PART 1 - GENERAL (GEN)

GEN 0.

GEN 0.1 PREFACE

0.1.1 NAME OF PUBLISHING AUTHORITY

The AIP BAHRAIN FIR is published by the authority of Civil Aviation Affairs of the Kingdom of Bahrain and the Civil Aviation Authority of the State of Qatar.

0.1.2 APPLICABLE ICAO DOCUMENTS

The AIP is prepared in accordance with the Standards and Recommended Practices (SARPS) of Annex 15 to Chicago Convention and the Aeronautical Information Services Manual (ICAO Doc 8126 - AN 872). Charts contained in the AIP are produced in accordance with Annex 4 to the Chicago Convention and the Aeronautical Chart Manual (ICAO Doc 8697 - AN 889). Differences from ICAO Standards, Recommended Practices and Procedures are given in section **GEN 1.7**.

0.1.3 PUBLICATION MEDIA

See **GEN 3.1.3.2**.

0.1.4 THE AIP STRUCTURE AND ESTABLISHED REGULAR AMENDMENT INTERVAL

0.1.4.1 **The AIP structure**

The AIP forms part of the Integrated Aeronautical Information Package of which details are given in Section **GEN 3.1**. The principal structure is shown in graphic form at the end of this GEN 0.1subsection.

The AIP is the basic aeronautical information document for the BAHRAIN FIR / BAHRAIN UIR, and contains lasting information essential to air navigation. For other details reference should be made to the AIP of the State concerned.

The AIP is divided into three Parts, General (GEN), En-route (ENR) and Aerodromes (AD), each divided into sections and subsections containing various types of information subjects.

Note: *the electronic AIP BAHRAIN FIR (see **GEN 3.1.3.1**) may not include certain subsections listed hereafter which are not relevant for an electronic AIP. These subsections are marked as underlined.*

0.1.4.1.1 ***Part 1 General (GEN)***

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

GEN 0

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

GEN 1. National regulations and requirements

Designated authorities; Entry, transit and departure of aircraft; Entry, transit and departure of passengers and crew; Entry, transit and departure of cargo; Aircraft instruments, equipment and flight documents; summary of national regulations and international agreements / conventions; and Differences from ICAO Standards, Recommended Practices and Procedures for the Kingdom of Bahrain and the State of Qatar.

GEN 2. Tables and codes

Measuring system, aircraft markings, holidays; Abbreviations used in AIS publications; 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 rescue.

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

Aerodrome / heliport charges; and Air navigation services charges.

0.1.4.1.2 **Part 2 En - route (ENR)**

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

ENR 0.

Preface; Record of Amendments; Record of AIP Supplements; Check list of AIP pages; List of hand amendments to the AIP; *and the Table of Content to Part 2*.

ENR 1. General rules and procedures

General rules; Visual flight rules; Instrument flight rules; ATS airspace classification; Holding, approach and departure procedures; Radar services and procedures; Altimeter setting procedures; Regional supplementary procedures; Air traffic flow management; Flight planning; Addressing of flight plan messages; Interception of civil aircraft; Unlawful interference; and Air traffic incidents.

ENR 2. Air traffic services airspace

Detailed description of:

Flight information regions (FIR), Upper flight information regions (UIR), Terminal control areas (TMA); and other regulated airspace.

ENR 3. ATS routes

Detailed description of:

Lower ATS routes; Upper ATS routes; Area navigation routes; Helicopter routes; other routes; and En-route holding.

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

ENR 4. Radio navigation aids / systems

Radio navigation aids en-route; Special navigation systems; Global navigation satellite system, Name-code designators for significant points; and Aeronautical ground lights en -route.

ENR 5. Navigation Warnings

Prohibit, restricted and danger areas; Military exercise and training areas; Other activities of dangerous nature; Air navigation obstacles en-route; Aerial sporting and recreational activities; and Wildlife Management and areas with sensitive fauna.

ENR 6. En - route charts

En-route Chart ICAO and index charts.

0.1.4.1.3 ***Part 3 Aerodromes (AD)***

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

AD 0.

Preface; Record of AIP Amendments; Record of AIP Supplements; Check list of AIP pages; List of hand amendments to the AIP; and the Table of Contents to Part 3.

AD 1. Aerodromes / Heliports Introduction

Aerodrome / heliport availability; Rescue and Fire fighting services and snow plan; Index to aerodromes and heliports, Grouping of aerodromes / heliports, Status of certification of aerodromes.

AD 2. Aerodromes

Detailed information about aerodromes, including helicopter landing areas, if located at the aerodromes.

AD 3. Heliports

Detailed Information about heliports (not located at aerodromes).

0.1.4.2 **Regular amendment Interval**

The AIP BAHRAIN FIR will be updated on regular basis according the AIRAC dates as published in **GEN 3.1.4.2**. Whenever an AIRAC AMDT is published a trigger NOTAM will be issued by at least three days prior to effective date. This NOTAM will give a brief description of the AIRAC's content and shall come into effect on the same date of the AIRAC.

0.1.5 COPYRIGHT POLICY

To be developed

0.1.6 SERVICES TO CONTACT IN CASE OF DETECTED AIP ERRORS OR OMISSIONS

The AIP BAHRAIN FIR and associated NOTAM are compiled from a variety of sources. Except for Kingdom of Bahrain, all information is acquired from indepent states and from commercial sources. The greatest care is exercised in the assembly and compilation of information for the AIP BAHRAIN FIR and associated NOTAM and they are considered to be as reliable as possible at the time of issue. Civil Aviation Affairs will not be held responsible, however, for the accuracy of the content of the AIP or NOTAM or for any omissions therefrom, neither will Civil Aviation Affairs be responsible for the adequacy or receipt of NOTAM or AIP amendments.

Any errors and omissions which may nevertheless be detected, as well as any correspondence concerning the Integrated Aeronautical Information Package, should be referred to:

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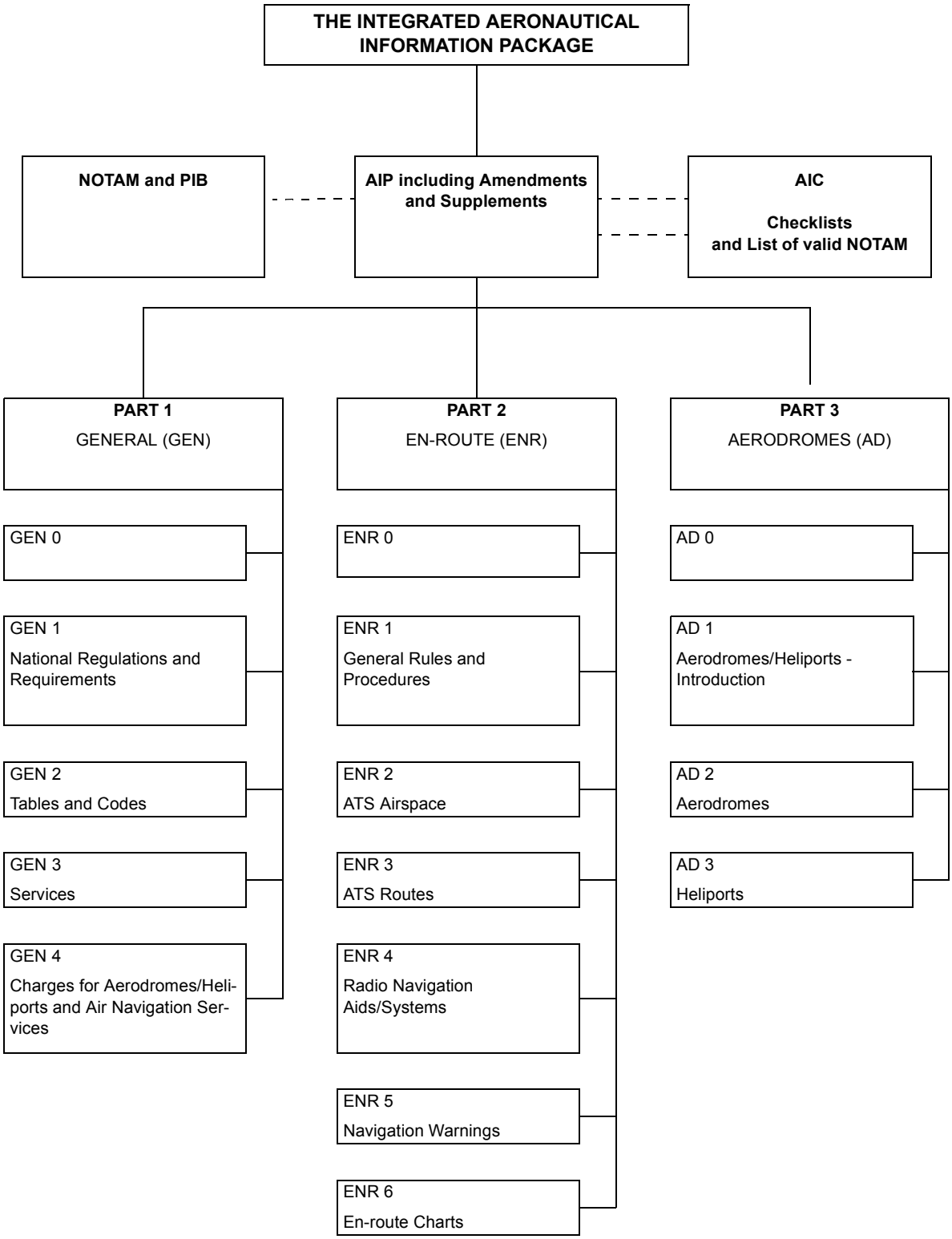
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GEN 0.2 RECORD OF AIP AMENDMENTS

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AIRAC AIP AMENDMENT			
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GEN 1. NATIONAL REGULATIONS AND REQUIREMENTS

GEN 1.1 DESIGNATED AUTHORITIES

1.1.1 REQUIREMENTS AND PROCEDURES

1.1.1.1 The requirements for entry and departure of aircraft engaged in international flights, and the standard procedures for clearance of these aircraft is given for the Kingdom of Bahrain. (for state of Qatar, refer to Qatar AIP)

Note: *It is solely the aircraft operator's responsibility to obtain any required landing and overflight permission from the appropriate state authorities.*

1.1.1.2 Permission to and / or overfly issued by Civil Aviation Affairs Bahrain related only to BAHRAIN INTERNATIONAL Airport and the territorial airspace of the Kingdom of Bahrain.

1.1.1.3 Clearances issued by the BAHRAIN ACC or Flight Information Centre are based on ATC considerations and do not absolve operators from compliance with the states facilitation regulations.

1.1.2 DESIGNATED AUTHORITIES

The addresses of designated authorities concerned with the facilitation of international air navigation (e.g. civil aviation, meteorology, customs, immigration, health, en - route and aerodrome / heliport charges, agricultural quarantine and aircraft accident investigation) containing, for each authority.

1.1.3 DIFFERENCES FROM ICAO STANDARDS AND RECOMMENDED PRACTICES

Where available, information concerning any difference from ICAO Annex 9 is published seperately for each individual State. Additional information is published when received.

KINGDOM OF BAHRAIN

1.1.4 INTRODUCTION

The requirements for entry and departure of aircraft engaged in international flights, and the standard procedure for clearance of these aircraft at international airports, are given for the information and guidance of operators conducting international flights.

1.1.5 DESIGNATED AUTHORITIES

The postal and telegraphic addresses of the designated authorities concerned with the entry, transit and departure of international air navigation and for the collection of fees therefrom, are as follows:

1.1.5.1 CIVIL AVIATION AFFAIRS

Undersecretary for Civil Aviation
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321100
Telefax:+973 17339066
AFS: OBBIYAYX

1.1.5.2 CIVIL AVIATION AFFAIRS

Undersecretary for Civil Aviation
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321011
Telefax:+973 17321194
AFS: OBBIYAYX

1.1.5.3 CIVIL AVIATION AFFAIRS (AIR NAVIGATION DIRECTORATE)

Director Air Navigation
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321116
Telefax:+973 17329977
AFS: OBBIYAYX

1.1.5.4 CIVIL AVIATION AFFAIRS (AIRPORT DIRECTORATE)

Vice President Airport Operations
P.O. Box 24924
Kingdom of Bahrain

TEL: +973 17321997
Telefax:+973 17324096

1.1.5.5 CIVIL AVIATION AFFAIRS (AIRPORT CHARGES)

Director of Administration & Finance
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321019
Telefax:+973 17321110

1.1.5.6 CIVIL AVIATION AFFAIRS (DIRECTORATE OF AIR TRANSPORT)

Director of Air Transport
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321169
Telefax:+973 17333278
AFS: OBBIYAYX
SITA: BAHAPYF

1.1.5.7 CUSTOMS

Director General of Customs
P.O. Box 15
Kingdom of Bahrain
TEL: +973 39449050
Telefax:+973 17322919
Telex: 8642 MINA BN

BAHRAIN AIRPORT CUSTOMS INSPECTION SECTION
TEL: +973 17321620
Telefax:+973 17322919

1.1.5.8 IMMIGRATION

General Director of Immigration and Passports
P.O. Box 331
Kingdom of Bahrain
TEL: +973 17535111
Telefax:+973 17535522

AIRPORT IMMIGRATION SECTION
TEL: +973 17321650
Telefax:+973 17333501

1.1.5.9 HEALTH

Ministry of Health
P.O. Box 12
Kingdom of Bahrain
TEL: +973 17255555
Telefax:+973 17252569

Airport Health Office
TEL: +973 17321690

1.1.5.10 AGRICULTURAL & VETERINARY QUARANTINE

Ministry of Municipalities & Agriculture Affairs
Farmers´ Services Directorate
P.O. Box 251
Kingdom of Bahrain
Telex: 7200 ZERAA BN

AGRICULTURAL AFFAIRS
TEL: +973 17691215
Telefax:+973 17695527

MINISTRY OF MUNICIPALITIES
TEL: +973 17229888
Telefax:+973 17229666

1.1.5.11 MINISTRY OF INTERIOR (DIRECTOR OF AIRPORT SECURITY AREA)

Ministry of Interior
P.O. Box 13
Kingdom of Bahrain
TEL: +973 17321600
Telefax:+973 17332718
Telex: 9572 PSMKT BN

1.1.5.12 MINISTRY OF FOREIGN AFFAIRS

Ministry of Foreign Affairs
P.O. Box 547
Kingdom of Bahrain
Telefax:+973 17211416
Telex: 8228 KARJIA BN

TRACKING OFFICE
TEL: +973 17227555, +973 17212006
Telefax:+973 17210575

1.1.6 APPROVED AIRCRAFT HANDLING AGENCIES

Bahrain Airport Services (BAS)
P.O. Box 22285
Kingdom of Bahrain
TEL: +973 17321444
Telefax:+973 17322317
Telex: 8971 BASBA BN
AFS: OBBIXHAX
SITA: BAHKBXH

1.1.7 APPROVED AVIATION FUELLING

Bahrain Aviation Fuelling Company - BAFCO
P.O. Box 50500
Kingdom of Bahrain
TEL: +973 17329400 (Office) / +973 17329440 (Operations - H24)
Telefax:+973 17910925

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GEN 1.2 ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT

1.2.1 KINGDOM OF BAHRAIN

1.2.1.1 REGULATIONS AND REQUIREMENTS FOR ADVANCE NOTIFICATION AND APPLICATIONS FOR PERMISSION CONCERNING ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT ON INTERNATIONAL FLIGHTS

1.2.1.1.1 **GENERAL**

All flights landing in, departing from or overflying the territory of Bahrain shall comply with Bahrain Civil Aviation Law and Regulations and must include a valid mailing address of the company for which payment invoice must be issued to, failure to comply will result in rejecting the relevant approval request.

1.2.1.1.1.1 FLIGHT PERMISSION & SCHEDULNG SYSTEM (AL-NAWRAS)

An electronic system called flight permission & Scheduling system (AL-NAWRAS) that require all airlines / operators / agents to sign-up on the following official link: www.fps.gov.bh to submit their requests (Landing & Overflying) except state aircraft, V.V.I.P, and military requests should be via diplomatic channels according to (GEN 1.2.1.1.7).

For any inquiries, contact the following address:

Air Transport Directorate
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17329035 / +973 17329011 / +973 17329034 / +973 17329096 / +973 17321115 / +973 17333278
Telefax: +973 17333278
e-mail: schedule@mtt.gov.bh
AFS: OBBIYAYX
SITA: BAHAPYF

1.2.1.1.1.2 INFORMATION REQUIRED FROM AIRCRAFT OPERATORS AIRLINES / AGENTS

The following information is required from all aircraft operators for any type of operations:

1. Aircraft Operator (Air Operator‘s Certificate (AOC) - holder) and Address
2. Aircraft Charterer (if any)
3. Call Sign / Flight Number or Registration mark(s)
4. Aircraft Type & Nature of flight
5. Full Sector or Flight (from / to) & ETA / ETD
6. If Dangerous Goods are carried, refer also to **GEN 1.4**
7. Proposed date(s) of flight(s)
8. Aircraft configuration (passenger and cargo capacity)
9. Postal address of the company for collection of bills and payments.
10. Postal address of the agent and its client, if any.
11. Finance section contact details, telephone, fax and email.

Note: all operators / airlines / agents are requested to fulfill all the above information in (AL-NAWRAS).

1.2.1.1.1.3 Aircraft Certification checklists

It is a PDF printable file form made available for all airlines / operators / agents to use whenever they need to apply for a request for the intention of using bahrain international airport for any commercial & non traffic purposes. The checklist form is ready supplemental as a point number 10 literally at the online interface of scheduling or landing tabs on (AL-NAWRAS) system www.fps.gov.bh

1.2.1.1.2 **SCHEDULED OPERATION**

1.2.1.1.2.1 **TRAFFIC STOPS IN THE TERRITORY OF BAHRAIN**

For regular international scheduled flights into Bahrain, the airline must be designated pursuant to a bilateral or multilateral agreement to which the government of Bahrain and that of the State in which the airline is registered are parties, or have been granted a Temporary Operating Permit (T.O.P.) by Bahrain CAA. A request shall be applied through (AL-NAWRAS) system (GEN 1.2.1.1.1.1) by at least 30 days prior to the proposed date of commencement of operation. The following information and documents are required from aircraft operators in addition to the information shown under **GEN 1.2.1.1.1.2** above:

a) Information

1. Period of Operation
2. Aircraft Configuration (Passengers & Cargo Capacity)
3. Frequency (days of the week)

b) Pre-requisite valid documents:

1. Air Operator‘s Certificate, reflecting the aircraft registration mark(s)

2. Certificate of Registration
3. Certificate of Airworthiness
4. Insurance Certificate with full liability coverage (refer to GEN 1.2.1.1.**10**)
5. Noise Certificate
6. Aircraft Radio Station License
7. ACAS II / TCAS Certificate (mandatory within Bahrain airspace)
8. Basic Area Navigation (B - RNAV) Certificate, if equipped
9. RVSM Certificate, when operating above 29000 feet
10. In case of a leased aircraft:

    a) A copy of the lease agreement, approved by the State of Registry and the state operator; and

    b) Conformity statement from the State of Registry, stating that it will remain responsible for the safety oversight.

    (c) In case of transfer of functions of the State of Registry to the State of Operator, evidence is required showing the state responsible for safety oversight.

Note: aircraft certificates shall be inserted in the proper field of aircraft certification checklist which is provided at (AL-NAWRAS) (GEN 1.2.1.1.1.3) on www.fps.gov.bh

1.2.1.1.3 EXTRA / ADDITIONAL FLIGHTS

Any scheduled airlines whether overflying kingdom of bahrain aerospace or landing at bahrain international Airport who either wish to apply for an additional flight/s partially to the seasonal schedule or an extra flight, must apply a request through (AL-NAWRAS) system by at least 72 hours before the actual time of arrival.

1.2.1.1.4 OVERFLYING AND TECHNICAL STOPS

1.2.1.1.4.1 Subject to the observance of the applicable rules and regulations, aircraft registered in ICAO States and operated by an airline of any contracting State may overfly or make non-traffic stops in the territory of Bahrain provided the State concerned being signatory to the International Air Transit Agreement. There is no requirement to request for overflying permission for such aircraft. However, for non-traffic stops a request shall be applied through (AL-NAWRAS) (**GEN 1.2.1.1.1.1)** a minimum notice period of one week is required for administrative and operational reasons. The following information is required from aircraft operators in addition to the information shown under **GEN 1.2.1.1.1.2** above:

1. Period of Operation

2. Aircraft Configuration (Passengers & Cargo Capacity)

3. Frequency (days of the week)

1.2.1.1.4.2 Operators of aircraft registered in States that are not signatory to the ICAO convention must be obtain prior approval to overfly or land in the territory of Bahrain. A minimum notice period of one week is required for administrative and operational reasons.

Note: *see recommended Airlines Schedules Application Format*

1.2.1.1.4.3 DOCUMENTARY REQUIREMENTS FOR THE CLEARANCE OF AIRCRAFT

1.2.1.1.4.3.1 It is necessary that the aircraft documents shown in the table in **GEN 1.2.1.1.4.4** be submitted by aircraft operators for the clearance on entry and departure of their aircraft to and from Bahrain.

1.2.1.1.4.3.2 One copy of the General Declaration must be signed by the pilot - in - command or an authorized agent.

1.2.1.1.4.3.3 All documents listed below must follow the ICAO standard format, set forth in the relevant appendices to Annex 9, must be furnished in English and be completed legibly.

1.2.1.1.4.3.4 No visas are required in connection with such documents.

1.2.1.1.4.4 AIRCRAFT DOCUMENTS REQUIRED (ARRIVAL / DEPARTURES)

REQUIRED BY	GENERAL DECLARATION	PASSENGER MANIFEST	CARGO MANIFEST
IMMIGRATION	NIL	NIL	NIL
HEALTH	1	1	NIL
CUSTOMS	NIL / 1	NIL	1 / 1
TOTAL	2	1	2

Note: *If no passengers are embarking or disembarking and no articles are loaded or unloaded, no documents except copies of the General Declaration need to be submitted.*

1.2.1.1.4.5 **PUBLIC HEALTH MEASURES APPLIED TO AIRCRAFT**

If more than four weeks have elapsed since the date of issue of the certificate of Residual Disinfection, and the aircraft has originated in or arrived from a malarious area or a yellow fever endemic area, aerosol disinfection of the aircraft should be carried out before taking off, or on arrival.

1.2.1.1.5 **NON SCHEDULED OPERATIONS**

1.2.1.1.5.1 **TRAFFIC STOPS IN THE TERRITORY OF BAHRAIN**

If an operator intends to make an non - scheduled stop in the territory of Bahrain for the purpose of taking on or discharging passengers, cargo or mail, the Air Operator‘s Certificate (AOC) - holder should apply a request through (AL-NAWRAS) **GEN 1.2.1.1.1.1** a minimum notice period of one week is required. The following valid documents are required from AOC - holder in addition to the information shown under **GEN 1.2.1.1.1.2** above:

1. Air Operator‘s Certificate, reflecting the aircraft registration mark(s)
2. Certificate of Registration
3. Certificate of Airworthiness
4. Insurance Certificate with full liability coverage (refer to **GEN 1.2.1.1.10**)
5. Noise Certificate
6. Aircraft Radio Station License
7. ACAS II / TCAS Certificate (mandatory within Bahrain airspace)
8. Basic Area Navigation (B - RNAV) Certificate, if reequipped
9. RVSM Certificate, when operating above 29000 FT
10. In case of a leased aircraft:

    (a) A copy of the lease agreement, approved by the State of Registry and the State of Operator; and

    (b) Conformity statement from the State of Registry, stating that it will remain responsible for the safety oversight.

    (c) In case of transfer of functions of the State of Registry to the State of Operator, evidence is required showing the state responsible for safety oversight.

1.2.1.1.5.2 **OVERFLYING AND TECHNICAL STOPS**

1.2.1.1.5.2.1 Subject to the observance of the applicable rules and regulations, aircraft registered in ICAO States and operated by an airline of any contracting State may over fly or make non - traffic stops in the territory of Bahrain provided the State concerned being signatory to the Chicago Convention on International Civil Aviation. There is no requirement to request for over flying permission for such aircraft except when the flight is involved in Diplomatic or Military operations e.g. State VIP, transportation of ammunitions etc. in which case an application for approval should be made in accordance with **GEN 1.2.1.1.7.1** below. Applications for non - traffic stops a request shall be applied through (AL-NAWRAS) (GEN 1.2.1.1.1.1) A minimum notice period of 48 hours is required for administrative and operational reasons. The following information is required from aircraft operators in addition to the information shown under **GEN 1.2.1.1.1.2** above:

1. Date of Flight(s)

2. Type of Cargo (if any)

1.2.1.1.5.2.2 Operators of aircraft registered in States that are not signatory to the ICAO convention must obtain prior approval to overfly or land in the territory of Bahrain. A minimum notice period of one week is required for the administrative and operational reasons.

1.2.1.1.5.3 **DOCUMENTARY REQUIREMENTS FOR THE CLEARANCE OF AIRCRAFT**

The same as for scheduled flights (see **GEN 1.2.1.1.2.4**).

1.2.1.1.5.4 **AIRCRAFT DOCUMENTS REQUIRED (ARRIVAL / DEPARTURE)**

REQUIRED BY	GENERAL DECLARATION	PASSENGER MANIFEST	CARGO MANIFEST
IMMIGRATION	1	1	NIL
HEALTH	1	1	NIL
CUSTOMS	1 / 1	NIL	1
TOTAL	4	2	1

1.2.1.1.5.5 **PUBLIC HEALTH MEASURES APPLIED TO AIRCRAFT**

The same as for scheduled flights.

1.2.1.1.6 PRIVATE / GENERAL AVIATION OPERATIONS

1.2.1.1.6.1 **TRAFFIC STOPS IN THE TERRITORY OF BAHRAIN**

If an operator wishes to land in the territory of Bahrain for the purpose of taking on or discharging of passengers, cargo or mail, a request shall be applied through (AL-NAWRAS) **GEN 1.2.1.1.1**.1 a minimum notice period of 48 hours is required for administrative and operational reasons. The following information is required from aircraft operators in addition to the information shown under **GEN 1.2.1.1.1.2** above:

1. Purpose of Flight
2. Passenger & Company Name
3. Name of VIP (if any)
4. Type of Cargo (if any)
5. Hosting Company and / or Contact in Bahrain

1.2.1.1.6.2 **OVERFLYING AND TECHNICAL STOPS**

1.2.1.1.6.2.1 Subject to the observance of the applicable rules and regulations, there is no requirement to request permission for overflying or refuelling / crew rest stops for such aircraft except when the flight is involved in Diplomatic or Military Operations e.g. State VIP, Transportation of ammunitions etc. in which case an application for approval should be made in accordance with **GEN 1.2.1.1.7.1** below.

1.2.1.1.6.2.2 Operators of aircraft registered in states that are not signatory to the ICAO convention must obtain prior approval to overfly or land in the territory of Bahrain. through (AL-NAWRAS) GEN 1.2.1.1.1.1 minimum notice period of 48 hours is required for administrative and operational reason.

1.2.1.1.6.3 **DOCUMENTARY REQUIREMENTS FOR THE CLEARANCE OF AIRCRAFT**

The same as for scheduled flights (see **GEN 1.2.1.1.4**)

1.2.1.1.6.4 **AIRCRAFT DOCUMENTS REQUIRED (ARRIVAL / DEPARTURE)**

REQUIRED BY	GENERAL DECLARATION	PASSENGER MANIFEST	CARGO MANIFEST
IMMIGRATION	1	1	NIL
HEALTH	1	1	NIL
CUSTOMS	1 / 1	NIL	1
TOTAL	4	2	1

1.2.1.1.6.5 **PUBLIC HEALTH MEASURES APPLIED TO AIRCRAFT**

The same as for non - scheduled flights

1.2.1.1.7 MINISTRY OF FOREIGN AFFAIRS APPROVALS

Any State or Military aircraft (including chartered flights) wishing to overfly, land in or depart from the territory of Bahrain shall apply for approval. A minimum notice period of two weeks before the intended date of overflight, arrival or departure is required.

Applications should be made to:

1.2.1.1.7.1 Address

Ministry of Foreign Affairs
P.O. Box 547
Kingdom of Bahrain
Telefax:+973 17210575 / +973 17104761
Telex: 8228 KARJIA BN

With a copy to:

Director of Air Transport
P.O. Box 586
Kingdom of Bahrain
Telefax:+973 17333278
AFS: OBBIYAYX
SITA: BAHAPYF

1.2.1.1.8 Information required from aircraft operators

The following information is required from aircraft operators in addition to the information shown under **GEN 1.2.1.1.1.1** above:

1. Purpose of Flight
2. Name of VIP (if any)
3. Type of Cargo (if any)

1.2.1.1.9 VVIP / VIP FLIGHT OPERATIONS

Any operator carrying out a VVIP / VIP flight for the purpose of landing in, departing from or overflying the territory of Bahrain shall apply for approval to the Ministry of Foreign Affairs as detailed in **GEN 1.2.1.1.7** above.

1.2.1.1.10 **INSURANCE COVER IN RESPECT OF LIABILITY FOR PASSENGERS, BAGGAGE, CARGO AND THIRD PARTIES**

1.2.1.1.10.1 **REQUIREMENT FOR MINIMUM INSURANCE COVER**

1.2.1.1.10.1.1 Air carriers and aircraft operators are required to provide a minimum insurance cover in respect of passengers, baggage and cargo in accordance with the rules of Montreal Convention (signed on 28 May 1999); and in respect of third parties in accordance with **GEN 1.2.1.1.10.4** below.

1.2.1.1.10.1.2 The insurance shall cover aviation - specific liability in respect of passengers, baggage, cargo and third parties. Regarding passengers, baggage and cargo insurance shall include cover for death and personal injury caused by accidents and for loss or destruction of or damage to baggage and cargo. Regarding third parties, insurance shall include cover for death, personal injury and damage to property caused by accidents.

1.2.1.1.10.2 **DEFINITIONS**

a) “air carrier” means an air transport undertaking with a valid operating license or Air Operator‘s Certificate;
b) “aircraft operator” means the person or entity, not being an air carrier, who has continual effective disposal of the use or operation of the aircraft; the natural or legal person in whose name the aircraft is registered shall be presumed to be the operator, unless that person can prove that another person is the operator;
c) " flight means”;

- with regard to passengers and unchecked baggage, the period of transport of the passengers by aircraft including their boarding and disembarkation,
- with regard to cargo and checked baggage, the period of transport of baggage and cargo from the moment the baggage or cargo is handed to the air carrier until the moment of delivery to the entitled recipient,
- with regard to third parties, the use of an aircraft from the moment when power is applied to its engines for the purpose of taxiing or actual take - off until the moment when it is on the surface and its engines have come to a complete stop; additionally, it shall mean the moving of an aircraft by towing and push - back vehicles or by powers which are typical for the drive and lift of aircraft, particularly air streams;

d) “SDR” means a Special Drawing Right as defined by the International Monetary Fund;
e) “MTOM” means the Maximum Take - off Mass, which corresponds to a certified amount of specific to all aircraft types, as stated in the certificate of airworthiness of the aircraft;
f) “Passenger” means any person who is on the flight with the consent of the air carrier or the aircraft operator, excluding on - duty members of both the flight crew and the cabin crew;
g) “third party” means any legal or natural person, excluding passengers and on - duty members of both the flight crew and the cabin crew;
h) “commercial operation” means an operation for remuneration and / or hire.

1.2.1.1.10.3 **PRINCIPLES OF INSURANCE**

1.2.1.1.10.3.1 The insured risks shall include acts of war, terrorism, hijacking, acts of sabotage, unlawful seizure of aircraft and civil commotion.

1.2.1.1.10.3.2 Air carriers and aircraft operators shall ensure that insurance cover exists for each and every flight, regardless of whether the aircraft operated is at their disposal through ownership or form of lease agreement, or through joint or franchise operations, code - sharing or any other agreement of the same nature.

1.2.1.1.10.4 **INSURANCE IN RESPECT OF LIABILITY FOR THIRD PARTIES**

In respect of liability for third parties, the minimum insurance cover per accident, for each and every aircraft, shall be:

CATEGORY	MOTOM (kg)	MINIMUM insurance (million SDRs)
1	< 500	0.75
2	< 1000	1.5
3	< 2700	3

CATEGORY	MOTOM (kg)	MINIMUM insurance (million SDRs)
4	< 6000	7
5	< 12000	18
6	< 25000	80
7	< 50000	150
8	< 200000	300
9	< 500000	500
10	= / > 500000	700

1.2.1.1.10.5 **AMENDMENT TO THE INSURANCE VALUES**

The insurance values may be amended, as appropriate, when amendments in the relevant international treaties indicate the necessity thereof.

1.2.1.1.10.6 **EVIDENCE OF ADEQUATE INSURANCE COVER**

Air carriers and air operators are required to provide evidence of adequate insurance cover stated as above. In an event such evidence is not provided, operating permission shall be denied.

RECOMMENDED PRESENTATION FORMAT FOR AIRLINES SCHEDULE APPROVAL APPLICATIONS

KINGDOM OF BAHRAIN
Ministry of Transportation and Telecommunications

مملكة البحرين
وزارة المواصلات والاتصالات

Air Transport Directorate

FORM A

SCHEDULE FORM

AIRLINE:		SEASON:				
PERIOD OF OPERATION		FROM:		TO:		
FLT. NO	FREQUENCY (DAYS)	FULL SECTOR OF FLIGHT	TIMES (LT)		A/C TYPE	CONFIGURATION

Notes:

1- This form may be reproduced to suit individual airline's need e.g. SITA/AFTN.
2- You may use more pages as needed.

☎+973 17329011/9901/1904/1928
🖷+973 17333278/17329173
Schedule@mtt.gov.bh
BAHAPYF/OBBIYAYX

KINGDOM OF BAHRAIN
Ministry of Transportation and Telecommunications

مملكة البحرين
وزارة المواصلات والاتصالات

Air Transport Directorate

FORM B

SCHEDULE CHANGE/CANCELLATION FORM

Airline Operator: **Date:**

1- The nature of the request (tick proper box)

CHANGE ☐ CANCELLATION ☐

2- Type of flight (tick proper box)

SCHD ☐ NON-SCHD ☐

3- Affected Field (tick proper box and if applying for cancellation, skip this field)

CALL SIGN ☐ DATE/TIME ☐ ROUTE ☐ FREQ ☐ TYPE ☐

4- Original Flight Details:

5- New Flight Details (if applying for cancellation, skip this field)**:**

***Note**: All timings should be inserted in **LOCAL MEAN TIME**

☎+973 17329011/9901/1904/1928
+973 17333278/17329173

Schedule@mtt.gov.bh
BAHAPYF/OBBIYAYX

RECOMMENDED REQUEST PROCESSING INFORMATION LIST FOR PRIVATE / GENERAL AVIATION FLIGHTS

1. Aircraft Operator & Address:	
2. Aircraft Charterer (if any):	
3. Aircraft Call Sign:	
4. Aircraft Registration:	
5. Aircraft Type:	Nature of flight:
6. Sector of flight (from / via / to):	
7. ETA / ETD:	
8. Name of VIP & Title (if any):	
9. Type of Cargo (if any):	
10. Any other Details:	
For Landing other than Refuel & Crew Rest the following information is also required:	
11. Purpose of flight:	
12. Passenger & Company Name:	
13. Hosting Company and / or Person in Bahrain:	

Note: *This form may be reproduced to suit individual operator's need e.g. SITA / AFTN.*

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GEN 1.3 ENTRY, TRANSIT AND DEPARTURE OF PASSENGERS AND CREW

KINGDOM OF BAHRAIN

1.3.1 REGULATIONS (INCLUDING CUSTOMS, IMMIGRATION AND QUARANTINE, AND REQUIREMENTS FOR ADVANCE NOTIFICATION AND APPLICATIONS FOR PERMISSION) CONCERNING ENTRY, TRANSIT AND DEPARTURE OF PASSENGERS AND CREW

1.3.1.1 IMMIGRATION REQUIREMENTS

1.3.1.1.1 ARRIVING PASSENGERS

A person entering Bahrain for the purpose of immigration must hold a valid passport. A 72 - hour visa can be obtained for non - immigration purposes such as business. Disembarkation cards must be completed.

1.3.1.1.2 TRANSIT PASSENGERS

No documents or visa are required for passengers arriving and departing on the same flight, or transferring to another flight at the same airport.

1.3.1.1.3 DEPARTING PASSENGERS

From departing passengers, inspection of identity documents and completion of an embarkation card are required.

1.3.1.1.4 CREW

A crew member license is acceptable.

1.3.1.2 CUSTOMS REQUIREMENTS

1.3.1.2.1 ARRIVAL

Baggage belonging to disembarking passengers and crew is immediately inspected and released if it does not contain any prohibited, restricted or dutiable goods. Dutiable items are released immediately on payment of duty.

1.3.1.2.2 TRANSIT

Not specified

1.3.1.2.3 DEPARTURE

For embarking passengers, the inspection of baggage is not normally required.

1.3.1.3 PUBLIC HEALTH REQUIREMENTS

1.3.1.3.1 ARRIVAL

A Yellow Fever vaccination certificate is required from travellers over one year of age coming from infected areas.

1.3.1.3.2 TRANSIT

Not specified

1.3.1.3.3 DEPARTURE

On departure, no health formalities are required.

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GEN 1.4 ENTRY, TRANSIT AND DEPARTURE OF CARGO

1.4.1 KINGDOM OF BAHRAIN

1.4.1.1 REGULATIONS (INCLUDING CUSTOMS, AND REQUIREMENTS FOR ADVANCE NOTIFICATION AND APPLICATIONS FOR PERMISSION) CONCERNING ENTRY, TRANSIT AND DEPARTURE OF CARGO

Note: *Provisions for facilitating entry and departure for search, rescue, salvage, investigation, repair or salvage in connection with lost or damaged aircraft are detailed in section GEN 3.6, Search and Rescue.*

1.4.1.1.1 **CUSTOMS REQUIREMENTS CONCERNING CARGO AND OTHER ARTICLES**

1.4.1.1.1.1 IMPORTS

All air cargo shipments for Bahrain or in transit Bahrain are subject to customs clearance before release. For clearance, the appropriate Customs Declaration supported by required documents, notably genuine commercial supplier‘s invoice and Certificate of Origin must be presented.

1.4.1.1.1.2 TRANS - SHIPMENTS

Trans - shipment from one flight to another is permitted under customs supervision and must be recorded in the Export Manifest of departing flights.

1.4.1.1.1.3 EXPORTS

Air cargo shipments from Bahrain may be required to be cleared through customs on the appropriate customs declaration before shipment, especially when draw back of duty or deposit is claimed.

1.4.1.1.2 AGRICULTURAL QUARANTINE REQUIREMENTS

1.4.1.1.2.1 ARRIVAL

Advance permits are required for the importation of plants, plant parts, seeds and organic fertilizers. Advance permits are also required for the importation of live animals to Kingdom of Bahrain.

Details are available on application to the Ministry of Municipalities and Agriculture Affairs, Farmer‘s Services Directorate at the address shown on **GEN 1.1**.

1.4.1.1.2.2 TRANSIT

See **GEN 1.4.1.1.2.1**

1.4.1.1.2.3 DEPARTURE

See **GEN 1.4.1.1.2.1**

1.4.1.1.3 **SAFE TRANSPORT OF DANGEROUS GOODS BY AIR**

1.4.1.1.3.1 **General**

1.4.1.1.3.1.1 The Kingdom of Bahrain legislation requires that the transportation of all classes of dangerous goods is done in accordance with instructions contained in the Technical instructions for the safe Transport of Dangerous Goods by Air, ICAO Doc 9284 - AN / 905 and CAA Publication CAP 02.

1.4.1.1.3.1.2 The Kingdom of Bahrain legislation expressly forbids the transport of the following items by aircraft, except with the prior permission from Civil Aviation Affairs and in accordance with the conditions mentioned in this permission:

a) Weapons and munitions
b) Explosives, unless required on board the aircraft for its operation, or for signaling
c) Poisonous Gases
d) Germs
e) Radioactive material, radioisotopes and similar substances
f) Any other prohibited item as determined by the competent authority

1.4.1.1.3.1.3 An Operator who intends to transport dangerous goods by air, is required to apply and be approved in accordance with CAA publication CAP 02.

1.4.1.1.3.1.4 In the event of an accident / incident involving dangerous goods, the operator is required to adhere to the reporting procedures

in accordance with CAA publication CAP 02.

1.4.1.1.3.2 Overflying **BAHRAIN FIR** / **BAHRAIN UIR**

An Operator desirous to carry dangerous goods and applying for permission to overfly the BAHRAIN FIR / BAHRAIN UIR, must ensure that all dangerous goods have been packed, marked, labelled and handled in accordance with ICAO Annex 18 - Safe Transport of Dangerous Goods by Air, and the requirements of ICAO Technical Instructions Doc, 9284 - AN / 905, and must make an undertaking to CAA to this effect. This undertaking must be made at the time of providing notification of over flight / applying for the required permission (**GEN 1.2** refers).

1.4.1.1.3.3 **Transportation of Arms, Ammunition and all Classes of Explosives**

1.4.1.1.3.3.1 Furthermore, the transportation of arms, ammunition and all classes of explosives from / to / through Bahrain requires prior permission to be obtained from the Ministry of the Interior (MOI) and Civil Aviation Affairs (CAA) of the Kingdom of Bahrain.

1.4.1.1.3.3.2 Applications are required to be made at least seven working days in advance of the proposed date of transportation to an appropriate office of the Ministry of Interior (MOI):

(a) Transportation To / From Bahrain

(Form: AT / ARL / F002 a)

Ministry of Interior
Public Security Headquarters
Kingdom of Bahrain
TEL: +973 17272111
Telefax:+973 17270463
Telex: 9572 BN

(b) Transit / Transshipment at Bahrain

(Form: AT / ARL / F 002 b)

Ministry of Interior
Airport Directorate
Bahrain International Airport
Kingdom of Bahrain
TEL: +973 17321604 / +973 17321605
Telefax:+973 17332718

1.4.1.1.3.3.3 On receipt of "no objection" from MOI, the application is required to be forwarded to CAA, at least three working days prior to the proposed date of transportation for final approval:

Head of Aircraft Registration and Licensing
Air Transport Directorate
Civil Aviation Affairs
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321006
Telefax:+973 17321061
Telex: 9186 AIRCIV BN

GEN 1.5 AIRCRAFT INSTRUMENTS, EQUIPMENT AND FLIGHT DOCUMENTS

1.5.1 GENERAL

1.5.1.1 CARRIAGE OF RADIO AND RADAR EQUIPMENT

1.5.1.1.1 To assist in the expeditious of air traffic throughout the BAHRAIN FIR / BAHRAIN UIR by the fullest use of the Navigation Aids provided for this purpose, the appropriate authorities of state providing Approach and / or Area Control Services have agreed to the requirements shown in **GEN 1.5.1.3** and **GEN 1.5.1.4** below for the carriage of Radio and Radar equipment.

1.5.1.1.2 Carriage of equipment listed under Paragraphs **GEN 1.5.1.3.1**, **GEN 1.5.1.3.2** and **GEN 1.5.1.4.1** is mandatory.

1.5.1.2 CARRIAGE COMMUNICATIONS, NAVIGATION AND APPROACH AID EQUIPMENT

The requirements applicable to all aircraft flying in the BAHRAIN FIR / BAHRAIN UIR and those particular to aircraft flying for the purpose of public transport are tabulated below. No general exemption from these requirements will be granted, but in very special circumstances relaxation of the requirements for a single flight may be approved by the Bahrain Air Traffic Control Centre or by the appropriate Approach Control Unit.

1.5.1.3 COMMUNICATION, NAVIGATION AND APPROACH EQUIPMENT REQUIRED

1.5.1.3.1 **Flight under IFR in Controlled Airspace up to FL 150**

COMMUNICATIONS EQUIPMENT

VHF RTF with appropriate frequencies available

NAVIGATION EQUIPMENT

a) in Control Areas and Control Zones VOR Receiver and automatic D / F and receiver for 75 MHZ Beacons
b) in BAHRAIN CTA and Terminal Manoeuvring Areas, in addition to (a) above, DME

APPROACH AID EQUIPMENT

For landing at certain aerodromes within Control Zones an Approach Aid, e.g. ILS

Exception

Gliders, helicopters and light aircraft of 2500 KG MAUW or less, and special VFR flights, are exempt from the Navigation Equipment requirements.

1.5.1.3.2 **Flight in Controlled Airspace above FL 150**

In addition to **GEN 1.5.1.3.1**, DME

1.5.1.3.3 **Public Transport Aircraft flying under IFR**

Equipment as in **GEN 1.5.1.3.1** and **GEN 1.5.1.3.2**

1.5.1.3.4 **Public Transport Aircraft flying under VFR**

Sufficient equipment to maintain two - way communication with appropriate ATS units and also to navigate to the Flight Plan and ATC instructions.

Note: *See also **GEN 3.4** with reference to the continuous guarding of emergency frequencies.*

1.5.1.4 CARRIAGE OF SSR TRANSPONDERS

1.5.1.4.1 The requirements for the carriage of radar equipment in the BAHRAIN FIR / BAHRAIN UIR are as follows:

All TFC WI **OBBB FIR** / UIR:

Mode A - 4096 Codes and Mode C

1.5.1.4.2 **Exception for carrying Mode C**

Gliders

Helicopters below 1000 FT

1.5.1.4.3 **Exemptions**

The grant of exemptions from meeting the above requirements for the carriage of SSR transponder will only be considered in exceptional circumstances, and for limited periods. Applicants for exemption should submit full details of their inability to meet the requirements to:

Undersecretary for Civil Aviation
P.O. Box 586
Kingdom of Bahrain
Telefax:+973 17339066
AFS: OBBIYAYX

1.5.1.5 CARRIAGE OF AIRBORNE COLLISION AVOIDANCE SYSTEM - ACAS II

1.5.1.5.1 All fixed - wing turbine - engine aircraft having maximum take - off mass in excess of 5700 KG or approved passenger seating configuration of more than 19, will be required to be equipped with ACAS II.

1.5.1.5.2 Aircraft that failed to install ACAS II shall not be permitted to operate within BAHRAIN FIR / BAHRAIN UIR.

1.5.1.5.3 All aircraft fitted with ACAS II equipment, shall be fitted with software version 7.1 with mode S transponder compliant with Annex 10, Volume IV within the OBBB EFF 1st Jan 2017.

1.5.1.6 AUTHORIZATION FOR FLIGHT IN RVSM AIRSPACE

1.5.1.6.1 Aircraft intending flight in airspace where RVSM rules are applied are required to carry specific approval for RVSM operations from their State of Registry.

1.5.1.6.2 State aircraft are exempt from the requirement to carry RVSM documentation.

Note: *In these cases 2000 FT vertical separation shall be applied. However, priority for allocation of levels will be in accordance with the criteria of making the best use of available airspace.*

1.5.2 NAVIGATION EQUIPMENT FAILURE PROCEDURES

1.5.2.1 If part of an aircraft's radio navigation equipment fails, but two-way communication can still be maintained with ATC, the pilot must inform ATC of the failure and report his altitude and approximate position. ATC may at its discretion authorize the pilot to continue his flight in or into controlled airspace. When radar is available it may, subject to workload, be used to provide navigational assistance to the pilot.

1.5.2.2 If no authorization to proceed is given by ATC the pilot should leave or avoid controlled airspace and areas of dense traffic, and either:

a) Go to an area in which he can continue his flight in VMC, or
b) Select a suitable area in which to descend through cloud, fly visually to a suitable aerodrome and land as soon as practicable.

Note: *Before doing so, however, he should consult ATC who may be able to give him instructions or advice. He should also take into consideration the latest meteorological information and terrain clearance.*

GEN 1.6 SUMMARY OF NATIONAL REGULATIONS AND INTERNATIONAL AGREEMENTS / CONVENTIONS

1.6.1. The following is a list of Civil Aviation Legislation, Air Navigation Regulation etc. in force in certain areas of the BAHRAIN FIR / BAHRAIN UIR. They are available from:

Head of Aviation Safety
Civil Aviation Affairs
P.O. Box 586
Kingdom of Bahrain

		Reference NO.
(a)	Civil Aviation Law No: 14 / 2013	CAA Law
(b)	Air Navigation Technical Regulations	ANTR
(c)	Safe Transport of Dangerous Goods by Air	(PO1/01)
(d)	Procedures for Aircraft Accident & Incident Investigation	(PO1/02)
(e)	Procedures for ATC Incident Reporting	(PO1/03)
(f)	The Mandatory Occurrence Reporting Scheme for Bahrain Registered Aircraft	(PO1/05)
(g)	Air Operators Certificate	(PO1/06)
(h)	The Completion of Application Forms for the Grant, Renewal or Variation of an Air Operators Certificate	(PO1/07)
(i)	Maintenance Engineer Licensing	(PO1/08)
(j)	Flight Crew Licensing	(PO1/09)
(k)	Designated Examiner : Flight Crew	(PO1/10)
(l)	Procedures for Air Ambulance Operations and Emergency Medical Services	(PO1/12)

Summary of the procedure for issuance / Validation of Licenses (Refer P01/79) in **GEN 1.6.1** above:

The licenses issued by ICAO contracting state may be recognized by the Kingdom of Bahrain provided that the following are adhered to:

a) A license is issued by a contracting state to the convention on International Civil Aviation, in accordance with Annex 1 to the convention, and is valid at the time of application;
b) The training organization and syllabus meet Bahrain CAA requirements;
c) The applicant is employed by a Bahrain registered operator; and
d) The applicant successfully passes an examination on Bahrain aviation law and regulations, conducted by Bahrain CAA.

1.6.2 International agreements / conventions: Kingdom of Bahrain

Convention on International Civil Aviation (The Chicago Convention)

Convention for the Unification of Certain Rules Relating to International Carriage by Air (The Warsaw Convention)

International Air Services Transit Agreement

Convention on offences and certain Other Acts Committed on Board Aircraft (The Tokyo Convention)

Convention for the Suppression of Unlawful Seizure of Aircraft (The Hague Convention)

Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation (The Montreal Convention)

Convention on the Privileges and Immunities of specialized Agencies (United Nations)

Convention on the Marking of plastic Explosives for the Purpose of Detection

Convention on Damage Caused by Foreign Aircraft to Third Parties on surface (Rome, 7 October 1952) and protocol to emend the same (Montreal, 23 September 1978)

Convention for the Unification of Certain Rules for International Carriage by Air (Montreal, 28 May 1999)

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GEN 1.7 DIFFERENCES FROM ICAO STANDARDS, RECOMMENDED PRACTICES AND PROCEDURES

GENERAL

The rules of the air and air traffic procedures applicable to air traffic within the BAHRAIN FIR / BAHRAIN UIR conform with Annexes 2 and 11 to the Convention on International Civil Aviation, the Procedures for Air Navigation Services and the Regional Supplementary Procedures applicable to the MID / SIA Region, except in the cases indicated hereunder. Any differences which are attributable to the Bahrain ATC are registered with the International Civil Aviation Organization (ICAO).

With reference to Annex 2 Chapter 4 para. 4.3, VFR flights are permitted between the hours of sunset and sunrise in CLASS C, D and CLASS G airspace.

Aircraft operating off airways are required to send position reports as soon as practicable after the first half - hour of flight and at hourly intervals thereafter. As the BAHRAIN FIR and BAHRAIN UIR are considered to be areas over which Search and Rescue operations may be difficult, aircraft must transmit at least one signal in the interval between position reports.

ANNEX 1 PERSONNEL LICENSING (11th Edition JULY 2011):

Note: *On request, the Kingdom of Bahrain will accept international air services / commercial operations by pilots of Contracting States beyond their 60th birthday up to the age stipulated by their respective states of Registry, which has filed a difference with ICAO, to a maximum of 65 years on the condition that the other pilot is below the age of 60 years.*

ANNEX 2 - RULES OF THE AIR (10th Edition JULY 2005):

Appendix 3

A modified table of cruising levels applies; see **ENR 1.7**

PROCEDURES FOR NAVIGATION SERVICES: AIR TRAFFIC MANAGEMENT SERVICES. (DOC 4444 - ATM / 501)

Part II 8.4

REPETITIVE FLIGHT PLANS / FLIGHT SCHEDULE DATA LISTS

Pending full implementation of the RPL concept, RPLs are transmitted on the AFTN as if they were filed Flight Plans.

(I) Operators are required to submit advance details of their Season Scheduled Services (or any changes thereto) operating within the BAHRAIN FIR / BAHRAIN UIR, so as to the address shown below at least 14 days in advance of the effective date (s) in the format shown in the Repetitive Plan Listing Form :

THE FLIGHT DATA PROCESSING UNIT (FDPU)

P.O. Box 586 (AIS), KINGDOM OF BAHRAIN

FAX: + 973 17323876

TEL: + 973 17321084 / 17321181

Note: *The submission of such details to Air Traffic Services does not constitute a request for approval of flight schedules.*

(II) This Date is required to be presented, on a separate sheet for each 12 hours UTC of each day, in the format shown in Repetititve Plan Listing Form.

Note: *There is a requirement to indicate in Column Q for all flights the Entry point Designator for BAHRAIN FIR / BAHRAIN UIR with EST (UTC).*

(III) **FLIGHT PLANS**

(III - 1) Scheduled flights operating wholly within BAHRAIN FIR / BAHRAIN UIR.

(III - 2) It is not necessary to file INTRA - FIR Flight plans provided the seasonal schedules have been received and processed by the FDPU.

(IV) **SCHEDULED FLIGHTS DEPARTING AIRFIELDS IN THE FIR AND ENTERING OTHER FIR / UIR**

(IV -1) Standard Flight Plans for flights leaving the FIR / UIR must be filed with the ATC Unit at the aerodrome of departure, or

(IV - 2) Alternatively, by direct arrangement between the operator and the local ATC Unit involved, a standard ICAO Flight plan may be stored at the aerodrome of departure and activated by that unit at 0001 UTC on the day of operation.

(v) **CHANGES TO FLIGHT DETAILS**

(V - 1) Permanent Changes

(V - 2) Changes of a permanent nature to any of the details previously supplied (under 1.4.1.1 or 1.4.2.2.2) require that complete details must be advised, both to the FDPU at Bahrain and to any other aerodrome concerned within the FIR, either by a completely new replacement plan, or by clear “insert / delete” editing instructions.

(VI) **TEMPORARY CHANGES**

(VI 1) **Extra flights** require submission of both:

a) a standard Flight Plan, and
b) Flight date details to Bahrain FDPU

(VI - 2) **Replacement flights**, (i.e. Flights with temporary changes to details which have been submitted under 1.4.1.1 or 1.4.2.2.2) require:

(a) A Standard Flight plan clearly annotated in ITEM 12, Replacement of Scheduled Flight (c / s)... of. (date);

Note: *Flight Schedule Date Lists are required by ATSUs to prepare Air Traffic Control Date Systems in advance, thus reducing the possibility of traffic delay resulting from work - load in peak periods. Timely provision of Scheduled Flight Data, preferably more than the prescribed 14 days in advance, is therefore in the best interests of operators of scheduled air transport.*

(VII) **AFTN ADDRESSES**

(VII - 1) All Flight Plans and Departure messages for flights operating through or within the BAHRAIN FIR / BAHRAIN UIR must include address **OBBBZQZX**.

(VII - 2) All aircraft operators intending to use BAHRAIN INTERNATIONAL airport as a departure aerodrome must include the address **OBBIZPZX** in their flight plan.

(VII - 3) New AFTN addresses have been installed at BAHRAIN / SAKHIR AIRBASE for the purpose of flight planning and other aviation related issues in the following form: **OBKHZTZX** for Control Tower, **OBKHZPZX** for AIS / COMMS and **OBKHYFYX** for Service Address.

(VII - 4) A new eight - letter sequence AFTN address **OBBINEMX** is established for the purpose of Nuclear Emergency Message (NEM).

(VIII) **FLIGHT PLAN FORM**

(VIII - 1) The Flight Plan Form must be completed according to the instructions contained in DOC 4444 - ATM / 501, Appendix 2.

(VIII - 2) The following options are REQUIRED by the ATS authority for all flights operating within the BAHRAIN FIR / BAHRAIN UIR:

(VIII - 3) **Flight plan ITEM 8**

The second field letter denoting the TYPE OF FLIGHT.

(VIII 4) **Flight Plan ITEM 18**

The indicator ‘EET / ‘ followed by FIR / UIR boundary designators and accumulated elapsed times as follows:

a) Flights entering the BAHRAIN FIR / BAHRAIN UIR: The location indicator for the BAHRAIN FIR / BAHRAIN UIR together with the accumulated estimated elapsed time since departure (e.g. EET / OBBB0345)
b) Flights departing from within the BAHRAIN FIR: All boundary designators, together with the corresponding estimated elapsed times to those points. (e.g. for a flight from OBBI to EGLL, EET / OEJD0005 OJAC0125 OSTT0145 LCCC02010 LGGG0245 LTBB0300 LGGG0305 LYBA0345 LYZB0420 LOVV0540 EDDU0510 EBUR0545 EHAA0600 EGTT0615)
c) All ACFT using BAHRAIN FIR / BAHRAIN UIR are reminded to strictly adhere to the requirements of including their relevant ACFT registration markings in item 18 of the flight plan, failure to do so will result in an anticipated delay.

(VIII - 5) **Flight Plan ITEM 18**

The indicator ‘SEL/ ‘followed by the SELCAL code.

(VIII - 6) **Flight plan ITEM 19**

To be completed in full.

PROCEDURES FOR NAVIGATION SERVICES: AIR TRAFFIC MANAGEMENT (DOC 4444 - ATM / 501)

Reference: Chapter 5 GENERAL PROVISIONS FOR THE SEPARATION OF CONTROLLED TRAFFIC

Difference:

1.1 No VMC climbs or descents will be permitted to aircraft operating within controlled airspace of the BAHRAIN FIR / BAHRAIN UIR while such aircraft are operating under Instrument Flight Rules.

Regional Supplementary Procedures (Doc 7030 / 4)

The Supplementary Procedures in force, directly applicable to aircraft is given in their entirety. Differences are printed in heavy face italic type.

Doc 7030 part 1

1.1 Visual Flight Rules (VFR)

(Annex 2 - 4.6)

VFR flights to be operated within a control zone established at an aerodrome serving International Flights and in specified portions of the associated terminal control area shall:

1. have two - way radio communications;
2. obtain clearance from the appropriate air traffic control unit; and
3. report positions as required.

Note: *The phrase "specified portions of the associated terminal control area" is intended to signify at least those portions of the TMA used by International IFR Flights in association with approach, holding, departure and noise abatement procedures.*

1.2.1.1 Instrument Flight Rules (IFR)

(Annex 2 - 2.2 and chapter 5)

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

1. more than 100 NM seaward from the shoreline within controlled airspace; or
2. at or above FL 150.

3.0 A / G communications and in - flight Reports

(PANS ATM / 501 Chapter 4, 4 - 11)

All aircraft on VFR flights, and aircraft on IFR flights outside controlled airspace, shall maintain a watch on a radio station furnishing communications for the unit providing a flight information service in the flight information region and file reports with that station including information as to their position unless otherwise authorized by the state overflown.

3.4.1.2 The aircraft call sign / identification shall be transmitted immediately before or after the word "position".

3.4.1.3 The position of the aircraft shall be transmitted in reference to a reporting point name, name - code designator or, if not named:

1. For flights operating in a predominantly east - west direction:

    a) latitude in degrees and minutes, and
    b) longitude in degrees only

2. For flights operating in a predominantly north - south direction:

    a) latitude in degrees only; and
    b) longitude in degrees and minutes

3.4.1.4 The time at which the aircraft is over the reporting point shall be transmitted in four digits, giving both the hour and the minutes.

3.4.1.5 The altitude / flight level of the aircraft shall be included in the position report.

3.4.2.1 Next position and time shall normally be expressed as the reporting point name, name - code designator or latitude and longitude as indicated in 3.4.1.3.

3.4.2.2 Estimated time over the next position shall be expressed in four digits.

3.4.3.1 Ensuing position information shall include the name, name - code designator or coordinates of the next succeeding reporting point, whether compulsory or not.

4.0 Special Procedures for in - flight contingencies

General Procedures

The following general procedures apply to both subsonic and supersonic aircraft.

4.2.1 If an aircraft is unable to continue flight in accordance with its Air Traffic Control Clearance, a revised Clearance shall be obtained at the earliest possible time and, in the meantime, the aircraft shall broadcast position (including ATS route designator or the track code, as appropriate) and intentions, on frequency 121.500 MHZ at suitable intervals until Air Traffic Control Clearance is received.

12.1.1 **Alerting and Search and Rescue Services - Routes and equipment of Private Aircraft**

(Annex 6 - Part II - 6.3 and 6.4):

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

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

12.2 **Alerting Services**

(PANS ATM / 501 Chapter 9 & Chapter 10, 10 - 2)

The procedures for "Alerting Service" detailed in the PANS RAC, Part VI, 2, are applicable to all flights except those conducted wholly in the vicinity of an aerodrome when exempted by an appropriate air traffic control unit.

Doc 7030 / 4, Part 3

1.1 **Aircraft Observations and Reports**

(Annex 3 - Chapter 5)

Aircraft within the BAHRAIN FIR / BAHRAIN UIR shall make and record routine observations at the ATS / MET reporting points indicated in the Regional Plan.

Regional Supplementary Procedures

Doc 7030 / 4 to Doc 7030 / 5

The Supplementary procedures in force are given in their entirety; differences are shown in **bold**.

ANNEX 3 - METEOROLOLOGICAL SERVICE FOR INTERNATIONAL AIR NAVIGATION (19th Edition July 2016)

NIL

ANNEX 4 - AERONAUTICAL CHARTS (11th Edition July 2009)

NIL

ANNEX 5 - UNITS MEASUREMENT TO BE USED IN AIR AND GROUND OPERATIONS (5th Edition JULY 2010)

NIL

ANNEX 6 - OPERATION OF AIRCRAFT Part I (10th Edition), Part II (9th Edition), Part III (8th Edition):

NIL

ANNEX 7 - AIRCRAFT NATIONALITY AND REGISTRATION MARKS (6th Edition JULY 2012)

NIL

ANNEX 8- AIRWORTHINESS OF AIRCRAFT (11th Edition)

NIL

ANNEX 9 - FACILITATION (14th Edition OCTOBER 2015)

NIL

ANNEX 10 - AERONAUTICAL TELECOMMUNICATIONS Volume I RADIO NAVIGATION AIDS (6th Edition JULY 2006), Volume II COMMUNICATION PROCEDURES INCLUDING THOSE WITH PANS STATUS (7th Edition OCTOBER 2016), Volume III COMMUNICATION SYSTEMS (2nd Edition JULY 2007)

NIL

ANNEX 11 - AIR TRAFFIC SERVICES (14th Edition JULY 2016)

NIL

ANNEX 12 - SEARCH AND RESCUE (8th Edition JULY 2004)

NIL

ANNEX 13 - AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION (10th Edition)

NIL

ANNEX 14 - AERODROMES Volume I AERODROME DESIGN AND OPERATIONS (7th Edition JULY 2016), Volume II HELIPORTS (4th Edition JULY 2013)

NIL

ANNEX 15 - AERONAUTICAL INFORMATION SERVICES (15th Edition JULY 2016)

AD 2.10 AERODROME OBSTACLES

AD 2.10 Obstacle data not fully compliant. Reason for in compliance: Obstacle Area 2 to 4 assessment not yet completed. Work in progress.

ENR 5.4 AIR NAVIGATION OBSTACLES EN-ROUTE

ENR 5.4 Obstacle data not fully compliant. Obstacle Area 1 assessment not yet completed. Work in progress.

Chapter 8 Pre - flight Information Bulletin

8.1.3 Plain Language pre - flight information bulletins are currently available for the BAHRAIN FIR / BAHRAIN UIR only.

Note: *Automated Pre - Flight BulletinS are presently provided on a test basis upon request.*

ANNEX 16 - ENVIRONMENTAL PROTECTION VOLUME I AIRCRAFT NOISE (7th Edition JULY 2014), VOLUME II AIRCRAFT ENGINE EMISSIONS (3rd Edition 2008)

NIL

ANNEX 17 - SECURITY - SAFEGUARDING INTL. CIVIL AVIATION AGAINST ACTS OF UNLAWFUL INTERFERENCE (9th Edition March 2011)

NIL

ANNEX 18 - THE SAFE TRANSPORT OF DANGEROUS GOODS BY AIR (4th Edition July 2011)

NIL

ANNEX 19 - SAFETY MANAGEMENT (2nd Edition - July 2016)

NIL

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GEN 2. TABLES AND CODES

GEN 2.1 MEASURING SYSTEM, AIRCRAFT MARKINGS, HOLIDAYS

2.1.1 UNITS OF MEASUREMENT

The following table of units of measurement will be used by aeronautical stations within BAHRAIN FIR / BAHRAIN UIR for air and ground operations.

FOR MEASUREMENT OF	UNITS USED
Distance used in navigation, position reporting, etc. Generally in excess of 2 nautical miles	 Nautical Miles and tenth
Relatively short distances such as those relating to Aerodromes (e.g. runway lengths)	Metres
Altitudes, elevations and heights	Feet
Horizontal speed including wind speed	Knots or ratio MACH number
Vertical speed	Feet per minute
Wind direction for landing and taking off	Degrees Magnetic
Wind Direction except for landing and taking off	Degrees True
Visibility including runway visual range	Kilometres or metres
Altimeter setting	Hecto Pascals (HPA)
Temperature	Degrees Celsius
Weight	Metric tons or Kilograms
Time	Hours and Minutes, the day of 24 hours beginning at midnight UTC

2.1.2 TIME SYSTEM

General

Coordinated Universal Time (UTC) is used by air navigation services and in publication issued by the Aeronautical Information Service.

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

When a " Date - Time Group " is required, two figures are used for each of the following, in this order; YEAR - MONTH - DAY - HOUR - MINUTE for example, twenty seven minutes past midnight on the third of December 1995 is down as "9512030027"

Local time in the Kingdom of Bahrain is UTC plus 3 hours.

2.1.3 HORIZONTAL REFERENCE SYSTEM

2.1.3.1 **Name / designation of the reference system**

All public geographical coordinates indicating latitude and longitude are expressed in terms of the World Geodetic system - 1984 (WGS - 84) geodetic reference datum except where indicated that the International 1909 spheroid is still extant.

2.1.3.2 **Identification and parameters of the projection**

To be developed.

2.1.3.3 **Identification of the ellipsoid used**

To be developed.

2.1.3.4 **Identification of the datum used**

To be developed.

2.1.3.5 **Area of application**

Area of application for the published geographical coordinates coincides with the area of responsibility of the Aeronautical Information Service, as well as the airspace over the high seas encompassed by the BAHRAIN FIR / BAHRAIN UIR in accordance with the regional air navigation agreement.

2.1.3.6 **Use of asterisk to identify published geographical co - ordinates**

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

2.1.4 AIRCRAFT NATIONALITY AND REGISTRATION MARKS

The nationality mark for aircraft registered in the Kingdom of Bahrain is A 9 C (Alfa Nine Charlie).

2.1.5 PUBLIC HOLIDAYS

The following Public Holidays are fixed and applicable as indicated. Airport and ATC Facilities are unaffected. Additional Public Holidays that fall in accordance with the Islamic Calendar are published as an AIC.

HOLIDAY	DATE	DURATION OF HOLIDAY DAYS
GREGORIAN NEW YEAR	1 JAN	1
BAHRAIN LABOUR DAY	1 MAY	1
BAHRAIN NATIONAL DAY	16 DEC	2

GEN 2.2 ABBREVIATIONS USED IN AIS PUBLICATIONS

2.2.1. Abbreviations listed in DOC 8400, "ICAO Abbreviations and Codes", are used in the AIP Bahrain FIR, and in NOTAM.

Additionally, the following abbreviations may be used:

A	
ACAS	Airborne Collision Avoidance System
ACRV	Aerodrome Crash Rescue Vehicle
A.D.	Anno Domini (Gregorian Year)
AD	Aerodrome
AED	UAE Dirhams
AGNIS	Aircraft Guidance Nose - in System
A.H.	Anno Hejir, (Muslim Year)
AL	Ammendment List
APT	Airport
Ar	Arabic
ARAMCO	Arabian American Oil Company
AVTUR	Aviation Jet Fuel
B	
BD	Bahrain Dinars
C	
CAA	Civil Aviation Affairs
CWY	Clearway
D	
DA	Decision Altitude
DH	Decision Height
DOC	Document
DVORTAC	Doppler VOR and TACAN combination
DX	Duplex
E	
e.g.	Exempli Gratia (= for example)
En	English
F	
FDRO	Flight Data Receiving Office
G	
GMC	Ground Movement Control
GRAND	Gradient
H	
h	Pavement Detail
HAA	Height Above Aerodrome
HAT	Height Above Threshold
HI	High Intensity
HPOX	High Pressure Oxygen
I	
ICAO	International Civil Aviation Organisation
J	
JP 4	Jet Fuel

L	
LCN	Load Classification Number
M	
MAUW	Maximum All - Up Weight
MB	Millibars
MDA	Minimum Descent Altitude
O	
OCA	Obstacle Clearance Altitude or Height
OCH	Obstacle Clearance Height
OCT	Octane
ORCAM	Originating Region Code Allocation Method
P	
PO	Post Office
PP	Prior Permission
PPO	Prior Permission Only
R	
R	Red
RAIM	Receiver autonomous integrity monitoring
RCAG	Remote Controlled Air / Ground (Transmitter / Receiver)
RDH	Reference datum height
RDL	Radial
REC	Receive
RIV *	Rapid Intervention Vehicle
RNAV	Area Navigation
RNP	Required Navigational Perfomance
RSR	En - route surveillance radar
RTIL *	Runway threshold indicator lights
RVR	Runway Visual Range
RVSM	Reduced Vertical Separation Minima
RWY	Runway
S	
SITA	Societe Internationale de Telecommunications Aeronautique
STR	Strength
T	
TBN	To Be Notified
TOR	Take - Off Run
TOP	Temporary Operating Permit
TL	Transition level
TRANS	Transmit
TWY	Taxiway
U	
UAE	United Arab Emirates

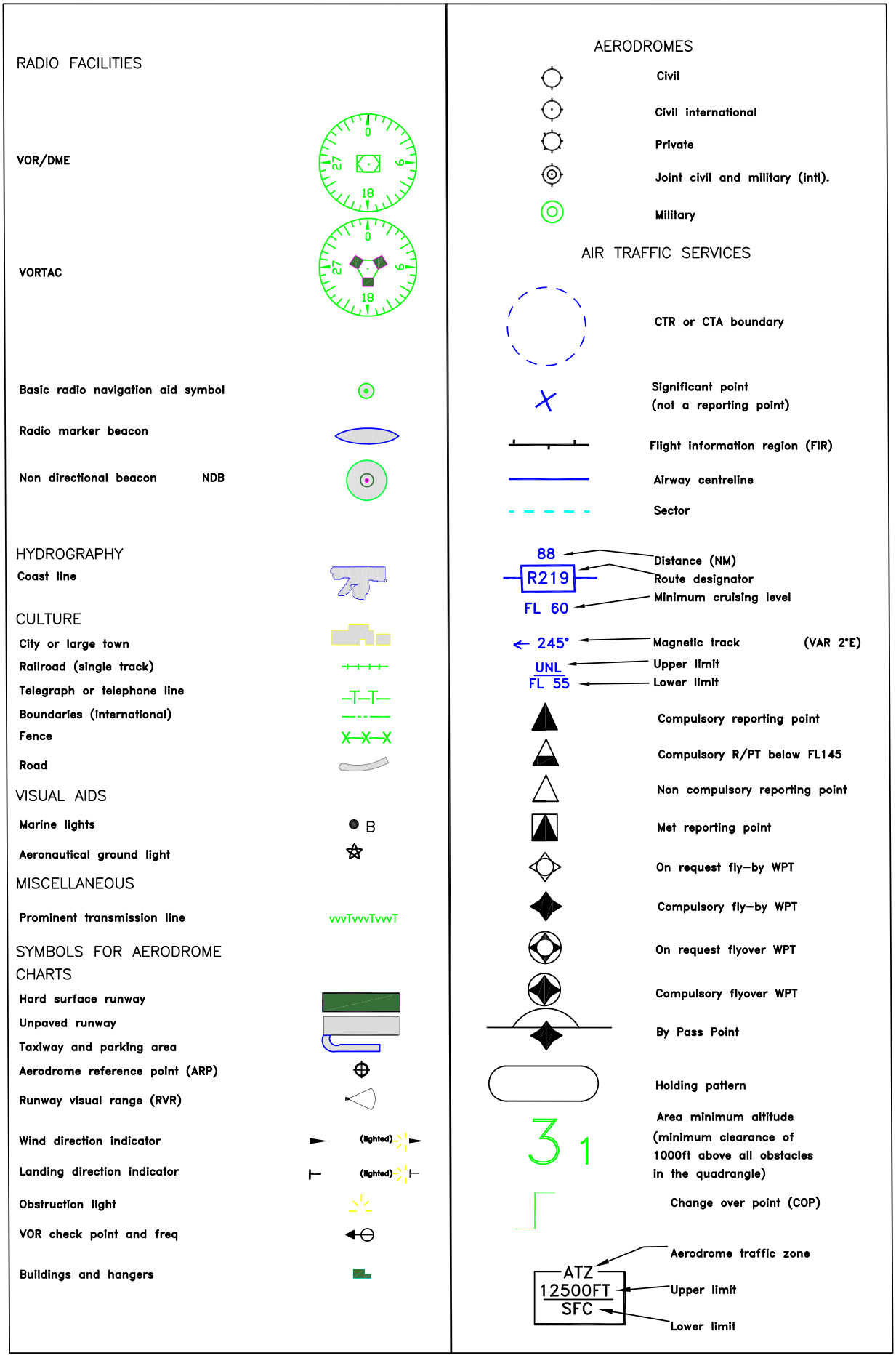
Additional abbreviations used:

O / R On request

W / V Wind Velocity

2.2.2. When other abbreviations are used specific to a particular subject, a separate list is provided in the appropriate section of the AIP.

GEN 2.3 CHART SYMBOLS



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GEN 2.4 LOCATION INDICATORS

1. ENCODE		2. DECODE	
Location	**Indicator**	**Indicator**	**Location**
BAHRAIN / ISA AIRBASE	OBBS	OBBB	BAHRAIN UIR
BAHRAIN / SAKHIR AIRBASE	OBKH	OBBB	BAHRAIN FIR
BAHRAIN FIR	OBBB	OBBI	BAHRAIN INTERNATIONAL
BAHRAIN INTERNATIONAL	OBBI	OBBS	BAHRAIN / ISA AIRBASE
BAHRAIN UIR	OBBB	OBKH	BAHRAIN / SAKHIR AIRBASE

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GEN 2.5 LIST OF RADIO NAVIGATION AIDS

ID	Station name	Aid	Purpose A=Aerodrome E=Enroute AE=Both	Station name	ID	Aid	Purpose A=Aerodrome E=Enroute AE=Both
BHR	BAHRAIN INTERNATIONAL	VOR/DME	AE	BAHRAIN / ISA AIRBASE	ISIB	ILS	A
DOH	DOHA/HAMAD INTL	VOR/DME	E	BAHRAIN / SAKHIR AIRBASE	IKH	ILS	A
IBIA	BAHRAIN INTERNATIONAL	ILS	A	BAHRAIN INTERNATIONAL	BHR	VOR/DME	AE
IBIB	BAHRAIN INTERNATIONAL	ILS	A	BAHRAIN INTERNATIONAL	IBIB	ILS	A
IKH	BAHRAIN / SAKHIR AIRBASE	ILS	A	BAHRAIN INTERNATIONAL	IBIA	ILS	A
ISIB	BAHRAIN / ISA AIRBASE	ILS	A	DOHA/HAMAD INTL	DOH	VOR/DME	E
SI	ISA	L	A	ISA	SI	L	A
SIA	ISA	VORTAC	A	ISA	SIA	VORTAC	A

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GEN 2.6 CONVERSIONS OF UNIT OF MEASUREMENTS

Tables for conversions or alternately conversion formulae between:

2.6.1 Nautical miles to kilometres

Conversion tables for Nautical miles to Kilometres are based upon the following conversion factors:

1 NM = 1.852 KM

1 KM = 0.5400 NM

Nautical Miles to Kilometres		Kilometres to Nautical Miles	
NM	KM	KM	NM
1.0	1.85	1.0	.54
1.1	2.04	1.1	.59
1.2	2.22	1.2	.65
1.3	2.41	1.3	.70
1.4	2.59	1.4	.76
1.5	2.78	1.5	.81
1.6	2.96	1.6	.86
1.7	3.15	1.7	.92
1.8	3.33	1.8	.97
1.9	3.52	1.9	1.03
2.0	3.70	2.0	1.08
2.1	3.89	2.1	1.13
2.2	4.07	2.2	1.19
2.3	4.26	2.3	1.24
2.4	4.44	2.4	1.30
2.5	4.63	2.5	1.35
3.0	5.56	3.0	1.62
4.0	7.41	4.0	2.16
5.0	9.26	5.0	2.70
6.0	11.11	6.0	3.24
7.0	12.96	7.0	3.78
8.0	14.82	8.0	4.32
9.0	16.67	9.0	4.86
10.0	18.52	10.0	5.40
15.0	27.78	15.0	8.10
20.0	37.04	20.0	10.80
25.0	46.30	25.0	13.50
30.0	55.56	30.0	16.20
35.0	64.82	35.0	18.90
40.0	74.08	40.0	21.60
		45.0	24.30

Nautical Miles to Kilometres		Kilometres to Nautical Miles	
		50.0	27.00
		55.0	29.70
		60.0	32.40
		65.0	35.10
		70.0	37.80

2.6.2 Feet to Metres

Conversion tables for Feet to Metres are based upon the following conversion factors:

1 FT = 0.3048 M

1 M = 3.281 FT

Feet to Metres		Metres to Feet	
Feet	Metres	Metres	Feet
1	0.305	1	3.281
2	0.610	2	6.562
3	0.914	3	9.842
4	1.219	4	13.123
5	1.524	5	16.404
6	1.829	6	19.685
7	2.134	7	22.966
8	2.438	8	26.247
9	2.743	9	29.528
10	3.048	10	32.809
20	6.096	20	65.617
30	9.144	30	98.426
40	12.192	40	131.234
50	15.240	50	164.043
60	18.290	60	196.852
70	21.340	70	229.660
80	24.380	80	262.469
90	27.430	90	295.278
100	30.480	100	328.087
200	60.960	200	656.100
300	91.440	300	984.300
400	121.920	400	1.312.300
500	152.400	500	1.640.400
1,000	304.800	1,000	3.280.900
2,000	609.600	2,000	6.561.700
3,000	914.400	3,000	9.842.600
4,000	1.219.200	4,000	13.123.500

Feet to Metres		Metres to Feet	
5,000	1.524.000	5,000	16.404.300

2.6.3 From decimal minutes of an arc to seconds of an arc

MIN	SEC	MIN	SEC	MIN	SEC	MIN	SEC
0.01	0.6	0.26	15.6	0.51	30.6	0.76	45.6
0.02	1.2	0.27	16.2	0.52	31.2	0.77	46.2
0.03	1.8	0.28	16.8	0.53	31.8	0.78	46.8
0.04	2.4	0.29	17.4	0.54	32.4	0.79	47.4
0.05	3.0	0.30	18.0	0.55	33.0	0.80	48.0
0.06	3.6	0.31	18.6	0.56	33.6	0.81	48.6
0.07	4.2	0.32	19.2	0.57	34.2	0.82	49.2
0.08	4.8	0.33	19.8	0.58	34.8	0.83	49.8
0.09	5.4	0.34	20.4	0.59	35.4	0.84	50.4
0.10	6.0	0.35	21.0	0.60	36.0	0.85	51.0
0.11	6.6	0.36	21.6	0.61	36.6	0.86	51.6
0.12	7.2	0.37	22.2	0.62	37.2	0.87	52.2
0.13	7.8	0.38	22.8	0.63	37.8	0.88	52.8
0.14	8.4	0.39	23.4	0.64	38.4	0.89	53.4
0.15	9.0	0.40	24.0	0.65	39.0	0.90	54.0
0.16	9.6	0.41	24.6	0.66	39.6	0.91	54.6
0.17	10.2	0.42	25.2	0.67	40.2	0.92	55.2
0.18	10.8	0.43	25.8	0.68	40.8	0.93	55.8
0.19	11.4	0.44	26.4	0.69	41.4	0.94	56.4
0.20	12.0	0.45	27.0	0.70	42.0	0.95	57.0
0.21	12.6	0.46	27.6	0.71	42.6	0.96	57.6
0.22	13.2	0.47	28.2	0.72	43.2	0.97	58.2
0.23	13.8	0.48	28.8	0.73	43.8	0.98	58.8
0.24	14.4	0.49	29.4	0.74	44.4	0.99	59.4
0.25	15.0	0.50	30.0	0.75	45.0		

From seconds of an arc to decimal minutes of an arc

SEC	MIN	SEC	MIN	SEC	MIN	SEC	MIN
1	0.02	16	0.27	31	0.52	46	0.77
2	0.03	17	0.28	32	0.53	47	0.78
3	0.05	18	0.30	33	0.55	48	0.80
4	0.07	19	0.32	34	0.57	49	0.82
5	0.08	20	0.33	35	0.58	50	0.83
6	0.10	21	0.35	36	0.60	51	0.85
7	0.12	22	0.37	37	0.62	52	0.87

SEC	MIN	SEC	MIN	SEC	MIN	SEC	MIN
8	0.13	23	0.38	38	0.63	53	0.88
9	0.15	24	0.40	39	0.65	54	0.90
10	0.17	25	0.42	40	0.67	55	0.92
11	0.18	26	0.43	41	0.68	56	0.93
12	0.20	27	0.45	42	0.70	57	0.95
13	0.22	28	0.47	43	0.72	58	0.97
14	0.23	29	0.48	44	0.73	59	0.98
15	0.25	30	0.50	45	0.75	60	1.00

2.6.4 Kilograms (KG) to Pounds (LB)

Kilograms (KG) to Pounds (LB)					
KG	LB	KG	LB	KG	LB
1	2.20	50	110.23	99	218.26
2	4.41	51	112.44	100	220.5
3	6.61	52	114.64	200	440.9
4	8.82	53	116.84	300	661.4
5	11.02	54	119.05	400	881.8
6	13.23	55	121.25	500	1.102.3
7	15.43	56	123.46	600	1.322.8
8	17.64	57	125.66	700	1.543.2
9	19.84	58	127.87	800	1.763.7
10	22.05	59	130.07	900	1.984.1
11	24.25	60	132.28	1.000	2.204.6
12	26.46	61	134.48	2.000	4.409.2
13	28.66	62	136.69	3.000	6.613.8
14	30.86	63	138.89	4.000	8.818.4
15	33.07	64	141.09	5.000	11.023.0
16	35.27	65	143.30	6.000	13.227.6
17	37.48	66	145.50	7.000	15.432.2
18	39.68	67	147.71	8.000	17.636.8
19	41.89	68	149.91	9.000	19.841.4
20	44.09	69	152.12	10.000	22.046.0
21	46.30	70	154.32		
22	48.50	71	156.53		
23	50.71	72	158.73		
24	52.91	73	160.94		
25	55.12	74	163.14		
26	57.32	75	165.35		
27	59.52	76	167.55		

Kilograms (KG) to Pounds (LB)					
KG	LB	KG	LB	KG	LB
28	61.73	77	169.75		
29	63.93	78	171.96		
30	66.14	79	174.16		
31	68.34	80	176.37		
32	70.55	81	178.57		
33	72.75	82	180.78		
34	74.96	83	182.98		
35	77.16	84	185.19		
36	79.37	85	187.39		
37	81.57	86	189.60		
38	83.78	87	191.80		
39	85.98	88	194.01		
40	88.18	89	196.21		
41	90.39	90	198.41		
42	92.59	91	200.62		
43	94.80	92	202.82		
44	97.00	93	205.03		
45	99.21	94	207.23		
46	101.41	95	209.44		
47	103.62	96	211.64		
48	105.82	97	213.85		
49	108.03	98	216.05		

2.6.5 Liquid

LITRES (L) to IMPERIAL GALLONS (IMP)						LITRES (L) to U.S GALLONS (U.S)					
L	IMP	L	IMP	L	IMP	L	U.S	L	U.S	L	U.S
1	0.22	50	11.00	99	21.78	1	0.26	50	13.21	99	26.16
2	0.44	51	11.22	100	22.00	2	0.53	51	13.47	100	26.42
3	0.66	52	11.44	200	44.00	3	0.79	52	13.74	200	52.84
4	0.88	53	11.66	300	66.00	4	1.06	53	14.00	300	79.26
5	1.10	54	11.88	400	88.00	5	1.32	54	14.27	400	105.68
6	1.32	55	12.10	500	110.00	6	1.59	55	14.53	500	132.10
7	1.54	56	12.32	600	132.00	7	1.85	56	14.80	600	158.52
8	1.76	57	12.54	700	154.00	8	2.11	57	15.06	700	184.94
9	1.98	58	12.76	800	176.00	9	2.38	58	15.32	800	211.36
10	2.20	59	12.98	900	198.00	10	2.64	59	15.59	900	237.78
11	2.42	60	13.20	1,000	220.00	11	2.91	60	15.85	1,000	264.2
12	2.64	61	13.42	2,000	440.00	12	3.17	61	16.12	2,000	528.4

LITRES (L) to IMPERIAL GALLONS (IMP)						LITRES (L) to U.S GALLONS (U.S)					
L	IMP	L	IMP	L	IMP	L	U.S	L	U.S	L	U.S
13	2.86	62	13.64	3,000	660.00	13	3.44	62	16.38	3,000	792.6
14	3.08	63	13.86	4,000	880.00	14	3.70	63	16.65	4,000	1.056.8
15	3.30	64	14.08	5,000	1.100.00	15	3.96	64	16.91	5,000	1.321.0
16	3.52	65	14.30	6,000	1,320.00	16	4.23	65	17.17	6,000	1.585.2
17	3.74	66	14.52	7,000	1,540.00	17	4.49	66	17.44	7,000	1.849.4
18	3.96	67	14.74	8,000	1,760.00	18	4.76	67	17.70	8,000	2.113.6
19	4.18	68	14.96	9,000	1,980.00	19	5.02	68	17.97	9,000	2.377.8
20	4.40	69	15.18	10,000	2,200.00	20	5.28	69	18.23	10,000	2.642.0
21	4.62	70	15.40			21	5.55	70	18.49		
22	4.84	71	15.62			22	5.81	71	18.76		
23	5.06	72	15.84			23	6.08	72	19.02		
24	5.28	73	16.06			24	6.34	73	19.29		
25	5.50	74	16.28			25	6.61	74	19.55		
26	5.72	75	16.50			26	6.87	75	19.82		
27	5.94	76	16.72			27	7.13	76	20.08		
28	6.16	77	16.94			28	7.40	77	20.34		
29	6.38	78	17.16			29	7.66	78	20.61		
30	6.60	79	17.38			30	7.93	79	20.87		
31	6.82	80	17.60			31	8.19	80	21.14		
32	7.04	81	17.82			32	8.45	81	21.40		
33	7.26	82	18.04			33	8.72	82	21.66		
34	7.48	83	18.26			34	8.98	83	21.93		
35	7.70	84	18.48			35	9.25	84	22.19		
36	7.92	85	18.70			36	9.51	85	22.46		
37	8.14	86	18.92			37	9.78	86	22.72		
38	8.36	87	19.14			38	10.04	87	22.99		
39	8.58	88	19.36			39	10.30	88	23.25		
40	8.80	89	19.58			40	10.57	89	23.51		
41	9.02	90	19.80			41	10.83	90	23.78		
42	9.24	91	20.02			42	11.10	91	24.04		
43	9.46	92	20.24			43	11.36	92	24.31		
44	9.68	93	20.46			44	11.63	93	24.57		
45	9.90	94	20.68			45	11.89	94	24.84		
46	10.12	95	20.90			46	12.15	95	25.10		
47	10.34	96	21.12			47	12.42	96	25.36		
48	10.56	97	21.34			48	12.68	97	25.63		
49	10.78	98	21.56			49	12.95	98	25.89		

2.6.6 Barometric

HECTOPASCALS (hPa) to INCHES (INS)			
hPa	INS	hPa	INS
948	27.99	1000	29.53
949	28.02	1001	29.56
950	28.05	1002	29.59
951	28.08	1003	29.62
952	28.11	1004	29.65
953	28.14	1005	29.68
954	28.17	1006	29.71
955	28.20	1007	29.74
956	28.23	1008	29.77
957	28.26	1009	29.80
958	28.29	1010	29.83
959	28.32	1011	29.86
960	28.35	1012	29.88
961	28.38	1013	29.91
962	28.41	1014	29.94
963	28.44	1015	29.97
964	28.47	1016	30.00
965	28.50	1017	30.03
966	28.53	1018	30.06
967	28.56	1019	30.09
968	28.59	1020	30.12
969	28.61	1021	30.15
970	28.64	1022	30.18
971	28.67	1023	30.21
972	28.70	1024	30.24
973	28.73	1025	30.27
974	28.76	1026	30.30
975	28.79	1027	30.33
976	28.82	1028	30.36
977	28.85	1029	30.39
978	28.88	1030	30.42
979	28.91	1031	30.45
980	28.94	1032	30.47
981	28.97	1033	30.50
982	29.00	1034	30.53
983	29.03	1035	30.56
984	29.06	1036	30.59

HECTOPASCALS (hPa) to INCHES (INS)			
hPa	INS	hPa	INS
985	29.09	1037	30.62
986	29.12	1038	30.65
987	29.15	1039	30.68
988	29.18	1040	30.71
989	29.21	1041	30.74
990	29.23	1042	30.77
991	29.26	1043	30.80
992	29.29	1044	30.83
993	29.32	1045	30.86
994	29.35	1046	30.89
995	29.38	1047	30.92
996	29.41	1048	30.95
998	29.47	1050	31.01
999	29.50		

2.6.7 Temperature

CELCIUS (C) to FAHRENHEIT (F)					
C	F	C	F	C	F
- 60	- 76.0	- 8	+ 17.6	+ 44	+ 111.2
- 59	- 74.2	- 7	+ 19.4	+ 45	+ 113.0
- 58	- 72.4	- 6	+ 21.2	+ 46	+ 114.8
- 57	- 70.6	- 5	+ 23.0	+ 47	+ 116.6
- 56	- 68.8	- 4	+ 24.8	+ 48	+ 118.4
- 55	- 67.0	- 3	+ 26.6	+ 49	+ 120.2
- 54	- 65.2	- 2	+ 28.4	+ 50	+ 122.0
- 53	- 63.4	- 1	+ 30.2	+ 51	+ 123.8
- 52	- 61.6	0	+ 32.0	+ 52	+ 125.6
- 51	- 59.8	+ 1	+ 33.8	+ 53	+ 127.4
- 50	- 58.0	+ 2	+ 35.6	+ 54	+ 129.2
- 49	- 56.2	+ 3	+ 37.4	+ 55	+ 131.0
- 48	- 54.4	+ 4	+ 39.2	+ 56	+ 132.8
- 47	- 52.6	+ 5	+ 41.0	+ 57	+ 134.6
- 46	- 50.8	+ 6	+ 42.8	+ 58	+ 136.4
- 45	49.0	+ 7	+ 44.6	+ 59	+ 138.2
- 44	- 47.2	+ 8	+ 46.4	+ 60	+ 140.0
- 43	- 45.4	+ 9	+ 48.2	+ 61	+ 141.8
- 42	- 43.6	+ 10	+ 50.0	+ 62	+ 143.6
- 41	- 41.8	+ 11	+ 51.-8	+ 63	+ 145.4

CELCIUS (C) to FAHRENHEIT (F)					
C	F	C	F	C	F
- 40	- 40.0	+ 12	+ 53.6	+ 64	+ 147.2
- 39	- 38.2	+ 13	+ 55.4	+ 65	+ 149.0
- 38	- 36.4	+ 14	+ 57.2	+ 66	+ 150.8
- 37	- 34.6	+ 15	+ 59.0	+ 67	+ 152.6
- 36	- 32.8	+ 16	+ 60.8	+ 68	+ 154.4
- 35	- 31.0	+ 17	+ 62.6	+ 69	+ 156.2
- 34	- 29.2	+ 18	+ 64.4	+ 70	+ 158.0
- 33	- 27.4	+ 19	+ 66.2		
- 32	- 25.6	+ 20	+ 68.0		
- 31	- 23.8	+ 21	+ 69.8		
- 30	- 22.0	+ 22	+ 71.6		
- 29	- 20.2	+ 23	+ 73.4		
- 28	- 18.4	+ 24	+ 75.2		
- 27	- 16.6	+ 25	+ 77.0		
- 26	- 14.8	+ 26	+ 78.8		
- 25	- 13.0	+ 27	+ 80.6		
- 24	- 11.2	+ 28	+ 82.4		
- 23	- 9.4	+ 29	+ 84.2		
- 22	- 7.6	+ 30	+ 86.0		
- 21	- 5.8	+ 31	+ 87.8		
- 20	- 4.0	+ 32	+ 89.6		
- 19	- 2.0	+ 33	+ 91.4		
- 18	- 0.4	+ 34	+ 93.2		
- 17	+ 1.4	+ 35	+ 95.0		
- 16	+ 3.2	+ 36	+ 96.8		
- 15	+ 5.0	+ 37	+ 98.6		
- 14	+ 6.8	+ 38	+ 100.4		
- 13	+ 8.6	+ 39	+ 102.2		
- 12	+ 10.4	+ 40	+ 104.0		
- 11	+ 12.2	+ 41	+ 105.8		
- 10	+ 14.0	+ 42	+ 107.6		
- 9	+ 15.8	+ 43	+ 109.4		

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GEN 2.7 SUNRISE / SUNSET

Sunrise / Tables BAHRAIN INTERNATIONAL
OBBI
261615N 0503801E

Month	Day	BMCT	SR	SS	EECT	Month	Day	BMCT	SR	SS	EECT
JAN	1	0300	0325	1356	1422	**JUL**	1	0122	0148	1534	1600
	6	0301	0327	1400	1425		6	0124	0150	1534	1600
	11	0302	0327	1404	1428		11	0126	0152	1534	1559
	16	0302	0327	1407	1423		16	0128	0154	1532	1558
	21	0301	0326	1411	1436		21	0131	0157	1531	1556
	26	0300	0325	1415	1440		26	0134	0159	1528	1553
	31	0259	0323	1419	1443		31	0137	0202	1526	1550
FEB	1	0258	0323	1420	1444	**AUG**	1	0137	0203	1525	1550
	6	0256	0320	1423	1447		6	0140	0205	1522	1546
	11	0253	0317	1427	1451		11	0143	0207	1518	1542
	16	0249	0313	1430	1454		16	0145	0210	1514	1538
	21	0246	0309	1434	1457		21	0148	0212	1509	1533
	26	0241	0305	1437	1500		26	0150	0214	1504	1528
							31	0153	0216	1459	1523
MAR	1	0239	0302	1438	1502	**SEP**	1	0153	0217	1458	1522
	6	0234	0257	1441	1504		6	0156	0219	1453	1516
	11	0229	0252	1444	1507		11	0158	0221	1447	1510
	16	0223	0247	1446	1510		16	0200	0223	1441	1505
	21	0218	0241	1449	1512		21	0202	0225	1436	1459
	26	0213	0236	1451	1514		26	0204	0227	1430	1453
	31	0207	0230	1454	1517						
APR	1	0206	0229	1454	1517	**OCT**	1	0206	0230	1425	1448
	6	0201	0224	1456	1520		6	0209	0232	1419	1442
	11	0155	0219	1459	1523		11	0211	0234	1414	1437
	16	0150	0214	1501	1525		16	0213	0237	1409	1432
	21	0145	0209	1504	1528		21	0216	0240	1405	1428
	26	0140	0205	1506	1531		26	0219	0242	1400	1424
							31	0222	0245	1356	1420
MAY	1	0136	0201	1509	1534	**NOV**	1	0222	0246	1356	1419
	6	0132	0157	1512	1537		6	0226	0249	1352	1416
	11	0128	0153	1515	1540		11	0229	0253	1350	1414
	16	0125	0151	1517	1543		16	0232	0256	1347	1412
	21	0123	0148	1520	1545		21	0236	0300	1346	1411
	26	0121	0146	1523	1548		26	0239	0304	1345	1410
	31	0119	0145	1525	1551						

Sunrise / Tables BAHRAIN INTERNATIONAL
OBBI
261615N 0503801E

Month	Day	BMCT	SR	SS	EECT	Month	Day	BMCT	SR	SS	EECT
JUN	1	0119	0145	1526	1551	**DEC**	1	0243	0308	1345	1410
	6	0118	0144	1528	1554		6	0246	0311	1345	1410
	11	0118	0144	1530	1556		11	0249	0315	1346	1411
	16	0118	0144	1532	1558		16	0252	0318	1348	1413
	21	0119	0145	1533	1559		21	0255	0321	1350	1415
	26	0120	0146	1534	1600		26	0258	0323	1353	1418
							31	0259	0325	1356	1421

Note: *All times are UTC*

BMCT	=	Begining Morning Civil Twilight
EECT	=	Ending Evening Civil Twilight
SR	=	Sunrise
SS	=	Sunset

GEN 3. SERVICES

GEN 3.1 AERONAUTICAL INFORMATION MANAGEMENT

3.1.1 RESPONSIBLE SERVICE

3.1.1.1 The Aeronautical Information Management which forms part of the Civil Aviation Affairs of the Kingdom of Bahrain, ensures the flow of information necessary for the safety, regularity and efficiency of international air navigation within the area of its responsibility indicated under **GEN 3.1.1.2** below. It consists of AIM Headquarters, International NOTAM Office (NOF) and AIM units established at aerodromes as listed under **GEN 3.1.5** below.

3.1.1.2 **AIM Headquarters**

AERONAUTICAL INFORMATION MANAGEMENT
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321180 / 1 / 2
Telefax:+973 17323876
AFS: OBBBYNYX
e-mail: sdc@mtt.gov.bh
Http: https://aim.mtt.gov.bh

NOTAM: OBZZNAXX

SNOWTAM: OBZZSNXX

3.1.2 AREA OF RESPONSIBILITY OF AIM

The Aeronautical Information Management is responsible for the collection and dissemination of information for the BAHRAIN FIR / BAHRAIN UIR.

3.1.3 AERONAUTICAL PUBLICATIONS

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

- An electronic Aeronautical Information Publication (electronic AIP);
- An electronic Amendment Service to the electronic AIP (AIP AMDT);
- An electronic Supplement Service to the electronic AIP (AIP SUP);
- NOTAM, and Pre - Flight Information Bulletins (PIB);
- An electronic Aeronautical Information Circulars (AIC) Service; and
- Check lists and summaries

NOTAM and the related monthly checklists are issued via the Aeronautical Fixed Service (AFS) while PIB are made available at aerodrome AIM units. All other elements of the package are published on the internet.

3.1.3.2 **Electronic Aeronautical Information Publication (electronic AIP)**

The electronic AIP is the basic aviation document intended primarily to satisfy international requirements for the exchange of permanent aeronautical information and long duration temporary changes essential for air navigation.

The electronic AIP BAHRAIN FIR is available in HTML format. The HTML version and and a PDF version derived therefrom is published on the internet, and can be found at https://aim.mtt.gov.bh The HTML version is the primary method of publication of the electronic AIP BAHRAIN FIR.

Electronic AIP Bahrain FIR

This electronic AIP, issued in English only, is the basic aeronautical information document for the BAHRAIN FIR / BAHRAIN UIR, for use in international and domestic operations whether the flight is a commercial or a private one and contains lasting information essential to air navigation.

3.1.3.3 **Amendment service to the electronic AIP (AIP AMDT)**

Amendments to the electronic AIP (AIP AMDT) are published on the internet. Two types of electronic AIP AMDT are produced:

1. Electronic Regular AIP Amendments (AIP AMDT) are issued in accordance with the established regular interval (ref. **GEN 0.1**), and incorporate permanent changes into the electronic AIP at the indicated publication date;
2. Electronic AIRAC AIP Amendments (AIRAC AIP AMDT) are issued in accordance with the AIRAC system, identified by the acronym AIRAC, and incorporate operationally significant permanent changes into the electronic AIP at the indicated AIRAC effective date.

A brief description of the subjects affected by the amendment is given on the electronic AIP Amendment cover sheet.

Each electronic AIP amendment cover sheet includes references to the serial number of those elements, if any, of the Integrated Aeronautical Information Package which have been incorporated in the electronic AIP by the amendment and are consequently cancelled.

Each AIP AMDT and each AIRAC AIP AMDT will be allocated separate two digit serial numbers which are consecutive in line with the AIRAC cycle. This will be followed by a two digit number to denote the year of issue or validity, e.g. AIP AMDT 01 / 11; AIRAC AIP AMDT 01 / 11. This new system will supersede the old system (which used a continuous sequence of numbers).

For further details refer to the electronic AIP BAHRAIN FIR version on the internet and its Help section.

3.1.3.4 **Electronic Supplement Service to the electronic AIP (AIP SUP)**

Temporary changes of long duration (three months and longer) and information of short duration which consists of extensive text and / or graphics, supplementing the permanent information contained in the electronic AIP are published as electronic AIP Supplements (AIP SUP). Operationally significant temporary changes to the electronic AIP are published in accordance with the AIRAC system and its established effective dates and are identified clearly by the acronym AIRAC.

Electronic AIP Supplements are separated by information subject (General - GEN, En-route - ENR and Aerodromes - AD). In a similar manner to AIP AMDT, each Supplement (regular or AIRAC) is allocated a serial number which is consecutive and based on the calendar year, i. e. AIRAC AIP SUP 01 / 11.

Electronic AIP Supplements are kept in the AIP as long as all or some of their contents remain valid. The period of validity of information contained in the electronic AIP Supplement will normally be given in the supplement itself. Alternatively, NOTAM may be used to indicate changes to the period of validity or cancellation of the supplement.

The checklist of electronic AIP Supplements currently in force is issued additionally by the medium of the monthly printed plain language summary of NOTAM in force.

Electronic AIP Supplements are placed on the desktop of the electronic AIP as a separate subject item under the electronic AIP Tabulator "SUP". For further details refer to the electronic AIP BAHRAIN FIR version on the internet and its Help section.

3.1.3.5 **NOTAM and Pre - flight Information Bulletins (PIB)**

NOTAM contain the 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 complemented by ICAO abbreviations, indicators, designators, call signs, frequencies, figures and plain language. NOTAM are originated and issued for BAHRAIN FIR / BAHRAIN UIR and are distributed in one series which is identified by the letter A.

Series A

All NOTAM information for domestic and international use pertinent to flight within the BAHRAIN FIR / BAHRAIN UIR.

Series S (SNOWTAM) - Information providing a runway surface condition report notifying the presence or cessation of hazardous conditions due to standing water on the movement area.
SNOWTAM are prepared in accordance with PANS-AIM (Doc 10066), Appendix 4, and are issued for individual aerodrome by Bahrain NOF, with separate serial numbers.

Pre - flight Information Bulletins (PIB), which contain a recapitulation of current NOTAM and other information of urgent character to the operator / flight crews, are available at the Aerodrome AIS Units. The extent of the information contained in the PIB is indicated in subsection 5.

3.1.3.6 **Electronic Aeronautical Information Circulars (AIC)**

The electronic Aeronautical Information Circulars (AIC) contain information of long - term forecast of any major change in legislation, regulations procedures or facilities; purely explanatory or advisory nature liable to affect flight safety; and information or notification of an explanatory or advisory nature concerning technical, legislative or purely administrative matters. AICs are divided in accordance with subjects and their affects and are issued in one series (A).

Each electronic AIC is numbered consecutively on a calendar year basis. The year, indicated by two digits, is a part of serial number of the AIC, e.g. AIC 1 / 11. A checklist of AIC currently in force is issued as an AIC once a year.

Electronic AIC are placed on the desktop of the electronic AIP accordingly as a separate item under the eAIP Tabulator "AIC". For further details refer to the electronic AIP BAHRAIN FIR version on the internet and its Help section.

3.1.3.7 **Checklist of NOTAMS**

A checklist of NOTAM is issued monthly via AFS. This checklist contains all valid NOTAMS, latest AIP AMDT, latest AIP SUP and AIC.

3.1.3.8 **Summary of NOTAM**

Summary of NOTAM is published on the official website. It contains a plain language (in English) presentation of the valid NOTAM and information about the latest AIRAC AIP AMDT, AIC issued and checklist of AIP SUP.

3.1.3.9 **Publication Sale**

All publications can be obtained from the following official website in both HTML and PDF versions and is free of charge to all users. https://aim.mtt.gov.bh

3.1.4 THE AIRAC SYSTEM

3.1.4.1 In order to control and regulate the flow of operationally significant changes requiring amendments to charts, route - manuals etc., such changes, whenever possible, will be issued on predetermined dates according to the AIRAC SYSTEM.

Whenever possible this type of information will be published as an AIRAC AIP AMDT / SUP. If an AIRAC AMDT / SUP cannot be produced due to lack of time on a predetermined date, a NIL AIRAC notification NOTAM will be issued one cycle before the effective date of the AIRAC concern.

3.1.4.2 The table overleaf indicates AIRAC effective dates for the coming years. AIRAC information will be issued so that the information will be received by user not later than 28 days, and major changes not later than 56 days, before the effective date.

At AIRAC effective dates, a Trigger NOTAM will be issued giving a brief description of the contents, effective date and cross reference number of the AIRAC AIP AMDT or AIRAC AIP SUP that will become effective on that particular date.

Schedule of AIRAC effective dates

	2014	2015	2016	2017	2018	2019
1	09-Jan	08-Jan	07-Jan	05-Jan	04-Jan	03-Jan
2	06-Feb	05-Feb	04-Feb	02-Feb	01-Feb	31-Jan
3	06-Mar	05-Mar	04-Mar	02-Mar	01-Mar	28-Feb
4	03-Apr	02-Apr	31-Mar	30-Mar	29-Mar	28-Mar
5	01-May	30-Apr	28-Apr	27-Apr	26-Apr	25-Apr
6	29-May	28-May	26-May	25-May	24-May	23-May
7	26-Jun	25-Jun	23-Jun	22-Jun	21-Jun	20-Jun
8	24-Jul	23-Jul	21-Jul	20-Jul	19-Jul	18-Jul
9	21-Aug	20-Aug	18-Aug	17-Aug	16-Aug	15-Aug
10	18-Sep	17-Sep	15-Sep	14-Sep	13-Sep	12-Sep
11	16-Oct	15-Oct	13-Oct	12-Oct	11-Oct	11-Oct
12	13-Nov	12-Nov	10-Nov	09-Nov	08-Nov	07-Nov
13	11-Dec	10-Dec	08-Dec	07-Dec	06-Dec	05-Dec

If no information was submitted for publication at the AIRAC date, a NIL notification will be issued by NOTAM not later than one AIRAC cycle before the AIRAC effective date concerned.

3.1.5 PRE - FLIGHT INFORMATION SERVICE AT AERODROMES / HELIPORTS

3.1.5.1 NOTAM ARE ADDRESSED TO AND RECEIVED FROM THE FOLLOWING NOTAM OFFICES:

Addis Ababa	Brussels	Greenland	Laos	Paris	Tokyo
Algier	Bucharest	Harare	Lilongwe	Prague	Toronto
Amman	Budapest	Helsinki	Lisbon	Riga	Tripoli
Amsterdam	Cairo	Ho Chi Minh	London	Rome	Tunis
Ankara	Casablanca	Hong Kong	Luqa	Sanaa	U.A.E.
Athens	Colombo	Iceland	Lusaka	Seeb	Vienna
Auckland	Copenhagen	Jakarta	Macau	Seoul	Vilnius
Baghdad	Damascus	Jeddah	Madras	Seychelles	Warsaw

Bangkok	Dar - es - Salaam	Johannesburg	Madrid	Shannon	Windhoek
Beijing	Dhaka	Kabul	Male	Singapore	Yangon
Beirut	Dublin	Karachi	Manila	Slovakia	Zurich
Belgrade	Entebbe	Kathmandu	Maputo	Slovenia	
Bombay	Frankfurt	Khartoum	Melbourne	Sofia	
Brisbane	Gaborone	Kuala Lumpur	Moskow	Stockholm	
Brunei		Kuwait	Nairobi	Sydney	
			Nicosia	Taipei	
				Tehran	

3.1.5.2 NOTAM are additionally received from:

Kolkata	New Delhi	Tallinn

3.1.5.3 NOTAM are additionally addressed to:

Dallas Fort Worth	Kota Kinabalu	Luxembourg	Moscow
Ottawa	Shanghai	Washington	Vientiane

3.1.5.4 NOTAM are received from the following offices in the USA

ARTCC Boston	Corpus Christie	New York JFK
ARTCC Houston	Dallas Fort Worth	Newark
ARTCC Miami	Dayton	Newburgh
ARTCC New York	Detroit	Norfolk
ARTCC Washington	Greensboro	Philadelphia
Atlanta	Houston Intercontinental	Pittsburgh
Baltimore	Indianapolis	Raleigh / Durham
Bangor	Knoxville	San Antonio
Birmingham	Memphis	St Louis Lambert
Boston	Minneapolis	Tampa
Chicago O'Hare	Nashville	Washington
Cincinnati	New Orleans	
Cleveland		

3.1.5.5 A self - briefing pre - flight information service is available at BAHRAIN INTERNATIONAL airport with the coverage indicated below:

3.1.5.5.1 BAHRAIN: Complete coverage as for BAHRAIN INTERNATIONAL NOTAM OFFICE. See GEN 3.1.5.1 to GEN 3.1.5.4.

3.1.5.6 **Pre - flight Information Bulletins (PFIBs)**

3.1.5.6.1 In addition to the self - briefing pre - flight information service, a comprehensive tailored pre - flight briefing is available to scheduled operators from BAHRAIN INTERNATIONAL airport. Application for service should be made to the Airport AIM / MET Briefing Office:

AIM / MET Briefing
P.O. Box 586

Kingdom of Bahrain
TEL: +973 17321181 / +973 17321182 and +973 17321178
Telefax:+973 17323876

3.1.5.6.2 Bahrain Integrated Aeronautical Information Package is available on: https://aim.mtt.gov.bh

3.1.5.7 **Accuracy of Information**

3.1.5.7.1 The AIP BAHRAIN FIR and associated NOTAM are compiled from the variety of sources. Except for Bahrain, all information is acquired from independent states and from commercial sources. The greatest care is exercised in the assembly and compilation of information for the AIP BAHRAIN FIR and associated NOTAM and they are considered to be as reliable as possible at the time of issue. Civil Affairs will not be held responsible, however, for the accuracy of the contents of the AIP BAHRAIN FIR or NOTAM or for any omissions therefrom, neither will Civil Aviation Affairs be responsible for the adequacy or receipt of NOTAM or AIP amendments.

3.1.5.7.2 Any errors or om missions discovered should be notified without delay to the AIM Department or to Civil Aviation Affairs.

3.1.5.7.3 To further enhance the quality of the services provided by AIM, Bahrain has implemented ISO 9001 : 2008 to AIM, should any comments or suggestions arise, please do not hesitate to mail or email us at the following address:

AERONAUTICAL INFORMATION MANAGEMENT
P.O. Box 586
Kingdom of Bahrain
e-mail: sdc@mtt.gov.bh
Http: https://aim.mtt.gov.bh

3.1.6 ELECTRONIC TERRAIN AND OBSTACLE DATA (ETOD)

3.1.6.1 Air Navigation Obstacles and Electronic Terrain Data Sets of Bahrain may be obtained from:

AERONAUTICAL INFORMATION MANAGEMENT - Air Navigation
Bahrain Civil Aviation Affairs
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321180 / +973 17321181
Telefax:+973 17329977 / +973 17323876
e-mail: etod@mtt.gov.bh
sdc@mtt.gov.bh

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GEN 3.2 AERONAUTICAL CHARTS

3.2.1 RESPONSIBLE SERVICE

Civil Aviation Affairs of Bahrain provides a wide range of aeronautical charts for use by all types of Bahrain Civil Aviation Affairs. The Aeronautical Information Service produces the charts which are part of the AIP. For addresses see **GEN 3.2.3** below.

The charts are produced in accordance with the provisions contained in the following ICAO documents: Annex 4 - Aeronautical Charts. Differences to these provisions are detailed in section **GEN 1.7**.

3.2.2 MAINTENANCE OF CHARTS

3.2.2.1 The aeronautical charts included in the AIP are kept up - to - date by amendments by AIP. Corrections to aeronautical charts not contained in the AIP are promulgated by AIP Amendments and are listed under **GEN 3.2.7** of this section. Information concerning the planning for or issuance of new maps and charts are notified by Aeronautical Information Circular.

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

3.2.3 PURCHASE ARRANGEMENTS

3.2.3.1 The charts contained in the AIP BAHRAIN FIR may be obtained from the:

Aeronautical Information Management
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321180 / +973 17321181 / +973 17321182
Telefax:+973 17323876
AFS: OBBBYNYX

The charts listed under **GEN 3.2.5** of this section may be obtained through the following accredited chart agents:

a) Edward Stanford Ltd.

12 - 14 Long Acre, London, WC 2 E 9 L P., UK

b) British Airways (Aerad) (S 464),

P.O. Box 10, Aerad House,

Heathrow Airport

Hounslow, Middlesex

TW 6 2 JA, UK

c) Airtour International Ltd.,

Elstree Aerodrome,

Elstree,

Herts, WD 6 3 AW, UK

d) British Light Aviation Centre,

Artillery Manisions,

Victoria Street,

London SW 1, UK

3.2.3.2 Civil Aviation Affairs, the Aeronautical Information Service and the sales agents have copies of the ICAO Catalogue (ICAO Doc 7101 - MAP / 565) wherein are listed all aeronautical charts or chart series produced by this and other countries, and known to be generally available to Civil Aviation.

3.2.4 AERONAUTICAL CHART SERIES AVAILABLE

3.2.4.1 The following series of aeronautical charts are acknowledged:

a) World Aeronautical Chart - ICAO 1 : 1.000.000
b) Plotting Chart - ICAO
c) Aerodrome / Heliport Chart - ICAO
d) Aerodrome Ground Movement Chart - ICAO

e) Aircraft Parking / Docking Chart - ICAO
f) Aerodrome Obstacle Chart - ICAO - Type A
g) Aerodrome Obstacle Chart - ICAO - Type C
h) Precision Approach Terrain Chart - ICAO
i) En-route Chart - ICAO
j) Area Chart - ICAO (departure, arrival and transit routes)
k) Instrument Approach Chart - ICAO (for each runway and procedure type)
l) Visual Approach Chart - ICAO
m) Low Visibility Procedure Chart - ICAO

The charts currently available are listed under AD 2.24 of each aerodrome.

3.2.4.2 **General description of each Series**

a) **World Aeronautical Chart ICAO 1 : 1.000.000**

The World Aeronautical Chart ICAO 1 : 1.000.000 series is constructed on Lambert Conical Orthomorphic Projection up to 80° N and Polar Stereographic Projection between 80° N and 90° N with the scales matching at 80° N. The aeronautical data shown has been kept to a minimum, consistent with the use of the chart for visual air navigation. It includes a selection of aerodromes, significant obstacles, elements of the ATS system, prohibited, restricted and danger areas and radio navigation aids. The chart provides information to satisfy visual air navigation and is also used as a pre - flight planning chart.

b) **Plotting Chart - ICAO**

This series, covering the North Atlantic, Western Europe and North Africa is designed for in - flight long range navigation and is constructed on Mercator‘s projection with simple outline of land areas at a scale of 1 : 5.000.000. Aeronautical data consist of major international aerodromes, selected radio navigation aids, lattices of long range electronic aids to navigation, FIR, CTA, CTR, reporting points, etc. The chart is designed to provide a means of maintaining a continuous flight record of the aircraft position.

c) **Aerodrome / Heliport Chart - ICAO**

The Aerodrome / Heliport Chart - ICAO contains detailed Aerodrome / Heliport data to provide flight crew with information which will facilitate the ground movement of aircraft:

a) from aircraft stand to the runway; and
b) from the runway to the aircraft stand;

and helicopter movement:

a) from the helicopter stand to the touchdown and lift - off area and to the final approach and take - off area;
b) from the final approach and take - off area to the touchdown and lift - off area and to the helicopter stand;
c) along helicopter ground and air taxiways; and
d) along air transit routes;

It also provides essential operational information at the aerodrome / heliport.

d) **Aerodrome Ground Movement Chart - ICAO**

The Aerodrome Ground Movement Chart - ICAO is produced for those aerodromes where, due to congestion of information, details necessary for the ground movement of aircraft along the taxiways to and from the aircraft stands and the parking / docking of aircraft, cannot be shown with sufficient clarity on the Aerodrome / Heliport Chart - ICAO.

e) **Aircraft Parking / Docking Chart - ICAO**

This chart is produced for those aerodromes where, due to the complexity of the terminal facilities the information to facilitate the ground movement of aircraft between the taxiways and the aircraft stands and the parking / docking of aircraft cannot be shown with sufficient clarity on the Aerodrome / Heliport Chart - ICAO or on Aerodrome Ground Movement Chart - ICAO.

f) **Aerodrome Obstacle Chart - ICAO, Type A (Operating Limitations)**

This chart contains detailed information of obstacles in the take - off flight path areas of aerodromes. It is shown in plan and profile view. This obstacle information, in combination with an Obstacle Chart - ICAO, Type C provides the data necessary to enable an operator to comply with the operating limitations of Annex 6, Parts I and II, Chapter 5.

g) **Aerodrome Obstacle Chart - ICAO, Type C**

This chart contains obstacles data necessary to enable an operator to develop procedures to comply with operating limitations of Annex 6, Parts I and II, Chapter 5 with particular reference to information on obstacles that limit the maximum permissible take - off mass. This chart must provide certain obstacle data and topographical information covering a distance of 45 KM (24 NM) from the aerodrome reference point.

Appropriate topographical charts which are available for the area around the airports, if supplemented with "overprint" obstacle data and other significant aeronautical information, should be suitable for use as the topographic base for the AOC - ICAO, Type C. The chart is not produced if:

a) The required obstacle data is published in the AIP; or
b) No significant obstacles exist, and this fact is published in the AIP.

h) **Precision Approach Terrain Chart - ICAO**

Precision Approach Terrain Charts - ICAO provide detailed terrain profile information within a defined portion of the final approach so as to enable aircraft operating agencies to assess the effect of the terrain on decision height determination by the use of radio altimeters. This chart is produced for all precision approach runways Categories II and III.

i) **En-route Chart - ICAO**

This chart is produced for the entire BAHRAIN FIR / BAHRAIN UIR. The aeronautical data include all aerodromes, prohibited, restricted and danger areas and the air traffic services system in detail. The chart provides flight crews with information to facilitate navigation along ATS routes in compliance with air traffic services procedures.

j) **Area Chart - ICAO**

The Area Chart - ICAO is produced where the air traffic services routes or position reporting requirements are complex and cannot be shown on an En-route Chart - ICAO. It contains in more detail aerodromes, which affect terminal routings, prohibited, restricted and danger areas and the air traffic services system. This chart provides the flight crew with information to facilitate the following phases of instrument flight:

a) the transition between the en-route phase and approach to an aerodrome;
b) the transition between take - off / missed approach and en-route phase of flight; and
c) flights through areas of complex ATS routes or airspace structure.

k) **Instrument Approach Chart - ICAO**

Instrument Approach Charts - ICAO are produced for all aerodromes used by civil aviation where instrument approach procedures have been established.

A separate Instrument Approach Chart - ICAO has been provided for each approach procedure.

The aeronautical data shown include information on aerodromes, prohibited restricted and danger areas, radio communication facilities and navigation aids, minimum sector altitude, procedure track portrayed in plan and profile view, aerodrome operating minima etc.

This chart provides flight crew with information which will enable them to perform an approved instrument approach procedure to the runway of intended landing including the missed approach procedure and where applicable, associated holding patterns.

l) **Visual Approach Chart - ICAO**

The Visual Approach Chart - ICAO is produced for aerodromes used by civil aviation where:

1. only limited navigation facilities are available;
2. radio communication facilities are not available; or
3. no adequate aeronautical charts of the aerodrome and its surroundings at 1 : 500.000 or greater scale are available; or
4. visual approach procedures have been established.

The aeronautical data shown, include information on aerodromes, obstacles, designated airspace, visual approach information, radio navigation aids and communication facilities as appropriate.

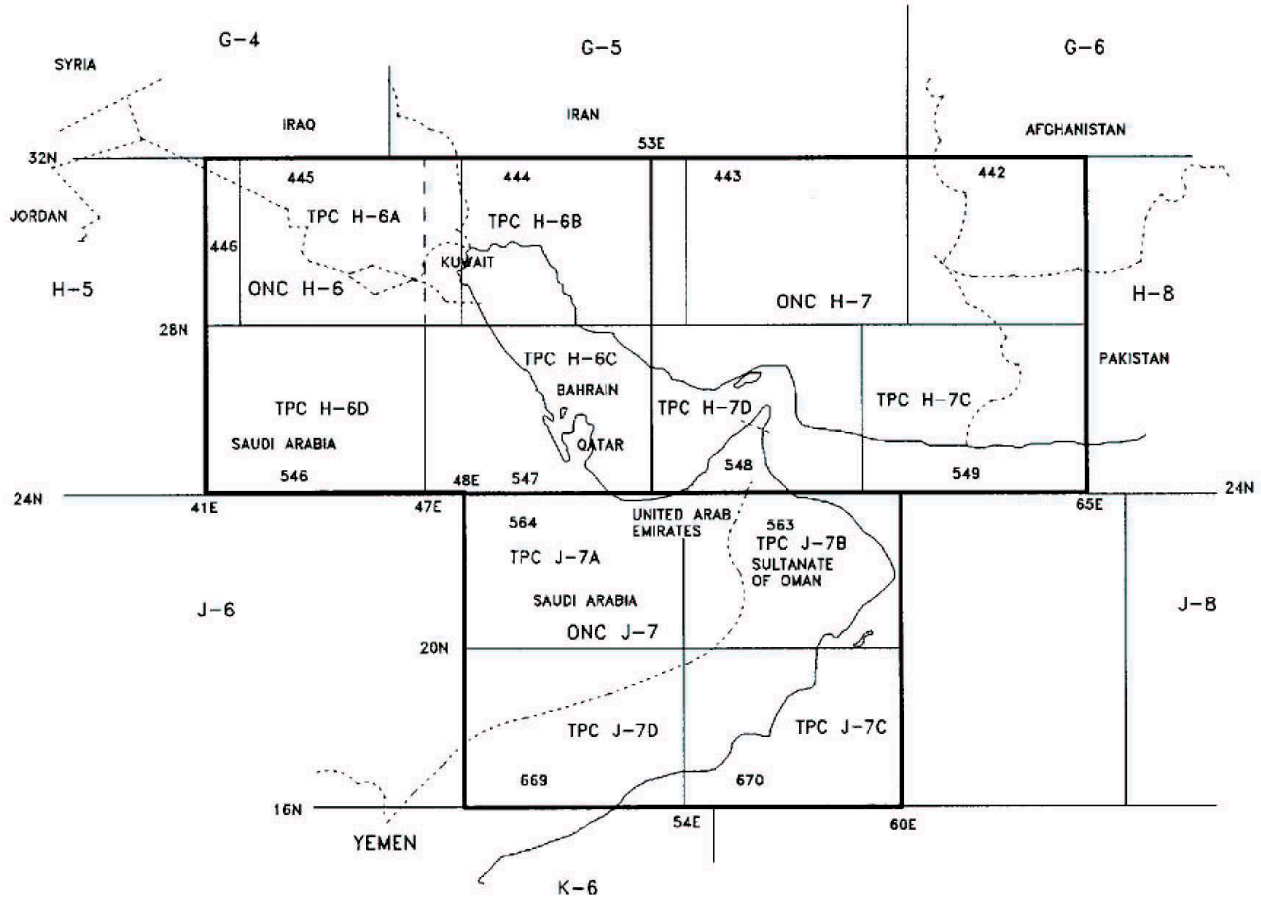
m) **Low Visibility Procedure Chart - ICAO**

Low visibility operations shall be declared whenever;

a) The tower controller’s ability to visually survey the manevering area is limited to portions of the maneuvering area, or
b) The RVR reading is 1000 m or below.

3.2.5 INDEX TO OPERATIONAL NAVIGATIONAL CHARTS ONC 1 : 1.000.000 and TACTICAL PILOTAGE CHARTS TPC 1 : 500.000

LIST OF CHART SERIES		
TITLE AND SCALE	**SERIES CODE**	**CHART NUMBER**
Topographical Operational Navigation Chart - 1 : 1.000.000	ONC	H - 6
	ONC	H - 7
	ONC	J - 7
Topographical Tactical Pilotage Chart - 1 : 500.000	TPC	H - 6 A
	TPC	H - 6 B
	TPC	H - 6 C
	TPC	H - 6 D
	TPC	H - 7 D
	TPC	J - 7 A
	TPC	J - 7 B
	TPC	J - 7 D



ONC sheet identification J-7 World Area Code identifiers 563

TPC sheet identification J-7A

3.2.6 TOPOGRAPHICAL CHARTS

To supplement the aeronautical charts, a range of topographical charts is available from:

The Ministry of Housing

Survey Directorate
P.O. Box 5802
Kingdom of Bahrain
TEL: +973 17533000
Telefax:+973 17533795

3.2.7 CORRECTIONS TO CHARTS NOT CONTAINED IN THE AIP

NIL

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GEN 3.3 AIR TRAFFIC SERVICES

3.3.1 RESPONSIBLE SERVICE

The Air Traffic Services Department of the Bahrain Civil Aviation Affairs is the responsible authority for the provision of Air Traffic Services within the area indicated under **GEN 3.3.2** below.

Undersecretary for Civil Aviation
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321100
Telefax:+973 17339066
AFS: OBBBZGZX
SITA: BAHAPYF

The 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 Air Traffic Management (PANS - ATM)
Doc 8168 Procedures for Air Navigation Services / Aircraft Operation (PANS - OPS)
Doc 7030 Regional Supplementary Procedures

Differences from these provisions are detailed in sub - section **GEN 1.7**.

3.3.2 AREA OF RESPONSIBILITY

Air Traffic Services are provided for the entire territories, including territorial waters, and in the airspace over the high seas encompassed by the BAHRAIN FIR / BAHRAIN UIR.

3.3.3 TYPE OF SERVICES

The following types of services are provided:

Flight Information Service (FIS) and Alerting Service (ALRS)
Area Control (ACC); and
Radar

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

Aerodrome Control (TWR);
Approach Radar;
Aerodrome Flight Information Service (AFIS); and
Automatic Terminal Information Service (ATIS), at certain aerodromes

For military ATS within the Kingdom of Bahrain see **OBBS AD 2.17** and **OBKH AD 2.17**.

3.3.3.1 Air Traffic Services are provided in accordance with the standards specified in Annex 11 to the Convention on International Civil Aviation. Airspace is classified in accordance with Appendix 4 to Annex 11, and a description of the system with an indication of the utilization in the BAHRAIN FIR / BAHRAIN UIR is set out in **ENR 1.4**.

Air Traffic Control is exercised:

a) In Class A Airspace which in the BAHRAIN UIR encompasses all Controlled Airspace at and above FL 150 and;
b) In Class C Airspace which in the BAHRAIN FIR encompasses all Controlled Airspace below FL 150.

Note: *Controlled Airspace is a generic term which covers ATS Airspace Classes A, B, C, D & E as defined in Appendix 4 to Annex 11.*

3.3.3.2 Flight Information Service and Alerting Service within the Area of Responsibility outside the Control Zones, and Air Traffic Control service in airways within the Area of Responsibility are provided by one Centre (ACC Bahrain). Within Control Zones the Services are provided by the Approach Control Unit concerned.

The Taxis of each airway is constituted by a line connecting significant points identified as a rule by radio navigational facilities.

3.3.3.3 Air Traffic Control, Flight Information and Alerting Services are provided by:

a) ACC Bahrain in the Bahrain CTA and along the airways, including those parts of the airways traversing Control Zones.
b) The relevant Approach Control Unit and Aerodrome Control Unit, in co - ordination with Bahrain as necessary, for arriving and departing aircraft.

3.3.3.4 The description of the airspace designated for Air Traffic Services purposes is contained in several tables, all forming part of

ENR 3.

3.3.3.5 In general, the air traffic rules and procedures in force and the organization of Air Traffic Services are in conformity with ICAO Standards, Recommended Practices and Procedures. Differences between the National and International Rules and Procedures are given in **GEN 1.7** . The Regional Supplementary Procedures are given in full with an indication where there is a difference.

3.3.3.6 Prohibited, Restricted and Danger areas are established within BAHRAIN FIR / BAHRAIN UIR. These areas are shown in **ENR 5**. Activation of areas subject to Intermittent activity is notified in advance by NOTAM, given reference to the area only by its designation.

3.3.4 COORDINATION BETWEEN THE OPERATORS AND ATS

Coordination between the operator and Air Traffic Services is affected in accordance with Annex 11 and Doc 4444 (PANS - ATM).

Coordination for Special Use of Airspace

In order to ensure that activities potentially hazardous to civil aircraft are coordinated between Military users and ATC units and to:

1. Allow timely promulgation of information;
2. Minimize interference with normal civil aircraft operations;
3. Avoid hazards to civil aircraft;

The unit requesting special use of airspace shall submit a request to Bahrain ATC Head of ATC Operations for approval at least 10 days prior to the proposed operation. All requests shall include date and times of the request as well as the specific area requested, defined by Latitude and Longitude coordinates and altitude limits in terms of MSL.

Bahrain CATM contact details as follows:-

Chief Air Traffic Management
Air Navigation Directorate
Ministry of Transportation & Telecommunications
Kingdom of Bahrain
TEL: +973 17321158
Telefax: + 973 17329977
MOB: + 973 39522696
e-mail: a.ali@mtt.gov.bh

3.3.5 MINIMUM FLIGHT ALTITUDES

The minimum flight altitudes on the ATS routes as listed in **ENR 3** have been determined to ensure at least 300 M (1000 FT) vertical clearance above the highest obstacle within 5 NM from the edge of airways.

However, where the angular divergence of the navigational air signal in combination with the distance between the navigational aids could result in an aircraft being more than 5 NM (9 KM) on either side of the centre line, the 5 NM (9 KM) protection limit on each side of the centre line of the ATS route is increased by the extent to which the divergence is more than 5 NM (9 KM) from the centre line.

Note: *The navigation performance accuracy necessary for operation on air routes within BAHRAIN UIR is expressed as RNAV type. RNAV type is containment value expressed as a distance in NM from the intended position within which flights would be for at least 95 per cent of the total flying time. For operation on the air routes in the BAHRAIN UIR, the required radio navigation specification (RNAV) is RNAV 5. RNAV 5 represents a navigation accuracy of plus or minus 9.26 KM (5 NM) on a per cent containment basis. RNAV 5 application in BAHRAIN UIR is detailed in* ***ENR 1.3.4****.*

3.3.6 ATS UNITS ADDRESS LIST

BAHRAIN ACC
Chief ATM
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321117 / +973 17321080 / +973 17321081
Telefax:+973 17329966 / +973 17321029
AFS: OBBBZQZX
e-mail: bahatc@mtt.gov.bh

BAHRAIN / ISA AIRBASE
Senior ATCO
Air Operations Centre
P.O. Box 245
Kingdom of Bahrain
TEL: +973 17894628 / +973 17894474
Telefax:+973 17894600
Telex: 8429BN
AFS: OBBSZTZX

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GEN 3.4 COMMUNICATION SERVICES

3.4.1 KINGDOM OF BAHRAIN

3.4.1.1 RESPONSIBLE SERVICE

3.4.1.1.1 The telecommunications services in the BAHRAIN FIR / BAHRAIN UIR are not administered by a single authority but by different administrations or operating authorities, each responsible for the telecommunications stations under their control. Arrangements concerning these services, or any enquiries, suggestions or complaints regarding telecommunications services at individual stations, should be referred to the relevant administration or operating authority for the telecommunications stations concerned.

3.4.1.1.2 The authority responsible for the administration of telecommunications services at Bahrain is Civil Aviation Affairs.

Undersecretary for Civil Aviation
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321011
Telefax:+973 17339066
AFS: OBBIYAYX

The service is provided in accordance with the 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 Designator for Aircraft Operating Agencies, Aeronautical Authorities and Services
Doc 7030 Regional Supplementary Procedures
Doc 7910 Location Indicators

3.4.1.2 AREA OF RESPONSIBILITY

Communication services are provided for the entire BAHRAIN FIR / BAHRAIN UIR. Arrangements for such Services on a continuing basis should be made with the Head of Communications Civil Aviation Affairs, who is also responsible for the application of the regulations concerning the design, type and installations of aircraft radio stations. Responsibility for the day - to - day operation of these services is vested in Station Communication Officers located at each international aerodrome. Enquiries, suggestions or complaints regarding any telecommunication service should be referred to the relevant Station Communication Officer or to the Head of Communications, Civil Aviation Affairs, as appropriate.

The various authorities are in States within the BAHRAIN FIR / BAHRAIN UIR.

3.4.1.3 TYPES OF SERVICE

3.4.1.3.1 **Radio Navigation Service**

The following types of radio aids to navigation are available:

Instrument Landing System (ILS)
VHF Omnidirectional Radio Range (VOR)
Distance Measuring Equipment (DME)

3.4.1.3.2 **Mobile Service / Fixed Service**

3.4.1.3.2.1 **Mobile Service**

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

3.4.1.3.2.1.1 An aircraft should normally communicate with the air - ground control station which exercises control in the area in which it is flying. Aircraft should maintain continuous watch on the appropriate frequency and should not cease watch, except for reasons of safety, without the authority of the control radio station,

3.4.1.3.2.1.2 During flight within the BAHRAIN FIR / BAHRAIN UIR, pilots must additionally guard one or both of the emergency fequencies 121.500 MHZ and 243.000 MHZ.

3.4.1.3.2.1.3 At stations within the BAHRAIN FIR / BAHRAIN UIR the language used in air - ground communications is English.

3.4.1.3.2.2 **Fixed Service**

At stations within the BAHRAIN FIR / BAHRAIN UIR messages to be transmitted over the Aeronautical Fixed Service are accepted only if:

a) they satisfy the requirements of Annex 10, Volume 2, Chapter 3.3
b) they are prepared in the form specified in Annex 10, and
c) the text of an individual message does not exceed 1800 characters

General Aircraft Operating Agency messages are only accepted for transmission to countries which have agreed to accept Class "B" traffic.

3.4.1.3.2.3 **Broadcast Service**

Sub - Area Meteorological Broadcasts (VOLMET Radio - telephony Broadcasts) are available for the use of aircraft in flight. Full details are given in Section **GEN 3.5**.

3.4.1.3.2.3.1 **Language used: English**

3.4.1.3.2.3.2 **Where detailed information can be obtained**

Details of the various facilities available for the En - route traffic are to be found in the En - route Part. (**ENR 4**).

Detailes of the facilities available at the individual aerodrome are to be found in the relevant aerodrome (AD) section. In cases where a facility is serving both the En - route traffic and the Aerodromes, details are given in both the En - route Part and the Aerodrome section concerned.

The co - ordinates listed refer to the transmitting antennae.

3.4.1.4 REQUIREMENTS AND CONDITIONS

The requirements of the Directorate of Communication Services and the general conditions under which the communication services are available for international use, as well as the requirements for the carriage of radio equipment, are contained in the Air Navigation (Radio) Regulations of Bahrain. The list of the main provisions is briefly summarized below:

Article (12) Radio Equipment and its use in the Aircraft

Aircraft operating in the territory of the Kingdom of Bahrain shall not carry any radio equipment unless a license has been issued to the effect by the competent Authorities in the State of Registry. Such equipment shall be used only for air navigation purposes by the flight crew of the aircraft in accordance with the established rules.

3.4.2 Table Aeronautical Fixed Services - International Circuits

Station Name and Location Indicator	Correspondent AFTN Addressees	Type of Channel	Type of Traffic	Hours of Operation	Remarks
1	2	3	4	5	6
BAHRAIN OBBI	OBBIYFYX	Serial	AFS	H24	NIL
KUWAIT OKBK	OKBKYFYX	Serial	AFS	H24	NIL
ABU DHABI OMAE	OMAEYFYX	LAN	AMHS	H24	NIL

GEN 3.5 METEOROLOGICAL SERVICES

3.5.1 KINGDOM OF BAHRAIN

3.5.1.1 Responsible Service

The Meteorological Services for civil aviation at Bahrain are provided by the Bahrain Meteorological Service.

Bahrain Meteorological Service
Civil Aviation Affairs
Bahrain International Airport
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321178 (MET Briefing), +973 17323073 (Forecaster)
Telefax:+973 17320630
AFS: OBBIYMYX

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

Annex 3: Meteorological Service for International Air Navigation
Annex 15: Aeronautical Information Service
Doc 8126: Aeronautical Information Services Manual
Doc 7030: Regional Supplementary Procedures
Doc 8700: Air Navigation Plan, MID / ASIA
Doc 9377: Co - ordination between ATS and the Meteorological Services

Differences from these provisions are detailed in Section **GEN 1.7**.

3.5.1.2 Area of Responsibility

Meteorological Watch Office for the BAHRAIN FIR / BAHRAIN UIR.

Air routes from Bahrain to:	North America
	Europe
	South Africa
	The Far East

3.5.1.3 Observing Systems and Operation Procedures

3.5.1.3.1 Surface wind is measured by ultrasonic wind sensor located approximately 350 M WSW of THR RWY 30L and at RWY 12R. Wind indicators are located in the meteorological units of Briefing, Observing and Operations and in the appropriate Air Traffic Services Units.

Cloud height is estimated. However Vaisala Ceilometer cloud measurements are also available near the RWY 30L.

Temperature and huminidity readings are taken from instruments located at a site some 250 M from the RWY, near to the THR RWY 30L.

Vertical / horizontal wind - shear warnings are issued.

Slant visual range observations are not made.

Visibility is estimated except for IRVR as follows.

3.5.1.3.2 IRVR REPORTING PROCEDURES

3.5.1.3.2.1 IRVR reporting is initiated when:

a) The regular meteorological report shows visibility to be 2000 M or less;
b) The IRVR value is observed to be 2000 M or less;
c) Whenever shallow fog is reported, and during periods for which it is forecast.

Note: *In METAR, only the touchdown and stop end values are given.*

3.5.1.3.2.2 IRVR values will be passed to all aircraft at the beginning of each approach for landing and thereafter, any significant change to the IRVR is passed until the aircraft has landed. A significant change is defined as a change in value of one increment or more. IRVR information will also be provided to aircraft prior to take off.

3.5.1.3.2.3 The IRVR is measured by forward scattering visibility sensor and the system consists of three transmission meters indicating Touch - down, Mid point and Stop - end values for the RWY in use. Where all three readings are reported to the pilot, they are passed as three

sets of figures representing Touch - down, Mid point and Stop - end respectively. e.g.:

RVR 650 - 500 - 550

3.5.1.3.2.4 If only two values are passed they will be identified, for example, as follows:

RVR Touch - down 650 - Stop - end - 550

3.5.1.3.2.5 If only one unit is serviceable it will be identified, for example, as follows:

RVR Mid - point 650

except that if the only serviceable unit is the Stop - end, the value will not be reported and the whole system will be placed unserviceable for that RWY.

3.5.1.4 Meteorological Observations and Reports

Table GEN 3.5.1.4 Meteorological Observations and Reports

Name of Station Location Indicator	Type and frequency of observations / autom. equipment	Types of MET reports and Suppl. Information included	Observation System and sites	Hours	Climatological Information Available
BAHRAIN MET BAHRAIN INTERNATIONAL OBBI	Half hour plus special observations	METAR, SPECI, TREND & WS	SFC wind sensors RVR EQPT Ceilometer Thermometer See AD Chart	H24	Climatological tables AVBL

3.5.1.4.1 NOTIFICATION REQUIRED FROM OPERATORS

Pursuant to ICAO Annex 3, chapter 2, paragraph 2.3, notification in respect of all flight documentation and briefing is normally required. Such notification should normally be received at least six hours before expected departure time for flight of more than 1500 NM and at least 2 hours before expected departure time for flights of 1500 NM or less.

3.5.1.5 Types of Service

A 24-hour personal briefing and consultation service for flight crews is provided. Flights documentation provided comprises prognostic charts of upper air (for 250 MB) and significant weather (above FL 250) for long - haul flights. Charts for 500, 300 and 200 MB are available by prior arrangement. Rout sector winds for 700 MB and significant weather charts (above 10000 FT) are provided for regional flights.

Take-off data and climb and descent winds are also provided, together with the latest available aerodrome forecasts for designation and alternates.

Satellite imagery and local weather radar displays are available for inspection at the MWO and satellite imagery can be provided on request.

3.5.1.6 Aircraft Reports required from Pilots

In Flight

In accordance with Annex 3, chapter 5, paragraph 5.3.1, the marking and transmission of aircraft reports (AIREP) is required of the following ATS reporting points:

BAHRAIN (DAVRI, TORBO, SODAK or SOGAT)

Reports also requested at:

TOMSO, DEGSO, RESAR, ORSIS, TUMAK, ALPOB, ORMID, ULADA, RABAP

After landing

To establish a data-base for validating enhanced forecast information for take-off procedures, pilots of aircraft equipped with Flight Management Systems are requested to record winds and temperatures at and below 3000 FT at 500 FT intervals on a pro forma provided, and submit it to ground services after landing whenever operational requirements permit.

Pro forma are available from BAHRAIN AIRPORT SERVICES (BAS) and the MET / AIS Briefing Office.

3.5.1.7 VOLMET Service

Name of Station	Call Sign ID (EM)	Freq.	BCST period	Hours of services	ADs included	Continents & Format of REP and FCST & Remarks
BAHRAIN	BAHRAIN VOLMET (A3E)	128.800 MHZ	H24	CNS	OBBI, OEDF, OEJN, OERK, OKBK, OMAA, OMDB, OMRK, OMSJ, OMMS, and OTBD	METAR, TREND, QNH

3.5.1.8 SIGMET Service / Validity

Name of MWO / Location Indicator	Hours	FIR Served	Type of SIGMET / Validity	Specific Procedures	ATS Unit served	Additional Information
BAHRAIN	H24	BAHRAIN FIR / BAHRAIN UIR	SIGMET / 4 HR SIGMET SST / 4 HR	NIL	BAHRAIN ACC SHAIKH ISA APC DOHA APC	NIL

3.5.1.8.1 General

For safety of air traffic the Bahrain Meteorological Service maintains an area meteorological watch and warning service. This service consists partly in a continuous weather watch within the FIR / UIR and the issuance of appropriate information (SIGMET) by the Meteorological Watch Office, partly in the issue of warnings for BAHRAIN INTERNATIONAL airport and, subject to agreement, for other aerodromes by all aeronautical MET office.

3.5.1.8.2 Area Meteorological Watch Service

The area meteorological watch service is performed by the Bahrain Meteorological Watch Office. The MWO issues information in the form of SIGMET messages about occurrence or expected occurrence of one of several of the following significant meteorological phenomena.

Thunderstorms* (Obscured, Embedded, Frequent, Obscured with Hail, Embedded with Hail, Frequent with Hail).
Severe turbulence
Severe icing
Severe mountain waves
Heavy sands / dust - storm
Volcanic ash cloud
Tropical cyclone

* Area of widespread Cumulonimbus clouds or Cumulonimbus along a line (squall line) with little or no space between individual clouds, or Cumulonimbus embedded in cloud layers or obscured by haze.

SIGMET SST messages are issued as required and relate to the following phenomena:

Cumulonimbus
Turbulence (mod / severe/)
Hail
Volcanic ash cloud

The SIGMETS are issued in abbreviated plain language using ICAO abbreviations and are numbered consecutively for each day commencing at 0001. Their period of validity is generally limited to 4 hours or less from the time of transmission. The MWO transmits SIGMETS issued by itself as well as SIGMETS of adjacent. MWOs. SIGMET Information is disseminated.

a) by the Area Control Centre Bahrain for the BAHRAIN FIR / BAHRAIN UIR;
b) by ATS units for their own area of responsibility.

The information is broadcast from Aeronautical Communication Centre and repeated every half and full hour during the period of validity of the SIGMET Information.

3.5.1.8.3 Warning Service

Warnings are issued for the safety of aircraft taking off and landing for the protection of parked and moored aircraft or equipment at the airport. Warnings are issued in plain language.

Aerodrome Warnings are issued when one or more of the following phenomena are expected to affect the airport:

Thunderstorm
Squall 1
Sandstorm / dust storm
Rising sand / dust
Strong surface wind 2
Temperature inversion 3
Hail
Low level turbulence

Note 1: *squall relates to a sudden increase of wind speed of at least 16 KT, the speed being 22 KT or more.*

Note 2: *strong wind refers to mean wind speed of 22 KT or more and / or gusts of 28 KT or more.*

Note 3: *Temperature inversion warnings are issued for a lapse of 07° C or more, at or below 1500 FT.*

Wind Shear Warnings are issued within a radius of 8 KM from the airport and up to 1600 FT. For vertical Shear the following criteria are used:

Mod 5 - 8 KT / 100 FT
Str 9 - 12 KT / 100 FT
Svr 12 or more KT / 100 FT

Horizontal shear refers to a vector change of more than 20 KT. All warnings are valid for 1 to 4 hours unless cancelled. Each type of warnings is numbered consecutively on a monthly basis.

The warnings are issued in English and are distributed in accordance with a distribution list which has been agreed upon locally. In order to guarantee a rapid dissemination of the warnings, the distribution list used contains only one recipient for an interested group; this recipient will be responsible for the further dissemination for the warnings within the group.

3.5.1.9 Other Automated Meteorological Services

NIL

3.5.1.10 Meteorological Briefing at Aerodromes

Details of meteorological briefing at aerodromes are given in the individual aerodrome subsections i.e. AD 2.

GEN 3.6 SEARCH AND RESCUE

3.6.1 Responsible Service

The Search and Rescue Services in the BAHRAIN FIR / BAHRAIN UIR are organized in accordance with the International Standards and Recommended Practices of ICAO, and overall responsibility for coordinating the necessary facilities rests with the Undersecretary for Civil Aviation, Bahrain Civil Aviation Affairs, Kingdom of Bahrain:

Bahrain Rescue Coordination Center (RCC)
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17329969 / +973 17329959
Telefax:+973 17329949
AFS: OBBISARX

Note 1: *New AFTN address OBBINEMX is established for the purpose of Nuclear Emergency Message (NEM).*

Note 2: *There is a direct speech circuits between the RCC and all related ATC Units.*

Note 3: *Out of the normal working hours from 0400 to 1100 to call +973 17321081 and FAX +973 17321029*

Applicable ICAO Documents:

Annex 12 Search and Rescue
Annex 13 Aircraft Accident Investigation
Doc 7030 Regional Supplementary Procedures

Differences:

NIL

3.6.2 Area of Responsibility

The Search and Rescue Region encompasses the BAHRAIN FIR / BAHRAIN UIR, excluding the Qatar land and territorial waters.

3.6.3 Types of Service

3.6.3.1 **Coastguard Search and Rescue Unit**

Facilities Available: Marine Craft

Ministry of Interior CGD
P.O. Box 13
Kingdom of Bahrain
TEL: +973 17700000
Telefax:+973 17700728
Telex: 7707 CGD BN

Craft Available	Activation Time	Availability
2 RB (20 M)	Immediate	H 24
4 RB (20 M)	Immediate	H 24
4 Open oat (31 FT)	Immediate	H 24

3.6.3.2 **Police Flying Wing**

Facilities Available: Light Helicopters

Ministry of Interior
Police Flying Wing
P.O. Box 13
Kingdom of Bahrain
TEL: +973 17240000 / +973 17254736
Telefax:+973 17253439 BDF Helicopter Wing

Aircraft Available	Activation Time	Availability
2 HEL - L	30 Mins. BTN 0500 & 1215 1 HR BTN 1215 & 0500 1 HR during weekend and public holidays	SR - SS

3.6.3.3 Bahrain Defence Force Helicopter Wing/ Mobile Command and Control Centre - (Air and maritime surveillance)

POST:

BDF Helicopter Wing
P.O. Box 245
Kingdom of Bahrain
TEL: +973 17894474
Telefax:+973 17620926

Facilities Available:

Aircraft Available	Activation Time	Availability
(10) Helicopters for Search and Rescue (SAR) missions	H24/7	SR - SS
(3) Helicopters for Medical Evacuation (MEDVAC) missions with qualified medical crew	H24/7	SR - SS
(64) Boats for Search and Rescue (SAR) missions	H24/7	SR - SS
(14) Ships for Surveillance and Reconnaissance missions	H24/7	SR - SS
(535) Qualified and trained Rescue Divers / Medical crews	H24/7	SR - SS
(20) Jet ski for Search and Rescue (SAR) missions (shallow water purposes)	H24/7	SR - SS
(10) Military Officers for Humanitarian support missions	H24/7	SR - SS

3.6.3.4 COSPAS / SARSAT

Area Control Centre ACC is located at the Civil Aviation Affairs / Air Navigation Directorate to detect and locate the position of distress signals pemitted on 121.500 MHZ and 406.000 MHZ and received by the COSPAS / SARSAT satellite system. Distress signals received at the ACC will be notified to the appropriate Rescue Coordination Centre (RCC) in order to initiate immediate search and rescue coordination.

3.6.4 SAR agreements

To be developed

3.6.5 Conditions of availability

Assistance will be provided to aircraft in distress and to survivors of aircraft accidents. In addition to the facilities outlined in **GEN 3.6.3** various elements of Police organizations, the Merchant Marine and the Armed Forces are available to the Search and Rescue Organization.

Requests for entry of aircraft, equipment and personnel from other States to engage in the search for aircraft in distress or to rescue survivors of aircraft accidents should be transmitted to:

Undersecretary for Civil Aviation
P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321081 / +973 17320487
Telefax:+973 17329949
AFS: OBBISARX

Unwarrant Operations

Civil Aviation Affairs, as the authority responsible for the coordination of rescue services for the Bahrain SRR, reserves the right to take steps to recover expenditure, incurrent either by aerodrome services or other participants involved in search and rescue operations, whenever circumstances show that the operation was unwarranted.

3.6.6 Procedures and signals used

Owing to the nature terrain, aircraft are advised to maintain a good look - out at all times whilst operating within the BAHRAIN FIR / BAHRAIN UIR and are requested to inform the Bahrain FIC immediately they see anything which might be relate to an aircraft in distress.

Procedures for pilots - in - command observing an accident or intercepting a distress call are in accordance with Annex 12.

Communications

Transmission and reception of distress messages within the Bahrain Search and Rescue Region are handled in accordance with ICAO Annex 10, Volume II, Chapter 5, paragraph 5.3.

For communications during search and rescue operations, the codes and abbreviations published in ICAO Abbreviations and Codes (Doc 8400) are used.

The frequency 121.500 MHZ is guarded continuously during the hours of service at an area control centers and flight information centers. It is also monitored at BAHRAIN INTERNATIONAL Approach Control Office.

Search and rescue signals

The search and rescue signals to be used are those prescribed in Annex 12, Chapter 5, paragraph 5.10.

Ground / air visual signal codes for use by survivors

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

Instructions for use:
1. Make signals not less than 8 FT (2.5 M).
2. Take care to lay out signals exactly as shown.
3. Provide as much color contrast as possible between signals and background.
4. Make every effort to attract attention by other means such as radio, flares, smoke, reflected light.

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GEN 4. CHARGES FOR AERODROMES / HELIPORTS AND AIR NAVIGATION SERVICES

GEN 4.1 AERODROME / HELIPORT CHARGES

KINGDOM OF BAHRAIN

4.1.1 GENERAL

4.1.1.1 Unless an alternative arrangement has been made, all charges for the use of BAHRAIN INTERNATIONAL airport are payable by the pilot of the aircraft on demand, or before the aircraft departs from the aerodrome.

4.1.1.2 **NON - SCHEDULED OVER FLIGHT**

Operators of non - scheduled flights within the BAHRAIN FIR / BAHRAIN UIR which do not land at BAHRAIN INTERNATIONAL airport must ensure that the full name and address of the Aircraft Operator, or of the Agent authorized to pay charges on behalf of the Aircraft Operator, is include in Field 18 of the Flight Plan. In addition to the following:

1- Operator name.

2- Operator postal address.

3- Postal address of the company for collecting our bills and settling our payments.

4- Call sign and registration separately if they were different.

5- Aircraft type and the maximum takeoff weight.

6- The postal address of the agent and its client if any.

7- Telephone and fax numbers.

8- E-mail address.

4.1.1.3 **LANDING CHARGES**

4.1.1.3.1 **BASIS**

The maximum take - off mass of the aircraft, authorized by the State of Registration in its certificate of airworthiness.

ICAO VORTEX CLASSIFICATION	MTOM	CHARGE
Light	Up to 7000 KG	BD 7.000 flat rate
Medium	7001 up to 136000 KG	BD 1.400 per 1000 KG or part of thereof
Heavy	Over 136000 KG	BD 1.500 per 1000 KG or part thereof

4.1.1.3.2 **RULES**

4.1.1.3.2.1 The payment of the Landing Charge shall entitle the aircraft to:

a) The use of the aerodrome for alighting and departure.
b) The use of the radio and night lighting installations at the aerodrome.
c) The supply of all available information as to routes, and weather information.
d) The services of the aerodrome personnel, if available, for manual assistance in guiding, housing, or parking the aircraft.

4.1.1.3.2.2 The landing charge, the payment of which entitles the aircraft to the use of the radio, does not include operational charges or charges for radio services in connection with movement, which may be levied by an approved agency of the Government.

4.1.1.3.3 **PAYMENT OF CHARGES**

4.1.1.3.3.1 Charges must be paid to the Duty Aerodrome Reporting Office Official prior to the departure of the aircraft, unless previous arrangements have been made for credit facilities.

4.1.1.3.3.2 A money - changing facility exists in the passenger concourse of the Terminal Building.

4.1.1.3.3.3 BAHRAIN AIPORT CHARGES

In response to the privatization plan which the kingdom of Bahrain is adopting nowadays to some governmental agencies, Bahrain International Airport is considered to be one of those agencies who must go with the privatization plan.

In this context, Bahrain Airport Company has contracted the Bahrain International Airport and the associated facilities. The following elements shall be considered applicable immediately:

1. **LANDING & PARKING CHARGES:** Invoices raised for such matters are solely and accordingly devolved to Bahrain Airport Company since July 2010. Therefore, correspondence serving similar nature shall be made to the following contact details:

e-mail: Fatima.Ajawi@bac.bh
TEL: (+973) 17 353381
Telefax: (+973) 17 920441

2. CHARGES OTHER THAN THE ABOVE: In response to the development and improvement in Civil Aviation Affairs payment process, all payments due to be made other than landing and parking fees must be sent to Civil Aviation Affairs containing the following:

1- Operator name.
2- Include all invoices numbers for the payment.
3- Operator code.
4- Any contact details.

While it is not our intention to disrupt your services, please be advised that if payment didn't contain any of the above listed information, we will be left with no option but to give priority to the old outstanding invoices, where all the correspondence shall be made to the following contact details:

e-mail: debt.collection@mtt.gov.bh
TEL: (+973) 17 337724 / 17 327739 / 17 327707
Telefax: (+973) 17 534722

4.1.1.3.4 **REDUCTIONS**

4.1.1.3.4.1 General

Reductions in the standard charges may be granted by Civil Aviation Affairs by the issuance of specific directives. Details upon application.

4.1.1.3.4.2 The following reductions in landing fees may be granted, by prior arrangement with the airport authority, in respect of flights undertaken soley for the purpose of the training or testing of flying personnel, or in respect of flights performed by an aircraft constructor and undertaken soley for the purpose of experimenting with or testing the constructor‘s aircraft.

4.1.1.3.4.3 AIRCRAFT WEIGHING / RATES PER LANDING

AIRCRAFT WEIGHING	RATES PER LANDING
Up to 45000 KG	50 % of the standard charge
Exceeding 45000 KG, but not exceeding 90000 KG	BD 30
Exceeding 90000 KG	25 % of the standard charge up to a maximum of BD 100

4.1.1.3.4.4 A reduction in the standard fee may be granted, by prior arrangement with Civil Aviation Affairs, in respect of a series of flights through Bahrain, when landing are made for non - traffic purposes, e.g. fuelling, crew - rest, change of crew.

4.1.1.3.5 **EXEMPTIONS**

4.1.1.3.5.1 GENERAL

Exemptions from payment of landing charges for aircraft other than those listed below may be granted by Civil Aviation Affairs by the issuance of special directives. Details upon application.

4.1.1.3.5.2 The following aircrafts shall be exempted by law from landing and parking fees:

a) State aircraft and aircraft of Kings. Heads of State and Emirs and persons of similar status;.
b) Aircraft of the United Nations and its specialised agencies;
c) Aircraft of the League of Arab States and its specialised agencies, and aircraft of regional organisations of which the Sate is a member..
d) Aircraft used free of charge in ambulance operations, search and rescue operations, as well as aircraft of the Red Crescent and Red Cross; and
e) Any other aircraft or any government or diplomatic agency that the Minister may exempt from fees either totally or partially, if this is in the public interest, following consultation with the Minster of Finance and approval of the Prime Minster.

4.1.1.4 **PASSENGER SERVICE CHARGES**

4.1.1.4.1 4.1.1.4.1 Unless specifically exempted by the appropriate Authority, the following Passenger service charges are levied on all

Passengers as follows:-

4.1.1.4.1.1 An Airport charge of BD 7,000 (SEVEN) is levied on all Passengers leaving the Kingdom of Bahrain by Air.

4.1.1.4.1.2 An Airport charge of BD 1,000 (ONE) is levied on all transfer Passengers through the Kingdom of Bahrain.

4.1.1.4.1.3 Common user Platform service of (30 CENT) of a (USD) per Passengers check-in shall be so charged.

4.1.1.4.1.4 All the above charges are Incorporated in the Passengers ticket upon issuance.

4.1.1.4.2 **Exemptions**

4.1.1.4.2.1 General

Exemptions from payment of landing charges for aircraft other than those listed below may be granted by Civil Aviation Affairs by the issuance of special deirecves. Detail upon application.

The following aircrafts should be exempted by law from landing and parking fees:

4.1.1.4.2.2 The following categories shall be exempt from departure service charge:

a) Bahraini and foreign official and deplomatic delegations.
b) Chiefs and members of the diplomatic missions approved by the State.
c) Members of the aircraft crew, provided they are dressed formally;
d) Transit passengers.
e) Children who are less than two years of age.

4.1.1.4.2.3 The Minster may exempt any other categories, after obtaining the opinon of the Minster of Finance and approval of the Prime Minster.

4.1.1.5 **PARKING**

4.1.1.5.1 Maximum take - off weight of the aircraft authorized by the State of Registration in its certificate of airworthiness.

4.1.1.5.2 **PARKING RATES**

Aircraft up to 25000 KG MTOW	Flat rate BD 5.000
Aircraft of 25001 KG MTOW & over	BD 0.200 per 1000 KG or part thereof

See **GEN 4.1.1.5.3.1** for applicability

4.1.1.5.3 **RULES**

4.1.1.5.3.1 No parking fee will be charged for the first two hours after landing. After the first two hours and for each period of 24 hours or part thereof the above parking rates will be charged.

4.1.1.5.3.2 An authorized official from Civil Aviation Affairs may at any time order an aircraft operator either to move a parked aircraft to another position, or to remove it from the airport. Failure to comply with the order within the period specified in it will render the operator liable to a special charge, equivalent to five times the standard parking charge set out above, for every day or part of a day during which the aircraft remains in position after the expiry of the period specified in the order.

4.1.1.5.4 **PAYMENT OF CHARGES**

See payment of landing charges.

4.1.1.5.5 **REDUCTIONS**

4.1.1.5.5.1 Monthly rates, payable in advance, are 22 times the daily rates.

4.1.1.5.5.2 Reductions in the standard charges may be granted by Civil Aviation Affairs by the issuance of special directives. Details upon application.

4.1.1.5.6 **EXEMPTIONS**

The same as for exemption for landing charges.

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GEN 4.2 AIR NAVIGATION SERVICES CHARGES

4.2.1 EN - ROUTE CHARGES

4.2.1.1 GENERAL

4.2.1.1.1 An en - route charge will be payable by the owner or operator of the aircraft concerned in respect of each flight carried out, whether in whole or in part within the BAHRAIN FIR / BAHRAIN UIR, which entails the use of facilities provided by the Bahrain Air Traffic Control Centre in accordance with authorised procedures.

4.2.1.1.2 A flight is defined as the complete process of take - off, journey en - route and subsequent landing.

4.2.1.1.3 The assessment for the en - route charge is based on a sliding scale relating to the maximum permitted take - off weight of the aircraft.

4.2.1.2 SCALE OF CHARGES

4.2.1.2.1 STANDARD CHARGES

The standard charge will be assessed in accordance with the following schedule:

Charges impose on each landing and take-off to / from Bahrain International Airport	
Weight	Charges
Up to 40,000 Kg	BD 12.600
40,001 Kg - 80,000 Kg	BD 18.900
80,001 Kg - 120,000 Kg	BD 25.200
120,001 Kg - 200,000 Kg	BD 31.500
200,001 Kg - 300,000 Kg	BD 37.800
300,001 Kg or more	BD 42.000

4.2.1.3 EN-ROUTE CHARGES

Air Navigation charges for aircraft that does not landing in Bahrain International Airport	
Weight	Charges
Up to 40,000 Kg	BD 24.000
40,001 Kg - 80,000 Kg	BD 35.000
80,001 Kg - 120,000 Kg	BD 47.000
120,001 Kg - 200,000 Kg	BD 59.000
200,001 Kg - 300,000 Kg	BD 71.000
300,001 Kg or more	BD 79.000

4.2.1.4 REBATES

Rebates in the standard charges may be granted by Civil Aviation Affairs upon issuance of specific directives. Details upon application.

A special rate of 50% of the standard en - route charge may be applied in the case of a flight carried out for the sole purpose of the training ot testing of fliying personnel that entails the aircraft being flown outside the aerodrome Control Zone. Prior written application for the grant of such special rates should be made to the Under Secrectary of Civil Aviation, Bahrain.

4.2.1.5 EXEMPTIONS

4.2.1.5.1 GENERAL

Exemptions from the payment of en - route charges other than those listed below may be granted by Civil Aviation Affairs by the issuance of special directives. Details upon application.

4.2.1.5.2 The following classes of aircraft are exempt by law from Air Navigation Services charges:

a) State aircraft and aircraft of Kings, Heads of State and Emirs and persons of similar status;
b) Aircraft of the United Nations and its specialised agencies;
c) Aircraft of the Leauge of Arab States and its specialised agencies, and aircraft of regionl organisations of which the State is a member;
d) Aircraft used free of charge in ambulance operations, search and rescue operations, as well as aircraft of the Red Crescent and Red Cross; and
e) Any other aircraft or any government of diplomatic agency that the Minister may exempt from fees either totally or partially, if this is in the public interest, following consultation with the Minster of Finance and approval of the Prime Minister.

PART 2 - EN-ROUTE (ENR)

ENR 0.

ENR 0.1 PREFACE

Not applicable.

ENR 0.2 RECORD OF AIP AMENDMENTS

Not applicable.

ENR 0.3 RECORD OF AIP SUPPLEMENTS

Not applicable.

ENR 0.4 CHECKLIST OF AIP PAGES

Not applicable.

ENR 0.5 LIST OF HAND AMENDMENTS TO THE AIP

Not applicable.

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ENR 1. GENERAL RULES AND PROCEDURES

ENR 1.1 GENERAL RULES

The air traffic rules and procedures applicable to air traffic in the BAHRAIN FIR / BAHRAIN UIR conform with Annexes 2 and 11 to the Convention on International Civil Aviation and to those portions, applicable to aircraft, for the Procedures for Air Navigation Services - Rules of the Air and Air Traffic Services, and the Regional Supplementary Procedures applicable to the MID / ASIA Region, except for the differences listed in **GEN 1.7**.

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ENR 1.2 VISUAL FLIGHT RULES

1.2.1. Except when operating as a special VFR flight, VFR flights shall be conducted so that the aircraft is flown in conditions of visibility and distance from clouds equal to or greater than those specified in Table 1.

1.2.2. Except when a clearance 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:

a) When the ceiling is less than 1500 FT (450 M); or
b) When the ground visibility is less than 5 KM.

1.2.3. VFR flights between sunset and sunrise, or such other period between sunset and sunrise as may be prescribed by the appropriate ATS authority, shall operated in accordance with the conditions prescribed by such authority.

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

a) at or above FL 150,
b) at transonic and supersonic speeds.

Airspace class	A *** BCD E	F G	
		ABOVE 3000 FT (900 M) AMSL or above 1000 FT (300 M) above terrain, whichever is the higher	At and below 3000 FT (900 M) AMSL or 1000 FT (300 M) above terrain, whichever is the higher
Distance from cloud	1500 M horizontally 1000 FT (300 M) vertically		Clear of cloud and in sight of the surface
Flight visibility	8 KM at and above 10000 FT (3050 M) AMSL 5 KM below 10000FT (3050 M) AMSL		5 KM **

Table *

* When the height of the transition altitude is lower than 10000 FT (3050 M) AMSL, FL 100 should be used in lieu of 10000 FT.

** When so prescribed by the appropriate ATS authority:

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

   1. at speeds that, in the prevailing visibility, will give adequate opportunity to observe other traffic or any obstacles in the time to avoid collision; or
   2. in circumstances in which the probability of encounters with other traffic would normally be low, e.g. in areas of low volume traffic and for aerial work at low levels.

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

*** The VMC minima in Class A airspace are included for guidance to pilots and do not imply acceptance of VFR flights Class A airspace.

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

a) over the congested area of cities, towns or settlements or over an open - air assembly of persons at a height less than 1000 FT (300 M) above the highest obstacle within a radius of 600 M from the aircraft;
b) elsewhere than as specified in 5 (a), at a height less than 500 FT (150 M) above the ground or water.

1.2.6. Except where otherwise indicated in air traffic control clearances or specified by the appropriate ATS authority, VFR flights in level cruising flight when operated above 3000 FT (900 M) from the ground or water, or a higher datum as specified by the appropriate ATS authority, shall be conducted at a flight level appropriates to the track as specified in the table of cruising levels.

1.2.7. VFR flights shall comply with the provisions of Chapter 3 para 3.6 of Annex 2:

a) when operated within Class B, C and D airspace;
b) when forming part of aerodrome traffic at controlled aerodromes; or
c) when operated as special VFR flights.

1.2.8. An aircraft operated in accordance with the visual flight rules which 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) When so required by Chapter 3 para 3.3 of Annex 2, submit a flight plan to the appropriate air traffic services unit and obtain a clearance prior to proceeding IFR when in controlled airspace.

ENR 1.3 INSTRUMENT FLIGHT RULES

1.3.1 RULES APPLICABLE TO ALL IFR FLIGHTS

1.3.1.1 **Aircraft equipment**

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

1.3.1.2 **Minimum levels**

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

a) over high terrain or in mountainous areas, at a level which is at least 2000 FT (600 M) above the highest obstacle located within 8 KM of the estimated position of the aircraft;
b) elsewhere than as specified in a), at a level which is at least 1000 FT (300 M) above the highest obstacles located within 8 KM of the estimated position of the aircraft.

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

1.3.1.3 **Change from IFR flight to VFR flight**

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

1.3.1.3.2 When an aircraft operating under the instrument flight rules is flown in or encounters visual meteorological conditions it shall not cancel its IFR flight unless it is anticipated, and intended, that the flight will be continued for a reasonable period of time in uninterrupted visual meteorological conditions.

1.3.2 RULES APPLICABLE TO IFR FLIGHTS WITHIN CONTROLLED AIRSPACE

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

1.3.2.2 An IFR flight operating in cruising flight in controlled airspace shall be flown at a cruising level or, if authorized to employ cruise climb techniques, between two levels or above a level, selected from:

a) the tables of cruising levels in Appendix 3 of Annex 2 or,
b) a modified table of cruising levels, when so prescribed in accordance with Appendix 3 of Annex 2 for flights above FL 410.

Except that the correlation of levels to track prescribed therein shall not apply whenever otherwise indicated in air traffic control clearance or specified by the appropriate ATS authority in the Aeronautical Information Publication.

For cruising levels within the BAHRAIN FIR / BAHRAIN UIR see **ENR 1.3.3.1**.

1.3.2.3 **Five minutes longitudinal separation**

In accordance with ICAO DOC 4444 PARA 5.4.2.2.1.1 C. Within the AMMAN FIR, BAHRAIN FIR / BAHRAIN UIR, DAMASCUS FIR, JEDDAH FIR and NICOSIA FIR / NICOSIA UIR, a minimum of five minutes longitudinal separation will be applied when the leading aircraft is maintaining a TAS of 20 KTs or more faster than the following aircraft.

The application of this separation minimum may require ATC to impose speed restrictions on aircraft. When subject to speed restrictions, pilots must notify ATC immediately if at any time they are unable to comply with the restrictions.

Pilots should note that speed restrictions applied in one FIR will continue to apply in succeeding FIRs unless specifically cancelled by ATC.

1.3.3 RULES APPLICABLE TO IFR FLIGHTS OUTSIDE CONTROLLED AIRSPACE

1.3.3.1 **Cruising levels**

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

a) the tables of cruising levels in Appendix 3 of Annex 2, except when otherwise specified by the appropriate ATS authority for flight at or below 3000 FT (900 M) above mean sea level; or
b) a modified table of cruising levels, when so prescribed in accordance with Appendix 3 of Annex 2 for flight above FL 410. (Not used at the present in the BAHRAIN UIR)

Note: *This provision does not preclude the use of cruise climb techniques by aircraft in supersonic flight.*

1.3.3.2 **Communications**

An IFR flight operating outside controlled airspace but within or into areas, or along routes, designated by the appropriate ATS authority in accordance with 3.3.1.2 c) or d) of Annex 2 shall maintain a listening watch on the appropriate radio frequency and established two - way communication, as necessary, with the air traffic services unit providing flight information services.

1.3.3.3 **Position reports**

An IFR flight operating outside controlled airspace and required by the appropriate ATS authority to:

- submit a flight plan,
- 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, shall report position as specified in 3.6.3 of Annex 2 for controlled flights.

Note: *Aircraft electing to use the air traffic advisory service whilst operating IFR within specified advisory airspace are expected to comply with the provisions of 3.6 of Annex 2, except that the flight plan and changes thereto are not subjected to clearance and that two - way communication will be maintained with the unit providing the air traffic advisory service. There is no Advisory Airspace currently designated within the BAHRAIN FIR / BAHRAIN UIR.*

1.3.4 OPERATIONS ON ATS ROUTES IN THE BAHRAIN FIR / BAHRAIN UIR WHERE AN RNAV TYPE IS SPECIFIED

1.3.4.1 **APPLICATION OF RNAV 1 AND RNAV 5 TO ATS ROUTES IN THE BAHRAIN UIR**

1.3.4.1.1 Requirements for RNAV capability and aircraft navigation accuracy meeting RNAV 1 and RNAV 5 will be progressively introduced in BAHRAIN UIR.

1.3.4.1.2 RNAV 1 and RNAV 5 requirements may be specified on a route by route basis or by designation of airspace..

1.3.4.1.3 Within BAHRAIN UIR only RNAV equipped aircraft having a navigation accuracy meeting RNAV 1 and RNAV 5 may plan for operations under IFR on those ATS routes, and within those levels bands, which have been specified as requiring RNAV 1 and RNAV 5 in **ENR 1.3.4.2**.

1.3.4.1.4 Aircraft operating under IFR on designated RNAV 1 and RNAV 5 routes shall be equipped with, as a minimum, RNAV equipment meeting the following requirements:

a) A system use accuracy equal to, or better than, (2.5 NM) for one standard deviation, with a 95 % containment value of plus or minus 5 NM, thereby meeting the accuracy requirements for RNAV 5; and
b) A system use accuracy equal to, or better than, (0.5 NM) for one standard deviation, with a 95 % containment value of plus or minus 1 NM, thereby meeting the accuracy requirements for RNAV 1; and
c) An average continuity of service of 99.99 % of flight time.

1.3.4.2 **AREA OF APPLICABILITY**

Area Navigation "RNAV" will be implemented within BAHRAIN FIR / BAHRAIN UIR within designated airspace on area basis as follows:

– All Lower Routes of Bahrain within TMAs are RNAV 1 with requirements.
– RNAV 5 will be implemented from TMA levels to FL 145. At Upper Routes RNAV 1 will be implemented from FL 150 to FL 460 within TMAs.

1.3.4.3 **MEANS OF COMPLIANCE**

Conformance to the navigation requirement shall be verified by the State of Registry or the State of Operator as appropriate.

Note: *Guidance material concerning navigation accuracy requirements is contained in the Manual on Required Navigation performance (RNP) Doc 9613, Chapter 5.*

1.3.4.4 **FLIGHTS PLANNING**

Operators of aircraft fitted with RNAV having a navigation accuracy meeting RNAV 5 shall insert the designator "R" in item 10 of the flight plan.

1.3.4.5 **PROCEDURES FOR OPERATION IN RNAV 5 ROUTES**

1.3.4.5.1 Correct operation of the aircraft RNAV system shall be verified before joining and during operation on an RNAV 5 route. This shall include confirmation that:

a) The routing is in accordance with the clearance; and
b) The aircraft navigation accuracy meets RNAV 5.

1.3.4.5.2 If, as a result of failure of the RNAV system or its degradation to below RNAV 5, an aircraft is unable to enter an ATS route designated as RNAV 5 or to continue operations in accordance with current air traffic control clearance, a revised clearance shall, wherever possible, be obtained by the pilot.

1.3.4.5.3 Subsequent air traffic control action in respect of that aircraft will be dependent upon the nature of the reported failure and the overall traffic situation. Continued operation in accordance with the current ATC clearance may be possible in many situations. When this

cannot be achieved, a revised clearance may be required to revert to VOR / DME.

1.3.4.6 **ATC PROCEDURES FOR AIRCRAFT EXPERIENCING FAILURE OR DEGRADATION OF THE RNAV SYSTEM**

1.3.4.6.1 If, as a result of failure or degradation of the RNAV system, detected either before or after departure, the aircraft cannot meet the requirements of **ENR 1.3.4.1.4**, the following ATC procedures are applicable.

1.3.4.6.1.1 *Coordination messages (PANS ATM / 501 Chapter 11, 11.4.2.3)*

a) *Computer - assisted coordination of estimate messages. In the case of automated messages not containing the information provided in item 18 of the flight plan, the sending air traffic control unit shall inform the receiving air traffic control unit by supplementing the ATC message verbally with the phrase "RNAV OUT OF SERVICE" after the call sign of the aircraft concerned.*
b) *Verbal coordination of estimate messages. When a verbal coordination process is being used, the sending air traffic control unit shall include the phrase "RNAV OUT OF SERVICE" at the end of the message.*

1.3.4.6.1.2 *Pilot phraseology (PANS ATM / 501 Chapter 12)*

The phrase "UNABLE RNAV DUE EQUIPMENT" shall be included by the pilot immediately following the aircraft call sign whenever initial contact on an air traffic control frequency is established.

1.3.4.6.1.2.1 All military formation flights are considered NON-RVSM within Bahrain UIR, Regardless of the RVSM status of individual Aircraft in the formation. These Aircraft's shall not be permitted in RVSM Airspace except in exceptional circumstances. These exceptions may be accommodated, subject to prior approval, on a workload or traffic-permitting basis.

1.3.4.7 **ATC PROCEDURES FOR STATE AIRCRAFT NOT EQUIPPED WITH RNAV EQUIPMENT MEETING RNAV 5 REQUIREMENTS**

1.3.4.7.1 *Instructions for the completion of the flight plan (PANS ATM / 501 Appendix 2, A 2 - 3)*

1.3.4.7.1.1 Operators of state aircraft not equipped with RNAV equipment meeting RNAV 5 shall not insert "S" or "R" in item 10 of the flight plan.

1.3.4.7.1.2 Since such flight require special handling by air traffic control, "STS / NORNAV" shall be inserted in item 18 of the flight plan.

1.3.4.7.2 *Air traffic control clearances (PANS ATM / 501 Chapter 4, 4.5.7)*

1.3.4.7.2.1 Within TMAs, state aircraft not equipped with RNAV approved for RNAV 5 should be routed via non - RNAV SIDs and STARs.

1.3.4.7.2.2 Such aircraft operating en - route should be routed via VOR / DME - defined ATS routes.

1.3.4.7.2.3 When the above procedures cannot be applied, the air traffic control unit shall provide the aircraft with radar vectors until the aircraft is capable of resuming its own navigation.

1.3.4.7.3 *Coordination messages (PANS ATM / 501 Chapter 11,11.4.2.3)*

a) *Computer - assisted coordination of estimate messages. In case of automated messages not containing the information provided in item 18 of the flight plan, the sending air traffic control unit shall inform the receiving air traffic control unit by supplementing the ATC message verbally with the phrase "NEGATIVE RNAV" after the call sign of the aircraft concerned.*
b) *Verbal coordination of estimate messages. When a verbal coordination process is being used, the sending air traffic control unit shall include the phrase "NEGATIVE RNAV" at the end of the message.*

1.3.4.7.4 *Pilot phraseology (PANS ATM / 501 Chapter 12)*

The phrase "NEGATIVE RNAV" shall be included by the pilot immediately following the aircraft call sign whenever initial contact on an air traffic control frequencies established.

1.3.4.8 **EQUIPMENT, REQUIREMENT AND CERTIFICATION**

RNAV 5 defines RNAV operations which satisfy a required track keeping accuracy of plus or minus 5 NM for at least 95 % of the flight time in accordance with the requirements set out in ICAO Document 7030 - Regional Supplementary Procedures for the Middle East region, as amended, and ICAO Document 9613 - Manual on RNP.

RNAV equipped aircraft operating on designated RNAV 5 routes in designated RNAV 5 routes airspace must be certified for RNAV 5 operations by the State of Operator or the State of Registry of the aircraft. Conformance to the navigation requirement shall be verified by the State of Registry or the State of Operator, as appropriate.

Foreign air carriers operating within BAHRAIN UIR shall ensure their operations specifications are updated to reflect RNAV 5 approvals.

The address for information regarding RNAV 5 certification is:

Aviation Safety Section
Air Transport Directorate
Civil Aviation Affairs

P.O. Box 586
Kingdom of Bahrain
TEL: +973 17321006
Telefax:+973 17321061
SITA: BAHAPYF

1.3.4.9 Formation Flights

1.3.4.9.1 General Rule for Formation Flights

In general, a formation flight shall operate as a single aircraft in regard to navigation and position reporting and clearances issued by ATC.

Sufficient safety distance between the aircraft comprising a formation flight shall be the responsibility of the formation leader and the individual pilots-in-command at all phases of the flight, which includes take-off and landing, join-up, break-up and all parts of the Enroute flight.

Upon each initial report on a new radio frequency, the formation leader shall indicate to ATC that the flight is a formation, including standard or non- standard formation type and the number of aircraft the formation flight consists of. (E.g. Callsign/ Standard Formation Flight of 4).

1.3.4.9.2 Standard Military Formation

In a standard military formation, each aircraft/element of this formation shall remain within 1 NM horizontally and 100 ft. vertically from the formation leader.

Only the lead aircraft (formation leader) shall squawk as directed by ATC.

1.3.4.9.3 Non-standard Formation

Aircraft/elements of a formation flight that are outside the horizontal and/or vertical limits as described in 1.3.4.9.2 are considered a non-standard formation.

Only the lead aircraft (formation leader) shall squawk unless otherwise directed by ATC.

Non-standard Formation flights represent an unusual aerial activity. It is an ATC decision to approve or disapprove a non-standard formation and to determine special conditions for the conduct of a non-standard formation flight.

ENR 1.4 ATS AIRSPACE CLASSIFICATION AND DESCRIPTION

1.4.1 ATS airspaces classification

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

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

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

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

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

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

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

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

The requirements for the flights within each class of airspace are as shown in the following tables.

1.4.2 ATS airspace description

1.4.2.1 Within the BAHRAIN FIR / BAHRAIN UIR the Airspace is further divided into five classifications. A, B, C, D and G. Two ICAO Classifications, E and F which have been adopted by the Kingdom of Bahrain are available for use but at present no portions of BAHRAIN FIR / BAHRAIN UIR Airspace have been classified.

Airspace classified as A, B, C and D are Controlled Airspace.

The Airspace Classifications are described in subsequent paragraphs, and notifications, descriptions and procedures of individual Airspaces within each classification are contained in ENR 2, ENR 3 and AD 2.

1.4.2.2 **Airspace Classification**

1.4.2.2.1 **Class A - Controlled Airspace**

The provisions of Class A Airspace are shown below:

	IFR	**VFR**
Separation Provided	All Aircraft	VFR FLIGHT NOT PERMITTED
Service Provided	Air Traffic Control Service	
VMC Minima	Not applicable	
Speed Limitation	Not applicable	
Radio Communication	Continuous two - way	
ATC Clearance	Required	

BAHRAIN FIR / BAHRAIN UIR class A airspace, over international waters, is subject to high concentration of military activity acting in due regard in accordance with article 3 of the convention of International Civil Aviation.

Class A Airspace comprises

All controlled Areas (Airways) FL 150 and above.
BAHRAIN CTA FL 150 and above.

1.4.2.2.2 **Class B - Controlled Airspace**

The provisions of Class B Airspace are shown below:

	IFR	**VFR**
Separation Provided	All Aircraft	All Aircraft
Service Provided	Air Traffic Control Service	Air Traffic Control Service
VMC Minima	Not applicable	**At and above 10000 FT AMSL:** 8 KM visibility Clear of Cloud **Below 10000 FT AMSL:** 5 KM visibility Clear of Cloud
Speed Limitation	Not applicable	Not applicable
Radio Communication	Continuous two - way	Continuous two - way
ATC Clearance	Required	Required

Class B Airspace comprises

ISA AIRBASE CTR

1.4.2.2.3 **Class C - Controlled Airspace**

The Provisions of Class C Airspace are shown below:

	IFR	**VFR**
Separation Provided	IFR from IFR IFR from VFR	
Service Provided	Air Traffic Control Service	Air Traffic Control Service for separation from IFR VFR / VFR Traffic Information (and traffic avoidance advice on request)
VMC Minima	Not applicable	**At and above 10000 FT AMSL:** 8 KM visibility 1500 M horizontal and 1000 FT vertical distance from Cloud **Below 10000 FT AMSL:** 5 KM visibility 1500 m horizontal and 1000 FT vertical distance from Cloud
Speed Limitation	Not applicable	250 KT IAS below 10000 FT AMSL
Radio Communication	Continuous two - way	Continuous two - way
ATC Clearance	Required	Required

Class C airspace comprises:

All Controlled Areas (Airways) at and above 4500 FT and below FL 150
BAHRAIN CTA below FL 150

1.4.2.2.4 **Class D - Controlled Airspace**

The provisions of Class D Airspace are shown below:

	IFR	**VFR**
Separation Provided	IFR from IFR	Not provided
Service Provided	Air Traffic Control Service including Traffic information about VFR flights (and traffic avoidance advice on request)	Traffic information between VFR and IFR Flights (and traffic avoidance advice on request)
VMC Minima	Not applicable	**At and above 10000 FT AMSL:** 8 KM visibility 1500 M horizontal and 1000 FT vertical distance from Cloud **Below 10000 FT AMSL:** 5 KM visibility 1500 horizontal and 1000 FT vertical distance from Cloud
Speed Limitation	Not applicable	250 KT IAS below 10000 FT AMSL
Radio Communication	Continuous two - way	Continuous two-way
ATC Clearance	Required	Required

Class D Airspace comprises:

BAHRAIN CTR and TMA at and above 1000 FT and below 4500 FT

1.4.2.2.5 **Class E - Controlled Airspace**

The provisions of Class E Airspace are shown below

	IFR	**VFR**
Separation Provided	IFR from IFR	Not provided
Service Provided	Air Traffic Control Service including Traffic information about VFR flights as far as practicable	Traffic information as far as practicable
VMC Minima	Not applicable	**At and above 10000 FT AMSL:** 8 KM visibility 1500 M horizontal and 1000 FT vertical distance from Cloud **Below 10000 FT AMSL:** 5 KM visibility 1500 M horizontal and 1000 FT vertical distance from Cloud
Speed Limitation	250 KT IAS below 10000 FT AMSL	250 KT IAS below 10000 FT AMSL
Radio Communication	Continuous two - way	Not required
ATC Clearance	Required	Not required

No BAHRAIN FIR / BAHRAIN UIR Airspace is currently designated Class E.

1.4.2.2.6 **Class F**

The provisions of Class F Airspace are shown below:

	IFR	**VFR**
Separation Provided	IFR from IFR as far as practical	Not provided
Service Provided	Air Traffic Advisory Service Flight Information Service	Flight Information Service
VMC Minima	Not applicable	**At and above 10000 FT AMSL:** 8 KM visibility 1500 M horizontal and 1000 FT vertical distance from Cloud **Below 10000 FT AMSL:** 5 KM visibility 1500 m horizontal and 1000 FT vertical distance from Cloud **At and below 3000 FT AMSL or 1000 FT above terrain whichever is higher:** 5 KM visibility and in sight of ground or water
Speed Limitation	250 KT IAS below 10000 FT AMSL	250 KT IAS below 10000 FT AMSL
Radio Communication	Continuous two - way	Not required
ATC Clearance	Required	Not required

1.4.2.2.7 **Class G**

The Provisions of Class G Airspace are shown below:

	IFR	**VFR**
Separation Provided	Not provided	Not provided
Service Provided	Flight Information service	Flight Information Service
VMC Minima	Not applicable	**At and above 10000 FT AMSL:** 8 KM visibility 1500 M horizontal and 1000 FT vertical distance from Cloud **Below 10000 FT AMSL:** 5 KM visibility 1500 M horizontal and 1000 FT vertical distance from Cloud **At and below 3000 FT AMSL or 1000 FT above terrain whichever is higher and speed greater than 140 KT** 5 KM visibility Clear of cloud and in sight of ground or water or; **At and below 3000 FT AMSL or 1000 FT above terrain whichever is higher and speed less than 140 KT** 1500 M visibility clear of cloud and in sight of ground or water
Speed Limitation	250 KT below 10000 FT AMSL	250 KT IAS below 10000 FT AMSL
Radio Communication	Continuous two - way	Not required
ATC Clearance	Not required	Not required

Class G Airspace comprises:

All BAHRAIN FIR / BAHRAIN UIR Airspace not covered by classes A, B, C and D.

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ENR 1.5 HOLDING, APPROACH AND DEPARTURE PROCEDURES

1.5.1 GENERAL

1.5.1.1 The holding, approach and departure procedures in use are based on those contained in the latest edition of ICAO DOC 8168 - OPS - procedures for Air Navigation Services - Aircraft Operation (PANS - OPS).

1.5.1.2 The holding and approach procedures in use have been based on the values and factors contained in Part II of the PANS - OPS. The holding patterns shall be entered and flown as indicated below:

Flight level (FL)	CAT A and B aircraft	Jet Aircraft	
		Normal conditions	Turbulence conditions
Up to 13000 FT (4250 M) inclusive	170 KT	230 KT (425 KM / H)	
Above 13000 FT (4250 M) to FL 200 (6100 M) inclusive	240 KT (445 KM / H)		280 KT (520 KM / H) or (Mach 0.8) which ever is less
Above FL 200 (6100 M) to FL 340 (10350 M) inclusive	265 KT (490 KM / H)		
Above FL 340 (10350 M)	0.83 Mach		0.84 Mach

1.5.2 ARRIVING FLIGHTS

1.5.2.1 IFR flights entering and landing within, a Terminal Control Area will be cleared to a 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 procedure shall be carried out at the level last authorized.

1.5.2.2 Due to the limited airspace available, it is of importance that the approaches to the patterns and the holding procedures are carried out as exactly as possible. Pilots are strongly requested to inform ATC if for any reason the approach and / or holding cannot be performed as required.

1.5.2.3 No landing will be allowed to BAHRAIN INTERNATIONAL airport RWY 12R / 30L if the reported met visibility is less than 4000 M.

1.5.2.4 For CAT I ILS approaches the localiser is not to be used below 200 FT AGL.

1.5.2.5 Pilots carrying out practice CAT II or III approaches are cautioned that ILS critical and sensitive areas are not protected to CAT II / III standards.

1.5.2.6 Instrument approach charts publish applicable Obstacle Clearance Altitude (OCA) for the procedure. This should not be confused with the Decision Altitude (DA) established by the operator in accordance with the provisions of ICAO Annex 6. However, in accordance with ICAO standards, the Decision Height for ILS approaches established by operators shall in no case be lower than:

- ILS CAT I - 200 FT above THR ELEV.

- ILS CAT II - 100 FT above THR ELEV.

1.5.2.7 All ACFT arriving BAHRAIN INTERNATIONAL airport are requested to advise BAHRAIN GMC of ACFT registration after landing.

1.5.2.8 All ACFT arriving BAHRAIN INTERNATIONAL airport are required to adjust IAS as per the following speeds unless otherwise instructed by ATC:

Unless otherwise authorized by the ATC, no aircraft below 10000 FT MSL may operate at an indicated airspeed of more than 250 KT.

1.5.2.9 The longitudinal separation between aircraft established on final approach runway 30R/12L is reduced to 3NM.

1.5.3 DEPARTING FLIGHTS

1.5.3.1 IFR flights departing from controlled aerodromes will receive initial ATC clearance from the local Aerodrome Control Tower. The clearance limit will normally be at the aerodrome of destination. IFR flights departing from non-controlled aerodromes will not take - off without prior arrangements with BAHRAIN ACC.

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

1.5.3.3 Pilots are required to call BAHRAIN GROUND on freq 121.850 MHZ ten minutes prior to start - up for the purpose of ATC

clearance delivery.

1.5.4 BAHRAIN AND DOHA TMAs, BAHRAIN CONTROL ZONE

1.5.4.1 REPORTING POINTS

The reporting points for aircraft taking off, operating, or landing within the Control Area are as instructed by ATC.

1.5.4.2 The reporting points for aircraft overflying the Control Area or Control Zone are as follows:

BHR DVOR / DME	Compulsory REP

Or such other positions as may, from time to time, be indicated in an ATC clearance.

1.5.4.3 HOLDING POINTS

1.5.4.3.1 En - route holding points are as instructed by ATC.

1.5.4.3.2 High level holding will be carried out at FL 150 and above.

1.5.4.4 ROUTING

Aircraft are not permitted to route off the centre - lines of the published routes unless specifically instructed by ATC.

ENR 1.6 RADAR SERVICES AND PROCEDURES

1.6.1 PRIMARY RADAR

1.6.1.1 Radar Units

Radar units in the BAHRAIN FIR / BAHRAIN UIR operate as integral parts of the parent ATS unit and provide radar service, to the maximum extend practicable, to meet the operational requirement. Factors, such as radar coverage, controller workload, and equipment capabilities, may affect these services, and the radar controller shall determine whether he is able to provide, or continue to provide, radar services in any specific case.

1.6.1.2 Radar Service

A pilot will know when radar services are being provided because the radar controller will use the ATS callsign depending on the position of the aircraft in BAHRAIN FIR / BAHRAIN UIR and under what ATS unit the aircraft is operating, followed by "Radar" for example:

a) Aircraft under Area Control - "BAHRAIN RADAR";
b) Aircraft under Approach Control - "BAHRAIN APPROACH".

1.6.1.3 RADAR COVERAGE

The following radar units operate within the BAHRAIN FIR / BAHRAIN UIR:

a) **BAHRAIN MSSR:**

Position: 261637.66 N 0503751.96 E

Range: 230 NM

b) **BAHRAIN TAR with co - located MSSR:**

Position: 261600.45 N 0503845.69 E

Range: Primary 80 NM, Secondary 230 NM

(Note that Bahrain may delegate the resonsibility for providing ATS, FIS and Alerting Service to other radars when aircraft are within their cover in the BAHRAIN FIR / BAHRAIN UIR.)

1.6.1.4 THE APPLICATION OF RADAR CONTROL SERVICE

1.6.1.4.1 RADAR IDENTIFICATION is achieved according to the provisions specified by ICAO.

1.6.1.4.2 RADAR SERVICES

Radar control service is provided in controlled airspace to aircraft operating within BAHRAIN CTA and on airways within Bahrain radar coverage. These services may include:

a) radar separation of arriving, departing and en -route traffic;
b) radar monitoring of arriving, departing and en -route traffic to provide information on any significant deviation from normal flight path;
c) radar vectoring when required;
d) assistance to aircraft in emergency;
e) assistance to aircraft crossing controlled airspace;
f) warnings and position information on other aircraft considered to constitute a hazard;
g) information to assist in the navigation of aircraft;
h) information on observed weather.

Radar Advisory Service and Flight Information Service are provided to identified aircraft operating within the BAHRAIN FIR / BAHRAIN UIR to the extent possible within radar cover.

1.6.1.4.3 MINIMUM HORIZONTAL RADAR SEPARATION

BAHRAIN PSR (TAR Range 80): 20 NM when one aircraft is supersonic, otherwise 5 NM.

BAHRAIN MSSR: 20 NM when one aircraft is supersonic, otherwise 10 NM reducing to 5 NM within 150 NM of radar head.

TERRAIN CLEARANCE

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

1.6.1.5 RADAR AND RADIO FAILURE PROCEDURES

1.6.1.5.1 **Radar failure**

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

1.6.1.5.2 Radio failure

1.6.1.5.2.1 The radar controller will establish whether the aircraft radio receiver is working by instructing the pilot to operate the SSR transponder (see also **GEN 1.5**) or, if the aircraft is not SSR equipped, to carry out a turn. If appropriate actions are observed the radar controller will continue to provide radar services to the aircraft.

1.6.1.5.2.2 Aircraft unable to receive radio transmissions shall comply with the ICAO radio communication failure procedures as detailed in Annex 2 para 3.6.5. If radar identification was established prior to radio failure the radar controller will vector other identified aircraft clear of the radio failure aircraft until such time as the aircraft leaves radar coverage or has landed.

1.6.1.5.2.3 Flights departing from BAHRAIN INTERNATIONAL airport on a radar clearance and experiencing a total radio communication failure shall carry out the following procedures:

IN VMC:

Continue to fly in VMC and land at the nearest suitable aerodrome.

In IMC:

Maintain last assigned heading and flight level or altitude for a period of three minutes after departure or to a distance of 12 DME BAH whichever occurs earlier. Thereafter continue according to current flight plan by routing direct to the first en - route reporting point and climbing to the last acknowledged en -route flight level cleared by ATC.

1.6.1.6 AIRBORNE COLLISION AVOIDANCE SYSTEM (ACAS)

All aircraft fitted with ACAS II equipment, shall be fitted with software version 7.1 with mode S transponder compliant with Annex 10, Volume IV within the OBBB EFF 1st Jan 2017.

REF. ICAO DOC 8168 - OPS / 611 VOL. I PART VIII CHAPTER 3

1.6.1.6.1 The information provided by ACAS is intended to assist pilots in the safe operation of aircraft. The traffic alert and collision avoidance system - TCAS II is accepted as a suitable system provided the installation is certified for use by the State of Registry of the aircraft concerned and it's operation is in accordance with instructions for use of the equipment laid down in the company operations manual issued by the aircraft operator.

1.6.1.6.2 Nothing in the following procedures shall prevent pilots - in - command from exercising their best judgement and full authority in the choice of the best course of action to resolve a traffic conflict.

1.6.1.7 USE OF ACAS INDICATIONS

ACAS indications are intended to assist pilots in the active search for, and visual acquisition of, the conflicting traffic and the avoidance of potential collisions. The following safety considerations apply:

a) Pilots shall not manoeuvre their aircraft in response to traffic advisories only;

   Note: *Traffic advisories are intended to assist in visual acquisition of conflicting traffic and to alert the pilot to the possibility of a resolution advisory. The restriction in the use of traffic advisories is due to the limited bearing accuracy and to the difficulty in interpreting altitude rate from displayed traffic information.*

b) In the event of a resolution advisory, ATC will expect the pilot to respond. If avoiding action is necessary, alteration of flight path should be limited to the minimum extent necessary to comply with the resolution advisories;
c) Pilots who deviate from an air traffic control clearance in response to a resolution advisory shall promptly return to the terms of the previous air traffic control instruction or clearance when the conflict is resolved and shall notify the appropriate ATC unit as soon as possible.

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GRAPHIC PORTRAYAL OF AREA OF RADAR COVERAGE

BAHRAIN

THIS CHART SHOWS AIR TRAFFIC CONTROL REGIONS NOT TERRITORIAL BOUNDARIES.

VAR 2.49° E 2020

230 NM

200 NM

80 NM

BAHRAIN MSSR 256 NM

BAHRAIN PSR 80 NM

DOHA ASR/SSR 200NM

TEHRAN FIR

KUWAIT FIR

BAGHDAD FIR

JEDDAH FIR

KUWAIT FIR

JEDDAH FIR

KUWAIT FIR

BAHRAIN FIR/UIR

TEHRAN FIR

BAHRAIN FIR/UIR

BAHRAIN FIR/UIR

JEDDAH FIR

TEHRAN FIR

BAHRAIN FIR/UIR

FIR

BAHRAIN FIR

FL 145

GND

TEHRAN FIR

EMIRATES FIR

BAHRAIN FIR/UIR

EMIRATES FIR

BAHRAIN INTERNATIONAL

BAHRAIN / SAKHIR AIRBASE

BAHRAIN / ISA AIRBASE

HAMAD INTERNATIONAL

ALUDAID AIRBASE

DOHA INTERNATIONAL

EMIRATES FIR

JEDDAH FIR

EMIRATES FIR

MUSCAT FIR

JEDDAH FIR

MUSCAT FIR

SCALE 1 : 2500000

LEGEND

Flight information region (FIR)

Aerodromes

- CIVIL
- MILITARY
- JOINT CIVIL-MIL
- CIVIL INTL
- JOINT CIVIL-MIL INTL
- EMERGENCY
- CLOSED

Amendment: BAH MSSR range Updated.

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1.6.2 SECONDARY SURVEILLANCE RADAR (SSR)

1.6.2.1 Emergency Procedures

1.6.2.1.1 Except as provided for paragraph **ENR 1.6.2.2** below, pilot shall operate transponders and select modes and codes in accordance with ATC instructions. In particular, when entering BAHRAIN FIR / BAHRAIN UIR pilots who have already received specific instructions from ATC concerning the setting of the transponder shall maintain that setting until otherwise instructed.

1.6.2.1.2 Pilots of aircraft about to enter the BAHRAIN FIR / BAHRAIN UIR who have not received specific instructions from ATC concerning the setting of the transponder shall operate the transponder on Mode A / 3 Code 2000 before entry and maintain that setting until otherwise instructed.

Mode C, if fitted, is to be selected at all times.

1.6.2.1.3 If the pilot of an aircraft encountering a state of emergency has previously been instructed by ATC to operate the transponder on a specific code, this code setting shall be maintained until otherwise advised. In all other circumstances, the transponder shall be set to Mode A / 3 Code 7700.

1.6.2.1.4 Notwithstanding the procedures set out above, a pilot may select Mode A / 3 Code 7700 wheneever the nature of the emergency is such that this appears to him to be the most suitable course of action.

Note: *Continuous monitoring of responses on Mode A / 3 Code 7700 is provided.*

1.6.2.2 Radio communication failure and unlawful interference procedures

1.6.2.2.1 Radio Communication failure procedures

In the event of an aircraft radio receiver failure, a pilot shall select Mode A / 3 Code 7600 and follow established procedures, and subsequent control of aircraft will be based on these procedures.

1.6.2.2.2 Unlawful Interferernce procedure

Pilots of aircraft in flight subjected to unlawful interference shall endeavour to set the transponder to Mode A Code 7500 to give indication of the situation, unless circumstances warrant the use of A / 3 Code 7700.

Note: *Continuous monitoring in responses on Mode A / 3 Code 7500 is provided.*

1.6.2.3 System of SSR Code assignment

Codes are assigned according to the ICAO "ORIGINATING REGION CODE ALLOCATION METHOD2 - ORCAM - for the MID / ASIA Region.

1.6.2.4 Mode S operation within OBBB FIR

1.6.2.4.1 INTRODUCTION

The provision of air traffic services (ATS) using SSR Mode S in Bahrain FIR airspace will rely on a unique ICAO 24-bit aircraft address for selective interrogation of individual aircraft. The 24-bit aircraft address is also an essential element of the airborne collision avoidance system (ACAS II). In addition, Mode S surveillance requires the reporting of aircraft identification as stated below.

Pilots of aircraft equipped with mode 'S' transponder having an aircraft identification feature shall set the aircraft identification in the transponder while operating within OBBB FIR. This setting shall correspond to the aircraft identification specified in item 7 of the standard ICAO FPL, or if no FPL has been filed, the aircraft registration. ATC equipment requires strict compliance with mode 'S' settings to ensure proper radar tracking. Inability to comply with these requirements may result in aircraft being denied entry into OBBB class 'A' airspace.

The aircraft address shall be one of 16 777 214 twenty-four-bit aircraft addresses allocated by ICAO to the State of Registery or common mark registering authority and assigned as prescribed in the ICAO Annex 10.

All Mode S equipped aircraft engaged in international civil aviation are required to have an aircraft identification feature as prescribed in ICAO Annex 10.

This guidance is provided to ensure consistency regarding 24-bit aircraft addresses and the reporting of aircraft identification relevant to the operational introduction of Mode S Elementary and Enhanced Surveillance. In particular:

1. Adherence to the world-wide scheme for assignment of ICAO 24-bit Aircraft Addresses.
2. Correct setting of Aircraft Identification by flight crew.

1.6.2.4.2 THE ICAO 24-BIT AIRCRAFT ADDRESS

Instances occur of incorrect 24-bit aircraft addresses being installed/hard-wired on individual aircraft. This has happened not only on first installation of Mode S transponder but also when a major modification has been made to the Mode S equipment, and following a change of State of Registration. Incorrect installation, such as setting the address to all zeros, or, inadvertent duplication of an address can pose a severe risk to flight safety. In particular, the airborne collision avoidance system (ACAS II), performs on the assumption that only a single, unique 24-bit aircraft address per airframe exists. The performance of ACAS II can be seriously degraded and in some instances disabled if an incorrect

or duplicate address is installed on an aircraft. Incorrect or duplicated 24-bit aircraft addresses will also undermine the effectiveness of surveillance services based on SSR Mode S.

It is essential that aircraft operators comply with the aircraft address assignment procedures of the state regulatory authority to which blocks of addresses have been allocated by ICAO.

Note: *Telephony designators for aircraft operating agencies are contained in ICAO Doc 8585.*

The world-wide addressing scheme has been designed so that, at any one time, no address is assigned to more than one aircraft. Only one address can be assigned to an aircraft and it can not be changed except under exceptional circumstances authorised by the State Regulatory Authority concerned.

When an aircraft changes it's State of Regulatory of Registry, the previously assigned address is to be relinquished and a new address assigned by the new registering authority.

It is essential that the aircraft address is periodically verified using ramp tests. Such checks must also be conducted when a major maintenance check has taken place and when the aircraft has changed registration, to ensure that a newly assigned address has been properly set.

1.6.2.4.3 CORRECT SETTING OF AIRCRAFT IDENTIFICATION

To comply with airborne equipment requirements, Mode S transponder equipped aircraft must incorporate an Aircraft Identification Feature. Correct setting of aircraft identification is essential for the correlation of radar tracks with flight plan data in the ATM and Airport Operator ground systems. Initial operational trials using SSR Mode S have shown that many aircraft are transmitting incorrect aircraft identification, e.g. J9165 instead of JZR165. Such erroneous settings of aircraft identification prohibit automatic flight plan correlation and, if perpetuated, will severely limit the effectiveness of Mode S to relieve the shortage of SSR codes.

In accordance with ICAO Doc 8168 [PANS-OPS] Vol. I, Part III, flight crew of aircraft equipped with Mode S having an aircraft identification feature shall set the aircraft identification in the transponder. The setting shall correspond to the aircraft identification specified in item 7 of the ICAO flight plan, or, if no flight plan has been filed, the aircraft registration.

Note: *All Mode S equipped aircraft engaged in international civil aviation are required to have an aircraft identification feature.*

Note: *No zeroes, dashes or spaces are to be added when the aircraft identification consists of less than 7 characters.*

Mode (S) and Selected Altitude use in the OBBB FIR

The provision of the selected altitude set by aircrew, to the controller, gives them the ability to intervene, where the selected altitude does not match the clearance. This greatly reduces the chance of a Level Bust.

Selected altitude data is presented as either a flight level or an altitude, depending on surveillance system settings, For ATC and Air-Ground Communication purposes, the generic phrase 'Seleted level' is often used to encompass data presented as either an altitude or flight level.

The following factors are preventable, using the display of a Selected Altitude / CFL mismatch:

- Correct pilot Read-back or Hear-back followed by incorrect action;

- Incorrect pilot read-back by correct aircraft;

- Pilot read-back by incorrect aircraft.

The ATM System will generate an alert where there is a discrepancy between the Cleared Level and the aircraft Selected Altitude; Controllers are required to advise the pilot using the following phrase; "(Callsign), Check Selected Level. Cleared Level is (correct cleared level)"

Pilots of Mode (S) equipped aircraft, operating within the OBBB FIR shall ensure that their current cleared level is set as the selected altitude in the aircraft mode control panel, unless established on final approach for OBBI.

Any failure to comply with the above, pilots shall immediately inform ATC.

1.6.2.4.4 FURTHER INFORMATION

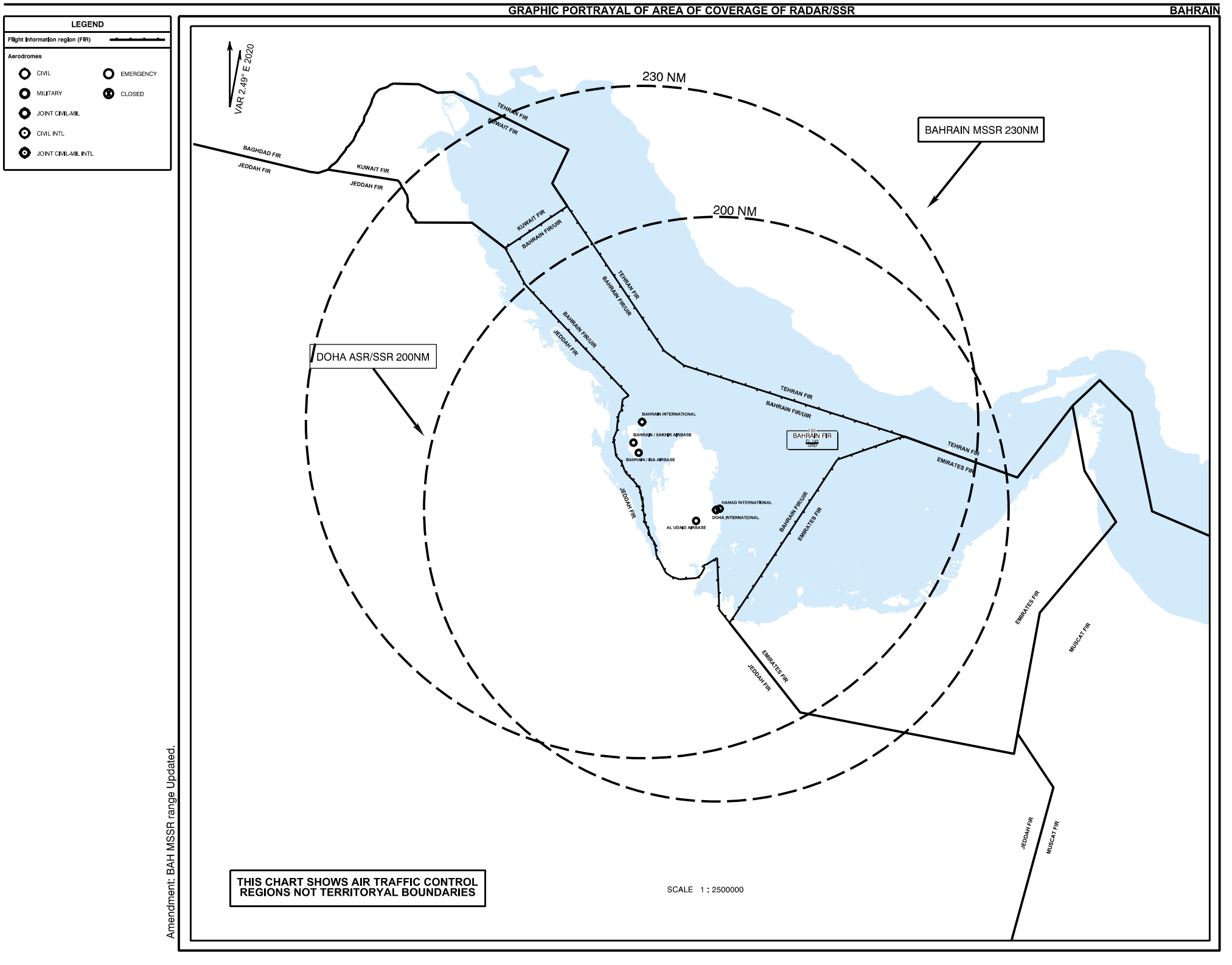
Or guidance may be obtained from:

Bahrain Senior Air Traffic Control Officer

+973 17 32 9927

satco@mtt.gov.bh

GRAPHIC PORTRAYAL OF AREA OF COVERAGE OF RADAR/SSR — BAHRAIN



Amendment: BAH MSSR range Updated.

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ENR 1.7 ALTIMETER SETTING PROCEDURES

1.7.1 INTRODUCTION

The Altimeter setting procedures in use generally conform to those contained in ICAO Doc 8168 - OPS, / 611 Volume 1 and DOC 7030, and are given in full below. QNH reports and temperature information for use in determining adequate terrain clearance are provided in MET broadcasts, and are available on request from Air Traffic Services Units. QNH values are given in whole hectopascals.

1.7.2 BASIC ALTIMETER SETTING PROCEDURES

1.7.2.1 **General**

1.7.2.1.1 The Transition Altitude is fixed at 13000 FT AMSL for the entire BAHRAIN FIR. The Transition level is fixed at FL 150 for the entire BAHRAIN FIR / BAHRAIN UIR.

1.7.2.1.2 Vertical displacement of aircraft at or below the Transition Altitude is expressed in terms of altitude. Vertical displacement of aircraft at or above the Transition Level is expressed in terms of Flight Levels. While an aircraft is passing through the Transition Layer, vertical displacement is expressed as altitude when descending, and as Flight Levels when climbing.

1.7.2.1.3 Flight Level Zero is located at the atmospheric pressure level of 1013.2 HPA (29.92"). Consecutive Flights are separated by a pressure interval corresponding to 500 FT in the Standard Atmosphere below FL 290, and by a pressure interval corresponding to 1000 FT above FL 290. Simultaneous flight at both the Transitional Altitude and the Transition Level is permissible as a minimum of 1000 FT separation exists between the two layers, however, level flight within the Transition Layer is not permitted.

1.7.2.1.4 QNH ALTIMETER SETTING DURING CLIMB: ALL AIRCRAFT SHALL REMAIN ON LOCAL QNH UNTIL PASSING TRANSITION ALTITUDE (13,000 FT) REGARDLESS OF ASSIGNED LEVEL. PASSING TRANSITION ALTITUDE, THE STD QNH (1013) SHOULD BE SELECTED.

1.7.2.1.5 STANDARD ALTIMETER SETTING DURING DESCENT: ALL AIRCRAFT SHALL REMAIN ON STD QNH (1013) UNTIL PASSING TRANSITION LEVEL (FL 150) REGARDLESS OF ASSIGNED LEVEL. PASSING TRANSITION LEVEL, THE LOCAL QNH SHOULD BE SELECED.

1.7.2.2 **Take - off and climb**

1.7.2.2.1 A QNH altimeter setting is made available to aircraft in the routine take - off and climb instructions.

1.7.2.2.2 Vertical displacement of aircraft during the climb is controlled by reference to altitudes until reaching the Transition Altitude, above which vertical displacement is controlled by reference to Flight Levels. In this context, the word "controlled" is used in a composite sense in that a pilot will wish to fly his aircraft at predetermined Flight Levels or altitudes, and Air Traffic Services will wish to advise the pilot of the availability of Flight Levels and altitudes. Both are concerned with the vertical position of aircraft.

1.7.2.3 **En - route at and below the transition altitude - altimeter pressure setting**

BAHRAIN INTERNATIONAL airport QNH

1.7.2.4 **Vertical separation - En-route**

1.7.2.4.1 Aircraft shall be flown En-route at Flight Levels at all times when above 13000 FT AMSL.

1.7.2.4.2 When complying with the semi-circular system of cruising levels of Annex 2, an aircraft shall be flown at Flight Levels or Flight Altitudes corresponding to the magnetic track as shown in the following table:

Magnetic Track	**000° - 179°**		**180° - 359°**	
Flight Rules	**IFR**	**VFR**	**IFR**	**VFR**
Flight Altitudes		1500	2000	2500
	3000	3500	4000	4500
	5000	5500	6000	6500
	Up to 13000	Up to 11500	Up to 12000	Up to 12500
Flight Levels	150		160	
	170		180	
	190		200	
	Up to 290		Up to 280	

Magnetic Track	000° - 179°		180° - 359°	
Flight Rules	IFR	VFR	IFR	VFR
	310		300	
	330		320	
	350		340	
	370		360	
	390		380	
	etc		etc	

1.7.2.5 **Approach and landing**

1.7.2.5.1 A QNH altimeter setting is made available in the routine approach and landing instructions.

1.7.2.5.2 Vertical displacement of aircraft during approach is controlled by reference to Flight Levels until reaching the Transition Level, below which vertical displacement is controlled by reference to altitudes.

Note: *This does not preclude a pilot from using a QFE setting to terrain clearance purposes during the final approach of the runway.*

1.7.2.6 **Missed approach**

The relevant portions of **ENR 1.7.2.1**, **ENR 1.7.2.2** and **ENR 1.7.2.5** shall be applied to the case of a missed approach..

1.7.3 DESCRIPTION OF ALTIMETER SETTING REGION

There is a single altimeter pressure setting region which covers the entire BAHRAIN FIR / BAHRAIN UIR, however see **ENR 1.7.2.2.2**.

1.7.4 PROCEDURES APPLICABLE TO OPERATORS, INCLUDING PILOTS

The levels at which flight is to be conducted shall be specified in a Flight Plan;

a) in terms of Flight Levels, if the flight is to be conducted at or above the Transition Level, and
b) in terms of altitudes of the flight is to be conducted in the vicinity of an aerodrome, and at or below the Transition Altitude.

Note: *Short flights in the vicinity of an aerodrome may often be conducted only at altitudes below the Transition Altitude.*

Note: *Flight Levels are specified in a plan by number; and not in terms of feet as is the case with altitudes.*

1.7.5 TABLE OF CRUISING LEVELS

TRACK											
From 000° to 179°						From 180° to 359°					
IFR Flights			VFR Flights			IFR Flights			VFR Flights		
FL	Altitude		FL	Altitude		FL	Altitude		FL	Altitude	
	Metres	Feet		Metres	Feet		Metres	Feet		Metres	Feet
	900	3000		450	1500		600	2000		750	2500
	1500	5000		1050	3500		1200	4000		1350	4500
	2150	7000		1700	5500		1850	6000		2000	6500
	2750	9000		2300	7500		2450	8000		2600	8500
	3350	11000		2900	9500		3050	10000		3200	10500
	3950	13000		3500	11500		3650	12000		3800	12500

<table>
<tr><th colspan="8">TRACK</th></tr>
<tr><th colspan="4">From 000° to 179°</th><th colspan="4">From 180° to 359°</th></tr>
<tr><th colspan="2">IFR Flights</th><th colspan="2">VFR Flights</th><th colspan="2">IFR Flights</th><th colspan="2">VFR Flights</th></tr>
<tr><th>FL</th><th colspan="2">Altitude</th><th>FL</th><th colspan="2">Altitude</th><th>FL</th><th colspan="2">Altitude</th></tr>
<tr><th></th><th>Metres</th><th>Feet</th><th></th><th>Metres</th><th>Feet</th><th></th><th>Metres</th><th>Feet</th><th></th><th>Metres</th><th>Feet</th></tr>
<tr><td>150
170
190
210
230
250
270</td><td></td><td></td><td colspan="3">Class A airspace</td><td>160
180
200
220
240
260
280</td><td colspan="4">Class A airspace</td></tr>
<tr><td>290
310
330</td><td rowspan="2"></td><td rowspan="2"></td><td colspan="3" rowspan="2">Class A airspace RVSM applied
(See ENR 1.10)</td><td>300
320
340</td><td colspan="4" rowspan="2">Class A airspace RVSM applied
(See ENR 1.10)</td></tr>
<tr><td>350
370
390
410</td><td>360
380
400</td></tr>
<tr><td>450
490
etc.</td><td></td><td></td><td colspan="3">Class A airspace</td><td>430
470
etc.</td><td colspan="4">Class A airspace</td></tr>
</table>

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ENR 1.8 REGIONAL SUPPLEMENTARY PROCEDURES (DOC 7030 / 5)

The Supplementary Procedures in force, directly applicable to aircraft are given in their entirety. Differences are printed in heavy face italic type.

DOC 7030 part 1

Reference Procedure

1.1 Visual Flight Rules (VFR)

(Annex 2 - 4.6)

VFR flights to be operated within a control zone established at an aerodrome serving International Flights and in specific portions of the associated terminal control area shall:

1. have two - way radio communications;
2. obtain clearance from the appropriate air traffic control unit; and
3. report position as required

Note: *The phrase "specified portions of the associated terminal control area" is intended to signify at least those portions of the TMA used by International IFR Flights in association with approach, holding, departure and noise abatement procedures.*

1.2.1.1 Instrument Flight Rules (IFR)

(Annex 2 - 2.2. and Chapter 5)

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

1. more than 100 NM seaward from the shoreline within controlled airspace; or
2. at or above Flight Level 150

3.0 A / G communications and in - flight reporting

(ANNEX 2 -3 6.3, 3.6.5, and 5.3.3 and PANS ATM / 501 Chapter 4, 4 - 11)

All aircraft on VFR flights, and aircraft on IFR flights outside controlled airspace, shall maintain a watch on a radio station furnishing communications for the unit providing flight information service in the flight information region and file with that station information as their position unless otherwise authorized by the State overflown.

Reference Procedure

3.4.1.2 The aircraft call sign / identification shall be transmitted immediately before or after the word "position".

3.4.1.3 The position of the aircraft shall be transmitted in reference to a reporting point name, name code designator or, if not named:

1. for flights operating in a predominantly east - west direction:

    a) latitude in degrees and minutes; and
    b) longitude in degrees only;

2. for flights operating in a predominantly north - south direction:

    a) latitude in degrees only; and
    b) longitude in degrees and minutes.

3.4.1.4 The time at which the aircraft is over the reporting point shall be transmitted in four digits, giving both the hour and the minutes.

3.4.1.5 The altitude / flight level of the aircraft shall be included in the position report.

3.4.2.1 Next position and time shall normally be expressed as the reporting point name, name - code designator or latitude and longitude as indicated in 3.4.1.3.

3.4.2.2 Estimated time over the next position shall be expressed in four digits.

3.4.3.1 Ensuing position information shall include the name, name - code designator or coordinates of the next succeeding reporting point, whether compulsary or not.

4.0 Special Procedures for in - flight contingencies

General Procedures

The following general procedures apply to both subsonic and supersonic aircraft

4.2.1 If an aircraft is unable to continue flight in accordance with its Air Traffic Control Clearance, a revised Clearance shall be obtained at the earliest possible time and, in the meantime, the aircraft shall broadcast position (including ATS route designator or the track code, as appropriate) and intentions, on frequency 121.500 MHZ at suitable intervals until Air Traffic Control Clearance is received.

12.1.1 Alerting and Search and Rescue Services - Routes and equipment of Private Aircraft

Annex 6 - part II - 6.3 and 6.4):

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

1. carry appropriate survival equipment;
2. follow the routes or specified procedures if not equipped with two - way radio except that under special circumstances, the appropriate authority may grant specific exemptions from this requirement.

Reference Procedure

12.2 Alerting Services

(PANS ATM / 501 Chapter 9 & Chapter 10, 10 - 2)

The procedures for "Alerting Service" detailed in PANS RAC, Part V1.2 are applicable to all flights except those conducted wholly in the vicinity of an aerodrome when exempted by the appropriate air traffic control unit.

DOC 7030 / 4, Part 2

Referrence Procedure

1.0 AERONAUTICAL MOBILE SERVICE

1.1 Languages to be used in radiotelephony

(A10, Vol. 11, 5.2.1.1.2, Note 2)

1.1.1 English is used in radiotelephony

2.0 AERONAUTICAL FIXED SERVICE

2.1 Priority of MOTNE messages on AFTN

NIL

3.0 RADIO FREQUENCIES

3.1 Air - to - air channel

(A10, Vol. 1, Part 11 - 4.1.3.2)

3.1.1 The frequency 123.450 MHZ has been approved for use as the air - to - air channel to enable aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problems.

DOC 7030 / 4, Part 3

1.1 Aircraft observations and Reports

(Annex 3 - Chapter 5)

Aircraft within the BAHRAIN FIR / BAHRAIN UIR shall make and record routing observations at the ATS / MET reporting points indicated in the Regional Plan.

Regional Supplementary Procedures

DOC 7030 / 4

The Supplementary Procedures in force, directly applicable to ATSUs and indirectly applicable to aircraft, are not given in their entirety. The relevant differences are given but only differences from ICAO have been published in full.

Reference Differences

NIL

ENR 1.9 AIR TRAFFIC FLOW MANAGEMENT (ATFM) AND AIRSPACE MANAGEMENT

1.9.1 Air traffic flow management structure, service area, service provided location of unit and hours of operation

Service provided

Within the BAHRAIN FIR / BAHRAIN UIR there is no requirement for Strategic Flow Management at present, or in the forseeable future, and the establishment of a Regional Flow Management Unit is perceived as not being necessary. Tactical Flow Management is implemented from time to time, as required.

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ENR 1.10 FLIGHT PLANNING

(Restriction, Limitation or advisory Information)

1.10.1 PROCEDURES FOR THE SUBMISSION OF A FLIGHT PLAN

A flight plan shall be submitted in accordance with Annex 2, para 3.3.1 prior to operating:

a) any IFR flight,
b) any VFR flight.

i. departing from or destined for an aerodrome within a CTR;
ii. crossing any CTR within BAHRAIN FIR;
iii. across any International State Boundary or the FIR / UIR boundary.

Time of submission

Except for repetitive flight plans, a flight plan shall be submitted at least 60 minutes prior to departure, taking into account requirements for timely information of ATS units in airspace along the route to be flown, including requirements for early submission for ATS Air Traffic Flow Management (ATFM) purposes.

Place of submission

a) Flight plans shall be submitted at the Air Traffic Services Reporting Office (ARO) at the departure aerodrome.
b) In absence of such office at the departure aerodrome, a flight plan shall be submitted by telephone, telefax or teletype to the nearest ARO as listed below, (except as indicated under c.). An acknowledgement of receipt must be obtained prior to departure when using telefax or teletype.

BAHRAIN ARO
TEL: +973 17321181 / +973 17321182
Telefax:+973 17323876

c) For domestic flights from an uncontrolled to a controlled aerodrome a flight plan shall be submitted by telephone to the ARO at destination.

VFR flight plan for alerting service only

Alerting service in principle provided to flights for which a flight plan has been submitted.

Contents and form of flight plan

a) ICAO flight plan forms are available at ARO‘s and airport offices at uncontrolled aerodromes. The instructions for completing those forms shall be complied with.
b) Flight plans concerning IFR flights and international VFR flights shall include FIR / UIR boundary estimates.
c) When a flight plan is submitted by telephone, teletype or telefax, the sequence of items of the flight plan - form shall be strictly adhered to.

Adherence to ATS route structure

No flight plans shall be filed for routes deviating from the published ATS route structure, unless prior permission has been obtained from BAHRAIN ACC.

Authorization for special flights

Flights of a specific character such as survey flights, scientific research flights etc. may be exempted from the restriction specified above.

Request for exemption shall be mailed so as to be received at least one week before the intended day of operation to:

Undersecretary for Civil Aviation
Bahrain Civil Aviation Affairs
P.O. Box 586
Kingdom of Bahrain

1.10.2 REPETITIVE FLIGHT PLAN SYSTEM

General

The procedures concerning the use of Repetitive Flight Plans (RPL) conform to ICAO Document 7030 and PANS RAC 12th edition. Except where indicated hereunder.

REPETITIVE FLIGHT PLANS / FLIGHT SCHEDULE DATA LISTS

Pending full implementation of the RPL concept, RPLs are transmitted on the AFTN as if they were Filed Flight Plans.

1.10.2.1 Operators are required to provide advance details of Season Scheduled Services operating within the BAHRAIN FIR / BAHRAIN

UIR at least 14 days in advance of implementation or change, to the Flight Data Processing Unit (FDPU).

The Flight Data Processing Unit
Aeronautical Information Services Office
P.O. Box 586
Kingdom of Bahrain

Note: *The submission of such details to Air Traffic Control does not constitute a request for approval of flight schedules.*

1.10.2.1.1 This Data is required to be presented, on separate sheet for each 12 hours UTC of each day, in the format shown in the "REPETITIVE FLIGHT PLAN LISTING".

Note: *There is a requirement to indicate in Column Q for all flights the Entry point Designator for BAHRAIN FIR / BAHRAIN UIR with EST (UTC).*

1.10.2.1.2 **Incidental changes and cancellations of RPL**

Incidental changes to and cancellations of RPL relating to departures from BAHRAIN INTERNATIONAL airport shall be notified as early as possible and not later than 30 minutes before departure to:

BAHRAIN ARO
TEL: +973 17321181 / +973 17321182 for departures from BAHRAIN INTERNATIONAL airport.

RPL Lists shall be replaced in their entirety by new lists prior to the instruction of the summer and winter schedules.

1.10.2.1.3 **Delay**

When a specific flight is likely to encounter a delay of one hour or more in excess of the departure time stated in the RPL, the ATS unit serving the departure aerodrome shall be notified immediately.

Note: *Failure to comply with this procedure may result in the automatic cancellation of the RPL for that specific at one or more of the ATS unit concerned.*

1.10.2.1.4 **ATS messages**

For a flight operated on a RPL, a flight plan message (FPL) will be transmitted pending full implementation of the RPL concept in the region. Departure messages (DEP) or Delay messages (DLA) relating to such flights will also be transmitted to appropriate ATS units.

1.10.2.2 **FLIGHT PLANS**

1.10.2.2.1 **Scheduled Flights departing from airfields in the FIR**

1.10.2.2.2 Standard Flight Plans for flights must be filed with the Aerodrome / Heliport AIS Unit at the aerodrome of departure, or

1.10.2.2.3 Alternatively, by direct arrangement between the operator and the local ATC Unit involved, a Standard ICAO Flight Plan may be stored at the aerodrome of departure and activated by that unit at 0001 UTC on the day of operation.

1.10.2.3 **CHANGES TO FLIGHT DETAILS**

1.10.2.3.1 **Permanent Changes**

Changes of permanent nature to any of the details previously supplied (under **ENR 1.10.2.2.1** and **ENR 1.10.2.2.2** above) require that complete details must be advised, both to the FDPU at Bahrain and to any other aerodrome concerned within the FIR, either by a completely new replacement plan, or by clear "insert / delete" editing instructions.

1.10.2.3.2 **Temporary Changes**

1.10.2.3.2.1 **Extra flights require submission of both**

a) a standard Flight Plan, and
b) Flight Data details to BAHRAIN FDPU.

1.10.2.3.2.2 **Replacement flights, (i.e. Flights with temporary changes to details which have been submitted under ENR 1.10.2.1.1** and **ENR 1.10.2.2.2** above) require a Standard Flight Plan clearly annotated in item 12 "Replacement of Scheduled Flight (c / s) of ... (date)";

Note: *Flight Schedule Data Lists are required by ATSUs to prepare Air Traffic Control Data Systems in advance, thus reducing the possibility of traffic delay resulting from work - load in peak periods. Timely provision of Scheduled Flight Data, preferably more than the prescribed 14 days in advance, is therefore in the best interests of operators of scheduled air transport.*

1.10.2.4 **FLIGHT PLAN FORM**

1.10.2.4.1 The Flight Plan Form must be completed according to the instructions contained in Doc 4444 - ATM 501, Appendix 2.

1.10.2.4.2 The following options are REQUIRED by the ATS authority for all flight operating within the BAHRAIN FIR / BAHRAIN UIR:

1.10.2.4.2.1 **Flight Plan ITEM 8 - The second field letter denoting the TYPE OF FLIGHT.**

1.10.2.4.2.2 **Flight Plan ITEM 18 - The indicator "EET / " followed by FIR / UIR boundary designators and accumulated elapsed times as follows:**

a) Flight entering the BAHRAIN FIR: The location indicator for the BAHRAIN FIR together with the accumulated estimated time since departure (e.g. EET / OBBB 0345).
b) Flights departing from the BAHRAIN FIR: All boundary designators together with the corresponding estimated elapsed times to those points (e.g. for a flight from OBBI to EGLL, EET / OEJD 0005, OJAC 0125, OSTT 0145, LCCC 0210, LGGG 0245, LTBB 0300, LYBA 0420, LOVV 0450, EDDU 0510, EBUR 0545, EHAA 0600, EGTT 0615).

1.10.2.4.2.3 **Flight Plan ITEM 18 - The indicator "SEL / " followed by the SELCAL code**.

1.10.2.4.2.4 **Flight Plan ITEM 19 - To be completed in full.**

1.10.3 CHANGE TO THE SUBMITTED FLIGHT PLAN

All changes to a flight plan submitted for an IFR flight or a controlled VFR flight and significant changes to a flight plan submitted for an uncontrolled VFR flight shall be reported as soon as possible to the appropriate ATS unit.

1.10.3.1 In the event of a delay in departure of 30 minutes or more for a flight for which a flight plan has been submitted, the flight plan shall be amended or a new flight plan shall be submitted after the old plan has been cancelled.

Note 1: *If a delay in departure of a controlled flight is not properly reported, the relevant flight plan date may no longer be readily available to the appropriate ATS unit when a clearance is ultimately requested, which will consequently result in extra delay for the flight.*

Note 2: *If a delay in departure (or cancellation) of an uncontrolled VFR flight is not properly reported, alerting or search and rescue action may be unnecessarily initiated, when the flight fails to arrive at the destination aerodrome within 30 minutes after current ETA.*

1.10.3.2 Whenever a flight, for which a flight plan has been submitted, is cancelled, the appropriate ATS unit shall be informed immediately.

Changes to a current flight plan for a controlled flight during flight shall be reported or requested subject to the provisions in Annex 2.3.6.2 (Adherence to flight plan).

Significant changes to a flight plan for an uncontrolled VFR flight include changes in endurance, or total number of persons on board and changes in time estimates of 30 minutes or more.

1.10.3.3 **Arrival report (Closing a flight plan)**

A report of arrival shall be made at the earliest possible moment after landing to the airport office of the arrival aerodrome by any flight for which a flight plan has been submitted except when the arrival has been acknowledged by the local ATS unit.

After landing at an aerodrome which is not the destination aerodrome (diversionary landing) the local ATS unit shall be specifically informed accordingly.

In the absence of a local ATS unit at the aerodrome of diversionary landing the pilot is responsible for passing the arrival report to the destination aerodrome.

– aircraft identification
– departure aerodrome
– destination aerodrome
– time of arrival

In the case of diversion, insert between "destination aerodrome" an "time of arrival":

– the "arrival aerodrome"

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REPETITVE FLIGHT PLANE LISTING (FOR FLIGHT DATA SUBMISSION)

(A) Operator	(B) ADDRESSEE (S)	(C) DEPARTURE AERODROME (S)	(D) DATE ——— yymmdd	(E) SERIAL NO. - -	(F) PAGE OF -/-
			(G) SUPPLEMENTARY (Item 19) AT:		

(H) + –	(I) VALID FROM yymmdd	(J) VALID UNTIL yymmdd	(K) DAYS OF OPERATION 1	2	3	4	5	6	7	(L) AIRCRAFT IDENTIFICATION (item 7)	(M) Type of AIRCRAFT And Wake Turbulence Category (item 9)		(N) DEPARTURE AERODROME AND TIME (item 13)		(O) ROUTE (item 15) CRUISING SPEED	LEVEL	ROUTE	(P) DESTINATION AERODROME AND TOTAL ESTIMATED ELAPSED TIME (item 16)		(Q) REMARKS*

Additional Information Required :-
BAHRAIN FIR Entry point with EST (UTC).

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1.10.4 ADDITIONAL REQUIREMENTS RELATED TO RVSM AIRSPACE

Note: *Flights will not be given access to BAHRAIN RVSM airspace when:*

a) No flight plan has been received, or
b) A flight plan has been received but the required RVSM data has not been included in the flight plan.

1.10.4.1 Except as indicated in **ENR 1.10.4.3** flight between FL 290 to FL 410 is for exclusive use of RVSM approved aircraft. Non - RVSM certified aircraft shall flight plan accordingly.

1.10.4.2 Operators of RVSM certified aircraft shall insert the letter "W" in item 10 of the flight plan regardless of the requested level.

1.10.4.3 Acceptance of non - RVSM certified State aircraft for flight at RVSM levels is subject to prevailling traffic conditions. RVSM certified aircraft will be offered priority in order to make maximum use of airspace capacity.

Note: *Consequently, operators of State aircraft intending to navigate within BAHRAIN FIR / BAHRAIN UIR are advised to dispatch RVSM certified aircraft or flight plan at non - RVSM levels.*

1.10.4.4 Operators of non - RVSM certified State aircraft requesting a flight level within RVSM airspace shall insert the phrase "STS / NONRVSM" in item 18 of the flight plan.

1.10.4.5 In addition to the requirements of **ENR 1.10.4.4** operators of non - RVSM certified State aircraft requesting to operate in RVSM airspace shall include the letter "M" in item 8 of the flight plan.

1.10.4.6 The flight plan for an aircraft intending to operate across or within the lateral limits of RVSM airspace shall include:

a) The entry point and requested flight level for that portion of the route commencing immediately after the entry point.
b) The exit point and requested flight level for that portion of the route commencing immediately after the exit point.

1.10.4.7 ALL FPL WITHIN OBBB FIR SHOULD INCLUDE:

1. ENTRY AND EXIT POINT FOR OVERFLYING FLIGHTS.
2. ENTRY POINT FOR LANDING BAHRAIN AERODROMES.
3. EXIT POINT FOR DEPARTING FROM BAHRAIN AERODROMES.

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ENR 1.11 ADDRESSING OF FLIGHT PLAN MESSAGES

Flight movement messages relating to traffic into or via BAHRAIN FIR / BAHRAIN UIR shall be addressed as stated below in order to warrant correct relay and delivery.

Note: *Flight movement messages in this context comprise flight plan messages, amendment messages relating thereto and flight plan cancellation messages. ICAO ATM - DOC 4444, chapter 11 para. 11.2.1.1.3 refers.*

1.11.1 AFTN ADDRESSES

1.11.1.1 Category of flight (IFR, VFR or both)

All Flight Plans and Departures messages for flights operating through or within the BAHRAIN FIR / BAHRAIN UIR must include addressees **OBBBZQZX**.

1.11.1.2 All aircraft operators intending to use BAHRAIN INTERNATIONAL airport as a departure aerodrome must include the addressees **OBBIZPZX** in their flight plan.

1.11.1.3 BAHRAIN / SAKHIR AIRBASE installed new AFTN addresses necessary for flight planning puropses and other relevant issues as follows: OBKHZTZX for Control Tower, OBKHZPZX for AIS / COMMS and OBKHYFYX for Service Address.

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ENR 1.12 INTERCEPTION OF CIVIL AIRCRAFT

1.12.1 Interception procedures

All unknown aircraft within the airspace over territories and territorial waters of states within the BAHRAIN FIR / BAHRAIN UIR may be intercepted by air defense fighters by day and by night.

1.12.2 Applicability

1.12.2.1 The procedures and signals set out in this section apply in the event of an interception over the territory and territorial waters of the Kingdom of Bahrain.

1.12.2.2 An aircraft which is intercepted by another aircraft is required immediately to:

a) follow the instructions given by the intercepting aircraft, interpreting and responding to the signals given under **ENR 1.12.3**;
b) notify, if possible, the Air Traffic Services Unit responsible for the airspace in which the aircraft is flying;
c) make a general call on the emergency frequency 121.500 MHZ to attempt to establish radio communication with the intercepting aircraft or with the intercept control unit, giving the identity and position of the aircraft and the nature of the flight. This call should be repeated on 243.000 MHZ if necessary and practicable;
d) if equipped with SSR transponder, select Mode A Code 7700, unless otherwise instructed by the appropriate Air Traffic Services Unit.

1.12.2.3 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft is required to request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

1.12.2.4 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the intercepted aircraft is required to request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

1.12.2.5 All aircraft shall, at all times, remain well clear from areas being published as prohibited areas, however, if an aircraft was so be compelled to enter a prohibited area due to weather avoidance or otherwise track deviation from the intended route, which would finally take the aircraft into prohibited areas, was observed and such initiative was made by the pilot without obtaining a specific approval from ATC to carry out the maneouvre, then this particular flight may expect an interception by military jets by the ROYAL BAHRAIN AIR FORCE during which full compliance to the instructions issued by the interceptors must be immediately adhered to.

1.12.2.6 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 pronunciations in the following table and transmitting each phrase twice:

Phrases for use by INTERCEPTING aircraft		
Phrase	**Pronunciation [1]**	**Meaning**
CALL SIGN	**KOL SA - IN**	What is your call sign?
FOLLOW	**FOL - LO**	Follow me
DESCEND	DEE - SEND	Descend for landing
YOU LAND	YOU LAAND	Land at this aerodrome
PROCEED	PRO - SEED	You may proceed
[1] Syllables to be emphasized are printed in bold letters.		

Phrases for use by INTERCEPTED aircraft		
Phrase	**Pronunciation [1]**	**Meaning**
CALL SIGN[2]	**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[3]	**HI - JACK**	I have been hijacked
LAND (place name)	LAAND (place name)	I request to land at (place name)

DESCEND	DEE - **SEND**	I required descent
[1] Syllables to be emphasized are printed in bold letters.		
[2] The call sign required to be given is that used in radio telephony communications with air traffic services units and corresponding to the aircraft's identification in the flight plan.		
[3] Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK"		

1.12.3 TABLES OF VISUAL SIGNALS FOR USE IN THE EVENT OF INTERCEPTION

1.12.3.1 Signals initiated by INTERCEPTING aircraft and responses by INTERCEPTED aircraft

Series	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
1	DAY or NIGHT - Rocking aircraft and flashing navigational lights at irregular intervals (and landing lights in the 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 case of a helicopter) on the desired heading. ***Note 1:*** *- Meteorological conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.* ***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 racetrack patterns and to rock the aircraft each time it passes the intercepted aircraft.*	You have been intercepted. Follow me.	DAY or NIGHT - Rocking aircraft, flashing navigational lights at irregular intervals and following. ***Note:*** *- Additional action required to be taken by intercepted aircraft is prescribed on* ***ENR 1.12.2.6****.*	Understood, will comply.
2	DAY or NIGHT - An abrupt breakaway manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of the 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 overflying the runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepted 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 runway 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
1	DAY or NIGHT - Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 300 M (1000 FT) but not exceeding 600 M (2000 FT) in the case of a helicopter, at a height exceeding 100 M (350 FT) above the aerodrome level, and continuing to circle the runway 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 uses 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.
2	DAY or NIGHT - Regular switching on and off of 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.
3	DAY or NIGHT - Irregular flashing of all available lights.	In distress.	DAY or NIGHT - Use Series 2 signals prescribed for intercepting aircraft.	Understood.

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ENR 1.13 UNLAWFUL INTERFERENCE

1.13.1 General

The following procedures are intended for use by aircraft when unlawful interference occurs and the aircraft is unable to notify an ATS unit of this fact.

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 the assigned cruising level at least until able to notify an ATS unit or within radar 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:

a) attempt to broadcast warnings on the VHF emergency frequency and other appropriate frequencies, unless considerations aboard the aircraft dictate otherwise. Other equipment such as on - board transponders, data links, etc. should also be used when it is advantageous to do so and circumstances permit; and
b) Proceed in accordance with applicable special procedures for in - flight contingencies, where such procedures have been established and promulgated in Doc 7030 - Regional Supplementary Procedures; or
c) If no applicable regional procedures have been established, proceed at a level which differs from the cruising levels normally used for IFR flight:

    1. 150 M (500 FT) in an area where a vertical separation minimum of 300 M (1000 FT) is applied; or
    2. 300 M (1000 FT) in an area where a vertical separation minimum of 600 M (2000 FT) is applied.

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ENR 1.14 AIR TRAFFIC INCIDENTS

1.14.1 Definition of air traffic incidents

1.14.1.1 "Air traffic incident" is used to mean a serious occurrence related to the provision of air traffic services, such as:

a) aircraft proximity (**AIRPROX**);
b) serious difficulty resulting in a hazard to aircraft caused, for example, by:

1. faulty procedures
2. non-compliance with procedures, or
3. failure of ground facilities.

1.14.1.1.1 Definitions for aircraft proximity and AIRPROX.

Aircraft proximity. A situation in which, in the opinion of the pilot or the air traffic services personnel, the distance between aircraft, as well as their relative positions and speed, have been such that the safety of the aircraft involved may have been compromised. An aircraft proximity is classified as follows:

Risk of collision. The risk classification of aircraft proximity in which serious risk of collision has existed.
Safety not assured. The risk classification of aircraft proximity in which the safety of the aircraft may have been compromised.
No risk of collision. The risk classification of aircraft proximity in which no risk of collision has existed.
Risk not determined. The risk classification of aircraft proximity in which insufficient information was available to determine the risk involved, or inconclusive or conflicting evidence precluded such determination.

AIRPROX. The code word used in an air traffic incident report to designate aircraft proximity.

1.14.1.2 Air traffic incidents are designated and identified in reports as follows:

Type	Designation
Air traffic incident	Incident
as a) above	AIRPROX (Aircraft proximity)
as b) 1) and 2) above	Procedure
as b) 3) above	Facility

1.14.2 Use of the Air Traffic Incident Report Form (See model below)

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 to confirm a report made initially by radio during flight.

Note: *The form, if available on board, may also be of use in providing a pattern for making the initial report in flight.*

b) by an ATS unit for recording an air traffic incident report received by radio telephone or teleprinter.

Note: *The form may be used as the format for the text of a message to be transmitted over the AFS network.*

1.14.3 Reporting procedures (including in-flight procedures)

1.14.3.1 The following are the procedures to be followed by a pilot who is or has been involved in an incident:

a) during flight, use the appropriate air / ground frequency for reporting an incident of major significance, particularly if it involves other aircraft, so as to permit the facts to be ascertained immediately;
b) as promptly as possible after landing, submit a completed Air Traffic Incident Report Form;

1. for confirming a report of an incident made initially as in a) above, or for making the initial report on such an incident if it had not been possible to report it by radio;
2. for reporting an incident which did not require immediate notification at the time of occurrence.

1.14.3.2 An initial report made by radio should contain the following information:

a) aircraft identification;
b) type of incident, e.g. aircraft proximity;
c) the incident; 1. a) and b); 2. a), b), c), d), n); 3. a), b), c), i); 4. a), b);
d) miscellaneous: 1. e).

1.14.3.3 The confirmatory report on an incident of major significance initially reported by radio or the initial report on any other incident should be submitted to The Aviation Safety Board, P.O. Box 586, Kingdom of Bahrain or to the ATS Reporting Office of the aerodrome of first

landing for submission to The Aviation Safety Board. The pilot should complete the Air Traffic Incident Report Form, supplementing the details of the initial reports as necessary.

Note: *Where there is no ATS Reporting Office, the report may be submitted to another ATS unit.*

1.14.3.4 The pilot should complete the Air Traffic Incident Report Form (see **ENR 1.14.4.2** - ICAO model Air Traffic Incident Report Form, supplementing the details of the initial reports as necessary.

1.14.4 Purpose of reporting and handling of the form

1.14.4.1 The purpose of the reporting of aircraft proximity incidents and their investigation is to promote the safety of aircraft. The degree of risk involved in an aircraft proximity incident should be determined in the incident investigation and classified as "risk of collision", "safety not assured", "no risk of collision" or "risk not determined".

1.14.4.2 The purpose of the form is to provide investigatory authorities with as complete information on an air traffic incident as possible and to enable them to report back, with the least possible delay to the pilot or operator concerned, the result of the investigation of the incident and, if appropriate, the remedial action taken.

AIR TRAFFIC INCIDENT REPORT FORM

For use when submitting and receiving reports on air traffic incidents. In an initial report by radio, shaded items should be included.

A — AIRCRAFT IDENTIFICATION	**B — TYPE OF INCIDENT**
	AIRPROX / PROCEDURE / FACILITY*

C — THE INCIDENT

1. General

a) Date / time of incident UTC

b) Position

2. Own aircraft

a) Heading and route

b) True airspeed _____ measured in ( ) kt _____ ( ) km/h _____

c) Level and altimeter setting

d) Aircraft climbing or descending

( ) Level flight ( ) Climbing ( ) Descending

e) Aircraft bank angle

( ) Wings level ( ) Slight bank ( ) Moderate bank

( ) Steep bank ( ) Inverted ( ) Unknown

f) Aircraft direction of bank

( ) Left ( ) Right ( ) Unknown

g) Restrictions to visibility (select as many as required)

( ) Sunglare ( ) Windscreen pillar ( ) Dirty windscreen

( ) Other cockpit structure ( ) None

h) Use of aircraft lighting (select as many as required)

( ) Navigation lights ( ) Strobe lights ( ) Cabin lights

( ) Red anti-collision lights ( ) Landing / taxi lights ( ) Logo (tail fin) lights

( ) Other ( ) None

i) Traffic avoidance advice issued by ATS

( ) Yes, based on radar ( ) Yes, based on visual sighting ( ) Yes, based on other information

( ) No

j) Traffic information issued

( ) Yes, based on radar ( ) Yes, based on visual sighting ( ) Yes, based on other information

( ) No

k) Airborne collision avoidance system — ACAS

( ) Not carried ( ) Type ( ) Traffic advisory issued

( ) Resolution advisory issued ( ) Traffic advisory or resolution advisory not issued

l) Radar identification

( ) No radar available ( ) Radar identification ( ) No radar identification

m) Other aircraft sighted

( ) Yes ( ) No ( ) Wrong aircraft sighted

*Delete as appropriate

n)	Avoiding action taken			
	( ) Yes	( ) No		
o)	Type of flight plan	IFR / VFR / none*		

3. Other aircraft

a)	Type and call sign / registration (if known)		
b)	If a) above not known, describe below		
	( ) High wing	( ) Mid wing	( ) Low wing
	( ) Rotorcraft		
	( ) 1 engine	( ) 2 engines	( ) 3 engines
	( ) 4 engines	( ) More than 4 engines	
	Marking, colour or other available details		
c)	Aircraft climbing or descending		
	( ) Level flight	( ) Climbing	( ) Descending
	( ) Unknown		
d)	Aircraft bank angle		
	( ) Wings level	( ) Slight bank	( ) Moderate bank
	( ) Steep bank	( ) Inverted	( ) Unknown
e)	Aircraft direction of bank		
	( ) Left	( ) Right	( ) Unknown
f)	Lights displayed		
	( ) Navigation lights	( ) Strobe lights	( ) Cabin lights
	( ) Red anti-collision lights	( ) Landing / taxi lights	( ) Logo (tail fin) lights
	( ) Other	( ) None	( ) Unknown
g)	Traffic avoidance advice issued by ATS		
	( ) Yes, based on radar	( ) Yes, based on visual sighting	( ) Yes, based on other information
	( ) No	( ) Unknown	
h)	Traffic information issued		
	( ) Yes, based on radar	( ) Yes, based on visual sighting	( ) Yes, based on other information
	( ) No	( ) Unknown	
i)	Avoiding action taken		
	( ) Yes	( ) No	( ) Unknown

*Delete as appropriate

4. Distance

a) Closest horizontal distance

b) Closest vertical distance

5. Flight weather conditions

a) IMC / VMC*

b) Above / below* clouds / fog / haze or between layers*

c) Distance vertically from cloud _____ m / ft* below _____ m / ft* above

d) In cloud / rain / snow / sleet / fog / haze*

e) Flying into / out of* sun

f) Flight visibility _____ m / km*

6. Any other information considered important by the pilot-in-command

D — MISCELLANEOUS

1. Information regarding reporting aircraft

a) Aircraft registration

b) Aircraft type

c) Operator

d) Aerodrome of departure

e) Aerodrome of first landing _____ destination

f) Reported by radio or other means to _____ (name of ATS unit) at time UTC

g) Date / time / place of completion of form

2. Function, address and signature of person submitting report

a) Function

b) Address

c) Signature

d) Telephone number

3. Function and signature of person receiving report

a) Function _____ b) Signature _____

*Delete as appropriate

E — SUPPLEMENTARY INFORMATION BY ATS UNIT CONCERNED

1. Receipt of report

a) Report received via AFTN / radio / telephone / other (specify)* _____

b) Report received by _____ (name of ATS unit)

2. Details of ATS action

Clearance, incident seen (radar/visually, warning given, result of local enquiry, etc.)

_____

_____

_____

_____

_____

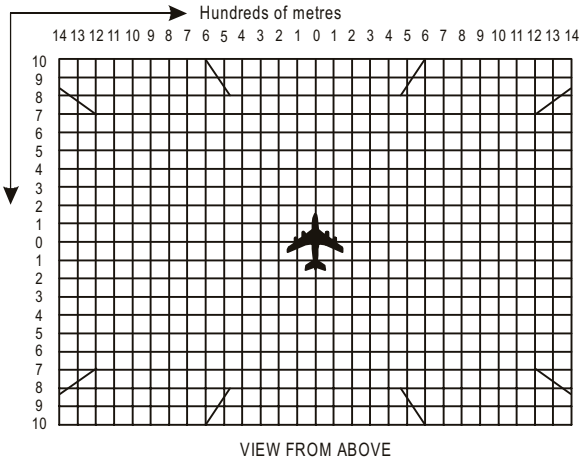
_____

_____

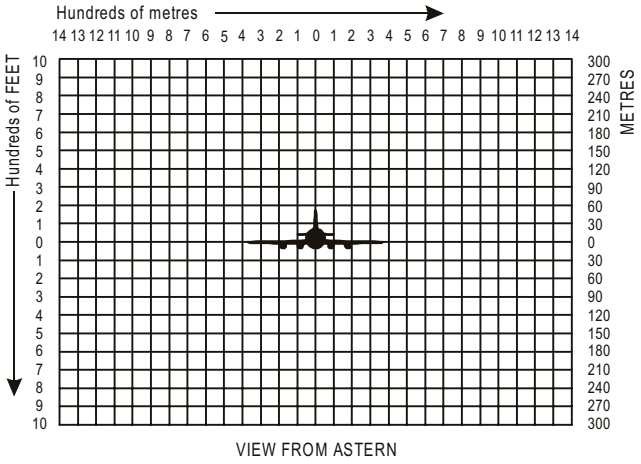
_____

DIAGRAMS OF AIRPROX

Mark passage of other aircraft relative to you, in plan on the left and in elevation on the right, assuming YOU are at the centre of each diagram. Include first sighting and passing distance.



VIEW FROM ABOVE



VIEW FROM ASTERN

*Delete as appropriate

Instructions for completion of the Air Traffic Incident Report Form	
Item	
A	Aircraft identification of the aircraft filing the report.
B	An AIRPROX report should be filed immediately by radio.
C1	Date / time UTC and position in bearing and distance from a navigation aid or in LAT / LONG.
C2	Information regarding aircraft filing the report, tick as necessary.
C2 c)	E.g. FL 350 / 1013 HPA or 2500 FT / QNH 1 007 HPA or 1200 FT / QFE 998 HPA.
C3	Information regarding the other aircraft involved.
C4	Passing distance - state units used.
C6	Attach additional papers as required. The diagrams may be used to show aircraft's positions.
D1 f)	State name of ATS unit and date / time in UTC.
D1 g)	Date and time in UTC.
E2	Include details of ATS unit such as service provided, radiotelephony frequency, SSR Codes assigned and altimeter setting. Use diagram to show the aircraft's position and attach additional papers as required.

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ENR 2. AIR TRAFFIC SERVICES AIRSPACE

ENR 2.1 FIR, UIR, TMA AND CTA

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/ Purpose	Remarks
1	2	3	4	5
BAHRAIN FIR 281500.00N 0485200.00E - 284400.00N 0494000.00E - 270500.00N 0505500.00E - 265500.00N 0511000.00E - 260400.00N 0535700.00E - 254900.00N 0530600.00E - 240300.00N 0514700.00E - 235816.00N 0514308.00E - 240724.00N 0513526.00E - 241458.00N 0513526.00E - 244247.00N 0513422.00E - 243817.00N 0512608.00E - 243747.00N 0512421.00E - 243731.00N 0512406.00E - 243549.00N 0512449.00E - 243116.00N 0512154.00E - 242907.00N 0511849.00E - 242816.00N 0510555.00E - 243000.00N 0510000.00E - 243243.00N 0505544.00E - 244024.00N 0505134.00E - 244440.00N 0504842.00E - 244543.00N 0504828.00E - 244653.00N 0504828.00E - 244927.00N 0504804.00E - 245244.00N 0504738.00E - 245534.00N 0504543.00E - 245631.00N 0504438.00E - 245927.00N 0504329.00E - 250243.00N 0504239.00E - 250516.00N 0504101.00E - 250758.00N 0503951.00E - 251153.00N 0503940.00E - 251355.00N 0503918.00E - 251522.00N 0503848.00E - 251849.00N 0503855.00E - 252144.00N 0503818.00E - 252336.00N 0503741.00E - 252510.00N 0503716.00E - 252828.00N 0503653.00E - 253111.00N 0503544.00E - 253543.98N 0503147.55E - 254057.00N 0502607.75E - 254227.58N 0502503.18E - 254908.47N 0502200.71E - 255301.53N 0501806.62E - 255709.25N 0501735.44E - 260450.10N 0501610.65E - 261018.28N 0501852.34E - 261514.69N 0501907.80E - 262217.45N 0502026.57E - 262423.93N 0502218.51E - 263148.00N 0502315.00E - 263420.00N 0502759.00E - 265234.00N 0500855.00E - 275000.00N 0490800.00E Below FL 150 / SFC except CTR / TMA Class of Airspace C at and above 4500 FT and below FL150 Class of Airspace G below 4500 FT	BAHRAIN ACC			

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/ Purpose	Remarks
1	2	3	4	5
NORTH LOW SECTOR 271557.30N 0504650.00E - 270757.00N 0503655.32E - 270838.05N 0495202.00E - 275000.00N 0490800.00E - 281500.00N 0485200.00E - 284400.00N 0494000.00E - 271557.30N 0504650.00E	BAHRAIN ACC	BAHRAIN NORTH LOW English H24	126.700 MHZ	SFC to below FL325
NORTH HIGH SECTOR 271557.30N 0504650.00E - 270757.00N 0503655.32E - 270838.05N 0495202.00E - 275000.00N 0490800.00E - 281500.00N 0485200.00E - 284400.00N 0494000.00E - 271557.30N 0504650.00E	BAHRAIN ACC	BAHRAIN NORTH HIGH English H24	127.575 MHZ	FL325 and above
CENTRAL LOW SECTOR 271557.30N 0504650.00E - 270500.00N 0505500.00E - 265810.49N 0510515.00E - 264804.00N 0510117.00E - 261515.06N 0511652.11E - 255856.00N 0515024.00E - 252055.00N 0514100.00E - 253111.00N 0503544.00E - 253544.00N 0503147.55E - 254057.00N 0502608.00E - 254227.58N 0502503.18E - 254908.47N 0502201.00E - 255301.53N 0501807.00E - 255709.25N 0501735.44E - 260450.10N 0501611.00E - 261018.28N 0501852.34E - 261515.00N 0501908.00E - 262217.45N 0502026.57E - 262424.00N 0502218.51E - 263148.00N 0502315.00E - 263420.00N 0502759.00E - 265234.00N 0500855.00E - 270838.05N 0495202.00E - 270757.00N 0503655.32E - 271557.30N 0504650.00E	BAHRAIN ACC	BAHRAIN CENTRAL LOW English H24	124.300 MHZ	FL335 and below

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/ Purpose	Remarks
1	2	3	4	5
CENTRAL HIGH SECTOR 271557.30N 0504650.00E - 270500.00N 0505500.00E - 265810.49N 0510515.00E - 264804.00N 0510117.00E - 261515.06N 0511652.11E - 255856.00N 0515024.00E - 252055.00N 0514100.00E - 253111.00N 0503544.00E - 253544.00N 0503147.55E - 254057.00N 0502608.00E - 254227.58N 0502503.18E - 254908.47N 0502201.00E - 255301.53N 0501807.00E - 255709.25N 0501735.44E - 260450.10N 0501611.00E - 261018.28N 0501852.34E - 261515.00N 0501908.00E - 262217.45N 0502026.57E - 262424.00N 0502218.51E - 263148.00N 0502315.00E - 263420.00N 0502759.00E - 265234.00N 0500855.00E - 270838.05N 0495202.00E - 270757.00N 0503655.32E - 271557.30N 0504650.00E	BAHRAIN ACC	BAHRAIN CENTRAL HIGH English H24	127.525 MHZ	FL335 and above
EAST HIGH SECTOR 265810.49N 0510515.00E - 265500.00N 0511000.00E - 260400.00N 0535700.00E - 254900.00N 0530600.00E - 253815.20N 0525751.54E - 255540.00N 0522010.29E - 255856.00N 0515024.18E - 261515.06N 0511652.11E - 264804.00N 0510117.00E - 265810.49N 0510515.00E	BAHRAIN ACC	BAHRAIN EAST HIGH English H24	132.125 MHZ	East High is defined as a portion of the East Sector above FL295, north of the line: 265811N 0510515E, 264804N 0510117E, 261517N 0511659E, 255856N 0515024E, 255540N 0522010E, 253815N 0525752E,

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/ Purpose	Remarks
1	2	3	4	5
EAST LOW SECTOR 253815.20N 0525751.54E - 240300.00N 0514700.00E - 235816.00N 0514308.00E - 240724.00N 0513526.00E - 241458.00N 0513526.00E - 244247.00N 0513422.00E - 243817.00N 0512608.00E - 243747.00N 0512421.00E - 243731.00N 0512406.00E - 243549.00N 0512449.00E - 243116.00N 0512154.00E - 242907.00N 0511849.00E - 242816.00N 0510555.00E - 243000.00N 0510000.00E - 243243.00N 0505544.00E - 244024.00N 0505134.00E - 244440.00N 0504842.00E - 244543.00N 0504828.00E - 244653.00N 0504828.00E - 244927.00N 0504804.00E - 245244.00N 0504738.00E - 245534.00N 0504543.00E - 245631.00N 0504438.00E - 245927.00N 0504329.00E - 250243.00N 0504239.00E - 250516.00N 0504101.00E - 250758.00N 0503951.00E - 251153.00N 0503940.00E - 251355.00N 0503918.00E - 251522.00N 0503848.00E - 251849.00N 0503855.00E - 252144.00N 0503818.00E - 252336.00N 0503741.00E - 252510.00N 0503716.00E - 252828.00N 0503653.00E - 253111.00N 0503544.00E - 252055.00N 0514100.00E - 255856.00N 0515024.00E - 255540.00N 0522010.29E - 253815.00N 0525751.00E	BAHRAIN ACC	BAHRAIN EAST LOW English H24	132.850 MHZ	Except Portion Underline East High:- 265811N 0510515E, 264804N 0510117E, 261517N 0511659E, 255856N 0515024E, 255540N 0522010E, 253815N 0525752E, Below FL295

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/ Purpose	Remarks
1	2	3	4	5
BAHRAIN UIR 281500.00N 0485200.00E - 284400.00N 0494000.00E - 270500.00N 0505500.00E - 265500.00N 0511000.00E - 260400.00N 0535700.00E - 254900.00N 0530600.00E - 240300.00N 0514700.00E - 235816.00N 0514308.00E - 240724.00N 0513526.00E - 241458.00N 0513526.00E - 244247.00N 0513422.00E - 243817.00N 0512608.00E - 243747.00N 0512421.00E - 243731.00N 0512406.00E - 243549.00N 0512449.00E - 243116.00N 0512154.00E - 242907.00N 0511849.00E - 242816.00N 0510555.00E - 243000.00N 0510000.00E - 243243.00N 0505544.00E - 244024.00N 0505134.00E - 244440.00N 0504842.00E - 244543.00N 0504828.00E - 244653.00N 0504828.00E - 244927.00N 0504804.00E - 245244.00N 0504738.00E - 245534.00N 0504543.00E - 245631.00N 0504438.00E - 245927.00N 0504329.00E - 250243.00N 0504239.00E - 250516.00N 0504101.00E - 250758.00N 0503951.00E - 251153.00N 0503940.00E - 251355.00N 0503918.00E - 251522.00N 0503848.00E - 251849.00N 0503855.00E - 252144.00N 0503818.00E - 252336.00N 0503741.00E - 252510.00N 0503716.00E - 252828.00N 0503653.00E - 253111.00N 0503544.00E - 253543.98N 0503147.55E - 254057.00N 0502607.75E - 254227.58N 0502503.18E - 254908.47N 0502200.71E - 255301.53N 0501806.62E - 255709.25N 0501735.44E - 260450.10N 0501610.65E - 261018.28N 0501852.34E - 261514.69N 0501907.80E - 262217.45N 0502026.57E - 262423.93N 0502218.51E - 263148.00N 0502315.00E - 263420.00N 0502759.00E - 265234.00N 0500855.00E - 275000.00N 0490800.00E UNL FL150 Class of Airspace A, FL 150 / FL 460 Class of Airspace; G, above FL 460	BAHRAIN ACC			RVSM rules apply between FL 290 - FL 410 inclusive ALL AIRCRAFT INBOUND TO OBBB FIR FROM OIIX FIR ARE REQUIRED TO CONTACT OBBB ATC FIVE MINUTES BEFORE FIR BOUNDARY ESTIMATE. KUVER AT AND ABOVE FL330 CONTACT FREQ 127.575 MHZ. KUVER AT AND BELOW FL320 CONTACT FREQ 126.700 MHZ, ALSER FL240 AND BELOW CONTACT FREQ 126.700 MHZ, ALSER FL250 UP TO FL330 CONTACT FREQ 124.300 MHZ. ALSER FL340 AND ABOVE CONTACT 127.525 MHZ. MIDSI FL290 AND BELOW CONTACT FREQ 132.850 MHZ. MIDSI FL310 AND ABOVE CONTACT FREQ 132.125 MHZ.

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/ Purpose	Remarks
1	2	3	4	5
NORTH LOW SECTOR 271557.30N 0504650.00E - 270757.00N 0503655.32E - 270838.05N 0495202.00E - 275000.00N 0490800.00E - 281500.00N 0485200.00E - 284400.00N 0494000.00E - 271557.30N 0504650.00E	BAHRAIN ACC	BAHRAIN NORTH LOW English H24	126.700 MHZ	SFC to below FL325
NORTH HIGH SECTOR 271557.30N 0504650.00E - 270757.00N 0503655.32E - 270838.05N 0495202.00E - 275000.00N 0490800.00E - 281500.00N 0485200.00E - 284400.00N 0494000.00E - 271557.30N 0504650.00E	BAHRAIN ACC	BAHRAIN NORTH HIGH English H24	127.575 MHZ	FL325 and above
CENTRAL HIGH SECTOR 271557.30N 0504650.00E - 270500.00N 0505500.00E - 265810.49N 0510515.00E - 264804.00N 0510117.00E - 261515.06N 0511652.11E - 255856.00N 0515024.00E - 252055.00N 0514100.00E - 253111.00N 0503544.00E - 253544.00N 0503147.55E - 254057.00N 0502608.00E - 254227.58N 0502503.18E - 254908.47N 0502201.00E - 255301.53N 0501807.00E - 255709.25N 0501735.44E - 260450.10N 0501611.00E - 261018.28N 0501852.34E - 261515.00N 0501908.00E - 262217.45N 0502026.57E - 262424.00N 0502218.51E - 263148.00N 0502315.00E - 263420.00N 0502759.00E - 265234.00N 0500855.00E - 270838.05N 0495202.00E - 270757.00N 0503655.32E - 271557.30N 0504650.00E	BAHRAIN ACC	BAHRAIN CENTRAL HIGH English H24	127.525 MHZ	FL335 and above

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/ Purpose	Remarks
1	2	3	4	5
CENTRAL LOW SECTOR 271557.30N 0504650.00E - 270500.00N 0505500.00E - 265810.49N 0510515.00E - 264804.00N 0510117.00E - 261515.06N 0511652.11E - 255856.00N 0515024.00E - 252055.00N 0514100.00E - 253111.00N 0503544.00E - 253544.00N 0503147.55E - 254057.00N 0502608.00E - 254227.58N 0502503.18E - 254908.47N 0502201.00E - 255301.53N 0501807.00E - 255709.25N 0501735.44E - 260450.10N 0501611.00E - 261018.28N 0501852.34E - 261515.00N 0501908.00E - 262217.45N 0502026.57E - 262424.00N 0502218.51E - 263148.00N 0502315.00E - 263420.00N 0502759.00E - 265234.00N 0500855.00E - 270838.05N 0495202.00E - 270757.00N 0503655.32E - 271557.30N 0504650.00E	BAHRAIN ACC	BAHRAIN CENTRAL LOW English H24	124.300 MHZ	FL335 and below
EAST HIGH SECTOR 265810.49N 0510515.00E - 265500.00N 0511000.00E - 260400.00N 0535700.00E - 254900.00N 0530600.00E - 253815.20N 0525751.54E - 255540.00N 0522010.29E - 255856.00N 0515024.18E - 261515.06N 0511652.11E - 264804.00N 0510117.00E - 265810.49N 0510515.00E	BAHRAIN ACC	BAHRAIN EAST HIGH English H24	132.125 MHZ	East High is defined as a portion of the East Sector above FL295, north of the line: 265811N 0510515E, 264804N 0510117E, 261517N 0511659E, 255856N 0515024E, 255540N 0522010E, 253815N 0525752E,

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/ Purpose	Remarks
1	2	3	4	5
EAST LOW SECTOR 253815.20N 0525751.54E - 240300.00N 0514700.00E - 235816.00N 0514308.00E - 240724.00N 0513526.00E - 241458.00N 0513526.00E - 244247.00N 0513422.00E - 243817.00N 0512608.00E - 243747.00N 0512421.00E - 243731.00N 0512406.00E - 243549.00N 0512449.00E - 243116.00N 0512154.00E - 242907.00N 0511849.00E - 242816.00N 0510555.00E - 243000.00N 0510000.00E - 243243.00N 0505544.00E - 244024.00N 0505134.00E - 244440.00N 0504842.00E - 244543.00N 0504828.00E - 244653.00N 0504828.00E - 244927.00N 0504804.00E - 245244.00N 0504738.00E - 245534.00N 0504543.00E - 245631.00N 0504438.00E - 245927.00N 0504329.00E - 250243.00N 0504239.00E - 250516.00N 0504101.00E - 250758.00N 0503951.00E - 251153.00N 0503940.00E - 251355.00N 0503918.00E - 251522.00N 0503848.00E - 251849.00N 0503855.00E - 252144.00N 0503818.00E - 252336.00N 0503741.00E - 252510.00N 0503716.00E - 252828.00N 0503653.00E - 253111.00N 0503544.00E - 252055.00N 0514100.00E - 255856.00N 0515024.00E - 255540.00N 0522010.29E - 253815.00N 0525751.00E	BAHRAIN ACC	BAHRAIN EAST LOW English H24	132.850 MHZ	Except Portion Underline East High: 265811N 0510515E, 264804N 0510117E, 261517N 0511659E, 255856N 0515024E, 255540N 0522010E, 253815N 0525752E, Below FL295

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/ Purpose	Remarks
1	2	3	4	5
BAHRAIN TMA 265644.00N 0500434.00E - 265553.00N 0504134.00E Clockwise arc radius 40 NM centered at 261529.93N 0503919.18E (BHR DVOR) - 260838.00N 0512245.00E - 261706.56N 0510440.74E - 253643.00N 0504847.00E - 251546.00N 0503852.00E - 251849.00N 0503855.00E - 252144.00N 0503818.00E - 252336.00N 0503741.00E - 252510.00N 0503716.00E - 252828.00N 0503653.00E - 253111.00N 0503544.00E - 253543.98N 0503147.55E - 254057.00N 0502607.75E - 254227.58N 0502503.18E - 254908.47N 0502200.71E - 255301.53N 0501806.62E - 255709.25N 0501735.44E - 260450.10N 0501610.65E - 261018.28N 0501852.34E - 261514.69N 0501907.80E - 262217.45N 0502026.57E - 262423.93N 0502218.51E - 263148.00N 0502315.00E - 263420.00N 0502759.00E FL170 1000 FT GND Class A FL 150 and above Class C at and above 4500 FT and below FL 150 Class D above 1000 FT and below 4500 FT	BAHRAIN APP	BAHRAIN APPROACH English H24	127.850 MHZ 119.100 MHZ 234.950 MHZ Alternate frequency	ALL FLIGHTS OPERATING WI OBBB FIR ARE REQUESTED TO ADHERE TO THE FOLLOWING:- THE WORD (HEAVY) OR (SUPER) SHALL BE USED IN ALL COMMUNICATION CALLS BETWEEN SUCH AIRCRAFT AND BAHRAIN APPROCACH OR BAHRAIN TOWER.
DOHA TMA 261703.00N 0510442.00E - 252722.11N 0524938.29E - 244749.83N 0522003.45E - 244249.43N 0514206.47E - 243855.53N 0513851.31E - 243012.49N 0513647.35E - 242536.38N 0513459.98E - 242523.02N 0505905.53E - 244500.00N 0504900.00E - 251546.16N 0503852.56E - 253954.00N 0505018.00E - 261703.00N 0510442.00E FL245 4500 FT Class of Airspace: Class A - FL150 and above, Class C - below FL150.	DOHA APP	DOHA RADAR (English) H24	121.100 MHZ TMA	Refer to Qatar AIP.

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/ Purpose	Remarks
1	2	3	4	5
BAHRAIN CTA 281500.00N 0485200.00E - 284400.00N 0494000.00E - 270500.00N 0505500.00E - 265500.00N 0511000.00E - 260400.00N 0535700.00E - 254900.00N 0530600.00E - 240300.00N 0514700.00E - 235816.00N 0514308.00E - 240724.00N 0513526.00E - 241458.00N 0513526.00E - 244247.00N 0513422.00E - 243817.00N 0512608.00E - 243747.00N 0512421.00E - 243731.00N 0512406.00E - 243549.00N 0512449.00E - 243116.00N 0512154.00E - 242907.00N 0511849.00E - 242816.00N 0510555.00E - 243000.00N 0510000.00E - 243243.00N 0505544.00E - 244024.00N 0505134.00E - 244440.00N 0504842.00E - 244543.00N 0504828.00E - 244653.00N 0504828.00E - 244927.00N 0504804.00E - 245244.00N 0504738.00E - 245534.00N 0504543.00E - 245631.00N 0504438.00E - 245927.00N 0504329.00E - 250243.00N 0504239.00E - 250516.00N 0504101.00E - 250758.00N 0503951.00E - 251153.00N 0503940.00E - 251355.00N 0503918.00E - 251522.00N 0503848.00E - 251849.00N 0503855.00E - 252144.00N 0503818.00E - 252336.00N 0503741.00E - 252510.00N 0503716.00E - 252828.00N 0503653.00E - 253111.00N 0503544.00E - 253543.98N 0503147.55E - 254057.00N 0502607.75E - 254227.58N 0502503.18E - 254908.47N 0502200.71E - 255301.53N 0501806.62E - 255709.25N 0501735.44E - 260450.10N 0501610.65E - 261018.28N 0501852.34E - 261514.69N 0501907.80E - 262217.45N 0502026.57E - 262423.93N 0502218.51E - 263148.00N 0502315.00E - 263420.00N 0502759.00E - 265234.00N 0500855.00E - 275000.00N 0490800.00E FL460 FL150 Class of airspace: A	BAHRAIN ACC			For Call sign and frequency see Sector description.

ENR 2.2 OTHER REGULATED AIRSPACE

2.2.1 KINGDOM OF BAHRAIN

2.2.1.1 See AD 2.24 chart list. Also see **AD 1.1** for civil use and AD 2.17 for ATS airspace.

2.2.1.2 RBAF authorities are responsible for Air Traffic Services within Bahrain territorial airspace East of Jeddah FIR, West of Doha TMA and south of line:- 255405N 0505543E - 260457N 0503655E - 260457N 0501615E.

This line is commonly referred to as referred to as "OBSOBI" line.

INTENTIONALLY BLANK

ENR 3. ATS ROUTES

ENR 3.1 LOWER ATS ROUTES

Note: All ATS Routes in Bahrain FIR are RNAV 1, See joint listing in **ENR 3.3**

INTENTIONALLY BLANK

ENR 3.2 UPPER ATS ROUTES

NIL

INTENTIONALLY BLANK

ENR 3.3 AREA NAVIGATION (RNAV) ROUTES

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit Airspace classification Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
A453 **(RNAV 1)**						AVBL FOR OBBB FIR AP OR E OEJD AP DEP DEST OKAC AP. REFER TO SRD SUP FOR DETAILS. AVBL FOR OIIX FIR TFC TRANSITING TO OEJD FIR. REFER TO SRD SUP FOR DETAILS.
▲ MIDSI (FIR BDRY) 264142N 0515442E	226° 12.0 NM	FL 460 4 500 FT MSL	1	↓		OIIX / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ BOTOB 263350N 0514505E	225° 17.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ SOLOB 262241N 0513132E	260° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ TOBLI 262134N 0512301E	260° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ SOGAT 262029N 0511443E	260° 4.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ RIKET 261952N 0510954E	260° 12.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ ASTAD 261812N 0505646E	260° 16.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ BAHRAIN DVORDME (BHR)						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
261530N 0503919E	337° 9.0 NM	FL 460 / 4 500 FT MSL	1		↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ ELOSO						
262409N 0503551E	339° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ DESBU						
263240N 0503241E	339° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ EGMOR						
264211N 0502907E	315° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ LOTOR						
264854N 0502200E	314° 19.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ RAMSI						
270249N 0500714E	308° 40.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW
▲ ORNAK						
272854N 0493248E	319° 30.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW
▲ SOLEM						
275229N 0491136E	328° 28.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW
△ KUMBO (FIR BDRY)						
281705N 0485526E						OBBB / OKAC FIR BDRY REFER TO KUWAIT AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd	Direction of cruising levels: Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
B415 **(RNAV 1)** DOHA/HAMAD INTL DVORDME (DOH)						RESTRICTED USE. REFER TO SRD SUP FOR DETAILS.
▲ 251500N 0513635E	105° 285° 33.6 NM	FL 460 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
KUPSA ▲ 250445N 0521151E	103° 283° 16.5 NM				↑	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
BUNDU (FIR BDRY) ▲ 250024N 0522924E						OBBB / OMAE FIR BDRY REFER TO UAE AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit Lower limit Airspace classification Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd / Even	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
B416 **(RNAV 1)**					
					AVBL FOR OKAC FIR TFC TRANSITING TO OIIX FIR AT OR BLW FL250. REFER TO SRD SUP FOR DETAILS.
△ AMBIK (FIR BDRY) 283222N 0492025E	116° 46.0 NM	FL 250 4 500 FT MSL	1	↓	OKAC / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 126.700
▲ KUVER (FIR BDRY) 280924N 0500600E					OBBB / OIII FIR BDRY REFER TO IRAN AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit Airspace classification Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
B419 **(RNAV 1)**						AVBL FOR E OEJD AP DEP TFC TO OKAC FIR. REFER TO SRD SUP FOR DETAILS. WHEN INDICATED BY NOTAM ONLY, AVBL FOR E OEJD AP DEP TFC TO OIIX FIR VIA ROTOX. REFER TO SRD SUP FOR DETAILS.
▲ METLA (FIR BDRY) 265645N 0500433E	019° 7.0 NM	FL 460 4 500 FT MSL	1	↓		OBBB / OEJD FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ RAMSI 270249N 0500714E						BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels (Odd / Even)	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
B457 **(RNAV 1)**					
					AVBL FOR OBBB FIR AP DEP TO OEJD FIR OR OTHH, OTBD DEP TFC LDG OKAC FIR. REFER TO SRD SUP FOR DETAILS.
▲ EMISA					
▲ 254658N 0514207E	296° 116° 24.0 NM	FL 460 4 500 FT MSL	1	↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 MSL CLASS C FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL250 - FL330)
▲ PATOM					
▲ 255821N 0511836E	296° 116° 13.7 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 MSL CLASS C FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL250 - FL330)
▲ DENVO					
▲ 260452N 0510509E	292° 112° 4.4 NM			↑	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 MSL CLASS C FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL250 - FL330)
▲ TULUB					
▲ 260644N 0510041E	292° 21.0 NM			↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ BAHRAIN DVORDME (BHR)					
▲ 261530N 0503919E	276° 17.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ NARMI (FIR BDRY)					
▲ 261802N 0501939E					OBBB / OEJD FIR BDRY REFER TO SAUDI AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit Airspace classification Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
G663 **(RNAV 1)**						AVBL FOR OIIX FIR TFC LDG BAH TMA AP OR E OEJD AP. REFER TO SRD SUP FOR DETAILS. AVBL FOR OIXX FIR TFC TRANSITING TO OEJD FIR. REFER TO SRD SUP FOR DETAILS.
ALSER (FIR BDRY) 271100N 0504900E	225° 3.0 NM	FL 460 4 500 FT MSL	1	↓		OBBB / OIIX FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL255) FREQ: 126.700 (FL250 BLW)
VEDOR 270855N 0504630E	226° 7.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL255) FREQ: 126.700 (FL250 BLW)
GETAL 270410N 0504040E	226° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL255) FREQ: 126.700 (FL250 BLW)
KOBOK 265839N 0503349E	226° 5.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL255) FREQ: 126.700 (FL250 BLW)
TOLMO 265504N 0502927E	224° 4.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
RAKAK 265221N 0502618E	226° 5.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
LOTOR 264854N 0502200E	234° 6.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
ULADA (FIR BDRY) 264527N 0501624E						OBBB / OEJD FIR BDRY REFER TO SAUDI AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L305 **(RNAV 1)**						
DOHA/HAMAD INTL DVORDME (DOH)						RESTRICTED USE. REFER TO SRD SUP FOR DETAILS.
▲ 251500N 0513635E	076° 41.9 NM	FL 460 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 MSL CLASS C FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP FREQ: 132.850 (FL250 ABV)
ORMAL						
▲ 252304N 0522201E	076° 3.7 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 MSL CLASS C FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP FREQ: 132.850 (FL250 ABV)
ENANO						
▲ 252348N 0522559E	076° 16.1 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 MSL CLASS C FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP FREQ: 132.850 (FL250 ABV)
ALSEM						
▲ 252703N 0524322E	076° 6.5 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 MSL CLASS C FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP FREQ: 132.850 (FL250 ABV)
ASTOG (FIR BDRY)						
▲ 252822N 0525025E						OBBB / OMAE FIR BDRY REFER TO UAE AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L319 **(RNAV 1)**						AVBL FOR OEJD FIR TFC TRANSITING TO OIIX FIR VIA OBTAR. MAX FL230. REFER TO SRD SUP FOR DETAILS. AVAILABLE FOR BAH TMA AP DEP OR E OEJD AP DEP TO OIIX FIR VIA OBTAR. REFER TO SRD SUP FOR DETAILS.
▲ BAHRAIN DVORDME (BHR) 261530N 0503919E	023° 38.0 NM	FL 460 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 124.300 (FL175 ABV) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ DAVRI 264936N 0505732E	025° 11.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 124.300 (FL175 ABV) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ OBTAR (FIR BDRY) 265934N 0510309E						OBBB / OIIX FIR BDRY REFER TO OIIX AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd	Direction of cruising levels: Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L564 **(RNAV 1)**						
DOHA/HAMAD INTL DVORDME (DOH)						RESTRICTED USE. REFER TO SRD SUP FOR DETAILS. FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP.
▲ 251500N 0513635E	176° 356° 19.2 NM	FL 460 4 500 FT MSL	1	↓	↑	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
▲ LADEM 245545N 0513714E	190° 010° 5.0 NM			↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
▲ EMEXA 245052N 0513604E	190° 010° 8.4 NM			↑		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
▲ DATRI (FIR BDRY) 244239N 0513407E						OBBB / OEJD FIR BDRY

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit; Airspace classification; Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels (Odd / Even)	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
L602 **(RNAV 1)**					AVAILABLE FOR OMAE FIR TFC OR OTBH DEP TFC TO OVERFLY OKAC FIR. REFER TO SRD SUP FOR DETAILS. MANDATORY X ALTOM IN LVL FLT.
TUMAK (FIR BDRY) 255031N 0531108E	292° 26.0 NM	FL 460 4 500 FT MSL	1	↓	OBBB / OMAE FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
VEDOM 260109N 0524456E	294° 13.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
ORLUP 260651N 0523216E	294° 14.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
VELAK 261307N 0521821E	294° 13.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
LABOP 261907N 0520429E	294° 8.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
ALTOM 262230N 0515639E	289° 6.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
BOPOV 262430N 0515043E	288° 12.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
ALMOK 262832N 0513840E	288° 20.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
GITBO					

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
263527N 0511750E	287° 16.0 NM	FL 460 / 4 500 FT MSL	1		↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ VEDOS						
264106N 0510045E	287° 21.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ MOGAS						
264800N 0503909E	307° 11.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ TOLMO						
265504N 0502927E	311° 11.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ EGLIT						
270256N 0502006E	311° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ TOKMA						
270939N 0501159E	322° 15.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ORSOL						
272135N 0500208E	320° 32.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ITNAS						
274644N 0493957E	320° 19.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ DAMUR						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels (Odd / Even)	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
280137N 0492638E	319° 18.0 NM	FL 460 / 4 500 FT MSL	1	↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ITEVO 281558N 0491332E	319° 10.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ DAVUS (FIR BDRY) 282346N 0490622E					OBBB / OKAC FIR BDRY REFER TO KUWAIT AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L703 **(RNAV 1)**						AVBL FOR OKAC FIR TFC LDG OBBB FIR AP OR E OEJD AP. REFER TO SRD SUP FOR DETAILS. AVBL FOR OKAC FIR STATE ACFT LDG OR OVERFLYING OMAE FIR REQ TO REMAIN OVER INTL WATERS. REFER TO SRD SUP FOR DETAILS.
▲ LONOS (FIR BDRY) 283027N 0491713E	135° 15.0 NM	FL 460 4 500 FT MSL	1	↓		OKAC / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ LOPOL 281850N 0492845E	136° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ GEPUT 281307N 0493423E	139° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ GODRI 280257N 0494308E	142° 17.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ GOGRA 274918N 0495344E	142° 27.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ OBNAX 272651N 0501103E	142° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ DEKTA						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
271605N 0501946E	142° 17.0 NM	FL 460 / 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ VELOG						
270215N 0503056E	142° 4.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ KOBOK						
265839N 0503349E	137° 50.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ RIKET						
261952N 0510954E	137° 20.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ RASDI						
260425N 0512407E						BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L721 **(RNAV 1)**						AVBL FOR OIIX FIR TFC LDG DOH TMA AP. REFER TO SRD SUP FOR DETAILS.
ELIDU (FIR BDRY)						
▲ 262424N 0525133E	222° 4.0 NM	FL 460 4 500 FT MSL	1	↓		OIIX / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
UKNEP						
▲ 262127N 0524818E	222° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
UKUBU						
▲ 261428N 0524039E	222° 11.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
ORLUP						
▲ 260651N 0523216E	222° 11.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
ITMUB						
▲ 255919N 0522402E	222° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
ALKAN						
▲ 255214N 0521615E	225° 8.3 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
SENKI						
▲ 254637N 0520928E	223° 17.7 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
LABOV						
▲ 253411N 0515521E	229° 7.5 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
BAYAN						
▲ 252926N 0514849E						BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels (Odd / Even)	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
L768 **(RNAV 1)**					AVBL FOR OMAE FIR TFC OR OIIX FIR TFC TRANSITING TO OEJD FIR EXC TFC LDG E OEJD AP. REFER TO SRD SUP FOR DETAILS. OMAE FIR AP DEP TFC MANDATORY X RAMKI IN LVL FLT. ULADA MIN FL300.
ALPOB (FIR BDRY) 254218N 0530055E	296° 25.0 NM	FL 460 4 500 FT MSL	1	↓	OMAE / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
ROTAG 255353N 0523621E	294° 12.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
ITMUB 255919N 0522402E	294° 25.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
MODOG 261012N 0515935E	294° 3.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
RAMKI 261138N 0515625E	294° 8.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
RABLA 261506N 0514834E	294° 17.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
SOLOB					

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd / Even	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
262241N 0513132E	287° 9.0 NM	FL 460 / 4 500 FT MSL	1	↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
ALREP					
262541N 0512209E	287° 6.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
ORDIG					
262738N 0511603E	287° 20.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
MEDMA					
263421N 0505454E	286° 13.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
OBMON					
263832N 0504125E	285° 12.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
EGMOR					
264211N 0502907E	284° 12.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
ULADA (FIR BDRY)					
264527N 0501624E					OBBB / OEJD FIR BDRY REFER TO SAUDI AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit Airspace classification Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
L934 **(RNAV 1)**						AVBL FOR OTHH, OTBD AP DEP TO OVERFLY OKAC FIR. REFER TO SRD SUP FOR DETAILS. MANDATORY X ITEVO IN LVL FLT.
PATOM 255821N 0511836E	318° 21.0 NM	FL 320 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 124.300 (FL320 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
LUBET 261441N 0510347E	317° 19.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 124.300 (FL320 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
EGPUD 262904N 0505019E	317° 12.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 124.300 (FL320 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
OBMON 263832N 0504125E	317° 19.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 124.300 (FL320 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
OVUPI 265320N 0502727E	317° 21.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 124.300 (FL320 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
TOKMA						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd	Direction of cruising levels: Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
270939N 0501159E	322° 15.0 NM	FL 320 / 4 500 FT MSL	1		↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 126.700 (FL320 BLW)
▲ ORSOL						
272135N 0500208E	320° 32.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 126.700 (FL320 BLW)
▲ ITNAS						
274644N 0493957E	319° 19.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 126.700 (FL320 BLW)
▲ DAMUR						
280137N 0492638E	319° 18.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 126.700 (FL320 BLW)
▲ ITEVO						
281558N 0491332E	319° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 126.700 (FL320 BLW)
▲ DAVUS (FIR BDRY)						
282346N 0490622E						OBBB / OKAC FIR BDRY REFER TO KUWAIT AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit Airspace classification Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M430 **(RNAV 1)**						RESTRICTED USE. REFER TO SRD SUP FOR DETAILS. FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP.
▲ TOSNA (FIR BDRY) 251612N 0524116E	266° 8.8 NM	FL 460 4 500 FT MSL	1	↓		OMAE / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
▲ BOVIP 251555N 0523135E	267° 49.9 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
▲ DOHA/HAMAD INTL DVORDME (DOH) 251500N 0513635E	271° 091° 19.3 NM			↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
▲ LAGNO 251613N 0511518E	267° 087° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
▲ GINTO 251606N 0510416E	267° 087° 23.1 NM			↑		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
▲ ULIKA (FIR BDRY) 251545N 0503849E						OBBB / OEJD FIR BDRY REFER TO SAUDI AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M444 **(RNAV 1)** DOHA/HAMAD INTL DVORDME (DOH)						AVBL FOR OBBB FIR AP DEP EXC OTBH OR E OEJD AP DEP TO OVERFLY OKAC FIR. REFER TO SRD SUP FOR DETAILS. MANDATORY X EMORI IN LVL FLT.
251500N 0513635E	007° 187° 32.3 NM	FL 460 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
EMISA					↑	
254658N 0514207E	296° 116° 24.0 NM				↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
PATOM						
255821N 0511836E	296° 116° 13.7 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
DENVO						
260452N 0510509E	292° 112° 4.4 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
TULUB				↑		
260644N 0510041E	292° 21.0 NM				↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
BAHRAIN DVORDME (BHR)						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
261530N 0503919E	337° 9.0 NM	FL 460 / 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ ELOSO						
262409N 0503551E	339° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ DESBU						
263240N 0503241E	339° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ EGMOR						
264211N 0502907E	314° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ LOTOR						
264854N 0502200E	314° 19.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ RAMSI						
270249N 0500714E	319° 18.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ORDAN						
271706N 0495442E	319° 31.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ GIRSI						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd	Direction of cruising levels: Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
274126N 0493311E	318° 20.0 NM	FL 460 / 4 500 FT MSL	1		↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ENASO						
275707N 0491911E	334° 19.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ EMORI						
281434N 0491051E	333° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ DAVUS (FIR BDRY)						
282346N 0490622E						OBBB/ OKAC FIR BDRY REFER TO KUWAIT AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M600 **(RNAV 1)**						AVBL FOR OMAE FIR TFC OR OTBH DEP TFC LDG IN OKAC FIR. REFER TO SRD SUP FOR DETAILS MANDATORY X ALTOM IN LVL FLT EXP X KUMBO FL180 BLW
TUMAK (FIR BDRY) 255031N 0531108E	292° 26.0 NM	FL 460 4 500 FT MSL	1	↓		OBBB / OMAE FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
VEDOM 260109N 0524456E	294° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
ORLUP 260651N 0523216E	294° 14.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
VELAK 261307N 0521821E	294° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
LABOP 261907N 0520429E	294° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
ALTOM 262230N 0515639E	289° 6.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
BOPOV 262430N 0515043E	288° 12.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
ALMOK 262832N 0513840E	288° 20.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
GITBO						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd	Direction of cruising levels: Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
263527N 0511750E	287° 16.0 NM	FL 460 / 4 500 FT MSL	1		↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ VEDOS						
264106N 0510045E	287° 21.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ MOGAS						
264800N 0503909E	289° 12.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ RAKAK						
265221N 0502618E	300° 20.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ RAMSI						
270249N 0500714E	308° 40.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ORNAK						
272854N 0493248E	319° 30.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ SOLEM						
275229N 0491136E	328° 28.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ KUMBO (FIR BDRY)						
281705N 0485526E						OBBB / OKAC FIR BDRY REFER TO KUWAIT AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
M677 **(RNAV 1)**						AVBL FOR OKAC FIR DEP LDG OR OVERFLYING N OMAE FIR. REFER TO SRD SUP FOR DETAILS. MANDATORY X DEBGU IN LVL FLT N OMAE FIR LDG TFC ABV FL310 EXP X DEGSO FL310 BLW.
RABAP (FIR BDRY) 283625N 0492722E	119° 22.0 NM	FL 460 4 500 FT MSL	1	↓		OKAC / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
PASAK 282500N 0494847E	146° 57.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
IVIVI 273734N 0502437E	143° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
DEBGU 272648N 0503252E	143° 22.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
VEDOR 270855N 0504630E	133° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL255) FREQ: 126.700 (FL250 BLW)
TOSDA 270005N 0505629E	120° 15.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
TORBO						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
265223N 0511024E	106° 26.0 NM	FL 460 / 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ SEVNI						
264401N 0513815E	106° 15.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
◪ SOGAN						
263915N 0515408E	107° 42.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ MURUB						
262455N 0523751E	106° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ UKNEP						
262127N 0524818E	106° 30.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ DEGSO						
261054N 0531946E	112° 25.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ OBNET (FIR BDRY)						
260032N 0534514E						OBBB / OMAE FIR BDRY REFER TO UAE AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N300 **(RNAV 1)**						
DOHA/HAMAD INTL DVORDME (DOH)						RESTRICTED USE. REFER TO SRD SUP FOR DETAILS. FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP.
▲ 251500N 0513635E	098° 37.7 NM	FL 460 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
ELOBI ▲ 250753N 0521722E	097° 14.6 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
NAMLA (FIR BDRY) ▲ 250532N 0523318E						OBBB / OMAE FIR BDRY REFER TO UAE AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N318 **(RNAV 1)**						AVBL FOR OEJD FIR TFC LDG QATAR AP OR OEJD FIR TFC FL290 BLW LDG OR OVERFLYING S OMAE FIR. REFER TO SRD SUP FOR DETAILS. AVBL FOR MIL TFC FROM OKAC FIR LDG OR OVERFLYING S OMAE FIR. REFER TO SRD SUP FOR DETAILS. OEJD FIR TFC LDG QATAR AP EXP X LADNA FL310 BLW, EXP X RASDI FL250 BLW. E OEJD AP DEP LDG S OMAE FIR MAX FL250. OR LDG OOMS FIR MAX FL330. S OMAE FIR LDG TFC JOINING RTE AT RASDI FL310 ABV EXP X RESAR FL310 BLW EXC MIL EXP X RESAR FL290 BLW.
LADNA (FIR BDRY)						
▲ 262749N 0502245E	105° 12.0 NM	FL 460 4 500 FT	1	↓		OEJD / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
ELOSO						
▲ 262409N 0503551E	105° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
GOLKO						
▲ 262149N 0504404E	106° 12.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
ASTAD						
▲ 261812N 0505646E	116° 7.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
LUBET						
▲ 261441N 0510347E	116° 7.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
TOTIS						
▲ 261119N 0511027E	117° 14.1 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
RASDI						
▲						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels (Odd / Even)	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
260425N 0512407E	117° 20.3 NM	FL 460 / 4 500 FT	1	↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ VELAM					
255426N 0514347E	116° 8.7 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ VUTAN					
255016N 0515218E	113° 31.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ RESAR					
253707N 0522328E	117° 20.6 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ ALSEM					
252703N 0524322E	119° 4.5 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ OVONA (FIR BDRY)					
252443N 0524739E					OBBB / OMAE FIR BDRY REFER TO UAE AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N685 **(RNAV 1)**						AVBL FOR OEJD FIR TFC FL310 ABV LDG OR OVERFLYING S OMAE FIR. REFER TO SRD SUP FOR DETAILS. AVBL FOR BAH TMA AP DEP LDG QATAR AP OR LDG OR OVERFLYING S OMAE FIR. REFER TO SRD SUP FOR DETAILS. S OMAE FIR LDG TFC EXP X ORSIS FL310 BLW EXC MIL EXP X ORSIS FL290 BLW. BAH TMA AP DEP LDG S OMAE FIR MAX FL250 OR LDG OOMS FIR MAX FL330.
NARMI (FIR BDRY) 261802N 0501939E	096° 17.0 NM	FL 460 4 500 FT	1	↓		OEJD / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
BAHRAIN DVORDME (BHR) 261530N 0503919E	112° 21.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
TULUB 260644N 0510041E	112° 4.4 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
DENVO 260452N 0510509E	116° 13.7 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
PATOM						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels (Odd / Even)	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
255821N 0511836E	116° 24.0 NM	FL 460 / 4 500 FT	1	↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ EMISA 254658N 0514207E	117° 9.5 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ KAPAX 254218N 0515118E	120° 26.9 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ ORSIS 252801N 0521636E	114° 9.5 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ ENANO 252348N 0522559E	116° 15.8 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ TOSNA (FIR BDRY) 251612N 0524116E					OBBB / OMAE FIR BDRY REFER TO UAE AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
N697 **(RNAV 1)**						AVBL FOR BAH TMA AP DEP TO OIIX FIR OR LDG OR OVERFLYING N OMAE FIR. REFER TO SRD SUP FOR DETAILS. AVBL FOR TFC DEP OBBS, OBKH REQUIRED TO REMAIN OVER INTL WATERS IN OBBB FIR LDG OR OVERFLYING S OMAE FIR. REFER TO SRD SUP FOR DETAILS. TFC TO OIIX FIR VIA DASUT FL250, FL270, FL290 NOT AVBL. TFC FILED FL310 ABV EXP X DASUT FL300 ABV. TFC LDG OMAE FIR MAX FL250 OR TFC LDG OOMS FIR MAX FL330.
▲ NARMI (FIR BDRY) 261802N 0501939E	096° 276° 17.0 NM	FL 460 4 500 FT MSL	1	↓	↑	OEJD / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ BAHRAIN DVORDME (BHR) 261530N 0503919E	036° 8.0 NM			↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ GOLKO 262149N 0504404E	036° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ TOSTA 262746N 0504913E	036° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ MEDMA 263421N 0505454E	036° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ VEDOS						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
264106N 0510045E	036° 7.0 NM	FL 460 / 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ SODAK 264634N 0510530E	035° 7.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ TORBO 265223N 0511024E						BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
P430 **(RNAV 1)** DOHA/HAMAD INTL DVORDME (DOH)						AVBL FOR OTBH DEP TRANSITING TO ORBB FIR OR LDG OKAC AP, REFER TO SRD SUP FOR DETAILS.
▲ 251500N 0513635E	035° 215° 18.2 NM	FL 460 4 500 FT MSL	1	↓	↑	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 FL250 ABV FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
BAYAN						
▲ 252926N 0514849E	008° 13.0 NM			↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 FL250 ABV FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
KAPAX						
▲ 254218N 0515118E	004° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 FL250 ABV FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
VUTAN						
▲ 255016N 0515218E	010° 4.1 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 FL250 ABV FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
ALVEN						
▲ 255418N 0515315E	010° 7.9 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 FL250 ABV FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
BONAN						
▲ 260201N 0515505E	005° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 FL295 ABV FREQ: 132.850 FL290 BLW
RAMKI						
▲ 261138N 0515625E	359° 11.0 NM				↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 FL295 ABV FREQ: 132.850 FL290 BLW
ALTOM						
▲ 262230N 0515639E						BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 FL295 ABV FREQ: 132.850 FL290 BLW

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
P559 **(RNAV 1)**						AVBL FOR OEJD FIR TFC LDG OR OVERFLYING N OMAE FIR. AVBL FOR OEJD FIR OR OKAC FIR STATE ACFT LDG OR OVERFLYING OMAE FIR REQ TO REMAIN OVER INTL WATERS. OEJD FIR STATE ACFT JOINING VIA ROTEL MAX FL230. REFER TO SRD SUP FOR DETAILS. AVBL FOR BAH TMA AP DEP LDG OR OVERFLYING N OMAE FIR OR STATE ACFT DEP BAH TMA AP LDG OR OVERFLYING S OMAE FIREQUIRED TO REMAIN OVER INTL WATERS IN OBBB FIR. AVBL FOR E OEJD AP DEP LDG OR OVERFLYING N OMAE FIR. REFER TO SRD SUP FOR DETAILS. OBBB OR E OEJD AP DEP LDG N OMAE FIR MAX FL250, LDG OOMS FIR MAX FL330. N OMAE FIR LDG TFC ABV FL310 EXP X TOMSO FL310 BLW.
▲ DAROR (FIR BDRY) 270244N 0495815E	087° 8.0 NM	FL 460 4 500 FT MSL	1	↓		OEJD / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ RAMSI 270249N 0500714E	087° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ GASSI 270257N 0502229E	111° 11.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ KOBOK 265839N 0503349E	110° 15.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ DEBEN						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
265254N 0504856E	110° 8.0 NM	FL 460 / 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
DAVRI						
264936N 0505732E	111° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
SODAK						
264634N 0510530E	108° 20.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
DANOB						
263946N 0512640E	108° 18.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
BOTOB						
263350N 0514505E	108° 7.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
ROSAN						
263129N 0515220E	108° 15.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
KUMLA						
262609N 0520822E	108° 14.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
ASPAK						
262115N 0522257E	110° 17.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
UKUBU						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels (Odd / Even)	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
261428N 0524039E	110° 21.0 NM	FL 460 / 4 500 FT MSL	1	↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
TOMSO					
260611N 0530214E	110° 27.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
NALPO (FIR BDRY)					
255602N 0532945E					OBBB / OMAE FIR BDRY REFER TO UAE AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateralli mits(NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
P693 **(RNAV 1)**						ROUTE AVAILABLE BY NOTAM ONLY
▲ DEMTA (FIR BDRY) 241926N 0513533E	048° 228° 63.8 NM	FL 460 FL 195	1	↓		OEJD / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ BUNDU (FIR BDRY) 250024N 0522924E					↑	OBBB / OMAE FIR BDRY

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
P699 **(RNAV 1)**						ROUTE NOT AVBL UFN
ORMID (FIR BDRY) 253354N 0525434E	296° 25.0 NM	FL 460 4 500 FT MSL	1	↓		OMAE / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
DASLO 254537N 0523029E	295° 14.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
ALKAN 255214N 0521615E	295° 21.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
BONAN 260201N 0515505E	295° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
VEDED 260558N 0514628E	295° 23.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
KUNDO 261631N 0512325E	295° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
SOGAT 262029N 0511443E	260° 4.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
RIKET						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
261952N 0510954E	260° 12.0 NM	FL 460 / 4 500 FT MSL	1		↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ ASTAD 261812N 0505646E	260° 16.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ BAHRAIN DVORDME (BHR) 261530N 0503919E	276° 17.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ NARMI (FIR BDRY) 261802N 0501939E						OBBB / OEJD FIR BDRY REFER TO SAUDI AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit Airspace classification Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
P708 **(RNAV 1)**						AVBL FOR OKAC FIR TFC LDG OR OVERFLYING S OMAE FIR. REFER TO SRD SUP FOR DETAILS. OKAC FIR DEP EXP X REVAX IN LVL FLT. S OMAE FIR LDG TFC ABV FL310 EXP X RESAR FL310 BLW EXC MIL EXP X RESAR FL290 BLW.
▲ LONOS (FIR BDRY) 283027N 0491713E	120° 31.0 NM	FL 460 4 500 FT MSL	1	↓		OKAC / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ORGEL 281312N 0494614E	142° 51.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ DATEN 273118N 0501832E	143° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ REVAX 272026N 0502651E	140° 20.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ GETAL 270410N 0504040E	144° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ DEBEN 265254N 0504856E	144° 57.7 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ RASDI						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels (Odd / Even)	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
260425N 0512407E	117° 20.3 NM	FL 460 / 4 500 FT MSL	1	↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ VELAM 255426N 0514347E	116° 8.7 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ VUTAN 255016N 0515218E	113° 31.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ RESAR 253707N 0522328E	117° 20.6 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ ALSEM 252703N 0524322E	119° 4.5 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ OVONA (FIR BDRY) 252443N 0524739E					OBBB / OMAE FIR BDRY REFER TO UAE AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
P899 **(RNAV 1)**						RESTRICTED USE. REFER TO SRD SUP FOR DETAILS
▲ MEKMA (FIR BDRY) 245430N 0522506E	308° 15.8 NM	FL 460 4 500 FT MSL	1		↓	OBBB / OMAE FIR BDRY
▲ KUPSA 250445N 0521151E						BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit Airspace classification Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
R659 **(RNAV 1)** DOHA/HAMAD INTL DVORDME (DOH)						AVBL FOR OEJD FIR OR OKAC FIR TFC LDG OTBH (JOIN AT VELAM) OR OIIX FIR TFC LDG QATAR AP. REFER TO SRD SUP FOR DETAILS.
▲ 251500N 0513635E	007° 187° 32.3 NM	FL 460 4 500 FT MSL	1	↓	↑	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ EMISA 254658N 0514207E	189° 7.6 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ VELAM 255426N 0514347E	190° 11.7 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ VEDED 260558N 0514628E	190° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ RABLA 261506N 0514834E	190° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ BOPOV 262430N 0515043E	190° 7.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ ROSAN 263129N 0515220E	190° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ SOGAN 263915N 0515408E	190° 2.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ MIDSI (FIR BDRY) 264142N 0515442E						OBBB / OIIX FIR BDRY

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T308 **(RNAV 1)**						AVBL FOR OEJD FIR TFC EXC E OEJD FIR DEP TO OIIX FIR VIA DASUT. REFER TO SRD SUP FOR DETAILS. FL 330 NOT AVBL AT DAROR. FL250, FL270, FL290 NOT AVBL AT DASUT.
DAROR (FIR BDRY) 270244N 0495815E	087° 8.0 NM	FL 460 4 500 FT MSL	1	↓		OEJD / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
RAMSI 270249N 0500714E	087° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
GASSI 270257N 0502229E	093° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
VELOG 270215N 0503056E	093° 23.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
TOSDA 270005N 0505629E	120° 15.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
TORBO 265223N 0511024E	106° 26.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
SEVNI						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd	Direction of cruising levels: Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
264401N 0513815E	106° 15.0 NM	FL 460 / 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ SOGAN						
263915N 0515408E	107° 42.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ MURUB						
262455N 0523751E	099° 31.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ DASUT (FIR BDRY)						
261832N 0531108E						OBBB / OIIX FIR BDRY REFER TO IRAN AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels (Odd / Even)	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
T319 **(RNAV 1)**					AVBL FOR OEJD FIR TFC EXC E OEJD FIR DEP TO OIIX FIR.
▲ DAROR (FIR BDRY) 270244N 0495815E	087° 8.0 NM	FL 460 4 500 FT MSL	1	↓	FL330 NOT AVBL AT DAROR OEJD / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ RAMSI 270249N 0500714E	087° 13.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ GASSI 270257N 0502229E	093° 8.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ VELOG 270215N 0503056E	093° 23.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ TOSDA 270005N 0505629E	093° 6.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ OBTAR (FIR BDRY) 265934N 0510309E					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C OBBB / OIIX FIR BDRY REFER TO IRAN AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd	Direction of cruising levels: Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T430 **(RNAV 1)**						AVBL FOR DOH TMA AP DEP TO OIIX FIR. REFER TO SRD SUP FOR DETAILS. MAX FL190. EXP HIGHER ALT AFTER RAGAS.
ALVEN 255418N 0515315E	010° 7.9 NM	FL 460 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
BONAN 260201N 0515505E	024° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
MODOG 261012N 0515935E	024° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
LABOP 261907N 0520429E	025° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
KUMLA 262609N 0520822E	024° 11.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
RAGAS (FIR BDRY) 263537N 0521337E						OBBB / OIIX FIR BDRY REFER TO IRAN AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T444 **(RNAV 1)**						RTE AVBL BY NOTAM ONLY. AVBL FOR BAH TMA AP DEP OR E OEJD AP DEP TO OIIX FIR VIA ROTOX. REFER TO SRD SUP FOR DETAILS. MIN FL300. MANDATORY X ROTOX IN LVL FLT.
▲ DENVO 260452N 0510509E	292° 4.4 NM	FL 460 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
▲ TULUB 260644N 0510041E	292° 21.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ BAHRAIN DVORDME (BHR) 261530N 0503919E	337° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ ELOSO 262409N 0503551E	339° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ DESBU 263240N 0503241E	339° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ EGMOR 264211N 0502907E	314° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ LOTOR						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
264854N 0502200E	314° 19.0 NM	FL 460 / 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ RAMSI						
270249N 0500714E	319° 18.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ORDAN						
271706N 0495442E	319° 31.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ GIRSI						
274126N 0493311E	341° 21.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ DAMUR						
280137N 0492638E	028° 13.0 NM			↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ GEPUT						
281307N 0493423E	028° 23.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ROTOX (FIR BDRY)						
283323N 0494809E						OBBB/ OIIX FIR BDRY REFER TO IRAN AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T557 **(RNAV 1)**						AVBL FOR OMAE FIR TFC TO OIIX FIR VIA RAGAS. REFER TO SRD SUP FOR DETAILS. FL320, FL380 NOT AVBL MANDATORY X VELAK IN LVL FLT
TUMAK (FIR BDRY) 255031N 0531108E	292° 26.0 NM	FL 460 FL 255	1	↓		OMAE / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
VEDOM 260109N 0524456E	294° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
ORLUP 260651N 0523216E	294° 14.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
VELAK 261307N 0521821E	347° 23.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
RAGAS (FIR BDRY) 263537N 0521337E						OBBB /OIIX FIR BDRY REFER TO IRAN AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T602 **(RNAV 1)**						RTE AVBL BY NOTAM ONLY AVBL FOR OMAE FIR TFC TO OIIX FIR VIA ROTOX. REFER TO SRD SUP FOR DETAILS. OMAE FIR AP DEP MANDATORY X ALTOM IN LVL FLT ROTOX MIN FL 300.
TUMAK (FIR BDRY)						
▲ 255031N 0531108E	292° 26.0 NM	FL 460 FL 255	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
VEDOM						
▲ 260109N 0524456E	294° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
ORLUP						
▲ 260651N 0523216E	294° 14.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
VELAK						
▲ 261307N 0521821E	293° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
LABOP						
▲ 261907N 0520429E	294° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
ALTOM						
▲ 262230N 0515639E	289° 6.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
BOPOV						
▲ 262430N 0515043E	288° 12.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
ALMOK						
▲						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
262832N 0513840E	288° 20.0 NM	FL 460 / FL 255	1		↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (ABV FL290) FREQ: 132.850 (FL290 BLW)
▲ GITBO						
263527N 0511750E	287° 16.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ VEDOS						
264106N 0510045E	287° 21.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ MOGAS						
264800N 0503909E	307° 11.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ TOLMO						
265504N 0502927E	311° 11.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ EGLIT						
270256N 0502006E	311° 10.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ TOKMA						
270939N 0501159E	322° 15.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ORSOL						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd	Direction of cruising levels: Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
272135N 0500208E	320° 32.0 NM	FL 460 / FL 255	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ITNAS						
274644N 0493957E	007° 16.0 NM			↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ GODRI						
280257N 0494308E	005° 31.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ROTOX (FIR BDRY)						
283323N 0494809E						OBBB / OIIX FIR BDRY REFER TO IRAN AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T800 **(RNAV 1)**						
DOHA/HAMAD INTL DVORDME (DOH)						AVBL FOR DOH TMA AP DEP TO OIIX FIR. REFER TO SRD SUP FOR DETAILS. MAX FL230. EXP HIGHER ALT AFTER DASUT.
▲ 251500N 0513635E	055° 48.2 NM	FL 460 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
VAXIN						
▲ 254043N 0522148E	047° 58.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
DASUT (FIR BDRY)						
▲ 261832N 0531108E						OBBB / OIIX FIR BDRY

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T872 **(RNAV 1)**						AVBL FOR BAH TMA AP DEP TO OIIX VIA DASUT. REFER TO SRD SUP FOR DETAILS. AVBL FOR E OEJD AP DEP TO OIIX AND LDG OR OVERFLYING N OMAE FIR. REFER TO SRD SUP FOR DETAILS. TFC VIA DASUT FL250, FL270, FL290 NOT AVBL. TFC FILED FL310 ABV EXP X DASUT FL300 ABV.
ROTEL (FIR BDRY) 264015N 0502149E	072° 7.0 NM	FL 460 4 500 FT MSL	1	↓		OEJD / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
EGMOR 264211N 0502907E	072° 26.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
DAVRI 264936N 0505732E	074° 12.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
TORBO 265223N 0511024E	106° 26.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
SEVNI 264401N 0513815E	106° 15.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
SOGAN						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels (Odd / Even)	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
263915N 0515408E	107° 42.0 NM	FL 460 / 4 500 FT MSL	1	↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ MURUB					
262455N 0523751E	099° 31.0 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ DASUT (FIR BDRY)					
261832N 0531108E					OBBB / OIIX FIR BDRY REFER TO OIIX AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
T934 **(RNAV 1)**						RTE AVBL BY NOTAM ONLY. AVBL FOR DOH TMA AP DEP TO OIXX FIR. REFER TO SRD SUP FOR DETAILS. MIN FL300. MANDATORY X ROTOX IN LVL FLT.
PATOM						
255821N 0511836E	318° 21.0 NM	FL 460 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL250) FL245 BLW DELEGATED TO DOHA APP. REFER TO QATAR AIP
LUBET						
261441N 0510347E	317° 19.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
EGPUD						
262904N 0505019E	317° 12.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
OBMON						
263832N 0504125E	317° 19.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
OVUPI						
265320N 0502727E	317° 21.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
TOKMA						
270939N 0501159E	322° 15.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
ORSOL						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd	Direction of cruising levels: Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
272135N 0500208E	320° 32.0 NM	FL 460 / 4 500 FT MSL	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ITNAS						
274644N 0493957E	007° 16.0 NM			↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ GODRI						
280257N 0494308E	005° 31.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ ROTOX (FIR BDRY)						
283323N 0494809E						OBBB / OIIX FIR BDRY REFER TO IRAN AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd	Direction of cruising levels: Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
Y604 **(RNAV 1)**						AVBL FOR OKAC FIR STATE ACFT LDG S OMAE FIR REQ TO REMAIN OVER INTL WATERS. REFER TO SRD SUP FOR DETAILS. TFC FL310 ABV EXP X DEKTA FL290 BLW. TFC FL230 BLW EXP X VEDED FL250.
LONOS (FIR BDRY)						
▲ 283027N 0491713E	135° 15.0 NM	FL 460 FL 250	1	↓		OKAC / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
LOPOL						
▲ 281850N 0492845E	136° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
GEPUT						
▲ 281307N 0493423E	139° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
GODRI						
▲ 280257N 0494308E	142° 17.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
GOGRA						
▲ 274918N 0495344E	142° 27.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
OBNAX						
▲ 272651N 0501103E	142° 13.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
DEKTA						
▲ 271605N 0501946E	142° 17.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
VELOG						
▲						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
270215N 0503056E	142° 4.0 NM	FL 460 / FL 250	1	↓		BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 127.575 (FL325 ABV) FREQ: 126.700 (FL320 BLW)
▲ KOBOK						
265839N 0503349E	110° 15.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330-FL255) FREQ: 126.700 (FL250 BLW)
▲ DEBEN						
265254N 0504856E	110° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ DAVRI						
264936N 0505732E	111° 8.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
▲ SODAK						
264634N 0510530E	108° 20.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ DANOB						
263946N 0512640E	108° 18.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ BOTOB						
263350N 0514505E	175° 28.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ VEDED						
260558N 0514628E	142° 46.6 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
▲ ORSIS						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit Lower limit Airspace classification Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd / Even	Remarks Controlling unit channel Logon address
1	2	3	4	5	6
252801N 0521636E	114° 9.5 NM	FL 460 FL 250	1	↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
▲ ENANO 252348N 0522559E	116° 15.8 NM				BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
▲ TOSNA (FIR BDRY) 251612N 0524116E					OBBB / OMAE FIR BDRY REFER TO UAE AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
Y856 **(RNAV 1)**						AVBL FOR OMAE FIR TFC LDG BAH TMA AP OR E OEJD AP. REF TO SRD SUP FOR DETAILS. TFC FL300 ABV EXP X ALKAN FL290 BLW. TFC FL180 ABV EXP X ALREP FL160.
▲ ORMID (FIR BDRY) 253354N 0525434E	296° 25.0 NM	FL 460 FL 150	1	↓		OMAE / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
▲ DASLO 254537N 0523029E	295° 14.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
▲ ALKAN 255214N 0521615E	310° 34.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
▲ RABLA 261506N 0514834E	294° 17.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850
▲ SOLOB 262241N 0513132E	287° 9.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.850
▲ ALREP 262541N 0512209E	287° 6.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.850 (BAHRAIN APP)
▲ ORDIG 262738N 0511603E	287° 20.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.850 (BAHRAIN APP)
▲ MEDMA 263421N 0505454E	214° 23.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.850 (BAHRAIN APP)
▲ BAHRAIN DVORDME (BHR)						

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels: Odd	Direction of cruising levels: Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
261530N 0503919E	276° 17.0 NM	FL 460 / FL 150	1		↓	BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.850 (BAHRAIN APP)
▲ NARMI (FIR BDRY) / 261802N 0501939E						OBBB / OEJD FIR BDRY REFER TO SAUDI AIP

Route designator (RNAV type) Name of significant points Coordinates	Track MAG (GEO) VOR RDL DIST (NM) (COP)	Upper limit / Lower limit / Airspace classification / Minimum flight altitude	Lateral limits (NM)	Direction of cruising levels Odd	Direction of cruising levels Even	Remarks Controlling unit channel Logon address
1	2	3	4	5		6
Z622 **(RNAV 1)**						AVBL FOR STATE ACFT FROM OEJD FIR LDG OR OVERFLYING S UAE FIR REQ TO REMAIN OVER HIGH SEAS. REFER TO SRD SUP FOR DETAILS MIL FLT FL310 ABV EXP X ORSIS FL290 BLW VEDED MIN FL250
NARMI (FIR BDRY) 261802N 0501939E	067° 28.0 NM	FL 460 FL 250	1	↓		OEJD / OBBB FIR BDRY BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
TOSTA 262746N 0504913E	095° 38.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 127.525 (FL335 ABV) FREQ: 124.300 (FL330 - FL175) FREQ: 127.850 (FL170 BLW BAHRAIN APP)
SOLOB 262241N 0513132E	138° 21.0 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 BLW CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
VEDED 260558N 0514628E	142° 46.6 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.125 (FL295 ABV) FREQ: 132.850 (FL290 BLW)
ORSIS 252801N 0521636E	114° 9.5 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
ENANO 252348N 0522559E	116° 15.8 NM					BAHRAIN CONTROL FL460/FL150 CLASS A FL145 - 4500 FT MSL CLASS C FREQ: 132.850 (FL250 ABV)
TOSNA (FIR BDRY) 251612N 0524116E						OBBB / OMAE FIR BDRY REFER TO UAE AIP

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ENR 3.4 HELICOPTER ROUTES

NIL

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ENR 3.5 OTHER ROUTES

NIL

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ENR 3.6 EN-ROUTE HOLDING

HLDG ID / FIX / WPT coordinates	INBD TR (°MAG)	Direction of PTN	MAX IAS (KT)	MNM - MAX HLDG LVL FL / FT (MSL)	TIME (MIN)	Controlling unit and Frequency
1	2	3	4	5	6	7
AFNAN 250300.80N 0515958.92E	268	Right	230	FL 250 FL 460	1.5	BAHRAIN EAST HIGH 132.125 MHZ
ALKAN 255214.00N 0521615.00E	222	Right	250	FL 180 FL 260	1.5	Bahrain East 132.85 MHZ
ALMOK 262832.00N 0513840.00E	288	Right		6000 FT FL 460	1.5	Bahrain East
ALRAS 262805N 0503200E	300	Right	210	3000 FT 13000 FT	1.5	BAHRAIN APPROACH 127.850 MHZ
ALTOM 262230.00N 0515639.00E	294	Right		6000 FT FL 460	1.5	Bahrain East 132.85 MHZ
ITNAS 274643.70N 0493957.02E	320	Right		6000 FT FL 460	1.5	Bahrain North 126.700 MHZ
MARWA 262208.05N 0502747.07E	302	Left	240	5000 FT FL 150	1.5	BAHRAIN APPROACH 127.850 MHZ
NAGAT 261549N 0505319E	120	Left	210	3000 FT 13000 FT	1.5	BAHRAIN APPROACH 127.850 MHZ
OBSAS 262622N 0504525E	207	Right	240	3000 FT 13000 FT	1.5	BAHRAIN APPROACH 127.850 MHZ
RABAD 254747.00N 0504602.00E	152	Right	250	3500 FT 7500 FT	1	ISA AIRBASE APPROACH 124.95 MHZ
RABLA 261505.73N 0514833.68E	190	Right	250	FL 160 FL 280	1.5	Bahrain East 132.85 MHZ
RAZAN 261021.0N 0504813.8E	122	Right	240	5000 FT FL 150	1.5	BAHRAIN APPROACH 127.850 MHZ
RIKET 261952.00N 0510954.00E	137	Left	250	FL 190 FL 290	1.5	Bahrain Central 124.3 MHZ
SOGAT 262029.00N 0511443.00E	295	Right	240	5000 FT FL 220	1.5	BAHRAIN APPROACH 127.850 MHZ
SOLOB 262241.00N 0513132.00E	294	Right		6000 FT FL 460	1.5	Bahrain East 132.850 MHZ
VELOG 270215.03N 0503055.83E	142	Left	240	5000 FT FL 210	1.5	BAHRAIN APPROACH 127.850 MHZ

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ENR 4. RADIO NAVIGATION AIDS/SYSTEMS

ENR 4.1 RADIO NAVIGATION AIDS - EN-ROUTE

Name of station (VAR) *VOR: Declination)*	ID	FREQ (CH)	Hours of operation	Coordinates		ELEV *DME* *Antenna*	Remarks
1	2	3	4	5		6	7
BAHRAIN DVOR/DME (2.49° E) (decl: 2.72°E 2017)	BHR	111.80MHZ (CH 55X)		261530.00N	0503919.18E	32.83 FTEGM_96	
DOHA/HAMAD INTL DVOR/DME (2.6°E)	DOH	114.4MHZ (CH 91X)		251459.66N	0513634.80E	39.343 FTEGM_96	

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ENR 4.2 SPECIAL NAVIGATION SYSTEMS

NIL

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ENR 4.3 GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)

NIL

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ENR 4.4 NAME-CODE DESIGNATORS FOR SIGNIFICANT POINTS

Name-code designator	Coordinates	ATS route or other route
1	2	3
AFNAN	250300.80N 0515958.92E	
ALKAN	255214N 0521615E	P699,L721,Y856
ALMOK	262832.00N 0513840.00E	L602, M600, T602
ALPOB	254218.00N 0530055.00E	L768
ALRAS	262805N 0503200E	Note 1
ALREP	262541.00N 0512209.00E	L768, Y856
ALSEM	252703.45N 0524322.04E	L305, N318, P708
ALSER	271100.00N 0504900.00E	G663
ALTOM	262230.00N 0515639.00E	L602, M600, P430, T602
ALVEN	255418.19N 0515315.30E	P430, T430
AMBIK	283222.0N 0492025.0E	B416
ASPAK	262115.49N 0522257.49E	P559
ASTAD	261811.64N 0505646.41E	A453, N318, P699
ASTOG	252822.0N 0525025.0E	L305
AWALI	260510.9706N 0503112.5281E	Note 1
BAYAN	252926.0N 0514849.0E	L721, P430
BONAN	260200.60N 0515505.41E	P430, P699, T430
BOPOV	262429.69N 0515043.17E	L602, M600, R659, T602
BOTOB	263350.00N 0514505.00E	A453, P559, Y604
BOVIP	251554.84N 0523135.04E	M430
BUNDU	250024.00N 0522924.00E	B415, P693
DAMUR	280137.46N 0492637.95E	L602, L934, T444
DANOB	263946.00N 0512640.00E	P559, Y604
DAROR	270244.03N 0495815.25E	P559, T308, T319
DASLO	254537.09N 0523029.35E	P699, Y856
DASUT	261832N 0531108E	T308, T800, T872
DATEN	273118.44N 0501832.26E	P708
DATRI	244239.38N 0513407.28E	L564
DAVRI	264936.05N 0505731.88E	L319, P559, T872, Y604
DAVUS	282346.28N 0490622.28E	L602, L934, M444
DEBEN	265253.56N 0504856.14E	P559, P708, Y604
DEBGU	272647.92N 0503252.05E	M677
DEGSO	261054.00N 0531946.00E	M677
DEKTA	271605.08N 0501946.46E	L703, Y604
DEMTA	241926.02N 0513532.83E	P693
DENVO	260452.00N 0510509.00E	B457, M444, N685, T444
DESBU	263240.00N 0503241.00E	A453, M444, T444
EGLIT	270255.95N 0502005.80E	L602, T602
EGMOR	264210.81N 0502906.73E	A453, L768, M444, T444, T872
EGPUD	262904.00N 0505019.00E	L934, T934
EGTAB	282608.92N 0491021.71E	Note 3
ELELO	263220N 0503501E	Note 1
ELIDU	262424.00N 0525133.00E	L721
ELOBI	250752.66N 0521721.87E	N300
ELOSO	262409.19N 0503550.70E	A453, M444, N318, T444
EMEXA	245051.67N 0513603.93E	L564
EMISA	254658.35N 0514206.68E	B457, M444, N685, R659

Name-code designator	Coordinates	ATS route or other route
1	2	3
EMORI	281433.98N 0491050.62E	M444
ENAKO	284205.43N 0493647.95E	Note 3
ENANO	252348.09N 0522558.66E	L305, N685, Y604, Z622
ENASO	275706.87N 0491911.13E	M444
GASSI	270257.00N 0502229.00E	P559, T308, T319
GEPUT	281307.00N 0493423.00E	L703, T444, Y604
GETAL	270409.98N 0504039.93E	G663, P708
GETEK	264610.44N 0501537.83E	Note 3
GINTO	251605.56N 0510415.88E	M430
GIRSI	274126.04N 0493310.51E	M444, T444
GITBO	263527.00N 0511750.00E	L602, M600, T602
GODRI	280256.85N 0494307.68E	L703, T602, T934, Y604
GOGRA	274918.00N 0495344.00E	L703, Y604
GOLKO	262149.22N 0504404.35E	N318, N697
INDIA	254442N 0504140E	
ITEVO	281557.59N 0491332.28E	L602, L934
ITMUB	255919.00N 0522402.00E	L721, L768
ITNAS	274643.70N 0493957.02E	L602, L934, T602, T934
IVIVI	273734.00N 0502437.00E	M677
JALYD	260002.0N 0504513.0E	Note 2
KAPAX	254217.62N 0515118.39E	N685, P430
KOBOK	265839.18N 0503349.32E	G663, L703, P559, Y604
KUMBO	281705.00N 0485526.00E	A453, M600
KUMLA	262609.00N 0520822.00E	P559, T430
KUNDO	261631.00N 0512325.00E	P699
KUPSA	250445.0N 0521151.0E	B415, P899
KUVER	280924.0N 0500600.0E	B416
LABOP	261907.00N 0520429.00E	L602, M600, T430, T602
LABOV	253411.00N 0515521.00E	L721
LADEM	245545.14N 0513713.63E	L564
LADNA	262749.34N 0502244.63E	N318
LAGNO	251613.00N 0511518.00E	M430
LONOS	283027.00N 0491713.00E	L703, P708, Y604
LOPOL	281849.62N 0492845.12E	L703, Y604
LOTOR	264854.45N 0502200.30E	A453, G663, M444, T444
LOVAK	262012N 0505603E	Note 1
LUBET	261440.67N 0510346.54E	L934, N318, T934
MARWA	262208.05N 0502747.07E	Note 1 & 2
MEDMA	263421.34N 0505454.02E	L768, N697, Y856
MEKMA	245430.0N 0522506.0E	P899
METLA	265645.21N 0500432.59E	B419
MIDSI	264142.00N 0515442.00E	A453, R659
MODOG	261012.00N 0515935.00E	L768, T430
MOGAS	264759.61N 0503909.06E	L602, M600, T602,
MURUB	262455.00N 0523751.00E	M677, T308, T872
NAGAT	261549N 0505319E	
NALPO	255602.00N 0532945.00E	P559
NAMLA	250532.0N 0523318.0E	N300
NARMI	261802.33N 0501939.01E	B457, N685, N697, P699, Y856, Z622

Name-code designator	Coordinates	ATS route or other route
1	2	3
NONTI	262924N 0511919E	Note 3
OBMON	263832.00N 0504125.00E	L768, L934, T934
OBNAX	272650.91N 0501103.18E	L703, Y604
OBNET	260032.00N 0534514.00E	M677
OBSAS	262622N 0504525E	Note 1 & 2
OBTAR	265934.00N 0510309.00E	L319, T319
ORDAN	271706.38N 0495442.06E	M444, T444
ORDIG	262738.00N 0511603.00E	L768, Y856
ORGEL	281312.28N 0494614.32E	P708
ORLUP	260651.00N 0523216.00E	L602, L721, M600, T557, T602
ORMAL	252303.74N 0522200.97E	L305
ORMID	253354.00N 0525434.00E	P699, Y856
ORNAK	272853.74N 0493248.10E	A453, M600
ORSIS	252801.00N 0521636.00E	N685, Y604, Z622
ORSOL	272135.03N 0500207.77E	L602, L934, T602, T934
OVONA	252443.00N 0524739.00E	N318, P708
OVUPI	265320.00N 0502727.00E	L934, T934
PASAK	282459.91N 0494846.65E	M677
PATOM	255821.41N 0511836.36E	B457, L934, M444, N685, T934
PEGOK	253254N 0520759E	Note 3
RABAD	254747.00N 0504602.00E	Note 2
RABAP	283625.20N 0492722.07E	M677
RABLA	261505.73N 0514833.68E	L768, R659, Y856
RADMO	260231N 0504125E	Note 1
RAGAS	263537.00N 0521337.00E	T430, T557
RAKAK	265221.00N 0502618.00E	G663, M600
RAMKI	261138.00N 0515625.06E	L768, P430
RAMSI	270249.00N 0500714.00E	A453, B419, M444, M600, P559, T308, T319, T444
RASDI	260425.38N 0512407.37E	L703, N318, P708
RAZAN	261021.0N 0504813.8E	Note 1 & 2
RESAR	253707.00N 0522328.00E	N318, P708
REVAX	272026.10N 0502651.27E	P708
RIGAG	262157.0N 0504241.0E	Note 1 & 2
RIKET	261952.00N 0510954.00E	A453, L703, P699
ROSAN	263129.13N 0515220.05E	P559, R659
ROTAG	255353.00N 0523621.00E	L768
ROTEL	264015.01N 0502149.08E	T872
ROTOX	283323.00N 0494809.00E	T444,T602,T934,Note 5
SENKI	254637.00N 0520928.00E	L721
SEVNI	264401.00N 0513815.00E	M677, T308, T872
SOBUS	282137.42N 0490253.99E	Note 3
SODAK	264634.00N 0510530.00E	N697, P559, Y604
SOGAN	263915.00N 0515408.00E	M677, R659, T308, T872
SOGAT	262029.00N 0511443.00E	A453, P699
SOLAV	260742N 0504027E	Note 1
SOLEM	275229.24N 0491136.38E	A453, M600
SOLOB	262241.00N 0513132.00E	A453, L768, Y856, Z622
TOBLI	262134.0N 0512301.0E	A453
TOKMA	270938.98N 0501159.02E	L602, L934, T602, T934

Name-code designator	Coordinates	ATS route or other route
1	2	3
TOLMO	265504.00N 0502927.00E	G663, L602, T602
TOMSO	260611.00N 0530214.00E	P559
TORBO	265222.68N 0511024.30E	M677, N697, T308, T872
TOSDA	270004.88N 0505629.45E	M677, T308, T319
TOSNA	251612.00N 0524116.00E	M430, N685, Y604, Z622
TOSTA	262746.42N 0504912.51E	N697, Z622
TOTIS	261119.11N 0511026.91E	N318
TOXAM	253658N 0524816E	Note 3
TULUB	260644.00N 0510041.00E	B457, M444, N685, T444
TUMAK	255031.00N 0531108.00E	L602, M600, T557, T602
TYLOS	255309.00N 0504300.00E	Note 2
UKNEP	262127.00N 0524818.00E	L721, M677
UKUBU	261428.00N 0524039.00E	L721, P559
ULADA	264526.72N 0501623.55E	G663, L768
ULAMU	264452.04N 0501659.80E	Note 3
ULIKA	251545.29N 0503848.79E	M430
UMAVA	260552N 0504648E	Note 1
VAXIN	254043N 0522148E	T800
VEDED	260558.26N 0514627.91E	P699, R659, Y604, Z622
VEDOM	260109.00N 0524456.00E	L602, M600, T557, T602
VEDOR	270855.00N 0504630.00E	G663, M677
VEDOS	264105.85N 0510044.69E	L602, M600, N697, T602
VELAK	261307.00N 0521821.00E	L602, M600, T557, T602
VELAM	255426.12N 0514347.13E	N318, P708, R659
VELOG	270215.03N 0503055.83E	L703, T308, T319, Y604
VUTAN	255015.91N 0515218.39E	N318, P430, P708

Note 1: Part of SID or STAR.

Note 2: Traffic sequence waypoints.

Note 3: Only for record, states requirement to record / locate position not connected with airways but used for LOA (Letter of Agreement) between ATS units and considered important to disseminate them.

Note 4: Only for enroute holding purposes.

Note 5: Available by NOTAM only.

ENR 4.5 AERONAUTICAL GROUND LIGHTS - EN-ROUTE

NIL

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ENR 5. NAVIGATION WARNINGS

ENR 5.1 PROHIBITED, RESTRICTED AND DANGER AREAS

5.1.1 CLASSIFICATION

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 area as defined by ICAO.

5.1.1.1.1 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. This term is used only when the flight of civil aircraft within the designated airspace is not permitted at any time under any circumstances.

5.1.1.1.2 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. 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 has been obtained leads to the designation of a "Restriction Area". However, conditions of flight imposed as a result of application of the Rules of the Air or air traffic services 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 of a "Restricted Area".

5.1.1.1.3 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.

5.1.2 GENERAL

5.1.2.1 The TYPE of area is indicated by the letters:

"D" for Danger - followed by number 1 to 39
"P" for Prohibited - followed by number 40 to 49
"R" for Restricted - followed by number 50 and above

5.1.2.2 Each Area is described in a tabulation which indicates:

Its lateral and vertical limits
The type of restriction or hazard involved
The time at which the area is active, and
Any other pertinent information

5.1.2.3 The positions of these Areas are also shown on the Airspace Charts, see **ENR 6**.

5.1.2.4 Altitudes are given in feet.

Prohibited , Restricted and Danger areas:

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
PROHIBITED AREAS OBP42 BAHRAIN 260936.00N 0503036.00E 260936.00N 0503342.00E 260648.00N 0503342.00E 260648.00N 0503200.00E 260548.00N 0503036.00E	UNL SFC	H24
OTP43 QATAR 255600.00N 0510000.00E 255600.00N 0512000.00E 254000.00N 0512000.00E 254000.00N 0510000.00E	15000 FT SFC	H24
OTP44 QATAR / WUSAYL A circle of radius 1 NM centred on 252700.00N 0513230.00E	1500 FT SFC	H24
OTP45 QATAR A circle of radius 1 NM centred on 251728.00N 0513143.00E	1500 FT SFC	H24
OTP46 QATAR / RAYYAN A circle of radius 1 NM centred on 251700.00N 0512800.00E	1500 FT SFC	H24 Exemptions granted only by Commander - in - Chief, Public Security.
OTP47 QATAR A circle of radius 1.5 NM centred on 251747.00N 0512308.00E	5000 FT SFC	H24
RESTRICTED AREAS OTR51 QATAR / AL GHARIYEH A circle of radius 5 NM centred on 260431.00N 0512040.00E	3000 FT SFC	HJ PPR from GHQ Qatar. Light Aircraft Flying
OTR52 QATAR Area encloses Qatar territorial land and water boundaries.	UNL SFC	H24 Controlling Authority State of Qatar Military flying activities. Restriction does not apply for the flights approved by Qatar Civil Aviation Authority (QCAA) and for the flights on all ATS routes listed in ENR 3.
OTR53 QATAR 260800.00N 0511200.00E 262000.00N 0512100.00E 260800.00N 0514100.00E 255500.00N 0513500.00E	3000 FT SFC	H24 Controlling Authority State of Qatar Military exercise area
OTR54 QATAR 245400.00N 0512940.00E 245140.00N 0512940.00E 245140.00N 0512720.00E 245400.00N 0512720.00E	1500 FT SFC	H24 Piloted and remotely piloted ACFT activites. Contacting FREQ 135.375 MHz to be used for ACFT Operating within the Area .

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
OTR55 RAS LAFFAN A circle of radius 4 NM centred on 255403.00N 0513405.00E	3000 FT SFC	H24 Aircraft intending to fly below ALT 3000 FT to obtain prior permission from RAS LAFFAN RLC Head of Security: TEL +974 44733447 FAX +974 44733429 Industrial area
OTR56 QATAR A circle of radius 5 NM centred on 250533.93N 0511933.08E	5000 FT SFC	H24
OBR57 Area encloses entire Bahrain Island contained within the following coordinates:- 261523.00N 0502608.00E 261523.00N 0503446.00E 260957.00N 0504032.00E 255000.00N 0503800.00E 254959.00N 0503639.00E 254553.00N 0503416.00E 255001.00N 0503153.00E 255000.00N 0503100.00E 255715.00N 0502605.00E	UNL SFC	H24. Except on instructions from Bahrain ATC
OTR58 QATAR A circle 1.5 NM centred on 251200.00N 0512430.00E	3000 FT SFC	H24
OTR59 UMM SAID FERTILIZER PLANT A circle of 3NM radius centred on 245400.00N 0513400.00E	3000FT SFC	H24
OTR60 QATAR A circle of radius 500 M centered on 254553.00N 0512253.00E	1000 FT SFC	H24 Remote Control Aircraft
OTR61 UMM SAID MILITARY TRAINING AREA A circle of radius 3 NM centered on 245900.00N 0513000.00E	3000 FT AGL SFC	H24 Helicopter Training Flights Area
OTR62 UMM AL-SHOKHOT A circles of radius 3NM centred on 254204.25N 0512127.72E	13000FT SFC	HJ All ACFT intending to operate in the area shall obtain permission from Qatar Air Sports Committee.
OBR66 BAHRAIN 260457.00N 0503655.00E 255806.00N 0504838.00E 253934.00N 0504955.00E 253445.00N 0504543.00E 253524.00N 0503241.00E 255353.00N 0501821.00E	UNL SFC	Military Exercise Area. Controlled and activated by Bahrain Defense Force
DANGER AREAS OTD1 QATAR / ALQALAEL 243600.00N 0505500.00E 245400.00N 0505500.00E 245400.00N 0510400.00E 243600.00N 0510400.00E	10000 FT SFC	H24 Artillery, Heavy Machine Gun, Air Defense Weapons, Ground to Air

Identification, name and lateral limits	Upper limit / Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
OTD2 QATAR 243606.00N 0505507.00E 242949.00N 0510408.00E 242950.00N 0511128.00E 243556.00N 0511217.00E	20000 FT SFC	H24 Air Defense Weapons, Ground to Air.
OBD8 BAHRAIN 271100.00N 0504900.00E 270400.00N 0505618.00E 265500.00N 0511000.00E 265424.00N 0511148.00E 263512.00N 0503954.00E 264424.00N 0502906.00E	FL 150 4500 FT	ACTIVITY WILL BE NOTIFIED BY NOTAM. MILITARY JET TRAINING.
OTD17 QATAR 252550.00N 0504500.00E 252500.00N 0503700.00E 250700.00N 0504000.00E 244500.00N 0504900.00E 244550.00N 0505140.00E 250700.00N 0504600.00E	20000 FT SFC	Military jet training; Active daily between 0300 - 1900 UTC except FRI AND SAT
OTD26 QATAR / BIR ZIRKIT A circle 5 NM centred on 253000.00N 0505200.00E	3500 FT SFC	H24 Gun Firing.
OTD28 ALASHAT 245900.00N 0521600.00E 250030.00N 0521036.00E 245724.00N 0515124.00E 245624.00N 0515000.00E 244736.00N 0515000.00E 245230.00N 0521424.00E 245348.00N 0521600.00E	10000 FT SFC	Activity as notified by NOTAM Air to Air / Surface to Air Firing
OTD29 QATAR 250830.00N 0512200.00E 250930.00N 0512330.00E 251100.00N 0512200.00E 251030.00N 0512030.00E	500 FT SFC	HJ Ground to Ground Gun Firing
SAUDI ARABIA **DANGER AREAS**		
OED46 SAUDI ARABIA 280700N 0493000E 275300N 0493000E 275300N 0492200E 280700N 0492200E	4000FT MSL	Activity as notified by NOTAM

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
EMIRATES **RESTRICTED AREAS**		
OMR54 SHAHEEN 244600N 0523000E 244600N 0523800E 243600N 0531800E 243100N 0533830E 242800N 0535500E 242424N 0540828E 241805N 0542246E 241930N 0543100E 240000N 0550000E 234730N 0552312E 223730N 0550748E 225600N 0523500E 240800N 0513500E 244000N 0513500E 244830N 0521540E	UNL SFC	H24 Controlled by UAE Air Force. Military Jet Training Area.

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ENR 5.2 MILITARY EXERCISE AND TRAINING AREAS AND AIR DEFENCE IDENTIFICATION ZONE (ADIZ)

NIL

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ENR 5.3 OTHER ACTIVITIES OF A DANGEROUS NATURE AND OTHER POTENTIAL HAZARDS

NIL

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ENR 5.4 AIR NAVIGATION OBSTACLES - EN-ROUTE

(Height 330 FT (100 M) or higher)

Designation	*OBST type*	*OBST position*	*ELEV/HGT (M)*	*OBST LGT Type/Colour*	*Remarks*
1	*2*	*3*	*4*	*5*	*6*
	OTHER:MAST	262203N 0500135E	454 FT/405 FT	Yes	
	OTHER:MAST	261859N 0501202E	330 FT/330 FT	Yes	

Note: *"For state of Qatar obstacle refer to Qatar AIP"*

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ENR 5.5 AERIAL SPORTING AND RECREATIONAL ACTIVITIES

NIL

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ENR 5.6 WILDLIFE MANAGEMENT

5.6.1 BAHRAIN INTERNATIONAL AIRPORT (OBBI)

Proximity to the sea provides a constant risk of bird-strike. Of greatest risk to aircraft are migratory birds, which are present in increased numbers during the winter.

Critical area infringements are exacerbated during high tide when birds search for roosts located on the airfield. Significant numbers of birds are attracted to any standing water, so extra caution should be exercised following periods of rain or when standing water is observed in the runway strip.

Any bird-strike event should be reported to ATC as soon as possible, as BIA employs a management strategy which is constantly updated.

5.6.2 BAHRAIN SAKHIR AIRBASE (OBKH) & ISA AIRBASE (OBBS)

5.6.2.1 Location and Habitat

1. Sakhir airbase is situated in the middle of Bahrain on the western side of the highest point on the island, Jabal Al Dukan, The habitant is essentially semi-desert with tufts of scrub grass and occasional small desert plants and occasional naturally occurring small trees of around 4 meters in height.

2. The airfield is boarded by small ridges to the west and to the east by rising ground towards the Jabal Al Dukan, To the east and west there is very little vegetation; however, on the runway approaches to the north and south, there are artificially planted large gardens. There are date palms and small and medium sized shrubs and trees up to 7 metres in height which can attract birds.

3. The climate is hot and dry in summer with temperatures normally reaching the mid forty degress centigrade during July and August, In winter it is normally mild and frost free, staying mainly dry with the occasional day of heavy rain which can cause some flooding.

4. As Bahrain is an island, the airbase is subject to sea influences and strong winds can be a frequent occurrence causing rising sand, dust and sand storms.

5.6.2.2 Wildlife

1. Wildlife activity around the base is assessed as light. Whilst, the occasional feral dog has been seen, the airfield is protected by fencing and there have been no incursions on the airfield since the fencing has been strengthened and repaired.

2. Bird activity is assessed as very light in summer and light in winter. Occasional flocks of gulls have been sighted on the airfield in winter, other bird activity is confined to small numbers of doves, plovers, lapwings and small game birds (Partridge) that are often seen throughout the year in small numbers of 2-6 individuals rather than folcks, Mainly is spring and autumn, small groups of ducks of around 3-5 in number have been observed crossing the airfield on an occasional basis.

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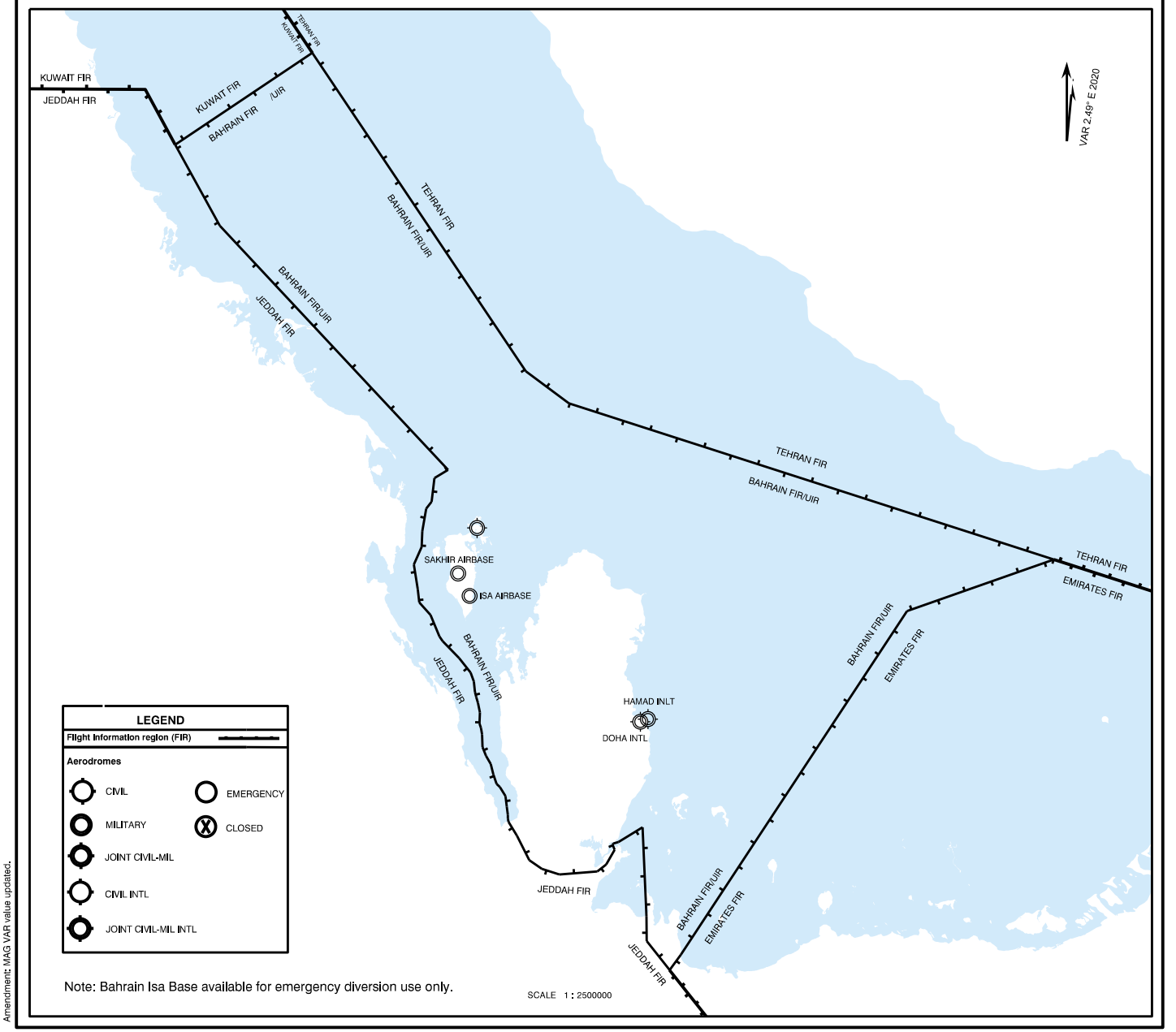
ENR 6. EN-ROUTE CHARTS

(including Index Charts)

AERODROME INDEX CHART



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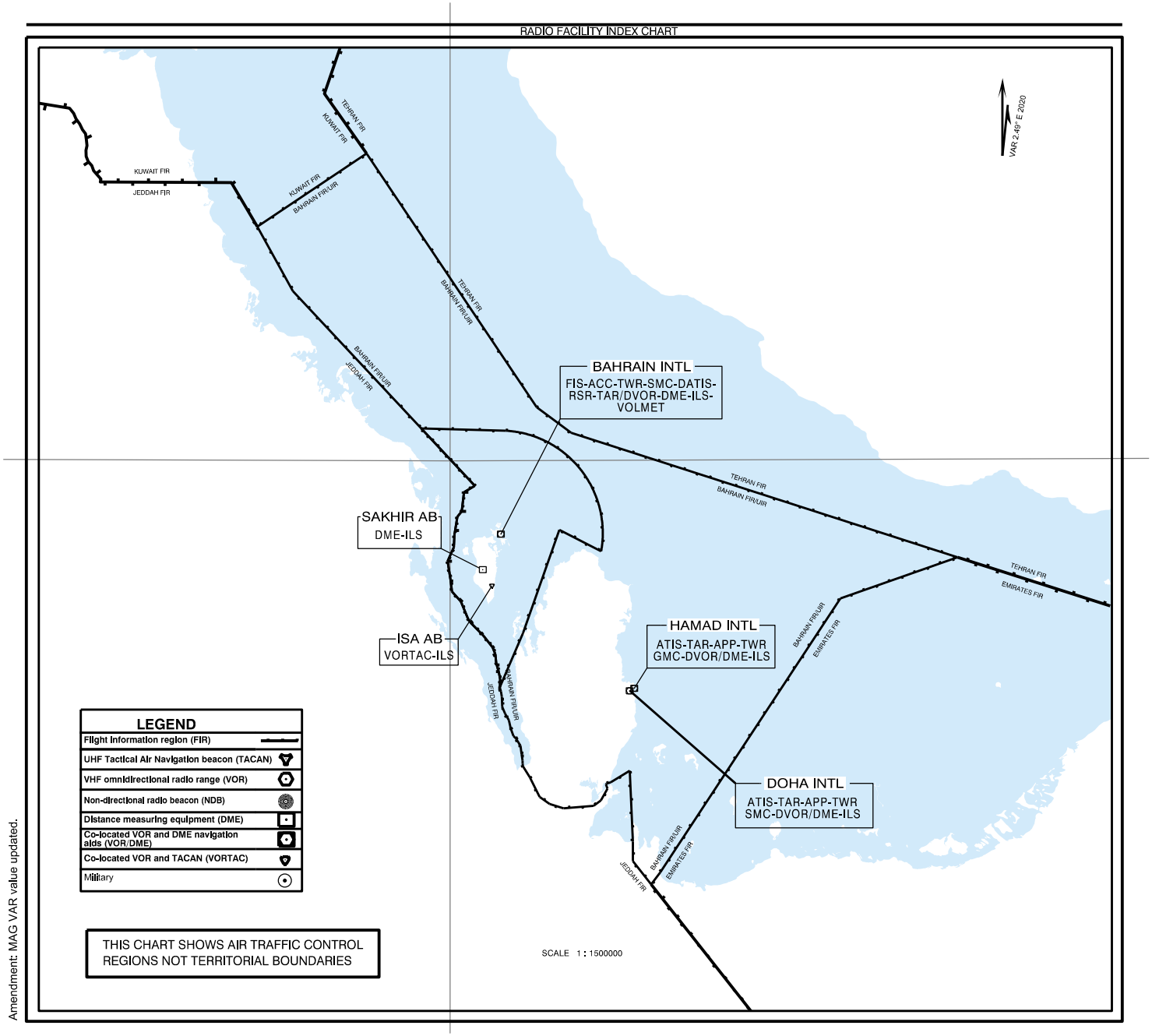
RADIO FACILITY INDEX CHART
VAR 2.49° E 2020
KUWAIT FIR
JEDDAH FIR
KUWAIT FIR
BAHRAIN FIR/UIR
TEHRAN FIR
KUWAIT FIR
TEHRAN FIR
BAHRAIN FIR/UIR
BAHRAIN FIR/UIR
JEDDAH FIR
BAHRAIN INTL
FIS-ACC-TWR-SMC-DATIS-RSR-TAR/DVOR-DME-ILS-VOLMET
TEHRAN FIR
BAHRAIN FIR/UIR
SAKHIR AB
DME-ILS
ISA AB
VORTAC-ILS
TEHRAN FIR
EMIRATES FIR
HAMAD INTL
ATIS-TAR-APP-TWR
GMC-DVOR/DME-ILS
BAHRAIN FIR/UIR
EMIRATES FIR
JEDDAH FIR
BAHRAIN FIR/UIR
DOHA INTL
ATIS-TAR-APP-TWR
SMC-DVOR/DME-ILS
BAHRAIN FIR/UIR
EMIRATES FIR
JEDDAH FIR
LEGEND
Flight Information region (FIR)
UHF Tactical Air Navigation beacon (TACAN)
VHF omnidirectional radio range (VOR)
Non-directional radio beacon (NDB)
Distance measuring equipment (DME)
Co-located VOR and DME navigation aids (VOR/DME)
Co-located VOR and TACAN (VORTAC)
Military
THIS CHART SHOWS AIR TRAFFIC CONTROL REGIONS NOT TERRITORIAL BOUNDARIES
SCALE 1 : 1500000
Amendment: MAG VAR value updated.

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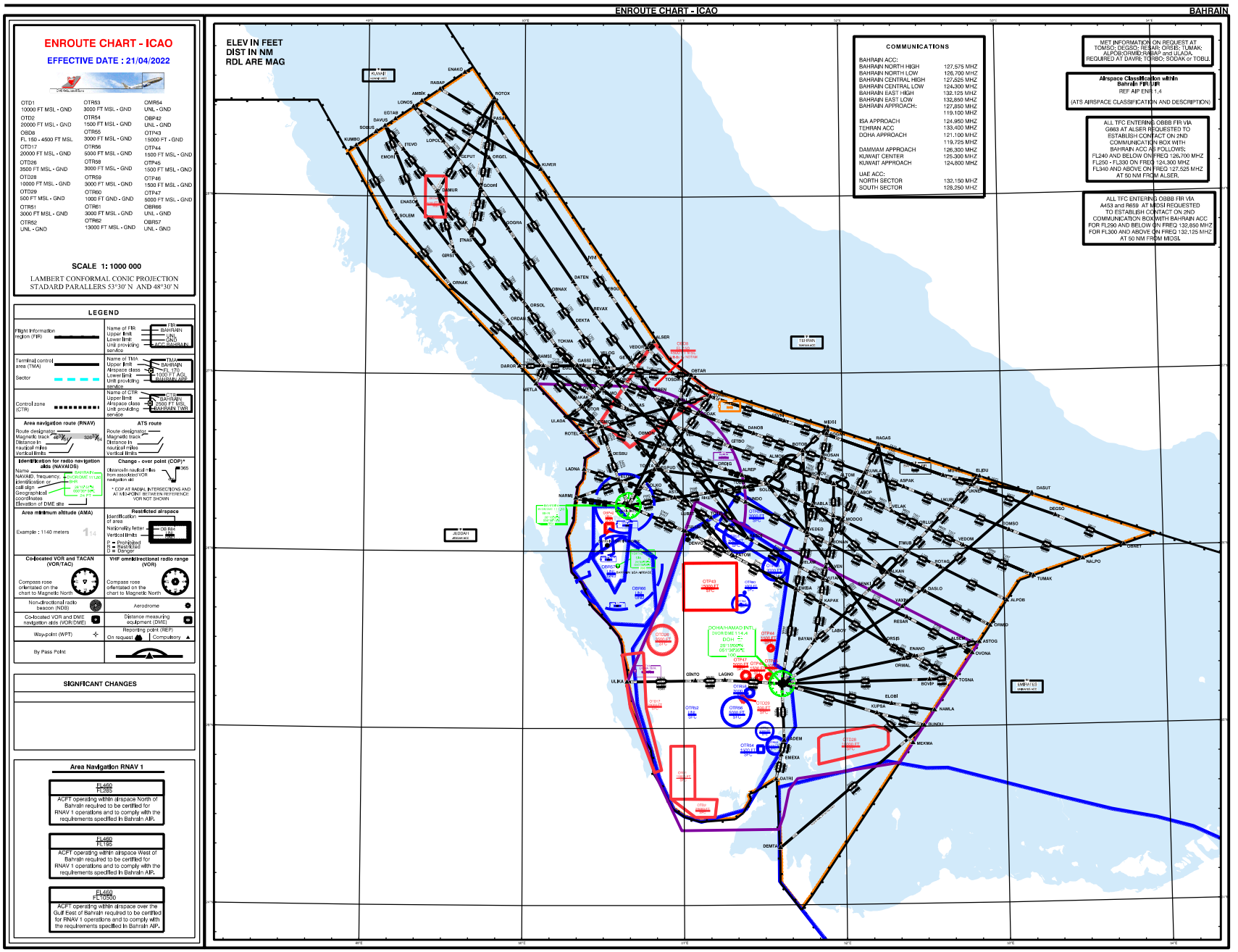
ENROUTE CHART - ICAO
BAHRAIN
ELEV IN FEET
DIST IN NM
RDL ARE MAG
ENROUTE CHART - ICAO
EFFECTIVE DATE : 21/04/2022
SCALE 1: 1000 000
LAMBERT CONFORMAL CONIC PROJECTION
STADARD PARALLERS 53°30' N AND 48°30' N
LEGEND
SIGNIFICANT CHANGES
Area Navigation RNAV 1
COMMUNICATIONS
BAHRAIN ACC:
BAHRAIN NORTH HIGH 127.575 MHZ
BAHRAIN NORTH LOW 126.700 MHZ
BAHRAIN CENTRAL HIGH 127.625 MHZ
BAHRAIN CENTRAL LOW 124.300 MHZ
BAHRAIN EAST HIGH 132.125 MHZ
BAHRAIN EAST LOW 132.850 MHZ
BAHRAIN APPROACH: 127.850 MHZ
119.100 MHZ
ISA APPROACH 124.950 MHZ
TEHRAN ACC 133.400 MHZ
DOHA APPROACH 121.100 MHZ
119.725 MHZ
DAMMAM APPROACH 126.300 MHZ
KUWAIT CENTER 125.300 MHZ
KUWAIT APPROACH 124.800 MHZ
UAE ACC:
NORTH SECTOR 132.150 MHZ
SOUTH SECTOR 128.250 MHZ
MET INFORMATION ON REQUEST AT TOMSO; DEGSO; RESAR; ORSIS; TUMAK; ALPOB;ORMID;RABAP and ULADA. REQUIRED AT DAVRI; TORBO; SODAK or TOBLI.
Airspace Classification within Bahrain FIR/UIR
REF AIP ENR 1.4
(ATS AIRSPACE CLASSIFICATION AND DESCRIPTION)
ALL TFC ENTERING OBBB FIR VIA G693 AT ALSER REQUESTED TO ESTABLISH CONTACT ON 2ND COMMUNICATION BOX WITH BAHRAIN ACC AS FOLLOWS: FL240 AND BELOW ON FREQ 126.700 MHZ FL250 - FL330 ON FREQ 124.300 MHZ FL340 AND ABOVE ON FREQ 127.525 MHZ AT 50 NM FROM ALSER.
ALL TFC ENTERING OBBB FIR VIA A453 and R659 AT MIDSI REQUESTED TO ESTABLISH CONTACT ON 2ND COMMUNICATION BOXWITH BAHRAIN ACC FOR FL290 AND BELOW ON FREQ 132.850 MHZ FOR FL300 AND ABOVE ON FREQ 132.125 MHZ AT 50 NM FROM MIDSI.

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WORLD AERONAUTICAL CHART
ICAO 1:1,000,000

2547 (BAHRAIN)

SERIES	ONC	SERIES	ONC
SHEET	H-6	SHEET	H-7
EDITION	7-GSGS	EDITION	11

Lambert Conformal Conic Projection
Standard Parallels 25° 20' and 30° 40'

ELEVATIONS IN FEET

47° 48° 49° 50° 51° 52° 53° 54°

(Joins 2546) (Joins 2564) (Joins 2564) (Joins 2548)

28° 27° 26° 25° 24°

HYPSOMETRIC TINTS

27° 20'N. 53° 52'E.

FEET	7103	METRES
7000		2134
5000		1524
3000		914
2000		610
1000		305
0		0

CONVERSION TABLE

Feet	Metres
20,000	6,096
18,000	6,000
16,000	5,000
14,000	4,000
12,000	3,000
10,000	2,000
8,000	1,000
6,000	
4,000	
2,000	
500	152

CONVERSION TABLE

Feet	Metres
150	45.7
140	40
130	35
120	30
110	25
100	20
90	15
80	10
70	5
60	3

ELEVATIONS IN FEET

Topographical Base 1996 Edition

ELEVATIONS IN FEET

ELEVATIONS IN FEET

AERONAUTICAL INFORMATION CORRECT AT 1st SEPTEMBER 2004

KILOMETRES 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 KILOMETRES

NAUTICAL MILES 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 NAUTICAL MILES

STATUTE MILES 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 STATUTE MILES

This chart is NOT an authority on the delimitation of international boundaries

Lines of equal magnetic variation for 2004
Annual change is negligible.

Prepared and Published by the Directorate of Air Navigation,
Civil Aviation Affairs, Kingdom of Bahrain, 2004

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2547 (BAHRAIN)

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PART 3 - AERODROMES (AD)

AD 0.

AD 0.1 PREFACE

Not applicable.

AD 0.2 RECORD OF AIP AMENDMENTS

Not applicable.

AD 0.3 RECORD OF AIP SUPPLEMENTS

Not applicable.

AD 0.4 CHECKLIST OF AIP PAGES

Not applicable.

AD 0.5 LIST OF HAND AMENDMENTS TO THE AIP

Not applicable.

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AD 1. AERODROMES / HELIPORTS - INTRODUCTION

AD 1.1 AERODROME / HELIPORT AVAILABILITY AND CONDITIONS OF USE

1.1.1 General conditions

1.1.1.1 The conditions under which aircraft may land, be parked, housed or otherwise be dealt with at the aerodromes under the control of the administrations of the Kingdom of Bahrain.

a) The fees and charges for landing, parking or housing of aircraft, as notified, from time to time by the various administrations concerned shall be published in the AIP BAHRAIN FIR, or by NOTAM. Unless otherwise agreed in advance the administration concerned shall levy reasonable fees and charges, as determined from time to time, for services and / or supplies furnished by, or on behalf of the administration to aircraft any aerodrome under its control. Such fees and charges as referred to above shall accrue from day to day and be payable to the administration on demand.
b) The administration shall have a lien on the aircraft, its parts and accessories, for such fees and charges as aforesaid.
c) If payment of such fees and charges is not made to the administration within fourteen days after a letter demanding payment thereof has been sent by post to the registered owner of the aircraft, the administration shall be entitled to sell, remove destroy or otherwise dispose of the aircraft, and any of its parts and accessories, and to apply the proceeds from so doing to the payment of such fees and charges.
d) Neither the particular administration nor any servant of agent of the government shall be liable for the loss of, or damage to, the aircraft, its parts of accessories or any property contained in the aircraft, however such loss or damage may arise, occurring whilst the aircraft is on any of the aerodromes under the control of a particular administration, or is in the course of landing or taking - off at any such aerodrome, or of being removed or dealt with elsewhere, for the purposes of **AD 1.1.3** of these conditions.

1.1.1.2 **Landings made other than at an international aerodrome / heliport or designated alternate aerodrome / heliport**

If a landing is made elsewhere than at an international airport or a designated alternate airport the pilot - in - command shall report the landing as soon as possible to the health, customs and immigration authorities of the state in whose territory the aircraft has landed. This notification may be made through the air radio channels if this method of communication is available.

The pilot - in - command is responsible for ensuring that:

a) If permission has not been granted to the aircraft at the previous landing, contact between other persons on the one hand and the passengers and crew on the other is avoided.
b) That cargo, baggage and mail are not removed from the aircraft except as provided below.
c) Any foodstuff of overseas origin, or any plant material, is not removed from the aircraft except where local food is unobtainable. All food refuse, including peelings, cores and stones of fruit, etc., must be collected and returned to the galley refuse container, the contents of which should not be removed from the aircraft except for hygiene reasons, in which case they must be destroyed by burning or deep burial.

1.1.1.3 **Traffic of persons and vehicles on aerodrome**

1.1.1.3.1 Demarcation of zones

The grounds of each aerodrome are divided into two zones:

a) A Public zone comprising the part of the aerodrome open to the public;
b) A restricted zone comprising the rest of the aerodrome.

1.1.1.3.2 *Movement of persons*

1.1.1.3.2.1 Access to the restricted zone is authorized only under conditions prescribed by the special rules governing the aerodrome.

1.1.1.3.2.2 The customs, police and health inspection offices and premises assigned to transit traffic are normally accessible only to passengers, to staff of public authorities and to airlines, and to authorized persons in the pursuit of their duty.

1.1.1.3.2.3 The movement of persons having access to the restricted zone of the aerodrome is subject to the conditions prescribed by the air regulations and the special rules laid down by the person responsible for the management of the airport.

1.1.1.3.3 *Movement of vehicles*

1.1.1.3.3.1 The movement of vehicles in the restricted zone is strictly limited to vehicles driven, or used by, persons carrying a traffic permit or an official card of admittance.

1.1.1.3.3.2 Ground vechicles shall use frequencies separate from those used for control of aircraft, however a vehicle operating on a maneuvering area shall operate on the appropriate aerodrome control frequency.

1.1.1.3.3.3 Drivers of vehicles, of whatever type, driving within the confines of the aerodrome must respect the direction of the traffic, the traffic signs and the posted speed limits, and generally comply with the provisions of the highway code and with the instructions given by the competent authorities.

1.1.1.3.4 *Policing*

Care and protection of aircraft, vehicles, equipment and goods for which the aerodrome facilities are used are not the responsibility of the state or any concessionaire, who cannot be responsible for loss or damage which is not incurred through action by them or their agents.

KINGDOM OF BAHRAIN

SPECIAL REGULATIONS FOR AIRPORT USE

1.1.1.4 **Conditions applicable to the landing, parking, or storage of aircraft on aerodromes under the control of Civil Aviation Affairs**

1.1.1.4.1 An authorized official from Civil Aviation Affairs may at any time order an aircraft operator either to move a parked aircraft to another position or to remove it from the airport. Failure to comply with the order, within the period specified in it, will render the operator liable to a special charge, equivalent to five times the standard parking charge, for every day or part of a day during which aircraft remains in position after the period specified in the order has expired.

1.1.1.4.2 It is mandatory for all aircraft arriving / departing from the Kingdom of Bahrain to employ the services of the Handling Agent.

1.1.1.4.3 BAHRAIN INTERNATIONAL airport is a civilian airport and for reasons of safety, diversions to the airport by military aircraft shall only be permitted under the following circumstances:

1. Diversion to the airport by military combat aircraft which are fully loaded (i.e. armed) shall not be permitted under any circumstances.
2. Military combat aircraft not loaded (i.e. unarmed) shall be permitted to divert to the airport in cases of a declared emergency and as a matter of last resort.
3. Procedures for diversions by non combat military aircraft remain as at present.

In all cases the preferred division airport for BAHRAIN INTERNATIONAL airport should be BAHRAIN / ISA AIRBASE.

1.1.1.4.4 All military fixed wing tactical aircraft will not permitted to arrive to BAHRAIN INTERNATIONAL airport daily between the following timings: 1430 - 1630.

Enquiries should be made to:

Bahrain Airport Services (BAS)
TEL: +973 17321443 / +973 17321453
Telefax:+973 18335304
Telex: 8971 BASBA BN
AFS: OBBIXHAX
SITA: BAHKBXH

VHF AIR / GRD: 131.900 MHZ

Call sign: BAS OPERATIONS

1.1.1.4.5 **Carriage of explosives, arms and ammunition**

1.1.1.4.5.1 The carriage of explosives, arms and ammunition in aircraft arriving at, departing from, or in transit through BAHRAIN INTERNATIONAL airport is prohibited without prior permission from the Ministry of the Interior (see **GEN 1.1**)

1.1.1.4.5.2 The prohibition stated in **AD 1.1.1.4.3** does not apply to arms and ammunition which the State of Registry of the aircraft allows to be carried for the protection of persons on board the aircraft.

1.1.1.5 **Dangerous goods**

The carriage of dangerous goods in aircraft arriving at, departing from, or in transit through BAHRAIN INTERNATIONAL airport and Bahrain sovereign Airspace shall comply fully with, or be to no less a standard than that specified in, the latest edition of:

Government Legislation, Decree or Instruction.

ICAO Annex 18 to the Convention on International Aviation

ICAO Doc 9284 - AN / 905, Technical Instructions for the Safe Transport of Goods by Air.

Instructions and Notices issued by the Under Secretary for Civil Aviation.

1.1.2 Use of military air bases

Kingdom of Bahrain

General

Use of military air bases in the Kingdom of Bahrain with other than State registered aircraft may be made solely when prior permission has been obtained.

The use of military air bases as alternate aerodromes may likewise be made solely when prior permission thereto has been obtained.

BAHRAIN / ISA AIRBASE is designated as an emergency diversion aerodrome for BAHRAIN INTERNATIONAL airport.

A permission may at any time be withdrawn with immediate effect, should circumstances so require.

Submission of application

Application to use a military air base shall be submitted in writing well in advance of the intended flight to the Bahrain Defence Force General Headquarters.

The address is:

Bahrain Defence Force
War Operation Room
P.O. Box 245
Kingdom of Bahrain

Rules and conditions

Operations on the air base must be carried out in accordance with the rules and conditions stated below with due regard to such other conditions as may have been stipulated for each individual permission.

A flight plan shall be submitted for each flight. During operations in military airspace or at a military air base, the pilot - in - command shall closely adhere to any instruction given.

The Commander of the air base establishes the rules which are to be observed by flight crew members and passengers concerning security measures, traffic and stays at the air base.

Photographing from the air or on the ground is totally prohibited at all military bases.

Flight crew members, and ground personnel shall immediately report any violations.

Bahrain Defence Force shall not be liable for the theft, fire-, water or other damage to aircraft, their equipment, flight crew members, passengers, cargo, etc. caused by civil aircraft, flight crew members or passengers to Defence Force material, buildings and personnel within the area of an air base.

1.1.3 Low visibility procedures (LVP)

1.1.3.1 All taxi routes are available during (LVP) operations subject to ATC clearance (For CAT II taxi procedures, ref. AIP AD 2.22.1).

1.1.4 Aerodrome operating minima

Promulgation of an aerodrome as available for Category II or Category III operations means that it is suitably equipped and that procedures appropriate to such operations have been determined and are applied when relevant.

Promulgation implies that at least the following facilities are available:

ILS - certificated to relevant performance category.

Lighting - suitable for Category promulgated.

RVR System - may be automatic or manned system for Category II; will be automatic system for Category III.

Special Procedures and safeguards will be applied during Category II and III operations. In general, these are intended to provide protection for aircraft operating in low visibilities and to avoid disturbance to the ILS signals.

Protection of ILS signals during Category II or III operations may dictate that pre- take-off holding positions are more distant from the runway than the holding positions used in good weather. Such holding positions will be appropriately marked and will display signs conforming to the specifications in Annex 14, Volume I on one or both sides of the taxiway; there may also be a stop bar of red lights. For aircraft taxing off the runway during Category III operations exit taxiway center line lights are colour coded to facilitate notification of runway vacation and the colour coding ends at the boundary of the ILS critical / Sensitive Area. Pilots are required to make a "Runway Vacated" call on R / T when the aircraft has colour code of part of exit taxiway centre line lights, due allowance being made for aircraft size to ensure that the entire aircraft is clear of the ILS critical / Sensitive Area.

In actual Category II or III weather conditions pilots will be informed by ATC of any unserviceabilites in the promulgated facilities so that they can amend their minima, if necessary, according to their operations manual. Pilots who wish to carry out a practice Category II or Category III approach are to request practice Category II (or Category III) approach on initial contact with Approach Control. For practice approaches there is no guarantee that the full safeguarding procedures will be applied and pilots should anticipate the possibility of resultant ILS signal disturbance.

1.1.5 Runway friction measuring

BAHRAIN INTERNATIONAL airport

Friction Measuring surveys are conducted at BAHRAIN INTERNATIONAL airport four times per year. The Friction Classification Survey Table is displayed here:

Friction Classification Survey Table - BAHRAIN INTERNATIONAL airport							
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Equipment	Design object ice for New Runway Surfaces	Maintenance Planning Level	Minimum Friction Level	Test Water Depth mm (tolerance)	Test Speed kph (tolerance)	Tyre Pressure Psi (tolerance)	Tyre
Grip Tester	Above 0.80	0.53	0.43	1 mm (+ / - 5 %)	65 (+ / - 5)	20 (+ / - 1)	Type A 10 x 3.6 - 5

Friction measuring devices are not used at BAHRAIN INTERNATIONAL airport on a daily operational basis.

Whenever water is present on the runway, a description of the runway surface conditions on the centre half of the width of the runway, including the possible assessment of water depth, where applicable, should be made available using the following terms:

DAMP - the surface shows a change of colour due to moisture
WET - the surface is soaked but there is no standing water
WATER PATCHES - significant patches of standing water are visible
FLOODED - extensive standing water is visible

1.1.6 Other information

NIL

AD 1.2 RESCUE AND FIRE FIGHTING SERVICES AND SNOW PLAN

1.2.1 Rescue and fire fighting services

At aerodromes approved for scheduled and / or non - scheduled traffic with aeroplanes carrying passengers, Rescue and Fire Fighting Services, and in some cases also Sea Rescue Services, are established in accordance with regulations for civil aviation.

Note: *For heliports special rules will apply.*

Information about whether there is a service or not and also the extent of the service is given on the relevant page for each aerodrome.

Scheduled or non - scheduled traffic with aeroplanes carrying passengers are not allowed to use aerodromes without Rescue and Fire Fighting Services.

Each individual service is categorised to the table shown below. Temporary changes will be published by NOTAM.

Rescue and fire fighting services	
Aerodrome Category	**Amount of water in litres for Production of performance level B Foam**
7	12100
8	18200
9	24300
10	32300

1.2.2 Snow Plan

The local climate precludes the requirement for a snow plan.

1.2.3 De-watering Plan at Bahrain International Airport

Duration: Annually between 1st October until 1st May of the following year

During winter season, weather conditions usually get so unsettled to an extent that it may be unforeseeable practice to predict the weather condition with respect to rain and when and the amount of rain that could fall during then, as clouds would rapidly and largely start to develop at the area around Bahrain International Airport at which rain between shows to thunderstorms may be experienced. Therefore, it became essentially important to take all precautionary measures to ensure that a safe yet uninterrupted conduct of air navigation is implemented and is maintained at the airport throughout the whole rainy season.

In this context, Bahrain Airport Company for being the airport operator, has identified certain concourse locations which standing water and associated patches are believed to accumulate. Accordingly a number of nearly 10 pumps will be at the runway strip at a symmetrical distance of 135M from the runway centre-line with a max HGT of 1.5M, such pumps will immediately allow De-watering process to take place off the runway strip.

The attached diagram is clearly depicting various locations of the pumps within the runway strip with arrows pointing to either the gutter or the manhole where the water should drain.

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AD 1.3 INDEX TO AERODROMES AND HELIPORTS

Aerodrome/heliport name Location indicator	Type of traffic permitted to use the aerodrome/heliport			Reference to AD Section and remarks
	International-National (INTL-NTL)	IFR-VFR	S = scheduled NS = Non-scheduled P = Private	
1	2	3	4	5
Aerodromes				
BAHRAIN / ISA AIRBASE OBBS		IFR, VFR		AD 2-OBBS
BAHRAIN / SAKHIR AIRBASE OBKH	NTL	IFR, VFR	S, NS	AD 2-OBKH
BAHRAIN INTERNATIONAL OBBI	INTL, NTL	IFR, VFR	S, NS, P	AD 2-OBBI
* The location indicators marked with an asterisk (*) cannot be used in the address component of AFS messages.				

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AD 1.4 GROUPING OF AERODROMES / HELIPORTS

The criteria applied in grouping aerodromes / heliports for the provision of information in this AIP is as follows:

Primary / major international aerodrome / heliport

Aerodrome / heliport of entry and departure for international air traffic, where all formalities concerning customs, immigration, health, animal and plant quarantine and similar procedures are carried out and where air traffic services are available on a regular basis.

Secondary / other international aerodrome / heliport

Other aerodrome / heliport available for entry or departure of international air traffic, at which the formalities of customs, immigration, health and similar procedures and air traffic services are made available on a restricted basis to flights, with prior approval only.

National aerodrome / heliport

Aerodrome / heliport available only for domestic air traffic, including those military aerodromes / heliports where civil air traffic is allowed under certain conditions.

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AD 1.5 STATUS OF CERTIFICATION OF AERODROMES

Aerodrome Name Location Indicator	Date of Certification	Validity of Certification	Remarks
1	2	3	4
BAHRAIN INTERNATIONAL OBBI	15 JULY 2011	3 years	Certified by BCAA
	15 JULY 2014	5 years	
	15 JULY 2019	5 years	

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AD 2. AERODROMES

OBBI AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OBBI - BAHRAIN INTERNATIONAL

OBBI AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	261615N 0503801E Mid - point of RWY on CL
2	Direction and distance from (city)	3.3 NM NE of Manama
3	Elevation/Reference temperature	8 FT / 38° C
4	Geoid undulation at AD ELEV PSN	-83.18 FT
5	MAG VAR/Annual change	2.49° E (2020) / 0°3' per year
6	AD operator, address, telephone, telefax, e-mail address, AFS and website address	Undersecretary for Civil Aviation P.O. Box 586 Kingdom of Bahrain TEL: +973 17321100 Telefax:+973 17339060 AFS: OBBIYAYX
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	

OBBI AD 2.3 OPERATIONAL HOURS

1	AD Operator	SUN - THU 04:00 - 11:15
2	Customs and immigration	H24
3	Health and sanitation	H24
4	AIS Briefing Office	H24
5	ATS Reporting Office (ARO)	H24
6	MET Briefing Office	H24
7	ATS	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24
11	De-icing	NIL
12	Remarks	NIL

OBBI AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	BAHRAIN AIRPORT SERVICES
2	Fuel/oil types	Jet A1 available to contract customers or on cash basis only (for cash pre deposit should be arranged with Bahrain Aviation Fuelling Company BAFCO). TEL: +973 17348280 / 17348272 Mob. +973 66769958 , email: Operation@BAFCO.BH
3	Fuelling facilities/capacity	Jet A1 Hydrant Stands 23-26A, 14-22, E1-E4, C1-C4. Jet A1 Bowsers Stands: 1-6, 50-58, 61-63, 71-75, 26B, 27-28, 80-88
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	Gulf Air

7	Remarks	1. Handling Services available H24 from Bahrain Airport Services (BAS) 2. Private / Business Aircraft shall carry a tow bar compliant to its type of aircraft

OBBI AD 2.5 PASSENGER FACILITIES

1	Hotels	In Manama and at Airport
2	Restaurants	At Airport
3	Transportation	Taxis and courtesy coaches to Hotels
4	Medical facilities	First aid; Ambulance; Hospitals in Manama
5	Bank and Post Office	At airport; At airport
6	Tourist Office	At airport
7	Remarks	NIL

OBBI AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 10
2	Specialized Rescue equipment	1 Rescue Staircase Vehicle available
3	Capability for removal of disabled aircraft	Limited
4	Remarks	Trained personal: 13 per shift; Fire vehicles: 5 vehicles, 2 with 13300L of capacity each, 2 with 12500L of capacity each and 1 with 12000L of capacity, 2 of those vehicles are used as backup in case of equipment failure

OBBI AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	Types of clearing equipment	NIL
2	Clearance priorities	NIL
3	Remarks	NIL

OBBI AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron designation, surface, strength and area	MAIN A: Concrete, PCN 114 / R / C / W / T MAIN APRON B (STAND 14 TO 22): Concrete, PCN 86 / R / B /W /T (50,000 m2) MIDDLE APRON (STAND 1 TO 6): Concrete, PCN 104 / R / B / W / T (18,000 m2) EASTERN APRON (STAND 23 TO 28): Concrete, PCN 120 / R / B / W / T (70,000 m2) EASTERN EXECUTIVE (STAND 81 TO 88): Asphalt, PCN 22 / F/ B / X / T (16,000 m2) WESTERN A (STAND 61 TO 63): Concrete, PCN 120 / R / C / W / T (13,000 m2) WESTERN B (STAND 50 TO 58): Concrete, PCN 82 / R / C / W / T (93,000 m2) EXECUTIVE APRON (STAND E1 TO E4): Concrete, PCN 120 / R / B / W / T (18,000 m2) CARGO APRON (STAND C1 TO C5): Concrete, PCN 120 / R / B / W / T (37,000 m2) NORTHERN APRON (STAND 70 TO 75): Asphalt, PCN 105 / F / A / W / T (45,500 m2) MENA APRON : Concrete, PCN 120 / R / D / W / T(10,000 m2)

2	Taxiway designation, width, surface, strength and shoulder width (m)	TWY A1: 28 M, Asphalt, PCN 120 / F / A / W / T 17.50 West - 17.50 East TWY A2: 25.5 M, Asphalt, PCN 114 / F / A / W / T 17.50 West - 17.50 East TWY A3: 30 M, Asphalt, PCN 69 / F / A / W / T 15.00 West - 15.50 East TWY A4: 31.5 M, Asphalt, PCN 65 / F / A / W / T 17.50 West - 17.50 East TWY A5: 30 M, Asphalt, PCN 120 / F / A / W / T 15.00 West - 16.00 East TWY A6, 23 M, Asphalt, PCN 107 / F / A / W / T 15.00 West - 15.00 East TWY A7, 22 M, Asphalt, PCN 72 / F / A / W / T - 14.00 West - 17.00 East TWY A8: 30 M, Asphalt, PCN 120 / F / A / W / T 17.50 West - 17.50 East TWY A9: 29 M, Asphalt, PCN 87 / F / A / W / T 17.50 West - 18.00 East TWY B1: 23 M, Asphalt, PCN 85 / F / A / W / T 10.50 West - 11.50 East TWY K: 26 M, Concrete, PCN 83 / R / B / W/ T No Limit West - No Limit East TWY L: 26 M, Asphalt, PCN 59 / F / A / W / T No Limit West - No Limit East A (between A1 & Stand 1): 26M, Asphalt,PCN 112 / F / A / W / T 17.50 North - No Limit South TWY M: 34 M, Asphalt, PCN 102 / F / A / W / T No Limit West - No Limit East TWY N: 34 M, Asphalt, PCN 79 / F /' B / W / T No Limit West - No Limit East A (Between Stand1 & Stand 6): 11.5m North of(CL) & 51m South of (CL), Asphalt, PCN 112 / F / A /W / T 15.00 North - No Limit South TWY P: 33 M, Concrete, PCN 85 / R / B / W / T No Limit West - No Limit East TWY Q: 49 M, Concrete, PCN 56 / R / C / W / T No Limit - No Limit A (Between Stand 6 & S): 30M, Asphalt, PCN 112 / F / A / W / T 15.00 North - No Limit South TWY R: 49 M, Concrete, PCN 87 / R / B / W / T No Limit - No Limit TWY S: 44 M, Asphalt, PCN 72 / F / A / X / T No Limit - No Limit TWY T: 42M, Asphalt, PCN 72 / F / A / X / T No Limit - 17.00 East TWY U: 42 M, Asphalt, PCN 75 / F / A / W / T 17.50 West - 18.00 East TWY V: 42M,Asphalt,PCN 120 / F / A / W / T 18.50 West - 17.50 East TWY B2, 30 M, Asphalt, PCN 84 / F / A / W / T 7.50 West - 7.50 East TWY Z: 63 M, Asphalt PCN 72 / F / A / X / T (between link R & T) No Limit North - No Limit South PCN 79 / F / A / W / T (between link T & V) 17.50 North - No Limit South
3	Altimeter checkpoint location and elevation	Bays 42 - 46: 6 FT
4	VOR checkpoints	TBN
5	INS checkpoints	See ACFT Parking / Docking charts
6	Remarks	Main Apron B consist from stands 14 – 22.Stand 14 can accommodate up to Code E aircraft, while stands 15 – 22 can accommodate upto code F. additionally, eastern apron (stands 23 – 28) can accommodate up to code F aircraft *with the exception of stand 28 which accommodates up to code C only*

OBBI AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Taxiing guidance signs at all intersections with TWY and RWY at all holding positions. Taxi guide lines at all aprons. SAFEGATE Visual Docking Guidance System (VDGS) installed on stands: MIDDLE APRON (STAND 1 TO 6), CARGO APRON (STAND C1 TO C5), EXECUTIVE APRON (STAND E1 TO E4) EASTERN APRON (STAND 23 TO 28), FMT Aircraft Positioning and Information System (APIS) installed on stands: MAIN APRON B (STAND 14 TO 22).
2	RWY and TWY markings	RWY 12L / 30R: designation, THR, Displaced THR, TDZ, CL, Edges marked and lighted RWY 12R / 30L: designation, THR, Displaced THR, TDZ, CL, Edges marked and Displaced THR & Edges lighted TWY: CL, holding positions at all TWY/RWY intersections, marked and lighted (except TWY B2).
3	Stop bars	Where appropriate, manually controlled by TWR.
4	Remarks	See also Aerodrome Ground Movement Chart for taxiing guidance. Road Holding positions to RWY: Reflective signs are available.

OBBI AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas				In circling area and at AD		
1				2		
Obstacle identification or designation	RWY NR/ Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle identification or designation	Obstacle type Elevation Markings/LGT	Coordinates
a	b	c	d	a	b	c
OB-1025	12L APCH	Lamppost 11.41 M, 37.43 FT NIL / NIL	261658.36N 0503658.50E	OB-1127	Comms Mast 41.29 M , 135.46 FT NIL / NIL	261704.32N 0503745.26E
OB-2273	12L APCH 12R TKOF	Building 16.27 M, 53.38 FT NIL / NIL	261654.76N 0503706.50E	OB-1146	ATC Dipole 53.56 M, 175.72 FT NIL / NIL	261600.98N 0503751.70E
OB-1234	12L TKOF	ILS FFM 7.86 M, 25.79 FT NIL / NIL	261534.71N 0503910.92E	OB-1209	Comms Mast 40.85 M , 134.02 FT NIL / NIL	261626.78N 0503856.76E
OB-2130	12L TKOF	Lamppost 12.46 M, 40.88 FT NIL / NIL	261535.00N 0503920.39E	OB-1213	Comms Mast 36.48 M, 119.68 FT NIL / NIL	261523.53N 0503857.43E
OB-1104	12L	Lamppost 12.92 M, 42.39 FT NIL / NIL	261654.60N 0503705.60E	OB-1295	Comms Mast 56.15 M , 184.22 FT NIL / NIL	261605.12N 0503649.33E
OB-1105	12L	Lamppost 12.33 M, 40.45 FT NIL / NIL	261652.95N 0503708.24E	OB-1321	Power Stn Chimney 68.21 M, 223.78 FT NIL / NIL	261306.68N 0503932.70E
OB-1106	12L	Lamppost 12.40 M, 40.68 FT NIL / NIL	261652.55N 0503709.23E	OB-2011	Water Tower 46.32 M 151.97 FT NIL / NIL	261650.15N 0503833.33E
OB-1107	12L	Lamppost 12.32 M, 40.42FT NIL / NIL	261652.24N 0503710.26E	OB-2024	Comms Mast 39.99 M, 131.2 FT NIL / NIL	261611.61N 0503915.02E
OB-1109	12L	Lamppost 12.20 M, 40.03FT NIL / NIL	261652.06N 0503711.30E	OB-2072	Building 77.30 M, 253.61 FT NIL / NIL	261725.96N 0503954.66E
OB-1115	12L	Tree 7.50 m, 24.61 FT NIL / NIL	261650.53N 0503711.82E	OB-2078	Crane (T) 95.81 M, 314.33 FT NIL / NIL	261704.89N 0503951.69E
OB-2269	12L	Building 18.62 M, 61.09 FT NIL / NIL	261657.46N 0503704.07E	OB-2165	Crane (T) 191.90 M, 629.59 FT NIL / NIL	261326.11N 0503633.69E
OB-2270	12L	Building 18.65 M, 61.19 FT NIL / NIL	261657.24N 0503704.26E	OB-2166	Crane (T) 201.55 M, 661.25 FT NIL / NIL	261324.31N 0503632.51E
OB-2272	12L	Building 17.59 M, 57.71 FT NIL / NIL	261655.33N 0503707.41E	OB-2233	Building 82.29 M, 269.98 FT NIL / NIL	261445.33N 0503606.04E
OB-5115	12L	Mobile Obstacle 6.47 M, 21.23 FT NIL / NIL	261651.07N 0503710.26E	OB-2235	Crane (T) 252.40 M, 828.07 FT NIL / NIL	261427.54N 0503421.34E
OB-5116	12L	Mobile Obstacle 6.38 M, 20.93 FT NIL / NIL	261650.35N 0503711.51E	OB-2240	Financial Harbour Building 266.57 M, 874.56 FT NIL / NIL	261415.86N 0503421.56E

In approach/TKOF areas				In circling area and at AD		
1				2		
Obstacle identification or designation	RWY NR/ Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle identification or designation	Obstacle type Elevation Markings/LGT	Coordinates
a	b	c	d	a	b	c
OB-1018	30R TKOF	Lamppost 11.57 M, 37.96 FT NIL / NIL	261659.85N 0503651.62E	OB-2241	Financial Harbour Building 266.74 M, 875.12 FT NIL / NIL	261415.89N 0503427.61E
OB-1048	30R TKOF	Lamppost 11.52 M, 37.79 FT NIL / NIL	261653.00N 0503646.81E	OB-2242	WTC Building 246.81 M, 809.73 FT NIL / NIL	261422.26N 0503453.85E
OB-1197	30R	DVOR Monitor 8.584 M, 28.15 FT NIL / NIL	261531.38N 0503916.68E	OB-2243	WTC Building 247.07 M, 810.59 FT NIL / NIL	261421.81N 0503453.14E
OB-1247	12R TKOF	Tree 10.46 M, 34.32 FT NIL / NIL	261527.67N 0503916.88E	OB-2249	Building Antenna 206.60 M, 677.81 FT NIL / NIL	261346.40N 0503331.13E
OB-1248	12R TKOF	Tree 9.62 M, 31.56 FT NIL / NIL	261527.23N 0503916.61E	OB-2250	Building Antenna 206.51 M, 677.52 FT NIL / NIL	261350.69N 0503331.27E
OB-1272	12R TKOF	Lamppost 8.19 M, 26.87 FT NIL / NIL	261523.70N 0503909.89E	OB-2261	Building Antenna 213.23 M, 699.56 FT NIL / NIL	261412.06N 0503259.14E
OB-2121	12R TKOF	Lamppost 16.64 M, 54.59 FT NIL / NIL	261516.53N 0503924.54E	OB-2299	Flag Pole 52.35 M, 171.75 FT NIL / NIL	261556.95N 0503545.28E
OB-2122	12R TKOF	Lamppost 16.58 M, 54.4 FT NIL / NIL	261516.95N 0503922.10E	OB-2309	Building 52.09 M, 170.9FT NIL / NIL	261547.74N 0503545.31E
OB-2144	12R TKOF	Lamppost 11.72 M, 38.45 FT NIL / NIL	261526.28N 0503920.36E			
OB-2145	12R TKOF	Lamppost 11.86 M, 38.91FT NIL / NIL	261525.34N 0503920.08E			
OB-5206	12R TKOF	Mobile Obstacle 6.45 M, 21.16 FT NIL / NIL	261530.03N 0503913.81E			
OB-5761	12R TKOF	Mobile Obstacle 6.27 M, 20.57 FT NIL / NIL	261526.99N 0503905.27E			
OB-1093	30L TKOF	Apron Light 23.14 M, 75.92 FT NIL / NIL	261633.28N 0503707.18E			
OB-1094	30L	Apron Light 23.19 M, 76.08 FT NIL / NIL	261634.49N 0503708.04E			
OB-1095	30L TKOF	Apron Light 15.14 M, 49.67 FT NIL / NIL	261635.67N 0503708.88E			
OB-1213	30L	Comms Mast 36.48 M, 119.68 FT NIL / NIL	261523.53N 0503857.43E			

In approach/TKOF areas				In circling area and at AD		
1				2		
Obstacle identification or designation	RWY NR/ Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle identification or designation	Obstacle type Elevation Markings/LGT	Coordinates
a	b	c	d	a	b	c
OB-5760	30L	Mobile Obstacle 6.21 M, 20.37 FT NIL / NIL	261530.23N 0503859.66E			

OBBI AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	BAHRAIN MET. See also GEN 3.5.1.4
2	Hours of service MET Office outside hours	H24. See also **GEN 3.5.1.4** NIL
3	Office responsible for TAF preparation Periods of validity	BAHRAIN MET HR 30
4	Trend forecast Interval of issuance	Trend 1/2 HR
5	Briefing/consultation provided	Personal consultation, partial self briefing, telephone to Forecaster. See also GEN 3.5.1.5
6	Flight documentation Language(s) used	Charts, abbreviated plain language text English
7	Charts and other information available for briefing or consultation	S, U25, P25 (other levels on request), T, SWH (East & West), SWM (MID), TB (Gulf sector winds). See also GEN 3.5.1.5
8	Supplementary equipment available for providing information	Telefax, Self briefing terminal. See also GEN 3.5.1.5
9	ATS units provided with information	BAHRAIN TWR, APC, ACC, RCC
10	Additional information (limitation of service, etc.)	See **GEN 3.5.1**

OBBI AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE & MAG BRG	Dimensions of RWY(M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
12L	122°37'02"TB 119°42'02"MB	3964 x 60	120 / F / A / W / T Asphalt between landing THRs 120 / R / B / W / T Concrete first 307 M	Landing THR: 261644.34N 0503710.28E THR end: 261649.67N 0503701.03E -90.38 FT	7.55 FT 8.63 FT
30R	302°37'47"TB 299°42'47"MB	3964 x 60	120 / F / A / W / T Asphalt between landing THRs 120 / R / B / W / T Concrete first 307 M	Landing THR: 261545.62N 0503852.03E THR end: 261540.28N 0503901.28E -90.38 FT	7.35 FT 7.35 FT
12R	122°37'20"TB 119°42'20"MB	2530 x 45	120 / F / A / W / T Asphalt	Landing THR: 261610.74N 0503755.62E THR end: 261616.13N 0503746.29E -90.38 FT	8.04 FT 8.04 FT

Designations RWY NR	TRUE & MAG BRG	Dimensions of RWY(M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
30L	302°37'48"TB 299°42'48"MB	2530 x 45	120 / F / A / W / T Asphalt	Landing THR: 261533.91N 0503859.44E THR end: 261531.79N 0503903.10E -90.38 FT	6.76 FT 6.46 FT
Note: *RWY 12R / 30L is not an active Runway. In exceptional circumstances, ATC may assign RWY 12R / 30L provided that the procedures are in place and Runway 12L / 30R is deactivated. Approaches to land or take off on RWY 12R / 30L shall not be planned without specific authorization from BCAA.*					

Slope of RWY-SWY			SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	OFZ	Remarks
7			8	9	10	11	12
12L	0.0%	NIL	NIL	NIL	4084 x 300	Yes	Non load bearing shoulders 8 M; RWY is liable to be slippery when wet
30R	0.0%	NIL	NIL	NIL	4084 x 300	Yes	Non load bearing shoulders 8 M; RWY is liable to be slippery when wet
12R	0.0%	NIL	NIL	60 x 150	2650 x 150	No	Non load bearing shoulders 7.5 M
30L	0.0%	NIL	NIL	600 x 150	2650 x 150	No	Non load bearing shoulders 7.5 M
Note: *Standard RESA 240 M available for RWY 12L and 30R*							

OBBI AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
12L	3964	3964	3964	3657	NIL
30R	3964	3964	3964	3657	NIL
12R	2530	2590	2530	2222	NIL
30L	2530	3130	2530	2410	NIL

OBBI AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
12L	ICAO CAT II precision approach lighting system 900 M LIH	Green	PAPI LEFT 3° 67.15FT	900 M	White LIH 3964 M; 30 M white; 3000 M - 3600 M red / white; from 3600 M red LIH	White LIH 3964 M; 60 M; last 600 M yellow	Red	NIL	NIL

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
30R	ICAO CAT II precision approach lighting system 900 M LIH	Green	PAPI LEFT 3° 67.15 FT	900 M	White LIH 3964 M; 30 M white; 3000 M - 3600 M red / white; from 3600 M red LIH	White LIH 3964 M; 60 M; last 600 M yellow	Red	NIL	NIL
12R	Simple approach lighting system (for non-instrument RWY) 420 M	Green	PAPI LEFT 3° 70.4 FT	NIL	NIL	White LIH 2530 M; 60 M; last 600 M yellow	Red	NIL	NIL
30L	Simple approach lighting system (for non-instrument RWY) 420 M	Green	PAPI LEFT 3° 70.4 FT	NIL	NIL	WHITE LIH 2530 M; 60 M; last 600 M yellow	Red	NIL	NIL
Note: *RWY incursion lights (wig wag) installed at all TWY / RWY intersections 2.6 M from TWY edge. Height 65 CM..*									

OBBI AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and operational hours	NIL
2	LDI location and LGT Anemometer location and LGT	NIL 350 M WSW of THR 30R; lighted
3	TWY lighting	Green CL , Runway intersections
4	Secondary power supply/switch-over time	- SECONDARY POWER SUPPLY TO ALL AD LIGHTING : 5 SECONDS. - DURING CAT II OPERATION, STANDBY GENERATOR SWITCH-OVER TIME 1 SECOND
5	Remarks	Apron: Blue Apron edge, TWY " B1 " is a solar powered blue edge light.

OBBI AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO Geoid undulation	NIL
2	TLOF and/or FATO elevation M/FT	NIL
3	TLOF and FATO area dimensions, surface, strength, marking	NIL
4	True BRG of FATO	NIL
5	Declared distance available	NIL
6	APP and FATO lighting	NIL
7	Remarks	As directed by ATC

OBBI AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	BAHRAIN CTR: A Circle, radius 10 NM centered at BAH ARP (261615N 0503801E).
2	Vertical limits	SFC - 2500 FT
3	Airspace classification	D
4	ATS unit call sign Language(s)	BAHRAIN TOWER English
5	Transition altitude	13000FT
6	Hours of applicability	H24
7	Remarks	New ATC Control Tower at 261601.3N 0503751.5E top elevation 53 M (174 FT) AMSL located aprox DIST / MAG BRG at 210 ° / 500 M (0.3 NM) from ARP, penetrates Obstacle Limitation Surfaces

OBBI AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Channel	Hours of operation	Remarks
1	2	3	4	5
APP / TAR	BAHRAIN APPROACH	127.85 MHZ	H24	
		234.95 MHZ	H24	Alternate Frequency
TWR	BAHRAIN TOWER	118.5 MHZ	H24	
		296.025 MHZ	H24	Alternate Frequency
SMC	BAHRAIN GROUND	121.85 MHZ	H24	
A/G	BAHRAIN RADIO	2992 KHZ	H24	
		5658 KHZ	H24	
		5667 KHZ	H24	
		8918 KHZ	H24	
		13288 KHZ	H24	
		13312 KHZ	H24	
D - ATIS	BAHRAIN INFORMATION	127.2 MHZ	H24	
VOLMET	BAHRAIN VOLMET	128.8MHZ	H24	
DLV	BAHRAIN DELIVERY	121.90MHZ	H24	

OBBI AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR, CAT of ILS/MLS (For VOR/ILS/MLS, give declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
DVOR (2.49° / 2020) (decl: 2.72°E 2017)	BHR	111.80 MHZ	H24	261530.00N 0503919.18E	36.82 FT	120° MAG .48NM From THR RWY 30R
DME	BHR	CH 55 X	H24	261530.41N 0503919.53E	36.8 FT	Co-located with DVOR.

Type of aid, MAG VAR, CAT of ILS/MLS (For VOR/ILS/MLS, give declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
ILS LOC RWY 12L CAT II (2.49° / 2020)	IBIB	111.5 MHZ	H24	261534.17N 0503911.85E	15.86 FT	NIL
GP RWY 12L		332.9 MHZ	H24	261642.07N 0503722.58E	52.97 FT	Angle 3°, RDH 55 FT
ILS DME RWY 12L	IBIB	CH 52 X	H24	261641.92N 0503722.47E	42 FT	Co - located with GP
ILS LOC RWY 30R CAT II (2.49° / 2020)	IBIA	110.3 MHZ	H24	261656.27N 0503650.00E	22.14 FT	300° MAG 2.18 NM from THR RWY 30R
GP RWY 30R		335 MHZ	H24	261555.16N 0503844.83E	53.136 FT	Angle 3°, RDH 55 FT
ILS DME RWY 30R	IBIA	CH 40 X	H24	261555.16N 0503844.83E	42 FT	Co - located with GP

OBBI AD 2.20 LOCAL AERODROME REGULATIONS

(i) Operations on the Eastern Apron

(1) Stands 23 - 28

Following are the source of ground power available and shall be provided accordingly:

1. FEGP when serviceable
2. GPU - when FEGP is not serviceable
3. No APU is to be left running unless either a qualified person is in attendance or the APU has both an auto-shut

(ii) Operation on TWY **(B1)**

TWY (B1) is a viable for night operations subject to the following conditions:-

1. No centre line lights are provided other than the existing CAT-EYE reflectors.

2. Lights are provided.
3. No LEAD ON/LEAD off lights are provided.

4. STOP-BAR, at present, is illuminated continuously, where contrast and ON / OFF functionality still remains uncontrollable by ADC day and night.

5. Clearance to cross the STOP-BAR shall only be issued by ADC when deemed necessary in order for ACFT to proceed day and night.

6. FOLLOW-ME vehicle will be provided for all ACFT entering TWY (B1) down to the engine-shut down markings day and night.
7. FOLLOW-ME vehicle will be provided for all ACFT leaving TWY (B1) from the engine-start markings up to the stop-bar only. Pilot shall then request an individual clearance from ADC to cross the stop-bar fro progressive taxiing day and night.

{iii} Single Engine Taxi

ICAO resolution A37-19 emphasizes the importance of the International Civil Aviation to limit or reduce the Carbon Dioxide emissions from aircraft within a state boundary. For this reason Bahrain has adopted a procedure which will help in reducing the emission of CO2 from aircraft and allow for airline fuel conservation. Single Engine Taxi Operations may be exercised by multi--engine aircraft provided the following conditions are met:

1. The Pilots should be familiar with Bahrain International Airport in terms of aerodrome layout.
2. Pilots executing Single Engine Taxi Operation, should comply to ATC instructions as may be issued during taxiing without any delay.

In addition to the above, Single Engine Taxi Operations shall NOT be used if one of the following cases prevails:

1. If taxi or parking will involve a turn of 180 degrees or more.
2. The aircraft is on the active RWY or requesting to cross the RWY.

{iv} **Stop Bars Holding**

Aircraft or vehicles shall not cross a runway holding point until they have received verbal clearance from ATC and the STOP BAR has been extinguished.
STOP BARS shall not be crossed without specific ATC clearance as follows. Unable to turn STOP BARS off. Cross Red STOP BAR.

{v} Transponder Setting

All Transponder equipped aircraft shall select transponder to standby or off, when fully parked on the stand or gate.

{vi} Clearance Delivery

In addition to clearances via radio, Bahrain ATC offers to issue en-route clearances by means of data link. The data link address for Bahrain International Airport is OBBI.

Departing IFR flights shall request their en-route clearance between TOBT -30 and TOBT -5 via radio or CPDLC. With the request for the en-route clearance the requested enroute level/altitude and the parking stand shall be transmitted. When using CPDLC the requested altitude/flight level shall be entered in the pilot remarks free text field. Pilots shall maintain continuous air-ground communication watch on BAHRAIN DELIVERY frequency throughout the complete DCL process via CPDLC.
Departing VFR flights contact BAHRAIN DELIVERY for their VFR departure instructions.

{vii} RWY 12L Operations on TWY A4

TWY A4 marking and AGL is not available for aircraft landing on RWY 12L. Aircraft landing on RWY 12L shall not vacate via A4.

{viii} RWY 30R Operations on TWYs A6 and/or A7

TWYs A6 and A7 marking and AGL is not available for aircraft landing on RWY 30R. Aircraft Landing on RWY 30R shall not vacate via A6 and/or A7.

OBBI AD 2.21 NOISE ABATEMENT PROCEDURES

NOISE ABATEMENT PROCEDURES - BAHRAIN

1. Circuit directions at BAHRAIN INTERNATIONAL airport are:

   RWY 30L/ 30R: right hand;

   RWY 12L / 12R: left hand.

2. Departing and arriving flights are not permitted to operate within the eighty - degree arc subtended by the 180° and 260° Radials of the BHR DVOR, and containing the main Bahrain Islands. Exceptionally , flights which the Controlling Authority has deemed operationally essential may be permitted to operate within this arc, provided they can remain either visually clear of the land, or be vectored clear by BAHRAIN APPROACH.
3. Usage of reverse thrust:

   Usage of reverse thrust more than idle is not permitted during landing between the hours of 2100 and 0300, unless an aircraft is in an emergency and has been cleared to use the reverse thrust by the ATC.

4. Engine Run Ups at BAHRAIN INTERNATIONAL airport

   Between the hours of 2100 and 0300, testing of aircraft engines is permissible at ground idle power only. Settings above this, however brief, are not allowed.

OBBI AD 2.22 FLIGHT PROCEDURES

Low Visibility Procedures Applicable to ILS CAT II operations at Bahrain International Airport

2.22.1. **Authorization**

All Air operators may conduct Low Visibility Operations (take-off, CAT II approaches and landings) if they are legally authorized-approved by their own aeronautical authority of the state of registration.

Aerodrome Information concerning surface wind and RVR is immediately provided by ATC and significant changes will be reported in accordance with the provisions of PANS - ATM (DOC 4444).

LVP operations for arrivals and departures are limited to the main runway at Bahrain International Airport:

RWY 30R ILS CAT II

RWY 12L ILS CAT II

Any changes in the operational status or the facilities will be promulgated by NOTAM and/or pilots will be advised accordingly by ATIS or on initial contact with ATC.

2.22.1.1 Low Visibility Procedures (LVP)

Low Visibility Procedures (LVP) shall be declared at Bahrain International Airport whenever the RVR reading is 1000M or less, or whenever conditions are such that all of the maneuvering area is not visible from the control tower.

The procedures will ensure protection of the ILS sensitive and critical areas to ILS CAT II limits, provide an effective surface movement guidance and control system, and ensure a safe CAT II operations environment.

LVP procedures will not normally be introduced for aircraft carrying out practice CAT II approaches.

2.22.1.2 Aerodrome Operating Minima

A- Arrival RWY 12L / 30R LVP Minima

-Runway 30R, Refer to AIP chart IAC -ICAO RWY 30R VOR DME ILS CAT A-D

-Runway 12L, Refer to AIP chart AD 2-OBBI-51

-LVP shall be in force

-No aircraft shall be permitted to make an approach to land when the RVR is less than 350 meters.

B- Departure RWY 12L / 30R LVP Minima

-LVP shall be in force

-No aircraft departure is permitted when the RVR is less than 350 meters.

2.22.1.3 Runway Utilization

To ensure the maximum runway utilization during LVP operations, the runway shall not be used as a taxi/towing route except for aircraft required to exit the runway. The runway shall not be used to cross from taxiways B1 and B2; pilots are expected to comply with the following operational procedures:

A- Departures

RWY 30R

1. RWY holding position H shall be used for departure. Intersection departures are not authorized during LVP.
2. On receipt of take-off clearance, pilots should ensure that they are able to commence take-off without delay.
3. Strict adherence to ATC taxi instructions is required, refer to the AIP (LVP DEP Taxi route RWY 12L - 30R AD 2-OBBI-87).
4. Notify ATC immediately of any noncompliance to the above requirements

RWY 12L

1. RWY holding position A1 shall be used for departure traffic. Intersection departures are not authorized during LVP.
2. On receipt of take-off clearance, pilots should ensure that they are able to commence take-off without delay.
3. Strict adherence to ATC taxi instructions is required, refer to the AIP (LVP DEP Taxi route RWY 12L - 30R AD 2-OBBI-87).
4. Notify ATC immediately of any noncompliance to the above requirements.

B- Arrivals

RWY 30R

1. Arriving aircraft may exit the RWY to the south at TWY A4 or beyond or,
2. Arriving aircraft may exit the RWY to the north at TWY B1 or TWY B2.
3. Strict adherence to ATC taxi instruction is required, refer to the AIP (LVP ARR Taxi route RWY 12L - 30R LOW VISIBILITY PROCEDURE - ARR RWY 12L - 30R).
4. Report RWY vacated and taxi speed to ATC.

RWY 12L

1. Arriving aircraft may exit the RWY to the south at TWY A5 or beyond or,
2. Arriving aircraft may exit the RWY to the north at TWY B1 or TWY B2
3. Strict adherence to ATC taxi instruction is required, refer to the (LVP ARR Taxi route RWY 12L - 30R AD 2-OBBI-89).
4. Report RWY vacated and/or taxi speed to ATC.

2.22.1.4 Ground Movement Operations Transponder procedures

Advanced Surface Movement Guidance and Control System (ASMGCS) using Mode-S Multi-lateration had been commissioned at Bahrain International Airport. Aircraft Taxi and Transponder Operating Procedures on the movement area are listed below:

A- Departures

While on the apron including pushback operations:

1. Enter the discrete SSR code received from Clearance Delivery/TWR.
2. Enter the three letter ICAO designator followed by the flight number (e.g.GFA123) through the FMS or the Transponder.
3. ATC will verify the data and use it for identification.

B- Arrivals

Landing aircraft to maintain their transponder switched - On until they are fully parked on the stand.

2.22.2 RNAV GNSS APPROACH

GNSS approach is part of the GPS service and is established at Bahrain, therefore, acquisition of such service could only be done by means of flying towards a number of way points which are prevailed along the approach phases within BAHRAIN TMA after which it will guide an aircraft to the final approach of the landing RWY, such procedure may only be flown using significant position co - ordinates that are stored in the aircraft's navigational data base.

a) Path Terminators RUNWAY 12L

#	ID	Latitude	Longitude	P/T	Fly-Over	Course (° T)	VPA	Altitude (ft)	Dist (nm)	speed limit (kts)
010	OB1N3	262712.8781N	0503044.3194E	IF	N			+2500		
020	BI502	262122.55N	0502907.28E	TF	N	194.01		+1400	6	-210
010	LOVAL	262406.31N	0502422.32E	IF	N			+2500		
020	BI502	262122.55N	0502907.28E	TF	N	122.52		+1400	5.06	-210
010	BI502	262122.55N	0502907.28E	IF	N			+1400		
020	BI501	261909.61N	0503258.24E	TF	N	122.56		+1400	4.1	
030	RW12L (MAPt)	261644.33N	0503710.28E	TF	Y	122.58	-2.8	@58	4.8	
040				VM		122.62		@2500		

b) Path Terminators RUNWAY 30R

#	ID	Latitude	Longitude	P/T	Fly-Over	Course (° T)	VPA	Altitude (ft)	Dist (nm)	Speed limit (kts)
1	OB3N1	261454.5833N	0505204.7346E	IF	N			+2500		
2	BI602	261106.96N	0504654.00E	TF	N	230.94		+1400	6	-210
3	DAXEL	260822.45N	0505137.90E	IF	N			+2500		
4	BI602	261106.96N	0504654.00E	TF	N	302.72		+1400	5.06	-210
5	BI602	261106.96N	0504654.00E	IF	N			+1400		
6	BI601	261320.28N	0504303.57E	TF	N	302.69		+1400	4.1	
7	RW30R (MAPt)	261545.62N	0503852.03E	TF	Y	302.66	-2.8	@57	4.48	
8				VM		302.66		@2500		

c) Path Terminators Runway 12R

#	ID	Latitude	Longitude	P/T	Fly-Over	Course (° T)	VPA	Altitude (ft)	Dist (nm)	speed limit (kts)
010	OB1N3	262712.8781N	0503044.3194E	IF	N			+2500		
020	BI502	262122.55N	0502907.28E	TF	N	194.01		+1400	6	-210
010	LOVAL	262406.31N	0502422.32E	IF	N			+2500		
020	BI502	262122.55N	0502907.28E	TF	N	122.52		+1400	5.06	-210
010	BI502	262122.55N	0502907.28E	IF	N			+1400		
020	OB2F1	261836.62N	0503342.52E	TF	N	123.77		+1400	4.96	
030	RW12R	261610.74N	0503755.62E	TF	Y	122.58	-2.8	@58	4.5	
040				VM		122.62		@2500		

d) Path Terminators RWY 30L

#	ID	Latitude	Longitude	P/T	Fly-Over	Course (° T)	Turn Direction	Altitude (ft)	Dist (nm)	Speed limit (kts)
010	OB3N1	261454.5833N	0505204.7346E	IF	N			+2500		
020	BI602	261106.96N	0504654.00E	TF	N	230.94		+1400	6	-210
010	DAXEL	260822.45N	0505137.90E	IF	N			+2500		
020	BI602	261106.96N	0504654.00E	TF	N	302.72		+1400	5.06	-210
010	BI602	261106.96N	0504654.00E	IF	N			+1400		
020	OB3F1	261305.83N	0504316.03E	TF	N	301.17		+1400	3.82	
030	RW30L	261533.91N	0503859.44E	TF	Y	302.63		@57	4.5	
040				VM		302.63		@2500		

2.22.3 RVR RESTRICTIONS

No landing and take off will be allowed at BAHRAIN INTERNATIONAL airport if the reported RVR reading is less than 350 M.

OBBI AD 2.23 ADDITIONAL INFORMATION

2.23.1 **Minimization of time of the RUNWAY**

A number of recent incidents have led to a reduction in the minimum requirement for runway separation between arriving and departing aircraft. The factors causing these incidents have been found to be:

1. Arriving aircraft delay to vacate the runway after landing and / or stop before the entire aircraft has vacated the runway.

2. Departing aircraft, having reported “ready” and been cleared for takeoff, delay on the runway before commencing takeoff roll.

Factors ATC considers:

1. IFR separation on final approach course may reduce to 3NM. This reduced separation minima enhances airspace efficiency and runway utilization.

2. For the purposes of issuing a takeoff or landing clearance to subsequent aircraft, a preceding aircraft is not considered to be clear of the runway until the arriving aircraft is completely clear of the runway or the departing is airborne.

3. in the order to achieve the maximum runway utilization, it is essential that landing aircraft vacate the runway without delay; and that the departing aircraft, once cleared for takeoff, commence takeoff roll without delay.

4. in the event of arriving or departing aircraft delaying on the runway, it may become necessary for the subsequent departing aircraft’s takeoff clearance to be delayed; or for the subsequent arriving aircraft to be instructed to go around. Incidents of this nature have serious safety implication for all operators.

Pilots are, therefore, reminded of their responsibilities.

Arriving Aircraft

1. Plan their runway exit point prior to landing, it is preferred that aircraft landing Runway 12L vacate via taxiway A6, A7 or before; and that aircraft landing Runway 30R vacate via taxiway ’A4’ or before. Advise ATC as soon as practicable if unable to exit the runway as instructed.
2. Do not stop or reduce speed to less than required taxi speed prior to vacating the Runway completely.

3. Vacate the Runway expeditiously.

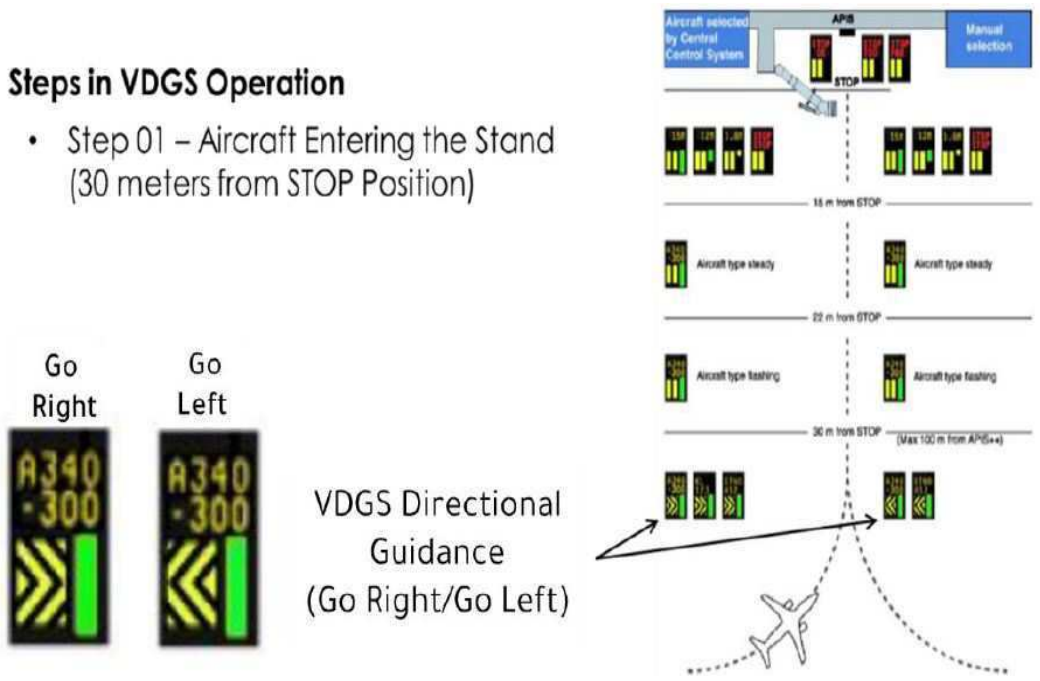
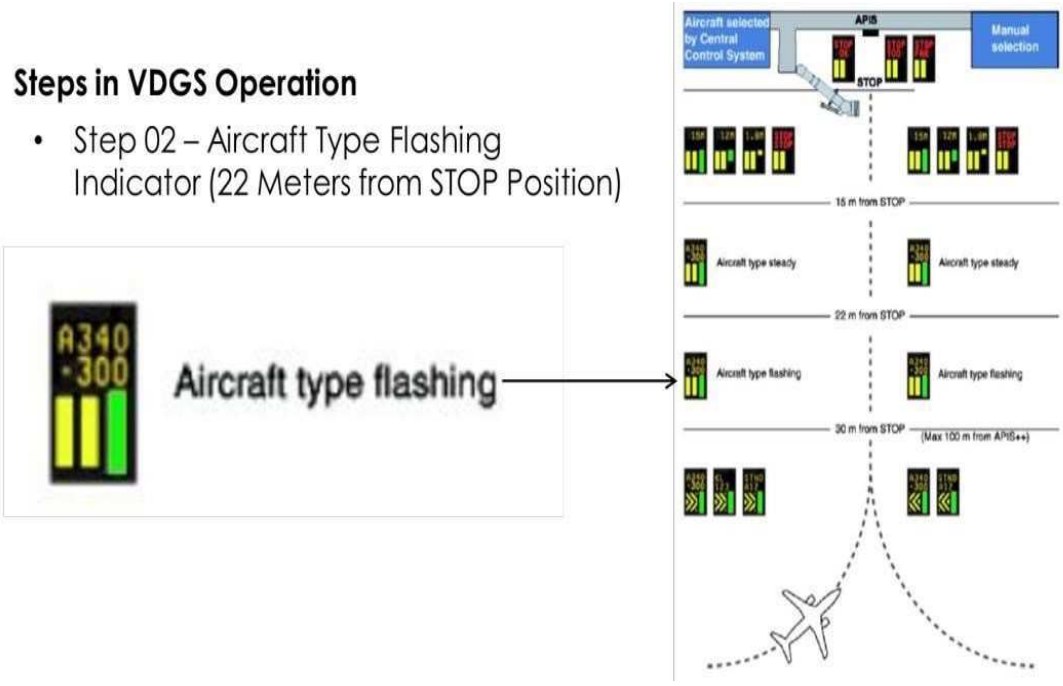
Departing Aircraft

1. Report “ready” only when ready for immediate takeoff.

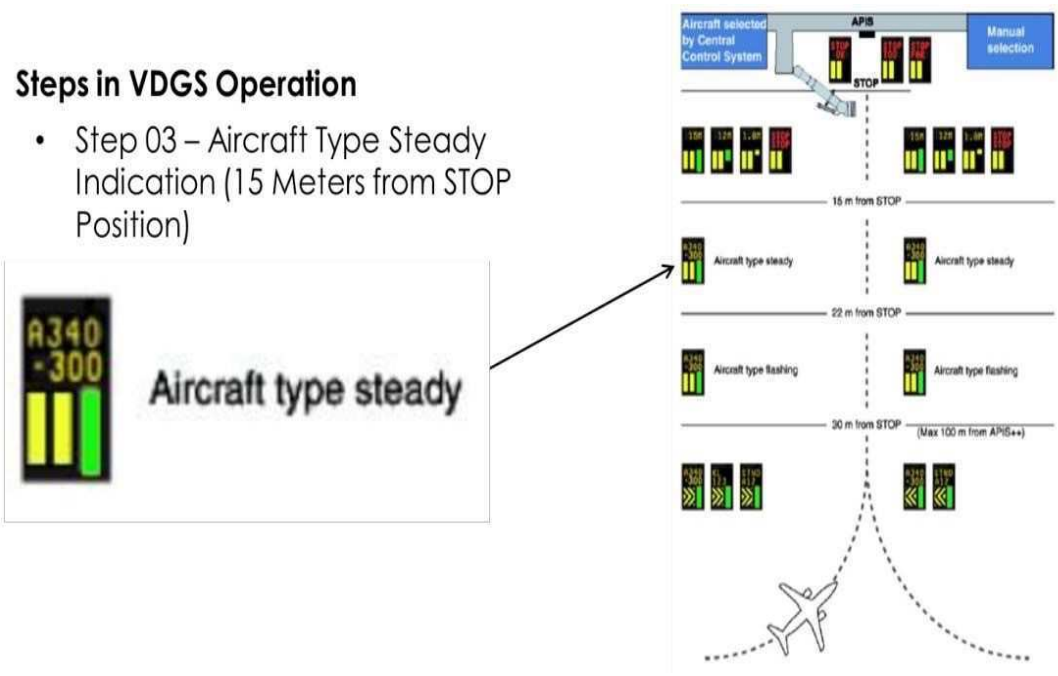
2. Once cleared for takeoff, commence takeoff roll with minimum delay.

Visual Docking Guidance System (FMT – APIS)

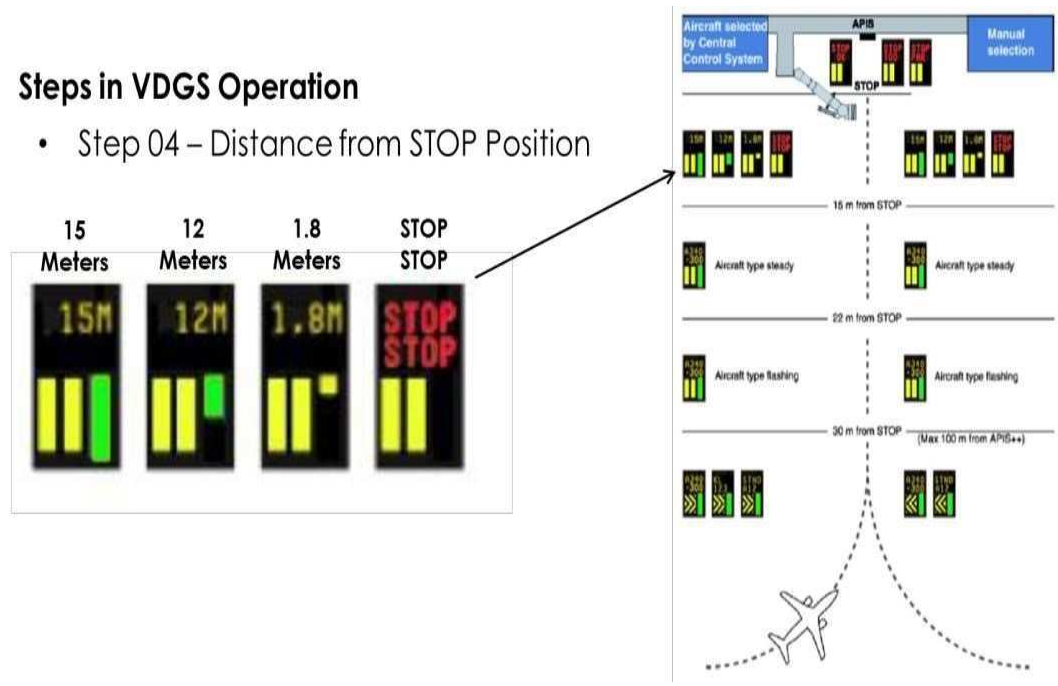
1-FMT APIS Docking Process

Step	Process
1.1	The following steps occur during the aircraft entry and docking process of the FMT APIS VDGS.
1.1.1	
1.1.2	

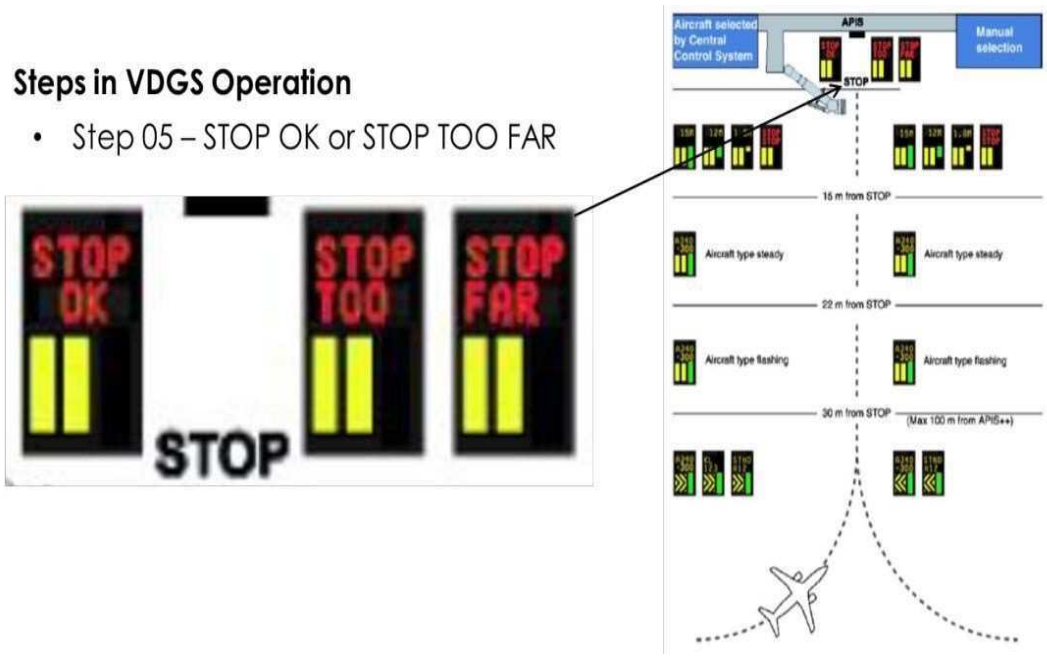
1.1.3


Steps in VDGS Operation
• Step 03 – Aircraft Type Steady Indication (15 Meters from STOP Position)
A340 -300
Aircraft type steady
Aircraft selected by Central Control System
APIS
Manual selection
STOP
15 m from STOP
Aircraft type steady
22 m from STOP
Aircraft type flashing
30 m from STOP
(Max 100 m from APIS++)

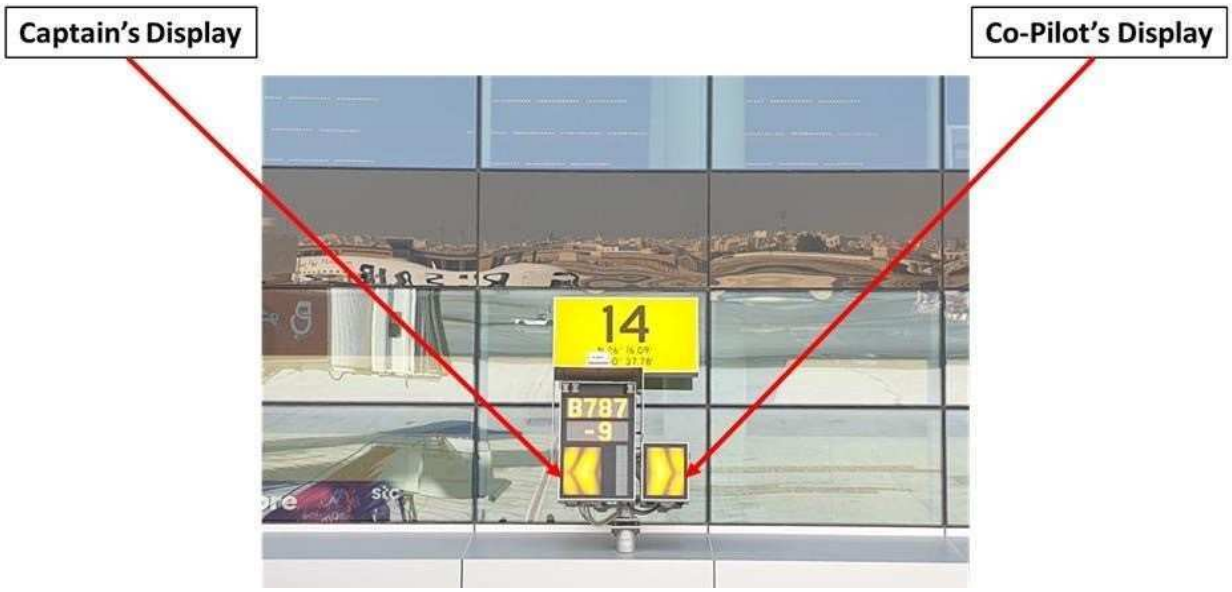
1.1.4


Steps in VDGS Operation
• Step 04 – Distance from STOP Position
15 Meters
12 Meters
1.8 Meters
STOP STOP
15M
12M
1.8M
STOP
STOP
Aircraft selected by Central Control System
APIS
Manual selection
STOP
15 m from STOP
Aircraft type steady
22 m from STOP
Aircraft type flashing
30 m from STOP
(Max 100 m from APIS++)

1.1.5

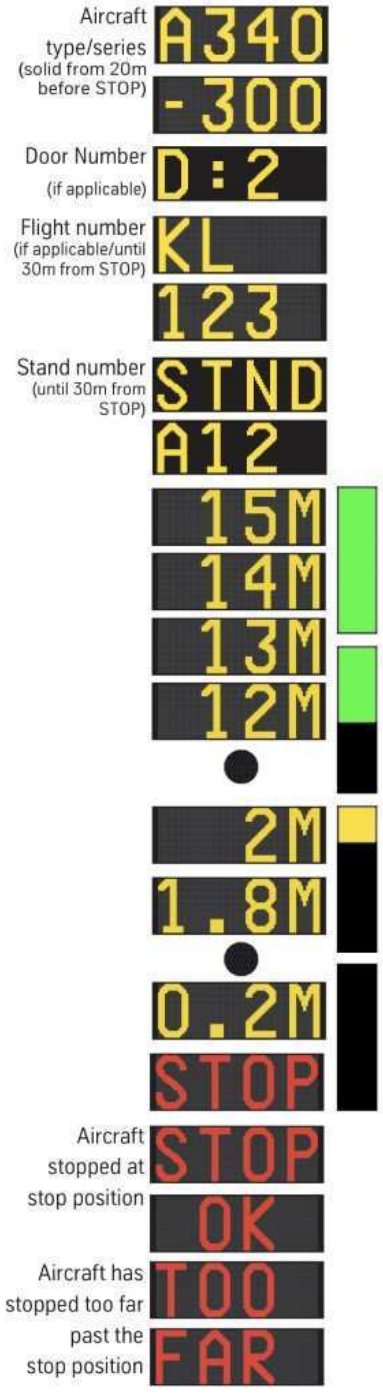


2-FMT APIS Azimuth Guidance – Cockpit View.



3- Pilot Instructions

PILOT INSTRUCTIONS



APIS (Aircraft Parking and Information System).

Sideways(Azimuth) and stop guidance are provided on a display unit mounted in the extention of the center line.

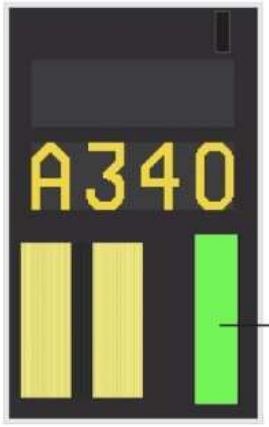
Intercept the center line and follow the BLACK line/arrow in azimuth guidance display.

Check that correct aircraft type/series is shown on the APIS display unit.

Pilot view shown!

Turn to the right!

Turn to the left!



You are on the centerline!

WARNING

Stop the aircraft if the display shows:

- Stop.
- Wrong aircraft type/series
- Azimuth guidance and/or led display is deactivated.

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OBBI AD 2.24 CHARTS RELATED TO AN AERODROME

Chart name	Page
AERODROME/HELIPORT CHART	AD 2-OBBI-25
AERODROME GROUND MOVEMENT CHART	AD 2-OBBI-27
AIRCRAFT PARKING DOCKING CHART MAIN APRON A	AD 2-OBBI-29
AIRCRAFT PARKING DOCKING CHART MAIN APRON B	AD 2-OBBI-31
AIRCRAFT PARKING DOCKING CHART MIDDLE AND CARGO APRONS	AD 2-OBBI-33
AIRCRAFT PARKING DOCKING CHART EXECUTIVE AND CARGO APRON	AD 2-OBBI-35
AIRCRAFT PARKING DOCKING CHART WESTERN APRONS A & B, AND CARGO & EXECUTIVE APRONS	AD 2-OBBI-37
AIRCRAFT PARKING DOCKING CHART NORTHERN APRON	AD 2-OBBI-39
AIRCRAFT PARKING DOCKING CHART EASTERN APRON	AD 2-OBBI-41
AIRCRAFT PARKING DOCKING CHART EASTERN APRON EXECUTIVE	AD 2-OBBI-43
AERODROME OBSTACLE CHART RWY 12L / 30R	AD 2-OBBI-45
AERODROME OBSTACLE CHART RWY 12R / 30L	AD 2-OBBI-47
PRECISION APPROACH TERRAIN CHART - ICAO RWY 30R	AD 2-OBBI-49
PRECISION APPROACH TERRAIN CHART - ICAO RWY 12L	AD 2-OBBI-51
AREA CHART BAHRAIN	AD 2-OBBI-53
DEPARTURE CHART (RADAR) RWY 12L	AD 2-OBBI-55
DEPARTURE CHART (RADAR) RWY 30R	AD 2-OBBI-57
CIRCLING AUTHORIZATION AREA	AD 2-OBBI-59
IAC - ICAO RWY 12L VOR DME ILS CAT A-D	AD 2-OBBI-61
IAC - ICAO RWY 12L VOR DME CAT A-D (L)	AD 2-OBBI-63
IAC - ICAO RWY 12L VOR CAT A-D (L)	AD 2-OBBI-65
IAC - ICAO RWY 12R RNAV (GNSS) CAT A-D(L)	AD 2-OBBI-67
IAC - ICAO RWY 12L RNAV GNSS CAT A-D (L)	AD 2-OBBI-69
IAC - ICAO RWY 12R VOR DME CAT A-D (L)	AD 2-OBBI-71
IAC- ICAO RWY 30L VOR DME CAT A-D (L)	AD 2-OBBI-73
IAC - ICAO RWY 30R VOR DME ILS CAT A-D	AD 2-OBBI-75
IAC - ICAO RWY 30R VOR DME CAT A-D (L)	AD 2-OBBI-77
IAC - ICAO RWY 30R VOR CAT A-D (L	AD 2-OBBI-79
IAC - ICAO RWY 30R RNAV GNSS CAT A-D (L)	AD 2-OBBI-81
IAC - ICAO RWY 30L RNAV (GNSS) CAT A-D(L)	AD 2-OBBI-83
Visual Approach Chart - ICAO	AD 2-OBBI-85
BIRD CONCENTRATIONS	AD 2-OBBI-87
RADAR MINIMUM ALTITUDE CHART	AD 2-OBBI-89
STAR CHART - ICAO RWY 12L-30R RNAV1 - RADIO COMMUNICATION FAILURE STAR	AD 2-OBBI-91
STAR CHART - ICAO RWY 12L-30R RNAV1 - DENVO 1 ARRIVAL	AD 2-OBBI-93
STAR CHART - ICAO RWY 12L-30R RNAV1 - KOBOK 1 ARRIVAL	AD 2-OBBI-95
STAR CHART - ICAO RWY 12L-30R RNAV1 - LADNA 1 ARRIVAL	AD 2-OBBI-97
STAR CHART - ICAO RWY 12L-30R RNAV1 - SOGAT 1 ARRIVAL	AD 2-OBBI-99
LOW VISIBILITY PROCEDURE - DEPARTURE RWY 12L-30R	AD 2-OBBI-101
LOW VISIBILITY PROCEDURE - ARR RWY 12L - 30R	AD 2-OBBI-103

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AERODROME / HELIPORT CHART - ICAO

DISTANCES IN METRES
ALTITUDES, ELEVATIONS AND HEIGHTS IN FEET.

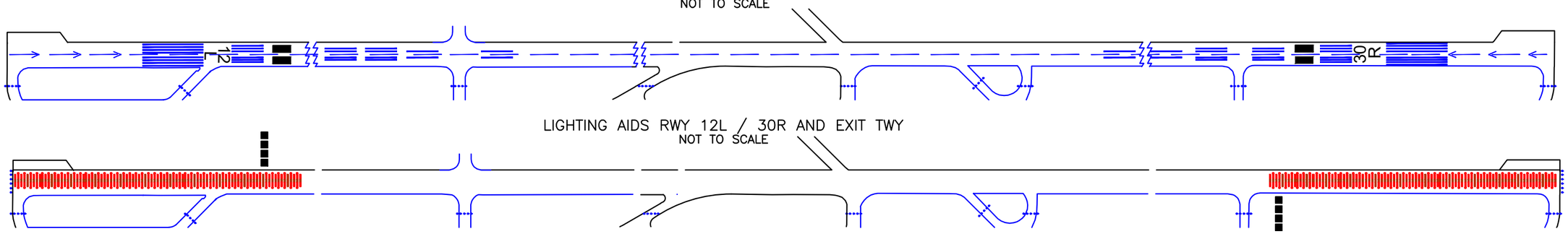
26°16'14.97" N
050°38'01.17" E

APRON ELEV
8.92 FT

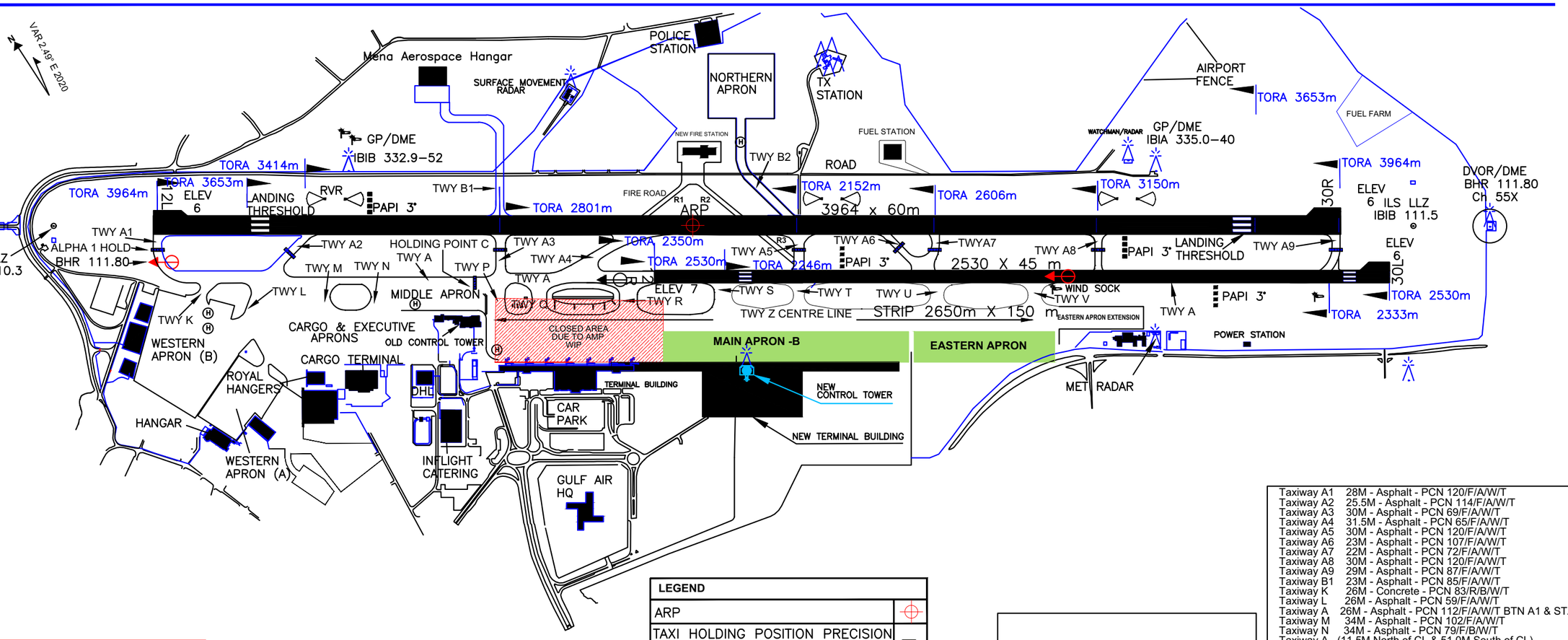
TWR 118.50
GMC 121.85
DLV 121.90

BAHRAIN / Bahrain Intl.

MARKING AIDS RWY 12L / 30R AND EXIT TWY
NOT TO SCALE



LIGHTING AIDS RWY 12L / 30R AND EXIT TWY
NOT TO SCALE



OBBI Taxiway Structure is designed such that all Taxiways are available during CAT II & Low Visibility Operations Subject to ATC Clearance.

SCALE
metres
500 0 500

LEGEND	
ARP	
TAXI HOLDING POSITION PRECISION APCH RWY	
VOR CHECK POINT AND FREQ.	
LANDING THRESHOLD	
HELIPORT	Ⓗ
LINKWAY DESIGNATED BY MARKER BOARDS ILLUMINATED AT NIGHT	TWY G
RUNWAY VISUAL RANGE (RVR)	
WIND SOCK	

RWY 12L / 30R

RWY 12L : FIRST 307M CONCRETE PCN 120/R/B/W/T
RWY 30R : FIRST 307M CONCRETE PCN 120/R/B/W/T
BETWEEN DISPLACED THRESHOLD ASPHALT PCN 120/F/A/W/T

RWY 12R/30L

RWY 12R/30L - ASPHALT PCN 120/F/A/W/T
MAIN TAXIWAY A - 45M WIDE (BACK UP RWY 12R/30L)
R TO A9 PCN 120/F/A/W/T
MAIN TAXIWAY A - 26M WIDE PCN 112/F/A/W/T

Taxiway A1	28M - Asphalt - PCN 120/F/A/W/T
Taxiway A2	25.5M - Asphalt - PCN 114/F/A/W/T
Taxiway A3	30M - Asphalt - PCN 69/F/A/W/T
Taxiway A4	31.5M - Asphalt - PCN 65/F/A/W/T
Taxiway A5	30M - Asphalt - PCN 120/F/A/W/T
Taxiway A6	23M - Asphalt - PCN 107/F/A/W/T
Taxiway A7	22M - Asphalt - PCN 72/F/A/W/T
Taxiway A8	30M - Asphalt - PCN 120/F/A/W/T
Taxiway A9	29M - Asphalt - PCN 87/F/A/W/T
Taxiway B1	23M - Asphalt - PCN 85/F/A/W/T
Taxiway K	26M - Concrete - PCN 83/R/B/W/T
Taxiway L	26M - Asphalt - PCN 59/F/A/W/T
Taxiway A	26M - Asphalt - PCN 112/F/A/W/T BTN A1 & STAND 1
Taxiway M	34M - Asphalt - PCN 102/F/A/W/T
Taxiway N	34M - Asphalt - PCN 79/F/B/W/T
Taxiway A	(11.5M North of CL & 51.0M South of CL) Asphalt - PCN 112/F/A/W/T BTN STAND 1& STAND 6
Taxiway P	33M - Concrete - PCN 85/R/B/W/T
Taxiway Q	49M - Concrete - PCN 56/R/C/W/T
Taxiway A	30M - Asphalt - PCN 112/F/A/W/T BTN STAND 6 & S
Taxiway R	49M - Concrete - PCN 87/R/B/W/T
Taxiway S	44M - Asphalt - PCN 72/F/A/X/T
Taxiway T	42M - Asphalt - PCN 72/F/A/X/T
Taxiway U	42M - Asphalt - PCN 75/F/A/W/T
Taxiway V	42M - Asphalt - PCN 120/F/A/W/T
Taxiway B2	30M - Asphalt - PCN 84/F/A/W/T
Taxiway Z	63M - Asphalt - PCN 72/F/A/X/T BTN R& T PCN 79/F/A/W/T BTN T&V

Amendment: Taxiway A Location & Width Amended and MSSR Radar renamed.

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AERODROME GROUND MOVEMENT CHART - ICAO

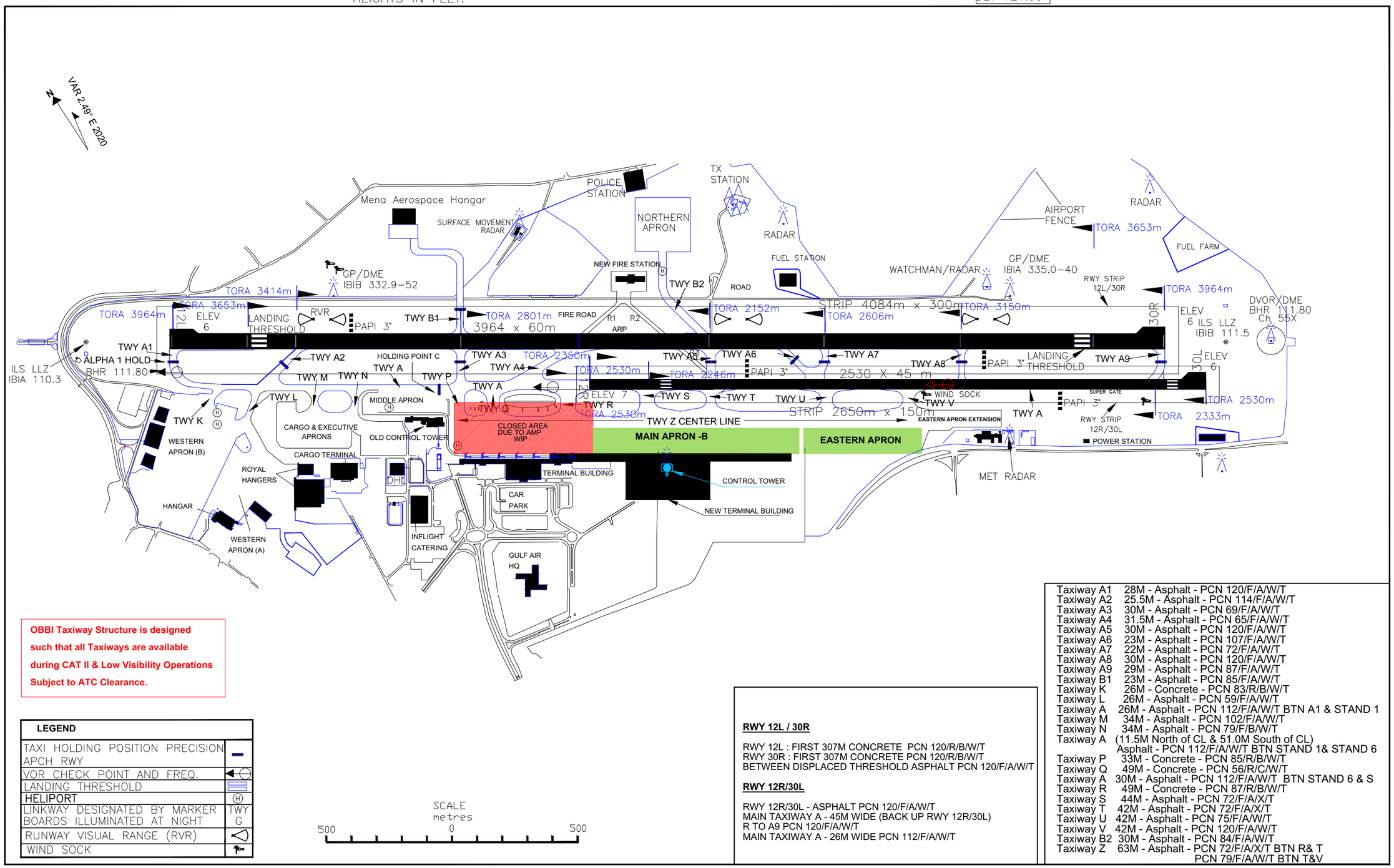
DISTANCES IN METRES
ALTITUDES, ELEVATIONS AND HEIGHTS IN FEET.

26° 16' 14.97"N
050° 38' 01.17"E

APRON ELEV
8.92 FT

TWR 118.50
GMC 121.85
DLV 121.90

BAHRAIN / BAH INTL



Amendment: Taxiway A Location & Width Amended and MSSR Radar renamed.

OBBI Taxiway Structure is designed such that all Taxiways are available during CAT II & Low Visibility Operations Subject to ATC Clearance.

LEGEND	
TAXI HOLDING POSITION PRECISION APCH RWY	
VOR CHECK POINT AND FREQ.	
LANDING THRESHOLD	
HELIPORT	H
LINKWAY DESIGNATED BY MARKER BOARDS ILLUMINATED AT NIGHT	TWY G
RUNWAY VISUAL RANGE (RVR)	
WIND SOCK	

RWY 12L / 30R

RWY 12L : FIRST 307M CONCRETE PCN 120/R/B/W/T
RWY 30R : FIRST 307M CONCRETE PCN 120/R/B/W/T
BETWEEN DISPLACED THRESHOLD ASPHALT PCN 120/F/A/W/T

RWY 12R/30L

RWY 12R/30L - ASPHALT PCN 120/F/A/W/T
MAIN TAXIWAY A - 45M WIDE (BACK UP RWY 12R/30L)
R TO A9 PCN 120/F/A/W/T
MAIN TAXIWAY A - 26M WIDE PCN 112/F/A/W/T

Taxiway A1	28M - Asphalt - PCN 120/F/A/W/T
Taxiway A2	25.5M - Asphalt - PCN 114/F/A/W/T
Taxiway A3	30M - Asphalt - PCN 69/F/A/W/T
Taxiway A4	31.5M - Asphalt - PCN 65/F/A/W/T
Taxiway A5	30M - Asphalt - PCN 120/F/A/W/T
Taxiway A6	23M - Asphalt - PCN 107/F/A/W/T
Taxiway A7	22M - Asphalt - PCN 72/F/A/W/T
Taxiway A8	30M - Asphalt - PCN 120/F/A/W/T
Taxiway A9	29M - Asphalt - PCN 87/F/A/W/T
Taxiway B1	23M - Asphalt - PCN 85/F/A/W/T
Taxiway K	26M - Concrete - PCN 83/R/B/W/T
Taxiway L	26M - Asphalt - PCN 59/F/A/W/T
Taxiway A	26M - Asphalt - PCN 112/F/A/W/T BTN A1 & STAND 1
Taxiway M	34M - Asphalt - PCN 102/F/A/W/T
Taxiway N	34M - Asphalt - PCN 79/F/B/W/T
Taxiway A	(11.5M North of CL & 51.0M South of CL) Asphalt - PCN 112/F/A/W/T BTN STAND 1& STAND 6
Taxiway P	33M - Concrete - PCN 85/R/B/W/T
Taxiway Q	49M - Concrete - PCN 56/R/C/W/T
Taxiway A	30M - Asphalt - PCN 112/F/A/W/T BTN STAND 6 & S
Taxiway R	49M - Concrete - PCN 87/R/B/W/T
Taxiway S	44M - Asphalt - PCN 72/F/A/X/T
Taxiway T	42M - Asphalt - PCN 72/F/A/X/T
Taxiway U	42M - Asphalt - PCN 75/F/A/W/T
Taxiway V	42M - Asphalt - PCN 120/F/A/W/T
Taxiway B2	30M - Asphalt - PCN 84/F/A/W/T
Taxiway Z	63M - Asphalt - PCN 72/F/A/X/T BTN R& T PCN 79/F/A/W/T BTN T&V

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Amendment: MAIN APRON A Closed due to WIP

AIRCRAFT PARKING / DOCKING CHART- ICAO

APRON ELEV 6 FT

MAIN APRON - A

BAHRAIN /Bahrain Intl.

TWY A3

TWY A4

MAIN TWY A SHOULDER

MAIN TWY A CENTRELINE

NEW EMERGENCY RWY END LIGHTS

MAIN TWY A SHOULDER

MAIN TWY A CENTRELINE

TWY P

TWY Q

TWY R

VAR 2.49° E 2020

TWY Z CENTRELINE

CLOSED AREA
DUE AMP PROJECT WIP

OUTER SERVICE ROAD

SERVICE ROAD

14B

14A

14

SERVICE ROAD

VIP LOUNGE

MAIN APRON TERMINAL BUILDING

NEW TERMINAL BUILDING

TWR 118.50
GMC 121.85
DLV 121.90

Scale
metres
50 0 50 100 150

LEGEND	
AIRCRAFT STAND	T11
APRON, TWY & RWY LGTS	•
FLOODLIGHT	(F)
INS POINTS	o
BUILDING	■

INS COORDINATES FOR AIRCRAFT STANDS

T11	261617.37N 0503721.26E	14A	26°16.09'N 050°37.77'E
T12	261616.18N 0503729.26E	14	26°16.09'N 050°37.78'E
T13	261615.00N 0503731.31E	14B	26°16.10'N 050°37.80'E
T14	261613.82N 0503733.36E		

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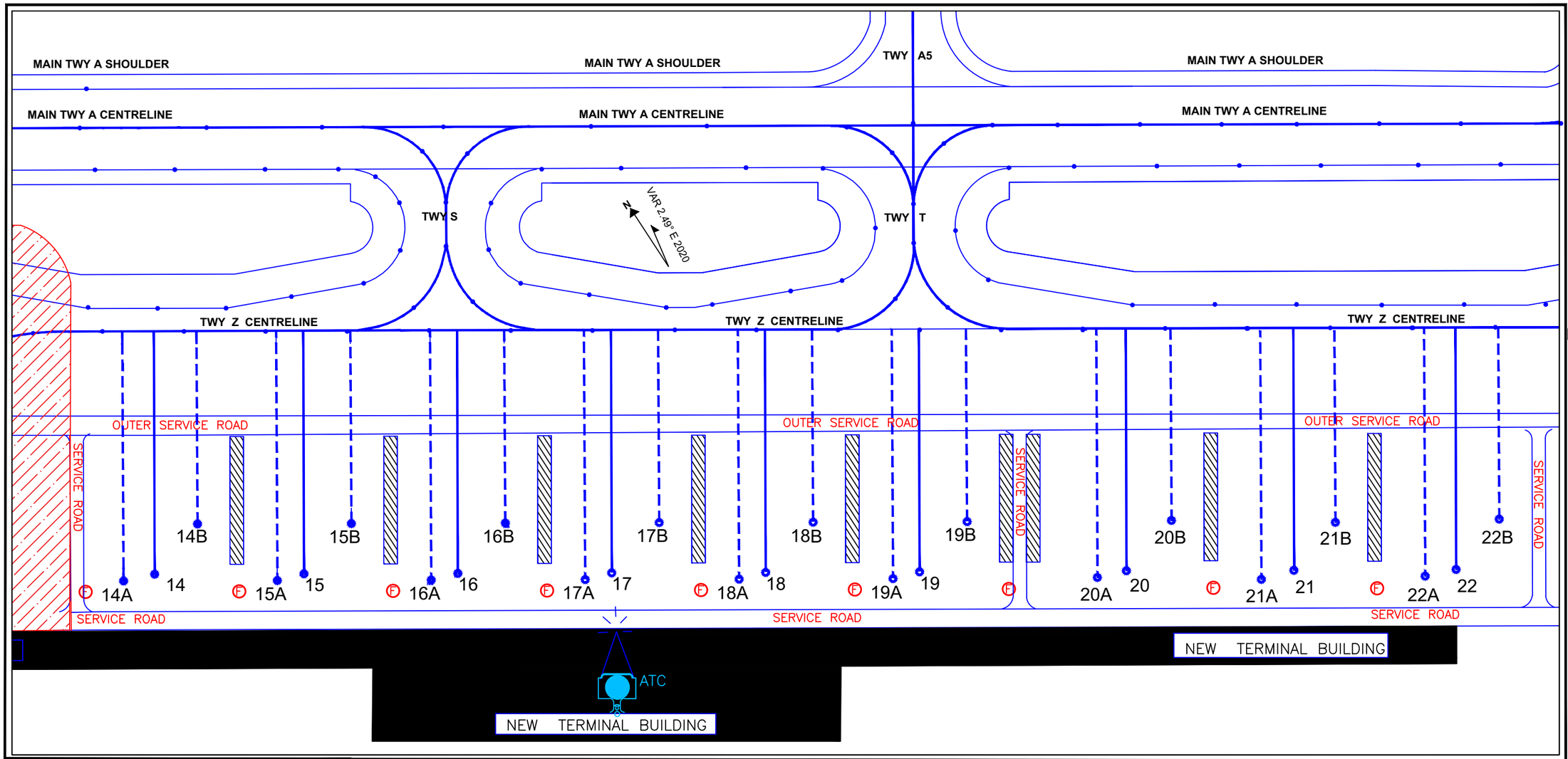
Amendment: New Terminal and Stands MAG VAR value updated



AIRCRAFT PARKING / DOCKING CHART- ICAO

APRON ELEV 7 FT

TWR 118.50
GMC 121.85
DLV 121.90

MAIN APRON - B

BAHRAIN /Bahrain Intl.

Amendment: Main Apron A closed due to WIP & DLV FREQ Added.

LEGEND

AIRCRAFT STAND	14A
APRON, TWY & RWY LGTS	•
FLOODLIGHT	Ⓕ
INS POINTS	⊙
BUILDING	▬

Scale metres
50 0 50 100 150

INS COORDINATES FOR AIRCRAFT STANDS

14A	26°16.09'N 050°37.77'E	17A	26°16.02'N 050°37.90'E	20A	26°15.94'N 050°38.04'E		
14	26°16.09'N 050°37.78'E	17	26°16.02'N 050°37.91'E	20	26°15.94'N 050°38.05'E		
14B	26°16.10'N 050°37.80'E	17B	26°16.02'N 050°37.93'E	20B	26°15.94'N 050°38.07'E		
15A	26°16.07'N 050°37.81'E	18A	26°16.00'N 050°37.94'E	21A	26°15.91'N 050°38.09'E		
15	26°16.07'N 050°37.82'E	18	26°15.99'N 050°37.95'E	21	26°15.91'N 050°38.10'E		
15B	26°16.07'N 050°37.84'E	18B	26°16.00'N 050°37.97'E	21B	26°15.92'N 050°38.12'E		
16A	26°16.05'N 050°37.86'E	19A	26°15.97'N 050°37.98'E	22A	26°15.89'N 050°38.13'E		
16	26°16.04'N 050°37.87'E	19	26°15.97'N 050°37.99'E	22	26°15.88'N 050°38.14'E		
16B	26°16.05'N 050°37.89'E	19B	26°15.97'N 050°38.01'E	22B	26°15.89'N 050°38.16'E		

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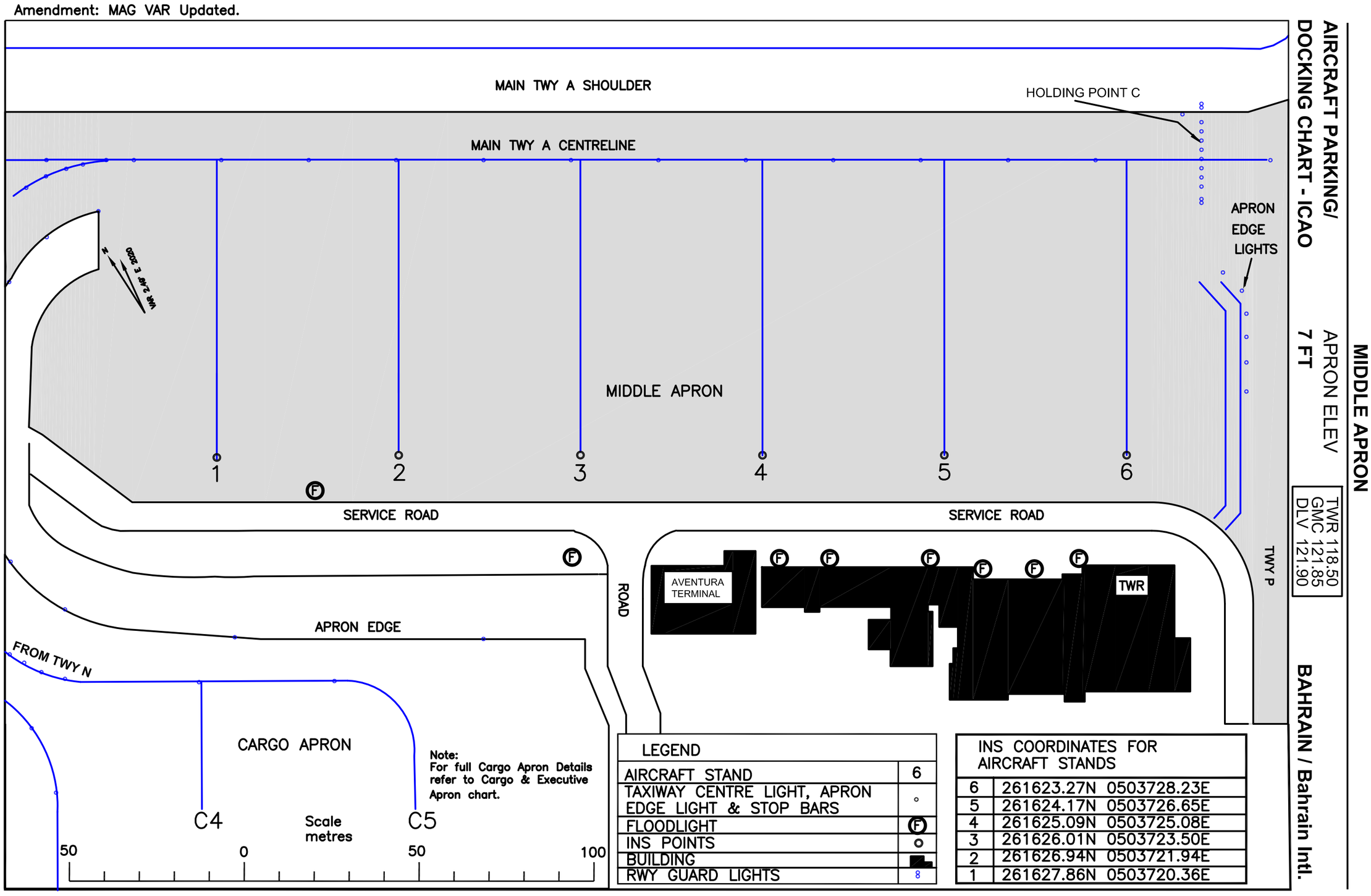
Amendment: MAG VAR Updated.



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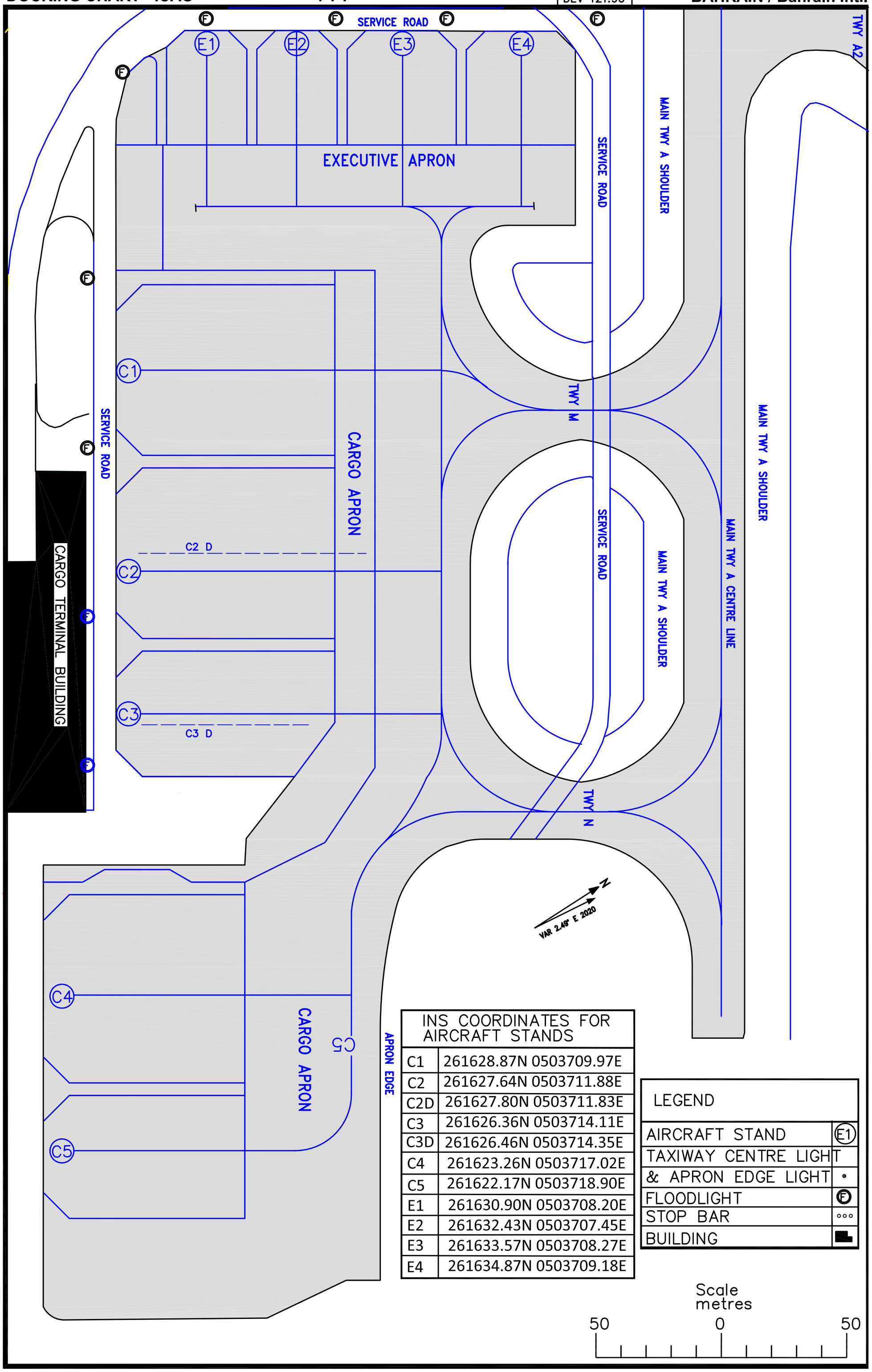
CARGO & EXECUTIVE APRON

AIRCRAFT PARKING/ DOCKING CHART - ICAO

APRON ELEV
7 FT

TWR 118.50
GMC 121.85
DLV 121.90

BAHRAIN / Bahrain Intl.



INS COORDINATES FOR AIRCRAFT STANDS	
C1	261628.87N 0503709.97E
C2	261627.64N 0503711.88E
C2D	261627.80N 0503711.83E
C3	261626.36N 0503714.11E
C3D	261626.46N 0503714.35E
C4	261623.26N 0503717.02E
C5	261622.17N 0503718.90E
E1	261630.90N 0503708.20E
E2	261632.43N 0503707.45E
E3	261633.57N 0503708.27E
E4	261634.87N 0503709.18E

LEGEND	
AIRCRAFT STAND	E1
TAXIWAY CENTRE LIGHT & APRON EDGE LIGHT	•
FLOODLIGHT	F
STOP BAR	ooo
BUILDING	

Scale
metres
50 0 50

Amendment: MAG VAR Updated & DLV FREQ Added.

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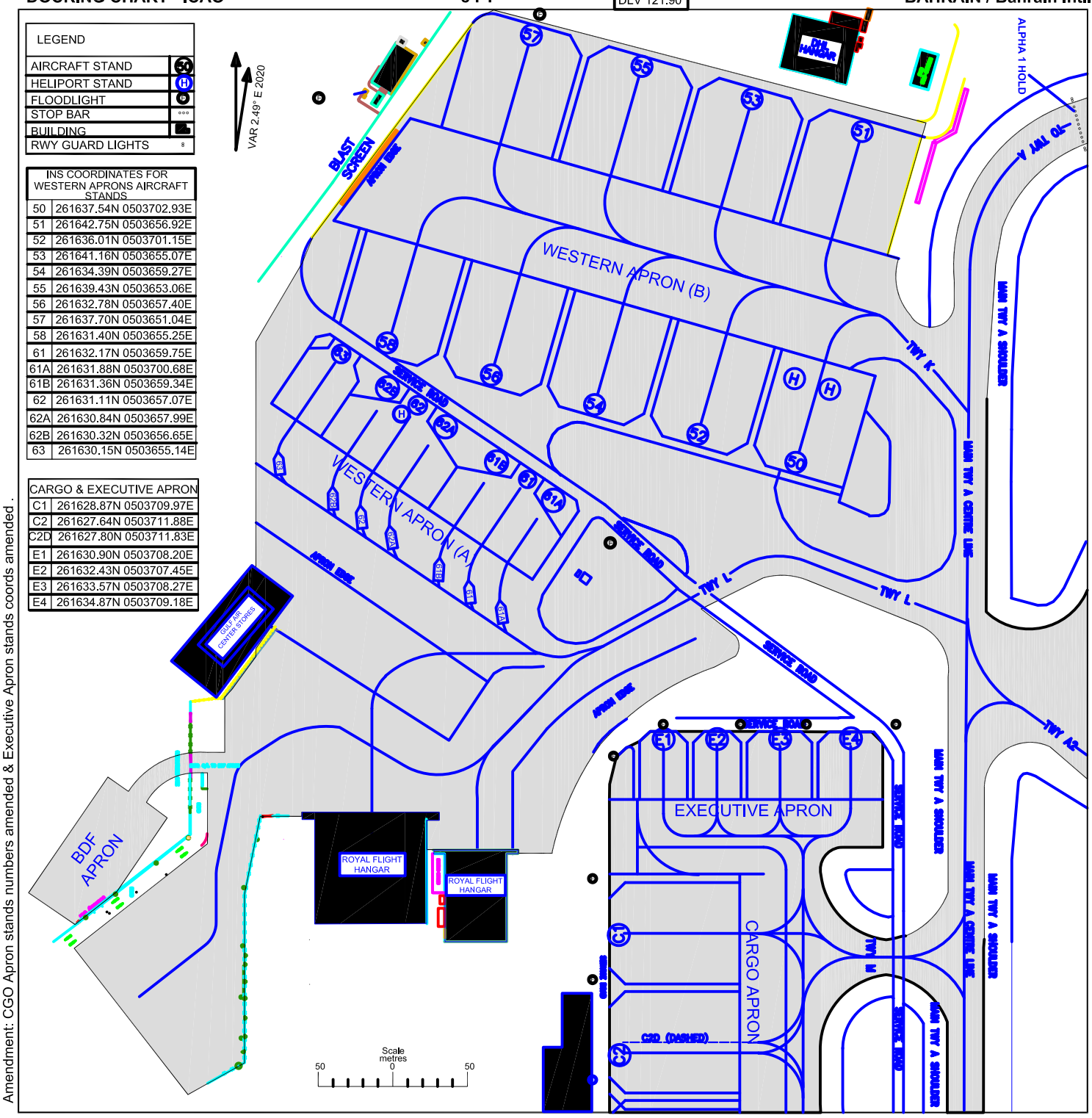
WESTERN APRONS (A), (B) AND CARGO & EXECUTIVE APRONS

AIRCRAFT PARKING/ DOCKING CHART - ICAO

APRON ELEV
8 FT

TWR 118.50
GMC 121.85
DLV 121.90

BAHRAIN / Bahrain Intl.



INS COORDINATES FOR WESTERN APRONS AIRCRAFT STANDS	
50	261637.54N 0503702.93E
51	261642.75N 0503656.92E
52	261636.01N 0503701.15E
53	261641.16N 0503655.07E
54	261634.39N 0503659.27E
55	261639.43N 0503653.06E
56	261632.78N 0503657.40E
57	261637.70N 0503651.04E
58	261631.40N 0503655.25E
61	261632.17N 0503659.75E
61A	261631.88N 0503700.68E
61B	261631.36N 0503659.34E
62	261631.11N 0503657.07E
62A	261630.84N 0503657.99E
62B	261630.32N 0503656.65E
63	261630.15N 0503655.14E

CARGO & EXECUTIVE APRON	
C1	261628.87N 0503709.97E
C2	261627.64N 0503711.88E
C2D	261627.80N 0503711.83E
E1	261630.90N 0503708.20E
E2	261632.43N 0503707.45E
E3	261633.57N 0503708.27E
E4	261634.87N 0503709.18E

Amendment: CGO Apron stands numbers amended & Executive Apron stands coords amended .

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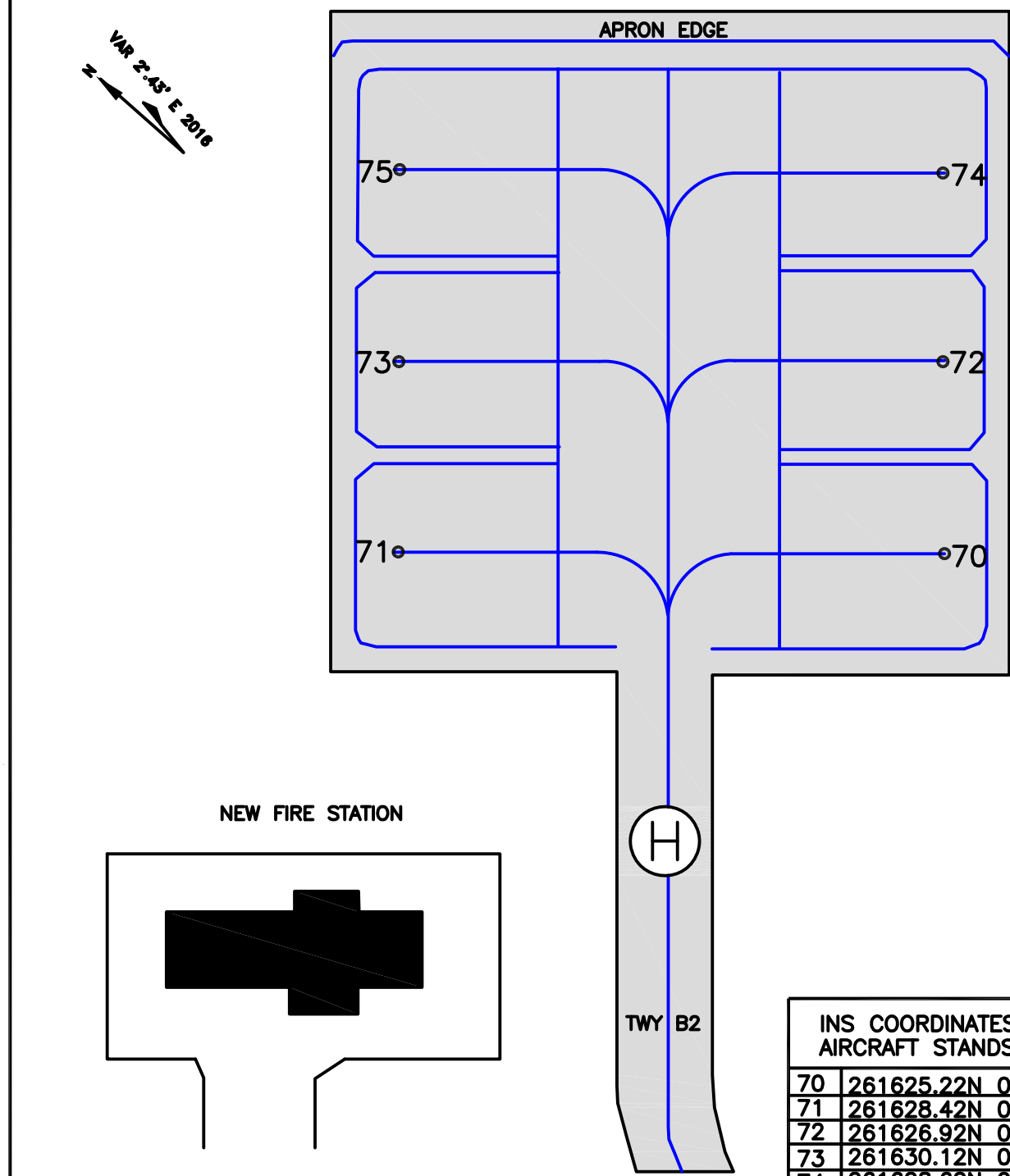
NORTHERN APRON

AIRCRAFT PARKING/ DOCKING CHART - ICAO

APRON ELEV **8 FT**

TWR 118.50
GMC 121.85

BAHRAIN / Bahrain Int



INS COORDINATES FOR AIRCRAFT STANDS	
70	261625.22N 0503811.33E
71	261628.42N 0503805.74E
72	261626.92N 0503812.53E
73	261630.12N 0503806.93E
74	261628.62N 0503813.73E
75	261631.82N 0503808.12E

LEGEND	
AIRCRAFT STAND	70
TAXIWAY & APRON EDGE LIGHT	◦
FLOODLIGHT	(F)
INS POINTS	○
BUILDING	
HELIPORT STAND	(H)

Amendment: TWY Y Re-named to TWY B2.

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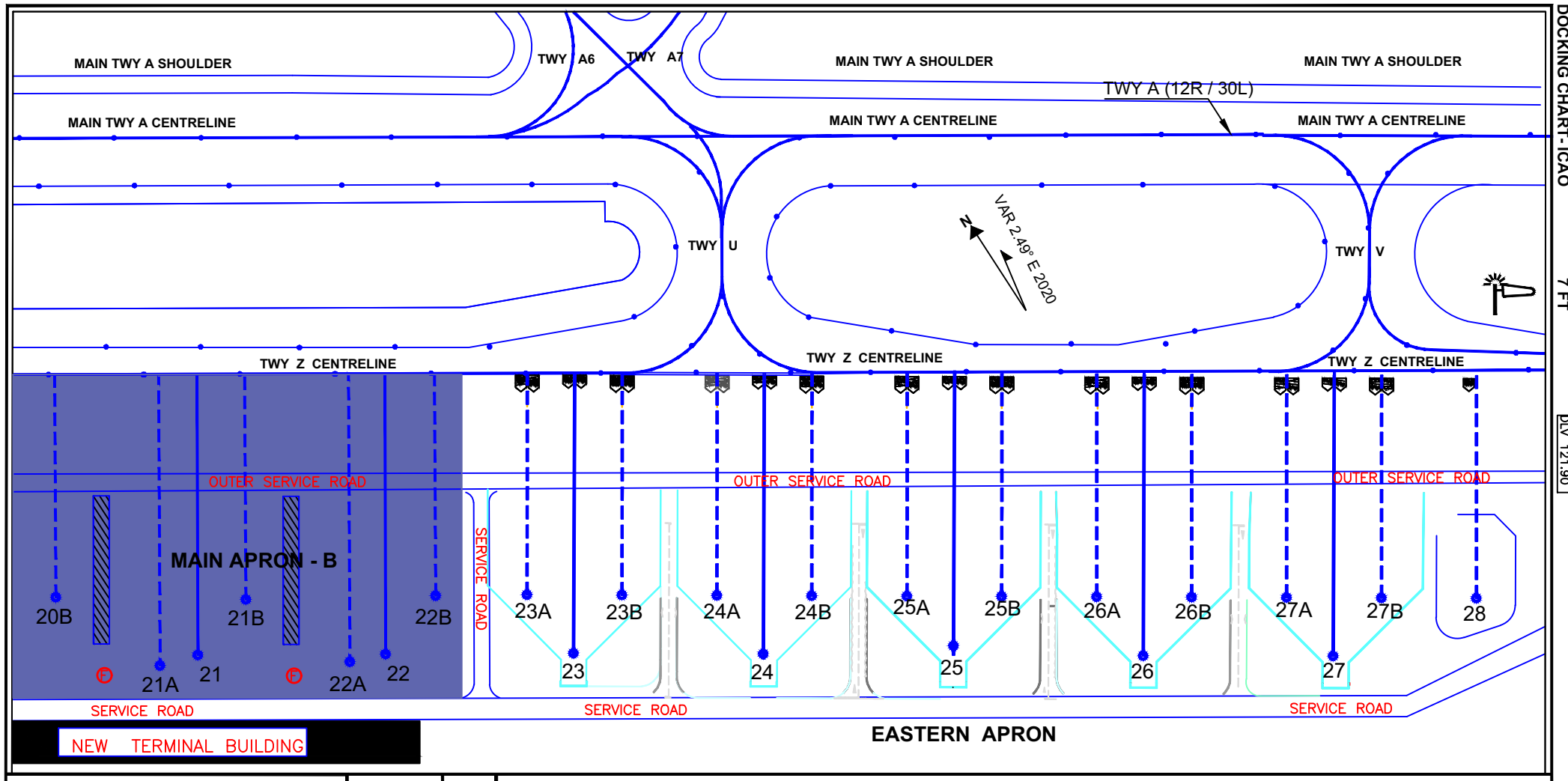
Amendment: MAG VAR Value Updated And DLV FREQ Added.



LEGEND

AIRCRAFT STAND	23A
APRON, TWY & RWY LGTS	
FLOODLIGHT	
INS POINTS	
BUILDING	
WIND SOCK	

Scale metres
50 0 50 100 150

INS COORDINATES FOR AIRCRAFT STANDS

23A	261554.46N 0503809.57E	26A	261549.75N 0503817.72E	21A	26°15.91'N 050°38.09'E
23	261553.30N 0503809.71E	26	261548.59N 0503817.86E	21	26°15.91'N 050°38.10'E
23B	261553.67N 0503810.93E	26B	261548.97N 0503819.08E	21B	26°15.92'N 050°38.12'E
24A	261552.89N 0503812.29E	27A	261548.18N 0503820.44E	22A	26°15.89'N 050°38.13'E
24	261551.73N 0503812.43E	27	261547.02N 0503820.58E	22	26°15.88'N 050°38.14'E
24B	261552.10N 0503813.65E	27B	261547.40N 0503821.80E	22B	26°15.89'N 050°38.16'E
25A	261551.32N 0503815.01E	28	261546.62N 0503823.16E		
25	261550.16N 0503815.14E				
25B	261550.53N 0503816.37E	20B	26°15.94'N 050°38.07'E		

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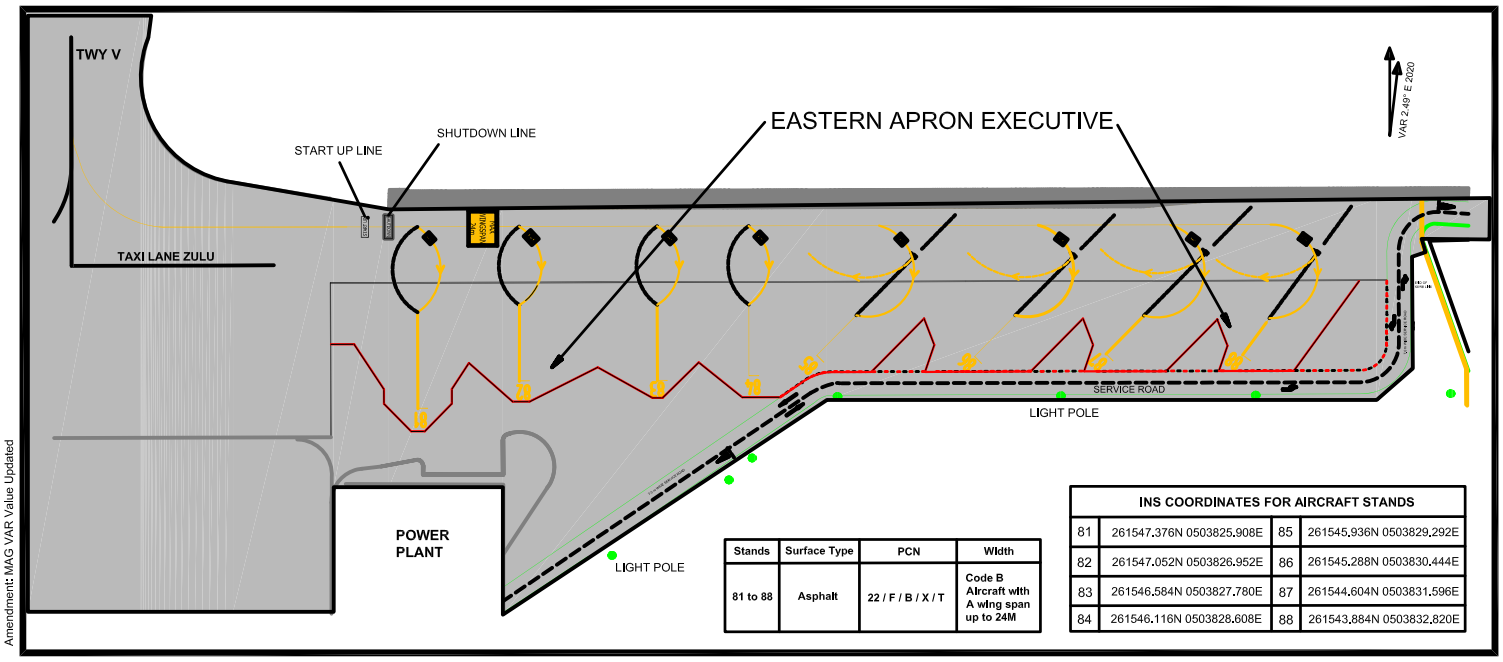
AIRCRAFT PARKING/
DOCKING CHART - ICAO

TWR:118.50
GMC:121.85
DLV: 121.90



Stands	Surface Type	PCN	Width
81 to 88	Asphalt	22 / F / B / X / T	Code B Aircraft with A wing span up to 24M

INS COORDINATES FOR AIRCRAFT STANDS			
81	261547.376N 0503825.908E	85	261545.936N 0503829.292E
82	261547.052N 0503826.952E	86	261545.288N 0503830.444E
83	261546.584N 0503827.780E	87	261544.604N 0503831.596E
84	261546.116N 0503828.608E	88	261543.884N 0503832.820E

Amendment: MAG VAR Value Updated

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AIRODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

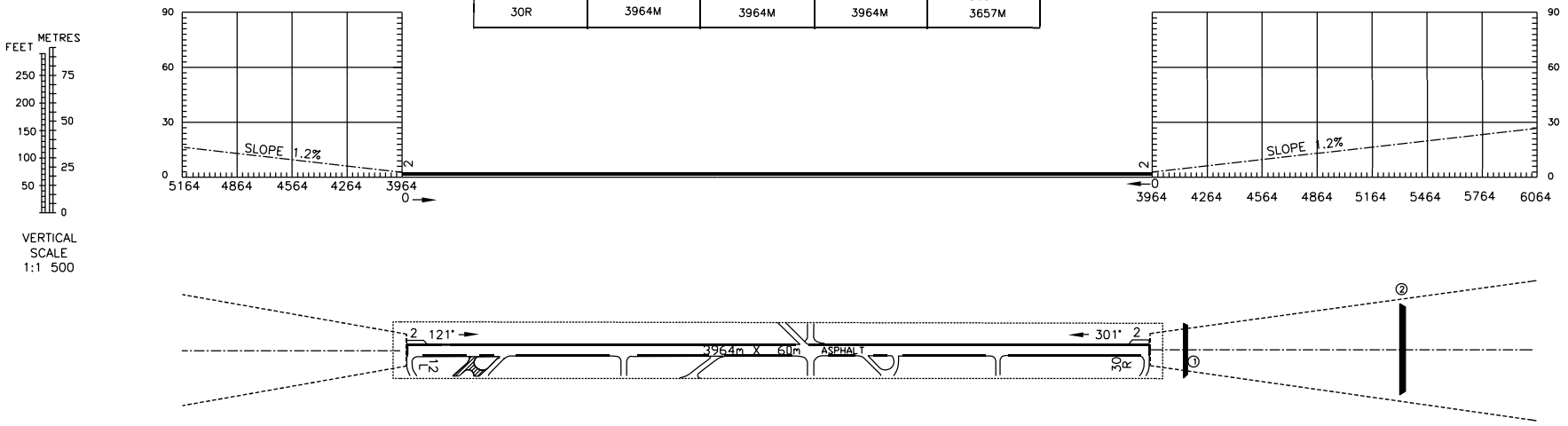
DIMENTIONS AND ELEVATIONS IN METRES

BAHRAIN / Bahrain Intl.

DECLARED DISTANCES
RWY 12L/30R

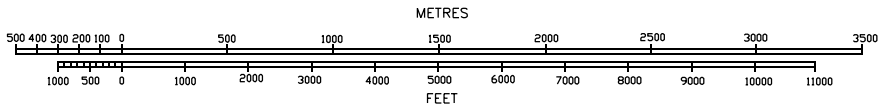
RUNWAY	TORA	ASDA	TODA	LDA
12L	3964M	3964M	3964M	3657M
30R	3964M	3964M	3964M	3657M

MAGNETIC VARIATION 2.49° E 2020



LEGEND	
IDENTIFICATION NUMBER	①
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙
BUILDING OR LARGE STRUCTURE	■
ROAD OR TRACK	▬

HORIZONTAL SCALE 1:15 000



AMENDMENT RECORD		
No.	DATE	ENTERED BY

Amendment: MAG VAR value Updated.

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AERODROME OBSTACLE CHART - ICAO

DIMENSIONS AND ELEVATIONS IN METRES

TYPE A (OPERATING LIMITATIONS)

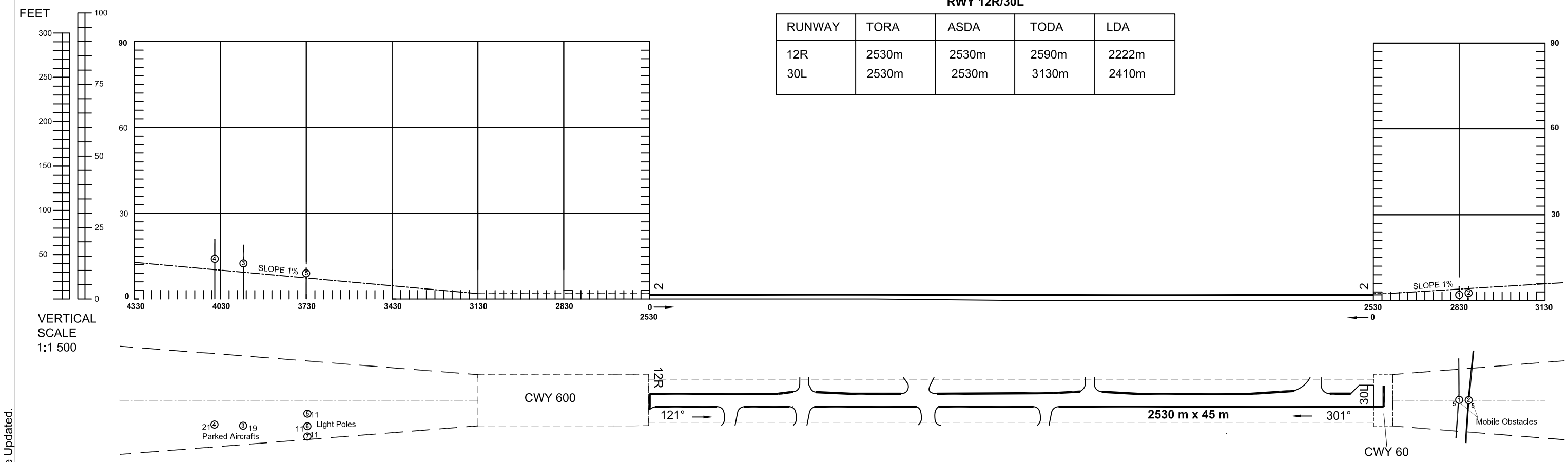
BAHRAIN / Bahrain Intl.

MAGNETIC VARIATION 2°43' E 2016

METRES

FEET

VERTICAL SCALE 1:1 500

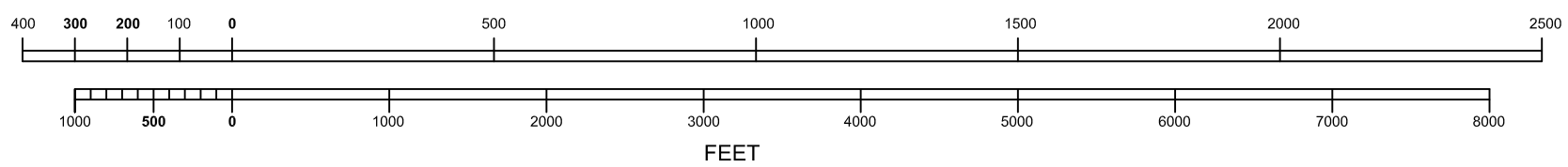


DECLARED DISTANCES
RWY 12R/30L

RUNWAY	TORA	ASDA	TODA	LDA
12R	2530m	2530m	2590m	2222m
30L	2530m	2530m	3130m	2410m

LEGEND	
IDENTIFICATION NUMBER	⊙
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙
BUILDING OR LARGE STRUCTURE	■
ROAD OR TRACK	—

HORIZONTAL SCALE 1:15 000
METRES



FEET

Amendment: MAG VAR Value Updated.

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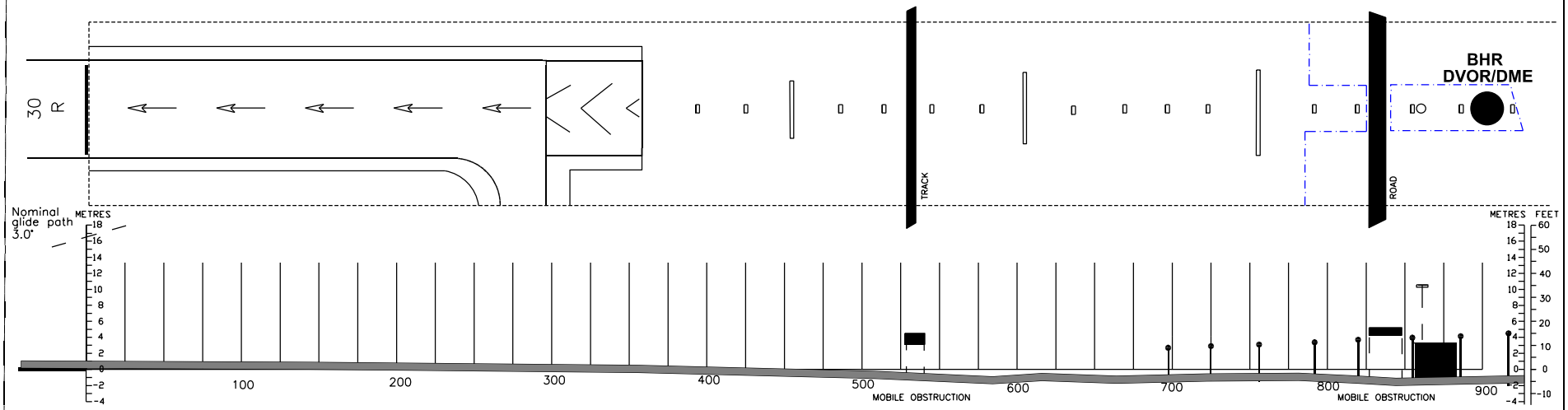
PRECISION APPROACH TERRAIN CHART - ICAO

BAHRAIN INTL.
RWY 30R

DIMENTIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION 2°49' E 2020



LEGEND	
APPROACH LIGHTS	
FENCE	
BUILDING OR STRUCTURE	
DEVIATION AT LEAST + 3m FROM CENTRE-LINE PROFILE	
CENTRE-LINE PROFILE	

HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:500

ILS RDH 55FT
GP3°

AMENDMENT RECORD		
No.	DATE	ENTERED BY

Amendment: MAG VAR Value updated.

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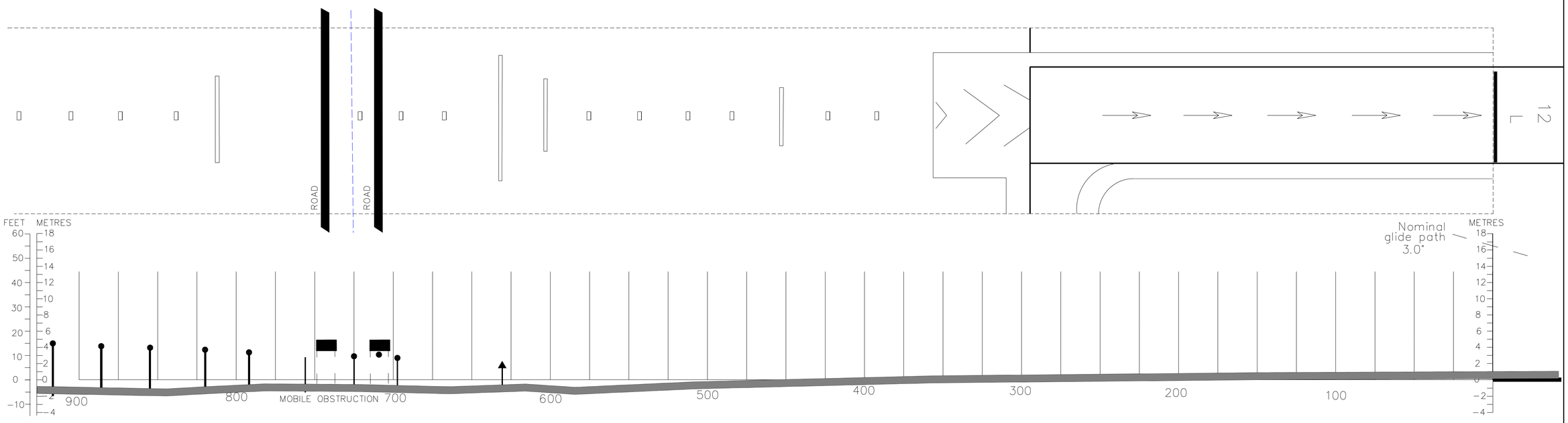
PRECISION APPROACH TERRAIN CHART - ICAO

BAHRAIN INTL.

RWY 12L

DIMENTIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION 2°43' E 2016



LEGEND	
APPROACH LIGHTS	
BUILDING OR STRUCTURE	
DEVIATION AT LEASI + 3m FROM CENTRE−LINE PROFILE	
CENTRE−LINE PROFILE	
FENCE	
LOC ANTENNA	

HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:500

ILS RDH 55FT
GP3°

AMENDMENT RECORD		
No.	DATE	ENTERED BY

Amendment: New Edition.

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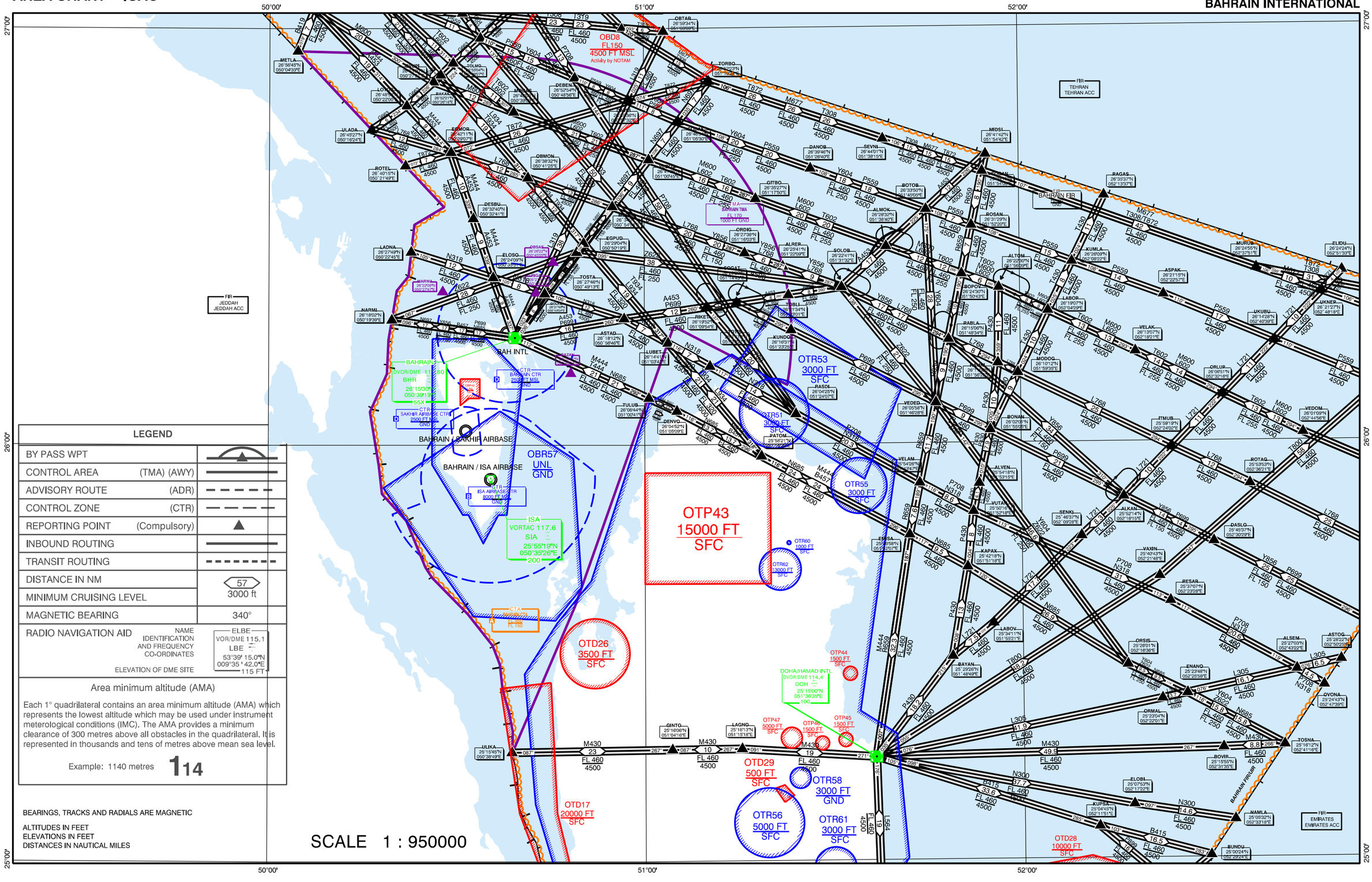
AREA CHART - ICAO

BAHRAIN TMA
BAHRAIN INTERNATIONAL



LEGEND

BY PASS WPT	
CONTROL AREA (TMA) (AWY)	
ADVISORY ROUTE (ADR)	
CONTROL ZONE (CTR)	
REPORTING POINT (Compulsory)	
INBOUND ROUTING	
TRANSIT ROUTING	
DISTANCE IN NM	57
MINIMUM CRUISING LEVEL	3000 ft
MAGNETIC BEARING	340°
RADIO NAVIGATION AID — NAME, IDENTIFICATION AND FREQUENCY, CO-ORDINATES	ELBE VOR/DME 115.1 LBE 53°39' 15.0"N 009°35 ' 42.0"E
ELEVATION OF DME SITE	115 FT

Area minimum altitude (AMA)

Each 1° quadrilateral contains an area minimum altitude (AMA) which represents the lowest altitude which may be used under instrument meterological conditions (IMC). The AMA provides a minimum clearance of 300 metres above all obstacles in the quadrilateral. It is represented in thousands and tens of metres above mean sea level.

Example: 1140 metres **114**

BEARINGS, TRACKS AND RADIALS ARE MAGNETIC

ALTITUDES IN FEET
ELEVATIONS IN FEET
DISTANCES IN NAUTICAL MILES

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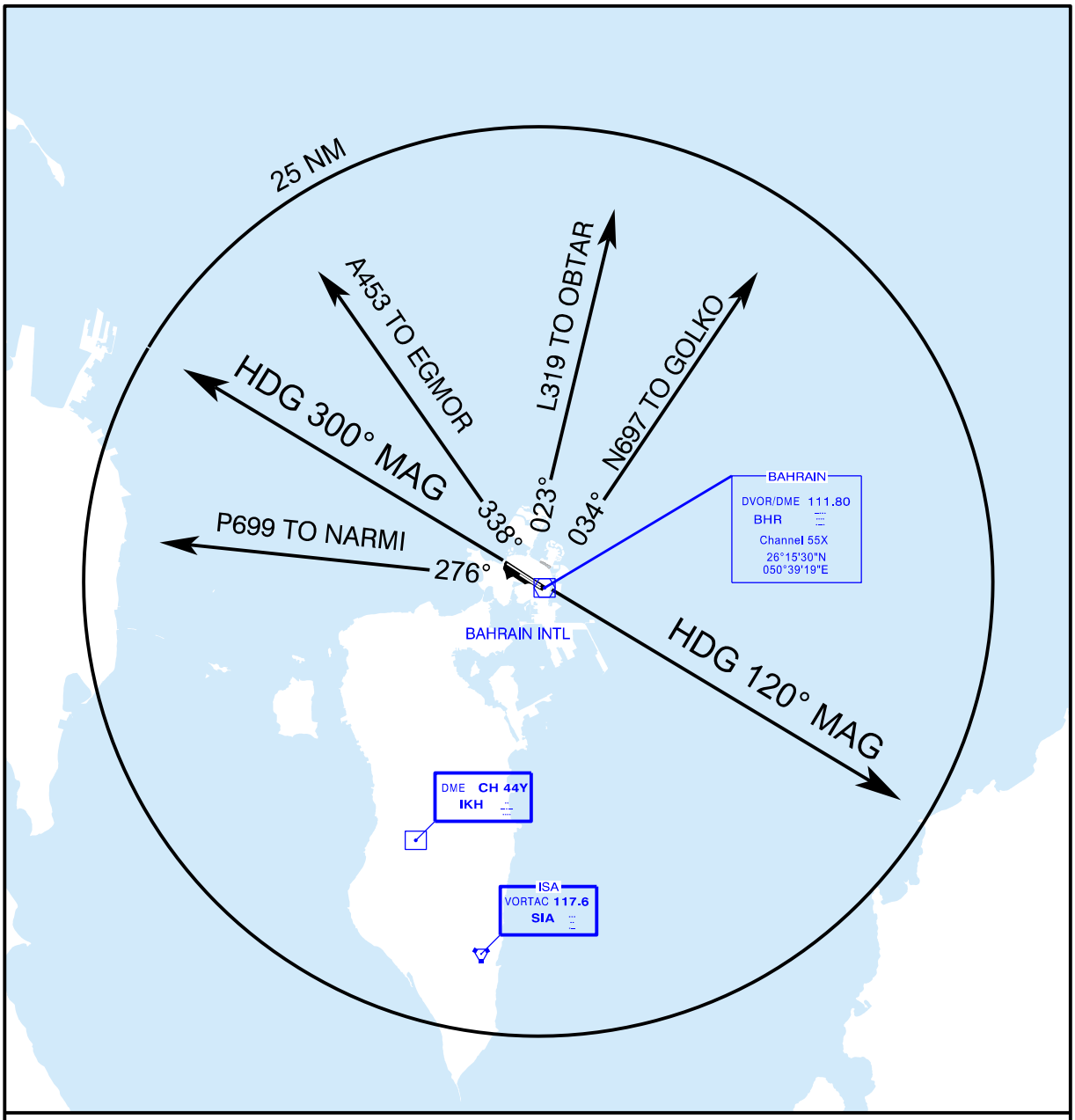
APP:	127.85	119.1	234.95
TWR:	118.5	296.025	
SMC:	121.85		
DATIS:	127.2		

DEPARTURE CHART (RADAR)



Flights departing from Bahrain International Airport on a radar clearance and experiencing a total radio cummunication failure shall carry out the following procedures:-

In VMC:

Continue to fly in VMC and land at the nearest suitable aerodrome.

In IMC:

Maintain last assigned heading and flight level or altitude for a period of three minutes after departure or to a distance of 12 DME Bahrain whichever occurs earlier. Thereafter continue according to current flight plan by routing direct to the first en-route reporting point and climbing to the last acknowledged en-route flight level cleared by ATC.

Amendment : RWY 12L/30R MAG BRG Amended.

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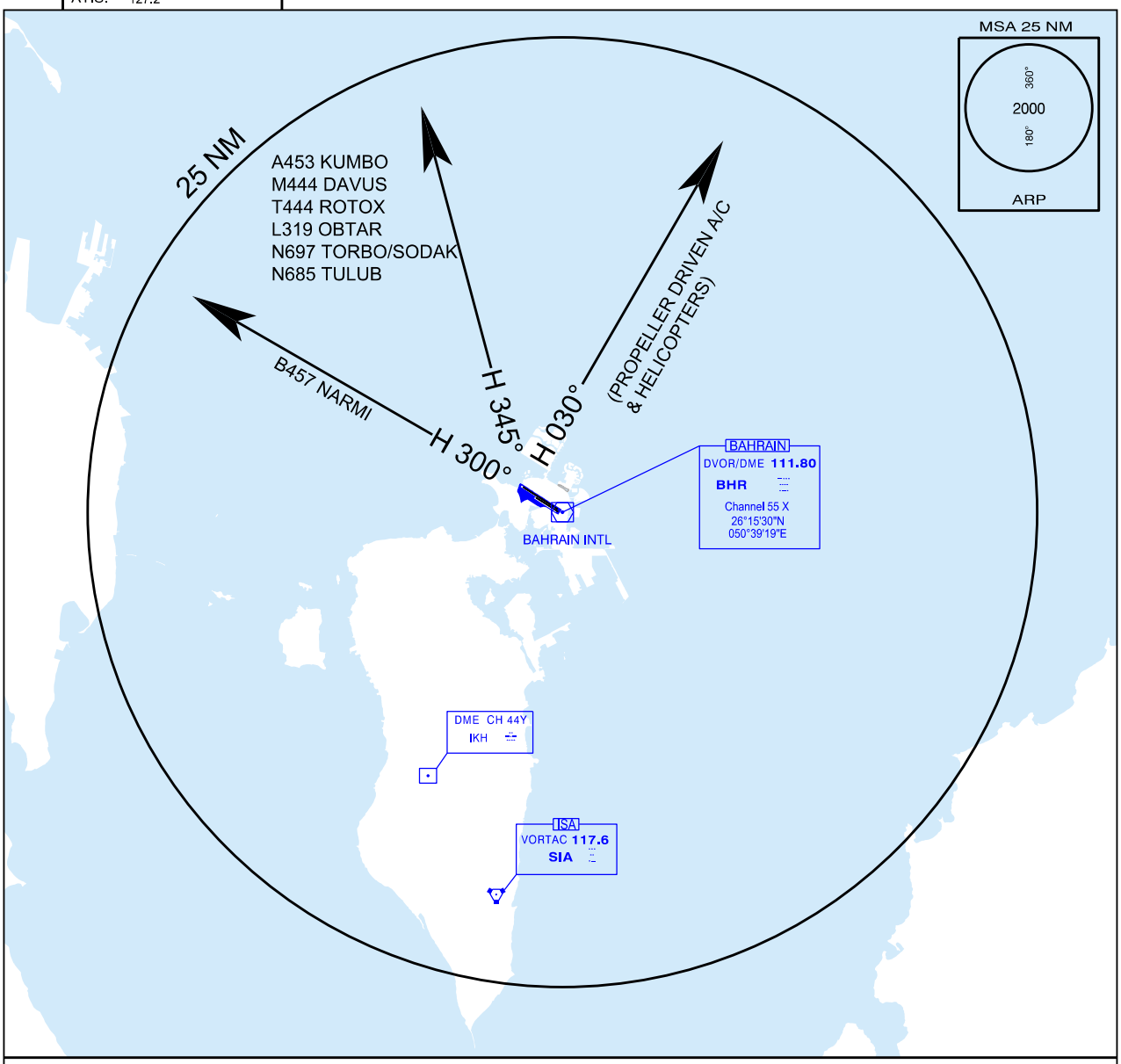
APP:	127.85	119.1	234.95
TWR:	118.5	296.025	
GMC:	121.85		
DLV:	121.90		
ATIS:	127.2		

DEPARTURE CHART (RADAR) RWY 30R



Unless otherwise instructed by ATC all jet departures
Heading 300° for FIR exit via B457 NARMI
Heading 345° for FIR exit via A453 KUMBO, M444 DAVUS, T444 ROTOX, L319 OBTAR, N697 TORBO T872 DASUT, N697 SODAK, P559 NALPO, N685 TULUB N685 TOSNA Climb ALT 4000' MSL.

Unless otherwise instructed by ATC all helicopter or propeller driven aircraft
Heading 300° for FIR exit via B457 NARMI
H 030° for FIR exit via A453 KUMBO, M444 DAVUS, T444 ROTOX, L319 OBTAR, N697 TORBO T872 DASUT,N697 SODAK, P559 NALPO, N685 TULUB N685 TOSNA Climb ALT 3000' MSL.

Departure Frequency 119.100 when instructed by ATC

Flights departing Bahrain International Airport on a radar clearance and experiencing a total radio cimmunication failure shall carry out the following procedures:

In VMC:
Continue to fly in VMC and land at the nearest suitable aerodrome.

In IMC:
Maintain last assigned heading and flight level or altitude for a period of three minutes after departure or to a distance of 12 DME Bahrian whichever occurs earlier. Thereafter continue according to current flight plan by routing direct to the first en-route reporting point and climbing to the last acknowledged en-route flight level cleared by ATC.

Amendment: New Procedure

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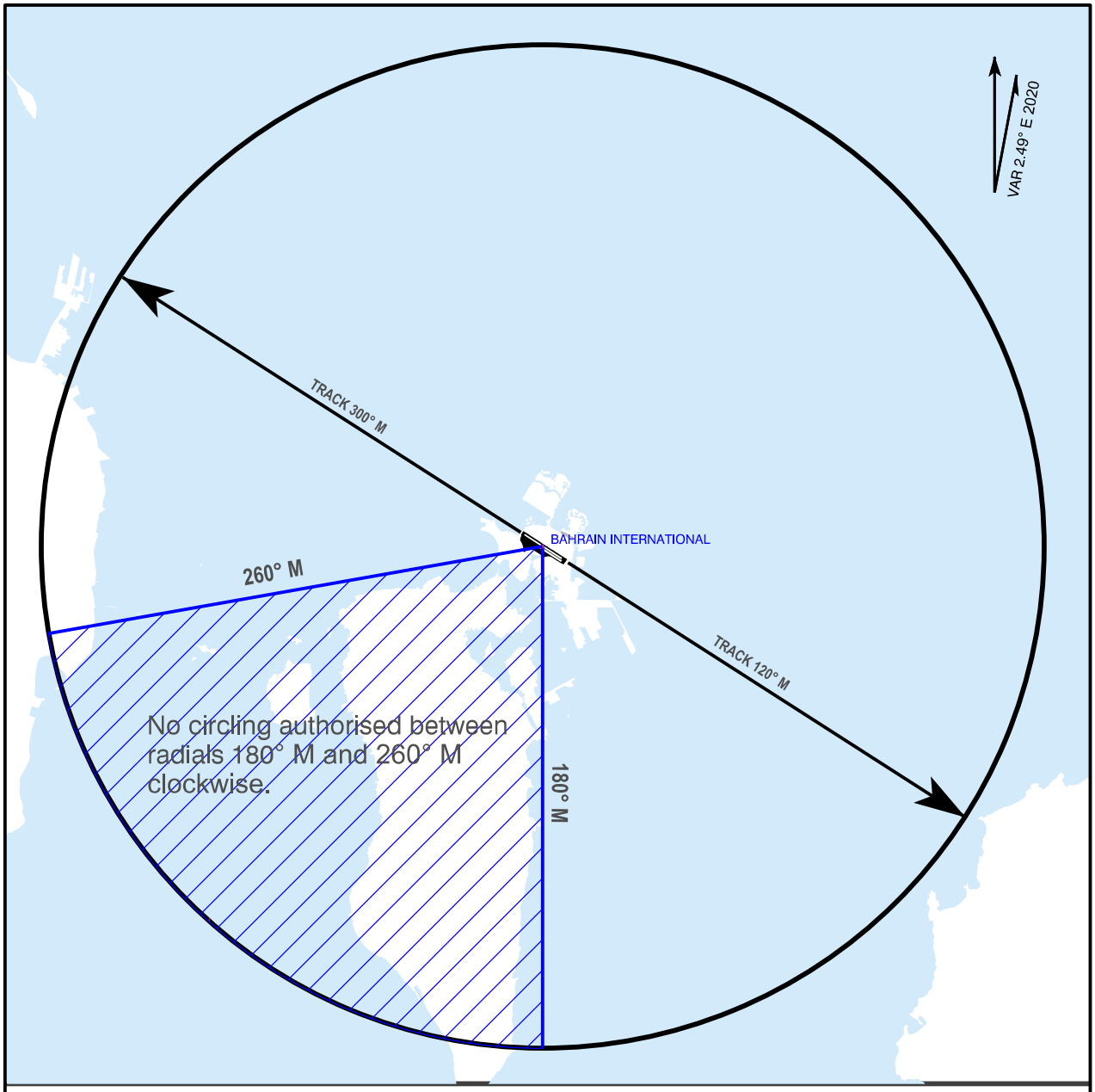
BAHRAIN INTERNATIONAL

CIRCLING AUTHORIZATION AREA



APPLICABLE TO RWY 12L/30R DEPARTURE.

1) RWY 30R Expect right turn heading 345°M or heading 300°M.
2) RWY 12L Expect left turn heading 075° M or heading 120°M.
3) Departure Frequency 119.100 MHZ.

Heading assigned by ATC shall only by between 260° M through north to 180° M.

Procedures are only valid within 25 NM ARP.

No circling authorized between radials 180° M and 260° M clockwise.

Amendment: Departure headings amended.

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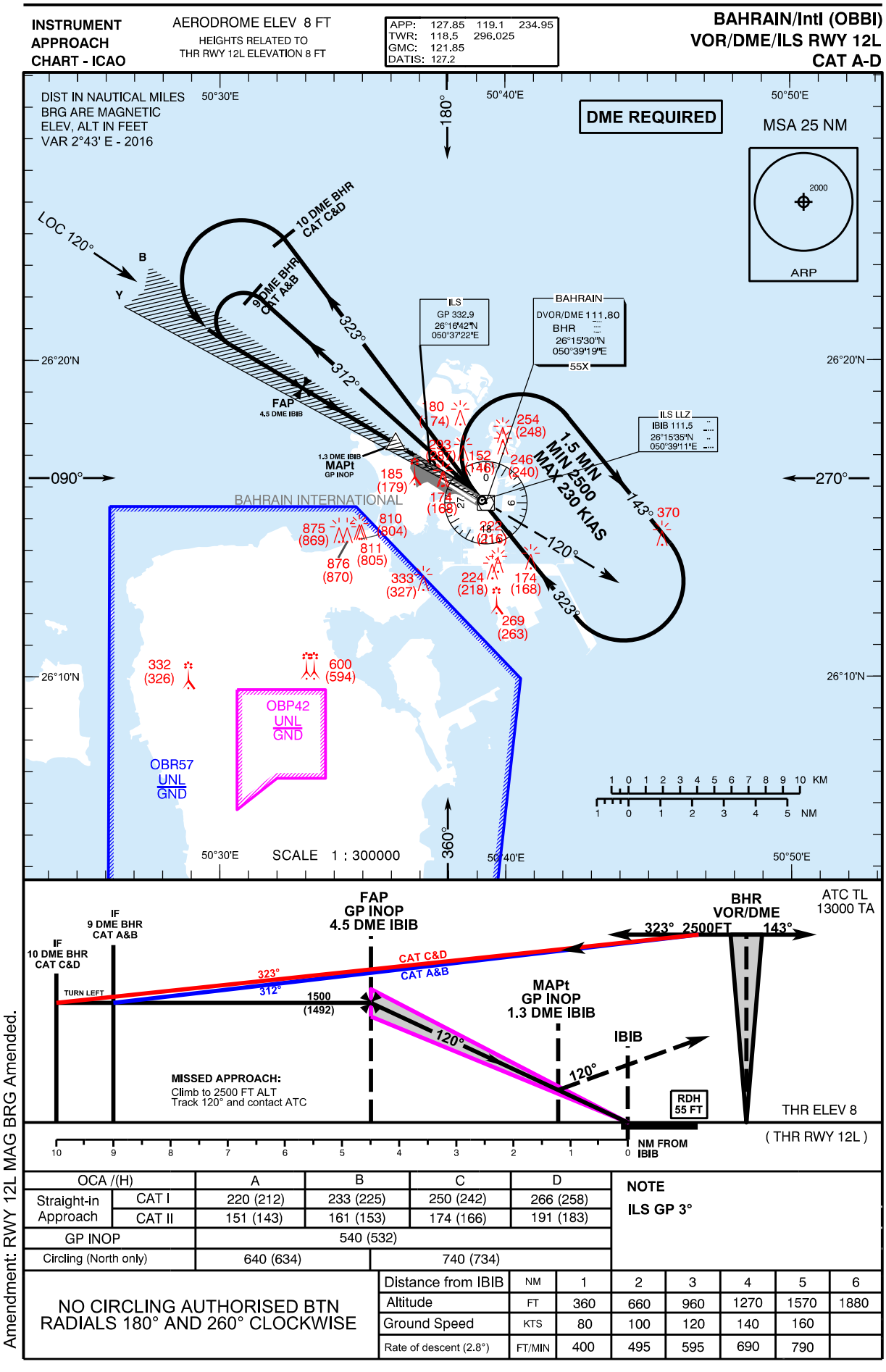

OCA /(H)		A	B	C	D
Straight-in Approach	CAT I	220 (212)	233 (225)	250 (242)	266 (258)
	CAT II	151 (143)	161 (153)	174 (166)	191 (183)
GP INOP		540 (532)			
Circling (North only)		640 (634)	740 (734)		

NOTE
ILS GP 3°

NO CIRCLING AUTHORISED BTN RADIALS 180° AND 260° CLOCKWISE

Distance from IBIB	NM	1	2	3	4	5	6
Altitude	FT	360	660	960	1270	1570	1880
Ground Speed	KTS	80	100	120	140	160	
Rate of descent (2.8°)	FT/MIN	400	495	595	690	790	

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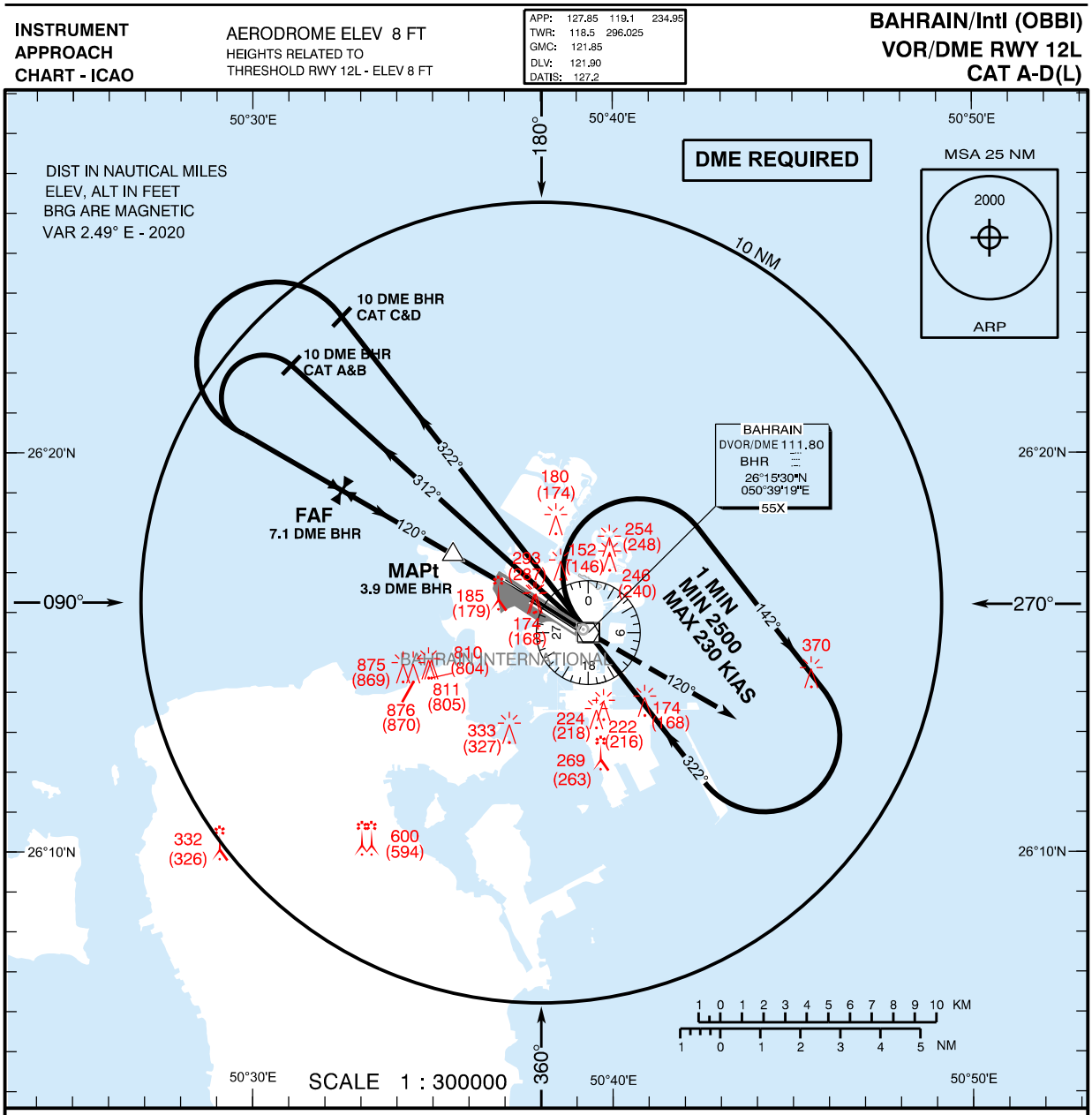

OCA /H	A	B	C	D/DL
Straight-in Approach	540(532)			
Circling (North only)	640(632)		740(732)	

NOTE

NO CIRCLING AUTHORISED BTN RADIALS 180° AND 260° CLOCKWISE

DIST FM BHR VOR/DME	NM	4	5	6	7	8
Altitude	FT	570	870	1170	1480	1790
Ground Speed	KTS	80	100	120	140	160
Rate of Descent (2.8°)	FT/MIN	400	495	595	690	790

Amendment: MAG VAR value updated.

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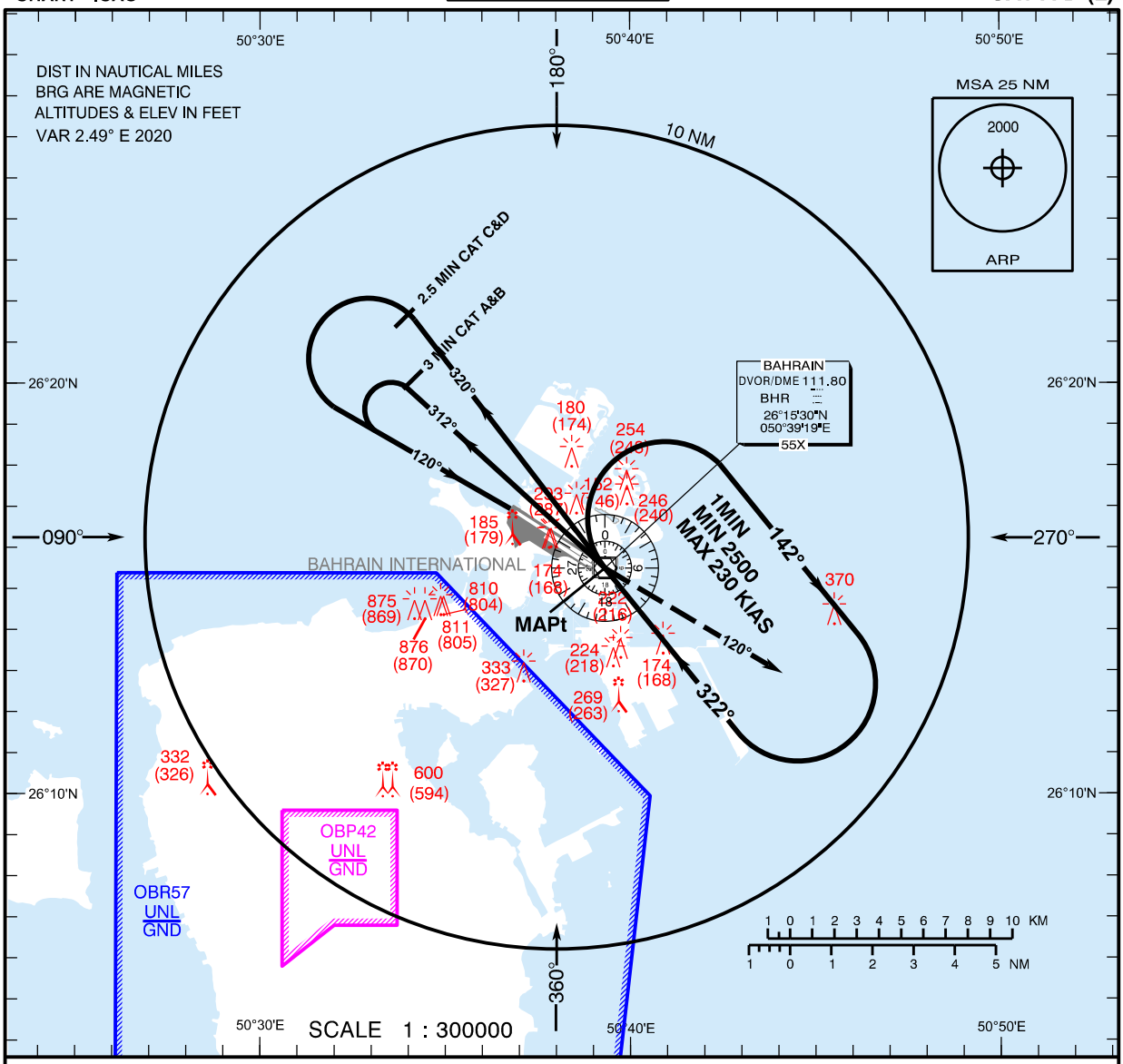
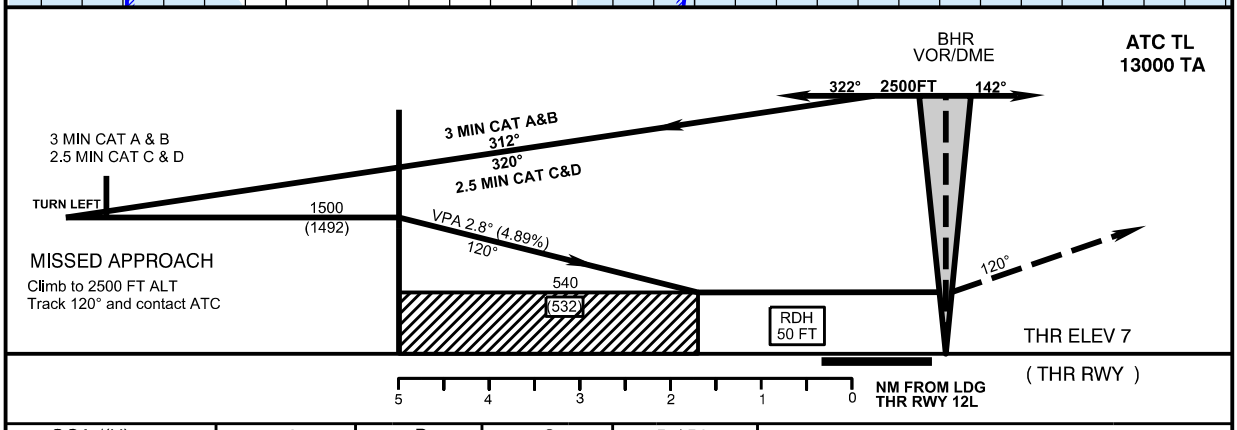
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV
HEIGHTS RELATED TO
THR RWY 12L - ELEV 8 FT

APP:	127.85	119.1	234.95
TWR:	118.50	296.025	
GMC:	121.85		
DLV:	121.90		
DATIS:	127.20		

BAHRAIN/Intl (OBBI)
VOR RWY 12L
CAT A-D (L)





OCA /(H)	A	B	C	D / DL
Straight-in Approach	540 (532)			
Circling (North only)	640 (632)		740 (732)	

NOTE

NO CIRCLING AUTHORISED BTN RADIALS 180° AND 260° CLOCKWISE

Distance from RWY 12L	NM	1	2	3	4	5	6
Altitude	FT	360	660	960	1270	1570	1880
Ground Speed	KTS	80	100	120	140	160	
Rate of descent (2.8°)	FT/MIN	400	495	595	690	790	

Amendment: MAG VAR value updated.

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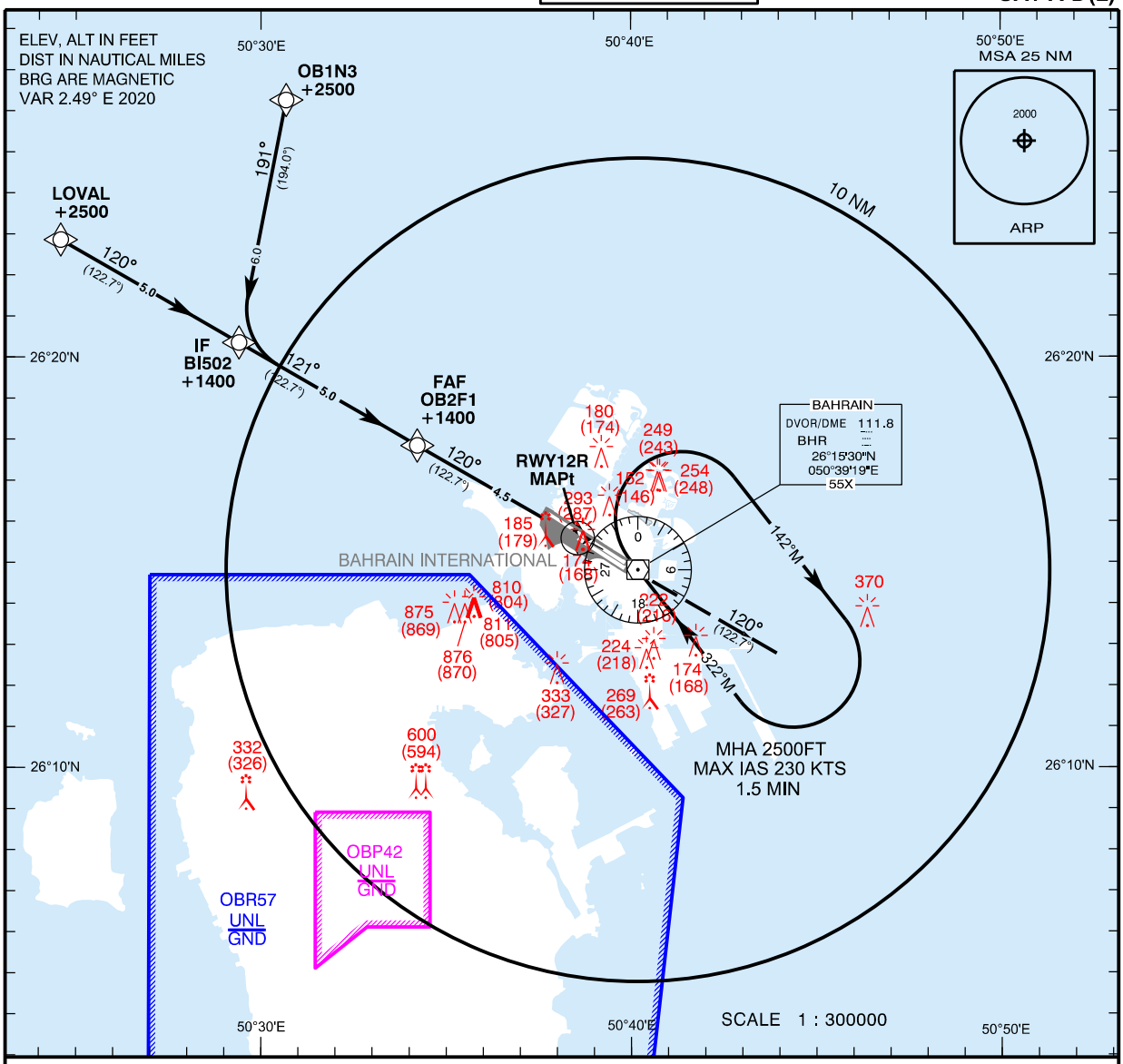
INSTRUMENT APPROACH CHART - ICAO

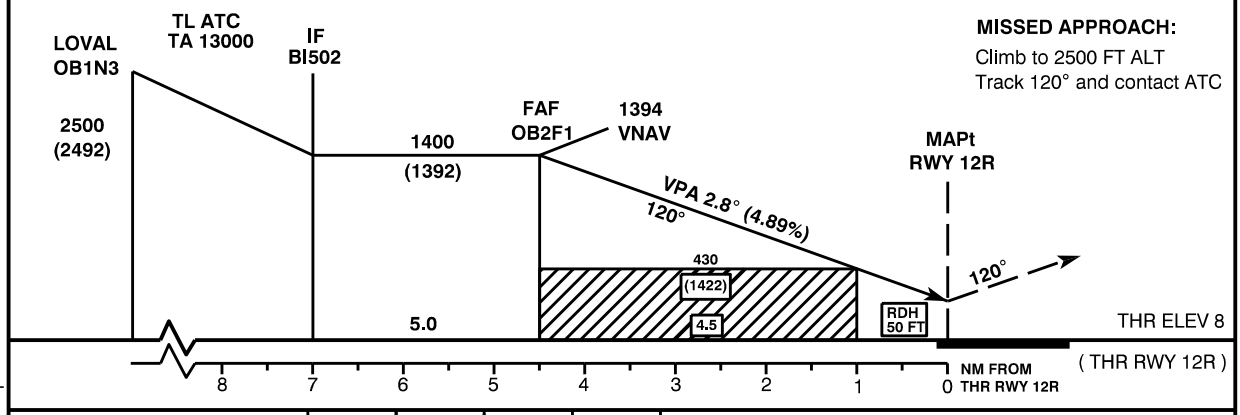
AERODROME ELEV 8 FT
HEIGHTS RELATED TO
THR RWY 12R - ELEV 8 FT

MIN TEMP 0°C

APP:	127.85	119.1	234.95
TWR:	118.50	296.025	
SMC:	121.85		
DLV:	121.90		
ATIS:	127.20		

BAHRAIN INTERNATIONAL
RNAV (GNSS) RWY 12R
CAT A-D(L)





MISSED APPROACH:
Climb to 2500 FT ALT
Track 120° and contact ATC

OCA /H		A	B	C	D
Straight-in Approach	LNAV	430 (422)	430 (422)	430 (422)	430 (422)
	DA / H				
	LNAV / VNAV	340 (332)	340 (332)	340 (332)	340 (332)

NOTE:

1. At temperature above 56° C the nominal VPA will exceed 3.5° .

NO CIRCLING AUTHORISED
BTN RADIALS 180° AND 260°
CLOCKWISE.

Distance from RWY 12R	NM	1	2	3	4	5	6
Altitude	FT	355	650	950	1245	1540	1840
Ground Speed	KTS	80	100	120	140	160	
Rate of Descent (2.8°)	FT/MIN	400	495	590	690	790	

Amendment: MAG VAR value updated .

INTENTIONALLY BLANK

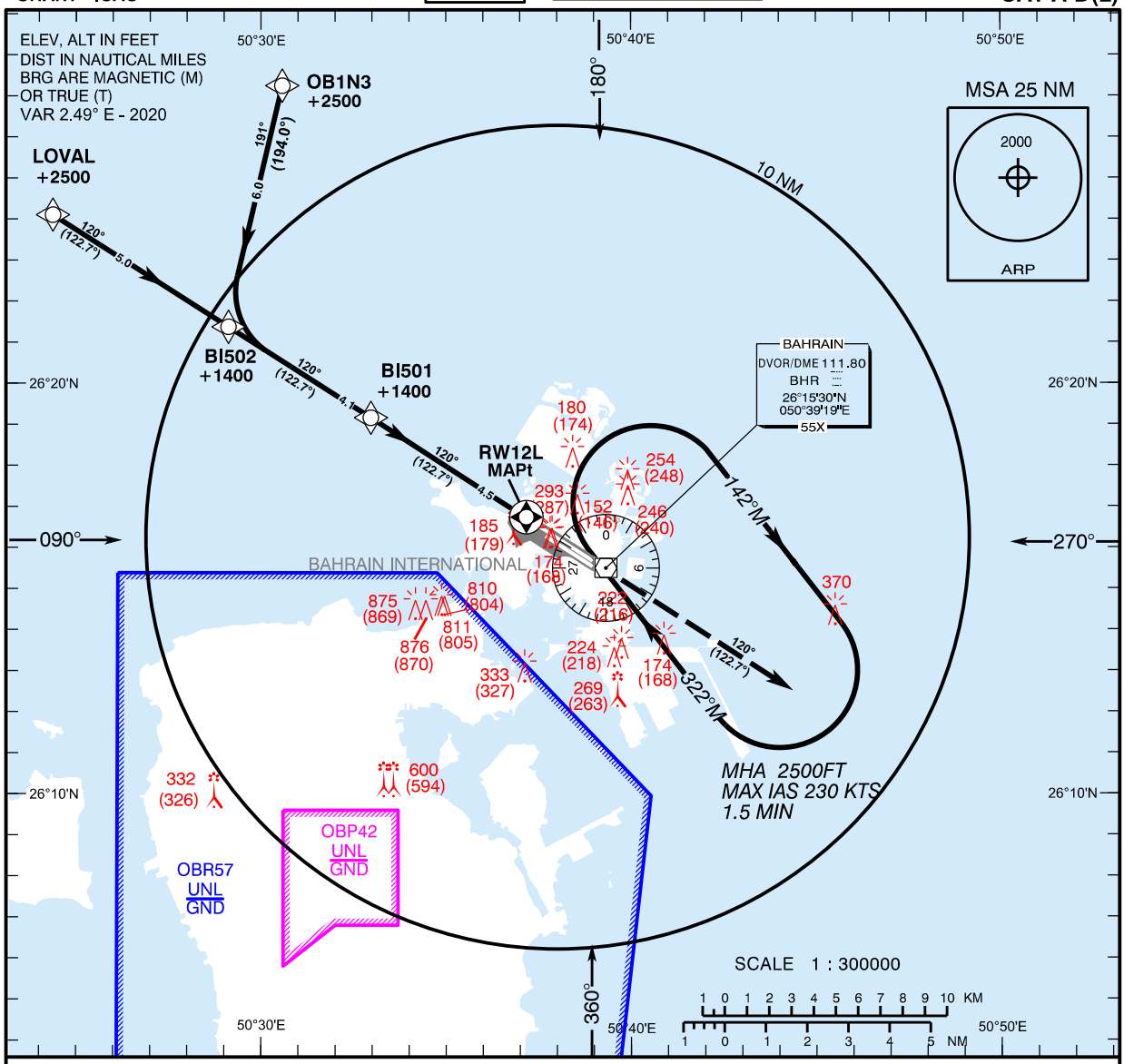
INSTRUMENT APPROACH CHART - ICAO

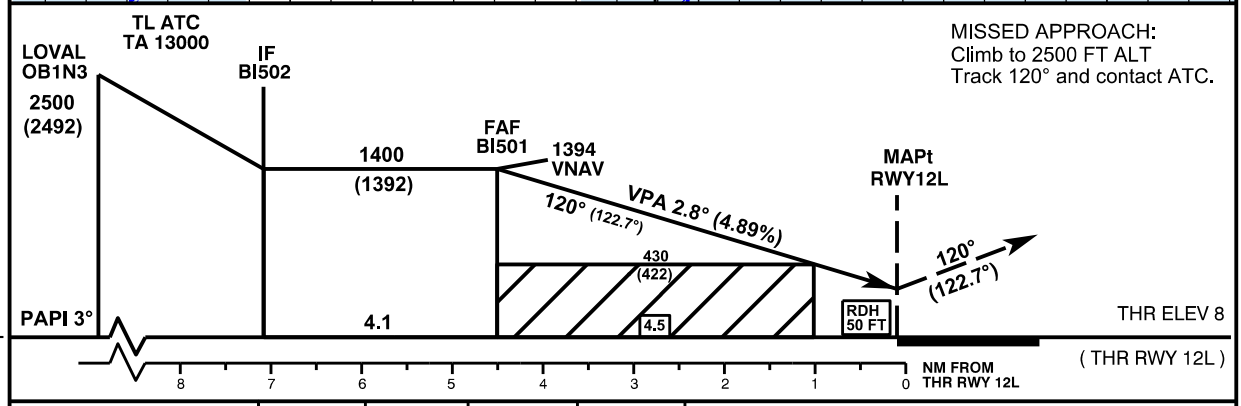
AERODROME ELEV 8 FT
HEIGHTS RELATED TO THR RWY 12L ELEV 8 FT

MIN TEMP 0°C

APP:	127.85	119.1	234.95
TWR:	118.50	296.025	
GMC:	121.85		
DLV:	121.90		
DATIS:	127.20		

BAHRAIN/Intl (OBBI)
RNAV (GNSS) RWY 12L
CAT A-D(L)





OCA /H		A	B	C	D
Straight-in Approach	LNAV	430 (422)	430 (422)	430 (422)	430 (422)
	DA / H				
	LNAV/VNAV	340 (322)	340 (322)	340 (322)	340 (322)

NOTE:

1. At temperatures above 56°C the nominal VPA will exceed 3.5°.

NO CIRCLING AUTHORISED
BTN RADIALS 180° AND 260°
CLOCKWISE.

Distance from RWY 12L	NM	1	2	3	4	5	6
Altitude	FT	355	650	950	1245	1540	1840
Ground Speed	KTS	80	100	120	140	160	
Rate of Descent (2.8°)	FT/MIN	400	495	600	690	790	

Amendment: MAG VAR value updated.

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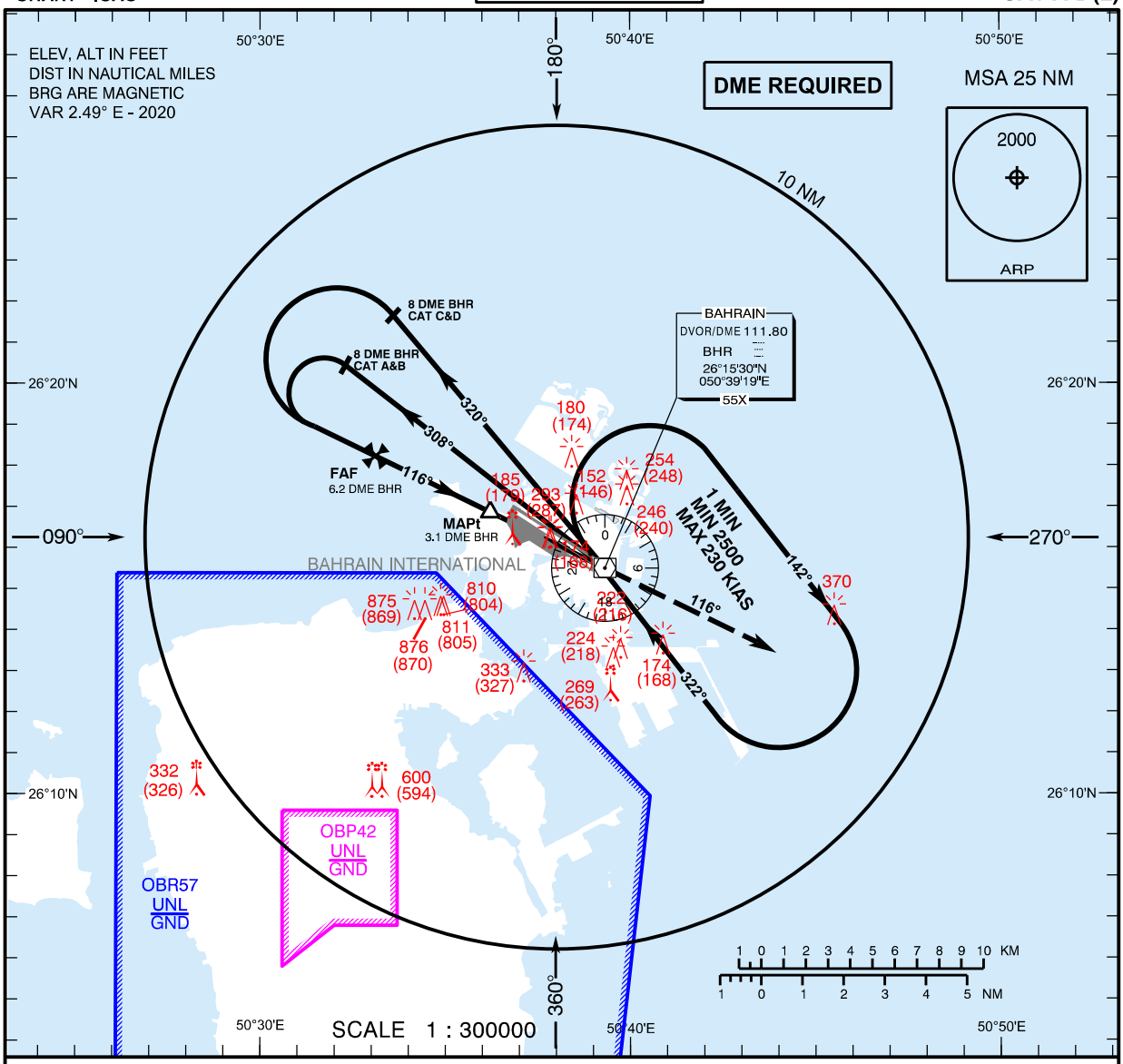
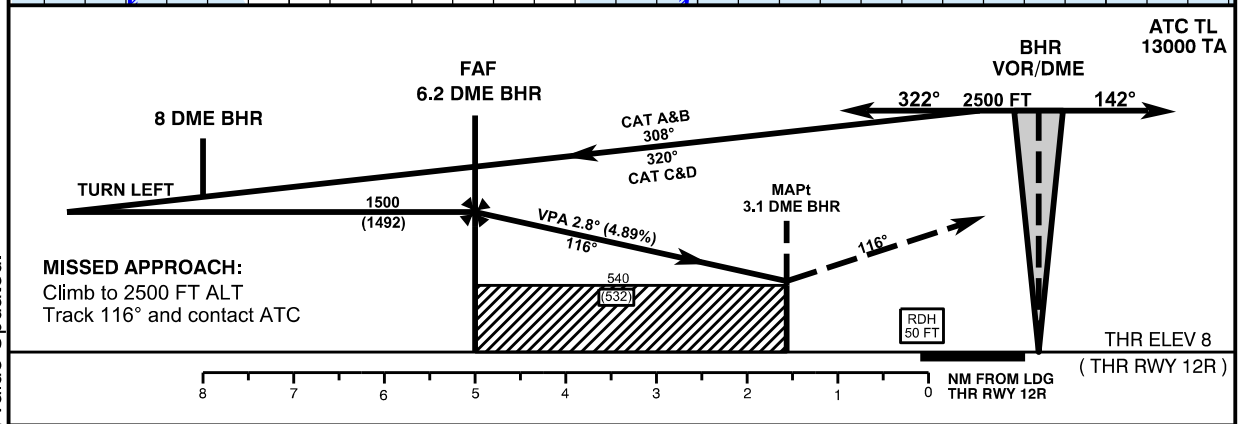
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 8 FT
HEIGHTS RELATED TO THR RWY 12R - ELEVATION 8 FT

APP:	127.85	119.1	234.95
TWR:	118.5	296.025	
GMC:	121.85		
DLV:	121.90		
DATIS:	127.2		

BAHRAIN/Intl (OBBI)
VOR/DME RWY 12R
CAT A-D(L)





OCA /H	A	B	C	D
Straight-in Approach	540 (532)			
Circling (North only)	640 (632)		740 (732)	

NOTE

Do not mistake for adjacent parallel runway which may be first visible

NO CIRCLING AUTHORISED BTN RADIALS 180° AND 260° CLOCKWISE

Distance from BHR VOR/DME	NM	3	4	5	6	7	8
Altitude	FT	530	830	1140	1440	1750	
Ground Speed	KTS	80	100	120	140	160	
Rate of Descent (2.8°)	FT/MIN	400	495	595	690	790	

Amendment: MAG VAR value Updated.

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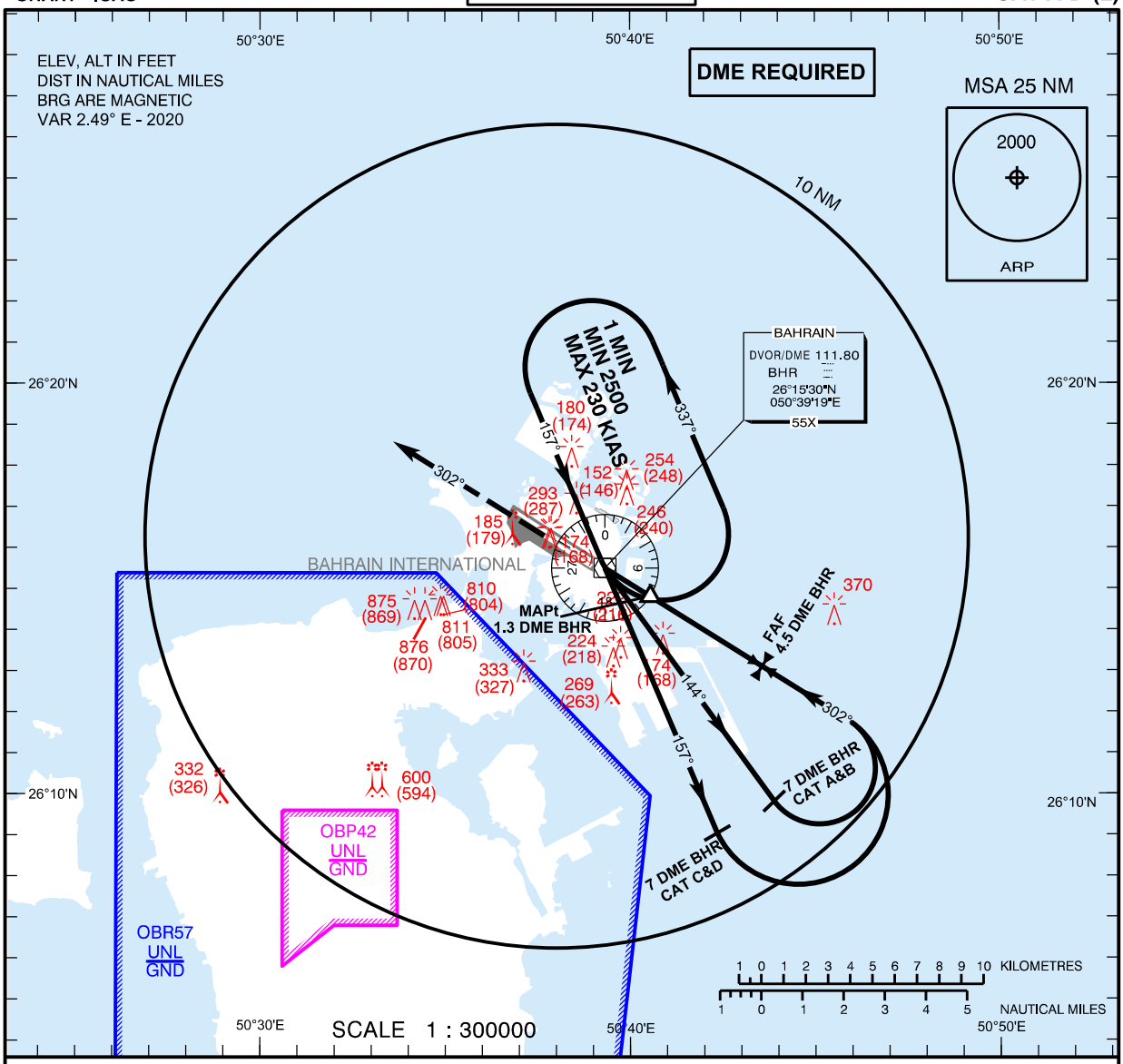
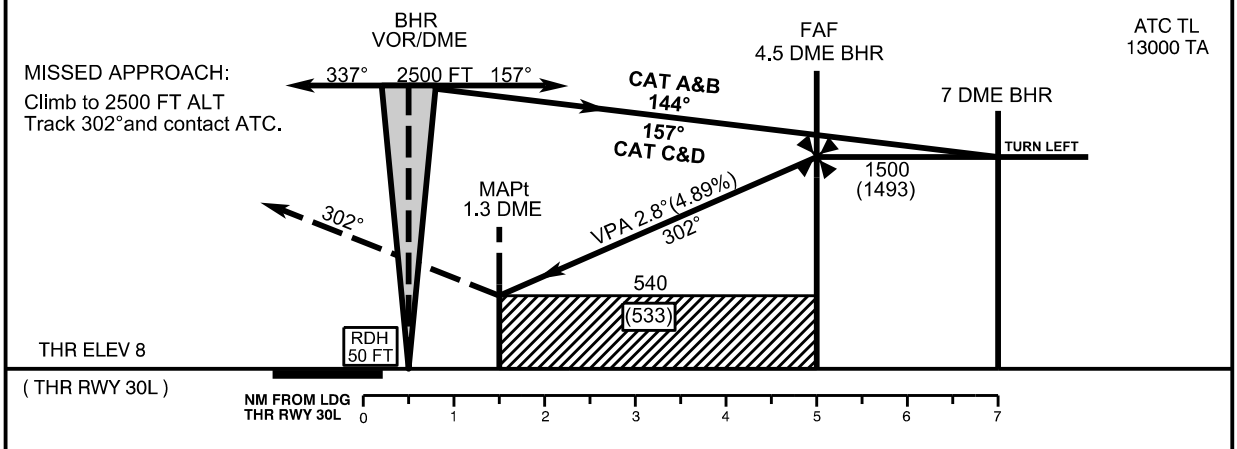
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 8 FT
HEIGHTS RELATED TO
THR RWY 30L - ELEV 8 FT

APP:	127.85	119.1	234.95
TWR:	118.5	296.025	
GMC:	121.85		
DLV:	121.90		
DATIS:	127.2		

BAHRAIN/Intl (OBBI)
VOR/DME RWY 30L
CAT A-D (L)





OCA /(H)	A	B	C	D
Straight-in Approach	540 (533)			
CIRCLING (North only)	640 (633)		1000 (993)	

NOTE:

Do not mistake for adjacent parallel runway which may be first visible.

NO CIRCLING AUTHORISED BTN RADIALS 180° AND 260° CLOCKWISE

Distance from BHR VOR/DME	NM	1	2	3	4	5
Altitude	FT	450	750	1050	1360	1660
Ground Speed	KTS	80	100	120	140	160
Rate of Descent (2.8°)	FT/MIN	400	495	595	690	790

Amendment: MAG VAR value updated.

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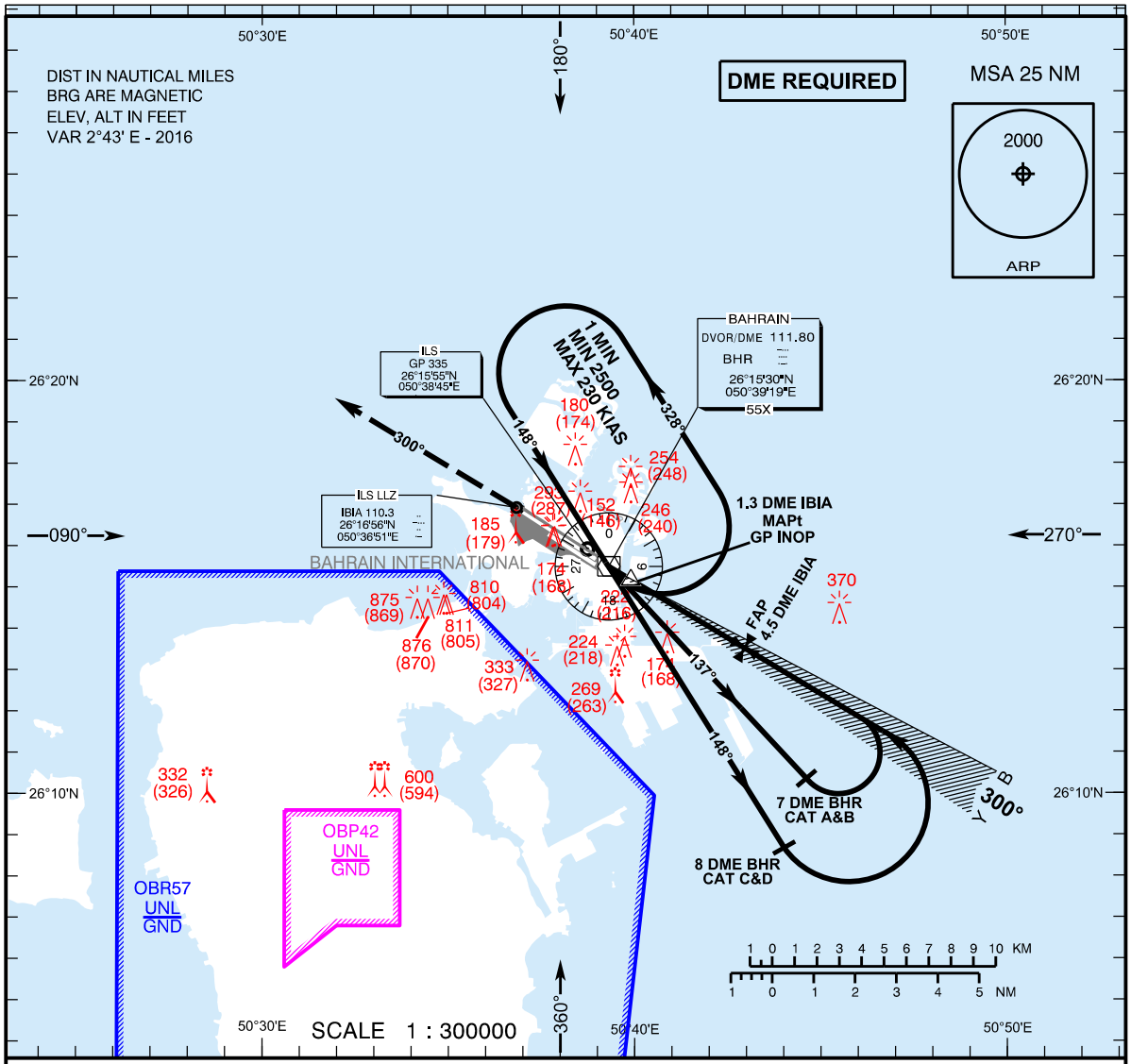
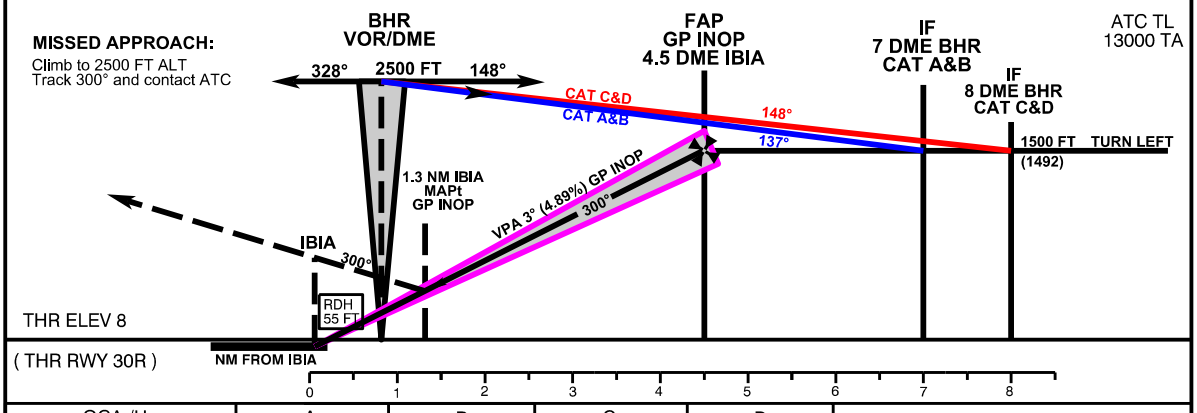
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 8 FT
HEIGHTS RELATED TO
THR RWY 30R - ELEV 8 FT

APP:	127.85	119.1 234.95
TWR:	118.5	296.025
GMC:	121.85	
DATIS:	127.2	

BAHRAIN/Intl (OBBI)
VOR/DME/ILS RWY 30R
CAT A-D





OCA /H		A	B	C	D
Straight in Approach	CAT I	226 (218)	240 (232)	256 (248)	273 (265)
	CAT II	151 (143)	161 (153)	174 (166)	191 (183)
GP INOP		540 (532)			
Circling (North only)		640 (634)		1000 (992)	

NOTE

NO CIRCLING AUTHORISED BTN RADIALS 180° AND 260° CLOCKWISE.

Distance from IBIA	NM	1	2	3	4	5	6
Speed	FT	80	100	120	140	160	180
Time	KTS	3.23	2:42	2:15	1:56	1:41	1:30
Rate of descent	FT/MIN	428	535	642	749	856	963

Amendment: RWY 30R MAG BRG Amended.

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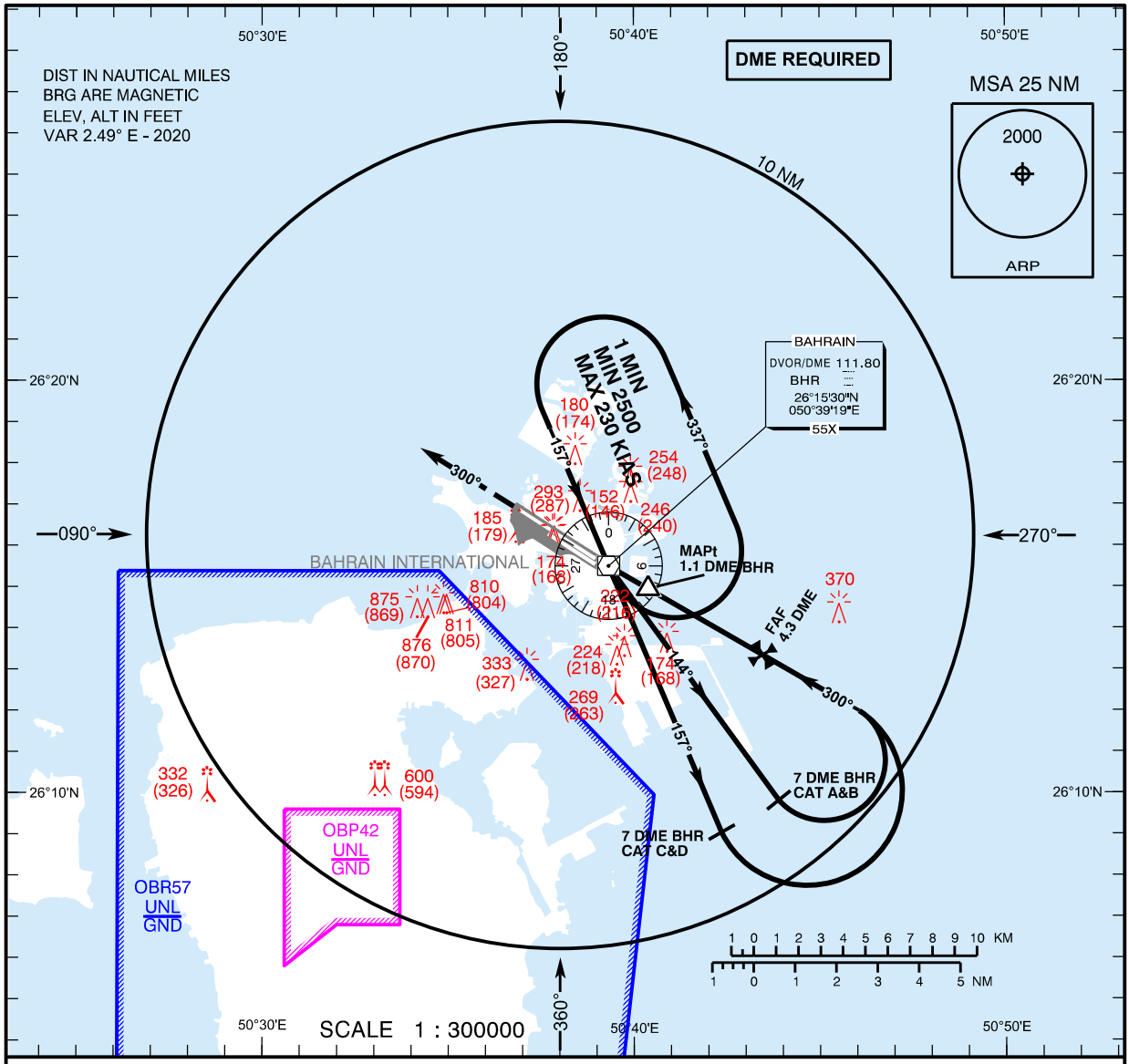
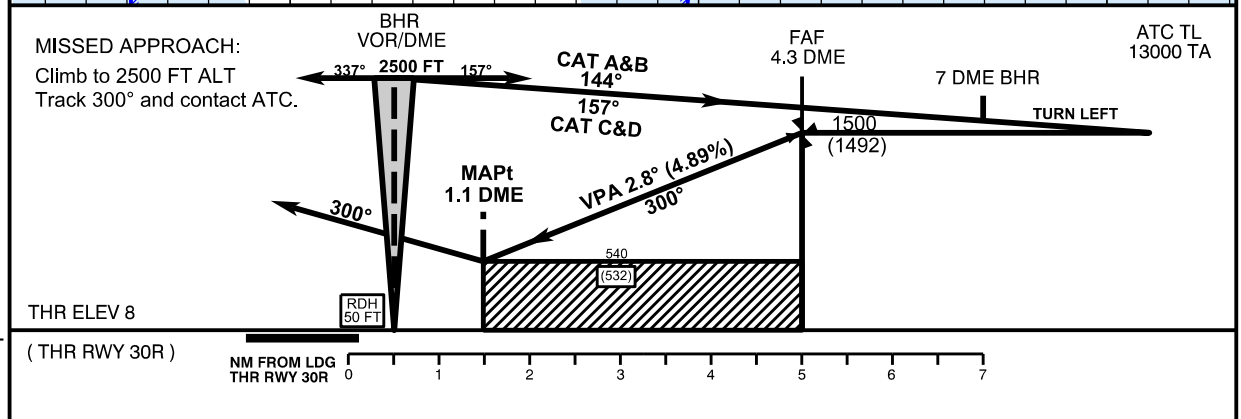
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 8 FT
HEIGHTS RELATED TO
THR RWY 30R - ELEV 8 FT

APP:	127.85	119.1	234.95
TWR:	118.5	296.025	
GMC:	121.85		
DLV:	121.90		
DATIS:	127.2		

BAHRAIN/Intl (OBBI)
VOR/DME RWY 30R
CAT A-D(L)





OCA/(H)	A	B	C	D/DL
Straight in Approach	540 (532)			
Circling (North only)	640 (632)		1000 (992)	

NOTE

Do not mistake for adjacement parallel runway which may be first visible.

NO CIRCLING AUTHORISED BTN
RADIALS 180° AND 260° CLOCKWISE.

Distance from BHR VOR/DME	NM	1	2	3	4	5
Altitude	FT	510	810	1110	1420	1720
Ground Speed	KTS	80	100	120	140	160
Rate of descent (2.8°)	FT/MIN	400	495	595	690	790

Amendment: MAG VAR value updated.

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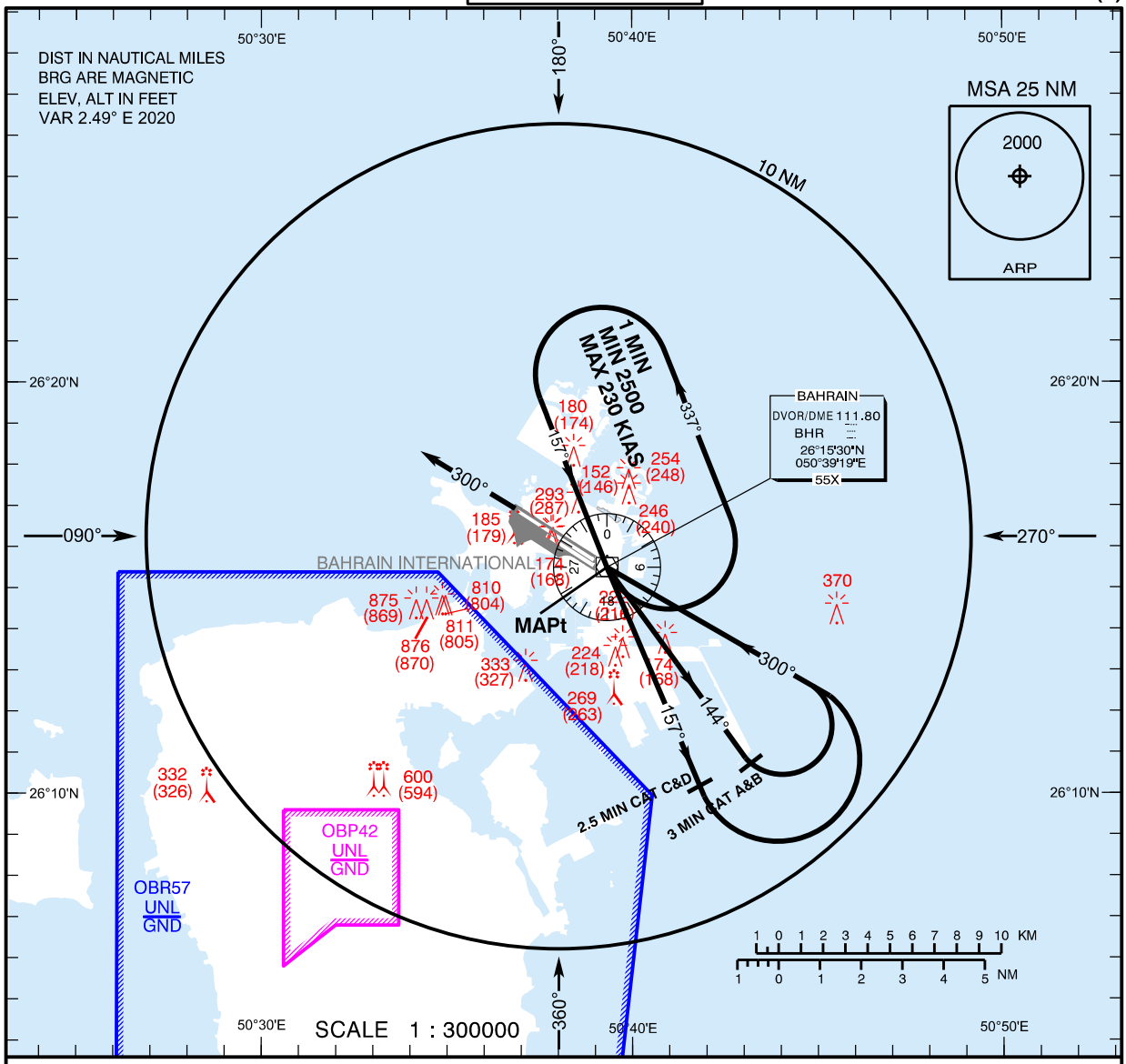
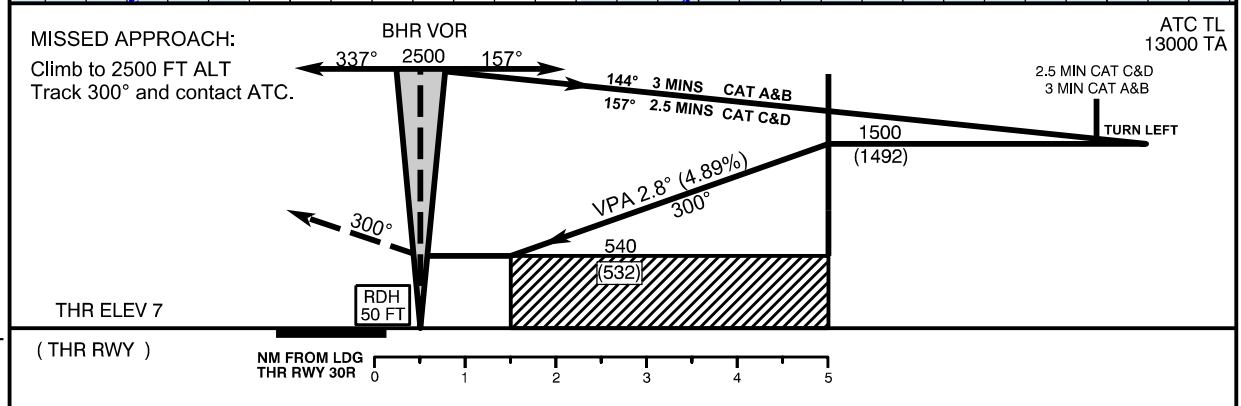
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV
HEIGHTS RELATED TO
THR RWY 30R - ELEV

APP:	127.85	119.1	234.95
TWR:	118.5	296.025	
GMC:	121.85		
DLV:	121.90		
DATIS:	127.20		

BAHRAIN/Intl (OBBI)
VOR RWY 30R
CAT A-D(L)





OCA/(H)	A	B	C	D/DL
Straight-in Approach	540 (532)			
Circling (North only)	640 (632)		1000 (992)	

NOTE

Do not mistake for adjacent parallel runway which may be first visible.

NO CIRCLING AUTHORISED BTN
RADIALS 180° AND 260° CLOCKWISE.

Distance from RWY 30R	NM	1	2	3	4	5	6
Altitude	FT	360	660	960	1270	1570	1880
Ground Speed	KTS	80	100	120	140	160	
Rate of descent (2.8°)	FT/MIN	400	495	595	690	790	

Amendment: MAG VAR value updated.

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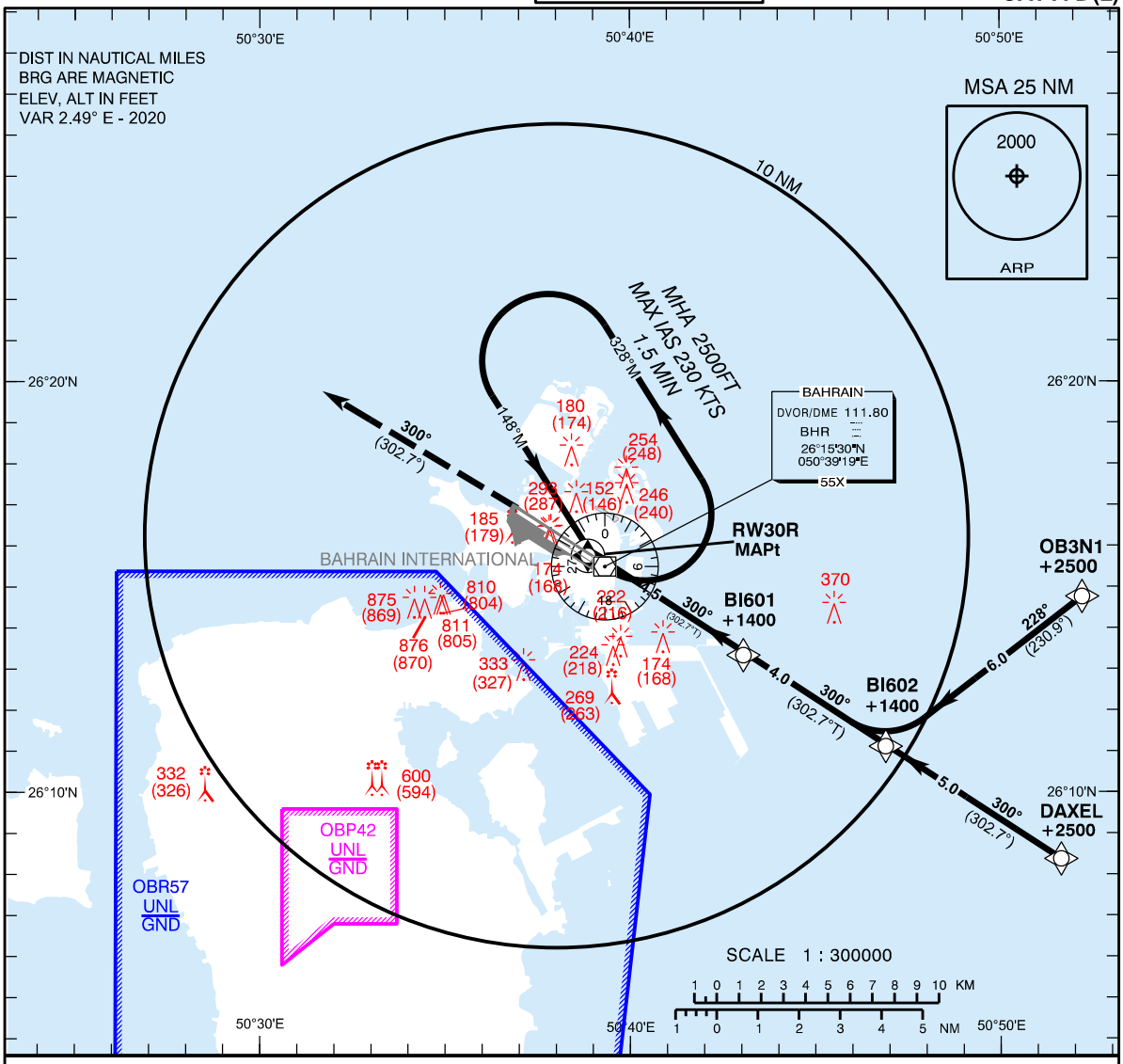
INSTRUMENT APPROACH CHART - ICAO

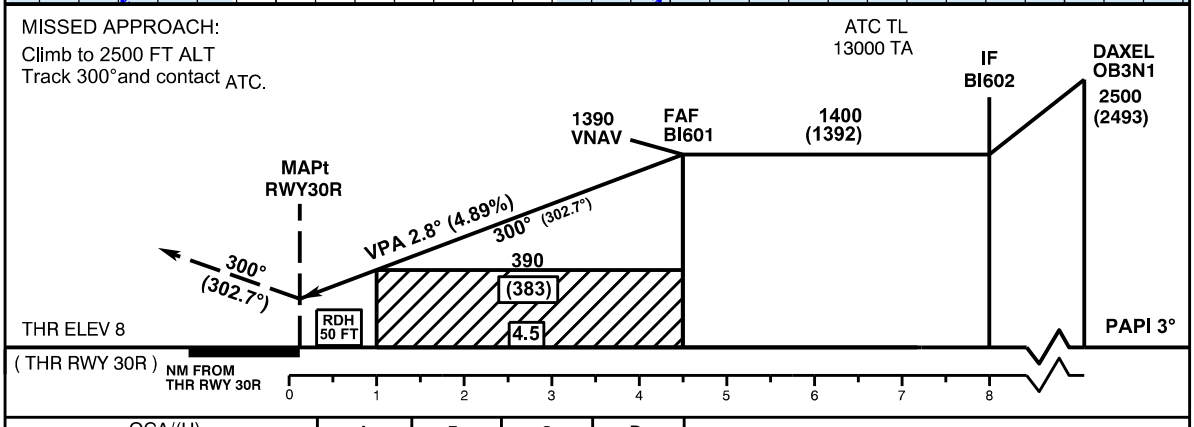
AERODROME ELEV 8 FT
HEIGHTS RELATED TO THR RWY 30R ELEV 8 FT

MIN TEMP 0°C

APP: 127.85 119.1 234.95
TWR: 118.5 296.025
GMC: 121.85
DLV: 121.90
DATIS: 127.2

BAHRAIN/Intl (OBBI)
RNAV (GNSS) RWY 30R
CAT A-D(L)





OCA/(H)		A	B	C	D
Straight-in Approach	LNAV	390 (383)	390 (383)	390 (383)	390 (383)
	DA / H				
	LNAV / VNAV	320 (313)	320 (313)	320 (313)	320 (313)

NOTE:

1. At temperatures above 56°C the nominal VPA will exceed 3.5°.

NO CIRCLING AUTHORISED
BTN RADIALS 180° AND 260°
CLOCKWISE.

Distance from RWY 30R	NM	1	2	3	4	5	6
Altitude	FT	355	650	950	1245	1540	1840
Ground Speed	KTS	80	100	120	140	160	
Rate of Descent (2.8°)	FT/MIN	400	495	595	690	790	

Amendment: MAG VAR value updated.

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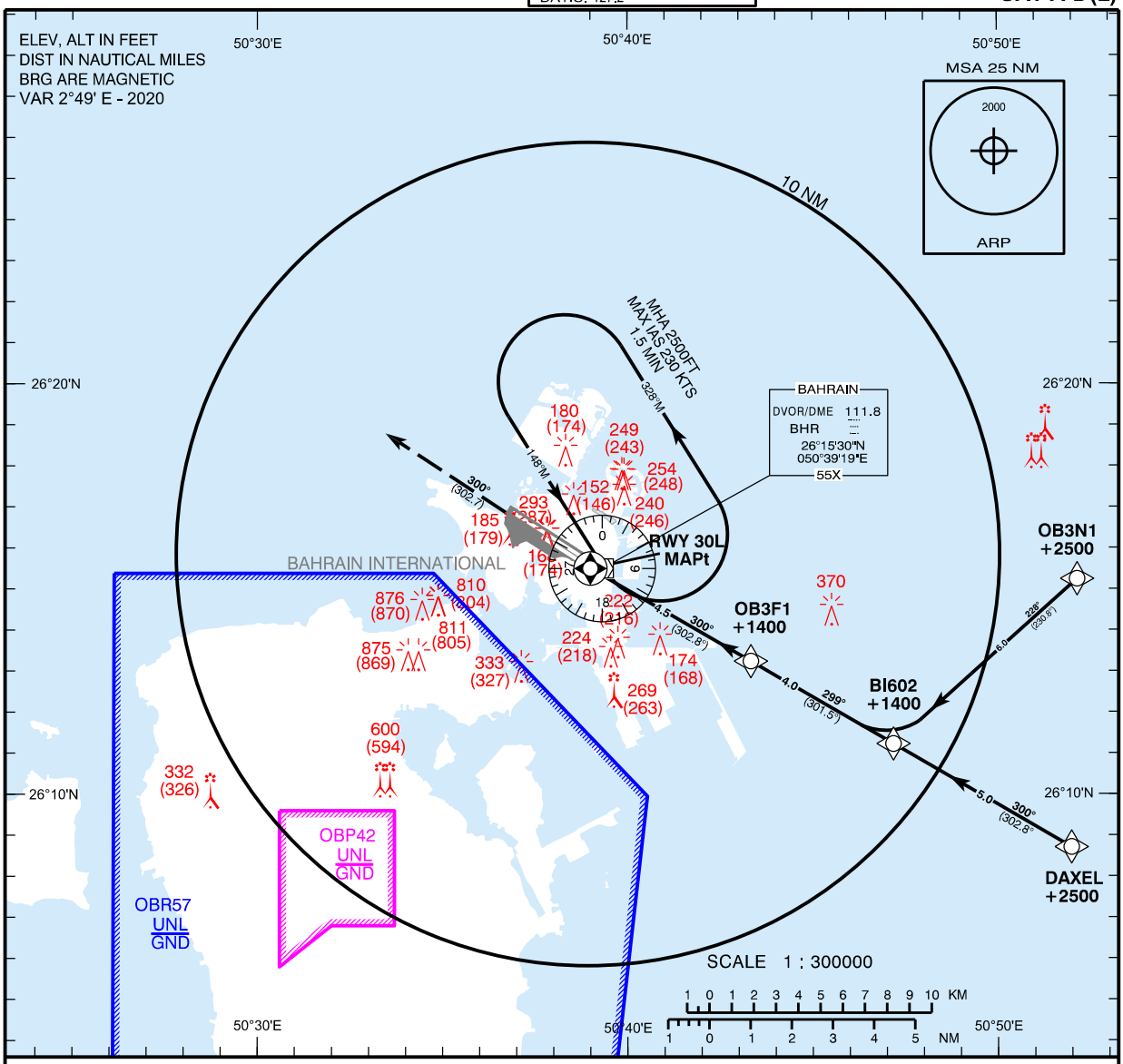
INSTRUMENT APPROACH CHART - ICAO

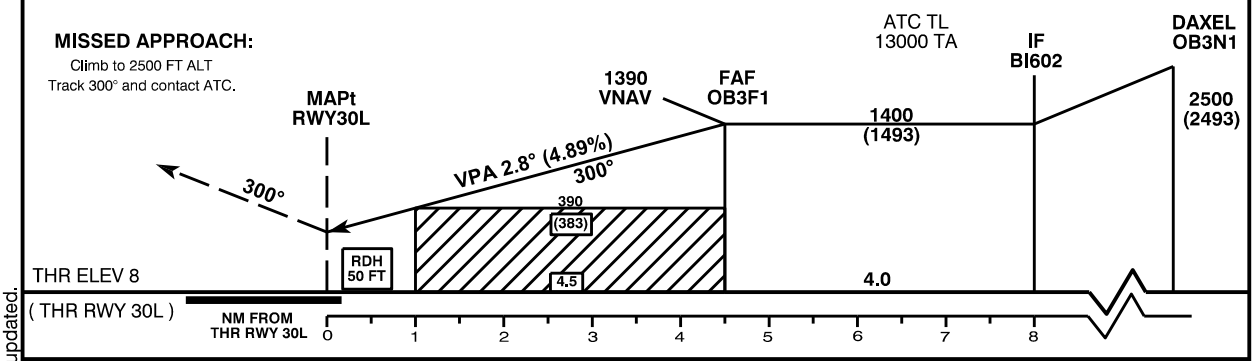
AERODROME ELEV 8 FT
HEIGHTS RELATED TO
THR RWY 30L - ELEV 8 FT

MIN TEMP 0°C

APP:	127.85	119.1	234.95
TWR:	118.5	296.025	
GMC:	121.85		
DLV :	121.9		
DATIS:	127.2		

BAHRAIN INTERNATIONAL
RNAV (GNSS) RWY 30L
CAT A-D(L)





OCA / OCH		A	B	C	D
Straight-in Approach	LNAV	390 (383)	390 (383)	390 (383)	390 (383)
	DA / H				
	LNAV / VNAV	300 (293)	300 (293)	300 (293)	300 (293)

NOTE

1. At temperatures above 56°C the nominal VPA will exceed 3.5°.

NO CIRCLING AUTHORISED
BTN RADIALS 180° AND 260°
CLOCKWISE

Distance from RWY30L	NM	1	2	3	4	5	6
Altitude	FT	355	650	950	1245	1540	1840
Ground Speed	KTS	80	100	120	140	160	
Rate of Descent (2.8°)	FT/MIN	400	495	595	690	790	

Amendment: MAG VAR Value updated.

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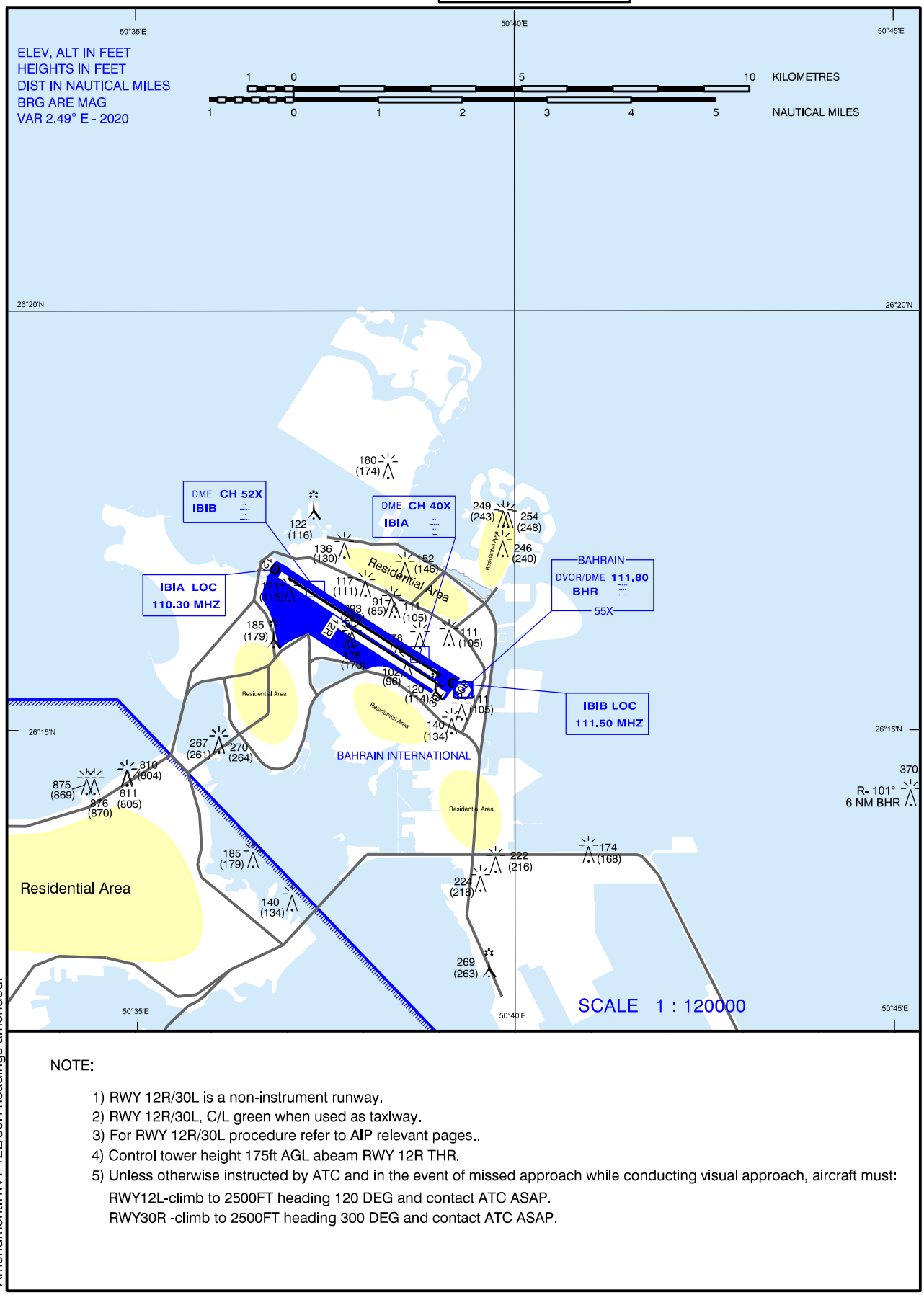
VISUAL APPROACH CHART - ICAO

AERODROME ELEV 8 FT
HEIGHTS RELATED TO AD ELEV

APP:	127.85	119.1	234.95
TWR:	118.5	296.025	
SMC:	121.85		
DLV:	121.90		
DATIS:	127.2		

BAHRAIN INTL (OBBI)



NOTE:

1) RWY 12R/30L is a non-instrument runway.
2) RWY 12R/30L, C/L green when used as taxiway.
3) For RWY 12R/30L procedure refer to AIP relevant pages..
4) Control tower height 175ft AGL abeam RWY 12R THR.
5) Unless otherwise instructed by ATC and in the event of missed approach while conducting visual approach, aircraft must:
   RWY12L-climb to 2500FT heading 120 DEG and contact ATC ASAP.
   RWY30R -climb to 2500FT heading 300 DEG and contact ATC ASAP.

Amendment:RWY 12L/30R headings amended.

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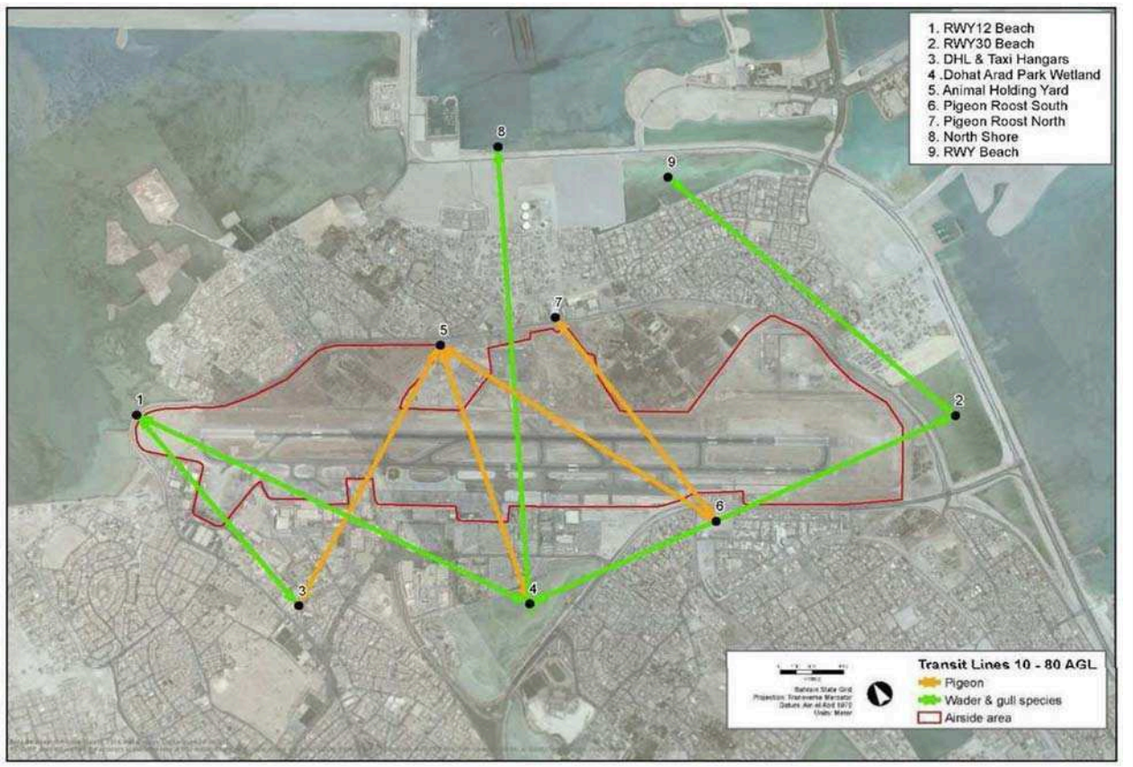
BAHRAIN INTL.

OFF-AIRPORT, BIRD HAZARD LOCATIONS



Wildlife Information

- Average mass (kg) of birds per survey at RWY12 Beach – Winter: 740kg Summer: 14kg
- Average mass (kg) of birds per survey at RWY30 Beach – Winter: 69kg Summer: 18kg
- Regular transit paths of pigeon, wader and gull species identified for pilot's attention on approach and departure to Bahrain Intl.

Pilot Use Information

- Prior to arrival/departure at BAH request ATC for the presence of birds in the approach and departure paths as well as current wind status request dispersal if location is unacceptable.

Warning:

- During periods of rainfall there are significantly higher levels of bird activity within the airport perimeters, especially around areas of standing water. All pilots are advised to maintain vigilance and exercise extreme caution.

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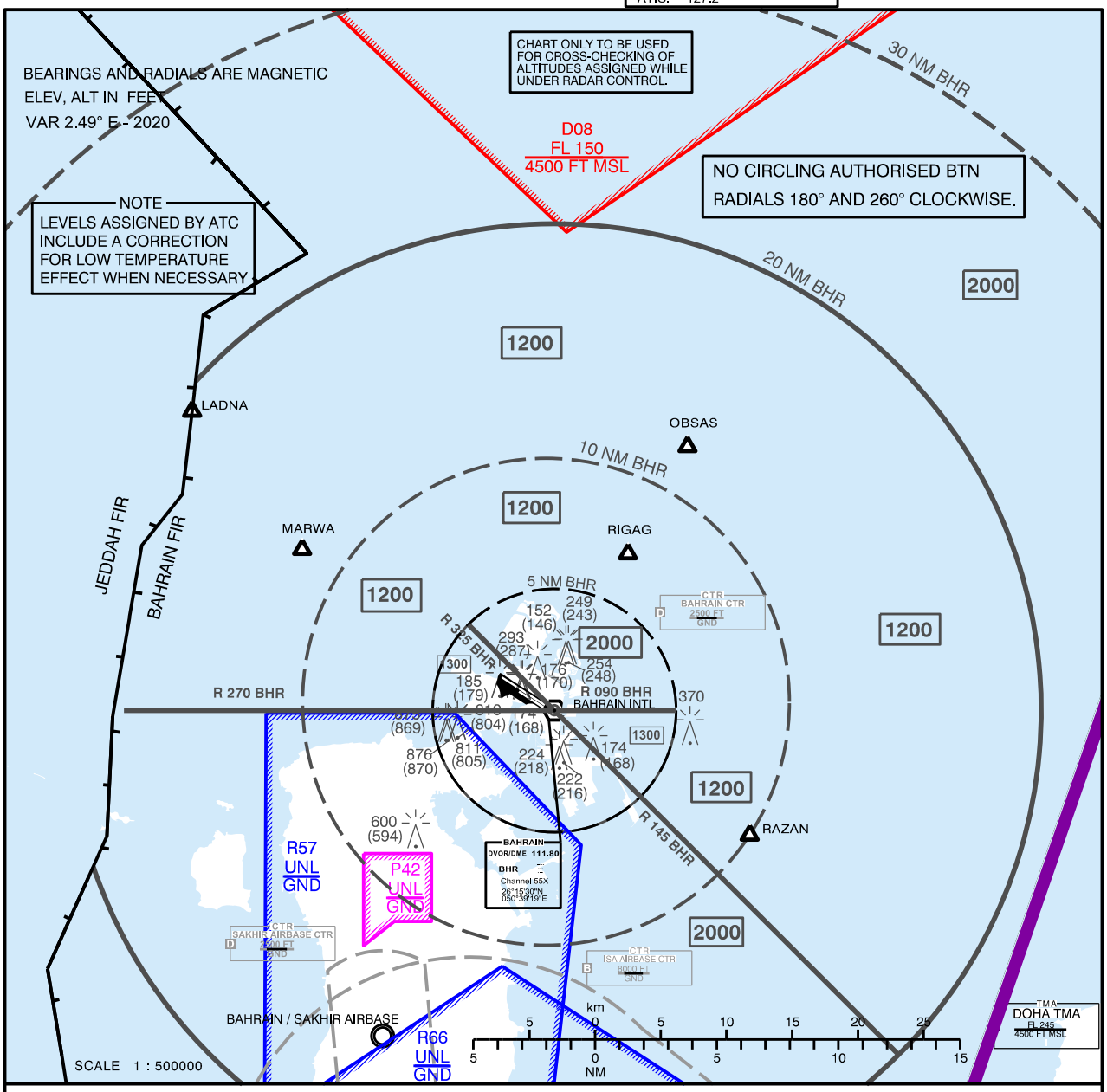
RADAR MINIMUM ALTITUDE CHART - ICAO

AERODROME ELEV 8 FT
TRANSITION ALTITUDE 13000 FT

APP:	127.85	119.1	234.95
TWR:	118.5	121.851	
GMC:	121.85		
DLV:	121.90		
ATIS:	127.2		

BAHRAIN/Intl(OBBI)



NOTE: The minimum levels shown are based upon the correct QNH being used.

LEGEND	
ATC RADAR CONTROL MINIMUM ALT IN FEET	1200

COM FAILURE

- SET TRANSPONDER CODE 7600.
- FOLLOW COM FAILURE PROCEDURE ON RELEVANT SID OR STAR.

Amendment: MAG VAR value updated.

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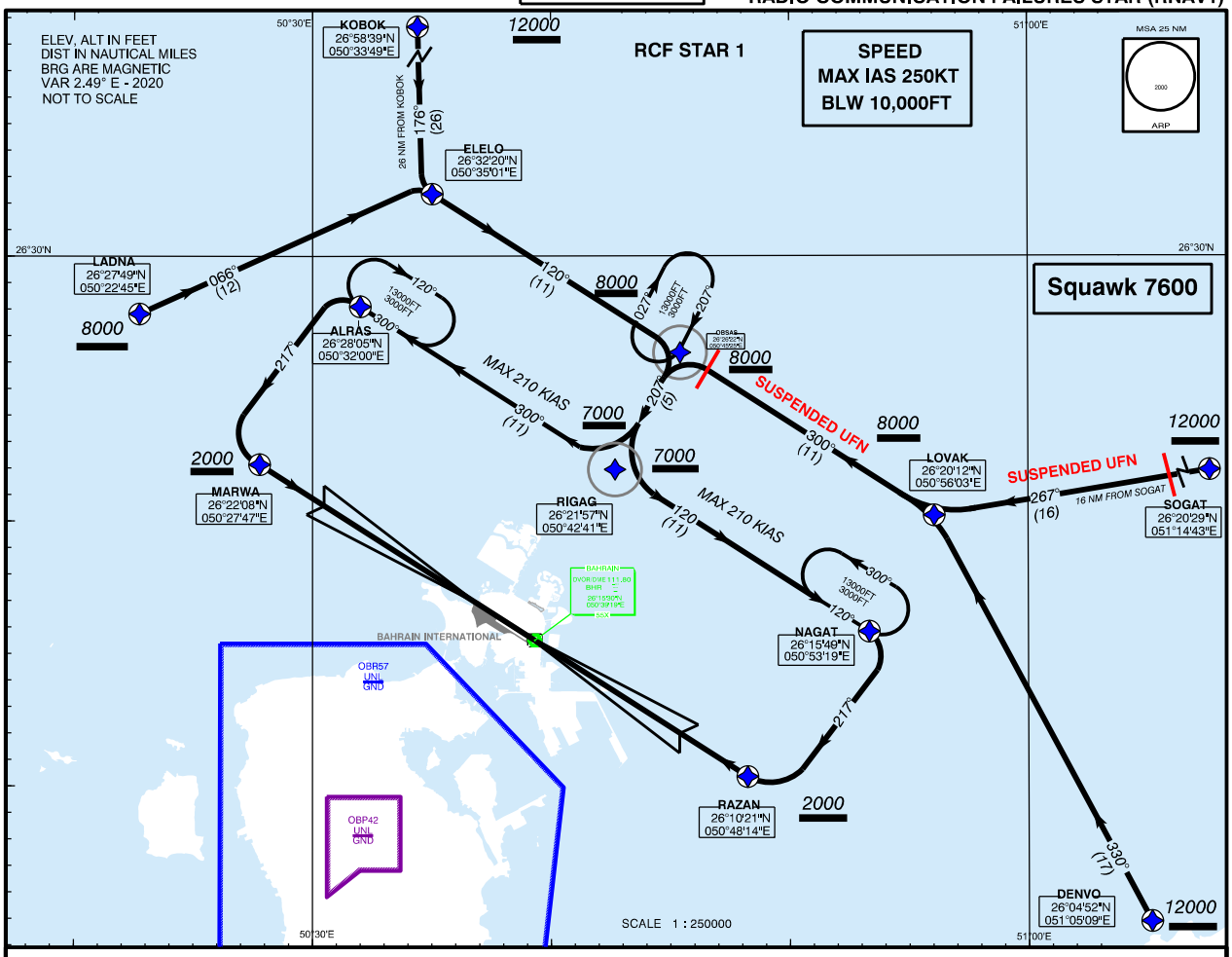
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE 13000

APP: 127.85 119.1 234.95
TWR: 118.5 296.025
SMC: 121.85
DLV : 121.90
DATIS: 127.2

BAHRAIN INTL (OBBI)
RWY 12L/30R
RADIO COMMUNICATION FAILURES STAR (RNAV1)



RADIO COMMUNICATION FAILURES STAR (RNAV1)

DENVO	RCF 1 ARRIVAL
SOGAT	RCF 1 ARRIVAL
LADNA	RCF 1 ARRIVAL
KOBOK	RCF 1 ARRIVAL

PROCEDURES

Radio Communication Failure : -

1- Squawk 7600, comply with vertical navigation requirements, but not below MSA.

2- Track via latest STAR clearance to the nominated runway, then fly the most suitable approach as advised by ATC.

3- Comply with all allocated flight level and altitude as published in this chart.

4- No Circling authorised BTN radials 180° and 260° Clockwise.

Amendment: MAG VAR Value updated & DLV FREQ Added.

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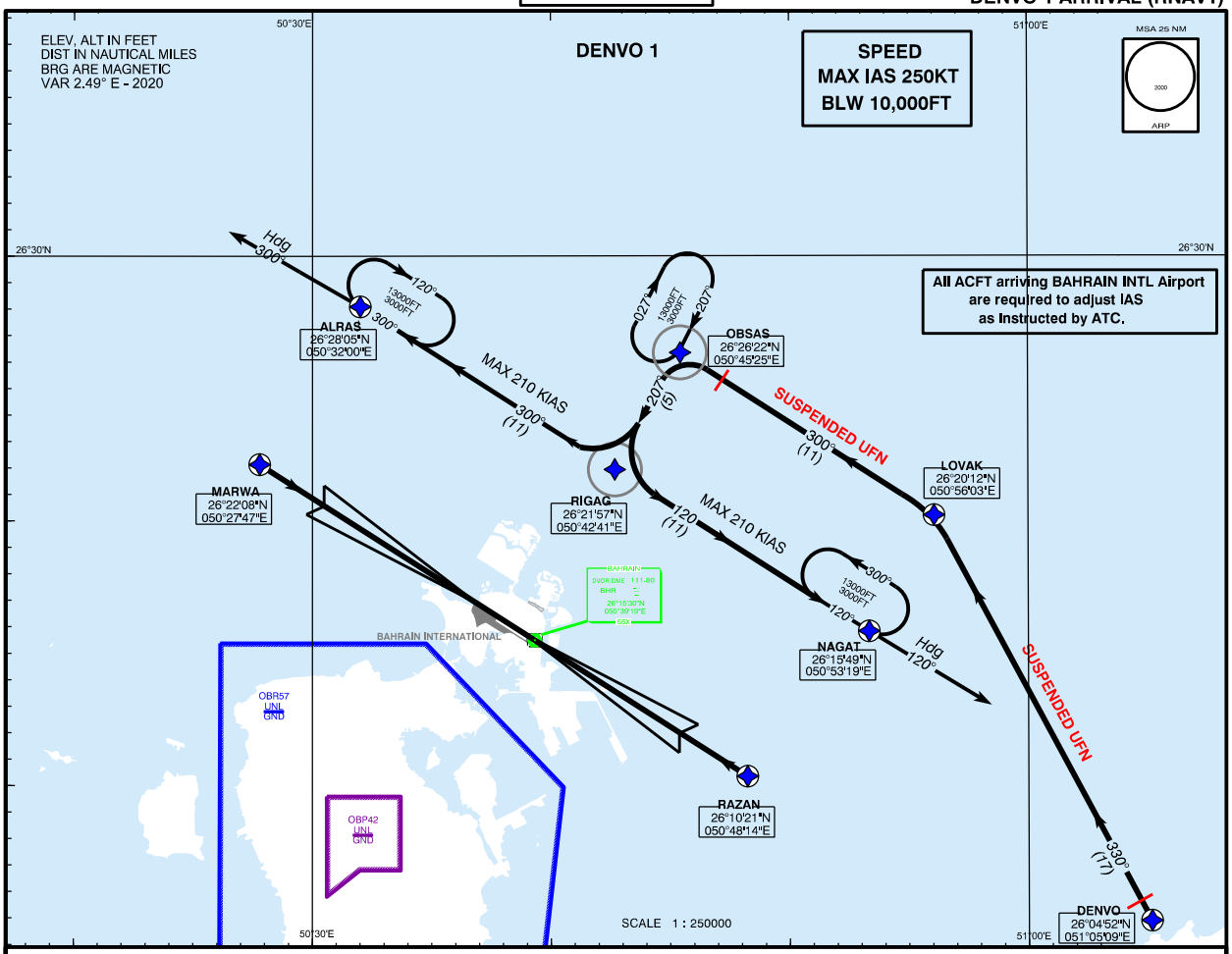
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE 13000

APP: 127.85 119.1 234.95
TWR: 118.5 296.025
GMC: 121.85
DLV: 121.90
DATIS: 127.2

BAHRAIN INTL (OBBI)
RWY 12L/30R
DENVO 1 ARRIVAL (RNAV1)



DENVO 1 ARRIVAL (RNAV1)

RWY 12 L	RWY 30 R
FROM DENVO TRACK 330° TO LOVAK	FROM DENVO TRACK 330° TO LOVAK
TURN LEFT TRACK 300° TO OBSAS	TURN LEFT TRACK 300° TO OBSAS.
TURN LEFT TRACK 207° TO RIGAG	TURN LEFT TRACK 207° TO RIGAG
TURN RIGHT TRACK 300° TO ALRAS MAX SPEED 210 KTS	TURN LEFT TRACK 120° TO NAGAT MAX SPEED 210 KTS
FROM ALRAS FLY H 300° EXPECT RADAR VECTORS TO FINAL	FROM NAGAT FLY H 120° EXPECT RADAR VECTORS TO FINAL

GENERAL PROCEDURES

1- Advise Bahrain ATC if unable to comply with the RNAV STAR.
2- Request STAR designator, current altitude, and cleared altitude on first contact with Bahrain Approach.
3- Maintain altitude assigned by ATC until cleared for the approach.
4- Do not expect lower than 7000FT AMSL until past RIGAG.
5- No Circling authorised BTN radials 180° and 260° Clockwise.
6- ALRAS is a Downwind Termination Waypoint (DTW) for the STAR to RWY 12.
7- NAGAT is a Downwind Termination Waypoint (DTW) for the STAR to RWY 30.

Amendment: MAG VAR Value Updated.

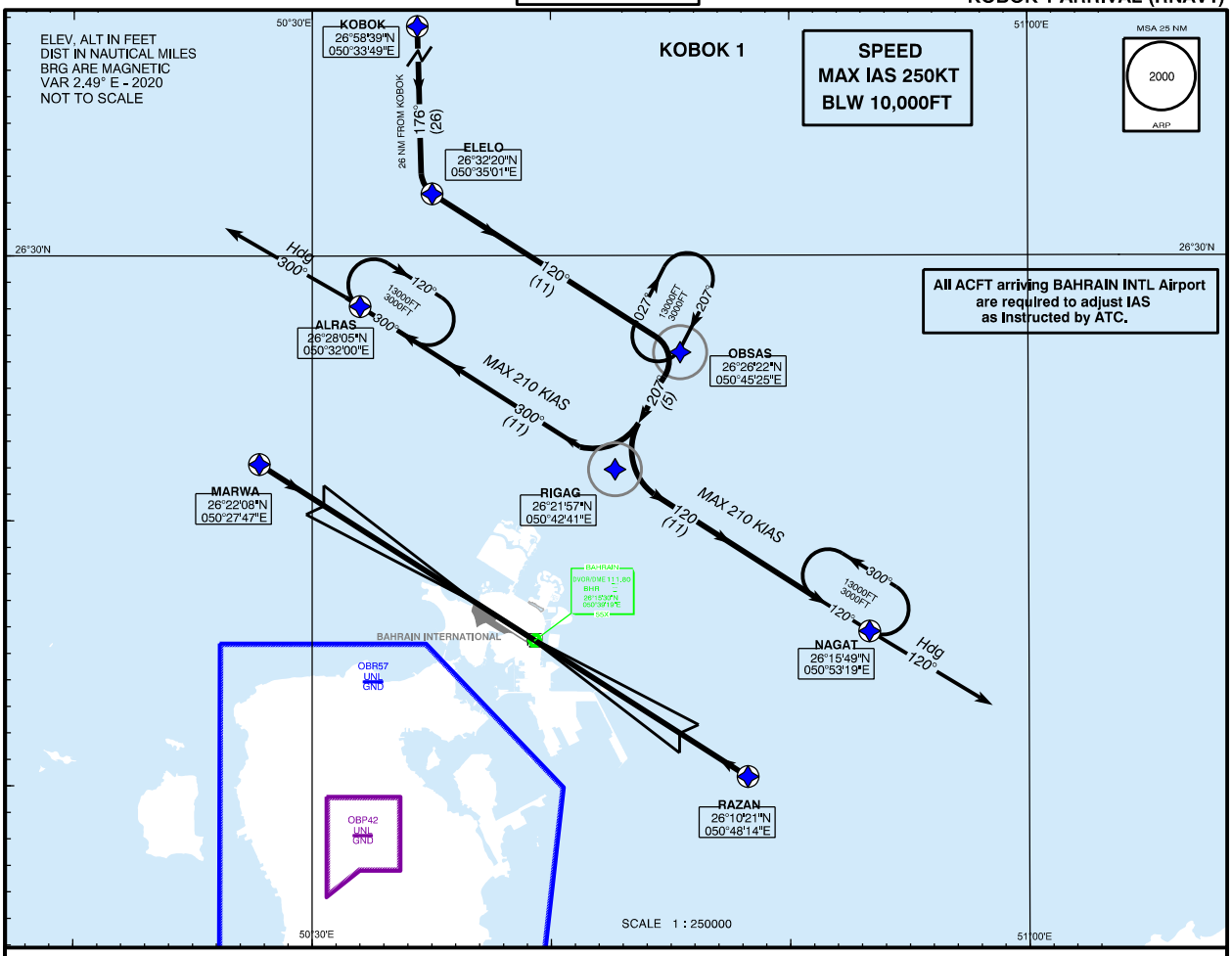
INTENTIONALLY BLANK

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE 13000

APP: 127.85 119.1 234.95
TWR: 118.5 296.025
GMC: 121.85
DLV: 121.90
DATIS: 127.2

BAHRAIN INTL (OBBI)
RWY 12L/30R
KOBOK 1 ARRIVAL (RNAV1)



KOBOK 1 ARRIVAL (RNAV1)

RWY 12 L	RWY 30 R
FROM KOBOK TRACK 176° TO ELELO	FROM KOBOK TRACK 176° TO ELELO
TURN LEFT TRACK 120° TO OBSAS	TURN LEFT TRACK 120° TO OBSAS
TURN RIGHT TRACK 207° TO RIGAG	TURN RIGHT TRACK 207° TO RIGAG
TURN RIGHT TRACK 300° TO ALRAS MAX SPEED 210 KTS	TURN LEFT TRACK 120° TO NAGAT MAX SPEED 210 KTS
FROM ALRAS FLY H 300° EXPECT RADAR VECTORS TO FINAL	FROM NAGAT FLY H 120° EXPECT RADAR VECTORS TO FINAL

GENERAL PROCEDURES

1- Advise Bahrain ATC if unable to comply with the RNAV STAR.
2- Request STAR designator, current altitude, and cleared altitude on first contact with Bahrain Approach.
3- Maintain altitude assigned by ATC until cleared for the approach.
4- Expect to cross RIGAG between 5000-7000FT AMSL as instructed by ATC.
5- No Circling authorised BTN radials 180° and 260° Clockwise.
6- ALRAS is a Downwind Termination Waypoint (DTW) for the STAR to RWY 12.
7- NAGAT is a Downwind Termination Waypoint (DTW) for the STAR to RWY 30.

Amendment: MAG VAR Value Updated.

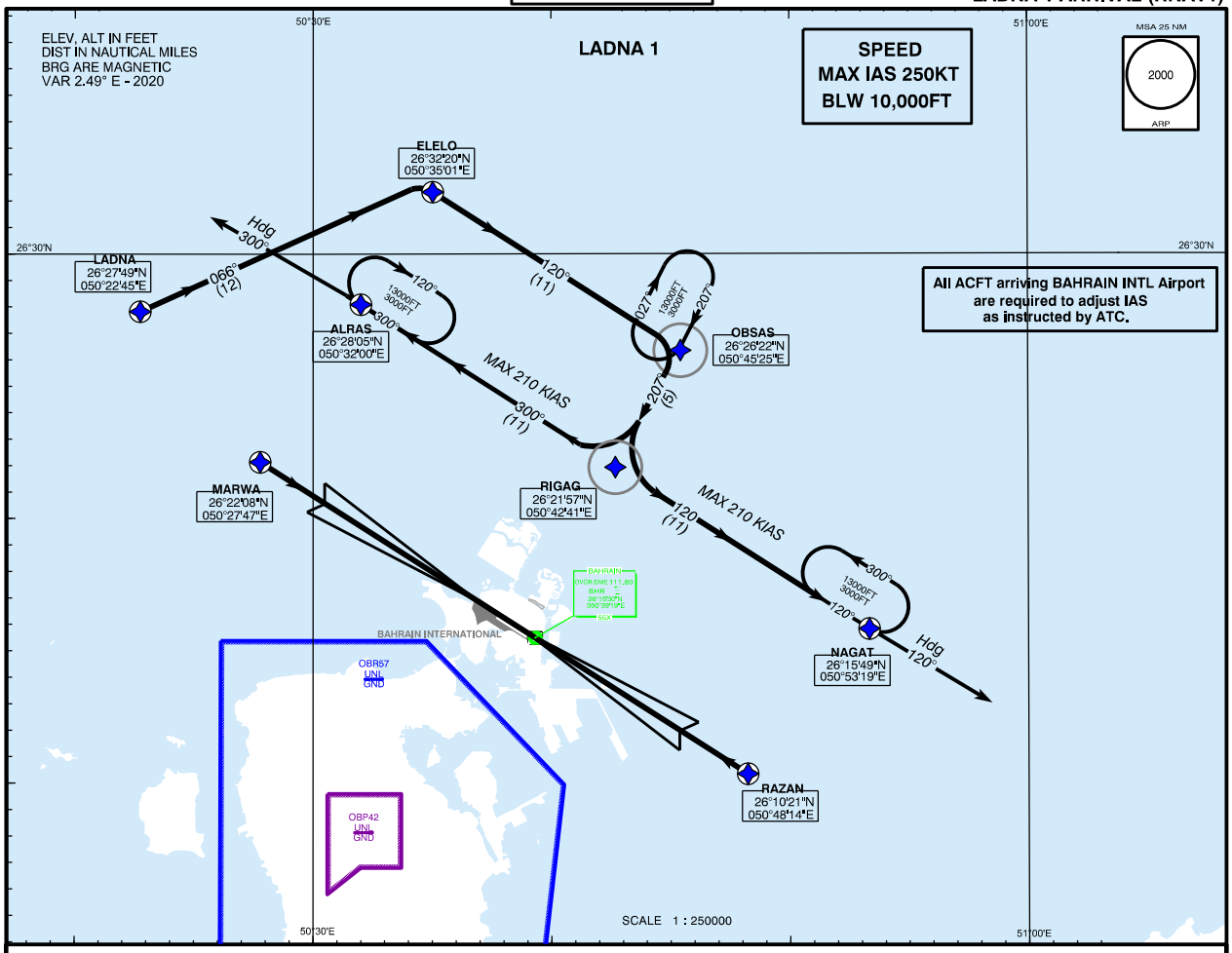
INTENTIONALLY BLANK

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE 13000

APP: 127.85 119.1 234.95
TWR: 118.5 296.025
GMC: 121.85
DLV: 121.90
DATIS: 127.2

BAHRAIN INTL (OBBI)
RWY 12L/30R
LADNA 1 ARRIVAL (RNAV1)



LADNA 1 ARRIVAL (RNAV1)

RWY 12 L	RWY 30 R
FROM LADNA TRACK 066° TO ELELO	FROM LADNA TRACK 066° TO ELELO
TURN RIGHT TRACK 120° TO OBSAS	TURN RIGHT TRACK 120° TO OBSAS
TURN RIGHT TRACK 207° TO RIGAG	TURN RIGHT TRACK 207° TO RIGAG
TURN RIGHT TRACK 300° TO ALRAS MAX SPEED 210 KTS	TURN LEFT TRACK 120° TO NAGAT MAX SPEED 210 KTS
FROM ALRAS FLY H 300° EXPECT RADAR VECTORS TO FINAL	FROM NAGAT FLY H 120° EXPECT RADAR VECTORS TO FINAL

GENERAL PROCEDURES

1- Advise Bahrain ATC if unable to comply with the RNAV STAR.
2- Request STAR designator, current altitude, and cleared altitude on first contact with Bahrain Approach.
3- Maintain altitude assigned by ATC until cleared for the approach.
4- Expect to cross RIGAG between 5000-7000FT AMSL as instructed by ATC.
5- No Circling authorised BTN radials 180° and 260° Clockwise.
6- ALRAS is a Downwind Termination Waypoint (DTW) for the STAR to RWY 12.
7- NAGAT is a Downwind Termination Waypoint (DTW) for the STAR to RWY 30.

Amendment: MAG VAR Value Updated.

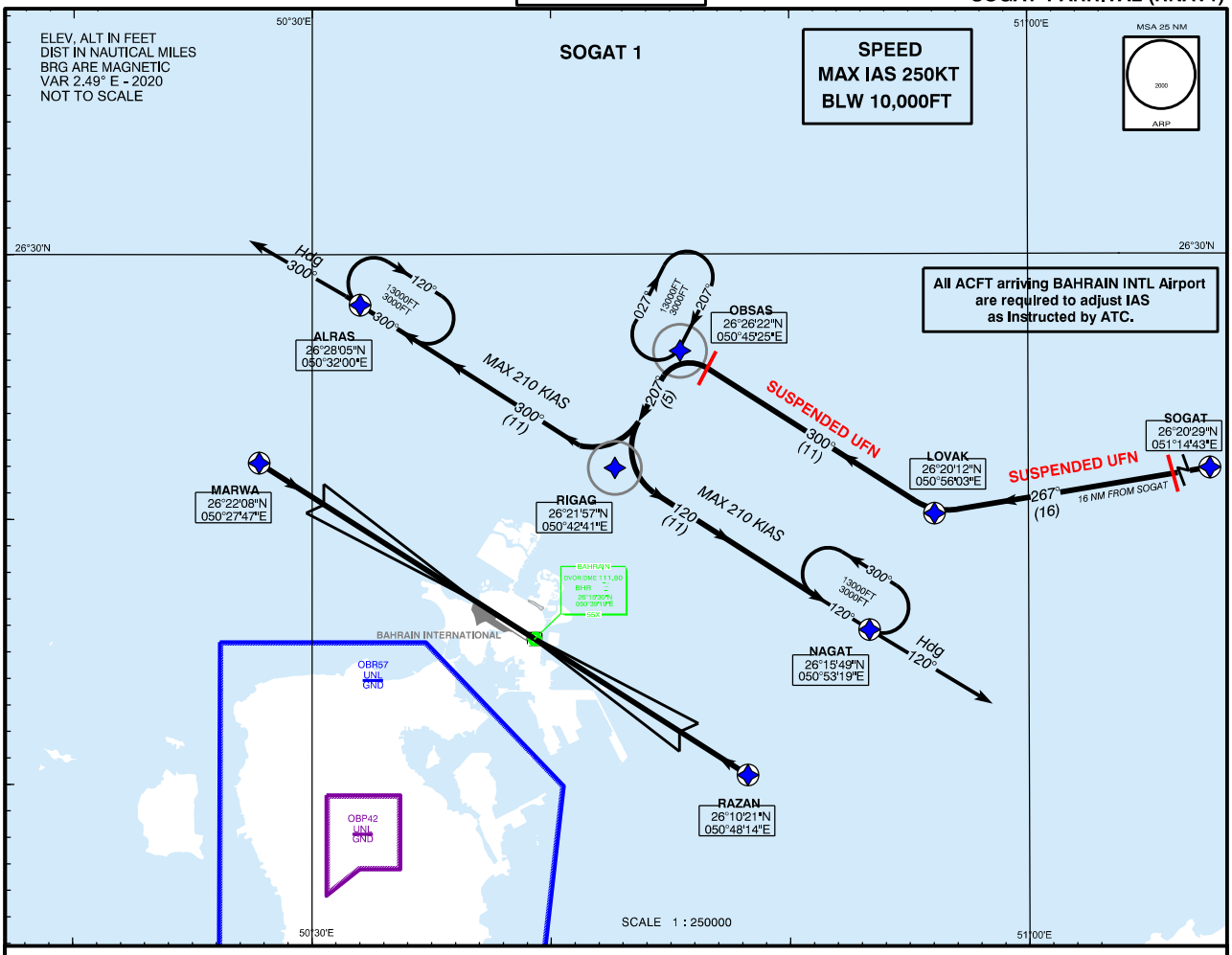
INTENTIONALLY BLANK

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE 13000

APP:	127.85	119.1	234.95
TWR:	118.5	296.025	
GMC:	121.85		
DLV	121.90		
DATIS:	127.2		

BAHRAIN INTL (OBBI)
RWY 12L/30R
SOGAT 1 ARRIVAL (RNAV1)



SOGAT 1 ARRIVAL (RNAV1)

RWY 12 L	RWY 30 R
FROM SOGAT TRACK 267° TO LOVAK	FROM SOGAT TRACK 267° TO LOVAK
TURN RIGHT TRACK 300° TO OBSAS	TURN RIGHT TRACK 300° TO OBSAS
TURN LEFT TRACK 207° TO RIGAG	TURN LEFT TRACK 207° TO RIGAG
TURN RIGHT TRACK 300° TO ALRAS MAX SPEED 210 KTS	TURN LEFT TRACK 120° TO NAGAT MAX SPEED 210 KTS
FROM ALRAS FLY H 300° EXPECT RADAR VECTORS TO FINAL	FROM NAGAT FLY H 120° EXPECT RADAR VECTORS TO FINAL

GENERAL PROCEDURES

1- Advise Bahrain ATC if unable to comply with the RNAV STAR.
2- Request STAR designator, current altitude, and cleared altitude on first contact with Bahrain Approach.
3- Maintain altitude assigned by ATC until cleared for the approach.
4- Do not expect lower than 7000FT AMSL until past RIGAG.
5- No Circling authorised BTN radials 180° and 260° Clockwise.
6- ALRAS is a Downwind Termination Waypoint (DTW) for the STAR to RWY 12.
7- NAGAT is a Downwind Termination Waypoint (DTW) for the STAR to RWY 30.

Amendment: MAG VAR Value Updated.

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LOW VISIBILITY PROCEDURE
LVP CHART (DEP RWY 12L/30R)

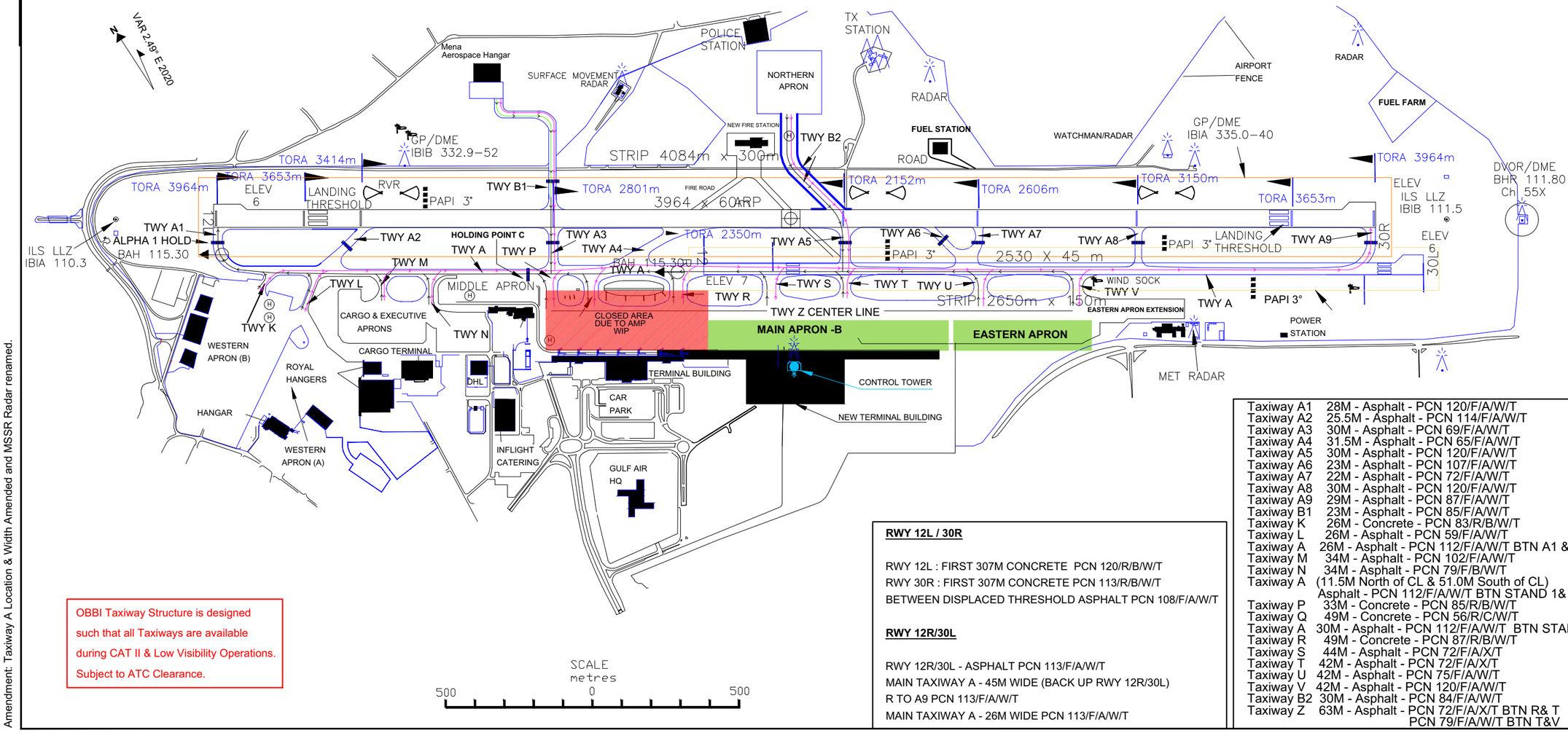
DISTANCES IN METRES
ALTITUDES, ELEVATIONS AND
HEIGHTS IN FEET.

26°16'14.97"N
050°38'01.17"E

APRON ELEV
8.92 FT

TWR 118.50
GMC 121.85
DLV 121.90

RUNWAY 12L – 30R DEPARTURE	
DEPARTURE RWY 12L	
DEPARTURE RWY 30R	
STOPBARS	



OBBI Taxiway Structure is designed such that all Taxiways are available during CAT II & Low Visibility Operations. Subject to ATC Clearance.

RWY 12L / 30R

RWY 12L : FIRST 307M CONCRETE PCN 120/R/B/W/T
RWY 30R : FIRST 307M CONCRETE PCN 113/R/B/W/T
BETWEEN DISPLACED THRESHOLD ASPHALT PCN 108/F/A/W/T

RWY 12R/30L

RWY 12R/30L - ASPHALT PCN 113/F/A/W/T
MAIN TAXIWAY A - 45M WIDE (BACK UP RWY 12R/30L)
R TO A9 PCN 113/F/A/W/T
MAIN TAXIWAY A - 26M WIDE PCN 113/F/A/W/T

Taxiway A1 28M - Asphalt - PCN 120/F/A/W/T
Taxiway A2 25.5M - Asphalt - PCN 114/F/A/W/T
Taxiway A3 30M - Asphalt - PCN 69/F/A/W/T
Taxiway A4 31.5M - Asphalt - PCN 65/F/A/W/T
Taxiway A5 30M - Asphalt - PCN 120/F/A/W/T
Taxiway A6 23M - Asphalt - PCN 107/F/A/W/T
Taxiway A7 22M - Asphalt - PCN 72/F/A/W/T
Taxiway A8 30M - Asphalt - PCN 120/F/A/W/T
Taxiway A9 29M - Asphalt - PCN 87/F/A/W/T
Taxiway B1 23M - Asphalt - PCN 85/F/A/W/T
Taxiway K 26M - Concrete - PCN 83/R/B/W/T
Taxiway L 26M - Asphalt - PCN 59/F/A/W/T
Taxiway A 26M - Asphalt - PCN 112/F/A/W/T BTN A1 & STAND 1
Taxiway M 34M - Asphalt - PCN 102/F/A/W/T
Taxiway N 34M - Asphalt - PCN 79/F/B/W/T
Taxiway A (11.5M North of CL & 51.0M South of CL) Asphalt - PCN 112/F/A/W/T BTN STAND 1& STAND 6
Taxiway P 33M - Concrete - PCN 85/R/B/W/T
Taxiway Q 49M - Concrete - PCN 56/R/C/W/T
Taxiway A 30M - Asphalt - PCN 112/F/A/W/T BTN STAND 6 & S
Taxiway R 49M - Concrete - PCN 87/R/B/W/T
Taxiway S 44M - Asphalt - PCN 72/F/A/X/T
Taxiway T 42M - Asphalt - PCN 72/F/A/X/T
Taxiway U 42M - Asphalt - PCN 75/F/A/W/T
Taxiway V 42M - Asphalt - PCN 120/F/A/W/T
Taxiway B2 30M - Asphalt - PCN 84/F/A/W/T
Taxiway Z 63M - Asphalt - PCN 72/F/A/X/T BTN R& T PCN 79/F/A/W/T BTN T&V

Amendment: Taxiway A Location & Width Amended and MSSR Radar renamed.

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LOW VISIBILITY PROCEDURE
LVP CHART (ARR RWY 12L/30R)

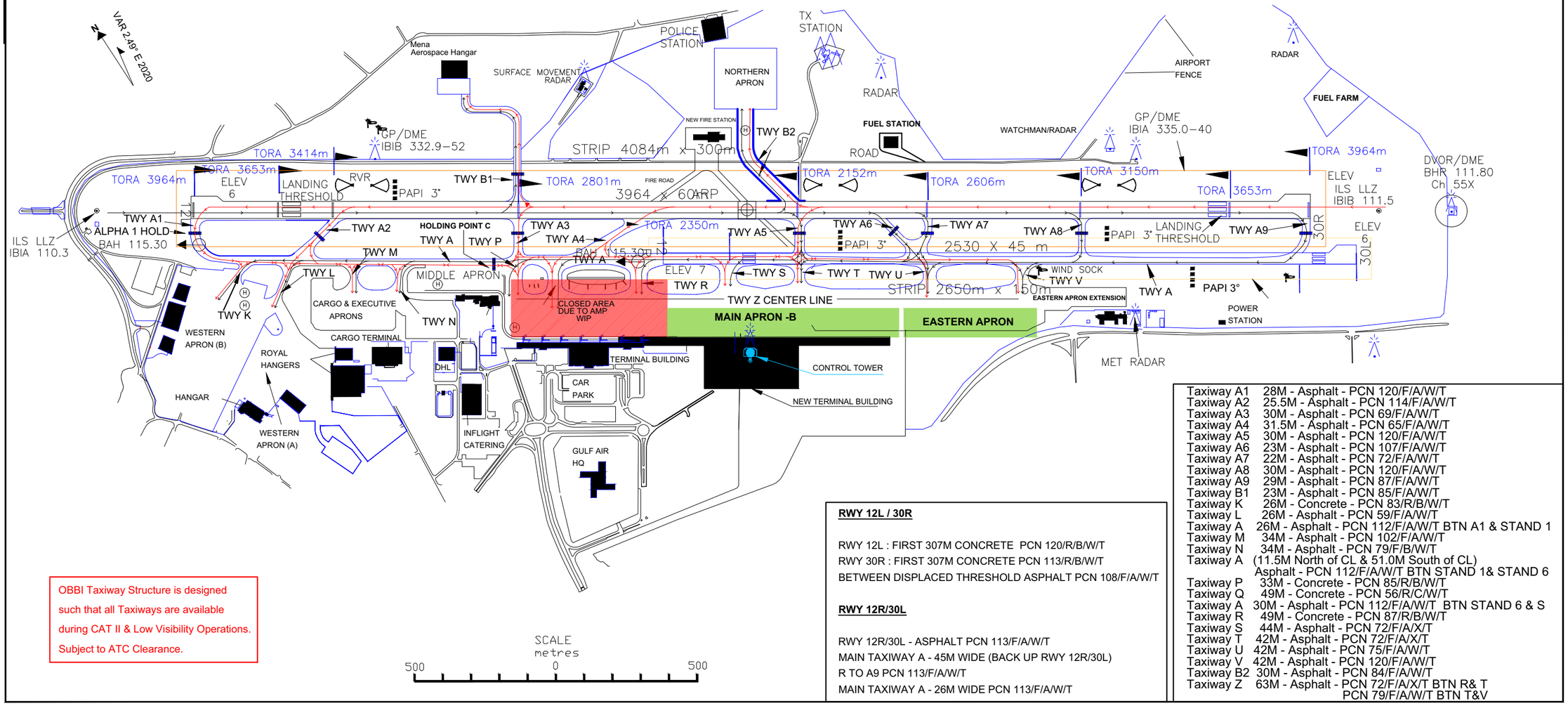
DISTANCES IN METRES
ALTITUDES, ELEVATIONS AND
HEIGHTS IN FEET.

26°16'14.97"N
050°38'01.17"E

APRON ELEV
8.92 FT

TWR 118.50
GMC 121.85
DLV 121.90

RUNWAY 12L – 30R ARRIVAL	
ARRIVAL RWY 12L	———
ARRIVAL RWY 30R	- - - - - - - -
STOPBARS	▬▬



OBBI Taxiway Structure is designed such that all Taxiways are available during CAT II & Low Visibility Operations. Subject to ATC Clearance.

RWY 12L / 30R

RWY 12L : FIRST 307M CONCRETE PCN 120/R/B/W/T
RWY 30R : FIRST 307M CONCRETE PCN 113/R/B/W/T
BETWEEN DISPLACED THRESHOLD ASPHALT PCN 108/F/A/W/T

RWY 12R/30L

RWY 12R/30L - ASPHALT PCN 113/F/A/W/T
MAIN TAXIWAY A - 45M WIDE (BACK UP RWY 12R/30L)
R TO A9 PCN 113/F/A/W/T
MAIN TAXIWAY A - 26M WIDE PCN 113/F/A/W/T

Taxiway A1 28M - Asphalt - PCN 120/F/A/W/T
Taxiway A2 25.5M - Asphalt - PCN 114/F/A/W/T
Taxiway A3 30M - Asphalt - PCN 69/F/A/W/T
Taxiway A4 31.5M - Asphalt - PCN 65/F/A/W/T
Taxiway A5 30M - Asphalt - PCN 120/F/A/W/T
Taxiway A6 23M - Asphalt - PCN 107/F/A/W/T
Taxiway A7 22M - Asphalt - PCN 72/F/A/W/T
Taxiway A8 30M - Asphalt - PCN 120/F/A/W/T
Taxiway A9 29M - Asphalt - PCN 87/F/A/W/T
Taxiway B1 23M - Asphalt - PCN 85/F/A/W/T
Taxiway K 26M - Concrete - PCN 83/R/B/W/T
Taxiway L 26M - Asphalt - PCN 59/F/A/W/T
Taxiway A 26M - Asphalt - PCN 112/F/A/W/T BTN A1 & STAND 1
Taxiway M 34M - Asphalt - PCN 102/F/A/W/T
Taxiway N 34M - Asphalt - PCN 79/F/B/W/T
Taxiway A (11.5M North of CL & 51.0M South of CL) Asphalt - PCN 112/F/A/W/T BTN STAND 1& STAND 6
Taxiway P 33M - Concrete - PCN 85/R/B/W/T
Taxiway Q 49M - Concrete - PCN 56/R/C/W/T
Taxiway A 30M - Asphalt - PCN 112/F/A/W/T BTN STAND 6 & S
Taxiway R 49M - Concrete - PCN 87/R/B/W/T
Taxiway S 44M - Asphalt - PCN 72/F/A/X/T
Taxiway T 42M - Asphalt - PCN 72/F/A/X/T
Taxiway U 42M - Asphalt - PCN 75/F/A/W/T
Taxiway V 42M - Asphalt - PCN 120/F/A/W/T
Taxiway B2 30M - Asphalt - PCN 84/F/A/W/T
Taxiway Z 63M - Asphalt - PCN 72/F/A/X/T BTN R& T PCN 79/F/A/W/T BTN T&V

Amendment: Taxiway A Location & Width Amended and MSSR Radar renamed.

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OBBS AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OBBS - BAHRAIN / ISA AIRBASE

OBBS AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	255506.11N 0503526.16E, Mid - point of RWY on CL
2	Direction and distance from (city)	18 NM S of Manama
3	Elevation/Reference temperature	139 FT / 39° C
4	Geoid undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	2.56 (2021) / 0°3' per year
6	AD operator, address, telephone, telefax, e-mail address, AFS and website address	Royal Bahrain Air Force Air Operations Centre P.O. Box 245 Kingdom of Bahrain TEL: +973 17894474 Telefax:+973 17620926 AFS: RBAF HQ & OPS OBBSYWYX, RBAF ATC OBBSZTZX, RBAF MET OBBSYMYX
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Emergency Diversion only; otherwise strictly PPO

OBBS AD 2.3 OPERATIONAL HOURS

1	AD Operator	SUN - THU 04:15 - 10:30
2	Customs and immigration	Prior arrangement
3	Health and sanitation	Prior arrangement
4	AIS Briefing Office	by prior arrangement
5	ATS Reporting Office (ARO)	SUN - THU 04:15 - 10:30 or by prior arrangement
6	MET Briefing Office	SUN - THU 04:15 - 10:30 or by prior arrangement
7	ATS	SUN - THU 04:15 - 10:30 or by prior arrangement
8	Fuelling	Prior arrangement
9	Handling	Prior arrangement
10	Security	H24
11	De-icing	NIL
12	Remarks	NIL

OBBS AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	NIL
2	Fuel/oil types	Fuel: AVGAS 100 LL by prior arrangement, Jet A1 by prior arrangement, JP8 Oil: NIL
3	Fuelling facilities/capacity	ET A1 & AVGAS 100LL from Bowser; contract off base vehicle required; JP 8 from on base Bowser
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	Available in emergency; small aircraft only
6	Repair facilities for visiting aircraft	NIL
7	Remarks	NIL

OBBS AD 2.5 PASSENGER FACILITIES

1	Hotels	In Manama
2	Restaurants	NIL; food available in emergency
3	Transportation	Available from BDF in emergency
4	Medical facilities	First aid; Ambulance; Hospitals in Manama
5	Bank and Post Office	In Manama
6	Tourist Office	In Manama
7	Remarks	NIL

OBBS AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 7
2	Rescue equipment	4RB (20) available from Coastguard
3	Capability for removal of disabled aircraft	Limited
4	Remarks	NIL

OBBS AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	Types of clearing equipment	NIL
2	Clearance priorities	NIL
3	Remarks	NIL

OBBS AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron designation, surface and strength	MAIN: Concrete, PCN 49 / F / B / X / T
2	Taxiway designation, width, surface and strength	PARALLEL /30M/ REMAINDER: Asphalt, PCN 46 / F / B / X / T
3	Altimeter checkpoint location and elevation	Holding point RWY 33R: 24 FT Holding point RWY 15L: 135 FT
4	VOR checkpoints	VOR: NIL
5	INS checkpoints	Holding Point RWY 33R 255408.40N 0503551.60E THR RWY 33R 255410.69N 0503556.38E Holding Point RWY 15L 255600.36N 0503451.36E THR RWY 15L 255601.55N 0503456.12E 255601.55N: NW corner 255459.28N 0503509.12E SW corner 255448.72N 0503516.32E SE corner 255451.36N 0503522.08E NE corner 255502.52N 0503516.80E
6	Remarks	NIL

OBBS AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Taxiing guidance signs at all intersections with TWY and RWY at all holding positions Guide lines at APRON
2	RWY and TWY markings	RWY: designation, THR, edge, end as appropriate TWY: holding positions at all TWY / RWY intersections
3	Stop bars	Stop bars where appropriate.
4	Remarks	NIL

OBBS AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas			In circling area and at AD		Remarks
1			2		3
RWY NR/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
NIL			Water Tower 285 FT YES	255550.24N 0503417.84E	NIL
			North Antenna 294 FT YES	255456.22N 0503453.38E	NIL
			South Antenna 263 FT YES	255425.74N 0503509.95E	NIL

OBBS AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	BAHRAIN / ISA MET
2	Hours of service MET Office outside hours	SUN - THU 04:15 - 10:30 or by prior arrangement BAHRAIN MWO
3	Office responsible for TAF preparation Periods of validity	BAHRAIN MWO As required
4	Trend forecast Interval of issuance	NIL
5	Briefing/consultation provided	Detailed TAFs, route forecasts, etc. can be obtained from BAHRAIN MWO at six hours notice
6	Flight documentation Language(s) used	NIL English
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	Facsimile; Automatic sensing and display of W / V; TT; DP; QNH
9	ATS units provided with information	ISA AIRBASE TOWER, ISA AIRBASE APPROACH RADAR
10	Additional information (limitation of service, etc.)	NIL

OBBS AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE & MAG BRG	Dimensions of RWY(M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
15L	154° / 152°	3800 x 45	73 / F / B / X / T Centre portion 56 / R / B / X / T Concrete first 416 M, Asphalt	255601.55N 0503456.12E	136 FT
33R	334° / 332°	3800 x 45	73 / F / B / X / T Centre portion 56 / R / B / X / T Concrete first 416 M, Asphalt	255410.69N 0503556.38E	29 FT
15R	154° / 152°	3678 x 30	46 / F / B / X / T / Asphalt / 47 / R / B / W / T / Concrete	2555.950N 05034.841E 2556.009N 05034.807E	139 FT

Designations RWY NR	TRUE & MAG BRG	Dimensions of RWY(M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
33L	334° / 332°	3678 x 30	46 / F / B / X / T / Asphalt / 47 / R / B / W / T / Concrete	2554.163N 05035.813E 2554.101N 05035.844E	28 FT

Slope of RWY-SWY		SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	OFZ	Remarks
7		8	9	10	11	12
15L	0.502% first 915 M then 0.726 % next 100 M then 1.000% next 2785 M	150 x 45	NIL	4100 x 105	Yes	Load bearing shoulder 30 M
33R	1.000% first 2785 M then 0,726% next 100 M then 0,502% next 915 M	150 x 45	NIL	4100 x 105	Yes	Load bearing shoulder 30 M
15R	NIL	NIL	NIL	3678 x 30	No	NIL
33L	NIL	NIL	NIL	3678 x 30	No	NIL

OBBS AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
15L	3800	3800	3950	3800	NIL
33R	3800	3800	3950	3800	NIL
15R	3678	3678	3799	3678	NIL
33L	3678	3678	3800	3678	NIL
Landing THR runway 15R permanently displaced by 122M and 33L by 121M.					

OBBS AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
15L	NIL	Green	PAPI RIGHT 3° 75 FT	NIL	NIL	3800 M omnidirectional White LIH	Red	NIL	Illuminated distance to go boards every 1000 FT
33R	ICAO CAT I precision approach lighting system and Strobe sequence lights	Green	PAPI LEFT 3° 77 FT	NIL	NIL	3800 M omnidirectional White LIH	Red	NIL	Illuminated distance to go boards every 1000 FT

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
15R	NIL	Green	NIL	NIL	NIL	NIL	Red	NIL	NIL
33L	NIL	Green	PAPI LEFT 3°	NIL	NIL	NIL	Red	NIL	NIL

Note:
Runway Marking:
Runway edge line, runway end line, dashed centre-line THR, TDZ and designators markings.
Runway 15R/33L turning head:
Dimension: 28.5 M wide, turning circle radius 14.25 M
painted guideline for turning manoeuvre not lit at night.

OBBS AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and operational hours	NIL
2	LDI location and LGT Anemometer location and LGT	NIL
3	TWY lighting	NIL
4	Secondary power supply/switch-over time	NIL
5	Remarks	NIL

OBBS AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO Geoid undulation	NIL
2	TLOF and/or FATO elevation M/FT	NIL
3	TLOF and FATO area dimensions, surface, strength, marking	NIL
4	True BRG of FATO	NIL
5	Declared distance available	NIL
6	APP and FATO lighting	NIL
7	Remarks	As directed by ATC

OBBS AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	The area bounded by an arc of 10 NM radius centred on SIA VORTAC (255518.60N 0503525.82E) from 360° anti-clockwise to 250°, and that part of an arc of 15 NM radius from 250° anti-clockwise to 360° which is within the military airspace described in ENR 2.2.
2	Vertical limits	SFC - 8000 FT
3	Airspace classification	B
4	ATS unit call sign Language(s)	ISA AIRBASE TOWER, ISA AIRBASE APPROACH RADAR English
5	Transition altitude	13000 FT
6	Hours of applicability	HO

7	Remarks	QNH is used. Vertical positions expressed in FT
8	Note	RBAF authorities are responsible for Air Traffic Services within Bahrain territorial airspace East of Jeddah FIR, West of Doha TMA and south of line. 255405N 0505543E - 260457N 0503655E - 260457N 0501615E This line is commonly referred to as referred to as "OBSOBI" line.

OBBS AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Channel	Hours of operation	Remarks
1	2	3	4	5
APP / TAR	ISA AIRBASE APPROACH RADAR	124.95 MHZ	SUN - THU 04:15 - 10:30 or by prior arrangement	NIL
		358.15 MHZ	SUN - THU 04:15 - 10:30 or by prior arrangement	NIL
TWR	ISA AIRBASE TOWER	125.45 MHZ	SUN - THU 04:15 -10:30 or by prior arrangement	NIL
		364.15 MHZ	SUN - THU 04:15 -10:30 or by prior arrangement	NIL
VOLMET	BAHRAIN VOLMET	128.8MHZ	H24	Bahrain Civil

OBBS AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR, CAT of ILS/MLS (For VOR/ILS/ MLS, give declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
VORTAC (2°E / 1996)	SIA	117.6MHZ CH 123 X	H24	255518.60N 0503525.82E	136FT	NIL
L (2°E / 1996)	SI	343 KHZ	H24	255339.46N 0503613.34E		152° MAG 0.6 NM FM THR RWY 33R
ILS LOC RWY 33R CAT I NIL	ISIB	110.15MHZ	H24	255608.84N 0503452.16E		332° MAG 2.2 NM FM THR RWY 33R
GP RWY 33R		334.25 MHZ	H24	255420.22N 0503554.41E		3°, RDH 55 FT
ILS_DME 33R	ISIB	38Y	H24	255419.70N 0503554.46E	56FT	Co-located with GP
MM RWY 33R	.-	75 MHZ	H24	255340.05N 0503613.02E		152° MAG 0.57 NM FM THR RWY 33R
APP / TAR	ISA AIRBASE APPROACH RADAR					In an emergency an IFR approach to RWY 15L can be made following Radar vectors and altitudes to a point 3 NM from touchdown on the final approach track at 1000 FT (QNH). At this point a Visual Approach may be completed or a missed approach executed.

OBBS AD 2.20 LOCAL AERODROME REGULATIONS

NIL

OBBS AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OBBS AD 2.22 FLIGHT PROCEDURES

NIL

OBBS AD 2.23 ADDITIONAL INFORMATION

NIL

OBBS AD 2.24 CHARTS RELATED TO AN AERODROME

Chart name	Page
IAC - OBBS VOR DME ILS RWY 33R ALL ACFT CAT - ICAO	AD 2-OBBS-13

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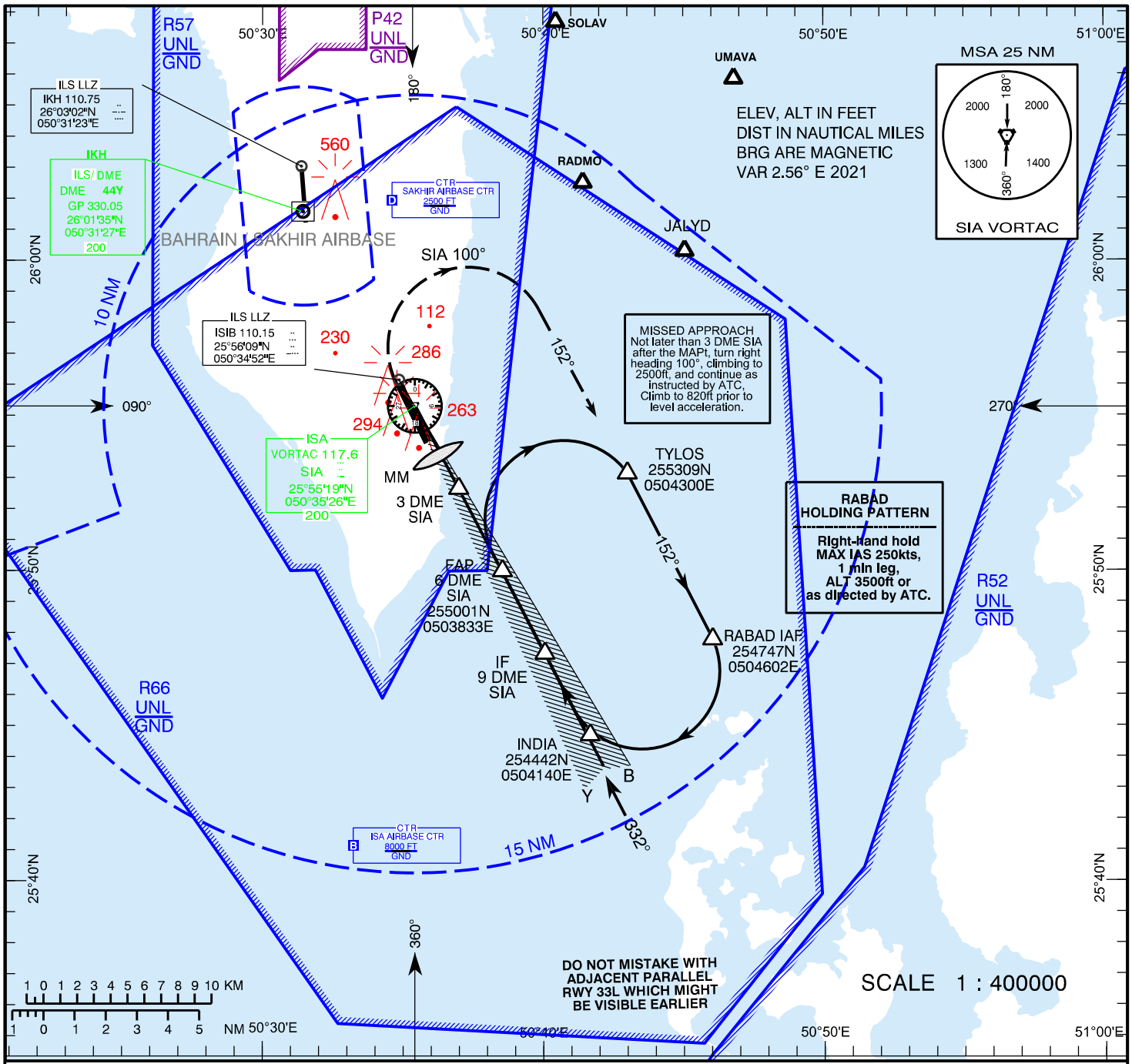
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 139 ft
HEIGHTS RELATED TO
THR RWY 33R - ELEV

APP:	124.95	358.15
TWR:	125.45	364.15
	125.95	318.25

BAHRAIN / ISA AIRBASE VOR/DME/ILS RWY 33R ALL ACFT CATEGORIES



TRANSITION ALTITUDE
13000

Missed Appraoch:-

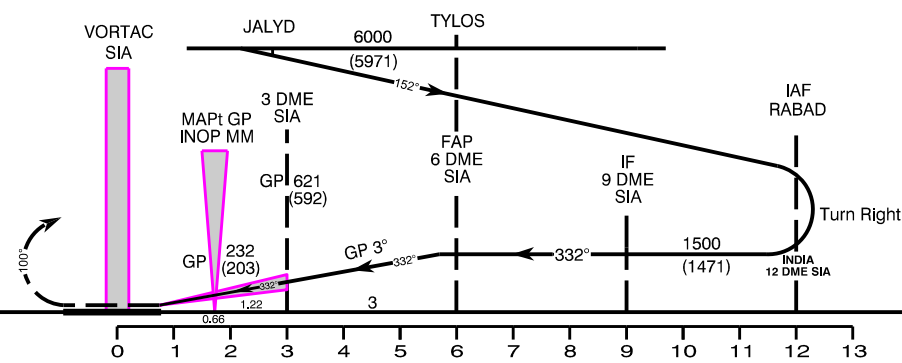
Not later than 3 DME SIA after the MAPt,
Turn right heading 100°, climbing to 2500 FT,
and continue as instructed by ATC.

Climb to 820 FT prior to level accelerating.

THR ELEV 29

(THR RWY 33R)

ILS/RDH
55 FT



OCA / OCH		A	B	C	D	E
Straight-in Approach	ILS CAT 1	162 (HAT) 133)	173 (HAT) 145)	182 (HAT) 153)	193 (HAT) 164)	212 (HAT) 183)
	GP INOP	400 (HAT) 371)				
Circling		570 (HAA) 434)	630 (HAA) 494)	730 (HAA) 594)	830 (HAA) 694)	970 (HAA) 834)

GP INOP Approach: MAPt at MM

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	—	—	—	—	—	—
Rate of descent	FT/MIN	—	—	—	—	—	—

Amendment: MAG VAR Value updated.

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OBKH AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OBKH - BAHRAIN / SAKHIR AIRBASE

OBKH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	260205N 0503128E Mid - point of RWY on CL
2	Direction and distance from (city)	12 NM SW of Manama
3	Elevation/Reference temperature	76 FT / 39°C
4	Geoid undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	2.56 (2021) / 0°3' per year
6	AD operator, address, telephone, telefax, e-mail address, AFS and website address	Royal Bahrain Air Force Air Operations Centre P.O. Box 245 Kingdom of Bahrain TEL: +973 17894474 Telefax:+973 17620926 AFS: RBAF HQ & OPS OBBSYWYX, RBAF ATC OBBSZTZX, RBAF MET OBBSYMYX
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Military Airbase; Traffic otherwise strictly PPR

OBKH AD 2.3 OPERATIONAL HOURS

1	AD Operator	SUN - THU 0415 - 1030
2	Customs and immigration	HO
3	Health and sanitation	HO
4	AIS Briefing Office	HO
5	ATS Reporting Office (ARO)	SUN - THU 0415 - 1030
6	MET Briefing Office	SUN - THU 0415 - 1030
7	ATS	SUN - THU 0415 - 1030
8	Fuelling	HO
9	Handling	HO
10	Security	H24
11	De-icing	NIL
12	Remarks	NIL

OBKH AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	NIL
2	Fuel/oil types	Fuel: Jet A1 by prior arrangement, AVGAS 100 LL by prior arrangement, JP8 Oil: NIL
3	Fuelling facilities/capacity	Jet A1 and AVGAS 100LL from bowser; contract off base vehicle required; JP 8 from on base bowser
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL

7	Remarks	NIL

OBKH AD 2.5 PASSENGER FACILITIES

1	Hotels	In Manama
2	Restaurants	NIL; food available in emergency
3	Transportation	Available from BDF in emergency
4	Medical facilities	First aid; Ambulance; Hospitals in Manama
5	Bank and Post Office	In Manama
6	Tourist Office	In Manama
7	Remarks	NIL

OBKH AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Up to CAT 9 O / R
2	Rescue equipment	4 RB (20) available from coastguard
3	Capability for removal of disabled aircraft	Limited
4	Remarks	NIL

OBKH AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	Types of clearing equipment	NIL
2	Clearance priorities	NIL
3	Remarks	NIL

OBKH AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron designation, surface and strength	MAIN NORTH: Concrete, PCN 74 / R / A / W / T MAIN SOUTH: Asphalt, PCN 60 / F / A / W / T
2	Taxiway designation, width, surface and strength	TWY A, TWY B, TWY C, TWY D: 23 M TWY A, TWY B, TWY D: Asphalt, PCN 52 / F / /A / X / T TWY C: Asphalt, PCN 52 / F / A / X / T south of TWY D and Asphalt, PCN 40 / F / A / X / T north of TWY D
3	Altimeter checkpoint location and elevation	Holding Point RWY 17: Hold A 63 FT, Hold B 61 FT
4	VOR checkpoints	NIL
5	INS checkpoints	Holding Point A 63 FT 260255.88N 05031280.11E , Holding Point B 61 FT 260245.67N 0503128.82E Parking Ramp: NIL Stands: On request
6	Remarks	NIL

OBKH AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Taxiing guidance signs. Guide lines at apron.
2	RWY and TWY markings	RWY: Designation, THR, edge, end as appropriate TWY: Edge, holding positions at all TWY / RWY Intersections
3	Stop bars	NIL

4	Remarks	Holding position markings and guard lights

OBKH AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas			In circling area and at AD		Remarks
1			2		3
RWY NR/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
17 DEP	Tower 290 FT YES	1.9 NM FM DER 17 RIGHT OFFSET 700 M 255914.71N 0503117.60E	NIL	NIL	NIL
	Tower 320 FT YES	2.3 NM DER 17 LEFT OFFSET 107 M 255854.48N 0503147.77E			
35 DEP	Water Tower 270 FT YES	1.5 NM FM DER 35 LEFT OFFSET 400 M 260423.87N 0503100.93E			
	Spire 260 FT YES	1.3 NM FM DER 35 RIGHT OFFSET 530 M 260416.58N 0503136.52E			
	Flagpole 540 FT YES	4 NM FM DER 35 RIGHT NIL OFFSET 260654.16N 0503104.25E			

OBKH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	BAHRAIN / ISA MET
2	Hours of service MET Office outside hours	SUN - THU 0415 - 1030 BAHRAIN MWO
3	Office responsible for TAF preparation Periods of validity	BAHRAIN MWO As required
4	Trend forecast Interval of issuance	N/A N/A
5	Briefing/consultation provided	Detailed TAFs, route forecasts, etc. can be obtained from BAHRAIN MWO at six hours notice
6	Flight documentation Language(s) used	NIL English
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	Facsimile: Automatic sensing and display of W / V; TT; DP; QNH; QFE.
9	ATS units provided with information	SAKHIR TOWER
10	Additional information (limitation of service, etc.)	NIL

OBKH AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE & MAG BRG	Dimensions of RWY(M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
17	175° / 173°	3200 x 45	52 / F / A / X /T Asphalt	Landing THR: 260256.553N 0503123.907E RWY end: 260256.554N 0503123.908E -9.96 M	57FT / 17.36 M
35	355 / 353	3200 x 45	52 / F / A / X /T Asphalt	Landing THR: 260122.594N 0503131.857E RWY end: 260112.932N 0503132.674E -4.43 M	76FT / 23.28 M

Slope of RWY-SWY		SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	OFZ	Remarks
7		8	9	10	11	12
0%	NIL	NIL	NIL	3320 x 300	NIL	Load bearing shoulders 7.5 M either side of runway with an additional 15 M non - load bearing surface stabilization asphalt
0%	NIL	NIL	NIL	3320 x 300	NIL	Load bearing shoulders 7.5 M either side of runway with an additional 15 M non - load bearing surface stabilization asphalt

OBKH AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
17	3200	3200	3200	3200	NIL
35	3200	3200	3200	2900	NIL

OBKH AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
17	Simple approach lighting system 420 M	Green	PAPI LEFT 3° 75 FT	NIL	NIL	3200 M 60 M omnidirectional White LIH	Red	NIL	NIL

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
35	ICAO CAT I precision approach lighting system 900 M	Green	PAPI LEFT 3° 77 FT	NIL	NIL	3200 M 60 M omnidirectional White LIH	Red	NIL	NIL

OBKH AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and operational hours	NIL
2	LDI location and LGT Anemometer location and LGT	NIL W THR 35 & E THR 17, LGT
3	TWY lighting	Blue Edge, holding position Guard lights, Runway intersections
4	Secondary power supply/switch-over time	10 sec
5	Remarks	Blue Apron edge lights

OBKH AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO Geoid undulation	NIL
2	TLOF and/or FATO elevation M/FT	NIL
3	TLOF and FATO area dimensions, surface, strength, marking	NIL
4	True BRG of FATO	NIL
5	Declared distance available	NIL
6	APP and FATO lighting	NIL
7	Remarks	As directed by ATC

OBKH AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	SAKHIR AIRBASE CTR; centered at ARP (260205N 0503128E) and orientated parallel to RWY (353 / 173 degrees magnetic) extending 7.0 NM in length and 4 NM wide defined by Coordinates 255901N 0502932E - 260446N 0503128E0502857E following an arc of radius 3.5 NM centered on 260205N 0503128E (ARP) to 260508N 0503323E - 255923N 0503358E following an arc of 3.5 NM radius centered on 260205N 0503128E (ARP) to Origin.
2	Vertical limits	SFC - 2500 FT
3	Airspace classification	D
4	ATS unit call sign Language(s)	SAKHIR TOWER English
5	Transition altitude	13000 FT
6	Hours of applicability	HO
7	Remarks	QNH is used. Vertical positions expressed in FT

OBKH AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Channel	Hours of operation	Remarks
1	2	3	4	5
APP / TAR	ISA AIRBASE AP-PROACH RADAR	124.95 MHZ	SUN - THU 0415 - 1030	NIL
		358.15 MHZ	SUN - THU 0415 - 1030	
TWR	SAKHIR TOWER	118.15 MHZ	SUN - THU 0415 - 1030	NIL
		317.25 MHZ	SUN - THU 0415 - 1030	
VOLMET	BAHRAIN VOLMET	128.8 MHZ	H24	Bahrain Civil

OBKH AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR, CAT of ILS/MLS (For VOR/ILS/MLS, give declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
ILS LOC RWY 35 CAT I (2°E / 2011)	IKH	110.75MHZ	H24	260302.191N 0503123.429E		NIL
GP RWY 35		330.05 MHZ	H24	260134.614N 0503126.536E		3°, 56FT / RDH 16.9 M
DME RWY 35	IKH	44Y	H24	260134.61N 0503126.54E	126FT / 50 FT AGL	Co - located with GP

OBKH AD 2.20 LOCAL AERODROME REGULATIONS

NIL

OBKH AD 2.21 NOISE ABATEMENT PROCEDURES

Avoid overflight of OBP42 area to North of OBKH. RWY 35 MA turn at 3.0 DME. Minimum angle of bank 020°, maximum IAS 185 KT.

OBKH AD 2.22 FLIGHT PROCEDURES

ARRIVALS RWY 35 VIA EAST COAST OF BAHRAIN:

Plan arrival via OBBI. Expect radar vectors for JALYD (260002.0N 0504513.0E) thence KH35E (255001.38N 0503742.78E) to intercept of OBKH LOC or continue using RNAV GNSS approach.

ARRIVALS RWY 17

RWY 17 approaches will be utilized only in the event that adverse winds preclude the use of RWY 35. In the event that RWY 17 is used, aircraft will be radar vectored to north of BAHRAIN INTERNATIONAL airport and positioned for a straight - in approach to RWY 17 either by Visual approach or RNAV GNSS approach.

DEPARTURE RWY 35:

Track 353 DEG MAG
At 3.0 DME
Turn right MIN AoB 020 DEG MAX IAS 185 KT
Track DCT JALYD (260002.0N 0504513.0E)
Climb to 4000 FT, or as advised by ATC.

DEPARTURE RWY 17:

Track 173 DEG MAG
Climb to 700 FT
Turn left but not before DER
Climb to 4000 FT
Track to JALYD (260002.0N 0504513.0E). Or as advised by ATC.

OBKH AD 2.23 ADDITIONAL INFORMATION

Preferred operations: RWY 35 arrivals, RWY 17 departures.

OBKH AD 2.24 CHARTS RELATED TO AN AERODROME

Chart name	Page
AERODROME GROUND MOVEMENT CHART-OBKH	AD 2-OBKH-13
OBKH - Standard Departure Chart - Instrument (SID) - ICAO	AD 2-OBKH-15
IAC RNAV (GNSS) RWY 17 OBKH - ICAO	AD 2-OBKH-17
IAC - OBKH ILS DME RWY 35 - ICAO	AD 2-OBKH-19
IAC RNAV (GNSS) RWY 35 OBKH - ICAO	AD 2-OBKH-21
OBKH- RWY17-35 IFP WAYPOINTS	AD 2-OBKH-23

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AERODROME GROUND MOVEMENT CHART - ICAO

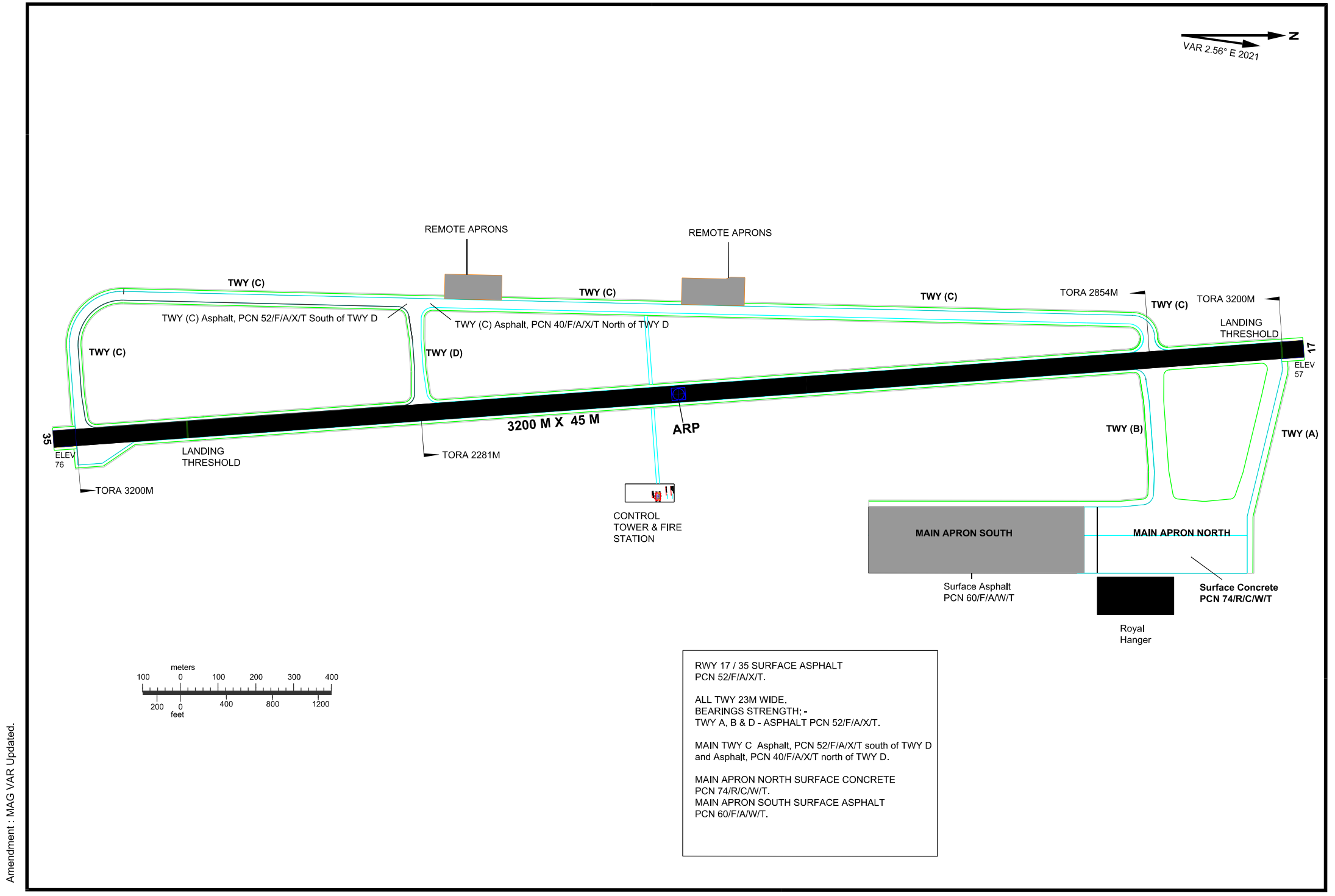
DISTANCES IN METERS
ALTITUDE, ELEVATIONS AND HEIGHTS IN FEET.

AD ELEV 76 FT

ARP
26 02 04.74N
050 31 28.29E

SAKHIR TWR 118.15
ISA APP 124.95

Bahrain / SAKHIR AIRBASE



RWY 17 / 35 SURFACE ASPHALT
PCN 52/F/A/X/T.

ALL TWY 23M WIDE.
BEARINGS STRENGTH; -
TWY A, B & D - ASPHALT PCN 52/F/A/X/T.

MAIN TWY C Asphalt, PCN 52/F/A/X/T south of TWY D and Asphalt, PCN 40/F/A/X/T north of TWY D.

MAIN APRON NORTH SURFACE CONCRETE
PCN 74/R/C/W/T.
MAIN APRON SOUTH SURFACE ASPHALT
PCN 60/F/A/W/T.

Amendment : MAG VAR Updated.

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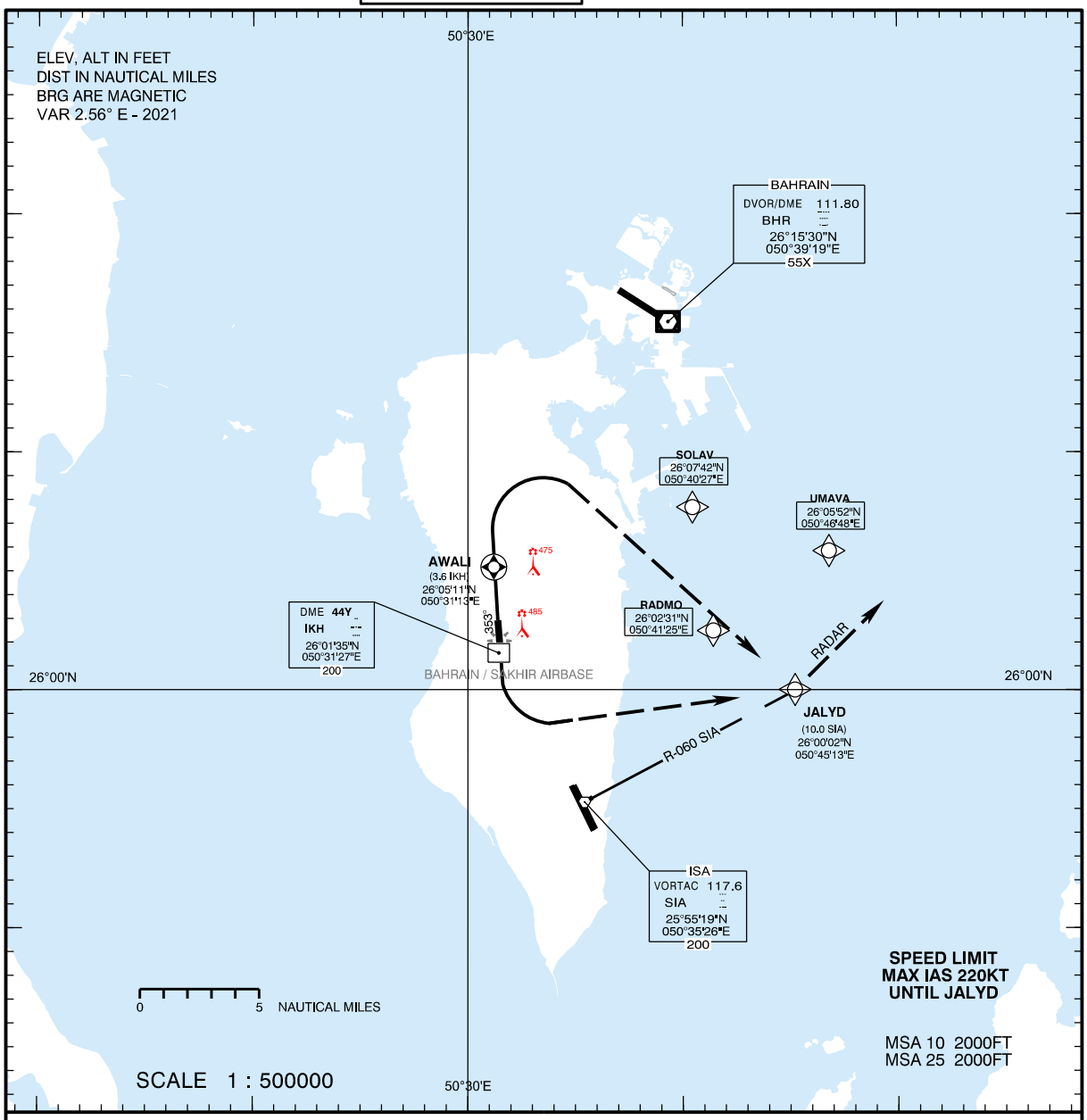
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

SAKHIR TOWER:	118.15
ISA DEPARTURE:	124.95
ACC BAHRAIN WEST:	125.050
ACC BAHRAIN EAST:	132.125
BAHRAIN VOLMET:	128.800

Bahraln, SAKHIR AIRBASE (OBKH)

STANDARD INSTRUMENT DEPARTURE (SID)



RWY 35

TRACK 353°
MAX IAS 185 KTS
AT EARLIEST OF 700 FT OR AWALI
TURN RIGHT
MIN AoB 20°
CLIMB TO 4000FT
TRACK TO JALYD
When directed, contact Departure

RWY 17

TRACK 173°
CLIMB TO 700 FT
NOT BEFORE DER, TURN LEFT
CLIMB TO 4000FT
TRACK TO JALYD
When directed, contact Departure

TRANSITION

RADAR: From JALYD, expect radar vectors to cleared route.

Amendment: MAG VAR Value Updated .

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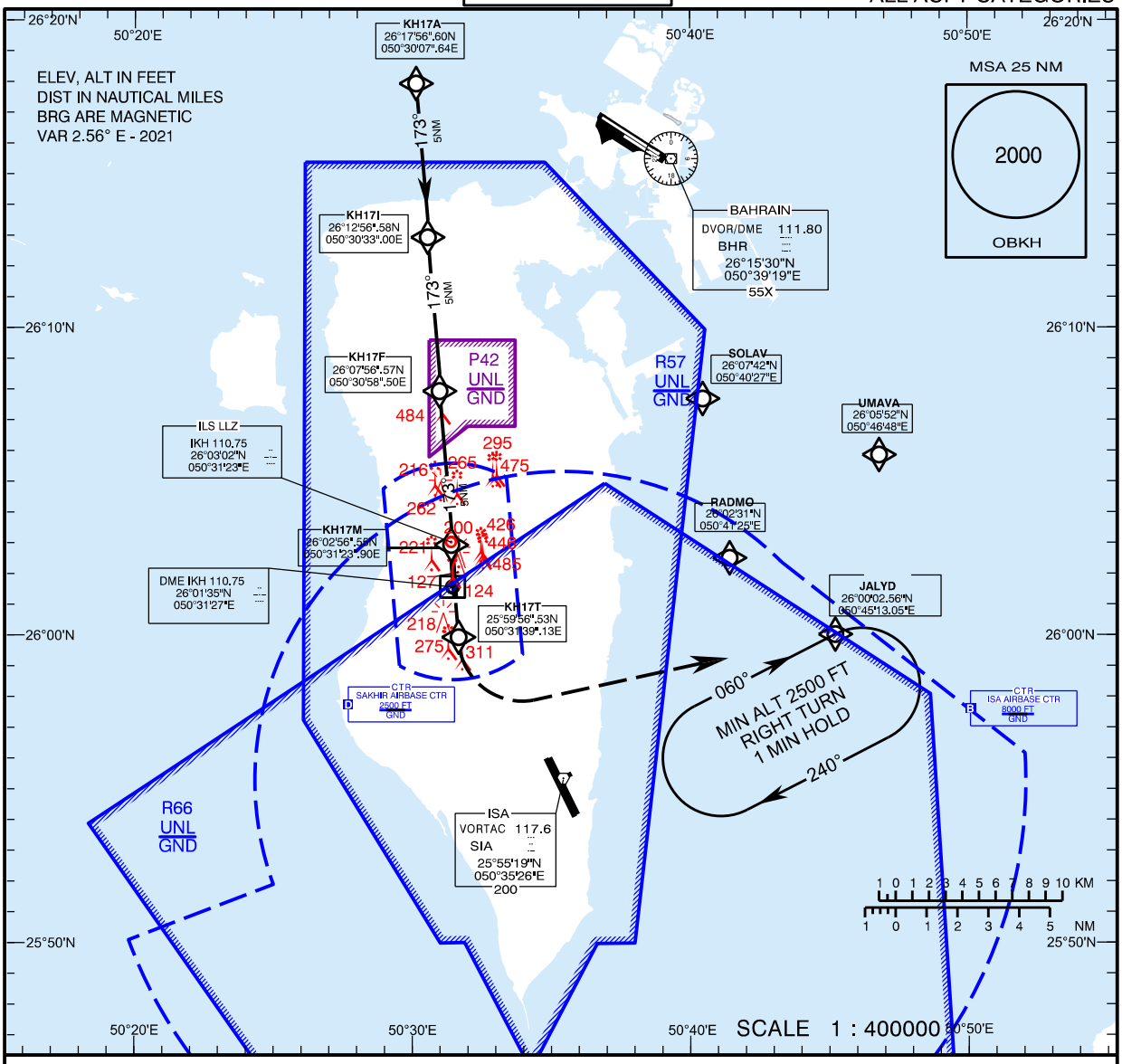
INSTRUMENT APPROACH CHART - ICAO

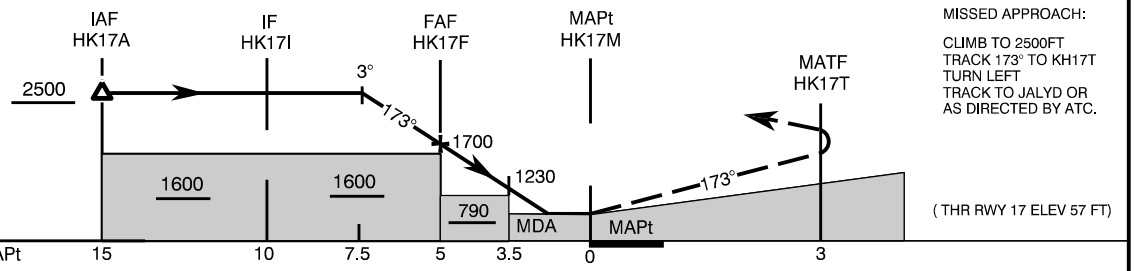
AERODROME ELEV 76 ft
HEIGHTS RELATED TO
THR RWY 35 - ELEV

SAKHIR TOWER : 118.15
ISA TOWER : 125.45 125.95
ISA APPROACH : 124.95
BAH TOWER : 118.50
BAH APPROACH : 127.85

BAHRAIN / SAKHIR AIRBASE (OBKH)
RNAV (GNSS) RWY 17
ALL ACFT CATEGORIES



NM TO NEXT WPT	2.5	2	1	KH17F	4	3.5	3	2	1.7	KH17M
ALT (3°APCH PATH)	2500	2340	2020	1700	1390	1230	1070	750	640	



CATEGORY	A	B	C	D
S-I GNSS	640 (533 - 2.7)			
CIRCLING	NOT AUTHORISED			

NOTES

1. MAX IAS: INITIAL 210 KT

Amendment: MAG VAR Updated.

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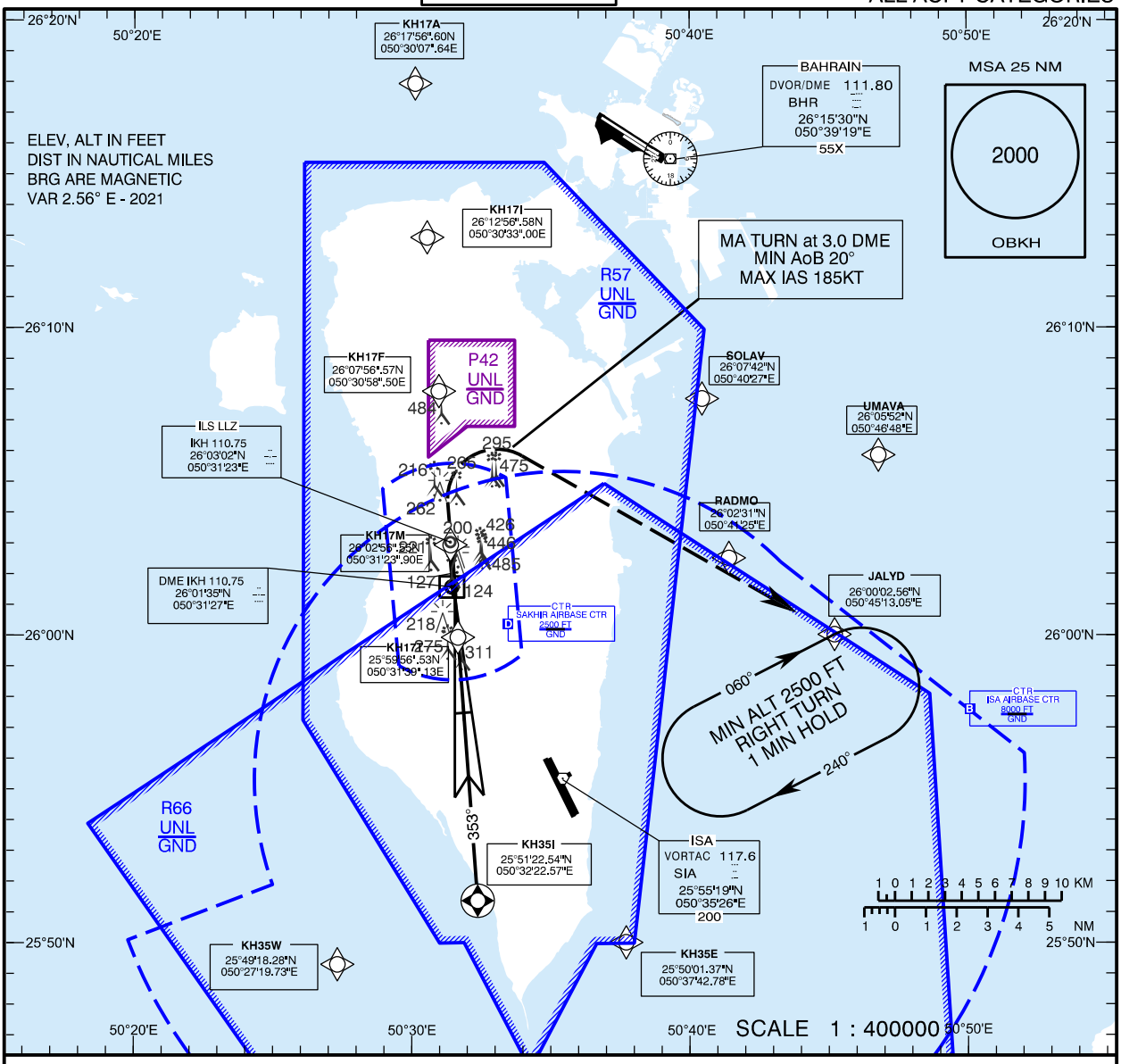
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 76 ft
HEIGHTS RELATED TO THR RWY 35 - ELEV

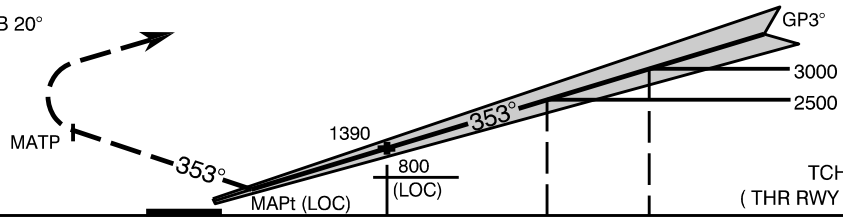
SAKHIR TOWER	118.15
ISA APPROACH	124.95
ACC BAH WEST	125.050
ACC BAH EAST	132.125
BAH VOLMET	128.800

BAHRAIN / SAKHIR AIRBASE (OBKH)
ILS/DME RWY 35
ALL ACFT CATEGORIES



DME DIST	0.8	1	2	3	4	5	6	7	7.5		9
ALT (3°APCH PATH)	320	390	710	1040	1360	1690	2010	2340	2500		3000

MISSED APPROACH:
TRACK 353°
TURN RIGHT AT 3.0DME
MAX IAS 185KT, MIN AOB 20°
TRACK TO JALYD
CLIMB TO 4000FT OR
AS DIRECTED BY ATC.



NM BY DME	3.0	0.8	4.1	7.5	9.0
NM FROM RWY 35 THR	0	0.6	3.9	7.3	8.8

CATEGORY	A	B	C	D
S-I ILS/DME	320 (244)			
S-I LOC/DME	570 (494)			
CIRCLING	NOT AUTHORISED			
ALTERNATE				

NOTES
1. MISSED APPROACH MAX IAS 185KTS, MA TURN MIN AoB 20°
2. ACFT MAY BE RADAR VECTORED TO IAF
3. HOLDING AT JALYD MAX IAS 230KT

Amendment: MAG VAR Value Updated.

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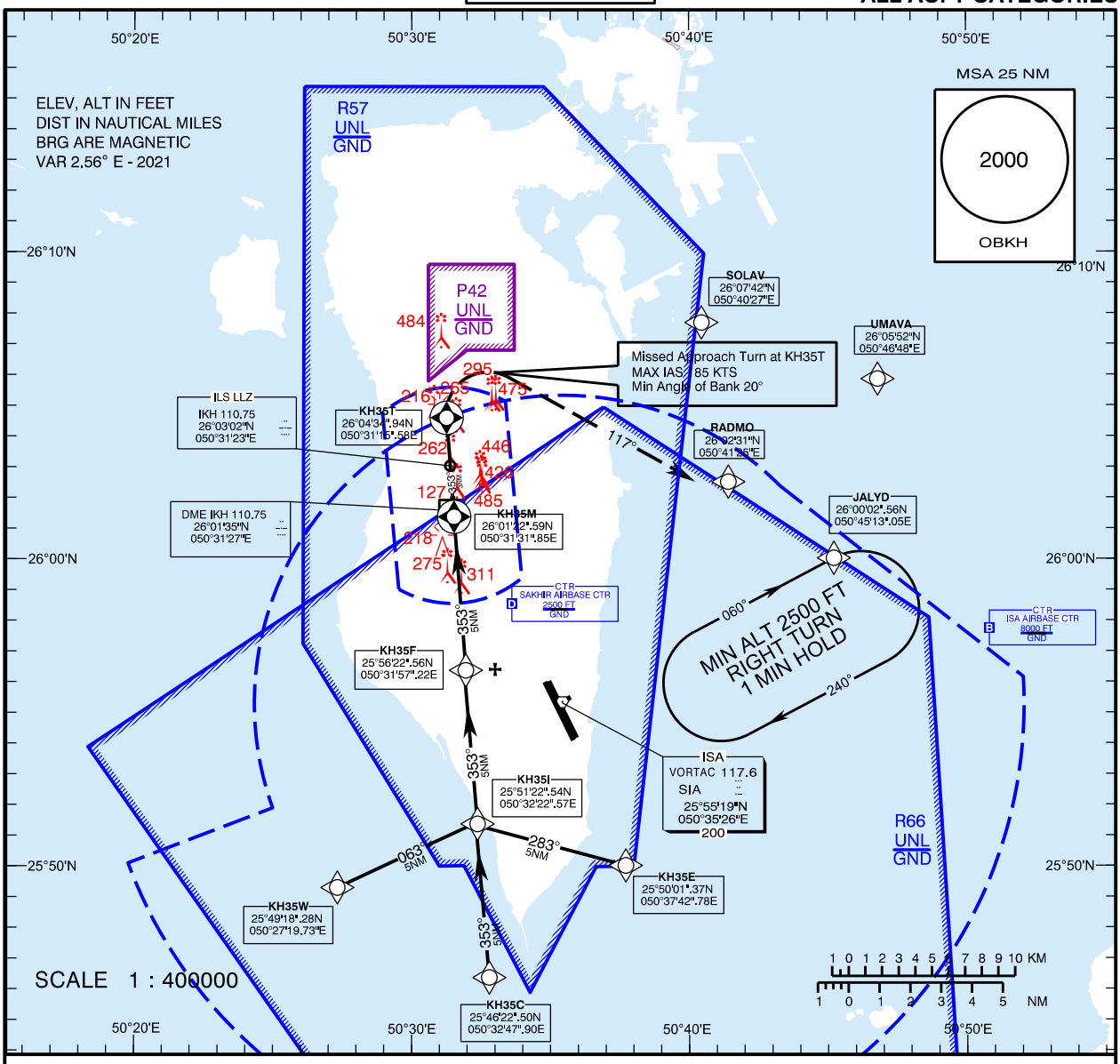
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 76 ft
HEIGHTS RELATED TO
THR RWY 35 - ELEV

SAKHIR TOWER:		118.15
ISA TOWER	:	125.45 125.95
ISA APP	:	124.95
BAH TWR	:	118.50
BAH APP	:	127.85

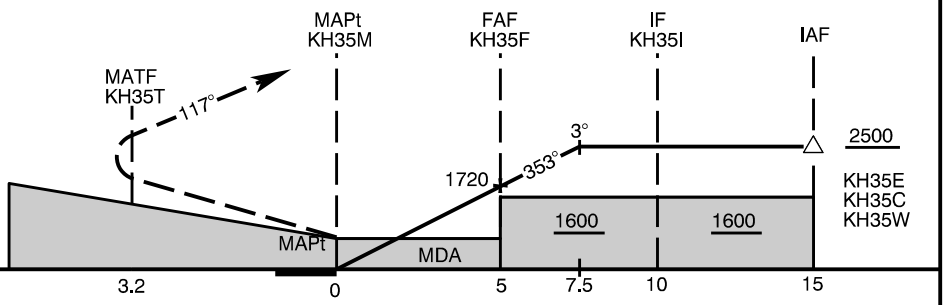
BAHRAIN / SAKHIR AIRBASE (OBKH)
RNAV (GNSS) RWY 35
ALL ACFT CATEGORIES



NM TO NEXT WPT	KH35M	1.5	2	3	4	KH35F	1	2	2.5
ALT (3° APCH PATH)		600	760	1080	1400	1720	2040	2360	2500

MISSED APPROACH:

TRACK 353° TO KH35T
MAX IAS 185 KT
TRACK DCT TO JALYD
TURN RIGHT MIN AOB 20°
CLIMB TO 2500FT



CATEGORY	A	B	C	D
S-I GNSS	600 (524 - 2.7)			
CIRCLING	NOT AUTHORISED			

NOTES:

1. MAX IAS:
   HOLDING 230KT
   INITIAL 210KT
   MAPP TURN 185KT

2. MISSED APPROACH
   TURN MIN AOB 20°
   MAX IAS 185KT

Amendment: MAG VAR Value Updated.

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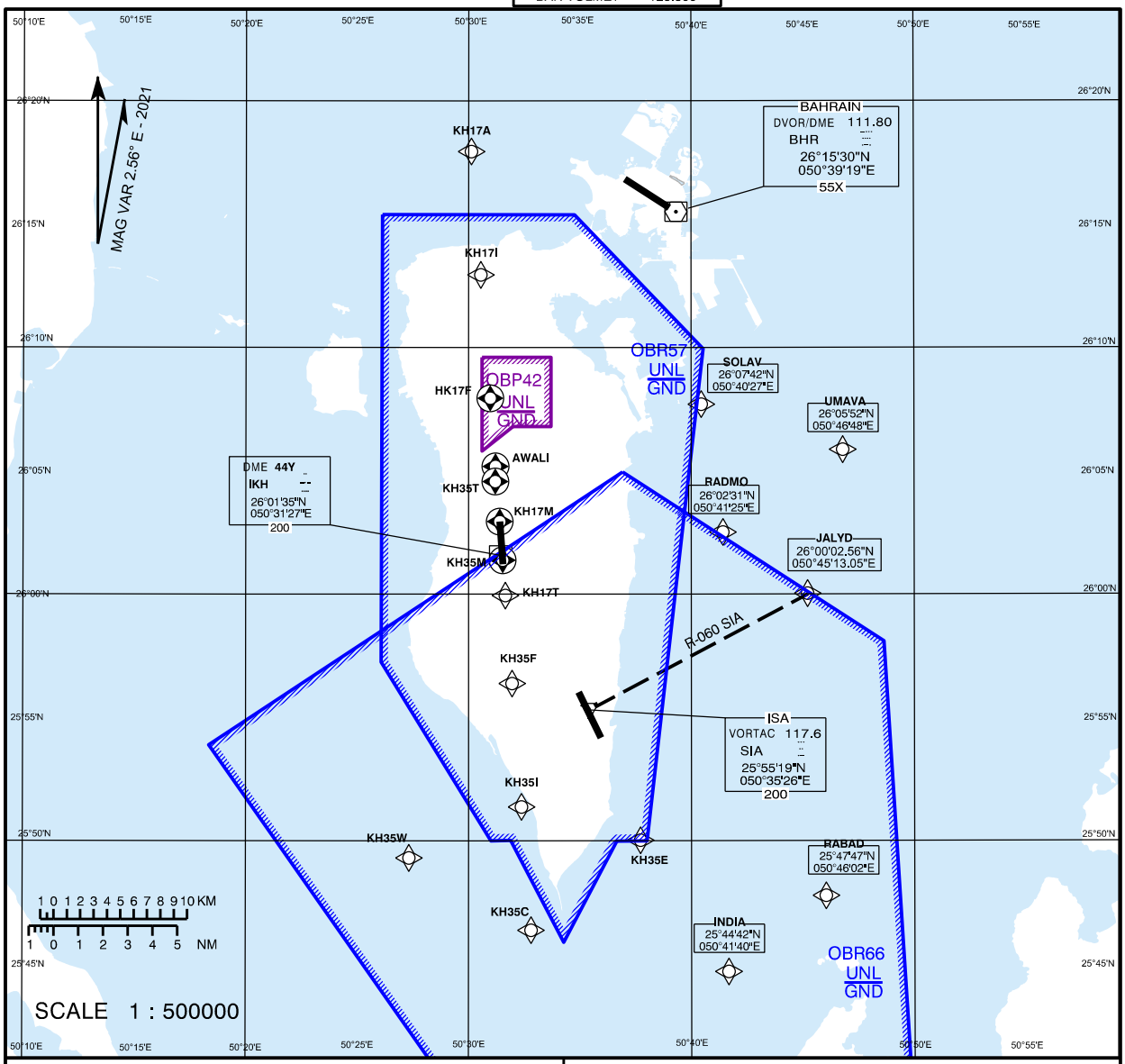
RNAV (GNSS) WAYPOINTS AERODROME ELEV 76 ft

SAKHIR TOWER	118.15
ISA DEPARTURE	124.95
ACC BAH WEST	125.050
ACC BAH EAST	132.125
BAH VOLMET	128.800

BAHRAIN / SAKHIR AIRBASE

RWY 17 / 35 IFP WAYPOINTS



WAYPOINTS	LATITUDE (N)	LONGITUDE (E)	WAYPOINTS	LATITUDE (N)	LONGITUDE (E)
KH17A	26 17 56.6026	50 30 07.6492	SOLAV	26 07 42.0119	50 40 27.0198
KH17I	26 12 56.5898	50 30 33.0868	UMAVA	26 05 52.0119	50 46 48.0198
KH17F	26 07 56.5735	50 30 58.5063	INDIA	26 44 42.0000	50 41 40.0000
KH17M	26 02 56.5538	50 31 23.9077			
KH17T	25 59 56.5399	50 31 39.1350			
KH35E	25 50 01.3796	50 37 42.7828			
KH35C	25 46 22.5089	50 32 47.9061			
KH35W	25 49 18.2836	50 27 19.7332			
KH35I	25 51 22.5408	50 32 22.5744			
KH35F	25 56 22.5693	50 31 57.2250			
KH35M	26 01 22.5943	50 31 31.8577			
KH35T	26 04 34.9481	50 31 15.5837			
AWALI	26 05 10.9706	50 31 12.5281			
JALYD	26 00 02.5685	50 45 13.0562			
RABAD	25 47 47.0000	50 46 02.0000			

Amendment: WPTs & MAG VAR Value Updated.

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AD 3. HELIPORTS

NIL

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