GENERAL INFORMATION

This Chart Supplement is a Civil Flight Information Publication updated every eight weeks by the U.S. Department of Transportation, Federal Aviation Administration, Aeronautical Information Services, http://www.faa.gov/go/ais.

It is designed for use with Flight Information Publication Enroute Charts, and the Sectional Aeronautical Chart covering the State of Hawaii and that area of the Pacific served by U.S. facilities.

This Chart Supplement contains an Airport/Facility Directory, ATC procedures and terminal SID, STAR and IAP charts applicable to the Pacific area.

The official ATC procedures for operating in the Pacific, outside sovereign US airspace are prescribed by ICAO and are contained in ICAO documents 4444, 7030 and Annexes 2 and 11.

CORRECTIONS, COMMENTS, AND/OR PROCUREMENT

CRITICAL information such as equipment malfunction, abnormal field conditions, hazards to flight, etc., should be reported as soon as possible. NOTE: Requests for the creation or revision to Airport Diagrams should be in accordance with FAA Order 7910.4.

FOR COMMENTS OR CORRECTIONS: https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/

FAA, Aeronautical Information Services
1305 East West Highway
SSMC-4 Suite 4400
Silver Spring, MD 20910-3281
Telephone 1–800–638–8972

NOTICE: Changes must be received by Aeronautical Information Services as soon as possible but not later than the “cut–off” dates listed below to assure publication on the desired effective date. Information cut–off dates that fall on a federal holiday must be received the previous work day.

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*Airspace Information includes changes to preferred routes, SID’s, STAR’s, IAP’s and graphic depictions on charts.

FOR PROCUREMENT:
For digital products, visit our website at:
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http://www.faa.gov/air_traffic/flight_info/aeronav/print_providers/

The following publications for use in the Pacific area are available from the FAA, Aeronautical Information Services:

CHART SUPPLEMENT PACIFIC. This supplement is issued every 56 days.


NORTH PACIFIC OCEAN ROUTE CHARTS. Charts are issued every 56 days at 1:12,000,000 composite or four 1:7,000,000 area charts.

IFR ENROUTE PACIFIC OCEAN AND HAWAIIAN ISLAND CHART. Available from the National Geospatial–Intelligence Agency, provides coverage of Pacific areas served by US facilities.

NGA Combat Support Center, ATTN: DDCP
Washington, D.C. 20315–0020
Telephone (301) 227–2495 or Toll Free 1–800–826–0342

AMENDMENT NOTICE

A change notice will only be issued for safety considerations such as when an amended or original instrument approach procedure is issued. UPON RECEIPT, THE AMENDMENT NOTICE SHOULD BE ATTACHED TO THIS PAGE SO THAT USERS HAVE ALL SIGNIFICANT CHANGES AVAILABLE.

This Airport/Facility Directory comprises part of the following sections of the United States Aeronautical Information Publication (AIP): GEN, AGA 3, COM 2.
The following abbreviations/acronyms are those commonly used within this Directory. Other abbreviations/acronyms may be found in the Legend and are not duplicated below. The abbreviations presented are intended to represent grammatical variations of the basic form. (Example—“req” may mean “request”, “requesting”, “requested”, or “requests”).

For additional FAA approved abbreviations/acronyms please see FAA Order JO 7340.2 —Contractions

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| elgt         | daylight |
| D-ATIS       | Digital Automatic Terminal Information Service |
| daylt        | daylight |
| db           | decibel |
| DCL          | Departure Clearance |
| Dec           | December |
| decom         | decommission |
| deg          | degree |
| del           | delivery |
| dep          | depart |
| DEP          | Departure Control |
| destn        | destination |
| det          | detachment |
| DF           | Direction Finder |
| DH           | Decision Height |
| DIAP         | DoD Instrument Approach Procedure |
| direc        | directional |
| disem        | disseminate |
| displ        | displacement |
| dist         | district, distance |
| div          | division |
| DL           | Direct Line to FSS |
| dlt          | delete |
| dly          | daily |
| DME          | Distance Measuring Equipment (UHF standard, TACAN compatible) |
| DNVT         | Digital Non–Secure Voice Telephone |
| DoD          | Department of Defense |
| drc          | direct |
| DSN          | Defense Switching Network (Telephone) |
| DSNN         | Defense Switching Network |
| dspclcd      | displaced |
| DT           | Daylight Savings Time |
| dur          | during |
| durn         | duration |
| DV           | Distinguished Visitor |
| E            | East |
| ea           | each |
| EAT          | Expected Approach Time |
| ECN          | Enroute Change Notice |
| eff          | effective, effect |
| E–HA         | Enroute High Altitude |
| E–LA         | Enroute Low Altitude |
| elev         | elevation |
| ELT          | Emergency Locator Transmitter |
### Abbreviation Description

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**GENERAL INFORMATION**

PAC, 5 Nov 2020 to 31 Dec 2020
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<td>Rotating Light or Beacon</td>
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<td>Runway Point of Intercept</td>
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**Abbreviation | Description**

- **RR**: Railroad
- **RRP**: Runway Reference Point
- **RSC**: Runway Surface Condition
- **RSDU**: Radar Storm Detection Unit
- **RSE**: Runway Starter Extension/ Starter Strip
- **RSRS**: Reduced Same Runway Separation
- **rstd**: restricted
- **rte**: route
- **ruf**: rough
- **RVR**: Runway Visual Range
- **RVSM**: Reduced Vertical Separation Minima
- **rwy**: runway
- **S**: South
- **S/D**: Seadrome
- **SALS**: Short Approach Lighting System
- **SAR**: Search and Rescue
- **Sat**: Saturday
- **SAVASI**: Simplified Abbreviated Visual Approach Slope Indicator
- **SAWRS**: Supplement Aviation Weather Reporting Station
- **sby**: standby
- **Sched**: scheduled services
- **scr**: sector
- **SDF**: Simplified Directional Facility
- **SE**: Southeast
- **sec**: second, section
- **secd**: secondary
- **SELCAL**: Selective Calling System
- **SELF**: Strategic Expeditionary Landing Field
- **SEng**: Single Engine
- **Sep**: September
- **SFA**: Single Frequency Approach
- **sfc**: surface
- **SFL**: Sequence Flashing Lights
- **SFRA**: Special Flight Rules Area
- **SID**: Standard Instrument Departure
- **SIDA**: Secure Identification Display Area
- **SIF**: Selective Identification Feature
- **sked**: schedule
- **SM**: statute miles
- **SOAP**: Spectrometric Oil Analysis Program
- **SOF**: Supervisor of Flying
- **SPB**: Seaplane Base
- **SR**: sunrise
- **SRE**: Surveillance Radar Element of GCA
- **SS**: sunset
- **SSALS/R**: Simplified Short Approach Lighting System with RAIL
- **SSB**: Single Sideband
- **SSR**: Secondary Surveillance Radar
- **STA**: Straight-in Approach
- **std**: standard
- **sn**: station
- **stor**: storage
- **str–in**: Straight–in
- **stu**: student
- **subj**: subject
- **sum**: summer
- **Sun**: Sunday
- **sur**: surround
- **survl**: survival, surveillance
- **suspd**: suspended
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GENERAL INFORMATION

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AIRPORT/FACILITY DIRECTORY LEGEND

SAMPLE

CITY NAME  AIRPORT NAME (ALTERNATE NAME) (TFS)(KTLT) CIV/MIL

200   B  TPA—1000(800)  AOE  LRA  Class IV, ARFF Index A  NOTAM FILE ORL Not insp.  MON Airport

3 N UTC–6(–5DT) N34º41.93´ W99º20.20´ 1000(800)  AOE   LRA  Class IV, ARFF Index A  NOTAM FILE ORL Not insp.  MON Airport


RWY 18: RLLS.  MALSF.  TDZL.  REIL.  PAPI(P2R)—GA 3.0º TCH 36´.  RVR–TMR.  Thld dsplcd 300´.  Trees.  Rgt tfc.  0.3% up.

RWY 36: ALSF1.  0.4% down.

RWY 09–27: H6000X150 (ASPH)  MIRL

RWY 173–353: H3515X150 (ASPH–PFC)  AUW PCN 59 F/A/W/T

LAND AND HOLD–SHORT OPERATIONS

LDG RWY  HOLD–SHORT POINT  AVBL LDG DIST

RWY 18  09–27  6500

RWY 36  09–27  5400

RUNWAY DECLARED DISTANCE INFORMATION

RWY 18: TORA–12004 TODA–12004 ASDA–11704 LDA–11504

RWY 36: TORA–12004 TODA–12004 ASDA–12004 LDA–11704

ARRESTING GEAR/SYSTEM

RWY 18  HOOK E5 (65´ OVRN) BAK–14 BAK–12B (1087´) HOOK E5 (74´ OVRN)

RWY 36

SERVICE:

S4

FUEL

100LL, JET A

OX

1, 3

LGT


JASU 3(AM32A–60) 2(A/M32A–86) J8(Mil)(NC–100, A)

FLUID

W SP PRESAIR LOX

OIL

O–128

MAINT

S1 Mon–Fri 1000–2200Z‡

TRAN ALERT

Avbl 1300–0200Z‡ svc limited weekends.

AIRPORT REMARKS:


MILITARY REMARKS:

ANG


AIRPORT MANAGER:

(580) 481–5739

WEATHER DATA SOURCES: AWOS–I 120.3 (202) 426–8000.  LAWRS.

COMMUNICATIONS:

SFA  CTAFF  122.8  UNICOM  122.95  ATIS  127.25  273.5 (202) 426–8003  PTD  372.2

NAME RCO  112.2T  112.1R (NAME RADIO)

B) NAME APP/DEP CON  128.35  257.725 (1200–0400Z‡)

TOWER  119.65  255.6 (1200–0400Z‡)  GND CON  121.7  GCO  135.075 (ORLANDO CLNC)  CLNC DEL  125.55

CPDLC  D–HZWXR, D–TAXI, DCL (LOGON KMEM)

NAME COMD POST  (GERONIMO)  311.0  321.4  6761

PMSV METRO  239.8

AIRSPACE: CLASS B

See VFR Terminal Area Chart.

VOR TEST FACILITY (VOT):  116.7

ALL TIMES AND ALTITUDES ARE STANDARD

COMM/NAV/WEATHER REMARKS:

Emerg frequency 121.5 not avbl at twr.

HELPAD H1: H100X75 (ASPH)

HELPAD H2: H60X60 (ASPH)

HELIPORT REMARKS: Helipad H1 lctd on general aviation side and H2 lctd on air carrier side of arpt.

187 TPA 1000(813)

WATERWAY 15–33: 5000X425 (WATER)

SEAPLANE REMARKS: Birds roosting and feeding areas along river banks.  Seaplanes operating adjacent to SW side of arpt not visible from twr and are required to ctc twr.

All bearings and radials are magnetic unless otherwise specified.  All mileages are nautical unless otherwise noted.

All times are Coordinate Universal Time (UTC) except as noted.  All elevations are in feet above/below Mean Sea Level (MSL) unless otherwise noted.

The horizontal reference datum of this publication is North American Datum of 1983 (NAD83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).
This directory is a listing of data on record with the FAA on public-use airports, military airports and selected private-use airports specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally this listing contains data for associated terminal control facilities, air route traffic control centers, and radio aids to navigation within the conterminous United States, Puerto Rico and the Virgin Islands. Civil airports and joint Civil/Military airports which are open to the public are listed alphabetically by state, associated city and airport name and cross-referenced by airport name. Military airports and private-use (limited civil access) joint Military/Civil airports are listed alphabetically by state and official airport name and cross-referenced by associated city name. Navaids, flight service stations and remote communication outlets that are associated with an airport, but with a different name, are listed alphabetically under their own name, as well as under the airport with which they are associated.

The listing of an airport as open to the public in this directory merely indicates the airport operator's willingness to accommodate transient aircraft, and does not represent that the airport conforms with any Federal or local standards, or that it has been approved for use on the part of the general public. Military airports, private-use airports, and private-use (limited civil access) joint Military/Civil airports are open to civil pilots only in an emergency or with prior permission. See Special Notice Section, Civil Use of Military Fields.

The information on obstructions is taken from reports submitted to the FAA. Obstruction data has not been verified in all cases. Pilots are cautioned that objects not indicated in this tabulation (or on the airports sketches and/or charts) may exist which can create a hazard to flight operation. Detailed specifics concerning services and facilities tabulated within this directory are contained in the Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

The legend items that follow explain in detail the contents of this Directory and are keyed to the circled numbers on the sample on the preceding pages.

1. CITY/AIRPORT NAME

Civil and joint Civil/Military airports which are open to the public are listed alphabetically by state and associated city. Where the city name is different from the airport name the city name will appear on the line above the airport name. Airports with the same associated city name will be listed alphabetically by airport name and will be separated by a dashed rule line. A solid rule line will separate all others. FAA approved helipads and seaplane landing areas associated with a land airport will be separated by a dotted line. Military airports and private-use (limited civil access) joint Military/Civil airports are listed alphabetically by state and official airport name.

2. ALTERNATE NAME

Alternate names, if any, will be shown in parentheses.

3. LOCATION IDENTIFIER

The location identifier is a three or four character FAA code followed by a four-character ICAO code, when assigned, to airports. If two different military codes are assigned, both codes will be shown with the primary operating agency's code listed first. These identifiers are used by ATC in lieu of the airport name in flight plans, flight strips and other written records and computer operations. Zeros will appear with a slash to differentiate them from the letter "O".

4. OPERATING AGENCY

Airports within this directory are classified into two categories, Military/Federal Government and Civil airports open to the general public, plus selected private-use airports. The operating agency is shown for military, private-use and joint use airports. The operating agency is shown by an abbreviation as listed below. When an organization is a tenant, the abbreviation is enclosed in parenthesis. No classification indicates the airport is open to the general public with no military tenant.

A = US Army
AFRC = Air Force Reserve Command
AF = US Air Force
ANG = Air National Guard
AR = US Army Reserve
ARNG = US Army National Guard
CG = US Coast Guard
CIV/MIL = Joint Use Civil/Military Open to the Public
DND = Department of National Defense Canada
DOE = Department of Energy
MC = Marine Corps
MIL/CIV = Joint Use Military/Civil Limited Civil Access
N = Navy
NAF = Naval Air Facility
NAS = Naval Air Station
NASA = National Air and Space Administration
P = US Civil Airport Wherein Permit Covers Use by Transient Military Aircraft
PVT = Private Use Only (Closed to the Public)

5. AIRPORT LOCATION

Airport location is expressed as distance and direction from the center of the associated city in nautical miles and cardinal points, e.g., 3 N.

6. TIME CONVERSION

Hours of operation of all facilities are expressed in Coordinated Universal Time (UTC) and shown as “Z” time. The directory indicates the number of hours to be subtracted from UTC to obtain local standard time and local daylight saving time UTC–5(–4DT). The symbol † indicates that during periods of Daylight Saving Time (DST) effective hours will be one hour earlier than shown. In those areas where daylight saving time is not observed the (–4DT) and † will not be shown. Daylight saving time is in effect from 0200 local time the second Sunday in March to 0200 local time the first Sunday in November. Canada and all U.S. Conterminous States observe daylight saving time except Arizona and Puerto Rico, and the Virgin Islands. If the state observes daylight saving time and the operating times are other than daylight saving times, the operating hours will include the dates, times and no † symbol will be shown, i.e., April 15–Aug 31 0630–1700Z, Sep 1–Apr 14 0600–1700Z.
GEOGRAPHIC POSITION OF AIRPORT—AIRPORT REFERENCE POINT (ARP)
Positions are shown as hemisphere, degrees, minutes and hundredths of a minute and represent the approximate geometric center of all usable runway surfaces.

CHARTS
Charts refer to the Sectional Chart and Low and High Altitude Enroute Chart and panel on which the airport or facility is depicted. Pacific Enroute Chart will be indicated by P. Area Enroute Charts will be indicated by A. Helicopter Chart depictions will be indicated as COPTER. IFR Gulf of Mexico West and IFR Gulf of Mexico Central will be referenced as GOMW and GOMC.

INSTRUMENT APPROACH PROCEDURES, AIRPORT DIAGRAMS
IAP indicates an airport for which for which a prescribed (Public Use) FAA Instrument Approach Procedure has been published. DIAP indicates an airport for which a prescribed DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures. See the Special Notice Section of this directory, Civil Use of Military Fields and the Aeronautical Information Manual 5–4–5 Instrument Approach Procedure Charts for additional information. AD indicates an airport for which an airport diagram has been published. Airport diagrams are located in the back of each Chart Supplement volume alphabetically by associated city and airport name.

AIRPORT SKETCH
The airport sketch, when provided, depicts the airport and related topographical information as seen from the air and should be used in conjunction with the text. It is intended as a guide for pilots in VFR conditions. Symbology that is not self-explanatory will be reflected in the sketch legend. The airport sketch will be oriented with True North at the top.

ELEVATION
The highest point of an airport's usable runways measured in feet from mean sea level. When elevation is sea level it will be indicated as "00". When elevation is below sea level a minus “−” sign will precede the figure.

ROTATING LIGHT BEACON
B indicates rotating beacon is available. Rotating beacons operate sunset to sunrise unless otherwise indicated in the AIRPORT REMARKS or MILITARY REMARKS segment of the airport entry.

TRAFFIC PATTERN ALTITUDE
Traffic Pattern Altitude (TPA)—The first figure shown is TPA above mean sea level. The second figure in parentheses is TPA above airport elevation. TPA will only be published if they differ from the recommended altitudes as described in the AIM, Traffic Patterns. Multiple TPA shall be shown as “TPA—See Remarks” and detailed information shall be shown in the Airport or Military Remarks Section. Traffic pattern data for USAF bases, USN facilities, and U.S. Army airports (including those on which ACC or U.S. Army is a tenant) that deviate from standard pattern altitudes shall be shown in Military Remarks.

AIRPORT OF ENTRY, LANDING RIGHTS, AND CUSTOMS USER FEE AIRPORTS
U.S. CUSTOMS USER FEE AIRPORT—Private Aircraft operators are frequently required to pay the costs associated with customs processing.

AOE—Airport of Entry. A customs Airport of Entry where permission from U.S. Customs is not required to land. However, at least one hour advance notice of arrival is required.

LRA—Landing Rights Airport. Application for permission to land must be submitted in advance to U.S. Customs. At least one hour advance notice of arrival is required.

NOTE: Advance notice of arrival at both an AOE and LRA airport may be included in the flight plan when filed in Canada or Mexico. Where Flight Notification Service (ADCUS) is available the airport remark will indicate this service. This notice will also be treated as an application for permission to land in the case of an LRA. Although advance notice of arrival may be relayed to Customs through Mexico, Canada, and U.S. Communications facilities by flight plan, the aircraft operator is solely responsible for ensuring that Customs receives the notification. (See Customs, Immigration and Naturalization, Public Health and Agriculture Department requirements in the International Flight Information Manual for further details.)

U.S. CUSTOMS AIR AND SEA PORTS, INSPECTORS AND AGENTS
Northeast Sector (New England and Atlantic States—ME to MD) 407–975–1740
Southeast Sector (Atlantic States—DC, WV, VA to FL) 407–975–1780
Central Sector (Interior of the US, including Gulf states—MS, AL, LA) 407–975–1760
Southwest East Sector (OK and eastern TX) 407–975–1840
Southwest West Sector (Western TX, NM and AZ) 407–975–1820
Pacific Sector (WA, OR, CA, HI and AK) 407–975–1800

CERTIFICATED AIRPORT (14 CFR PART 139)
Airports serving Department of Transportation certified carriers and certified under 14 CFR part 139 are indicated by the Class and the ARFF Index; e.g. Class I, ARFF Index A, which relates to the availability of crash, fire, rescue equipment. Class I airports can have an ARFF Index A through E, depending on the aircraft length and scheduled departures. Class II, III, and IV will always carry an Index A.

<table>
<thead>
<tr>
<th>Type of Air Carrier Operation</th>
<th>Class I</th>
<th>Class II</th>
<th>Class III</th>
<th>Class IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled Air Carrier Aircraft with 31 or more passenger seats</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unscheduled Air Carrier Aircraft with 31 or more passengers seats</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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AIRPORT/FACILITY DIRECTORY LEGEND

INDICES AND AIRCRAFT RESCUE AND FIRE FIGHTING EQUIPMENT REQUIREMENTS

<table>
<thead>
<tr>
<th>Airport Index</th>
<th>Required No. Vehicles</th>
<th>Aircraft Length</th>
<th>Scheduled Departures</th>
<th>Agent + Water for Foam</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>&lt;90’</td>
<td>≥1</td>
<td>500#DC or HALON 1211 or 450#DC + 100 gal H2O</td>
</tr>
<tr>
<td>B</td>
<td>1 or 2</td>
<td>≥90’, &lt;126’</td>
<td>≥5</td>
<td>Index A + 1500 gal H2O</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥126’, &lt;159’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2 or 3</td>
<td>≥126’, &lt;159’</td>
<td>≥5</td>
<td>Index A + 3000 gal H2O</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥159’, &lt;200’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>3</td>
<td>≥159’, &lt;200’</td>
<td>≥5</td>
<td>Index A + 4000 gal H2O</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;200’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>3</td>
<td>≥200’</td>
<td>≥5</td>
<td>Index A + 6000 gal H2O</td>
</tr>
</tbody>
</table>

> Greater Than; < Less Than; ≥ Equal or Greater Than; ≤ Equal or Less Than; H2O—Water; DC—Dry Chemical.

NOTE: The listing of ARFF index does not necessarily assure coverage for non-air carrier operations or at other than prescribed times for air carrier. ARFF Index Ltd.—indicates ARFF coverage may or may not be available, for information contact airport manager prior to flight.

NOTAM SERVICE

All public use landing areas are provided NOTAM service. A NOTAM FILE identifier is shown for individual landing areas, e.g., “NOTAM FILE BNA”. See the AIM, Basic Flight Information and ATC Procedures for a detailed description of NOTAMs. Current NOTAMs are available online from the Federal NOTAM System (FNS) NOTAM Search website https://notams.aim.faa.gov/notamSearch/, private vendors, or on request from Flight Service. Military NOTAMs are available using the Defense Internet NOTAM Service (DINS) at https://www.notams.faa.gov. Pilots flying to or from airports not available through the FNS or DINS can obtain assistance from Flight Service.

FAA INSPECTION

All airports not inspected by FAA will be identified by the note: Not insp. This indicates that the airport information has been provided by the owner or operator of the field.

MINIMUM OPERATIONAL NETWORK (MON) AIRPORT DESIGNATION

MON Airports have at least one VOR or ILS instrument approach procedure that can be flown without the need for GPS, WAAS, DME, NDB or RADAR. The primary purpose of the MON designation is for recovery in case of GPS outage.

RUNWAY DATA

Runway information is shown on two lines. That information common to the entire runway is shown on the first line while information concerning the runway ends is shown on the second or following line. Runway direction, surface, length, width, weight bearing capacity, lighting, and slope, when available are shown for each runway. Multiple runways are shown with the longest runway first. Direction, length, width, and lighting are shown for sea-lanes. The full dimensions of helipads are shown, e.g., 50X150. Runway data that requires clarification will be placed in the remarks section.

RUNWAY DESIGNATION

Runways are normally numbered in relation to their magnetic orientation rounded off to the nearest 10 degrees. Parallel runways can be designated L (left)/R (right)/C (center). Runways may be designated as Ultralight or assault strips. Assault strips are shown by magnetic bearing.

RUNWAY DIMENSIONS

Runway length and width are shown in feet. Length shown is runway end to end including displaced thresholds, but excluding those areas designed as overruns.

RUNWAY SURFACE AND SURFACE TREATMENT

Runway lengths prefixed by the letter “H” indicate that the runways are hard surfaced (concrete, asphalt, or part asphalt–concrete). If the runway length is not prefixed, the surface is sod, clay, etc. The runway surface composition is indicated in parentheses after runway length as follows:

(AFSC)—Aggregate friction seal coat (GRVL)—Gravel, or cinders (SAND)—Sand
Runway strength data shown in this publication is derived from available information and is a realistic estimate of capability at an average level of activity. It is not intended as a maximum allowable weight or as an operating limitation. Many airport pavements are capable of supporting limited operations with gross weights in excess of the published figures. Permissible operating weights, insofar as runway strengths are concerned, are a matter of agreement between the owner and user. When desiring to operate into any airport at weights in excess of those published in the publication, users should contact the airport management for permission. Runway strength figures are shown in thousand of pounds, with the last three figures being omitted. Add 000 to figure following S, D, 2S, 2T, AUW, SWL, etc., for gross weight capacity. A blank space following the letter designator is used to indicate the runway can sustain aircraft with this type landing gear, although definite runway weight bearing capacity figures are not available, e.g., S, D. Applicable codes for typical gear configurations with S=Single, D=Dual, T=Triple and Q=Quadruple:

<table>
<thead>
<tr>
<th>CURRENT</th>
<th>NEW</th>
<th>NEW DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>S</td>
<td>Single wheel type landing gear (DC3), (C47), (F15), etc.</td>
</tr>
<tr>
<td>D</td>
<td>D</td>
<td>Dual wheel type landing gear (BE1900), (B737), (A319), etc.</td>
</tr>
<tr>
<td>T</td>
<td>2S</td>
<td>Two single wheels in tandem type landing gear (C130).</td>
</tr>
<tr>
<td>ST</td>
<td>2T</td>
<td>Two triple wheels in tandem type landing gear (C17), etc.</td>
</tr>
<tr>
<td>DT</td>
<td>2D</td>
<td>Two dual wheels in tandem type landing gear (B707), etc.</td>
</tr>
<tr>
<td>TT</td>
<td>2D</td>
<td>Two dual wheels in tandem type landing gear (B757, KC135).</td>
</tr>
<tr>
<td>SBTT</td>
<td>2D/D1</td>
<td>Two dual wheels in tandem/dual wheel body type landing gear (KC10).</td>
</tr>
<tr>
<td>None</td>
<td>2D/2D1</td>
<td>Two dual wheels in tandem/two dual wheels in tandem body type landing gear (A340–600).</td>
</tr>
<tr>
<td>DDT</td>
<td>2D/2D2</td>
<td>Two dual wheels in tandem/two dual wheels in double tandem body type landing gear (B747, E4).</td>
</tr>
<tr>
<td>TTT</td>
<td>3D</td>
<td>Three dual wheels in tandem type landing gear (B777), etc.</td>
</tr>
<tr>
<td>TT</td>
<td>D2</td>
<td>Dual wheel gear two struts per side main gear type landing gear (B52).</td>
</tr>
<tr>
<td>TDT</td>
<td>C5</td>
<td>Complex dual wheel and quadruple wheel combination landing gear (C5).</td>
</tr>
</tbody>
</table>

AUW—All up weight. Maximum weight bearing capacity for any aircraft irrespective of landing gear configuration.

SWL—Single Wheel Loading. (This includes information submitted in terms of Equivalent Single Wheel Loading (ESWL) and Single Isolated Wheel Loading).

PSI—Pounds per square inch. PSI is the actual figure expressing maximum pounds per square inch runway will support, e.g., (SWL 000/PSI 535).

Omission of weight bearing capacity indicates information unknown.

The ACN/PCN System is the ICAO standard method of reporting pavement strength for pavements with bearing strengths greater than 12,500 pounds. The Pavement Classification Number (PCN) is established by an engineering assessment of the runway. The PCN is for use in conjunction with an Aircraft Classification Number (ACN). Consult the Aircraft Flight Manual, Flight Information Handbook, or other appropriate source for ACN tables or charts. Currently, ACN data may not be available for all aircraft. If an ACN table or chart is available, the ACN can be calculated by taking into account the aircraft weight, the pavement type, and the subgrade category. For runways that have been evaluated under the ACN/PCN system, the PCN will be shown as a five–part code (e.g. PCN 80 R/B/W/T). Details of the coded format are as follows:

NOTE: Prior permission from the airport controlling authority is required when the ACN of the aircraft exceeds the published PCN or aircraft tire pressure exceeds the published limits.

1. The PCN NUMBER—The reported PCN indicates that an aircraft with an ACN equal or less than the reported PCN can operate on the pavement subject to any limitation on the tire pressure.
2. The type of pavement:
   R — Rigid
   F — Flexible
3. The pavement subgrade category:
   A — High
   B — Medium
   C — Low
   D — Ultra–low
4. The maximum tire pressure authorized for the pavement:
   W — Unlimited, no pressure limit
   X — High, limited to 254 psi (1.75 MPa)
   Y — Medium, limited to 181 psi (1.25MPa)
   Z — Low, limited to 73 psi (0.50 MPa)
5. Pavement evaluation method:
   T — Technical evaluation
   U — By experience of aircraft using the pavement
Lights are in operation sunset to sunrise. Lighting available by prior arrangement only or operating part of the night and/or pilot controlled lighting with specific operating hours are indicated under airport or military remarks. At USN/USMC facilities lights are available only during airport hours of operation. Since obstructions are usually lighted, obstruction lighting is not included in this code. Unlighted obstructions on or surrounding an airport will be noted in airport or military remarks. Runway lights nonstandard (NSTD) are systems for which the light fixtures are not FAA approved L–800 series: color, intensity, or spacing does not meet FAA standards. Nonstandard runway lights, VASI, or any other system not listed below will be shown in airport remarks or military service. Temporary, emergency or limited runway edge lighting such as flares, smudge pots, lanterns or portable runway lights will also be shown in airport remarks or military service. Types of lighting are shown with the runway or runway end they serve.

NOTE: Civil ALSF2 may be operated as SSALR during favorable weather conditions. When runway edge lights are positioned more than 10 feet from the edge of the usable runway surface a remark will be added in the “Remarks” portion of the airport entry. This is applicable to Air Force, Air National Guard and Air Force Reserve Bases, and those joint use airfields on which they are tenants.

VISUAL GLIDESLOPE INDICATORS

APAP—A system of panels, which may or may not be lighted, used for alignment of approach path.

PAPI—Precision Approach Path Indicator

PVASI—Pulsating/steady burning visual approach slope indicator, normally a single light unit projecting two colors.

SAVIS—Simplified Abbreviated Visual Approach Slope Indicator

TRCV—Tri–color visual approach slope indicator, normally a single light unit projecting three colors.

VASI—Visual Approach Slope Indicator

NOTE: Approach slope angle and threshold crossing height will be shown when available; i.e., –GA 3.5º TCH 37 ´.

PILOT CONTROL OF AIRPORT LIGHTING

Key Mike

Function

7 times within 5 seconds Highest intensity available
5 times within 5 seconds Medium or lower intensity (Lower REIL or REIL–Off)
3 times within 5 seconds Lowest intensity available (Lower REIL or REIL–Off)

Available systems will be indicated in the Service section, e.g., LGT ACTIVATE HIRL Rwy 07–25, MALSR Rwy 07, and VASI Rwy 07–122.8.

Where the airport is not served by an instrument approach procedure and/or has an independent type system of different specification installed by the airport sponsor, descriptions of the type lights, method of control, and operating frequency will be

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explained in clear text. See AIM, “Aeronautical Lighting and Other Airport Visual Aids,” for a detailed description of pilot control of airport lighting.

**RUNWAY SLOPE**

When available, runway slope data will be provided. Runway slope will be shown only when it is 0.3 percent or greater. On runways less than 8000 feet, the direction of the slope up will be indicated, e.g., 0.3% up NW. On runways 8000 feet or greater, the slope will be shown (up or down) on the runway end line, e.g., RWY 13: 0.3% up., RWY 31: Pole. Rgt tfc. 0.4% down.

**RUNWAY END DATA**

Information pertaining to the runway approach end such as approach lights, touchdown zone lights, runway end identification lights, visual glideslope indicators, displaced thresholds, controlling obstruction, and right hand traffic pattern, will be shown on the specific runway end. “Rgt tfc”—Right traffic indicates right turns should be made on landing and takeoff for specified runway end. Runway Visual Range shall be shown as “RVR” appended with “T” for touchdown, “M” for midpoint, and “R” for rollout; e.g., RVR-TMR.

**LAND AND HOLD–SHORT OPERATIONS (LAHSO)**

LAHSO is an acronym for “Land and Hold–Short Operations” These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold–short operations and markings.

**RUNWAY DECLARED DISTANCE INFORMATION**

TORA—Take–off Run Available. The length of runway declared available and suitable for the ground run of an aeroplane take–off.

TODA—Take–off Distance Available. The length of the take–off run available plus the length of the clearway, if provided.

ASDA—Accelerate–Stop Distance Available. The length of the take–off run available plus the length of the stopway, if provided.

LDA—Landing Distance Available. The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

**ARRESTING GEAR/SYSTEMS**

Arresting gear is shown as it is located on the runway. The a–gear distance from the end of the appropriate runway (or into the overrun) is indicated in parentheses. A–Gear which has a bi–direction capability and can be utilized for emergency approach end engagement is indicated by a (B). Up to 15 minutes advance notice may be required for rigging A–Gear for approach and engagement. Airport listing may show availability of other than US Systems. This information is provided for emergency requirements only. Refer to current aircraft operating manuals for specific engagement weight and speed criteria based on aircraft structural restrictions and arresting system limitations.

Following is a list of current systems referenced in this publication identified by both Air Force and Navy terminology:

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAK–9</td>
<td>Rotary friction brake.</td>
</tr>
<tr>
<td>BAK–12A</td>
<td>Standard BAK–12 with 950 foot run out, 1–inch cable and 40,000 pound weight setting. Rotary friction brake.</td>
</tr>
<tr>
<td>BAK–12B</td>
<td>Extended BAK–12 with 1200 foot run, 1¼ inch Cable and 50,000 pounds weight setting. Rotary friction brake.</td>
</tr>
<tr>
<td>E28</td>
<td>Rotary Hydraulic (Water Brake).</td>
</tr>
<tr>
<td>M21</td>
<td>Rotary Hydraulic (Water Brake) Mobile.</td>
</tr>
</tbody>
</table>

The following device is used in conjunction with some aircraft arresting systems:

**BAK–14**

A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to five seconds to fully raise the cable.)

**H**

A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to one and one-half seconds to fully raise the cable.)

**UNI–DIRECTIONAL CABLE**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB60</td>
<td>Textile brake—an emergency one–time use, modular braking system employing the tearing of specially woven textile straps to absorb the kinetic energy.</td>
</tr>
<tr>
<td>E5/E5–1/E5–3</td>
<td>Chain Type. At USN/USMC stations E–5 A–GEAR systems are rated, e.g., E–5 RATING–13R–1100 HW (DRY), 31L/R–1200 STD (WET). This rating is a function of the A–GEAR chain weight and length and is used to determine the maximum aircraft engaging speed. A dry rating applies to a stabilized surface (dry or wet) while a wet rating takes into account the amount (if any) of wet overrun that is not capable of withstanding the aircraft weight. These ratings are published under Service/Military/A-Gear in the entry.</td>
</tr>
</tbody>
</table>

**FOREIGN CABLE**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DESCRIPTION</th>
<th>US EQUIVALENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>44B–3H</td>
<td>Rotary Hydraulic (Water Brake)</td>
<td>E–5</td>
</tr>
<tr>
<td>CHAG</td>
<td>Chain</td>
<td>E–5</td>
</tr>
</tbody>
</table>

**UNI–DIRECTIONAL BARRIER**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA–1A</td>
<td>Web barrier between stanchions attached to a chain energy absorber.</td>
</tr>
<tr>
<td>BAK–15</td>
<td>Web barrier between stanchions attached to an energy absorber (water squeezer, rotary friction, chain). Designed for wing engagement.</td>
</tr>
</tbody>
</table>

**NOTE:** Landing short of the runway threshold on a runway with a BAK–15 in the underrun is a significant hazard. The barrier in the down position still protrudes several inches above the underrun. Aircraft contact with the barrier short of the runway.
threshold can cause damage to the barrier and substantial damage to the aircraft.

**SERVICE**

<table>
<thead>
<tr>
<th>CODE</th>
<th>FUEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>Grade 80 gasoline (Red)</td>
</tr>
<tr>
<td>100</td>
<td>Grade 100 gasoline (Green)</td>
</tr>
<tr>
<td>100LL</td>
<td>100LL gasoline (low lead) (Blue)</td>
</tr>
<tr>
<td>115</td>
<td>Grade 115 gasoline (115/145 military specification) (Purple)</td>
</tr>
<tr>
<td>A</td>
<td>Jet A, Kerosene, without FS–II*, FP** minus 40ºC.</td>
</tr>
<tr>
<td>A+</td>
<td>Jet A, Kerosene, with FS–II*, FP** minus 40ºC.</td>
</tr>
<tr>
<td>A++</td>
<td>Jet A, Kerosene, with FS–II*, Cl/Li#, SDA##, FP** minus 40ºC.</td>
</tr>
<tr>
<td>A++100</td>
<td>Jet A, Kerosene, with FS–II*, Cl/Li#, SDA##, FP** plus 40ºC, with +100 fuel additive that improves thermal stability characteristics of kerosene jet fuels.</td>
</tr>
<tr>
<td>A1</td>
<td>Jet A–1, Kerosene, without FS–II*, FP** minus 47ºC.</td>
</tr>
<tr>
<td>A1+</td>
<td>Jet A–1, Kerosene with FS–II*, FP** minus 47ºC.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CODE</th>
<th>FUEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Jet B, Wide-cut, turbine fuel without FS–II*, FP** minus 50ºC.</td>
</tr>
<tr>
<td>B+</td>
<td>Jet B, Wide-cut, turbine fuel with FS–II*, FP** minus 50ºC.</td>
</tr>
<tr>
<td>J4</td>
<td>(JP–4 military specification) FP** minus 58ºC.</td>
</tr>
<tr>
<td>J5</td>
<td>(JP–5 military specification) Kerosene with FS–II, FP** minus 46ºC.</td>
</tr>
<tr>
<td>J8</td>
<td>(JP–8 military specification) Jet A–1, Kerosene with FS–II*, Cl/Li#, SDA##, FP** minus 47ºC.</td>
</tr>
<tr>
<td>J8+100</td>
<td>(JP–8 military specification) Jet A–1, Kerosene with FS–II*, Cl/Li#, SDA##, FP** minus 47ºC, with +100 fuel additive that improves thermal stability characteristics of kerosene jet fuels.</td>
</tr>
<tr>
<td>J</td>
<td>(Jet Fuel Type Unknown)</td>
</tr>
<tr>
<td>MOGAS</td>
<td>Automobile gasoline which is to be used as aircraft fuel.</td>
</tr>
<tr>
<td>UL91</td>
<td>Unleaded Grade 91 gasoline</td>
</tr>
<tr>
<td>UL94</td>
<td>Unleaded Grade 94 gasoline</td>
</tr>
</tbody>
</table>

**OXYGEN—CIVIL**

<table>
<thead>
<tr>
<th>CODE</th>
<th>FUEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>OX 1</td>
<td>High Pressure</td>
</tr>
<tr>
<td>OX 2</td>
<td>Low Pressure</td>
</tr>
<tr>
<td>OX 3</td>
<td>High Pressure—Replacement Bottles</td>
</tr>
<tr>
<td>OX 4</td>
<td>Low Pressure—Replacement Bottles</td>
</tr>
</tbody>
</table>

**SERVICE—MILITARY**

Specific military services available at the airport are listed under this general heading. Remarks applicable to any military service are shown in the individual service listing.

**JET AIRCRAFT STARTING UNITS (JASU) — MILITARY**

The numeral preceding the type of unit indicates the number of units available. The absence of the numeral indicates ten or more units available. If the number of units is unknown, the number one will be shown. Absence of JASU designation indicates non-availability.

The following is a list of current JASU systems referenced in this publication:

**USAJF JASU** *(For variations in technical data, refer to T.O. 35–1–7.)*

**ELECTRICAL STARTING UNITS:**

| A/M32A–B6 | AC: 115/200v, 3 phase, 90 kva, 0.8 pf, 4 wire |
| MC–1A     | AC: 115/208v, 400 cycle, 3 phase, 37.5 kva, 0.8 pf, 108 amp, 4 wire |
| MD–3      | AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire |
| MD–3A     | AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire |

**CODE FUEL CODE FUEL**

| 80 Grade 80 gasoline (Red) | B Jet B, Wide-cut, turbine fuel without FS–II*, FP** |
| 100 Grade 100 gasoline (Green) | B+ Jet B, Wide-cut, turbine fuel with FS–II*, FP** |
| 100LL 100LL gasoline (low lead) (Blue) | J4 (JP4) (JP–4 military specification) FP** minus 58ºC. |
| A+ Jet A, Kerosene, with FS–II*, FP** minus 40ºC. | J8+100 (JP–8 military specification) Jet A–1, Kerosene with FS–II*, Cl/Li#, SDA##, FP** minus 47ºC, with +100 fuel additive that improves thermal stability characteristics of kerosene jet fuels. |
| A++ Jet A, Kerosene, with FS–II*, Cl/Li#, SDA##, FP** minus 40ºC. | J (Jet Fuel Type Unknown) |
| A++100 Jet A, Kerosene, with FS–II*, Cl/Li#, SDA##, FP** minus 40ºC, with +100 fuel additive that improves thermal stability characteristics of kerosene jet fuels. | |
| A1 Jet A–1, Kerosene, without FS–II*, FP** minus 47ºC. | MOGAS Automobile gasoline which is to be used as aircraft fuel. |
| A1+ Jet A–1, Kerosene with FS–II*, FP** minus 47ºC. | UL91 Unleaded Grade 91 gasoline |
| OX 1 High Pressure | OX 3 High Pressure—Replacement Bottles |
| OX 2 Low Pressure | OX 4 Low Pressure—Replacement Bottles |

**NOTE:** Certain automobile gasoline may be used in specific aircraft engines if a FAA supplemental type certificate has been obtained. Automobile gasoline, which is to be used in aircraft engines, will be identified as “MOGAS”, however, the grade/type and other octane rating will not be published.

Data shown on fuel availability represents the most recent information the publisher has been able to acquire. Because of a variety of factors, the fuel listed may not always be obtainable by transient civil pilots. Confirmation of availability of fuel should be made directly with fuel suppliers at locations where refueling is planned.
MD–3M
AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire
DC: 28v, 500 amp, 15 kw

MD–4
AC: 120/208v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 175 amp, “WYE” neutral ground, 4 wire, 120v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 303 amp, “DELTA” 3 wire, 120v, 400 cycle, 1 phase, 62.5 kva, 0.8 pf, 520 amp, 2 wire

AIR STARTING UNITS

AM32–95 150 +/- 5 lb/min (2055 +/- 68 cfm) at 51 +/- 2 psia
AM32A–95 150 +/- 5 lb/min @ 49 +/- 2 psia (35 +/- 2 psig)
LASS 150 +/- 5 lb/min @ 49 +/- 2 psia
MA–1A 82 lb/min (1123 cfm) at 130° air inlet temp, 45 psia (min) air outlet press
MC–1 15 cfm, 3500 psia
MC–1A 15 cfm, 3500 psia
MC–2A 15 cfm, 200 psia
MC–11 8,000 cu in cap, 4000 psig, 15 cfm

COMBINED AIR AND ELECTRICAL STARTING UNITS:

AGPU
AC: 115/200v, 400 cycle, 3 phase, 30 kw gen
DC: 28v, 700 amp
AIR: 60 lb/min @ 40 psig @ sea level

AM32A–60*
AIR: 120 +/- 4 lb/min (1644 +/- 55 cfm) at 49 +/- 2 psia
AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire, 120v, 1 phase, 25 kva
DC: 28v, 500 amp, 15 kw

AM32A–60A
AIR: 150 +/- 5 lb/min (2055 +/- 68 cfm) at 51 +/- 2 psia
AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire
DC: 28v, 200 amp, 5.6 kw

AM32A–60B*
AIR: 130 lb/min, 50 psia
AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire
DC: 28v, 200 amp, 5.6 kw

*NOTE: During combined air and electrical loads, the pneumatic circuitry takes preference and will limit the amount of electrical power available.

USN JASU
ELECTRICAL STARTING UNITS:
NC–8A/A1
DC: 500 amp constant, 750 amp intermittent, 28v;
AC: 60 kva @ .8 pf, 115/200v, 3 phase, 400 Hz.

NC–10A/A1/B/C
DC: 750 amp constant, 1000 amp intermittent, 28v;
AC: 90 kva, 115/200v, 3 phase, 400 Hz.

AIR STARTING UNITS:
GTC–85/GTE–85
120 lbs/min @ 45 psi.
MSU–200NAV/A/U47A–5 204 lbs/min @ 56 psia.
WELLS AIR START
180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. Simultaneous multiple start capability.

SYSTEM
COMBINED AIR AND ELECTRICAL STARTING UNITS:
NCP–105/RCPT
180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. 700 amp, 28v DC. 120/208v, 400 Hz AC, 30 kva.

ARMY JASU
59B2–1B
28v, 7.5 kw, 280 amp.

OTHER JASU
ELECTRICAL STARTING UNITS (DND):
CE12
AC 115/200v, 140 kva, 400 Hz, 3 phase
CE13
AC 115/200v, 60 kva, 400 Hz, 3 phase
CE14
AC/DC 115/200v, 140 kva, 400 Hz, 3 phase, 28vDC, 1500 amp
CE15
DC 22–35v, 500 amp continuous 1100 amp intermittent
CE16
DC 22–35v, 500 amp continuous 1100 amp intermittent soft start

AIR STARTING UNITS (DND):
CA2
ASA 45.5 psig, 116.4 lb/min

COMBINED AIR AND ELECTRICAL STARTING UNITS (DND)
CEA1
AC 120/208v, 60 kva, 400 Hz, 3 phase DC 28v, 75 amp
AIR 112.5 lb/min, 47 psig

ELECTRICAL STARTING UNITS (OTHER):
C–26
28v 45kw 115–200v 15kw 380–800 Hz 1 phase 2 wire
C–26–B, C–26–C
28v 45kw; Split Bus: 115–200v 15kw 380–800 Hz 1 phase 2 wire
E3
DC 28v/10kw

AIR STARTING UNITS (OTHER):
A4
40 psi/2 lb/sec (LPAS Mk12, Mk12L, Mk12A, Mk1, Mk2B)

PAC, 5 NOV 2020 to 31 DEC 2020
MA–1  150 Air HP, 115 lb/min 50 psia
MA–2  250 Air HP, 150 lb/min 75 psia
CARTRIDGE:
MXU–4A USAF

FUEL—MILITARY
Fuel available through US Military Base supply, DESC Into–Plane Contracts and/or reciprocal agreement is listed first and is followed by (Mil). At commercial airports where Into–Plane contracts are in place, the name of the refueling agent is shown. Military fuel should be used first if it is available. When military fuel cannot be obtained but Into–Plane contract fuel is available, Government aircraft must refuel with the contract fuel and applicable refueling agent to avoid any breach in contract terms and conditions. Fuel not available through the above is shown preceded by NC (no contract). When fuel is obtained from NC sources, local purchase procedures must be followed. The US Military Aircraft Identaplates DD Form 1896 (Jet Fuel), DD Form 1897 (Avgas) and AF Form 1245 (Avgas) are used at military installations only. The US Government Aviation Into–Plane Reimbursement (AIR) Card (currently issued by AVCARD) is the instrument to be used to obtain fuel under a DESC Into–Plane Contract and for NC purchases if the refueling agent at the commercial airport accepts the AVCARD. A current list of contract fuel locations is available online at https://cis.energy.dla.mil/ip_cis/. See legend item 14 for fuel code and description.

SUPPORTING FLUIDS AND SYSTEMS—MILITARY

CODE
ADI Anti–Detonation Injection Fluid—Reciprocating Engine Aircraft.
W Water Thrust Augmentation—Jet Aircraft.
WAI Water–Alcohol Injection Type, Thrust Augmentation—Jet Aircraft.
SP Single Point Refueling.
PRESAIR Air Compressors rated 3,000 PSI or more.

OXYGEN:
LPOX Low pressure oxygen servicing.
HPOX High pressure oxygen servicing.
LHOX Low and high pressure oxygen servicing.
LOX Liquid oxygen servicing.
OXRB Oxygen replacement bottles. (Maintained primarily at Naval stations for use in acft where oxygen can be replenished only by replacement of cylinders.)
OX Indicates oxygen servicing when type of servicing is unknown.
NOTE: Combinations of above items is used to indicate complete oxygen servicing available;
LHOXRB Low and high pressure oxygen servicing and replacement bottles;
LPOXRB Low pressure oxygen replacement bottles only, etc.
NOTE: Aircraft will be serviced with oxygen procured under military specifications only. Aircraft will not be serviced with medical oxygen.

NITROGEN:
LPNIT — Low pressure nitrogen servicing.
HPNIT — High pressure nitrogen servicing.
LHNIT — Low and high pressure nitrogen servicing.

US AVIATION OILS (MIL SPECS):

<table>
<thead>
<tr>
<th>CODE</th>
<th>GRADE, TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–113</td>
<td>1065, Reciprocating Engine Oil (MIL–L–6082)</td>
</tr>
<tr>
<td>0–117</td>
<td>1100, Reciprocating Engine Oil (MIL–L–6082)</td>
</tr>
<tr>
<td>0–117+</td>
<td>1100, 0–117 plus cyclohexanone (MIL–L–6082)</td>
</tr>
<tr>
<td>0–123</td>
<td>1065, (Dispersant), Reciprocating Engine Oil (MIL–L–22851 Type III)</td>
</tr>
<tr>
<td>0–128</td>
<td>1100, (Dispersant), Reciprocating Engine Oil (MIL–L–22851 Type II)</td>
</tr>
<tr>
<td>0–132</td>
<td>1005, Jet Engine Oil (MIL–L–6081)</td>
</tr>
<tr>
<td>0–133</td>
<td>1010, Jet Engine Oil (MIL–L–6081)</td>
</tr>
<tr>
<td>0–147</td>
<td>None, MIL–L–6085A Lubricating Oil, Instrument, Synthetic</td>
</tr>
<tr>
<td>0–148</td>
<td>None, MIL–L–7808 (Synthetic Base) Turbine Engine Oil</td>
</tr>
<tr>
<td>0–149</td>
<td>None, Aircraft Turbine Engine Synthetic, 7.5c St</td>
</tr>
<tr>
<td>0–155</td>
<td>None, MIL–L–6086C, Aircraft, Medium Grade</td>
</tr>
<tr>
<td>0–156</td>
<td>None, MIL–L–23699 (Synthetic Base), Turboprop and Turboshaft Engines</td>
</tr>
<tr>
<td>JOAP/SOAP</td>
<td>Joint Oil Analysis Program. JOAP support is furnished during normal duty hours, other times on request. (JOAP and SOAP programs provide essentially the same service, JOAP is now the standard joint service supported program.)</td>
</tr>
</tbody>
</table>

TRANSPORT ALERT (TRAN ALERT)—MILITARY
Tran Alert service is considered to include all services required for normal aircraft turn–around, e.g., servicing (fuel, oil, oxygen, etc.), debriefing to determine requirements for maintenance, minor maintenance, inspection and parking assistance of transient aircraft. Drag chute repack, specialized maintenance, or extensive repairs will be provided within the capabilities and priorities of the base. Delays can be anticipated after normal duty hours/holidays/weekends regardless of the hours of transient maintenance operation. Pilots should not expect aircraft to be serviced for TURN–AROUNDS during time periods when servicing or maintenance manpower...
is not available. In the case of airports not operated exclusively by US military, the servicing indicated by the remarks will not always be available for US military aircraft. When transient alert services are not shown, facilities are unknown. NO PRIORITY BASIS—means that transient alert services will be provided only after all the requirements for mission/tactical assigned aircraft have been accomplished.

**AIRPORT REMARKS**

The Attendance Schedule is the months, days and hours the airport is actually attended. Airport attendance does not mean watchman duties or telephone accessibility, but rather an attendant or operator on duty to provide at least minimum services (e.g., repairs, fuel, transportation).

Airport Remarks have been grouped in order of applicability. Airport remarks are limited to those items of information that are determined essential for operational use, i.e., conditions of a permanent or indefinite nature and conditions that will remain in effect for more than 30 days concerning aeronautical facilities, services, maintenance available, procedures or hazards, knowledge of which is essential for safe and efficient operation of aircraft. Information concerning permanent closing of a runway or taxiway will not be shown. A note "See Special Notices" shall be applied within this remarks section when a special notice applicable to the entry is contained in the Special Notices section of this publication.

Parachute Jumping indicates parachute jumping areas associated with the airport. See Parachute Jumping Area section of this publication for additional Information.

Landing Fee indicates landing charges for private or non–revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

Note: Unless otherwise stated, remarks including runway ends refer to the runway's approach end.

**MILITARY REMARKS**

Joint Civil/Military airports contain both Airport Remarks and Military Remarks. Military Remarks published for these airports are applicable only to the military. Military and joint Military/Civil airports contain only Military Remarks. Remarks contained in this section may not be applicable to civil users. When both sets of remarks exist, the first set is applicable to the primary operator of the airport. Remarks applicable to a tenant on the airport are shown preceded by the tenant organization, i.e., (A) (AF) (N) (ANG), etc. Military airports operate 24 hours unless otherwise specified. Airport operating hours are listed first (airport operating hours will only be listed if they are different than the airport attended hours or if the attended hours are unavailable) followed by pertinent remarks in order of applicability. Remarks will include information on restrictions, hazards, traffic pattern, noise abatement, customs/agriculture/immigration, and miscellaneous information applicable to the Military.

Type of restrictions:

CLOSED: When designated closed, the airport is restricted from use by all aircraft unless stated otherwise. Any closure applying to specific type of aircraft or operation will be so stated. USN/USMC/USAF airports are considered closed during non–operating hours. Closed airports may be utilized during an emergency provided there is a safe landing area.

OFFICIAL BUSINESS ONLY: The airfield is closed to all transient military aircraft for obtaining routine services such as fueling, passenger drop off or pickup, practice approaches, parking, etc. The airfield may be used by aircrews and aircraft if official government business (including civilian) must be conducted on or near the airfield and prior permission is received from the airfield manager.

AF OFFICIAL BUSINESS ONLY OR NAVY OFFICIAL BUSINESS ONLY: Indicates that the restriction applies only to service indicated.

PRIOR PERMISSION REQUIRED (PPR): Airport is closed to transient aircraft unless approval for operation is obtained from the appropriate commander through Chief, Airfield Management or Airfield Operations Officer. Official Business or PPR does not preclude the use of US Military airports as an alternate for IFR flights. If a non–US military airport is used as a weather alternate and requires a PPR, the PPR must be requested and confirmed before the flight departs. The purpose of PPR is to control volume and flow of traffic rather than to prohibit it. Prior permission is required for all aircraft requiring transient alert service outside the published transient alert duty hours. All aircraft carrying hazardous materials must obtain prior permission as outlined in AFJI 11–204, AR 95–27, OPNAVINST 3710.7.

Note: OFFICIAL BUSINESS ONLY AND PPR restrictions are not applicable to Special Air Mission (SAM) or Special Air Resource (SPAR) aircraft providing person or persons on board are designated Code 6 or higher as explained in AFJMAN 11–213, AR 95–11, OPNAVINST 3722–8J. Official Business Only or PPR do not preclude the use of the airport as an alternate for IFR flights.

**AIRPORT MANAGER**

The phone number of the airport manager.
WEATHER DATA SOURCES

Weather data sources will be listed alphabetically followed by their assigned frequencies and/or telephone number and hours of operation.

ASOS—Automated Surface Observing System. Reports the same as an AWOS–3 plus precipitation identification and intensity, and freezing rain occurrence;

AWOS—Automated Weather Observing System
AWOS–A—reports altimeter setting (all other information is advisory only).
AWOS–AV—reports altimeter and visibility.
AWOS–1—reports altimeter setting, wind data and usually temperature, dew point and density altitude.
AWOS–2—reports the same as AWOS–1 plus visibility.
AWOS–3—reports the same as AWOS–1 plus visibility and cloud/ceiling data.
AWOS–3P reports the same as the AWOS–3 system, plus a precipitation identification sensor.
AWOS–3PT reports the same as the AWOS–3 system, plus precipitation identification sensor and a thunderstorm/lightning reporting capability.
AWOS–3T reports the same as AWOS–3 system and includes a thunderstorm/lightning reporting capability.

See AIM, Basic Flight Information and ATC Procedures for detailed description of Weather Data Sources.

AWOS–4—reports same as AWOS–3 system, plus precipitation occurrence, type and accumulation, freezing rain, thunderstorm and runway surface sensors.

LAWRS—Limited Aviation Weather Reporting Station where observers report cloud height, weather, obstructions to vision, temperature and dewpoint (in most cases), surface wind, altimeter and pertinent remarks.

LLWAS—indicates a Low Level Wind Shear Alert System consisting of a center field and several field perimeter anemometers.

SAWRS—identifies airports that have a Supplemental Aviation Weather Reporting Station available to pilots for current weather information.

SWSL—Supplemental Weather Service Location providing current local weather information via radio and telephone.

TDWR—indicates airports that have Terminal Doppler Weather Radar.

WSP—indicates airports that have Weather System Processor.

When the automated weather source is broadcast over an associated airport NAVAID frequency (see NAVAID line), it shall be indicated by a bold ASOS or AWOS followed by the frequency, identifier and phone number, if available.

COMMUNICATIONS

Airport terminal control facilities and radio communications associated with the airport shall be shown. When the call sign is not the same as the airport name the call sign will be shown. Frequencies shall normally be shown in ascending order with the primary frequency listed first. Frequencies will be listed, together with sectorization indicated by outbound radials, and hours of operation. Communications will be listed in sequence as follows:

Single Frequency Approach (SFA), Common Traffic Advisory Frequency (CTAF), Aeronautical Advisory Stations (UNICOM) or (AUNICOM), and Automatic Terminal Information Service (ATIS) along with their frequencies are shown, where available, on the line following the heading “COMMUNICATIONS.” When the CTAF and UNICOM frequencies are the same, the frequency will be shown as CTAF/UNICOM 122.8.

Frequencies available for Flight Service Station (FSS) facilities will follow in descending order. Remote Communications Outlet (RCO) providing service to the airport followed by the frequency and FSS RADIO name will be shown when available. In Alaska, Airport Advisory Service (AAS) is provided on the CTAF by FSS for select non-tower airports or airports where the tower is not in operation. (See AIM, Para 4–1–9 Traffic Advisory Practices at Airports Without Operating Control Towers or AC 90–66B, “Non-Towered Airport Flight Operations.”)

Remote Communications Outlet (RCO)—An unmanned air/ground communications facility that is remotely controlled and provides UHF or VHF communications capability to extend the service range of an FSS.

Civil Communications Frequencies—Civil communications frequencies used in the FSS air/ground system are operated on 122.2,
AIRPORT/FACILITY DIRECTORY LEGEND

123.6; emergency 121.5; plus receive–only on 122.1.

a. 122.2 is assigned as a common en route frequency.
b. In Alaska, 123.6 is assigned as the airport advisory frequency at select non–tower locations. At airports with a tower, FSS may provide airport advisories on the tower frequency when tower is closed.
c. 122.1 is the primary receive-only frequency at VORs.
d. Some FSSs are assigned 50 kHz frequencies in the 122–126 MHz band (e.g., 122.45). Pilots using the FSS A/G system should refer to this directory or appropriate charts to determine frequencies available at the FSS or remoted facility through which they wish to communicate.

Emergency frequency 121.5 and 243.0 are available at FSSs in Alaska, most Towers, Approach Control and RADAR facilities. Frequencies published followed by the letter “T” or “R”, indicate that the facility will only transmit or receive respectively on that frequency. All radio aids to navigation (NAVAID) frequencies are transmit only. In cases where communications frequencies are annotated with (R) or (E), (R) indicates Radar Capability and (E) indicates Emergency Frequency.

TERMINAL SERVICES

SFA—Single Frequency Approach.
CTAF—A program designed to get all vehicles and aircraft at airports without an operating control tower on a common frequency.
ATIS—A continuous broadcast of recorded non-control information in selected terminal areas.
D–ATIS—Digital ATIS provides ATIS information in text form outside the standard reception range of conventional ATIS via landline & data link communications and voice message within range of existing transmitters.
UNICOM—Automated UNICOM is a computerized, command response system that provides automated weather, radio check capability and airport advisory information selected from an automated menu by microphone clicks.
UNICOM—A non-government air/ground radio communications facility which may provide airport information.
PTD—Pilot to Dispatcher.
APP CON—Approach Control. The symbol ® indicates radar approach control.
TOWER—Control tower.
GCA—Ground Control Approach System.
GND CON—Ground Control.
GCO—Ground Communication Outlet—An unstaffed, remotely controlled, ground/ground communications facility. Pilots at uncontrolled airports may contact ATC and FSS via VHF to a telephone connection to obtain an instrument clearance or close a VFR or IFR flight plan. They may also get an updated weather briefing prior to takeoff. Pilots will use four “key clicks” on the VHF radio to contact the appropriate ATC facility or six “key clicks” to contact the FSS. The GCO system is intended to be used only on the ground.

DEP CON—Departure Control. The symbol ® indicates radar departure control.
CLNC DEL—Clearance Delivery.
CPDLC—Controller Pilot Data Link Communication. FANS ATC data communication capability from the aircraft to the ATC Data Link system.
PRE TAXI CLNC—Pre taxi clearance.
VFR ADVSY SVC—VFR Advisory Service. Service provided by Non–Radar Approach Control. Advisory Service for VFR aircraft (upon a workload basis) ctc APP CON.
COMD POST—Command Post followed by the operator call sign in parenthesis.
PMSV—Pilot-to-Metro Service call sign, frequency and hours of operation, when full service is other than continuous. PMSV installations at which weather observation service is available shall be indicated, following the frequency and/or hours of operation as “Wx obsn svc 1900–0000Z‡” or “other times” may be used when no specific time is given. PMSV facilities manned by forecasters are considered “Full Service”. PMSV facilities manned by weather observers are listed as “Limited Service”.
OPS—Operations followed by the operator call sign in parenthesis.
CON
RANGE
FLT FLW—Flight Following
MEDIVAC

NOTE: Communication frequencies followed by the letter “X” indicate frequency available on request.
Information concerning Class B, C, and part–time D and E surface area airspace shall be published with effective times, if available. CLASS B—Radar Sequencing and Separation Service for all aircraft in CLASS B airspace. CLASS C—Separation between IFR and VFR aircraft and sequencing of VFR arrivals to the primary airport. TRSA—Radar Sequencing and Separation Service for participating VFR Aircraft within a Terminal Radar Service Area. Class C, D, and E airspace described in this publication is that airspace usually consisting of a 5 NM radius core surface area that begins at the surface and extends upward to an altitude above the airport elevation (charted in MSL for Class C and Class D). Class E surface airspace normally extends from the surface up to but not including the overlying controlled airspace. When part–time Class C or Class D airspace defaults to Class E, the core surface area becomes Class E. This will be formatted as:

AIRSPACE: CLASS C svc “times” ctc APP CON other times CLASS E:

or

AIRSPACE: CLASS D svc “times” other times CLASS E.

When a part–time Class C, Class D or Class E surface area defaults to Class G, the core surface area becomes Class G up to, but not including, the overlying controlled airspace. Normally, the overlying controlled airspace is Class E airspace beginning at either 700´ or 1200´ AGL and may be determined by consulting the relevant VFR Sectional or Terminal Area Charts. This will be formatted as:

AIRSPACE: CLASS C svc “times” ctc APP CON other times CLASS G with CLASS E 700´ (or 1200´) AGL & abv:

or

AIRSPACE: CLASS D svc “times” other times CLASS G with CLASS E 700´ (or 1200´) AGL & abv:

or

AIRSPACE: CLASS E svc “times” other times CLASS G with CLASS E 700´ (or 1200´) AGL & abv.

NOTE: AIRSPACE SVC “TIMES” INCLUDE ALL ASSOCIATED ARRIVAL EXTENSIONS. Surface area arrival extensions for instrument approach procedures become part of the primary core surface area. These extensions may be either Class D or Class E airspace and are effective concurrent with the times of the primary core surface area. For example, when a part–time Class C, Class D or Class E surface area defaults to Class G, the associated arrival extensions will default to Class G at the same time. When a part–time Class C or Class D surface area defaults to Class E, the arrival extensions will remain in effect as Class E airspace.

NOTE: CLASS E AIRSPACE EXTENDING UPWARD FROM 700 FEET OR MORE ABOVE THE SURFACE, DESIGNATED IN CONJUNCTION WITH AN AIRPORT WITH AN APPROVED INSTRUMENT PROCEDURE.

Class E 700´ AGL (shown as magenta vignette on sectional charts) and 1200´ AGL (blue vignette) areas are designated when necessary to provide controlled airspace for transitioning to/from the terminal and enroute environments. Unless otherwise specified, these 700´/1200´ AGL Class E airspace areas remain in effect continuously, regardless of airport operating hours or surface area status. These transition areas should not be confused with surface areas or arrival extensions.

(See Chapter 3, AIRSPACE, in the Aeronautical Information Manual for further details)

VOR TEST FACILITY (VOT)
The VOT transmits a signal which provides users a convenient means to determine the operational status and accuracy of an aircraft VOR receiver while on the ground. Ground based VOTs and the associated frequency shall be shown when available. VOTs are also shown with identifier, frequency and referenced remarks in the VOR Receiver Check section in the back of this publication.

RADIO AIDS TO NAVIGATION
The Airport/Facility Directory section of the Chart Supplement lists, by facility name, all Radio Aids to Navigation that appear on FAA, Aeronautical Information Services Visual or IFR Aeronautical Charts and those upon which the FAA has approved an Instrument Approach Procedure, with exception of selected TACANs. All VOR, VORTAC, TACAN and ILS equipment in the National Airspace System has an automatic monitoring and shutdown feature in the event of malfunction. Unmonitored, as used in this publication, for any navigational aid, means that monitoring personnel cannot observe the malfunction or shutdown signal. The NAVAID NOTAM file identifier will be shown as “NOTAM FILE IAD” and will be listed on the Radio Aids to Navigation line. When two or more NAVAIDs are listed and the NOTAM file identifier is different from that shown on the Radio Aids to Navigation line, it will be shown with the NAVAID listing. NOTAM file identifiers for ILSs and its components (e.g., NDB (LOM) are the same as the associated airports and are not repeated. Automated Surface Observing System (ASOS) and Automated Weather Observing System (AWOS) will be shown when this service is broadcast over selected NAVAIDs.
NAVAID information is tabulated as indicated in the following sample:

Note: Those DME channel numbers with a (Y) suffix require TACAN to be placed in the “Y” mode to receive distance information.

ASR/PAR—Indicates that Surveillance (ASR) or Precision (PAR) radar instrument approach minimums are published in the U.S. Terminal Procedures. Only part–time hours of operation will be shown.

### RADIO CLASS DESIGNATIONS

#### VOR/DME/TACAN Standard Service Volume (SSV) Classifications

<table>
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<tr>
<th>SSV Class</th>
<th>Altitudes</th>
<th>Distance (NM)</th>
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<td>(L) Low Altitude</td>
<td>1000’ to 18,000’</td>
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<td>(H) High Altitude</td>
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<td></td>
<td>45,000’ to 60,000’</td>
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</table>

**NOTE:** Additionally, (H) facilities provide (L) and (T) service volume and (L) facilities provide (T) service. Altitudes are with respect to the station’s site elevation. Coverage is not available in a cone of airspace directly above the facility.

The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

- **AB** — Automatic Weather Broadcast.
- **DF** — Direction Finding Service.
- **DME** — UHF standard (TACAN compatible) distance measuring equipment.
- **DME(Y)** — UHF standard (TACAN compatible) distance measuring equipment that require TACAN to be placed in the “Y” mode to receive DME.
- **GS** — Glide slope.
- **H** — Non–directional radio beacon (homing), power 50 watts to less than 2,000 watts (50 NM at all altitudes).
- **HH** — Non–directional radio beacon (homing), power 2,000 watts or more (75 NM at all altitudes).
- **H–SAB** — Non–directional radio beacons providing automatic transcribed weather service.
- **ILS** — Instrument Landing System (voice, where available, on localizer channel).
- **IM** — Inner marker.
- **LDA** — Localizer Directional Aid.
- **LMM** — Compass locator station when installed at middle marker site (15 NM at all altitudes).
- **LOM** — Compass locator station when installed at outer marker site (15 NM at all altitudes).
- **MH** — Non–directional radio beacon (homing) power less than 50 watts (25 NM at all altitudes).
- **MM** — Middle marker.
- **OM** — Outer marker.
- **S** — Simultaneous range homing signal and/or voice.
- **SABH** — Non–directional radio beacon not authorized for IFR or ATC. Provides automatic weather broadcasts.
- **SDF** — Simplified Direction Facility.
- **TACAN** — UHF navigational facility–omnidirectional course and distance information.
- **VOR** — VHF navigational facility–omnidirectional course only.
- **VOR/DME** — Collocated VOR navigational facility and UHF standard distance measuring equipment.
- **VORTAC** — Collocated VOR and TACAN navigational facilities.
- **W** — Without voice on radio facility frequency.
- **Z** — VHF station location marker at a LF radio facility.
Codes define the ability of an ILS to support autoland operations. The two portions of the code represent Official Category and farthest point along a Category I, II, or III approach that the Localizer meets Category III structure tolerances.

Official Category: I, II, or III; the lowest minima on published or unpublished procedures supported by the ILS.

Farthest point of satisfactory Category III Localizer performance for Category I, II, or III approaches: A – 4 NM prior to runway threshold, B – 3500 ft prior to runway threshold, C – glide angle dependent but generally 750–1000 ft prior to threshold, T – runway threshold, D – 3000 ft after runway threshold, and E – 2000 ft prior to stop end of runway.

ILS information is tabulated as indicated in the following sample:

- **ILS/DME**: 108.5 I–ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.

### FREQUENCY PAIRING TABLE

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<th>VHF FREQUENCY</th>
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<th>TACAN CHANNEL</th>
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### FREQUENCY PAIRING TABLE

The following is a list of paired VOR/ILS VHF frequencies with TACAN channels.

- **TACAN CHANNEL**: 2X 134.5 25X 108.80 36X 109.90 47X 111.00
- **TACAN CHANNEL**: 2Y 134.55 25Y 108.85 36Y 109.95 47Y 111.05
- **TACAN CHANNEL**: 11X 135.4 26X 108.90 37X 110.00 48X 111.10
- **TACAN CHANNEL**: 11Y 135.45 26Y 108.95 37Y 110.05 48Y 111.15
- **TACAN CHANNEL**: 12X 135.5 27X 109.00 38X 110.10 49X 111.20
- **TACAN CHANNEL**: 12Y 135.55 27Y 109.05 38Y 110.15 49Y 111.25
- **TACAN CHANNEL**: 17X 108.00 28X 109.10 39X 110.20 50X 111.30
- **TACAN CHANNEL**: 17Y 108.05 28Y 109.15 39Y 110.25 50Y 111.35
- **TACAN CHANNEL**: 18X 108.10 29X 109.20 40X 110.30 51X 111.40
- **TACAN CHANNEL**: 18Y 108.15 29Y 109.25 40Y 110.35 51Y 111.45
- **TACAN CHANNEL**: 19X 108.20 30X 109.30 41X 110.40 52X 111.50
- **TACAN CHANNEL**: 19Y 108.25 30Y 109.35 41Y 110.45 52Y 111.55
- **TACAN CHANNEL**: 20X 108.30 31X 109.40 42X 110.50 53X 111.60
- **TACAN CHANNEL**: 20Y 108.35 31Y 109.45 42Y 110.55 53Y 111.65
- **TACAN CHANNEL**: 21X 108.40 32X 109.50 43X 110.60 54X 111.70
- **TACAN CHANNEL**: 21Y 108.45 32Y 109.55 43Y 110.65 54Y 111.75
- **TACAN CHANNEL**: 22X 108.50 33X 109.60 44X 110.70 55X 111.80
- **TACAN CHANNEL**: 22Y 108.55 33Y 109.65 44Y 110.75 55Y 111.85
- **TACAN CHANNEL**: 23X 108.60 34X 109.70 45X 110.80 56X 111.90
- **TACAN CHANNEL**: 23Y 108.65 34Y 109.75 45Y 110.85 56Y 111.95
- **TACAN CHANNEL**: 24X 108.70 35X 109.80 46X 110.90 57X 112.00
- **TACAN CHANNEL**: 24Y 108.75 35Y 109.85 46Y 110.95 57Y 112.05

PAC, 5 NOV 2020 to 31 DEC 2020
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**COMM/NAV/WEATHER REMARKS:** These remarks consist of pertinent information affecting the current status of communications, NAVAIDs, weather, and in the absence of air-ground radio outlets identified in the Communications section some approach control facilities will have a clearance delivery phone number listed here.
## GENERAL INFORMATION

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#### OAHU

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#### TERN ISLAND

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#### NORTHERN MARIANA ISLANDS

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<td>Francisco C Ada/Saipan Intl</td>
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<td>Wake Island Airfield</td>
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*indicates unknown datum
AMERICAN SAMOA

OFU ISLAND

OFU (Z08)(NSAS) 1 SE UTC–11 S14°11.06’ W169°40.21’

12.2  Class III, ARFF Index A  NOTAM FILE HNL

RWY 08–26: H1980X60 (CONC–WC) S–12.5  D–12.5  PCN 7 R/C/Z/U
RWY 08: Tree.
RWY 26: Tree.

AIRPORT REMARKS: Attended during scheduled flights only. To land ctc airport manager Pago Pago Intl, call 699–9101. Brush and trees Rwy 08–26 along ldg area encroach into imaginary sfc defined by FAR PART 77. Boulders/rocks adjacent to Rwy 08 apch. 400’) MSL powerlines between OFU and Olosega Islands. Numerous high voltage transformer boxes 3’ high along north side of rwy. Numerous hydrants 4+’ along north side of rwy.

AIRPORT MANAGER: (684) 699–9101

COMMUNICATIONS: CTAF/UNICOM 122.95


TAU ISLAND

FITIUTA (FAQ)(NSFQ) 0 N UTC–11 S14°12.97’ W169°25.41’

110.4  B  Class III, ARFF Index A  NOTAM FILE HNL

RWY 12–30: H3200X75 (CONC–GRVD) S–12.5  PCN 7 R/C/Z/U  MIRL
RWY 12: REIL. PAPI(P2L)—GA 3.0º TCH 39’.
RWY 30: REIL. PAPI(P2L)—GA 3.0º TCH 39’.

SERVICE: LGT

ACTVT REIL Rwys 12 and 30; PAPI Rwys 12 and 30; MIRL Rwy 12–30—CTAF (122.9). Rwy 12 and Rwy 30 PAPI OTS indef.

AIRPORT REMARKS: Attended 1600–0400Z.

AIRPORT MANAGER: (684) 699–9101

COMMUNICATIONS: CTAF 122.9


TUTUILA ISLAND

PAGO PAGO INTL (PPG)(NSTU) 3 SW UTC–11 S14°19.90’ W170°42.69’

31.2  B  Class I, ARFF Index C  NOTAM FILE PPG

RWY 05–23: H10001X150 (ASPH–GRVD) S–75, D–170, 2D–250, 2D/2D2–600 PCN 60 F/A/W/T  HIRL
RWY 05: MALSR. PAPI(P4L)—GA 3.25º TCH 57’ Thld dsplcd 1002’. Hill. Rgt tlc.
RWY 23: PAPI(P4L)—GA 3.0º TCH 75’. Thld dsplcd 790’. Fence.
RWY 08–26: H3801X100 (ASPH–GRVD) S–75, D–150, 2D–230, 2D/2D2–550 PCN 45 F/B/W/T  HIRL
RWY 08: Rgt tlc.

SERVICE: SB  FUEL 100, JET A1+  LGT

Dusk–Dawn. ACTIVATE MALSR Rwy 05; PAPI Rwy 05 and Rwy 23; HIRL Rwy 05–23 and Rwy 08–26; tvy lghts freq—118.3.

AIRPORT REMARKS: Attended continuously. Olootele Mt. 1617’) MSL 3.5 miles west of thld Rwy 08. 399’) MSL obstruction light on LOG NDB located on hill 2.0 SM southwest of thld Rwy 05. Permanently lighted and marked 226’ tower atop Mt. Alava 4.3 SM north-northeast of airport. All flights (except scheduled) prior permission from airport manager required with 24 hour prior notice. All aircraft transitioning Pago Pago (except commercial carriers) must make fuel arrangements with PPG at (684) 733–3158. All acft exceeding 100,000 lbs GWT upon touchdown taxi to thld turn around before taxiing to apron. Acft under 100,000 lbs may make a turn-around wherever feasible. Sea spray from surf and blow holes may drift across Rwy 05–23 under rough sea conditions. Minor power plant repairs only. Customs available. Landing fee.

CONTINUED ON NEXT PAGE
AIRPORT MANAGER: (684) 733–3076
COMMUNICATIONS: CTAF 122.9
FALEOLO APP/DEP CON 118.1
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.

(H) VORTACW 112.5 TUT Chan 72 S14°19.96’ W170°42.50’ at fld. 10/12E.
VOR unusable:
005º–032º byd 26 NM blo 16,000’
050º–228º byd 24 NM blo 4,000’
228º–287º byd 34 NM blo 16,000’
287º–005º byd 18 NM
345º–005º

TACAN AZIMUTH unusable:
005º–032º byd 32 NM blo 16,000’
032º–050º byd 34 NM blo 16,000’
287º–005º byd 13 NM
345º–005º byd 5 NM blo 6400’

DME unusable:
005º–032º byd 20 NM blo 16,000’
345º–005º byd 5 NM blo 6400’

NDB (HHW) 403 TUT S14°19.93 W170°43.17 at fld. 12E. Unmonitored.

LOGOTALA HILL NDB (MHW) 242 LOG S14°21.23’ W170°44.94’ 048º 2.6 NM to fld. 377/12E.
Unmonitored. NOTAM FILE NSTU.

ILS/DME 110.3 I–TUT Chan 40 Rwy 05. Unmonitored.

COMM/NAV/WEATHER REMARKS: For IFR clearances ctc Faleolo Air Traffic Control unit phone (685) 42050 or Primary Apch freq 118.1, Secondary Apch freq 118.5, HF freq 6.553. Christchurch NZ NOF is issuing agency for PAGO PAGO Intl NOTAMS ctc NR 64 33581688. For NOTAM ctc New Zealand (643) 358-1688. FSS: NEW ZEALAND.

LOGOTALA HILL S14°21.23’ W170°44.94’ NOTAM FILE NSTU.

HAWAIIAN–MARIANA

LOGOTALA HILL NDB (MHW) 242 LOG 048º 2.6 NM to Pago Pago Intl. 377/12E. Unmonitored.
FEDERATED STATES OF MICRONESIA

KOSRAE ISLAND

KOSRAE  (TTK)(PTSA)  6 NW UTC+11  N5º21.42´  E162º57.50´
12 NOTAM FILE HNL
RWY 05–23: H5752X150 (ASPH–GRVD)  D–152, 2S–175  MIRL
RWY 05: REIL. PAPI(P4L)—GA 3.0º TCH 52´.
RWY 23: REIL. PAPI(P4L)—GA 3.0º TCH 52´. Rgt tfc.
SERVICE: FUEL  JET A1  LGT ACTIVATE MIRL Rwy 05–23, PAPI and REIL Rwy 05 and Rwy 23—CTAF.
AIRPORT REMARKS: Attended Mon–Fri 1900–0300Z, Sat 2000–0100Z, Sun on call. Flt plan must be filed 12 hrs prior to estimated time of arrival, include Pohnpei Intl (PTPN) as address of flt plan. PPR for landing to be filed 48 hr in advance with FSM Secretary of Transportation, Communications and Infrastructure. Please see FSM Dept of Transportation, Communications, and Infrastructure, Division of Civil Aviation website for procedures and forms used to request PPR into FSM: HTTP://WWW.ICT.FM/CIVILAVIATION/FORMS.HTML. Unmarked/unlighted terrain at elev 797´ MSL located approximately 7200´ southeast of arpt. Ship vessels with mast as high as 200´ MSL may be traversing harbor entrance located South of rwy. For fuel transient acft must make prior arrangements by calling (691) 370–2477.
AIRPORT MANAGER: (691) 370–2154
COMMUNICATIONS: CTAF 123.6
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
NDB/DME (MHW) 393  UKS  Chan 100  N05º21.18´ E162º57.41´ at fld.  13/8E.

POHNPEN INTL  (PNI)(PTPN)  1 N UTC+11  N6º59.11´  E158º12.59´
9 B AOE  NOTAM FILE HNL
RWY 09–27: H6600X150 (ASPH–GRVD)  S–75, D–170, 2S–175, 2D–290  MIRL
RWY 09: REIL. PAPI(P4L)—GA 3.0º TCH 51´.
RWY 27: REIL. PAPI(P4L)—GA 3.0º TCH 50´. Rgt tfc.
SERVICE: FUEL  100, 100LL, JET A1+  LGT ACTIVATE MIRL Rwy 09–27 and Twy lgts—CTAF. For rotating beacon, PAPI Rwy 09 and Rwy 27, REIL Rwy 09 and Rwy 27, wind cone lgts ctc Pohnpei Radio 123.6.
AIRPORT REMARKS: Attended Mon–Fri 1900–0400Z, Sat 1900–0200Z, Sun 0600–1300Z. PPR for landing to be filed 48 hr in advance with Federated States of Micronesia Secretary of Transportation, Communications and Infrastructure. Please see FSM Dept of Transportation, Communications, and Infrastructure, Division of Civil Aviation website for procedures and forms used to request PPR into FSM: HTTP://WWW.ICT.FM/CIVILAVIATION/FORMS.HTML. Security on duty 24hr/7 days, ARFF and SAWR on duty for non–scheduled flights. 110´ tower located at 06º58´58”N, 158º12´32”E, obstruction lighted. Flt plan must be filed 12 hrs prior to estimated time of arrival, ctc arpt manager (691) 320–2682. One hour notice required to clear rwy. Center of rwy has ashp patch, hard breaking not recommended. Obstruction lighted 662´ Peipalap Peak located 4900´ SW of threshold. Be alert to ships with maximum height of 150´ in Pohnpei channel 400´ off approach end of Rwy 09. For advisory contact Pohnpei Radio prior to final approach or departure. Construction in progress on airfield. Fuel 100 and 100LL stored off airport. Available on request. For fuel unscheduled acft prior notice required call (671) 649–8861. Landing fee.
AIRPORT MANAGER: (691) 320–2793
COMMUNICATIONS: CTAF 123.6
RADIO 123.6 LAA. 5205X USB emerg only, 2182 emerg only.
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
NDB/DME (HW) 366  PNI  Chan 47  N06º58.94´ E158º12.12´ at fld.  4/7E.
DME channel 47 is paired with VHF freq 111.0. DME unusable 035º–089º byd 40 NM, 090º–249º, 250º–270º byd 35 NM.
COMM/NAV/WEATHER REMARKS: LAA available 1 hr prior to scheduled acft arrivals and until 1/2 hr after departure.
ULITHI ATOLL

ULITHI (TT82)  0 N  UTC+10  N10º01.20´ E139º47.39´

NOTAM FILE HNL  Not insp.

RWY 09–27:  H3000X75 (ASPH)

AIRPORT REMARKS:  Unattended. PPR from FSM DOT, COMMUNICATION and INFRASTRUCTURE: CIVIL AVIATION DIVISION (691) 320–2865. Remain in ctc with PTYA. Please see FSM Dept of Transportation Communication and Infrastructure Division of Civil Aviation website for procedures and forms used to request PPR into FSM. HTTP://WWW.ICT.FM/CIVILAVIATION/FORMS.HTML. Saipan.

AIRPORT MANAGER: 9731/9300

COMMUNICATIONS: CTAF 123.6

YAP RADIO 123.6 daylight only.

WENO ISLAND

CHUUK INTL (TKK)(PTKK)  0 SE  UTC+10  N7º27.71´ E151º50.58´

NOTAM FILE HNL


RWY 04:  REIL. PAPI(P4L)—GA 3.0º TCH 51´. Berm.


SERVICE: FUEL

100LL, JET A1+

LGT

PPR for rotating beacon contact Chuuk Radio 123.6. ACTIVATE MIRL VASIs and REILs Rwy 4–22—123.6. Rwy 22 PAPI unusable byd 7° left of cntrln.

AIRPORT REMARKS:  Attended Mon–Fri 1730–0230Z, Sat 1730–0230Z, Sun 0500–1300Z. Closed SS–SR. Flt plan must be filed 12 hrs prior to estimated time of arrival, include Pohnpei Intl (PTPN) as address of flt plan. PPR from Chief, Immigration and Labor, Federated States of Micronesia, Kolonia, Pohnpei 96941. 24 hr notice to Chuuk Arpt Manager and Chuuk Chief of Immigration stating acft type and registration, persons on board and their citizenship. PPR for ldg must be filed 48 hrs in advance with the Federated States of Micronesia Secretary of Transportation, Communication and Infrastructure. PPR from FSM DOT, COMMUNICATION and INFRASTRUCTURE: CIVIL AVIATION DIVISION 691–320–2865. Remain in ctc with PTYA. Please see FSM Dept of Transportation Communication and Infrastructure Division of Civil Aviation website for procedures and forms used to request PPR into FSM. HTTP://WWW.ICT.FM/CIVILAVIATION/FORMS.HTML. Rwy 04 and Rwy 22 concrete berm at each end of rwy pavement. Rwy 04 and Rwy 22 NSTD distance remaining markers both sides of rwy. For current information on landing, remain over night and parking fees contact Chuuk Arpt Manager, Office of the Governor, Chuuk, ECI 96942. Transient acft must make prior arrangements For fuel by calling (691) 370–2477. Lighted tower 150´ AGL located approximately 1950´ 080º from SW end runway. Fast rising terrain to 751´ MSL within 0.5 mile immediately SE of runway.

AIRPORT MANAGER:  (691) 330–2352

COMMUNICATIONS: CTAF 123.6

CHUUK RADIO 123.6 LAA. 5205X USB emerg only, 2182 emerg only.

COMMUNICATIONS: CTAF 123.6

RADIO AIDS TO NAVIGATION:  NOTAM FILE HNL.

TRUK NDB/DME (HW) 375 TTK  Chan 111  N7º27.54´ E151º50.51´  at fld.  6/5E.

DME portion unusable:

040º–205º byd 8 NM blo 7,000´

040º–205º byd 19 NM blo 11,000´

040º–205º byd 29 NM blo 22,000´

COMM/NAV/WEATHER REMARKS:  DME Chan 111 paired with 116.4.

TRUK  N7º27.54´ E151º50.51´ NOTAM FILE HNL.

NDB/DME (HW) 375 TTK  Chan 111 at Chuuk Intl.  6/5E.

DME portion unusable:

040º–205º byd 8 NM blo 7,000´

040º–205º byd 19 NM blo 11,000´

040º–205º byd 29 NM blo 22,000´
YAP ISLAND

YAP INTL  (T11)(PTYA)  0 SW  UTC+10  N9°29.93’ E138°04.95’

91  B  AOE  NOTAM FILE HNL

RWY 07: REIL. PAPI(P4L)—GA 3.0º TCH 47º. Ground.

SERVICE: FUEL  JET A1  LGT
ACTIVATE MIRL; PAPI Rwy 07 and Rwy 25; REIL Rwy 07–25 – 123.6.

AIRPORT REMARKS: Attended Mon–Fri 1730–0230Z, Sat on call, Sun on call. Sat 24 hrs PPR with filed Flt plan or phone (691) 350–2128 Fax (691) 350–2344. PPR for ldg to be filed 48 hrs in advance with the Secretary of Transportation, Federated States of Micronesia, PO. Box PS–2, Pohnpei, FSM 96941, phone (011)(691) 320–2865. Please see FSM DOTC&I division of civil aviation´s website for procedures and forms used to request PPR into FSM; HTTP://WWW.ICT.FM/CIVILAVIATION/FORMS.HTML. Be alert when taxiing, cracks on right and left side of twy. Landing fee. Transient acft must make prior arrangements for fuel with Mobil Oil Guam, expect delay.

AIRPORT MANAGER: (691) 350–2128

COMMUNICATIONS: CTAF 123.6

YAP RADIO 123.6 LAA. 5205X USB emerg only, 2182 emerg only.

RADIO AIDS TO NAVIGATION:

YAP NDB/DME (HW/DME) 317  YP  Chan 122  N9°29.97’ E138°05.31’ at fld. 80/1E.

DME unusable:
001º–009º byd 10 NM
010º–035º byd 10 NM blo 12,000’
035º–075º byd 25 NM blo 4,000’
076º–105º byd 25 NM
280º–000º byd 25 NM blo 12,000’

COMM/NAV/WEATHER REMARKS: Chan 122 paired with VHF freq 117.5.
GUAM

GUAM INTL (GUM/PGUM) 3 NE UTC+10 N13°29.04´ E144º47.83´

Class I, ARFF Index E NOTAM FILE GUM


RUNWAY DECLARED DISTANCE INFORMATION

RWY 06L:
TORA–12015
TODA–12015
ASDA–12015
LDA–11015

RWY 06R:
TORA–10014
TODA–10014
ASDA–10014
LDA–10014

RWY 24L:
TORA–10014
TODA–10014
ASDA–10014
LDA–9014

RWY 24R:
TORA–12015
TODA–12015
ASDA–12015
LDA–12015

SERVICE: S2 FUEL

100LL, JET A1 OX 1, 2, 3

LGT

Rwy 24L PAPI unusable byd 5° left of centerline.

AIRPORT REMARKS:

Attended continuously. Rwy 06L–24R less than 1000’ overrun south end & 450’ overrun north end. Lighted tower 780’ 1.3 NM east-northeast of Rwy 24L thld. Rising terrain 75´ from Rwy 24L thld 140’ east of centerline extended +8´. Departing VFR acft maintain rwy heading until past departure end of rwy and reaching 1000´ AGL; right pattern 24L/R do not exceed 1500´ AGL in tfc pattern. Class III acft are prohibited from making any turns onto or off Tfw Golf (south) while utilizing Tfw Echo. The first 500’ of the left shoulder of Rwy 24L is not visible from the twr. Pilots are advised to caution for any presence of wildlife in that area. For taxiing B747-8 acft on Tfw K fronting the acft prkg aprn from Gates 5-16 at the main trml, max taxiing speed shall be no more than 15 mph. For the B747-8, dur Rwy 24L and 24R ops and due to jet blast effects at Gate 14, 16 and 18, the B747-8 will be towed from Gate 4 on Tfw K to Tfw J with the acft positioned on Tfw J facing toward Rwy 24R. Dur taxiing of the B747-8 btn Gates 5-16, all veh shall yield and remain clear of the veh tfc pat and are rstd to a max hgt of 14’. For all arr, the B747-8 airlive will tow the acft into Gates 4 or 18 from Tfw K and airlive to provide wing-walkers as the acft is being towed into Gates 4 or 18. ADG-VI airplanes may depart on Rwy O6L and Rwy 24R with acft on parallel Tfw K as long as no ADG-VI acft occupies the parallel tfw byd 1500’ of the point of tfkof roll. TODA: B747-8 depts from Rwy 24R and Tfw J int the avbl tfkof dist will provide 11015’. For parking information all acft ctc ramp control. All acft dep terminal parking ctc ramp control for engine start and pushback. Transient acft provide 24 hrs advance information to Executive Manager Guam Intl Arpt Authority, Mon–Fri 2200–0700Z 1 (671) 642–4455 or Fax 1 (671) 646–8823. Customs available 24 hours daily. Landing fee. Consult special notice section of International NOTAMS.

AIRPORT MANAGER: (671) 646–0300

WEATHER DATA SOURCES: ASOS (671) 472–7399

COMMUNICATIONS: ATIS 119.0

GUAM CERAP APP/DEP CON 119.8

AGANA TOWER 118.1 GND CON 121.9 CLNC DEL 121.9 RAMP CON 121.6

AIRSPACE: CLASS D svc

RADAR AIDS TO NAVIGATION: NOTAM FILE HNL.

NIMITZ (H) VORTACW 115.8 UNZ Chan 105 N13°27.27’ E144º44.00’ 063º 4.1 NM to fld. 675/2E.

VORTAC unusable:

110º–130º byd 35 NM bll 3,000’.
200º–238º bll 14 NM bll 7,000’.

MT MACAINA NDB (IH) 385 AJA N13°27.21’ E144º44.22’ 061º 3.9 NM to fld. 659/2E.

ILS/DME 110.3 I–GHM Chan 40 Rwy O6L. Class IE. DME unusable byd 15° right of course.

COMM/NAV/WEATHER REMARKS: For radar advisory beyond 25 NM ctc Guam Center on 118.7. SSB receiving capability available on all HF freq. Aeronautical Radio, Inc. (ARINC) see Associated Data.

GUAM ARTCC (ZUA) (PGZU)

118.7 119.8 120.5 121.5 remoted at Mount Santa Rosa. 118.4 remoted at Saipan.

MT MACAINA N13°27.27’ E144º44.22’ NOTAM FILE PGUM.

NDB (IH) 385 AJA 061º 3.9 NM to Guam Intl. 659/2E.

HAM, PAC, 5 NOV 2020 to 31 DEC 2020
HAWAII

BRADSHAW ARMY AIRFIELD (BSF)/(PHSF) 1 W UTC–10 N19º45.60´ W155º33.23´ NOTAM FILE HNL

6190 TPA—See Remarks

RWY 09–27: H3695X90 (ASPH) PCN 27 F/B/W/T MIRL
RWY 09: REIL. PAPI(P4L)—GA 3.0º TCH 30´. Rgt tfc. 2.9% up E.

SERVICE: LGT ACTIVATE MIRL Rwy 09–27, PAPI Rwy 09—121.7. FUEL JAA/F24—24 hr PPR, fuel only tran acft, MIL EXER acft unit shall provide fuel. J8 (MIL) 24 hr PPR 1730–0000Z Mon–Fri except holidays, C808–969–2461. TRAN ALERT No aerospace gnd eqpt, tran alert or maint svc. Ltd acft parking.

MILITARY REMARKS: Attended Mon–Fri 1715–0100Z except holidays, phone Honolulu C808–433–1810 extn 461. Terminal, planes and marked twr on arpt. Arpt is VFR for mil training. RSTD PPR for full stop ldg, parking and for non-tenant acft. 72 hrs PPR for hazardous cargo ops, fixed wing ops, and code movement, 24 hr PPR for all tran acft; overflight of ammo supply point located 3300´ South of airfield is prohibited. Hazardous cargo on/off load approach end Rwy 09 only. Hazardous cargo advise twr IAW AR 95–27/AFR 55–14/OPNAVINST. Flight within 4900´ or direct overflight blo 9000´ over Mauna Kea State Park located 8200´ ESE of airfield is prohibited. Fit within 3/4 NM or overflight below 7,000´ of Waikii Ranch 7.9 NM NW prohibited. No acft with skids on Fixed Wing ramp. When twr closed, acft remain N of Saddle Road and establish two–way communication with Range Control prior to entry R–3103. Fixed wing acft are not auth tkf Rwy 09 and Rwy 27. Fixed wing tkf and ldg not avbl when twr cld. Fixed wing apch/land Rwy 09 only. Overflight or landing at Kawaihae Docks is prohibited for military acft.

CAUTION Located in R–3103. 500´ asph overrun each end of Rwy 27. 7´ lip at W end of overrun. 75´ of lava rock each side of rwy for dust control. Extensive dust hazard to fixed wing acft on E and W copter park ramps. High FOD potential in all areas of airfield. Extensive copter tcf vicinity of arpt. Terrain rises rapidly N of fld to 13,796 MSL. Overrun available for takeoff Rwy 27 end. High winds and low level wind shear may exist. TFC PAT—TFC pattern R/W N of rwy, 6900´. Fixed wing 7700´ or as directed by ATC. MISS Ltd ARFF facilities for scheduled flights during airfield opr hrs. Base wx station open Mon–Fri 1700–0100Z exc holidays. Wx observers view obstructed by buildings S–SW. Remote wx briefings avbl from 17 OWS wx Squadron 24 hrs at DSN/COMM 449–8333, 2 hr prior notice required for brief.

AIRPORT MANAGER: 808-961-6232

COMMUNICATIONS: CTAF 126.3 ATIS 124.7
KANUELA RCO 122.1R 113.3 T (HONOLULU RADIO)
HCF CENTER APP/DEP CON 118.45 (1715–0100Z Except Holidays) 278.3
TOWER 126.3 (1715–0100Z Mon–Fri)
HICKAM METRO 346.6 Remote brief avbl. RANGE 125.2 38.3 (Opr 24 hrs)

PMSV METRO 122.75

CLEARANCE DELIVERY PHONE: For Cd when ATCT cld, ctc Honolulu Control Facility at 808-840-6262.

AIRSPACE: CLASS D svc 1715–0100Z1 Mon–Fri exc hol; other times CLASS G.

AIR RADS TO NAVIGATION: NOTAM FILE MUE.

KANUELA (H) VOR/DME 113.3 MUE Ch 80 N19º59.88´ W155º40.19´ 144º 15.7 NM to fld. 2670/11E.

DME unusable:
001º–030º byd 10 NM blo 6,000´
070º–084º byd 25 NM blo 7,000´
070º–084º byd 35 NM blo 13,000´
085º–210º byd 15 NM blo 15,500´
290º–360º byd 10 NM blo 7,500´
290º–360º byd 20 NM blo 16,000´

HILO (H) VORTAC 116.9 ITO Ch 116 N19º43.28´ W155º00.66´ 263º 30.8 NM to fld. 23/11E. NOTAM FILE ITO.

BRADSHAW NDB (HW) 339 BSF N19º45.80´ W155º35.66´ 085º 2.3 NM to fld. 5785/10E. NOTAM FILE HNL.

COMM/NAV/WEATHER REMARKS: PMSV unreadable blo 6190´ and vicinity mountains. Svc is avbl only when afld is opr.

HAMAKU N19º54.62´ W155º11.36´ HAWAIIAN ISLANDS
RCO 122.2 (HONOLULU RADIO)
HILO INTL (ITO)(PHTO) 2 E UTC–10 N19º43.22’ W155º02.91’

ARK INTL (HNL) 2 E UTC–10 N21º17.90’ W157º57.00’

HAWAIIAN ISLANDS

38 B LRA ARFF—See Remarks NOTAM FILE ITO

**RWY 08–26:** H9800X150 (ASPH–GRVD) S–75, D–250, 2D–2D2–850 PCN 69 F/B/W/T HIRL

- **RWY 08:** ODALS. PAPI(P4R)—GA 3.0º TCH 71’. Tree.
- **RWY 26:** MALSR. PAPI(P4L)—GA 2.6º TCH 70’. Tree.

**RWY 03–21:** H5600X150 (ASPH–GRVD) S–75, D–80, 2D–2D2–410 PCN 69 F/B/W/T MIRL

- **RWY 03:** REIL. VASI(V4L)—GA 3.25º TCH 48’. Thld dsplcd 349’. Fence.
- **RWY 21:** Pole.

**RUNWAY DECLARED DISTANCE INFORMATION**

- **RWY 03:** TORA–5600 TODA–5600 ASDA–5600 LDA–5251
- **RWY 08:** TORA–9800 TODA–9800 ASDA–9800 LDA–9800
- **RWY 21:** TORA–5251 TODA–5251 ASDA–5251 LDA–5510
- **RWY 26:** TORA–9800 TODA–9800 ASDA–9800 LDA–9800

**SERVICE:**

- **FUEL**
  - 100LL, JET A
- **LGT**
  - ACTIVATE MIRL Rwy 3–21, HIRL Rwy 08–26, MALSR Rwy 26 and ODALS Rwy 08—118.1. Rwy 08 PAPI unusable byd 3 NM.

**AIRPORT REMARKS:**

- Attended 1700–0630Z. Rwy 03–21 closed to turbine acft 0400–1600. Be alert—occasional bird flocks on arpt and in flight across Rwy 08–26 and Rwy 03–21. Twy E btn Twy A and Rwy 08–26 ponding drg hvy rains. For fuel advance notice required, for 100LL call (808) 960–5146 or ctc freq 128.95, for JET A call 808–934–7757 or ctc freq 130.8. ARFF avbl 24 hrs, ctc 118.1 or (808) 934–5830/5831. Class I, ARFF Index C. ARFF avbl 24 hrs, contact 118.1 or 808–961-9317. Avoid overflight of noise sensitive residential areas north, west and southwest of arpt. The 1325’ paved area at approach end Rwy 08 marked by chevrons not usable for landing, takeoff, overrun or stopway and cannot be used in computing takeoff data for Rwy 08–26. Obstruction lighted 181’ smoke stack located 1/2 mile south of field. Tower controls entry/exit traffic on taxiways F and E to east terminal ramp. Division 1.1, 1.2, 1.3 explosives prohibited. PPR from arpt manager for transportation of Division 1.4 explosives and hazardous material in or out of arpt.

**AIRPORT MANAGER:**

- (808) 961–9300.

**WEATHER DATA SOURCES:**

- ASOS (808) 961–2077.
- ATIS 126.4
- CTAF 118.1
- RCO 122.6
- ATC 122.1R
- HONOLULU RADIO 116.9
- GND CON 121.9

**RCO** 122.6 122.1R 116.9 (HONOLULU RADIO)

**HAWAIIAN–MARIANA**

**PAC, 5 NOV 2020 to 31 DEC 2020**

**HAWAIIAN–MARIANA**

**KAMUELA**

N19º59.88’ W155º40.19’

- NOTAM FILE MUE.
- **(H) VOR/DME 113.3 MUE** Chan 80 at Waimea–Kohala Fld. 2670/11E.

**VOR portion unusable:**

- 001º–030º byd 10 NM blo 6,000’
- 070º–084º byd 25 NM blo 7,000’
- 070º–084º byd 35 NM blo 13,000’
- 085º–210º byd 15 NM blo 15,500’
- 290º–360º byd 10 NM blo 7,500’
- 290º–360º byd 20 NM blo 16,000’

**DME unusable:**

- 070º–084º byd 25 NM blo 7,000’
- 070º–084º byd 35 NM blo 13,000’
- 085º–210º byd 15 NM blo 15,500’
- 290º–300º byd 10 NM

**RCO** 122.1R

113.3 (HONOLULU RADIO)
Kilauea
Kona Intl at Keahole (Ellison Onizuka) (KOA) (PHKO) 6 NW UTC–10 N19°44.33´

Runway Declared Distance Information
RWY 17–35:
TORA–11000 TODA–11000 ASDA–11000 LDA–11000

Service:
S8 FUEL 100, JET A LGT
ACTIVATE HIRL Rwy 17–35 and twy lgts—CTAF.

Airport Remarks:
Attended 1600–0800Z. Migratory bird activity within a 5 NM radius of arpt. All wide–body aircraft contact tower prior to engine start. Kona Tower not responsible for movement on ramp within demarcation line. Request four engine actf taxi with outboard engines at idle due to narrow twy. Minor powerplant repairs available. Traffic pattern altitudes small aircraft 800(753) large aircraft 1500(1453). Rwy 17–35 double dual tandem wheel for DC10–10 450,000 lbs GWT, B747–SP 700,000 lbs GWT, B747–100 850,000 lbs GWT. Ramp immediately in front of old twr limited to actf weighing 30000 lbs or less. PPR from arpt manager for transient parking call 808–327–9520. Itinerant actf parking at the base of the old twr shall enter and exit via Twy Delta. Division 1.1, 1.2, 1.3 explosives prohibited. PPR from arpt manager for transportation of Division 1.4 explosives and hazardous material in and out of arpt. Use minimum power to taxi lane and out of parking spots. Push back/pull out required from terminal parking positions for all actf, no power out. Helicopter operations on and inv of Twy Alpha. All helicopters confine operations to paved areas. Jet A and 100 octane fuel available daily 1800–0300Z, other times with prior arrangements, call (808) 329–4682. U.S. Customs located on north ramp. Jet actf on cargo and south ramp ctc twr prior to engine start.

Airport Manager:
(808) 327–9520

Weather Data Sources: ASOS 127.4 (808) 329–0412 LAWRS.

Communications:
CTAF 120.3 / ATIS 127.4 / RCO 122.45 (HONOLULU RADIO)

HCF Center APP/DEP CON 118.45 / 278.3

Tower 120.3 (1600–0800Z) / GND CON 121.9 / CLNC DEL 118.6

Clearance Delivery Phone: For CD if una to ctc on FSS freq, ctc Honolulu Control Facility at 808-840-6262.

Airspace: CLASS D svc 1600–0800Z other times CLASS E.

Radio AIDS to Navigation:
NOTAM FILE KOA.

(H) VOR/TAC 112.1 KOA Chan 58 N19°43.03´ W156°02.70´ 347º 1.3 NM to fld. 36/11E.

VOR unusable:
040º–110º

TACAN unusable:
065º–110º
215º–280º byd 13 NM blo 2,000´
215º–280º byd 18 NM

DME unusable:
065º–110º
215º–280º byd 13 NM blo 2,000´
215º–280º byd 18 NM

ILS/DME 109.7 l–KOA Chan 34 Rwy 17. ILS unmonitored when tower closed. LOC backcourse unusable 22º left and 25º right of centerline.

Pauoa
Pauoa N19°32.47´ W154°58.33´ NOTAM FILE ITO. 332 POA 327º 11.6 NM to Hilo Intl. 495/11E. Unmonitored when twr clsd.

Pac, 5 Nov 2020 to 31 Dec 2020
UPOLU (UPP/PHUP) 3 NW UTC–10 N20°15.91′ W155°51.60′

96  B  TPA—See Remarks  NOTAM FILE UPP

RWY 07–25: H3800X75 (ASPH) S–30, 2S–156  MIRL
0.3% up W

RWY 07: PAPI(P2L)—GA 3.0º TCH 29′.
RWY 25: PAPI(P2L)—GA 3.0º TCH 31′. Hill. Rgt tfc.

SERVICE: LGT ACTIVATE MIRL Rwy 07–25 and PAPI Rwy 07 and Rwy 25—CTAF.

AIRPORT REMARKS: Unattended. No facilities. PPR for transient parking. PPR from arpt manager phone (808) 327–9520 for transportation of Division 1.1, 1.2, 1.3 explosives in or out of arpt. Occasional flocks of birds on and inv of arpt. Skydiving activity on and inv of arpt. All helicopters confine ops to paved areas only. TPA—small acft 800(704), large acft 1500(1404). NOTE: See Area Notices—TRAFFIC ADVISORIES AT NON–TOWER AIRPORTS.

AIRPORT MANAGER: (808) 327–9520

COMMUNICATIONS: CTAF 122.9

UPOLU POINT RCO 122.1R 112.3T (HONOLULU RADIO)

CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at 808-840-6262.

RADIO AIDS TO NAVIGATION: NOTAM FILE UPP.

UPOLU POINT (H) VORTAC 112.3  UPP  Chan 70  N20°12.03′ W155°50.60′ 335º 4.0 NM to fld. 1760/11E.

VOR unusable:
022º–040º blo 5,000′
023º–130º
203º–292º byd 30 NM blo 8,000′

VORTAC unusable:
145º–160º byd 27 NM blo 19,000′
168º–180º byd 25 NM blo 10,000′

UPOLU POINT  N20°12.03′ W155°50.60′ NOTAM FILE UPP.

(H) VORTAC 112.3  UPP  Chan 70  335º 4.0 NM to fld. 1760/11E.

VOR unusable:
022º–040º blo 5,000′
123º–130º
203º–292º byd 30 NM blo 8,000′

VORTAC unusable:
145º–160º byd 27 NM blo 19,000′
168º–180º byd 25 NM blo 10,000′

RCO 122.1R 113.3T (HONOLULU RADIO)
WAIMEA–KOHALA (MUE)(PHMU)  1 SW UTC–10 N20°00.08’ W155º40.09’  NOTAM FILE MUE  P–2H
2671 B TPA—See Remarks  IAP
RWY 04–22: H5197X100 (ASPH) S–55, D–90, 2S–110, 2D–150 MIRL
  RWY 04: REIL. VASI(V4R)—GA 2.5º TCH 43’. Rgt tfc.
  RWY 22: REIL. VASI(V4L)—GA 3.0º TCH 35’. Fence.
SERVICE: LGT ACTIVATE MIRL Rwy 04–22—CTAF. VASI Rwy 04 unusable byd 8º left of centerline. VASI Rwy 22 unusable byd 5º left and right of centerline.
AIRPORT REMARKS: Attended 1600–0530Z. Telephone line 1000’ from approach end Rwy 04. Rwy 04 30’ trees 275’ rgt of centerline 3000’ from approach end rwy. PPR for transient parking. PPR from arpt manager phone (808) 327–9520 for transportation of Division 1.1, 1.2, 1.3 explosives in or out of arpt. Occasional flocks of pigeons on arpt and near Rwy 04–22. All helicopters confine ops to paved areas only. TPA—Traffic pattern altitudes small acft 3500(829), large acft 4200(1529). NOTE: See Area Notices—TRAFFIC ADVISORIES AT NON–TOWER AIRPORTS.
AIRPORT MANAGER: (808) 327–9520
WEATHER DATA SOURCES: AWOS—3PT 120.0 (808) 887–8127.
COMMUNICATIONS: CTAF 122.9
HCF CENTER APP/DEP CON 118.45  278.3
CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS E
RADIO AIDS TO NAVIGATION: NOTAM FILE MUE.
KAMUELA (H) VOR/DME 113.3 MUE Chan 80 N19º59.88’ W155º40.19’ at fld. 2670/11E.

HAWAIIAN ISLANDS

KAUAI

BARKING SANDS PMRF (BKH)(PHBK)  5 NW UTC–10 N22º01.37’ W159º47.10’  NOTAM FILE P–2F
18 B NOTAM FILE  Not insp.
RWY 16–34: H6002X150 (ASPH) PCN 51 F/A/W/T HIRL
  RWY 16: PAPI(P4L)—GA 3.0º TCH 40’.
  RWY 34: PAPI(P4L)—GA 3.0º TCH 40’.
ARRESTING GEAR/SYSTEM
  RWY 16 BAK–12 HOOK E28 (B) (1502’) HOOK E28 (B) (1500’)
MILITARY REMARKS: RSTD 72 hr PPR for all acft, user reimburse contractor overtime, DSN 315–421–6310/6311, 808–335–4310/4311. For R3101, ctc RNG Outrider 322.85 or twr 126.2 prior to entry.
COMMUNICATIONS: UNICOM 122.8
HCF CENTER APP/DEP CON 126.5
NAVY BARKING SANDS TOWER 126.2 360.2 Mon–Fri 1700–0400Z except holidays. Other times by OPR NEC only.
GND CON 340.2
CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS D svc Mon–Fri 1700–0400Z except holidays. Other times by OPR NEC only. Other times CLASS G.
TACAN 112.6 NBS Chan 073 N22º02.26’ W159º47.11’ at Barking Sands PMRF. 26/10E.  NOTAM FILE HNL.
TACAN unusable:
  010º–040º byd 15 NM bly 17,000’
  040º–075º byd 15 NM
  075º–120º byd 20 NM bly 17,000’

PAC, 5 NOV 2020 to 31 DEC 2020
LIHUE (LIH(PHL)) 2 E UTC–10 N21º58.56´ W159º20.34´

152 B TPA—See Remarks LRA Class I, ARFF Index C NOTAM FILE LIH IAP

RHW 03–21: H6500X150 (ASPH–GRVD) S–75, D–200, 2D–350, 2D2–730 PCN 75 F/A/W/T MIRL

RHW 03: REIL PAPI(P4L)—GA 3.0º TCH 46´. Rgt tcf. 1.1% up SW.

RHW 21: REIL PAPI(P4L)—GA 3.0º TCH 45´. Thrd dpdcd 205´. Tree.

RHW 17–35: H6500X150 (ASPH–GRVD) S–75, D–175, 2D–250, 2D2–630 PCN 75 F/A/W/T HIIRL

RHW 17: REIL PAPI(P4L)—GA 3.0º TCH 55´.

RHW 35: MALS TR. PAPI(P4L)—GA 3.0º TCH 55´. Rgt tcf.

RUNWAY DECLARED DISTANCE INFORMATION

RHW 03: TORA–6500 TODA–6500 ASDA–6500 LDA–6500

RHW 17: TORA–6500 TODA–6500 ASDA–6500 LDA–6500


RHW 35: TORA–6500 TODA–6500 ASDA–6500 LDA–6500

SERVICE: FUEL 100, JET A LGT ACTVT MALSR Rwy 35; REIL Rwys 03, 17 and 21; PAPI Rwy 03 and Rwy 21; MIRL Rwy 03–21; HIIRL Rwy 17–35; twy lgts—CTAF PAPI Rwy 03 unusable byd 1.5 NM and 7º left of centerline and offset 9.5º E of centerline due to rapidly rising terrain. PAPI Rwy 17 unusable byd 5º rgt of centerline.

AIRPORT REMARKS: Attended 1600–0800Z. Extensive large and small bird activity inv of rwys including the nene goose.

Stadium flood lights 125’ AGL/282’ MSL 2400’ SW from Rwy 03 threshold. PPR for parking all transient acft, call arpt ops control (808) 651–6255; fax (808) 241–3939 tbt 1700Z and 0230Z; other times, call (808) 274–3814.

Military/civilian act carrying munitions/HAZMAT must coordinate itinerary no later than 24 hours prior to arrival. Acft needing engine runups for other than normal start–up and taxi out are required to coordinate these runups with arpt mgr. Normal runup area is on Wy Alpha north of Wy B and alpha intersection. Acft orientation is dependent on wind and with twr approval. Power setting will not cause damage to lgts and signs, if run may cause damage an alternate location will be selected. 405’ of Rwy 17–35 500’ south of Wy D and Rwy 17–35 intersection not visible from twr. Due to non-visibility twr unable to provide air traffic control svc between acft and/or vehicles on Wy B from 220º to 500º S of Wy D. Tfc departing and entering movement areas tbt twr approval. Intersections from Wy D on Rwy 17–35 not authorized. ARFF available 24 hrs. 100 octane fuel available 1900–0300Z. For JET A fuel call 1 (800) 776–2138 or 1 (800) 821–3122. Military acft make fuel arrangements before arrival. PPR for transportation of Division 1.1, 1.2, 1.3 explosives and hazardous material in and out of arpt. Call 1 (808) 241–3912. Rwy 17–35 weight limit DC 10–10 340,000 lbs, DC 10–30 430,000 lbs. TPA—single engine 100(847), Multi engine 1500(1347).

AIRPORT MANAGER: (808) 274–3800

WEATHER DATA SOURCES: ASOS (808) 246–3707

COMMUNICATIONS: CTAF 118.9 ATIS 127.2

RCO 122.4 122.1R 113.5T (HONOLULU RADIO)

© HCF CENTER APP/DEP CON 126.5

TOWER 118.9 (128.4 Helicopters) (1600–0800Z) GND CON 121.9

AIRSPACE: CLASS E svc 1600–0800Z other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE LIH.

(H) VORTAC 113.5 LIH Chan 82 N21º57.92´ W159º20.29´ at fld. 101/11E.

TACAN AZIMUTH and DME unusable:

180º–240º byd 16 NM

241º–330º byd 18 NM

331º–355º byd 30 NM blo 7,500’

VOR unusable:

180º–240º byd 33 NM blo 11,500’

241º–330º byd 18 NM

331º–355º byd 30 NM blo 7,500’

ILS/DME 110.9 I–LIH Chan 46 Rwy 35. Class IE. LOC unusable byd 20º left of course. ILS/DME unmonitored when ATCT closed. DME unusable byd 20º left of course.

ASR

COMM/NAV/WEATHER REMARKS: When twr closed, A/C on ground ctc Honolulu Center (HCF) on 126.5/ HCF Apch 134.0.

HELIPAD H1: H40X40 (CONC)

HELIPAD H2: H40X40 (CONC)

HELIPAD H3: H40X40 (CONC)

HELIPORT REMARKS: Helicopter pads 1 through 20 located west of control twr.

NORTH KAUAI (N22º12.55´ W159º26.63´)

RCO 122.3 (HONOLULU RADIO)
PORT ALLEN  (PAK/PHPA)  1 SW  UTC–10  N21°53.82’ W159°36.19’  
24  TPA—B24(800)  LRA  NOTAM FILE LIH

RWY 09–27:  H2450X60 (ASPH)  S–18
RWY 09:  Thld dsplcd 189’. Rgt tfc.

RUNWAY DECLARED DISTANCE INFORMATION
RWY 09:  TORA–2361  TODA–2361  ASDA–2361  LDA–2361


AIRPORT MANAGER:  (808) 274–3800

COMMUNICATIONS:  CTAF 122.9

CLEARANCE DELIVERY PHONE:  For CD ctc Honolulu Control Facility at 808-840-6262.

RADIO AIDS TO NAVIGATION:  NOTAM FILE LIH.

SOUTH KAUI (H) VORTAC  115.4  SOK Chan 101  N21°54.02’ W159°31.73’  256º 4.2 NM to fld. 602/11E.

COMM/NAV/WEATHER REMARKS:  For aviation info 0800–1600Z contact Honolulu FSS on 122.6.

PRINCEVILLE  (HI01)  3 E  UTC–10  N22°12.55’ W159°26.73’

RWY 05–23:  H3560X60 (ASPH)  S–30  LIRL(NSTD)
RWY 05:  Trees.
RWY 23:  Pole.

SERVICE: LGT  NSTD  LIRL OTS indef.

AIRPORT REMARKS:  Unattended. Daytime VFR operations only. Tree line with trees up to 60’ approximately 200’ N of rwy centerline near midfield. Tree line with 20’ trees 125’ N and S of rwy centerline. Ctc Princeville (808) 826–3040, 1900–0300Z for ldg authorization and ops requirements. No helicopter operations permitted except for existing operations by resident tour operator. Rwy 05 rising terrain at approximately 5% slope. Acft parking not to exceed 45 minutes due to limited ramp space. Landing fee.

AIRPORT MANAGER:  (808) 826–3040

COMMUNICATIONS:
NORTH KAUI RCO  122.3  (HONOLULU RADIO)

CLEARANCE DELIVERY PHONE:  For CD ctc Honolulu Control Facility at 808-840-6262.

RADIO AIDS TO NAVIGATION:  NOTAM FILE LIH.

LIHUE (H) VORTAC  113.5  LIH Chan 82  N21°57.92 W159°20.29  327º 15.8 NM to fld. 101/11E.

TACAN AZIMUTH and DME unusable:
180º–240º byd 16 NM
241º–330º byd 18 NM
331º–355º byd 30 NM blo 7,500’

VOR unusable:
180º–240º byd 33 NM blo 11,500’
241º–330º byd 18 NM
331º–355º byd 30 NM blo 7,500’

SOUTH KAUI  N21°54.02’ W159°31.73’  NOTAM FILE LIH.

(H) VORTAC  115.4  SOK Chan 101  256º 4.2 NM to Port Allen. 602/11E.

VORTAC unusable:
060º–070º byd 30 NM blo 5,000’
305º–010º byd 15 NM blo 8,500’

RCO  122.1R 115.4T  (HONOLULU RADIO)
LANAI (LNY)(PHNY) 3 SWUTC–10 N20º47.14’ W156º57.09’
1308 B TPA—See Remarks Class I, ARFF Index A NOTAM FILE LNY
Rwy 03–21: H5001X150 (ASPH–GRVD) S–75, D–110, 2D–170, C5–517 PCN 28 F/B/Y/T MIRL
Rwy 03: PAPI(P4R)—GA 3.0º TCH 49’. Runway.
Rwy 21: PAPI(P4L)—GA 3.76º TCH 45’. Antenna.
RUNWAY DECLARED DISTANCE INFORMATION
Rwy 03: TORA–5000 TODA–5000 ASDA–5000 LDA–5000
Rwy 21: TORA–5000 TODA–5000 ASDA–5000 LDA–5000
SERVICE: FUEL JET A LGT
ACTIVATE PAPI Rwy 03 and Rwy 21, MIRL Rwy 03–21—CTAF. Rwy 21 PAPI unusable byd 2 NM due to terrain.
AIRPORT REMARKS: Attended 1600–0530Z. Jet A fuel 5000 gal. POC (808) 286–7075. 24 hrs PPR for Division 1.1, 1.2, 1.3 explosives and 4 hrs PPR for hazardous material in/out of arpt ctc (808) 565–7941/7943. Arpt CLOSED to air carrier ops with more than 10 passenger seats 0530–1600Z except PPR, call (808) 565–7942. TPA--- small acft 2100 (792) large acft 2800 (1492). Possible severe updrafts/downdrafts from 2 mile final apch to Rwy 3 thld. Due to ramp limitations all acft parking limited to one hour except via PPR call (808) 565–7942, FAX (808) 565–7940 or (808) 872–3880. Jet parking SW side of ramp is asph. Fixed wing transient parking SW side of ramp is conc. NOTE: See Area Notices—TRAFFIC ADVISORIES AT NON–TOWER ARPTS.
AIRPORT MANAGER: (808) 872–3830
WEATHER DATA SOURCES: AWOS–3P 118.375 (808) 565–6586.
COMMUNICATIONS: CTAF 122.9
LANAI RCO 122.5R, (serves OGG VORTAC 115.1T & LNY VORTAC 117.7T) (HONOLULU RADIO)
HCF CENTER APP/DEP CON 119.3
CLEARANCE DELIVERY PHONE: For CD if una to ctc on FSS freq, ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS E svc continuous.
RADIO AIDS TO NAVIGATION:
(T) VORTAC 117.7 LNY Chan 124 N20º45.87´ W156º58.13´ 027º 1.6 NM to fld. 1250/11E.
TACAN unusable: 005º–063º byd 20 NM blo 15,000’, VOR unusable: 020º–060º byd 27 NM blo 5,000’, NDB (HHW) 353 LLN Chan 48 N20º46.35´ W156º58.41´ 047º 1.5 NM to fld. 990/11E.
ILS/DME 111.1 I–LNY Chan 48 Rwy 03. Class IT. Gl ideslope unusable for coupled apchs blo 1,505’ MSL.

MAUI

HALEAKALA N20º42.32’ W156º15.90’
RCO 122.2 (HONOLULU RADIO)

HANA (HNH)(PHHN) 3 NW UTC–10 N20º47.74’ W156º00.87’
78 B TPA—See Remarks NOTAM FILE HNM
Rwy 08–26: H3606X100 (ASPH) S–34, D–48, 2D–80 MIRL
0.7% up W
Rwy 08: PAPI(P2L)—GA 3.6º TCH 26’.
Rwy 26: Rgt ttc.
SERVICE: LGT ACTIVATE MIRL (only high intensity avbl) Rwy 8–26—CTAF. Rwy 08 PAPI daylight ops only. Rwy 08 PAPI OTS indef.
AIRPORT REMARKS: Attended 1745–0230Z. Wild boars on and invof arpt. Arpt CLOSED to helicopters sunset–sunrise except PPR (808) 872–3875. Parachute ldg area on east infield btn Twy B and C. Helicopter pilot training maneuvers will be conducted at the approach end of Rwy 26 only. Ultralights on and invof arpt. 24 hrs PPR for Division 1.1, 1.2, 1.3 explosives and 4 hrs PPR for other hazardous cargo in/out of arpt ctc (808) 248–4861 or (808) 872–3880. Rwy 08–26 35˚ trees along both sides of rwy 200’ from centerline. Helicopter parking on grass infield areas between ramp and runway. TPA—Traffic pattern altitudes small acft 800(722) large acft 1500(1422). NOTE: See Area Notices—TRAFFIC ADVISORIES AT NON–TOWER AIRPORTS.
AIRPORT MANAGER: (808) 872–3808
WEATHER DATA SOURCES: AWOS–3PT 118.325 (808) 248–4864.
COMMUNICATIONS: CTAF 122.9
HANA RCO 122.3 (HONOLULU RADIO)
HCF CENTER APP/DEP CON 118.45 278.3
CLNC DEL 122.3
CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at 808-840-6262.
RADIO AIDS TO NAVIGATION:
(PAC, 5 NOV 2020 to 31 DEC 2020) MAUI (H) VORTAC 115.1 OGG Chan 98 N20º54.39’ W156º25.26’ 095º 23.8 NM to fld. 24/11E.
KAHULUI (OGG/PHOG) 3 E UTC–10 N20º53.92´ W156º25.83´

55 B LRA Class I, ARFF Index D NOTAM FILE OGG

RWY 02–20: H6998X150 (ASHP–GRVD) S–130, D–170, 2D–360, 2D/2D2–750 PCN 48 F/C/X/T

HIRL 0.6% up SW

RWY 02: MALSR. PAPI(PAR)—GA 3.0º TCH 77´. Stack. Rgt tfc.

RWY 20: PAPIP4LGA 3.0º TCH 76´. Bldg.

RWY 05–23: H980X150 (ASHP–GRVD) S–130, D–170, 2D–270 PCN 48 F/C/X/T MIRL

RWY 05: PAPI(P4L)—GA 3.0º TCH 40´. Trees.


RUNWAY DECLARED DISTANCE INFORMATION

RWY 02:
TORA–6995 TODA–6995 ASDA–6995 LDA–6995

RWY 05:
TORA–4990 TODA–4990 ASDA–4990 LDA–4990

RWY 20:
TORA–6995 TODA–6995 ASDA–6995 LDA–6995

RWY 23:
TORA–4990 TODA–4990 ASDA–4990 LDA–4990

SERVICE:
FUEL 100, JET A
LGT

When twr clsd ACTIVATE MALSR Rwy 02, PAPI Rwy 20 and Rwy 05, HIRL Rwy 02–20, MIRL Rwy 05–23—CTAF. Rwy 05 PAPI unusable byd 4 NM from thld due to rapidly rising terrain.

AIRPORT REMARKS:
Attended continuously. Class I, ARFF Index D, however, can accommodate Index E as required, call arpt manager prior to arrival. ARFF available 24 hrs. 24 hrs PPR for Division 1.1, 1.2, 1.3 explosives and 4 hrs PPR for other hazardous cargo in/out of arpt; ctc (808) 872–3838. Lighted tower 570´ MSL approximately 3 miles west of airport. Migratory bird activity blo 1500´ within 5 NM radius of arpt during August–May. Actf over 30,000 lbs ldg on Rwy 02–20 unable to turn off onto Rwy 05–23 due to pavement condition. Due to nonvisibility twr unable to provide ATC svc between acft and ground vehicles on the commuter air terminal S of Taxiway F and the helicopter air terminal E of apch end Rwy 02. Due to non-visibility twr unable to determine if following area is clear of obstructions and/or tfc: portion of Taxiway F between the commuter air terminal and apch end Rwy 05. Ramp area E side Rwy 02 under state authority. Transient parking located on northeast section of E ramp. FAA not responsible for direction and control gnd tfc in area. Area E of apch end Rwy 02 designated as helicopter operations area. No fixed wing acft may operate on helipad during operational hours SR–SS. PPR for fixed wing acft operations on helipad during nonoperational hours call (808) 872–3880 1515–0800Z. Access to helipad from Twy C only. Military helicopter ops restricted to the southwest corner of Hot Cargo Apron (HAZMAT) north of Rwy 05–23. Commuter terminal ramp restricted to acft 140,000 lbs or less. Jet A fuel avbl 1700–0400Z, other times by prior arrangement with FBO 24 hrs, (808) 871–5572, or (808) 873–6060. 100 octane fuel avbl 24 hrs self–service. Flight Notification Service (ADCUS) available. NOTE: See General Notices—Entry and Departure Requirements. NOTE: See Area Notices—Landing Rights Airports–Gatehold Procedures–Hazards, Cautions and Warnings–CLASS C Airspace–Arrival/Departure Routes–Noise Sensitive Areas–Informal Runway Use Program.

AIRPORT MANAGER: (808) 872–3808


COMMUNICATIONS: CTAF 118.7
ATIS 128.6
UNICOM 122.95

MAUI RCO 122.5R, (serves OGG VORTAC 115.1T & LNY VORTAC 117.7T) (HONOLULU RADIO)

HONOLULU CONTROL FACILITY APP/DEP CON 120.2 (North) 119.5 (South) (1600–0900Z, effective starting at 0200 local time the second Sunday in March through 0200 local time the first Sunday in November. 1600–1000Z, effective starting at 0200 local time the first Sunday in November through 0200 local time the second Sunday in March)

MAUI TOWER 118.7
GND CON 121.9
MAUI CLNC DEL 120.6 (1600–0900Z, effective starting at 0200 local time the second Sunday in March through 0200 local time the first Sunday in November. 1600–0800Z, effective starting at 0200 local time the first Sunday in November through 0200 local time the second Sunday in March)

AIRSPACE: CLASS C svc (1600–0900Z, effective starting at 0200 local time the second Sunday in March through 0200 local time the first Sunday in November. 1600–1000Z, effective starting at 0200 local time the first Sunday in November through 0200 local time the second Sunday in March) ctc APP CON other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE OGG.

MAUI (H) VORTAC 115.1 OGG Chan 98 N20º54.39´ W156º25.26´ at fld. 24/11E.

VALLEY ISLAND NDB (MHW) 327
VHI N20º52.85´ W156º26.56´ 022º 1.3 NM to fld. 62/11E. NDB unusbl 075º–160º byd 5 NM; 225º–310º byd 5 NM.

ILS/DME 110.1 I–OGG Chan 38 Rwy 02. Class IB. Unmonitored when ATCT closed. LOC unusbl byd 15º left of course.

COMM/NAV/WEATHER REMARKS: Between 0900Z and 1600Z IFR tfc on the ground ctc Honolulu Control Facility on 119.3. All tfc is requested to follow the procedures described for Traffic Advisories at Non–Tower Airports under Area Notices except to utilize Maui tower freq 118.7 instead of 122.9.

HELIPAD H1: H125X125 (ASPH)
KAPALUA (JHM/PHJH) 5 NW UTC–10 N20º57.78´ W156º40.38´

256 Class I, ARFF Index A NOTAM FILE JHM
Rwy 02–20: H3000X100 (ASPH) D–44 PCN 2 F/B/W/T
  Rwy 02: PAPI(P2L)—GA 5.5º TCH 35´. Tree. Rgt tfc.
  Rwy 20: PAPI(P2R)—GA 5.5º TCH 35´.

RUNWAY DECLARED DISTANCE INFORMATION
  Rwy 02: TORA–3000 TODA–3000 ASDA–3000 LDA–3000
  Rwy 20: TORA–3000 TODA–3000 ASDA–3000 LDA–3000

AIRPORT REMARKS: Attended 1600–0400Z. Private use only. Arpt restricted to Part 121 and Part 135 FAR operators with PPR, ctc Kahului arpt ops (808) 872–3880 (24 hrs). ARFF hrs 1600–0400Z. No helicopter ops permitted. No jet powered acft allowed. No practice and training flights permitted. Special noise level standards for acft operating at arpt. Restriction on number of daily flts depending on acft capacity and size. Rapidly rising terrain up to 300´ MSL along the full length of Rwy 02–20 approximately 160´ E of centerline.

AIRPORT MANAGER: (808) 872–3830
WEATHER DATA SOURCES: AWOS–3PT 118.525 (808) 665–6101.
COMMUNICATIONS: CTAF/UNICOM 122.7
HONOLULU CONTROL FACILITY APP/DEP CON 124.1
CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS E svc 1600–0430Z other times CLASS G.
RADIO AIDS TO NAVIGATION: \( ^{\star} \) NOTAM FILE OGG.

MAUI (H) VORTAC 115.1 OGG Chan 98 N20º54.39´ W156º25.26´ 272º 14.6 NM to fld. 24/11E.

COMM/NAV/WEATHER REMARKS: UNICOM opn 1600–0400Z daily. Transient acft may call for tfc advys.

MAUI N20º54.23´ W156º25.15´ NOTAM FILE OGG
(H) VORTAC 115.1 OGG Chan 98 at Kahului fld. 24/11E.

VORTAC unusbl:
  065º–084º byd 30 NM blo 7,000´
  085º–089º byd 30 NM blo 10,000´
  106º–160º byd 19 NM blo 24,000´

VOR unusbl:
  090º–105º byd 31 NM blo 12,500´
  161º–165º byd 23 NM blo 7,000´
  210º–240º byd 17 NM blo 20,000´
  241º–249º byd 27 NM blo 20,000´
  250º–285º byd 27 NM blo 20,000´

TACAN AZIMUTH and DME unusbl:
  085º–089º byd 28 NM blo 7,000´
  090º–105º byd 28 NM blo 12,500´
  161º–165º byd 19 NM blo 7,000´
  210º–285º byd 19 NM blo 28,000´

VALLEY ISLAND N20º52.85´ W156º26.56´ NOTAM FILE OGG
NDB (MHW) 327 VYI 022º 1.3 NM to Kahului. 62/11E.
NDB unusbl 075º–160º byd 5 NM; 229º–310º byd 5 NM.

HAWAIIAN ISLANDS
MOLOKAI

KALAUPAPA (LUP)(PHLU) 2 N UTC–10 N21º12.66´ W156º58.42´

24 B TPA—800(776) NOTAM FILE MKK
RWY 05–23: H2700X75 (ASPH) S–17 MIRL
RWY 05: PAPI(P2L)—GA 3.0º TCH 19´.
RWY 23: Rgt tcf.

SERVICE: LGT ACTVT MIRL RWY 05–23 high and medium INTST
only–CTAF. PAPI RWY 05 daytime VFR use only. Rwy 05 PAPI unusbl
byd 2.2 NM. Terrain penetrates PAPI safety slope at 2.7 NM.

AIRPORT REMARKS: Attended Mon–Fri 1700–0130Z. PPR from State
Department of Health, Communicable Disease Division to enter
settlement area phone Honolulu (808) 586–4580. 24 hrs PPR for
Division 1.1, 1.2, 1.3 explosives and 4 hrs PPR for other hazardous
material in/out of arpt ctc (808) 567–9660/9663. Deer and wild
animals on and inv of arpt at night. Oct–May large waves impacting
shoreline resulting in salt water sprays 40´ high. NOTE: See Area
Notices—TRAFFIC ADVISORIES AT NON–TOWER ARPTS.

AIRPORT MANAGER: (808) 872–3830

COMMUNICATIONS: CTAF 122.9

MOLOKAI RCO 122.1R 116.1T (HONOLULU RADIO)

HCF CENTER APP/DEP CON 124.1

CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at
808-840-6262.

RADIO AIDS TO NAVIGATION: NOTAM FILE MKK.

MOLOKAI (H) VORTAC 116.1 MKK Chan 108 N21º08.29´
W157º10.05´ 057º 11.7 NM to fld. 1421/11E,
VORTAC unusable:
275º–285º byd 25 NM blo 3,500´
MOLOKAI (MKK/PHMK) 6 NW UTC–10 N21°09.17′ W157°05.78′
454 B TPA—See Remarks Class I, ARFF Index A NOTAM FILE MKK
RWY 05–23: H4494X100 (ASPH–GRVD) S–30, D–48 PCN 12 F/B/Y/T MIRL
0.4% up NE
RWY 05: REIL. PAPI(P4L)—GA 4.0º TCH 49′
RWY 23: Thld dsplcd 593′. Brush.
RWY 17–35: H3118X100 (ASPH) S–13 PCN 11 F/B/Y/T MIRL
0.6% up N
RWY 17: Thld dsplcd 426′. Fence.
RWY 35: Fence.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 05: TORA–4494 TODA–4494 ASDA–4494 LDA–4494
RWY 17: TORA–3118 TODA–3118 ASDA–3118 LDA–2692
RWY 35: TORA–3118 TODA–3118 ASDA–3118 LDA–3118
SERVICE: LGT
When twr closed ACTIVATE MIRL Rwy 05–23 and Rwy 17–35, REIL Rwy 05—CTAF. Rwy 05 PAPI not authorized 1.8 NM byd landing thld due to rapidly rising terrain.
AIRPORT REMARKS: Attended 1500–0615Z. Be alert to egrets and pigeons on and in vicinity of arpt. TPA—small acft 1250(796) large acft 1950(1496). Arpt CLOSED to air carrier operations with more than 10 passenger seats 0530–1600Z except PPR call (808) 567–9660/9663. 24 hrs PPR for Division 1.1, 1.2, 1.3 explosives and 4 hrs PPR for other hazardous material in/out of arpt ctc (808) 567–6140/6008. Large acft with wingspan greater than 78′ may not use Twy A or Rwy 05–23 for simultaneous ops. Mountain approximately 1280′ MSL located 2.8 NM from threshold Rwy 05 on extended centerline. Standing water/ponding on Rwy 17–35 near Twy Echo during inclement weather.
AIRPORT MANAGER: (808) 872–3808
WEATHER DATA SOURCES: ASOS (808) 567–6106
COMMUNICATIONS: CTAIP 125.7 ATIS 128.2
HCF CENTER APP/DEP CON 124.1
TOWER 125.7 (1600–0430Z) GND CON 121.9
CLEARANCE DELIVERY PHONE: For CD if una to ctc on FSS freq, ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS D svc 1600–0430Z other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE MKK.
VORTAC 116.1 MKK Chan 108 N21°08.29′ W157°10.05′ 067º 4.1 NM to fld. 1421/11E.
VORTAC unusable: 275º–285º byd 25 NM bio 3,500′
OAHU

DILLINGHAM AIRFIELD  (HDH/PHDH) MIL/CIV A  2 W  UTC–10  N21º34.77’ W158º11.84’  HAWAIIAN ISLANDS  P–2G

14 TPA—800(786)  NOTAM FILE HNL

RWY 08–26: H9007X75 (ASPH–RFSC)  S–40, D–152, 2D–180

RWY 08: Thd dscpcl 1993’.


SERVICE:  S4  FUEL  100, JET A


Simultaneous glider/powered actf opns. Tree line with 90´ trees N and S of rwy approximately 425´ from centerline. A 5000´ x 75´ rwy for light powered actf has been painted in the center of the existing 9007´ x 75´ paved area for civil use starting approximately 2000´ from each rwy end. NOTE: See Area Notices TRAFFIC ADVISORIES AT NON TOWER AIRPORTS.

MILITARY REMARKS: Opr 1700–0130Z. Rwy 08–26 clsd for mil trng 0800–1700Z. RSTD PPR for civil actf 12500 and over, ctc arpt Airside OPS C808–836–6428, Mon–Fri 1745–0230Z. PPR for all mil actf into arpt ctc USA HAWAII RNG C808–655–1429/4892. A 5000´ x 75´ rwy for lgt pwr actf has been painted in the cntr of the 9007´ x 75´ paved area, do not land short of displ thld. No running ldg with skid type copter on rwy. Ldg on apv twy only. Cld to cív actf SS–SR. No banner towing. Lt rescue and fire fighting avbl 1700–0130Z. CAUTION Extrv mil copter and glider opr. Extrv PJE wknd and hol. Aerobatics trng area off–shore north of the fld abv 1500’. Ultralight and skydiving haz. Large sea bird haz Nov–Apr. Mrk depression in vcnty of auto fuel pump southwest apn. PJE act 3 NM NW. TFC PAT Eng pwr actf should keep base leg in close and cross arpt bdry fences at or abv 600´ to assure safe separation fr sailplanes/towplanes using the first 2000´ (short of the displ thld).

RWY Sailplanes using first 2000´ of full rwy for ldg.

AIRPORT MANAGER:  808-836-6533

COMMUNICATIONS:  CTAF/UNICOM  123.0

RADIO:  122.6 (HONOLULU RADIO)

CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at 808-840-6262.

RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.

HONOLULU (H) VORTAC  114.8  HNL  Chan 95  N21º18.50’ W157º55.82’  306º 22.0 NM to fld. 10/11E.

COMM/NAV/WEATHER REMARKS: All acft must contact Dillingham UNICOM prior to entering traffic pattern and maintain contact on 123.0 while operating in the Dillingham area. UNICOM oper 1900–0300Z.

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EWABE  N21º19.48’ W158º02.94’  NOTAM FILE HNL  HAWAIIAN ISLANDS  P–2G

NDB  (MHW/LOM)  242  HN  218º 1.6 NM to Kalaeloa (John Rodgers Fld.)  43/11E.

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HONOLULU CONTROL FACILITY  (ZHN)(PHZH)  HAWAIIAN ISLANDS  P–1G, 2G

HALEAKALA RCAG  118.45  121.5

HAMAKUA RCAG

126.6 Primary for area 90 NM E of Denns, Ebber and Fites DME fixes.

KONEE RCAG

119.9 Primary for area S of Honolulu and area W and NW of Lihue.

MT HALEAKALA RCAG

119.3 Primary for Lanai area.

124.1 Primary for area NE and E of HNL VORTAC out to approx 90 NM.

127.6 Freq used about 90 NM NE and E of Oahu to vicinity of Apack, Bitta, Cluts, and Zigie DME fixes.

MT KAALA RCAG

119.9 Back up for area S of Honolulu and for area W and NW of Lihue.

126.5 Primary for area W and NW of Honolulu and Lihue.

135.4 Back up for all other frequencies.

MAUNA KAPU RCAG

126.5

135.4

WAUMANALO RCAG

118.45

119.3

124.1

127.6
HONOLULU

DANIEL K INOUYE INTL (JOINT BASE PEARL HARBOR–HICKAM) (HNL)(PHNL) P (AF) 3 NW

UTC–10  N21º19.07’ W157º55.21’

12.6 B TPA—See Remarks  LRA Class I, ARFF Index E  NOTAM FILE HNL

RWY 08L–26R: H12312X150 (ASPH–GRVD) S–100, D–200, 2D–400,
2D/2D2–780 PCN 79 R/B/W/T  HIRL

RWY 08L: MALSR. PAPI(P4L)—GA 3.0º TCH 71’.

RWY 26R: REIL. PAPI(P4L)—GA 3.25º TCH 65’. Road.

RWY 08R–26L: H12000X200 (ASPH–GRVD) S–80, D–170, 2D–400,
2D/2D2–780 PCN 98 F/B/X/T  HIRL

RWY 08R: REIL. VASI(V6L)—Upper GA 3.25º TCH 96’. Lower GA 3.0º TCH 52’.

RWY 26L: MALSF. PAPI(P4L)—GA 3.0º TCH 75’.

RWY 04R–22L: H9002X150 (ASPH–GRVD) S–100, D–200, 2D–400,
2D/2D2–850 PCN 57 F/B/X/T  HIRL

RWY 04R: MALSR. PAPI(P4L)—GA 3.0º TCH 71’. Tree.

RWY 22L: REIL. PAPI(P4L)—GA 3.44º TCH 80’. Stack.

RWY 04L–22R: H6955X150 (ASPH) S–100, D–200, 2D–400,
2D/2D2–850 PCN 31 F/B/X/T  HIRL

RWY 04L: REIL. PAPI(P4L)—GA 3.0º TCH 50’.

RWY 22R: REIL. Antenna.

LAND AND HOLD–SHORT OPERATIONS

LDG Rwy HOLD–SHORT POINT AVBL LDG DIST
RWY 04L 08L–26R 3700
RWY 04R 08L–26R 6250
RWY 08L 04L–22R 9300

RUNWAY DECLARED DISTANCE INFORMATION

RWY 04L: TORA–6952 TODA–6952 ASDA–6952 LDA–6952
RWY 04R: TORA–9000 TODA–9000 ASDA–8950 LDA–8950
RWY 08L: TORA–12300 TODA–12300 ASDA–12300 LDA–12300
RWY 08R: TORA–12000 TODA–12000 ASDA–12000 LDA–12000
RWY 22L: TORA–9000 TODA–9000 ASDA–8937 LDA–8937
RWY 22R: TORA–6952 TODA–6952 ASDA–6952 LDA–6952
RWY 26L: TORA–12000 TODA–12000 ASDA–12000 LDA–12000
RWY 26R: TORA–12300 TODA–12300 ASDA–12300 LDA–12300

ARRESTING GEAR/SYSTEMS

RWY 04R BAK–14 BAK–12B (1500’)

SERVICE: FUEL 100, JET A, A1+, B  OX 1, 2, 3, 4  LGT

PAC, 5 NOV 2020 to 31 DEC 2020

CONTINUED ON NEXT PAGE
MILITARY REMARKS: Working days in advance. Waivers will be granted on extreme necessity. If short notice mission essential waivers are required for holidays 1800–0700Z. All request for waivers will be sent to the 15/OG/CC or 154 OG/CC for HIANG aircraft at least 5 days in advance. Due to sensitivities of citizens, fighter aircraft takeoff only authorized from Mon–Sat 1700–0700Z, and Sun and holidays 1800–0700Z. All jet actf ctc ramp control prior to engine start, at gate or hard stand. PPR from arpt manager for transportation of Class A and B explosives in and out of HNL. LRA: 2 hrs advance notice rqr outside regular business hrs. Ldg fee and storage charges collectable on arrival. NOTE: See Area Notices. NOTE: See General Notices—GENERAL INFORMATION ON FLYING TO HAWAII. NOTE: See Special Notices—Tower Data Link System. NOTE: See Special Notices—HNL Runway Incursion Risk.

MILITARY REMARKS: Fighter acft exercise extreme caution when taxiing. To minimize foreign object damage potential, all acft should use Taxiway Kilo from Runway 4R. Tower approval required to use Taxiway Kilo from Runway 4R.

CAUTION No fighter transient support available in accordance with ACC LSET Flash Safety 06–02. Transient fighter units should provide their own maintenance support. Foreign object damage hazard exits on all movement areas east of Twy S. FOD hazard exists on all twys and rwys, but especially on Rwy 04L, Rwy 04R, Rwy 22L and Rwy 22R. Due to non–visibility twr unable to determine if the following areas are clear of obstructions and/or tfc: portions of Twy RB between Twy B and Rwy 08R, portions of Inter–Island acft parking ramp. Rwy 08L–26R 200’ wide with lights outside, pmrt striped 150’ wide. TPA–Tf pattern altitude for small acft entering from northwest 800(787). Tf pattern altitude for large acft entering from south 1500(1487). During periods of repeated precipitation anticipate wet rwy conditions, if current conditions rqr confirmation ctc Honolulu twr on initial ctc. Remain at least 1 mile offshore of Waikiki Diamond Head Koko Head and EWA Beach. Arrival Rwy 08L, fly ILS apch procedure or a close–in base leg remaining over center of Pearl Harbor Channel. Arrival Rwy 26L and Rwy 26R, remain at tfc pattern altitudes as long as possible before beginning descent for ldg. Twy G ADV G and below power in w/PPR. Tower approval required to use Taxiway Kilo from Runway 4R. Apron Taxilane 6 bnt Twy C and south ramp cslsd except GA/ixed wing loading/unloading only. Apron Taxilane 2 east end 360’ cslsd.

Continued on next page.
AIRPORT MANAGER: 808-836-6533
WEATHER DATA SOURCES: ASOS (808) 836–0449 WSP.
COMMUNICATIONS: D–ATIS 127.9 251.15 PTD 133.6 (HICKAM)

**HONOLULU CONTROL FACILITY APP CON** 118.3 (West)
- TOWER 118.1 123.9 (08R–26L) 257.8 273.575 (08R–26L) GND CON 121.9
- ADVISORY RAMP 121.8 (HNL INTL) 133.6 254.4 (HICKAM) CLNC DEL 121.4

**HONOLULU CONTROL FACILITY DEP CON** 118.3 (West) 124.8 (East)
- COMD POST 168.0 292.5 295.5 SHAKA OPS 125.3 349.4

AIRSPACE: CLASS B See VFR Terminal Area Chart CLASS E svc Honolulu Intl arpt.
VOLMET 13282 8828 6679 2863 Broadcast H+00 and 30.

**VOR TEST FACILITY (VOT)** 111.0

**COMM/NAV/WEATHER REMARKS:** Aeronautical Radio, Inc. (ARINC) see Associated Data. Excessive needle oscillation can be expected over mountainous terrain NE of NDB—CAUTION advised. Hickam ramp twr (Non–ATC facility) All acft on HIK flightline including haz cargo pad will ctc HIK Ramp prior to eng start/taxi. HIK Ramp will provide advisory directions and will relay to AFLD Ops via VHF capable acft. All acft departing to CONUS must complete USDA inspection prior to eng start/taxi.

**WATERWAY 08W–26W:**
- 5090X300 (WATER)

**WATERWAY 04W–22W:**
- 3000X150 (WATER)

**SEAPLANE REMARKS:** Rwy 04W–22W and Rwy 08W–26W recreational boating activities on and in waterways.
KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR) P (HANG CG) 2 S UTC–10 N21°18.44’ W158°04.22’ HAWAIIAN ISLANDS

30 B TPA—See Remarks NOTAM FILE JRF


RWY 04R: MALSF, PAPI(P4R)—GA 3.0’ TCH 55’.

RWY 22L: PAPI(P4L)—GA 3.0’ TCH 32’.

RWY 11–29: H6000X200 (ASPH) S–74, D–167, 2D–327, 2D–800 MIRL 0.3% up NW

RWY 11: PAPI(P4L)—GA 3.0’ TCH 48’.

RWY 25: PAPI(P4L)—GA 3.0’ TCH 52’.

RWY 04L–22R: H4000X200 (ASPH) MIRL

RWY 04L: PAPI(P4L)—GA 3.0’ TCH 35’.

RWY 22R: PAPI(P2L)—GA 3.0’ TCH 33’.

SERVICE: FUEL 100LL, JET A, A1 LGT


AIRPORT REMARKS: Attended 1630–0100Z. TPA—Traffic pattern alt small aircraft 830(800), large aircraft 1030(1000). Avoid overflight refineries west of airport, gaseous exhaust plumes and flames may rise to 267’ AGL without warning. TFC: Large acft requesting Rwy 11 can expect right traffic. Occasional bird hazard approach end Rwy 04L and Rwy 04R. Potential hydroplaning all aircraft due to standing water at intersection Rwy 04R and Rwy 11. Military helicopter operations on and inv of arpt due to U.S. Coast Guard military helipad near Rwy 04R. NAVAIR 0800 R-14 NATOPS US Navy Aircraft Firefighters and Rescue Manual, Category II Airfield (ARFF INDEX B equivalent).

MILITARY REMARKS: RSTD TSNT ACFT CTC FBO for ramp AVBL, and fuel C808-518-4660.

AIRPORT MANAGER: (808) 836–6533

WEATHER DATA SOURCES: ASOS 119.8 (808) 673–7454.

COMMUNICATIONS: CTAF 132.6 ATIS 119.8

HONOLULU CONTROL FACILITY APP CON 118.3

KALAELOA TOWER 132.6 (1600–0800Z) GND CON 123.8 CLNC DEL 121.7

VFR ADVS SVC ctc HONOLULU APP CON

AIRSPACE: CLASS D svc 1600–0800Z other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.

HONOLULU (H) VORTAC 114.8 HNL Chan 86 274º 12.7 NM to Daniel K Inouye Intl. 640/11E.

EWABE NDB (MHW/LOM) 242 HN N21º19.48’ W158º02.94’ 218° 1.6 NM to fld. 43/11E.

COMM/NAV/WEATHER REMARKS: Twr operated by Air National Guard. GCA OTS indef.

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR) P (HANG CG) 2 S UTC–10 N21°18.44’ W158°04.22’ HAWAIIAN ISLANDS

30 B TPA—See Remarks NOTAM FILE JRF


RWY 04R: MALSF, PAPI(P4R)—GA 3.0’ TCH 55’.

RWY 22L: PAPI(P4L)—GA 3.0’ TCH 32’.

RWY 11–29: H6000X200 (ASPH) S–74, D–167, 2D–327, 2D–800 MIRL 0.3% up NW

RWY 11: PAPI(P4L)—GA 3.0’ TCH 48’.

RWY 25: PAPI(P4L)—GA 3.0’ TCH 52’.

RWY 04L–22R: H4000X200 (ASPH) MIRL

RWY 04L: PAPI(P4L)—GA 3.0’ TCH 35’.

RWY 22R: PAPI(P2L)—GA 3.0’ TCH 33’.

SERVICE: FUEL 100LL, JET A, A1 LGT


AIRPORT REMARKS: Attended 1630–0100Z. TPA—Traffic pattern alt small aircraft 830(800), large aircraft 1030(1000). Avoid overflight refineries west of airport, gaseous exhaust plumes and flames may rise to 267’ AGL without warning. TFC: Large acft requesting Rwy 11 can expect right traffic. Occasional bird hazard approach end Rwy 04L and Rwy 04R. Potential hydroplaning all aircraft due to standing water at intersection Rwy 04R and Rwy 11. Military helicopter operations on and inv of arpt due to U.S. Coast Guard military helipad near Rwy 04R. NAVAIR 0800 R-14 NATOPS US Navy Aircraft Firefighters and Rescue Manual, Category II Airfield (ARFF INDEX B equivalent).

MILITARY REMARKS: RSTD TSNT ACFT CTC FBO for ramp AVBL, and fuel C808-518-4660.

AIRPORT MANAGER: (808) 836–6533

WEATHER DATA SOURCES: ASOS 119.8 (808) 673–7454.

COMMUNICATIONS: CTAF 132.6 ATIS 119.8

HONOLULU CONTROL FACILITY APP CON 118.3

KALAELOA TOWER 132.6 (1600–0800Z) GND CON 123.8 CLNC DEL 121.7

VFR ADVS SVC ctc HONOLULU APP CON

AIRSPACE: CLASS D svc 1600–0800Z other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.

HONOLULU (H) VORTAC 114.8 HNL Chan 86 274º 12.7 NM to Daniel K Inouye Intl. 640/11E.

EWABE NDB (MHW/LOM) 242 HN N21º19.48’ W158º02.94’ 218° 1.6 NM to fld. 43/11E.

COMM/NAV/WEATHER REMARKS: Twr operated by Air National Guard. GCA OTS indef.
WAHIAWA

WHEELEER AAF (HHI)(PHHI) A 1 SW UTC–10 N21°28.89’ W158°02.27’

843 B TPA—See Remarks NOTAM FILE PHHI Not insp.

RWY 06–24: H5608X291 (ASPH) PCN 47 F/A/W/T HIRL 0.4% up NE

RWY 06: Thld displaced 570’. Rgt tfc.

SERVICE: S2 LGT ACTIVATE HIRL Rwy 06–24—CTAF. Rotating bcn 1/8
mile north of twr.

FUEL F24, JAA, 1730–0845Z M–F, OT by NOTAM.

MILITARY REMARKS: Attended Mon–Fri 1730–0900Z, other times by NOTAM.

RSTD PPR for all stop ldg, prk and for non–tenant acft, ctc Wheeler OPS
CB08–656–1282, DSN 456–1282. Hillclimber Apron rstd to
Unmanned Shadow (RQ–7) OPS conducted btw 140’ and 500’ fr RCL
with four sets of 4’ net barriers mkd with obst lgt. No tran fixed–wing
acft on Twy A thru Twy G, see AP3 for additional restrictions. CAUTION

Extensive helicopter tfc invof arpt. Night vision goggle training A311
500’ and below from 1 hr after SS thru 1 hr before SR. Extreme caution
sweeper on rwy 1500–1700Z Mon–Fri. Use caution on north side of
Rwy. Hold Lanes are 50’ from Rwy 06–24 edge. Remain on parallel Twy
A when holding for Rwy. Use caution on Twy A due to no twy edge lights
and rwy hold signs installed. All avid markings are extremely faded on all
aprons and twys. Blue twy edge reflectors installed on all twys north side
of Rwy 06–24. TFC PAT All acft arr from north will cross arpt at or abv
2500’ enter tfc from the south. South traffic only. TPA—Rotary Wing
1500(657) fixed wing 2000(1157).

NS ABMT Extremely noise sensitive area; avoid ovft communities surrounding Wheeler
AAF. MISC Practice approaches by non–tenant acft restricted and approved only contingent upon tenant acft activity. Auto
wx obsn, human backup avbl H24. Human wx obsn view obst by bldg W thru NE (250°–060°). Vis evaluation is ltd to
1/6 to 1/4 mile in this sctr. Wx svc opr 24 hrs. 2 hr PN rqr for timely brief.

AIRPORT MANAGER: 808-656-2666

COMMUNICATIONS: CTAF 126.3 ATIS 119.675 242.4 D–ATIS 808–656–1789

HONOLULU CONTROL FACILITY APP/DEP CON 113.5 269.0

TOWER 126.3 235.625 (Opr 24 hrs Mon 1730Z — Sat 0900Z; exc hol and wknd)

GND CON 121.85 237.5

LIGHTNING RADIO 141.65 239.5 (Mon–Fri after opr 1730–0900Z. PINEAPPLE Opr Mon–Fri 1730–0900Z.

PMV METRO Wx svc opr H24 125.1 DSN 315-456-1016/1017, CB08-656-1016/1017. Alt ctc 17 OWS, DSN
315-449-8333/7950, CB08-449-8333/7950. Alt METRO - 346.6 Hickam.

VFR ADZ SVC ctc HONOLULU Apch Ctrl

AIRSPACE: CLASS D svc Mon 1700–Sat 0900Z exc hol and wknd, other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.

HONOLULU (H) VORTAC 114.8 HNL Chan 95 N21°18.50’ W157°55.82’ 319° 12.0 NM to fld. 10/11E.
KIRIBATI

KIRITIMATI (CHRISTMAS ISLAND)

CASSIDY INTL  (PLCH)  UTC–10  N01º59.18´ W157º21.00´  P–1C
5 AOE
RWY 08–26: H6896X148 (ASPH)  LIRL  PCN 48 F/B/X/T
RWY 08: REIL. PAPI—TCH 57´
RWY 26: REIL

RUNWAY DECLARED DISTANCE INFORMATION
RWY 08: TORA–6896 TODA–7388 ASDA–6896 LDA–6896
RWY 26: TORA–6896 TODA–7388 ASDA–6896 LDA–6896

SERVICE: FUEL  100, JET A1  LGT  Rw 08–26 edge lghts spaced 312´ apart.

AIRPORT REMARKS: Attended SR–SS with 48 hr prior notice, manned only for scheduled flight. PPR for 600 gal fuel or more. 150´ mast 2 NM SW of arpt. 180° turns in turning nodes rqr for acft over 12,566 lbs. All non–sked flights are required to notify civ aviation, Tarawa, not later than 1 week prior to arr giving ETA and ETD. NOTE: See Area Notices—KIRIBATI.

COMMUNICATIONS:
AFIS 118.1 3425 6553 8846 8867 3460X 6575X 8924X 11339 13300. 11339 13300 Avbl for all notified movements.

RADIO AIDS TO NAVIGATION:
CHRISTMAS ISLAND NDB 333 XI N01º59.28´ W157º21.20´ at fld. 9E. Avbl for all notified movements. No aux pwr. Opr HO.

CHRISTMAS ISLAND  N01º59.28´ W157º21.20´  P–1C
NDB (MHW)  333 XI at Cassidy Intl. 9E. Avbl for all notified movements. No aux pwr. Opr HO.
ARNO ATOLL
INE  (N28)  0 NW UTC+12  N07°01.00´  E171°29.00´
4  NOTAM FILE HNL  Not insp.
RWY 08–26: 2450X50 (GRVL–CORAL)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9

TINAK  (N18)  O N UTC+12  N07°08.00´  E171°55.00´
4  NOTAM FILE HNL  Not insp.
RWY 05–23: 2850X45 (GRVL–CORAL)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9

ENEWETAK
ENEWETAK AUX AF  (PKMA)  (AF) UTC+12  N11°20.45´  E162°19.67´
P–1B
13  AOE  Not insp.
AIRPORT REMARKS: Opr Mon–Sat 2000–0500Z, Enewetak date. Official business only, PPR. Multi unlighted twr up to 100´ in vicinity rwy. Rwy badly deteriorated, emergency ldg only. IFR act on Enewetak remain in ctc with Hickam till cleared to Enewetak Radio. Request 2 hour eta notice. No com watch on radio freq outside normal hour of opr. Arr acft in blind on 121.5 acft call sign, ETA–100 NM from station. 2 trans, 3 min intervals, IFR dep clnc fr Hickam.
COMM/NAV/WEATHER REMARKS: Trml advisory svc.

JABOR JALUIT ATOLL
JALUIT  (N55)  1 SE UTC+12  N05°54.40´  E169°38.50´
4  NOTAM FILE HNL  Not insp.
RWY 03–21: 5000X60 (GRVL–CORAL)
SERVICE: FUEL  100
AIRPORT REMARKS: Attended on call. Fuel used for local operations only. For refueling contact Air Marshall Islands (692) 93731.
COMMUNICATIONS: CTAF 122.9

KILI ISLAND
KILI  (C51)  O N UTC+12  N05°39.00´  E169°07.00´
5  NOTAM FILE HNL  Not insp.
RWY 04–22: 4400X100 (GRVL–CORAL)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9
KWAJALEIN ATOLL

BUCHOLZAAF (KWA/PKWA) UTC+12 N08º43.21´ E167º43.90´

16 B LRA NOTAM FILE PKWA

RWY 06–24: H6668X19B (ASPH) S–158, D–205, 2D–308 HIRL

RWY 06: REIL, PAPI(P4L)—GA 3.0º TCH 50´.

RWY 24: PAPI(P4L)—GA 3.0º TCH 44´.

SERVICE: FUEL JET B+ OX 1, 2

AIRPORT REMARKS: Attended (Base Ops) 1730–0930Z Tue–Sat, 1830–0930Z Mon. RSTD–PPR, with 24 hr ntc and billeting conformation no. req for all acft, exc reg sked coml and AMC Channel msn.

COMMUNICATIONS: BUCHOLZ TWR —Opr–1900–0500Z Tues–Sat excld fed hol. (E) TWR 126.2 360.2 GND 121.9 all acft within 50 NM maint. Twr ctc. Ot ctc Base Ops 118.8 (advsv Svc only) Remarks: Class D eff 1900–0500Z Tue–Sat Tues–Sat excld fed hol. OT Class E. SAN FRANCISCO ARINC 13462 21985 8903 17904 6532 13300 4666 11384 2998. MISC Weather available 24 hours on 119.675. Ltd staffing available from 0400–0700Z Mon, Wed, Fri and 2330–0530Z Tue, Thu, Sat due to scheduled air carriers. Transient Acft with cargo must plan all up–load, down load opr btn 2000–0400Z Mon, Wed, Fri and 2330–0530Z Tue, Thu, Sat. Exceptions will be considered on a day–to–day basis. Limit engine run–ups to a minimum. 250˚ tower 8.5 NM PKWA bearing 300º. Electromagnetic radiation may exist 24 hrs daily within 5 NM from surface to 30,000´. CAUTION—Pilots have experienced vertigo during night operations especially during periods of reduced visibility due to lack of visual cues. Portions of Twy E not visible from tower. Avoid rain catchments on N side of rwy and taxiway. CAUTION—men equipment and vehicles may be operating in close proximity to rwy. Acft with explosive cargo require a special PPR and any additional cost of operation may be charged to shipper. Numerous trees and other obstructions within 300´ S of rwy. TACAN tower 75´ high lctd 164´ N of Twy E centerline. Airfield closed to all traffic on Sundays. Transient aircraft hours of service 1900Z–0800Z. OPS outside these hours requires US Army, Kwaialai Atoll (USAKA), Aviation Officer approval and support personnel scheduled and funded. Unattended airfield ops not authorized except in an emergency. Airfield lighting secured 30 minutes after last scheduled departure. Airfield lighting available with 30 minute response in support of in–flight emergencies. Aircraft utilizing Bucholz AAF for an emergency divert outside of regular operating hours should contact the FAA controller at Oakland Center to arrange for Base OPS/TWR personnel recall. Aircraft arriving with hazardous cargo or explosives and information on RF hazards see FLIP AP/3. Use of parallel Taxiway E limited to C–141 and smaller acft. During airfield opr periods when twr not avbl, all acft will use standard advisory procedure of section 4–1–9 of US AIM and self announce all movements on CTAF and ground and within 10 NM of the arpt. NOTE: See Area Notices—MARSHALL ISLANDS. Twy A and Twy E are weight restricted for the following acft: B737, B757, B767, C–5, C–17, C–130, C–141, and DC–8 back taxi and 180º turn on rwy will be required, for either arr or dep. Exceptions may be granted for Twy A, in order to access explosive cargo parking locations.

COMMUNICATIONS: SAN FRANCISCO ARINC (KWA). NOTAM FILE PKWA.

ROI RADIO 118.1

GND CON 121.9

AIRSPACE: CLASS D svc Tue–Sat 1945–0415Z excluding holidays; other times CLASS G.

RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.

NDB (HW) 359 NDJ N08º43.25´ E167º43.67´ atfld. 15/9E.
<table>
<thead>
<tr>
<th>Airport/Location</th>
<th>UIC/ICAO/Other</th>
<th>Latitude/Longitude</th>
<th>Time Zone</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>DYESS AAF</td>
<td>(ROI)(PKRO)</td>
<td>N09º23.81´ E167º28.25´</td>
<td>UTC+12</td>
<td>MIRL, PAPI(P4L), Electromagnetic radiation will exist 24 hrs daily within 10 NM radius of Dyess AAF from surface to 50,000. Acft within the abv airspace will be exposed to direct radiation which may produce harmful effect to persons and equipment.</td>
</tr>
<tr>
<td>MAJURO ATOLL</td>
<td>MAJURO</td>
<td>N07º03.92´ E171º16.11´</td>
<td>UTC+12</td>
<td>Service: Fuel JET A1+ LGT</td>
</tr>
<tr>
<td>AMATA KABUA INTL</td>
<td>AMATA KABUA INTL</td>
<td>N07º03.90´ E171º16.32´</td>
<td>UTC+12</td>
<td>Service: Fuel JET A1+ LGT</td>
</tr>
<tr>
<td>MEJIT ATOLL</td>
<td>MEJIT</td>
<td>N10º17.00´ E170º53.00´</td>
<td>UTC+12</td>
<td>Service: Fuel JET A1+ LGT</td>
</tr>
</tbody>
</table>
MILI ISLAND
MILI (1Q9) 0 N UTC+12 N06º05.00´ E171º44.00´
4 NOTAM FILE HNL Not insp.
RWY 05–23: 2850X75 (TURF)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9

NAMORIK ATOLL
NAMORIK (3N0) 0 NE UTC+12 N05º37.90´ E168º07.50´
15 NOTAM FILE HNL Not insp.
RWY 07–25: 2900X45 (GRVL–CORAL)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9

TAORA ISLAND/MALOELAP ATOLL
MALOELAP (3N1) 0 E UTC+12 N08º42.50´ E171º14.00´
4 NOTAM FILE HNL Not insp.
RWY 04–22: 3500X150 (TURF)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9

UTIRIK ATOLL
UTIRIK (03N) 0 SE UTC+12 N11º14.00´ E169º51.00´
4 NOTAM FILE HNL Not insp.
RWY 07–25: 2400X50 (GRVL–CORAL)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9

WOTJE ATOLL
WOTJE (N36) 0 E UTC+12 N09º28.00´ E170º14.00´
4 NOTAM FILE HNL Not insp.
RWY 13–31: 4275X75 (TURF)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9
MIDWAY ATOLL

HENDERSON FLD (MDY)(PMDY) P 0 SW UTC–11 N28º12.09´ W177º22.88´ P–1B

NOTAM FILE MDY

18 B Class IV, ARFF Index A

RWY 06–24: H7800X150 (ASPH) S–120, D–230, 2D–430 PCN 56 F/A/W/U MIRL

RWY 06: REIL, PAPI(P4L)—GA 3.0º TCH 55´.

RWY 24: REIL, PAPI(P4L)—GA 3.0º TCH 55´.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 06: TORA–7800 TODA–7800 ASDA–7800 LDA–7800

RWY 24: TORA–7800 TODA–7800 ASDA–7400 LDA–7400

SERVICE: LGT ACTIVATE REIL Rwy 06 and Rwy 24, PAPI Rwy 06 and Rwy 24, MIRL Rwy 06–24—126.2.

AIRPORT REMARKS: Attended 1900–0400Z. Use freq 126.2 for all inbound and outbound communications. Arpt clsd to all trans acft. Arpt open for ETOPS and approved acft ops only. Approved acft ops permitted only during hrs of darkness Nov–Jun due to heavy bird activity. PPR for ldg for approved acft ops from arpt manager 24 hrs in advance due to heavy bird activity call 808–954-4829. Be alert for heavy bird strike hazards at all times. Current bird activity status avbl during initial ctc inbound and prior to tft and ldg on freq 126.2. Except when necessary for tft and Indg, all acft maintain minimum alt of 5,000 MSL within 12 miles of arpt. Arpt ctc 1900–0400Z (808) 674–1237. Emergency pager 24 hrs (480) 768–2500 ID 881631492770. Landing fee.

AIRPORT MANAGER: (808) 954–4829

WEATHER DATA SOURCES: AWOS-3P 118.325 (808) 674–9286.

COMMUNICATIONS: CTAF 122.9

AIRSPACE: CLASS E svc

RADIO AIDS TO NAVIGATION: NOTAM FILE MDY.

MIDWAY NDB (HW) 400 MDY N28º12.25´ W177º22.75´ at fld. 16/10E.

COMM/NAV/WEATHER REMARKS: No ATCT ops. Inbound acft ctc 100 NM out for advisories. CTAF not monitored ctc freq 126.2. Freq 126.2 monitored 1900–0400Z and during approved acft ops. Arpt advisory on 126.2/257.8; 121.5/243.0 avbl.

MIDWAY N28º12.25´ W177º22.75´ NOTAM FILE MDY

NDB (HW) 400 MDY at Henderson fld. 16/10E.

PAC, 5 NOV 2020 to 31 DEC 2020
NORTHERN MARIANA ISLANDS

PAGAN ISLAND

PAGAN AIRSTRIP (TT01)  Q S UTC+10  N18º07.47´ E145º46.12´
34  NOTAM FILE HNL  Not insp.
RWY 11–29: 1500X120 (TURF–GRVL)  S–4  1.5% up E
RWY 11: Trees.
RWY 29: Brush.
AIRPORT REMARKS: Unattended. Arpt CLOSED indefinitely. Survey marker 1 foot high on centerline, approach end of Rwy 11.
COMMUNICATIONS: CTAF 122.9

ROTA ISLAND

BENJAMIN TAIACAN MANGLONA INTL (GRO)(PGRO)  NE UTC+10
N14º10.46´ E145º14.47´
607  B  TPA—See Remarks  LRA  Class I, ARFF Index A  NOTAM FILE HNL
RWY 09–27: H7000X150 (ASPH–GRVD)  S–90, D–130, 2D–220  PCN 57 F/A/X/T  MIRL  0.3% up E
RWY 09: REIL, PAPI(P4L)—GA 3.0º TCH 45º. Rgt tfc.
RWY 27: PAPI(P4L)—GA 3.0º TCH 45º. Rgt tfc.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 09: TORA–7000  TODA–7000  ASDA–7000  LDA–7000
SERVICE: LGT
MIRL Rwy 09–27, PAPI and REIL Rwy 09, PAPI Rwy 27, twy lghts and windcone operate 2000–1030Z. After 1030Z and during emergencies ACTIVATE MIRL Rwy 09–27, PAPI and REIL Rwy 09, PAPI Rwy 27, twy lights and windcone—CTAF. Rotating bcn located 950’ south of ARP and 300’ west of terminal bldg centerline extended.
AIRPORT MANAGER: (670) 532–9497
COMMUNICATIONS: CTAF 123.6
ROTA RADIO 123.6
GUAM ARTCC APP/DEP CON 120.5
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
ROTA NDB (NW) 332  GRO  N14º10.30´ E145º14.39´ at fld.  588/2E.
### COMMONWEALTH HEALTH CENTER HELIPORT

**C21**  
**UTC+10**  
N15°12.59´ E145°43.47´  
**HELIPAD H1: H45X45 (CONC)**  
**HELIPORT REMARKS:** Attended continuously. Rwy H1 110´ hotel bldgs west and 85´ water tank east of helipad.  
**AIRPORT MANAGER:** (670) 234–8950  
**COMMUNICATIONS:** CTAF 125.7

### FRANCISCO C ADA/SAIPAN INTL

**GSN**  
**PGSN**  
**UTC+10**  
N15°07.22´ E145°43.80´  
**NOTAM FILE**  
**HELIPAD H1:**  
**HELIPORT REMARKS:** Attended continuously. Rwy H1 110´ hotel bldgs west and 85´ water tank east of helipad.  
**AIRPORT MANAGER:** (670) 237–6500  
**COMMUNICATIONS:** ATIS 127.2  
**WEATHER DATA SOURCES:** ASOS, SAWRS.
TINIAN ISLAND

TINIAN INTL (TNI)(PGWT) 1 N UTC+10 N14º59.95´ E145º37.16´
270 B Class I, ARFF Index A NOTAM FILE HNL

RWY 08–26: H8600X151 (ASPH–CONC–GRVD) S–75, D–200, 2D–400, 2D/2D2–832
PCN 61 F/A/X/T MIRL 0.4% up E.

RWY 08: REIL, PAPI(P4L)—GA 2.98º TCH 43´. Hill.
RWY 26: REIL, PAPI(P4L)—GA 2.99º TCH 45´. Rgt tfc.

RUNWAY DECLARED DISTANCE INFORMATION
RWY 08: TORA–8600 TODA–8600 ASDA–8600 LDA–8600
RWY 26: TORA–8600 TODA–8600 ASDA–8600 LDA–8600

SERVICE: LGT For REIL Rwy 08 and Rwy 26, PAPI Rwy 08 and Rwy 26, MIRL Rwy 08–26, ctc airport 2000–1000Z on CTAF 123.6. For emergencies between 1000–2000Z lghts can be requested by contacting port police (670) 433–9295/9294 or CTAF 123.6.

AIRPORT REMARKS: Attended 2000–1000Z, other times PPR from Commonwealth Ports Authority Tinian manager, Tinian call 670–433–9296/94, Mon–Sun. Arpt CLSD to unscheduled air carrier operations with more than 10 pax seats except 24 hrs PPR rqr in writing to arpt manager. PO. Box 235, Tinian MP 96952. ARFF svc available 2000–0930Z and for air carrier ops with more than 9 passenger seats. Cust avbl dur sked ops. OTR times prior arrangements must be made with Customs Border Patrol Protection Saipan call 288-0028. Traffic pattern altitude for large and turbine powered acft 1803(1532); small acft 1303(1032).

AIRPORT MANAGER: (670) 433–9294

COMMUNICATIONS: CTAF 123.6

GUAM ARTCC APP/DEP CON 118.4

RADIO AIDS TO NAVIGATION
SAIPAN NDB (HW) 312 SN N15º06.69´ E145º42.62´ 216º 8.7 NM to fld. 103/2E.
PALAU

ANGAUR ISLAND

ANGAUR AIRSTRIP (ANG) 30 SW UTC+9 N06º54.00´E134º09.00´

20 NOTAM FILE HNL

RWY 05–23: 7000X150 (GRVL)
RWY 05: Trees.
RWY 23: Trees.

AIRPORT REMARKS: Unattended.

COMMUNICATIONS: CTAF 122.9

BABELTHUAP ISLAND

BABELTHUAP/KOROR (ROR)(PTRO) 4 NE UTC+9 N07º22.04´E134º32.66´

177 NOTAM FILE HNL

RWY 09–27: H7200X150 (ASPH–CONC–PFC) S–75, D–190, 2S–175, 2D–300 MIRL
RWY 09: REIL. PAPI(P4L)—GA 3.0º TCH 52º.
RWY 27: REIL. PAPI(P4L)—GA 3.0º TCH 52º. Trees.

SERVICE: FUEL 115, JET A1

AIRPORT REMARKS: Attended continuously. Be alert to large number of birds on rwy at night. A1 + jet fuel stored at arpt, 100 and 130 octane in dock area. ARFF avbl 2 hrs prior to scheduled actf arr and until 1 hr after dep. All unscheduled flts must file a flt plan at least 7 days prior to arr and all flts must ctc Koror Communications on 123.6 at least 20 min prior to arr. Entry permit rqr call 011 (680) 488–2498, fax 011 (680) 488–4385, ldg permit rqr must give 7 days notice call 011 (680) 488–2111 fax 011–680–488–3207. All actf exceeding 100,000 lbs GWT taxi to thld turn around before taxing to apron. Acft under 100,000 lbs GWT may make a turn around where feasible.

AIRPORT MANAGER: (680) 488–2111

COMMUNICATIONS: CTAF 123.6

KOROR RADIO 123.6 AAS avbl 2 hr prior arr, clsd 1 hr after dep. 2182 5205X.

RADIO AIDS TO NAVIGATION:

KOROR NDB/DME (HW/DME) 371 ROR Chan 104 N07º22.13´E134º33.02´ at fld. 183/1E. DME channel 104 paired with VHF freq 115.7

DME usable:
006º–030º byd 25 NM bio 4,500´
031º–050º byd 25 NM bio 3,500´
051º–220º byd 25 NM bio 2,200´
221º–240º byd 25 NM
241º–290º byd 25 NM bio 3,500´
291º–335º byd 25 NM
336º–005º

COMM/NAV/WEATHER REMARKS: LAA available 2hrs prior to scheduled acft arrival and until 1hr after departure.

PAC, 5 NOV 2020 to 31 DEC 2020
AIRPORT/FACILITY DIRECTORY

WAKE ISLAND

WAKE ISLAND AIRFIELD (AWK)(PWAK) AF 0 N UTC+12 N19°16.95´ E166°38.20´

23 B ARFF Index C NOTAM FILE HNL Not insp.

RWY 10–28: H9844X150 (ASPH) PCN 101 FAWT HIRL

RWY 10: REIL PAPI(P4L)—GA 3.0° TCH 76´.

RWY 28: REIL PAPI(P4L)—GA 3.0° TCH 77´.

ARRESTING GEAR/SYSTEM

HOOK BAK–12B (4921´). RWY 28


MILITARY REMARKS: Attended Mon–Sat 2000–0400Z (0800–1600L). Tue–Sat), except holidays. Hi–reach load capability unavbl for acft with cargo door sill height above 156”. RSTD PPR for all acft at least 24 hr in advance. Email for PPR req form: PRSCDET1.AIRFIELD.MANAGEMENT@US.AF.MIL. After PPR apvl, PWAK ETA/ETD deviations byd 2 hr rqr reapproval. Base Ops fone DSN 315-424-2101, C808-424-2101, FAX DSN 315-424-2165. Very limited opr status, avbl for emergency ldg and minimal priority tfc. Emerg divert acft outside published hrs, ctc FAA controller at Oakland Center to arrange base ops/ATC specialist personnel recall via Wake fire dispatch at phone (808) 424–2911 primary or (808) 424–2232 secondary. No aircraft maintenance available. Twy line restriction located at intersection of Twy E and Twy D. Restriction continues west onto the warm–up pad, does not provide wingtip clearance to acft with wingspan greater than 60’. CAUTION Rwy markings worn/faded. Rwy is non–precision instrument rwy but is painted to precision instrument standards. Be alert to bird hazard on approach to Rwy 10 and Rwy 28 departure. Be alert to ocean vessels with mast approximately 125’ periodically located at mooring buoys 3600’ west of thld Rwy 10. Adf has mixture of regular and LED obstruction lghts. LED obstruction lghts may not be visible to some NVD. TFC PAT—right break Rwy 10 all acft. Left break Rwy 28 all acft. DD–175–1 MISC ETOPS divert location. Firefighting svc reduced to NFPA category 7, ARFF Index C. Remote WX briefings avbl 24 hrs from 17 OWS at DSN 315–449–8333/7950 or 448–3809, 2 hr notice rqr for timely brief. When normal SATCOM out of svc, IMARSAT is available. Space avbl passengers are not allowed to remain overnight.

AIRPORT MANAGER: (808) 424–2101/2000

WEATHER DATA SOURCES: AWOS–3P

COMMUNICATIONS:

WAKE OPERATIONS: 128.0 349.4 (2000–0400Z)

RADIO AIDS TO NAVIGATION:

WAKE ISLAND (H) VORTAC W 113.5 AWK Chan B2 N19°17.19´ E166°37.64´ at fld. 18/6E. No–NOTAM MP: VOR 2030–2230Z Tue; TACAN 2030–2230Z Wed. VOR unusable: 120º–175º byd 35 NM

COMM/NAV/WEATHER REMARKS: Inbound aircraft should expect descent and approach clearances from Oakland ARTCC through San Francisco ARINC. Wake Operations monitors 121.5 and 243.0. Inbound aircraft contact Wake Operations 100 NM out for airport advisory service and advise servicing requirements. Make all departure reports to ARTCC via HF. No ATC available to overflights.

PAC, 5 NOV 2020 to 31 DEC 2020
The purpose of this bulletin is to provide major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical, VFR Terminal Area, and Helicopter Route Chart listed. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot, and major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain chart currency. The data is grouped by type and then by effective date. When a new edition of the Aeronautical Chart is published, the corrective tabulation will be removed from this bulletin. Inasmuch as this Bulletin provides major changes only, pilots should consult the airport listing in this directory for all new information. Users of Caribbean Charts and U.S. Gulf Coast VFR Aeronautical Charts should consult the appropriate Sectional and VFR Terminal Area Charts for revisions. Positions are shown as degrees, minutes, seconds and hemisphere. Data is current as of 34 days prior to the date of this publication.

Military Training Routes (MTRs) are shown on Sectional Aeronautical Charts, VFR Terminal Area, and Helicopter Route Charts. Only the route centerline, direction of flight and the route designator are shown — route widths and altitudes are not shown. Since these routes are subject to change every 56 days and the charts are reissued generally every 6 months, routes with a change in the alignment of the charted route centerline will be listed in this Aeronautical Chart Bulletin below. Pilots are advised to go to the Special Use Airspace website (www.sua.faa.gov) or contact Flight Service to obtain information on MTRs affecting their flight.

**HAWAIIAN ISLANDS SECTIONAL CHART**
103rd Edition, 10 Sep 2020

**OBSTRUCTIONS**

**AIRPORTS**

**NAVAIDs**

**AIRSPACE**

**SPECIAL USE AIRSPACE**

**MILITARY TRAINING ROUTES**

**MISCELLANEOUS**
SPECIAL NOTICES

HONOLULU (DANIEL K INOUYE INTL) AIRPORT
TOWER DATA LINK SYSTEM

Tower Data Link System (TDLS) operational, Pre-departure Clearance (PDC) available at Honolulu (Daniel K Inouye Intl) Airport. To participate, e-mail 9-AWA-ATS-PDC@faa.gov or contact Gary Norek at FAA, Airspace and Procedures, ATO-T, 800 Independence Ave., SW, Washington, DC, 20591, telephone (202) 385-8510.

HONOLULU (DANIEL K INOUYE INTL) AIRPORT
HNL RUNWAY INCURSION AND WRONG SURFACE LANDING RISKS

Runways 04–22 Runway Incursion Risk: The runway holding position markings (hold lines) between Runway 04L–22R and Runway 04R–22L are relocated, with minimal space of approximately 20 feet between them. Pilots are reminded to hold short of the parallel runway until a clearance is received to cross that runway. ATC is aware that the aircraft tail may not be clear of the exiting runway and is restricting arriving and departing aircraft on that runway.

Wrong Surface Landing Risk: Rwy 04R/Rwy 04L thresholds. Pilot expectation bias or runway confusion cause a potential for wrong runway landings. Pilots are reminded to acknowledge landing runway assignment and visually confirm lined up for the correct runway.

For additional information, enter this link into your web browser to view a short video on FAA’s You Tube Channel: https://youtu.be/OzwZvJPCqGs.

For additional information contact Honolulu Control Facility (HCF) at 808-840-6100.

LASER LIGHT OPERATION

Keck Observatory, Gemini Observatory and Subaru Observatory

A permanent laser light operation is being conducted nightly between sunset and sunrise at Keck Observatory and Gemini Observatory N19°49′26″/W155°28′09″, Kamuela VOR (MUE) 122 degree radial at 16 nautical miles. The laser beam may be injurious to eyes if viewed on axis. Cockpit illumination and flash blindness may also occur if the beam enters the cockpit. Honolulu Control Facility, (808) 840–6201 is the FAA coordination facility.

Maui Space Surveillance Complex

A permanent laser light operation is being conducted nightly between sunset and sunrise at the Maui Space Surveillance Complex (MSSC) N20°42′31″/W156°15′28″, Maui VOR (OGG) 131 degree radial at 15 nautical miles. The laser beam may be injurious to eyes if viewed on axis. Cockpit illumination and flash blindness may also occur if the beam enters the cockpit. Honolulu Control Facility, (808) 840–6201 is the FAA coordination facility.

PAC, 5 NOV 2020 to 31 DEC 2020
CHANGE NOTICE

A Change Notice will only be issued for safety considerations such as when an amended or original instrument approach procedure is issued.

VMC FLIGHT (VFR)

1. The Oakland OCA/FIR, unless otherwise specified, is classified as class A airspace above FL055 (IFR only). VMC flights are not authorized in class A airspace but may operate within the Oakland Oceanic FIR as follows:
   a. At or below FL055 (class G).
   b. In class D and E airspace.
   c. In the airspace surrounding Pacific islands located within the Oakland OCA/FIR with the following restrictions:
      (1) Between sunrise and sunset; and
      (2) When operating less than 100 NM of shoreline of any landmass; and
      (3) Below FL200.

NOTE: VMC Flights operating within 100 NM of landfall are not considered to be “over water” flights.

2. All “over water” VMC flights planning to operate outside of controlled airspace (class G) but on routes within the Oakland Oceanic FIR are required for national security to file an ICAO flight plan.
   a. The flight plan shall contain reporting points along the route not more than 80 minutes apart.
   b. It is the VMC pilots’ responsibility to open and close their VMC flight plan with Oakland ARTCC.

3. All over water VMC flights are required to maintain a continuous listening watch on the appropriate frequency, and make position reports at all filed reporting points on the appropriate HF frequencies.

NOTE: Satphones do not meet the “continuous listening watch” requirements as prescribed by ICAO.

4. Flight following and alerting services are provided by ATC for all over water flights.

5. State owned aircraft (military, customs etc.) may operate VFR within the Oakland Oceanic FIR if exercising “Due regard.”

LATERAL AND VERTICAL LIMITS OF OCEANIC CONTROL AREAS

1. The Oakland OCA is aligned laterally to coincide with the Oakland Oceanic FIR, except for that portion of Fukuoka OCA that has been delegated to Oakland ARTCC for provision of air traffic control services as defined below:
   a. Within the area bounded by 21°N/151°E, 21°N/155°E, 23°31´39”N/155°E.
   b. Within the area bounded by 27°N/161°04´50”E, 27°N/155°E, 29°N/165°E.

2. A portion of Oakland OCA has been delegated to Fukuoka ATMC for provision of air traffic control services within the area bounded by 23°31´39”N/155°E, 27°N/155°E, 27°N/161°04´50”E.

3. The Oakland OCA has a lower limit of FL055, except where Class D or E airspace is designated; there is no upper limit.

ADDRESSING FLIGHT PLANS WITH OAKLAND OCEANIC

All aircraft entering Oakland OCA/FIR (KZAK) must address the ICAO flight plans to KZAKZQZX and KSFOXAAX.

OCEANIC IFR SEPARATION STANDARDS

1. LONGITUDINAL: At least 10 minutes between turbojet aircraft on the same or continuously diverging course. Non-turbojet aircraft, at least 15 minutes. Between two RNP-10 aircraft with ADS-C connections, 50 nautical miles and between two RNP-4 aircraft with ADS-C connections, 30 nautical miles.

2. CROSSING: All aircraft at least 15 minutes.

3. LATERAL: At least 100 nautical miles between intended routes, 50 nautical miles between aircraft certified RNP–10 and 30 nautical miles between aircraft certified RNP–4. Lateral separation minima may be reduced in some cases when suitable NAVAIDS are available.

4. VERTICAL: Oakland OCA is classified as Reduced Vertical Separation Minimum (RVSM) airspace. Vertical separation standards are therefore at least 1,000 feet from the lower limit to flight level 410. Above flight level 410 at least 2,000 feet.
**LOWER SEPARATION MINIMA – OAKLAND OCEANIC FIR**

In accordance with ICAO Regional Supplementary Procedures – DOC 7030 PAC/RAC–1 6.4, notice is hereby given that separation lower than those specified in 6.1 and 6.2 may be applied in accordance with PANS–RAC DOC 4444–RAC 501 Part 111, sections 7, 8 and 9 within the Oakland Oceanic FIR/OCA. The use of lower separation standards within the airspace listed below is contingent upon satisfactory and current flight check data of the navigational aids.

**AIRSPACE**

100 NM seaward of the boundary of the Honolulu Domestic area
50 NM of Guam
130 NM of Wake Island
40 NM of Wake Island
130 NM of Midway Island
40 NM of Midway Island
50 NM of Majuro Island
50 NM of Kwajalein Island
50 NM of Weno Island/Chuuk
50 NM of Yap Island
50 NM of Ponape Island
50 NM of Saipan Island
50 NM of Babelthuap Island/Koror

**NAVIGATIONAL AIDS**

SOK, LIH, HNL, MKK, LNY, OGG, ITO, UPP and KOA VORTACS
AJA NDB
AWK VORTAC FL180–450
AWK VORTAC SFC–FL180
NGM TACAN FL180–450
NGM TACAN SFC–FL180
MAJ NDB/DME
NDJ NDB
TKK NDB/DME
YP NDB/DME
PNI NDB/DME
SN NDB
ROR NDB/DME

**MACH NUMBER TECHNIQUE**

1. The minimum longitudinal separation between aircraft may be reduced with the application of Mach Number Technique (MNT) thereby improving airspace utilization.

2. **APPLICATION**

a. MNT may be used only between turbojet aircraft following the same or continuously diverging track, which have reported over a common point.

b. MNT can only be applied between aircraft that are assigned a single cardinal altitude or the aircraft concerned are in level, climbing or descending flight.

c. Longitudinal separation between aircraft using MNT is based on the aircraft maintaining the assigned Mach number at all times, including during climb and descent. If it is not feasible, for operational reasons, to maintain the last assigned Mach number, the pilot shall advise ATC at the time of the initial clearance or subsequent climb/descent request or clearance.

d. Aircraft shall adhere to the Mach number assigned by ATC and shall obtain approval before making any change to the Mach number. If it is essential to make an immediate change in Mach number (i.e. due to turbulence) ATC shall be notified as soon as possible that such a change has been made.

e. **MNT SEPARATION MINIMA.** When the lead aircraft maintains the same Mach number of the following aircraft the minima when using MNT is 10 minutes.

f. **REDUCTIONS TO SEPARATION WHEN APPLYING MNT.**

   (1) To apply reductions, it must be possible to ensure that the required time interval will exist at the common point from which the aircraft either follow the same track or continuously diverging tracks.

   (2) Both turbojet aircraft will be assigned an appropriate Mach number. The lead aircraft will be assigned a Mach number greater than the following aircraft. Separation minima are as follows:

<table>
<thead>
<tr>
<th>Difference in Mach number between aircraft</th>
<th>Minimum separation between aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.02 Mach</td>
<td>9 Minutes</td>
</tr>
<tr>
<td>0.03 Mach</td>
<td>8 Minutes</td>
</tr>
<tr>
<td>0.04 Mach</td>
<td>7 Minutes</td>
</tr>
<tr>
<td>0.05 Mach</td>
<td>6 Minutes</td>
</tr>
<tr>
<td>0.06 Mach</td>
<td>5 Minutes</td>
</tr>
</tbody>
</table>

The use of lower separation standards is contingent upon satisfactory and current flight check data of the navigational aids.

**PAC, 5 NOV 2020 to 31 DEC 2020**
USE OF VERY HIGH FREQUENCY (VHF) AND HIGH FREQUENCY (HF) FOR COMMUNICATIONS

Due to the inherent “line of sight” limitations of VHF radio equipment when used for communications in international oceanic airspace, those aircraft operating on an IFR or controlled VFR flight plan beyond the communications capability on the assigned VHF will be required as per ICAO Annex 2 to maintain a continuous listening watch and communications capability on the assigned HF frequencies. These frequencies are listed in Section IV of this Chart Supplement as part of the general-purpose communication facilities operated by Aeronautical Radio, Incorporated (ARINC). These facilities will be responsible for the relay of position reports and other pertinent information between the aircraft and Air Traffic Control.

NOTE: Use of satellite telephones does not provide “a continuous listening watch and therefore does not meet minimum ICAO requirements. However satellite telephones may be used as a backup to HF communications in the event an aircraft is unable to contact ARINC on HF. Satellite voice equipped aircraft may call ARINC at 925–371–3920 to transmit messages.

DIRECT SATVOICE CAPABILITY

Oakland Center Oceanic has the capability for air/ground and ground/air satellite telephone service (SATVOICE). Direct SATVOICE contact between the pilot and the Front Line Manager at Oakland Center Oceanic shall be limited to distress and urgency situations or other exceptional circumstances only. Aircraft desiring to contact Oakland Center Oceanic should use the following INMARSAT security numbers:

<table>
<thead>
<tr>
<th>INMARSAT number</th>
<th>Commercial Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>436697</td>
<td>510–745–3415 or 3416</td>
</tr>
</tbody>
</table>

PAC, 5 NOV 2020 to 31 DEC 2020
SPECIAL PACIFIC AREA COMMUNICATIONS

Frequency 123.45 MHz has been designated for use in air-to-air communications between aircraft operating in the Pacific area out of range of VHF ground stations to exchange operational information and facilitate resolution of operational problems.

GUARD OF VHF EMERGENCY FREQUENCY

Pilots should remember that there is a need to continuously guard the VHF emergency frequency 121.5 MHz when on long over-water flights, except when communications on other VHF channels, equipment limitations, or cockpit duties prevent simultaneous guarding of two channels. Guarding of 121.5 MHz is particularly critical when operating in proximity to flight information region (FIR) boundaries since it serves to facilitate communications with regard to aircraft, which may experience in-flight emergencies, communications, or navigational difficulties.

USE OF NONDIRECTIONAL BEACON (NDB) FOR NAVIGATION

1. The use of NDB as the “primary” source of navigation for long-range oceanic flight presents the operator with numerous limitations and restrictions that are inherent in low frequency radio equipment and low frequencies signals. These include:

2. NDB of the highest power (2000 watts or more), which are maintained and flight checked as suitable for navigation, are limited in their usable service and/or reception range to no more than 75 NM from the facility at any flight level.

3. Though the operator may be able to receive standard (AM/amplitude modulation) broadcast stations with NDB equipment, primary dependence on the facilities for air navigation is a questionable operating practice. The following are some of the inherent problems associated with reception of these stations:
   a. Infrequent identification of the station.
   b. Identification of foreign language stations may be impossible without some knowledge of the language.
   c. Transmitter sites are not always collocated with studio facilities.
   d. Termination of service without notice.
   e. Weather systems causing erratic and unreliable reception of signal.
   f. Atmospheric disturbances causing erratic and unreliable reception of signal.
   g. No flight checks conducted to verify the suitability and reliability of the facility and its signal for use in air navigation.
   h. Fluctuation (bending) of signal due to “shoreline/mountain” effect.
   i. Standard broadcast stations are not dedicated for air navigation purposes.

4. Considering the limitations, the operator should make every effort to navigate the aircraft so as to maintain the “track/course” and the “tolerances” specified in the ATC clearance. An error of 10 degrees at a distance of 2000 miles equates to approximately 350 NM of course deviation; the inadequacies of the NDB as the sole source of navigation for oceanic flight must be evaluated carefully.
responsibilities. Aircraft operators can assist by familiarizing themselves with the regulations and by complying with them under all circumstances. Failure to do so may incur substantial penalties. The following sets forth the principal requirements of concern to private plane operators engaging in international flights.

ARIVAL AND DEPARTURE MANIFESTS. The following sets forth the principal requirements of concern to private plane operators engaging in international flights.

HAZARDS, CAUTIONS AND WARNINGS:

**AMERICAN SAMOA – POWER LINES:** Permanently installed power lines between island of Ofu and Olosega 400 feet ASL unlighted and unmarked.

**HONOLULU CTA/HAWAII**

GENERAL INFORMATION ON FLYING TO HAWAII

(Entry and Departure Requirements)

Air Commerce Regulations of the United States, Part 6, place certain responsibilities upon owners and operators of aircraft engaging in flights to and from foreign countries.

Customs and other agencies concerned desire to facilitate air travel to the fullest extent possible while carrying out their responsibilities. Aircraft operators can assist by familiarizing themselves with the regulations and by complying with them under all circumstances. Failure to do so may incur substantial penalties.

The following sets forth the principal requirements of concern to private plane operators engaging in international flights.

ARRIVAL AND DEPARTURE MANIFESTS. All aircraft departing from the continental United States or Alaska or Hawaii are exempt from filing an arrival or departure manifest. Aircraft arriving from any other place are required to file arrival and departure manifests.

ADVANCE NOTICE REQUIRED. Advance notice of each arrival must be furnished to U.S. Customs officials at or nearest to the place of intended first landing who will notify the Immigration and Public Health officials. Advance notice should be sent so as to be received in sufficient time to enable the officers designated to inspect the aircraft to reach the place of landing before the arrival of the aircraft. At most airports, at least 2 hours advance notice is required for this purpose.

Notification may be made by telephone, which is preferable, or by telegram or radio. The notice should specify the following: (a) Type of aircraft; (b) Identification number (NC number); (c) Name of pilot; (d) Place of last departure; (e) Airport of entry; (f) Number of alien and citizen passengers; and (g) Estimated time of arrival (Indicating whether H.S.T., P.S.T., etc).

All aircraft entering the United States from a foreign area must give advance notice of arrival IAW 19 CFR 122.23 and 122.31. Notice must be given to the port director at the place of first landing, either directly by radio, telephone, or other method; or through FAA flight notification procedure (see International Flight Information Manual, Federal Aviation Administration). When reliable means for giving notice are not available (for example, when departure is from a remote place) a departure must be made at a place where notice can be sent prior to coming into the U.S. Notice of arrival must be furnished far enough in advance to allow inspecting U.S. Customs and Border Protection (CBP) officers to reach the place of first landing of the aircraft prior to the aircraft’s arrival.

When advance notice is received, the port director will inform any other concerned Federal agency.

AIRPORTS FOR ENTRY OR REENTRY. If the operator of a private aircraft returning to or visiting the United States wishes to land at any airport of entry, advance notice of arrival is necessary. This advance notice should be sent also to the immigration and public health officers at or nearest the place of intended first landing.

If he intends to land at a place not designated as an airport of entry, he must obtain permission to make such landing and give advance notice of arrival to the customs office nearest the intended place of first landing. It is not necessary that separate requests be sent to immigration and public health officers in these cases.

WHAT TO REPORT. The advance notice should specify the type of aircraft, registration marks, name of commander, place of last departure, international airport, number of alien passengers, number of citizen passengers, and the estimated time of arrival. This advance notice should be sent in time to enable officers, designated to inspect the aircraft, to reach the place of landing before the aircraft arrives.

Upon arrival, the operator and passengers will be examined in the same manner as any international traveler. They must declare any articles acquired abroad. If any passengers or cargo are carried, an inward manifest must be filed. Customs officers can supply forms for both types of declaration, although operators should have their own supply.

IN CASE OF EMERGENCY. If an emergency landing is made in the United States, the aircraft operator should report as promptly as possible to the nearest customs, immigration and public health officers. The aircraft operator should not permit any merchandise or baggage to be removed, or any passengers to depart, without official permission unless necessary for preservation of life or property.

THE MATTER OF CHARGES. No charges are made for services during business hours when a landing takes place at any airport of entry; except that, when an aircraft arrives on a Sunday or holiday, or during other than regular hours, OVERTIME PAY WILL BE COLLECTIBLE. These charges are required by law. They may amount to as much as two days pay for each officer for any service performed on a Sunday or holiday. However, the charges are prorated where more than one aircraft is processed.
If the landing is made at a place other than an airport of entry, any expenses incurred by Government officers in going to and from the place of landing are payable by the plane operator. In addition, if the aircraft arrives on a Sunday or holiday, or during other than regular hours, OVERTIME PAY WILL BE COLLECTIBLE.

UNITED STATES LANDING RIGHTS AIRPORTS. At the following airports an application for permission to land must be submitted in advance to U.S. Customs. At least two hours advance notice of arrival must also be furnished to U.S. Customs. Advance notice of arrival may be included in your flight plan filed in Canada or Mexico if destined to an airport where flight notification service is available; this notice will be treated as an application for permission to land.

HAWAII
Lihue/Lihue Airport
Hilo/Hilo Intl
Honolulu/Daniel K Inouye Intl
Kahului/Kahului Airport

NOTE: All aircraft entering U.S. airspace from a foreign port or departing U.S. airspace for a foreign port must provide at least 1 hour advance notice to the U.S. Customs and Border Protection (CBP) via the Electronic APIS (eAPIS) at https://eapis.cbp.dhs.gov/, telephone, radio, or other means, or through the FAA. Requests for permission to land at a Hawaiian landing rights airport should be directed to 808–861–8462 ext 0.

RADAR SERVICE – HONOLULU DOMESTIC AREA
In an effort to eliminate the mid-air collision potential in the Honolulu Domestic area, civil aircraft are encouraged to take one of the following two courses of action: (1) File an IFR flight plan, if the pilot is qualified and aircraft properly equipped; (2) Take advantage of the VFR radar advisory service provided by Honolulu Control Facility, by contacting Honolulu Control Facility on 119.3 MHz for aircraft SE of Oahu, 126.5 MHz when W of Oahu, or on 124.1 MHz when NE of Oahu. Aircraft desiring this service should request VFR radar advisory service and give aircraft identification, type, altitude, position with reference to the nearest navaid or geographical location, heading and destination. If controller workload permits, radar traffic advisories will be issued after radar identification is accomplished by aircraft position correlation, or aircraft identifying turns. This is in addition to the radar services provided by Maui and Honolulu Approach Controls for aircraft in their respective areas.

RADAR SERVICE – KONA DOMESTIC AREA
Primary radar service unavailable below 5000 feet MSL east of Haleakala and south of Maunakea. In the area as described, radar services are available only to transponder equipped aircraft.

GLIDE SLOPE SIGNALS ON LOCALIZER BACK COURSE
Localizer Back Course instrument approach procedures do not utilize glide path information. In most back course areas, however, extraneous glide slope signals emanating from the front course site can be detected—THESE GLIDE SLOPE SIGNALS SHOULD BE DISREGARDED WHEN CONDUCTING LOCALIZER BACK COURSE APPROACHES.

The FAA has conducted an airborne survey to determine the level of extraneous glide slope signal at each location. Where a significant level of “fly down” glide slope signal is present, the approach chart will be annotated as an additional alert to the pilot.

BEACON REQUIREMENTS
Aircraft departing the Honolulu CTA and entering the Oakland FIR should remain on their last assigned discrete beacon code until passing the first compulsory reporting point after crossing the KZAK FIR boundary, thence adjust transponder to display code 2000 until otherwise directed by air traffic control.

HIGH FREQUENCY (HF) RADIO FREQUENCY ASSIGNMENT
Aircraft departing airports in Hawaii and entering the Oakland FIR should contact San Francisco Radio on 131.95 for HF frequency assignment prior to departure. If unable to contact San Francisco Radio prior to departure, then within ten (10) minutes of departure.
VFR FLIGHT WITHIN HAWAII

NOTE: CAUTION – HIGH DENSITY COMMUTER AND SIGHTSEEING TRAFFIC

VFR Cruising altitude at or below 3,000 feet AGL
In order to reduce traffic conflict between interisland flights at or below 3,000 feet, an informal cruising altitude program is in use in the Hawaiian islands. Recommended eastbound altitudes: 2500, 1500, 500 feet; recommended westbound altitudes: 3000, 2000, 1000 feet.

SPECIAL ALERTNESS RECOMMENDED: Pilots engaged in sightseeing Hawaii must be sure their attention is not diverted from their primary responsibility for the safe operation of their aircraft. There is extensive VFR traffic operating along shorelines of all islands. Aircraft range in size from Cessna 152 to DeHavilland DHC–7 (4–engine). These aircraft generally operate from the shoreline to three miles offshore, at altitudes below 4500 feet.

Pilots should be aware of the high density traffic areas listed below.

NORTH SHORE MOLOKAI–MAUI
The route from Koko Head (CKH) VORTAC to and along the north shore of Molokai and Maui is extremely heavily traveled by aircraft engaged in commuter and sightseeing operations. As many as seven aircraft may be operating along Molokai north shore in both east and west bound directions, simultaneously and on a routine basis. The number may be up to 15 aircraft during peak traffic periods. VFR CHECKPOINTS: ILIO POINT, KALAUPAPA, and CAPE HALAWA on Molokai; NAKALELE POINT on Maui.

The following precautions are recommended:
1. Maintain an especially alert watch for other aircraft. Traffic becomes concentrated in the vicinity of Ilio Point, Kalaupapa (airport), Cape Halawa, and Nakalele Point. Altitude changes should be avoided in these areas.
2. Maintain an alert listening watch on 122.9 MHz and announce aircraft position, direction of flight and altitude when passing the VFR checkpoints noted above. arriving aircraft should broadcast position, altitude and intentions on 122.9 MHz prior to contacting Molokai Tower.

EXAMPLE: ROYAL 76, ILIO POINT EASTBOUND 1500
TANGO 34, CAPE HALAWA WESTBOUND 2000

- Landing aircraft–Molokai Airport: Before crossing within one mile of the shoreline, or before passing abreast the VFR checkpoints
- Landing aircraft–Kalaupapa Airport: Before crossing within one mile of the shoreline, or before passing abreast the VFR checkpoints

HONOLULU CLASS B AIRSPACE

OPERATING RULES AND PILOT/EQUIPMENT REQUIREMENTS

Regardless of weather conditions, an ATC authorization is required prior to operating within Class B airspace. Pilots should not request an authorization to operate within CLASS B unless the requirements of sections 91.215 and 91.131 of the FAR are met. Included among these requirements are:

1. Unless otherwise authorized by ATC, the aircraft must be equipped with an operable two-way radio capable of communicating with ATC on appropriate frequencies for that terminal control area.
2. No person may takeoff or land a civil aircraft at an airport within CLASS B or operate within CLASS B unless:
   a. The pilot in command holds at least a private pilot certificate;
   b. The aircraft is operated by a student pilot who has met the requirements of FAR section 61.95.
3. Unless otherwise authorized by ATC, each person operating a large turbine engine–powered airplane to or from a primary airport shall operate at or above the designated floors while within the lateral limits of CLASS B.
4. Unless otherwise authorized by ATC, the aircraft must be equipped with a 4096 code transponder with automatic altitude reporting equipment.

NOTE: ATM may, upon notification, immediately authorize a deviation from the altitude reporting requirement; however, a request for a deviation from the 4096 code transponder equipment requirement must be submitted to the controlling ATC facility at least one hour before the proposed operation.

FLIGHT PROCEDURES

A. IFR Flights
   Aircraft operating within the Honolulu CLASS B airspace must be operated in accordance with ATC clearances and instructions.

B. VFR Flights
   1. Arriving aircraft, or aircraft desiring to transit CLASS B should contact Honolulu Control Facility on the frequency depicted for the sector of flight with reference to the geographical center of the airport. Pilots should state, on initial contact, their position, direction of flight and destination. If holding of VFR aircraft is required, the holding point will be specified by ATC
   2. Aircraft departing the primary airports are requested to advise the Honolulu clearance delivery position prior to taxing of the intended route of flight and altitude. Aircraft departing from other than the primary airports should give this information on appropriate ATC frequencies or as directed by ATIS information if the route penetrates CLASS B.
   3. Aircraft desiring to transit CLASS B will obtain clearance on an equitable “first-come, first-served” basis, providing the requirements of FAR 91 are met.

PAC, 5 NOV 2020 to 31 DEC 2020
RESPONSIBILITIES

All aircraft will be controlled and separated while operating with CLASS B, except helicopters may not be separated from other helicopters. Although radar separation will be the primary standard used, approved visual and other nonradar procedures will be applied as required or deemed appropriate. Traffic information on observed targets will be provided on a workload permitting basis to aircraft operating outside of CLASS B.

NOTE: Assignments of radar headings and/or altitudes are based on the provision that a pilot operating in accordance with visual flight rules is expected to advise ATC if compliance with an assigned route, radar heading or altitude will cause the pilot to violate such rules.

CLASS D/CLASS E AIRSPACE

Elimination of Special VFR (FAR 91.157) Operations within Certain CLASS D/CLASS E airspace (FAR 93.113)
Special VFR flight operations by fixed-wing aircraft have been suspended within Honolulu CLASS D/CLASS E airspace which contains the following airports:
Honolulu (Daniel K Inouye Intl) Airport

At all other CLASS D/CLASS E airspace, Special VFR operations will be permitted only if IFR operations are not delayed. Requests for relief from the special VFR prohibition will be considered for certain frequently recurring flight operations, including agricultural, industrial, and flights conducted by IFR-rated pilots in IFR equipped aircraft.

The ruling affects only Special VFR operations. VFR operations may continue to be conducted.

TRAFFIC ADVISORIES AT NON–TOWER AIRPORTS

The following procedures are supplemental to those described in the FAA Aeronautical Information Manual (AIM).

1. AT A NON–UNICOM AIRPORT

a. When inbound, tune to 122.9 MHz about 15 miles from the airport (if IFR, when the controller advises: “CHANGE TO ADVISORY FREQUENCY APPROVED”) and listen for broadcasts from any other aircraft. Then, about 5 miles from the airport broadcast your position, altitude, and intentions. Follow this up with appropriate announcements of your position on downwind, base and final approach.

b. When outbound, tune to 122.9 MHz before taxiing and listen for broadcasts from any other aircraft. Then broadcast your position on the airport and intentions. Follow this up with an announcement before you taxi onto the runway for takeoff.

2. AT AN AIRPORT LISTED AS HAVING UNICOM

a. When inbound, tune to 122.8 MHz about 15 miles from the airport (if IFR, when the controller advises: “CHANGE TO ADVISORY FREQUENCY APPROVED”) and listen for any other aircraft communicating with the UNICOM operator. Then, about 5 miles from the airport, inform the UNICOM operator of your position, altitude and intentions.

b. When outbound, contact the UNICOM operator on 122.8 MHz before taxiing and furnish your position on the airport and intentions.

c. In both cases, the UNICOM operator will provide runway, wind, and at his discretion, traffic information.

3. PART TIME TOWER (WHEN CLOSED)

a. When inbound at about 15 miles from the airport (if IFR, when the controller advises; “CHANGE TO ADVISORY FREQUENCY APPROVED”) tune to and listen for broadcasts from other aircraft on the appropriate frequency listed below. Then, about 5 miles from the airport, broadcast your position, altitude and intentions. Follow this up with appropriate announcements of your position on downwind, base and final approach.

1. Hilo Intl – 118.1 MHz
2. Kahului Airport – 118.7 MHz
3. Keahole Airport – 120.3 MHz
4. Lihue Airport – 118.9 MHz
5. Molokai Airport – 125.7 MHz

b. When outbound, tune to the appropriate frequency before taxiing and listen for broadcasts from any other aircraft. Then broadcast your position on the airport and intentions. Follow with an announcement before you taxi onto the runway for takeoff.

HONOLULU TERMINAL AREA – VFR CLASS B DEPARTURE ROUTES

RESPONSIBILITIES

VFR CLASS B DEPARTURE ROUTES WILL BE ISSUED ONLY UPON REQUEST. Detailed departure instructions will be furnished to others. All procedures and altitudes described in this letter are subject to weather and traffic conditions. Pilots are not relieved of their responsibilities to see and avoid other traffic, to maintain appropriate terrain and obstruction clearance, and to remain in weather conditions equal to or better than the minima required by FAR 91.155. When compliance with an assigned route, heading, or altitude is likely to compromise pilot responsibility with respect to terrain, obstruction clearance, and/or weather minima, approach control should be so advised.

DEPARTURE PROCEDURES

Before taxiing, pilots shall contact clearance delivery on 121.4/281.4 and state the current ATIS information code and requested departure procedure. Clearance delivery will issue the departure route clearance and assign transponder code. Unless otherwise directed by ATC, pilots shall depart CLASS B via the cleared route.

Example: Pilot – N86DD SHORELINE FOUR DEPARTURE WITH INFORMATION QUEBEC.
ATC – N86DD IS CLEARED OUT OF CLASS B VIA SHORELINE FOUR DEPARTURE SQUAWK 0271.
NOTE: Large acft expect clearance via radar vectors, initial heading 140º/200º

Runway 04/08L Procedures

Shoreline Six Departure

Departing Runway 04L/04R maintain runway heading to the H-1 Freeway. Departing Runway 08L maintain runway heading to Nimitz Highway. Turn right, parallel Nimitz Highway proceeding direct to the center of Honolulu Harbor. Fly
within ½ mile offshore passing abeam Kewalo Basin then within ½ mile of the shoreline until south of Diamond Head. Turn left and resume own navigation remaining within 2 miles of the shoreline until departing Class B. Fixed wing aircraft maintain 1500 feet. Helicopters maintain at or below 500 feet. Departure Control frequency will be 124.8/317.6. Procedure intended for twin engine aircraft and helicopters. Not available between 0900 and 1500 for fixed wing aircraft.

**Freeway Two Departure**

Depart Runway 04L or Runway 04R on runway heading to Moanalua Freeway (State Highway 78/Intermediate Highway H201), or depart runway 08L and turn left to fly parallel to runway 04L to Moanalua Freeway. Then turn RIGHT to follow Moanalua Freeway eastbound to H-1 Freeway and Kalanianaoole Highway until passing abeam Koko Head. Maintain 1500 feet while in CLASS B. Departure Control frequency will be 124.8/317.6. Procedure restricted to helicopters and small propeller-driven aircraft only. Helicopters maintain at or below 1000 feet.

**Redhill Two Departure**

Depart Runway 04L/04R on runway heading to Moanalua Freeway (State Highway 78/Intermediate Highway H-201) or depart Runway 08L and turn left parallel Runway 04L to Moanalua Freeway. Then turn left and follow Moanalua Freeway northwest bound until departing Class B. Maintain 1500 feet while in Class B. Departure control frequency will be 119.1/239.05. Procedure restricted to helicopters and small propeller driven aircraft. Helicopters maintain at or below 1000 feet. CAUTION: VFR traffic proceeding inbound from the H-1/H-2 Interchange descending out of 2000 feet.

**Punchbowl Two Departure**

Depart runway 04L/04R on runway heading to Moanalua Freeway (State Highway 78/Intermediate Highway H-201) or depart runway 08L and turn left paralleling Runway 04L to Moanalua Freeway. Turn right and follow Moanalua Freeway eastbound via the H-1 Freeway to Punchbowl. Proceed east of Magic Island, then offshore to remain within ½ mile of the shoreline until south of Diamond Head. After Diamond Head, turn left and resume own navigation remaining within 2 miles of the shoreline until departing Class B airspace. Maintain 1500 feet while in Class B. Departure control frequency will be 124.8/317.6. Procedure intended for twin engine aircraft.

**Runway 22/26R Procedures**

NOTE: All aircraft turn on landing lights while in CLASS B.

**Kona Five Departure**

After departure, remain over the runway until departure end, then turn left heading 180, climb and maintain 1500 feet. Expect radar vectors to avoid traffic on Runway 26L LDA final approach course. Departure control frequency will be 124.8/317.6. Helicopters depart the south ramp and proceed direct to HNL VORTAC; do not overfly any runways. From HNL VORTAC, fly heading 180, climb and maintain at or below 1000 feet.

**West Loch Five Departure**

After departure turn right as soon as practicable until north of Runway 26R. Then fly direct to the center of West Loch of Pearl Harbor. Maintain 1500 feet while in Class B. Departure control frequency will be 119.1/239.05. Helicopters maintain at or below 1000 feet. Caution: VFR traffic inbound from the H-1/H-2 Interchange will be descending out of 2000 feet.

**ARRIVAL PROCEDURES**

Arrivals must contact Approach Control and receive clearance BEFORE entering CLASS B. The HNL CLASS B is established from the HNL VORTAC. High density traffic in the vicinity of the H-1/H-2 interchange. CLASS B entry from the Pali is not recommended.

**North Six Arrival**

Contact approach control 119.1/239.05 prior to H-1/H-2 Interchange at or above 2000 feet.

PROCEDURE WHEN CLEARED:

FIXED WING AIRCRAFT: From the H-1/H-2 Interchange, proceed direct to and cross Ford Island at 1500 feet. Proceed direct to the Navy/Marine Golf Course while maintaining 1500 feet until advised by tower. Enter left downwind Runway 4R. Downwind must be flown over Runway 8L at Taxiways G/L. Aircraft must remain north of Taxiway RA. If unable, advise ATC.

HELICOPTERS: Proceed direct to Ford Island and hold, maintain at or below 1000 feet. Expect further instructions from the tower.

**West Five Arrival**

Contact approach control 119.1/239.05 prior to Kahe Power Plant at or above 2000 feet.

PROCEDURE WHEN CLEARED:

From Kahe Power Plant, proceed direct to the H-1/H-2 Interchange at 2000 feet.

FIXED WING AIRCRAFT: From the H-1/H-2 Interchange, via one of the following routes as assigned by approach control:

a. Runway 4R: Proceed direct to and cross Ford Island at 1500 feet. Proceed direct to the Navy/Marine Golf Course while maintaining 1500 feet until advised by tower. Enter left downwind Runway 4R. Downwind must be flown over Runway 8L at Taxiways G/L. Aircraft must remain north of Taxiway RA. If unable advise ATC.

b. Runway 22L: Proceed eastbound along the H-1 Freeway then join Moanalua Freeway to Tripler Hospital. After Tripler Hospital, enter right base Runway 22L. Maintain 1500 feet until advised by tower.
HELCOPTERS: Depart the H-1/H-2 Interchange direct to Ford Island and hold, maintain at or below 1000 feet. Expect further instructions from the tower.

NOTE: Aircraft below 2000 feet should contact Kalaeloa Tower on 132.6 prior to Kahe Power Plant.

**East Four Arrival**
Runways 04/08 configuration. Contact App Con 124.8/317.6 prior to NORBY intersection (M KK262 radial 20 DME or CKH 112 radial 12 DME). PROCEDURE WHEN CLEARED, from NORBY, proceed southwest bound on the MKK 262 radial at or below 3500’. Expect radar vectors for right base to Runway 04R.

**Freeway Four Arrival**
Runways 04/08 configuration. Contact App Con 124.8/317.6 prior to CKH at or above 2000’. PROCEDURE WHEN CLEARED:
From Koko Head, proceed direct to Waialae Golf course, then follow the H-1 Freeway to enter left downwind to Runway 04R. Downwind leg must overfly Runway 08L over Taxiway G/L. Aircraft must remain north of Taxiway RA; if unable advise ATC. Maintain 2000’ until advised by tower.

**Kona Six Arrival**
Runways 22/26 configuration. Contact approach control on 119.1/239.05 prior to CKH at or above 1,500 feet, or contact approach control on 124.8/317.6 prior to NORBY intersection at or below 3,000 feet. PROCEDURE WHEN CLEARED:
FIXED WING AIRCRAFT: Proceed direct to and cross Koko Head at or below 2,000 feet, then proceed to Waialae Golf Course. Follow the H-1 Freeway to enter a left base to Runway 22L. Maintain 1,500 feet until advised by the tower.

**Helicopters:** Proceed direct to and cross Waialae Golf Course at or below 1,000 feet. Follow the H-1 Freeway to Punchbowl. Hold at Punchbowl at or below 1,000 feet.

**Tripler Four Arrival**
Contact Approach control 119.1/239.05 prior to H1/H2 interchange at or above 200’. PROCEDURE WHEN CLEARED:
From H1/H2 interchange, proceed east along H1 then join Moanalua freeway to Tripler Hospital then via one of the following routes as assigned by approach control:

- **Runway 22L:** After Tripler, enter right base RWY 22L. Maintain 1500 feet until advised by tower.
- **Runway 4R:** Enter left downwind Runway 4R. Downwind must be flown over Runway 8L at Taxiways G/L. Aircraft must remain north of Taxiway RA. Maintain 2000’ until advised by tower.

**Simultaneous Operations**
Simultaneous take-offs and landings on intersecting runways are common at the Honolulu (Daniel K Inouye Intl) Airport. IT IS THE RESPONSIBILITY OF THE PILOT TO DETERMINE WHETHER HE/SHE CAN COMPLY WITH A HOLD–SHORT RESTRICTION. Upon acceptance of a “HOLD–SHORT” instruction, pilots must acknowledge the clearance with a read back of “(aircraft ID), hold short rwy (rwy number).”

**Honolulu (Daniel K Inouye Intl) Airport**

**Gatehold Procedures**

**The following Gatehold Procedures are established for all North America-Bound Turbojet Departures from Honolulu (Daniel K Inouye Intl) Airport:**

1. Advise clearance delivery: “identification, 10 minutes to taxi, destination, requested flight level.”
2. The statement “10 minutes to taxi” means that you will depart the blocks, taxi, tow or pushback within 10 minutes after receiving enroute ATC clearance. Failure to push-back within 10 minutes after receipt of your clearance may result in ATC canceling your clearance when other aircraft are requesting the same altitude/route assignment and is/has pushed from the gate.
3. When ATC specifies a release (take-off) time for your requested route and altitude, alternatives with no or less delay will be offered, if available. If your choice involves a release time, call for push-back at least 10 minutes prior to your release (take-off) time (the intent of this procedure is to have you at the departure runway at your release time). Failure to push back 10 minutes prior to your release time may result in ATC canceling your clearance when other aircraft are requesting the same altitude/route assignment and is/has pushed from the gate.
4. ATC will not contact you if time elapses and your clearance is cancelled; it is the pilots responsibility to push-back in a timely manner. In the event the allotted time expires contact clearance delivery to verify the status of your clearance prior to calling for push-back.
5. If you wish to depart the gate and absorb the delay in a holding area closer to the departure, advise ground control of your desire.
6. When two aircraft are requesting the same altitude/route and call for clearance at approximately the same time, the first aircraft to call will receive the altitude/route. The second aircraft will receive the alternatives. The first aircraft may lose their assigned altitude/route if all the following occur:
   a. The first aircraft has not pushed from the gate in the specified time in paragraphs 2 or 3.
   b. The second aircraft is/has pushed from the gate.
   c. The second aircraft requests that altitude after push back.
7. Enroute clearances are based on accurate “10 minute to taxi” declarations. Those flight that taxi without receiving any enroute clearance will receive no altitude/route priority.
Informal Runway Use Program

Unless runway closures, wind, weather or traffic conditions, aircraft emergencies, actual air defense missions or operational necessities require otherwise, all turbojet aircraft and all aircraft having a maximum passenger capacity of more than 30 seats or a maximum payload capacity of more than 7,500 pounds, including all models of the Convair 240, 350, and 440; Martin 202 and 404; F–27 and FH227; Hawker Siddeley 748; military fighter interceptor turbojet; and any other aircraft with a minimum zero fuel weight in excess of 35,000 pounds will be assigned runway as follows:

### TRADE (NORTHEAST) WIND CONDITIONS
- Departures: 8R 8L
- Arrivals: 8L 8L or 8L

### KONA (SOUTHWEST) WIND CONDITIONS
- Departures: 26L or 22R/L 22R/L or 26R
- Arrivals: 26L 26L

AIRCRAFT LANDING RUNWAY 8L:
- Fly the ILS approach procedure or fly a base leg over Kalaeloa (John Rodgers Fld) maintaining 3000 feet until established on the final approach course. Large jet or smaller aircraft may fly a close-in base leg remaining over the center of Pearl Harbor channel.

AIRCRAFT LANDING RUNWAY 26L/R:
- Remain at traffic pattern altitudes as long as possible before beginning descent for landing.

STANDARDIZED TAXI ROUTES FROM RUNWAY 26L
Signatories to STR Letters of Agreement with Honolulu Control Facility may expect STR instructions from RWY 26L to the Terminal. After exiting runway 26L onto taxiway RM, RC or RB, if given standardized taxi route instructions by Honolulu Tower, comply with the assigned taxi route:

- **North Route Bravo**
  - From taxiway RB taxi north via taxiway RB, hold short of taxiway B. From taxiway RC, or RM turn left on taxiway RA, turn right on taxiway RB, taxi north via taxiway RB, hold short of taxiway B. Hold short of taxiway B until further taxi instructions are received.

- **North Route Sierra**
  - From taxiway RB taxi north via taxiway RB, turn right on taxiway B, turn left on taxiway Sierra, hold short of Runway 26R. From taxiway RC, or RM turn left on taxiway RA, turn right on taxiway RB, taxi north via taxiway RB, turn right on taxiway B, turn left on taxiway Sierra, hold short of Runway 26R. Hold short of Runway 26R until further taxi instructions are received.

Advise Honolulu Tower if unable to comply with the STR instructions.

DEPARTURES – ALL RUNWAYS:
- Turn southward as soon as possible after takeoff. Remain at least one mile offshore of Waikiki, Diamond Head, Koko Head and Ewa Beach.

NOTES:
1. Compliance of all users is expected to preclude disruption or creation of conflicting traffic flows.
2. Pilots unable to comply with the program should advise Honolulu Ground or Approach Control as soon as possible for traffic adjustments.

KAHULUI AIRPORT

Gatehold Procedures

THE FOLLOWING GATEHOLD PROCEDURES ARE ESTABLISHED FOR OVERSEAS TURBOJET DEPARTURES FROM KAHLUI AIRPORT:

1. Advise clearance delivery: “Identification, 10 minutes to taxi, destination, requested flight level.”
2. The statement “10 minutes to taxi” means that you will depart the blocks, taxi, tow or pushback within 10 minutes after receiving enroute ATC clearance.
3. When ATC specifies a release (takeoff) time of more than 15 minutes for your requested altitude/route, alternatives with no or less delay will be offered, if available. If your choice involves a release time of more than 15 minutes, advise Clearance Delivery if you desire to wait at the gate.
4. Depart the blocks within 10 minutes after receiving enroute clearance when release time is less than 15 minutes. Ready to taxi means ready to immediately depart the blocks/taxi, tow or pushback. Failure to do so will result in ATC canceling your clearance when other aircraft are requesting the same altitude/route and are ready to taxi.
5. Enroute clearances are based on accurate “10 minute to taxi” declarations. Those flights that taxi without receiving any enroute clearance will receive no altitude/route priority.

NOTES:
1. Compliance will ensure an orderly sequence of altitude/route assignments during peak traffic movements.
2. Oceanic departures are sequenced with Honolulu and Hilo traffic.

KONA INTL AT KEAHOLE (ELLISON ONIZUKA)

Gatehold Procedures
THE FOLLOWING GATEHOLD PROCEDURES ARE ESTABLISHED FOR OVERSEAS TURBOJET DEPARTURES FROM KONA INTL AT KEAHOLE AIRPORT (ELLISON ONIZUKA):

1. Advise clearance delivery: “Identification, 10 minutes to taxi, destination, requested flight level.”
2. The statement “10 minutes to taxi” means that you will depart the block, taxi, tow, or pushback within 10 minutes after receiving enroute ATC clearance.
3. When ATC specifies a release (takeoff) time of more than 15 minutes for your requested altitude/route, alternatives with no or less delay will be offered, if available. If your choice involves a release time of more than 15 minutes, advise Clearance Delivery if you desire to wait at the gate.
4. Depart the blocks within 10 minutes after receiving enroute clearance when release time is less than 15 minutes. Ready to taxi means ready to immediately depart the blocks/taxi, tow, or pushback. Failure to do so will result in ATC canceling your clearance when other aircraft are requesting the same altitude/route and are ready to taxi.
5. Enroute clearances are based on accurate “10 minutes to taxi” declarations. Those flights that taxi without receiving any enroute clearance will receive no altitude/route priority.

NOTES:
1. Compliance will ensure an orderly sequence of altitude/route assignments during peak traffic movements.
2. Oceanic departures are sequenced primarily with Honolulu, Maui, and Hilo traffic.

LIHUE AIRPORT

Gatehold Procedures

THE FOLLOWING GATEHOLD PROCEDURES ARE ESTABLISHED FOR OVERSEAS TURBOJET DEPARTURES FROM LIHUE AIRPORT:

1. Advise clearance delivery: “Identification, 10 minutes to taxi, destination, requested flight level.”
2. The statement, “10 minutes to taxi” means that you will depart the blocks, taxi, tow, or pushback within 10 minutes after receiving enroute ATC clearance.
3. When ATC specifies a release (takeoff) time of more than 15 minutes for your requested altitude/route, alternatives with no or less delay will be offered, if available. If your choice involves a release time of more than 15 minutes, advise Clearance Delivery if you desire to wait at the gate.
4. Depart the blocks within 10 minutes after receiving enroute clearance when release time is less than 15 minutes. Ready to taxi means ready to immediately depart the blocks/taxi, tow, or pushback. Failure to do so will result in ATC canceling your clearance when other aircraft are requesting the same altitude/route and are ready to taxi.
5. Enroute clearances are based on accurate “10 minutes to taxi” declarations. Those flights that taxi without receiving any enroute clearance will receive no altitude/route priority.

NOTES:
1. Compliance will ensure an orderly sequence of altitude/route assignments during peak traffic movements.
2. Oceanic departures are sequenced primarily with Honolulu, Maui, Hilo, and Keahole traffic.

Informal Runway Use Program

The area directly south of Lihue Airport and west of Carters Point has been designated as a noise sensitive area. The opening of Rwys 17–35 has given us the opportunity to significantly reduce aircraft noise in the vicinity of schools and homes. This program is the result of the cooperative efforts of state, local and federal government and is designed in accordance with the U.S. Department of Transportation Aviation Noise Abatement Policy.

A. GENERAL

Unless runway closures, weather, traffic conditions, aircraft emergencies, actual air defense missions, or operational necessity requires, aircraft will be assigned runways and routings as described in this section. Pilots are requested to adhere to these procedures during all hours, including 2100 to 0700 local.

B. ITINERANT DEPARTURES

All jet and multi–engine propeller aircraft should depart on Rwys 03, 17, or 35. Aircraft to initiate turns seaward as soon as possible following takeoff.

C. ITINERANT ARRIVALS

All jet and multi–engine propeller aircraft should land on Rwys 35, 21, or 17. All approaches should occur from a seaward direction.

D. LOCAL OPERATIONS

(Touch–and–Go and Low Approach) Preferred runways for local operations of jet and multi–engine propeller aircraft are Rwys 17–35. Downwind leg for Rwys 17–35 should be at least 1 mile east of the coastline.

E. TOWER ADVISORY

When the runway specified in these procedures is other than the runway most nearly aligned with the wind, controllers shall prefix their instructions with the phrase “For Noise Abatement”. If in the interest of safety a runway different from that specified is preferred the pilot is expected to advise Lihue Tower accordingly. Lihue Tower will honor such requests and advise the pilot that the runway requested is noise sensitive.

HILO INTERNATIONAL AIRPORT

Gatehold Procedures

THE FOLLOWING GATEHOLD PROCEDURES ARE ESTABLISHED FOR OVERSEAS TURBOJET DEPARTURES FROM HILO INTERNATIONAL AIRPORT:

1. Advise clearance delivery: “Identification, 10 minutes to taxi, destination, requested flight level.”
2. The statement “10 minutes to taxi” means that you will depart the blocks, taxi, tow or pushback within 10 minutes after receiving enroute ATC clearance.
3. When ATC specifies a release (takeoff) time of more than 15 minutes for your requested altitude/route, alternatives with no or less delay will be offered, if available. If your choice involves a release time of more than 15 minutes, advise Clearance Delivery if you desire to wait at the gate.
4. Depart the blocks within 10 minutes after receiving enroute clearance when release time is less than 15 minutes. Ready to taxi means ready to immediately depart the blocks/taxi, tow, or pushback. Failure to do so will result in ATC canceling your clearance when other aircraft are requesting the same altitude/route and are ready to taxi.
5. Enroute clearances are based on accurate “10 minutes to taxi” declarations. Those flights that taxi without receiving any enroute clearance will receive no altitude/route priority.
NOTES: 1. Compliance will ensure an orderly sequence of altitude/route assignments during peak traffic movements.
2. Oceanic departures are sequenced primarily with Honolulu, Maui, and Keahole traffic.

Preferred Departure Routing

Hilo departures planning U.S. Mainland destinations via the Composite Route System–Hawaii to U.S. Mainland will be cleared as follows:

R578 VIA THE ITO 345 RADIAL 39 MILE DME FIX AND THE UPP 066 RADIAL TO FITES.
R577 VIA THE ITO 345 RADIAL 55 MILE DME FIX AND THE UPP 048 RADIAL TO EBBER.
R465 VIA THE ITO 345 RADIAL 158 MILE DME FIX AND THE OGG 027 RADIAL TO CLUTS.
R463 AND NORTH VIA V25 ARROW DIRECT APACK.

Flight plan format for these routes is as follows:

IT0345039 FITES R578
IT0345055 EBBER R577
IT0345158 CLUTS R465

Your cooperation in filing flight plans in accordance with the above data will be appreciated.

HAZARDS, CAUTIONS, AND WARNINGS

HAWAII – POHAKULOA TRAINING AREA: Extensive military aircraft training in and near R3103 at speeds of 250 knots. All pilots flying over the island of Hawaii within 10 NM of R3103 (SFC to 30,000 feet) should be alert for high speed maneuvering aircraft.

HAWAII – TRAFFIC PATTERN VOLCANIC ERUPTION AREA: During eruptions in the Hawaii Volcanos Parks area, left hand elliptical traffic patterns will be established up wind of the eruption area for all aircraft. Minimum altitude 2000 feet above the terrain. Remain clear of smoke. Pilots are requested to maintain an alert listening watch on 122.9 MHz and announce aircraft position, direction of flight, altitude and intentions.

HAWAII: Caution advised all airports on Kauai, Oahu, Molokai, Lanai and Maui. Migratory bird activity surface to 1500 feet within a 5 NM radius of the airports from August–May.

HAWAII – TOUR AIRCRAFT: High volume tour aircraft operating over Hawaii. For traffic information, monitor 127.05 NW of ITO VOR 215 radial, monitor 122.85 SE of ITO VOR 215 radial.

KAUAI – NAVIGATIONAL WARNING: Electromagnetic radiation will continuously exist within a 2500 foot radius and 2500 feet above unified S band antenna located at N22º06.81´/W159º39.83´ near Kokee NASA Telemetry Station, Kauai. Helicopters and slow speed aircraft flying within the airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment. Radiation cannot be seen and must be presumed by all pilots to continuously exist.

KAUAI – PORT ALLEN AIRPORT: Warning – Exercise extreme caution in the vicinity of Port Allen due to high volume of Tour Rotorcraft and Fixed Wing, Glider, and Military Operations.

KAUAI – TOUR AIRCRAFT: High volume tour aircraft operating over Kauai. Monitor 127.05 for traffic information.

LANAI – LANAI AIRPORT APRON AREA: Apron use is as follows: Light acft transient parking in marked tie downs NE section of apron. Helicopters park on far NE corner of apron. Airline operations on apron area fronting terminal. Air Cargo acft operations on apron by cargo blg SW of ARFF station; do not block access to SW apron extension. Jet/heavy acft transient parking on SW apron extension. HAZARDOUS MATERIALS handling far SE corner of apron.

LANAI – TOUR AIRCRAFT: High volume tour aircraft operating over Lanai. Monitor 122.9 for traffic information.

MAUI – KAHOOLawe ISLAND: Flying below the altitude of 300 feet or landing on the island of Kahoolawe, Hawaii is inherently dangerous. Live unexploded munitions are on the surface of the island. Rotor and prop wash may disturb these items, resulting in a detonation. Anyone desiring to land on Kahoolawe Island must contact the Kahoolawe Island Reserve Commission at (808) 243–5029 or 243–5022.

MAUI – KAHULUI AIRPORT/HELIPORT: The area east of the approach end of Rwy 02 has been designated as a helicopter operating area. No fixed wing operations approved except via PPR. Contact arpt manager 808–872–3880.

MAUI – KAHULUI AIRPORT RAMP AREA: Yellow segmented and solid lines painted on the apron area fronting the passenger terminal represents the line of demarcation between the authority of the FAA and the State. The FAA is responsible for the control and direction of all ground traffic from the solid yellow line outward toward the field. That area is considered to be an active operating area. Aircraft, vehicles, and/or ground equipment entering this area must have prior clearance from the tower. The area lying between the line and the terminal building falls under the jurisdiction of the State. The act pilot and ground vehicle operator crossing from the taxiway is responsible for avoiding collisions, accidents, and using safe operating procedures. Ramp area East of RWY 02–20 falls under the jurisdiction of the State. The FAA is not responsible for control or direction of ground traffic in that area. Yellow demarcation lines cross east ramp taxiway entrances. Acft with wingspan between 95´ and 112´ taxi E ramp only between 155,000 lb.; parking area north of ARFF limited to acft wingspan less than 96´; parking between 600´ north Twy F and Twy E limited to acft wingspan less than 112´.
MAUI – HALEAKALA CONTROLLED FIRING AREA: The Haleakala Controlled Firing Area is described as follows: From 10,000 feet MSL to unlimited within a circular area with a 1 NM radius from the Mount Haleakala Maui Observatory (located at the 10,000 foot level at N20º42.42’ /W156º15.38´) and expanding outward and upward in a conical shape from this 1 NM radius based on an angle from the observatory of 15 degrees above the horizontal. The conical boundary leaves the 1 NM radius at 10,000 feet MSL and passes through 20,000 feet MSL at the 7.22NM radius and through 42,000 feet at the 20.90 NM radius. Pulsed Ruby Laser operations potentially hazardous to eyesight will be conducted within this area intermittently for 5 to 30 minute periods generally at night and advertised by NOTAM. Laser operations are predicted on the non-interference with IFR operations through coordination with the Honolulu Control Facility. Pilots of aircraft flying VFR should avoid the controlled firing area during its advertised time of use. As a precautionary measure however Laser operations will be suspended if an aircraft penetrates the area of concern. The status of the controlled firing area can be obtained by contacting the controlling facility.

MAUI–KAHOOLAWE CONTROLLED FIRING AREA: The Kahoolawe Hawaii Controlled Firing Area is described as follows: From SFC up to and including 5000’ MSL within that area bounded by N20º37’30”/W156º32’48”, to N20º34’48”/W156º30’24”, to N20º28’56”/W156º30’24”, to N20º28’06”/W156º41’48”, to N20º20’30”/W156º44’12”, to N20º33’12”/W156º44’30”, to N20º37’30”/W156º36’24”, thence to point of beginning. The CFA includes the entire island of Kahoolawe. Ordnance disposal/demolition work potentially hazardous to aircraft shall be conducted by NOTAM during daylight hours only. The controlling agency is FAA Honolulu Control Facility. The status of the CFA can be obtained by contacting the controlling facility.

MAUI – PARASAILING AREA: Parasailing off-shore Lahaina (OGG VORTAC 1750/014 DME) 1000´/below, sunrise to sunset.

MAUI – AEROBATIC OPERATIONS: 1 NM radius (OGG VORTAC 1750/011 DME) from 0315–0415Z Sundays 1500´ and below.

MAUI – ULTRALIGHT OPERATIONS: Extensive ultralight operations from atop Mt. Haleakala to Kalama Park (OGG VORTAC 1750/011DME). Unpowered ultralights remain over land. It is recommended that aircraft arriving from the south remain offshore, west of the OGG 1750 until 11 DME before turning inbound to Kahului airport.

MAUI – TOUR AIRCRAFT: High volume tour aircraft operating over Maui. Monitor 120.65 for traffic information.

MAUI – VFR AIRCRAFT LANDING KAHLULU AIRPORT INBOUND FROM THE NW: VFR aircraft landing Kahului Airport inbound from the NW should contact Honolulu Control Facility ("HCF Approach") on 120.2 at least 5 miles NW of Nakalele Point for radar identification and sequencing to the airport.

MOLOKAI – TOUR AIRCRAFT: High volume tour aircraft operating over Molokai. Monitor 121.95 for traffic information.

OAHU – HONOLULU (DANIEL K INOUIE INTL) AIRPORT – RAMP AREA: Broken yellow lines, ramps and taxiways indicate the edge of full strength bearing pavement. Pilots are cautioned to avoid taxing main gear over stabilized taxiway and apron shoulders. Shoulder pavement is stabilized only and not load bearing. Exercise care in following taxiway centerlines at all times especially on turns and at intersections. Yellow non movement area boundary lines painted on the apron area fronting the terminal complex represents a line of demarcation between the authority of the FAA and the airport operator (State). The FAA is responsible for the control and directing of all ground traffic from the non movement area boundary line outward toward the field. This area is considered an air operation area (AOA). Aircraft, vehicles and/or ground equipment entering this area must have proper clearance from the air traffic control tower. The area lying between the non movement area boundary lines inbound toward the concourse falls under the jurisdiction of the airport operator (State). The airport pilot and ground vehicle equipment operator crossing the non movement boundary lines from the taxiway is responsible for avoiding collisions, accidents, and using safe operating procedures in the non movement area.

OAHU – HONOLULU (DANIEL K INOUIE INTL) AIRPORT AND METROPOLITAN AREA: Numerous cranes at the airport and metropolitan areas up to 500´ AGL.

OAHU – HONOLULU (DANIEL K INOUIE INTL) AIRPORT – PROXIMITY TO KALAEOA (JOHN RODGERS FLD): All pilots are reminded of the proximity of Honolulu (Daniel K Inouye Intl) Airport to Kalaehoa (John Rodgers Fld). Exercise caution when approaching Honolulu (Daniel K Inouye Intl) Airport as both fields have parallel Runways 04. Several landings have been made at Kalaehoa (John Rodgers Fld) by pilots mistaking it for Honolulu (Daniel K Inouye Intl) Airport. Minimum IFR altitude for aircraft overflying Kalaehoa (John Rodgers Fld) is 2200 feet.

OAHU – KALAEOA AIRPORT NOISE ABATEMENT: Avoid overflight residential areas and schools north and east of arpt. Rwys 11/29 available Cat A act only; fly downwind over dep ends rwys 4. All other act Rw 11 dep only, Rw 29 arr only.

OAHU – KANEHOE BAY MCAS – HIGH PERFORMANCE AIRCRAFT: Kaneho Bay MCAS advises high performance aircraft will make maximum performance VFR climbs from takeoff Rwys 04/05 at various times following a warning broadcast on Kanehoe Tower and Approach Control frequencies. Request all aircraft contact Kanehoe Tower prior to transiting CLASS D airspace northeast of Rwys 04/05.

OAHU – KALAEOA (JOHN RODGERS FLD): Tanker vessels with mast height up to 170 feet intermittently operating 2 NM South of approach end Rwy 04.

OAHU – KALAEOA (JOHN RODGERS FLD) AIRPORT – PROXIMITY TO HONOLULU (DANIEL K INOUIE INTL) AIRPORT: All pilots are reminded of the proximity of Honolulu (Daniel K Inouye Intl) Airport to Kalaehoa (John Rodgers Fld). Departing aircraft must complete assigned departure heading within two nautical miles from the departure end of the runway. Advise Tower if unable to comply.

OAHU – GLIDER OPERATIONS: Caution – Gliders operating over central Oahu, 20 NM Radius of the location of the now-decommissioned Wheeler (HHI) NDB (21°28.67’N 158°02.03’W excluding HNL TCA), surface to 22,000 feet during mountain wave conditions. Occasional higher operations in unusually strong conditions. Gliders aren't normally transponder equipped and aren't visible on ATC radar.

OAHU – HAZARD AREAS: (1) Pilots are cautioned to avoid, or maintain a minimum of 500 feet AGL over the following ammunition storage areas due to significant threat to life and property posed by possible forced landing or other mishap.

<table>
<thead>
<tr>
<th>AREA</th>
<th>DIMENSIONS</th>
<th>LOCATION FROM HNL VORTAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAD Waikiele</td>
<td>1.5 NM Radius</td>
<td>353 radial at 5.2 DME</td>
</tr>
<tr>
<td>NAD Lualualei</td>
<td>2.5 NM Radius</td>
<td>316 radial at 9.7 DME</td>
</tr>
</tbody>
</table>

(2) All pilots are cautioned to avoid Kaena Point land mass within 1/2NM (9,120 feet). Potential personnel and electro-explosive device hazards exist due to high power radio frequency transmitters.

PAC, 5 NOV 2020 to 31 DEC 2020
OAHU – HANG GLIDING: Hang gliding operations will be conducted from Makapuu Point 3 miles west along ridge to Waimanalo Beach from 1800 to 0500Z daily, 2000 feet and below. Exercise extreme caution when transiting the area.

OAHU – ULTRALIGHT OPERATIONS: Extensive ultralight operations conducted between Makapuu Point and Manana (Rabbit Island).

OAHU – TOUR AIRCRAFT: High volume tour aircraft operating over Oahu. Monitor 122.85 for traffic information.

OAHU – EARTH TRACKING STATION: Effective immediately and UFN all pilots are requested to avoid overflights below 1000 feet AGL of Com Earth Tracking Station located at HNL300023 DME fix at all times.

OAHU – RIFLE/PISTOL RANGE: Military rifle/pistol range located on west side of Pearl Harbor channel entrance between Ewa Beach and Keahi Point (HNL264R 3.0 DME) (N21°33.81´/W158°13.83´) active Monday through Friday between 0700 to 1700 HST. Danger area from the shoreline extends one nautical mile southeast, 4500 feet wide, from the surface to 200 feet. All aircraft inbound to HNL Rwys 4R/L and 8R/L, remain above 200 feet until east of this area.

OAHU – NAVIGATIONAL WARNING: Electromagnetic radiation will continuously exist within a 2800 foot radius and 2800 feet above all antenna systems along a three mile stretch of mountain ridge between N21°33.81´/W158°13.83´ and N21°33.81´/W158°15.83´ as part of the Kaena Point Satellite Tracking Station, Oahu, Hawaii. Helicopters and slow speed aircraft, including hang gliders, flying within the above airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment. Radiation is not visually apparent and must be presumed by all pilots to continuously exist.

OAHU – LIGHTS-OUT MILITARY TRAINING: Extensive military rotary wing traffic in and near Alert Area A–311. Unlighted military rotary wing training conducted within boundaries of A–311 from 1 hour after sunset through 1 hour before sunrise, surface to 500 feet AGL.

OAHU – AIRBORNE HAZARD: Fireworks Displays will be conducted every Friday between 7:00 pm and 9:00 pm, for three minutes at Hilton Hawaiian Village (HNL VORTAC 096R/5NM), 600 ft and below, 1/2 NM radius. Avoidance Advised.

HELICOPTER PILOTS – KAPALAMA HELIPAD: Additional high tension electrical line installed on West border of helipad. Use Caution.

HAWAII – OIL POLLUTION REPORTS
Pilots observing oil slicks are requested to report them to Flight Service as soon as possible. The report should include the approximate location using prominent landmarks, size of slick, type of vessels observed in vicinity, and other pertinent information.

KIRIBATI
Full details of all aeronautical facilities in the Kiribati, which includes the Line Islands, are promulgated in the New Zealand Aeronautical Information Publication, South Pacific Flight Guide.

TARAWA – BONRIKI AIRFIELD: Operates during daylight hours only. Field is not lighted at night. Tarawa authorities request that pilots arrive before dark.

KIRITIMA TI (CHRISTMAS ISLAND) – CASSIDY INTL: Operates during daylight hours for any flight which has given 48 hours prior notice. Airport not manned unless flights are known to be operating. Fuel is available during daylight hours with prior notice.

Non-scheduled Flight Procedures
1. If an operator intends to carry out a non-scheduled flight in transit across, or make non-traffic stops in the territory of Kiribati, he may do so without the necessity of obtaining prior permission. However, the attention of operators is drawn to the need for prior notification in respect to navigation aids.

2. If an operator intends to perform a non-scheduled flight into Kiribati for the purpose of taking on or discharging passengers, cargo, or mail he shall apply to:
   - Postal Address: Director of Civil Aviation
   - P. O. Box 487
   - Betio, Tarawa
   - Kiribati

   - Telegraphic Address: AVIATION, BETIO, Tarawa

3. The application for permission to carry out such operations must include the following information in the same order as shown hereunder:
   - A. Name and address of applicant.
   - B. Type of aircraft and registration marks.
   - C. Date and times of arrival and departure from airfields in Kiribati.
   - D. Place or places of embarkation or disembarkation, as the case may be, of passengers and/or freight.
   - E. Purpose of flight and number of passengers, and/or nature and amount of freight.
   - F. Name, address and business of charterer, if any.

4. Normally the time required for consideration of applications is brief, but applicants should make allowances for communication delays.
FEDERATED STATES OF MICRONESIA
WENO ISLAND–CHUUK INTERNATIONAL AIRPORT

1. Prior permission required for all non-scheduled aircraft from Civil Aviation Directorate, Department of Transportation, Communications and Infrastructure, Division of Civil Aviation, P.O. Box PS 2, Pailikir, Pohnpei, FM 96941–0000; Tel (691) 320–2865; Fax (691) 320–5853; e-mail TransFSM@mail.fm

2. A copy of clearance and schedule must then be submitted to:
   a) Chuuk International Airport, P.O. Box 189, Weno, Chuuk State, FM 96942; Tel–Office (691) 330–5940, SWARS (691) 330–2352; Fax (691) 330–4242; e-mail ChuukAirport@mail.fm. The Chuuk Airport Executive Manager must be notified three (3) days prior for the ETA of the aircraft. A flight plan must be filed 12 hours prior for the ETA, include Pohnpei Intl Airport (PTPN) as an additional address of the Flt Plan.
   b) Immigration Office, P.O. Box 666, Weno, Chuuk State, FM 96942; Tel. (691) 330–2355; FAX (691) 330–4135; e-mail CIL@mail.fm
   c) Customs Office, P.O. Box 610, Weno, Chuuk State, FM 96942; Tel. (691) 330–4482; Fax (691) 330–5893; e-mail CTAChk@mail.fm
   d) Quarantine Office, Tel (691) 330–3720; FAX (691) 330–3721; e-mail ChuukQuart@mail.fm

3. Transient aircraft must make prior arrangements with Mobil Oil Guam for fuel and also Mobil Oil Micronesia–Chuuk, P.O. Box 130, Weno, Chuuk State, FM 96942, Tel (691) 330–2540; Fax (691) 330–2688.

GUAM CTA/MARIANA ISLANDS

GUAM–APRA HARBOR—OROTE POINT

In the interest of national security, the Commander, Naval Forces Marianas (COMNAVMAR) requests all civil aircraft avoid overflying U.S. Naval ships and military property west of a line between Santa Rita and Piti below 1500 feet.

RADAR SERVICE PROGRAM GUAM TERMINAL AREA

The VFR radar service program in the Guam Terminal Area provides full time radar advisory and sequencing service to VFR aircraft within 25 miles of the Nimitz VORTAC and radar advisory sequencing and separation within the Andersen TRSA and arriving Andersen AFB. Pilots of VFR aircraft arriving airports in Guam Terminal Area should contact Guam Approach Control when 25 NM from the Nimitz VORTAC. All aircraft use 269.0 or 119.8 MHz. Approach control will issue runway, wind and traffic information, and vectors as necessary for proper sequencing with other arriving aircraft at Andersen AFB and Agana airports. When a pilot reports the aircraft he is to follow in sight, he will be advised to follow it. Departing VFR aircraft desiring traffic information should request VFR radar service on initial contact with Andersen Ground Control or Agana Tower, and advise direction of flight. Tower will advise when to contact departure control and frequency. Since this is a voluntary program, the procedures are not to be interpreted as relieving pilots of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions, to maintain appropriate terrain and obstruction clearance, or to remain in weather conditions equal to or better than the minima required by FAR 91.155. Whenever compliance with an assigned route or heading is likely to compromise pilot responsibility respecting terrain and obstruction clearance and weather minima, Guam approach control should be so advised so that the heading may be revised as appropriate.

NOTES:
1. A graphic depiction of the Guam Terminal Area and Andersen TRSA may be found at the end of this section.
2. Information on flying within a TRSA may be located in Section V of this supplement or in the Aeronautical Information Manual.

TINIAN INTL AIRPORT – COMMUNICATION

Airport with UNICOM available from 2000–0930Z. When inbound tune to 123.6 about 15 miles from the airport (if IFR when the controller advises CHANGE TO ADVISORY FREQUENCY APPROVED) and listen for any other aircraft communicating with the UNICOM operator. When about 5 miles from the airport inform the operator of your position, altitude and intentions. When outbound contract the UNICOM operator before taxiing and furnish your position on the airport and intentions. In both cases the UNICOM operator will provide runway, wind and traffic information.

HAZARDS, CAUTIONS, AND WARNINGS

GUAM – SATELLITE TRACKING OPERATIONS: Because of possible interference with satellite tracking operations and to avoid a potentially hazardous radiation field, pilots are advised to avoid the area within 1 NM of the UNZ VORTAC 033R at 12.2 DME at and below 3100 feet.

GUAM – BALLOON RELEASE: National Weather Service Guam Observatory releases twice ascending balloon borne atmospheric sensing instruments at N13º33´/E144º50´ between 1100–1115Z and 2300–2315Z. Instrument equipment consists of 6 foot diameter rubber balloon with string train 100 feet in length containing a red paper parachute and small white plastic radiosonde instrument. Equipment estimated to ascend to altitudes of 10,000 feet within a 5 mile radius by 1130Z and 2330Z. Ascends to 50,000 feet by 1215Z and 0015Z. Ascends to 100,000 feet by 1300Z and 0100Z respectively.
AUCKLAND OCEANIC FIR

1. Altimeter Setting Requirements

1.1 Within the Auckland Oceanic FIR, the vertical position of aircraft shall be maintained by reference to standard pressure value of 1013.2 hPa, except that:
   a. Aircraft shall change to and from the appropriate zone QNH value upon entering and leaving the QNH zones;
   b. Where the aerodrome of destination or departure is not within a QNH zone aircraft shall use the appropriate aerodrome QNH value when at or below 13,000 feet within 100NM from the shoreline of the landmass on which the destination or departure aerodrome is situated.

1.2 Within the New Zealand domestic, Samoa, Tonga and Cook Area QNH Zones, when at or below 13,000 feet aircraft shall maintain vertical position by reference to the appropriate zone QNH, except that aircraft landing and taking off or operation within a control zone shall use the appropriate aerodrome QNH. However, a QFE altimeter setting may be used in accordance with paragraph 1.7.

1.3 The transition layer between the transition altitude of 13,000 feet and the transition level of FL150 provides adequate separation between aircraft observing different pressure values when the QNH is above 980 hPa. However, when the zone QNH is 980 MB or less, the minimum usable flight level above the zone involved shall be FL160.

1.4 The transition layer shall not be used except when ascending or descending. While passing through the transition layer, vertical position shall be expressed in terms of flight levels (1013.2 hPa) when ascending and in terms of altitude (QNH) when descending.

1.5 Pilots departing from an aerodrome where no QNH value is available shall set the aerodrome elevation on the altimeter prior to departure and shall obtain the appropriate altimeter setting as soon as possible and in any case before entering IMS.

1.6 QNH values passed to aircraft will be rounded down to the nearest whole hPa.

1.7 Use of QFE Altimeter Setting

1.7.1 Where suitable equipment is available, a QFE altimeter setting will be provided, on request, for flights operating by visual reference within an aerodrome traffic circuit. Additionally, foreign operators normally using a QFE altimeter setting for instrument approaches will be provided, on request, with a QFE for the aerodrome elevation except for:
   a. An instrument runway, if the runway threshold is 7 feet or more below the aerodrome elevation;
   b. A precision approach runway, in which case the QFE for the relevant threshold elevation will be provided.

1.7.2 QFE values passed to an aircraft will be rounded down to the nearest whole hPa.

2. Enroute Communications

2.1 Aircraft enroute within the Auckland Oceanic FIR shall maintain a continuous listening watch on the frequency assigned by the Air/Ground control station.

   NOTE: The requirement to maintain a continuous listening watch may be met by the use of approved automatic signaling devices such as SELCAL.

2.2 Aircraft inbound to Auckland Oceanic FIR shall establish RTF contact with ATC on Auckland Oceanic frequencies at the Auckland boundary. Outbound aircraft shall transfer to route frequency when instructed by ATC.

2.3 Aircraft entering the Samoa, Tonga, Cook or New Zealand domestic sectors, will be instructed when to change from route frequency to the frequency of the appropriate ATC unit. Aircraft leaving these sectors will be instructed by ATC when to change to the route frequency.

3. Enroute Air Navigation Facilities and Service Charges

Airways Corporation, the ATC service provider in the upper airspace of the Auckland Oceanic FIR, levies charges for enroute air navigation services provided to aircraft. Operators of any aircraft for which navigation services are made available in the Auckland Oceanic FIR should be aware that they may be obligated to pay charges for the services provided.

OAKLAND OCEANIC OCA/FIR

CENTRAL EAST PACIFIC (CEP)

1. The Central East Pacific (CEP) is the organized route system between Hawaii and California. Seven ATS routes, R463, R464, R465, R585, R576, R577, R578, and associated transition waypoints are within the CEP. Reduced Vertical Separation Minimum (RVSM) and Required Navigation Performance 10 (RNP–10) are required for aircraft operating within the CEP at FL290 through FL410. Non-approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.

2. ATS Routes R464, R465, R585, R576 and R577 are one-way routes and any odd or even cardinal flight level may be flight planned.

3. Applicable ATC procedures can be found in Order JO 7110.65 and ICAO Document 7030 – PAC/RAC.

RNP–10 SEPARATION

RNP-10 lateral separation (50 NM) may be applied within the Oakland OCA/FIR between RNP-10 approved aircraft. RNP-10 lateral separation is based on the equipment qualifier filed by the aircraft. Operators shall determine that the appropriate state authority has approved the aircraft and the aircraft will meet the RNP-10 requirements for the filed route of flight and any planned alternate routes. The letter “R” in field 10a (equipment) of the ICAO standard flight plan indicates PBN (Performance Based Navigation). Associated with the “R” in field 10a, the flight plan should also contain PBN/A1 in field 18 of the FPL to indicate RNP10. This equipment qualifier should be filed provided the aircraft will maintain RNP-10 eligibility for the entire route segment within the Oakland Oceanic FIR. RNP-10 approval is required for all PACOTS and for all aircraft operating within the CEP at FL290 through FL410. Non-approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.
RNP–4 SEPARATION

RNP-4 lateral separation (30 NM) may be applied within the Oakland OCA/FIR between RNP-4 approved aircraft with FANS equipment. RNP-4 lateral separation is based on the equipment qualifier filed by the aircraft. Operators shall determine that the appropriate state authority has approved the aircraft and the aircraft will meet the RNP-4 requirements for the filed route of flight and any planned alternate routes. The letter “R” in field 10a (equipment) of the ICAO standard flight plan indicates PBN (Performance Based Navigation). Associated with the “R” in field 10a, the flight plan should also contain PBN/L1 in field 18 of the FPL to indicate appropriate state authority has approved the aircraft and the aircraft will meet the RNP-4 requirements for the filed route of flight and any planned alternate routes. The letter “W” in field 10a (equipment) of the ICAO standard flight plan indicates RVSM approved aircraft.

RVSM SEPARATION

Reduced Vertical Separation Minimum (RVSM- 1,000 foot vertical separation between RVSM approved aircraft) may be applied within the Oakland OCA/FIR between FL290 and FL410. Aircraft operating within this airspace between FL290 and FL410 require RVSM approval. RVSM vertical separation will be based on the equipment qualifier filed by the aircraft. The operators shall determine that the appropriate state authority has approved the aircraft and the aircraft will meet the RVSM requirements for the filed route of flight and any planned alternate routes. The letter “W” in field 10a (equipment) of the ICAO standard flight plan indicates RVSM approved aircraft.

1. Non-RVSM Equipped Civil Aircraft:
   a. Non-RVSM equipped civil aircraft unable to fly to an appropriate destination at or below FL280 and unable to fly at or above FL430 may flight plan at RVSM flight levels in the RVSM stratum provided one of the following conditions exists:
      (1) The aircraft is being initially delivered to the state of registry or operator; or
      (2) The aircraft was formerly RVSM approved but has experienced an equipment failure and is being flown to a maintenance facility for repair in order to meet RVSM requirements and/or obtain approval; or
      (3) The aircraft is being utilized for mercy or humanitarian purposes.
   b. The approval for non-RVSM is intended exclusively for the purposes indicated above.

2. Non-RVSM Equipped State Aircraft:

   Non-RVSM state aircraft may flight plan at RVSM flight levels without prior coordination. State aircraft should include "STS/Military NON-RVSM" in field 18 of the ICAO standard flight plan.

3. Suspension of RVSM:

   ATC will consider suspending RVSM procedures within affected areas of the Oakland OCA/FIR when there are pilot reports of greater than moderate turbulence. Within areas where RVSM procedures are suspended, the vertical separation minimum between all aircraft will be 2000 ft.

GUIDELINES FOR CPDLC OPERATIONS

CONTROLLER PILOT DATA LINK COMMUNICATIONS (CPDLC)

Oakland ARTCC has full CPDLC capability and normal service in the entire Oakland OCA/FIR for FANS–1/A capable aircraft. The Oakland OCA/FIR log-on address is "KZAK"; the facility is "OAKODYA."

1. HF Communications Requirement

   Prior to entering the Oakland OCA/FIR, contact ARINC on HF and identify the flight as CPDLC equipped. Provide SELCAL departure and destination, aircraft registration number and advise whether SATVOICE equipped. Expect to receive primary and secondary HF frequency assignments from ARINC for the entire route of flight within the Oakland OCA/FIR. Pilots must maintain HF communications capability with ARINC at all times within the Oakland OCA/FIR.

2. Log-On

   a. For aircraft departing from airports along the west coast of North America, Guam and Hawaii, Oakland Oceanic Control requires that data-link aircraft not logon to Oakland oceanic (KZAK) until after leaving 10,000' MSL. This request is made to eliminate ADS periodic reports for aircraft that are still on the ground which will assist in the transition from the domestic airspace automation environment. Additionally, this should reduce operator cost.
   b. Aircraft entering the Oakland OCA/FIR CPDLC service area from non-CPDLC airspace: Log on to CPDLC at least 15 but not more than 45 minutes prior to entering the Oakland OCA/FIR CPDLC service area. Contact ARINC on HF and inform them you are a CPDLC flight. Send a position report when CPDLC is established.
   c. Aircraft entering the Oakland OCA/FIR CPDLC service area from adjacent CPDLC airspace: Pilots should determine the status of the CPDLC connection. If KZAK is the active center, the pilot shall contact ARINC on HF, identify the flight as a CPDLC flight, and send a position report via CPDLC. If KZAK is not the active center, the pilot shall, within 5 minutes after the boundary is crossed, terminate the CPDLC connection, then log on to KZAK, contact ARINC on HF and inform them you are a CPDLC flight. Send a position report when CPDLC ATC COM is established.

3. CPDLC Position Report Message Format

   Oakland OCA/FIR (KZAK) cannot accept position reports containing latitude and longitude (Lat/Long) in the ARINC 424 format, which is limited to five characters (e.g. 40N50). Position reports in the KZAK CPDLC service area containing Lat/Long waypoints will be accepted in complete latitude and longitude format only. Flights unable to send position reports in complete latitude and longitude format must accomplish position reporting via HF voice communications.


   Prior to entering HCF airspace, aircraft will receive an END SERVICE message that will result in termination of CPDLC. Aircraft shall re-log on to CPDLC prior to reentering Oakland OCA/FIR (KZAK) airspace when HCF advises to contact en route communications or ARINC.

5. Aircraft Entering Guam CERAP Airspace.

   Contact Guam CERAP 250 miles out on 118.7, squawk 2100.
Aircraft Over-Flying Guam CERAP Airspace.

The CPDLC and ADS connection with Oakland ARTCC may be terminated within the Guam CTA. If the CPDLC connection with KZAK is not terminated, do not use CPDLC for ATC COM until Guam CERAP advises you to again contact en route communications or ARINC. It may be necessary to log back on to CPDLC with KZAK 10–15 minutes prior to exiting the Guam CTA if the CPDLC connection was terminated.

BEACON CODE REQUIREMENTS

Upon reaching the first compulsory reporting point in KZAK FIR airspace and after radar service is terminated, all aircraft should adjust their transponder to display code 2000 on their display. Aircraft should maintain code 2000 thereafter until otherwise directed by air traffic control.

PACIFIC ORGANIZED TRACK SYSTEM (PACOTS) GUIDELINES

1. General Information
   a. Geographical Boundary. PACOTS tracks may be established within the Oakland Oceanic, Fukuoka, and Anchorage FIRs.
   b. Track Definition Message (TDM). Oakland ARTCC is using the TDM format for PACOTS tracks. Questions regarding published PACOTS tracks should be directed to Oakland ARTCC Traffic Management Unit (TMU), at (510) 745–3771.
   c. Number and Designator of PACOTS Tracks
      (1) Oakland ARTCC or Fukuoka Air Traffic Management Center (ATMC) may develop more or fewer tracks according to user needs, military activity, significant weather, or other limitations.

      (2) ROUTES TRACK DESIGNATORS

      Hawaii to Japan
      Hawaii to Japan _ B (optional)
      Japan to Hawaii _ 11
      Japan to Hawaii _ 12 (optional)
      North American West Coast to Japan _ C
      North American West Coast to Japan _ D (optional)
      North American West Coast to Japan _ E & F
      Japan to North American West Coast _ 1, 2, & 3
      Japan to North American West Coast _ 4 (optional)
      Texas to Japan _ M
      Japan to Texas _ 8
      North American West Coast to Asia _ H & I (optional)
      North American West Coast to Asia _ J & K
      Asia to North American West Coast _ 14
      Asia to North American West Coast _ 15 (optional)

   d. Usable Flight Levels
      (1) All IFR flight levels at or above FL290 except the Westbound North America-Japan PACOTS which also includes FL280 in the Oakland OCA/FIR. The Westbound North America-Japan PACOTS are included in the Track Advisory Program. Certain restrictions may apply for non-PACOTS traffic operating in the opposite direction to the published PACOTS system.

   e. Lateral Spacing of Tracks
      (1) PACOTS Tracks are established at least 50 NM apart. Tracks are defined using latitude/longitude expressed in whole degrees or named waypoints with the exception of FIR crossing points.

   f. Flight Planning
      (1) The following flight planning restrictions and rules only apply within the oceanic control areas of the respective FIRs. Furthermore, these restrictions do not affect aircraft filing on ATS routes in the CEP route system or the NOPAC Composite Route System unless individual routes within these systems are specifically identified as unusable in NOTAMs.

      (a) Participating Aircraft

         1. Aircraft requesting altitudes at or above FL280 may file via route published in the daily NOTAM or track message.

         2. Operators may file to leave or join an outer PACOTS track at any reporting point. Aircraft leaving an outer track should file routes that diverge, within 10 degrees of longitude, to at least 50 NM from the nearest PACOTS track. Flight level assignment for aircraft joining an outer track will be based on traffic.

         3. Operators must file appropriate SIDs and STARs associated with the departure/arrival airports.

         4. Operators must flight plan to avoid active military airspace.

      (b) Non-Participating Aircraft. Random routes under the PACOTS at FL270 and below are permitted, unless otherwise prohibited by NOTAM. Higher Altitude may be approved if traffic permits.

   g. ATC Procedures
      (1) For flight planning and initial clearances, crossing between PACOTS tracks at FL280 and above will not be permitted. Once established on the PACOTS track, changes may be approved as traffic permits.

      (2) Aircraft should not expect to climb into the PACOTS traffic unless filed on a route corresponding to a PACOTS track. In this case, climb into the PACOTS will be approved as traffic permits.

      (3) The minimum longitudinal separation between aircraft crossing the Fukuoka FIR boundary on the same track at the same flight level will be 10 minutes using Mach Number Technique or applicable ADS-C distance-based separation standard.
h. Position Reporting

(1) Within the Oakland and Anchorage oceanic control areas position reports shall be made using latitude/longitude coordinates or named fixes as specified in the TDM. Position reports shall comprise information on present position, estimated next position, and ensuing position in accordance with ICAO procedures. Rounding off geographical coordinates is prohibited.

2. Eastbound Japan-Hawaii PACOTS

a. Time Frame

(1) Effective daily 1000–2100 UTC for aircraft crossing 160 degrees east longitude between 1200 and 1600 UTC.

b. Notification of Japan-Hawaii PACOTS

(1) Notification of the geographical coordinates of Track 11 and optional Track 12 will be transmitted by TDM and NOTAM at approximately 2200 UTC daily by Fukuoka ATMC.

c. Flight Planning

(1) Participating eastbound aircraft departing from or traversing Central West Japan and crossing 160 degrees east longitude between 1200 UTC to 1600 UTC should flight plan as described in the daily TDM and NOTAM.

d. User Preferred Routes (UPR)

(1) Aircraft Operators have the option of flight planning a UPR instead of utilizing the Japan-Hawaii PACOTS.

(2) No altitude penalties will be incurred by aircraft flight planning a UPR that conflicts with PACOTS Track 11 or 12.

(3) The details and procedures for flight planning Japan-Hawaii UPRs are detailed in the next section.

3. Westbound Hawaii-Japan PACOTS

a. Time Frame

(1) Effective daily 1900–0800 UTC for aircraft crossing 160 degrees east longitude between 2300 and 0600 UTC.

b. Notification of the Hawaii-Japan PACOTS

(1) Notification of the geographical coordinates of Track A and optional Track B will be transmitted by TDM and NOTAM at approximately 1100 UTC daily by Oakland ARTCC.

c. Flight Planning

(1) Participating westbound aircraft departing Hawaii to Japan and crossing 160 degrees east longitude between 2300 UTC and 0600 UTC should flight plan as described in the daily TDM and NOTAM.

d. User Preferred Routes (UPR)

(1) Aircraft Operators have the option of flight planning a UPR instead of utilizing the Hawaii-Japan PACOTS.

(2) No altitude penalties will be incurred by aircraft flight planning a UPR that conflicts with PACOTS Track A or B.

(3) The details and procedures for flight planning Hawaii-Japan UPRs are detailed in the next section.

4. Eastbound Japan/Asia - North America PACOTS

a. Time Frame

(1) Effective daily from 0700 UTC to 2300 UTC applies to traffic crossing 160 degrees east longitude between 0900 UTC and 1400 UTC.

b. Notification of the Japan-North America PACOTS

(1) Notification of the geographical coordinates of the selected PACOTS tracks will be transmitted by TDM and NOTAM at approximately 2200 UTC daily by Fukuoka ATMC. Number will designate tracks with the northernmost being referred to as TRACK 1.

c. Flight Planning

(1) Participating aircraft from or over Japan to North America and crossing 160 degrees east longitude between 0900 UTC and 1400 UTC should flight plan as described in the daily TDM and NOTAM.

d. User Preferred Routes (UPR)

(1) Aircraft Operators have the option of flight planning a UPR instead of utilizing the PACOTS Track 1, 3, 14 or 15.

(2) No altitude penalties will be incurred by aircraft flight planning a UPR that conflicts with PACOTS Track 1, 3, 14 or 15.

(3) The details and procedures for flight planning PACOTS Track 1, 3, 14 and 15 UPRs are detailed in the next section.

5. Westbound North America–Japan PACOTS

a. Time Frame

(1) Effective daily from 1900 UTC to 0800 UTC. Required for traffic crossing 160 degrees east longitude between 0000 UTC and 0600 UTC.

b. Notification of Tracks

(1) Notification of selected PACOTS tracks will be transmitted by TDM and NOTAM at approximately 1100 UTC daily by Oakland ARTCC. The number of tracks each day will be determined by the position of the jet stream.

c. Flight Planning
(1) Participating aircraft flying from North America to the Fukuoka FIR and crossing 160 degrees east longitude between 0000 UTC and 0600 UTC should flight plan as described in the daily TDM and NOTAM.

6. Westbound North American-Asia PACOTS
   a. Westbound PACOTS tracks serving destinations in Asia are published twice daily.
   b. Time Frame
      (1) Tracks H and I are applicable for traffic crossing 160 degrees east longitude between 0200 UTC and 0600 UTC.
      (2) Tracks J and K are applicable for traffic crossing 160 degrees east longitude between 1400 UTC and 2100 UTC.
   c. Notification of Tracks
      (1) Notification of PACOTS “H” and “I” will be transmitted by TDM and NOTAM at approximately 1100 UTC.
      (2) Notification of PACOTS “J” and “K” will be by TDM and NOTAM at approximately 0000 UTC.
   d. Flight Planning
      (1) Participating aircraft flying between North America and Asia should flight plan as described in the daily TDM and NOTAM.
   e. User Preferred Routes (UPR)
      (1) Aircraft Operators have the option of flight planning a UPR instead of utilizing PACOTS Tracks 1, 3, 11/12, 14/5, A/B, H/I, J or K.
      (2) No altitude penalties will be incurred by aircraft flight planning a UPR that conflicts with the tracks listed in e.(1) above when the appropriate guidelines are followed.

USER PREFERRED ROUTE (UPR) GUIDELINES
1. Geographical Boundary. UPRs may be utilized within the specified FIRs as detailed in the Oakland ARTCC website.
2. UPR General Guidelines:
   a. The UPR must be planned to avoid military special use airspace when active.
   b. The UPR must utilize a published STAR where appropriate.
   c. Conditions that may not allow the use of UPRs
      (1) Operators will be informed whenever a condition exists that does not allow the use of UPRs within a particular FIR.
      (2) Conditions that may not allow the use of UPRs include large scale military operations and typhoons.
      (3) For further information or questions regarding UPRs, contact the Oakland Oceanic Supervisor at (510) 745-3342.
3. Specific Guidelines for filing UPRs associated with PACOTS Tracks or between specified City Pairs are listed on the Oakland ARTCC Website: www.faa.gov/about/office_org/headquarters_offices/ato/service_units/air_traffic_services/artcc/oakland/

OCEANIC TAILORED ARRIVAL (OTA) GUIDELINES
1. General Information
   a. Pilots are required to have the necessary training by their companies prior to utilizing the OTA.
   b. Aircraft must be FANS 1/A equipped.
   c. Aircraft must downlink a free-text message “RQST TA” at least 45 minutes prior to exiting oceanic boundary.
   d. Questions regarding OTAs should be addressed to Dustin Byerly, Support Manager - Oceanic Airspace and Procedures at (510) 745-3543 or Michael Martinez, Support Specialist at (510) 745-3320.
2. KSFO Pacific TA
   a. The Pacific TA for KSFO is only available during West Plan operation (RWY28).
   b. San Francisco arrivals on PACOTS Track 2 that desire a Tailored Arrival may request a reroute (DARP) over the following fixes after entering Oakland Oceanic airspace:
      (1) FATMO;
      (2) DACEM;
      (3) CEPAS;
      (4) BUTEN; or
      (5) ALLBE.
3. KLAX Catalina TA
   a. The Catalina TA for KLAX is only available during West Plan operation (RWY25).
   b. The TA is only available to aircraft routed over FICKY. Aircraft filed over other fixes may request a reroute (DARP) to FICKY.
GUAM AREA PREFERENTIAL ROUTING

1. Due to traffic congestion within the Oakland OCA/FIR north, south and west of the airspace delegated to Guam CERAP (a 250NM radius of 13°32'N/144°55'E) preferred routings have been established. This notice applies to all turbojet aircraft at or above FL280 operating within the Oakland OCA/FIR north, south or west of the Guam CTA. The following are the Guam area preferential routings within the Oakland OCA/FIR. Aircraft operators must ensure that these preferential routes are indicated in Field 15 of the ICAO standard flight plan. The acronym FPRD in the descriptions below means flight plan route.

2. Southbound aircraft en route from the Fukuoka OCA/FIR and terminating within Guam CERAP delegated airspace:
   a. OVER KEITH – KEITH R584 OTTRE FPRD
   b. OVER PADKO – PAKDO G339 RIDLL FPRD
   c. OVER MONPI – MONPI A597 REEDE FPRD MONPI A216 RIDLL FPRD
   d. OVER OMLET – OMLET B586 WINZR FPRD
   e. OVER TEGOD – TEGOD G205 GUYES FPRD TEGOD A337 SNAPP W21 HIRCH FPRD

3. Northbound aircraft originating within Guam CERAP delegated airspace, en route to destinations within the Fukuoka OCA/FIR:
   a. OVER MIKYY – MIKYY R584 KEITH FPRD
   b. OVER NATSS – NATSS G339 PAKDO FPRD
   c. OVER OATSS – OATSS A216 MONPI FPRD
   d. OVER RICH – RICH A597 MONPI FPRD
   e. OVER TOESS – TOESS B586 OMLET FPRD
   f. OVER TERY – TERY G205 TEGOD FPRD
   g. OVER TEETH – TEETH A337 TEGOD FPRD

NOTE 1: Aircraft within the Oakland OCA/FIR and transiting Guam CERAP delegated airspace must flight plan to enter/exit Guam Center airspace on an appropriate ATS route(s) or other established compulsory reporting points (e.g., FATUM or JOBSS).

NOTE 2: With the exception of aircraft flight planned via Oceania UPR procedures, operators flight planning at or above FL280 with filed routes other than those described above should expect to be re-routed to the preferential route. Requests for alternate routes will be considered on a real-time basis as traffic conditions permit. However, aircraft should file for and be prepared to fly the entire preferential route. Aircraft operating EAST of 150E longitude will not be affected.

OAKLAND OCA ISLAND AIRPORTS

1. Clearances
   a. When requesting an IFR clearance while on the ground, make every effort to communicate through ARINC. If unable to contact ARINC a request for an IFR clearance can be made via direct communications with the sector controller via telephone.
   b. If unable to receive a clearance through any of the above means and you elect to depart VFR in accordance with ICAO Annex 2 and Document 7030, continue efforts to establish communication and obtain a clearance as soon as possible.

NOTE: Rules pertaining to VFR flight may be found within Section III–General Notices of this supplement.

2. Hazards
   a. Kwajalein Atoll–Dyess AAF: Electromagnetic radiation will exist 24 hours daily within 2.17 NM radius of Dyess AAF from the surface to 13,000 feet. Aircraft within this airspace may be exposed to direct radiation, which may be harmful to personnel and equipment.
   b. Kwajalein Atoll–Bucholz AAF: Electronic radiation may exist 24 hours daily within 5nm radius of Bucholz AAF from surface to 30,000 feet.
   c. Kwajalein Atoll–180 NM Radius: Hazardous military activity will be conducted which affect aircraft at all altitudes and flight levels within a 180 NM radius of 0843.3N/16743.8E until further notice. All nonparticipating VFR pilots are advised to remain well clear of the area. IFR flights under ATC jurisdiction may expect possible reroute to and from Bucholz Airport. For further information, contact Kwajalein Range Safety Officer at 805–355–1516.
GUAM TERMINAL AREA

Heavily travelled routes for high performance aircraft arriving and departing Guam Intl and Andersen AFB should be avoided by light aircraft pilots flying VFR. The largest concentration of aircraft occurs within a radius of approximately 15 miles of the airports and at an altitude up to and including 4000 feet.

In addition to the above there are two areas of activity to be avoided, both outside the Agana Class D airspace. The first – ALFA – is a light aircraft low altitude training area within a 6 mile radius of Inarajan Bay. Aircraft training in this area should operate at or below 1800 feet and should monitor Guam Approach Control on freq 119.8. The second area – BRAVO – is a light aircraft high altitude training area for use up to 10,000 feet. This area is within a 5 mile radius of Cocos Island. Aircraft in this area should also monitor Guam Approach Control on 119.8.
KANEHOE - PREFERRED ROUTING TRANSITING AND ARRIVING IN HIGH DENSITY TRAFFIC OF MCAF KANEHOE BAY CLASS D AIRSPACE

LEGEND

- NOISE SENSITIVE AREA
- Compulsory Reporting point
- Non-Compulsory Reporting Point

Altitude Assignment:
Published Preferred Route at or above 2000 the entire route.

NOTE:
Pilots should anticipate holding over Quarry intersection or north of Chinamans Hat or south of Mokolua I. when traffic will not permit clearance through the Class D airspace.

NOTE:
Pilots will be required to fly well clear of ULUPAU CRATER during periods of live fire.

(AUG 94)
CLASS C AIRSPACE
KAHULUI AIRPORT
FIELD ELEV 53' MSL

CLASS C AIRSPACE PROCEDURES
VFR AIRCRAFT PROPOSING TO ENTER KAHULUI AIRPORT CLASS C AIRSPACE ARE REQUIRED TO CONTACT ATC PRIOR TO ENTRY. INITIAL CONTACT: REFER TO CHARTED VFR CHECK POINTS OR 10 DME FROM THE OGG VORTAC. INITIAL CALLS IN CLOSE PROXIMITY TO THE AIRSPACE BOUNDARY MAY RECEIVE INSTRUCTIONS TO "REMAIN CLEAR OF CHARLIE AIRSPACE AND STANDBY." INITIAL CALLS FROM THE MORE DISTANT CHECK POINTS ARE PREFERRED.


PUBLIC LAW PROHIBITS FLIGHT OF VFR HELICOPTERS OR FIXED-WING AIRCRAFT BELOW 9500 FEET MSL OVER THE FOLLOWING AREAS IN HALEAKALA NATIONAL PARK: HALEAKALA CRATER, CRATER CABINS, THE SCIENTIFIC RESEARCH, HALEMAUO TRAIL, KAUPU GAP TRAIL OR ANY DESIGNATED TOURIST VIEWPOINT.

LEGEND
VFR CHECK POINTS
FLOOR IN HUNDREDS OF FEET MSL
CEILING IN HUNDREDS OF FEET MSL

HALEAKALA NATIONAL PARK

PAC, 5 NOV 2020 to 31 DEC 2020
KAHULUI, MAUI

Shown are the most heavily traveled routes for high performance aircraft arriving and departing Kahului Airport, Maui. Light plane pilots flying VFR in these areas should maintain an alert lookout and monitor HCF Approach Control frequency. Aircraft transiting north of the Kahului Airport in VFR conditions are requested to remain at least 8 NM north of the airport at or below 4500 ft. if westbound, 3500 ft. if eastbound, or following the shoreline at or below 2500 ft. and be responsive to routing changes issued by HCF Approach Control or Maui Tower. The area depicted as "ALFA" is a light aircraft local training area. Area is outside Kahului Airport Class C airspace. Aircraft training in area normally operate at or below 3000 ft. and monitor HCF Approach Control.
NOISE SENSITIVE AREAS AND
RECOMMENDED FLIGHT PATHS (VFR)
KAHULUI AIRPORT

Note: Aircraft more than 12,500 lbs. inbound from the south or flying over land from the northwest desiring runway 5, must overfly the airport and enter left traffic for runway 5.
INFORMAL RUNWAY USE PROGRAM—KAHULUI ARPT, MAUI

Aircraft noise complaints from Spreckelsville Beach area located adjacent to Kahului Airport have become a matter of serious concern. To alleviate the situation, noise abatement departure runways and flight patterns have been developed. All pilots are urged to follow these procedures to the maximum extent possible consistent with operational and safety requirements. Runway 2 is designated as the noise abatement departure runway for both large and jet powered aircraft. Departure flight pattern runway 2: – Climb straight ahead until one mile clear of shoreline before commencing turns. If takeoff on runway 5 is necessary, both large and jet powered aircraft are requested to:

- if east or westbound, turn left as soon as possible and proceed one mile clear of shoreline; if southbound, turn right as soon as possible if traffic permits, otherwise turn left.

NOISE ABATEMENT ROUTE FOR AIRCRAFT DEPARTING RUNWAYS 2 AND 5 KAHULUI AIRPORT, MAUI.
NOTE: RUNWAY 2 DESIGNATED NOISE ABATEMENT DEPARTURE RUNWAY FOR LARGE AIRCRAFT AND JET POWERED AIRCRAFT.
KONA INTERNATIONAL AT KEAHOLE AIRPORT, HAWAII

Depicted on this chart are the most heavily traveled routes for high performance aircraft arriving and departing Kona Intl At Keahole Airport, Kona, Hawaii.

General Aviation pilots flying VFR should be extra alert in these areas. Contact Kona Tower on frequency 120.3 for traffic advisories.
PREFERRED VFR ROUTING
LIHUE AIRPORT, LIHUE, KAUA'I

LEGEND

- PREFERRED VFR ARRIVAL ROUTES
- PREFERRED VFR DEPARTURE ROUTES
- IFR ARRIVAL/DEPARTURE ROUTES
- REQUEST CENTER ADVISORIES PRIOR TO TRANSITING AREA 126.5

AIRCRAFT INBOUND TO LIHUE FROM THE EAST CONTACT HONOLULU CENTER 126.5 BY MID-CHANNEL.

VFR AIRCRAFT DEPARTING LIHUE AIRPORT VIA RUNWAY 3/35 EASTBOUND, FLY OUTBOUND ON OR NORTH OF LIH 105 RADIAL UNTIL 25 MILES EAST.

PAC, 5 NOV 2020 to 31 DEC 2020
1. VFR arriving or departing aircraft must maintain indicated altitudes in vicinity of Bucholz Army Airfield. A high intensity radiated field can exist in vicinity of Bucholz and the possibility of interference exists if procedure is not followed.

2. Avoid overflight of indicated area at NW corner of Kwajalein.
PREFERRED VFR ROUTING AT SAIPAN AND WEST TINIAN AIRPORTS

Tradewind Condition
(Northeast Winds, Rwy 07, Rwy 08 In Use)

1. VFR turbo jet aircraft arriving Saipan from the southwest should proceed northbound along the west coast of Tinian. VFR turbo jets from the north-northwest should proceed southbound about 10 miles west of Saipan. They should intercept the I-GSN localizer at 10 DME and proceed inbound on the localizer maintaining at or above 2300’ above mean sea level until passing KORDY (localizer/7 DME).

2. VFR twin engine aircraft arriving at Saipan from Tinian, Rota/Guam should proceed to Unai Masalok and direct to Puntan Opyan.

3. VFR single engine aircraft arriving Saipan from Tinian should turn left after takeoff and proceed northbound via BROADWAY to the traffic circle, then northeast to Asiga Point, then across Saipan channel for straight-in to Rwy 07.

4. VFR twin engine aircraft from Saipan should make right traffic to Nafran Point, then southwest bound to Puntan Masalok, then enter left traffic for Rwy 08 at West Tinian.

5. VFR single engine aircraft from Saipan should make left traffic downwind to Puntan Aningan, across Saipan channel to Puntan Taohong (north tip of Tinian), direct to 8th Avenue traffic circle, thence via 8th Avenue to enter left traffic for Rwy 08 at West Tinian.
PREFERRED VFR ROUTING AT SAIPAN AND WEST TINIAN AIRPORTS

Southwest Wind Condition
(Rwy 25 and Rwy 26 In Use)

1. VFR single engine aircraft from Salpan Rwy 25 to West Tinian, direct across Salpan Channel to Broadway Traffic Circle, via BROADWAY to enter a right base leg for Rwy 26.

2. VFR twin engine aircraft from Saipan Rwy 25 left turn direct Unai Masalok, make straight-in to Rwy 26 at West Tinian.

3. VFR twin and single engine aircraft from West Tinian, Rwy 26 to Saipan, right turn follow 8th Avenue to Traffic Circle, direct to Puntan Tahgong across Salpan Channel to Ailingan Point, enter right downwind for Rwy 25 at Saipan.
HILO INTL, HILO

Depicted on this chart are the most heavily traveled routes for high performance aircraft arriving and departing Hilo Intl, Hilo, Hawaii.

General aviation pilots flying VFR should be extra alert in these areas. Contact Hilo Approach Control on frequency 119.7 for traffic advisories.
NOISE SENSITIVE AREAS AND
RECOMMENDED FLIGHT PATHS (VFR)
HILO INTL
HILO, HAWAII

NOISE SENSITIVE

HILO BAY

CITY OF HILO

ITO

LARGE AIRCRAFT PATTERN ALTITUDE 1500' MSL
SMALL AIRCRAFT PATTERN ALTITUDE 800' MSL

PAC, 5 NOV 2020 to 31 DEC 2020
Glider Operations: Gliders are normally air-towed and routinely depart the traffic pattern to the South. (Right turn after takeoff Rwy 08, left turn after takeoff Rwy 26.) Gliders normally fly the ridge line to the south of the airport, within 5 NM. Most gliders are not radio equipped. The powered aircraft towing the gliders have radios and routinely use the glider traffic pattern, entering the traffic pattern from the South.

Sky Dive Operations: Extensive parachute operations occur daily at 16,000’ and below. Parachutists normally exit the aircraft upwind of the airport and during strong winds may exit as far as 3 NM from the drop zone. Parachutes are usually opened between 2,000’ and 4,500’ altitude, and then flow to the drop zone entering an abbreviated left traffic pattern (Rwy 08) or right traffic pattern (Rwy 26). During light and no wind conditions, the parachutes may open directly above the airport and adjacent beach area.

TRAFFIC PATTERN
SMALL AIRCRAFT 800’ MSL
SAILPLANES AND TOWPLANES 700’ MSL
ALL TRAFFIC TO NORTH OF RUNWAY
MAXIMUM AUTHORIZED LANDING WEIGHT: 5-40, D-152, DT-180.

Left turn after Rwy 08 takeoff, avoid parachute drop zone.
Right turn after Rwy 26 takeoff, avoid parachute drop zone.
INTENTIONALLY LEFT BLANK
INTENTIONALLY LEFT BLANK
INTENTIONALLY LEFT BLANK
INTENTIONALLY
LEFT
BLANK
INTENTIONALLY LEFT BLANK
ICAO INTERNATIONAL PHONETIC ALPHABET/MORSE CODE

A · - Alfa (AL-FAH)
B - · · Bravo (BRAH-VOH)
C - - - Charlie (CHAR-LEE) (or SHAR-LEE)
D - - Delta (DELL-TAH)
E · Echo (ECK-OH)
F - - · Foxtrot (FOKS-TROT)
G - - - Golf (GOLF)
H - · · · Hotel (HOH-TEL)
I · India (IN-DEE-AH)
J · - - - Juliett (JEW-LEE-ETT)
K - - Kilo (KEY-LOH)
L - - Lima (LEE-MAH)
M - - Mike (MIKE)
N - November (NO-VEL-BER)
O - - - Oscar (OSS-CAH)
P · - - Papa (PAH-PAH)
Q - - - Quebec (KEH-BECK)
R - - Romeo (ROW-ME-OH)
S · · · Sierra (SEE-AIR-RAH)
T - Tango (TANG-GO)
U · · Uniform (YOU-NEE-FORM) (or OO-NEE-FORM)
V · · · Victor (VIK-TAH)
W - - Whiskey (WISS-KEY)
X - · · · Xray (ECKS-RAY)
Y - - - Yankee (YANG-KEY)
Z - - - Zulu (ZOO-LOO)
1 · - - One (WUN)
2 · - - Two (TOO)
3 · · - Three (TREE)
4 · · - Four (FOW-ER)
5 · · · Five (FIFE)
6 - · · Six (SIX)
7 - - · Seven (SEV-EN)
8 - - - Eight (AIT)
9 - - - Nine (NIN-ER)
0 - - - Zero (ZEE-RO)
Airborne and ground checkpoints consist of certified radials that should be received at specific points on the airport surface, or over specific landmarks while airborne in the immediate vicinity of the airport.

Should an error in excess of ±4º be indicated through use of the ground check, or ±6º using the airborne check, IFR flight should not be attempted without first correcting the source of the error. CAUTION: No correction other than the “correction card” figures supplied by the manufacturer should be applied in making these VOR receiver checks.

### VOR RECEIVER CHECK

Airborne and ground checkpoints consist of certified radials that should be received at specific points on the airport surface, or over specific landmarks while airborne in the immediate vicinity of the airport.

Should an error in excess of ±4º be indicated through use of the ground check, or ±6º using the airborne check, IFR flight should not be attempted without first correcting the source of the error. CAUTION: No correction other than the “correction card” figures supplied by the manufacturer should be applied in making these VOR receiver checks.

### AIRBORNE RECEIVER CHECKPOINTS

<table>
<thead>
<tr>
<th>STATION</th>
<th>RADIAL</th>
<th>DISTANCE</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pago Pago</td>
<td>060</td>
<td>9.4 NM</td>
<td>Radio tower in center of town on Aunnu Is. 1500´ MSL.</td>
</tr>
</tbody>
</table>

### GROUND RECEIVER CHECKPOINTS

<table>
<thead>
<tr>
<th>STATION</th>
<th>RADIAL</th>
<th>DISTANCE</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nimitz</td>
<td>063</td>
<td>3.3 NM</td>
<td>Twy A between Rwy 06L and Rwy 06R.</td>
</tr>
<tr>
<td>Pago Pago</td>
<td>242</td>
<td>0.8 NM</td>
<td>On twy Rwy 05.</td>
</tr>
<tr>
<td>Wake Island</td>
<td>98</td>
<td>1.3 NM</td>
<td>Runup area Rwy 28.</td>
</tr>
</tbody>
</table>

### VOR TEST FACILITIES (VOT)

<table>
<thead>
<tr>
<th>STATION</th>
<th>FREQ.</th>
<th>TYPE VOT FACILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honolulu</td>
<td>111.0</td>
<td>G</td>
</tr>
</tbody>
</table>

PAC, 5 NOV 2020 to 31 DEC 2020
ARINC using Pacific common airground ATC frequency networks shared with other ground stations are listed below. The frequencies in use will depend on the time and conditions which affect radio propagation. International flights on the ground at ANC or within VHF range of the SEA-ANC network that are entering the NOPAC Route System within Anchorage Centers FIR boundary should contact ARINC on VHF 129.4, to obtain primary/secondary HF frequencies and verify SELCAL before entering NOPAC. If unable 129.4, primary/secondary HF frequencies may be obtained from Anchorage ARTCC, but no SELCAL is available.

WEB-PAGE FOR CURRENT ARINC FREQUENCIES: Radio.arinc.net
Primary and Secondary ARINC frequencies for the Pacific and Atlantic are continuously updated on this webpage.

**CENTRAL WEST PACIFIC (CWP) NETWORK FREQUENCIES**
San Francisco
MWARA—2998, 3455, 4666, 5652, 6532, 8870, 8903, 11384, 13300, 17904 and 21985 kHz
LDOCF (c)—3494, 6640, 8933, 11342, 13348, 17925 and 21964 kHz

**NORTH PACIFIC (NP) NETWORK FREQUENCIES**
San Francisco
MWARA—5628, 6655, 8915, 8951, 10048, 13339, 17946 and 21925 kHz
LDOCF (c)—3494, 6640, 8933, 11342, 13348, 17925 and 21964 kHz

**CENTRAL EAST PACIFIC NETWORK FREQUENCIES**
San Francisco
Extended Range VHF (a)—131.95 MWARA—2869, 3413, 3452, 5547, 5574, 6673, 8843, 8915, 10057, 11282, 13288, 13354, and 21964 kHz
LDOCF (c)—3494, 6640, 8933, 11342, 13348, 17925, and 21964 kHz
Seattle Pre-flight checks (b)—129.4 (SEA-ANC), 131.80 (North West), 131.95 (Central CA), and 128.90 (Southern CA).

**SOUTH PACIFIC (SP) NETWORK FREQUENCIES**
San Francisco
MWARA—3467, 5643, 8867, 13261, and 17904 kHz
LDOCF (c)—3494, 6640, 8933, 11342, 13348, 17925, and 21964 kHz

SSB capability available on all HF freqs. (a) Extended Range VHF 131.95. Coverage includes area within approximately 200 NM of the Hawaiian Islands and along the Hawaii-Mainland US tracks extending outward approximately 250 NM from the HNL, SFO, and LAX areas. (b) Call ARINC on VHF to arrange HF checks. 129.40 available for enroute communications on SEA-ANC routes. (c) Users are reminded that all transmissions on the ARINC HF SSB LDOCF must be in the single sideband mode (upper sideband only). Phone patch service will be available as a normal part of the service. Communications are limited to aircraft operational control matters. Public correspondence (personal messages) to/from crew or passengers cannot be accepted. Refer questions to ARINC operations at 1-800-621-0140. Aircraft operating in the Anchorage Arctic CTA/FIR beyond line of sight range of remote control VHF airground facilities operated from the Anchorage ARTCC, shall maintain communications with Gander Radio and a listening or SELCAL watch on HF frequencies of the North Atlantic D (NAT D) network (2971 kHz, 4675 kHz, 8891 kHz and 11279 kHz). Additionally, and in view of reported marginal reception of the Honolulu Pacific VOLMET broadcasts in that and adjacent Canadian airspace, Gander Radio can provide Anchorage and Fairbanks surface observations and terminal forecasts to flight crews on request.

**SATCOM VOICE AVAILABLE AS ALTERNATIVE COMMUNICATIONS MEDIUM:**
ARINC has operational use of SATCOM Voice as an acceptable alternative communications medium for oceanic long range ATC communications. It is intended that SATCOM Voice will augment HF radio, in that HF will remain primary for all air-ground-air communications between ARINC Communications Centers and enroute oceanic aircraft.

Aircraft desiring to contact an ARINC Communications Center should use the SATCOM Short Code to call the appropriate ARINC Center:
Oceanic Area Center SATCOM Short code
Pacific SFO 436625

ARINC will also utilize SATCOM Voice as a normal operational backup to HF to initiate communications from ground-to-air on the rare occasion when HF communications cannot be established in a timely manner. SATCOM Voice may be used for either ATC or AOC (Aeronautical Operation Control) Communications.
## PARACHUTE JUMPING AREAS

The following tabulation lists all known jumping sites. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions.

<table>
<thead>
<tr>
<th>AREA NAME</th>
<th>LOCATION</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agat Bay Drop Zone, GU</td>
<td>244 radial, 11.2 NM, UNZ VORTAC</td>
<td>2 NM radius. Intermittent. Up to 10,000 ft MSL. Military use only.</td>
</tr>
<tr>
<td>Anderson Drop Zone, GU</td>
<td>054 radial, 13.5 NM, UNZ VORTAC</td>
<td>2 NM radius. Intermittent. Up to 18,000 ft.</td>
</tr>
<tr>
<td>Apra Harbor, GU</td>
<td>265 radial, 4 NM, UNZ VORTAC</td>
<td>2 NM radius. Intermittent. Up to 12,000 ft.</td>
</tr>
<tr>
<td>Basilan Drop Zone, HI</td>
<td>326 radial, 16.6 NM, HNL VORTAC</td>
<td>2 NM radius. Intermittent. FSS HNL. Military. Up to 12,500 ft. Honolulu Control Facility ARTCC 126.5.</td>
</tr>
<tr>
<td>Dandan Drop Zone, GU</td>
<td>018 radial, 2.4 NM, SN NDB</td>
<td>1 NM radius. Daily. Up to 14,000 ft AGL.</td>
</tr>
<tr>
<td>Dillingham, HI</td>
<td>310 radial, 21.5 NM, HNL VORTAC</td>
<td>3 NM radius. Daily. Up to 16,000 ft.</td>
</tr>
<tr>
<td>East Range/Taro Drop Zone, HI</td>
<td>306 radial, 22.1 NM, HNL VORTAC</td>
<td>3 NM radius. Up to 16,000 ft.</td>
</tr>
<tr>
<td>Ferguson Hill Drop Zone, GU</td>
<td>040 radial, 9.5 NM, UNZ VORTAC</td>
<td>2 NM radius. Intermittent. Up to 14,000 ft MSL. Military use only.</td>
</tr>
<tr>
<td>Guam Intl, GU</td>
<td>080 radial, 5.8 NM, UNZ VORTAC</td>
<td>1 NM radius. Daily. Up to 14,000 ft FSS HNL.</td>
</tr>
<tr>
<td>Honolulu, HI Helemano Military Reservation, HI</td>
<td>340 radial, 14.5 NM, HNL VORTAC</td>
<td>0.7 NM radius. Daily. Greatest activity on weekends. Up to 15,000 ft.</td>
</tr>
<tr>
<td>Kahuku, HI</td>
<td>351 radial, 22.6 NM, HNL VORTAC</td>
<td>Intermittent. Up to 12,500 ft AGL.</td>
</tr>
<tr>
<td>Kanes Drop Zone, HI</td>
<td>341 radial, 22.5 NM, HNL VORTAC</td>
<td>2 NM radius. Intermittent. FSS HNL. Military. Maximum Alt 12,500 ft AGL. Honolulu Control Facility ARTCC 126.5.</td>
</tr>
<tr>
<td>Mangilao Drop Zone, GU</td>
<td>090 radial, 4.6 NM, UNZ VORTAC</td>
<td>2 NM radius. Daily. Up to 14,000 ft FSS HNL. Guam Intl Twr 118.7.</td>
</tr>
<tr>
<td>Northwest Fld Drop Zone, GU</td>
<td>035 radial, 12 NM, UNZ VORTAC</td>
<td>2 NM radius. Intermittent up to 18,000 ft. Military.</td>
</tr>
<tr>
<td>Orote Point, GU</td>
<td>254 radial, 5.5 NM, UNZ VORTAC</td>
<td>2 NM radius. Intermittent. Up to 12,000 ft.</td>
</tr>
<tr>
<td>Pokai Bay, HI</td>
<td>285 radial, 17.5 NM, HNL VORTAC</td>
<td>3 NM radius. Intermittent. Up to 3,000 ft.</td>
</tr>
<tr>
<td>Port Allen, HI</td>
<td>256 radial, 4.2 NM, SOK VORTAC</td>
<td>2 NM radius. Daily. Max altitude 10,000 ft. Honolulu Control Facility Center 126.5.</td>
</tr>
<tr>
<td>Puukapu Drop Zone, HI</td>
<td>345 radial, 22.6 NM, HNL VORTAC</td>
<td>Intermittent. Up to 12,000 ft AGL. FSS HNL.</td>
</tr>
<tr>
<td>Tigershark–Inland Drop Zone, HI</td>
<td></td>
<td>1 NM radius. M–F 0700–2200, Sat–Sun, Hol 0900–2200. Up to 7,000 ft. Honolulu Cont Fac (ZHN) 142.45.</td>
</tr>
<tr>
<td>Upolu Point Drop Zone, HI</td>
<td></td>
<td>5 NM radius. Daily, all hours. Up to 13,000 ft MSL. Honolulu Control Facility (ZHN) 126.0</td>
</tr>
</tbody>
</table>

## SPECIAL USE AIRSPACE

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Altitude</th>
<th>Time</th>
<th>Controlling Agency</th>
<th>Using Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>A–311</td>
<td>Wheeler AAF</td>
<td>To 500’ AGL</td>
<td>1730–0900Z</td>
<td>Lightning Control VHF 139.2 UHF 239.5 FM</td>
<td>39.35</td>
</tr>
<tr>
<td>W–11A</td>
<td>To FL300</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>25th Infantry Division, Schofield Barracks, HI</td>
<td></td>
</tr>
<tr>
<td>W–11B</td>
<td>To FL300</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Marianas</td>
<td></td>
</tr>
<tr>
<td>W–12</td>
<td>To FL600</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Marianas</td>
<td></td>
</tr>
<tr>
<td>W–13A</td>
<td>LOW</td>
<td>To FL300</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Marianas</td>
</tr>
<tr>
<td>W–13B</td>
<td>LOW</td>
<td>To FL300</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Marianas</td>
</tr>
<tr>
<td>No.</td>
<td>Name</td>
<td>Altitude</td>
<td>Time</td>
<td>Controlling Agency</td>
<td>Using Agency</td>
</tr>
<tr>
<td>-----</td>
<td>------</td>
<td>----------</td>
<td>------</td>
<td>-------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>W–13A</td>
<td>HIGH</td>
<td>To FL300 to FL600</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Marianas</td>
</tr>
<tr>
<td>W–13B</td>
<td>HIGH</td>
<td>To FL300 to FL600</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Marianas</td>
</tr>
<tr>
<td>W–13C</td>
<td>HIGH</td>
<td>To FL600</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Marianas</td>
</tr>
<tr>
<td>W–11A</td>
<td></td>
<td>To FL300</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Marianas</td>
</tr>
<tr>
<td>W–186</td>
<td></td>
<td>To 9,000’</td>
<td>Cont</td>
<td>FAA, Honolulu Control Facility</td>
<td>CO PMRFAC HAWAREA</td>
</tr>
<tr>
<td>W–187</td>
<td></td>
<td>To 18,000’</td>
<td>Mon–Fri 1700–0800Z, Sat–Sun 1800–0200Z</td>
<td>FAA, Honolulu Control Facility</td>
<td>FACSFAC PH, Pearl Harbor, HI</td>
</tr>
<tr>
<td>W–188</td>
<td></td>
<td>Unltd</td>
<td>Cont</td>
<td>FAA, Honolulu Control Facility</td>
<td>CO PMRFAC HAWAREA</td>
</tr>
<tr>
<td>W–189</td>
<td></td>
<td>Unltd</td>
<td>Mon–Fri 1700–0800Z, Sat–Sun 1800–0200Z</td>
<td>FAA, Honolulu Control Facility</td>
<td>FACSFAC PH, Pearl Harbor, HI</td>
</tr>
<tr>
<td>W–190</td>
<td></td>
<td>Unltd</td>
<td>Mon–Fri 1700–0800Z, Sat–Sun 1800–0200Z</td>
<td>FAA, Honolulu Control Facility</td>
<td>FACSFAC PH, Pearl Harbor, HI</td>
</tr>
<tr>
<td>W–191</td>
<td></td>
<td>To 3000’</td>
<td>Mon–Fri 1700–0800Z, Sat–Sun 1800–0200Z</td>
<td>FAA, Honolulu Control Facility</td>
<td>FACSFAC PH, Pearl Harbor, HI</td>
</tr>
<tr>
<td>W–192</td>
<td></td>
<td>Unltd</td>
<td>Mon–Fri 1700–0800Z, Sat–Sun 1800–0200Z</td>
<td>FAA, Honolulu Control Facility</td>
<td>FACSFAC PH, Pearl Harbor, HI</td>
</tr>
</tbody>
</table>
### SPECIAL USE AIRSPACE

(Continued from preceding page)

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Altitude</th>
<th>Time</th>
<th>Controlling Agency</th>
<th>Using Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>W–196</td>
<td>to 2,000’</td>
<td>on–Fri</td>
<td>1700–0800Z</td>
<td>FAA, Honolulu Control Facility</td>
<td>FACS FAC PH, Pearl Harbor, HI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sat–Sun</td>
<td>1800–0200Z</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other times by NOTAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W–517</td>
<td>Guam</td>
<td>Unltd</td>
<td>By NOTAM</td>
<td>FAA GUAM CERAP</td>
<td>Commander Joint Region Marianas</td>
</tr>
<tr>
<td>R–3101</td>
<td>PMRF Barking Sands 4</td>
<td>Unltd</td>
<td>Mon–Fri 1600–0400Z</td>
<td>FAA, Honolulu Control Facility</td>
<td>CO Pacific Missile Range Fac</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other times by NOTAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R–3103</td>
<td>Humuula</td>
<td>to 30,000’</td>
<td>By NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>Commandering Gen. US Army Schofield Barracks, HI</td>
</tr>
<tr>
<td>R–3107</td>
<td>Kaula Rock</td>
<td>to 18,000’</td>
<td>Mon–Fri 1700–0800Z</td>
<td>FAA, Honolulu Control Facility</td>
<td>FACS FAC PH, Pearl Harbor, HI issued at least 24 hours in advance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sat–Sun 1800–0200Z,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>other times by NOTAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R–3109A</td>
<td>Schofield–Makua</td>
<td>8,999’</td>
<td>By NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>US Army Schofield Barracks, HI</td>
</tr>
<tr>
<td>R–3109B</td>
<td>Schofield–Makua</td>
<td>9,000’ to 18,999’</td>
<td>Intermittent</td>
<td>FAA, Honolulu Control Facility</td>
<td>US Army Schofield Barracks, HI</td>
</tr>
<tr>
<td>R–3109C</td>
<td>Schofield–Makua</td>
<td>8,999’</td>
<td>By NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>US Army Schofield Barracks, HI</td>
</tr>
<tr>
<td>R–3110A</td>
<td>Schofield–Makua</td>
<td>8,999’</td>
<td>By NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>US Army Schofield Barracks, HI</td>
</tr>
<tr>
<td>R–3110B</td>
<td>Schofield–Makua</td>
<td>9,000’ to 18,999’</td>
<td>Intermittent</td>
<td>FAA, Honolulu Control Facility</td>
<td>US Army Schofield Barracks, HI</td>
</tr>
<tr>
<td>R–3110C</td>
<td>Schofield–Makua</td>
<td>8,999’</td>
<td>By NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>Honolulu Twr</td>
</tr>
<tr>
<td>R–7201</td>
<td>Farallon de Medinilla Is.</td>
<td>To FL600</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Marianas</td>
</tr>
<tr>
<td>R–7201A</td>
<td>Farallon de Medinilla Is.</td>
<td>To FL600</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Marianas</td>
</tr>
</tbody>
</table>

Altitude given in feet.  
P—Prohibited     
R—Restricted     
A—Alert         
W—Warning

Unauthorized flight is not permitted within a Prohibited Area, or within a Restricted Area during the time of use and between the altitudes noted in the tabulation. In Warning Areas flights are not restricted, but avoidance is advised during use.

(Authorization may be granted by the controlling agency or by Executive Order of the President).
### ASSOCIATED DATA

#### KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

<table>
<thead>
<tr>
<th>TAF</th>
<th>Message type: TAF-routine or TAF AMD-amended forecast, METAR-hourly, SPECI-special or TESTM-non-commissioned ASOS report</th>
<th>Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPIT</td>
<td>ICAO location indicator</td>
<td>KPIT</td>
</tr>
<tr>
<td>091730Z</td>
<td>Issuance time: ALL times in UTC &quot;Z&quot;, 2-digit date, 4-digit time</td>
<td>METAR</td>
</tr>
<tr>
<td>091818</td>
<td>Valid period: 2-digit date, 2-digit beginning, 2-digit ending times</td>
<td>METAR</td>
</tr>
<tr>
<td>15005KT</td>
<td>In U.S. METAR: CORrected ob; or AUTOmated ob for automated report with no human intervention; omitted when observer logs on</td>
<td>METAR</td>
</tr>
<tr>
<td>5SM</td>
<td>Wind: 3 digit true-north direction, nearest 10 degrees (or VaRiaBle); next 2-3 digits for speed and unit, KT (KMH or MPS); as needed, Gust and maximum speed; 00000KT for calm; for METAR, if direction varies 60 degrees or more, Variability appended, e.g. 180V260</td>
<td>METAR</td>
</tr>
<tr>
<td>HZ</td>
<td>Prevailing visibility: in U.S., Statute Miles &amp; fractions; above 6 miles in TAF Plus6SM. (Or, 4-digit minimum visibility in meters and as required, lowest value with direction)</td>
<td>METAR</td>
</tr>
<tr>
<td>FEW020</td>
<td>Runway Visual Range: R; 2-digit runway designator Left, Center, or Right as needed; &quot;0&quot;; Minus or Plus in U.S., 4-digit value, FeeT in U.S., (usually meters elsewhere); 4-digit value Variability 4-digit value (and tendency Down, Up or No change)</td>
<td>METAR</td>
</tr>
<tr>
<td>OVC010CB</td>
<td>Significant present, forecast and recent weather: see table (on back)</td>
<td>METAR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TAF</th>
<th>Message type: TAF-routine or TAF AMD-amended forecast, METAR-hourly, SPECI-special or TESTM-non-commissioned ASOS report</th>
<th>Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEW020</td>
<td>Cloud amount, height and type: SKy Clear 0/8, FEW &gt;0/8-2/8, SCAtiered 3/8-4/8, BroKeN 5/8-7/8, OVerCast 8/8; 3-digit height in hundreds of ft; Towering CUMulus or Cumulonimbus in METAR; in TAF, only CB. Vertical Visibility for obscured sky and height &quot;V004&quot;. More than 1 layer may be reported or forecast. In automated METAR reports only, CLeaR for &quot;clear below 12,000 feet&quot;</td>
<td>METAR</td>
</tr>
<tr>
<td>OVC010CB</td>
<td>Temperature: degrees Celsius; first 2 digits, temperature &quot;0&quot; last 2 digits, dew-point temperature; Minus for below zero, e.g., M06</td>
<td>METAR</td>
</tr>
<tr>
<td>A2992</td>
<td>Altimeter setting: indicator and 4 digits; in U.S., A-inches and hundredths; (Q- hectoPascals, e.g., Q1013)</td>
<td>METAR</td>
</tr>
</tbody>
</table>

PAC, 5 NOV 2020 to 31 DEC 2020
### ASSOCIATED DATA

**KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)**

<table>
<thead>
<tr>
<th>Forecast</th>
<th>Explanation</th>
<th>Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>WS010/31022KT</td>
<td>In U.S. TAF, non-convective low-level (≤2,000 ft) Wind Shear; 3-digit height (hundreds of ft); <em>&quot;</em>; 3-digit wind speed and direction and 2-3 digit wind speed above the indicated height, unit, KT</td>
<td>RMK</td>
</tr>
<tr>
<td></td>
<td>In METAR, ReMark indicator &amp; remarks. For example: Sea-Level Pressure in hectoPascals &amp; tenths, as shown: 1004.5 hPa; Temp/dew-point in tenths °C, as shown: temp. 18.2°C, dew-point 15.9°C</td>
<td>SLP045</td>
</tr>
<tr>
<td>FM1930</td>
<td>From and 2-digit hour and 2-digit minute beginning time: indicates significant change. Each FM starts on new line, indented 5 spaces.</td>
<td>T01820159</td>
</tr>
<tr>
<td>TEMPO 2022</td>
<td>TEMPOrary: changes expected for &lt; 1 hour and in total, &lt; half of 2-digit hour beginning and 2-digit hour ending time period</td>
<td></td>
</tr>
<tr>
<td>PROB40 0407</td>
<td>PROBability and 2-digit percent (30 or 40): probable condition during 2-digit hour beginning and 2-digit hour ending time period</td>
<td></td>
</tr>
<tr>
<td>BECMG 1315</td>
<td>BECoMinG: change expected during 2-digit hour beginning and 2-digit hour ending time period</td>
<td></td>
</tr>
</tbody>
</table>

Table of Significant Present, Forecast and Recent Weather - Grouped in categories and used in the order listed below; or as needed in TAF, No Significant Weather.

### QUALIFIER

**Intensity or Proximity**
- Light *"no sign"* Moderate + Heavy
  - VC Vicinity: but not at aerodrome; in U.S. METAR, between 5 and 10SM of the point(s) of observation; in U.S. TAF, 5 to 10SM from center of runway complex (elsewhere within 8000m)

### Descriptor
- MI Shallow
- BL Blowing
- BC Patches
- SH Showers
- PR Partial
- DR Drifting
- TS Thunderstorm
- FZ Freezing

### WEATHER PHENOMENA

**Precipitation**
- DZ Drizzle
- IC Ice crystals
- RA Rain
- PL Ice pellets
- SN Snow
- GR Hail
- SG Snow grains
- GS Small hail/snow pellets

**Obscuration**
- BR Mist (≥5/8SM)
- SA Sand
- FG Fog (≤5/8SM)
- HZ Haze
- FU Smoke
- BU Spray
- VA Volcanic ash
- DU Dusky
dust/sand whirls

**Other**
- SQ Squall
- SS Sandstorm
- FS Funnel cloud
- DS Duststorm
- PO Well developed

- Explanations in parentheses *"* indicate different worldwide practices.
- Ceiling is not specified; defined as the lowest broken or overcast layer, or the vertical visibility.
- NWS TAFs exclude turbulence, icing & temperature forecasts; NWS METARs exclude trend fcst.
- Although not used in US, Ceiling And Visibility QK replaces visibility, weather and clouds if; visibility ≥10 km; no cloud below 5000 ft (1500 m) or below the highest minimum sector altitude, whichever is greater and no CB; and no precipitation, TS, DS, SS, MIFG, DRDU, DRSA or DRSN.

**UNITED STATES DEPARTMENT OF COMMERCE**

NOAA/PA 96052 National Oceanic and Atmospheric Administration—National Weather Service

PAC, 5 NOV 2020 to 31 DEC 2020
PIREP FORM

<table>
<thead>
<tr>
<th>3 or 4 letter Identifier</th>
<th>1. UA UUA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td></td>
</tr>
<tr>
<td>Altitude/Flight Level</td>
<td></td>
</tr>
<tr>
<td>Aircraft Type</td>
<td></td>
</tr>
</tbody>
</table>

Items 1 through 5 are mandatory for all PIREPs

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sky Condition</td>
<td></td>
</tr>
<tr>
<td>Flight Visibility &amp; Weather</td>
<td></td>
</tr>
<tr>
<td>Temperature (Celsius)</td>
<td></td>
</tr>
<tr>
<td>Wind</td>
<td></td>
</tr>
<tr>
<td>Turbulence</td>
<td></td>
</tr>
<tr>
<td>Icing</td>
<td></td>
</tr>
<tr>
<td>Remarks</td>
<td></td>
</tr>
</tbody>
</table>

FAA Form 7110-2 (W19) Supersedes Previous Edition

PAC, 5 NOV 2020 to 31 DEC 2020
Associating Data

Submitting Pilot Weather Reports (PIREPs)

1. UA - Routine PIREP / UUA - Urgent PIREP

2. /OV - Location: Use Airport or NAVAID identifiers only.
   - Location can be reported as a single fix, radial DME, or a route segment (Fix- Fix)
   Examples: /OV LAX, /OV LAX-SL1120005, /OV PDZ-PSP.

3. /TM – Time: When conditions occurred or were encountered.
   - Use 4 digits in UTC.
   Examples: /TM 1645, /TM 0915

4. /FL - Altitude/Flight Level
   - Use 3 digits for hundreds of feet. If not known, use UNKN.
   Examples: /FL095, /FL310, /FLUNKN

5. /TP - Type aircraft: Required if reporting Turbulence or Icing
   - No more than 4 characters, use UNKN if the type is not known.
   Examples: /TP P28A, /TP RV8, /TP B738, /TP UNKN

6. /SK – Sky Condition/Cloud layers:
   - Report cloud coverage using contractions: FEW, SCT, BKN, OVC, SKC
   - Report bases in hundreds of feet: BKN005, SCT015, OVC200
   - If bases are unknown, use UNKN
   - Report cloud tops in hundreds of feet: TOP120
   Examples: /SK BKN035, /SK SCT UNKN-TOP125, /SK OVC095-TOP125/ SKC

7. /WX - Weather: Flight visibility is always reported first. Append FV reported with SM.
   - Report visibility using 2 digits: FV01SM, FV10SM
   - Unrestricted visibility use FV99SM.
   Examples: /WX FV01SM +SHRA, /WX FV10 SM -RA BR.

8. /TA - Air temperature (Celsius): Required when reporting icing
   - 2 digits, unless below zero, then prefix digits with M.
   Examples: /TA 15, /TA 04 /TA M06

9. /WV - Wind: Direction in 3 digits, speed in 3 or 4 digits, followed by KT.
   Examples: /WV 270045KT, /WV 080110KT

10. /TB - Turbulence:
    - Report intensity using LGT, MOD, SEV, or EXTRM
    - Report duration using INTMT, OCNL or CONS when reported by pilot.
    - Report type using CAT or CHOP when reported by pilot.
    - Include altitude only if different from /FL.
    - Use ABV or BLO when limits are not defined.
    - Use NEG if turbulence is not encountered.
    Examples: /TB OCNL MOD, /TB LGT CHOP, /LG 060, /TB MOD BLO 090, / TB NEG

11. /IC - Icing:
    - Report intensity using TRACE, LGT, MOD or SEV
    - Report type using RIME, CLR, or MX
    - Include altitude only if different from /FL.
    - Use NEG if icing not encountered.
    Examples: /IC LGT-MOD RIME, /IC SEV CLR 028-045, /IC NEG

12. /RM - Remarks: Use to report phenomena that does not fit in any other field.
    - Report the most hazardous element first.
    - Name of geographic location from /OV field fix.
    Examples: /RM LLWS +/-15KT SFC-003 DURC RWY22 JFK

Examples of Completed PIREPS

UA /OV RFD /TM 1315 /FL160 /TP PA44 /SK OVC025-TOP095/OVC150 /TA M12 /TB INTMT LGT CHOP
UA /OV DHT360015-AMA /TM 2116 /FL050 /TP PA32 /SK BKN090 /WX FV05SM -RA /TA 04 /TB LGT /IC NEG
UUA /OV PDZ010018 /TM 1520 /FL125 /TP C172 /WX 270048KT TB SEV 055-085 /RM CAJON PASS

PAC, 5 NOV 2020 to 31 DEC 2020
FLIGHT SERVICE STATIONS
NATIONAL WEATHER SERVICE OFFICES

Flight Service Station (FSS) facilities process flight plans and provide flight planning and weather briefing services to pilots. FSS services in the contiguous United States, Hawaii and Puerto Rico, are provided by a contract provider at two large facilities. In Alaska, FSS services are delivered through a network of three hub facilities and 14 satellite facilities, some of which operate part-time and some are seasonal. Because of the interconnectivity between the facilities, all FSS services including radio frequencies are available continuously using published data.

National Weather Service Office (WSO): Only general weather information is available on the National Weather Service Office (WSO) telephone numbers listed. NOTE: National Weather Service Offices in the United States are not authorized to provide official Pilot Weather Briefings.

NATIONAL FSS TELEPHONE NUMBER

Pilot Weather Briefings ................................. 1–800–WX–BRIEF (1–800–992–7433) *

OTHER FSS TELEPHONE NUMBERS


<table>
<thead>
<tr>
<th>Location</th>
<th>Frequencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honolulu, Oahu</td>
<td>117.7T (LNY) 116.9T (ITO) 116.1T (MKK) 115.7T (IAI) 114.8T (HNL) 114.3T</td>
</tr>
<tr>
<td></td>
<td>(OGG) 113.5T (LIH) 113.3T (MUE) 112.3T (UPP) 115.4T (SOK) 123.6 122.6</td>
</tr>
<tr>
<td></td>
<td>122.2 122.1R 255.4 296.7 233.7</td>
</tr>
</tbody>
</table>

Remarks:
FSS—1–800–WX–BRIEF, available 24 hours.
WSO—973–5286, operates 24 hours.
Surface weather reports available on request via air/ground voice communication frequencies.
Best VHF enroute communication coverage due to location of RCO sites:
122.2–Molokai & Lanai routes, 122.6–Lihue routes, 123.6–Maui & Hawaii routes
Volmet broadcast, Honolulu area 00–05 and 30–35, Oakland area 5–10 and 35–40, Anchorage area 55–00 and 25–30, each hr on 2863 6679 8828 13282.
Honolulu Volmet forecast Sequence–Honolulu/Hilo/Guam.
Routine and selected special reports–Honolulu/Hilo/Kahului/Guam.
Terminal forecast–Honolulu/Hilo/Guam.

Hilo WSO—933–6941, operates 1000–0200Z.
Lihue WSO—245–2420, operates 1000–0200Z.

R–Receive only T–Transmit only
Emerg Freq. 121.5 and 243.0 are available at most stations and are not tabulated.
* Outer Islands may be required to dial LD 808–833–8440 for FSS weather briefing and flight planning svc.
### Key Air Traffic Facilities

**Air Traffic Control System Command Center**

Main Number: 540-422-4100

### RGNL Air Traffic Divisions

<table>
<thead>
<tr>
<th>Region</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaskan</td>
<td>907-271-5464</td>
</tr>
<tr>
<td>Central</td>
<td>816-329-2500</td>
</tr>
<tr>
<td>Eastern</td>
<td>718-553-4502</td>
</tr>
<tr>
<td>Great Lakes</td>
<td>847-294-7202</td>
</tr>
<tr>
<td>New England</td>
<td>781-238-7500</td>
</tr>
<tr>
<td>Northwest Mountain</td>
<td>425-227-2500</td>
</tr>
<tr>
<td>Southern</td>
<td>404-305-5500</td>
</tr>
<tr>
<td>Southwest</td>
<td>817-222-5500</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>310-725-6500</td>
</tr>
</tbody>
</table>

### Air Route Traffic Control Centers (ARTCCs)

<table>
<thead>
<tr>
<th>ARTCC Name</th>
<th>*24 HR RGNL Duty Office</th>
<th>Business Hours</th>
<th>Business Telephone</th>
<th>**Clearance Delivery Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albuquerque</td>
<td>817-222-5006</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>505-856-4300</td>
<td>505-856-4561</td>
</tr>
<tr>
<td>Anchorage</td>
<td>907-271-5936</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>907-269-1137</td>
<td>907-269-1137</td>
</tr>
<tr>
<td>Atlanta</td>
<td>404-305-5180</td>
<td>7:30 a.m.–5:00 p.m.</td>
<td>770-210-7601</td>
<td>770-210-7692</td>
</tr>
<tr>
<td>Boston</td>
<td>404-305-5156</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>617-455-3100</td>
<td>603-879-6859</td>
</tr>
<tr>
<td>Chicago</td>
<td>817-222-5006</td>
<td>8:00 a.m.–4:00 p.m.</td>
<td>630-906-8221</td>
<td>630-906-8921</td>
</tr>
<tr>
<td>Cleveland</td>
<td>817-222-5006</td>
<td>8:00 a.m.–4:00 p.m.</td>
<td>440-774-0310</td>
<td>440-774-0490</td>
</tr>
<tr>
<td>Denver</td>
<td>206-231-2099</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>303-651-4100</td>
<td>303-651-4257</td>
</tr>
<tr>
<td>Ft. Worth</td>
<td>817-222-5006</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>817-858-7500</td>
<td>817-858-7584</td>
</tr>
<tr>
<td>Honolulu</td>
<td>310-725-3000</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>808-840-6100</td>
<td>808-840-6201</td>
</tr>
<tr>
<td>Houston</td>
<td>817-222-5006</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>281-230-5300</td>
<td>281-230-5622</td>
</tr>
<tr>
<td>Indianapolis</td>
<td>817-222-5006</td>
<td>8:00 a.m.–4:00 p.m.</td>
<td>317-247-2231</td>
<td>317-247-2411</td>
</tr>
<tr>
<td>Jacksonville</td>
<td>404-305-5180</td>
<td>8:00 a.m.–4:30 p.m.</td>
<td>904-549-1501</td>
<td>904-845-1592</td>
</tr>
<tr>
<td>Kansas City</td>
<td>817-222-5006</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>913-254-8500</td>
<td>913-254-8508</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>661-265-8200</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>661-265-8200</td>
<td>661-575-2079</td>
</tr>
<tr>
<td>Memphis</td>
<td>404-305-5180</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>901-368-8103</td>
<td>901-368-8453</td>
</tr>
<tr>
<td>Miami</td>
<td>404-305-5180</td>
<td>7:00 a.m.–3:30 p.m.</td>
<td>305-716-1500</td>
<td>305-716-1731</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>817-222-5006</td>
<td>8:00 a.m.–4:00 p.m.</td>
<td>651-463-5580</td>
<td>651-463-5588</td>
</tr>
<tr>
<td>New York</td>
<td>718-995-5426</td>
<td>8:00 a.m.–4:40 p.m.</td>
<td>631-468-1001</td>
<td>631-468-1425</td>
</tr>
<tr>
<td>Oakland</td>
<td>310-725-3000</td>
<td>6:30 a.m.–3:00 p.m.</td>
<td>510-745-3331</td>
<td>510-745-3380</td>
</tr>
<tr>
<td>Salt Lake City</td>
<td>206-231-2099</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>801-320-2500</td>
<td>801-320-2568</td>
</tr>
<tr>
<td>San Juan</td>
<td>404-305-5180</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>787-253-8663</td>
<td>787-253-8664</td>
</tr>
<tr>
<td>Seattle</td>
<td>206-231-2099</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>253-351-3500</td>
<td>253-351-3694</td>
</tr>
<tr>
<td>Washington</td>
<td>718-995-5426</td>
<td>8:00 a.m.–4:30 p.m.</td>
<td>703-771-3401</td>
<td>703-771-3587</td>
</tr>
</tbody>
</table>

*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

For use when numbers or frequencies are not listed in the airport listing.

### Major Terminal Radar Approach Controls (TRACONs)

<table>
<thead>
<tr>
<th>TRACON Name</th>
<th>*24 HR RGNL Duty Office</th>
<th>Business Hours</th>
<th>Business Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlanta</td>
<td>404-305-5180</td>
<td>7:00 a.m.–3:30 p.m.</td>
<td>404-669-1200</td>
</tr>
<tr>
<td>Chicago</td>
<td>817-222-6006</td>
<td>8:00 a.m.–4:00 p.m.</td>
<td>847-608-5509</td>
</tr>
<tr>
<td>Dallas/Ft. Worth</td>
<td>817-222-6006</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>972-615-2500</td>
</tr>
<tr>
<td>Denver</td>
<td>425-227-1389</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>303-342-1500</td>
</tr>
<tr>
<td>Houston</td>
<td>817-222-5006</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>281-230-8400</td>
</tr>
<tr>
<td>New York</td>
<td>718-995-5426</td>
<td>8:00 a.m.–4:30 p.m.</td>
<td>516-683-2901</td>
</tr>
<tr>
<td>Northern CA</td>
<td>310-725-3000</td>
<td>7:00 a.m.–3:30 p.m.</td>
<td>916-366-4001</td>
</tr>
<tr>
<td>Potomac</td>
<td>718-995-5426</td>
<td>8:00 a.m.–4:30 p.m.</td>
<td>540-349-7500</td>
</tr>
<tr>
<td>Southern CA</td>
<td>310-725-3000</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>858-537-5800</td>
</tr>
</tbody>
</table>

* Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

PAC, 5 Nov 2020 to 31 Dec 2020
<table>
<thead>
<tr>
<th>AIRPORT NAME</th>
<th>*24 HR RGNL DUTY OFFICE</th>
<th>BUSINESS HOURS</th>
<th>BUSINESS TELEPHONE #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albuquerque Intl Sunport, NM</td>
<td>817-222-5006</td>
<td>8:00 a.m.–5:00 p.m.</td>
<td>505-842-4366</td>
</tr>
<tr>
<td>Andrews AFB, MD</td>
<td>718-995-5426</td>
<td>8:00 a.m.–4:30 p.m.</td>
<td>301-735-2380</td>
</tr>
<tr>
<td>Baltimore/Washington Intl Thurgood Marshall, MD</td>
<td>718-995-5426</td>
<td>8:00 a.m.–4:30 p.m.</td>
<td>410-962-3555</td>
</tr>
<tr>
<td>Boston Logan Intl, MA</td>
<td>404-305-5156</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>617-561-5901</td>
</tr>
<tr>
<td>Bradley Intl, CT</td>
<td>404-305-5156</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>203-627-3428</td>
</tr>
<tr>
<td>Burbank/Bob Hope, CA</td>
<td>301-725-3300</td>
<td>7:00 a.m.–5:30 p.m.</td>
<td>818-567-4806</td>
</tr>
<tr>
<td>Charlotte Douglas Intl, NC</td>
<td>404-305-5180</td>
<td>8:00 a.m.–4:30 p.m.</td>
<td>704-344-6487</td>
</tr>
<tr>
<td>Chicago Midway, IL</td>
<td>817-222-5006</td>
<td>8:00 a.m.–4:00 p.m.</td>
<td>773-884-3670</td>
</tr>
<tr>
<td>Chicago O'Hare Intl, IL</td>
<td>817-222-5006</td>
<td>8:00 a.m.–4:00 p.m.</td>
<td>773-601-7600</td>
</tr>
<tr>
<td>Cleveland Hopkins Intl, OH</td>
<td>817-222-5006</td>
<td>8:00 a.m.–4:00 p.m.</td>
<td>216-352-2000</td>
</tr>
<tr>
<td>Covington/Cincinnati, OH</td>
<td>708-294-7401</td>
<td>8:00 a.m.–4:30 p.m.</td>
<td>606-767-1006</td>
</tr>
<tr>
<td>Dallas/Ft. Worth Intl, TX</td>
<td>817-222-5006</td>
<td>8:30 a.m.–5:00 p.m.</td>
<td>972-615-2531</td>
</tr>
<tr>
<td>Dayton Cox Intl, OH</td>
<td>817-222-5006</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>937-454-7300</td>
</tr>
<tr>
<td>Denver Intl, CO</td>
<td>425-227-1389</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>303-342-1600</td>
</tr>
<tr>
<td>Detroit Metro, MI</td>
<td>817-222-5006</td>
<td>8:00 a.m.–4:00 p.m.</td>
<td>734-955-5000</td>
</tr>
<tr>
<td>Fairbanks Intl, AK</td>
<td>907-271-5936</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>907-474-0050</td>
</tr>
<tr>
<td>Fort Lauderdale Intl, FL</td>
<td>404-305-5180</td>
<td>7:00 a.m.–3:30 p.m.</td>
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* Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

PAC, 5 NOV 2020 to 31 DEC 2020
Military Training Routes

1. National security depends largely on the deterrent effect of our airborne military forces. To be proficient, the military services must train in a wide range of airborne tactics. One phase of this training involves “low level” combat tactics. The required maneuvers and high speeds are such that they may occasionally make the see-and-avoid aspect of VFR flight more difficult without increased vigilance in areas containing such operations. In an effort to ensure the greatest practical level of safety for all flight operations, the Military Training Route program was conceived.

2. The Military Training Routes (MTR) program is a joint venture by the FAA and the Department of Defense (DOD). MTR routes are mutually developed for use by the military for the purpose of conducting low-altitude, high-speed training. There are IFR (IR) routes located in the Marianas Islands. These routes are flown from FL200 or as assigned by ATC to 1,000 feet MSL. Points of entry/exit and altitudes along the route are charted for use in preflight pilot briefings. Pilots should review this information to acquaint themselves with these routes that are located along their route of flight and in the vicinity of airports on Guam, Rota, Tinian, and Saipan.

3. Non participating aircraft are not prohibited from flying within an MTR, however, extreme vigilance should be exercised when conducting flight through or near these routes. Pilots should contact Guam CERAP or Saipan radio to obtain information on route usage in their vicinity.

4. Marianas Islands Military Training Routes are also published in the Mariana Islands Sectional Aeronautical Chart, the DOD Flight Information Publication (enroute), Chart 1, Panel B and the DOD FLIP are planning document AP/3.
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PAC, 5 Nov 2020 to 31 Dec 2020
**HOT SPOTS**

An “Airport surface hot spot” is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/driver is necessary.

A “hot spot” is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as “HS 1”, “HS 2”, etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

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<td>Rwy 04R/Rwy 04L thresholds: wrong sfc ldg risk. Pilots cleared to land Rwy 04L or 04R sometimes land on the wrong rwy.</td>
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<td>DANIEL K INOuye INTL (HNL) (PHNL)</td>
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<td></td>
<td>HS 3</td>
<td>Acft proceeding north on Twy E and instructed to turn left onto Twy B sometimes miss the turn onto Twy B and proceed onto Rwy 08L–26R without clearance.</td>
</tr>
<tr>
<td></td>
<td>HS 4</td>
<td>Twy A, Twy V, Twy T, Twy RB, and Twy M all converge at or in close proximity to Rwy 08L.</td>
</tr>
<tr>
<td></td>
<td>HS 5</td>
<td>Area not visible from twr.</td>
</tr>
<tr>
<td></td>
<td>HS 6</td>
<td>Minimal dist btw rwy hold short lines btw Rwy 04L–22R/Rwy 04R–22L. Plan to hold short of the parl rwy. ATC is aware the actf tail is encroaching the landed rwy.</td>
</tr>
<tr>
<td>KAHULUI</td>
<td>HS 1</td>
<td>Acft ldg Rwy 05 and instructed to exit on Twy A with a left turn onto Twy F to the east ramp, sometimes turn left onto Twy G by mistake.</td>
</tr>
<tr>
<td>KAHULUI (OGG) (PHOG)</td>
<td>HS 2</td>
<td>Rwy holding position marking Rwy 02–20 located at the intersection of Twy E and the ramp.</td>
</tr>
<tr>
<td></td>
<td>HS 3</td>
<td>Acft ldg Rwy 02 that are instructed to exit left on Twy A sometimes cross Rwy 05–23 wo cinc.</td>
</tr>
<tr>
<td>KAUNAKAKAI</td>
<td>HS 1</td>
<td>Area not visible from ctf twr.</td>
</tr>
<tr>
<td>MOLOKAI (MKK) (PHMK)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PAC, 5 NOV 2020 to 31 DEC 2020
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132 PROCEDURES

FLIGHT PLANS

1. Requirement for Flight Plan Filing

ICAO Annex 2 requires a flight plan to be submitted for any flight across international borders. This permits en route stations and the destination station to render better service by having prior knowledge of flights. Aircraft on VFR flight plans must make regular position reports to ATC for flight following, weather safety advisories, and prompt search and rescue action in the proper area if necessary. Flight plans may be submitted to Flight Service through www.1800wxbrief.com, any flight planning application, or by calling 1-800-WX-BRIEF. Aircraft radio may be used if no other means are available. If Flight Service cannot be reached, ARINC will relay flight plans received via HF radio to Oakland ARTCC.

2. Flight Plan Filing Time Requirement

Due to the critical workload in the processing of flight data and the increased time in transit due to the volume of messages it is strongly recommended that ICAO flight plan messages be filed and transmitted to the appropriate Control Center not less than one hour before estimated time of departure.

3. Filing Mach Number in Flight Plan

a. For oceanic departures, Mach speed and flight level should be specified in the flight plan in one of the following ways:

b. Preferred method: Mach number and flight level immediately preceding the initial domestic portion of the route of flight.

Example of Item 15 of ICAO Flight Plan for Honolulu to San Francisco:
M084F340 MOLOKAI 3 CLUTS R465 CLUKK/N0494F360 OSI

4. Filing an EET in Flight Plan

In accordance with ICAO DOC–4444, flight plans with routes entering the Oakland OCA/FIR (KZAK), must contain the elapsed time (EET) in field 18, an entry point for KZAK and an estimated time. It is not mandatory to file the boundary crossing point in filed 15 of the route of flight but it is permitted.
ALTIMETER SETTING
OAKLAND OCEANIC FIR

1. Each person operating an aircraft shall maintain the cruising altitude or flight level of the aircraft by reference to an altimeter that is set:

2. Within the Hawaiian Islands domestic area, within 100 NM of the Nimitz VORTAC, and within 35 NM of Saipan NDB:
   a. At FL180 and above, to standard altimeter setting 29.92 inches of mercury (QNE).
   b. Below 18,000' MSL, to current altimeter setting (QNH).

3. Within all other areas of the Oakland OCA/FIR, at or above 5,500' MSL, to standard altimeter setting 29.92 inches of mercury (QNE).

AIR TRAFFIC CONTROL RADAR BEACON SYSTEM (ATCRBS)

1. ATCRBS is similar to and compatible with military coded radar beacon equipment. Civil Mode A is identical to military Mode 3. The Radar Beacon Code Employment Plan is designed to minimize the number of code changes and to enable a controller to display and quickly identify only those Mode 3/A responses from aircraft operating within his area of jurisdiction.

2. Accordingly, pilots of aircraft equipped with a functioning coded radar beacon transponder, and operating on an IFR flight plan in an area covered by radar, will be instructed by ATC to reply on the appropriate code. Flights assigned a particular code by ATC are expected to remain on that code until further advised by ATC. (See also Beacon Code Requirements within this section.) Within the Hawaiian Islands domestic area and the Guam ADIZ, pilots of aircraft equipped with functioning coded radar beacon transponder will adjust their transponders to reply on Mode 3/A codes specified below, unless a different code has been assigned by advance coordination or via direct communication with ATC. If possible, coordination shall be effected with the appropriate ATC facility when special military operations preclude compliance with this requirement.
   a. Code 4000 – For all operations within restricted/warning areas.
   b. Code 1200 – For all VFR operations not being provided radar services by ATC facilities.

3. Should the pilot of an aircraft equipped with a coded radar beacon transponder experience a loss of two-way radio capability he should:
   a. Adjust his transponder to reply on Mode A/3, Code 7700 for a period of 1 minute.
   b. Change to Code 7600 and remain on 7600 for period of 15 minutes or the remainder of flight, whichever occurs first.
   c. Repeat steps a and b, as practicable.

4. The pilot should understand that he might not be in an area of radar coverage. Many radar facilities are not presently equipped to automatically display Code 7600 and will interrogate 7600 only when the aircraft is under direct radar control at the time of radio failure. Replying on Code 7700 first increases the probability of early detection of a radio failure condition.

OCEANIC POSITION REPORTING PROCEDURES
OAKLAND OCEANIC FIR

1. GENERAL

For non ADS equipped aircraft, any waypoint filed in the route of flight (Item 15 of the ICAO flight plan) must be reported as a position report whether the filed waypoint is compulsory or not. If a non-compulsory waypoint is not filed in item 15, it does not need to be reported.

2. POSITION REPORTS

   a. When operating on a published ATS Route or a temporary route established by NOTAM, report and estimate the designated reporting points using the specified waypoint names or geographic coordinates as specified in the NOTAM.
   b. When operating on a random route:
      (1) Flights whose tracks are predominantly east and west shall report over each 5 degrees or 10 degrees (10 degrees will be used if the speed of the aircraft is such that 10 degrees will be traversed within 80 minutes or less) meridian longitude extending east and west from 180 degrees.
      (2) Flights whose tracks are predominantly north and south shall report over each 5 degrees or 10 degrees (10 degrees if traversed within 80 minutes) parallel of latitude extending north and south of the equator.
   c. ATC may require specific flights to report more frequently than each 5 degrees for aircraft with slow ground speeds.
   d. Position reports shall be transmitted at the time of crossing the designated reporting point or as soon thereafter as possible.

3. CONTENTS OF POSITION REPORT

Position reports shall include information on present position, estimated next position, and ensuing position in sequence as indicated below.

   a. PRESENT POSITION – Information shall include:
      (1) The word “position.”
      (2) Aircraft identification.
      (3) Reporting point name, or if not named:
         (a) Latitude (2 digits or more) and,
         (b) Longitude (3 digits or more).
   b. Time over reporting point (4 digits UTC).
c. Altitude (Flight Level). When forwarding an altitude report within the Oakland OCA/FIR, pilots should report their present altitude and their assigned altitude exactly as cleared if the present and assigned altitudes differ. Aircraft assigned a block altitude must report their current altitude and the assigned block altitude. A restriction to cross a point at an altitude is not a block altitude assignment and should not be reported as a block of altitudes.

d. ESTIMATED NEXT POSITION
   (1) Reporting point name, or if not named, latitude and longitude as in a.3 above and,
   (2) Estimated time over next position (4 digits UTC).

e. ENSUING FIX
   (1) Name only of the next succeeding fix whether compulsory or not, or if not named, latitude and longitude as in a.3 above.

4. WEATHER REPORTS
   a. Weather reports shall be included as provided in Section 3 of Standard AIREP Form by all flights unless exempted from weather reporting by the Weather Service and/or ATC.

5. ADHERENCE TO ATC APPROVED ROUTE
   a. If an aircraft, notwithstanding all action taken to adhere to the route specified in the ATC clearance, inadvertently deviates from this route, action shall be taken to regain it as soon as reasonable and not further ahead than 200 nautical miles from the DR position at which the heading was altered to regain the route specified in the ATC clearance. Action to regain this route shall not be delayed in anticipation of obtaining a requested re-clearance.

6. EXCEPTIONS TO POSITION REPORTING PROCEDURES
   a. Within Oakland OCA/FIR, no 5 degree report need be made that would fall within 100 NM of Guam. Aircraft cleared via terminal area routes report compulsory reporting fixes. Other aircraft report 100 NM from Nimitz VORTAC. Where other island destinations within the Oakland Oceanic FIR are not more than one-degree latitude-longitude from a 5 degrees fixed line reporting point, the ETA and arrival report may be substituted in lieu of the adjacent fixed line report.
   b. To the east of the Hawaiian Islands it will not be necessary to report the 155 degree west position if position will be reported at the entry/exit fixes on the Honolulu Control Facility boundary. To the west of the Hawaiian Islands, the 160 degree west need not be reported.

7. POSITION REPORTS OVER OAKLAND OCEANIC OCA/FIR BOUNDARIES
   a. Aircraft entering the Oakland OCA/FIR are requested to forward boundary position reports via ARINC or CPDLC as follows:
      (1) Boundary fixes that are compulsory reporting points.
      (2) Filed fixes when they coincide with the FIR Boundary.
      (3) The boundary between the Manila, Ujung Pandang, Port Moresby and Nauru FIR's and the Oakland OCA/FIR.
      (4) The boundary of the Open Area Uncontrolled Airspace west of Mazatlan ACC and the Oakland OCA/FIR along 120 degrees west longitude.
      (5) Outbound from the Guam CERAP area at the 250 NM ARC from the UNZ VORTAC.
      (6) Eastbound PACOTS Flights should report only those fixes detailed in the published route.
      (7) When requested by ATC.
   b. Aircraft leaving the lateral limits of the Oakland OCA/FIR and entering uncontrolled airspace shall forward the time over the boundary outbound.

PAC, 5 NOV 2020 to 31 DEC 2020
CLIMB TIMES/CHANGE OF FLIGHT LEVEL
OAKLAND OCEANIC FIR

1. CLIMB TIMES
A distinction should be made between the time at which higher flight level is requested and the time at which the next higher flight level can be accepted.

2. CHANGE OF FLIGHT LEVEL
   a. Pilots are advised that when an aircraft is proceeding from one Oceanic Control Area to another at the time that a change of flight level is desired, coordination must be effected between the Oceanic Control Centers concerned before an ATC clearance can be issued.
   b. A flight level request shown on a filed flight plan does not constitute authority for an aircraft to change flight level; a specific ATC clearance for the flight level change is required.

CHANGE OF TRUE AIRSPEED/MACH NUMBER
OAKLAND OCEANIC FIR

CHANGE OF SPEED
Pilots must inform ATC prior to making a planned en route speed change, as indicated in Item 15 of a filed flight plan. Additionally, pilots are reminded that such changes are not authorized when a specific ATC clearance assigning a Mach number to maintain has been issued.

ATTN ALL AIRCREWS: New procedural requirement for flights operating in Oakland Oceanic Control Area (KZAK). In order to support cost index or econ speeds and maintain ATC separation spacing, aircrews are required to use the following procedures in the KZAK FIR.
A pilot must inform ATS via voice or CPDLC each time the cruising Mach number varies or is expected to vary by a value equal to or greater than 0.02 Mach from:
   (1) the Mach number at FIR entry; or
   (2) any subsequent speed change notified to ATC in flight.
CLASS C AIRSPACE

1. CLASS C Dimensions
   a. CLASS C (a basic standard design with minor site specific variations). CLASS C airspace consists of two circles, both centered on the primary/CLASS C airport. The inner circle has a radius of 5 NM. The outer circle has a radius of 10 NM. The airspace of the inner circle extends from the surface of CLASS C airport up to 4,000 feet above the airport. The airspace area between the 5 and 10 NM rings begins at a height 1,200 feet AGL and extends to the same altitude cap as the inner circle.
   b. OUTER AREA. The normal radius will be 20 NM with some variations based on site specific requirements. The outer area extends outward from the primary/CLASS C airport and extends from the lower limits of radar/radio coverage up to the ceiling of the approach control's delegated airspace, excluding CLASS C and other airspace as appropriate.

2. CLASS C is Regulatory Airspace
   a. ARRIVALS AND OVERFLIGHTS:
      (1) Two–way radio communications must be established with ATC facility having jurisdiction over CLASS C airspace prior to entry and thereafter as instructed by ATC.
   b. DEPARTURES:
      (1) Primary or Satellite Airport with an operating control tower: Two–way radio communications must be established and maintained with the control tower in accordance with Federal Aviation Regulations (FAR) 91.129 and thereafter as instructed by ATC.
      (2) Satellite Airports without an operating control tower: Two–way radio communications must be established as soon as practicable after departing with the ATC facility having jurisdiction over CLASS C and thereafter as instructed by ATC.
   c. ATC SERVICES WITHIN CLASS C AIRSPACE:
      (1) Sequencing of all arriving aircraft to the primary/CLASS C airport.
      (2) Standard IFR separation between FR aircraft.
      (3) Between IFR and VFR aircraft – traffic advisories and conflict resolution so that radar targets do not touch, or 500 feet vertical separation.
      (4) Between VFR aircraft – traffic advisories and as appropriate, safety alerts.
   d. CLASS C AIRSPACE REQUIREMENTS:
      (1) Student pilot or better
      (2) Two–way radio
      (3) Mode C transponder

NOTE: For additional information see the AIM/FARS.

EMERGENCY SECURITY CONTROL OF AIR TRAFFIC (ESCAT) PROCEDURES

1. The ESCAT Plan contains responsibilities of military authorities, Federal Aviation Administration, and Federal Communications Commission in regard to actions to be taken for security control of air traffic and air navigation aids in defense of the United States during defense emergencies. The ESCAT Plan provides that, in the defense of the United States during defense emergencies, the military will direct actions to be taken in regard to landing, grounding, diversion or dispersal of aircraft, and in regard to the control of air navigation aids.

2. At the time that ESCAT is implemented, ATC facilities will broadcast instructions received from the military over available ATC frequencies. Depending on instructions received from the military, VFR flights may be directed to land at the nearest available airport; IFR flights will be expected to proceed as directed by ATC. Pilots on the ground may be required to file a flight plan and obtain approval (through FAA) before conducting flight operations.

3. In view of the above, all pilots should guard an ATC or Flight Service Station frequency at all times while conducting flight operations.
NATIONAL SECURITY

1. General


b. All aircraft entering domestic U.S. airspace from points outside must provide for identification prior to entry. To facilitate early aircraft identification of all aircraft in the vicinity of U.S.–International airspace boundaries, Air Defense Identification Zones (ADIZ) have been established. (See Figures 1–4–1, 1–4–2, 1–4–3, and 1–4–4.)

c. Operational requirement for aircraft entering or flying within the ADIZ areas are as follows:

(1) Flight plan requirements. Except as specified in subparagraphs d and e, an instrument flight rules (IFR) or defense visual flight rules (DVFR) flight plan must be on file with the appropriate aeronautical facility as follows:
   (a) Generally, for all operations that enter an ADIZ.
   (b) For operations that will enter or exit the United States and which will operate into, within, or across the contiguous U.S. ADIZ, regardless of true airspeed.
   (c) The flight plan must be filed before departure except for operations associated with the Alaska ADIZ when the airport of departure has no facility for filing a flight plan; in which case, the flight plan may be filed immediately after takeoff or when within range of the aeronautical facility.

(2) Two–way radio requirements. For the majority of operations associated with an ADIZ, an operating two–way radio is required. See 14 CFR Part 99.1 for exceptions.

(3) Transponder requirements. Unless otherwise authorized by ATC, each aircraft conducting operations into, within, or across the Contiguous U.S. ADIZ must be equipped with an operable radar beacon transponder having altitude reporting capability (Mode C), and that transponder must be turned on and set to reply on the appropriate code or as assigned by ATC.

(4) Position reporting requirements.
   (a) For IFR flight, normal IFR position reporting.
   (b) For DVFR flights, the estimated time of ADIZ penetration must be filed with the aeronautical facility at least 15 minutes prior to penetration except for flight in the Alaskan ADIZ; in which case, report prior to penetration.
   (c) For inbound aircraft of foreign registry, the pilot must report to the aeronautical facility at least 1 hour prior to ADIZ penetration.

(5) Aircraft position tolerances:
   (a) Over land, the tolerance is within plus or minus 5 minutes from the estimated time over a reporting point or point of penetration and within 10 NM from the centerline of an intended track over an estimated reporting point or penetration point.
   (b) Over water, the tolerance is plus or minus 5 minutes from the estimated time over a reporting point or point of penetration and within 20 NM from the centerline of the intended track over an estimated reporting point or point of penetration (to include the Aleutian Islands).

d. Except when applicable under 14 CFR 99.7, Part 99 does not apply to aircraft operations.

(1) Within the 48 contiguous states and the District of Columbia, or within the State of Alaska, and remains within 10 NM of the point of departure.

(2) Over any island, or within 12 NM of the coastline of any island, in the Hawaii ADIZ.

(3) Associated with any ADIZ other than the contiguous U.S. ADIZ when the aircraft is operating at true airspeed of less than 180 knots.

e. Authorizations to deviate from the requirements of Part 99 may also be granted by an Air Route Traffic Control Center (ARTCC), on a local basis, for some operations associated with an ADIZ.

f. A VFR flight plan makes an aircraft subject to interception for positive identification when entering an ADIZ. Pilots are urged to file the required Defense VFR (DVFR) flight plan either in person or by telephone prior to departure.
Fig 1-4-1. Air Defense Identification Zone Boundaries/Designated Mountainous Areas
Fig 1-4-2. Alaska Air Defense Identification Zones/Designated Mountainous Areas
Fig 1-4-3. Guam Air Defense Identification Zone and Defense Area
Fig 1-4-4. Hawaiian Air Defense Identification Zone and Defense Area
<table>
<thead>
<tr>
<th>SERIES</th>
<th>INTERCEPTING AIRCRAFT SIGNALS</th>
<th>MEANING</th>
<th>INTERCEPTED AIRCRAFT RESPONSE</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AIRPLANES: DAY–Rocking wings from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft and, after acknowledgement, a slow level turn, normally to the left, on to the desired heading. NIGHT–Same and, in addition, flashing navigational lights at irregular intervals.</td>
<td>You have been intercepted. Follow me.</td>
<td>AIRPLANES: DAY–Rocking wings and following.</td>
<td>Understood, will comply.</td>
</tr>
<tr>
<td></td>
<td>NOTE 1.–Meteorological conditions or terrain may require the intercepting aircraft to take up a position slightly above and ahead of, and to the right of, the intercepted aircraft and to make the subsequent turn to the right.</td>
<td></td>
<td>HELICOPTERS: DAY or NIGHT–Rocking aircraft, flashing navigational lights at irregular intervals and following.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOTE 2.–If the intercepted aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of race–track patterns and to rock its wings each time it passes the intercepted aircraft.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>DAY OR NIGHT–An abrupt breakaway maneuver from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft.</td>
<td>You may proceed.</td>
<td>AIRPLANES: DAY or NIGHT–Rocking wings.</td>
<td>Understood, will comply.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HELICOPTERS: DAY or NIGHT–Rocking aircraft.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>DAY–Circling aerodrome, lowering landing gear and overflying runway in direction of landing or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. NIGHT–Same and, in addition, showing steady landing lights.</td>
<td>Land at this aerodrome.</td>
<td>AIRPLANES: DAY–Lowering landing gear, following the intercepting aircraft and, if after overflying the runway landing is considered safe, proceeding to land.</td>
<td>Understood, will comply.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HELICOPTERS: DAY or NIGHT–Following the intercepting aircraft and proceeding to land, showing a steady landing light (if carried).</td>
<td></td>
</tr>
</tbody>
</table>
# Emergency Procedures

## Interception Signals

### ICAO Standard

### Signals Initiated by Interception Aircraft and Responses by Intercepted Aircraft

<table>
<thead>
<tr>
<th>SERIES</th>
<th>Intercepting Aircraft Signals</th>
<th>Meaning</th>
<th>Intercepted Aircraft Response</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>AIRPLANES:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DAY—Raising landing gear while</td>
<td>Aerodrome you</td>
<td>DAY OR NIGHT—If it is desired</td>
<td>Understood,</td>
</tr>
<tr>
<td></td>
<td>passing over landing runway at</td>
<td>have designated</td>
<td>that the intercepted aircraft</td>
<td>follow me.</td>
</tr>
<tr>
<td></td>
<td>a height exceeding 300m (1,000 ft)</td>
<td>is inadequate.</td>
<td>follow the intercepting aircraft</td>
<td></td>
</tr>
<tr>
<td></td>
<td>but not exceeding 600m (2,000 ft)</td>
<td></td>
<td>to an alternate aerodrome, the intercepting aircraft</td>
<td></td>
</tr>
<tr>
<td></td>
<td>above the aerodrome level, and</td>
<td></td>
<td>raises its landing gear and uses the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>continuing to circle the aerodrome.</td>
<td></td>
<td>Series 1 signals prescribed for intercepting aircraft.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NIGHT—Flashing landing lights while</td>
<td>If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>passing over landing runway at a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>height exceeding 300m (1,000 ft) but not exceeding 600m (2,000 ft) above the aerodrome level, and continuing to circle the aerodrome.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>If unable to flash landing lights, flash any other lights available.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>AIRPLANES:</td>
<td>Cannot comply.</td>
<td>DAY or NIGHT—Use Series 2 signals prescribed for intercepting aircraft.</td>
<td>Understood.</td>
</tr>
<tr>
<td></td>
<td>DAY or NIGHT—Regular switching on and off of all available lights but in such a manner as to be distinct from flashing lights.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>AIRPLANES:</td>
<td>In distress.</td>
<td>DAY or NIGHT—Use Series 2 signals prescribed for intercepting aircraft.</td>
<td>Understood.</td>
</tr>
<tr>
<td></td>
<td>DAY or NIGHT—Irregular flashing of all available lights.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HELICOPTERS:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Day or Night—Irregular flashing of all available lights.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Distress Interception Signals

<table>
<thead>
<tr>
<th>Signal by Intercepted Aircraft</th>
<th>Meaning</th>
<th>Response by Interceptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAY—Porpoising</td>
<td>In Distress</td>
<td>DAY OR NIGHT—Use appropriate interception signals as shown above.</td>
</tr>
<tr>
<td>NIGHT—Switching on landing lights and holding steady beam.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The word "interception" in this context does not include intercept and escort service provided, on request, to an aircraft in distress.

An aircraft which is intercepted by another aircraft shall immediately:

a. follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals on preceding page;

b. notify, if possible, the appropriate air traffic services unit;

c. attempt to establish radio communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHz, and repeating this call on the emergency frequency 243.0 MHz, if practicable, giving the identity and position of the aircraft and the nature of the flight;

d. if equipped with SSR transponder select Mode 3/A Code 7700, unless otherwise instructed by the appropriate air traffic services unit.

If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual or radio signals, the intercepted aircraft shall request immediate clarification while continuing to comply with the instructions given by the intercepting aircraft.

SEARCH AND RESCUE

National Search and Rescue Plan.—Under the National Search and Rescue Plan, the U.S. Coast Guard is responsible for coordination of search and rescue for the Maritime Region, and the U.S. Air Force is responsible for coordination of search and rescue for the Inland Region. In order to carry out this responsibility, the Air Force and the Coast Guard have established Rescue Coordination Centers to direct search and rescue activities within their regions. This service is available to all persons and property in distress, both civilian and military. Normally, for aircraft incidents, information will be passed to the Rescue Coordination Centers through the appropriate Air Route Traffic Control Center.

Search and Rescue is a life-saving service provided through the combined efforts of the FAA, Air Force, Coast Guard, State Board of Aeronautics, Aeronautic Commissions or other similar State agencies who are assisted by other organizations such as the Civil Air Patrol, Sheriffs Air Patrol, State Police, etc. It provides search, survival aid, and rescue of personnel of missing or crashed aircraft.

Prior to departure on every flight, local or otherwise, someone at the departure point should be advised of your destination and the route of flight if other than direct. Search efforts are often wasted and rescue is often delayed because of pilots who thoughtlessly take off without advising anyone where they are going.

All you need to remember to obtain this valuable protection is to file, activate, and close flight plans with Flight Service through www.1800wxbrief.com, by using a flight planning application, by radio, or by calling 1-800-WX-BRIEF.

Close your Flight Plan.—The control tower does not automatically close your VFR flight plan since many of the landing aircraft are not operating on flight plans. It remains the responsibility of a pilot who has filed a flight plan to close it. This will prevent a needless search. Remember, the lives of other pilots are sometimes sacrificed when searching for overdue pilots. For an emergency occurring in flight, send a distress message if possible by radio. The facility receiving your message will alert the rescue organization serving your area.

To assure survival and rescue in the event of a crash landing, the following advice is given:

1. For flight over uninhabited land areas it is wise to take suitable survival equipment depending on type of climate and terrain.

2. If forced landing occurs at sea, chances for survival are governed by degree of crew proficiency in emergency procedures and by effectiveness of water survival equipment.

3. If it becomes necessary to ditch, distressed aircraft should make every effort to ditch near a surface vessel. If time permits, the position of the nearest vessel can be obtained from a Coast Rescue Coordination Center through the FAA facility.

4. The rapidity of rescue on land or water will depend on how accurately your position may be determined. If flight plan has been followed and your position is on course, rescue should be prompt.

5. Unless you have good reason to believe that you will not be located by search aircraft, it is better to remain near your aircraft and prepare means for signalling whenever aircraft approach your position.

Search and rescue facilities made available to all pilots include the following:

(a) Rescue coordination centers;

(b) Search and rescue aircraft;

(c) Rescue vessels;

(d) Pararescue and ground rescue teams;

(e) Emergency radio fixing.

The Air Rescue Service and the U.S. Coast Guard extend a welcome invitation to all pilots to visit any of their rescue units. By so doing, pilots may become more familiar with the actual means whereby this vital phase of aviation safety is carried out. The location and address of your nearest rescue unit may be obtained from the FAA or any AF or CG Rescue Coordination Center.

Report of crashed or missing aircraft may be made by any individual by a telephone call to the nearest FAA facility or to any Air Force or Coast Guard facility.
EMERGENCY PROCEDURES

HONOLULU AND WAKE SEARCH AND RESCUE SECTORS:

Search and Rescue Sector for Honolulu Area established with following coordinates:
From 5ºS, 110ºW to 40ºN, 160ºW to 23ºN, 169ºW to 3º30ºN, 180º to 5ºS, 180º to 5ºS, 110ºW.

Search and Rescue Sector for Wake Area established with following coordinates:
27ºN, 160ºE to 27ºN, 165ºE to 23ºN, 176ºW to 23ºN, 27ºN, 160ºE to 27ºN, 160ºE.

Search Coordination Center (RCC) at Honolulu has coordination responsibility in the Honolulu and Wake SAR Sectors.
(Telephone in Honolulu 808–531–1112)

MIDWAY SEARCH AND RESCUE SECTOR:

Search and Rescue Sector for Midway Area established with following coordinates:
From 23ºN, 169ºW to 40ºN, 160ºW to 27ºN, 165ºE to 23ºN, 176ºW to 23ºN, 169ºW.

Search Coordination Center (RCC) at Midway has coordination responsibility in this area.

GUAM SEARCH AND RESCUE SECTOR:

Search and Rescue Sector for Guam area established with following coordinates:
From 3º30ºN, 160ºE to 27ºN, 160ºE to 27ºN, 155ºE to 21ºN, 130ºE to 6ºN, 132ºE to 3º30ºN, 160ºE.

Guam Joint Search and Rescue Coordination Center (JSARCC) at Guam has coordination responsibility in this area.

COAST GUARD RESCUE COORDINATION CENTERS: Coast Guard Rescue Coordination Centers are served by major radio stations which guard 500 kHz (CW), 8364 kHz (CW), and 2182 kHz (Voice). In addition to these major radio stations, the 247 Coast Guard units along the sea coasts of the United States and shores to the Great Lakes guard 2182 kHz (Voice). All of these facilities are available for reporting distress or potential distress. THE CALL “NCU” (CW) or “COAST GUARD” (VOICE) ALTERS ALL COAST GUARD RADIO STATIONS WITHIN RANGE.

EMERGENCY PROCEDURES

I. A pilot in any emergency phase (uncertainty, alert, or distress) should do three things to obtain assistance:
   a. If equipped with IFF, switch to “Emergency” position.
   b. Contact controlling agency and give nature of distress and pilots intentions.—If unable to contact controlling agencies attempt to contact any agency on assigned frequency or any of the following frequencies (transmit and receive):

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Emission</th>
<th>Effective Range in Nautical Miles</th>
<th>Guarded By</th>
</tr>
</thead>
<tbody>
<tr>
<td>121.5 MHz</td>
<td>Voice</td>
<td>Generally limited to Radio line–of–sight</td>
<td>All military twrs, most civil twrs, VHF direction finding stns, radar facilities, ocean station vessels.</td>
</tr>
<tr>
<td>243.0 MHz</td>
<td>Voice</td>
<td>Generally limited to radio line–of–sight</td>
<td>All military twrs, most civil twrs, VHF direction finding stns, radar facilities, ocean station vessels.</td>
</tr>
<tr>
<td>2182 kHz</td>
<td>Voice</td>
<td>Generally less than 300 miles for average aircraft installations</td>
<td>Some ships and boats at sea, most Coast Guard stations, most commercial coast stations.</td>
</tr>
<tr>
<td>500 kHz</td>
<td>CW</td>
<td>Generally less than 100 miles for average aircraft installations</td>
<td>Most large ships at sea, most Coast Guard radio stations, most commercial coast stations.</td>
</tr>
<tr>
<td>8364 kHz</td>
<td>CW</td>
<td>Up to several thousand miles, depending upon propagation conditions. Subject to “skip”</td>
<td>U.S.N. direction finding stations, ocean station vessels and most Coast Guard radio stations</td>
</tr>
</tbody>
</table>

Transmit as much of the following as possible:

1. MAYDAY, MAYDAY, MAYDAY (if distress), or PAN, PAN, PAN (if uncertainty or alert). If CW transmission use SOS (distress) or XXX (uncertainty or alert).
2. Aircraft identification repeated three times.
3. Type of aircraft.
4. Position or estimated position (stating which).
5. Heading (True or Magnetic) (stating which).
6. True airspeed or estimated true airspeed (stating which).
7. Altitude.
8. Fuel remaining in hours and minutes.
10. Pilot's intentions (bailout, ditch, crash landing, etc.).
11. Assistance desired (fix, steer, bearing, escort, etc.).
12. Two 10–second dashes with mike (voice) or key (CW) followed by aircraft identification (once) OVER (Voice) or K (CW).
EMERGENCY PROCEDURES

c. Comply with instructions received.—Accept the “communications control” offered to you by the ground radio station, silence interfering radio stations, and do not shift frequency or shift to another ground station unless absolutely necessary.

II. Pilots on IFR flights experiencing two–way radio failure are expected to adhere to prescribed procedures.

The pilot should remember that he has two means of declaring an emergency.

(1) Emergency IFF and/or mode A/3 Code 7700.

(2) Sending emergency message.

Ground stations have three electronic means of assisting:

(1) Receipt of emergency message;

(2) Radar detection of IFF signal; and

(3) DF bearings.

THE PILOT SHOULD REMEMBER THE FOUR CS:

a. Confess your predicament to any ground radio station. Do not wait too long. Give SAR a chance!

b. Communicate with your ground link and pass as much of the distress message on first transmission as possible. We need information for best SAR action!

c. Climb if possible for better radar and DF detection. If flying at low altitude, the chance for establishing radio contact is improved by climbing, also chances of alerting radar systems are sometimes improved by climbing or descending.

NOTE:—Climbing or descending under IFR conditions within controlled air space is not permitted except in EMERGENCY. Air traffic control will operate on the assumption that the provisions of FAR 91.185 are being followed by the pilot.

d. Comply—especially Comply—with advice and instructions received, if you really want to help. Assist the ground “communications control” station to control communications on the distress frequency on which you are working (as that is the distress frequency for your case). Tell interfering stations to maintain silence until you call. Cooperate!

III. For bail–out, set radio for continuous emission. For ditching or crash landing, the radio equipment should if it is considered that there is no additional risk of fire and if circumstances permit, be set for continuous transmission.

When a pilot is in doubt of his position, or feels apprehensive for his safety, he should not hesitate to request assistance. Search and Rescue facilities, including Radar, Radio and DF stations, are ready and willing to help. There is no penalty for using them. Delay has caused crashes and cost lives. Take action!
**EMERGENCY PROCEDURES**

**INTERNATIONAL GROUND/AIR EMERGENCY CODE**

**EMERGENCY SIGNALS**

**GROUND–AIR VISUAL CODE FOR USE BY SURVIVORS**

<table>
<thead>
<tr>
<th>No.</th>
<th>MESSAGE</th>
<th>CODE SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Require assistance</td>
<td>V</td>
</tr>
<tr>
<td>2</td>
<td>Require medical assistance</td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td>No or Negative</td>
<td>N</td>
</tr>
<tr>
<td>4</td>
<td>Yes or Affirmative</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>Proceeding in this direction</td>
<td>↘</td>
</tr>
</tbody>
</table>

If in doubt use International symbol **SOS**

**GROUND-AIR VISUAL CODE FOR USE BY GROUND SEARCH PARTIES**

<table>
<thead>
<tr>
<th>No</th>
<th>MESSAGE</th>
<th>CODE SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Operation completed</td>
<td>L L L L</td>
</tr>
<tr>
<td>2</td>
<td>We have found all personnel</td>
<td>L L</td>
</tr>
<tr>
<td>3</td>
<td>We have found only some personnel</td>
<td>++</td>
</tr>
<tr>
<td>4</td>
<td>We are not able to continue. Returning to base</td>
<td>X X</td>
</tr>
<tr>
<td>5</td>
<td>Have divided into two groups. Each proceeding in direction indicated.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Information received that aircraft is in this direction</td>
<td>¬¬¬</td>
</tr>
<tr>
<td>7</td>
<td>Nothing found. Will continue search.</td>
<td>N N</td>
</tr>
</tbody>
</table>

1. **INSTRUCTIONS**

a. Lay out symbols by using strips of fabric or parachutes, pieces of wood, stones, or any available material.

b. Provide as much color contrast as possible between material used for symbols and background against which symbols are exposed.

c. Symbols should be at least 10 feet high or larger. Care should be taken to lay out symbols exactly as shown.

d. In addition to using symbols every effort is to be made to attract attention by means of radio, flares, smoke, or other available means.

e. On snow–covered ground, signals can be made by dragging, shoveling or tramping. Depressed areas forming symbols will appear black from the air.

f. Pilot should acknowledge message by rocking wings from side to side.
INTENTIONALLY LEFT BLANK
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CORRECTIONS, COMMENTS AND/OR PROCUREMENT

FOR CHARTING ERRORS, OR FOR CHANGES, ADDITIONS, RECOMMENDATIONS
ON PROCEDURAL ASPECTS CONTACT:
FAA, Aeronautical Information Services
1305 East-West Highway
SSMC 4, Room 3424
Silver Spring, MD 20910
Telephone: 1-800-638-8972
https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/

For inquiries regarding military charts, please contact aerohelp@nga.mil

FOR PROCUREMENT:
For digital products, visit our website at:
https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/

For a list of approved FAA Print Providers, visit our website at:
https://www.faa.gov/air_traffic/flight_info/aeronav/print_providers/

Frequently asked questions (FAQ) are answered on our website at https://www.faa.gov/go/ais
See the FAQs prior to contact via toll free number or email.

Request for the creation or revisions to Airport Diagrams should be in accordance with
FAA Order 7910.4.

PAC, 5 NOV 2020 to 31 DEC 2020
INOPERATIVE COMPONENTS OR VISUAL AIDS TABLE
(For Civil Use Only)

Straight-in and Sidestep landing minimums published on instrument approach procedure charts are based on full operation of all components and visual aids (see exception below for ALSF 1 & 2) associated with the particular approach chart being used. Higher minimums are required with inoperative components or visual aids as indicated below. If more than one component is inoperative, each minimum is raised to the highest minimum required by any single component that is inoperative. ILS glideslope inoperative minimums are published on the instrument approach charts as localizer minimums. This table applies to approach categories A thru D and is to be used unless amended by notes on the approach chart. Such notes apply only to the particular approach category(ies) as stated. Category E inoperative notes will be specified when published on civil charts. The inoperative table does not apply to Circling minimums. See legend page for description of components indicated below.

Full Operation Exception: For ALSF 1 & 2 operated as SSALR, or when the sequenced flashing lights are inoperative, there is no effect on visibility for ILS lines of minima.

(1) ILS, PAR, LPV, GLS minima

<table>
<thead>
<tr>
<th>Inoperative Component or Visual Aid</th>
<th>Increase Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ALS types (except ODALS)</td>
<td>¼ mile</td>
</tr>
</tbody>
</table>

(2) ILS, LPV, GLS with visibility minima of RVR 1800†/2000*/2200*

<table>
<thead>
<tr>
<th>Inoperative Component or Visual Aid</th>
<th>Increase Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALSF 1 &amp; 2, MALSR, SSALR</td>
<td>To RVR 4000†</td>
</tr>
<tr>
<td></td>
<td>To RVR 4500*</td>
</tr>
<tr>
<td>TDZL or RCLS</td>
<td>To RVR 2400#</td>
</tr>
<tr>
<td>RVR</td>
<td>To ½ mile</td>
</tr>
</tbody>
</table>

*For ILS, LPV, GLS procedures with a 200 foot HAT, RVR 1800 authorized with use of FD or AP or HUD to DA.

(3) All Approach Types and all lines of minima other than (1) & (2) above

<table>
<thead>
<tr>
<th>Inoperative Component or Visual Aid</th>
<th>Increase Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALSF 1 &amp; 2, MALSR, SSALR</td>
<td>½ mile</td>
</tr>
<tr>
<td>MALSF, MAL SAR, SSALF, SSALS, SALSF, SALS</td>
<td>¼ mile</td>
</tr>
</tbody>
</table>

(4) Sidestep minima (CAT C-D)

<table>
<thead>
<tr>
<th>Inoperative Component or Visual Aid to Sidestep Runway</th>
<th>Increase Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALSF 1 &amp; 2, MALSR, SSALR</td>
<td>½ mile</td>
</tr>
</tbody>
</table>

(5) All Approach Types, All lines of minima

<table>
<thead>
<tr>
<th>Inoperative Component or Visual Aid</th>
<th>Increase Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODALS (CAT A-B)</td>
<td>¼ mile</td>
</tr>
<tr>
<td>ODALS (CAT C-D)</td>
<td>½ mile</td>
</tr>
</tbody>
</table>
## Terminal Procedures

### IFR Landing Minima

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DA (RVR 1000’s of feet)</th>
<th>Aircraft Approach Category</th>
<th>Visibility (RVR 1000’s of feet)</th>
<th>HAL</th>
<th>MDA</th>
<th>HAA</th>
<th>Visibility in Statute Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-ILS 27</td>
<td>1352/24</td>
<td></td>
<td>280</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-LOC 27</td>
<td>1440/24</td>
<td></td>
<td>288 (300-1/2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1540-1</td>
<td></td>
<td>1640-1 (361 (400-1))</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1640-1/2 (461 (500-1))</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1740-2 (561 (600-2))</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**All weather minimums in parentheses not applicable to Civil Pilots. Military Pilots refer to appropriate regulations.**

### CoPter Minima Only

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>COPPER</th>
<th>Height of MDA/DA Above Landing Area (HAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-176°</td>
<td>680-1/2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>363</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(400-1)</td>
<td></td>
</tr>
</tbody>
</table>

**No circling minimums are provided.**

**NOTE:** The $W$ symbol indicates outages of the WAAS vertical guidance may occur daily at this location due to initial system limitations. WAAS NOTAMS for vertical outages are not provided for this approach. Use LNAV minima for flight planning at these locations, whether as a destination or alternate. For flight operations at these locations, when the WAAS ionospheric indicators that LNAV/VNAV or LPV service is available, then vertical guidance may be used to complete the approach using the displayed level of service. Should an outage occur during the procedure, reversion to LNAV minima may be required. As the WAAS coverage is expanded, the $W$ will be removed.

**RNAV minimums are dependent on navigation equipment capability, as stated in the applicable AFM, AFMS, or other FAA approved document. See AIM paragraph 5-4-5, AC 90-105 and AC 90-107 for detailed requirements for each line of minima.**

### Cold Temperature Airports

**NOTE:** A $C$-12°C symbol indicates a cold temperature altitude correction is required at this airport when reported temperature is at or below the published temperature. See the following Cold Temperature Error Table to make manual corrections. Advise ATC with altitude correction. Advising ATC with altitude corrections is not required in the final segment. See Aeronautical Information Manual (AIM), Chapter 7, for guidance and additional information. For a complete list, see the "Cold Temperature Airports" link under the Additional Resources heading at the bottom of the following page:

http://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/atpp/search/

<table>
<thead>
<tr>
<th>REPORTED TEMP °C</th>
<th>200</th>
<th>300</th>
<th>400</th>
<th>500</th>
<th>600</th>
<th>700</th>
<th>800</th>
<th>900</th>
<th>1000</th>
<th>1500</th>
<th>2000</th>
<th>3000</th>
<th>4000</th>
<th>5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\leq 10$</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>$10&lt;\leq 20$</td>
<td>20</td>
<td>20</td>
<td>30</td>
<td>30</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>90</td>
<td>100</td>
</tr>
<tr>
<td>$20&lt;\leq 30$</td>
<td>30</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>90</td>
<td>100</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>150</td>
<td>170</td>
</tr>
<tr>
<td>$30&lt;\leq 40$</td>
<td>40</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>90</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>160</td>
<td>180</td>
<td>200</td>
<td>220</td>
</tr>
<tr>
<td>$40&lt;\leq 50$</td>
<td>50</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>90</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>160</td>
<td>180</td>
<td>200</td>
<td>220</td>
<td>240</td>
</tr>
<tr>
<td>$50&lt;\leq 60$</td>
<td>60</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>90</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>160</td>
<td>180</td>
<td>200</td>
<td>220</td>
<td>240</td>
<td>260</td>
</tr>
<tr>
<td>$60&lt;\leq 70$</td>
<td>70</td>
<td>70</td>
<td>80</td>
<td>90</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>160</td>
<td>180</td>
<td>200</td>
<td>220</td>
<td>240</td>
<td>260</td>
<td>280</td>
</tr>
<tr>
<td>$70&lt;\leq 80$</td>
<td>80</td>
<td>80</td>
<td>90</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>160</td>
<td>180</td>
<td>200</td>
<td>220</td>
<td>240</td>
<td>260</td>
<td>280</td>
<td>300</td>
</tr>
<tr>
<td>$80&lt;\leq 90$</td>
<td>90</td>
<td>90</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>160</td>
<td>180</td>
<td>200</td>
<td>220</td>
<td>240</td>
<td>260</td>
<td>280</td>
<td>300</td>
<td>320</td>
</tr>
<tr>
<td>$90&lt;\leq 100$</td>
<td>100</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>160</td>
<td>180</td>
<td>200</td>
<td>220</td>
<td>240</td>
<td>260</td>
<td>280</td>
<td>300</td>
<td>320</td>
<td>340</td>
</tr>
</tbody>
</table>

### AirCRAFT APPROACH CATEGORIES

Aircraft approach category indicates a grouping of aircraft based on a speed of VREF, if specified, or if VREF not specified, 1.3 VSO at the maximum certificated landing weight. VREF, VSO, and the maximum certificated landing weight are those values as established for the aircraft by the certification authority of the country of registry. Helicopters are Category A aircraft. An aircraft shall fit in only one category. When necessary to operate the aircraft at an airspeed in excess of the maximum airspeed of its certified aircraft approach category, pilots should use the applicable higher category minima. For additional options and to ensure the aircraft remains within protected airspace, consult the AIM. See following category limits:

**MANEUVERING TABLE**

<table>
<thead>
<tr>
<th>Approach Category</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed (Knots)</td>
<td>0-90</td>
<td>91-120</td>
<td>121-140</td>
<td>141-165</td>
<td>Abv 165</td>
</tr>
</tbody>
</table>

** TERMS/LANDING MINIMA DATA **
### TERMS/LANDING MINIMA DATA 19339

#### CIRCLING APPROACH OBSTACLE PROTECTED AIRSPACE

The circling MDA provides vertical obstacle clearance during a circle-to-land maneuver. The circling MDA protected area extends from the threshold of each runway authorized for landing following a circle-to-land maneuver for a distance as shown in the tables below. The resultant arcs are then connected tangentially to define the protected area.

**STANDARD CIRCLING APPROACH MANEUVERING RADIUS**

Circling approach protected areas developed prior to late 2012 used the radius distances shown in the following table, expressed in nautical miles (NM), dependent on aircraft approach category. The approaches using standard circling approach areas can be identified by the absence of the ⭕ symbol on the circling line of minima.

<table>
<thead>
<tr>
<th>Circling MDA in feet MSL</th>
<th>Approach Category and Circling Radius (NM)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAT A</td>
</tr>
<tr>
<td>All Altitudes</td>
<td>1.3</td>
</tr>
</tbody>
</table>

**EXPANDED CIRCLING APPROACH MANEUVERING AIRSPACE RADIUS**

Circling approach protected areas developed after late 2012 use the radius distance shown in the following table, expressed in nautical miles (NM), dependent on aircraft approach category, and the altitude of the circling MDA, which accounts for true airspeed increase with altitude. The approaches using expanded circling approach areas can be identified by the presence of the ⭕ symbol on the circling line of minima.

<table>
<thead>
<tr>
<th>Circling MDA in feet MSL</th>
<th>Approach Category and Circling Radius (NM)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAT A</td>
</tr>
<tr>
<td>1000 or less</td>
<td>1.3</td>
</tr>
<tr>
<td>1001-3000</td>
<td>1.3</td>
</tr>
<tr>
<td>3001-5000</td>
<td>1.3</td>
</tr>
<tr>
<td>5001-7000</td>
<td>1.3</td>
</tr>
<tr>
<td>7001-9000</td>
<td>1.4</td>
</tr>
<tr>
<td>9001 and above</td>
<td>1.4</td>
</tr>
</tbody>
</table>

**Comparable Values of RVR and Visibility**

The following table shall be used for converting RVR to ground or flight visibility. For converting RVR values that fall between listed values, use the next higher RVR value; do not interpolate. For example, when converting 4800 RVR, use 5000 RVR with the resultant visibility of 1 mile.

<table>
<thead>
<tr>
<th>RVR (feet)</th>
<th>Visibility (SM)</th>
<th>RVR (feet)</th>
<th>Visibility (SM)</th>
<th>RVR (feet)</th>
<th>Visibility (SM)</th>
<th>RVR (feet)</th>
<th>Visibility (SM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600</td>
<td>1/4</td>
<td>2400</td>
<td>1/2</td>
<td>3500</td>
<td>3/4</td>
<td>5500</td>
<td>1</td>
</tr>
<tr>
<td>1800</td>
<td>1/2</td>
<td>2600</td>
<td>3/4</td>
<td>4000</td>
<td>3/4</td>
<td>6000</td>
<td>1/2</td>
</tr>
<tr>
<td>2000</td>
<td>3/4</td>
<td>3000</td>
<td>1</td>
<td>4500</td>
<td>1</td>
<td>6000</td>
<td>1/4</td>
</tr>
<tr>
<td>2200</td>
<td>1</td>
<td>3200</td>
<td>3</td>
<td>5000</td>
<td>1</td>
<td>6000</td>
<td>1/2</td>
</tr>
</tbody>
</table>

**RADAR MINIMA**

<table>
<thead>
<tr>
<th>Rwy T/C/I/R</th>
<th>Cat DA/MDA-VIS</th>
<th>Hat HA</th>
<th>Cat DA/MDA-VIS</th>
<th>Hat HA</th>
<th>Cat DA/MDA-VIS</th>
<th>Hat HA</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAR 10 2.5*42/1000</td>
<td>ABCDE</td>
<td>195/16</td>
<td>100</td>
<td>(100-1/4)</td>
<td>Visibility</td>
<td></td>
</tr>
<tr>
<td>ASR 10 2.5*48/1068</td>
<td>ABCDE</td>
<td>187/16</td>
<td>100</td>
<td>(100-1/4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIR 10 ASR 28</td>
<td>ABCDE</td>
<td>560/40</td>
<td>463</td>
<td>(500-1/4)</td>
<td>DE</td>
<td>600/50</td>
</tr>
<tr>
<td>CIR 28</td>
<td>AB</td>
<td>600/50</td>
<td>513</td>
<td>(600-1/4)</td>
<td>CDE</td>
<td>600/60</td>
</tr>
</tbody>
</table>

Radar Minima:
1. Minima shown are the lowest permitted by established criteria. Pilots should consult applicable directives for their category of aircraft.
2. The circling MDA and weather minima to be used are those for the runway to which the final approach is flown: not the landing runway. In the above RADAR MINIMA example, a category C aircraft flying a radar approach to runway 10, circling to land on runway 28, must use a MDA of 560 feet with weather minima of 500-1/4.

**NOTE:** Military RADAR MINIMA may be shown with communications symbology that indicates emergency frequency monitoring capability by the radar facility as follows: (E) VHF and UHF emergency frequencies monitored
(V) VHF emergency frequency (121.5) monitored
(U) UHF emergency frequency (243.0) monitored

Additional unmonitored frequencies which are available on request from the controlling agency may be annotated with an "x".

- **⚠️ Alternate Minimums not standard. Civil users refer to tabulation. USA/USN/USAF Pilots refer to appropriate regulations.**
- **⚠️ NM: Alternate minimums are Not Authorized due to unmonitored facility or absence of weather reporting service.**
- **Airport is published in the Tokeroff Minimums, Departure Procedures, and Diverse Vector Areas (Radar Vectors) tabulation.**
TERMINAL PROCEDURES C1

GENERAL INFORMATION

This publication is issued every 56 days and includes Standard Instrument Approach Procedures (SIAPS), Standard Instrument Departures (SIDs), Standard Terminal Arrivals (STARs), IFR Takeoff Minimums and (Obstacle) Departure Procedures (ODPs), IFR Alternate Minimums, and Radar Instrument Approach Minimums for use by civil and military aviation. The organization responsible for SIAPS, Radar Minimums, SIDs, STARs and graphic ODPs is identified in parentheses in the top margin of the procedure; e.g., (FAA), (FAA-O), (USA), (USAF), (USN). SIAPS with the (FAA) and (FAA-O) designation are regulated under 14 CFR, Part 97. SIAPS with the (FAA-O) designation have been developed under Other Transaction Agreement (OTA) by private providers and have been certified by the FAA. See 14 CFR, Part 91.175 (a) and the AIM for further details. 14 CFR, Part 91.175 (g) and the Special Notices section of the Chart Supplement contain information on civil operations at military airports.

The FAA uses an internal numbering system on all charts in the TPP. This Approach and Landing (AL) number is located on the top center margin of the chart followed by the organization responsible for the procedure in parentheses, e.g., AL-18 (FAA), AL-227 (USAF).

CHART CURRENCY INFORMATION

Date of Latest Revision 09365

The Date of Latest Revision identifies the Julian date the chart was added or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest revision of any kind has been made to the chart.

FAA Procedure Amendment Number Orig 31DEC09 Amdt 28 12MAR09 Procedure Amendment Effective Date

The FAA Procedure Amendment Number represents the most current amendment of a given procedure. The Procedure Amendment Effective Date represents the AIRAC cycle date on which the procedure amendment was incorporated into the chart. Updates to the amendment number & effective date represent procedural/criteria revisions to the charted procedure, e.g., course, fix, altitude, minima, etc. On Departure Procedures and Standard Terminal Arrivals, procedural revisions to the current chart are indicated by an upnumber to the procedure title with the procedure amendment effective date following. On Radar Minimums, Takeoff Minimums and (Obstacle) Departure Procedures and Diverse Vector Areas, the FAA Procedure Amendment Number, Procedure Effective Date, and the Julian Date of Last Revision will be shown on the same line, e.g., AMDT 2 10DEC15 (15344).

MISCELLANEOUS

* Indicates a non-continuously operating facility, see Chart Supplement.

For Civil (FAA) instrument procedures, "RADAR REQUIRED" in the planview of the chart indicates that ATC radar must be available to assist the pilot when transitioning from the en route environment. "Radar required" in the pilot briefing portion of the chart indicates that ATC radar is required on portions of the procedure outside the final approach segment, including the missed approach. Some military procedures also have equipment requirements such as "Radar Required", but do not conform to the same charting application standards used by the FAA.

Distances are in nautical miles (except visibility in statute miles and Runway Visual Range in hundreds of feet), Runway dimensions are in feet. Elevations are in feet, Mean Sea Level (MSL). Ceilings are in feet above airport elevation. Radios/bearings/headings/courses are magnetic. Horizontal Datum: Unless otherwise noted on the chart, all coordinates are referenced to North American Datum 1983 (NAD 83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).

Terrain is scaled within the neat lines (planview boundaries) and does not accurately underlie not-to-scale distance depictions or symbols.
GENERAL INFO 20142

STANDARD TERMINAL ARRIVALS AND DEPARTURE PROCEDURES

The use of the associated codified STAR/DP and transition identifiers are requested of users when filing flight plans via teletype and are required for users filing flight plans via computer interface. It must be noted that when filing a STAR/DP with a transition, the first three coded characters of the STAR and the last three coded characters of the DP are replaced by the transition code. Examples: ACTON SIX ARRIVAL, file (AQN.AQN6); ACTON SIX ARRIVAL, EDNAS TRANSITION, file (EDNAS.AQN6). FREEHOLD THREE DEPARTURE, file (FREH3.RBV), FREEHOLD THREE DEPARTURE, ELWOOD CITY TRANSITION, file (FREH3.EWC).

PROCEDURE PBN/EQUIPMENT REQUIREMENTS

Users will begin to see Performance-Based Navigation (PBN) Requirements and Equipment Requirements on Instrument Approach Procedures (IAPs), RNAV STARS and RNAV DPs prominently displayed in separate, standardized notes boxes. For procedures with PBN elements, the PBN box will contain the procedure’s navigation specification(s); and, if required: specific sensors or infrastructure needed for the navigation solution; any additional or advanced functional requirements; the minimum Required Navigation Performance (RNP) value and any amplifying remarks. Items listed in this PBN box are REQUIRED for the procedure’s PBN elements. The Equipment Requirements Box will list non-PBN requirements. On charts with both PBN elements and equipment requirements, the PBN requirements box will be listed first. The publication of these notes will continue incrementally until all charts have been amended to comply with the new standard.

IAP PBN/Equipment Requirements Notes Box

<table>
<thead>
<tr>
<th>PBN Requirements Box</th>
<th>From WINRS, UBGE: RNAV-1 GSP, RNAV-1 GSP from MAP to YARKU.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Requirements Box</td>
<td>DME required for LOC only.</td>
</tr>
<tr>
<td>Standard Procedure Notes Box</td>
<td>Circling to Rwy 25 NA at night. #For inop MALSR increase S-ILS 16R all cats visibility to 2½ SM.</td>
</tr>
</tbody>
</table>

RNAV STAR and DP PBN/Equipment Requirements Notes Box

<table>
<thead>
<tr>
<th>PBN Requirements Box</th>
<th>RNAV 1 - DME/DME/IRU or GPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Requirements Box</td>
<td>RADAR required</td>
</tr>
</tbody>
</table>

PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

Available pilot controlled lighting (PCL) systems are indicated as follows:
1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g., .*, .*, 3.
2. Approach lighting systems that do not bear a system identification are indicated with a negative "(*) beside the name. A star (**) indicates non-standard PCL, consult Chart Supplement, e.g., 1**

To activate lights, use frequency indicated in the communication section of the chart with a 1 or the appropriate lighting system identification e.g., UNICOM 122.8 1, 1, 3.

KEY MIKE

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 times within 5 seconds</td>
<td>Highest intensity available</td>
</tr>
<tr>
<td>5 times within 5 seconds</td>
<td>Medium or lower intensity (Lower REIL or REIL-off)</td>
</tr>
<tr>
<td>3 times within 5 seconds</td>
<td>Lowest intensity available (Lower REIL or REIL-off)</td>
</tr>
</tbody>
</table>
TERMINAL PROCEDURES

GENERAL INFO 20030

ABBREVIATIONS

AAUP: Attention All Users Page
ADF: Automatic Direction Finder
ADIZ: Air Defense Identification Zone
AFIS: Automatic Flight Information Service
ALS: Approach Light System
ALSF: Approach Light System with Sequenced Flashing Lights
AOB: At Or Below
AP: Autopilot System
APCH: Approach
APP CON: Approach Control
ARR: Arrival
ASOS: Automated Surface Observing System
ASR/PAR: Published Radar Minimums at this Airport
ASSC: Airport Surface Surveillance Systems
ATIS: Automatic Terminal Information Service
AUNICOM: Automated UNICOM
AWOS: Automated Weather Observing System
AZ: Azimuth
BC: Back Course
BND: Bound
C: Circling
CAT: Category
CCW: Counter Clockwise
CDI: Course Deviation Indicator
Chan: Channel
CIFP: Coded Instrument Flight Procedures
CIR: Circling
CLNC DEL: Clearance Delivery
CNF: Computer Navigation Fix
CPDLC: Controller Pilot Data Link Communication
CTAF: Common Traffic Advisory Frequency
CW: Clockwise
D-ATIS: Digital-Automatic Terminal Information Service
DA: Decision Altitude
DER: Departure End of Runway
DH: Decision Height
DME: Distance Measuring Equipment
DTHR: Displaced Threshold
DVA: Diverse Vector Area
ELEV: Elevation
EMAS: Engineered Material Arrester System
FAF: Final Approach Fix
FD: Flight Director System
FM: Fan Marker
FMS: Flight Management System
GBAS: Ground Based Augmentation System
GCO: Ground Communications Outlet
GLS: Ground Based Augmentation System
GP: Glidepath
GPI: Ground Point of Interception
GPS: Global Positioning System
GS: Glide Slope
HAA: Height above Airport
HAL: Height above Landing
HAT: Height above Touchdown
HATH: Height Above Threshold
HCH: Heliport Crossing Height
HGS: Head-up Guidance System
HIR: High Intensity Runway Lights
HUD: Head-up Display
IAF: Initial Approach Fix
ICAO: International Civil Aviation Organization
IF: Intermediate Fix
IM: Inner Marker
INOP: Inoperative
INT: Intersection
K: Knots
KIAS: Knots Indicated Airspeed
LSAS: Local Area Augmentation System
LDA: Localizer Type Directional Aid
Ldg: Landing
LIIR: Low Intensity Runway Lights
LNAV: Lateral Navigation
LOC: Localizer
LP: Localizer Performance
LPV: Localizer Performance with Vertical Guidance
LR: Lead Radial. Provides at least 2 NM (Coper 1 NM) of lead to assist in turning onto the intermediate/final course.
MAA: Maximum Authorized Altitude
MALS: Medium Altitude System
MALSR: Medium Altitude Approach System
MAP: Missed Approach
MDA: Minimum Descent Altitude
MIALR: Medium Intensity Approach Light System
MM: Middle Marker
MR: Minimum Reception Altitude
MVR: Medium Intensity Runway Lights
N/A: Not Applicable
NA: Not Authorized
NDB: Non-directional Radio Beacon
NM: Nautical Mile
NoPT: No Procedure Turn Required
(Please note that the procedure turn shall not be executed without ATC clearance)
## GENERAL INFO

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODALS</td>
<td>Omnidirectional Approach Light System</td>
</tr>
<tr>
<td>ODP</td>
<td>Obstacle Departure Procedure</td>
</tr>
<tr>
<td>OM</td>
<td>Outer Marker</td>
</tr>
<tr>
<td>PAR</td>
<td>Precision Approach Radar</td>
</tr>
<tr>
<td>PDC</td>
<td>Pre-Departure Clearance</td>
</tr>
<tr>
<td>PRM</td>
<td>Precision Runway Monitor</td>
</tr>
<tr>
<td>R</td>
<td>Radial</td>
</tr>
<tr>
<td>RA</td>
<td>Radio Altimeter setting height</td>
</tr>
<tr>
<td>RAIL</td>
<td>Runway Alignment Indicator Lights</td>
</tr>
<tr>
<td>RCLS</td>
<td>Runway Centerline Light System</td>
</tr>
<tr>
<td>REIL</td>
<td>Runway End Identifier Lights</td>
</tr>
<tr>
<td>RF</td>
<td>Radius-to-Fix</td>
</tr>
<tr>
<td>RLLS</td>
<td>Runway Lead-in Light System</td>
</tr>
<tr>
<td>RNAV</td>
<td>Area Navigation</td>
</tr>
<tr>
<td>RNP</td>
<td>Required Navigation Performance</td>
</tr>
<tr>
<td>RPI</td>
<td>Runway Point of Intercept(ion)</td>
</tr>
<tr>
<td>RRL</td>
<td>Runway Remaining Lights</td>
</tr>
<tr>
<td>RwY</td>
<td>Runway</td>
</tr>
<tr>
<td>RVR</td>
<td>Runway Visual Range</td>
</tr>
<tr>
<td>S</td>
<td>Straight-in</td>
</tr>
<tr>
<td>SALS</td>
<td>Short Approach Light System</td>
</tr>
<tr>
<td>SALSF</td>
<td>Short Approach Lighting System with Sequenced Flashing Lights</td>
</tr>
<tr>
<td>SSALF</td>
<td>Simplified Short Approach Lighting System with Sequenced Flashers</td>
</tr>
<tr>
<td>SSALR</td>
<td>Simplified Short Approach Light System with RAIL</td>
</tr>
<tr>
<td>SSALS</td>
<td>Simplified Short Approach Lighting System</td>
</tr>
<tr>
<td>SDF</td>
<td>Simplified Directional Facility</td>
</tr>
<tr>
<td>SM</td>
<td>Statute Mile</td>
</tr>
<tr>
<td>SOIA</td>
<td>Simultaneous Offset Instrument Approach</td>
</tr>
<tr>
<td>SR-SS</td>
<td>Sunrise-Sunset</td>
</tr>
<tr>
<td>TAA</td>
<td>Terminal Arrival Area</td>
</tr>
<tr>
<td>TAC</td>
<td>TACAN</td>
</tr>
<tr>
<td>TCH</td>
<td>Threshold Crossing Height (height in feet Above Ground level)</td>
</tr>
<tr>
<td>TDZ</td>
<td>Touchdown Zone</td>
</tr>
<tr>
<td>TDZE</td>
<td>Touchdown Zone Elevation</td>
</tr>
<tr>
<td>TDZ/CL</td>
<td>Touchdown Zone and Runway Centerline Lighting</td>
</tr>
<tr>
<td>TDZL</td>
<td>Touchdown Zone Lights</td>
</tr>
<tr>
<td>THR</td>
<td>Threshold</td>
</tr>
<tr>
<td>TODA</td>
<td>Takeoff Distance Available</td>
</tr>
<tr>
<td>TORA</td>
<td>Takeoff Run Available</td>
</tr>
<tr>
<td>TR</td>
<td>Track</td>
</tr>
<tr>
<td>VASI</td>
<td>Visual Approach Slope Indicator</td>
</tr>
<tr>
<td>VCOA</td>
<td>Visual Climb Over Airport</td>
</tr>
<tr>
<td>VDP</td>
<td>Visual Descent Point</td>
</tr>
<tr>
<td>VGSI</td>
<td>Visual Glide Slope Indicator</td>
</tr>
<tr>
<td>VNAV</td>
<td>Vertical Navigation</td>
</tr>
<tr>
<td>WAAS</td>
<td>Wide Area Augmentation System</td>
</tr>
<tr>
<td>WP/WPT</td>
<td>Waypoint (RNAV)</td>
</tr>
</tbody>
</table>

## ABBREVIATIONS

PAC, 5 NOV 2020 to 31 DEC 2020
**LEGEND** 19171

**INSTRUMENT APPROACH PROCEDURES (CHARTS)**

**PLANVIEW SYMBOLS**

**MINIMUM SAFE ALTITUDE (MSA)**

- Facility Identifier
- Airport Identifier

- **MSA CRW 25 NM**
  - 1500
  - 2200
  - 090° → 270°
  - 4500
  - 2500
  - 180°
  - 360°

- **MSA AIA 25 NM**
  - 2500

(arrows on distance circle identify sectors)

**TERMINAL ARRIVAL AREA (TAA)**

- **Straight-in Area**
  - 2000
  - 4200
  - 090° → 270°

- **Right Base Area**
  - 1500
  - 2000
  - 270°

- **Left Base Area**
  - 1500

**MISCELLANEOUS**

- **VOR Changeover Point**
  - RWY 15 S12° 00.52° W77° 06.91°

- **End of Rwy Coordinates**
  - (DOD only)

- **Distance not to scale**
- **International Boundary**
- **Air Defense Identification Zone**

**SPECIAL USE AIRSPACE**

- **R-352**
  - R-Restricted
  - W-Warning
  - P-Prohibited
  - A-Alert

**AIRPORTS**

- Primary and Secondary (named in planview)
- Seaplane Base
- Civil
- Heliport

**OBSTACLES**

- Spot Elevation
- Obstacle
- Highest Obstacle
- Highest Spot Elevation
- Group of Obstacles
- Doubtful accuracy

---

PAC, 5 NOV 2020 to 31 DEC 2020
LEGEND

STANDARD TERMINAL ARRIVAL (STAR) CHARTS
DEPARTURE PROCEDURE (DP) CHARTS
Applies to both STAR and DP Charts unless otherwise noted.

RADIO AIDS TO NAVIGATION

Compulsory:
- VOR
- VOR/DME
- TACAN
- DME
- NDB
- NDB/DME

Non-Compulsory:
- VOR
- VORTAC
- DME
- NDB
- NDB/DME

LMM, LOM (Compass locator)
Marker Beacon

Loclizer Course
SDF Course

(T) indicates frequency protection range (STAR)
(Y) TACAN must be placed in "Y" mode to receive distance information

(Revised 5 Nov 2020 to 31 Dec 2020)

FIXES/ATC REPORTING REQUIREMENTS

Reporting Points
N00°00.00’
W00°00.00’

▲ Fix-Compulsory and
▲ Non-Compulsory Position Report

WAYPOINT
(DP)

WAYPOINT
(Compulsory)

WAYPOINT
(Non-Compulsory)

X Computer Navigation Fix (CNF) - No ATC Function
N00°00.00’
W00°00.00’

CASE 1 TERMINAL PROCEDURES

19059

ALTIMETRY

Mandatory Altitude
Minimum Altitude
Maximum Altitude

Indicated Airspeed
Mandatory Airspeed
Minimum Airspeed
Maximum Airspeed

Airports
(Civil)
(Military)
(Civil-Military)

Joint

(79) DME Mileage

(19059)

PAC, 5 Nov 2020 to 31 Dec 2020
TERMINAL PROCEDURES

INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM/AIRPORT SKETCH

Helicopter Alighting Areas

Negative Symbols used to identify Copter Procedures
landing point...

NOTE:
Landmark features depicted on Copter Approach insets
and sketches are provided for visual reference only.

Runway TDZ elevation...TDZE 123
—0.3% DOWN

Runway Slope...0.8% UP
(shown when runway slope is greater than
or equal to 0.3%)

NOTE:
Runway Slope measured to midpoint on runways
8000 feet or longer.

U.S. Navy Optical Landing System (OLS) "OLS"
location is shown because of its height of
approximately 7 feet and proximity to edge of
runway may create an obstruction for some types
of aircraft.

Approach light symbols are shown in the
Flight Information Handbook.

Airport diagram scales are variable.

True/magnetic North orientation may vary from
diagram to diagram.

Coordinate values are shown in 1 or ½ minute
increments. They are further broken down into
6 second ticks, within each 1 minute increments.

Positional accuracy within ±600 feet unless otherwise
noted on the chart.

Runway length depicted is the physical length of
the runway (end-to-end, including displaced thresholds
if any) but excluding areas designated as stopways.

A symbol is shown to indicate runway declared
distance information available, see appropriate Chart
Supplement for distance information.

SCOPE

Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex
runway/taxiway configurations. Airport diagrams are not intended to be used for approach and landing or departure
operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

LEGEND

Hard Surface
Other Than Hard Surface
Stopways, Taxiways, Parking Areas
Metal Surface
Closed Runway
Closed Surface
Under Construction
Water Runway

uni-directional
bi-directional
Jet Barrier

ARRESTING SYSTEM (EMAS)

Displaced Threshold
Hot Spot
Runway Holding Position Markings
Buildings
24-Hour Self-Serve Fuel
Tanks
Obstructions
Airport Beacon
Runway
Radar Reflectors
Control Tower

# When Control Tower and Rotating Beacon are
co-located, Beacon symbol will be used and
further identified as TWR.

### A fuel symbol is shown to indicate 24-hour self-serve
fuel available, see appropriate Chart Supplement for
information.

NOTE:
All new and revised airport diagrams are shown referenced
to the World Geodetic System (WGS) (noted on
appropriate diagram), and may not be compatible
with local coordinates published in FLIP. (Foreign Only)

Runway Weight Bearing Capacity/or PCN Pavement
Classification Number is shown as a modified expression.
Refer to the appropriate Supplement/Directory for applicable codes
e.g., Rwy 14-32 PCN 80 F/D/X/U S-75, D-185, 25-175, 2D-325

PAC, 5 NOV 2020 to 31 DEC 2020
LEGEND 18256

INSTRUMENT APPROACH PROCEDURES (CHARTS)
APPROACH LIGHTING SYSTEM - UNITED STATES

Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, \( \mathbb{P} \), \( \mathbb{V} \) etc.
A dot \( \bullet \) portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., \( \mathbb{P} \). Negative symbology, e.g., \( \circ \), \( \bullet \) indicates Pilot Controlled Lighting (PCL).

**P** PRECISION APPROACH PATH INDICATOR

\[ \mathbb{P} \]

- Too low
- Slightly low
- On correct approach path
- Slightly high
- Too high

Legend: \( \blacksquare \) White  \( \blacklozenge \) Red

**V** PULSATING VISUAL APPROACH SLOPE INDICATOR

\[ \mathbb{V} \]

- Pulsating White
- Steady White or Alternating Red/White
- Below Glide Path
- Slightly Below Glide Path
- On Glide Path
- Above Glide Path

Threshold

**CAUTION:** When viewing the pulsating visual approach slope indicators in the pulsating white or pulsating red sectors, it is possible to mistake this lighting aid for another aircraft or a ground vehicle. Pilots should exercise caution when using this type of system.

**V** TRI-COLOR VISUAL APPROACH SLOPE INDICATOR

\[ \mathbb{V} \]

- Above Glide Path
- On Glide Path
- Below Glide Path

Green  Amber  Red

**CAUTION:** When the aircraft descends from green to red, the pilot may see a dark amber color during the transition from green to red.

**V** ALIGNMENT OF ELEMENTS SYSTEMS

\[ \mathbb{V} \]

- Above glide path
- On Glide Path
- Below Glide Path

Painted panels which may be lighted at night. To use the system the pilot positions the aircraft so the elements are in alignment.
### MLS Channeling and Frequency Pairing Table

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ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR takeoff minimums other than standard, are listed below. Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. An entry may also be listed that contains only Takeoff Obstacle Notes. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are textually described below, or published separately as a graphic procedure. If the ODP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned an ODP, SID, or radar vector as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the airport, a fix, or a NAVAID in a specified direction, at or above a specified altitude. These procedures are called Visual Climb Over Airport (VCOA). To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when requesting their IFR clearance.

At some locations where an ODP has been established, a diverse vector area (DVA) may be created to allow radar vectors to be used in lieu of an ODP. DVA information will state that headings will be as assigned by ATC and climb gradients, when applicable, will be published immediately following the specified departure procedure.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as “Standard Instrument Departures (SIDs)”. SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: (1) For aircraft, other than helicopters, having two engines or less – one statute mile visibility. (2) For aircraft having more than two engines – one-half statute mile visibility. (3) For helicopters – one-half statute mile visibility. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) takeoff minima are published below. For military takeoff minima, refer to appropriate service directives.

**BABELTHUAP, KOROR, PS**

**BABELTHUAP/KOROR (ROR) (PTRO)**

**TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**

**AMDT 2 31DEC09 (20030) (FAA)**

**TAKEOFF MINIMUMS:**

Rwy 27, 300-1/3 or std. w/min. climb of 320' per NM to 500.

**DEPARTURE PROCEDURE:**

Rwy 27, climb on heading 271° to 600 before turning right.

**TAKEOFF OBSTACLE NOTES:**

Rwy 9, trees beginning 19' from DER, 317' right of centerline, up to 26' AGL/188' MSL.

Tree 89' from DER, 271' left of centerline, 178' MSL.

Vegetation, trees beginning 107' from DER, 131' left of centerline, up to 187' MSL.

Tree 390' from DER, 320' right of centerline, 34' AGL/191' MSL.

Rwy 27, trees beginning 23' from DER, 296' right of centerline, up to 17' AGL/180' MSL.

Tree 238' from DER, 382' right of centerline, 184' MSL.

Trees beginning 439' from DER, 372' right of centerline, up to 436' AGL/206' MSL.

Tree 624' from DER, 465' left of centerline, 47' AGL/205' MSL.

Tree 1757' from DER, 258' right of centerline, 232' MSL.

Trees beginning 4512' from DER, 486' right of centerline, up to 356' MSL.

Tree 5708' from DER, 652' right of centerline, 43' AGL/371' MSL.

Tree 5736' from DER, 670' right of centerline, 363' MSL.
GUAM, GU
GUAM INTL (GUM) (PGUM)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 25JUN15 (15176) (FAA)
TAKEOFF MINIMUMS:
Rwy 6L, 400-1 ½ or std. w/min. climb of 380' per NM to 800.
Rwy 6R, 400-1 ½ or std. w/min. climb of 520' per NM to 900.
Rwy 24L, std. w/min. climb of 280' per NM to 1700.
Rwy 24R, std. w/min. climb of 285' per NM to 1700.
DEPARTURE PROCEDURE:
Rwys 6L, 6R, climb heading 063° to 1100 before turning right.
TAKEOFF OBSTACLE NOTES:
Rwy 6L, trees beginning 2280', DER, 690' left of centerline, up to 40' AGL/427' MSL.
Trees beginning 562' from DER, 115' right of centerline, up to 40' AGL/443' MSL.
Rwy 6R, trees beginning 1224' from DER, 38' left of centerline, up to 40' AGL/389' MSL.
Trees beginning 4054', DER, 331' left of centerline, up to 40' AGL/442' MSL.
Pole 3707' from DER, 933' right of centerline, 10' AGL/389' MSL.
Tree 4227' from DER, 265' right of centerline, 40' AGL/443' MSL.
Ol bldg 6150' from DER, 1953' right of centerline, 40' AGL/701' MSL.
Tree 6729' from DER, 1186' right of centerline, 40' AGL/546' MSL.
Tree 7934' from DER, 1781' right of centerline, 40' AGL/659' MSL.

HANA, HI
HANA (HNN) (PHHN)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 01SEP05 (05244) (FAA)
DEPARTURE PROCEDURE:
Use LINDBERG DEPARTURE.

HILO, HI
HILO INTL (ITO) (PHTO)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 6 22DEC05 (05356) (FAA)
DEPARTURE PROCEDURE:
Use PARIS DEPARTURE.

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 1 26MAY16 (16147) (FAA)

HONOLULU, HI
DANIEL K INOUYE INTL (HNL) (PHNL)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 8B 08NOV18 (18312) (FAA)
DEPARTURE PROCEDURE:
use HONOLULU DEPARTURE.
TAKEOFF OBSTACLE NOTES:
Rwy 4L, multiple lights beginning 630' from DER, 236' left of centerline, 102' right of centerline, up to 84' AGL/92' MSL.
Light on building 669' from DER, 394' left of centerline, 29' AGL/37' MSL.
Stack on building 2488' from DER, 219' right of centerline 72' AGL/80' MSL.
Multiple trees beginning 1253' from DER, 209' left of centerline, 935' right of centerline, up to 64' AGL/72' MSL.
Bush 450' from DER, 234' left of centerline, 14' AGL/22' MSL.
Rwy 4R, stack on building, 2442' from DER, 283' left of centerline, 72' AGL/80' MSL.
Multiple trees beginning 1206' from DER, 711' left of centerline, 433' right of centerline, up to 64' AGL/72' MSL.
Multiple lights beginning 1072' from DER, 399' left of centerline, 504' right of centerline, up to 36' AGL/44' MSL.
Pole 2110' from DER, 951' left of centerline, 59' AGL/67' MSL.
Rwy 22L, multiple bushes beginning 265' from DER, 396' right of centerline, up to 17' AGL/31' MSL.
Tree 1065' from DER, 499' right of centerline, 30' AGL/38' MSL.
Rwy 22R, rad on OL ASR 1451' from DER, 827' right of centerline, 76' AGL/84' MSL.
Tree 853' from DER, 308' right of centerline, 43' AGL/51' MSL.
Rwy 26L, ship 1.1 NM from DER, on centerline, 208' AGL/208' MSL.
Rwy 26R, multiple light poles beginning 2120' from DER, 813' right of centerline, up to 105' AGL/111' MSL.
CONT
TERMINAL PROCEDURES

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

HONOLULU, HI (CON’T)

DANIEL K INOUYE INTL (HNL) (PHNL) (CON’T)

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 1 04FEB16 (16035) (FAA)
Rwys 4L/R, heading as assigned by ATC; requires minimum climb of 490’ per NM to 2100, do not exceed 180 KTS until established on assigned heading.
Rwys 8L, heading as assigned by ATC; requires minimum climb of 360’ per NM to 1700.
Rwys 8R, heading as assigned by ATC; requires minimum climb of 240’ per NM to 700.
Rwys 22L/R, heading as assigned by ATC; requires minimum climb of 320’ per NM to 3700.
Rwys 26L, heading as assigned by ATC; requires minimum climb of 360’ per NM to 3700.
Rwys 26R, heading as assigned by ATC; requires minimum climb of 430’ per NM to 4400.

KAHULUI, HI

KAHULUI (OGG) (PHOG)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 7 29MAY14 (14149) (FAA)
TAKEOFF MINIMUMS:
Rwy 23, NA-ATC.

DEPARTURE PROCEDURE:
Rwys 2, climb on a heading 316° CW 052° from DER to 10600 before proceeding on course.
Rwys 5, climb on a heading 312° CW 040° from DER to 10700 before proceeding on course.
Rwys 20, climb on heading 185° from DER to 11000 before proceeding on course.

TAKEOFF OBSTACLE NOTES:
Rwys 2, bush and trees beginning 190’ from DER, 363’ left of centerline, up to 60’ AGL/79’ MSL.
Bushes and obstruction light on building beginning 339’ from DER, 289’ right of centerline, up to 20’ AGL/25’ MSL.
Rwys 5, tree 2359’ from DER, 512’ left of centerline, 56’ AGL/75’ MSL.
Fence 20’ from DER, 304’ right of centerline, 11’ AGL/31’ MSL.
Bushes, trees and fence beginning 228’ from DER, 300’ right of centerline, up to 76’ AGL/95’ MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 1 26MAY16 (16147) (FAA)
Rwys 2, 5, 20, heading as assigned by ATC.

KAILUA-KONA, HI

ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 5A 29MAR18 (18088) (FAA)

DEPARTURE PROCEDURE:
Rwys 17, climb on heading 174° to 500 then climbing right turn heading 357° and KOA R-327 to MYNAH INT for assigned route.
Rwys 35, eastbound climb on heading 354° to intercept MUE R-246 for assigned route; northwest bound climb heading 354° to 500 then climbing left turn to assigned route.

TAKEOFF OBSTACLE NOTES:
Rwys 17, obstruction light on AMOM at DER, 350’ right of centerline, 25’ AGL/82’ MSL.
Rwys 35, tree 1606’ from DER, 7211’ right of centerline, 15’ AGL/94’ MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 1 15OCT15 (15288) (FAA)
Rwys 17, 35, heading as assigned by ATC.

KALAUPAPA, HI

KALAUPAPA (LUP) (PHLU)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 10MAR11 (11069) (FAA)

DEPARTURE PROCEDURE:
Use KALAUPAPA ONE DEPARTURE.
L4 TERMINAL PROCEDURES

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

KAMUELA, HI
WAIMEA-KOHALA (MUE) (PHMU)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 17MAR05 (05076) (FAA)
TAKEOFF MINIMUMS:
Rwy 4, 400-2 or std. with a min. climb of 240' per NM to 3100.
DEPARTURE PROCEDURE:
Rwy 4, climb via heading 041° to 3100 then climbing right turn via heading 080° and MUE VOR/DME R-057 to 6000 to VELLA INT, then as assigned.
Rwy 22, climb via heading 233° and MUE VOR/DME R-234 to 5000 to JASON INT, then as assigned.
TAKEOFF OBSTACLE NOTES:
Rwy 4, windsock 158' from DER, 299' right of centerline, 25' AGL/2702' MSL.
Fence 2754' from DER, 323' right of centerline, 12' AGL/2741' MSL.
Tree 5200' from DER, 179' right of centerline, 50' AGL/2817' MSL.
Tree 5331' from DER, 110' left of centerline, 50' AGL/2829' MSL.
Tree 1.3 NM from DER, 739' right of centerline, 50' AGL/2864' MSL.
Tree 1.3 NM from DER, 110' left of centerline, 50' AGL/2829' MSL.
Antenna 1.8 NM from DER, 1094' left of centerline, 152' AGL/2992' MSL.
Rising terrain beginning 1.5 NM from DER, 3.9 NM left of centerline, up to 13796' MSL.
Rwy 22, cactus at DER, 191' left of centerline, 10' AGL/2668' MSL.
Tree at DER, 353' right of centerline, 50' AGL/2687' MSL.
Bush 673' from DER, 186' left of centerline, 30' AGL/2673' MSL.
Pole 1058' from DER, 124' left of centerline, 20' AGL/2683' MSL.
Rapidly rising terrain beginning 1.5 NM from DER, 4209' left of centerline, up to 5513' MSL.

KAPOLEI, OAHU ISLAND, HI
KALAELOA (JOHN RODGERS FIELD) (JRF) (PHJR)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 22OCT09 (09295) (FAA)
DEPARTURE PROCEDURE:
DME Required.
Rwys 4L, 4R, 11, climb heading 200° to intercept HNL VORTAC R-241 to GECKO/HNL 22.4 DME before proceeding on course.
Rwys 22L, 22R, climb heading 224° to intercept HNL VORTAC R-241 to GECKO/HNL 22.4 DME before proceeding on course.
Rwy 29, climb heading 210° to intercept HNL VORTAC R-241 to GECKO/HNL 22.4 DME before proceeding on course.
TAKEOFF OBSTACLE NOTES:
Rwy 11, tree 1533' from DER, 831' left of centerline, 60' AGL/70' MSL.
Rwy 22L, vehicles on road 305' from DER, 195' left of centerline, 18' AGL/26' MSL.
Rwy 29, tree 1794' from DER, 573' left of centerline, 60' AGL/99' MSL.

KAUNAKAKAI, HI
MOLOKAI (MKK) (PHMK)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 6 19MAY14 (14149) (FAA)
DEPARTURE PROCEDURE:
use KAUNAKAKAI DEPARTURE.

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 1 15OCT15 (15288) (FAA)
Rwy 17, heading as assigned by ATC.
Rwy 23, heading as assigned by ATC; requires minimum climb of 460' per NM to 2000.

KOSRAE, FM
KOSRAE (TTK) (PTSA)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG-A 12MAR09 (09071) (FAA)
CAUTION: Ships with masts to 200' traverse harbor entrance located on west side of runway.
DEPARTURE PROCEDURE:
Rwy 5, left turn.
Rwy 23, right turn, climb to 2000 or above before turning east.
LANAI CITY, HI
LANAI (LNY) (PHNY)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 5  27AUG09  (09239)  (FAA)
TAKEOFF MINIMUMS:
Rwy 3, 400-1 or std. w/ min. climb of 370’ per NM to 2700 or 2500-3 for climb in visual conditions.
DEPARTURE PROCEDURE:
Rwy 3, climb heading 033° to 1720 before turning left. Climb heading 300° or 180° to intercept route or airway, then continue as cleared. Maintain maximum 210 kts until turn is completed or for climb in visual conditions cross LNY VORTAC eastbound at or above 3700.
Rwy 21, climb heading 213° to assigned altitude. Eastbound - climb westbound to cross LNY VORTAC eastbound at or above 2700 and climb as cleared. Westbound - climb direct LNY VORTAC then via assigned route.
TAKEOFF OBSTACLE NOTES:
Rwy 3, multiple poles, trees, and terrain beginning 2108’ from DER, 1011’ left of centerline, up to 200’ AGL/2202’ MSL.
Rwy 21, lighted windsock 8’ from DER, 191’ right of centerline, 30’ AGL/1323’ MSL.

LIHUE, HI
LIHUE (LIH) (PHLI)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 8  05OCT00  (00279)  (FAA)
TAKEOFF MINIMUMS:
Rwy 21, 2400-3. Use DIANE DEPARTURE PROCEDURE.
DEPARTURE PROCEDURE:
Rwys 3, 17, heading as assigned by ATC. Rwy 21, heading as assigned by ATC; requires minimum climb of 400’ per NM to 4500. Rwy 35, heading as assigned by ATC; requires minimum climb of 230’ per NM to 700.

MAJURO ATOLL, RM
AMATA KABUA INTL (MAJ) (PKMJ)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG  08APR10  (20310)  (FAA)
TAKEOFF OBSTACLE NOTES:
Rwy 7, antenna on building 215’ from DER, 446’ left of centerline, 48’ AGL/54’ MSL.
Obstruction light on AMOM 44’ from DER, 269’ left of centerline, 33’ AGL/39’ MSL.
Obstruction light on WSK 10’ from DER, 245’ right of centerline, 23’ AGL/29’ MSL.
Tree 934’ from DER, 243’ left of centerline, 39’ AGL/45’ MSL.
Bush 555’ from DER, 187’ right of centerline, 23’ AGL/23’ MSL.
Rwy 25, obstruction light on WSK 11’ from DER, 246’ left of centerline, 23’ AGL/29’ MSL.
Post 51’ from DER, 252’ right of centerline, 8’ AGL/14’ MSL.
Tree 996’ from DER, 39’ left of centerline, 14’ AGL/37’ MSL.
Tree 563’ from DER, 5’ right of centerline, 20’ AGL/26’ MSL.
Bushes beginning 207’ from DER, from 124’ left to 207’ right of centerline, up to 14’ AGL/20’ MSL.
Vehicle on roadway 130’ from DER, 241’ right of centerline, 15’ AGL/20’ MSL.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

PAGO PAGO, AQ
PAGO PAGO INTL (PPG) (NSTU)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG-A 12MAR09 (09071) (FAA)
TAKEOFF MINIMUMS:
- Rwy 23, std. w/min. climb of 320' per NM to 800, or 2700-3 for climb in visual conditions.
- Rwy 26, NA-obstacles.
DEPARTURE PROCEDURE:
- Rwys 5, 8, climbing right turn southbound between TUT R-090 clockwise to R-180 to 2800, then proceed on course.
- Rwy 23, climbing left turn heading 150° southbound between TUT R-090 clockwise to R-180 to 2800, then proceed on course. For climb in visual conditions: cross Pago Pago Intl Airport at or above 2600 before proceeding on course.
TAKEOFF OBSTACLE NOTES:
- Rwy 5, bush 1' from DER, 237' right of centerline, 3' AGL/12' MSL.
- Bush 379' from DER, 362' left of centerline, 14' AGL/23' MSL.
- Ship 998' from DER, 57' right of centerline, 150' AGL/150' MSL.
- Rwy 8, bush 689' from DER, 360' left of centerline, 15' AGL/23' MSL.
- Ship 1435' from DER, 304' left of centerline, 20' AGL/150' MSL.
- Rwy 23, multiple trees beginning 352' from DER, 173' left of centerline, up to 20' AGL/172' MSL.
- Multiple trees and poles beginning 1.6 NM from DER, 38' right of centerline, up to 367' AGL/554' MSL.
- Tree 2.3 NM from DER, 2126' left of centerline, 20' AGL/387' MSL.

POHNPPEI ISLAND, FM
POHNPPEI INTL (PNI) (PTPN)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 3 27APR17 (17117) (FAA)
TAKEOFF MINIMUMS:
- Rwy 27, 300-1½ or std. w/min. climb of 215' per NM to 300, or alternatively, with standard takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1400' prior to DER.
DEPARTURE PROCEDURE:
- Rwy 9, Climb on a heading between 264° CW 083° from DER to 2600 before proceeding on course.
- Rwy 27, Climb on a heading between 264° CW 083° from DER to 2600 before proceeding on course.
TAKEOFF OBSTACLE NOTES:
- Rwy 27, fence 92' from DER, left to right of centerline, up to 9' AGL/15' MSL.
- Tree 1.2 NM from DER, 1175' left of centerline, 62' AGL/203' MSL.
CAUTION: Rwy 27, ships with maximum height of 150' MSL may traverse Pohnpei channel 400' off DER, closing airport at times.

ROTA ISLAND, CQ
BENJAMIN TAIASCAN MANGLONA INTL (GRO) (PGRO)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 2 06FEB14 (14037) (FAA)
DEPARTURE PROCEDURE:
- Rwy 9, climb heading 090° to 1400 before turning.
- Rwy 27, climb heading 270° to 2200 before turning southbound.
TAKEOFF OBSTACLE NOTES:
- Rwy 9, tree 514' from DER, 418' left of centerline, up to 30' AGL/638' MSL.
- Rwy 27, tree 1203' from DER, 581' left of centerline, up to 30' AGL/618' MSL.

SAIPAN ISLAND, CQ
FRANCISCO C ADA/SAIPAN INTL (GSN) (PGSN)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG-A 12MAR09 (09071) (FAA)
DEPARTURE PROCEDURE:
- Rwys 7, 25, climb on runway heading to 1600 before climbing on course.

TINIAN ISLAND, CQ
TINIAN INTL (TNI) (PGWT)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 1 27AUG09 (09239) (FAA)
TAKEOFF OBSTACLE NOTES:
- Rwy 8, trees beginning 694' from DER, 507' left of centerline, up to 100' AGL/363' MSL.
- Multiple trees beginning 569' from DER, 471' right of centerline, up to 100' AGL/389' MSL.
- Rwy 26, multiple trees beginning 743' from DER, 508' right of centerline, up to 100' AGL/363' MSL.
TERMINAL PROCEDURES

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

20310

WENO ISLAND, FM
CHUUK INTL (TKK) (PTKK)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 2 11FEB10 (10042) (FAA)
DEPARTURE PROCEDURE:
Rwy 4, climb heading 041° to 1100 before proceeding on course.
Rwy 22, climb heading 221° to 1500 before proceeding on course.
TAKEOFF OBSTACLE NOTES:
Rwy 4, bush 205' from DER, 203' right of centerline, 7' AGL/17' MSL.
Rwy 22, bush 5' from DER, 241' right of centerline, 14' AGL/24' MSL.
Bush 221' from DER, 85' right of centerline, 7' AGL/17' MSL.
CAUTION: Ships with superstructure to 150' traverse channels west of runway 4/22.

YAP ISLAND, FM
YAP INTL (T11) (PTYA)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 2 08DEC94 (94342) (FAA)
DEPARTURE PROCEDURE:
Rwy 7, climbing right turn to 1500 via 090° bearing from YP NDB/DME, then climb on course.
Rwy 25, climb to 500, then climb on course.
### Terminal Procedures

#### Alternate Mins

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<thead>
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<td><strong>NDB Rwy 5</strong>&lt;sup&gt;1&lt;/sup&gt; RNAV (GPS) Rwy 9 RNAV (GPS) Rwy 27</td>
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<td><strong>Guam, Gu</strong></td>
<td><strong>ILS or LOC Rwy 6L</strong>&lt;sup&gt;1&lt;/sup&gt; RNAV (GPS) Rwy 6L RNAV (GPS) Rwy 6R RNAV (GPS) Y Rwy 6R RNAV (GPS) Y Rwy 24L RAV (RNP) Z Rwy 24R VOR or TACAN Rwy 24R VOR or TACAN Rwy 24R**</td>
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<td><strong>Hilo, Hi</strong></td>
<td><strong>RNAV (GPS) Rwy 26</strong>&lt;sup&gt;1&lt;/sup&gt; VOR-DME or TACAN Rwy 26a VOR-DME or TACAN Rwy 26b VOR or TACAN Rwy 26**</td>
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<sup>1</sup>Category A, B, 900-2; Category C, 900-2/2; Category D, 900-2.2.
2Category A, B, 900-2; Category C, 900-2/2; Category D, 900-2.<sup>3</sup>Category A, B, 900-2; Category C, 900-2/2; Category D, 900-2.<sup>4</sup>Category A, B, 900-2; Category C, 900-2/2; Category D, 900-2.<sup>5</sup>Category A, B, 900-2; Category C, 900-2/2; Category D, 900-2.<sup>6</sup>Category A, B, 900-2; Category C, 900-2/2; Category D, 900-2/2.3.

**Notes:**
- **IFR Alternate Airport Minimums:** Standard alternate minimums for non-precision approaches and approaches with vertical guidance [NDB, VOR, LOC, TACAN, LDA, SDF, VOR/DME, ASR, RNAV (GPS) or RNAV (RNP)] are 800-2. Standard alternate minimums for precision approaches (ILS, PAR, or GLS) are 600-2. Airports within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA - means alternate minimums are not authorized due to unmonitored facility, absence of weather reporting service, or lack of adequate navigation coverage. Civil pilots see FAR 91. IFR Alternate Minimums: Ceiling and Visibility Minimums not applicable to USA/USN/USAF. Pilots must review the IFR Alternate Minimums Notes for alternate airfield suitability.

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**INSTRUMENT APPROACH PROCEDURE CHARTS**

**IFR Alternate Airport Minimums**

**A**

**Babelthuap, Koror, PS**

**Guam, GU**

**Kahului, Hi**

**Kailua/Kona, HI**

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**Notes:**
- **PAC:** 5 Nov 2020 to 31 Dec 2020
## TERMINAL PROCEDURES

### ALTERNATE MINS

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<tr>
<td>MOLOKAI (MKK).…………………</td>
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<td>VOR or TACAN-A³</td>
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<tr>
<td>KOSRAE (TTK).………………….</td>
<td>RNAV (GPS) Rwy 5¹</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 23²</td>
</tr>
<tr>
<td><em>NA except standard for operators with approved weather reporting service.</em></td>
<td></td>
</tr>
<tr>
<td><em>NA except categories A,B, standard, Category C, 800-2½, Category D 800-2½, for operators with approved weather reporting service.</em></td>
<td></td>
</tr>
<tr>
<td><strong>LANAI CITY, HI</strong></td>
<td></td>
</tr>
<tr>
<td>LANAI (LNY).………………….</td>
<td>VOR or TACAN or GPS-A</td>
</tr>
<tr>
<td></td>
<td>NA when local weather not received except for operators with approved weather reporting service.</td>
</tr>
<tr>
<td><strong>LIHUE, HI</strong></td>
<td></td>
</tr>
<tr>
<td>LIHUE (LIH).………………….</td>
<td>ILS or LOC Rwy 35¹</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 17²</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Y Rwy 21¹</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Y Rwy 35¹</td>
</tr>
<tr>
<td>VOR/DME or TACAN Rwy 21¹</td>
<td></td>
</tr>
<tr>
<td><em>NA when control tower closed.</em></td>
<td></td>
</tr>
<tr>
<td><em>Category B, 900-2; Category C, 1000-2½; Category D, 1000-3.</em></td>
<td></td>
</tr>
<tr>
<td><em>Category C, 800-2½; Category D, 800-2½.</em></td>
<td></td>
</tr>
<tr>
<td><strong>MAJURO ATOLL, RM</strong></td>
<td></td>
</tr>
<tr>
<td>AMATA KABUA</td>
<td></td>
</tr>
<tr>
<td>INTL (MAU).………………….</td>
<td>RNAV (GPS) Rwy 7</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 25</td>
</tr>
<tr>
<td><em>NA when local weather not available.</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>ALTERNATE MINIMUMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MIDWAY ATOLL, MQ</strong></td>
<td></td>
</tr>
<tr>
<td>HENDERSON FIELD (MDY).….</td>
<td>NDB Rwy 6</td>
</tr>
<tr>
<td></td>
<td>NDB Rwy 24</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 6</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 24</td>
</tr>
<tr>
<td><em>NA except standard for operators with approved weather reporting service.</em></td>
<td></td>
</tr>
<tr>
<td><strong>PAGO PAGO, AS</strong></td>
<td></td>
</tr>
<tr>
<td>PAGO PAGO</td>
<td>ILS or LOC Rwy 5²</td>
</tr>
<tr>
<td>INTL (PPG).………………….</td>
<td>NDB-C³</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 5⁴</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 23³</td>
</tr>
<tr>
<td></td>
<td>VOR or TACAN-B⁴</td>
</tr>
<tr>
<td></td>
<td>VOR-D⁵</td>
</tr>
<tr>
<td><em>NA when control tower closed.</em></td>
<td></td>
</tr>
<tr>
<td><em>ILS, Categories A, B, 800-2; Category C, 800-2½; Category D, 900-2½; LOC, Category C, 800-2½; Category D, 900-2½.</em></td>
<td></td>
</tr>
<tr>
<td><em>Category D, 800-2½.</em></td>
<td></td>
</tr>
<tr>
<td><em>Category C, 800-2½; Category D, 900-2½.</em></td>
<td></td>
</tr>
<tr>
<td><em>Categories A, B, 1200-2; Categories C, D, 1200-3.</em></td>
<td></td>
</tr>
<tr>
<td><strong>POHNPUEI ISLAND, FM</strong></td>
<td></td>
</tr>
<tr>
<td>POHNPUEI INTL (PNI).……….</td>
<td>NDB-A¹</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 27²</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) X Rwy 9³</td>
</tr>
<tr>
<td></td>
<td>RNAV (RNP) Y Rwy 9³</td>
</tr>
<tr>
<td><em>Categories A, B, 1000-2; Categories C, D, 1000-3.</em></td>
<td></td>
</tr>
<tr>
<td><em>Categories D, 800-2½.</em></td>
<td></td>
</tr>
<tr>
<td><em>Categories A, B, C, D, 1000-4.</em></td>
<td></td>
</tr>
<tr>
<td><strong>ROTA ISLAND, CQ</strong></td>
<td></td>
</tr>
<tr>
<td>BENJAMIN TAISCAN</td>
<td></td>
</tr>
<tr>
<td>MANGLONA INTL (GRO).……….</td>
<td>RNAV (GPS) Rwy 9</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 27</td>
</tr>
<tr>
<td></td>
<td>NDB Rwy 9¹</td>
</tr>
<tr>
<td></td>
<td>NDB Rwy 27</td>
</tr>
<tr>
<td><em>NA except standard for operators with approved weather reporting service.</em></td>
<td></td>
</tr>
<tr>
<td><em>Categories A, B, 1200-2; Categories C, D, 1200-3.</em></td>
<td></td>
</tr>
<tr>
<td><strong>SAIPAN ISLAND, CQ</strong></td>
<td></td>
</tr>
<tr>
<td>FRANCISCO C ADA/</td>
<td></td>
</tr>
<tr>
<td>SAIPAN INTL (GSN).………..</td>
<td>NDB Y Rwy 7</td>
</tr>
<tr>
<td></td>
<td>Category D, 800-2½.</td>
</tr>
<tr>
<td><strong>TINIAN ISLAND, CQ</strong></td>
<td></td>
</tr>
<tr>
<td>TINIAN INTL (TNJ).………..</td>
<td>RNAV (GPS) Rwy 8</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 26</td>
</tr>
<tr>
<td><em>NA when local weather not available.</em></td>
<td></td>
</tr>
</tbody>
</table>
| *Category D, 800-2½.* |"
## TERMINAL PROCEDURES

### ALTERNATE MINS

<table>
<thead>
<tr>
<th>NAME</th>
<th>ALTERNATE MINIMUMS</th>
<th>NAME</th>
<th>ALTERNATE MINIMUMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WENO ISLAND, FM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHUUK INTL (TKK)</td>
<td>NDB Ry 4⁴</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NDB Ry 22³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Ry 4²</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Ry 22⁵</td>
<td></td>
<td></td>
</tr>
<tr>
<td>¹NA except for operators with approved weather reporting service. Categories A, B, C, D, 800-2%.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>²NA except standard for operators with approved weather reporting service.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>³Categories C, D, 800-2%.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>⁴Categories A, B, C, D, 800-3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>⁵Categories A, B, 900-2; Category C, 900-2%; Category D, 900-2%.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| YAP ISLAND, FM        |                    |                       |                    |
| YAP INTL (T11)        | NDB Ry 25¹         |                       |                    |
|                       | NDB/DME Ry 25²     |                       |                    |
| ¹Categories A, B, 900-2; Category C, 900-2%; Category D, 900-3. | | | |
| ²Categories A, B, 900-2; Category C, 900-2%; Category D, 900-2%. | | | |

PAC, 5 NOV 2020 to 31 DEC 2020
THERE ARE NO RADAR PROCEDURES FOR PACIFIC
LAHSO is an acronym for "Land and Hold-Short Operations." These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold-short operations and markings.

<table>
<thead>
<tr>
<th>CITY/AIRPORT</th>
<th>LDG RWY</th>
<th>HOLD-SHORT POINT</th>
<th>AVBL LDG DIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>HONOLULU, HI</td>
<td>04L</td>
<td>08L-26R</td>
<td>3,700 feet</td>
</tr>
<tr>
<td></td>
<td>04R</td>
<td>08L-26R</td>
<td>6,250 feet</td>
</tr>
<tr>
<td></td>
<td>08L</td>
<td>04L-22R</td>
<td>9,300 feet</td>
</tr>
</tbody>
</table>
An "airport surface hot spot" is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

A "hot spot" is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as "HS 1", "HS 2", etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

<table>
<thead>
<tr>
<th>CITY/AIRPORT</th>
<th>HOT SPOT</th>
<th>DESCRIPTION*</th>
</tr>
</thead>
<tbody>
<tr>
<td>HONOLULU, HI</td>
<td>HS 1</td>
<td>Rwy 04R/Rwy 04L thresholds: wrong surface landing risk. Pilots cleared to land Rwy 04L or 04R sometimes land on the wrong rwy.</td>
</tr>
<tr>
<td></td>
<td>HS 2</td>
<td>Aircraft ldg Rwy 04R and exiting left onto Twy K, sometimes fail to hold short of Rwy 04L-22R and Rwy 08L-26R.</td>
</tr>
<tr>
<td></td>
<td>HS 3</td>
<td>Aircraft proceeding north on Twy E and instructed to turn left onto Twy B, sometimes miss the turn onto Twy B, and proceed onto Rwy 08L-26R without clearance.</td>
</tr>
<tr>
<td></td>
<td>HS 4</td>
<td>Pilot confusion may be caused by the convergence of Twy A, Twy V, Twy T, Twy RB, and Twy M, in close proximity to Rwy 08L.</td>
</tr>
<tr>
<td></td>
<td>HS 5</td>
<td>Tower Non-visibility area. Area not visible from the control tower due to trees.</td>
</tr>
<tr>
<td></td>
<td>HS 6</td>
<td>Minimal distance between rwy hold short lines between Rwy 04L-22R/Rwy 04R-22L.</td>
</tr>
<tr>
<td>KAHULUI, HI</td>
<td>HS 1</td>
<td>Rwy 05, Twy A, Twy F, and Twy G.</td>
</tr>
<tr>
<td></td>
<td>HS 2</td>
<td>Rwy 02-20, Twy E and the ramp.</td>
</tr>
<tr>
<td></td>
<td>HS 3</td>
<td>Twy A, Rwy 05-23</td>
</tr>
<tr>
<td>KAUNAKAKAI, HI</td>
<td>HS 1</td>
<td>Area not visible from control tower.</td>
</tr>
</tbody>
</table>

*See appropriate Chart Supplement HOT SPOT table for additional information.
**BOOKE EIGHT ARRIVAL**

**ARRIVAL ROUTE DESCRIPTION**

**CANNON TRANSITION (CANNON.BOOKE8):** From over CANNON INT via SOK R-277 to SOK VORTAC. Then via SOK R-102 to BOOKE DME. Thence... . . .

**DANNO TRANSITION (DANNO.BOOKE8):** From over DANNO WP via RNAV 116° course to LIH VORTAC. Then via LIH R-110 to BOOKE DME. Thence... . . .

**SYVAD TRANSITION (SYVAD.BOOKE8):** From over SYVAD INT via SOK R-260 to SOK VORTAC. Then via SOK R-102 to BOOKE DME. Thence... . . .

**THOMA TRANSITION (THOMA.BOOKE8):** From over THOMA WP via RNAV 135° course to LIH 123 DME, then LIH R-315 to LIH VORTAC. Then via LIH R-110 to BOOKE DME. Thence... . . .

. . . From over BOOKE DME via LIH R-110 and HNL R-258 to HNL VORTAC. Expect RADAR vectors.

**NOTE:** Provide information.
ARRIVAL ROUTE DESCRIPTION

HARPO TRANSITION (HARPO.CAMPS3): From over HARPO INT via LNY R-095 to CAMPS INT. Thence . . . .

LANAI TRANSITION (LNY.CAMPS3): From over LNY VORTAC via KEIKI INT and LNY R-095 to CAMPS INT. Thence . . . .

. . . . From over CAMPS INT on I-OGG localizer course to Kahului Airport.

LOST COMMUNICATIONS:
At CAMPS INT, proceed with the ILS RWY 2 approach.
HCF CENTER
127.6 291.6 (APACK, ZIGIE)
126.6 284.6 (BITTA, DENNS)
HONOLULU TOWER
118.1 257.8
123.9 273.575 (Rwy 8R/26L)
D-AIIS
127.9 251.15

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: GPS required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: Turbojet aircraft descend via mach number until transition to 280K. Maintain 280K until slowed by the STAR.

(CONTINUED ON FOLLOWING PAGE)

APACK TRANSITION (APACK, INOY11)
BITTA TRANSITION (BITTA, INOY11)
DENNS TRANSITION (DENNS, INOY11)
JOELE TRANSITION (JOELE, INOY11)
ZIGIE TRANSITION (ZIGIE, INOY11)
ARRIVAL ROUTE DESCRIPTION

From BAMBO on track 237° to cross IHNET at or above 8000, then on track 237° to cross INOYI at or above 8000 and at 230K.

LANDING RUNWAY 4L: From INOYI on track 216° to cross HUBAP at 7000 and at 220K, then on track 216°. Expect RADAR vectors to final approach course or visual approach.

LANDING RUNWAY 4R: From INOYI on track 216° to cross HUBAP at 7000 and at 220K, then on track 216°. Expect RNAV RNP/ILS/GPS approach or RADAR vectors to final approach course.

LANDING RUNWAY 8L: From INOYI on track 233° to DZURA, then on track 259° to cross OOKAH at 6000 and at 210K, then on heading 259°. Expect RNAV RNP/ILS/GPS approach or RADAR vectors to final approach course.

LANDING RUNWAY 8R: From INOYI on track 233° to DZURA, then on track 259° to cross OOKAH at 6000 and at 210K, then on heading 259°. Expect RADAR vectors to final approach course or visual approach.
TERMINAL PROCEDURES

Z5

PAC, 5 NOV 2020 to 31 DEC 2020

JULLE FIVE ARRIVAL

HONOLULU
114.8 HNL
Chan 95
N21°18.50’-W157°55.83’

MOLOKAI
116.1 MKK
Chan 108

HCF CENTER
119.3 307.1 (CHAIN, HOKLA)
119.9 306.9 (DOVRR)
D-ATIS
127.9 251.15

SAKKI
N20°55.91’ W157°29.30’

CHAIN
N20°58.38’ W156°55.55’

JORDA
N20°39.58’ W157°15.97’

LANAI
117.7 LNY
Chan 114
N20°45.87’ W156°58.13’

CHANCE TRANSITION (CHAIN, JULLE5): From over CHANCE INT on LNY 13 DME CCW arc to SOBOW then via LNY R-278 to JULLE INT. Thence. . .

DOVRR TRANSITION (DOVRR, JULLE5): From over DOVRR INT via MKK R-180 to JORDA INT then via HNL R-125 to JULLE INT. Thence. . .

HOKLA TRANSITION (HOKLA, JULLE5): From over HOKLA INT via HNL R-125 and KOA R-294 on HNL R-125 to JULLE INT. Thence. . .

LANAI TRANSITION (LNY, JULLE5): From over LNY VORTAC via LNY R-278 to JULLE INT. Thence. . .

. . .From over JULLE INT on LNY R-278 to ALANA INT. Expect vectors to final approach course.

LOST COMMUNICATIONS: At ALANA INT proceed with the VOR or TACAN RWY 4R approach.

JULLE FIVE ARRIVAL
(JULLE, JULLE5) 25AUG11

HONOLULU, HAWAII
DANIEL K INOUYE INTL (HNL) (PHNL)
ARRIVAL ROUTE DESCRIPTION

APACK TRANSITION (APACK, KAENA2)
BITTA TRANSITION (BITTA, KAENA2)
CLUTS TRANSITION (CLUTS, KAENA2)
DENNIS TRANSITION (DENNIS, KAENA2)
ZIGIE TRANSITION (ZIGIE, KAENA2)

From KAENA as depicted to MAKOA. Cross RABBS at/above 4000, cross MAKOA at/below 3700 and at/above 3400 and at/below 210K.
Expect PHNL ILS RWY 8L approach.

LOST COMMUNICATIONS: Descend via the KAENA ARRIVAL. At MAKOA, cleared PHNL ILS RWY 8L approach.
ARRIVAL ROUTE DESCRIPTION

FIRES TRANSITION (FIRES.KAYAK6): From over FIRES on MUE R-274 to TAMMI, then on KOA R-351 to KAYAK. Thence. . . .

LANAI TRANSITION (LNY.KAYAK6): From over LNY VORTAC on LNY R-116 to TAMMI, then on KOA R-351 to KAYAK. Thence. . . .

MAUI TRANSITION (OGG.KAYAK6): From over OGG VORTAC on OGG R-188 to ZILNA, then on LNY R-116 to TAMMI, then on KOA R-351 to KAYAK. Thence. . . .

MOLOKAI TRANSITION (MKK.KAYAK6): From over MKK VORTAC on MKK R-107 and KOA R-351 to TAMMI, then on KOA R-351 to KAYAK. Thence. . . .

OKALA TRANSITION (OKALA.KAYAK6): From over OKALA on MUE VOR/DME R-075 to MUE VOR/DME, then on MUE R-245 to KAYAK. Thence. . . .

ONOHI TRANSITION (ONOHI.KAYAK6): From over ONOHI on KOA R-351 to KAYAK. Thence. . . .

UPOLU POINT TRANSITION (UPP.KAYAK6): From over UPP VORTAC on UPP R-202 to KAYAK. Thence. . . .

. . . . From over KAYAK on KOA R-351 to KOA VORTAC. Expect RADAR vectors.

LOST COMMUNICATIONS: At KAYAK proceed on VOR/DME or TACAN RWY 17 approach.
ARRIVAL ROUTE DESCRIPTION

From KLANI on track 111° to cross BAFRE at or above 8000, then on track 111° to SHLLS.

LANDING RUNWAYS 4L/R: From SHLLS on track 122° to cross HAURY at 4000 and at 210K, expect RNAV RNP/ILS/GPS or RADAR vectors to final approach course.

LANDING RUNWAYS 8L/R: From SHLLS on track 110° to cross SELIC at or above 5000 and at 210K. Expect RNAV RNP/ILS/GPS or RADAR vectors to final approach course.

LANDING RUNWAYS 26L/R: From SHLLS on track 088° to CENAS, then on track 099° to cross POHAI at or above 6000 and at 230K, then on track 140° to cross NBODY at 6000 and at 210K, then on heading 140°, expect RNAV RNP/LDA or RADAR vectors to final approach course.

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: GPS required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: Turbojet aircraft descend via mach number until transition to 280K. Maintain 280K until 10000 MSL.
ARRIVAL ROUTE DESCRIPTION

DENNS TRANSITION (DENNS.LAVAS1)
FITES TRANSITION (FITES.LAVAS1)
KONA TRANSITION (KOA.LAVAS1)
SCOON TRANSITION (SCOON.LAVAS1)
UPOLU POINT TRANSITION (UPP.LAVAS1)

From LAVAS on track 313° to cross GREHG at 6000, then on heading 313° as assigned by ATC. Expect RNAV (RNP)/ILS/Visual Approach Landing Rwy 2 as assigned by ATC.
NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

APACK TRANSITION (APACK.LNDHY1)
BITTA TRANSITION (BITTA.LNDHY1)
DENNS TRANSITION (DENNS.LNDHY1)
FITES TRANSITION (FITES.LNDHY1)
ZIGIE TRANSITION (ZIGIE.LNDHY1)

From LNDHY on track 205° to cross MUNJU at or above 7000 and at 220K, then on track 204° to cross HOMAI at 5000 and at 210K, then on track 204°. Expect RNAV (RNP)/ILS/Visual Approach Landing Rwy 2, as assigned by ATC.
ARIVAL ROUTE DESCRIPTION

APACK TRANSITION [APACK.MAGGI3]: From over APACK DME via MKK R-004 to MAGGI INT. Thence. . . .

BITTA TRANSITION [BITTA.MAGGI3]: From over BITTA DME via MKK R-022 to intercept CKH R-039 to MAGGI INT. Thence. . . .

CLUTS TRANSITION [CLUTS.MAGGI3]: From over CLUTS DME via heading 240° to intercept CKH R-039 to MAGGI INT. Thence. . . .

DENNS TRANSITION [DENNS.MAGGI3]: From over DENNS INT via heading 260° to intercept CKH R-039 to MAGGI INT. Thence. . . .

ZIGIE TRANSITION [ZIGIE.MAGGI3]: From over ZIGIE DME via heading 156° to intercept MKK R-004 to MAGGI INT. Thence. . . .

. . . From over MAGGI INT via CKH R-039 to CKH VORTAC then RADAR vectors for approach to airport.

MAGGI THREE ARRIVAL
(MAGGI.MAGGI3) 09SEP99

HONOLULU, HAWAII
DANIEL K INOUYE INTL (HNL) (PHNL)
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: GPS required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: For non-RNP AR aircraft, expect ILS/GPS, or RADAR vectors to final approach course prior to ALANA.
NOTE: Turbojet aircraft descend via mach number until transition to 280K. Maintain 280K until 10000.

ARRIVAL ROUTE DESCRIPTION

BEACH TRANSITION (BEACH, MAKAH1)
CRISI TRANSITION (CRISI, MAKAH1)
HONUU TRANSITION (HONUU, MAKAH1)
LAVAS TRANSITION (LAVAS, MAKAH1)
SAKKI TRANSITION (SAKKI, MAKAH1)

From MAKAH on track 278° to cross ALANA at 6000 and at 210K, then on heading 278° or as assigned by ATC. Expect assigned instrument approach prior to ALANA.

NOTE: Chart not to scale.
NOTE: RNAV equipped aircraft only.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

CARRP TRANSITION (CARRP.OPACA4): From over CARRP WP, RNAV direct to OPACA DME. Thence. . . .

CHOKO TRANSITION (CHOKO.OPACA4): From over CHOKO WP, RNAV direct to BINJO DME, then direct to OPACA DME. Thence. . . .

KATHS TRANSITION (KATHS.OPACA4): From over KATHS WP, RNAV direct to OPACA DME. Thence. . . .

. . . . From over OPACA DME via HNL R-207 to HNL VORTAC, expect RADAR vectors to final approach course.
ARRIVAL ROUTE DESCRIPTION

CHAIN TRANSITION (CHAIN.SAKKI15): From over CHAIN INT on LNY 13 DME CCW arc to SOBOW and LNY R-278 to SAKKI INT. Thence. . . .
DOVRR TRANSITION (DOVRR.SAKKI15): From over DOVRR on MKK R-180 to JORDA, turn left heading 315° to join I-EPG LDA course at SUCTU 40 DME then to SAKKI INT. Thence. . . .
HOKLA TRANSITION (HOKLA.SAKKI15): From over HOKLA on HNL R-125 to JORDA, turn right heading 315° to join I-EPG LDA course at SUCTU 40 DME then to SAKKI INT. Thence. . . .
LANAI TRANSITION (LNY.SAKKI15): From over LNY VORTAC on LNY R-278 to SAKKI INT. Thence. . . .

. . . For runways 22, 26 only: From over SAKKI INT on the LDA/DME RWY 26L course to SECIL 11 DME.

LOST COMMUNICATIONS: At SECIL INT/WP proceed with the LDA/DME RWY 26L approach.
NOTE: RADAR required.

NOTE: RNAV 1.

NOTE: GPS required.

NOTE: Turbojet and turboprop aircraft only.

NOTE: Turbojet aircraft descend via mach number until transition to 280K.

   Maintain 280K until 10000 MSL.

NOTE: RNP aircraft expect direct SECIL landing runway 26L.

ARRIVAL ROUTE DESCRIPTION

BEACH TRANSITION (BEACH.SHLA1E1)

CHAIN TRANSITION (CHAIN.SHLA1E1)

CRISI TRANSITION (CRISI.SHLA1E1)

LAVAS TRANSITION (LAVAS.SHLA1E1)

LANAI CITY TRANSITION (LNY.SHLA1E1)

From DYLI on track 304° to cross SHLA at 4000 and at 210K, then on heading 304° or as assigned by ATC. Expect RADAR vectors to final approach course.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: GPS required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: For non-RNP AR aircraft landing Rwys 26L/R, expect LDA or RADAR vectors to final approach course prior to CUDEK.
NOTE: Turbojet aircraft descend via mach number until transition to 280K. Maintain 280K until 10000 MSL.

ARRIVAL ROUTE DESCRIPTION
APACK TRANSITION (APACK.SYMIN1)
BITTA TRANSITION (BITTA.SYMIN1)
DENNS TRANSITION (DENNS.SYMIN1)
ZIGIE TRANSITION (ZIGIE.SYMIN1)

LANDING PHNL: From SYMIN on track 210° to cross CUDEK at 6000 and at 210K, then on heading 210° or as assigned by ATC. Expect assigned instrument approach procedure.
ARRIVAL ROUTE DESCRIPTION

LANAI TRANSITION (LNY.VECKI9): From over LNY VORTAC on LNY R-116 to TAMMI, then on heading 167° to VECKI. Thence . . . .

MAUI TRANSITION (OGG.VECKI9): From over OGG VORTAC on OGG R-188 to ZILNA, then on LNY R-116 to TAMMI, then on heading 167° to VECKI. Thence . . . .

MOLOKAI TRANSITION (MKK.VECKI9): From over MKK VORTAC on MKK R-107 to WANSI, then on KOA R-351 to TAMMI, then on heading 167° to VECKI. Thence . . . .

OKALA TRANSITION (OKALA.VECKI9): From over OKALA on MUE VOR/DME R-075 to MUE VOR/DME, then on MUE R-247 to VECKI. Thence . . . .

ONOHI TRANSITION (ONOHI.VECKI9): From over ONOHI on KOA R-351 to TAMMI, then on heading 167° to VECKI. Thence . . . .

UPOLU POINT TRANSITION (UPP.VECKI9): From over UPP VORTAC on UPP R-210 to BAYCA, then on I-KOA 174° course to VECKI. Thence . . . .

. . . . from over VECKI INT on I-KOA localizer course to Ellison Onizuka Kona Intl at Keahole.

LOST COMMUNICATIONS: At VECKI INT proceed with ILS or LOC/DME RWY 17 approach.
TERMINAL PROCEDURES

RNAV (GPS) RWY 9
KOROR (ROR)(PTRO)

Circling NA north of RW 9-27. Obtain local altimeter setting on CTAF; when not received, procedure NA. DME/DME RNP-0.3 NA. No controlled airspace below 5500.

MISSED APPROACH: Climb to 1900 direct ITAZU WP and hold.

KOROR RADIO
123.6 (CTAF)

RNAV (GPS) RWY 9
KOROR (ROR)(PTRO)

RNAV (GPS) RWY 9

PAC, 5 NOV 2020 to 31 DEC 2020
Circling NA north of Rwy 9-27. Obtain local altitude setting on CTAF; when not received procedure NA. No controlled airspace below 5500.

**MISSING APPROACH:** Climb to 1900 via 090° bearing from ROR NDB, then right turn direct ROR NDB and hold.

**KOROR RADIO**

**123.6** (CTAF)
For uncompensated Baro-VNAV systems, procedure NA below 19°C (66°F) or above 48°C (119°F). GPS required. For inoperative MALSR, increase RNP 0.30* visibility to 1 mile and RNP 0.30 visibility to 1 1/2 mile. *Missed approach requires a minimum climb of 276 feet per NM to 1400.

**TERMINAL PROCEDURES**

PAC, 5 NOV 2020 to 31 DEC 2020

**RNAV (RNP) Z RWY 6L**

GUAM INTL (GUM)(PGUM)

**ATIS**
- Guam Cerap: 119.0
- Agana Tower: 119.1 340.2
- Gnd Con: 121.9 336.4
- Clnce Del: 121.9

**AIRPORT INFORMATION**

**APP CRS**
- Rwy Idg: 11014
- TDZE: 256
- Apt Elev: 298

**MALSR**
- 600 ft AGL

**MISSED APPROACH**
- Climb to 3000 via track 063° to WABOX and hold.

**ELEV**
- Guam: 298
- TDZE: 256

**RNAV (RNP) Z RWY 6L**

**GUAM INTL (GUM)(PGUM)**

**AIRPORT INFORMATION**

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- Clnce Del: 121.9

**AIRPORT INFORMATION**

**APP CRS**
- Rwy Idg: 11014
- TDZE: 256
- Apt Elev: 298

**MALSR**
- 600 ft AGL

**MISSED APPROACH**
- Climb to 3000 via track 063° to WABOX and hold.
For uncompensated Baro-VNAV systems, procedure NA below 19°C (66°F) or above 48°C (119°F). GPS required. *Missed approach requires a minimum climb of 285 feet per NM to 1,400.

**TERMINAL PROCEDURES**

**APP CRS**

<table>
<thead>
<tr>
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</table>

**TDZE**

| Code | 258 |

**Apt Elev**

| Code | 298 |

**RNW (RNP) Z RWY 6R**

**GUAM INTL (GUM)(PGUM)**

**ATIS**

| Code | 119.0 |

**GUAM CERAP**

| Code | 119.8 269.0 |

**AGANA TOWER**

| Code | 118.1 340.2 |

**GND CON**

| Code | 121.9 336.4 |

**CLNC DEL**

| Code | 121.9 |

**Procedure NA for arrivals at WUVEN via A597 northwest bound.**

**Procedure NA for arrivals at PULEE via G467 R596 westbound.**

**Procedure NA for arrivals at ASADE via 8586 southeast bound.**

**CATEGORY**

- **A**
- **B**
- **C**
- **D**

**RNP 0.30° DA**

508½  250 (300-½)

**RNP 0.30 DA**

656½  398 (400-1)

**AUTHORIZATION REQUIRED**

GUAM, GU

Orig-C 15DEC11

13°29'N-144°48'E

**GUAM INTL (GUM)(PGUM)**

**RNW (RNP) Z RWY 6R**

**PAC, 5 NOV 2020 to 31 DEC 2020**
For uncompensated Baro-VNAV systems, procedure NA below 19°C (66°F) or above 48°C (119°F).
GPS required.
Procedure NA at night.

MISSING APPROACH: Climb to 3000 via track 243° to DALPE and hold.

Procedure NA for arrivals at CULPS via A221 northeast bound.

Procedure NA for arrivals at BAGBE via A450 northeast bound.

Procedure NA for arrivals at GUMGE via A597 R584 southeast bound.

Procedure Turn NA

RNAV (RNP) Z RWY 24L

authorization required

RNP 0.20 DA 1103-2 810 (900-24)
RNP 0.30 DA 1140-3 847 (900-3)
**TERMINAL PROCEDURES**

**RNAV (RNP) Z RWY 24R**

**GUAM INTL (GUM)(PGUM)**

**APP CRS**

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**ATIS**

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**GUAM CERAP**

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**AGANA TOWER**

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**GND CON**

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<th>336.4</th>
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</table>

**CLNC DFL**

<table>
<thead>
<tr>
<th>121.9</th>
</tr>
</thead>
</table>

**GPS required. For uncompensated Baro-VNAV systems, procedure NA below 22°C (72°F) or above 52°C (122°F).**

**MISSED APPROACH:** Climb to 3000 on track 243° to OBALE and hold.

**Procedure NA for arrivals at CULPS on A221 northeast bound.**

**Procedure NA for arrivals at BAGBE on A450 northeast bound.**

**Procedure NA for arrivals at GUMGE on R384-G205-A397 southeast bound.**

**AUTHORIZED**

**RNP 0.24 DA**

1014-2½ 709 (800-2½)

**RNP 0.30 DA**

1072-2½ 767 (800-2½)

**TERMINAL PROCEDURES**

**GUAM, GU**

Amdt 1A 24MAY18

**PAC, 5 NOV 2020 to 31 DEC 2020**
TERMINAL PROCEDURES

PAC, 5 NOV 2020 to 31 DEC 2020

RNAV (GPS) Y RWY 6R

GUAM INTL (GUM)(PGUM)

APP CRS
063°

Rwy 6R helicopter visibility reduction below 3/4 SM NA.
DME/DME RNP-0.3 NA. For inop ALS, increase Cat A/B visibility
to 1 SM, and Cat C/D to 2 SM. Circling NA southeast of Rwy 6R-24L.

MALSR

MISSED APPROACH: Climb to 3000
direct CIBOL and hold.

ATIS
119.0

GUAM CERAP
119.8 269.0

AGANA TOWER
118.1 340.2

GND CON
121.9 336.4

CLNC DEL
121.9

WUVEN
 Procedure NA for arrivals at WUVEN
on A597 northwest bound.

PULLE
 Procedure NA for arrivals
at PULLE on G467-R596
west bound.

RASPE

UNZ to DALPE
243° (9)

NMITS

UNZ

3000

3000
N0FT

3000
CGA

243

(I/F) DALPE

(BAF) FISON

3.5 NM to
RWO6R

HUKES

FISON

3.5 NM to
RWO6R

1332

ASADE

Procedure NA for arrivals at ASADE
on B596 southeast bound.

4 NM
Holding Pattern

3000

243°

063°

2000

1440

7 NM

1.4 NM

VGS and descent angles not coincident
[VGS Angle 3.00/TCH 76].

3.11°

TCH 55

RWO6R

2.1 NM to
RWO6R

HUKES

category

A

B

C

D

LINE MDA

980-3/4

722 (700-3/4)

980-1/2

722 (700-1/2)

980-3/4

675 (700-1)

980-1/2

675 (700-2)

1140-3/4

835 (900-2/4)

HIRL all Rwys

603° to
RWO6R

063°

170°

341°

TWR

352

554

341°

170°

100.6°

0.6°

DOwn

0.6°

DOwn

130°

341°

170°

100.6°

0.6°

DOwn

0.6°

DOwn

13°

29°N-144°48'E

GUAM INTL (GUM)(PGUM)

RNAV (GPS) Y RWY 6R

GUAM, GU
Amdt 1C 26MAR20

PAC, 5 NOV 2020 to 31 DEC 2020
TERMINAL PROCEDURES

Guam Intl (GUM)(PGUM)

RNAV (GPS) Y RWY 24L

ATIS 119.0
GUAM CERAP 119.8 269.0
AGANA TOWER 118.1 340.2
GND CON 121.9 336.4
CLNC DEL 121.9

Procedure NA for arrivals at CULPS on A221 northeast bound.

Procedure NA for arrivals at BAGSE on A450 northeast bound.

LANV MDA 1180-1¼ 887 (900-1¼)
1180-2¼ 887 (900-2¼)
1180-3 887 (900-3)

CIRCLING 1180-1¼ 875 (900-1¼)
1180-2¼ 875 (900-2¼)
1180-3 875 (900-3)

HIRE all Rwy's

ELEV 305
TDZE 293

243º to RW24L

3.05º TCH 55

13°29'N-144°48'E

PAC, 5 NOV 2020 to 31 DEC 2020
Circling NA southeast of Rwy 6R-24L.
DME required.
For inop ALS, increase Cat C visibility to 1½ SM.

ATIS
119.0
GUAM CERAP
119.8 269.0
AGANA TOWER
118.1 340.2
GND CON
121.9 336.4
CINC DEL
121.9
PAC, 5 Nov 2020 to 31 Dec 2020

TERMINAL PROCEDURES

VOR or TACAN RWY 24R
GUAM INTL (GUM)(PGUM)

ATIS
119.0
GUAM CERAP
119.8 269.0
AGANA TOWER
118.1 340.2
GND CON
121.9 336.4
CLNC DEL
121.9

DME REQUIRED

Circling NA southeast of Rwy 6R-24L. Rwy 24R helicopter visibility reduction below 1/2 SM NA.

MISSED APPROACH: Climb to 2300 then left turn on UNZ VORTAC R-062 to FIBEE/UNZ 15.6 DME and hold.

VOR or TACAN RWY 24R
17
Circling NA south of Rwy 8-26. Procedure NA at night. Rwy 8 helicopter visibility reduction below 1 SM NA. When local altimeter setting not received, procedure NA.

**Missed Approach:** Climb to 2500 direct GPYLE and hold.

**APP CRS**
109°

**Rwy Idg**
3606

**TDZE**
78

**Apt Elev**
78

**AWOS-3PT**
118.325

**HCF CENTER**
118.45 278.3

**CLNC DEL**
122.3

**CTAF**
122.9

**Final approach course offset 29.86°**

**ELEV 78**

**TDZE 78**

**CATEGORY**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<tbody>
<tr>
<td>LNAV MDA</td>
<td>1500-1½</td>
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<td>CIRCLING</td>
<td>1500-1½</td>
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<td>NA</td>
</tr>
<tr>
<td>1422 (1500-1½)</td>
<td>1422 (1500-1½)</td>
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</tbody>
</table>
Circling NA south of Rwy 8-26. Procedure NA at night.
When local altimeter setting not received, procedure NA.

MISSING APPROACH: Climbing right turn to
2500 direct GPYLE and hold.

- AWOS-3PT 118.325
- HCF CENTER 118.45 278.3
- CLNC DEL 122.3
- CTAF 122.9
NOTE: GPS required.
NOTE: RNAV 1.
NOTE: Do not exceed 200K until LNBGR.

TAKEOFF MINIMUMS
Rwy 26: NA - Obstacles.
Rwy 8: Standard with a minimum climb of 270’ per NM to 3400.

TAKEOFF OBSTACLE NOTES
Rwy 8: Multiple trees and bushes beginning 122’ from DER,
74’ right of centerline, up to 50’ AGL/139’ MSL.

NOTE: Chart not to scale

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb heading 079° to 578 then direct SIPAE, then on track
161° to LNBGR, thence.

...climb in holding (if required) to cross LNBGR at or above 5400 before proceeding
on assigned route.
TERMINAL PROCEDURES

RNAV (GPS) RWY 26
HILO INTL (ITO) (PTHO)

Circling NA south of RW 8-26. RWy 26 helicopter visibility reduction below 3/4 SM NA. WAAS VNAV NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 15°C or above 54°C. For inap AIS, increase LNAV/VNAV all Cat visibility to 1 SM, and LNAV Cat A/B visibility to 1 SM, and Cat C/D to 1 3/4 SM.

ATIS 126.4 HILO APP CON 119.7 269.2 HILO TOWER 118.1 (CTAF) 263.1 GND CON 121.9

Procedure NA for arrivals at ARBOR on V15-V2-V16 northwest bound.

Procedure NA for arrivals at HAKRI on V22 northeast bound.

Procedure NA for arrivals at GEBNE on V15 eastbound.

VGSI and RNAV glidepath not coincident (VGSI Angle 2.60/TCH 70).

CATEGORY A B C D

LNAV/ VNAV DA 420-3/4 382 (400-3/4)

LNAV MDA 440-3/4 402 (500-3/4)

CIRCLING 500-1 462 (500-1) 600-1 562 (600-1) 880-2 842 (900-2/3) 1340-3 1302 (1400-3)

HILO, HAWAII
Amdt 1 20JUN19

19°43’N-155°03’W

PAC, 5 NOV 2020 to 31 DEC 2020
Circling NA south of Rwy 8-26.

MISSED APPROACH. Climbing left turn to 3000 on ITO VORTAC R-079 to VEWES/5 DME and hold.

ATIS 126.4

HILO APP CON 119.7 269.2

HILO TOWER 118.1 [CTAF] 263.1

GND CON 121.9

VOR/DME or TACAN-A

HILO INTL (ITO) (PHTO)
Circling NA south of Rwy B-26.

MISSED APPROACH: Climbing right turn to 3000 on ITO VOR TAC R-002 then direct ITO VORTAC and hold.
TERMINAL PROCEDURES

PARIS FOUR DEPARTURE (OBLSTACLE) SL-756 (FAA) HILO INTL (ITO)(PHTO) HILO, HAWAII

PARIS N20°10.12' W155°13.32' P-2
SAPDE N20°09.29' W154°57.76'

262° (15) 355° (26)

UPOLU POINT 112.3 UPP: Chan 70

HILO 116.9 ITO: Chan 116
N19°43.28'-W155°00.66'

PAHOA 332 POA: 

NOTE: Chart not to scale.

TAKENOFF MINIMUMS
Rwys 3, 8: Standard.
Rwy 21: Standard with minimum climb of 310' per NM to 1100 or 1300-2 1/2 for climb in visual conditions.
Rwy 26: Standard with minimum climb of 385' per NM to 2900 or 1300-2 1/2 for climb in visual conditions.

NOTES CONTINUED ON FOLLOWING PAGE

DEPARTURE ROUTE DESCRIPTION

TAKENOFF RUNWAY 3: Climb heading 030° and ITO R-355 to SAPDE INT, thence. . .
TAKENOFF RUNWAY 8: Climb heading 079° to ITO VORTAC and ITO R-355 to SAPDE INT, thence. . .
TAKENOFF RUNWAY 21: Climbing left turn direct ITO VORTAC and ITO R-355 to SAPDE INT, or climb in visual conditions to cross ITO VORTAC northbound at or above 1200 MSL, then via R-355 to SAPDE INT, thence. . .
TAKENOFF RUNWAY 26: Climbing right turn via heading 045° and ITO R-355 to SAPDE INT, or climb in visual conditions to cross ITO VORTAC northbound at or above 1200 MSL, then via R-355 to SAPDE INT, thence. . .

. . .proceed via UPP R-082 to PARIS INT.
TAKEOFF OBSTACLE NOTES

Rwy 3: Numerous trees and WSK beginning 395' from DER, 68' left of centerline, up to 86' AGL/115' MSL.
Numerous trees beginning 325' from DER, 137' right of centerline, up to 66' AGL/95' MSL.

Rwy 8: Tree 1198' from DER, 480' left of centerline, 37' AGL/70' MSL.
Numerous trees beginning 414' from DER, 328' right of centerline, up to 46' AGL/79' MSL.

Rwy 21: Numerous trees and poles beginning 1077' from DER, 272' left of centerline, up to 70' AGL/490' MSL.
Numerous trees and poles beginning 236' from DER, 43' right of centerline, up to 83' AGL/362' MSL.
Vehicles on road beginning 234' from DER, 260' left of centerline, 15' AGL/58' MSL.

Rwy 26: Numerous vehicles beginning 6' from DER, 452' right of centerline, up to 15' AGL/39' MSL.
Numerous trees and light poles beginning 542' from DER, 471' left of centerline, up to 86' AGL/92' MSL.
Numerous trees beginning 1645' from DER, 266' right of centerline, up to 93' AGL/119' MSL.
Windsock 3' from DER, 269' right of centerline, 19' AGL/46' MSL.
RADAR reflector 373' from DER, 346' right of centerline, 10' AGL/37' MSL.
**TERMINAL PROCEDURES**

**LOC/DME** 111.7
**APP CRS** 079°
**Rwy Idg** 12300
**TDZE** 13
**Apt Elev** 13

From OOKAH: RNAV 1-GPS required. DME or RADAR required.

**PAC, 5 NOV 2020 to 31 DEC 2020**

**MALSR**

**FOR INOP ALS, INCREASE CAT E VISIBILITY TO ¾ SM. OOKAH TRANSITION NA FOR CAT E AIRCRAFT.**

**MISSING APPROACH:** Climb to 500 then climbing right turn to 5000 on HNL VORTAC R-171 to ALANA INT/HNL 13.9 DME and hold, continue climb-in-hold to 5000.

**D-ATIS** 127.9 251.15

**HCF APPROACH** 118.3 269.0

**HONOLULU TOWER** 118.1 257.8

**GND CON** 121.9 348.6

**CLNC DEL** 121.4 281.4

**LOCALIZER 111.7**

**I-HNL** 54

**PROJECTION NA FOR ARRIVALS AT BOOKE ON V15 NORTHWEST BOUND.**

**ELEV 13 D TDZE 13**

**ALTERNATE MISSED APCH FIX**

**REIL Rwy 4L, BR 22L, 22R and 26R**

**WATER WAYS**

**GS 3.0° TCH 56**

**CATEGORY**

**A**

**B**

**C**

**D**

**E**

**S-ILS 8L**

**21°19’N-157°55’W**

**ILS RWY 8L**

**HONOLULU, HAWAII**

**AL-754 (FAA)**

**PAC, 5 NOV 2020 to 31 DEC 2020**
TERMINAL PROCEDURES

HONOLULU, HAWAII

LOC/DME: HUM 110.5, Chan 42
APP CRS: 8950
Rwy Idg: 9
TDZE: 9
Apt Elev: 13

DME required. From HUBAP: RNAV 1-GPS required. DME or RADAR required for procedure entry.

For inop ALS, increase S-ILS 4R all Cats visibility to ½ SM.

D-ATIS
127.9 251.15

HCF APPROACH
118.3 269.0

HONOLULU TOWER
118.1 257.8 123.9 273.575 (Rwy 8R/26L)

GND CON
121.9 348.6

CINC DEL
121.4 281.4

MALSR

MISSING APPROACH: Climb to 340 then climbing right turn to 3000 on heading 220° and on HNL VORTAC R-171 to ALANA INT/HNL 13.9 DME and hold. Missed approach requires minimum climb of 318 feet per NM to 18200.

DANIEL K INOUYE INTL (HNL) (PHNL)

PAIR, 5 NOV 2020 to 31 DEC 2020

Category: A

S-ILS 4R
209½ 200 (200½)

S-ILS 4R
308½ 299 (300½)

HONOLULU, HAWAII

Amdt 2 30JAN20

21¹19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)

ILS Y RWY 4R

ILS Y RWY 4R

20310

PAC, 5 NOV 2020 to 31 DEC 2020
MISSED APPROACH: Climb to 3000 on track 259° to KABTE, left turn to LAYIG, then track 133° to ALANA and hold. Missed approach requires minimum climb of 234 feet per NM to 3000.

Procedure NA for arrivals at SAKKI on V16-21 east bound.

TERMINAL PROCEDURES

HONOLULU, HAWAII

APP CRS

Rwy Idg 12000

TDZE 10

Apt Elev 13

RNP AR APCH, RF required.

For uncompensated Baro-VNAV systems, procedure NA below 1.5° (58°F) or above 53° (128°F).

D-ATIS

HCF APPROACH

HONOLULU TOWER

GND CON

CLNC DEL

127.9 251.15

118.3 269.0

118.1 257.8

123.9 273.575

(121.9 348.6)

121.4 281.4

10000

5300

3000

KABTE

LAYIG

133°

ALANA

KUHIO

IBICU

SECIL

3000

259°

512

2000

304°

2000

3.00°

TCH 75

1.3 NM

2.6 NM

2.6 NM

4.5 NM

CATEGORY

A

B

C

D

RNP 0.15 DA

260-⅔

250 (300-⅔)

AUTHORIZATION REQUIRED

HONOLULU, HAWAII

Org-E 28FEB19

21°19'N-157°55'W

AL-754 (FAA) 20310

RNAV (RNP) RWY 26L

DANIEL K INOUYE INTL (HNL) (PHNL)

RNAV (RNP) RWY 26L

PAC, 5 NOV 2020 to 31 DEC 2020
TERMINAL PROCEDURES

HONOLULU, HAWAII

APP CRS
042°

Rwy Idg
TDZE
Apt Elev

6952
10
13

PAC, 5 NOV 2020 to 31 DEC 2020

RNP APCH

Circling Rwy 22R NA at night. Circling NA for Cats A and B northwest of Rwy 8R and 22R. Circling NA for Cats C, D, and E north of Rwy 8L-26R. Circling NA to Sea Lanes 4W, 8W, 22W, and 26W.

D-ATIS
127.9 251.15

HCF APPROACH
118.1 257.8

HONOLULU TOWER
123.9 273.575 (Rwy 8R/26L)

GND CON
121.9 348.6

CLNC DEL
121.4 281.4

BOOKE

Procedure NA for arrivals at BOOKE on V15 westbound.

GECKO

 Procedure NA for arrivals at GECKO on V4 southwest bound.

MAZ

Procedure NA for arrivals at ALANA on V21 southbound.

Holding Pattern

GIDME

MAKAI

CIRCLING

CATEGORY
A
B
C
D
E

LNAV MDA
460-1\(^1/4\)
450 (500-1\(^1/4\))
460-1\(^1/2\)
450 (500-1\(^1/2\))

CIRCLING
640-1\(^1/4\)
760-1\(^1/4\)
760-2\(^1/4\)
1400-3
1940-3

627 (700-1\(^1/4\))
747 (800-1\(^1/4\))
747 (800-2\(^1/4\))
387 (1400-3)
927 (2000-3)

21°19’N-157°55’W

RNAV (GPS) RWY 4L

DANIEL K INOUYE INTL (HNL) (PHNL)

20310

HONOLULU, HAWAII
Orig-B 08NOV18

PAC, 5 NOV 2020 to 31 DEC 2020
Circling Rwy 22R NA at night. Circling NA for Cats A and B northwest of Rwy 8L and 22R. Circling NA for Cats C, D, and E north of Rwy 8L-26R. Circling NA to Sea Lanes 4W, 8W, 22W, and 26W.

Procedure NA for arrivals at BOOKE on V15 westbound.

Procedure NA for arrivals at GECKO on V4 southwest bound.

ASA RW08R 25 NM

VGS and descent angles not coincident (VGS Angle 3.25/TCH 96)

REIL Rwy 4L, 8R, 22L, 22R and 26R
HIRL Rwy 4L-22R, 4R-22L, 8L-26R and 8R-26L
Circling Rwy 22R NA at night. DME required. For inop ALS, increase Cat E visibility to 1½ SM. Circling NA for Cats A and B northwest of Rwy 8L and 22R. Circling NA for Cats C and D north of Rwy 8L-26R. Circling NA to Sea Lanes 4W, 8W, 22W, and 26W.

DME REQUIRED

Procedure NA for arrival at HNL VORTAC on airway radials 171 CW 258.

Remain within 1.5 NM

Circling 640-1/4 760-1/4 760-2/4 1400-3 NA

CATEGORY A B C D E
S-4R 460-3/4 451 (500-3/4) 460-7/8 451 (500-7/8)

1900 042° 1500

3.03° TCH 55

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 71)

3000 HNL R-171 ALANA

4000 v

Perly HUM 6.2

116.1 MKK R-254 Chan 108

HNL HUM

Localyzer 110.5 Chan 42

FALOS I-HUM 2.6

3.33° Hdg 220°

3.03° TCH 55

222° 222° 1900

042° 042° 1500

42 TERMINAL PROCEDURES

PAC, 5 NOV 2020 to 31 DEC 2020
TERMINAL PROCEDURES

VOR or TACAN-A

DANIEL K INOUYE INTL (HNL) (PHNL)

Circling Rwys 22R NA at night. Circling NA for Cats A and B northwest of Rwys 8L and 22R. Circling NA for Cats C and D north of Rwys 8L-26R.

Circling NA to Sea Lanes 4W, 8W, 22W, and 26W.

MISSED APPROACH: Climbing left turn to 3000 on HNL R-171 to ALANA INT/HNL 13.9 DME and hold.

D-ATIS

HCF APPROACH

GND CON

CINC DEL

127.9 251.15

118.1 257.8

121.9 348.6

121.4 281.4

Procedure NA for arrivals at CKH VOR TACAN airway radial 272.

Procedure NA for arrivals at HAUNA on V8 eastbound.

REIL Rwys 4L, 8R, 22L, 22R and 26R

HNL Rwys 4L-22R, 4R-22L, 8L-26R and 8R-26L.

HO'OPIO APPROACH

HONOLULU TOWER

118.1 257.8

123.9 273.575 (Rwy 8R/26L)

121.9 348.6

121.4 281.4

HO'OPIO INTL (HNL) (PHNL)

VOR or TACAN-A

TERMINAL PROCEDURES

AL-754 (FAA) 20310

HONOLULU, HAWAII

21°19′N-157°55′W

PAC, 5 NOV 2020 to 31 DEC 2020
TERMINAL PROCEDURES

VOR or TACAN-B
DANIEL K INOUYE INTL (HNL) (PHNL)

Circling Rwy 22R NA at night. DME required. Circling NA for Cats A and B northwest of Rwy 8L and 22R. Circling NA for Cats C and D north of Rwy 8L-26R.

Circling NA to Sea Lanes 4W, 8W, 22W, and 26W.

D-ATIS
127.9 251.15

HCF APPROACH
118.3 269.0

HONOLULU TOWER
118.1 257.8
123.9 273.575 (Rwy 8R/26L)

GND CON
121.9 348.6

CLNC DEL
121.4 281.4

DME REQUIRED

HONOLULU 114.8 HNL
Chan 95

Procedure NA for arrivals HNL VORTAC on V12-15 eastbound.

elas 13

CATEGORY | A | B | C | D
---|---|---|---|---
C CIRCLING
| 640-1 | 760-1 | 760-2 1 | 1400-3 |
| 627 (700-1) | 747 (800-1) | 747 (800-2 1) | 1387 (1400-3) |

HONOLULU, HAWAII

21°19'N-157°55'W

PAC, 5 NOV 2020 to 31 DEC 2020

20310
TERMINAL PROCEDURES

KAHE POWER PLANT VISUAL RWY 22L

D-ATIS
127.9 251.15
HCF APPROACH
119.1 239.05
HONOLULU TOWER
118.1 257.8
123.9 273.575 (Rwy 8R/26L)

OAHU

KAHE POWER PLANT

HARBOUR VIEW

H1/H2 INTERCHANGE 2000

NAVY/MARINE
GOLF COURSE

KAHE POWER PLANT VISUAL APPROACH RWY 22L

PROCEDURE NOT AUTHORIZED AT NIGHT
RESTRICTED TO CAT I AND CAT II AIRCRAFT ONLY
Pilots may expect landing Runway 22R.

RADAR REQUIRED
Weather Minimums: 5100 feet ceiling
and 3 statute miles visibility.
Vertical Guidance NavAid and angle:
PAPI Rwy 22L: 3.44°

<table>
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<th>1 NM</th>
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<th>16</th>
</tr>
</thead>
</table>

PAC, 5 NOV 2020 to 31 DEC 2020
RADAR REQUIRED

Weather Minimums: 5100 feet ceiling and 3 statute miles visibility.

Vertical Guidance Navaid and angle:
PAPI Rwy 22L: 3.44°

WAIALAE GOLF COURSE VISUAL APPROACH RWY 22L

PROCEDURE NOT AUTHORIZED AT NIGHT
RESTRICTED TO CAT I AND CAT II AIRCRAFT ONLY
Pilots may expect landing Runway 22R.
TERMINAL PROCEDURES

HONOLULU TWO DEPARTURE (OBSTACLE)

(DANIEL K INOUYE INTL (HNL) (PHNL)
AL-754 (FAA) HONOLULU, HAWAII

- D-ATIS 127.9, 251.15
- CLNC DEL 121.4, 281.4
- GND CON 121.9, 348.6
- HONOLULU TOWER 118.1, 257.8
- 123.9, 273.575 (Rwy BR/26L)
- HCF APPROACH
  - EAST 124.8, 317.6
  - WEST 118.3, 269.0

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**TERMINAL PROCEDURES**

**PAC, 5 NOV 2020 to 31 DEC 2020**

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**TAKEOFF MINIMUMS**

- Rwys 4W, 8W, 22W, 26W: NA-ATC.
- Rwys 22L/R, 26R: Standard.
- Rwys 4L/R: Standard with minimum climb of 425’ per NM to 1900, do not exceed 180K until southeast bound on 155° heading, or 1700-2/2 for VCOA.
- Rwy 8L: Standard with minimum climb of 310° per NM to 1000, or 1700-2/2 for VCOA.
- Rwy 8R: Standard with minimum climb of 270° per NM to 1000, or 1700-2/2 for VCOA.
- Rwys 26L: Standard with minimum climb of 237° per NM to 300, or 1700-2/2 for VCOA.

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**DEPARTURE ROUTE DESCRIPTION**

**NOTE:** Chart not to scale.

**TAKEOFF RUNWAYS 4L/R, 8L/R:** Climbing right turn to 3000 on heading 155° to intercept HNL R-125 to HAUNA INT before proceeding on course, or... .

**TAKEOFF RUNWAYS 22L/R, 26L/R:** Climbing left turn to 3000 on heading 140° to intercept HNL R-171 to ALANA INT before proceeding on course, or... .

...for visual climb over airport: obtain ATC approval for VCOA when requesting IFR clearance. Cimb in visual conditions to cross Daniel K. Inouye Intl Airport southbound at 1600, continue climb to 3000 on HNL R-171 to ALANA INT before proceeding on course.
TAKOFF OBSTACLE NOTES

Rwy 4L: Multiple lights beginning 630’ from DER, 236’ left of centerline, 102’ right of centerline, up to 84’ AGL/92’ MSL.
Light on building 669’ from DER, 394’ left of centerline, 29’ AGL/37’ MSL.
Stack on building 2488’ from DER, 219’ right of centerline, 72’ AGL/80’ MSL.
Multiple trees beginning 1253’ from DER, 209’ left of centerline, 935’ right of centerline, up to 64’ AGL/72’ MSL.
Bush 450’ from DER, 234’ left of centerline, 14’ AGL/22’ MSL.

Rwy 4R: Stack on building, 2442’ from DER, 283’ left of centerline, 72’ AGL/80’ MSL.
Multiple trees beginning 1206’ from DER, 711’ left of centerline, 433’ right of centerline, up to 64’ AGL/72’ MSL.
Multiple lights beginning 1072’ from DER, 399’ left of centerline, 504’ right of centerline, up to 36’ AGL/44’ MSL.
Pole 2110’ from DER, 951’ left of centerline, 59’ AGL/67’ MSL.

Rwy 22L: Multiple bushes beginning 265’ from DER, 396’ right of centerline, up to 17’ AGL/31’ MSL.
Tree 1065’ from DER, 499’ right of centerline, 30’ AGL/38’ MSL.

Rwy 22R: Rod on obstruction light ASR 1451’ from DER, 827’ right of centerline, 76’ AGL/84’ MSL.
Tree 853’ from DER, 308’ right of centerline, 43’ AGL/51’ MSL.

Rwy 26L: Ship 1.1 NM from DER, on centerline, 208’ AGL/208’ MSL.

Rwy 26R: Multiple light poles beginning 2120’ from DER, 813’ right of centerline, up to 105’ AGL/111’ MSL.
TOP ALTITUDE: 5000

TAKEOFF MINIMUMS
Rwy 4L/R, 4W, 8L/R, 8W, 22W, 26W: NA · ATC.
Rwy 22L/R, 26R: Standard.
Rwy 26L: Standard with minimum climb of 237' per NM to 300.

NOTE: RNAV1.
NOTE: RADAR required.
NOTE: GPS required.
NOTE: Turbo-jet and turbo-prop aircraft only.

(NARRATIVE ON FOLLOWING PAGE)
(NOTES CONTINUED ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 22L/R: Climb on heading 222° to intercept course 208° to cross BANZI at or below 5000, thence . . . .

TAKEOFF RUNWAY 26L: Climb on heading 259° to intercept course 199° to cross BANZI at or below 5000, thence . . . .

TAKEOFF RUNWAY 26R: Climb on heading 259° to intercept course 197° to cross BANZI at or below 5000, thence . . . .

. . . . on track 208° to LHAKE, then on track 208° for RADAR vectors to assigned route/fix, maintain 5000 or as assigned by ATC. Expect clearance to filed altitude/flight level within 10 minutes after departure.

NOTE: ALANA departures expect direct/vectors to ALANA/V8/V16/V20/V21.
NOTE: APACK departures expect direct/vectors to APACK/R463.
NOTE: CANON departures expect direct/vectors to CANON/V15.
NOTE: CARRP departures expect direct/vectors to CARRP/A579.
NOTE: CHOKO departures expect direct/vectors to CHOKO/R584/B326.
NOTE: CLUTS departures expect direct/vectors to CLUTS/R465.
NOTE: DANNO departures expect direct/vectors to DANNO.
NOTE: DOVRR departures expect direct/vectors to DOVRR/B596.
NOTE: EBBER departures expect direct/vectors to EBBER/R577.
NOTE: FITES departures expect direct/vectors to FITES/R578.
NOTE: GECKO departures expect direct/vectors to GECKO/V4/V12/V16.
NOTE: HAUNA departures expect direct/vectors to HAUNA/V8/V16/V20/V21/LNY.
NOTE: HOOPA departures expect direct/vectors to HOOPA/A450.
NOTE: JULLE departures expect direct/vectors to JULLE/V16/V20/V21.
NOTE: KATHS departures expect direct/vectors to KATHS/A450.
NOTE: KEOLA departures expect direct/vectors to KEOLA/V16.
NOTE: KOA departures expect direct/vectors to KOA.
NOTE: LILIA departures expect direct/vectors to LILIA/V15.
NOTE: OPIHI departures expect direct/vectors to OPIHI/V8/V16/V20/V21.
NOTE: PALAY departures expect direct/vectors to PALAY/V2/V8/LNY.
NOTE: PUPPI departures expect direct/vectors to PUPPI/V16.
NOTE: SCOON departures expect direct/vectors to SCOON.
NOTE: SYVAD departures expect direct/vectors to SYVAD/V16.
NOTE: THOMA departures expect direct/vectors to THOMA.
NOTE: UPP departures expect direct/vectors to UPP.
NOTE: ZIGIE departures expect direct/vectors to ZIGIE/A331.
NOTE: Departures from Runways 26L/R must complete left turn to assigned heading within 2 NM of runway departure end (HNL 3 DME).

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 22/26 ONLY: Turn left to heading assigned by tower, expect RADAR vectors to intercept HNL R-138; then via HNL R-138 to KEAHI INT, maintain 5000'; then via (transition). Expect clearance to enroute altitude/flight level at JORDA INT or LNY VORTAC.

JORDA TRANSITION (KEAHI3.JORDA): From over KEAHI INT via LNY R-262 and HNL R-125 to JORDA INT.

LANAI TRANSITION (KEAHI3.LNY): From over KEAHI INT via LNY R-262 to LNY VORTAC.

UPOLU TRANSITION (KEAHI3.UPP): From over KEAHI INT via LNY R-262 and HNL R-125 to JORDA INT, thence via UPP R-278 to UPP VORTAC.
KEOLA TWO DEPARTURE

56 TERMINAL PROCEDURES

(KEOLA2.KEOLA) 20030

KEOLA TWO DEPARTURE

(KEOLA2.KEOLA) 06JAN94

DANIEL K INOUYE INTL (HNL) (PHNL)

NOTE: Chart not to scale.

TERMINAL PROCEDURES
DEPARTURE ROUTE DESCRIPTION

Turn right/left to heading as assigned by Tower, expect vectors to MKK VORTAC, maintain 5000'; then via (transition). Expect clearance to enroute altitude/flight level at MKK VORTAC. Cross egress fixes ZIGIE, APACK, CLUTS, EBBER, and FITES at assigned cruising altitude, unless otherwise advised by ATC.

APACK TRANSITION (MKK4.APACK): From over MKK VORTAC via MKK R-004 to APACK INT.

CLUTS TRANSITION (MKK4.CLUTS): From over MKK VORTAC via MKK R-040 to CLUTS INT.

EBBER TRANSITION (MKK4.EBBER): From over MKK VORTAC via MKK R-056 to BLUSH INT then via 080° heading and R577 to EBBER INT.

FITES TRANSITION (MKK4.FITES): From over MKK VORTAC via MKK R-056 to BLUSH INT then via 095° heading and R578 to FITES INT.

PULPS TRANSITION (MKK4.PULPS): From over MKK VORTAC via MKK R-108 to PULPS INT.

ZIGIE TRANSITION (MKK4.ZIGIE): From over MKK VORTAC via MKK R-004 to intercept and proceed via OGG R-337 to REXIE DME. Then via RNAV heading 334° to ZIGIE WP.
NOTE: Honolulu departures from Rwys 4L/R and 8L/R must complete right turn to assigned heading within 2 NM of departure end of runway (HNL 3.6 DME). Cross CKH R-240 at or above 2500'.

NOTE: Honolulu departures Rwys 26L/R left turn to assigned heading must be completed within 2 NM of departure end of runway (HNL 3 DME).

(NARRATIVE ON FOLLOWING PAGE)
DEPARTURE ROUTE DESCRIPTION

Turn right/left to heading assigned by tower, expect vectors to OPIHI INT, maintain 5000’; then via (transition). Expect clearance to enroute altitude/flight level at OPIHI INT.

CARRP TRANSITION (OPIHI2.CARRP): From over OPIHI INT via right turn to intercept MKK R-254 to HNL R-204, then via HNL R-204 to HNL 100 DME, then via course 204° to CARRP WP.

CHOKO TRANSITION (OPIHI2.CHOKO): From over OPIHI INT via right turn to intercept MKK R-254 to HNL R-241 to BINJO DME, then via course 241° to CHOKO WP.

DOVRR TRANSITION (OPIHI2.DOVRR): From over OPIHI INT via HNL R-187 to HNL 50 DME, then via left turn heading 153° RNAV course to DOVRR WP.
NOTE: Departures from Runways 4L/R and 8L/R must complete right turn to assigned heading within 2 NM of runway departure end (HNL 3.6 DME). Cross CKH R-240 at or above 2500'. Departures from Runways 26L/R must complete left turn to assigned heading within 2 NM of runway departure end (HNL 3 DME).

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

Turn right/left to heading as assigned by tower, expect vectors to PALAY INT, maintain 5000'; then via (transition). Expect clearance to enroute altitude/flight level at LNY VORTAC.

LANAI TRANSITION (PALAY2.LNY): From over PALAY INT via HNL R-110 and LNY R-290 to LNY VORTAC.

MOLOKAI TRANSITION (PALAY2.MKK): From over PALAY INT via MKK R-254 to MKK VORTAC.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R: Climb on heading 079° to 513, then right turn direct PIPLN between 3000 and 5000 at 210K, thence... . . .

. . . on track 164° to ENSKY, then on track 164° for RADAR vectors to assigned route/fix, maintain 5000 or as assigned by ATC. Expect clearance to filed altitude/flight level within 10 minutes after departure.

NOTE: ALANA departures expect direct/vectors to ALANA/V8/V16/V20/V21.
NOTE: APACK departures expect direct/vectors to APACK/R463.
NOTE: BINJO departures expect direct/vectors to BINJO/R584/B326.
NOTE: CANON departures expect direct/vectors to CANON/V15.
NOTE: CARRP departures expect direct/vectors to CARRP/A579.
NOTE: CLUTS departures expect direct/vectors to CLUTS/R465.
NOTE: DANNO departures expect direct/vectors to DANNO.
NOTE: DOVRR departures expect direct/vectors to DOVRR/B596.
NOTE: EBBER departures expect direct/vectors to EBBER/R577.
NOTE: FITES departures expect direct/vectors to FITES/R578.
NOTE: GECKO departures expect direct/vectors to GECKO/V4/V12/V16.
NOTE: HAUNA departures expect direct/vectors to HAUNA/V8/V16/V20/V21/LNY.
NOTE: HOOPA departures expect direct/vectors to HOOPA/A450.
NOTE: KATHS departures expect direct/vectors to KATHS/A450.
NOTE: KEOLA departures expect direct/vectors to KEOLA/A16.
NOTE: KOA departures expect direct/vectors to KOA.
NOTE: LULA departures expect direct/vectors to LULA/V15.
NOTE: LNY departures expect direct/vectors to LNY.
NOTE: OPHI departures expect direct/vectors to OPHI/V8/V16/V20/V21.
NOTE: PALAY departures expect direct/vectors to PALAY/V2/V8/LNY.
NOTE: PUPPI departures expect direct/vectors to PUPPI/V16.
NOTE: SCOON departures expect direct/vectors to SCOON.
NOTE: SYVAD departures expect direct/vectors to SYVAD/V16.
NOTE: THOMA departures expect direct/vectors to THOMA.
NOTE: UPP departures expect direct/vectors to UPP.
NOTE: ZIGIE departures expect direct/vectors to ZIGIE/A331.
RNAV (GPS) Y RWY 2
KAHULUI (OGG)(PHOG)

PAC, 5 NOV 2020 to 31 DEC 2020

ATIS 128.6
HCF APPROACH 120.2 322.4 (NORTH) 119.5 225.4 (SOUTH)
MAUI TOWER 118.7 (CTAF) 279.6
GND CON 121.9 279.6
CLNC DEL 120.6 290.5
UNICOM 122.95

RNP APCH:

- Rwy 2 helicopter visibility reduction below ½ SM NA. When local altimeter setting not received, procedure NA. For inop ALS, increase LNAV Cat A/B visibility to 1 SM, and Cat C/D to 1½ SM.

- MISSED APPROACH: Climb to 3000 direct KRANE and hold.
When visual approaches to RWY 2 are in progress, arriving aircraft may be cleared for a "Smoke Stack Visual Runway 2 Approach". Aircraft inbound via:

LANAI: Proceed to mid-Maalaea Bay via a route on or south of the LNY VORTAC R-085, thence direct to the KNUI Radio Tower, thence....

MAKENA: Proceed to the KNUI Radio Tower, thence.... ....intercept the RWY 2 extended centerline at or prior to the Sugar Mill Smoke Stacks and proceed to the airport.
TERMINAL PROCEDURES

AIRPORT DIAGRAM

KAHULUI (OGG)(PHOG)
KAHULUI, HAWAII

ATIS
128.6
MAUI TOWER
118.7 279.6
GND CON
121.9 279.6
CLNC DEL
120.6 290.5

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

20310 PAC, 5 NOV 2020 to 31 DEC 2020
**TERMINAL PROCEDURES**

**BEACH FOUR DEPARTURE**

**TOP ALTITUDE: ASSIGNED BY ATC**

**LANAI**
117°
UNY
Chan 124
N20°45.87' - W156°58.13'

**BEACH**
N20°40.98'
W156°32.20'

**HARPO**
N20°38.49'
W156°30.92'

**KONA**
112.1
KO
Chan 58

---

**TAKEOFF MINIMUMS**

Rwy 2: Standard with minimum climb of 500’ per NM to 8100.
Rwy 5: Standard with minimum climb of 500’ per NM to 8100.
Rwy 20: Standard with minimum climb of 495’ per NM to 8100.
Rwy 23: Standard with minimum climb of 485’ per NM to 8100.

---

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 2:** Climb on heading 024° to 1400 then climbing right turn via OGG R-195 to BEACH INT.

**TAKEOFF RUNWAY 5:** Climb on heading 054° to 2500 then climbing right turn via OGG R-195 to BEACH INT.

**TAKEOFF RUNWAYS 20, 23:** Climbing left turn via OGG R-195 to BEACH INT.

**HARPO TRANSITION (BEACH4.HARPO):** From over BEACH INT on KOA R-323 to HARPO INT.

**LANAI TRANSITION (BEACH4.LNY):** From over BEACH INT on LNY R-090 to LNY VORTAC.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: GPS required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: APACK departures expect direct/vecors to APACK/R463.
NOTE: CANON departures expect direct/vecors to CANON.
NOTE: CARRP departures expect direct/vecors to CARRP/A579.
NOTE: CHOKO departures expect direct/vecors to CHOKO.
NOTE: CLUTS departures expect direct/vecors to CLUTS/R465.
NOTE: DANO departures expect direct/vecors to DANO.
NOTE: DOVRR departures expect direct/vecors to DOVRR/B596.
NOTE: EBBR departures expect direct/vecors to EBBR/R577.
NOTE: JULLE departures expect direct/vecors to JULLE.
NOTE: KOA departures expect direct/vecors to KOA VORTAC.
NOTE: LILIA departures expect direct/vecors to LILIA.
NOTE: NONNI departures expect direct/vecors to NONNI.
NOTE: PUPPI departures expect direct/vecors to PUPPI.
NOTE: SAKKI departures expect direct/vecors to SAKKI.
NOTE: SCOON departures expect direct/vecors to SCOON.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 2:** Climb heading 024° to 554, then direct HIAKA, thence . . .

. . . on track 024° to cross ROSAH at or above 1600, then on track 024° for RADAR vectors to assigned route/fix, maintain 16000 or as assigned by ATC. Expect clearance to filed altitude/flight level within 10 minutes after departure.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 2 AND 5 ONLY: After takeoff, all aircraft fly heading 360°, expect radar vectors west of Maui Island to assigned fix/route. Cross the LNY R-322 at assigned altitude. When assigned above 14000’, cross at or above 14000’.

LOST COMMUNICATIONS: If not in contact with Departure Control 1 minute after crossing the shoreline, climb northbound via the OGG R-010 until reaching at least 3500’. Then reverse course to the right direct OGG VORTAC. Then via V24 to LNY VORTAC. Cross OGG VORTAC at or above 6700’.
ATIS 128.6
CJNC DEL
120.6 290.5
GND CON
121.9 279.6
MAUI TOWER *
118.7 (CTAF) 279.6
HCF APPROACH
NORTH 120.2 322.4
SOUTH 119.5 225.4

NOTE: RNAV 1.
NOTE: GPS required.

TAKEOFF MINIMUMS
Rwys 5, 20, 23, NA - Air Traffic.
Rwy 2: Standard with minimum climb of 355’ per NM to 11200.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb to assigned altitude on heading 024° to intercept course
320° to cross WMAUI at or above 3200, and on track 276° to cross ROXZZ at or above 4000, and on track 251° to cross ISSNO at or above 7000, and on track 249° to cross
AARES at or above 14000, and on track 249° to SAKKI.
TERMINAL PROCEDURES

ONOH1 TWO DEPARTURE

ONOH1 TWO DEPARTURE

ATIS 128.6
CLNC DEL
120.6 290.5
GND CON
121.9 279.6
MAUI TOWER *
118.7 (CTAF) 279.6
HCF APPROACH
NORTH 120.2 322.4
SOUTH 119.5 222.4

TOP ALTITUDE:
7000

NOTE: DME required.

TAKEOFF MINIMUMS
Rwy 23: NA- obstacles and ATC.
Rwy 2: Standard with ATC climb of 480' per NM to 2200.
Rwy 5: Standard with ATC climb of 480' per NM to 2900.
Rwy 20: Standard with minimum climb of 480' per NM to 7000.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb on heading 024° to 2100 then climbing right turn to
7000 to ONOH1/OGG 23 DME via heading 115° and OGG R-085.

TAKEOFF RUNWAY 5: Climbing left turn on heading 024° to 2100 then climbing right
turn to 7000 to ONOH1/OGG 23 DME via heading 115° and OGG R-085.

TAKEOFF RUNWAY 20: Climb on heading 204° to 2100 then climbing left turn to 7000
to ONOH1/OGG 23 DME via direct OGG VORTAC and OGG R-085.

BARRY TRANSITION (ONOH1.2.BARRY): From over ONOH1/OGG 23 DME on OGG R-085
to BARRY/OGG 25 DME.

ONOH1 TWO DEPARTURE

(ONOH1.2.ONGH) 20AUG15
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: GPS required.
NOTE: Turbojet and turboprop aircraft only.

TAKEOFF MINIMUMS:
Rwy 20: Standard with minimum climb of 500' per NM to 554.
Rwys 2, 5, 23: NA - ATC.

NOTE: APACK departures expect direct/vectors to APACK/R463.
NOTE: CANON departures expect direct/vectors to CANON.
NOTE: CARRP departures expect direct/vectors to CARRP/A579.
NOTE: CHOKO departures expect direct/vectors to CHOKO.
NOTE: CLUTS departures expect direct/vectors to CLUTS/R465.
NOTE: DANNO departures expect direct/vectors to DANNO.
NOTE: DOVRR departures expect direct/vectors to DOVRR/R596.
NOTE: EBBER departures expect direct/vectors to EBBER/R577.
NOTE: JULLE departures expect direct/vectors to JULLE.
NOTE: KOA departures expect direct/vectors to KOA.
NOTE: LIIJA departures expect direct/vectors to LIIJA.
NOTE: NONNI departures expect direct/vectors to NONNI.
NOTE: PUPPI departures expect direct/vectors to PUPPI.
NOTE: SAKKI departures expect direct/vectors to SAKKI.
NOTE: SCOON departures expect direct/vectors to SCOON.
NOTE: SYVAD departures expect direct/vectors to SYVAD/V16.
NOTE: TARDE departures expect direct/vectors to TARDE.
NOTE: THOMA departures expect direct/vectors to THOMA.
NOTE: UPP departures expect direct/vectors to UPP.
NOTE: ZIGIE departures expect direct/vectors to ZIGIE/A331.

DEPARTURE ROUTE DESCRIPTION:
TAKEOFF RUNWAY 20: Climb heading 204°
to 554, then left turn direct PUHEE, thence . . .
. . . on track 183° to cross TAAKA at or
above 2600, then on track 183° for RADAR
vectors to assigned route/fix, maintain
16000 or as assigned by ATC. Expect
clearance to filed altitude/flight level within
10 minutes after departure.
**TERMINAL PROCEDURES**

**STACEY TWO DEPARTURE**

**NOTE:** RADAR required.

**TAKEOFF MINIMUMS**
- Rwy 2: Standard with minimum climb of 500' per NM to 8100.
- Rwy 5: Standard with minimum climb of 500' per NM to 8100.
- Rwy 20: Standard with minimum climb of 490' per NM to 8100.
- Rwy 23: NA - Obstacles.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 2:** Climb heading 024° (or ATC assigned heading 310° CW 053°); thence...

**TAKEOFF RUNWAY 5:** Climbing heading 054° (or ATC assigned heading 307° CW 054°); thence...

**TAKEOFF RUNWAY 20:** Climb heading 204° (or ATC assigned heading 169° CW 204°); thence...

**TAKEOFF RUNWAY 23:** NA - Obstacles.

...expect RADAR vectors to join assigned route. Maintain assigned altitude; expect filed altitude/flight level 5 minutes after departure.

**LOST COMMUNICATIONS:** If not in contact with departure control 1 minute after departure, climb southbound to join V2 to LNY VORTAC, then on assigned route.
SWEEP TWO DEPARTURE

ATIS 128.6
CINC DEL
120.6 290.5
GND CON
121.9 279.6
MAUI TOWER *
118.7 (CTAF) 279.6
MAUI DEP CON
NORTH 120.2 322.4
SOUTH 119.5 225.4
HCF APPROACH
NORTH 120.2 322.4
SOUTH 119.5 225.4

TOP ALTITUDE:
6000

SWEEP N20° 58.50'
W156° 00.21'

2A
R.069

2100

6000

2100

TAKEOFF MINIMUMS
Rwy 23: NA Obstacle and ATC.
Rwys 2, 5: Standard with ATC climb of 480' per NM to 2100.
Rwy 20: Standard with minimum climb of 480' per NM to 2100.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb heading 024° to 2100 then climbing right turn to 6000 via heading 095° to intercept OGG VORTAC R-069 (V11) to SWEEP INT/OGG 24 DME.
TAKEOFF RUNWAY 5: Climbing left turn heading 024° to 2100 then right turn to 6000 via heading 095° to intercept OGG VORTAC R-069 (V11) to SWEEP INT/OGG 24 DME.
TAKEOFF RUNWAY 20: Climb heading 204° to 2100 then climbing left turn to 6000 direct OGG VORTAC then via OGG R-069 (V11) to SWEEP INT/OGG 24 DME.
TERMINAL PROCEDURES

**PAC, 5 NOV 2020 to 31 DEC 2020**

**KAILUA-KONA, HAWAII**

**APP CRS**
- Rwy Idg: 11000
- TDZE: 47
- Aptr Elev: 47

**ATIS** 127.4
**HCF CENTER** 118.45 278.3
**KONA TOWER** 120.3 (CTAF) 254.3
**GND CON** 121.9
**CINC DEL** 118.6

**RNAV (GPS) Y RWY 17**

**ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)**

**MALSR**

**MISSED APPROACH:** Climb to 5000 direct HASOG and on track 264° to PIPE and on track 328° to AMERY and hold.

**Procedure NA for arrivals on UPP VORTAC airway radials 200 CW 287.**

**Procedure NA for arrivals on KOA VORTAC airway radials 294 CW 327.**

**RNAV only**

**LNAV**
- DA: 540-1 493 (500-1 4)
- MDA: 640-1½ 593 (600-1½)

**HIRL Rwy 17-35**

**KAILUA-KONA, HAWAII**

**Amend 1D 05NOV20**

**AL-5761 (FAA)**

**20310**
LOC BC RWY 35
ELLIUSON ONIZUKA KONA INTL AT KEAHOLE (KO) (PHKO)

CIRCLING NA east of Rw 17-35. DME required.

MISSED APPROACH: Climbing left turn to 5000 on KOA VORTAC R-294 to ANDES/KOA VORTAC 11.7 DME and hold, continue climb-in-hold to 5000.

ATIS 127.4
HCF CENTER 118.45 278.3
KONA TOWER \* 120.3 (CTAF) \* 254.3
GND CON 121.9
CLNC DEL 118.6

ALTERNATE MISSED APCH FIX
113.3 MUE
124.0
VECKI I-KOA

BACK COURSE

VGS1 and descent angles not coincident. (VGS1 Angle 3.00/FCH 71).

Use KOA DME when on localizer course. Disregard glide slope indications.

Remain within 10 NM

* Maintain 4700 feet or above until established outbound for procedure turn.

CATEGORY A B C D
S-35 460-1 423 (500-1) 460-1/2 460-1/2
CIRCLING 520-1 473 (500-1) 520-1/2 600-2

HILR Rw 17-35

KAILUA-KONA, HAWAII
Amdt 10C 05NOV20

ELLIUSON ONIZUKA KONA INTL AT KEAHOLE (KO) (PHKO)

PAC, 5 NOV 2020 to 31 DEC 2020
TERMINAL PROCEDURES

KAILUA-KONA, HAWAII

AL-5761 (FAA)

VORTAC KOA
112.1
Chan 58

APP CRS
171°

Rwy Idg 11000
TDZE 47
Apt Elev 47

PAC, 5 NOV 2020 to 31 DEC 2020

ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

MISSED APPROACH: Climbing right turn to 1500 on KOA VORTAC R-294 to ANDES/11.7 DME and hold.

ATIS
127.4

HCF CENTER
118.45 278.3

KONA TOWER* 120.3 (CTAF) 254.3

GND CON 121.9

CINC DEL 118.6

DME required.

Circling NA east of Rwy 17-35. For inop ALS, increase S-17 Cat A, B visibility to 1 mile, Cat E visibility to 1/2 mile.

KAMUELA 113.3 MUE Chan 80

7513

3946

6800

245°

8

2754±

112.3 UPP Chan 70

NENVE KOA 22.2

MAUA INT MUE 16

(IAF) KEANY INT MUE 8

(IAF) TAMMI INT KOA 22.5

(IAF) KOA 11.7 Arc

ANDES KOA 11.7

KOAKA 5.2

SODZE INT UPP 11

MIA INT MUE 16

KOAOA 5.2

R-228

KOA R-294

1500

351°

171°

224±

463±

A(785±)

A(5779±)

5500 ft KAYAK

531° (11.7)

KOA 11.7

KOAOA 5.2

2.82°

TCH 34

KOA 3.8

1500

KOAOA 5.2

6.5 NM

1.4 NM

1.6 NM

17°

14°

9°

6°

KAYAK KOA 11.7

1500

351°

171°

1000

362±

5779±

600-1 553 (600-1/4)

600-2 553 (600-2)

600-1 553 (600-1/4)

600-1/2 553 (600-1/4)

600-1/2 553 (600-1/4)

600-1/4 553 (600-1/4)

600-3/4 553 (600-1/4)

VOR or TACAN Rwy 17
TERMINAL PROCEDURES

(AMERY4.AMERY) 20254
AMERY FOUR DEPARTURE
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)
KAILUA-KONA, HAWAII

ATIS
127.4
CLNC DEL
118.6
KONA TOWER*
120.3 (CTAF) 254.3
HCF CENTER
110.45 728.3

MAUI
115.1 OGG
Chan 98

UPOLU POINT
112.3 UPP
Chan 70

ROWIN
N20°08.80' W156°22.07'
P-2

TYPHO
N20°00.06' W156°28.79'
P-2

AMERY
N19°57.31' W156°24.55'
9000 for ROWIN Transition

ANDRES
N19°49.69' W156°12.87'

KONA
112.1 KOA
Chan 58

TKEOFF MINIMUMS
Rwys 17, 35: Standard with minimum climb of
300 ft per NM to 7500.

NOTE: DME required.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb heading 174° to 500, then climbing right turn to intercept
KOA R-294 to AMERY INT, Thence. . . .

TAKEOFF RUNWAY 35: Climb heading 354° to 500, then climbing left turn to intercept
KOA R-294 to AMERY INT, Thence. . . .

. . . . . via transition.

ROWIN TRANSITION [AMERY4.ROWIN]: From AMERY INT on OGG R-168 to ROWIN INT.

TYPHO TRANSITION [AMERY4.TYPHO]: From AMERY INT on KOA R-294 to TYPHO INT.

AMERY FOUR DEPARTURE
(AMERY4.AMERY) 07DEC17
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

PAC, 5 NOV 2020 to 31 DEC 2020
ATIS
127.4
CLNC DEL
118.6
KONA TOWER *
120.3 254.3
HCF CENTER
118.45 278.3

NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: RNAV 1

TAKEOFF MINIMUMS
Rwys 17, 35: Standard.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 174° to 560 then climbing right turn to 10000 direct CRISI.
TAKEOFF RUNWAY 35: Climb on heading 354° to 560 then climbing left turn to 10000 direct CRISI.
Circling NA southeast of Rwy 5-23. Procedure NA at night. Use Kaunakakai altimeter setting.

Missed Approach: Climbing right turn to 5000 direct WEPGU and hold, continue climb-in-hold to 5000.
TERMINAL PROCEDURES

KALAUPAPA, HAWAII

RNAV (GPS)-B
KALAUPAPA (LUP) (PHLU)

RNPA APCH.

Circling NA southeast of Rwy 5-23. Procedure NA at night. Use Kaunakakai altimeter setting.

HCF CENTER
124.1 317.5

CTAF
122.9

MISSED APPROACH: Climbing left turn to 2900 direct WEKLO and hold.

ELEV 24

101° to ZOKLO

MIRL Rwy 5-23

KALAUPAPA, HAWAII
Orig 20JUN19
TERMINAL PROCEDURES

(LUP1, LUP) 16035
KALAUPAPA ONE DEPARTURE (OBSTACLE)

KALAUPAPA (LUP) (PHLU)
SL-6993 (FAA) KALAUPAPA, HAWAII

HCF CENTER
124.1 317.5
CTAF
122.9

MOLOKAI
116.1 MKK E E
Chan 108
N21°08.29' W157°10.05'
F-2

TAKEOFF MINIMUMS
Rwy 5: Standard.
Rwy 23: Standard with minimum climb of 400' per NM to 430 or 3200-3 for climb in visual conditions.

TAKEOFF OBSTACLE NOTES
Rwy 5: Terrain beginning 52' from DER, 85' right of centerline, 27' MSL. Bush 286' from DER, 198' right of centerline, 17' AGL/34' MSL.
Rwy 23: Bush 163' from DER, 92' right of centerline, 4' AGL/28' MSL.

NOTE: Chart not to scale

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climbing left turn to 4000 heading 271° to intercept MKK R-035 to MKK VORTAC, Thence...

TAKEOFF RUNWAY 23: Climbing right turn to 4000 heading 282° to intercept MKK R-010 to MKK VORTAC, Thence... or for climb in visual conditions, cross Kalaupapa Airport southwest bound at or above 3100 MSL then proceed on MKK R-057 to MKK VORTAC.

... Climb in MKK VORTAC holding pattern to cross MKK VORTAC at or above MEA before proceeding enroute.

KALAUPAPA ONE DEPARTURE (OBSTACLE)
(LUP1, LUP) 10MAR11

KALAUPAPA, HAWAII
KALAUPAPA (LUP) (PHLU)

PAC, 5 NOV 2020 to 31 DEC 2020
Circling NA northwest of Rwy 4-22.
When local altimeter setting not received, procedure NA.

MISSLED APPROACH: Climb to 5000 on MUE VOR/DME R-057 to TIGAH INT/MUE 13.2 DME and hold.

Procedure NA for arrivals at MYNAH on V11 southbound.

VGS1 and descent angles not coincident (VGS1 Angle 2.50/TCH 43).

One Minute Holding Pattern

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-4</td>
<td>3360-1</td>
<td>689 (700-1)</td>
<td>3360-2</td>
<td>689 (700-2)</td>
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<tr>
<td>CIRCLING</td>
<td>3520-1½</td>
<td>849 (900-1½)</td>
<td>3520-2½</td>
<td>849 (900-2½)</td>
</tr>
</tbody>
</table>

20°00′N-155°40′W

PAC, 5 NOV 2020 to 31 DEC 2020
NA
When local altimeter not received, procedure NA.
Circling NA northwest of Rwy 4-22.

MISSED APPROACH: Climb to 5000 via MUE R-234 to JASON INT/12.5 DME and hold.

UPOLU POINT
112.3 UPP
Chan 70

KAMUELA
113.3 MUE
Chan 80

ELEV 2671
Circling NA north of Rwy 4R-22L. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Honolulu altimeter setting and increase all MDA 40 feet. For inop MALSR, increase LNAV Cat C/D visibility to 1½ miles. For inop MALSR when using Honolulu altimeter setting increase LNAV Cat C/D visibility to 1¾ miles. Helicopter visibility reduction below 1 SM NA. Procedure NA at right.

Procedure NA for arrivals at GECKO on V16 westbound.
Circular NA north of Rwy 4R-22L. Inop table does not apply.

Procedure NA for arrivals at GECKO via V16 southeast bound.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<tbody>
<tr>
<td>S-4R</td>
<td>560-1</td>
<td>543 (600-1)</td>
<td>560-1/2</td>
<td>560-1/4</td>
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<td></td>
<td>543 (600-1/6)</td>
<td>543 (600-1/6)</td>
<td></td>
<td></td>
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<tr>
<td>CIRCLING</td>
<td>560-1</td>
<td>530 (600-1)</td>
<td>560-1/2</td>
<td>580-2</td>
</tr>
<tr>
<td></td>
<td>530 (600-1/6)</td>
<td>580-2</td>
<td></td>
<td>550 (600-2)</td>
</tr>
</tbody>
</table>

HONOLULU 114.8 HNL 110±

VOR/DME RWY 4R
KALAELOA (JOHN RODGERS FIELD) (JRF) (PHJR)

KAPOLEI, HAWAII

AL-761 (FAA) 20310

PAC, 5 NOV 2020 to 31 DEC 2020
### Terminal Procedures

**Terminal Procedures 101**

**PAC, 5 Nov 2020 to 31 Dec 2020**

**Kalaehoa (John Rodgers Field) (JRF) (PHJR)**

**NDB RWY 4R**

<table>
<thead>
<tr>
<th>HN LOM</th>
<th>APP CRS</th>
<th>Rwys Ldg</th>
<th>TDZE</th>
<th>Aptelev</th>
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</thead>
<tbody>
<tr>
<td>242</td>
<td>037°</td>
<td>8000</td>
<td>17</td>
<td>30</td>
</tr>
</tbody>
</table>

**A**

- Circling not authorized north of Rwys 11 and 22R.

**MALS**

- Climbing right turn to 2600 via 175° bearing from HN LOM, then climbing right turn to 4900 direct HN LOM and hold.

**ATIS**

- 119.8

**HCF Center**

- 118.3 269.0

**Kalaehoa Tower**

- 132.6 (CTAF) 340.2

**GND CON**

- 123.8 336.4

**CINC DEL**

- 121.7 380.5

**Map Diagram**

- Remain within 10 NM

**Category**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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</thead>
<tbody>
<tr>
<td>S-4R</td>
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<td>800-1½</td>
<td>800-2¼</td>
<td>800-2½</td>
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<td>783 (800-1)</td>
<td>783 (800-1½)</td>
<td>783 (800-2¼)</td>
<td>783 (800-2½)</td>
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<tr>
<td>CIRCLING</td>
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<td>800-1½</td>
<td>800-2¼</td>
<td>800-2½</td>
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<tr>
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<td>770 (800-1)</td>
<td>770 (800-1½)</td>
<td>770 (800-2¼)</td>
<td>770 (800-2½)</td>
</tr>
</tbody>
</table>

**Kopoei, Hawaii**

**Orig 15 Jul 99**

**Kalaehoa (John Rodgers Field) (JRF) (PHJR)**

**NDB RWY 4R**

**21°18'N-158°04'W**

**PAC, 5 Nov 2020 to 31 Dec 2020**
Circling Rwy 17, 23 NA at night.

MISSED APPROACH: Climbing left turn to 4000 on heading 360° and on MKK VORTAC R-030 to HAPAI INT/MKK 10 DME and hold, continue climb-in-hold to 4000.

<table>
<thead>
<tr>
<th>ATIS</th>
<th>HCF CENTER</th>
<th>MOLOKAI TOWER</th>
<th>GND CON</th>
</tr>
</thead>
<tbody>
<tr>
<td>128.2</td>
<td>124.1 317.5</td>
<td>125.7 (CTAF) 306.2</td>
<td>121.9</td>
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<td>CIRCILING</td>
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<td>1940-1 1/2</td>
<td>1940-3</td>
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<td>WUBLAL MKK</td>
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<tr>
<td>2 900</td>
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<td>2 800</td>
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<td>1940</td>
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<tr>
<td>2 54°</td>
<td></td>
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<tr>
<td>2 800</td>
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Remain within 10 NM

066° 3.8 NM From FAF

MOLOKAI (MKK) (PHMK)

VOR or TACAN-A

KAUNAOKAI, HAWAII

Amdd 17A 05NOV20

21°09'N-157°06'W

PAC, 5 NOV 2020 to 31 DEC 2020
**TERMINAL PROCEDURES**

**KAUNAKAKAI ONE DEPARTURE (OBSTACLE)**

**MOLOKAI (MKK) (PHMK)**

**ATIS**
- 128.2
- GND CON 121.9

**MOLOKAI TOWER**
- 125.7 304.2
- HCF CENTER 124.1 317.5

---

**TAKEOFF MINIMUMS**

**Rwy 17:** Standard.

**Rwy 5:** 300-1 with minimum climb of 325’ per NM to 1500 or standard with minimum climb of 540’ per NM to 800 or 1500-2½ for climb in visual conditions.

**Rwy 35:** 300-1 or standard with minimum climb of 535’ per NM to 800.

**Rwy 23:** Standard with minimum climb of 435’ per NM to 1500 or 1500-2½ for climb in visual conditions.

---

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 5:** Climbing left turn heading 340° to 1000 then climbing left turn direct MKK VORTAC, thence.

**TAKEOFF RUNWAY 17:** Climb heading 169° to 1300 then climbing right turn direct MKK VORTAC, thence.

**TAKEOFF RUNWAY 23:** Climbing left turn heading 170° to 1700 then climbing right turn direct MKK VORTAC, thence.

**TAKEOFF RUNWAY 35:** Climb heading 349° to 1000 then climbing left turn direct MKK VORTAC, thence.

**VCOA RUNWAYS 5 and 23:** Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Molokai Airport southwest bound at or above 1800 on MKK R-067 to MKK VORTAC, thence.

...climb in MKK VORTAC hold pattern to cross MKK at or above MEA/MCA for route of flight.

---

**NOTE:** Chart not to scale.

---

**KAUNAKAKAI ONE DEPARTURE (OBSTACLE)**

**MOLOKAI (MKK) (PHMK)**

**SL-759 (FAA) KAUNAKAKAI, HAWAII**
TAKEOFF OBSTACLES NOTES

Rwy 5: Rising terrain and vehicles on roadway beginning 14’ from DER, 238’ right of centerline, up to 17’ AGL/476’ MSL.
Vehicles on roadway beginning 28’ from DER, 484’ left of centerline, up to 17’ AGL/509’ MSL.
Multiple fences and bushes beginning 49’ from DER, 95’ left of centerline, up to 21’ AGL/480’ MSL.
Multiple fences and bushes beginning 437’ from DER, 65’ right of centerline, up to 31’ AGL/490’ MSL.
Multiple trees and bushes beginning 735’ from DER, 496’ left of centerline, up to 27’ AGL/551’ MSL.
Multiple bushes and vehicles on roadway beginning 950’ from DER, left and right of centerline, up to 17’ AGL/552’ MSL.
Electrical system 1367’ from DER, 78’ right of centerline, 35’ AGL/528’ MSL.
Multiple towers, poles and trees beginning 1887’ from DER, 33’ right of centerline, up to 43’ AGL/602’ MSL.
Multiple towers, poles and trees beginning 2386’ from DER, 644’ left of centerline, up to 60’ AGL/617’ MSL.

Rwy 17: Bush 46’ from DER, 266’ right of centerline, 13’ AGL/443’ MSL.
Vehicles on roadway beginning 124’ from DER, 505’ left of centerline, up to 17’ AGL/443’ MSL.
Vehicles on roadway beginning 484’ from DER, 590’ right of centerline, up to 17’ AGL/443’ MSL.

Rwy 23: Trees beginning 691’ from DER, 491’ left of centerline, up to 77’ AGL/470’ MSL.
Trees beginning 1.9 NM from DER, 2279’ left of centerline, up to 60’ AGL/880’ MSL.
Trees beginning 2.2 NM from DER, 541’ left of centerline, up to 60’ AGL/1208’ MSL.

Rwy 35: Bush 28’ from DER, 288’ left of centerline, 12’ AGL/461’ MSL.
Bush 48’ from DER, 118’ right of centerline, 14’ AGL/463’ MSL.
Fence beginning 70’ from DER, on centerline through 35’ left of centerline, 4’ AGL/460’ MSL.
Multiple bushes vehicles on roadway and trees beginning 107’ from DER, 48’ right of centerline, up to 65’ AGL/514’ MSL.
Bushes beginning 133’ from DER, 34’ left of centerline, up to 26’ AGL/489’ MSL.
Bushes beginning 1170’ from DER, 259’ right of centerline, up to 15’ AGL/514’ MSL.
Trees beginning 2286’ from DER, 407’ right of centerline, up to 90’ AGL/615’ MSL.
Trees beginning 2942’ from DER, 75’ right of centerline, up to 123’ AGL/648’ MSL.
ATIS
128.2
GND CON
121.9
MOLOKAI TOWER*
125.7 306.2
HCF CENTER
124.1 317.5

KOKO HEAD
113.9 CKH
Chan 86

MOLOKAI
116.1 MKK
Chan 108

BLUSH
N21°02.02' W156°40.43'
Rwy 17, 23, 35: NA-ATC.
Rwy 5: 300-1 with minimum climb of 325' per NM to 1500 or
standard with minimum climb of 540' per NM to 800.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climbing left turn to 5000 on heading 360° and CKH VORTAC
R-075 to BLUSH INT/CKH 58 DME.
TERMINAL PROCEDURES

(HAPA13.HAPA1) 18312

HAPAI THREE DEPARTURE

AL-759 (FAA)

MOLOKAI (MKK) (PHMK)

KAUNAKAKAI, HAWAII

ATIS
128.2
GND CON
121.9
MOLOKAI TOWER *
125.7 306.2
HCF CENTER
124.1 317.5

TERMINAL ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climbing left turn heading 340° and MKK VORTAC R-030 to HAPAI/MKK 10 DME, thence...

.... on assigned transition.

BAMBO TRANSITION [HAPA13.BAMBO]: From over HAPAI/MKK 10 DME on MKK VORTAC 10 DME Arc CCW to DAKKL/MKK 10 DME, then on MKK R-300 to BAMBO/MKK 25 DME.

LOKIE TRANSITION [HAPA13.LOKIE]: From over HAPAI/MKK 10 DME on MKK VORTAC 10 DME Arc CCW to LOKIE INT/MKK 10 DME.

MOLOKAI TRANSITION [HAPA13.MKK]: From over HAPAI/MKK 10 DME, left turn heading 180° and MKK R-030 to MKK VORTAC.

HAPAI THREE DEPARTURE

(HAPA13.HAPA1) 29MAY14

NOTE: DME required.

NOTE: Chart not to scale
Circling not authorized southeast of Rwy 5-23. Obtain local altimeter setting on CTAF; when not received, procedure not authorized. DME/DME RNP-0.3 NA. No controlled airspace below 5500.

MISSED APPROACH: Climbing right turn to 1700 direct CANAY WP and hold.
Autopilot coupled approach NA below 1500.
When local alimeter setting not received, procedure NA, except for operators with approved weather reporting service.

MISSED APPROACH: Climb to 1800 then climbing left turn to 3500 via heading 224° and LNY VORTAC R-278 to GRAMY INT/INT VORTAC 10 DME and hold.

ILS or LOC/DME RWY 3
LANAI (LNY)(PNY)

AWOS-3P 118.375
HCF CENTER 119.3 307.1
CTAF 122.9

MOLOKAI
116.1 MKK
Chan 108

TERMINAL PROCEDURES

LANAI CITY, HAWAII
AL-777 (FAA)

LOC/DME I-LNY
111.1
Chan 48
APP CRS 033°
Rwy Ldg TDZE Apt Elev
1307 1308

ILS or LOC/DME RWY 3
LANAI (LNY)(PNY)

033° 3.9 NM from FAF
MIRL Rwy 3-21

LANAI CITY, HAWAII
Amdt 1A 13NOV14

20°47'N-156°57'W

19115
PAC, 5 NOV 2020 to 31 DEC 2020
When local altimeter not received, procedure not authorized, except for operators with approved weather reporting service.

MISSED APPROACH: Climbing right turn to 2000 via LNY R-378 to GRAMY INT/LNY 10 DME and hold.
**TERMINAL PROCEDURES 117**

Circling NA at night.
Circling NA west of Rwy 17-35.
For inop ALS, increase S-LOC Cat D and E visibility to 1 mile.

**LOC/DME I-LIH**
- **110.9**
- Chan 46

**APP CRS**
- **349°**

**Rwy Idg**
- **TDZE**
- **96**

**Apt Elev**
- **153**

**6500**

**MALSR**

**118.9**(CTAF) **263.1**

MISSED APPROACH: Climb to 600 then climbing right turn to 3000 on LIH VORTAC R-070. DME aircraft continue to KREEN/LIH 12 DME and hold. Non-DME aircraft continue climb to 4000 then right turn direct LIH VORTAC and hold east, left turn, 250° inbound.

**LIHUE TOWER**

**HCF CENTER**

**127.2**

**126.5**

**269.4**

**LHUE**

**113.5 LIH**

**Chan 82**

**760**

**11418**

**14148**

**3320**

**A847**

**1409A**

**2297**

**338**

**799**

**4000**

**168° (5.5)**

**R-088**

**LIH R-168**

**11°**

**179°**

**349°**

**5.4 NM from FAF**

**HIRL Rwy 17-35**

**REIL Rws 3, 317 and 21**

**MIRL Rwy 3-21**

**TWR 198**

**5.4 NM to MAP**

**ELEV 153**

**TDZE 96**

**3100**

**MORKE**

**11.8°**

**R-088**

**15300**

**11°**

**5 NM**

**600**

**3000**

**DME**

**KREEN LIH 12**

**Use I-LIH DME when on the localizer course.**

**LOC only.**

**CATEGORY**

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<tr>
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<td>400-1/2</td>
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<td>520-1</td>
<td>620-1</td>
<td>620-1/2</td>
<td>720-2</td>
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</table>

**LIHUE (LIH)(PHL1)**

**21°59'N-159°20'W**

**PAC, 5 NOV 2020 to 31 DEC 2020**
For uncompensated Baro-VNAV systems, procedure NA below 14°C (57°F) or above 48°C (119°F). GPS required.

*Missed approach requires minimum climb rate of 350 feet per NM to 2500.

**Missed APPROACH: Climbing left turn to 3000 feet OLOYI and hold.

Procedure NA for arrivals at GRAIL via V16 southeast bound and at OLOYI via V15 southeast bound.

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<tr>
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<td>663-2 545 (600-2)</td>
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<td>RNP 0.30 DA</td>
<td>1078-4 960 (1000-4)</td>
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**AUTHORIZATION REQUIRED**

RNAV (RNP) Z RWY 21

LHUE (LIH)(PHLI)

21°59’N-159°20’W

PAC, 5 NOV 2020 to 31 DEC 2020
GPS required. For inoperative MALS, increase RNP 0.30 visibility to 1/2. For uncompensated Baro-VNAV systems, procedure NA below 14°C (57°F) or above 48°C (119°F).

MISSED APPROACH: Climbing turn to 3000 direct KREEN and hold.

ATIS
127.2

HCF CENTER
126.5 269.4

LIHUE TOWER *
118.9 (CTAF) 263.1

GND CON
121.9

Procedure NA for arrivals at NAPUA via V16 southeast bound.

** AUTHORIZATION REQUIRED **
For inoperative MLSR, increase LNAV Cat A visibility to 1 mile and Cat E to 3 miles. Circling NA west of Rwy 17-35. Circling NA at night. DME/DME RNP-0.3 NA.

**MISSED APPROACH:** Climbing right turn to 3000 direct KREEN WP and hold.
VOR/DME or TACAN RWY 21
LIHUE (LIH)(PHL1)

ATIS 127.2
HCF CENTER 126.5 269.4
LIHUE TOWER* 118.9(CTAF) 263.1
GND CON 121.9

TERMINAL PROCEDURES

PAC, 5 NOV 2020 to 31 DEC 2020

Circling NA at night.
Circling NA between Rwy 3-35.

MISSED APPROACH: Climbing left turn to 3000 via heading 152° and LIH VORTAC R-148 to NAGAI/12 DME and hold.

LIHUE, HAWAII

AL-776 (FAA) 20198
Circling NA at night. Inoperative table does not apply.
Circling NA west of Rwy 17-35. DME or RADAR required.

MALS

MISSING APPROACH: Climbing right turn to 3000
via heading 100° and LIH VORTAC R-070 to
KREEN/1 DME/RADAR and hold.

SOUTH KAULAI
115.4 SOK 101°
Chan 101°

M.S.A. LIH 2.5 NM

ELEV 153
TDZE 96

LIHUE, HAWAII
Amdt 7A 23AUG11

21°59'N-159°20'W
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
DEPARTURE ROUTE DESCRIPTION

**TAKEOFF RUNWAYS 3 and 35:** Climb runway heading to 500, then climbing right turn to heading 080°, expect radar vectors to intercept LIH R-110 to BOOKE DME fix. MEA 5000.

**LOST COMMUNICATIONS:** If not in contact with Honolulu CERAP one minute after departure, maintain SID heading until 10 NM east of LIH VORTAC, then intercept LIH R-110 to BOOKE DME fix. MEA 5000.
NOTE: DME required.
NOTE: Terrain heights to 2297’ occur within 4.5 NM southwest of the airport.
NOTE: Chart not to scale.

TAKEOFF RUNWAY 17: Climb runway heading to 500 feet, then climbing left turn to heading 150°, expect RADAR vectors to intercept LIH R-110 to BOKE DME fix. MEA 5000.

TAKEOFF RUNWAY 21: Immediate climbing left turn to heading 120° until crossing LIH R-150, thence fly heading 150°, expect RADAR vectors to intercept LIH R-110 to BOKE DME fix. MEA 5000.

LOST COMMUNICATIONS: If not in contact with Honolulu CERAP one minute after departure, maintain SID heading until 10 NM southeast of LIH VORTAC, then intercept LIH R-110 to BOKE DME fix. MEA 5000.
Obtain local altimeter setting on CTAF; when not received, procedure NA.
Rwy 7 helicopter visibility reduction below ¾ SM NA.
DME/DME RNP-0.3 NA. No controlled airspace below 5500.

Missed Approach: Climb to 1700 direct TOZTU and hold.
Obtain local altimeter setting on CTAF; when not received, procedure NA. 
Rwy 25 helicopter visibility reduction below ¾ SM NA.
DME/DME RNP-0.3 NA
No controlled airspace below 5,500.

MISSING APPROACH: Climb to 1700
direct OGEVE and hold.

MAJURO RADIO
123.6 (CTAF)

RNAV (GPS) RWY 25
AMATA KABUA INTL (MAJ)(PKMJ)

PAC, 5 NOV 2020 to 31 DEC 2020
RNAV (GPS) RWY 6
HENDERSON FIELD (MDY) (PMDY)

MISSING APPROACH: Climb to 1700 direct ESOVY WP and hold.

AWOS-3P 118.325  MIDWAY RADIO  126.2 257.8  CTAF 122.9

No controlled airspace below 5500. When local altimeter setting not received procedure NA. RWY 6 helicopter visibility reduction below 3/4 SM NA.

RNAP ACPH:

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MIDWAY ATOLL, MQ
Orig D 15AUG19

PAC, 5 NOV 2020 to 31 DEC 2020
TERMINAL PROCEDURES

PAC, 5 NOV 2020 to 31 DEC 2020

MIDWAY ATOIL, MQ

AL-2154 (FAA)

NDB RWY 24
HENDERSON FIELD (MDY) (PMDY)

NDX MDY
APP CRS
Rwy Ldg
TDZE
Apt Elev
7400
12
18

No controlled airspace below 5500 feet. When local altimeter not received, procedure NA. Rwy 24 helicopter visibility reduction below 3/8 SM NA.

MISSING APPROACH: Climb to 2000, then left turn direct MDY NDB and hold.

AWOS-3P
118.325

MIDWAY RADIO 126.2 257.8

CTAF 122.9

IDA

ELEV 18
TDZE 12

2000
MDY
MDY NDB

063°

Remain within 10 NM

 CATEGORY 
 A 
 B 
 C 
 D 
 S-24 
 560-1 548 (600-1) 
 560-1 548 (600-1) 
 560-1 548 (600-1)
CIRCLING 
 560-1 542 (600-1) 
 560-1 542 (600-1) 
 562 (600-2) 

HENDERSON FIELD (MDY) (PMDY)

NDB RWY 24

MIDWAY ATOIL, MQ
Org C 15AUG19

28°12'N-177°23'W

PAC, 5 NOV 2020 to 31 DEC 2020
**ILS or LOC RWY 5**

**PAGO PAGO INTL (PPG) (NSTU)**

**LOC/DME I-TUT 110.3**
- **APP CRS**: 046°
- **Rwy Idg**: 8999
- **TDZE**: 32
- **Apt Elev**: 32

**AWOS-3PT**
- **127.925**

**FALEOLO APP CON**
- **CTAF**: 122.9
- **FALEOLO**: 118.1
- **6.553** (Hz)

**LOCALIZER I-TUT 110.3**
- **Chan 40**
- **LOC offset 1.6°**

**MISSED APPROACH:** Climb to 1100 then climbing right turn to 3000 on TUT VORTAC R-087 to CELIM/TUT 10 DME and hold.

**EL: 32**
- **TDZE**: 32

---

**PAGO PAGO AS**
- **Amdt 1A**
- **08NOV18**

**14°20'S-170°43'E**

**136 TERMINAL PROCEDURES**

**DME required.**

**When local altimeter setting not received, procedure NA. Circling NA**

**nortwest of Rwy 5-23. Rwy 5 helicopter visibility reduction below 3/4 SM NA.**

For inop ALS, increase S-ILS 5 all Cats visibility to 2 1/2 SM; increase S-LOC 5 Cat B visibility to 1 1/2 SM and Cats C/D to 2 SM. Inop table does not apply to S-LOC 5 Cat A.

**ALTERNATE MISSED APCH FIX**

**LOGOTALA HILL 242 LOG**

Procedure NA for arrivals at TUT ND8 on bearing 344 CW 104.

**PAGO PAGO**
- **403 TUT**
- **242 LOG**

**3700 NPT to GRUPY 107° (5.2) and 046° (3)**

**Use I-TUT DME when on the localizer course.**

**Remain within 10 NM**

**1100**
- **3000**
- **R-087**
- **CELIM TUT 10**

**GS 3.25°**
- **TCH 54**

**CATEGORY**

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<td>845-1 1/8</td>
<td>813 (900-1 1/8)</td>
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<tr>
<td>S-LOC 5</td>
<td>780-1</td>
<td>748 (800-1)</td>
<td>780-1 1/4 748 (800-1 1/4)</td>
</tr>
</tbody>
</table>

**CIRCLING**

| 780-1 | 748 (800-1) | 780-1 1/4 748 (800-1 1/4) | 820-2 1/4 788 (800-2 1/4) | 860-2 1/4 828 (900-2 1/4) | 828 (900-2 1/4) |

**PAGO PAGO AS**
- **14°20'S-170°43'E**

**PAGO PAGO INTL (PPG) (NSTU)**

**14°20'S-170°43'E**

**PAC, 5 NOV 2020 to 31 DEC 2020**
TERMINAL PROCEDURES

RNAV (GPS) RWY 5
PAGO PAGO INTL (PPG) (NSTU)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 22°C or above 54°C. When local alimeter setting not received, procedure NA. Circling NA northeast of Rwy 5-23. Rwy 5 helicopter visibility reduction below 3/4 SM NA. No apes does not apply to LNAV cats A/B. For inop ALS, increase LNAV/VNAV all cats visibility to 1¾ SM and LNAV Cats C/D visibility to 2 SM.

Procedure NA for arrival on TUT VORTAC airway radials 137 CW 317.

Final approach course offset 1.57°.

MALSR

MISSED APPROACH: (Maintain 185 K max until 760) Climb to 760 then climbing right turn to 4000 direct DRAWN and hold.

MISA HOPID 25 NM

3300

(FAF)
BLUJA

2300

047°

4 NM

4 NM Holding Pattern

VGS1 and RNAV glideslope not coincident (VGS1 Angle 3.25°/TCH 5.7°)

760

4000

DRAWN

476

760-1 728 (800-1)

760-1¾ 728 (800-1¾)

CIRCLING

760-1 728 (800-1)

820-2 ¾ 788 (800-2 ¾)

860-2 ¾ 828 (900-2 ¾)

HILR Rwys 5-23 and 8-26

PAGO PAGO, AS

Orig-B 15AUG19

14°20'S-170°43'W

PAGO PAGO INTL (PPG) (NSTU)

RNAV (GPS) RWY 5

PAC, 5 NOV 2020 to 31 DEC 2020
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 22°C or above 54°C. When local altimeter setting not received, procedure NA. Circling NA northwest of Rwy 5-23.

**Missed Approach:** Climb to 500 then climbing left turn to 4000 direct DRAWN and hold.

**Procedure NA for arrivals on TUT VORTAC airway racials 318 CW 138.**
Circling NA northwest of Rwy 5-23. When local alimeter setting not received, procedure NA.

MISSING APPROACH: Climbing right turn to 3000 via TUT VORTAC R-180 to PITTI/10 DME and hold, continue climb-in-hold to 3000.
Circling NA northwest of Rwy 5-23. When local altimeter setting not received, procedure NA.

MISSING APPROACH: Climbing right turn to 4000 via TUT VORTAC 0-81 then right turn direct TUT VORTAC and hold.

**AWOS-3P**
127.925

**FALEOLO APP CON**
118.1 6.553(HF)

**CTAF**
122.9

**118.3**

**ELEV 32**

**CIRCLING**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1200-1(\frac{1}{4})</td>
<td>1200-1(\frac{1}{2})</td>
<td>1200-3</td>
<td>1168 (1200-3)</td>
</tr>
</tbody>
</table>

**HIRL Rwy 5-23 and 8-26**

**PAGO PAGO, AS**

Amdt 6B 08NOV18
Circling NA northwest of Rwy 5-23.
When local altimeter setting not received, procedure NA.

**PAGO PAGO, AS**

**AL-5018 (FAA)**

**NDB-C**

**PAGO PAGO INTL (PPG) (NSTU)**

<table>
<thead>
<tr>
<th>NDB LOG</th>
<th>APP CRS</th>
<th>Rwly Idg</th>
<th>TDZE</th>
<th>N/A</th>
<th>Apt Elev</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td>242</td>
<td>048°</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

**PAGO PAGO Int.**

- **NDB-C**
- **LOGOTALA HILL**
- **LOG**

**AWOS**

- **3-PT**
- **127.925**

**FALEOLO APP CON**

- **118.1**
- **6.553**

**CTAF**

- **122.9**

**ELEV**

- **32**

**MSA LOG**

- **25 NM**

**PAGO PAGO**

- **403 TUT**

**LOG**

- **VORTAC**
- **to LOG NDB**
- **230° (2.7)**

**Remain within 10 NM**

- **2500**
- **228°**
- **048°**
- **1100**

**Maintain 3200 or above until established outbound for procedure turn.**

**CATEGORY**

- **CIRCLING**
  - **A**
    - **760-1**
  - **B**
    - **728 (800-1)**
  - **C**
    - **760-2**
  - **D**
    - **728 (800-2)**

**FAF to MAP**

- **1 NM**
- **0.8 NM**

**FAF**

- **3801 X 100**
- **42°**
- **048° 1.8 NM**
  - **from FAF**
- **HTRL Rwy 5-23 and 8-26**

**PAGO PAGO INTL (PPG) (NSTU)**

**NDB-C**

**Amdt 6C, 08NOV18**

**14*20'S-170*43'W**

**PAC, 5 NOV 2020 to 31 DEC 2020**
Obtain local altimeter setting on CTAF; when not received, procedure NA. For uncompensated Baro-VNAV systems, procedure NA below 20°C (68°F) or above 54°C (130°F). Missed approach requires RNP less than 1.0. RF required. GPS required. No controlled airspace below 5500 feet.

MISSED APPROACH: (Do not exceed 230K until WRENS) Climb to 2300 on the RNAV missed approach route to WRENS and hold.

PAC, 5 NOV 2020 to 31 DEC 2020

RNAV (RNP) Y RWY 9
POHinnei INTL (PNI)(PTPN)

MISA RW09 2.5 NM

See planview for multiple IF locations.

083° to RW09

6600 X 150

MIRL Rwy 9:27
REIL Rwy 9 and 27

1900

083°

GP 3.00°
TCH 30

5.8 NM

CATEGORY
A
B
C
D
RNP 0.30 DA
912.4
903 (1000-4)

06°59’S-158°13’E

PAC, 5 NOV 2020 to 31 DEC 2020
Obtain local altimeter setting on CTA; when not received, procedure NA. For uncompensated Baro-VNAV systems, procedure NA below 20°C (68°F) or above 54°C (130°F). Missed approach requires RNP less than 1.0. RF required. GPS required. No controlled airspace below 5500 feet.

**TERMINAL PROCEDURES**

**RNAV (RNP) Z RWY 9**

**POHINPEI INTL (PNI)(PTPN)**

**POHINPEI RADIO**

123.6 (CTAF)

**AUTHORIZATION REQUIRED**

PAC, 5 NOV 2020 to 31 DEC 2020
Obtain local altimeter setting on CTAF; when not received, procedure NA. Circling NA south of Rwy 9-27. Procedure NA at night except by prior arrangement for runway lights. DME/DME RNP-0.3 NA. No controlled airspace below 5500. Ships with maximum height of 150 feet MSL may traverse Pohnpei Channel 400 feet off approach end of runway 9, closing airport at times.

**POHNPENI RADIO**

**123.6 (CTAF)**

---

**MISSING APCH FIX**

**WULON**

- O: 083°
- 4: 263°

**ELEV**

9

**TDZE**

9

---

**RNAV (GPS) RWY 27**

**POHNPEI INTL (PNI)(PPTN)**

---

06°59'N-158°13'E

---

PAC, 5 Nov 2020 to 31 Dec 2020
Obtain local altimeter setting on CTAF; when not received, procedure NA. Circling NA south of Rwy 9-27. Procedure NA at night except by prior arrangement for runway lights. DME/DME RNP-0.3 NA. No controlled airspace below 5500. Ships with maximum height of 150 feet MSL may traverse Pohnpei Channel 400 feet off approach end of runway, closing airport at times.

**TERMINAL PROCEDURES**

**POHNPEI RADIO**

123.6 (CTAF)

**MISSING APPROACH FIX**

4 NM

OHAFU

**MISSING APCH FIX**

07°

258°

**ELEV 9**

**TDZE 9**

**WULON**

**4 NM**

**HOLDING PATTERN**

**3000**

**OHAFU**

**3000**

**MIRL Rwy 9-27**

**REIL Rwys 9 and 27**

**PAC, 5 NOV 2020 to 31 DEC 2020**

**Pohnpei Island, FM**

**Ammd 1 27APR17**
TERMINAL PROCEDURES

**POHNPEN INTL (PNI)(PTPN)**

- **NDB-A**
  - **Pohnepe RADIO**
    - **123.8 (CTAF)**

**DME REQUIRED**

- **POHNPEN**
  - **366° PNI 2 NM**
  - **Chan 47 (111.0)**

- **Iqiov**
  - **PNI 2.5°**
  - **Wimir PNI 5°**

- **Directions**
  - **TRADD PNI 11°**
  - **3000**
  - **One Minute Holding Pattern**

- **MIA 25 NM**
  - **3000**
  - **120°**

- **Category**
  - **A**
  - **B**
  - **C**
  - **D**
  - **Circling**
    - **960-1 951 (1000-1 951)**
    - **960-3 951 (1000-3)**

- **NDB/BME PNI**
  - **366°**
  - **Chan 47 (111.0)**

- **APP CRS**
  - **252°**

- **Rwy Idg**
  - **N/A**

- **TDZE**
  - **N/A**

- **Apt Elev**
  - **9°**

**Obtain local altimeter settings on CTA; when not received, proceed NA. Circling NA south of Rwy 9-27. Procedure NA at night except by prior arrangement for runway lights. DME required. No controlled airspace below 5500 feet. Ships with maximum height of 150 feet MSL may traverse Pohnpei Channel 400 feet off approach end of runway 9, closing airport at times.**

**MISSED APPROACH:** Climbing right turn to 3000 on heading 120° and an PNI NDB bearing 072° to TRADD/PNI 11 DME and hold.

**POHNPEN ISLAND, FM**

- **Orig 27/APR/17**

**PAC, 5 Nov 2020 to 31 Dec 2020**
Circling NA south of Rwy 9-27. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Andersen AFB altimeter setting and increase all MDA 320 feet, increase LNAV Cat C, D visibility ½ mile, Circling Cat C, D visibility ½ mile. VDP NA when using Andersen AFB altimeter setting.

Final approach course offset 2.98°

MISSED APPROACH: Climb to 3000 direct CEPOS and on track 088° to TOXA and hold.
When local altimeter setting not received, use Andersen AFB altimeter setting and increase all MDA 320 feet. Circling NA south of Rwy 9-27.

MISSED APPROACH: Climb to 2200 then climbing left turn to 3100 direct GRO NDB and hold.

 CATEGORY | A    | B    | C    | D
---|------|------|------|------
S-9 | 1800-1/4 | 1800-1/2 | 1800-3 | 1206 [1200-3]
CIRCLING | 1800-1/4 | 1800-1/2 | 1800-3 | 1193 [1200-3]
TERMINAL PROCEDURES

When local altimeter setting not received, use Andersen AFB altimeter setting and increase all MDA 320 feet; increase S-27 Cat B visibility ¾ mile, Cat C, D visibility ⅛ mile, Circling Cat A, B visibility ¼ mile, Cat C 1 mile, Cat D 3/8 mile. Circling NA south of Rwy 9-27.

**MISSING APPROACH**: Climbing right turn to 2000 on heading 360° then continue climbing right turn to 3100 direct GRO NDB and hold.
TERMINAL PROCEDURES

LOC/DME I-GSN 109.9
Chan 36

APP CRS 066° Rwy Idg 8700 TDZE 215 Apt Elev 215

PAC, 5 NOV 2020 to 31 DEC 2020

TERMINAL PROCEDURES

SAIPAN ISLAND, CQ

AI-6293 (FAA)

ILLS or LOC RWY 7
FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

MALS R

MISSED APPROACH: Climb to 1600 then climbing right turn to 2800 direct SN NDB and hold.

ATIS
127.2

GUAM APP CON
116.4

SAIPAN TOWER
125.7

GND CON
121.8

M.SA SN 25 NM

2800

(IAF) PONOI I-GSN 174

(IAF) WILLE I-GSN 237

2900 NoPT 066° (6.3)

DME REQUIRED

Remain within 10 NM

KORDY I-GSN 7.3

2100 066°

GS 3.00° TCH 55

2100 066°

2100 to KORDY
246° (5.3)

LOCALIZER 109.9
I-GSN 298
Chan 36

.bit

1685

2600 to 2800

SAIPAN

312 SN

398

246°

246°

0.7 NM

0.6 NM

4.5 NM

HICHT HSN

1600

2800

SN

LOC only.

2100

100

246°

066°

0.8 NM

from FAF

REIL Rwy 25
HIRL Rwys 7-25 and 6-24

CATEGORY

S-ILS 7

415-1/2 200 (200-1/2)

S-LOC 7

480-1/2 265 (300-1/2)

CIRCLING

720-1 505 (600-1)

720-1/2 505 (600-1/2)

780-2 565 (600-2)

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

15°07'N-145°44'E

PAC, 5 NOV 2020 to 31 DEC 2020
SAIPAN ISLAND, CQ

RNAV (GPS) RWY 7
FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

ATIS 127.2
GUAM APP CON 118.4 290.5
SAIPAN TOWER 125.7 256.9
GND CON 121.8

Missed Approach: Climb 2600 direct AGODY and hold.

RNAV Procedures:
- Procedure NA for arrivals at KATQO on W21 southwest bound.
- Procedure NA for arrivals at LULJY on A221 southwest bound.

RNAV Fix Points:
- AGODY
- PONOI
- KORDY
- JIDSU
- TCH 55

RNAV Category and MDA:
- Category B: 520-1/2
- Category C: 305 (400-1/2)
- Category D: 660

CIRCLING:
- 720-1: 505 (600-1)
- 720-1/2: 505 (600-1/2)
- 780-2: 565 (600-2)

PAC, 5 NOV 2020 to 31 DEC 2020
### DME REQUIRED

**LOCALIZER 109.9**  
**I-GSN**  
**Chan 36**

**SAIPAN 312 SN**

**ELEV 215**  
**TDZE 210**

**WILLE UNZ 98**

**HIRCH UNZ 100**

**3000 to ZEKUR 066° (5)**

**3000 to NDB**

246° 3.1 NM from FAF

**VGS and descent angles not coincident**  
(VGSI Angle 3.00°/TCH 75°)

**Remain within 10 NM**

**CATEGORY**  
**A**  
**B**  
**C**  
**D**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-25</td>
<td>720-1</td>
<td>510 (600-1)</td>
<td>720-1 &amp; 510 (600-1)</td>
<td></td>
</tr>
</tbody>
</table>

**CIRCLING**

720-1  
505 (600-1)

720-1 & 505 (600-1 & 156)

780-2  
565 (600-2)

---

**SAIPAN ISLAND, CQ**  
**Amdt 3A 03JAN19**
Circling NA north of Rwy 6-24.

ATIS
127.2

GUAM APP CON
118.4 290.5

SAIPAN TOWER
125.7 256.9

GND CON
121.8

NDB Y RWY 7
FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

NDB 312
APP CRS 081°
Rwy Idg 8700
TDZE 215
Apt Elev 215

ELEV 215  TDZE 215

Refl Rwy 25
HIRL Rwy 7-25 and 6-24

Category A B C D
S-7 900-3/4 685 (700-3/4) 900-1/2 685 (700-1/2)
C Circling 900-1 685 (700-1) 900-2 685 (700-2) 900-2/4 685 (700-2/4)

PAC, 5 NOV 2020 to 31 DEC 2020
Circling NA north of Rwy 6-24. DME required.

MISSED APPROACH: Climb to 1600 on SN NDB bearing 070° then climbing right turn to 3000 direct SN NDB then on SN NDB bearing 246° to SHAKA/I-GSN 5 DME and hold.

DME REQUIRED

[Diagram of airport approach]

- ATIS 127.2
- GUAM APP CON 118.4 290.5
- SAIPAN TOWER 125.7 256.9
- GND CON 121.8

- Reil Rwy 25
- HIRL Rwy 7-25 and 6-24
- MAE SN 25 NM

- LOCALIZER 109.9 I-GSN 256° Chan 36
- (IF) YAMMA I-GSN 12
- (IAF) Wille I-GSN 23.7

- 2700 NDFP 066° (9.7)
- 246°

- 066° 3.4 NM from FAF
- 2 NM
- 246°
- 2.85° TCH 57
- 1300
- 066° (9)
- 246° (2.9)

- Category A
- B
- C
- D

- S-7 760-3/4 545 (600-3/4) 760-1/4 545 (600-1/4)
- CIRCLING 760-1 545 (600-1) 760-1/8 545 (600-1/8) 780-2 565 (600-2)
TERMINAL PROCEDURES

AIRPORT DIAGRAM

20086

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

AL-6293 (FAA)

SAIPAN ISLAND, CQ

ATIS
127.2
SAIPAN TOWER
125.7 256.9
GND CON
121.8

TERMINAL

JANUARY 2020
ANNUAL RATE OF CHANGE
0.1° W

RWY 07-25
PCN 67 F/A/X/T
S-87, D-175, 2D-350, 2D/2D2-690
RWY 06-24
PCN 67 R/A/X/T

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
TERMINAL PROCEDURES

RNAV (GPS) RWY 8
TINIAN INTL (TNJ)(PGWT)

GUAM APP CON
118.4 290.5

SAIPAN RADIO
123.6 (CTAF)

Procedure NA for arrivals at HEXUG via A221 northbound.

Procedure NA for arrivals at HIRCH via W21 northeast bound.

MIRL Rwy 8:26
REIL Rwy 8 and 26

TINIAN ISLAND, CQ

Amdt 1A 26MAR20

15°00'N-145°37'E

PAC, 5 NOV 2020 to 31 DEC 2020
TERMINAL PROCEDURES

GUAM APP CON
118.4 290.5

SAIPAN RADIO
123.6 (CTAF)

RNP APCH.

Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting. VDP NA when using Saipan altimeter setting.

MISSED APPROACH: Climbing right turn to 2800 direct SN NDB and hold, continue climb-in-hold to 2800.

ELEV 270  TDZE 270

TINIAN ISLAND, CQ

APP CRS
Rwy Idg 8600
258°
TDZE 270
Apt Elev 270

TERMINAL PROCEDURES

RNAV (GPS) RWY 26
TINIAN INTL (TNI)(PGWT)

MIRL Rwy 8-26
REIL Rwys 8 and 26

TINIAN ISLAND, CQ

Amdt 1A 26MAR20

15° 00’N-145° 37’E

RNAV (GPS) RWY 26
Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting and increase all MDA 40 feet, and all Cats visibility 1/4 SM. Increase UYHEW fix minimums Cats C and D visibility 1/4 mile.

# DME from I-GSN LOC/DME.

MISSED APPROACH: Climbing right turn to 2800 direct SN NDB and hold.

GUAM APP CON
118.4 290.5

SAIPAN RADIO
123.6 (CTAF)

NDB-A
TINIAN INTL (TNI)(PGWT)

1685

LOCALIZER 109.9

I-GSN
Chan 36

SN
2800

MIRL Rwy 8-26 (1)
REIL RWys 8 and 26 (1)

CIRCLING
1060-1
790 (800-1)
1060-2 1/4
790 (800-2 1/4)
1060-2 1/2
790 (800-2 1/2)

# UYHEW FIX MINIMUMS

3.3 NM
4.7 NM

NDB-A
TINIAN INTL (TNI)(PGWT)

SN
2800

ELEV 270

216° from
SN NDB

2800 to NDB
566
(21.7)

SN
312

MIRL Rwy 8-26 (1)
REIL RWys 8 and 26 (1)

15°00’N-145°37’E

TERMINAL PROCEDURES

TINIAN ISLAND, CQ

PAC, 5 NOV 2020 to 31 DEC 2020
TERMINAL PROCEDURES

RNAV (GPS) RWY 4
CHUUK INTL (TKK) (PTKK)

TRUK RADIO 123.6 (CTAF)

MISSED APPROACH: Climbing left turn to 2500 direct DAMAY and hold.
* Missed approach requires minimum climb of 375 feet per NM to 960.

Obtain local altimeter setting on CTAF; when not received, procedure NA.
Circling NA southeast of Rwy 4-22.
No controlled airspace below 5500.

CATEGORY A B C D
LNAV MDA* 420-3 410 (500-3)  
LNAV MDA 620-3 610 (700-3)  
CIRCLING 620-3 610 (700-3)  

CHUUK INTL (TKK) (PTKK)
RNAV (GPS) RWY 4

PAC, 5 NOV 2020 to 31 DEC 2020
Circling NA southeast of Rwy 4-22. Obtain local altimeter setting on CTA; when not received, procedure NA. No controlled airspace below 5500.

TRUK RADIO 123.6 (CTAF)
Obtain local alimeter setting on CTAF; when not received, procedure NA.

Circling NA southeast of Rwy 4/22. DME required.

No controlled airspace below 5500.

**TERMINAL PROCEDURES**

**NDB RWY 4**

**CHUUK INTL (TKK) (PTKK)**

**TERMINAL PROCEDURES**

**WENO ISLAND, FM**

**AL-2655 (FAA)**

**NDB/DME TKK 375**

**APP CRS**

**Rwy Idg**

**TDZE**

**Apt Elev**

**6013**

**10**

**10**

**CHUUK INTL (TKK) (PTKK)**

**TRUK RADIO**

**123.6**

[CTAF]

**DME REQUIRED**

**MISSING APPROACH:** Climbing left turn to 2000 on TKK NDB/DME bearing 306° to DAMAY/TKK 10 DME and hold.

**ELEV 10**

**TDZE 10**

**WENO ISLAND, FM**

**Amdt 1A 28FEB19**

**07°28’N-151°51’E**

**PAC, 5 NOV 2020 to 31 DEC 2020**
Obtain local altimeter setting on CTAF; when not received, procedure NA.
Circling NA southeast of Rwy 4-22. DME Required.
No controlled airspace below 5500.

**MISSING APPROACH:** Climbing right turn to 2000 on BRG-306 from TKK NDB/DME to DAMAY/TKK 10 DME and hold.

**DME REQUIRED**

**TERMINAL PROCEDURES**

**NDB RWY 22**

**CHUUK INTL (TKK) (PTKK)**

**TRUK RADIO**

**123.6 (CTAF)**
Obtain local altimeter setting on CTA; when not received, procedure not authorized.
Circling NA North of Rwy 7-25. DME/DME RNP-0.3 NA.
No controlled airspace below 5500’.

**MISSERD APPROACH:** Climb to 1700 direct IIPO WP and hold.

**YAP RADIO**
123.6 ♦ (CTAF)
Obtain local altimeter setting on CTAF; when not received, procedure NA.
Circling NA north of RWY 7-25.
No controlled airspace below 5500.

MISSING APPROACH: Climbing right turn to 1700 via 254° bearing from YP NDB/DME to RAZEL/12 DME and hold.

YAP RADIO
123.6 (CTAF)
TERMINAL PROCEDURES

Obtain local altimeter setting on CTAF; when not received, procedure NA.
Circling NA north of Rwy 7-25.
No controlled airspace below 5500.

MISSING APPROACH: Climbing left turn to 1700 via 057° bearing from YP NDB/DME to ADABE/11.1 DME and hold.

YAP RADIO

123.6 MHz (CTAF)

NDB/DME RWY 25
YAP INTL (T11)(PTYA)

YAP ISLAND, FM

NDB/DME YP 317
APP CRS 237°
Rwy Ldg 6000
TDZE 89
Apt Elev 91

Chan 122 (117.5)

ELEV 91
TDZE 89

MIRL Rwy 7-25
REIL Rwy 7 and 25

Orig-B 08JAN15

09°30’N-138°05’E

PAC, 5 NOV 2020 to 31 DEC 2020
Obtain local altimeter setting on CTAF; when not received, procedure NA.
Circling NA north of Rwy 7-25.
No controlled airspace below 5500 feet.

MISSIED APPROACH: Climbing right turn to 1700 via 180° bearing from YP NDB/DME then right turn direct YP NDB/DME and hold.

YP NDB/DME arrivals descend to 1700 in YP NDB/DME holding pattern (E, RT, 254° inbound) prior to commencing approach.

**CATEGORY** | **A** | **B** | **C** | **D**
--- | --- | --- | --- | ---
S-7 | 700-1 | 609 (700-1) | 700-1 1/4 | 700-2 1/4 |
CIRCLING | 700-1 | 609 (700-1) | 700-1 1/4 | 609 (700-1 1/4) | 700-2 1/4 | 700-2 | 609 (700-1 1/4) | 609 (700-2-2)

MIRL Rwy 7-25
REIL Rwy 7 and 25

09°30’N-138°05’ E
Obtain local altimeter setting on CTAFF; when not received, procedure NA.
Circling NA north of Rwy 7-25.
No controlled airspace below 5500.

MISSED APPROACH: Climb to 1700 then left turn direct YP NDB/DME and hold.

**YP NDB/DME arrivals descend to 1700 in YP NDB/DME holding pattern (SW, RT, 057° inbound) prior to commencing approach.**

**Category A**

- **S-25**
  - 1060-1\(\frac{1}{4}\)
  - 971 (1000-1\(\frac{1}{4}\))
- **CIRCLING**
  - 1060-1\(\frac{1}{4}\)
  - 969 (1000-1\(\frac{1}{4}\))

**Category B**

- 1060-1\(\frac{1}{2}\)
- 971 (1000-1\(\frac{1}{2}\))

**Category C**

- 1060-3
- 971 (1000-3)

**Category D**

- 1060-3
- 969 (1000-3)

YAP ISLAND, FM
 Orig-B 08JAN15

PAC 5 NOV 2020 to 31 DEC 2020

YAP INTL \(T11\)(PTYA)
NDB RWY 25
INTENTIONALLY LEFT BLANK
INTENTIONALLY LEFT BLANK
### CLIMB/DESCENT TABLE

#### INSTRUMENT TAKEOFF OR APPROACH PROCEDURE CHARTS

**RATE OF CLIMB/DESCENT TABLE**

(\( \text{ft. per min} \))

A rate of climb/descent table is provided for use in planning and executing climbs or descents under known or approximate ground speed conditions. It will be especially useful for approaches when the localizer only is used for course guidance. A best speed, power, altitude combination can be programmed which will result in a stable glide rate and altitude favorable for executing a landing if minimums exist upon breakout. Care should always be exercised so that minimum descent altitude and missed approach point are not exceeded.

<table>
<thead>
<tr>
<th>CLIMB/DESCENT ANGLE (degrees and tenths)</th>
<th>GROUND SPEED (knots)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ft/NM</td>
<td>60</td>
</tr>
<tr>
<td>2.0</td>
<td>210</td>
</tr>
<tr>
<td>2.5</td>
<td>265</td>
</tr>
<tr>
<td>2.7</td>
<td>287</td>
</tr>
<tr>
<td>2.8</td>
<td>297</td>
</tr>
<tr>
<td>2.9</td>
<td>308</td>
</tr>
<tr>
<td>3.0</td>
<td>318</td>
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I. POSITION REPORTS

A. INSTRUMENT FLIGHT RULES (IFR) POSITION REPORT
1. Identification
2. Position
3. Time
4. Altitude/FL (Include actual altitude/FL when operating on a “VFR Conditions on Top” clearance).
5. Type of Flight Plan (not required in IFR position reports made direct to ARTCC). State “VFR Conditions on Top” if so cleared.
6. Next reporting point and Estimated Time of Arrival (ETA)
7. Name only of the next succeeding reporting point along the route of flight.
8. Remarks
If entering ADIZ give appropriate ADIZ Position Reports listed under ADIZ Procedures.

B. VISUAL FLIGHT RULES (VFR) POSITION REPORT
1. Identification
2. Position
3. Time
4. Altitude
5. VFR Flight Plan
6. Destination
If entering ADIZ give appropriate ADIZ Position Reports listed under ADIZ Procedures.

II. CHANGE OF FLIGHT PLAN

A. CHANGE OF ROUTE OR DESTINATION
1. Type of Flight Plan
2. Aircraft Identification
3. Type of Aircraft/TD Code
4. Estimated True Airspeed
5. Original Destination (if applicable)
6. Departure Point
7. Position and Time
8. New Route and Altitude/FL
9. New Destination (if applicable)
10. ETE or ETA
11. Fuel Endurance
12. Alternate (if required)
13. Station where original flight plan filed.

B. CHANGE OF ETA BY MORE THAN 30 MINUTES
1. Aircraft Identification
2. Position and Time
3. “IFR (or VFR) to (destination)”
4. “New ETA – and hours of fuel remaining”

III. FILING FLIGHT PLANS
1. Aircraft Identification
2. Flight Rules
3. Type of Flight
4. Number of Aircraft
5. Type of Aircraft
6. Wake Turbulence Category
7. Aircraft Surveillance Code
8. Departure Aerodrome
9. Proposed Departure Time
10. Estimated True Airspeed (ETE)
11. Cruising Altitude/FL
12. Route of Flight
13. Destination Aerodrome
14. Estimated Time Enroute (ETE)
15. First Alternate
16. Second Alternate
17. Other Information
18. Fuel Endurance
19. Persons onboard
20. Emergency Equipment
21. Color of Aircraft
22. Pilot’s Name/Contact Information

NOTE: Request available NOTAM and weather information for new route and destination.