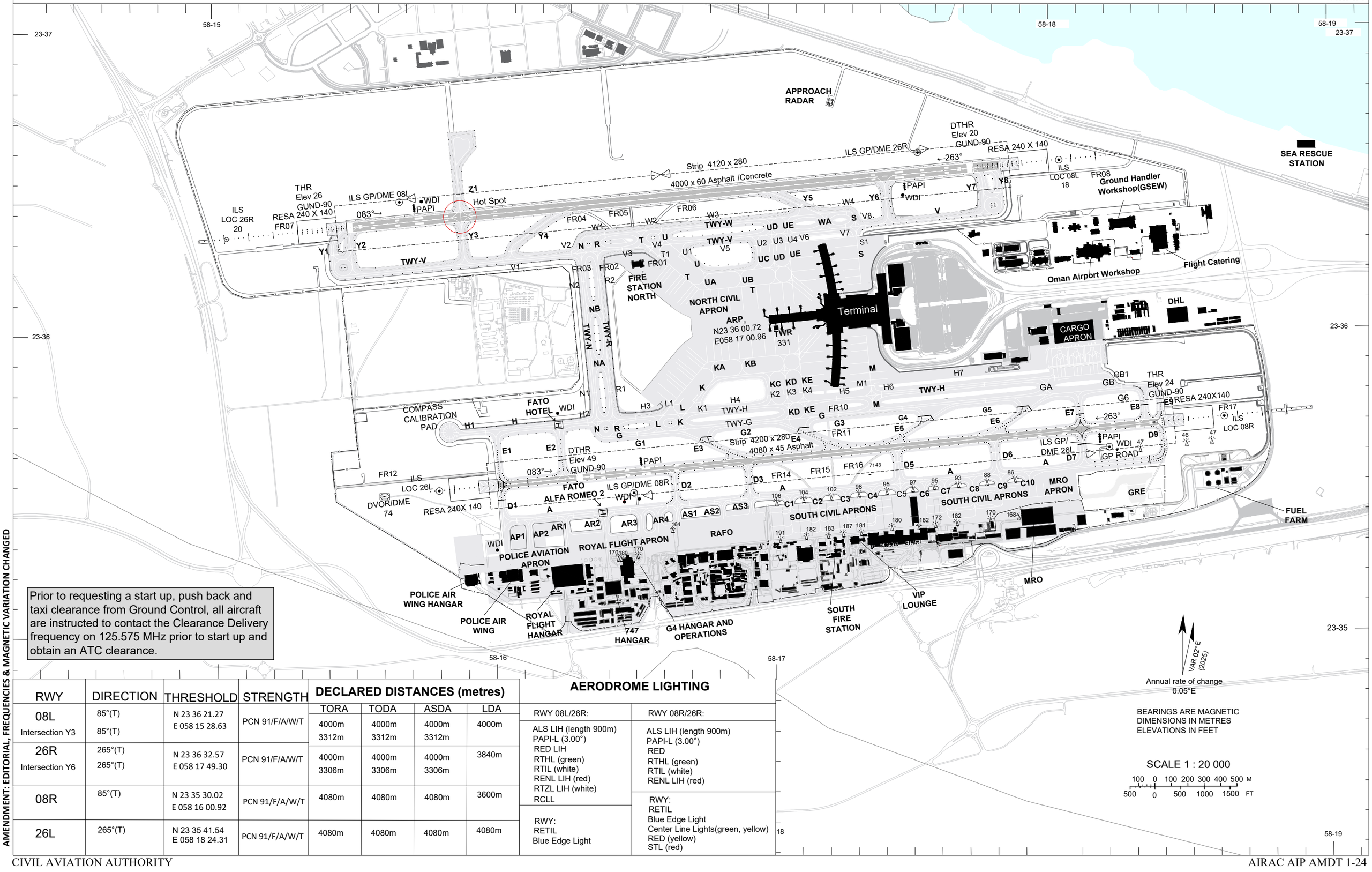
OOMS AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

AERODROME CHART — ICAO | **WGS-84** | **AD ELEV 49 FT**

Muscat Tower North	118.825	Muscat Ground North	127.875	Muscat Information	126.800
Muscat Tower South	118.4	Muscat Ground South	121.800	Muscat Clearance Delivery	125.575

MUSCAT/Muscat Intl
OMAN



Prior to requesting a start up, push back and taxi clearance from Ground Control, all aircraft are instructed to contact the Clearance Delivery frequency on 125.575 MHz prior to start up and obtain an ATC clearance.

RWY	DIRECTION	THRESHOLD	STRENGTH	DECLARED DISTANCES (metres) TORA	TODA	ASDA	LDA
08L Intersection Y3	85°(T) 85°(T)	N 23 36 21.27 E 058 15 28.63	PCN 91/F/A/W/T	4000m 3312m	4000m 3312m	4000m 3312m	4000m
26R Intersection Y6	265°(T) 265°(T)	N 23 36 32.57 E 058 17 49.30	PCN 91/F/A/W/T	4000m 3306m	4000m 3306m	4000m 3306m	3840m
08R	85°(T)	N 23 35 30.02 E 058 16 00.92	PCN 91/F/A/W/T	4080m	4080m	4080m	3600m
26L	265°(T)	N 23 35 41.54 E 058 18 24.31	PCN 91/F/A/W/T	4080m	4080m	4080m	4080m

AERODROME LIGHTING

RWY 08L/26R:	RWY 08R/26R:
ALS LIH (length 900m) PAPI-L (3.00°) RED LIH RTHL (green) RTIL (white) RENL LIH (red) RTZL LIH (white) RCLL	ALS LIH (length 900m) PAPI-L (3.00°) RED RTHL (green) RTIL (white) RENL LIH (red)
RWY: RETIL Blue Edge Light	RWY: RETIL Blue Edge Light Center Line Lights(green, yellow) RED (yellow) STL (red)

AMENDMENT: EDITORIAL, FREQUENCIES & MAGNETIC VARIATION CHANGED

INTENTIONALLY

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AIRCRAFT PARKING/DOCKING CHART SOUTH APRON - ICAO

AIRCRAFT PARKING/DOCKING CHART (SOUTH APRON) - ICAO

WGS-84
AD ELEV 49 FT

Muscat Information	126.800	Muscat Ground North	127.875
Muscat Tower North	118.825	Muscat Ground South	121.800
Muscat Tower South	118.4	Muscat Clearance Delivery	125.575

MUSCAT/Muscat Intl
OMAN

INS CHECKPOINTS CIVIL APRON

STAND	LAT	LONG	ELEV	STAND	LAT	LONG	ELEV
1	N23 35 19.43	E058 17 01.13	52	21	N23 35 23.68	E058 17 34.37	39
2	N23 35 21.39	E058 17 00.10	51	22	N23 35 25.26	E058 17 34.22	38
3	N23 35 24.06	E058 16 59.86	49	23	N23 35 26.84	E058 17 34.07	37
4	N23 35 20.11	E058 17 06.21	50	24	N23 35 22.77	E058 17 41.22	39
5	N23 35 22.29	E058 17 05.86	49	25	N23 35 24.31	E058 17 41.07	38
6	N23 35 24.65	E058 17 05.85	47	26A	N23 35 24.88	E058 17 41.51	37
7	N23 35 20.72	E058 17 13.78	47	26	N23 35 25.86	E058 17 40.91	36
8	N23 35 22.94	E058 17 13.97	46	27A	N23 35 27.31	E058 17 41.27	35
9	N23 35 25.28	E058 17 13.62	44	27	N23 35 27.63	E058 17 40.96	35
10	N23 35 21.31	E058 17 20.19	45	29	N23 35 24.71	E058 17 45.91	36
10A	N23 35 21.85	E058 17 17.99	46	30A	N23 35 25.20	E058 17 45.36	36
11	N23 35 23.38	E058 17 19.99	44	30	N23 35 26.26	E058 17 45.76	35
12	N23 35 25.65	E058 17 19.78	42	31A	N23 35 27.63	E058 17 45.14	34
14	N23 35 23.66	E058 17 25.20	42	31	N23 35 27.99	E058 17 45.39	33
15	N23 35 25.11	E058 17 25.07	41				
16	N23 35 26.56	E058 17 24.93	41				

PARKING RESTRICTIONS

STAND	WING SPAN (MAX)	REMARKS
1	35.81 m	PUSH BACK, PULL FORWARD TO C1 HOLD POINT
2,3	64.94 m	
4,7	51.97 m	Stands 5&8 OK for A380 or B747-800 when 6&4 or 7&9 restricted to code C
5,8,9,11	64.94 m	
6,12	60.30 m	
10	35.81 m	
26A,27A,30A,31A	64.94 m	
21,22,23,24,25,26	35.81 m	
27,28,29,30,31		
14, 15, 16	27.05 m	PUSH BACK Push back clearance required from tower

AMENDMENT: EDITORIAL, FREQUENCIES & MAGNETIC VARIATION CHANGED

INS checkpoints aprons				
Stands	LAT	LONG	ELEV (FT)	Stand Restriction
1	N23 35 19.43	E058 17 01.13	52	Up to code B
2	N23 35 21.39	E058 17 00.10	51	Up to code E
3	N23 35 24.06	E058 16 59.86	49	Up to code E
4	N23 35 20.11	E058 17 06.21	50	Up to code D
5	N23 35 22.29	E058 17 05.86	49	- Up to code E - Up to Code F (A380 and B748) only when stand 4 and stand 6 are restricted to code C.
6	N23 35 24.65	E058 17 05.85	47	Up to code E
7	N23 35 20.72	E058 17 13.78	47	Up to code D
8	N23 35 22.94	E058 17 13.97	46	- Up to code E - Up to Code F (A380 and B748) only when stand 7 and stand 9 are restricted to code C.
9	N23 35 25.28	E058 17 13.62	44	Up to code E
10	N23 35 21.31	E058 17 20.19	45	Up to code C
10A	N23 35 21.85	E058 17 17.99	46	Up to code E only when Stand 10 and stand 11 not occupied
11	N23 35 23.38	E058 17 19.99	44	Up to code E
12	N23 35 25.65	E058 17 19.78	42	Up to code E
14	N23 35 23.66	E058 17 25.20	42	Up to code C
15	N23 35 25.11	E058 17 25.07	41	Up to code C
16	N23 35 26.56	E058 17 24.93	41	Up to code C
21	N23 35 23.68	E058 17 34.37	39	Up to code C
22	N23 35 25.26	E058 17 34.22	38	Up to code C
23	N23 35 26.84	E058 17 34.07	37	Up to code C
24	N23 35 22.77	E058 17 41.22	39	Up to code C
25	N23 35 24.31	E058 17 41.07	38	Up to code C

26A	N23 35 24.88	E058 17 41.51	37	Up to code E only when stand 25 and stand 26 not occupied
26	N23 35 25.86	E058 17 40.91	36	Up to code C
27A	N23 35 27.31	E058 17 41.27	35	Up to code E only when stand 27 and stand 26 not occupied
27	N23 35 27.63	E058 17 40.96	35	Up to code C
29	N23 35 24.71	E058 17 45.91	36	Up to code C
30A	N23 35 25.20	E058 17 45.36	36	Up to code E only when stand 29 and stand 30 not occupied
30	N23 35 26.26	E058 17 45.76	35	Up to code C
31A	N23 35 27.63	E058 17 45.14	34	Up to code E only when stand 30 and stand 31 not occupied
31	N23 35 27.99	E058 17 45.39	33	Up to code C

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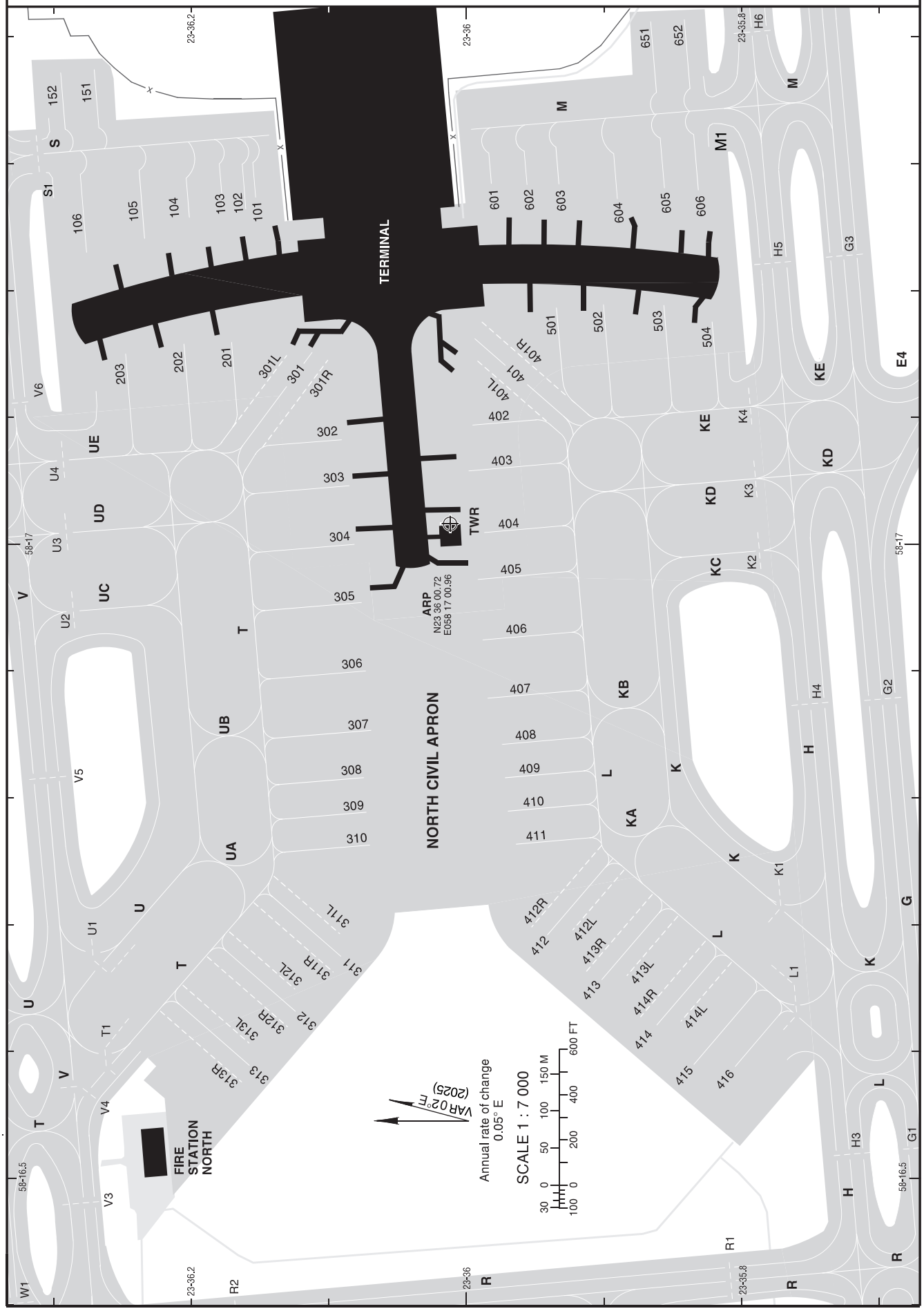
AIRCRAFT PARKING/DOCKING CHART NORTH APRON – ICAO

AIRCRAFT PARKING/DOCKING CHART (NORTH APRON) - ICAO

WGS-84
AD ELEV 49 FT

Muscat Information	126.800	Muscat Ground North	127.875
Muscat Tower North	118.825	Muscat Ground South	121.800
Muscat Tower South	118.4	Muscat Clearance Delivery	125.575

MUSCAT/Muscat Intl
OMAN



AMENDMENT: EDITORIAL, FREQUENCIES & MAGNETIC VARIATION CHANGED

INS CHECKPOINTS APRONS				
STAND	LAT	LONG	ELEV (FT)	RESTRICTIONS
101	N23 36 09.18	E058 17 16.38	22	Up to Code-C
102	N23 36 09.57	E058 17 15.80	23	Up to Code-E
103	N23 36 10.61	E058 17 15.91	22	Up to Code-C
104	N23 36 12.04	E058 17 15.46	23	Up to Code-C
105	N23 36 14.00	E058 17 14.39	24	Up to Code-E
106	N23 36 16.56	E058 17 13.75	24	Up to Code-E
151	N23 36 16.29	E058 17 22.46	24	Up to Code-C
152	N23 36 17.76	E058 17 22.32	24	Up to Code-C
201	N23 36 10.25	E058 17 09.59	24	Up to Code-C
202	N23 36 12.28	E058 17 09.49	24	Up to Code-E
203	N23 36 14.85	E058 17 09.01	24	Up to Code-E
301	N23 36 06.70	E058 17 09.08	24	Up to Code-F only when 301L & 301R not occupied
301L	N23 36 07.78	E058 17 08.92	24	Up to Code-C
301R	N23 36 06.01	E058 17 08.73	25	Up to Code-C
302	N23 36 05.41	E058 17 04.97	24	Up to Code-C
303	N23 36 05.05	E058 17 02.79	24	Up to Code-E
304	N23 36 04.83	E058 16 59.98	24	Up to Code-E
305	N23 36 04.60	E058 16 57.16	24	Up to Code-E
306	N23 36 04.35	E058 16 54.01	24	Up to Code-E
307	N23 36 04.13	E058 16 51.20	24	Up to Code-E
308	N23 36 04.45	E058 16 48.95	24	Up to Code-C
309	N23 36 04.32	E058 16 47.37	24	Up to Code-C
310	N23 36 04.20	E058 16 45.79	24	Up to Code-C
311	N23 36 05.45	E058 16 40.47	24	Up to Code-F only when 311L & 311R not occupied
311L	N23 36 05.60	E058 16 41.64	23	Up to Code-C
311R	N23 36 05.77	E058 16 39.73	25	Up to Code-C
312	N23 36 07.44	E058 16 37.90	24	Up to Code-F only when 312L & 312R not occupied
312L	N23 36 07.59	E058 16 39.07	23	Up to Code-C
312R	N23 36 07.76	E058 16 37.16	25	Up to Code-C
313	N23 36 09.43	E058 16 35.34	24	Up to Code-F only when 313L & 313R not occupied
313L	N23 36 09.57	E058 16 36.51	23	Up to Code-C
313R	N23 36 09.75	E058 16 34.59	24	Up to Code-C
401	N23 35 59.65	E058 17 09.76	25	Up to Code-F only when 401L & 401R not occupied
401R	N23 35 59.33	E058 17 10.50	25	Up to Code-C
401L	N23 35 59.50	E058 17 08.58	24	Up to Code-C
402	N23 35 59.76	E058 17 05.63	24	Up to Code-C
403	N23 35 59.96	E058 17 03.39	24	Up to Code-E
404	N23 35 59.24	E058 17 00.54	23	Up to Code-C
405	N23 35 59.53	E058 16 58.30	24	Up to Code-E

INS CHECKPOINTS APRONS				
STAND	LAT	LONG	ELEV (FT)	RESTRICTIONS
406	N23 35 59.29	E058 16 55.49	24	Up to Code-E
407	N23 35 59.07	E058 16 52.68	24	Up to Code-E
408	N23 35 58.44	E058 16 50.53	24	Up to Code-C
409	N23 35 58.32	E058 16 48.95	23	Up to Code-C
410	N23 35 58.19	E058 16 47.36	24	Up to Code-C
411	N23 35 57.84	E058 16 45.80	23	Up to Code-C
412	N23 35 56.47	E058 16 41.54	26	Up to Code-F only when 412L & 412R not occupied
412L	N23 35 55.39	E058 16 41.70	25	Up to Code-C
412R	N23 35 57.15	E058 16 41.89	26	Up to Code-C
413	N23 35 54.10	E058 16 39.39	26	Up to Code-F only when 413L & 413R not occupied
413L	N23 35 53.03	E058 16 39.54	25	Up to Code-C
413R	N23 35 54.79	E058 16 39.73	26	Up to Code-C
414	N23 35 51.74	E058 16 37.23	26	Up to Code-F only when 414L & 414R not occupied
414L	N23 35 50.66	E058 16 37.39	25	Up to Code-C
414R	N23 35 52.41	E058 16 37.58	26	Up to Code-C
415	N23 35 50.06	E058 16 35.42	26	Up to Code-C
416	N23 35 48.30	E058 16 35.23	25	Up to Code-C
501	N23 35 56.09	E058 17 11.20	24	Up to Code-C
502	N23 35 54.06	E058 17 11.35	24	Up to Code-E
503	N23 35 51.44	E058 17 11.30	24	Up to Code-E
504	N23 35 49.34	E058 17 10.52	23	Up to Code-C
601	N23 35 58.82	E058 17 17.03	23	Up to Code-C
602	N23 35 57.35	E058 17 16.98	23	Up to Code-C
603	N23 35 55.88	E058 17 16.98	23	Up to Code-C
604	N23 35 53.36	E058 17 16.28	24	Up to Code-E
605	N23 35 51.36	E058 17 16.81	23	Up to Code-C
606	N23 35 49.89	E058 17 16.77	24	Up to Code-C
651	N23 35 51.97	E058 17 24.76	23	Up to Code-C
652	N23 35 50.52	E058 17 24.89	23	Up to Code-C

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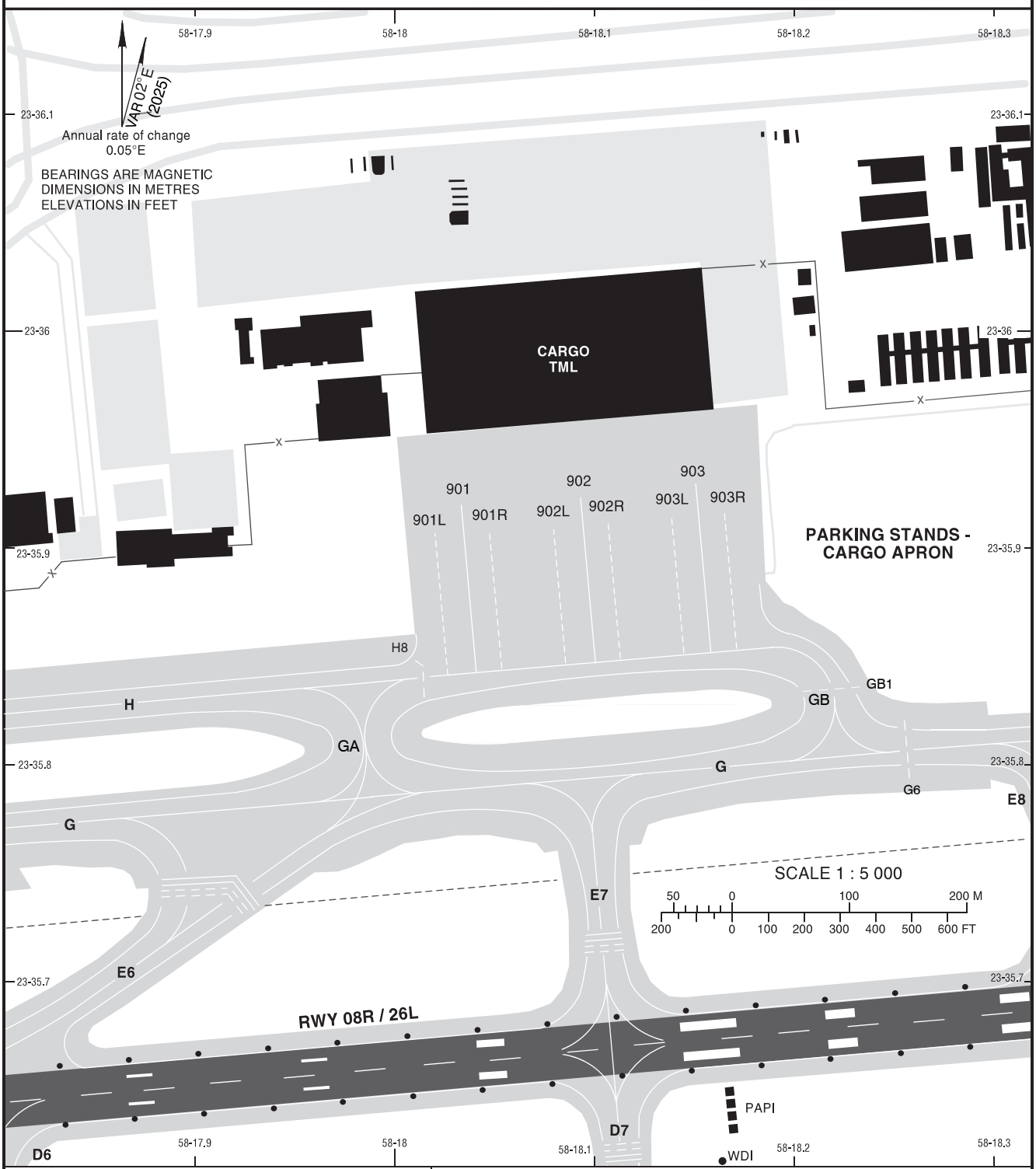
AIRCRAFT PARKING/DOCKING CHART CARGO APRON – ICAO

AIRCRAFT PARKING/DOCKING CHART (CARGO APRON) - ICAO

WGS-84
AD ELEV 49 FT

Muscat Information	126.800	Muscat Ground North	127.875
Muscat Tower North	118.825	Muscat Ground South	121.800
Muscat Tower South	118.4	Muscat Clearance Delivery	125.575

MUSCAT/Muscat Intl
OMAN



AMENDMENT: EDITORIAL, FREQUENCIES & MAGNETIC VARIATION CHANGED

INS CHECKPOINTS				PARKING RESTRICTIONS	
STAND	LAT	LONG	ELEV	WING SPAN (MAX)	REMARKS
901L	N23 35 54.33	E058 18 01.23	20	36m	Up to code C
901	N23 35 55.22	E058 18 01.94	21	75m	Up to code F only when stand 901L & 901R not occupied.
901R	N23 35 54.46	E058 18 02.80	20	36m	Up to code C
902L	N23 35 54.61	E058 18 04.74	20	36m	Up to code C
902	N23 35 55.50	E058 18 05.45	21	75m	Up to code F only when stand 902L & 902R not occupied.
902R	N23 35 54.74	E058 18 06.32	20	36m	Up to code C
903L	N23 35 54.89	E058 18 08.26	20	36m	Up to code C
903	N23 35 55.78	E058 18 08.97	21	75m	Up to code F only when stand 903L & 903R not occupied.
903R	N23 35 55.02	E058 18 09.84	20	36m	Up to code C

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AERODROME OBSTACLE CHART - ICAO

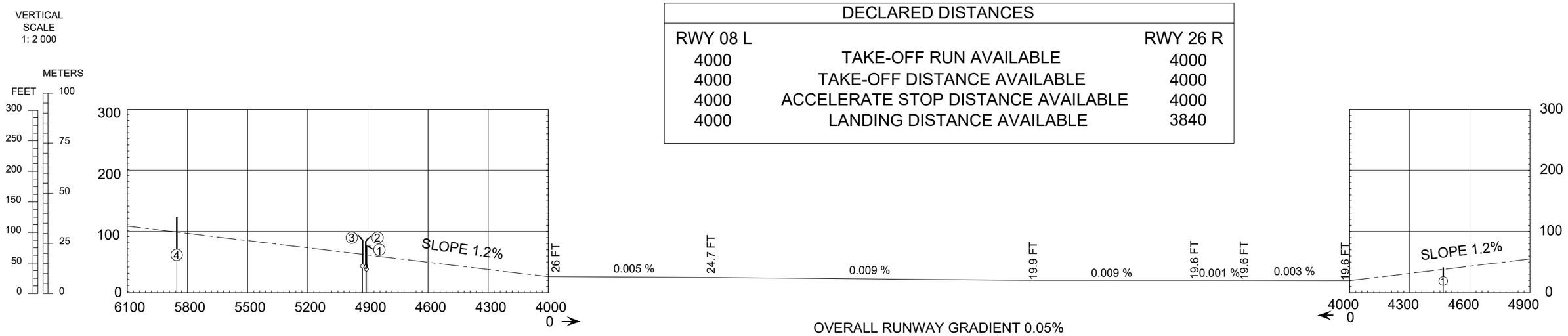
TYPE A (OPERATING LIMITATIONS)

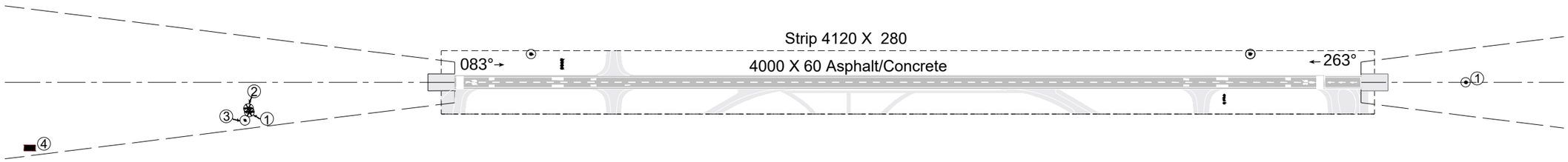
MUSCAT/Muscat Intl
OMAN

DIMENSIONS IN METERS AND ELEVATIONS IN FEET
MAGNETIC VARIATION 02°E 2025

RWY 08 L / 26 R

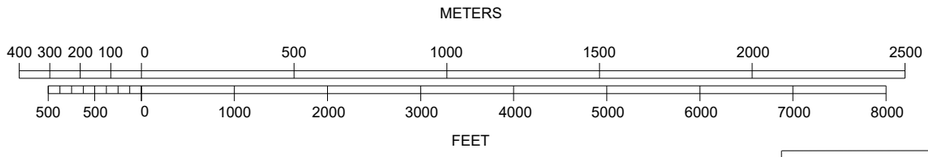
DECLARED DISTANCES		
RWY 08 L		RWY 26 R
4000	TAKE-OFF RUN AVAILABLE	4000
4000	TAKE-OFF DISTANCE AVAILABLE	4000
4000	ACCELERATE STOP DISTANCE AVAILABLE	4000
4000	LANDING DISTANCE AVAILABLE	3840





Nr	Obstacle	Elevation
①	Tree	77
②	Tree	84
③	Pole	87
④	Mosque	123

HORIZONTAL SCALE 1:20 000



Nr	Obstacle	Elevation
①	ILS antena	41

AMEMNDMENT RECORD		
NO	Date	Entered by

AMENDMENT: MAGNETIC VARIATION CHANGED

ORDER OF ACCURACY
HORIZONTAL -/+ 3 M
VERTICAL -/+ 1 FT
Aerodrome information SEP 2023
Survey data SEP 2023

LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
GROUND LEVEL	▲	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
TREE	✳	
BULDING	■	
MOBILE		

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AERODROME OBSTACLE CHART - ICAO

MUSCAT/Muscat Intl

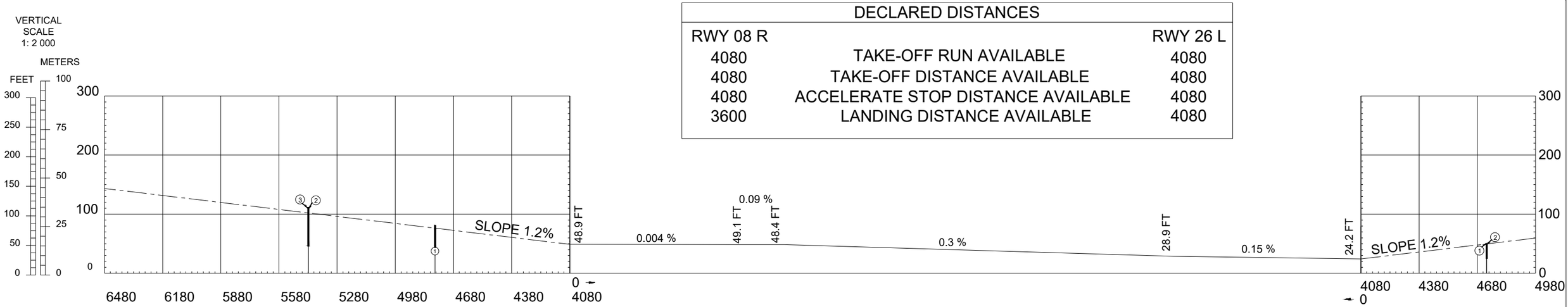
OMAN

TYPE A (OPERATING LIMITATIONS)

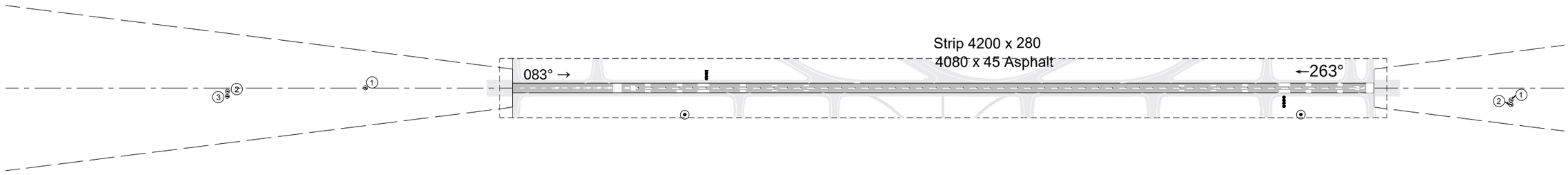
DIMENSIONS IN METERS AND ELEVATIONS IN FEET
MAGNETIC VARIATION 02°E 2025

RWY 08 R/26 L

DECLARED DISTANCES		
RWY 08 R		RWY 26 L
4080	TAKE-OFF RUN AVAILABLE	4080
4080	TAKE-OFF DISTANCE AVAILABLE	4080
4080	ACCELERATE STOP DISTANCE AVAILABLE	4080
3600	LANDING DISTANCE AVAILABLE	4080



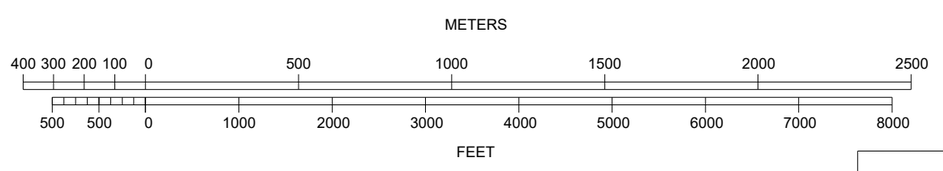
OVERALL RUNWAY GRADIENT 0.19%



Nr	Obstacle	Elevation
①	VOR + Antenna	81
②	Antenna	111
③	Antenna	112

Nr	Obstacle	Elevation
①	Pole	50
②	Pole	51

HORIZONTAL SCALE 1:20 000



ORDER OF ACCURACY
HORIZONTAL -/+ 3 M
VERTICAL -/+ 1 FT
Aerodrome information SEP 2023
Survey data SEP 2023

LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
GROUND LEVEL	▲	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
TREE	✳	
MOBILE		

AMENDMENT: MAGNETIC VARIATION CHANGED

AMENDMENT RECORD		
No.	Date	Entered by

INTENTIONALLY

LEFT

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WGS-84/Obst Elevations EGM96

AD ELEV
49

ARP
N23 36 00.72
E058 17 00.96

AERODROME OBSTCALE CHART — ICAO TYPE B

MUSCAT/Muscat Intl
OMAN

OUTER HORIZONTAL SURFACE
150 meters above lowest threshold

CONICAL SURFACE
1:20 (5%) slope up to 100 meters above Inner Horizontal Surface Elevation

INNER HORIZONTAL SURFACE
45 meters above lowest threshold elevation

APPROACH SURFACE, HORIZONTAL (0%)
APPROACH SURFACE, SLOPE 1 : 40 (2.5%)
APPROACH SURFACE, SLOPE 1 : 50 (2%)
TAKE-OFF CLIMB SURFACE, SLOPE 1 : 50 (2%)
TRANSITIONAL SURFACE 1 : 7 (14.3%)
TAKE-OFF CLIMB SURFACE, SLOPE 1 : 62.5 (1.6%)

ARP
N. 23 36 00.72
E 058 17 00.96

VAR 0.5° E (2025)
ANNUAL CHANGE 0.05° E

BEARINGS ARE MAGNETIC
ALTITUDES & ELEV IN FEET
DIMENSIONS IN METERS

HORIZONTAL SCALE 1:25 000

400 0 500 1000 1500 2000 2500 METERS
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 FEET

Obstacles shown are those which penetrate the surfaces specified in Annnex 4, Volume 1, Chapter 4

ORDER OF ACCURAC:
Horizontal 3m
Vertical 1ft

LEGEND

AERODROME REFERENCE POINT 23° 36' 00.27" N 58° 17' 00.96" E	
BUILDING OR LARGE STRUCTURE	
OTHER OBSTACLE	
OTHER OBSTACLE (LIGHTED)	
TOWER	
MOSQUE	
TRANSMISSION LINE OR OVERHEAD CABLE	
TERRAIN	

AMENDMENT: MAGNETIC VARIATION CHANGED

AMENDMENT RECORD

NO.	DATE	ENTERED BY

INTENTIONALLY

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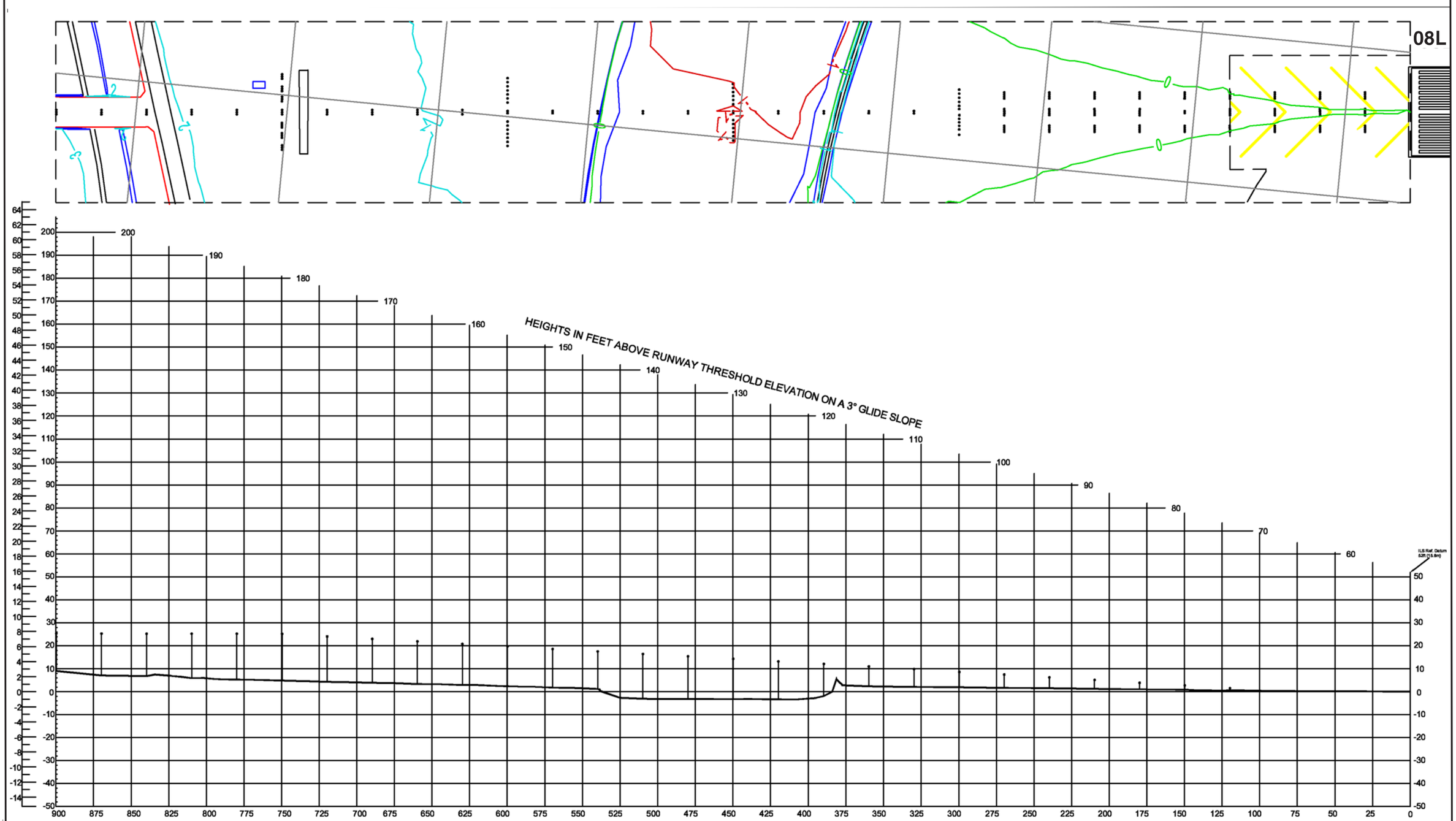
PRECISION APPROACH
TERRAIN CHART - ICAO

MUSCAT/Muscat Intl
OMAN



LEGEND	
BUILDING OR LARGE STRUCTURE	
CENTRELINE PROFILE	
APPROACH LIGHT	
DEVIATION AT LEAST ±10FT (3M) FROM CENTRELINE PROFILE	

HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:500
CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RUNWAY THRESHOLD

CHANGE: NEW SURVEY
Aerodrome Information Current DECEMBER 2013
Based on survey dated DECEMBER 2013

INTENTIONALLY

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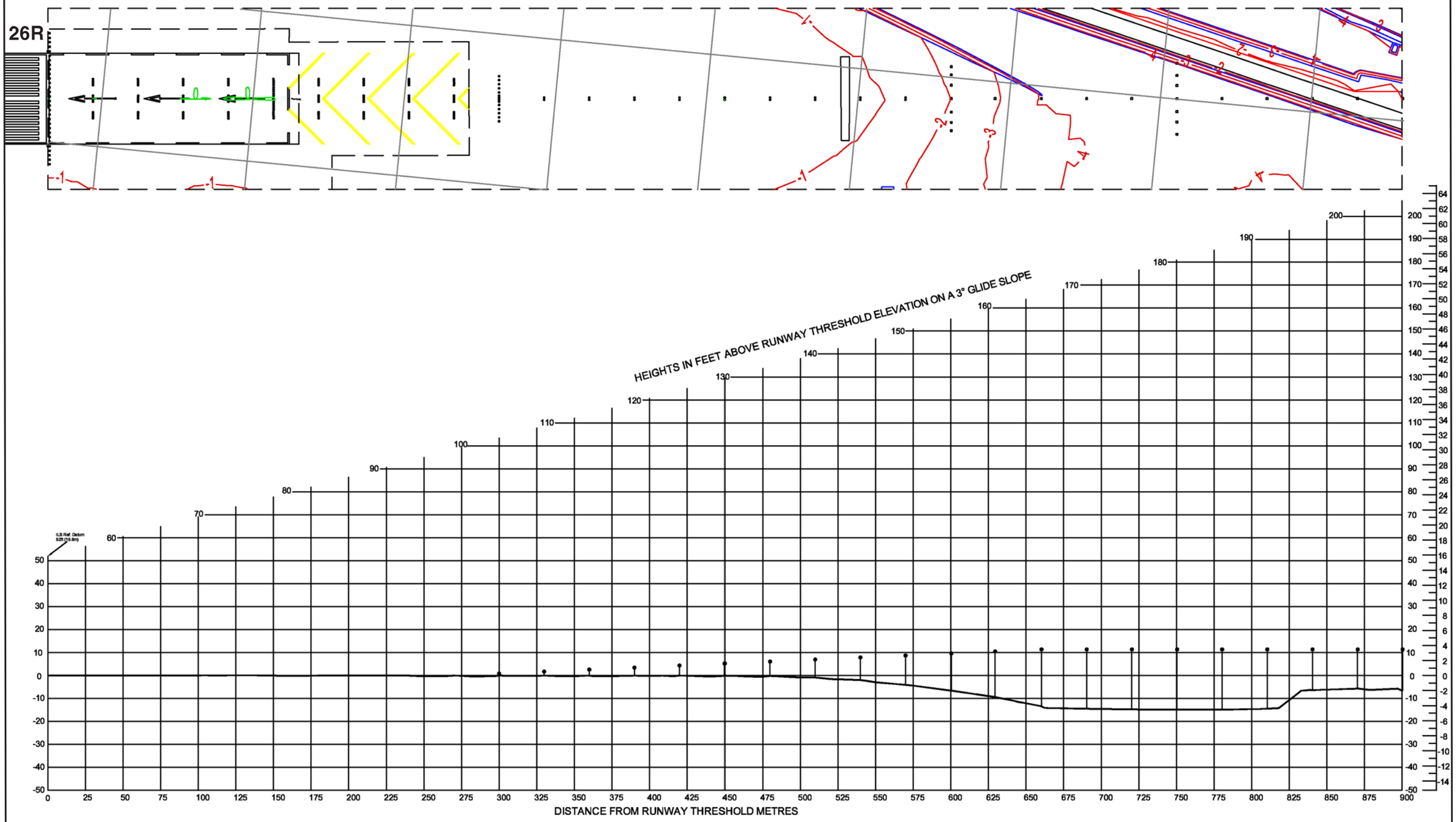
PRECISION APPROACH
TERRAIN CHART - ICAO

MUSCAT/Muscat Intl
OMAN



LEGEND	
BUILDING OR LARGE STRUCTRUE	■
CENTRELINE PROFILE	—
APPROACH LIGHT	♀
DEVIATION AT LEAST +10FT (3M) FROM CENTRELINE PROFILE	

HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:500
CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RUNWAY THRESHOLD

CHANGE: NEW SURVEY
Aerodrome Information Current JUNE 2013
Based on survey dated JUNE 2013

INTENTIONALLY

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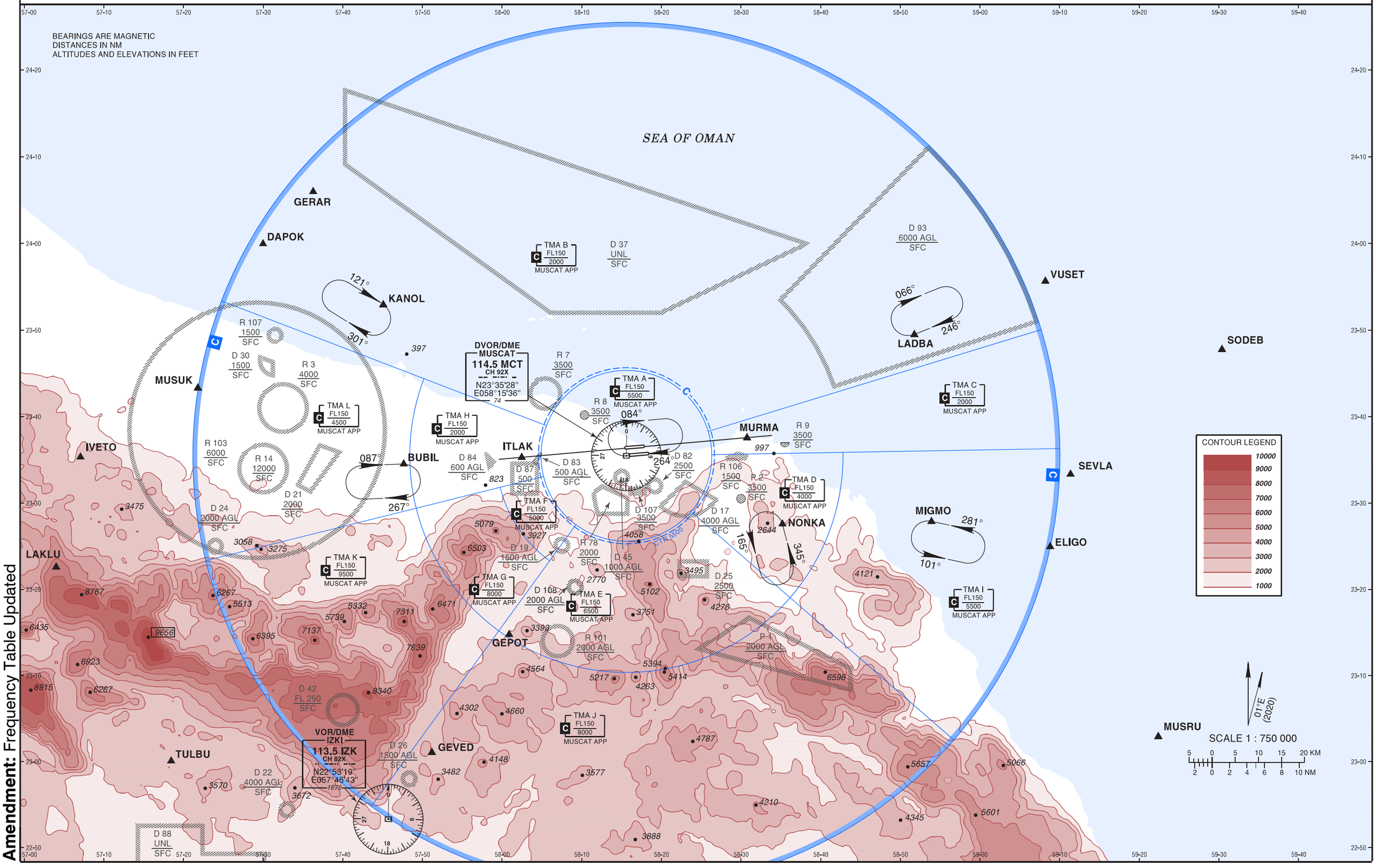
TERMINAL
AREA CHART
MUSCAT - ICAO

AD ELEV 49 FT
Trans Alt *13000*
Trans Level *FL150*

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN



Amendment: Frequency Table Updated

INTENTIONALLY

LEFT

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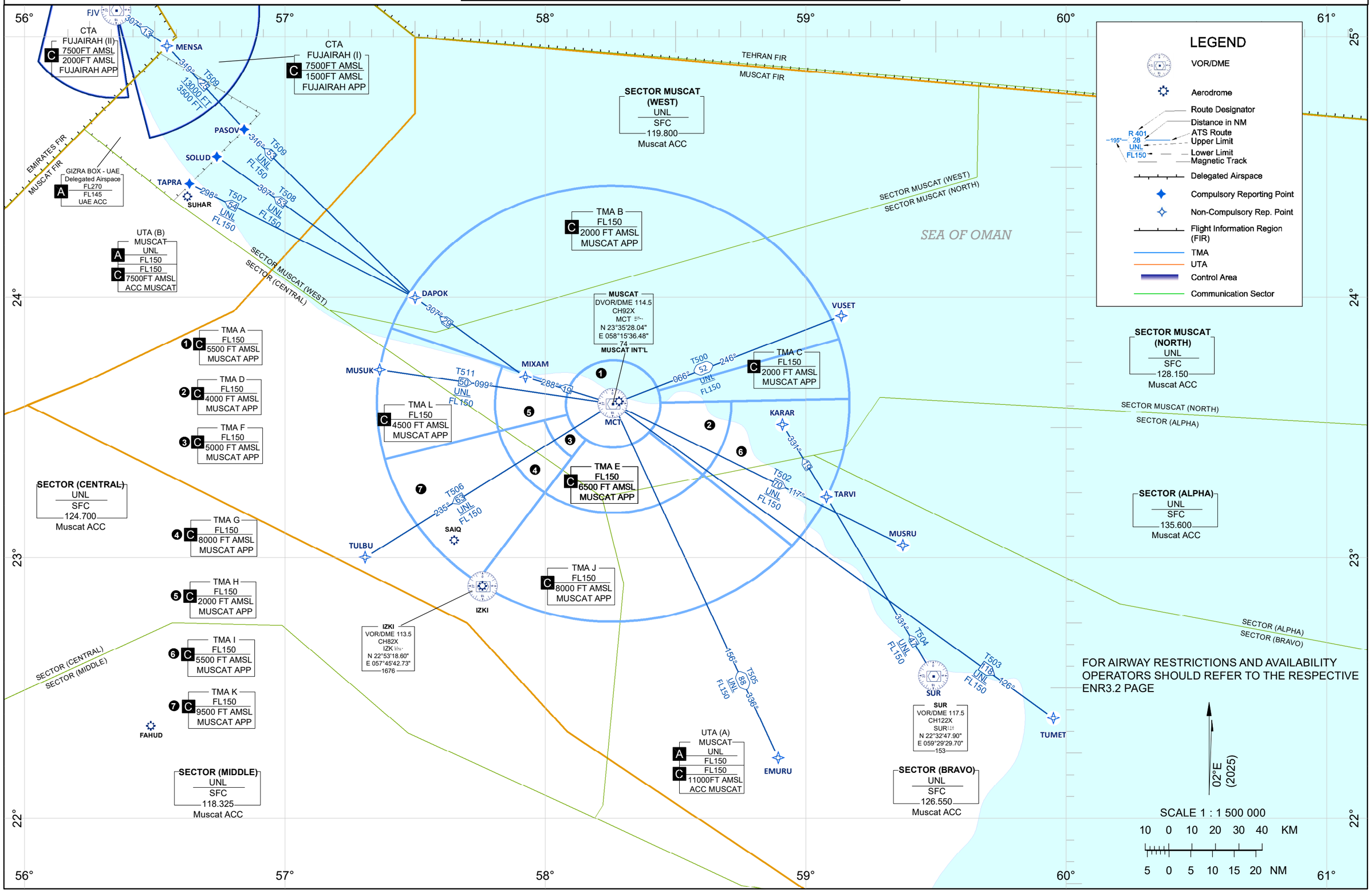
DEP/ARR STANDARD RNAV ROUTES - ICAO

DEP/ARR
STANDARD RNAV
ROUTES - ICAO

AD ELEV 49 FT
Trans Alt 13000 FT
Trans Level FL150

Muscat Information 126.800 — Muscat Approach 121.200
Muscat Tower North 118.825 — Muscat Ground North 127.875
Muscat Tower South 118.4 — Muscat Ground South 121.800

MUSCAT / Muscat Int'l
OMAN



Amendment: UTA Upper & Lower limit updated, Communication Sectors added

INTENTIONALLY

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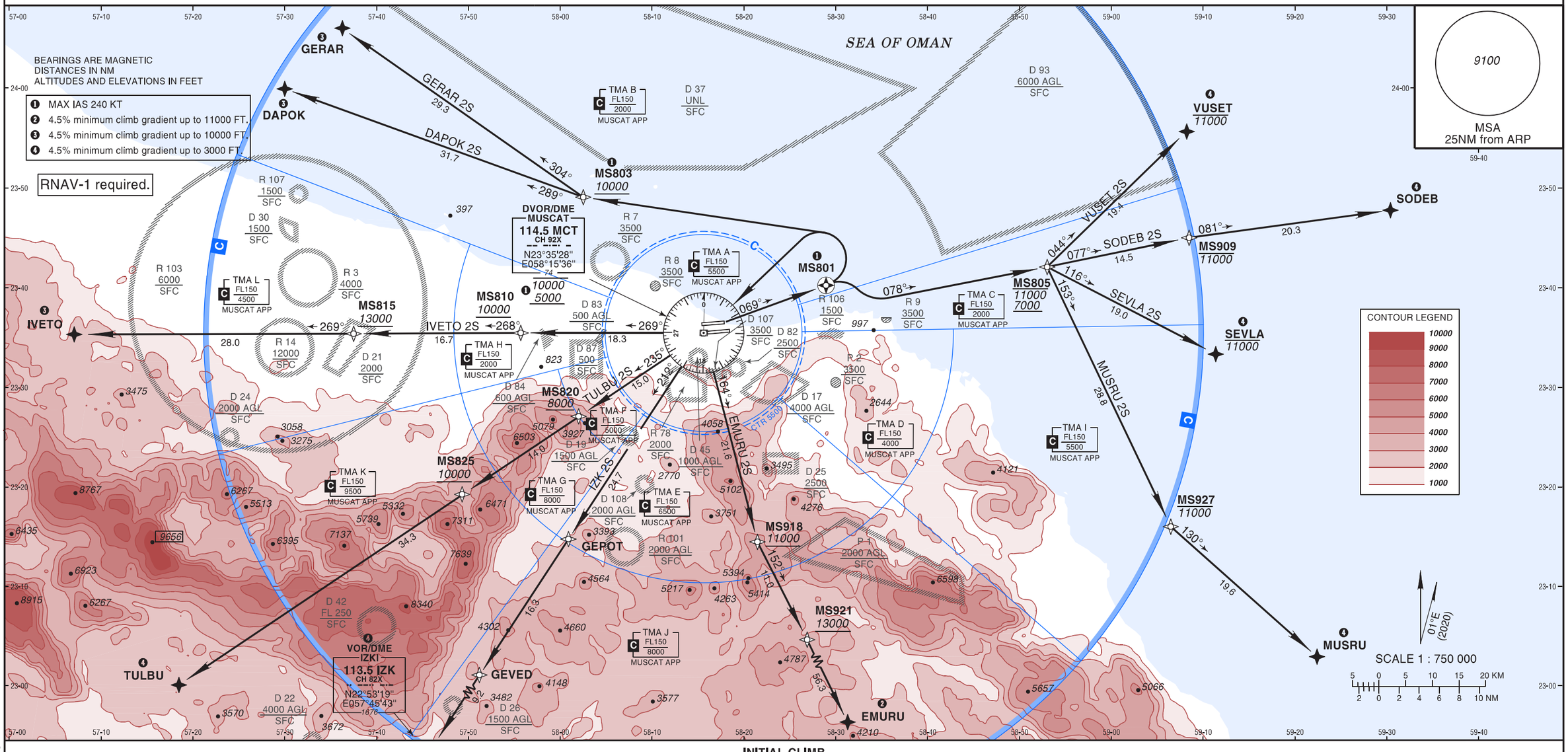
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	49 FT	
	Trans Alt	*13000*	
	Trans Level	*FL150*	

Muscat Information	126.800	Muscat Ground North	127.875
Muscat Tower North	118.825	Muscat Ground South	121.800
Muscat Tower South	118.4		

MUSCAT/Muscat Intl
OMAN
RWY 08L

VUSET 2S, SODEB 2S, SEVLA 2S, MUSRU 2S, EMURU 2S, IZK 2S, TULBU 2S, IVETO 2S, DAPOK 2S, GERAR 2S RNAV (GNSS) DEPARTURE



INITIAL CLIMB

MS801	Climb to MS801 on course 069°, then

SID	ROUTING	SID	ROUTING
VUSET 2S	turn RIGHT on course 078° to MS805 between 7000 and 11000, then turn LEFT to VUSET at or below 11000.	**IZK 2S**	turn LEFT direct to MCT DVOR/DME between 5000 and 10000, then to GEPOT, then to GEVED and to IZK VOR/DME.
SODEB 2S	turn RIGHT on course 078° to MS805 between 7000 and 11000, then to MS909 at or below 11000, then to SODEB.	**TULBU 2S**	turn LEFT direct to MCT DVOR/DME between 5000 and 10000, then to MS820 at or above 8000, then to MS825 at or above 10000 and to TULBU.
SEVLA 2S	turn RIGHT on course 078° to MS805 between 7000 and 11000, then turn RIGHT to SEVLA at or below 11000.	**IVETO 2S**	turn LEFT direct to MCT DVOR/DME between 5000 and 10000, then to MS810 at or above 10000, then to MS815 at or above 13000 and to IVETO.
MUSRU 2S	turn RIGHT on course 078° to MS805 between 7000 and 11000, then turn RIGHT to MS927 at or below 11000, then turn LEFT to MUSRU.	**DAPOK 2S**	turn LEFT direct to MS803 at or above 10000, then to DAPOK.
EMURU 2S	turn LEFT direct to MCT DVOR/DME between 5000 and 10000, then to MS918 at or above 11000, then to MS921 at or above 13000 and to EMURU.	**GERAR 2S**	turn LEFT direct to MS803 at or above 10000, then to GERAR.

Amendment: Frequency Table Updated

INTENTIONALLY

LEFT

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Route Description: RNAV (GNSS) DEPARTURE RWY 08L

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
INITIAL CLIMB									
CF	MS801	Y	069° (070.0°)			240 KT	1.4°E		RNAV 1
VUSET 2S DEPARTURE									
	MS801	Y				240 KT	1.4°E		RNAV 1
CF	MS805		078° (079.0°)	R	-11000 +7000		1.4°E		RNAV 1
TF	VUSET		044° (045.8°)	L	-11000		1.4°E	19.4	RNAV 1
SODEB 2S DEPARTURE									
	MS801	Y				240 KT	1.4°E		RNAV 1
CF	MS805		078° (079.0°)	R	-11000 +7000		1.4°E		RNAV 1
TF	MS909		077° (078.3°)		-11000		1.4°E	14.5	RNAV 1
TF	SODEB		081° (082.1°)				1.4°E	20.3	RNAV 1
SEVLA 2S DEPARTURE									
	MS801	Y				240 KT	1.4°E		RNAV 1
CF	MS805		078° (079.0°)	R	-11000 +7000		1.4°E		RNAV 1
TF	SEVLA		116° (117.3°)	R	-11000		1.4°E	19.0	RNAV 1
MUSRU 2S DEPARTURE									
	MS801	Y				240 KT	1.4°E		RNAV 1
CF	MS805		078° (079.0°)	R	-11000 +7000		1.4°E		RNAV 1
TF	MS927		153° (154.5°)	R	-11000		1.4°E	28.8	RNAV 1
TF	MUSRU		130° (131.6°)	L			1.4°E	19.6	RNAV 1
EMURU 2S DEPARTURE									
	MS801	Y				240 KT	1.4°E		RNAV 1
DF	MCT			L	-10000 +5000	240 KT	1.4°E		RNAV 1
TF	MS918		164° (165.5°)	L	+11000		1.4°E	21.6	RNAV 1
TF	MS921		152° (153.1°)	L	+13000		1.4°E	11.0	RNAV 1
TF	EMURU		152° (153.8°)				1.4°E	56.3	RNAV 1
IZK 2S DEPARTURE									
	MS801	Y				240 KT	1.4°E		RNAV 1
DF	MCT			L	-10000 +5000	240 KT	1.4°E		RNAV 1
TF	GEPOT		212° (213.3°)				1.4°E	24.7	RNAV 1
TF	GEVED		212° (213.3°)				1.4°E	16.3	RNAV 1
TF	IZK		212° (213.1°)				1.4°E	9.2	RNAV 1
TULBU 2S DEPARTURE									
	MS801	Y				240 KT	1.4°E		RNAV 1
DF	MCT			L	-10000 +5000	240 KT	1.4°E		RNAV 1
TF	MS820		235° (236.3°)		+8000		1.4°E	15.0	RNAV 1
TF	MS825		235° (236.3°)		+10000		1.4°E	14.0	RNAV 1
TF	TULBU		235° (236.2°)				1.4°E	34.3	RNAV 1

Route Description: RNAV (GNSS) DEPARTURE RWY 08L

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
INITIAL CLIMB									
CF	MS801	Y	069° (070.0°)			240 KT	1.4°E		RNAV 1
IVETO 2S DEPARTURE									
	MS801	Y				240 KT	1.4°E		RNAV 1
DF	MCT			L	-10000 +5000	240 KT	1.4°E		RNAV 1
TF	MS810		269° (270.1°)	R	+10000		1.4°E	18.3	RNAV 1
TF	MS815		268° (269.8°)		+13000		1.4°E	16.7	RNAV 1
TF	IVETO		269° (270.0°)				1.4°E	28.0	RNAV 1
DAPOK 2S DEPARTURE									
	MS801	Y				240 KT	1.4°E		RNAV 1
DF	MS803			L	+10000	240 KT	1.4°E		RNAV 1
TF	DAPOK		289° (290.1°)	R			1.4°E	31.7	RNAV 1
GERAR 2S DEPARTURE									
	MS801	Y				240 KT	1.4°E		RNAV 1
DF	MS803			L	+10000	240 KT	1.4°E		RNAV 1
TF	GERAR		304° (305.1°)	R			1.4°E	29.3	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 08L

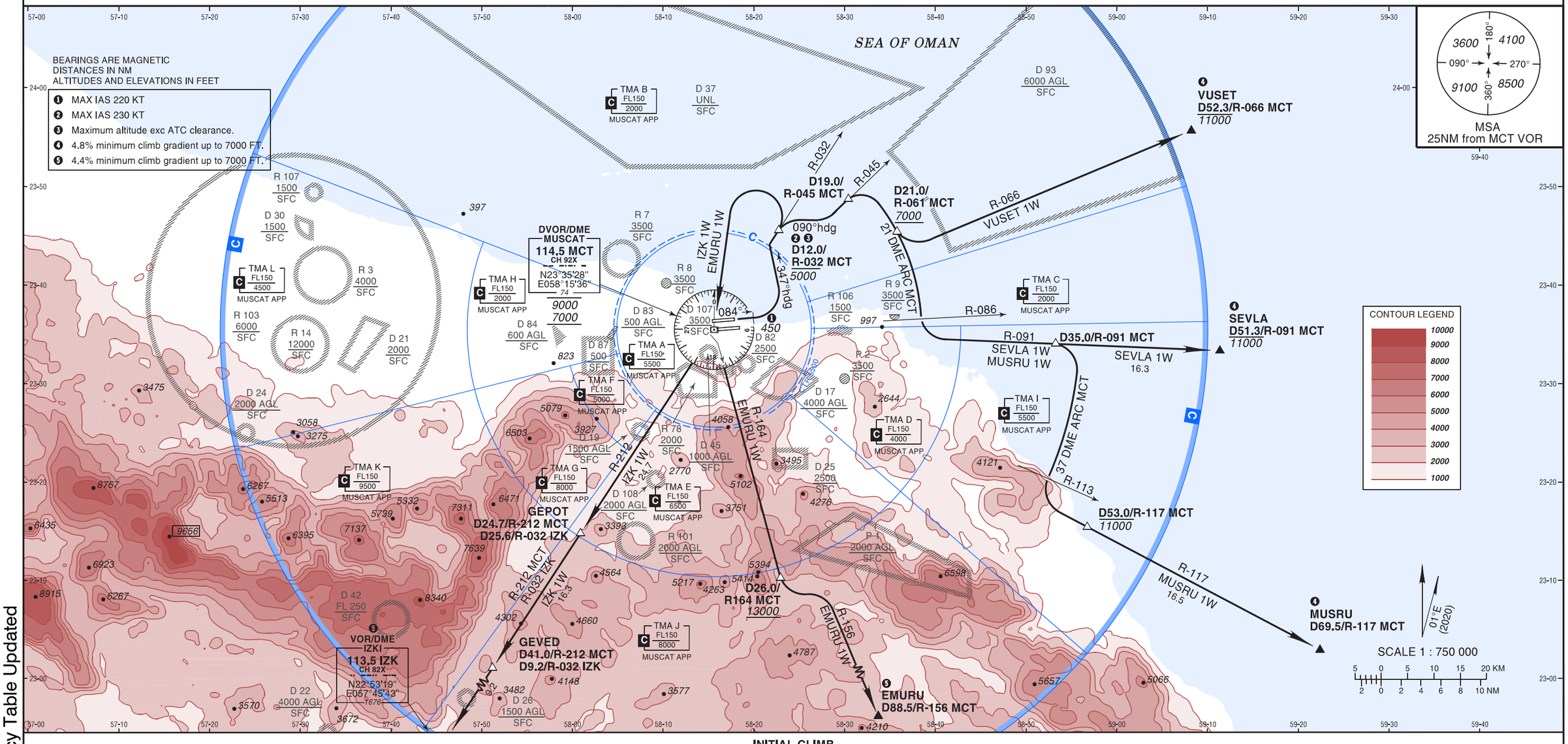
Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
MS801	N23°40’15.33’’	E058°28’55.29’’	N23°40.256’	E058°28.922’	
DAPOK	N23°59’56.00’’	E057°29’59.00’’	N23°59.933’	E057°29.983’	
EMURU	N22°13’57.00’’	E058°53’38.00’’	N22°13.950’	E058°53.633’	
GEPOT	N23°14’46.00’’	E058°00’53.00’’	N23°14.767’	E058°00.883’	
GERAR	N24°06’00.00’’	E057°36’16.00’’	N24°06.000’	E057°36.267’	
GEVED	N23°01’05.00’’	E057°51’11.00’’	N23°01.083’	E057°51.183’	
IVETO	N23°35’20.00’’	E057°07’04.00’’	N23°35.333’	E057°07.067’	
IZK VOR	N22°53’18.60’’	E057°45’42.73’’	N22°53.310’	E057°45.712’	
MCT VOR	N23°35’28.04’’	E058°15’36.48’’	N23°35.474’	E058°15.607’	
MS803	N23°49’05.35’’	E058°02’29.79’’	N23°49.089’	E058°02.497’	
MS805	N23°42’05.25’’	E058°53’00.84’’	N23°42.088’	E058°53.014’	
MS810	N23°35’28.82’’	E057°55’41.36’’	N23°35.480’	E057°55.689’	
MS815	N23°35’23.37’’	E057°37’30.25’’	N23°35.390’	E057°37.504’	
MS820	N23°27’05.99’’	E058°01’59.57’’	N23°27.100’	E058°01.993’	
MS825	N23°19’16.10’’	E057°49’18.36’’	N23°19.268’	E057°49.306’	
MS909	N23°45’01.39’’	E059°08’28.04’’	N23°45.023’	E059°08.467’	
MS918	N23°14’29.62’’	E058°21’27.95’’	N23°14.494’	E058°21.466’	
MS921	N23°04’38.60’’	E058°26’52.42’’	N23°04.643’	E058°26.874’	
MS927	N23°16’01.37’’	E059°06’28.40’’	N23°16.023’	E059°06.473’	
MUSRU	N23°02’56.00’’	E059°22’23.00’’	N23°02.933’	E059°22.383’	
SEVLA	N23°33’21.00’’	E059°11’22.00’’	N23°33.350’	E059°11.367’	
SODEB	N23°47’47.00’’	E059°30’23.00’’	N23°47.783’	E059°30.383’	
TULBU	N23°00’05.00’’	E057°18’27.00’’	N23°00.083’	E057°18.450’	
VUSET	N23°55’40.00’’	E059°08’12.00’’	N23°55.667’	E059°08.200’	

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	49 FT	
	Trans Alt	*13000*	
	Trans Level	*FL150*	

Muscat Information	126.800	Muscat Ground North	127.875
Muscat Tower North	118.825	Muscat Ground South	121.800
Muscat Tower South	118.4		

MUSCAT/Muscat Intl
OMAN
RWY 08L

VUSET 1W, SEVLA 1W, MUSRU 1W, EMURU 1W, IZK 1W DEPARTURE



INITIAL CLIMB

Climb on runway heading to reach 450. Turn LEFT on heading 347° to intercept and follow R-032 MCT to D12.0 MCT at or below 5000 exc ATC clearance.

SID	ROUTING
VUSET 1W	Turn RIGHT on heading 090° to intercept and follow R-045 MCT to D19.0 MCT. Turn RIGHT to follow 21 DME ARC MCT to D21.0/R-061 MCT at or above 7000. Turn LEFT to follow R-066 MCT direct to VUSET at or below 11000.
SEVLA 1W	Turn RIGHT on heading 090° to intercept and follow R-045 MCT to D19.0 MCT. Turn RIGHT to follow 21 DME ARC MCT to R-086 MCT. Turn LEFT to follow R-091 MCT direct to SEVLA at or below 11000.
MUSRU 1W	Turn RIGHT on heading 090° to intercept and follow R-045 MCT to D19.0 MCT. Turn RIGHT to follow 21 DME ARC MCT to R-086 MCT at or above 7000 at R-061 MCT. Turn LEFT to follow R-091 MCT to D35.0 MCT. Turn RIGHT to follow 37 DME ARC MCT to R-113 MCT. Turn LEFT to intercept and follow R-117 MCT to D53.0 MCT at or below 11000 direct to MUSRU.
EMURU 1W	Turn LEFT direct to MCT DVOR/DME between 7000 and 9000. Follow R-164 MCT to D26.0 MCT at or above 13000. Turn LEFT to intercept and follow R-156 MCT direct to EMURU.
IZK 1W	Turn LEFT direct MCT DVOR/DME between 7000 and 9000. Follow R-212 MCT direct to GEPOT. Follow R-212 MCT (R-032 IZK) direct to GEVED. Follow R-212 MCT (R-032 IZK) direct IZK VOR/DME.

Amendment: Frequency Table Updated

INTENTIONALLY

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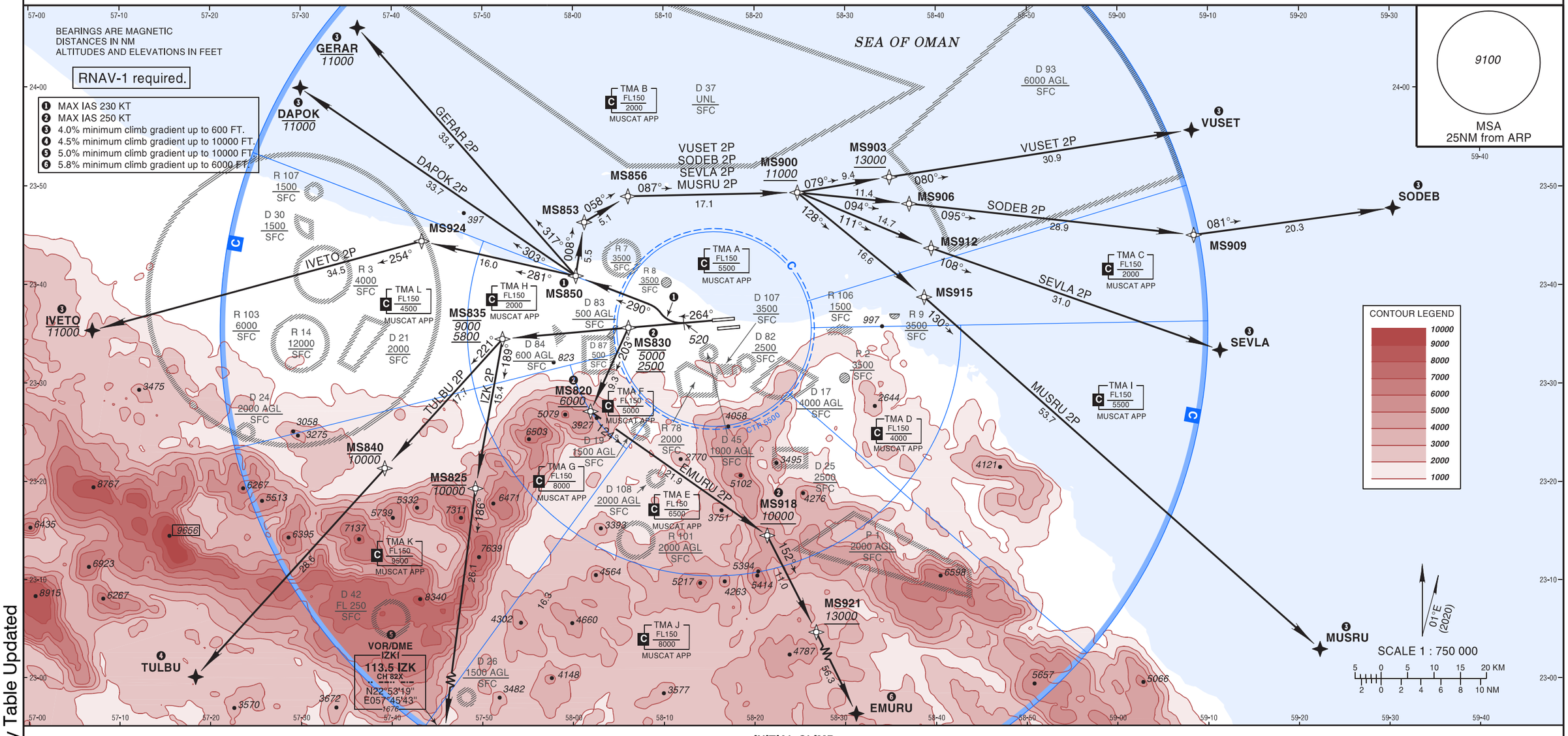
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	49 FT	
	Trans Alt	*13000*	
	Trans Level	*FL150*	

Muscat Information	126.800	Muscat Ground North	127.875
Muscat Tower North	118.825	Muscat Ground South	121.800
Muscat Tower South	118.4		

MUSCAT/Muscat Intl
OMAN
RWY 26R

VUSET 2P, SODEB 2P, SEVLA 2P, MUSRU 2P, EMURU 2P, IZK 2P, TULBU 2P, IVETO 2P, DAPOK 2P, GERAR 2P RNAV (GNSS) DEPARTURE



INITIAL CLIMB

Climb on course 264°

SID	ROUTING	SID	ROUTING
VUSET 2P	at 520 turn RIGHT to MS850 on course 290°, turn RIGHT to MS853, turn RIGHT to MS856, turn RIGHT to MS900 at or above 11000, turn LEFT to MS903 at or above 13000, then to VUSET.	IZK 2P	to MS835 between 5800 and 9000, turn LEFT to MS825 at or below 10000, then to IZK VOR/DME.
SODEB 2P	at 520 turn RIGHT to MS850 on course 290°, turn RIGHT to MS853, turn RIGHT to MS856, turn RIGHT to MS900 at or above 11000, turn RIGHT to MS906, then to MS909, then turn LEFT to SODEB.	TULBU 2P	to MS835 between 5800 and 9000, turn LEFT to MS840 at or below 10000, then to TULBU.
SEVLA 2P	at 520 turn RIGHT to MS850 on course 290°, turn RIGHT to MS853, turn RIGHT to MS856, turn RIGHT to MS900 at or above 11000, turn RIGHT to MS912, then to SEVLA.	IVETO 2P	at 520 turn RIGHT to MS850 on course 290°, turn LEFT to MS924, turn LEFT to IVETO at or below 11000.
MUSRU 2P	at 520 turn RIGHT to MS850 on course 290°, turn RIGHT to MS853, turn RIGHT to MS856, turn RIGHT to MS900 at or above 11000, turn RIGHT to MS915, then to MUSRU.	DAPOK 2P	at 520 turn RIGHT to MS850 on course 290°, turn RIGHT to DAPOK at or below 11000.
EMURU 2P	to MS830 between 2500 and 5000, turn LEFT to MS820 at or above 6000, turn LEFT to MS918 at or above 10000, turn RIGHT to MS921 at or above 13000, then to EMURU.	GERAR 2P	at 520 turn RIGHT to MS850 on course 290°, turn RIGHT to GERAR at or below 11000.

Amendment: Frequency Table Updated

INTENTIONALLY

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Route Description: RNAV (GNSS) DEPARTURE RWY 26R

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
VUSET 2P DEPARTURE									
CA			264° (265.0°)		@520	230 KT	1.4°E		RNAV 1
CF	MS850		290° (291.0°)	R		230 KT	1.4°E		RNAV 1
TF	MS853		008° (009.0°)	R			1.4°E	5.5	RNAV 1
TF	MS856		058° (059.3°)	R			1.4°E	5.1	RNAV 1
TF	MS900		087° (088.7°)	R	+11000		1.4°E	17.1	RNAV 1
TF	MS903		079° (080.4°)	L	+13000		1.4°E	9.4	RNAV 1
TF	VUSET		080° (081.0°)				1.4°E	30.9	RNAV 1
SODEB 2P DEPARTURE									
CA			264° (265.0°)		@520	230 KT	1.4°E		RNAV 1
CF	MS850		290° (291.0°)	R		230 KT	1.4°E		RNAV 1
TF	MS853		008° (009.0°)	R			1.4°E	5.5	RNAV 1
TF	MS856		058° (059.3°)	R			1.4°E	5.1	RNAV 1
TF	MS900		087° (088.7°)	R	+11000		1.4°E	17.1	RNAV 1
TF	MS906		094° (095.7°)	R			1.4°E	11.4	RNAV 1
TF	MS909		095° (096.1°)				1.4°E	28.9	RNAV 1
TF	SODEB		081° (082.1°)	L			1.4°E	20.3	RNAV 1
SEVLA 2P DEPARTURE									
CA			264° (265.0°)		@520	230 KT	1.4°E		RNAV 1
CF	MS850		290° (291.0°)	R		230 KT	1.4°E		RNAV 1
TF	MS853		008° (009.0°)	R			1.4°E	5.5	RNAV 1
TF	MS856		058° (059.3°)	R			1.4°E	5.1	RNAV 1
TF	MS900		087° (088.7°)	R	+11000		1.4°E	17.1	RNAV 1
TF	MS912		111° (112.5°)	R			1.4°E	14.7	RNAV 1
TF	SEVLA		108° (109.3°)				1.4°E	31.0	RNAV 1
MUSRU 2P DEPARTURE									
CA			264° (265.0°)		@520	230 KT	1.4°E		RNAV 1
CF	MS850		290° (291.0°)	R		230 KT	1.4°E		RNAV 1
TF	MS853		008° (009.0°)	R			1.4°E	5.5	RNAV 1
TF	MS856		058° (059.3°)	R			1.4°E	5.1	RNAV 1
TF	MS900		087° (088.7°)	R	+11000		1.4°E	17.1	RNAV 1
TF	MS915		128° (129.4°)	R			1.4°E	16.6	RNAV 1
TF	MUSRU		130° (131.5°)				1.4°E	53.7	RNAV 1
EMURU 2P DEPARTURE									
CF	MS830		264° (265.0°)		-5000 +2500	250 KT	1.4°E		RNAV 1
TF	MS820		203° (204.3°)	L	+6000	250 KT	1.4°E	9.3	RNAV 1
TF	MS918		124° (125.0°)	L	+10000	250 KT	1.4°E	21.9	RNAV 1
TF	MS921		152° (153.1°)	R	+13000		1.4°E	11.0	RNAV 1
TF	EMURU		152° (153.8°)				1.4°E	56.3	RNAV 1

Route Description: RNAV (GNSS) DEPARTURE RWY 26R

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IZK 2P DEPARTURE									
CF	MS835		264° (265.0°)		-9000 +5800		1.4°E		RNAV 1
TF	MS825		189° (190.3°)	L	-10000		1.4°E	15.4	RNAV 1
TF	IZK		186° (187.3°)				1.4°E	26.1	RNAV 1
TULBU 2P DEPARTURE									
CF	MS835		264° (265.0°)		-9000 +5800		1.4°E		RNAV 1
TF	MS840		221° (222.4°)	L	-10000		1.4°E	17.7	RNAV 1
TF	TULBU		221° (222.3°)				1.4°E	28.6	RNAV 1
IVETO 2P DEPARTURE									
CA			264° (265.0°)		@520	230 KT	1.4°E		RNAV 1
CF	MS850		290° (291.0°)	R		230 KT	1.4°E		RNAV 1
TF	MS924		281° (282.8°)	L			1.4°E	16.0	RNAV 1
TF	IVETO		254° (255.0°)	L	-11000		1.4°E	34.5	RNAV 1
DAPOK 2P DEPARTURE									
CA			264° (265.0°)		@520	230 KT	1.4°E		RNAV 1
CF	MS850		290° (291.0°)	R		230 KT	1.4°E		RNAV 1
TF	DAPOK		303° (304.4°)	R	-11000		1.4°E	33.7	RNAV 1
GERAR 2P DEPARTURE									
CA			264° (265.0°)		@520	230 KT	1.4°E		RNAV 1
CF	MS850		290° (291.0°)	R		230 KT	1.4°E		RNAV 1
TF	GERAR		317° (318.7°)	R	-11000		1.4°E	33.4	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 26R

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
MS850	N23°40'51.30''	E058°00'21.10''	N23°40.855'	E058°00.352'	
DAPOK	N23°59'56.00''	E057°29'59.00''	N23°59.933'	E057°29.983'	
EMURU	N22°13'57.00''	E058°53'38.00''	N22°13.950'	E058°53.633'	
GERAR	N24°06'00.00''	E057°36'16.00''	N24°06.000'	E057°36.267'	
IVETO	N23°35'20.00''	E057°07'04.00''	N23°35.333'	E057°07.067'	
IZK VOR	N22°53'18.60''	E057°45'42.73''	N22°53.310'	E057°45.712'	
MS820	N23°27'05.99''	E058°01'59.57''	N23°27.100'	E058°01.993'	
MS825	N23°19'16.10''	E057°49'18.36''	N23°19.268'	E057°49.306'	
MS830	N23°35'35.99''	E058°06'09.63''	N23°35.600'	E058°06.161'	
MS835	N23°34'27.52''	E057°52'17.13''	N23°34.459'	E057°52.286'	
MS840	N23°21'19.36''	E057°39'18.41''	N23°21.323'	E057°39.307'	
MS853	N23°46'18.31''	E058°01'17.38''	N23°46.305'	E058°01.290'	
MS856	N23°48'55.95''	E058°06'06.26''	N23°48.933'	E058°06.104'	
MS900	N23°49'19.00''	E058°24'46.00''	N23°49.317'	E058°24.767'	
MS903	N23°50'53.22''	E058°34'54.04''	N23°50.887'	E058°34.901'	
MS906	N23°48'10.76''	E058°37'05.84''	N23°48.179'	E058°37.097'	
MS909	N23°45'01.39''	E059°08'28.04''	N23°45.023'	E059°08.467'	
MS912	N23°43'41.24''	E058°39'31.46''	N23°43.687'	E058°39.524'	
MS915	N23°38'43.25''	E058°38'45.34''	N23°38.721'	E058°38.756'	
MS918	N23°14'29.62''	E058°21'27.95''	N23°14.494'	E058°21.466'	
MS921	N23°04'38.60''	E058°26'52.42''	N23°04.643'	E058°26.874'	
MS924	N23°44'23.10''	E057°43'22.02''	N23°44.385'	E057°43.367'	
MUSRU	N23°02'56.00''	E059°22'23.00''	N23°02.933'	E059°22.383'	
SEVLA	N23°33'21.00''	E059°11'22.00''	N23°33.350'	E059°11.367'	
SODEB	N23°47'47.00''	E059°30'23.00''	N23°47.783'	E059°30.383'	
TULBU	N23°00'05.00''	E057°18'27.00''	N23°00.083'	E057°18.450'	
VUSET	N23°55'40.00''	E059°08'12.00''	N23°55.667'	E059°08.200'	

INTENTIONALLY

LEFT

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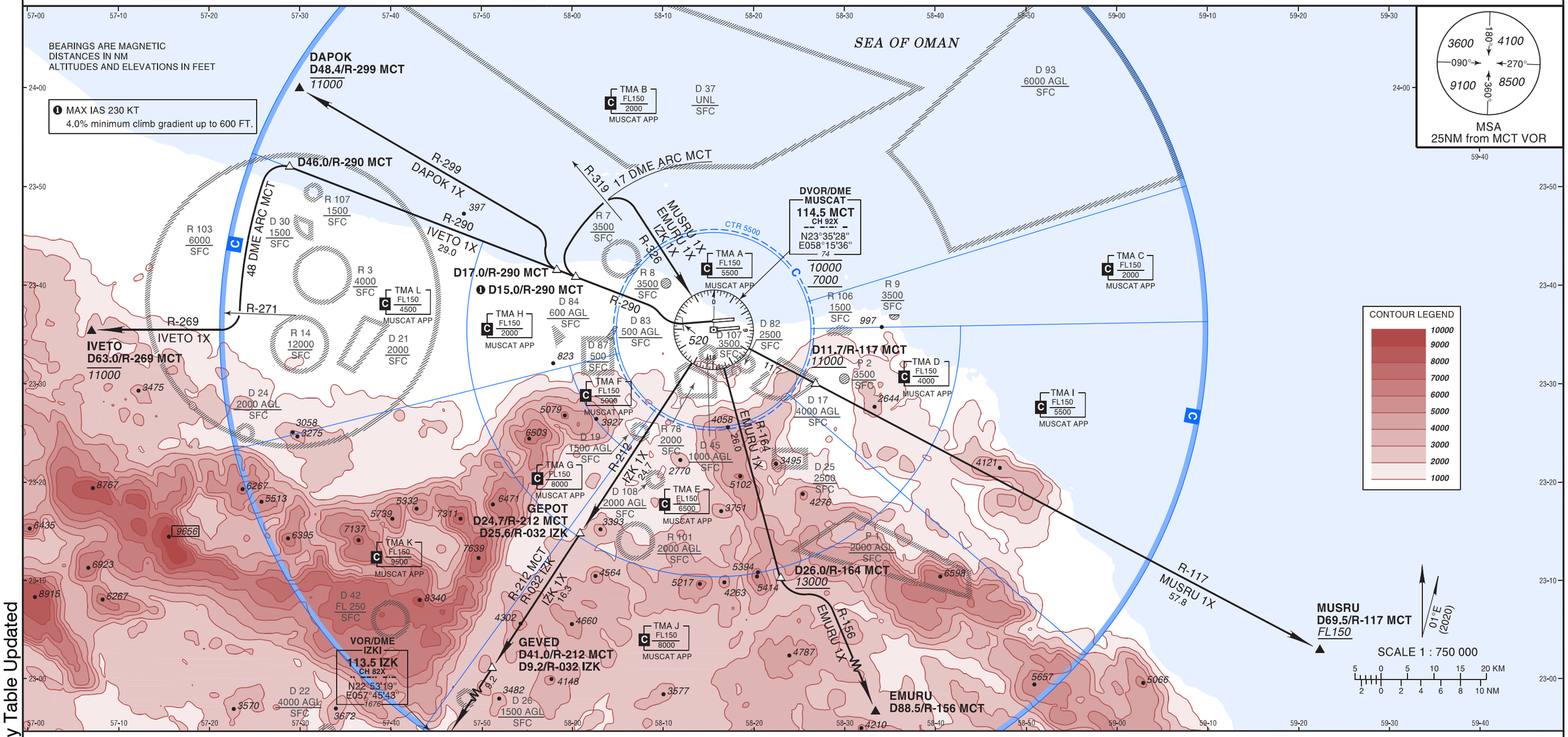
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	49 FT
	Trans Alt	*13000*
	Trans Level	*FL150*

Muscat Information	126.800	Muscat Ground North	127.875
Muscat Tower North	118.825	Muscat Ground South	121.800
Muscat Tower South	118.4		

MUSCAT/Muscat Intl
OMAN
RWY 26R

MUSRU 1X, EMURU 1X, IZK 1X, IVETO 1X, DAPOK 1X DEPARTURE



INITIAL CLIMB

Climb on runway heading to reach 520. Turn RIGHT to intercept and follow R-290 MCT

SID	ROUTING
MUSRU 1X	to D15.0 MCT. Turn RIGHT to follow 17 DME ARC MCT to R-319 MCT. Turn RIGHT to intercept and follow R-326 MCT direct to MCT DVOR/DME between 7000 and 10000. Turn LEFT to follow R-117 MCT to D11.7 MCT at or above 11000. Follow R-117 MCT to MUSRU at or above FL150.
EMURU 1X	to D15.0 MCT. Turn RIGHT to follow 17 DME ARC MCT to R-319 MCT. Turn RIGHT to intercept and follow R-326 MCT direct to MCT DVOR/DME between 7000 and 10000. Turn RIGHT to follow R-164 MCT to D26.0 MCT at or above 13000. Turn LEFT to intercept and follow R-156 MCT direct to EMURU.
IZK 1X	to D15.0 MCT. Turn RIGHT to follow 17 DME ARC MCT to R-319 MCT. Turn RIGHT to intercept and follow R-326 MCT direct to MCT DVOR/DME between 7000 and 10000. Turn RIGHT to follow R-212 MCT direct to GEPOT. Follow R-212 MCT (R-032 IZK) direct to GEVED. Follow R-212 MCT (R-032 IZK) direct to IZK VOR/DME.
IVETO 1X	to D46.0 MCT. Turn LEFT to follow 48 DME ARC MCT to R-271 MCT. Turn RIGHT to intercept and follow R-269 MCT direct to IVETO at or below 11000.
DAPOK 1X	to D17.0 MCT. Turn RIGHT to intercept and follow R-299 MCT direct to DAPOK at or below 11000.

Amendment: Frequency Table Updated

INTENTIONALLY

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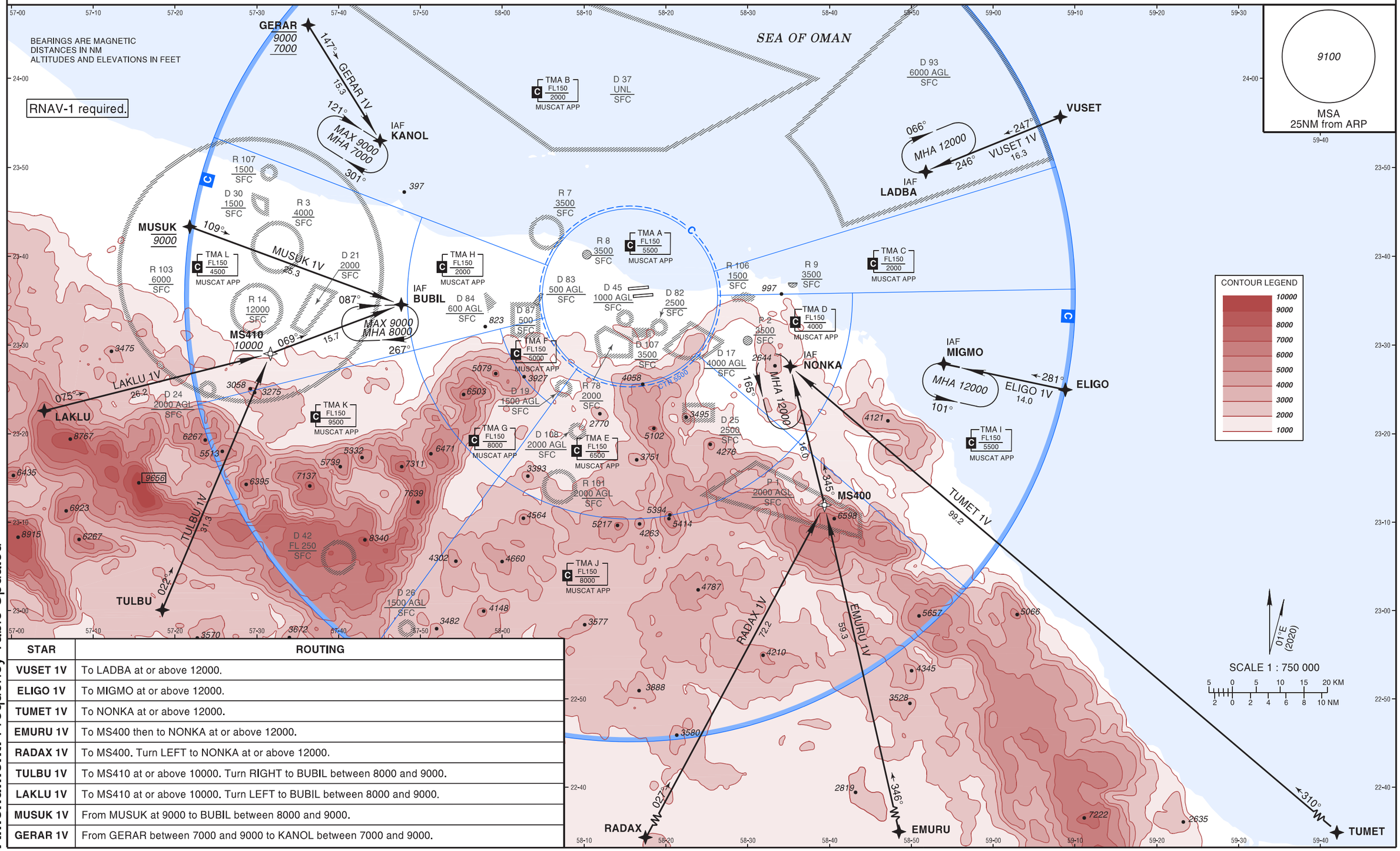
STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

AD ELEV 49 FT
Trans Alt *13000*
Trans Level *FL150*

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
RWY 08L

VUSET 1V, ELIGO 1V, TUMET 1V, EMURU 1V, RADAX 1V, TULBU 1V, LAKLU 1V, MUSUK 1V, GERAR 1V RNAV (GNSS) ARRIVAL



Amendment: Frequency Table Updated

STAR	ROUTING
VUSET 1V	To LADBA at or above 12000.
ELIGO 1V	To MIGMO at or above 12000.
TUMET 1V	To NONKA at or above 12000.
EMURU 1V	To MS400 then to NONKA at or above 12000.
RADAX 1V	To MS400. Turn LEFT to NONKA at or above 12000.
TULBU 1V	To MS410 at or above 10000. Turn RIGHT to BUBIL between 8000 and 9000.
LAKLU 1V	To MS410 at or above 10000. Turn LEFT to BUBIL between 8000 and 9000.
MUSUK 1V	From MUSUK at 9000 to BUBIL between 8000 and 9000.
GERAR 1V	From GERAR between 7000 and 9000 to KANOL between 7000 and 9000.

INTENTIONALLY

LEFT

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Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 08L

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	BUBIL	087° (088.0°)	1 MIN	R	8000	9000	230 KT	1°E	
Hold	KANOL	121° (122.0°)	1 MIN	R	7000	9000	230 KT	1°E	
Hold	LADBA	246° (247.0°)	1 MIN	R	12000		230 KT	1°E	
Hold	MIGMO	281° (282.0°)	1 MIN	L	12000		230 KT	1°E	
Hold	NONKA	345° (346.1°)	1 MIN	L	12000		230 KT	1°E	

Route Description: RNAV (GNSS) ARRIVAL RWY 08L

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
VUSET 1V ARRIVAL									
IF	VUSET						1°E		RNAV 1
TF	LADBA		247° (247.9°)		+12000		1°E	16.3	RNAV 1
ELIGO 1V ARRIVAL									
IF	ELIGO						1°E		RNAV 1
TF	MIGMO		281° (282.0°)		+12000		1°E	14.0	RNAV 1
TUMET 1V ARRIVAL									
IF	TUMET						1°E		RNAV 1
TF	NONKA		310° (310.6°)		+12000		1°E	99.2	RNAV 1
EMURU 1V ARRIVAL									
IF	EMURU						1°E		RNAV 1
TF	MS400		346° (347.2°)				1°E	59.3	RNAV 1
TF	NONKA		345° (346.1°)		+12000		1°E	16.0	RNAV 1
RADAX 1V ARRIVAL									
IF	RADAX						1°E		RNAV 1
TF	MS400		027° (028.1°)				1°E	72.2	RNAV 1
TF	NONKA		345° (346.1°)	L	+12000		1°E	16.0	RNAV 1
TULBU 1V ARRIVAL									
IF	TULBU						1°E		RNAV 1
TF	MS410		022° (022.8°)		+10000		1°E	31.3	RNAV 1
TF	BUBIL		069° (069.5°)	R	-9000 +8000		1°E	15.7	RNAV 1
LAKLU 1V ARRIVAL									
IF	LAKLU						1°E		RNAV 1
TF	MS410		075° (075.7°)		+10000		1°E	26.2	RNAV 1
TF	BUBIL		069° (069.5°)	L	-9000 +8000		1°E	15.7	RNAV 1
MUSUK 1V ARRIVAL									
IF	MUSUK				@9000		1°E		RNAV 1
TF	BUBIL		109° (110.2°)		-9000 +8000		1°E	25.3	RNAV 1
GERAR 1V ARRIVAL									
IF	GERAR				-9000 +7000		1°E		RNAV 1
TF	KANOL		147° (148.2°)		-9000 +7000		1°E	15.3	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 08L

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
BUBIL	N23°34'31.53''	E057°47'38.97''	N23°34.526'	E057°47.650'	
ELIGO	N23°24'58.00''	E059°08'48.00''	N23°24.967'	E059°08.800'	
EMURU	N22°13'57.00''	E058°53'38.00''	N22°13.950'	E058°53.633'	
GERAR	N24°06'00.00''	E057°36'16.00''	N24°06.000'	E057°36.267'	
KANOL	N23°52'57.87''	E057°45'04.18''	N23°52.965'	E057°45.070'	
LADBA	N23°49'30.65''	E058°51'45.04''	N23°49.511'	E058°51.751'	
LAKLU	N23°22'35.00''	E057°04'01.00''	N23°22.583'	E057°04.017'	
MIGMO	N23°27'52.76''	E058°53'54.28''	N23°27.879'	E058°53.905'	
MS400	N23°11'57.00''	E058°39'23.00''	N23°11.950'	E058°39.383'	
MS410	N23°29'02.00''	E057°31'40.00''	N23°29.033'	E057°31.667'	
MUSUK	N23°43'20.00''	E057°21'48.00''	N23°43.333'	E057°21.800'	
NONKA	N23°27'35.00''	E058°35'12.00''	N23°27.583'	E058°35.200'	
RADAX	N22°08'09.00''	E058°02'30.00''	N22°08.150'	E058°02.500'	
TULBU	N23°00'05.00''	E057°18'27.00''	N23°00.083'	E057°18.450'	
TUMET	N22°23'07.00''	E059°57'02.00''	N22°23.117'	E059°57.033'	
VUSET	N23°55'40.00''	E059°08'12.00''	N23°55.667'	E059°08.200'	

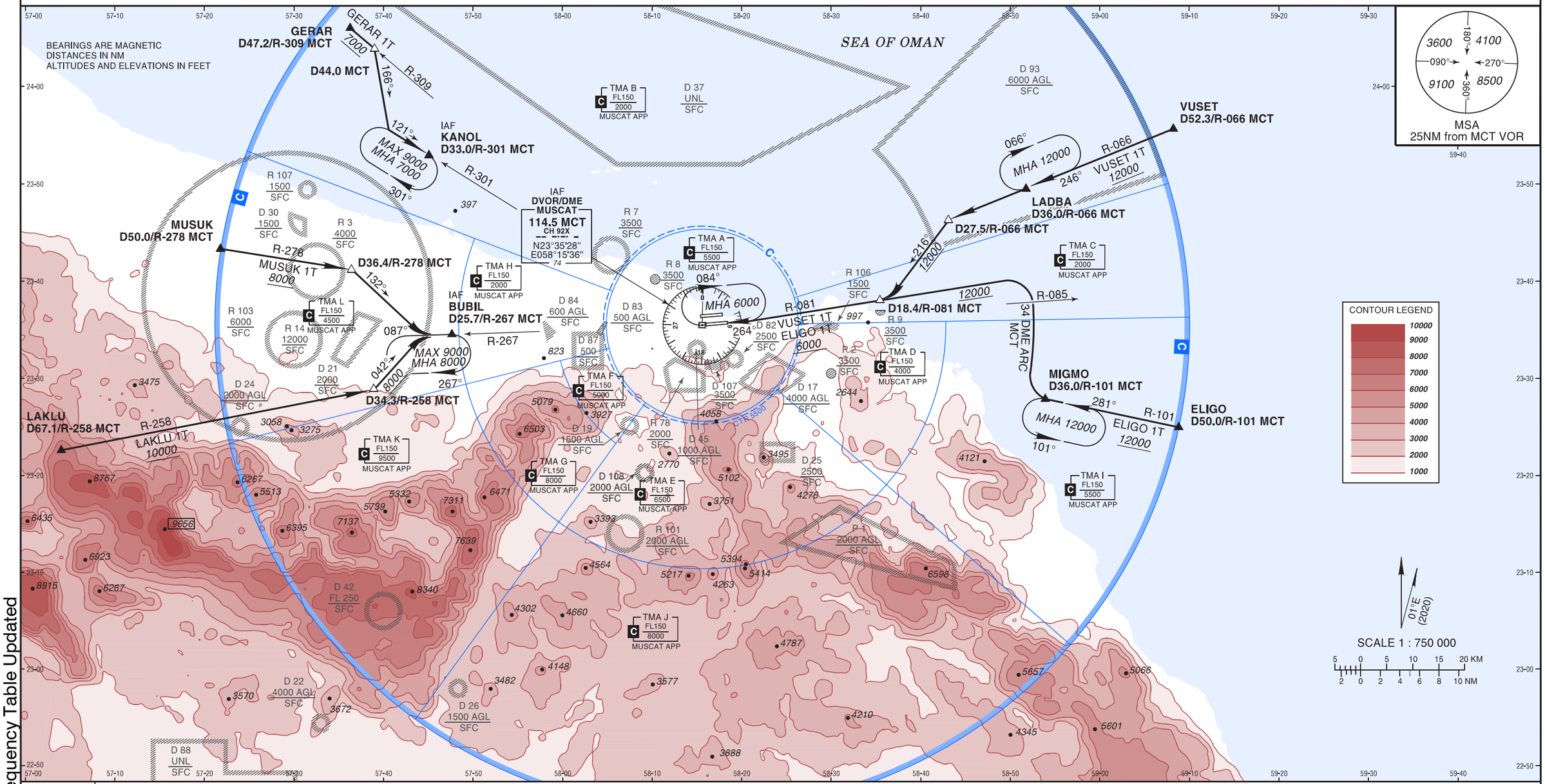
STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

AD ELEV 49 FT
Trans Alt *13000*
Trans Level *FL150*

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
RWY 08L

VUSET 1T, ELIGO 1T, LAKLU 1T, MUSUK 1T, GERAR 1T ARRIVAL



STAR	ROUTING
VUSET 1T	Follow R-066 MCT to LADBA, proceed to D27.5/R-066 MCT, then turn LEFT on track 216° to D18.4/R-081 MCT at or above 12000. Turn RIGHT on R-081 MCT to MCT DVOR/DME at or above 6000.
ELIGO 1T	Follow R-101 MCT to MIGMO, then turn RIGHT to follow 34 DME ARC MCT. At R-085 MCT turn LEFT and follow R-081 MCT to D18.4/R-081 MCT at or above 12000. Turn RIGHT on R-081 MCT to MCT DVOR/DME at or above 6000.
LAKLU 1T	Follow R-258 MCT to D34.3/R-258 MCT at or above 10000. Turn LEFT on track 042° to intercept on follow R-267 MCT to BUBIL between 8000 and 9000.
MUSUK 1T	Follow R-278 MCT to D36.4/R-278 MCT at or above 8000. Turn RIGHT on track 132° to intercept on follow R-267 MCT to BUBIL between 8000 and 9000.
GERAR 1T	Follow R-309 MCT to D44.0/R-309 MCT at or above 7000. Turn RIGHT on track 166° to intercept on follow R-301 MCT to KANOL between 7000 and 9000.

Amendment: Frequency Table Updated

INTENTIONALLY

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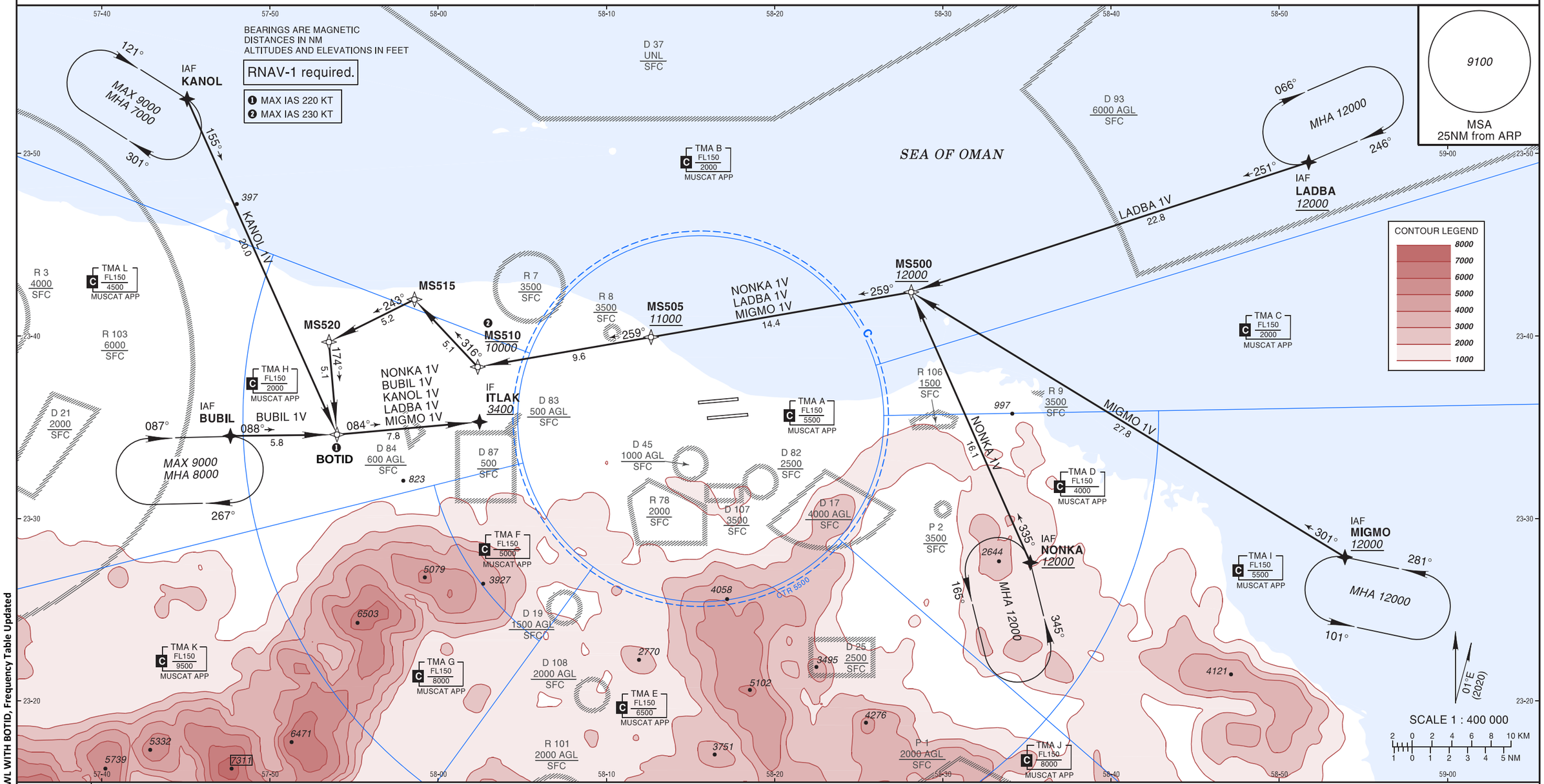
STANDARD ARRIVAL CHART
(TRANSITION) INSTRUMENT
(STAR) - ICAO

AD ELEV 49 FT
Trans Alt *13000*
Trans Level *FL150*

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
RWY 08L

LADBA 1V, MIGMO 1V, NONKA 1V, BUBIL 1V, KANOL 1V RNAV (GNSS) TRANSITION



STAR	ROUTING
LADBA 1V	LADBA at or above 12000 to MS500 at or above 12000. Turn RIGHT to MS505 at or above 11000, to MS510 at or below 10000. Turn RIGHT to MS515, turn LEFT to MS520, turn LEFT to **BOTID**. Turn LEFT to **ITLAK** at or above 3400.
MIGMO 1V	MIGMO at or above 12000 to MS500 at or above 12000. Turn LEFT to MS505 at or above 11000, to MS510 at or below 10000. Turn RIGHT to MS515, turn LEFT to MS520, turn LEFT to **BOTID**. Turn LEFT to **ITLAK** at or above 3400.
NONKA 1V	NONKA at or above 12000 to MS500 at or above 12000. Turn LEFT to MS505 at or above 11000, to MS510 at or below 10000. Turn RIGHT to MS515, turn LEFT to MS520, turn LEFT to **BOTID**. Turn LEFT to **ITLAK** at or above 3400.
BUBIL 1V	BUBIL between 8000 and 9000 to **BOTID**. To **ITLAK** at or above 3400.
KANOL 1V	KANOL between 7000 and 9000 to **BOTID**. Turn LEFT to **ITLAK** at or above 3400.

AMENDMENT: REPLACED M20WL WITH BOTID, Frequency Table Updated

INTENTIONALLY

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Holding Instruction/Areas RNAV (GNSS) ARRIVAL TRANSITION RWY 08L

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	BUBIL	087° (088.0°)	1 MIN	R	8000	9000	230 KT	1°E	
Hold	KANOL	121° (122.0°)	1 MIN	R	7000	9000	230 KT	1°E	
Hold	LADBA	246° (247.0°)	1 MIN	R	12000		230 KT	1°E	
Hold	MIGMO	281° (282.0°)	1 MIN	L	12000		230 KT	1°E	
Hold	NONKA	345° (346.1°)	1 MIN	L	12000		230 KT	1°E	

Route Description: RNAV (GNSS) ARRIVAL TRANSITION RWY 08L

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
LADBA 1V TRANSITION									
IF	LADBA				+12000		1°E		RNAV 1
TF	MS500		251° (251.9°)		+12000		1°E	22.8	RNAV 1
TF	MS505		259° (260.2°)	R	+11000		1°E	14.4	RNAV 1
TF	MS510		259° (260.3°)		-10000	230 KT	1°E	9.6	RNAV 1
TF	MS515		316° (316.9°)	R			1°E	5.1	RNAV 1
TF	MS520		243° (243.5°)	L			1°E	5.2	RNAV 1
TF	BOTID		174° (175.0°)	L		220 KT	1°E	5.1	RNAV 1
TF	ITLAK		084° (084.9°)	L	+3400		1°E	7.8	RNAV 1
MIGMO 1V TRANSITION									
IF	MIGMO				+12000		1°E		RNAV 1
TF	MS500		301° (301.5°)		+12000		1°E	27.8	RNAV 1
TF	MS505		259° (260.2°)	L	+11000		1°E	14.4	RNAV 1
TF	MS510		259° (260.3°)		-10000	230 KT	1°E	9.6	RNAV 1
TF	MS515		316° (316.9°)	R			1°E	5.1	RNAV 1
TF	MS520		243° (243.5°)	L			1°E	5.2	RNAV 1
TF	BOTID		174° (175.0°)	L		220 KT	1°E	5.1	RNAV 1
TF	ITLAK		084° (084.9°)	L	+3400		1°E	7.8	RNAV 1
NONKA 1V TRANSITION									
IF	NONKA				+12000		1°E		RNAV 1
TF	MS500		335° (336.2°)		+12000		1°E	16.1	RNAV 1
TF	MS505		259° (260.2°)	L	+11000		1°E	14.4	RNAV 1
TF	MS510		259° (260.3°)		-10000	230 KT	1°E	9.6	RNAV 1
TF	MS515		316° (316.9°)	R			1°E	5.1	RNAV 1
TF	MS520		243° (243.5°)	L			1°E	5.2	RNAV 1
TF	BOTID		174° (175.0°)	L		220 KT	1°E	5.1	RNAV 1
TF	ITLAK		084° (084.9°)	L	+3400		1°E	7.8	RNAV 1
BUBIL 1V TRANSITION									
IF	BUBIL				-9000 +8000		1°E		RNAV 1
TF	BOTID		088° (089.3°)			220 KT	1°E	5.8	RNAV 1
TF	ITLAK		084° (084.9°)		+3400		1°E	7.8	RNAV 1

Route Description: RNAV (GNSS) ARRIVAL TRANSITION RWY 08L

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
KANOL 1V TRANSITION									
IF	KANOL				-9000 +7000		1°E		RNAV 1
TF	BOTID		155° (155.9°)			220 KT	1°E	20.0	RNAV 1
TF	ITLAK		084° (084.9°)	L	+3400		1°E	7.8	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL TRANSITION RWY 08L

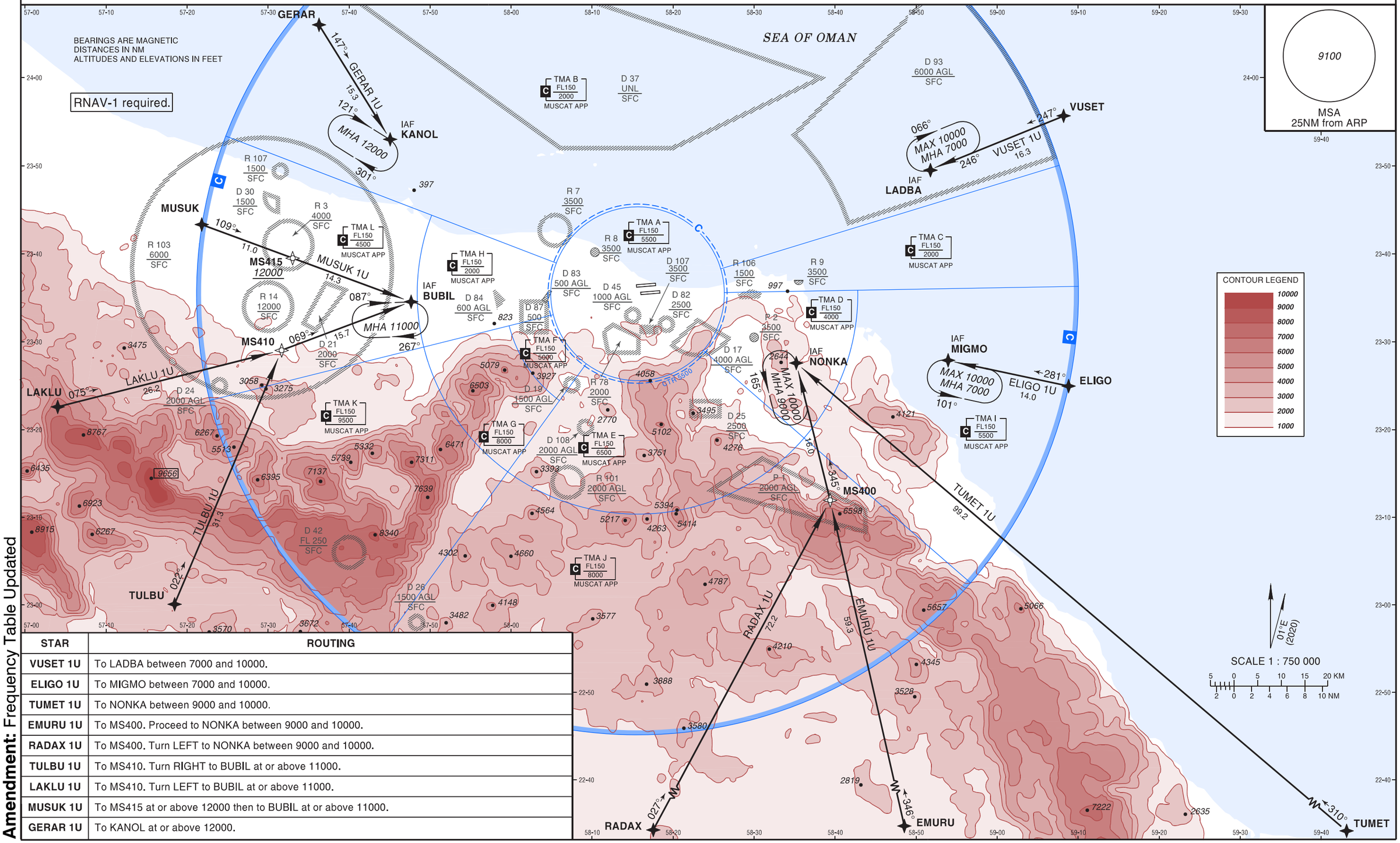
Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
BUBIL	N23°34'31.53''	E057°47'38.97''	N23°34.526'	E057°47.650'	
KANOL	N23°52'57.87''	E057°45'04.18''	N23°52.965'	E057°45.070'	
LADBA	N23°49'30.65''	E058°51'45.04''	N23°49.511'	E058°51.751'	
MIGMO	N23°27'52.76''	E058°53'54.28''	N23°27.879'	E058°53.905'	
MS500	N23°42'24.00''	E058°28'07.00''	N23°42.400'	E058°28.117'	
MS505	N23°39'56.00''	E058°12'39.00''	N23°39.933'	E058°12.650'	
MS510	N23°38'18.00''	E058°02'21.00''	N23°38.300'	E058°02.350'	
MS515	N23°42'00.00''	E057°58'35.00''	N23°42.000'	E057°58.583'	
MS520	N23°39'40.00''	E057°53'30.00''	N23°39.667'	E057°53.500'	
BOTID	N23°34'35.91''	E057°53'58.73''	N23°34.599'	E057°53.979'	
ITLAK	N23°35'17.84''	E058°02'27.82''	N23°35.297'	E058°02.464'	
NONKA	N23°27'35.00''	E058°35'12.00''	N23°27.583'	E058°35.200'	

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO	AD ELEV	49 FT
	Trans Alt	*13000*
	Trans Level	*FL150*

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
RWY 26R

VUSET 1U, ELIGO 1U, TUMET 1U, EMURU 1U, RADAX 1U, TULBU 1U, LAKLU 1U, MUSUK 1U, GERAR 1U RNAV (GNSS) ARRIVAL



STAR	ROUTING
VUSET 1U	To LADBA between 7000 and 10000.
ELIGO 1U	To MIGMO between 7000 and 10000.
TUMET 1U	To NONKA between 9000 and 10000.
EMURU 1U	To MS400. Proceed to NONKA between 9000 and 10000.
RADAX 1U	To MS400. Turn LEFT to NONKA between 9000 and 10000.
TULBU 1U	To MS410. Turn RIGHT to BUBIL at or above 11000.
LAKLU 1U	To MS410. Turn LEFT to BUBIL at or above 11000.
MUSUK 1U	To MS415 at or above 12000 then to BUBIL at or above 11000.
GERAR 1U	To KANOL at or above 12000.

Amendment: Frequency Table Updated

INTENTIONALLY

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Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 26R

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	BUBIL	087° (088.0°)	1 MIN	R	11000		230 KT	1°E	
Hold	KANOL	121° (122.0°)	1 MIN	R	12000		230 KT	1°E	
Hold	LADBA	246° (247.0°)	1 MIN	R	7000	10000	230 KT	1°E	
Hold	MIGMO	281° (282.0°)	1 MIN	L	7000	10000	230 KT	1°E	
Hold	NONKA	345° (346.1°)	1 MIN	L	9000	10000	230 KT	1°E	

Route Description: RNAV (GNSS) ARRIVAL RWY 26R

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
VUSET 1U ARRIVAL									
IF	VUSET						1°E		RNAV 1
TF	LADBA		247° (247.9°)		-10000 +7000		1°E	16.3	RNAV 1
ELIGO 1U ARRIVAL									
IF	ELIGO						1°E		RNAV 1
TF	MIGMO		281° (282.0°)		-10000 +7000		1°E	14.0	RNAV 1
TUMET 1U ARRIVAL									
IF	TUMET						1°E		RNAV 1
TF	NONKA		310° (310.6°)		-10000 +9000		1°E	99.2	RNAV 1
EMURU 1U ARRIVAL									
IF	EMURU						1°E		RNAV 1
TF	MS400		346° (347.2°)				1°E	59.3	RNAV 1
TF	NONKA		345° 346.1°)		-10000 +9000		1°E	16.0	RNAV 1
RADAX 1U ARRIVAL									
IF	RADAX						1°E		RNAV 1
TF	MS400		027° (028.1°)				1°E	72.2	RNAV 1
TF	NONKA		345° (346.1°)	L	-10000 +9000		1°E	16.0	RNAV 1
TULBU 1U ARRIVAL									
IF	TULBU						1°E		RNAV 1
TF	MS410		022° (022.8°)				1°E	31.3	RNAV 1
TF	BUBIL		069° (069.5°)	L	+11000		1°E	15.7	RNAV 1
LAKLU 1U ARRIVAL									
IF	LAKLU						1°E		RNAV 1
TF	MS410		075° (075.7°)				1°E	26.2	RNAV 1
TF	BUBIL		069° (069.5°)	L	+11000		1°E	15.7	RNAV 1
MUSUK 1U ARRIVAL									
IF	MUSUK						1°E		RNAV 1
TF	MS415		109° (110.2°)		+12000		1°E	11.0	RNAV 1
TF	BUBIL		109° (110.3°)		+11000		1°E	14.3	RNAV 1
GERAR 1U ARRIVAL									
IF	GERAR						1°E		RNAV 1
TF	KANOL		147° (148.2°)		+12000		1°E	15.3	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 26R

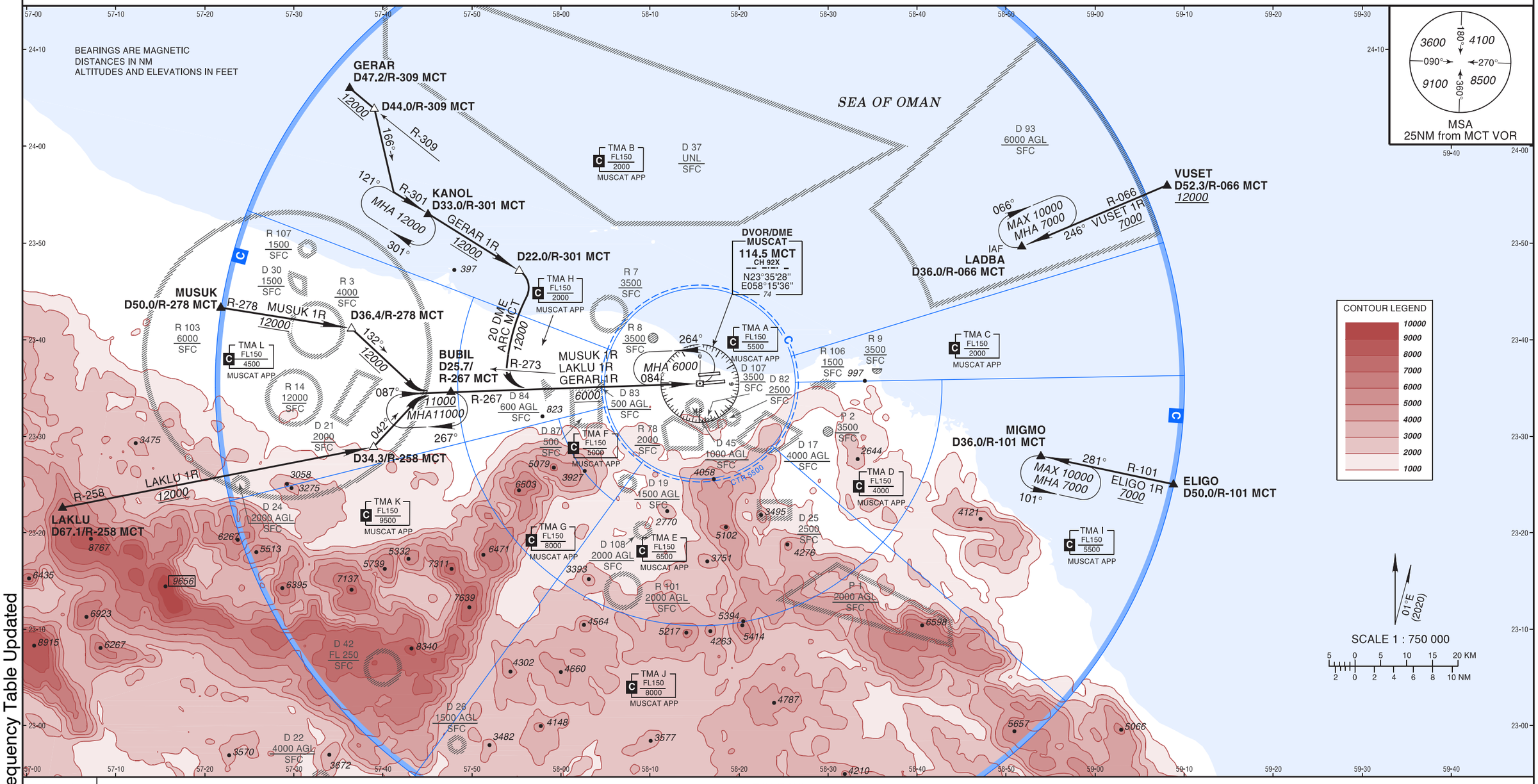
Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
BUBIL	N23°34'31.53''	E057°47'38.97''	N23°34.526'	E057°47.650'	
ELIGO	N23°24'58.00''	E059°08'48.00''	N23°24.967'	E059°08.800'	
EMURU	N22°13'57.00''	E058°53'38.00''	N22°13.950'	E058°53.633'	
GERAR	N24°06'00.00''	E057°36'16.00''	N24°06.000'	E057°36.267'	
KANOL	N23°52'57.87''	E057°45'04.18''	N23°52.965'	E057°45.070'	
LADBA	N23°49'30.65''	E058°51'45.04''	N23°49.511'	E058°51.751'	
LAKLU	N23°22'35.00''	E057°04'01.00''	N23°22.583'	E057°04.017'	
MIGMO	N23°27'52.76''	E058°53'54.28''	N23°27.879'	E058°53.905'	
MS400	N23°11'57.00''	E058°39'23.00''	N23°11.950'	E058°39.383'	
MS410	N23°29'02.00''	E057°31'40.00''	N23°29.033'	E057°31.667'	
MS415	N23°39'30.81''	E057°33'02.61''	N23°39.514'	E057°33.044'	
MUSUK	N23°43'20.00''	E057°21'48.00''	N23°43.333'	E057°21.800'	
NONKA	N23°27'35.00''	E058°35'12.00''	N23°27.583'	E058°35.200'	
RADAX	N22°08'09.00''	E058°02'30.00''	N22°08.150'	E058°02.500'	
TULBU	N23°00'05.00''	E057°18'27.00''	N23°00.083'	E057°18.450'	
TUMET	N22°23'07.00''	E059°57'02.00''	N22°23.117'	E059°57.033'	
VUSET	N23°55'40.00''	E059°08'12.00''	N23°55.667'	E059°08.200'	

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO	AD ELEV 49 FT Trans Alt *13000* Trans Level *FL150*	

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
RWY 26R

VUSET 1R, ELIGO 1R, LAKLU 1R, MUSUK 1R, GERAR 1R ARRIVAL



STAR	ROUTING
VUSET 1R	Follow R-066 MCT to LADBA at or above 7000.
ELIGO 1R	Follow R-101 MCT to MIGMO at or above 7000.
LAKLU 1R	Follow R-258 MCT to D34.3/R-258 MCT at or above 12000. Turn LEFT on track 042° to intercept and follow R-267 MCT to BUBIL at or above 11000 and to MCT DVOR/DME at or above 6000.
MUSUK 1R	Follow R-278 MCT to D36.4/R-278 MCT at or above 12000. Turn RIGHT on track 132° to intercept and follow R-267 MCT to BUBIL at or above 11000 and to MCT DVOR/DME at or above 6000.
GERAR 1R	Follow R-309 MCT to D44.0/R-309 MCT at or above 12000. Turn RIGHT on track 166° to intercept and follow R-301 MCT to KANOL then to D22.0/R-301 MCT. Turn RIGHT to follow 20 DME ARC MCT. At R-273 MCT turn LEFT to intercept and follow R-267 MCT at or above 6000 to MCT DVOR/DME.

Amendment: Frequency Table Updated

INTENTIONALLY

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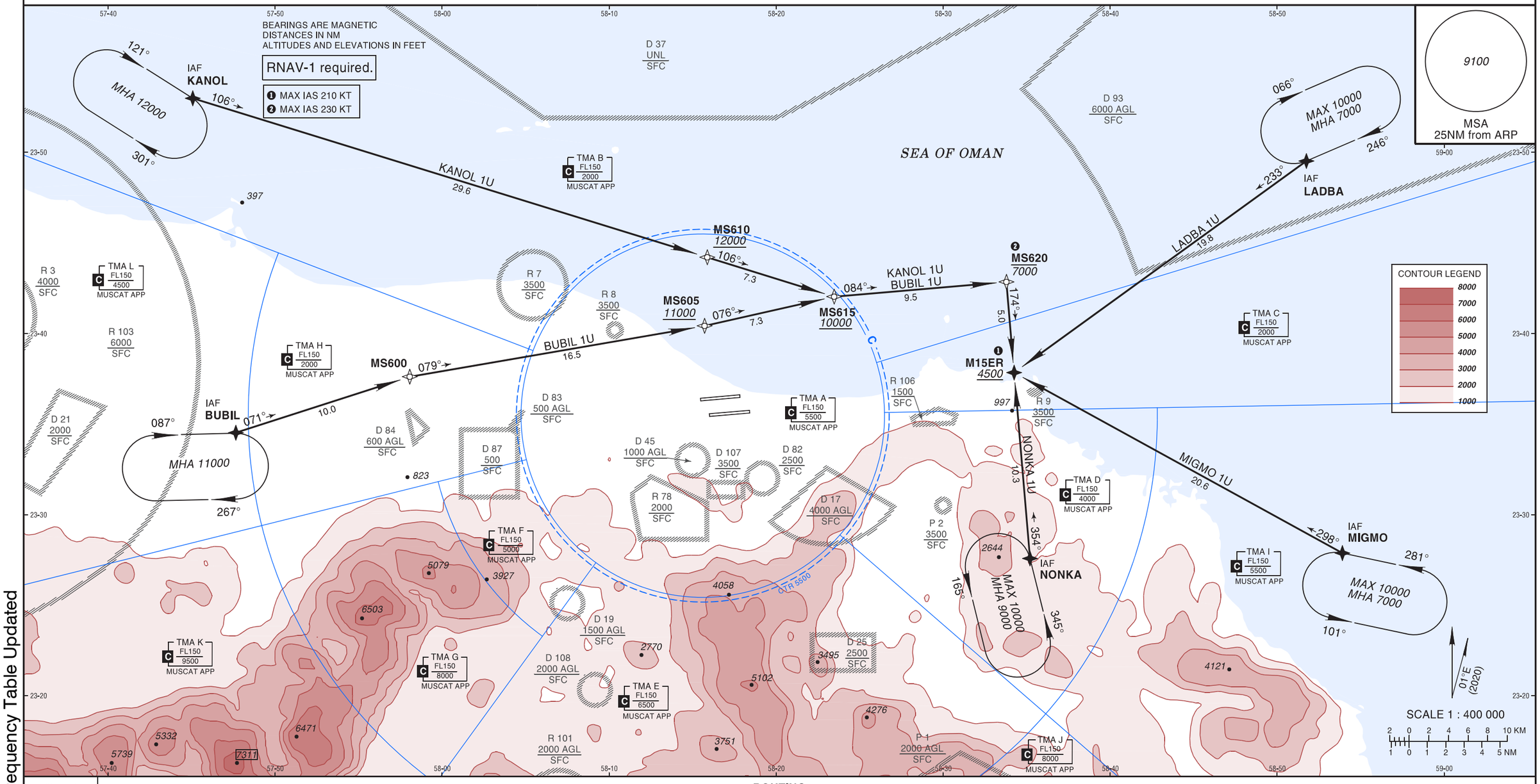
STANDARD ARRIVAL CHART
(TRANSITION) INSTRUMENT
(STAR) - ICAO

AD ELEV 49 FT
Trans Alt *13000*
Trans Level *FL150*

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
RWY 26R

LADBA 1U, MIGMO 1U, NONKA 1U, BUBIL 1U, KANOL 1U RNAV (GNSS) TRANSITION



STAR	ROUTING
LADBA 1U	LADBA between 7000 and 10000 to M15ER at 4500 or above.
MIGMO 1U	MIGMO between 7000 and 10000 to M15ER at 4500 or above.
NONKA 1U	NONKA between 9000 and 10000 to M15ER at 4500 or above.
BUBIL 1U	BUBIL at 11000 or above to MS600. Turn RIGHT to MS605 at 11000 or above. To MS615 at 10000 or above. Turn RIGHT to MS620 at 7000 or below. Turn RIGHT to M15ER at 4500 or above.
KANOL 1U	KANOL at 12000 or above to MS610 at 12000 or above. To MS615 at 10000 or above. Turn LEFT to MS620 at 7000 or below. Turn RIGHT to M15ER at 4500 or above.

Amendment: Frequency Table Updated

INTENTIONALLY

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Holding Instruction/Areas RNAV (GNSS) ARRIVAL TRANSITION RWY 26R

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	BUBIL	087° (088.0°)	1 MIN	R	11000		230 KT	1°E	
Hold	KANOL	121° (122.0°)	1 MIN	R	12000		230 KT	1°E	
Hold	LADBA	246° (247.0°)	1 MIN	R	7000	10000	230 KT	1°E	
Hold	MIGMO	281° (282.0°)	1 MIN	L	7000	10000	230 KT	1°E	
Hold	NONKA	345° (346.1°)	1 MIN	L	9000	10000	230 KT	1°E	

Route Description: RNAV (GNSS) ARRIVAL TRANSITION RWY 26R

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
LADBA 1U TRANSITION									
IF	LADBA				-10000 +7000		1°E		RNAV 1
TF	M15ER		233° (234.2°)		+4500	210 KT	1°E	19.8	RNAV 1
MIGMO 1U TRANSITION									
IF	MIGMO				-10000 +7000		1°E		RNAV 1
TF	M15ER		298° (298.9°)		+4500	210 KT	1°E	20.6	RNAV 1
NONKA 1U TRANSITION									
IF	NONKA				-10000 +9000		1°E		RNAV 1
TF	M15ER		354° (355.1°)		+4500	210 KT	1°E	10.3	RNAV 1
BUBIL 1U TRANSITION									
IF	BUBIL				+11000		1°E		RNAV 1
TF	MS600		071° (072.1°)				1°E	10.0	RNAV 1
TF	MS605		079° (080.2°)	R	+11000		1°E	16.5	RNAV 1
TF	MS615		076° (077.3°)		+10000		1°E	7.3	RNAV 1
TF	MS620		084° (085.1°)	R	-7000	230 KT	1°E	9.5	RNAV 1
TF	M15ER		174° (175.1°)	R	+4500	210 KT	1°E	5.0	RNAV 1
KANOL 1U TRANSITION									
IF	KANOL				+12000		1°E		RNAV 1
TF	MS610		106° (107.1°)		+12000		1°E	29.6	RNAV 1
TF	MS615		106° (107.3°)		+10000		1°E	7.3	RNAV 1
TF	MS620		084° (085.1°)	L	-7000	230 KT	1°E	9.5	RNAV 1
TF	M15ER		174° (175.1°)	R	+4500	210 KT	1°E	5.0	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL TRANSITION RWY 26R

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
BUBIL	N23°34'31.53''	E057°47'38.97''	N23°34.526'	E057°47.650'	
KANOL	N23°52'57.87''	E057°45'04.18''	N23°52.965'	E057°45.070'	
LADBA	N23°49'30.65''	E058°51'45.04''	N23°49.511'	E058°51.751'	
MIGMO	N23°27'52.76''	E058°53'54.28''	N23°27.879'	E058°53.905'	
MS600	N23°37'36.95''	E057°58'03.47''	N23°37.616'	E057°58.058'	
MS605	N23°40'25.02''	E058°15'42.86''	N23°40.417'	E058°15.714'	
MS610	N23°44'12.44''	E058°15'52.63''	N23°44.207'	E058°15.877'	
MS615	N23°42'01.75''	E058°23'28.44''	N23°42.029'	E058°23.474'	
MS620	N23°42'50.64''	E058°33'47.25''	N23°42.844'	E058°33.787'	
M15ER	N23°37'50.73''	E058°34'14.978''	N23°37.846'	E058°34.250'	
NONKA	N23°27'35.00''	E058°35'12.00''	N23°27.583'	E058°35.200'	

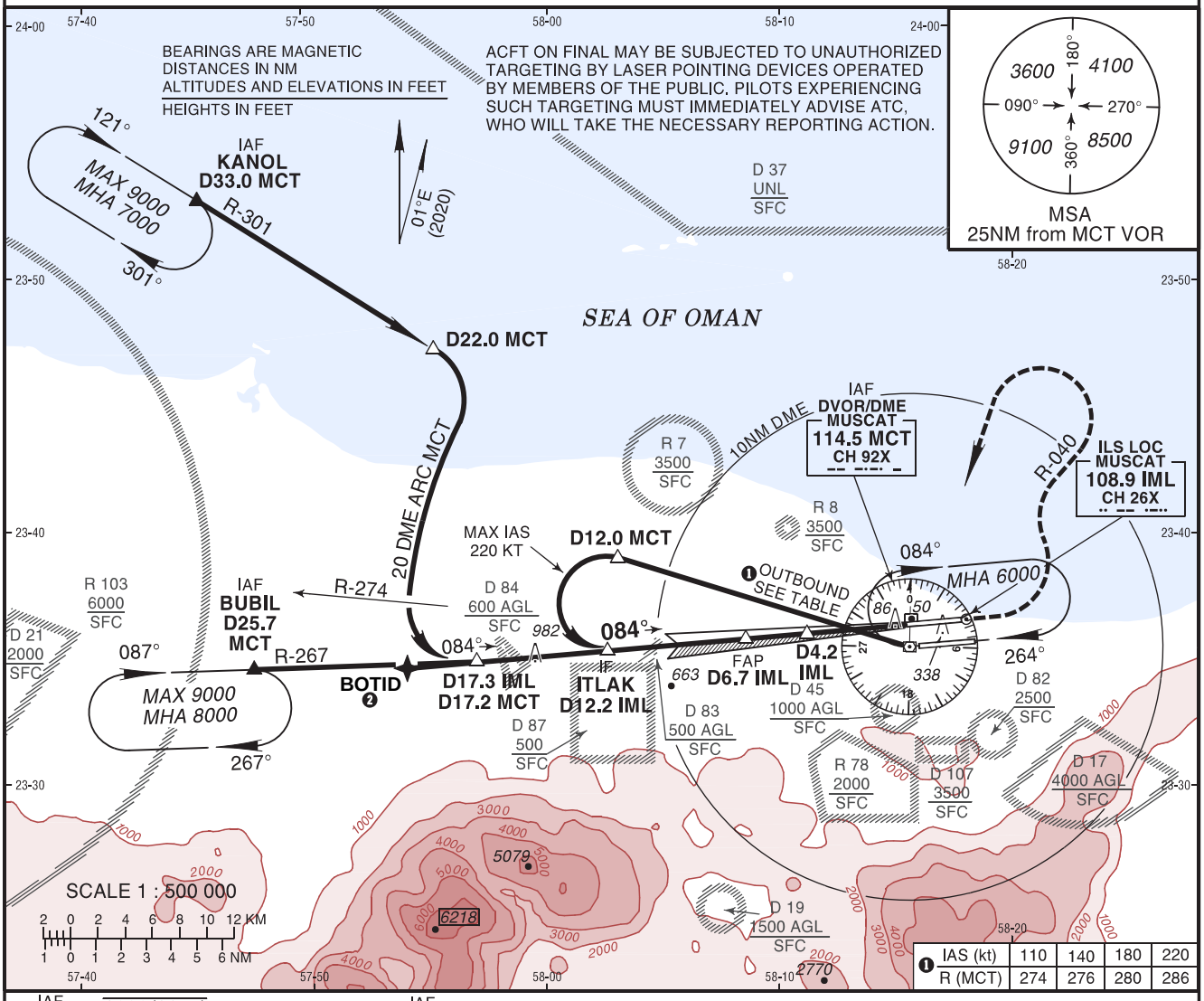
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 49 FT

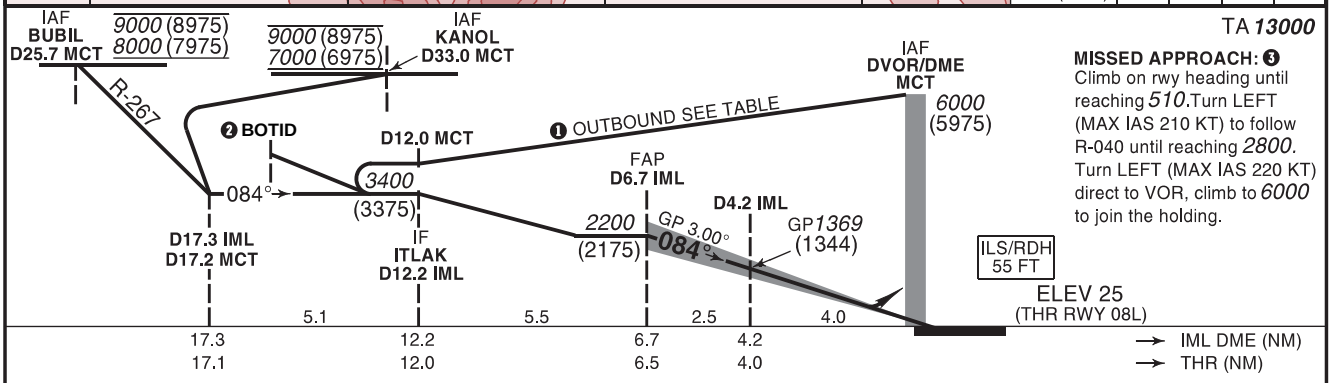
HEIGHTS RELATED TO THR RWY 08L ELEV 25 FT

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
ILS RWY 08L



❶ IAS (kt)	110	140	180	220
R (MCT)	274	276	280	286



TA **13000**

MISSED APPROACH: ❸ Climb on rwy heading until reaching *510*. Turn LEFT (MAX IAS 210 KT) to follow R-040 until reaching *2800*. Turn LEFT (MAX IAS 220 KT) direct to VOR, climb to *6000* to join the holding.

STRAIGHT-IN APPROACH		A	B	C	D
ILS CAT I	OCH	206	218	227	237
	DA(H)	*240* (210)	*250* (220)	*260* (230)	*270* (240)
	RVR	750m			
CIRCLING (HAA)* ❹		A	B	C	D
		Not Authorized			

ADVISORY INFORMATION ONLY						
IML DME	6	5	4	3	2	1
ALT (HGT)	*1990* (1960)	*1670* (1640)	*1350* (1330)	*1030* (1010)	*710* (690)	*400* (370)

GS	kt	80	100	120	140	160	180
FAF-THR	min:s	4:54	3:55	3:16	2:48	2:27	2:11
ROD: 5.24%	ft/min	425	531	637	743	849	955

❷ For INITIAL RNAV APPROACH to **BOTID** see Transition Chart. RNAV 1 REQUIRED.
❸ Turns before MAPt are prohibited.
❹ Circling not authorized.

VOR and DME or RADAR required.

AMENDMENT: REPLACED M20WL WITH BOTID, Frequency Table Updated

INTENTIONALLY

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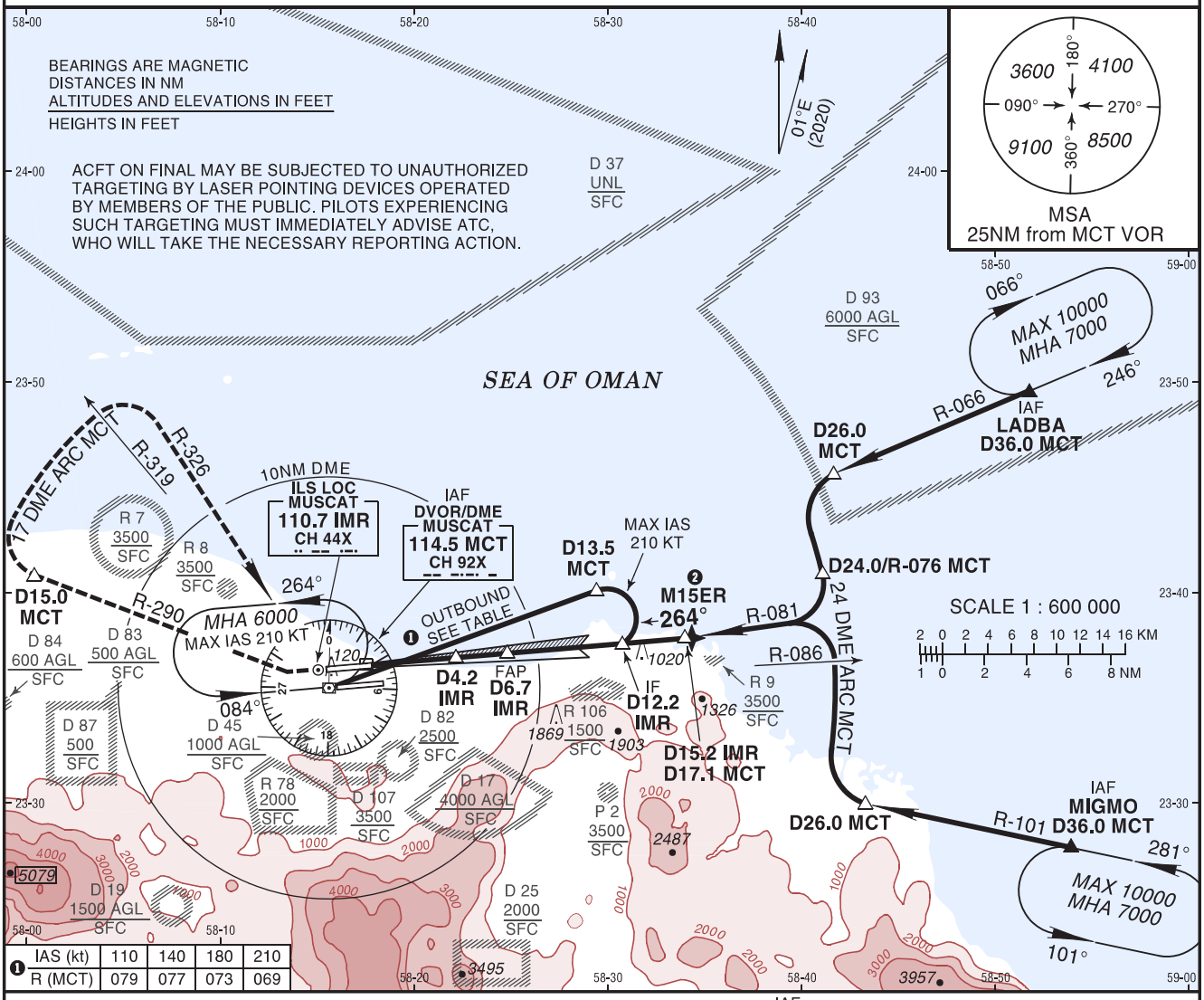
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 49 FT

HEIGHTS RELATED TO THR RWY 26R ELEV 19 FT

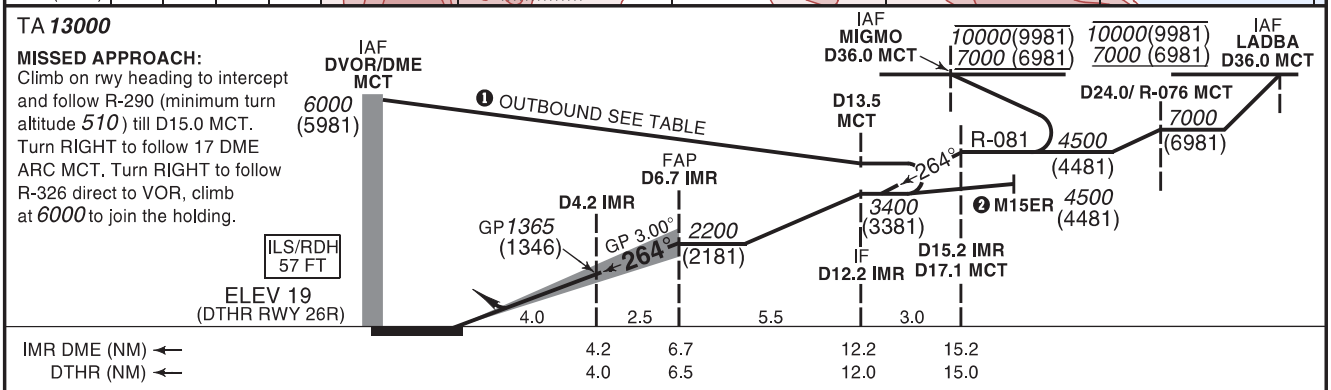
Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
ILS RWY 26R



TA **13000**

MISSED APPROACH:
Climb on rwy heading to intercept and follow R-290 (minimum turn altitude *510*) till D15.0 MCT. Turn RIGHT to follow 17 DME ARC MCT. Turn RIGHT to follow R-326 direct to VOR, climb at *6000* to join the holding.



STRAIGHT-IN APPROACH		A	B	C	D
ILS CAT I	OCH	189	201	209	220
	DA(H)	*220* (200)	*230* (210)	*230* (210)	*240* (220)
	RVR	750m			
CIRCLING (HAA)* ❸		A	B	C	D
		Not Authorized			

ADVISORY INFORMATION ONLY						
IMR DME	1	2	3	4	5	6
ALT (HGT)	*400* (380)	*710* (700)	*1030* (1010)	*1350* (1330)	*1670* (1650)	*1990* (1970)

GS	kt	80	100	120	140	160	180
FAP-THR	min:s	4:55	3:56	3:16	2:48	2:27	2:11
ROD: 5.24%	ft/min	425	531	637	743	849	955

❷ For INITIAL RNAV APPROACH to M15ER see Transition chart.
RNAV 1 REQUIRED.
❸ Circling not authorized.
VOR and DME or RADAR required.

Amendment: Frequency Table Updated

INTENTIONALLY

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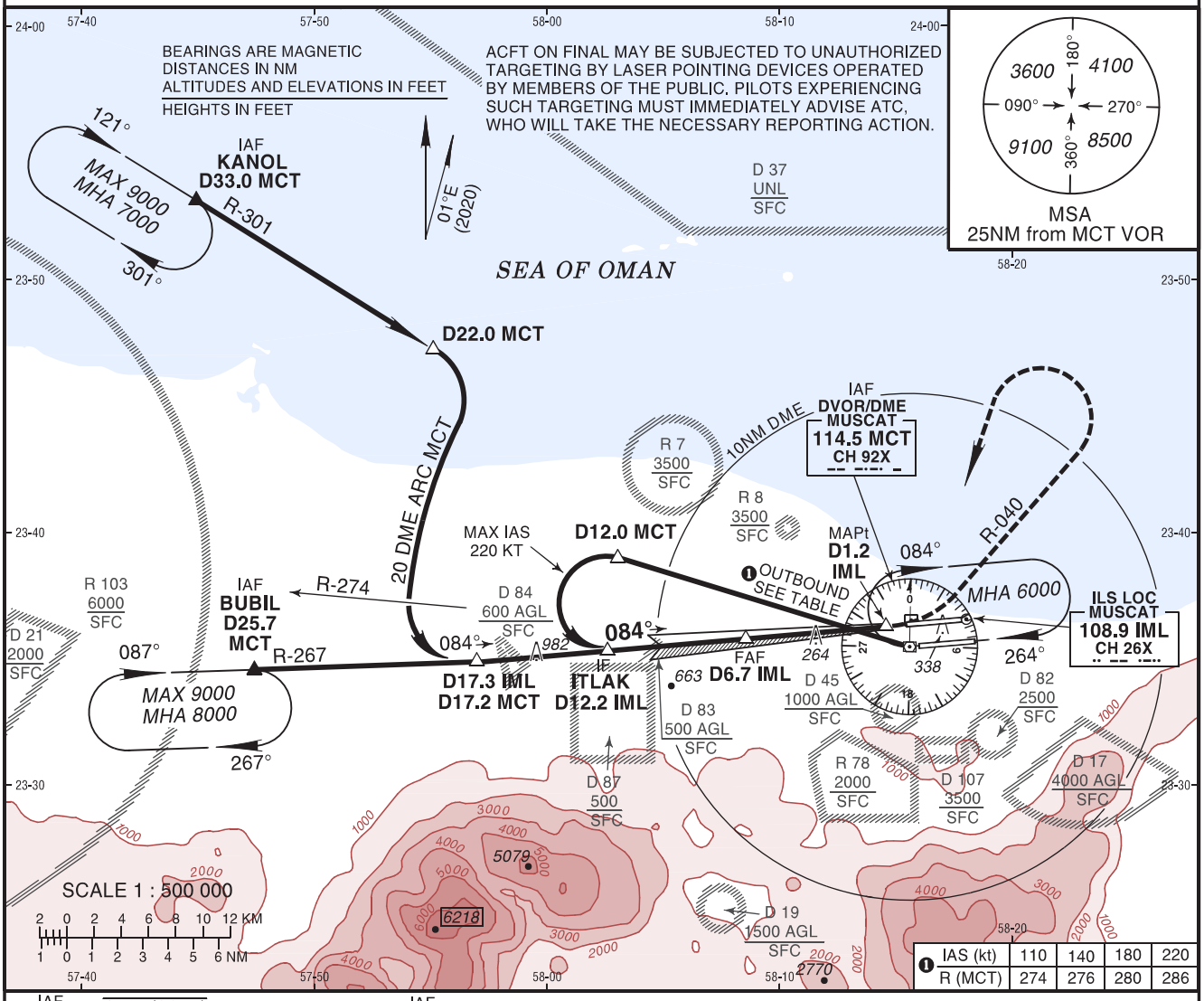
INSTRUMENT APPROACH CHART - ICAO

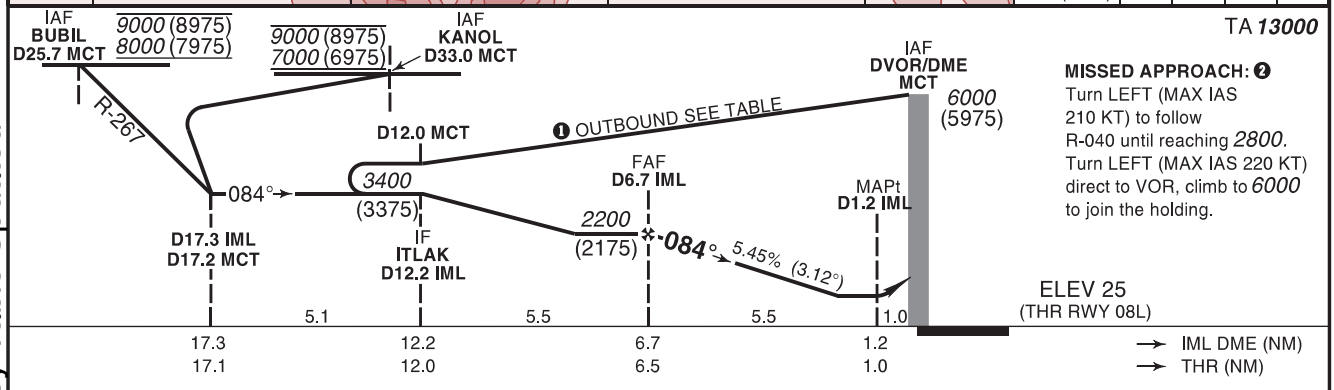
AD ELEV 49 FT

HEIGHTS RELATED TO THR RWY 08L ELEV 25 FT

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
LOC RWY 08L





STRAIGHT-IN APPROACH		A	B	C	D
LOC	OCH	510			
	MDA(H)	530 (510)			
	RVR	1500m		1600m	
CIRCLING (HAA)* ❸		A	B	C	D
		Not Authorized			

ADVISORY INFORMATION ONLY						
IML DME	6	5	4	3	2	
ALT (HGT)	1980 (1950)	1650 (1620)	1320 (1290)	990 (960)	650 (630)	
GS	kt	80	100	120	140	160	180
FAF-MAPt ❹	min:s						
ROD: 5.45%	ft/min	442	552	663	773	884	994

❷ Turns before MAPt are prohibited.
❸ Circling not authorized.
❹ Timing not authorized for defining the MAPt.

VOR and DME or RADAR required.

Amendment: Frequency Table Updated

INTENTIONALLY

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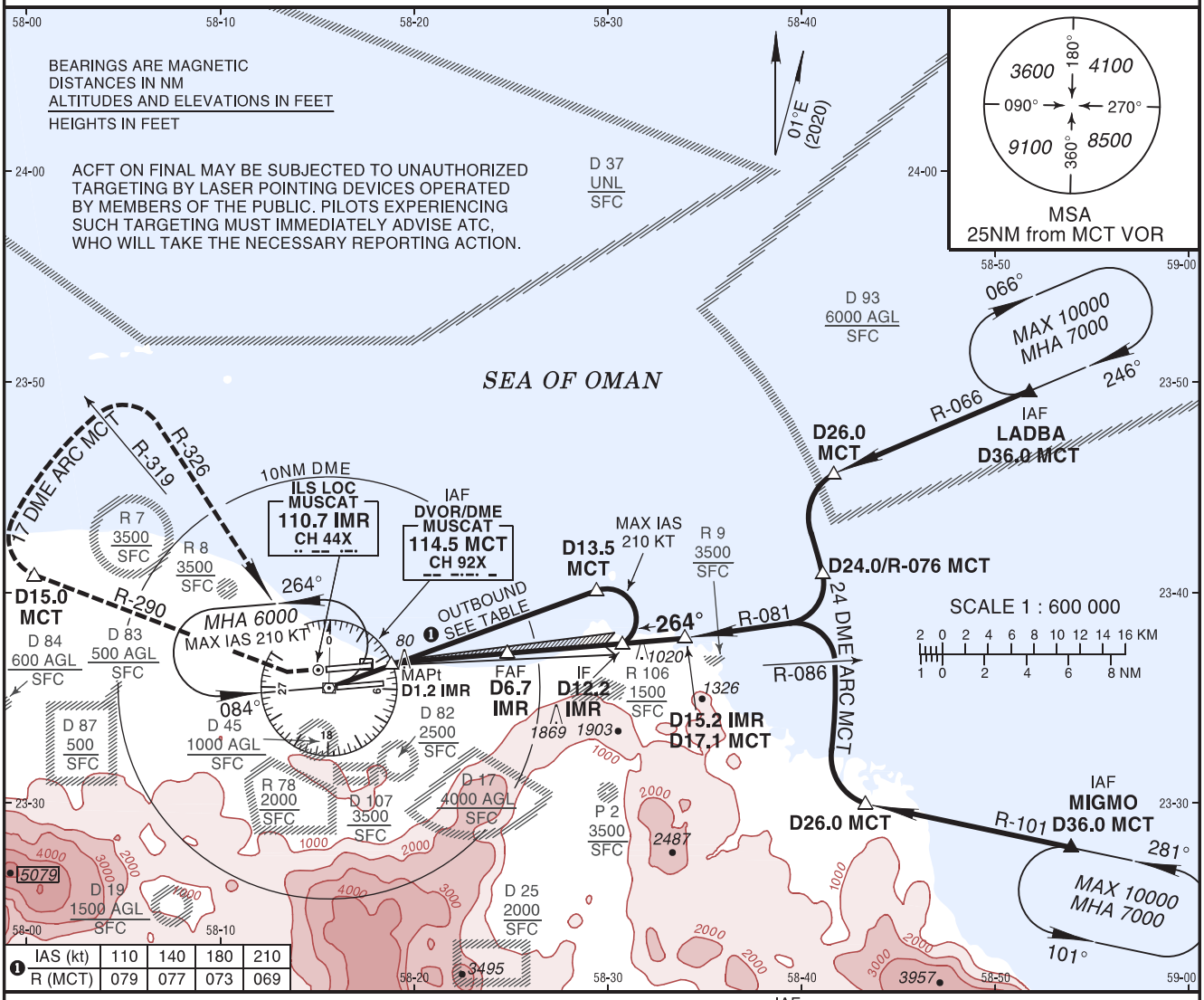
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 49 FT

HEIGHTS RELATED TO THR RWY 26R ELEV 19 FT

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

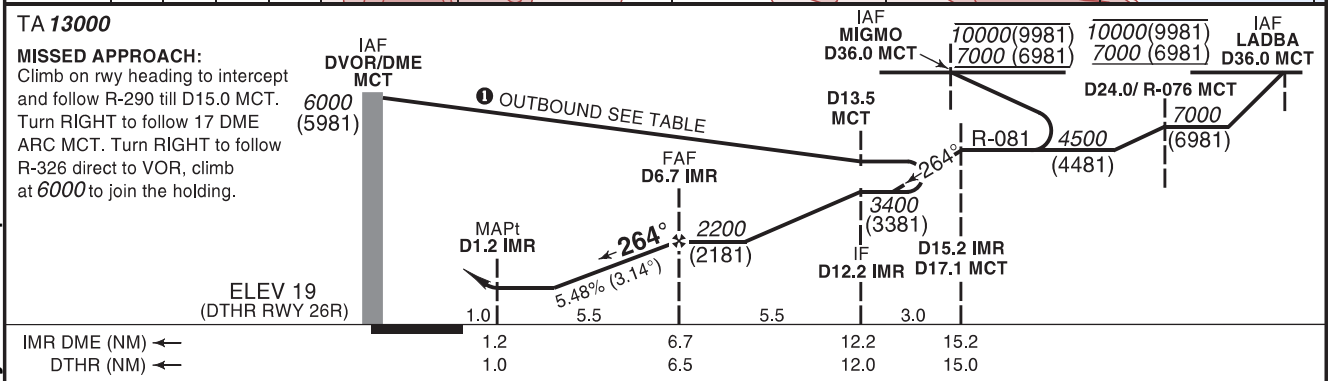
MUSCAT/Muscat Intl
OMAN
LOC RWY 26R



IAS (kt)	110	140	180	210
❶ R (MCT)	079	077	073	069

TA **13000**

MISSED APPROACH:
Climb on rwy heading to intercept and follow R-290 till D15.0 MCT. Turn RIGHT to follow 17 DME ARC MCT. Turn RIGHT to follow R-326 direct to VOR, climb at *6000* to join the holding.



STRAIGHT-IN APPROACH		A	B	C	D
LOC	OCH	350			
	MDA(H)	*370* (350)			
	RVR	900m			

CIRCLING (HAA)* ❷	A	B	C	D
	Not Authorized			

ADVISORY INFORMATION ONLY

IMR DME	2	3	4	5	6
ALT (HGT)	*640* (630)	*980* (960)	*1310* (1290)	*1640* (1630)	*1980* (1960)

GS	kt	80	100	120	140	160	180
FAF-MAPt ❸	min:s						
ROD: 5.48%	ft/min	444	555	666	777	888	999

❷ Circling not authorized.
❸ Timing not authorized for defining the MAPt.

VOR and DME or RADAR required.

Amendment: Frequency Table Updated

INTENTIONALLY

LEFT

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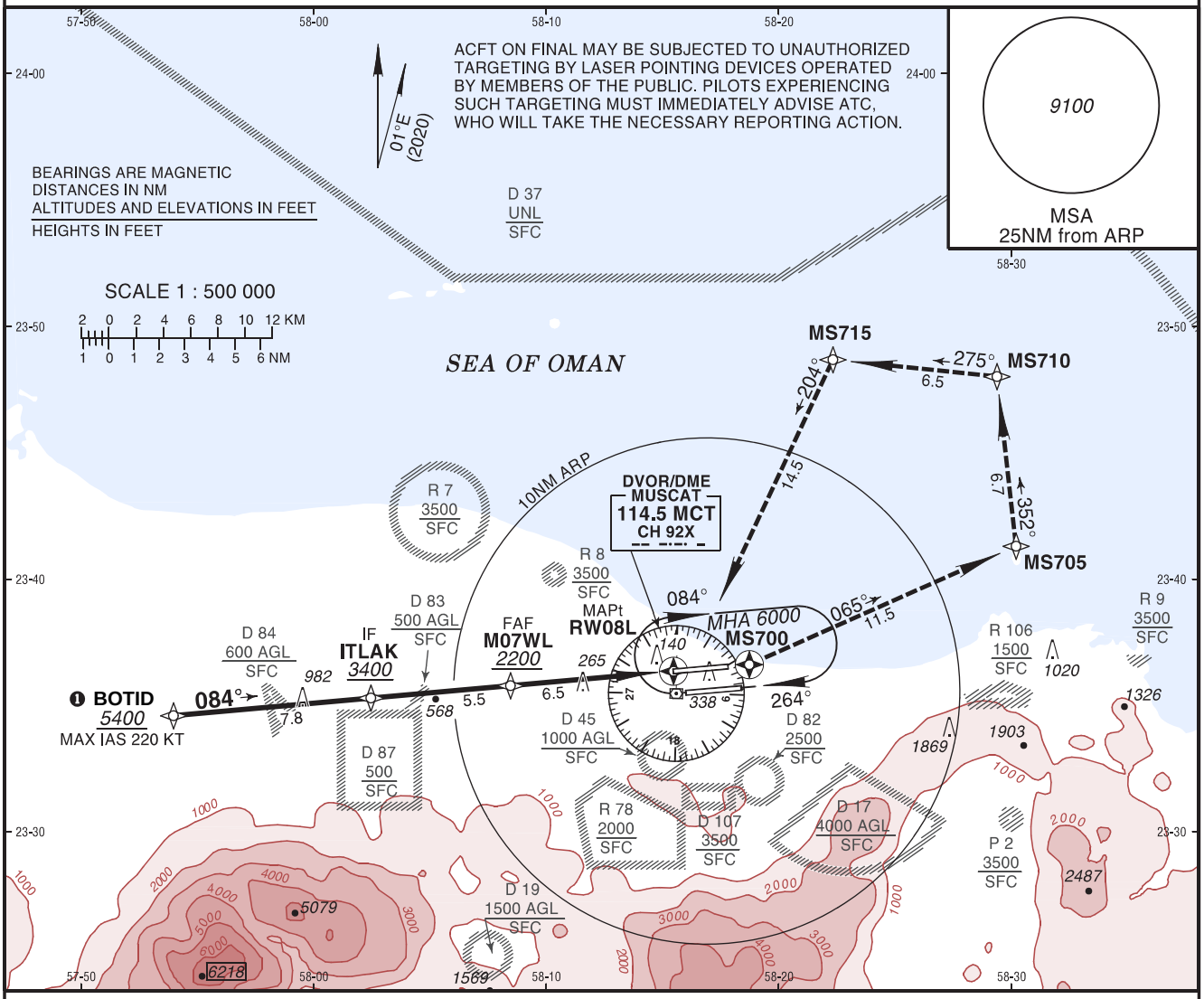
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 49 FT

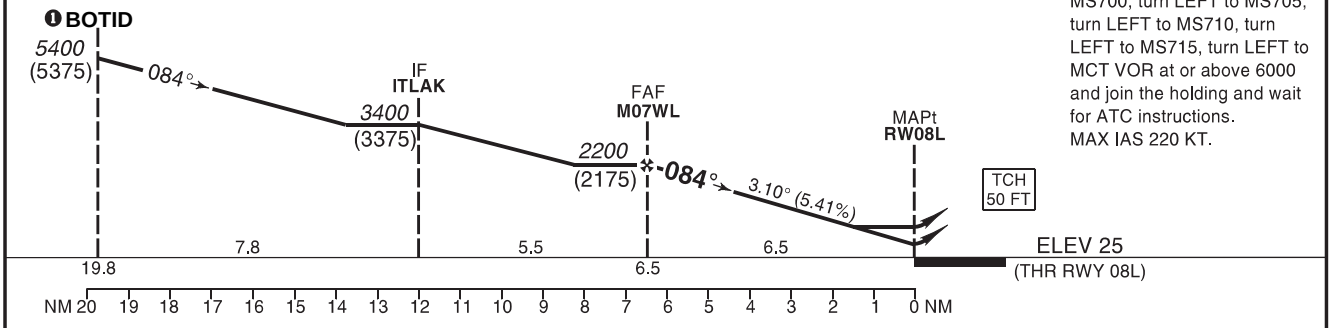
HEIGHTS RELATED TO THR RWY 08L ELEV 25 FT

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
RNP RWY 08L



TA **13000**



MISSED APPROACH:
Climb on runway heading to MS700, turn LEFT to MS705, turn LEFT to MS710, turn LEFT to MS715, turn LEFT to MCT VOR at or above 6000 and join the holding and wait for ATC instructions.
MAX IAS 220 KT.

STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	270	280	300	320
	DA(H)	*290* (270)	*300* (280)	*320* (300)	*340* (320)
	RVR	750m			
LNAV	OCH	560			
	MDA(H)	*580* (560)			
	RVR	1500m		1800m	
CIRCLING (HAA)* ❷		A	B	C	D
		Not Authorized			

ADVISORY INFORMATION ONLY							
NM to RW08L	6	5	4	3	2	1	
ALT (HGT)	*2050* (2030)	*1720* (1700)	*1390* (1370)	*1070* (1040)	*740* (710)	*410* (380)	
GS	kt	80	100	120	140	160	180
FAF-MAPt❸	min:s						
ROD: 5.41%	ft/min	438	548	657	767	876	986

❶ For INITIAL APPROACH to BOTID see Transition Chart.
❷ Circling not authorized.
❸ Timing not authorized for defining the MAPt.

RNP Approach required.

LNAV/VNAV Temperature: Min -15°C
Max 50°C

AMENDMENT: REPLACED M20WL WITH BOTID, Frequency Table Updated

Holding Instruction/Areas RNP RWY 08L

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	MCT VOR	264° (265.0°)	1 MIN	R	6000			1.4°E	

Route Description: RNP RWY 08L

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	BOTID				+5400	220 KT	1.4°E		RNP APCH
TF	ITLAK		084° (084.9°)		+3400		1.4°E	7.8	RNP APCH
TF	M07WL		084° (084.9°)		+2200		1.4°E	5.5	RNP APCH
TF	RW08L	Y	084° (085.0°)		+75		1.4°E	6.5	RNP APCH
MISSED APPROACH									
CF	MS700	Y	084° (085.0°)			220 KT	1.4°E		RNP APCH
TF	MS705		065° (060.0°)	L		220 KT	1.4°E	11.5	RNP APCH
TF	MS710		352° (353.6°)	L		220 KT	1.4°E	6.7	RNP APCH
TF	MS715		275° (275.9°)	L		220 KT	1.4°E	6.5	RNP APCH
TF	MCT VOR		204° (205.1°)	L	+6000	220 KT	1.4°E	14.5	RNP APCH
HM	MCT VOR		264° (265.0°)	R	+6000		1.4°E	1 min	RNP APCH

Aeronautical Data Tabulation: RNP RWY 08L

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
BOTID	N23°34’35.91’’	E057°53’58.73’’	N23°34.599’	E057°53.979’	
ITLAK (IF)	N23°35’17.84’’	E058°02’27.82’’	N23°35.297’	E058°02.464’	
M07WL (FAF)	N23°35’47.24’’	E058°08’27.82’’	N23°35.787’	E058°08.464’	
RW08L (MAPT)	N23°36’21.27’’	E058°15’28.69’’	N23°36.355’	E058°15.478’	
MS700	N23°36’36.95’’	E058°18’43.93’’	N23°36.616’	E058°18.732’	
MS705	N23°41’18.51’’	E058°30’12.43’’	N23°41.309’	E058°30.207’	
MS710	N23°48’01.27’’	E058°29’23.08’’	N23°48.021’	E058°29.385’	
MS715	N23°48’41.35’’	E058°22’19.98’’	N23°48.689’	E058°22.333’	
MCT VOR	N23°35’28.04’’	E058°15’36.48’’	N23°35.474’	E058°15.607’	

Non precision final approach 3.10° (5.41%).

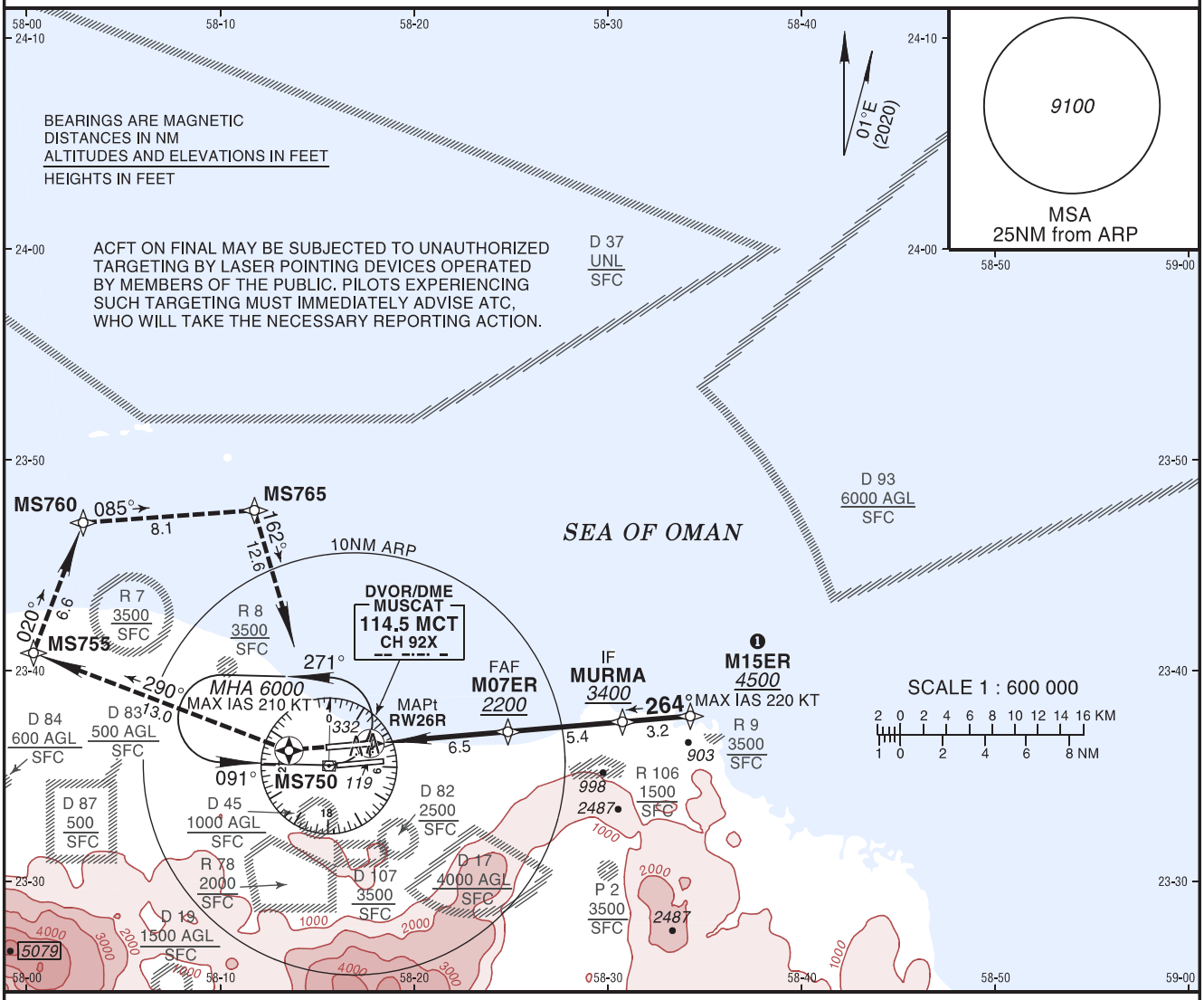
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 49 FT

HEIGHTS RELATED TO THR RWY 26R ELEV 19 FT

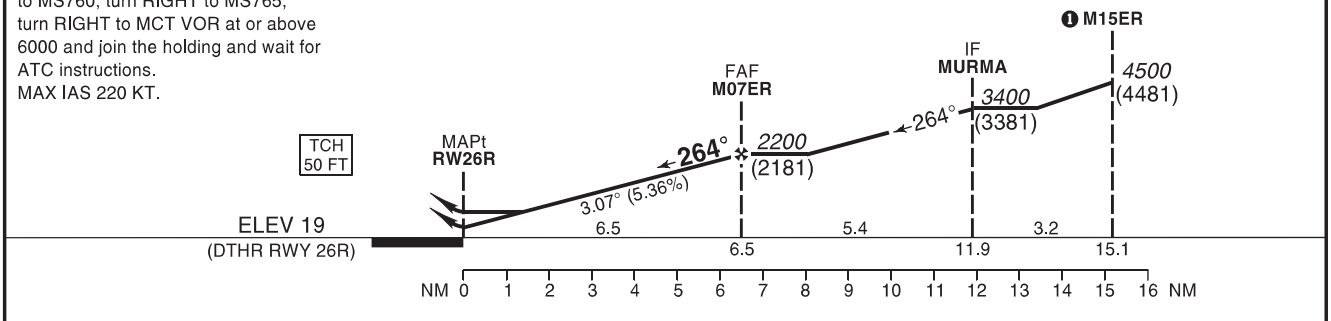
Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
RNP RWY 26R



MISSED APPROACH:
Climb on runway heading to MS750, turn RIGHT to MS755, turn RIGHT to MS765, turn RIGHT to MCT VOR at or above 6000 and join the holding and wait for ATC instructions.
MAX IAS 220 KT.

TA **13000**



STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	390	400	410	480
	DA(H)	*410* (390)	*420* (400)	*430* (410)	*500* (480)
	VIS/RVR	1100m		1200m	1500m
LNAV	OCH	510			
	MDA(H)	*530* (510)			
	VIS	1500m		1600m	
CIRCLING (HAA)* ❷		A	B	C	D
		Not Authorized			

ADVISORY INFORMATION ONLY							
NM to RW26R	1	2	3	4	5		
ALT (HGT)	*720* (700)	*1050* (1030)	*1380* (1360)	*1700* (1680)	*2030* (2010)		
GS	kt	80	100	120	140	160	180
FAF-MAPt❸	min:s						
ROD: 5.36%	ft/min	434	542	651	759	868	976

❶ For INITIAL APPROACH to M15ER see Transition Chart.
❷ Circling not authorized.
❸ Timing not authorized for defining the MAPt.

RNP Approach required.

LNAV/VNAV Temperature: Min -15°C
Max 50°C

Amendment: Frequency Table Updated

Holding Instruction/Areas RNP RWY 26R

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	MCT VOR	091° (092.0°)	1 MIN	L	6000		210 KT	1.4°E	

Route Description: RNP RWY 26R

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	M15ER				+4500	220 KT	1.4°E		RNP APCH
TF	MURMA		264° (265.1°)		+3400		1.4°E	3.2	RNP APCH
TF	M07ER		264° (265.1°)		+2200		1.4°E	5.4	RNP APCH
TF	RW26R	Y	264° (265.1°)		+69		1.4°E	6.5	RNP APCH
MISSED APPROACH									
CF	MS750	Y	264° (265.0°)			220 KT	1.4°E		RNP APCH
TF	MS755		290° (291.0°)	R		220 KT	1.4°E	13.0	RNP APCH
TF	MS760		020° (020.9°)	R		220 KT	1.4°E	6.6	RNP APCH
TF	MS765		085° (085.9°)	R		220 KT	1.4°E	8.1	RNP APCH
TF	MCT VOR		162° (163.7°)	R	+6000	220 KT	1.4°E	12.6	RNP APCH
HM	MCT VOR		091° (092.0°)	L	+6000	210 KT	1.4°E	1 min	RNP APCH

Aeronautical Data Tabulation: RNP RWY 26R

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
M15ER	N23°37'50.73''	E058°34'14.98''	N23°37.846'	E058°34.250'	
MURMA (IF)	N23°37'34.20''	E058°30'44.72''	N23°37.570'	E058°30.745'	
M07ER (FAF)	N23°37'06.15''	E058°24'49.95''	N23°37.103'	E058°24.833'	
RW26R (MAPT)	N23°36'32.11''	E058°17'43.65''	N23°36.535'	E058°17.728'	
MS750	N23°36'11.91''	E058°13'32.53''	N23°36.199'	E058°13.542'	
MS755	N23°40'50.95''	E058°00'20.96''	N23°40.849'	E058°00.349'	
MS760	N23°47'02.00''	E058°02'55.00''	N23°47.033'	E058°02.917'	
MS765	N23°47'36.75''	E058°11'45.47''	N23°47.613'	E058°11.758'	
MCT VOR	N23°35'28.04''	E058°15'36.48''	N23°35.474'	E058°15.607'	

Non precision final approach 3.07° (5.36%).

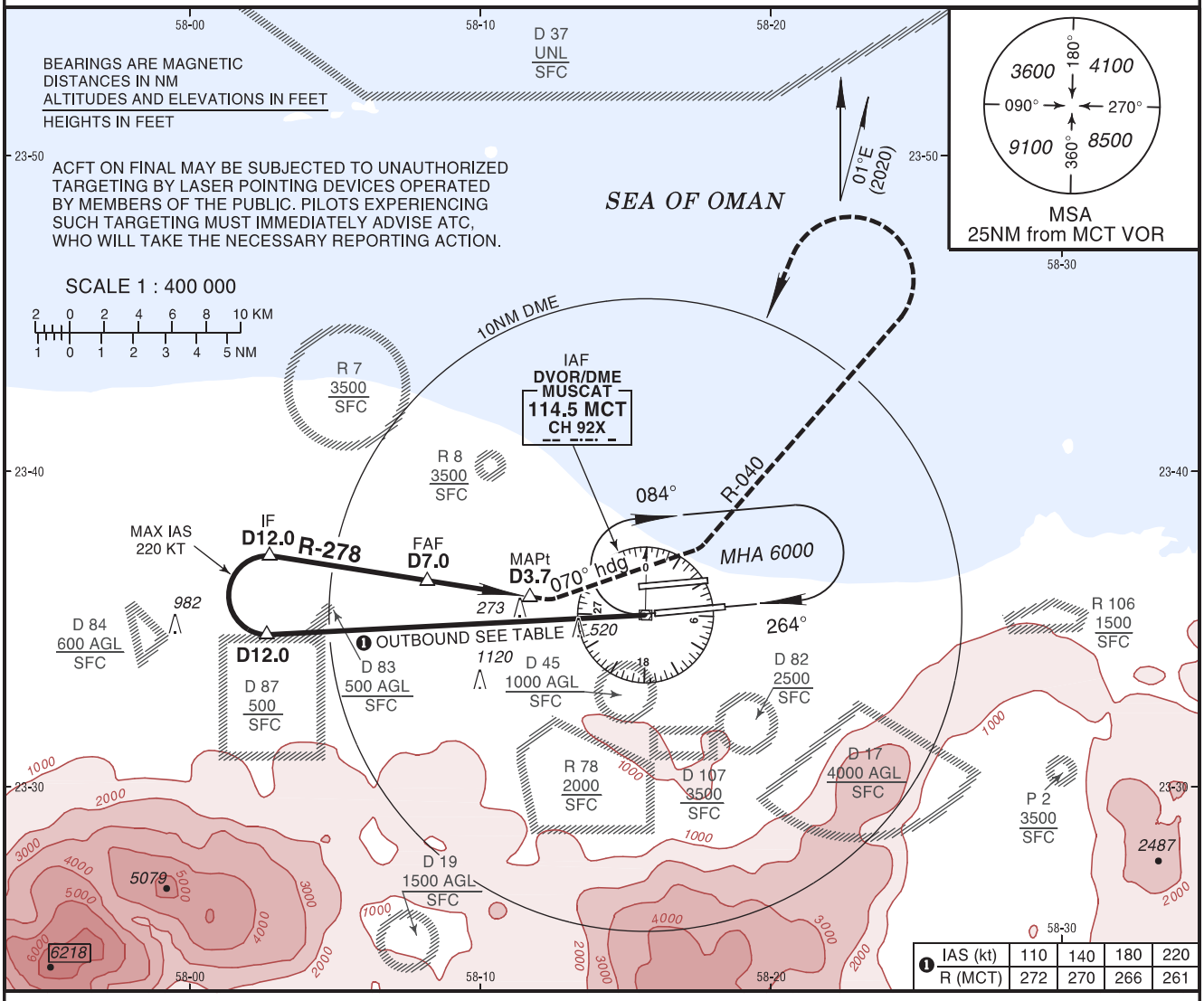
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 49 FT

HEIGHTS RELATED TO THR RWY 08L ELEV 25 FT

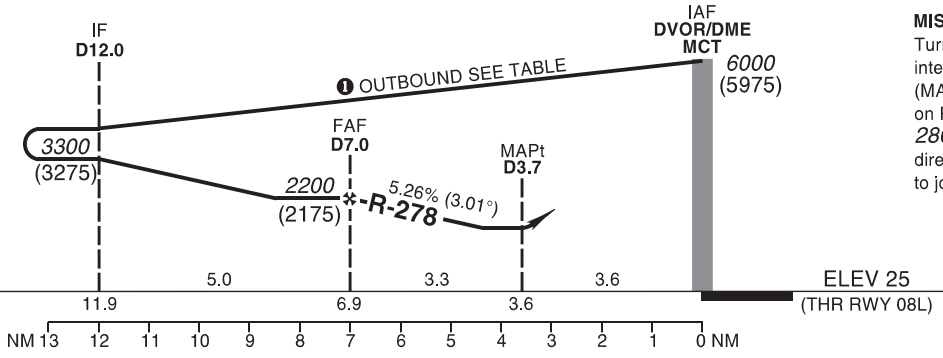
Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN
VOR RWY 08L



	IAS (kt)	110	140	180	220
❶	R (MCT)	272	270	266	261

TA **13000**



MISSED APPROACH: ❷
Turn LEFT heading 070° to intercept and follow R-040 (MAX IAS 210 KT). Proceed on R-040 until reaching *2800*. Turn LEFT (MAX IAS 220 KT) direct to VOR, climb to *6000* to join the holding.

STRAIGHT-IN APPROACH		A	B	C	D
VOR	OCH	1140			
	MDA(H)	*1160* (1140)			
	VIS	1500m		4600m	
CIRCLING (HAA)* ❸		A	B	C	D
		Not Authorized			

ADVISORY INFORMATION ONLY				
MCT DME	6	5	4	
ALT (HGT)	*1940* (1920)	*1620* (1600)	*1300* (1280)	

GS	kt	80	100	120	140	160	180
FAF-MAPt ❹	min:s						
ROD: 5.26%	ft/min	426	533	639	746	853	959

❷ Turns before MAPt are prohibited.
❸ Circling not authorized.
❹ Timing not authorized for defining the MAPt.

DME or RADAR required.
Final Approach track move 14° from RCL.

Amendment: Frequency Table Updated

INTENTIONALLY

LEFT

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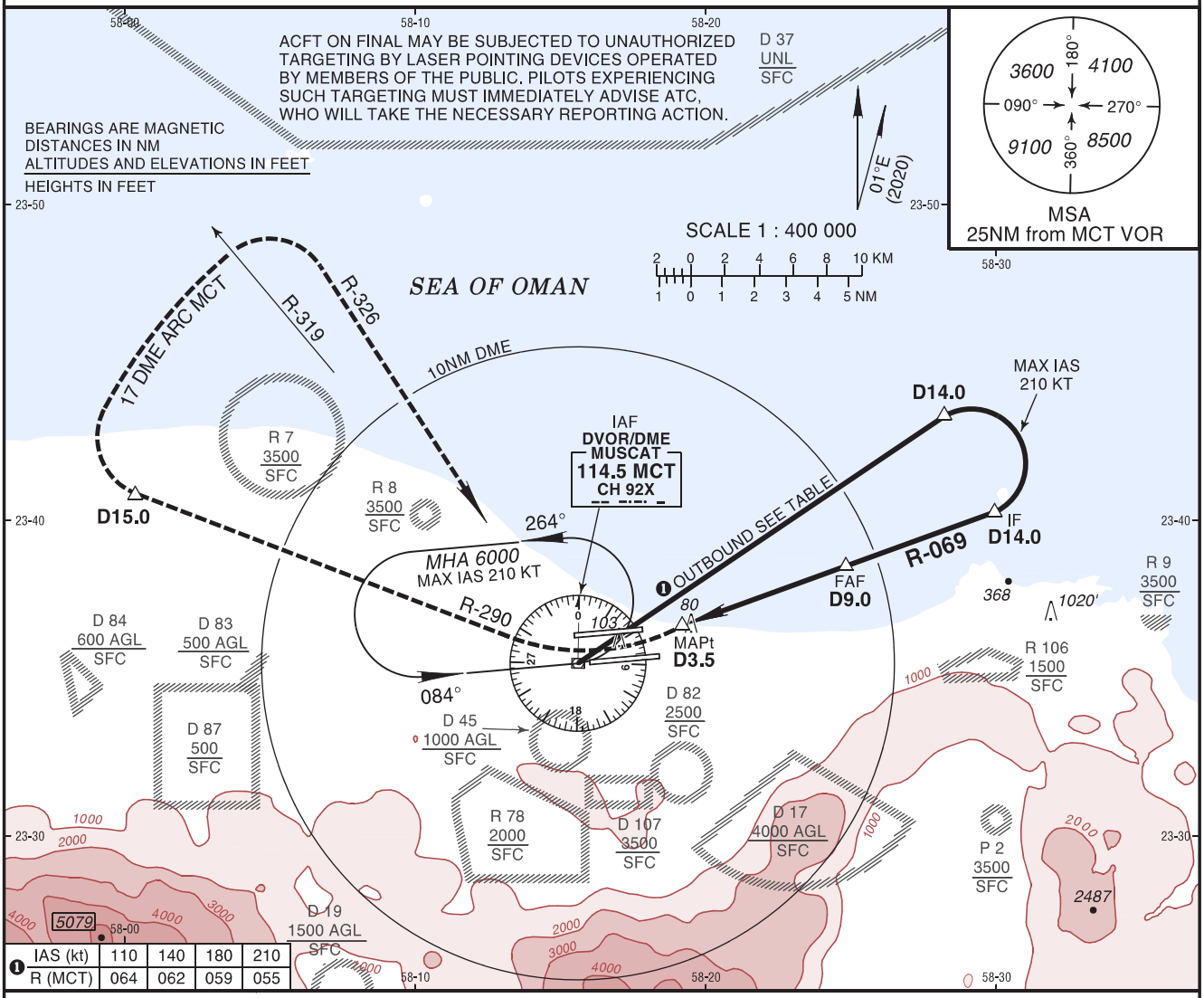
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 49 FT

HEIGHTS RELATED TO THR RWY 26R ELEV 19 FT

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

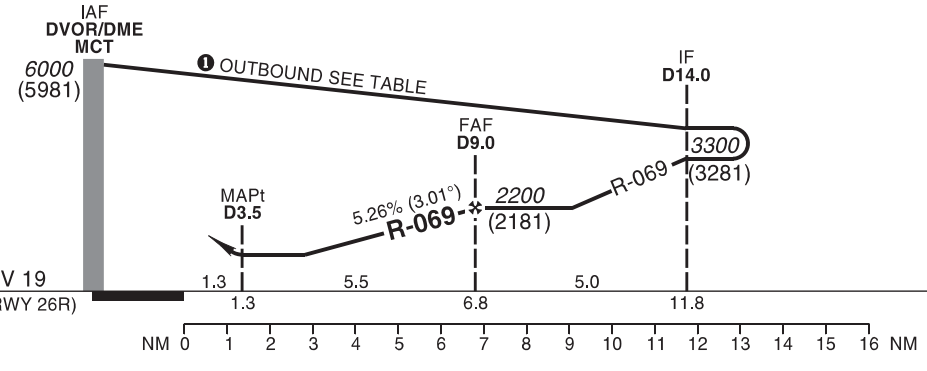
MUSCAT/Muscat Intl
OMAN
VOR RWY 26R



❶ IAS (kt)	110	140	180	210
R (MCT)	064	062	059	055

TA ***13000***

MISSED APPROACH:
Turn RIGHT to follow R-290 till D15.0. Turn RIGHT to follow 17 DME ARC MCT (MAX IAS 220 KT). Turn RIGHT to follow R-326 direct to VOR, climb at *6000* to join the holding.



STRAIGHT-IN APPROACH		A	B	C	D
VOR	OCH	510			
	MDA(H)	*530* (510)			
	VIS	1500m		1600m	
CIRCLING (HAA)* ❷		A	B	C	D
		Not Authorized			

ADVISORY INFORMATION ONLY					
MCT DME	4	5	6	7	8
ALT (HGT)	*660* (640)	*980* (960)	*1300* (1280)	*1620* (1600)	*1940* (1920)

GS	kt	80	100	120	140	160	180
FAF-MAPt ❸	min:s						
ROD: 5.26%	ft/min	428	534	641	748	855	962

❷ Circling not authorized.
❸ Timing not authorized for defining the MAPt.

DME or RADAR required.

Final Approach track move 15° from RCL.

Amendment: Frequency Table Updated

INTENTIONALLY

LEFT

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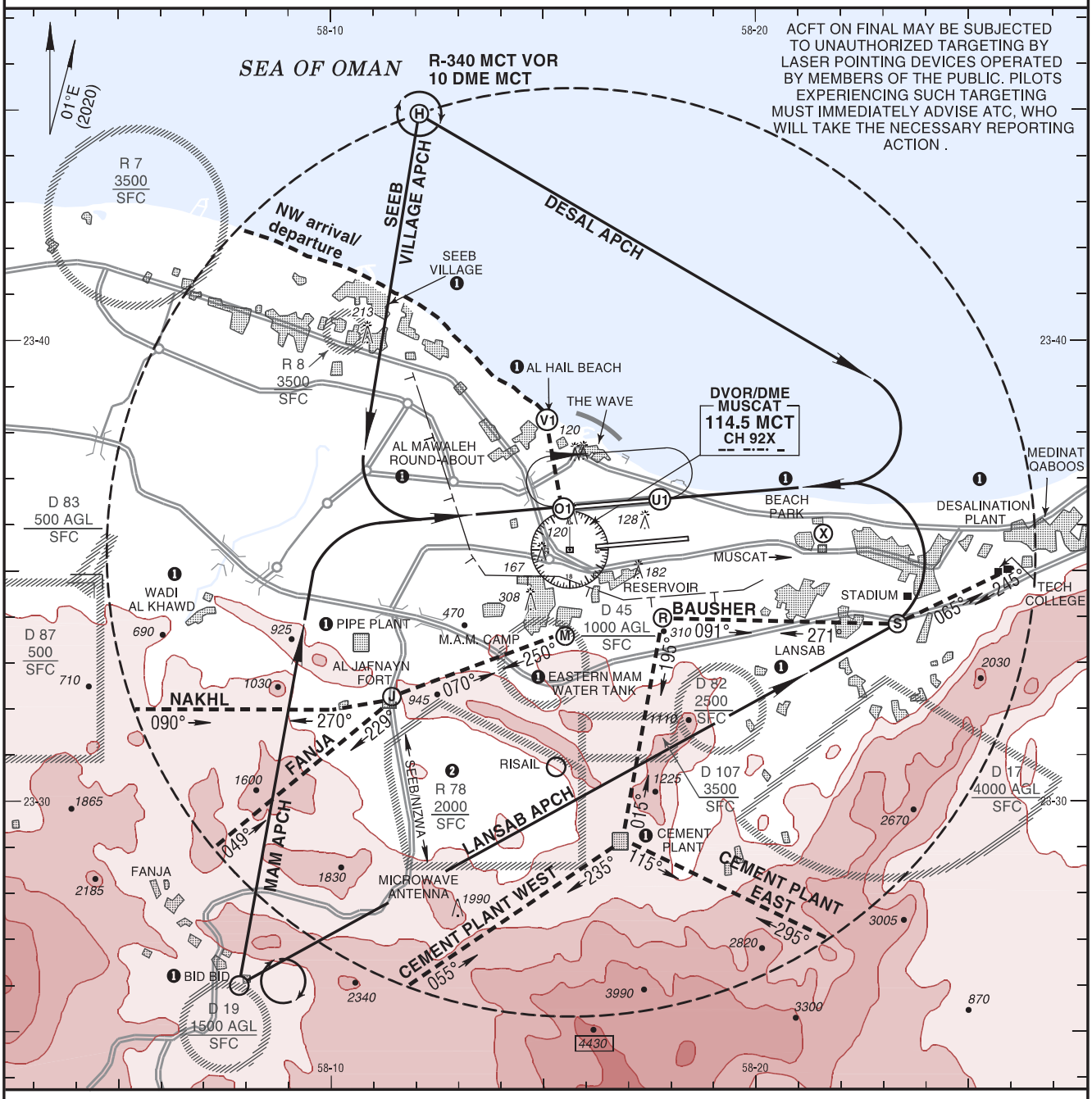
AD ELEV 49 FT

Muscat Information	126.800	Muscat Approach	121.200
Muscat Tower North	118.825	Muscat Ground North	127.875
Muscat Tower South	118.4	Muscat Ground South	121.800

MUSCAT/Muscat Intl
OMAN



FOR TEXTUAL DESCRIPTION OF VFR ARRIVALS/DEPARTURES AND TACTICAL JET APPROACHES REFER TO REVERSE

CONTOUR LEGEND

6000
5000
4000
3000
2000
1000
500

ALTITUDES & ELEV IN FEET 3000
SCALE 1 : 250 000

NM 1 0 1 2 3 4 5
KM 2 0 2 4 6 8

LEGEND

- DESIGNATED VISUAL HOLDING POINTS
- UNDESIGNATED VISUAL HOLDING POINTS
- R78 (southern training area) visual holding point above ALT 2000 FT
- VFR ROUTE
- TACTICAL JET APPROACH

Amendment: Frequency Table Updated

MUSCAT CONTROL ZONE

NORTHWEST

Arrivals RWY 08L

VFR traffic arriving landing direction 08L from northwest shall maintain 1500 FT and route via the coastline to Holding Point VICTOR ONE N233816 E0581506 (Al Hail Beach). With ATC clearance proceed to remain west of threshold RWY 08L to point OSCAR ONE (End of threshold RWY 08L) to land or as instructed by Muscat TWR.

Departure RWY 08L

VFR traffic to the northwest, subject to ATC clearance shall climb to 1500 FT and proceed on taxiway/runway heading to point UNIFORM ONE (end of threshold RWY 26R) to remain east of threshold RWY 26R to follow November 18 ST dual carriage way to point VICTOR ONE N233816 E0581506 (Al Hail Beach). Then proceed along the coastline to zone boundary or as instructed by Muscat Approach.

Arrivals RWY 26R

VFR traffic arriving for landing direction 26R from northwest shall maintain 1500 FT and route via coastline to holding point VICTOR ONE N233816 E0581506 (Al Hail Beach). With ATC clearance enter the circuit or proceed to remain east of threshold RWY 26R (helicopters) to point UNIFORM ONE (End of threshold RWY 26R) to land or as instructed by Muscat TWR.

Departure RWY 26R

VFR traffic to the northwest, subject ATC clearance shall climb to 1500 FT and proceed on taxiway/runway heading to point OSCAR ONE (End of threshold RWY 08L) to remain west of threshold RWY 08L to point VICTOR ONE N233816 E0581506 (Al Hail Beach). Then proceed to remain west of the dual carriage way via coastal departure or as instructed by Muscat Approach.

VFR DEPARTURE ROUTES

Bausher

Point Romeo (N23 34.0 E058 17.8) Reservoir
091° mag to
Point Sierra (N23 33.8 E058 23.3) Stadium
065° mag to
10 DME MCT (N23 35.0 E058 26.3).
Not above 2000 FT AMSL unless otherwise cleared by ATC.

Cement Plant East

Point Romeo (N23 34.0 E058 17.8) Reservoir
195° mag to
Cement Plant (N23 29.1 E058 16.8)
115° mag to
10 DME MCT (N23 27.0 E058 21.2).
Not above 2000 FT AMSL unless otherwise cleared by ATC.

Cement Plant West

Point Romeo (N23 34.0 E058 17.8) Reservoir
195° mag to
Cement Plant (N23 29.1 E058 16.8)
235° mag to
10 DME MCT (N23 26.0 E058 11.5).
Not above 2000 FT AMSL unless otherwise cleared by ATC.

Fanja

Point Mike (N23 33.5 E058 15.5) Eastern MAM Water Tank, 250° mag to
Point Juliette (N23 32.2 E058 11.4) Al Jafnayn Fort
229° mag to
10 DME MCT (N23 29.0 E058 07.6).
Not above 2000 FT AMSL unless otherwise cleared by ATC.

Nakhl

Point Mike (N23 33.5 E058 15.5) Eastern MAM Water Tank, 250° mag to
Point Juliette (N23 32.2 E058 11.4) Al Jafnayn Fort
229° mag to
Turning Point, TP (N23 32.0 E058 10.0)
270° mag to
10 DME MCT (N23 32.0 E058 05.1).
Not above 2000 FT AMSL unless otherwise cleared by ATC.

Note: VFR arrivals may fly the reverse of the above routes.

TACTICAL JET APPROACHES

MAM Approach RWY 08L

Route direct to BidBid at 3500 FT. From BidBid, with ATC clearance, route direct to 5 DME initial, for runway in use, not below 2500 FT until west abeam Pipe Plant then descend not below 1500 FT for run and break.

LANSAB Approach RWY 26R

Route direct to BidBid at 3500 FT. From BidBid with ATC clearance, route to Lansab at 3500 FT. At Lansab turn left for 7 DME initial, for runway in use, not below 2500 FT until north of Bausher Stadium then descend not below 1500 FT for run and break.

SEEB VILLAGE Approach RWY 08L

Route direct to Hotel at 2500 FT. From Hotel with ATC clearance route direct to 5 DME initial, for runway in use, not below 2000 FT until crossing Seeb/Suhar road, then descend not below 1500 FT for run and break.

DESAL Approach RWY 26R

Route to Hotel at 2500 FT. From Hotel with ATC clearance, route direct for 7 DME initial, for runway in use, not below 2000 FT until intersect extended runway centreline, then descend not below 1500 FT for run and break.

Note 1: Tactical Jet aircraft may be held at BidBid at 3500 FT or Point Hotel at 2500 FT right hand pattern until ATC Approach clearance is available.

Note 2: These approaches are separated from Bausher to Nakhl routes.

Note 3: Unless holding, tactical jets will fly at speeds up to 450 KT.

OOMX AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOMX MARMUL/Marmul

OOMX AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	180822.15 N 0551043.24 E Midpoint of RWY centreline
2	Direction and distance from (city)	Marmul Airport is located approximately 7 KM west-south-west of Marmul Camp in the Southern Oman.
3	Elevation/Reference temperature	915 FT/42.7°C
4	Geoid undulation at AD ELEV PSN	-114 FT Height of Geoid above reference ellipsoid (WGS-84)
5	MAG VAR/Annual change	1°E (2020)/0.05° increasing
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	Marmul Airport Oman Airports Management Company S.A.O.C. P.O. Box 1707 Postal Code 111 Muscat Sultanate of Oman Tel.: (968) 24 350000 Fax: (968) 24 250003 During working hours: Airport Manager Mobile: (968) 93 850484 Office: (968) 24670828 Aerodrome Flight Information Officer Tel. (Office): (968) 24 386364 Mobile 24/7: (968) 71196927 Fax: (968) 24 386566 Emergency night landing Tel: (968) 24 385555 Oman Airports Muscat (HQ) Tel. (Office): (968) 24 35 2400/ 52414/ 52435
7	Types of traffic permitted (IFR/VFR)	IFR/VFR only in visual meteorological conditions (VMC). Minimum visibility for take-off & landing: 5000 M. Minimum

		cloud ceiling: 1500 FT. Aircraft Code C (Wingspan up to but not including 36 M; Outer main gear span up to but not including 9 M). Use restricted to aircraft with a wheelbase of less than 18 M. Only flights operating on behalf of PDO will be allowed to land and depart except by prior permission from the Airport Manager or in an aircraft emergency. Night time flights will only be permitted with prior permission from the Airport Manager based on CAA approval.
8	Remarks	NIL

OOMX AD 2.3 OPERATIONAL HOURS

1	AD Administration	From Sunrise to Sunset - HJ. Approach and/or landing by prior permission only. Minimum of 24 hours notice is required for non-scheduled flights.
2	Customs and immigration	NIL
3	Health and sanitation	NIL
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	NIL
7	ATS	HJ - Flight Information is operated for scheduled and pre-arranged flights.
8	Fuelling	As per AD hours
9	Handling	As per AD hours
10	Security	SSS security 24 hours and ROP security during operation hours

11	De-icing	NIL
12	Remarks	PDO. PPR.

OOMX AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	NIL
2	Fuel/oil types	JET A-1
3	Fuelling facilities/capacity	Hydrant distribution system Fixed storage capacity 100 000 LTRS
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	NIL

OOMX AD 2.5 PASSENGER FACILITIES

1	Hotels	There is accommodation available at the PDO Marmul camp and contractors motel (PAC). Accommodation is available only by prior arrangement.
2	Restaurants	There is a canteen available at the PDO Marmul camp and motel (PAC) at contractor camp. This facility is available only by prior arrangement.
3	Transportation	Transportation can be made available by prior arrangement.
4	Medical facilities	Clinics available in Marmul. There is a clinic at the PDO Marmul camp. The nearest hospitals are at Salalah approximately 240 KM/130

		NM away by road. Haima Hospital approximately 290 KM/157 NM by road.
5	Bank and Post Office	There is Bank Muscat available at Marmul contractors camp and HSBC located at PDO camp main entrance gate.
6	Tourist Office	NIL
7	Remarks	NIL

OOMX AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 7 RFFS cover is available for scheduled movements. Cover for non-scheduled flights is available by prior arrangement.
2	Rescue equipment	Two 8×8 Foam Tenders (Tigon) Each tender carries 10,000 L water, 2500 L Foam and 500 Kg dry powder. Monitor discharge rate 15000 LTRS/MIN One 6×6 foam tender (Rosenbauer) carries 12,500 L water, 1,500 L foam and 225Kg dry powder. Monitor discharge rate 6000 LTRS/MIN. One 4×4 Foam tender (Rosenbauer) carries 6,000 L water, 500 L foam and 135 Kg dry powder Emergency water supplies available 12,000 LTRS tank at each RWY end.
3	Capability for removal of disabled aircraft	Limited to GHSE on-site and Recovery Kit available in Muscat up to B747 capacity will be arranged as required.
4	Remarks	NIL

OOMX AD 2.7 SEASONAL AVAILABILITY — CLEARING

NIL

OOMX AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	Apron	Surface: Strength:	Asphalt PCN 44/F/A/X/T
		Apron	Surface: Strength:	Concrete PCN 51/R/A/X/T

2	Taxiway width, surface and strength	A	Width:	15 M
			Surface:	Asphalt (flexible pavement)
			Strength:	PCN 44/F/A/X/T
		B	Width:	15 M
			Surface:	Asphalt (flexible pavement)
			Strength:	PCN 44/F/B/X/T
3	ACL and elevation	Apron Area elev 893 FT AMSL		
4	VOR checkpoint	NIL		
5	INS checkpoint	NIL		
6	Remarks	Aircraft stands are located at concrete section		

OOMX AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Painted aircraft stand markings Yellow painted centrelines No visual docking system
2	RWY and TWY markings and LGT	RWY: LGT: See AD 2.14 for detail Markings: RWY designation markings, painted CL, THR markings, TDZ markings, painted edge markings, chevron markings TWY: Markings: Edge lighting, painted centreline, RWY holding position markings Apron: Markings: Edge lighting, painted centreline, aircraft stop markings Signage: Markings: Apron directional illuminated, RWY mandatory signage, TWY locational signage
3	Stop bars	NIL
4	Other runway protection measures	NIL

5	Remarks	Aiming Point marking does not coincide with PAPI slope origin.

OOMX AD 2.10 AERODROME OBSTACLES

In Area 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
RWY 14 Approach / RWY 32 Departure					
OOMX1151	Mobile Obstacle	180901.18 N 0550958.60 E	Road+5M (16 FT)	NIL	Type-A
OOMX1152	Mobile Obstacle	180901.73 N 0550959.00 E	Road+5M (16 FT)	NIL	Type-A
OOMX1153	Mobile Obstacle	180902.28 N 0550959.40 E	Road+5M (16 FT)	NIL	Type-A
OOMX1154	Mobile Obstacle	180902.84 N 0550959.80 E	Road+5M (16 FT)	NIL	Type-A
OOMX1155	Mobile Obstacle	180903.38 N 0551000.19 E	Road+5M (16 FT)	NIL	Type-A
OOMX1156	Mobile Obstacle	180903.97 N 0551000.60 E	Road+5M (16 FT)	NIL	Type-A
OOMX1157	Mobile Obstacle	180904.57 N 0551001.02 E	Road+5M (16 FT)	NIL	Type-A
OOMX1158	Mobile Obstacle	180905.16 N 0551001.43 E	Road+5M (16 FT)	NIL	Type-A
OOMX1159	Mobile Obstacle	180905.73 N 0551001.83 E	Road+5M (16 FT)	NIL	Type-A
OOMX1160	Mobile Obstacle	180906.00 N	Road+5M (16	NIL	Type-A

In Area 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
		0551002.02 E	FT)		
OOMX1161	Mobile Obstacle	180906.26 N 0551002.19 E	Road+5M (16 FT)	NIL	Type-A
RWY 32 Approach / RWY 14 Departure					
OOMX1188	Fence	180742.60 N 0551126.51 E	281.9 M (924.8 FT)	NIL	Type-A
OOMX1186	Fence	180739.10 N 0551122.87 E	282.9 M (928.1 FT)	NIL	Type-A
OOMX1179	Terrain	180733.98 N 0551130.81 E	285.3 M (936.1 FT)	NIL	Type-A
OOMX1178	Terrain	180734.72 N 0551131.70 E	285.4 M (936.2 FT)	NIL	Type-A
OOMX1177	Terrain	180734.26 N 0551132.32 E	285.8 M (937.7 FT)	NIL	Type-A
RWY 32 Approach / RWY 14 Departure					
OOMX1175	Terrain	180733.93 N 0551132.41 E	286.1 M (938.5 FT)	NIL	Type-A
OOMX1174	Terrain	180733.32 N 0551132.47 E	286.5 M (940.0 FT)	NIL	Type-A
OOMX1181	Terrain	180733.08 N 0551132.51 E	286.6 M (940.4 FT)	NIL	Type-A
OOMX1037	Terrain	180726.88 N 0551132.18 E	289.0 M (948.2 FT)	NIL	Type-A

In Area 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
OOMX1036	Terrain	180726.22 N 0551132.84 E	289.4 M (949.5 FT)	NIL	Type-A
OOMX1019	Utility pole	180720.82 N 0551138.56 E	295.1 M (968.3 FT)	NIL	Type-A
OOMX1015	Utility pole	180722.94 N 0551142.47 E	295.6 M (969.8 FT)	NIL	Type-A
OOMX1011	Utility pole	180725.07 N 0551146.37 E	296.7 M (973.3 FT)	NIL	Type-A
OOMX1018	Utility pole	180715.73 N 0551141.29 E	298.5 M (979.2 FT)	NIL	Type-A
Refer to Aerodrome Obstacle Charts (Type A) and (Type B) Note: They are penetrating inner horizontal surface					

In Area 3					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
NIL	NIL	NIL	NIL	NIL	NIL

OOMX AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	A MET observation service is provided by trained (AFISO) airport staff.
2	Hours of service MET Office outside hours	As AD hours
3	Office responsible for TAF preparation	NIL

	Periods of validity	
4	Trend forecaste Interval of issuance	NIL
5	Briefing/consultation provided	NIL
6	Flight documentation Language(s) used	NIL
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	NIL
9	ATS units provided with information	NIL
10	Additional information	NIL

OOMX AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
14	136° T 135° M	2561 X 45	44/F/A/X/T Asphalt (flexible pavement)	180852.20 N 0551013.11 E 180752.08 N 0551113.40 E GUND -114 FT	THR 892 FT TDZ NIL
32	316° T 315° M	2561 X 45	44/F/A/X/T Asphalt (flexible pavement)	180752.08 N 0551113.40 E 180852.20 N 0551013.11 E GUND -114 FT	THR 915 FT TDZ NIL

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
14	0.27% up	70 X 45	355 X 150	2821 X 300 (150 M on each side of the centerline)	240 M x 300 M
32	0.27% down	70 X 45	258 X 150	2821 X 300 (150 M on each side of the centerline)	240 M x 300 M

Designations RWY NR	Location and description of engineering material arresting system (EMAS)	OFZ	Remarks
1	12	13	14
14	NIL	NIL	NIL
32	NIL	NIL	NIL

OOMX AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
14	2561	2916	2631	2561	NIL
32	2561	2819	2631	2561	NIL

OOMX AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
14		Green	PAPI LHS 3.00° /	NIL	NIL		LIH Red	LIH 6 raised	NIL

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
	ALS LIH 420 M, Crossbar at 300 M		310M from THR MEHT 47.51FT			60 M White Last 600 M Yellow LIH		lights at end of stopway. Red	
32	ALS LIH 420 M, Crossbar at 300 M	Green	PAPI LHS 3.00° / 310M from THR MEHT 52.95FT	NIL	NIL	60 M White Last 600 M Yellow LIH	LIH Red No wingbars	LIH 6 raised lights at end of stopway. Red	NIL

OOMX AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	NIL
2	LDI location and LGT Anemometer location and LGT	Illuminated wind cones at both RWY ends
3	TWY edge and centre line lighting	Low intensity blue taxiway and apron edge lights Illuminated taxiway signs
4	Secondary power supply/switch-over time	UPS secondary power supply
5	Remarks	Solar lighting system around security fence.

OOMX AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO Geoid	Located adjacent to Apron Area (see AD chart)

	undulation	
2	TLOF and/or FATO elevation M/FT	NIL
3	TLOF and FATO area dimensions, surface, strength, marking	28 x 28 M Concrete
4	True BRG of FATO	14/32
5	Declared distance available	NIL
6	APP and FATO lighting	NIL
7	Remarks	Helicopter is treated as Fixed Wing Traffic.

OOMX AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	Marmul ATZ An ARC, radius 15 NM centered on N181300 E0550500 starting from N180258 E0545320 clockwise N182601 E0551258 joining an ARC centered on N180752 E0551113 connecting from N181813 E0552249 clockwise to N175446 E0550338 then to N180258 E0545320.
2	Vertical limits	SFC/6000 FT AMSL for the area inside OO R 97 and SFC/8000 FT AMSL in the area outside OO R 97.
3	Airspace classification	G
4	ATS unit call sign Language(s)	Marmul AFIS; Marmul Information English
5	Transition altitude/Transition level	13 000 FT/FL150
6	Hours of applicability (or activation)	NIL
7	Remarks	- Continuous two-way VHF Communication Mandatory.

OOMX AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
Aerodrome Flight Information Service	Marmul Information	122.750 MHz	HJ – For scheduled and pre-arranged flights only.	NIL

OOMX AD 2.19 RADIO NAVIGATION AND LANDING AIDS

NIL

OOMX AD 2.20 LOCAL AERODROME REGULATIONS

NIL

OOMX AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OOMX AD 2.22 FLIGHT PROCEDURES

NIL

OOMX AD 2.23 ADDITIONAL INFORMATION

NIL

OOMX AD 2.24 CHARTS RELATED TO AN AERODROME

AERODROME CHART - ICAO	AERODROME CHART - ICAO
AIRCRAFT PARKING/DOCKING CHART -	AIRCRAFT PARKING/DOCKING CHART - ICAO

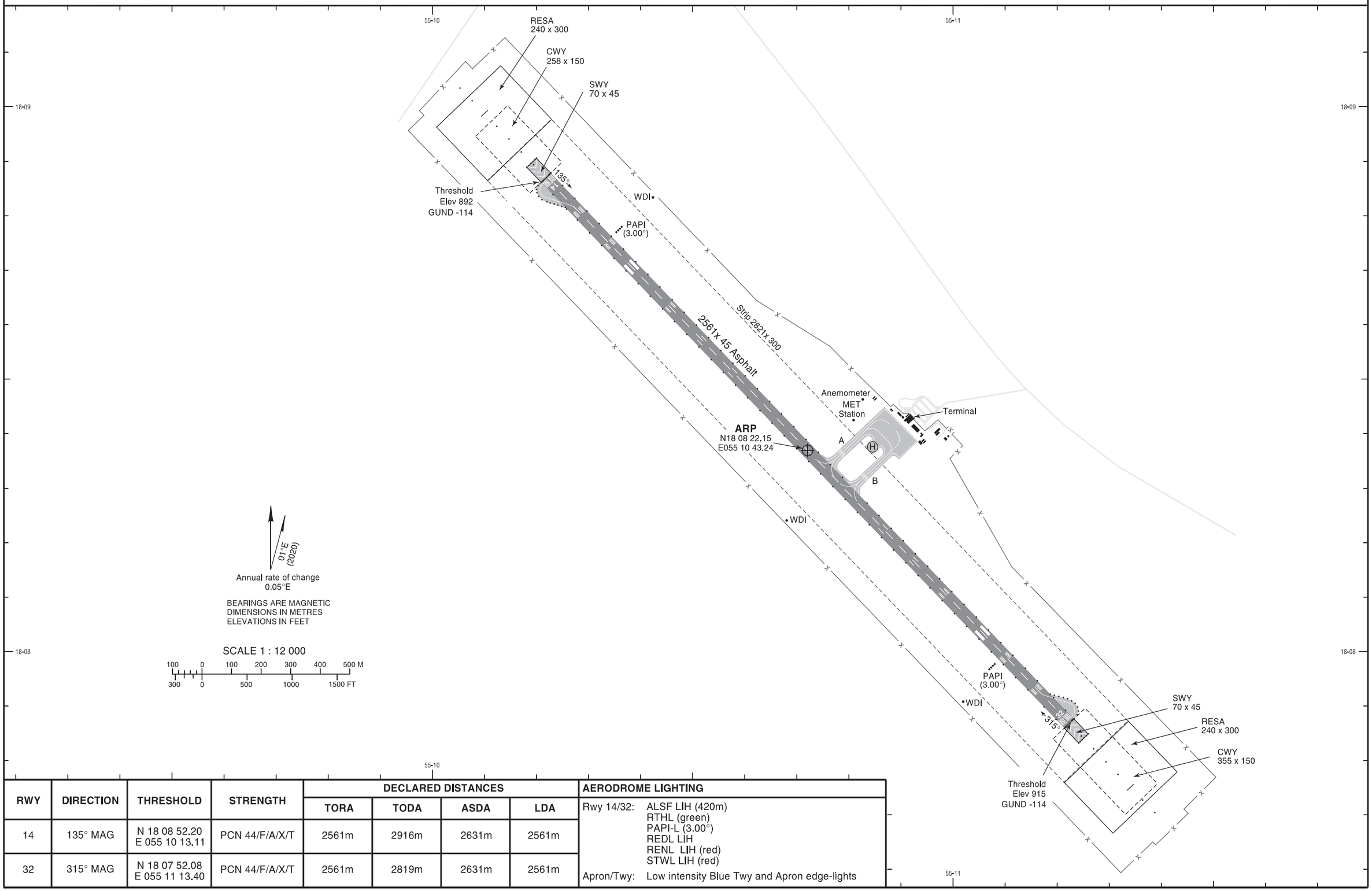
ICAO	
AERODROME OBSTACLE CHART - ICAO - TYPE A	AERODROME OBSTACLE CHART - ICAO - TYPE A
AERODROME OBSTACLE CHART - ICAO - TYPE B	AERODROME OBSTACLE CHART - ICAO - TYPE B
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 14	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 14
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 32	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 32
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 14	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 14
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 32	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 32
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 14	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 14
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 32	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 32

OOMX AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

AERODROME CHART - ICAO

AERODROME CHART - ICAO | WGS-84 | **AD ELEV** 915 FT | Marmul Information 122.750 | **MARMUL/Marmul OMAN**



RWY	DIRECTION	THRESHOLD	STRENGTH	DECLARED DISTANCES				AERODROME LIGHTING
				TORA	TODA	ASDA	LDA	
14	135° MAG	N 18 08 52.20 E 055 10 13.11	PCN 44/F/A/X/T	2561m	2916m	2631m	2561m	Rwy 14/32: ALSF LIH (420m) RTHL (green) PAPI-L (3.00°) REDL LIH RENL LIH (red) STWL LIH (red) Apron/Twy: Low intensity Blue Twy and Apron edge-lights
32	315° MAG	N 18 07 52.08 E 055 11 13.40	PCN 44/F/A/X/T	2561m	2819m	2631m	2561m	

INTENTIONALLY

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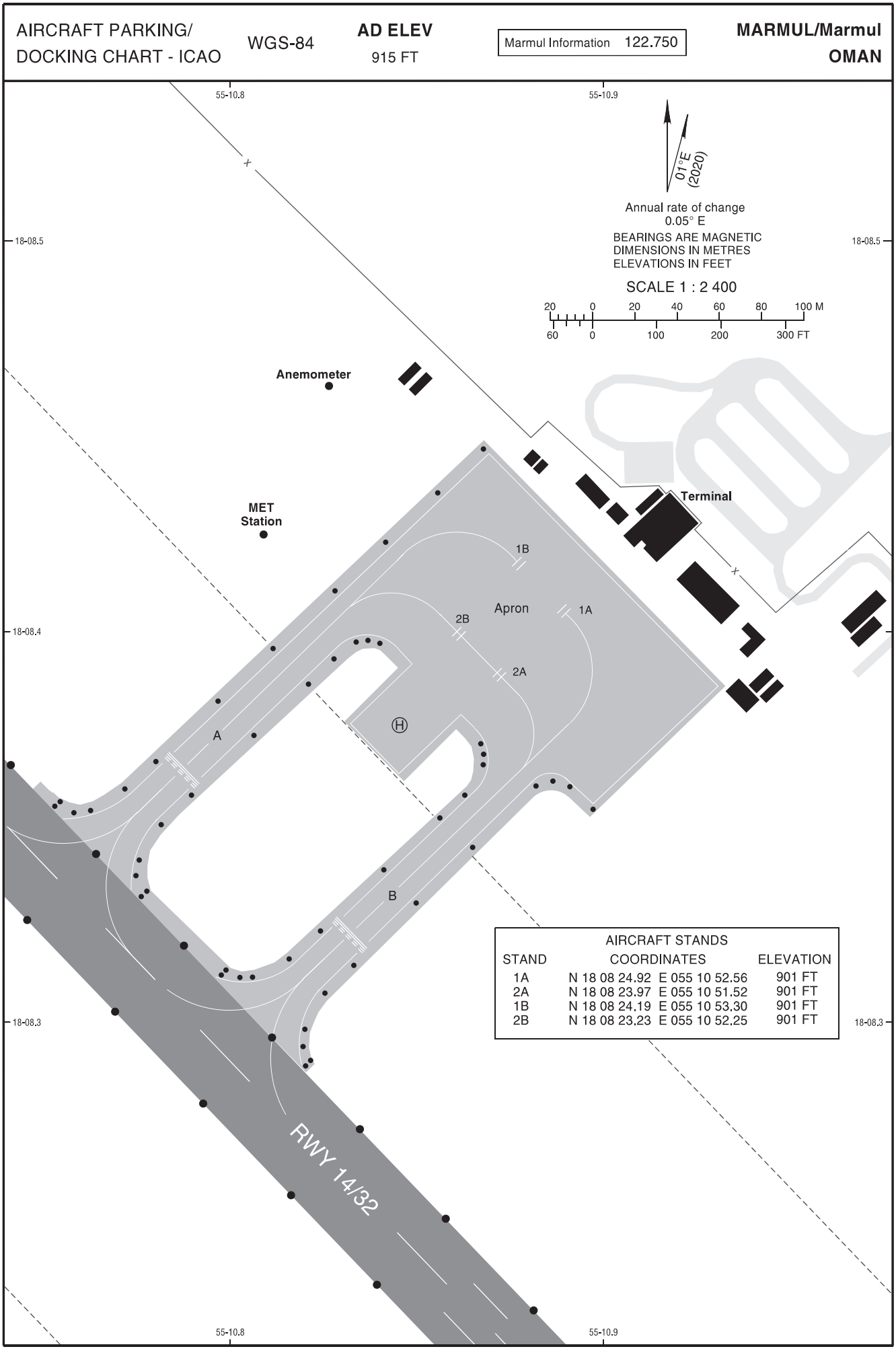
AIRCRAFT PARKING/
DOCKING CHART - ICAO
WGS-84
AD ELEV
915 FT
Marmul Information 122.750
MARMUL/Marmul
OMAN
55-10.8
55-10.9
18-08.5
18-08.4
18-08.3
01°E (2020)
Annual rate of change
0.05° E
BEARINGS ARE MAGNETIC
DIMENSIONS IN METRES
ELEVATIONS IN FEET
SCALE 1 : 2 400
20 0 20 40 60 80 100 M
60 0 100 200 300 FT
Anemometer
MET
Station
Terminal
Apron
1B
1A
2B
2A
A
B
Ⓗ
RWY 14/32
AIRCRAFT STANDS
STAND COORDINATES ELEVATION
1A N 18 08 24.92 E 055 10 52.56 901 FT
2A N 18 08 23.97 E 055 10 51.52 901 FT
1B N 18 08 24.19 E 055 10 53.30 901 FT
2B N 18 08 23.23 E 055 10 52.25 901 FT

INTENTIONALLY

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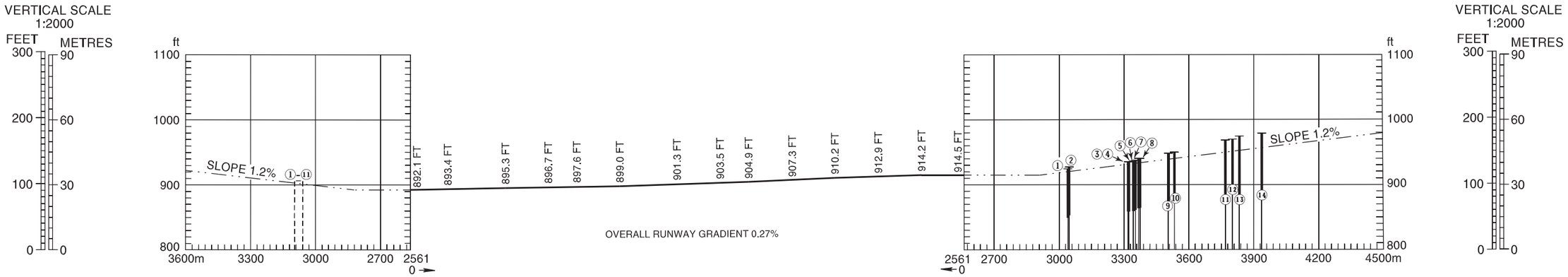
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

MARMUL/Marmul
OMAN

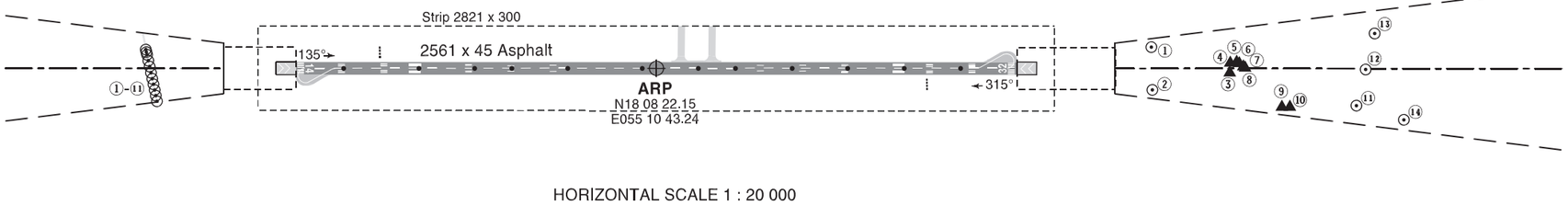
DISTANCES IN METRES, ELEVATIONS IN FEET
MAGNETIC VARIATION 1°E, 2020

RWY 14-32

DECLARED DISTANCES		
RWY 14		**RWY 32**
2561	TAKE-OFF RUN AVAILABLE	**2561**
2916	TAKE-OFF DISTANCE AVAILABLE	**2819**
2631	ACCELERATE STOP DISTANCE AVAILABLE	**2631**
2561	LANDING DISTANCE AVAILABLE	**2561**



Nr	Obstacle	Elevation
①	Mobile Obstacle	Road+5M
②	Mobile Obstacle	Road+5M
③	Mobile Obstacle	Road+5M
④	Mobile Obstacle	Road+5M
⑤	Mobile Obstacle	Road+5M
⑥	Mobile Obstacle	Road+5M
⑦	Mobile Obstacle	Road+5M
⑧	Mobile Obstacle	Road+5M
⑨	Mobile Obstacle	Road+5M
⑩	Mobile Obstacle	Road+5M
⑪	Mobile Obstacle	Road+5M



Nr	Obstacle	Elevation
①	Fence	924.8
②	Fence	928.1
③	Terrain	936.1
④	Terrain	936.2
⑤	Terrain	937.7
⑥	Terrain	938.5
⑦	Terrain	940.0
⑧	Terrain	940.4
⑨	Terrain	948.2
⑩	Terrain	949.5
⑪	Utility pole	968.3
⑫	Utility pole	969.8
⑬	Utility pole	973.3
⑭	Utility pole	979.2

HORIZONTAL SCALE 1 : 20 000

400 200 0 500 1000 1500 2000 2500 METRES
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000 FEET

ORDER OF ACCURACY
HORIZONTAL -/+ 3 M
VERTICAL -/+ 1 FT
Aerodrome information SEP 2019
Survey data SEP 2019

AMENDMENT RECORD		
No.	Date	Entered by

LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	①	①
GROUND LEVEL	▲	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
TREE	*	
MOBILE		

INTENTIONALLY

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AERODROME OBSTACLE CHART - ICAO

WGS-84

AD ELEV
915 FT

ARP
N18 08 22.15
E055 10 43.24

AERODROME OBSTACLE CHART - ICAO TYPE B

MARMUL/Marmul
OMAN

55-08 55-09 55-10 55-11 55-12 55-13 55-14

18-10 18-09 18-08 18-07 18-06

APPROACH SURFACE SLOPE 1 : 50 (2%)

TAKE-OFF CLIMB SURFACE SLOPE 1 : 62.5 (1.6%)

TRANSITIONAL SURFACE 1:7 (14.3%)

CONICAL SURFACE
20:1 (5%) slope up to
100 metres above Inner
Horizontal Surface elevation

INNER HORIZONTAL SURFACE
45 metres above lowest
threshold elevation

906' 906' 906' 906' 877'

CWY 258 x 150

SWY 70 x 45

135°

Threshold Elev 892 GUND -114

2581 x 45 Asphalt

Strip 2681 x 300

904' 903' 905' 905' 906' 907'

315°

SWY 70 x 45

CWY 355 x 150

Threshold Elev 915 GUND -114

925' 927' 929'

937'-941' 949' 950' 970' 974' 969' 972' 973' 978' 973' 975' 980' 972'

1076'

Obstacles shown are those which penetrate the surfaces specified in Annex 4, Volume 1, Chapter 4

ORDER OF ACCURACY:
Horizontal 3m
Vertical 1ft

01 E (2020)

BEARINGS ARE MAGNETIC
DIMENSIONS IN METRES
ELEVATIONS IN FEET

SCALE 1 : 20 000

100 0 100 200 300 400 500 M
500 0 500 1000 1500 FT

LEGEND

Area Minimum Altitude (AMA) Example: 2900 feet Each 1° quadrilateral contains an area minimum altitude (AMA) which represents the lowest altitude which may be used under instrument meteorological conditions (IMC). The AMA provides a minimum clearance of 1000 feet above all obstacles in the quadrilateral. It is represented in thousands and tens of feet above mean sea level.	29
Elevation Obstacle	588'
Mast/Tower	
Obstacle	
Ground / Terrain Spot	
Terrain	

AMENDMENT RECORD		
No.	Date	Entered by

INTENTIONALLY

LEFT

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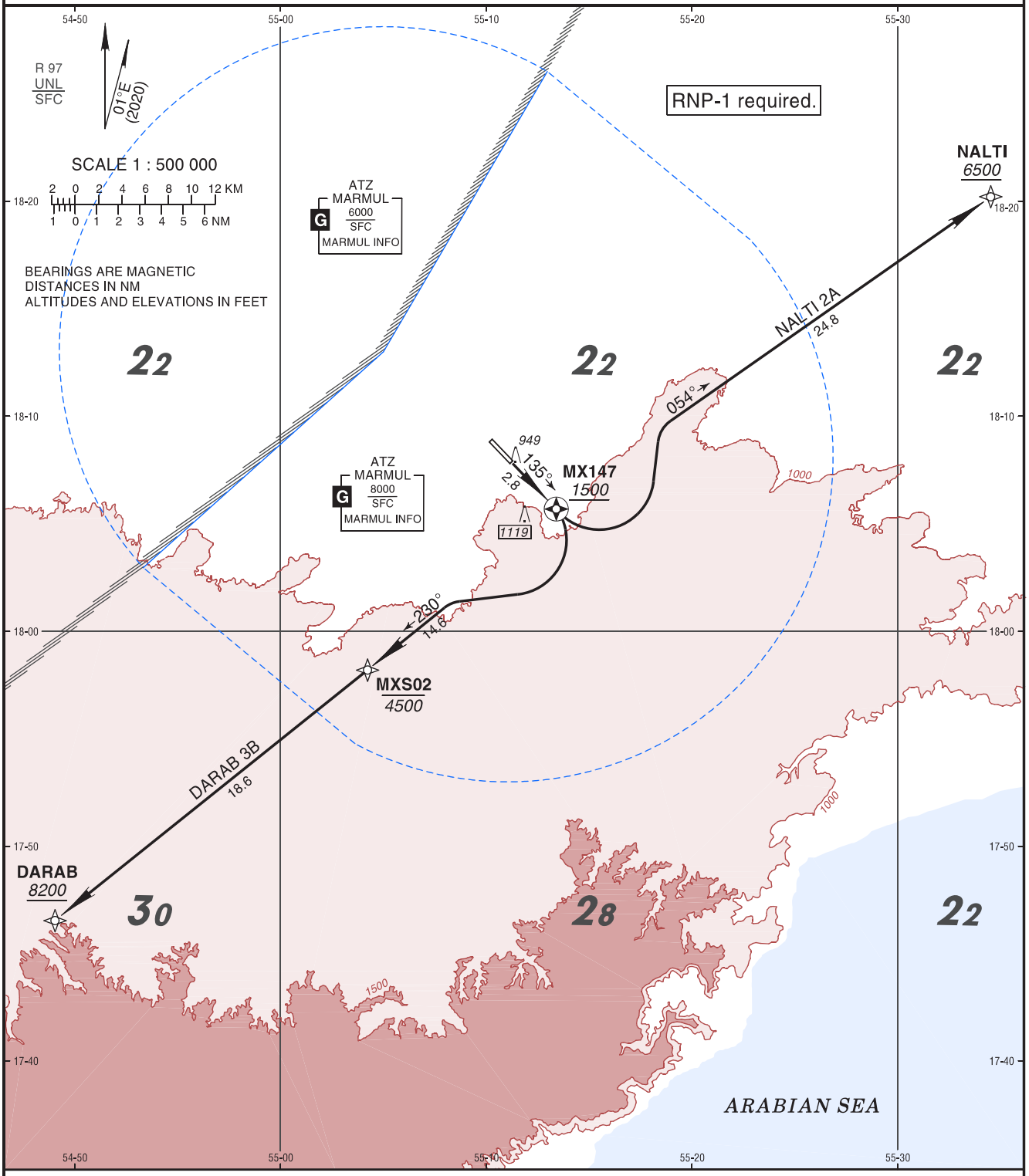
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	915 FT	Marmul Information 122.750	**MARMUL/Marmul OMAN** RWY 14
	Trans Alt	*13000*		
	Trans Level	*FL150*		

NALTI 2A, DARAB 3B RNAV (GNSS) DEPARTURE



INITIAL CLIMB

Climb on course 135° to MX147 at or above 1500, then

SID	ROUTING
NALTI 2A	turn LEFT to NALTI, at or above 6500.
DARAB 3B	turn RIGHT on course 230° to MXS02 at or below 4500. Then to DARAB at or above 8200.

Route Description: RNAV (GNSS) DEPARTURE RWY 14

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
INITIAL CLIMB									
CF	MX147	Y	135° (135.8°)		+1500		1°E	2.8	RNP 1
NALTI 2A DEPARTURE									
	MX147	Y					1°E		RNP 1
TF	NALTI		054° (054.4°)	L	+6500		1°E	24.8	RNP 1
DARAB 3B DEPARTURE									
	MX147	Y					1°E		RNP 1
CF	MXS02		230° (230.8°)	R	-4500		1°E	14.6	RNP 1
TF	DARAB		230° (230.9°)		+8200		1°E	18.6	RNP 1

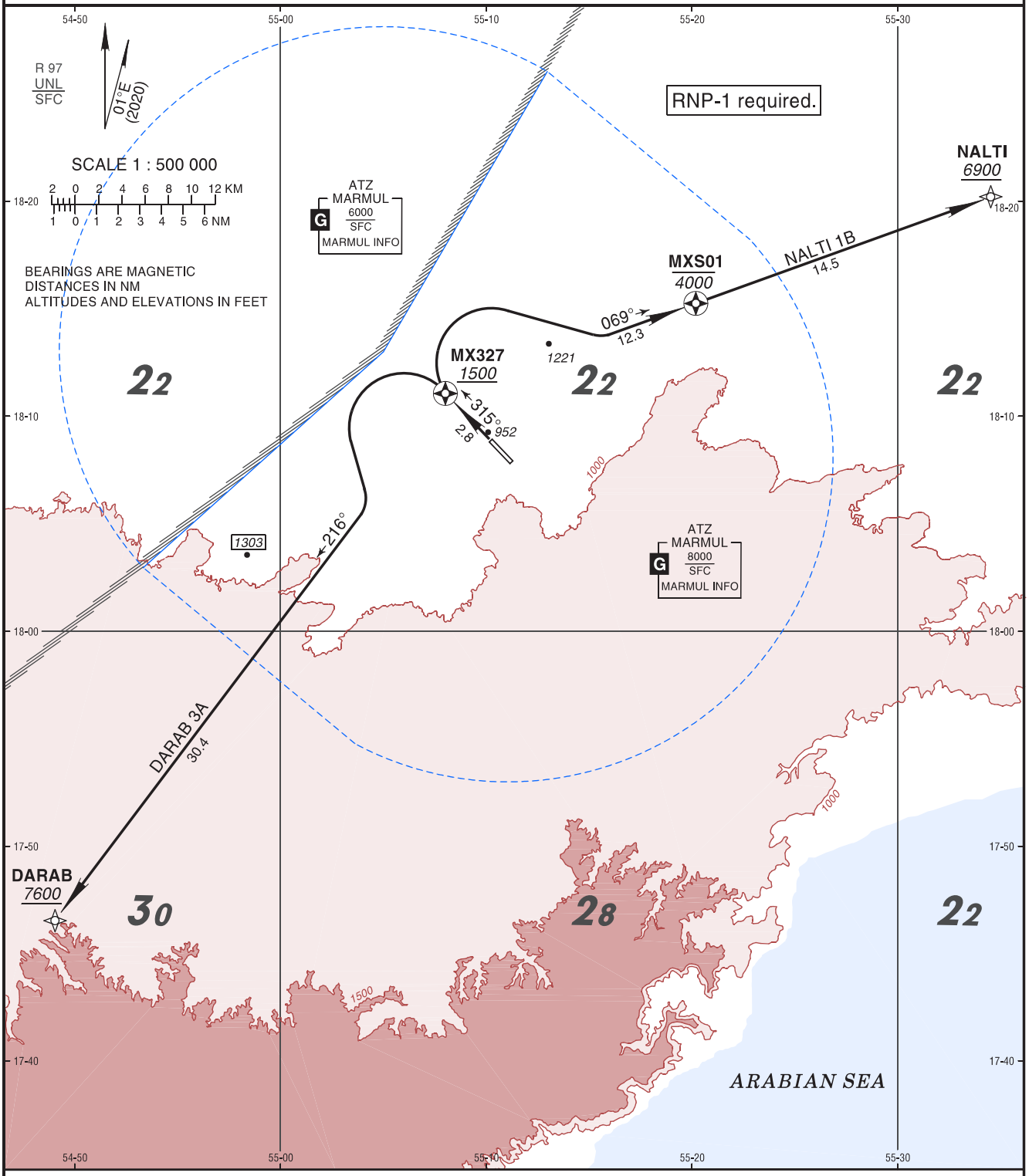
Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 14

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
MX147	N18°05'41.61"	E055°13'24.16"	N18°05.694'	E055°13.403'	
NALTI	N18°20'12.00"	E055°34'31.00"	N18°20.200'	E055°34.517'	
MXS02	N17°58'12.01"	E055°04'13.62"	N17°58.200'	E055°04.227'	
DARAB	N17°46'32.00"	E054°49'02.00"	N17°46.533'	E054°49.033'	

Aircrew should contact Marmul Information 122.750 MHz to receive RWY in use, wind direction & speed, visibility, temperature and QNH data for the time of descent. The pilot shall inform Muscat ACC that he will be leaving the frequency and continue with Marmul aerodrome QNH.

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	915 FT	Marmul Information 122.750	**MARMUL/Marmul OMAN** RWY 32
	Trans Alt	*13000*		
	Trans Level	*FL150*		

NALTI 1B, DARAB 3A RNAV (GNSS) DEPARTURE



INITIAL CLIMB

Climb on course 315° to MX327 at or above 1500, then

SID	ROUTING
NALTI 1B	turn RIGHT to MXS01 at or below 4000. Then to NALTI at or above 6900.
DARAB 3A	turn LEFT to DARAB, at or above 7600.

Route Description: RNAV (GNSS) DEPARTURE RWY 32

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
INITIAL CLIMB									
CF	MX327	Y	315° (315.8°)		+1500		1°E	2.8	RNP 1
NALTI 1B DEPARTURE									
	MX327	Y					1°E		RNP 1
TF	MXS01	Y	069° (070.1°)	R	-4000		1°E	12.3	RNP 1
TF	NALTI		069° (070.2°)		+6900		1°E	14.5	RNP 1
DARAB 3A DEPARTURE									
	MX327	Y					1°E		RNP 1
TF	DARAB		216° (216.5°)	L	+7600		1°E	30.4	RNP 1

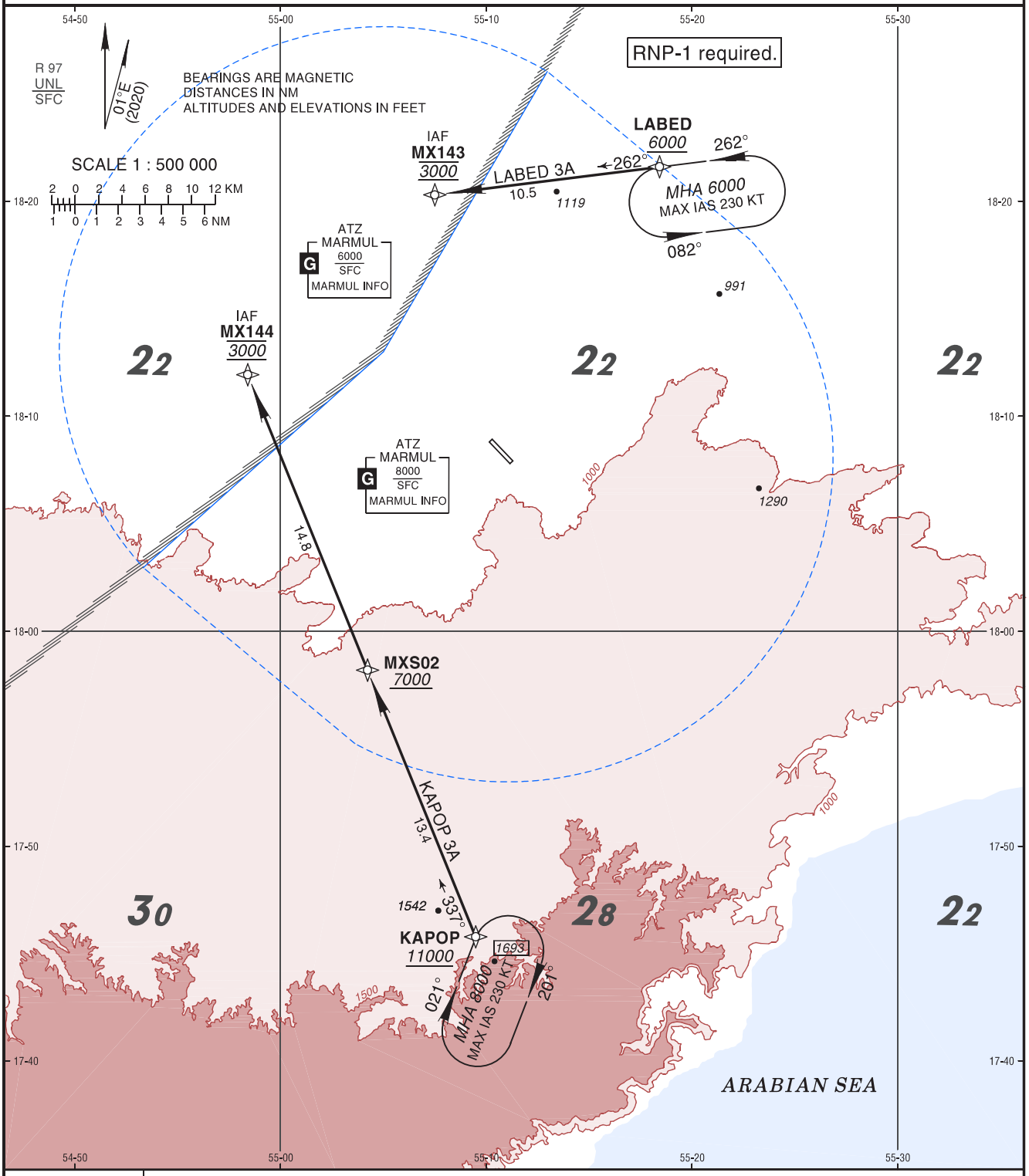
Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 32

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
MX327	N18°11'02.62"	E055°08'02.25"	N18°11.044'	E055°08.038'	
NALTI	N18°20'12.00"	E055°34'31.00"	N18°20.200'	E055°34.517'	
MXS01	N18°15'15.11"	E055°20'10.76"	N18°15.252'	E055°20.179'	
DARAB	N17°46'32.00"	E054°49'02.00"	N17°46.533'	E054°49.033'	

Aircrew should contact Marmul Information 122.750 MHz to receive RWY in use, wind direction & speed, visibility, temperature and QNH data for the time of descent. The pilot shall inform Muscat ACC that he will be leaving the frequency and continue with Marmul aerodrome QNH.

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO	AD ELEV 915 FT Trans Alt *13000* Trans Level *FL150*	Marmul Information 122.750	**MARMUL/Marmul** **OMAN** RWY 14

LABED 3A, KAPOP 3A RNAV (GNSS) ARRIVAL



STAR	ROUTING
LABED 3A	From LABED at or above 6000 to MX143 at 3000.
KAPOP 3A	From KAPOP at or above 11000 to MXS02 at or above 7000. Proceed to MX144 at 3000.

Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 14

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	LABED	262° (262.8°)	1 MIN	L	6000		230 KT	1°E	RNP 1
Hold	KAPOP	021° (021.8°)	1 MIN	R	8000		230 KT	1°E	RNP 1

Route Description: RNAV (GNSS) ARRIVAL RWY 14

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
LABED 3A ARRIVAL									
IF	LABED				+6000		1°E		RNP 1
TF	MX143		262° (262.9°)		@3000		1°E	10.5	RNP 1
KAPOP 3A ARRIVAL									
IF	KAPOP				+11000		1°E		RNP 1
TF	MXS02		337° (337.9°)		+7000		1°E	13.4	RNP 1
TF	MX144		337° (337.9°)		@3000		1°E	14.8	RNP 1

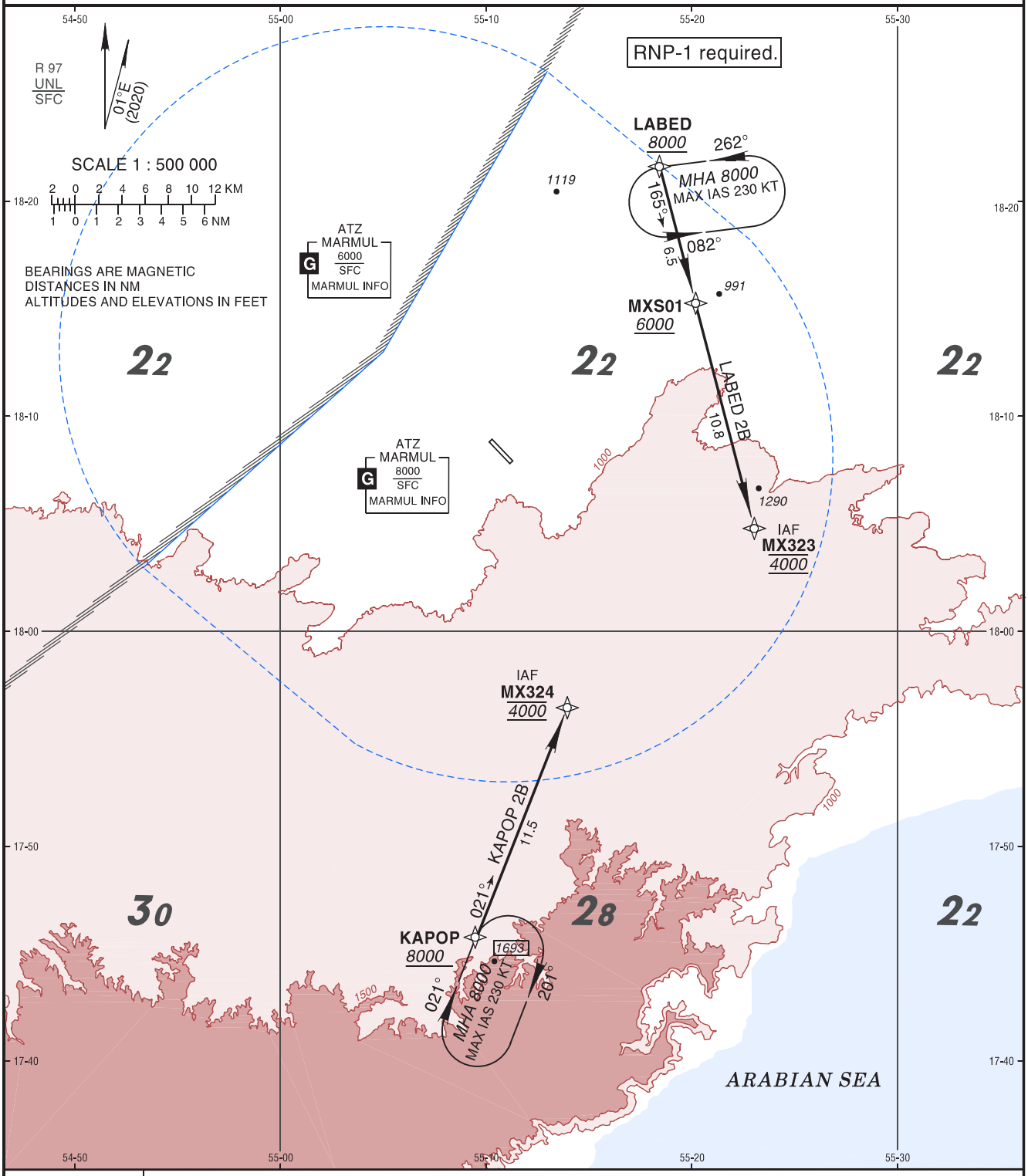
Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 14

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
LABED	N18°21'35.00''	E055°18'27.00''	N18°21.583'	E055°18.450'	
MX143	N18°20'17.11''	E055°07'29.73''	N18°20.285'	E055°07.496'	
KAPOP	N17°45'44.00''	E055°09'30.00''	N17°45.733'	E055°09.500'	
MXS02	N17°58'12.01''	E055°04'13.62''	N17°58.200'	E055°04.227'	
MX144	N18°11'56.49''	E054°58'23.95''	N18°11.942'	E054°58.399'	

Aircrew should contact Marmul Information 122.750 MHz to receive RWY in use, wind direction & speed, visibility, temperature and QNH data for the time of descent. The pilot shall inform Muscat ACC that he will be leaving the frequency and continue with Marmul aerodrome QNH.

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO	AD ELEV 915 FT Trans Alt *13000* Trans Level *FL150*	Marmul Information 122.750	**MARMUL/Marmul** **OMAN** RWY 32

LABED 2B, KAPOP 2B RNAV (GNSS) ARRIVAL



STAR	ROUTING
LABED 2B	From LABED at or above 8000 to MXS01 at or above 6000. Proceed to MX323 at 4000.
KAPOP 2B	From KAPOP at or above 8000 to MX324 at 4000.

Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 32

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	LABED	262° (262.8°)	1 MIN	L	8000		230 KT	1°E	RNP 1
Hold	KAPOP	021° (021.8°)	1 MIN	R	8000		230 KT	1°E	RNP 1

Route Description: RNAV (GNSS) ARRIVAL RWY 32

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
LABED 2B ARRIVAL									
IF	LABED				+8000		1°E		RNP 1
TF	MXS01		165° (165.4°)		+6000		1°E	6.5	RNP 1
TF	MX323		165° (165.4°)		@4000		1°E	10.8	RNP 1
KAPOP 2B ARRIVAL									
IF	KAPOP				+8000		1°E		RNP 1
TF	MX324		021° (021.6°)		@4000		1°E	11.5	RNP 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 32

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
LABED	N18°21'35.00''	E055°18'27.00''	N18°21.583'	E055°18.450'	
MXS01	N18°15'15.11''	E055°20'10.76''	N18°15.252'	E055°20.179'	
MX323	N18°04'46.99''	E055°23'02.05''	N18°04.783'	E055°23.034'	
KAPOP	N17°45'44.00''	E055°09'30.00''	N17°45.733'	E055°09.500'	
MX324	N17°56'27.10''	E055°13'56.33''	N17°56.452'	E055°13.939'	

Aircrew should contact Marmul Information 122.750 MHz to receive RWY in use, wind direction & speed, visibility, temperature and QNH data for the time of descent. The pilot shall inform Muscat ACC that he will be leaving the frequency and continue with Marmul aerodrome QNH.

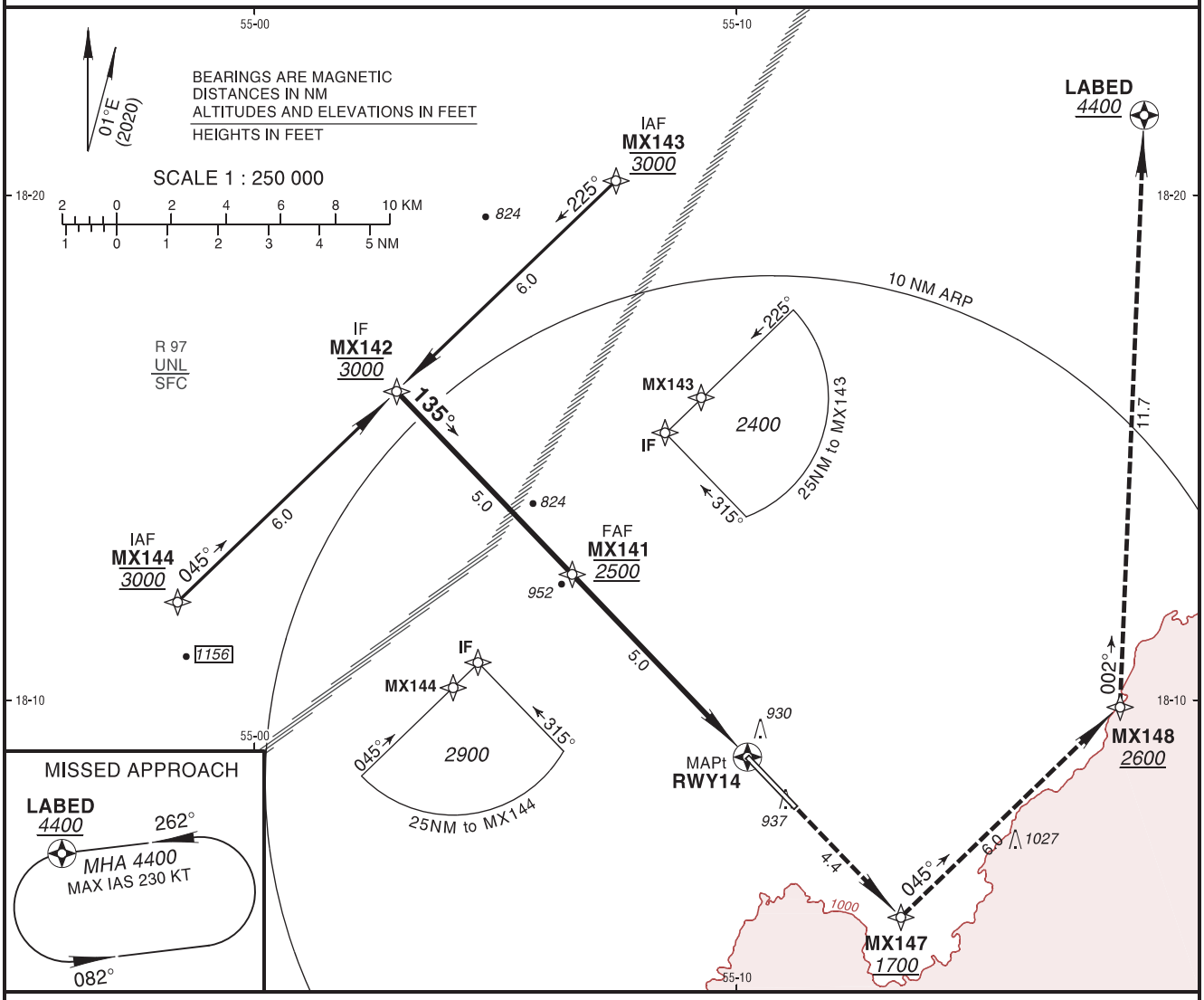
INSTRUMENT APPROACH CHART - ICAO

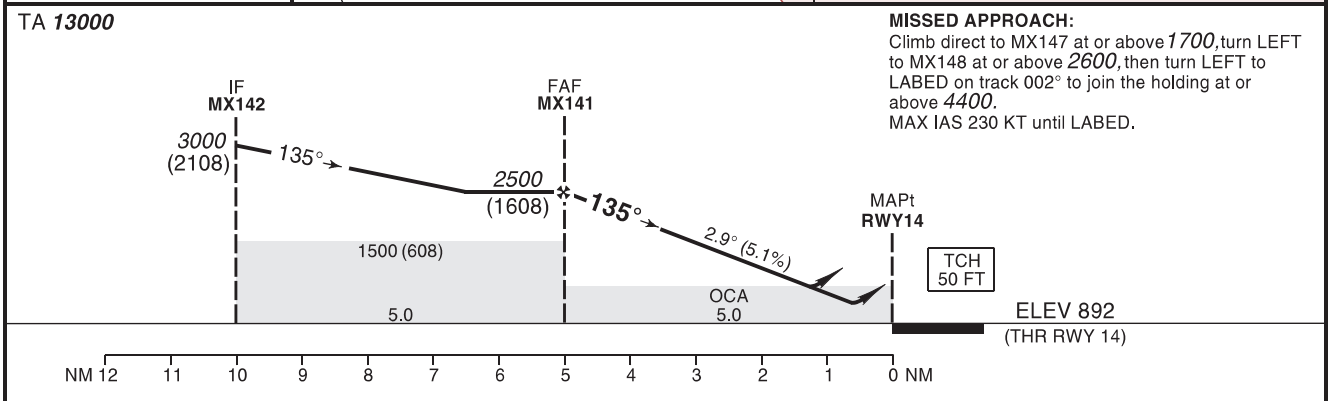
AD ELEV 915 FT

HEIGHTS RELATED TO THR RWY 14 ELEV 892 FT

Marmul Information 122.750

MARMUL/Marmul
OMAN
RNP RWY 14





MISSED APPROACH:
Climb direct to MX147 at or above *1700*, turn LEFT to MX148 at or above *2600*, then turn LEFT to LABED on track 002° to join the holding at or above *4400*.
MAX IAS 230 KT until LABED.

STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	189			Not Authorized
	DA(H)	*1150* (250)			
LNAV	OCH	308			Not Authorized
	MDA(H)	*1200* (310)			
CIRCLING (HAA)*		A	B	C	D
	OCH	415	495	635	Not Authorized
	MDA(H)	*1330*(420)	*1410* (500)	*1550* (640)	

ADVISORY INFORMATION ONLY					
NM to RWY14	5	4	3	2	1
ALT (HGT)	*2500* (1608)	*2192* (1300)	*1884* (992)	*1576* (684)	*1268* (376)

GS	kt	80	100	120	140	160	180
FAF-MAPt ❶	min:s						
ROD: 5.1%	ft/min	420	530	640	750	870	960

❶ Timing not authorized for defining the MAPt.

RNP Approach required.

BARO VNAV Not authorized below 5°C or above 50°C.

Holding Instruction/Areas RNP RWY 14

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	LABED	262° (262.8°)	1 MIN	L	4400		230 KT	1°E	

Route Description: RNP RWY 14

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	MX144				@3000		1°E		RNP APCH
TF	MX142		045° (046.2°)		@3000		1°E	6.0	RNP APCH
TF	MX141		135° (136.2°)	R	@2500		1°E	5.0	RNP APCH
TF	RWY14	Y	135° (136.2°)		+942		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	MX143				@3000		1°E		RNP APCH
TF	MX142		225° (226.2°)		@3000		1°E	6.0	RNP APCH
TF	MX141		135° (136.2°)	L	@2500		1°E	5.0	RNP APCH
TF	RWY14	Y	135° (136.2°)		+942		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
DF	MX147				+1700	230 KT	1°E	4.4	RNP APCH
TF	MX148		045° (046.2°)	L	+2600	230 KT	1°E	6.0	RNP APCH
TF	LABED	Y	002° (002.3°)	L	+4400	230 KT	1°E	11.7	RNP APCH
HM	LABED	Y	262° (262.8°)	L	+4400	230 KT	1°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 14

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
MX144 (IAF)	N18°11'56.49"	E054°58'23.95"	N18°11.942'	E054°58.399'	
MX143 (IAF)	N18°20'17.11"	E055°07'29.73"	N18°20.285'	E055°07.496'	
MX142 (IF)	N18°16'06.80"	E055°02'56.76"	N18°16.113'	E055°02.946'	
MX141 (FAF)	N18°12'29.58"	E055°06'34.98"	N18°12.493'	E055°06.584'	
RWY14 (MAPT)	N18°08'52.19"	E055°10'13.09"	N18°08.870'	E055°10.218'	
MX147	N18°05'41.61"	E055°13'24.16"	N18°05.694'	E055°13.403'	
MX148	N18°09'51.66"	E055°17'57.18"	N18°09.861'	E055°17.953'	
LABED	N18°21'35.00"	E055°18'27.00"	N18°21.583'	E055°18.450'	

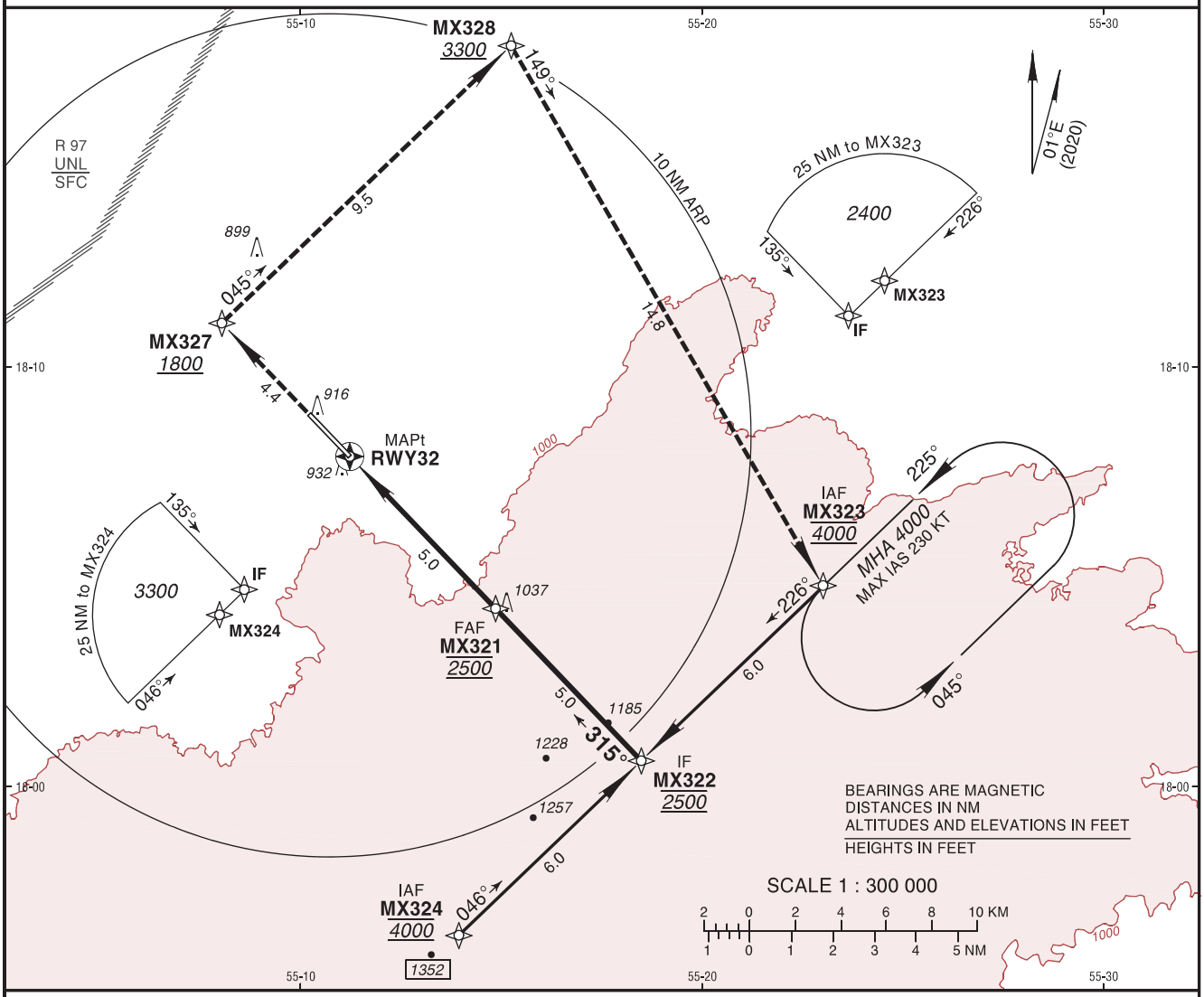
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 915 FT

HEIGHTS RELATED TO THR RWY 32 ELEV 915 FT

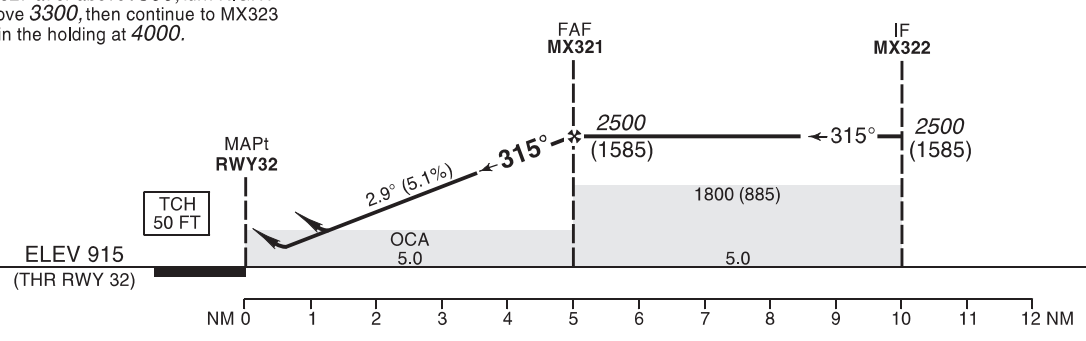
Marmul Information 122.750

MARMUL/Marmul
OMAN
RNP RWY 32



MISSED APPROACH:
Climb direct to MX327 at or above *1800*, turn RIGHT to MX328 at or above *3300*, then continue to MX323 on track 149° to join the holding at *4000*.

TA ***13000***



STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	261			Not Authorized
	DA(H)	*1180* (270)			
LNAV	OCH	365			Not Authorized
	MDA(H)	*1280* (370)			
CIRCLING (HAA)*		A	B	C	D
	OCH	415	495	635	Not Authorized
	MDA(H)	*1330*(420)	*1410* (500)	*1550* (640)	

ADVISORY INFORMATION ONLY							
NM to RWY32	2	3	4	5			
ALT (HGT)	*1576* (661)	*1884* (969)	*2192* (1277)	*2500* (1585)			
GS	kt	80	100	120	140	160	180
FAF-MAPt ❶	min:s						
ROD: 5.1%	ft/min	420	520	630	730	840	950

❶ Timing not authorized for defining the MAPt.

RNP Approach required.

BARO VNAV Not authorized below 5°C or above 50°C.

Holding Instruction/Areas RNP RWY 32

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	MX323	225° (225.8°)	1 MIN	L	4000		230 KT	1°E	

Route Description: RNP RWY 32

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	MX323				@4000		1°E		RNP APCH
TF	MX322		226° (226.3°)		@2500		1°E	6.0	RNP APCH
TF	MX321		315° (316.2°)	R	@2500		1°E	5.0	RNP APCH
TF	RWY32	Y	315° (316.2°)		+965		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	MX324				@4000		1°E		RNP APCH
TF	MX322		046° (046.3°)		@2500		1°E	6.0	RNP APCH
TF	MX321		315° (316.2°)	L	@2500		1°E	5.0	RNP APCH
TF	RWY32	Y	315° (316.2°)		+965		1°E	5.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
DF	MX327				+1800		1°E	4.4	RNP APCH
TF	MX328		045° (046.2°)	R	+3300		1°E	9.5	RNP APCH
TF	MX323	Y	149° (150.0°)	R	@4000		1°E	14.8	RNP APCH
HM	MX323	Y	225° (225.8°)	L	+4000		1°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 32

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
MX323 (IAF)	N18°04'46.99"	E055°23'02.05"	N18°04.783'	E055°23.034'	
MX324 (IAF)	N17°56'27.10"	E055°13'56.33"	N17°56.452'	E055°13.939'	
MX322 (IF)	N18°00'37.10"	E055°18'29.08"	N18°00.618'	E055°18.485'	
MX321 (FAF)	N18°04'14.62"	E055°14'51.31"	N18°04.244'	E055°14.855'	
RWY32 (MAPT)	N18°07'52.07"	E055°11'13.39"	N18°07.868'	E055°11.223'	
MX327	N18°11'02.62"	E055°08'02.25"	N18°11.044'	E055°08.038'	
MX328	N18°17'38.62"	E055°15'14.58"	N18°17.644'	E055°15.243'	

OOSA AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOSA SALALAH/Salalah

OOSA AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	170219.42 N 0540528.67 E Midpoint center TWY G
2	Direction and distance from (city)	5.5 KM northeast Salalah city centre
3	Elevation/Reference temperature	90 FT - 32.7°C
4	Geoid undulation at AD ELEV PSN	-104 FT
5	MAG VAR/Annual change	1°E (2020)/0.04° increasing
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	Oman Airports Salalah Airport P.O. Box 2040 Postal Code 211 Salalah, Sultanate of Oman Website: www.omanairports.co.om Email: oamcinfo@omanairports.com Admin: Tel.: (968) 23 368001/002/103/106 Fax: (968) 23 368005 H24: Tel.: (968) 23 367552/23 367559 (968) 99 294169 Fax: (968) 23 368005 Commercial Tel.: (968) 23 368066 SLL-Vice President: Tel.: (968) 23 368000 ATC provided by Civil Aviation Authority Salalah Office APP: Tel.: (968) 23 368770/790 / OOSAZAZX TWR: Tel.: (968) 23 368762/797 / OOSAZTZX Fax: (968) 23 368685 ATM Administration Chief ATM Section: Tel.: (968) 23 368767 Fax: (968) 23 368689 AFTN and AIS provided by Salalah Office AFS: OOSAYAYX AFTN Office: Tel.: (968) 23 368742 AFTN Supervisor: Tel.: (968) 23 368741 AIS Office: Tel.: (968) 23 368541 Fax: (968) 23 368682

		AIS Administration AIS Supervisor: Tel.: (968) 23 368539 Meteorology provided by Meteorological Services Department Director of MET Tel.: (968) 23 368500 Chief of MET Tel: (968) 23 368505 Weather Forecasting Centre Tel.: (968) 23 368525 Fax: (968) 23 368595 Observation Office Tel.: (968) 23 368585
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	AD limited to operate above RVR 550M due to no LVP in force.

OOSA AD 2.3 OPERATIONAL HOURS

1	AD Administration	0330 - 1130 (Sun - Thu) Duty officer available outside these hours
2	Customs and immigration	H24
3	Health and sanitation	Available for scheduled and approved non-scheduled flights.
4	AIS Briefing Office	H24
5	ATS Reporting Office (ARO)	H24
6	MET Briefing Office	H24
7	ATS	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24
11	De-icing	NIL
12	Remarks	NIL

OOSA AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Low deck loading capacity of 7 tons with a lifting height of 3.7 M Main deck loading capacity of 7 tons with a lifting height of 5.6 M Main deck loading capacity of 35 tons with a lifting height of 5.6 M
2	Fuel/oil types	JET A1/Nil
3	Fuelling facilities/capacity	Total tanks capacity: JET A1/300 000 LTRS Fuel hydrant system available on aircraft stands in the Northern

		Aprons.
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	NIL

OOSA AD 2.5 PASSENGER FACILITIES

1	Hotels	Unlimited in the city
2	Restaurants	Airport restaurant
3	Transportation	Taxis, Car rentals
4	Medical facilities	Airport clinic Hospital 10 KM from airport
5	Bank and Post Office	Dhofar Bank, ATM NBO Bank, ATM Exchange money
6	Tourist Office	Available
7	Remarks	NIL

OOSA AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 9. CAT 10 available on request
2	Rescue equipment	1 unit 8x8 fire vehicle 16 800 LTRS capacity water 7000 LTRS/MIN discharge 2200 LTRS AFFF 6% foam 3 units 6x6 fire vehicle 12 500 LTRS capacity water 6000 LTRS/MIN discharge 1500 LTRS AFFF 6% foam 1 unit water tanker 25 000 LTRS water
3	Capability for removal of disabled aircraft	Specialized equipment available in Muscat (747-400 one side) basic recovery jack- 65 tons available in Salalah can handle up to code E aircraft with availability of aircraft spare tire
4	Remarks	Direct communication available with rescue and firefighting on frequency 121.600 MHz in cases of emergency.

OOSA AD 2.7 SEASONAL AVAILABILITY — CLEARING

1	Types of clearing equipment	NIL
2	Clearance priorities	NIL

3	Remarks	AD available all seasons

OOSA AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	a. Civil Apron South:	Surface: Strength:	Asphalt and concrete PCN 60/F/A/X/U (asphalt) PCN 56/R/A/W/U (concrete)
		b. Civil Apron North:	Surface: Strength:	Concrete PCN 77/R/A/W/T (concrete)
		c. Cargo Apron:	Surface: Strength:	Concrete PCN 84/R/A/W/T
2	Taxiway width, surface and strength	G, H2, H3, H7, H8, J & K:	Width: Surface: Strength:	25 M Asphalt 69/F/A/X/T
		A1, A2, B3, B4, B5, B6, C, D1, D2, D7, D8, E2, E7 & E8:	Width: Surface: Strength:	25 M Asphalt 98/F/A/W/T
		Rapid Exit Taxiways D3 & D6:	Width: Surface: Strength: Restrictions:	25 M Asphalt 98/F/A/W/T Runway exit only
3	ACL and elevation	TWY H2 68 FT TWY H3 74 FT TWY H7 74 FT TWY H8 75 FT		TWY B3 93 FT TWY B4 93 FT TWY B5 93 FT TWY B6 93 FT
4	VOR checkpoint	NIL		
5	INS checkpoint	Refer to Aircraft Parking/Docking Chart - ICAO		
6	Remarks	NIL		

OOSA AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Taxiing guidance system: a. Cockpit guidelines on taxiway and aprons b. Apron surface Stand ID markings c. Directional marking reflecting the signage on ground d. Supplementary stands are marked by broken centrelines e. Marshallers guidance for South Apron, Cargo Apron, stands 10, 10R, 10L, 15L, 15 &15R

		Visual Docking Guidance System (VDGS) is installed and operational on North Apron except for stands 10, 10R, 10L, 15L, 15 & 15R. For information on Visual Docking Guidance System (VDGS) see OOSA AD 2.23.2.
2	RWY and TWY markings and LGT	RWY 07/25: LGT: Centreline, Edge, End-inset, THR-inset, TDZ, WBAR Markings: THR, RWY designators, TDZ, Centreline, Side stripes Aiming point TWY: LGT: A1, A2, B3, B4, B5, B6, C, D1, D2, D3, D6, D7, D8, E2, E7, E8, G, H2, H3, H7, H8, J & K RETIL: D3 & D6 Edge lights elevated blue LIM Illuminated signs for TWY designators and direction signs Markings: Centreline, Edge, Runway holding positions (All taxiways) Intermediate holding positions: B3, B4, B5, B6, C1, C2, C3 & C4, H2, H3 & H7
3	Stop bars	Stop bars lights are available in RWY 07/25 runway holding positions. Stop bars are available in the taxiway intermediate holding positions B3, B4, B5, B6, C1, C2, C3 & C4.
4	Other runway protection measures	NIL
5	Remarks	NIL

OOSA AD 2.10 AERODROME OBSTACLES

In AREA 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
RWY 07 Approach / RWY 25 Departure					
OOSA2748	Antenna	170156.43 N0540349.30 E	32.23 M (106 FT)	lit	Type-A
OOSA3471	Street Light	170157.39 N0540336.27 E	38.13 M (125 FT)	not lit	Type-A
OOSA3197	Building	170137.99 N0540315.53 E	51.24 M (168 FT)	not lit	Type-A
OOSA2845	Building	170142.53 N0540312.99 E	52.15 M (171 FT)	not lit	Type-A

In AREA 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
OOSA2848	Building	170143.28 N0540312.64 E	52.24 M (171 FT)	not lit	Type-A
OOSA2847	Building	170142.92 N0540312.66 E	53.72 M (176 FT)	not lit	Type-A
OOSA2652	Water Tank	170142.69 N0540312.43 E	54.87 M (180 FT)	not lit	Type-A
OOSA3422	Tower Crane	170122.09 N0540220.14 E	75.64 M (248 FT)	lit	Type-A

In AREA 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
RWY 25 Approach / RWY 07 Departure					
OOSA2768	Antenna	170253.52 N0540639.53 E	36.08 M (118 FT)	lit	Type-A
Area 2b					
*OOSA3423	Tower Crane	170120.80 N0540222.59 E	70.12 M (230 FT)	lit	NIL
Area 2c					
*OOSA1130	Mosque	170102.84 N0540538.04 E	72.09 M (237 FT)	lit	NIL
*OOSA1132	Mosque	170101.14 N0540537.53 E	72.12 M (237 FT)	lit	NIL
*OOSA1230	ATC Antenna	170217.49 N0540622.23 E	66.85 M (219 FT)	lit	NIL
*OOSA2101	ATC Antenna	170243.36 N0540508.25 E	88.26 M (290 FT)	lit	NIL
	Mast 1	170157.94 N0540439.86 E	42.81 M (140 FT)	lit	NIL
	Mast 2	170158.93 N0540442.83 E	42.87 M (141 FT)	lit	NIL
	Mast 3	170153.48 N0540441.48 E	42.96 M (141 FT)	lit	NIL
	Mast 4	170154.47 N0540444.45 E	43.33 M (142 FT)	lit	NIL

In AREA 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
APP antenna	Building (Radar)	170138.80 N0540432.50 E	56.4 M (185 FT)	marked and lit	NIL
SMR antenna	Building (Radar)	170207.00 N0540524.00 E	52.4 M (172 FT)	marked and lit	NIL
*OOSA3424	Tower Crane	170118.34 N0540604.43 E	69.96 M (230 FT)	lit	NIL
*OOSA3406	Comms Mast	170300.54 N0540350.18 E	76.79 M (252 FT)	lit	NIL
*OOSA2967	Comms Mast	170422.28 N0540617.85 E	70.09 M (230 FT)	lit	NIL
*OOSA3404	Comms Mast	170421.89 N0540617.26 E	80.23 M (263 FT)	lit	NIL
Refer to Aerodrome Obstacle Chart (Type A) and (Type B) * They are penetrating the inner horizontal surface.					

In Area 3					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
NIL	NIL	NIL	NIL	NIL	NIL

OOSA AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	SALALAH/Salalah
2	Hours of service MET Office outside hours	H24
3	Office responsible for TAF preparation Periods of validity	H24 FT Salalah 0600 UTC & 1200 UTC
4	Trend forecaste Interval of issuance	Trend Type Routine
5	Briefing/consultation provided	Self - Briefing display, Telephone, Personnel consultation web: www.met.gov.om
6	Flight documentation Language(s) used	Charts, Tabular forms, Text English
7	Charts and other information available for briefing or consultation	Surface analysis, Prognostic Upper Air chart, Significant weather chart, Satellite Images
8	Supplementary equipment available for providing information	Laser ceilometer, Satellite Distribution System for Aviation Charts (SADIS), Weather satellite images

9	ATS units provided with information	Provided by Air Traffic Control Tower (ATC)
10	Additional information	Tel.: (968) 23 368505, 23 368544, 23 368585, 23 368586, 23 368500, 23 368560, 23 368525, 23 368553, 23 131101 Fax: (968) 23 368595, 23 368588

OOSA AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
07	071° T 070° M	3997 X 60	98/F/A/W/T Asphalt	170203.72 N 0540411.05 E 170246.53 N 0540618.68 E GUND -104 FT	THR 73 FT TDZ 81 FT
25	251° T 250° M	3997 X 60	98/F/A/W/T Asphalt	170246.53 N 0540618.68 E 170203.72 N 0540411.05 E GUND -104 FT	THR 88 FT TDZ 90 FT

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
07	0.12% up	NIL	NIL	4117 X 300	240 x 150 M
25	0.12% down	NIL	NIL	4117 X 300	240 x 150 M

Designations RWY NR	Location and description of engineering material arresting system (EMAS)	OFZ	Remarks
1	12	13	14
07	NIL	Available	NIL
25	NIL	Available	NIL

OOSA AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
07	3997	3997	3997	3997	NIL
Intersection D2	3343	3343	3343	NIL	NIL
25	3997	3997	3997	3997	NIL
Intersection D7	3274	3274	3274	NIL	NIL

OOSA AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
07	LIH, VRB white 900 M Centreline with 5 cross bars at 150 M intervals.	Green WBAR	PAPI left side / 3.00° MEHT 65 FT	900 M from THR Uni-Directional VRB LIH White spacing 30 M	30 M VRB LIH Alternate white and red from 900 M to 300 M. Last 300 M to end of RWY red.	60 M Omni-Directional LIH Bi-Directional LIH White last 600 M yellow	LIH Red No WBAR	NIL	First set of REDL starts at 50 M from both THR. First set of CL starts at 5 M from both THR.
25	LIH, VRB white 900 M. Centreline with 5 cross bars at 150 M intervals.	Green WBAR	PAPI left side/ 3.00° MEHT 67 FT	900 M from THR Uni-Directional VRB LIH White spacing 30 M	30 M VRB LIH Alternate white and red from 900 M to 300 M. Last 300 M to end of RWY red	60 M Omni-Directional LIH Bi-Directional LIH White last 600 M yellow	LIH Red No WBAR	NIL	First set of REDL starts at 50 M from both THR. First set of CL starts at 5 M from both THR.

OOSA AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours	NIL

	of operation	
2	LDI location and LGT Anemometer location and LGT	Anemometer: South abeam TDZ RWY 07 South abeam TDZ RWY 25 South abeam mid of RWY Indicators and ground signaling devices: WDI (lighted at night): North abeam TDZ RWY 07 (lit) South abeam TDZ RWY 25 (lit)
3	TWY edge and centre line lighting	Edge: Elevated blue light LIM on the curves only TWYs A1, A2, B3, B4, B5, B6, C, D1, D2, D3, D6, D7, D8, E2, E7, E8, J, K, H2, H3, H7, H8 and G Centreline: All taxiways
4	Secondary power supply/switch-over time	RWY 07/25 DG sets 15 S. AFL UPS DG sets, UPS, no break
5	Remarks	NIL

OOSA AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO Geoid undulation	NIL
2	TLOF and/or FATO elevation M/FT	NIL
3	TLOF and FATO area dimensions, surface, strength, marking	NIL
4	True BRG of FATO	NIL
5	Declared distance available	NIL
6	APP and FATO lighting	NIL
7	Remarks	All Helicopters shall land and take off on RWY and ground or air taxi to the appropriate apron as instructed by ATC.

OOSA AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	Salalah CTR N172257 E0540906 then along arc of a circle radius 20 NM centered on Salalah DVOR/DME clockwise to N171338 E0534916 then along a straight line to N172257 E0540906.	Salalah ATZ Circle radius 5 NM center on ARP
2	Vertical limits	SFC-2000 FT AGL	SFC-2000 FT AGL
3	Airspace classification	C	D
4	ATS unit call sign Language(s)	Salalah Approach/Radar English	Salalah Tower Nil
5	Transition altitude/Transition level	13 000 FT/FL150	13 000 FT/FL150

6	Hours of applicability (or activation)	H24	H24
7	Remarks	Establish radio communication with ATC prior to entering CTR.	Nil

OOSA AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP	Salalah Approach /Radar	119.100 MHz 126.250 MHz 121.500 MHz	H24	Primary Frequency Secondary Frequency Emergency Frequency
TWR	Salalah Tower	118.200 MHz 129.575 MHz 121.500 MHz	H24	Primary Frequency Secondary Frequency Emergency Frequency
GMC	Salalah Ground	124.025 MHz	H24	All TFC DEP OOSA for push back, start - up & taxi clearance
ATIS	Salalah Terminal Information	125.100 MHz	H24	ATIS broadcast for DEP and ARR (EN)

OOSA AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR, Type of supported OPS (for VOR/ILS/MLS, give declination)	ID	Frequency (CH)	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
DVOR/DME (1°E/2020)	SLL	112.8 MHz (CH 75X)	H24	170259.36N 0540656.97E	89.17 Feet	NIL.
LOC 07 CAT I (1°E/2020)	ISW	NIL	H24	170250.86N 0540631.72E	NIL	LOC RWY 07 coverage 25 NM. Unusable beyond 25° left of course. ILS RWY 07
GP 07	NIL	330.50 MHz	H24	170203.22N 0540422.44E	NIL	Angle 3.00°, RDH 54 FT.

Type of aid, MAG VAR, Type of supported OPS (for VOR/ILS/MLS, give declination)	ID	Frequency (CH)	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
						GP RWY 07 coverage 10 NM. ILS RWY 07
DME	ISW	CH 24X NIL	H24	170203.22N 0540422.44E	68.08 Feet	ILS RWY 07
LOC 25 CAT I (1°E/2020)	ISE	110.90 MHz	H24	170158.35N 0540355.10E	NIL	LOC RWY 25 coverage 25 NM. ILS RWY 25
GP 25	NIL	330.80 MHz	H24	170239.25N 0540609.94E	NIL	Angle 3.00°, RDH 55 FT. GP RWY 25 coverage 10 NM. ILS RWY 25
DME	ISE	CH 46X MHz	H24	170239.25N 0540609.94E	NIL	ILS RWY 25

For restrictions refer to ENR 4.1-1

OOSA AD 2.20 LOCAL AERODROME REGULATIONS

20.1 AIRPORT REGULATIONS

Local flying restrictions:

a) Traffic circuits: RWY 25 - LEFT RWY 07 - RIGHT

b) Circling prohibited north of RWY 07/25.

Movement areas - Aprons:

Civil Apron handling requirements:

Operators are responsible for ensuring that aircraft which park on the Civil Apron are provided with:

a) Wheels chocks under the wheels. Chocks are available from handling company.

b) Fire coverage provided by the operator when required. Fire coverage request should be at least 10 minutes prior.

(Call Duty Officer Tel.: 23 367 307)

20.2 TAXIING TO AND FROM STANDS

The allocated stand and taxiway route to be used by aircraft after landing or when taxiing for departure will be specified by TWR or GMC.

Departing aircraft shall request push-back and start-up clearances from TWR or GMC.

Assistance from the “Follow me” vehicle can be requested via GMC or TWR.

See Aerodrome and Parking Chart - ICAO.

20.3 PARKING AREA FOR SMALL AIRCRAFT (GENERAL AVIATION)

On request

20.4 PARKING AREA FOR HELICOPTERS

Helicopters arriving on the Civil Apron must park on marked stand as directed by ATC, then by ground marshaling.

20.5 APRON - TAXIING DURING WINTER CONDITIONS

Not applicable.

20.6 TAXIING LIMITATIONS

NIL

20.7 SCHOOL AND TRAINING FLIGHTS - TECHNICAL TEST FLIGHTS - USE OF RUNWAY

NIL

20.8 HELICOPTER TRAFFIC - LIMITATION

NIL

20.9 REMOVAL OF DISABLED AIRCRAFT FROM RUNWAYS

Refer to section 6 subsection 3

OOSA AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OOSA AD 2.22 FLIGHT PROCEDURES

22.1 RADAR SERVICES AND PROCEDURES

Aircraft will be vectored and sequenced to the appropriate final approach track (ILS & VOR) so as to ensure an expeditious flow of traffic. Radar vectors and flight levels/altitudes will be issued, as required, for spacing and separating the aircraft so that correct landing intervals are maintained, taking into account various factors including aircraft characteristics.

Range 100 NM for Primary Radar

Range 256 NM for MSSR

22.2 RADIO COMMUNICATION FAILURE PROCEDURE

22.2.1 At or above 6000 FT QNH

a) If in VMC, continue flight in VMC;

b) If in IMC, proceed direct to Salalah VORDME or Locator "LOM" at last assigned level and comply with ICAO procedure referenced in ENR 1.6. If unable to land, depart controlled airspace on a heading of 180 MAG, climb to 6000 FT QNH and proceed to alternate.

22.2.2 Below 6000 FT QNH:

a) If in VMC, continue flight in VMC;

b) If in IMC, make the shortest turn onto a heading of 180 MAG, climb to 6000 FT QNH, proceed to Salalah VORDME or Locator "LOM" and comply with ICAO procedure referenced in ENR 1.6. If unable to land, depart controlled airspace on a heading of 180 MAG, climb to 6000 FT QNH and proceed to alternate.

OOSA AD 2.23 ADDITIONAL INFORMATION

23.1 BIRD CONCENTRATION IN THE VICINITY OF THE AIRPORT

Large solitary predatory birds (eagles, vultures etc.) present a hazard to air navigation at all times on the coastal plain near the vicinity of the airport. Pilots are advised to exercise extreme caution when approaching or departing, particularly below ALT 3000 FT. ATC will endeavour to keep pilots advised of bird concentrations, but single birds circling at any height are very difficult to observe by ATC. Pilot reports of bird concentrations are requested. These reports are very useful in planning a programme to attempt a reduction of bird strike hazards.

23.2 GENERAL SAFETY MEASURES FOR VISUAL DOCKING GUIDANCE SYSTEM (VDGS) OPERATIONS

23.2.1 The VDGS has a built-in error detection program to inform the aircraft pilot of impending dangers during the docking procedures.

23.2.2 If the pilot is unsure of the information being shown on the VDGS display unit, pilot must immediately stop the aircraft and obtain further information for clearance.

23.2.3 The pilot shall not enter the stand area, unless the docking system first is showing vertical running arrows. The pilot must not proceed beyond the bridge, unless these arrows have been superseded by the closing rate bar.

23.2.4 The pilot shall not enter the stand area, unless the aircraft type displayed is equal to approaching aircraft.

23.2.5 When using the docking system, pilots are advised to taxi into the aircraft stand at minimum speed. The system will display “SLOW DOWN” to inform the pilot if the aircraft’s taxiing speed is too fast.

23.2.6 To avoid overshooting, pilots are advised to approach the stop position slowly and observe the closing rate information displayed. Pilots should stop the aircraft immediately when seeing the “STOP” display or when given the “STOP” sign by the aircraft marshaller.

23.2.7 The FAILED MESSAGE - The message FAILED means that docking has been interrupted and has to be resumed only by manual guidance. Do not try to resume docking without manual guidance.

23.3 VDGS-STANDS DOCKING PROCEDURE IN NORTH APRON

Do not enter the stand if the display is blank or shows WAIT, STOP, FAILED, ERR or an incorrect aircraft, unless a marshaller is present. Contact GROUND for assistance.

During the aircraft approach to the stand, the docking guidance system automatically confirms the identification of the aircraft. The aircraft must be identified at least 12M before the correct stop position. If this does not occur, the system displays “STOP” and then “WAIT”. While the aircraft is stopped, the system will attempt to identify it. If successful, the docking procedure will continue. If not, “WAIT” will be replaced with “STOP”.

Check that the correct aircraft type is displayed. The scrolling arrows indicate that the system is activated.

Follow the lead in line. When the solid yellow closing rate field appears, the aircraft has been caught by the scanning unit. The scanning unit now checks that the aircraft is the correct type and the display provides azimuth guidance information.

Look for the flashing red arrow and solid yellow arrow which provide azimuth guidance information. The flashing red arrow shows which direction to steer, while solid yellow arrow gives an indication of how far the aircraft is off of the centreline.

When the aircraft is 12M from the stop position, closing rate information is given. “Distance to go” is indicated by turning off one row of LEDs for each one half metre that the aircraft advances toward the stop position.

When the aircraft is approaching with too high speed, display will indicate “SLOW”.

When the correct stop position is reached all of the LEDs for the closing rate field will be off, the word “STOP” will appear in the display.

If the aircraft stops in the correct position, “OK” will be displayed after a few seconds.

If the aircraft has gone past the correct stop position, the display will show “TOO FAR”.

OOSA AD 2.24 CHARTS RELATED TO AN AERODROME

AERODROME CHART - ICAO	AERODROME CHART - ICAO
AIRCRAFT PARKING-DOCKING CHART - ICAO (NORTHERN APRONS)	AIRCRAFT PARKING-DOCKING CHART - ICAO (NORTHERN APRONS)
AIRCRAFT PARKING-DOCKING CHART - ICAO (SOUTH APRON)	AIRCRAFT PARKING-DOCKING CHART - ICAO (SOUTH APRON)
AERODROME OBSTACLE CHART - ICAO - TYPE A RWY 07-25	AERODROME OBSTACLE CHART - ICAO - TYPE A RWY 07-25
AERODROME OBSTACLE CHART - ICAO - TYPE B	AERODROME OBSTACLE CHART - ICAO - TYPE B
PRECISION APPROACH TERRAIN CHART - ICAO - RWY 07	PRECISION APPROACH TERRAIN CHART - ICAO - RWY 07
PRECISION APPROACH TERRAIN CHART - ICAO - RWY 25	PRECISION APPROACH TERRAIN CHART - ICAO - RWY 25
ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO	ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 07	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 07
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 07	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 07
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 25	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 25
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 25	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RWY 25
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 07	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 07
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 07	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 07
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 25	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 25
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 25	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RWY 25
INSTRUMENT APPROACH CHART - ICAO - ILS RWY 07	INSTRUMENT APPROACH CHART - ICAO - ILS RWY 07

INSTRUMENT APPROACH CHART - ICAO - ILS RWY 25	INSTRUMENT APPROACH CHART - ICAO - ILS RWY 25
INSTRUMENT APPROACH CHART - ICAO - LOC RWY 07	INSTRUMENT APPROACH CHART - ICAO - LOC RWY 07
INSTRUMENT APPROACH CHART - ICAO - LOC RWY 25	INSTRUMENT APPROACH CHART - ICAO - LOC RWY 25
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 07	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 07
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 25	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 25
INSTRUMENT APPROACH CHART - ICAO - VOR RWY 07	INSTRUMENT APPROACH CHART - ICAO - VOR RWY 07
INSTRUMENT APPROACH CHART - ICAO - VOR RWY 25	INSTRUMENT APPROACH CHART - ICAO - VOR RWY 25
VISUAL APPROACH CHART - ICAO	VISUAL APPROACH CHART - ICAO

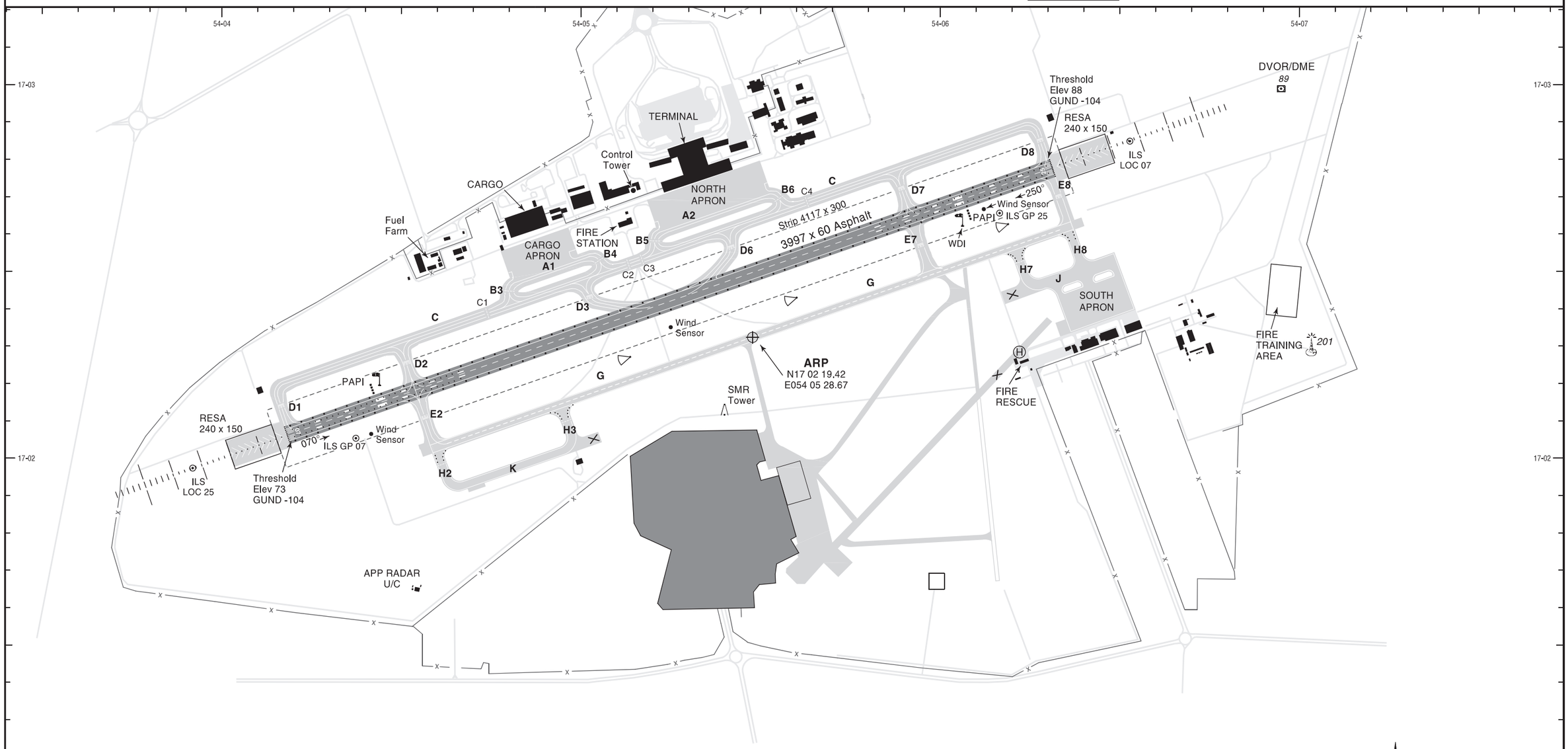
OOSA AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

AERODROME CHART - ICAO | WGS-84 | **AD ELEV** 90 FT

ATIS	125.100
Tower	118.200
Ground	124.025

SALALAH/Salalah
OMAN



RWY	DIRECTION	THRESHOLD	STRENGTH	DECLARED DISTANCES			
				TORA	TODA	ASDA	LDA
07	070° MAG	N 17 02 03.72 E 054 04 11.05	98/F/A/W/T	3997m	3997m	3997m	3997m
Intersection D2	070° MAG			3343m	3343m	3343m	
25	250° MAG	N 17 02 46.53 E 054 06 18.68	98/F/A/W/T	3997m	3997m	3997m	3997m
Intersection D7	250° MAG			3274m	3274m	3274m	

AERODROME LIGHTING

RWY 07: ALS LIH (length 900m)
PAPI-L (3.00°)
RTHL
RCLL
RTZL LIH
REDL LIH
RENL LIH

RWY 25: ALS LIH (length 900m)
PAPI-L (3.00°)
RTHL
RCLL
RTZL LIH
REDL LIH
RENL LIH

Other: Taxiway edge lights
LIM on curves only,
Taxiway centreline lights

BEARINGS ARE MAGNETIC
DIMENSIONS IN METRES
ALTITUDES AND ELEVATIONS IN FEET

SCALE 1 : 20 000

100 0 100 200 300 400 500 M
500 0 500 1000 1500 FT

INTENTIONALLY

LEFT

BLANK

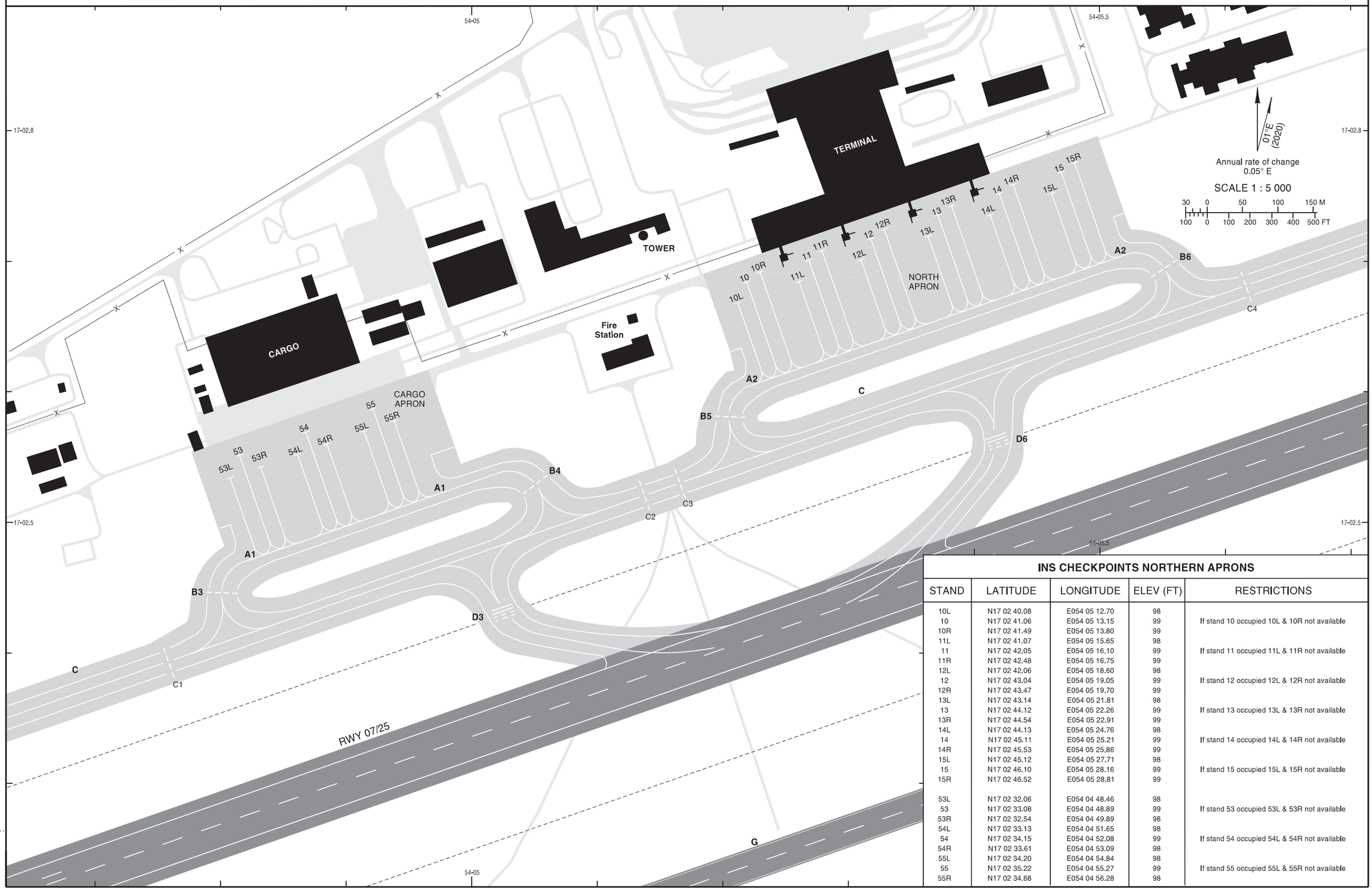
AIRCRAFT PARKING/
DOCKING CHART - ICAO

WGS-84 **AD ELEV** 90 FT

NORTHERN APRONS

ATIS	125.100
Tower	118.200
Ground	124.025

SALALAH/Salalah
OMAN



INS CHECKPOINTS NORTHERN APRONS

STAND	LATITUDE	LONGITUDE	ELEV (FT)	RESTRICTIONS
10L	N17 02 40.08	E054 05 12.70	98	
10	N17 02 41.06	E054 05 13.15	99	If stand 10 occupied 10L & 10R not available
10R	N17 02 41.49	E054 05 13.80	99	
11L	N17 02 41.07	E054 05 15.65	98	
11	N17 02 42.05	E054 05 16.10	99	If stand 11 occupied 11L & 11R not available
11R	N17 02 42.48	E054 05 16.75	99	
12L	N17 02 42.06	E054 05 18.60	98	
12	N17 02 43.04	E054 05 19.05	99	If stand 12 occupied 12L & 12R not available
12R	N17 02 43.47	E054 05 19.70	99	
13L	N17 02 43.14	E054 05 21.81	98	
13	N17 02 44.12	E054 05 22.26	99	If stand 13 occupied 13L & 13R not available
13R	N17 02 44.54	E054 05 22.91	99	
14L	N17 02 44.13	E054 05 24.76	98	
14	N17 02 45.11	E054 05 25.21	99	If stand 14 occupied 14L & 14R not available
14R	N17 02 45.53	E054 05 25.86	99	
15L	N17 02 45.12	E054 05 27.71	98	
15	N17 02 46.10	E054 05 28.16	99	If stand 15 occupied 15L & 15R not available
15R	N17 02 46.52	E054 05 28.81	99	
53L	N17 02 32.06	E054 04 48.46	98	
53	N17 02 33.08	E054 04 48.89	99	If stand 53 occupied 53L & 53R not available
53R	N17 02 32.54	E054 04 49.89	98	
54L	N17 02 33.13	E054 04 51.65	98	
54	N17 02 34.15	E054 04 52.08	99	If stand 54 occupied 54L & 54R not available
54R	N17 02 33.61	E054 04 53.09	98	
55L	N17 02 34.20	E054 04 54.84	98	
55	N17 02 35.22	E054 04 55.27	99	If stand 55 occupied 55L & 55R not available
55R	N17 02 34.68	E054 04 56.28	98	

INTENTIONALLY

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AIRCRAFT PARKING/DOCKING CHART - ICAO

AIRCRAFT PARKING/
DOCKING CHART - ICAO

WGS-84 **AD ELEV** 90 FT

ATIS	125.100
Tower	118.200
Ground	124.025

SALALAH/Salalah
OMAN

INS CHECKPOINTS APRON

PARKING RESTRICTIONS

STAND	LATITUDE	LONGITUDE	ELEV (FT)	WING SPAN (MAX)	ACFT CODE	REMARKS
				Up to but not including		
1	N17 02 23.55	E054 06 28.84	65	36 M	C	In case stand 1 is used, stand 1A will not be available
1A	N17 02 23.99	E054 06 28.30	66	65 M	E	In case stand 1A is used, stand 1, 2, 2A & 5A will not be available and stand 3 still operational to accommodate aircraft code C Stand 5 will be restricted for aircraft code C only
2	N17 02 25.65	E054 06 27.70	66	65 M	E	In case stand 2 is used, stand 1A, 2A & 5A will not be available and stand 5 will be restricted for aircraft code C only
2A	N17 02 26.71	E054 06 27.31	67	65 M	E	In case stand 2A is used, stand 1A, 5A & 3 will not be available and stand 5 will be restricted for aircraft code C only
3	N17 02 27.98	E054 06 27.24	67	36 M	C	In case stand 3 is used, stand 2A will not be available
4	N17 02 21.85	E054 06 23.74	67	36 M	C	----
5	N17 02 23.80	E054 06 22.63	68	65 M	E	In case stand 5 is used, stand 1A & 5A will not be available.
5A	N17 02 24.59	E054 06 22.22	69	80 M	F	In case stand 5A is used, stand 1A, 5 & 6 will not be available and stand 4 still capable to accommodate aircraft code C Stand 2 will be downgraded to code C
6	N17 02 25.99	E054 06 22.24	69	36 M	C	In case stand 6 is used, stand 5A will not be available

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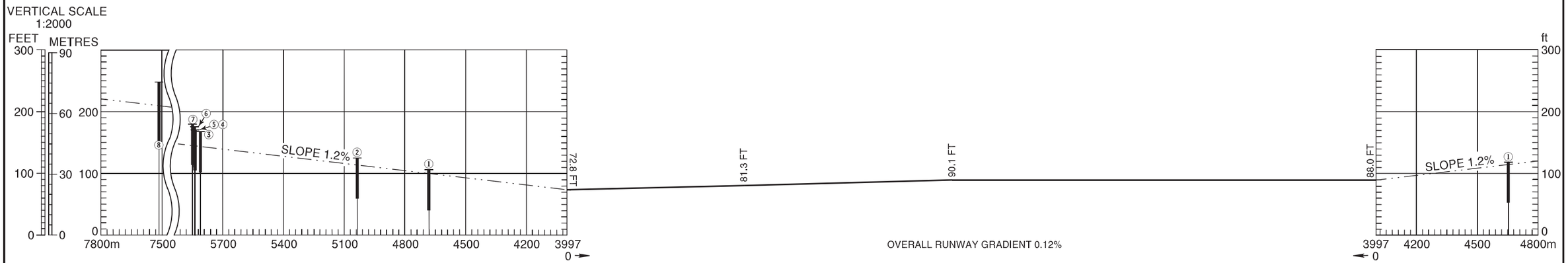
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

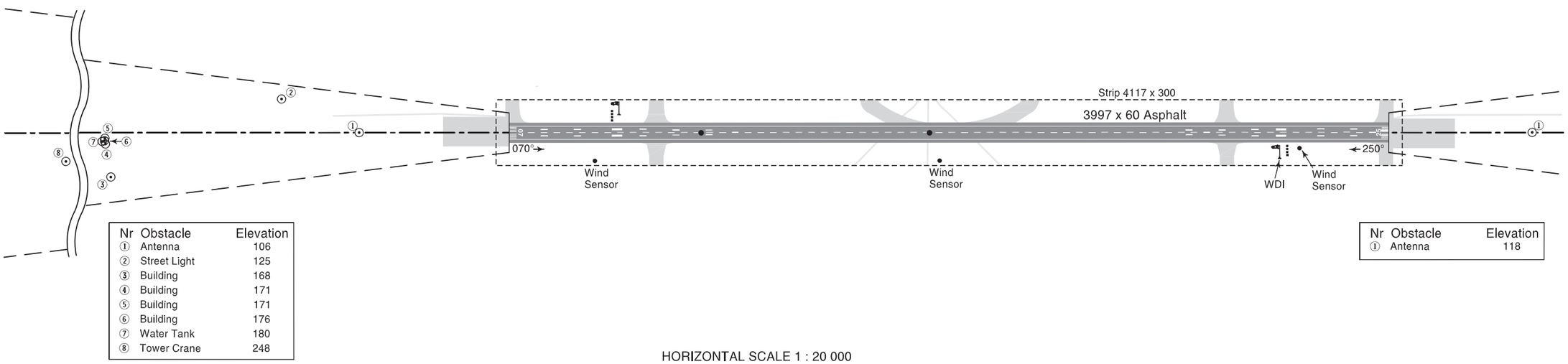
SALALAH/Salalah
OMAN

DISTANCES IN METRES, ELEVATIONS IN FEET
MAGNETIC VARIATION 1°E, 2020

RWY 07-25

DECLARED DISTANCES		
RWY 07		**RWY 25**
3997	TAKE-OFF RUN AVAILABLE	**3997**
3997	TAKE-OFF DISTANCE AVAILABLE	**3997**
3997	ACCELERATE STOP DISTANCE AVAILABLE	**3997**
3997	LANDING DISTANCE AVAILABLE	**3997**





Nr	Obstacle	Elevation
①	Antenna	106
②	Street Light	125
③	Building	168
④	Building	171
⑤	Building	171
⑥	Building	176
⑦	Water Tank	180
⑧	Tower Crane	248

Nr	Obstacle	Elevation
①	Antenna	118

HORIZONTAL SCALE 1 : 20 000

400 200 0 500 1000 1500 2000 2500 METRES
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000 FEET

ORDER OF ACCURACY
HORIZONTAL -/+ 3 M
VERTICAL -/+ 1 FT
Aerodrome information APR 2018
Survey data APR 2018

AMENDMENT RECORD		
No.	Date	Entered by

LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	①	①
GROUND LEVEL	▲	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
TREE	*	
MOBILE		

INTENTIONALLY

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AERODROME OBSTACLE CHART - ICAO | WGS-84 | AD ELEV 90 FT | ARP N17°02'19.42 E054°05'28.67

AERODROME OBSTACLE CHART - ICAO
TYPE B

SALALAH/Salalah
OMAN

AD 2.OOSA.27
23 APR 20

AIRAC AIP AMDT 1-20

CIVIL AVIATION AUTHORITY

OUTER HORIZONTAL SURFACE

CONICAL SURFACE
201 (5%) slope up to 105 metres above inner Horizontal Surface elevation

INNER HORIZONTAL SURFACE
45 metres above lowest threshold elevation.

APPROACH SURFACE SLOPE 2.5%

APPROACH SURFACE SLOPE 4.0%

TAKE-OFF CLIMB SURFACE SLOPE 2.5%

APPROACH SURFACE SLOPE 2.5%

APPROACH SURFACE SLOPE 4.0%

TAKE-OFF CLIMB SURFACE SLOPE 4.0%

APPROACH SURFACE SLOPE 2.5%

APPROACH SURFACE SLOPE 4.0%

TAKE-OFF CLIMB

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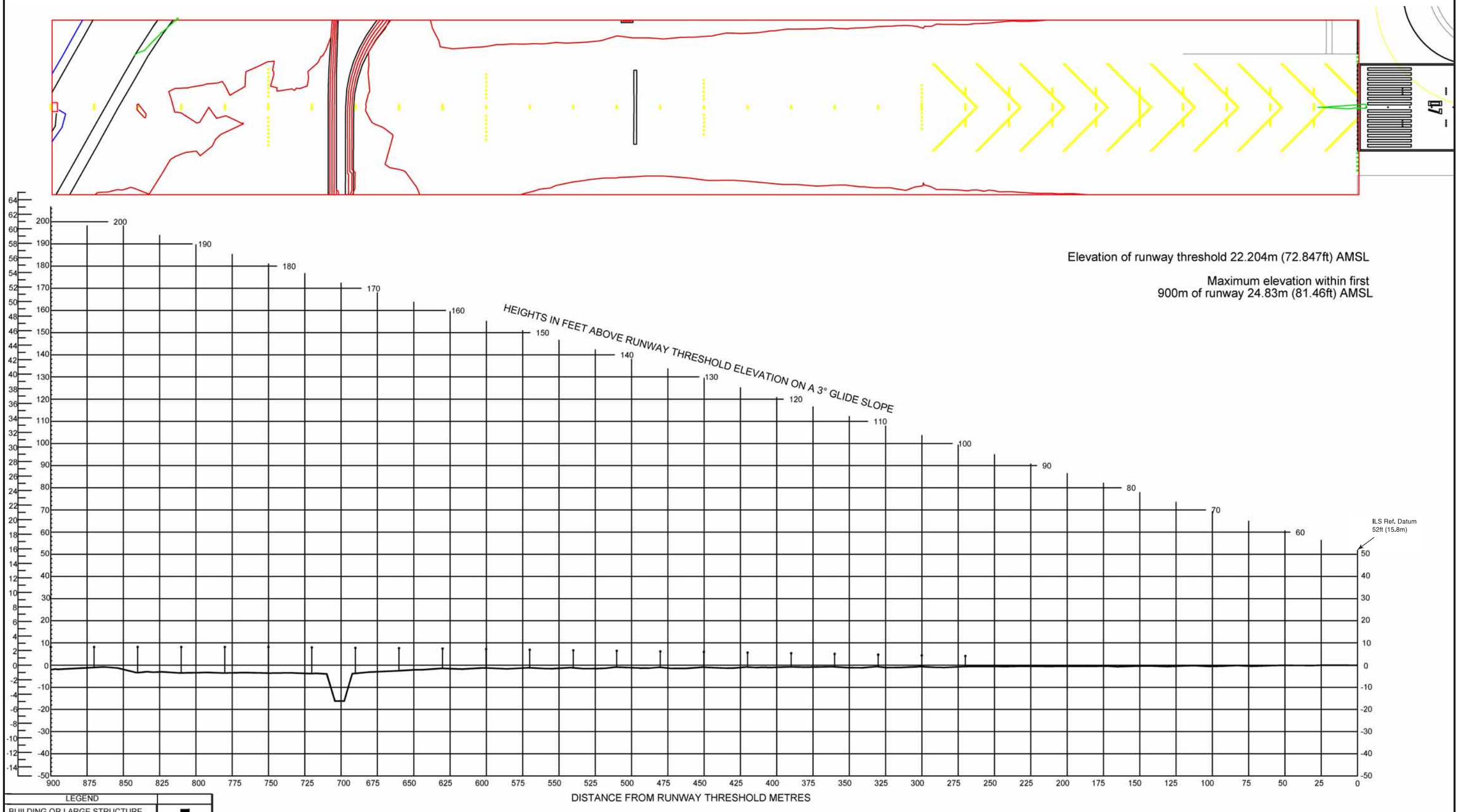
PRECISION APPROACH
TERRAIN CHART - ICAO

SALALAH/Salalah
OMAN



LEGEND	
BUILDING OR LARGE STRUCTURE	
CENTRELINE PROFILE	
APPROACH LIGHT	
DEVIATION AT LEAST ±10FT (3M) FROM CENTRELINE PROFILE	

HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:500
CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RUNWAY THRESHOLD

CHANGE: NEW SURVEY
Aerodrome Information Current MARCH 2017
Based on survey dated MARCH 2017

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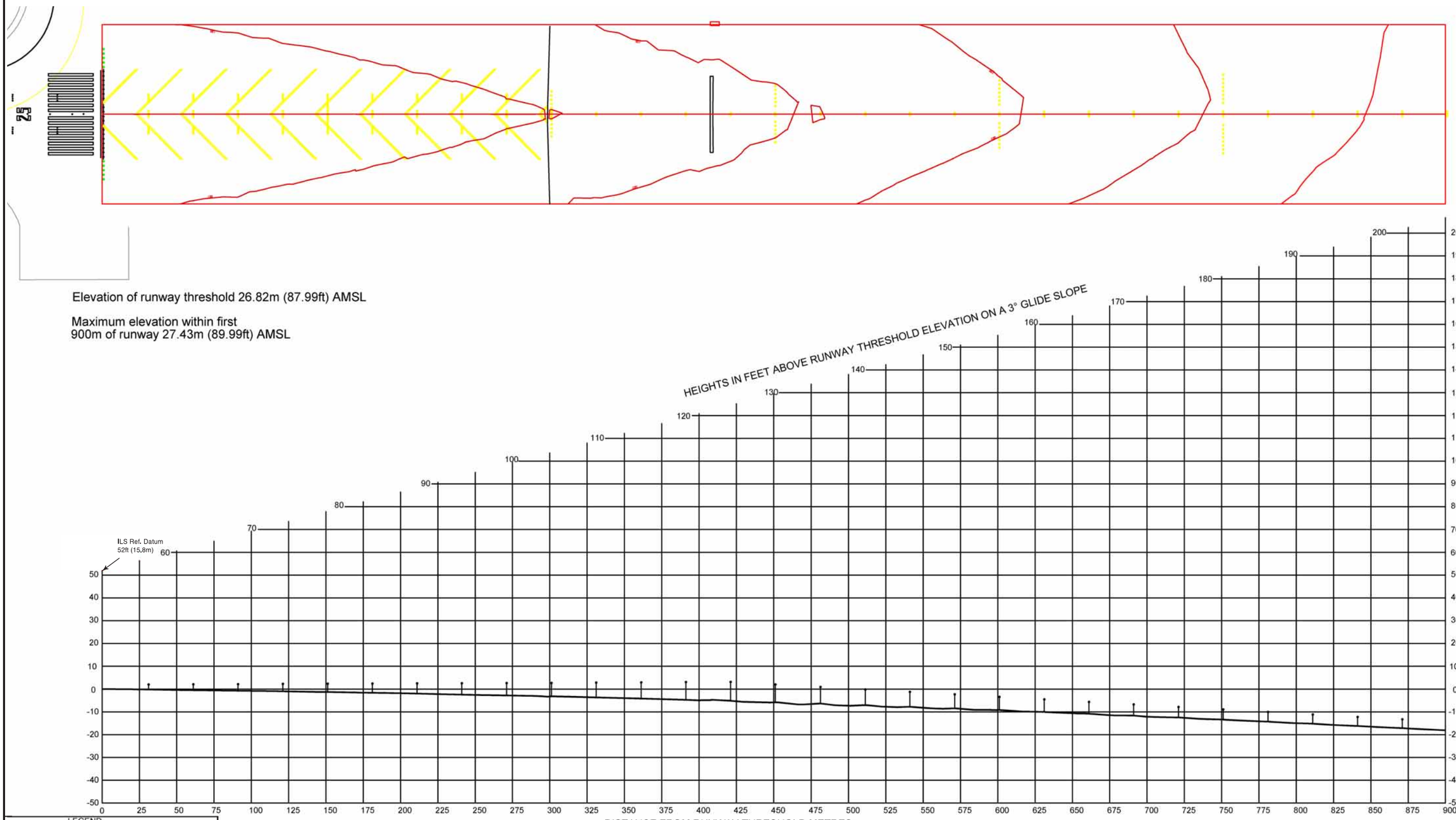
PRECISION APPROACH
TERRAIN CHART - ICAO

SALALAH/Salalah
OMAN



Elevation of runway threshold 26.82m (87.99ft) AMSL

Maximum elevation within first
900m of runway 27.43m (89.99ft) AMSL

LEGEND	
BUILDING OR LARGE STRUCTURE	■
CENTRELINE PROFILE	———
APPROACH LIGHT	↑
DEVIATION AT LEAST ±10FT (3M) FROM CENTRELINE PROFILE	

HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:500
CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RUNWAY THRESHOLD

CHANGE: NEW SURVEY
Aerodrome Information Current MARCH 2017
Based on survey dated MARCH 2017

INTENTIONALLY

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ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO

AD ELEV 90 FT
TA 13000 FT

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN

BEARINGS ARE MAGNETIC
ALTITUDES & ELEV IN FEET

01°E (2010)

RADAR VECTORING BASED
ON SALALAH RADAR
AT N17 01 41 E054 06 20

DVOR/DME
SALALAH
SLL 112.80
CH 75X

TMA
SALALAH
C
FL150
1000
SALALAH APP

ARABIAN SEA

MUSCAT FIR
SANAA FIR

CONTOUR LEGEND
6000
5000
4000
3000
2000
1000

SCALE 1 : 750 000
5 0 5 10 15 20 KM
2 0 2 4 6 8 10 NM

INTENTIONALLY

LEFT

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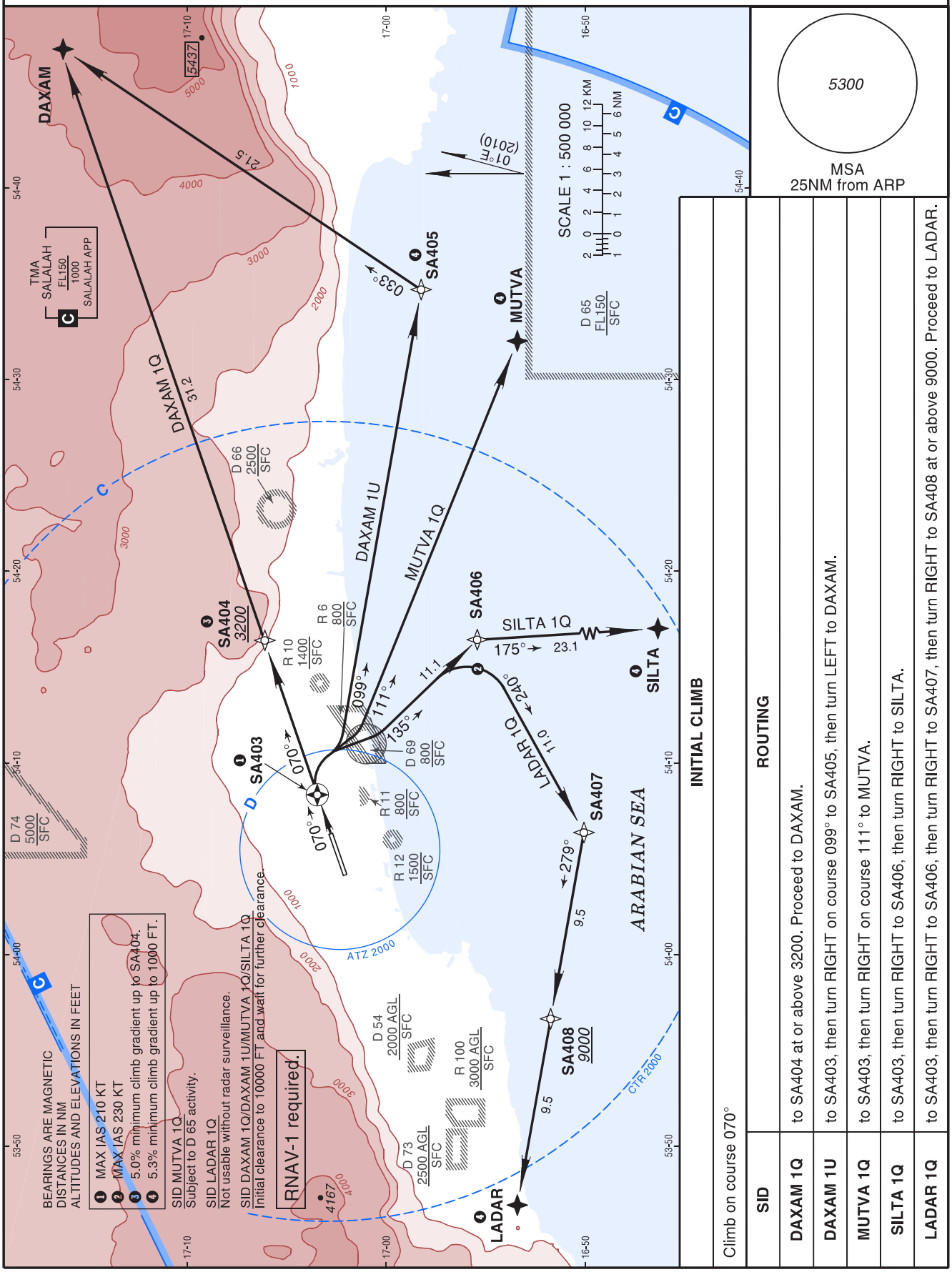
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	90 FT
	Trans Alt	*13000*
	Trans Level	*FL150*

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
RWY 07

DAXAM 1Q, DAXAM 1U, MUTVA 1Q, SILTA 1Q, LADAR 1Q RNAV (GNSS) DEPARTURE



INITIAL CLIMB

Climb on course 070°

SID	ROUTING
DAXAM 1Q	to SA404 at or above 3200. Proceed to DAXAM.
DAXAM 1U	to SA403, then turn RIGHT on course 099° to SA405, then turn LEFT to DAXAM.
MUTVA 1Q	to SA403, then turn RIGHT on course 111° to MUTVA.
SILTA 1Q	to SA403, then turn RIGHT to SA406, then turn RIGHT to SILTA.
LADAR 1Q	to SA403, then turn RIGHT to SA406, then turn RIGHT to SA407, then turn RIGHT to SA408 at or above 9000. Proceed to LADAR.

Route Description: RNAV (GNSS) DEPARTURE RWY 07

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
DAXAM 1Q DEPARTURE									
CF	SA404		070° (071.1°)		+3200		1°E		RNAV 1
TF	DAXAM		070° (071.1°)				1°E	31.2	RNAV 1
INITIAL CLIMB									
CF	SA403	Y	070° (070.8°)			210 KT	1°E		RNAV 1
DAXAM 1U DEPARTURE									
	SA403	Y				210 KT	1°E		RNAV 1
CF	SA405		099° (100.0°)	R			1°E		RNAV 1
TF	DAXAM		033° (033.9°)	L			1°E	21.5	RNAV 1
MUTVA 1Q DEPARTURE									
	SA403	Y				210 KT	1°E		RNAV 1
CF	MUTVA		111° (111.6°)	R			1°E		RNAV 1
SILTA 1Q DEPARTURE									
	SA403	Y				210 KT	1°E		RNAV 1
TF	SA406		135° (135.9°)	R			1°E	11.1	RNAV 1
TF	SILTA		175° (176.4°)				1°E	23.1	RNAV 1
LADAR 1Q DEPARTURE									
	SA403	Y				210 KT	1°E		RNAV 1
TF	SA406		135° (135.9°)	R		230 KT	1°E	11.1	RNAV 1
TF	SA407		240° (241.1°)	R			1°E	11.0	RNAV 1
TF	SA408		279° (280.1°)	R	+9000		1°E	9.5	RNAV 1
TF	LADAR		279° (280.1°)				1°E	9.5	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 07

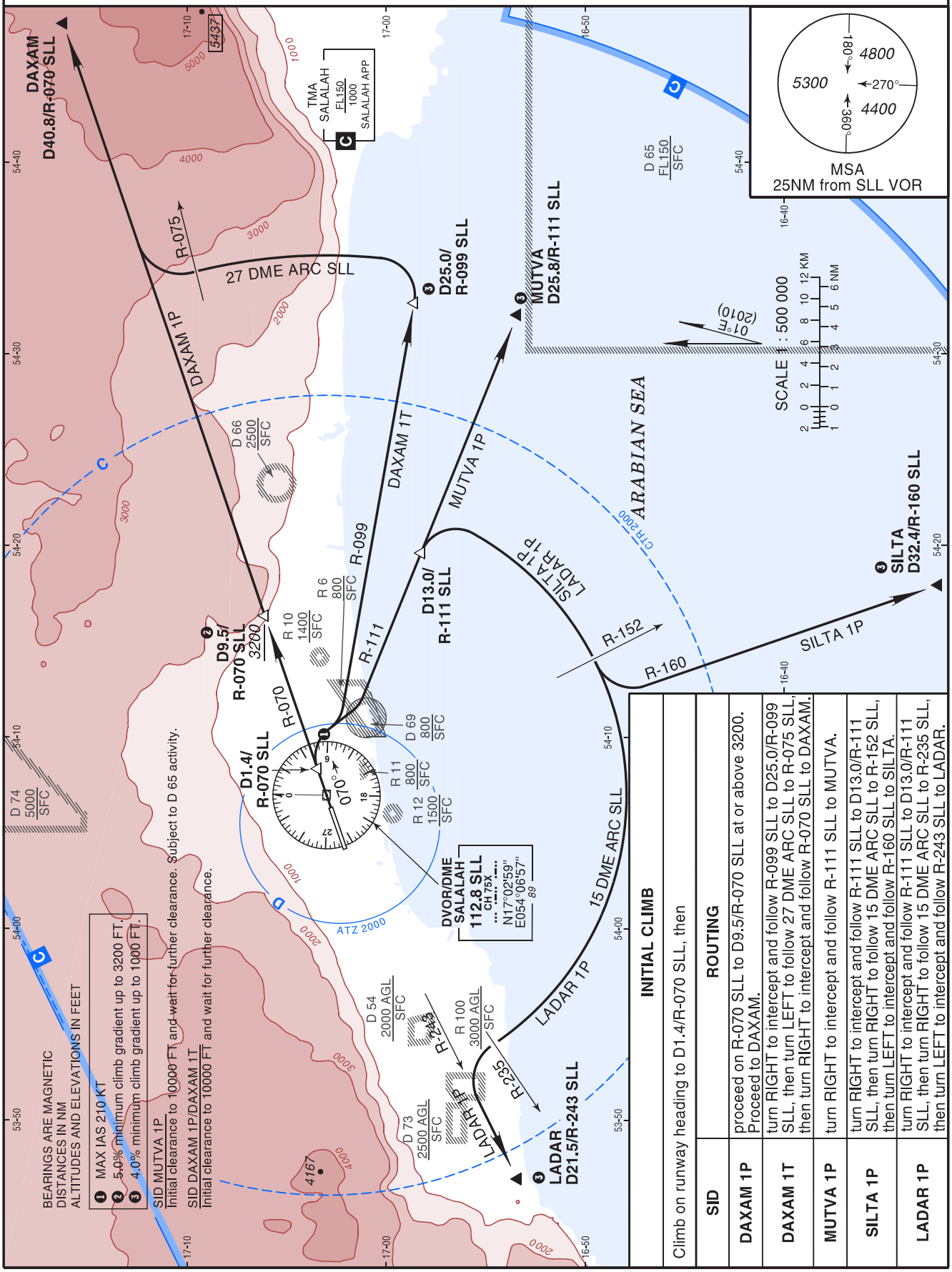
Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
SA403	N17°03’27.2”	E054°08’20.1”	N17°03.453’	E054°08.335’	
SA404	N17°06’05.7”	E054°16’23.2”	N17°06.095’	E054°16.387’	
SA405	N16°58’14.9”	E054°34’41.8”	N16°58.248’	E054°34.670’	
SA406	N16°55’25.6”	E054°16’25.3”	N16°55.427’	E054°16.422’	
SA407	N16°50’04.0”	E054°06’21.5”	N16°50.067’	E054°06.358’	
SA408	N16°51’44.3”	E053°56’38.3”	N16°51.738’	E053°56.638’	
DAXAM	N17°16’12.0”	E054°47’15.0”	N17°16.200’	E054°47.250’	
MUTVA	N16°53’25.0”	E054°32’01.0”	N16°53.417’	E054°32.017’	
SILTA	N16°32’14.9”	E054°17’55.2”	N16°32.248’	E054°17.920’	
LADAR	N16°53’24.0”	E053°46’55.0”	N16°53.400’	E053°46.917’	

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	90 FT
	Trans Alt	13000
	Trans Level	FL150

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
RWY 07

DAXAM 1P, DAXAM 1T, MUTVA 1P, SILTA 1P, LADAR 1P DEPARTURE



SID	ROUTING
	INITIAL CLIMB
	Climb on runway heading to D1.4/R-070 SLL, then
DAXAM 1P	proceed on R-070 SLL to D9.5/R-070 SLL at or above 3200. Proceed to DAXAM.
DAXAM 1T	turn RIGHT to intercept and follow R-099 SLL to D25.0/R-099 SLL, then turn LEFT to follow 27 DME ARC SLL to R-075 SLL, then turn RIGHT to intercept and follow R-070 SLL to DAXAM.
MUTVA 1P	turn RIGHT to intercept and follow R-111 SLL to MUTVA.
SILTA 1P	turn RIGHT to intercept and follow R-111 SLL to D13.0/R-111 SLL, then turn RIGHT to follow 15 DME ARC SLL to R-152 SLL, then turn LEFT to intercept and follow R-160 SLL to SILTA.
LADAR 1P	turn RIGHT to intercept and follow R-111 SLL to D13.0/R-111 SLL, then turn RIGHT to follow 15 DME ARC SLL to R-235 SLL, then turn LEFT to intercept and follow R-243 SLL to LADAR.

INTENTIONALLY

LEFT

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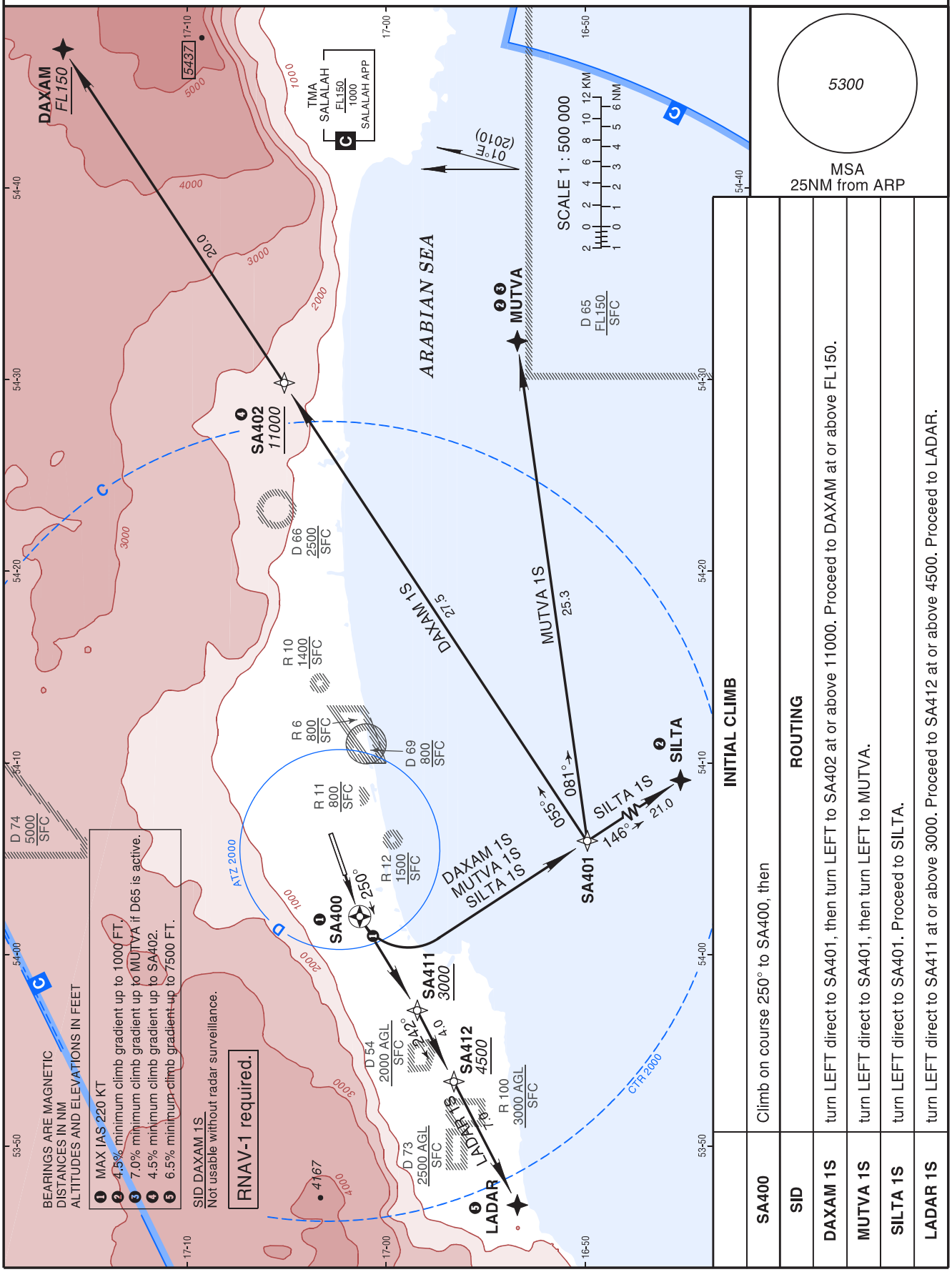
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	90 FT
	Trans Alt	13000
	Trans Level	FL150

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
RWY 25

DAXAM 1S, MUTVA 1S, SILTA 1S, LADAR 1S RNAV (GNSS) DEPARTURE



INITIAL CLIMB	
SA400	Climb on course 250° to SA400, then
ROUTING	
SID	
DAXAM 1S	turn LEFT direct to SA401, then turn LEFT to SA402 at or above 11000. Proceed to DAXAM at or above FL150.
MUTVA 1S	turn LEFT direct to SA401, then turn LEFT to MUTVA.
SILTA 1S	turn LEFT direct to SA401. Proceed to SILTA.
LADAR 1S	turn LEFT direct to SA411 at or above 3000. Proceed to SA412 at or above 4500. Proceed to LADAR.

Route Description: RNAV (GNSS) DEPARTURE RWY 25

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
INITIAL CLIMB									
CF	SA400	Y	250° (250.8°)			220 KT	1°E		RNAV 1
DAXAM 1S DEPARTURE									
	SA400	Y				220 KT	1°E		RNAV 1
DF	SA401			L			1°E		RNAV 1
TF	SA402		055° (056.5°)	L	+11000		1°E	27.5	RNAV 1
TF	DAXAM		055° (056.5°)		+FL150		1°E	20.0	RNAV 1
MUTVA 1S DEPARTURE									
	SA400	Y				220 KT	1°E		RNAV 1
DF	SA401			L			1°E		RNAV 1
TF	MUTVA		081° (082.0°)	L			1°E	25.3	RNAV 1
SILTA 1S DEPARTURE									
	SA400	Y				220 KT	1°E		RNAV 1
DF	SA401			L			1°E		RNAV 1
TF	SILTA		146° (146.7°)				1°E	21.0	RNAV 1
LADAR 1S DEPARTURE									
	SA400	Y				220 KT	1°E		RNAV 1
DF	SA411			L	+3000		1°E		RNAV 1
TF	SA412		242° (242.8°)		+4500		1°E	4.0	RNAV 1
TF	LADAR		242° (242.7°)				1°E	7.0	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 25

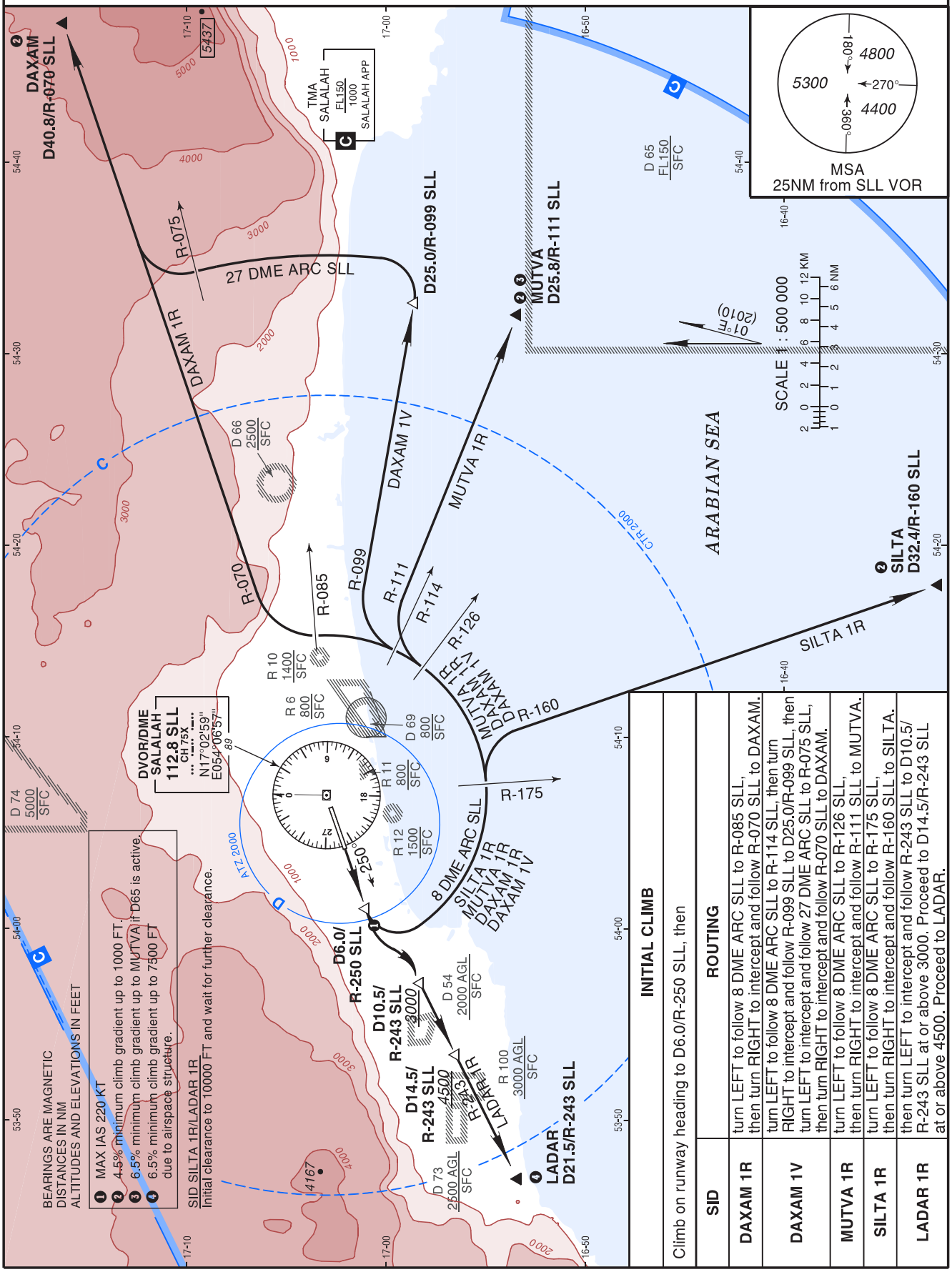
Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
SA400	N17°01’19.3’’	E054°01’58.6’’	N17°01.322’	E054°01.977’	
SA401	N16°49’53.8’’	E054°05’55.3’’	N16°49.897’	E054°05.922’	
SA402	N17°05’07.2’’	E054°29’49.7’’	N17°05.120’	E054°29.828’	
SA411	N16°58’26.3’’	E053°57’04.4’’	N16°58.438’	E053°57.073’	
SA412	N16°56’35.9’’	E053°53’21.7’’	N16°56.598’	E053°53.362’	
DAXAM	N17°16’12.0’’	E054°47’15.0’’	N17°16.200’	E054°47.250’	
MUTVA	N16°53’25.0’’	E054°32’01.0’’	N16°53.417’	E054°32.017’	
SILTA	N16°32’14.9’’	E054°17’55.2’’	N16°32.248’	E054°17.920’	
LADAR	N16°53’24.0’’	E053°46’55.0’’	N16°53.400’	E053°46.917’	

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO	AD ELEV	90 FT
	Trans Alt	13000
	Trans Level	FL150

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
RWY 25

DAXAM 1R, DAXAM 1V, MUTVA 1R, SILTA 1R, LADAR 1R DEPARTURE



SID	ROUTING
	INITIAL CLIMB
	Climb on runway heading to D6.0/R-250 SLL, then
DAXAM 1R	turn LEFT to follow 8 DME ARC SLL to R-085 SLL, then turn RIGHT to intercept and follow R-070 SLL to DAXAM.
DAXAM 1V	turn LEFT to follow 8 DME ARC SLL to R-114 SLL, then turn RIGHT to intercept and follow R-099 SLL to D25.0/R-099 SLL, then turn LEFT to intercept and follow 27 DME ARC SLL to R-075 SLL, then turn RIGHT to intercept and follow R-070 SLL to DAXAM.
MUTVA 1R	turn LEFT to follow 8 DME ARC SLL to R-126 SLL, then turn RIGHT to intercept and follow R-111 SLL to MUTVA.
SILTA 1R	turn LEFT to follow 8 DME ARC SLL to R-175 SLL, then turn RIGHT to intercept and follow R-160 SLL to SILTA.
LADAR 1R	then turn LEFT to intercept and follow R-243 SLL to D10.5/ R-243 SLL at or above 3000. Proceed to D14.5/R-243 SLL at or above 4500. Proceed to LADAR.

INTENTIONALLY

LEFT

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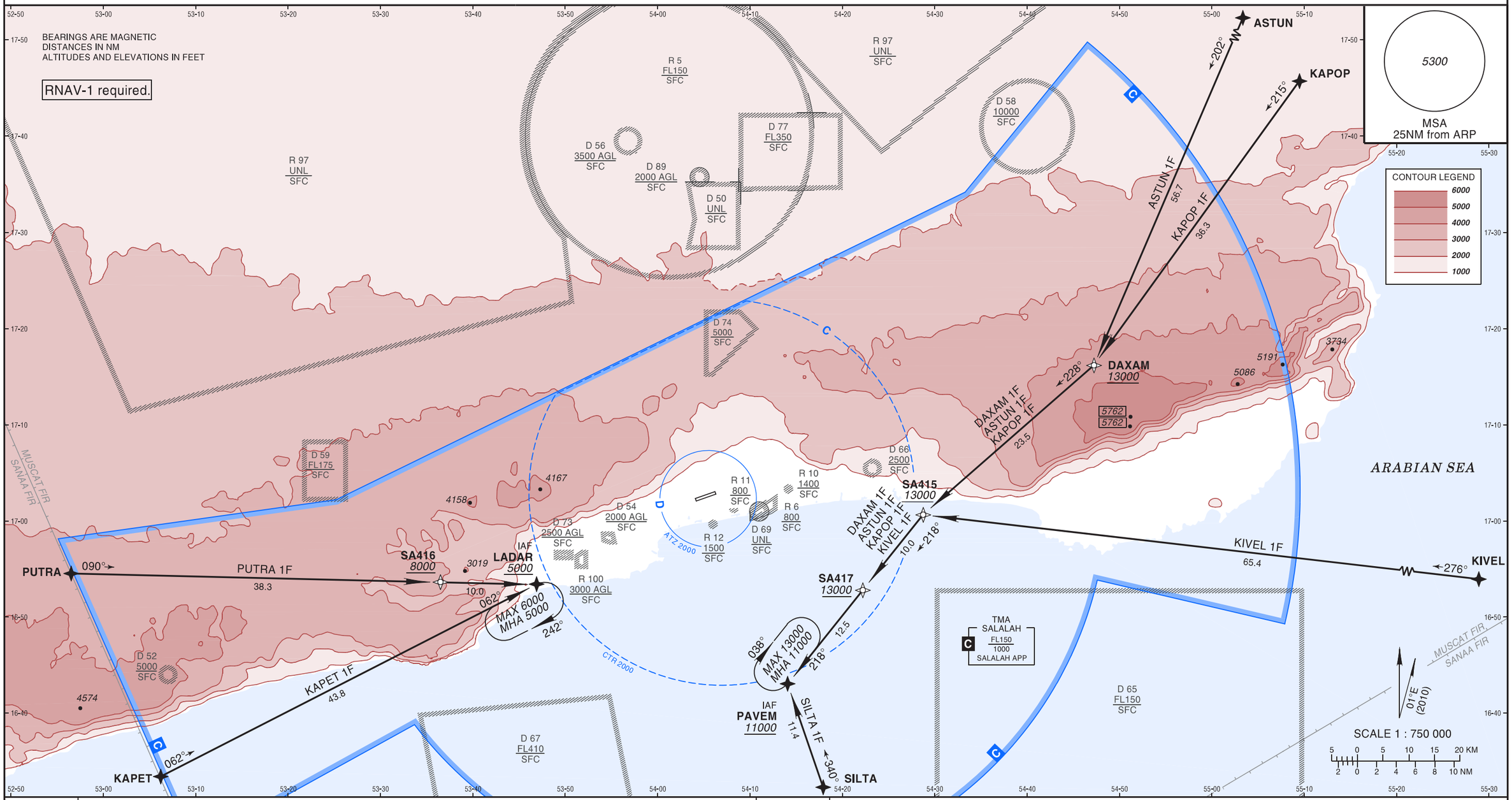
STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

AD ELEV 90 FT
Trans Alt *13000*
Trans Level *FL150*

ATIS	125.100
APP/RAD	119.100
TWR	118.200

SALALAH/Salalah
OMAN
RWY 07

ASTUN 1F, KAPOP 1F, DAXAM 1F, KIVEL 1F, SILTA 1F, KAPET 1F, PUTRA 1F RNAV (GNSS) ARRIVAL



STAR	ROUTING	STAR	ROUTING
ASTUN 1F	To DAXAM at or above 13000. Turn RIGHT to SA415 at or above 13000. Turn LEFT to SA417 at or above 13000. Proceed to PAVEM at or above 11000.	**SILTA 1F**	To PAVEM at or above 11000.
KAPOP 1F	To DAXAM at or above 13000. Turn RIGHT to SA415 at or above 13000. Turn LEFT to SA417 at or above 13000. Proceed to PAVEM at or above 11000.	**KAPET 1F**	To LADAR at or above 5000.
DAXAM 1F	To SA415 at or above 13000. Turn LEFT to SA417 at or above 13000. Proceed to PAVEM at or above 11000.	**PUTRA 1F**	To SA416 at or above 8000. Proceed to LADAR at or above 5000.
KIVEL 1F	To SA415 at or above 13000. Turn LEFT to SA417 at or above 13000. Proceed to PAVEM at or above 11000.		

INTENTIONALLY

LEFT

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Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 07

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	PAVEM	218° (218.8°)	1 MIN	R	11000	13000	230 KT	1°E	
Hold	LADAR	062° (062.8°)	1 MIN	R	5000	6000	230 KT	1°E	

Route Description: RNAV (GNSS) ARRIVAL RWY 07

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
ASTUN 1F ARRIVAL									
IF	ASTUN						1°E		RNAV 1
TF	DAXAM		202° (203.3°)		+13000		1°E	56.7	RNAV 1
TF	SA415		228° (228.9°)	R	+13000		1°E	23.5	RNAV 1
TF	SA417		218° (218.7°)	L	+13000		1°E	10.0	RNAV 1
TF	PAVEM		218° (218.8°)		+11000		1°E	12.5	RNAV 1
KAPOP 1F ARRIVAL									
IF	KAPOP						1°E		RNAV 1
TF	DAXAM		215° (215.9°)		+13000		1°E	36.3	RNAV 1
TF	SA415		228° (228.9°)	R	+13000		1°E	23.5	RNAV 1
TF	SA417		218° (218.7°)	L	+13000		1°E	10.0	RNAV 1
TF	PAVEM		218° (218.8°)		+11000		1°E	12.5	RNAV 1
DAXAM 1F ARRIVAL									
IF	DAXAM						1°E		RNAV 1
TF	SA415		228° (228.9°)		+13000		1°E	23.5	RNAV 1
TF	SA417		218° (218.7°)	L	+13000		1°E	10.0	RNAV 1
TF	PAVEM		218° (218.8°)		+11000		1°E	12.5	RNAV 1
KIVEL 1F ARRIVAL									
IF	KIVEL						1°E		RNAV 1
TF	SA415		276° (276.8°)		+13000		1°E	65.4	RNAV 1
TF	SA417		218° (218.7°)	L	+13000		1°E	10.0	RNAV 1
TF	PAVEM		218° (218.8°)		+11000		1°E	12.5	RNAV 1
SILTA 1F ARRIVAL									
IF	SILTA						1°E		RNAV 1
TF	PAVEM		340° (341.1°)		+11000		1°E	11.4	RNAV 1
KAPET 1F ARRIVAL									
IF	KAPET						1°E		RNAV 1
TF	LADAR		062° (062.8°)		+5000		1°E	43.8	RNAV 1
PUTRA 1F ARRIVAL									
IF	PUTRA						1°E		RNAV 1
TF	SA416		090° (091.2°)		+8000		1°E	38.3	RNAV 1
TF	LADAR		090° (091.4°)		+5000		1°E	10.0	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 07

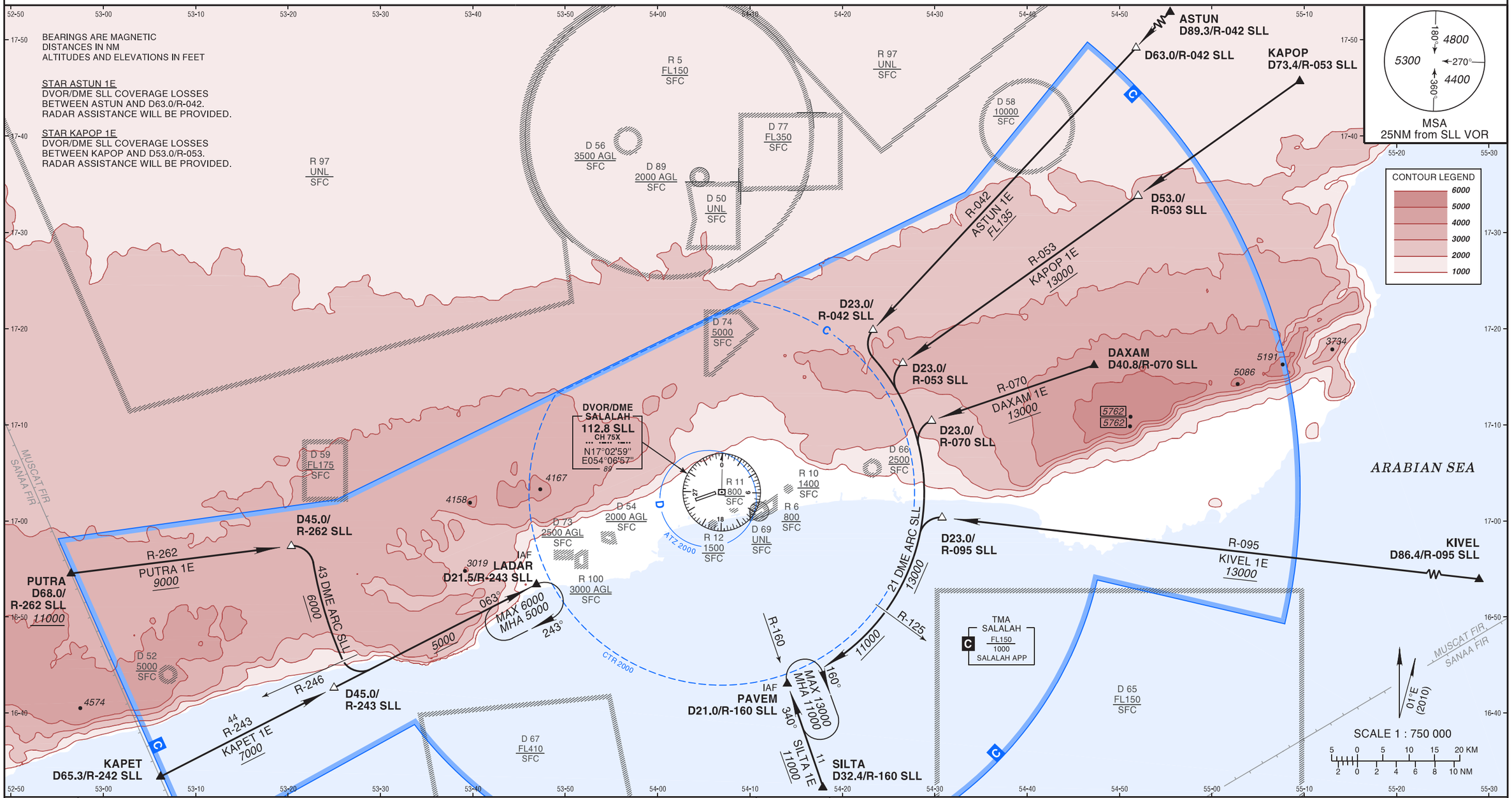
Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
ASTUN	N18°08'32.0''	E055°10'40.0''	N18°08.533'	E055°10.667'	
KAPOP	N17°45'44.0''	E055°09'30.0''	N17°45.733'	E055°09.500'	
DAXAM	N17°16'12.0''	E054°47'15.0''	N17°16.200'	E054°47.250'	
KIVEL	N16°53'06.0''	E055°36'33.0''	N16°53.100'	E055°36.550'	
SILTA	N16°32'14.9''	E054°17'55.2''	N16°32.248'	E054°17.920'	
KAPET	N16°33'22.0''	E053°06'14.0''	N16°33.367'	E053°06.233'	
PUTRA	N16°54'32.0''	E052°56'31.0''	N16°54.533'	E052°56.517'	
SA415	N17°00'38.8''	E054°28'43.8''	N17°00.647'	E054°28.730'	
SA416	N16°53'39.1''	E053°36'29.4''	N16°53.652'	E053°36.490'	
SA417	N16°52'48.4''	E054°22'12.8''	N16°52.807'	E054°22.213'	
PAVEM	N16°43'03.0''	E054°14'04.3''	N16°43.050'	E054°14.072'	
LADAR	N16°53'24.0''	E053°46'55.0''	N16°53.400'	E053°46.917'	

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO	AD ELEV	90 FT	
	Trans Alt	*13000*	
	Trans Level	*FL150*	

ATIS	125.100
APP/RAD	119.100
TWR	118.200

SALALAH/Salalah
OMAN
RWY 07

ASTUN 1E, KAPOP 1E, DAXAM 1E, KIVEL 1E, SILTA 1E, KAPET 1E, PUTRA 1E ARRIVAL



STAR	ROUTING	STAR	ROUTING
ASTUN 1E	Follow R-042 SLL to D63.0/R-042 SLL. Proceed at or above FL135 to D23.0/R-042 SLL, then turn LEFT to follow 21 DME ARC SLL at or above 13000 to R-125 SLL and proceed at or above 11000 to PAVEM.	**SILTA 1E**	Follow R-160 SLL at or above 11000 to PAVEM.
KAPOP 1E	Follow R-053 SLL to D53.0/R-053 SLL. Proceed at or above 13000 to D23.0/R-053 SLL, then turn LEFT to follow 21 DME ARC SLL to R-125 SLL and proceed at or above 11000 to PAVEM.	**KAPET 1E**	Follow R-243 SLL at or above 7000 to D45.0/R-243 SLL. Proceed at or above 5000 to LADAR.
DAXAM 1E	Follow R-070 SLL at or above 13000 to D23.0/R-070 SLL, then turn LEFT to follow 21 DME ARC SLL to R-125 SLL and proceed at or above 11000 to PAVEM.	**PUTRA 1E**	Follow R-262 SLL at or above 9000 to D45.0/R-262 SLL, then turn RIGHT to follow 43 DME ARC SLL at or above 6000 to R-246 SLL, then turn LEFT to follow R-243 SLL at or above 5000 to LADAR.
KIVEL 1E	Follow R-095 SLL at or above 13000 to D23.0/R-095 SLL, then turn LEFT to follow 21 DME ARC SLL to R-125 SLL and proceed at or above 11000 to PAVEM.		

AMENDMENT: AD elevation.

INTENTIONALLY

LEFT

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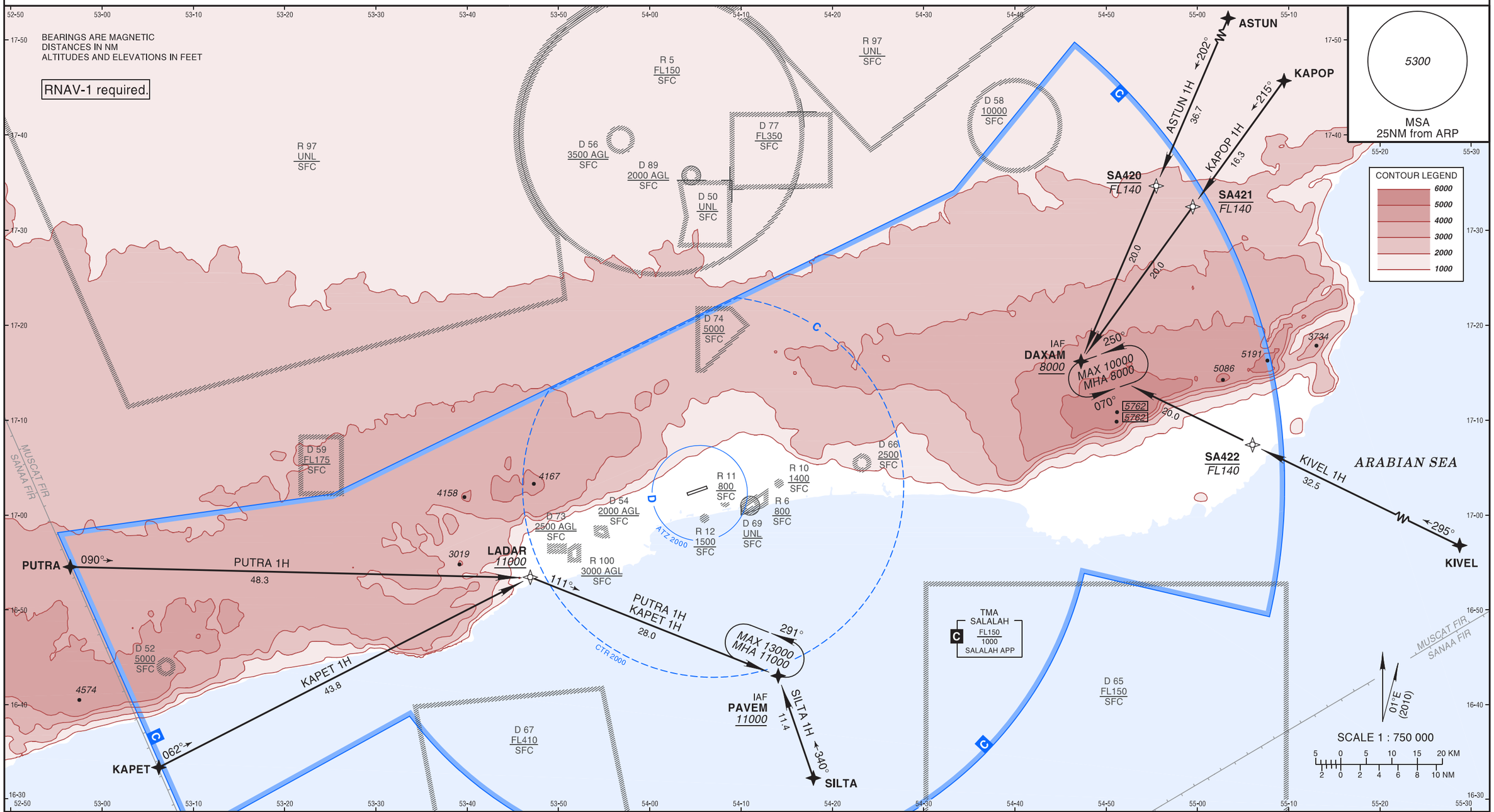
STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

AD ELEV 90 FT
Trans Alt *13000*
Trans Level *FL150*

ATIS	125.100
APP/RAD	119.100
TWR	118.200

SALALAH/Salalah
OMAN
RWY 25

ASTUN 1H, KAPOP 1H, KIVEL 1H, SILTA 1H, KAPET 1H, PUTRA 1H RNAV (GNSS) ARRIVAL



STAR	ROUTING	STAR	ROUTING
ASTUN 1H	To SA420 at or below FL140. Proceed to DAXAM at or above 8000.	**SILTA 1H**	To PAVEM at or above 11000.
KAPOP 1H	To SA421 at or below FL140. Proceed to DAXAM at or above 8000.	**KAPET 1H**	To LADAR at or above 11000. Turn RIGHT to PAVEM at or above 11000.
KIVEL 1H	To SA422 at or below FL140. Proceed to DAXAM at or above 8000.	**PUTRA 1H**	To LADAR at or above 11000. Turn RIGHT to PAVEM at or above 11000.

INTENTIONALLY

LEFT

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Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 25

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	PAVEM	111° (111.5°)	1 MIN	L	11000	13000	230 KT	1°E	
Hold	DAXAM	070° (071.1°)	1 MIN	L	8000	10000	230 KT	1°E	

Route Description: RNAV (GNSS) ARRIVAL RWY 25

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
ASTUN 1H ARRIVAL									
IF	ASTUN						1°E		RNAV 1
TF	SA420		202° (203.3°)		-FL140		1°E	36.7	RNAV 1
TF	DAXAM		202° (203.2°)		+8000		1°E	20.0	RNAV 1
KAPOP 1H ARRIVAL									
IF	KAPOP						1°E		RNAV 1
TF	SA421		215° (215.9°)		-FL140		1°E	16.3	RNAV 1
TF	DAXAM		215° (215.9°)		+8000		1°E	20.0	RNAV 1
KIVEL 1H ARRIVAL									
IF	KIVEL						1°E		RNAV 1
TF	SA422		295° (296.1°)		-FL140		1°E	32.5	RNAV 1
TF	DAXAM		295° (295.9°)		+8000		1°E	20.0	RNAV 1
SILTA 1H ARRIVAL									
IF	SILTA						1°E		RNAV 1
TF	PAVEM		340° (341.1°)		+11000		1°E	11.4	RNAV 1
KAPET 1H ARRIVAL									
IF	KAPET						1°E		RNAV 1
TF	LADAR		062° (062.8°)		+11000		1°E	43.8	RNAV 1
TF	PAVEM		111° (111.5°)	R	+11000		1°E	28.0	RNAV 1
PUTRA 1H ARRIVAL									
IF	PUTRA						1°E		RNAV 1
TF	LADAR		090° (091.2°)		+11000		1°E	48.3	RNAV 1
TF	PAVEM		111° (111.5°)	R	+11000		1°E	28.0	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 25

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
ASTUN	N18°08'32.0''	E055°10'40.0''	N18°08.533'	E055°10.667'	
KAPOP	N17°45'44.0''	E055°09'30.0''	N17°45.733'	E055°09.500'	
DAXAM	N17°16'12.0''	E054°47'15.0''	N17°16.200'	E054°47.250'	
KIVEL	N16°53'06.0''	E055°36'33.0''	N16°53.100'	E055°36.550'	
SILTA	N16°32'14.9''	E054°17'55.2''	N16°32.248'	E054°17.920'	
KAPET	N16°33'22.0''	E053°06'14.0''	N16°33.367'	E053°06.233'	
PUTRA	N16°54'32.0''	E052°56'31.0''	N16°54.533'	E052°56.517'	
SA420	N17°34'39.6''	E054°55'28.9''	N17°34.660'	E054°55.482'	
SA421	N17°32'28.8''	E054°59'29.7''	N17°32.480'	E054°59.495'	
SA422	N17°07'25.7''	E055°06'02.6''	N17°07.428'	E055°06.043'	
PAVEM	N16°43'03.0''	E054°14'04.3''	N16°43.050'	E054°14.072'	
LADAR	N16°53'24.0''	E053°46'55.0''	N16°53.400'	E053°46.917'	

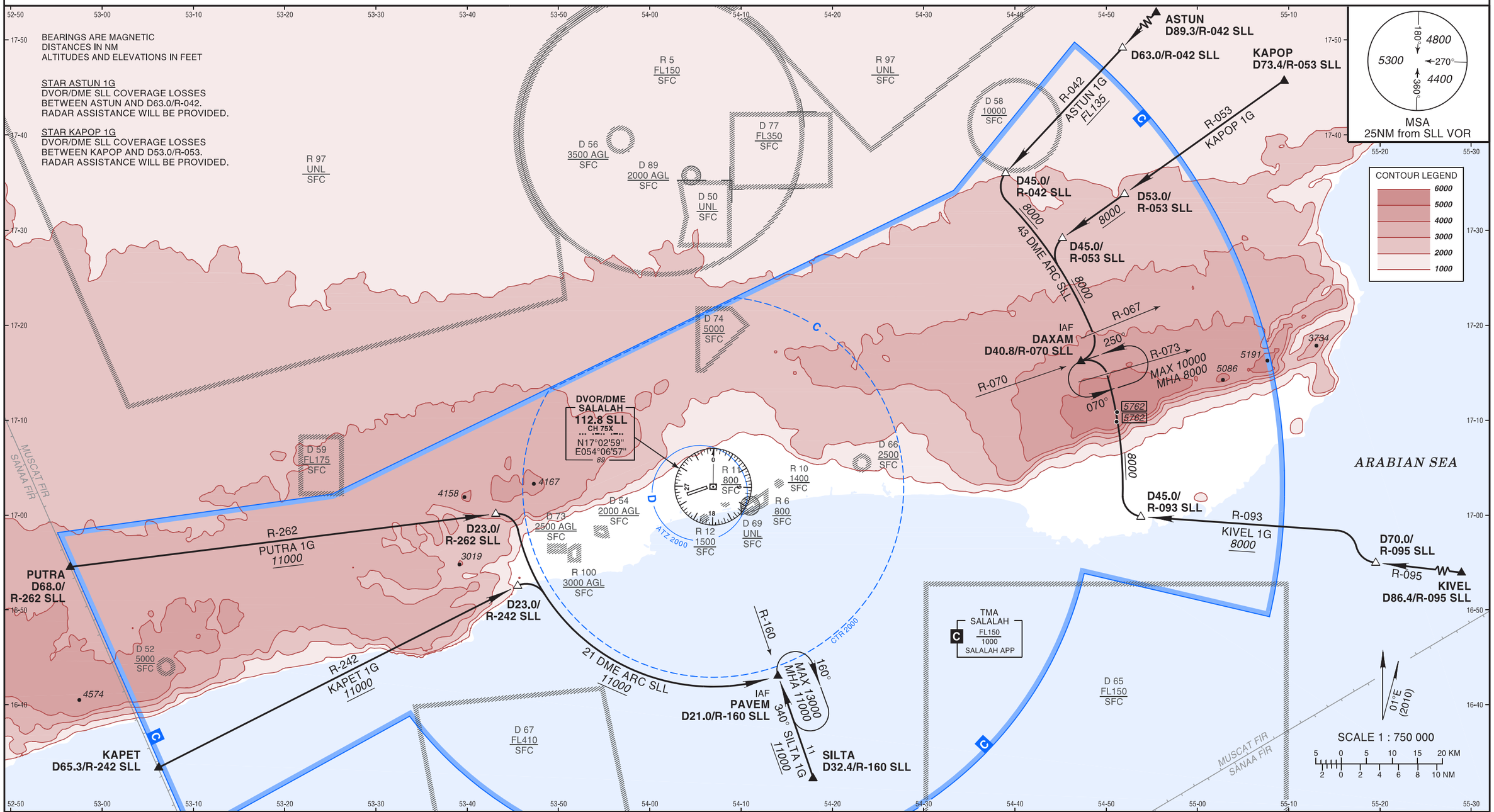
STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

AD ELEV 90 FT
Trans Alt *13000*
Trans Level *FL150*

ATIS	125.100
APP/RAD	119.100
TWR	118.200

SALALAH/Salalah
OMAN
RWY 25

ASTUN 1G, KAPOP 1G, KIVEL 1G, SILTA 1G, KAPET 1G, PUTRA 1G ARRIVAL



STAR	ROUTING	STAR	ROUTING
ASTUN 1G	Follow R-042 SLL to D63.0/R-042 SLL. Proceed at or above FL135 to D45.0/R-042 SLL, then turn LEFT to follow 43 DME ARC SLL at or above 8000. At R-067 SLL turn RIGHT to DAXAM.	SILTA 1G	Follow R-160 SLL at or above 11000 to PAVEM.
KAPOP 1G	Follow R-053 SLL to D53.0/R-053 SLL. Proceed at or above 8000 to D45.0/R-053 SLL, then turn LEFT to follow 43 DME ARC SLL. At R-067 SLL turn RIGHT to DAXAM.	KAPET 1G	Follow R-242 SLL at or above 11000 to D23.0/R-242 SLL, then turn RIGHT to follow 21 DME ARC SLL to PAVEM.
KIVEL 1G	Follow R-095 SLL to D70.0/R-095 SLL, then turn RIGHT to intercept and follow R-093 SLL at or above 8000 to D45.0/R-093 SLL, then turn RIGHT to follow 43 DME ARC SLL. At R-073 SLL turn LEFT to DAXAM.	PUTRA 1G	Follow R-262 SLL at or above 11000 to D23.0/R-262 SLL, then turn RIGHT to follow 21 DME ARC SLL to PAVEM.

INTENTIONALLY

LEFT

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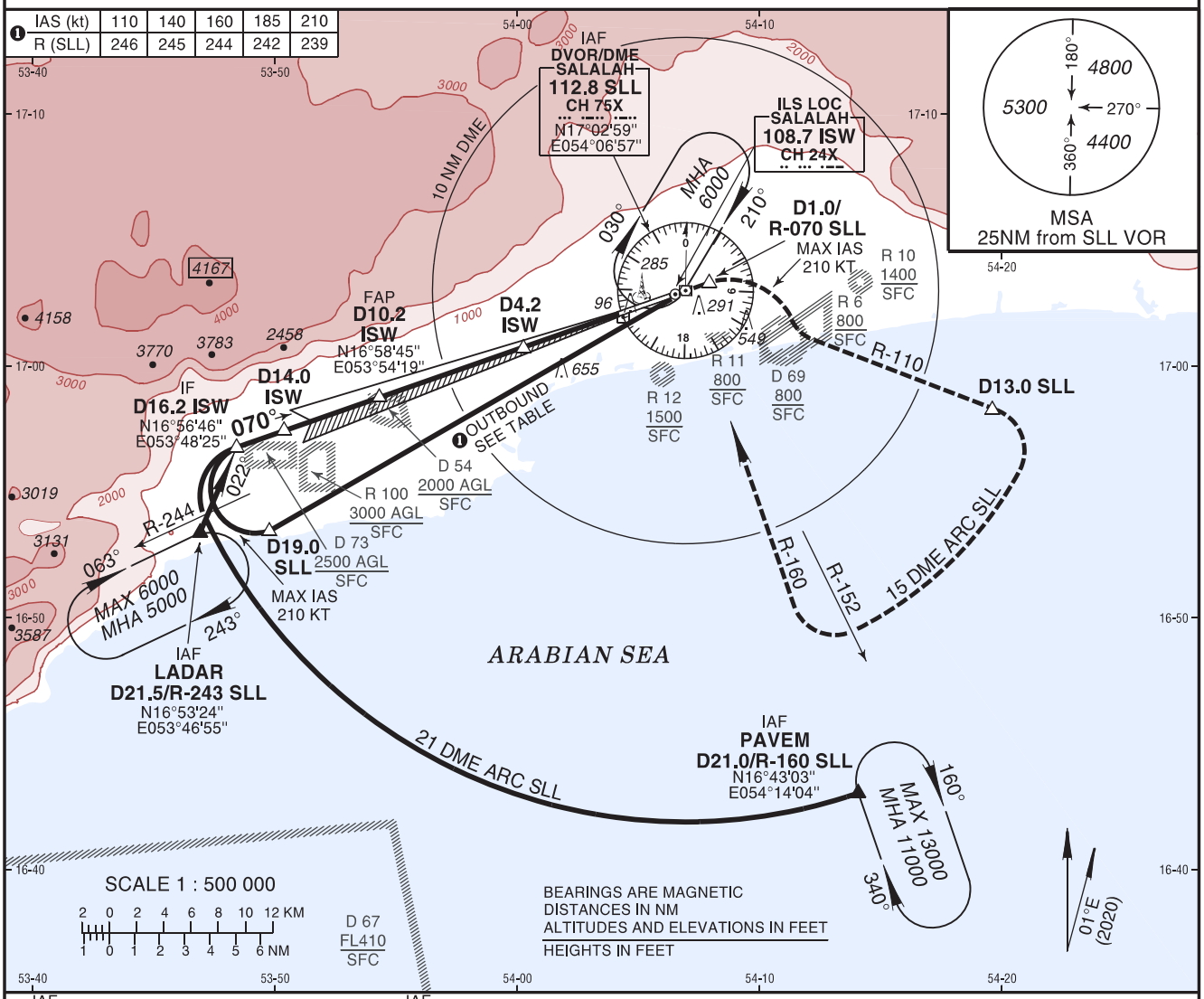
INSTRUMENT APPROACH CHART - ICAO

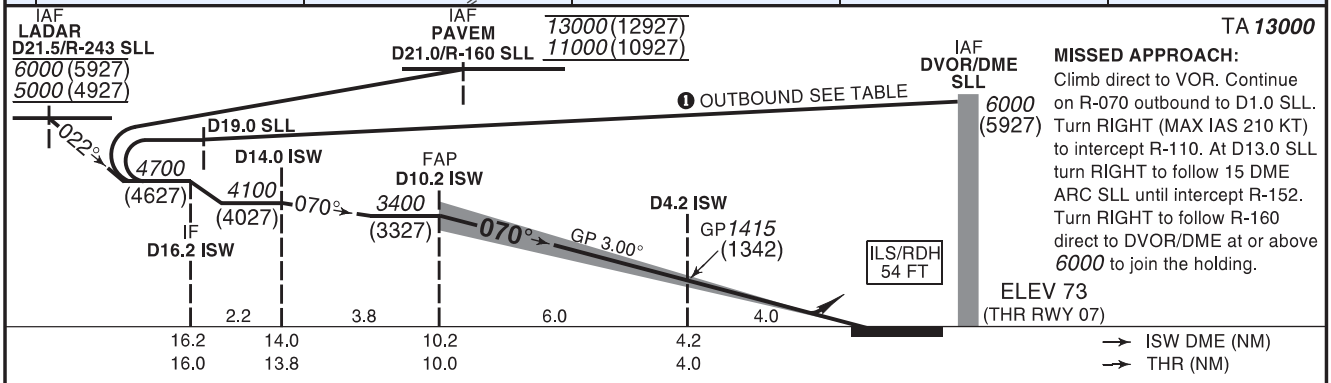
AD ELEV 90 FT

HEIGHTS RELATED TO THR RWY 07 ELEV 73 FT

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
ILS RWY 07





TA **13000**

MISSED APPROACH:
Climb direct to VOR. Continue on R-070 outbound to D1.0 SLL. Turn RIGHT (MAX IAS 210 KT) to intercept R-110. At D13.0 SLL turn RIGHT to follow 15 DME ARC SLL until intercept R-152. Turn RIGHT to follow R-160 direct to DVOR/DME at or above *6000* to join the holding.

STRAIGHT-IN APPROACH		A	B	C	D
ILS CAT I	OCH	226	238	246	257
	DA(H)	*300* (230)	*310* (240)	*320* (250)	*330* (260)
	RVR	750m			
CIRCLING (HAA)* ❷		A	B	C	D
	OCH	580		1000	
	MDA(H)	*670* (580)		*1090* (1000)	
	VIS	1500m	1600m	2400m	3600m

ADVISORY INFORMATION ONLY										
ISW DME	10	9	8	7	6	5	4	3	2	1
ALT	*3350*	*3030*	*2710*	*2390*	*2070*	*1760*	*1440*	*1120*	*800*	*480*
(HGT)	(3270)	(2950)	(2640)	(2320)	(2000)	(1680)	(1360)	(1050)	(730)	(410)

GS	kt	80	100	120	140	160	180
FAP-THR	min:s	7:30	6:00	5:00	4:17	3:45	3:20
ROD: 5.24%	ft/min	425	531	637	743	849	955

❷ Circling not authorized north of rwy 07/25.

VOR and DME required.

INTENTIONALLY

LEFT

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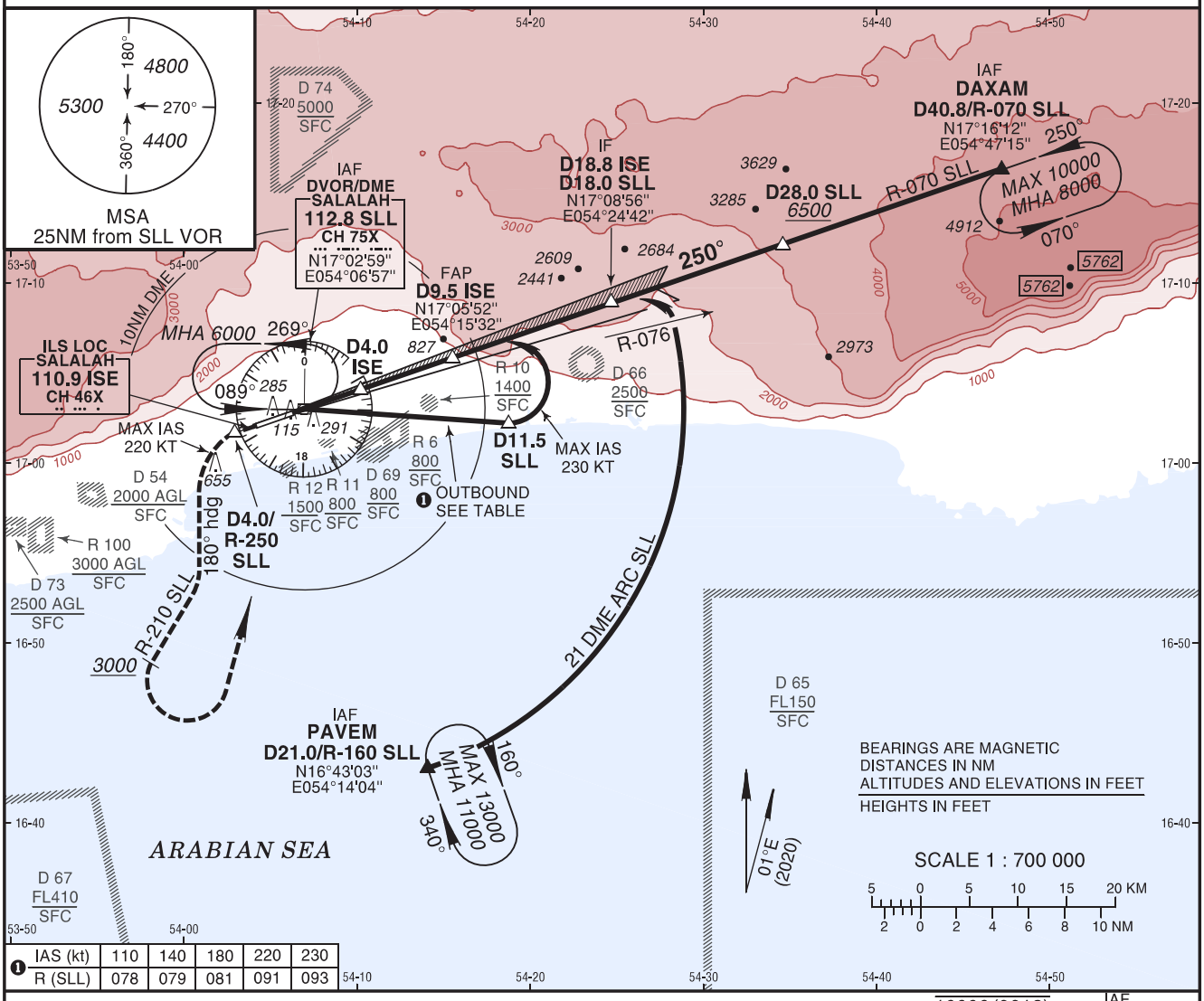
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 90 FT

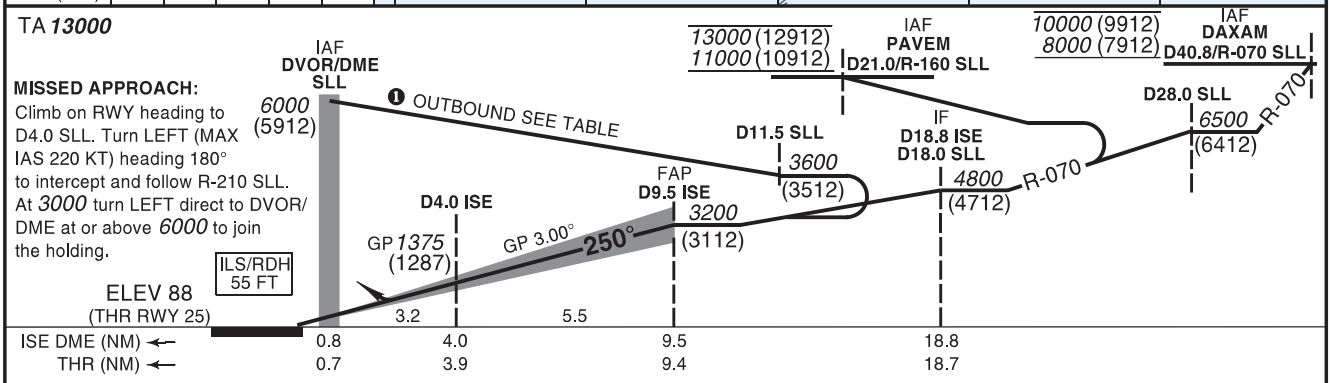
HEIGHTS RELATED TO THR RWY 25 ELEV 88 FT

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
ILS RWY 25



❶ IAS (kt)	110	140	180	220	230
R (SLL)	078	079	081	091	093



STRAIGHT-IN APPROACH		A	B	C	D
ILS CAT I	OCH	214	226	234	245
	DA(H)	*310* (220)	*320* (230)	*330* (240)	*340* (250)
	RVR	750m			
CIRCLING (HAA)* ❷		A	B	C	D
	OCH	530		990	
	MDA(H)	*620* (530)		*1080* (990)	
	VIS	1500m	1600m	2400m	3600m

ADVISORY INFORMATION ONLY									
ISE DME	9	8	7	6	5	4	3	2	1
ALT	*3030*	*2690*	*2360*	*2030*	*1710*	*1380*	*1060*	*730*	*410*
(HGT)	(2940)	(2610)	(2280)	(1950)	(1620)	(1290)	(970)	(640)	(320)

GS	kt	80	100	120	140	160	180
FAF-THR: 9.4 NM	min:s	7:01	5:37	4:41	4:01	3:31	3:07
ROD: 5.24%	ft/min	425	531	637	743	849	955

❷ Circling not authorized north of rwy 07/25.

VOR and DME required.

INTENTIONALLY

LEFT

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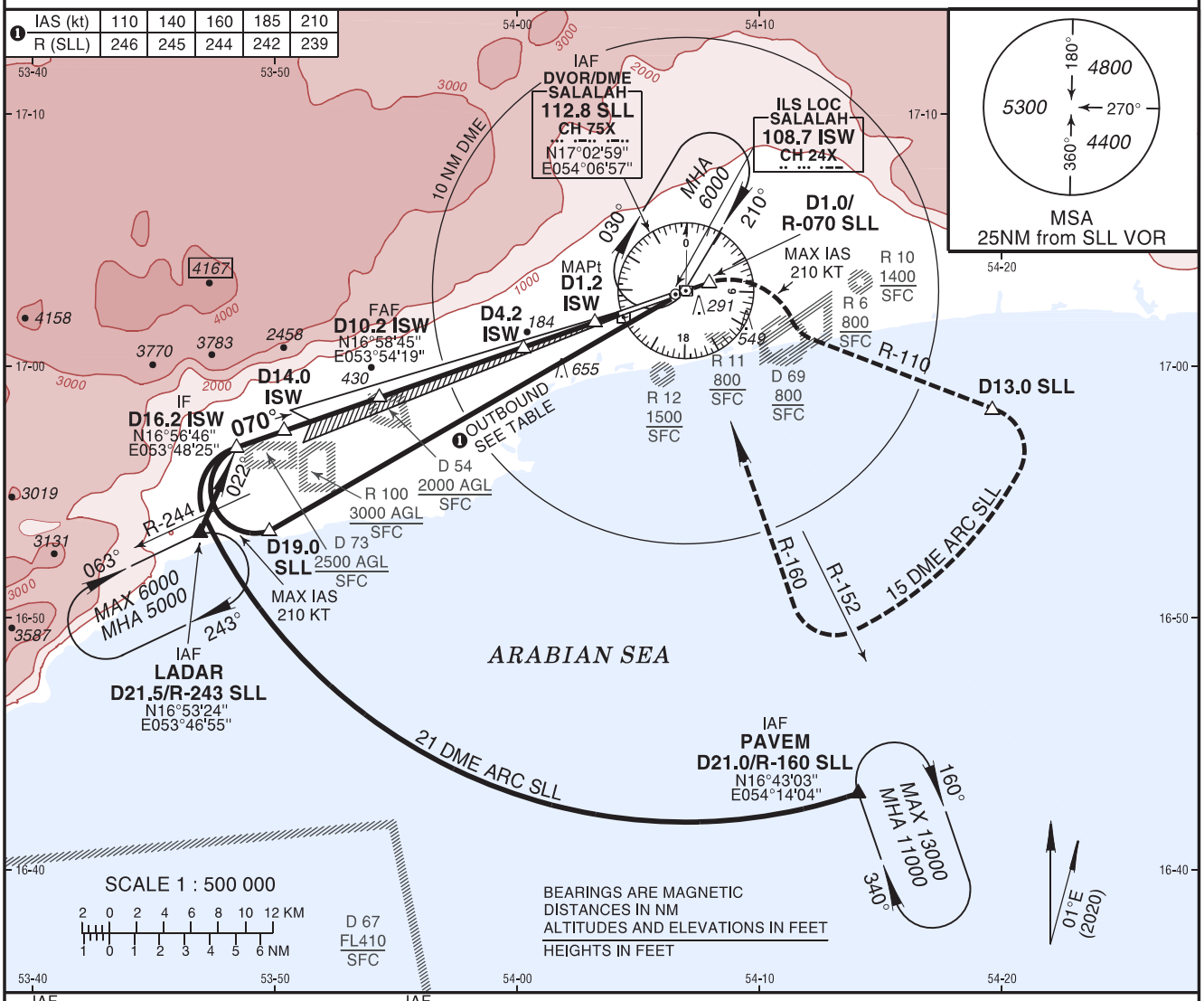
INSTRUMENT APPROACH CHART - ICAO

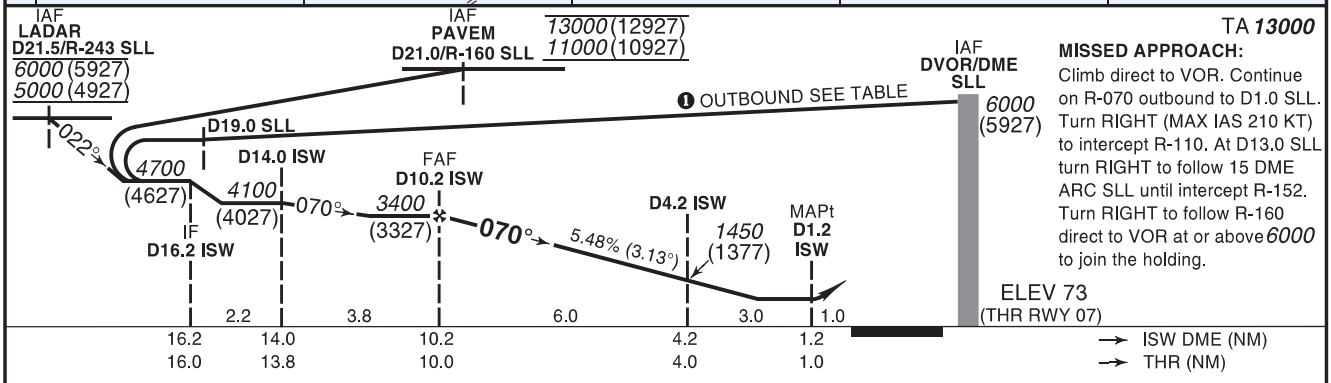
AD ELEV 90 FT

HEIGHTS RELATED TO THR RWY 07 ELEV 73 FT

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
LOC RWY 07





TA **13000**

MISSED APPROACH:
Climb direct to VOR. Continue on R-070 outbound to D1.0 SLL. Turn RIGHT (MAX IAS 210 KT) to intercept R-110. At D13.0 SLL turn RIGHT to follow 15 DME ARC SLL until intercept R-152. Turn RIGHT to follow R-160 direct to VOR at or above *6000* to join the holding.

STRAIGHT-IN APPROACH		A	B	C	D
LOC	OCH	430			
	MDA(H)	*500* (430)			
	VIS	1300m			
CIRCLING (HAA)* ❷		A	B	C	D
	OCH	580		1000	
	MDA(H)	*670* (580)		*1090* (1000)	
	VIS	1500m	1600m	2400m	3600m

ADVISORY INFORMATION ONLY									
ISW DME	10	9	8	7	6	5	4	3	2
ALT (HGT)	*3340* (3270)	*3010* (2940)	*2680* (2610)	*2350* (2270)	*2020* (1940)	*1680* (1610)	*1350* (1280)	*1020* (950)	*690* (610)

GS	kt	80	100	120	140	160	180
FAF-MAPt ❸	min:s						
ROD: 5.48%	ft/min	444	555	665	776	887	998

❷ Circling not authorized north of rwy 07/25.
❸ Timing not authorized for defining the MAPt.

VOR and DME required.

INTENTIONALLY

LEFT

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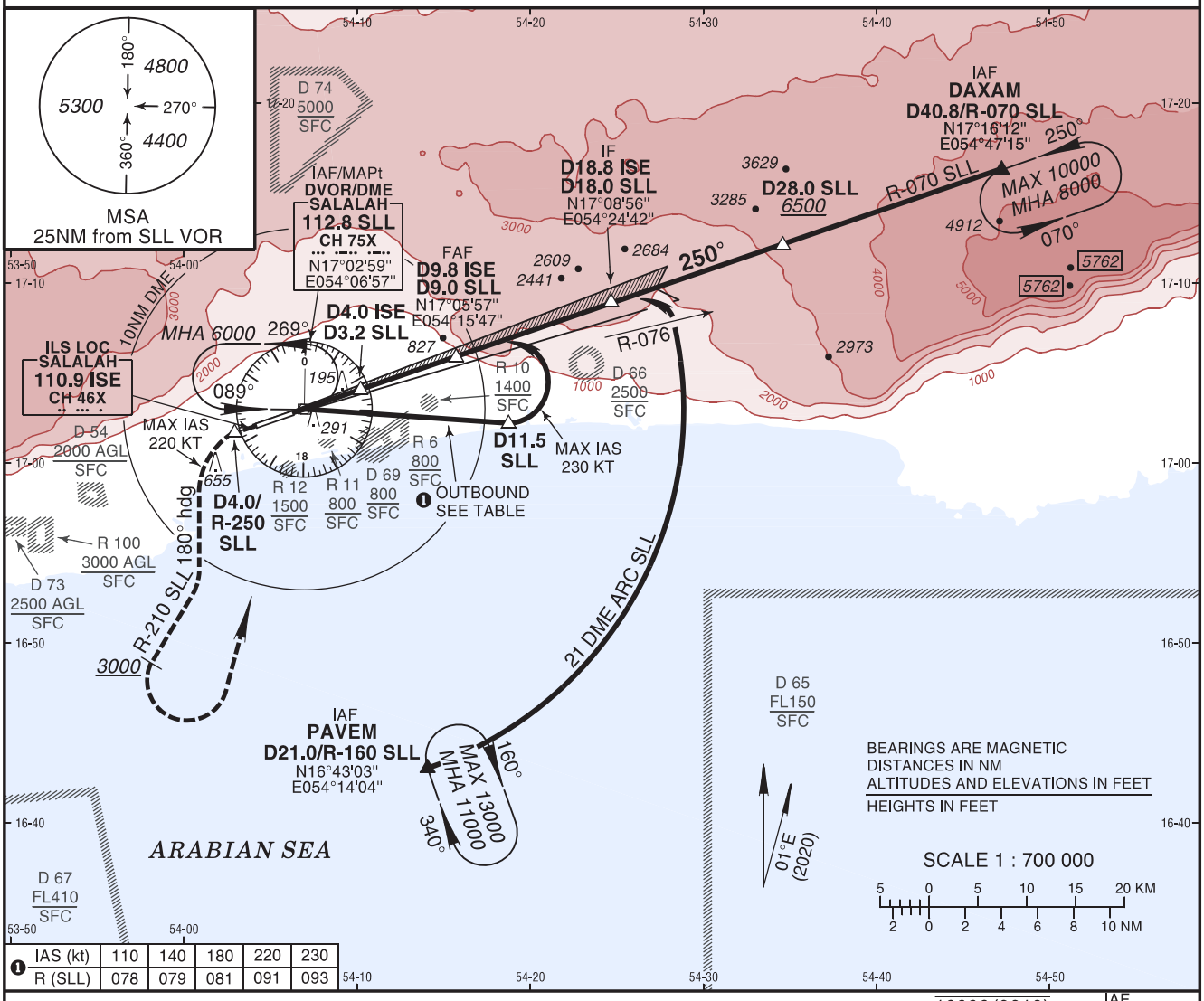
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 90 FT

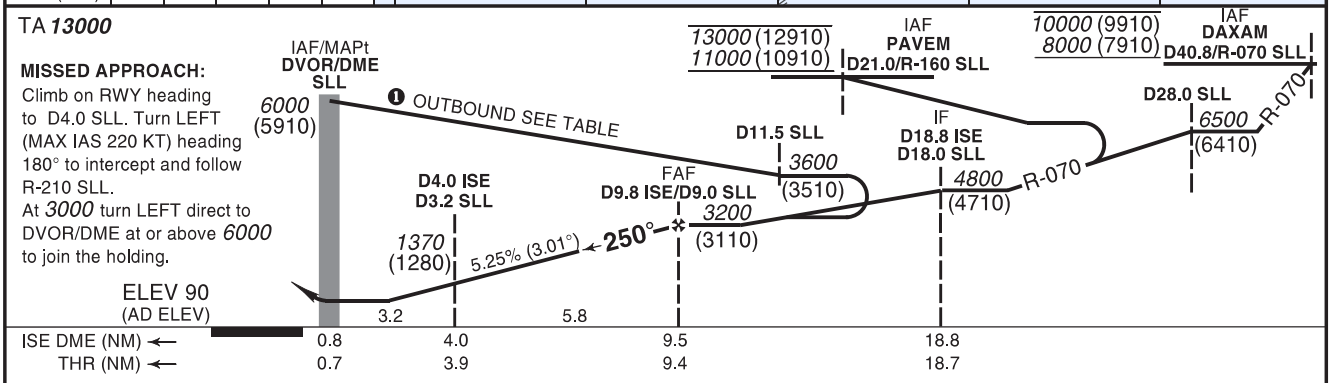
HEIGHTS RELATED TO AD ELEV 90 FT

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
LOC RWY 25



❶ IAS (kt)	110	140	180	220	230
R (SLL)	078	079	081	091	093



STRAIGHT-IN APPROACH		A	B	C	D
LOC	OCH	380			
	MDA(H)	*470* (380)			
	VIS	1000m			
CIRCLING (HAA)* ❷		A	B	C	D
	OCH	530		990	
	MDA(H)	*620* (530)		*1080* (990)	
	VIS	1500m	1600m	2400m	3600m

ADVISORY INFORMATION ONLY								
ISE DME	9	8	7	6	5	4	3	2
ALT (HGT)	*2960* (2870)	*2640* (2550)	*2320* (2230)	*2000* (1910)	*1690* (1600)	*1370* (1280)	*1050* (960)	*730* (640)

GS	kt	80	100	120	140	160	180
FAF-MAPt ❸	min:s						
ROD: 5.25%	ft/min	425	532	638	744	851	957

❷ Circling not authorized north of rwy 07/25.
❸ Timing not authorized for defining the MAPt.

VOR and DME required.

INTENTIONALLY

LEFT

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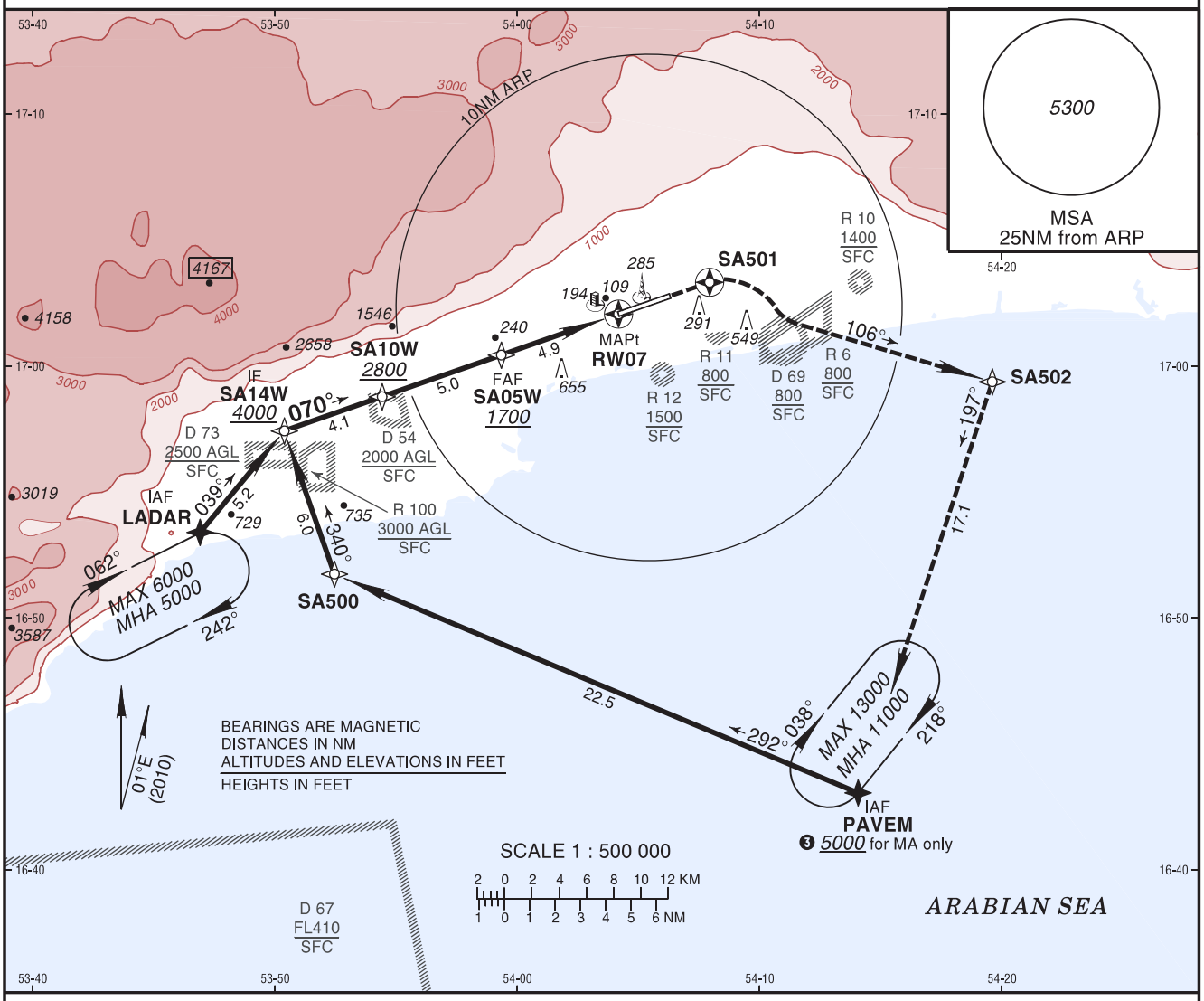
INSTRUMENT APPROACH CHART - ICAO

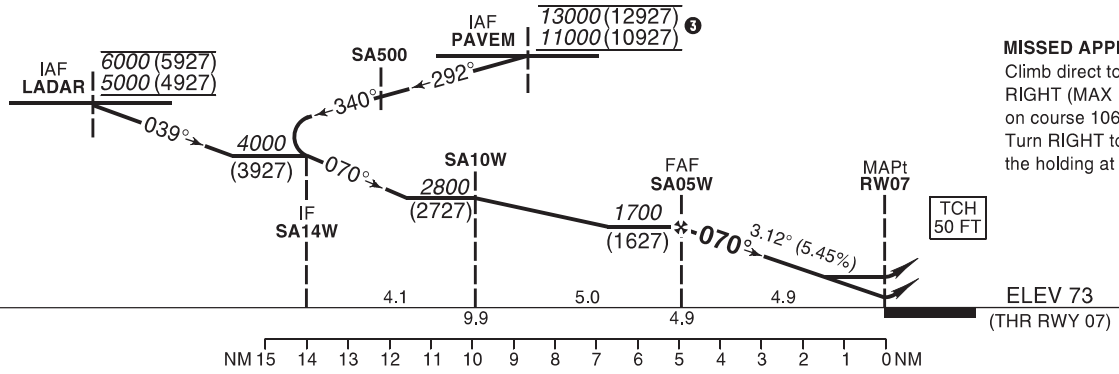
AD ELEV 90 FT

HEIGHTS RELATED TO THR RWY 07 ELEV 73 FT

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
RNP RWY 07





TA **13000**

MISSED APPROACH:
Climb direct to SA501. Turn RIGHT (MAX IAS 210 KT) on course 106° to SA502. Turn RIGHT to PAVEM to join the holding at or above 5000.

STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	390			
	DA(H)	460 (390)			
	VIS/RVR	1100m			
LNAV	OCH	470			
	MDA(H)	540 (470)			
	VIS	1500m			
CIRCLING (HAA)* ❶		A	B	C	D
	OCH	580		1000	
	MDA(H)	670 (580)		1090 (1000)	
	VIS	1500m	1600m	2400m	3600m

LNAV/VNAV Temperature: Min -10°C
Max 45°C

ADVISORY INFORMATION ONLY				
NM to RW07	4	3	2	
ALT (HGT)	1450 (1380)	1120 (1050)	790 (720)	

GS	kt	80	100	120	140	160	180
FAF-MAPt ❷	min:s						
ROD: 5.45%	ft/min	442	552	663	773	884	994

❶ Circling not authorized north of rwy 07/25.
❷ Timing not authorized for defining the MAPt.
❸ Missed approach minimum holding altitude 5000.

RNP Approach required.

Holding Instruction/Areas RNP RWY 07

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	PAVEM	218° (218.8°)	1 MIN	R	11000	13000		1°E	
Hold	LADAR	062° (062.8°)	1 MIN	R	5000	6000		1°E	

Route Description: RNP RWY 07

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	PAVEM				-13000 +11000		1°E		RNP APCH
TF	SA500		292° (292.7°)				1°E	22.5	RNP APCH
TF	SA14W		340° (340.7°)	R	+4000		1°E	6.0	RNP APCH
TF	SA10W		070° (070.7°)	R	+2800		1°E	4.1	RNP APCH
TF	SA05W		070° (070.8°)		+1700		1°E	5.0	RNP APCH
TF	RW07	Y	070° (070.8°)		+123		1°E	4.9	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	LADAR				-6000 +5000		1°E		RNP APCH
TF	SA14W		039° (039.7°)		+4000		1°E	5.2	RNP APCH
TF	SA10W		070° (070.7°)	R	+2800		1°E	4.1	RNP APCH
TF	SA05W		070° (070.8°)		+1700		1°E	5.0	RNP APCH
TF	RW07	Y	070° (070.8°)		+123		1°E	4.9	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
DF	SA501	Y				210 KT	1°E		RNP APCH
CF	SA502		106° (106.5°)	R			1°E		RNP APCH
TF	PAVEM		197° (198.1°)	R	+5000		1°E	17.1	RNP APCH
HM	PAVEM	Y	218° (218.8°)	R	+5000		1°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 07

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
LADAR (IAF)	N16°53'24.0''	E053°46'55.0''	N16°53.400'	E053°46.917'	
PAVEM (IAF)	N16°43'03.0''	E054°14'04.3''	N16°43.050'	E054°14.072'	
SA500	N16°51'44.7''	E053°52'27.4''	N16°51.745'	E053°52.457'	
SA14W (IF)	N16°57'25.6''	E053°50'23.6''	N16°57.427'	E053°50.393'	
SA10W	N16°58'47.2''	E053°54'25.8''	N16°58.787'	E053°54.430'	
SA05W (FAF)	N17°00'26.3''	E053°59'20.8''	N17°00.438'	E053°59.347'	
RW07 (MAPT)	N17°02'03.7''	E054°04'11.0''	N17°02.062'	E054°04.183'	
SA501	N17°03'19.3''	E054°07'56.5''	N17°03.322'	E054°07.942'	
SA502	N16°59'22.4''	E054°19'36.6''	N16°59.373'	E054°19.610'	

Non precision final approach 3.12° (5.45%).

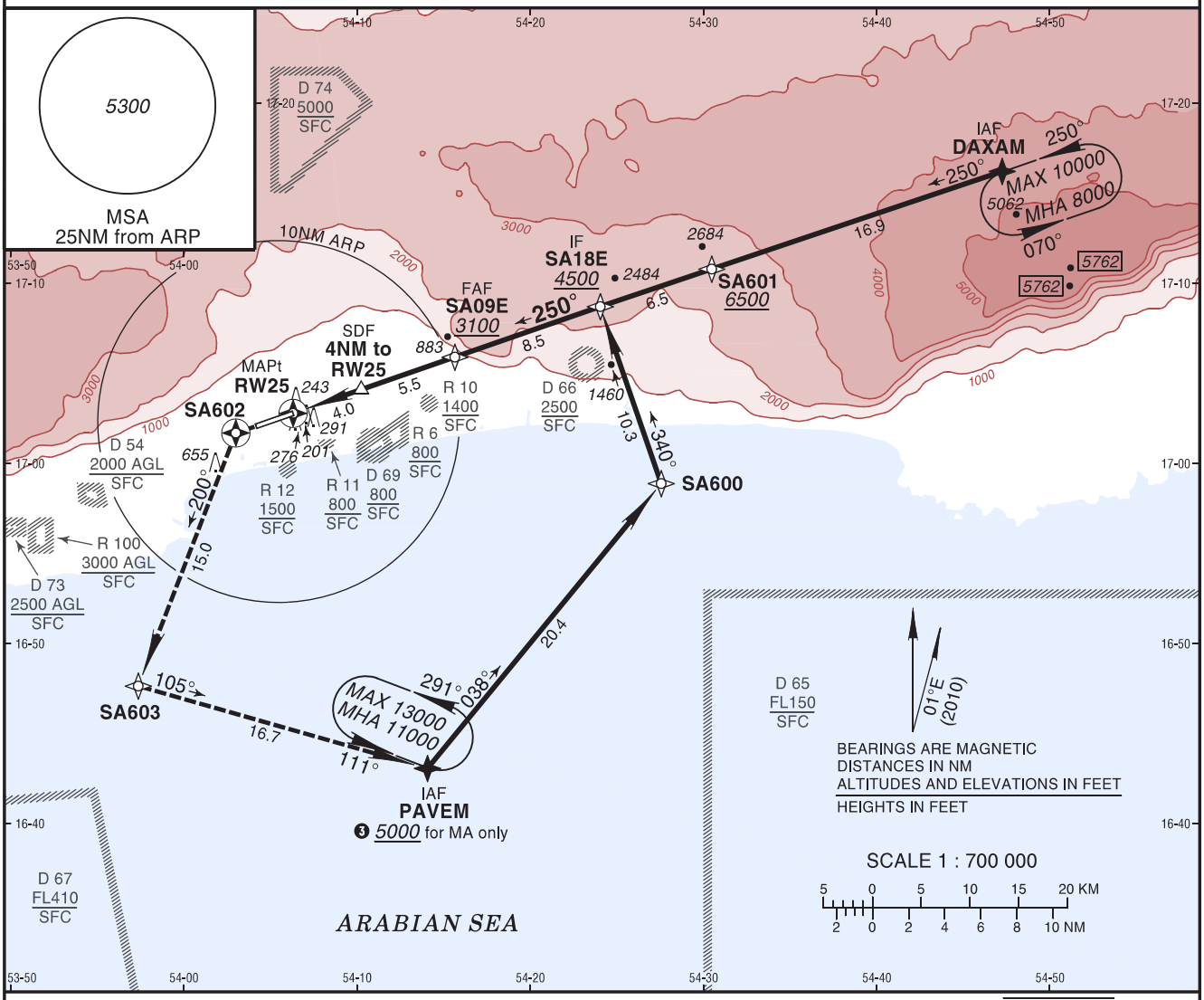
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 90 FT

HEIGHTS RELATED TO THR RWY 25 ELEV 88 FT

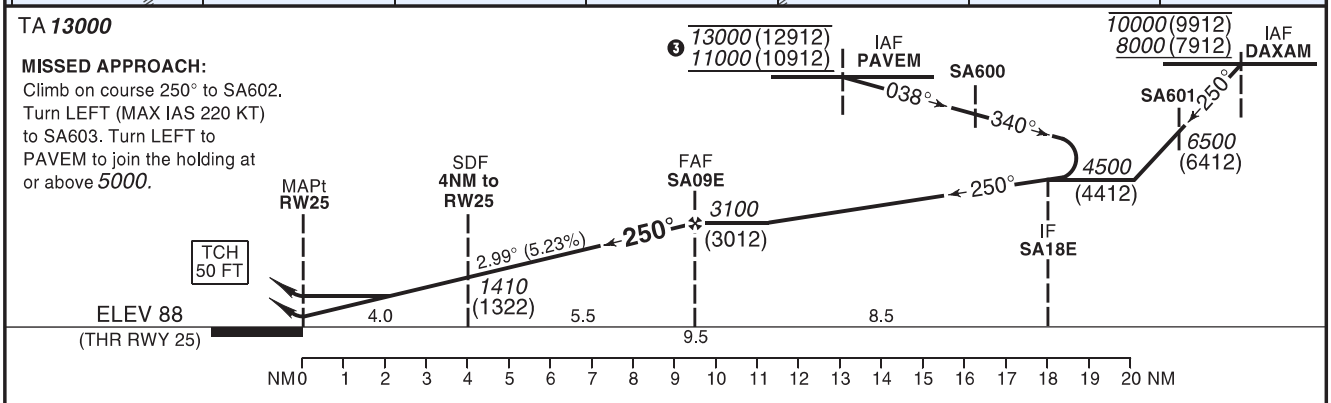
ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
RNP RWY 25



TA **13000**

MISSED APPROACH:
Climb on course 250° to SA602.
Turn LEFT (MAX IAS 220 KT)
to SA603. Turn LEFT to
PAVEM to join the holding at
or above 5000.



STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	420			
	DA(H)	*500* (420)			
	VIS/RVR	1200m			
LNAV	OCH	460			
	MDA(H)	*540* (460)			
	VIS	1400m			
CIRCLING (HAA)* ❶		A	B	C	D
	OCH	580		1000	
	MDA(H)	*670* (580)		*1090* (1000)	
	VIS	1500m	1600m	2400m	3600m

LNAV/VNAV Temperature: Min -10°C
Max 50°C

ADVISORY INFORMATION ONLY								
NM to RW25	2	3	4	5	6	7	8	9
ALT (HGT)	*780* (700)	*1100* (1020)	*1410* (1330)	*1730* (1650)	*2050* (1970)	*2370* (2290)	*2690* (2610)	*3000* (2920)

GS	kt	80	100	120	140	160	180
FAF-MAPt❷	min:s						
ROD: 5.23%	ft/min	424	530	636	742	848	954

❶ Circling not authorized north of rwy 07/25.
❷ Timing not authorized for defining the MAPt.
❸ Missed approach minimum holding altitude 5000.

RNP Approach required.

Holding Instruction/Areas RNP RWY 25

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	PAVEM	111° (111.5°)	1 MIN	L	11000	13000		1°E	
Hold	DAXAM	250° (251.1°)	1 MIN	L	8000	10000		1°E	

Route Description: RNP RWY 25

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	PAVEM				-13000 +11000		1°E		RNP APCH
TF	SA600		038° (039.3°)				1°E	20.4	RNP APCH
TF	SA18E		340° (341.0°)	L	+4500		1°E	10.3	RNP APCH
TF	SA09E		250° (250.9°)	L	+3100		1°E	8.5	RNP APCH
TF	RW25	Y	250° (250.8°)		+138		1°E	9.5	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	DAXAM				-10000 +8000		1°E		RNP APCH
TF	SA601		250° (251.5°)		+6500		1°E	16.9	RNP APCH
TF	SA18E		250° (251.4°)		+4500		1°E	6.5	RNP APCH
TF	SA09E		250° (250.9°)		+3100		1°E	8.5	RNP APCH
TF	RW25	Y	250° (250.8°)		+138		1°E	9.5	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
CF	SA602	Y	250° (251.1°)			220 KT	1°E		RNP APCH
TF	SA603		200° (201.1°)	L			1°E	15.0	RNP APCH
TF	PAVEM		105° (105.9°)	L	+5000		1°E	16.7	RNP APCH
HM	PAVEM	Y	111° (111.5°)	L	+5000		1°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 25

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
DAXAM (IAF)	N17°16'12.0''	E054°47'15.0''	N17°16.200'	E054°47.250'	
PAVEM (IAF)	N16°43'03.0''	E054°14'04.3''	N16°43.050'	E054°14.072'	
SA600	N16°58'52.9''	E054°27'33.5''	N16°58.882'	E054°27.558'	
SA601	N17°10'47.3''	E054°30'29.0''	N17°10.788'	E054°30.483'	
SA18E (IF)	N17°08'42.3''	E054°24'03.0''	N17°08.705'	E054°24.050'	
SA09E (FAF)	N17°05'54.1''	E054°15'39.2''	N17°05.902'	E054°15.653'	
RW25 (MAPT)	N17°02'46.5''	E054°06'18.6''	N17°02.775'	E054°06.310'	
SA602	N17°01'41.3''	E054°03'00.4''	N17°01.688'	E054°03.007'	
SA603	N16°47'37.9''	E053°57'22.2''	N16°47.632'	E053°57.370'	

Non precision final approach 2.99° (5.23%).

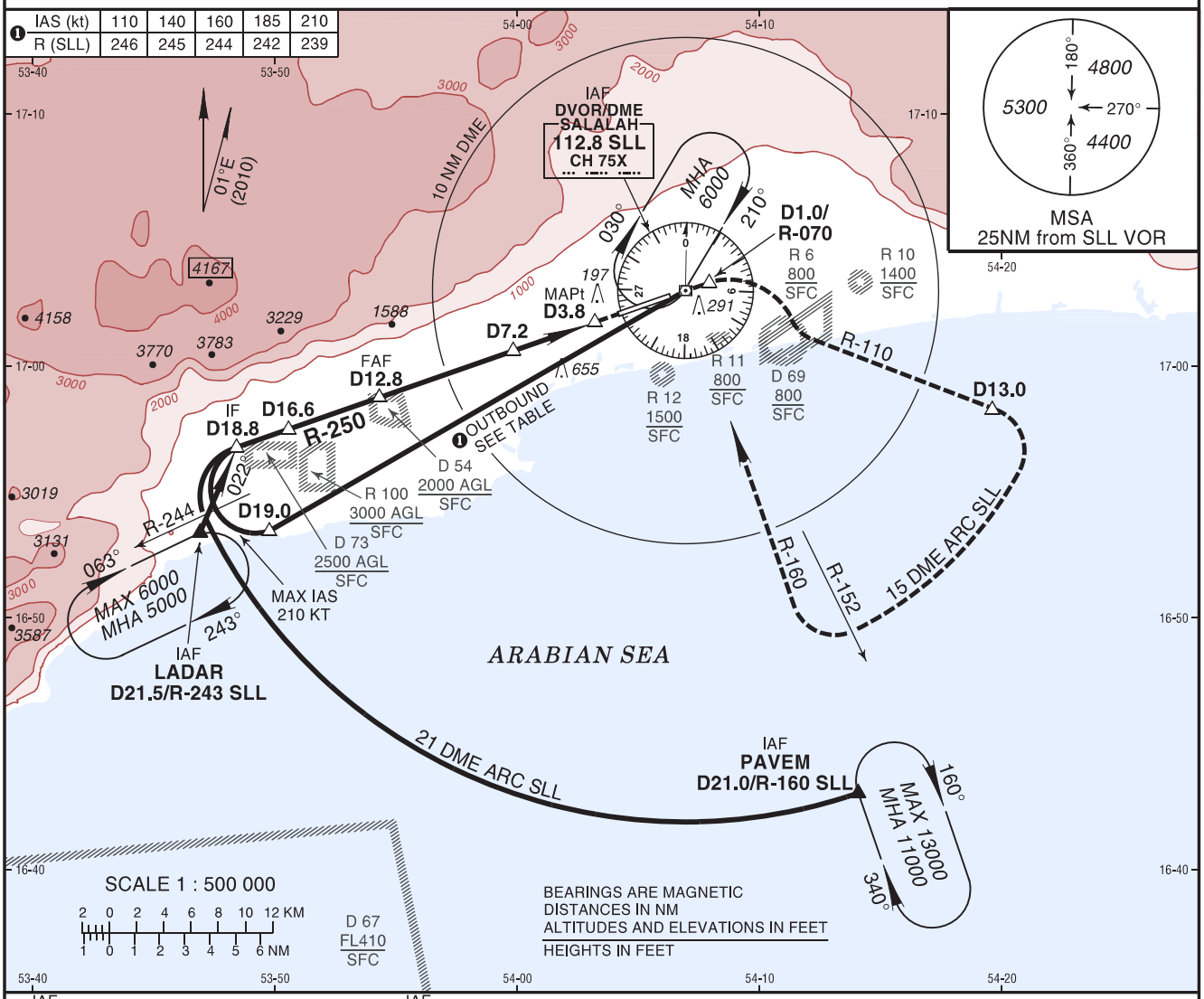
INSTRUMENT APPROACH CHART - ICAO

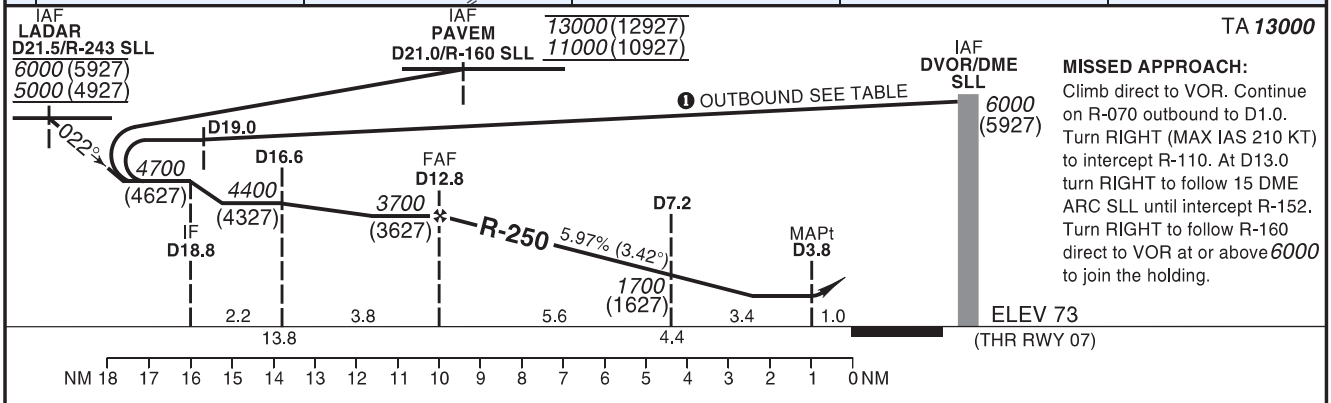
AD ELEV 90 FT

HEIGHTS RELATED TO THR RWY 07 ELEV 73 FT

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
VOR RWY 07





STRAIGHT-IN APPROACH		A	B	C	D
VOR	OCH	660			
	MDA(H)	730 (660)			
	VIS	1500m		2300m	
CIRCLING (HAA)* ❷		A	B	C	D
	OCH	660		1000	
	MDA(H)	750 (660)		1090 (1000)	
	VIS	1500m	1600m	2400m	3600m

ADVISORY INFORMATION ONLY								
SLL DME	12	11	10	9	8	7	6	5
ALT (HGT)	3460 (3390)	3100 (3030)	2740 (2670)	2370 (2300)	2010 (1940)	1650 (1580)	1280 (1210)	920 (850)

GS	kt	80	100	120	140	160	180
FAF-MAPt ❸	min:s						
ROD: 5.97%	ft/min	484	605	725	846	967	1088

❷ Circling not authorized north of rwy 07/25.
❸ Timing not authorized for defining the MAPt.

DME required.

INTENTIONALLY

LEFT

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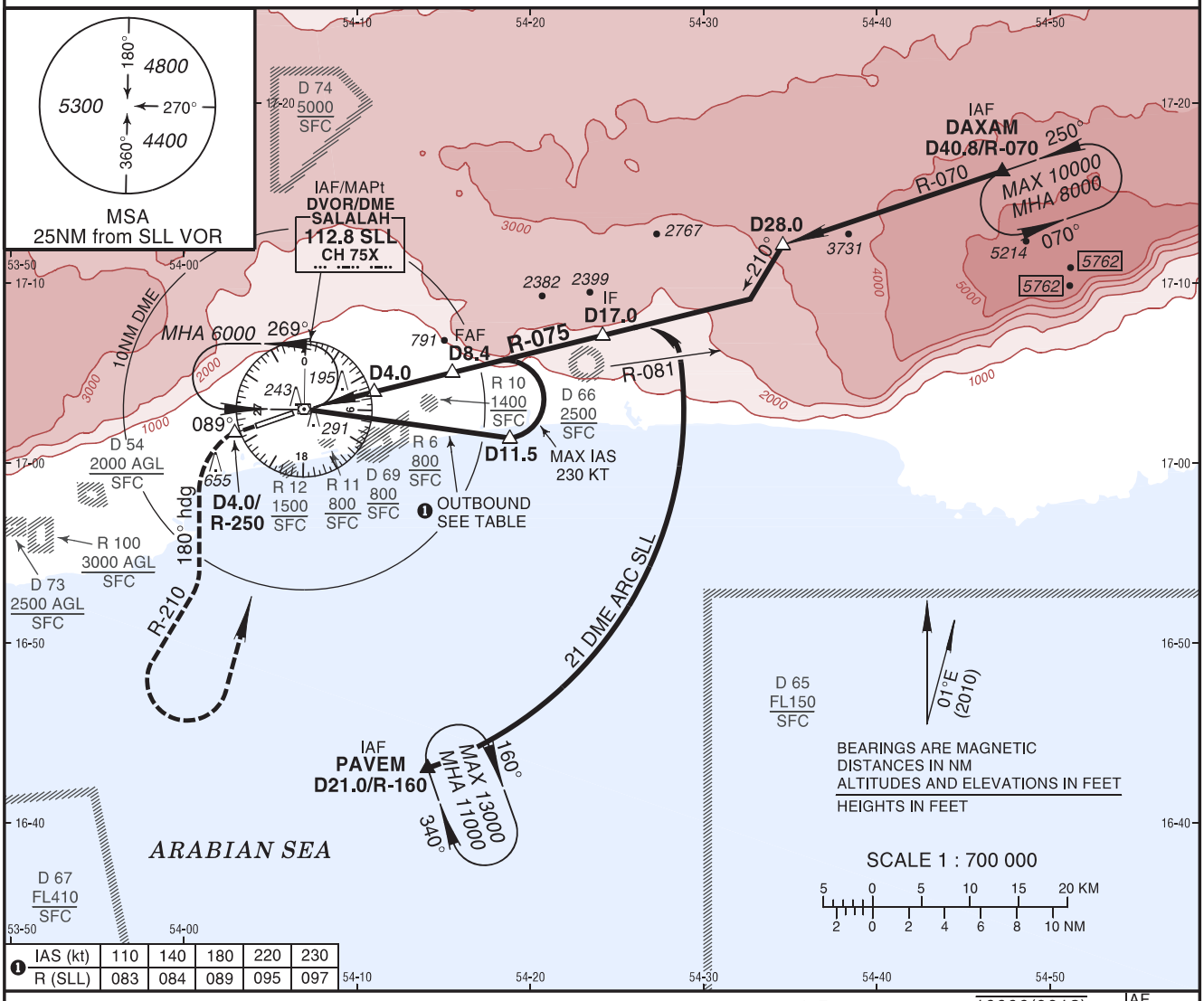
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 90 FT

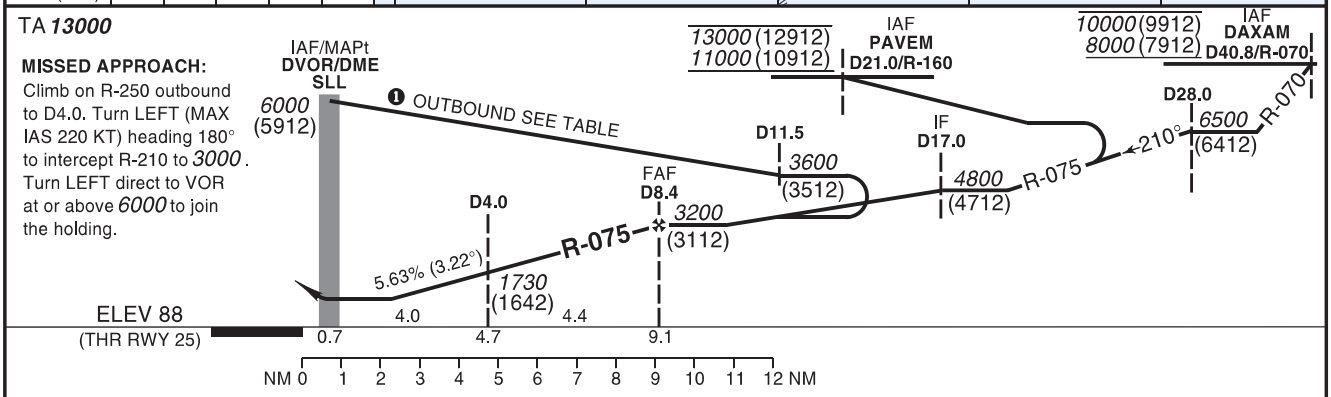
HEIGHTS RELATED TO THR RWY 25 ELEV 88 FT

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN
VOR RWY 25



❶ IAS (kt)	110	140	180	220	230
R (SLL)	083	084	089	095	097



STRAIGHT-IN APPROACH		A	B	C	D
VOR	OCH	420			
	MDA(H)	*500* (420)			
	VIS	1200m			
CIRCLING (HAA)* ❷		A	B	C	D
	OCH	580		1000	
	MDA(H)	*670* (580)		*1090* (1000)	
	VIS	1500m	1600m	2400m	3600m

ADVISORY INFORMATION ONLY								
SLL DME	8	7	6	5	4	3	2	1
ALT (HGT)	*3100* (3020)	*2760* (2680)	*2420* (2340)	*2080* (2000)	*1740* (1660)	*1390* (1310)	*1050* (970)	*710* (630)

GS	kt	80	100	120	140	160	180
FAF-MAPt ❸	min:s						
ROD: 5.63%	ft/min	456	570	684	798	912	1027

❷ Circling not authorized north of rwy 07/25.
❸ Timing not authorized for defining the MAPt.

DME required.

Final Approach track move 5° from RCL.

INTENTIONALLY

LEFT

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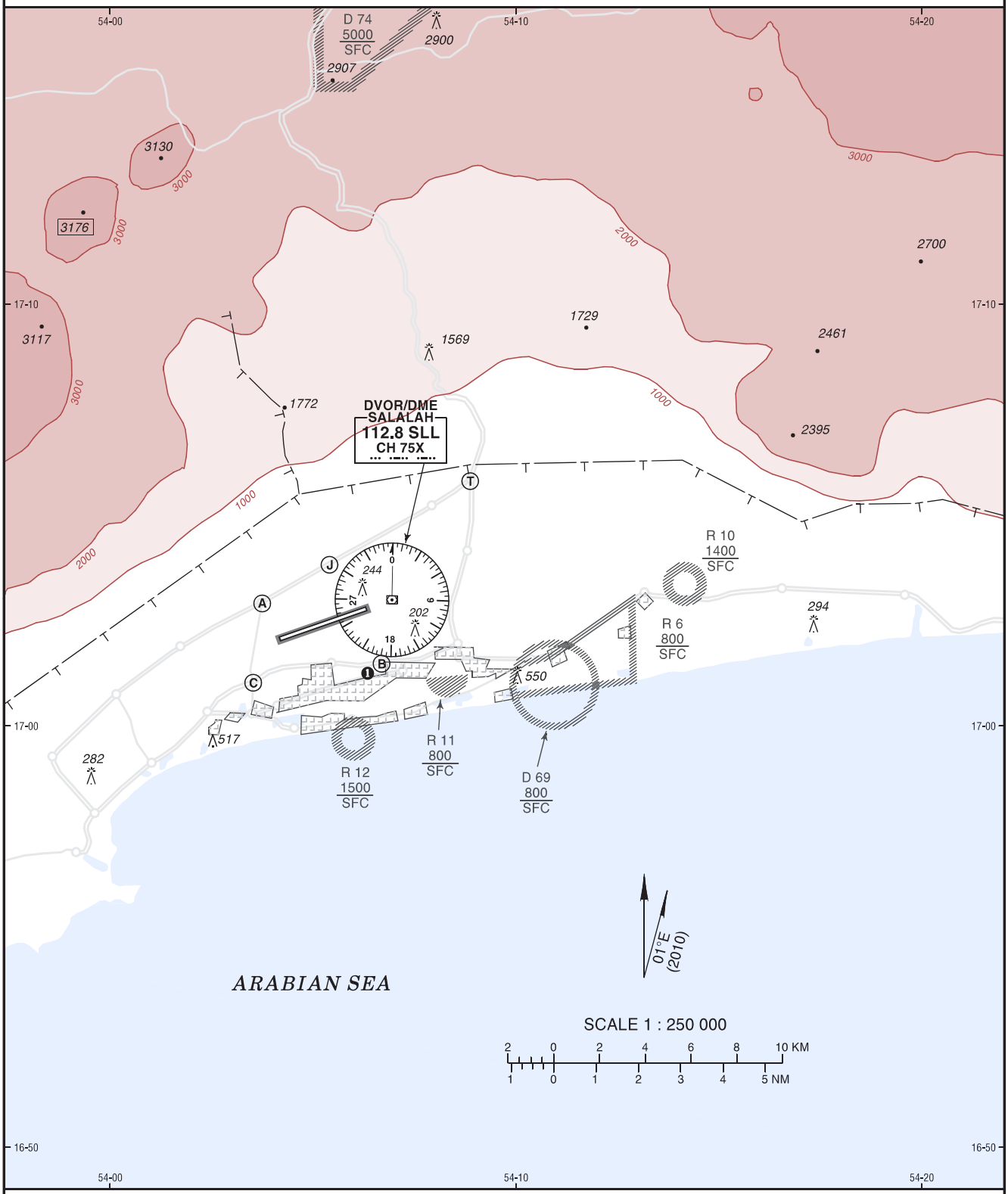
VISUAL APPROACH CHART - ICAO

AD ELEV 90 FT

ATIS	125.100
APP/RAD	119.100
TWR	118.200
GND	124.025

SALALAH/Salalah
OMAN



TA 13000

LEGEND

Ⓙ DESIGNATED VISUAL HOLDING POINTS

❶ RAFO USE ONLY

Ⓐ	Point Alpha:	N17°02'54" E054°03'45"	Ateen roundabout.
Ⓑ	Point Bravo:	N17°01'29" E054°06'42"	Burj al-nahdah.
Ⓒ	Point Charlie:	N17°01'02" E054°03'32"	Ateen Cross.
Ⓙ	Point Juliet:	N17°03'49" E054°05'25"	Jarziz crossing road.
Ⓣ	Point Tango:	N17°05'48" E054°08'53"	Roundabout at Thumrait road.

INTENTIONALLY

LEFT

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OOSH AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOSH SUHAR/Suhar

OOSH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	242309.98 N 0563732.23 E Midpoint of RWY centreline
2	Direction and distance from (city)	13 KM to the North-west of Suhar city centre
3	Elevation/Reference temperature	144 FT/40.1°C
4	Geoid undulation at AD ELEV PSN	-82.87 FT
5	MAG VAR/Annual change	2°E (2020)/0.05° increasing
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	Oman Airports Management Company S.A.O.C. Muscat International Airport P.O. Box 1707 Postal Code 111 Muscat Sultanate of Oman Website: www.omanairports.co.om Email: oamcinfo@omanairports.com Admin: (Muscat) Tel.: (968) 24 341000 (968) 24 341477 Fax: (968) 24 518088 (Suhar) Tel: (968) 91 394591/ 91 394590 (968) 24 353660/ 24 353608/ 24 353606 ATS provided by Oman Airports Management Company as detailed above. AIS provided by Directorate General of Air Navigation (DGAN) Tel.: (968) 24 354949 (968) 24 354948 Fax: (968) 24 354947 Email: briefing@caa.gov.om Meteorology provided by Directorate General of Meteorology (DGMet) Director General of Meteorology Tel.: (968) 24 354866/ 99 262656 Weather Forecasting Centre Tel.: (968) 24 354660/ 24 354669/ 99 362323 Fax: (968) 24 348501 Email: met_dir@met.gov.om
7	Types of traffic permitted (IFR/VFR)	IFR/VFR Minimum visibility for take-off & landing: 5000 M

8	Remarks	NIL

OOSH AD 2.3 OPERATIONAL HOURS

1	AD Administration	0400-1200 (SUN-THU), after administration hours OPS Officer will be on call
2	Customs and immigration	Available (Prior Permission Required)
3	Health and sanitation	NIL
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	NIL
7	ATS	24/7 (Prior Permission Required)
8	Fuelling	Available
9	Handling	Available
10	Security	Available H24
11	De-icing	NIL
12	Remarks	For unscheduled flights (PPR).

OOSH AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	High loader 35 tons available
2	Fuel/oil types	Jet A1
3	Fuelling facilities/capacity	100000 LTRS
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	NIL

OOSH AD 2.5 PASSENGER FACILITIES

1	Hotels	Unlimited in the city
2	Restaurants	In Suhar
3	Transportation	Public taxi
4	Medical facilities	Available
5	Bank and Post Office	In Suhar
6	Tourist Office	Available

7	Remarks	NIL

OOSH AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 7
2	Rescue equipment	Three 6x6 with water capacity 12 000 LTRS One spare 6x6 supplementary water
3	Capability for removal of disabled aircraft	Kit available in Muscat, 747 capacity
4	Remarks	NIL

OOSH AD 2.7 SEASONAL AVAILABILITY — CLEARING

NIL

OOSH AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	Apron	Surface: Strength:	Concrete PCN 83/R/B/W/T
		GA Apron	Surface: Strength:	Concrete PCN 35/R/B/0.4MPa/T
2	Taxiway width, surface and strength		Width: Surface: Strength:	25 M Asphalt PCN 82/F/B/W/T
		B4	Width: Surface: Strength:	15 M Concrete PCN 35/R/B/0.4MPa/T
3	ACL and elevation	NIL		
4	VOR checkpoint	NIL		
5	INS checkpoints	NIL		
6	Remarks	NIL		

OOSH AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Marshalling guidance provided onto stand.
2	RWY and TWY markings and LGT	TWY & Apron: Markings: Centreline, edge, runway holding positions LGT: C2, C3, J all with centreline lights

		RWY: Markings: Centreline, THR designators, TDZ, side strip, aiming point markings LGT: Centreline, edge, end-inset, THR-inset, WBAR, Turn Pad
3	Stop bars	TWY C2 & C3
4	Other runway protection measures	NIL
5	Remarks	Follow me service is provided for all arrival traffics and night departure traffics. Parking area on Apron GA available for Oman Aviation Academy Aircraft. Non Oman Aviation Academy Aircraft PPR. Moving on Apron GA not under ATC Control.

OOSH AD 2.10 AERODROME OBSTACLES

`

In Area 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
RWY 15 Approach / RWY 33 Departure					
NIL	Electricity line masts (Pole)	242704.00 N 0563557.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242706.00 N 0563542.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242707.00 N 0563528.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242708.00 N 0563512.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242709.00 N 0563457.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
Area 2c					
NIL	Electricity line masts (Pole)	242701.00 N 0563637.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242702.00 N 0563626.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242703.00 N 0563612.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242710.00 N 0563444.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242711.00 N 0563430.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL

In Area 2					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
NIL	Electricity line masts (Pole)	242712.00 N 0563416.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242713.00 N 0563404.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242704.00 N 0563354.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242655.00 N 0563345.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL
NIL	Electricity line masts (Pole)	242645.00 N 0563335.00 E	up to 110 M (up to 361 FT)	marked and lit at night	NIL

In Area 3					
OBST ID/ Designation	**OBST type**	**OBST position**	**ELEV**	**Markings/ Type, colour, lighting (LGT)**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
NIL	NIL	NIL	NIL	NIL	NIL

OOSH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Weather observation is provided for each movement.
2	Hours of serviceMET Office outside hours	NIL
3	Office responsible for TAF preparationPeriods of validity	NIL
4	Trend forecasteInterval of issuance	NIL
5	Briefing/consultation provided	NIL
6	Flight documentationLanguage(s) used	English
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	NIL
9	ATS units provided with information	Meteorological information
10	Additional information	NIL

OOSH AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
15	155° T 153° M	4001 X 60	82 /F /B /W /T Asphalt	242408.84 N 0563702.04 E 242211.12 N 0563802.40 E GUND -82.87 FT	THR 104.9 FT TDZ NIL
33	335° T 333° M	4001 X 60	82 /F /B /W /T Asphalt	THR: 242211.12 N 0563802.40 E RWY: 242408.84 N 0563702.04 E GUND -82.87 FT	THR 144.1 FT TDZ NIL

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
15	0.3% up	NIL	NIL	4121 X 300	240 M X 150 M
33	0.3% down	NIL	NIL	4121 X 300	240 M X 150 M

Designations RWY NR	Location and description of engineering material arresting system(EMAS)	OFZ	Remark
1	12	13	14
15	NIL	NIL	NIL
33	NIL	NIL	NIL

OOSH AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
15	4001	4001	4001	4001	Nil
33	4001	4001	4001	4001	Nil

OOSH AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing,colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
15	LIH 900 M	Green with WBAR	PAPI left side/3.00° MEHT 54.5 FT 372 M from THR	Nil	4000 M 15 M (0-3100M) white (3100M-3700M) alternate red and white (3700M-4000M) red	(RE1-RE66) right 4000M (RE67-RE132) left 4000M 60M (0-3400M) white (3400M-4000M) yellow and white	60M Spacing 3 M red	Nil	Nil
33	SALS LIM 420 M	Green with WBAR	PAPI left side/3.00° MEHT 59.1 FT 414 M from THR	Nil	4000 M 15 M (0-3100M) white (3100M-3700M) alternate red and white (3700M-4000M) red	(RE1-RE66) right 4000M (RE67-RE132) left 4000M 60M (0-3400M) white (3400M-4000M) yellow and white	60M Spacing 3 M red	Nil	Nil

OOSH AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics andhours of operation	NIL
2	LDI location and LGT Anemometer location	Ground signaling devices: WDI

	and LGT	Anemometer lit, South abeam TDZ RWY 15
3	TWY edge and centre line lighting	Centreline: All TWYs
4	Secondary power supply/switch-over time	Two power supply available/ Switch over time: 12 Seconds
5	Remarks	NIL

OOSH AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO Geoid undulation	NIL
2	TLOF and/or FATO elevation M/FT	NIL
3	TLOF and FATO area dimensions, surface, strength, marking	NIL
4	True BRG of FATO	NIL
5	Declared distance available	NIL
6	APP and FATO lighting	NIL
7	Remarks	Helicopter is treated as Fixed Wing Traffic

OOSH AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	Suhar ATZ From N243305.88 E0563933.48 to N241822.80 E0564725.02 then an ARC of Radius 10NM centered on the Suhar ARP (N242309.98 E0563732.23) to N241319.60 E0563522.36 to N242742.83 E0562750.10 and then an ARC of Radius 10NM centered on the Suhar ARP (N242309.98 E0563732.23) to N243305.88 E0563933.48.
2	Vertical limits	SFC/4500 FT AMSL
3	Airspace classification	G
4	ATS unit call signLanguage(s)	Suhar AFIS; Suhar Information English
5	Transition altitude/Transition level	13 000 FT/FL150
6	Remarks	- Continuous two-way VHF Communication Mandatory. - Outside AFIS Hours, TIBA Procedures shall apply.

OOSH AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	**2**	**3**	**4**	**5**
AFIS	Suhar Information	118.725 MHz	0300-1330	Nil

OOSH AD 2.19 RADIO NAVIGATION AND LANDING AIDS

NIL

OOSH AD 2.20 LOCAL AERODROME REGULATIONS

20.1 AERODROME REGULATIONS

NIL

20.2 TAXIING TO AND FROM STANDS

NIL

20.3 PARKING AREA FOR SMALL AIRCRAFT (GENERAL AVIATION)

NIL

20.4 PARKING AREA FOR HELICOPTERS

NIL

20.5 APRON - TAXIING DURING WINTER CONDITIONS

NIL

20.6 TAXIING LIMITATIONS

NIL

20.7 SCHOOL AND TRAINING FLIGHTS - TECHNICAL TEST FLIGHTS - USE OF RUNWAYS

NIL

20.8 HELICOPTER TRAFFIC - LIMITATION

NIL

20.9 REMOVAL OF DISABLED AIRCRAFT FROM RUNWAYS

Kit available at Muscat airport.

OOSH AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OOSH AD 2.22 FLIGHT PROCEDURES

NIL

OOSH AD 2.23 ADDITIONAL INFORMATION

23.1 INTRODUCTION

23.1.1 The diversity and nature of aircraft operations in Class G airspace in the immediate vicinity of Suhar Airport has occasionally led to potential conflicts between aircraft known to ATSU and unknown aircraft operating in that area. To help address this issue and thereby enhance the safety of IFR flight operations whilst having minimal impact upon aircraft operations, a Mandatory Broadcasting zone (MBZ) was established around Suhar Airport to raise situational awareness for all operating within the surrounding airspace.

23.1.2 The replacement of the Suhar MBZ with an ATZ (Class G) allows the airspace to retain its original classification, yet also allows for enhanced situational awareness for all users. This therefore increases safety for all aircraft flying with in the ATZ while imposing minimal additional restrictions.

23.1.3 In order to ensure that all aircraft operating on the ground or within the ATZ are listening on a common frequency and following standard reporting procedures, the activation of radios on board all aircraft operating within the ATZ is compulsory at all times. All flight crews shall maintain a continuous air-ground voice communication watch and establish two-way communication on the appropriate communication channel in accordance with the reporting procedures set out in Section 6 below.

23.1.4 All aircraft operating within the Suhar ATZ shall broadcast their position, intention and altitude on the Suhar

Information frequency 118.725 MHz using standard ICAO phraseology.

23.2 DEFINITION

Aerodrome Traffic Zone (ATZ) - An airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic.

Note - Aerodrome Traffic Zone is a non-ICAO definition and used in terms of CAR 179 to describe airspace similar to a CTR (Class G).

23.3 ATS AIRSPACE

Refer OOSH AD 2.17 - ATS AIRSPACE.

23.4 ATS COMMUNICATION FACILITIES

Refer OOSH AD 2.18 - ATS COMMUNICATION FACILITIES.

23.5 RULES OF THE AIR APPLICABLE WITHIN THE SUHAR ATZ

23.5.1 Within the Suhar ATZ the following rules of Class G Airspace will apply:

23.5.1.1 IFR and VFR flights are permitted;

23.5.1.2 Continuous two-way VHF communication mandatory;

23.5.1.3 A speed restriction of 250 KIAS applies to IFR flights below 10 000 FT ALT;

23.5.1.4 ATC clearance is not required.

23.5.1.5 On request, and to the extent possible within the coverage area of the facilities, Muscat ACC will provide a radar-derived Flight Information Service (FIS) to IFR and VFR flights operating within Class G Airspace

23.6 COMMUNICATION PROCEDURE APPLICABLE IN THE SUHAR ATZ.

23.6.1 The following reporting procedures shall be followed by all flights operating within the Suhar ATZ:

23.6.1.1 Before Entering the Suhar ATZ:

23.6.1.1.1 At least five minutes before entering the Suhar ATZ, an initial broadcast shall be made containing:

- The designator of the station being called (SuharInformation);

- Call sign;

- Type of aircraft;

- Position;

- Flight level or altitude;

- The intention of the flight crew.

23.6.1.2 Arrivals:

23.6.1.2.1 Report entering the Suhar ATZ and providing the aircraft’s position, altitude and estimated time of landing and the pilot-in-command’s arrival procedure intentions;

23.6.1.2.2 Report when on final approach; and,

23.6.1.2.3 Report when clear of the runway on which the aircraft has landed.

23.6.1.3 In Aerodrome Traffic Circuit:

23.6.1.3.1 When joining the aerodrome traffic circuit:

- Report aircraft call sign, position in the circuit and altitude;

- Broadcasts shall be made for changes in altitude and direction; and

- Broadcasts shall be made to other aircraft in the same airspace to announce the crew's own intentions.

23.6.1.4 Before Entering Manoeuvring Area:

23.6.1.4.1 Departing aircraft must broadcast on 118.725 MHz to inform other aircraft on the ground or in the ATZ of its location and intentions.

23.6.1.5 Departures:

23.6.1.5.1 Before moving onto the take-off surface, report aircraft call sign, runway to be used for take-off, and the pilot’s intentions after take-off.

23.6.1.5.2 If a delay is encountered, broadcast intentions and expected length of delay, then rebroadcast departure intentions prior to moving onto the take-off surface

23.6.1.5.3 After take-off, report departing from the aerodrome traffic circuit, and maintain a listening watch on 118.725 MHz until clear of the Suhar ATZ.

23.6.1.6 Transiting through the Suhar ATZ:

23.6.1.6.1 At least five minutes before entering the Suhar ATZ, broadcasting the aircraft’s call sign, position, altitude and pilot’s intentions;

23.6.1.6.2 Maintain a listening watch on 118.725 MHz and make regular broadcasts regarding position, altitude and intentions; and,

23.6.1.6.3 Report when clear of the Suhar ATZ.

OOSH AD 2.24 CHARTS RELATED TO AN AERODROME

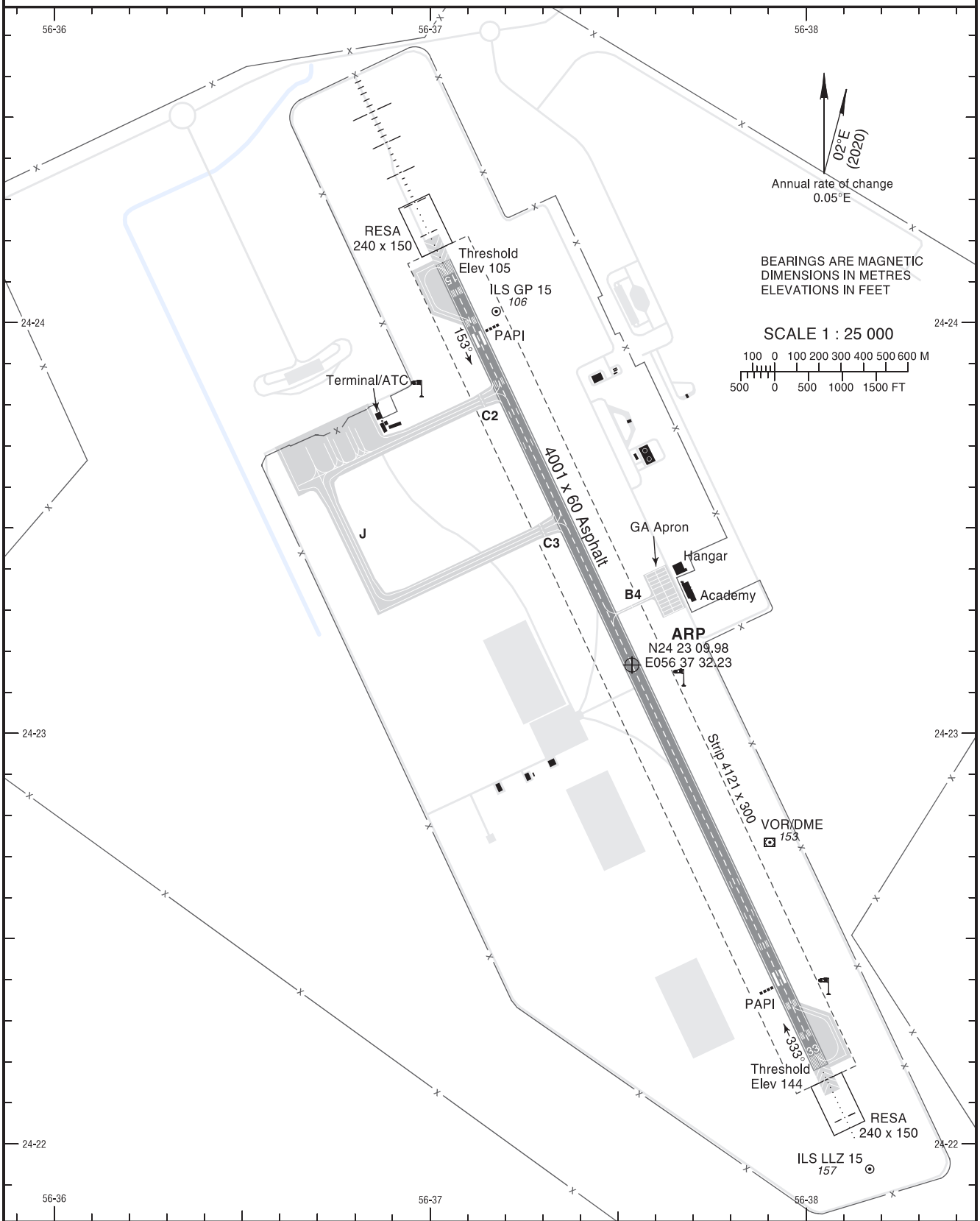
AERODROME CHART - ICAO	AERODROME CHART - ICAO
AIRCRAFT PARKING/DOCKING CHART - ICAO	AIRCRAFT PARKING/DOCKING CHART - ICAO
AIRCRAFT PARKING/DOCKING CHART - ICAO (GA APRON)	AIRCRAFT PARKING/DOCKING CHART - ICAO (GA APRON)
AERODROME OBSTACLE CHART - ICAO - TYPE A	AERODROME OBSTACLE CHART - ICAO - TYPE A
AERODROME OBSTACLE CHART - ICAO - TYPE B	AERODROME OBSTACLE CHART - ICAO - TYPE B
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 15	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 15
STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 33	STANDARD DEPARTURE CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 33
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 15	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 15
STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 33	STANDARD ARRIVAL CHART INSTRUMENT - ICAO - RNAV (GNSS) RWY 33
INSTRUMENT APPROACH	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 15

CHART - ICAO - RNP RWY 15	
INSTRUMENT APPROACH CHART - ICAO - RNP RWY 33	INSTRUMENT APPROACH CHART - ICAO - RNP RWY 33

OOSH AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

AERODROME CHART - ICAO | WGS-84 | **AD ELEV** 144 FT | SUHAR Information 118.725 | **SUHAR/Suhar OMAN**



RWY	DIRECTION	THRESHOLD	STRENGTH	DECLARED DISTANCES				AERODROME LIGHTING
				TORA	TODA	ASDA	LDA	
15	153° MAG	N 24 24 08.84 E 056 37 02.04	PCN 82/F/B/W/T	4001m	4001m	4001m	4001m	RWY 15: ALS LIH (length 900m), RTHL, PAPI-L (3.00°), RCLL, REDL, RENL
33	333° MAG	N 24 22 11.12 E 056 38 02.40	PCN 82/F/B/W/T	4001m	4001m	4001m	4001m	RWY 33: SALS LIM (length 420m), RTHL, PAPI-L (3.00°), RCLL, REDL, RENL

INTENTIONALLY

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AIRCRAFT PARKING/DOCKING CHART - ICAO

AIRCRAFT PARKING/
DOCKING CHART - ICAO

WGS-84

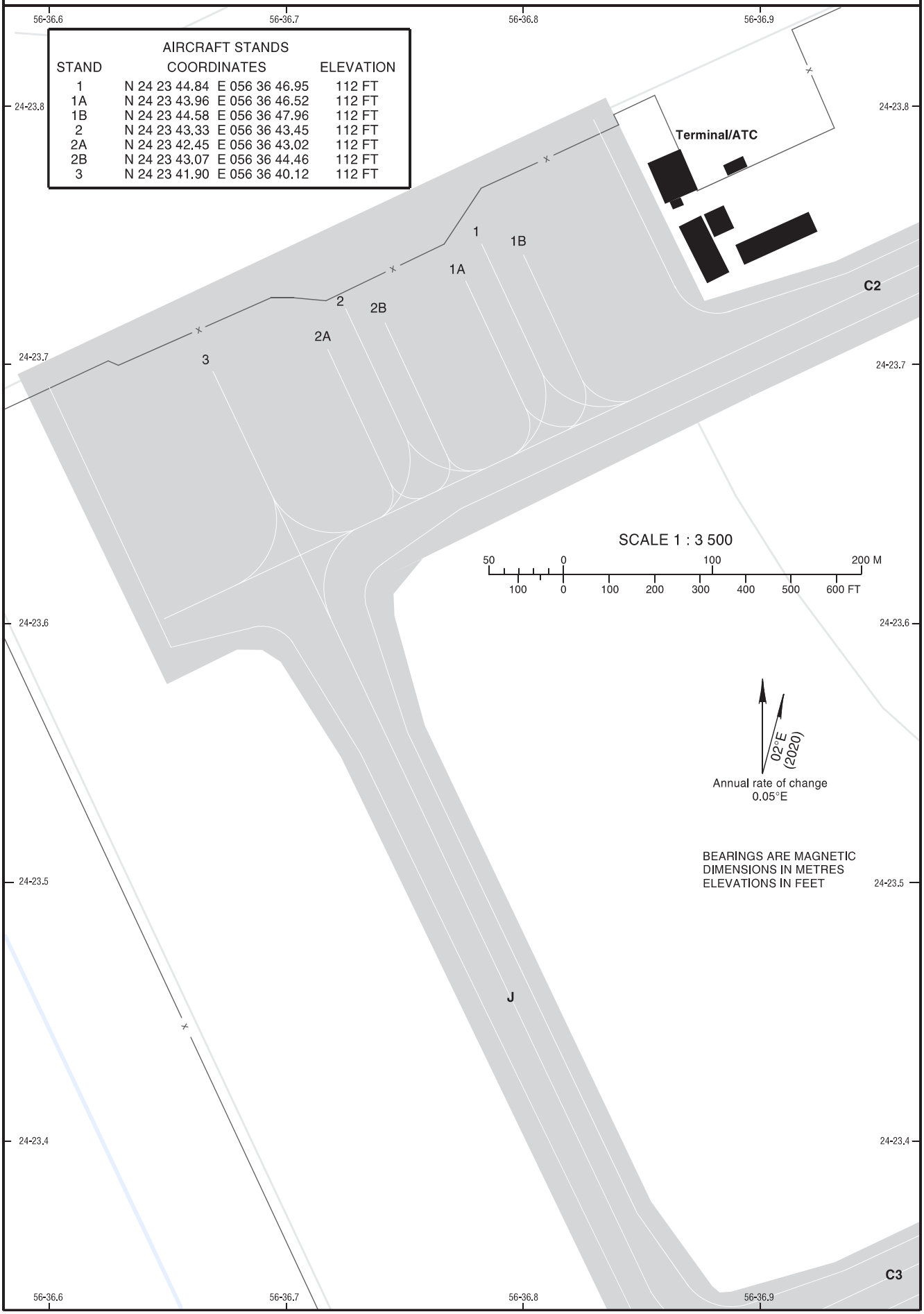
AD ELEV
144 FT

SUHAR Information 118.725

SUHAR/Suhar
OMAN

AIRCRAFT STANDS

STAND	COORDINATES	ELEVATION
1	N 24 23 44.84 E 056 36 46.95	112 FT
1A	N 24 23 43.96 E 056 36 46.52	112 FT
1B	N 24 23 44.58 E 056 36 47.96	112 FT
2	N 24 23 43.33 E 056 36 43.45	112 FT
2A	N 24 23 42.45 E 056 36 43.02	112 FT
2B	N 24 23 43.07 E 056 36 44.46	112 FT
3	N 24 23 41.90 E 056 36 40.12	112 FT



INTENTIONALLY

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AIRCRAFT PARKING/DOCKING CHART - ICAO

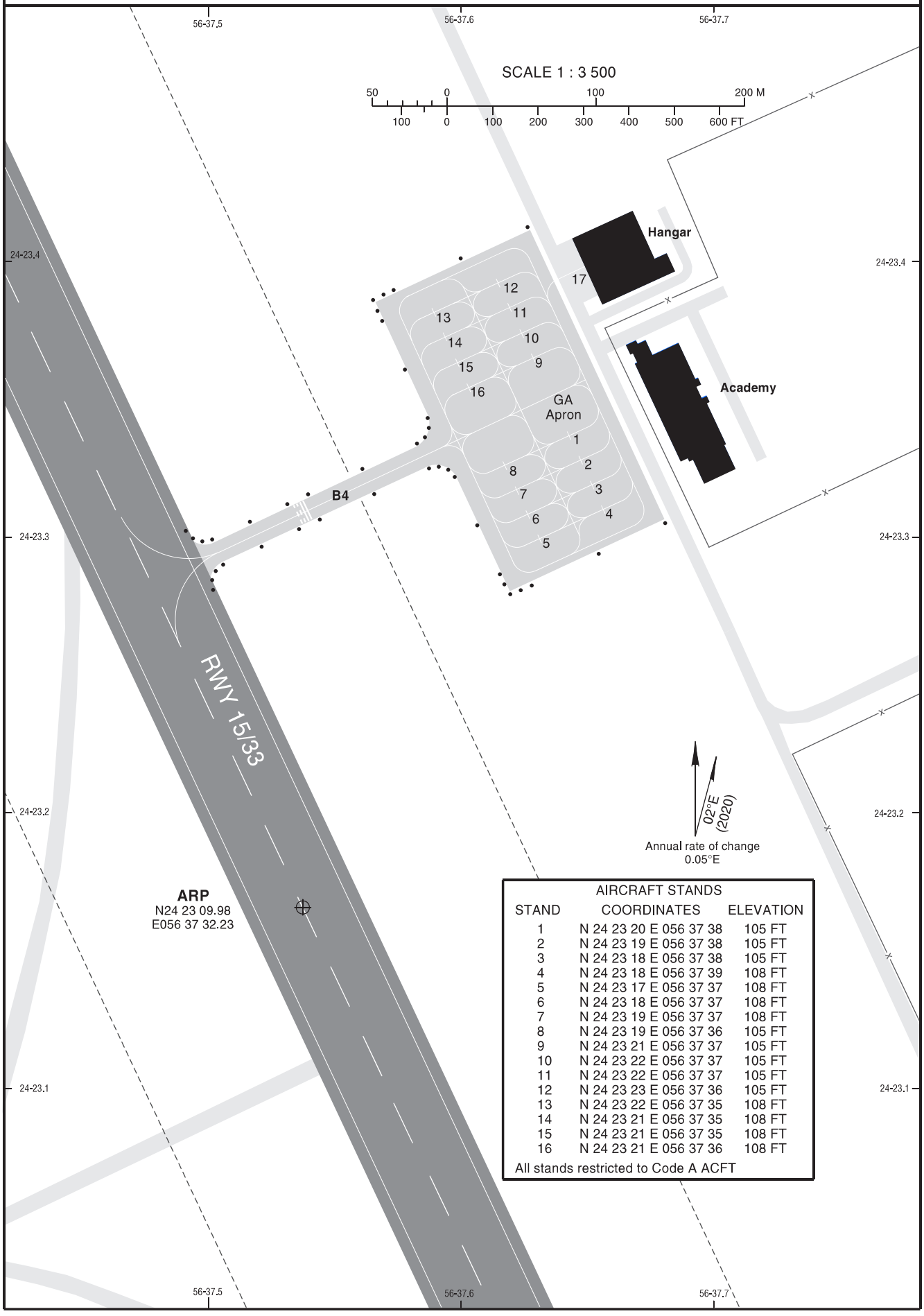
AIRCRAFT PARKING/
DOCKING CHART - ICAO

WGS-84

AD ELEV
144 FT

SUHAR Information 118.725

SUHAR/Suhar
OMAN



AIRCRAFT STANDS

STAND	COORDINATES	ELEVATION
1	N 24 23 20 E 056 37 38	105 FT
2	N 24 23 19 E 056 37 38	105 FT
3	N 24 23 18 E 056 37 38	105 FT
4	N 24 23 18 E 056 37 39	108 FT
5	N 24 23 17 E 056 37 37	108 FT
6	N 24 23 18 E 056 37 37	108 FT
7	N 24 23 19 E 056 37 37	108 FT
8	N 24 23 19 E 056 37 36	105 FT
9	N 24 23 21 E 056 37 37	105 FT
10	N 24 23 22 E 056 37 37	105 FT
11	N 24 23 22 E 056 37 37	105 FT
12	N 24 23 23 E 056 37 36	105 FT
13	N 24 23 22 E 056 37 35	108 FT
14	N 24 23 21 E 056 37 35	108 FT
15	N 24 23 21 E 056 37 35	108 FT
16	N 24 23 21 E 056 37 36	108 FT

All stands restricted to Code A ACFT

INTENTIONALLY

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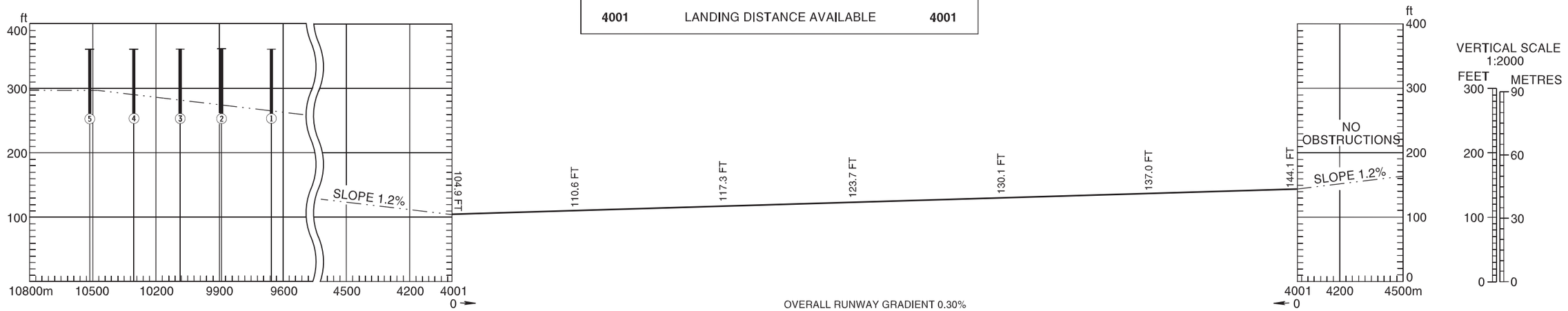
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

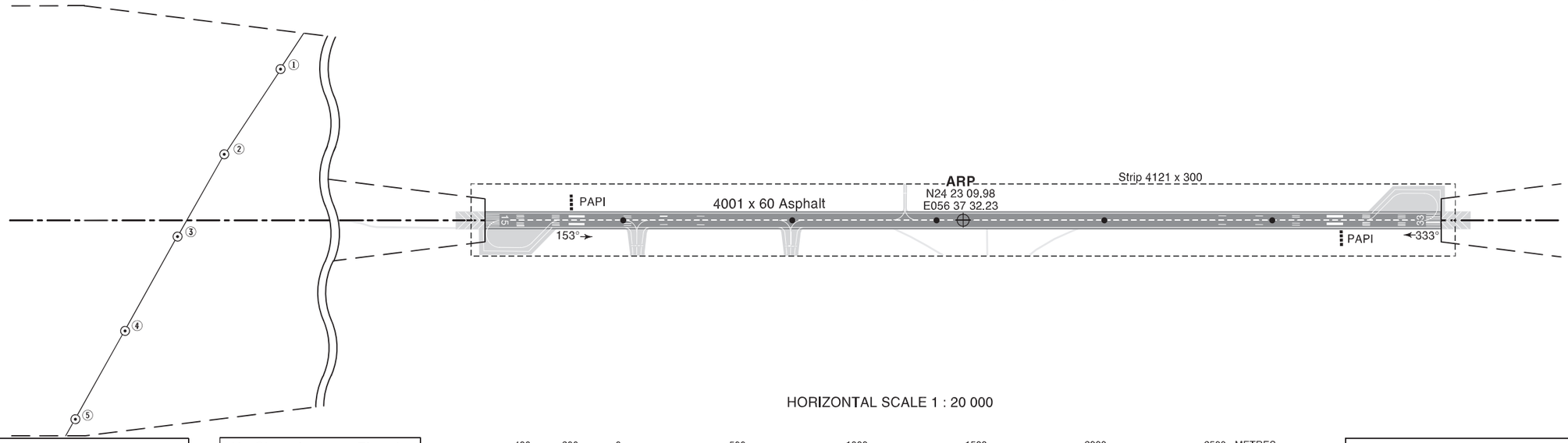
SUHAR/Suhar
OMAN

DISTANCES IN METRES, ELEVATIONS IN FEET
MAGNETIC VARIATION 2°E, 2020

RWY 15-33

DECLARED DISTANCES		
RWY 15		**RWY 33**
4001	TAKE-OFF RUN AVAILABLE	**4001**
4001	TAKE-OFF DISTANCE AVAILABLE	**4001**
4001	ACCELERATE STOP DISTANCE AVAILABLE	**4001**
4001	LANDING DISTANCE AVAILABLE	**4001**





HORIZONTAL SCALE 1 : 20 000

400 200 0 500 1000 1500 2000 2500 METRES
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000 FEET

ORDER OF ACCURACY
HORIZONTAL -/+ 3 M
VERTICAL -/+ 1 FT
Aerodrome information MAR 2017
Survey data MAR 2017

AMENDMENT RECORD		
No.	Date	Entered by

Nr	Obstacle	Elevation
①	Pole	up to 361
②	Pole	up to 361
③	Pole	up to 361
④	Pole	up to 361
⑤	Pole	up to 361

LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	①	①
GROUND LEVEL	▲	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
TREE	*	
MOBILE	=○=	

INTENTIONALLY

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AERODROME OBSTACLE CHART - ICAO

WGS-84

AD ELEV
144 FT

ARP
N23 23 09.98
E056 37 32.23

AERODROME OBSTACLE CHART - ICAO TYPE B

SUHAR/Suhar
OMAN

56-29 56-30 56-31 56-32 56-33 56-34 56-35 56-36 56-37 56-38 56-39 56-40 56-41

24-27 24-26 24-25 24-24 24-23 24-22 24-21 24-20 24-19 24-18 24-17 24-16

VAR 02° E 2020
ANNUAL CHANGE 0.05° E

02° E

BEARINGS ARE MAGNETIC
ALTITUDES & ELEV IN FEET
DIMENSIONS IN METRES

HORIZONTAL SCALE 1:20 000

400 200 0 500 1000 1500 2000 2500 METRES
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000 FEET

Obstacles shown are those which penetrate the surfaces specified in Annex 4, Volume 1, Chapter 4

ORDER OF ACCURACY:
Horizontal 3m
Vertical 1ft

CONICAL SURFACE
1:20 (5%) slope up to
105m above inner
Horizontal Surface elevation

INNER HORIZONTAL SURFACE
45m above lowest
threshold elevation

OUTER HORIZONTAL SURFACE
150m above lowest threshold

APPROACH SURFACE SLOPE 1:50 (2%)

TAKE-OFF CLIMB SURFACE SLOPE 1:62.5 (1.6%)

APPROACH SURFACE SLOPE 1:50 (2%)

TRANSITIONAL SURFACE 1:7 (14.3%)

RWY 14/32 4000x45

ARP
N24 23 09.98
E056 37 32.23

TAKE-OFF CLIMB SURFACE SLOPE 1:62.5 (1.6%)

APPROACH SURFACE SLOPE 1:50 (2%)

APPROACH SURFACE SLOPE 1:50 (2%)

443'
148'
158'
621'
669'
640'
729'
742'
718'
687'
692'
751'
670'
751'
613'
686'
643'
662'
660'
680'
640'
684'
657'
676'

LEGEND

Area Minimum Altitude (AMA)	
Example: 2900 feet	29
Each 1° quadrilateral contains an area minimum altitude which provides a minimum clearance of 1000 feet (at least under instrument meteorological conditions (IMC)). The AMA provides a minimum clearance of 1000 feet above all obstacles in the quadrilateral. It is represented in thousands and tens of feet above mean sea level.	
Height Obstacle Obstacle Identification	588' Tower
Mast/Tower	
Obstacle	
Ground / Terrain Spot	
Terrain	

AMENDMENT RECORD

No.	Date	Entered by

INTENTIONALLY

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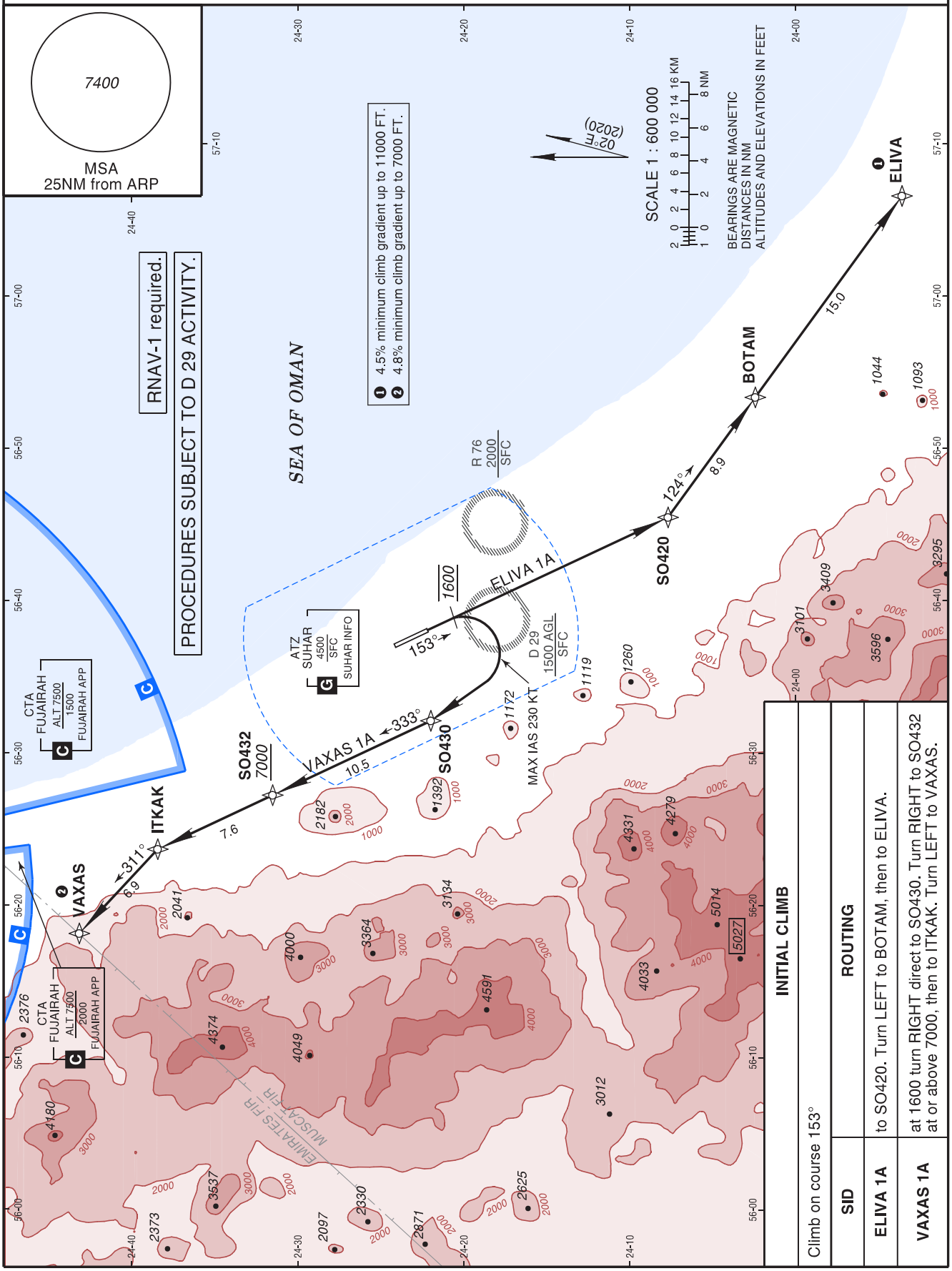
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

AD ELEV 144 FT
Trans Alt *13000*
Trans Level *FL150*

SUHAR Information 118.725

SUHAR/Suhar
OMAN
RWY 15

ELIVA 1A, VAXAS 1A RNAV (GNSS) DEPARTURE



INITIAL CLIMB	SID	ROUTING
Climb on course 153°	ELIVA 1A	to SO420. Turn LEFT to BOTAM, then to ELIVA.
	VAXAS 1A	at 1600 turn RIGHT direct to SO430. Turn RIGHT to SO432 at or above 7000, then to ITKAK. Turn LEFT to VAXAS.

Route Description: RNAV (GNSS) DEPARTURE RWY 15

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
ELIVA 1A DEPARTURE									
CF	SO420		153° (154.8°)				2°E		RNAV 1
TF	BOTAM		124° (126.0°)	L			2°E	8.9	RNAV 1
TF	ELIVA		124° (126.0°)				2°E	15.0	RNAV 1
VAXAS 1A DEPARTURE									
CA			153° (154.8°)		@1600		2°E		RNAV 1
DF	SO430			R		230 KT	2°E		RNAV 1
TF	SO432		333° (334.9°)		+7000		2°E	10.5	RNAV 1
TF	ITKAK		333° (334.8°)				2°E	7.6	RNAV 1
TF	VAXAS		311° (313.0°)	L			2°E	6.9	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 15

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
SO420	N24°07'42.4''	E056°45'26.8''	N24°07.707'	E056°45.447'	
BOTAM	N24°02'26.5''	E056°53'20.1''	N24°02.442'	E056°53.335'	
ELIVA	N23°53'34.8''	E057°06'34.3''	N23°53.580'	E057°06.572'	
SO430	N24°22'00.0''	E056°32'05.0''	N24°22.000'	E056°32.083'	
SO432	N24°31'31.0''	E056°27'12.0''	N24°31.517'	E056°27.200'	
ITKAK	N24°38'25.5''	E056°23'38.8''	N24°38.425'	E056°23.647'	
VAXAS	N24°43'08.0''	E056°18'07.0''	N24°43.133'	E056°18.117'	

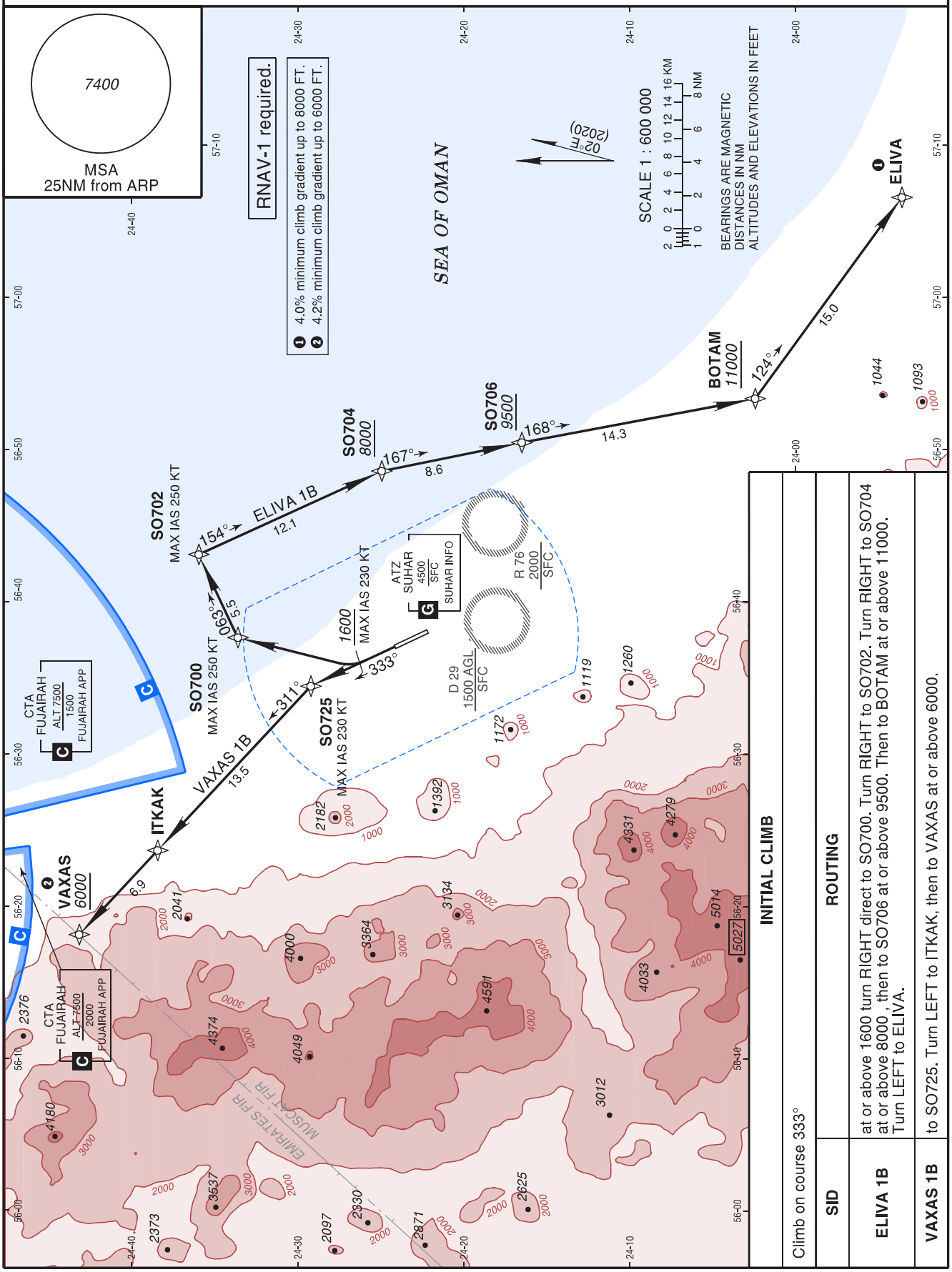
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

AD ELEV 144 FT
Trans Alt *13000*
Trans Level *FL150*

SUHAR Information 118.725

SUHAR/Suhar
OMAN
RWY 33

ELIVA 1B, VAXAS 1B RNAV (GNSS) DEPARTURE



INITIAL CLIMB

Climb on course 333°

SID	ROUTING
ELIVA 1B	at or above 1600 turn RIGHT direct to SO700. Turn RIGHT to SO702. Turn RIGHT to SO704 at or above 8000 , then to SO706 at or above 9500. Then to BOTAM at or above 11000. Turn LEFT to ELIVA.
VAXAS 1B	to SO725. Turn LEFT to ITKAK, then to VAXAS at or above 6000.

Route Description: RNAV (GNSS) DEPARTURE RWY 33

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
VAXAS 1B DEPARTURE									
CF	SO725		333° (334.8°)			230 KT	2°E		RNAV 1
TF	ITKAK		311° (313.1°)	L			2°E	13.5	RNAV 1
TF	VAXAS		311° (313.0°)		+6000		2°E	6.9	RNAV 1
ELIVA 1B DEPARTURE									
CA			333° (334.8°)		+1600	230 KT	2°E		RNAV 1
DF	SO700			R		250 KT	2°E		RNAV 1
TF	SO702		063° (064.8°)	R		250 KT	2°E	5.5	RNAV 1
TF	SO704		154° (155.5°)	R	+8000		2°E	12.1	RNAV 1
TF	SO706		167° (168.5°)	R	+9500		2°E	8.6	RNAV 1
TF	BOTAM		168° (169.3°)		+11000		2°E	14.3	RNAV 1
TF	ELIVA		124° (126.0°)	L			2°E	15.0	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) DEPARTURE RWY 33

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
SO725	N24°29'12.7''	E056°34'26.1''	N24°29.212'	E056°34.435'	
ITKAK	N24°38'25.5''	E056°23'38.8''	N24°38.425'	E056°23.647'	
VAXAS	N24°43'08.0''	E056°18'07.0''	N24°43.133'	E056°18.117'	
SO700	N24°33'36.0''	E056°37'38.0''	N24°33.600'	E056°37.633'	
SO702	N24°35'57.0''	E056°43'06.0''	N24°35.950'	E056°43.100'	
SO704	N24°24'57.0''	E056°48'35.0''	N24°24.950'	E056°48.583'	
SO706	N24°16'31.0''	E056°50'27.0''	N24°16.517'	E056°50.450'	
BOTAM	N24°02'26.5''	E056°53'20.1''	N24°02.442'	E056°53.335'	
ELIVA	N23°53'34.8''	E057°06'34.3''	N23°53.580'	E057°06.572'	

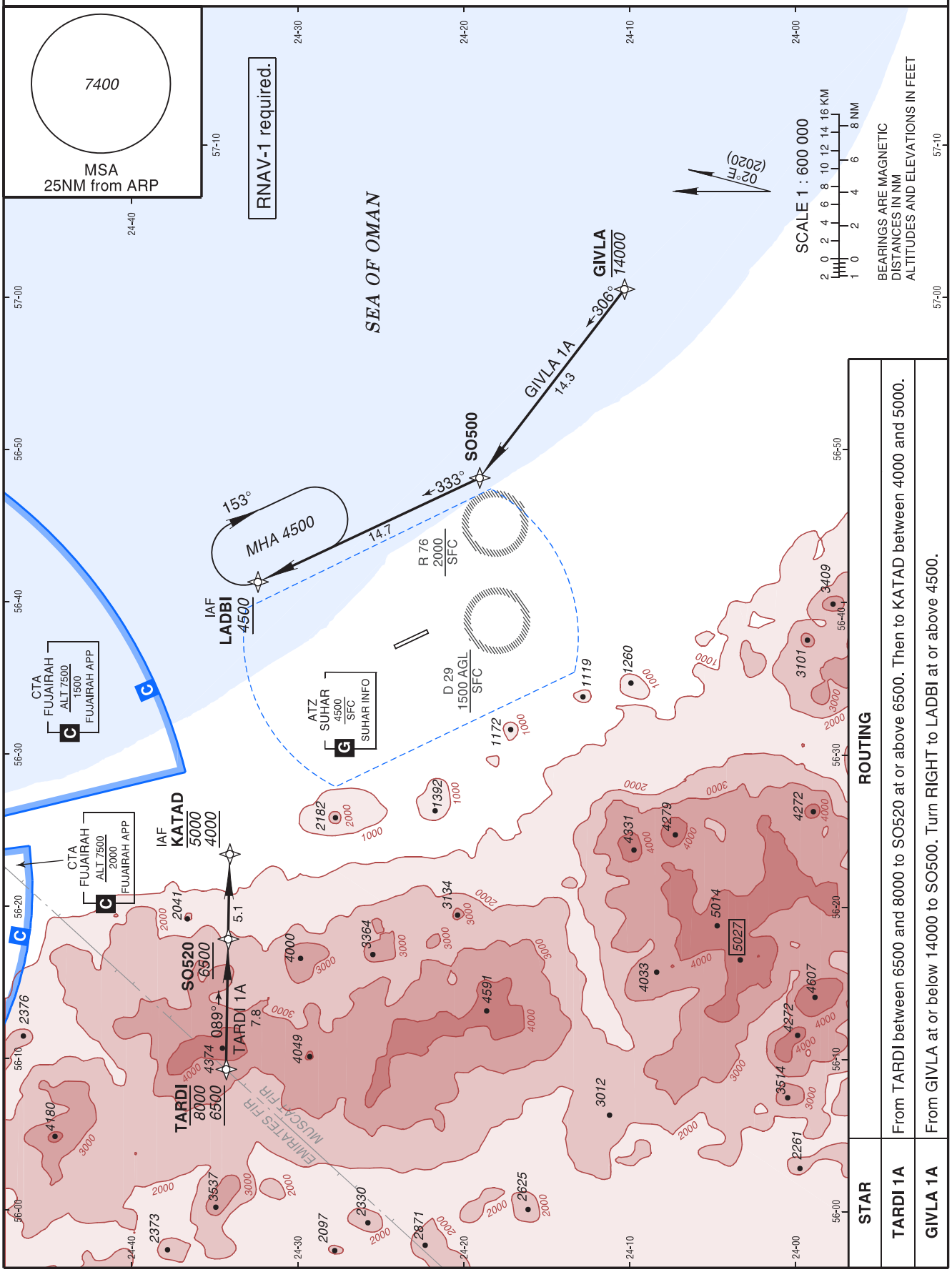
STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

AD ELEV 144 FT
Trans Alt *13000*
Trans Level *FL150*

SUHAR Information 118.725

SUHAR/Suhar
OMAN
RWY 15

TARDI 1A, GIVLA 1A RNAV (GNSS) ARRIVAL



STAR	ROUTING
TARDI 1A	From TARDI between 6500 and 8000 to SO520 at or above 6500. Then to KATAD between 4000 and 5000.
GIVLA 1A	From GIVLA at or below 14000 to SO500. Turn RIGHT to LADBI at or above 4500.

Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 15

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	LADBI	333° (334.9°)	1 MIN	R	4500		230 KT	2°E	

Route Description: RNAV (GNSS) ARRIVAL RWY 15

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
TARDI 1A ARRIVAL									
IF	TARDI				-8000 +6500		2°E		RNAV 1
TF	SO520		089° (090.9°)		+6500		2°E	7.8	RNAV 1
TF	KATAD		089° (090.9°)		-5000 +4000		2°E	5.1	RNAV 1
GIVLA 1A ARRIVAL									
IF	GIVLA				-14000		2°E		RNAV 1
TF	SO500		306° (307.5°)				2°E	14.3	RNAV 1
TF	LADBI		333° (334.9°)	R	+4500		2°E	14.7	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 15

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
TARDI	N24°34’18.0’’	E056°09’15.0’’	N24°34.300’	E056°09.250’	
SO520	N24°34’10.6’’	E056°17’48.3’’	N24°34.177’	E056°17.805’	
KATAD	N24°34’05.5’’	E056°23’23.9’’	N24°34.092’	E056°23.398’	
GIVLA	N24°10’19.7’’	E057°00’31.8’’	N24°10.328’	E057°00.530’	
SO500	N24°19’03.3’’	E056°48’07.5’’	N24°19.055’	E056°48.125’	
LADBI	N24°32’24.0’’	E056°41’17.0’’	N24°32.400’	E056°41.283’	

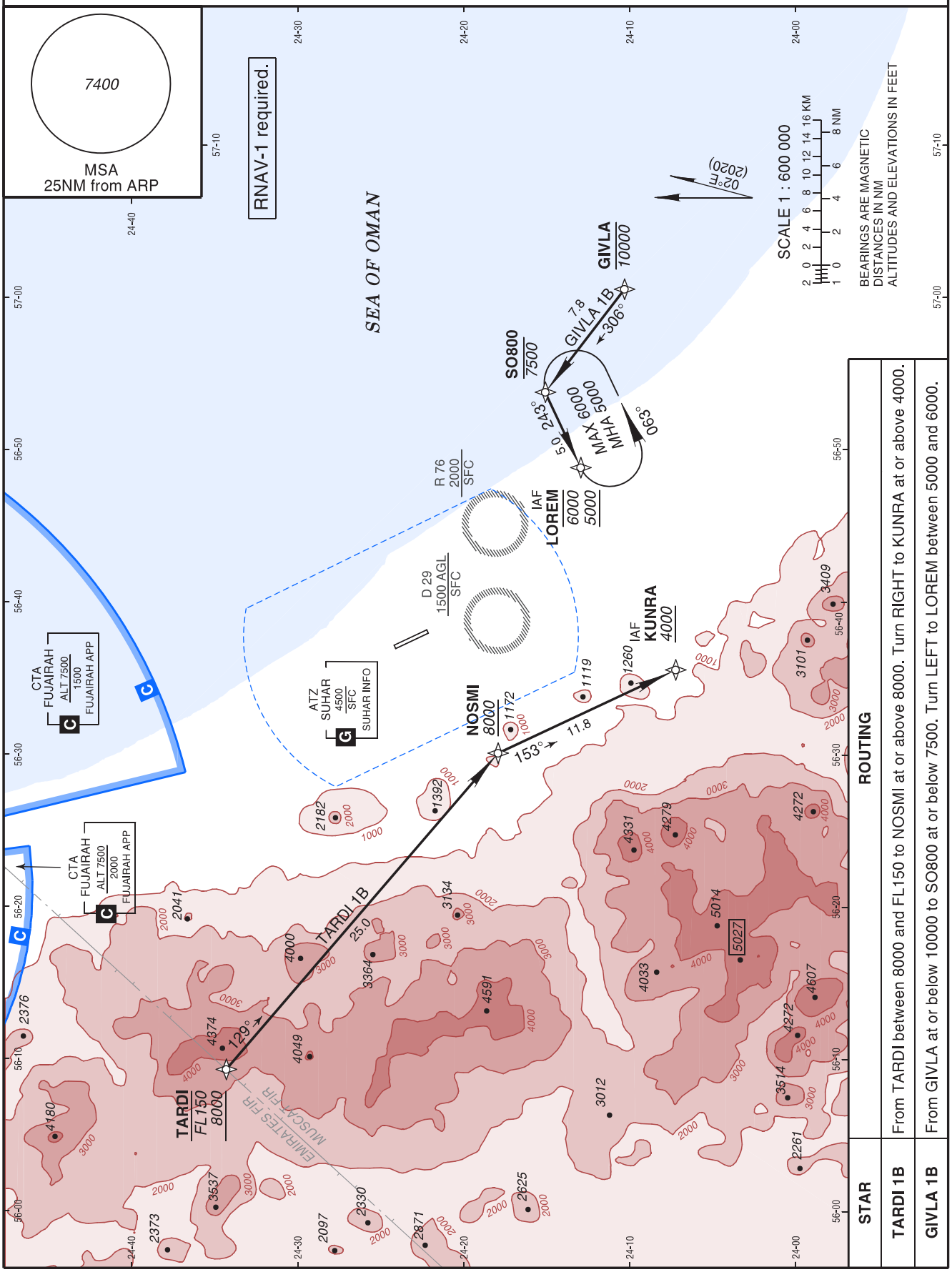
STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

AD ELEV 144 FT
Trans Alt *13000*
Trans Level *FL150*

SUHAR Information 118.725

SUHAR/Suhar
OMAN
RWY 33

TARDI 1B, GIVLA 1B RNAV (GNSS) ARRIVAL



Holding Instruction/Areas RNAV (GNSS) ARRIVAL RWY 33

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	LOREM	243° (244.9°)	1 MIN	L	5000	6000	230 KT	2°E	

Route Description: RNAV (GNSS) ARRIVAL RWY 33

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
TARDI 1B ARRIVAL									
IF	TARDI				-FL150 +8000		2°E		RNAV 1
TF	NOSMI		129° (130.6°)		+8000		2°E	25.0	RNAV 1
TF	KUNRA		153° (154.8°)	R	+4000		2°E	11.8	RNAV 1
GIVLA 1B ARRIVAL									
IF	GIVLA				-10000		2°E		RNAV 1
TF	SO800		306° (307.5°)		-7500		2°E	7.8	RNAV 1
TF	LOREM		243° (244.9°)	L	-6000 +5000		2°E	5.0	RNAV 1

Aeronautical Data Tabulation: RNAV (GNSS) ARRIVAL RWY 33

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
TARDI	N24°34'18.0''	E056°09'15.0''	N24°34.300'	E056°09.250'	
NOSMI	N24°17'57.0''	E056°30'02.0''	N24°17.950'	E056°30.033'	
KUNRA	N24°07'14.5''	E056°35'30.8''	N24°07.242'	E056°35.513'	
GIVLA	N24°10'19.7''	E057°00'31.8''	N24°10.328'	E057°00.530'	
SO800	N24°15'05.7''	E056°53'45.7''	N24°15.095'	E056°53.762'	
LOREM	N24°12'57.8''	E056°48'48.1''	N24°12.963'	E056°48.802'	

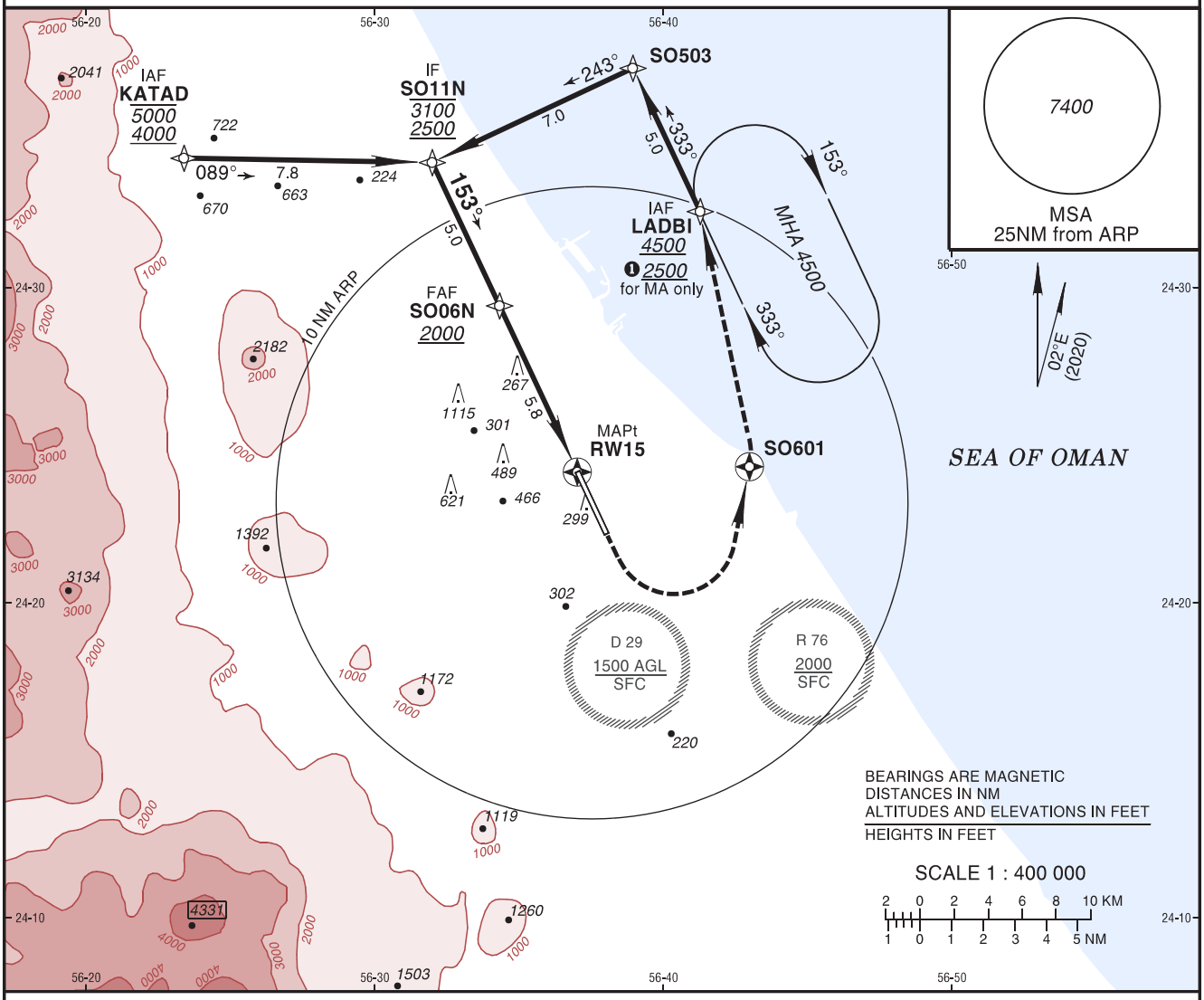
INSTRUMENT APPROACH CHART - ICAO

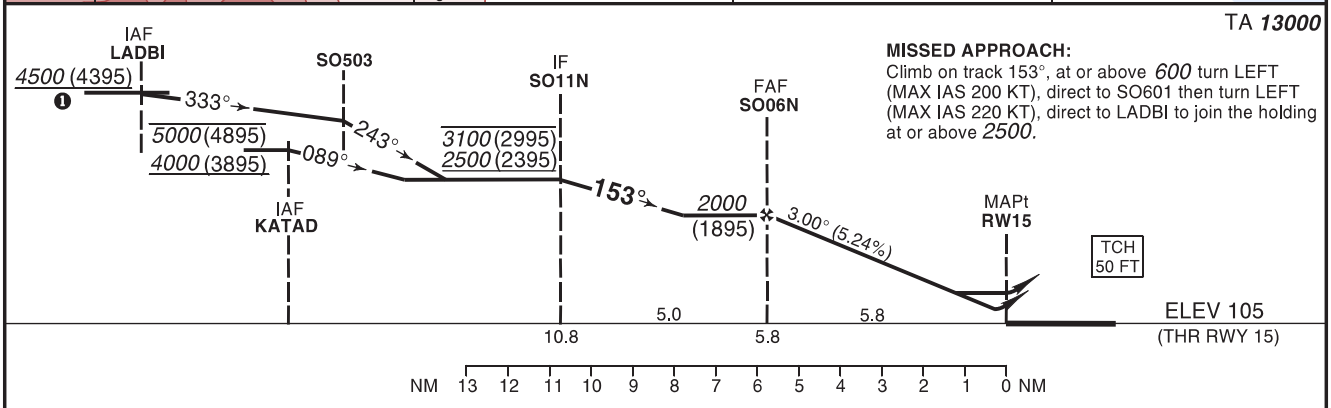
AD ELEV 144 FT

HEIGHTS RELATED TO THR RWY 15 ELEV 105 FT

SUHAR Information 118.725

SUHAR/Suhar OMAN
RNP RWY 15





MISSED APPROACH:
Climb on track 153°, at or above *600* turn LEFT (MAX IAS 200 KT), direct to SO601 then turn LEFT (MAX IAS 220 KT), direct to LADBI to join the holding at or above *2500*.

STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	305	317	326	337
	DA(H)	*420* (310)	*430* (320)	*440* (330)	*450* (340)
LNAV	OCH	450			
	MDA(H)	*550* (450)			
CIRCLING (HAA)*		A	B	C	D
	OCH	490	680	910	1410
	MDA(H)	*630* (490)	*820* (680)	*1050* (910)	*1550* (1410)

ADVISORY INFORMATION ONLY						
NM to RW15	5	4	3	2	1	
ALT (HGT)	*1750* (1650)	*1430* (1330)	*1110* (1010)	*800* (700)	*480* (370)	
GS	kt	80	100	120	140	160	180
FAF-MAPt❷	min:s						
ROD: 5.24%	ft/min	424	530	636	742	848	954

❶ Missed approach minimum altitude 2500.
❷ Timing not authorized for defining the MAPt.
RNP Approach required.
LNAV/VNAV Temperature: Min -15°C
Max 45°C

Holding Instruction/Areas RNP RWY 15

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	LADBI	333° (334.9°)	1 MIN	R	4500		230 KT	2°E	

Route Description: RNP RWY 15

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	KATAD				-5000 +4000		2°E		RNP APCH
TF	SO11N		089° (091.0°)		-3100 +2500		2°E	7.8	RNP APCH
TF	SO06N		153° (154.8°)	R	+2000		2°E	5.0	RNP APCH
TF	RW15	Y	153° (154.8°)		+155		2°E	5.8	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	LADBI				+4500		2°E		RNP APCH
TF	SO503		333° (334.8°)				2°E	5.0	RNP APCH
TF	SO11N		243° (244.9°)	L	-3100 +2500		2°E	7.0	RNP APCH
TF	SO06N		153° (154.8°)	L	+2000		2°E	5.0	RNP APCH
TF	RW15	Y	153° (154.8°)		+155		2°E	5.8	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
CA			153° (154.8°)		+600	200 KT	2°E		RNP APCH
DF	SO601	Y		L		220 KT	2°E		RNP APCH
DF	LADBI			L	+2500		2°E		RNP APCH
HM	LADBI		333° (334.9°)	R	+2500		2°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 15

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
KATAD (IAF)	N24°34'05.5"	E056°23'23.9"	N24°34.092'	E056°23.398'	
LADBI (IAF)	N24°32'24.0"	E056°41'17.0"	N24°32.400'	E056°41.283'	
SO503	N24°36'56.3"	E056°38'57.0"	N24°36.938'	E056°38.950'	
SO11N (IF)	N24°33'57.2"	E056°31'59.9"	N24°33.953'	E056°31.998'	
SO06N (FAF)	N24°29'24.8"	E056°34'19.9"	N24°29.413'	E056°34.332'	
RW15 (MAPT)	N24°24'08.8"	E056°37'02.0"	N24°24.147'	E056°37.033'	
SO601	N24°24'19.0"	E056°42'59.9"	N24°24.317'	E056°42.998'	

Non precision final approach 3.00° (5.24%) / TCH 50 FT(15 M).

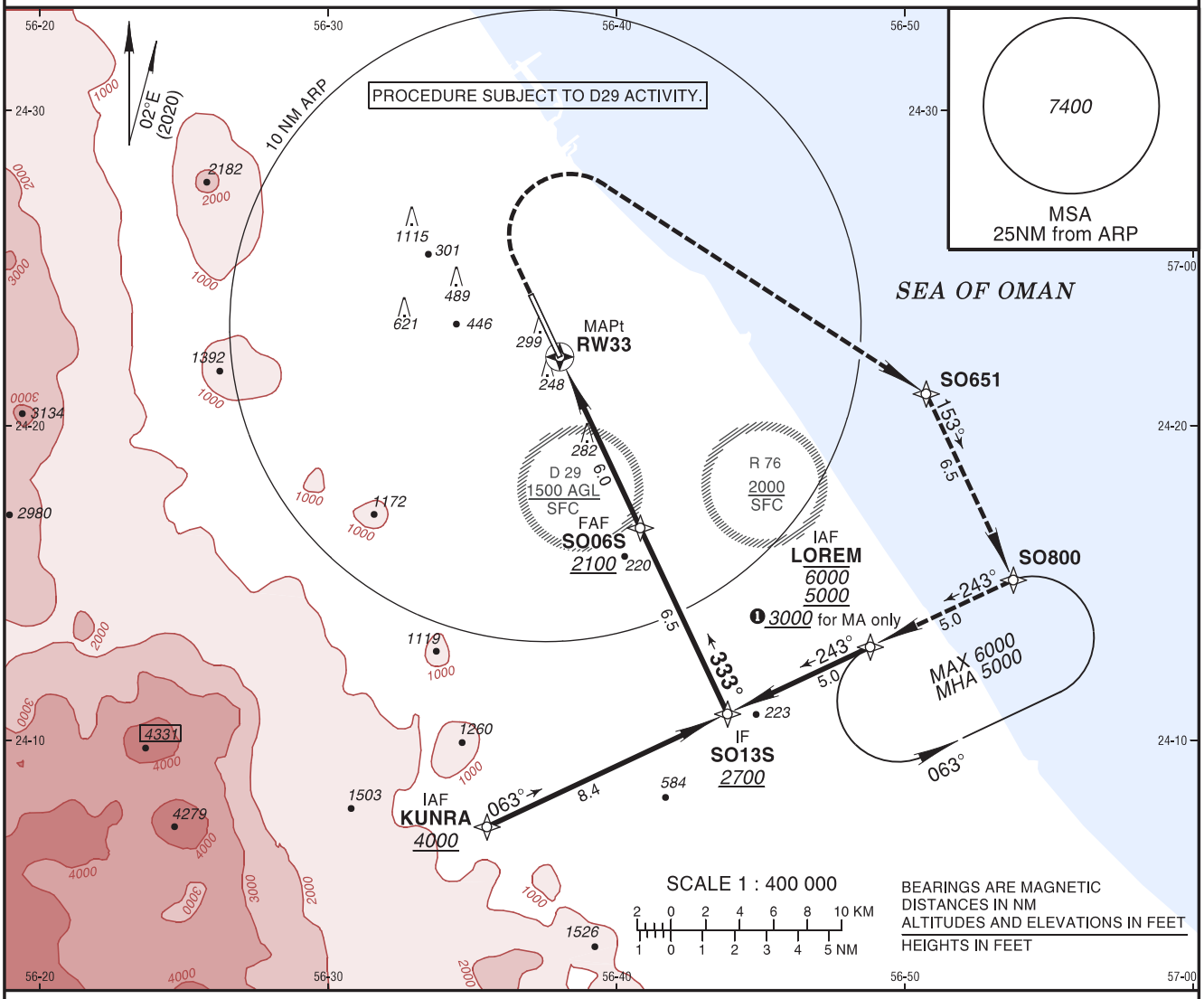
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 144 FT

HEIGHTS RELATED TO THR RWY 33 ELEV 144 FT

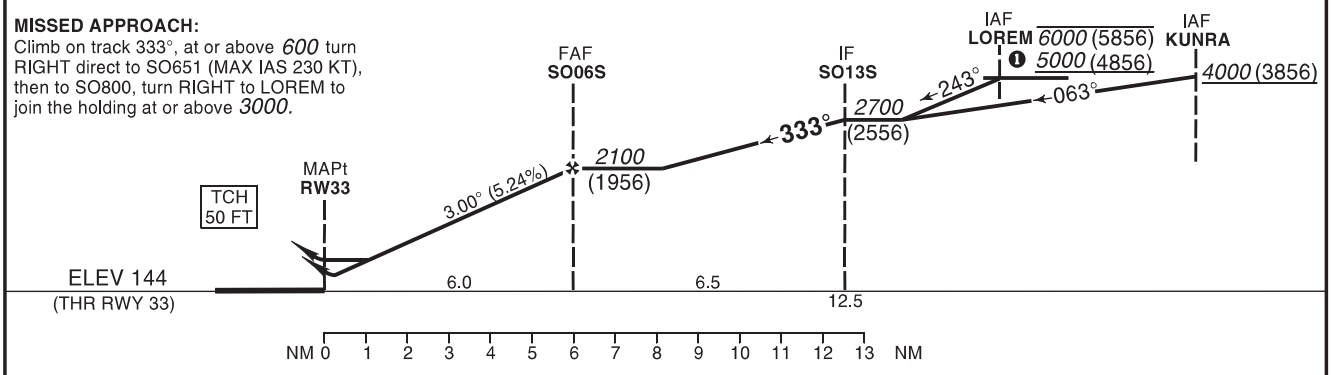
SUHAR Information 118.725

SUHAR/Suhar
OMAN
RNP RWY 33



TA **13000**

MISSED APPROACH:
Climb on track 333°, at or above *600* turn RIGHT direct to SO651 (MAX IAS 230 KT), then to SO800, turn RIGHT to LOREM to join the holding at or above *3000*.



STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	OCH	267	279	286	298
	DA(H)	*420* (270)	*430* (280)	*440* (290)	*450* (300)
LNAV	OCH	430			
	MDA(H)	*570* (430)			

CIRCLING (HAA)*		A	B	C	D
	OCH	490	680	910	1410
	MDA(H)	*630* (490)	*820* (680)	*1050* (910)	*1550* (1410)

ADVISORY INFORMATION ONLY					
NM to RW33	2	3	4	5	
ALT (HGT)	*840* (700)	*1150* (1010)	*1470* (1330)	*1790* (1650)	

GS	kt	80	100	120	140	160	180
FAF-MAPt❷	min:s						
ROD: 5.24%	ft/min	424	530	636	742	848	955

❶ Missed approach minimum altitude 3000.
❷ Timing not authorized for defining the MAPt.
RNP Approach required.
Not turn before MAPt (LNAV) or THR (LNAV/VNAV).

LNAV/VNAV Temperature: Min -10°C
Max 50°C

Holding Instruction/Areas RNP RWY 33

Path descriptor	Fix identifier	Inbound course M (T)	Leg Distance	Turn direction	Minimum altitude	Maximum altitude	Speed	Magnetic variation	Navigation performance
Hold	LOREM	243° (244.9°)	1 MIN	L	5000	6000	230 KT	2°E	

Route Description: RNP RWY 33

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	LOREM				-6000 +5000		2°E		RNP APCH
TF	SO13S		243° (244.9°)		+2700		2°E	5.0	RNP APCH
TF	SO06S		333° (334.9°)	R	+2100		2°E	6.5	RNP APCH
TF	RW33	Y	333° (334.9°)		+194		2°E	6.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
IF	KUNRA				+4000		2°E		RNP APCH
TF	SO13S		063° (064.8°)		+2700		2°E	8.4	RNP APCH
TF	SO06S		333° (334.9°)	L	+2100		2°E	6.5	RNP APCH
TF	RW33	Y	333° (334.9°)		+194		2°E	6.0	RNP APCH

Path descriptor	Fix identifier	Flyover	Course Magnetic (True)	Turn direction	Altitude	Speed limit	Magnetic variation	Distance	Navigation performance
MISSED APPROACH									
CA			333° (334.8°)		+600	230 KT	2°E		RNP APCH
DF	SO651			R			2°E		RNP APCH
TF	SO800		153° (154.9°)	R			2°E	6.5	RNP APCH
TF	LOREM		243° (244.9°)	R	+3000		2°E	5.0	RNP APCH
HM	LOREM		243° (244.9°)	L	+3000		2°E		RNP APCH

Aeronautical Data Tabulation: RNP RWY 33

Waypoint / Fix	Latitude	Longitude	Latitude (MIN)	Longitude (MIN)	Notes
LOREM (IAF)	N24°12'57.8"	E056°48'48.1"	N24°12.963'	E056°48.802'	
KUNRA (IAF)	N24°07'14.5"	E056°35'30.8"	N24°07.242'	E056°35.513'	
SO13S (IF)	N24°10'50.0"	E056°43'51.1"	N24°10.833'	E056°43.852'	
SO06S (FAF)	N24°16'44.7"	E056°40'49.6"	N24°16.745'	E056°40.827'	
RW33 (MAPT)	N24°22'11.1"	E056°38'02.4"	N24°22.185'	E056°38.040'	
SO651	N24°21'00.3"	E056°50'44.3"	N24°21.005'	E056°50.738'	
SO800	N24°15'05.7"	E056°53'45.7"	N24°15.095'	E056°53.762'	

Non precision final approach 3.00° (5.24%) / TCH 50 FT(15 M).

OOSQ AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OOSQ SAIQ/Saiq

OOSQ AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	230400.00 N 0573900.00 E
2	Direction and distance from (city)	NIL
3	Elevation/Reference temperature	6500 FT/Nil
4	Geoid undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	NIL
6	AD Administration, address, telephone, telefax, telex, AFS, Email, website	NIL
7	Types of traffic permitted (IFR/VFR)	VFR
8	Remarks	NIL

OOSQ AD 2.3 OPERATIONAL HOURS

1	AD Administration	HJ
2	Customs and immigration	NIL
3	Health and sanitation	NIL
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	NIL
7	ATS	NIL
8	Fuelling	NIL
9	Handling	NIL
10	Security	NIL
11	De-icing	NIL
12	Remarks	RAFO. PPR.

OOSQ AD 2.4 HANDLING SERVICES AND FACILITIES

NIL

OOSQ AD 2.5 PASSENGER FACILITIES

NIL

OOSQ AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	NIL
2	Rescue equipment	Adequate rescue and fire fighting vehicles, equipment and personnel provided.
3	Capability for removal of disabled aircraft	Limited
4	Remarks	Full service provided HJ only.

OOSQ AD 2.7 SEASONAL AVAILABILITY — CLEARING

1	Types of clearing equipment	NIL
2	Clearance priorities	NIL
3	Remarks	AD available all seasons.

OOSQ AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

NIL

OOSQ AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

NIL

OOSQ AD 2.10 AERODROME OBSTACLES

NIL

OOSQ AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

NIL

OOSQ AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinate THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
13/31	NIL	731 X 24	Strength not determined, Surface Rock/Sand	NIL	THR NIL TDZ
04/22	NIL	549 X 24	Strength not determined, Surface Rock/Sand	NIL	THR NIL TDZ

Designations RWY NR	Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	Dimensions of runway end safety areas
1	7	8	9	10	11
13/31	NIL	NIL	30	NIL	NIL
04/22	NIL	NIL	NIL	NIL	NIL

Designations RWY NR	Location and description of engineering material arresting system(EMAS)	OFZ	Remark
1	12	13	14
13/31	NIL	NIL	NIL
04/22	NIL	NIL	NIL

OOSQ AD 2.13 DECLARED DISTANCES

NIL

OOSQ AD 2.14 APPROACH AND RUNWAY LIGHTING

NIL

OOSQ AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

NIL

OOSQ AD 2.16 HELICOPTER LANDING AREA

NIL

OOSQ AD 2.17 ATS AIRSPACE

NIL

OOSQ AD 2.18 ATS COMMUNICATION FACILITIES

NIL

OOSQ AD 2.19 RADIO NAVIGATION AND LANDING AIDS

NIL

OOSQ AD 2.20 LOCAL AERODROME REGULATIONS

20.1 AIRPORT REGULATIONS

Local flying restrictions: PPR

20.2 TAXIING TO AND FROM STANDS

NIL

20.3 PARKING AREA FOR SMALL AIRCRAFT (GENERAL AVIATION)

NIL

20.4 PARKING AREA FOR HELICOPTERS

NIL

20.5 APRON - TAXIING DURING WINTER CONDITIONS

NIL

20.6 TAXIING LIMITATIONS

NIL

20.7 SCHOOL AND TRAINING FLIGHTS - TECHNICAL TEST FLIGHTS - USE OF RUNWAYS

NIL

20.8 HELICOPTER TRAFFIC - LIMITATION

NIL

20.9 REMOVAL OF DISABLED AIRCRAFT FROM RUNWAYS

NIL

OOSQ AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OOSQ AD 2.22 FLIGHT PROCEDURES

NIL

OOSQ AD 2.23 ADDITIONAL INFORMATION

NIL

OOSQ AD 2.24 CHARTS RELATED TO AN AERODROME

NIL

OOSQ AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

NIL

AD 3 HELIPORTS

NIL

INTENTIONALLY

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