



IRAQ AERONAUTICAL INFORMATION PUBLICATION (AIP) ARRANGEMENTS AND PROCEDURES FOR FLIGHT OPERATIONS IN IRAQ AIRSPACE

1. The Iraqi Civil Aviation Authority (ICAA) is the governing authority of the Baghdad FIR. All aircraft require ICAA approval to land at or depart from an aerodrome within, or to overfly, the Baghdad FIR. Such approval is to be obtained by contacting the ICAA Air Transportation Department via the procedures described in AIP GEN 1.2.

2. The Iraq AIP is formatted in accordance with Annex 15 to the Convention on International Civil Aviation. The procedures contained in this AIP are designed for the safety of all aircraft flying in the Baghdad FIR. Operators must review Notice to Airmen (NOTAMs) regularly for changes affecting the information in this document.

3. Operators organizing and/or conducting flights in the Baghdad FIR must comply with all regulations specified in Iraq AIP. Particular attention should be paid to the following AIP entries:

BOOK 1

Baghdad Flight Information Region (FIR) Control Authority	GEN 1.2
Risks to Flight and Compliance with These Procedure	GEN 1.2.2.1
Transponder Codes	GEN 1.2.2.2
Prior Permission Required (PPR) Procedures	GEN 1.2.5
Required Navigation Performance Criteria	GEN 1.5.2
NOTAM Information	GEN 3.1.3.5.1
Meteorological Information	GEN 3.5.3
Emergencies and Search and Rescue (SAR)	GEN 3.6

BOOK 2

Flight Rules	ENR 1.1.4.1
Restrictions to Civil Aircraft Operations	ENR 1.1.4.5
Terminal Air Traffic Control	ENR 1.1.5
Airspace Classification	ENR 1.4
Radio and ATC Surveillance System Failure procedures	ENR 1.6.3
Altimeter Setting Procedures	ENR 1.7
Separation	ENR 1.8.2
International Agreements	ENR 1.8.3
Flight Planning	ENR 1.10
Intercept Procedures	ENR 1.12.1
Air Traffic Incidents	ENR 1.14.1
Route Descriptions	ENR 3.3
Preferred Routing	ENR 3.5.1
Enroute Holding Procedures	ENR 3.6
Activities of a Dangerous Nature and Other Potential Hazards	ENR 5.3

BOOK 3

Airport Information	AD 2.1
---------------------------	--------



IRAQ AERONAUTICAL INFORMATION PUBLICATION (AIP)

SUMMARY OF CHANGES

1. The following document provides a summary of notable or significant changes. Changes to correct spelling mistakes, syntax errors and formatting errors are not listed.

Or without reference to the AIP. Moreover, this Summary of Changes is provided only to assist with the effective use and maintenance of the Iraq AIP and is not an authoritative document in its own right.

SUMMARY OF CHANGES – EFFECTIVE DATE: 28 June 2012

GEN	
ENR	
2.1-1 2.1-3	AREA CONTROL CENTERS (ACC)
1.10-2 3.3-6 4.3-1	PASIP WAYPOINT – NEW COORDINATE
5.1-4	RESTRICTED AREA – OR/R401 – OR/R501
AD	
2.1-2	(ORNI) AL NAJAF AIRPORT - AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA/AFS ADDRESS
2.1-24 2.1-25	(ORNI) AL NAJAF AIRPORT -INSTRUMENT APPROACH CHART
2.1-49	(ORBI) BAGHDAD AIRPORT- ATS COMMUNICATION FACILITIES
2.1-64	(ORMM) BASRAH AIRPORT- AIR TRAFFIC SERVICES COMMUNICATION FACILITIES
2.1-50	(ORSU) SULAYMANIA AIRPORT-HANDLING SERVICES AND FACILITIES

LIST OF NOTAMS INCORPORATED INTO THIS EDITION

A0023/12 A0033/12 A0034/12 A0037/12 A0040/12 A0055/12 A0056/12
A0068/12



جمهورية العراق

دليل الطيران العراقي

REPUBLIC OF IRAQ AERONAUTICAL INFORMATION PUBLICATION (AIP)

Fifty Eight EDITION
Effective 28 June 2012

DIRECTORATE GENERAL IRAQ CIVIL AVIATION AUTHORITY
AERONAUTICAL INFORMATION SERVICE (AIS)
BAGHDAD INTERNATIONAL AIRPORT
PO BOX 55103
BAGHDAD, IRAQ

CONSULT NOTAMs FOR LATEST INFORMATION

Changes and Amendments in Red

Deletions by bolded D in side bar

CAPT. NASSER HUSSAIN BANDER
DIRECTOR GENERAL
IRAQI CIVIL AVIATION AUTHORITY



BOOK 1 – GENERAL (GEN)**GEN 0.1 PREFACE**

0.1.1 Name of publishing authority. The Iraq AIP is published by the Iraq Civil Aviation Authority (ICAA).

0.1.2 Applicable ICAO documents. The AIP is prepared in accordance with the Standards and Recommended Practices (SARPS) of Annex 15 to the Convention on International Civil Aviation and the Aeronautical Information Services Manual (ICAO Doc 8126) and Annex 14 to the Convention on International Civil Aviation. Charts contained in the AIP are produced in accordance with Annex 4 to the Convention on International Civil Aviation and the Aeronautical Chart Manual (ICAO Doc 8697). Differences from ICAO Standards, Recommended Practices and Procedures are detailed in subsection GEN 1.7.

0.1.3 The AIP structure and amendment interval.

0.1.3.1 The AIP forms part of the integrated Aeronautical Information Package, details of which are given in Subsection GEN 3.1. The principal AIP structure is shown in graphic form on page GEN 0.1-4. The AIP consists of one volume comprising of three books. Book 1 - General (GEN), Book 2 - En-route (ENR) and Book 3 - Aerodromes (AD). Each book is divided into sections and subsections, as applicable.

Book 1 – General (GEN)

GEN consists of five sections containing information as briefly described below.

GEN 0 Preface; Record of AIP Amendments; Record of AIP Supplements; Checklist of AIP Pages; List of Hand Amendments to the AIP; and Table of Contents to Book 1.

GEN 1 National Regulations and Requirements - Designated authorities; Entry; Transit and Departure of Aircraft; Transit and Departure of Passengers and Crew; Entry, Transit and Departure of Cargo; Aircraft Instruments, Equipment and Flight Documents; Summary of National Regulations and International Agreements/Conventions; and Differences from ICAO Standards, Recommended Practices and Procedures.

GEN 2 Tables and Codes - Measuring System, Aircraft Markings and Holidays; Abbreviations used in AIP; Chart Symbols; Location Indicators; List of Radio Navigation Aids; Conversion Tables; and Sunrise/Sunset Tables.

GEN 3 Services – Aeronautical Information Services; Aeronautical Charts; Air Traffic Services; Communication Services; Meteorological Services; and Search and Rescue.

GEN 4 Fees and Charges.

Book 2 – En-route (ENR)

ENR consists of seven sections containing information as briefly describe below.

ENR 0 Preface; Record of AIP Amendment; Record of AIP Supplements; Checklist of AIP Pages; List of Hand Amendments to the AIP; and the Table of Contents to Part 2.

ENR 1 General Rules and Procedures - General Rules; Instrument Flight Rules; ATS Airspace Classification; Holding; Approach and Departure Procedures; ATC Surveillance Services and Procedures; Altimeter Setting Procedure; Regional Supplementary Procedures; Air Traffic Flow Management; Flight Planning; Addressing Of Flight Plan Message; Interception Of Civil Aircraft; Unlawful Interference and Air Traffic Incidents.

ENR 2 Air Traffic Services (ATS) Airspace - Detailed Description of Flight Information Regions (FIR) and Terminal Control Areas (TMA).

ENR 3 ATS Routes.

ENR 4 Radio Navigation Routes Aids/Systems - Radio Navigation Aids - En-Route; Name-Code Designators for Significant Points; and Aeronautical Ground Lights - En-Route.

ENR 5 Navigation Warnings - Prohibited, Restricted and Danger Areas.

ENR 6 En-Route Charts - En-Route Chart – ICAO and Index Charts.

Book 3 – Aerodromes (AD)

AD consists of three sections containing information as briefly described below.

AD 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 Book 3.

AD 1 Introduction - Aerodrome Availability; Rescue and Fire Fighting Services; and Index to Aerodromes.

AD 2 Detailed Information about Aerodromes.

0.1.3.2 Amendment Interval. Regular amendments to the AIP will be issued every 56 days, providing 28 days notice before the re-issue of a full AIP.

0.1.3.3 Advice of AIP errors or omissions. The information in Iraq AIS publications is collected from a number of varied sources and is considered to be as reliable as possible at the time of publication. Airport Management is required to review each release of the AIP within 5 days of release. Inaccuracies that affect safety of flight must be updated immediately through NOTAM. Airport Management is responsible for providing corrected/updated information for the aerodrome under their responsibility. Updates must be submitted no later than 15 days prior to the next publication date to the following responsible authority annotated below:

Airspace and Aerodromes — Iraq AIP Development and Iraq AIS on e-mails:

ICAA/ AIS HQ: icaa_ais@yahoo.com
 ais_hq@iraqcaa.com
NOTAM Issue: icaaaim@yahoo.com
AIP Issue: Aip.icaa@gmail.com

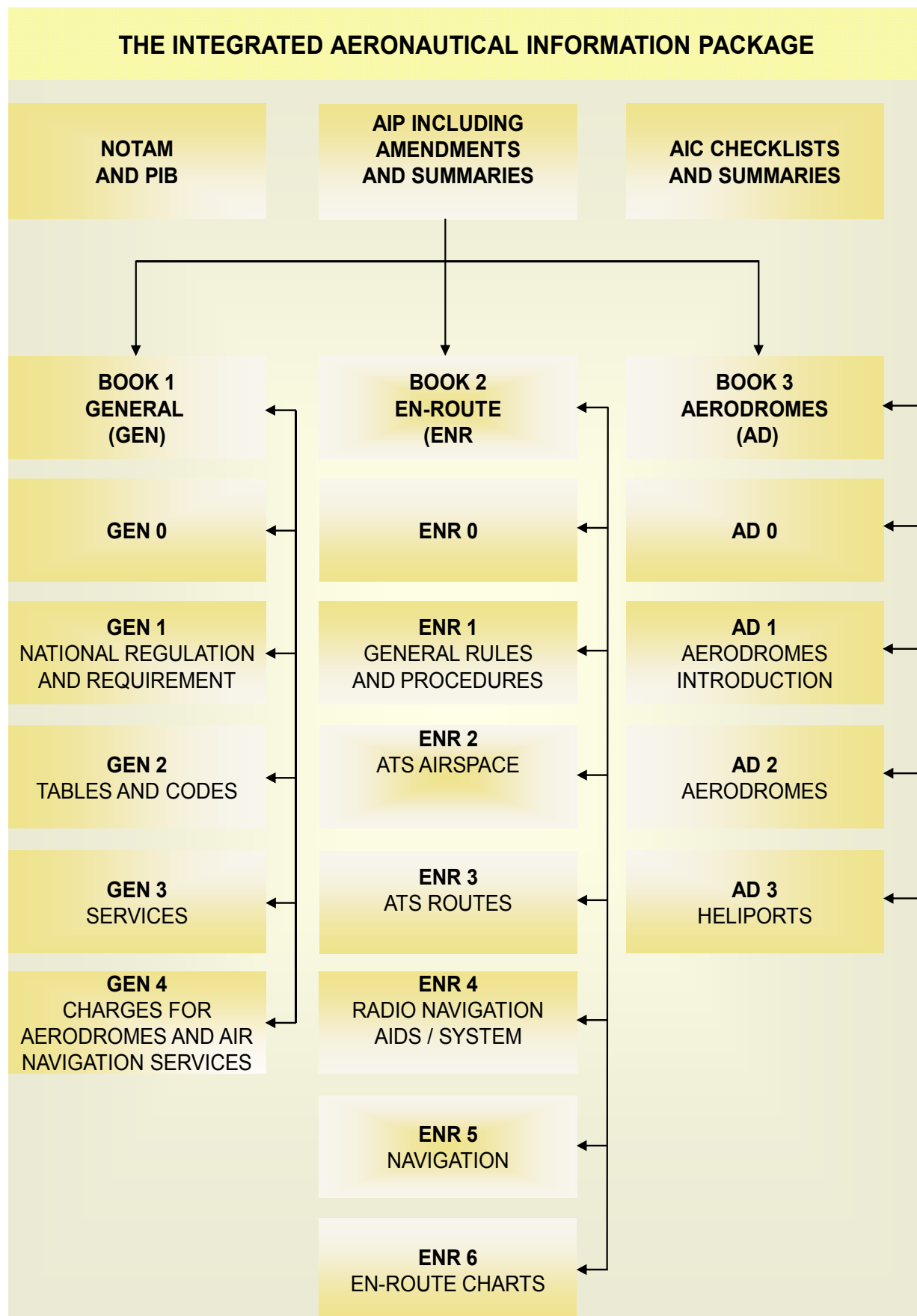
Aerodromes — Iraq Civil Aviation Authority (ICAA):

mail: dg@iraqcaa.com
Fax: + 964 1533-0764
P.O. Box: 55103
Mobile: + 964 790-1775-664
AFTN address: ORBIYDYX

Combined Military/Civil Aerodromes — Iraq AIP Development and Iraq Civil Aviation Authority (ICAA) on the e-mail addresses above.

0.1.3.4 Requests for additions or variations. In order to ensure that the information contained in the AIP is as accurate as possible, and that all procedures, facilities and services are duly certified and/or authorized, requests for amendments to the AIP will not be accepted directly from service providers or airport representatives. Requests for additions or variations should be forwarded to the appropriate address/es as per advice of errors and omissions. Service providers should make all requests through the relevant airport management.

0.1.3.5 Calling DSN phone numbers listed in the AIP. To call a military airfield that has a DSN number listed in the AD section call commercial +974-458-9555. You will hear “You have reached Al Udeid Airbase, at the tone, please enter the 7 digit extension of the party you wish to reach or 0.” You will hear a dial tone. At the dial tone, enter the seven digit number as listed in the AIP.



GEN 0.2 RECORD OF AIP AMENDMENTS

Nº/Year	Publication Date	Effective Date	Inserted by

GEN 0.3 RECORD OF AIP SUPPLEMENTS

[illegible]

GEN 0.4 PAGE CHECKLIST

PAGE	DATE	PAGE	DATE	2.2-38	28 June 12
BOOK 1: (GEN)	GENERAL	GEN 2		2.3-1	28 June 12
GEN 0				2.3- 2	28 June 12
0.1-1	28 June 12	2.1-1	28 June 12	2.5- 1	28 June 12
0.1-2	28 June 12	2.1-2	28 June 12	2.5- 2	28 June 12
0.1-3	28 June 12	2.2-1	28 June 12	2.5- 3	28 June 12
0.1-4	28 June 12	2.2-2	28 June 12	2.5- 4	28 June 12
0.2-1	28 June 12	2.2-3	28 June 12	2.6- 1	28 June 12
0.3-1	28 June 12	2.2-4	28 June 12	2.7- 1	28 June 12
0.4-1	28 June 12	2.2-5	28 June 12	2.7- 2	28 June 12
0.4-2	28 June 12	2.2-6	28 June 12	2.7- 3	28 June 12
0.4-3	28 June 12	2.2-7	28 June 12	2.7- 4	28 June 12
0.4-4	28 June 12	2.2-8	28 June 12	2.7- 5	28 June 12
0.5-1	28 June 12	2.2-9	28 June 12		
0.6-1	28 June 12	2.2-10	28 June 12		
0.6-2	28 June 12	2.2-11	28 June 12	GEN 3	
0.6-3	28 June 12	2.2-12	28 June 12	3.1-2	28 June 12
		2.2-13	28 June 12	3.1-3	28 June 12
		2.2-14	28 June 12	3.1-4	28 June 12
		2.2-15	28 June 12	3.2-1	28 June 12
GEN 1		2.2-16	28 June 12	3.2-2	28 June 12
1.1-1	28 June 12	2.2-17	28 June 12	3.2-3	28 June 12
1.1-2	28 June 12	2.2-18	28 June 12	3.2-4	28 June 12
1.2-1	28 June 12	2.2-19	28 June 12	3.2-5	28 June 12
1.2-2	28 June 12	2.2-20	28 June 12	3.2-6	28 June 12
1.2-3	28 June 12	2.2-21	28 June 12	3.2-7	28 June 12
1.2-4	28 June 12	2.2-22	28 June 12	3.2-8	28 June 12
1.2-5	28 June 12	2.2-23	28 June 12	3.3-1	28 June 12
1.2-6	28 June 12	2.2-24	28 June 12	3.3-2	28 June 12
1.2-7	28 June 12	2.2-25	28 June 12	3.3-3	28 June 12
1.2-8	28 June 12	2.2-26	28 June 12	3.4-1	28 June 12
1.2-9	28 June 12	2.2-27	28 June 12	3.4-2	28 June 12
1.3-1	28 June 12	2.2-28	28 June 12	3.4-3	28 June 12
1.4-1	28 June 12	2.2-29	28 June 12	3.5-1	28 June 12
1.4-2	28 June 12	2.2-30	28 June 12	3.6-1	28 June 12
1.5-1	28 June 12	2.2-31	28 June 12	3.6-2	28 June 12
1.6-1	28 June 12	2.2-32	28 June 12	3.6-3	28 June 12
1.7-1	28 June 12	2.2-33	28 June 12	GEN 4	
1.7-2	28 June 12	2.2-34	28 June 12	4.1- 1	28 June 12
		2.2-35	28 June 12	4.1- 2	28 June 12
		2.2-36	28 June 12	4.1- 3	28 June 12
		2.2-37	28 June 12	4.2- 1	28 June 12

IRAQ

28 June 12

BOOK	2:	ENROUTE	1.10-2	28 June 12	3.3-13	28 June 12
(ENR)			1.11-1	28 June 12	3.3-14	28 June 12
			1.12-1	28 June 12	3.4-1	28 June 12
ENR 0			1.12-2	28 June 12	3.5-1	28 June 12
0.6-1	28 June 12		1.12-3	28 June 12	3.5-2	28 June 12
0.6-2	28 June 12		1.12-4	28 June 12	3.5-3	28 June 12
0.6-3	28 June 12		1.13-1	28 June 12	3.5-4	28 June 12
0.6-4	28 June 12		1.14-1	28 June 12	3.5-5	28 June 12
ENR 1			1.14-2	28 June 12	3.5-6	28 June 12
1.1-1	28 June 12		1.14-3	28 June 12	3.5-7	28 June 12
1.1-2	28 June 12		1.14-4	28 June 12	3.6-1	28 June 12
1.2-1	28 June 12		1.14-5	28 June 12		
1.2-2	28 June 12					
1.2-3	28 June 12	ENR 2			ENR 4	
1.3-1	28 June 12	2.1-1	28 June 12	4.1-1	28 June 12	
1.3-2	28 June 12	2.1-2	28 June 12	4.2-1	28 June 12	
1.4-1	28 June 12	2.1-3	28 June 12	4.3-1	28 June 12	
1.4-2	28 June 12	2.1-4	28 June 12	4.3-2	28 June 12	
1.4-3	28 June 12	2.1-5	28 June 12	4.4-1	28 June 12	
1.4-4	28 June 12	2.1-6	28 June 12			
1.4-5	28 June 12	2.1-7	28 June 12	ENR 5		
1.5-1	28 June 12	2.1-8	28 June 12	5.1-1	28 June 12	
1.5-2	28 June 12	2.1-9	28 June 12	5.1-2	28 June 12	
1.5-3	28 June 12	2.1-10	28 June 12	5.1-3	28 June 12	
1.5-4	28 June 12	2.1-11	28 June 12	5.1-4	28 June 12	
1.6-1	28 June 12	2.1-12	28 June 12	5.1-5	28 June 12	
1.6-2	28 June 12	2.1-13	28 June 12	5.1-6	28 June 12	
1.6-3	28 June 12	2.1-14	28 June 12	5.1-7	28 June 12	
1.7-1	28 June 12			5.1-8	28 June 12	
1.7-2	28 June 12			5.1-9	28 June 12	
1.8-1	28 June 12	ENR 3		5.2-1	28 June 12	
1.8-2	28 June 12	3.1-1	28 June 12	5.2-2	28 June 12	
1.8-3	28 June 12	3.2-1	28 June 12	5.3-1	28 June 12	
1.8-4	28 June 12	3.3-1	28 June 12	5.4-1	28 June 12	
1.8-5	28 June 12	3.3-2	28 June 12	5.5-1	28 June 12	
1.8-6	28 June 12	3.3-3	28 June 12	5.6-1	28 June 12	
1.8-7	28 June 12	3.3-4	28 June 12			
1.8-8	28 June 12	3.3-5	28 June 12			
1.8-9	28 June 12	3.3-6	28 June 12	ENR 6		
1.8-10	28 June 12	3.3-7	28 June 12	6.1-1	28 June 12	
1.8-11	28 June 12	3.3-8	28 June 12			
		3.3-9	28 June 12			
1.9-1	28 June 12	3.3-10	28 June 12	BOOK 3: AERODROMES		
1.10-1	28 June 12	3.3-11	28 June 12	(AD)		
		3.3-12	28 June 12			

AD 0		2.1-31	28 June 12	2.1-75	28 June 12
0.6-1	28 June 12	2.1-32	28 June 12	2.1-76	28 June 12
0.6-2	28 June 12	2.1-33	28 June 12	2.1-77	28 June 12
		2.1-34	28 June 12	2.1-78	28 June 12
		2.1-35	28 June 12	2.1-79	28 June 12
AD 1		2.1-36	28 June 12	2.1-80	28 June 12
1.1-1	28 June 12	2.1-37	28 June 12	2.1-81	28 June 12
1.2-1	28 June 12	2.1-38	28 June 12	2.1-82	28 June 12
1.3-1	28 June 12	2.1-39	28 June 12	2.1-83	28 June 12
1.3-2	28 June 12	2.1-40	28 June 12	2.1-84	28 June 12
1.3-3	28 June 12	2.1-41	28 June 12	2.1-85	28 June 12
1.3-4	28 June 12	2.1-42	28 June 12	2.1-86	28 June 12
		2.1-43	28 June 12	2.1-87	28 June 12
		2.1-44	28 June 12	2.1-88	28 June 12
AD 2		2.1-45	28 June 12	2.1-89	28 June 12
2.1-1	28 June 12	2.1-46	28 June 12	2.1-90	28 June 12
2.1-2	28 June 12	2.1-47	28 June 12	2.1-91	28 June 12
2.1-3	28 June 12	2.1-48	28 June 12	2.1-92	28 June 12
2.1-4	28 June 12	2.1-49	28 June 12	2.1-93	28 June 12
2.1-5	28 June 12	2.1-50	28 June 12	2.1-94	28 June 12
2.1-6	28 June 12	2.1-51	28 June 12	2.1-95	28 June 12
2.1-7	28 June 12	2.1-52	28 June 12	2.1-96	28 June 12
2.1-8	28 June 12	2.1-53	28 June 12	2.1-97	28 June 12
2.1-9	28 June 12	2.1-54	28 June 12	2.1-98	28 June 12
2.1-10	28 June 12	2.1-55	28 June 12	2.1-99	28 June 12
2.1-11	28 June 12	2.1-56	28 June 12	2.1-100	28 June 12
2.1-12	28 June 12	2.1-57	28 June 12	2.1-101	28 June 12
2.1-13	28 June 12	2.1-58	28 June 12	2.1-102	28 June 12
2.1-14	28 June 12	2.1-59	28 June 12	2.1-103	28 June 12
2.1-15	28 June 12	2.1-60	28 June 12	2.1-104	28 June 12
2.1-16	28 June 12	2.1-61	28 June 12	2.1-105	28 June 12
2.1-17	28 June 12	2.1-62	28 June 12	2.1-106	28 June 12
2.1-18	28 June 12	2.1-63	28 June 12	2.1-107	28 June 12
2.1-19	28 June 12	2.1-64	28 June 12	2.1-108	28 June 12
2.1-20	28 June 12	2.1-65	28 June 12	2.1-109	28 June 12
2.1-21	28 June 12	2.1-66	28 June 12	2.1-110	28 June 12
2.1-22	28 June 12	2.1-67	28 June 12	2.1-111	28 June 12
2.1-23	28 June 12	2.1-68	28 June 12	2.1-112	28 June 12
2.1-24	28 June 12	2.1-69	28 June 12	2.1-113	28 June 12
2.1-25	28 June 12	2.1-70	28 June 12	2.1-114	28 June 12
2.1-26	28 June 12	2.1-71	28 June 12	2.1-115	28 June 12
2.1-27	28 June 12	2.1-72	28 June 12	2.1-116	28 June 12
2.1-28	28 June 12	2.1-73	28 June 12	2.1-117	28 June 12
2.1-29	28 June 12	2.1-74	28 June 12	2.1-118	28 June 12
2.1-30	28 June 12				

2.1-119	28 June 12	2.1-163	28 June 12
2.1-120	28 June 12	2.1-164	28 June 12
2.1-121	28 June 12	2.1-165	28 June 12
2.1-122	28 June 12	2.1-166	28 June 12
2.1-123	28 June 12	2.1-167	28 June 12
2.1-124	28 June 12	2.1-168	28 June 12
2.1-125	28 June 12	2.1-169	28 June 12
2.1-126	28 June 12	2.1-170	28 June 12
2.1-127	28 June 12	2.1-171	28 June 12
2.1-128	28 June 12	2.1-172	28 June 12
2.1-129	28 June 12	2.1-173	28 June 12
2.1-130	28 June 12	2.1-174	28 June 12
2.1-131	28 June 12	2.1-175	28 June 12
2.1-132	28 June 12	2.1-176	28 June 12
2.1-133	28 June 12	2.1-177	28 June 12
2.1-134	28 June 12	2.1-178	28 June 12
2.1-135	28 June 12	2.1-179	28 June 12
2.1-136	28 June 12	2.1-180	28 June 12
2.1-137	28 June 12	2.1-181	28 June 12
2.1-138	28 June 12	2.1-182	28 June 12
2.1-139	28 June 12	2.1-183	28 June 12
2.1-140	28 June 12	2.1-184	28 June 12
2.1-141	28 June 12	2.1-185	28 June 12
2.1-142	28 June 12	2.1-186	28 June 12
2.1-143	28 June 12	2.1-187	28 June 12
2.1-144	28 June 12		
2.1-145	28 June 12	AD 3	
2.1-146	28 June 12	3.1-1	28 June 12
2.1-147	28 June 12	3.1-2	28 June 12
2.1-148	28 June 12	3.1-3	28 June 12
2.1-149	28 June 12	3.1-4	28 June 12
2.1-150	28 June 12		
2.1-151	28 June 12		
2.1-152	28 June 12		
2.1-153	28 June 12		
2.1-154	28 June 12		
2.1-155	28 June 12		
2.1-156	28 June 12		
2.1-157	28 June 12		
2.1-158	28 June 12		
2.1-159	28 June 12		
2.1-160	28 June 12		
2.1-161	28 June 12		
2.1-162	28 June 12		

GEN 0.5 LIST OF HAND AMENDMENTS TO THE AIP

Section or page affected	Amendment Text	Introduced by AIP AMDT Serial N°.

GEN 0.6 TABLE OF CONTENTS TO BOOK 1

	Page
GEN 0	
GEN 0.1	Preface..... GEN 0.1-1
GEN 0.2	Record of AIP Amendments..... GEN 0.2-1
GEN 0.3	Record of AIP Supplements..... GEN 0.3-1
GEN 0.4	List of Effective AIP Pages..... GEN 0.4-1
GEN 0.5	List of Hand Amendments to the AIP..... GEN 0.5-1
GEN 0.6	Table of Contents..... GEN 0.6-1
GEN 1 NATIONAL REGULATIONS AND REQUIREMENTS	
GEN 1.1	Designated authorities..... GEN 1.1-1
GEN 1.2	Entry, Transit and Departure of Aircraft..... GEN 1.2-1
GEN 1.2.1	General..... GEN 1.2-1
GEN 1.2.2	Risks to Flight and Compliance with AIP Procedures GEN 1.2-2
GEN 1.2.3	General Civil Flight Procedures..... GEN 1.2-2
GEN 1.2.4	Landings and Departures..... GEN 1.2-4
GEN 1.2.5	Prior Permission Required (PPR) Procedures.... GEN 1.2-4
GEN 1.2.6	Scheduled Flights..... GEN 1.2-7
GEN 1.2.7	Non-Scheduled Flights..... GEN 1.2-8
GEN 1.2.8	Private Flights..... GEN1.2-10
GEN 1.2.9	Public Health Measures Applied to all Aircraft.... GEN1.2-10
GEN 1.3	Entry, Transit and Departure of Passengers and Crew. GEN 1.3-1
GEN 1.3.1	Customs Requirements..... GEN 1.3-1
GEN 1.3.2	Immigration Requirements..... GEN 1.3-1
GEN 1.3.3	Public Health Requirements..... GEN 1.3-1
GEN 1.4	Entry, Transit and Departure of Cargo..... GEN 1.4-1
GEN 1.4.1	Customs Requirements Concerning Cargo and other Articles..... GEN 1.4-1
GEN 1.4.2	Agricultural Quarantine Requirements..... GEN 1.4-1
GEN 1.5	Aircraft Instruments, Equipment and Flight Documents GEN 1.5-1
GEN 1.5.1	General..... GEN 1.5-1
GEN 1.5.2	Special Equipment to be Carried..... GEN 1.5-1
GEN 1.5.3	Miscellaneous Information..... GEN 1.5-1
GEN 1.6	Summary of National Regulation and International Agreements/Conventions..... GEN 1.6-1
GEN 1.7	Differences from ICAO Standards, Recommended Practices and Procedures (SARPS)..... GEN 1.7-1

GEN 2 TABLES AND CODES

GEN 2.1	Measuring System, Aircraft Marking, Holidays	GEN 2.1-1
GEN 2.1.1	Units of Measurement	GEN 2.1-1
GEN 2.1.2	Time System.....	GEN 2.1-1
GEN 2.1.3	Geodetic Reference Datum	GEN 2.1-1
GEN 2.1.4	Aircraft Nationality and Registration Marks.....	GEN 2.1-2
GEN 2.1.5	Public Holidays.....	GEN 2.1-2
GEN 2.2	Abbreviations used in AIS Publications	GEN 2.2-1
GEN 2.2.1	Encode	GEN 2.2-10
GEN 2.2.2	Decode	GEN 2.2-25
GEN 2.3	Chart Symbols.....	GEN 2.3-1
GEN 2.3.1	Aerodromes	GEN 2.3-1
GEN 2.3.2	Approach Charts.....	GEN 2.3-1
GEN 2.3.3	Aerodrome Charts	GEN 2.3-1
GEN 2.3.4	Aerodrome Installations and Lights	GEN 2.3-2
GEN 2.3.5	Miscellaneous.....	GEN 2.3-2
GEN 2.4	Location Indicators	GEN 2.4-1
GEN 2.4.1	Code Allocation	GEN 2.4-1
GEN 2.4.2	List of Location Codes	GEN 2.4-1
GEN 2.5	List of Radio Navigation Aids	GEN 2.5-1
GEN 2.6	Conversion Tables	GEN 2.6-1
GEN 2.7	Sunrise/Sunset Tables	GEN 2.7-1
GEN 2.7.1	General.....	GEN 2.7-1
GEN 2.7.2	Baghdad International (ORBI)	GEN 2.7-2
GEN 2.7.3	Basrah (ORMM)	GEN 2.7-3
GEN 2.7.4	Kirkuk (ORKK).....	GEN 2.7-4

GEN 3 SERVICES

GEN 3.1	Aeronautical Information Services.....	GEN 3.1-1
GEN 3.1.1	Responsible Service.....	GEN 3.1-1
GEN 3.1.2	Area of Responsibility.....	GEN 3.1-1
GEN 3.1.3	Aeronautical Publications	GEN 3.1-1
GEN 3.1.4	AIRAC System.....	GEN 3.1-3
GEN 3.1.5	Pre-Flight Information Service at Aerodrome	GEN 3.1-4
GEN 3.2	Aeronautical Charts.....	GEN 3.2-1
GEN 3.3	Air traffic Services	GEN 3.3-1
GEN 3.3.1	Responsible Service.....	GEN 3.3-1
GEN 3.3.2	Area of Responsibility.....	GEN 3.3-1
GEN 3.3.3	Types of Services	GEN 3.3-1
GEN 3.3.4	Co-ordination Between the Operator and ATS ...	GEN 3.3-3
GEN 3.3.5	Minimum Flight Altitude	GEN 3.3-3

GEN 3.3.6	ATS Units Address List.....	GEN 3.3-3
GEN 3.4	Communication Services.....	GEN 3.4-1
GEN 3.4.1	Responsible Service.....	GEN 3.4-1
GEN 3.4.2	Area of Responsibility.....	GEN 3.4-1
GEN 3.4.3	Types of Service.....	GEN 3.4-1
GEN 3.5	Meteorological Services	GEN 3.5-1
GEN 3.5.1	Responsible Service.....	GEN 3.5-1
GEN 3.5.2	Area of Responsibility.....	GEN 3.5-1
GEN 3.6	Search and Rescue.....	GEN 3.6-1
GEN 3.6.1	Responsible Service.....	GEN 3.6-1
GEN 3.6.2	Area of Responsibility.....	GEN 3.6-1
GEN 3.6.3	Types of Service.....	GEN 3.6-1
GEN 3.6.4	SAR Agreements.....	GEN 3.6-1
GEN 3.6.5	Search and Rescue Facilities	GEN 3.6-1
GEN 3.6.6	Procedures and/or signals Employed by Rescue Aircraft	GEN 3.6-1
GEN 3.6.7	Ground-air visual signal code	GEN 3.6-2
GEN 3.6.8	Air-to-ground signals	GEN 3.6-3

GEN 4 FEES AND CHARGES

GEN 4.1	Aerodrome Charges.....	GEN 4.1-1
GEN 4.1.1	General.....	GEN 4.1-1
GEN 4.1.2	Landing Charges	GEN 4.1-1
GEN 4.1.3	Fees for Additional Ground Handling.....	GEN 4.1-1
GEN 4.1.4	Miscellaneous Charges	GEN 4.1-2
GEN 4.1.5	Overflight Fees	GEN 4.1-2
GEN 4.1.6	Evening Operations.....	GEN 4.1-2
GEN 4.1.7	Exemptions/Reductions.....	GEN 4.1-3
GEN 4.1.8	Payment of Fees and Charges	GEN 4.1-3
GEN 4.2	Air Navigation Charges	GEN 4.2-1
GEN 4.2.1	General.....	GEN 4.2-1

GEN 1 NATIONAL REGULATIONS AND REQUIREMENTS
GEN 1.1 DESIGNATED AUTHORITIES

1.1.1 Introduction

1.1.1.1 The requirement, for entry, transit and departure of aircraft engaged in international flights and the procedures for clearance of these aircraft at designated airports in Iraq is given for the information and guidance of operators conducting international flights.

1.1.1.2 The Iraq Civil Aviation Authority (ICAA) is the agency responsible for Iraq's obligations under the provisions of Annex 9 (Facilitation) of the Chicago Convention. The ICAA is responsible for coordinating with other Iraq agencies for the development and implementation of policy and coordination of ICAO matters.

1.1.1.3 The addresses of the designated authorities concerned with facilitation of international air navigation are as follows:

a. Iraq Civil Aviation Authority:

Director General
Iraq Civil Aviation Authority
Baghdad International Airport
P.O. Box 55103
Baghdad – Republic of IRAQ
Mail: dq@iraqcaa.com
Fax: 00964 15430764
Land line: 00964 813 2256
AFTN address: ORBIYDYX

b. Meteorology:

The Iraqi Meteorological Organization
Meteorological Office Section
Baghdad International Airport
P.O Box 6078
Baghdad – Republic of IRAQ
Mail: mh_a58@yahoo.com
Mobile: +964 7712 236468
+964 7901 415989

c. Agricultural and Quarantine:

Ministry of Agriculture
ANDULUS Square
Near ALSADEER HOTEL
Baghdad – Republic of IRAQ

Telephone, Telex and P.O. Box will be provided via NOTAM once available

Note: Addresses, phone numbers, and contact information of related authorities within AIP are yet to be determined. All aviation related enquiries should be addressed to ICAA staff at Baghdad International Airport until further notice.

GEN 1.2 ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT**1.2.1 General**

1.2.1.1 The procedures for flight operations detailed here are mandatory for all aircraft operators authorized to fly in the Baghdad FIR.

1.2.1.2 The ICAA has responsibility for all operational and safety matters relating to civil aviation into, within and from Iraqi territory. International flights into, from or over Iraqi territory shall be subject to the current Iraqi regulations relating to civil aviation. These regulations correspond in all essentials to the Standards and Recommended Practices (SARP) contained in ICAO Annexes to the Convention on International Civil Aviation. Under no circumstances should an aircraft attempt to overfly or enter Iraq without first having obtained the necessary permission except in the case of an aircraft emergency.

1.2.1.3 The ICAA is the approving authority for flights intending to operate within the Baghdad FIR. All aircraft require ICAA approval to land, depart, and overfly Iraq. To accomplish this, all carriers will contact the ICAA directly providing any documentation required by the ICAA. All company information shall be submitted to the ICAA at least seven days prior to the commencement of the first intended flight, or at least 15 days when such a request is submitted through diplomatic channels.

1.2.1.3.1 Request to overfly or operate inside Iraq is accomplished by submitting the proper form. There are two forms: Daily Overflight Request Form and Landing Slot Request Form. They can be found on the ICAA website: <http://www.iraqcaa.com/>. Requests for civil flights operating in the Baghdad FIR shall be submitted to ICAA no later than 1500Z on the day prior to flight giving details of the proposed flight, and if required will provide written proof of ICAA approval when submitting Overflight or Slot Request Forms.

1.2.1.3.2 Mode 3/A transponder codes are issued to aircraft by ATC.

1.2.1.3.3 As of 25 Aug 09, RAMCC is officially closed and all correspondence will be accomplished thru ICAA.

1.2.1.4 ICAA operates 24 hours a day. The ICAA will resolve all questions that may arise as to whether or not an operator is approved to operate in the Baghdad FIR. The contact numbers for ICAA representatives are:

ICAA Air Trans Dept (Landline)	+964 1 813 2467
ICAA Air Trans Dept (cell 1)	+964 790 531 9779
ICAA Air Trans Dept (cell 2)	+964 771 134 3263
Fax	+964 543 0689
E-mail (civil landing slots)	ops@iraqcaa.com
Email (civil overflight requests)	ops.overflight@iraqcaa.com

1.2.1.5 Coalition military aircraft and US TRANSCOM contracted aircraft flying on active legs contained in the Air Tasking Order (ATO) are exempt from ICAA requirements.

1.2.2 Risks to Flight and Compliance with These Procedures.

1.2.2.1 All aircraft operators shall comply strictly with the provisions of the permission granted for their aircraft and shall adhere to the international designated air routes. Failure to comply with the procedures in this AIP may result in interception by armed coalition fighter aircraft. Aircraft operators must be familiar with, and follow, international intercept procedures contained in Annex 2, Rules of the Air, to the Chicago Convention, paragraph 3.8 and Appendix 2, Sections 2 and 3. Pilots are to continuously monitor the VHF emergency FREQUENCY (121.5 MHz) and operate their transponder at all times during flight. It is imperative that all civilian aircraft follow ATC instructions for mode 3 squawk immediately upon entering the Baghdad FIR. Aircraft within the Baghdad FIR may also be instructed to deviate from their flight planned route due to temporary flight restrictions imposed by military requirements.

1.2.3 General Civil Flight Procedures.

Note: Aircraft types B732, B721, B722, R721, R722, AN26, AN24, AN12, T154 are not allowed to operate in Baghdad FIR

1.2.3.1 Overflights

1.2.3.1.1 Only flights approved by the ICAA are authorized to overfly Iraqi airspace. The Daily Overflight Request Form can be found on the ICAA web site at <http://www.iraqcaa.com>

1.2.3.1.2 All companies must have ICAA approval to operate within Iraqi airspace prior to submitting an overflight request. All Daily overflight requests must be submitted to ICAA by 1500Z the day prior to the planned flight. Earlier submission is encouraged; however requests should not be submitted any earlier than 30 days prior to the planned overflight. Carriers will receive an approval email from ICAA that provides authorization for flight in the Baghdad FIR.

1.2.3.1.3. Carriers operating under the scheduled overflight procedures detailed in Iraq AIP GEN 1.2.6.-1.2.8 are to submit summer/winter schedules according to published instructions on the ICAA website.

1.2.3.1.4 Changes to overflight requests. Significant changes to a daily overflight request may be made at any time up to 1500Z the day prior to the planned flight by submitting an updated request form to ICAA by email. Changes received after 1500Z may not be accepted due to processing requirements. A significant change is defined as any changes to the following:

- UTC date of flight,
- Aircraft type,
- Call sign,
- Aircraft Registration, and
- Departure and/or Arrival locations

1.2.3.1.5 Overflight Fee Generation. At 2100Z each evening, the ICAA will generate a final overflight list of the approved overflights of Iraq for the next UTC day. This list will be emailed to Baghdad, Kirkuk and Balad ACC each evening. Baghdad, Kirkuk and Balad ACC will use this list to document actual overflights of Iraqi airspace

and will forward the annotated list to the ICAA at ops@iraqcaa.com, suzan_alljaf@yahoo.com, and fin_biap@geca.gov.iq by 1700Z the next day.

1.2.3.2 Landings and Departures (Slots)

1.2.3.2.1 Slot requests and changes must be submitted to ICAA no later than 1500Z the day prior to flight and no earlier than 24 hrs prior to the day of operation. Requests received after 1500Z may not be accepted. The Slot Request Form may be found on the ICAA website at <http://www.iraqcaa.com>. Civil carriers must annotate the correct Category of flight in order to be approved. Carriers will be notified via email from ICAA of approval to operate.

1.2.3.2.2 Changes to takeoff/landing slot time requests. Significant changes to a slot request may be made at any time up to 1500Z the day prior to the planned flight by submitting an updated request form to ICAA by email. Changes received after 1500Z may not be accepted. A significant change is defined as any changes to the following:

- UTC date of flight,
- Aircraft type,
- Call sign,
- Aircraft Registration, and
- Departure and/or Arrival locations

1.2.3.2.3 Civil aircraft will need to coordinate any and all ground servicing, handling, other aircrew requirements, weather avoidance, air traffic control separation, or enroute and landing threat assessment. All civil aircrew must review all NOTAMS for respective airfields prior to flight. Aircrews should also consider adequate fuel for potential ground or air delays due to unforeseen events. ICAA approval to operate DOES NOT imply approval for any of these items.

1.2.4 Landings and Departures (Reserved)

1.2.5 Prior Permission Required (PPR) Procedures

1.2.5.1 In general, PPRs are required for transient military and civil aircraft including those on ATO's operating at designated airfields. It is the responsibility of the operating agency to ensure PPR requirements are met prior to landing at the intended airfield. Aircraft that land without an approved PPR may be turned away or met by security forces. PPRs must be obtained before submitting a landing request to ICAA.

1.2.5.2 PPR times must be met +/- 30 (+/- 15 for ORMM) minutes from the approved time. Any changes to an arrival or departure time at an airfield that requires a PPR must be coordinated with the Senior Airfield Authority. Operators that do not coordinate changes to their PPR times may face delays and/or be prohibited from downloading their cargo or passengers. PPR's issued with less than 6 hours notification will not be guaranteed priority handling and may be delayed. The Senior Airfield Authority is the arbiter for final approval of PPR's.

1.2.5.3 All civil aircraft requiring flights to PPR designated airfields must contact the Senior Airfield Authority and receive a PPR prior to landing at that airfield.

Requirements for PPRs are defined with the respective airfield entry in BOOK 3: AERODROMES (AD). Civil carriers are also reminded to check current NOTAMS for changes/updates in PPR requirements.

1.2.5.4 Civilian aircraft flying into or departing from Iraqi territory shall:

a. Only be permitted to make their first landing and final departure from an approved International Airport in order to complete required Customs and Immigration clearance. The current ICAA approved International Airports are Baghdad International, Mosul International, Erbil International, Sulaymaniyah International, Basrah International and Al Najaf Al-Ashraf International.

b. Fly preferred routings and altitudes as described in sections ENR 1.8 and ENR 3.5 or as designated by ATC. If authorization has been obtained to land at airfields where no preferred routing has been specified, aircraft are to comply with the preferred routing of the nearest airport (where the routing is provided) and then indicate the airport of intended landing. In such cases, expect air traffic control to amend routings as required.

1.2.5.5 Fuel and other services may not be available at most airports. If fuel, ground handling or other services are required it must be coordinated through the airport.

(ORBI) For information on ground handling agencies including fuel:

Fuel:

Tel: + (964) 7901 983 453

Handling: ground.handling@iraqairways46.com

Tel: + (964) 813-2012

(ORMM) For information on ground handling agencies including fuel; or email:

Fuel: skylink-basrah@skylinkarabia.com

Tel: + (964) 7901-909871

Handling basrahhandling@skylinkarabia.com

Tel: + (964) 7801-000628

(ORER) For information on ground handling agencies including fuel; or email: skylink-erbil@skylinkarabia.com

1.2.5.6 All operators are to consult BOOK 3 AERODROMES (AD), for the specific airfield, and NOTAMs for updated information and contact numbers.

Contact information:

AL NAJAF AL-ASHRAF (ORNI)

Email: Flightoperations.njf@gmail.com

Airfield Manager +964 770 802 4606

BASRAH (ORMM)

Email: basrahairops@hotmail.com

Airfield Manager DSN 011-965-911-4553

ERBIL (ORER)

Email: ats.dep@erbilairport.net

Telephone: +964-66-281-0051

KIRKUK (ORKK)

Email: 506eossamops@krab.centaf.af.mil

Airfield Manager DSN 318-444-2456

MOSUL (ORBM)

Email: mosul.airport.miap@gmail.com

Airfield Manager + (964) 077 0160 5448

SULAYMANIYAH (ORSU)

E-mail: tahirjul55@yahoo.com

Telephone + (964) 077 0153 0273

+ (964) 077 0150 5186

TALL AFAR (ORTF)

Email: ppr.talafar@gmail.com

Telephone DSN 318-250-8094 / 8065

UBAYDAH BIN AL JARRAH/AL KUT (ORUB)

E-mail: alkut.twr@gmail.com

Telephone DSN 318-844-2820

THURAYA 0087 17 6363 0620

1.2.5.7 Aircraft operations at other airports may be permitted with ICAA approval. If approval is granted, operators shall comply with the preferred routings and procedures contained in ENR 3. Changes to an airport's status will be disseminated by NOTAM, as will the notification of any additional airports cleared by ICAA for slot time operations.

1.2.6 Scheduled Flights

1.2.6.1 Regular international scheduled flights, operated by foreign airlines, into or transiting the Baghdad FIR, must comply with the following:

- a. The State of the airline must be a party to the International Air Services Transit Agreement and/or the International Air Transport Agreement to which both the State of the airline and Iraq are contracting parties.
- b. The airline must be eligible to make the flights under the provisions of a bilateral or multilateral agreement, provided that the State of the airline and Iraq are contracting parties, and must have a permit to operate into or in transit

across Iraq. Applications for such permits shall be submitted to ICAA until further notice.

1.2.6.2 Applications for permission for aircraft engaged in scheduled International Air Services requesting to overfly Iraqi territory or land for non-traffic purposes shall be submitted with full details to ICAA at least seven days prior to the commencement of the flight.

1.2.6.3 Applications for timetable approval of scheduled International Air Services to operate into Iraq for commercial purposes, shall be submitted at least two months prior to the proposed date of the commencement of operation. For additional and non-scheduled flights, see GEN 1.2.7

1.2.6.4 Documentary Requirements for Clearance of Aircraft.

1.2.6.4.1 It is necessary that the under mentioned aircraft documents be submitted by airline operators for clearance on entry and departure of their aircraft to and from Iraq. All documents listed below must follow the ICAO standard format as set in the relevant appendices to ICAO Annex 9, completed in English and completed in legible handwriting. Visas are not required to accompany these documents.

1.2.6.4.2 Aircraft documents required (arrival/departure)

Required By	General Declaration	Passenger Manifest	Cargo Manifest
Airport Authority	1	1	1
Customs	1	1	1
Immigration	1	1	1
Public Health	1	1	1

1.2.7 Non-Scheduled Flights

1.2.7.1 Aircraft registered in States that are parties to Chicago International Civil Aviation Convention (1944) and not engaged in scheduled International Air Services are permitted to overfly Iraqi territory or make stops for non-traffic purposes, provided that applications for clearance are forwarded at least 48 hours prior to the commencement of the flight, incorporating the following details:

- a. Name and address of aircraft operator;
- b. Type of aircraft and registration mark;
- c. Date of overflying or date and estimated time of arrival at and departure from Iraqi territory;
- d. Route of flight; and
- e. Purpose of flight and nature of freight on-board.

1.2.7.2 The ICAA will not consider any request without the above information.

1.2.7.3 Aircraft registered in other foreign countries require special permission to exercise the above rights after submitting applications to ICAA at least 72 hours prior to the commencement of flights incorporating the details mentioned in 1.2.7.1.

1.2.7.4 Applications for permission to transport passengers and cargo to and from Iraq for commercial purposes shall be submitted directly to ICAA seven days before the commencement of the first intended flight, or at least 15 days when such a request is submitted through diplomatic channels, incorporating the following:

1.2.7.4.1 Cargo flights:

- a. Name and address of the carrier and operator;
- b. Type of aircraft and registration marks;
- c. Name and address of the consigner and consignee;
- d. Type and amount of cargo, with specific indication of any material subject to special restrictions or authorization such as explosives, arms, and munitions, nuclear objects and radioactive materials and any other objects related thereto, poisonous gases, germs and dangerous objects and any other objects the carriage of which is prohibited by the competent authority;

e. Name and address of the designated agent in Iraq through whom landing and air navigation facilities charges are to be paid in respect of airlines which do not have offices or accredited agents in Iraq.

f. Place of embarkation or disembarkation abroad, with date and estimated time of arrival at and departure from Iraqi aerodromes.

1.2.7.4.2 Passenger flights:

- a. As mentioned in 1.2.7.4.1 sub-paragraphs a, b, e and f above; and
- b. Purpose of the flight.

1.2.7.5 Application for permission for aircraft equipped with air photographic apparatus to fly over or land within Iraqi territory should be submitted with full details at least 10 days before the intended day of operation.

1.2.7.6 Application for permission for foreign military aircraft to operate over or into Iraqi territory should be submitted through diplomatic channels at least 15 days prior to the commencement of flight. The application must include the items mentioned in paragraph GEN 1.2.7.1.

1.2.7.7 Non-scheduled flights delaying into the next UTC day must coordinate with the ICAA to confirm permission for flight.

1.2.7.8 Documentary Requirements for Clearance of Aircraft.

1.2.7.8.1 Those requirements defined at GEN 1.2.6.4 also apply to Non-scheduled flights.

1.2.8 Private Flights

1.2.8.1 Advance Notification of Arrival or Entry.

1.2.8.1.1 Prior permission shall be obtained for private aircraft overflying or landing at Iraqi aerodromes. The request must be submitted to ICAA at least 48 hours prior to the departure of the aircraft, or far enough in advance to ensure that the request can be approved by the ICAA, and a reply sent and received prior to scheduled departure. The application must contain information as stated in paragraph GEN 1.2.7.1.

1.2.8.1.2 Private flights must submit a flight plan sufficiently early to ensure that the information will be received at least two hours in advance of the aircraft entering the Baghdad FIR. If landing in Iraq, the landing must be carried out at a designated international aerodrome as defined in GEN 1.2.5.4.

1.2.8.1.3 Private flights delaying into the next UTC day must re-coordinate with the ICAA to confirm permission for flight.

1.2.8.2 Documentary Requirements for Clearance of Aircraft. Those requirements defined at GEN 1.2.6.6.1 and 1.2.6.6.3 apply to Private flights.

1.2.9 Public Health Measures Applied to all Aircraft

1.2.9.1 Evidence of protection against cholera, yellow fever or smallpox is required from crew and passengers coming from infected countries.

1.2.9.2 Airline operators, or the pilot for Non-scheduled and Private flights, must ascertain whether the point of departure of any flight to Iraq is contained in an area that has been declared an epidemic area for the purpose of the Iraqi Health Regulation and Orders. The airline or pilot, as applicable, should similarly acquaint themselves as to the status of any area through which the aircraft may transit prior to entering Iraq.

1.2.9.3 No health formalities are required on departure.

GEN 1.3 ENTRY, TRANSIT AND DEPARTURE OF PASSENGERS AND CREW**1.3.1 Customs Requirements**

1.3.1.1 Baggage or articles belonging to disembarking passengers and crew are immediately released except for those selected by the customs authorities for inspection. Such baggage will be cleared on the basis of oral declaration.

1.3.1.2 For customs inspection, presentation of baggage is required from passengers departing Iraq.

1.3.2 Immigration Requirements

1.3.2.1 All foreign passengers must be in possession of a valid passport.

1.3.2.2 All foreign passengers entering Iraq must possess an entry visa.

1.3.2.3 All passengers remaining in Iraq for longer than 30 days and embarking to any point outside Iraq must be in possession of an exit visa.

1.3.2.4 All foreign transit passengers embarking in Iraq for 30 days or less, other than those proceeding on the same flight, must be in possession of a transit visa. No foreign passenger will be permitted to leave the confines of the airport without such a visa.

1.3.2.5 Entry visa is valid for three months from the date of issue, with the understanding that the duration of stay in Iraq is for a maximum of 30 days only.

1.3.2.6 A crew member travelling by service route must be in possession of a valid passport and obtain the necessary authorization.

1.3.2.7 Coalition military and their civilian components are exempt from the above requirements. All contractors are subject to the above requirements and must route through an international airport upon entry and exit to Iraq.

1.3.3 Public Health Requirements

1.3.3.1 Disembarking passengers are not required to present vaccination certificates unless arriving from an area infected with cholera, yellow fever or smallpox.

1.3.3.2 For crew and passengers intending to enter Iraq or in transit, see GEN 1.2.5. to 1.2.9.

GEN 1.4 ENTRY, TRANSIT AND DEPARTURE OF CARGO**1.4.1 Customs requirements concerning cargo and other articles**

1.4.1.1 Application for permission to transport cargo to and from Iraq for commercial purposes shall be submitted directly to ICAA at least 7 days before commencement of the first intended flight, or at least 15 days when such request is submitted through diplomatic channels. Requests shall incorporate the following:

- a. Name and address of the carrier and operator;
- b. Type of aircraft and registration marks;
- c. Name and address of consigner and consignee;
- d. Type and amount of cargo, with specific indication of any material subject to special restrictions or authorization, such as explosives, arms and munitions, nuclear objects and radioactive materials, poisonous gases, germs and dangerous goods;
- e. Name and address of the designated agent in Iraq through which landing and air navigation facilities charges are to be paid in respect of airlines which do not have offices or accredited agents in Iraq;
- f. Place of embarkation or disembarkation abroad with date and estimated time of arrival at, and departure from, Iraqi aerodromes.

1.4.2 Agricultural Quarantine Requirements

1.4.2.1 Agricultural quarantine requirements are comprised of the following:

1.4.2.1.1 Passenger Inspection

1.4.2.1.1.1 Certain plants and plant materials are prohibited by law from entering Iraq such as:

- a. Fruits: Mangoes, citrus, etc;
- b. Plants: Palm, all green plants, plant cuttings, etc;
- c. Others: Culture of bacteria and fungi;
- d. Seeds: A permit must be obtained in advance from the Ministry of Agriculture in Iraq. A photo-sanitary certificate from the country of origin is also required. Seeds must pass laboratory inspection before they are released.

1.4.2.2 Imports

1.4.2.2.1 All regulations mentioned above must be observed. All airlines or representatives must present the required documentations and prepare the shipment for inspection.

1.4.2.3 Exports

1.4.2.3.1 The shipment must be examined by an official from the Agricultural Quarantine Administration. A certificate will be granted if the shipment passes

inspection. The certificate must accompany the shipment. Detailed information and the required forms are available from the Ministry of Agriculture at the address below:

MINISTRY OF AGRICULTURE
ANDULUS Square
Near ALSADER HOTEL
Baghdad – Republic of IRAQ

Fax and telephone numbers will be published via NOTAM when available.

GEN 1.5 AIRCRAFT INSTRUMENTS, EQUIPMENT AND FLIGHT DOCUMENTS**1.5.1 General:**

1.5.1.1 Commercial air transport aircraft operating in Iraq must adhere to the provisions of ICAO Annex 6 – Operation of Aircraft, Part 1 – International Commercial Air Transport – Aeroplanes, Chapter 6 (Aeroplanes Instruments, Equipment and Flight Documents) and Chapter 7 (Aeroplane Communication and Navigation Equipment).

1.5.2 Special Equipment to be carried

1.5.2.1 All aircraft operating within the Baghdad FIR must be approved by the State of the operator or the State of Registry for RNAV5. RNAV5 Approved aircraft shall have the capability to maintain enroute lateral navigation accuracy along track position fixing of +/- 5NM or better, for 95% of the flight time in Iraqi airspace. Any aircraft unable to meet the navigation criteria will not be authorized to fly within Iraqi airspace.

1.5.2.2 Pilots of aircraft meeting RNAV5 standards must indicate R in field 10 of the ICAO flight plan. Operators are to ensure that all relevant procedures, publications and training are in accordance with RNAV5 standards. Pilots must advise ATC of any deterioration or failure of their navigation system by stating “Unable RNAV due to equipment”. ATC will then attempt to provide alternative separation standards and/or routings.

1.5.2.3 There may be insufficient ground-based navigation aids (NAVAIDs) suitable for RNAV or Inertial Navigation System updating along the Iraqi air routes. Therefore, operators whose aircraft navigation systems depend upon ground-based NAVAID updating to meet RNAV5 criteria shall conduct an analysis of the routes to be flown to ensure suitable NAVAID reception.

1.5.2.4 All aircraft operating in the Baghdad FIR shall be equipped with an operable Mode 3/A transponder.

1.5.3 Miscellaneous Information

1.5.3.1 Subject to the observance of the applicable rules, conditions and limitations set forth in this document and in legislation listed in GEN 1.6 and GEN 1.7, foreign civil aircraft registered in any foreign country that is a member of the ICAO may be navigated over Iraq.

1.5.3.2 Aircraft registered under the laws of foreign countries, that are not members of the ICAO, and which grant reciprocal treatment to Iraqi aircraft and airmen, may be navigated over Iraq subject to the observance of the same rules, conditions and limitations applicable as in the case of aircraft of ICAO member States.

1.5.3.3 Radiotelephony procedures and phraseology shall be in accordance with the ICAO Manual of Radiotelephony, Doc 9432 AN/925 and supporting sections of the current ICAO Doc 4444 ATM /501 Procedures for Air Navigation Services – Air Traffic Management.

GEN 1.6 SUMMARY OF NATIONAL REGULATIONS AND INTERNATIONAL AGREEMENTS/CONVENTIONS

1.6.1 It is essential that personnel engaged in air operations comply with the relevant laws and regulations. Copies of the relevant documents may be obtained from the Ministry of Justice, the address of which is stated below. The following is a list of civil aviation legislation and air navigation regulations, etc. in force in Iraq:

1.6.1.1 Civil Aviation Law No.148 of 1974 (modified issue), (attention is drawn to section 15 of the law, concerning the executive actions taken against persons and airline companies deviating from the articles of the law and incorporated instructions).

1.6.1.2 Regulation No.4 of 1975 concerning the Rules of the Air.

1.6.1.3 Regulation No.27 of 1940 for the control of aerial navigation.

1.6.1.4 Regulation No.26 of 1987 governing the fees and charges for using Iraqi Airports.

1.6.1.5 Laws of Agricultural Quarantine and Instructions 1973/1974.

MINISTRY OF JUSTICE

Salihiya

Baghdad – Republic of IRAQ

Telephone numbers and P.O. Box to be published via NOTAM once available

GEN 1.7 DIFFERENCES FROM ICAO STANDARDS RECOMMENDED PRACTICES AND PROCEDURES

ANNEX 1	PERSONNEL LICENSING , 10 th edition:	Nil
ANNEX 2	RULES OF THE AIR , 10 th edition:	Nil
ANNEX 3	METEOROLOGY , 16 th edition: The Iraq AIP is at variance with Chapter 8, Section 8.3., airport climatological summaries for Iraq are not available	
ANNEX 4	AERONAUTICAL CHARTS , 10 th edition: The Iraq AIP is at variance with Chapter 4 Section 4.2. Aerodrome Obstacle Chart – ICAO Type B is not available for airports in Iraq.	
ANNEX 5	UNITS OF MEASUREMENT TO BE USED IN AIR AND GROUND OPERATIONS , 4 th edition:	Nil
ANNEX 6	OPERATION OF AIRCRAFT	Nil
	Part I 8 th edition:	
	Part II 6 th edition	
	Part III 5 th edition	
ANNEX 7	AIRCRAFT NATIONALITY AND REGISTRATION MARKS , 5 th edition:	Nil
ANNEX 8	AIRWORTHINESS OF AIRCRAFT , 9 th edition:	Nil
ANNEX 9	FACILITATION , 12 th edition:	Nil
ANNEX 10	AERONAUTICAL TELECOMMUNICATIONS	Nil
	Volume I 6 th edition	
	Volume II 6 th edition	
	Volume III Part I 2 nd edition	
	Part II 2 nd edition	
	Volume IV 4 th edition	
	Volume V 2 nd edition	
ANNEX 11	AIR TRAFFIC SERVICES , 13 th edition: Air traffic services within Iraq are being primarily provided by coalition air traffic controllers. Whilst services are in accordance with ICAO classifications of airspace, certain phraseology or procedures may vary at different locations. Class E airspace is non-standard in that VFR aircraft require a clearance and two way communications.	
ANNEX 12	SEARCH AND RESCUE , 8 th edition:	Nil
ANNEX 13	AIRCRAFT ACCIDENT INVESTIGATION , 9 th edition:	Nil
ANNEX 14	AERODROMES : Some of the facilities and procedures described in AD 2 may not comply with Annex 14.	
	Volume I 4 th edition	
	Volume II 2 nd edition	

-
- ANNEX 15 AERONAUTICAL INFORMATION SERVICES**, 12th edition: The Iraq AIP is at variance with Chapter 4, paragraph 4.1.3. Precision Approach Terrain Charts are not produced yet. Additionally, Iraq AIP is at a variance with Chapter 6 in that a mature Aeronautical Information Regulation and Control system has not been implemented in Iraq.
- ANNEX 16 ENVIRONMENTAL PROTECTION:** Nil
- Volume I 4th edition
- Volume II 2nd edition
- ANNEX 17 SECURITY – SAFEGUARDING INTERNATIONAL CIVIL AVIATION AGAINST ACTS OF UNLAWFUL INTERFERENCE**, 8th edition: Nil
- ANNEX 18 THE SAFE TRANSPORT OF DANGEROUS GOODS BY AIR**, 3rd edition: Nil

GEN 2 TABLES AND CODES
GEN 2.1 MEASURING SYSTEM, AIRCRAFT MARKINGS, HOLIDAYS

2.1.1 Units of Measurement. Aeronautical stations within Baghdad FIR shall use the following table of units of measurement.

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. RWY lengths)	Meters
Altitudes, Elevations and Heights	Feet
Horizontal speed including wind speed	Knots
Vertical speed	Feet per minute
Wind direction for landing and take off	Degrees Magnetic
Wind direction except for landing and take off	Degrees True
Visibility including RWY visual range	Kilometres or Meters
Altimeter setting (barometric pressure)	Hectopascals
Temperature	Degrees Celsius
Weight	Metric Tonnes or Kilograms
Time	Hours and Minutes beginning at midnight UTC

2.1.2 Time system

2.1.2.1 Coordinated Universal Time (UTC) is 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.

2.1.2.2 Daylight Saving Time (DST) is not observed in Iraq.

2.1.3 Geodetic Reference Datum. All published geographical coordinates indicating latitude and longitude are expressed in World Geodetic System 1984 (WGS84). WGS84 is applicable within the area of responsibility of the Aeronautical Information Service; i.e. the entire territory of Iraq as well as the airspace over the high seas encompassed by the Baghdad Flight Information Region in accordance with the regional agreement.

2.1.4 Aircraft Nationality and Registration Marks. The nationality mark for aircraft registered in Iraq is the letters 'YI'. The nationality mark is followed by a hyphen and a registration mark consisting of three letters, e.g. YI-ABC.

2.1.5 Public Holidays

2.1.5.1 The following is a list of the national public holidays for 2012 (1433-1434) with dates corresponding to the Gregorian calendar.

Name	Gregorian Date	Hijri Date
New year's Day	1 January	6 Safar
Army Day	6 January	11 Safar
Mouloud (Birth of the Prophet Mohammad)	6 February	12 Raby'al-awal
Eid - Nawroze	21 March	26 Raby'al- Thanny
Labor Day	1 May	5 Jamady AL-Thanny
National Day	14 July	19 Sha'baan
Eid al-Fitr (End of Ramadan)	24 August	1 Shawwal
Eid al-Fitr (End of Ramadan)	25 August	2 Shawwal
Eid al-Fitr (End of Ramadan)	26 August	3 Shawwal
Eid al-Adha (Feast of Sacrifice)	2 November	10 Thw al-Hijjah
Eid al-Adha (Feast of Sacrifice)	3 November	11 Thw al-Hijjah
Eid al-Adha (Feast of Sacrifice)	4 November	12 Thw al-Hijjah
Eid al-Adha (Feast of Sacrifice)	5 November	13 Thw al-Hijjah
Islamic New Year	21 November	1 Muharram (1434)
Ashura	1 December	10 Muharram (1434)

2.1.5.2 While every effort has been made to present an accurate list of 2012 holidays for Iraq, no responsibility is accepted for any error or omission in the data presented above. Some of these holidays are based on calendars whose determination is inherently approximate. Before using any of these dates for planning purposes they should be verified with the ICAA.

2.1.5.3 Iraq applies a five working day week, with Fridays and Saturdays as official days off. Working hours commence at 0800 (local) and end at 1500.

GEN 2.2 DEFINITIONS AND ABBREVIATIONS USED IN AIS PUBLICATIONS

2.2.1 Definitions

Aerodrome: A defined area of land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and movement of aircraft.

Aerodrome Beacon: An aeronautical beacon, used to indicate the location of an aerodrome from the air.

Aerodrome Control Service: ATC service for aerodrome traffic.

Aerodrome Control Tower: A unit established to provide ATC service to aerodrome traffic.

Aerodrome Elevation: The elevation of the highest point of the landing area.

Aerodrome Reference Point (ARP): The designated geographical location of an aerodrome.

Aerodrome Traffic: All traffic on the manoeuvring area of an aerodrome and all aircraft flying in, entering, or leaving the traffic circuit.

Aeronautical Beacon: An aeronautical ground light visible at all azimuths, either continuously or intermittently, to designate a particular point on the surface of the earth.

Aeronautical Information Publication (AIP): A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

AIP Supplement (SUP): Temporary changes to the information contained in the AIP which are published by means of special pages.

Air Tasking Order (ATO): military aircraft movement approval generated by the coalition.

Air Taxiing: Movement of a helicopter / VTOL above the surface of an aerodrome, normally in ground effect and at a speed normally less than 20KT.

Air Traffic Control Clearance: Authorisation for aircraft to proceed under conditions specified by an Air Traffic Control unit.

Note: For convenience, the term "Air Traffic Control Clearance" is normally abbreviated to "Clearance" when used in appropriate context.

Air Traffic Control Instructions: Directives issued by air traffic control for the purpose of requiring a pilot to take a specific action.

b. at or below 100FT above the surface; and

c. at speeds greater than those used in air taxiing.

Air Traffic Control Service: A service provided for the purpose of:

a. preventing collisions:

1. between aircraft; and

2. on the manoeuvring area between aircraft and obstructions; and

b. expediting and maintaining an orderly flow of air traffic.

Air Traffic Service (ATS): A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service, or aerodrome control service).

Air Transit: The airborne movement of a helicopter that is:

a. for the expeditious transit from one place within an aerodrome to another place within the aerodrome;

Airways Clearance: A clearance, issued by ATC, to operate in controlled airspace along a designated track or route at a specified level to a specified point or flight planned destination.

Alternate Aerodrome: An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing.

Altimeter Setting: A pressure datum which when set on the sub-scale of a sensitive altimeter causes the altimeter to indicate vertical displacement from that datum. A pressure-type altimeter calibrated in accordance with Standard Atmosphere may be used to indicate altitude, height or flight levels, as follows:

a. when set to **QNH** or **Area QNH** it will indicate **altitude**;

b. when set to **Standard Pressure** (1013.2 HPA) it may be used to indicate **flight levels**.

Altitude: The vertical distance of a level, a point or an object, considered as a point, measured from mean sea level.

Approach Control Service: ATC service for arriving or departing flights.

Apron: A defined area on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail, cargo, fuelling, parking or maintenance.

Area Control Service: Air traffic control service for controlled flights in control areas.

Area Navigation (RNAV): A method of navigation which permits aircraft operation on any desired flight path within the coverage of ground or space-based navigation aids, or within the limits of the capability of self-contained aids, or a combination of these.

Area Navigation (RNAV) Route: An ATS route established for the use of aircraft capable of employing area navigation.

Area QNH: A forecast altimeter setting which is representative of the QNH of any location within a particular area.

ATS Route: A specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services.

Automatic Terminal Information Service (ATIS): The provision of current, routine information to arriving and departing aircraft by means of continuous and repetitive broadcasts during the hours when the unit responsible for the service is in operation.

Briefing: The act of giving in advance, specific pre-flight instructions or information to aircrew.

Broadcast: A transmission of information relating to air navigation for which an acknowledgement is not expected.

Ceiling: The height above the ground or water of the base of the lowest layer of cloud below 20,000FT covering more than one-half of the sky.

Center: A generic call-sign used in the en route and area environment which can include Air Traffic Control, Advisory, Flight Information and Alerting services, depending on the classification of airspace in which the service is provided.

Collocated (Navigation) Aids: En route way-points or navigation aids that are within 600M of each other.

Control Area (CTA): A controlled airspace extending upwards from a specified limit above the earth.

Controlled Aerodrome: An aerodrome at which air traffic control service is provided to aerodrome traffic.

Controlled Airspace: Airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification.

Controller: An air traffic controller, operating within an organisation approved under CASR Part 172 and qualified in accordance with CASR Part 65.

Control Zone (CTR): A controlled airspace extending upwards from the surface of the earth to a specified upper limit.

Danger Area: An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.

Day: That period of time from the beginning of morning civil twilight to the end of evening civil twilight.

Dead Reckoning (DR) Navigation: The estimating or determining of position by advancing an earlier known position by the application of direction, time and speed data.

Decision Altitude/Height (DA/H): A specified altitude or height in the precision approach at which a missed approach must be initiated if the required visual reference to continue the approach has not been established.

Note 1: "Decision altitude (DA)" is referenced to mean sea level (MSL) and "decision height (DH)" is referenced to the threshold elevation.

Distance Measuring Equipment (DME): Equipment which measures in nautical miles, the slant range of an aircraft from the selected DME ground station

DME Distance: The slant range from the source of a DME signal to the

receiving antenna.

Elevation: The vertical distance of a point or a level, on or affixed to the surface of the earth, measured from mean sea level.

Emergency Phases:

- a. Uncertainty Phase: A situation wherein uncertainty exists as to the safety of an aircraft and its occupants.
- b. Alert Phase: A situation wherein apprehension exists as to the safety of an aircraft and its occupants.
- c. Distress Phase: A situation wherein there is reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger or require immediate assistance.

Estimate: The time at which it is estimated that an aircraft will be over a position reporting point or over the destination.

Estimated Elapsed Time (EET): The estimated time required to proceed from one significant point to another.

Estimated Off Block Time: The estimated time at which the aircraft will commence movement associated with departure.

Estimated Time of Arrival (ETA): For IFR flights, the time at which it is estimated that the aircraft will arrive over that designated point, defined by reference to navigation aids, from which it is intended that an instrument approach procedure will be commenced, or, if no navigation aid is associated with the aerodrome, the time at which the aircraft will arrive over the aerodrome. For VFR flights, the time at which it is estimated that the aircraft will arrive over the aerodrome.

Final Approach: That part of an instrument approach procedure which commences at the specified final approach fix or point, or where such a fix or point is not specified:

- a. at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or
- b. at the point of interception of the last track specified in the approach procedure; and
- c. ends at a point in the vicinity of an aerodrome from which a landing can be made, or a missed approach is initiated.

Final Approach Altitude: The specified altitude at which final approach is commenced.

Final Approach Fix (FAF): A specified point on a non-precision instrument approach which identifies the commencement of the final segment.

Final Approach Point (FAP): A specified point on the glide path of a precision instrument approach which identifies the commencement of the final segment.

Note: The FAP is co-incident with the FAF of a localizer based non-precision approach.

Final Approach Segment: That segment of an instrument approach procedure in which alignment and descent for landing are accomplished.

Final Leg: The path of an aircraft in a straight line immediately preceding the landing (alighting) of the aircraft.

Fix: A geographical position of an aircraft at a specific time determined by visual reference to the surface, or by navigational aids.

Flight Information: Information useful for the safe and efficient conduct of flight, including information on air traffic, meteorological conditions, aerodrome conditions and airways facilities.

Flight Information Region (FIR): An airspace of defined dimensions within which flight information service and SAR alerting service are provided.

Flight Information Service (FIS): A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

Flight Level (FL): A surface of constant atmospheric pressure which is related to a specific pressure datum, 1013.2HPA, and is separated from other such surfaces by specific pressure intervals.

Flight Visibility: The visibility forward from the cockpit of an aircraft in flight.

Forecast: A statement of expected meteorological conditions for a specified period, and for a specified area or portion of airspace.

Formation: Two or more aircraft flown in close proximity to each other and operating as a single aircraft with regard to navigation, position reporting and control.

Note: Refer to CAR 163AA for conditions under which formation flight may be undertaken.

Glide Path (GP): A descent profile determined for vertical guidance during a final approach.

Global Navigation Satellite System (GNSS): A satellite-based radio navigation system that uses signals from orbiting satellites to determine precise position and time.

Global Positioning System (GPS): A GNSS constellation operated by the United States Government.

Gross Weight: The weight of the aircraft together with the weight of all persons and goods (including fuel) on board the aircraft at that time.

Ground Based Navigation Aid means NDB, VOR, DME.

Ground Taxiing: The movement of a helicopter under its own power and on its undercarriage wheels.

Ground Visibility: The visibility at an aerodrome, as reported by an accredited observer.

Hazardous Conditions: Meteorological conditions which may endanger aircraft or adversely affect their safe operation, particularly those phenomena associated with volcanic ash cloud and thunderstorms – icing, hail and turbulence.

Heading (HDG): The direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from North (true, magnetic, compass or grid).

Height: The vertical distance of a level, a point or an object considered as a point measured from a specified datum.

Height Above Aerodrome (non-precision approach or circling) (HAA): The height of the Minimum Descent Altitude above the published aerodrome elevation.

Height Above Threshold (precision approach) (HAT): The height of the Decision Altitude above the threshold elevation.

Helicopter Landing Site (HLS): A place that is used as an aerodrome for the purposes of the landing and taking-off of helicopters.

Helicopter Lane: A lane, outside controlled airspace, designed for use by helicopters to facilitate traffic flow.

Holding Bay: A defined area where aircraft can be held, or bypassed, to facilitate efficient surface movement of aircraft.

Holding Fix: A specified location identified by visual or other means in the vicinity of which the position of an aircraft in flight is maintained in accordance with ATC Instructions.

Holding Procedure: A predetermined manoeuvre which keeps an aircraft within a specified airspace whilst awaiting further clearance.

Hospital Aircraft: A priority category for use by international aircraft when medical priority is required (see also Medical).

IFR Pick-up: A pilot procedure whereby a flight operating to the IFR in Class G airspace changes to VFR upon entering Class E airspace whilst awaiting an airways clearance. IFR Pick-up is limited to FL180 and below.

Identification: The situation which exists when the position indication of a particular aircraft is seen on a situation display and positively identified by ATC.

Inertial Navigation / Reference System (INS/IRS): A self-contained navigation system that continually measures the accelerations acting upon the vehicle of which it is part. Suitably integrated, these forces provide velocity and thence position information.

Instrument Approach and Landing Operations: Instrument approach and landing operations are classified as follows:

a. **Non-precision Approach and Landing Operations:** Instrument approaches and landings which do not utilise electronic glide path guidance.

b. **Precision Approach and Landing Operations:** Instrument approaches and landings using precision azimuth and glide path guidance with minima as determined by the category of operation.

Categories of Precision Approach and Landing Operations are:

(i) Category I (CAT I) operation. A precision instrument approach and landing with a decision height not lower than 200FT and a visibility not less than 800M, or a RVR not less than 550M.

(ii) Category II (CAT II) operation: A precision instrument approach and landing with a decision height lower than 200FT but not lower than 100FT, and a runway visual range not less than 350M.

(iii) Category IIIA (CAT IIIA) operation: A precision instrument approach and landing with a decision height lower than 100FT, or no decision height and a runway visual range not less than 200M.

Instrument Approach Procedure: A series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en route obstacle clearance criteria apply.

Intermediate Fix (IF): A fix on an RNAV approach that marks the end of an initial segment and the beginning of the intermediate segment.

In the Vicinity: An aircraft is in the vicinity of a non-towered aerodrome if it is within a horizontal distance of 10 miles; and within a height above the aerodrome reference point that could result in conflict with operations at the aerodrome.

Initial Approach Fix (IAF): The fix at the commencement of an instrument approach.

Initial Approach Segment: That segment of an instrument approach procedure between the initial approach fix and the intermediate approach fix or, where applicable, the final approach fix or point.

Instrument Landing System (ILS): A precision instrument approach system which normally consists of the following electronic components: VHF Localiser, UHF Glideslope, VHF Marker Beacons.

Instrument Runway: One of the following types of runways intended for the operation of aircraft using instrument approach procedures:

a. Non-precision approach runway. An instrument runway served by visual aids and a non-visual aid providing at least directional guidance adequate for a straight-in approach.

b. Precision approach runway, CAT I. An instrument runway served by ILS and visual aids intended for operations with a decision height not lower than 200FT and either a visibility not less than 800M, or a RVR not less than 550M.

c. Precision approach runway, CAT II. An instrument runway served by ILS and visual aids intended for operations with a decision height lower than 200FT, but not lower than 100FT and a RVR not less than 350M.

d. Precision approach runway, CAT III. An instrument runway served by ILS to and along the surface of the runway and:

(i) for CAT IIIA – intended for operations with a decision height lower than 100FT, or no decision height and a RVR not less than 200M;

(ii) for CAT IIIB – intended for operations with a decision height lower than 50FT, or no decision height and a RVR less than 200M, but not less than 50M;

(iii) for CAT IIIC – intended for operations with no decision height and no RVR limitations.

Integrity: That quality which relates to the trust which can be placed in the correctness of information supplied by a system. It includes the ability of a system to provide timely warnings to users when the system should not be used for navigation.

Landing Area: That part of the movement area intended for the landing or take-off of aircraft.

Level: A generic term relating to the vertical position of an aircraft in flight and meaning variously, height, altitude or flight level.

Localizer (LOC): The component of an ILS which provides azimuth guidance to a runway. It may be used as part of an ILS or independently.

Lowest Safe Altitude (LSALT): The lowest altitude which will provide safe terrain clearance at a given place.

Manoeuvring Area: That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.

Maximum Take-off Weight (MTOW): The maximum take-off weight of an aircraft as specified in its Certificate of Airworthiness.

Meteorological Information: Meteorological report, analysis, forecast, and any other statement relating to existing or expected meteorological conditions.

Minimum Altitude: The minimum altitude for a particular instrument approach procedure is the altitude specified by AIP DAP at which an aircraft shall discontinue an instrument approach unless continual visual reference to the ground or water has been established and ground visibility is equal to or greater than that specified by the DAP for landing.

Note: Applies to "old" type instrument approach charts.

Minimum Descent Altitude (MDA): A specified altitude in a non-precision runway or circling approach below which descent may not be made without visual reference.

Note: Applies to "new" type instrument approach charts.

Minimum Fuel: The term used to describe a situation in which an aircraft's fuel supply has reached a state where little or no delay can be accepted.

Note: This is not an emergency situation but merely indicates that an emergency situation is possible, should any undue delay occur.

Minimum Sector Altitude (MSA): The lowest altitude which may be used which will provide a minimum clearance of 1,000FT above all objects located in an area contained within a sector of a circle of 25NM or 10NM radius centred on a radio aid to navigation or, where there is no radio navigation aid, the Aerodrome Reference Point.

Missed Approach Holding Fix (MAHF): A fix on an RNAV approach that marks the end of the missed approach segment and the point for the missed approach holding (where applicable).

Missed Approach Point (MAPT): That point in an instrument approach procedure at or before which the prescribed missed approach procedure must be initiated in order to ensure that the minimum obstacle clearance is not infringed.

Missed Approach Procedure (MAP): The procedure to be followed if the approach cannot be continued.

Missed Approach Turning Fix (MATF): A fix on an RNAV approach that marks a turning point during the missed approach segment.

Movement Area: That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).

Navigation Specification. A set of aircraft and flight crew requirements needed to support performance based navigation operations within a defined airspace. There are two kinds of navigation specifications:

RNP Specification. A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH.

RNAV Specification. A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, e.g. RNAV 5, RNAV 1.

Note: The Performance-based Navigation Manual (Doc 9613), Volume II, contains detailed guidance on navigation specifications.

Night: That period of time between the end of evening civil twilight and the beginning of morning civil twilight.

Non-Directional Beacon (NDB): A special radio station, the emissions of which are intended to enable a mobile station to determine its radio bearing or direction with reference to that special radio station.

NOTAM: A notice distributed by means of telecommunication 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.

Operator: A person, organisation or enterprise engaged in or offering to engage in aircraft operation.

Operations Manual: A manual provided by an operator for the use and guidance of its operations staff, containing instructions as to the conduct of flight operations, including the responsibilities of its operations staff (refer CAR 215).

Overshoot Shear: A wind shear occurrence which produces an INITIAL effect of overshooting the desired approach path and/or increasing airspeed.

Parking Area: A specially prepared or selected part of an aerodrome within which aircraft may be parked.

Pavement Classification Number (PCN): A number expressing the bearing strength of a pavement for unrestricted operations.

Preferred Runway: A runway nominated by ATC or listed in the AIP as the most suitable for the prevailing wind, surface conditions or noise sensitive areas in the proximity of the aerodrome.

Primary Means Navigation System: A navigation system that, for a given operation or phase of flight, must meet accuracy and integrity requirements, but need not meet full availability and continuity of service requirements. Safety is achieved by either limiting flights to specific time periods, or through appropriate procedural restrictions and operational requirements.

Procedural Service: Term used to indicate that information derived from an ATS surveillance system is not required for the provision of ATS.

Procedure Altitude/Height: A specified altitude/height flown at or above the minimum altitude/height, and established to accommodate a stabilised descent at a prescribed descent gradient/angle in the intermediate/final approach segment.

Prohibited Area: An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited. Designation is appropriate only for reasons of defence.

QNH Altimeter Setting: That pressure setting which, when placed on the pressure setting sub-scale of a sensitive altimeter of an aircraft located at the reference point of an aerodrome, will cause the altimeter to indicate the vertical displacement of the reference point above mean sea level.

Reduced Vertical Separation Minimum (RVSM): The vertical separation minimum of 1000FT between FL 290 and FL 410 inclusive.

Reporting Point: A specified geographical location in relation to which the position of an aircraft can be reported.

Required Navigation Performance (RNP): A statement of the navigation performance necessary for operation within a defined airspace.

RNP Type: A containment value expressed as a distance in nautical miles from the intended position within which flights would be for at least 95 per cent of the total flying time.

Restricted Area: An airspace of defined dimensions above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions.

Route: A way to be taken in flying from a departure to a destination aerodrome, specified in terms of track and distance for each route segment.

Runway (RWY): A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

Runway-Holding Position: A designated position intended to protect a runway, an obstacle limitation surface, or an ILS critical/sensitive area at which taxiing aircraft and vehicles must stop and hold, unless otherwise authorised by the aerodrome control tower.

Note: In radiotelephony phraseologies, the expression "holding point" is used to designate the runway-holding position.

Runway Number: The runway identification associated with the runway direction end.

Runway Strip: The defined area, including the runway (and stopway if provided), intended both to reduce the risk of damage to aircraft inadvertently running off the runway and to protect aircraft flying over it during take-off, landing or missed approach.

Search and Rescue (SAR): The act of finding and returning to safety, aircraft and persons involved in an emergency phase.

Segment Minimum Safe Altitude: The lowest altitude at which the minimum obstacle clearance is provided.

Significant Weather: Any weather phenomenon which might affect flight visibility or present a hazard to an aircraft.

Sole Means Navigation System: A navigation system that, for a given phase of flight, must allow the aircraft to meet all four navigation system performance requirements – accuracy, integrity, availability and continuity of service.

SSR Code: The number assigned to a particular multiple-pulse reply signal transmitted by a transponder in Mode A or Mode C.

Standard Instrument Departure (SID): A designated IFR departure route linking the aerodrome or a specified runway of the aerodrome with a specified significant point, normally on a designated ATS route, at which the en route phase of a flight commences.

Standard Pressure: The pressure of 1013.2 Hectopascals which, if set upon the pressure sub-scale of a sensitive altimeter, will cause the latter to read zero when at mean sea level in a standard atmosphere.

Stopway: A defined rectangular area on the ground at the end of the take-off run available prepared as a suitable area in which an aircraft can be stopped in the case of an abandoned take-off.

Tactical Air Navigation (TACAN): An ultra-high frequency navigation aid which provides a continuous indication of bearing and slant range, in nautical miles, to the selected ground station.

Taxiway (TWY): A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another.

Terrain Clearance: The vertical displacement of an aircraft's flight path from the terrain.

Threshold: The beginning of that portion of the runway usable for landing.

Threshold Crossing Height: The height of the ILS glide path at the threshold.

Track: The projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid).

Transition Altitude: The altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes.

Transition Layer: The airspace between the transition altitude and the transition level.

Transition Level: The lowest flight level available for use above the transition altitude.

Transitional Surface: An inclined plane associated with the runway strip and the approach surfaces.

Transponder: A receiver/transmitter which will generate a reply signal upon proper interrogation; the interrogation and reply being on different frequencies.

Undershoot Shear: A wind shear occurrence which produces an INITIAL effect of undershooting the desired approach path and/or decreasing air speed.

Unserviceable Area: A portion of the movement area not available for use by aircraft because of the physical condition of the surface, or because of any obstruction on the area.

Vectoring: Provision of navigational guidance to aircraft in the form of specific

headings, based on the use of an ATS surveillance system.

VHF Omni-directional Radio Range (VOR): A VHF radio navigational aid which provides a continuous indication of bearing from the selected VOR ground station.

Visibility: Visibility for aeronautical purposes is the greater of:

- a. the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognised when observed against a bright background; or
- b. the greatest distance at which lights in the vicinity of 1,000 candelas can be seen and identified against an unlit background.

Visual (ATC usage): Used by ATC to instruct a pilot to see and avoid obstacles while conducting flight below the MVA or MSA/LSALT.

Visual (Pilot usage): Used by a pilot to indicate acceptance of responsibility to see and avoid obstacles while operating below the MVA or MSA/LSALT.

Visual Approach Slope Indicator System (VASIS): A system of lights so arranged as to provide visual information to pilots on approach of their position in relation to the optimum approach slope for a particular runway.

V_{s1g} means the one-g stall speed at which the aeroplane can develop a lift force (normal to the flight path) equal to its weight.

Way-point: A specified geographical location used to define an area navigation route or the flight path of an aircraft employing area navigation.

Way-points are identified as either:

- a. **Fly-by Way-point:** A way-point which requires turn anticipation to allow tangential interception of the next segment of a route or procedure, or
- b. **Flyover Way-point:** A way-point at which a turn is initiated in order to join the next segment of a route or procedure.

2.2.2 National and ICAO abbreviations - Encode

† When radiotelephony is used, the abbreviations and terms are transmitted as spoken words.

‡ When radiotelephony, is used, the abbreviations and terms are transmitted using the individual letters in non-phonetic form.

* Signal is also available for use in communicating with stations of the maritime mobile service.

Signal for use in the teletypewriter service only.

± Variations from ICAO Doc

A		ADJ	Adjacent
A	Amber	ADO	Aerodrome office (<i>specify service</i>)
A (A0-A5)±	Amplitude modulation (AM)	ADR	Advisory route
AAA	(or AAB, AAC . . . etc., in sequence)	ADS*	The address (<i>when this abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI ADS</i>) (<i>to be used in AFS as a procedure signal</i>)
	Amended meteorological message (<i>message type designator</i>)		
A/A	Air-to-air	ADS-B‡	Automatic dependent surveillance — broadcast
AAD	Assigned altitude deviation	ADS-C‡	Automatic dependent surveillance — contract
AAIM	Aircraft autonomous integrity monitoring	ADSU	Automatic dependent surveillance unit
AAL	Above aerodrome level	ADVS	Advisory service
ABI	Advance boundary information	ADZ	Advise
ABM	Abeam	AES	Aircraft earth station
ABN	Aerodrome beacon	AFIL	Flight plan filed in the air
ABT	About	AFIS	Aerodrome flight information service
ABV	Above	AFM	Yes or affirm or affirmative or that is correct
AC	Altocumulus	AFS	Aeronautical fixed service
ACARS†	(<i>pronounced "AY-CARS"</i>) Aircraft communication addressing and reporting system	AFT	After . . . (<i>time or place</i>)
ACAS†	Airborne collision avoidance system	AFTN‡	Aeronautical fixed telecommunication network
ACC‡	Area control centre or area control	A/G	Air-to-ground
ACCID	Notification of an aircraft accident	AGA	Aerodromes, air routes and ground aids
ACFT	Aircraft	AGL	Above ground level
ACK	Acknowledge	AGN	Again
ACL	Altimeter check location	AIC	Aeronautical information circular
ACN	Aircraft classification number	AIDC	Air traffic services interfacility data communications
ACP	Acceptance (<i>message type designator</i>)	AIP	Aeronautical information publication
ACPT	Accept or accepted	AIRAC	Aeronautical information regulation and control
ACT	Active or activated or activity	AIREP†	Air-report
AD	Aerodrome	AIRMET†	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations
ADA	Advisory area		
ADC	Aerodrome chart	AIS	Aeronautical information services
ADDN	Addition or additional		
ADF‡	Automatic direction-finding equipment		
ADIZ†	(<i>pronounced "AY-DIZ"</i>) Air defence identification zone		

ALA	Lighting area	AS	Altostratus
ALERFA†	Alert phase	ASC	Ascend to or ascending to
ALR	Alerting (<i>message type designator</i>)	ASDA	Accelerate-stop distance available
ALRS	Alerting service	ASE	Altimetry system error
ALS	Approach lighting system	ASHTAM	Special series NOTAM notifying, by means of a specific format, change in activity of a volcano, a volcanic eruption and/or volcanic ash cloud that is of significance to aircraft operations
ALT	Altitude		
ALTN	Alternate or alternating (<i>light alternates in colour</i>)	ASPEEDG	Airspeed gain
ALTN	Alternate (<i>aerodrome</i>)	ASPEEDL	Airspeed loss
AMA	Area minimum altitude	ASPH	Asphalt
AMD	Amend or amended (<i>used to indicate amended meteorological message; message type designator</i>)	ASR±	Air Surveillance Radar
AMDT	Amendment (<i>AIP Amendment</i>)	AT	At (<i>followed by time at which weather change is forecast to occur</i>)
AMS	Aeronautical mobile service	ATA‡	Actual time of arrival
AMSL	Above mean sea level	ATC‡	Air traffic control (<i>in general</i>)
AMSS	Aeronautical mobile satellite service	ATCSMAC	Air traffic control surveillance minimum altitude chart (<i>followed by name/title</i>)
ANC	Aeronautical chart — 1:500 000 (<i>followed by name/title</i>)		
ANCS	Aeronautical navigation chart — small scale (<i>followed by name/title and scale</i>)	ATD‡	Actual time of departure
ANP±	Air navigation plan	ATFM	Air traffic flow management
ANS	Answer	ATIS†	Automatic terminal information service
AOC	Aerodrome obstacle chart (<i>followed by type and name/title</i>)	ATM	Air traffic management
AP	Airport	ATN	Aeronautical telecommunication network
APAPI†	(<i>to be pronounced "AY-PAPI"</i>) Abbreviated precision approach path indicator	ATP	At . . . (<i>time or place</i>)
APCH	Approach	ATS	Air traffic services
APDC	Aircraft parking/docking chart (<i>followed by name/title</i>)	ATTN	Attention
APN	Apron	AT-VASIS†	(<i>to be pronounced "AY-TEE-VASIS"</i>) Abbreviated T visual approach slope indicator system
APP	Approach control office or approach control or approach control service	ATZ	Aerodrome traffic zone
APR	April	AUG	August
APRX	Approximate or approximately	AUTH	Authorized or authorization
APSG	After passing	AUW	All up weight
APU±	Auxiliary power unit	AUX	Auxiliary
APV	Approve or approved or approval	AVBL	Available or availability
ARC	Area chart	AVG	Average
ARNG	Arrange	AVGAS†	Aviation gasoline
ARO	Air traffic services reporting office	AWTA	Advise at what time able
ARP	Aerodrome reference point	AWY	Airway
ARP	Air-report (<i>message type designator</i>)	AZM	Azimuth
ARQ	Automatic error correction		
ARR	Arrival (<i>message type designator</i>)	B	
ARR	Arrive or arrival	B	Blue
ARS	Special air-report (<i>message type designator</i>)	BA	Braking action
ARST	Arresting (<i>specify (part of) aircraft arresting equipment</i>)	BARO-VNAV†	(<i>to be pronounced "BAA-RO-VEE-NAV"</i>) Barometric vertical navigation
		BASE†	Cloud base
		BCFG	Fog patches

BCN	Beacon (<i>aeronautical ground light</i>)		<i>procedure signal</i>) CHG Modification (<i>message type designator</i>)
BCST	Broadcast		
BDRY	Boundary	CHG±	Change or changed
BECMG	Becoming	CI	Cirrus
BFR	Before	CIDIN†	Common ICAO data interchange network
BKN	Broken		
BL	Blowing (<i>followed by DU = dust, SA = sand or SN = snow</i>)	CIT	Near or over large towns
		CIV	Civil
BLDG	Building	CK	Check
BLO	Below clouds	CL	Centre line
BLW	Below	CLA	Clear type of ice formation
BOMB	Bombing	CLBR	Calibration
BR	Mist	CLD	Cloud
BRF	Short (<i>used to indicate the type of approach desired or required</i>)	CLG	Calling
		CLIMB-OUT	Climb-out area
BRG	Bearing	CLR	Clear(s) or cleared to . . . or clearance
BRKG	Braking	CLRD	Runway(s) cleared (<i>used in METAR/SPECI</i>)
BS	Commercial broadcasting station		
BTL	Between layers	CLSD	Close or closed or closing
BTN	Between	CM	Centimetre
C		CMB	Climb to or climbing to
		CMPL	Completion or completed or complete
C	Centre (<i>preceded by runway designation number to identify a parallel runway</i>)	CNL	Cancel or cancelled
		CNL	Flight plan cancellation (<i>message type designator</i>)
C	Degrees Celsius (<i>Centigrade</i>)	CNS	Communications, navigation and surveillance
CA	Course to an altitude	COM	Communications
CAT	Category	CONC	Concrete
CAT	Clear air turbulence	COND	Condition
CAVOK†	(<i>to be pronounced "KAV-OH-KAY"</i>) Visibility, cloud and present weather better than prescribed values or conditions	CONS	Continuous
		CONST	Construction or constructed
CB‡	(<i>to be pronounced "CEE BEE"</i>) Cumulonimbus	CONT	Continue(s) or continued
CC	Cirrocumulus	COOR	Coordinate or coordination
CCA	(<i>or CCB, CCC . . . etc., in sequence</i>) Corrected meteorological message (<i>message type designator</i>)	COORD	Coordinates
		COP	Change-over point
CD	Candela	COR	Correct or correction or corrected (<i>used to indicate corrected meteorological message; message type designator</i>)
CDN	Coordination (<i>message type designator</i>)		
CF	Change frequency to . . .	COT	At the coast
CF	Course to a fix	COV	Cover or covered or covering
CFM*	Confirm or I confirm (<i>to be used in AFS as a procedure signal</i>)	CPDLC‡	Controller-pilot data link communications
CGL	Circling guidance light(s)		
CH	Channel	CPL	Current flight plan (<i>message type designator</i>)
CH#	This is a channel-continuity-check of transmission to permit comparison of your record of channel-sequence numbers of messages received on the channel (<i>to be used in AFS as a</i>	CRC	Cyclic redundancy check
		CRM	Collision risk model
		CRZ	Cruise
		CS	Call sign
		CS	Cirrostratus
		CTA	Control area

CTAM	Climb to and maintain	DLA	Delay (<i>message type designator</i>)
CTC	Contact	DLIC	Data link initiation capability
CTL	Control	DLY	Daily
CTN	Caution	DME‡	Distance measuring equipment
CTR	Control zone	DNG	Danger <i>or</i> dangerous
CU	Cumulus	DOM	Domestic
CUF	Cumuliform	DP	Dew point temperature
CUST	Customs	DPT	Depth
CVR	Cockpit voice recorder	DR	Dead reckoning
CW	Continuous wave	DR	Low drifting (<i>followed by DU = dust, SA = sand or SN = snow</i>)
CWY	Clearway	DRG	During
D		DS	Duststorm
D	Downward (<i>tendency in RVR during previous 10 minutes</i>)	DSB	Double sideband
D	Danger area (<i>followed by identification</i>)	DTAM	Descend to and maintain
DA	Decision altitude	DTG	Date-time group
D-ATIS†	(<i>to be pronounced "DEE-ATIS"</i>) Data link automatic terminal information service	DTHR	Displaced runway threshold
DB±	Decibel (noise level)	DTRT	Deteriorate <i>or</i> deteriorating
DCA±	Director of Civil Aviation or Department of Civil Aviation	DTW	Dual tandem wheels
DCD	Double channel duplex	DU	Dust
DCKG	Docking	DUC	Dense upper cloud
DCP	Datum crossing point	DUPE#	This is a duplicate message (<i>to be used in AFS as a procedure signal</i>)
DCPC	Direct controller-pilot communications	DUR	Duration
DCS	Double channel simplex	D-VOLMET	Data link VOLMET
DCT	Direct (<i>in relation to flight plan clearances and type of approach</i>)	DVOR	Doppler VOR
DE*	From (<i>used to precede the call sign of the calling station</i>) (<i>to be used in AFS as a procedure signal</i>)	DW	Dual wheels
DEC	December	DX±	Duplex operation
DEG	Degrees	DZ	Drizzle
DEP	Depart <i>or</i> departure	E	
DEP	Departure (<i>message type designator</i>)	E	East <i>or</i> eastern longitude
DER	Departure end of the runway	EAT	Expected approach time
DES	Descend to <i>or</i> descending to	EB	Eastbound
DEST	Destination	EDA	Elevation differential area
DETRESFA†	Distress phase	EEE#	Error (<i>to be used in AFS as a procedure signal</i>)
DEV	Deviation <i>or</i> deviating	EET	Estimated elapsed time
DF	Direction finding	EFC	Expect further clearance
DFDR	Digital flight data recorder	EFIS†	(<i>to be pronounced "EE-FIS"</i>) Electronic flight instrument system
DFTI	Distance from touchdown indicator	EGNOST†	(<i>to be pronounced "EGG-NOS"</i>) European geostationary navigation overlay service
DH	Decision height	EHF	Extremely high frequency [30 000 to 300 000 MHz]
DIF	Diffuse	ELBA†	Emergency location beacon — aircraft
DIST	Distance	ELEV	Elevation
DIV	Divert <i>or</i> diverting	ELR	Extra long range
DLA	Delay <i>or</i> delayed	ELT	Emergency locator transmitter
		EM	Emission

EMBD	Embedded in a layer <i>(to indicate cumulonimbus embedded in layers of other clouds)</i>	FL	Flight level
EMERG	Emergency	FLD	Field
END	Stop-end <i>(related to RVR)</i>	FLG	Flashing
ENE	East-north-east	FLR	Flares
ENG	Engine	FLT	Flight
ENR	En route	FLTCK	Flight check
ENRC	. . . En-route chart <i>(followed by name/title)</i>	FLUC	Fluctuating or fluctuation or fluctuated
EOBT	Estimated off-block time	FLW	Follow(s) or following
EQPT	Equipment	FLY	Fly or flying
ER*	Here . . . or herewith	FM	Course from a fix to manual termination <i>(used in navigation database coding)</i>
ESE	East-south-east	FM	From
EST	Estimate or estimated or estimation <i>(message type designator)</i>	FM	. . . From <i>(followed by time weather change is forecast to begin)</i>
ETA*‡	Estimated time of arrival or estimating arrival	FMC	Flight management computer
ETD‡	Estimated time of departure or estimating departure	FMS‡	Flight management system
ETO	Estimated time over significant point	FMU	Flow management unit
EV	Every	FNA	Final approach
EXC	Except	FPAP	Flight path alignment point
EXER	Exercises or exercising or to exercise	FPL	Filed flight plan <i>(message type designator)</i>
EXP	Expect or expected or expecting	FPM	Feet per minute
EXTD	Extend or extending	FPR	Flight plan route
F		FR	Fuel remaining
F	Fixed	FREQ	Frequency
FA	Course from a fix to an altitude	FRI	Friday
FAC	Facilities	FRNG	Firing
FAF	Final approach fix	FRONT†	Front <i>(relating to weather)</i>
FAL	Facilitation of international air transport	FROST†	Frost <i>(used in aerodrome warnings)</i>
FAP	Final approach point	FRQ	Frequent
FAS	Final approach segment	FSL	Full stop landing
FATO	Final approach and take-off area	FSS	Flight service station
FAX	Facsimile transmission	FST	First
FBL	Light <i>(used to indicate the intensity of weather phenomena, interference or static reports, e.g. FBL RA = light rain)</i>	FT	Feet <i>(dimensional unit)</i>
FC	Funnel cloud <i>(tornado or water spout)</i>	FTE	Flight technical error
FCST	Forecast	FTP	Fictitious threshold point
FCT	Friction coefficient	FTT	Flight technical tolerance
FDPS	Flight data processing system	FU	Smoke
FEB	February	FZ	Freezing
FEW	Few	FZDZ	Freezing drizzle
FG	Fog	FZFG	Freezing fog
FIC	Flight information centre	FZRA	Freezing rain
FIR‡	Flight information region	G	
FIS	Flight information service	G	Green
FISA	Automated flight information service	G	. . . Variations from the mean wind speed (gusts) <i>(followed by figures in METAR/SPECI and TAF)</i>
		GA	Go ahead, resume sending <i>(to be used in AFS as a procedure signal)</i>

G/A	Ground-to-air	HGT	Height or height above
G/A/G	Ground-to-air and air-to-ground	HJ	Sunrise to sunset
GAGAN†	GPS and geostationary earth orbit augmented navigation	HLDG	Holding
GAMET	Area forecast for low-level flights	HM	Holding/racetrack to a manual termination
GARP	GBAS azimuth reference point	HN	Sunset to sunrise
GBAS†	(to be pronounced "GEE-BAS") Ground-based augmentation system	HO	Service available to meet operational requirements
GCA‡	Ground controlled approach system or ground controlled approach	HOL	Holiday
GEN	General	HOSP	Hospital aircraft
GEO	Geographic or true	HPA	Hectopascal
GES	Ground earth station	HR	Hours
GLD	Glider	HS	Service available during hours of scheduled operations
GLONASS†	(to be pronounced "GLO-NAS") Global orbiting navigation satellite system	HURCN	Hurricane
GMC	. . . Ground movement chart (followed by name/title)	HVDF	High and very high frequency direction finding stations (at the same location)
GND	Ground	HVY	Heavy
GNDCK	Ground check	HVY	Heavy (used to indicate the intensity of weather phenomena, e.g. HVY RA = heavy rain)
GNSS‡	Global navigation satellite system	HX	No specific working hours
GP	Glide path	HYR	Higher
GPA	Glide path angle	HZ	Haze
GPIP	Glide path intercept point	HZ	Hertz (cycle per second)
GPS‡	Global positioning system	I	
GPWS‡	Ground proximity warning system	IAC	. . . Instrument approach chart (followed by name/title)
GR	Hail	IAF	Initial approach fix
GRAS†	(to be pronounced "GRASS") Ground-based regional augmentation system	IAO	In and out of clouds
GRASS	Grass landing area	IAP	Instrument approach procedure
GRIB	Processed meteorological data in the form of grid point values expressed in binary form (meteorological code)	IAR	Intersection of air routes
GRVL	Gravel	IAS	Indicated airspeed
GS	Ground speed	IBN	Identification beacon
GS	Small hail and/or snow pellets	IC	Ice crystals (very small ice crystals in suspension, also known as diamond dust)
GUND	Geoid undulation	ICAA±	Iraq Civil Aviation Authority
H		ICE	Icing
H	High pressure area or the centre of high pressure	ID	Identifier or identify
H24	Continuous day and night service	IDENT†	Identification
HA	Holding/racetrack to an altitude	IF	Intermediate approach fix
HAPI	Helicopter approach path indicator	IFF	Identification friend/foe
HBN	Hazard beacon	IFR‡	Instrument flight rules
HDF	High frequency direction-finding station	IGA	International general aviation
HDG	Heading	ILS‡	Instrument landing system
HEL	Helicopter	IM	Inner marker
HF‡	High frequency [3 000 to 30 000 kHz]	IMC‡	Instrument meteorological conditions
HF	Holding/racetrack to a fix	IMG	Immigration

IMI*	Interrogation sign (question mark) <i>(to be used in AFS as a procedure signal)</i>	L	Low pressure area <i>or</i> the centre of low pressure
IMPR	Improve <i>or</i> improving	LAM	Logical acknowledgement <i>(message type designator)</i>
IMT	Immediate <i>or</i> immediately	LAN	Inland
INA	Initial approach	LAT	Latitude
INBD	Inbound	LCA	Local <i>or</i> locally <i>or</i> location <i>or</i> located
INC	In cloud	LDA	Landing distance available
INCERFA†	Uncertainty phase	LDAH	Landing distance available, helicopter
INFO†	Information	LDG	Landing
INOP	Inoperative	LDI	Landing direction indicator
INP	If not possible	LEN	Length
INPR	In progress	LF	Low frequency [30 to 300 kHz]
INS	Inertial navigation system	LGT	Light <i>or</i> lighting
INSTL	Install <i>or</i> installed <i>or</i> installation	LGTD	Lighted
INSTR	Instrument	LIH	Light intensity high
INT	Intersection	LIL	Light intensity low
INTL	International	LIM	Light intensity medium
INTRG	Interrogator	LINE	Line <i>(used in SIGMET)</i>
INTRP	Interrupt <i>or</i> interruption <i>or</i> interrupted	LM	Locator, middle
INTSF	Intensify <i>or</i> intensifying	LMT	Local mean time
INTST	Intensity	LNAV†	<i>(to be pronounced "EL-NAV")</i> Lateral navigation
IR	Ice on runway	LNG	Long <i>(used to indicate the type of approach desired or required)</i>
IRS	Inertial reference system	LO	Locator, outer
ISA	International standard atmosphere	LOC	Localizer
ISB	Independent sideband	LONG	Longitude
ISOL	Isolated	LORAN†	LORAN <i>(long range air navigation system)</i>
I/V±	Instrument/visual	LPV	Localizer performance with vertical guidance
IWI±	Illuminated wind indicator	LR	The last message received by me was . . . <i>(to be used in AFS as a procedure signal)</i>
J		LRG	Long range
JAN	January	LS	The last message sent by me was . . . <i>or</i> Last message was . . . <i>(to be used in AFS as a procedure signal)</i>
JTST	Jet stream	LTD	Limited
JUL	July	LTP	Landing threshold point
JUN	June	LTT	Landline teletypewriter
K		LV	Light and variable <i>(relating to wind)</i>
KG	Kilograms	LVE	Leave <i>or</i> leaving
KHZ	Kilohertz	LVL	Level
KIAS	Knots indicated airspeed	LVP	Low visibility procedures
KM	Kilometres	LYR	Layer <i>or</i> layered
KMH	Kilometres per hour	M	
KPA	Kilopascal	M	Metres <i>(preceded by figures)</i>
KT	Knots	M	. . . Mach number <i>(followed by figures)</i>
KW	Kilowatts		
L			
. . L	Left <i>(preceded by runway designation number to identify a parallel runway)</i>		
L	Locator <i>(see LM, LO)</i>		

M	. . . Minimum value of runway visual range <i>(followed by figures in METAR/SPECI)</i>	MNTN	Maintain
MAA	Maximum authorized altitude	MOA	Military operating area
MAG	Magnetic	MOC	Minimum obstacle clearance <i>(required)</i>
MAHF	Missed approach holding fix	MOCA	Minimum obstacle clearance altitude
MAINT	Maintenance	MOD	Moderate <i>(used to indicate the intensity of weather phenomena, interference or static reports, e.g. MODRA = moderate rain)</i>
MAP	Aeronautical maps and charts	MON	Above mountains
MAPT	Missed approach point	MON	Monday
MAR	At sea	MOPS†	Minimum operational performance standards
MAR	March	MOTNE	Meteorological Operational Telecommunications Network Europe
MAS	Manual AI simplex	MOV	Move or moving or movement
MATF	Missed approach turning fix	MPS	Metres per second
MAX	Maximum	MRA	Minimum reception altitude
MAY	May	MRG	Medium range
MBST	Microburst	MRP	ATS/MET reporting point
MCA	Minimum crossing altitude	MS	Minus
MCFI±	Multinational Coalition Forces Iraq	MSA	Minimum sector altitude
MCW	Modulated continuous wave	MSAS†	<i>(to be pronounced "EM-SAS")</i> Multifunctional transport satellite (MTSAT) satellite-based augmentation system
MDA	Minimum descent altitude	MSAW	Minimum safe altitude warning
MDF	Medium frequency direction-finding station	MSG	Message
MDH	Minimum descent height	MSL	Mean sea level
MEA	Minimum en-route altitude	MSR#	Message . . . <i>(transmission identification)</i> has been misrouted <i>(to be used in AFS as a procedure signal)</i>
MEHT	Minimum eye height over threshold <i>(for visual approach slope indicator systems)</i>	MSSR	Monopulse secondary surveillance radar
MET†	Meteorological or meteorology	MT	Mountain
METAR†	Aerodrome routine meteorological report <i>(in meteorological code)</i>	MTU	Metric units
MET REPORT	Local routine meteorological report <i>(in abbreviated plain language)</i>	MTW	Mountain waves
MF	Medium frequency [300 to 3 000 kHz]	MVDF	Medium and very high frequency direction finding stations <i>(at the same location)</i>
MHDF	Medium and high frequency direction-finding stations <i>(at the same location)</i>	MWO	Meteorological watch office
MHVDF	Medium, high and very high frequency direction-finding stations <i>(at the same location)</i>	MX	Mixed type of ice formation <i>(white and clear)</i>
MHZ	Megahertz	N	
MID	Mid-point <i>(related to RVR)</i>	N	No distinct tendency <i>(in RVR during previous 10 minutes)</i>
MIFG	Shallow fog	N	North or northern latitude
MIL	Military	N/A±	Not applicable
MIN*	Minutes	NADP	Noise abatement departure procedure
MIS	Missing . . . <i>(transmission identification)</i> <i>(to be used in AFS as a procedure signal)</i>	NASC†	National AIS system centre
MKR	Marker radio beacon	NAT	North Atlantic
MLS‡	Microwave landing system	NAV	Navigation
MM	Middle marker		
MNM	Minimum		
MNPS	Minimum navigation performance specifications		
MNT	Monitor or monitoring or monitored		

NB	Northbound	OBSC	Obscure or obscured or obscuring
NBFR	Not before	OBST	Obstacle
NC	No change	OCA	Obstacle clearance altitude
NCD	No cloud detected (<i>used in automated METAR/SPECI</i>)	OCA	Oceanic control area
NDB‡	Non-directional radio beacon	OCC	Occulting (<i>light</i>)
NDV	No directional variations available (<i>used in automated METAR/SPECI</i>)	OCH	Obstacle clearance height
NE	North-east	OCNL	Occasional or occasionally
NEB	North-eastbound	OCS	Obstacle clearance surface
NEG	No or negative or permission not granted or that is not correct	OCT	October
NGO±	Non-governmental organizations	OFZ	Obstacle free zone
NGT	Night	OGN	Originate (<i>to be used in AFS as a procedure signal</i>)
NIL*†	None or I have nothing to send to you	OHD	Overhead
NM	Nautical miles	OIS	Obstacle identification surface
NML	Normal	OK*	We agree or It is correct (<i>to be used in AFS as a procedure signal</i>)
NNE	North-north-east	OLDI†	On-line data interchange
NNW	North-north-west	OM	Outer marker
NO	No (negative) (<i>to be used in AFS as a procedure signal</i>)	OPA	Opaque, white type of ice formation
NOF	International NOTAM office	OPC	Control indicated is operational control
NOSIG†	No significant change (<i>used in trend-type landing forecasts</i>)	OPMET†	Operational meteorological (<i>information</i>)
NOTAM†	A notice distributed by means of telecommunication 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	OPN	Open or opening or opened
NOV	November	OPR	Operator or operate or operative or operating or operational
NOZ‡	Normal operating zone	OPS†	Operations
NPA	Non-precision approach	O/R	On request
NR	Number	ORD	Order
NRH	No reply heard	OSV	Ocean station vessel
NS	Nimbostratus	OTLK	Outlook (<i>used in SIGMET messages for volcanic ash and tropical cyclones</i>)
NSC	Nil significant cloud	OTP	On top
NSE	Navigation system error	OTS	Organized track system
NSW	Nil significant weather	OUBD	Outbound
NTL	National	OVC	Overcast
NTZ‡	No transgression zone	P	
NW	North-west	P	. . . Maximum value of wind speed or runway visual range (<i>followed by figures in METAR/SPECI and TAF</i>)
NWB	North-westbound	P	. . . Prohibited area (<i>followed by identification</i>)
NXT	Next	PA	Precision approach
O		PALS	Precision approach lighting system (<i>specify category</i>)
OAC	Oceanic area control centre	PANS	Procedures for air navigation services
OAS	Obstacle assessment surface	PAPI†	Precision approach path indicator
OBS	Observe or observed or observation	PAR‡	Precision approach radar
		PARL	Parallel
		PATC	. . . Precision approach terrain chart (<i>followed by name/title</i>)
		PAX	Passenger(s)

PCD	Proceed or proceeding		(distance figures and units) (to be used in radiotelegraphy as a Q Code)
PCL	Pilot-controlled lighting		
PCN	Pavement classification number	QJH	Shall I run my test tape/a test sentence? or Run your test tape/a test sentence (to be used in AFS as a Q Code)
PDC‡	Pre-departure clearance		
PDG	Procedure design gradient		
PER	Performance	QNH‡	Altimeter sub-scale setting to obtain elevation when on the ground
PERM	Permanent		
PIB	Pre-flight information bulletin	QSP	Will you relay to . . . free of charge? or I will relay to . . . free of charge (to be used in AFS as a Q Code)
PJE	Parachute jumping exercise		
PL	Ice pellets	QTA	Shall I cancel telegram number . . . ? or Cancel telegram number . . . (to be used in AFS as a Q Code)
PLA	Practice low approach		
PLN	Flight plan		
PLVL	Present level	QTE	True bearing
PMI±	Preventive Maintenance Interval	QTF	Will you give me the position of my station according to the bearings taken by the D/F stations which you control? or The position of your station according to the bearings taken by the D/F stations that I control was . . . latitude . . . longitude (or other indication of position), class . . . at . . . hours (to be used in radiotelegraphy as a Q Code)
PN	Prior notice required		
PNR	Point of no return		
PO	Dust/sand whirls (<i>dust devils</i>)		
POB	Persons on board		
POSS	Possible		
PPI	Plan position indicator		
PPR	Prior permission required		
PPSN	Present position	QUAD	Quadrant
PRFG	Aerodrome partially covered by fog	QUJ	Will you indicate the TRUE track to reach you? or The TRUE track to reach me is . . . degrees at . . . hours (to be used in radiotelegraphy as a Q Code)
PRI	Primary		
PRKG	Parking		
PROB†	Probability		
PROC	Procedure		
PROV	Provisional	R	
PRP	Point-in-space reference point	... R	Right (preceded by runway designation number to identify a parallel runway)
PS	Plus		
PSG	Passing		
PSN	Position	R	Rate of turn
PSP	Pierced steel plank	R	Red
PSR‡	Primary surveillance radar	R	. . . Restricted area (followed by identification)
PSYS	Pressure system(s)		
PTN	Procedure turn	R	. . . Runway (followed by figures in METAR/SPECI)
PTS	Polar track structure		
PWR	Power	R*	Received (acknowledgement of receipt) (to be used in AFS as a procedure signal)
Q		RA	Rain
QDL	Do you intend to ask me for a series of bearings? or I intend to ask you for a series of bearings (to be used in radiotelegraphy as a Q Code)	RA	Resolution advisory
		RAC	Rules of the air and air traffic services
		RAG	Ragged
QDM‡	Magnetic heading (zero wind)	RAG	Runway arresting gear
QDR	Magnetic bearing	RAI	Runway alignment indicator
QFE‡	Atmospheric pressure at aerodrome elevation (or at runway threshold)	RAIM†	Receiver autonomous integrity monitoring
QFU	Magnetic orientation of runway	RASC†	Regional AIS system centre
QGE	What is my distance to your station? or Your distance to my station is	RASS	Remote altimeter setting source
		RB	Rescue boat

RCA	Reach cruising altitude	RPT*	Repeat or I repeat (<i>to be used in AFS as a procedure signal</i>)
RCC	Rescue coordination centre	RPT±	Regular Public Transport (aircraft)
RCF	Radio communication failure (<i>message type designator</i>)	RQ*	Request (<i>to be used in AFS as a procedure signal</i>)
RCH	Reach or reaching	RQMNTS	Requirements
RCL	Runway centre line	RQP	Request flight plan (<i>message type designator</i>)
RCLL	Runway centre line light(s)	RQS	Request supplementary flight plan (<i>message type designator</i>)
RCLR	Recleared	RR	Report reaching
RCP‡	Required communication performance	RRA	(<i>or RRB, RRC . . . etc., in sequence</i>) Delayed meteorological message (<i>message type designator</i>)
RDH	Reference datum height	RSC	Rescue sub-centre
RDL	Radial	RSCD	Runway surface condition
RDO	Radio	RSP	Responder beacon
RE	Recent (<i>used to qualify weather phenomena, e.g. RERA = recent rain</i>)	RSR	En-route surveillance radar
REC	Receive or receiver	RSS	Root sum square
REDL	Runway edge light(s)	RTD	Delayed (<i>used to indicate delayed meteorological message; message type designator</i>)
REF	Reference to . . . or refer to . . .	RTE	Route
REG	Registration	RTF	Radiotelephone
RENL	Runway end light(s)	RTG	Radiotelegraph
REP	Report or reporting or reporting point	RTHL	Runway threshold light(s)
REQ	Request or requested	RTN	Return or returned or returning
RERTE	Re-route	RTODAH	Rejected take-off distance available, helicopter
RESA	Runway end safety area	RTS	Return to service
RF	Constant radius arc to a fix	RTT	Radioteletypewriter
RG	Range (<i>lights</i>)	RTZL	Runway touchdown zone light(s)
RHC	Right-hand circuit	RUT	Standard regional route transmitting frequencies
RIF	Reclearance in flight	RV	Rescue vessel
RIME†	Rime (<i>used in aerodrome warnings</i>)	RVR‡	Runway visual range
RITE	Right (<i>direction of turn</i>)	RVSM‡	Reduced vertical separation minimum (300 m (1 000 ft)) between FL 290 and FL 410
RL	Report leaving	RWY	Runway
RLA	Relay to	S	
RLCE	Request level change en route	S	South or southern latitude
RLLS	Runway lead-in lighting system	S	. . . State of the sea (<i>followed by figures in METAR/SPECI</i>)
RLNA	Request level not available	SA	Sand
RMK	Remark	SAA±	Senior Airfield Authority
RNAV†	(<i>to be pronounced "AR-NAV"</i>) Area navigation	SALS	Simple approach lighting system
RNG	Radio range	SAN	Sanitary
RNP‡	Required navigation performance	SAP	As soon as possible
ROBEX†	Regional OPMET bulletin exchange (<i>scheme</i>)	SAR	Search and rescue
ROC	Rate of climb	SARPS	Standards and Recommended Practices [ICAO]
ROD	Rate of descent		
ROFOR	Route forecast (<i>in meteorological code</i>)		
RON	Receiving only		
RPDS	Reference path data selector		
RPI‡	Radar position indicator		
RPL	Repetitive flight plan		
RPLC	Replace or replaced		
RPS	Radar position symbol		

SAT	Saturday		conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format
SATCOM†	Satellite communication		
SB	Southbound		
SBAS†	<i>(to be pronounced "ESS-BAS")</i> Satellite-based augmentation system	SOC	Start of climb
SC	Stratocumulus	SPEC†	Aerodrome special meteorological report <i>(in meteorological code)</i>
SCT	Scattered	SPECIAL†	Local special meteorological report <i>(in abbreviated plain language)</i>
SD	Standard deviation	SPI	Special position indicator
SDBY	Stand by	SPL	Supplementary flight plan <i>(message type designator)</i>
SDF	Step down fix	SPOC	SAR point of contact
SE	South-east	SPOT†	Spot wind
SEA	Sea <i>(used in connection with sea-surface temperature and state of the sea)</i>	SQ	Squall
SEB	South-eastbound	SQL	Squall line
SEC	Seconds	SR	Sunrise
SECN	Section	SRA	Surveillance radar approach
SECT	Sector	SRE	Surveillance radar element of precision approach radar system
SELCAL†	Selective calling system	SRG	Short range
SEP	September	SRR	Search and rescue region
SER	Service or servicing or served	SRY	Secondary
SEV	Severe <i>(used e.g. to qualify icing and turbulence reports)</i>	SS	Sandstorm
SFC	Surface	SS	Sunset
SG	Snow grains	SSB	Single sideband
SGL	Signal	SSE	South-south-east
SH	. . . Shower <i>(followed by RA = rain, SN = snow, PL = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. SHRASN = showers of rain and snow)</i>	SSR‡	Secondary surveillance radar
SHF	Super high frequency [3 000 to 30 000 MHz]	SST	Supersonic transport
SI	International system of units	SSW	South-south-west
SID†	Standard instrument departure	ST	Stratus
SIF	Selective identification feature	STA	Straight-in approach
SIG	Significant	STAR†	Standard instrument arrival
SIGMET†	Information concerning en-route weather phenomena which may affect the safety of aircraft operations	STD	Standard
SIMUL	Simultaneous or simultaneously	STF	Stratiform
SIWL	Single isolated wheel load	STN	Station
SKC	Sky clear	STNR	Stationary
SKED	Schedule or scheduled	STOL	Short take-off and landing
SLP	Speed limiting point	STS	Status
SLW	Slow	STWL	Stopway light(s)
SMC	Surface movement control	SUBJ	Subject to
SMR	Surface movement radar	SUN	Sunday
SN	Snow	SUP	Supplement <i>(AIP Supplement)</i>
SNOCLO	Aerodrome closed due to snow <i>(used in METAR/SPECI)</i>	SUPPS	Regional supplementary procedures
SNOWTAM†	Special series NOTAM notifying the presence or removal of hazardous	SVC	Service message
		SVCBL	Serviceable
		SW	South-west
		SWB	South-westbound
		SWY	Stopway
		T	

22

UNA	Unable	VOT	VOR airborne equipment test facility
UNAP	Unable to approve	VPA	Vertical path angle
UNL	Unlimited	VRB	Variable
UNREL	Unreliable	VSA	By visual reference to the ground
UP	Unidentified precipitation (<i>used in automated METAR/SPECI</i>)	VSP	Vertical speed
U/S	Unserviceable	VTF	Vector to final
UTA	Upper control area	VTOL	Vertical take-off and landing
UTC‡	Coordinated Universal Time	VV	. . . Vertical visibility (<i>followed by figures in METAR/SPECI and TAF</i>)
V		W	
. . . V	. . . Variations from the mean wind direction (<i>preceded and followed by figures in METAR/SPECI, e.g. 350V070</i>)	W	West or western longitude
VA	Heading to an altitude	W	White
VA	Volcanic ash	W	. . . Sea-surface temperature (<i>followed by figures in METAR/SPECI</i>)
VAAC	Volcanic ash advisory centre	WAAS†	Wide area augmentation system
VAC	. . . Visual approach chart (<i>followed by name/title</i>)	WAC	. . . World Aeronautical Chart — ICAO 1:1 000 000 (<i>followed by name/title</i>)
VAL	In valleys	WAFc	World area forecast centre
VAN	Runway control van	WB	Westbound
VAR	Magnetic variation	WBAR	Wing bar lights
VAR	Visual-aural radio range	WDI	Wind direction indicator
VASIS	Visual approach slope indicator systems	WDSPR	Widespread
VC	. . . Vicinity of the aerodrome (<i>followed by FG = fog, FC = funnel cloud, SH = shower, PO = dust/sand whirls, BLDU = blowing dust, BLSA = blowing sand, BLSN = blowing snow, DS = duststorm, SS = sandstorm, TS = thunderstorm or VA = volcanic ash, e.g. VCFG = vicinity fog</i>)	WED	Wednesday
VCY	Vicinity	WEF	With effect from or effective from
VDF	Very high frequency direction-finding station	WGS-84	World Geodetic System — 1984
VER	Vertical	WI	Within
VFR‡	Visual flight rules	WID	Width or wide
VHF‡	Very high frequency [30 to 300 MHz]	WIE	With immediate effect or effective immediately
VI	Heading to an intercept	WILCO†	Will comply
VIP‡	Very important person	WIND	Wind
VIS	Visibility	WINTeM	Forecast upper wind and temperature for aviation
VLF	Very low frequency [3 to 30 kHz]	WIP	Work in progress
VLR	Very long range	WKN	Weaken or weakening
VM	Heading to a manual termination	WNW	West-north-west
VMC‡	Visual meteorological conditions	WO	Without
VNAV†	(<i>to be pronounced “VEE-NAV”</i>) Vertical navigation	WPT	Way-point
VOLMET†	Meteorological information for aircraft in flight	WRNG	Warning
VOR‡	VHF omnidirectional radio range	WS	Wind shear
VORTAC†	VOR and TACAN combination	WSPD	Wind speed
		WSW	West-south-west
		WT	Weight
		WT±	Wireless telegraphy
		WTSPT	Waterspout
		WWW	Worldwide web
		WX	Weather
		X	

X	Cross
XBAR	Crossbar (of approach lighting system)
XNG	Crossing
XS	Atmospherics

Y

Y	Yellow
---	--------

2.2.3 National and ICAO abbreviations - Decode

† When radiotelephony is used, the abbreviations and terms are transmitted as spoken words.

‡ When radiotelephony, is used, the abbreviations and terms are transmitted using the individual letters in non-phonetic form.

* Signal is also available for use in communicating with stations of the maritime mobile service.

Signal for use in the teletypewriter service only.

± Variations from ICAO Doc 8400

A

Abbreviated precision approach path indicator (to be pronounced "AY-PAPI")	APAPI†
Abbreviated T visual approach slope indicator system (to be pronounced "AY-TEE-VASIS")	AT-VASIS‡
Abeam	ABM
About	ABT
Above	ABV
Above aerodrome level	AAL
Above ground level	AGL
Above mean sea level	AMSL
Above mountains	MON
Accelerate-stop distance available	ASDA
Accept or accepted	ACPT
Acceptance (message type designator)	ACP
Acknowledge	ACK
Active or activated or activity	ACT
Actual time of arrival	ATA‡
Actual time of departure	ATD‡
Addition or additional	ADDN
Adjacent	ADJ

Y CZ	Yellow caution zone (runway lighting)
YES*	Yes (affirmative) (to be used in AFS as a procedure signal)
YR	Your

Z

Z	Coordinated Universal Time (in meteorological messages)
Advance boundary information	ABI
Advise	ADZ
Advise at what time able	AWTA
Advisory area	ADA
Advisory route	ADR
Advisory service	ADVS
Aerodrome	AD
Aerodrome beacon	ABN
Aerodrome chart	ADC
Aerodrome closed due to snow (used in METAR/SPECI)	SNOCLO
Aerodrome control tower or aerodrome control	TWR
Aerodrome flight information service	AFIS
Aerodrome forecast (in meteorological code)	TAF†
Aerodrome obstacle chart (followed by type and name/title)	AOC . . .
Aerodrome office (specify service)	ADO
Aerodrome partially covered by fog	PRFG
Aerodrome reference point	ARP
Aerodrome routine meteorological report (in meteorological code)	METAR†
Aerodrome special meteorological report (in meteorological code)	SPECI†
Aerodromes, air routes and ground aids	AGA
Aerodrome traffic zone	ATZ
Aeronautical chart — 1:500 000 (followed by name/title)	ANC . . .
Aeronautical fixed service	AFS
Aeronautical fixed telecommunication network	AFTN‡
Aeronautical information circular	AIC
Aeronautical information publication	AIP
Aeronautical information regulation and control	AIRAC
Aeronautical information services	AIS
Aeronautical maps and charts	MAP
Aeronautical mobile satellite service	AMSS
Aeronautical mobile service	AMS
Aeronautical navigation chart — small scale (followed by name/title and scale)	ANCS . . .

Aeronautical telecommunication network	ATN	Altimetry system error	ASE
After . . . (<i>time or place</i>)	AFT . . .	Altitude	ALT
After passing	APSG	Alto cumulus	AC
Again	AGN	Alto stratus	AS
Airborne collision avoidance system	ACAS†	Amber	A
Aircraft	ACFT	Amend or amended (<i>used to indicate amended meteorological message; message type designator</i>)	AMD
Aircraft accident, notification of	ACCID	Amended meteorological message (<i>message type designator</i>)	AAA (or AAB, AAC . . . etc.,
Aircraft autonomous integrity monitoring	AAIM		
Aircraft classification number	ACN		
Aircraft communication addressing and reporting system (<i>to be pronounced "AY-CARS"</i>)	ACARS†	<i>in sequence</i>)	
Aircraft earth station	AES	Amendment (<i>AIP Amendment</i>)	AMDT
Aircraft parking/docking chart (<i>followed by name/title</i>)	APDC . . .	Amplitude modulation (AM)	A (A0-A5)±
Air defence identification zone (<i>to be pronounced "AY-DIZ"</i>)	ADIZ†	Answer	ANS
Air navigation plan	ANP±	Approach	APCH
Airport	AP	Approach control office or approach control or approach control service	APP
Air-report	AIREP†	Approach lighting system	ALS
Air-report (<i>message type designator</i>)	ARP	Approve or approved or approval	APV
Airspeed gain	ASPEEDG	Approximate or approximately	APRX
Airspeed loss	ASPEEDL	April	APR
Air Surveillance Radar	ASR±	Apron	APN
Air-to-air	A/A	Area chart	ARC
Air-to-ground	A/G	Area control centre or area control	ACC±
Air traffic control (<i>in general</i>)	ATC±	Area forecast for low-level flights	GAMET
Air traffic control surveillance minimum altitude chart (<i>followed by name/title</i>)	ATCSMAC . . .	Area minimum altitude	AMA
Air traffic flow management	ATFM	Area navigation (<i>to be pronounced "AR-NAV"</i>)	RNAV†
Air traffic management	ATM	Arrange	ARNG
Air traffic services	ATS	Arresting (<i>specify (part of) aircraft arresting equipment</i>)	ARST
Air traffic services interfacility data communications	AIDC	Arrival (<i>message type designator</i>)	ARR
Air traffic services reporting office	ARO	Arrive or arrival	ARR
Airway	AWY	Ascend to or ascending to	ASC
Alerting (<i>message type designator</i>)	ALR	Asphalt	ASPH
Alerting service	ALRS	Assigned altitude deviation	AAD
Alert phase	ALERFA†	As soon as possible	SAP
Alighting area	ALA	At (<i>followed by time at which weather change is forecast to occur</i>)	AT . . .
All up weight	AUW	At . . . (<i>time or place</i>)	ATP . . .
Alternate or alternating (<i>light alternates in colour</i>)	ALTN	Atmospheric pressure at aerodrome elevation (<i>or at runway threshold</i>)	QFE±
Alternate (<i>aerodrome</i>)	ALTN	Atmospherics	XS
Altimeter check location	ACL	At sea	MAR
Altimeter sub-scale setting to obtain elevation when on the ground	QNH±	ATS/MET reporting point	MRP
		Attention	ATTN
		At the coast	COT
		August	AUG
		Authorized or authorization	AUTH
		Automated flight information service	FISA

Automatic dependent surveillance — broadcast	ADS-B‡	Category	CAT
Automatic dependent surveillance — contract	ADS-C‡	Caution	CTN
Automatic dependent surveillance unit	ADSU	Celsius (<i>Centigrade</i>), Degrees	C
Automatic direction-finding equipment	ADF‡	Centimetre	CM
Automatic error correction	ARQ	Center (<i>preceded by runway designation number to identify a parallel runway</i>)	. . . C
Automatic terminal information service	ATIS†	Centre line	CL
Auxiliary	AUX	Change or changed	CHG±
Available or availability	AVBL	Change frequency to	. . . CF
Average	AVG	Change-over point	COP
Aviation gasoline	AVGAS†	Channel	CH
Aerodrome meteorological report (<i>in meteorological code</i>)	METAR†	Check	CK
Aerodrome special meteorological report (<i>in meteorological code</i>)	SPEC†	Circling guidance light(s)	CGL
Azimuth	AZM	Cirrocumulus	CC
		Cirrostratus	CS
		Cirrus	CI
		Civil	CIV
		Clear air turbulence	CAT
		Clear(s) or cleared to . . . or clearance	CLR
		Clear type of ice formation	CLA
		Clearway	CWY
		Climb-out area	CLIMB-OUT
		Climb to or climbing to	CMB
		Climb to and maintain	CTAM
		Close or closed or closing	CLSD
		Cloud	CLD
		Cloud base	BASE†
		Cloud top	TOP†
		Cockpit voice recorder	CVR
		Collision risk model	CRM
		Completion or completed or complete	CMPL
		Commercial broadcasting station	BS
		Common ICAO data interchange network	CIDIN†
		Communications	COM
		Communications, navigation and surveillance	CNS
		Concrete	CONC
		Condition	COND
		Confirm or I confirm (<i>to be used in AFS as a procedure signal</i>)	CFM*
		Constant radius arc to a fix	RF
		Construction or constructed	CONST
		Contact	CTC
		Continue(s) or continued	CONT
		Continuous	CONS
		Continuous day and night service	H24
		Continuous wave	CW
		Control	CTL
		Control area	CTA
B			
Barometric vertical navigation (<i>to be pronounced "BAA-RO-VEE-NAV"</i>)	BARO-VNAV†		
Beacon (<i>aeronautical ground light</i>)	BCN		
Bearing	BRG		
Becoming	BECMG		
Before	BFR		
Below . . .	BLW . . .		
Below clouds	BLO		
Between	BTN		
Between layers	BTL		
Blowing (<i>followed by DU = dust, SA = sand or SN = snow</i>)	BL . . .		
Blue	B		
Bombing	BOMB		
Boundary	BDRY		
Braking	BRKG		
Braking action	BA		
Broadcast	BCST		
Broadcasting station, commercial	BS		
Broken	BKN		
Building	BLDG		
By visual reference to the ground	VSA		
C			
Calibration	CLBR		
Call sign	CS		
Calling	CLG		
Cancel or cancelled	CNL		
Candela	CD		

Control indicated is operational control	OPC	Data link VOLMET	D-VOLMET
Controller-pilot data link communications	CPDLC±	Date-time group	DTG
Control zone	CTR	Datum crossing point	DCP
Coordinate or coordination	COOR	Dead reckoning	DR
Coordinated Universal Time	UTC±	December	DEC
Coordinated Universal Time (<i>in meteorological messages</i>)	Z	Decibel (noise level)	DB±
Coordinates	COORD	Decision altitude	DA
Coordination (<i>message type designator</i>)	CDN	Decision height	DH
Correct or correction or corrected (<i>used to indicate corrected meteorological message; message type designator</i>)	COR	Degrees	DEG
Corrected meteorological message (<i>message type designator</i>)	CCA (or CCB, CCC . . . etc., in sequence)	Degrees Celsius (<i>Centigrade</i>)	C
Course from a fix to an altitude	FA	Delay (<i>message type designator</i>)	LA
Course from a fix to manual termination (<i>used in navigation database coding</i>)	FM	Delay or delayed	DLA
Course to a fix	CF	Delayed (<i>used to indicate delayed meteorological message; message type designator</i>)	RTD
Course to an altitude	CA	Delayed meteorological message (<i>message type designator</i>)	RRA (or RRB, RRC . . . etc., in sequence)
Cover or covered or covering	COV	Dense upper cloud	DUC
Cross	X	Depart or departure	DEP
Crossbar (<i>of approach lighting system</i>)	XBAR	Departure (<i>message type designator</i>)	DEP
Crossing	XNG	Departure end of the runway	DER
Cruise	CRZ	Depth	DPT
Cumuliform	CUF	Descend to or descending to	DES
Cumulonimbus (<i>to be pronounced "CEE BEE"</i>)	CB±	Descend to and maintain	DTAM
Cumulus	CU	Destination	DEST
Current flight plan (<i>message type designator</i>)	CPL	Deteriorate or deteriorating	DTRT
Customs	CUST	Deviation or deviating	DEV
Cyclic redundancy check	CRC	Dew point temperature	DP
D		Diffuse	DIF
Daily	DLY	Digital flight data recorder	DFDR
Danger or dangerous	DNG	Direct (<i>in relation to flight plan clearances and type of approach</i>)	DCT
Danger area (<i>followed by identification</i>)	D . . .	Direct controller-pilot communications	DCPC
Data link automatic terminal information service (<i>to be pronounced "DEE-ATIS"</i>)	D-ATIS†	Direction finding	DF
Data link initiation capability	DLIC	Director of Civil Aviation or Department of Civil Aviation	DCA±
		Displaced runway threshold	DTHR
		Distance	DIST
		Distance from touchdown indicator	DFTI
		Distance measuring equipment	DME±
		Distress phase	DETRESFA†
		Divert or diverting	DIV
		Docking	DCKG
		Domestic	DOM
		Doppler VOR	DVOR
		Double channel duplex	DCD
		Double channel simplex	DCS
		Double sideband	DSB

Downward (<i>tendency in RVR during previous 10 minutes</i>)	D	Estimated time over significant point	ETO
Do you intend to ask me for a series of bearings? or I intend to ask you for a series of bearings (<i>to be used in radiotelegraphy as a Q Code</i>)	QDL	European geostationary navigation overlay service (<i>to be pronounced "EGG-NOS"</i>)	EGNOST†
Drizzle	DZ	Every	EV
Dual tandem wheels	DTW	Except	EXC
Dual wheels	DW	Exercises or exercising or to exercise	EXER
Duplex operation	DX±	Expect or expected or expecting	EXP
Duration	DUR	Expect further clearance	EFC
During	DRG	Expected approach time	EAT
Dust	DU	Extend or extending	EXTD
Dust/sand whirls (<i>dust devils</i>)	PO	Extra long range	ELR
Duststorm	DS	Extremely high frequency [30 000 to 300 000 MHz]	EHF
E		F	
East or eastern longitude	E	Facilitation of international air transport	FAL
Eastbound	EB	Facilities	FAC
East-north-east	ENE	Facsimile transmission	FAX
East-south-east	ESE	February	FEB
Effective from or with effect from	WEF	Feet (<i>dimensional unit</i>)	FT
Effective immediately or with immediate effect	WIE	Feet per minute	FPM
Electronic flight instrument system (<i>to be pronounced "EE-FIS"</i>)	EFIS†	Few	FEW
Elevation	ELEV	Fictitious threshold point	FTP
Elevation differential area	EDA	Field	FLD
Embedded in a layer (<i>to indicate cumulonimbus embedded in layers of other clouds</i>)	EMBD	Filed flight plan (<i>message type designator</i>)	FPL
Emergency	EMERG	Final approach	FNA
Emergency location beacon — aircraft	ELBA†	Final approach and take-off area	FATO
Emergency locator transmitter	ELT	Final approach fix	FAF
Emission	EM	Final approach point	FAP
Engine	ENG	Final approach segment	FAS
En-route	ENR	Firing	FRNG
En-route chart (<i>followed by name/title</i>)	ENRC . . .	First	FST
En-route surveillance radar	RSR	Fixed	F
Equipment	EQPT	Flares	FLR
Error (<i>to be used in AFS as a procedure signal</i>)	EEE#	Flashing	FLG
Estimate or estimated or estimation (<i>message type designator</i>)	EST	Flight	FLT
Estimated elapsed time	EET	Flight check	FLTCK
Estimated off-block time	EOBT	Flight data processing system	FDPS
Estimated time of arrival or estimating arrival	ETA*‡	Flight information centre	FIC
Estimated time of departure or estimating departure	ETD‡	Flight information region	FIR‡
		Flight information service	FIS
		Flight level	FL
		Flight management computer	FMC
		Flight management system	FMS‡
		Flight path alignment point	FPAP
		Flight plan	PLN
		Flight plan cancellation (<i>message type designator</i>)	CNL

Flight plan filed in the air	AFIL	Go ahead, resume sending <i>(to be used in AFS as a procedure signal)</i>	GA
Flight plan route	FPR		
Flight service station	FSS	GPS and geostationary earth orbit augmented navigation	GAGAN†
Flight technical error	FTE	Grass landing area	GRASS
Flight technical tolerance	FTT	Gravel	GRVL
Flow management unit	FMU	Green	G
Fluctuating or fluctuation or fluctuated	FLUC	Ground	GND
Fly or flying	FLY	Ground-based augmentation system <i>(to be pronounced "GEE-BAS")</i>	GBAS†
Fog	FG	Ground-based regional augmentation system <i>(to be pronounced "GRASS")</i>	GRAS†
Fog patches	BCFG	Ground — by visual reference to the	VSA
Follow(s) or following	FLW	Ground check	GNDCK
Forecast	FCST	Ground controlled approach system or ground controlled approach	GCA‡
Forecast upper wind and temperature for aviation	WITEM	Ground earth station	GES
Freezing	FZ	Ground movement chart <i>(followed by name/title)</i>	GMC . . .
Freezing drizzle	FZDZ	Ground proximity warning system	GPWS‡
Freezing fog	FZFG	Ground speed	GS
Freezing rain	FZRA	Ground-to-air	G/A
Frequency	FREQ	Ground-to-air and air-to-ground	G/A/G
Frequent	FRQ		
Friction coefficient	FCT		
Friday	FRI		
From	FM	H	
From <i>(followed by time weather change is forecast to begin)</i>	FM . . .	Hail	GR
From <i>(used to precede the call sign of the calling station) (to be used in AFS as a procedure signal)</i>	DE*	Hazard beacon	HBN
Front <i>(relating to weather)</i>	FRONT†	Haze	HZ
Frost <i>(used in aerodrome warnings)</i>	FROST†	Heading	HDG
Fuel remaining	FR	Heading to a manual termination	VM
Full stop landing	FSL	Heading to an altitude	VA
Funnel cloud <i>(tornado or water spout)</i>	FC	Heading to an intercept	VI
		Heavy	HVY
G		Heavy <i>(used to indicate the intensity of weather phenomena, e.g. heavy rain = HVY RA)</i>	HVY
GBAS azimuth reference point	GARP	Hectopascal	HPA
General	GEN	Height or height above	HGT
Geographic or true	GEO	Helicopter	HEL
Geoid undulation	GUND	Helicopter approach path indicator	HAPI
Glide path	GP	Here . . . or herewith	ER*
Glide path angle	GPA	Hertz <i>(cycle per second)</i>	HZ
Glide path intercept point	GPIP	High and very high frequency direction finding stations <i>(at the same location)</i>	HVDF
Glider	GLD	High frequency [3 000 to 30 000 kHz]	HF‡
Global navigation satellite system	GNSS‡	High frequency direction-finding station	HDF
Global orbiting navigation satellite system <i>(to be pronounced "GLO-NAS")</i>	GLONASS†	High pressure area or the centre of high pressure	H
Global positioning system	GPS‡	Higher	HYR

Holding	HLDG	Install <i>or</i> installed <i>or</i> installation	INSTL
Holding/racetrack to a fix	HF	Instrument	INSTR
Holding/racetrack to a manual termination	HM	Instrument approach chart (<i>followed by name/title</i>)	IAC . . .
Holding/racetrack to an altitude	HA	Instrument approach procedure	IAP
Holiday	HOL	Instrument flight rules	IFR‡
Hospital aircraft	HOSP	Instrument landing system	ILS‡
Hours	HR	Instrument meteorological conditions	IMC‡
Hurricane	HURCN	Instrument/visual	I/V±
I		Intensify <i>or</i> intensifying	INTSF
		Intensity	INTST
I have nothing to send to you <i>or</i> none	NIL*†	Intermediate approach fix	IF
Ice crystals (<i>very small ice crystals in suspension, also known as diamond dust</i>)		International	INTL
Ice on runway	IC	International general aviation	IGA
Ice pellets	IR	International NOTAM office	NOF
Icing	PL	International standard atmosphere	ISA
Identification	ICE	International system of units	SI
Identification beacon	IDENT†	Interrogation sign (question mark) (<i>to be used in AFS as a procedure signal</i>)	IMI*
Identification friend/foe	IBN	Interrogator	INTRG
Identifier <i>or</i> identify	IFF	Interrupt <i>or</i> interruption <i>or</i> interrupted	INTRP
If not possible	ID	Intersection	INT
Illuminated wind indicator	INP	Intersection of air routes	IAR
Immediate <i>or</i> immediately	IWI±	In valleys	VAL
Immigration	IMT	Iraq Civil Aviation Authority	ICAA±
Improve <i>or</i> improving	IMG	Isolated	ISOL
In and out of clouds	IMPR	J	
In cloud	IAO	January	JAN
Inbound	INC	Jet stream	JTST
Independent sideband	INBD	July	JUL
Indicated airspeed	ISB	June	JUN
Indicator for maximum temperature (<i>used in the TAF code form</i>)	IAS	K	
Inertial navigation system	TX	Kilograms	KG
Inertial reference system	INS	Kilohertz	KHZ
Information	INFO†	Kilometres	KM
Information concerning en-route weather phenomena which may affect the safety of aircraft operations		Kilometres per hour	KMH
	SIGMET†	Kilopascal	KPA
Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations		Kilowatts	KW
	AIRMET†	Knots	KT
Initial approach	INA	Knots indicated airspeed	KIAS
Initial approach fix	IAF	L	
Inland	LAN	Landing	LDG
Inner marker	IM	Landing direction indicator	LDI
Inoperative	INOP	Landing distance available	LDA
In progress	INPR	Landing distance available, helicopter	LDAH
		Landing threshold point	LTP

Landline teletypewriter	LTT	Magnetic	MAG
Lateral navigation (to be pronounced "EL-NAV")	LNAV†	Magnetic bearing	QDR
Latitude	LAT	Magnetic heading (zero wind)	QDM‡
Layer or layered	LYR	Magnetic orientation of runway	QFU
Leave or leaving	LVE	Magnetic variation	VAR
Left (preceded by runway designation number to identify a parallel runway)	. . . L	Maintain	MNTN
Length	LEN	Maintenance	MAINT
Level	LVL	Manual A1 simplex	MAS
Light (used to indicate the intensity of weather phenomena, interference or static reports, e.g. light rain = FBL RA)	FBL	March	MAR
Light or lighting	LGT	Marker radio beacon	MKR
Light and variable (relating to wind)	LV	Maximum	MAX
Light intensity high	LIH	Maximum authorized altitude	MAA
Light intensity low	LIL	Maximum temperature (followed by figures in TAF)	TX . . .
Light intensity medium	LIM	Maximum value of wind speed or runway visual range (followed by figures in METAR/SPECI and TAF)	P . . .
Lighted	LGTD	May	MAY
Limited	LTD	Mean sea level	MSL
Line (used in SIGMET)	LINE	Medium and high frequency direction finding stations (at the same location)	MHDF
Local or locally or location or located	LCA	Medium and very high frequency direction finding stations (at the same location)	MVDF
Local mean time	LMT	Medium frequency [300 to 3 000 kHz]	MF
Local routine meteorological report (in abbreviated plain language)	MET REPORT	Medium frequency direction-finding station	MDF
Local special meteorological report (in abbreviated plain language)	SPECIAL†	Medium, high and very high frequency direction-finding stations (at the same location)	MHVDF
Localizer	LOC	Medium range	MRG
Localizer performance with vertical guidance	LPV	Megahertz	MHZ
Locator	L	Message	MSG
Locator, middle	LM	Message (transmission identification) has been misrouted (to be used in AFS as a procedure signal)	MSR#
Locator, outer	LO	Meteorological or meteorology	MET†
Logical acknowledgement (message type designator)	LAM	Meteorological information for aircraft in flight	VOLMET†
Long (used to indicate the type of approach desired or required)	LNG	Meteorological Operational Telecommunications Network Europe	MOTNE
Longitude	LONG	Meteorological watch office	MWO
Long range	LRG	Metres (preceded by figures)	. . . M
LORAN (long range air navigation system)	LORAN†	Metres per second	MPS
Low drifting (followed by DU = dust, SA = sand or SN = snow)	DR . . .	Metric units	MTU
Low frequency [30 to 300 kHz]	LF	Microburst	MBST
Low pressure area or the centre of low pressure	L	Microwave landing system	MLS‡
Low visibility procedures	LVP	Middle marker	MM
M		Mid-point (related to RVR)	MID
Mach number (followed by figures)	M . . .	Military	MIL

Military operating area	MOA	Multinational Coalition Forces Iraq	MCFI±
Minimum	MNM	N	
Minimum crossing altitude	MCA		
Minimum descent altitude	MDA	National	NTL
Minimum descent height	MDH	National AIS system centre	NASC†
Minimum en-route altitude	MEA	Nautical miles	NM
Minimum eye height over threshold (for visual approach slope indicator systems)	MEHT	Navigation	NAV
Minimum navigation performance specifications	MNPS	Navigation system error	NSE
Minimum obstacle clearance (required)	MOC	Near or over large towns	CIT
Minimum obstacle clearance altitude	MOCA	Next	NXT
Minimum operational performance standards	MOPST	Night	NGT
Minimum reception altitude	MRA	Nil significant cloud	NSC
Minimum safe altitude warning	MSAW	Nil significant weather	NSW
Minimum sector altitude	MSA	Nimbostratus	NS
Minimum temperature (followed by figures in TAF)	TN . . .	No or negative or permission not granted or that is not correct	NEG
Minimum value of runway visual range (followed by figures in METAR/SPECI)	M . . .	No change	NC
Minus	MS	No cloud detected (used in automated METAR/SPECI)	NCD
Minutes	MIN*	No directional variations available (used in automated METAR/SPECI)	NDV
Missed approach holding fix	MAHF	No distinct tendency (in RVR during previous 10 minutes)	N
Missed approach point	MAPT	No (negative) (to be used in AFS as a procedure signal)	NO
Missed approach turning fix	MATF	No reply heard	NRH
Missing (transmission identification) (to be used in AFS as a procedure signal)	MIS	No significant change (used in trend-type landing forecasts)	NOSIG†
Mist	BR	No specific working hours	HX
Mixed type of ice formation (white and clear)	MX	No transgression zone	NTZ‡
Moderate (used to indicate the intensity of weather phenomena, interference or static reports, e.g. moderate rain = MODRA)	MOD	Noise abatement departure procedure	NADP
Modification (message type designator)	CHG	Non-directional radio beacon	NDB‡
Modulated continuous wave	MCW	Non-governmental organizations	NGO±
Monday	MON	Non-precision approach	NPA
Monitor or monitoring or monitored	MNT	None or I have nothing to send to you	NIL*†
Monopulse secondary surveillance radar	MSSR	Normal	NML
Mountain	MT	Normal operating zone	NOZ‡
Mountain waves	MTW	North or northern latitude	N
Move or moving or movement	MOV	North Atlantic	NAT
Multi-functional transport satellite (MTSAT) satellite-based augmentation system (to be pronounced "EM-SAS")	MSAS†	Northbound	NB
		North-east	NE
		North-eastbound	NEB
		North-north-east	NNE
		North-north-west	NNW
		North-west	NW
		North-westbound	NWB
		Not applicable	N/A±
		Not before	NBFR
		Notice distributed by means of telecommunication 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	NOTAM†	Parallel	PARL
Notification of an aircraft accident	ACCID	Parking	PRKG
November	NOV	Passenger(s)	PAX
Number	NR	Passing	PSG
O		Pavement classification number	PCN
Obscure <i>or</i> obscured <i>or</i> obscuring	OBSC	Performance	PER
Observe <i>or</i> observed <i>or</i> observation	OBS	Permanent	PERM
Obstacle	OBST	Persons on board	POB
Obstacle assessment surface	OAS	Pierced steel plank	PSP
Obstacle clearance altitude	OCA	Pilot-controlled lighting	PCL
Obstacle clearance height	OCH	Plan position indicator	PPI
Obstacle clearance surface	OCS	Plus	PS
Obstacle free zone	OFZ	Point-in-space reference point	PRP
Obstacle identification surface	OIS	Point of no return	PNR
Occasional <i>or</i> occasionally	OCNL	Polar track structure	PTS
Occulting (<i>light</i>)	OCC	Position	PSN
Ocean station vessel	OSV	Possible	POSS
Oceanic area control centre	OAC	Power	PWR
Oceanic control area	OCA	Practice low approach	PLA
October	OCT	Precision approach	PA
On-line data interchange	OLDI†	Precision approach lighting system (<i>specify category</i>)	PALS
On request	O/R	Precision approach path indicator	PAPI†
On top	OTP	Precision approach radar	PAR‡
Opaque, white type of ice formation	OPA	Precision approach terrain chart (<i>followed by name/title</i>)	PATC . . .
Open <i>or</i> opening <i>or</i> opened	OPN	Pre-departure clearance	PDC‡
Operations	OPS†	Preflight information bulletin	PIB
Operator <i>or</i> operate <i>or</i> operative <i>or</i> operating <i>or</i> operational	OPR	Present level	PLVL
Operational control is the control indicated	OPC	Present position	PPSN
Operational meteorological (<i>information</i>)	OPMET†	Pressure system(s)	PSYS
Order	ORD	Preventive Maintenance Interval	PMI±
Organized track system	OTS	Primary	PRI
Originate (<i>to be used in AFS as a procedure signal</i>)	OGN	Primary surveillance radar	PSR‡
Outbound	OUBD	Prior notice required	PN
Outer marker	OM	Prior permission required	PPR
Outlook (<i>used in SIGMET messages for volcanic ash and tropical cyclones</i>)	OTLK	Probability	PROB†
Overcast	OVC	Procedure	PROC
Overhead	OHD	Procedure design gradient	PDG
P		Procedure turn	PTN
Parachute jumping exercise	PJE	Procedures for air navigation services	PANS
		Proceed <i>or</i> proceeding	PCD
		Processed meteorological data in the form of grid point values expressed in binary form (<i>meteorological code</i>)	GRIB
		Prohibited area (<i>followed by identification</i>)	P . . .
		Provisional	PROV
		Q	
		Quadrant	QUAD

R		Replace or replaced	RPLC
Radar position indicator	RPI‡	Report or reporting or reporting point	REP
Radar position symbol	RPS	Report leaving	RL
Radial	RDL	Report reaching	RR
Radio	RDO	Request or requested	REQ
Radio range	RNG	Request <i>(to be used in AFS as a procedure signal)</i>	RQ*
Radiocommunication failure <i>(message type designator)</i>	RCF	Request flight plan <i>(message type designator)</i>	RQP
Radiotelegraph	RTG	Request level change en route	RLCE
Radiotelephone	RTF	Request supplementary flight plan <i>(message type designator)</i>	RQS
Radioteletypewriter	RTT	Requested level not available	RLNA
Ragged	RAG	Required communication performance	RCP‡
Rain	RA	Required navigation performance	RNP‡
Range <i>(lights)</i>	RG	Requirements	RQMNTS
Rate of climb	ROC	Re-route	RE RTE
Rate of descent	ROD	Rescue boat	RB
Rate of turn	R	Rescue coordination centre	RCC
Reach or reaching	RCH	Rescue sub-centre	RSC
Reach cruising altitude	RCA	Rescue vessel	RV
Receive or receiver	REC	Resolution advisory	RA
Received <i>(acknowledgement of receipt) (to be used in AFS as a procedure signal)</i>	R*	Responder beacon	RSP
Receiver autonomous integrity monitoring	RAIM†	Restricted area <i>(followed by identification)</i>	R . . .
Receiving only	RON	Return or returned or returning	RTN
Recent <i>(used to qualify weather phenomena, e.g. recent rain = RERA)</i>		Return to service	RTS
Reclearance in flight	RE	Right <i>(direction of turn)</i>	RITE
Recleared	RIF	Right <i>(preceded by runway designation number to identify a parallel runway)</i>	. . . R
Red	RCLR	Right-hand circuit	RHC
Reduced vertical separation minimum (300 m (1 000 ft)) between FL 290 and FL 410	R	Rime <i>(used in aerodrome warnings)</i>	RIME†
Reference datum height	RVSM‡	Root sum square	RSS
Reference path data selector	RDH	Route	RTE
Reference to . . . or refer to . . .	RPDS	Route forecast <i>(in meteorological code)</i>	ROFOR
Regional AIS system centre	REF	Rules of the air and air traffic services	RAC
Regional OPMET bulletin exchange <i>(scheme)</i>	RASC†	Runway	RWY
Regional supplementary procedures	ROBEX†	Runway <i>(followed by figures in METAR/SPECI)</i>	R . . .
Registration	SUPPS	Runway alignment indicator	RAI
Regular Public Transport (aircraft)	REG	Runway arresting gear	RAG
Rejected take-off distance available, helicopter	RPT±	Runway centre line	RCL
Relay to	RTODAH	Runway centre line light(s)	RCLL
Remark	RLA	Runway(s) cleared <i>(used in METAR/SPECI)</i>	CLRD
Remote altimeter setting source	RMK	Runway control van	VAN
Repeat or I repeat <i>(to be used in AFS as a procedure signal)</i>	RASS	Runway edge light(s)	REDL
Repetitive flight plan	RPT*	Runway end light(s)	RENL
	RPL	Runway end safety area	RESA
		Runway lead-in lighting system	RLLS

Runway surface condition	RSCD	Short take-off and landing	STOL
Runway threshold light(s)	RTHL	Shower (<i>followed by RA = rain, SN = snow, PL = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. SHRASN = showers of rain and snow</i>)	SH . . .
Runway touchdown zone light(s)	RTZL	Signal S	GL
Runway visual range	RVR‡	Significant	SIG
S		Simple approach lighting system	SALS
Sand	SA	Simultaneous or simultaneously	SIMUL
Sandstorm	SS	Single isolated wheel load	SIWL
Sanitary	SAN	Single sideband	SSB
SAR point of contact	SPOC	Sky clear	SKC
Satellite-based augmentation system (<i>to be pronounced "ESS-BAS"</i>)	SBAS†	Slow	SLW
Satellite communication	SATCOM†	Small hail and/or snow pellets	GS
Saturday	SAT	Smoke	FU
Scattered	SCT	Snow	SN
Schedule or scheduled	SKED	Snow grains	SG
Sea (<i>used in connection with sea-surface temperature and state of sea</i>)	SEA	South or southern latitude	S
Sea-surface temperature (<i>followed by figures in METAR/SPECI</i>)	W . . .	Southbound	SB
Search and rescue	SAR	South-east	SE
Search and rescue region	SRR	South-eastbound	SEB
Secondary	SRY	South-south-east	SSE
Secondary surveillance radar	SSR‡	South-south-west	SSW
Seconds	SEC	South-west	SW
Section	SECN	South-westbound	SWB
Sector	SECT	Special air-report (<i>message type designator</i>)	ARS
Selective calling system	SELCAL†	Special position indicator	SPI
Selective identification feature	SIF	Special series of NOTAM notifying, by means of a specific format, change in activity of a volcano, a volcanic eruption and/or volcanic ash cloud that is of significance to aircraft operations	ASHTAM
Senior Airfield Authority	SAA±	Special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format	SNOWTAM†
September	SEP	Speed limiting point	SLP
Service or servicing or served	SER	Spot wind	SPOT†
Service available during hours of scheduled operation	HS	Squall	SQ
Service available to meet operational requirements	HO	Squall line	SQL
Service message	SVC	Stand by	SDBY
Serviceable	SVCBL	Standard	STD
Severe (<i>e.g. used to qualify icing and turbulence reports</i>)	SEV	Standard deviation	SD
Shall I cancel telegram number . . . ? or Cancel telegram number . . . (<i>to be used in AFS as a Q Code</i>)	QTA	Standard instrument arrival	STAR†
Shall I run my test tape/a test sentence? Or Run your test tape/a test sentence (<i>to be used in AFS as a Q Code</i>)	QJH	Standard instrument departure	SID†
Shallow fog	MIFG	Standard regional route transmitting frequencies	RUT
Short (<i>used to indicate the type of approach desired or required</i>)	BRF		
Short range	SRG		

Standards and Recommended Practices [ICAO]	SARPS	Temporary reserved airspace	TRA
Start of climb	SOC	Terminal area surveillance radar	TAR
State of the sea (<i>followed by figures in METAR/SPECI</i>)	S . . .	Terminal arrival altitude	TAA
Station	STN	Terminal control area	TMA†
Stationary	STNR	Terminal VOR	TVOR
Status	STS	Text (<i>when the abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI TXT</i>) (<i>to be used in AFS as a procedure signal</i>)	TXT*
Step down fix	SDF	The address (<i>when this abbreviation is used to request a repetition, the question mark (IMI) precedes the abbreviation, e.g. IMI ADS</i>) (<i>to be used in AFS as a procedure signal</i>)	ADS*
Stop-end (<i>related to RVR</i>)	END	The last message received by me was . . . (<i>to be used in AFS as a procedure signal</i>)	LR
Stopway	SWY	The last message sent by me was . . . or Last message was . . . (<i>to be used in AFS as a procedure signal</i>)	LS
Stopway light(s)	STWL	This is a channel-continuity-check of transmission to permit comparison of your record of channel-sequence numbers of messages received on the channel (<i>to be used in AFS as a procedure signal</i>)	CH#
Straight-in approach	STA	This is a duplicate message (<i>to be used in AFS as a procedure signal</i>)	DUPE#
Stratiform	STF	Threshold	THR
Stratocumulus	SC	Threshold crossing height	TCH
Stratus	ST	Through	THRU
Subject to	SUBJ	Thunderstorm (<i>in aerodrome reports and forecasts, TS used alone means thunder heard but no precipitation at the aerodrome</i>)	TS
Sunday	SUN	Thunderstorm (<i>followed by RA = rain, SN = snow, PL = ice pellets, GR = hail, GS = small hail and/or snow pellets or combinations thereof, e.g. TSRASN = thunderstorm with rain and snow</i>)	TS . . .
Sunrise	SR	Thursday	THU
Sunrise to sunset	HJ	Till (<i>followed by time by which weather change is forecast to end</i>)	TL . . .
Sunset	SS	To . . . (<i>place</i>)	TO . . .
Sunset to sunrise	HN	Top of climb	TOC
Super high frequency [3 000 to 30 000 MHz]	SHF	Tornado	TDO
Supersonic transport	SST	Touch-and-go landing	TGL
Supplement (<i>AIP Supplement</i>)	SUP	Touchdown and lift-off area	TLOF
Supplementary flight plan (<i>message type designator</i>)	SPL	Touchdown zone	TDZ
Surface	SFC	Towering cumulus	TCU
Surface movement control	SMC	Track	TR
Surface movement radar	SMR	Track to fix	TF
Surveillance radar approach	SRA	Traffic	TFC
Surveillance radar element of precision approach radar system	SRE	Traffic advisory	TA
T			
Tail wind	TAIL†		
Take-off	TKOF		
Take-off distance available	TODA		
Take-off distance available, helicopter	TODAH		
Take-off run available	TORA		
Taxiing or taxi	TAX		
Taxiing guidance system	TGS		
Taxiway	TWY		
Taxiway-link	TWYL		
Technical reason	TECR		
Telephone	TEL		
Teletypewriter	TT		
Temperature	T		
Temporary or temporarily	TEMPO†		










Traffic alert and collision avoidance system resolution advisory (<i>to be pronounced "TEE-CAS-AR-AY"</i>)	TCAS RA†	Upper information centre	UIC
Traffic information broadcast by aircraft	TIBA†	Upward (<i>tendency in RVR during previous 10 minutes</i>)	U
Transition altitude	TA	V	
Transition level	TRL	Variable	VRB
Transmits or transmitter	TRANS	Variations from the mean wind direction (<i>preceded and followed by figures in METAR/SPECI, e.g. 350V070</i>) . . .	V . . .
Trend forecast	TREND†	Variations from the mean wind speed (gusts) (<i>followed by figures in METAR/SPECI and TAF</i>)	G . . .
Tropical cyclone	TC	Vector to final	VTF
Tropical cyclone advisory centre	TCAC	Vertical	VER
Tropopause	TROP	Vertical navigation (<i>to be pronounced "VEE-NAV"</i>)	VNAV†
True airspeed	TAS	Vertical path angle	VPA
True bearing	QTE	Vertical speed	VSP
Tsunami (<i>used in aerodrome warnings</i>)	TSUNAMI†	Vertical take-off and landing	VTOL
Tuesday	TUE	Vertical visibility (<i>followed by figures in METAR/SPECI and TAF</i>)	VV . . .
Turbulence	TURB	Very high frequency [30 to 300 MHz]	VHF‡
Turn altitude	TNA	Very high frequency direction-finding station	VDF
Turn at an altitude/height	TA/H	Very important person	VIP‡
Turn height	TNH	Very long range	VLR
Turning point	TP	Very low frequency [3 to 30 kHz]	VLF
T visual approach slope indicator system (<i>to be pronounced "TEE-VASIS"</i>)	T-VASIS†	VHF omnidirectional radio range	VOR‡
Type of aircraft	TYP	Vicinity	VCY
Typhoon	TYPH	Vicinity of the aerodrome (<i>followed by FG = fog, FC = funnel cloud, SH = shower, PO = dust/sand whirls, BLDU = blowing dust, BLSSA = blowing sand, BLSN = blowing snow, DS = duststorm, SS = sandstorm, TS = thunderstorm or VA = volcanic ash, e.g. VCFG = vicinity</i>)	VC . . .
U		Visibility	VIS
UHF tactical air navigation aid	TACAN†	Visibility, cloud and present weather better than prescribed values or conditions (<i>to be pronounced "KAV-OH-KAY"</i>)	CAVOK†
Ultra high frequency [300 to 3 000 MHz]	UHF‡	Visual approach chart (<i>followed by name/title</i>)	VAC . . .
Ultra high frequency direction-finding station	UDF	Visual approach slope indicator systems	VASIS
Ultra long range	ULR	Visual-aural radio range	VAR
Unable	UNA	Visual flight rules	VFR‡
Unable higher due traffic	UHDT	Visual meteorological conditions	VMC‡
Unable to approve	UNAP	Visual reference to the ground, by	VSA
Uncertainty phase	INCERFA†	Volcanic ash	VA
Unidentified precipitation (<i>used in automated METAR/SPECI</i>)	UP	Volcanic ash advisory centre	VAAC
Unlimited	UNL		
Unreliable	UNREL		
Unserviceable	U/S		
Until	TIL†		
Until advised by . . .	UAB . . .		
Until further notice	UFN		
Until past . . . (<i>place</i>)	TIP		
Upper air route	UAR		
Upper area control centre	UAC		
Upper control area	UTA		
Upper flight information region	UIR‡		

VOR airborne equipment test facility	VOT	With immediate effect or effective immediately	WIE
VOR and TACAN combination	VORTAC†	Within	WI
		Without	WO
W		Work in progress	WIP
Warning	WRNG	World Aeronautical Chart — ICAO 1:1 000 000 (<i>followed by name/title</i>)	WAC . . .
Waterspout	WTSP	World area forecast centre	WAFC
Way-point	WPT	World Geodetic System — 1984	WGS-84
We agree or It is correct (<i>to be used in AFS as a procedure signal</i>)	OK*	Worldwide web	WWW
Weaken or weakening	WKN		
Weather	WX	X	
Wednesday	WED	Y	
Weight	WT		
West or western longitude	W	Yellow	Y
Westbound	WB	Yellow caution zone (<i>runway lighting</i>)	YCZ
West-north-west	WNW	Yes or affirm or affirmative or that is correct	AFM
West-south-west	WSW	Yes (affirmative) (<i>to be used in AFS as a procedure signal</i>)	YES*
What is my distance to your station? Or Your distance to my station is (<i>distance figures and units</i>) (<i>to be used in radiotelegraphy as a Q Code</i>)		Your	YR
White	QGE	Z	
White type of ice formation, opaque	W		
Wide area augmentation system	OPA		
Widespread	WAAS†		
Width or wide	WDSPR		
Will comply	WID		
Will you give me the position of my station according to the bearings taken by the D/F stations which you control? or The position of your station according to the bearings taken by the D/F stations that I control was . . . latitude . . . longitude (<i>or other indication of position</i>), class . . . at . . . hours (<i>to be used in radiotelegraphy as a Q Code</i>)	WILCO†		
Will you indicate the TRUE track to reach you? or The TRUE track to reach me is . . . degrees at . . . hours (<i>to be used in radiotelegraphy as a Q Code</i>)	QTF		
Will you relay to . . . free of charge? or I will relay to . . . free of charge (<i>to be used in AFS as a Q Code</i>)	QUJ		
Wind	QSP		
Wind direction indicator	WIND		
Wind shear	WDI		
Wind speed	WS		
Wing bar lights	WSPD		
Wireless telegraphy	WBAR		
With effect from or effective from	WT±		
	WEF		



GEN 2.3 CHART SYMBOLS

See ICAO Annex 4 Appendix 2 for full list of symbols.

2.3.1 Charts other than approach charts

Civil (land)	
Civil (water)	
Joint civil and military (land)	
Joint civil and military (water)	
Military (land)	
Military (water)	
Emergency aerodrome or aerodrome with no facilities	
Sheltered anchorage	
Heliport	








2.3.2 Approach Charts

The aerodrome on which the procedure is based	
Aerodrome affecting the traffic pattern on the aerodrome on which the procedure is based	


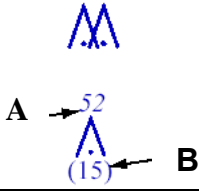

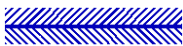
2.3.3 Aerodrome Charts

Hard surface runway	
Unpaved runway	
Stop way	

2.3.4 Aerodrome Installations and Lights

Aerodrome reference point (ARP)	
Taxiways and parking areas	
Control Tower	To be determined
Point light	
Barrette	To be determined
<div> <div>Alt</div> <div>Alternating</div> <div>B</div> <div>Blue</div> <div>F</div> <div>Fixed</div> </div> <div> <div>Fl</div> <div>Flashing</div> <div>G</div> <div>Green</div> <div>Gp</div> <div>Group</div> </div> <div> <div>Occ</div> <div>Occulting</div> <div>R</div> <div>Red</div> <div>SEC</div> <div>Sector</div> </div> <div> <div>sec</div> <div>Second</div> <div>(U)</div> <div>Unwatched</div> <div>W</div> <div>White</div> </div>	F 
Obstacle light	
Aeronautical ground light	
Wind direction indicator (lighted)	To be determined
Wind direction indicator (unlighted)	To be determined
Landing direction indicator (lighted)	
Landing direction indicator (unlighted)	T

2.3.5 Miscellaneous

Highest elevation on chart	<div> <div>Alternative</div> <div>17456</div> <div>.17456</div> </div>
Obstacle	
Group obstacles Note A: <i>Numerals in italics indicate elevation of top obstacle above sea level.</i> Note B: <i>Upright numerals in parentheses indicate height above specified datum.</i>	
Restricted airspace (prohibited, restricted or danger areas)	
Common boundary of two areas	
Transmission line or overhead cable	-T-T-
Isogonal	— 3° E —

GEN 2.4 LOCATION INDICATORS

2.4.1 Code Allocation. Iraq follows international conventions in the allocation of codes. The first letter is an 'O' to designate Middle East region. The second letter is 'R' designating locations in Iraq. The remaining two letters designate the landing area/location, and may not necessarily correlate with the English name of the location. Locations other than those given the 'OR' prefix are designated by three, four or five letter codes. To avoid confusion with location indicators, waypoints do not begin with the letters 'OR'. The following table summarizes code allocation:

Type	Code	Example
Licensed aerodrome, aircraft landing area, helicopter landing site	Four letters (ORxx)	Kirkuk – (ORKK)
Navigation Aid	Two or three letters	Basrah VOR (BSR)
Visual Waypoint	Four letters	<i>Not yet allocated</i>
IFR Waypoint	Five letters	MODIK

2.4.2 List of Location Codes**2.4.2.1 Encode**

Location	ICAO Indicator	Weather Code
Al Iskandarariyah	ORAI	
Al Najaf	ORNI	
Al Qaim	ORAQ	KQVO
Al Taji	ORTI	KQAA
An Numaniyah	ORAN	
Baghdad/Baghdad FIR	ORBB	
Baghdad INTL Airport	ORBI	KQTZ
Baghdad ICAA	ORBC	
Bashur	ORBR	
Basrah INTL Airport	ORMM	
Camp Echo, Al Diwaniyah	ORCE	
Camp Liberty	ORCL	
Camp Victory	ORCV	
Erbil INTL Airport	ORER	
Forward Operating Base Marez	ORFM	
Jalibah Southeast	ORJA	
Kirkuk	ORKK	KQTX

Mosul INTL Airport	ORBM	KQTU
Qasr Tall Mihil	ORQT	
Sulaymaniyah INTL Airport	ORSU	
Tall Afar	ORTF	KQTI
Ubaydah Bin Al Jarrah/Al Kut	ORUB	
Umm Qasr	ORUQ	

2.4.2.2 Decode

ICAO Indicator	Location	Weather Code
ORAI	Al Iskandarariyah	
ORAN	An Numaniyah	
ORAQ	Al Qaim	KQVO
ORBB	Baghdad/Baghdad FIR	
ORBC	Baghdad ICAA	
ORBI	Baghdad INTL Airport	KQTZ
ORBM	Mosul INTL Airport	KQTU
ORBR	Bashur	
ORCE	Camp Echo, Al Diwaniyah	
ORCL	Camp Liberty	
ORCV	Camp Victory	
ORER	Erbil INTL Airport	
ORFM	Forward Operating Base Marez	
ORJA	Jalibah Southeast	
ORKK	Kirkuk	KQTX
ORMM	Basrah INTL Airport	
ORNI	Al Najaf	
ORQT	Qasr Tall Mihil	
ORSU	Sulaymaniyah INTL Airport	
ORTF	Tall Afar	KQTI
ORTI	Al Taji	KQAA
ORUB	Ubaydah Bin Al Jarrah/Al Kut	
ORUQ	Umm Qasr	

GEN 2.5 LIST OF RADIO NAVIGATION AIDS

2.5.1 The radio navigational aids in Iraq are as follows:

Aid	Ident	FREQ	Lat/Long	Remarks
Alqush VOR	NOT ACTIVE	113.0 Mhz		Colocated DME within ILS 116.4 Mhz
Al-Ramadi VOR	NOT ACTIVE	112.7 Mhz		Colocated DME within ILS 115.7 Mhz
Al Najaf VOR	ALI	114.7 Mhz	N31°59.17' E044°24.54'	Available
Al Najaf NDB	<u>ALI</u>	275 Khz		Available
<u>Al Najaf ILS</u>	<u>INJF</u>	<u>108.9 MHz (LOC)/ 329.3 Mhz G/P Freq</u>		
Baghdad TACAN	BAP	CH64X	N33°15'36 60" E044°14'58.10"	VAR 4° E
Baghdad RNAV	N/A	N/A	N33°15'38.60" E044°14'57.29"	
Baghdad D-VOR	BGD	112.9 MHz	N33°17'31.00" E044°13'31.00"	VAR 4° E
Baghdad DME (located within VOR)	BGD	116.3 Mhz	N33°17'31.00" E044°13'31.00"	VAR 4° E
Baghdad ILS R15L PA2	YDB	110.7 Mhz (LOC) / 330.2 Mhz G/S Freq.		DME located within ILS 106.8 Mhz
Baghdad ILS R33R PA2	YCA	110.10 Mhz (LOC) / 334.4 Mhz G/S Freq.		DME located within ILS 106.2 Mhz
Baghdad ILS R15R (NINST)		110.9 Mhz (LOC) / 330.8 Mhz G/S Freq.		DME located within ILS 107.0 Mhz
Baghdad ILS R33L (NINST)		110.30 Mhz (LOC) / 335.0 Mhz G/S Freq.		DME located within ILS 106.4 Mhz
Basrah VOR-DME	BSR	112.3 MHz CH 70-X	N30°31'32.33" E047°41'12.10"	VAR 3°0.0' E
Basrah ILS R32	BIA	111.7MHz		
Erbil ILS R15		109.3 Mhz (LOC)/332.0		Colocated DME

PA2		Mhz G/S Freq		105.4Mhz
Erbil ILS R33 NINST		109.9 Mhz (LOC)/330.8 Mhz G/S Freq		Colocated DME with ILS 106.0Mhz
Erbil ILS R18 PA2		109.1 Mhz (LOC) / 331.4 Mhz G/S Freq		Colocated DME with ILS 105.2Mhz
Erbil ILS R36 PA2		109.7 Mhz (LOC)/333.2 Mhz G/S Freq		
Erbil VOR	RER	116.3 Mhz		Colocated DME 109.3 Mhz.
Hawija VOR Coverage 200/45	NOT ACTIVE	113.2 Mhz		Colocated DME 116.8 Mhz
Kirkuk TACAN	KRK	CH86X	N35°28'16.26" E044°20'52.14"	VAR 4°01.4' E
Kut NDB				
Mandaly VOR	NOT ACTIVE	113.8 Mhz		DME located with VOR 117.2 Mhz
Mosul ILS R33	NOT ACTIVE	109.1 MHz (LOC)/331.4 Mhz G/S Freq		DME located with ILS 105.2 Mhz
Mosul ILS R15	NINST	108.1 Mhz (LOC)/334.7 Mhz G/S Freq		DME located with ILS 104.2 Mhz
Mosul NDB				
Mosul PAR				
Sulaimaniyah D-VOR	SUL	117.0 MHz		
Tal Afar NDB				

GEN 2.6 CONVERSION TABLES

NM to KM 1 NM = 1.852KM		KM to NM 1 KM = 0.54 NM		FT to M 1 FT = 0.3048 M		M to FT 1 M = 3.281FT	
NM	KM	KM	NM	FT	M	M	FT
0.1	0.185	0.1	0.05	1	0.305	1	3.28
0.2	0.370	0.2	0.11	2	0.610	2	6.56
0.3	0.556	0.3	0.16	3	0.914	3	9.84
0.4	0.741	0.4	0.22	4	1.219	4	13.12
0.5	0.926	0.5	0.27	5	1.524	5	16.40
0.6	1.111	0.6	0.32	6	1.829	6	19.69
0.7	1.296	0.7	0.38	7	2.134	7	22.97
0.8	1.482	0.8	0.43	8	2.438	8	26.25
0.9	1.667	0.9	0.49	9	2.743	9	29.53
1	1.852	1	0.54	10	3.048	10	32.81
2	3.704	2	1.08	20	6.096	20	65.62
3	5.556	3	1.62	30	9.144	30	98.43
4	7.408	4	2.16	40	12.192	40	131.23
5	9.260	5	2.70	50	15.240	50	164.04
6	11.112	6	3.24	60	18.288	60	196.85
7	12.964	7	3.78	70	21.336	70	229.66
8	14.816	8	4.32	80	24.384	80	262.47
9	16.668	9	4.86	90	27.432	90	295.28
10	18.520	10	5.40	100	30.480	100	328.08
20	37.040	20	10.80	200	60.960	200	656.17
30	55.560	30	16.20	300	91.440	300	984.25
40	74.080	40	21.60	400	121.920	400	1312.34
50	92.600	50	27.00	500	152.400	500	1640.48
60	111.120	60	32.40	600	182.880	600	1968.50
70	129.640	70	37.80	700	213.360	700	2296.59
80	148.160	80	43.20	800	243.840	800	2624.67
90	166.680	90	48.60	900	274.320	900	2952.76
100	185.200	100	54.00	1000	304.800	1000	3280.84
200	370.400	200	107.99	2000	609.600	2000	6561.68
300	555.600	300	161.99	3000	914.400	3000	9842.52
400	740.800	400	215.98	4000	1219.200	4000	13123.36
500	926.000	500	269.98	5000	1524.000	5000	16404.20
				6000	1828.800		
				7000	2133.600		
				8000	2438.400		
				9000	2743.200		
				10000	3048.000		

GEN 2.7 SUNRISE/SUNSET TABLES**2.7.1. General**

2.7.1.1. The tables on the following pages have been prepared using data from the United States Naval Observatory website. The tables provide data for selected airports. Data on other locations, or accurate times for dates falling between those listed below, may be obtained from: <http://www.usno.navy.mil/>

Select 'Data Services' and enter appropriate year, latitude and longitude.

2.7.1.2. The times in the tables below are given in UTC for the beginning of the civil morning twilight (TWIL FM), sunrise (SR), sunset (SS), and the end of the civil evening twilight (TWIL TO).

2.7.2 Sunrise-Sunset Table for Baghdad International Airport (ORBI) (2012).

Based on the ARP (N33°15'45.140" E044°14'04.476") the official times are as follows (GMT):

MTH	Day	TWIL FM	SR	SS	TWIL TO	MTH	Day	TWIL FM	SR	SS	TWIL TO
Jan	5		0406	1409		Jul	5		0159	1615	
	10		0407	1413			10		0201	1614	
	15		0407	1417			15		0204	1612	
	20		0405	1422			20		0207	1610	
	25		0403	1427			25		0211	1607	
	30		0400	1432			30		0214	1603	
			0406	1409							
Feb	5		0356	1437		Aug	5		0218	1558	
	10		0352	1442			10		0222	1553	
	15		0347	1447			15		0226	1548	
	20		0342	1451			20		0229	1542	
	25		0336	1455			25		0232	1536	
	29		0332	1459			30		0236	1529	
Mar	1		0331	1500							
	5		0326	1503		Sep	5		0240	1522	
	10		0319	1507			10		0243	1515	
	15		0313	1511			15		0246	1509	
	20		0306	1514			20		0250	1500	
	25		0259	1518			25		0253	1455	
	30		0253	1522			30		0256	1448	
Apr	5		0245	1526		Oct	5		0300	1442	
	10		0238	1530			10		0303	1435	
	15		0232	1534			15		0307	1429	
	20		0226	1537			20		0311	1423	
	25		0221	1541			25		0315	1418	
	30		0216	1544			30		0319	1413	
May	5		0211	1548		Nov	5		0325	1407	
	10		0206	1552			10		0329	1403	
	15		0203	1556			15		0334	1400	
	20		0159	1559			20		0338	1358	
	25		0157	1603			25		0343	1356	
	30		0155	1606			30		0347	1356	
Jun	5		0153	1609		Dec	5		0351	1355	
	10		0153	1612			10		0355	1356	
	15		0153	1614			15		0359	1357	
	20		0154	1615			20		0402	1359	
	25		0155	1616			25		0404	1402	
	30		0157	1617			30		0406	1405	

2.7.3 Sunrise – Sunset Table for Basrah International Airport (ORMM) (2012).

Based on the ARP (N30°32'56.646" E047°39'43.712") the official times are as follows:

MTH	Day	TWIL FM	SR	SS	TWIL TO	MTH	Day	TWIL FM	SR	SS	TWIL TO
Jan	5		0346	1401		Jul	5		0152	1555	
	10		0347	1405			10		0154	1554	
	15		0347	1409			15		0157	1552	
	20		0346	1414			20		0200	1550	
	25		0344	1418			25		0203	1548	
	30		0341	1423			30		0206	1544	
Feb	5		0338	1424		Aug	5		0209	1540	
	10		0334	1432			10		0212	1535	
	15		0330	1436			15		0216	1530	
	20		0325	1440			20		0218	1525	
	25		0320	1444			25		0221	1520	
							30		0225	1513	
Mar	1		0315	1448							
	5		0310	1450		Sep	5		0228	1507	
	10		0305	1454			10		0230	1502	
	15		0300	1457			15		0233	1454	
	20		0252	1500			20		0236	1448	
	25		0246	1503			25		0239	1441	
	30		0240	1507			30		0242	1435	
Apr	5		0233	1510		Oct	5		0245	1429	
	10		0227	1513			10		0248	1423	
	15		0221	1517			15		0251	1419	
	20		0216	1520			20		0255	1412	
	25		0211	1523			25		0258	1407	
	30		0206	1526			30		0302	1403	
May	5		0202	1530		Nov	5		0307	1358	
	10		0158	1533			10		0311	1354	
	15		0154	1536			15		0315	1352	
	20		0151	1540			20		0319	1350	
	25		0149	1543			25		0323	1348	
	30		0147	1546			30		0327	1347	
Jun	5		0146	1549		Dec	5		0331	1347	
	10		0146	1551			10		0335	1389	
	15		0146	1553			15		0338	1350	
	20		0147	1554			20		0341	1352	
	25		0148	1555			25		0344	1354	
	30		0150	1555			30		0345	1358	

2.7.4 Sunrise – Sunset Table for Mosul Airport (ORBM) (2012). Based on the ARP (N36°18'35" E043°08'84") the official times are as follows:

MTH	Day	TWIL FM	SR	SS	TWIL TO	MTH	Day	TWIL FM	SR	SS	TWIL TO
Jan	5		0419	1406		Jul	5		0155	1629	
	10		0419	1410			10		0158	1627	
	15		0418	1415			15		0102	1625	
	20		0417	1420			20		0205	1622	
	25		0414	1425			25		0209	1619	
	30		0411	1431			30		0213	1615	
Feb	5		0406	1437		Aug	5		0217	1609	
	10		0301	1442			10		0221	1504	
	15		0356	1448			15		0225	1558	
	20		0350	1453			20		0230	1551	
	25		0344	1458			25		0233	1545	
							30		0237	1538	
Mar	1		0338	1402							
	5		0332	1506		Sep	5		0242	1529	
	10		0325	1511			10		0246	1522	
	15		0318	1515			15		0245	1511	
	20		0311	1519			20		0254	1507	
	25		0304	1524			25		0258	1400	
	30		0256	1528			30		0202	1452	
Apr	5		0248	1533		Oct	5		0306	1445	
	10		0241	1537			10		0310	1438	
	15		0234	1542			15		0315	1431	
	20		0227	1546			20		0319	1425	
	25		0221	1550			25		0224	1419	
	30		0215	1555			30		0329	1413	
May	5		0210	1559		Nov	5		0335	1407	
	10		0205	1503			10		0340	1403	
	15		0101	1607			15		0345	1359	
	20		0157	1611			20		0350	1356	
	25		0154	1615			25		0355	1354	
	30		0152	1619			30		0300	1303	
Jun	5		0150	1622		Dec	5		0304	1352	
	10		0149	1625			10		0408	1353	
	15		0149	1627			15		0412	1354	
	20		0150	1628			20		0415	1356	
	25		0151	1629			25		0417	1358	
	30		0153	1629			30		0419	1303	

GEN 3 SERVICES

GEN 3.1 AERONAUTICAL INFORMATION SERVICES

3.1.1 Responsible Service

3.1.1.1 The Aeronautical Information Service (AIS), which forms part of the ICAA, ensures the flow of information necessary for the safety and regularity of international and domestic air navigation within the area of its responsibility as indicated under GEN 3.1.2 below. It consists of AIS Department, International NOTAM Office (NOF) and AIS units established at the aerodromes as listed under GEN 3.1.5 below. The service is provided in accordance with the provisions contained in ICAO Annex 15 – Aeronautical Information Services.

3.1.1.2 Iraq AIS Headquarters:

Postal Address:
Aeronautical Information Services Department
Iraq Civil Aviation Authority
Baghdad International Airport
PO Box 55103
Baghdad-IRAQ
AFS: ORBIYOYX
Telephone: (+9641) 8132122
(+9641) 8132419
Email: icaa_ais@yahoo.com;

3.1.1.3 International NOTAM Officer:

Postal Address:
Aeronautical Information Services Headquarters
Iraq Civil Aviation Authority
Baghdad International Airport
PO Box 55103
Baghdad-IRAQ
AFS: ORBIYOYX
Telephone: (+9641) 8132122
(+9641) 8132419
Email: icaaaim@yahoo.com;

3.1.2 Area of Responsibility. The Aeronautical Information Service is responsible for the collection and dissemination of information for Iraq and for the airspace over the high seas encompassed by the Baghdad FIR.

3.1.3 Aeronautical Publications

3.1.3.1 The aeronautical information is provided in the form of the Integrated Information Package consisting of the following elements:

3.1.3.1.1 Aeronautical Information Publication (AIP)

3.1.3.1.2 Supplement to the AIP (AIP SUP);

3.1.3.1.3 Aeronautical Information Circular (AIC):

3.1.3.1.4 NOTAM and Pre-flight Information Bulletin (PIB); and

3.1.3.1.5 Checklists and summaries.

3.1.3.2 Aeronautical Information Publication (AIP)

3.1.3.2.1 The AIP is the overarching aviation document intended primarily to satisfy international requirements for the exchange of permanent aeronautical information and long duration temporary changes essential for safe and efficient air navigation. The Iraq AIP is published in one volume, comprising of 3 books. The AIP is published in an electronic format as a portable document format (.pdf) file, in English only, for use in international and domestic operation, whether the flight is a commercial, military or private one.

3.1.3.2.2 Amendments to the AIP are published every 56 days, providing 28 days notification before the re-publication of the full, updated AIP. The timelines for amendments and AIP publication and effective dates are in accordance with the 56 day AIRAC cycle. A checklist of AIP pages containing page number/chart title and the publication or effective date (day, month by name, and year) of the information is reissued with each edition.

3.1.3.3 Supplement to the AIP (AIP SUP)

3.1.3.3.1 Temporary changes of long duration and information of short duration that consists of extensive text and/or text supplementing the permanent information contained in the AIP are published as AIP Supplements (AIP SUP). Due to the newly established AIP and AIP AMDT cycle it is unlikely that the use of AIP SUP will be common. However, the following paragraph describes their use.

3.1.3.3.2 AIP SUP is separated by information subject (General – GEN, En-route – ENR and Aerodromes – AD) and, when issued, are to be placed at the beginning of each relevant AIP part. Each AIP Supplement is allocated a consecutive serial number, based on the calendar year, e.g. AIP SUP 01/06. Each AIP SUP is to remain in the AIP as long as all or some of its contents remain valid. The period of validity of the information contained in the AIP SUP will normally be given in the supplement itself. Alternatively, a NOTAM may be used to indicate changes to the period of validity or cancellation of the AIP SUP. Any AIP SUP will, for the short term, be published on the ICAA Iraq webpage co-located with the full edition AIP. Notification of AIP SUP release will be via a Baghdad FIR NOTAM.

3.1.3.4 Aeronautical Information Circular (AIC)

3.1.3.4.1 Aeronautical Information Circulars (AIC) contain information on the long-term forecast of any major change in legislation, regulation, procedures or facilities. The information contained within the AIC is to be considered advance notice. While unlikely to change significantly information within the AIC is provided as advisory only until formally promulgated within the AIP, AIP AMDT, and AIP SUP or via NOTAM. Information likely to be contained in an AIC may include:

3.1.3.4.1.1 Information of a purely explanatory or advisory nature liable to affect flight safety; and,

3.1.3.4.1.2 Information or notification of an explanatory or advisory nature concerning technical, legislative or purely administrative matters.

3.1.3.4.2 Each AIC is allocated a consecutive serial number, based on the calendar year, e.g. AIC 01/06. Any AIC released will be published on the ICAA webpage co-located with the full edition AIP. Notification of AIC release will be via a Baghdad FIR NOTAM. Notification of AIC cancellation will be via NOTAM.

3.1.3.5 NOTAM and Pre-flight Information Bulletins (PIB)

3 1.3.5.1 NOTAMs contain information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential for personnel concerned with flight operations. The text of each NOTAM contains the information in the order shown in the ICAO NOTAM Format and is composed of the significations/uniform abbreviated phraseology assigned to the ICAO NOTAM Code. This is complemented by ICAO abbreviations, indicators, identifiers, designators, callsigns, frequencies, figures and plain language. NOTAMs are issued and published via several means. Each pilot in command, Civil Air Carrier/Operator is responsible for ensuring current NOTAMs are reviewed.

3.1.3.6 Sale of Publications. (Printed copy not available at this time) AIP is available for free online at ICAA web site.

Publication	Price for a complete copy	
	In Iraq	Outside Iraq
AIP – IRAQ	<i>Not currently available</i>	
ANNUAL subscription including NOTAM/AIC services	<i>Not currently available</i>	
AIP ring binder	<i>Not currently available</i>	

3.1.4 Aeronautical Information Regulation and Control (AIRAC) system. A complete AIRAC system is partially implemented in Iraq. However, in order to publish the operationally significant changes requiring amendments to charts, routes manuals, etc. such changes, whenever possible, will be issued as a NOTAM to allow early delivered to recipients before the date(s) of applicability. If possible the effective date of operationally significant changes will be set such to allow timely advice.

3.1.4.1 The following table describes Aeronautical Information Regulation And Control (AIRAC) effective dates and reference numbers (in parenthesis) for the Iraq AIP and Amendments.

Publication Date	AIRAC Effective Date
17 Nov 11 (1112)	12 Jan 12 (1201)
15 Dec 11 (1113)	09 Feb 12 (1202)
12 Jan 12 (1201)	08 Mar 12 (1203)
09 Feb 12 (1202)	05 Apr 12 (1204)
08 Mar 12 (1203)	03 May 12 (1205)
05 Apr 12 (1204)	31 May 12 (1206)
03 May 12 (1205)	28 Jun 12 (1207)
31 May 12 (1206)	26 Jul 12 (1208)
28 Jun 12 (1207)	23 Aug 12 (1209)
26 Jul 12 (1208)	20 Sep 12 (1210)
23 Aug 12 (1209)	18 Oct 12 (1211)
20 Sep 12 (1210)	15 Nov 12 (1212)
18 Oct 12 (1211)	13 Dec 12 (1213)

3.1.4.2 Changes/deletions/additions to the Iraq AIP are to be submitted at least 14 days prior to the publish date.

3.1.5 Pre-flight Information Service at Aerodromes. Pre-flight Information Service is provided at both Baghdad, Basrah, Sulaymaniah, Al Najaf and Erbil International aerodromes through self-briefing at the AIS units (Briefing Office) which is located at the terminal building and connected to the AIS Headquarters.

GEN 3.2 AERONAUTICAL CHARTS

1. RESPONSIBLE SERVICES

1.1 The civil aviation authority in Iraq provides ring of Aeronautical charts for use by all types of civil aviation. The Aeronautical Information Services produces the charts which are part of the AIP.

Charts can be obtain from the charts are produced in accordance with the provisions contained in annex 4 – Aeronautical.

2. MAINTENANCE OF CHARTS

2.1 The Aeronautical charts included in the AIP are kept up to date by amendment by AIP. Information concerning the planning for or issuance of new maps and charts are notified by Aeronautical Information Circular.

2.2 Incorrect information detected on published charts are corrected by NOTAM if they are of operational significance.

2.3 The authority responsible for the charts maintenance is Aeronautical Information Services in coordination with Jeppesen Company.

3. PURCHASE ARRANGEMENTS

3.1 The charts listed under point 5 of this section may be obtained from this address:

Postal Address	REPUBLIC OF IRAQ Iraq Civil Aviation Authority AIS – Headquarters
P.O.Box	: 55103 – BAGHDAD
AFS	: ORBIYJYX
Telephone Number	: ++964 8132419
Fax	: Nil
e-mail	: icaa_ais@yahoo.com

4. AERONAUTICAL CHART SERIES AVAILABLE

4.1 The following series or aeronautical charts are produced:

- a. Aerodrome Chart - ICAO
- b. Aerodrome lay out chart
- c. Aerodrome Ground Movement Chart - ICAO
- d. Aircraft Parking Docking Chart -ICAO
- e. Aerodrome Obstacle Chart – ICAO type (A)
- f. Aerodrome Obstacle Chart – ICAO Type (B)

- g. Instrument Approach Chart - ICAO
- h. Visual Approach Chart - ICAO
- i. Precision Approach Terrain Chart - ICAO
- j. Standard Departure Chart Instrument (SID) - ICAO
- k. Standard Arrival Chart Instrument (STAR) - ICAO
- l. En-Route Chart – ICAO

4.2 General Description of each series:

- a) **Aerodrome Chart - ICAO** is available for: BAGHDAD/Baghdad Intl, BASRAH/Basrah Intl, ERBIL/Erbil Intl and SULAIMANIYAH/Sulaimaniyah Intl, and are included in AD section. The charts provide flight crews with information that will facilitate ground movement to and from the runway and apron and portrays the major flight operation facilities at the Aerodrome.
- b) **Aerodrome Lay Out Chart** is available for: AL-NAJAF/AI-najaf Intl and SULAIMANIYAH/Sulaimaniyah Intl.
- c) **Aerodrome Ground Movement Chart - ICAO**: These charts are available for BAGHDAD/Baghdad Intl, BASRAH/Basrah Intl and ERBIL/Erbil Intl.
- d) **Aircraft Parking / Docking Chart – ICAO**: This chart is available for BAGHDAD/Baghdad Intl, BASRAH/Basrah Intl and ERBIL/Erbil Intl.
- e) **Aerodrome obstacle Chart - ICAO Type A**: Aerodrome obstacle Chart ICAO-Type A (operating limitation) are available AL-NAJAF/AI-najaf Intl ,ERBIL/Erbil Intl and SULAIMANIYAH/Sulaimaniyah Intl, and are included in AD section.
- f) **Aerodrome obstacle Chart - ICAO Type B**: Aerodrome obstacle Chart ICAO-Type B are available for ERBIL/Erbil Intl, and are included in AD section.
- g) **Instrument Approach Chart**: Instrument Approach Charts conforming to the specifications of Annex 4 are available for BAGHDAD/Baghdad Intl, BASRAH/Basrah Intl, AL-NAJAF/AI-najaf Intl, ERBIL/Erbil Intl and SULAIMANIYAH/Sulaimaniyah Intl Aerodromes where instrument approach procedures have been established. Separate charts are available for each procedure established for the aerodrome. These charts are included in Aerodrome section.
- h) **Visual Approach Chart**: Visual Approach Chart is available for SULAIMANIYAH/Sulaimaniyah Intl and is included in AD section. The chart provides a graphic presentation of the approach to the aerodrome by visual reference.
- i) **Precision Approach Terrain Chart – ICAO**. This chart is available for ERBIL/Erbil Intl. this chart provides 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.
- j) **Standard Departure Chart (SID)**: These charts are available for BAGHDAD/Baghdad Intl, ERBIL/Erbil Intl and SULAIMANIYAH/Sulaimaniyah Intl.
- k) **Standard Arrival Chart (STAR)**: These charts are available for ERBIL/Erbil Intl and SULAIMANIYAH/Sulaimaniyah Intl.
- l) **En-route Chart – ICAO**: This chart is produced for the entire AMMAN FIR. Provide information on radio navigation aids with appropriate symbols

identification, FREQ, and geographical coordinates, and an indication of all designated airspace, including lateral and vertical limits, and the appropriate class of airspace.

5. LIST OF AERONAUTICAL CHARTS AVAILABLE

The following Aeronautical charts available and part of the AIP :

Title of series	scale	Chart name and or number	Price (ID) OUTSIDE /INSIDE IRAQ	date
En-Route Chart ICAO (ERC)	Not to scale			1 July 2011
Aerodrome Chart ICAO (ADC)	1:30 000	BAGHDAD/Baghdad Intl		28 July 2011
	1:20 000	BASRAH/Basrah Intl		28 July 2011
	1:25 000	ERBIL/Erbil Intl		6 May 2010
	1:20 000	SULAIMANIYAH/Sulaimaniyah Intl		7 April 2007
AERODROME LAY OUT CHART	1:12 000	AL-NAJAF/AI-Najaf Intl		1 April 2007
	Not to Scale	SULAIMANIYAH/Sulaimaniyah Intl		
Aerodrome Ground Movement Chart (GMC)	1:11 100	BAGHDAD/Baghdad Intl		28 July 2011 6 May 2010
	1:11 100	BASRAH/Basrah Intl		
	1:25 000	ERBIL/Erbil Intl		
Aircraft Parking Docking Chart	1:10 700	BAGHDAD/Baghdad Intl		28 July 2011
	1:13 400	BAGHDAD/Baghdad Intl		28 July 2011
	1:10 000	BASRAH/Basrah Intl		28 July 2011
	Not to Scale	ERBIL/Erbil Intl		6 May 2010
Aerodrome obstacle chart –ICAO type (A)	1:20 000	AL-NAJAF /AI-Najaf Intl RWY 10 RWY 28		6 May 2010 6 May 2010
	1:20 000	ERBIL/Erbil Intl RWY18		
	1:20 000	ERBIL/Erbil Intl		

	1:20 000 1:50 000	RWY36 ERBIL/Erbil Intl RWY15/33 SULAIMANIYAH/Sulaimaniyah Intl RWY 13/31		6 May 2010 1 NOV 2007
Aerodrome Obstacle Chart – ICAO Type (B)	1:40 000	ERBIL/Erbil Intl		6 May 2010
Instrument Approach Chart (IAC)		AL-NAJAF /Al-Najaf Intl VOR RWY 28		
	1:250 000	BAGHDAD/Baghdad Intl ILS or LOC/DME RWY 15L		17 Dec 2009
	1:250 000	BAGHDAD/Baghdad Intl ILS or LOC/DME RWY 33R		17 Dec 2009
	1:250 000	BAGHDAD/Baghdad Intl VOR/DME RWY 33R		17 Dec 2009
	1:250 000	BAGHDAD/Baghdad Intl VOR/DME RWY 15L		17 Dec 2009
	1:300 000	BASRAH/Basrah Intl ILS or LOC/DME RWY 32		5 Mar 2009
	1:300 000	BASRAH/Basrah Intl VOR/DME RWY 32		5 Mar 2009
	1:250 000	BASRAH/Basrah Intl VOR/DME RWY 14		5 Mar 2009
	1:625 000	ERBIL/Erbil Intl ILS/DME Z RWY18		6 May 2010
	1:625 000	ERBIL/Erbil Intl ILS/DME Z RWY36		6 May 2010
	1:500 000	ERBIL/Erbil Intl ILS/DME Y RWY18		6 May 2010
	1:500 000	ERBIL/Erbil Intl ILS/DME Y RWY36		6 May 2010
		SULAIMANIYAH/Sulaimaniyah Intl ILS/DME–RWY 13		1 April 2007
		SULAIMANIYAH/Sulaimaniyah Intl ILS/DME–RWY 31		1 April 2007

		SULAIMANIYAH/Sulaimaniyah Intl VOR RWY 13 SULAIMANIYAH/Sulaimaniyah Intl VOR RWY 31		1 April 2007 1 April 2007
Visual Approach Chart (VAC)		SULAIMANIYAH/Sulaimaniyah Intl RWY 13/31		1 April 2007
Precision Approach Terrain Chart	1:2 500	ERBIL/Erbil Intl RWY18		6 May 2010
Standard Departure Chart Instrument (SID)	1:2 000 000	BAGHDAD/Baghdad Intl BAGHDAD ONE DEPARTURE PROCEDURE		26 August 2010
	1:400 000	ERBIL/Erbil Intl RWY18 UMESA 1A		6 May 2010
	1:400 000	ERBIL/Erbil Intl RWY36 UMESA 2B		6 May 2010
	1:500 000	ERBIL/Erbil Intl RWY18 SEVKO 1A		6 May 2010
	1:400 000	ERBIL/Erbil Intl RWY18 OTALO 1A		6 May 2010
	1:400 000	ERBIL/Erbil Intl RWY36 OTALO 2B		6 May 2010
	1:500 000	ERBIL/Erbil Intl RWY36 EMIDO 1A		6 May 2010
	Not to scale	SULAIMANIYAH/Sulaimaniyah Intl RWY 13		1 Nov 2007
	Not to scale	SULAIMANIYAH/Sulaimaniyah Intl RWY 31		1 Nov 2007
Standard Arrival Chart Instrument	1:500 000	ERBIL/Erbil Intl RWY18 LAVEN 2B		6 May 2010

(STAR)	1:500 000	ERBIL/Erbil Intl RWY36 LAVEN 3C		6 May 2010
	1:500 000	ERBIL/Erbil Intl RWY36 GAWAN 1A		6 May 2010
	1:400 000	ERBIL/Erbil Intl RWY18 GAZNA 1A		6 May 2010
	1:400 000	ERBIL/Erbil Intl RWY18 GAZNA 2B		6 May 2010
	1:400 000	ERBIL/Erbil Intl RWY36 LAVEN 1A		6 May 2010
	Not to scale	SULAIMANIYAH/Sulaimaniyah Intl RWY 13		1 Nov 2007
	Not to scale	SULAIMANIYAH/Sulaimaniyah Intl RWY 31		1 Nov 2007

6. INDEX TO THE WORLD AERONAUTICAL CHART (WAC) 1:1 000 000

NIL

GEN 3.3 AIR TRAFFIC SERVICES

3.3.1 Responsible Service

3.3.1.1 The Department of Air Traffic Services with the ICAA is the responsible authority for the provision of air traffic services within the area indicated under GEN 3.3.2. Contact details are at GEN 0.1.4.

3.3.1.2 Air traffic services are provided in accordance with the provision contained in the following ICAO documents:

Annex 2	Rules of the Air
Annex 11	Air Traffic Services
Doc 4444	Procedures for Air Navigation Services – Air Traffic Management
Doc 8168	Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS)
Doc 7030	Regional Supplementary Procedures

3.3.1.3 Differences to these provisions are detailed at GEN 1.7.

3.3.2 Air Traffic Services: Provided for the entire Baghdad FIR H24. This includes the territory of Iraq and its territorial waters.

3.3.3 Types of Air Traffic Services

3.3.3.1 A combined military and civilian air traffic service workforce provides the following types of air traffic services in Iraq:

3.3.3.1.1 **Aerodrome Control Service** is provided to aerodrome traffic within 5 NM below approximately 3000 ft AGL at aerodromes at which a control tower is operating, unless otherwise specified. The control function in respect of aerodrome and other traffic operating on the surface outside the landing area in use may be provided separately and is termed Surface Movement Control. See specific aerodromes for hours of operation.

3.3.3.1.2 **Apron Service** is provided to aircraft (under tow or power) operating on the apron area of an airport by air traffic control or another agency.

3.3.3.1.3 **Approach/Departure Control Service** is provided to flights within TMAs defined in ENR 2.1-5 Para 2.1.2. Approach/Departure control service will be provided jointly with aerodrome control service, unless specified otherwise in AIP Book 3 - Aerodromes.

3.3.3.1.4 **Air Traffic Service (ATS) Surveillance Service** is the predominant means of control at Baghdad, Basrah and, when activated by military authorities, Kirkuk, and Mosul. ATC surveillance service may include the following:

3.3.3.1.4.1 ATC Surveillance **Service** provides positive traffic separation (except between VFR flights in VMC in Class C, D and E airspace) and the monitoring of aircraft navigation, to identified traffic in controlled airspace.

3.3.3.1.4.2 ATC Surveillance **Information Service** is a service provided by ATC within ATS Surveillance System coverage. It provides traffic, position and navigation information to flights not receiving a separation service and is available to improve

situational awareness and assist pilots in avoiding collisions with other aircraft. At pilot request, and, if possible, a controller providing ATC surveillance services will suggest a course of action to avoid other aircraft. Ultimate responsibility for aircraft and terrain avoidance rests with the pilot in command. This service may be provided in Class G airspace to IFR flights in relation to other IFR flights and, unless impracticable, in relation to observed VFR flights. It may also be provided to VFR flights in Class E and G airspace.

3.3.3.1.4.3 **Final Approach Service** provides a precision or surveillance radar service for final approach.

3.3.3.1.4.4 **Emergency Service** provides navigation assistance to aircraft in distress or experiencing navigational difficulties.

3.3.3.1.5 **Flight Information and SAR Alerting Services** are provided concurrently with the services shown above. In areas where air traffic control services are not provided, flight information and SAR alerting services are not provided by ATS units.

3.3.3.2 In some circumstances a number of services may operate under a common callsign and can be on a common or separate frequency:

3.3.3.2.1 **Clearance Delivery:** used by the Airways Clearance Delivery (ACD) service when established on a discrete frequency.

3.3.3.2.2 **Ground:** used by Surface Movement Control and Apron Service (if provided by ATC) when established on a discrete frequency. At some locations, this service also provides the Airways Clearance Delivery service on the same frequency.

3.3.3.2.3 **Tower:** used by Aerodrome Control and occasionally Aerodrome/Approach Control when these services are combined and provided by one agency.

3.3.3.2.4 **Approach:** used by Approach Control (APP) service when established on a discrete frequency and Approach/Departure Control when combined on the same frequency.

3.3.3.2.5 **Departure:** used by Departure Control (DEP) service when established on a discrete frequency.

3.3.3.2.6 **Center:** used for Area Control Center (ACC) service.

3.3.4 Coordination Between the Operator and Air Traffic Services. Coordination between the operator and traffic services is affected in accordance with 2.15 of ICAO Annex 11 and 11.2.1.1.4 and 11.2.1.1.5 of Chapter 11 of the Procedures for Air Navigation Services - Air Traffic Management (Doc 4444 ATM/501).

3.3.5 Minimum Flight Altitude. The minimum flight altitudes on the ATS routes published for the Baghdad FIR have been determined so as to ensure at least 1 000 ft (300 m) vertical clearance above the highest obstacle within 5 NM either side of the centreline of the route.

3.3.6 ATS Units Address List

Unit name	Postal address	Telephone NR	Telefax NR	Telex NR	AFS/AFTN Address
BASRAH TWR	Department of Air Traffic Services, Basrah Int'l Airport, Basrah, Iraq	+964(0)7801 277511 +964 (0) 780 996 6715	To be determined	207023 BIA IK	ORMMZQZX
BAGHDAD TWR	Department of Air Traffic Services, BAGHDAD Int'l Airport, Baghdad, Iraq	+964 (0) 790 165 5461	To be determined	212500 YIA IK	ORBIZQZX
BAGHDAD ACC (or APP, or RADIO)	Department of Air Traffic Services, BAGHDAD Int'l Airport, Baghdad, Iraq	+964 (0) 790 165 5461	To be determined	212500 YIA IK	ORBIZGZX
<u>NAJAF TWR</u>	<u>Department of Air Traffic Services, Al-Najaf Al-Ashraf Int'l Airport Al-Najaf Al-Ashraf Iraq</u>				<u>ORNIZTZX</u>
<u>NAJAF OPS</u>					<u>ORNIYNYX</u>

GEN 3.4 COMMUNICATION SERVICES

3.4.1 Responsible Service

3.4.1.1 The responsible service for the provision of telecommunication and navigation facility services in Iraq is The ICAA. The address and contact details are listed at GEN 0.1.4.

3.4.1.2 The service is provided in accordance with provisions contained in the following ICAO documents:

Annex 10 -	Aeronautical Telecommunications
Doc 8400-	Procedures for Air Navigation Services – ICAO Abbreviations and Codes (PANS-ABC)
Doc 8585-	Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services
Doc 7030-	Regional Supplementary Procedures
Doc 7910-	Location Indicators

3.4.2 Area of Responsibility. Communication services are provided for the entire Baghdad FIR. Arrangements for such services on a continuing basis should be made with the Director of Communication Services. Responsibility for the day-to-day operation of these services is vested in Station Communication Officers located at Basrah and Baghdad International Aerodromes. Inquiries, suggestions or complaints regarding any telecommunication service should be referred to the relevant communication officer or to the Director of Communication Services, as appropriate.

3.4.3 Types of Services

3.4.3.1 Radio Navigation Services.

The following types of radio aids to navigation are available:

VHF Omni-directional Radio Range	(VOR)
Distance Measuring Equipment	(DME)
Tactical Air Navigation	(TACAN)
Non Directional Radio Beacons	(NDB)
Instrument Landing System	(ILS)

3.4.3.2 **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 air-ground agency that exercises control in the area in which the aircraft is flying. Aircraft should maintain a continuous watch on the appropriate frequency of the control station and should not abandon watch, except in an emergency, without informing the control station.

3.4.3.3 **Fixed Service.** The messages to be transmitted over the Aeronautical Fixed Service/Aeronautical Fixed Telecommunication Network (AFS/AFTN) are accepted only if they satisfy the requirements of ICAO Annex 10, Vol. II Chapter 3.3; they are prepared in the form specified in ICAO Annex 10; and the text on an individual message does not exceed 200 groups. General aircraft operating agency messages

are only accepted for transmission to countries that have agreed to accept Class B traffic.

3.4.3.4 Broadcasting Services

3.4.3.4.1 Sub-area meteorological broadcasts (VOLMET radio telegraphy broadcasts) are available for the use by aircraft in flight. Full details are given at GEN 3.5.

3.4.3.4.2 **Automatic Broadcast Services** in the form of Automatic Terminal Information Service (ATIS) is established at select airports. The normal operational information required by aircraft prior to take-off or landing is broadcast automatically and continuously either on a discrete frequency or on the voice channel of one or more radio-navigation aids. The broadcast may be pre-recorded or computerized.

3.4.3.4.3 The following information is transmitted on the ATIS:

Any available information on significant meteorological phenomena in the approach and climb-out areas including wind shear, and information on recent weather of operational significance;

ON FIRST CONTACT WITH [TERMINAL CONTROL FUNCTION] [GROUND, TOWER OR APPROACH], NOTIFY RECEIPT OF ATIS INFORMATION CODE

3.4.3.5 Language used is **English**.

3.4.3.6 Communication facilities are under reconstruction. Details of the various communication agencies available for enroute traffic can be found at ENR 2.1 and ENR 3.3.1. Details of the facilities available at individual aerodromes can be found in the relevant sections of Book 3 (AD). In the case where a facility is serving both the enroute traffic and the aerodromes, details are given in the relevant sections of Book 2 (ENR) and Book 3 (AD).

GEN 3.5 METEOROLOGICAL SERVICES

3.5.1 Responsible Service. Aircraft operators are responsible for obtaining meteorological information from available airport authorities, where available or via commercial services as specified by the operating company or individual. Site specific weather information is available to civil operators from the following websites: <http://adds.aviationweather.noaa.gov/> or <http://www.baseops.net/metro.html>. Military organizations may derive information from the following websites: <https://weather.afwa.af.mil> or <https://ows.shaw.af.mil/>. The appropriate weather station identifier/designator is listed in the relevant AERODROME entry at AD 2.1. Meteorological Service obtained from United States military sources is provided for the entire Baghdad FIR and may be obtained by those organizations authorized military access to electronic media, those operators with access to the World Wide Web or at airports where limited meteorological services are provided.

GEN 3.6 SEARCH AND RESCUE (SAR)

3.6.1 Responsible Service(s)

3.6.1.1 Search and rescue service (SAR) will be established to provide an early help and rescue to passengers and aircrafts' crews, which have found themselves in a state of emergency on territory of Iraq and in Baghdad FIR.

3.6.1.2 There is currently **no national SAR capability** in Iraq.

3.6.1.3 The CFACC can provide limited SAR capability by re-tasking available aircraft or helicopters.

3.6.1.4 The Joint Personnel Recovery Center (JPRC) in the Combined Air Operations Center (CAOC) has the responsibility for co-ordination of SAR provision.

3.6.1.5 The search and rescue service will be provided in accordance with respective military publications.

3.6.2 Area of Responsibility

3.6.2.1 The search and rescue service is carried out on territory and airspace covered by CFACC and their subordinate units.

3.6.2.2 If a state of emergency of an aircraft controlled by ATS unit arises, the ATS unit shall notify JPRC immediately.

3.6.3 Types of Services

3.6.3.1 The service execution in the JPRC is continuous H24.

3.6.4 Search and Rescue Agreements

3.6.4.1 An agreement is established between the Search and Rescue service of Iraq and the search and rescue services of neighbouring Arabian States regarding the provision of assistance upon receipt by the former of letter requesting aid. This agreement provides for facilitation of the overflight and landing of search and rescue aircraft on prior permission and after dispatch of a flight plan (with the exception of the prohibited areas), for similar facilitation of the entry of SAR surface vessels and their operation in border areas, for notification of entry to the authorities controlling entry, for defraying the costs of stop-over's, accommodation and transportation of crew members, and for direct communication between the various SAR services on all common search and rescue matters.

3.6.4.2 Requests for the 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 Rescue Coordination Centre. Instructions as to the control which will be exercised on entry of such aircraft and/or personnel will be given by the Rescue Coordination Centre in accordance with a standing plan for the conduct of search and rescue in its area.

3.6.5 Search and Rescue Facilities

3.6.5.1 The Government of Iraq is in the process of developing a SAR capability. In the interim, in the event SAR action is deemed necessary, airport/aircraft authorities

are to contact the Baghdad ACC on 0790-165-4653 and state the nature of occurrence. Baghdad ACC will inform the appropriate agency.

3.6.6 Procedures and/or Signals Employed by Rescue Aircraft

3.6.6.1 Procedures. Procedures for pilots-in-command observing an accident or intercepting a distress call/and or message are outlined in Annex 12, chapter 5 to the Convention on International Civil Aviation.

3.6.6.2 Communications

3.6.6.2.1 Transmission and reception of distress message within the Baghdad FIR are handled in accordance with 5.3 Chapter 5, volume II of Annex 10 to the Convention on International Civil Aviation.

3.6.6.2.2 For communication during search and rescue operation, use the codes and abbreviations in ICAO codes and abbreviation (Doc 8400).

3.6.6.2.3 Information concerning positions, callsigns, frequencies and hours of operation of Iraqi aeronautical stations and navigation aids is published in GEN 3.4.

3.6.6.2.4 Aeronautical stations will, on request, guard the international emergency frequency 121.5 MHz. All coast stations will guard the international distress frequencies.


3.6.6.2.5 Rescue aircraft belonging to permanent Search and Rescue units use the callsign RESCUE and additional identification marks (ALFA, BRAVO, CHARLE, etc.).

3.6.6.3 Search and Rescue Signals



3.6.6.3.1 The search and rescue signals to be used are those prescribed in ICAO Appendix to Annex 12 to the Convention on International Civil Aviation — Search and Rescue.

3.6.7 Ground–air visual signal code

3.6.7.1 Ground–air visual signal code for use by survivors

N°	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	

3.6.7.2 Ground–air visual signal code for use by rescue units

N°	MESSAGE	CODE SYMBOL
1	Operation completed	LLL
2	We have found all Personnel	<u>LL</u>
3	We have found only some personnel	++
4	We are not able to continue, returning to base	XX
5	Have divided into two groups each proceeding in direction indicated	
6	Information received that aircraft is in this direction	
7	Nothing found, will continue to search	NN

3.6.7.3 Symbols shall be at least 2.5 meters (8 ft) long and shall be made as conspicuous as possible.

NOTE 1.— Symbols may be formed by any means such as: strips of fabric, parachute material, pieces of wood, stones or such like material; marking the surface by tramping, or staining with oil.

NOTE 2.— Attention to the above signals may be attracted by other means such as radio, flares, smoke and reflected light.

3.6.8 Air–to–ground signals

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

- a. during the hours of daylight:
 - by rocking the aircraft's wings;
- b. during the hours of darkness:
 - flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights

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

GEN 4 FEES AND CHARGES
GEN 4.1 AERODROME CHARGES

4.1.1 General The charges set out hereunder apply to all government aerodromes administrated by the Iraq Civil Aviation Authority. Unless an alternative arrangement has been made, all charges for use of the aerodrome are payable by the pilot of the aircraft before the aircraft departs from the aerodrome.

4.1.2 Landing Fees and Charges (\$US)

4.1.2.1 Landing fees and charges are based on aircraft types grouped according to GEN 4.1.2.2 below. Fees shall be paid to the Department of Accountancy through the ICAA. Landing fees for fixed wing aircraft will not be less than \$350.

4.1.2.2 Fees are structured as follows:

4.1.2.2.1 C560, Learjet, Jetstream, DH6 will be levied \$350;

4.1.2.2.2 CL60, C750, F50, F27, ATR42, HS748, HS125, DA90, and YAK40 will be levied \$450;

4.1.2.2.3 G2, G3, G4, G5, BE2, TU124, TU134, F28, CRJ, EM4, CV580, ATR72, and BAC111 will be levied \$500;

4.1.2.2.4 AN8, B717, B737 (series 100, 200, 500, 600), DC9, IL18, MD82, F70, F100, YAK42 will be levied \$900;

4.1.2.2.5 A320, A321, B727, B737 (series 300, 400, 700, 800), C130, MD83/87/88/90, TU104, TU154 will be levied \$1150;

4.1.2.2.6 B757, TU204 will be levied \$1500;

4.1.2.2.7 B707, C160 will be levied \$1900;

4.1.2.2.8 A310, B767, IL62, IL76, DC8 will be levied \$2200;

4.1.2.2.9 A300, A330, A340, B777, DC10, IL86, IL96, MD11, and L1011 will be levied \$2500;

4.1.2.2.10 AN124, B747 will be levied \$3150.

4.1.2.2.11. Aircraft larger than those listed above will be levied \$3350.

4.1.2.2.12. Helicopters will be levied \$175.

4.1.3 Fees for Additional Ground Handling. Additional fees for services will be levied as follows:

4.1.3.1 Wheelchair service will be levied at \$35 per wheelchair passenger;

4.1.3.2 Meet and assist service will be levied \$28 per passenger per hour or part thereof;

4.1.3.3 Ground power (100KVA) service will be levied at \$155 per hour of part thereof;

4.1.3.4 Air starter unit service will be levied at \$190 per start cycle per unit;

4.1.3.5 Pushback service will be levied at \$160 per service;

4.1.3.6 Towing service will be levied at \$310 per hour;

4.1.3.7 Air-conditioning unit (106 cooling tons) service will be levied at \$150 per hour or part thereof.

4.1.3.8. Waiting fees apply upon shutdown of aircraft engines.

4.1.3.8.1. No charge for first two hours.

4.1.3.8.2. Two hours and one minute to four hours, additional surcharge of 15% of applicable landing fee in accordance with section 4.1.2.

4.1.3.8.3. Four hours and one minute to six hours, additional surcharge of 25% of applicable landing fee in accordance with section 4.1.2.

4.1.3.8.4. Six hours and one minute to eight hours, additional surcharge of 35% of applicable landing fee in accordance with section 4.1.2.

4.1.3.8.5. In excess of eight hours to 24 hours, additional surcharge of 50% of applicable landing fee in accordance with section 4.1.2.

4.1.3.8.6. Additional surcharge of 30% of the waiting fee from 2400 to 0600 local time.

4.1.3.8.7. Additional towing premium. A \$200 surcharge will be levied in those cases in which towing services are required from the runway to the parking area.

4.1.4. Miscellaneous Charges.

4.1.4.1. Security/guarding of aircraft. An additional surcharge of \$100 will be levied for the first three hours following aircraft engine shutdown. An additional surcharge of \$10 per hour will apply after the first three hours.

4.1.4.2. Security X-ray fee. In those cases in which screening of baggage and/or cargo is required, a 10% surcharge based on the landing fee identified in 4.1.2 will be applied.

4.1.5. Overflight fees.

4.1.5.1. A fee of \$375 will be levied for overflying Iraqi territory.

4.1.6. Evening Operations. Evening operations are those hours that fall within the hours of legal sunset and sunrise.

4.1.6.1. Evening landing fee premium. In addition to Landing Fees in section 4.1.2., an additional surcharge of \$200 will apply.

4.1.6.2. Additional evening parking surcharge of 30% of applicable landing fee in accordance with section 4.1.2.

4.1.7 Exemptions/Reductions. According to Regulation No. 26 of 1987, the following aircraft are exempt from the levy of the fees and charges:

4.1.7.1. Aircraft belonging to the United Nations and its specialized agencies and the aircraft belonging to the Red Crescent and Red Cross societies.

4.1.7.2. Non-commercial Iraqi government aircraft including aircraft belonging to the Youth Training Organizations.

4.1.7.3. Aircraft belonging to the Arab League and its specialized agencies.

4.1.7.4. Aircraft on official delegations to Iraq provided that the exemption is made either on a reciprocal basis, or by prior approval/recommendation of the Ministry of Foreign Affairs or concerned Iraqi Minister.

4.1.7.5. Aircraft engaged in search and rescue operations free of charge.

4.1.7.6. Aircraft on test flights will be exempted, provided that the relevant air traffic control agency is informed in advance.

4.1.7.7. Aircraft conducting an emergency landing at the aerodrome of departure provided that it will not land thereafter at an aerodrome other than the planned destination aerodrome.

4.1.7.8. Aircraft transporting, free of charge, catering materials for disaster relief and/or humanitarian aid.

4.1.8 Payment of Fees and Charges. Landing fees and charges will be levied directly to the pilot in command of the aircraft or whoever represents him/her (in the case of airlines with offices in Iraq). Operators without representatives in Iraq must pay all fees and charges prior to departure of each flight. Where operators are invoiced, the payment for charges, services and landing fees should be made within 30 days of the date the fees and charges were incurred. Otherwise, an additional fee for 'delay interest' shall be charged at the rate of 7% of the total invoice per day until the entire debt is paid.

4.1.9 Airport Tax Fee should be as follows:

4.1.9.1 For Passengers on International Flight (15000) Iraqi Dinars.

4.1.9.2 For Passengers on Domestic Flight (1000) Iraqi Dinars.

GEN 4.2 AIR NAVIGATION SERVICES CHARGES

4.2.1. General. Aircraft that transit the Baghdad FIR without landing will be levied \$375. All air navigation charges of Iraq will be billed and collected by the International Air Transport Association (IATA) on behalf of the State of Iraq as represented by the ICAA. IATA can be contacted via:

International Air Transport Association
Route De L'Aéroport 33
P.O. Box 416
CH-1215 Geneva 15 Airport
Switzerland

AFTN address: LSGGIATA

SITA address: GVALDXB

Commercial Fax: +41 (22) 770 2654

Commercial Phone (Mr. Bo Bleeg) +41 (22) 770 2644

Overflight approval must be granted by ICAA before overflying the Baghdad FIR. See procedures in GEN 1.2.3. to receive approval

Approvals are managed by the MoT on behalf of ICAA.

BOOK 2 – EN-ROUTE (ENR)**Page****ENR 0.6 TABLE OF CONTENTS TO BOOK 2****ENR 0**

ENR 0.1	PREFACE.....	Not applicable
ENR 0.2	RECORD OF AIR AMENDMENT.....	Not applicable
ENR 0.3	RECORD OF AIR SUPPLEMENTS.....	Not applicable
ENR 0.4	CHECKIST OF AIP.....	Not applicable
ENR 0.5	LIST OF HAND AMENDMENT TO THE AIP.....	Not applicable
ENR 0.6	TABLE OF CONTENTS TO BOOK 2.....	
	ENR 0.6-1	

ENR 1 GENERAL RULES AND PROCEDURES

ENR 1.1	General Rules.....	ENR 1.1-1
ENR 1.1.1	Minimum Safe Height.....	ENR 1.1-1
ENR 1.1.2	Flight Restrictions.....	ENR 1.1-1
ENR 1.1.3	Flight Rules – General.....	ENR 1.1-1
ENR 1.1.4	Terminal Areas and Non-Controlled Aerodromes...	ENR 1.1-2
ENR 1.1.5	Restrictions to Civil Aircraft Operations	ENR 1.1-2
ENR 1.2	Visual Flight Rules.....	ENR 1.2-1
ENR 1.2.1	Visual Meteorological Conditions.....	ENR 1.2-1
ENR 1.2.2	Altitude and Airspace Restrictions.....	ENR 1.2-1
ENR 1.2.3	Air Traffic Services.....	ENR 1.2-2
ENR 1.2.4	VFR Flights at Night	ENR 1.2-2
ENR 1.2.5	Special VFR.....	ENR 1.2-2
ENR 1.2.6	Change to Instrument Flight Rules.....	ENR 1.2-3
ENR 1.3	Instrument Flight Rules.....	ENR 1.3-1
ENR 1.3.1	IFR Departure... ..	ENR 1.3-1
ENR 1.3.2	Rules Applicable to all IFR Flights.....	ENR 1.3-1
ENR 1.3.3	Rules Applicable to IFR Flights in Controlled Airspace	ENR 1.3-1
ENR 1.3.4	Rules Applicable to IFR Flights Outside Controlled Airspace.....	ENR 1.3-1
ENR 1.3.5	Change From IFR Flight to VFR Flight.....	ENR 1.3-2
ENR 1.4	ATS Airspace Classification.....	ENR 1.4-1
ENR 1.4.1	Description of Airspace in Baghdad FIR.....	ENR 1.4-1
ENR 1.4.2	ATS Airspace Classes, Services Provided and Flight Requirements.....	ENR 1.4-2
ENR 1.4.3	Depiction of Airspace Structure Within Baghdad FIR	ENR 1.4-4
ENR 1.4.4	Division of Responsibility Between ATS units and Class E TMA.....	ENR 1.4-5

ENR 1.5	Holding, Approach and Departure Procedures.....	ENR 1.5-1
ENR 1.5.1	General.....	ENR 1.5-1
ENR 1.5.2	Arriving Flights.....	ENR 1.5-1
ENR 1.5.3	Departing Flights.....	ENR 1.5-3
ENR 1.5.4	Night/ Low Light Military Airlift Operations.....	ENR 1.5-3
ENR 1.5.5	Signals to Aircraft.....	ENR 1.5-4
ENR 1.6	ATC Surveillance Services and Procedures	ENR 1.6-1
ENR 1.6.1	Services and Coverage	ENR 1.6-1
ENR 1.6.2	Application of ATC Surveillance Service.....	ENR 1.6-1
ENR 1.6.3	ATC Surveillance System and Radio Failure Procedures.....	ENR 1.6-1
ENR 1.6.4	Diagram of ATC Radar Coverage.....	ENR 1.6-2
ENR 1.7	Altimeter Setting Procedures.....	ENR 1.7-1
ENR 1.7.1	General.....	ENR 1.7-1
ENR 1.7.2	Provision of Altimeter Setting Information.....	ENR 1.7-1
ENR 1.7.3	Cruising levels Within the Baghdad FIR.	ENR 1.7-2
ENR 1.8	Regional Supplementary Procedures.....	ENR 1.8-1
ENR 1.8.1	Overflights.....	ENR 1.8-1
ENR 1.8.2	Separation.....	ENR 1.8-1
ENR 1.8.3	International Agreements.....	ENR 1.8-1
ENR 1.8.3.1	Baghdad/Ankara FIR Boundary Procedures	ENR 1.8-1
ENR 1.8.3.2	Baghdad/Amman FIR Boundary Procedures	ENR 1.8-2
ENR 1.8.3.3	Baghdad/Damascus FIR Boundary Procedures	ENR 1.8-2
ENR 1.8.3.4	Baghdad/Kuwait FIR Boundary Procedures	ENR 1.8-3
ENR 1.8.3.5	Baghdad/Jeddah FIR Boundary Procedures	ENR 1.8-4
ENR 1.8.3.6	Baghdad/Tehran FIR Boundary Procedures	ENR 1.8-5
ENR 1.9	Air Traffic Flow Management (ATFM).....	ENR 1.9-1
ENR 1.10	Flight Planning.....	ENR1.10-1
ENR 1.10.1	General.....	ENR1.10-1
ENR 1.10.2	Mandatory Timings for Flight Plans.....	ENR1.10-1
ENR 1.10.3	Flight Plan Messages.....	ENR1.10-1
ENR 1.10.4	Procedures Applicable to Operators (Including Pilots)	ENR1.10-1
ENR 1.11	Addressing of Flight Plan Messages	ENR1.11-1
ENR 1.11.1	General.....	ENR1.11-1
ENR 1.11.2	Addressee Indicators for Messages within Baghdad FIR.....	ENR1.11-1
ENR 1.12	Interception of Civil Aircraft	ENR1.12-1
ENR 1.12.1	Interception Procedures.....	ENR1.12-1
ENR 1.12.2	Phraseology During Interception.....	ENR1.12-1
ENR 1.12.3	Signals for use in the Event of Interception.....	ENR1.12-2

ENR 1.13	Unlawful Interference	ENR1.13-1
ENR 1.13.1	General.....	ENR1.13-1
ENR 1.13.2	Procedures.....	ENR1.13-1
ENR 1.14	Air Traffic Incidents	ENR1.14-1
ENR 1.14.1	Definitions for Aircraft Proximity (AIRPROX).....	ENR1.14-1
ENR 1.14.2	Definition of Air Traffic Incidents.....	ENR1.14-1
ENR 1.14.3	Designation of Air Traffic Incidents.....	ENR1.14-1
ENR 1.14.4	Use of the Air Traffic Incident Report Form.....	ENR1.14-2
ENR 1.14.5	Reporting Procedures (Including In-Flight Procedures).....	ENR1.14-2
ENR 1.14.6	Purpose of Reporting and Handling of the Form...	ENR1.14-3
ENR 1.14.7	Air Traffic Incident Report Form.....	ENR1.14-3
ENR 2	AIR TRAFFIC SERVICES AIRSPACE	
ENR 2.1	Flight Information Regions (FIR) and Terminal Control Areas (TMA).....	ENR 2.1-1
ENR 2.1.1	Area Control Centers (ACC).....	ENR 2.1-1
ENR 2.1.2	Terminal Control Areas (TMA).....	ENR 2.1-4
ENR 2.1.3	Control Zones.....	ENR2.1-12
ENR 3	ATS ROUTES	
ENR 3.1	Lower ATS Routes.....	ENR 3.1-1
ENR 3.2	Upper ATS Routes.....	ENR 3.2-1
ENR 3.3	Area Navigation Routes.....	ENR 3.3-1
ENR 3.3.1	Rules applicable to air routes in Baghdad FIR.....	ENR 3.3-1
ENR 3.3.2	Approved ATS routes entry/exit points for Baghdad FIR	ENR 3.3-9
ENR 3.4	Helicopter Routes.....	ENR 3.4-1
ENR 3.5	Other Routes... ..	ENR 3.5-1
ENR 3.5.1	Preferred Routing.....	ENR 3.5-1
ENR 3.6	Enroute Holding.....	ENR 3.6-1
ENR 4	RADIO NAVIGATION AIDS/SYSTEMS	
ENR 4.1	Radio Navigation Aids- Enroute.....	ENR 4.1-1
ENR 4.2	Special Navigation Systems.....	ENR 4.2-1
ENR 4.3	Name – Code Designators for Significant Points.....	ENR 4.3-1
ENR 4.4	Aeronautical Ground Lights – Enroute	ENR 4.4-1
ENR 5	NAVIGATION WARNINGS	
ENR 5.1	Prohibited, Restricted and Danger Areas.....	ENR 5.1-1
ENR 5.1.1	Introduction.....	ENR 5.1-1
ENR 5.1.2	Definitions.....	ENR 5.1-1

ENR 5.1.3	Designations.....	ENR 5.1-1
ENR 5.1.4	Prohibited Areas.....	ENR 5.1-2
ENR 5.1.5	Restricted Areas.....	ENR 5.1-2
ENR 5.1.6	Danger Areas.....	ENR 5.1-3
ENR 5.2	Military Exercise and Training Areas and ADIZ.....	ENR 5.2-1
ENR 5.2.1	Military Operations Areas.....	ENR 5.2-1
ENR 5.3	Other Activities of a Dangerous Nature and Other Potential Hazards.....	ENR 5.3-1
ENR 5.4	Air Navigation Obstacles – Enroute.....	ENR 5.4-1
ENR 5.5	Aerial Sporting and Recreational Activities.....	ENR 5.5-1
ENR 5.6	Bird Migration and Areas with Sensitive Fauna.....	ENR 5.6-1
ENR 6	ENROUTE CHART – ICAO	
ENR 6.1	Enroute Chart.....	ENR 6.1-1

ENR 1 GENERAL RULES AND PROCEDURES**ENR 1.1 GENERAL RULES**

The rules and procedures applicable to air traffic control in the Baghdad FIR conform to Annexes 2 and 11 to the Convention on International Civil Aviation and to those portions of the ICAO Doc 4444 Procedures for Air Navigation Services – Rules of the Air and Air Traffic Services applicable to aircraft and of the Letters of Agreement.

1.1.1 Minimum Safe Height

1.1.1.1 Civilian aircraft shall not be flown below the minimum safe height except when necessary for take-off and landing. The minimum safe height is the height at which neither an unnecessary noise disturbance nor unnecessary hazards to persons and property in the event of an emergency landing are to be feared. However, over cities, other densely populated areas and assemblies of persons, this height shall be at least 1 000 ft (300 m) above the highest obstacle within a radius of 600 m of the aircraft. Elsewhere, this height shall be at least 500 ft (150 m) above ground or water.

1.1.1.2 Gliders and balloons may be operated below a height of 500 ft (150 m) if necessary for the kind of operation and if danger to persons and property is not to be feared. Aircraft shall not be flown below bridges and similar constructions nor below overhead lines and antennas. For flights conducted for special purposes, the local aeronautical authority may grant exemptions.

1.1.2 Flight Restrictions. All aircraft flying in Iraqi airspace are required to communicate with ATC unless authorized under a letter of agreement with the ICAA.

1.1.3 Flight Rules – General

1.1.3.1 Within Class A airspace all civil aircraft must operate in accordance with Instrument Flight Rules (IFR) and be in two-way communication with the appropriate air traffic service unit at all times.

1.1.3.2 Within Class E airspace all civil aircraft must plan to and operate IFR within the Baghdad FIR, including the requirement to carry IFR fuel reserves. However, civil aircraft are required to operate VFR below 12 000 ft AMSL whenever possible. Civil aircraft must notify ATC if unable to operate VFR, i.e. VMC does not exist, when below 12 000 ft using the phrase “UNABLE VFR”. Civil aircraft are to adopt VFR operations as soon as they do obtain VMC using the phrase “*callsign* CANCELLING MY IFR FLIGHT”.

1.1.3.2.1 Effective June 8, 2010: Civil aircraft are required to operate VFR below 12,000 ft AMSL, except for arrivals and departures on IFR flight plans into and out of the following airports: ORBI, ORMM, ORER, ORKK, and ORSU.

1.1.3.3 Except as specified above, in airspace where VFR operations are approved, flights should be carried out in accordance with VFR as specified in ICAO Annexes 2 and 11. Compliance with these procedures does not relieve pilots of their responsibility to see and avoid other aircraft, or to maintain safe terrain/obstacle clearance at all times when operating VFR.

1.1.3.4 Civil aircraft are advised that military aircraft may cross and/or temporarily enter Class A airspace, with an ATC clearance to do so, but shall monitor the appropriate frequencies.

1.1.4 Terminal Areas and Non-Controlled Aerodromes

1.1.4.1 Radio contact with ATC on the designated frequency is mandatory within terminal airspace. If unable to maintain contact with Approach Control, or in case of communications failure, arrivals shall attempt to contact Tower prior to entering Class D airspace. Departing aircraft shall squawk the appropriate Mode 3/A prior to departure. For airports without an approach control service, contact relevant ATC facility as soon as possible.

1.1.5 Restrictions to Civil Aircraft Operations.

1.1.5.1 Civil aircraft are approved in general to operate 24 hours a day but are to receive approval from the airport prior to doing so.

ENR 1.2 VISUAL FLIGHT RULES

1.2.1 Visual Meteorological Conditions

1.2.1.1 Limitations of weather service preclude civil VFR flight plans or flights conducted entirely in VMC. Pilots must be qualified and capable of conducting flight under IFR. Except when operating as a special VFR flight in Class D airspace, VFR flights within Terminal Control Areas shall be conducted so that the aircraft is flown in conditions of visibility and distance from cloud equal to or greater than those specified in the following table:

Airspace Classification			
	A*, C, D, E	G	
		Above 3 000 ft AMSL or 1 000 ft AGL whichever is higher	At and below 3 000 ft or 1 000 ft AGL whichever is higher
Distance from cloud	1 500 m horizontal 1 000 ft vertical		Clear of cloud and in sight of ground or water
Visibility	8 km above 10 000 ft AMSL 5 km at and below 10 000 ft AMSL		5 km

* VFR flight not permitted in Class A airspace.

1.2.1.2 Except when a clearance for Special VFR flight is obtained from an air traffic control unit, VFR flights shall not take off or land at an aerodrome within a control zone, or enter the aerodrome traffic zone or traffic pattern:

- When the cloud ceiling is less than 1 500 ft (450 m); and/or
- When the ground visibility is less than 5 km.

1.2.2 Altitude and Airspace Restrictions

1.2.2.1 Unless authorized by the appropriate ATS authority, VFR flights shall not be operated:

- Within Class A airspace;
- At transonic and supersonic speeds.

1.2.2.2 Except when necessary for take-off or landing, or by permission from the appropriate authority, a VFR flight shall not be flown:

- Over the congested areas of cities, towns or settlements or over an open-air assembly of persons at a height less than 1 000 ft (300 m) above the highest obstacle within a radius of 600 m of the aircraft;
- Elsewhere, at a height less than 500 ft (150 m) above the ground or water.

1.2.2.3 Except when otherwise instructed in air traffic control clearances VFR flights in level cruising flight when operated above 3 000 ft (900 m) from the ground or water shall be conducted at a flight level appropriate to the track as specified in the Tables of Cruising Levels in Appendix 3 to Annex 2 to the Convention on International Civil Aviation.

1.2.3 Air Traffic Services

1.2.3.1 VFR flights shall comply with the provisions of air traffic control instructions:

- a. When operating within Class C and D airspace;
- b. When forming part of aerodrome traffic at controlled aerodromes; or
- c. When operated as Special VFR flights.

1.2.3.2 A VFR flight operating within or into designated controlled airspace, shall maintain continuous air-ground voice communication watch on the appropriate communication channel of, and report its position as necessary to, the air traffic services unit providing air traffic services.

1.2.3.3 In accordance with Annex 11 to the Convention on International Civil Aviation, VFR flights transiting Class E or G airspace are not compelled to maintain continuous communications with the air traffic services unit (Iraq exception crossing a Class E air route (see ENR 1.4-2).

1.2.3.4 Instrument flight rules flights arriving at all Airports that have notified the air traffic services unit “*callsign* CANCELLING MY IFR FLIGHT” in accordance with ENR 1.3.5 (ENR 1.1.3.2), shall maintain continuous air-ground voice communication watch on the appropriate channels, throughout the flight.

1.2.4 VFR Flights at Night. In addition to previously stated rules for VFR, VFR flights at night must be conducted at or above an altitude that ensures at least 1 000 ft (300 m) vertical clearance above the highest obstacle with 10 NM either side of the aircraft’s track, except:

- a. During takeoff and landing;
- b. When operating in the immediate vicinity of the departure or destination aerodrome while climbing to or descending from the minimum safe altitude; and
- c. For military operations requiring low level VFR flight at night

1.2.5 Special VFR. At pilot request, when visual meteorological conditions do not exist, ATC may issue a clearance for special VFR flights to enter a control zone for the purpose of landing, take off and departure from a control zone, to cross a control zone, or to operate locally within a control zone, provided:

1.2.5.1 The special VFR flight will not unduly delay an IFR flight;

1.2.5.2 Special VFR flight remains clear of cloud;

1.2.5.3 In-flight visibility:

For all aircraft is not less than 1 500 m, and

Military Rotary Wing aircraft may operate with a flight and ground visibility less than 1 500 m with strict adherence to para 1.2.5.4 and 1.2.5.5.

1.2.5.4 The Special VFR flight is operated at speeds that, in the prevailing visibility, will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.

1.2.5.5 When operating Special VFR, it is the responsibility of the aircraft captain to ensure the safety of the aircraft and its occupants are not jeopardized under any circumstances. If any doubt exists, the Special VFR flight will not be undertaken.

1.2.5.6 In accordance with ICAO Doc 4444 PANS ATM Chapter 5 paragraph 5.2.1, IFR aircraft shall be separated from Special VFR aircraft, using the separation standards prescribed in Chapters 5 and 6. ATS Surveillance System separation may be applied between IFR and Special VFR aircraft, however, Special VFR flights shall not be radar vectored unless special circumstances, such as emergencies, dictate otherwise. Special VFR aircraft shall receive traffic information on other Special VFR aircraft in Class C and D airspace and, unless it is impracticable, a suggested course of avoiding action. If practicable and requested by the pilot, Special VFR may be separated from other Special VFR aircraft by the application of the standards described in ICAO Doc 4444 PANS ATM Chapter 5 and 6.

Note: Special VFR at night should only be requested by aircraft on operationally critical flights.

1.2.6 Change to Instrument Flight Rules

1.2.6.1 An aircraft operated in accordance with the visual flight rules that wishes to change to compliance with the instrument flight rules shall:

- a. If a flight plan was submitted, communicate the necessary changes to be effected to its current flight plan, or
- b. Submit a flight plan to the appropriate air traffic services unit and obtain a clearance prior to proceeding IFR when in controlled airspace.

1.2.6.2 Aircraft departing satellite airports are VFR and will remain VFR until air traffic control issues a clearance. If air traffic control is unable to issue a clearance immediately, the controller will advise the pilot when or where to expect a clearance.

ENR 1.3 INSTRUMENT FLIGHT RULES (IFR)

1.3.1 IFR Departure: Traffic departing all Iraqi airports for air route flights shall follow the normal Standard Instrument Departure (SID) procedure or, otherwise, follow ATC instructions.

1.3.2 Rules Applicable to all IFR flights

1.3.2.1 All civil aircraft operating in the Baghdad FIR shall operate IFR in Class A airspace. Aircraft shall be equipped with suitable instruments and navigation equipment appropriate to the route to be flown. Aircraft intending to operate on Iraq's air routes shall be suitably equipped to comply with RNAV5 as detailed at GEN 1.5.2.

1.3.2.2 Except when necessary for take-off or landing, or when specifically authorized by the appropriate authority, an IFR flight shall be flown at or above the minimum flight altitude established by the state whose territory is overflown, or, where no such minimum flight altitude is established:

- a. Over high terrain or in mountainous areas, at a level which is at least 2 000 ft (600 m) above the highest obstacle located within 5 NM of the estimated position of the aircraft; otherwise,
- b. At a level which is at least 1 000 ft (300 m) above the highest obstacle located within 5 NM of the estimated position of the aircraft.

1.3.2.3 An IFR flight operating in cruising flight shall be flown at a cruising level, or, if authorized to employ cruise climb techniques, between two levels or above a level, selected from the Table of Cruising Levels in Appendix C to Annex 2 to the Convention on International Civil Aviation. However, IFR flights may cruise at a level other than that described in the table of cruising levels, when otherwise instructed by air traffic control or when operating outside controlled airspace and cruising at or below 3 000 ft (900 m) AMSL.

1.3.2.4 Unless an ATS surveillance service is provided an IFR flight shall report, to the appropriate air traffic services unit, as soon as possible, the time and level of passing each designated compulsory reporting point. Position reports shall similarly be made in relation to additional points when requested by the appropriate air traffic services unit.

1.3.3 Rules Applicable to IFR Flights in Controlled Airspace. IFR flights shall comply with the provision of sub-section 3.6 of Annex 2 to the Convention of International Civil Aviation when operated in controlled airspace. This refers to the requirements for flights to submit and adhere to a flight plan, to comply with air traffic control instructions, and to maintain listening watch on the appropriate radio frequency.

1.3.4 Rules Applicable to IFR Flights Outside Controlled Airspace. IFR flights operating outside controlled airspace within the Baghdad FIR 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.

1.3.5 Change from IFR Flight to VFR Flight

1.3.5.1 Civil aircraft may request VFR operations between 12 000 ft AMSL and FL 240 provided it is anticipated, and intended, that the remainder of the flight to the destination aerodrome will be conducted in uninterrupted visual meteorological conditions. In this case, the pilot shall report to the appropriate air traffic service unit “*callsign* CANCELLING MY IFR FLIGHT”.

1.3.5.2 Military aircraft that are IFR and established on the airway or established within Class E airspace and are requesting to land at airports that are outside of these areas shall, if applicable, advise and receive acknowledgement from air traffic control when able to proceed tactical. Air traffic control shall acknowledge and terminate ATC surveillance services. Aircraft that are tactical shall cancel IFR and comply with applicable military directives. Aircraft that cannot proceed tactical will not be descended below the airway’s minimum enroute altitude or be permitted to exit the ATS route or Class E airspace.

ENR 1.4 ATS AIRSPACE CLASSIFICATION

1.4.1 Description of airspace in Baghdad FIR

1.4.1.1 The Baghdad FIR is classified into Class A, C, D, E and G airspace. Class B and F airspace is not used in the Baghdad FIR. A diagram of the airspace structure is at ENR 1.4-3. Air traffic services are provided in all controlled airspace, by the controlling ATC Unit, based on an ATS Surveillance System (supplemented by procedural non-ATS Surveillance System procedures) or MRU where authorized based on Procedural (non- ATC Surveillance System) procedures and supplemented by ATC Surveillance System where possible. A diagram of the divisions of responsibility between ATC facilities is at ENR 1.4-3.

1.4.1.2 **Class A** airspace in the Baghdad FIR is established from FL240 – FL460 throughout the whole Baghdad FIR. Refer to ENR 3.3 and current ORBB NOTAMs for updated airspace information.

1.4.1.3 **Class C** The only Class C airspace in the Baghdad FIR is established at Al Asad. Refer to ENR 2.1.2.

1.4.1.4 **Class D** airspace in the Baghdad FIR is established in conjunction with airports that have operating control towers. Class D airspace is a normally a 5 NM radius (13 NM for ORER) from the aerodrome reference point (ARP), from SFC to 3 000 ft AMSL but does change for specific aerodromes (for a full description refer to AIP ENR 2.1.3).

1.4.1.5 **Class E** airspace in the Baghdad FIR is established at Baghdad, Basrah, Kirkuk, and Mosul TMAs. Refer to ENR 2.1.2. Class E airspace is also established along the air route structure. Refer to ENR 3.3 for full details.

1.4.1.6 **Class G** airspace is established for all areas that are not classified as A, D or E. This airspace is primarily used by military VFR aircraft. A Common Traffic Advisory Frequency (CTAF) is established for aircraft self deconfliction. Aircraft operating in Class G airspace should broadcast intentions on CTAF VHF 122.0.

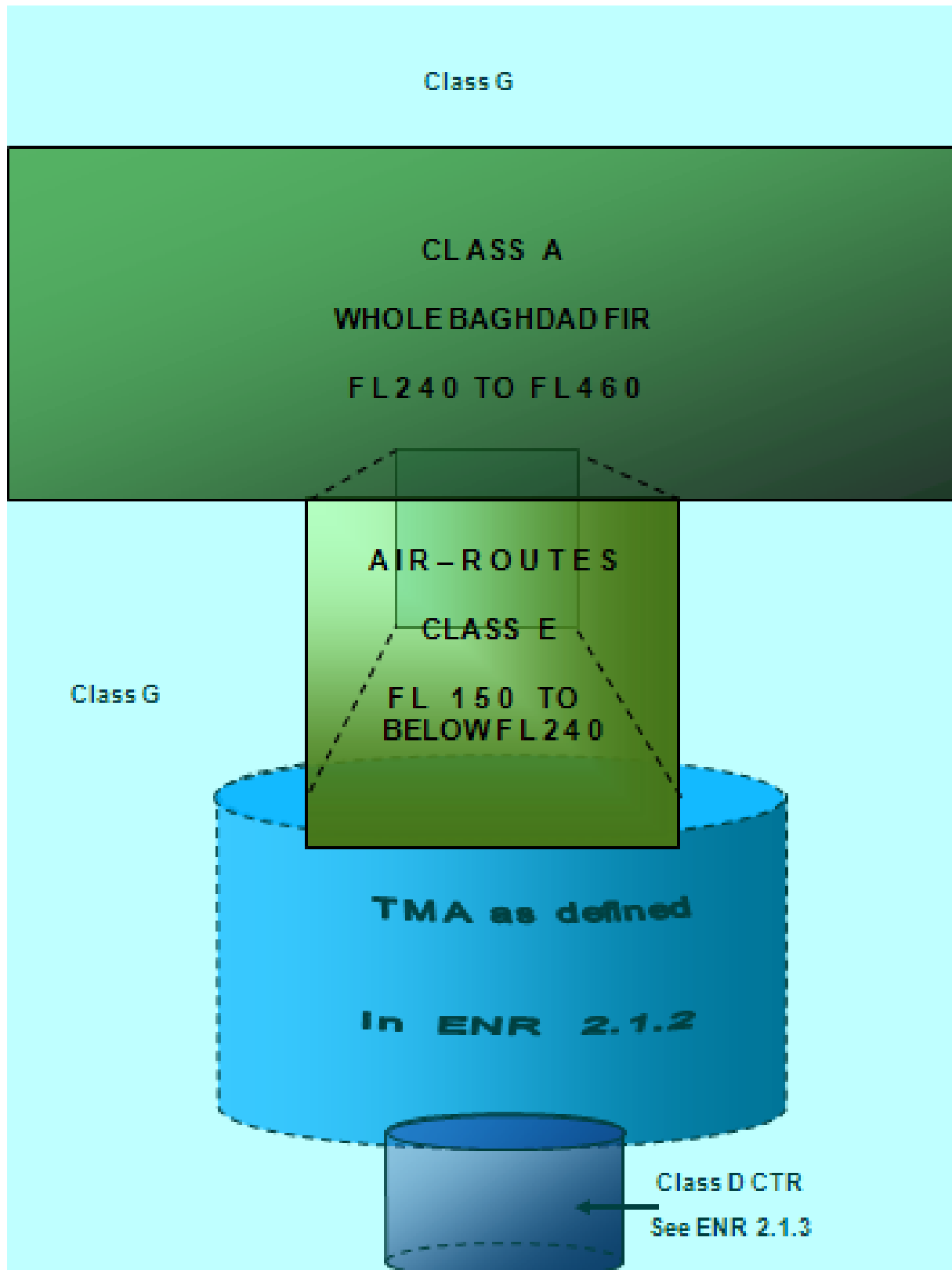
1.4.1.7 **ATS Provision of Service.** ATS services across the Baghdad FIR are provided by a composite of Iraqi Civilian and US military assets.

1.4.2 ATS Airspace Classes, Services Provided and Flight Requirements

Class	Type Of Flight	Separation Provided	Service Provided	Radio Comm Requirement	Subject to ATC Clearance
A	IFR	IFR/IFR	ATC Service	Continuous two-way	Yes
B	Not applicable in Baghdad FIR				
C	IFR	IFR/IFR	ATC Service.	Continuous two-way	Yes
	VFR	IFR/VFR VFR/IFR	1. ATCS for separation from IFR; 2. VFR/VFR traffic information (and traffic avoidance advice on request)	Continuous two-way	Yes
D	IFR	IFR/IFR IFR/Special VFR	ATC service, traffic information about VFR flights (and traffic avoidance advice on request)	Continuous two-way	Yes
	VFR	Nil	IFR/VFR, VFR/VFR and Special VFR/Special VFR traffic information (traffic avoidance advice on request)	Continuous two-way	Yes
E AIRWAY	IFR	IFR/IFR	ATC service and, as far as practicable traffic information about VFR flights.	Continuous two-way	Yes
	VFR	Nil	Traffic Information as far as practical	Continuous two-way	Yes
E TMA	IFR	IFR/IFR	ATC service and, as far as practicable traffic information about VFR flights.	Continuous two-way	Yes
	VFR	Nil		No*	No
F	Not applicable in Baghdad FIR				
G	IFR	Nil	Flight information service	No	No
	VFR	Nil		No	No

* VFR arrivals and departures must remain in two-way communications with ATC whilst in Class E.

1.4.3: Depiction of airspace structure within Baghdad FIR



Refer to AIP ENR 1.4.1 and current Baghdad FIR (ORBB) NOTAMs for actual airspace descriptions.

NOTES:

- 1. As per ICAO Doc 4444, Annex 2, where ATS airspaces adjoin vertically, flights at a common level would comply with, and be given services applicable to, the less restrictive class of airspace. In applying these criteria Class E airspace is therefore considered less restrictive than Class A airspace.***
- 2. Due to equipment limitations, two-way communications may not be available in western Iraq. In the event of an emergency requiring descent in an area of poor radio coverage, pilots are to attempt to contact any air traffic agency via emergency frequencies.*

1.4.4: Division of responsibility between ATS units and Class E TMA

Intentionally left blank

ENR 1.5 HOLDING, APPROACH AND DEPARTURE PROCEDURES

1.5.1 General

1.5.1.1 The holding, approach and departure procedures published in this AIP are based on ICAO PANS-OPS.

1.5.1.2 The holding, approach and departure procedures in the Baghdad FIR are based on Part III and IV of Vol.1 of the PANS-OPS or United States Terminal Instrument Procedures (TERPS). The holding patterns shall be entered and flown as indicated below.

1.5.1.3 If necessary, such as, in case of congestion, inbound aircraft may be instructed to hold at one of the designated En-route reporting points. Additional holding points may be specified by ATC depending on traffic density and conditions. The holding procedures shall be a standard 180 degree right turn to fly outbound on the reciprocal track for one minute then conduct a standard 180 degree right turn to intercept the inbound track to overhead the holding point. ICAO Doc 8168-PAN-OPS refers.

1.5.1.4 Due to limited airspace available, it is imperative that the approaches to the holding patterns and procedures are carried out as exactly as possible. Pilots should inform ATC if the approach and/or holding procedures cannot be performed as required.

1.5.2 Arriving Flights

1.5.2.1 IFR flights entering and landing within a terminal control area shall be cleared to the specified holding point and instructed to contact approach control at a specified time, level or position. The terms of this clearance shall be adhered to until further instructions are received from approach control. If the clearance limit is reached before further instructions have been received, holding procedures shall be carried out at the level last authorized. Holding is unnecessary provided the aircraft is in receipt of onwards clearance.

1.5.2.2 Civil aircraft are to expect instructions from ATC for approaches into airfields within the Baghdad FIR.

1.5.2.3 No manoeuvres involving flight to the east of the circuit of Baghdad International Airport should be made unless specifically cleared by ATC units.

1.5.2.4 Except when complying with the requirements for a visual approach, when conforming to a published GPS arrival procedure, or when in receipt of an ATC surveillance service, an IFR aircraft approaching an aerodrome must not descend below the lowest safe altitude (LSALT) or the MSA for the route segment being flown until it has arrived over the IAF or facility.

1.5.2.5 **25 NM and 10 NM** MSA provide at least 1 000 ft obstacle clearance. In instances where the 25 NM MSA has been divided into sectors, and the appropriate Sector MSA is lower than the 10 NM MSA, the Sector MSA may be used for tracking to the aid provided aircraft tracking can be maintained within the sector.

1.5.2.6 Visual Approach

1.5.2.6.1 An arriving flight may be cleared by ATC to execute a visual approach provided:

- a. The pilot has established, and can continue flight to the aerodrome with, continuous visual reference to the ground or water; and
- b. At night, the pilot reports the aerodrome in sight; and
- c. Visual meteorological conditions exist at the destination aerodrome; or
 - (i) The pilot reports at the initial approach level or at any time during the instrument approach procedure that the meteorological conditions are such that a visual approach and landing can be completed.

NOTE: Local weather phenomena sometimes cause surface visibility to appear greater from the air than it is at the airfield. In these conditions ATC may deny clearance for Visual Approach.

1.5.2.6.2 Unless otherwise instructed by ATC, aircraft cleared to execute a visual approach shall maintain the assigned track until within five nautical miles of the destination aerodrome, or by night within the prescribed circling area, and then manoeuvre via the shortest route to base or final for the assigned RWY.

1.5.2.6.3 An aircraft executing a visual approach may descend when ready from its previously assigned level and must remain at least 500 ft above the base of the control area and, by day, shall comply with ENR 1.2.2 regarding altitude restrictions above terrain and built up areas. An aircraft executing a visual approach at night shall comply with these instructions and maintain the last assigned altitude or minimum safe altitude if lower, until established within the circling area, then remain within the circling area and manoeuvre via the shortest route to base or final for the assigned RWY.

1.5.2.6.4 At night, international HEAVY wake turbulence category aircraft shall be processed via a straight-in instrument approach, such as ILS or VOR/DME approach. When a straight-in instrument approach is not available or is unsuitable in prevailing conditions, international HEAVY aircraft are to conduct a straight-in visual approach via 10 NM final.

1.5.2.6.5 Separation shall be provided between IFR aircraft cleared to execute a visual approach and other IFR aircraft.

1.5.2.6.6 For successive visual approaches by IFR aircraft, ATC Surveillance System or Procedural (non- ATC surveillance system) separation shall be maintained until the pilot of a succeeding aircraft reports having the preceding aircraft in sight. The aircraft shall then be instructed to follow and maintain own separation from the preceding aircraft. When the preceding aircraft is a heavier wake turbulence category than the following, and the distance between the aircraft is less than the appropriate wake turbulence minimum, the controller shall issue a caution of possible wake turbulence. The pilot-in-command of the aircraft concerned shall be responsible for ensuring that the spacing from a preceding aircraft of a heavier wake turbulence category is

acceptable. If it is determined that additional spacing is required, the flight crew shall inform the ATC unit accordingly, stating their requirements.

1.5.3 Departing Flights

1.5.3.1 IFR flights departing from controlled aerodromes shall receive an ATC clearance from the control tower. The clearance limit will normally be the aerodrome of destination. IFR flights departing from non-controlled aerodromes must make arrangements with the appropriate ATC facility prior to take-off.

1.5.3.2 Detailed instructions with regard to routes, turns, etc. will be issued after take-off as required.

1.5.3.3 Standard Instrument Departure (SID) Routes

1.5.3.3.1 When it is necessary to issue clearances that do not conform to SID routes, the clearances will be prefixed by the phrase “CANCEL SID”. ATC shall not cancel a SID whilst the aircraft is below minimum safe altitude except, by day in visual meteorological conditions, when the aircraft is instructed to maintain visual terrain clearance by ATC appending “VISUAL” to the track/level instruction.

1.5.3.3.2 When considered necessary by ATC or when requested by the pilot-in-command the SID will be described in full.

1.5.3.3.3 Each SID indicates by its name the waypoint via which the aircraft will exit the terminal area.

1.5.3.3.4 Each SID route will be supplemented by an altitude or flight level instruction. Such altitude instructions shall not restrict an aircraft to a level below the minimum safe altitude. In that case, the SID should be cancelled and the aircraft shall be instructed to “REMAIN VISUAL UNTIL ABOVE MSA”.

1.5.3.3.5 No manoeuvres involving flight to the east of the circuit of Baghdad International Airport should be made unless specifically cleared by ATC units.

1.5.4 Night / Low Light Military Airlift Operations

1.5.4.1 Military & Civil aircraft will operate with all lights and strobes on when at or above FL150 in Baghdad FIR.

1.5.4.2 Military airlift aircraft may turn off all external lighting when descending below FL150 and Civil aircraft with approval may operate with positioning lights only below FL150.

Note: Locally defined rules may stipulate alternative practice which must be adhered to.

1.5.5 Signals to Aircraft. ATC light signals to aircraft have the following meaning and pilots of aircraft observing such light signals shall take action accordingly:

SIGNALS	MEANING	
	To Aircraft in Flight	To Aircraft on the Ground
Steady Green	Cleared to land	Cleared for take-off
Steady Red	Give way to other aircraft continue circling	Stop
Series of Green Flashes	Return for landing	Cleared to Taxi
Series of Red Flashes	Aerodrome unsafe do not land	Taxi clear of landing area in use
Series of White Flashes	Land at this aerodrome and proceed to apron	Return to starting point on aerodrome
Red Pyrotechnic	Notwithstanding any previous instructions DO NOT LAND for the time being	<i>Nil meaning</i>

ENR 1.6 ATC SURVEILLANCE SYSTEM SERVICES AND PROCEDURES

1.6.1 Services and Coverage. ATC Radar Units operate as integral part of the system and provide ATS Surveillance Services for the Baghdad FIR. However, due to gaps in radar coverage, particularly near the boundaries of the Baghdad FIR, air traffic control applies procedural (non- ATS surveillance system) separation standards, supplemented by ATS Surveillance System, to en-route aircraft. The diagram on page ENR 1.6-3 depicts approximate radar coverage and the division of responsibility between air traffic control units in Iraq. Pilots are to continuously monitor the VHF emergency FREQ (121.5 MHz) and operate their transponder at all times during flight. Pilots will ensure that the transponder is set on the correct discrete code assigned by ATC. Failure to operate transponder correctly may result in a delay.

1.6.2 Application of ATS Surveillance Control Service

1.6.2.1 ATS surveillance system is used for the provision of Air Traffic Services in accordance with ICAO Doc 4444 – Procedures for Air Navigation Services- Air Traffic Management.

1.6.2.2 An aircraft may consider that ATC is providing an ATS Surveillance Service from the time ATC advises the aircraft that identification is established until the time when ATC advises the aircraft that identification is lost and or that ATS Surveillance Service is terminated. Unless otherwise requested by ATC, aircraft position reporting may be omitted when receiving an ATS Surveillance Service.

1.6.2.3 The minimum horizontal ATS surveillance separation standard within the Baghdad FIR, prescribed for use at locations where ATS Surveillance Services are provided is 5 NM.

1.6.2.4 Levels assigned by the ATS Surveillance System controller shall ensure terrain clearance in accordance with minimum vector altitude, minimum safe altitude or lowest safe altitude, as appropriate to the phase of flight.

1.6.3 ATS Surveillance System and Radio Failure Procedures

1.6.3.1 In the event of ATS surveillance system failure, the radar controller shall take all steps necessary to ensure terrain clearance and establish procedural (non- ATS surveillance system) separation standards as soon as possible. Aircraft subject to ATS Surveillance Services shall be advised of an ATS surveillance system failure as soon as possible.

1.6.3.2 If two-way communication is lost with an aircraft, the radar controller shall attempt to determine whether or not the aircraft's receiver is functioning by:

1.6.3.2.1 Instructing the aircraft to "SQUAWK IDENT" or change transponder mode/code; or

1.6.3.2.2 Instructing the aircraft to acknowledge by executing a turn or series of turns and by observing the movements of the aircraft's ATC surveillance system track.

1.6.3.3 If the action prescribed in paragraph ENR 1.6.3.2.1/2 is unsuccessful, air traffic control shall attempt to contact the aircraft in the same manner on alternative frequencies and, when available, on voice monitored navigation aids.

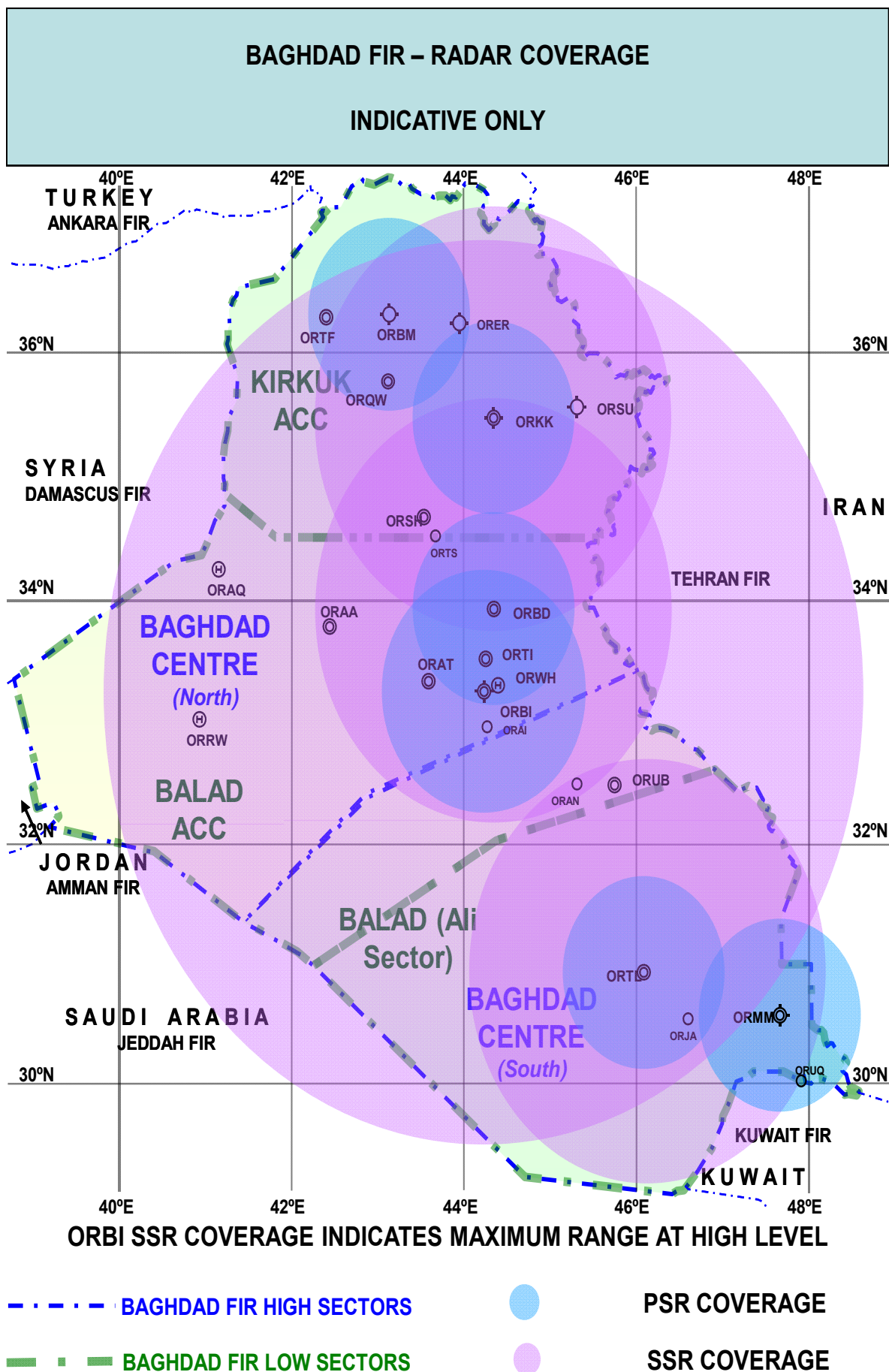
1.6.3.4 Air traffic control shall ensure such instructions maintain terrain clearance, do not inadvertently carry the aircraft beyond ATC surveillance system coverage and are such that the aircraft can regain its cleared track after having complied with the instructions. ATC surveillance system separation may continue to be applied provided ATC surveillance system identification is maintained.

1.6.3.5 Pilots shall continue to attempt to acknowledge instructions and broadcast intentions on normal air-ground radio frequencies.

1.6.3.6 **Complete Aircraft Communication Failure.** Aircraft experiencing radio failure in the departure phase within the terminal area will climb to the level specified in the clearance, or to the minimum safe altitude, whichever is higher. If no time or geographical limit was included in the clearance, maintain assigned level for seven minutes then continue climb to the flight level specified in the current flight plan. If assigned a radar heading, maintain the vector for two minutes, and then proceed in the most direct manner possible to rejoin the flight planed route. Continue to make routine reports.

1.6.3.7 When a controlled aircraft experiencing complete communication failure is operating or expected to operate in an area and at flight levels where ATC surveillance system separation is applied, such separation may continue to be used. However, if the aircraft experiencing radio failure is not identified, ATC surveillance system separation shall be applied between aircraft in receipt of an ATC surveillance service and the procedural (non-ATC surveillance system) navigation tolerances of the unidentified radio fail aircraft.

1.6.4 Diagram of ATC Surveillance System Coverage. Aircraft will be advised "RADAR CONTACT" when operating in areas where sufficient ATC surveillance system capabilities are available. The level of services shall be in accordance with the AIP. ATC surveillance system coverage in Iraq is presently provided using a combination of fixed Iraqi radar systems and fixed/deployable US military systems. US military systems may be relocated/removed on short-notice. Consequently, pilots-in-command are responsible for reviewing applicable NOTAM information on the availability of ATC surveillance.



ENR 1.7 ALTIMETER SETTING PROCEDURES

1.7.1 General

1.7.1.1 The altimeter setting procedures in use generally conform to those contained in ICAO Doc 8168-OPS/611 and are given in full below. Transition altitude for all aerodromes in the Baghdad FIR is described below and detailed in the tabulation in AD 2. In addition, transition altitudes are given on instrument approach charts.

1.7.1.2 QNH reports for use in determining adequate terrain clearance is provided in meteorological broadcasts and is available on request from air traffic service units. QNH values are given in whole Hectopascals (fractions are rounded down) or, on request, in inches of mercury.

1.7.1.3 The following standard definitions shall apply in the Baghdad FIR:

1.7.1.3.1 **Transition Altitude.** The altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes. The transition altitude for Baghdad FIR is 14 000 ft AMSL.

1.7.1.3.2 **Transition Layer.** The airspace between the transition altitude and the transition level. **Aircraft shall not cruise within the transition layer.**

1.7.1.3.3 **Transition Level.** The lowest flight level available for use above the transition altitude. The transition level for Baghdad FIR is established at FL 150.

1.7.1.4 The altimeter pressure setting at and above the transition level is the international standard altimeter pressure setting of 1013 Hectopascals or 29.92 inches. The altimeter setting at and below the transition altitude shall be the relevant QNH.

1.7.1.5 Vertical positioning of aircraft at or below the transition altitude is expressed in terms of altitude, whereas levels at or above the transition level are expressed in terms of flight level. Aircraft shall set standard pressure when passing through the transition altitude on climb, and regional QNH when passing through the transition level on descent. While passing through the transition layer, vertical position shall be expressed in terms of flight levels when climbing and in terms of altitudes when descending.

1.7.1.6 To retain a minimum buffer of 1 000 ft above the transition altitude, FL 150 must not be used for cruising when the QNH is less than 1013 Hectopascals (29.92 inches). With a progressive decrease in the value of the QNH, FL 155 must not be used when the QNH is below 997 Hectopascals (29.42 inches) and FL 160 must not be used when the Area QNH is below 980 Hectopascals (28.94 inches).

1.7.2 Provision of Altimeter Setting Information

1.7.2.1 ATC units shall have current QNH available for transmission to aircraft on request, both for their own and adjacent areas of responsibility. For arriving and enroute aircraft, the QNH altimeter setting shall be included in the first assignment of an altitude below the transition level. Unless the aircraft notifies receipt of the ATIS or the QNH is passed as part of a previous transmission, QNH shall be appended to the airways clearance for aircraft intending to cruise below the transition level, approach

clearances or clearances to enter the traffic pattern, and with the taxi clearance for departing aircraft. ATC shall advise aircraft of subsequent QNH changes.

ENR 1.8 REGIONAL SUPPLEMENTARY PROCEDURES

1.8.1 Overflight Levels. Overflights of Iraq must be conducted above FL 200, except when lower levels are issued by ATC to comply with FIR boundary crossing procedures as per ENR1.8.3.

1.8.2 RVSM application**1.8.2.1 Identification Of RVSM airspace**

1.8.2.1.1 RVSM shall be applicable in that volume of airspace between FL290 and FL410 inclusive in the Baghdad FIR and this volume of airspace shall be referred to as the Baghdad FIR RVSM airspace. The Baghdad FIR RVSM airspace shall be exclusionary, only aircraft approved for RVSM and appropriately trained crews shall be authorized to operate in RVSM airspace.

1.8.2.1.2 Aircraft transiting through the Baghdad FIR can expect to be assigned RVSM levels subject to traffic, by 0030 UTC.

1.8.2.2 Airworthiness and operational approval and monitoring

1.8.2.2.1 Approval process.(source document : Iraq CAA Civil Aviation Publication 1, RVSM) operators must obtain airworthiness and operational approval from the state of registry or state of operator, as appropriate, to conduct RVSM operations. All Iraqi registered aircraft planning to operate in RVSM airspace shall be required to obtain an approval from the Iraqi CAA before the commencement of operations.

1.8.2.2.2 Aircraft monitoring. Once the aircraft has successfully conducted an over flight assessment, there is no requirement for further assessment assessments unless there is a change to the required aircraft equipment. A successful over flight assessment conducted by a Regional Monitoring Agency (RMA) is acceptable for all RMAs. An over flight assessment may not be a prerequisite for “group aircraft” but it is for “non group aircraft” (refer to notes 1 and 2). After the Iraqi CAA has granted airworthiness approval, operators of non group aircraft should take steps to overfly the Height Monitoring Unit (HMU) near the following locations:

- (a) Stumble, UK
- (b) Linz, Austria
- (c) Nattenheim, Germany
- (d) Geneva, Switzerland

1.8.2.2.3 Alternatively, operators may arrange for the carriage of a global positioning system (GPS) Monitoring unit (GMU). If monitoring occurs before the Iraqi CAA has informed the appropriate RMA, the accrued data may still be used provided that it is dated after the modification/ inspection was completed. In this case of aircraft added to an operators fleet of the same type, after initial application for RVSM operating authority, the appropriate RMA will determine whether any further monitoring is required and will inform the Iraqi CAA, which in turn will inform the operator. Any monitoring conducted by a RMA is acceptable to the Iraqi CAA and to other RMAs.

Operators can consult the MID RMA to ascertain if its aircraft have been monitored and acceptable performance has been demonstrated.

Note: “Non-group aircraft” operators of these aircraft (e.g GIV, LR 60,etc) must apply on an individual aircraft basis, and monitoring by an HMU or GMU is a prerequisite to obtain RVSM (operational) approval unless flight test evidence can be provided to the Iraqi CAA to show that each airframe is compliant with Altimetry System Error (ASE) targets.

1.8.2.3 Exceptions to RVSM exclusivity

- 1.8.2.3.1** State aircraft (those aircraft used in military, custom and police services) for whom there is no RVSM equipment upgrade, but yet for mission still requires access to RVSM airspace, shall be afforded an exception to RVSM exclusionary rule.
- 1.8.2.3.2** Aircraft operating on Humanitarian Missions or Lifeguard Flights may at the controllers discretion be afforded an exception to the RVSM exclusionary rule.
- 1.8.2.3.3** Manufacturer aircraft and aircraft in a maintenance status may require access to RVSM altitudes without a current RVSM approval. Aircraft operators must make their request for this exclusion at least 12 hours in advance of flight plan filing with the Baghdad ACC ATS Director.
- 1.8.2.3.4** Non-approved RVSM aircraft capable of flying at FL430 and above may be allowed to transition through and over fly RVSM airspace .while transitioning through RVSM airspace, 2000 ft vertical separation shall be provided between this aircraft and all other aircraft .During the transition, the non-approved aircraft may only level off in RVSM airspace if required by air traffic control (ATC) for separation purposes . The non-approved RVSM aircraft must be able to climb through the RVSM airspace without leveling off for needs other than those directed by ATC.
- 1.8.2.3.5** All of these exceptions shall be handled on an individual basis and shall be accommodated based on controller workload. These aircraft shall be separated by 2000 ft from all other aircraft within RVSM airspace.

1.8.2.4 ACAS II equipage

- 1.8.2.4.1** ACAS Version II (TCAS VERSION 7.0) has improved compatibility with RVSM and ICAO Annex 6 has implemented the carriage of ACAS in turbine-engine aero planes above 15,000 kg and certified for more than 30 passengers as a Standard from 01 January, 2003. The ICAO Standard will apply for all turbine engine aero planes above 5700 kg or certified for more than 19 passengers. It is expected that RVSM operations throughout the MID region will require ACAS II.
- 1.8.2.4.2** Before entering RVSM airspace, the pilot should review the status of required equipment. The following equipment should be operating normally:
 - (a) Two primary altitude measurement systems;
 - (b) One automatic altitude-control system;
 - (c) One altitude-alerting device;
 - (d) Operating transponder.

Note: Should any of the required equipment fail prior to the aircraft entering RVSM airspace, the pilot should request a new clearance to avoid entering this airspace.

1.8.2.5 Procedures prior to RVSM airspace entry

1.8.2.5.1 Flight crews are expected to be familiar with the following prior to operation in RVSM airspace.

- (a) Standard ATC phraseology used in each area of operations.
- (b) Importance of crew members cross checking to ensure that ATC clearances are promptly and correctly complied with;
- (c) Use and limitations in terms of accuracy of standby altimeters in contingencies. Where applicable, the pilot should review the application of static source error and pressure error correction through the use of correction cards;
- (d) Problems of visual perception of other aircraft at 1,000 ft (300m) planned separation during darkness, when encountering local phenomena such as northern lights, for opposite and same direction traffic, and during turns;
- (e) Characteristics of aircraft altitude capture systems, which may lead to flight level overshoots;
- (f) The relationship between the aircraft's altimetry, automatic altitude control and transponder systems in normal and abnormal conditions;
- (g) Any airframe operating restrictions, if required for the specific aircraft group, related to RVSM airworthiness approval;
- (h) Use of TCAS in RVSM airspace; and
- (i) The effect of wake turbulence.

1.8.2.6 In-flight procedures for flight crews

1.8.2.6.1 Flight crews must comply with any aircraft operating restrictions, if required for the specific aircraft group, given in the RVSM airworthiness approval.

1.8.2.6.2 Emphasis should be placed on promptly setting the sub-scale on all primary and standby altimeters to 1013.2 (hPa) when passing the transition altitude, and rechecking for proper altimeter setting when reaching the initial cleared flight level.

1.8.2.6.3 In level cruise it is essential that the aircraft is flown at the cleared flight level. This requires that particular care is taken to ensure that ATC clearances are fully understood and followed. The aircraft should not intentionally depart from the cleared flight level without a positive clearance from ATC unless the crew is conducting contingency or emergency maneuvers.

1.8.2.6.4 When changing levels, the aircraft should not be allowed to overshoot or undershoot the cleared flight level by more than 150 ft (45 m).

Note: It is recommended that the level off be accomplished using the altitude capture feature of the automatic altitude-control system, if installed.

1.8.2.6.5 An automatic altitude-control system should be operative and engaged during level cruise, except when circumstances such as the need to re-trim the aircraft or turbulence require disengagement. In any event, adherence to cruise altitude should be done by reference to one of the two primary altimeters.

1.8.2.6.6 Ensure that the altitude-alerting system is operative.

1.8.2.6.7 At intervals of approximately one hour, cross-checks between the primary altimeters should be made. A minimum of two must agree within +_200 ft (+_60m). Failure to meet this condition will require that the altimetry system be reported as defective and notified to ATC.

(a) The usual scan of flight deck instruments should suffice for altimeter cross-checking on most flights.

(b) Before entering oceanic RVSM airspace, the initial altimeter cross check of primary and standby altimeters should be recorded.

Note: Future systems may make use of automatic altimeter comparators.

1.8.2.6.8 In normal operations, the altimetry system being used to control the aircraft should be selected for the input altitude reporting transponder transmitting information to ATC.

1.8.2.6.9 If the pilot is advised in real time that the aircraft has been identified by a height-monitoring system as exhibiting a total vertical error (TVE) greater than +_300 ft (+_90m) and/or an altimetry system error (ASE) greater than +_245 ft (+_75m) then the pilot should follow established regional procedures to protect the safe operation of the aircraft. This assumes that the monitoring system will identify the TVE or ASE within the set limits for accuracy.

1.8.2.6.10 If the pilot notified by ATC of an assigned altitude deviation (AAD) error which exceeds +_300 ft (+_90m) then the pilot should take action to return to the cleared flight level as quickly as possible.

1.8.2.7 Contingency procedures after entering RVSM airspace

1.8.2.7.1 An in-flight contingency in RVSM airspace pertains to unforeseen circumstances which directly impact the ability of one or more aircraft to operate in accordance with the vertical navigation performance requirements of RVSM.

1.8.2.7.2 The pilot should notify ATC of contingencies, such as equipment failure, system inaccuracies and severe turbulence, which affect the ability to maintain the cleared flight level and co-ordinate a plan of action. If unable to contact ATC and obtain an ATC clearance prior to deviating from the

cleared flight level, the pilot should follow established contingency procedures as defined by the region of operation and obtain ATC clearance as soon as possible.

1.8.2.7.3 The typed of equipment failures which should be notified to ATC are:

- (a) Failure of all automatic altitude-keeping devices;
- (b) Loss of redundancy of all, or part of, altimetry systems;
- (c) Failure of all altitude reporting transponders;
- (d) Loss of thrust on an engine necessitating descent; or
- (e) Any other equipment failure affecting the ability to maintain the cleared flight level.

1.8.2.7.4 Degradation of aircraft equipment or turbulent atmospheric conditions could impact an aircrafts ability to maintain the strict vertical navigation performance requirements of RVSM.

1.8.2.7.5 The pilot shall inform ATC as soon as possible of any circumstances where the aircraft can no longer maintain RVSM vertical navigation performance. In such cases, the pilot shall obtain a revised ATC clearance prior to deviating from the cleared route and/or flight level. Where a revised ATC clearance could not be obtained prior to such deviation, the pilot shall obtain a revised clearance as soon as possible thereafter.

1.8.2.7.6 ATC shall provide all possible assistance to a pilot experience an in-flight contingency. Subsequent ATC actions will be based on pilot intentions, the overall air traffic situation and real time dynamics of the contingency.

1.8.2.7.7 If the aircraft will be unable to meet RVSM vertical navigation performance, the aircraft will be required to descent below RVSM altitudes until such time as it can meet RVSM requirements.

1.8.2.8 Severe Turbulence or Greater in RVSM Airspace

1.8.2.8.1 When a pilot reports "unable to maintain RVSM due turbulence", ATC shall establish either an appropriate horizontal separation minimum or an increased vertical separation minimum of at least 2000 feet. To the extent possible, ATC shall accommodate pilot requests for flight level and/or route changes.

1.8.2.8.2 ATC shall solicit reports from other aircraft in the vicinity to determine whether RVSM should be suspended, either entirely or within a specific

flight level band and/or area. The specific actions to be taken by ATC will be dictated by the actual weather related circumstances and the traffic situation existing at the time. ATC is expected to use best judgment to safeguard separation between aircraft in such circumstances. An aircraft experiencing severe turbulence while operating within RVSM airspace need not be cleared out of RVSM airspace.

1.8.2.8.3 When ATC receives multiple pilot reports of severe turbulence which could impact multiple aircraft with regards to their ability to maintain cleared flight level within RVSM airspace, ATC shall provide an increased vertical separation minimum or an appropriate horizontal separation minimum.

1.8.2.8.4 Where meteorological forecasts is predicting severe turbulence, ATC shall determine whether RVSM should be suspended, and, if so, the period of time, and specific flight level(s) and/or area.

1.8.3 Separation. Separation will be applied as provided by ICAO Doc 4444-procedures for Air navigation or as defined by LOA

1.8.4 International Agreements. There are six Letters of Agreement (LOAs) finalized between Iraq and adjacent countries – Turkey, Jordan, Syria, Kuwait, Saudi Arabia and Iran. These LOAs authorize Iraq Civil Aviation Authority approved aircraft to travel between aforementioned countries (through the Baghdad FIR) in accordance with agreed procedures. The pertinent points from each LOA are detailed in ENR 1.8.3.1 to ENR 1.8.3.5.

1.8.4.1 Baghdad/Ankara FIR Boundary Procedures

1.8.4.1.1 All northbound aircraft shall track between the Baghdad and Ankara FIRs via KABAN, on UM860/UR21/UT37/R21/T37. All aircraft shall be maintaining level flight prior to reaching KABAN for northbound flights. All southbound aircraft shall track between Baghdad and Ankara FIRs via NINVA on UM688. All aircraft shall be maintaining level flight prior to reaching NINVA for southbound flights.

1.8.4.1.2 All aircraft shall operate in accordance with the following transit levels:

Exiting the Baghdad FIR	
Tracking	Flight Levels
Northbound	FL160, FL180, FL200, FL220, FL240, FL260, FL280, FL300, FL320, FL340, FL360, FL380, FL400, FL430

Entering the Baghdad FIR	
Tracking	Flight Levels
Southbound	FL250, FL270, FL290, FL310, FL330, FL350, FL 370, FL390, FL410, FL450

1.8.4.1.3 Aircraft operating at the same altitude shall anticipate a minimum 20NM radar separation using Mach number technique or 10 minutes spacing from other aircraft.

1.8.4.1.4 All aircraft should be prepared to provide their estimated time (in minutes) to KABAN and NINVA upon ATC request.

1.8.4.2 Baghdad/Amman FIR Boundary Procedures

1.8.4.2.1 The only entry/exit route for aircraft between the Amman and Baghdad FIRs is PASIP on L200. All aircraft shall maintain assigned flight level, at least 10 NM prior to PASIP unless verbally coordinated otherwise.

1.8.4.2.2 All aircraft shall operate in accordance with the following transit levels:

Exiting the Baghdad FIR	
Tracking	Flight Levels
Aircraft tracking via L200	FL160, FL180, FL200, FL220

Entering the Baghdad FIR	
Tracking	Flight Levels
Aircraft tracking via L200 for landing within the Baghdad FIR	FL170, FL190, FL210, FL230
Aircraft tracking via L200 for Overflying the Baghdad FIR	FL330, FL350, FL390, FL410, FL430, FL450

1.8.4.2.3 Aircraft are advised that radio coverage is limited along the western edge of Iraq on L200.

1.8.4.2.3.1 Aircraft transiting westbound on L200 are to establish communications with Amman ACC on 128.5 at least 10 minutes flying time east of PASIP. Once contact with Amman ACC is established, aircraft are to advise the previous controlling authority and continue with Amman ACC.

1.8.4.2.3.2 Aircraft transiting eastbound should not expect radio contact with Baghdad ACC until approximately GIBUX.

1.8.4.2.3.3 In the event of an emergency requiring descent in an area of poor radio coverage, aircraft are to attempt contact with any ATC unit on a published frequency and/or emergency frequencies.

1.8.4.2.4 Aircraft operating at the same altitude on the same route shall anticipate a minimum of 10 minutes spacing from other aircraft.

1.8.4.2.5 All aircraft should be prepared to provide their estimated time (in minutes) to PASIP upon ATC request, in either direction of flight.

1.8.4.2.6 West bound traffic Entering Amman FIR FL 220.
FL240 via prior co-ordination.

1.8.4.2.7 East bound traffic Entering Baghdad FIR FL 210, and FL230 to contact Baghdad low at freq. 122.4
FL250 via prior co-ordination, to contact Baghdad high of freq. 129.1

1.8.4.3 Baghdad/Damascus FIR Boundary Procedures

1.8.4.3.1 All aircraft shall track between the Baghdad and Damascus FIRs via ELEXI on UL602 (Suspended), SIDNA on UP975 or MODIK on G202. All aircraft shall be maintaining level flight prior to reaching ELEXI, SIDNA or MODIK unless cleared otherwise by ATC.

1.8.4.3.2 Traffic Proceeds via UP975 will be vectored from TUBEN Direct UKMUG by follow:

SIDNA – TUBEN – UKMUG – PAPUS – KATUT – ILMAP
– PEBAD – SIDAD.

1.8.4.3.3 All aircraft shall operate in accordance with the following transit levels:

Exiting the Baghdad FIR	
Tracking	Flight Levels
Aircraft tracking via G202 for landing within the Damascus FIR	FL260, FL280
Aircraft tracking via G202 for Overflying the Damascus FIR	FL240, FL260, FL280, FL360, FL380, FL400
Aircraft tracking via UL602 (Suspended)	FL300, FL320, FL340, FL360, FL380, FL400

Entering the Baghdad FIR	
Tracking	Flight Levels
Aircraft tracking via G202 for landing within the Baghdad FIR	FL250, FL270
Aircraft tracking via UP975 for Overflying the Baghdad FIR	FL330, FL350, FL390, FL410, FL430, FL450

1.8.4.3.4 Aircraft are advised that radio coverage is limited along the western edge of Iraq on G202.

1.8.4.3.4.1 Aircraft transiting eastbound should not expect radio contact with Baghdad ACC until approximately RAPLU.

1.8.4.3.4.2 In the event of an emergency requiring descent in an area of poor radio coverage, aircraft are to attempt contact with any ATC unit on a published frequency and/or emergency frequencies.

1.8.4.3.5 Aircraft operating at the same altitude shall anticipate a minimum of 10 minutes spacing from other aircraft.

1.8.4.4 Baghdad/Kuwait FIR Boundary Procedures

1.8.4.4.1 Entry/exit between Baghdad and Kuwait FIRs shall be via UP975/P975 and UL602/L602. ACFT shall be established on the Air Routes in level flight prior to TASMI/SIDAD (as appropriate for the respective air routes).

1.8.4.4.2 FL310 is not available for aircraft entering the Kuwait FIR due traffic crossing P975.

1.8.4.4.3 Aircraft shall cross the Kuwait/Baghdad FIR boundaries in accordance with the following tables:

Departing the Baghdad FIR	
Aircraft Tracking	Flight Level/Altitude
Aircraft departing Basrah for the Kuwait FIR via P975/UP975/UM688 SIDAD	FL150

Aircraft departing Basrah for the Kuwait FIR via G795 TASMI	9000ft, 11000ft, 13000ft
Aircraft landing within the Kuwait FIR, not originating from Basrah, shall track via P975/UP975/UM688 SIDAD	FL170, FL190, FL210
Aircraft overflying the Kuwait FIR via P975/UP975/UM688	FL210, FL230, FL250, FL270, FL290, FL330, FL350, FL370, FL390, FL410, FL450

Entering the Baghdad FIR	
Aircraft Tracking	Flight Level/Altitude
Aircraft originating within the Kuwait FIR shall track via L602/UL602	at or above FL160
Aircraft landing at Basrah shall enter Baghdad FIR via G795 TASMI	8000ft, 10000ft, 12000ft, FL160
Aircraft entering the Baghdad FIR will be in level flight.	FL160, FL180, FL200, FL220, FL240, FL260, FL280, FL300, FL320, FL340, FL360, FL380, FL400, FL430

1.8.4.4.4 Aircraft entering the Basrah TMA below FL150 shall contact Basrah Approach 30 NM before TASMI. Departing aircraft will be instructed to contact Kuwait ACC on frequency 125.3MHz (P), 132.1 MHz(S) or 253.2. All aircraft are subject to ATC coordination and are to maintain their cleared altitude until two-way communications has been established with the relevant ATC agency.

Note: *Special procedures are in place for military aircraft routing to / from OKAS.*

1.8.4.5 Baghdad/Jeddah FIR Boundary Procedures

1.8.4.5.1 Entry/exit between Baghdad and Jeddah FIRs shall be via MURIB on B411. ACFT shall be established in level flight prior to MURIB, unless cleared otherwise by ATC.

1.8.4.5.2 Aircraft shall cross the Baghdad/Jeddah FIR boundaries in accordance with the following tables:

Departing the Baghdad FIR	
Aircraft Tracking	Flight Level/Altitude
Aircraft tracking via B411	FL160, FL180, FL200, FL220, FL240, FL260, FL280

Entering the Baghdad FIR	
Aircraft Tracking	Flight Level/Altitude
Aircraft landing within the Baghdad FIR, tracking via B411	FL170, FL190, FL210, FL230

Aircraft overflying the Baghdad FIR, tracking via B411	FL250, FL270, FL290, FL330
---	----------------------------

1.8.4.5.3 Aircraft are advised that radio coverage is limited along the western edge of Iraq on B411.

1.8.4.5.3.1 Aircraft transiting eastbound should not expect radio contact with Baghdad ACC until approximately RALTI.

1.8.4.5.3.2 In the event of an emergency requiring descent in an area of poor radio coverage, aircraft are to attempt contact with any ATC unit on a published frequency and/or emergency frequencies.

1.8.4.5.4 In the event that ATC surveillance services are not available, aircraft can expect a minimum of 10min separation between aircraft at the same level.

1.8.4.6 Baghdad/Tehran FIR Boundary Procedures

1.8.4.6.1 Entry/exit between Baghdad and Tehran FIRs shall be via PAXAT on B411. ACFT shall be established in level flight prior to PAXAT, unless cleared otherwise by ATC.

1.8.4.6.2 Tehran and Baghdad ACC will instruct aircraft to change SSR code on entry to their respective FIRs

1.8.4.6.3 Aircraft shall cross the Baghdad/Tehran FIR boundaries in accordance with the following tables:

Departing the Baghdad FIR	
Aircraft Tracking	Flight Level/Altitude
Aircraft tracking via B411 (<i>authorised carriers only</i>)	FL170, FL230, FL290, FL410

Entering the Baghdad FIR	
Aircraft Tracking	Flight Level/Altitude
Aircraft landing within the Baghdad FIR, tracking via B411(<i>authorised carriers only</i>)	FL160, FL180, FL200, FL220

1.8.4.6.4 In the event that ATC surveillance services are not available, aircraft can expect a minimum of 10min separation between aircraft at the same level.

ENR 1.9 AIR TRAFFIC FLOW MANAGEMENT (ATFM)

1.9.1 Slot time allocation procedures for civil overflight and landing aircraft. Aircraft overflights and landings at designated airports in the Baghdad FIR are controlled by a slot time allocation scheme. Refer to section GEN 1.2 for civil aircraft slot procedures.

ENR 1.10 FLIGHT PLANNING

1.10.1 General. The air traffic rules and procedures applicable to air traffic in the Baghdad FIR conform with Annexes 2 and 11 to the Convention on International Civil Aviation and to those portions applicable to aircraft of ICAO Doc 4444 Procedures for Air Navigation Services – Air Traffic Management, and Regional Supplementary Procedures applicable to the EUR/MID/ASIA region.

1.10.2 Mandatory Timings for Flight Plans

1.10.2.1 The Baghdad Air Traffic Services Reporting Office is open. However, as a backup operators are advised to submit flight plan details through other means. Operators of flights originating outside, but landing at an aerodrome within, the Baghdad FIR are to submit flight plans for the round trip. Flight plans shall be submitted sufficiently early to ensure it is received by the relevant Air Traffic Control agencies at least 60 minutes prior to estimated off block time (EOBT) for departures from within Iraq, or at least 60 minutes prior to the aircraft reaching the Baghdad FIR boundary for inbound or over flight aircraft.

1.10.3 Flight Plan Messages.

1.10.3.1. Aircraft operating within the Iraq FIR shall use the ICAO model flight plan contained in PANS ATM DOC 4444/ATM501. Complete all entries including registration/type of aircraft, boundary estimates to/from the Baghdad FIR, and airport of intended landing.

1.10.4 Procedures Applicable to Operators (Including Pilots)

1.10.4.1 The levels at which a flight is to be conducted shall be specified in a flight plan as follows:

1.10.4.1.1 In terms of flight levels if the flight is to be conducted at or above the transition level, and

1.10.4.1.2 In terms of altitudes if the flight is to be conducted at or below the transition altitude.

1.10.4.2 Flight levels and altitudes selected for a flight shall ensure adequate terrain clearance along the route to be flown. Flight levels are specified in a flight plan by number and not in terms of feet or meters as in the case with altitudes. Selected flight levels shall be compatible with Appendix 3 Annex 2 to the Convention on International Civil Aviation, Table of Cruising Levels and comply with the cruising levels specified in ENR 1.8.3.

1.10.4.3 Aircraft may enter and exit the Baghdad FIR, only via the following points, and must flight plan accordingly:

COUNTRY	FIX	LAT/LONG
Kuwait (entry)	TASMI	N30°01'20.00" E047°55'05.00"
Kuwait (exit)	SIDAD	N29°52'31.00" E048°29'44. 00"
Turkey	KABAN	N37°14'56.00" E042°38'59.00"
Syria	MODIK	N33°28'06.00" E039°01'00.00"
Jordan	PASIP	<u>N33°06'00.00"</u> E038°5 <u>6'00.00"</u>
Saudi Arabia	MURIB	N31°12'37.00" E041°50'36.00"
Iran	PAXAT	N33°20'52.34" E046°05'18.00"

Note: The following Baghdad FIR entry/exit points are not currently in effect. When the applicable air routes linking the Baghdad FIR with adjacent FIRs are activated, the following will be added to the list of Baghdad FIR entry/exit points:

COUNTRY	FIX	LAT / LONG
Syria (exit)	ELEXI	N34°41'30.00" E041°09'00.00"
Syria (exit)	GITNU	N35°17'24.00" E041°15'53.24"
Syria (entry)	SIDNA	N36°33'58.00" E041°40'59.38"
Turkey (entry)	NINVA	N37°21'00.00" E043°13'00.00"
Iran	RIBAK	N35°49'25.77" E046°18'07.93"
Iran (entry)	BOXIX	N35°17'24.00" E046°09'21.43"
Iran	MIGMI	N33°45'54.00" E045°27'24.00"
Iran	RAGET	N33°30'48.00" E045°53'48.00"

ENR 1.11 ADDRESSING OF FLIGHT PLAN MESSAGES

1.11.1 General. Flights intending to land in, depart, or overfly Iraq should file a roundtrip flight plan using the address ORBIZQZX.

1.11.2 Addressee indicators for messages within Baghdad FIR. The ATS messages within Baghdad FIR should be addressed as follows:

Landing/Departing Aerodrome	Message Addressee
Traffic overflying Baghdad	ORBIZQZX
Traffic landing or departing from Baghdad Int'l Aerodrome	ORBIZQZX
Traffic landing or departing from Basrah Int'l Aerodrome	ORBIZQZX ORMMZQZX

The following AFTN addresses indicators are used in the AFTN messages as follows:

Message Addressee	Addressee Indicators/Locations
ORBIZQZX	Air traffic control centre-Baghdad Int. Airport
ORMMZQZX	Air traffic control centre-Basrah Int. Airport
<u>ORNIZTZX</u>	<u>Air traffic control centre- Al- Najaf Al ashraf Int. Airport</u>

ENR 1.12 INTERCEPTION OF CIVIL AIRCRAFT

1.12.1 Interception Procedures The following procedures and visual signals apply throughout the Baghdad FIR in the event of interception of an aircraft. An aircraft that is intercepted by another aircraft shall immediately:

1.12.1.1 Follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications in Appendix 1 of ICAO Annex 2;

1.12.1.2 Notify, if possible the appropriate air traffic services unit;

1.12.1.3 Attempt to establish radio-communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHZ, giving the identity of the intercepted aircraft and the nature of the flight; if no contact has been established and if practicable, repeat this call on the emergency frequency 243.0 MHZ;

1.12.1.4 If equipped with SSR transponder, select Mode A Code 7700, unless otherwise instructed by the appropriate air traffic services unit.

1.12.2 Phraseology During Interception

1.12.2.1 If radio contact is established during interception but communication in a common language is not possible, attempts shall be made to convey instructions, acknowledgement of instructions and essential information by using the phrases and pronunciation in the following , transmitting each phrase twice.

Phrase	Pronunciation	Meaning
CALL SIGN	KOL SA-IN	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	HI-JACK	I have been hijacked
LAND	LAAND	I request to land at (Place name)
DESCEND	DEE-SEND	I require descent

1.12.2.2 The phrases shown in the table below shall be used by the intercepting aircraft and transmitted twice in the circumstances described in the preceding paragraph.

1.12.2.3 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals and/or by radio, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual and/or radio instructions given by the intercepting aircraft.

1.12.2.4 The visual signals for use while intercepting are detailed on page ENR 1.12-3 to ENR 1.12-5.

Phrase	Pronunciation	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
PROCEED	PRO-SEED	You may proceed

1.12.3 Signals for use in the Event of Interception

1.12.3.1 Signals initiated by intercepting aircraft and responses by intercepted aircraft:

Serie s	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
1	<p>DAY or NIGHT - Rocking aircraft and flashing navigational lights at irregular intervals (and landing lights in case of a helicopter) from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left, (or to the right in the case of a helicopter) on the desired heading.</p> <p><i>Note 1 Meteorological conditions or terrain may required the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.</i></p> <p><i>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</i></p>	You have been intercepted. Follow me.	<p>DAY or NIGHT - Rocking aircraft, flashing navigational lights at irregular intervals and following.</p> <p><i>Note.-Additional action required to be taken by intercepted aircraft is prescribed in Annex 2. Chapter 3, 3.8.</i></p>	Understood, will comply.

	<i>rock the aircraft each time it passes the intercepted aircraft.</i>			
2	DAY or NIGHT – An abrupt break away 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.	You may proceed.	DAY or NIGHT- Rocking the aircraft.	Understood will comply.
3	DAY or NIGHT- Lowering landing gear (if fitted), showing steady landing lights and over flying RWY in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover near to the landing area.	Land at this aerodrome.	DAY or NIGHT- Lowering landing gear (if fitted), showing steady landing lights and following the intercepting aircraft and, if after overflying the RWY in use or helicopter landing area, landing is considered safe, proceeding to land.	Understood will comply.

1.12.3.2 Signals initiated by intercepted aircraft and responses by intercepting aircraft

Series	INTERCEPTED Aircraft Signals	Meaning	INTERCEPTING Aircraft Responds	Meaning
4	DAY or NIGHT-Raising landing gear (if fitted) and flashing landing lights while passing over RWY in use or helicopter landing area at a height exceeding 1 000 ft (300 m) but not exceeding 2 000 ft (600 m) (in the case of a helicopter, at a height exceeding 170 ft (50 m) but not exceeding 330 ft (100 m) above the aerodrome level, and continuing to circle RWY in use or helicopter landing area. If unable to flash landing lights, flash any other lights available.	Aerodrome you have designated is inadequate.	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 (if fitted) and use the Series 1 signals prescribed for intercepting aircraft. If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.	Understood follow me. Understood you may proceed
5	DAY or NIGHT – Regular switching on and off all available lights but in such a manner as to be distinct from flashing lights.	Cannot Comply.	DAY or NIGHT – Use Series 2 signals prescribed for intercepting aircraft.	Understood.
6	DAY or NIGHT – Irregular flashing of all available lights.	In distress.	DAY or NIGHT- Use Series 2 signals prescribed for intercepting aircraft.	Understood.

ENR 1.13 UNLAWFUL INTERFERENCE

1.13.1 General

1.13.1.1 An aircraft which is being subjected to unlawful interference shall endeavour to notify the appropriate ATS unit of this fact, any significant circumstances associated therewith and any deviation from the current flight plan necessitated by the circumstances, in order to enable the ATS unit to give priority to the aircraft and to minimize conflict with other aircraft.

1.13.1.2 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 via normal air-ground voice communications.

1.13.2 Procedures

1.13.2.1 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 notification to an ATS unit is possible or the aircraft is within ATC surveillance system coverage.

1.13.2.2 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:

1.13.2.2.1 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; and

1.13.2.2.2 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

1.13.2.2.3 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 2 000 ft (600 m) if above FL 290 or by 1 000 ft (300 m) if below FL 290.

1.13.2.3 An aircraft equipped with an SSR transponder is expected to operate the transponder on Mode A Code 7500 to indicate specifically that it is the subject of unlawful interference. The aircraft may operate the transponder on Mode A Code 7700, to indicate that it is threatened by grave and imminent danger, and requires immediate assistance.

1.13.2.4 Action to be taken by SSR-equipped aircraft which are being subjected to unlawful interference is contained in Annex 11, the PANS-ATM (Doc 4444) and the PANS-OPS (Doc 8168). Action to be taken by CPDLC-equipped aircraft which are being subjected to unlawful interference is contained in Annex 11, the PANS-ATM (Doc 4444), and guidance material on the subject is contained in the Manual of Air Traffic Services Data Link Applications (Doc 9694).

ENR 1.14 AIR TRAFFIC INCIDENTS

The Air Traffic Incident procedures described below are derived from Appendix 4 to ICAO Doc 4444 Procedures for Air Navigation Services – Air Traffic Management.

1.14.1 Definitions for Aircraft Proximity (AIRPROX).

1.14.1.1 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 relative positions and speed, has been such that the safety of the aircraft involved may have been compromised. Aircraft proximity is classified as follows:

- a. **Risk of collision.** The risk classification of aircraft proximity in which serious risk of collision has existed.
- b. **Safety not assured.** The risk classification of aircraft proximity in which serious of the aircraft may have been compromised.
- c. **No risk of collision.** The risk classification of aircraft proximity in which no risk of collision has existed.
- d. **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.

1.14.1.2 AIRPROX. The code word used in an air traffic incident report to designate aircraft proximity.

1.14.2 Definition of Air Traffic Incidents

1.14.2.1 '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:
 - i) Faulty procedures;
 - ii) Non-compliance with procedures; or
 - iii) Failure of ground facilities.

1.14.3 Designation of Air Traffic Incidents: Air traffic incidents are designated and identified in reports as follows:

Type	Designation
Air traffic incident	Incident
as 1.14.2.1 a above	AIRPROX (aircraft proximity)
as 1.14.2.1.b i & ii above	Procedure
as 1.14.2.1 b iii above	Facility

1.14.4 Use of the Air Traffic Incident Report Form (See page 1.14-4 to 1.14-5)

1.14.4.1 The Air Traffic Incident Report Form 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 template 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.

- c. By an ATS Unit for reporting an air traffic incident,

Note: The form may be used as a template for the text of a message to be transmitted over the AFS network.

1.14.5 Reporting Procedures (Including In-Flight Procedures)

1.14.5.1 The following are the procedures to be followed by a pilot who is or has been involved in an incident:

1.14.5.1.1 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. Inform air traffic control immediately of intentions to file a report to facilitate a timely investigation.

1.14.5.1.2 As promptly as possible after landing, submit a completed Air Traffic Incident Report Form:

1.14.5.1.2.1 For confirming a report of an incident made initially as in 1.14.5.1.1 above, or for making the initial report on such an incident if it had not been possible to report it by radio; or

1.14.5.1.2.2 For reporting an incident which did not require immediate notification at the time of occurrence.

1.14.5.2 An initial report made by radio should contain the following information;

1.14.5.2.1 Aircraft identification;

1.14.5.2.2 Type of incident, e.g. aircraft proximity; and

1.14.5.2.3 The incident details of A, F, I, J, K, L, M, N and O.

1.14.5.3 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:

Director, Flight Safety, ICAA, E-mail: fsd@iraqcaa.com

Director, Air Traffic Services, ICAA, E-mail: atcs@iraqcaa.com

Director General, ICAA, E-mail: dq@iraqcaa.com

1.14.6 Purpose of Reporting and Handling of the Form

1.14.6.1 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', 'no risk of collision' or 'risk not determined'.

1.14.6.2 The purpose of the form is to provide investigation authorities with as complete information on an air traffic incident as soon as possible and to enable them to report back, with the least possible delay to the pilot, operator concerned or ATS Unit, the result of the investigation of the incident and, if appropriate, the remedial action taken.

1.14.7 Air Traffic Incident Report Form.

1.14.7.1 The Air Traffic Incident Report form (ATIRF) is to be used when submitting or receiving a report on an incident involving a civilian aircraft. Shaded boxes contain items to be included in an initial report. The ATIRF number will be assigned by the ICAA Flight Safety agency. Incidents involving military ATC procedures and separation, airfield operations or facilities will be internally reported, investigated and resolved using established Coalition Forces reporting programs. Final report shall be copied to addresses in 1.14.5.3.

REPUBLIC OF IRAQ

AIR TRAFFIC INCIDENT REPORT FORM

*Shaded boxes contain items to be included in initial report.
For detailed completion instructions refer to the Iraq AIP.*



Completed form is to be e-mailed to:

Director, Flight Safety, ICAA: Email: fsd@iraqcaa.com

Director, Air Traffic Services, ICAA: E-mail: atcs@iraqcaa.com

Director General, ICAA: E-mail: dg@iraqcaa.com

Section 1 – GENERAL INFORMATION

ATIRF#

TYPE OF INCIDENT*	A	INCIDENT	PROCEDURE
		AIRPROX	FACILITY
Name of Pilot in Command	B		
Operator at Time of Incident	C		
Identification Marking of Aircraft	D		
Aircraft Type	E		
Radio Call Sign and Radio Frequency at Time of Incident	F	Radio Call Sign: Radio Frequency:	
Aerodrome of Departure	G		
Aerodrome of First Intended Landing/Destination, if Different	H		
Type of Flight Plan	I	IFR / VFR / NONE	
Position (Latitude, Longitude, Fix, Heading, Route, True Airspeed)	J		
Altitude (Flight Level or Height), Altimeter Setting, Attitude	K	Altitude: Altimeter Setting: Level / Climbing / Descending / Turning*	
Flight Weather Conditions at Time of Incident	L	IMC / VMC Above/Below: Cloud / Fog / Haze* Horizontally from / Between Cloud Layers* Flying In: Cloud / Rain / Snow / Sleet / Fog / Haze* Flying into / out of sun* Flight visibility:	
Reported by Radio to:	M	AFIS / TWR / ACC / FIC*	
Date and Time of Incident in UTC		At.....(date/time)	

* Delete or ~~Line Out~~ items that are not applicable.

ATIRF, 19 DEC 2005

Previous editions are obsolete.

Section 2 – DETAILED INFORMATION

Description of other aircraft if relevant (type, high/low wing, number of engines, radio call sign registration marking, color, lighting, other available details)		N	
Description of incident. If desired, add comments or suggestions (including your opinion) on the probable cause of the incident. In the case of near-collision, give information on respective flight paths, estimated vertical and horizontal sighting and miss distances between aircraft, and avoiding action taken by either aircraft.		O	
Date Form Completed Time: Place:	Function and Signature of Person Receiving Report X.....	Function and Signature of Person Submitting Report X.....	

Section 3 - SUPPLEMENTARY INFORMATION BY ATS UNIT CONCERNED

How was this report received?	P	Radio / Telephone / Teleprinter* at ARO / AFIS / TWR / APP / ACC / FIC*
Details of ATS action: clearance, incident observed on ATC surveillance system, warning giving result of local inquiry, etc.	Q	
Printed Name of ATS Officer..... Signature.....		Date/time UTC.....

* Delete or ~~Line Out~~ items that are not applicable.

ENR 2 AIR TRAFFIC SERVICES AIRSPACE**ENR 2.1 FLIGHT INFORMATION REGIONS AND TERMINAL CONTROL AREAS**

The following tables detail dimensions of the Baghdad FIR. Aircraft operating within the Baghdad FIR must maintain continuous air-ground communications with the relevant Air Traffic Services unit and continuously monitor the international distress frequency 121.5 MHz or 243.0 MHz.

2.1.1 Area Control Centers (ACC)

2.1.1.1 Class A airspace, FL240 and above. Remain on airway unless approved by ATC.

<u>Sector Name And Coordinates(clockwise)</u>	<u>Frequency</u>	<u>Station identifier</u>
<u>North Sector</u> <u>332610N 0460200E</u> <u>Thence along Iraqi boundaries with Saudi Arabia, Jordan, Syria, Turkey, and Iran to point 330211N 0434413E, 312033N 0412041E, 332610N 0460200E.</u> <u>FL460</u> <u>FL235</u> <u>Class A</u>	<u>129.1 MHz</u>	<u>Baghdad Control</u>
<u>South Sector</u> <u>312033N 0412041E, 330211N 0434413E, 332610N 0460200E</u> <u>Thence along Iraqi boundaries with Iran, Kuwait and Saudi Arabia to point 312033N 0412041E.</u> <u>FL460</u> <u>FL235</u> <u>Class A</u>	<u>123.0 MHz</u>	<u>Baghdad control</u>

Baghdad FIR – High-Altitude Sectors (FL 235-FL460)

Intentionally left blank

2.1.1.2 AGL-FL235. Remain on airway unless approved by ATC.

Kirkuk Sector <u>342936N 0453144E, 343054N 0414705E, 344655N 0411325E,</u> <u>Thence along Iraqi boundaries with Syria, Turkey and Iran to</u> <u>point 342936N 0453144E. Excluding</u> <u>FL235</u> <u>AGL</u> Class D-E-G	<u>127.7 MHz</u> <u>125.3 MHz</u>	<u>Baghdad</u> <u>Approach</u>	
Baghdad Sector <u>344655N 0411325E, 343054N 0414705E, 342936N 0453144E</u> <u>Thence along Iraqi boundaries with Iran, to point</u> <u>331015N 0461135E, 321420N 0444816E, 310518N 0415948E,</u> <u>Thence along Iraqi boundaries with Saudi Arabia, Jordan and</u> <u>Syria to point 344655N 0411325E.</u> <u>FL235</u> <u>AGL</u> Class D-E-G	<u>122.4 MHz</u> <u>128.2 MHz</u>	<u>Baghdad</u> <u>Approach</u>	
Ali Sector <u>310518N 0415948E, 321420N 0444816E, 331015N 0461135E</u> <u>Thence along Iraqi boundaries with Iran, Kuwait and Saudi</u> <u>Arabia to point 310518N 0415948E.</u> <u>FL235</u> <u>AGL</u> Class D-E-G	<u>120.2 MHz</u> <u>124.0 MHz</u>	<u>Baghdad</u> <u>Approach</u>	

Baghdad FIR – Low Level Sectors AGL- FL 235

Intentionally left blank

2.1.2 Terminal Control Areas (TMA):

All TMA's listed exclude Class D Control Zones associated with airfields.

Name and Lateral Limits	Upper Limit Lower Limit Class	Unit Providing ATS	Radio Callsign, FREQ, Language
Baghdad TMA: Sector A: N33°30'36.73" E044°11'34.59" THENCE TO A POINT N33°07'00.30" E044°27'45.40" THENCE TO A POINT N33°01'23.96" E044°16'12.66" THENCE TO A POINT N33°25'00.41" E043°59'58.73" THENCE TO THE POINT OF BEGINNING.	3 000 ft MSL 1 200 ft MSL Class E		
Sector B: N33°50'00" E043°44'00" to N33°50'00" E043°50'00" to N33°40'00" E043°50'00" to N33°40'00" E044°00'00" to N33°30'00" E044°00'00" to N33°30'00" E044°53'00" to N33°08'52" E044°48'55" then along the major arc of a circle of 30 NM radius centered on N33°15'45.14" E044°14'04.48" (ORBI ARP) to N33°20'52" E043°38'45" to N33°50'00" E043°44'00" to	10 000 ft MSL 5 000 ft MSL Class E	Balad ACC	Baghdad Approach 128.2 MHz 242.5MHz English

Name and Lateral Limits	Upper Limit Lower Limit Class	Unit Providing ATS	Radio Callsign, FREQ, Language
<p>Baghdad TMA:</p> <p>Sector C:</p> <p>N33°50'00" E043°15'00" to N33°50'00" E043°50'00" to N33°40'00" E043°50'00" to N33°40'00" E044°00'00" to N33°30'00" E044°00'00" to N33°30'00" E045°23'47"</p> <p>then along the major arc of a circle of 60 NM radius centered on N33°15'45.14" E044°14'04.48" (ORBI ARP) to</p> <p>N33°50'00"E043°15'00"</p> <p>Excluding that portion of Al Asad TMA(E) airspace that overlaps with and lies beneath Baghdad TMA(E).</p>	<p>FL 180 10 000 ft MSL Class E</p>	<p>Balad ACC</p>	<p>Baghdad Approach 128.2 MHz 242.5 MHz English</p>

Name and Lateral Limits	Upper Limit Lower Limit Class	Unit Providing ATS	Radio Callsign, FREQ, Language
Basrah TMA: Sector A: 15 NM radius centered on N30°32'56.4" E047°39'43.8"	FL240 1500 ft MSL Class E	Baghdad ACC	Ali Radar 120.200 MHz English
Sector B: 25 NM radius centered on N30°32'56.4" E047°39'43.8". (Limited to the east by national border of Iraq).	FL240 4000 ft MSL Class E		
Sector C: N31°27'57" E047°43'06.6" CCW along the arc of a circle of 55 NM radius centered on N30°32'56.4" E047°39'43.8" to N31°18'33.6" E047°03'51.6", N30°10'50.4" E046°41'14.4", CCW along the arc of a circle of 55 NM radius centered on N30°32'56.4" E047°39'43.8" to N29°47'54.6" E047°04'17.4", along the national border of Iraq and Kuwait to N29°52'00" E048°23'00", N29°57'00" E048°35'00" along the national border of Iraq and Iran back to origin.	FL240 7000 ft MSL Class E		

Name and Lateral Limits	Upper Limit Lower Limit Class	Unit Providing ATS	Radio Callsign, FREQ, Language
Kirkuk TMA: Sector A: 15 NM radius centered on N35°28'10.2" E044°20'56.4" (ORKK ARP).	4 000 ft MSL 2 000 ft MSL Class E	Kirkuk ACC	Kirkuk Approach 129.75 MHz 264.2 MHz English
Sector B: N36°17'00.83" E043°49'41.10" to N36°34'45.69" E043°40'17.25" to N36°38'24.60" E043°51'03.00" to N36°20'39.42" E044°00'24.58" then along the major arc of a circle 55 NM radius centered on N35°28'10.2" E044°20'56.4" (ORKK ARP) to N34°36'53.67" E043°56'26.76" then along the minor arc of a circle 20 NM radius centered on N34°40'23.63" E043°32'34.78" (ORSH ARP) to N34°59'06.31" E043°23'54.34' to N36°17'00.83" E043°49'41.10"	FL 150 4 000 ft MSL Class E		

Baghdad FIR – Terminal Control Areas (TMA)

Intentionally left blank

2.1.3 Control Zones

Name and Lateral Limits	Upper limit Lower limit Class	Unit providing ATS	Radio callsign, FREQ, language
Al Qaim Control Zone: Established within 5 NM radius of position N34°15'58.57" E041°09'44.05" (ARP)	3 000 ft AMSL Surface Class D	Qaim TWR	Old School Tower 255.8 MHz 139.55 MHz* *(on Request) English
Al Najaf Al-Ashraf Control Zone: 5nm radius of N31°59'40" E044° 24'20" (ARP)	4 000 ft AMSL Surface Class D	Al Najaf TWR	Al Najaf Tower 119.1 Mhz 119.9 Mhz English
Al Taji Control Zone: 5 NM radius of N33°31'22.1" E044°15'25.9" (ARP)	3 000 ft AMSL Surface Class D	Taji TWR	Taji Tower 40.85 HF 126.0 MHz 265.0 MHz English
Baghdad Control Zone: N33°20'27.6" E044°12'10.2" to N33°11'51" E044°17'46.2" thence via the westbound arc of a circle 5 NM centered on N33°15'45.140" E044°14'04.476" (BIAP ARP) to N33°20'27.6" E044°12'10.2"	3 000 ft AMSL Surface Class D	Baghdad TWR	Baghdad Tower 118.7 MHz or 275.8 MHz English
Additionally, N33°20'27.6" E044°12'10.2" to N33°11'51" E044°17'46.2" thence via the eastbound arc of a circle 5NM centered on N33°15'45.140" E044°14'04.476" (BIAP ARP to N33°20'27.6" E044°12'10.2"	3 000 ft AMSL 1 000 ft AMSL Class D		
Basrah Control Zone: 5 NM radius of N30°32'56.65" E047°39'43.71" (ARP)	3 000 ft AMSL Surface Class D	Basrah TWR	Basrah Tower 118.7MHz or 241.175MHz English
Erbil Control Zone: 13 NM radius of	6 000 ft	Erbil Tower	Erbil Tower

Name and Lateral Limits	Upper limit	Unit providing ATS	Radio callsign, FREQ, language
	Lower limit Class		
N36°14'15.6" E043°57'47.4" (ARP)	AMSL Surface Class D		128.8 MHz (P) 127.1 MHz (S) English
Kirkuk Control Zone: 5 NM radius of N35°28'10.12" E044°20'56.16" (ARP)	4 000 ft AMSL Surface Class D	Kirkuk TWR	Kirkuk Tower 125.55MHz or 327.8MHz English
Mosul Control Zone: 5 NM radius of N36°18'20.74" E043°08'50.63" (ARP)	4 000 ft AMSL Surface Class D	Mosul TWR	Mosul Tower 120.2 MHz or 250.025 MHz English
Sulaymaniyah Control Zone: 5 NM radius of N35°33'38.88"E045°18'52.98" (ARP)	6 000 ft AMSL Surface Class D	Sulaymani yah Tower	Sulaymaniya h Tower 118.3 MHz (P) 121.7 MHz (S) English
Tall Afar Control Zone: 5 NM radius of N36°16'59" E042°24'11" (ARP)	4 000 ft AMSL Surface Class D	Tall Afar TWR	Tall Afar Tower 118.7 MHz (P) 380.05 MHz (S) English
Ubaydah Bin Al Jarrah/Al Kut Control Zone: 5 NM radius of N32°28'54.00" E045°45'24.00" (ARP)	3000 ft AMSL Surface Class D	Blair Tower	Blair Tower 135.5 MHz (P) 244.05 MHz (S) English
Washington Army Heliport Control Zone: 3 NM radius of	1 000 ft AMSL	Washingto n	Washington Tower

Name and Lateral Limits	Upper limit	Unit providing ATS	Radio callsign, FREQ, language
	Lower limit Class		
N33°18'16.20"E044°24'12.60" (ARP)	Surface Class D	TWR	125.100 MHz or 330.750MHz English

Baghdad FIR – Control Zones

Intentionally left blank

ENR 3 ATS ROUTES**ENR 3.1 LOWER ATS ROUTES**

Baghdad FIR does not have a separate lower ATS route structure. See descriptions at ENR 3.3.1 and map at ENR 3.3.2.

ENR 3.2 UPPER ATS ROUTES

Baghdad FIR does not have a separate upper ATS route structure. See descriptions at ENR 3.3.1 and map at ENR 3.3.2

ENR 3.3 AREA NAVIGATION ROUTES

3.3.1 Rules Applicable to Air Routes in Baghdad FIR

3.3.1.1 A diagram of the ATS routes within the Baghdad FIR is at ENR 3.3.2. All ATS routes in the Baghdad FIR are area navigation routes (RNAV) designated for aircraft approved for RNAV5 operations. Aircraft must be capable of maintaining RNAV5 without reliance on ground based navigation aid updates in the Baghdad FIR.

3.3.1.2 The communications procedures for entering Baghdad FIR are as follows:

3.3.1.2.1 Entering from Turkey:

- a. At or below FL 230 and prior to entering the Baghdad FIR contact Kirkuk Center on 127.7 VHF or 237.325 UHF. If no response, proceed on last assigned routing and altitude while attempting contact every 10 NM.
- b. At or above FL 240 and prior to entering the Baghdad FIR contact Baghdad Center (North) on 129.1 MHz VHF. If no response, proceed on last assigned routing and altitude while attempting contact every 10 NM.

3.3.1.2.2 Entering from Jordan or Syria:

- a. At or below FL 230 and prior to entering the Baghdad FIR contact Balad Center 128.2 VHF or 242.5 UHF. If no response, proceed on last assigned routing and altitude while attempting contact every 10 NM.
- b. At or above FL 240 and prior to entering the Baghdad FIR contact Baghdad Center (North) 129.1 MHz VHF. If no response, proceed on last assigned routing and altitude while attempting contact every 10 NM.

3.3.1.2.3 Entering from Saudi Arabia or Iran:

- a. At or below FL 230 and prior to entering the Baghdad FIR contact Balad Center 128.2 VHF or 274.575 UHF. If no response, proceed on last assigned routing and altitude while attempting contact every 10 NM.
- b. At or above FL 240 and prior to entering the Baghdad FIR contact Baghdad Center (South) 123.0 or 127.1 MHz VHF. If no response, proceed on last assigned routing and altitude while attempting contact every 10 NM.

3.3.1.2.4 Entering from Kuwait:

a. FL230 and below: Prior to entering Baghdad FIR contact Ali Radar on 120.2 MHz. If radio contact can not be established successfully, proceed on last assigned routing and altitude while attempting contact every 10 NM.

b. FL240 and above: Prior to entering Baghdad FIR contact Baghdad Control on 123.0 MHz. If radio contact can not be established successfully, proceed on last assigned routing and altitude while attempting contact every 10 NM.

Note: Eastbound flights should not expect radio contact with Baghdad ACC until passing RAPLU, GIBUX or RALTI unless above FL 180. In the event of an emergency requiring descent in an area of poor radio coverage, pilots are to attempt

to contact any air traffic unit on a published frequency and/or the emergency frequencies.

3.3.1.3 Area Navigation Route descriptions.

Reporting/ Waypoint ID/ Coordinates ▲ Compulsory △ As Requested	Magnetic Track (↑/↓)	Distance (NM)	Levels MAA MEA MOCA's	Airspace Class	Route Width (NM)	Remarks
ATS Route G795 ▲TASMI N30°01'20.00" E047°55'05.00" ▲BSR N30°31'32.40" E047°41'12.00"	335	32	8000 ft 1600 ft	14000 ft 8000 ft 8000 ft below		Entire Airway Uni-Directional (Northbound) Ali Radar 120.200 MHz
ATS Route M203 △PUSTO N33°21'00.00" E042°45'00.00" ▲SILBO N32°59'00.00" E043°29'00.00" △LOVEK N32°22'08.40" E044°40'01.20" △SETSA N31°45'00.00" E046°04'00.00" △ILMAP N31°21'33.00" E046°57'02.00"	117 118 114 114	43 70 80.3 50.9	15000 ft 1700 ft 15000 ft 1700 ft 15000 ft 1500 ft 15000 ft 1500 ft	Class A FL 460 FL 240 Class E Below 240 FL 150	10	Entire Airway Uni-Directional (East bound) Baghdad Center 129.1 MHz 123.0 MHz Ali Radar 120.200 MHz

Reporting/ Waypoint ID/ Coordinates ▲ Compulsory △ As Requested	Magnetic Track (↑/↓)	Distance (NM)	Levels MAA MEA MOCA's	Airspace Class	Route Width (NM)	Remarks
---	-------------------------	---------------	--------------------------------	----------------	------------------	---------

ATS Route B411				Class A/E		Entire Airway Bi-Directional
▲MURIB N31°12'37.00" E041°50'36.00"			15000 ft			
	240/60	66.2	2500 ft	Class A to FL460 FL240		
△RALT I N31°42'08.40" E043°00'00.60			15000 ft			
	241/61	48.4	2100 ft			
△ELODI N32°02'56.28" E043°51'25.96			15000 ft			
	242/62	45.4	2100 ft			
△LOVEK N32°22'08.40" E044°40'01.20"			15000 ft		10	Baghdad Center 123.0 MHz
	229/49	26.7	2300 ft			
△LONOR N32°38'38.63" E045°04'58.48"			15000 ft	Class E		
	229/49	17.7	2300 ft	Below FL 240 FL 150		
△NOLDO N32°49'32.40" E045°21'29.40"						
	226/46	6.2	New Segment			
△PAPUS N32°53'34.06" E045°27'06.55"						
▲PAXAT N33°20'52.34" E046°05'18.00"	226/46	42.1	New Segment			

Reporting/ Coordinates	Waypoint	ID	Magnetic Track (↑/↓)	Distance (NM)	Levels MAA MEA MOCA's	Airspace Class	Route Width (NM)	Remarks
▲ Compulsory △ As Requested								
ATS Route UM860						Class A	10	
▲KABAN N37°14'56.00" E042°38'59.00"						FL 460 FL 240		
	151/331	31.4		15000ft 8000 ft				Uni-Directional (Northbound)
▲EMIDO N36°46'12.29" E042°54'53.53"								
	151/331	44.2		15000ft 8000 ft				Uni –Directional (Northbound)
△SEVKU N36°05'48.02" E043°17'15.84"								
	152/332	52.5		15000ft 3900 ft				Uni-Directional (Northbound)

△UMESA N35°17'41.49" E043°43'06.89"	332	52.0	15000ft 2200 ft		Uni-Directional (Northbound)
△TAGRU N34°29'58.95" E044°08'16.67"	334	62.7	15000ft 2200 ft		Uni-Directional (Northbound)
△PUTSI N33°32'00.00" E044°37'00.00"	338	12.7	15000ft 2300 ft		Uni-Directional (Northbound)
△ITOVA N33°19'50.91" E044°41'28.97"	339	7.2	15000ft 2300 ft		Uni-Directional (Northbound)
▲SEPTU N33°13'.00" E044°44'00.00"	329	38.6	15000ft 1500 ft		Uni-Directional (Northbound)
△LONOR N32°38'38.63" E045°04'58.48"	335	25.4	15000 ft		Uni-Directional (Northbound)
△ULIMA N32°15'00.00" E045°16'00.00"	334	29.6	15000 ft	Class E	Uni-Directional (Northbound)
▲ITBIT N31°47'35.20" E045°29'16.57"				Below FL 240 FL 150	
	153/333	81.5	New Segment		Bi-Directional
▲RUGIR N30°32'19.06" E046°06'18.20"					

ATS Route L126				Class E	10	Entire Airway Bi-Directional
▲ILM N33°34'42.30" E046°24'55.40"	280/100	48.9	13000 ft	Class Below FL240 FL 150	E to	Balad Center 123.525 MHz
▲MIGMI N33°45'54.00" E045°27'24.00"	287/107	40.3	New Segment			
△SIGNI N34°00'07.80" E044°42'01.20"	284/104	40.8	15000 ft 1 600 ft			

△SOGUM N34°12'12.00" E043°54'54.00"					
	225/045	77.4	15000ft 1 700 ft		
△PUSTO N33°21'00.00" E042°45'00.00"					

ATS Route L417				Class A		
▲VUSEB N36°16'36.94" E043°48'00.00						
	179/359	30.4	15000ft 2800 ft	FL460 FL240		Entire Airway Bi-Directional
△DAXOG N35°46'12.22" E043°45'27.98						
	179/359	28.5	15000ft 2800 ft			
△UMESA N35°17'41.49" E043°43'06.89"						
	181/001	47.8	15000ft 2800 ft			Baghdad Center 123.0 MHz 129.1 MHz
▲MUTAG N34°30'03.45" E043°38'34.38"					10	
	334/154	80.3	15000ft 2200 ft			
△LAGLO N33°15'38.60" E044°14'57.29"						
	337/157	8.1	15000ft 2200 ft			
▲ELOSI N33°08'00.00" E044°18'00.00"						
	334/154	49.4	15000ft 2200 ft			
△LOVEK N32°22'08.40" E044°40'01.20"						
	332/152	14.1	15000ft 2200 ft	Class E		
△ELIBA N32°09'14.92" E044°46'44.63"				Below FL 240 FL 150		
	333/153	69.7	15000ft 2200 ft			
▲NADOX N31°05'04.73" E045°18'51.30"						

Reporting/ Coordinates	Waypoint	ID/Magnetic Track	Distance (NM)	Levels MAA MEA MOCA's	Airspace Class	Route Width (NM)	Remarks
▲ Compulsory		(↑/↓)					
△ As Requested							
ATS Route G202					Class A	10	Entire Airway Bi-Directional
▲MODIK N33°28'06.00" E039°01'00.00"				15000ft	FL 460		Baghdad Center

△RAPLU N33°23'00.00" E041°45'30.00"	268/88	137.4	3500 ft	FL 240		132.1 MHz 129.1 MHz
△PUSTO N33°21'00.00" E042°45'00.00"	269/089	49.7	15000 ft 2600 ft			Balad Center 123.525 MHz
△DELM I N33°19'18.31" E043°13'27.59"	271/091	23.8	New Segment			
▲LAGLO N33°15'38.60" E044°14'57.29"	270/090	50.8	New Segment			
△ITOVA N33°19'50.91" E044°41'28.97"	255/075	22.6	15000ft 2200 ft			
△SINKA N33°21'37.31" E044°47'52.55"	248/068	5.6	15000ft 4400 ft	Class E		
▲RAGET N33°30'48.00" E045°53'48.00"	256/076	61.5		Below FL 240 FL 150		
▲ILM N33°34'42.30" E046°24'55.40"	257/077	26.1	13000 ft			

ATS Route L200				Class FL460 FL240	A to	Entire Airway Bi- Directional Baghdad Center 132.1 MHz 129.1 MHz
▲PASIP <u>N33°06'00.00"</u> E038°5 <u>6'00.00"</u>	265/85	114	15000ft 4300 ft		10	
△GIBUX N33°05'00.00" E041°11'00.00"	267/87	58	15000ft 2600 ft	Class Below	E	
△SIGBI N32°02'00.00" E042°20'00.00"	267/87	58	15000ft 1700 ft	FL 240 FL 150		
▲SILBO N32°59'00.00" E043°29'00.00"						

Reporting/ Coordinates ▲ Compulsory △ As Requested	Waypoint	ID	Magnetic Track (↑/↓)	Distance (NM)	Levels MAA MEA MOCA's	Airspace Class	Route Width (NM)	Remarks
ATS Route L602								
▲TASMI N30°01'20.00" E047°55'05.00"		308		50	15000 ft			Entire Airway Uni-Directional (Westbound only)
▲GADSI N30°33'58.08" E047°11'15.73"		308		59.2	15000 ft	Class E Below FL 240 FL 150	10	Balad Center 120.2 MHz
△ALPET N31°12'19.00" E046°18'44.00"		307		55	15000 ft			
▲ITBIT N31°47'35.20" E045°29'16.57"		307		35.6	15000 ft			
▲MUTLO N32°10'18.98" E044°57'02.83"		306		18.7	15000 ft			
△LOVEK N32°22'08.40" E044°40'01.20"								

Reporting/ Coordinates ▲ Compulsory △ As Requested	Waypoint	ID	Magnetic Track (↑/↓)	Distance (NM)	Levels MAA MEA MOCA's	Airspace Class	Route Width (NM)	Remarks
ATS Route UL602								
▲TASMI N30°01'20.00" E047°55'05.00"		308		50	24000ft 1300 ft	Class A FL460 to FL240	10	Entire Airway Uni-Directional (Westbound)
▲GADSI N30°33'58.08" E047°11'15.73"		308		59.2	24000ft 1700 ft			
△ALPET N31°12'19.00" E046°18'44.00"		307		55	24000ft 2300 ft			
▲ITBIT N31°47'35.20" E045°29'16.57"		307		35.6	24000ft 2300 ft			
▲MUTLO N32°10'18.98" E044°57'02.83"		306		18.7	24000ft 2300 ft			Baghdad Center 123.0 MHz 129.1 MHz
△LOVEK N32°22'08.40" E044°40'01.20"								

△DELM I N33°19'18.31" E043°13'27.59"	305	92.5	24000ft 1700 ft			
△ASNOT N33°29'59.55" E042°57'16.62"	305	17.2	24000ft 1800 ft			
△GEPAP N33°49'05.80" E042°28'50.64"	306	30.4	24000 ft 2300 ft			
TEMPORARILY SUSPENDED						
▲ELEXI N34°41'30.00" E041°09'00.00"	305	84.3	24000ft 2300 ft			
						GEPAP to ELEXI NOT AVBL. Refer to NOTAMs for current status.

Reporting/ Coordinates ▲ Compulsory △ As Requested	Waypoint	ID/Magnetic Track (↑/↓)	Distance (NM)	Levels MAA MEA MOCA's	Airspace Class	Route Width (NM)	Remarks
ATS Route P975				Below FL240 to FL150			Entire Airway Uni- Directional (Southbound)
△NOLDO N32°49'32.40" E045°21'29.40"							
	134	16.3	15000ft 1800 ft				
▲KATUT N32°37'37.33" E045°34'39.37"				15000ft 1800 ft			
	134	20.7					
△DENKI N32°22'28.46" E045°51'21.58"				15000ft 1800 ft	Class Below FL240 FL150	E to 10	Balad Center 120.2 MHz
	134	82.6					
△ILMAP N31°21'33.00" E046°57'02.00"				15000ft 1500 ft			
	135	42.0					
▲PEBAD N30°50'23.09" E047°29'58.49"				15000ft 1500 ft			
	135	77.5					
▲SIDAD N29°52'31.00" E048°29'44.00"							

ATS Route UP975						Entire Airway Uni- Directional (Southbound)
▲ SIDNA N36°33'58.00" E041°40'59.38"	138	97	24000ft 5700 ft			
△TUBEN N35°17'24.00" E042°54'34.30"	139	59.5	24000ft 5700 ft			
▲MUTAG N34°30'03.45" E043°38'34.38"	139	22.4	24000ft 5700 ft			
△SOGUM N34°12'12.00" E043°54'54.00"	135	53.3	24000ft 2300 ft			
△PUTSI N33°32'00.00" E044°37'00.00"						Baghdad Center 129.1 MHz North 123.0 MHz South
	135	13.8	24000ft 2300 ft	Class A FL 460 FL 240	10	
△SINKA N33°21'37.31" E044°47'52.55"	135	42.7	24000ft 1500 ft			
△NOLDO N32°49'32.40" E045°21'29.40"	134	16.3	24000ft 1800 ft			
▲KATUT N32°37'37.33" E045°34'39.37"	134	20.7	24000ft 1800 ft			
△DENKI N32°22'28.46" E045°51'21.58"	134	82.6	24000ft 1800 ft			
△ILMAP N31°21'33.00" E046°57'02.00"	135	42	24000ft 1500 ft			
▲PEBAD N30°50'23.09" E047°29'58.49"	135	77.5	24000 ft 1500 ft			
▲SIDAD N29°52'31.00" E048°29'44.00"						

Reporting/ Coordinates	Waypoint	ID	Magnetic Track	Distance (NM)	Levels MAA	Airspace Class	Route Width (NM)	Remarks
▲ Compulsory			(↑/↓)		MEA			
△ As Requested					MOCA's			
ATS Route Y886								
△UMESA N35°17'41.49" E043°43'06.89"		321/141		58.4	15000ft 2200 ft	Class A FL 460 FL 240		Entire Airway Bi-Directional
▲DASUR N34°30'05.62" E044°24'17.35"		322/142		57.2	15000ft 2200 ft			Baghdad Center 129.1 MHz 123.0 MHz
△UKMUG N33°43'00.35" E045°03'28.80"		335/155		26.8	15000ft 2200 ft		10	
▲VAXEN N33°18'00.00" E045°15'00.00"		333/153		26.4	15000ft 2300 ft			
△PAPUS N32°53'34.06" E045°27'06.55"		335/155		17.2	15000ft 1800 ft			
▲KATUT N32°37'37.33" E045°34'39.37"		331/151		58.2	15000 ft			
△SETSA N31°45'00.00" E046°04'00.00"		336/156		35.0	15000 ft			
△ALPET N31°12'19.00" E046°18'44.00"								

Reporting/ Coordinates	Waypoint	ID	Magnetic Track	Distance (NM)	Levels MAA	Airspace Class	Route Width (NM)	Remarks
▲ Compulsory			(↑/↓)		MEA			
△ As Requested					MOCA's			
ATS Route T887								
△OTALO N35°17'00.00" E044°19'00.00"		351/171		47.1				Entire Airway Bi-Directional
▲DASUR N34°30'05.62" E044°24'17.35"		346/166		59.0		Class A Below FL460 FL240	10	Baghdad Center 129.1 MHz
△PUTSI N33°32'00.00" E044°37'00.00"								Waypoints OTALO and PUTSI not flight checked for position confirmation.

Reporting/ Coordinates ▲ Compulsory △ As Requested	Waypoint	ID/Magnetic Track (↑/↓)	Distance (NM)	Levels MAA MEA MOCA's	Airspace Class	Route Width (NM)	Remarks
ATS Route UM688							
▲NINVA N37°21'00.00" E043°13'00.00"		152	39.7		Class A FL460 to FL240		Entire Airway Uni- Directional (Southbound)
▲ROXOP N36°44'45.47" E043°33'22.18"		152	30.5				
▲VUSEB N36°16'36.94" E043°48'00.00"		152	30				
△TOMSI N35°48'57.60" E044°02'29.32"		152	34.6				
△OTALO N35°17'00.00" E044°19'00.00"		156	50				
△RIDIP N34°30'12.09" E044°40'27.24"		154	50.9				
△UKMUG N33°43'00.35" E045°03'28.80"		155	26.8				
▲VAXEN N33°18'00.00" E045°15'00.00"		153	26.4			10	
△PAPUS N32°53'34.06" E045°27'06.55"		155	17.2				
▲KATUT N32°37'37.33" E045°34'39.37"		134	20.7	15000ft 1800 ft			
△DENKI N32°22'28.46" E045°51'21.58"		134	82.6	15000ft 1800 ft			
△ILMAP N31°21'33.00" E046°57'02.00"		135	42.0	15000ft 1500 ft			

▲PEBAD N30°50'23.09" E047°29'58.49"			15000ft 1500 ft			
	135	77.5				
▲SIDAD N29°52'31.00" E048°29'44.00"						

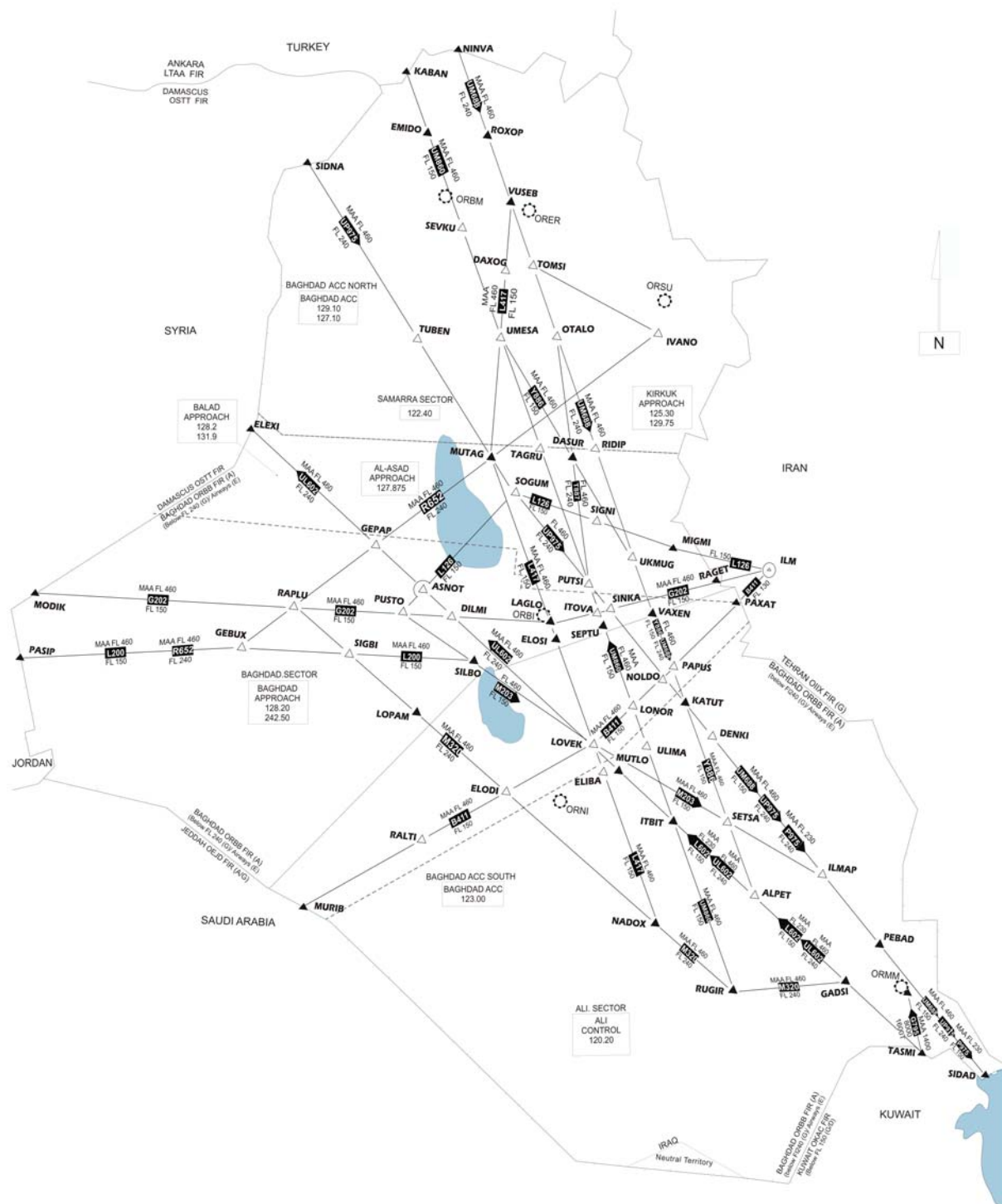
Reporting/ Coordinates	Waypoint	ID/Magnetic Track	Distance (NM)	Levels MAA	Airspace Class	Route Width (NM)	Remarks
▲ Compulsory		(↑/↓)		MEA			
△ As Requested				MOCA's			
ATS Route R652					Class A		Entire Airway Bi-Directional
▲DAXAN N32°05'12.16" E039°37'19.13"				New Segment	FL 460 FL 240		Baghdad Center
TEMPORARILY SUSPENDED		230/50	99.0				129.1 MHz
△GIBUX N33°05'00.00" E041°11'00.00"				New Segment			132.1 MHz
		234/54	34.0				
△RAPLU N33°23'00.00" E041°45'30.00"				New Segment			
		231/51	44.5				
△GEPAP N33°49'05.80" E042°28'50.64"				New Segment			Waypoints DAXAN, GIBUX, GEPAP, IVANO, and RIBAX not flight checked for position confirmation.
		231/51	70.8			10	
▲MUTAG N34°30'03.45" E043°38'34.38"				New Segment			
		234/54	90.5				
△IVANO N35°17'24.00" E045°12'34.66"				New Segment			DAXAN to GIBUX and IVANO to RIBAX NOT AVBL. Refer to NOTAMs for current status
TEMPORARILY SUSPENDED		235/55	62.2				
▲RIBAK N35°49'25.77" E046°18'07.93"							

Reporting/ Coordinates	Waypoint	ID	Magnetic Track	Distance (NM)	Levels MAA	Airspace Class	Route Width (NM)	Remarks
▲ Compulsory			(↑/↓)		MEA			
△ As Requested					MOCA's			
ATS Route M320								
▲ GADSI N30°33'58.08" E047°11'15.73"					New Segment	Class A FL 460 FL 240		Entire Airway Bi-Directional
TEMPORARILY SUSPENDED								
▲ RUGIR N30°32'19.06" E046°06'18.20"		264/84		56	New Segment			Baghdad Center 129.1 MHz 123.0 MHz
		305/125		52.3	New Segment			
▲ NADOX N31°05'04.73" E045°18'51.30"		305/125		94.3	New Segment			
							10	Waypoint RUGIR, not flight checked for position confirmation.
△ ELODI N32°02'56.28" E043°51'25.96"		305/125		57.1	New Segment			
▲ LOPAM N32°37'57.19" E042°58'05.98"		304/124		40	New Segment			
△ SIGBI N33°02'00.00" E042°20'00.00"		303/123		36	New Segment			
△ RAPLU N33°23'00.00" E041°45'30.00"								

Reporting/ Coordinates	Waypoint	ID	Magnetic Track	Distance (NM)	Levels MAA	Airspace Class	Route Width (NM)	Remarks
▲ Compulsory			(↑/↓)		MEA			
△ As Requested					MOCA's			

***MOCA is only used for VFR charts**

3.3.2 Approved ATS routes and Entry/Exit Points for Baghdad FIR



ENR 3.4 HELICOPTER ROUTES

3.4.1 There are no designated helicopter routes in the Baghdad FIR.

ENR 3.5 OTHER ROUTES

3.5.1 Preferred Routing:

3.5.1.1. Flights originating and landing within the Baghdad FIR will plan their routing based on the current ATS route structure advising ATC of their intended clearance. ATC will approve or amend these clearances as required. Aircraft operators intending to land in Iraq are to flight plan to and from the airports via the preferred routes listed below. All aircraft shall navigate on the route centerline. No offset tracking is allowed. Deviations shall not be made without the prior approval of the controlling ATC facility. Levels shall be as instructed by ATC.

3.5.2 The preferred routings are as detailed below:

3.5.2.1 Preferred Departure routes (for Latitudes/Longitudes see [ENR 4.3](#)):

From Baghdad (ORBI) to:

To Ankara FIR:	ORBI TAGRU UMESA SEVKU EMIDO KABAN
To Damascus FIR:	ORBI PUSTO RAPLU MODIK
To Amman FIR:	ORBI SIGBI GIBUX PASIP
To Jeddah FIR:	ORBI DIRECT RALTI MURIB
To Kuwait FIR:	ORBI NOLDO KATUT DENKI ILMAP PEBAD SIDAD IMDOX
To Tehran FIR:	ORBI NOLDO PAPUS PAXAT

From Sulaymaniyah (ORSU) to:

To Ankara FIR:	ORSU IVANO OTALO UMESA SEVKU EMIDO KABAN
To Damascus FIR:	ORSU IVANO MUTAG GEPAP RAPLU MODIK
To Amman FIR:	ORSU IVANO MUTAG GEPAP GIBUX PASIP
To Jeddah FIR:	ORSU IVANO MUTAG ELODI RALTI MURIB
To Kuwait FIR:	ORSU IVANO RIDIP UKMUG VAXEN PAPUS KATUT DENKI ILMAP PEBAD SIDAD
To Tehran FIR:	ORSU IVANO RIDIP UKMUG VAXEN PAPUS PAXAT

From Erbil (ORER) to:

To Ankara FIR:	ORER SEVKU EMIDO KABAN
To Damascus FIR:	ORER UMESA GEPAP RAPLU MODIK
To Amman FIR:	ORER UMESA GEPAP GIBUX PASIP
To Jeddah FIR:	ORER UMESA ELODI RALTI MURIB
To Kuwait FIR:	ORER OTALO RIDIP UKMUG VAXEN PAPUS KATUT DENKI ILMAP PEBAD SIDAD
To Tehran FIR:	ORER OTALO RIDIP UKMUG VAXEN PAPUS PAXAT

From Al Taji (ORTI) to:

To Ankara FIR:	ORTI TAGRU UMESA SEVKU EMIDO KABAN
To Damascus FIR:	ORTI PUSTO RAPLU MODIK
To Amman FIR:	ORTI SILBO SIGBI GIBUX PASIP
To Jeddah FIR:	ORTI ELOSI ELODI RALTI MURIB
To Kuwait FIR:	ORTI KATUT DENKI ILMAP PEBAD SIDAD
To Tehran FIR:	ORTI NOLDO PAPUS PAXAT

From Kirkuk (ORKK) to:

To Ankara FIR:	ORKK UMESA SEVKU EMIDO KABAN
To Damascus FIR:	ORKK UMESA GEPAP RAPLU MODIK
To Amman FIR:	ORKK UMESA GEPAP RAPLU GIBUX PASIP
To Jeddah FIR:	ORKK UMESA ELODI RALTI MURIB
To Kuwait FIR:	ORKK OTALO RIDIP UKMUG VAXEN PAPUS KATUT DENKI ILMAP PEBAD SIDAD
To Tehran FIR:	ORKK OTALO RIDIP UKMUG VAXEN PAPUS PAXAT

From Mosul (ORBM) to:

To Ankara FIR:	ORBM SEVKU EMIDO KABAN
To Damascus FIR:	ORBM SEVKU UMESA GEPAP RAPLU MODIK
To Amman FIR:	ORBM SEVKU UMESA GEPAP RAPLU GIBUX PASIP
To Jeddah FIR:	ORBM SEVKU UMESA ELODI RALTI MURIB
To Kuwait FIR:	ORBM OTALO RIDIP UKMUG VAXEN PAPUS KATUT DENKI ILMAP PEBAD SIDAD
To Tehran FIR:	ORBM OTALO RIDIP UKMUG VAXEN PAPUS PAXAT

From Tall Afar (ORTF) to:

To Ankara FIR:	ORTF SEVKU EMIDO KABAN
To Damascus FIR:	ORTF SEVKU UMESA GEPAP RAPLU MODIK
To Amman FIR:	ORTF SEVKU UMESA GEPAP RAPLU GIBUX PASIP
To Jeddah FIR:	ORTF SEVKU UMESA ELODI RALTI MURIB
To Kuwait FIR:	ORTF OTALO RIDIP UKMUG VAXEN PAPUS KATUT DENKI ILMAP PEBAD SIDAD
To Tehran FIR:	ORTF OTALO RIDIP UKMUG VAXEN PAPUS PAXAT

From Ubaydah Bin Al Jarrah/AI Kut (ORUB) to:

To Ankara FIR:	ORUB KATUT NOLDO SINKA PUTSI TAGRU UMESA SEVKU EMIDO KABAN
To Damascus FIR:	ORUB LOVEK SILBO PUSTO RAPLU MODIK
To Amman FIR:	ORUB LOVEK SILBO SIGBI GIBUX PASIP
To Jeddah FIR:	ORUB LOVEK ELODI RALTI MURIB
To Kuwait FIR:	ORUB DENKI ILMAP PEBAD SIDAD
To Tehran FIR:	ORUB KATUT PAPUS PAXAT

From Basrah (ORMM) to:

To Ankara FIR:	ORMM GADSI ALPET ITBIT ULIMA LONOR SEPTU ITOVA PUTSI TAGRU UMESA SEVKU EMIDO KABAN
To Damascus FIR:	ORMM GADSI ALPET ITBIT LOVEK SILBO PUSTO RAPLU MODIK
To Amman FIR:	ORMM GADSI DIRECT NADOX DIRECT GIBUX PASIP
To Jeddah FIR:	ORMM GADSI DIRECT NADOX DIRECT RALTI MURIB
To Kuwait FIR:	ORMM SIDAD
To Tehran FIR:	ORMM GADSI ALPET SETSA KATUT PAPUS PAXAT

From Al Najaf (ORNI) to:

To Ankara FIR:	ORNI LOVEK LONOR SEPTU ITOVA PUTSI TAGRU UMESA SEVKU EMIDO KABAN
To Damascus FIR:	ORNI ELODI LOPAM SIGBI RAPLU MODIK
To Amman FIR:	ORNI ELODI LOPAM SIGBI GIBUX PASIP
To Jeddah FIR:	ORNI ELODI RALTI MURIB
To Kuwait FIR:	ORNI SETSA ILMAP PEBAD SIDAD
To Tehran FIR:	ORNI LOVEK LONOR NOLDO PAPUS PAXAT

3.5.2.2 Preferred Arrival routes (for Latitudes/Longitudes see ENR 4.3):

From Ankara FIR:

TO ORBI: NINVA ROXOP VUSEB OTALO RIPID UKMUG VAXEN DIRECT
TO ORNI: NINVA ROXOP VUSEB OTALO RIDIP UKMUG VAXEN PAPUS
NOLDO LONOR LOVEK DIRECT
TO ORBM: NINVA ROXOP VUSEB DIRECT
TO ORSU: NINVA ROXOP VUSEB OTALO DIRECT
TO ORKK: NINVA ROXOP VUSEB DIRECT
TO ORER: NINVA ROXOP DIRECT
TO ORMM: NINVA ROXOP VUSEB OTALO RIDIP UKMUG
VAXEN PAPUS KATUT DENKI ILMAP PEBAD DIRECT
TO ORTI: NINVA ROXOP VUSEB DAXOG UMESA MUTAG
DIRECT
TO ORTF: NINVA ROXOP VUSEB DIRECT
TO ORUB: NINVA ROXOP VUSEB OTALO RIDIP UKMUG
VAXEN PAPUS DIRECT

From Tehran FIR:

TO ORBI: PAXAT PAPUS NOLDO LONOR DIRECT
TO ORNI: PAXAT PAPUS NOLDO LONOR LOVEK DIRECT
TO ORBM: PAXAT PAPUS NOLDO LONOR SEPTU ITOVA PUTSI
TAGRU UMESA DIRECT
TO ORSU: PAXAT PAPUS NOLDO LONOR SEPTU ITOVA PUTSI DASUR
OTALO DIRECT
TO ORKK: PAXAT PAPUS NOLDO LONOR SEPTU ITOVA PUTSI DASUR
OTALO DIRECT
TO ORER: PAXAT PAPUS NOLDO LONOR SEPTU ITOVA PUTSI TAGRU
UMESA DAXOG VUSEB DIRECT
TO ORMM: PAXAT PAPUS KATUT DENKI ILMAP PEBAD DIRECT
TO ORTI: PAXAT PAPUS NOLDO LONOR SEPTU ITOVA PUTSI TAGRU
DIRECT
TO ORTF: PAXAT PAPUS NOLDO LONOR SEPTU ITOVA PUTSI TAGRU
UMESA SEVKU DIRECT
TO ORUB: PAXAT PAPUS KATUT DIRECT

From Kuwait FIR:

TO ORBM: TASMI GADSI ALPET ITBIT ULIMA LONOR SEPTU
 ITOVA PUTSI TAGRU UMESA SEVKU DIRECT
TO ORNI: TASMI GADSI ALPET ITBIT DIRECT
TO ORBI: TASMI GADSI ALPET ITBIT LONOR DIRECT
TO ORER: TASMI GADSI ALPET ITBIT ULIMA LONOR SEPTU
 ITOVA PUTSI TAGRU UMESA DAXOG VUSEB DIRECT
TO ORMM: TASMI DIRECT
TO ORSU: TASMI GADSI ALPET ITBIT ULIMA LONOR SEPTU
 ITOVA PUTSI DASUR DIRECT
TO ORKK: TASMI GADSI ALPET ITBIT ULIMA LONOR
 SEPTU ITOVA PUTSI DASUR DIRECT
TO ORTI: TASMI GADSI ALPET ITBIT ULIMA LONOR
 SEPTU ITOVA PUTSI TAGRU DIRECT
TO ORTF: TASMI GADSI ALPET ITBIT ULIMA LONOR
 SEPTU ITOVA PUTSI TAGRU UMESA SEVKU DIRECT
TO ORUB: TASMI GADSI ALPET SETSA KATUT DIRECT

From Amman FIR:

TO ORBI: PASIP GIBUX SIGBI SILBO DIRECT
TO ORNI: PASIP GIBUX SIGBI LOPAM ELODI DIRECT
TO ORBM: PASIP GIBUX RAPLU GEPAP MUTAG UMESA SEVKU DIRECT
TO ORSU: PASIP GIBUX RAPLU GEPAP MUTAG IVANO DIRECT
TO ORKK: PASIP GIBUX RAPLU GEPAP MUTAG DIRECT
TO ORER: PASIP GIBUX RAPLU GEPAP MUTAG UMESA DAXOG VUSEB
 DIRECT
TO ORMM: PASIP GIBUX DIRECT NADOX DIRECT
TO ORTI: PASIP GIBUX SIGBI SILBO DIRECT
TO ORTF: PASIP GIBUX RAPLU GEPAP MUTAG UMESA SEVKU
 DIRECT
TO ORUB: PASIP GIBUX SIGBI SILBO DIRECT ELOSI DIRECT NOLDO KATUT
 DIRECT

From Damascus FIR:

TO ORBI: MODIK RAPLU PUSTO DIRECT
TO ORNI: MODIK RAPLU SIGBI LOPAM ELODI DIRECT
TO ORBM: MODIK RAPLU GEPAP MUTAG UMESA SEVKU DIRECT
TO ORSU: MODIK RAPLU GEPAP MUTAG IVANO DIRECT
TO ORKK: MODIK RAPLU GEPAP MUTAG DIRECT
TO ORER: MODIK RAPLU GEPAP MUTAG UMESA DAXOG DIRECT
TO ORMM: MODIK RAPLU DIRECT RALTI DIRECT NADOX DIRECT
TO ORTI: MODIK RAPLU PUSTO DIRECT
TO ORTF: MODIK RAPLU GEPAP MUTAG UMESA SEVKU DIRECT
TO ORUB: MODIK RAPLU PUSTO SILBO DIRECT ELOSI NOLDO KATUT
DIRECT

From Jeddah FIR:

TO ORBI: MURIB DIRECT LOPAM DIRECT SILBO DIRECT
TO ORNI: MURIB RALTI ELODI DIRECT
TO ORBM: MURIB RALTI ELODI LOVEK LONOR SEPTU ITOVA PUTSI
TAGRU UMESA SEVKU DIRECT
TO ORSU: MURIB RALTI ELODI LOVEK LONOR SEPTU ITOVA PUTSI
DASUR DIRECT
TO ORKK: MURIB RALTI ELODI LOVEK LONOR SEPTU ITOVA PUTSI
DASUR OTALO DIRECT
TO ORER: MURIB RALTI ELODI LOVEK LONOR SEPTU ITOVA PUTSI
TAGRU UMESA DAXOG DIRECT
TO ORMM: MURIB RALTI DIRECT NADOX DIRECT
TO ORTI: MURIB RALTI DIRECT SILBO DIRECT
TO ORTF: MURIB RALTI ELODI LOVEK LONOR SEPTU ITOVA PUTSI
TAGRU UMESA SEVKU DIRECT
TO ORUB: MURIB RALTI DIRECT NOLDO KATUT DIRECT

3.5.2.3 Preferred Overflight Routes (for Latitudes/Longitudes see [ENR 4.3](#)):

Northbound Overflights:

TASMI GADSI ALPET ITBIT ULIMA LONOR SEPTU ITOVA PUTSI
TAGRU UMESA SEVKU EMIDO KABAN

RUGIR ITBIT ULIMA LONOR SEPTU ITOVA PUTSI TAGRU
UMESA SEVKU EMIDO KABAN

(TEMPORARILY SUSPENDED)

TASMI GADSI ALPET ITBIT LOVEK SILBO PUSTO RAPLU
MODIK

Southbound Overflights:

NINVA ROXOP VUSEB OTALO RIDIP UKMUG VAXEN PAPUS
KATUT DENKI ILMAP PEBAD SIDAD
MODIK RAPLU PUSTO SILBO LOVEK SETSA ILMAP PEBAD
SIDAD

Westbound Overflights:

TO JEDDAH: PAXAT PAPUS NOLDO LONOR LOVEK ELODI
RALTI MURIB

TO AMMAN: PAXAT PAPUS NOLDO LONOR LOVEK SILBO
SIGBI GIBUX PASIP

TO DAMASCUS: PAXAT PAPUS NOLDO LONOR LOVEK
SILBO PUSTO RAPLU MODIK

Jeddah Eastbound Overflight:

MURIB RALTI ELODI LOVEK LONOR NOLDO PAPUS PAXAT

Amman Eastbound Overflight:

PASIP GIBUX SIGBI SILBO LOVEK LONOR NOLDO PAPUS
PAXAT

Damascus Eastbound Overflight:

MODIK RAPLU PUSTO SILBO LOVEK LONOR NOLDO PAPUS
PAXAT

ENR 3.6 ENROUTE HOLDING

There are no enroute holding patterns published in the Baghdad FIR. However, if necessary, such as to establish the required longitudinal separation standard, enroute aircraft may be instructed to hold at one of the designated enroute reporting points. The holding procedures shall be a standard 180 degree right turn to fly outbound on the reciprocal track for one minute then conduct a standard 180 degree right turn to intercept the inbound track to overhead the holding point. ICAO Doc 8168-PAN-OPS refers.

ENR 4 RADIO NAVIGATION AIDS/ SYSTEMS
ENR 4.1 RADIO NAVIGATION AIDS - EN-ROUTE

Name of station	ID	FREQ and Channel	Hours of operation	Coordinates	Remarks
Baghdad TACAN	BAP	CH64X	H24	N33°16'00.23" E044°13'21.34"	Military use only
Baghdad D-VOR	BGD	112.9 MHz CH 76	H24	N33°17'31.00" E044°13'31.00"	VAR 4°E
Basrah VOR-DME	BSR	112.3 MHz CH 70X	H24	N30°31'32.33" E047°41'12.10"	VAR 3° E
Kirkuk TACAN	KRK	CH 86X	H24	N35°28'16.26 E044°20'52.14"	VAR 4° E

ENR 4.2 SPECIAL NAVIGATION SYSTEM

4.2.1 There are no special navigation system facilities established in the Baghdad FIR. Note the RNAV5 requirements described at GEN 1.5.2.

ENR 4.3 NAME – CODE DESIGNATORS FOR SIGNIFICANT POINTS

4.3.1 Significant points for the Baghdad FIR are listed at ENR 3.3 in the table describing Air Navigation Routes.

NAME	LATITUDE	LONGITUDE	AIRWAY
ALPET	N311219.00	E0461844.00	L/UL602, Y886
ASNOT	N332959.55	E0425716.62	UL602
DASUR	N343005.62	E0442417.35	T887, Y886
DAXAN	N320512.16	E0393719.13	R652
DAXOG	N354612.22	E0434527.98	L417
DELM	N331918.31	E0431327.59	G202, UL602
DENKI	N322228.46	E0455121.58	P/UP975, UM688
ELEXI	N344130.00	E0410900.00	UL602
ELIBA	N320914.92	E0444644.63	L417
ELODI	N320256.28	E0435125.96	B411, M320
ELOSI	N330800.00	E0441800.00	L417
EMIDO	N364612.29	E0425453.53	UM860
GADSI	N303358.08	E0471115.73	L/UL602
GEPAP	N334905.80	E0422850.64	R652, UL602
GIBUX	N330500.00	E0411100.00	L200, R652
ILMAP	N312133.00	E0465702.00	M203, P/UP975, UM688
ITBIT	N314735.20	E0452916.57	L/UL602, UM860
ITOVA	N331950.91	E0444128.97	G202, UM860
IVANO	N351724.00	E0451234.66	R652
KABAN	N371456.00	E0423859.00	UM860
SIDNA	N363358.00	E0414059.38	UP975
KATUT	N323737.33	E0453439.37	P/UP975, UM688, Y886
LAGLO	N331538.60	E0441457.29	G202, L417
LONOR	N323838.63	E0450458.48	B411, UM860
LOPAM	N323757.19	E0425805.98	M320
LOVEK	N322208.40	E0444001.20	B411, L417, L/UL602, M203
MIGMI	N334554.00	E0452724.00	L126
MODIK	N332806.00	E0390100.00	G202
MURIB	N311237.00	E0415036.00	B411
MUTAG	N343003.45	E0433834.38	L417, R652, UP975
MUTLO	N321018.98	E0445702.83	L/UL602
NADOX	N310504.73	E0451851.30	L417, M320
NINVA	N372100.00	E0431300.00	UM688
NOLDO	N324932.40	E0452129.40	B411, P/UP975
OTALO	N351700.00	E0441900.00	T887, UM688
PAPUS	N325334.06	E0452706.55	B411, UM688, Y866
PASIP	N330600.00	E0385600.00	L200
PAXAT	N332052.34	E0460518.00	B411
PEBAD	N305023.09	E0472958.49	P/UP975, UM688
PUSTO	N332100.00	E0424500.00	G202, L126, M203
PUTSI	N333200.00	E0443700.00	UM860, T887,

			UP975
RAGET	N333048.00	E0455348.00	G202
RALTI	N314208.40	E0430000.60	B411
RAPLU	N332300.00	E0414530.00	G202, M320, R652
RIBAK	N354925.77	E0461807.93	R652
RIDIP	N343012.09	E0444027.24	UM688
ROXOP	N364445.47	E0433322.18	UM688
RUGIR	N303219.06	E0460618.20	M320, UM860
SEPTU	N331300.00	E0444400.00	UM860
SETSA	N314500.00	E0460400.00	M203, Y886
SEVKU	N360548.02	E0431715.84	UM860
SIDAD	N295231.00	E0482944.00	P/UP975, UM688
SIGNI	N340007.80	E0444201.20	L126
SILBO	N325900.00	E0432900.00	L200, M203
SINKA	N332137.31	E0444752.55	UP975
SOGUM	N341212.00	E0435454.00	L126, UP975
SIGBI	N330200.00	E0422000.00	L200, M320
TAGRU	N342958.95	E0440816.67	UM860
TASMI	N300120.00	E0475505.00	G795, L/UL602
TOMSI	N354857.60	E0440229.32	UM688
TUBEN	N351724.00	E0425434.30	UP975
UKMUG	N334300.35	E0450328.80	UM688, Y886
ULIMA	N321500.00	E0451600.00	UM860
UMESA	N351741.49	E0434306.89	L417, UM860, Y886
VAXEN	N331800.00	E0451500.00	UM688, Y886
VUSEB	N361636.94	E0434800.00	L417, UM688

ENR 4.4 AERONAUTICAL GROUND LIGHTS—ENROUTE

4.4.1 There are no aeronautical ground lights - en-route in the Baghdad FIR.

ENR 5 NAVIGATION WARNINGS

ENR 5.1 PROHIBITED, RESTRICTED AND DANGER AREAS

5.1.1 Introduction

5.1.1.1 All airspace in which a potential hazard to aircraft operations may exist and all areas over which the operation of civil aircraft may, for one reason or another, be restricted either temporarily or permanently, are classified according to the following three types of areas as defined by ICAO.

5.1.2 Definitions

5.1.2.1 **Prohibited Area.** An airspace of defined dimensions, above the land areas or territorial waters of the State of Iraq, within which the flight of aircraft is prohibited. This term is used only when the flight of civil aircraft within the designated airspace is not permitted at any time under any circumstances.

5.1.2.2 **Restricted Area.** An airspace of defined dimensions, above the land areas or territorial waters of the State of Iraq, within which the flight of aircraft is restricted in accordance with certain specified conditions. This term is used whenever the flight of civil aircraft within the designated airspace is not absolutely prohibited but may be made only if specified conditions are complied with. Thus, prohibition of flight, except at certain specified times, leads to the designation of the airspace as a restricted area as would prohibition except in certain meteorological conditions. Similarly, prohibition of flight, unless special permission had been obtained, leads to the designation of a restricted area. However, conditions of flight imposed as a result of application of rules of the air or air traffic service practices or procedures (for example, compliance with minimum safe heights or with rules stemming from the establishment of controlled airspace) do not constitute conditions calling for designation as a restricted area.

5.1.2.3 **Danger Area.** An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times. This term is used only when the potential danger to aircraft has not led to the designation of the airspace as restricted or prohibited. The effect of the creation of the danger area is to caution operators or pilots of aircraft that it is necessary for them to assess the dangers in relation to their responsibility for the safety of their aircraft.

5.1.3 Designations

5.1.3.1 The type of area involved is indicated by the nationality letters OR, then a slash (/), followed by the letter -P- for Prohibited, -R- for Restricted and -D- for Danger. Each area is numbered and a single series of numbers is used for all areas, regardless to type, to ensure that a number is never duplicated. Each number has three digits, the first digit indicates the last digit of the area's latitude, from 29° N to 38° N, the remaining two being a sequence number.

For example, areas are assigned letter and numbers in the following manner – OR/P 401, OR/R 402, OR/D 403, OR/D 404, OR/R 405, OR/D 406, etc are all in the band of 34° N. OR/R 912 would be the 12th area established in the band of 29° N.

5.1.3.2 **General.** All airspace outside the air routes and terminal areas described in this AIP are to be regarded as restricted areas. Failure to comply with the procedures in this AIP may result in interception by armed coalition fighter aircraft.

5.1.4 Prohibited Areas.**5.1.4.1 OR/P 101:**

LATERAL LIMITS: 12.5 NM radius centered on N31°59'46" E044°18'02"

VERTICAL LIMITS: SFC — unlimited

ACTIVITY TIMES: H24

REMARKS: Aircraft arriving or departing NAJAF International Airport will comply with IRAQ paragraph ORNI AD 2.20.2

5.1.4.2 OR/P 201:

LATERAL LIMITS: 12.5NM radius centered on N32°36'59" E044°01'56.8"

VERTICAL LIMITS: SFC —Unlimited

ACTIVITY TIMES: H24

REMARKS: Nil

5.1.4.3 OR/P 401:

LATERAL LIMITS: 12.5NM radius centered on N34°11'55.36" E043°52'24.1"

VERTICAL LIMITS: SFC — Unlimited.

ACTIVITY TIMES: H24

REMARKS: Nil

5.1.4.4 OR/P 501:

LATERAL LIMITS: 2NM radius centered on N35°57'29" E044°58'32"

VERTICAL LIMITS: SFC — 15 000 ft AMSL

ACTIVITY TIMES: H24

REMARKS: Nil

5.1.4.5 OR/P 502:

LATERAL LIMITS: 2NM radius centered on N35°35'18" E045°27'21"

VERTICAL LIMITS: SFC — 15 000 ft AMSL

ACTIVITY TIMES: H24

REMARKS: Nil

5.1.4.6 OR/P 503:

LATERAL LIMITS: 2NM radius centered on N35°42'23" E045°31'58"

VERTICAL LIMITS: SFC — 15 000 ft AMSL

ACTIVITY TIMES: H24

REMARKS: Nil

5.1.4.7 OR/P 601:

LATERAL LIMITS: 2NM radius centered on N36°54'25" E044°08'22"

VERTICAL LIMITS: SFC — 15 000 ft AMSL

ACTIVITY TIMES: H24

REMARKS: Nil

5.1.4.8 OR/P 602:

LATERAL LIMITS: 2NM radius centered on N36°20'26" E044°14'20"

VERTICAL LIMITS: SFC — 15 000 ft AMSL

ACTIVITY TIMES: H24

REMARKS: Nil

5.1.4.9 OR/P 603:

LATERAL LIMITS: 0.5NM radius centered on N36°13'32" E044°02'23"

VERTICAL LIMITS: SFC — 15 000 ft AMSL

ACTIVITY TIMES: H24

REMARKS: Nil

5.1.5. Restricted Areas.**5.1.5.1 OR/R 301 BESMAYA RANGE:**

LATERAL LIMITS: N33°21'59" E044°52'12" — N33°21'23" E044°54'31" — N33°19'13" E044°56'43" — N33°15'23" E044°57'52" — N33°14'57" E044°54'55" — N33°15'29" E044°51'45" — N33°15'19" E044°47'42" — N33°16'27" E044°46'17" — N33°19'12" E044°44'39" — N33°22'17" E044°45'33" — N33°21'26" E044°46'39" — N33°21'23" E044°52'04" — N33°21'59" E044°52'12"

VERTICAL LIMITS: SFC — 14 000 ft AMSL

ACTIVITY TIMES: H24

REMARKS: Nil

5.1.5.3 OR/R 302 MARKAB RANGE:

LATERAL LIMITS: N33°17'35" E 043°39'26" — N33°17'07" E 043°39'08" — N33°16'21" E 043°39'41" — N33°15'05" E 043°38'11", — N33°14'45" E 043°37'18" — N33°15'03" E 043°35'45" — N33°16'28" E 043°35'25" — N33°18'03" E 043°37'30" — N33°17'35" E 043°39'26"

VERTICAL LIMITS: SFC — 3 000 ft AMSL

ACTIVITY TIMES: See remarks

REMARKS: Contact Taqaddum TWR on 135.775 MHz or 275.275 MHz for status

5.1.5.2 OR/R 303:

LATERL LIMITS BEGINNING: N33°31'21" E044°11'01" —TO N33°36'15" E044°24'38" —TO N33°27'05" E044°32'44" —TO N33°13'32" E044°35'56" — TO N33°11'18" E044°24'53"

VERTICAL LIMITE: SFC — 12 000 Ft AMSL

ACTIVITY TIMES: H24

REMARKS: THIS RESTRICTED AREA IS IN ADDITION TO AND DOES NOT REPLACE ANY OTHER FLIGHT RESTRICTION AS PUBLISHED IN THE AIP PARAGRAPH ORBI 2.21

5.1.5.4. OR/R 401 AKED SOUTH:

LATERAL LIMITS: N34°30'00" E041°44'00" — N34°32'00" E043°22'00" — N34°01'00" E042°29'00" — N34°30'00" E041°44'00"

VERTICAL LIMITS: SFC- FL 250

ACTIVITY TIMES: H24

REMARKS: Nil

5.1.5.5. OR/R 501 AKED NORTH:

LATERAL LIMITS: N35°08'00" E041°45'00" — N35°08'00" E042°48'00" —
N34°32'00" E043°22'00" — N34°30'00" E041°44'00" — N35°08'00"
E041°45'00"

VERTICAL LIMITS: SFC- FL 250

ACTIVITY TIMES: H24

REMARKS: Nil.

5.1.5.6. OR/R 502 WARRIOR RANGE:

LATERAL LIMITS: N35°27'28" E044°27'36" — N35°24'50" E044°33'36" —
N35°22'37" E044°28'12" — N35°27'46" E044°30'36" — N35°22'37"
E044°28'48" — N35°25'51" E044°27'10"

VERTICAL LIMITS: SFC — 7 000 ft AMSL

ACTIVITY TIMES: H24

REMARKS: Contact Kirkuk Approach Control for status.

5.1.5.7. OR/R 503 SABER RANGE

LATERAL LIMITS: N35°28'22" E044°00'35" — N35°30'18" E044°03'36" —
N35°26'31" E044°03'36" — N35°27'54" E044°06'05"

VERTICAL LIMITS: SFC — 7 000 ft AMSL

ACTIVITY TIMES: H24

REMARKS: Contact Kirkuk Approach Control for status.

5.1.6. Danger Areas.**5.1.6.1 OR/D 001 BASRAH: TETHERED BALLOON (lit at night)**

LATERAL LIMITS: A circle radius .2 NM centered on N30°33'42" E047°40'22"

VERTICAL LIMITS: SFC to 2 000 ft AMSL

ACTIVITY TIMES: H24

REMARKS: The balloon is lit with white flashing lights; blue lights and red flags are

attached to the tether and cable. The balloon does not remain aloft in IMC

5.1.6.2. OR/D 002 TALLIL: TETHERED BALLOON

LATERAL LIMITS: A circle radius of .1 NM centered on N30°56'42"
E046°06'23"

VERTICAL LIMITS: SFC to 2000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.6.3. OR/D 101 AL AMARAH: TETHERED BALLOON

LATERAL LIMITS: A circle radius of .1 NM centered on N31°49'57"
E047°04'23"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.6.4. OR/D 102 AL DIWANIYAH: TETHERED BALLOON

LATERAL LIMITS: A circle radius of .2 NM centered on N31°58'09"
E044°54'54"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.6.5. OR/D 201 AL KUT: TETHERED BALLOON

LATERAL LIMITS: A circle radius .2 NM centered on N32°29'45"
E045°46'05"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.6.6. OR/D 202 AL MUSAYYIB: TETHERED BALLOON

LATERAL LIMITS: A circle radius .2 NM centered on N32°47'53"
E044°27'50"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.6.7. OR/D 301 BAGHDAD 1: TETHERED BALLOON

LATERAL LIMITS: A circle radius .2 NM centered on N33°12'21"
E044°22'06"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.6.8. OR/D 302 BAGHDAD 3: TETHERED BALLOON (lit at night).

LATERAL LIMITS: A circle radius 0.5 NM centered on N33°17'12"

E044°16'27" NNE of BIAP RWY 33R threshold

VERTICAL LIMITS: SFC — 3000 ft AGL

ACTIVITY TIMES: H24

REMARKS: The balloon is lit (white flashing lights), but the tether is neither
flagged

nor lit. Check with Baghdad Tower for status.

5.1.6.9. OR/D 303 BAGHDAD 2 : TETHERED BALLOON (lit at night).

LATERAL LIMITS: A circle radius 0.5 NM centered on N33°19'43"
E044°28'55"

VERTICAL LIMITS: SFC to 3000 ft AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.7.0. OR/D 304 BAGHDAD 5: TETHERED BALLOON (lit at night).

LATERAL LIMITS: A circle radius .2 NM centered on N33°20'32"
E044°20'37"

VERTICAL LIMITS: SFC to 1 000 ft AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.7.1. OR/D 305 BAGDHAD 4 : TETHERED BALLOON

LATERAL LIMITS: A circle radius .5 NM centered on N33°22'59"
E044°21'27"

VERTICAL LIMITS: SFC to 3 000 ft AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.7.2. OR/D 306 RAMADI: TETHERED BALLOON

LATERAL LIMITS: A circle radius of .2 NM centered on N33°26'04"
E043°14'29"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.7.3. OR/D 307 AL TAJI: TETHERED BALLOON

LATERAL LIMITS: A circle radius of .2 NM centered on N33°31'50"
E044°14'10"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.7.4. OR/D 401 AS SA' DIYAH: TETHERED BALLOON

LATERAL LIMITS: A circle radius of .2 NM centered on N34°13'44"
E045°08'55"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.7.5. OR/D 402 TIKRIT 1 : TETHERED BALLOON

LATERAL LIMITS: A circle radius of .2 NM centered on N34°41'57"
E043°33'52"

VERTICAL LIMITS: SFC to 1 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.7.6. OR/D 501 KIRKUK: TETHERED BALLOON

LATERAL LIMITS: A circle radius of .1 NM centered on N35°28'08"
E044°21'58"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.7.7. OR/D 601 MOSUL 1: TETHERED BALLOON

LATERAL LIMITS: A circle radius of .2 NM centered on N36°16'28"
E043°06'39"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.7.8. OR/D 602 MOSUL 2: TETHERED BALLOON

LATERAL LIMITS: A circle radius of .2 NM centered on N36°18'45"
E043°09'16"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

5.1.7.9. OR/D 603 MOSUL 3: TETHERED BALLOON

LATERAL LIMITS: A circle radius of .2 NM centered on N36°24'20"
E043°07'51"

VERTICAL LIMITS: SFC to 2 000 AGL

ACTIVITY TIMES: H24

REMARKS: Lit at night

**ENR 5.2 MILITARY EXERCISE AND TRAINING AREAS AND AIR DEFENCE
IDENTIFICATION ZONE****5.2.1 Military Operating Areas (MOA).****5.2.1.1. Iraq AF MOA AL SALAM:**

LATERAL LIMITS: N35°52'08.00" E044°16'32.00" — N35°57'27.13" E044°24'19.70"
— N35°45'55.94" E044°44'07.10" — N35°24'48.29" E044°58'26.71" —
N35°18'22.00" E044°49'02.00" — N35°39'29.94" E044°34'39.63" — N35°52'08.00"
— E044°16'32.00

VERTICAL LIMITS: SFC – FL210

ACTIVITY TIMES: Sunrise-Sunset; Other times via NOTAM

REMARKS: Airspace is for Iraqi Air Force training. Airborne, contact Kirkuk CERAP for current status. For use of airspace normal lead time is 10 days to coordinate with Coalition Forces and the Iraqi Government. Coalition and Iraqi military airspace use is in accordance with the Coalition Air Operations Center Airspace Control Order and Air Tasking Order through 31 Dec 2011 coordinated with the Iraqi Master Air Tasking Order with immediate effect until further notice. Contact the Iraqi Air Operations Center at IDN: 549-0330/0347, commercial: 01-549-0330/0347 or e-mail: Iraqi.AOC@IraqiAF.org; if unable IAOC, attempt the Iraqi AOC Advisors (USAF) at DSN: 318-485-4930 or e-mail: cafttvbcaocadvisor@iraq.centcom.mil.

5.2.1.2. Iraq AF MOA KIRKUK SOUTH:

LATERAL LIMITS: N35°13'08.80" E044°20'56.40", then along the minor arc of a circle of 15 NM radius centered on N35°28'10.2" E044°20'56.4" (ORKK ARP) to N35°28'08.80" E044°02'34.55" to N35°28'10.04" E044°14'49.12", then along the minor arc of a circle of 5 NM radius centered on N35°28'10.2" E044°20'56.4" (ORKK ARP) to N35°23'09.74" E044°20'56.40" to N35°13'08.80" E044°20'56.40".

VERTICAL LIMITS: LOW 5 000 – 7 000 ft AMSL; HIGH 8 000 – 10 000 ft AMSL

ACTIVITY TIMES: Sunrise-Sunset; Other times via NOTAM

REMARKS: Airspace is for Iraqi Air Force training. Airborne, contact Kirkuk CERAP for current status. For use of airspace normal lead time is 10 days to coordinate with Coalition Forces and the Iraqi Government. Coalition and Iraqi military airspace use is in accordance with the Coalition Air Operations Center Airspace Control Order and Air Tasking Order through 31 Dec 2011 coordinated with the Iraqi Master Air Tasking Order with immediate effect until further notice. Contact the Iraqi Air Operations Center at IDN: 549-0330/0347, commercial: 01-549-0330/0347 or e-mail: Iraqi.AOC@IraqiAF.org; if unable IAOC, attempt the Iraqi AOC Advisors (USAF) at DSN: 318-485-4930 or e-mail: cafttvbcaocadvisor@iraq.centcom.mil.

5.2.1.3. Iraq AF MOA KIRKUK NORTH:

LATERAL LIMITS: N35°43'11.57" E044°20'56.40", then along the minor arc of a circle of 15 NM radius centered on N35°28'10.2" E044°20'56.4" (ORKK ARP) to N35°28'08.80" E044°39'18.25" to N35°28'10.04" E044°27'03.68", then along the minor arc of a circle of 5 NM radius centered on N35°28'10.2" E044°20'56.4" (ORKK ARP) to N35°33'10.66" E044°20'56.40" to N35°43'11.57" E044°20'56.40".

VERTICAL LIMITS: LOW 5 000 – 7 000 ft AMSL; HIGH 8 000 – 10 000 ft AMSL

ACTIVITY TIMES: Sunrise-Sunset; Other times via NOTAM

REMARKS: Airspace is for Iraqi Air Force training. Airborne, contact Kirkuk CERAP for current status. For use of airspace normal lead time is 10 days to coordinate with Coalition Forces and the Iraqi Government. Coalition and Iraqi military airspace use is in accordance with the Coalition Air Operations Center Airspace Control Order and Air Tasking Order through 31 Dec 2011 coordinated with the Iraqi Master Air Tasking Order with immediate effect until further notice. Contact the Iraqi Air Operations Center at IDN: 549-0330/0347, commercial: 01-549-0330/0347 or e-mail: Iraqi.AOC@IraqiAF.org; if unable IAOC, attempt the Iraqi AOC Advisors (USAF) at DSN: 318-485-4930 or e-mail: cafttvbcaocadvisor@iraq.centcom.mil.

5.2.1.4. Iraq AF MOA SUMER:

LATERAL LIMITS: N35°08'00" E042°48'00" — N35°08'00" E043°33'00" — N34°34'00" E043°52'00" — N34°32'00" E043°22'00" — N35°08'00" E042°48'00"

VERTICAL LIMITS: 4 000 – 13 000 ft AMSL

ACTIVITY TIMES: Sunrise-Sunset; Other times via NOTAM

REMARKS: Airspace is for Iraqi Air Force training. Airborne, contact Kirkuk CERAP or Speicher Approach Control for current status. For use of airspace normal lead time is 10 days to coordinate with Coalition Forces and the Iraqi Government. Coalition and Iraqi military airspace use is in accordance with the Coalition Air Operations Center Airspace Control Order and Air Tasking Order through 31 Dec 2011 coordinated with the Iraqi Master Air Tasking Order with immediate effect until further notice. Contact the Iraqi Air Operations Center at IDN: 549-0330/0347, commercial: 01-549-0330/0347 or e-mail: Iraqi.AOC@IraqiAF.org; if unable IAOC, attempt the Iraqi AOC Advisors (USAF) at DSN: 318-485-4930 or e-mail: cafttvbcaocadvisor@iraq.centcom.mil.

ENR 5.3 OTHER ACTIVITIES OF A DANGEROUS NATURE AND OTHER POTENTIAL HAZARDS

5.3.1 All operators are advised that military operations continue to be conducted in Iraq. Compliance with AIP procedures is mandatory; safety of aircraft operating in the Baghdad FIR requires strict adherence to AIP procedures.

5.3.2 Caution: Many airfields still have tethered aerostats within their Control Zones.

ENR 5.4 AIR NAVIGATION OBSTACLES - ENROUTE

5.4.1 Air navigational obstacles – Obstruction owners are responsible for lighting obstacles with the appropriate air navigation obstruction lighting.

ENR 5.5 AERIAL SPORTING AND RECREATIONAL ACTIVITIES

There are no known aerial sporting or recreational activities affecting the Baghdad FIR.

ENR 5.6 BIRD MIGRATION AND AREAS WITH SENSITIVE FAUNA

5.6.1 Historical bird/wildlife activity and migration data is not available. However, an increase in bird and wildlife activity has been observed near RWYs at Baghdad (ORBI), Kirkuk (ORKK), Mosul (ORBM), and Sulaymaniyah (ORSU) within +/- one hour of sunrise and sunset. Exercise caution when arriving and departing during these periods.

ENR 6 ENROUTE CHART – ICAO

6.1. Enroute Chart – ICAO is not yet established for the Baghdad FIR. Operators should refer to the airspace dimensions described at ENR 2.1 and the routes described at ENR 3.3 and ENR 3.5 for guidance.

BOOK 3 – AERODROMES (AD)

Civil airfield information contained in this AIP is reviewed and certified by the ICAA. Please direct any questions or updates directly to ICAA AIS at:

Telephone: + 964 813 2122
E-mail: icaa_ais@yahoo.com

AD 0.6 TABLE OF CONTENTS TO BOOK 3**AD 0**

AD 0.1	PREFACE	Not applicable
AD 0.2	RECORD OF AIP AMENDMENT	Not applicable
AD 0.3	RECORD OF SUPPLEMENTS	Not applicable
AD 0.4	CHECKLIST OF AIP PAGES	Not applicable
AD 0.5	LIST OF HAND AMENDMENT TO THE AIP	Not applicable
AD 0.6	TABLE OF CONTENTS TO AERODROMES	AD 0.6-1

Page**AD 1 AERODROMES – INTRODUCTION**

AD 1.1	Aerodrome/Heliport Availability	AD 1.1-1
AD 1.2	Rescue and Fire Fighting Service	AD 1.2-1
AD 1.3	Index to Aerodromes and Heliports	AD 1.3-1
AD 1.3.1	Index to Airports	AD 1.3-1
AD 1.3.2	Index to Heliports	AD 1.3-3

AD 2 AERODROMES

ORAI	Al Iskandarariyah Airport	AD 2.1-12
ORNI	Al Najaf Al-Ashraf International Airport	AD 2.1-13
ORTI	Al Taji Airport	AD 2.1-22
ORAN	An Numaniyah Airport	AD 2.1-31
ORBI	Baghdad International Airport	AD 2.1-32
ORBR	Bashur Airport	AD 2.1-70
ORMM	Basrah International Airport	AD 2.1-71
ORER	Erbil International Airport	AD 2.1-87
ORJA	Jalibah Southeast Airport	AD 2.1-140
ORKK	Kirkuk Airport	AD 2.1-141
ORBM	Mosul International Airport	AD 2.1-154
ORQT	Qasr Tall Muhl Airport	AD 2.1-164
ORSU	Sulaymaniyah International Airport	AD 2.1-175
ORTF	Tall Afar Airport	AD 2.1-200
ORUB	Ubaydah Bin Al Jarrah/Al Kut Airport	AD 2.1-222

ORUQ	Umm Qasr Airport	AD 2.1-225
-------------	------------------------	------------

AD 3 HELIPORTS

ORAQ	Al Qaim Landing Zone	AD 3.1-1
-------------	----------------------------	----------

ORWH	Washington Army Heliport	AD 3.1-3
-------------	--------------------------------	----------

AD 1 AERODROMES - INTRODUCTION**AD 1.1 AERODROME/HELIPORT AVAILABILITY**

1.1.1 The Iraq Ministry of Transportation is responsible for the administration of civil aerodromes within Iraq. Except in an emergency, civil aircraft are only permitted to use those aerodromes designated for civil use. Other aerodromes may be used only after prior permission has been obtained from the ICAA and local airport authorities.

1.1.2 The services described herein are based on Annex 14 to the Convention on International Civil Aviation.

AD 1.2 RESCUE AND FIRE FIGHTING SERVICES

1.2.1 Availability of rescue and fire fighting services at airports are listed within the relevant Aerodrome entry.

AD 1.3 INDEX TO AERODROMES AND HELIPORTS**1.3.1 Index to Aerodromes**

Aerodrome Name and Location Indicator	Type of traffic permitted to use the aerodrome			Reference to Aerodrome Section and Remarks
Al Iskandarariyah (ORAI)	NTL	VFR-IFR	NS-M	ORAI AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Al Taji (ORTI)	NTL	VFR-IFR	NS-M	ORTI AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Al Najaf Al-Ashraf International Airport (ORNI)	INTL-NTL	VFR	NS-S-P	ORNI AD 2.1 lists airfield data. ICAA permission required for civil aircraft
An Numaniyah (ORAN)	NTL	VFR-IFR	NS-M	ORAN AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Baghdad International Airport (ORBI)	INTL-NTL	VFR-IFR	NS-M-S-P	ORBI AD 2.1 lists airfield data. ORMM to be used as alternate.
Bashur (ORBR)	NTL	VFR-IFR	NS-M	ORBR AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Basrah International Airport (ORMM)	INTL-NTL	VFR-IFR	NS-M-S-P	ORMM AD 2.1 lists airfield data. ORBI to be used as alternate.
Erbil International Airport (ORER)	INTL-NTL	VFR-IFR	NS-M-S-P	ORER AD 2.1 lists airfield data. Can be used as night diversion destination if required.

Aerodrome Name and Location Indicator	Type of traffic permitted to use the aerodrome			Reference to Aerodrome Section and Remarks
Jalibah Southeast (ORJA)	NTL	VFR-IFR	NS-M	ORJA AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Kirkuk (ORKK)	NTL	VFR-IFR	NS-M	ORKK AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Mosul International Airport (ORBM)	INTL-NTL	VFR-IFR	NS-M-S	ORBM AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Qasr Tall Mihi (ORQT)	NTL	VFR-IFR	NS-M	ORQT AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Sulaimaniyah International Airport (ORSU)	INTL-NTL	VFR-IFR	NS-M-S-P	ORSU AD 2.1 lists airfield data. Can be used as night diversion destination if required.
Tall Afar (ORTF)	NTL	VFR-IFR	NS-M	ORTF AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Ubaydah Bin Al Jarrah/Al Kut (ORUB)	NTL	VFR-IFR	NS-M	ORUB AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Umm Qasr (ORUQ)	NTL	VFR-IFR	NS-M	ORUQ AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Legend: INTL International NTL National/Domestic S Scheduled NS Non-scheduled M Military P Private				

1.3.2 Index to Heliports

Heliport Name and Location Indicator	Type of traffic permitted to use the heliport			Reference to Aerodrome Section and Remarks
Al Qaim (ORAQ)	NTL	VFR-IFR	NS-M	ORAQ AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Washington Army (ORWH)	NTL	VFR-IFR	NS-M	ORWH AD 2.1 lists airfield data. ICAA permission required for civil aircraft
Legend: INTL International NTL National/Domestic S Scheduled NS Non-scheduled M Military P Private – temporarily suspended				

**AD 2 AERODROMES
ORAI — AL ISKANDARARIYAH**

ORAI AD 2.1 AERODROME LOCATION INDICATOR AND NAME

ORAI 2.1.1 ORAI – Al Iskandarariyah Airport

ORAI AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	Aerodrome Reference Point coordinates and site	N32°58'12.00" E044°16'12.00" The geographic centre of the airfield
2	Elevation and Reference Temperature	135 ft (41.1 m) / 43.1° C

ORAI AD 2.3 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	14	32
2	BRG True and Mag	To be determined	To be determined
3	RWY Dimensions	10 249 ft x 98 ft 3 124 m x 30 m	10 249 ft x 98 ft 3 124 m x 30 m
4	PCN	LCN 39	LCN 39
5	THR Coordinates	To be determined	To be determined
6	THR Elevation	To be determined	To be determined

ORNI – AL NAJAF**ORNI AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORNI 2.1.1** ORNI – Al Najaf Al-Ashraf International Airport**ORNI AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA****ORNI 2.2.1** is licensed for civilian operations, approval can be sought through .

1	Aerodrome Reference Point coordinates and site	N 31°59'23.47" E 044 ° 24'15.54"
2	Direction and distance from city	6KM South East of Al Najaf City
3	Elevation and Reference Temperature	32.9 M (103 ft), 43.8 °C
4	Geoids undulation	Not determined
5	Magnetic variation / Annual change	03° 44'/04' east (Nov. 2007)
6	Aerodrome Administration address	Najaf Airport administration building
	Telephone	+964 33334937
	Telefax	Nil
	Telex	Nil
	E-mail	ops@najafap.com najafops@yahoo.com
	AFS Address	ORNIYNYX
7	Types of traffic permitted	IFR Flight / VFR for landing

ORNI AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	24 hours
2	Customs and Immigration	24 hours
3	Health and Sanitisation	24 hours
4	Briefing Office	24 hours
5	Met Office	24 hours
6	Air Traffic Services	24 hours
7	Fuel	24 hours
8	Handling	24 hours
9	Security	24 hours
10	De-icing	Not available
11	Remarks	Nil

ORNI 2.3.1 All aircraft are to apply for PPR number from Al Najaf Air Ops .**ORNI 2.3.2** Limited operations by civil registered aircraft are permitted into Al Najaf International Airport provided the proposed operations will be confirmed later.

ORNI AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Yes (all)
2	Fuel and oil types	Jet A1
3	Fuelling facilities and capacity	Available
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

ORNI AD 2.5 PASSENGER FACILITIES

1	Hotels near airport	in Al Najaf City
2	Restaurants	In passenger terminal
3	Transportation	Available (airport taxi and buses)
4	Medical facilities	Available airport clinic
5	Bank and Post Office	Yes, in passenger terminal
6	Tourist Office	Yes, in passenger terminal
7	Remarks	

ORNI AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	Aerodrome category for fire fighting	Category 10
2	Rescue equipment	available
3	Capability for removal of disabled aircraft	Capable
4	Remarks	

ORNI 2.6.1 When an aircraft is disabled on a RWY, it is the duty of the owner or user of the aircraft to have it removed as soon as possible. If a disabled aircraft is not removed from the RWY as quickly as possible, the aircraft will be removed by the aerodrome authority at the owner's or user's expense.

ORNI AD 2.7 SEASONAL AVAILABILITY

1	Type(s) of clearing equipment	Nil
2	Clearance priorities	Nil
3	Remarks	Nil

ORNI AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Surface and strength of aprons	Main Apron: Concrete PCN-43/f/c/w/t
2	Width, surface and strength of TWYs	Width 23m
3	Location and elevation of altimeter checkpoint	unavailable
4	VOR and INS checkpoint	Nil
5	Remarks	

ORNI AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM MARKINGS

1	Use of aircraft stands ID signs, TWY guide lines and visual docking/parking guidance system at aircraft stands	Available
2	RWY and TWY markings and light	Available
3	Stop bars	Available
4	Remarks	

ORNI AD 2.10 AERODROME OBSTACLES

1	RWY 10	
2	RWY 28	Nil
3	Tethered Balloon	Nil
4	Tethered Balloon	Nil

ORNI AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

ORNI 2.11.1 weather information, using the ICAO airfield designator, is Available on VHF frequency 123.9 and by phone (+964 3333 4931)

Web site: www.najafap.com

1	Associated MET Office	
2	Hours of service MET Office outside hours	
3	Office responsible for TAF preparation Periods of validity	
4	Trend forecast Interval of issuance	Trend Type forecast (METAR) reported
5	Briefing/consultation provided	
6	Flight documentation language(s) used	
7	Charts and other information available for briefing or consultation	
8	Supplementary equipment available for providing information	
9	ATS units provided with information	
10	Additional information (Limitation of service, etc.)	

ORNI AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	10	28
2	BRG True and Mag	101T / 96 °-16'M	281T / 276 ° -16'M
3	RWY dimensions	9.842 ft x 147.6 ft 3000m x 45m	9.842 ft x 147.6 ft 3000m x 45m
4	PCN	57 F/C/W/U	57 F/C/W/U
5	THR Coordinates	N 31 ° 59'35", E 044 ° 23'20"	N31 ° 59'11" E 044 ° 25'10"
6	THR Elevation	115.932 ft	89.986 ft
7	Highest elevation of TDZ of precision APP RWY (300m)	113.342 ft / 34 m	92.579 ft / 27.77 m
8	Slope of RWY/SWY	-016 °	+016 °
9	SWY Dimensions	60m× 60m	60m× 60m
10	CWY Dimensions	75m× 75m	75m× 75m
11	Strip Dimensions	75m wide	75m wide
12	Obstacle free zone	As in obstacle chart	As in obstacle chart
13	Remarks	Nil	Nil

ORNI AD 2.13 DECLARED DISTANCES

1	RWY	10	28
2	TORA	9.842 ft (3,000 m)	9.842 ft (3,000 m)
3	TODA	9.842 ft (3,000 m)	9.842 ft (3,000 m)
4	ASDA	9.842 ft (3,000 m)	9.842 ft (3,000 m)
5	LDA	9.842 ft (3,000 m)	9.842 ft (3,000 m)
6	Remarks	Nil	Nil

ORNI AD 2.14 APPROACH AND RUNWAY LIGHTING

1	RWY	10	28
2	Type, length and intensity of app lighting	Low intensity uni-directional centreline with single crossbar	CAT 1
3	Threshold lights, colours and wing bars	2-light green wing bars adjacent to operating surface	2-light green wing bars adjacent to operating surface
4	Type of visual approach slope indicator system	PAPI display on left had side of RWY, set to 3 degrees	PAPI display on left had side of RWY, set to 3 degrees
5	Length of RWY touchdown zone indicator lights	Not available	Not available
6	Length of spacing colour and intensity of RWY centreline lights	Not available	Not available
7	Length of spacing	Single white low intensity	Single white low intensity

	colour and intensity of RWY edge lights	Omni-directional light every 300ft (100M) on both sides.	Omni-directional light every 300ft (100M) on both sides.
8	Colour of RWY end lights and wing bars	2-light wing bars adjacent to operating surfaces.	2-light wing bars adjacent to operating surfaces.
9	Length and colour of stopway lights	Low intensity 8 red color lights	Unidirectional 8 red color
10	Remarks	Nil	Nil

ORNI AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	Aerodrome Beacon	Available white flashing 25 per minutes
2	Location and lighting of anemometer and LDG direction indicator	Wind sock location middle of the RWY signed by white circle 15 m diameter with red color light
3	TWY edge and centreline lighting	TWY blue edge-light
4	Secondary power supply including switch-over time	Secondary power to all airfield, switchover time: 6 seconds
5	Remarks	Nil

ORNI AD 2.16 HELICOPTER LANDING AREA

1	Coordination of touchdown and lift-off point (TLOF) threshold of final approach and take-off (FATO)	Available (left hand side RWY 28 approach)
2	TLOF and/or FATO area elevation	Unknown
3	TLOF and FATO area dimensions, surface, strength, marking	Radius 5 M 3 circles, Asphalt, PCN 50, Yellow colour
4	True and MAG BRG of FATO	180T/176M
5	Declared distance available	1,000M
6	Approach and FATO lighting	To be determined
7	Remarks	Nil

ORNI AD 2.17 AIR TRAFFIC SERVICES AIRSPACE

1	Airspace designation and lateral limits	See ENR 2.1.3.
2	Vertical limits	See ENR 2.1.3.
3	Airspace classification	See ENR 2.1.3.
4	Callsign and languages	"Al Najaf Tower" English
5	Transition altitude	14000' amsl
6	Remarks	

ORNI AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service designation	Callsign	FREQ	Hours of Operation	Remarks
TWR	Al Najaf Tower	119.1 MHz 119.9 MHz	H24	Primary Secondary
GND	Najaf ground	121.7 MHz	H24	
ATIS	None	123.9 MHz	H24	
Remarks				

ORNI AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of Aid	Ident	Freq	Hours of operation	Elevation of DME	Remark
ILS	INJF	LOC: 108.9 MHz GP : 329.3 MHz	H24		Available
NDB	ALI	275.000 KHz	H24	102.8 ft	Available
VOR/DME	ALI	114.700 KHz	H24	95.175 ft	Available

ORNI AD 2.20 LOCAL TRAFFIC REGULATIONS**ORNI 2.20.1** For operational reasons:

ORNI 2.20.1.1 Preferential runway for landing is RWY 28 unless tail wind conditions exist during the landing phase.

ORNI 2.20.1.2 Preferential runway for take-off is RWY 10 unless tail wind conditions exist during the departure phase.

ORNI 2.20.2 Flying over the Holy Shrine in Al-Najaf International Airport is prohibited. When landing RW10, aircraft on right downwind shall make a short approach and keep clear of Prohibited Area (Holy Shrine) at least 2nm. If unable, pilot shall extend downwind; do not turn right before 8nm DME (ALI VOR/DME) and keep clear of Prohibited Area at least 2nm. When departing RW28, aircraft shall immediately turn left passing 500ft and before 1000ft to avoid Prohibited Area, right turn out is normal operation; Keep clear of prohibited area at least 2nm

ORNI AD 2.21 NOISE ABATEMENT PROCEDURES

ORNI 2.21.1 Departures: aircraft departing RWY 28 shall execute an immediate left turn out, not less than 500ft AGL and not later than 1000ft AGL.

ORNI 2.21.2 Arrivals: Not required

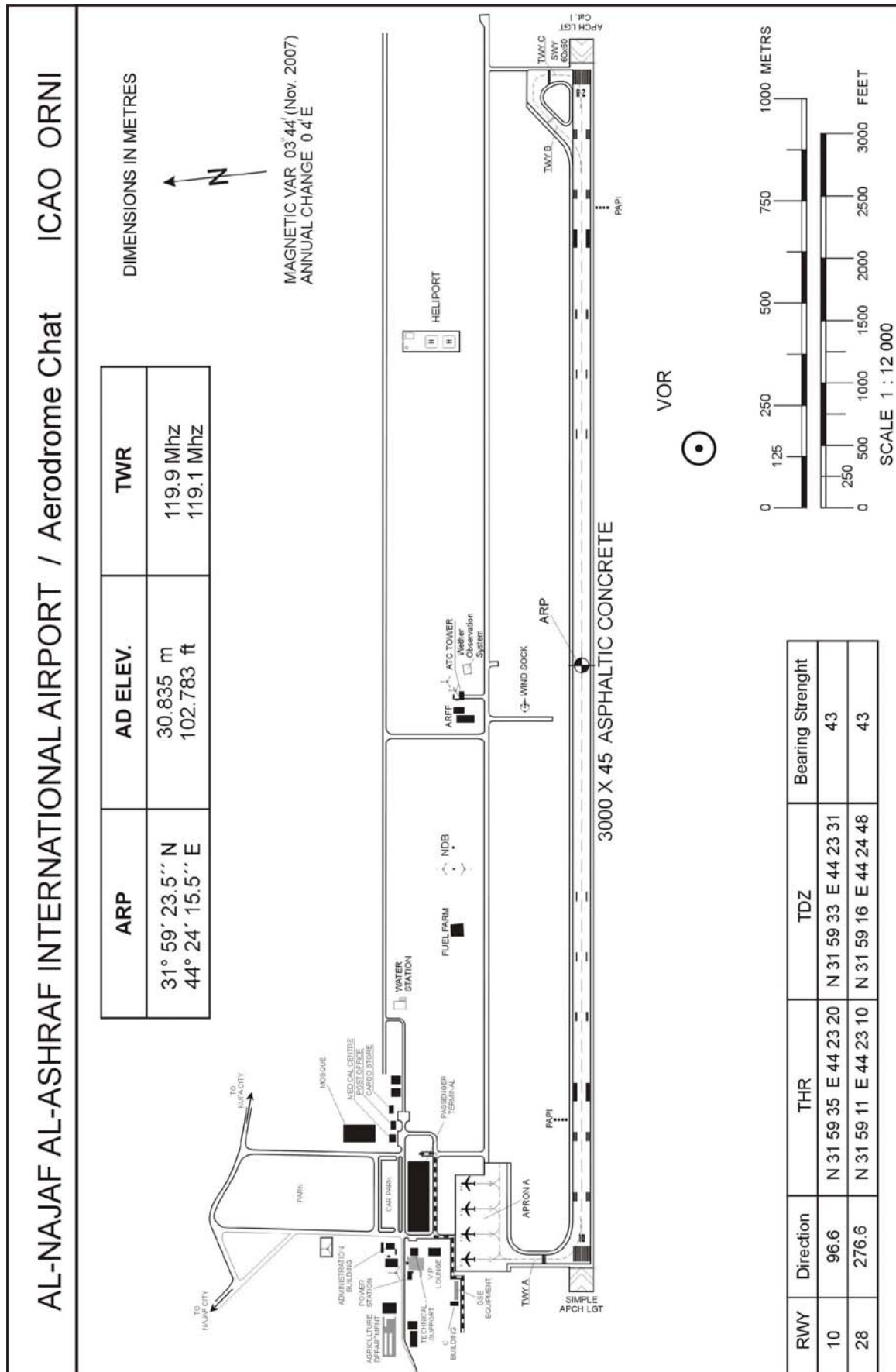
ORNI AD 2.22 FLIGHT PROCEDURES**ORNI AD 2.23 ADDITIONAL INFORMATION**

To be confirmed

ORNI AD 2.24 CHARTS RELATED TO AN AERODROME

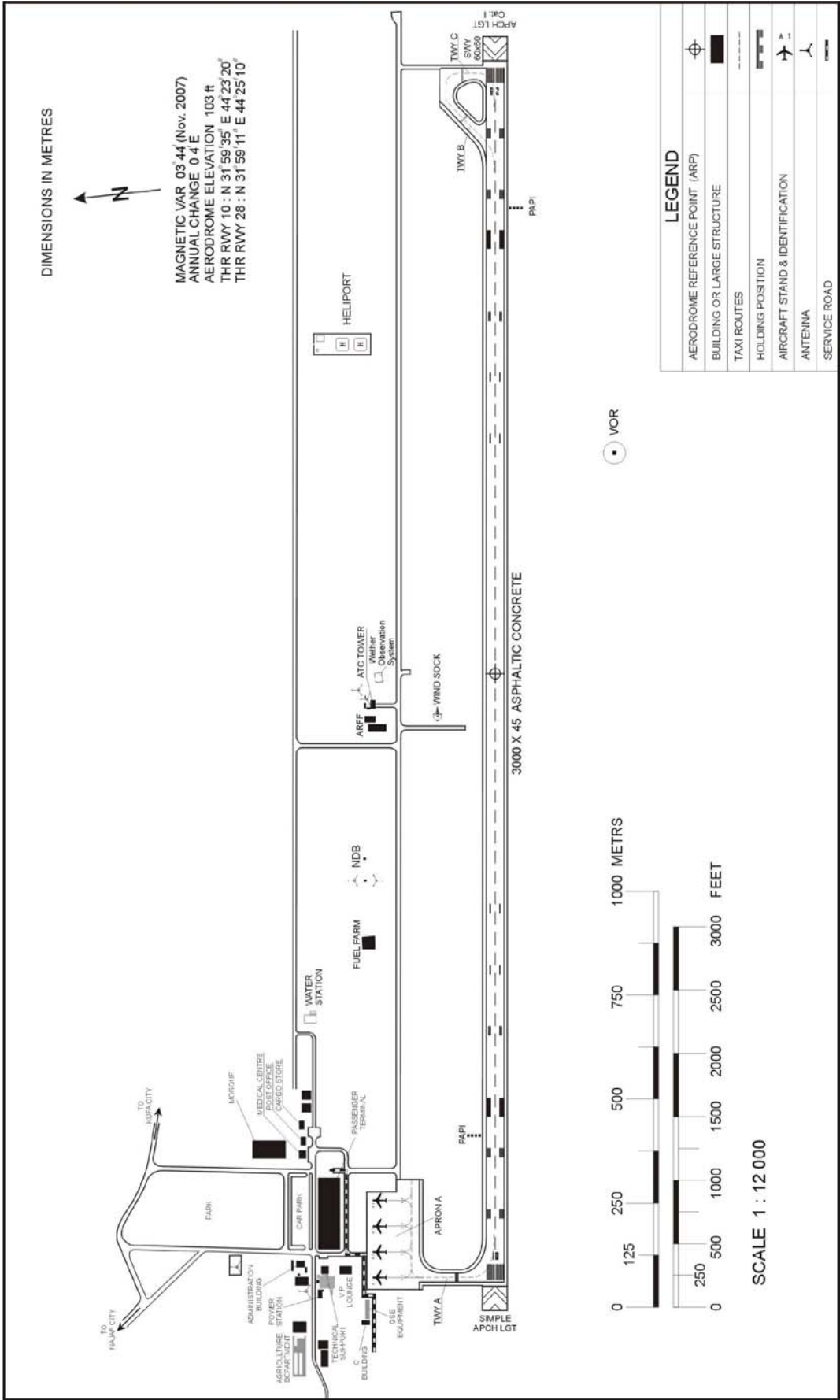
1	Aerodrome Chart – ICAO	ORNI AD 2.24.1
2	Aerodrome Lay-Out Chart – ICAO	ORNI AD 2.24.2
3	Aerodrome Obstacle Chart ICAO Type A– ICAO	ORNI AD 2.24.3
4	VOR RWY 28	ORNI AD 2.24.4
5	Instrument Approach Chart – ICAO (ILS OR LOC Y RWY 28)	ORNI AD 2.24.5
6	Instrument Approach Chart – ICAO (ILS OR LOC Z RWY 28)	ORNI AD 2.24.6

ORNI AD 2.24.1 Aerodrome Chart – ICAO

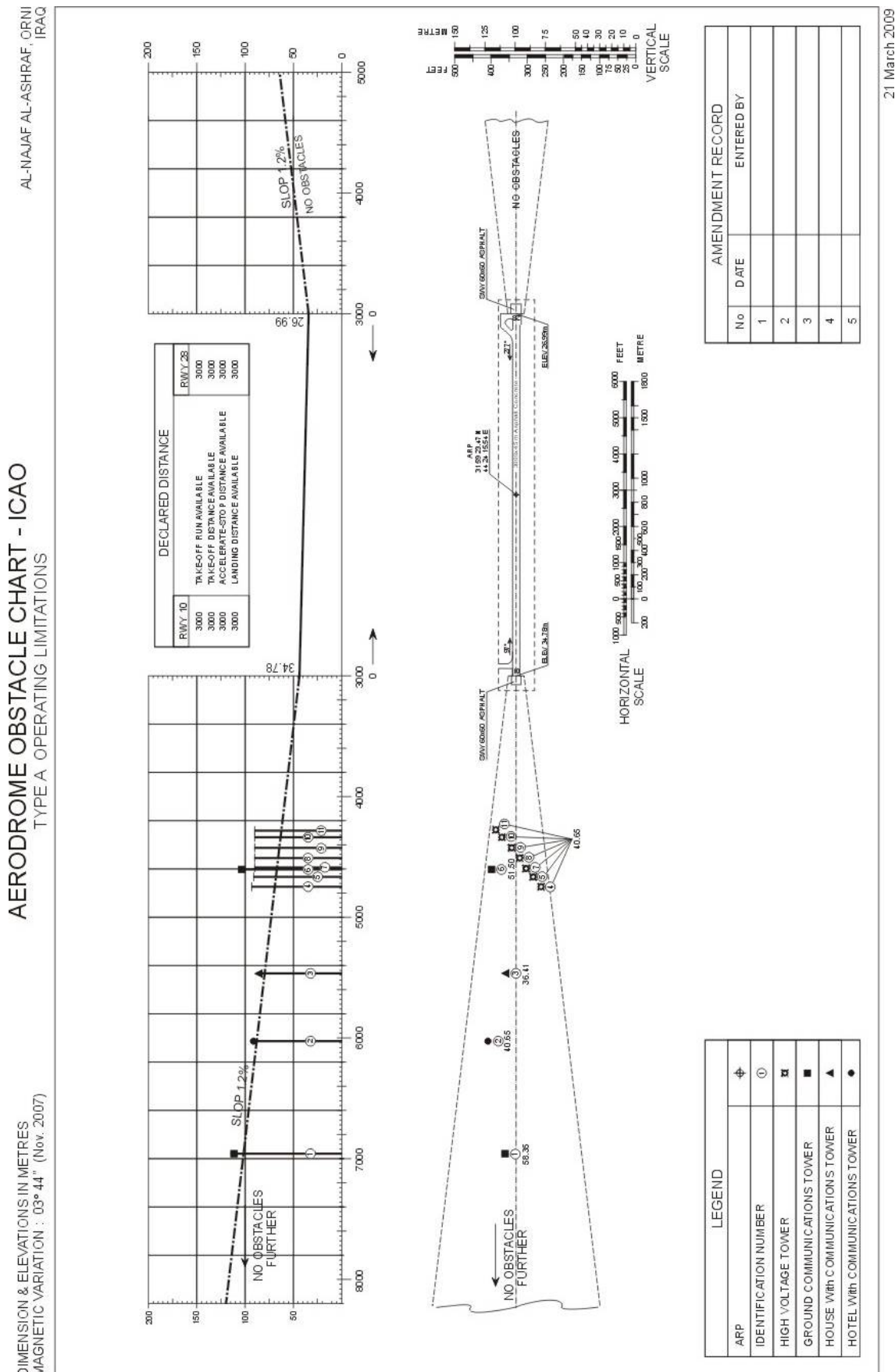


ORNI AD 2.24.2 Aerodrome Lay-Out Chart – ICAO

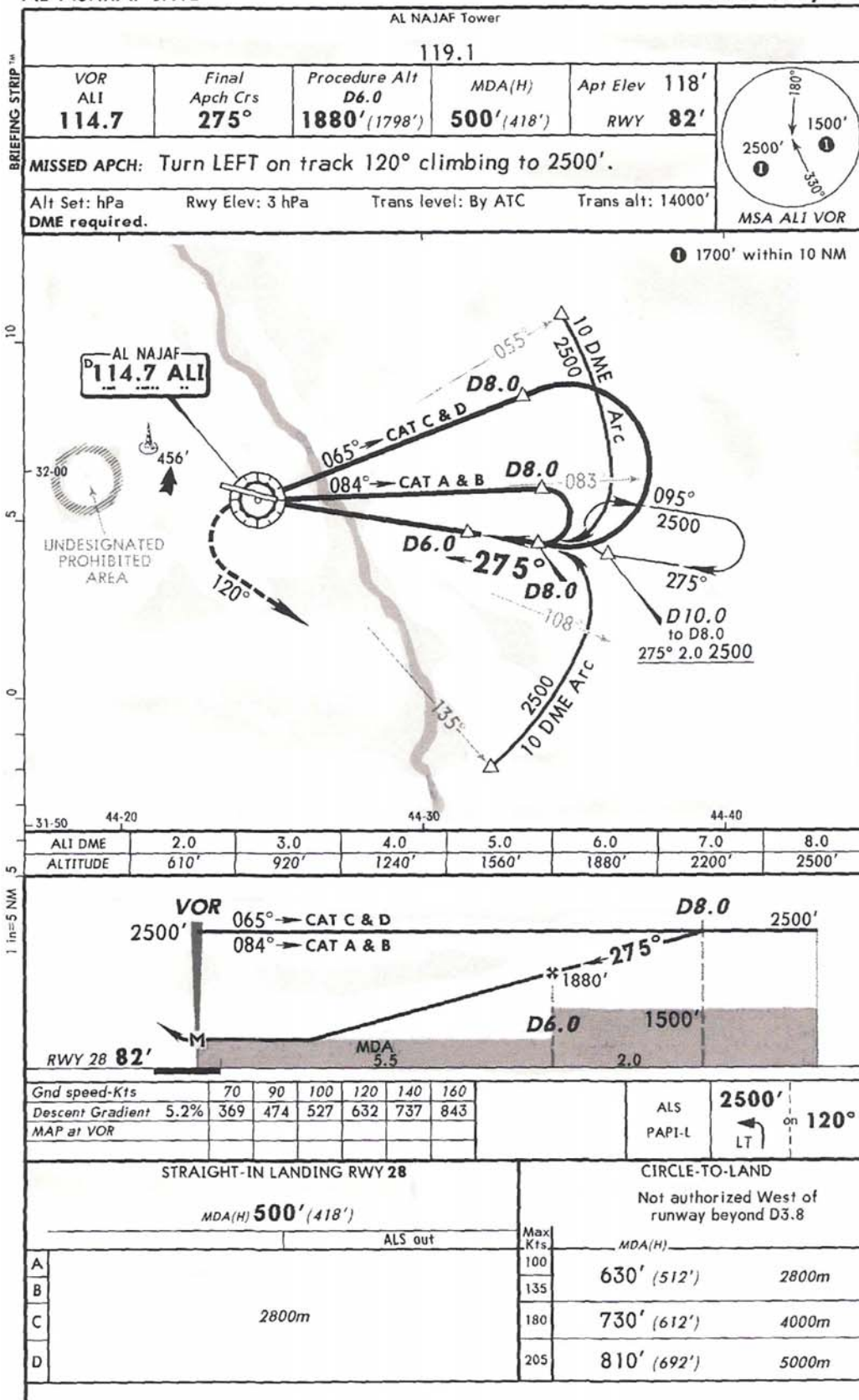
AL-NAJAF AL-ASHRAF INTERNATIONAL AIRPORT / Aerodrome LAY - OUT



ORNI AD 2.24.3 Aerodrome Obstacle Chart ICAO Type A– ICAO

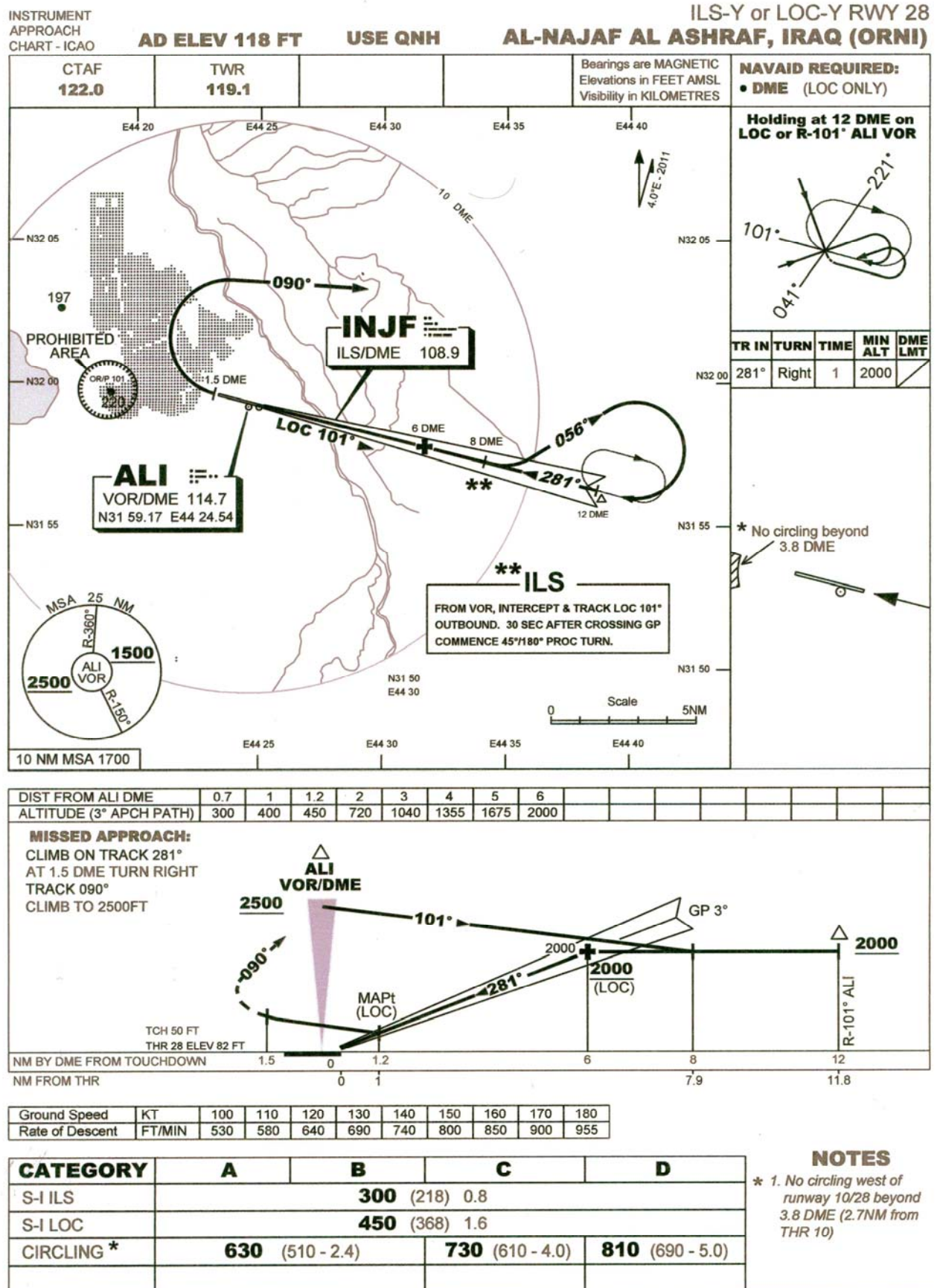


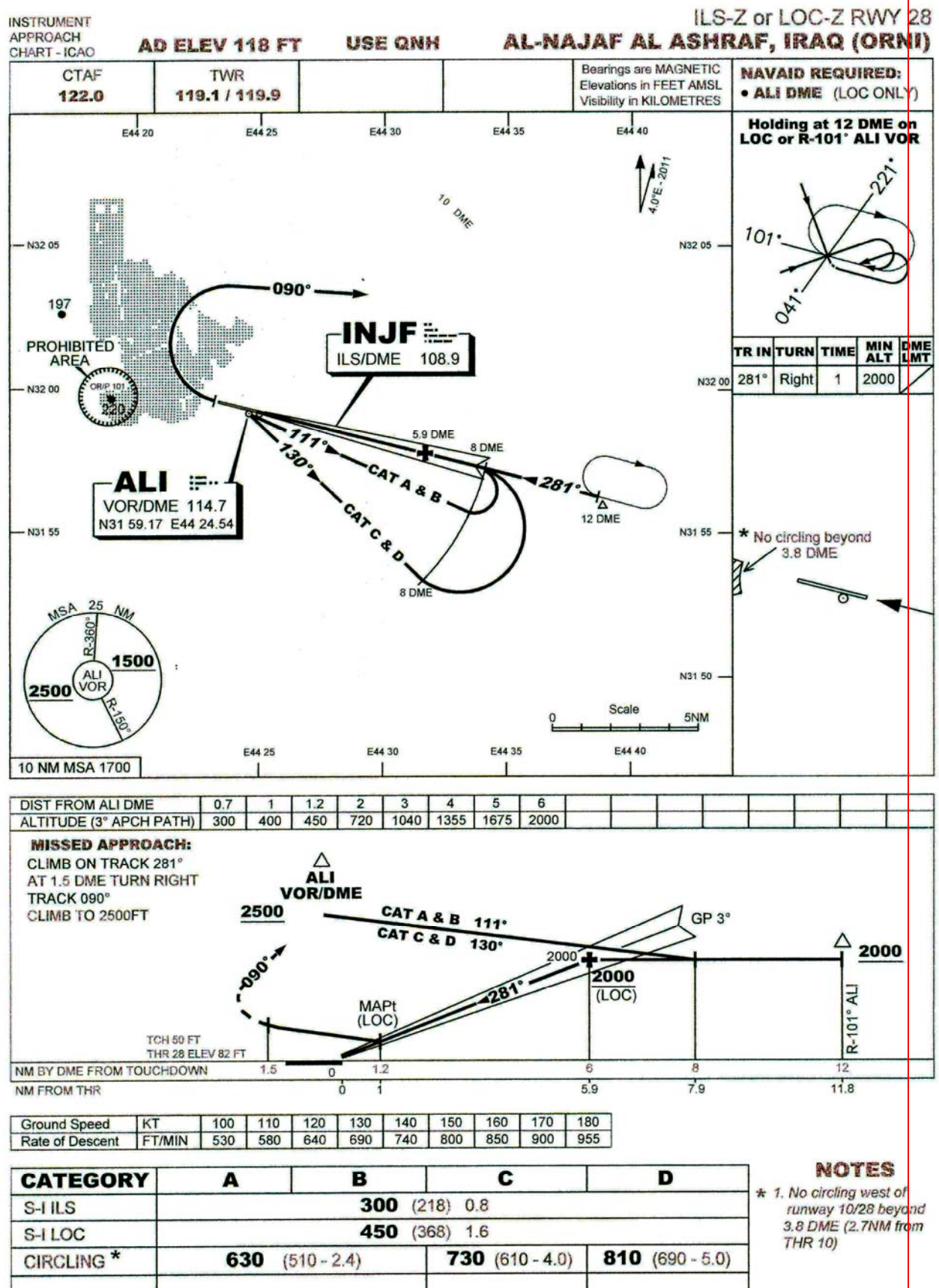
ORNI AD 2.24.4 VOR RWY 28

ORNI/NJF
AL-ASHRAF INTLAL NAJAF, IRAQ
VOR Rwy 28

© JEPPESEN, 2009. ALL RIGHTS RESERVED.

ORNI AD 2.24.5 Instrument Approach Chart – ICAO (ILS OR LOC Y RWY 28)



ORNI AD 2.24.6 Instrument Approach Chart – ICAO (ILS OR LOC Z RWY 28)

ORTI — AL TAJI**ORTI AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORTI 2.1.1 ORTI – Al Taji Airfield****ORTI AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

ORTI 2.2.1 The facilities and procedures listed below do not necessarily comply with, or adhere to, the requirements of ICAO Annex 14.

1	Aerodrome Reference Point coordinates and site	N33°31'22.1" E044°15'25.9" Located at centre of RWY
2	Direction and distance from city	Generally N/NW, approx. 14 NM
3	Elevation and Reference Temperature	121 ft, 44° C
4	Geoid undulation	Not determined
5	Magnetic variation/Annual change	4°7'43.8"
6	Aerodrome Administration Address Telephone Telefax Telex E-mail AFS Address	F Co 7/101st Unit 6070 APO AE 09378 DSN: 318-834-3199 Nil Nil Nil Nil
7	Types of traffic permitted	IFR and VFR
8	Transition altitude and level	14 000 ft

ORTI AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	24 hours
2	Customs and Immigration	Nil
3	Health and Sanitization	Nil
4	AIS Briefing Office	Nil
5	ATS Reporting Office	Nil
6	Met Office	24 hrs

7	Air Traffic Services	TWR (24 hours); GCA (1800-0600) 7 days/wk; any time Wx is less than: Cloud base: 1 000 ft; or Visibility: 5 000 m
8	Fueling	H24 (PPR required) Taji FARP H24
9	Handling	Nil
10	Security	24 hours
11	De-icing	Nil
12	Remarks	Prior Permission Required (PPR). PPRs must be obtained 48 hours prior and before submitting a landing request to the ICAA. Permission to operate in the Baghdad FIR is coordinated through ICAA. Refer to GEN 1.2 for current procedures, requirements and contact information.

ORTI AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Nil
2	Fuel and oil types	Nil
3	Fueling facilities and capacity	24 hour cold refuel PPR required for transient aircraft. Taji FARP located N33°31'43" E044°15'40" (38S MC 3195 1117). Taji FARP FREQ 40.85. See remarks under operational hours
4	De-icing facilities	Nil
5	Hanger space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Contact 12 th CAB AS3 for assistance: VOIP: 242-6253 DSN: 318-834-5363

ORTI AD 2.5 PASSENGER FACILITIES

1	Hotels at/near aerodrome	Nil
2	Restaurants	Nil
3	Transportation	Taji passenger terminal VOIP: 242-6995.
4	Medical facilities	Nil

5	Bank and Post Office	Nil
6	Tourist Office	Nil
7	Remarks	Nil

ORTI AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	Aerodrome category for fire fighting	CAT 5
2	Rescue Equipment	Heavy rescue extraction tools
3	Capability for removal of disabled aircraft	Nil
4	Remarks	2 x T3000 (11 300 L) crash trucks, water/foam DSN: 318-834-1000 Radio contact through Taji tower.

ORTI AD 2.7 SEASONAL AVAILABILITY

1	Type(s) of clearing equipment	FOD sweeper
2	Clearance priorities	Runway then parking ramps.
3	Remarks	Nil

ORTI AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Surface and strength of aprons	N/A
2	Width, surface and strength of TWYs	Width: To be determined Surface: Concrete Strength: To be determined
3	Location and elevation of altimeter checkpoints	N/A
4	VOR and INS checkpoints	N/A
5	Remarks	8 TWYs

ORTI 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 at aircraft stands	See ORTI AD 2-24
2	RWY and TWY markings and lights	RWY lights are in place for the approach to RWY 34/16 and the length of the RWY. Amber parking lights for Taji FARP are in place. TWY lighting exists for TWYs Alpha, Bravo, Charlie and Delta. Pilot-controlled intensity lighting is not available.
3	Stop bars	Nil
4	Remarks	Nil

ORTI AD 2.10 AERODROME OBSTACLES

1	RWY16	ORTI Obstacle Chart N/A
2	RWY34	ORTI Obstacle Chart N/A
3	Remarks	Nil

ORTI AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

ORTI 2.11.1 Limited weather information, using the location designator of KQAQ vice the ICAO airfield designator, is available from the following websites:

Open access website: <http://adds.aviationweather.noaa.gov/> or <http://www.baseops.net/metro.html>

Military only websites: <https://weather.afwa.af.mil/> or <https://ows.shaw.af.mil/>

ORTI AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	16	34
2	BRG True and Mag	161° T / 157° M	341° T / 337° M
3	RWY Dimensions	5790 ft x 164 ft (1764 m x 50 m)	5790 ft x 164 ft (1754 m x 50 m)
4	PCN	To be determined	To be determined
5	THR Coordinates	MGRS 38SMC3072010485 N33°31'52.96" E044°15'13.14"	MGRS 38SMC3126008810 N33°30'58.86" E044°15'35.45"
6	THR Elevation	121 ft	121 ft
7	Slope of RWY/SWY	To be determined	To be determined
8	SWY Dimensions	To be determined	To be determined
9	CWY Dimensions	Not calculated	Not calculated
10	Strip Dimensions	Not calculated	Not calculated
11	Obstacle free zone	Not calculated	Not calculated
12	Remarks	Nil	Nil

ORTI AD 2.13 DECLARED DISTANCES

1	RWY	16	34
2	TORA	5 755 ft (1 755 m)	5 755 ft (1 755 m)
3	TODA	5 755 ft (1 755 m)	5 755 ft (1 755 m)
4	ASDA	5 755 ft (1 755 m)	5 755 ft (1 755 m)
5	LDA	5 755 ft (1 755 m)	5 755 ft (1 755 m)
6	Remarks	Nil	Nil

ORTI AD 2.14 APPROACH AND RUNWAY LIGHTING

1	RWY	16	34
2	Type, length and intensity of approach lighting	N/A	N/A
3	Threshold lights, colours and wing bars	Red lights on final approach end, red at departure end	Red lights on final approach end, red at departure end
4	Type of visual approach slope indicator system	N/A	N/A
5	Length of RWY touchdown zone indicator lights	N/A	N/A
6	Length spacing colour and intensity of RWY centreline lights	N/A	N/A
7	Length spacing colour and intensity of RWY edge lights	Amber, solar powered lights. Spacing distance unknown	Amber, solar powered lights. Spacing distance unknown.
8	Colour of RWY end lights and wingbars	Red lights at approach/departure end	Red lights at approach/departure end
9	Length and colour of stopway lights	N/A	N/A
10	Remarks	Nil	Nil

ORTI AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	Aerodrome Beacon	Nil
2	Location and lighting of anemometer and LDG direction indicator	Nil
3	TWY edge and centreline lighting	Nil
4	Secondary power supply including switch-over time	N/A; RWY lights are solar-powered
5	Remarks	Nil

ORTI AD 2.16 HELICOPTER LANDING AREA

1	Coordinates of touchdown and lift-off point (TLOF) threshold of final approach and take-off (FATO)	To be determined
2	TLOF and/or FATO area elevation	To be determined
3	TLOF and FATO area dimensions, surface, strength, marking	To be determined
4	True and MAG BRG of FATO	To be determined
5	Declared distance available	To be determined
6	Approach and FATO lighting	To be determined
7	Remarks	Nil

ORTI AD 2.17 AIR TRAFFIC SERVICES AIRSPACE

1	Airspace designation and lateral limits	See ENR 2.1.3.
2	Vertical limits	See ENR 2.1.3.
3	Airspace classification	See ENR 2.1.3.
4	Callsign and Languages	Taji Tower (English)
5	Transition altitude	
6	Remarks	Nil

ORTI AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service designation	Callsign	FREQ	Hours of operation	Remarks
TWR	Taji Tower	126.0 MHz 40.850 MHz 265.0 MHz	H24	Primary Secondary
GCA Feeder	Taji GCA	138.600 MHz	1800-0600 or Wx less than: Cloud base: 1 000 ft; or Visibility: 5 000 m	Primary
GCA Final	Taji GCA	143.125 MHz 311.000 MHz	1800-0600 or Wx less than: Cloud base: 1 000 ft; or Visibility: 5 000 m	Primary Secondary

ORTI AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of Aid	Ident	FREQ	Hours of operation	Position of antenna	Elevation of DME	Remarks
PAR						

ORTI AD 2.20 LOCAL TRAFFIC REGULATIONS

ORTI 2.20.1 Inbound altitude day and night is at or above 500 ft AGL inside 5 NM.

ORTI 2.20.2 Outbound altitude day and night is at or below 300 ft AGL until 5 NM.

ORTI 2.20.3 Maximum speed 100 kt inside 5 NM.

ORTI AD 2.21 NOISE ABATEMENT PROCEDURES

ORTI 2.21.1 Departures. Avoid overflight of Life Support Area (LSA) west of the airfield on departure.

ORTI 2.21.2 Arrivals. Avoid overflight of Life Support Area (LSA) west of airfield.

ORTI AD 2.22 FLIGHT PROCEDURES

To be Confirmed.

ORTI AD 2.23 ADDITIONAL INFORMATION

To be confirmed.

ORTI AD 2.24 CHARTS RELATED TO AN AERODROME

ICAO Charts for Al Taji Airfield		
1	Aerodrome Chart - ICAO	Not produced
2	Aircraft Parking/Docking Chart – ICAO	Not produced
3	Aerodrome Ground Movement Chart – ICAO	Not produced
4	Precision Approach Terrain Chart – ICAO	Not produced
5	Aerodrome Obstacle Chart – ICAO Type A	Not produced
6	Area Chart – ICAO (departure and transit routes)	Not produced
7	Standard Departure Chart – Instrument – ICAO	Not produced
8	Area Chart – ICAO (arrival and transit routes)	Not produced
9	Standard Arrival Chart – Instrument - ICAO	Not produced
10	Instrument Approach Chart – ICAO	Not produced
11	Visual Approach Chart	Not produced
12	Bird concentration in the vicinity of the aerodrome	Not produced

ORAN — AN NUMANIYAH**ORAN AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORAN 2.1.1 ORAN – An Numaniyah Airport****ORAN AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	Aerodrome Reference Point coordinates and site	N32°30'12.00" E045°19'54.00" The geographic centre of the airfield
2	Elevation and Reference Temperature	43 ft / 43.1° C
3	Remarks	Airfield not operational

ORAN AD 2.3 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	12	30
2	BRG True and Mag	To be determined	To be determined
3	RWY Dimensions	9 843 ft x 148 ft 3 000 m x 45 m	9 843 ft x 148 ft 3 000 m x 45 m
4	PCN	To be determined	To be determined
5	THR Coordinates	To be determined	To be determined
6	THR Elevation	To be determined	To be determined

ORBI — BAGHDAD**ORBI AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORBI 2.1.1 ORBI – Baghdad International Airport****ORBI AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	Aerodrome Reference Point coordinates and site	N33°15'45.140" E044°14'04.476" WGS-84 The geographic centre of the airfield
2	Direction and distance from city	Bearing 235° at 8 NM
3	Elevation and Reference Temperature	113.60 ft (34.6 m) and 43.1° C
4	Geoid undulation	Not determined
5	Magnetic variation/Annual change	4° E (2010) / 2' increasing
6	Civil Aerodrome Administration Telephone Telefax Telex E-mail AFS Address	Iraq Civil Aviation Authority Baghdad International Airport Baghdad, Iraq +964 0790 140 3537 964-543-0689 21 2500 YIAIK bagair_biap@geca.gov.iq ORBIYAYX
7	Types of flights permitted	IFR/VFR
8	Transition altitude and level	TA 14 000 ft AMSL, TL FL150
9	Remarks	All administrative matters are to be referred to the airport director. Landing and parking charges will be IAW published rates at GEN 4.1 and GEN 4.2. Charges MUST be paid in full in cash (\$US) prior to departure.

ORBI AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	Sunday to Thursday 0800 – 1500, Fri/Sat – Closed
2	Customs and Immigration	HJ (H24 on request to ICAA)
3	Health and Sanitation	HJ (H24 on request to ICAA)
4	AIS Briefing Office	H24
5	ATS Reporting Office	H24
6	Met Office	H24
7	Air Traffic Services	H24
8	Fuelling	HJ (Iraqi Airways)
9	Handling	HJ (H24 on request to ICAA) Civil Aviation must pre-arrange. See 1.2.5.6
10	Security	H24
11	De-icing	Not available
12	Remarks	Limited instrument approaches and departures for civil aircraft. ICAA Cargo Warehouse and substantial Storage Capacity available for non-military freight.

ORBI 2.3.1 (PPRs): For Civilian aircraft, ORBI requires a PPR for all military ramps (Sather AB). No PPR is required for the civil passenger terminal and Kilo ramp. Carriers desiring to use the Kilo ramp must coordinate parking with local civilian ground handling agents. Refer to GEN 1.2 for current procedures, requirements and contact information. Operators must check the latest ORBI NOTAMS for the most current PPR requirements.

ORBI 2.3.2 For Military aircraft, Sather AB requires a PPR for all military portions of aerodrome. Fixed wing ATO assigned aircraft requesting military PPRs should contact airfield management as far in advance as possible. Due to working MOG/flight schedules, PPRs will not be issued until 48 HRS prior to arrival time. PPRs issued within six hours of arrival will not be guaranteed priority handling and may be delayed. Aircraft more than 30 minutes early are given lower priority than those arriving on time. For military side call airfield management at:

DSN: 318-446-2900;

E-mail: 447AEG.OSAA@BDAB.AFCENT.AF.MIL

Request PPR number no earlier than 72 hr but no later than 24 hr prior to movement. Unauthorized aircraft will be denied landing or detained. PPRs are valid +/- 30 Min from ETA.

ORBI AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	<p>Military Hazardous Cargo DSN 318-446-3064 ATOC DSN 318 446 3056 minimum 48 hrs PPR or Commercial contact +914 360 4793 Military coordinated through Baghdad Command Post. Capability for main deck wide-body freighter. No storage for freight or passengers Civil aircraft must pre-arrange with MoT and coordinate with ground personnel upon arrival. Civil/Commercial: Coordinate with Iraqi Ministry of Transportation or pre-arrange with a local ground/freight handler. See ICAA website.</p>
2	Fuel and oil types	<p>JET A-1 available. Limited JP-8 available. Military aircraft requesting in excess of 5 500 US Gal (40 000 Lbs) fuel from military terminal must coordinate with 447 ELRS/LGRF (POL) RCC AT DSN 318-446- 2319/2321. Failure to coordinate with POL prior to arrival may result in failure to service the request. PPR approval does not constitute fuel request approval. Limited supply of AVTUR. Nil oil.</p>
3	Fueling facilities and capacity	Services available (H24)
4	De-icing facilities	Nil
5	Hanger space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil

7	Remarks	<p>Civilian Side: Full capacity for passenger operations. Handling services during daylight hours only or by arrangement with MoT and ICAA</p> <p>Military aircraft contact command post 'Kingfish Hotel' on 229.625 or 133.5 MHz 20 minutes prior to ETA.</p> <p>DSN 318-446-2442</p> <p>Civil aircraft - Phone + 964 0790 380 6974</p> <p>Military FARP operates H24, available on 33.775MHz.</p> <p>Catering, potable water, toilet conditioning and fleet service not available. Aircraft operators should expect to provide tow bar.</p> <p>Liquid Oxygen not available on the military or civilian side.</p>
---	---------	---

ORBI AD 2.5 PASSENGER FACILITIES

1	Hotels at/near aerodrome	Available
2	Restaurants	5 star in administration building adjoining terminal, one café in departure lounge
3	Transportation	Scheduled Coaches Services. From 0300 to 1500 UTC everyday from Baghdad International Airport to Baghdad city and vice versa.
4	Medical facilities	Clinic medical treatment available from the Baghdad International Airport Medical Centre. Two male and female wards, four heavy duty ambulances each with two bed stretchers. Full medical treatment in the city.
5	Bank and Post Office	In administration building adjoining terminal, open AD administration hours
6	Tourist Office	Nil
7	Remarks	Nil

ORBI AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	Aerodrome category for fire fighting	RFF Cat 8
2	Rescue Equipment	To be determined
3	Capability for removal of disabled aircraft	Limited assistance using military assets
4	Remarks	Nil

ORBI 2.6.1 Removal of disabled aircraft from RWY. When an aircraft is disabled on a RWY, it is the duty of owner or user of such aircraft to have it removed as soon as possible. If a disabled aircraft is not removed from the RWY as quickly as possible by the owner or user, the aircraft will be removed by the aerodrome authority at the owner's or user's expense.

ORBI AD 2.7 SEASONAL AVAILABILITY

1	Type(s) of clearing equipment	Nil
2	Clearance priorities	Nil
3	Remarks	Nil

ORBI AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Surface and strength of aprons	<p>Military Side: Three concrete surfaced aprons for military and civil aircraft:</p> <p>AMC Ramp (Z-1) North.....PCN-61/R/C/W/T</p> <p>SouthPCN-57/R/C/W/T</p> <p>Al Muthana (Z-2, Z-3)PCN-56/R/C/W/T</p> <p>JMMT Ramp (Z-4)PCN-59/R/B/W/T</p> <p>Civil Side: Five concrete surfaced aprons for civil aircraft:</p> <p>Echo Ramp.....PCN-55/R/C/W/T</p> <p>Alpha Ramp.....PCN-61/R/B/W/T</p> <p>Delta Ramp & Terminal B & C Apron.. PCN-66/R/C/W/T</p> <p>Six gates each for B747 or smaller aircraft</p> <p>(Kilo Ramp)PCN-63/R/C/W/T</p> <p>Space available for one parking spot for An-124, two parking spots for IL-76/A-300, and three parking spots available for all other smaller aircraft. All aircraft are directed to park at the Cargo Terminal "nose-in."</p> <p>Victor Ramp (VVIP)PCN-66/R/C/W/T</p>
2	Width, surface and strength of TWYs	<p>Military Side: Nine concrete surfaced TWYs for military/civil aircraft:</p> <p>Width: 23 m (75 ft)</p> <p>M-NorthPCN-55/R/C/W/T</p> <p>M-South.....PCN-61/R/C/W/T</p> <p>P2PCN-77/R/C/W/T</p> <p>P3PCN-82/R/C/W/T</p> <p>P4PCN: 77/R/C/W/T</p> <p>P5PCN-79/R/C/W/T</p> <p>Width: 30 m (98 ft)</p> <p>M (Apron Strip)PCN-55/R/C/W/T</p> <p>Width: 90 m (295 ft)</p>

		<p>P1 South Hammerhead PCN-59/R/C/W/T</p> <p>P6 North Hammerhead PCN-53/R/C/W/T</p> <p>Civil Side: Nineteen concrete surfaced TWYs for civil aircraft:</p> <p>Width: 23 m (75 ft)</p> <p>G..... PCN-72/R/B/W/T</p> <p>N..... PCN-79/R/B/W/T</p> <p>O..... PCN-68/R/C/W/T</p> <p>P..... PCN-63/R/B/W/T</p> <p>R..... PCN-79/R/B/W/T</p> <p>S5..... PCN-85/R/C/W/T</p> <p>S6..... PCN-64/R/C/W/T</p> <p>Width: 30 m (98 ft)</p> <p>A..... PCN-68/R/C/W/T</p> <p>S..... PCN-58/R/C/W/T</p> <p>S1..... PCN-58/R/C/W/T</p> <p>S2..... PCN-81/R/C/W/T</p> <p>S3..... PCN-81/R/C/W/T</p> <p>S4..... PCN-81/R/C/W/T</p> <p>T..... PCN-68/R/C/W/T</p> <p>W..... PCN-81/R/C/W/T</p> <p>Width: 40 m (131 ft)</p> <p>Y..... PCN-110/R/C/W/T</p> <p>Width: 55 m (180 ft)</p> <p>Apron Access B..... PCN-58/R/C/W/T</p> <p>Apron Access C..... PCN-58/R/C/W/T</p> <p>Width: 60 m (197 ft)</p> <p>Apron Access D..... PCN-58/R/C/W/T</p>
3	Location elevation altimeter checkpoints	and of Not available
4	VOR and checkpoints	INS Not available
5	Remarks	<p>Use caution on TWY M, AMC Ramp, JMMT Ramp and Al Muthana, due to moderate and severe spalling and deteriorated joints. Aircraft must coordinate parking with tower/ Command Post/ Airfield Management. Aerobridges not AVBL.</p> <p>Taxiway lights not available on taxiway A, G, N, R, T, S, S1-S6. Due to light ramp lighting all aircraft turn on position light and/or formation light upon exit of active</p>

	<p>runway to show other aircraft on ground their position and maintain safe clearance. Light required for taxiing online and may be turned off upon entering runway for departure.</p> <p>All aircraft use inboard engines only due to FOD when taxiing on/off Runway 15R/33L/Taxiway surface.</p> <p><i>Note: All aircraft are to be directed by a marshaller to parking and must use "Follow Me" assistance. All transient helicopter traffic must hold on taxiway M and wait for a marshaller for parking.</i></p> <p><i>Caution: Numerous unmarked and unlighted obstacles within apron lateral clearance zones.</i></p> <p><i>Caution: All aircraft use extreme caution due to deteriorating airfield surfaces.</i></p>
--	--

ORBI 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 at aircraft stands	See ORBI AD 2-24 charts
2	RWY and TWY markings and lights	Standard markings, lights under reconstruction. Military aircraft refer to DINS NOTAMs at https://www.notams.jcs.mil RWY 15R/33L Solar powered lights in use, non-standard lighting
3	Stop bars	Stop bars where appropriate
4	Remarks	

ORBI AD 2.10 AERODROME OBSTACLES

1	RWY33R	ORBI Obstacle Chart not published
2	RWY15L	ORBI Obstacle Chart not published
3	RWY33L	ORBI Obstacle Chart not published
4	RWY15R	ORBI Obstacle Chart not published
5	Remarks: Control TWR 240 ft (73 m) AGL / 371 ft (112.78 m) AMSL/ location N33°16'21.65"/E044°13'35.15". North of civil terminal between threshold RWY15L and RWY15R (no obst lgt). Communication masts approximately 1 180 ft loc 3 NM NNE of airfield (no obst lgt).	
6	Tethered Balloon at N331713.06/E0441626.93, SFC to 3,000 AGL/3,147AMSL. Lit with white flashing lights, however tether is neither flagged nor lit. No fly zone established 0.25 NM radius around coordinates up to 3,000 AGL. The following additional obstructions have been identified:	

	DESCRIPTION	LAT	LONG	HGT AMSL (M/FT)
ANT	ANTENNA 15L SIDE	N33°17'10.33"	E044°13'46.34 "	33.81/110.94
ANT2	ANTENNA	N33°16'43.56"	E044°14'22.38 "	54.89/180.10
ANT3	ANTENNA	N33°16'43.59"	E044°14'20.95 "	58.62/192.33
ANT4	ANTENNA 33R SIDE	N33°15'00.66"	E044°15'15.32 "	33.03/108.36
ANT5	ANTENNA	N33°17'05.00"	E044°14'35.00 "	79.86/262
ANT6	ANTENNA	N33°16'48.97"	E044°12'07.94 "	54.56/179
ANT7	ANTENNA	N33°17'05.49"	E044°14'34.73 "	81.990/269
ANT8	ANTENNA	N33°17'09.39"	E044°14'31.12 "	83.21/273
ANT9	ANTENNA	N33°14'19.18"	E044°14'53.24 "	69.49/228
ANT10	ANTENNA	N33°14'33.29"	E044°14'50.54 "	57.3/188
ANT11	ANTENNA	N33°15'02.01"	E044°12'52.60 "	74.98/246
ANT12	ANTENNA	N33°16'35.80	E044°13'55.96 "	54.86/180
ASRA	SURV RADAR	N33°15'49.38"	E044°13'33.82 "	70.68/231.89
COM2	COMMS TWR	N33°15'21.80"	E044°12'58.20 "	71.32/234
COM3	COMMS TWR	N33°13'29.52"	E044°13'39.54 "	59.44/195
COM4	COMMS TWR	N33°13'08.30"	E044°13'01.09 "	93.27/306
COM7	COMMS TWR	N33°14'11.30"	E044°14'34.20 "	56.08/184
COM8	COMMS TWR	N33°17'10.70"	E044°13'10.20 "	77.42/254
GSA1A	GLD SLP 33R END	N33°15'20.58"	E044°15'07.76 "	46.95/154.02
GSA2A	GLD SLP 15L END	N33°16'54.84"	E044°14'03.09	47.8/156.84

			"	
LT1	LIGHT POLE	N33°14'43.36"	E044°13'36.71"	55.660/82.61
LT2	LIGHT POLE	N33°14'49.95"	E044°13'32.19"	54.4/178.48
LT3	LIGHT POLE	N33°15'30.43"	E044°13'45.08"	74.13/243.21
LT4	LIGHT POLE	N33°15'14.03"	E044°13'56.42"	74.42/244.17
LT5	LIGHT POLE	N33°15'04.78"	E044°14'03.44"	70.04/229.78
LT6	LIGHT POLE	N33°15'33.88"	E044°13'02.14"	54.98/180.38
LT7	LIGHT POLE	N33°16'39.50"	E044°13'54.48"	71.32/234
LT8	LIGHT POLE	N33°15'24.21"	E044°13'56.89"	78.94/259
LT9	LIGHT POLE	N33°15'15.18"	E044°14'03.85"	68.58/225
LT10	LIGHT POLE	N33°15'09.08"	E044°14'13.69"	73.15/240
LT11	LIGHT POLE	N33°16'38.79"	E044°13'48.59"	91.14/299
LT12-21	10 light poles lined up on west side of the 15R/33L taxiway. Approximately 50 ft AGL and spaced 100 ft apart.			
MOS1	MOSQUE 1	N33°14'18.49"	E044°15'42.01"	61.63/202.2
MOS2	MOSQUE 2	N33°14'18.46"	E044°14'58.74"	64.27/210.86
RDT1	RADIO TOWER	N33°15'37.64"	E044°14'20.91"	94.9/311.34
RDT2	RADIO TOWER	N33°16'44.80"	E044°14'24.54"	83.61/274.32
RDT3	RADIO TOWER	N33°17'04.54"	E044°13'07.95"	84.034/275.7
RDT4	RADIO TOWER	N33°15'40.67"	E044°14'16.92"	101.5/333
RDT5	RADIO TOWER	N33°15'38.67"	E044°14'19.67"	103.02/338
WAT1	WATER TOWER	N33°16'31.30"	E044°11'50.55"	71.32/234

ORBI AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET office	Forecasting dep.
2	Hours of service MET office outside hours	H24
3	Office responsible for TAF preparation Periods of validity	H24
4	Trend forecast Interval of issuance	H24
5	Briefing/consultation provided	Available
6	Flight documentation Language(s) used	English
7	Charts and other information available for briefing or consultation	on request
8	Supplementary equipment available for providing information	Available
9	ATS units provided with information	Control Tower
10	Additional information	Nil

ORBI 2.11.1 Weather forecasting available – forecaster available H24 on DSN (318) 446-2906, SUN to SAT. Weather radar data is not available.

ORBI 2.11.2 Remote weather brief for military operators available H24 through AFCENT Operational Weather Squadron (OWS) on DSN (312) 965-0907; Comm +1 (803) 895-0907; METRO/PMSV UHF 246.4 MHz or through Command Post, callsign Kingfish Hotel, UHF **229.625MHz**.

ORBI 2.11.3 Limited weather information, using the location designator of KQTZ vice the ICAO airfield designator, is available from the following websites:

Open access website: <http://adds.aviationweather.noaa.gov/> or <http://www.baseops.net/metro.html>

Military only websites: <https://weather.afwa.af.mil> or <https://ows.shaw.af.mil/>

ORBI 2.11.4 CAUTION: Weather balloon with attached transmitter released at 1200 UTC daily.

ORBI AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	15L	33R	15R	33L
2	BRG True and Mag	150° T, 146° M	330° T, 326° M	150° T, 146° M	330° T, 326° M
3	RWY Dimensions	(4 000 m x 60 m)	(4 000 m x 60 m)	(3 301 m x 45 m)	(3 301 m x 45 m)
4	PCN	Concrete 56 R/C/W/T	Concrete 56 R/C/W/T	Concrete 54 R/C/W/T	Concrete 54 R/C/W/T
5	THR Coordinates	N33°17'01.761 E044°13'52.225"	N33°15'09.273" E044°15'09.412"	N33°16'06.860" E044°13'00.701"	N33°14'34.037" E044°14'04.410"
6	THR Elevation	113 ft (34.5m)	110 ft (33.5m)	114 ft (34.5m)	111 ft (34.0m)
7	highest elevation of TDZ of precision APP RWY	TDZ 113 ft / 34.5m	TDZ 114 ft / 34.5m	TDZ 114 ft / 34.5 m	TDZ 112 ft / 34.0 m
8	Slope of RWY/SWY	0.025% down	0.025% up	0.009% down	0.009% up
9	SWY Dimensions	Nil	Nil	Nil	Nil
10	CWY Dimensions	Nil	Nil	Nil	Nil
11	Strip Dimensions	4120 x 300	4120 x 300	3421 x 300	3421 x 300
12	Obstacle free zone	Nil	Nil	Nil	Nil
13	Remarks	Unmarked 6 inch concrete slabs with 6 ft deep manholes along E and W shoulder edges for Runway 15L/33R.		Civil use in emergency only 6in dip in surface, due crater repair settling, abeam TWY P-5.	

ORBI AD 2.12.1 Excessive rubber build up on RWY 33R/15L has obscured the centreline and may cause reduced braking capability during runway surface condition wet.

ORBI AD 2.12.2 RWY 33R/15L is closed every Tuesday between 0300 – 0600 UTC for routine maintenance. RWY 33L/15R will remain open for traffic.

ORBI AD 2.12.3 RWY 33L/15R is closed every Friday between 1800 – 0100 UTC for routine maintenance. RWY 33R/15L will remain open for traffic.

ORBI AD 2.12.4 CAUTION: Non-standard over run lengths RWY 15R/33L of 200 ft.

ORBI AD 2.13 DECLARED DISTANCES

1	RWY	15L	33R	15R	33L
2	TORA (M)	4000	4000	3301	3301
3	TODA (M)	4000	4000	3301	3301
4	ASDA (M)	4000	4000	3301	3301
5	LDA (M)	4000	4000	3301	3301
6	Remarks	Nil		Nil	

ORBI AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY designator 1	Approach Lights Type, Length, Intensity 2	Threshold Lights Colour, WBAR 3	VASIS (MEHT) PAPI 4	TDZ Lights Length 5	RWY CL Lights Spacing, Colour, Intensity 6	RWY Edge Lights Spacing, Colour, Intensity 7	RWY End Lights Colour, WBAR 8	SWY Lights Length, Colour 9	Remarks 10
15L	CALVERT CAT I 900 m	Yes	PAPI-L 3.0°	Yes	Yes	HI	Yes	Nil	Nil
33R	CALVERT CAT I 900 m	Yes	PAPI-B 3.0°	Yes	Yes	HI	Yes	Nil	Nil
15R	Yes Lights unservice- able	Yes Lights unservice- able	PAPI-L 3.0°	Nil	Nil	Yes Lights unservice- able	Yes Lights unservice- able	Nil	Nil
33L	Yes Lights unservice- able	Yes Lights unservice- able	PAPI-L 3.0°	Nil	Nil	Yes Lights unservice- able	Yes Lights unservice- able	Nil	Nil

ORBI 2.14.1 Any changes to Baghdad's approach and runway lighting may be found on the following military website:

<https://www.notams.jcs.mil>

ORBI AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	Aerodrome Beacon	Aerodrome beacon OTS
2	Location and lighting of anemometer and LDG direction indicator	Not fitted
3	TWY edge and centreline lighting	Military side: Solar powered lights in use. No centreline lights installed.
4	Secondary power supply including switch-over time	Civilian side: Secondary power to all airfield lighting, switch-over time:1 minute Military side: No secondary power
5	Remarks	Portable THLD/RWY END lights in use.

ORBI AD 2.16 HELICOPTER LANDING AREA

1	Coordinates of touchdown and lift-off point (TLOF) threshold of final approach and take-off (FATO)	South Mike Helipad N33°14.550' E044°13.838' North Mike Helipad N33°15.910' E044°12.920' Rifle Stock Landing Area N33°14.848' E044°13.848' Mid Mike Helipad N33°15.322' E044°13.310' CSH Helipad N33° 15.556' E044° 13.148'
2	TLOF and/or FATO area elevation	South Mike Helipad 84 ft MSL North Mike Helipad 89 ft MSL Rifle Stock Landing Area 76 ft MSL Mid Mike Helipad 95 ft MSL CSH Helipad 114 ft MSL
3	TLOF and FATO area dimensions, surface, strength, marking	All landing surfaces are 100 ft x100 ft and marked with a white "H"
4	True and MAG BRG of FATO	To be determined
5	Declared distance available	To be determined
6	Approach and FATO lighting	To be determined
7	Remarks	Except Rifle Stock landing area, all other landing areas are within the CMA.

ORBI AD 2.17 AIR TRAFFIC SERVICES AIRSPACE

1	Airspace designation and lateral limits	See ENR 2.1.3.
2	Vertical limits	
3	Airspace classification	
4	Callsign and Languages	Baghdad...(Tower) English
5	Transition altitude/Transition level	14000 FT / FL 150
6	Remarks	Nil

ORBI AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service designation	Callsign	FREQ	Hours of operation	Remarks
APP	Baghdad Approach	128.200 MHz 242.500 MHz	H24	Primary Secondary
DEP	Baghdad departure	128.200 MHz	H24	Primary
TWR	Baghdad Tower	118.900 MHz 118.400 MHz	H24	Primary Secondary
GROUND	Baghdad Ground	121. <u>900</u> MHz 121. <u>700</u> MHz	H24	Primary Secondary
ATIS	None	122.900 MHz	H24	Primary
REMARKS	Due to radio coverage limitations there is limited low level coverage with Baghdad Approach below 3 000 ft AMSL in vicinity of ORBI.			

ORBI AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of Aid	Ident	FREQ	Hours of operation	Position of antenna	Elevation of DME	Remarks
D-VOR	BGD	112.9 MHz CH76	H24	N33°17'31.00" E044°13'31.00"	130 ft	VAR 4°E
TACAN	BAP	CH 64X	H24	N33°16'00.23" E044°13'21.34"	124 ft	Military Use Only VAR 4°E
ILS <u>RWY 33R CAT I</u> (4° E/2010)						
LOC	I-YCA	110.1 MHz CH 38	H24	N33°17'12.60" E044°13'44.90"		
GS		334.4 KHz CH 38	H24	N33°15'20.70" E044°15'07.70"	156 ft	3°, TCH 59.4ft
ILS RWY 15L CAT I (4° E/2005)						
LOC	I-YDB	110.7 MHz CH44	H24	N33°14'58.70" E044°15'16.8"		
GS		330.2 KHz CH44	H24	N33°16'54.70" E044°14'03.10"	153 ft	3° TCH 54.4 FT
Remarks	D-VOR maintenance MON and THU 0400-0600 UTC					

ORBI AD 2.20 LOCAL TRAFFIC REGULATIONS

ORBI 2.20.1 Fixed wing departures from RWY 15 will make no right turns prior to departure end of runway. After departure end of runway, aircraft may initiate a right turn after reaching 800 ft AGL unless cleared sooner by Baghdad Tower. Aircraft shall climb to be above 450 ft AGL by 1.25 NM south of the departure end of runway due to helicopter operations.

ORBI 2.20.2 Fixed wing departures from RWY 33 via left downwind departure will initiate crosswind turn no earlier departure end of runway and at or above 450 ft AGL, unless cleared sooner by Baghdad Tower. All aircraft shall climb to be above 800 ft AGL by mid-field downwind or 450 ft AGL by 1.25 NM north of the departure end of runway due to helicopter operations.

ORBI 2.20.3 Circling east of RWY 33R/15L is prohibited. Restricted areas located 1.3 NM east of RWY 33R threshold 0.3 NM radius centred at N33°15'26.00" E044°16'52.80" and 2.0 NM east-northeast of RWY15L threshold 0.3 NM radius centred at N33°20'42.00" E044°20'50.00" SFC to 1 500 ft AMSL.

ORBI 2.20.4 Rotary wing operations are prohibited from over flight of tent city area, civil terminal, fuel storage and hardened aircraft shelter areas below 1 000 ft AGL (West side of RWY 33L/15R).

ORBI 2.20.5 Rotary wing aircraft must use extreme caution landing and transitioning South Mike taxiway due to unlit obstructions.

ORBI 2.20.6 Rotary wing aircraft must land North helipad, South helipad, CSH helipad or Mid Mike Helipad unless otherwise directed by ATC.

ORBI 2.20.7 Rotary wing aircraft intending to shut down at BIAP must report landing assured to Baghdad Radio or home unit.

ORBI 2.20.8 Marshaller assistance on the military ramp is required and further information can be obtained from the TWR or "Kingfish". When a local regulation is of importance for the safe operation of aircraft on the apron, the information shall be given to each aircraft by the TWR or broadcast on the ATIS.

ORBI 2.20.9 Local Traffic Regulations may be requested, in writing, from the Iraq Civil Aviation Authority at the address detailed in GEN 0.1.

ORBI 2.20.10 Except during emergency situations, aerodrome not available for fighter aircraft use.

ORBI 2.20.11 Use caution when advised of weather balloon launch. Balloon has transmitter attached.

ORBI 2.20.12 All fixed wing aircraft shall display covert lighting within Baghdad airspace. All aircraft shall display overt lighting whilst over runways, on taxiways and the ramp area.

ORBI 2.20.13 All rotary wing aircraft shall display overt lighting whilst travelling to and from ORBI from Austin, Dakota, Tusk and Warthog fixes.

ORBI 2.20.14 Civilian Night Operations for RWY 15L/33R: All aircraft arrivals/departures after sunset are authorised with the following stipulations:

1. Arrivals/departures may be delayed due to military operations in the vicinity of Baghdad International Airport.
2. Departures must confirm slot time with TWR prior to taxi.

ORBI AD 2.21 NOISE ABATEMENT PROCEDURES

ORBI 2.21.1 Departures

To be determined

ORBI 2.21.2 Arrivals

To be determined

ORBI 2.21.3 General Limit engine run up operations to a minimum unless mission requires. Must be coordinated 15 min prior to arrival. Command Post DSN 318-446-2442.

ORBI AD 2.22 FLIGHT PROCEDURES

ORBI 2.22.1 General

ORBI 2.22.1.1 IFR and VFR flight are permitted in ORBI class (D) control zone.

ORBI 2.22.1.2 Where VFR operations are mandated, flights should be carried out in accordance with VFR as specified in ENR 1.2 and ICAO Annexes 2 and 11 (particularly regarding visibility and clearance from cloud). Compliance with these procedures does not relieve pilots of their responsibility to see and avoid other aircraft, or to maintain safe terrain/obstacle clearance at all times when operating VFR.

ORBI 2.22.1.3 Civil aircraft are not permitted to arrive or depart when the cloud base is less than 200 feet and/or visibility is less than 800 meters.

ORBI 2.22.1.4 Due to high volume of helicopter traffic in the area around ORBI (BIAP), fixed wing aircraft operating within 10NM of BIAP should maintain 1000 feet AGL or above until required for landing. Departures should climb to 1000 feet AGL or above as soon as practical.

ORBI 2.22.2 Procedures within Baghdad TMA. Practice approaches are subject to approval by ATC.

ORBI 2.22.2.1 The inbound, transit and out bound routes on charts may be varied at the direction of ATS. If necessary, in case of congestion, inbound aircraft may also be instructed to hold at one of the designated airways reporting points.

ORBI AD 2.23 ADDITIONAL INFORMATION

ORBI 2.23.1 Any aircraft reporting first to the civil side will be searched by USAF Security Forces prior to repositioning to the military side.

ORBI 2.23.2 All Distance remaining markers are not reflective.

ORBI 2.23.3 Engine run offload for fix wing aircraft: C-17 and C-130 only.

ORBI 2.23.4 Nose-in parking procedures for civilian terminal.

ORBI AD 2.24 CHARTS RELATED TO AN AERODROME

ICAO Charts for Baghdad International Airport		
1	Aerodrome Chart – ICAO	ORBI AD 2.1-49
2	Aerodrome Ground Movement Chart – ICAO	ORBI AD 2.1-50
3	Aircraft Parking/Docking Chart – ICAO	ORBI AD 2.1-51
4	Aircraft Parking/Docking Chart – ICAO	ORBI AD 2.1-52
5	ILS or LOC/DME RWY 15L	ORBI AD 2.1-53
6	ILS or LOC/DME RWY 33R	ORBI AD 2.1-54
7	VOR/DME RWY 33R	ORBI AD 2.1-55
8	VOR/DME RWY 15L	ORBI AD 2.1-56
9	BAGHDAD ONE DEPARTURE PROCEDURE	ORBI AD 2.1-57
10	TAKEOFF MINIMUMS/OBSTACLE DEPARTURE PROCEDURES	ORBI AD 2.1-58
11		Not produced
12	Precision Approach Terrain Chart – ICAO	Not produced
13	Aerodrome Obstacle Chart – ICAO Type A	Not produced
14	Area Chart – ICAO (departure and transit routes)	Not produced
15	Standard Departure Chart – Instrument – ICAO	Not produced
16	Area Chart – ICAO (arrival and transit routes)	Not produced
17	Standard Arrival Chart – Instrument - ICAO	Not produced
18	Instrument Approach Charts – (FAA)	
19	Visual Approach Chart	Not produced
20	Bird concentration in the vicinity of the aerodrome	Not produced
21	Instrument Departure Procedures (Jeppesen)	

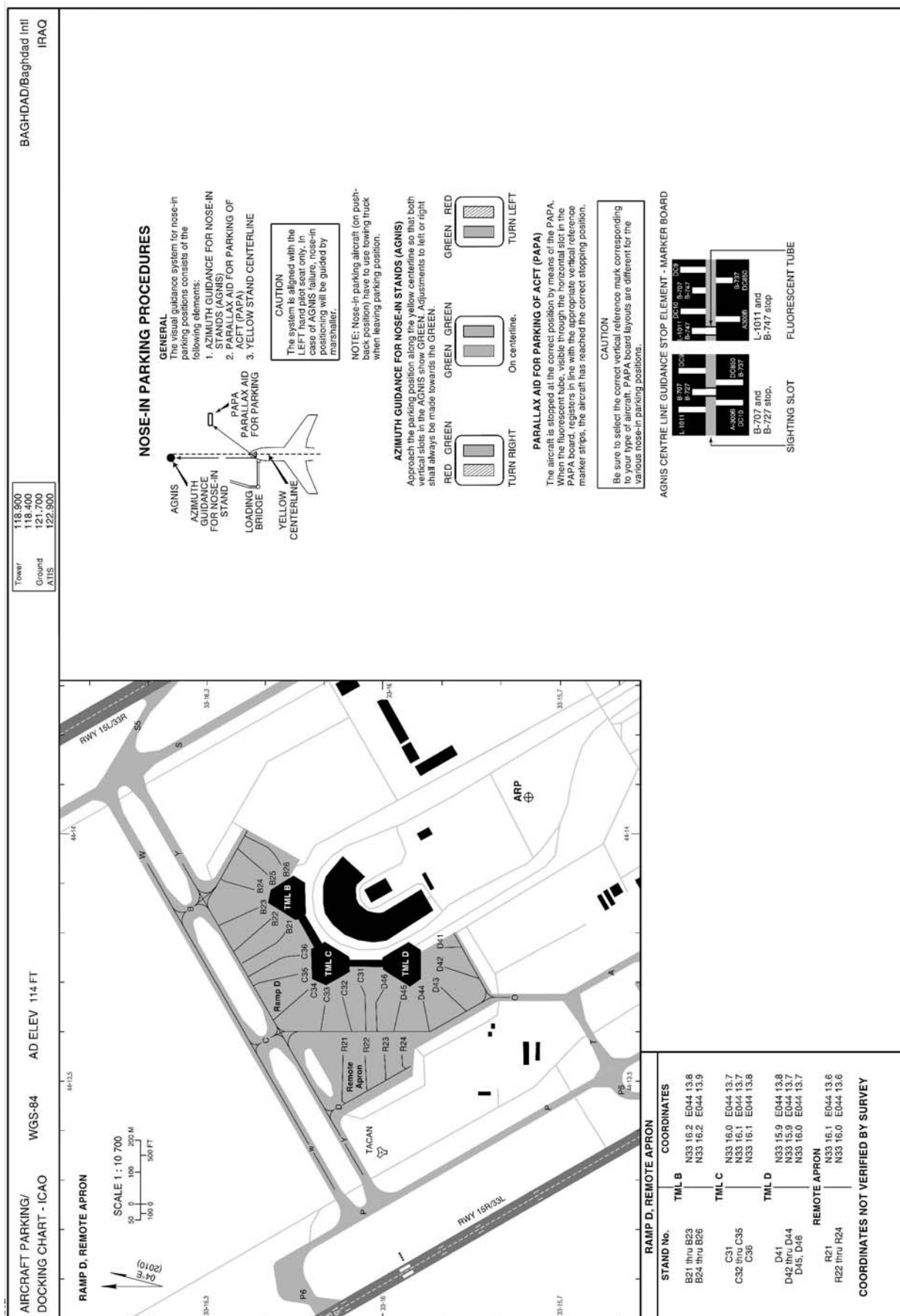
ORBI AD 2.24.1 Aerodrome Chart – ICAO



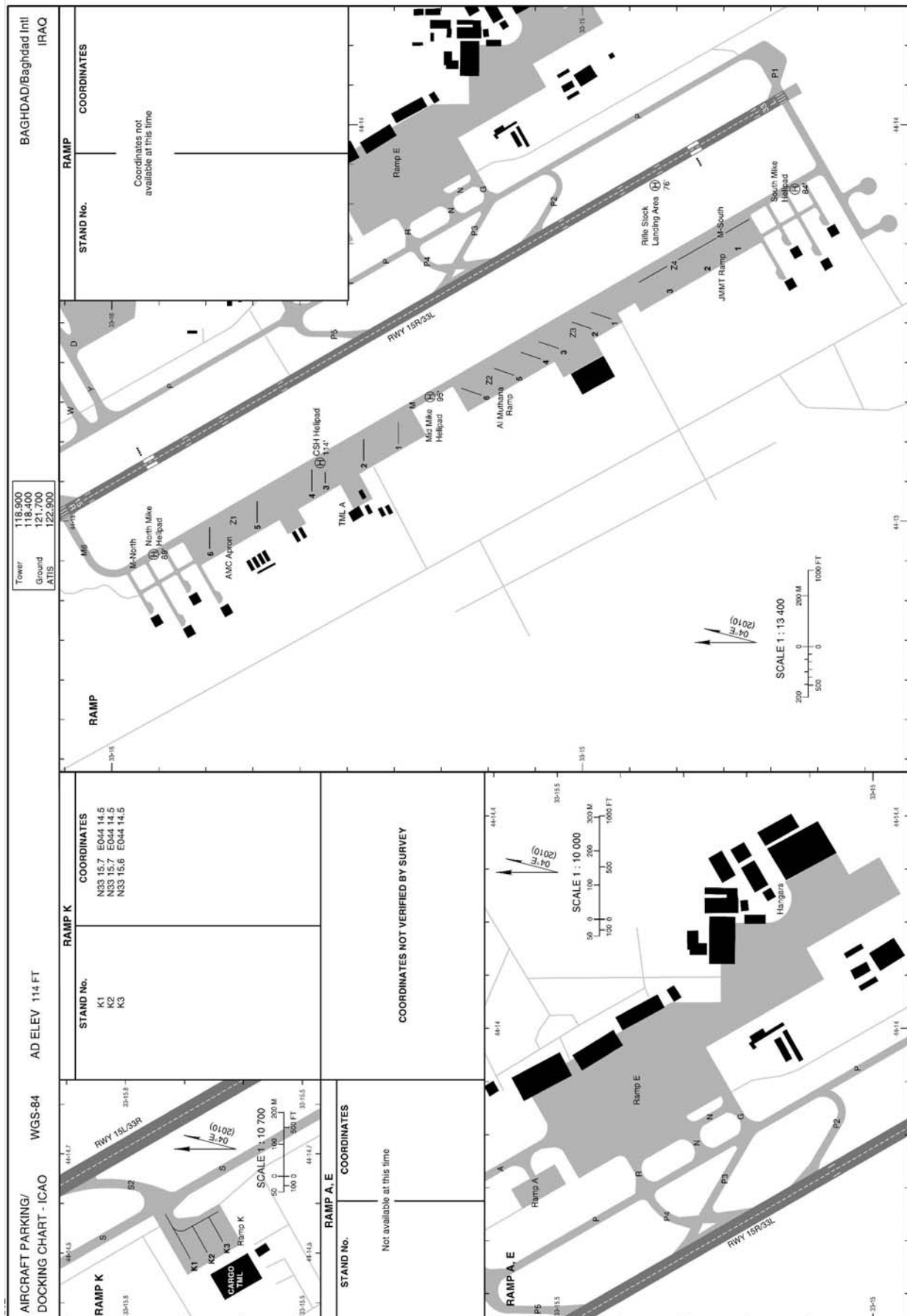
ORBI AD 2.24.2 Aerodrome Ground Movement - ICAO



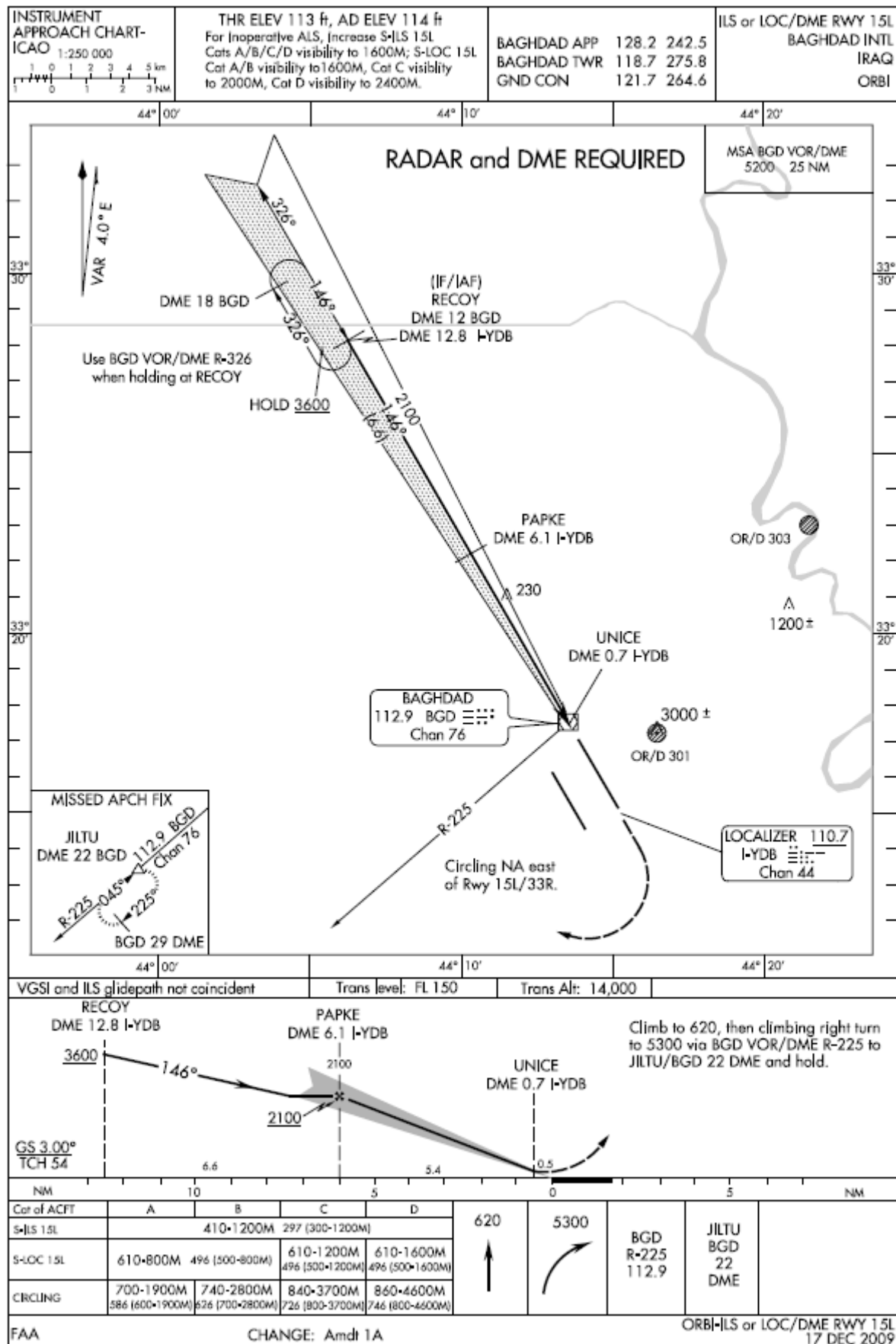
ORBI AD 2.24.3 Aircraft Parking Docking Chart – ICAO



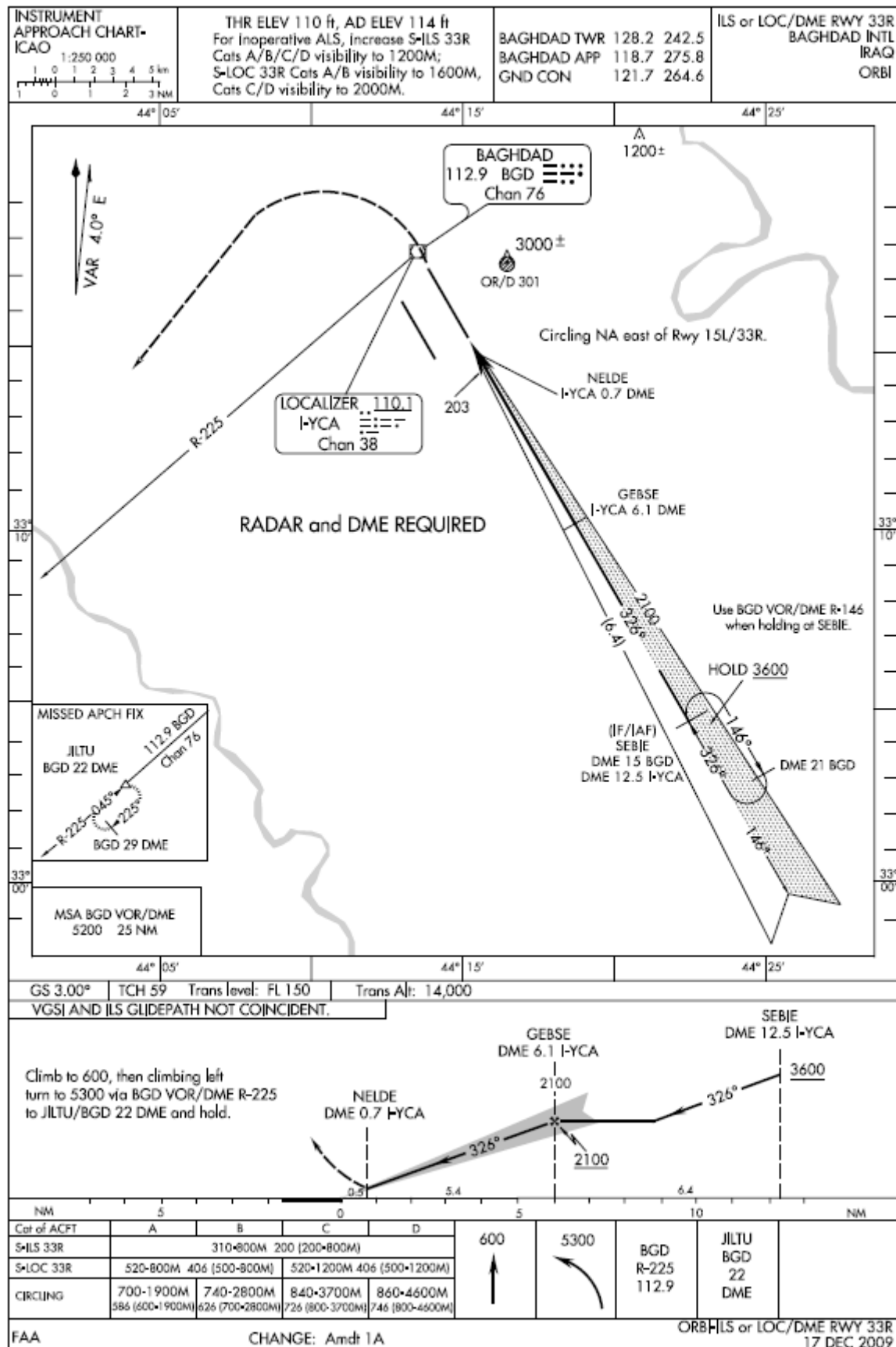
ORBI AD 2.24.4 Aircraft Parking Docking Chart – ICAO



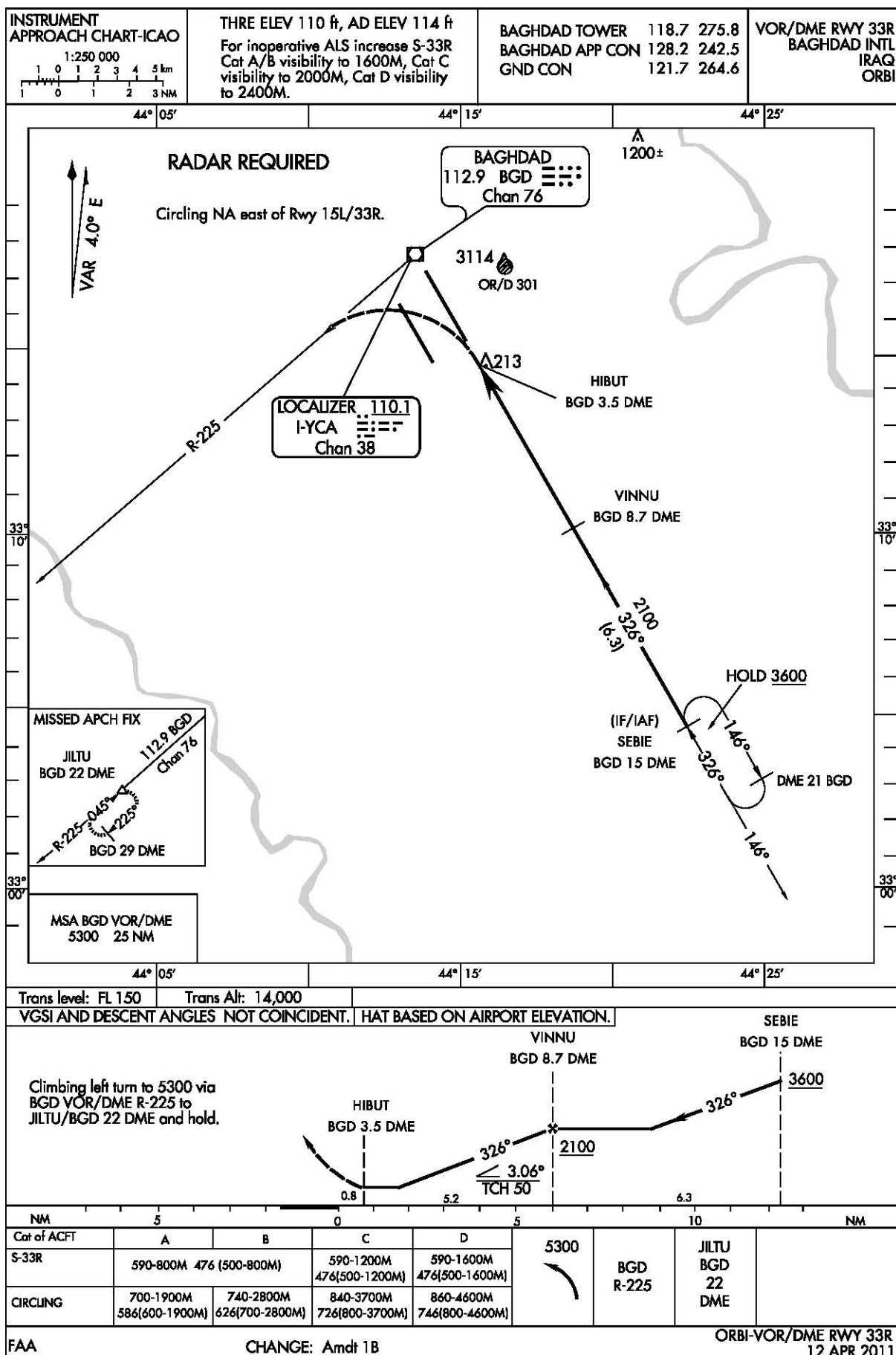
ORBI AD 2.24.5 ILS or LOC/DME RWY 15L



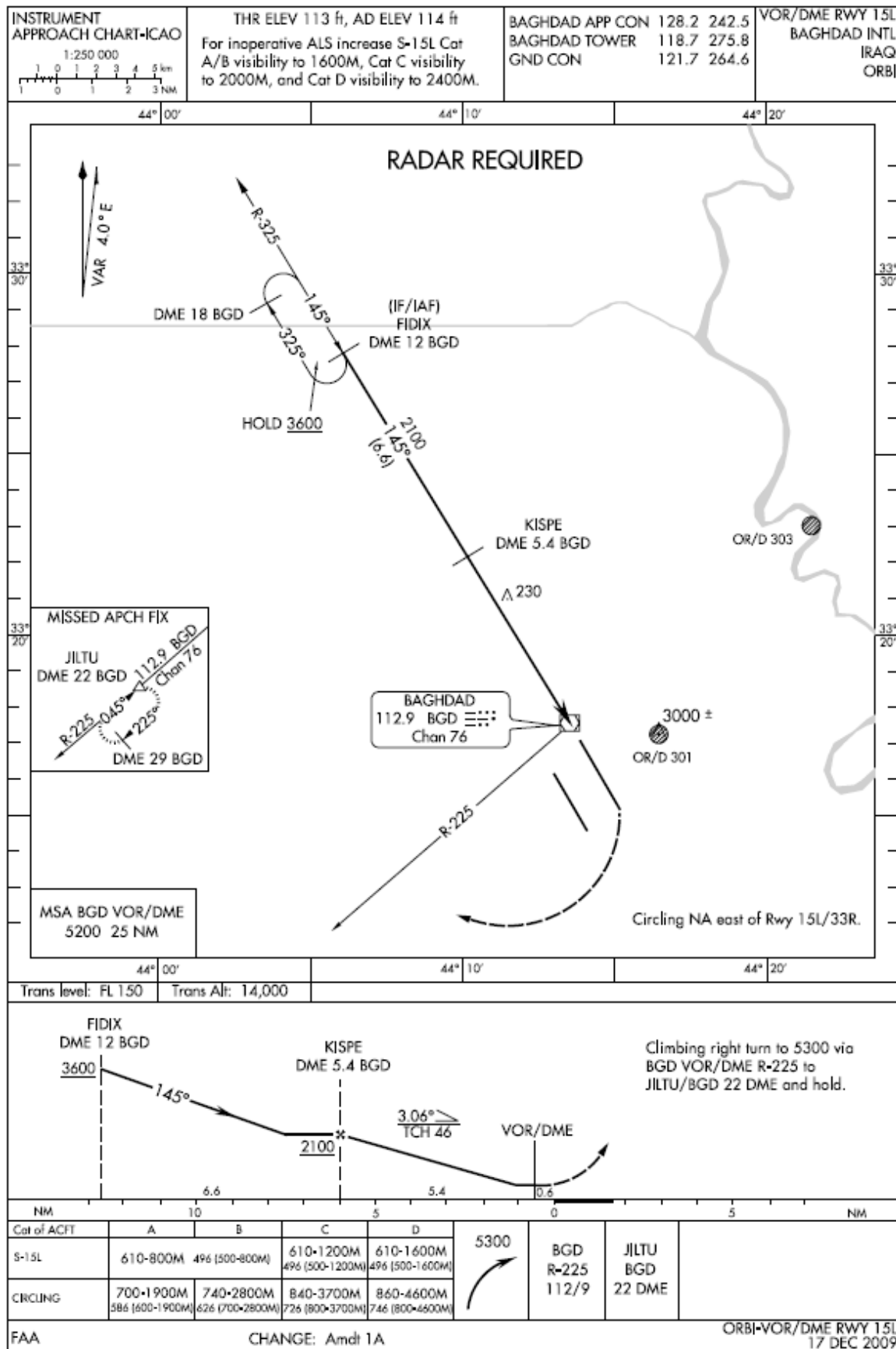
ORBI AD 2.24.6 ILS or LOC/DME RWY 33R



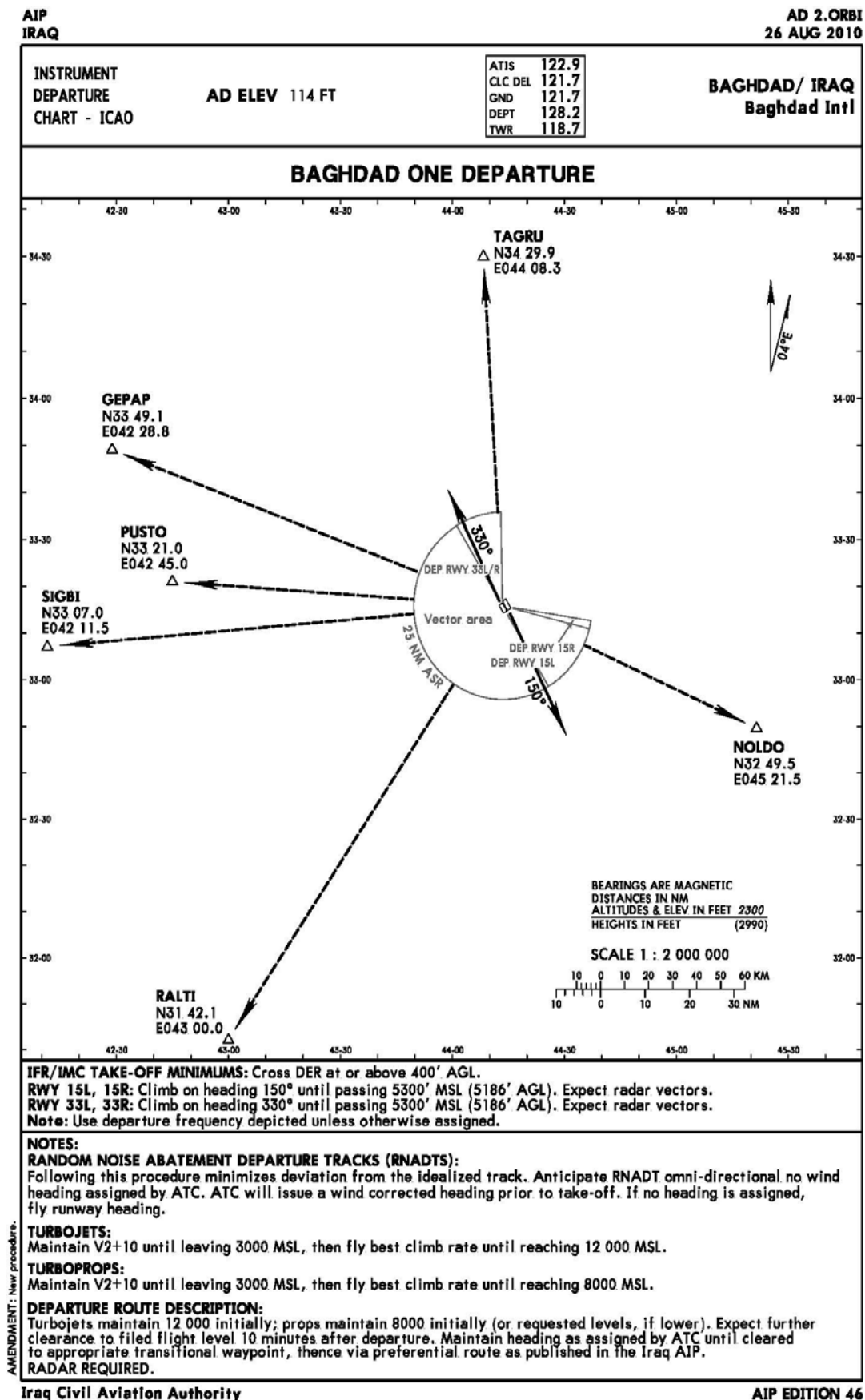
ORBI AD 2.24.7 VOR/DME RWY 33R



ORBI AD 2.24.8 VOR/DME RWY 15L



ORBI AD 2.24.9 BAGHDAD ONE DEPARTURE PROCEDURE



ORBI AD 2.24.10 TAKEOFF MINIMUMS/OBSTACLE DEPARTURE PROCEDURES

U.S. DEPARTMENT of TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)	
Bearings, headings, courses, tracks, and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.			
(1) TAKEOFF MINIMUMS: RWY 15L, 15R, 33L, 33R STANDARD			
(2) TEXTUAL DEPARTURE PROCEDURE: RWY 15L - CLIMB ON TRACK 146.04 TO 600 BEFORE PROCEEDING ON COURSE. AVOID SECTOR 015 CW 095. RWY 15R - CLIMB ON TRACK 146.02 TO 700 BEFORE PROCEEDING ON COURSE. AVOID SECTOR 015 CW 090. RWY 33L - CLIMB ON TRACK 326.03 TO 1000 BEFORE PROCEEDING ON COURSE. AVOID SECTOR 019 CW 083. RWY 33R - CLIMB ON TRACK 326.05 TO 1200 BEFORE PROCEEDING ON COURSE. AVOID SECTOR 009 CW 085.			
(3) TAKEOFF OBSTACLE NOTES: NOTE: RWY 33L: ANTENNA 2.1 NM FROM DER, 3181' RIGHT OF CENTERLINE, 150' AGL/264' MSL. NOTE: RWY 33R: PYLON 2.5 NM FROM DER, 5063' RIGHT OF CENTERLINE, 115' AGL/237' MSL.			
(4) CONTROLLING OBSTACLES: RWY 15L, 3114 MSL AEROSTAT 331713.06N/0441626.93E, 337 MSL TOWER 331540.92N/0441417.38E RWY 15R, 3114 MSL AEROSTAT 331713.06N/0441626.93E, 414 MSL CRANE 331543.02N/0441255.25E RWY 33L, 3114 MSL AEROSTAT 331713.06N/0441626.93E, 1134 MSL TOWER 331844.63N/0441551.00E RWY 33R, 3114 MSL AEROSTAT 331713.06N/0441626.93E, 1134 MSL TOWER 331844.63N/0441551.00E			
(5) City, State BAGHDAD, IRAQ	(6) Airport BAGHDAD INTERNATIONAL AIRPORT	(7) Effective Date	(8) Amdt. No. 2

FAA Form 8260-15A / June 2005 (computer generated)

Page of Pages

ORBR — BASHUR**ORBR AD 2.1 AERODROME LOCATION INDICATOR AND NAME**

Note: Information on Bashur is limited. Therefore the facilities and procedures listed below do not comply with the requirements of ICAO Annex 14.

ORBR 2.1.1 ORBR – Bashur Airport**ORBR AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

Facility	Detail	Comment
RWY Direction	RWY 13/31	RWY damage
Airport Elevation	2 079 ft AMSL	
Obstruction Information	Nil information	
Frequency	Primary – 131.27 MHz	No secondary notified
Restrictions	Day VFR only	Inadequate lighting
Parking Details	In accordance with ATC instructions (when AVBL)	

ORBR AD 2.3 DECLARED DISTANCES

1	RWY	13	31
2	TODA	4 500 ft x 150 ft 1 372 m x 46 m	7 333 x 150 ft 2 235 m x 46 m
3	LDA	7 333 ft x 150 ft 2 235 m x 46 m	4 500 ft x 150 ft 1 372 m x 46 m

ORMM — BASRAH**ORMM AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORMM 2.1.1 ORMM – Basrah International Airport****ORMM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

ORMM 2.2.1 The facilities and procedures listed below do not necessarily comply with, or adhere to, the requirements of ICAO Annex 14.

1	Aerodrome Reference Point coordinates and site at AD	N30°32'56.646" E047°39'43.712" WGS-84 Located at the centre of the RWY
2	Direction and distance from city	BRG 280° at 8 NM from city to airport BRG 100 °at 8 NM from airport to city
3	Elevation and Reference Temperature	11ft (3.4 m), 44° C
4	Geoid undulation	Not determined
5	Magnetic variation/Annual change	3° E (2010) / 0.97 increasing
	Aerodrome Administration Address	Basrah International Airport Airport Director- senior chief engineer Abdulameer Ghanim Abdullah
		Operation Manager/ICAA E-mail: basrah_airoperation@yahoo.ca
	ATC	E-mail: Batc11@yahoo.com
		Fax: Nil Telex: Nil AFTN: ORMMYFYX
7	Types of traffic permitted	IFR and VFR
8	Transition altitude and level	TA 14 000 ft AMSL, TL FL150

ORMM AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	H24
2	Customs and Immigration	H24
3	Health and Sanitization	H24
4	ALS Briefing Office	To be determined
5	ATS Reporting Office	To be determined
6	Met Office	H24 (Iraqi staff MET office) Provides full observations, forecast. PMSV service available H24 Sun_Sat. Request MIL TAF and METAR observation using: ATC/ORMM identification airmetbasrah3@yahoo.com , saediqzen@yahoo.com , Mobile 07805020798. 07705565951, L.L 8221082 and the internet site http://adds.aviationweather.gov/tafs . Wind and altimeter setting data estimated. Pressures are estimated due to pressure sensors being accurate within only +/-0.05 inches into their decision making process for flying ops. Winds are estimated due to sensor proximity to runway. Weather information relayed from ATC/ORMM is from ICAA information. Surface visibility limited (N-SE). Weather radar unavailable. Remote weather brief available for ATC and OPS of ORMM H24.
7	Air Traffic Services	H24
8	Fueling	Military movement via skylink, civil movement via IAW
9	Handling	Military movement via skylink, civil movement via IAW
10	Security	H24
11	De-icing	Not available
12	Remarks	Prior Permission Required (PPR). All military aircraft are to apply for PPR number from Basrah Base OPS and all civilian aircraft to apply for PPR number from basrah international airport OPS/Dept. basrah_aioperatio@yahoo.ca at least 48 hours in advance of any intended movement and before submitting a landing request to the ICAA. Slot times (+/- 15 min) are to be strictly adhered to. Refer to GEN 1.2.5. Permission to operate in the Baghdad FIR is coordinated through ICAA. Refer to GEN 1.2 for current procedures,

		requirements and contact information.
--	--	---------------------------------------

ORMM 2.3.1 Limited operations by civil registered aircraft are permitted into Basrah International Airport provided the proposed operations have been approved by the Iraq Ministry of Transport MOT.

ORMM 2.3.2 All civilian PPR requests are to be sent through the BIA Operations Manager via:

e-mail: Basrah_airoperation@yahoo.ca;

Telephone: Mobile: +964 780 8120 740

+964 780 4171 301

Landline: +964 4082 21125

+964 4082 21140

ORMM 2.3.3 All visiting helicopter movements into Basrah International Airport are to book into 'Base OPS' either via the e-mail address listed above in ORMM 2.3.2

ORMM AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Available by IAW
2	Fuel and oil types	Jet A1 available control and managed by fuel farm/ Ministry of oil. Civil users are to make advance bookings with IAW
3	Fueling facilities and capacity	Available with one big story tank capacity <u>5</u> 000 litters
4	De-icing facilities	Nil
5	Hanger space for visiting aircraft	Apron only available.
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Handling services during daylight hours only or by arrangement with IAW. Basrah Airfield is strictly PPR. Aircraft arriving outside of PPR slot can expect to hold until Ramp space is available.

ORMM AD 2.5 PASSENGER FACILITIES

1	Hotels at/near aerodrome	available in Basrah city
2	Restaurants	available
3	Transportation	H24
4	Medical facilities	H24
5	Bank and Post Office	In Terminal
6	Tourist Office	Nil
7	Remarks	Nil

ORMM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	Aerodrome category for fire fighting	RFF cat 8
2	Rescue Equipment	3 crash fire trucks Major Foam Vehicles and 2 Rosen baur Rapid Intervention vehicle
3	Capability for removal of disabled aircraft	Limited assistance using military assets and IAW for civilian flight
4	Remarks	Nil

ORMM 2.6.1 Removal of disabled aircraft from RWY(civil A/C). when an aircraft is disabled on a RWY, the A/C to be removed immediately by Iraqi airways according to authority of the airport director and the expences of the owner' s or user's.

ORMM AD 2.7 SEASONAL AVAILABILITY – CLEARING

1	Type(s) of clearing equipment	Nil
2	Clearance priorities	Nil
3	Remarks	Nil

ORMM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Surface and strength of aprons	Main Apron: ConcretePCN 100/R/B/W/T Hunger Apron: concrete , PCN 100/R/B/W/T General Aviation Apron, PCN 23/R/B/W/T
2	Width, surface and strength of TWYs	23 m – ConcretePCN 100/R/B/W/T
3	Location and elevation of altimeter checkpoints	On apron at N30°32'47" E047°39'55" 10 ft

4	VOR and INS checkpoints	Not available
5	Remarks	8 TWYs, 3 Aprons

ORMM 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 at aircraft stands	See ORMM AD 2.24.4
2	RWY and TWY markings and lights	Blue edge-lights at fast turn-offs (TWY B and C) only.
3	Stop bars	Stop bars where appropriate
4	Remarks	Nil

ORMM AD 2.10 AERODROME OBSTACLES

1	RWY 14	ORMM Obstacle Chart not available
2	RWY 32	ORMM Obstacle Chart not available
3	Tethered Balloon	Position N30°33'39"E047°40'32,"SFC to 3000' AGL.White flashing lights on balloon blue lights and red flag on tether. No-fly zone established 1500 ft radius around coordinates up to 3011' AMSL

ORMM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET office	Forecasting Dep.
2	Hours of service MET office outside hours	H24
3	Office responsible for TAF preparation of periods of validity	TAF H24
4	Trend forecast interval of issuance	All METARs for H24
5	Briefing/consultation provided	Available
6	Flight documentaions language(s) used	English
7	Charts and other information available for briefing consultation	Available on request
8	Supplementary equipment available for providing information	Available
9	ATS units provided with information	Control tower
10	Additional information	Nil

ORMM 2.11.1 Limited weather information, using the ICAO airfield designator, is available from the following websites:

Open access website: NIL, Iraq staff met.org
E-mail: sadiqzen@yahoo.com

ORMM AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	14	32
2	BRG True and Mag	138° T / 135° M	318° T / 315° M
3	RWY Dimensions	4 007 m x 45 m	4 007 m x 45 m
4	PCN	Concrete 72/R/C/W/T	Concrete 72/R/C/W/T
5	THR Coordinates	N30°33'43.70" E047°38'54.20"	N30°32'07.50" E047°40'53.40"
6	THR Elevation and highest elevation of TDZ of precision APP RWY	THR 10 ft /3.0 m TDZ 10 ft/3.0 m	THR 10 ft/3.0 m TDZ 10 ft/3.0 m
7	Slope of RWY/SWY	0,0 %	0,0 %
8	SWY Dimensions	Nil	Nil
9	CWY Dimensions	Nil	Nil
10	Strip Dimensions	4127m x 300m	4127m x 300m
11	Obstacle free zone	Nil	Nil
12	Remarks	Nil	Nil

ORMM AD 2.13 DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
14	4007	4007	4007	4007	Nil
32					

ORMM AD 2.14 APPROACH AND RUNWAY LIGHTING

1	RWY	14	32
2	Type, length and intensity of approach lighting	HIAL uni-directional centerline with five crossbar intensity approach lighting	HIAL uni-directional centerline with five crossbar intensity approach lighting
3	Threshold lights, colours and wing bars	2-light green wing bars adjacent to operating surface.	2-light green wing bars adjacent to operating surface.
4	Type of visual approach slope indicator system	Abbreviated PAPI-L 3,0°	Abbreviated PAPI-L 3,0°
5	Length of RWY touchdown zone indicator lights	Touch down zone lighting spaced at 60m intervals extending 900m along the threshold	Touch down zone lighting spaced at 60m intervals extending 900m along the threshold
6	Length spacing colour and intensity of RWY centreline lights	RWY center lights spaced at 30m interval along the full length of RWY White/red	RWY center lights spaced at 30m interval along the full length of RWY White/red

7	Length spacing colour and intensity of RWY edge lights	Single white LIL Omni-directional lights every 330 ft (100 m) on both sides.	Single white LIL Omni-directional lights every 330 ft (100 m) on both sides.
8	Colour of RWY end lights and wingbars	2-light wing bars adjacent to operating surfaces	2-light wing bars adjacent to operating surfaces
9	Length and colour of stopway lights	Not available	Not available
10	Remarks	Nil	Nil

ORMM 2.14.1 Further information on Basrah's approach and RWY lighting is available at the following military website:

www.iraqcaa.com/aip

ORMM AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	Aerodrome Beacon	Available
2	Location and lighting of anemometer and LDG direction indicator	Not available
3	TWY edge and centreline lighting	Out of order
4	Secondary power supply including switch-over time	Secondary power to all airfield lighting, switch-over time: 1 minute
5	Remarks	No obstruction lights No serviceable RWY holding point lights Main Apron floodlight available Signal lamps in Tower Aerodrome signs not lit

ORMM AD 2.16 HELICOPTER LANDING AREA

1	Coordinates of touchdown and lift-off point (TLOF) threshold of final approach and take-off (FATO)	To be determined
2	TLOF and/or FATO area elevation	To be determined
3	TLOF and FATO area dimensions, surface, strength, marking	To be determined
4	True and MAG BRG of FATO	To be determined
5	Declared distance available	To be determined
6	Approach and FATO lighting	To be determined
7	Remarks	Nil

ORMM AD 2.17 AIR TRAFFIC SERVICES AIRSPACE

1	Airspace designation and lateral limits	Detailed ENR 1.4
2	Vertical limits	
3	Airspace classification	
4	Callsign and Languages	Basrah (Tower) Ali (Control).English
5	Transition altitude/ Level	14 000 ft / FL 150
6	Remarks	Aircraft inbound LDG Basrah from Kuwait FIR are to call Ali approach 120.2 MHz by TASMI.

ORMM AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service designation	Callsign	FREQ	Hours of operation	Remarks
APP	Ali Radar	120.200 MHz	H24	
TWR	Basrah Tower	118.700 MHz <u>119.400</u> MHz	H24	Primary Secondary
GND	Basrah Ground	121.700 MHz <u>118.000</u> MHz	H24	Primary Secondary
MILITARY OPS	Nil	Nil	Nil	Nil
Remarks	All Basrah ATS provided by Iraqi civil aviation / basrah international airport staffs.			

ORMM AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type	Ident	Frequency (ch)	Hours of operations	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
VOR/DME	BSR	112.3 MHz (CH 70X)	H24	N30° 31'32.33." E047° 41'12.10"	63 ft	RWY 14/32
ILS RWY 32 CAT I (3° E/2010)						
LOC	I-BIA	111.7 MHz (Ch54)	H24	N30° 33'53.10" E047° 38'44.40"		RWY 32
GP		333.5 MHz	H24	N30° 32'12.30" E047° 40'23.30"	17 ft	RWY 32
ASR/PAR	Basrah final		H 24	N30° 32'51.65" E047° 39'28.27"		RWY 14/32

ORMM AD 2.20 LOCAL TRAFFIC REGULATIONS

ORMM 2.20.1 For operational reasons ATC may require approach to RWY 14 for LDG RWY 32.

ORMM 2.20.2 Circuit Heights:

Light Aircraft circuit height: 1 000 ft

Normal circuit height: 1 500 ft

ORMM 2.20.3 Home-based rotary aircraft will be instructed to contact monitor ctaf 122.0 VHF and to maintain situational awareness of air traffic. All Aircraft shall remain outside the class D airspace until transferred to Basrah Tower.

ORMM 2.20.4 Aircraft wishing to fly within the class G airspace, under the Basrah TMA, beyond 25NM from the airfield will monitor CTAF 122.0 MHz.

ORMM AD 2.21 NOISE ABATEMENT PROCEDURES

ORMM 2.21.1 Omni Directional Departures

Take –Off Minimums: RWY 14/32 Standard

RWY 14:

Climb Gradient 3.3%

Climb on Track 134.68 to 600' before proceeding on course.

RWY 32:

Climb Gradient 3.3%

Climb on Track 314.69 to 600' before proceeding on course.

ORMM 2.21.2 Arrivals

To be determined

ORMM AD 2.22 FLIGHT PROCEDURES

ORMM 2.22.1 Traffic Information. Pass to Aircraft according with ICAO procedures.

ORMM 2.22.2 Spiral climbs and descents not permitted.

ORMM 2.22.3 No more aerostat available.

ORMM AD 2.23 ADDITIONAL INFORMATION

ORMM 2.23.1 Radios/balloons released for met observation purposes at four hour intervals throughout the day. There are no set times, however Basrah Tower will broadcast a traffic warning prior to release. Balloons ascend to 30 000 ft AMSL

ORMM 2.23.2 Light Signals: Lamp Signal issued to a/c at ORMM will be in accordance with ICAO 4444.

ORMM AD 2.24 CHARTS RELATED TO AN AERODROME

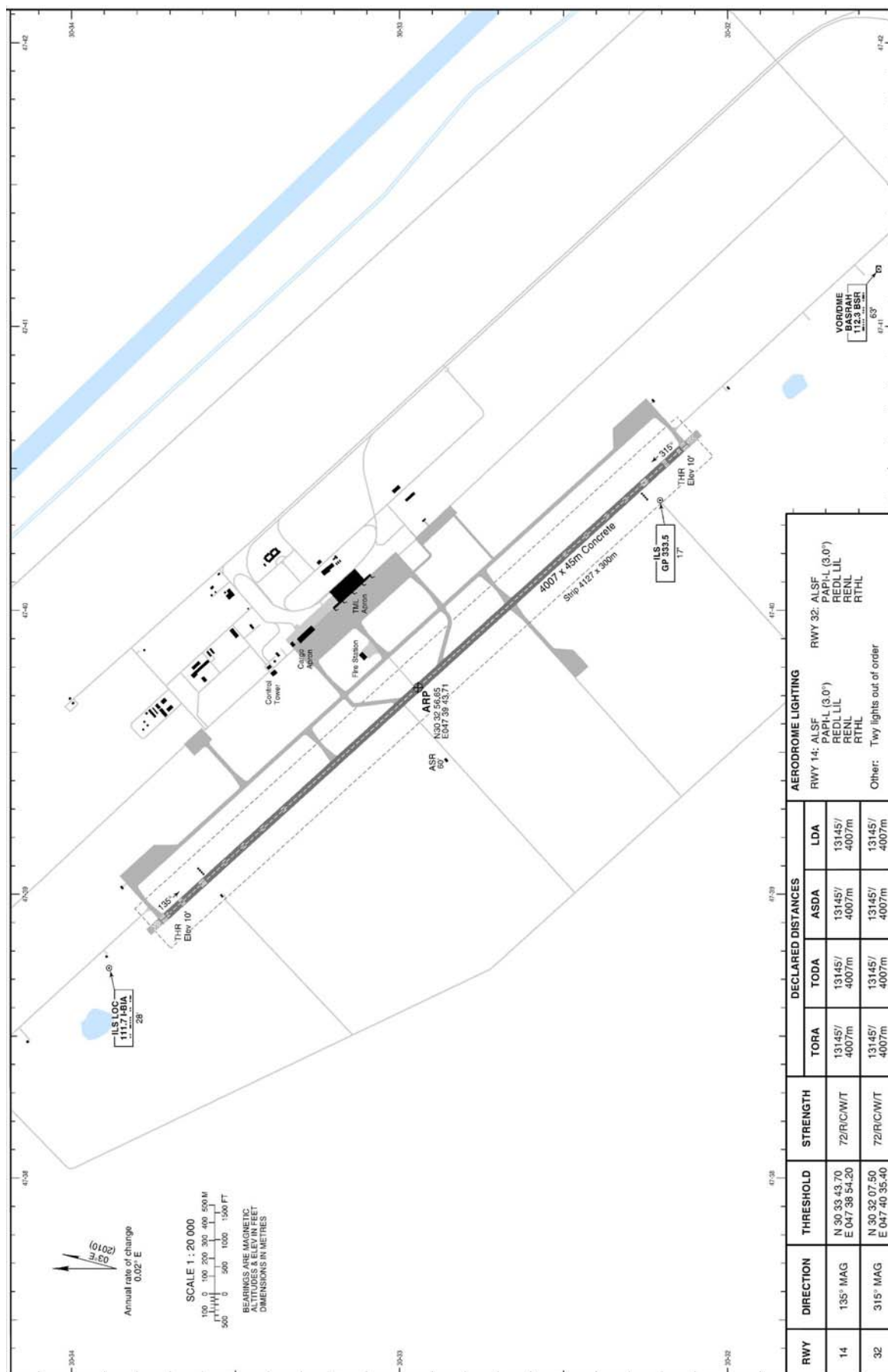
AD 2.24.1 Remove all references to "Basrah Approach", replace with "Ali Radar" 120.200 MHz which is included in the following charts

2.24.2.4/ 2.24.2.5/ 2.24.2.6

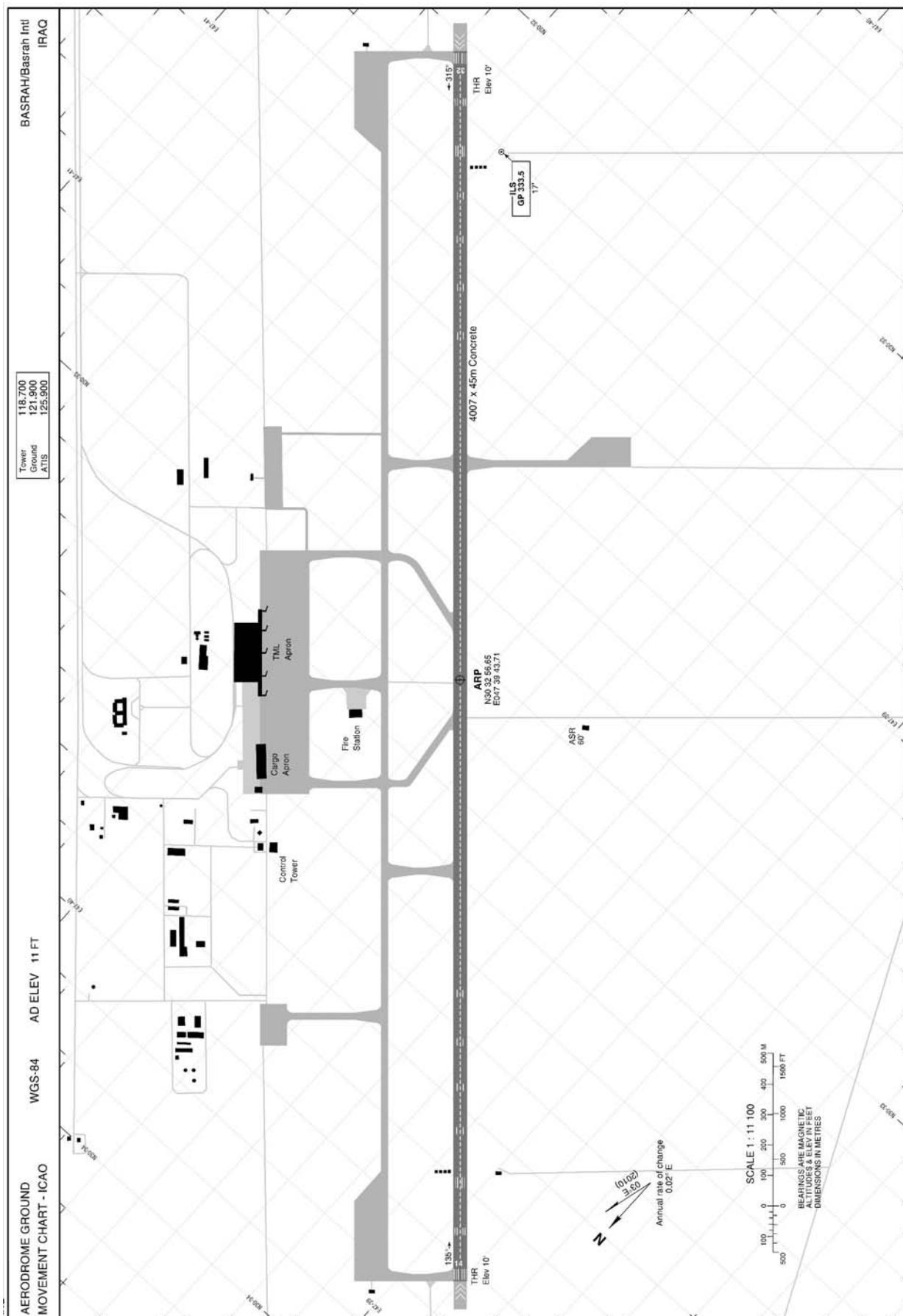
AD 2.24.2

ICAO Charts		
1	Aerodrome Chart – ICAO	ORMM AD 2.1-88
2	Aerodrome Ground Movement Chart - ICAO	ORMM AD 2.1-89
3	Aircraft Parking Docking Chart - ICAO	ORMM AD 2.1-90
4	ILS or LOC/DME RWY 32	ORMM AD 2.1-91
5	VOR/DME RWY32	ORMM AD 2.1-92
6	VOR/DME RWY 14	ORMM AD 2.1-93

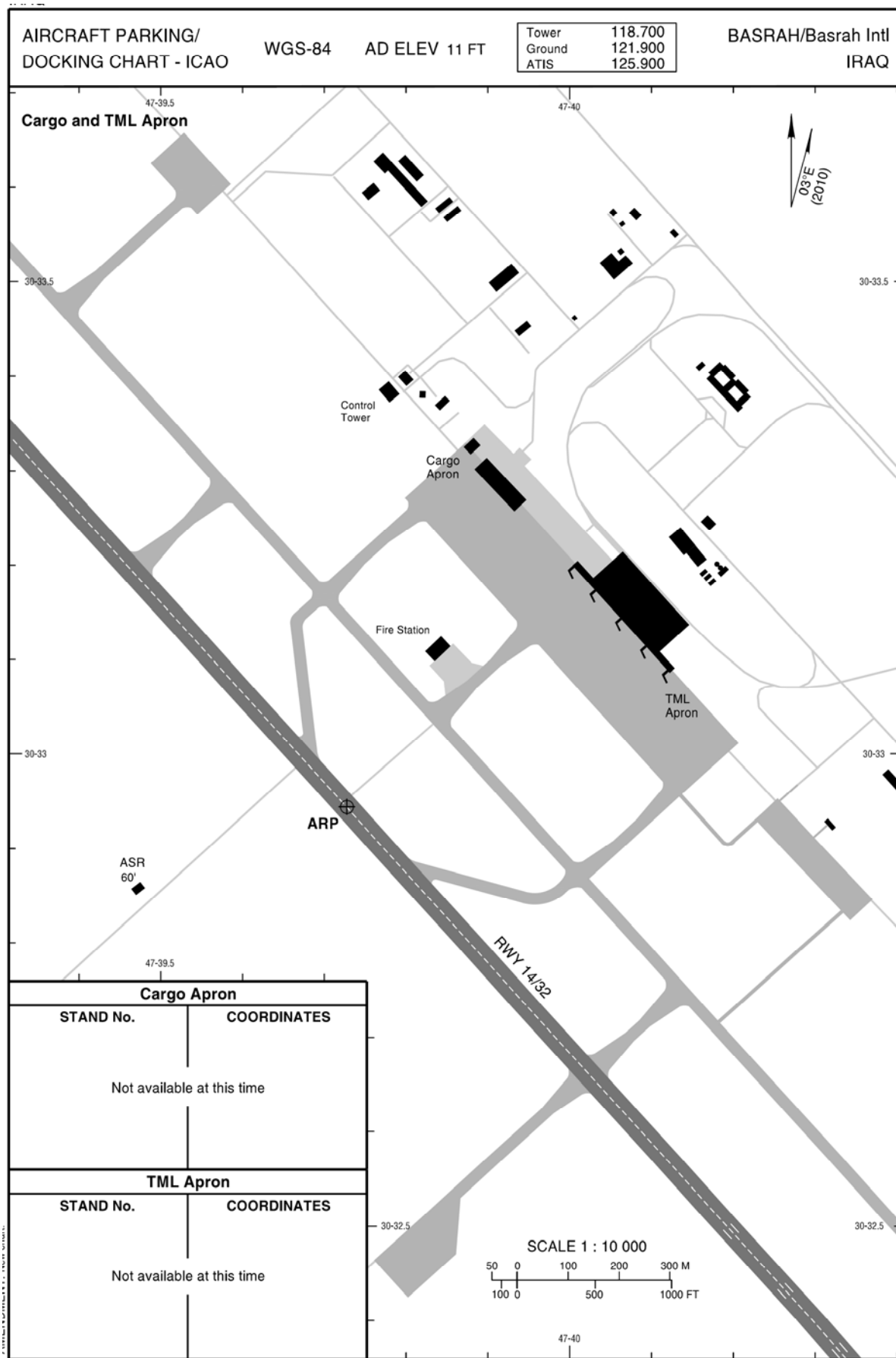
ORMM 2.24.2.1 AERODROME CHART



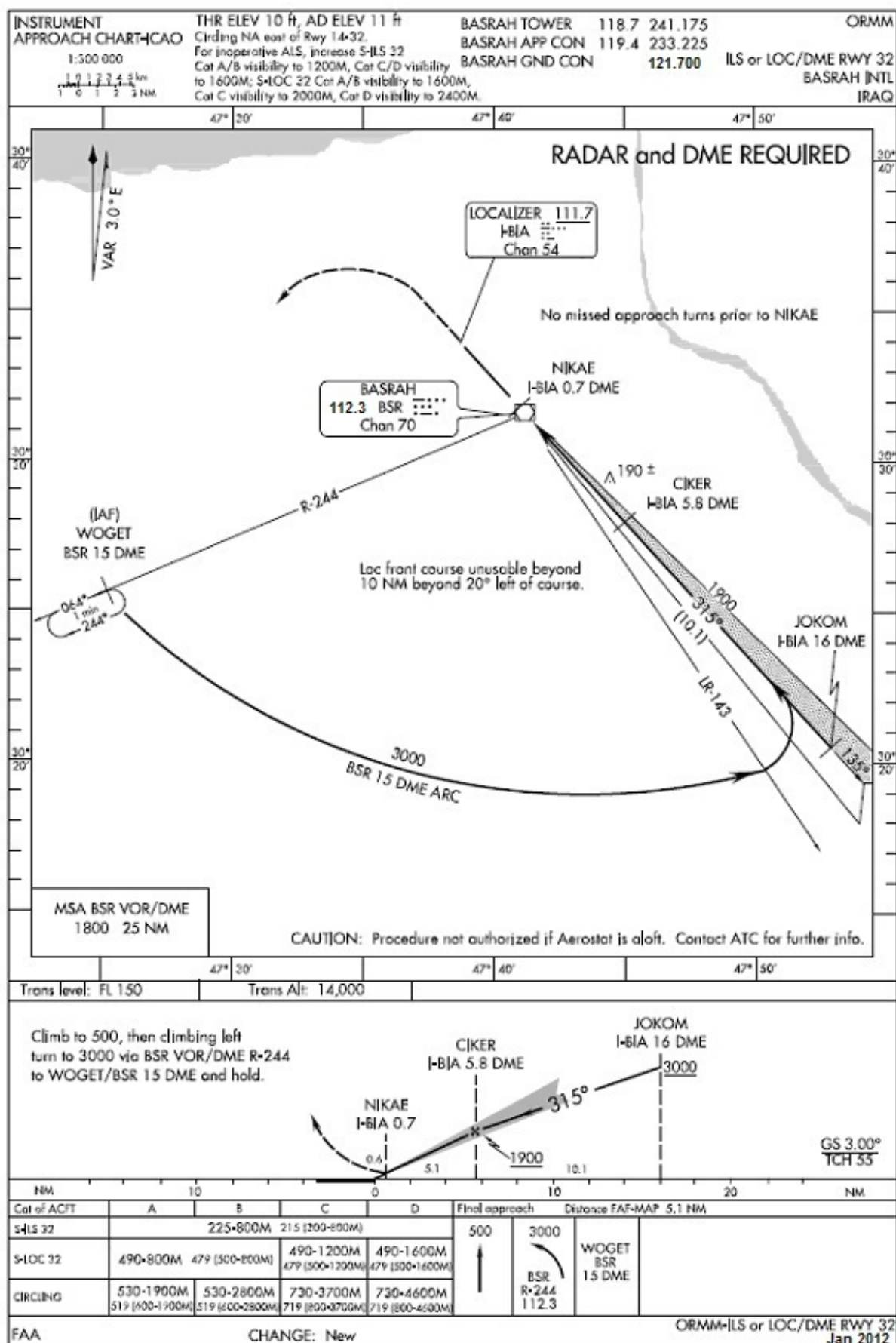
ORMM 2.24.2.2 Aerodrome Ground Movement Chart - ICAO



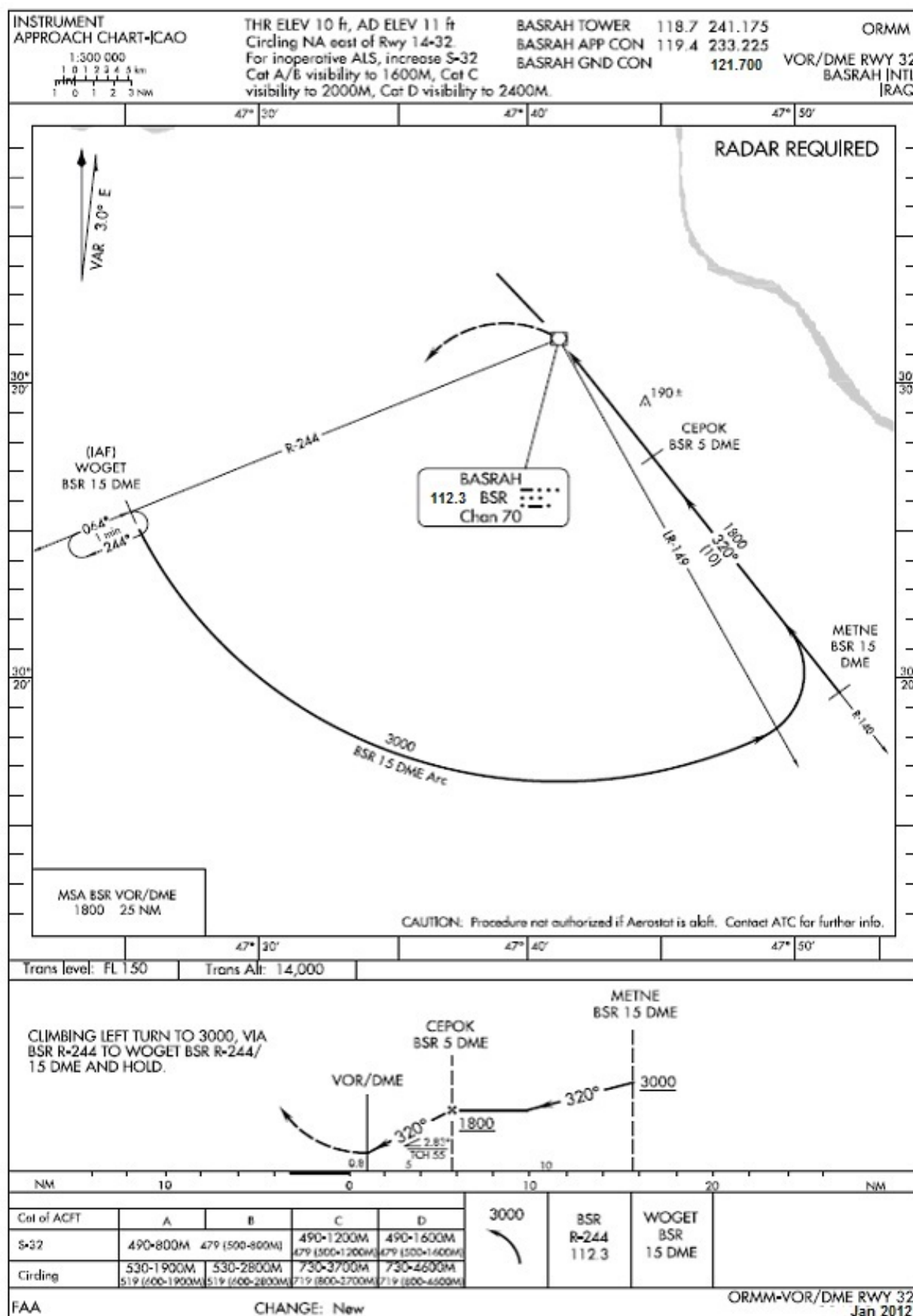
ORMM 2.24.2.3 A/C Parking Docking Chart - ICAO



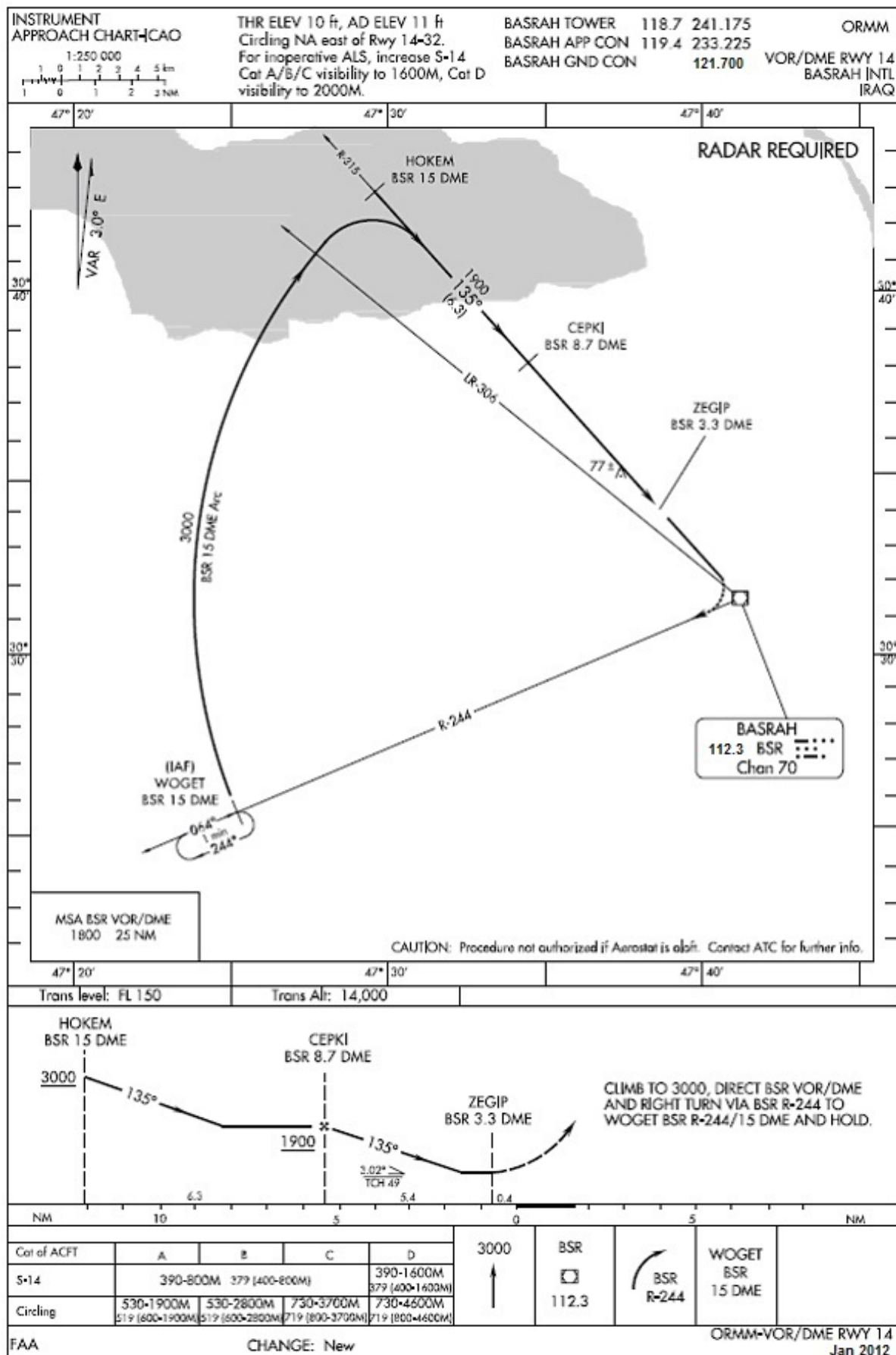
ORMM 2.24.2.4 ILS or LOC/DME RWY 32



ORMM 2.24.2.5 VOR/DME RWY 32



ORMM 2.24.2.6 VOR/DME RWY 14



ORER — ERBIL**ORER AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORER 2.1.1 ORER – Erbil International Airport (EIA).****ORER AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	ARP coordinates and site at AD	361417N 0435648E Mid Point of RWY18/36
2	Direction and distance from city	7.0 Km North-west of ERBIL city
3	Elevation/Reference temperature	415.3 m (1 363ft)/ 43.0°C
4	Geoid undulation at AD ELEVE PSN	-
5	Magnetic VAR/Annual change	4.6°E (2009) / 0°4'
6	AD Administration, Address, Telephone, Fax, Landline Mobile Fax E-mail	Kurdistan Regional Government(KRG) ERBIL International Airport B.O. Box No.8 +964-66-281-0031 +964-750-413-0044 Nil gd.office@erbilairport.net
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Briefing Office - E-mail: ats.dep@erbilairport.net - Tel : +964-66-281-0051 - AFTN :ORERYNYX

ORER AD 2.3 OPERATIONAL HOURS

1	<i>AD Administration</i>	HJ(Sunrise–Sunset) Except FRI and SAT.
2	<i>Customs and Immigration</i>	H24
3	<i>Health and Sanitation</i>	HJ, Health Centre, Passenger Terminal Mobile: 964-750-484-9044
4	<i>AIS Briefing Office</i>	H24
5	<i>ATS Reporting Office(ARO)</i>	H24
6	<i>MET Office</i>	H24
7	<i>Air Traffic Control</i>	H24
8	<i>Fuelling</i>	H24
9	<i>Handling</i>	H24
10	<i>Security</i>	H24

11	<i>De-icing</i>	Available
12	<i>Remarks</i>	Prior Permission Required(PPR). All aircraft must have PPR. Operators must contact Briefing Office for a PPR before submitting a landing request to the ICAA. Refer to GEN1.2.5.

ORER AD 2.4 HANDLING SERVICES AND FACILITIES

1	<i>Cargo handling facilities</i>	All modern facilities handling weights up to 10 000 kg
2	<i>Fuel/oil types</i>	Fuel : Jet A-1 Oil : Nil
3	<i>Fuelling facilities/capacity</i>	a. Jet A-1 available by hydrant refueling on air-bridge gates. 6 aircraft can be fueled simultaneously, total amount of storage is 3 000 000 liters b. Tank lorries are available 24H
4	<i>De-icing facilities</i>	Available : Every aircraft stand
5	<i>Hanger space for visiting aircraft</i>	Not Available
6	<i>Repair facilities for visiting aircraft</i>	Minor repairs without hangar
7	<i>Remarks</i>	Nil

ORER AD 2.5 PASSENGER FACILITIES

1	<i>Hotels</i>	In ERBIL city
2	<i>Restaurants</i>	At AD and in the city
3	<i>Transportation</i>	Buses, Taxis and Rental cars
4	<i>Medical facilities</i>	a. First aid emergency medical center in airport. b. Ambulance service available. c. Hospitals in ERBIL city, 7.0 km away.
5	<i>Bank and Post Office</i>	Available at airport and ERBIL city
6	<i>Tourist Office</i>	Available at airport and ERBIL city
7	<i>Remarks</i>	Nil

ORER AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	<i>AD Category for fire fighting</i>	AD Category for fire fighting : CAT 9
---	--------------------------------------	---------------------------------------

2	<i>Rescue equipment</i>	a. 1 ARFF vehicles	12 500 liter water(each), 1 500 liter foam(each), Foam discharge rate 6 000 l/min(each), Dry chemical powders 225 kg (each).
		b. 1 ARFF vehicle	12 000 liter water, 1 500 liter foam, Foam discharge rate 6 000 l/min, Dry chemical powders 225kg.
		c. 3 ARFF vehicles	9 000 liter water(each), 1 200 liter foam(each), Foam discharge rate 6 000 l/min, Dry chemical powders 500 kg (each).
		d. 1 ARFF vehicle	10 000 liter water, 1 000 liter foam
		e. 2 Rescue truck	
		f. 1 Aerial Ladder	
3	<i>Capability for removal of disabled aircraft</i>	Nil	
4	<i>Remarks</i>	Nil	

ORER AD 2.7 SEASONAL AVAILABILITY

1	<i>Type of clearing equipment</i>	1 Snow removal sweeper
2	<i>Clearance priorities</i>	a. RWY b. TWY c. Aprons and other area
3	<i>Remarks</i>	Nil

ORER AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	<i>Apron(Ramp) surface and strength:</i>	a. Surface: Concrete b. Strength: PCN 80/R/B/W/T
2	<i>Taxiway width, surface and strength:</i>	Taxiway (A,B,C,D,E,A1~A5) width, surface and strength: a. Width : 25 m - Shoulder of TWY : 17.5 m b. Surface : Asphalt c. Strength : PCN 79/F/B/X/T d. T1: Width 21 m (69 ft) – Asphalt: PCN 65 e. T2: Width 21 m (69 ft) – Asphalt: PCN 65 f. T3: Width 24 m (78 ft) – Concrete: PCN 76 g. T4: Width 23 m (75 ft) – Concrete: PCN 76 h. T5: Width 23 m (75 ft) – Asphalt: PCN 76

3	<i>Altimeter check location and elevation:</i>	Every specified stands (Refer to Aircraft Parking & Docking Chart)
4	<i>VOR check point</i>	Nil
5	<i>INS check points</i>	INS Checkpoints : Every specified stand (Refer to Aircraft Parking & Docking Chart)
6	<i>Remarks</i>	Nil

ORER AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	<i>Use of aircraft stand ID signs, TWY guide lines and visual docking/ parking guidance system of aircraft stands</i>	<p>a. Guide lines at apron.</p> <p>b. Visual docking guidance system at air-bridge gates on passenger apron.</p>
2	<i>RWY and TWY marking and LGT</i>	<p>a. Runway</p> <p>1) Lights</p> <ul style="list-style-type: none"> - Edge lights are installed at 60 m intervals on RWY 18/36 - Centerline lights are installed at 15 m intervals on 18/36 <p>2) Markings</p> <p>Runway Edges, Touchdown Zones, Aiming Points and Center line.</p> <p>b. Taxiway</p> <p>1) Lights</p> <ul style="list-style-type: none"> - Edge lights are installed at 45 m intervals on only apron areas - Centerline Lights are installed at 7.5 m~15 m intervals on all TWY curved areas and 30 m intervals in the rest of areas. <p>2) Markings</p> <ul style="list-style-type: none"> - TWY & taxilane centerline markings are marked with a yellow solid line on the black base on all specified taxiways designated as the LVP (Low Visibility Procedure) taxiway routes - Intermediate holding position markings are displayed all intersection of TWY. - RWY holding position markings are marked to protect ILS sensitive area in the form of trapezoid as recommended by ICAO(Annex 14) on taxiway A1, A2, A3, A4, and A5. <p>15/33 is marked with yellow X and is permanently closed</p>

		3) Signs - ILS Taxi-Holding Position Signs are displayed as "CAT II" - Runway designation and category II holding position Signs are installed on taxiways A1, A2, A3, A4, A5 substitute for the ILS sensitive area taxi-holding position.
3	Stop Bars :	a. Stop Bar Lights are installed at the runway holding positions. b. Stop Bar Lights consist of in-pavement red unidirectional fixtures and are installed at 3m intervals. c. Stop Bars are controlled by ATC and include a system of in-pavement green taxiway centerline lights, lead-on/off lights at the locations where aircraft enter runway.
4	Intermediate Holding Position Lights:	Nil
5	VDGS	VDGS installed air-bridge gates at passenger apron.
6	Remarks	Runway side strip marking does not meet criteria in ANNEX 14. - 34.5 m From RWY centerline Taxiway T1~T5 : No Taxiway Centerline Lights Taxiway T5 : No position sign

ORER AD 2.10 AERODROME OBSTACLES

In approach/TKOF area			In circling area and at AD		Remarks
1			2		3
RWY/area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacles type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	

18/36 APCH/ TKOF	-	-	Control Tower 456.93 m LGTD	361427.2N 0435717.2E	
			Mast 446.51 m LGTD	361204.0N 0435629.0E	
			Pylon 445.2 m LGTD	361246.2N 0435600.8E	
			Control Tower 456.93 m LGTD	361427.2N 0435717.2E	
			Mast 446.51 m LGTD	361204.0N 0435629.0E	
			Pylon 445.2 m LGTD	361246.2N 0435600.8E	
			Pylon 468.5 m LGTD	361247.9N 0435451.1E	
			Pylon 457.1 m LGTD	361438.1N 0435824.1E	
			Pylon 476.7 m LGTD	361459.3N 0435936.1E	
			Pylon 463.6 m LGTD	361354.2N 0435851.4E	
			Mountain 544.0 m	362807.8N 0435705.8E	
			Mountain 558.0 m	362630.3N 0435946.0E	

15/33 APCH/ TKOF	-	-	Pylon 455.8	361336.5N 0435902.3E	
			Pylon 455.8	361336.5N 0435902.3E	
			Pylon 455.5	361255.4N 0435818.9E	
			Pylon 448.6	361250.5N 0435757.4E	
			Pylon 450.3	361245.5N 0435810.5E	
			Pylon 445.8	361243.7N 0435751.8E	
			Pylon 446.1	361230.2N 0435740.3E	
			Pylon 444.3	361213.8N 0435710.3E	
			Pylon 447.3	361246.6N 0435545.5E	
			Pylon 445.1	361246.8N 0435537.1E	
			Pylon 452.1	361246.9N 0435532.0E	
			Pylon 458.2	361247.1N 0435525.1E	
			Pylon 461.0	361247.2N 0435518.3E	
			Pylon 460.95	361247.4N 0435509.6E	
			Pylon 464.79	361247.6N 0435504.8E	
			Pylon 465.83	361247.7N 0435457.8E	

			Crane 451.43	361115.4N 0435825.6E	
			Building 471.57	361142.6N 0435832.9E	
			Mast 465.98	361245.2N 0435923.8E	
			Mast(L) 527.19	361141.8N 0435429.8E	
			Tower(L) 458.06	361553.9N 0435936.8E	
			Pylon 476.06	361458.6N 0435945.6E	
			Pylon 476.73	361459.3N 0435936.1E	
			Tower(L) 457.8	361415.1N 0435926.9E	
			Pylon 473.46	361500.0N 0435926.1E	
			Pylon 472.32	361459.1N 0435912.9E	
			Pylon(L) 467.91	361458.0N 0435858.9E	
			Pylon(L) 456.79	361450.8N 0435839.7E	
			Pylon(L) 465.47	361457.2N 0435847.6E	
			Building(L) 505.36	361149.1N 0435838.3E	
			Pylon(L) 457.48	361344.8N 0435857.1E	
			Pylon(L) 463.64	361354.2N 0435851.4E	

Pylon(L) 462.89	361403.6N 0435845.5E
Pylon(L) 456.19	361412.3N 0435840.1E
Pylon(L) 453.9	361429.4N 0435829.5E
Pylon(L) 455.43	361444.6N 0435832.1E

ORDER AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

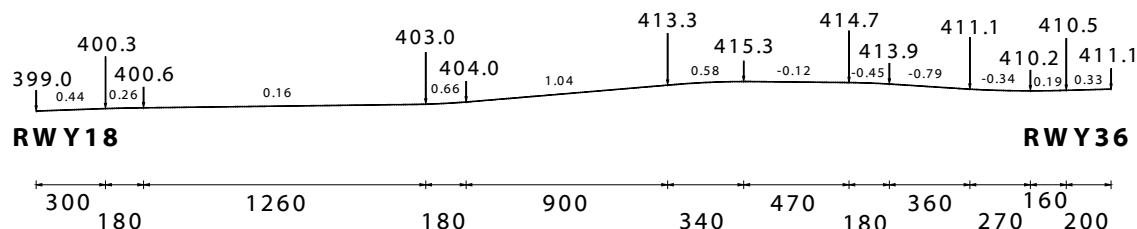
1	<i>Associated MET Office</i>	EIA/MET office ·TEL : +964-66-281-0054 ·FAX : None
2	<i>Hours of service MET Office outside hours</i>	24 hours -
3	<i>Office responsible for TAF preparation Periods of validity</i>	EIA MET office in co-operation with Baghdad MET office. 24 hours
4	<i>Trend forecast Interval of issuance</i>	Trend Type forecast 1H (METAR) reported.

5	<i>Briefing/consultation provided</i>	Available at the Office for 24 hours.
6	<i>Flight documentation language(s) used</i>	Aerodrome forecasts (TAF code form), SIGMET information in English
7	<i>Charts and other information available for briefing or consultation</i>	Available.
8	<i>Supplementary equipment available for providing information</i>	Nil
9	<i>ATS units provided with information</i>	TWR
10	<i>Additional information (limitation of service, etc.)</i>	All observation data, model outputs and forecasts produced by EIA MET are available at the office through Internet link.

ORER AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

<i>Designations Runway NR</i>	<i>TRUE BRG</i>	<i>Dimension of RWY(m)</i>	<i>Strength(PCN) and surface of RWY and SWY</i>	<i>THR coordinates RWY end coordinates THR geoid undulation</i>	<i>THR elevation and highest elevation of TDZ of precision APP RWY</i>
1	2	3	4	5	6
18	180.36°	4800 × 75	PCN 80/R/B/W/T Concrete	361535.07N 0435648.62E -	THR 399.0 m/ 1 309ft TDZ 401.4 m/ 1 317 ft
36	360.36°			361259.30N 0435647.41E -	THR 411.1 m/ 1 349 ft TDZ 413.2 m/ 1 356 ft
15	152.00°	2800 × 30	PCN 65/F/A/W/T Concrete	361455.54N 0435720.53E	THR 395.8 m/ 1 299ft
33	332.00°			361335.53N 0435813.78E	THR 398.0 m/ 1 306 ft

7. Slope of RWY-SWY



SWY dimensions(m)	CWY dimensions(m)	Strip dimensions(m)	OFZ
8	9	10	11
Nil	Nil	4 920 × 300	Nil

12. Remarks

- Sight distance of RWY 18/36 does not meet criteria in ANNEX 14.
 - Location (unable sight distance of 2 400 m):
 - THR of RWY 18, from 1 150 m to 4 800 m
 - THR of RWY 36, from 0 m to 1 385 m
- Rate and Distance of slop changes of RWY 18/36 does not meet criteria in ANNEX 14 partially.
- Preventive Maintenance Time by the NOTAM.
- RWY 15/33 does not use for take-off and landing.

ORER AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
18	4 800	4 800	4 800	4 800	NIL
36	4 800	4 800	4 800	4 800	NIL
TWY A5*	3 990	3 990	3 990	3 990	* Point for intersection departure - Entry Point for intersection departure is available only when cleared by ATC. Pilot shall hold on the parallel TWY unless cleared to enter RWY
TWY A4*	3 250	3 250	3 250	3 250	

					for intersection departure - Intersection departure may be initiated by a pilot or ATC and approved by ATC considering traffic.
--	--	--	--	--	--

ORER AD 2.14 APPROACH AND RUNWAY LIGHTING

<i>RWY Desig nator</i>	<i>APCH LGT type LEN INTST</i>	<i>THR LGT Color WBAR</i>	<i>VASIS (MEHT) PAPI</i>	<i>TDZ LGT LEN</i>	<i>RWY Center line LGT LEN Spacing Color INTST</i>	<i>RWY edge LGT LEN Spacing Color INTST</i>	<i>RWY End LGT Color WBAR</i>	<i>SWY LGT LEN(m) Color</i>
1	2	3	4	5	6	7	8	9
18	ALS-II 900m LIH	Green Green	PAPI Left / 3° (60.04ft)	900m	4800m 15m white LIH	4800m 60m white LIH	Red -	Nil
36	ALS-I 900m LIH	Green Green	PAPI Left / 3° (60.04ft)		4800m 15m white LIH	4800m 60m white LIH	Red -	Nil
10. <i>Remarks:</i> Runway edge light position does not meet criteria in ANNEX 14. - 7.5 m between RWY side strip marking and RWY edge Light All of Runway 15/33 lights were closed except <i>RWY Center line LGT, RWY edge LGT.</i>								

ORER AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	<i>ABN/IBN location, characteristics and hours of operation</i>	ABN: At the top of ATCT, FLG W/G EV 2 SEC / IBN: NIL H24
2	<i>LDI location and lighting Anemometer location and lighting</i>	Nil Anemometer: 270 m from THR 18/36 and lighted
3	<i>TWY edge and center line lighting</i>	Edge : Only curve side Centre line : All taxiway and taxilain except taxiway T1~T5

4	<i>Secondary power supply/switch-over time</i>	Secondary power supply to all lighting at AD. Switch-over time: 1 sec or 15 sec.
5	<i>Remarks</i>	Medium intensity obstacle light (red) at TWR is being operated by day.

ORER AD 2.16 HELICOPTER LANDING AREA

1	<i>Coordinates TLOF or THR of FATO Geoid undulation</i>	H2 : 361347.61N 435750.51E H3 : 361347.49N 435745.95E H4 : 361344.47N 435743.29E
2	<i>TLOF and/or FATO elevation M/FT</i>	H2 & H3 & H4 : 412 m / 1 352 ft
3	<i>TLOF and FATO area dimensions, surface, strength and marking</i>	H2 & H3 & H4 : Rectangle 40 x 40 m, asphalt, white edges and white letter H.
4	<i>True BRG of FATO</i>	H2 : 150.94°/330.94° H3 : 153.30°/333.30° H4 : 150.11°/330.11° Direction of TLOF zones: 150°GEO, 330°GEO
5	<i>Declared distance available</i>	Nil
6	<i>APP and FATO lighting</i>	Nil
7	<i>Remarks</i>	Nil

ORER AD 2.17 AIR TRAFFIC SERVICES AIRSPACE

1	<i>Designation and lateral limit</i>	See ENR 2.1.3.
2	<i>Vertical limits</i>	See ENR 2.1.3.
3	<i>Airspace classification</i>	See ENR 2.1.3.
4	<i>ATS unit call sign Languages</i>	ERBIL Tower English
5	<i>Transition altitude</i>	14 000 ft MSL
6	<i>Remarks</i>	Nil

ORER AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

<i>Service designation</i>	<i>Call sign</i>	<i>Frequency(Mhz)</i>	<i>Hours of operation</i>	<i>Remarks</i>
1	2	3	4	5
TWR	ERBIL Tower	128.8 Mhz	H24	
APP/DEP	ERBIL Approach	126.5 MHz	H24	Suspended until further notice
ATIS	ERBIL International Airport	130.4 Mhz	H24	Suspended until further notice
ACC	Baghdad center Kirkuk approach	127.70 Mhz 129.75 Mhz,	H24	
EMERG		121.5 Mhz	H24	Emergency frequency

ORER AD 2.19 RADIO NAVIGATION AND LANDING AIDS

<i>Type of aid, CAT of ILS/MLS</i>	<i>ID</i>	<i>Frequency</i>	<i>Hours of operation</i>	<i>Site of transmitting antenna coordinates</i>	<i>Elevation of DME transmitting antenna</i>	<i>Remarks</i>
1	2	3	4	5	6	7
DVOR/ DME (4.6°E/ 2009)	RER	116.300 Mhz (CH110X)	H24	361435.3N 0435758.9E	1 330 ft	Scheduled Inspection time : Every 4th Wednesday (2000-2300UTC) of the month
LLZ 18 (4.6°E/ 2009) ILS CAT II	IREA	109.100 Mhz (CH 28X)	H24	361250.0N 0435647.3E		
DME 18	IREA	1 052 MHz (INTERROG ATION) 989MHz (REPLY)	H24	361525.9N 0435643.5E	1 399 ft	
GP 18	-	331.400 Mhz	H24	361525.9N 0435643.5E		

LLZ 36 (4.6°E/ 2009) ILS CAT I	IREB	109.700 Mhz (CH 34X)	H24	361544.5N 0435648.7E		Scheduled Inspection time : Every 2th Wednesday (2000-2300UTC) of the month
DME 36	IREB	1 058 Mhz (INTERROG ATION) 995Mhz (REPLY)	H24	361310.0N 0435642.5E	1 369 ft	
GP 36	-	333.200 Mhz	H24	361310.0N 0435642.5E		

ORER AD 2.20 LOCAL TRAFFIC REGULATIONS

ORER 2.20.1 Airport regulations

ORER 2.20.1.1 Pilots are required to monitor VHF 121.5Mhz when flying within ERBIL CTR.

ORER 2.20.1.2 Pilots shall exercise extreme caution to avoid penetrating Prohibited Area (P602, P603).

ORER 2.20.1.3 Pilot should always make sure that microphones are stuck in the transmitting position before transmission in order to prevent frequency blockage (stuck mike) from impairing ATC.

ORER 2.20.1.4 Preferential RWY System. The runway 18 is recommended to be in use to the extent of 8 kts tailwind.

ORER 2.20.1.5 Aircrafts to Inbound Cargo Terminal 2 are required to advise Erbil Tower when vacated on runway 18/36.

ORER 2.20.1.6 All aircraft will use full intensity strobe lights if so equipped.

ORER 2.20.1.7 All aircraft will use normal night light configuration. Blacked out operations are not permitted within the Erbil CTR

ORER 2.20.1.8 All aircraft use caution during approach and departure phase of flight due military flight activity, including small UAVs.

ORER 2.20.1.9. RWY 15/33 will be used to taxiing aircraft for Cargo Terminal 2. RWY 15/33 does not use for take-off and landing.

ORER 2.20.2 Departure procedures

2.20.2.1 ATC clearance

Aircraft shall contact ERBIL Tower at least 5 minutes prior to requesting pushback. or engine start-up. While taxiing, ERBIL Tower will issue ATC Clearance to the pilot if it is necessary to expedite traffic movement.

2.20.2.2 Procedures for start-up and push back

a. When the pilot is ready for start-up and pushback, the pilot shall contact ERBIL Tower and provide the following:

- (1) Call sign
- (2) Gate/Stand number
- (3) Request flight level

b. Ground crews (Ground handler, aircraft maintenance) must ensure that the area behind the aircraft shall be clear of vehicles, equipment and other obstructions prior to engine start-up or aircraft push back for smooth and safe aircraft movements.

c. A pilot shall confirm with ground crews (Ground handler, aircraft maintenance) whether there is no hazard to the aircraft starting up. The pilot shall not ask ERBIL Tower for engine start-up and push back until its safety check-up is fully confirmed. If there is any elements posing a potential failure, the pilot shall ask ERBIL Tower for push back only. After moving and standing the aircraft at a safety area, the pilot can ask for engine start-up.

d. All aircraft to be taxied within the Apron shall fix their engine thrusts in an Idle mode. In case of using breakaway thrust, it should be used to a minimum.

e. The push back procedures of the aircraft within the Apron are as follows. As with most, these procedures shall be kept. However, if any modification of the procedures is required as the case may be, ERBIL Tower Controller may give the pilot specific instructions suited for the safety of aircraft movement.

f. In the cargo terminal 2, Category E aircrafts shall pushback onto runway 33 due to condition of the taxiway shoulders.

g. The following table describes the procedures for pushback of aircraft from gates with air-bridges and stands. ERBIL Tower will issue specific instructions to the pilot if it is necessary to expedite traffic movement.

h. Pushback procedures as follows;

Aircraft Stands	Pushback Procedures	Phraseology
Passenger Terminal		
1	The aircraft shall be pushed back onto R taxilane to face south	Pushback approved to face south
2	The aircraft shall be pushed back onto R taxilane to face south abeam behind stand 1	Pushback approved to face south
	The aircraft shall be pushed back onto R taxilane to face north abeam behind stand 3	Pushback approved to face north
3~11	The aircraft shall be pushed back onto R taxilane	Pushback approved to

	to face south	face south
	The aircraft shall be pushed back onto R taxilane to face north	Pushback approved to face north
VIP Terminal		
12~13	The aircraft shall be pushed back onto R taxilane to face south abeam behind stand 11	Pushback approved to face south
Cargo Terminal 1		
31~33	The aircraft shall be pushed back onto taxilane R to face north abeam behind stand 34	Pushback approved to face north
34~35	The aircraft shall be pushed back onto taxilane R to face north	Pushback approved to face north
Cargo Terminal 2		
B1~B4	The aircraft shall be start engines on the stand	Start-up approved
	The aircraft (Category E) shall be towed on runway 33 to face northwest	Pushback approved onto to runway 33

ORER 2.20.2.3 Departure taxi routes

ORER 2.20.2.3.1 Unless otherwise instructed, aircraft should use the following routes;

Terminal	Tower FREQ	Route	Gate/Stand
Passenger Terminal	128.8 MHz	R – D/E – A	1 to 11
VIP Terminal	128.8 MHz	R – D/E – A	12 to 13
Cargo Terminal 1	128.8 MHz	R – C – A	31 to 35
Cargo Terminal 2	128.8 MHz	T4/T5 – RWY 33 – B – A	B1 to B4

ORER 2.20.2.4 In case of the CAT-II operation departure aircraft shall be hold at the CAT-II Holding position marking.

ORER 2.20.3 Deicing procedures

2.20.3.1 De-icing and Anti-icing are available at all stands.

2.20.3.2 For de-icing and anti-icing, aircraft should report to ERBIL Tower and make a request to ground assistant for de-icing and anti-icing

ORER 2.20.4 Arrival procedures**2.20.4.1** Arrival routes

Unless otherwise instructed, aircraft should use the following routes;

Terminal	Tower FREQ	Route	Gate/Stand
----------	---------------	-------	------------

Passenger Terminal	128.8 Mhz	A – D/E – R	1 to 11
VIP Terminal	128.8 Mhz	A – D/E – R	12 to 13
Cargo Terminal 1	128.8 Mhz	A – C – R	31 to 35
Cargo Terminal 2	128.8 Mhz	A – B – RWY 15 – T4/T5 A – B – RWY 15 – Tow	B1 to B4

2.20.4.2. Follow-me car service

- a. Follow-me service is available to arriving aircraft. Pilots should make the request to ERBIL Tower.
- b. Aircraft shall monitor the appropriate ERBIL Tower frequencies while taxiing.

ORER 2.20.5 Ground engine check procedures

Pilots or authorized engineers requiring engine ground runs shall contact ERBIL Tower and provide the following:

- a. Call sign or registration number
- b. Gate/Stand number
- c. Type of ground engine run, engine start or performance check

ERBIL Tower should be advised on its completion.

2.20.5.1 Engine starts

Engine starts are permitted in the apron areas. However, the power setting(s) shall not exceed idle thrust.

2.20.5.2 Engine performance check

Engine performance checks are permitted at a designated position by ERBIL Tower depending on wind condition. The frequency of ERBIL Tower shall be monitored.

ORER 2.20.6 Taxiing Limitation

ORER 2.20.6.1 Taxiway T1~ T5 is unable to taxi aircrafts of Category E. Only tow is approved.

ORER 2.20.7 CAT II Operations

2.20.7.1 General

ERBIL International Airport RWY 18 has ILS CAT II equipment.

Low Visibility Procedures are established for operation in a visibility of less than RVR 550m or a cloud ceiling of less than 60 m(200 ft).

- a. Low visibility operations will be initiated by broadcasting "ATC LOW VISIBILITY PROCEDURES ARE IN OPERATION" via ATIS and/or appropriate radio frequencies.
- b. Low visibility operations will be terminated by deleting the above mentioned message from ATIS and/or broadcasting "ATC LOW VISIBILITY OPERATIONS ARE TERMINATED" via appropriate frequencies.

2.20.7.2 Aircraft operators must obtain approval from ICAA prior to conducting any low visibility operations at ERBIL International Airport.

a. Aircraft operators and pilots who wish to conduct ILS CAT II operations at ERBIL International Airport shall conform with certain requirements.

b. Foreign operators may obtain the approval from ICAA by providing the following information to ICAA.

- 1) Aircraft type and register number
- 2) The CAT II minima to which they intend to operate
- 3) A copy of the CAT II certification issued by their own category authority.

2.20.7.3 Pilots shall be informed when

- a. Meteorological reports preclude ILS CAT I operations
- b. Low Visibility Procedures are in operation
- c. There is any unserviceable in a promulgated facility so that they may amend their minima

2.20.7.4 Pilots who wish to carry out an ILS CAT II approach shall inform to Approach control on initial contact.

2.20.7.5 Special Procedures and Safeguards

Special procedures and ground safeguards will be applied during CAT II operations to protect aircraft from abnormal operation in low visibility and to avoid interference with the ILS signals in accordance with the provisions of ICAO Doc. 9365 - Manual of All Weather Operations

2.20.7.5.1 During low visibility operations, taxiway centerline lights will be used in conjunction with the stop bar lights as follows

- a. If the stop bar lights are turned on, the centerline lights beyond the stop bar will be turned off.
- b. If the stop bar lights are turned off, the centerline lights beyond the stop bar will be turned on.

2.20.7.5.2 Aircraft shall hold at CAT-II holding positions signs and marking of the TWY A1

2.20.7.5.3 Arriving Aircraft

a. Aircraft shall vacate the runway via the designated exit taxiways as follows ; Other exit taxiways will not be lit RWY 18 - A3 or A4 or A5 TWY – A TWY- C or D TWY Refer to ORER 2.1-106 Pages.

b. When long distance is required for landing, aircraft can maneuver by the end of runway, and shall vacate the runway via A5 exit taxiway after a 180-degree turn at the end of runway 18.

- c. All runway exits have taxiway center-line lead off lights (color coded : green/yellow) to indicate that portions of the taxiway are within the ILS sensitive area.
- d. Pilots are required to make a 'runway vacated' call giving due allowance for the size of the aircraft to ensure that the entire aircraft have vacated the ILS critical sensitive area.

2.20.7.5.4 Departing Aircraft

Departing aircraft shall normally enter the runway via the designated taxiways as follows;

C or E TWY – A TWY- A1 - RWY 18

Refer to ORER 2.20.2.3 Departure taxi routes.

2.20.7.6 Practice Approaches

Pilots may carry out a practice ILS CAT II approach at any time with a prior approval of ATC, but the full safeguarding ground procedures shall not be applied, and pilots should foretell the possibility of ILS signal interference.

ORER 2.20.8 Apron Safety Management

2.20.8.1 All GSE (Ground Service Equipment) vehicle roadways crossing taxiways or taxilanes are marked in the form of zipper.

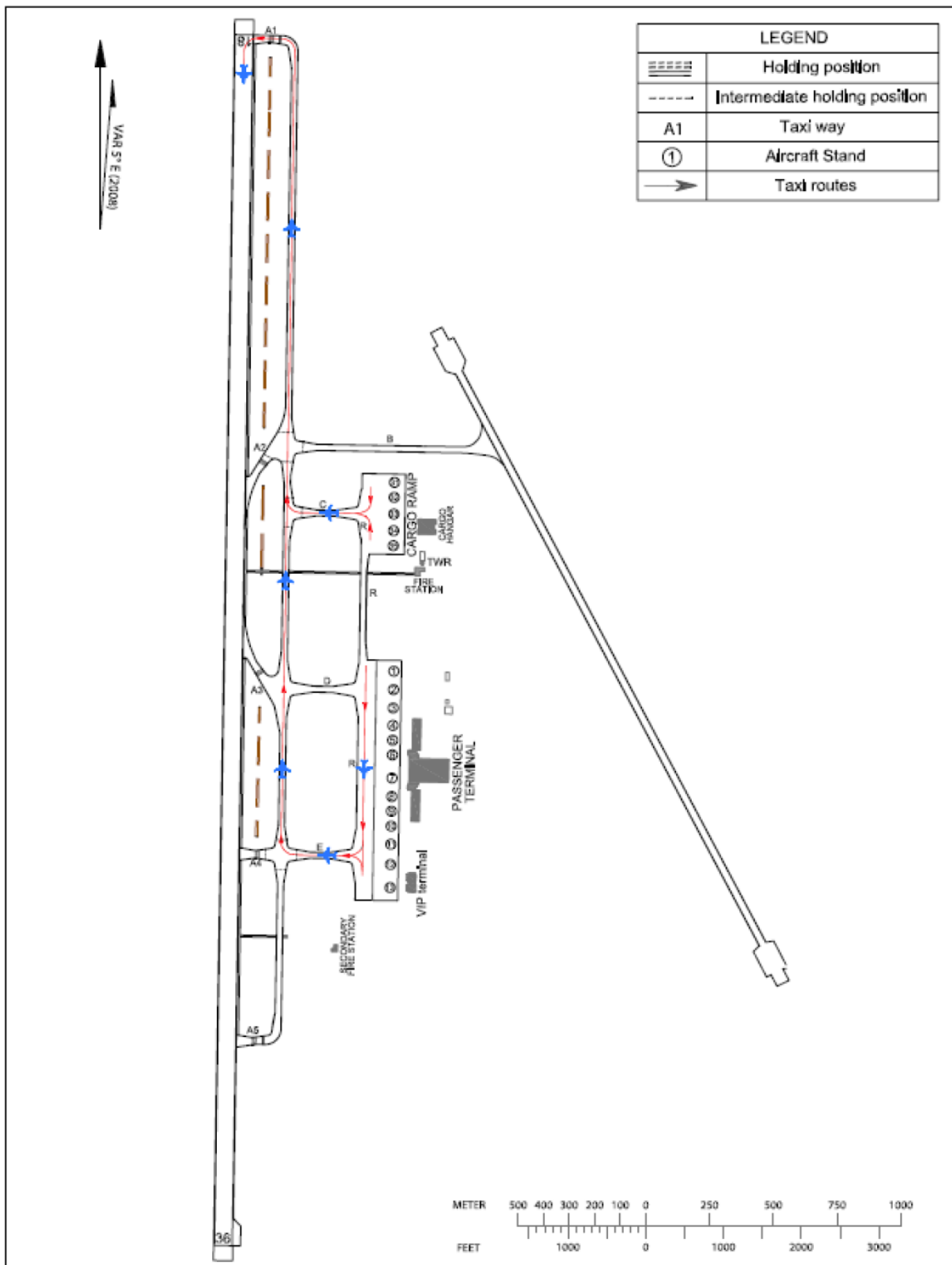
2.20.8.2 Pilots shall pay special caution to vehicles while taxiing in apron areas.

LOW
VISIBILITY
PROCEDURE

AERODROME
ELEV 415.3 m

TWR 128.8
ATIS 130.4

ERBIL / Erbil Intl
RWY 18
LVP - Departure Taxi Route

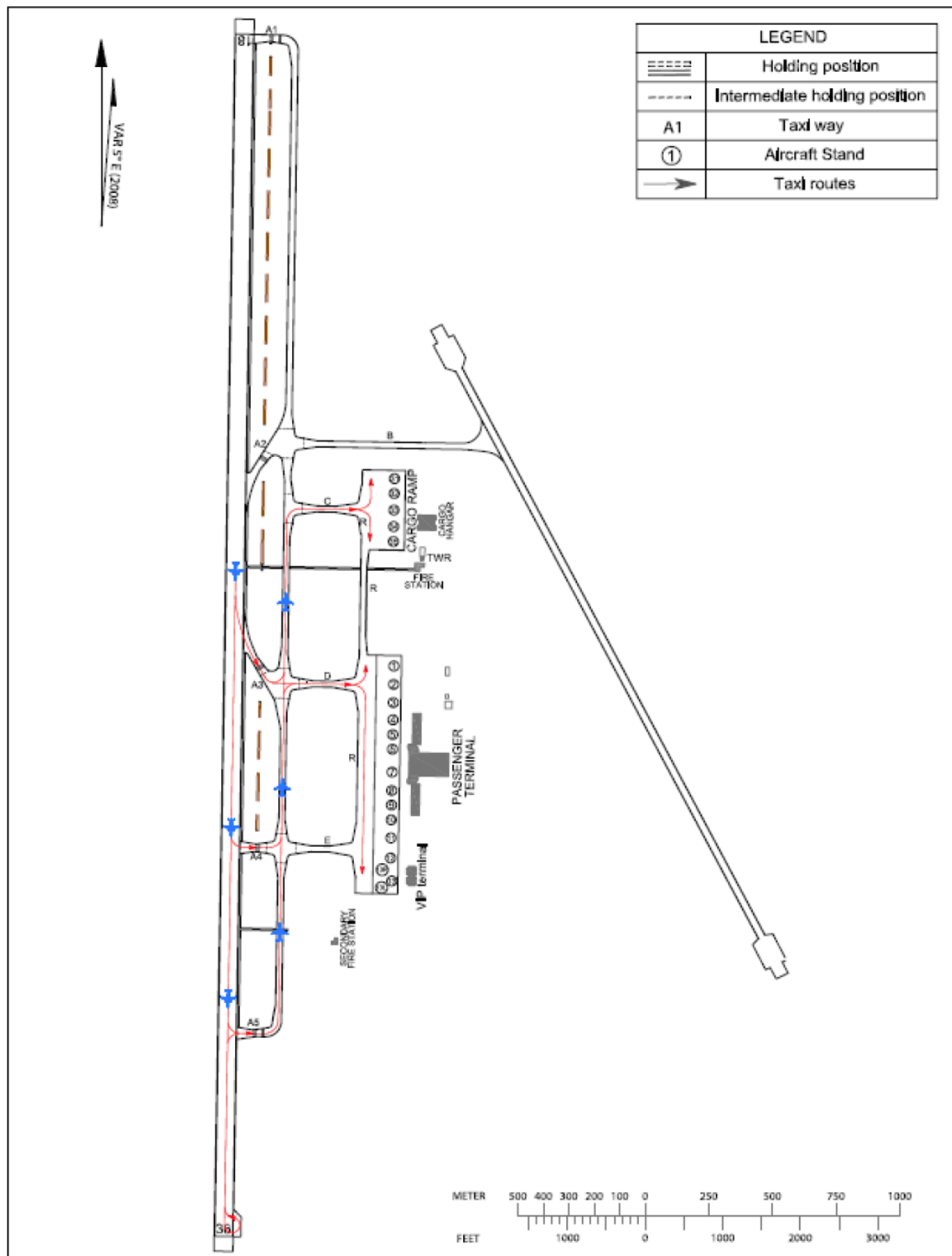


LOW
VISIBILITY
PROCEDURE

AERODROME
ELEV **415.3** m

TWR 128.8
ATIS 130.4

ERBIL / Erbil Intl
RWY 18
LVP - Arrival Taxi Route



ORER AD 2.21 NOISE ABATEMENT PROCEDURES

ORER 2.21.1 Aircraft are to avoid over flying the airport buildings, construction sites, other aircraft, or fuel point/trucks below 1 000 ft AGL whenever possible.

ORER AD 2.22 FLIGHT PROCEDURES**ORER AD 2.22.1. IFR Procedure****2.22.1.1 IFR ATC Clearance**

The following procedures are established for all departures from ERBIL International Airport.

a. Aircraft shall contact ERBIL Tower and provide the following information 5 minutes prior to startup or push-back.

- 1) Aircraft Identification
- 2) Type of aircraft
- 3) Destination
- 4) Proposed and alternate flight level
- 5) Gate or stand number
- 6) ATIS code

b. ATC clearance issued by ERBIL Tower may be cancelled without notification to pilot if aircraft fails to push back or taxi within 10 minutes after receipt, and other aircraft are requesting the same altitude/route assignment with push-back or start-up ready. And after 10 minutes of receipt of ATC clearance, pilot shall contact ERBIL Tower to verify the status of clearance prior to calling for start-up or push-back except when

- 1) Start-up or push-back is delayed due to traffic on the ground; or
- 2) Aircraft departure is restricted by means of release time.

2.22.1.2 Speed control

There is no speed control restriction for now.

2.22.1.3 Visual approach and separation

a. Visual approach may be initiated by ATC or approved upon pilot's request on a traffic permitting basis when the weather condition is as follows;

- 1) Ceiling : at or above 3 000 ft
- 2) Visibility : not less than 5 km

b. Visual separation may be applied as follows;

- 1) Traffic between arrivals or departures or arrival and departure on the runway or near the airport.
- 2) Weather condition

- Ceiling : at or above 3 000 ft
- Visibility : not less than 5 km

2.22.1.4 Assignment of STAR or SID

The following tables are to help aircraft get STAR or SID information to be used by aircraft for preflight planning purposes.

a. Assignment of Standard Terminal Arrival(STAR)

Unless otherwise instructed by ATC, expected arrival procedures are as follows;

Runway in use	Airway	STAR	Remarks
18	L417(UMESA)	LAVEN 2B	Via DAXOG
	UM860(EMIDO)	GAZNA 1A	
	UM688(ROXOP)	GAZNA 2B	
36	L417 (UMESA)	GAWAN 1A	Via DAXOG
	UM860 (SEVKU)	LAVEN 3C	
	UM688(ROXOP)	LAVEN 1A	

b. Assignment of Standard Instrument Departure(SID)

Unless otherwise instructed by ATC, expected departure procedures are as follows:

Runway in use	Airway	SID	Remarks
18	L417 (UMESA)	UMESA 1A	Via DOXOG
	UM860 (SEVKU)	SEVKU 1A	
	UM688 (TOMSI)	OTALO 1A	
36	L417(UMESA)	UMESA 2B	Via DOXOG
	UM860 (EMIDO)	EMIDO 1A	
	UM688 (TOMSI)	OTALO 2B	

c. Pilots shall be cautious about the following things.

1) If an aircraft is unable to follow any instrument flight procedure after considering requirements for aircraft equipments, restrictions (climb rate, altitude restrictions and so on) on STAR or SID, pilot shall request alternative procedures (before departure for SID) to ATC.

2) Altitude restrictions are established based on obstacle clearance, airspace, letter of agreement between air traffic control facilities including ones in adjacent FIRs. If pilots report it can not follow some restrictions after airborne, it may create a significantly negative impact on aviation safety. In case that aircraft can not meet any requirement or follow restrictions after airborne, it may be considered to be violation of regulations.

3) Compliance with level/altitude restrictions on SID or STAR includes level/altitude restrictions

- Pilot must always comply with the level/altitude restrictions as published unless such restrictions are explicitly cancelled by ATC.
- After ATC clears intermediate level/altitude with SID or STAR designator and ATC re-clears higher or lower than initially cleared level/altitude, pilots must comply with all level/altitude restrictions on SID or STAR (including minimum altitudes based on terrain

clearance) unless ATC cancels such restrictions explicitly.

2.22.1.5 Read-back of ATC clearance

Pilots shall always read back to ATC safety-related parts of ATC clearances for at least the following items;

- 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
- c. Runway-in-use, altimeter settings, SSR codes, level instructions, heading and speed instructions

ORER AD 2.22.2. VFR Procedure

2.22.2.1 VFR PROCEDURE

- a. VFR Weather minimum : VFR flight will be permitted under the condition as below
 - 1) Ground Visibility : Not less than 5 km(3 SM)
 - 2) Ceiling : at or above 900 m(3 000 ft)
- b. VFR Reporting points : Refer to Page ORER AD 2.1-122 .
- c. VFR Traffic circuits : Refer to Page ORER AD 2.1-121 .
- d. VFR Pattern Altitude
 - 1) Helicopter : 2000 ft MSL
 - 2) Fixed wing : 3000 ft MSL
- e. VFR Flight procedure
 - 1) VFR aircraft shall maintain two-way radio communications and get permission to enter Class D airspace
 - When landing and departing within ERBIL Control Zone via VFR reporting points.
 - to transit through ERBIL Control Zone.
 - 2) When landing on or taking off from H2, H3, H4 helicopter shall use caution for separation from IFR traffic.
 - 3) Helicopter shall contact ERBIL Tower prior to departure, and delay may be possible for separation between IFR and VFR traffic.
 - 4) As practical as possible, pilot should avoid congested areas, hospital, school, institute and so on.

ORER AD 2.22.3. RADIO COMMUNICATION FAILURE PROCEDURE

2.22.3.1 IFR

- a. General
 - 1) No aircraft may take off unless two-way radio communications can be maintained with the Air Traffic Control.
 - 2) On recognition of communication failure during flight, squawk 7600 and if necessary to ensure safe altitude, pilots shall climb to Minimum Safe

Altitude or above to maintain obstacle clearance, then comply with following procedure.

b. VFR condition

If the failure occurs in VFR conditions, or if VFR conditions are encountered after the failure, each pilot shall continue the flight under VFR and land as soon as practicable.

c. IFR condition

If the failure occurs in IFR conditions, or if paragraph 3.1.b of this section cannot be complied with, each pilot shall continue the flight according to the following :

A. DEPARTURE

a. Under Pilot Navigation

1) Runway 18 in use

- UMESA 1 A

Climb on track 176 until RER D6, then turn right direct to DAXOG at 11000ft

Then direct to UMESA and as directed by ATC

- SEVKU 1A

Climb on track 176 until RER D6, then turn right direct to SEVKU at or above FL150, Cross RER D18 at or below 7000ft

- OTALO 1A

Climb on track 176 until RER D6, then turn left direct to TOMSI at 10,000ft

Then direct to OTALO and as directed by ATC.

2) Runway 36 in use

- UMESA 2 B

Climb on track 356 until RER D6, then turn left direct to DAXOG at or above FL150. Cross RER R235 at or above 9000ft. Then direct to UMESA and as directed by ATC

- OTALO 2B

Climb on track 356 until RER D6, then turn left direct to TOMSI at FL150.

Then direct to OTALO and as directed by ATC.

- EMIDO 1A

Climb on track 356 until RER D6, then turn left direct to EMIDO at or above FL150. Cross RER D30 at or below 10,000ft.

b. Under Radar vectoring (KIRKUK ACC)

1) Proceed by the direct route from the point of radio failure to the fix, route, or airway specified in the vector clearance;

2) In the absence of an assigned route, proceed by the route that ATC has advised may be expected in a further clearance; or

3) In the absence of an assigned route or a route that ATC has advised may be expected in a further clearance, proceed by the route filed in the flight plan; and

- 4) Maintain minimum en-route altitude(MEA) or the altitude/flight level cleared in the last ATC clearance received, whichever is higher, for 5 minutes
- 5) Continue the flight with altitude/flight level filed in the flight plan.

B. ARRIVAL

Unless received information of runway-in-use by ATC,

a. Runway 18 in use

- 1) Proceed to GAZNA IAF(ILS/DME Runway 18) or LAVEN IAF(ILS/DME Runway 36) as advised or instructed by ATC and commence descent and approach as close as possible to the expected further clearance time(EFC) issued by ATC or estimated time of arrival(ETA) filed in the flight plan; and
- 2) Land, if possible, within 30 minutes after ETA or the last acknowledged EFC or ETA, whichever is later.

b. Runway 36 in use

- 1) Proceed to GAWAN IAF(ILS/DME Runway 36) or LAVEN IAF(ILS/DME Runway 36) as advised or instructed by ATC and commence descent and approach as close as possible to the expected further clearance time(EFC) issued by ATC or estimated time of arrival(ETA) filed in the flight plan; and
- 2) Land, if possible, within 30 minutes after ETA or the last acknowledged EFC or ETA, whichever is later.

2.22.3.2 VFR

VFR flight which has experienced radio communication failure shall follow the procedures

a. Helicopter

- 1) Squawk 7600, and
- 2) When able to see light gun signal of control tower, follow that instruction
- 3) If unable to see light gun signal of control tower, hold over downwind until ETA or for 10 minutes, whichever is longer, then
- 4) land on runway in use or H2, H3, H4 as appropriate and as filed, and pilot shall use caution traffic landing and departing from/to runways or H2, H3,H4.

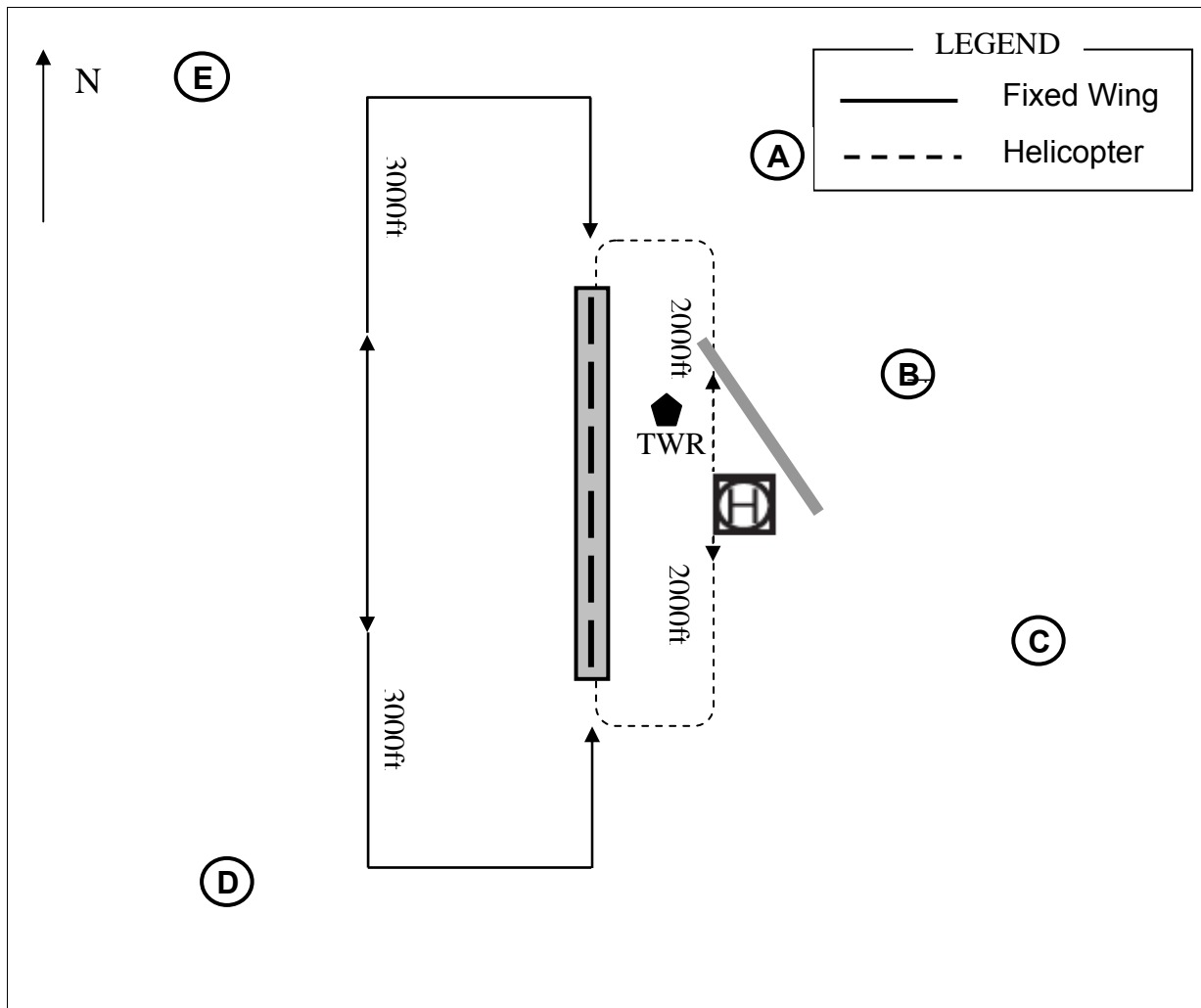
b. Conventional flight

- 1) Squawk 7600, and
- 2) When able to see light gun signal of ERBIL Tower, follow that instruction
- 3) If unable to see light gun signal of ERBIL Tower, hold on downwind until ETA or for 10 minutes, whichever is longer, then
- 4) Aircraft on west pattern should land on runway 18/36, whichever is in use
- 5) Pilot shall use caution traffic landing and takeoff from/to runways.

ORER AD 2.22.4. Take-off Weather Minima

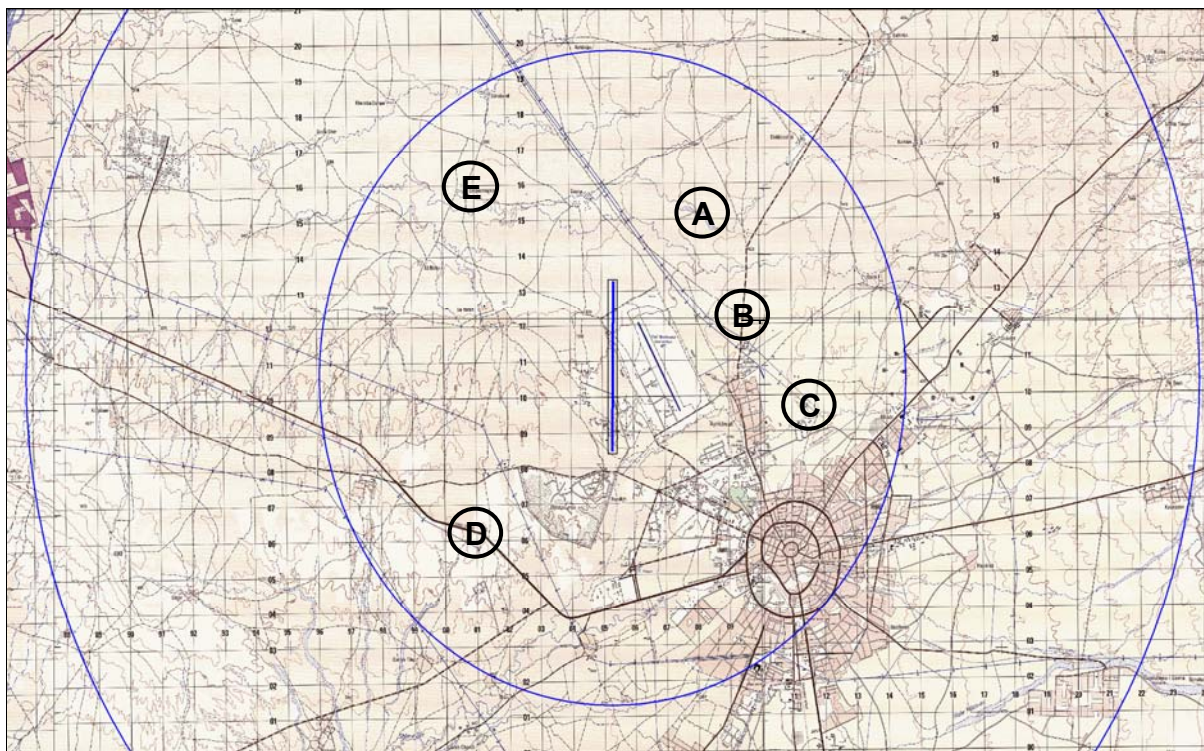
ALL RWY				
STD				
HIRL, RCLL, RCL & 3 RVR REQ		HIRL & RCLL or RCL	Others	
<i>2 or more ENG</i>	<i>350m</i>	<i>RVR/VIS 500m</i>	<i>1 or 2 ENG</i>	<i>1 600 m</i>
			<i>3 or 4 ENG</i>	<i>800 m</i>

VFR Traffic Circuits – ERBIL INTL Airport



Note:

1. For information about H2, H3, H4, refer to AD 2.16 Helicopter Landing Area
2. All VFR traffic do not approach and fly over North and South bound of ERBIL without ATC approval.
3. Aircraft/helicopter flying via North of runway 36 should use caution for VFR traffic around ZAITUN Unit Helipad.
4. If runway 18 is in use, VFR should fly via reporting point A or E at or below 500 ft AGL along northern fence when crossing over the north of airport.
5. If runway 36 is in use, VFR should fly via reporting point C or D at or below 500 ft AGL along southern fence when crossing over the south of airport.
6. When crossing end of runway, Use caution.
7. All VFR traffic shall continuously monitor ERBIL TWR frequency while operating within all ERBIL CTR.



Reporting Point	Position	Coordinates(WGS-84)
A	RER R010/D2.0	36° 16'17"N 043° 58'37"E
B	RER R067/D1.5	36° 15'06"N 043° 59'47"E
C	RER R107/D2.7	36° 13'36"N 044° 01'06"E
D	RER R224/D4.3	36° 11'43"N 043° 54'02"E
E	RER R310/D4.5	36° 17'42"N 043° 54'01"E

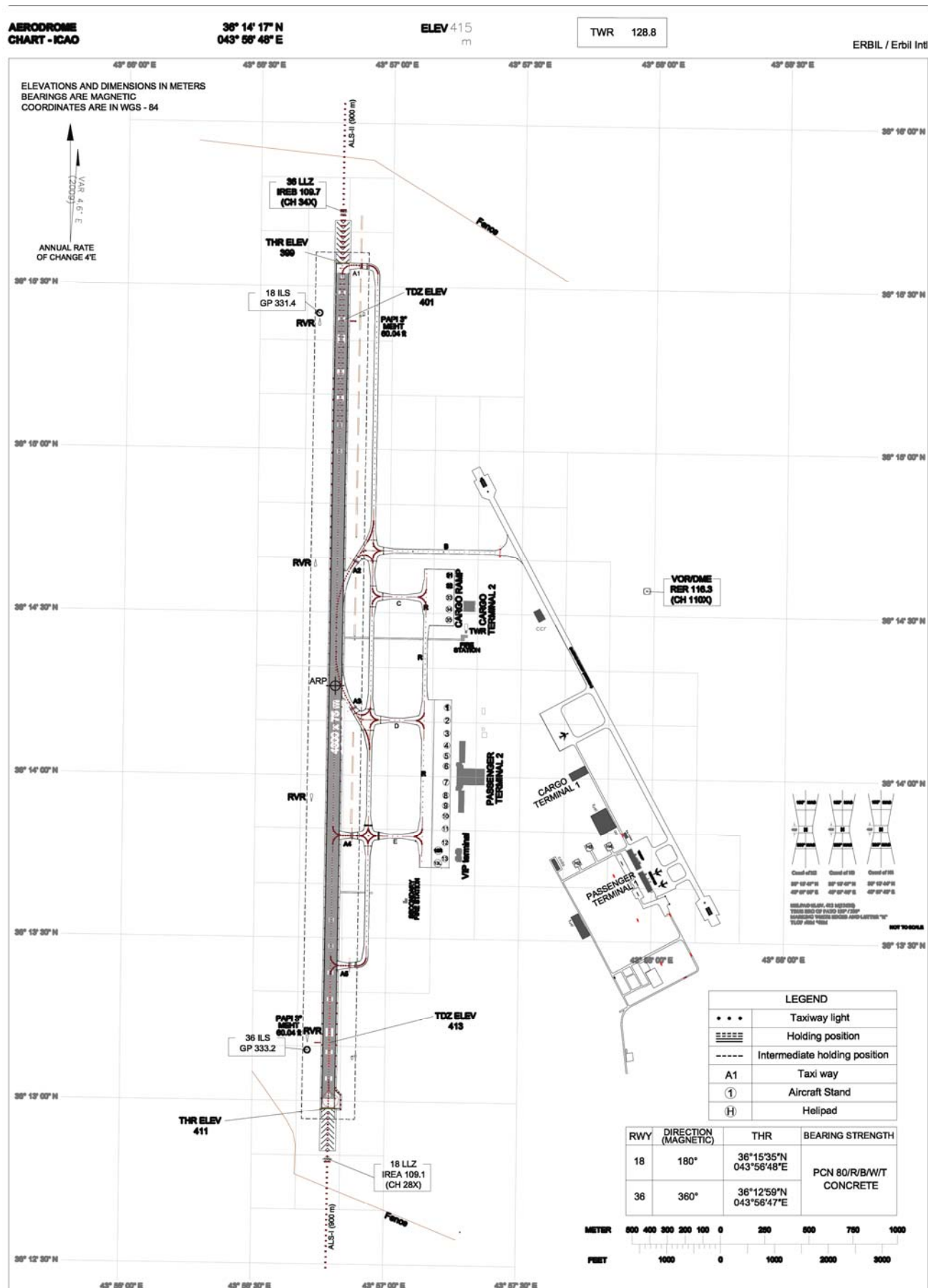
ORER AD 2.23 ADDITIONAL INFORMATION

Nil

ORER AD 2.24 CHARTS RELATED TO AN AERODROME

Aerodrome Chart – ICAO	ORER AD 2.24.1
Aircraft Parking/Docking Chart – ICAO	ORER AD 2.24.2
Aerodrome Ground Movement Chart–ICAO	ORER AD 2.24.3
Aerodrome Obstacle Chart – ICAO Type A (RWY18)	ORER AD 2.24.4
Aerodrome Obstacle Chart – ICAO Type A (RWY36)	ORER AD 2.24.5
Aerodrome Obstacle Chart – ICAO Type B	ORER AD 2.24.6
Precision Approach Terrain Chart – ICAO (RWY 18)	ORER AD 2.24.7
Standard Departure Chart Instrument – ICAO.....	ORER AD 2.24.8
Standard Departure Chart Instrument – ICAO	ORER AD 2.24.9
Standard Departure Chart Instrument – ICAO	ORER AD 2.24.10
Standard Departure Chart Instrument – ICAO.....	ORER AD 2.24.11
Standard Departure Chart Instrument – ICAO.....	ORER AD 2.24.12
Standard Departure Chart Instrument – ICAO.....	ORER AD 2.24.13
Standard Arrival Chart Instrument – ICAO	ORER AD 2.24.14
Standard Arrival Chart Instrument – ICAO	ORER AD 2.24.15
Standard Arrival Chart Instrument – ICAO	ORER AD 2.24.16
Standard Arrival Chart Instrument – ICAO	ORER AD 2.24.17
Standard Arrival Chart Instrument – ICAO	ORER AD 2.24.18
Standard Arrival Chart Instrument – ICAO	ORER AD 2.24.19
Instrument Approach Chart – ICAO (ILS/DME Z RWY 18)	ORER AD 2.24.20
Instrument Approach Chart – ICAO (ILS/DME Z RWY 36)	ORER AD 2.24.21
Instrument Approach Chart – ICAO (ILS/DME Y RWY 18)	ORER AD 2.24.22
Instrument Approach Chart – ICAO (ILS/DME Y RWY 36)	ORER AD 2.24.23

ORER 2.24.1 Aerodrome Chart – ICAO



ORER 2.24.2 Aircraft Parking/Docking Chart

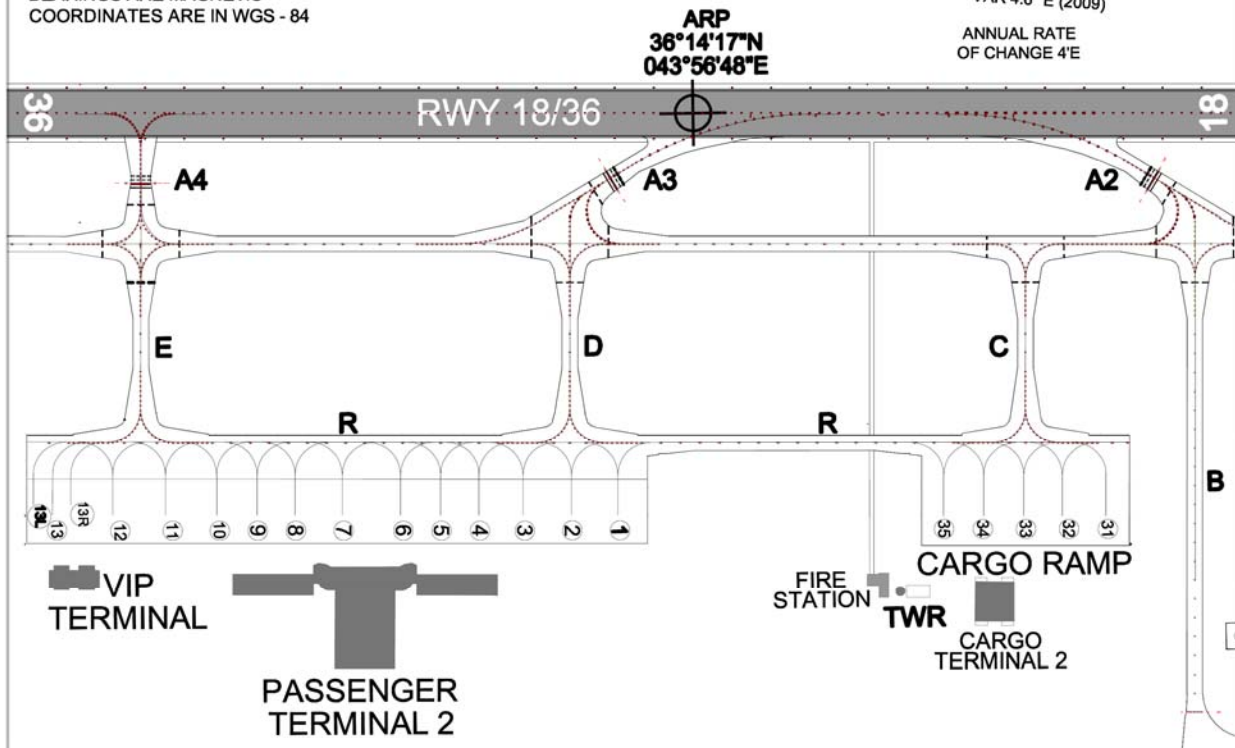
AIRCRAFT PARKING/
DOCKING CHART - ICAO

APRON ELEV 410 m

TWR 128.8

ERBIL / Erbil Intl

ELEVATIONS AND DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC
COORDINATES ARE IN WGS - 84



LEGEND

• • •	Taxiway light
=====	Holding position
-----	Intermediate holding position
A2	Taxi way
①	Aircraft Stand

Taxiway width, strength and surface	WIDTH	Strength and Surface
	25m	PCN 79/F/B/X/T ASPHALT

TAXIWAY EDGE LIGHTS ON ALL TAXIWAYS.

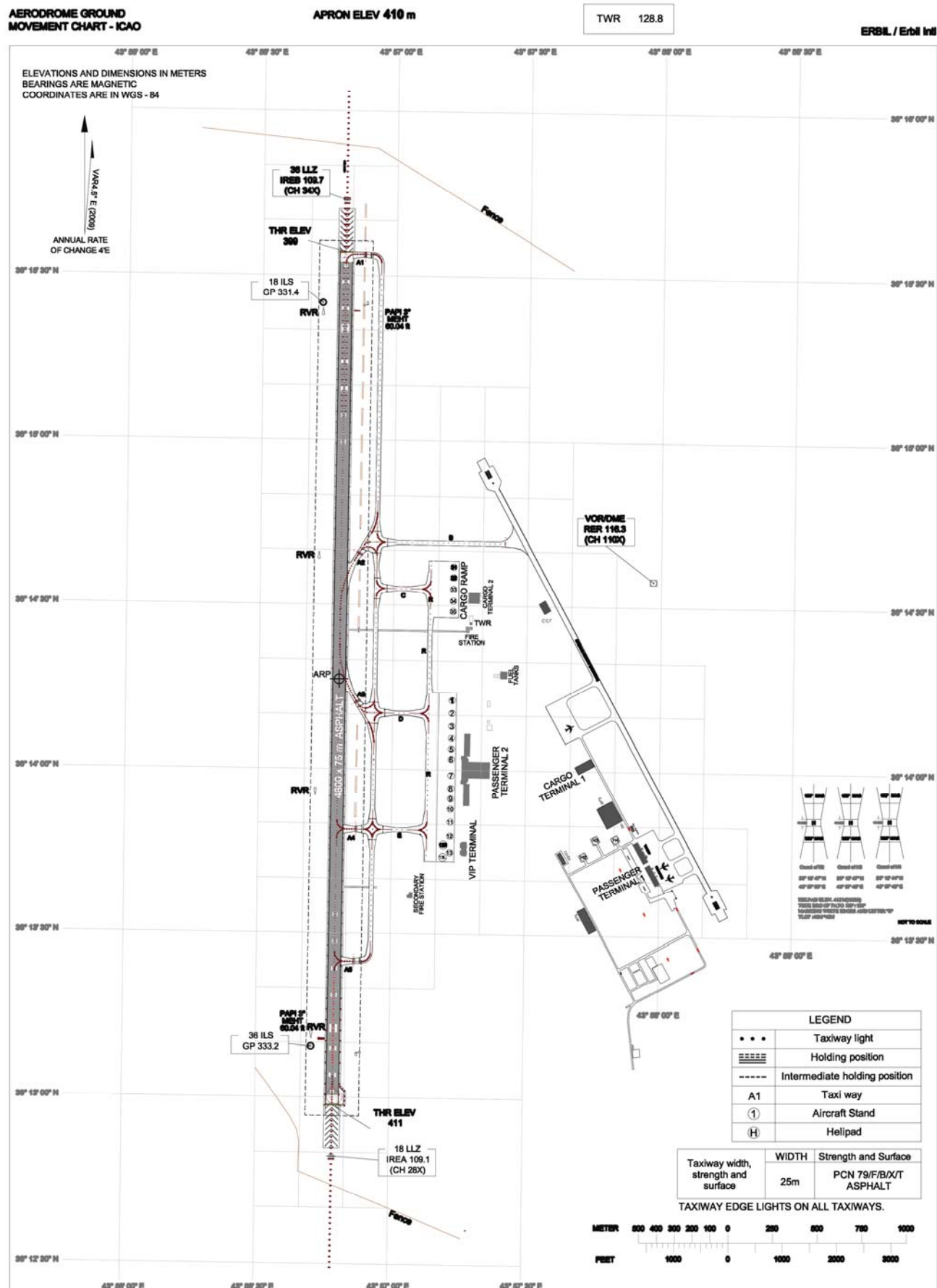
STANDS NR	STAND AVAILABILITY
1, 2, 4, 6, 7, 8, 10, 11, 13	Available for aircraft "C", "D" and "E" codes.
3	Available for all aircraft "C" and "D" codes.
5, 7	Available for all aircraft "C" code.
12	Available for all aircraft "C", "D", "E" and "F" codes.

Note
Code "C", "D", "E" : Refer to Annex 14, Table 1-1 "Aerodrome reference code".

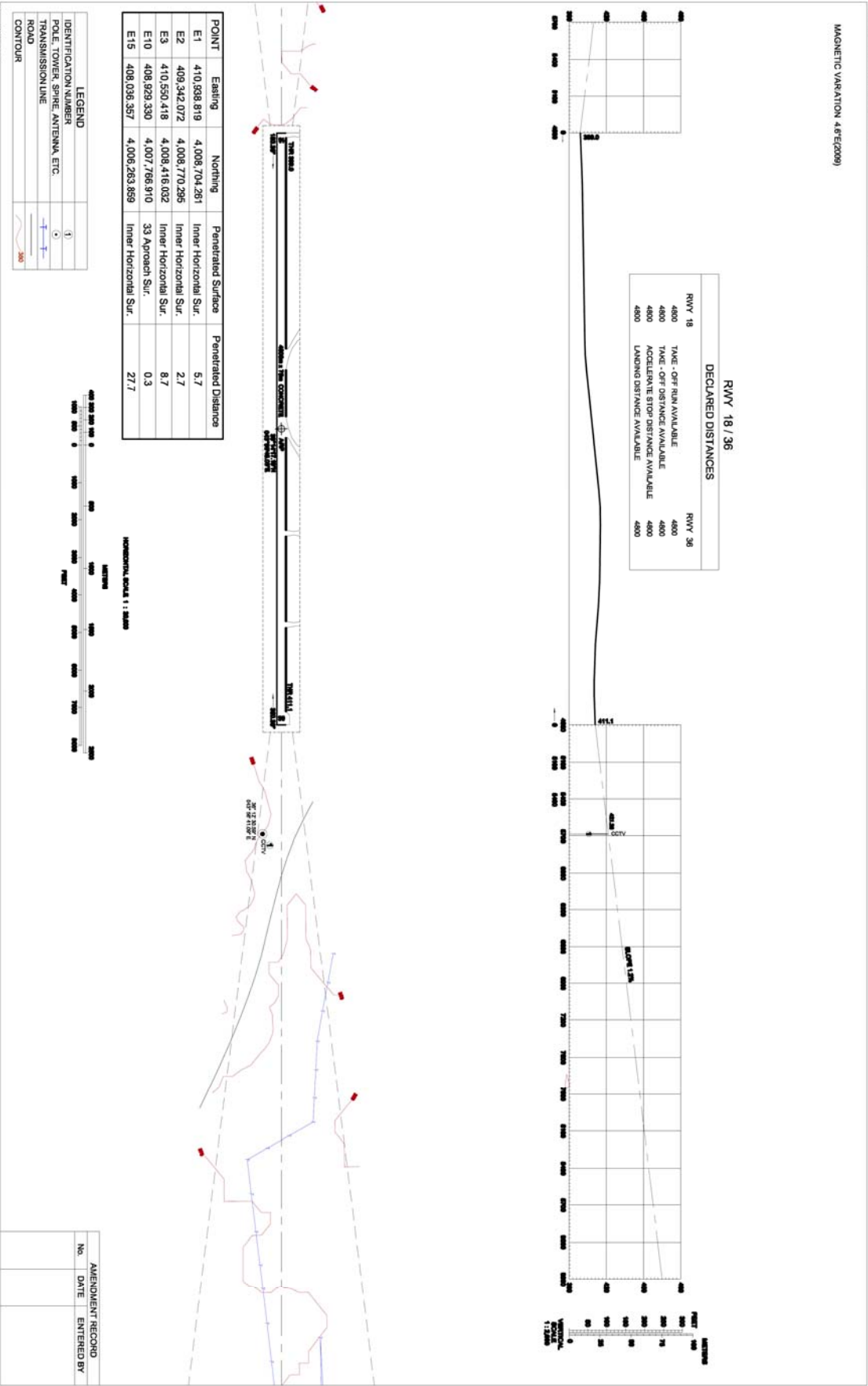
Code letter	Wing span
F	65M up to but not including 80M
E	52M up to but not including 65M
D	36M up to but not including 52M
C	24M up to but not including 36M

NR	INS COORDINATES FOR AIRCRAFT STANDS (WGS-84)		ELEV(MSL)
1	36° 14'13.39"N	043° 57'14.08"E	409.12
2	36° 14'11.01"N	043° 57'14.06"E	409.12
3	36° 14'08.65"N	043° 57'13.84"E	409.19
4	36° 14'06.41"N	043° 57'14.03"E	409.13
5	36° 14'04.50"N	043° 57'13.81"E	409.19
6	36° 14'02.61"N	043° 57'14.00"E	409.14
7	36° 13'59.64"N	043° 57'13.97"E	409.12
8	36° 13'57.26"N	043° 57'13.96"E	409.14
9	36° 13'55.37"N	043° 57'13.74"E	409.19
10	36° 13'53.46"N	043° 57'13.93"E	409.14
11	36° 13'51.11"N	043° 57'13.91"E	409.14
12	36° 13'48.51"N	043° 57'13.89"E	409.14
13R	36° 13'46.11"N	043° 57'13.60"E	409.21
13	36° 13'45.45"N	043° 57'13.86"E	409.13
13L	36° 13'44.79"N	043° 57'13.59"E	409.21
31	36° 14'37.67"N	043° 57'14.18"E	411.25
32	36° 14'35.74"N	043° 57'14.16"E	411.25
33	36° 14'33.60"N	043° 57'14.15"E	411.24
34	36° 14'31.45"N	043° 57'14.13"E	411.25
35	36° 14'29.52"N	043° 57'14.12"E	409.25

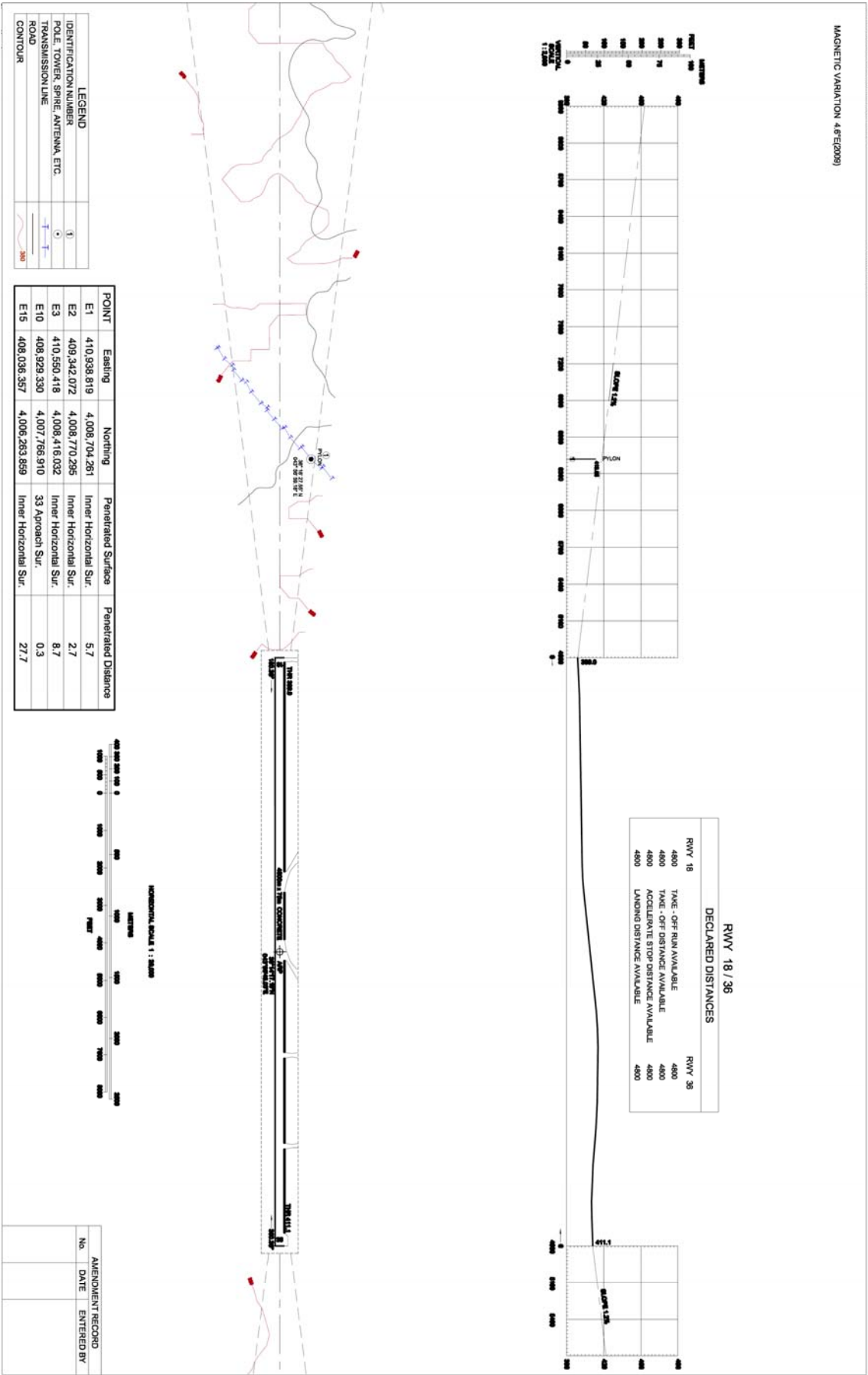
ORER 2.24.3 Aerodrome Ground Movement Chart



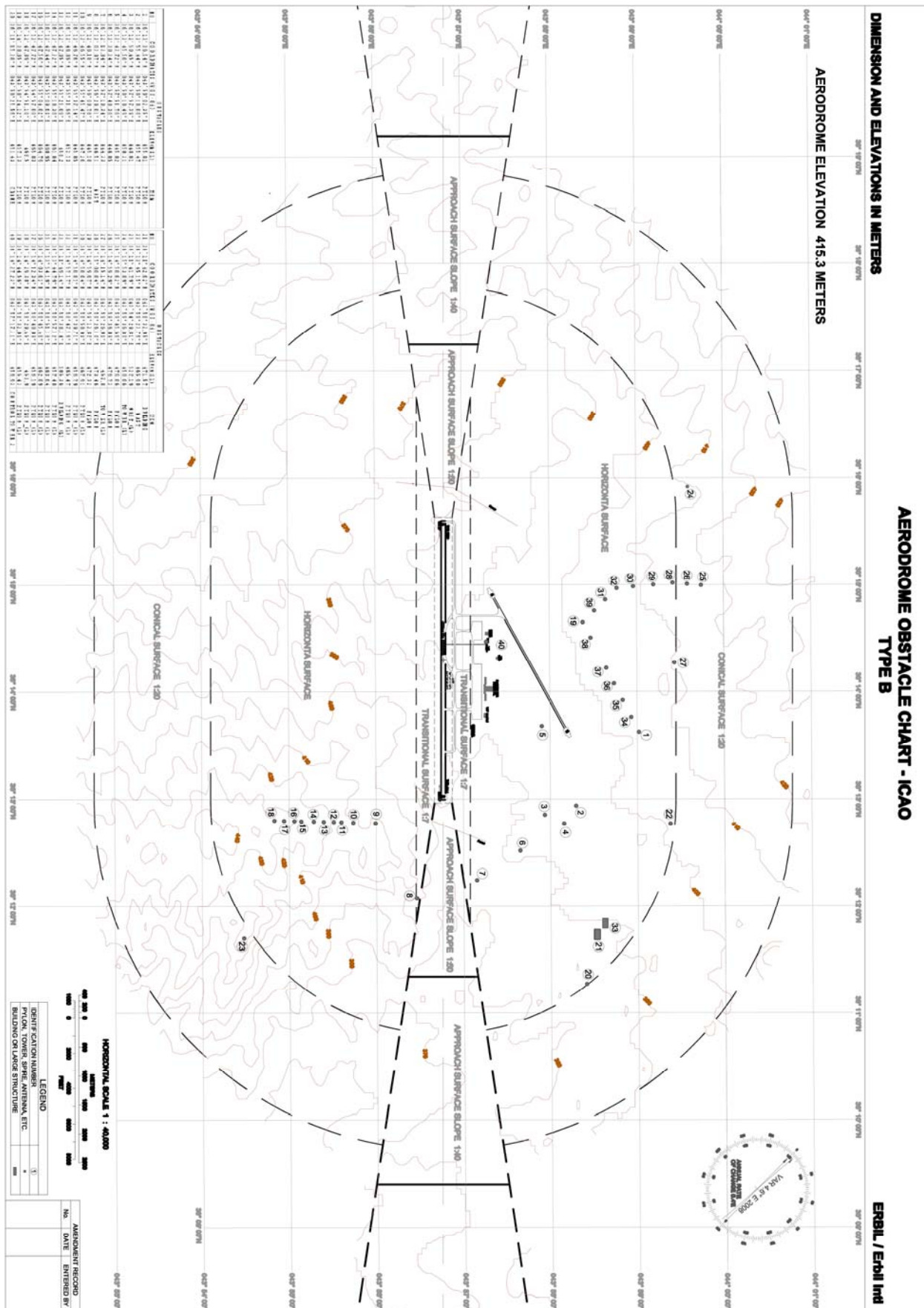
ORER 2.24.4 Aerodrome Obstacle Chart – ICAO Type A (RWY18)



ORER 2.24.5 Aerodrome Obstacle Chart – ICAO Type A (RWY36)



2.24.6 Aerodrome Obstacle Chart – ICAO Type B



PRECISE APPROACH TERRAIN
EARTH / 1:500
CHART 1500
DISTANCE AND HEIGHTS IN METERS
CONTOURS AND HEIGHTS ARE RELATED
TO THE ELEVATION OF R/WY THIR

Distance from Thru Peg

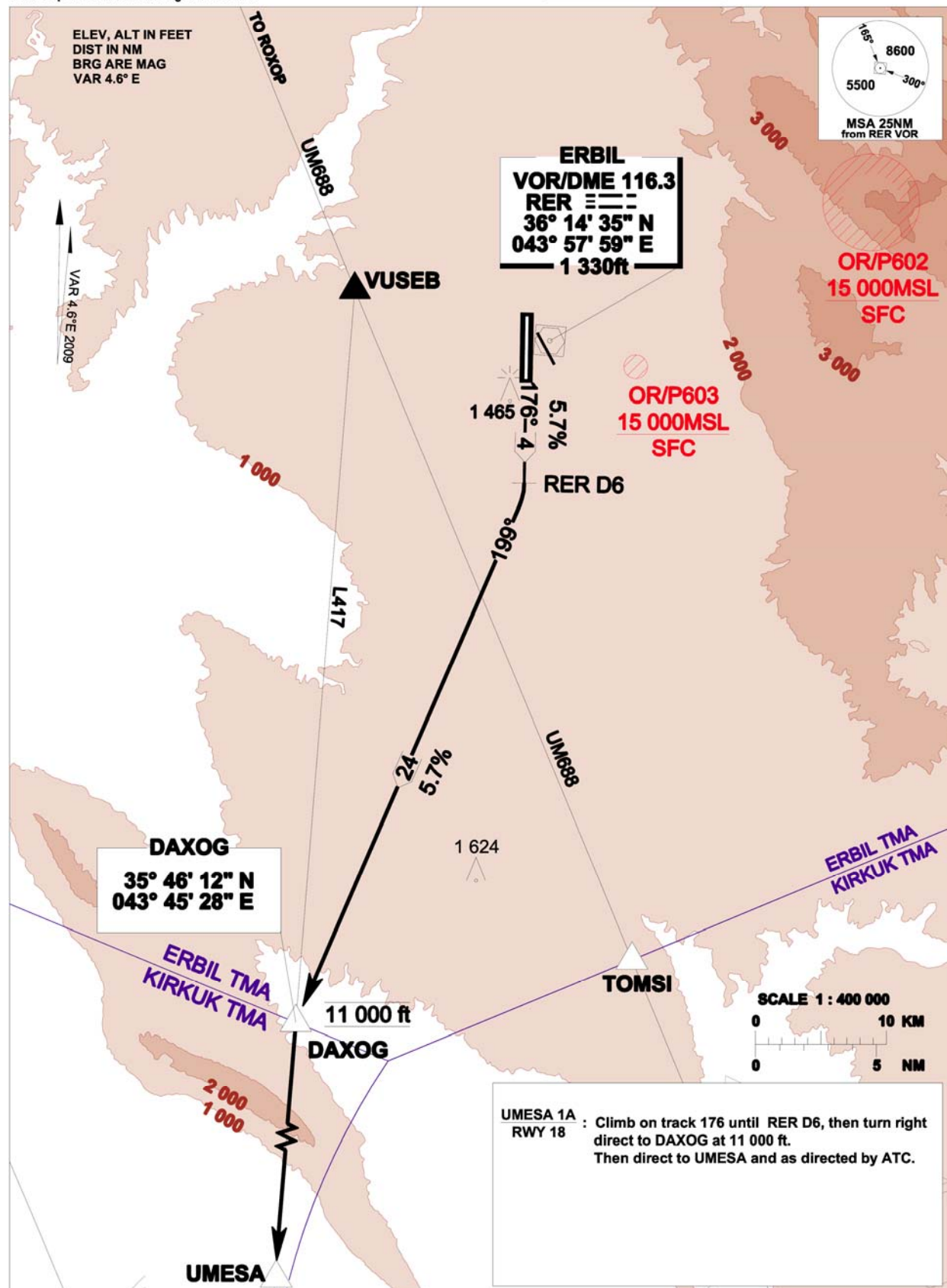
Horizontal Scale 1:2,500
Vertical Scale 1:500

LEGEND
 * APPROACH LIGHT
 — CENTER LINE PROFILE
 — GROUND LINE PROFILE
 FROM CENTER LINE PROFILE

Vertical scale in feet

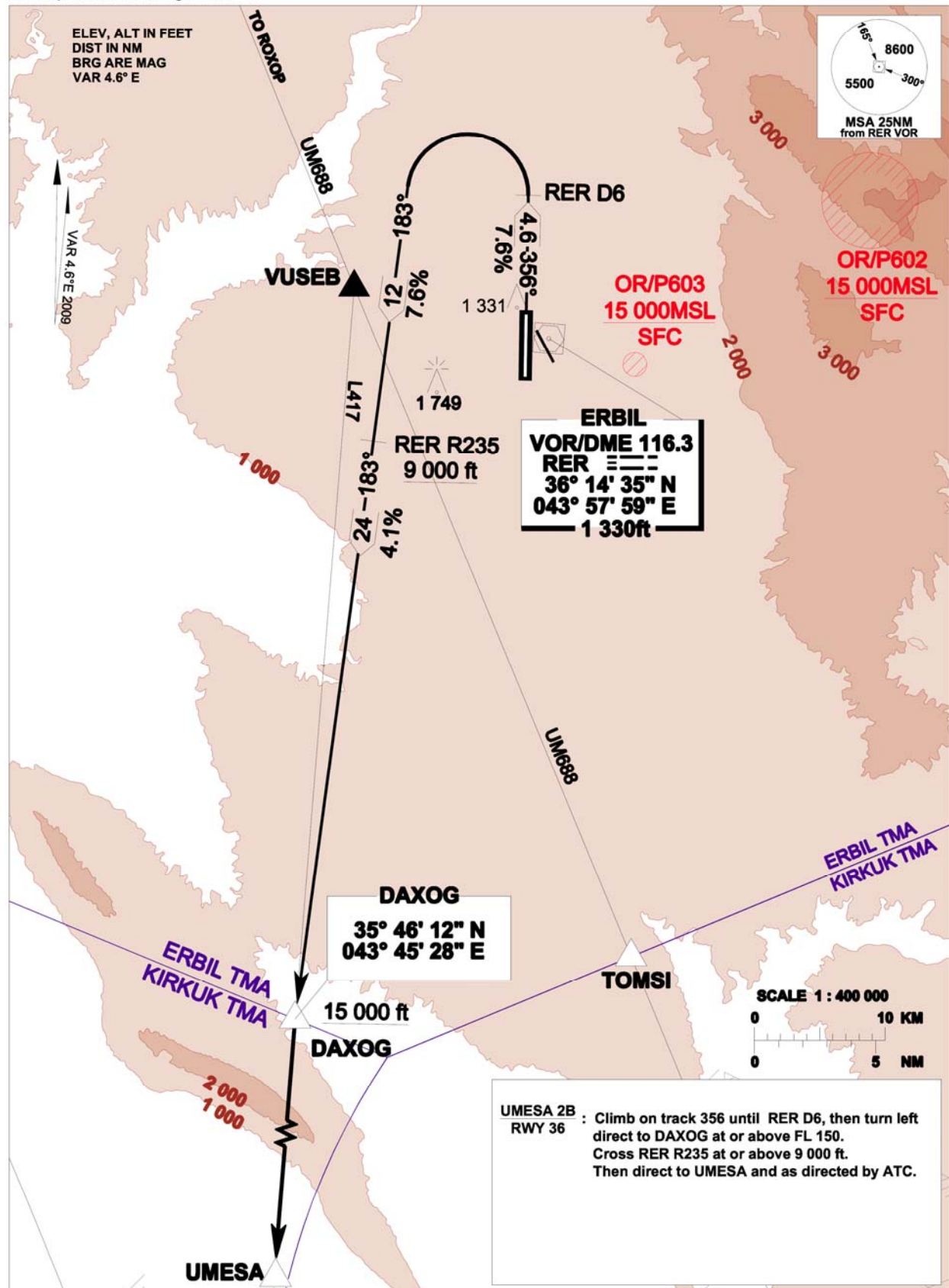
ORER 2.24.8 Standard Departure Chart Instrument RWY 18**STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO**TRANSITION ALT 14 000
TRANSITION LVL FL 150ERBIL APP 126.5
ERBIL TWR 128.8**ERBIL/Erbil Intl(ORER)**
RWY 18
UMESA 1A

Note : Departure under ICAO Flight Procedures.

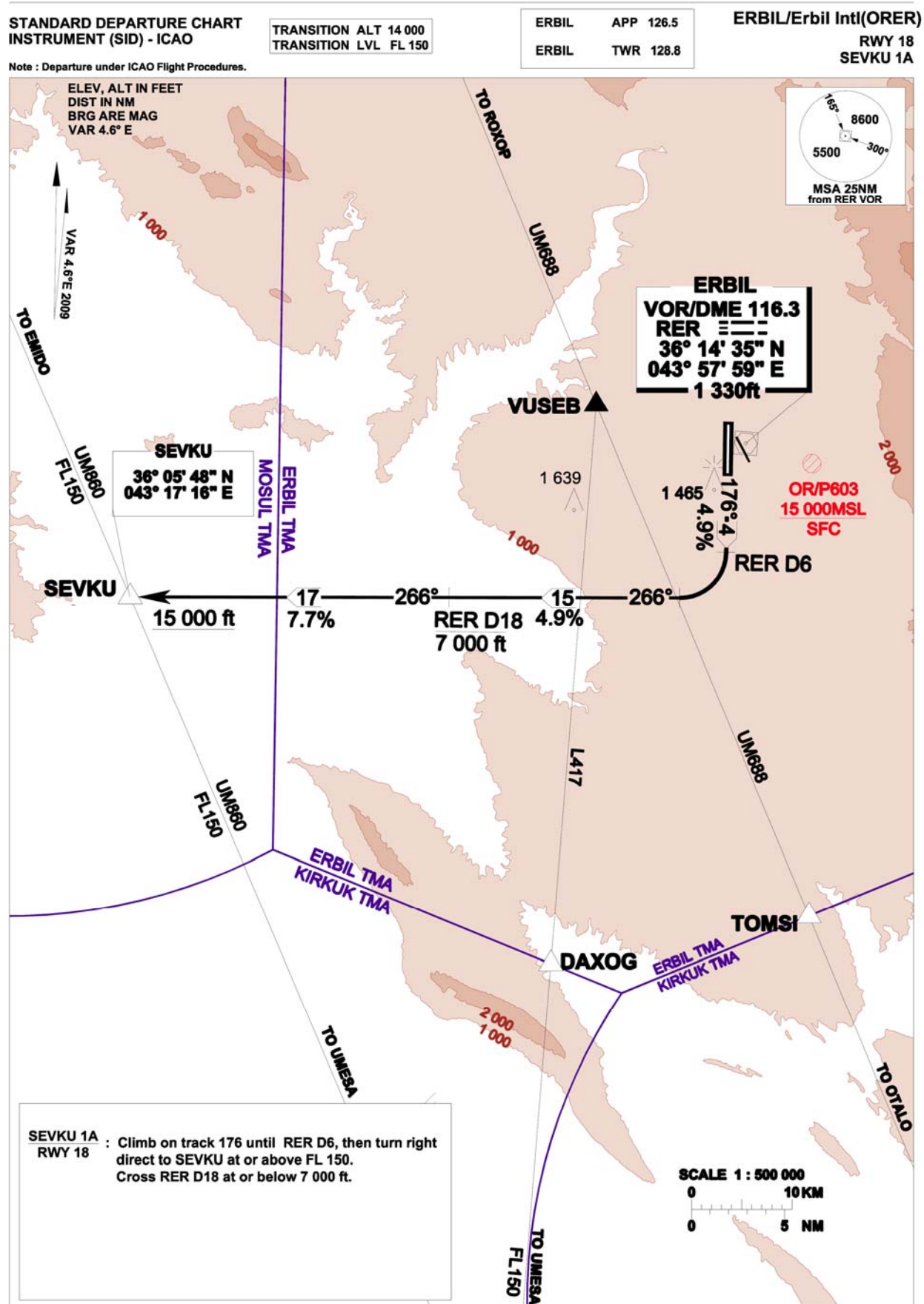


ORER 2.24.9 Standard Departure Chart Instrument RWY 36**STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO**TRANSITION ALT 14 000
TRANSITION LVL FL 150ERBIL APP 126.5
ERBIL TWR 128.8**ERBIL/Erbil Intl(ORER)**
RWY 36
UMESA 2B

Note : Departure under ICAO Flight Procedures.



ORER 2.24.10 Standard Departure Chart Instrument RWY 18



ORER 2.24.11 Standard Departure Chart Instrument RWY 18

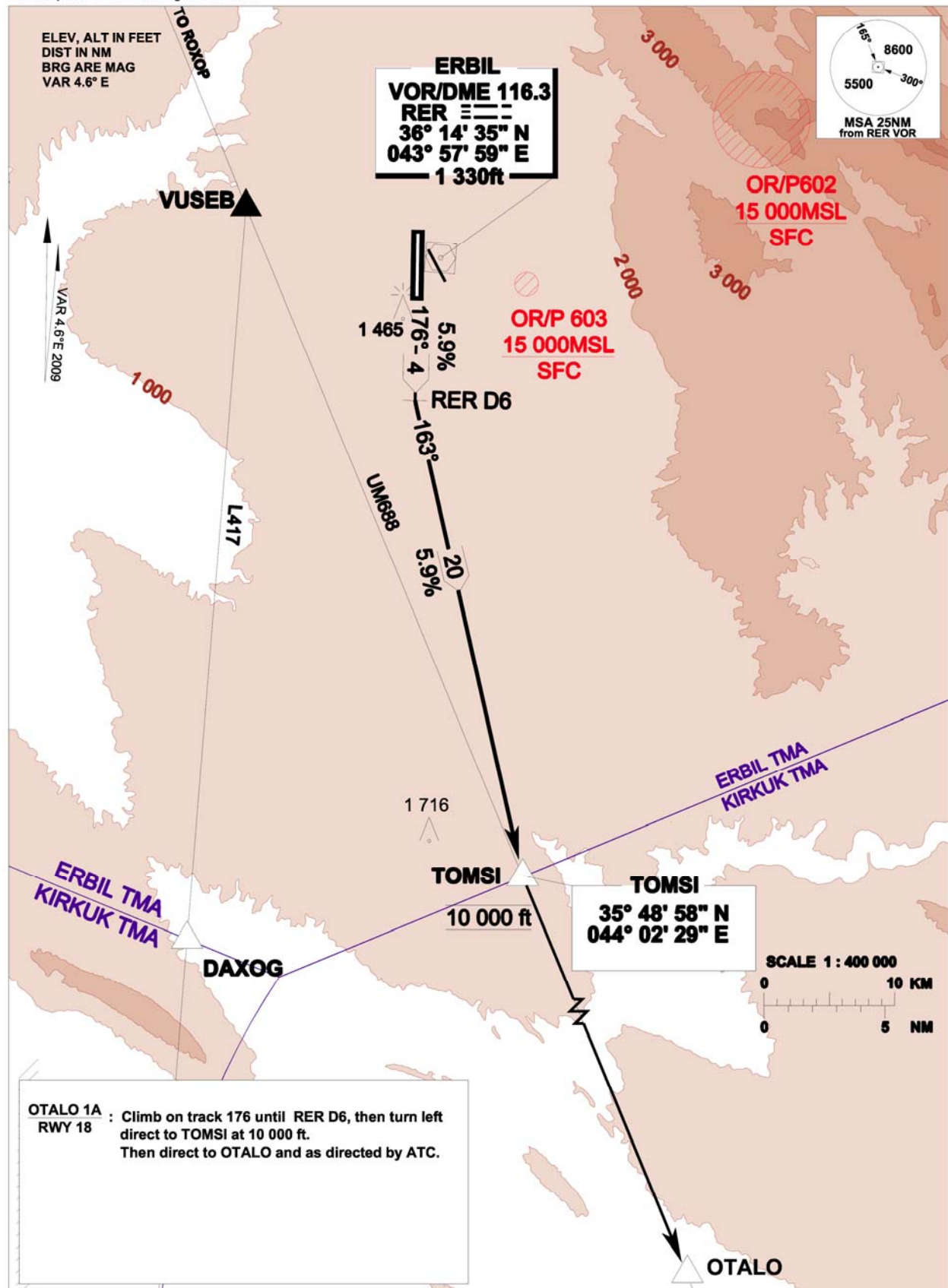
**STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO**

TRANSITION ALT 14 000
TRANSITION LVL FL 150

ERBIL	APP	126.5
ERBIL	TWR	128.8

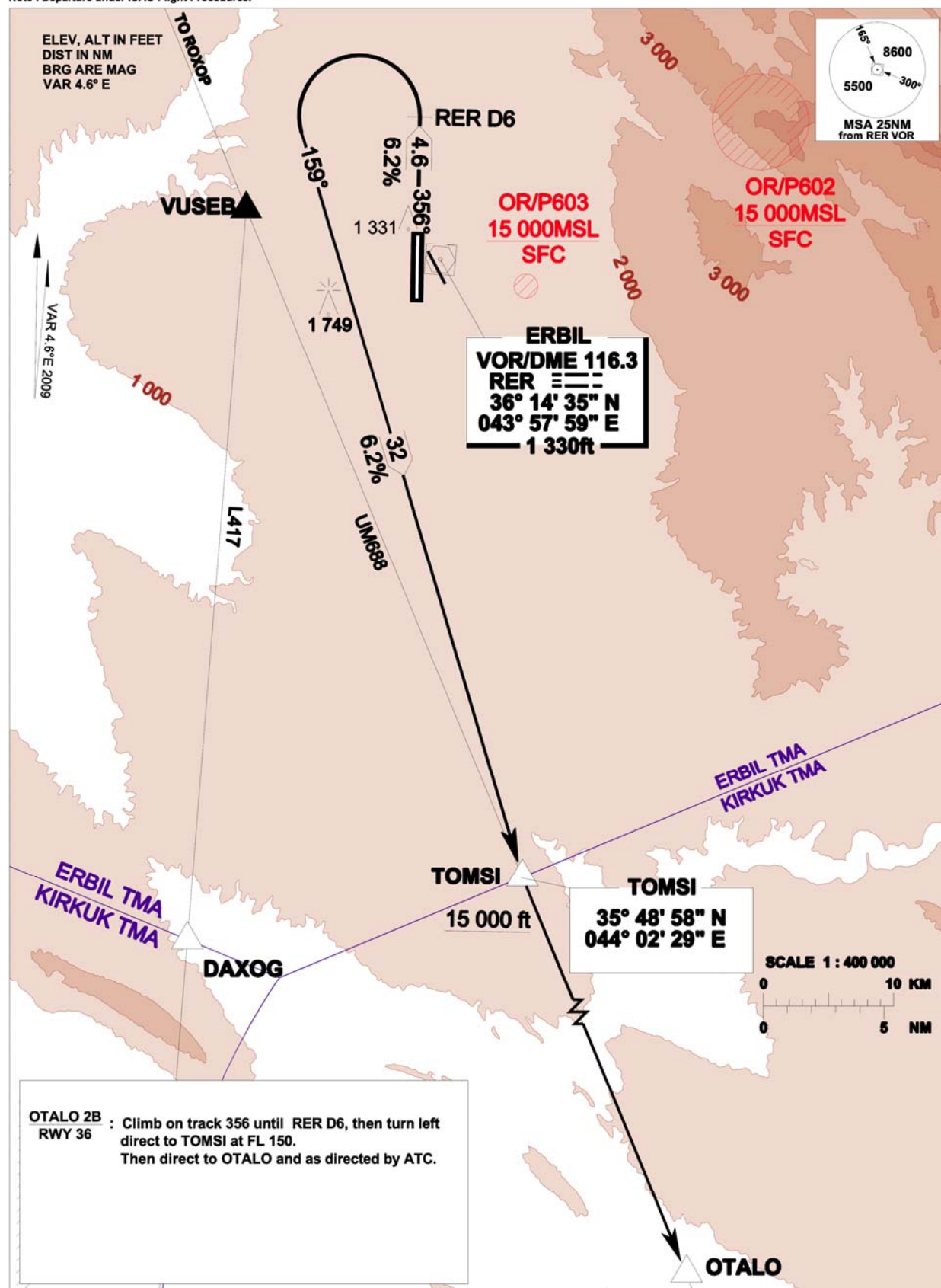
**ERBIL/Erbil Intl(ORER
RWY 18
OTALO 1A**

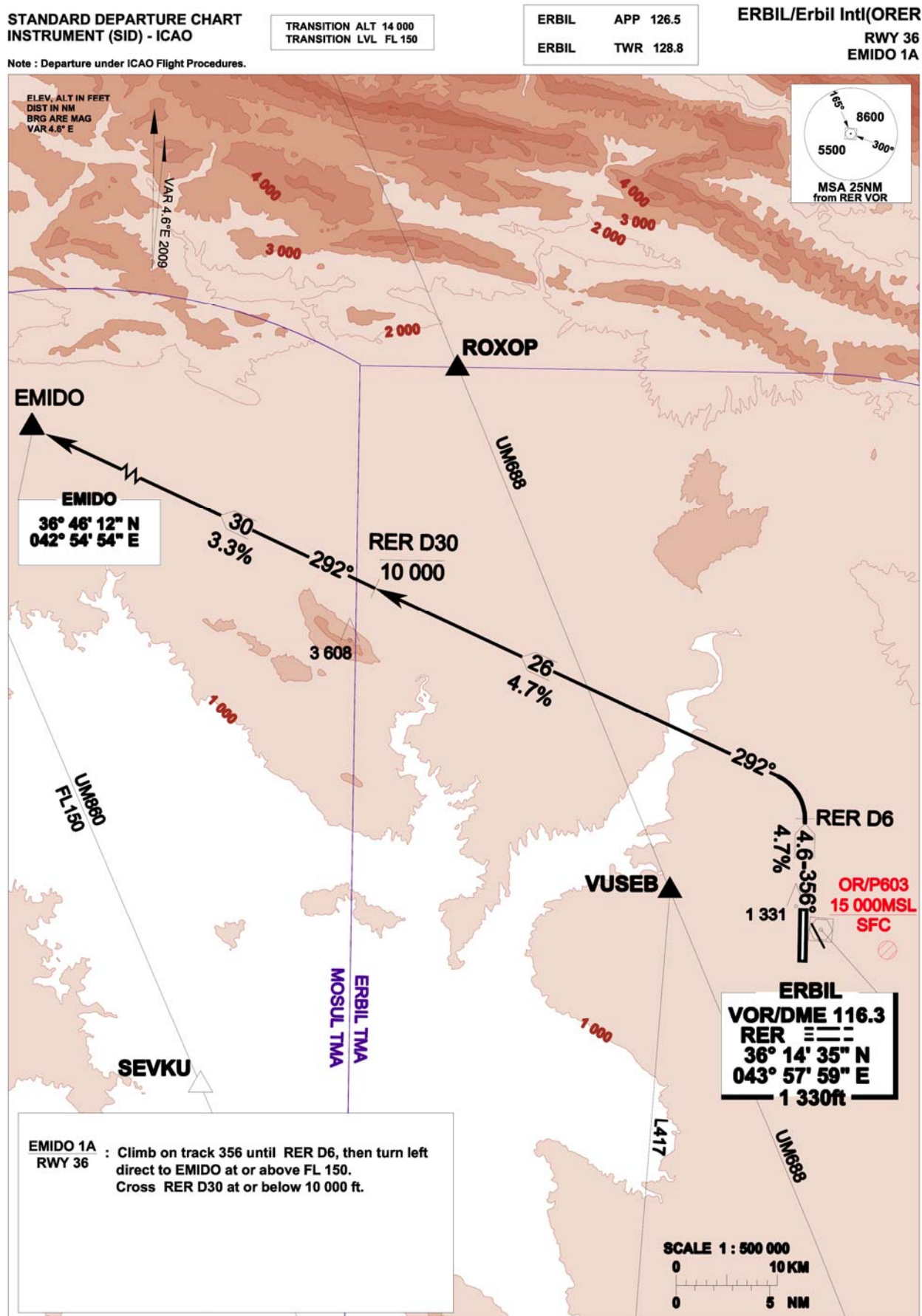
Note : Departure under ICAO Flight Procedures.



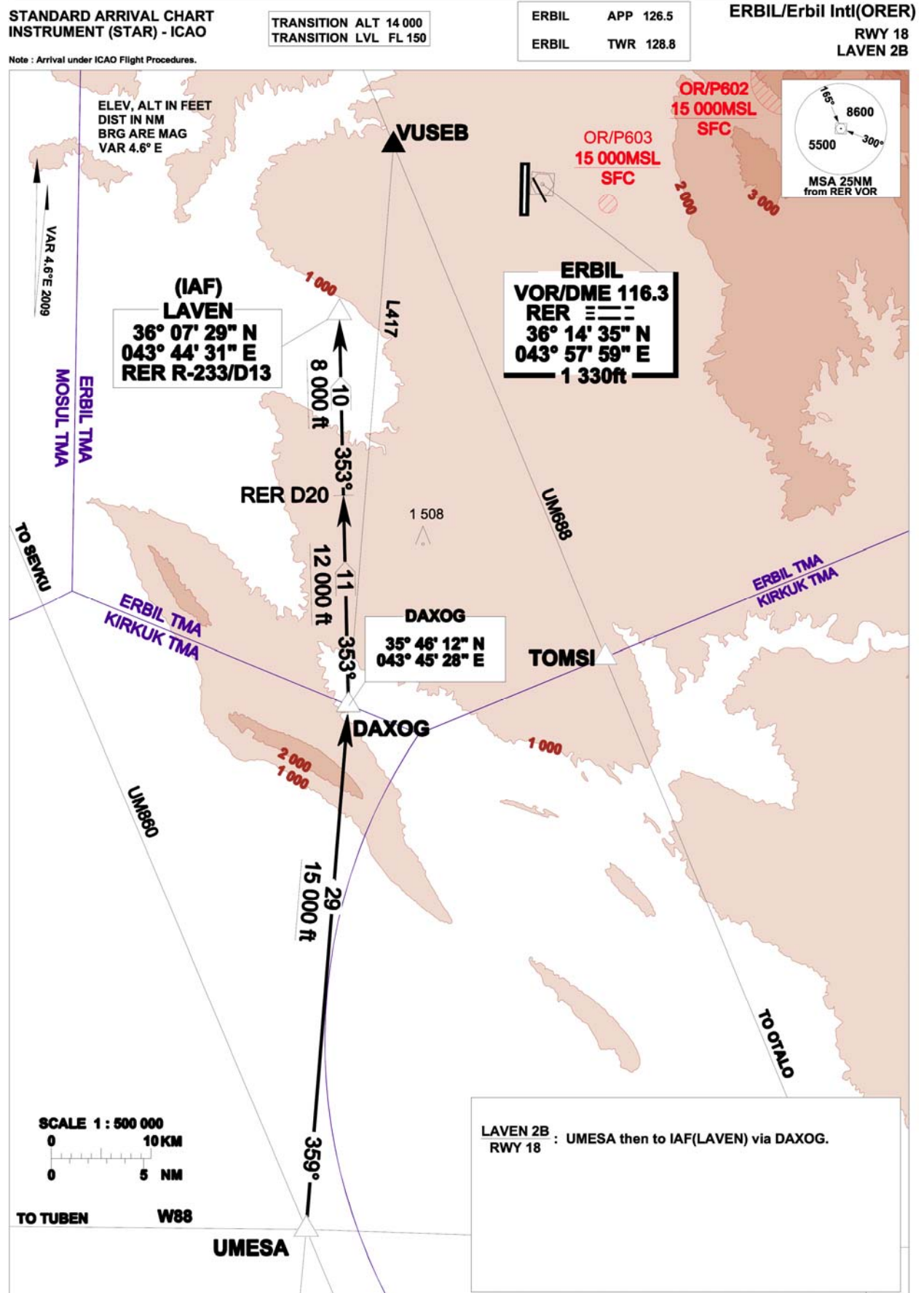
ORER 2.24.12 Standard Departure Chart Instrument RWY 36**STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO**TRANSITION ALT 14 000
TRANSITION LVL FL 150ERBIL APP 126.5
ERBIL TWR 128.8**ERBIL/Erbil Intl(ORER)**RWY 36
OTALO 2B

Note : Departure under ICAO Flight Procedures.



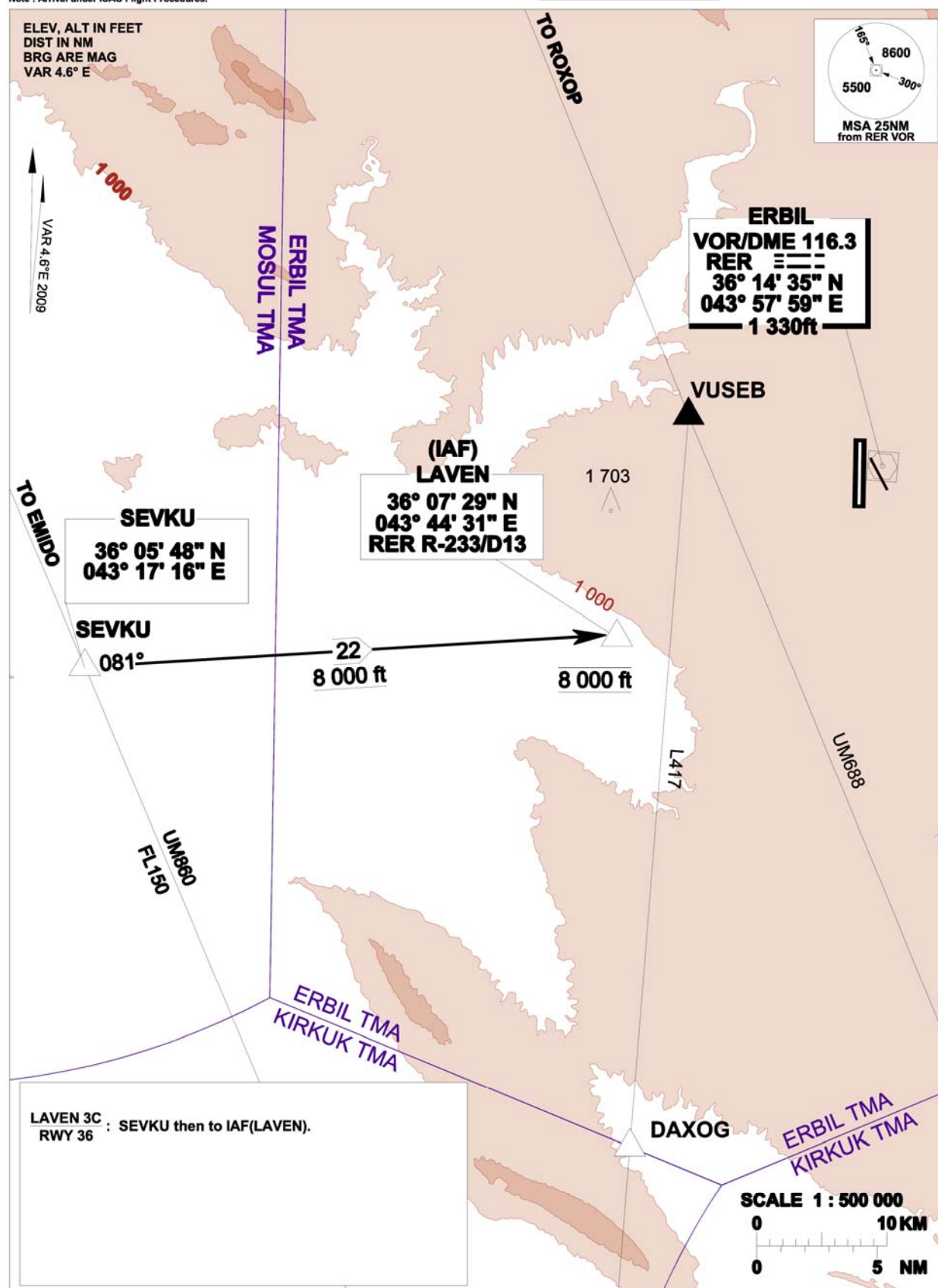
ORER 2.24.13 Standard Departure Chart Instrument RWY36

ORER 2.24.14 Standard Arrival Chart Instrument RWY 18

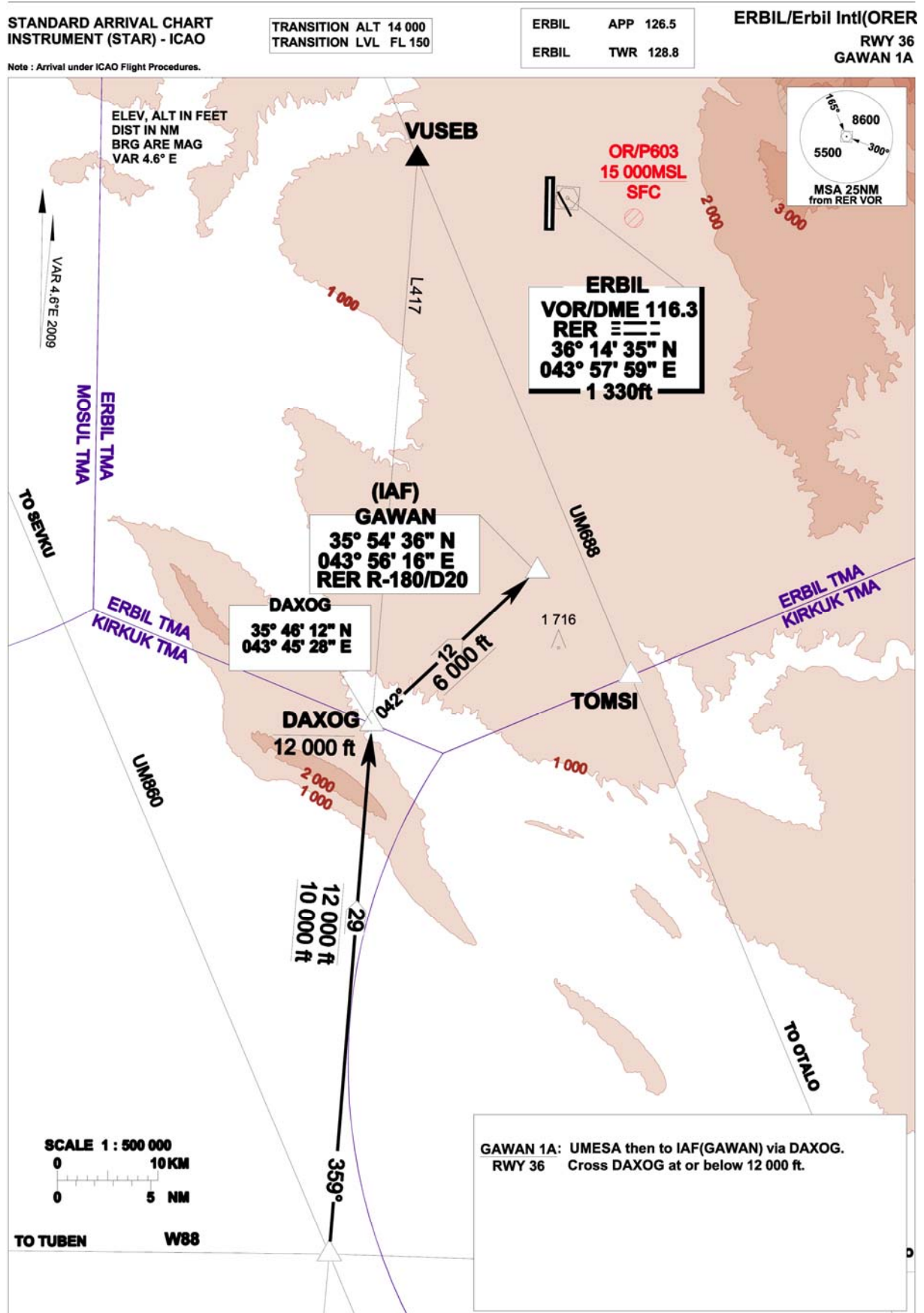


ORER 2.24.15 Standard Arrival Chart Instrument RWY 36STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAOTRANSITION ALT 14 000
TRANSITION LVL FL 150ERBIL APP 126.5
ERBIL TWR 128.8ERBIL/Erbil Intl(ORER
RWY 36
LAVEN 3C

Note : Arrival under ICAO Flight Procedures.

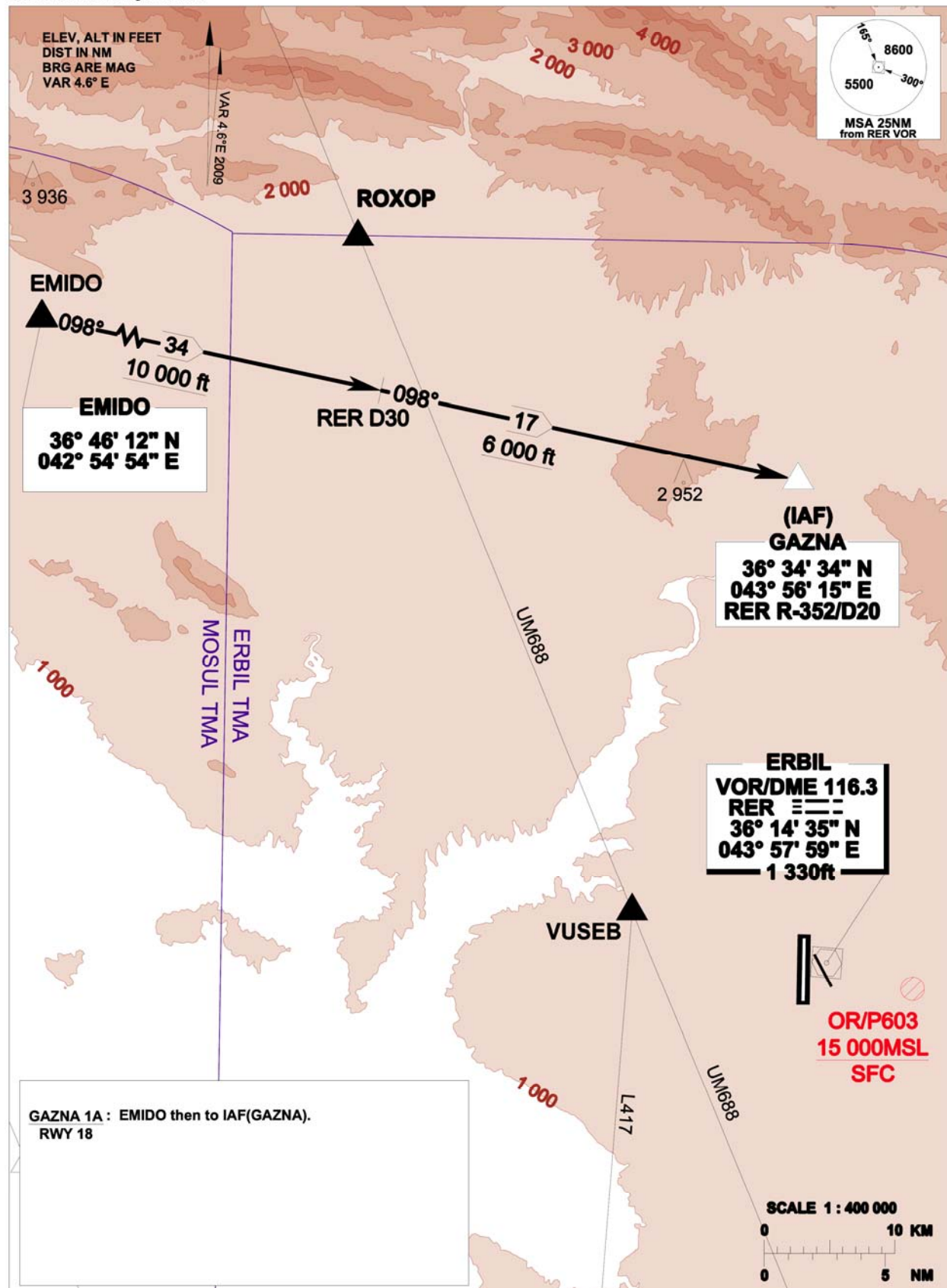


ORER 2.24.16 Standard Arrival Chart Instrument RWY 36



ORER 2.24.17 Standard Arrival Chart Instrument RWY 18**STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAO**TRANSITION ALT 14 000
TRANSITION LVL FL 150ERBIL APP 126.5
ERBIL TWR 128.8**ERBIL/Erbil Intl(ORER
RWY 18
GAZNA 1A**

Note : Arrival under ICAO Flight Procedures.



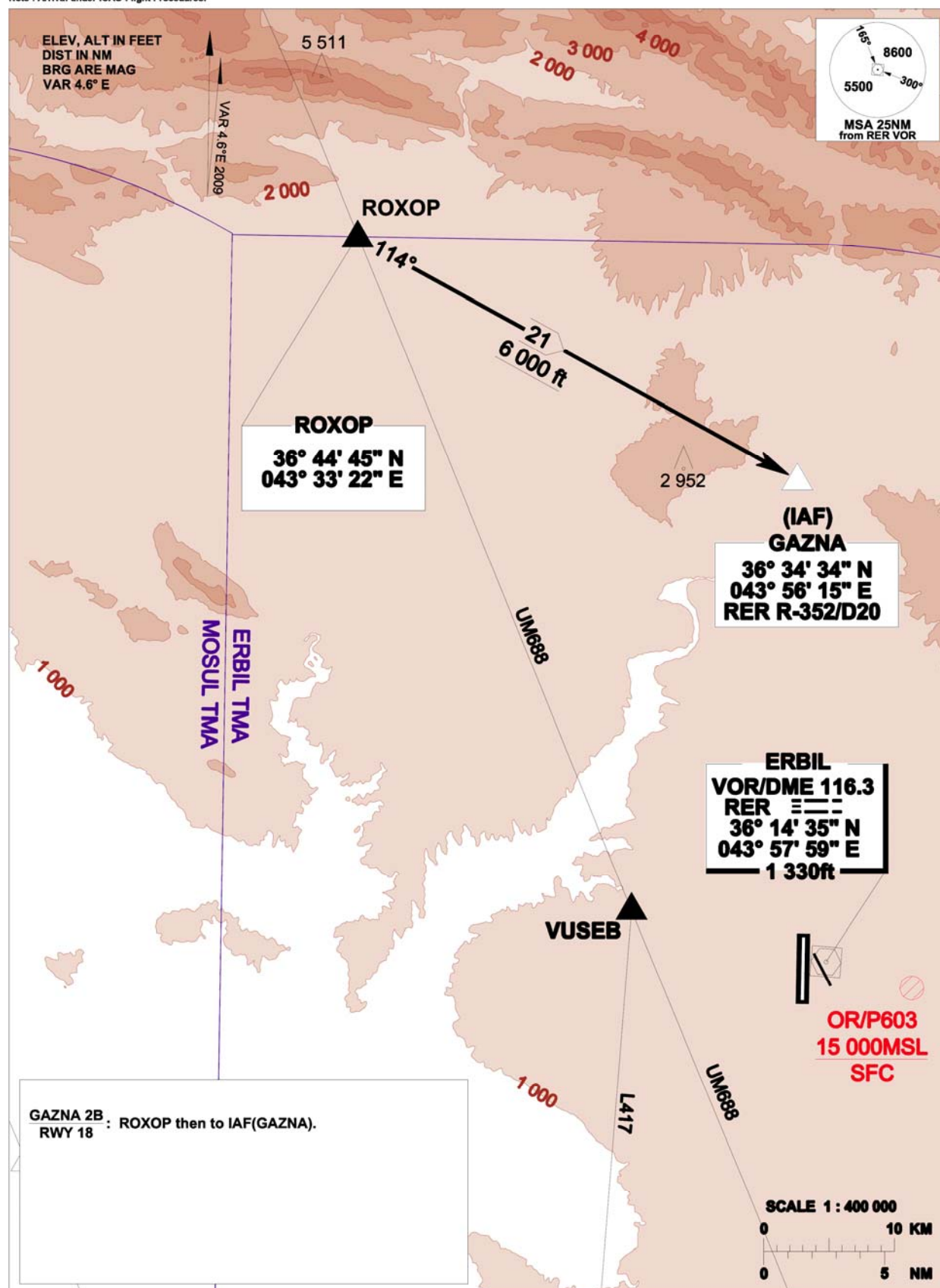
ORER 2.24.18 Standard Arrival Chart Instrument RWY 18**STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAO**

TRANSITION ALT	14 000
TRANSITION LVL	FL 150

ERBIL	APP 126.5
ERBIL	TWR 128.8

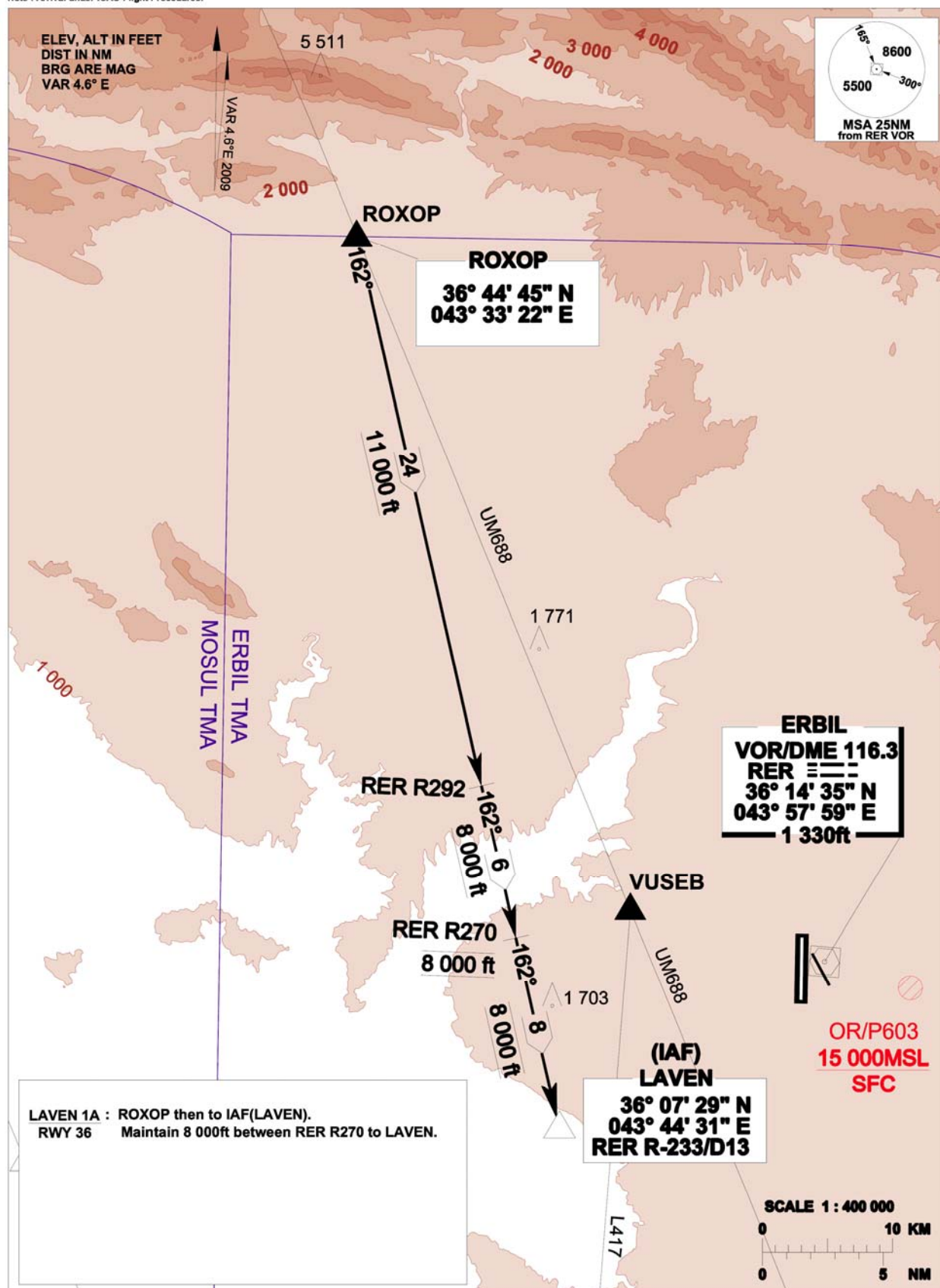
ERBIL/Erbil Intl(ORER)**RWY 18
GAZNA 2B**

Note : Arrival under ICAO Flight Procedures.



ORER 2.24.19 Standard Arrival Chart Instrument RWY 36**STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAO**TRANSITION ALT 14 000
TRANSITION LVL FL 150ERBIL APP 126.5
ERBIL TWR 128.8**ERBIL/Erbil Intl(ORER)**
RWY 36
LAVEN 1A

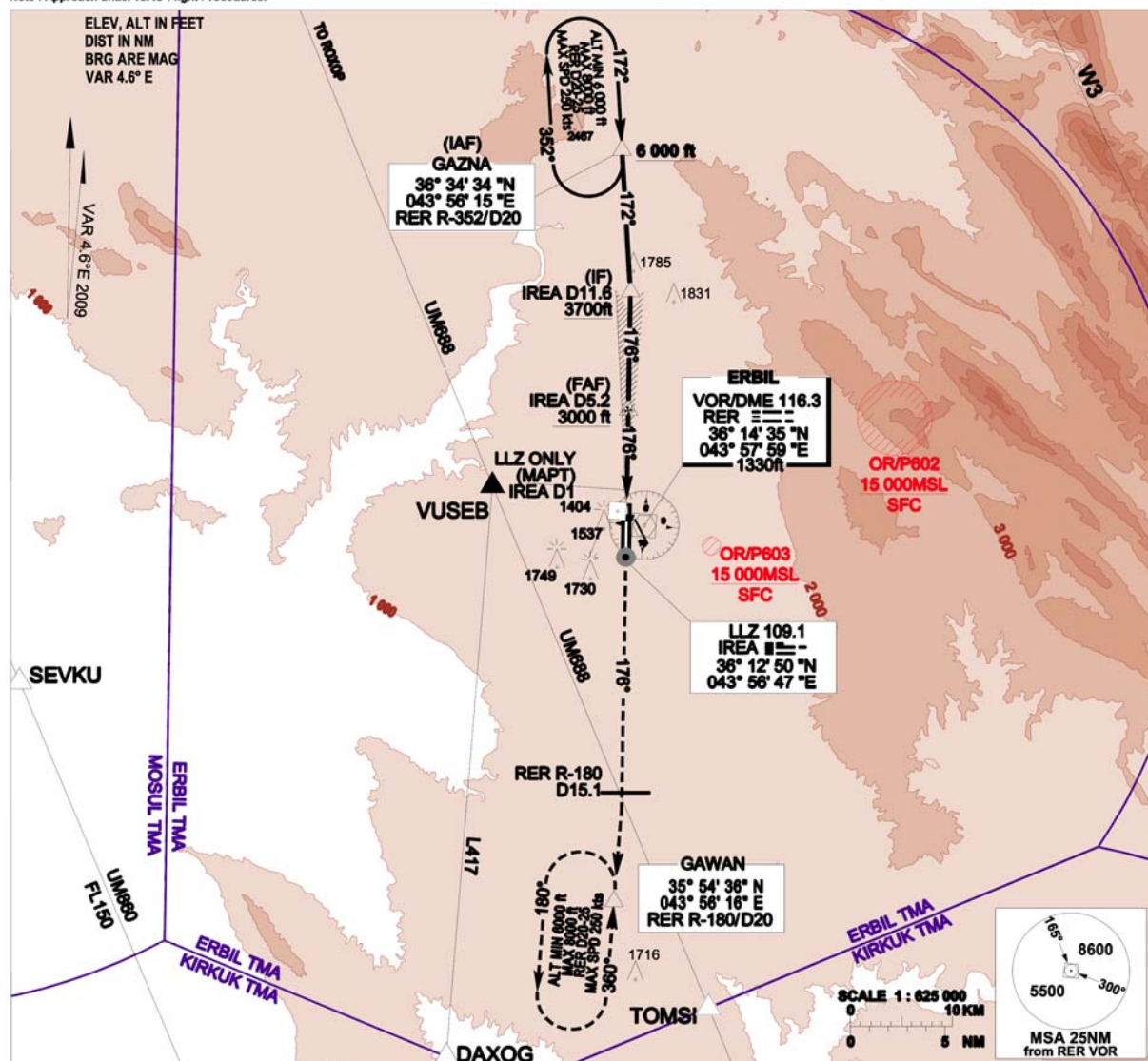
Note : Arrival under ICAO Flight Procedures.



ORER 2.24.20 Instrument Approach Chart RWY 18

INSTRUMENT
APPROACH
CHART - ICAO

Note : Approach under ICAO Flight Procedures.

AERODROME ELEV 1 363 FT
HEIGHTS RELATED TO
THR RWY 18 - ELEV 1 309 FTERBIL APP 126.5
ERBIL TWR 128.8ERBIL/Erbil Intl(ORER)
ILS / DME Z RWY 18

MISSED APPROACH

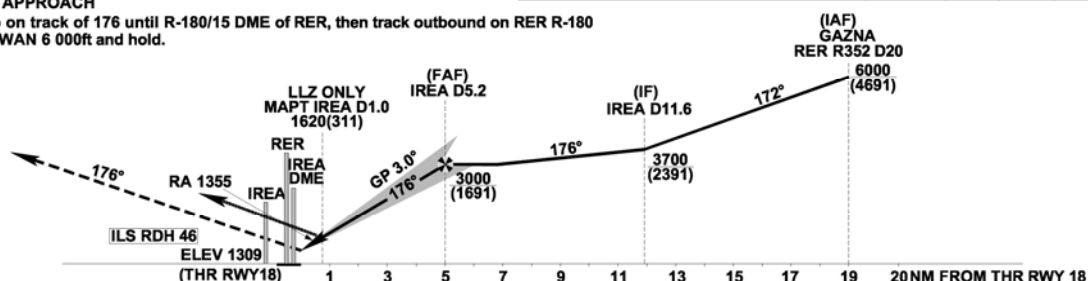
- Climb on track of 176 until R-180/15 DME of RER, then track outbound on RER R-180 to GAWAN 6 000ft and hold.

TRANSITION ALT 14 000
TRANSITION LVL FL 150

RECOMMENDED PROFILE

Final Approach Gradient 5.24%, 318ft FT/NM

DME IREA	4	3	2
ALT(HGT)	2618 (1309)	2300 (991)	1982 (673)



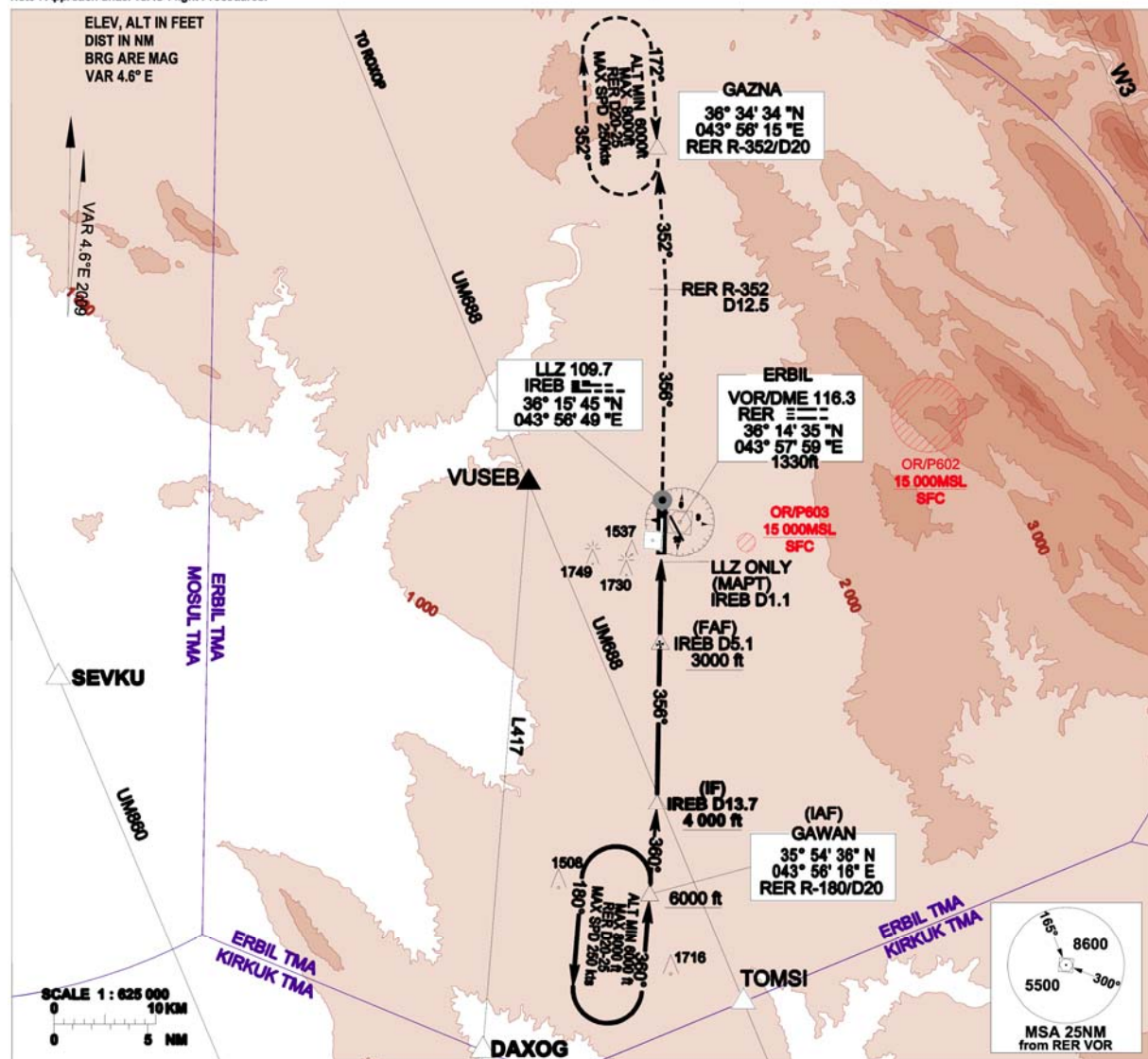
CATEGORY	DA(DH)	A	B	C	D
ST-IN	FULL	1510(200)	RVR 550m VIS 800m		
	ALS INOP		1200m		
	GP INOP	1620(311)	1600m		
*CIR	CAT-II	1410(100)	350m		
	MDA(MDH)	1900(538)	2080(718)	2200(838)	
	VIS	1900m	2800m	4000m	4600m

*Circling not authorized east of RWY 18-36.

Timing not authorized for defining the MAPt.

ORER 2.24.21 Instrument Approach Chart RWY 36**INSTRUMENT
APPROACH
CHART - ICAO**

Note : Approach under ICAO Flight Procedures.

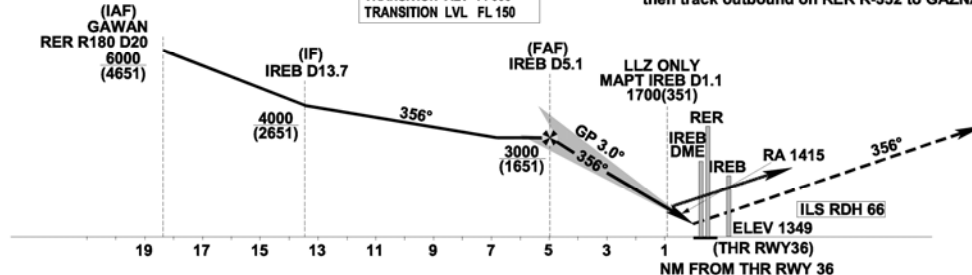
AERODROME ELEV 1 363 FT
HEIGHTS RELATED TO
THR RWY 36 - ELEV 1 349 FTERBIL APP 126.5
ERBIL TWR 128.8**ERBIL/Erbil Intl(ORER)**
ILS / DME Z RWY 36**RECOMMENDED PROFILE**

DME IREA	4	3	2
Final Approach Gradient 5.24%, 318ft FT/NM			

ALT(HGT)	2650 (1301)	2332 (983)	2014 (665)
----------	----------------	---------------	---------------

TRANSITION ALT 14 000
TRANSITION LVL FL 150**MISSED APPROACH**

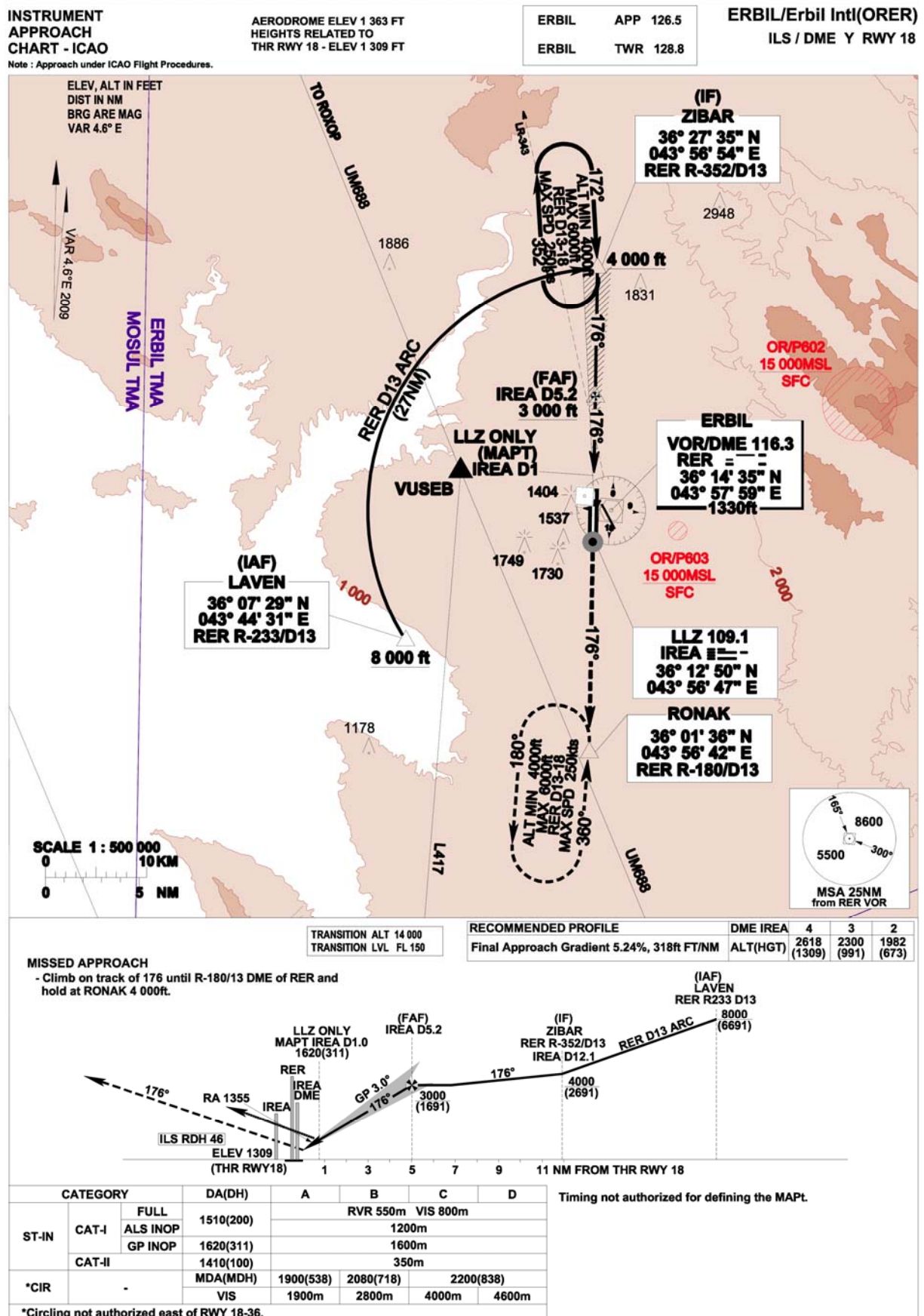
- Climb on track of 356 until R-352/12.5 DME of RER, then track outbound on RER R-352 to GAZNA 6 000ft and hold.



CATEGORY		DA(DH)	A	B	C	D
ST-IN	CAT-I	FULL	RVR 550m VIS 800m			
		ALS INOP	1200m			
		GP INOP	1600m			
*CIR	-	MDA(MDH)	1900(538)	2080(718)	2200(838)	
		VIS	1900m	2800m	4000m	4600m

*Circling not authorized east of RWY 36-18.

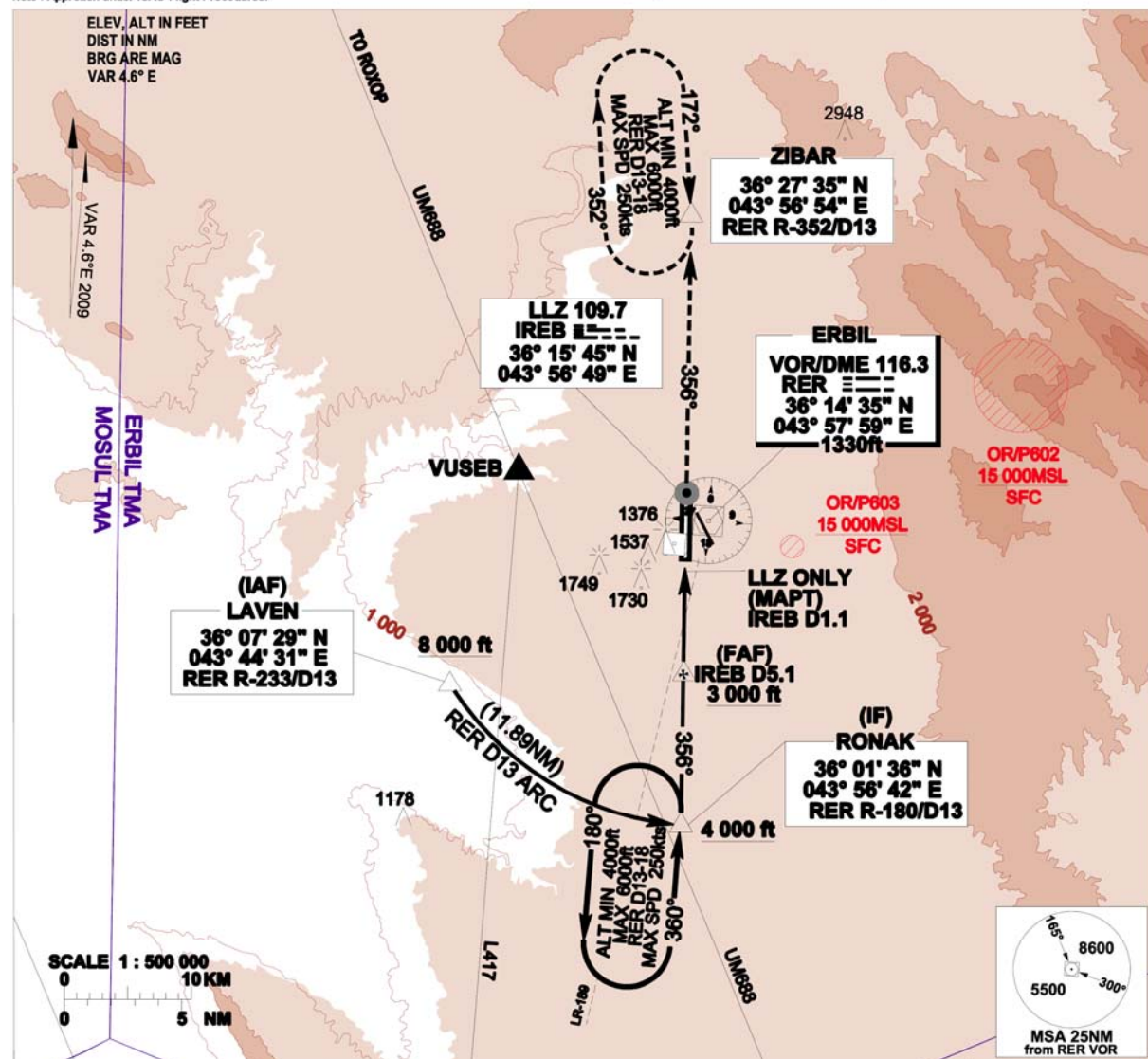
Timing not authorized for defining the MAPt.

ORER 2.24.22 Instrument Approach Chart RWY 18

ORER 2.24.23 Instrument Approach Chart RWY 36

INSTRUMENT
APPROACH
CHART - ICAO

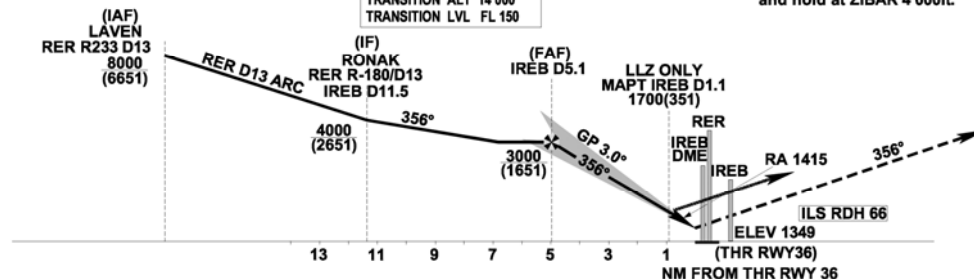
Note : Approach under ICAO Flight Procedures.

AERODROME ELEV 1 363 FT
HEIGHTS RELATED TO
THR RWY 36 - ELEV 1 349 FTERBIL APP 126.5
ERBIL TWR 128.8ERBIL/Erbil Intl(ORER)
ILS / DME Y RWY 36

RECOMMENDED PROFILE

Final Approach Gradient 5.24%, 318ft FT/NM

DME IREA	4	3	2
ALT(HGT)	2650 (1301)	2332 (983)	2014 (665)

TRANSITION ALT 14 000
TRANSITION LVL FL 150

MISSED APPROACH

- Climb on track of 356 until R-352/13 DME of RER,
and hold at ZIBAR 4 000ft.

CATEGORY		DA(DH)	A	B	C	D
ST-JN	CAT-I	FULL	RVR 550m VIS 800m			
		ALS INOP	1200m			
		GP INOP	1600m			
*CIR	-	MDA(MDH)	1900(538)	2080(718)	2200(838)	
		VIS	1900m	2800m	4000m	4600m

*Circling not authorized east of RWY 36-18.

Timing not authorized for defining the MAPT.

ORJA — JALIBAH SOUTHEAST**ORJA AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORJA 2.1.1 ORJA – Jalibah Southeast Airport****ORJA AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	Aerodrome Reference Point coordinates and site	N30°32'42.00" E046°36'12.00" The geographic centre of the airfield
2	Elevation and Reference Temperature	105 ft (32 m) / 43.1°C

ORJA AD 2.3 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	12L/30R	12R/30L	12C/30C
2	BRG True and Mag	To be determined	To be determined	To be determined
3	RWY Dimensions	DELETED PRIOR TO EDITION 30 PUBLICATION DUE TO INACCURATE AND UNVERIFIED INFORMATION		
4	PCN	To be determined	To be determined	To be determined
5	THR Coordinates	To be determined	To be determined	To be determined
6	THR Elevation	To be determined	To be determined	To be determined

ORKK — KIRKUK**ORKK AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORKK 2.1.1 ORKK – Kirkuk Regional Air Base****ORKK AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	Aerodrome Reference Point coordinates and site	N35°28'10.12" E044°20'56.16" The geographic centre of the airfield
2	Direction and distance from city	Bearing 277° at 2 NM
3	Elevation and Reference Temperature	1 061 ft (323.4 m) / 43.1° C
4	Magnetic variation/Annual change	4° E as of Jan 2004 Annual change E000°01'22.16"
5	Aerodrome Administration Address Telephone Telefax Telex E-mail AFS Address	Iraq Civil Aviation Authority Baghdad International Airport Baghdad DSN: 318 444 2456 318 444 2457 Nil Nil 506EOSS/OSAM@krab.centaf.af.mil Nil
6	Types of traffic permitted	IFR, VFR and SVFR (civil and RW only)
7	Transition altitude and level	TA 14 000 ft AMSL, TL FL 150
8	Remarks	Abandoned Airfield (K-1) at KRK R307/004 located in close proximity to ORKK. Helicopter training in progress at/in vicinity of K-1 using FM frequency 32.7 as UNICOM, contact for de-confliction; all aircraft must still contact and monitor ORKK tower in ORKK's class delta airspace. All administrative matters are to be referred to the airport director. LDG, parking and fuel charges will be IAW published rates at GEN 4.1 and GEN 4.2. Charges MUST be paid in full in cash (\$US) prior to departure.

ORKK AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	H24
----------	--------------------------	-----

2	Customs and Immigration	Nil
3	Health and Sanitation	Nil
4	ATS Reporting Office	H24
5	Met Office	DSN: 318 444 2460
6	Air Traffic Services	H24
7	Fueling	H24
8	Handling	H24
9	Security	H24
0	De-icing	Nil
11	Remarks	

ORKK 2.3.1 Aircraft must have Prior Permission Required (PPR) for Kirkuk except for military rotary wing aircraft landing at the FARP. No PPRs 0300 – 0900 zulu. DV6 and higher are exempt. Transient arrivals/departures must avoid these times due to local training. Civil operators must receive a PPR before submitting a landing request to the ICAA. Permission to operate in the Baghdad FIR is coordinated through ICAA. Refer GEN 1.2 for current procedures, requirements and contact information.

ORKK 2.3.2 Civilian/contract aircraft are restricted from landing and taking off during hours of darkness. Mission critical aircraft must coordinate a PPR with Airfield Management Operations at least 24 hours prior to arrival.

ORKK 2.3.3 Approval is required from MNC-I for all Humanitarian Aid flights, except for military, ICRC and UN sponsored flights.

ORKK AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Military coordinated through Kirkuk Command Post. Capability for main deck wide-body freighter. No storage for freight or passengers. Civil acft must pre-arrange with MOT and coord with ground personnel upon arrival.
2	Fuel and oil types	JP8
3	Fueling facilities and capacity	Limited. Plan flight without fuel from ORKK Use of position lights is mandatory for all helicopters using the North ramp FARP from sunset to sunrise.
4	De-icing facilities	Nil
5	Hanger space for visiting aircraft	Nil

6	Repair facilities for visiting aircraft	Nil
7	Remarks	Limited capacity for passenger operations. Handling services during daylight hours only or by arrangement with MOT and ICAA. Military aircraft contact command post 'Stone KRAB' on 128.1MHz, 245.6MHz 10 minutes prior to ETA. No catering, potable water, or toilet conditioning available. Aircraft operators should expect to provide towing arm.

ORKK AD 2.5 PASSENGER FACILITIES

1	Hotels at/near aerodrome	Military billeting AVBL on limited basis.
2	Restaurants	AVBL
3	Transportation	AVBL
4	Medical facilities	AVBL
5	Bank and Post Office	Postal Services AVBL
6	Tourist Office	Nil
7	Remarks	Nil

ORKK AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	Aerodrome category for fire fighting	Airport Category 8
2	Rescue Equipment	T-3000 x 2 P-10 x 1 P-19 x 3 P-22 x 1 P-18 x 1 P-27 x 1
3	Capability for removal of disabled aircraft	Limited assistance using military assets
4	Remarks	Nil

ORKK 2.6.1 Removal of disabled aircraft from RWY. When an aircraft is disabled on a RWY, it is the duty of owner or user of such aircraft to have it removed as soon as possible. If a disabled aircraft is not removed from the RWY, by the owner or user, as quickly as possible, the aircraft will be removed by the aerodrome authority at the owner's or user's expense.

ORKK AD 2.7 SEASONAL AVAILABILITY

1	Type(s) of clearing equipment	Nil
2	Clearance priorities	Nil
3	Remarks	Nil

ORKK AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Surface and strength of aprons	Per the JUN 08 ORKK Pavement Eval, the PCI of the apron are as follows: 82 percent are in GOOD condition, 16 percent are in FAIR condition, and 2 percent are in POOR condition. A potential FOD hazard exists for all due to weathered joint seals.
2	Width, surface and strength of TWYs	<p>All TWYs are asphalt. Widths, PCI condition and PCN are as follows:</p> <p>TWY A:65ft FAIR PCN 77FBW TWY B EAST:.....60ft FAIR PCN 71FCW TWY B WEST:.....50ft FAIR PCN 35FCW TWY C:.....50ft FAIR PCN 66FCW TWY D:.....65ft GOOD PCN 25RCW TWY E:.....65ft FAIR PCN 74FBW TWY F:.....50ft FAIR PCN 59FBW <i>Note: 50 ft immediately west of RWY 14/32; increasing to 66 ft intersecting RWY 13/31</i> TWY G:.....50ft FAIR PCN 46FCW TWY H:.....50ft FAIR PCN 18RCW TWY J:.....50ft GOOD PCN 73FBW TWY K:..... 50ft FAIR PCN 11FCW TWY L:.....50ft GOOD PCN 97FBW TWY M(mil use only):.50ft GOOD PCN 79FCW TWY N(mil use only):.50ft GOOD PCN 83FBW TWY O(mil use only):.50ft GOOD PCN 83FBW TWY P(mil use only):.50ft GOOD PCN 83FBW TWY Q(mil use only):.50ft GOOD PCN 83FBW TWY R(mil use only):.50ft GOOD PCN 83FBW TWY S(mil use only):.50ft GOOD PCN 83FBW TWY T(mil use only):.50ft GOOD PCN 83FBW TWY U(mil use only):.50ft GOOD PCN 83FBW TWY V(mil use only):.50ft GOOD PCN 83FBW TWY Z:.....50ft GOOD PCN 83FBW</p>
3	Location and elevation of altimeter checkpoints	Not available at this time.
4	VOR and INS checkpoints	Not available
5	Remarks	<p>Follow me van will be provided.</p> <p><i>Note: All aircraft are to be directed by a marshaller to parking.</i></p>

ORKK 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 at aircraft stands	See ORKK AD 2-24 charts
2	RWY and TWY markings and lights	Rwy 13/31 and 14/32 have Precision Approach Type 1 Lighting, a nonstandard ALSF-1 system, and precision approach path indicators (PAPI). Runway markings are standard Precision Runway Markings with thresholds, centerlines, side stripes, fixed distance markers and touchdown zone markings. Taxiway markings are depicted as yellow 6 inch centerline markings and double yellow 6 inch edge stripes. Illuminated guidance signs and distance markers on runways and taxiways.
3	Stop bars	Stop bars where appropriate (VFR hold lines)
4	Remarks	Use caution when taxiing from RWY 13 to TWY ALPHA. Raised threshold lights on approach end RWY 32 approximately 33 ft from RWY 13/31 extended centreline. Category I airfield lighting system installed. Mobile Aircraft Arresting System (MAAS) located at following distances: RWY 13 cable: 1918 ft from APP end. RWY 31 cable: 2036 ft from APP end. MAAS are unlit. Normal operating position is for all cables unstrung. They can be raised within thirty minutes for aircraft divers.

ORKK AD 2.10 AERODROME OBSTACLES

1	RWY 13	ORKK Obstacle Chart not published
2	RWY 14	ORKK Obstacle Chart not published
3	RWY 31	ORKK Obstacle Chart not published
4	RWY 32	ORKK Obstacle Chart not published
5	Remarks: numerous obstructions are unlit. The following additional obstructions have been identified:	
CTWR	Control Tower	N35°28'02.89" E44°21'27.96" 1 147.1 ft / 349.64 m
WT1	Water Tower	N35°27'10.47" E44°22'18.02" 1 175.7 ft / 358.36 m

ORKK AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

ORKK 2.11.1 Weather warnings, watches and advisories, Pilot to Metro Service, observations and Terminal Area Forecasts. Other services are available upon request. For more information contact the Met Office on DSN (318) 444 2690.

ORKK 2.11.2 Limited weather information, using the location designator of KQTX vice the ICAO airfield designator, is available from the following websites:

Open access website: <http://adds.aviationweather.noaa.gov/> or
<http://www.baseops.net/metro.html>

Military only websites: <https://weather.afwa.af.mil>

ORKK AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	13	14	31	32
2	BRG True and Mag	133.26° T 129.26° M	145.31° T 141.31° M	313.27° T 309.27° M	325.32° T 321.32° M
3	RWY Dimensions	9 809 ft x 148 ft 2 990 m x 45 m	8 535 ft x 160 ft 2 601 m x 49 m	9 809 ft x 148 ft 2 990 m x 45 m	8 535 ft x 160 ft 2 601 m x 49 m
4	PCN	37/R/B/W/T	85/F/C/W/T	37/R/B/W/T	85/R/C/W/T
5	THR Coordinates	N35°28'44.12" E044°20'04.07 "	N35°28'43.9 7" E044°20'37.0 3"	N35°27'37.63" E044°21'30.43 "	N35°27'34.55 " E044°21'35.7 5"
6	THR Elevation	1 033 ft	1 050 ft	1 059 ft	1 061 ft
7	Slope of RWY/SWY	.26%	.12%	.26%	.12%
8	SWY Dimensions	N/A	N/A	N/A	N/A
9	CWY Dimensions	N/A	N/A	N/A	N/A
10	Strip Dimensions	N/A	N/A	N/A	N/A
11	Obstacle free zone	3000x1000 ft	3000x1000 ft	3000x1000 ft	3000x1000 ft
12	Remarks	Mobile arresting gear 1918 ft fm approach end.	Nil	Mobile arresting gear 2 036 ft fm approach end	Nil
MAAS cables available for Rwy 13/31. Contact tower at least 30 minutes prior to arrival for cable configuration.					

ORKK AD 2.13 DECLARED DISTANCES

1	RWY	13	14	31	32
2	TORA	9 809 ft (2 990 m)	8 535 ft (2 601 m)	9 809 ft (2 990 m)	8 535 ft (2 601 m)
3	TODA	9 809 ft (2 990 m)	8 535 ft (2 601 m)	9 809 ft (2 990 m)	8 535 ft (2 601 m)
4	ASDA	9 809 ft (2 990 m)	8 535 ft (2 601 m)	9 809 ft (2 990 m)	8 535 ft (2 601 m)
5	LDA	9 809 ft (2 990 m)	8 535 ft (2 601 m)	9 809 ft (2 990 m)	8 535 ft (2 601 m)
6	Remarks	Nil	Nil	Nil	Nil

ORKK AD 2.14 APPROACH AND RUNWAY LIGHTING

1	RWY	13	14	31	32
2	Type, length and intensity of approach lighting	Precision Type 1, 290m, Level 5 intensity. Modified SFL	Precision Type 1, 804m, Level 5 intensity. Modified SFL	Precision Type 1, 688m, Level 5 intensity. Modified SFL	Precision Type 1, 533.5m, Level 5 intensity. Modified SFL
3	Threshold lights, colours and wing bars	Inset, green lighting, EALS raised	Inset, green lighting, EALS raised	Inset, green lighting, EALS raised	Inset, green lighting, EALS raised
4	Type of visual approach slope indicator system	PAPI	PAPI	PAPI	PAPI
5	Length of RWY touchdown zone indicator lights	NONE	NONE	NONE	NONE
6	Length spacing colour and intensity of RWY centreline lights	NONE	NONE	NONE	NONE
7	Length spacing colour and intensity of RWY edge lights	White, level 5 intensity every 60m, last 600m yellow" for all runways	White, level 5 intensity every 60m, last 600m yellow" for all runways	White, level 5 intensity every 60m, last 600m yellow" for all runways	White, level 5 intensity every 60m, last 600m yellow" for all runways
8	Colour of RWY end lights and wingbars	Red every 6m	Red every 6m	Red every 6m	Red every 6m

9	Length and colour of stopway lights	Red every 60m	Red every 60m	Red every 60m	Red every 60m
10	Remarks				

ORKK AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	Aerodrome Beacon	Nil
2	Location and lighting of anemometer and LDG direction indicator	Not fitted
3	TWY edge and centreline lighting	EALS/solar powered lights installed. Blue/elevated TWY edge lighting, max 60m apart.
4	Secondary power supply including switch-over time	No secondary power supply for solar TWY lights. Lights are replaced as needed. Generator and emergency generator, switch over time approximately one second.
5	Remarks	Nil

ORKK AD 2.16 HELICOPTER LANDING AREA

1	Coordinates of touchdown and lift-off point (TLOF) threshold of final approach and take-off (FATO)	To be determined
2	TLOF and/or FATO area elevation	To be determined
3	TLOF and FATO area dimensions, surface, strength, marking	To be determined
4	True and MAG BRG of FATO	To be determined
5	Declared distance available	To be determined
6	Approach and FATO lighting	To be determined
7	Remarks	Nil

ORKK AD 2.17 AIR TRAFFIC SERVICES AIRSPACE

1	Airspace designation and lateral limits	See ENR 2.1.2 and ENR 2.1.3.
2	Vertical limits	
3	Airspace classification	
4	Callsign and Languages	Kirkuk ...(<i>Tower, Approach</i>),

		Kirkuk (<i>Centre</i>). – English
5	Transition altitude	14 000 ft
6	Remarks	ATS provided by military controllers operating IAW USAF/FAA Standards. All aircraft (fixed wing and rotary) approaching Kirkuk should contact ATC as soon as possible for airfield update and threat status.

ORKK AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service designation	Callsign	FREQ	Hours of operation	Remarks
ACC	Kirkuk Centre	127.7MHz 237.325MHz	H24	Primary Secondary
APP	Kirkuk Approach	129.75 MHz 264.2 MHz	H24	Primary Secondary
FINAL	Kirkuk Final	125.3 MHz 277.1 MHz	H24	Primary Secondary
TWR	Kirkuk Tower	125.55 MHz 327.8 MHz	H24	Primary Secondary
GROUND	Kirkuk Ground	127.375 MHz 256.45 MHz	H24	Primary Secondary
ATIS	N/A	N/A	H24	Nil

ORKK AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of Aid	Ident	FREQ	Hours of operation	Position of antenna	Elevation of DME	Remarks
TACAN 4° E	KRK	CH86X	H24	N35°28'16.26" E044°20'52.14"	1056 ft	Military Use Only. PMI WED 0400Z-0600Z
PAR 3°	N/A	As directed by APP	H24 (subject to staffing)	N35°28'10.12" E044°20'56.98"	N/A	RWY 13. Military Use Only. PMI SAT – TUE & THU 0400Z – 0600Z WED 0600Z FRI 0400Z – 0800Z
ASR 4°E	N/A	As directed	H24 (subject to staffing)	N35°28'11.69" E044°20'58.03"	N/A	PMI SAT-TUE & THU

		d by APP	to staffing)			1900Z – 2059Z
Remarks	Approach, Departure and Aerodrome information available from: https://www.geointel.nga.mil/products/aero/ Then under Terminal Instrument Procedure select Europe/North Africa/Middle East, then select Kirkuk and add ORKK					

ORKK AD 2.20 LOCAL TRAFFIC REGULATIONS

ORKK 2.20.1 Local Traffic Regulations may be requested, in writing, from the Iraq Civil Aviation Authority at the address detailed in GEN 0.1.

ORKK 2.20.2 Marshaller assistance may be requested and further information can be obtained from the TWR. When a local regulation is of importance for the safe operation of aircraft on the apron, the information shall be given to each aircraft by the TWR or SMC or broadcast on ATIS.

ORKK 2.20.3 Rotary wing aircraft repositioning from the FARP to AMC or DV ramp must coordinate with ATS on 125.55 MHz or 327.8 MHz before departing the FARP.

ORKK 2.20.4 Kirkuk Instrument Procedures are marked for use by military crews or authorised civil contract aircraft only.

ORKK AD 2.21 NOISE ABATEMENT PROCEDURES

ORKK 2.21.1 Departures Do not over fly the AMC ramp. South ramp, North ramp, FARP, RAPCON, TACAN, or tent city below 1 000 ft AGL.

ORKK 2.21.2 Arrivals Do not over fly the AMC ramp, fuel farm, CERAP, TACAN, or tent city below 1000' amsl.

ORKK AD 2.22 FLIGHT PROCEDURES

ORKK 2.22.1.General

ORKK 2.22.1.1 Civil aircraft must notify ATC if unable to operate VFR when below 12 000 ft using the phrase "UNABLE VFR". The use of VFR does not negate the requirement for aircraft to carry IFR fuel reserves.

ORKK 2.22.1.2 In airspace where VFR operations are approved, flights should be carried out in accordance with VFR as specified in ENR 1.2 and ICAO Annexes 2 and 11. Compliance with these procedures does not relieve pilots of their responsibility to see and avoid other aircraft, or to maintain safe terrain/obstacle clearance at all times when operating VFR.

ORKK 2.22.2 Procedures within Kirkuk TMA

The inbound, transit and out bound routes on the charts may be varied at the direction of ATS. If necessary, in case of congestion, inbound aircraft may also be instructed to hold at one of the designated airways, reporting points.

ORKK 2.22.3 Aerostat aloft 090 degrees for .6nm from ORKK Tower.coordinates: N352808.40 E442158.45. Altitude: 600 ft AGL. no fly zone established 1,000 ft radius

around coordinates, up to 2,000 agl. Instrument approaches must be flown under VFR if aerostat is aloft

ORKK AD 2.23 ADDITIONAL INFORMATION

ORKK 2.23.1 To be determined.

ORKK AD 2.24 CHARTS RELATED TO AN AERODROME

ICAO Charts for Kirkuk Charts are under development for Kirkuk.		
1	Aerodrome Chart – ICAO	Hi/Low Europe, North Africa, and Middle East, Vol. 7
2	Aircraft Parking/Docking Chart – ICAO	Not produced
3	Aerodrome Ground Movement Chart – ICAO	Not produced
4	Precision Approach Terrain Chart – ICAO	Not produced
5	Aerodrome Obstacle Chart – ICAO Type A	Not produced
6	Area Chart – ICAO (departure and transit routes)	Not produced
7	Standard Departure Chart – Instrument – ICAO	Not produced
8	Area Chart – ICAO (arrival and transit routes)	Not produced
9	Standard Arrival Chart – Instrument - ICAO	Not produced
10	Instrument Approach Chart – ICAO	Hi/Low Europe, North Africa, and Middle East, Vol. 7
11	Visual Approach Chart	Not produced
12	Bird concentration in the vicinity of the aerodrome	Not produced

ORBM — MOSUL**ORBM AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORBM 2.1.1 ORBM – Mosul International Airport****ORBM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	Aerodrome Reference Point coordinates and site	N36°18'20.74" E043°08'50.63" The geographic centre of the airfield
2	Direction and distance from city	Bearing 142° at 2 NM
3	Elevation and Reference Temperature	709 ft (216.1 m) / 43.1° C
4	Geoid undulation	To be determined
5	Magnetic variation/Annual change	4° E as at Sep 2003, annual change not determined
6	Aerodrome Administration Address	Iraq Civil Aviation Authority
	Telephone	00964 7701605448
	Telefax	Nil
	Telex	Nil
	E-mail	mosul.airport.miap@gmail.com
	AFS Address	Nil
	ATC TOWER	
	Telephone	07481722881
7	Types of traffic permitted	VFR/Limited IFR capability
8	Transition altitude and level	TA 14 000 ft AMSL, TL FL 150
9	Remarks	<u>For all aircraft using the South Ramp (Mosul INTL Iraqi Terminal).</u> LDG, parking and fuel charges will be IAW published rates at GEN 4.1 and GEN 4.2. Charges MUST be paid in full in cash (\$US) prior to departure.

ORBM AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	8H/ 5 Day Week
2	Customs and Immigration	24 H / 7day week
3	Health and Sanitation	24 H / 7 day week
4	AIS Briefing Office	To be determined
5	ATS Reporting Office	To be determined

6	Met Office	24/H
7	Air Traffic Services	24 H
8	Fueling	24 H
9	Handling	24 H
h	Security	24 H
11	De-icing	Not available

ORBM AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Nil
2	Fuel and oil types	Limited supply of jet-a- 1. Nil oil
3	Fueling facilities and capacity	None, 221271L
4	De-icing facilities	Nil
5	Hanger space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	No catering, potable water or toilet conditioning available. Aircraft operators should expect to provide towing arm.

ORBM AD 2.5 PASSENGER FACILITIES

1	Hotels at/near aerodrome	In the city
2	Restaurants	Nil
3	Transportation	buses
4	Medical facilities	Mobile unit
5	Bank and Post Office	Nil
6	Tourist Office	Nil
7	Remarks	Nil

ORBM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	Aerodrome category for fire fighting	To be determined
2	Rescue Equipment	To be determined
3	Capability for removal of disabled aircraft	When an aircraft is disabled on a RWY, it is the duty of owner or user of such aircraft to

		have it removed as soon as possible. If a disabled aircraft is not removed from the RWY, by the owner or user, as quickly as possible, the aircraft will be removed by the aerodrome authority at the owner's or user's expense.
4	Remarks	Nil

ORBM AD 2.7 SEASONAL AVAILABILITY

1	Type(s) of clearing equipment	Nil
2	Clearance priorities	Nil
3	Remarks	Nil

ORBM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Surface and strength of aprons	North Ramp: fair condition, PCN/47
2	Width, surface and strength of TWYs	TWY A: Width/63ft, poor condition, PCN 47/R/B/W/T TWY C: Width/66 ft, poor condition, PCN Not Calculated TWY D: Width/63ft, poor condition, PCN Not Calculated TWY F: Width/102ft, good condition, PCN 32/R/B/W/T
3	Location and elevation of altimeter checkpoints	Not AVBL
4	VOR and INS checkpoints	Not AVBL
5	Remarks	Hover OPS not permitted on the north ramp, ground taxi only. Exercise caution for fixed wing aircraft. FOD hazard, no ground taxi via TWY Alpha between TWY Delta and TWY Echo. ACFT must COOR PRKG with TWR. Note: <i>All aircraft are to be directed by a marshaller to parking.</i>

ORBM 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 at aircraft stands	Nil
---	---	-----

2	RWY and TWY markings and lights	Markings are not retro-reflective.
3	Stop bars	
4	Remarks	Nil

ORBM AD 2.10 AERODROME OBSTACLES

1	RWY15	ORBM Obstacle Chart not published
2	RWY33	ORBM Obstacle Chart not published
3	Remarks: The following additional obstructions have been identified:	
COMTW	Control Tower	N36°18'33.87" E043°08'56.20" 769.8 ft/234.63 m
BLDG	Building	N36°17'05.37" E043°09'11.99" 800.8 ft/244.08 m
BLUET2	Tower	N36°17'38.91" E043°08'45.65" 841.3 ft/256.43 m
HNGR	Hanger	N36°18'59.11" E043°08'48.59" 760.4 ft/231.77 m
WT4	Water Tower	N36°18'59.71" E043°08'08.23" 832.9 ft/253.86 m
	Radio Tower	N36°21'13.00" E043°13'53.40" 1000ft/304.8 m
	Tower	N36°19'51.35" E043°07'24.5" 949ft/289 m

ORBM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET office	Nil
2	Hours of service MET office outside hours	H24
3	Office responsible for TAF preparation Periods of validity	To be determined
4	Trend forecast 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	To be determined
9	ATS units provided with information	Available
10	Additional information	Nil

ORBM AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	15	33
2	BRG True and Mag	157.35° T / 152.51° M	337.35 ° T / 332.52 ° M
3	RWY Dimensions	8 695 ft x 148 ft 2 650 m x 45 m	8 695 ft x 148 ft 2 650 m x 45 m
4	PCN	46/R/B/W/T	46/R/B/W/T
5	THR Coordinates	N36°19'00.48" E043°08'30.39"	N36°17'41.00" E043°09'10.88"
6	THR Elevation	709 ft	705 ft
7	Slope of RWY/SWY	Unknown	Unknown
8	SWY Dimensions	Nil	Nil
9	CWY Dimensions	Not calculated	Not calculated
10	Strip Dimensions	Not calculated	Not calculated
11	Obstacle free zone	Not calculated	Not calculated
12	Remarks	RWY widens at end to 350	RWY widens at end to 350

ORBM AD 2.13 DECLARED DISTANCES

1	RWY	15	33
2	TORA	8 695 ft (2 650 m)	8 695 ft (2 650 m)
3	TODA	8 695 ft (2 650 m)	8 695 ft (2 650 m)
4	ASDA	8 695 ft (2 650 m)	8 695 ft (2 650 m)
5	LDA	8 695 ft (2 650 m)	8 695 ft (2 650 m)
6	Remarks	Nil	Nil

ORBM AD 2.14 APPROACH AND RUNWAY LIGHTING**ORBM 2.14.1**

1	RWY	15	33
2	Type, length and intensity of approach lighting	Nil	Nil
3	Threshold lights, colours and wing bars	Threshold lights installed 10 ft prior to RWY surface.	Threshold lights installed 10 ft prior to RWY surface.
4	Type of visual approach slope indicator system	PAPI	PAPI
5	Length of RWY touchdown zone indicator lights	N/A	N/A
6	Length spacing colour and intensity of RWY centreline lights	N/A	N/A
7	Length spacing colour and intensity of RWY edge lights	Apx 200 apart step intensity.	Apx 200 apart step Intensity AMBER/ RED AMBER/ WHITE BIDIRECTIONAL
8	Colour of RWY end lights and wingbars	Red	Red
9	Length and colour of stopway lights	N/A	N/A
10	Remarks	Airfield has RWY edge, threshold, RWY end and TWY LGT, unable to change intensity.	

ORBM AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	Aerodrome Beacon	Nil
2	Location and lighting of anemometer and LDG direction indicator	Not fitted
3	TWY edge and centreline lighting	Step Intensity Hardwired
4	Secondary power supply including switch-over time	Generator/ 30 Seconds
5	Remarks	Nil

ORBM AD 2.16 HELICOPTER LANDING AREA

1	Coordinates of touchdown and lift-off point (TLOF) threshold of final approach and take-off (FATO)	To be determined
2	TLOF and/or FATO area elevation	To be determined
3	TLOF and FATO area dimensions, surface, strength, marking	To be determined
4	True and MAG BRG of FATO	To be determined
5	Declared distance available	To be determined
6	Approach and FATO lighting	To be determined
7	Remarks	Nil

ORBM AD 2.17 AIR TRAFFIC SERVICES AIRSPACE

1	Airspace designation and lateral limits	See ENR 2.1.3.
2	Vertical limits	
3	Airspace classification	
4	Callsign and Languages	Mosul ...(<i>Tower</i>)
5	Transition altitude	14 000 ft
6	Remarks	

ORBM AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service designation	Callsign	FREQ	Hours of operation	Remarks
TWR	Mosul Tower	120.200 MHz 136.700 MHz	H24	Primary Secondary
GROUND	Mosul Ground	126.700 MHz 262.125 MHz		unserviceable
Military		250.025 MHz	H24	
ATIS		127.250 MHz		unserviceable
EMERG (Civil)		121.500 MHz	H24	

EMERG (Military)		243.000 MHz	H24	
Remarks	Nil			

ORBM AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of Aid	Ident	FREQ	Hours of operation	Position of antenna	Elevation of DME	Remarks

ORBM AD 2.20 LOCAL TRAFFIC REGULATIONS

ORBM 2.20.1 Local Traffic Regulations may be requested, in writing, from ICAA at the address detailed in GEN 0.1.

ORBM 2.20.2 Marshaller assistance may be requested and further information can be obtained from the TWR or SMC. When a local regulation is of importance for the safe operation of aircraft on the apron, the information shall be given to each aircraft by the TWR or SMC or broadcast on the ATIS.

ORBM AD 2.21 NOISE ABATEMENT PROCEDURES

ORBM 2.21.1 Departures

To be determined

ORBM 2.21.2 Arrivals

To be determined

ORBM AD 2.22 FLIGHT PROCEDURES

ORBM 2.22.1.General

ORBM 2.22.1.1 Civil aircraft must notify ATC if unable to operate VFR when below 12,000FT using the phrase "UNABLE VFR". The use of VFR does not negate the requirement for aircraft to carry IFR fuel reserves.

ORBM 2.22.1.2 In airspace where VFR operations are approved, flights should be carried out in accordance with VFR as specified in ENR 1.2 and ICAO Annexes 2 and 11 (particularly regarding visibility and clearance from cloud). Compliance with these procedures does not relieve pilots of their responsibility to see and avoid other aircraft, or to maintain safe terrain/obstacle clearance at all times when operating VFR.

ORBM 2.22.2 Procedures within Mosul TMA

ORBM 2.22.2.1 The inbound, transit and out bound routes on the charts may be varied at the direction of ATS. If necessary, in case of congestion, inbound aircraft may also be instructed to hold at one of the designated airways reporting points.

ORBM AD 2.23 ADDITIONAL INFORMATION

ORBM 2.23.1 All aircraft arriving and departing ORBM shall operate VFR unless IMC

ORBM AD 2.24 CHARTS RELATED TO AN AERODROME

ICAO Charts for Mosul. Charts are under development for Mosul		
1	Aerodrome Chart – ICAO	Not produced
2	Aircraft Parking/Docking Chart – ICAO	Not produced
3	Aerodrome Ground Movement Chart – ICAO	Not produced
4	Precision Approach Terrain Chart – ICAO	Not produced
5	Aerodrome Obstacle Chart – ICAO Type A	Not produced
6	Area Chart – ICAO (departure and transit routes)	Not produced
7	Standard Departure Chart – Instrument – ICAO	Not produced
8	Area Chart – ICAO (arrival and transit routes)	Not produced
9	Standard Arrival Chart – Instrument - ICAO	Not produced
10	Instrument Approach Chart – ICAO	Not produced
11	Visual Approach Chart	Not produced
12	Bird concentration in the vicinity of the aerodrome	Not produced

ORQT — QASR TALL MIHL**ORQT AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORQT 2.1.1 ORQT – Qasr Tall Muhl Airport****ORQT AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	Aerodrome Reference Point coordinates and site	N33°18'24.00" E044°14'30.00" The geographic centre of the airfield
2	Elevation and Reference Temperature	114 ft (34.7 m) and 43.1° C

ORSU — SULAIMANIYAH**ORSU AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORSU 2.1.1 ORSU – Sulimaniyah International Airport****ORSU AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

The facilities and procedures listed in ORSU's entry do not necessarily comply with, or adhere to, the requirements of ICAO Annex 3, 9, 11, 14, 15, 17 and 18.

1	Aerodrome Reference Point coordinates and site	N35°33'38.88" E045°18'52.98"
2	Direction and distance from city	272° MAG @ 6.48 NM
3	Elevation and Reference Temperature	2 492 ft AMSL / 43.3° Celsius
4	Aerodrome Administration Address Telephone Telefax Telex E-mail AFS Address Website	Kurdistan Regional Government (KRG) Sulimaniyah International Airport + 964 (0) 7701530273 or + 964 (0) 7701505186 Nil Nil sulairport@yahoo.com Nil www.sul-airport.com
5	Magnetic variation	4°E as of Jan 2004. Annual change 000°01'22.16"
6	Types of traffic permitted	VFR & IFR
7	Transition altitude and level	TA 14 000 ft AMSL, TL FL 150
8	Remarks	All administrative matters are to be referred to the Airport Administrator. LDG and parking charges will be IAW published rates at GEN 4.1 and GEN 4.2.

ORSU AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	H24
2	Customs and Immigration	H24
3	Health and Sanitation	Medical Centre Available
4	AIS Briefing Office	H24
5	ATS Reporting Office	H24
6	Met Office	H24

7	Air Traffic Services	H24 - Air Traffic Control.
8	Fueling	H24
9	Handling	H24 through Azmar Airline
10	Security	H24
11	De-icing	Available
12	Remarks	Prior Permission Required (PPR). All aircraft must have PPR Operators must contact the Airfield Administration for a PPR before submitting a landing request to the ICAA. Refer to GEN 1.2.5. Permission to operate in the Baghdad FIR is coordinated through ICAA. Refer GEN 1.2 for current procedures, requirements and contact information. Civil aircraft, not requiring compliance with ICAO Annexes 14, 15 or 17, may be authorized to operate 24 hours a day.

ORSU AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Available
2	Fuel and oil types	JET A1 avbl. Oil – To be determined
3	Fueling facilities and capacity	H24
4	De-icing facilities	<u>Friction Measuring Device - Skiddometer BV11.</u>
5	Hanger space for visiting aircraft	To be determined
6	Repair facilities for visiting aircraft	To be determined
7	Remarks	Nil

ORSU AD 2.5 PASSENGER FACILITIES

1	Hotels at/near aerodrome	In Sulaimaniyah City
2	Restaurants	Available at terminal
3	Transportation	Buses and taxis
4	Medical facilities	a. First aid emergency medical center in airport. b. First Aid and treatment unit in passengers terminal. c. Ambulance service available. d. Hospitals in Sulaymaniyah City 11 km away.
5	Bank and Post Office	Available
6	Tourist Office	Available
7	Remarks	Nil

ORSU AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	Aerodrome category for fire fighting	RFF Cat 9	
2	Rescue Equipment	Available	
		a.1 ARFF vehicle	12 000 liter water, 1 500 liter foam, Foam discharge rate 6 000 l/min, Dry chemical powders 500 kg.
		b.2 ARFF vehicles	9 000 liter water (each), 1 200 liter foam (each), Foam discharge rate 6 000 l/min (each), Dry chemical powders 500 kg (each), Co2 120 kg.
		c.1 ARFF vehicle	8 000 liter water, 800 liter foam, Foam discharge rate 6 000 l/min, Dry chemical powders 500 kg), Co2 120 kg.
		d.1 Command post vehicle	(Rosenbauer)
		e.1 Rescue truck	Small - Rosenbauer
		f. 1	Nil

		g. 2	Ambulances
		h. 1	lighting vehicle
3	Capability for removal of disabled aircraft	Nil	
4	Remarks	Nil	

ORSU AD 2.7 SEASONAL AVAILABILITY

1	Type(s) of clearing equipment	Nil
2	Clearance priorities	Nil
3	Remarks	Nil

ORSU AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Surface and strength of aprons	ConcretePCN 85/R/B/X/T Dimensions: 304 m x 165 m
2	Width, surface and strength of TWYs	Main Taxiway – parallel to RWY 3 500 m x 30 m plus 3 m shoulders on each side ConcretePCN 85/R/B/X/T Rapid Exit TWYs 27 m wide ConcretePCN: 85/R/B/X/T
3	Location and elevation of altimeter checkpoints	Not available
4	VOR and INS checkpoints	Not available
5	INS Checkpoints	North Apron: N35°33'29.70" E045°19'33.68" ELEV 747.7819 m (2 452.7 ft) Centre Apron: N35°33'31.79" E045°19'30.94" ELEV 747.96 m (2 453.3 ft) South Apron: N35°33'33.89" E045°19'28.21" ELEV 748.14 m (2 453.9 ft)
6	Remarks	Nil

ORSU 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 at aircraft stands	Day and Night: TWY sign boards Day: Finger sign boards
2	RWY and TWY markings and lights	RWY markings: Threshold, centreline, touchdown, edge. RWY lighting: threshold and edges TWY markings: Centreline TWY lighting: edge
3	Stop bars	To be determined

ORSU AD 2.10 AERODROME OBSTACLES

1	RWY13 / 31	ORSU Obstacle Chart available
2	Remarks	Nil

ORSU AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

ORSU 2.11.1

1	Associated MET Office	ORSU MET Office TEL: +964-53-317-4202 E-Mail: orsusul@yahoo.com
2	Hours of services	24 hours
3	Office responsible for TAF preparation Period of validity	ORSU MET Office 24 hours
4	Office responsible for preparation of Actual report and Routine report	ORSU MET Office Actual - half hour reported Routine - one hour reported
5	Office responsible for preparing aerodrome warnings and wind shear warnings	ORSU MET Office
6	Briefing consultation provided	Available on request
7	Flight documentation language (s) used	Aerodrome forecasts (TAF code form), SIGMET information in English
8	Charts and other information available for briefing or consultation	Available on request
9	ATS units provided with information	TWR
10	Additional information (limitation of service, etc.)	All information data, model outputs and forecasts produced by ORSU MET office are available at the office through internet link.

ORSU 2.11.2 Limited weather information, using the ICAO airfield designator, is available from the following websites:

Open access website: <http://sul-airport.com>
<http://adds.aviationweather.noaa.gov/> or
<http://www.baseops.net/metro.html>

ORSU AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	13	31
2	BRG True and Mag	133.35° T / 130° M	313.35° T / 310° M
3	RWY Dimensions	11 483 ft x 148 ft 3500 m x 45 m	11 483 ft x 148 ft 3500 m x 45 m
4	PCN	85/R/B/X/T	85/R/B/X/T
5	THR Coordinates	N35°34'17.73" E045°18'01.90"	N35°33'00.43" E045°19'43.68"
6	THR Elevation	2 492 ft (759.76 m)	2 440 ft (743.74 m)
7	Slope of RWY	0.6%	0.6%

ORSU AD 2.13 DECLARED DISTANCES

1	RWY	13	31
2	TORA	3 500 m (11 482 ft)	3 500 m (11 482 ft)
3	TODA	3 800 m (12 467 ft)	3 800 m (12 467 ft)
4	ASDA	3 560 m (11 680 ft)	3 560 m (11 680 ft)
5	LDA	3 500 m (11 482 ft)	3 500 m (11 482 ft)

ORSU AD 2.14 APPROACH AND RUNWAY LIGHTING

1	RWY	13	31
2	Type, length and intensity of approach lighting	CAT 1 Barrette Length 900 m Variable intensity	CAT 1 Barrette Length 900 m Variable intensity
3	Threshold lights, colours and wing bars	Green Wing Bars	Green Wing Bars
4	Type of visual approach slope indicator system	PAPI 4 units on each side 3° approach slope 400 m from THR	PAPI 4 units on each side 3° approach slope 400 m from THR
5	Length of RWY touchdown zone indicator lights	600 m	600 m
6	Length spacing colour and intensity of RWY centreline lights	To be determined	To be determined
7	Length spacing colour and intensity of RWY edge lights	60 m White	60 m White
8	Colour of RWY end lights and wing bars	Red Wing Bar REIL avbl	Red Wing Bar REIL avbl
9	Length and colour of stopway lights	To be determined	To be determined
10	Remarks	Nil	Nil

ORSU AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	Aerodrome Beacon	Available
2	Location and lighting of anemometer and LDG direction indicator	WDI
3	TWY edge and centreline lighting	Blue edge lights only
4	Secondary power supply including switch-over time	Available with 16 second switch-over time
5	Remarks	Nil

ORSU AD 2.16 HELICOPTER LANDING AREA

1	Coordinates of touchdown and lift-off point (TLOF) threshold of final approach and take-off (FATO)	To be determined
2	TLOF and/or FATO area elevation	To be determined
3	TLOF and FATO area dimensions, surface, strength, marking	To be determined
4	True and MAG BRG of FATO	To be determined
5	Declared distance available	To be determined
6	Approach and FATO lighting	To be determined
7	Remarks	Nil

ORSU AD 2.17 AIR TRAFFIC SERVICES AIRSPACE

1	Airspace designation and lateral limits	See ENR 2.1.3.
2	Vertical limits	See ENR 2.1.3.
3	Airspace classification	See ENR 2.1.3.
4	Callsign and Languages	Sulaimaniyah Tower/English
5	Transition altitude	14 000 ft
6	Remarks	See ORSU 2.18.

ORSU AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service designation	Callsign	FREQ	Hours of operation	Remarks
ACC	Kirkuk Centre	125.30 MHz (P) 237.325 MHz (S)	H24	
Tower	Sulaymaniyah Tower	118.3 MHz (P) 121.7 MHz (S)	H24	
REMARKS	Kirkuk Centre will provide an enroute service to the top of Sulaymaniyah Tower Class D (6 000 ft AMSL).			

ORSU AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of Aid	Ident	FREQ	OP Hours	Position of antenna	Elevation
D/VOR/ DME	SUL	117.0 MHz CH 117X	H24	N35°34'46.49" E045°17'24.24"	767.2494 m
DME/P		111.7Mhz CH54X	H24	N 35°33'02.92" E 045°19 30.46"	743.8151 m
ILS 31 GP	RNJ	333.5 MHz	H24	N 35°33'03.23" E 045°19'31.26"	743.8149 m
LLZ		111.7 MHz		N 35°34'26.48" E 045°17'50.37"	763.6537 m
DME/P		111.1 MHz CH48X		N 35°34'06.92" E 045°18'07.68"	
ILS 13 GP	NGA	331.7 MHz	H24	N35°34'06.92" E045°18'07.68"	761.5 m
LLZ		111.1 MHz		N35°32'53.52" E045°19'52.62"	741.4 m
Remarks	Nil				

ORSU AD 2.20 LOCAL TRAFFIC REGULATIONS

ORSU 2.20.1 Local Traffic Regulations may be requested, in writing, from the Sulimaniyah International Airport Authority at the address detailed in ORSU AD 2.2.

ORSU 2.20.2 All arriving and transiting aircraft are to contact Sulimaniyah Tower on 118.3 prior to entry and announce position and intentions. All departures, contact Sulaymaniyah Tower on 118.3 prior to movement on the airfield.

ORSU 2.20.3 All aircraft use caution during approach and departure phases of flight due helicopter, small UAV and commercial jet activity.

ORSU 2.20.4 Departure Procedures**2.20.4.1 Flight Plan**

2.20.4.1.1 All departing aircraft shall submit a flight plan before departure.

2.20.4.1.2 Flight plan shall be submitted to Air Traffic Services Reporting Office (Briefing Office) at least sixty minutes before departure.

2.20.4.1.3 Military aircraft performing domestic flights are exempted from this procedure.

2.20.4.2 Start – Up Procedures

2.20.4.2.1 For safe aircraft movement, ground crews (Ground handler, aircraft maintenance) shall ensure that area around the aircraft is clear of persons, vehicles, equipment and other obstructions prior to engine start.

2.20.4.2.2 Before requesting start-up clearance, pilot shall confirm with ground crews (Ground handler, aircraft maintenance) whether there is no hazard to the aircraft starting –up.

2.20.4.2.3 Pilot shall not request start-up from Sulaymaniyah Tower until he is sure that safety check-up is fully confirmed.

2.20.4.2.4 When aircraft is ready for start-up, pilot shall contact Sulaymaniyah Tower and request start-up clearance.

2.20.4.2.5 Delay may be expected due to traffic and/or weather conditions.

2.20.4.3 Follow-Me car Service

2.20.4.3.1 Follow-Me service is available for departing aircraft.

2.20.4.3.2 Pilot shall keep listening watch on Sulaymaniyah Tower frequency while taxiing.

2.20.4.4 ATC Clearance

ATC clearance (En-route and Departure Clearance) shall be received and acknowledged by IFR departing aircraft before issuing take-off clearance.

ORSU 2.20.5 Arrival Procedures

2.20.5.1 Follow-Me car Service

2.20.4.5.1.1 Follow-Me service is available for arriving aircraft.

2.20.4.5.1.2 Pilot shall keep listening watch on Sulaymaniyah Tower frequency while taxiing.

ORSU AD 2.21 NOISE ABATEMENT PROCEDURES

Nil.

ORSU AD 2.22 FLIGHT PROCEDURES

ORSU 2.22.1 Departure Procedures

2.22.1.1 Standard Instrument Departure Routes (SIDs)

2.22.1.1.1 Unless otherwise instructed by Sulaymaniyah Tower, all IFR departing aircraft using Runway 31 shall follow SID Kirkuk One (Kirkuk One Departure), except aircraft proceeding to Erbil International Airport shall follow SID Erbil One (Erbil One Departure).

2.22.1.1.2 Unless otherwise instructed by Sulaymaniyah Tower, all IFR departing aircraft using Runway 13 shall follow SID Kirkuk Two (Kirkuk Two Departure), except aircraft proceeding to Erbil International Airport shall follow SID Erbil Two (Erbil Two Departure).

2.22.1.2 Flying east of Runway 31/13 is prohibited.

2.22.1.3 Air-Ground Radio Communication Failure Procedures

2.22.1.3.1 Departing aircraft experiencing radio communication failure immediately after departure shall maintain last assigned altitude for a period of 20 minutes and thereafter adjust level and speed in accordance with the field flight plan.

2.22.1.3.2 Sulaymaniyah Tower shall inform Kirkuk approach and aircraft operator, or their designated representative about the situation and action taken.

ORSU 2.22.2 Arrival Procedures

2.22.2.1 Standard Arrival Routes (STARs)

2.22.2.1.1 Unless otherwise instructed by Kirkuk Approach, all IFR arriving aircraft using Runway 31 shall follow STAR Kirkuk One (Kirkuk One Arrival), except aircraft from Erbil International Airport shall follow STAR Erbil One (Erbil One Arrival).

2.22.2.1.2 Unless otherwise instructed by Kirkuk Approach, all IFR arriving aircraft using Runway 13 shall follow STAR Kirkuk Two (Kirkuk Two Arrival), except aircraft from Erbil International Airport shall follow STAR Erbil Two (Erbil Two Arrival).

2.22.2.2 Minimum Altitudes

- a. Minimum En-Route altitude is 11 000 Feet. Aircraft shall not descend below this altitude before reaching 10NM from SUL VOR.
- b. Minimum Sector Altitude is 8000 Feet.
- c. Minimum Holding Altitude is 8000 Feet.
- d. _Minimum Circuit Altitude is 6500 Feet.

2.22.2.3 Instrument Approach Procedures

2.22.2.3.1 Only one aircraft shall be cleared for ILS/DME or VOR approach.

2.22.2.3.2 Succeeding aircraft may be cleared for approach when:

- a. the preceding aircraft has reported that it is able to complete its approach without encountering Instrument Meteorological Conditions; or
- b. the preceding aircraft is in communication with and sighted by Tower Controller and reasonable assurance exists that a normal landing can be accomplished; or
- c. the preceding aircraft has landed.

2.22.2.4 Missed Approach Procedures

2.22.2.4.1 Aircraft making Instrument Approach or Visual Approach executing a missed approach for any reason may be cleared for another approach for landing.

2.22.2.4.2 Aircraft making ILS/DME approach or VOR approach executing a missed approach shall follow the following Missed Approach Procedures:

- a. Runway 31: Maintain runway heading until passing 6500 Feet altitude, then turn LEFT to rejoin SUL VOR 8000 Feet Altitude.
- b. Runway 13: Maintain runway heading until passing 6500 Feet altitude, then turn RIGHT to rejoin SUL VOR 8000 Feet Altitude.

2.22.2.5 Flying east of Runway 31/13 is prohibited.

2.22.2.6 Air-Ground Radio Communication Failure Procedures

2.22.2.6.1 Arriving aircraft experiencing radio communication failure shall comply with the following procedures :

- a. Continue VFR, IFR and complete approach for landing; and
- b. Proceed according to the current flight plan route to SUL VOR; and
- c. Maintain the last assigned altitude until reaching SUL VOR and complete approach according to the weather conditions and published procedures; and
- d. Land within 30 minutes after the Estimated Time of Arrival or Last Acknowledged Expected Approach Time, whichever is later.

2.22.2.6.2 If the aircraft experiencing radio communication failure has not reported within thirty minutes after :

- a. the estimated time of arrival reported by the pilot; or
- b. the estimated time of arrival calculated by Control Tower; or
- c. the last acknowledged Expected Approach Time.

Whichever is latest, normal control may be resumed if so desired.

ORSU 2.22.3 Aerodrome and Weather

2.22.3.1 Sulaymaniyah Control Zone is considered IMC when

- a. ground visibility is less than 5 Km; and/or
- b. the ceiling is less than 3 000 Feet (900 Meters) above aerodrome elevation.

2.22.3.2 The minimum RVR and ground visibility required for landing and take-off at Sulaymaniyah International Airport for all aircraft categories are :

- a. RVR 400 Meters
- b. Ground visibility 1000 Meters

2.22.3.3 VFR Operation

Except when a clearance for Special VFR is obtained from an Air Traffic Control Unit, VFR flights shall not take-off or land at Sulaymaniyah International Airport, or enter the aerodrome traffic zone or traffic pattern

- a. when the cloud ceiling is less than 3 000 Feet (900 Meters) above aerodrome elevation; and/or
- b. when ground visibility is less than 5 Km.
- c. at night, if a civil aircraft.

2.22.3.4 Special VFR

2.22.3.4.1 All VFR flights shall operate as S.VFR in Sulaymaniyah Control Zone when the prevailing weather is IMC.

2.22.3.4.2 S.VFR flights shall not be operated in Sulaymaniyah Control Zone when ground visibility is less than 1500 Meters .

2.22.3.4.3 Only one departing S.VFR aircraft or one arriving S.VFR aircraft is permitted at a time.

2.22.3.5 Procedures For Low Visibility Operations

2.22.3.5.1 Low visibility Operations shall be applied when:

a. Ground visibility is less than 1500 Meters; and/or

b. RVR is less than 550 Meters.

2.22.3.5.2 The initiation and cancellation of Low Visibility Operations is the responsibility of the controller at Control Tower.

2.22.3.5.3 When the Ground Visibility is less than 1500m and/or the RVR is less than 550m, the following Low Visibility Procedures shall be applied :

2.22.3.5.3.1 At the intersection of taxiways, an aircraft or vehicle on a taxiway shall not be permitted to hold closer to the other taxiway than the holding position limit defined by a taxiway intersection marking according to the specifications in ICAO Annex 14, Volume I, Chapter 5.

2.22.3.5.3.2 Minimum intervals between taxiing aircraft shall not be less than THREE minutes.

2.22.3.5.3.3 Opposite direction for take-offs, landings or take-off and landing shall not be used for any reason except in case of emergency.

2.22.3.5.3.4 Minimum Separation on final approach shall not be less than 15 NM.

2.22.3.5.3.5 No clearance shall be issued to departing aircraft to use Runway Intersection for take-off.

2.22.3.5.3.6 All traffic operating on the manoeuvring area shall be monitored and close coordination shall be kept between Tower Controller and Ground Operations.

2.22.3.5.3.7 All departing and arriving aircraft shall be guided by Follow Me Car.

2.22.3.5.3.8 All aircraft and Vehicles shall be requested to report Runway Vacated.

2.22.3.5.3.9 When an aircraft is landing or taking off, vehicles shall not be permitted to hold closer to the runway-in - use than:

- a. at a taxiway/runway intersection — at a runway holding position; and
- b. at a location other than a taxiway/runway intersection — at a distance equal to the separation distance of the runway-holding position.

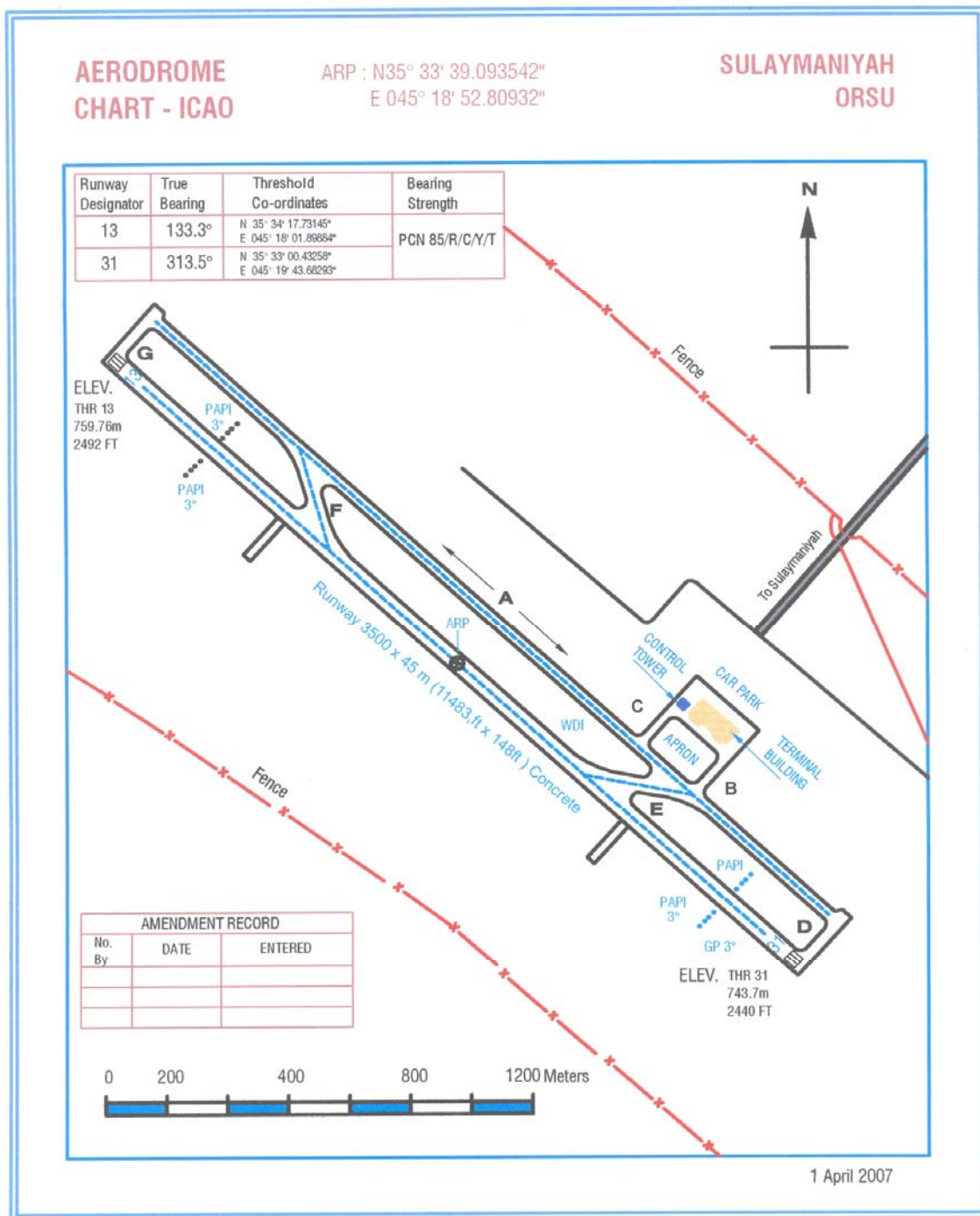
ORSU AD 2.23 ADDITIONAL INFORMATION

Nil.

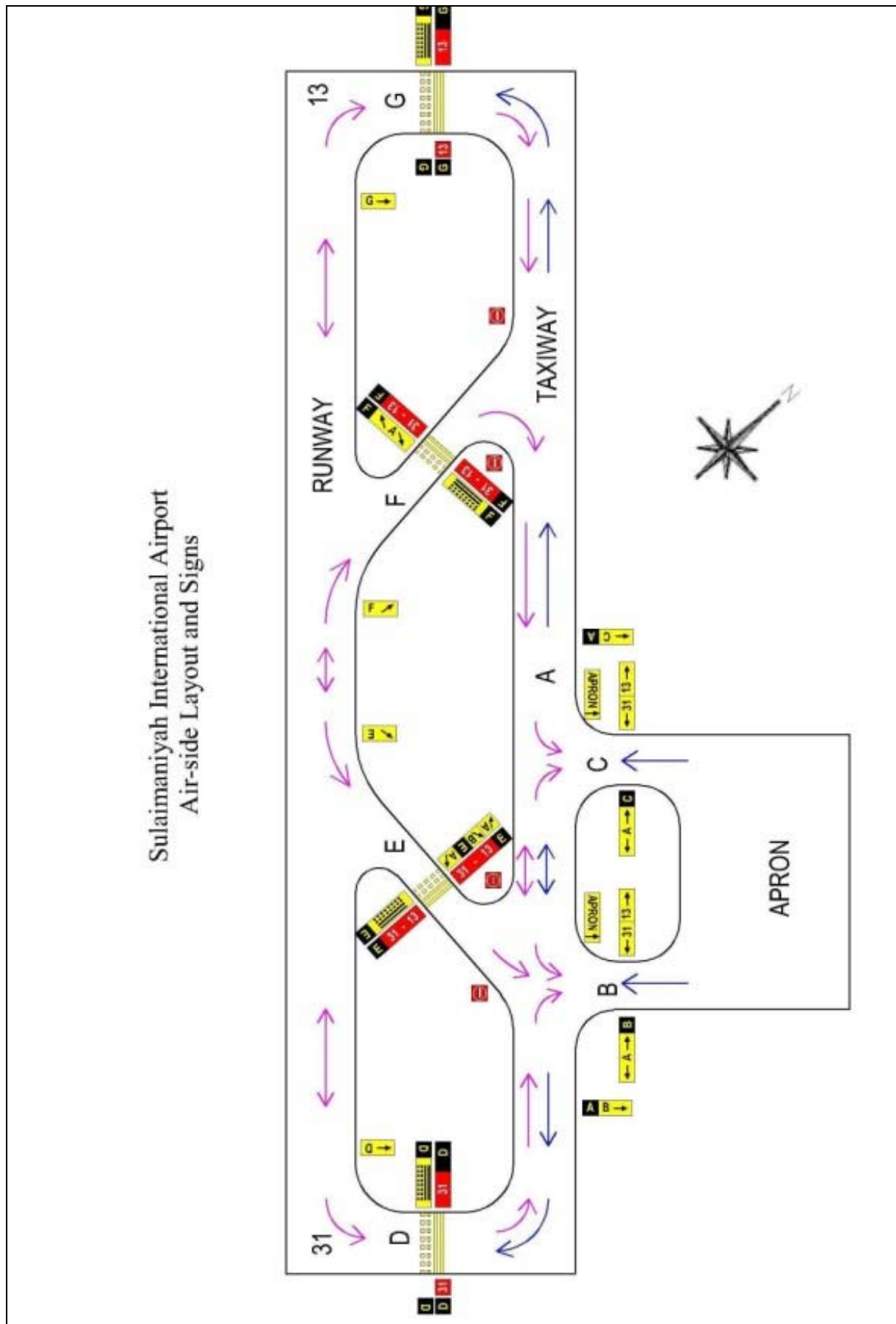
ORSU AD 2.24 CHARTS RELATED TO AN AERODROME

Aerodrome Chart – ICAO	ORSU AD 2.24.1
Aerodrome Layout and Signs – ICAO	ORSU AD 2.24.2
Aerodrome Obstacle Chart – ICAO Type A	ORSU AD2.24.3
Standard Departure Chart Instrument – ICAO (RWY 13) ...	ORSU AD2.24.4
Standard Departure Chart Instrument – ICAO (RWY 31) ...	ORSU AD 2.24.5
Standard Arrival Chart Instrument – ICAO (RWY 13)	ORSU AD 2.24.6
Standard Arrival Chart Instrument – ICAO (RWY 31)	ORSU AD 2.24.7
Instrument Approach Chart – ICAO RWY 13 ILS/DME	ORSU AD 2.24.8
Instrument Approach Chart – ICAO RWY 31 ILS/DME	ORSU AD 2.24.9
Instrument Approach Chart – ICAO RWY 13 VOR	ORSU AD2.24.10
Instrument Approach Chart – ICAO RWY 31 VOR	ORSU AD 2.24.11
Visual Approach Chart –ICAO RWY 13/31	ORSU AD 2.24.12

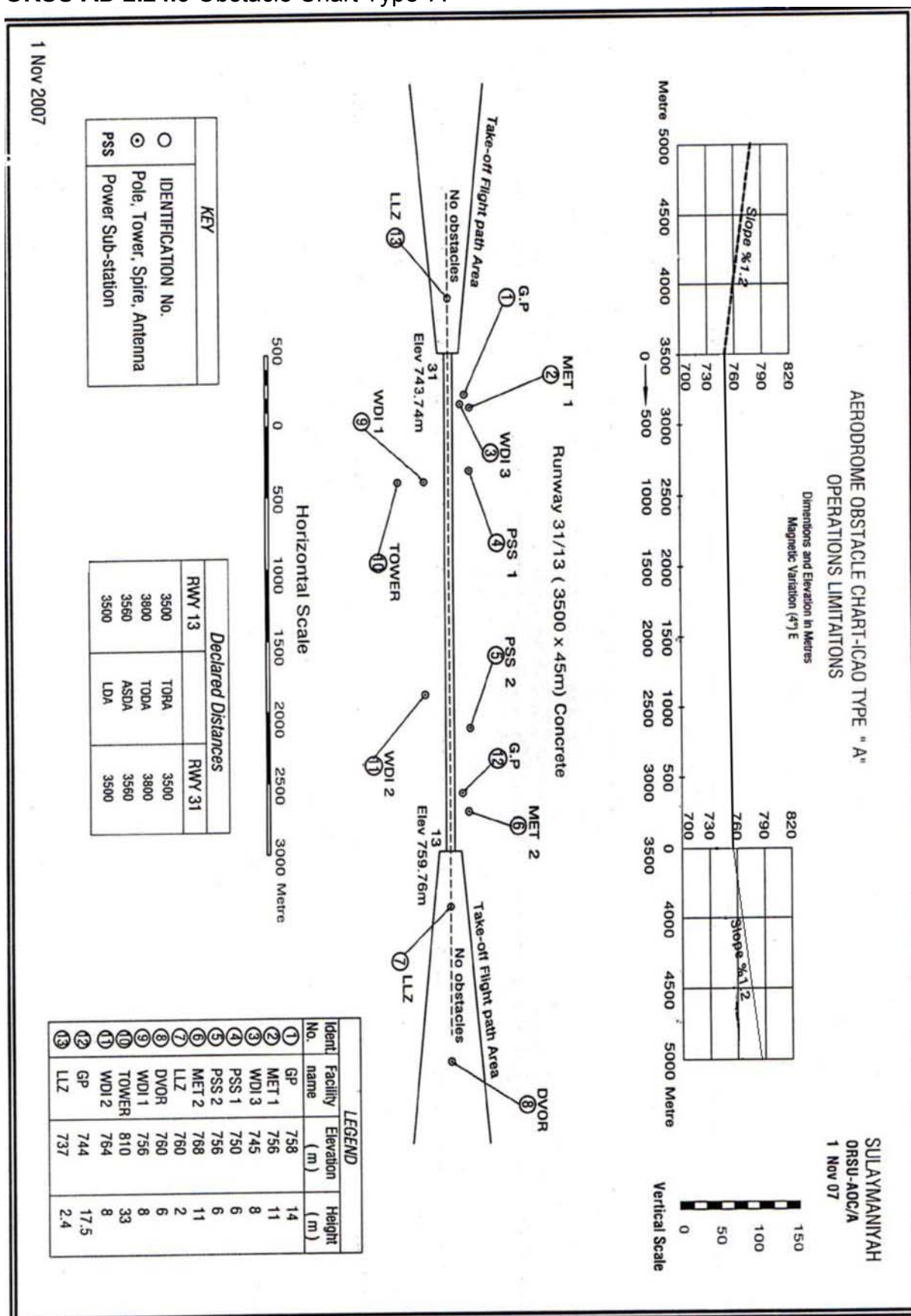
ORSU AD 2.24.1 Aerodrome Chart



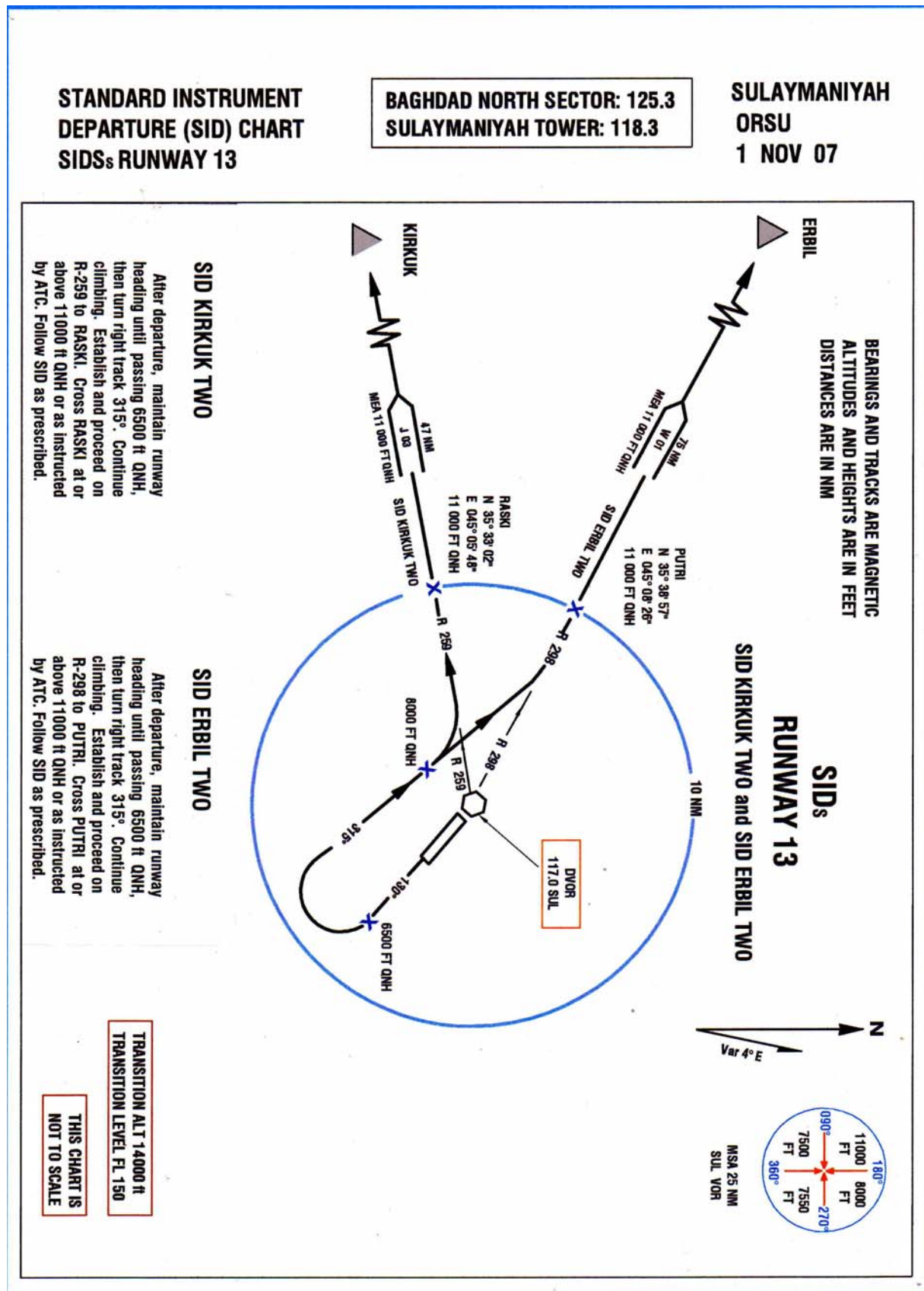
ORSU AD 2.24.2 Aerodrome Layout and signs



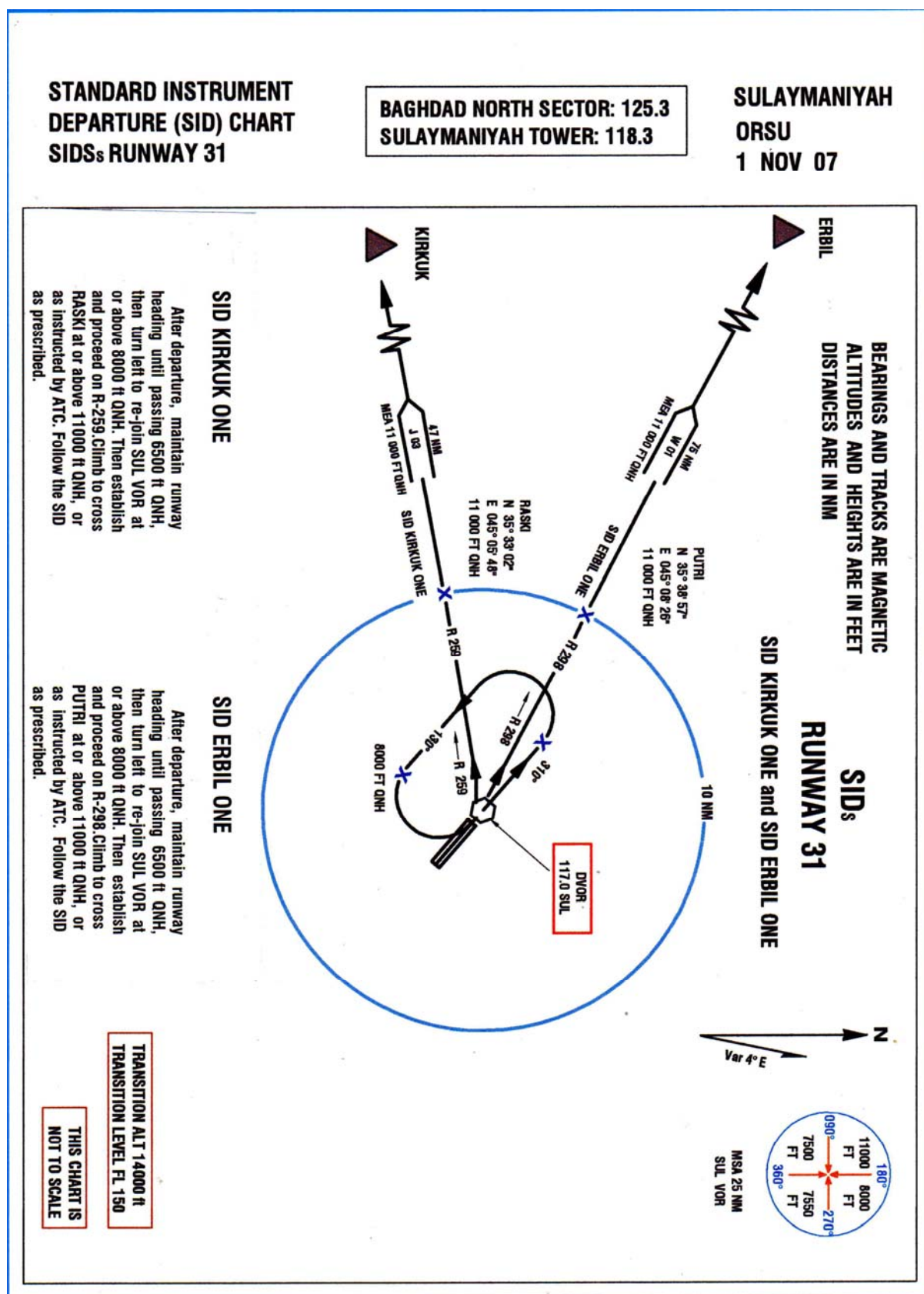
ORSU AD 2.24.3 Obstacle Chart Type 'A'



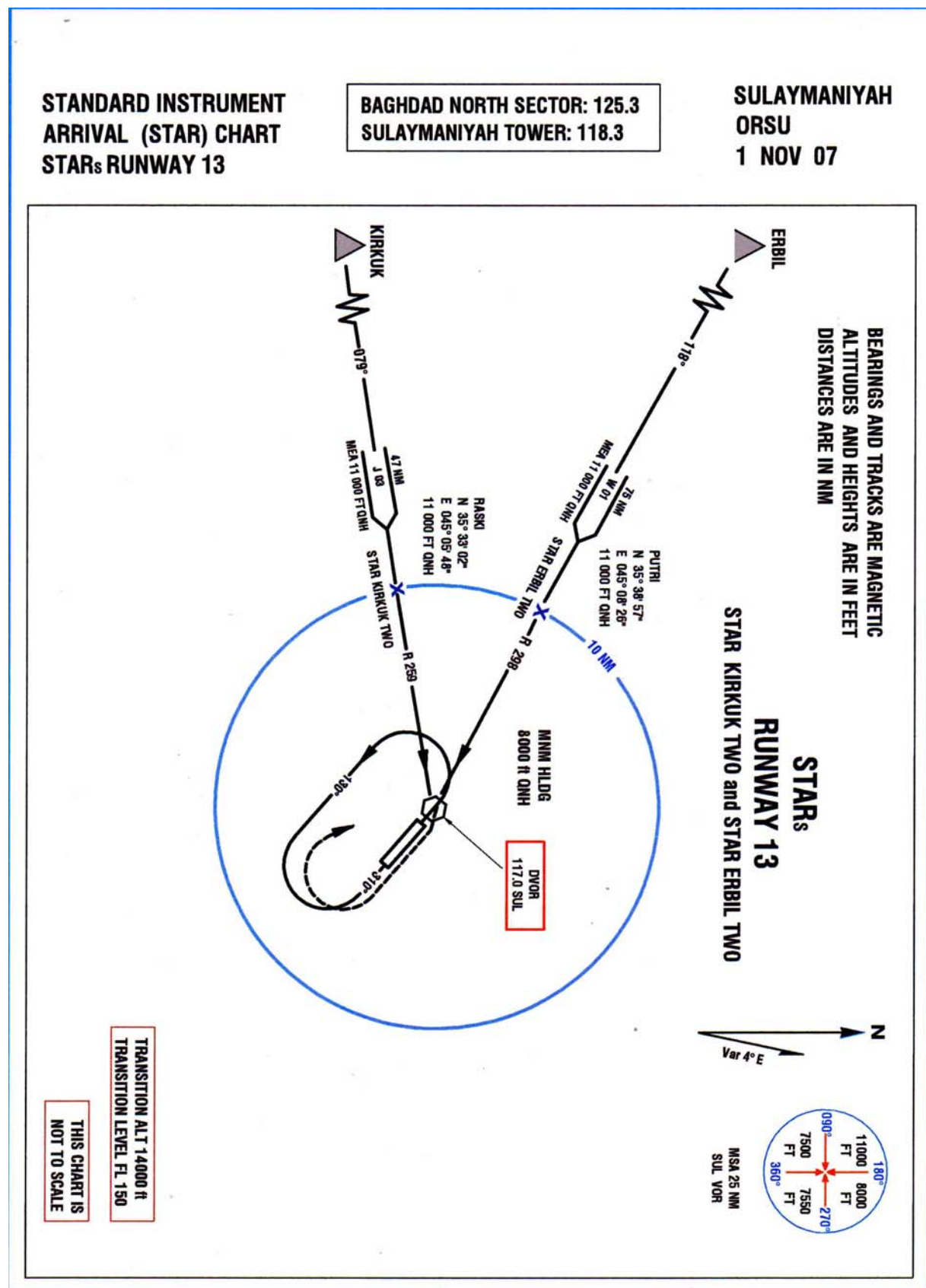
ORSU AD 2.24.4 Standard Departure Chart – Instrument –RWY 13



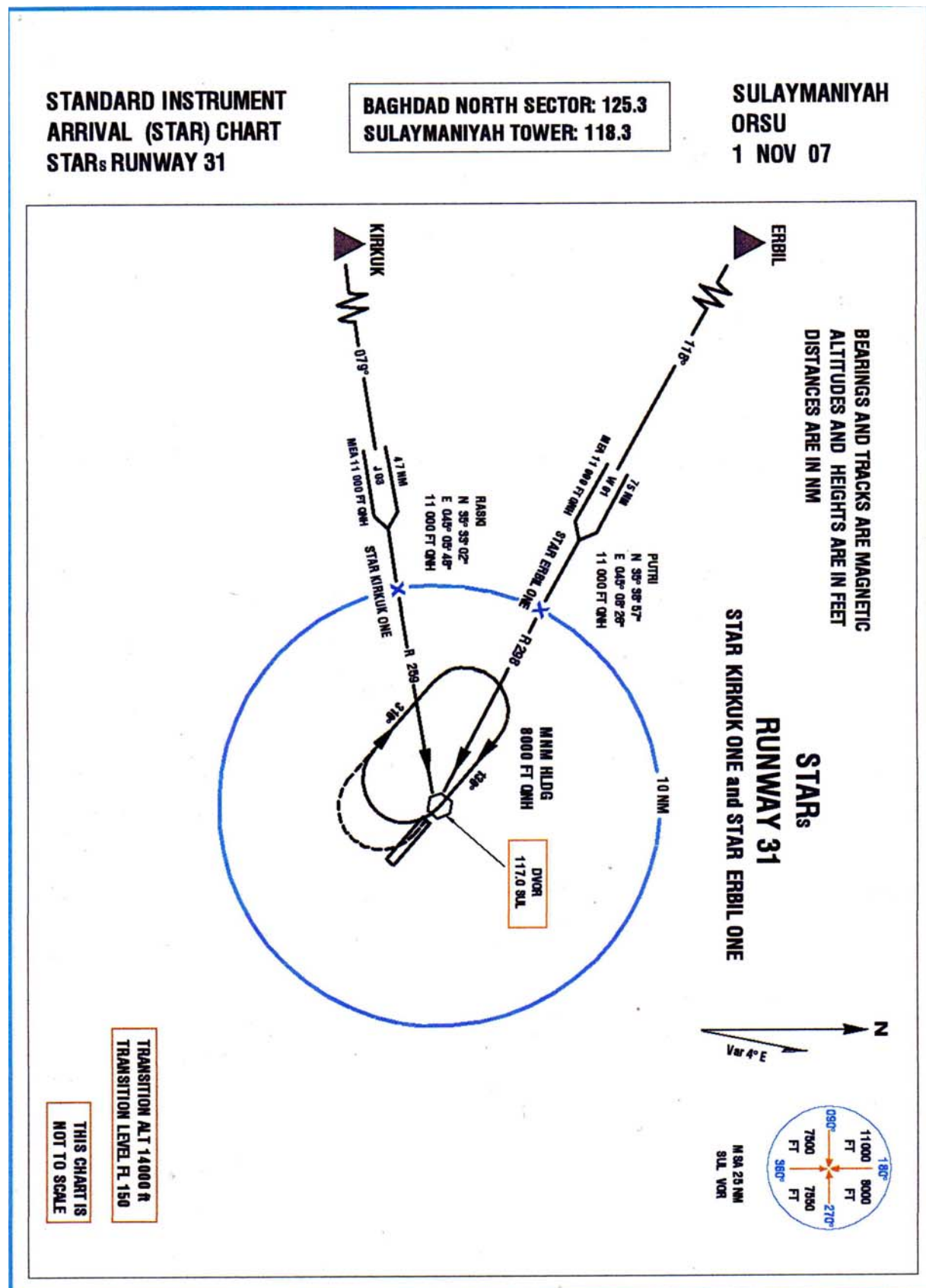
ORSU AD 2.24.5 Standard Departure Chart – Instrument –RWY 31



ORSU AD 2.24.6 Standard Arrival Chart – Instrument –RWY 13



ORSU AD 2.24.7 Standard Arrival Chart – Instrument –RWY 31



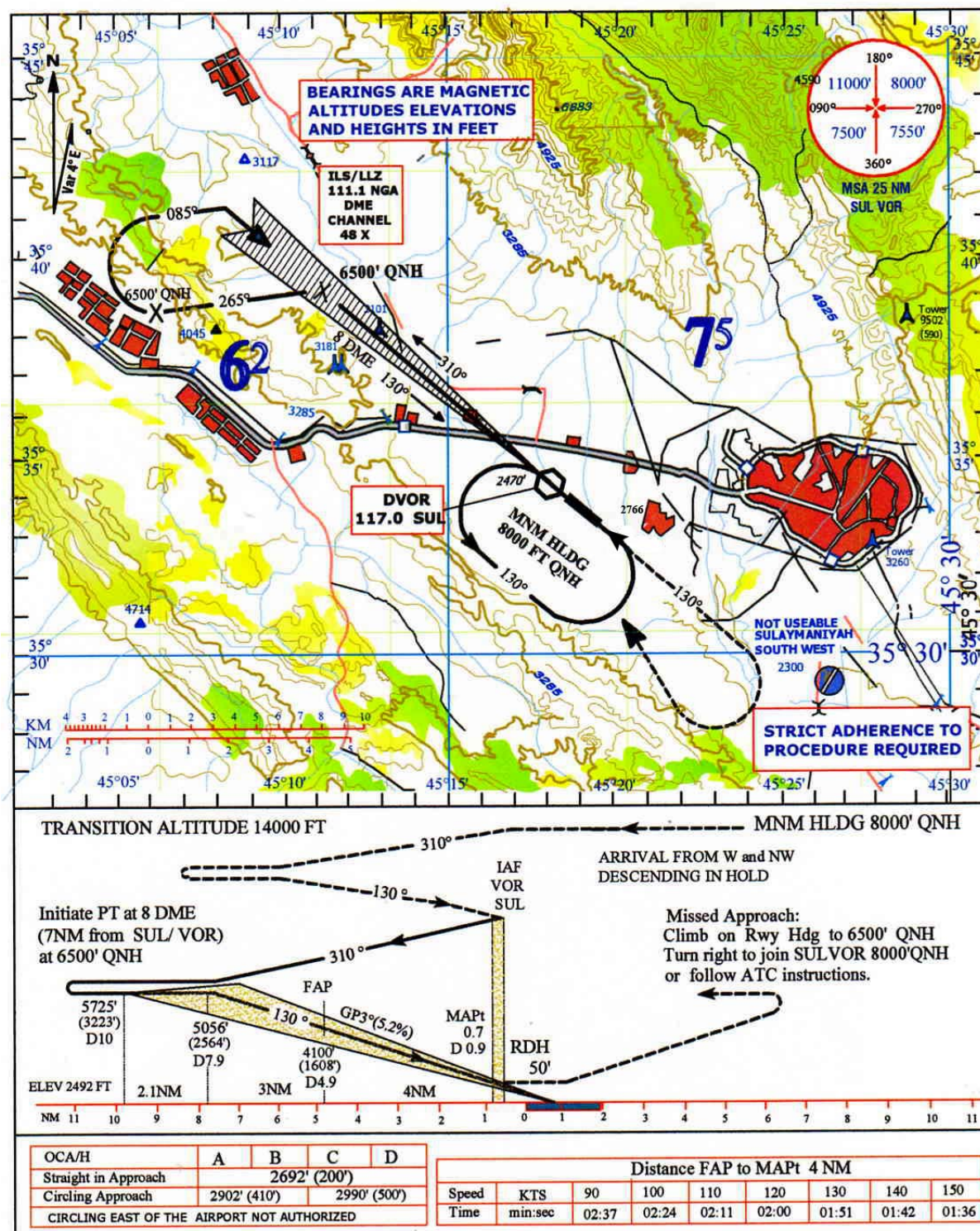
ORSU AD 2.24.8 Instrument Approach Chart ILS/DME–RWY 13

INSTRUMENT
APPROACH
CHART-ICAO

A/D ELEV 2492 FT
HEIGHTS RELATED TO
THR RWY 13 ELEV 2492 FT

BAGHDAD NORTH SECTOR : 125.3
SULAYMANYAH TOWER : 118.3

SULAYMANIYAH
ILS DME RWY 13



1 Nov. 07

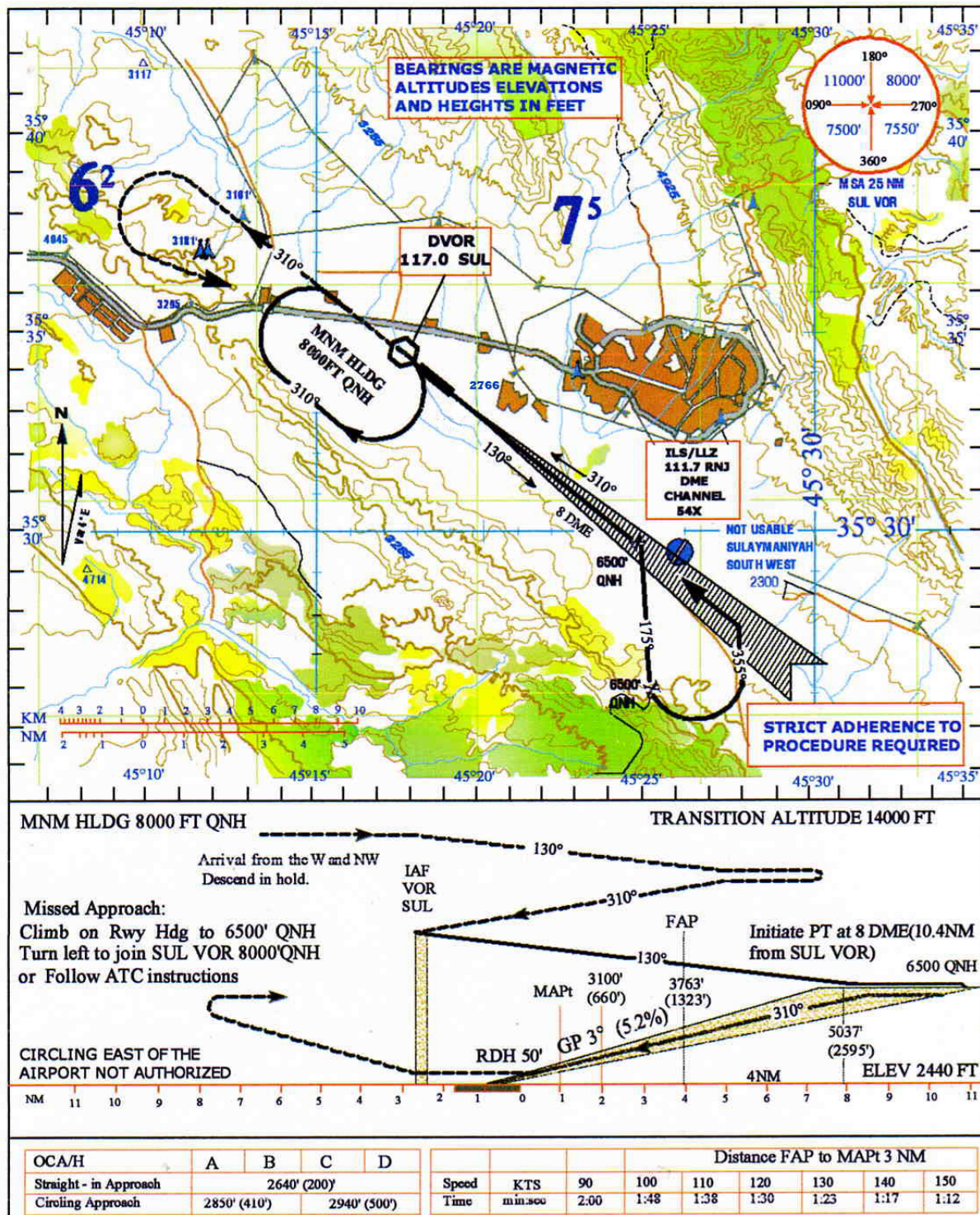
ORSU AD 2.24.9 Instrument Approach Chart ILS/DME–RWY 31

INSTRUMENT
APPROACH
CHART-ICAO

A/D ELEV 2492 FT
HEIGHTS RELATED TO
THR RWY 31 ELEV 2440 FT

BAGHDAD NORTH SECTOR : 125.3
SULAYMANIYAH TOWER : 118.3

SULAYMANIYAH
ILS/DME RWY 31



1 Nov. 07

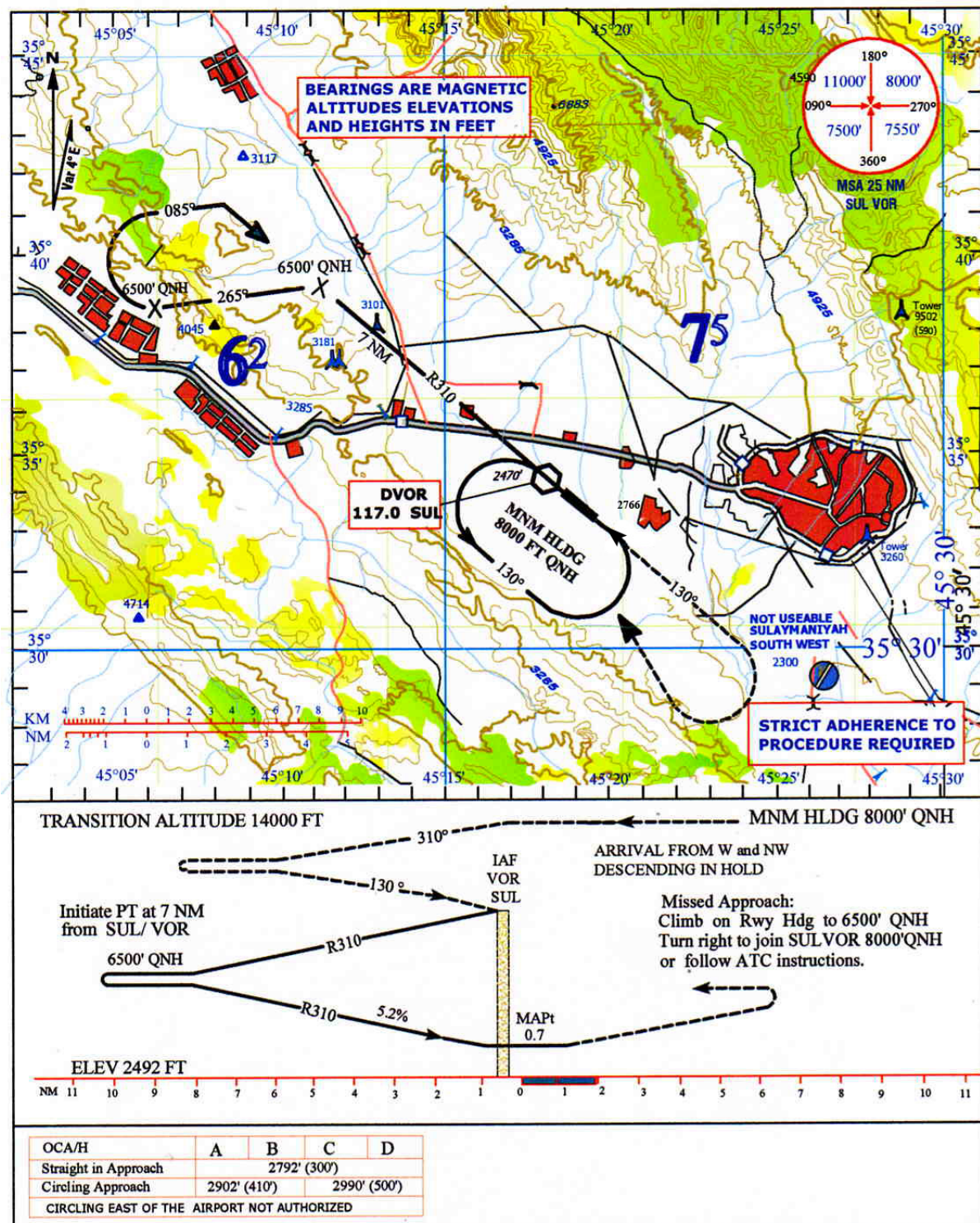
ORSU AD 2.24.10 Instrument Approach Chart VOR–RWY 13

INSTRUMENT
APPROACH
CHART-ICAO

A/D ELEV 2492 FT
HEIGHTS RELATED TO
THR RWY 13 ELEV 2492 FT

BAGHDAD NORTH SECTOR : 125.3
SULAYMANIYAH TOWER : 118.3

SULAYMANIYAH
VOR RWY 13



1 Nov. 07

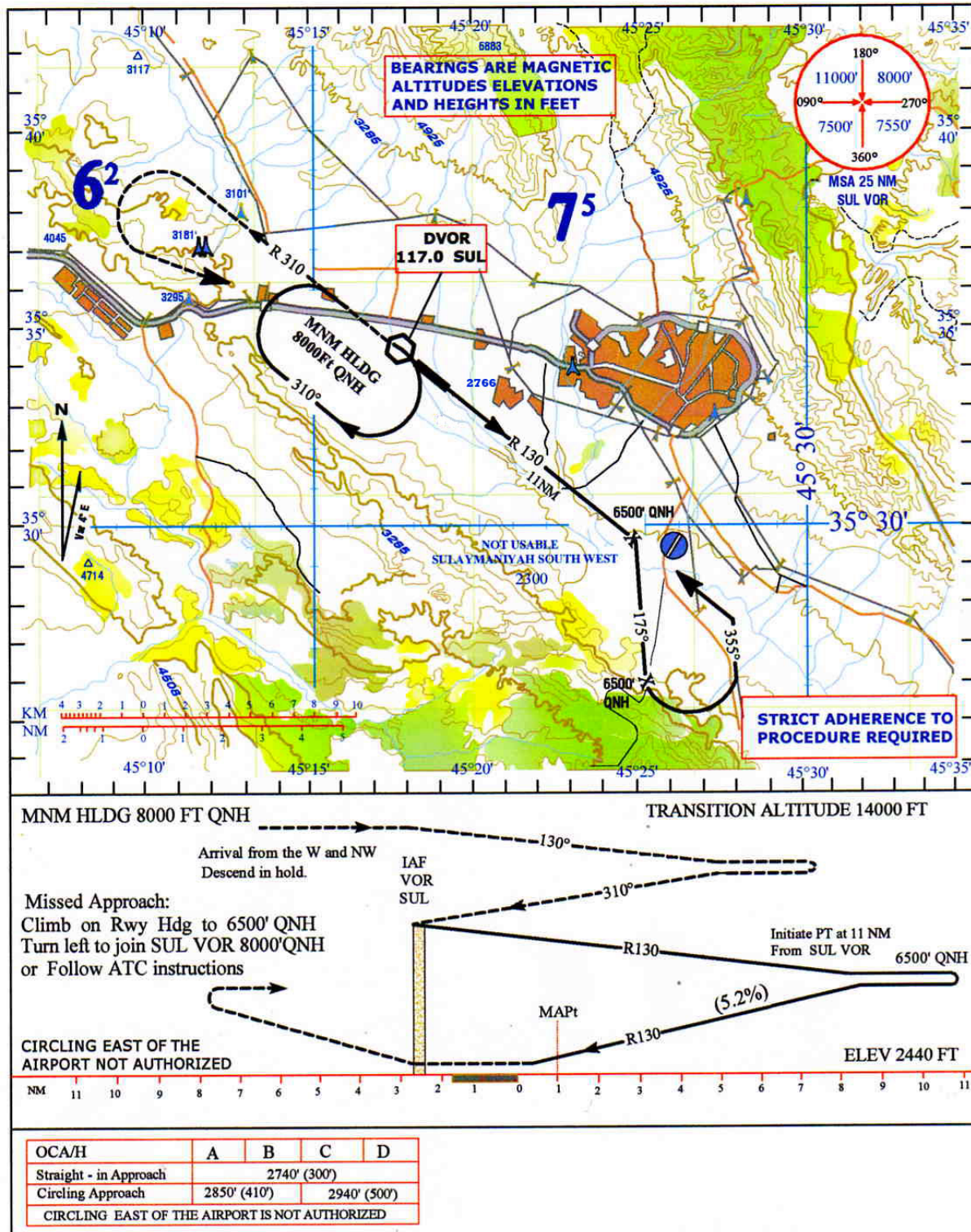
ORSU AD 2.24.11 Instrument Approach Chart VOR–RWY 31

INSTRUMENT
APPROACH
CHART-ICAO

A/D ELEV 2492 FT
HEIGHTS RELATED TO
THR RWY 31 ELEV 2440 FT

BAGHDAD NORTH SECTOR : 125.3
SULAYMANIYAH TOWER : 118.3

SULAYMANIYAH
VOR RWY 31



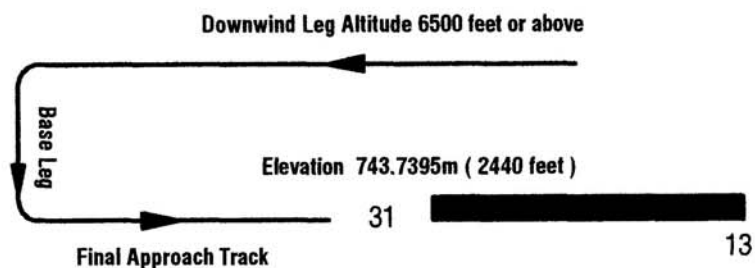
1 Nov. 07

ORSU AD 2.24.12 Visual Approach Chart –RWY 13/31

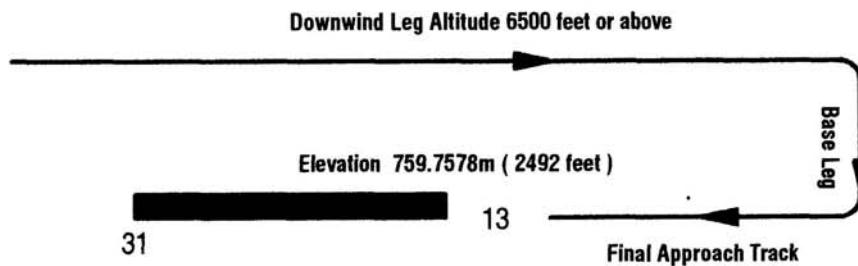
SULAYMANIYAH INTERNATIONAL AIRPORT

Aerodrome Traffic Circuits for Sulaymaniyah International Airport

- a. Left hand Traffic Circuit for Runway 31
- b. Right hand Traffic Circuit for Runway 13



Sulaymaniyah International Airport
Runway 31 Traffic Circuit
Left Hand Traffic Circuit



Sulaymaniyah International Airport
Runway 13 Traffic Circuit
Right Hand Traffic Circuit

1 April 2007

ORTF — TALL AFAR**ORTF AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORTF 2.1.1 ORTF – Tall Afar Airfield****ORTF AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

The facilities and procedures listed below do not necessarily comply with, or adhere to, the requirements of ICAO Annex 14.

1	Aerodrome Reference Point coordinates and site	N36°16'59" E042°24'11" Located at the centre of the runway
2	Direction and distance from city	015 deg @ 6 NM
3	Elevation and Reference Temperature	996 ft
4	Geoid undulation	To be determined
5	Magnetic variation/Annual change	3° E as of Jan 2004, Annual change E000°00'58.36"
6	Aerodrome Administration Address	US ARMY All administrative matters to Air Operations.
	Telephone	Nil
	Telefax	Nil
	Telex	Nil
	E-mail	Nil
	AFS Address	Nil
	AD Manager	
	Telephone	DSN: 318-485-1604 SVOIP 318-243-3851
	Airport Safety	
	Telephone	
7	Types of traffic permitted	VFR
8	Transition altitude and level	TA 14 000 ft AMSL, TL FL 150

ORTF AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	H24
2	Customs and Immigration	NA
3	Health and Sanitization	NA
4	AIS Briefing Office	To be determined
5	ATS Reporting Office	H24
6	Met Office	H24
7	Air Traffic Services	H24
8	Fueling	H24 (not avbl to fixed wing aircraft)
9	Handling	H24 limited MHE
10	Security	H24
11	De-icing	Not available
12	Remarks	Prior Permission Required (PPR). All aircraft must have PPR except C130 and C17. Operators must contact the airfield management for a PPR before submitting a landing request to the ICAA. Refer to GEN 1.2.5. Permission to operate in the Baghdad FIR is coordinated through ICAA. Refer to GEN 1.2 for current procedures, requirements and contact information. Civil aircraft in VMC by day only.

ORTF AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Limited MHE on site.
2	Fuel and oil types	JP8 Limited Mil oil.
3	Fueling facilities and capacity	Four point FARP for Rotary Wing aircraft Fuel, maintenance and AGE not available for fixed wing aircraft, except C-23 Sherpa. Fixed wing aircraft must carry round-trip fuel.
4	De-icing facilities	Nil
5	Hanger space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Handling services only for Rotary Wing.

ORTF AD 2.5 PASSENGER FACILITIES

1	Hotels at/near aerodrome	Nil.
2	Restaurants	Nil.
3	Transportation	Nil
4	Medical facilities	Emergency cover for military only
5	Bank and Post Office	Limited
6	Tourist Office	Nil
7	Remarks	Nil

ORTF AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	Aerodrome category for fire fighting	USAF Equivalent 2, FAA equivalent C/D
2	Rescue Equipment	Listed at Airfield Safety
3	Capability for removal of disabled aircraft	Limited assistance using military and contractor assets
4	Remarks	Contractor services. In extreme circumstances or dictated by military necessity, disabled aircraft may be pushed to clear manoeuvring areas.

ORTF 2.6.1 Removal of disabled aircraft from RWY. When an aircraft is disabled on a RWY, it is the duty of owner or user of such aircraft to have it removed as soon as possible. If a disabled aircraft is not removed from the RWY, by the owner or user, as quickly as possible, the aircraft will be removed by the aerodrome authority at the owner's or user's expense.

ORTF AD 2.7 SEASONAL AVAILABILITY

1	Type(s) of clearing equipment	Nil
2	Clearance priorities	Nil
3	Remarks	Nil

ORTF AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Surface and strength of aprons	N/A
2	Width, surface and strength of taxiways	100 ft; Asphalt G: 91ft wide..... PCN 50F/A/W/T E: 51 ft wide..... PCN 50F/A/W/T F: 49 ft wide.....PCN 50 F/A/W/T
3	Location and elevation of altimeter checkpoints	N/A
4	VOR and INS checkpoints	N/A
5	Remarks	8 Taxiways, 3 useable, 0 aprons. Twy-H limited to fixed and rotary wing aircraft. Taxiways E, F and G are used for cargo and passenger operations. Drainage ditch located along edges of Twy-E and F, approximately 6FT drop exceeding recommended slope.

ORTF AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	TWY guide lines	Incomplete at this time.
2	Runway and Taxiway markings and lights	Paint Markings Solar Lighting mark RWY edge and taxiways.
3	Stop bars	Stop bars to be installed
4	Remarks	Wind Indicator, unlit, located 246 ft east of RWY 31 centreline.

ORTF AD 2.10 AERODROME OBSTACLES

1	RWY13	ORTF Obstacle Chart not available
2	RWY31	ORTF Obstacle Chart not available 12 ft Unlit obstruction located 295 ft from the RWY centreline, SE end of RWY 31. Violates transitional surface. 4 ft unlit obstruction located within 150 ft of Helipad One.
3	Remarks	

ORTF AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

ORTF 2.11.1 Limited weather information, using the location designator of KQTI vice the ICAO airfield designator, is available from the following websites:

Open access website: <http://adds.aviationweather.noaa.gov/> or
<http://www.baseops.net/metro.html>

Military only websites: <https://weather.afwa.af.mil/> or
<https://ows.shaw.af.mil/>

ORTF AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	13	31
2	BRG	130	310
3	RWY Dimensions	9848 ft x 145 ft	9848 ft x 145 ft
4	PCN	31F/A/W/T	31F/A/W/T
5	THR Coordinates	To be determined	To be determined
6	THR Elevation	996 ft	996 ft
7	Slope of RWY/SWY	To be determined	To be determined
8	SWY Dimensions	233 ft	233 ft
9	CWY Dimensions	Not calculated	Not calculated
10	Strip Dimensions	Not calculated	Not calculated
11	Obstacle free zone	Standard ICAO	Standard ICAO
12	Remarks	Nil	Nil

ORTF AD 2.13 DECLARED DISTANCES

1	RWY	13	31
2	TORA	9 848 ft (3 000 m)	9 848 ft (3 000 m)
3	TODA	9 848 ft (3 000 m)	9 848 ft (3 000 m)
4	ASDA	9 848 ft (3 000 m)	9 848 ft (3 000 m)
5	LDA	9 848 ft (3 000 m)	9 848 ft (3 000 m)
6	Remarks	Nil	Nil

ORTF AD 2.14 APPROACH AND RUNWAY LIGHTING

1	RWY	13	31
2	Type, length and intensity of approach lighting	NA	NA
3	Threshold lights, colours and wing bars	NA	NA
4	Type of visual approach slope indicator system	NA	NA
5	Length of RWY touchdown zone indicator lights	NA	NA
6	Length spacing colour and intensity of RWY centreline lights	NA	NA
7	Length spacing colour and intensity of RWY edge lights	NA	NA
8	Colour of RWY end lights and wingbars	NA	NA
9	Length and colour of stop way lights	NA	NA
10	Remarks	Nil	Nil

ORTF AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	Aerodrome Beacon	NA
2	Location and lighting of anemometer and LDG direction indicator	NA
3	Taxiway edge and centreline lighting	NA
4	Secondary power supply including switch-over time	NA
5	Remarks	Obstruction lights, various HESCOs and Hangars are unlit. Serviceable solar runway lights, serviceable solar taxiway lights. Aerodrome signs not lit.

ORTF AD 2.16 HELICOPTER LANDING AREA

1	Coordinates of North Helipad (PAX TERM)	38S-KF-6755-1792
2	Coordinates of Transient parking	38S-KF-6685-1875
3	Lighting	Solar Lighting
4	Remarks	All rotary wing passenger aircraft will use PAX terminal pad as directed by ATC. No engine shutdown on PAX pad.

ORTF AD 2.17 AIR TRAFFIC SERVICES AIRSPACE

1	Airspace designation and lateral limits	See ENR 2.1.3.
2	Vertical limits	See ENR 2.1.3.
3	Airspace classification	See ENR 2.1.3.
4	Call sign and Languages	Tall Afar Traffic. English
5	Transition altitude	14 000 ft
6	Remarks	

ORTF AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service designation	Callsign	FREQ	Hours of operation	Remarks
CTAF	Tall Afar Traffic	118.700MHz	H24	Primary
Remarks	Tall Afar Tower is not operational, make all calls and transitions on CTAF Frequency VHF118.7			

ORTF AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of Aid	Ident	FREQ	Hours of operation	Position of antenna	Elevation of DME	Remarks
NDB	ORTF	280 KHz	H24	N36°17'05.89" E042°24'21.80"		

ORTF AD 2.20 LOCAL TRAFFIC REGULATIONS

ORTF 2.20.1 For operational reasons ATC may require approach to RWY 31 for LDG and RWY 13 for departures.

ORTF 2.20.2 Arriving aircraft shall make CTAF transition calls starting at 5 NM.

ORTF 2.20.3 VFR approaches from irregular, randomised approach points are encouraged utilizing available approach/departure procedures. Aircraft operators are to avoid over flight of the city of Tall Afar. Aircraft are encouraged to make non-standard VFR departures onto random initial departures tracks utilizing available arrival/departure procedures. Aircraft **MUST** depart VFR.

ORTF 2.20.4 IL76 aircraft are not authorized, C-17 aircraft must remain on the runway.

ORTF 2.20.5 For C17 and IL76 aircraft, taxi inboard engines only on E, F and G TWYs.

ORTF 2.20.6 Use rolling reduced take-offs only, No TRT take-offs without Airfield Manager approval.

ORTF 2.20.7 The following PCN and C-17 acft weight limitations are RW 13/31, PCN 31F/C/W/T for Operations to be conducted up to 324k lbs. note: acft may exceed limitations up to 450k lbs however, only afd mgr/afld safety officer may approve heavier weights for mission essential/critical situations.

ORTF AD 2.22 FLIGHT PROCEDURES

ORTF 2.22.1 Flight procedures for Tall Afar are under construction.

ORTF AD 2.23 ADDITIONAL INFORMATION

ORTF 2.23.1 Additional information is available at <https://www.afd.scott.af.mil>

ORTF AD 2.24 CHARTS RELATED TO AN AERODROME

ORTF 2.24.1 Approach, Aerodrome and Taxi Charts for Tall Afar are under construction.

ICAO Charts for Tall Afar Airfield		
1	Aerodrome Chart – ICAO	MIL
2	Aircraft Parking/Docking Chart – ICAO	NA
3	Aerodrome Ground Movement Chart – ICAO	NA
4	Precision Approach Terrain Chart – ICAO	NA
5	Aerodrome Obstacle Chart – <u>ICAO Type A</u>	NA
6	Area Chart – ICAO (arrival and transit routes)	NA
7	Standard Departure Chart – Instrument – ICAO	NA
8	Area Chart – ICAO (arrival and transit routes)	NA
9	Standard Arrival Chart – Instrument - ICAO	NA
10	Instrument Approach Chart – ICAO	NA
11	Visual Approach Chart	MIL
12	Bird concentration in the vicinity of the aerodrome	NA

ORUB — UBAYDAH BIN AL JARRAH**ORUB AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORUB 2.1.1 ORUB – Ubaydah Bin Al Jarrah/Al Kut Airfield****ORUB AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	Aerodrome Reference Point coordinates and site	N32°28'54.00" E045°45'24.00" The geographic centre of the airfield
2	Direction and distance from city	To be determined
3	Elevation and Reference Temperature	68 ft
4	Geoid undulation	To be determined
5	Magnetic variation/Annual change	UNK
6	Aerodrome Administration Address Telephone Telefax Telex E-mail AFS Address	Not advised DSN: 318-844-2843 318-844-2971 318-844-2820 Nil Nil alkut.twr@gmail.com Nil
7	Types of traffic permitted	IFR and VFR
8	Transition altitude and level	14 000 ft

ORUB AD 2.3 OPERATIONAL HOURS

1	Aerodrome Administration	To be determined
2	Customs and Immigration	Nil
3	Health and Sanitization	Nil
4	AIS Briefing Office	Nil
5	ATS Reporting Office	Nil
6	Met Office	To be determined
7	Air Traffic Services	H24
8	Fueling	To be determined
9	Handling	To be determined
10	Security	24 hours

11	De-icing	Nil
12	Remarks	Prior Permission Required (PPR). All aircraft must have PPR. Operators must contact the airfield management for a PPR before submitting a landing request to the ICAA. Refer to GEN 1.2.5. Permission to operate in the Baghdad FIR is coordinated through ICAA. Refer to GEN 1.2 for current procedures, requirements and contact information.

ORUB AD 2.4 RUNWAY PHYSICAL CHARACTERISTICS

1	RWY	11L	29R	11R	29L
2	BRG	To be determined	To be determined	To be determined	To be determined
3	RWY Dimensions	10 180 ft x 150 ft 3 102 m x 45 m	10 180 ft x 150 ft 3 103 m x 45 m	11 680 ft x 150 ft 3 560 m x 45 m	11 680 ft x 150 ft 3 560 m x 45 m
12	Remarks	Nil	Nil	Nil	Nil

ORUB AD 2.5 DECLARED DISTANCES

1	RWY	11L	29R	11R	29L
2	TORA	10180 ft 3102 m	10180 ft 3102 m	11680 ft 3560 m	11680 ft 3560 m
3	TODA	10180 ft 3102 m	10180 ft 3102 m	11680 ft 3560 m	11680 ft 3560 m
6	Remarks	Nil	Nil	Nil	Nil

ORUB AD 2.6 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service designation	Callsign	FREQ	Hours of operation	Remarks
CTAF	Al Kut Traffic	122.0 MHz	H24	NA
Remarks	Al Kut Tower (Blair Tower) not operational. Make all calls on CTAF frequency VHF 122.0 MHz.			

ORUB AD 2.7 ADDITIONAL INFORMATION

ORUB 2.7.1 Additional information is available at <https://www.afd.scott.af.mil>

ORUB 2.7.2 Until further notice all rotary wing aircraft with skids will follow the same procedures as the UH-60s and AH-64s except that all aircraft with skids will land on the 40' X 15' refueling point concrete extensions instead of the asphalt

ORUB 2.7.3 Use caution for a medium-sized pothole located on runway 29L located between approach end and midfield and a small pothole located between midfield and departure end

ORUB 2.7.4 Displaced threshold on Runway 29L. First 2100 feet closed due to large holes.

ORUB 2.7.5 Restricted operating zone (ROZ) 1000ft radius and 2000ft AGL located at 38s NA 72154 95645 approximately 0.9nm NE of the airfield. Exercise caution around this area. Self-announce your intentions on CTAF 122.0.

ORUB 2.7.6 Dirt areas between runways and taxiways are off limits due to unknown debris and vegetation. Unsafe to drive or operate aircraft within these areas.

ORUB 2.7.7 Aircraft are approved to operate on all movement surfaces (runways, taxiways, and parking aprons) at this airfield at up to 50 percent above GDSS / giant report published gross weights IAW AMCI 1-1208.

ORUQ — UMM QASR**ORUQ AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ORUQ 2.1.1 ORUQ – Umm Qasr Airport****ORUQ AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	Aerodrome Reference Point coordinates and site	N30°01'12.00" E047°55'24.00" The geographic centre of the airfield
2	Elevation and Reference Temperature	33 ft (10.1 m) and 43.1° C

**AD 3 HELIPORTS
ORAQ — AL QAIM**

ORAQ AD 3.1 HELIPORT LOCATION INDICATOR AND NAME

ORAQ 3.1.1 ORAQ – Al Qaim Landing Zone

ORAQ AD 3.2 HELIPORT GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	Aerodrome Reference Point coordinates and site	N34°15'58.57" E041°09'44.05" The geographic centre of the airfield
2	Direction and distance from city	Not Applicable
3	Elevation and Reference Temperature	797 ft (242.9 m) and 43.1° C
4	Geoid undulation	To be determined
5	Magnetic variation/Annual change	4° E as at APR 2004, annual change not determined
6	Aerodrome Administration Address Telephone Telefax Telex E-mail AFS Address	United States Marine Corps DSN: 302 3635 171 Nil Nil Nil Nil
7	Types of traffic permitted	Not advised
8	Transition altitude and level	14 000 ft

ORAQ AD 3.3 OPERATIONAL HOURS

1	Aerodrome Administration	H24
2	Customs and Immigration	Not Available
3	Health and Sanitation	Not Available
4	AIS Briefing Office	To be determined
5	ATS Reporting Office	To be determined
6	Met Office	H24
7	Air Traffic Services	H24
8	Fueling	H24
10	Security	H24
12	Remarks	Nil

ORAQ AD 3.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	To be determined
2	Fuel and oil types	To be determined
3	Fueling facilities and capacity	To be determined
4	De-icing facilities	To be determined
5	Hanger space for visiting aircraft	To be determined
6	Repair facilities for visiting aircraft	To be determined
7	Remarks	Nil

ORAQ AD 3.5 HELICOPTER LANDING AREA

1	Coordinates of touchdown and lift-off point (TLOF) threshold of final approach and take-off (FATO)	To be determined
2	TLOF and/or FATO area elevation	To be determined
3	TLOF and FATO area dimensions, surface, strength, marking	To be determined
4	True and MAG BRG of FATO	To be determined
5	Declared distance available	To be determined
6	Approach and FATO lighting	To be determined
7	Remarks	To be determined

ORAQ AD 3.6 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service designation	Callsign	FREQ	Hours of operation	Remarks
TWR	Old School Tower	255.80 MHz 139.55 MHz	H24	VHF by request only

ORAQ AD 3.7 LOCAL TRAFFIC REGULATIONS

ORAQ 3.7.1 Overflight of buildings, fuelling spots, fuel tanks and parked aircraft prohibited.

ORAQ AD 3.8 OBSTACLES

ORAQ 3.8.1 Tower 200 ft AGL at N34°16'07.24" E041°09'17.22" marked with red flashing beacon.

ORWH — WASHINGTON ARMY**ORWH AD 3.1 HELIPORT LOCATION INDICATOR AND NAME****ORWH 3.1.1 ORWH – Washington Army Heliport****ORWH AD 3.2 HELIPORT GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	Aerodrome Reference Point coordinates and site	N33°18'16.20"E044°24'12.60" The geographic centre of the airfield
2	Direction and distance from city	Not Applicable
3	Elevation and Reference Temperature	127 ft (38.7 m) / To be determined
4	Geoid undulation	To be determined
5	Magnetic variation/Annual change	4° E as at APR 2004, annual change not determined
6	Aerodrome Administration Address Telephone Telefax Telex E-mail AFS Address	United States Army DSN: 318-239-7982 318-239-7985 Nil Nil ross.scherer@iraq.centcom.mil Nil
7	Types of traffic permitted	VFR
8	Transition altitude and level	TA 14 000 ft AMSL, TL FL 150

ORWH AD 3.3 OPERATIONAL HOURS

1	Aerodrome Administration	0500 – 1600 Z
2	Customs and Immigration	Nil
3	Health and Sanitation	Nil
4	AIS Briefing Office	H24
5	ATS Reporting Office	H24
6	Met Office	Nil.
7	Air Traffic Services	0400Z-2000Z
8	Fueling	By prior arrangement
10	Security	H24
12	Remarks	Nil

ORWH AD 3.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Nil
2	Fuel and oil types	JP8 (Limited quantities)
3	Fueling facilities and capacity	To be determined
4	De-icing facilities	Nil
5	Hanger space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Prior permission required for shutdown and fuel - Contact Heliport Management

ORWH AD 3.5 HELICOPTER LANDING AREA

1	Coordinates of touchdown and lift-off point (TLOF) threshold of final approach and take-off (FATO)	To be determined
2	TLOF and/or FATO area elevation	To be determined
3	TLOF and FATO area dimensions, surface, strength, marking	657 ft x 327 ft, concrete
4	True and MAG BRG of FATO	To be determined
5	Declared distance available	To be determined
6	Approach and FATO lighting	H lighting centre of pad
7	Remarks	LDG direction 33/15

ORWH AD 3.6 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service designation	Callsign	FREQ	Hours of operation	Remarks
TWR	Washington Tower	125.100 MHz 330.750 MHz	0400 – 2000Z DAILY	Primary Secondary

ORWH AD 3.7 LOCAL TRAFFIC REGULATIONS

ORWH 3.7.1 Over flight of hanger and helo ramp at south end of heliport prohibited.

ORWH 3.7.2 Obstruction: 71 foot antenna mast on top of Freedom Rest. Grid coordinates are (38s MP 44335 84558). Please avoid over flying this area