### IFR Aeronautical Chart Symbols

**IFR Enroute Low/High Altitude (U.S. & Alaska Charts)**

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**Oceanic Route Charts**

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**GENERAL INFORMATION**

Symbols shown are for the Instrument Flight Rules (IFR) Enroute Low and High Altitude Charts.
AIRPORT DATA

LOW/HIGH ALTITUDE

Airports/Seaplane bases shown in BLUE and GREEN have an approved Instrument Approach Procedure published. Those in BLUE have an approved DoD Instrument Approach Procedure and/or DoD RADAR MINIMA published in DoD FLIPS or FAA TPP. Airports/Seaplane bases shown in BROWN do not have a published Instrument Approach Procedure.

- ALL IAP Airports are shown on the Low Altitude Charts.
- Non-IAP Airports shown on the U.S. Low Altitude Charts have a minimum hard or soft surface runway of 3000’.
- Non-IAP Airports shown on the Alaska Low Altitude Charts have a minimum hard or soft surface runway of 3000’.
- Airports shown on the U.S. High Altitude Charts have a minimum hard or soft surface runway of 5000’.
- Airports shown on the Alaska High Altitude Charts have a minimum hard or soft surface runway of 4000’.

Associated city names for public airports are shown above or preceding the airport name. If airport name and city name are the same, only the airport name is shown. City names for military and private airports are not shown. The airport identifier in parentheses follows the airport name or Pvt.

Airport symbol may be offset for enroute navigational aids.

Pvt - Private Use

Longest runway length to nearest 100 feet with 70 feet as the dividing point
s indicates soft surface

Airport Name

Associated City Name

Airport Identifier

Airport Elevation

Automatic Terminal Information Service

Part-time or established by NOTAM. See Airport/Facility Directory for times of operation. In Alaska see Supplement Alaska

Airspace Class

Longest runway length to nearest 1500 feet with 70 feet as the dividing point

Lighting Capability:

1. Lighting available
2. No lighting available
3. Pilot Controlled Lighting
4. Part-time or on request

For complete information consult the Airport/Facility Directory.

1. Airport elevation given in feet above or below mean sea level
2. Pvt - Private use, not available to general public
3. A solid line box enclosing the airport name indicates FAR 93 Special Requirements see Directory/Supplement
4. “NO SVFR” above the airport name indicates FAR 91 fixed-wing special VFR flight is prohibited
5. following the airport identifier indicates Class C or Class D Airspace
6. Airport symbol may be offset for enroute navigational aids
7. Associated city names for public airports are shown above or preceding the airport name. If airport name and city name are the same, only the airport name is shown. The airport identifier in parentheses follows the airport name. City names for military and private airports are not shown.
RADIO AIDS TO NAVIGATION

VHF OMNIDIRECTIONAL RADIO RANGE (VOR)

DISTANCE MEASURING EQUIPMENT (DME)

TACTICAL AIR NAVIGATION (TACAN)

LOW/ HIGH ALTITUDE

VOR/ DME

COMPASS BEACON

TACAN

L" and "H" Category Radio Aids located off Jet Routes are depicted in screen black.

VOR DME RNAV WAYPOINT DATA

HIGH ALTITUDE - ALASKA

Coordinates

NAME: N90°00'00" W160°00'00"

Frequency: 108.0 MHz

Ident Ed: 1000

Reference Facility: Elev

NAVIGATION and COMMUNICATION BOXES

LOW/ HIGH ALTITUDE

VOR with TACAN compatible DME

Radio Aids to Navigation

- VOR and non-directional radio beacons (VOR)
- Distance measuring equipment (DME)
- Tactical air navigation (TACAN)
- Aircraft communication boxes (VOR)

NON-DIRECTIONAL RADIO BEACON (NDB)

MARINE RADIO BEACON (RBN)

COMPASS LOCATOR BEACON

ILS LOCALIZER

LOW ALTITUDE

RNAV WAYPOINT

LOW/ HIGH ALTITUDE
### Low Altitude Airways

- **VOR Airway / Jet Route**
- **LF / MF Airway**
- **Uncontrolled LF / MF Airway**
- **Oceanic Route**
- **ATS Route**
- **Low Altitude RNAV Route**

### High Altitude Routes

- **VFR Airway**
- **ATC Reporting Fix**
- **RNAV Route**
- **Magnetic Reference Bearing**
- **MEA - 23000G**
- **MEA - 27000**

### Single Direction Routes

- **Waypoint**
- **Effective Time of Route**
- **V 193**

### Direction of Flight Indicator

- **Low Altitude - Canada**

### Substitute Route

- **All reference and supporting data shown in brown**
- **NADAM**

### Unusable Route

- **subscriber**
- **High Altitude**
- **Jet Route**
- **Airway**

### By-Pass Route

- **Airway parameters prohibited or restricted**
- **VOR**

### Airway Restriction

- **RNAV (RCRCP)**

### Military Training Routes (MTR)

- **MTRs 5 NM or less both sides of centerline**
- **MTRs greater than 5 NM either or both sides of centerline**
- **Arrow indicates direction of route**
- **See MTR tabulation for altitude range information**
- **ABIR and VR MTRs are shown except those VRs or below 1500 AGL**
- **CAUTION: Inset charts do not depict MTRs**

### Fixes/ATC Reporting Requirements

- **Fix-Compulsory Position Report**
- **Position Fix Component (CPF)**
- **Waypoint-Compulsory Report**
- **Waypoint-Non-Compulsory Report**

### Tactical Air Navigation (TACAN) Fix - Alaska

- **All radials and bearings are magnetic**

### Facility Locators

- **Latitude**
- **Longitude**

### Mileages

- **Low / High Altitude**
- **Total Mileage between Sequential Compulsory Reporting Points**
- **Mileage between other Fix Points, NAVAIDs and/or Mileage Breakdown**
- **Mileage Breakdown**
- **Computer Navigation Fix (CNF) (no ATC function)**
- **Five-letter identifier in parenthesis indicates CNF with no ATC function**

### Distance Measuring Equipment (DME) Fix

- **Low / High Altitude**
- **Docka DME Fix (distance same as airway / route mileage)**
- **Docka DME Fix (encircled mileage shown when not otherwise shown)**
### AIRSPACE INFORMATION

#### Minimum Enroute Altitude (MEA)

<table>
<thead>
<tr>
<th>Low Altitude</th>
<th>High Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEA 3000</td>
<td>MEA 31000</td>
</tr>
<tr>
<td>5000</td>
<td>MEA Gap</td>
</tr>
</tbody>
</table>

All Altitudes are MSL unless otherwise noted.

#### Maximum Authorized Altitude (MAA)

<table>
<thead>
<tr>
<th>Low Altitude</th>
<th>High Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAA 45500</td>
<td>MAA 41000</td>
</tr>
</tbody>
</table>

All Altitudes are MSL unless otherwise noted.

#### Minimum Obstruction Clearance Altitude (MOCA)

<table>
<thead>
<tr>
<th>Low Altitude</th>
<th>High Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOCA 5500</td>
<td>MOCA 3500</td>
</tr>
<tr>
<td>7000</td>
<td>MOCA Gap</td>
</tr>
</tbody>
</table>

All Altitudes are MSL unless otherwise noted.

#### Changeover Point

<table>
<thead>
<tr>
<th>Low/High Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
</tr>
</tbody>
</table>

VOR Changeover Point giving altitude to NAVAs (Not shown or midpoint locations).

#### Altimeter Setting Change

<table>
<thead>
<tr>
<th>Low/High Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>QNH</td>
</tr>
</tbody>
</table>

Type of Area Traffic Service

#### Flight Information Regions (FIR)

<table>
<thead>
<tr>
<th>Low/High Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montreal FIR C2UL</td>
</tr>
</tbody>
</table>

Adjoining FIR

#### Control Areas (CTA)

<table>
<thead>
<tr>
<th>Low/High Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miami Oceanic CTA/FIR K2MA</td>
</tr>
</tbody>
</table>

Adjoining CTA

#### Upper Information Regions (UIR)

<table>
<thead>
<tr>
<th>Low/High Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monterey UTA/UIR Sector 3 MAMY</td>
</tr>
</tbody>
</table>

Adjoining UTA/UIR

#### Additional Control Areas

<table>
<thead>
<tr>
<th>Low Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control 1234</td>
</tr>
</tbody>
</table>

### RNAV Holding Pattern

Magnetic Reference Bearing is determined by the isogonic value at the waypoint or fix.
### Off Route Obstruction Clearance Altitude (OROCA)

OROCA is computed similarly to the Maximum Elevation Figure (MEF) found on Visual charts except that it provides an additional vertical buffer of 1,000 feet in designated non-mountainous areas and a 2,000 foot vertical buffer in designated mountainous areas within the United States.

### Special Use Airspace

#### Low Altitude

**Example:** 12,500 feet

In the Caribbean, the first 2 letters represent the country code, i.e. MY: Bahamas, MU: Cuba.

- **P** - Prohibited Area
- **R** - Restricted Area
- **W** - Warning Area
- **L** - Low Only
- **A** - Alert Area
- **C** - Canadian Only
- **CYR** - Restricted Area
- **CYD** - Danger Area
- **CYA** - Advisory Area
- **Caribbean Only**
- **D** - Danger Area

#### Low/High Altitude

**LOW**

- **P** - Prohibited Area
- **R** - Restricted Area
- **W** - Warning Area
- **L** - Low Only
- **A** - Alert Area

**HIGH**

- **CYR** - Restricted Area
- **CYD** - Danger Area
- **CYA** - Advisory Area

#### Exclusion Area

Internal lines delimit separation of the same Special Use Areas or Exclusion Areas.

### Controlled Airspace

#### High Altitude

**CLASS A AIRSPACE**

Open Area (White)

That airspace from 18,000’ MSL to and including FL 400, including the airspace overlying the waters within 12 NM of the coast of the contiguous United States and Alaska and designated offshore areas, excluding Santa Barbara Island, Farallon Island, the airspace south of latitude 25 00’10’N, the Alaska Peninsula west of longitude 160°00’W, and the airspace less than 1,500’ AGL.

That airspace from 18,000’ MSL to and including FL400, including Santa Barbara Island, Farallon Island, the Alaska Peninsula west of longitude 160°00’W, and designated offshore areas.

#### Low Altitude

**CLASS B AIRSPACE**

Screened Blue with a Solid Blue Outline

That airspace from the surface to 10,000’ MSL (unless otherwise designated) surrounding the nation’s busiest airports. Each Class B airspace area is individually tailored and consists of a surface area and two or more layers.

**MODE C AREA**

A Solid Blue Outline

That airspace within 30 NM of the primary airports of Class B airspace and within 10 NM of designated airports. Mode C transponder equipment is required. (See FAF 91.215)

#### Low Altitude

**CLASS C AIRSPACE**

Screened blue with a Solid Blue Dashed Outline

That airspace from the surface to 4,000’ (unless otherwise designated) above the elevation of relevant airports (charted in MSL). The normal radius of the outer limits of Class C airspace is 10 NM. Class C airspace is also indicated by the letter C in a box following the airport name.

**CLASS D AIRSPACE**

Open Area (White)

That airspace, from the surface to 2,500’ (unless otherwise designated) above the airport elevation charted in MSL, surrounding those airports that have an operational control tower. Class D airspace is indicated by the letter D in a box following the airport name.
## AIRSPACE INFORMATION

### CONTROLLED AIRSPACE

**Canada Only**

**LOW ALTITUDE**

CLASS III AIRSPACE
Open Area (White)

That controlled airspace below 14,500' AMSL which is not Class B, C, or D. Federal airways from 1,200' AGL to but not including 18,000' MSL (unless otherwise specified). Other designated control areas below 14,500' MSL. Not Chartered.

That airspace from 14,500' MSL to but not including 18,000' MSL, including the airspace overlying the waters within 12 NM of the coast of the contiguous United States and Alaska and designated offshore areas, excluding the Alaska peninsular west of longitude 160°00'00"W and the airspace less than 1,500' AGL.

### UNCONTROLLED AIRSPACE

**LOW/ HIGH ALTITUDE**

CLASS G AIRSPACE

Screened Brown Channeled Area

Controlled airspace above 12,500' MSL.

### CANADIAN AIRSPACE

Appropriate notes as required may be shown.

### AIRSPACE OUTSIDE OF U.S.

Other than Canada

Appropriate notes as required may be shown.

## NAVIGATIONAL AND PROCEDURAL INFORMATION

### ISOGONIC LINE AND VALUE

Appropriate notes as required may be shown.

### TIME ZONE

**LOW/ HIGH ALTITUDE**

Canada Std = UTC +4 US/Canada

During periods of Daylight Saving Time (DT), effective hours will be one hour earlier than shown. All states observe DT except Arizona and Hawaii.

ALL TIMES IS COORDINATED UNIVERSAL TIME (UTC)

### ENLARGEMENT AREA

**LOW/ HIGH ALTITUDE**

JACKSONVILLE AREA CHART A-1

### MATCH MARK

**LOW/ HIGH ALTITUDE**
NAVIGATIONAL AND PROCEDURAL INFORMATION

CRUISING ALTITUDES
U.S. only

LOW ALTITUDE
IFR
EVEN
Thousands
VFR or
TOP
EVEN
Thousands
Plus
500’
180’

VFR above 3000’ AGI,
unless otherwise authorized by ATC.

IFR outside controlled airspace

IFR within controlled airspace as assigned by ATC.

All courses are magnetic.

HIGH ALTITUDE
18,000’ MSL to 
FL280

VFR or VFR On Top add 500’

No VFR or VFR On Top above FL280 in NAS airspace.

LOW/ HIGH ALTITUDE

NOTES

FAA AIR TRAFFIC SERVICE OUTSIDE U.S. AIRSPACE IS
PROVIDED IN ACCORDANCE WITH ARTICLE 12 AND
ANNEX 11 OF ICAO CONVENTIONS. ICAO CONVENTIONS
NOT APPLICABLE TO STATE AIRCRAFT BUT COMPLIANCE
WITH ICAO STANDARDS AND PRACTICES IS ENCOURAGED.

CAUTION POSSIBLE DAMAGE AND/OR
INTERFERENCE TO AIRBORNE RADIO DUE
TO HIGH LEVEL RADIO ENERGY IN THE
VICINITY OF K-STOP

CAUTION ACCURACY OF AIR TRAFFIC SERVICES
RELATIVE TO HAVANA IFR CANNOT BE CONFIRMED.
CONSULT NOTAM.

North American Datum of 1983 (NAD 83) for
charting purposes is considered equivalent to
World Geodetic System 1984 (WGS 84).

MORSE CODE

LOW/ HIGH ALTITUDE

A ---- N ---- 1 -----
B ---- O ---- 2 -----
C ---- P ---- 3 -----
D ---- Q ---- 4 -----
E -- R -- 5 -----
F -- S -- 6 -----
G -- T -- 7 -----
H --- U --- 8 -----
I --- V --- 9 -----
J ---- W ---- 0 -----
K ---- X ----
L ---- Y ----
M ---- Z ----

CULTURE

BOUNDARIES

LOW/ HIGH ALTITUDE

International

U.S. /Russia
Maritime Line

Date Line

LOW/ HIGH ALTITUDE

HYDROGRAPHY

SHORELINE

TOPOGRAPHY

LOW/ HIGH ALTITUDE

RUSSIA
UNITED STATES

LOW/ HIGH ALTITUDE

INTERNATIONAL DATE LINE
MONDAY
SUNDAY

Area Charts

TOPOGRAPHY

TERRAIN
### AIRPORTS

<table>
<thead>
<tr>
<th>AIRPORT DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airport of Entry (AOE) are shown with four letter ICAO Identifier</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LANDPLANE-CIVIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refueling and repair facilities for normal traffic.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LANDPLANE-CIVIL AND MILITARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refueling and repair facilities for normal traffic.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LANDPLANE-MILITARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refueling and repair facilities for normal traffic.</td>
</tr>
</tbody>
</table>

### RADIO AIDS TO NAVIGATION

<table>
<thead>
<tr>
<th>VHF OMNIDIRECTIONAL RADIO RANGE (VOR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOR / DME</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DISTANCE MEASURING EQUIPMENT (DME)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VORTAC / DME</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TACTICAL AIR NAVIGATION (TACAN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NARC / NPSC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NON-DIRECTIONAL RADIO BEACON (NDB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDB / DME</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DISTANCE MEASURING EQUIPMENT (DME)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NARC / NPSC</td>
</tr>
</tbody>
</table>

### IDENTIFICATION BOX

<table>
<thead>
<tr>
<th>Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDY 400 N29°12.2' W11°22.3'</td>
</tr>
</tbody>
</table>

### AIRSPACE INFORMATION

<table>
<thead>
<tr>
<th>AIR TRAFFIC SERVICE (ATS) OCEANIC ROUTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: Mileages are Nautical (NM)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ATS SINGLE DIRECTION ROUTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERIAL REFUELING TRACKS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIR DEFENSE IDENTIFICATION ZONE (ADIZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAWAIIAN, ADIZ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEATTLE (25E)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FLIGHT INFORMATION REGIONS (FIR) and/or (CTA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HONOLULU FIR (PHK)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UPPER INFORMATION REGIONS (UIR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KALAOA FIR (PHR)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UPPER CONTROL AREAS (UTA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KALAOA FIR (PHR)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OCEANIC CONTROL AREAS (OCA) and/or (CTA /FIR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAKLAND OCEANIC COA / HIR KEKAI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADDITIONAL OCEANIC CONTROL AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: Limits not shown when coincident with Warning Areas.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BUFFER ZONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teeth point to area</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NON-FREE FLYING ZONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teeth point to area</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NORTH ATLANTIC / MINIMUM NAVIGATION PERFORMANCE SPECIFICATIONS (NAT/MNPS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAT MNPS (FL 283-FL470)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REPORTING POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name, Latitude &amp; Longitude</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPECIAL USE AIRSPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warning Area</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPECIAL USE AIRSPACE</th>
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</thead>
<tbody>
<tr>
<td>Special Use</td>
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<table>
<thead>
<tr>
<th>SPECIAL USE AIRSPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Mile Limit</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SPECIAL USE AIRSPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNCONTROLLED AIRSPACE</td>
</tr>
</tbody>
</table>
### Navigational and Procedural Information

#### Mileage Circles

Note: Mileages are Nautical (NM)

#### Time Zone

Note: All time is Coordinated Universal (Standard) Time (UTC)

#### Overlap Marks

NPNC Only

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### Cultural Boundaries

<table>
<thead>
<tr>
<th>International</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maritime</td>
<td>Russia, United States</td>
</tr>
</tbody>
</table>

#### Date Line

- Monday
- Sunday

---

### Compass Rose

Note: Compass Roses oriented to Magnetic North

---

### Hydrography

#### Shorelines

- Map of offshore areas

---

### Notes

**Warning**

- Aircraft infringing upon non-free flying territory may be fired upon without warning
- Unlisted radio emissions from this area may constitute a navigation hazard or result in border overflight unless unusual precaution is exercised.