AIP

AERONAUTICAL INFORMATION PUBLICATION

DEPARTMENT OF AIRPORT OPERATIONS

AERONAUTICAL INFORMATION SERVICE

PART 1 – GENERAL (GEN)

GEN 0.

GEN 0.1 – PREFACE

To all holders of the Bermuda Aeronautical Information Publication, Eighth Edition:

This edition of the Aeronautical Information Publication (AIP) has been prepared in accordance with International Civil Aviation Organisation (ICAO) Standards and Recommended Practices (SARP) of Annex 15 to the Chicago Convention, and the guidance material in the Aeronautical Information Service Manual (Doc 8126-AN/872).

This AIP contains aeronautical information of permanent nature and is kept up to date by means of amendment service. Aeronautical information of important operational significance, which is of a temporary nature, or requires advance distribution and is appropriate to the AIP but needs immediate dissemination, is notified by means of Notice To Airmen (NOTAM).

Aeronautical information of general technical interest of a purely administrative nature and therefore inappropriate to NOTAM or AIP will be published in Aeronautical Information Circulars (AIC).

Contact the following service to report errors or omissions in this document:

Department of Airport Operations
3 Cahow Way
St. George's GE CX, Bermuda
L.F. Wade International Airport

Tel.: 1.441.293.2470
E-Mail: dao@gov.bm

Specific points of contact may be obtained on the Internet at www.bermudaairport.com

1. AERONAUTICAL AUTHORITY

The Bermuda Department of Airport Operations is the publishing authority for this AIP.

2. APPLICABLE ICAO DOCUMENTS

The AIP is prepared in accordance with the SARP of Annex 15 to the Convention on International Civil Aviation and with the Aeronautical Information Services Manual (ICAO Doc 8126). Charts contained in the AIP are produced in accordance with Annex 4 to the Convention on International Civil Aviation and with the Aeronautical Chart Manual (ICAO Doc 8697). Differences from ICAO SARP are addressed in Section GEN 1.7.

3. THE AIP STRUCTURE AND AMENDMENT INTERVAL

3.1 The AIP Structure

The AIP forms part of the Integrated Aeronautical Information Package, details of which are given at Section GEN 3.1. The principal AIP structure is shown in graphic form on Page GEN 0-1-3. The AIP is made up of three parts, General (GEN), En Route (ENR), and Aerodrome (AD), each divided into sections and sub-sections as applicable, containing various types of information subjects.

PART 1 - GENERAL (GEN)

GEN.

Consists of five sections containing information briefly described hereafter.

GEN 0.

Preface; record of AIP amendments; record of AIP Supplements; checklist of AIP pages; list of hand amendments to the AIP; 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; differences from ICAO SARP.

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; sunrise/sunset tables.

GEN 3. Services

Aeronautical information services; aeronautical charts; air traffic services (ATS); communications services; meteorological services; search and rescue.

GEN 4. Charges for aerodrome and air navigation services

Aerodrome charges; air navigation service charges.

PART 2 – EN ROUTE (ENR)

ENR consists of seven sections containing information briefly described hereafter.

ENR 0. Table of Contents to Part 2

ENR 1. General Rules and Procedures

General rules; visual flight rules; instrument flight rules; ATS airspace classification; holding, approach and departure procedures; radar services and procedures; altimeter setting procedures; regional supplementary procedures; air traffic flow management; flight planning; addressing of flight plan messages; interception of civil aircraft; unlawful interference; air traffic incidents.

ENR 2. Air Traffic Services Airspace

Flight Information Region (FIR), Upper Flight Information Region (UIR), Terminal Control Area (TMA); other regulated airspace.

ENR 3. ATS Routes

Lower ATS routes; upper ATS routes; area navigation routes; helicopter routes; other routes; en route holding.

ENR 4. Radio Navigation Aids/Systems

Radio navigation aids – en route; special navigation systems; name-code designators for significant points; aeronautical ground lights - en route.

ENR 5. Navigation Warnings

Prohibited, restricted and danger areas; military exercise and training areas and Air Defence Identification Zone (ADIZ); other activities of a dangerous nature and other potential hazards; air navigation obstacles – en route; aerial sporting and recreational activities; bird migration and areas of sensitive fauna.

ENR 6. En Route Charts

Airspace and route charts.

PART 3 – AERODROMES (AD)

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

AD 0.

Table of Contents to Part 3.

AD 1. Aerodrome - Introduction

Aerodrome availability; rescue and fire fighting services and snow plan; index to aerodromes; grouping of aerodromes.

AD 2. Aerodromes

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

AD 3. Heliports

This section is not used because there are no heliports separate from L.F Wade International Airport.

APPENDIX A. Variations from ICAO Standards, Recommended Practices and Procedures

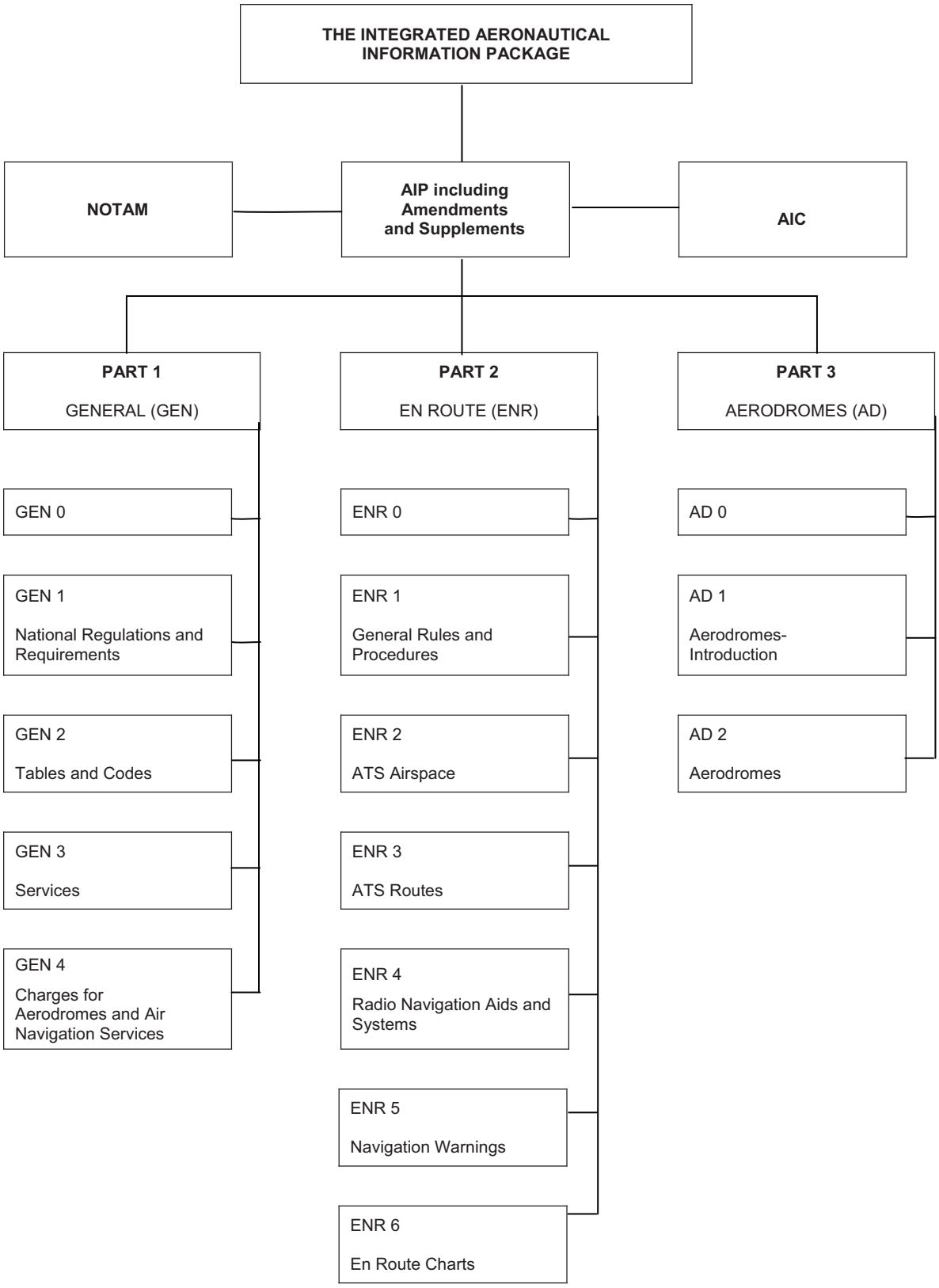
Selected Bermuda variations to Annexes to DOC 7300 – Convention on International Civil Aviation.

3.2 Amendment Interval

Regular amendments to the AIP will be issued twice per calendar year.

4. SERVICE TO CONTACT

Any errors or omissions that may be detected in this document should be referred to the Department of Airport Operations as identified on Page GEN 0-1-1.


THE INTEGRATED AERONAUTICAL INFORMATION PACKAGE
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GEN 0.2 – RECORD OF AIP AMENDMENTS

Number/Year	Effective Date	Inserted By	Date Inserted
01/2005	22 DEC 05		
01/2006	8 JUN 06		
02/2006	23 NOV 06		
01/2007	10 MAY 07		
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GEN 0.3 – RECORD OF AIP SUPPLEMENTS

Number/Year	Subject	AIP Section(s) Affected	Period of Validity	Cancellation Record
01/2008	New Instrument Approach Procedures Appendix A: Variations	AD/ Appendix	Until 23 Oct 08	
01/2011	Sunrise/Sunset & Civil Twilight Tables ILS Approach Procedures	GEN/AD	Until 25 Aug 11	

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GEN 0.4 – CHECKLIST OF AIP PAGES

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GEN 0.5 – LIST OF HAND AMENDMENTS

AIP Page(s) Affected	Amendment Text	Introduced by AIP Amendment Number

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GEN 0.6 – TABLE OF CONTENTS TO PART 1

GEN 1 – NATIONAL REGULATIONS AND REQUIREMENTS

GEN 1.1 – DESIGNATED AUTHORITIES

The designated authorities for civil aviation in Bermuda are listed below together with their addresses.

Note: L.F. Wade International Airport, Bermuda hours of operations are 0700-2300 local time. PPR between 2300-0700 local time.
Bermuda does not use telexes.

1. CIVIL AVIATION

Postal Address: Director of Civil Aviation
Department of Civil Aviation
P.O. Box GE 218
St. George's GE BX Bermuda

Telephone: 1.441.293.1640

Telefax: 1.441.293.2417

AFTN: TXKFYAYX

Internet: www.dca.gov.bm

2. NOTAM SERVICES

Postal Address: Bermuda Weather Service /
Bermuda Aeronautical
Information Services
P.O. Box 123
St. George's GE BX Bermuda

Telephone: 1.441.293.5067 Extension 403

Telefax: 1.441.293.6658

AFTN: TXKFYOYX

3. METEOROLOGY

Postal Address: Director
Bermuda Weather Service
P.O. Box GE 123
St. George's GE BX Bermuda

Forecaster
Telephone: 1.441.293.5067 Extension 402

Observer
Telephone: 1.441.293.5067 Extension 403

Telefax: 1.441.293.6658

Satellite
Telephone: 870.764.614.658
(required for emergency events)

AFTN: TXKFYOYX

Email: contact@weather.bm

Internet: www.weather.bm

4. DEPARTMENT OF AIRPORT OPERATIONS

Postal Address: Airport General Manager
Department of Airport
Operations
3 Cahow Way
St. George's GE CX Bermuda

Telephone: 1.441.293.2470

Telefax: 1.441.293.4504

AFTN: TXKFYOYX

Email: dao@gov.bm

Internet: www.bermudaairport.com

5. CUSTOMS

Postal Address: Collector of Customs
H.M. Customs
P.O. Box HM 2084
Hamilton HM HX Bermuda

Telephone: 1.441.293.4020 or
1.441.293.2424

Telefax: 1.441.293.1418

Internet: www.customs.gov.bm

6. IMMIGRATION

Postal Address: Chief Immigration Officer
Department of Immigration
P.O. Box HM 1364
Hamilton HM FX Bermuda

Telephone: 1.441.293.2542

Telefax: 1.441.293.3151

Internet: www.immigration.gov.bm

7. HEALTH

Postal Address: Chief Medical Officer
Department of Health
Old Hospital Building
7 Point Finger Road
Paget, Bermuda

Telephone: 1.441.278.4976 or
1.441.232-1941

Telefax: 1.441.236.3971

Email: envhealth@gov.bm

8. AGRICULTURAL QUARANTINE

Postal Address: Director
Department of Agriculture,
Fisheries and Parks
P.O. Box HM 834
Hamilton HM CX Bermuda

Telephone: 1.441.236.4201

Telefax: 1.441.236.7582

Internet: www.animals.gov.bm

9. AIRCRAFT ACCIDENT INVESTIGATION

See information for Director of Civil Aviation.

10. EN-ROUTE AND AERODROME CHARGES

See information for Airport General Manager.

11. DIPLOMATIC CLEARANCES

Postal Address: The Deputy Governor
Deputy Governor's Office
Government House
11 Langton Hill
Pembroke HM 13, Bermuda

Telephone: 1.441.292.3600

Telefax: 1.441.295.3823

GEN 1.2 – ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT

1. GENERAL

1.1 Flight in Bermuda airspace shall be conducted in accordance with United Kingdom Statutory Instrument 2001 No. 2128: The Air Navigation (Overseas Territories) Order 2007, as amended.

2. SCHEDULED FLIGHTS

2.1 Military Aircraft

a) All military flights must obtain slot time approval from the Department of Airport Operations.

b) Diplomatic Clearances

Military aircraft belonging to countries deemed “friendly” or part of the NATO alliance do not require diplomatic clearance to overfly or operate into Bermuda.

c) The United Nations classification of dangerous goods and munitions of war carried on any military aircraft must be declared to the Department of Airport Operations. For detailed information refer to GEN 1.4.

2.2 Commercial Aircraft

a) Commercial aircraft registered in countries that are contracting states to ICAO do not require prior permission from the Department of Airport Operations for overflying or landing in Bermuda. Prior permission from the Department of Airport Operation should be requested for aircraft flying ETOPs via Bermuda. Notification must be given to the Department of Airport Operations.

b) Commercial aircraft registered in countries that are not contracting states to ICAO must request diplomatic clearance from the Deputy Governor (address listed in GEN 1.1) for overflight of, or operations into, Bermuda at least seven (7) calendar days in advance of the planned flight.

3. NON-SCHEDULED FLIGHTS

Any request for take-off and or landing between the hours of 2300 and 0700 local time must submit the proper PPR 24 hours prior to the planned day of the flight.

3.1 Reference 1.6.1 – 1.13 ICAO Annex Part 2, 7th Edition Effective 18 Nov 2010 (Non-Commercial Transport). See Bermuda Civil Aviation website www.dca.gov.bm for clarification/wording Annex 6, Part 2.

3.2 Non-scheduled commercial flight operators, for hire or reward with either passengers or cargo to or from Bermuda, shall submit a Flight Permit Application to the Director of Civil Aviation and obtain a non-scheduled flight permit. The Flight Permit Application form is available on the Internet (see address in Section GEN 1.1, Paragraph 1).

3.3 Notification of intent should be submitted to the Department of Airport Operations as soon as possible for transient flights requesting landing and requiring only technical services. The Department of Airport Operations may refuse permission for a technical landing if it appears that normal scheduled services cannot be properly accommodated.

4. PRIVATE FLIGHTS

Any request for take-off and or landing between the hours of 2300 and 0700 local time must submit the proper PPR 24 hours prior to the planned day of the flight.

4.1 Private aircraft do not require prior permission from the Department of Airport Operations for over flying or landing in Bermuda. However, private aircraft operators are strongly encouraged to notify the Department of Airport Operations prior to commencing flight to Bermuda and to include the department in the associated departure plan message.

4.2 Reference 1.6.1 – 1.13 ICAO Annex Part 2, 7th Edition Effective 18 Nov 2010 (Non-Commercial Transport). See Bermuda Civil Aviation website www.dca.gov.bm for clarification/wording Annex 6, Part 2.

4.3 All flights at or above FL180 within New York Oceanic Control Area must be conducted in accordance with Instrument Flight Rules (IFR). Flight plan submission is mandatory.

5. PUBLIC HEALTH MEASURES APPLIED TO AIRCRAFT

5.1 No public health measures are required to be carried out with respect to aircraft entering Bermuda.

5.2 Temporary health formalities may be applied to meet unforeseen situations. These measures will be notified by NOTAM.

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GEN 1.3 – ENTRY, TRANSIT AND DEPARTURE OF PASSENGERS AND CREW

1. CUSTOMS REQUIREMENTS

1.1 The entry, transit and departure requirements for passengers and crew are in general accordance with ICAO Annex 9 - Facilitation - and Supplement to Annex 9, as amended, under the United Kingdom.

1.2 Passports are the preferred document for entry into Bermuda and are required of all visitors from countries that require a passport for re-entry purposes or for entry through another country to which the passenger has right of entry.

1.3 A return or onward ticket, or other proof of onward transportation to a country to which the passenger has right of entry, is required of all visitors.

1.4 The following exceptions exist between the requirements of the Bermuda Government and ICAO Annex 9:

a) Nationals of the following countries require Bermuda entry visas with effect from 15 September 2004. This list replaces that issued on 15 January 2003.

1) Afghanistan
2) Albania
3) Algeria
4) Armenia
5) Azerbaijan
6) Bahrain
7) Belarus
8) Bosnia-Herzegovina
9) Bulgaria
10) Cambodia
11) China, People's Republic of
12) Croatia
13) Cuba
14) Djibouti
15) Egypt
16) Estonia
17) Georgia
18) Ghana
19) Haiti
20) Iran
21) Iraq
22) Jamaica
23) Jordan
24) Kazakhstan
25) Kuwait
26) Kyrgyzstan
27) Latvia
28) Lebanon
29) Liberia
30) Libya
31) Lithuania
32) Macedonia
33) Moldova
34) Mongolia
35) Montenegro
36) Morocco
37) Nigeria
38) North Korea
39) Oman
40) Pakistan
41) Qatar
42) Romania
43) Russia
44) Saudi Arabia
45) Serbia
46) Somalia
47) Sri Lanka
48) Syria
49) Tajikistan
50) Tunisia
51) Turkmenistan
52) Ukraine
53) United Arab Emirates
54) Uzbekistan
55) Vietnam
56) Yemen

b) Holders of Hong Kong Special Administrative Region passports or British National (Overseas) passports do NOT require visas for Bermuda.

c) Bermuda entry visas are not required for visa controlled nationals who:

1) Have the right to reside in the United States (Permanent Resident), Canada (Permanent Resident), or the United Kingdom (no limit on stay in the United Kingdom); and

2) Are in possession of proof of such status and a valid passport

2. IMMIGRATION REQUIREMENTS

2.1 Passengers arriving without a return ticket or on a one-way ticket into Bermuda will not be admitted unless prior Bermuda Immigration authorization has been given.

2.2 People wishing to enter Bermuda for the purpose of residence, employment or for an indefinite period will not be permitted to land unless they have prior authorization from Bermuda Immigration authorities to do so.

2.3 All travellers must carry with them proof of citizenship and personal identification (including photo ID) relevant to a return to their own country or for re-entry through another foreign country, as required by Bermuda Immigration authorities. This applies to adults and children travelling alone or with their parents.

3. PUBLIC HEALTH REQUIREMENTS

3.1 Disembarking passengers are not required to present vaccination certificates.

3.2 No health formalities are required for departure.

3.3 Temporary health formalities may be applied to meet unforeseen situations. These measures will be notified by NOTAM.

4. PRE-CLEARANCE DEPARTURE PROVISIONS

4.1 Pre-clearance departure provisions of the United States Customs Service and United States Immigration Service are established for passengers and crew of all scheduled civil aircraft departing Bermuda for United States airports.

4.2 Pre-clearance departure provisions to the United States are not normally available to non-scheduled carriers or private operators unless prior action has been taken to fulfil the requirements of each Service. Submit applications for authorisation to use these provisions to:

U.S. Department of Justice
Immigration and Naturalization Services
(Travel Control)
Federal Building
Burlington, VT 05042

Telephone: 1.802.951.5037

Telefax: 1.802.660.1175

GEN 1.4 – ENTRY, TRANSIT AND DEPARTURE OF CARGO

1. CUSTOMS REQUIREMENTS

1.1 All articles being imported or exported are subject to inspection by Customs and/or the relevant statutory authority (e.g. the Police or other Government Departments).

1.2 Bona fide visitors to Bermuda may bring in with them duty free their own personal clothing and effects. This may include such personal items as sports equipment, cameras, hair dryers, portable TVs or radios, travelling irons, etc., provided these items accompany the visitor when they depart the Island.

1.3 Permits must be issued by the Department of Environmental Protection to import all animals (including household pets) in advance of the animal's arrival. Each animal must be accompanied by a general health certificate issued by a licensed veterinarian within the ten days prior to its arrival in Bermuda. A course of parvovirus inoculations is recommended but is not mandatory.

1.4 An outbound cargo manifest is required to show the value in BD$ of goods being exported.

2. AGRICULTURAL QUARANTINE REQUIREMENTS

2.1 Live plants are prohibited unless the Department of Environmental Protection has issued a permit in advance.

2.2 All plants being imported for propagation purposes must be accompanied by plant health documents, and will be inspected by the Plant Protection Laboratory in Bermuda to ensure freedom from pests and diseases.

3. PROHIBITED AND RESTRICTED GOODS

3.1 The list of prohibited and restricted goods is extensive and may be obtained from Customs.

3.2 All drugs and medication for the personal use of a visitor, prescribed by that person's own doctor and which accompanies the visitor travelling to Bermuda, must be declared to a Customs officer upon arrival. Supplies should be sufficient only for the duration of the visitor's stay. Note: Visitors already in Bermuda are not permitted to have their prescribed drugs and medication mailed to them.

3.3 Illicit drugs of any kind are strictly prohibited. The importation of, possession of, or dealing with unlawful drugs (including marijuana) is an offence.

3.4 Bermuda requires that the transportation of all classes of dangerous goods is conducted in accordance with instructions contained in the "Technical Instructions for the Safe Transport of Dangerous Goods by Air" (ICAO Doc 9284-AN/905) and in accordance with the Air Navigation (Overseas Territories) Order 2007 as amended, Article 58 and the Acceptable Means of Compliance found in Overseas Territories Aviation Requirements (OTAR) Part 92.

Weapons and Munitions of War can only be transported by the granting of a Governor's Approval in accordance with the Air Navigation (Overseas Territories) Order 2007 as amended, Article 57. Applications for consideration are to be submitted to the Bermuda Department of Civil Aviation 15 days prior to the requested flight.

Items classified as FORBIDDEN for carriage on either Passenger or Cargo aircraft will only be accepted in cases of Extreme Urgency and require an Exemption to the Instructions granted by the Governor.

In the event of an accident/incident involving dangerous goods, the operator is required to adhere to the reporting procedures contained within ICAO Doc 9481 (The Red Book).

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GEN 1.5 – AIRCRAFT INSTRUMENTS, EQUIPMENT AND FLIGHT DOCUMENTS

1. INSTRUMENTS, EQUIPMENT AND FLIGHT DOCUMENTS

1.1 Instruments

An aircraft shall not operate in Bermuda airspace, except under emergency conditions, unless it is equipped with functioning instrument systems in compliance with the certification requirements of the country in which it is registered.

1.2 Equipment

a) All aircraft other than gliders, when operating in controlled airspace, shall be equipped with radio navigation equipment capable of maintaining direct two-way communication with the appropriate aeronautical radio stations, unless the appropriate air traffic control unit approves otherwise and the aircraft complies with air traffic control instructions.

b) All aircraft other than gliders, when flying under Instrument Flight Rules in controlled airspace, shall be equipped with:

1) Radio navigation equipment capable of maintaining direct two-way communication with the appropriate aeronautical radio stations, unless the appropriate air traffic control unit approves otherwise and the aircraft complies with air traffic control instructions.

2) Secondary surveillance radar equipment, unless the appropriate air traffic control unit approves otherwise and the aircraft complies with air traffic control instructions.

3) Radio and navigation equipment capable of enabling the aircraft to be navigated along the intended route, unless the appropriate air traffic control unit approves otherwise and the aircraft complies with air traffic control instructions, including:

i) Automatic direction finding equipment,

ii) Distance measuring equipment, unless the aircraft is a non-public transport flying in Class D or Class E airspace; and

iii) VHF omni-range equipment,

iv) GNSS capable.

1.3 Flight Documents

a) An aircraft shall not fly in Bermuda airspace unless it carries the documents that it is required to carry under the law of the country in which it is registered. If the flight is intended to begin, remain within, and end in Bermuda, the documents may be kept at the aerodrome instead of being carried in the aircraft.

b) The commander of an aircraft shall, within a reasonable period after being requested to do so by an authorised person, cause to be produced to that person:

1) The certificates of registration and airworthiness in force in respect to the aircraft,

2) The licenses of its flight crew; and

3) Such other documents as the aircraft is required to carry when in flight under the law of the country in which it is registered.

2. EMERGENCY LOCATOR TRANSMITTER (ELT)

2.1 Aircraft conducting long-range over-water flights must be equipped with at least two ELTs, one of which shall be automatic, when the flight distance away from land suitable for making an emergency landing corresponds to more than:

a) 120 minutes at cruising speed or 740 kilometres (400 nautical miles), which ever is lesser, for aircraft having two or more engines, or

b) 30 minutes at cruising speed or 185 kilometres (100 nautical miles), which ever is lesser, for all other aircraft.

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GEN 1.6 – SUMMARY OF NATIONAL REGULATIONS AND INTERNATIONAL AGREEMENTS/ CONVENTIONS

1. NATIONAL REGULATIONS

1.1 The Air Navigation (Overseas Territories) Order 2007, as amended.

1.2 The Air Navigation (Fees for Certificates and Services) Regulations 2005

1.3 The Civil Aviation (Investigation of Air Accidents & Incidents) Regulations 2001

1.4 The Mortgaging of Aircraft and Aircraft Engines (Fees) Regulations 1999

1.5 The Bermuda Air Terminal (Fees) Regulations 1952

1.6 The Bermuda Airport Regulations 1959 and Amendments

1.7 The Civil Aviation (Licensing of Air Transport and Commercial Flying) Act 1950

1.8 The Air Transport (Licensing) Regulations 1950

1.9 The Bermuda Civil Airports Act 1949

1.10 Air Navigation (Investigation of Accidents) Regulations 1948

1.11 Civil Aviation (Air Transport Licensing) Act 2007

1.12 Civil Aviation (Air Transport Licensing) Regulations 2007

1.13 ICAO Annex 6 Part 2, 7th Edition effective 18th November 2010 (non-commercial air transport only).

2. INTERNATIONAL AGREEMENTS/ CONVENTIONS

2.1 Bermuda is not a contracting State with ICAO. Bermuda is subject to international agreements and conventions affecting air navigation ratified by the United Kingdom.

2.2 Air navigation within the New York Oceanic Control Area, in which Bermuda is located, is governed by United Kingdom Civil Aviation Authority (UK CAA) and United States Federal Aviation Administration (US FAA) regulations, as well as ICAO standards, recommended practices and procedures, and ICAO regional supplementary procedures for the North Atlantic.

2.3 The FAA's New York Air Route Traffic Control Center (NY ARTCC) provides area and approach control service for Bermuda.

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GEN 1.7 – DIFFERENCES FROM ICAO STANDARDS, RECOMMENDED PRACTICES AND PROCEDURES

1. DIFFERENCES

1.1 Bermuda is not a contracting State with ICAO. Differences from ICAO standards, recommended practices and procedures are disseminated for Bermuda by the United Kingdom.

1.2 Selected Bermuda differences from ICAO standards, recommended practices and procedures are listed within Appendix A. Appendix A immediately follows Part 3-Aerodromes (AD) of this AIP.

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GEN 2 – TABLES AND CODES

GEN 2.1 – MEASURING SYSTEM, AIRCRAFT MARKING, AND HOLIDAYS

1. UNITS OF MEASUREMENT

1.1 TABLE GEN 2.1.1 contains the units of measurement used by aeronautical stations within Bermuda.

TABLE GEN 2.1.1
Units of Measurement Used in Bermuda

Distances used for navigation, position reports, etc.	Meters *
Distances relating to an aerodrome, such as runway length	Feet
Altitudes, elevations and heights	Feet and Flight Levels
Horizontal speed, including wind speed	Knots
Vertical Speed	Feet per Minute
Wind direction broadcast by ATC prior to landing and take-off	Degrees Magnetic***
Wind direction, except ATC-broadcast wind direction prior to landing and take-off	Degrees True
Visibility	Meters
Visibility (RVR)	Meters
Altimeter Setting	Millibars and Hectopascals **
Temperature	Degrees Celsius
Weight	Kilograms (KG) - pounds on request
Date/Time	Year, month, day, hour and minute. The 24-hour day begins at midnight Coordinated Universal Time (UTC).

* Meters (conversion formula: 1000 metres = 0.54 nautical mile).

** Altimeter provided in Inches of mercury upon request.

*** Provided as degrees true in ATIS broadcast.

2. TIME SYSTEM

2.1 All times shown within this AIP are expressed in UTC unless otherwise noted.

2.2 Bermuda air traffic control and communication services use UTC.

2.3 The nearest full minute is used when reporting time. For example, "11:25:31" is reported as "1126".

2.4 Four hours must be subtracted from UTC (UTC -4) to obtain the local time (Atlantic Standard Time) from the first Sunday in November to the second Sunday in March.

2.5 Three hours must be subtracted from UTC (UTC -3) to obtain the local time (Atlantic Daylight Saving Time) from the second Sunday in March until the first Sunday in November.

3. GEODETIC REFERENCE DATUM

3.1 The World Geodetic Survey of 1984 (WGS-84) is the authorised geodetic reference datum in Bermuda. Geographical coordinates indicating latitude and longitude are expressed in terms of WGS-84. The application of WGS-84 is by survey or mathematical conversion of coordinates. Coordinates are published accompanied by an asterisk to indicate information of low integrity when data was transformed mathematically into WGS-84 coordinates.

3.2 Accuracy

Coordinates are normally given to an accuracy of one-hundredth of one second of an arc, such that latitude is given with eight digits while longitude is given with nine digits. Coordinates are normally expressed in degrees, minutes, seconds, and hundredths of seconds.

4. AIRCRAFT NATIONALITY AND REGISTRATION MARKS

4.1 The nationality mark for aircraft registration in Bermuda is "VP-B, VQ-B" followed by combination of two or more letters (for example: VP-BSL).

5. PUBLIC HOLIDAYS

5.1 TABLE GEN 2.1.5 contains the public holidays observed in Bermuda.

TABLE GEN 2.1.5 - Bermuda Public Holidays

Name	2014	2015
New Year's Day	1 January	1 January
Good Friday	18 April	3 April
Bermuda Day	26 May	25 May
National Heroes Day	16 June	15 June
Emancipation Day (First Day of Cup Match)	31 July	30 July
Somers Day (Second Day of Cup Match)	1 August	31 July
Labour Day	1 September	7 September
Remembrance Day	11 November	11 November
Christmas Day	25 December	25 December
Boxing Day	26 December	26 December

GEN 2.2 – ABBREVIATIONS USED IN AIS PUBLICATIONS

The abbreviations used in this AIP are generally in accordance with those listed in ICAO Document 8400, *Procedures for Air Navigation Services, ICAO Abbreviations and Codes*.

* Asterisks accompany non-ICAO abbreviations.

A	
AD	Aerodrome
ADC	Aerodrome Chart
ADIZ	Air Defence Identification Zone
AFTN	Aeronautical Fixed Telecommunications Network
AGL	Above Ground Level
AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIS	Aeronautical Information Services
ALSF*	Approach Lighting System with Sequenced Flashing Lights
ALT	Altitude
AMDT	Amendment
AMSL	Above Mean Sea Level
AOC	Aerodrome Obstacle Chart
APDC	Aircraft Parking/Docking Chart
APR	April
ARCAL*	Aircraft Controlled Approach Lights
ARFF*	Aircraft Rescue and Fire Fighting
ARP	Aerodrome Reference Point
ARTCC*	Air Route Traffic Control Center
ASDA	Accelerate Stop Distance Available
ATC	Air Traffic Control
ATFM	Air Traffic Flow Management
ATIS	Automatic Terminal Information Service
ATS	Air Traffic Service
AUG	August
AVGAS	Aviation Gasoline
AWOS	Automated Weather Observing Station
B	
BDA	Bermuda
BFRS*	Bermuda Fire and Rescue Service
BRG	Bearing
C	
CAA*	Civil Aviation Authority
CAVOK	Visibility, cloud and present weather better than prescribed values or conditions
CTA	Control Area
CTAF*	Common Traffic Advisory Frequency
CTR	Control Zone
CWY	Clearway
D	
DAO*	Department of Airport Operations
DCA*	Department of Civil Aviation
DEC	December
DME	Distance Measuring Equipment
E	
ELEV	Elevation
ELT	Emergency Locator Transmitter
ENR	En-route
EU-OPS*	European Union Operations
F	
FAA	Federal Aviation Administration
FAF	Final Approach Fix
FEB	February
FIR	Flight Information Region
FL	Flight Level
FT	Feet
G	
GEN	General
GND	Ground
GNSS	Global Navigation Satellite System
GP	Glide Path
GPS	Global Positioning System
GS*	Glideslope
H	
H24	Continuous day and night service
HDG	Heading
HIRL*	Bi-directional High Intensity White Runway Lights
HPA	Hectopascal
I	
IAC	Instrument Approach Chart
IAF	Initial Approach Fix
ICAO	International Civil Aviation Organisation
IF	Intermediate Approach Fix
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IMC	Instrument Meteorological Conditions
INOP	Inoperative
INTL	International
J	
JAN	January
JAR-OPS*	Joint Aviation Requirements - Operations
JUL	July
JUN	June
K	
KIAS	Knots Indicated Airspeed
KM	Kilometres
KTS	Knots
KG	Kilograms

L

LAT	Latitude
LDA	Landing Distance Available
LMT	Local Mean Time
LNAV	Lateral Navigation
LOC	Localizer
LONG	Longitude

M

M	Metres
MAG	Magnetic
MAHF	Missed Approach Holding Fix
MAPT	Missed Approach Point
MAR	March
MAX	Maximum
MAY	May
MB	Millibars
MEA	Minimum En-route Altitude
MEHT	Minimum Eye Height over Threshold
METAR	Aerodrome Routine Meteorological Report
MHZ	Megahertz
MIN	Minute
MIRL*	Medium Intensity Runway Edge Lights
MNM	Minimum
MSA	Minimum Sector Altitude
MSL	Mean Sea Level

N

NIL	None or I have nothing to sent to you
NM	Nautical Miles
NOTAM	Notice To Airmen
NOV	November
NY ARTCC	New York Air Route Traffic Control Center

O

OCA	Oceanic Control Area
OCA	Obstacle Clearance Altitude
OCH	Obstacle Clearance Height
OCT	October
OFZ	Obstacle Free Zone
OTAR*	Overseas Territories Aviation Requirements

P

PAN-RAC	Procedures for Air Navigation Services - Rules of the Air and Air Traffic Services
PAPI	Precision Approach Path Indicator
PCN	Pavement Classification Number
PIB	Preflight Information Bulletin
PPR	Prior Permission Required

Q

QFE	Atmospheric Pressure at Aerodrome Elevation
QNE*	Altimeter Setting 29.92” Hg or 1013.2 Mb
QNH	Altimeter subscale setting to obtain elevation when on the ground

R

RDH	Reference Datum Height
REIL*	Runway End Identifier Lights
RESA	Runway End Safety Area
RNAV	Area Navigation
RNP	Required Navigation Performance
RVR	Runway Visual Range
RWY	Runway

S

SAR	Search and Rescue
SARPS	Standards and Recommended Practices
SEC	Second
SECT	Sector
SEP	September
SFC	Surface
SIGMET	Information concerning en route weather phenomena which may affect the safety of aircraft operations
SM*	Statute Miles
SPECI	Aerodrome Special Meteorological Report
SSR	Secondary Surveillance Radar
SUP	Supplement
SWY	Stopway
SYNOP*	Surface Synoptic Observation

T

TAA	Terminal Arrival Area
TAF	Aerodrome Forecast
TCH*	Threshold Crossing Height
TDZ	Touchdown Zone
THR	Threshold
TMA	Terminal Control Area
TODA	Take-off Distance Available
TORA	Take-off Run Available
TWR	Tower
TWY	Taxiway
TXKF	ICAO 4-Letter Code for L.F. Wade International Airport

U

UHF	Ultra High Frequency (300 to 3000 MHz)
UIR	Upper Flight Information Region
UK*	United Kingdom
UKCAA*	United Kingdom Civil Aviation Authority
UN*	United Nations
UNL	Unlimited
US or USA	United States of America
UTC	Coordinated Universal Time

V

VAR	Variation
VFR	Visual Flight Rules
VGSI*	Visual Glide Slope Indicator
VHF	Very High Frequency (30 to 300 MHz)
VMC	Visual Meteorological Conditions
VNAV	Vertical Navigation
VOLMET	Meteorological information for aircraft in flight
VOR	VHF Omnidirectional Radio Range

W

WAC	World Aeronautical Chart - ICAO 1:1.000.000
WDI	Wind Direction Indicator
WGS-84	World Geodetic Survey of 1984
WPT	Waypoint

GEN 2.3 – CHART SYMBOLS

City or Large Town 

Primary Road 

Secondary Road

Civil (Land) Aerodrome 

Emergency Aerodrome 

Basic Radio NAVAID

Non-Directional Beacon (NDB) 

Compass Rose 

Collocated VOR/DME 

Flight Information Region 

Aerodrome Traffic Zone

Control Zone

Intersection /
Reporting Point Compulsory 

Intersection /
Reporting Point On-request 

Aerodrome Reference Point 

Scale Break 

Obstacle 

High Obstacle / Mast / Tower 

Ship 

Lighthouse 

Windsock 

Airport Pole, Tower, Antenna, etc. with
ID Number 

Hard Surface Runway 

Stopway 

Building / Large Structure 

Fly-Over RNAV Waypoint Compulsory 

Fly-Over RNAV Waypoint On-request 

Fly-By RNAV Waypoint Compulsory 

Fly-By RNAV Waypoint On-request 

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GEN 2.4 – LOCATION INDICATORS

ENCODE		DECODE	
Location	**Indicator**	**Indicator**	**Location**
L.F. Wade International Airport	TXKF	TXKF	L.F. Wade International Airport

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GEN 2.5 – LIST OF RADIO NAVIGATION AIDS

ENCODE				DECODE			
Station Name	**Facility**	**IDENT**	**Purpose**	**IDENT**	**Station Name**	**Facility**	**Purpose**
Bermuda	VOR/DME	BDA	AE	BDA	Bermuda	VOR/DME	AE
Bermuda	ILS/DME	I-BDA	A	I-BDA	Bermuda	ILS/DME	A

Note: "A" denotes aerodrome use (see details in Part 3, Aerodrome)
"E" denotes en route use (see details in Part 2, En Route)

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GEN 2.6 - CONVERSION TABLES

TABLE GEN 2.6.1 Distance Conversions

NM to KM 1 NM =1.852 KM		KM to NM 1 KM = 0.540 NM		NM to SM 1 NM = 1.1508 SM		SM to NM 1 SM = 0.869 NM		FT to M 1 FT = 0.305 M		M to FT 1 M = 3.280 FT	
NM	KM	KM	NM	NM	SM	SM	NM	FT	M	M	FT
0.1	0.185	0.1	0.05	0.1	0.115	0.1	0.086	1	0.305	1	3.28
0.2	0.370	0.2	0.11	0.2	0.230	0.2	0.173	2	0.610	2	6.56
0.3	0.556	0.3	0.16	0.3	0.345	0.3	0.260	3	0.914	3	9.84
0.4	0.741	0.4	0.22	0.4	0.460	0.4	0.347	4	1.219	4	13.12
0.5	0.926	0.5	0.27	0.5	0.575	0.5	0.434	5	1.524	5	16.40
0.6	1.111	0.6	0.32	0.6	0.690	0.6	0.521	6	1.829	6	19.69
0.7	1.296	0.7	0.38	0.7	0.805	0.7	0.608	7	2.134	7	22.97
0.8	1.482	0.8	0.43	0.8	0.920	0.8	0.695	8	2.438	8	26.25
0.9	1.667	0.9	0.49	0.9	1.035	0.9	0.782	9	2.743	9	29.53
1	1.852	1	0.54	1	1.15	1	0.86	10	3.048	10	32.81
2	3.704	2	1.08	2	2.30	2	1.73	20	6.096	20	65.62
3	5.556	3	1.62	3	3.45	3	2.60	30	9.144	30	98.43
4	7.408	4	2.16	4	4.60	4	3.47	40	12.192	40	131.23
5	9.260	5	2.70	5	5.75	5	4.34	50	15.240	50	164.04
6	11.112	6	3.24	6	6.90	6	5.21	60	18.288	60	196.85
7	12.964	7	3.78	7	8.05	7	6.08	70	21.336	70	229.66
8	14.816	8	4.32	8	9.20	8	6.95	80	24.384	80	262.47
9	16.668	9	4.86	9	10.35	9	7.82	90	27.432	90	295.28
10	18.520	10	5.40	10	11.50	10	8.68	100	30.480	100	328.08
20	37.040	20	10.80	20	23.01	20	17.37	200	60.960	200	656.17
30	55.560	30	16.20	30	34.52	30	26.06	300	91.440	300	984.25
40	74.080	40	21.60	40	46.03	40	34.75	400	121.920	400	1312.34
50	92.600	50	27.00	50	57.53	50	43.44	500	152.400	500	1640.42
60	111.120	60	32.40	60	69.04	60	52.13	600	182.880	600	1968.50
70	129.640	70	37.80	70	80.55	70	60.82	700	213.360	700	2296.59
80	148.160	80	43.20	80	92.06	80	69.51	800	243.840	800	2624.67
90	166.680	90	48.60	90	103.57	90	78.20	900	274.320	900	2952.76
100	185.200	100	54.00	100	115.00	100	86.80	1000	304.800	1000	3280.84
200	370.400	200	107.99	200	230.10	200	173.70	2000	609.600	2000	6561.68
300	555.600	300	161.99	300	345.20	300	260.60	3000	914.400	3000	9842.52
400	740.800	400	215.98	400	460.30	400	347.50	4000	1219.200	4000	13123.36
500	926.000	500	269.98	500	575.30	500	434.40	5000	1524.000	5000	16404.20
								6000	1828.800		
								7000	2133.600		
								8000	2438.400		
								9000	2743.200		
								10000	3048.000		

TABLE GEN 2.6.2 Arc Minute to Second Conversions

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	0.76	45.6

TABLE GEN 2.6.3 Arc Seconds to Minute Conversions

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
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		

GEN 2.7 – SUNRISE/SUNSET TABLES

1.1 The following tables were generated using the United States Naval Observatory's World Wide Web site (aa.usno.navy.mil). The information is public domain and permission was not required.

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Location: W064 41, N32 22

L.F. WADE INTERNATIONAL AIRPORT
Rise and Set for the Sun for 2014

Zone: 4h West of Greenwich

Astronomical Applications Dept.
U. S. Naval Observatory
Washington, DC 20392-5420

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0720	1725	0713	1752	0646	1816	0607	1839	0532	1900	0513	1921	0515	1930	0533	1916	0554	1843	0613	1804	0636	1728	0702	1713
02	0720	1725	0712	1753	0645	1817	0606	1839	0531	1901	0512	1921	0516	1930	0534	1916	0554	1842	0613	1802	0637	1728	0703	1713
03	0721	1726	0712	1754	0644	1818	0604	1840	0530	1901	0512	1922	0516	1930	0535	1915	0555	1841	0614	1801	0638	1727	0704	1713
04	0721	1727	0711	1755	0643	1819	0603	1841	0529	1902	0512	1922	0517	1929	0535	1914	0556	1839	0615	1800	0638	1726	0705	1713
05	0721	1728	0710	1756	0642	1819	0602	1841	0529	1903	0512	1923	0517	1929	0536	1913	0556	1838	0615	1758	0639	1725	0705	1713
06	0721	1729	0709	1757	0640	1820	0601	1842	0528	1903	0512	1923	0518	1929	0537	1912	0557	1837	0616	1757	0640	1724	0706	1713
07	0721	1729	0708	1758	0639	1821	0559	1843	0527	1904	0511	1924	0518	1929	0537	1911	0558	1835	0617	1756	0641	1723	0707	1713
08	0721	1730	0708	1759	0638	1822	0558	1843	0526	1905	0511	1924	0519	1929	0538	1910	0558	1834	0617	1755	0642	1723	0708	1713
09	0721	1731	0707	1759	0637	1822	0557	1844	0525	1906	0511	1925	0519	1929	0539	1909	0559	1833	0618	1753	0643	1722	0708	1714
10	0721	1732	0706	1800	0635	1823	0556	1845	0524	1906	0511	1925	0520	1928	0539	1908	0559	1831	0619	1752	0644	1721	0709	1714
11	0721	1733	0705	1801	0634	1824	0554	1846	0524	1907	0511	1926	0520	1928	0540	1907	0600	1830	0620	1751	0645	1721	0710	1714
12	0721	1734	0704	1802	0633	1825	0553	1846	0523	1908	0511	1926	0521	1928	0541	1906	0601	1829	0620	1750	0645	1720	0711	1714
13	0721	1734	0703	1803	0632	1825	0552	1847	0522	1908	0511	1926	0521	1927	0541	1905	0601	1827	0621	1748	0646	1719	0711	1714
14	0721	1735	0702	1804	0630	1826	0551	1848	0521	1909	0511	1927	0522	1927	0542	1904	0602	1826	0622	1747	0647	1719	0712	1715
15	0720	1736	0701	1805	0629	1827	0550	1848	0521	1910	0511	1927	0522	1927	0543	1903	0602	1825	0622	1746	0648	1718	0713	1715
16	0720	1737	0700	1806	0628	1827	0548	1849	0520	1910	0511	1928	0523	1926	0543	1902	0603	1823	0623	1745	0649	1718	0713	1715
17	0720	1738	0659	1806	0626	1828	0547	1850	0519	1911	0512	1928	0524	1926	0544	1901	0604	1822	0624	1744	0650	1717	0714	1716
18	0720	1739	0658	1807	0625	1829	0546	1850	0519	1912	0512	1928	0524	1925	0545	1900	0604	1821	0625	1743	0651	1717	0714	1716
19	0719	1740	0657	1808	0624	1830	0545	1851	0518	1913	0512	1928	0525	1925	0545	1859	0605	1819	0625	1741	0652	1716	0715	1717
20	0719	1741	0656	1809	0623	1830	0544	1852	0518	1913	0512	1929	0526	1924	0546	1858	0606	1818	0626	1740	0653	1716	0716	1717
21	0719	1742	0655	1810	0621	1831	0543	1853	0517	1914	0512	1929	0526	1924	0547	1856	0606	1817	0627	1739	0653	1716	0716	1718
22	0718	1743	0654	1811	0620	1832	0542	1853	0516	1915	0512	1929	0527	1923	0547	1855	0607	1815	0628	1738	0654	1715	0717	1718
23	0718	1744	0653	1811	0619	1832	0541	1854	0516	1915	0513	1929	0527	1923	0548	1854	0608	1814	0629	1737	0655	1715	0717	1719
24	0717	1745	0652	1812	0617	1833	0539	1855	0516	1916	0513	1929	0528	1922	0549	1853	0608	1813	0629	1736	0656	1715	0717	1719
25	0717	1746	0651	1813	0616	1834	0538	1855	0515	1917	0513	1929	0529	1921	0549	1852	0609	1811	0630	1735	0657	1714	0718	1720
26	0716	1746	0650	1814	0615	1834	0537	1856	0515	1917	0514	1930	0529	1921	0550	1851	0609	1810	0631	1734	0658	1714	0718	1720
27	0716	1747	0649	1815	0613	1835	0536	1857	0514	1918	0514	1930	0530	1920	0551	1849	0610	1809	0632	1733	0659	1714	0719	1721
28	0715	1748	0647	1815	0612	1836	0535	1858	0514	1918	0514	1930	0531	1919	0551	1848	0611	1807	0633	1732	0700	1714	0719	1722
29	0715	1749			0611	1837	0534	1858	0513	1919	0515	1930	0531	1919	0552	1847	0611	1806	0633	1731	0700	1713	0719	1722
30	0714	1750			0610	1837	0533	1859	0513	1920	0515	1930	0532	1918	0552	1846	0612	1805	0634	1730	0701	1713	0720	1723
31	0714	1751			0608	1838			0513	1920			0533	1917	0553	1844			0635	1729			0720	1724

Location: W064 41, N32 22

L.F. WADE INTERNATIONAL AIRPORT
Civil Twilight for 2014

Zone: 4h West of Greenwich

Astronomical Applications Dept.
U. S. Naval Observatory
Washington, DC 20392-5420

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0653	1752	0647	1818	0622	1841	0542	1903	0506	1926	0445	1949	0447	1958	0507	1943	0529	1908	0548	1828	0611	1754	0635	1740
02	0653	1752	0647	1819	0621	1842	0541	1904	0505	1927	0444	1949	0447	1958	0507	1942	0529	1907	0549	1827	0611	1753	0636	1740
03	0654	1753	0646	1820	0619	1842	0540	1905	0504	1928	0444	1950	0448	1958	0508	1941	0530	1905	0550	1825	0612	1752	0637	1740
04	0654	1754	0645	1820	0618	1843	0538	1905	0503	1928	0444	1951	0448	1958	0509	1940	0531	1904	0550	1824	0613	1751	0638	1740
05	0654	1755	0645	1821	0617	1844	0537	1906	0502	1929	0444	1951	0449	1958	0509	1939	0531	1903	0551	1823	0614	1751	0639	1740
06	0654	1755	0644	1822	0616	1845	0536	1907	0501	1930	0443	1952	0449	1957	0510	1938	0532	1902	0552	1822	0615	1750	0639	1740
07	0654	1756	0643	1823	0615	1845	0535	1908	0500	1931	0443	1952	0450	1957	0511	1937	0533	1900	0552	1820	0615	1749	0640	1740
08	0654	1757	0642	1824	0613	1846	0533	1908	0459	1931	0443	1953	0451	1957	0512	1936	0533	1859	0553	1819	0616	1748	0641	1740
09	0654	1758	0642	1825	0612	1847	0532	1909	0459	1932	0443	1953	0451	1957	0512	1935	0534	1857	0554	1818	0617	1748	0641	1741
10	0654	1759	0641	1826	0611	1848	0531	1910	0458	1933	0443	1954	0452	1956	0513	1934	0535	1856	0554	1817	0618	1747	0642	1741
11	0654	1759	0640	1826	0610	1848	0529	1911	0457	1934	0443	1954	0452	1956	0514	1933	0535	1855	0555	1815	0619	1747	0643	1741
12	0654	1800	0639	1827	0608	1849	0528	1911	0456	1935	0443	1955	0453	1956	0515	1932	0536	1853	0556	1814	0620	1746	0644	1741
13	0654	1801	0638	1828	0607	1850	0527	1912	0455	1935	0443	1955	0453	1955	0515	1931	0537	1852	0556	1813	0620	1745	0644	1742
14	0654	1802	0637	1829	0606	1850	0526	1913	0454	1936	0443	1955	0454	1955	0516	1930	0537	1851	0557	1812	0621	1745	0645	1742
15	0654	1803	0636	1830	0605	1851	0524	1914	0454	1937	0443	1956	0455	1954	0517	1929	0538	1849	0558	1811	0622	1744	0645	1742
16	0654	1804	0635	1831	0603	1852	0523	1914	0453	1938	0443	1956	0455	1954	0518	1928	0539	1848	0558	1810	0623	1744	0646	1743
17	0653	1805	0634	1831	0602	1853	0522	1915	0452	1938	0443	1956	0456	1953	0518	1927	0539	1847	0559	1809	0624	1743	0647	1743
18	0653	1805	0633	1832	0601	1853	0521	1916	0452	1939	0443	1957	0457	1953	0519	1926	0540	1845	0600	1807	0625	1743	0647	1743
19	0653	1806	0632	1833	0559	1854	0520	1917	0451	1940	0443	1957	0457	1952	0520	1924	0540	1844	0601	1806	0625	1743	0648	1744
20	0653	1807	0631	1834	0558	1855	0518	1917	0450	1941	0444	1957	0458	1952	0520	1923	0541	1843	0601	1805	0626	1742	0648	1744
21	0652	1808	0630	1835	0557	1855	0517	1918	0450	1941	0444	1957	0459	1951	0521	1922	0542	1841	0602	1804	0627	1742	0649	1745
22	0652	1809	0629	1835	0555	1856	0516	1919	0449	1942	0444	1958	0459	1951	0522	1921	0542	1840	0603	1803	0628	1742	0649	1745
23	0652	1810	0628	1836	0554	1857	0515	1920	0449	1943	0444	1958	0500	1950	0523	1920	0543	1839	0604	1802	0629	1741	0650	1746
24	0651	1811	0627	1837	0553	1858	0514	1920	0448	1944	0445	1958	0501	1949	0523	1918	0544	1837	0604	1801	0630	1741	0650	1746
25	0651	1812	0626	1838	0552	1858	0513	1921	0447	1944	0445	1958	0501	1949	0524	1917	0544	1836	0605	1800	0630	1741	0651	1747
26	0650	1812	0625	1839	0550	1859	0511	1922	0447	1945	0445	1958	0502	1948	0525	1916	0545	1835	0606	1759	0631	1741	0651	1748
27	0650	1813	0624	1839	0549	1900	0510	1923	0447	1946	0445	1958	0503	1947	0525	1915	0546	1833	0607	1758	0632	1740	0652	1748
28	0649	1814	0623	1840	0548	1900	0509	1924	0446	1946	0446	1958	0504	1946	0526	1913	0546	1832	0607	1757	0633	1740	0652	1749
29	0649	1815			0546	1901	0508	1924	0446	1947	0446	1958	0504	1946	0527	1912	0547	1831	0608	1756	0634	1740	0652	1749
30	0648	1816			0545	1902	0507	1925	0445	1948	0447	1958	0505	1945	0527	1911	0548	1829	0609	1755	0635	1740	0653	1750
31	0648	1817			0544	1903			0445	1948			0506	1944	0528	1909			0610	1755			0653	1751

Location: W064 41, N32 22

L.F. WADE INTERNATIONAL AIRPORT
Rise and Set for the Sun for 2015

Zone: 4h West of Greenwich

Astronomical Applications Dept.
U. S. Naval Observatory
Washington, DC 20392-5420

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0720	1724	0713	1752	0647	1816	0607	1838	0533	1900	0513	1921	0515	1930	0533	1917	0554	1843	0613	1804	0636	1729	0702	1713
02	0720	1725	0712	1753	0645	1817	0606	1839	0532	1900	0512	1921	0516	1930	0534	1916	0554	1842	0613	1803	0636	1728	0703	1713
03	0721	1726	0712	1754	0644	1818	0605	1840	0531	1901	0512	1922	0516	1930	0535	1915	0555	1841	0614	1801	0637	1727	0704	1713
04	0721	1727	0711	1755	0643	1818	0603	1841	0530	1902	0512	1922	0517	1930	0535	1914	0555	1840	0615	1800	0638	1726	0704	1713
05	0721	1727	0710	1756	0642	1819	0602	1841	0529	1902	0512	1923	0517	1929	0536	1913	0556	1838	0615	1759	0639	1725	0705	1713
06	0721	1728	0709	1756	0641	1820	0601	1842	0528	1903	0512	1923	0517	1929	0537	1912	0557	1837	0616	1757	0640	1724	0706	1713
07	0721	1729	0709	1757	0639	1821	0600	1843	0527	1904	0511	1924	0518	1929	0537	1911	0557	1836	0617	1756	0641	1724	0707	1713
08	0721	1730	0708	1758	0638	1821	0558	1843	0526	1905	0511	1924	0518	1929	0538	1910	0558	1834	0617	1755	0642	1723	0708	1713
09	0721	1731	0707	1759	0637	1822	0557	1844	0525	1905	0511	1925	0519	1929	0539	1909	0559	1833	0618	1754	0643	1722	0708	1714
10	0721	1732	0706	1800	0636	1823	0556	1845	0525	1906	0511	1925	0520	1928	0539	1908	0559	1832	0619	1752	0643	1721	0709	1714
11	0721	1732	0705	1801	0634	1824	0555	1845	0524	1907	0511	1926	0520	1928	0540	1908	0600	1830	0619	1751	0644	1721	0710	1714
12	0721	1733	0704	1802	0633	1824	0554	1846	0523	1908	0511	1926	0521	1928	0541	1907	0600	1829	0620	1750	0645	1720	0710	1714
13	0721	1734	0703	1803	0632	1825	0552	1847	0522	1908	0511	1926	0521	1927	0541	1905	0601	1828	0621	1749	0646	1720	0711	1714
14	0721	1735	0703	1804	0631	1826	0551	1847	0522	1909	0511	1927	0522	1927	0542	1904	0602	1826	0622	1748	0647	1719	0712	1715
15	0720	1736	0702	1804	0629	1827	0550	1848	0521	1910	0511	1927	0522	1927	0543	1903	0602	1825	0622	1746	0648	1718	0712	1715
16	0720	1737	0701	1805	0628	1827	0549	1849	0520	1910	0511	1927	0523	1926	0543	1902	0603	1824	0623	1745	0649	1718	0713	1715
17	0720	1738	0700	1806	0627	1828	0548	1850	0520	1911	0511	1928	0524	1926	0544	1901	0604	1822	0624	1744	0650	1717	0714	1716
18	0720	1739	0659	1807	0625	1829	0546	1850	0519	1912	0512	1928	0524	1925	0545	1900	0604	1821	0624	1743	0651	1717	0714	1716
19	0719	1740	0658	1808	0624	1829	0545	1851	0518	1912	0512	1928	0525	1925	0545	1859	0605	1820	0625	1742	0651	1716	0715	1717
20	0719	1741	0657	1809	0623	1830	0544	1852	0518	1913	0512	1929	0525	1924	0546	1858	0605	1818	0626	1741	0652	1716	0715	1717
21	0719	1742	0656	1810	0622	1831	0543	1852	0517	1914	0512	1929	0526	1924	0547	1857	0606	1817	0627	1740	0653	1716	0716	1718
22	0718	1742	0654	1810	0620	1831	0542	1853	0517	1914	0512	1929	0527	1923	0547	1856	0607	1816	0628	1738	0654	1715	0716	1718
23	0718	1743	0653	1811	0619	1832	0541	1854	0516	1915	0513	1929	0527	1923	0548	1854	0607	1814	0628	1737	0655	1715	0717	1719
24	0717	1744	0652	1812	0618	1833	0540	1855	0516	1916	0513	1929	0528	1922	0548	1853	0608	1813	0629	1736	0656	1715	0717	1719
25	0717	1745	0651	1813	0616	1834	0539	1855	0515	1916	0513	1929	0529	1922	0549	1852	0609	1812	0630	1735	0657	1714	0718	1720
26	0717	1746	0650	1814	0615	1834	0538	1856	0515	1917	0513	1930	0529	1921	0550	1851	0609	1810	0631	1734	0658	1714	0718	1720
27	0716	1747	0649	1814	0614	1835	0537	1857	0514	1918	0514	1930	0530	1920	0550	1850	0610	1809	0632	1733	0659	1714	0719	1721
28	0715	1748	0648	1815	0612	1836	0536	1857	0514	1918	0514	1930	0531	1920	0551	1848	0611	1808	0632	1732	0659	1714	0719	1722
29	0715	1749			0611	1836	0535	1858	0514	1919	0515	1930	0531	1919	0552	1847	0611	1806	0633	1731	0700	1713	0719	1722
30	0714	1750			0610	1837	0534	1859	0513	1919	0515	1930	0532	1918	0552	1846	0612	1805	0634	1730	0701	1713	0720	1723
31	0714	1751			0609	1838			0513	1920			0533	1917	0553	1845			0635	1729			0720	1724

Location: W064 41, N32 22

L.F. WADE INTERNATIONAL AIRPORT
Civil Twilight for 2015

Zone: 4h West of Greenwich

Astronomical Applications Dept.
U. S. Naval Observatory
Washington, DC 20392-5420

	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End	Begin	End
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
01	0653	1752	0647	1818	0622	1841	0543	1903	0506	1926	0445	1949	0447	1958	0506	1943	0529	1908	0548	1828	0610	1754	0635	1740
02	0653	1752	0647	1818	0621	1841	0541	1904	0505	1927	0444	1949	0447	1958	0507	1942	0529	1907	0549	1827	0611	1753	0636	1740
03	0654	1753	0646	1819	0620	1842	0540	1905	0504	1927	0444	1950	0448	1958	0508	1942	0530	1906	0549	1826	0612	1752	0637	1740
04	0654	1754	0645	1820	0618	1843	0539	1905	0503	1928	0444	1950	0448	1958	0509	1941	0531	1904	0550	1824	0613	1751	0638	1740
05	0654	1754	0645	1821	0617	1844	0537	1906	0502	1929	0444	1951	0449	1958	0509	1940	0531	1903	0551	1823	0614	1751	0638	1740
06	0654	1755	0644	1822	0616	1844	0536	1907	0502	1930	0443	1952	0449	1957	0510	1939	0532	1902	0551	1822	0614	1750	0639	1740
07	0654	1756	0643	1823	0615	1845	0535	1907	0501	1930	0443	1952	0450	1957	0511	1938	0532	1900	0552	1821	0615	1749	0640	1740
08	0654	1757	0642	1824	0614	1846	0534	1908	0500	1931	0443	1953	0450	1957	0512	1937	0533	1859	0553	1819	0616	1749	0641	1740
09	0654	1758	0642	1825	0612	1847	0532	1909	0459	1932	0443	1953	0451	1957	0512	1936	0534	1858	0553	1818	0617	1748	0641	1741
10	0654	1758	0641	1825	0611	1847	0531	1910	0458	1933	0443	1954	0451	1956	0513	1935	0534	1856	0554	1817	0618	1747	0642	1741
11	0654	1759	0640	1826	0610	1848	0530	1910	0457	1934	0443	1954	0452	1956	0514	1934	0535	1855	0555	1816	0618	1747	0643	1741
12	0654	1800	0639	1827	0609	1849	0528	1911	0456	1934	0443	1954	0453	1956	0514	1933	0536	1854	0555	1815	0619	1746	0643	1741
13	0654	1801	0638	1828	0607	1850	0527	1912	0455	1935	0443	1955	0453	1955	0515	1931	0536	1852	0556	1813	0620	1746	0644	1742
14	0654	1802	0637	1829	0606	1850	0526	1913	0455	1936	0443	1955	0454	1955	0516	1930	0537	1851	0557	1812	0621	1745	0645	1742
15	0654	1803	0637	1830	0605	1851	0525	1913	0454	1937	0443	1956	0455	1955	0517	1929	0538	1850	0558	1811	0622	1744	0645	1742
16	0654	1803	0636	1830	0604	1852	0523	1914	0453	1937	0443	1956	0455	1954	0517	1928	0538	1848	0558	1810	0623	1744	0646	1743
17	0653	1804	0635	1831	0602	1852	0522	1915	0452	1938	0443	1956	0456	1954	0518	1927	0539	1847	0559	1809	0624	1744	0647	1743
18	0653	1805	0634	1832	0601	1853	0521	1916	0452	1939	0443	1957	0456	1953	0519	1926	0540	1846	0600	1808	0624	1743	0647	1743
19	0653	1806	0633	1833	0600	1854	0520	1916	0451	1940	0443	1957	0457	1953	0520	1925	0540	1844	0600	1807	0625	1743	0648	1744
20	0653	1807	0632	1834	0558	1855	0519	1917	0450	1940	0444	1957	0458	1952	0520	1923	0541	1843	0601	1805	0626	1742	0648	1744
21	0652	1808	0631	1834	0557	1855	0517	1918	0450	1941	0444	1957	0459	1951	0521	1922	0542	1842	0602	1804	0627	1742	0649	1745
22	0652	1809	0630	1835	0556	1856	0516	1919	0449	1942	0444	1957	0459	1951	0522	1921	0542	1840	0603	1803	0628	1742	0649	1745
23	0652	1810	0629	1836	0554	1857	0515	1920	0449	1943	0444	1958	0500	1950	0522	1920	0543	1839	0603	1802	0629	1741	0650	1746
24	0651	1810	0628	1837	0553	1857	0514	1920	0448	1943	0444	1958	0501	1949	0523	1919	0544	1838	0604	1801	0629	1741	0650	1746
25	0651	1811	0626	1838	0552	1858	0513	1921	0448	1944	0445	1958	0501	1949	0524	1917	0544	1836	0605	1800	0630	1741	0651	1747
26	0651	1812	0625	1838	0551	1859	0512	1922	0447	1945	0445	1958	0502	1948	0524	1916	0545	1835	0606	1759	0631	1741	0651	1747
27	0650	1813	0624	1839	0549	1900	0511	1923	0447	1945	0445	1958	0503	1947	0525	1915	0545	1834	0606	1758	0632	1740	0651	1748
28	0650	1814	0623	1840	0548	1900	0510	1923	0446	1946	0446	1958	0503	1947	0526	1914	0546	1832	0607	1757	0633	1740	0652	1749
29	0649	1815			0547	1901	0509	1924	0446	1947	0446	1958	0504	1946	0526	1912	0547	1831	0608	1757	0634	1740	0652	1749
30	0649	1816			0545	1902	0507	1925	0445	1947	0447	1958	0505	1945	0527	1911	0547	1830	0609	1756	0634	1740	0652	1750
31	0648	1817			0544	1902			0445	1948			0506	1944	0528	1910			0610	1755			0653	1751

GEN 3 – SERVICES

GEN 3.1 – AERONAUTICAL INFORMATION SERVICES

1. RESPONSIBLE SERVICE

1.1 Bermuda Department of Airport Operations is responsible for providing AIS according Annex 15 through Jeppesen.

1.2 Hours of service are H24.

1.3 The service is provided in accordance with ICAO Annex 15.

2. AREA OF RESPONSIBILITY

2.1 Bermuda AIS is responsible for the collection and dissemination of aeronautical information within the L.F. Wade International Airport control zone.

3. AERONAUTICAL PUBLICATIONS

3.1 AIS information is provided by the issuance of aeronautical publications in the form of:

a) Aeronautical Information Publication (AIP).

b) AIP Amendments (AIP AMDT).

c) AIP Supplements (AIP SUPP).

d) Aeronautical Information Circulars (AIC).

e) NOTAM

f) Pre-flight Information Bulletins (PIB)

3.2 AIP

a) The Bermuda AIP is the basic document containing information of a lasting character that is operationally significant for the safe conduct of air traffic.

b) The AIP is published in one volume. It is published in English for use by international and national operations, whether the flights are public or private.

3.3 AIP AMDT

AIP amendments with AIRAC effective dates are issued twice yearly.

3.4 AIP SUPP

a) Supplements contain temporary changes of long duration (three months or longer) or information of a short duration that contains extensive text and/or graphics.

b) AIP SUPP are numbered sequentially, beginning each calendar year with "01". The last two digits of the year are part of the AIP SUPP number (e.g. AIP SUPP 01/06 for the first supplement issued in 2006, AIP SUPP 02/06 for the second supplement issued in 2006, etc.).

c) AIP SUPP are usually issued in accordance with the ICAO AIRAC cycle but may be issued at any time if warranted.

d) Supplement periods of validity are specified within the AIP SUPP or via NOTAM.

e) A checklist of valid AIP SUPP is included with the monthly Summary of NOTAM.

3.5 AIC

a) Circulars contain administrative information that is not operationally significant for the safe conduct of flight.

b) AIC are numbered sequentially, beginning each calendar year with "01". The last two digits of the year are part of the AIC number (e.g. AIC 01/06 for the first circular issued in 2006, AIC 02/06 for the second circular issued in 2006, etc.).

c) AIC are only issued in one series for both national and international dissemination.

d) A checklist of valid AIC is issued once yearly in January.

3.6 NOTAM

a) The Bermuda Weather Service serves as the International NOTAM Office for the issuance of NOTAM the L.F. Wade International Airport, Bermuda.

b) NOTAM are promulgated by Aeronautical Fixed Telecommunications Network (AFTN) whenever urgent operational information requires dissemination.

c) Series A is the only NOTAM designation issued by Bermuda.

d) Checklists of current international NOTAM are promulgated by AFTN on the last calendar day of each month.

e) In accordance with ICAO recommendations (DOC 8126, Chapter 6, Appendix A) a Trigger NOTAM will be issued on the publication date of an AIP AMDT or an AIP Supplement. This NOTAM includes a brief description of the content, the effective date/time and the serial number of the AIP AMDT or Supplement. These ‘trigger’ NOTAM ensure that brief entries appear in the appropriate Pre-flight Information Bulletins (PIB).

f) ‘Trigger’ NOTAM will remain valid for 14 days after the effective date of a permanent change and for the complete duration of any temporary change, condition or activity.

3.7 PIB are promulgated by AFTN whenever urgent operational information requires dissemination.

3.8 AIP Availability

a) A bound paper copy of this AIP may be purchased from the Department of Airport Operations. Contact the Department of Airport Operations to obtain the purchase price.

b) Electronic copies of this AIP and its amendments are available free on the Department of Airport Operations Internet website.

4. AERONAUTICAL INFORMATION REGULATIONS AND CONTROL (AIRAC) SYSTEM

4.1 AIRAC messages are originated and distributed with the objective of reaching recipients at least 28 days in advance of the effective date. In exceptional circumstances information may be promulgated via a NOTAM clearly marked AIRAC.

4.2 The following AIRAC information shall be notified by Bermuda Department of Airport Operations:

a) Limits (horizontal and vertical), regulations and procedures applicable to the L.F. Wade International Airport control zone.

b) Positions, frequencies, call signs, and known irregularities and maintenance periods of L.F. Wade International Airport air traffic service navigational and communication facilities.

c) Holding and approach procedures, arrival and departure procedures, noise abatement procedures, and other pertinent air traffic procedures as deemed necessary.

d) Meteorological facilities, including broadcasts, and procedures.

e) Runways and RESA at L.F. Wade International Airport, Bermuda.

4.3 The following AIRAC information regarding limits (horizontal and vertical), regulations and procedures shall be notified by NY ARTCC:

a) New York Oceanic FIR

b) Bermuda TMA

c) Lower ATS routes:

1) L459
2) L461
3) L462

d) Warning Areas:

1) (TX)W3014A
2) (TX)W3014B
3) (TX)W3014C
4) (TX)W3014D
5) (TX)W3015
6) (TX)W3018

4.4 AIRAC information regarding the establishment and withdrawal of, and premeditated significant changes to, the following may be notified by Bermuda Department of Airport Operations if deemed appropriate:

a) Position, height, and lighting of navigation obstacles in Bermuda.

b) Taxiways and aprons at L.F. Wade International Airport.

c) Operational hours for facilities and services at L.F. Wade International Airport.

d) Bermuda customs, immigration, and health services.

4.5 AIRAC information regarding the establishment and withdrawal of, and premeditated significant changes to, the following may be notified by NY ARTCC if deemed appropriate:

a) Temporary danger, prohibited, and restricted areas and navigational hazards, military exercises, and mass movements of aircraft.

b) Temporary areas or routes or portions thereof where the possibility of interception exists.

4.6 Table GEN 3.1.4 lists AIRAC effective dates for the indicated years.

TABLE GEN 3.1.4
AIRAC Effective Date Schedule

2014	2015
9 January	8 January
6 February	5 February
6 March	5 March
3 April	2 April
1 May	30 April
29 May	28 May
26 June	25 June
24 July	23 July
21 August	20 August
18 September	17 September
16 October	15 October
13 November	12 November
11 December	10 December

5. PRE-FLIGHT INFORMATION SERVICE

5.1 Pre-flight Information Service at L.F. Wade International Airport is limited to NOTAM service, weather briefings for the airport, and the filing of flight plans.

GEN 3.2 – AERONAUTICAL CHARTS

1. AERONAUTICAL CHART PUBLICATION

1.1 Bermuda publishes an Aerodrome Chart, an Aircraft Parking/Docking Chart, an Aerodrome Obstacle Chart – ICAO Type A, Instrument Approach Procedures, a Visual Approach Chart - ICAO and an Enroute Chart - ICAO for L.F. Wade International Airport.

2. AERONAUTICAL CHART AVAILABILITY

All charts included in the Bermuda AIP are available at the Bermuda Weather Service.

3. INDEX TO THE WORLD AERONAUTICAL CHART (WAC) – ICAO 1:1,000,000

3.1 The United Kingdom publishes the ICAO World Aeronautical Chart 1:1,000,000 Series (GSGS4648). Sheet 2414 contains a large-scale insert of the principle island of Bermuda.

4. TOPOGRAPHICAL CHARTS

4.1 The United Kingdom Royal Air Force publishes the Mercator Navigation Chart 1:3,000,000 AT-N Series (GSGS4930).

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GEN 3.3 – AIR TRAFFIC SERVICES

1. RESPONSIBLE SERVICE

1.1 The FAA NY ARTCC provides en route ATS for Bermuda.

Postal Address: New York Air Route Traffic Control Center
4205 Johnson Avenue
Ronkonkoma, NY 11779
USA

Telephone: 1.516.468.1293 / 1294 / 1295

Telefax: 1.516.468.4350

1.2 The Bermuda Department of Airport Operations (DAO) provides aerodrome ATS for Bermuda. See Section GEN 1.1.4 for address.

1.3 ATS is governed by UK CAA and US FAA regulations, as well as ICAO standards, recommended practices and procedures. Appendix A to this AIP lists selected variations.

1.4 Hours of Operations

a) NY ARTCC: H24.

b) Bermuda Control Tower: 7:00 AM - 11:00 PM (local time).

2. AREAS OF RESPONSIBILITY

2.1 The NY ARTCC provides ATS within the Bermuda Terminal Control Area (TMA), except for the Bermuda Control Zone (CTR) when the CTR is activated.

2.2 The Bermuda DAO provides ATS within the Bermuda CTR when the CTR is activated.

3. TYPES OF SERVICES

3.1 NY ARTCC provides area control service to aircraft on IFR flight plans operating in the Bermuda TMA. Secondary Surveillance Radar (SSR) service is provided.

3.2 NY ARTCC provides approach control service to aircraft on IFR flight plans arriving and departing L.F. Wade International Airport. SSR service is provided.

3.3 Bermuda DAO provides aerodrome control service at L.F. Wade International Airport when the Bermuda CTR is activated. Control tower service is provided.

4. COORDINATION BETWEEN THE OPERATOR AND ATS

4.1 Coordination between the operator and ATS is effected in accordance with Annex 11 to the Convention on Civil Aviation.

4.2 When so requested by an international operator, messages (including position reports) received by Bermuda ATS and relating to the operation of aircraft for which operational control service is provided are, so far as practicable, made available to the operator.

5. MINIMUM FLIGHT ALTITUDES

5.1 The minimum flight altitude is the lowest level at or above the route sector minimum safe altitude/ minimum reception altitude/minimum en route altitude appropriate to the direction of flight as prescribed in the IFR table of cruising altitudes for NY Oceanic Control Area/Flight Information Region (CTA/FIR).

5.2 The Minimum Safe Altitude within 25 NM of Bermuda BDA VOR is 1500 ft AMSL.

5.3 The Emergency Safe Altitude within 100 NM of Bermuda BDA VOR is 2000 ft AMSL.

6. ATS UNITS ADDRESS LIST

6.1 See Section GEN 3.3.1 for ATS unit addresses.

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GEN 3.4 – COMMUNICATION SERVICES

1. RESPONSIBLE SERVICE

1.1 The Department of Airport Operations (DAO) provides aeronautical telecommunications services for ATS and the Bermuda air navigation system. See Paragraph GEN 1.1.4 for address.

1.2 Communication services are based upon the following ICAO documents:

a) Annex 10, *Aeronautical Communications*

b) Doc 8400, *ICAO Abbreviations and Codes*

c) Doc 8585, *Designators for Aircraft Operating Agencies and Services*

d) Doc 7910, *Location Indicators*

1.3 ATS unit communication service hours coincide with Control Tower operational hours as described in Paragraph GEN 3.3.1.4b.

1.4 Navigational aids operate H24 but are un-monitored when Bermuda Control Tower is closed.

2. AREA OF RESPONSIBILITY

2.1 DAO provides telecommunication services to support all operations within the Bermuda CTR and at L.F. Wade International Airport.

3. TYPES OF SERVICES

3.1 Radio navigation services include the following radio navigation aids:

a) VOR/DME

b) ILS

c) VHF/UHF radios

3.2 Bermuda ATS does not provide mobile fixed services.

3.3 Bermuda ATS does not provide broadcasting services.

3.4 English is the only language used for communications services.

3.5 The following references within this AIP provide detailed information related to Bermuda ATS communications facilities and services:

a) Section GEN 2.5.

b) Section ENR 2.1

c) Section ENR 4.1

d) Paragraph AD 2.2.18

e) Paragraph AD 2.2.19

4. REQUIREMENTS AND CONDITIONS

4.1 Air-ground communications serving L.F. Wade International Airport are conducted by radio transmissions in VHF and UHF frequency bands.

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GEN 3.5 – METEOROLOGICAL SERVICES

1. RESPONSIBLE SERVICE

1.1 The Department of Airport Operations (DAO) provides meteorological services under contract for Bermuda ATS. See Section GEN 1.1. Paragraph 3 for address.

1.2 Meteorological services are based upon ICAO Annex 3, *Meteorological Service for International Air Navigation.* Variations are posted in Appendix A of this AIP.

1.3 Meteorological service hours are continuous.

1.4 Meteorological services are provided in English only.

2. AREA OF RESPONSIBILITY

2.1 The Bermuda Weather Service is responsible for providing meteorological services within a 25 NM radius of the L.F. Wade International Airport airport reference point (ARP).

3. METEOROLOGICAL OBSERVATIONS AND REPORTS

3.1 Station identifiers:

a) Station name: Bermuda Weather Service

b) ICAO location indicator: TXKF

3.2 Observation types and frequencies:

a) Surface Aviation Observations (SA) are conducted hourly at 5 minutes to the hour.

b) Special Surface Aviation Observations (SP) are conducted as required by ICAO Annex 3 and variations posted in Appendix A of this AIP.

c) Synoptic Observations (SM) are conducted daily at 0000 UTC and every three hours thereafter.

d) Upper Air Observations (US, UL, or UE) are conducted at least once daily, twice with inclement weather and up to 6 times daily, based on requests from relevant agencies (e.g. US National Hurricane Center), at discretion of the director, BWS.

e) TAFOR issued every six hours (i.e., 0000 - 0600 - 1200 - 1800).

f) ATIS at L.F. Wade International Airport broadcast on frequency 119.600 MHz.

3.3 Observation transmittal codes:

a) Surface weather observations are transmitted in METAR, SPECI, and SYNOP codes.

b) Upper Air Observations are transmitted in TEMP code.

3.4 Observation systems:

1) Automated Weather Observing Station (AWOS)

a) Wind
b) Temperature
c) Pressure
d) Humidity
e) Precipitation
f) Solar Radiation

2) Laser Ceilometer

3) Visibility Sensors

4) Lightning Detection

5) Present Weather/Visibility

6) Radiosonde

7) Weather Radar

3.5 Observation system locations:

1) Altimeter setting provided in hectopascals. Altimeter setting is also provided in inches of mercury upon request.

2) AWOS

a) Windmast Number 1: Contains the temperature, pressure, humidity, wind, solar radiation and precipitation sensors. Located at the 12 end of the runway. 32°21.949'N 064°41.803'W.

b) Windmast Number 2: Contains the wind sensors. Located at the 30 end of the runway. 32°21.661'N 064°40.144'W.

3) Laser Ceilometer

a) Located at the 12 end of the runway. 32°21.987'N 064°41.820'W.
b) Located at the 30 end of the runway. 32°21.683'N 064°40.136'W.

4) Visibility Sensors

a) Located at the 12 end of the runway. 32°21.964'N 064°41.678'W.
b) Located at the 30 end of the runway. 32°21.712'N 064°40.128'W. Also contains background illumination sensor.

5) Lightning Detector is located at the 12 end of the runway. 32°21.964'N 064°41.835'W.

6) Present weather/Visibility sensor is located near the center of the runway. 32°21.859'N 064°40.610'W.

7) Radiosonde. Located at the Meteorological Instrument Compound to the north of the L.F. Wade Control Tower.

8) Weather Radar. South of the runway at coordinates 32°21.072'N 064°29.476'W.

3.6 Hours of operation: H24.

4. TYPES OF SERVICES

4.1 Bermuda Weather Service provides meteorological services in support of civil and military aviation.

4.2 Scheduled air carriers and military aircraft operators may request daily flight weather packets.

a) Flight weather packets include:

1) Upper level (various flight levels) winds and temperatures.

2) Significant weather prognostications (SIGWX).

3) METAR/SPECI and Terminal Aerodrome Forecasts (TAF) for aircraft destination.

4) METAR/SPECI and TAF for any alternate aerodromes.

b) Flight crews may receive personal briefings and consultation by visiting the weather office or via telephone 1.441.293.5067, extension 402.

4.3 Surface and upper air charts are displayed for briefing and consultation purposes.

4.4 Weather information is provided to Bermuda Control Tower and NY ARTCC on a routine basis.

5. NOTIFICATION REQUIRED FROM OPERATORS

5.1 A minimum of two hours advance notice is required for flight documentation.

5.2 No advance notice is required for personal briefings or consultation.

6. AIRCRAFT REPORTS

6.1 There are no meteorological reporting points within the Bermuda Weather Service area of responsibility.

7. VOLMET SERVICE

7.1 Bermuda Weather Service does not provide VOLMET service.

8. SIGMET SERVICE

8.1 Bermuda Weather Service does not issue SIGMET.

8.2 SIGMET for the New York Oceanic FIR are issued by the MNO Kansas City.

9. OTHER AUTOMATED METEOROLOGICAL SERVICES

9.1 Satellite imagery receiving equipment.

GEN 3.6 – SEARCH AND RESCUE

1. RESPONSIBLE SERVICES

1.1 The U.S. Coast Guard provides search and rescue (SAR) services for Bermuda.

Postal Address: Rescue Coordination Center
Norfolk
Commander ACC, Atlantic Area
Federal Building,
431 Crawford Street
Portsmouth, VA 23704-5004

Telephone: 1.757.398.6231

Telefax: 1.757.398.6392

1.2 SAR services are based upon United States National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual.

1.5 SAR service hours are H24.

2. AREA OF RESPONSIBILITY

2.1 Bermuda lies within the United States Aeronautical Search and Rescue Region - Atlantic.

2.2 The coordinates of the United States Aeronautical Search and Rescue Region - Atlantic are:

a) 305500.00N 0730000.00W

b) 370000.00N 0671300.00W

c) 410000.00N 0630000.00W

d) 425000.00N 0630000.00W

e) 450000.00N 0530000.00W

f) 450000.00N 0400000.00W

g) 221800.00N 0400000.00W

h) 180000.00N 0450000.00W

i) 180000.00N 0515721.00W

j) 290000.00N 0691900.00W

k) 305500.00N 0730000.00W

3. TYPES OF SERVICES

3.1 The response to a SAR incident usually proceeds through a sequence of five (5) stages. These stages define the nature of SAR assistance provided at any particular time. A SAR incident may not necessarily include each and every stage, or the stages may overlap.

3.2 The major stages are:

a) Awareness: SAR system becomes aware of an actual or potential incident.

b) Initial Action: Preliminary action taken to alert SAR facilities and obtain amplifying information. This stage may include evaluation and classification of the information, alerting of SAR facilities, preliminary communication checks, extended communication checks, and in urgent cases, immediate action from other stages.

c) Planning: Effective plan of operation is developed, including plans for search, rescue, and final delivery.

d) Operations: SAR facilities proceed to the scene, conduct searches, rescue survivors, assist distressed craft, provide emergency care for survivors, and deliver survivors to a suitable facility.

e) Conclusion: SAR facilities return to their regular location, are debriefed, refuelled, replenished, provided with a fresh crew, and prepared for another mission; documentation of the SAR case is completed.

4. SAR AGREEMENTS

4.1 Specific agreements are not required due to obligations under the International Convention on SAR 1979.

5. CONDITIONS OF AVAILABILITY

5.1 SAR response is within two (2) hours of call-out.

6. PROCEDURES AND SIGNALS USED

6.1 Procedures and Signals Used By Aircraft

Procedures for pilots-in-command observing an accident or intercepting a distress call and/or message are outlined at ICAO Annex 12.

6.2 Communications

a) Transmission and reception of distress messages within the search area are handled in accordance with ICAO Annex 10.

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

c) The frequency 121.500 MHz is monitored continuously during the hours of service at Bermuda Control Tower.

6.3 Ground to Air Emergency Signalling Code

TABLE GEN 3.6.6.1
GROUND-AIR VISUAL SIGNAL CODE FOR USE BY SURVIVORS

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

TABLE GEN 3.6.6.2
GROUND-AIR VISUAL SIGNAL CODE FOR USE BY RESCUE UNITS

No.	Message	Code Symbol
1	Operation completed.	**L L L**
2	We have found all personnel.	**L L**
3	We have found only some personnel.	
4	We are not able to continue. Returning to base.	**X X**
5	We have divided into two groups. Each proceeding in direction indicated.	
6	Information received that aircraft is in this direction.	
7	Nothing found. Will continue to search.	**N N**

GEN 4 – CHARGES FOR AERODROME AND AIR NAVIGATION SERVICES

GEN 4.1 – AERODROME CHARGES

ATC Services during uncontrolled hours for emergency arrivals are provided at no cost.

1. LEGISLATED RATES/SECURITY

Aviation Security Fees per departing passenger $4.25 (shown as a separate item on the ticket).

The actual cost for Security Charge for manpower at Hold Baggage Screening and Passenger Screening is divided amongst airlines.

2. LANDING FEES

2.1 The landing fees payable in respect of an aircraft which lands at L.F. Wade International Airport Bermuda shall be:

a) an aircraft of a signatory airline $3.25 per 1000 pounds gross weight of aircraft (commercial, cargo only & combined).

b) an aircraft of a non-signatory airline $6.00 per 1000 pounds gross weight of aircraft.

2.2 During uncontrolled hours of operations:

a) BFRS/ARFF will be called out at CAT 9 (unless other provisions are prearranged and approved).

b) Bermuda Tower/ATC will be called for all medical and mechanical emergencies. All other ATC service requests during uncontrolled hours is per pilot request at a rate of $100.00 per hour with a minimum of 3 hours.

c) Fixed Base Operators (FBO)/Ground Support shall be arranged directly with them.

d) For additional aerodrome related charges, contact the Department of Airport Operations for information.

3. PASSENGER SERVICE

3.1 Passenger Facility Charge per departing passenger (shown as a separate item on the ticket):

a) For passengers traveling to, or through, the United States of America $4.00 each.

b) For passengers traveling to other countries $3.00 each.

3.2 Departure Tax $35.00 (shown as a separate item on the ticket).

4. TERMINAL FEES

Commercial - per aircraft	
1-150,000 lbs	$72.25
150,001 - 300,000 lbs (cumulative)	$0.1597/1000 lbs
300,001 - 700,000 lbs	$0.2707/1000 lbs
over 700,00 lbs	$204.45

General aviation - per aircraft	
1-150,000 lbs	$72.25
150,001 - 300,000 lbs (cumulative)	$0.1597/1000 lbs
300,001 - 700,000 lbs	$0.2707/1000 lbs
over 700,000 lbs	$204.45

Commercial - per passenger	
In-transit passenger	$0.4498
Arriving passenger	$1.20

General aviation - per passenger	
In-transit passenger	$0.75

5. PARKING FEES

Aircraft Parking Commercial/General aviation	
1-150,000 lbs	$25.00
150,001 - 300,000 lbs (cumulative)	$0.1675/1000 lbs
over 300,000 lbs	$0.1900/1000 lbs

Note: Over 3 hours

6. CARGO CHARGES

Air cargo per kilo $0.025.

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GEN 4.2 – AIR NAVIGATION SERVICES CHARGES

1. AIR NAVIGATION SERVICE CHARGES

1.1 Bermuda levies no additional charges for the provision of air navigation services.

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PART 2 – ENROUTE (ENR)

ENR 0.

ENR 0.1 – PREFACE - Not applicable

ENR 0.2 – RECORD OF AMENDMENTS - Not applicable

ENR 0.3 – RECORD OF SUPPLEMENTS - Not applicable

ENR 0.4 – CHECKLIST OF PAGES - Not applicable

ENR 0.5 – LIST OF HAND AMENDMENTS - Not applicable

ENR 0.6 – TABLE OF CONTENTS TO PART 2 (ENR)

ENR 1.0 – GENERAL RULES AND PROCEDURES

ENR 1.1 – GENERAL RULES

1. In general, en route ATS procedures are in conformity with the ICAO standards and recommended practices and procedures, as laid down in Annex 11 to the Convention on International Civil Aviation and PANS/RAC Doc 4444-RAC/501.

2. All flights at or above FL 180 within the NY Oceanic CTA/FIR shall be in accordance with Instrument Flight Rules (IFR). Consequently, all civil aircraft operating into and out of Bermuda must do so in accordance with IFR.

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ENR 1.2 – VISUAL FLIGHT RULES

1. Visual Flight Rules (VFR) are applied in conformity with Chapter 4 of Annex 2 to the Convention on International Civil Aviation.

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ENR 1.3 – INSTRUMENT FLIGHT RULES

1. GENERAL PROCEDURES

1.1 IFR generally are applied in conformity with Chapter 5 of Annex 2 to the Convention on International Civil Aviation. Separation standards and procedures are in accordance with the FAA Handbook 7110.65 – Air Traffic Control.

2. SPECIAL PROCEDURES

2.1 Longitudinal separation minima are established and applied to aircraft operating enroute to the L.F. Wade International Airport, Bermuda TMA in accordance with FAA and ICAO standards and recommended practices for oceanic control by NYARTCC. TMA arriving and departing L.F. Wade International Airport, Bermuda, is under Bermuda Tower/ATC.

2.2 Lateral separation minima are established and applied to aircraft operating enroute to the L.F. Wade International Airport, Bermuda TMA in accordance with FAA and ICAO standards and recommended practices for oceanic control by NYARTCC. TMA arriving and departing L.F. Wade International Airport, Bermuda, is under Bermuda Tower/ATC.

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ENR 1.4 – ATS AIRSPACE CLASSIFICATION

1. TMA

1.1 The Bermuda TMA is classified as Class E airspace; extends from 1,200 ft (365 m) AGL up to 4,000 ft (1,220 m) MSL. There are areas where Class E airspace begins at either the surface or 700 ft AGL, these areas are used to transition between the terminal and enroute environments (around non-towered airports).

1.2 The vertical limits extend from 700 ft up to 50,000 ft MSL within 50 NM of the ARP and then from 4,000 ft to 50,000 ft MSL within 180 NM of the ARP (see Figure ENR 2.1.1.2).

2. CTR

2.1 The L. F. Wade International Airport Bermuda control zone is classified as Class D airspace; 4.4 NM radius of airfield (32°21'50.551"N 064°40'43.330"W) from the surface up to and including 2,500 ft AGL with the following extensions:
1.7 NM either side of VOR 301/114/117 degree radials, extending to 7 NM each.

Note: Class D Airspace reverts to Class E Airspace during uncontrolled operations.

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ENR 1.5 – HOLDING, APPROACH AND DEPARTURE PROCEDURES

1. Holding, approach and departure procedures are developed in accordance with Pans Ops design criteria and published by Jeppesen. All IFR departure procedures and separation standards are in accordance with the FAA Handbook 7110.65. In addition:

1.1 All IFR flights departing Bermuda will be issued an ATC clearance including climb instructions to be issued by NY ARTCC and transmitted by Bermuda Control Tower on a specified frequency for ATC clearance.

1.2 All IFR departures will generally be cleared up to FL250 and to fly runway heading until given a turn on course by NY ARTCC.

1.3 When congestion of inbound IFR traffic exists, NY ARTCC may instruct a departing aircraft to make an off-course climb for a specific distance and/or to a specific altitude.

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ENR 1.6 – RADAR SERVICES AND PROCEDURES

1. PRIMARY RADAR

1.1 There is no primary radar service in Bermuda. NY ARTCC will assign specific IFR flight levels or altitudes to non-transponder equipped aircraft or aircraft with an inoperative transponder.

2. SECONDARY SURVEILLANCE RADAR

2.1 NY ARTCC provides Secondary Surveillance Radar (SSR) service. All inbound transponder equipped aircraft shall remain on last ATC assigned beacon code upon entering the Bermuda TMA.

2.2 Information on the use of SSR for emergency procedures, radio communication failure and unlawful interference procedures, the system of SSR code assignment and a graphic portrayal of area of SSR coverage may be found in appropriate U.S. FAA charts and publications.

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ENR 1.7 – ALTIMETER SETTING PROCEDURES

1. GENERAL

1.1 Altimeter setting procedures at Bermuda conform to ICAO requirements. The altimeter setting will be given in hectopascals (hPa). It will be provided in inches of mercury on request from the pilot.

1.2 QNH altimeter setting is made available to aircraft in the routine take-off and climb instructions.

1.3 Aircraft operating below 18,000 feet AMSL shall maintain the station altimeter setting provided by ATS.

1.4 Aircraft operating above 18,000 feet MSL shall maintain an altimeter setting of 1013 hectopascals (hPa).

2. VERTICAL DISPLACEMENT OF AIRCRAFT

2.1 Responsibility for the vertical displacement of aircraft rests with NY ARTCC.

a) The vertical displacement of aircraft, when at or above the transition level is expressed in terms of flight level, and the displacement at or below the transition altitude is expressed in terms of altitude.

b) While passing through the transition level, vertical separation is expressed in terms of altitude when descending and in terms of flight level when ascending.

3. CRUISING LEVELS

3.1 Cruising levels in the Bermuda TMA are as established for the NY Oceanic CTA/FIR.

4. REGIONAL QNH

4.1 The aerodrome QNH at L. F. Wade International Airport serves as the Bermuda TMA QNH. Aircraft required to maintain vertical position by reference to a QNH altimeter setting must use the aerodrome QNH.

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ENR 1.8 – REGIONAL SUPPLEMENTARY PROCEDURES

1. Aircraft arriving and departing Bermuda operate in the NY Oceanic CTA/FIR.

2. North Atlantic (NAT) regional procedures supplementary to the provisions contained in Annex 2, Annex 6 - Parts I and II, Annex 11, PANS-RAC (Doc 4444) and PANS-OPS (Doc 8168) do not apply in the Bermuda TMA.

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ENR 1.9 – AIR TRAFFIC FLOW MANAGEMENT (ATFM)

1. Air Traffic Flow Management (ATFM) is under the auspices of NY ARTCC. All ATFM procedures are contained in appropriate FAA charts and publications.

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ENR 1.10 – FLIGHT PLANNING

1. All information concerning IFR flight planning procedures for aircraft operating into and out of Bermuda or through the Bermuda TMA are contained in appropriate FAA charts and publications.

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ENR 1.11 – ADDRESSING OF FLIGHT PLAN MESSAGES

1. All information concerning IFR flight plan messages for aircraft operating into and out of Bermuda or through the Bermuda TMA are contained in appropriate FAA charts and publications.

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ENR 1.12 – INTERCEPTION OF CIVIL AIRCRAFT

1. There are no established procedures for the interception of civil aircraft by Bermuda.

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ENR 1.13 – UNLAWFUL INTERFERENCE

1. The pilot-in-command of any aircraft experiencing unlawful interference within the Bermuda Control Zone is to report it to Bermuda Tower, followed by a written report to the Department of Airport Operations outlining all details of the incident.

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ENR 1.14 – AIR TRAFFIC INCIDENTS

1. AIR TRAFFIC INCIDENTS IN BERMUDA CONTROL ZONE

1.1 Any air traffic incident that occurs within the Bermuda Control Zone is to be reported to the Department of Civil Aviation. Report Form DCA AW209/0709 found on ENR 1-14-3.

1.2 All incidents which occur within the CTZ shall be reported to the BDCA/DAO, however as control of the TMA rests with New York, any incident which occurs within the TMA but outside of the CTZ would be reported to New York who can advise the local authority (DCA/DAO) at their discretion.

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GOVERNMENT OF BERMUDA

BERMUDA DEPARTMENT of CIVIL AVIATION
AIRCRAFT OCCURRENCE REPORT FORM

Compilation Notes: *Item 6 – Use Waypoint, Geographical Feature, Lat/Long or Runway/Taxyway designator.*
Items 9 & 10 – Use ICAO designator rather than IATA. (KJFK in preference to JFK)
Item 17 – Copy most recent METAR or SPECI into Item 31
Item 19 – Can only be commented on following Pilot report
THIS IS A WEB-BASED INTERACTIVE FORM WITH A NUMBER OF DROP DOWN MENUS.

Report No:

DCA No:

Open ☐ Closed ☐

1. A/C Type & Series	**2**. A/C Regn	**3**. Serial no:	**4**. Operator	**5**. Date	**6**. Loc./ Pos./ Runway	**7**. Time (UTC)

8. FLIGHT REPORT Flight No.	**9**. Route from	**10**. Route to	**11**. FL/ Alt/ Ht (ft) Feet	**12**. IAS (kts)/ Mach.No.	**13**. ETOPS? n/a

NATURE OF FLIGHT	**14.** Cargo	**FLIGHT PHASE**	**15.** Not known	**16.** Day	**17**. Metar/Speci Time (UTC) *(attach latest report to Item 31 if available)*	**18.** Runway State: Dry	**19.** Icing: Nil

19. FLIGHT CONDITIONS

20. Flight Rules:	**21**. Surface Wind	**22**. Visibility:	**23**. Cloud cover		
I.F.R.	° knots	n.m.	Sky Clear at feet Sky Clear at feet Sky Clear at feet		
25. Precipitation:	**26**. Min Separation	**27**. ACAS/TCAS Alert :	**28**. Traffic info given by ATC?	**29**. Avoiding action given by ATC?	
Nil	Horiz: Nm. Vertical: ft.	No *(as advised by Flight Crew)*	No	No	

30. Brief Title :

31. Description of Occurrence:

32. Remedial Action:

Submitter

Organisation	Name	Position	Date
33.	**34**.	**35**.	**36**.

37. If report is voluntary (ie not subject to mandatory requirements), can the information be published in the interests of safety? No	**38**. Address and Tel No. (if reporter wishes to be contacted privately)	***39. DCA Actions***: Forward to A.S.S.I. ☐ A/W Inspector info: ☐ Enter on database. ☐ Report on file ☐ Feedback n/a

Transmission Details: *Send as email attachment to:* *Your contact Airworthiness Inspector plus* pnadhemar@gov.bm

DCA Form AW 209 (07/09)

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ENR 2 – AIR TRAFFIC SERVICES AIRSPACE

ENR 2.1 – BERMUDA TMA

1. DIMENSIONS

1.1 The Bermuda TMA is established within a 180 NM radius around the Bermuda VOR/DME (BDA) [see Section ENR 4.1].

1.2 The vertical limits extend from 700 ft AGL up to 50,000 ft MSL within 50 NM of the ARP and then from 4,000 ft to 50,000 ft MSL within 180 NM of the ARP (see Figure ENR 2.1.1.2).

2. SERVICES

2.1 NY ARTCC provides en-route and terminal ATS.

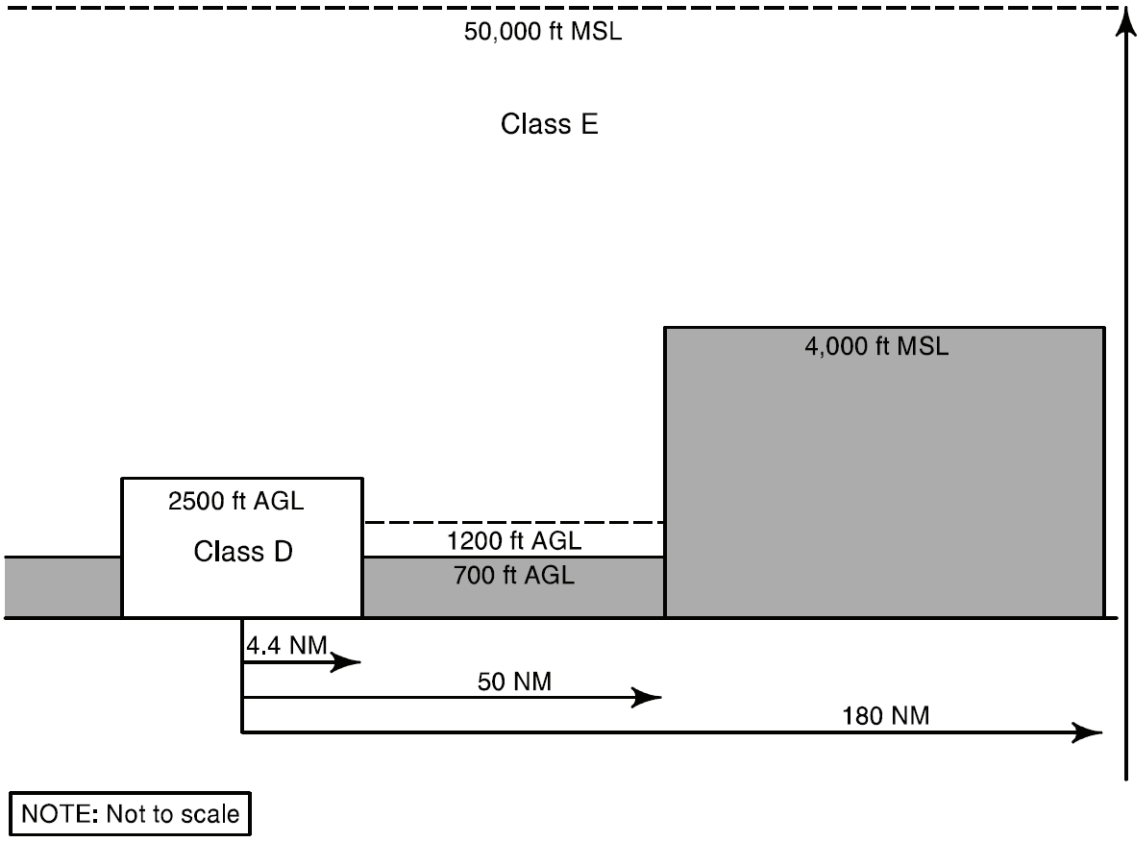
2.2 Service is provided in English only.

2.3 En-route service is provided on 128.500 MHz and 239.000 MHz.

2.4 Arrival and departure control is provided on 119.100 MHz and 229.400 MHz.

2.5 Departure clearance is provided on 124.500 MHz.

FIGURE ENR 2.1.1.2 Bermuda TMA



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ENR 2.2 – OTHER RELATED AIRSPACE

1. There is no other Bermuda-related airspace.

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ENR 3. – ATS ROUTES

1. Information concerning ATS routes, including Area Navigation Routes and holding patterns serving Bermuda, is contained in appropriate FAA charts and publications.

2. There are no helicopter routes serving Bermuda.

Notes:

1. **All tracks expressed in degrees magnetic.**
2. **All segment distances expressed in nautical miles.**
3. **All altitudes expressed in feet above mean sea level.**
4. **All route segments 8 NM in width unless otherwise noted.**

Route designator Name of significant points Coordinates	VOR/DME IDENT BRG & DIST ELEV DME Antenna	Track Distance	Upper limit Lower limit Airspace classification	Direction of cruising levels		Remarks
				Odd	Even	
1	2	3	4	5		6
L457						
ENAPI N33 12 21.69 W068 06 21.57	BDA 302.08 / 180 53					
		119 / 300 40	UNL 6000 CLASS E			
AWSOM N33 01 37.49 W067 20 28.30	BDA 302.08 / 140 53					
		120 / 301 62	UNL 6000 CLASS E	Standard or as assigned by ATC		Nil
GUICE N32 44 25.28 W066 09 40.91	BDA 302.08 / 78 53					
		121 / 302 78	UNL 6000 CLASS E			
BDA VOR/DME N32 21 51.79 W064 41 22.46						
L458						
BDA VOR/DME N32 21 51.79 W064 41 22.46		207 / 026 180	UNL GND CLASS E	Standard or as assigned by ATC		Nil
GECAL N29 25 28.17 W065 25 16.91	BDA 207.20 / 180 53					

Route designator Name of significant points Coordinates	VOR/DME IDENT BRG & DIST ELEV DME Antenna	Track Distance	Upper limit Lower limit Airspace classification	Direction of cruising levels		Remarks
				Odd	Even	
1	2	3	4	5		6
L459						
DASER N34 08 18.63 W067 34 39.44	BDA 321.86 / 180 53					
		184 / 004 68	UNL 6000 CLASS E			
AWSOM N33 01 37.49 W067 20 28.30	BDA 302.08 / 140 53					
		184 / 004 40	UNL 6000 CLASS E			
BOBBO N32 22 11.10 W067 12 15.16	BDA 285.72 / 128 53					
		184 / 004 38	UNL 6000 CLASS E	Standard or as assigned by ATC		Nil
QRTET N31 45 08.10 W067 04 38.51	BDA 268.78 / 127 53					
		184 / 004 41	UNL 6000 CLASS E			
CATZZ N31 04 57.17 W066 56 30.20	BDA 251.84 / 138 53					
		184 / 004 71	UNL 6000 CLASS E			
SHEIL N29 54 35.42 W066 42 31.70	BDA 230.71 / 180 53					

Route designator Name of significant points Coordinates	VOR/DME IDENT BRG & DIST ELEV DME Antenna	Track Distance	Upper limit Lower limit Airspace classification	Direction of cruising levels		Remarks
				Odd	Even	
1	2	3	4	5		6
L461						
BOVIC N34 52 24.54 W066 40 03.29	BDA 342.04 / 180 53	184 / 004 91	UNL 6000 CLASS E			
FLAMO N33 22 36.41 W066 18 34.99	BDA 321.86 / 102 53	184 / 004 39	UNL 6000 CLASS E			
GUICE N32 44 25.28 W066 09 40.91	BDA 302.08 / 78 53	184 / 004 22	UNL 6000 CLASS E			
LITTL N32 22 24.77 W066 04 36.63	BDA 285.72 / 71 53	184 / 004 21	UNL 6000 CLASS E	Standard or as assigned by ATC		Nil
PIERC N32 02 06.59 W065 59 58.15	BDA 268.78 / 70 53	184 / 004 22	UNL 6000 CLASS E			
ROOFE N31 40 28.96 W065 55 03.81	BDA 251.84 / 75 53	184 / 004 38	UNL 6000 CLASS E			
SICKL N31 03 32.94 W065 46 46.50	BDA 230.71 / 96 53	184 / 004 100	UNL 6000 CLASS E			
GECAL N29 25 28.17 W065 25 16.91	BDA 207.20 / 180 53					

Route designator Name of significant points Coordinates	VOR/DME IDENT BRG & DIST ELEV DME Antenna	Track Distance	Upper limit Lower limit Airspace classification	Direction of cruising levels		Remarks
				Odd	Even	
1	2	3	4	5		6
L462						
ANVER N35 15 07.30 W065 41 16.05	BDA 359.08 / 180 53					
		184 / 004 310	UNL 6000 CLASS E			
KURTS N30 09 58.88 W064 29 42.76	BDA 190.51 / 132 53			Standard or as assigned by ATC		Nil
		184 / 004 48	UNL 6000 CLASS E			
PIREX N29 22 27.70 W064 19 16.28	BDA 188.74 / 180 53					
M325						
ENAPI N33 12 21.69 W068 06 21.57	BDA 302.08 / 180 53					
		119 / 300 40	UNL GND CLASS E			
AWSOM N33 01 37.49 W067 20 28.30	BDA 302.08 / 140 53					
		120 / 301 62	UNL GND CLASS E	Standard or as assigned by ATC		Nil
GUICE N32 44 25.28 W066 09 40.91	BDA 302.08 / 78 53					
		121 / 302 78	UNL GND CLASS E			
BDA VOR/DME N32 21 51.79 W064 41 22.46						

Route designator Name of significant points Coordinates	VOR/DME IDENT BRG & DIST ELEV DME Antenna	Track Distance	Upper limit Lower limit Airspace classification	Direction of cruising levels		Remarks
				Odd	Even	
1	2	3	4	5		6
M326 JIMAC N32 21 27.04 W068 13 53.58	BDA 285.72 / 180 53	103 / 284 52	UNL GND CLASS E	Standard or as assigned by ATC		Nil
BOBBO N32 22 11.10 W067 12 15.16	BDA 285.72 / 128 53	104 / 285 57	UNL GND CLASS E			
LITTL N32 22 24.77 W066 04 36.63	BDA 285.72 / 71 53	105 / 286 71	UNL GND CLASS E			
BDA VOR/DME N32 21 51.79 W064 41 22.46						

Route designator Name of significant points Coordinates	VOR/DME IDENT BRG & DIST ELEV DME Antenna	Track Distance	Upper limit Lower limit Airspace classification	Direction of cruising levels		Remarks
				Odd	Even	
1	2	3	4	5		6
M327						
JIMAC N32 21 27.04 W068 13 53.58	BDA 285.72 / 180 53					
		103 / 284 52	UNL GND CLASS E			
BOBBO N32 22 11.10 W067 12 15.16	BDA 285.72 / 128 53					
		104 / 285 57	UNL GND CLASS E			
LITTL N32 22 24.77 W066 04 36.63	BDA 285.72 / 71 53					
		105 / 286 71	UNL GND CLASS E	Standard or as assigned by ATC		Nil
BDA VOR/DME N32 21 51.79 W064 41 22.46						
		118 / 300 126	UNL GND CLASS E			
YEPSY N31 51 52.64 W062 17 14.62	BDA 118.00 / 126 53					
		120 / 301 53	UNL GND CLASS E			
WINGZ N31 38 30.60 W061 17 20.40	BDA 118.00 / 179 53					

Route designator Name of significant points Coordinates	VOR/DME IDENT BRG & DIST ELEV DME Antenna	Track Distance	Upper limit Lower limit Airspace classification	Direction of cruising levels		Remarks
				Odd	Even	
1	2	3	4	5		6
M328						
ANTIG N31 29 04.86 W068 03 37.81	BDA 268.78 / 180 53					
		086 / 267 53	UNL GND CLASS E			
QRTET N31 45 08.10 W067 04 38.51	BDA 268.78 / 127 53					
		087 / 268 58	UNL GND CLASS E			
PIERC N32 02 06.59 W065 59 58.15	BDA 268.78 / 70 53			Standard or as assigned by ATC		Nil
		088 / 269 70	UNL GND CLASS E			
BDA VOR/DME N32 21 51.79 W064 41 22.46						
		098 / 281 178	UNL GND CLASS E			
NUMBR N32 40 14.40 W061 11 32.40	BDA 098.06 / 178 53					

Route designator Name of significant points Coordinates	VOR/DME IDENT BRG & DIST ELEV DME Antenna	Track Distance	Upper limit Lower limit Airspace classification	Direction of cruising levels		Remarks
				Odd	Even	
1	2	3	4	5		6
M329						
BALTN N30 41 25.18 W067 36 19.63	BDA 251.84 / 180 53					
		069 / 250 42	UNL GND CLASS E			
CATZZ N31 04 57.17 W066 56 30.20	BDA 251.84 / 138 53					
		070 / 251 63	UNL GND CLASS E			
ROOFE N31 40 28.96 W065 55 03.81	BDA 251.84 / 75 53			Standard or as assigned by ATC		Nil
		071 / 252 75	UNL GND CLASS E			
BDA VOR/DME N32 21 51.79 W064 41 22.46						
		080 / 263 178	UNL GND CLASS E			
LAZEY N33 35 20.40 W061 29 06.00	BDA 079.64 / 178 53					
M330						
SHEIL N29 54 35.42 W066 42 31.70	BDA 230.71 / 180 53					
		049 / 230 84	UNL GND CLASS E			
SICKL N31 03 32.94 W065 46 46.50	BDA 230.71 / 96 53					
		050 / 231 96	UNL GND CLASS E	Standard or as assigned by ATC		Nil
BDA VOR/DME N32 21 51.79 W064 41 22.46						
		061 / 243 177	UNL GND CLASS E			
BALOO N34 24 18.60 W062 08 13.80	BDA 060.58 / 177 53					

Route designator Name of significant points Coordinates	VOR/DME IDENT BRG & DIST ELEV DME Antenna	Track Distance	Upper limit Lower limit Airspace classification	Direction of cruising levels		Remarks
				Odd	Even	
1	2	3	4	5		6
M331						
GECAL N29 25 28.17 W065 25 16.91	BDA 207.20 / 180 53					
		062 / 243 66	UNL GND CLASS E			
KURTS N30 09 58.88 W064 29 42.76	BDA 190.51 / 132 53					
		062 / 243 5	UNL GND CLASS E			
TONEY N30 13 23.23 W064 25 24.36	BDA 188.74 / 129 53			Standard or as assigned by ATC		Nil
		063 / 244 148	UNL GND CLASS E			
YEPSY N31 51 52.64 W062 17 14.62	BDA 118.00 / 126 53					
		064 / 245 74	UNL GND CLASS E			
NUMBR N32 40 14.40 W061 11 32.40	BDA 098.06 / 178 53					

M590						
ANVER N35 15 07.30 W065 41 16.05	BDA 359.08 / 180 53					
		179 / 359 180	UNL GND CLASS E			
BDA VOR/DME N32 21 51.79 W064 41 22.46						
		189 / 009 129	UNL GND CLASS E	Standard or as assigned by ATC		Nil
TONEY N30 13 23.23 W064 25 24.36	BDA 188.74 / 129 53					
		189 / 009 51	UNL GND CLASS E			
PIREX N29 22 27.70 W064 19 16.28	BDA 188.74 / 180 53					

Route designator Name of significant points Coordinates	VOR/DME IDENT BRG & DIST ELEV DME Antenna	Track Distance	Upper limit Lower limit Airspace classification	Direction of cruising levels		Remarks
				Odd	Even	
1	2	3	4	5		6
M591						
BOVIC N34 52 24.54 W066 40 03.29	BDA 342.04 / 180 53					
		161 / 342 180	UNL GND CLASS E			
BDA VOR/DME N32 21 51.79 W064 41 22.46						
		189 / 009 129	UNL GND CLASS E	Standard or as assigned by ATC		Nil
TONEY N30 13 23.23 W064 25 24.36	BDA 188.74 / 129 53					
		189 / 009 51	UNL GND CLASS E			
PIREX N29 22 27.70 W064 19 16.28	BDA 188.74 / 180 53					

M592						
DASER N34 08 18.63 W067 34 39.44	BDA 321.86 / 180 53					
		140 / 321 78	UNL GND CLASS E			
FLAMO N33 22 36.41 W066 18 34.99	BDA 321.86 / 102 53					
		141 / 322 102	UNL GND CLASS E			
BDA VOR/DME N32 21 51.79 W064 41 22.46				Standard or as assigned by ATC		Nil
		189 / 009 129	UNL GND CLASS E			
TONEY N30 13 23.23 W064 25 24.36	BDA 188.74 / 129 53					
		189 / 009 51	UNL GND CLASS E			
PIREX N29 22 27.70 W064 19 16.28	BDA 188.74 / 180 53					

ENR 4 – RADIO NAVIGATION AIDS/SYSTEMS

ENR 4.1 – RADIO NAVIGATION AIDS – EN ROUTE

Bermuda VOR/DME

Identification:	BDA
Frequency:	113.900 MHz
Hours of operation:	H24
Location:	322151.79N 0644122.46W DME Antenna Height: 53 ft AMSL
Remarks:	VOR/DME unusable: R-005 clockwise to R-015 beyond 20 NM below 3000 ft AMSL R-016 clockwise to R-049 beyond 20 NM below 3500 ft AMSL R-050 clockwise to R-079 beyond 37 NM below 2000 ft AMSL R-231 clockwise to R-255 beyond 30 NM below 2500 ft AMSL R-346 clockwise to R-004 beyond 20 NM below 1500 ft AMSL

Bermuda Secondary Surveillance Radar

Identification:	New York Center
Frequency:	To be advised
Hours of operation:	H24
Location:	322202.73N 0644037.96W
Remarks:	1. No NOTAM maintenance Monday 1200 – 1400 UTC. 2. Operated by NY ARTCC.

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ENR 4.2 – SPECIAL NAVIGATION SYSTEMS

1. Information concerning special navigation systems (if applicable) is contained in appropriate FAA charts and publications.

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ENR 4.3 – NAME – CODE DESIGNATORS FOR SIGNIFICANT POINTS

1. The following name code designators serve the Bermuda TMA between 4000 ft AMSL and FL500.

FIX	AIRWAY	BDA RADIAL / DISTANCE	COORDINATES	REMARKS
1	2	3	4	5
ANTIG	M328	R-268.78 / 180 NM	312905N 0680338W	Nil
ANVER	L462 / M590	R-359.08 / 180 NM	351507N 0654116W	Nil
AWSOM	L457 / L459 / M325	R-302.08 / 140 NM	330137N 0672028W	Nil
BALOO	M330	R-060.58 / 177 NM	342419N 0620814W	Nil
BALTN	M329	R-251.84 / 180 NM	304125N 0673620W	Nil
BOBBO	L459 / M326 / M327	R-285.72 / 128 NM	322211N 0671215W	Nil
BOVIC	L461 / M591	R-342.04 / 180 NM	345225N 0664003W	Nil
CATZZ	L459 / M329	R-251.84 / 138 NM	310457N 0665630W	Nil
DASER	L459 / M592	R-321.86 / 180 NM	340819N 0673439W	Nil
ENAPI	L457 / M325	R-302.08 / 180 NM	331222N 0680622W	Nil
FLAMO	L461 / M592	R-321.86 / 102 NM	332236N 0661835W	Nil
GECAL	L458 / L461 / M331	R-207.20 / 180 NM	292528N 0652517W	Nil
GUICE	L457 / L461 / M325	R-302.08 / 78 NM	324425N 0660941W	Nil
JIMAC	M326 / M327	R-285.72 / 180 NM	322127N 0681354W	Nil
KURTS	L462 / M331	R-190.51 / 132 NM	300959N 0642943W	Nil
LAZEY	M329	R-079.64 / 178 NM	333520N 0612906W	Nil
LITTL	L461 / M326 / M327	R-285.72 / 71 NM	322225N 0660437W	Nil
NUMBR	M328 / M331	R-098.06 / 178 NM	324014N 0611132W	Nil
PIERC	L461 / M328	R-268.78 / 70 NM	320207N 0655958W	Nil
PIREX	L462 / M590 / M591 / M592	R-188.74 / 180 NM	292228N 0641916W	Nil
QRTET	L459 / M328	R-268.78 / 127 NM	314508N 0670439W	Nil
ROOFE	L461 / M329	R-251.84 / 75 NM	314029N 0655504W	Nil
SHEIL	L459 / M330	R-230.71 / 180 NM	295435N 0664232W	Nil
SICKL	L461 / M330	R-230.71 / 96 NM	310333N 0654647W	Nil
TONEY	M331 / M590 / M591 / M592	R-188.74 / 129 NM	301323N 0642524W	Nil
WINGZ	M327	R-118.00 / 179 NM	313831N 0611720W	Nil
YEPSY	M327 / M331	R-118.00 / 126 NM	315153N 0621715W	Nil

2. The following name code designators are instrument procedure initial approach fixes at L. F. Wade International Airport.

FIX	PROCEDURE	BDA RADIAL / DISTANCE	COORDINATES	REMARKS
1	2	3	4	5
ADIPE	VOR Y RWY 12	R-302.09 / 14.96 NM	3226.2N 06458.3W	Nil
BIDVE	ILS Z RWY 30 RNAV (GNSS) RWY 30	RNAV (GNSS) Waypoint	3225.5N 06426.2W	Nil
CABEM	ILS Z RWY 30 RNAV (GNSS) RWY 30	R-115.99 / 11.84 NM	3219.6N 06427.7W	Nil
CURUN	ILS Z RWY 30 RNAV (GNSS) RWY 12 RNAV (GNSS) RWY 30 VOR Y RWY 12	RNAV (GNSS) Waypoint	3218.6N 06421.9W	Nil
DERME	RNAV (GNSS) RWY 30	RNAV (GNSS) Waypoint	3220.8N 06434.6W	Nil
TOWUN	RNAV (GNSS) RWY 12	RNAV (GNSS) Waypoint	3222.9N 06446.8W	Nil
TUDIE	ILS Z RWY 30 RNAV (GNSS) RWY 30	RNAV (GNSS) Waypoint	3213.7N 06429.1W	Nil
UTALE	RNAV (GNSS) RWY 12	RNAV (GNSS) Waypoint	3219.0N 06453.7W	Nil
VENZI	RNAV (GNSS) RWY 12	RNAV (GNSS) Waypoint	3228.8N 06451.4W	Nil
VITUT	RNAV (GNSS) RWY 12	RNAV (GNSS) Waypoint	3223.9N 06452.6W	Nil

FIX	PROCEDURE	BDA RADIAL / DISTANCE	COORDINATES	REMARKS
1	2	3	4	5
WENAN	ILS Y RWY 30 ILS Z RWY 30 RNAV (GNSS) RWY 12 RNAV (GNSS) RWY 30 VOR RWY 30	R-296.79 / 15.35 NM	3225.0N 06459.1W	Nil
ZASER	ILS Y RWY 30	R-100.95 / 15.15 NM	3222.9N 06423.5W	Nil

ENR 4.4 – AERONAUTICAL GROUND LIGHTS – EN ROUTE

NAME	TYPE	INTENSITY	LIGHT COLORS	COORDINATES	REMARKS
1	2	3	4	5	6
St. David's	Lighthouse	1000 Watts	Fixed red and green / Flashing white every 20 seconds	322150.48N 0643906.11W	Operates sunset to sunrise

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ENR 5 – NAVIGATION WARNINGS

ENR 5.1 – PROHIBITED, RESTRICTED AND DANGER AREAS

IDENTIFICATION / LATERAL LIMITS	UPPER LIMIT / LOWER LIMIT	OPERATING HOURS	REMARKS
1	2	3	4
PROHIBITED AREA Nil			
RESTRICTED AREA Nil			
DANGER AREA Nil			

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ENR 5.2 – MILITARY EXERCISE AND TRAINING AREAS AND AIR DEFENSE IDENTIFICATION ZONE (ADIZ)

Note: There is no Bermuda ADIZ.

IDENTIFICATION / LATERAL LIMITS	UPPER LIMIT / LOWER LIMIT	OPERATING HOURS / CONTROLLING AGENCY	REMARKS
1	2	3	4
WARNING AREA (TX)W3014A – Bermuda Area Echo 320000.00N 0643000.00W to 320000.00N 0633000.00W to 311000.00N 0633000.00W to 311000.00N 0643000.00W to Beginning	5000 Feet AMSL Surface	By NOTAM / NY ARTCC	Anti-submarine warfare exercises
(TX)W3014B – Bermuda Area Echo 320000.00N 0633000.00W to 320000.00N 0623000.00W to 311000.00N 0623000.00W to 311000.00N 0633000.00W to Beginning	5000 Feet AMSL Surface	By NOTAM / NY ARTCC	Anti-submarine warfare exercises
(TX)W3014C – Bermuda Area Echo 311000.00N 0643000.00W to 311000.00N 0633000.00W to 302000.00N 0633000.00W to 302000.00N 0643000.00W to Beginning	5000 Feet AMSL Surface	By NOTAM / NY ARTCC	Anti-submarine warfare exercises
(TX)W3014D – Bermuda Area Echo 311000.00N 0633000.00W to 311000.00N 0623000.00W to 302000.00N 0623000.00W to 302000.00N 0633000.00W to Beginning	5000 Feet AMSL Surface	By NOTAM / NY ARTCC	Anti-submarine warfare exercises
(TX)W3015 - Bermuda Area Foxtrot 320000.00N 0643000.00W to 310000.00N 0643000.00W to 310000.00N 0650000.00W to 320000.00N 0650000.00W to Beginning	2000 Feet AMSL Surface	By NOTAM / NY ARTCC	Anti-submarine warfare exercises
(TX)W3018 - Bermuda Area Hotel 322000.00N 0621000.00W to 320000.00N 0621000.00W to 320000.00N 0630000.00W to 322000.00N 0630000.00W to Beginning	Unlimited Surface	By NOTAM / NY ARTCC	Anti-submarine warfare exercises

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ENR 5.3 – OTHER ACTIVITIES OF A DANGEROUS NATURE AND OTHER POTENTIAL HAZARDS

1. There are no other activities of a dangerous nature or other potential hazards in Bermuda airspace.

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ENR 5.4 – AIR NAVIGATION OBSTACLES - ENROUTE

OBST ID or designation	OBST type	OBST position	HGT (feet)	OBST LGT Type/Colour	Remarks
1	2	3	4	5	6
1	Pole	322140.53N 0643936.58W	22	Nil	RWY 12
2	Pole	322139.13N 0643936.90W	22	Nil	RWY 12
3	Pole	322137.16N 0643937.34W	22	Nil	RWY 12
4	Mobile Vehicle	322139.01N 0643935.97W	30	Nil	RWY 12
5	Tower	322140.18N 0643926.57W	73	Nil	RWY 12
6	Transient Tall Vessel	322112.39N 0643701.42W	280	Nil	RWY 12
1	Building	322158.89N 0644147.39W	26	Nil	RWY 30
2	Pole	322202.32N 0644148.65W	23	Nil	RWY 30
3	Pole	322201.94N 0644149.55W	23	Nil	RWY 30
4	Building	322207.97N 0644202.02W	57	Nil	RWY 30
5	Building	322206.06N 0644204.90W	54	Nil	RWY 30
6	Building	322205.87N 0644206.39W	79	Nil	RWY 30
7	Building	322206.72N 0644208.58W	93	Nil	RWY 30
8	Building	322207.19N 0644207.58W	105	LIT-Red/Steady	RWY 30
9	Building	322206.45N 0644209.64W	93	Nil	RWY 30
10	Building	322207.16N 0644212.65W	80	Nil	RWY 30
11	Building	322204.05N 0644216.69W	60	Nil	RWY 30
12	Building	322202.97N 0644218.09W	69	Nil	RWY 30
13	Building	322205.73N 0644206.42W	72	Nil	RWY 30
14	Ground	322210.39N 0644221.12W	80	Nil	RWY 30
15	Antenna	322205.32N 0644221.00W	142	LIT-Red/Steady	RWY 30
16	Antenna	322202.60N 0644225.12W	145	LIT-Red/Steady	RWY 30
17	Transient Tall Vessel	322217.98N 0644323.27W	210	Nil	RWY 30
1	Antenna	321801.60N 0644555.53W	464	Nil	Nil
2	Antenna (BPS)	322021.63N 0644217.40W	292	Nil	Nil
3	Tucker's Point Hotel	322018.87N 0644215.90W	238	Nil	Nil
4	Weather Radar Dome Tower	322104.19N 0643928.52W	151	Nil	Nil
5	ATS Tower/ Rotating Beacon	322200.63N 0644038.49W	164	(White/Green)	Nil
6	St. David's Lighthouse	322150.48N 0643906.11W	231	Nil	Nil
7	Harbour Radio/ Ft. George Antenna	322249.11N 0644058.33W	345	Nil	Nil
8	Hangar	322207.84N 0644110.59W	75	Nil	Nil

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ENR 5.5 – AERIAL SPORTING AND RECREATIONAL ACTIVITIES

NAME / ACTIVITY	UPPER LIMIT / LOWER LIMIT	COORDINATES	OPERATING HOURS	REMARKS
1	2	3	4	5
KS Watersports Ltd. / Parasailing	300 Feet AMSL / Surface	322244.00N 0644040.00W and off east coast of St. George's	1 hour after sunrise to 1 hour before sunset, during VFR	Telephone: 441.297.4155

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ENR 5.6 – BIRD MIGRATION AND AREAS WITH SENSITIVE FAUNA

1. Bermuda lies on a direct bird migratory route between North and South America. Migratory activity is more prevalent in the fall and winter months.

2. Bermuda fauna are protected by overflight restrictions unless cleared by DAO.

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ENR 6 – EN-ROUTE CHARTS

ENR 6.1 – AIRSPACE AND ROUTES

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LEGEND		
Terminal Control Area	(TMA)	
Control Zone	(CTR)	– – – – – – –
Restricted Airspace		
Reporting Points		✦ ✧ △ △
Distance Nautical Miles		257
Route Designator		L459
Minimum En-Route Altitude Route MOCA		6000 1000a
Magnetic Bearing		139°
Navaids		BERMUDA VOR/DME 113.9 CH 86X BDA N32°21.9' E064°41.4' 53
Grid MORA		1o

QNE (FL180 or above)
QNH (18000 or below)

MINIMUM SAFE ALTITUDE WITHIN 25 NM OF BDA VOR 1500 AMSL
EMERGENCY SAFE ALTITUDE WITHIN 100 NM OF BDA VOR 2000 AMSL

180 NM

50 NM

50 NM

OVAPI
SOORY
KINER
ANVER
N35 15.1
W065 41.3
BOVIC
N34 52.4
W066 40.1
DARUX
DARUX
SKPPR
NOSID
N34 06.6
W068 54.9
DASER
N34 08.3
W067 34.7
BEXUM
PERDO
FLAMO
N33 22.6
W066 18.6
ENAPI
N33 12.4
W068 06.4
AWSOM
N33 01.6
W067 20.5
GUICE
N32 44.4
W066 09.7
BALOO
N34 24.3
W062 08.2
LAZEY
N33 35.3
W061 29.1
NUMBR
N32 40.2
W061 11.5
WINGZ
N31 38.5
W061 17.3
YEPSY
N31 51.9
W062 17.2
ALOBI
SAYON
TASNI
BOREX
JIMAC
N32 21.5
W068 13.9
BOBBO
N32 22.2
W067 12.3
LITTL
N32 22.4
W066 04.6
PIERC
N32 02.1
W066 00.0
QRTET
N31 45.1
W067 04.6
ROOFE
N31 40.5
W065 55.1
EMAKO
N31 23.8
W068 14.3
(M328 on request)
ANTIG
N31 29.1
W068 03.6
CATZZ
N31 05.0
W066 56.5
SICKL
N31 03.5
W065 46.8
BALTN
N30 41.4
W067 36.3
SHEIL
N29 54.6
W066 42.5
KURTS
N30 10.0
W064 29.7
TONEY
N30 13.4
W064 25.4
GECAL
N29 25.5
W065 25.3
PIREX
N29 22.5
W064 19.3
DUNIG
MEGGG
MEGGG
TALSU
TALSU
BRKZZ
KOZIK

TMA
BERMUDA
E FL 500
4000
NY ARTCC

For CTR dimensions
refer to VAC on AD 2-1-31.

CTR
BERMUDA
D 2500 AGL
SFC
BERMUDA TOWER
Normal Hours of Operation:
0700 - 2300 (Local Time)

BERMUDA
VOR/DME 113.9
CH 86X
BDA
N32°21.9'
W064°41.4'
53
L.F. Wade Intl
18

TMA
BERMUDA
E FL 500
700 AGL
NY ARTCC

(TX)W3018
UNL
SFC
by NOTAM

(TX)W3014A
5000
SFC
by NOTAM

(TX)W3014B
5000
SFC
by NOTAM

(TX)W3014C
5000
SFC
by NOTAM

(TX)W3014D
5000
SFC
by NOTAM

(TX)W3015
2000
SFC
by NOTAM

15°W
(2001)

SCALE 1 : 1 500 000

10 0 10 20 30 40 50 KM
5 0 10 20 NM

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AMENDMENT: ATS system.

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PART 3 – AERODROMES (AD)

AD 0.

AD 0.1 – PREFACE - Not applicable

AD 0.2 – RECORD OF AMENDMENTS - Not applicable

AD 0.3 – RECORD OF SUPPLEMENTS - Not applicable

AD 0.4 – CHECKLIST OF PAGES - Not applicable

AD 0.5 – LIST OF HAND AMENDMENTS - Not applicable

AD 0.6 – TABLE OF CONTENTS TO PART 3 (AD)

AD 3. – HELIPORTS - Not applicable

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AD 1 – AERODROME - INTRODUCTION

AD 1.1 – AERODROME AVAILABILITY

1. L. F. Wade International Airport is available to aircraft operators as specified in Section GEN 1.2.

2. Airport services are based upon the following documents:

   a) Annexes to the Convention on International Civil Aviation.

   b) Rules of the Air and Air Traffic Services Doc 4444-RAC/501/12.

   c) Airport Services Manual Doc 9137-AN/898.

   d) Airport Planning Manual Doc 9184-AN/902.

   e) Manual of Surface Movement and Guidance Control Systems Doc 9476-AN/927.

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AD 1.2 – RESCUE AND FIRE FIGHTING SERVICES AND SNOW PLAN

1. RESCUE AND FIRE FIGHTING SERVICES

1.1 Rescue and fire fighting services are provided in accordance with ICAO Airport Services Manual Doc 9137-AN/898 Part 1 and OTAR 140.

1.2 See Paragraph AD 2.6 for information specific to L. F. Wade International Airport.

2. SNOW PLAN

2.1 Not Applicable.

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AD 1.3 – INDEX TO AERODROME

Type of Traffic Permitted to Use the Aerodrome				
Aerodrome Name / Location / Identifier	**International – National (INTL – NTL)**	**IFR - VFR**	**S = Scheduled NS = Non-Scheduled P = Private**	**Reference to AD Section and Remarks**
1	**2**	**3**	**4**	**5**
L. F. Wade International Airport / St. George's / TXKF	INTL	IFR/VFR	S + NS + P	AD 2.1

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AD 1.4 – GROUPING OF AERODROMES

1. L. F. Wade International Airport is the only aerodrome in Bermuda.

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AD 2 – AERODROMES

AD 2.1 – AERODROME LOCATION INDICATOR AND NAME

TXKF - L. F. Wade International Airport

AD 2.2 – AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	***Aerodrome Reference Point (ARP) Coordinates***	322150.55N 0644043.33W
2	***Direction and distance from Hamilton***	6 NM northeast
3	***Elevation / Reference Temperature***	18 ft AMSL / 85.5° F (29.7°C)
4	***Aerodrome Elevation Position Geoid Undulation***	Not available
5	***Magnetic Variation / Annual Change***	15° W (2007) increasing about 2' annually
6	***Aerodrome Administration and Contact Information***	See Paragraph GEN 1.1.4
7	***Type of Traffic Permitted***	IFR/VFR
8	***Remarks***	Nil

AD 2.3 – OPERATIONAL HOURS

1	***Aerodrome Administration***	0500 – 0000 (local time), Monday through Friday
2	***Customs and Immigration***	1030 – 2300 (local time); officer on call after hours for emergency
3	***Health and Sanitation***	Provided by Bermuda Customs and Immigration
4	***AIS Briefing Office***	H24
5	***ATS Reporting Office (ARO)***	0900 – 1700 (local time)
6	***Meteorological Briefing Office***	H24
7	***Air Traffic Services***	0700 – 2300 (local time)
8	***NOTAM Office***	H24
9	***Fuelling***	0600 – 2300 (local time); on call after hours
10	***Handling***	0800 – 2000 (local time); on call for emergency 441.293.1333
11	***Security***	H24
12	***De-icing***	Nil
13	***Remarks***	H24 Duty Officers Assistance

AD 2.4 – HANDLING SERVICES AND FACILITIES

1	***Cargo-Handling Facilities***	Limited
2	***Fuel / Oil Types***	Jet A-1; AVGAS not available / Oil nil
3	***Fuelling Facilities / Capacity***	Hydrant points on Apron I; fuel truck utilized for corporate and private aircraft on Apron II and Apron IV / capacity unknown
4	***De-icing Facilities***	Nil
5	***Hangar Space for Visiting Aircraft***	Limited
6	***Repair Facilities for Visiting Aircraft***	Limited
7	***Remarks***	All flights are to be ground handled by the following approved agencies. These authorized independent agencies reserve the right to accept or reject any request. Aircraft Services Bermuda Ltd. P.O. Box HM 719 Hamilton HM CX, Bermuda SITA: BDAOOXH Cable: SERVAIR BDA Telephone: 1.441.293.1333 Telefax: 1.441.293.8529 VHF Frequency: 131.600 MHz
		Renaissance Aviation Ltd. P.O. Box CR 223 Crawl CRBX, Bermuda Telephone: 1.441.298.400 Telefax: 1.441.236.0989 Email: infor@renav.com Internet: www.renav.com

AD 2.5 – PASSENGER FACILITIES

1	***Hotels***	Grotto Bay Hotel
2	***Restaurants***	Airport restaurant and bar
3	***Transportation***	Buses, limousines, and taxis; no rental cars, scooter rental
4	***Medical Facilities***	First aid room at airport (not staffed) King Edward VII Memorial Hospital 7 Point Finger Road Paget DV 04 Bermuda Telephone: 1.441.236.2345 East End Medical Facility Southside Road St. David's DD 03
5	***Bank and Post Office***	St. George's and Hamilton; cash dispensing machines at airport
6	***Tourist Office***	No Tourist Information office at airport; Tourist Information Desk in arrivals hall
7	***Remarks***	Duty-free shops at airport open during scheduled carrier operations

AD 2.6 - RESCUE AND FIRE FIGHTING SERVICES

1	***Aerodrome Fire Fighting Category***	Category 9 (0700 – 2300 (local time))
2	***Rescue Equipment***	4 Units: Major Foam Vehicle 3000 U.S. gallons water 420 U.S. gallons foam 500 pounds chemical 1 Unit: Major Foam Vehicle 1500 U.S. gallons water 210 U.S. gallons foam 1 Unit: Light Rescue Vehicle Ancillary rescue equipment 1 Unit: Command Vehicle
3	***Capacity for Removal of Disabled Aircraft***	Lifting bags and dollys available from Bermuda Fire and Rescue Service
4	***Remarks***	Nil

AD 2.7 - SEASONAL AVAILABILITY - CLEARING

Not applicable.

AD 2.8 – APRONS, TAXIWAYS AND CHECK LOCATIONS / POSITIONS DATA

1	***Apron Surface and Strength***	Concrete / strengths unknown
2	***Taxiway Surface, Strength and Width***	All taxiways are asphalt with no weight restrictions A, C, E, G, U: 75 ft B: 75 ft (taxiway and shoulders equal 150 ft) F (north of Taxiway A): 75 ft F (south of Taxiway A): 200 ft (minimum) H: 75 ft J: 80 ft Q: 90 ft R (to/from North Ramp): 90 ft (minimum) R (to/from South Ramp): 120 ft S, T: 120 ft V: 123 ft
3	***Altimeter Checkpoint Location / Elevation***	At Gates 1-8 Apron I
4	***VOR Check Point***	Apron V
5	***INS Check Point***	Nil
6	***Remarks***	Apron I Parking Point 1: Coordinates not available Apron I Parking Point 2: 322139.25N 0644202.32W Apron I Parking Point 3: 322138.30N 0644204.41W Apron I Parking Point 4: 322137.36N 0644206.51W Apron I Parking Point 5: 322136.41N 0644209.00W Apron I Parking Point 6: 322135.39N 0644210.86W Apron I Parking Point 7: 322135.30N 0644213.93W Apron I Parking Point 8: 322134.65N 0644216.42W

AD 2.9 – SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	***Visual Docking / Parking Guidance System***	Visual docking/parking guidance system not used; aircraft marshaled at parking points by ground personnel Indicators and ground signalling devices: WDI
2	***RWY and TWY markings and LGT***	Runway/taxiway markings conform to all ICAO standards Guard lights - located at all TWY to RWY access
3	***Stop Bars***	Nil
4	***Remarks***	Aircraft apron movements are uncontrolled.

AD 2.10 - AERODROME OBSTACLES

AD 2.10.1 – RWY 12			
	Obstacle Type; Height; Marking/Lighting	***Coordinates***	***Remarks***
1	Pole; 22 ft	322140.53N 0643936.58W	Nil
2	Pole; 22 ft	322139.13N 0643936.90W	Nil
3	Pole; 22 ft	322137.16N 0643937.34W	Nil
4	Mobile Vehicle; 30 ft	322139.01N 0643935.97W	Nil
5	Tower; 73 ft	322140.18N 0643926.57W	Nil
6	Transient Tall Vessel; 280 ft	322112.39N 0643701.42W	Nil

AD 2.10.2 – RWY 30			
	Obstacle Type; Height; Marking/Lighting	***Coordinates***	***Remarks***
1	Building; 26 ft	322158.89N 0644147.39W	Nil
2	Pole; 23 ft	322202.32N 0644148.65W	Nil
3	Pole; 23 ft	322201.94N 0644149.55W	Nil
4	Building; 57 ft	322207.97N 0644202.02W	Nil
5	Building; 54 ft	322206.06N 0644204.90W	Nil
6	Building; 79 ft	322205.87N 0644206.39W	Nil
7	Building; 93 ft	322206.72N 0644208.58W	Nil
8	Building; 105 ft	322207.19N 0644207.58W	LIT - Red/Steady
9	Building; 93 ft	322206.45N 0644209.64W	Nil
10	Building; 80 ft	322207.16N 0644212.65W	Nil
11	Building; 60 ft	322204.05N 0644216.69W	Nil
12	Building; 69 ft	322202.97N 0644218.09W	Nil
13	Building; 72 ft	322205.73N 0644206.42W	Nil
14	Ground; 80 ft	322210.39N 0644221.12W	Nil
15	Antenna; 142 ft	322205.32N 0644221.00W	LIT - Red/Steady
16	Antenna; 145 ft	322202.60N 0644225.12W	LIT - Red/Steady
17	Transient Tall Vessel; 210 ft	322217.98N 0644323.27W	Nil

Note: A complete list of Aerodrome Obstacles for area 2 and 3 are available upon request.

AD 2.11 – METEOROLOGICAL INFORMATION PROVIDED

See Section GEN 3.5 and Appendix A.

AD 2.12 – RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	*TRUE BRG*	*Dimensions of RWY (feet)*	*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 (feet AMSL)*
1	**2**	**3**	**4**	**5**	**6**
12	101.45°	9705 x 150	PCN 80/F/A/W/U Asphalt	322158.94N 0644132.10W	THR 18
30	281.45°	9705 x 150	PCN 80/F/A/W/U Asphalt	322141.00N 0643947.81W	THR 18
Designations RWY NR	*Slope of RWY/SWY*	*SWY Dimensions (feet)*	*CWY Dimensions (feet)*	*Strip Dimensions (feet)*	*OFZ*
1	**7**	**8**	**9**	**10**	**11**
12	Nil	Nil	951 x 500 (Distance from threshold lights to boundary fence)	10,098 x 984	Not available
30	Nil	Nil	574 x 500 (Distance from threshold to localizer array)		
Designations RWY NR	*Remarks*				
1	**12**				
12	RESA (feet): 755 x 984 Rwy End 322200.08N 0644138.71W Elev 18 ft				
30	RESA (feet): 377 x 984				

AD 2.13 – DECLARED DISTANCES

Runway Designation	*TORA (feet)*	*TODA (feet)*	*ASDA (feet)*	*LDA (feet)*	*Remarks*
1	**2**	**3**	**4**	**5**	**6**
12	9705	10,656	9705	9127	Nil
30	9705	10,279	9705	9705	Nil

AD 2.14 – APPROACH AND RUNWAY LIGHTING

Runway Designation	*Approach*	*Decision*	*Threshold*	*PAPI*
1	**2**	**3**	**4**	**5**
12	High intensity approach lights (SSALS) consisting of a series of 7 light bars, except decision bar 19 lights and last bar 8 lights, extending 1380 ft from the approach end of the runway	White bar 1000 ft from threshold	Green lights	Right side of runway / 4-Box Type / Glideslope Angle: 3°24' / RDH 50 ft
30	High intensity approach lights consisting of a series of 14 light bars with 5 lights in each bar, except decision bar 23 lights and last bar 11 lights, extending 1500 ft from the approach end of the runway / sequenced flashing lights – 6 white, sequenced flashing lights associated with outer 6 bars of approach lights	White bar 1000 ft from threshold	Green lights	Left side of runway / 4-Box Type / Glideslope Angle: 3°00' / Located 1265 ft from threshold lights; collocated with ILS glideslope / RDH 53 ft / MEHT 61 ft
Runway Designation	***Runway Edge***	***Touchdown Zone / Centreline / Stopway***	***Runway End***	***Remarks***
1	**6**	**7**	**8**	**9**
12	Bi-directional high intensity white (white/amber last 1000 ft) runway lights (HIRL) with 5 levels of intensity spaced 60 m apart	Bi-directional white runway centreline (red last 1000 ft) spaced 30 m, 5 intensity levels	Nil	Nil
30	Bi-directional high intensity white runway lights (HIRL) with 5 levels of intensity spaced 60 m apart	Bi-directional white runway centreline (red last 1000 ft) spaced 30 m, 5 intensity levels	2 bars of 4 red lights at threshold	Lighting system conforms with CAT I ALSF-I

AD 2.15 – OTHER LIGHTING, SECONDARY POWER SUPPLY

1. Pilot Control of Airport Lighting

Radio control of lighting is available daily during hours of non-tower operation from 2300 to 0700 LMT (0300 to 1100 UTC or 0200 to 1000 during Atlantic Daylight Savings Time). Pilot control of airport lighting operates on the Common Traffic Advisory Frequency (CTAF) 122.800 MHz. IFR clearance is available from NY ARTCC on frequency 128.500 MHz.

With FAA approved systems, various combinations of medium intensity approach lights, runway lights, taxiway lights, PAPI, and/or REIL may be activated by radio control. On runways with both approach lighting and runway lighting (runway edge lights, taxiway lights, etc.) systems, the approach lighting system takes precedence for air-to-ground radio control over the runway lighting system which is set a predetermined intensity step, based upon expected visibility conditions.

The control system consists of a 3-step control responsive to 7, 5, and/or 3 microphone clicks. This 3-step control will turn on lighting facilities capable of 3-step, 2-step, or 1-step operation.

The 3-step and 2-step lighting facilities can be altered in intensity, while the 1-step cannot. All lighting is illuminated for a period of 15 minutes from the most recent time of activation and may not be extinguished prior to the end of the 15-minute period.

Suggested use is to always initially key the microphone 7 times; this assures that all control lights are turned on to the maximum available intensity. If desired, adjustment can then be made to a lower intensity by keying 5 and/or 3 times. Even when lights are on, always key the microphone as directed when overflying the airport or just prior to entering the final segment of an approach. This will assure the aircraft is close enough to activate the system and a full 15 minutes lighting duration is available.

TABLE AD 2.15.1 Approach Lights

Lighting System	Number of Intensity Settings	Status during Non-Use Periods	Intensity Step Selected Per Number of Microphone Clicks		
			3	5	7
HIRL	5	Off	Low	Medium	High
PAPI	5	Off	*	*	*

TABLE AD 2.15.2 Radio Control System

Intensity Level	Key Microphone	Function
5	7 times within 5 seconds	Highest intensity available
3	5 times within 5 seconds	Medium or lower intensity
1	3 times within 5 seconds	Lowest intensity available

2. SECONDARY POWER SUPPLY

Available

AD 2.16 – HELICOPTER LANDING AREA

1. No specific helicopter landing area is established at the airport.

2. Any ship-based military helicopters transiting Bermuda to transfer passengers or refuel will utilize Apron II.

AD 2.17 – ATS AIRSPACE

1	***Designation and Lateral Limits***	Bermuda Control Zone is that airspace within a 4.4 NM radius of L. F. Wade International Airport ARP extending from the surface up to and including 2500 ft AGL. The control zone extends out to 7 NM for 1.7 NM either side of the 114-, 117-, and 301-degree radials of the BDA VOR/DME.
2	***Classification***	Class D
3	***ATS Unit Call Sign***	Bermuda Tower
4	***Languages***	English only
5	***Transition Altitude/Transition Level***	Not applicable
6	***Remarks***	Reverts to Class E airspace after 2300 hrs closure.

AD 2.18 – ATS COMMUNICATION FACILITIES

Service Designation	*Call Sign*	*Frequency*	*Hours of Operation*	*Remarks*
1	**2**	**3**	**4**	**5**
TWR	Bermuda Tower	118.100 MHz	0700 – 2300 (local time)	Nil
TWR	Bermuda Tower	291.000 MHz	0700 – 2300 (local time)	Nil
GND	Bermuda Ground	124.500 MHz	0700 – 2300 (local time)	Departure clearance is provided on Ground Control
CTAF	Nil	122.800 MHz	2300 – 0700 (local time)	Departure clearance is provided on NY ARTCC Clearance Delivery (128.500 MHz)
ATIS	L.F. Wade International Airport	119.600 MHz	H24	Nil
ARTCC	New York Center	128.500 MHz	H24	Nil
ARTCC	New York Approach	119.100 MHz	H24	Nil

AD 2.19 – RADIO NAVIGATION AND LANDING AIDS

Type of aid MAG VAR Type of supported OPS	*ID*	*Frequency*	*Hours of operation*	*Position of transmitting antenna coordinates*	*Elevation of DME transmitting antenna*	*Remarks*
1	2	3	4	5	6	7
VOR/DME	BDA	113.900 MHz	H24	322151.79N 0644122.46W	53 ft	VOR/DME unusable: R-005 clockwise to R-015 beyond 20 NM below 3000 ft AMSL R-016 clockwise to R-049 beyond 20 NM below 3500 ft AMSL R-050 clockwise to R-079 beyond 37 NM below 2000 ft AMSL R-231 clockwise to R-255 beyond 30 NM below 2500 ft AMSL R-346 clockwise to R-004 beyond 20 NM below 1500 ft AMSL
ILS	I-BDA	Localizer: 109.900 MHz Glideslope: 333.800 MHz DME CH 36X 997.000 MHz	H24	Localizer 322201.18N 0644145.12W Glideslope 322141.00N 0644000.05W DME 322158.77N 0644147.44W	20 ft	No back course Zero point located at I-BDA glideslope on RWY centerline at 322143.01N 0643959.48W. DME unusable: Beyond 25° left of RWY centerline, all altitudes Beyond 30° right of RWY centerline, all altitudes

AD 2.20 – LOCAL TRAFFIC REGULATIONS

1. Aircraft landing on Runway 12 will normally be required to clear left and use Taxiway A, and then contact Bermuda Ground for instructions to the Passenger Terminal Ramp Area (Apron I).

2. Aircraft landing on Runway 30 will normally clear the runway onto Taxiway B.

3. Line up and wait (LUAW) operations are not authorized.

4. All aircraft are prohibited from making 180-degree turns on Runway 12/30 unless instructed to do so by Bermuda.

5. Aircraft apron movements are uncontrolled.

6. The Passenger Terminal Area (Apron I) has eight nose-in parking spots for which priority is given to scheduled air carriers.

7. The North Ramp (Apron II) is used for long-term parking of aircraft and access is normally via Taxiway R or Taxiway Q, with taxi instructions received from Bermuda Ground.

8. Parking area “Papa” located between Apron II and Taxiway B can be utilized only for military refueling operations not to exceed 4 hours. This area can be utilized for long term, overnight or special circumstance parking with prior coordination and approval.

9. Isolated parking for aircraft with hazardous cargo is south of Taxiway F on the area known as the "finger".

10. DEPARTURE CLEARANCE PROCEDURES

10.1 Bermuda Ground provides ATC departure clearance during Bermuda Control Tower operational hours.

10.2 NY ARTCC provides ATC departure clearance (128.500 MHz) during Bermuda Control Tower non-operational hours.

11. Aircraft will contact Bermuda Ground for push-back, start, and taxi instructions from the Passenger Terminal Area (Apron I). Aircraft will use Taxiway R, Taxiway S, or Taxiway T when departing Apron I.

12. A corporate and private aircraft handling facility is located on Apron II and Apron IV.

13. AERODROME OPERATING MINIMA - DETERMINATION

13.1 The aerodrome operating minima for any aerodrome to be used shall not be lower than the values determined in accordance with:

a) for aeroplanes, either Appendix 1 (Old) or Appendix 1 (New) of OPS 1.430 of EU-OPS (European Commission Regulation (EC) 859/2008 of 20 August 2008); or

b) for helicopters, Appendix 1 to JAR-OPS 3.430 at Amendment 5, or aeroplane Category A minima where no special helicopter procedures have been promulgated.

13.2 The minima determined (in accordance with 13.1) shall not be lower than any that is established by Bermuda authorities, except when specifically approved by Bermuda authorities.

Note: Minima from commercially available flight guides may be used (subject to any additional increments applied by an operations manual).

13.3 The aeroplane categories referred to in Appendix 1 (Old) or Appendix 1 (New) of OPS 1.430 must be derived in accordance with the method given in Appendix 2 to OPS 1.430(c) of EU-OPS (European Commission Regulation (EC) 859/2008 of 20 August 2008).

13.4 In establishing the aerodrome operating minima applicable to any particular operation, the following shall be taken into account:

a) the type, performance and handling characteristics of the aircraft; and

b) the composition of the flight crew, their competence and experience; and

c) the dimensions and characteristics of the runways or touch-down areas which may be selected for use; and

d) the adequacy and performance of the available visual and non-visual ground aids; and

e) the equipment available in the aircraft for the purpose of navigation or control of the flight path, as appropriate, during the take-off, approach, flare, landing or missed approach; and

f) the obstacles in the approach and missed approach areas and the climb-out areas and necessary clearance; and

g) the obstacle clearance altitude/height for the instrument approach procedures; and

h) the means to determine and report meteorological conditions; and

i) the flight technique to be used in the final approach.

13.5 The use of Head-up Guidance Landing System (HUDLS) or Enhanced Vision System (EVS) may allow operations with lower visibilities than normally associated with the aerodrome operating minima, in accordance with Appendix 1 (New) of OPS 1.430, only when the appropriate approval is held.

13.6 Aerodrome operating minima lower than Category I shall be used only in accordance with an approval issued by Bermuda authorities.

13.7 In the case of an aircraft registered in Bermuda, approval for the use of aerodrome operating minima lower than Category I may be issued by the Governor in accordance with Subpart SPA.

Note: See 91.415 for IFR departure limitations and approval requirements.

AD 2.21 – NOISE ABATEMENT PROCEDURERS

Nil

AD 2.22 – FLIGHT PROCEDURES

1. TURBULENCE/WIND SHEAR

There is a potential for light to moderate turbulence and/or wind shear to be encountered by aircraft conducting approaches to Runway 30, when the wind direction originates from the north-east quadrant, and in excess of 10 knots at the surface. This turbulence is generally associated with nearby topography to the north.

2. All aircraft operating into and out of L. F. Wade International Airport are required to operate under IFR. NY ARTCC provides IFR ATS. All aircraft operating into and out of L. F. Wade International Airport are required to follow procedures published in FAR 91.185 in the event of loss of radio communication.

3. L. F. WADE INTERNATIONAL AIRPORT ARRIVALS

3.1 NY ARTCC instructs aircraft when to contact Bermuda Tower during control tower operational hours.

3.2 NY ARTCC instructs aircraft when to switch to Common Traffic Advisory Frequency (CTAF: 122.800 MHz.) during control tower non-operational hours.

4. L. F. WADE INTERNATIONAL AIRPORT DEPARTURES

4.1 Bermuda Tower instructs aircraft when to contact NY ARTCC during control tower operational hours.

4.2 NY ARTCC Clearance Delivery instructs aircraft when to contact NY ARTCC during control tower non-operational hours.

5. VFR flight plan aircraft shall contact Bermuda Tower prior to entering the control zone.

6. Aircraft desiring Special VFR (SVFR) operations in the control zone shall request approval from Bermuda Tower prior to commencing such operations.

AD 2.23 – ADDITIONAL INFORMATION

1. UNCONTROLLED HOURS EMERGENCY ARRIVALS

Radio control lighting is available only for Declared Emergencies, Search and Rescue, Medical Evacuation and Prior Permission Request (PPR) during uncontrolled hours from 2300 - 0700 local time.

2. WILDLIFE CONTROL SERVICE

Wildlife control services, including bird deterrent activities, are not provided during control tower non-operational hours.

3. AIRPORT CLOSURE

Any weather, infrastructure, operational or other condition that may not be conducive to safe flight operations including Tropical Storms, Hurricanes, extreme crosswinds and/or closure of the sole bridge link between the airport and mainland and resulting inaccessibility of emergency services may result in an airport closure to be made at the discretion of the Airport General Manager.

4. ALTERNATE EMERGENCY LANDING SURFACE TAXIWAY BRAVO

Pilots-in-command of aircraft in emergency or hazardous conditions, or experiencing difficulty, should advise Bermuda Air Traffic Services (ATS) or Department of Airport Operations (DAO) of the nature of their problems and their intentions at the earliest opportunity. Such conditions may include landing outside of the airport's published operating hours, landing when the airport has been declared closed due to adverse weather, or landing when the normal full runway length is not available. The responsibility for landing in such conditions remains with the pilot-in-command, but the earliest possible notification enables the Bermuda authorities to render the best possible assistance to aircraft in distress.

5. ATIS BROADCAST

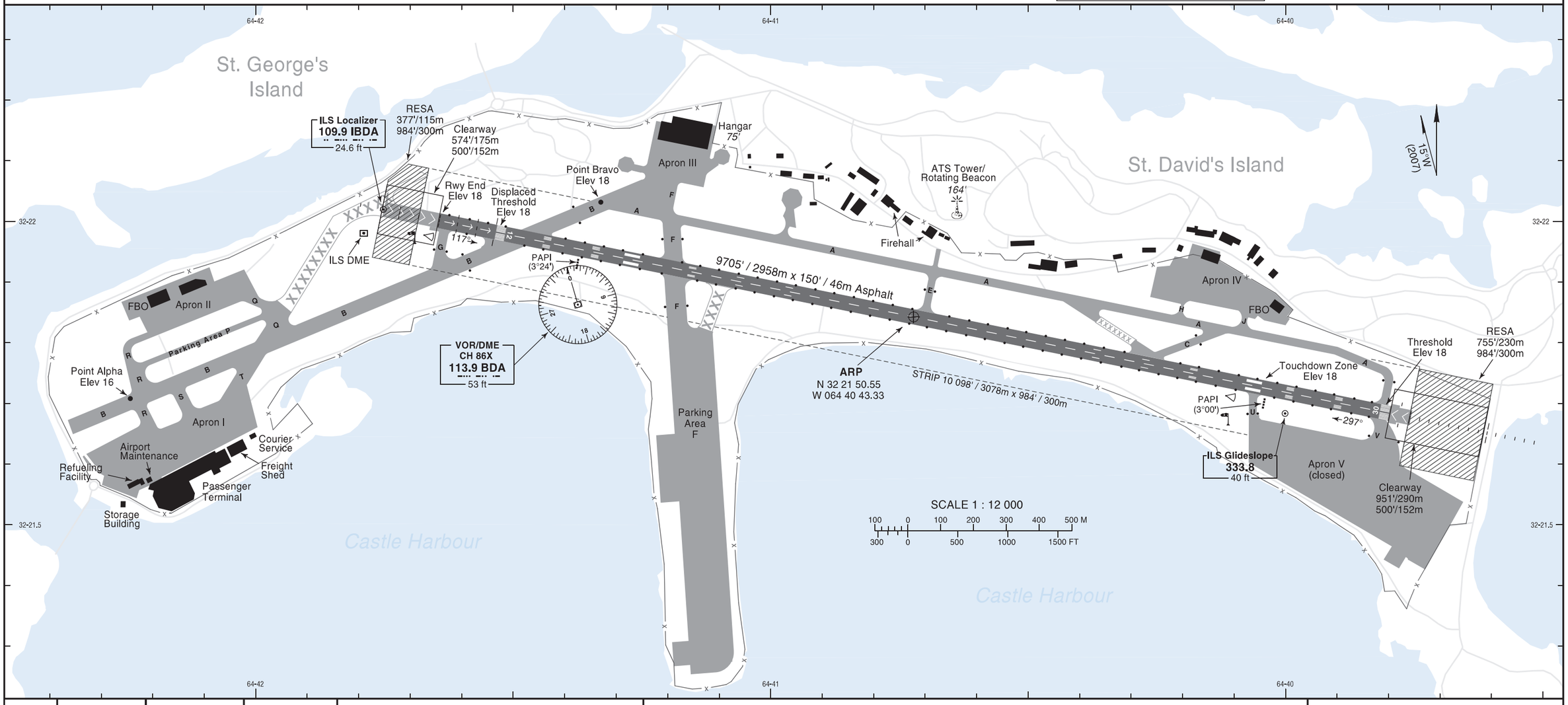
The surface wind information contained in the ATIS broadcast at L.F. Wade International Airport is reported in degrees true; the current magnetic variation at Bermuda is 15°W (2007).

AD 2.24 – CHARTS RELATED TO THE AERODROME

AERODROME CHART - ICAO | WGS-84 | **AD ELEV** 18 FT

BERMUDA TOWER	118.10/ 291.00
BERMUDA GROUND	124.50
CTAF	122.80
ATIS	119.60
NY CENTER CLNC DEL/ APP	128.50/119.10

BERMUDA
L.F. Wade Intl Airport (TXKF)



RWY	DIRECTION	THRESHOLD	STRENGTH	DECLARED DISTANCES			
				TORA	TODA	ASDA	LDA
12	117° MAG	N 32 21 58.94 W 064 41 32.10	80/F/A/W/U	9705'/ 2958m	10 656'/ 3248m	9705'/ 2958m	9127'/ 2782m
30	297° MAG	N 32 21 41.00 W 064 39 47.81	80/F/A/W/U	9705'/ 2958m	10 279'/ 3133m	9705'/ 2958m	9705'/ 2958m

AERODROME LIGHTING

RWY 12: High Intensity Approach Lights - SSALS
Green Threshold Lights
PAPI: 3°24' (right side of Runway; 4-box type)
Runway Aiming Point not coincident with PAPI location and angle
Bi-directional white HIRL (white/amber last 1000'), spaced 60m, 5 intensity levels
Bi-directional white runway centerline (red last 1000') spaced 30m, 5 intensity levels

RWY 30: CAT-I ALSF-I
Green Threshold Lights
PAPI: 3°00'(left side of Runway; 4-box Type)
Bi-directional white HIRL, spaced 60m, 5 intensity levels
Red Runway End Lights
Bi-directional white runway centerline (red last 1000') spaced 30m, 5 intensity levels

Other: Runway Guard Lights

Pilot control of airport lighting is available on CTAF during hours of ATS Tower unmanned. The system consists of a 3-step control responsive to 7, 5 and/or 3 microphone clicks. Lighting is illuminated for 15 minutes from most recent activation and can not be extinguished prior to the end of the 15-minute period.

NOTES:

1. All taxiways are asphalt with no weight restrictions.
2. Aircraft apron movements are uncontrolled due to limited sight availability from Bermuda Control Tower.
3. Point Alpha coordinates: N32 21 42.48 W064 42 14.62
4. Point Bravo coordinates: N32 22 01.90 W064 41 19.79
5. Distance Point Alpha to Point Bravo: 5096'.

TAKE-OFF MINIMA	CAT A	CAT B	CAT C	CAT D
RWY 12	800			
RWY 30	800			

Minima given as RVR in metres

AMENDMENT: TWY and parking area designation.

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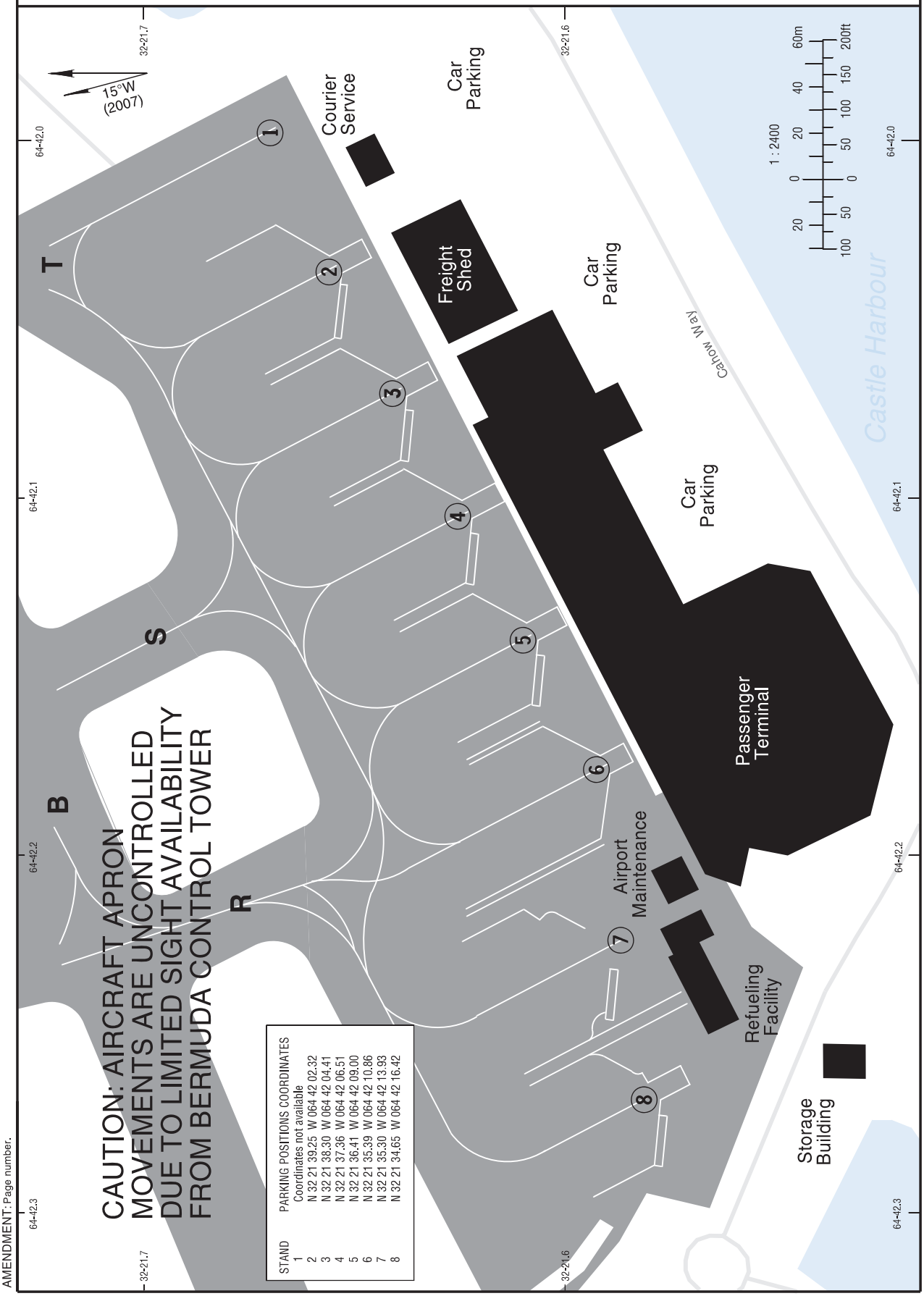
AIRCRAFT PARKING/DOCKING CHART - ICAO
APRON 1

WGS-84

BERMUDA
L.F. Wade Intl Airport (TXKF)



AMENDMENT: Page number.

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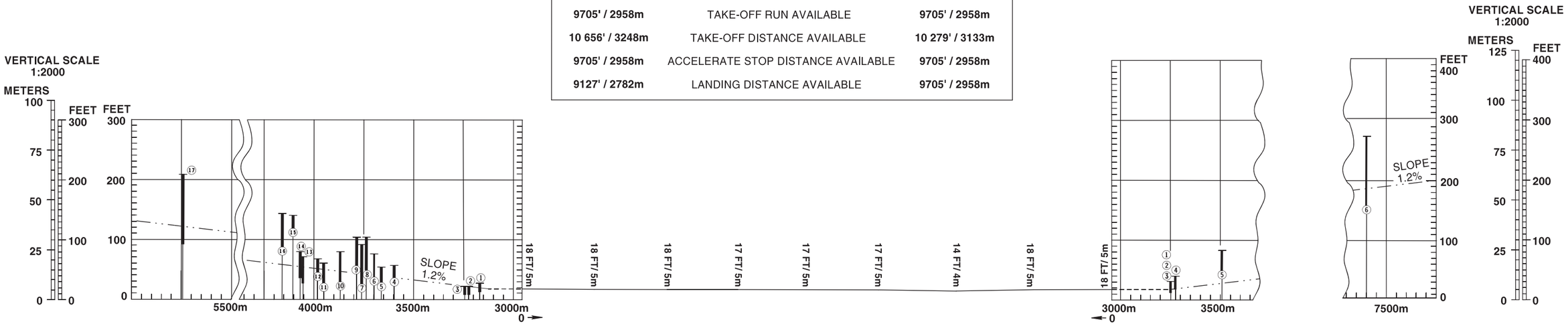
AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

BERMUDA
L.F. Wade Intl Airport (TXKF)

DISTANCE IN FEET (') OR METERS (m) AS INDICATED;
ELEVATIONS IN FEET
MAGNETIC VARIATION 15° W, 2007

RUNWAY 12-30

DECLARED DISTANCES		
RWY 12		**RWY 30**
9705' / 2958m	TAKE-OFF RUN AVAILABLE	**9705' / 2958m**
10 656' / 3248m	TAKE-OFF DISTANCE AVAILABLE	**10 279' / 3133m**
9705' / 2958m	ACCELERATE STOP DISTANCE AVAILABLE	**9705' / 2958m**
9127' / 2782m	LANDING DISTANCE AVAILABLE	**9705' / 2958m**



LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
GROUND LEVEL	▲	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
TREE	*	
MOBILE		
TALL VESSEL		

Nr	Obstacle	Height
①	Building	26'/ 8m
②	Pole	23'/ 7m
③	Pole	23'/ 7m
④	Building	57'/ 17m
⑤	Building	54'/ 16m
⑥	Building	79'/ 24m
⑦	Building	93'/ 28m
⑧	Building	105'/ 32m
⑨	Building	93'/ 28m

Nr	Obstacle	Height
⑩	Building	80'/ 24m
⑪	Building	60'/ 18m
⑫	Building	69'/ 21m
⑬	Building	72'/ 22m
⑭	Ground	80'/ 24m
⑮	Antenna	142'/ 43m
⑯	Antenna	145'/ 44m
⑰	Transient	210'/ 64m
	Tall Vessel	

HORIZONTAL SCALE 1 : 20 000

400 200 0 500 1000 1500 2000 2500 METERS
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000 FEET

Doppler Weather Radar
151'/ 46m

Nr	Obstacle	Height
①	Pole	22'/ 7m
②	Pole	22'/ 7m
③	Pole	22'/ 7m
④	Mobile Vehicle	30'/ 9m
⑤	Tower	73'/ 22m
⑥	Transient	280'/ 85m
	Tall Vessel	

AMENDMENT: Declared distances. Runway layout.

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INSTRUMENT APPROACH CHART - ICAO

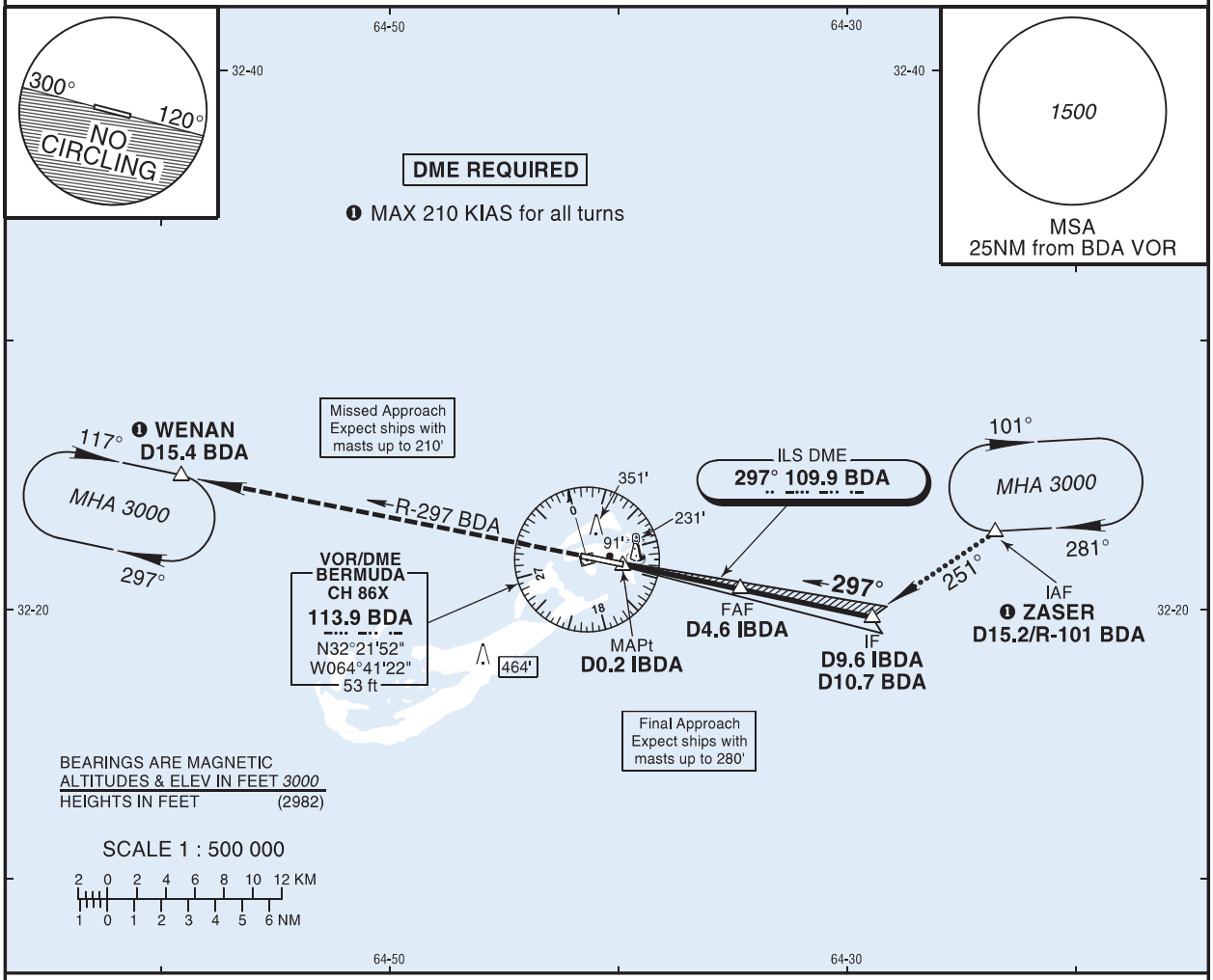
AD ELEV 18 FT

HEIGHTS RELATED TO THR RWY 30 ELEV 18 FT

VAR 15°W

BERMUDA TOWER	118.10/ 291.00
BERMUDA GROUND	124.50
CTAF	122.80
ATIS	119.60
NY CENTER CLNC DEL/ APP	128.50/119.10

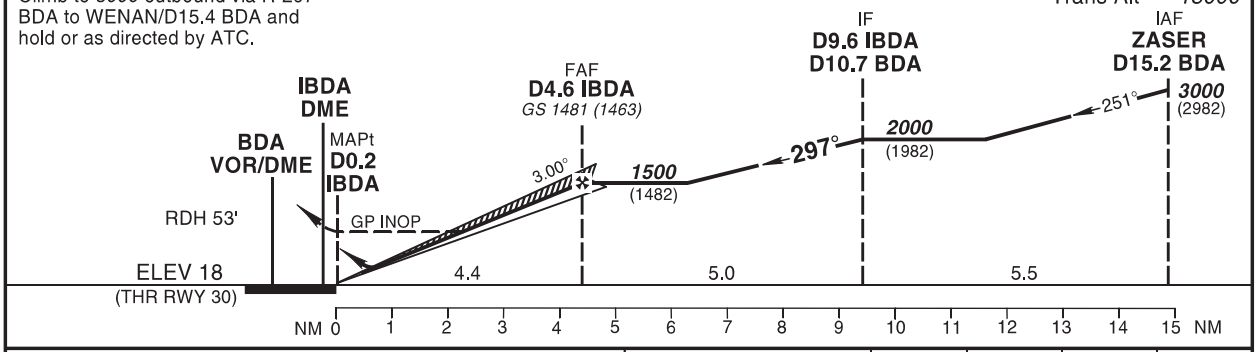
BERMUDA
L.F. Wade Intl Airport
(TXKF)
ILS y RWY 30



MISSED APPROACH:
Climb to *3000* outbound via R-297 BDA to WENAN/D15.4 BDA and hold or as directed by ATC.

Note:
Use I-BDA DME when on localizer course.

Trans Level *FL180*
Trans Alt *18000*



ADVISORY INFORMATION ONLY							
Ground speed	kts	70	90	100	120	140	160
Rate of descent 3.00°	ft/min	377	484	538	646	753	861

1. DME required.
2. When control tower closed, obtain local altimeter setting on ATIS. When not available procedure not authorized.
3. Pilot controlled lighting on 122.8 MHz when TWR unmanned.
4. Missed approach climb gradient to WENAN 2.7% for ATC.
5. Maximum 210 KIAS for all turns.

STRAIGHT-IN APPROACH		A	B	C	D
CAT I ILS/DME	DA(H)	***254*** (236)			
	RVR	800m			
	ALS out	1200m			
GP INOP	OCA(H)	***530*** (512)			
	RVR	1500m		1900m	
	ALS out	1500m		2400m	

CIRCLING*		A	B	C	D
	OCA(H)	***750*** (732)			
	VIS	1500m	1600m	2400m	3600m
	ALS out	1500m	1600m	2400m	3600m

*Not authorized South of RWY 12-30. *Not authorized at night.

AMENDMENT: Procedure title. Procedure revised. Missed approach. Minima.

INTENTIONALLY

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INSTRUMENT APPROACH CHART - ICAO

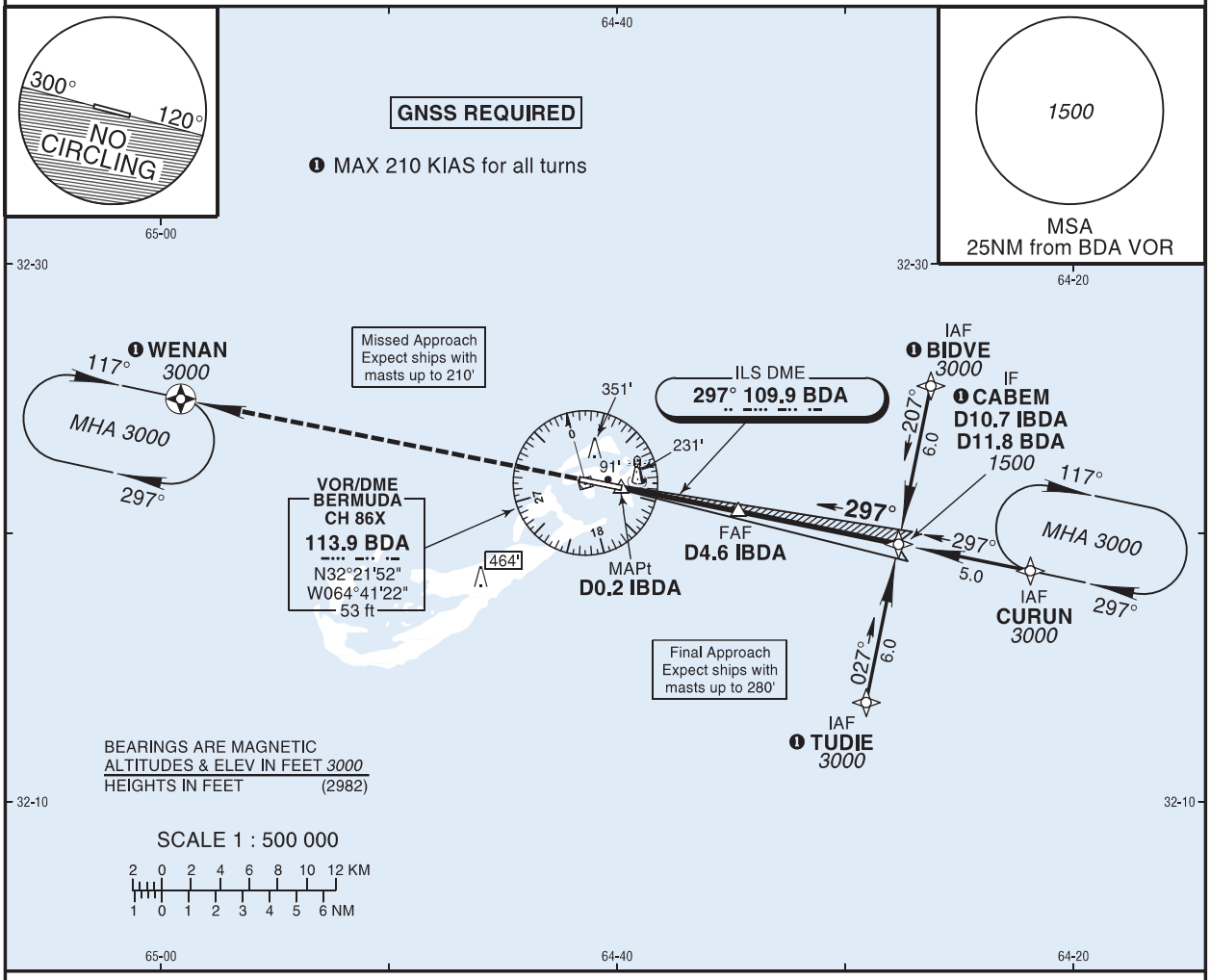
AD ELEV 18 FT

HEIGHTS RELATED TO THR RWY 30 ELEV 18 FT

VAR 15°W

BERMUDA TOWER	118.10/ 291.00
BERMUDA GROUND	124.50
CTAF	122.80
ATIS	119.60
NY CENTER CLNC DEL/ APP	128.50/119.10

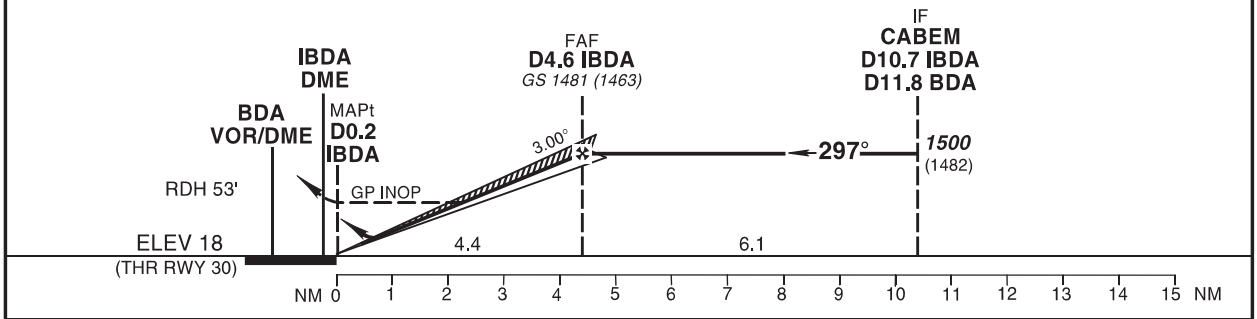
BERMUDA
L.F. Wade Intl Airport
(TXKF)
ILS z RWY 30



MISSED APPROACH:
Climb to *3000* direct WENAN
and hold or as directed by ATC.

Note:
Use I-BDA DME when on localizer course.

Trans Level *FL180*
Trans Alt *18000*



ADVISORY INFORMATION ONLY							
Ground speed	kts	70	90	100	120	140	160
Rate of descent 3.00°	ft/min	377	484	538	646	753	861

1. GNSS and DME required.
2. When control tower closed, obtain local altimeter setting on ATIS. When not available procedure not authorized.
3. Pilot controlled lighting on 122.8 MHz when TWR unmanned.
4. Missed approach climb gradient to WENAN 2.7% for ATC.
5. Maximum 210 KIAS for all turns.

STRAIGHT-IN APPROACH		A	B	C	D
CAT I ILS/DME	DA(H)	***254*** (236)			
	RVR	800m			
	ALS out	1200m			
GP INOP	OCA(H)	***530*** (512)			
	RVR	1500m		1900m	
	ALS out	1500m		2400m	

CIRCLING*		A	B	C	D
	OCA(H)	***750*** (732)			
	VIS	1500m	1600m	2400m	3600m
	ALS out	1500m	1600m	2400m	3600m

*Not authorized South of RWY 12-30. *Not authorized at night.

AMENDMENT: Procedure title. Procedure revised. Missed approach. Minima.

INTENTIONALLY

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INSTRUMENT APPROACH CHART - ICAO

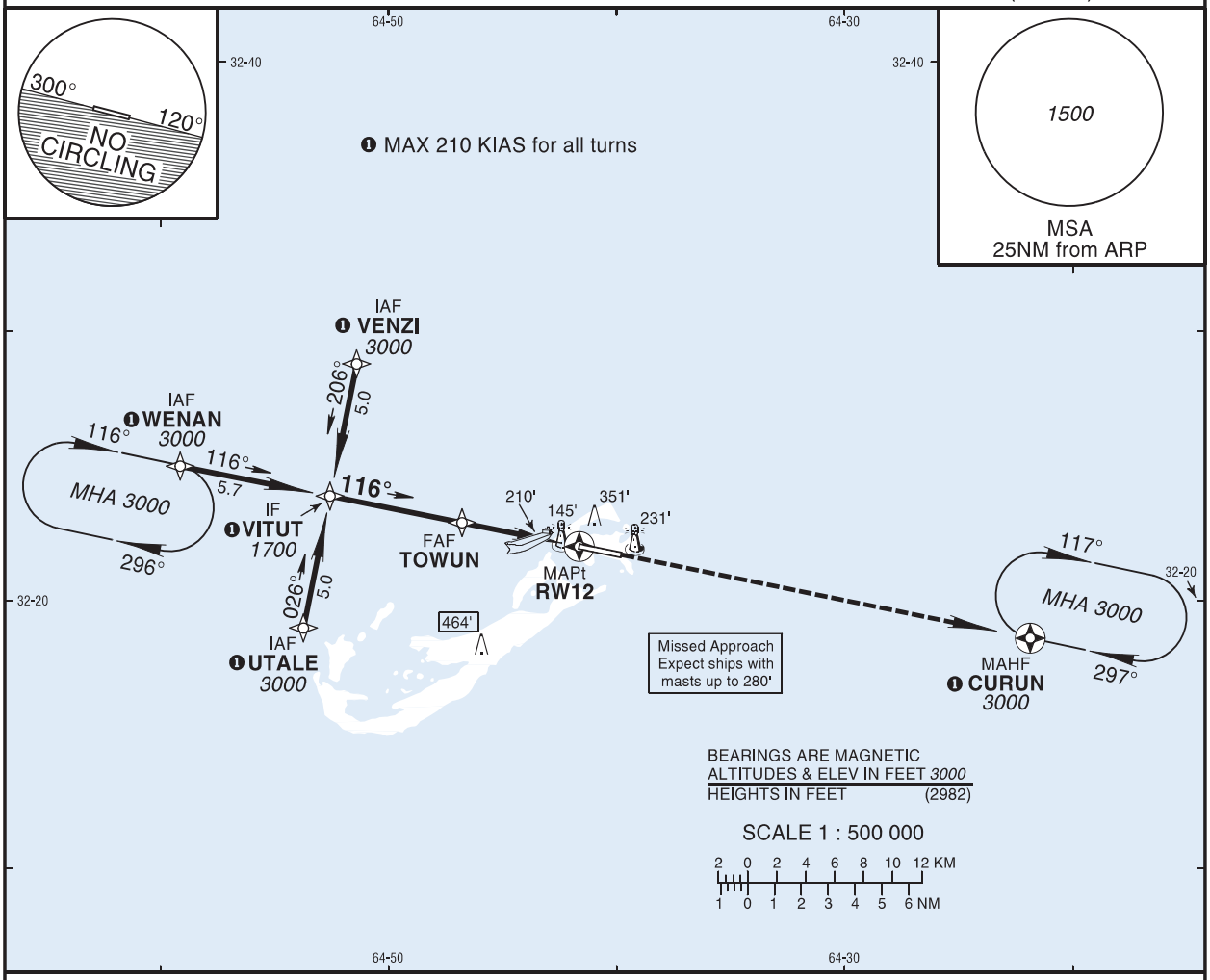
AD ELEV 18 FT

HEIGHTS RELATED TO THR RWY 12 ELEV 18 FT

VAR 15°W

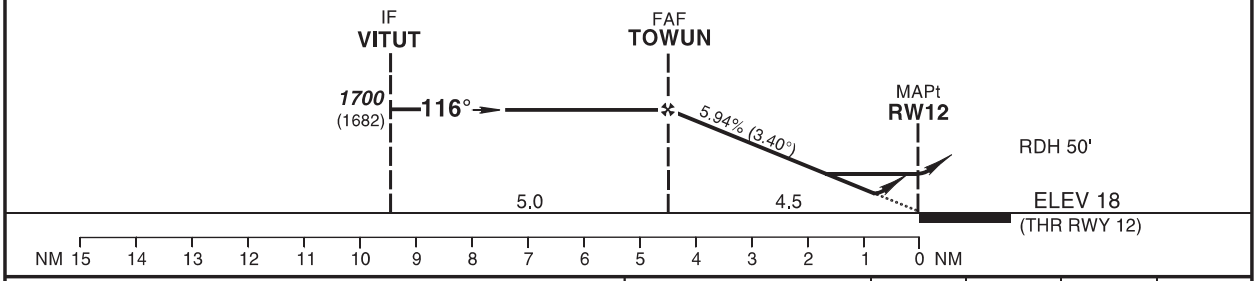
BERMUDA TOWER	118.10/ 291.00
BERMUDA GROUND	124.50
CTAF	122.80
ATIS	119.60
NY CENTER CLNC DEL/ APP	128.50/119.10

BERMUDA
L.F. Wade Intl Airport
(TXKF)
RNAV (GNSS) RWY 12



Trans Level *FL180*
Trans Alt *18000*

MISSED APPROACH:
Climb to *3000* direct CURUN and hold or as directed by ATC.



ADVISORY INFORMATION ONLY

1. No turn before MAPt.
2. When control tower closed, obtain local altimeter setting on ATIS. When not available procedure not authorized.
3. Pilot controlled lighting on 122.8 MHz when TWR unmanned.
4. For uncompensated Baro-VNAV systems, procedure not authorized below -15°C (5°F).
5. Missed approach climb gradient to CURUN 2.7% for ATC.
6. DME/DME not authorized.
7. Maximum 210 KIAS for all turns.

STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	DA(H)	***460*** (442)			
	RVR	1500m		1700m	
	ALS out	1500m		2100m	
LNAV	OCA(H)	***460*** (442)			
	RVR	1500m		1700m	
	ALS out	1500m		2100m	

CIRCLING*		A	B	C	D
	OCA(H)	***750*** (732)			
	VIS	1500m	1600m	2400m	3600m
	ALS out	1500m	1600m	2400m	3600m

*Not authorized South of RWY 12-30. *Not authorized at night.

AMENDMENT: Procedure revised. Missed approach. Minima.

INTENTIONALLY

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INSTRUMENT APPROACH CHART - ICAO

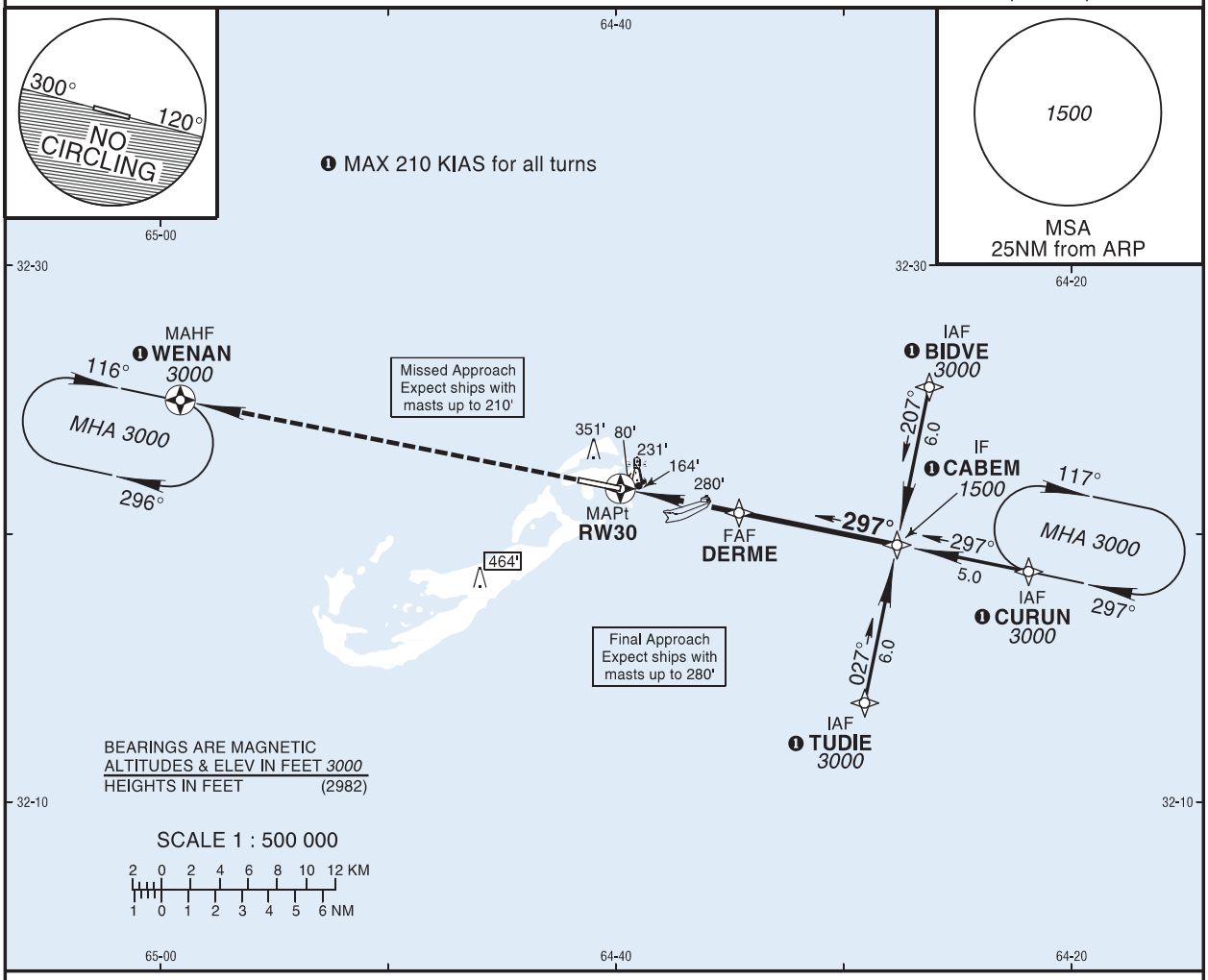
AD ELEV 18 FT

HEIGHTS RELATED TO THR RWY 30 ELEV 18 FT

VAR 15°W

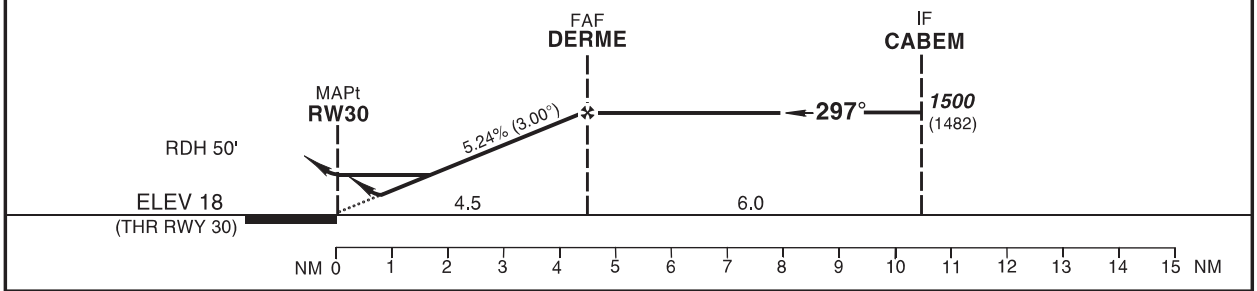
BERMUDA TOWER	118.10/ 291.00
BERMUDA GROUND	124.50
CTAF	122.80
ATIS	119.60
NY CENTER CLNC DEL/ APP	128.50/119.10

BERMUDA
L.F. Wade Intl Airport
(TXKF)
RNAV (GNSS) RWY 30



MISSED APPROACH:
Climb to *3000* direct WENAN
and hold or as directed by ATC.

Trans Level *FL180*
Trans Alt *18000*



ADVISORY INFORMATION ONLY
1. No turn before MAPt.
2. When control tower closed, obtain local altimeter setting on ATIS. When not available procedure not authorized.
3. Pilot controlled lighting on 122.8 MHz when TWR unmanned.
4. For uncompensated Baro-VNAV systems, procedure not authorized below -15°C (5°F).
5. Missed approach climb gradient to WENAN 2.7% for ATC.
6. DME/DME not authorized.
7. Maximum 210 KIAS for all turns.

STRAIGHT-IN APPROACH		A	B	C	D
LNAV/VNAV	DA(H)	***480*** (462)			
	RVR	1500m		1800m	
	ALS out	1500m		2200m	
LNAV	OCA(H)	***530*** (512)			
	RVR	1500m		1900m	
	ALS out	1500m		2400m	

CIRCLING*		A	B	C	D
	OCA(H)	***750*** (732)			
	VIS	1500m	1600m	2400m	3600m
	ALS out	1500m	1600m	2400m	3600m

*Not authorized South of RWY 12-30. *Not authorized at night.

AMENDMENT: Procedure revised. Missed approach. Minima.

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INSTRUMENT APPROACH CHART - ICAO

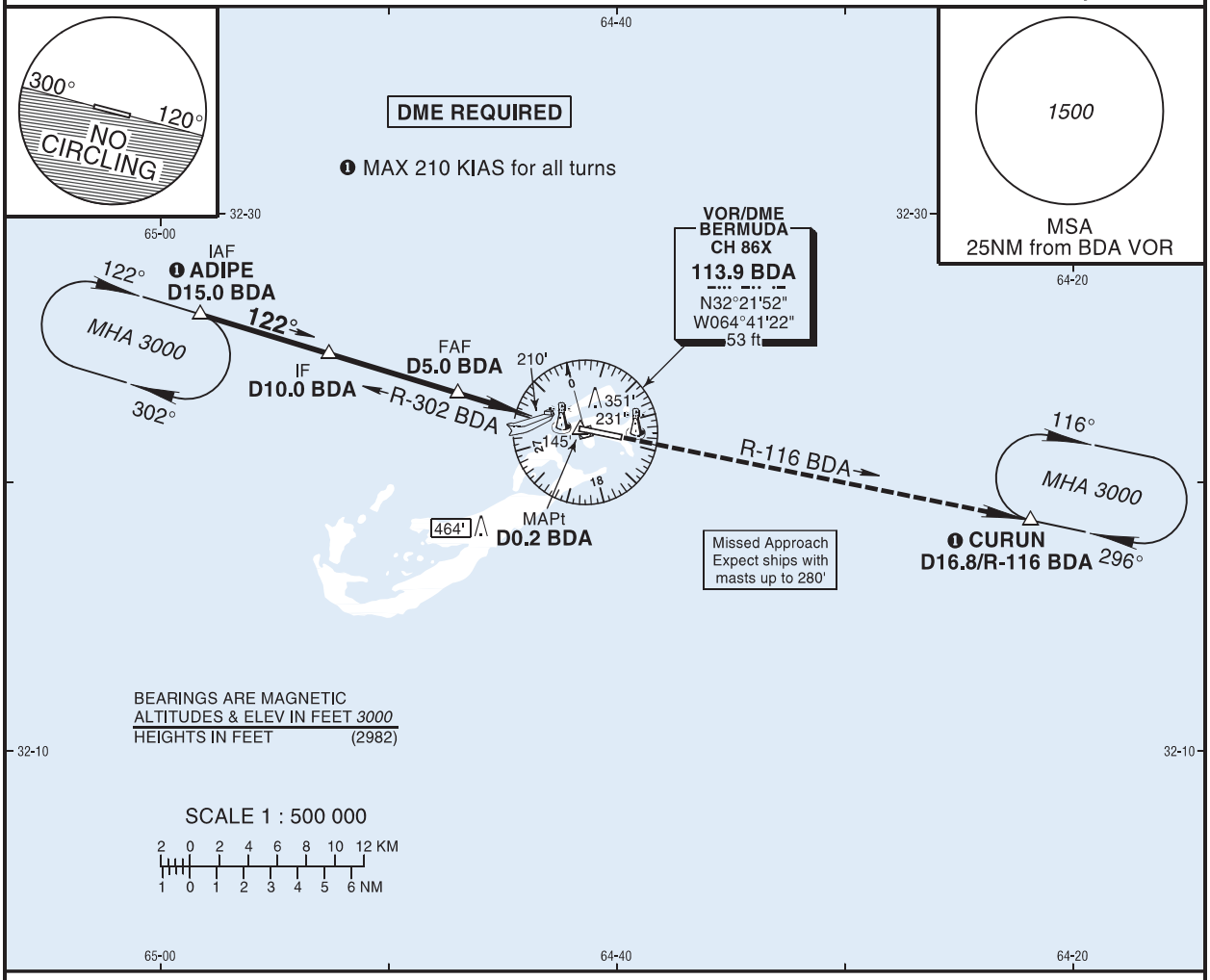
AD ELEV 18 FT

HEIGHTS RELATED TO THR RWY 12 ELEV 18 FT

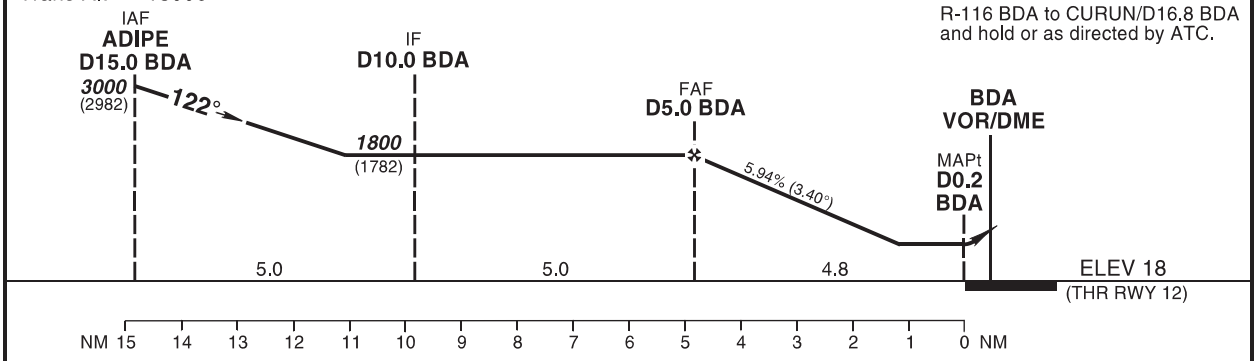
VAR 15°W

BERMUDA TOWER	118.10/ 291.00
BERMUDA GROUND	124.50
CTAF	122.80
ATIS	119.60
NY CENTER CLNC DEL/ APP	128.50/119.10

BERMUDA
L.F. Wade Intl Airport
(TXKF)
VOR y RWY 12



Trans Level *FL180*
Trans Alt *18000*



MISSED APPROACH:
Climb to *3000* outbound via R-116 BDA to CURUN/D16.8 BDA and hold or as directed by ATC.

ADVISORY INFORMATION ONLY

1. DME required.
2. When control tower closed, obtain local altimeter setting on ATIS. When not available procedure not authorized.
3. Pilot controlled lighting on 122.8 MHz when TWR unmanned.
4. Missed approach climb gradient to CURUN 2.7% for ATC.
5. Maximum 210 KIAS for all turns.

STRAIGHT-IN APPROACH		A	B	C	D
VOR	OCA(H)	***460*** (442)			
	RVR	1500m		1700m	
	ALS out	1500m		2100m	

CIRCLING*		A	B	C	D
	OCA(H)	***750*** (732)			
	VIS	1500m	1600m	2400m	3600m
	ALS out	1500m	1600m	2400m	3600m

*Not authorized South of RWY 12-30.
*Not authorized at night.

AMENDMENT: Procedure revised. Missed approach. Minima.

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INSTRUMENT APPROACH CHART - ICAO

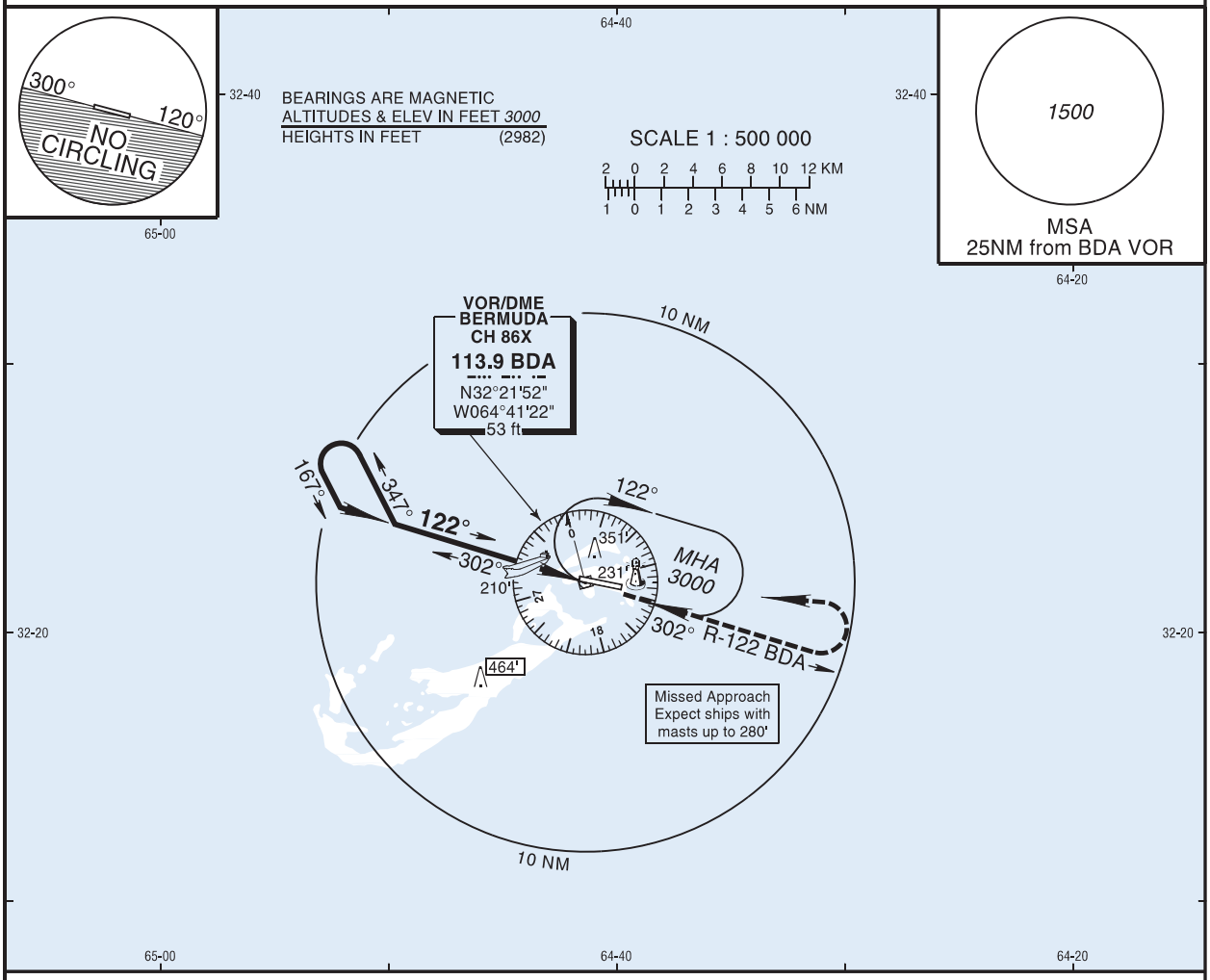
AD ELEV 18 FT

HEIGHTS RELATED TO THR RWY 12 ELEV 18 FT

VAR 15°W

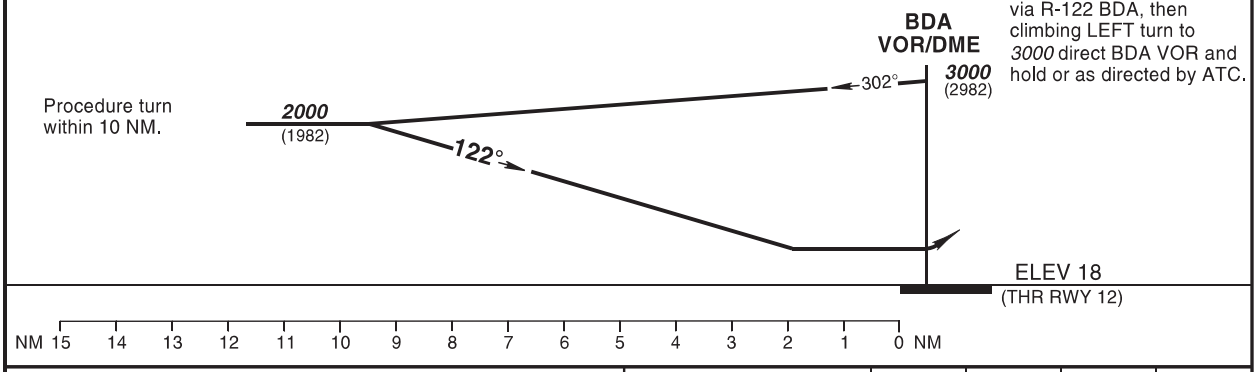
BERMUDA TOWER	118.10/ 291.00
BERMUDA GROUND	124.50
CTAF	122.80
ATIS	119.60
NY CENTER CLNC DEL/ APP	128.50/119.10

BERMUDA
L.F. Wade Intl Airport
(TXKF)
VOR z RWY 12



Trans Level *FL180*
Trans Alt *18000*

MISSED APPROACH:
Climb to *1500* outbound via R-122 BDA, then climbing LEFT turn to *3000* direct BDA VOR and hold or as directed by ATC.



ADVISORY INFORMATION ONLY

1. When control tower closed, obtain local altimeter setting on ATIS. When not available procedure not authorized.
2. Pilot controlled lighting on 122.8 MHz when TWR unmanned.
3. Maximum 210 KIAS for all turns.

STRAIGHT-IN APPROACH		A	B	C	D
VOR	OCA(H)	***510*** (492)			
	RVR	2000m		2200m	
	ALS out	2500m		2700m	

CIRCLING*		A	B	C	D
	OCA(H)	***750*** (732)			
	VIS	2000m		2400m	3600m
	ALS out	2500m		2700m	3600m

*Not authorized South of RWY 12-30.
*Not authorized at night.

AMENDMENT: Procedure revised. Missed approach. Minima.

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INSTRUMENT APPROACH CHART - ICAO

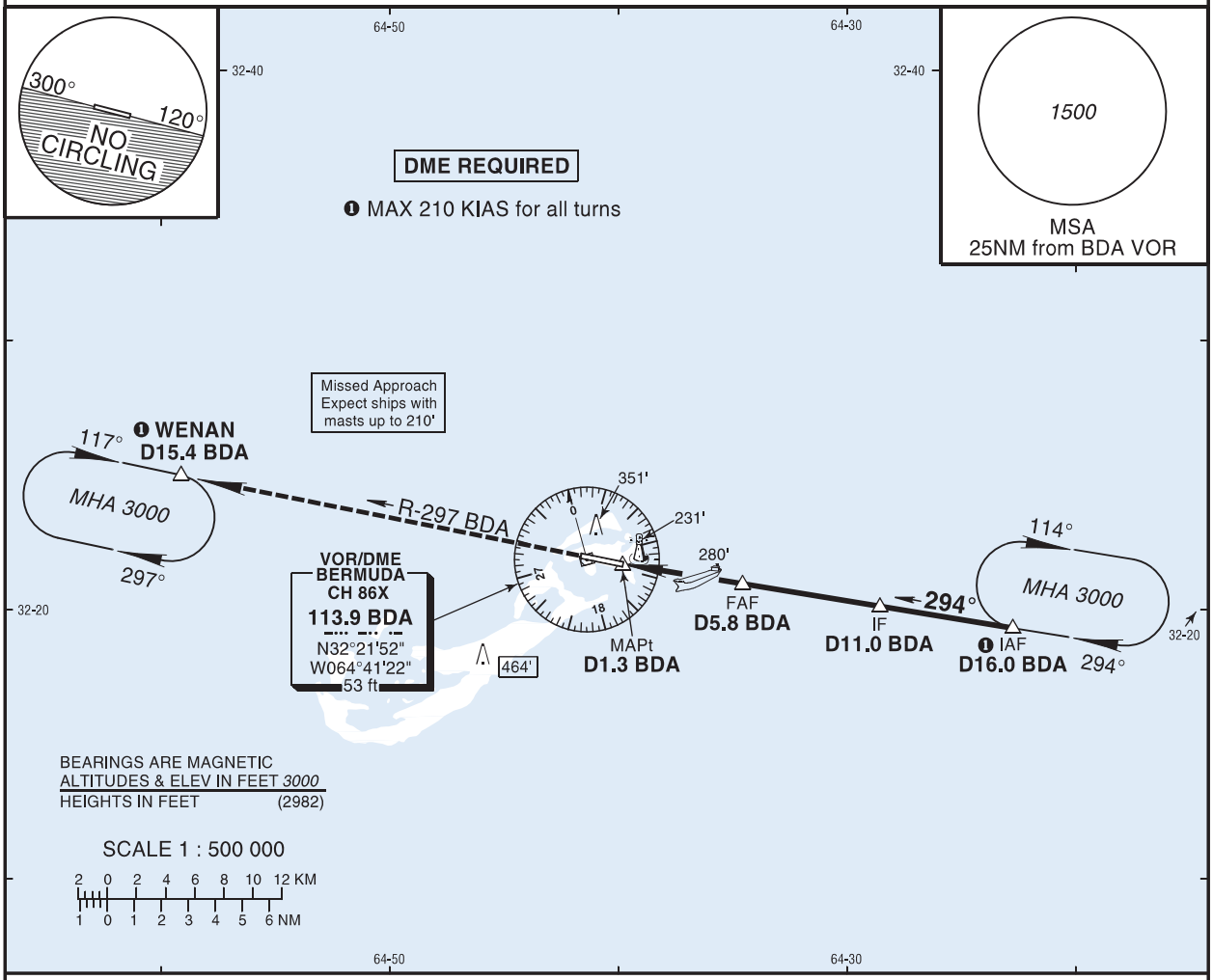
AD ELEV 18 FT

HEIGHTS RELATED TO THR RWY 30 ELEV 18 FT

VAR 15°W

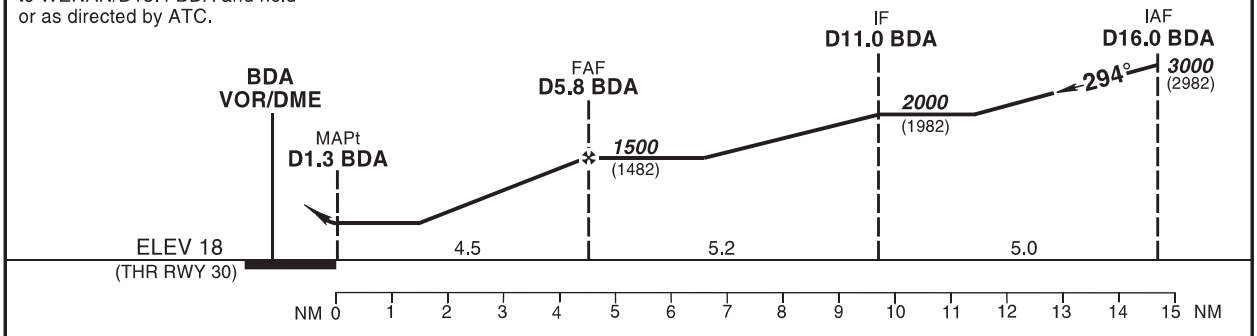
BERMUDA TOWER	118.10/ 291.00
BERMUDA GROUND	124.50
CTAF	122.80
ATIS	119.60
NY CENTER CLNC DEL/ APP	128.50/119.10

BERMUDA
L.F. Wade Intl Airport
(TXKF)
VOR RWY 30



MISSED APPROACH:
Climb to *3000* outbound via R-297 BDA
to WENAN/D15.4 BDA and hold
or as directed by ATC.

Trans Level *FL180*
Trans Alt *18000*



ADVISORY INFORMATION ONLY
1. DME required.
2. When control tower closed, obtain local altimeter setting on ATIS. When not available procedure not authorized.
3. Pilot controlled lighting on 122.8 MHz when TWR unmanned.
4. Missed approach climb gradient to WENAN 2.7% for ATC.
5. Maximum 210 KIAS for all turns.

STRAIGHT-IN APPROACH		A	B	C	D
VOR	OCA(H)	***530*** (512)			
	RVR	1500m		1900m	
	ALS out	1500m		2400m	

CIRCLING*		A	B	C	D
	OCA(H)	***750*** (732)			
	VIS	1500m	1600m	2400m	3600m
	ALS out	1500m	1600m	2400m	3600m

*Not authorized South of RWY 12-30.
*Not authorized at night.

AMENDMENT: Procedure revised. Missed approach. Minima.

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VISUAL APPROACH CHART - ICAO

WGS-84

AD ELEV
18 FT

BERMUDA TOWER	118.10/ 291.00
BERMUDA GROUND	124.50
CTAF	122.80
ATIS	119.60
NY CENTER CLNC DEL/ APP	128.50/119.10

BERMUDA
L. F. Wade Intl Airport (TXKF)
Bermuda Control Zone

LEGEND	
Control Zone (CTR)	
VOR/DME Radials	
Distance Lines	
Imaginary Lines	
Restricted Airspace	
Navaid	BERMUDA VOR/DME 113.9 BDA 3221.9N 06441.4W 53'

TMA
E BERMUDA
FL 500
700 AGL

15°W (2007)

ATLANTIC OCEAN

CTR
D BERMUDA
BLW 2500 AGL
SFC
Normal Hours of Operation:
0700 - 2300 (Local Time)

4.4 NM

1.7 NM

BDA 301° 7 NM

Harbour Radio
Ft. George
345'

Tower
295'

ARP
322150.55N
0644043.33W

ATS Tower/
Rotating Beacon
164'

St. David's
Lighthouse
231'

Pole
134'

142'

145'

106'

BERMUDA
VOR/DME 113.9
BDA
3221.9N
06441.4W
53'

Antenna
292'

238'

Tucker's Point
Hotel

Pole
126'

Weather Radar
Dome Tower
151'

BDA 114° 7 NM

BDA 117° 7 NM

Antenna
464'

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MINIMUM SAFE ALTITUDE WITHIN 25 NM OF BDA VOR 1500 AMSL
EMERGENCY SAFE ALTITUDE WITHIN 110 NM OF BDA VOR 2000 AMSL

SCALE 1 : 75 000
0.5 0 1 2 3 4 NM

AMENDMENT: St. David's Lighthouse.

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APPENDIX A

Article I. – VARIATIONS FROM ICAO STANDARDS, RECOMMENDED PRACTICES AND PROCEDURES

1. ANNEX 1 – PERSONNEL LICENSING, Eleventh Edition:

NIL

2. ANNEX 2 – RULES OF THE AIR, Tenth Edition:

VFR at night not permitted.

3. ANNEX 3 – METEOROLOGICAL SERVICE FOR INTERNATIONAL AIR NAVIGATION, Seventeenth Edition:

PART I – Core SARPS

2.2.3 The Bermuda Weather Service is operated on a quality system that follows ISO 9000 standards but is not certified at present. However, the United Kingdom Met Office, at the request of the Meteorological Authority, carries out regular external audits (in accordance with Paragraph 2.2).

4.3.2 b) The ATIS at L.F. Wade International Airport currently reports weather information extracted from, and consistent with, the METAR and SPECI observations.

6.3.2 No TREND forecasts are issued. If required, landing forecasts are provided by the TAF.

PART II – Appendices and Attachments

Appendix 3

2.2 The term CAVOK is not used.

2.3.2 a) SPECI issued when the mean surface wind direction has changed by 45 degrees or more from that given in the last report, the mean speed before and/or after the change being 10 knots or more.

2.3.3 a) No SPECI are issued for changes in wind that would require a change of runway in use.

2.3.3 b) SPECI reports are issued for the following visibility thresholds: 800m, 1200m, 1600m, 2400m, 2800m, 3200m, 4000m and 4800m.

2.3.2 f) & 2.3.3 f) SPECI reports are issued for the additional cloud thresholds of 300 ft, 400 ft, 500 ft, 600 ft and 3000 ft.

4.2.4.2 The visibility provided in local routine and special reports for ATC will be consistent with that used in METAR and SPECI reports.

4.4.2.3 The letter abbreviation PY shall be used for Sea Spray. PY shall be used only in combination with descriptor BL, when the wind speed is at, or in excess of 48 knots. Except for VA, obscuration shall only be reported when the visibility is reported as less than 10 kilometres. For BR to be reported, the prevailing visibility shall be less than 10 kilometres but greater than or equal to 1 kilometre, and the relative humidity is equal to or greater than 95%.

4.4.2.6 The proximity qualifier VC shall be used to indicate weather phenomena observed between 8 and 16 kilometres of the aerodrome but not at the station, except in the case of precipitation where VC shall be used from >0 to 16 kilometres.

4.5.4.3 The cumulative amount of clouds occurring at and below each level up to the first overcast layer shall be reported. All cloud layers shall be reported in ascending order up to the first overcast layer.

4.8.1.1 No recent weather is currently reported in the METAR or SPECI.

4.8.1.4 No wind shear is currently observed locally or reported in the METAR or SPECI. However, wind shear values are issued in TAF and wind shear warnings if forecast, or observed by aircraft.

4.8.1.5 Sea-surface temperature, Sea state and runway state are not reported in the METAR or SPECI at TXKF.

Appendix 5

1.2.2 Forecast visibility increments used consist of 400 metre increments from zero to 1600 metres, 800 metre increments from 1600 metres to 3200 metres, and 1600 metre increments above 3200 metres. The term CAVOK is not used.

1.2.4 The cumulative amount of clouds occurring at and below each level up to the first overcast layer shall be forecast. The term CAVOK is not used.

1.3.2 a) The criteria used for changes in wind direction is a change in the mean surface wind direction by 45 degrees or more, the mean speed before and/or after the change being 10 knots or more.

1.3.2 d) (1)No specific criteria are established for changes in wind that would require a change of runway in use.

1.3.2 e) The criteria used for changes in visibility are 800 metres, 1600 metres, 3200 metres and 4800 metres.

2. TREND forecasts are not issued.

3. Forecasts for take-off are not issued.

Appendix 6

5.1.3 Tropical cyclone and tsunami warnings are provided in a format agreed with the Government of Bermuda.

4. ANNEX 4 – AERONAUTICAL CHARTS, Eleventh Edition:

NIL

5. ANNEX 5 – UNITS OF MEASUREMENT TO BE USED IN AIR AND GROUND OPERATIONS, Fifth Edition:

NIL

6. ANNEX 6 – OPERATION OF AIRCRAFT

PART I - International Commercial Air Transport - Aeroplanes, Ninth Edition:

NIL

PART II – International General Aviation - Aeroplanes, Seventh Edition:

NIL

PART III – International Operations - Helicopters, Seventh Edition:

Section 1.01 NIL

7. ANNEX 7 - AIRCRAFT NATIONALITY AND REGISTRATION MARKS, Sixth Edition:

Section 1.02 NIL

8. ANNEX 8 - AIRWORTHINESS OF AIRCRAFT, Eleventh Edition:

NIL

9. ANNEX 9 - FACILITATION, Thirteenth Edition:

NIL

10. ANNEX 10 - AERONAUTICAL TELECOMMUNICATIONS

VOLUME I - Radio Navigation Aids, Sixth Edition:

NIL

VOLUME II - Communication Procedures including those with PANS Status, Sixth Edition:

NIL

VOLUME III - Communication Systems (Part I - Digital Data Communications Systems; Part II - Voice Communications Systems), Second Edition:

NIL

VOLUME IV – Surveillance Radar and Collision Avoidance Systems, Fourth Edition:

NIL

VOLUME V – Aeronautical Radio Frequency Spectrum Utilization, Second Edition:

NIL

11. ANNEX 11 – AIR TRAFFIC SERVICES, Thirteenth Edition:

4.3.6.1 g)The ATIS at L.F. Wade International Airport currently reports weather information extracted from, and consistent with, the METAR and SPECI observations.

4.3.7 The ATIS at L.F. Wade International Airport currently broadcasts criteria in accordance with Annex 11 requirements except that:

4.3.7 a)The elements of information contained are not broadcast in the order listed.

4.3.7 b)Surface wind direction and speed is reported as a 10-minute mean value, and no wind lull information is broadcast.

12. ANNEX 12 – SEARCH AND RESCUE, Eighth Edition:

NIL

13. ANNEX 13 – AIRCRAFT ACCIDENT INVESTIGATION, Tenth Edition:

NIL

14. ANNEX 14 – AERODROMES

VOLUME I – Aerodrome Design and Operations, Fifth Edition:

3.3.8.1 To the south of the runway, particularly near the VOR/DME and further east approximately halfway along the strip, the clear and graded semi-width of 105 metres from the runway centreline cannot be met due to the proximity of Castle Harbour.

3.8.7.1 The distance between the runway centreline and the parallel Taxiway A centreline is 152.5 metres and does not meet the ICAO recommended minima of 182.5 metres.

VOLUME II – Heliports, Third Edition:

NIL

15. ANNEX 15 – AERONAUTICAL INFORMATION SERVICES, Thirteenth Edition:

NIL

16. ANNEX 16 – ENVIRONMENTAL PROTECTION

VOLUME I – Aircraft Noise, Sixth Edition:

NIL

VOLUME II – Aircraft Engine Emissions, Third Edition:

NIL

17. ANNEX 17 – SECURITY - SAFEGUARDING INTERNATIONAL CIVIL AVIATION AGAINST ACTS OF UNLAWFUL INTERFERENCE, Ninth Edition:

NIL

18. ANNEX 18 – THE SAFE TRANSPORT OF DANGEROUS GOODS BY AIR, Fourth Edition:

NIL

19. RULES OF THE AIR AND AIR TRAFFIC SERVICES DOC 4444-RAC/501/12, Fifteenth Edition:

Aerodrome control services at L. F. Wade International Airport conform to U.S. FAA Air Traffic Control Handbook 7110.65. Significant variations from ICAO Annexes include:

1.1 Contact Approach: An approach where an aircraft on an IFR flight plan, operating clear of cloud with at least one (1) mile visibility, and having received an ATC authorisation, may deviate from the prescribed instrument approach procedure and proceed to the airport of destination by visual reference to the surface.

1.2 Displaced Threshold: Chevrons are provided for unserviceable areas of permanently displaced thresholds - all runways at L. F. Wade International Airport.

1.3 IFR Conditions: This term is used instead of IMC conditions when weather conditions are below the minimum for flight under Visual Flight Rules (VFR). U.S. Federal Aviation Regulations specify the use of this term.

1.4 Prevailing Visibility: The greatest horizontal visibility which is equalled or exceeded throughout half of the horizon circle. It need not be a continuous half. In the case of rapidly varying conditions, it is the average of the prevailing visibility while the observation is being taken.

1.5 VFR Conditions: This term is used instead of VMC conditions to indicate the basic conditions prescribed for flight under visual flight rules. U.S. Federal Aviation Regulations specify the use of this term.

1.6. Wake Turbulence Separation: U.S. Federal Aviation Regulations specify the use of the aircraft weight categories Heavy, Large and Small, when applying wake turbulence separation minima,

Heavy - aircraft capable of maximum certified take-off weights of more than 136,000 kgs (300,000 lbs).

Large - aircraft capable of maximum certified take-off weights of 18,600 kgs (41,000 lbs) up to but not including 136,000 kgs (300,000 lbs).

Small - aircraft capable of maximum certified take-off weights of 18,600 kgs (41,000 lbs) or less.

Note: Category Super currently only refers to the Airbus A380.

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