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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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.
HAWAIIAN ISLAND–MARIANA ISLANDS SECTIONAL CHART. This chart 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.

PAC, 12 AUG 2021 to 7 OCT 2021
# GENERAL INFORMATION

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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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Abbreviation........... Description
AM......................... Amplitude Modulation, midnight til noon
AMC....................... Air Mobility Command
amdt....................... amendment
AMSL...................... Above Mean Sea Level
ANGS..................... Air National Guard Station
ant...................... antenna
AOE.................... Airport/Aerodrome of Entry
AP...................... Area Planning
APAPI................ Abbreviated Precision Approach Path Indicator
aph...................... approach
apn...................... apron
APP...................... Approach Control
Apr...................... April
aprx...................... approximate
APU...................... Auxiliary Power Unit
apv, apvl................ approve, approval
ARB..................... Air Reserve Base
ARCAL (CANADA)...... Aircraft Radio Control of Aerodrome Lighting
ARFF.................. Aircraft Rescue and Fire Fighting
ARINC................ Aeronautical Radio Inc
arrg...................... arrange
arrt...................... airport
arr...................... arrive
ARS...................... Air Reserve Station
ARSRA................... Airport Radar Service Area
ARSR.................. Air Route Surveillance Radar
ARTCC............... Air Route Traffic Control Center
AS...................... Air Station
ASAP................... as soon as possible
ASDA.................. Accelerate–Stop Distance Available
ASDE.................. Airport Surface Detection
ASDE–X.................. Airport Surface Detection Equipment—Model X
asgn.................... assign
ASL................... Above Sea Level
ASOS.................. Automated Surface Observing System
ASR.................. Air Airport Surveillance Radar
ASSC.................. Airport Surface Surveillance Capability
ASU.................. Aircraft Starting Unit
ATA.................. Actual Time of Arrival
ATC.................. Air Traffic Control
ATCC.................. Air Traffic Control Center
ATCT.................. Airport Traffic Control Tower
ATD.................. Actual Time of Departure Along Track Distance
ATIS.................. Automatic Terminal Information Service
ATS.................. Air Traffic Service
attn.................. attention
Aug.................. August
auth.................. authority
auto.................. automatic
AUW.................. All Up Weight (gross weight)
aux................... auxiliary
AVASI................ abbreviated VASI
avbl.................. available
AvGas................ Aviation gasoline
avn.................. aviation
Abbreviation Description
EMAS Engineered Material Arresting System
emerg emergency
eng engine
EOR End of Runway
eqpt equipment
ERDA Energy Research and Development Administration
E–S Enroute Supplement
est estimate
estab establish
ETA Estimated Time of Arrival
ETD Estimated Time of Departure
ETE Estimated Time Enroute
ETS European Telephone System
EUR European (ICAO Region)
ev every
evac evacuate
exc except
excld exclude
exer exercise
exm exempt
exp expect
extd extend
extn extension
extv extensive
F/W Fixed Wing
FAA Federal Aviation Administration
fac facility
FAWS Flight Advisory Weather Service
fax facsimile
FBO Fixed Base Operator
FCC Flight Control Center
FCG Foreign Clearance Guide
FLCP field carrier landing practice
tct forecast
Feb February
FIC Flight Information Center
FIH Flight Information Handbook
FIR Flight Information Region
FIS Flight Information Service
FL flight level
fld field
flg flashing
FLIP Flight Information Publication
flt flight
flw follow
FM Fan Marker, Frequency Modulation
FOC Flight Operations Center
FOD Foreign Object Damage
fone telephone
FPL Flight Plan
fpm feet per minute
fr from
freq frequency, frequent
Fri Friday
frng firing
FSS Flight Service Station
ft foot
ftr fighter
GA Glide Angle
gal gallon
GAT General Air Traffic (Europe–Asia)
GCA Ground Control Approach
GCO Ground Communication Outlet
gldr glider
GND Ground Control
gnd ground
govt government
GP Glide Path
Gp Group
GPI Ground Point of Intercept
grad gradient
grd guard
GS glide slope
GWT gross weight
H Enroute High Altitude Chart (followed by identification)
H+ Hours or hours plus...minutes past the hour
H24 continuous operation
HAA Height Above Airport/Aerodrome
HAL Height Above Landing Area
HAR Height Above Runway
HAT Height Above Touchdown
haz hazard
hdg heading
HDTA High Density Traffic Airport/Aerodrome
HF High Frequency (3000 to 30,000 KHz)
hgth height
hi high
HiRL High Intensity Runway Lights
HO Service available to meet operational requirements
hol holiday
HOLF Helicopter Outlying Field
hos hospital
HQ Headquarters
hr hour
HS Service available during hours of scheduled operations
hsng housing
hvy heavy
HW Heavy Weight
hwy highway
HX station having no specific working hours
Hz Hertz (cycles per second)
I Island
IAP Instrument Approach Procedure
IAS Indicated Air Speed
IAW in accordance with
ICAO International Civil Aviation Organization
ident identification
IFF Identification, Friend or Foe
IFR Instrument Flight Rules
IFR–S FLIP IFR Supplement
ILS Instrument Landing System
IM Inner Marker
IMC Instrument Meteorological Conditions
IMG Immigration
immed immediate
inbd inbound
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### Abbreviation Description

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>svc</td>
<td>service</td>
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<td>svcg</td>
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<td>SW</td>
<td>Southwest</td>
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<td>sys</td>
<td>system</td>
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>TA</td>
<td>Transition Altitude</td>
</tr>
<tr>
<td>TAC</td>
<td>Tactical Air Command</td>
</tr>
<tr>
<td>TAF</td>
<td>Aerodrome (terminal or alternate) forecast in abbreviated form</td>
</tr>
<tr>
<td>TALCE</td>
<td>Tanker Aircraft Control Element</td>
</tr>
<tr>
<td>TCA</td>
<td>Terminal Control Area</td>
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<tr>
<td>TCH</td>
<td>Threshold Crossing Height</td>
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<td>TCTA</td>
<td>Transcontinental Control Area</td>
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<tr>
<td>TD</td>
<td>Touchdown</td>
</tr>
<tr>
<td>TDWR</td>
<td>Terminal Doppler Weather Radar</td>
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<tr>
<td>TDZ</td>
<td>Touchdown Zone</td>
</tr>
<tr>
<td>TDZL</td>
<td>Touchdown Zone Lights</td>
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<td>thld</td>
<td>threshold</td>
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<td>thou</td>
<td>thousand</td>
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<td>thru</td>
<td>through</td>
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<td>Thu</td>
<td>Thursday</td>
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<td>till</td>
<td>until</td>
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<tr>
<td>tkf, tkof</td>
<td>take-off</td>
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<td>TLv</td>
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<td>temporary</td>
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<tr>
<td>TODA</td>
<td>Take-Off Distance Available</td>
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<tr>
<td>TORA</td>
<td>Take-Off Run Available</td>
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<td>TP</td>
<td>Tire Pressure</td>
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<td>TPA</td>
<td>Traffic Pattern Altitude</td>
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<tr>
<td>TRACON</td>
<td>Terminal Radar Approach Control (FAA)</td>
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<td>transition</td>
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<td>TRSA</td>
<td>Terminal Radar Service Area</td>
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<td>Tuesday</td>
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<td>TV</td>
<td>Television</td>
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<td>twr</td>
<td>tower</td>
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<td>twy</td>
<td>taxiway</td>
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<tr>
<td>UACC</td>
<td>Upper Area Control Center (used outside US)</td>
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<td>UAS</td>
<td>Unmanned Aerial Systems</td>
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<td>UC</td>
<td>Under Construction</td>
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<td>UCN</td>
<td>Urgent Change Notice</td>
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<tr>
<td>UDA</td>
<td>Upper Advisory Area</td>
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<tr>
<td>UDF</td>
<td>Ultra High Frequency Direction Finder</td>
</tr>
<tr>
<td>UFN</td>
<td>until further notice</td>
</tr>
<tr>
<td>UHF</td>
<td>Ultra High Frequency (300 to 3000 MHz)</td>
</tr>
<tr>
<td>UIR</td>
<td>Upper Flight Information Region</td>
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<tr>
<td>una</td>
<td>unable</td>
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<td>unauthorized</td>
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<td>unserviceable</td>
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<tr>
<td>unuse, unusbl</td>
<td>unusable</td>
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<tr>
<td>USA</td>
<td>United States Army</td>
</tr>
<tr>
<td>USAF</td>
<td>United States Air Force</td>
</tr>
<tr>
<td>USB</td>
<td>Upper Side Band</td>
</tr>
<tr>
<td>USCG</td>
<td>United States Coast Guard</td>
</tr>
<tr>
<td>USMC</td>
<td>United States Marine Corps</td>
</tr>
<tr>
<td>USN</td>
<td>United States Navy</td>
</tr>
<tr>
<td>UTA</td>
<td>Upper Control Area</td>
</tr>
<tr>
<td>UTC</td>
<td>Coordinated Universal Time</td>
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</tbody>
</table>

### Abbreviation Description

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>Defense Switching Network (telephone, formerly AUTOVON)</td>
</tr>
<tr>
<td>V/STOL</td>
<td>Vertical and Short Take-off and Landing aircraft</td>
</tr>
<tr>
<td>VAL</td>
<td>Visiting Aircraft Line</td>
</tr>
<tr>
<td>var</td>
<td>variation (magnetic variation)</td>
</tr>
<tr>
<td>VASI</td>
<td>Visual Approach Slope Indicator</td>
</tr>
<tr>
<td>vcnty</td>
<td>vicinety</td>
</tr>
<tr>
<td>VDF</td>
<td>Very High Frequency Direction Finder</td>
</tr>
<tr>
<td>veh</td>
<td>vehicle</td>
</tr>
<tr>
<td>vert</td>
<td>vertical</td>
</tr>
<tr>
<td>VFR</td>
<td>Visual Flight Rules</td>
</tr>
<tr>
<td>VFR-S</td>
<td>FLIP VFR Supplement</td>
</tr>
<tr>
<td>VHF</td>
<td>Very High Frequency (30 to 300 MHz)</td>
</tr>
<tr>
<td>VIP</td>
<td>Very Important Person</td>
</tr>
<tr>
<td>vis</td>
<td>visibility</td>
</tr>
<tr>
<td>VMN</td>
<td>Visual Meteorological Conditions</td>
</tr>
<tr>
<td>VOIP</td>
<td>Voice Over Internet Protocol</td>
</tr>
<tr>
<td>VOT</td>
<td>VOR Receiver Testing Facility</td>
</tr>
<tr>
<td>W</td>
<td>Warning Area (followed by identification), Watts, West, White</td>
</tr>
<tr>
<td>WCH</td>
<td>Wheel Crossing Height</td>
</tr>
<tr>
<td>Wed</td>
<td>Wednesday</td>
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<tr>
<td>Wg</td>
<td>Wing</td>
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<tr>
<td>WIE</td>
<td>with immediate effect</td>
</tr>
<tr>
<td>win</td>
<td>winter</td>
</tr>
<tr>
<td>WIP</td>
<td>work in progress</td>
</tr>
<tr>
<td>WSO</td>
<td>Weather Service Office</td>
</tr>
<tr>
<td>WSFO</td>
<td>Weather Service Forecast Office</td>
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<tr>
<td>wk</td>
<td>week</td>
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<td>weekday</td>
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<td>wkly</td>
<td>weekly</td>
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<td>wng</td>
<td>warning</td>
</tr>
<tr>
<td>wo</td>
<td>without</td>
</tr>
<tr>
<td>WSP</td>
<td>Weather System Processor</td>
</tr>
<tr>
<td>wt</td>
<td>weight</td>
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<tr>
<td>wx</td>
<td>weather</td>
</tr>
<tr>
<td>yd</td>
<td>yard</td>
</tr>
<tr>
<td>yr</td>
<td>year</td>
</tr>
<tr>
<td>Z</td>
<td>Greenwich Mean Time (time groups only)</td>
</tr>
</tbody>
</table>
INTENTIONALLY LEFT BLANK
AIRPORT/FACILITY DIRECTORY LEGEND

SAMPLE

CITY NAME

AIRPORT NAME (ALTERNATE NAME) (LTS/KLTS) CIV/MIL

3 N UTC–6 (–5 DT) N34°41.93´ W99º20.20´

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

JACKSONVILLE COPTER

H–4G, L–19C IAP DIAP AD

Rwy 173–353: 3515 X 150

6000 X 150

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 Coordinated 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).

PAC, 12 AUG 2021 to 7 OCT 2021
AIRPORT/FACILITY DIRECTORY LEGEND

SKETCH LEGEND

RUNWAYS/LANDING AREAS

- Hard Surface
- Metal Surface
- Other than Hard Surface Runways
- Water Runway
- Under Construction
- Closed Rwy
- Closed Pavement
- Helicopter Landings Area
- Displaced Threshold
- Taxiway, Apron and Stopways

MICHELANGELO BASE AND CULTURAL FEATURES

- Buildings
- Power Lines
- Towers
- Wind Turbine
- Tanks
- Oil Well
- Smoke Stack
- Obstruction
- Controlling Obstruction
- Trees
- Populated Places
- Cuts and Fills
- Cliffs and Depressions
- Ditch
- Hill

RADIO AIDS TO NAVIGATION

- VORTAC
- VOR
- VOR/DME
- NDB
- TACAN
- NDB/DME
- DME

MISCELLANEOUS AERONAUTICAL FEATURES

- Airport Beacon
- Wind Cone
- Landing Tee
- Tetrahedron
- Control Tower

When control tower and rotating beacon are co-located beacon symbol will be used and further identified as TWR.

APPROACH LIGHTING SYSTEMS

A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (FL) installed with the approach lighting system e.g. A. Negative symbology, e.g. A, indicates Pilot Controlled Lighting (PCL).

- Runway Centerline Lighting
- Approach Lighting System ALSF-2
- Approach Lighting System ALSF-1
- Short Approach Lighting System SALS/SALSF
- Simplified Short Approach Lighting System (SSALS) with RAIL
- Medium Intensity Approach Lighting System (MALS and MALSF)/SSALS and SSALF
- Medium Intensity Approach Lighting System (MALSR) and RAIL
- Omnidirectional Approach Lighting System (ODALS)
- Navy Parallel Row and Cross Bar
- Air Force Overrun
- Visual Approach Slope Indicator with Standard Threshold Clearance provided
- Pulsating Visual Approach Slope Indicator (PVASI)
- Visual Approach Slope Indicator with a threshold crossing height to accommodate long bodied or jumbo aircraft
- Tri-color Visual Approach Slope Indicator (TRVI)
- Approach Path Alignment Panel (APAP)
- Precision Approach Path Indicator (PAPI)
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
AF 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. 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.
GEORPHIC 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 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.)

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.
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>
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</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 (1 or 2)</td>
<td>≥90', &lt;126'</td>
<td>≥5</td>
<td>Index A + 1500 gal H2O</td>
<td></td>
</tr>
<tr>
<td></td>
<td>≥126', &lt;159'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D (1 or 2)</td>
<td>≥126', &lt;159'</td>
<td>≥5</td>
<td>Index A + 3000 gal H2O</td>
<td></td>
</tr>
<tr>
<td></td>
<td>≥159', &lt;200'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>≥200'</td>
<td>≥5</td>
<td>Index A + 6000 gal H2O</td>
<td></td>
</tr>
</tbody>
</table>

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

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 at https://notams.aim.faa.gov/notamSearch/, or on request from Flight Service. Military NOTAMs are available using the Defense Internet NOTAM Service (DINS) at https://www.notams.faa.gov.

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 WEIGHT BEARING CAPACITY

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:

- 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

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:

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   Z — Low, limited to 73 psi (0.50 MPa)
5. Pavement evaluation method:
   T — Technical evaluation
   U — By experience of aircraft using the pavement
RUNWAY LIGHTING

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.

NSTD—Light system fails to meet FAA standards.
LIRL—Low Intensity Runway Lights.
MIRL—Medium Intensity Runway Lights.
HIRL—High Intensity Runway Lights.
RAIL—Runway Alignment Indicator Lights.
REIL—Runway End Identifier Lights.
CL—Centerline Lights.
TDZL—Touchdown Zone Lights.
ODALS—Omni Directional Approach Lighting System.
AF OVRN—Air Force Overrun 1000’ Standard Approach Lighting System.
MALS—Medium Intensity Approach Lighting System.
MALSF—Medium Intensity Approach Lighting System with Sequenced Flashing Lights.
MALSFR—Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights.
RLLS—Runway Lead-in Light System
SALS—Short Approach Lighting System.
SALSF—Short Approach Lighting System with Sequenced Flashing Lights.
SSALS—Simplified Short Approach Lighting System.
SSALF—Simplified Short Approach Lighting System with Sequenced Flashing Lights.
SSALFR—Simplified Short Approach Lighting System with Runway Alignment Indicator Lights.
ALSAF—High Intensity Approach Lighting System with Sequenced Flashing Lights.
ALSF1—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category I, Configuration.
ALSF2—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category II, Configuration.
SF—Sequenced Flashing Lights.
DLS—Optical Landing System.
WAVE—OFF.

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.
PNIL APAP on left side of runway
PNIR APAP on right side of runway
PAPI—Precision Approach Path Indicator
P2L 2–identical light units placed on left side of runway
P2R 2–identical light units placed on right side of runway
P4L 4–identical light units placed on left side of runway
P4R 4–identical light units placed on right side of runway
PVASI—Pulsating/steady burning visual approach slope indicator, normally a single light unit projecting two colors.
PSIL PVASI on left side of runway
PSIR PVASI on right side of runway
SAVASI—Simplified Abbreviated Visual Approach Slope Indicator
S2L 2–box SAVASI on left side of runway
S2R 2–box SAVASI on right side of runway
TRCV—Tri–color visual approach slope indicator, normally a single light unit projecting three colors.
TRIL TRCV on left side of runway
TRIR TRCV on right side of runway
VASI—Visual Approach Slope Indicator
V2L 2–box VASI on left side of runway
V2R 2–box VASI on right side of runway
V4L 4–box VASI on left side of runway
V4R 4–box VASI on right side of runway
V6L 6–box VASI on left side of runway
V6R 6–box VASI on right side of runway
V12 12–box VASI on both sides of runway
V16 16–box VASI on both sides of runway

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, MALSFR 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
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. Information pertaining to arresting gear systems and their availability may be shown in parentheses. Arresting gear systems are listed in the facility directory section. Arresting gear systems are identified by their type and number of arresting hooks (one, two, three, four, etc.) on the runway.

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

Bl–DIRECTIONAL CABLE (B)

<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.</td>
</tr>
<tr>
<td>BAK–12B</td>
<td>Extended BAK–12 with 1200 foot run, 1¼ inch Cable and 50,000 pounds weight setting.</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>

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), 31U/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>
</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.

**OTHER**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMAS</td>
<td>Engineered Material Arresting System, located beyond the departure end of the runway, consisting of high energy absorbing materials which will crush under the weight of an aircraft.</td>
</tr>
</tbody>
</table>

### SERVICE

#### SERVICING—CIVIL

<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 40º C.</td>
</tr>
<tr>
<td>A+</td>
<td>Jet A, Kerosene, with FS–II*, FP** minus 40º C.</td>
</tr>
<tr>
<td>A++</td>
<td>Jet A, Kerosene, with FS–II*, CI/Li®, SDA®, FP** minus 40º C.</td>
</tr>
<tr>
<td>A++100</td>
<td>Jet A, Kerosene, with FS–II*, CI/Li®, SDA®, FP** minus 40º C, 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 47º C.</td>
</tr>
<tr>
<td>A1+</td>
<td>Jet A–1, Kerosene with FS–II*, FP** minus 47º C.</td>
</tr>
</tbody>
</table>

* (Fuel System Icing Inhibitor) ** (Freeze Point) # (Corrosion Inhibitors/Lubricity Improvers) ## (Static Dissipator Additive)

**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.

#### 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:

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

#### ELECTRICAL STARTING UNITS:

<table>
<thead>
<tr>
<th>CODE</th>
<th>FUEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/M32A–B6</td>
<td>AC: 115/200v, 3 phase, 90 kva, 0.8 pf, 4 wire</td>
</tr>
<tr>
<td>DC: 28v, 1500 amp, 72 kw (with TR pack)</td>
<td></td>
</tr>
<tr>
<td>MC–1A</td>
<td>AC: 115/208v, 400 cycle, 3 phase, 37.5 kva, 0.8 pf, 108 amp, 4 wire</td>
</tr>
<tr>
<td>DC: 28v, 500 amp, 14 kw</td>
<td></td>
</tr>
<tr>
<td>MD–3</td>
<td>AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire</td>
</tr>
<tr>
<td>DC: 28v, 1500 amp, 45 kw, split bus</td>
<td></td>
</tr>
<tr>
<td>MD–3A</td>
<td>AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire</td>
</tr>
<tr>
<td>DC: 28v, 1500 amp, 45 kw, split bus</td>
<td></td>
</tr>
</tbody>
</table>

**CODE FUEL CODE FUEL**

| 60  | Grade 60 gasoline (Red) |
| 80  | Grade 80 gasoline (Red) |
| 100 | Grade 100 gasoline (Green) |
| 100LL| 100LL gasoline (low lead) (Blue) |
| 115 | Grade 115 gasoline (115/145 military specification) (Purple) |
| A   | Jet A, Kerosene, without FS–II*, FP** minus 40º C. |
| A+  | Jet A, Kerosene, with FS–II*, FP** minus 40º C. |
| A++ | Jet A, Kerosene, with FS–II*, CI/Li®, SDA®, FP** minus 40º C. |
| A++100| Jet A, Kerosene, with FS–II*, CI/Li®, SDA®, FP** minus 40º C, with +100 fuel additive that improves thermal stability characteristics of kerosene jet fuels. |
| A1  | Jet A–1, Kerosene, without FS–II*, FP** minus 47º C. |
| A1+ | Jet A–1, Kerosene with FS–II*, FP** minus 47º C. |

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>
</tbody>
</table>

**OX 1 High Pressure—Replacement Bottles**

<table>
<thead>
<tr>
<th>CODE</th>
<th>FUEL</th>
</tr>
</thead>
<tbody>
<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>

PAC, 12 AUG 2021 to 7 OCT 2021
AIRPORT/FACILITY DIRECTORY LEGEND

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 psig (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 psig
AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire, 25 kva
DC: 28v, 500 amp, 15 kw

AM32A–60 A
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.

COMBINED AIR AND ELECTRICAL STARTING UNITS:
NCPP–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, 12 AUG 2021 to 7 OCT 2021
AIRPORT/FACILITY DIRECTORY LEGEND

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
W — Water Thrust Augmentation—Jet Aircraft.
WAI — Water–Alcohol Injection Type, Thrust Augmentation—Jet Aircraft.
SP — Single Point Refueling.
PREAIR — 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 a/c 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):

CODE
0–113 1065, Reciprocating Engine Oil (MIL–L–6082)
0–117 1100, Reciprocating Engine Oil (MIL–L–6082)
0–117+ 1100, O–117 plus cyclohexanone (MIL–L–6082)
0–123 1065, (Dispersant), Reciprocating Engine Oil (MIL–L–22851 Type III)
0–128 1100, (Dispersant), Reciprocating Engine Oil (MIL–L–22851 Type II)
0–132 1005, Jet Engine Oil (MIL–L–6081)
0–133 1010, Jet Engine Oil (MIL–L–6081)
0–147 None, MIL–L–6085A Lubricating Oil, Instrument, Synthetic
0–148 None, MIL–L–7808 (Synthetic Base) Turbine Engine Oil
0–149 None, Aircraft Turbine Engine Synthetic, 7.5c St
0–155 None, MIL–L–6086C, Aircraft, Medium Grade
0–156 None, MIL–L–23699 (Synthetic Base), Turboprop and Turboshaft Engines
JOAP/SOAP — Joint Oil Analysis Program. JOAP support is furnished during normal duty hours, other times on request.

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.

**NOISE**

Remarks that indicate noise information and/or abatement measures that exist in the vicinity of the airport.

**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 AFJ11–204, 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.
22 AIRPORT/FACILITY DIRECTORY LEGEND

2c 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.

2d 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,
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.

AUNICOM—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

MEDI VAC

NOTE: Communication frequencies followed by the letter “X” indicate frequency available on request.
AIRSPACE

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” svc 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” svc APP CON other times 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

**SSV Class**
- **(T)** Terminal
- **(L)** Low Altitude
- **(H)** High Altitude

**Altitudes**
- 1000’ to 12,000’
- 1000’ to 18,000’
- 1000’ to 14,500’
- 14,500’ to 18,000’
- 18,000’ to 45,000’
- 45,000’ to 60,000’

**Distance (NM)**
- 25
- 40
- 100
- 130
- 100

**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.

<table>
<thead>
<tr>
<th>NAME</th>
<th>Automatic Weather Broadcast.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>Automatic Weather Broadcast.</td>
</tr>
<tr>
<td>DF</td>
<td>Direction Finding Service.</td>
</tr>
<tr>
<td>DME</td>
<td>UHF standard (TACAN compatible) distance measuring equipment.</td>
</tr>
<tr>
<td>DME(Y)</td>
<td>UHF standard (TACAN compatible) distance measuring equipment that require TACAN to be placed in the “Y” mode to receive DME.</td>
</tr>
<tr>
<td>GS</td>
<td>Glide slope.</td>
</tr>
<tr>
<td>H</td>
<td>Non–directional radio beacon (homing), power 50 watts to less than 2,000 watts (50 NM at all altitudes).</td>
</tr>
<tr>
<td>HH</td>
<td>Non–directional radio beacon (homing), power 2,000 watts or more (75 NM at all altitudes).</td>
</tr>
<tr>
<td>H–SAB</td>
<td>Non–directional radio beacons providing automatic transcribed weather service.</td>
</tr>
<tr>
<td>ILS</td>
<td>Instrument Landing System (voice, where available, on localizer channel).</td>
</tr>
<tr>
<td>IM</td>
<td>Inner marker.</td>
</tr>
<tr>
<td>LDA</td>
<td>Localizer Directional Aid.</td>
</tr>
<tr>
<td>LMM</td>
<td>Compass locator station when installed at middle marker site (15 NM at all altitudes).</td>
</tr>
<tr>
<td>LOM</td>
<td>Compass locator station when installed at outer marker site (15 NM at all altitudes).</td>
</tr>
<tr>
<td>MH</td>
<td>Non–directional radio beacon (homing) power less than 50 watts (25 NM at all altitudes).</td>
</tr>
<tr>
<td>MM</td>
<td>Middle marker.</td>
</tr>
<tr>
<td>OM</td>
<td>Outer marker.</td>
</tr>
<tr>
<td>S</td>
<td>Simultaneous range homing signal and/or voice.</td>
</tr>
<tr>
<td>SABH</td>
<td>Non–directional radio beacon not authorized for IFR or ATC. Provides automatic weather broadcasts.</td>
</tr>
<tr>
<td>SDF</td>
<td>Simplified Direction Facility.</td>
</tr>
<tr>
<td>TACAN</td>
<td>UHF navigational facility—omnidirectional course and distance information.</td>
</tr>
<tr>
<td>VOR</td>
<td>VHF navigational facility—omnidirectional course only.</td>
</tr>
<tr>
<td>VOR/DME</td>
<td>Collocated VOR navigational facility and UHF standard distance measuring equipment.</td>
</tr>
<tr>
<td>VORTAC</td>
<td>Collocated VOR and TACAN navigational facilities.</td>
</tr>
<tr>
<td>W</td>
<td>Without voice on radio facility frequency.</td>
</tr>
<tr>
<td>Z</td>
<td>VHF station location marker at a LF radio facility.</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>ILS/DME</th>
<th>Facility Performance Classification Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>108.5 I–ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.</td>
<td></td>
</tr>
</tbody>
</table>

**FREQUENCY PAIRING TABLE**

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

<table>
<thead>
<tr>
<th>TACAN CHANNEL</th>
<th>VHF FREQUENCY</th>
<th>TACAN CHANNEL</th>
<th>VHF FREQUENCY</th>
<th>TACAN CHANNEL</th>
<th>VHF FREQUENCY</th>
<th>TACAN CHANNEL</th>
<th>VHF FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X</td>
<td>134.5</td>
<td>25X</td>
<td>108.80</td>
<td>36X</td>
<td>109.90</td>
<td>47X</td>
<td>111.00</td>
</tr>
<tr>
<td>2Y</td>
<td>134.55</td>
<td>25Y</td>
<td>108.85</td>
<td>36Y</td>
<td>109.95</td>
<td>47Y</td>
<td>111.05</td>
</tr>
<tr>
<td>11X</td>
<td>135.4</td>
<td>26X</td>
<td>108.90</td>
<td>37X</td>
<td>110.00</td>
<td>48X</td>
<td>111.10</td>
</tr>
<tr>
<td>11Y</td>
<td>135.45</td>
<td>26Y</td>
<td>108.95</td>
<td>37Y</td>
<td>110.05</td>
<td>48Y</td>
<td>111.15</td>
</tr>
<tr>
<td>12X</td>
<td>135.5</td>
<td>27X</td>
<td>109.00</td>
<td>38X</td>
<td>110.10</td>
<td>49X</td>
<td>111.20</td>
</tr>
<tr>
<td>12Y</td>
<td>135.55</td>
<td>27Y</td>
<td>109.05</td>
<td>38Y</td>
<td>110.15</td>
<td>49Y</td>
<td>111.25</td>
</tr>
<tr>
<td>17X</td>
<td>108.00</td>
<td>28X</td>
<td>109.10</td>
<td>39X</td>
<td>110.20</td>
<td>50X</td>
<td>111.30</td>
</tr>
<tr>
<td>17Y</td>
<td>108.05</td>
<td>28Y</td>
<td>109.15</td>
<td>39Y</td>
<td>110.25</td>
<td>50Y</td>
<td>111.35</td>
</tr>
<tr>
<td>18X</td>
<td>108.10</td>
<td>29X</td>
<td>109.20</td>
<td>40X</td>
<td>110.30</td>
<td>51X</td>
<td>111.40</td>
</tr>
<tr>
<td>18Y</td>
<td>108.15</td>
<td>29Y</td>
<td>109.25</td>
<td>40Y</td>
<td>110.35</td>
<td>51Y</td>
<td>111.45</td>
</tr>
<tr>
<td>19X</td>
<td>108.20</td>
<td>30X</td>
<td>109.30</td>
<td>41X</td>
<td>110.40</td>
<td>52X</td>
<td>111.50</td>
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<tr>
<td>19Y</td>
<td>108.25</td>
<td>30Y</td>
<td>109.35</td>
<td>41Y</td>
<td>110.45</td>
<td>52Y</td>
<td>111.55</td>
</tr>
<tr>
<td>20X</td>
<td>108.30</td>
<td>31X</td>
<td>109.40</td>
<td>42X</td>
<td>110.50</td>
<td>53X</td>
<td>111.60</td>
</tr>
<tr>
<td>20Y</td>
<td>108.35</td>
<td>31Y</td>
<td>109.45</td>
<td>42Y</td>
<td>110.55</td>
<td>53Y</td>
<td>111.65</td>
</tr>
<tr>
<td>21X</td>
<td>108.40</td>
<td>32X</td>
<td>109.50</td>
<td>43X</td>
<td>110.60</td>
<td>54X</td>
<td>111.70</td>
</tr>
<tr>
<td>21Y</td>
<td>108.45</td>
<td>32Y</td>
<td>109.55</td>
<td>43Y</td>
<td>110.65</td>
<td>54Y</td>
<td>111.75</td>
</tr>
<tr>
<td>22X</td>
<td>108.50</td>
<td>33X</td>
<td>109.60</td>
<td>44X</td>
<td>110.70</td>
<td>55X</td>
<td>111.80</td>
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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.
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*indicates unknown datum*
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 I, 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 Rwys 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 LRA Class I, ARFF Index A 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 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/A/W/T HIRL
RWY 08: Rgt tcf.
SERVICE: F8 FUEL 100, JET A1+ LGT Dusk–Dawn. ACTIVATE MALSRS Rwy 05; PAPI Rwy 05 and Rwy 23; HIRL Rwy 05–23 and Rwy 08–26; twy lights freq.—118.3.
AIRPORT REMARKS: Attended continuously. Olotele 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

PAC, 12 AUG 2021 to 7 OCT 2021
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. 7.1/12E.
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
tTACAN 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.
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.
FEDERATED STATES OF MICRONESIA

KOSRAE ISLAND

KOSRAE (TTK) FEDERATED STATES OF MICRONESIA
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

POHNPEI ISLAND

POHNPEI INTL (PNI) 1 N UTC+11 N6º59.11’ E158º12.59’

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

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

PAC, 12 AUG 2021 to 7 OCT 2021
ULITHI ATOLL

ULITHI (TT02)  0 N UTC+10  N10º01.20´ E139º47.39´  P–IA

16  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.

AIRPORT MANAGER: 9731/9300

COMMUNICATIONS: CIVIL AVIATION DIVISION 691–320–2865. Remain in ctc with PTYA.

16  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.

AIRPORT MANAGER: 9731/9300

COMMUNICATIONS: CIVIL AVIATION DIVISION 691–320–2865. Remain in ctc with PTYA.

WENO ISLAND

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

10  B AOE  NOTAM FILE HNL


RWY 04: REIL. PAPI(P4L)—GA 3.0º TCH 51´. Berm. Rwy 04 and Rwy 22 concrete berm at each end of rwy pavement. Rwy 04 and Rwy 22 250’ NSTD distance remaining markers both sides of rwy.


SERVICE: FUEL

100LL, JET A1+ LGT

PPR for rotating beacon contact Chuuk Radio 123.6. ACTIVATE MIRL VASIs and REILs.

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 22 250’ 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) 370–4777. 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: CIVILAVIATION 123.6

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

RADIO AIDS TO NAVIGATION:

TRUK NDB/DME (HW) 375 TKK 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 TKK 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’

<table>
<thead>
<tr>
<th>Facility</th>
<th>Fuel</th>
<th>Remarks</th>
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</table>
RWY 25: REIL. PAPI(P4L)—GA 3.0º TCH 49’. Ground. |
| SERVICE: FUEL | LGT ACTVT REILs 07 and 25; PAPI Rwy 07 and 25; MIRL 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: div. of civil aviation’s website for procedures and forms used to request PPR into FSM; HTTP://WWW.TCI.GOV.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. |
| COMMUNICATIONS: CTAF | 123.6 |
| RADIO AIDS TO NAVIGATION: | YAP NDB/DME (HW/DME) 317 YP Chan 122 N09°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

ANDERSEN
N13º35.47´ E144º56.80´ NOTAM FILE PGUA.
H–TACAN 111.7 UAM Chan 054 at Andersen AFB. 615/2E. No NOTAM MP Mon, Wed 2000–2300Z.

GUAM INTL (GUM/PGUM) 3 NE UTC+10 N13º29.04´ E144º47.83´
305 B LRA TPA—1307(1002) 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 24R: TORA–12015 TODA–12015 ASDA–12015 LDA–12015

SERVICE:
FUEL 100LL, JET A1 OX 1, 2, 3
LGT Rwy 24L PAPI unusable byd 5º 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 Tfy Golf (south) while utilizing Tfy 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 Tfy 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 Tfy K to Tfy W with the acft positioned on Tfy 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 airflne will tow the acft into Gates 4 or 18 from Tfy K and airflne 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 Tfy K as long as no ADG-VI acft occupies the parallel tbyd 1500’ of the point of tfkof roll. TODA: B747-8 deps from Rwy 24R and Tfy 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 (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: ATS 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
ARSPACE: CLASS D svc
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
NIMITZ (H) VORTACW 115.8 UNZ Chan 105 N13º27.27´ E144º44.00´ 063º 4.1 NM to fld. 675/2E. VORTAC unusable: 110º–130º byd 35 NM bly 3,000’. 200º–238º byd 14 NM bly 7,000’. MT MACAINA NDB (IW) 385 AJA N13º27.21´ E144º44.22´ 061º 3.9 NM to fld. 659/2E. ILS/DME 110.9 I–GUM Chan 40 Rwy 06L. Class IE. DME unusable byd 15º right of course. COMM/NAV/WEATHER REMARKS: For radar advisory beyond 25 NM ctc Guam Center on 118.7. SBSS 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 N13º27.21´ E144º44.22´ NOTAM FILE PGUM.
NDB (IW) 385 AJA 061º 3.9 NM to Guam Intl. 659/2E. NIMITZ N13º27.27´ E144º44.00´ NOTAM FILE PGUM.
(H) VORTACW 115.8 UNZ Chan 105 063º 4.1 NM to Guam Intl. 675/2E. VORTAC unusable 110º–130º byd 35 NM bly 3,000’. 200º–238º byd 14 NM bly 7,000’.

HAWAIIAN–MARIANA PAC, 12 AUG 2021 to 7 OCT 2021
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 tcf. 2.9% up E.

RWY 27: REIL. Terrain. Rgt tcf.

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 tkof Rwy 09 and Rwy 27. Fixed wing tkof and ldg not avbl when twr clsd. Fixed wing apch/land Rwy 09 only. Overflight or landing at Kawaihae Docks is prohibited. Field is VFR for mil training.

CAUTION Located in R–3103. 500´ asph overrun each end of Rwy 09–27. 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/N of rwy, 6900´. Fixed wing 7700´ or as directed by ATC. MISC 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: CTR 126.3 ATIS 124.7

KAMUELA RCO 122.1R 113.3T (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 Ctc when ATCT clsd, ctc Honolulu Control Facility at 808-840-6262.

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

RADIO AIDS TO NAVIGATION: NOTAM FILE MUE.

KAMUELA (H) VOR/DME 113.3 MUE Chan 80 N19º59.88´ W155º40.19´ 144º 15.7 NM to 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–030º byd 10 NM

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

BRAIDSHAW 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.

PAC, 12 AUG 2021 to 7 OCT 2021
HILoland (ITO/PHTO) 2 E UTC–10  N19º43.22´ W155º02.91´

38 B LRA ARFF Index—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–2D2–140–2D2–410 PCN 69 F/B/W/T MIRL


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–5510 LDA–5510

Rwy 26: TORA–9800 TODA–9800 ASDA–9800 LDA–9800

Service: S1 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.

Noise: Avoid overflight of noise sensitive residential areas north, west and southwest of arpt.

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 btw 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 808–961-9317. 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. Rwys 08, 21 and 26 wind cones are lctd in the ROFA. 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. Rwy 03–21 no jet operations between 0400–1600Z. PPR from arpt manager for transient parking. Customs available. 100 grade fuel available Mon–Sat 1800–0300Z call (808) 961–6601 or 925–7395/889–6460 (nights and Sundays). Jet fuel available Mon–Sat 1800–0300Z call (808) 935–6881/6122 or 961–6601. NOTE: See Area Notices—General Information On Flying To Hawaii.

Airport Manager: (808) 961–9300.

Weather Data Sources: ASOS (808) 961–2077.

Communications: CTAF 118.1 ATIS 126.4

RCO 122.6 122.1R 116.9T (HONOLULU RADIO)

Hilo App/Dep Con 119.7 (1600–0800Z)

HCF Approach App/Dep Con 126.6 (0800–1600Z) 284.6

Tower 118.1 (1600–0800Z) 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 1600–0800Z other times CLASS E.

Radio Aids To Navigation: NOTAM FILE ITO.

(V) Vortac 116.9 ITO Chan 116 N19º43.28´ W155º00.66´ 257º 2.1 NM to fld. 23/11E.

ILS/DME 110.7 1—IITO Chan 44 Rwy 26. Class: IA. Unmonitored when ATCT clsd.

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 bly 6,000’

070º–084º byd 25 NM bly 7,000’

070º–084º byd 35 NM bly 13,000’

085º–210º byd 15 NM bly 15,500’

290º–360º byd 10 NM bly 7,500’

290º–360º byd 20 NM bly 16,000’

DME unusable:

070º–084º byd 25 NM bly 7,000’

070º–084º byd 35 NM bly 13,000’

085º–210º byd 15 NM bly 15,500’

290º–360º byd 10 NM

RCO 122.1R 113.3T (HONOLULU RADIO)
KILAUEA  N19°26.15’ W155°16.37’  HAWAIIAN ISLANDS  P–2H
RCO 122.4  (HONOLULU RADIO)

KONA INTL AT KEAHOLE (ELLISON ONIZUKA)  (KOA)(PHKO)  6 NW  UTC–10  N19°44.33’ HAWAIIAN ISLANDS  P–1C, 2G
W156°02.74’
47.  B  TPA—See Remarks  LRA  Class I, ARFF Index D  NOTAM FILE KOA
RWY 17–35:  H11000X150 (ASPH–GRVD)  S–75, D–200, 2D–400, 2D/D1–450, 2D/2D–850  PCN 69
F/A/W/T  HIRL
RWY 17:  MALSRL. PAPI(P4L)—GA 3.0º TCH 77’  Terrain. Rgt tfc.
RWY 35:  PAPI(P4L)—GA 3.0º TCH 71’

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 act on 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 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 act weighing 30000 lbs or less. PPR from arpt manager for transient parking call 808–327–9520. Itinerant act 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 act, no power out. Helicopter operations on and infl 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 act on cargo and south ramp ctc twr prior to engine start.

AIRPORT MANAGER:  (808) 327–9520

PAHOA  N19°32.47′ W154°58.33′  NOTAM FILE ITO.  HAWAIIAN–MARIANA  P–2H
NDB (HW) 332  POA  327° 11.6 NM to Hilo Intl. 495/11E.  Unmonitored when twr clsd.
UPOLU (UPP)(PHUP) 3 NW UTC–10 N20º15.91´ W155º51.60´  
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´.  
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 invof arpt. Skydiving activity on and invof 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) VOR/LOC 112.3 UPP Chan 70 N20º12.03´ W155º50.60´ 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´  

UPOLU POINT  N20º12.03´ W155º50.60´ NOTAM FILE UPP  
(H) VOR/LOC 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  N20º00.08´ W155º40.09´

2671  B  TPA—See Remarks  NOTAM FILE MUE

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

® ZHN 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.

KUAI

BARKING SANDS PMRF  (BKH)(PHBK)  5 NW  UTC–10  N22º00.37´ W159º47.10´

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, CB08–335–4310/4311. 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  269.4

NAV 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 bto 17,000´

040º–075º byd 15 NM

075º–120º byd 20 NM bto 17,000´
LIHUE (LIH)(PHLI)  2 E  UTC–10  N21º58.56´ W159º20.34´

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

RWY 03–21:  H6500X150 (ASPH–GRVD)  S–75, D–200, 2D–350, 2D/2D–720  PCN 75 F/A/W/T  MIRL

PCN 75 F/A/W/T  MIRL

RWY 03:  REIL. PAPI(P4L)—GA 3.0º TCH 46’. Rgt tfe. 1.1% up SW.

RWY 21:  REIL. PAPI(P4L)—GA 3.0º TCH 45’. Thld dpstd 205’. Tree.

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

RWY 17:  REIL. PAPI(P4L)—GA 3.0º TCH 55’.

RWY 35:  MALSR. PAPI(P4L)—GA 3.0º TCH 55’. Rgt tfe.

RUNWAY DECLARED DISTANCE INFORMATION

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

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


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

SERVICE:  S2  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; HIRL 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 right of centerline.

AIRPORT REMARKS:  Attended 1600–0800Z. Extensive large and small bird activity in/over runways 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 b/t 1700Z and 0230Z; other times, call (808) 274–3814. Military/civilian acft 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 Twy Alpha north of Twy B and alpha intersection. Acft orientation is dependent on wind and with twr approval. Power setting will not cause damage to lights and signs, if run may cause damage an alternate location will be selected. 405’ of Rwy 17–35 500’ south of Twy 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 Twy B from 220º to 500º S of Twy D. Tfc departing and entering movement areas ctc twr. Intersection departures from Twy 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 1000(847), Multi engine 1500(1347).

AIRPORT MANAGER:  (808) 274–3800

WEATHER DATA SOURCES:  ASOS (808) 246–3707

COMMUNICATIONS:  CTAF 118.9  ATIS 127.2

HCF CENTER APP/DEP CON 126.5  269.4

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

AIRSPACE:  CLASS D 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/NV/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 KAUI (G83426)  2 E  UTC–10  N22º12.55´ W159º26.63´

RCO 122.3 (HONOLULU RADIO)
PORT ALLEN (PAK/PHPA) 1 SW UTC–10 N21º53.82´ W159º36.19´

24 TPA—824(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

NOISE: Noise abatement: Avoid overflight of the salt pond, state recreational beach park, residential and commercial areas N of airfield.


AIRPORT MANAGER: (808) 274–3800

COMMUNICATIONS: CTAF 122.9

LIHUE RCO 122.4 122.1R 113.5T (HONOLULU RADIO)

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 N21º54.02´ W159º31.73´ 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 N22º12.55´ W159º26.73´

344

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 N21º57.92 W159º20.29 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 (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 SW UTC–10 N20°47.14’ W156°57.09’
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 12 F/A/W/T MIRL
RWY 03: PAPI(P4R)—GA 3.0’ TCH 49’. Antenna.
RWY 21: PAPI(P4L)—GA 3.76’ 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 1600–0400Z. 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. 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: CTA 122.2
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:
NOTAM FILE LNY.
(H) VORTAC 117.7 LNY Chan 124 N20°45.87´ 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 LLD N20º46.35´ W156º58.41´ 047º 1.5 NM to fld. 990/11E.
ILS/DME 111.1 I–LNY Chan 48 Rwy 03. Class I. ILS unmonitored. Glideslope unusable for coupled apchs blo 1,505’ MSL.

MAUI

HALEAKALA
N20°42.32’ W156°15.90’
RCO 122.2 (HONOLULU RADIO)

HANA (HNX)(PHHN)
3 NW UTC–10 N20°47.74’ W156°00.87’
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 3.6’ TCH 26’.
RWY 26: Rgt tfc.
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 inv of arpt. Parachute ldg area on east infield bhn Twy B and C. Helicopter pilot training maneuvers will be conducted at the approach end of Rwy 26 only. Ultralights on and inv of 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–3P 118.325 (808) 248–4864.
COMMUNICATIONS: CTA 122.9
HANA RCM 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:
NOTAM FILE OGG.
MAUI (H) VORTAC 115.1 OGG Chan 98 N20°54.39’ W156°25.26’ 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

HAWAII–MARIANA
P–2G

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

HIRL 0.6% up SW

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

RWY 20: PAPI(P4L)—GA 3.0º TCH 76´ Bldg.

RWY 05–23: H4980X150 (ASPH–GRVD) S–130, D–170, 2D–270 PCN 14 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


SERVICE: S2 FUEL 100, JET A LGT

WHEN twr clsd ACTIVATE MALS 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) 872–3830 1515–0800Z, other times (808) 872–3888. Lighted tower 457´ MSL approximately 3 miles west of airport. Migratory bird activity blo 1500´ within 5 NM radius of arpt during August–May. Actct over 30,000 lbs Idg 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 nonvisibility 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) 872–3888 1515–0800Z. Access to helipad from Twy C only. Mil hel ops with PPR rstrd to the SW corner of Hot Cargo Apron (HAZMAT) N of Rwy 05–23. Commuter terminal ramp restricted to acct 140,000 lbs or less. Jet A fuel avbl 24 hrs, (808) 871–5572, or (808) 873–6060. 100 octane fuel avbl 24 hrs self–service. Commuter air trml rstrd to Part 121 and Part 135 oprs only. Acft to the SW corner shall call the twr on 121.9 prior to pushback. Flight Notification Service (ADCUS) available. NOTE: See General Notices—Entry and Departure Requirements.

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. 1600Z–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. 1600Z–1000Z, 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 (MIW) 327 VYI 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 unusable 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 for 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´ HAWAIIAN ISLANDS P–2G

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´.

RWY 20: PAPI(P2R)—GA 5.5º TCH 35´. Tree. Rgt tfc.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 02: TORA–3000 TODA–3000 ASDA–3000 LDA–3000

RWY 20: TORA–3000 TODA–3000 ASDA–3000 LDA–3000

NOISE: Special noise level standards for acft operating at arpt. Restriction on number of daily flts depending on acft capacity and size.

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. 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: 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

VORTAC unusable:

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 portion unusable:

090º–105º byd 31 NM blo 12,500´

161º–165º byd 23 NM blo 7,000´

210º–240º byd 17 NM blo 20,000´

210º–240º byd 6 NM blo 9,000´

241º–249º byd 27 NM blo 20,000´

250º–285º byd 27 NM blo 20,000´

TACAN AZIMUTH and DME unusable:

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 20,000´

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; 225º–310º byd 5 NM.
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 tfc.
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
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 N21º09.17´ W157º05.78´  
454 B TPA—See Remarks Class I, ARFF Index A  NOTAM FILE MKK

RWY 05–23: H4494X100 (ASPH–GRVD)  S–30, D–48  PCN 28 F/A/W/T  MIIRL
0.4% up NE
RWY 05: REIL. PAPI(P4L)—GA 4.0º TCH 49´
RWY 17–35: H3118X100 (ASPH)  S–13  PCN 04 F/B/W/T  MIIRL
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 MIIRL 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 act 1250(796) large act 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 act 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: CTAF 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.

(H) VORTAC 116.1 MKK Chan 108  N21º08.29´ W157º10.05´ 067º 4.1 NM to fld. 1421/11E.
VORTAC unusable: 275º–285º byd 25 NM bio 3,500´

PAC, 12 AUG 2021 to 7 OCT 2021
OAHU

DILLINGHAM AIRFIELD (HDH/PHDH) MIL/CIV A 2 W UTC–10 N21°34.77´ W158°11.84´

14 TPA—800(786) NOTAM FILE HNL

RWY 08–26: H007X75 (ASPH–RFSC) S–40, D–152, 2D–180

RWY 08: Thld dsplcd 1993´.


SERVICE: S4 FUEL 100, JET A

AIRPORT REMARKS: Attended 1700–0130Z. Located within Dillingham Military Reservation. CLOSED to Civil acft SS–SR. Open to civil use thru agreement between the US Army and the State of Hawaii, check NOTAM´s prior to use, no ATCT in opn. Parachute Jumping. Sky diving activity on and in vicinity of arpt. Ultralights on and inof arpt. Simultaneous glider/powered actf otns. Tree line with 90´ trees N and S of rwy approximately 425´ from centerline. A 5000´ x 75´ rwy for light powered acft 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 acft 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. Csls to civ actf SS–SR. No banner towing. Lghdg on and in vicinity of arpt. Aerobatics trng area off–shore north of the fld abv 1500´. Ultralight and skydiving haz. Large sea bird haz Nov–Apr. Mk depression in vcnty of auto fuel pump southwest apn. PJE act 3 NM NW. TFC PAT Eng pwr acft 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 N21°18.50´ 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.

EWABE N21°19.48´ W158°02.94´ NOTAM FILE HNL

P–1C, 2G PAC, 12 AUG 2021 to 7 OCT 2021

HONOLULU CONTROL FACILITY (ZHN/PHZH) F–10, 26

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.

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

MAUNA KAPU RCAG 135.4 Back up for all other frequencies.

MAUNALO RCAG 118.45 119.3 124.1 127.6

PAC, 12 AUG 2021 to 7 OCT 2021
AIRPORT/FACILITY DIRECTORY

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/2D–780 PCN 79 R/B/W/T HIRL

RWY 08L: MALSRS. 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/2D–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/2D–850 PCN 57 F/B/X/T HIRL

RWY 04R: MALSRS. 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/2D–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 08L: TORA–12312 TODA–12312 ASDA–12312 LDA–12312

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˚)

Hook MB 60 (200˚) → RWY 26R

BAK–14 BAK 12B(B) (1500˚) RWY 26L

SERVICE: S4 FUEL 100, JET A, A1 +, B OX 1, 2, 3, 4 LGT RWy 08R VASI upper GA 3.25º, TCH 96˚, lower GA 3.00º TCH 52˚. Rwy 22L PAPI usable byd 2 NM. Rwy 26L PAPI aligned 05º left of rwy centerline, Rwy 26L PAPI unusable byd 05º right of rwy centerline. Rwy 26R PAPI unusable byd 1.5 NM from thld. MILITARY—FUEL A++ (Mil; avbl H24) A–GEAR Hook MB100(B) ltdc 200˚ from thld Rwy 26R. Rwy 04R–22L and Rwy 08R–26L sfc grvd within 10˚ of A–G system. Potential for fighter actf tail hook skip exists. TRAN ALERT 15 WG can provide eqpt but crews must provide own pers when needed.

CONTINUED ON NEXT PAGE
MILITARY REMARKS: Attended continuously. 100 octane fuel avbl thru FBO. Bird strike hazard all runways. ASDE–X in use. Opr transponders with altitude reporting mode and ADS–B (if equipped) enabled on all airport surfaces. Due to location of twr, controllers unable to determine whether acft are on correct final apch to 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 ftc: times of Twy RB between Twy B and Rwy 08R, portions of Inter–Island acft parking ramp. Rwy 08L–26R 200’ wide with lghts outside, pvtm striped 150’ wide. TPA—Tfc pattern altitude for small acft entering from northwest 800(787). Tfc pattern altitude for small acft entering from south 1000(987). Tfc 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 cott. Remain at least 1 mile offshore of Wai’ikiki Diamond Head Koko Head and EWA Beach. Arrival Rwy OBL, 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 tcf pattern altitudes as long as possible before beginning descent for ldtg. Twy G ADG V and as possible power in w/PPR. Tower approval required to use Taxiway Kilo from Runway 4R. Apron TaxiLane 6 bttw Tcy C and south rwp clsd except GA/fix wing loading/unloading only. Apron TaxiLane 2 east end 360’ clsd. Rwy 04R and Rwy 08R wind cones in nonstandard lcfn. All jet acft 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. Ldtg 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: See FLIP AP/3 Supplementary arpt information, route and area rstd, and Oakland FIR flt hzl. All acft inbd to Hickam should address flt plan to PHKYYY. All military acft with VIP code 7 or abv clsc 15WG command post or relay thru HF/SSB airway 1 hour out to confirm blocktime. All units planning to stage ops from JBPH–H must contact 15 WGX/XP (315) 449–1591 at least 60 days prior to arrival. ANG HI ANG afld ops opr 1500–0300Z Mon–Fri and UTA wknds; clsd Sat, Sun and hol. RSTD JBPH–H is PPR to all non–TFWC mcn, amrc tmng mcn and KC–135 8 un & 8 en mn ctc 735th mcn at DSN (315) 499–6970 for PPR. All amc PPR will be coord Mon–Fri 1700–0400Z only. All non–amc acft such as foreign, sister svc, tran acft or KC–135 and, QDN, QEN, PEN, KEN, CJZ, DV1, DV7, DC5, and C–130 mcn must clsc 15 OSS/OSA (AMOPS) at DSN (315) 449–0046 for PPR. All PPR will be apvd no earlier than 7 hr but no later than 24 hr prior. All tran acft not on an AMC/TWCF mcn and home stn acft terminating at JBPH–H, will provide a 3 hr out call (comm 808–448–6900) as well as a 20–30 min out call on 292.5 to the 15 WG/CP (KOA CONTROL). Upon arrival, crews will proceed directly to command post (bldg 2050) and complete an outbound setup sheet to facilitate departure requirements. Mil acft opr during Bird Watch Condition MODERATE (initial tckt or full stop ldtg only, no multiple IFR/VFR procedures and SEVERE (tkot and ldtg prohibited w/oDG CC approval or 154 OG/CC approval for HIANG acft) ctc HIK ramp, PTD, 15 WG command post, 735 AMG command post, 154 WG command post for current conditions. Tower approved to use Taxiway Kilo from Runway 4R. Twa RA Hold–Short apch zone Rwy 04L–R at hold line. Twy P clsd to acft over 12500 lbs. 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 runways and rwy, but especially on Rwy 04L–22R and Twys north of Rwy OBL–26R. Fighter acft exercise extreme caution when taxing. To minimize foreign object damage potential, all acft should use minimum thrust, especially outside engines, when taxing past the F–22 alert facility on Twy T. Hickam ramp taxi instr NOT valid within PHNL Airport Operating Area (AOA) which includes Twys A, B, portions of Twys V (south of Twy A) and T, and all rwy. Aircrews must ctc HNL ldtg or HNL gnd as drct prior to entering or while within the PHNL AOA. Hickam ramp will instr all acft at the Haz cargo pad adj to Twy B, Twys A1–A4, B1–B4 and PHKIXYX. 100 octane fuel avbl thru FBO. Bird strike hazard all runways. ASDE–X in use.

CONTINUED ON NEXT PAGE
AIRPORT MANAGER: 808-836-6533
WEATHER DATA SOURCES: ASDS (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)
PDC
COMM 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.
VOR TEST FACILITY (VOT) 111.0
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
HONOLULU (H) VORTAC 114.9 HNL Chan 95 N21°18.50’ W157°55.82’ at fld. 5/11E.
TACAN AZIMUTH & DME unusable:
055°–085° byd 15 NM blo 7,000’
251°–260° byd 20 NM blo 2,200’
261°–280° byd 20 NM blo 3,000’
281°–305° byd 20 NM blo 7,500’
306°–330° byd 30 NM blo 7,500’
331°–340° byd 32 NM blo 5,500’
360°–005° byd 25 NM blo 8,000’
360°–085° byd 30 NM blo 12,000’
VOR unusable:
055°–085° byd 15 NM blo 7,000’
100°–115° byd 30 NM blo 4,000’
120°–140° byd 35 NM blo 5,000’
170°–210° byd 20 NM blo 3,000’
240°–250° byd 30 NM blo 3,000’
241°–250° byd 35 NM blo 4,000’
251°–260° byd 20 NM blo 2,200’
261°–280° byd 20 NM blo 3,000’
281°–305° byd 20 NM blo 7,500’
306°–330° byd 30 NM blo 7,500’
331°–340° byd 32 NM blo 5,500’
351°–359° byd 25 NM blo 7,500’
360°–005° byd 15 NM blo 6,000’
360°–085° byd 25 NM blo 8,000’
360°–085° byd 30 NM blo 12,000’

KOKO HEAD (H) VORTACW 113.9 CKH Chan 86 N21°15.91’ W157°42.18’ 274° 12.6 NM to fld. 640/11E.
VOR unusable:
285°–294° byd 27 NM blo 8,000’
295°–000° byd 21 NM blo 5,500’
295°–000° byd 32 NM blo 8,000’
TACAN AZM/DME unusable:
285°–294° byd 20.5 NM blo 5,000’
285°–294° byd 27 NM blo 8,000’
295°–000° byd 19 NM blo 5,500’
295°–000° byd 26 NM blo 8,000’
295°–000° byd 32 NM blo 27 NM blo 8,000’

EWABE NDB (MHW/LOM) 242 HN N21°19.48’ W158°02.94’ 082° 7.2 NM to fld. 43/11E.
ILS/DME 110.5 I–IUM Chan 42 Rwy 04R. Class I E.
ILS/DME 111.7 I–HNL Chan 54 Rwy 08L. Class I E. LOM EWABE NDB. Excessive oscillation over mnts ne of LOM.
LDA/DME 109.1 I–EPC Chan 28 Rwy 26L. LOC unusable byd 25 degrees north of centerline due to terrain.
ASR
COMM/NAV/WEATHER REMARKS: San Francisco Radio, 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. Rwys 4R and 8R wind cones in nonstandard lctn.

WATERWAY 08W–22W:
5090X300 (WATER)
WATERWAY 04W–22W:
3000X150 (WATER)
SEAPLANE REMARKS: Rwy 04W–22W and Rwy 08W–26W recreational boating activities on and in and over waterways.
KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR) P (HANG CG) 2 S UTC–10 N21º18.44´ W158º04.22´ HAWAIIAN ISLANDS
30 B TPA—See Remarks NOTAM FILE JRF
RWY 04R–22L: H8000X200 (ASPH) 2S–175, 2T–565, 2D–287, 2D/D1–479, 2D/2D–840 HIRL
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/2D–800 MIRL 0.3% up NW
RWY 11: PAPI(P4L)—GA 3.0° TCH 48°.
RWY 29: PAPI(P4L)—GA 3.0° TCH 52°.
RWY 04L–22R: H4500X200 (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
AIRPORT REMARKS: Attended 1630–0030Z. TPA—Traffic pattern alt small aircraft 830(800), large aircraft 1030(1000). Avoid overlap refiners 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 inflv 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 808-518-4660.
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 ADVYS SVC ctc HONOLULU APP CON
AIRSPACE: CLASS D svc 1600–0800Z other times CLASS E.
COMM/NAV/WEATHER REMARKS: Twr operated by Air National Guard. GCA OTS indef.

KANEOHE BAY MCAS (MARION E CARL FLD) (NGF)(PHNG) N 2 SW UTC–10 N21º27.03´ W157º46.08´
NOTAM FILE PHNG.
AIRSPACE: CLASS D svc Mon–Thu 1700–1000Z, Fri 1700–0800Z, Sat 1800–0300Z (CLASS D svc only), Closed Sun and Federal holidays. Other times CLASS E.

KOKO HEAD (H) VORTAC 114.8 HNL Chan 95 N21º18.50´ W157º55.83´ 259º 7.8 NM to fld. 5/11E.
EWABE NDB (MHW/LOM) 242 º HN N21º19.48´ W158º02.94´ 218º 1.6 NM to fld. 43/11E.
COMM/NAV/WEATHER REMARKS: Twr operated by Air National Guard. GCA OTS indef.

MAUNAKAP RCO 122.2 (HONOLULU RADIO)

MT KAALA RCO 122.6 (HONOLULU RADIO)
WAIMANALO
N21º19.21´ W157º40.90´
RCO 122.2 (HONOLULU RADIO)

WAHIAWA

WHEELER AAF (HHI)(PHHI) A 1 SW UTC–10 N21º28.89´ W158º02.27´

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 dsplcd 570´. Rgt tfc.

RWY 24: Rgt tfc.

SERVICE: S2 LGT ACTIVATE HIRL Rwy 06–24—CTAF. Rotating bcn 1/8 mile north of tgt. FUEL F24, JAA, 1730-0845Z M-F, OT by NOTAM.

NOISE: Extremely noise sensitive area; avoid ovft communities surrounding Wheeler AAF.

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

RSTD PPR for full stop ltd, prk and for non–tenant acft, ctc Wheeler OPS C808–656–1282, 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 mrk 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 Lines 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 alfd markigns 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). 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 svcs opr 24 hrs. 2 hr PN rqr for timely brief.

AIRPORT MANAGER: 808-656-2656

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

HONOLULU CONTROL FACILITY APP/DEP CON 118.3 269.0

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.


VFR ADZY SVC ctc HONOLULU Aircr Ctrl

AIRSPACE: CLASS D svc Mon 1730Z–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 N21º18.50´ W157º55.82´ 319º 12.0 NM to fld. 10/11E.

TERN ISLAND

FRENCH FRIGATE SHOALS (HFS)(PHHF) N UTC–11 N23º51.84´ W166º17.08´

6

RWY 06–24: 3000X200 (CORAL)

AIRPORT REMARKS: CLOSED except in emergency or PPR Fish and Wildlife.

Phone Honolulu 541–1201.

AIRPORT MANAGER: (808) 541–1201

EMERGENCY ONLY
KIRIBATI

KIRITIMATI (CHRISTMAS ISLAND)

CASSIDY INTL  (PLCH)  UTC–10  N01°59.18’ W157°21.00’
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 Rwys 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 N01°59.28’ W157°21.20˚ at fld.  9E.
Avbl for all notified movements. No aux pwr. Opr HO.

CHRISTMAS ISLAND  N01°59.28’ W157°21.20˚
NDB (MHW) 333 XI at Cassidy Intl.  9E.  Avbl for all notified movements. No aux pwr. Opr HO.
ARNO ATOLL
INE (N28)  N 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)  N 0 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’
  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 acft an 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. An 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)  N 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)  N 0 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

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

16 B LRA NOTAM FILE PKWA

RWY 06–24: H6668X198 (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 (advsey 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 2330–0530 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 2330–0530 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, Kwaialien 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–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.

ND8 (HW) 359 NDJ N08º43.25´ E167º43.67´ at fld. 15/9E.
DYESS AAF  (ROI)(PKRO)  UTC+12  N09º23.81´ E167º28.25´  P–1B
14  B
RWY 04–22: H4499X150 (ASPH)  PCN 11 F/B/W/T
  RWY 04: PAP(P4L)—GA 3.0º TCH 38´.
  RWY 22: PAP(P4L)—GA 3.0º TCH 38´.
AIRPORT REMARKS: No facilities—ARFF available. No transient acft authorized. 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. REIL available Rwy 04 with prior notice. Five lighted antennae; 263 dish located 0.6 NM E, 175 dish located 0.7 NM ENE, 273 located 1.3 NM SE. 150 located 800S, 210 located 0.4 NM NWW. Military rotating beacon atop 137 water tower 950 SE. Taxiway lighted. NOTE: See Area Notices—MARSHALL ISLANDS.
COMMUNICATIONS: SAN FRANCISCO ARINC (HNL) NOTAM FILE HNL.
ROI RADIO 118.1

MAJURO ATOLL

MAJURO  N07º03.92´ E171º16.11´ NOTAM FILE HNL  P–1B
NDB/DME (HW/DME) 316 MAJ Chan 114 at Marshall Islands Intl.  4/10E. DME Chan 114 paired with VHF freq 116.7

AMATA KABUA INTL  (MAJ)(PKMJ)  7 SW UTC+12  N07º03.90´ E171º16.32´  P–1B
7  B  LRA NOTAM FILE HNL
RWY 07–25: H7913X150 (ASPH–GRVD)  S–120, D–171, 2D–290  PCN 64 F/B/X/T  MIRL
  RWY 07: REIL. PAP(P4L)—GA 3.0º TCH 55´.
  RWY 25: REIL. PAP(P4L)—GA 3.0º TCH 46´. Tree.
SERVICE: FUEL  JET A1+  LGT ACTIVATE MIRL Rwy 07–25, PAPI and REIL Rwys 07 and 25—CTAF.
AIRPORT REMARKS: Attended on request. PPR for ldg from arpt mgr 24 hrs in advance. After sender has confirmed fuel delivery, he must give 24 hours advance notice to Airport Superintendent and Immigration Officer, Majuro, Marshall Islands. If ETA is between 0400Z Fri to 2200Z Mon, 48 hours advance notice must be given to Airport Superintendent. Message will include name of sender, type of aircraft, aircraft identification number, ETA purpose of landing, such as ferry flight, number of crew, PAX and citizenships, and that sender has obtained fuel confirmation from MOBILE OIL Guam including quantity and type of fuel. Include RON in message if applicable. Arpt Superintendent available Sun–Fri 2000–0500Z phone (692) 247–7612/3113, Fax (692) 247–3888.
AIRPORT MANAGER: (692) 247-3113
COMMUNICATIONS: CTAF 123.6
MAJURO RADIO 123.6 LAA 126.6 emerg only 5205X USB emerg only 2182 emerg only.
RADIO AIDS TO NAVIGATION: MAJURO NDB/DME (HW/DME) 316 MAJ Chan 114 N07º03.92´ E171º16.11´ at fld.  4/10E. DME Channel 114 paired with VHF freq 116.7.

MEJIT ATOLL

MEJIT  (C30)  0 NE UTC+12  N10º17.00´ E170º53.00´  P–1B
5  NOTAM FILE HNL  Not insp.
RWY 07–25: 3000X50 (GRVL–CORAL)
AIRPORT REMARKS: Attended on call.
AIRPORT MANAGER: (692) 625-6179
COMMUNICATIONS: CTAF 122.9

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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´
15 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 N28°12.09′ W177°22.88′  P–18
12 B Class IV, ARFF Index A NOTAM FILE MDY

RWY 06–24: H7800X150 (ASPH) S–120, D–230, 2D–430 PCN 56 F/A/W/U MIRL
RWY 06: REIL, PAPI(P4L)—GA 3.0° TCH 80′.
RWY 24: REIL, PAPI(P4L)—GA 3.0° TCH 80′.

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 ACTVT REIL Rwy 06 and 24; PAPI Rwy 06 and 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 tran 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 from arpt manager 24 hrs in advance due to heavy bird activity call 808–954–829. Be alert for heavy bird strike hazards at all times. Current bird activity status avbl during initial ctc inbound and prior to tkf and ldg on freq 126.2. Except when necessary for tkf and Indg, all acft maintain minimum alt of 5,000 MSL within 12 miles of arpt. Arpt ctct 1900–0400Z (808) 674–1237. Emergency pager 24 hrs (480) 768–2500 ID 881361497770. 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 N28°12.25′ W177°22.75′ at fld. 16/10E.

COMM/NAV/WEATHER REMARKS: No ATCT ops. Inbound acft ctct 100 NM out for advisories. CTAF not monitored ctct 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.
**PAGAN ISLAND**

**PAGAN AIRSTRIP** (TT01) 0 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

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**ROTA ISLAND**

**BENJAMIN TAISACAN MANGLONA INTL** (GRO)(PGRO) 6 NE UTC+10

N14º10.46´ E145º14.47´

606 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 45”.
- RWY 27: PAPI(P4L)—GA 3.0º TCH 45”. 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 lgts 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 REMARKS:** Attended 2000–1000Z. Radio operator, ARFF personnel, and weather observation daily 2000–1000Z. Lgtd twr 1798’ MSL (262’ AGL) located 4 miles southwest of arpt. PPR for unscheduled acft ops from executive direct or Commonwealth Ports Authority call Mon–Fri (670) 237–6500. Immigration customs and quarantine avbl during scheduled acft operations, other times prior arrangements must be made with field supervisors (670) 532–0026/0027/9455/9493 respectively. TPA—Large and Turbine powered acft 2100(1494), small acft 1600(994).

**AIRPORT MANAGER:** (670) 532–9497

**WEATHER DATA SOURCES:** SAWRS (2000–0930Z).

**COMMUNICATIONS:** CTAF 123.6

- ROTA RADIO 123.6
- GUAM ARTCC APP/DEP CON 120.5

**RADIO AIDS TO NAVIGATION:** NOTAM FILE HNL.

- ROTA NDB (HW) 332 GRO N14º10.30´ E145º14.40´ at fld. 587/2E.
SAIPAN ISLAND

COMMONWEALTH HEALTH CENTER HELIPORT  (C21)  1 E  UTC+10

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)  4 SW  UTC+10  N15º07.22´ E145º43.80´

NOTAM FILE

RWY 07–25: H700X200 (ASPH–GRVD)  S–87, D–175, 2D–350, 2D/2D2–690  PCN 67 F/A/X/T HIRL
RWY 07: MALSR. PVASI(PSIL)—GA 3.0º TCH 57´. Rgt tfc.
RWY 25: REIL  PAPI(4L)—GA 3.0º TCH 75´
RWY 06–24: H700X100 (ASPH)  PCN 67 R/A/X/T  MIRL
RWY 06: MALSR. PVASI(PSIL)—GA 3.0º TCH 43´.
RWY 24: PVASI(PSIL)—GA 3.0º TCH 43´.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 06: TORA–7000  TODA–6800  ASDA–6645
RWY 07: TORA–8700  TODA–8700  ASDA–8520  LDA–8700
RWY 24: TORA–6400  TODA–7000  ASDA–6302

SERVICE: FUEL  100, 100LL, JET A1+

Rwy 07 VASI restricted to 2.5 NM and 5º left and right of rwy cntrln due to intensity. Rwy 07 VASI and glidepath not coincident. Rwy 06 VASI restricted byd 6º left and 8º right of rwy cntrln.

AIRPORT REMARKS: Attended continuously. PPR from Executive Director Commonwealth Ports Authority Saipan call (670) 237–6500 other times call 670-237-6535. For Apt Security call (670) 237–6529. Immigration and Customs available during scheduled operations. Other times prior arrangements must be made with CBP port director call (670) 288–0025/26. Open for ldg and tkof when Rwy 07–25 clsd. CLOSED to unscheduled air carrier operations with more than 30 passenger seats except PPR call or write arpt manager (670) 237–6500/(670) 483–3542 (cell), P .O. Box 501055 Saipan MP 96950. TPA—Traffic pattern altitude for large and turbine powered acft 1700(1485), small aircraft 1200(985).

AIRPORT MANAGER: (670) 237–6500

WEATHER DATA SOURCES: ASOS (670) 288–5017. SAWRS.

COMMUNICATIONS: ATIS 127.2
   GUAM ARTCC APP/DEP CON 118.4
   TOWER 125.7  GND CON 121.8

AIRSPACE: CLASS D svc

RADIO AIDS TO NAVIGATION:

SAIPAN NDB (RW)  312  SN  N15º06.69´ E145º42.62´  066º 1.2 NM to fld.  103/2E.
   ILS/DME 109.9  I–GSN  Chan 36  Rwy 07.

SAIPAN NDB (RW)  312  SN  N15º06.69´ E145º42.62´  NOTAM FILE GSN

PAC, 12 AUG 2021 to 7 OCT 2021
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 rqrd 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.
**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.

**AIRPORT REMARKS:** Unattended.

**COMMUNICATIONS:** CTAF 122.9

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**BABELTHUAP ISLAND**

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

- RWY 09: REIL. PAPI(P4L)—GA 3.0º TCH 52’. Trees.
- RWY 27: REIL. PAPI(P4L)—GA 3.0º TCH 52’. 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 acft 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 acft exceeding 100,000 lbs GWT taxi to thld turn around before taxiing 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 unusable:**
- 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.

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**PELELIU** (C23) 20 SW UTC+9 N07º00.00’ E134º14.00’

- 9 NOTAM FILE HNL
- RWY 04–22: 6000X40 (GRVL)
- RWY 04: Trees.

**AIRPORT REMARKS:** Unattended. Rwy 04–22 first 1000’ Rwy 04 unusable.

**COMMUNICATIONS:** CTAF 122.9
Wake Island Airfield (AWK)(PWAK) AF ON UTC+12 N19°16.95′ E166°38.20′

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 arrane 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. Afdl has mixture of regular and LED obstruction lghts. LED obstruction lghts may not be visible to some NVD. TFC PAT—right break Rwy 28 all acft, left break Rwy 28 all acft. DD–175–1 MISC ETOPS divert location. Firefighting svcs 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 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.

COMM/NV/WEATHER REMARKS: Inbnd acft should exp descent and apch cncl fr Oakland ARTCC thru San Francisco Radio. Wake opns monitors 121.5 and 243.0. Inbnd acft ctc Wake opns 100 NM out for AAS and adz svcs rqrmts. Make all dep rpt to ARTCC via HF. No ATC avbl to ovft.
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.

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

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 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) N204231/W1561528, 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, 12 AUG 2021 to 7 OCT 2021
CHANCE 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 from FL055 to FL600 (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 21ºN/151ºE, 21ºN/155ºE, 23º31´39”N/155ºE.
   b. Within the area bounded by 27ºN/161º04´50”E, 27ºN/165ºE, 29ºN/165ºE.

2. A portion of Oakland OCA has been delegated to Fukuoka ATMC for provision of air traffic control services within the area bounded by 23º31’39”N/155ºE, 27ºN/155ºE, 27ºN/161º04’50”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 KZAKQZX and KSFOXAX.

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 NAV AIDS 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 Region 6.2.6, notice is hereby given that separation lower than those specified in 6.2.1 and 6.2.2 may be applied in accordance with PANS–ATM DOC 4444 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.

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>

   g. MNT WITH FASTER AIRCRAFT BEHIND. Mach Number Technique may be applied when faster aircraft will follow another aircraft at the same flight level. In this case, longitudinal separation may be established during transition from offshore airspace to the OCA, or when both aircraft are within oceanic airspace. Sufficient longitudinal separation will be applied to ensure at least 10 minutes separation until another form of separation is achieved.
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 Collins Aerospace (San Francisco Radio). 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 San Francisco Radio on HF. Satellite voice equipped aircraft may call San Francisco Radio at SATCOM SHORT CODE 436625 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>
</tr>
</thead>
<tbody>
<tr>
<td>436697</td>
</tr>
</tbody>
</table>
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.
ARRIVAL AND DEPARTURE MANIFESTS.
The following sets forth the principal requirements of concern to private plane operators engaging in international flights.

Circumstances. Failure to do so may incur substantial penalties.

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.

ENTRY AND DEPARTURE REQUIREMENTS

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.

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 intended place of 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.

**REFERENCES**

- **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 safety 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.

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

3. Landing aircraft–Molokai Airport: Before crossing within one mile of the shoreline, or before passing abreast 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 THREE WEST ILIO POINT, 1500, LANDING MOLOKAI

4. Landing aircraft–Kalaupapa Airport: Aircraft landing at Kalaupapa Airport should comply with transiting procedures and, when approximately five miles from the airport, broadcast position, altitude and intentions on 122.9 MHz (remaining clear of the Molokai Airport Traffic Area). Follow this up with appropriate announcements on downwind, base leg and final approach. When departing Molokai for Kalaupapa, request frequency change to 122.9 MHz after departure, in order to make these broadcasts.

   Flights Through Kalaeloa Class D–Airport at or above 2000´, contact HCF APP on 119.1/239.05 if north of Kalaeloa Airport, 118.3/269.0 if south of the airport. Aircraft below 2000´, contact Kalaeloa Tower for instructions.

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; or
   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 an operable VOR or TACAN receiver.
5. Unless otherwise authorized by ATC, the aircraft must be equipped with a 4096 code transponder with automatic altitude reporting equipment.

NOTE: ATC 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 and will be a prominent geographical fix, landmark or VOR radial.

   2. Aircraft departing the primary airports are requested to advise the Honolulu clearance delivery position prior to taxiing 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.
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 taxing 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.

**Freeway Two Departure**

Depart Runway 04L or Runway 04R on runway heading to Moanalua Freeway (State Highway 78/Interstate 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 Kalanianaole Highway until passing abeam Koko Head. Maintain 1500 feet. 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/Interstate Highway H-201) or depart Runway 08L and turn left to parallel Runway 04L to Moanalua Freeway. Then turn left and follow Moanalua Freeway northwest bound until departing Class B. Maintain 1500 feet. 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/Interstate 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. 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.
HELICOPTERS: 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.

Use caution: Turbojet aircraft will be inbound along the south shoreline.

Tripler Four Arrival
Contact Approach control 119.1/239.05 prior to H1/H2 interchange at or above 2000’. 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:

a. Runway 22L: After Tripler, enter right base RWY 22L. Maintain 1500 feet until advised by tower.

b. 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 INOY YE 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 occurs.

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.

PAC, 12 AUG 2021 to 7 OCT 2021
NOTES: 1. Compliance will ensure an orderly sequence of altitude/route assignments during peak traffic movements.
2. Oceanic departures are sequenced with Hilo and Kahului traffic.

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 turboprop; and any other aircraft with a minimum zero fuel weight in excess of 35,000 pounds will be assigned runway as follows:

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**TRADE (NORTHEAST) WIND CONDITIONS**

**Departures:** 8R 8L

**Arrivals:** 8L 4R/L 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. Cooperation 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 KAHLULUI 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 do not receive 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, and Hilo 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 preface 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, Hilo, and Keahole traffic.
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 Central East Pacific (CEP)–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:

- ITO345039 FITES R578
- ITO345055 EBBER R577
- ITO345158 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 bldg 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 – KAHOULUI 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 – KAHOULUI 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 acft 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 Twy E and 600’ north Twy F; acft with wingspan greater than 112’ may not use E ramp taxi lane. East Ramp: parking limited to MTOW 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’.

PAC, 12 AUG 2021 to 7 OCT 2021
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 N20°42.42’/W156°15.38’) 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–KAHOLAWEE CONTROLLED FIRING AREA: The Kahoolawe Hawaii Controlled Firing Area is described as follows: From SFC up and including 5000’ MSL within that area bounded by N20°37´30´´/W156°30´24´´, to N20°28´56´´/W156°30´24´´, to N20°28´06´´/W156°41´48´´, to N20°20´30´´/W156°44´12´´, to N20°33´32´´/W156°44´30´´, to N20°37´30´´/W156°34´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 facility 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 250R/014 DME) 1000’/below, sunrise to sunset.

MAUI – AEROBATIC OPERATIONS: 1 NM radius (OGG VORTAC 175R/011 DME) from 0315–0415Z Sundays 1500´ and below.

MAUI – ULTRALIGHT OPERATIONS: Extensive ultralight operations from atop Mt. Haleakala to Kalama Park (OGG VORTAC 175R/011DME). Unpowered ultralights remain over land. It is recommended that aircraft arriving from the south remain offshore, west of the OGG 175R 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 KAHLULUI 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 INOUYE INTL) AIRPORT – RAMP AREA: Broken yellow lines, ramps and taxiways indicate the edge of full strength bearing pavement. Pilots are cautioned to avoid taxiing 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 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.

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

OAHU – HONOLULU (DANIEL K INOUYE INTL) AIRPORT – PROXIMITY TO KALEAOA JOHN RODGERS FLD: All pilots are reminded of the proximity of Honolulu (Daniel K Inouye Intl) Airport to Kalaeloa (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 Kalaeloa (John Rodgers Fld) by pilots mistaking it for Honolulu (Daniel K Inouye Intl) Airport. Minimum IFR altitude for aircraft overflying Kalaeloa (John Rodgers Fld) is 2200 feet.

OAHU–KALEAOA AIRPORT NOISE ABATEMENT: Avoid overflight residential areas and schools north and east of arpt. Rwy 11/29 available Cat A acft only; fly downwind over dep ends rwy 4. All other acft Rwy 11 dep only, Rwy 29 arr only.

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

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

OAHU – KALEAOA (JOHN RODGERS FLD) AIRPORT – PROXIMITY TO HONOLULU (DANIEL K INOUYE INTL) AIRPORT: All pilots are reminded of the proximity of Honolulu (Daniel K Inouye Intl) Airport to Kalaeloa (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 Waikele</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 Kenai Point land mass within 1 1/2NM (9,120 feet). Potential personnel and electronic explosive device hazards exist due to high power radio frequency transmitters.
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°18.81′/W157°58.84′) 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, Palikir, 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 ChukAirport@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 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 IMC.

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 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 to the 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.

RNAV–10 SEPARATION

RNAV 10 is also known as RNP 10 (ICAO DOC 9613 1.2.5.5.1). RNP 10 lateral separation (50 NM) may be applied within the Oakland OCA/FIR between RNP 10 or better approved aircraft. RNP 10 lateral separation is based on the equipment qualifiers filed in the flight plan for 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 RNP 10. 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 horizontal separation (30 NM lateral and 30 NM longitudinal) may be applied within the Oakland OCA/FIR between RNP 4 approved aircraft with RCP 240 and RSP 180 approval. Eligibility for RNP 4 horizontal separation is based on the equipment qualifiers filed in the flight plan for the aircraft. Operators shall determine that the appropriate state authority has approved the aircraft and the aircraft will meet the RNP 4, RCP 240 and RSP 180 requirements for the filed route of flight and any planned alternate routes. The flight plan shall be filled with the appropriate codes as detailed in the United States AIP.

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.

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 San Francisco Radio 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 San Francisco Radio for the entire route of flight within the Oakland OCA/FIR. Pilots must maintain HF communications capability with San Francisco Radio 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 San Francisco Radio on HF and inform them you are a CPDLC flight.
   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 San Francisco Radio on HF, identify the flight as a CPDLC flight. 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 San Francisco Radio on HF and inform them you are a CPDLC flight.

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 San Francisco Radio.

5. Aircraft Entering Guam CERAP Airspace.
   Contact Guam CERAP 250 miles out on 118.7, squawk 2100.

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 San Francisco Radio. 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

      | ROUTES                              | TRACK DESIGNATORS |
      |-------------------------------------|-------------------|
      | Hawaii to Japan                     | A                 |
      | Japan to Hawaii                     | 1                 |
      | North American West Coast to Japan  | 11                |
      | North American West Coast to Japan  | 12 (optional)     |
      | North American West Coast to Japan  | C                 |
      | Japan to North American West Coast  | D (optional)      |
      | Japan to North American West Coast  | E & F             |
      | Texas to Japan                      | 1, 2, & 3        |
      | Japan to Texas                      | 4 (optional)      |
      | North American West Coast to Asia   | 8                 |
      | North American West Coast to Asia   | H & I (optional)  |
      | Asia to North American West Coast   | J & K             |
      | Asia to North American West Coast   | 14                |

   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 fly at least 50 NM from any 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 1230 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 1230 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 0230 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 0230 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 1500 UTC and 1800 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/
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 to destination.

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 – PADKO 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 RICHH – RICHH A597 MONPI FPRD
   e. OVER TOESS – TOESS B586 OMLET FPRD
   f. OVER TERY – TERY G205 TEGOD FPRD
   g. OVER TEEDE – TEEDE 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 FL310 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 flight plan for and be prepared to fly the entire preferential route. Aircraft operating EAST of 150E longitude will not be affected.

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**OKLAHOMA OCA ISLAND AIRPORTS**

1. Clearances
   a. When requesting an IFR clearance while on the ground, make every effort to communicate through San Francisco Radio or CPDLC. If unable to contact San Francisco Radio, 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.
PAC, 12 AUG 2021 to 7 OCT 2021
CLASS C AIRSPACE
KAHULUI AIRPORT
FIELD ELEV 53' MSL

CONTACT HCF
APPROACH CONTROL
120.2  322.4

MOLOKAI

V15

Olowalu

Golf Course

Nakalele Point

Kahakuloa

10NM

V22

41 20

5NM

Opaona Point

V11

MAUI

Hana

V15-22

V2-21

KEIKI

10NM

V17-17

KAHULUI

41 SFC

McGregor Point

Molokini Island

41 20

R-3104 A,B

Makena

Makena

Makena

HALEAKALA NATIONAL PARK

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, Halemau Trail, Kaupo Gap Trail or any designated tourist viewpoint.

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.

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

Recommended Minimum Altitude 2500 feet

Avoid overflying populated areas to extent possible.

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 KAHLULUI AIRPORT, MAUI.

NOTE: RUNWAY 2 DESIGNATED NOISE ABATEMENT DEPARTURE RUNWAY FOR LARGE AIRCRAFT AND JET POWERED AIRCRAFT.

KUAU

RUNWAY 2
CLIMB STRAIGHT AHEAD UNTIL ONE MILE CLEAR OF SHORELINE.

HOUSE
SRECKELVILLE

GOLF COURSE

AIRCRAFT REMAINING IN RIGHT TRAFFIC PATTERN RUNWAY 2 OR LEFT TRAFFIC PATTERN RUNWAY 20, ARE REQUESTED TO CROSS SHORELINE ON DOWNWIND OVER EAST END OF GOLF COURSE TO AVOID FLIGHT OVER RESIDENTIAL AREA.

RUNWAY 5
EAST AND WEST DEPARTURES, TURN LEFT SOON AS POSSIBLE. PROCEED ONE MILE CLEAR OF SHORELINE.

SOUTH DEPARTURES TURN RIGHT SOON AS POSSIBLE.
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.
AREA NOTICES

PREFERED VFR ROUTING
LIHUE AIRPORT, LIHUE, KAUAI

LEGEND

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PREFERRED VFR ARRIVAL ROUTES</td>
</tr>
<tr>
<td></td>
<td>PREFERRED VFR DEPARTURE ROUTES</td>
</tr>
<tr>
<td></td>
<td>IFR ARRIVAL/DEPARTURE ROUTES</td>
</tr>
<tr>
<td></td>
<td>REQUEST CENTER ADVISORIES PRIOR TO TRANSITING AREA 126.5</td>
</tr>
</tbody>
</table>

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, 12 AUG 2021 to 7 OCT 2021
Bucholz Army Airfield (Kwajalein Atoll) VFR Arrival/Departure RF Avoidance Routing

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.
PREPARED 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 southeast 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 1-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 Unal Masolok 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 Naftan Point, then southwest bound to Puntan Masolok, then enter left traffic for Rwy 08 at West Tinian.

5. VFR single engine aircraft from Saipan should make left traffic downwind to Puntan Agingan, across Saipan channel to Puntan Tahgong (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 Saipan Rwy 25 to West Tinian, direct ascend Saipan 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 Purtan Tahgong across Saipan Channel to Akingan Point, enter right downwind for Rwy 25 at Saipan.

LEGEND

- TURBO JET
- TWIN ENGINE
- SINGLE ENGINE
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.
Glider Operations: Gliders are normally air-towed and routinely depart the traffic pattern to the South. (Right turn after takeoff Ryw 08, left turn after takeoff Ryw 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

Left turn after Rwy 08 takeoff, avoid parachute drop zone.
Right turn after Rwy 26 takeoff, avoid parachute drop zone.
ARRIVAL/DEPARTURE GRAPHICS

WHEELER TWR 126.3/235.625
GND 121.85/237.3

TRAFFIC PATTERN
FIXED WING
ROTARY WING
NVG

DOWN WIND
2000 MSL
1500 MSL
1500 MSL

BASE
1300 MSL
1300 MSL
1300 MSL

PREFERRED ROUTING TRANSITING AND VFR ARRIVAL/DEPARTURE ROUTES FOR WHEELER AAF

DILLINGHAM
CTAF 123.0
MILITARY AIR To AIR
233.3

HALEIWA

NG 300
D.A. 700

DILLINGHAM

3000 ***

THOMPSON CORNER

R3110A,B,C

PINEAPPLE
2000D/NG
2500N*

Contact USASCH Range Control FM 38.30

R3109A,B,C

2000D/NG
2500N

MOTORPOOL

KOLEKOLE

4140
2200, N, NG

2000D,N,NG**
15000,N,NG+

KUNIA TOWN

MILULANI TOWN

KAHU

1047

2000D,N,NG**
15000,N,NG+

KUTREE

2000D, N, NG**
1500, N, NG+

WHEELER AAF

CHART NOT TO SCALE

CIVIL AIRCRAFT TRANSITIONS
Contact Tower at HI/H2 Interchange or Harbor View Northbound/Haleiwa Southbound. Expect Altitude Assignment at or above 2500’ MSL.

A-311
For flight following/advisories aircraft below 500’ AGL contact Lightning Radios (P) UHF 239.5 (A) VHF 139.2

LEGEND
Preferred Routing Civil/Military Transition
Traffic Pattern (South Traffic Only)
Dole Departure Military
Arrival/Departure Routes Military Helicopter
Mandatory Reporting Points
* Inbound Altitude Military Helicopter
** Outbound Altitude Military Helicopter
*** Weather Permitting
D Day Altitude Military Helicopter
N Night Altitude Military Helicopter
NVG/NVS Altitude Military Helicopter
Noise Sensitive Areas

PAC, 12 AUG 2021 to 7 OCT 2021
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<thead>
<tr>
<th>Letter</th>
<th>Code</th>
<th>Phonetic</th>
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<tbody>
<tr>
<td>A</td>
<td>· –</td>
<td>Alfa (AL-FAH)</td>
</tr>
<tr>
<td>B</td>
<td>– · ·</td>
<td>Bravo (BRAH-VOH)</td>
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<tr>
<td>C</td>
<td>– · –</td>
<td>Charlie (CHAR-LEE) (or SHAR-LEE)</td>
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<td>D</td>
<td>– · ·</td>
<td>Delta (DELL-TAH)</td>
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<td>E</td>
<td>·</td>
<td>Echo (ECK-OH)</td>
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<td>F</td>
<td>· · ·</td>
<td>Foxtrot (FOKS-TROT)</td>
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<td>G</td>
<td>· · ·</td>
<td>Golf (GOLF)</td>
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<td>H</td>
<td>· · · ·</td>
<td>Hotel (HOH-TEL)</td>
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<td>I</td>
<td>· ·</td>
<td>India (IN-DEE-AH)</td>
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<tr>
<td>J</td>
<td>· · ·</td>
<td>Juliett (JEW-LEE-ETT)</td>
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<td>K</td>
<td>· ·</td>
<td>Kilo (KEY-LOH)</td>
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<td>L</td>
<td>· · ·</td>
<td>Lima (LEE-MAH)</td>
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<td>M</td>
<td>– –</td>
<td>Mike (MIKE)</td>
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<td>N</td>
<td>· –</td>
<td>November (NO-VEM-BER)</td>
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<tr>
<td>O</td>
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<td>Oscar (OSS-CAH)</td>
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<td>P</td>
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<td>Papa (PAH-PAH)</td>
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<td>Q</td>
<td>– · ·</td>
<td>Quebec (KEH-BECK)</td>
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<td>R</td>
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<td>Romeo (ROW-ME-OH)</td>
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<td>S</td>
<td>· · ·</td>
<td>Sierra (SEE-AIR-RAH)</td>
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<td>T</td>
<td>– –</td>
<td>Tango (TANG-GO)</td>
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<tr>
<td>U</td>
<td>· · · ·</td>
<td>Uniform (YOU-NEE-FORM) (or OO-NEE-FORM)</td>
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<td>V</td>
<td>· · · ·</td>
<td>Victor (VIK-TAH)</td>
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<td>W</td>
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<td>Whiskey (WISS-KEY)</td>
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<td>X</td>
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<td>Xray (ECKS-RAY)</td>
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<td>Y</td>
<td>· · ·</td>
<td>Yankee (YANG-KEY)</td>
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<td>Z</td>
<td>– · ·</td>
<td>Zulu (ZOO-LOO)</td>
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<td>1</td>
<td>– – – –</td>
<td>One (WUN)</td>
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<td>2</td>
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<td>Two (TOO)</td>
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<td>3</td>
<td>· · · –</td>
<td>Three (TREE)</td>
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<tr>
<td>4</td>
<td>· · · ·</td>
<td>Four (FOW-ER)</td>
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<td>5</td>
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<td>Five (FIFE)</td>
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<td>6</td>
<td>– · · ·</td>
<td>Six (SIX)</td>
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<td>7</td>
<td>– – · ·</td>
<td>Seven (SEV-EN)</td>
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<td>8</td>
<td>– – – ·</td>
<td>Eight (AIT)</td>
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<tr>
<td>9</td>
<td>– – – –</td>
<td>Nine (NIN-ER)</td>
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<tr>
<td>0</td>
<td>– – – –</td>
<td>Zero (ZEE-RO)</td>
</tr>
</tbody>
</table>
Radio Navigational Aids by Identifier

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 Checkpoints

<table>
<thead>
<tr>
<th>Station</th>
<th>Frequency</th>
<th>Type VOT Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honolulu</td>
<td>111.0</td>
<td></td>
</tr>
</tbody>
</table>

PAC, 12 Aug 2021 to 7 Oct 2021
SAN FRANCISCO RADIO
(Services available for aircraft engaged in international flight)

San Francisco Radio using Pacific common air/ground 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 San Francisco Radio 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 SAN FRANCISCO RADIO FREQUENCIES: Radio.arinc.net
Primary and Secondary San Francisco Radio 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 San Francisco Radio 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 San Francisco Radio 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 San Francisco Radio operations at 1-800-621-0140. Aircraft operating in the Anchorage Arctic CTA/FIR beyond line of sight range of remote control VHF air/ground 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, Gander Radio can provide Anchorage and Fairbanks surface observations and terminal forecasts to flight crews on request.

SATCOM VOICE AVAILABLE AS ALTERNATIVE COMMUNICATIONS MEDIUM:
San Francisco Radio 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 San Francisco Radio Communications Centers and enroute oceanic aircraft.

Aircraft desiring to contact the San Francisco Radio Communications Center should use the SATCOM Short Code to call San Francisco Radio:
Oceanic Area Center SATCOM Short code
Pacific SFO 436625

San Francisco Radio 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></td>
<td>306 radial, 22.1 NM, HNL VORTAC</td>
<td>3 NM radius. Up to 16,000 ft.</td>
</tr>
<tr>
<td>East Range/Taro Drop Zone, HI</td>
<td>332 radial, 11.8 NM, HNL VORTAC</td>
<td>0.5 NM radius. Intermittent. Greatest activity on weekends. Military. Maximum altitude 12,500 ft MSL.</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>Uplolu 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>
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</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 39.35</td>
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</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>
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<tr>
<td>W–11B</td>
<td>To FL300</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Mariana</td>
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</tr>
<tr>
<td>W–12</td>
<td>To FL600</td>
<td>By NOTAM</td>
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<td>Commander Joint Region Mariana</td>
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<tr>
<td>W–13A</td>
<td>To FL300</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Mariana</td>
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<tr>
<td>W–13B</td>
<td>To FL300</td>
<td>By NOTAM</td>
<td>FAA, Guam CERAP</td>
<td>Commander Joint Region Mariana</td>
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<tr>
<td>No.</td>
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<td>Time</td>
<td>Controlling Agency</td>
<td>Using Agency</td>
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<tr>
<td>W–13C</td>
<td>LOW</td>
<td>To FL300</td>
<td>By NOTAM</td>
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<tr>
<td>W–13A</td>
<td>HIGH</td>
<td>To FL300 to FL600</td>
<td>By NOTAM</td>
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<td>Commander Joint Region Marianas</td>
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<tr>
<td>W–13B</td>
<td>HIGH</td>
<td>To FL300 to FL600</td>
<td>By NOTAM</td>
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<td>W–13C</td>
<td>HIGH</td>
<td>To FL600</td>
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<td>W–11A</td>
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<td>To FL300</td>
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<tr>
<td>W–186</td>
<td></td>
<td>To 9,000´</td>
<td>Cont</td>
<td>FAA, Honolulu Control Facility</td>
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<tr>
<td>W–187</td>
<td></td>
<td>To 18,000'</td>
<td>Mon–Fri 1700–0800Z</td>
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<td></td>
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<td>Sat–Sun 1800–0200Z</td>
<td>FACSFAC PH, Pearl Harbor, HI</td>
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<td></td>
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<td>W–188</td>
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<td>Mon–Fri 1700–0800Z</td>
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<td>Mon–Fri 1700–0800Z</td>
<td>FAA, Honolulu Control Facility</td>
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<td>Sat–Sun 1800–0200Z</td>
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### SPECIAL USE AIRSPACE (Continued from preceding page)

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<th>Name</th>
<th>Altitude</th>
<th>Time</th>
<th>Controlling Agency</th>
<th>Using Agency</th>
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<tr>
<td>W–196</td>
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<td>to 2,000’</td>
<td>on–Fri 1700–0800Z, Sat–Sun 1800–0200Z, other times by NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>FACS FAC PH, Pearl Harbor, HI</td>
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<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>
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<tr>
<td>R–3101</td>
<td>PMRF Barking Sands 4</td>
<td>Unltd</td>
<td>Mon–Fri 1600–0400Z, other times by NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>CO Pacific Missile Range Fac</td>
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<td>R–3103</td>
<td>Humuula</td>
<td>to 30,000’</td>
<td>By NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>Commanding Gen. US Army Schofield Barracks, HI</td>
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<td>R–3107</td>
<td>Kaula Rock</td>
<td>to 18,000’</td>
<td>Mon–Fri 1700–0800Z, Sat–Sun 1800–0200Z, other times by NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>FACSFAC PH, Pearl Harbor, HI issued at least 24 hours in advance.</td>
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<td>R–3109A</td>
<td>Schofield–Makua</td>
<td>to 8,999’</td>
<td>By NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>US Army Schofield Barracks, HI</td>
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<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>
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<td>R–3109C</td>
<td>Schofield–Makua</td>
<td>to 8,999’</td>
<td>By NOTAM</td>
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<td>US Army Schofield Barracks, HI</td>
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<tr>
<td>R–3110A</td>
<td>Schofield–Makua</td>
<td>to 8,999’</td>
<td>By NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>US Army Schofield Barracks, HI</td>
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<td>R–3110B</td>
<td>Schofield–Makua</td>
<td>9,000’ to 18,999’</td>
<td>Intermittent</td>
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<td>US Army Schofield Barracks, HI</td>
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<tr>
<td>R–3110C</td>
<td>Schofield–Makua</td>
<td>to 8,999’</td>
<td>By NOTAM</td>
<td>FAA, Honolulu Control Facility</td>
<td>Honolulu Twr</td>
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<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>
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<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).
# Key to Aerodrome Forecast (TAF) and Aviation Routine Weather Report (METAR)

**TAF** K PIT 0 9 1 7 3 0 Z 0 9 1 8 1 8 1 5 0 0 5 K T 5 S M H Z F E W 0 2 0 W S 0 1 0 / 3 0 1 2 2 K T  
FM 1 9 3 0 3 0 0 1 5 G 2 5 K T 3 S M S H R A O V C 0 1 5 T E M P O 2 0 2 2 1 / 2 S M + T S R A  
O V C 0 0 8 C B  
FM 0 1 0 0 2 7 0 0 8 K T 5 S M S H R A B K N 0 2 0 O V C 0 4 0 P R O B 4 0 0 4 0 7 1 S M - R A  
B R  
FM 1 0 1 5 1 8 0 0 5 K T 6 S M - S H R A O V C 0 2 0 B E C M G 1 3 1 5 P 6 S M N S W S K C  

**METAR** K PIT 0 9 1 9 5 5 Z C O R 2 2 0 1 5 G 2 5 K T 3 / 4 S M R 2 8 L / 2 6 0 0 F T T S R A O V C 0 1 0 C B  
1 8 / 1 6 A 2 9 9 2 R M K S L P 0 4 5 T 0 1 8 2 0 1 5 9  

<table>
<thead>
<tr>
<th>Forecast</th>
<th>Explanation</th>
<th>Report</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TAF</strong></td>
<td>Message type: TAF-routine or TAF AMD-amended forecast, METAR-hourly, SPECI-special or TESTM-non-commissioned ASOS report</td>
<td><strong>METAR</strong></td>
</tr>
<tr>
<td><strong>K PIT</strong></td>
<td>ICAO location indicator</td>
<td><strong>K PIT</strong></td>
</tr>
<tr>
<td><strong>091730Z</strong></td>
<td>Issuance time: ALL times in UTC &quot;Z&quot;, 2-digit date, 4-digit time</td>
<td>091955Z</td>
</tr>
<tr>
<td><strong>091818</strong></td>
<td>Valid period: 2-digit date, 2-digit beginning, 2-digit ending times</td>
<td><strong>COR</strong></td>
</tr>
<tr>
<td><strong>15005KT</strong></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>22015G25KT</td>
</tr>
<tr>
<td><strong>5SM</strong></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>3/4SM</td>
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<tr>
<td><strong>HZ</strong></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><strong>R28L/2600FT</strong></td>
</tr>
<tr>
<td><strong>FEW020</strong></td>
<td>Runway Visual Range: R; 2-digit runway designator Left, Center, or Right as needed; *; 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><strong>TSRA</strong></td>
</tr>
<tr>
<td><strong>OVC010CB</strong></td>
<td>Significant present, forecast and recent weather: see table (on back)</td>
<td><strong>18/16</strong></td>
</tr>
<tr>
<td><strong>A29992</strong></td>
<td><strong>CleA</strong> for &quot;clear below 12,000 feet&quot;</td>
<td><strong>18/16</strong></td>
</tr>
<tr>
<td><strong>18/16</strong></td>
<td>Temperature: degrees Celsius; first 2 digits, temperature *; last 2 digits, dew-point temperature; Minus for below zero, e.g., M06</td>
<td><strong>18/16</strong></td>
</tr>
<tr>
<td><strong>A29992</strong></td>
<td>Altimeter setting: indicator and 4 digits; in U.S., A-inches and hundredths; (Q-hectoPascals, e.g., Q1013)</td>
<td><strong>A29992</strong></td>
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</table>
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); &quot;F&quot;; 3-digit wind direction and 2-3 digit wind speed above the indicated height, and unit, KT</td>
<td>RMK SLP045 T01820159</td>
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<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></td>
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<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>
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<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>
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<tr>
<td>BECMG 1315</td>
<td>BECoMinG: change expected during 2-digit hour beginning and 2-digit hour ending time period</td>
<td></td>
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</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
- BC Patches
- PR Partial
- TS Thunderstorm
- BL Blowing
- SH Showers
- DR Drifting
- FZ Freezing

WEATHER PHENOMENA

Precipitation
- DZ Drizzle
- RA Rain
- SN Snow
- SG Snow grains
- IC Ice crystals
- PL Ice pellets
- GR Hail
- GS Small hail/snow pellets
- UP Unknown precipitation in automated observations

Obscuration
- BR Mist (≥5/8SM)
- FG Fog (<5/8SM)
- FU Smoke
- VA Volcanic ash
- SA Sand
- HZ Haze
- PY Spray
- DU Widespread dust

Other
- SQ Squall
- SS Sandstorm
- DS Duststorm
- PO Well developed
- FC Funnel cloud
- FC tornado/waterspout dust/sand whirls

- 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 fctst
- Although not used in US, Ceiling And Visibility OK 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, 12 AUG 2021 to 7 OCT 2021
# PIREP FORM

3 or 4 letter Identifier

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<tr>
<td>7.</td>
<td>/WX</td>
<td>Flight Visibility &amp; Weather</td>
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<td>8.</td>
<td>/TA</td>
<td>Temperature (Celsius)</td>
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<td>9.</td>
<td>/WV</td>
<td>Wind</td>
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<td>10.</td>
<td>/TB</td>
<td>Turbulence</td>
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<td>11.</td>
<td>/IC</td>
<td>Icing</td>
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<td>12.</td>
<td>/RM</td>
<td>Remarks</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

FAA Form 7110-2 (9/19) Supersedes Previous Edition
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-SL120005, /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.
   - Use standard weather contractions e.g.: RA, SH, TS, FG, -, +
   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 than /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 DHT360005-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, 12 AUG 2021 to 7 OCT 2021
Flight Service Stations (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.

<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 (OGG) 113.5T (LIH) 113.3T (MUE) 112.3T (UPP) 115.4T (SOK) 123.6 122.6 122.2 122.1R 255.4 296.7 233.7</td>
</tr>
</tbody>
</table>

Remarks:
- 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


<table>
<thead>
<tr>
<th>Location</th>
<th>Frequencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hilo WSO</td>
<td>933–6941, operates 1000–0200Z.</td>
</tr>
<tr>
<td>Lihue WSO</td>
<td>245–2420, operates 1000–0200Z.</td>
</tr>
</tbody>
</table>

Assuming an answer without the actual table content.

- 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>
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AIR ROUTE TRAFFIC CONTROL CENTERS (ARTCCs)

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<tr>
<th>ARTCC NAME</th>
<th>*24 HR RGNL DUTY OFFICE TELEPHONE #</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>
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<tr>
<td>Anchorage</td>
<td>907–271–5936</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>907–269–1137</td>
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<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>
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<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>
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<tr>
<td>Honolulu</td>
<td>310–725–3300</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>808-840-6100</td>
<td>808-840-6201</td>
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<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>
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<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>
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<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>
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<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>
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<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>
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<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>
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<tr>
<td>Miami</td>
<td>404–305–518</td>
<td>7:00 a.m.–3:30 p.m.</td>
<td>305–716–1500</td>
<td>305-716-1731</td>
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<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>
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<tr>
<td>New York</td>
<td>718–995–5426</td>
<td>8:00 a.m.–4:00 p.m.</td>
<td>631–468–1001</td>
<td>631-468-1425</td>
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<td>Oakland</td>
<td>310–725–3300</td>
<td>6:30 a.m.–3:00 p.m.</td>
<td>510–745–3331</td>
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<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>
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<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>
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<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>
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<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>
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</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 TELEPHONE #</th>
<th>BUSINESS HOURS</th>
<th>BUSINESS TELEPHONE #</th>
</tr>
</thead>
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<td>Atlanta</td>
<td>404–305–5180</td>
<td>7:00 a.m.–3:30 p.m.</td>
<td>404-669-1200</td>
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<tr>
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<td>817–222–5006</td>
<td>8:00 a.m.–4:00 p.m.</td>
<td>847-608-5509</td>
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<tr>
<td>Dallas/Ft. Worth</td>
<td>817–222–5006</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>972-615-2500</td>
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<tr>
<td>Denver</td>
<td>425–227–1389</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>303-342-1500</td>
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<tr>
<td>Houston</td>
<td>817–222–5006</td>
<td>7:30 a.m.–4:00 p.m.</td>
<td>281–230–8400</td>
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<tr>
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<td>8:00 a.m.–4:30 p.m.</td>
<td>516-683-2901</td>
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<tr>
<td>Northern CA</td>
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<td>7:00 a.m.–3:30 p.m.</td>
<td>916-366-4001</td>
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<td>Potomac</td>
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<td>540-349-7500</td>
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<td>Southern CA</td>
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<td>7:30 a.m.–4:00 p.m.</td>
<td>858-537-5800</td>
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* Facilities can be contacted through the Rgnl Duty Officer during non-business hours.
## KEY AIR TRAFFIC FACILITIES
### DAILY NAS REPORTABLE AIRPORTS

* Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

<table>
<thead>
<tr>
<th>AIRPORT NAME</th>
<th>TAG</th>
<th>DAILY NAS REPORTABLE AIRPORTS</th>
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<tbody>
<tr>
<td>Albuquerque Intl Sunport, NM</td>
<td>817</td>
<td>24 HR RGNL DUTY OFFICE TELEPHONE #</td>
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<tr>
<td>Andrews AFB, MD</td>
<td>718</td>
<td>BUSINESS HOURS</td>
</tr>
<tr>
<td>Baltimore/Washington</td>
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<td>BUSINESS TELEPHONE #</td>
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<td>Intl Thurgood Marshall, MD</td>
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<td>Boston Logan Intl, MA</td>
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<td>BUSINESS HOURS</td>
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<tr>
<td>Bradley Intl, CT</td>
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<td>BUSINESS TELEPHONE #</td>
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<tr>
<td>Burbank/Bob Hope, CA</td>
<td>301</td>
<td>24 HR RGNL DUTY OFFICE TELEPHONE #</td>
</tr>
<tr>
<td>Charlotte Douglas Intl, NC</td>
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<td>BUSINESS HOURS</td>
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<tr>
<td>Chicago Midway, IL</td>
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<tr>
<td>Chicago O'Hare Intl, IL</td>
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<tr>
<td>Cleveland Hopkins Intl, OH</td>
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<td>BUSINESS HOURS</td>
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<tr>
<td>Covington/Cincinnati, OH</td>
<td>708</td>
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<tr>
<td>Dallas/Ft. Worth Intl, TX</td>
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<td>24 HR RGNL DUTY OFFICE TELEPHONE #</td>
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<td>Dayton Cox Intl, OH</td>
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<tr>
<td>Denver Intl, CO</td>
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<td>Detroit Metro, MI</td>
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<tr>
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<td>George Bush</td>
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<td>24 HR RGNL DUTY OFFICE TELEPHONE #</td>
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<tr>
<td>Hartsfield-Jackson Atlanta Int'l, GA</td>
<td>404</td>
<td>BUSINESS HOURS</td>
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<tr>
<td>Honolulu (Daniel K Inouye Intl), HI</td>
<td>310</td>
<td>BUSINESS TELEPHONE #</td>
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<tr>
<td>Houston Hobby, TX</td>
<td>817</td>
<td>24 HR RGNL DUTY OFFICE TELEPHONE #</td>
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<tr>
<td>Indianapolis Intl, IN</td>
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<td>BUSINESS HOURS</td>
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<tr>
<td>Kahului/Maui, HI</td>
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<td>Kansas City Intl, MO</td>
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<td>Las Vegas McCarran, NV</td>
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<td>Los Angeles Intl, CA</td>
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<td>BUSINESS TELEPHONE #</td>
</tr>
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<td>Louis Armstrong New Orleans Int'l, LA</td>
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<td>24 HR RGNL DUTY OFFICE TELEPHONE #</td>
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<td>Memphis Int'l, TN</td>
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<td>BUSINESS HOURS</td>
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<td>Miami Intl, FL</td>
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<tr>
<td>Minneapolis/St. Paul, MN</td>
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<tr>
<td>Nashville Intl, TN</td>
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<td>BUSINESS HOURS</td>
</tr>
<tr>
<td>New York Kennedy Intl, NY</td>
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<td>BUSINESS TELEPHONE #</td>
</tr>
<tr>
<td>New York La Guardia, NY</td>
<td>718</td>
<td>24 HR RGNL DUTY OFFICE TELEPHONE #</td>
</tr>
<tr>
<td>Newark Liberty Intl, NJ</td>
<td>718</td>
<td>BUSINESS HOURS</td>
</tr>
<tr>
<td>Norman Y. Mineta San Jose Int'l, CA</td>
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<td>BUSINESS TELEPHONE #</td>
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<td>Ontario Intl, CA</td>
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<td>24 HR RGNL DUTY OFFICE TELEPHONE #</td>
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<tr>
<td>Orlando Intl, FL</td>
<td>404</td>
<td>BUSINESS HOURS</td>
</tr>
<tr>
<td>Philadelphia Intl, PA</td>
<td>718</td>
<td>BUSINESS TELEPHONE #</td>
</tr>
<tr>
<td>Phoenix Sky Harbor Intl, AZ</td>
<td>310</td>
<td>24 HR RGNL DUTY OFFICE TELEPHONE #</td>
</tr>
<tr>
<td>Pittsburgh Intl, PA</td>
<td>718</td>
<td>BUSINESS HOURS</td>
</tr>
<tr>
<td>Portland Intl, OR</td>
<td>425</td>
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<td>Raleigh-Durham, NC</td>
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<td>24 HR RGNL DUTY OFFICE TELEPHONE #</td>
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<td>Ronald Reagan Washington</td>
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<td>BUSINESS HOURS</td>
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<td>BUSINESS TELEPHONE #</td>
</tr>
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* Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

PAC, 12 AUG 2021 to 7 OCT 2021
ASSOCIATED DATA

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, 12 AUG 2021 to 7 OCT 2021
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<td>7</td>
<td>44.6</td>
<td>19</td>
<td>66.2</td>
<td>31</td>
<td>87.8</td>
</tr>
</tbody>
</table>
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/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.

### CITY/AIRPORT

<table>
<thead>
<tr>
<th>CITY/AIRPORT</th>
<th>HOT SPOT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HAWAII</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HONOLULU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DANIEL K INOUYE INTL (HNL) (PHNL)</td>
<td>HS 1</td>
<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>
</tr>
<tr>
<td></td>
<td>HS 2</td>
<td>Acft 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>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 btn rwy hold short lines btn Rwy 04L–22R/Rwy 04R–22L. Plan to hold short of the parl rwy. ATC is aware the acft tail is encroaching the landed rwy.</td>
</tr>
<tr>
<td>KAHULUI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KAHULUI (OGG) (PHOG)</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></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 w/o clearance.</td>
</tr>
<tr>
<td>KAILUA/KONA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)</td>
<td>HS 1</td>
<td>Extv helicopter OPS on twy A abm ramp K.</td>
</tr>
<tr>
<td>KAUNAKAKAI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOLOKAI (MKK) (PHMK)</td>
<td>HS 1</td>
<td>Area not visible from ctl twr.</td>
</tr>
</tbody>
</table>
INTENTIONALLY LEFT BLANK
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, San Francisco Radio 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:

MO84F340 MOLOKAI 3 CLUTS R465 CINNY/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 San Francisco Radio 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.
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

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:</td>
<td>You have been intercepted. Follow me.</td>
<td>AIRPLANES:</td>
<td>You may proceed. AIRPLANES:</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
<td>DAY–Rocking wings and following.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NIGHT–Same and, in addition, flashing navigational lights at irregular intervals.</td>
<td></td>
<td>NIGHT–Same and, in addition, flashing navigational lights at irregular intervals.</td>
<td></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></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:</td>
<td>AIRPLANES:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>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.</td>
<td>Land at this aerodrome.</td>
<td>AIRPLANES:</td>
<td>AIRPLANES:</td>
</tr>
<tr>
<td></td>
<td>NIGHT–Same and, in addition, showing steady landing lights.</td>
<td></td>
<td>DAY–Lowering landing gear, following the intercepting aircraft and, if after overflying the runway landing is considered safe, proceeding to land.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NIGHT–Same and, in addition, showing steady landing lights (if carried).</td>
<td></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>

PAC, 12 AUG 2021 to 7 OCT 2021
## INTERCEPTION SIGNALS

**ICAO STANDARD**

### SIGNALS INITIATED BY INTERCEPTING 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 passing over landing runway at a 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>Aerodrome you have designated is inadequate.</td>
<td>DAY OR NIGHT—If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear and uses the Series 1 signals prescribed for intercepting aircraft.</td>
<td>Understood, follow me.</td>
</tr>
<tr>
<td></td>
<td>NIGHT—Flashing landing lights while passing over landing runway at a height exceeding 300m (1,000 ft) but not exceeding 600m (2,000 ft) above the aerodrome level, and continuing to circle the aerodrome. If unable to flash landing lights, flash any other lights available.</td>
<td></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>Understood, you may proceed.</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 243.0, MHz and repeating this call on the emergency frequency 121.5 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

PACIFIC SAR COORDINATOR (PACSA RCOORD):
Coast Guard Commander, Pacific Area (PACSA RCOORD), has overall responsibility for the administration, management and oversight of aeronautical SAR in the U.S. aeronautical and maritime SAR Regions (SRRs) Pacific and Arctic Oceans. The coordination of SAR operations is provided by JRCC Alameda, JRCC Seattle, JRCC Honolulu, and JRCC Juneau within their respective aeronautical SRRs.

SRR ALAMEDA:
JRCC Alameda is responsible for the coordination and conduct of SAR operations in aeronautical SRR Alameda own SAR area. Aeronautical SRR Alameda is established within following coordinates:
From 42ºN, 124º13'W (California-Oregon State Line), to 40ºN, 150ºW to 07º09'N, 120ºW to 30º45'N, 120º50'W to 32º33'N, 117º05'W thence north along the Pacific coastline back to 42ºN, 124º13'W. (Telephone number for RCC Alameda is 510-437-3701)

SRR HONOLULU:
JRCC Honolulu is responsible for the coordination and conduct of SAR operations in aeronautical SRR Honolulu and aeronautical Search and Rescue Sub-Region (SRS) Guam. Aeronautical SRR Honolulu is established within following coordinates:
From 03º30'N, 120ºW to 07º09'N, 120ºW to 40ºN, 150ºW to 40ºN, 165ºE to 27ºN, 165ºE to 27ºN, 155ºE to 21ºN, 155ºE to 21ºN, 130ºE to 07ºN, 130ºE to 3º30'N, 133ºE to 3º30'N, 141ºE to 00ºN, 141ºE to 00ºN, 160ºE to 3º30'N, 160ºE to 03º30'N, 180º to 5ºS, 180º to 5ºS, 155ºW to 3º30'N, 145ºW to 03º30'N, 120ºW. (Telephone number for RCC Honolulu is 808–535–3333)

SRS GUAM:
Joint Rescue Sub-Center (JRSC) Guam is responsible for the coordination and conduct of SAR operations in aeronautical SRS Guam. Aeronautical SRS Guam is established within following coordinates:
From 17ºN, 130ºE to 17ºN, 160ºE to 09º30'N, 160ºE to 07ºN, 165ºE to 03º30'N, 165ºE to 03º30'N, 160ºE to 00ºN, 160ºE to 00ºN, 141ºE to 03º30'N, 141ºE to 03º30'N, 133ºE to 07ºN, 133ºE to 07ºN, 130ºE. Guam Joint Rescue Sub-Center (JRSC) at Guam has responsibility for SAR in this area. (Telephone for JRSC Guam 671-355-4824)

SRR SEATTLE:
JRCC Seattle is responsible for the coordination and conduct of SAR operations in aeronautical SRR Seattle. Aeronautical SRR Seattle is established within the following coordinates:
From 48º20'N, 145ºW to 40ºN, 150ºW to 42ºN, 124º13'W thence north along the Pacific coastline to 49º00'07"N, 122º49'05"W to 49º00'07"N, 123º19'21"W to 48º49'53"N, 123º00'30"W to 48º46'02"N, 123º00'32"W to 48º41'35"N, 123º16'27"W to 48º32'56"N, 123º13'09"W to 48º27'14"N, 123º09'39"W to 48º25'24"N, 123º06'51"W to 48º17'04"N, 123º14'51"W to to 48º13'30"N, 123º32'25"W to 48º14'26"N, 123º40'41"W to 48º17´50"N, 124º00'40"W to 48º30'N, 124º45'W to 48º30'N, 125ºW to 48º20'W, 128ºW to 48º20´N, 145ºW. (Telephone number for RCC Seattle is 206-220-7001)

SRR JUNEAU:
JRCC Juneau is responsible for the coordination and conduct of SAR operations in aeronautical SRR Juneau. Aeronautical SRR Juneau is established within the following coordinates:
From 50º05'N, 159ºE to 43ºN, 165ºE to 40ºN, 165ºE to 40ºN, 150ºW to 48º20'N, 145ºW to 54º40'N, 140ºW to 54º40'N, 136ºW to 54ºN, 136ºW to 54º13'N, 134º57'W to 54º39'27"N, 132º41'W to 54º42'30"N, 130º36'30"W thence north along the United States/Canada National border to 69º39'47"N, 141ºW to North Pole to 65ºN, 168º58'24"W to 64º03'N, 172º12'W to 60ºN, 180º to 54º49'N, 170º12' to 54ºN, 169ºE to 50º05'N, 159ºE. (Telephone number for JRCC Juneau is 907-463-2000)

COAST GUARD RESCUE COORDINATION CENTERS: Coast Guard Rescue Coordination Centers are served by major radio stations which guard 500kHz (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) ALERTS 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. Pilots 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).

   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</td>
</tr>
<tr>
<td>2</td>
<td>We have found all personnel</td>
<td>L 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>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.
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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 4531
Silver Spring, MD 20910-3181
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.
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>1/4 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 1/2 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>1/2 mile</td>
</tr>
<tr>
<td>MALS, MALS, SSALF, SSALS, SALS, SALS</td>
<td>1/4 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>1/2 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>1/4 mile</td>
</tr>
<tr>
<td>ODALS (CAT C-D)</td>
<td>1/6 mile</td>
</tr>
</tbody>
</table>
TERMINAL PROCEDURES

TERMS/LANDING MINIMA DATA

IFR LANDING MINIMA

The United States Standard for Terminal Instrument Procedures (TERPS) is the approved criteria for formulating instrument approach procedures. Landing minima are established for six aircraft approach categories (ABCDEF and COPTER).

In the absence of COPTER MINIMA, helicopters may use the CAT A minima of other procedures.

LANDING MINIMA FORMAT

In this example airport elevation is 1179, and runway touchdown zone elevation is 1152.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-ILS 27</td>
<td>1352/24</td>
<td>200</td>
<td>(200-1/2)</td>
<td></td>
</tr>
<tr>
<td>S-LOC 27</td>
<td>1440/24</td>
<td>288</td>
<td>(300-1/2)</td>
<td>1440/50</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1540</td>
<td>1640-1</td>
<td>1640-1/2</td>
<td>1740-2</td>
</tr>
<tr>
<td>MDA</td>
<td>361 (400-1)</td>
<td>461 (500-1)</td>
<td>461 (500-1/2)</td>
<td>561 (600-2)</td>
</tr>
<tr>
<td>HAA</td>
<td>Visibility in Statute Miles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COPTER MINIMA ONLY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COPPER Approach Direction

Height of MDA/DA

Above Landing Area (HAL)

No circling minima 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 avionics indicate 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 minima 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: An 8°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/altip/search/

COLD TEMPERATURE ERROR TABLE

<table>
<thead>
<tr>
<th>HEIGHT ABOVE AIRPORT IN FEET</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>-10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</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>90</td>
</tr>
<tr>
<td>-20</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
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<td>30</td>
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<td>60</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>150</td>
<td>170</td>
<td>190</td>
</tr>
</tbody>
</table>

COLD TEMPERATURE AIRPORTS

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>
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</table>

PAC, 12 AUG 2021 to 7 OCT 2021
**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>5/4</td>
<td>2400</td>
<td>5/4</td>
<td>3500</td>
<td>5/4</td>
<td>5500</td>
<td>1</td>
</tr>
<tr>
<td>1800</td>
<td>5/4</td>
<td>2600</td>
<td>5/4</td>
<td>4000</td>
<td>5/4</td>
<td>6000</td>
<td>1/4</td>
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<tr>
<td>2000</td>
<td>5/3</td>
<td>3000</td>
<td>5/4</td>
<td>4500</td>
<td>5/4</td>
<td>6000</td>
<td>1/4</td>
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<tr>
<td>2200</td>
<td>5/3</td>
<td>3200</td>
<td>5/4</td>
<td>5000</td>
<td>1</td>
<td>6000</td>
<td>1/4</td>
</tr>
</tbody>
</table>

**RADAR MINIMA**

<table>
<thead>
<tr>
<th>Rwy</th>
<th>GP/TCH/RPI</th>
<th>Cat</th>
<th>DA/MDA-VIS</th>
<th>HAT</th>
<th>CEIL-VIS</th>
<th>Cat</th>
<th>DA/MDA-VIS</th>
<th>HAT</th>
<th>CEIL-VIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAR</td>
<td>2.5*42/1000</td>
<td>ABCDE</td>
<td>195/16</td>
<td>100</td>
<td>(100-14)</td>
<td>DE</td>
<td>560/50</td>
<td>463</td>
<td>(500-1)</td>
</tr>
<tr>
<td>ASR</td>
<td>2.5*48/1068</td>
<td>ABCDE</td>
<td>187/16</td>
<td>100</td>
<td>(100-14)</td>
<td>DE</td>
<td>600/60</td>
<td>513</td>
<td>(600-1/4)</td>
</tr>
<tr>
<td>CIR</td>
<td>10</td>
<td>ABC</td>
<td>560/40</td>
<td>463</td>
<td>(500-14)</td>
<td>CDE</td>
<td>600/60</td>
<td>513</td>
<td>(600-1/4)</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>AB</td>
<td>600/50</td>
<td>513</td>
<td>(600-1)</td>
<td>CDE</td>
<td>560/1/4</td>
<td>463</td>
<td>(500-1/2)</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>AB</td>
<td>600/1/4</td>
<td>503</td>
<td>(600-1/4)</td>
<td>CDE</td>
<td>600/1/4</td>
<td>503</td>
<td>(600-1/2)</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 from 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 an MDA of 560 feet with weather minima of 500-1/2.

**NOTE:** Military RADAR MINIMA may be shown with communications symbology that indicates emergency frequency monitoring capability by the radar facility as follows:
- VHF and UHF emergency frequencies monitored
- VHF emergency frequency (122.5) monitored
- UHF emergency frequency (243.0) monitored

Additionally, unmonitored frequencies which are available on request from the controlling agency may be annotated with an "x".

**TERMS/LANDING MINIMA DATA**

PAC, 12 AUG 2021 to 7 OCT 2021
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 Minima, 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. Radii/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

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

PBN Requirements Box

From WINRZ, UBE: RNAV-1 GPS, RNAV-1GPS from MAP to YARKU.

Equipment Requirements Box

DME required for LOC only.

Standard Procedure Notes Box

Circling to Rwy 25 NA at night.

#For inop MALS R increase 5-ILS 16R all cats visibility to 2½ SM.

RNAV STAR and DP PBN/Equipment Requirements Notes Box

PBN Requirements Box

RNAV 1 - DME/DME/IRU or GPS

Equipment Requirements Box

RADAR required

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., 📡, 🌃, 🛤.
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., 📡.

To activate lights, use frequency indicated in the communication section of the chart with a Ⓢ or the appropriate lighting system identification e.g., UNICOM 122.8 Ⓢ, 📡.

KEY MIKE

7 times within 5 seconds
5 times within 5 seconds
3 times within 5 seconds

FUNCTION

Highest intensity available
Medium or lower intensity (Lower REIL or REIL-off)
Lowest intensity available (Lower REIL or REIL-off)
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAUP</td>
<td>Attention All Users Page</td>
</tr>
<tr>
<td>ADF</td>
<td>Automatic Direction Finder</td>
</tr>
<tr>
<td>ADIZ</td>
<td>Air Defense Identification Zone</td>
</tr>
<tr>
<td>AFIS</td>
<td>Automatic Flight Information Service</td>
</tr>
<tr>
<td>ALS</td>
<td>Approach Light System</td>
</tr>
<tr>
<td>ALSF</td>
<td>Approach Light System with Sequenced Flashing Lights</td>
</tr>
<tr>
<td>AOB</td>
<td>At or Below</td>
</tr>
<tr>
<td>AP</td>
<td>Autopilot System</td>
</tr>
<tr>
<td>APCH</td>
<td>Approach</td>
</tr>
<tr>
<td>APP CON</td>
<td>Approach Control</td>
</tr>
<tr>
<td>AR</td>
<td>Authorization Required</td>
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<tr>
<td>ARR</td>
<td>Arrival</td>
</tr>
<tr>
<td>ASOS</td>
<td>Automated Surface Observing System</td>
</tr>
<tr>
<td>ASR/PAR</td>
<td>Published Radar Minimums at this Airport</td>
</tr>
<tr>
<td>ASSC</td>
<td>Airport Surface Surveillance Systems</td>
</tr>
<tr>
<td>ATIS</td>
<td>Automated Terminal Information Service</td>
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<tr>
<td>AUNICOM</td>
<td>Automated UNICOM</td>
</tr>
<tr>
<td>AWOS</td>
<td>Automated Weather Observing System</td>
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<td>AZ</td>
<td>Azimuth</td>
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<td>BC</td>
<td>Back Course</td>
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<td>BND</td>
<td>Bound</td>
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<td>C</td>
<td>Circling</td>
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<td>CAT</td>
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<tr>
<td>CCW</td>
<td>Counter Clockwise</td>
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<td>CDI</td>
<td>Course Deviation Indicator</td>
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<td>Chain</td>
<td>Channel</td>
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<td>CIFP</td>
<td>Coded Instrument Flight Procedures</td>
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<td>Clearance Delivery</td>
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<td>CPDLC</td>
<td>Controller Pilot Data Link</td>
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<td>CTA F</td>
<td>Communication</td>
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<td>CW</td>
<td>Common Traffic Advisory</td>
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<td>D-ATIS</td>
<td>Frequency</td>
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<td>DAA</td>
<td>Decision Altitude</td>
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<td>DER</td>
<td>Departure End of Runway</td>
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<td>DH</td>
<td>Decision Height</td>
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<td>DME</td>
<td>Distance Measuring Equipment</td>
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<td>DTHR</td>
<td>Displaced Threshold</td>
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<td>DVA</td>
<td>Diverse Vector Area</td>
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<td>Elevation</td>
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<td>EMAS</td>
<td>Engineered Material Arresting System</td>
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<td>Final Approach Fix</td>
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<td>Flight Director System</td>
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<td>FM</td>
<td>Fan Marker</td>
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<td>FMS</td>
<td>Flight Management System</td>
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<tr>
<td>GBAS</td>
<td>Ground Based Augmentation System</td>
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<td>GCO</td>
<td>Ground Communications Outlet</td>
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<tr>
<td>GLS</td>
<td>Ground based Augmentation System Landing System</td>
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<td>GP</td>
<td>Glidepath</td>
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<tr>
<td>GPS</td>
<td>Global Positioning System Glide Slope</td>
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<tr>
<td>GS</td>
<td>Height above Airport</td>
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<tr>
<td>HAL</td>
<td>Height above Landing</td>
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<tr>
<td>HAT</td>
<td>Height above Touchdown</td>
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<tr>
<td>HCH</td>
<td>Height above Threshold</td>
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<td>HGS</td>
<td>Heliport Crossing Height</td>
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<tr>
<td>HIRL</td>
<td>Heads-up Guidance System Light</td>
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<td>HUD</td>
<td>Head-up Display</td>
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<tr>
<td>IAF</td>
<td>Initial Approach Fix</td>
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<td>ICAO</td>
<td>International Civil Aviation Organization</td>
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<td>IF</td>
<td>Intermediate Fix</td>
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<td>IM</td>
<td>Inner Marker</td>
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<td>INOP</td>
<td>Inoperative Systems Intersection</td>
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<td>Intersection</td>
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<tr>
<td>K</td>
<td>Knots</td>
</tr>
<tr>
<td>KIAS</td>
<td>Knots Indicated Airspeed</td>
</tr>
<tr>
<td>LAAS</td>
<td>Local Area Augmentation System</td>
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<tr>
<td>LDA</td>
<td>Localizer Type Directional Aid</td>
</tr>
<tr>
<td>LIRL</td>
<td>Low intensity Runway Lights</td>
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<td>LNAV</td>
<td>Lateral Navigation</td>
</tr>
<tr>
<td>LOC</td>
<td>Localizer</td>
</tr>
<tr>
<td>LP</td>
<td>Localizer Performance</td>
</tr>
<tr>
<td>LPV</td>
<td>Localizer Performance with Vertical Guidance</td>
</tr>
<tr>
<td>LR</td>
<td>Lead Radial. Provides at least 2 NM (Copter 1 NM) of lead to assist in turning onto the intermediate/final course.</td>
</tr>
<tr>
<td>MAA</td>
<td>Maximum Authorized Altitude</td>
</tr>
<tr>
<td>MAL</td>
<td>Medium Intensity Approach Light System</td>
</tr>
<tr>
<td>MALSF</td>
<td>Medium Approach Lighting System with Sequenced Flashers</td>
</tr>
<tr>
<td>MALSR</td>
<td>Medium Intensity Approach Light System with RAIL</td>
</tr>
<tr>
<td>MAP</td>
<td>Missed Approach Point</td>
</tr>
<tr>
<td>MDA</td>
<td>Minimum Decent Altitude</td>
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<td>MIRL</td>
<td>Medium Intensity Runway Lights</td>
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<tr>
<td>MM</td>
<td>Minimum Marker</td>
</tr>
<tr>
<td>MRA</td>
<td>Minimum Reception Altitude Not Applicable</td>
</tr>
<tr>
<td>N/A</td>
<td>Not Authorized Non-directional Radio Beacon</td>
</tr>
<tr>
<td>NDB</td>
<td>Nautical Mile No Procedure Turn Required (Procedure Turn shall not be executed without ATC clearance)</td>
</tr>
<tr>
<td>NM</td>
<td>NoPT</td>
</tr>
<tr>
<td>NoPT</td>
<td>Procedure Turn Required (Procedure Turn shall not be executed without ATC clearance)</td>
</tr>
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PAC, 12 AUG 2021 to 7 OCT 2021
## ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODALS</td>
<td>Omnidirectional Approach Light System</td>
<td>VNAV</td>
<td>Vertical Navigation</td>
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<td>Obstacle Departure Procedure</td>
<td>WAAS</td>
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<td>Outer Marker</td>
<td>WP/WPT</td>
<td>Waypoint (RNAV)</td>
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<td>PAR</td>
<td>Precision Approach Radar</td>
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<td>Precision Runway Monitor</td>
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<td>Runway Alignment Indicator Lights</td>
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<td>Required Performance Navigation</td>
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<td>Simplified Directional Facility</td>
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<td>Sunrise-Sunset</td>
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<td>Terminal Arrival Area</td>
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<td>(height in feet above ground level)</td>
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<td>Touchdown Zone and Runway Centerline Lighting</td>
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<td>Takeoff Run Available</td>
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<td>VGSI</td>
<td>Visual Glide Slope Indicator</td>
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</tbody>
</table>
TERMINAL PROCEDURES

TERMINAL ROUTES

- Procedure Track
- Missed Approach
- Visual Flight Path

HOLDING PATTERNS

- Hold-in-lieu of Procedure Turn
- HOLD 8000 Arrival
- 090° 270°

FIXES/ATC REPORTING REQUIREMENTS

- Reporting Point
- Intersection

WAYPOINT

- (Compulsory)
- (Non-Compulsory)

FLYOVER POINT

- MAP WP

Computer Navigation Fix (CNF) - No ATC Function

x (NAME) (*x* omitted when it conflicts with runway pattern)

DME Distance

From Facility

ARC/DME/RNAV Fix

- R-198
- LI-198
- LB-198

ALTITUDES

- 3500: Mandatory Altitude
- 2500: Minimum Altitude
- 4300: Maximum Altitude

INDICATED AIRSPEED

- 175K
- 120K
- 250K
- 180K

Mandatory Airspeed
Minimum Airspeed
Maximum Airspeed
Recommended Airspeed

RADIO AIDS TO NAVIGATION

110.1 Underline indicates No Voice transmitted on this frequency

Compulsory:

- VOR
- VORTAC
- DME
- NDB
- NDB/DME

Non-Compulsory:

- VOR/DME
- TACAN
- DME
- NDB
- NDB/DME

Marker Beacons that are not specifically part of the procedure.

Localizer (LOC/LDA) Course

Right side shading - Front course; Left side shading - Back Course

LOC/LDA/SDF Transmitter

(showed when installation is offset from its normal position off the end of the runway.)

Primary Navaid with Coordinate Values

- LIMA 114.5 LIM
- Chan 92
- SKE

Secondary Navaid

- LMM
- LIMA

VHF Paired Frequency

LEGEND 20086

INSTRUMENT APPROACH PROCEDURES (CHARTS)

20086 PAC, 12 AUG 2021 to 7 OCT 2021
LEGEND 21112

INSTRUMENT APPROACH PROCEDURES (CHARTS)

PLANVIEW SYMBOLS

MINIMUM SAFE ALTITUDE (MSA)

Facility Identifier

Airport Identifier

MSA CRW 25 NM

180°

090° → 270°

MSA AIA 25 NM

2500

2200

1500

4500

2500

(Received on distance circle identify sectors)

TERMINAL ARRIVAL AREA (TAA)

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-Restricted

W-Warning

P-Prohibited

A-Alert

MOA-Military Operations Area

AIRPORTS

Primary and Secondary (named in planview)

Civil

Seaplane Base

Heliport

Joint (Civil-Military)

MISCELLANEOUS

OBSTACLES

• Spot Elevation

▲ Obstacle

▲ Highest Obstacle

• Highest Spot Elevation

▲ Group of Obstacles

± Doubtful accuracy
LEGEND 21112

INSTRUMENT APPROACH PROCEDURES (CHARTS)

PROFILE VIEW

Three different methods are used to depict either electronic or vertical guidance: "GS", "GP", or "VDA".

1. "GS" indicates that an Instrument Landing System (ILS) electronic glide slope (a ground antenna) provides vertical guidance. The profile section of ILS procedures depict a GS angle and TCH in the following format: GS 3.0° TCH 55.

2. "GP" on MLS and RNAV procedures indicates that either electronic vertical guidance (via Wide Area Augmentation System (WAAS) or Ground Based Augmentation System (GBAS)) or barometric vertical guidance is provided. MLS and RNAV procedures with a published decision altitude (DA/H) depict a GP angle and TCH in the following format: GP 3.0° TCH 55.

3. An advisory vertical descent angle (VDA) is provided on non-vertically guided conventional procedures and RNAV procedures with only a minimum descent altitude (MDA) to assist in preventing controlled flight into terrain. On Civil (FAA) procedures, this information is placed above or below the procedure track following the fix it is based on. Absence of a VDA or a note that the VDA is not authorized indicates that the prescribed obstacle clearance surface is not clear and the VDA must not be used below MDA. VDA is depicted in the following format: 3.0° TCH 55.

On Caper procedures this is depicted in the following format: 3.0° TCH 55.

ILS or LOC APPROACH

PT Completion Altitude
Glide Slope
Threshold Crossing Height
Glide Slope Intercept Altitude
altitude restrictions at stepdown fixes on final approach not applicable to Precision (ILS) Approaches.

RNAV and MLS PROCEDURES WITH VERTICAL GUIDANCE

7 NM Holding Pattern
VPD

VGS and RNAV glidepath not coincident (VGS Angle 3.00°/TCH 23).

Non-Vertically Guided Conventional Procedures and RNAV Procedures with MDA Only

Vertical Descent Angle (VDA)

ABC VOR 3.9

ABC VOR 5.9

Threshold Crossing Height

2.93°

TCH 50

313°

3000

One Minute Holding Pattern

Altitudes

5500 Mandatory Altitude
2500 Minimum Altitude
4300 Maximum Altitude

3000 Recommended Altitude

3000 Mandatory Block Altitude

2400 Glide Slope/Glidepath Intercept

2400 Glide Slope/Glidepath Intercept

313°

3000

133°

3000

133°

3000

133°

3000

2400

Profile Symbols

2400 Visual Descent Point (VDP)

Note: Facilities and waypoints are depicted as a solid vertical line while fixes and intersections are depicted as a dashed vertical line.
### G1 TERMINAL PROCEDURES

#### STANDARD TERMINAL ARRIVAL (STAR) CHARTS

**LEGEND**

- **RADIO AIDS TO NAVIGATION**
  - Compulsory: VOR, VOR/DME, TACAN, DME, NDB, NDB/DME
  - Non-Compulsory: VOR, VOR/DME, TACAN, DME, NDB, NDB/DME

  *(T)* indicates frequency protection range

  *(Y)* TACAN must be placed in "Y" mode to receive distance information

- **Fixes/ATC Reporting Requirements**
  - Reporting Points: N00°00.00' W08°00.00'
  - Fix-Conpulsory and Non-Compulsory Position Report
  - Obvious DME (DME mileage matches route mileage)
  - WAYPOINT (Compulsory)
  - WAYPOINT (Non-Compulsory)
  - FLYOVER POINT

- **Airports**
  - Civil
  - Military
  - Joint (Civil-Military)
  - Joint (Civil-Military)

  Airports not served by the procedure shown in screened color

- **Routes**
  - MAA FL200 Maximum Authorized Altitude
  - 4500 MEA-Minimum Enroute Altitude
  - 3500 MOCA-Minimum Obstruction Clearance Altitude
  - 270° Arrival Route
    - Mileage between Radio Aids, Reporting Points, and Route Breaks
    - R-275 Transition Route
      - Radial line and value
      - Last Communications Track

- **Special Use Airspace**
  - R-Restricted
  - W-Warning
  - P-Prohibited
  - A-Alert
  - MOA-Military Operations Area

- **Altitudes**
  - 5500 Mandatory Altitude (Cross at)
  - 2300 Minimum Altitude (Cross at or above)
  - 4800 Maximum Altitude (Cross at or below)
  - 15000 Block Altitude
  - 12000 Altitude change at other than Radio Aids to Navigation

- **Indicated Airspeed**
  - 175K Mandatory Airspeed
  - 120K Minimum Airspeed
  - 250K Maximum Airspeed

- **Miscellaneous**
  - Changeover Point
  - Air Defense Identification Zone

**LEGEND**

- Indicates True North is not aligned to the top of the page

**PAC, 12 AUG 2021 to 7 OCT 2021**
TERMINAL PROCEDURES

DEPARTURE PROCEDURE (DP) CHARTS

LEGEND 21168

RADIO AIDS TO NAVIGATION

Compulsory:
- VOR
- VOR/TACAN
- DME
- NDB/DME

Non-Compulsory:
- VOR
- VOR/TACAN
- DME
- NDB/DME

LMM, LOM (Compass Locator)
Marker Beacon

SDF Course

LOCALIZER FRONT COURSE

Localizer Back Course (Shading on left)

(Y) TACAN must be placed in "Y" mode to receive distance information

IDENTIFIER

Geographic Position

FIXES/ATC REPORTING REQUIREMENTS

Reporting Points
N0°00'00.0" W00°00'00.0"

△ Fix-Compulsory and Non-Compulsory Position Report

Obvious DME (DME mileage matches route mileage)

WAYPOINT (Compulsory)

WAYPOINT (Non-Compulsory)

X Computer Navigation Fix (CNF) - No ATC Function (JEHNN)
N0°00'00.0" W00°00'00.0"

ROUTES

4500 MEA-Minimum Enroute Altitude
3500 MOCA-Minimum Obstruction Clearance Altitude
270° Departure Route
(65)
Mileage between Radio Aids, Reporting Points, and Route Breaks

Transition Route
R-275 Radial line and value

Lost Communications Track
Visual Flight Path

Airway/Jet Route Identification

Holding pattern with restricted airspeed (175K) applies

Lost Comm Holding Pattern

SPECIAL USE AIRSPACE

R-Restricted W-Warning
P-Prohibited A-Alert
MOA-Military Operations Area

ALTITUDES

5500 Mandatory Altitude (Cross at)
2300 Minimum Altitude (Cross at or above)

4800 Maximum Altitude (Cross at or below)
15000 Block Altitude
12000

TOP ALTITUDE: 5000
Top altitude restriction

INDICATED AIRSPEED

175K Mandatory Airspeed
120K Minimum Airspeed
250K Maximum Airspeed

AIRPORTS

H Heliport

Civil Military Joint (Civil-Military)

MINIMUM SAFE ALTITUDE (MSA)

Facility Identifier

4500 4100 270°
090° 5300 4700

(15000 Nautical Miles)

(arrows on distance circle identify sectors)

MINIMUM Safe ALTITUDE (MSA)

Facility Identifier

Airport Identifier

2500

(2500 Meters)

Takeoff Minimums and (Obstacle) Departure Procedures entry published.

LEGEND 21168

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM/AIRPORT SKETCH

- Hard Surface
- Other Than Hard Surface
- Stopways, Taxiways, Parking Areas
- Metal Surface
- Closed Runway
- Under Construction
- Water Runway
- uni-directional
- bi-directional
- Jet Barrier
- ARRESTING SYSTEM (EMAS)

REFERENCE FEATURES

- 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/PCN Pavement Classification Number is shown as a codified 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, 2S-175, 2D-325

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

Runway Slope

(shown when runway slope is greater than or equal to 0.3%)
TERMINAL PROCEDURES

INSTRUMENT APPROACH PROCEDURES (CHARTS)
APPROACH LIGHTING SYSTEM - UNITED STATES

LEGEND

Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, e.g., A, O, etc.

A dot ** portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., A. Negative symbology, e.g., A, indicates Pilot Controlled Lighting (PCL).

RUNWAY TOUCHDOWN ZONE AND CENTERLINE LIGHTING SYSTEMS

SOURCE: PAC, 12 AUG 2021 TO 7 OCT 2021

SHORT APPROACH LIGHTING SYSTEM

SALS/SALSF

(High Intensity)

SAME AS INNER 1500' OF ALSF-1

SIMPLOYED SHORT APPROACH LIGHTING SYSTEM

with Runway Alignment Indicator Lights

SSALR

(High Intensity)

LENGTH 2400/3000 FEET

OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM

ODALS

LENGTH 1500 FEET

VISUAL APPROACH SLOPE INDICATOR

VASI

VISUAL APPROACH SLOPE INDICATOR WITH STANDARD THRESHOLD CLEARANCE PROVIDED.

ALL LIGHTS WHITE — TOO HIGH

FAR LIGHTS RED NEAR LIGHTS WHITE — ON GLIDE SLOPE

ALL LIGHTS RED — TOO LOW

VASI 2

VASI 4

VASI 12

VASI 6

VASI 16

LEGEND
Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, ✿, ○ etc.

A dot ✿ * portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., ✿. Negative symbology, e.g., ○ indicates Pilot Controlled Lighting (PCL).

**P** \hspace{1cm} PRECISION APPROACH PATH INDICATOR \hspace{1cm} PAPI

- Too low
- Slightly low
- On correct approach path
- Slightly high
- Too high

Legend: ✿ White  ● Red

**P** \hspace{1cm} PULSATING VISUAL APPROACH SLOPE INDICATOR \hspace{1cm} PVASI

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.

**P** \hspace{1cm} "T"-VISUAL APPROACH SLOPE INDICATOR \hspace{1cm} "T"-VASI

"T" ON BOTH SIDES OF RWY ALL LIGHTS VARIABLE WHITE.
CORRECT APPROACH SLOPE:ONLY CROSS BAR VISIBLE 
UPRIGHT "T": FLY UP.
INVERTED "T": FLY DOWN.
RED "T": GROSS UNDERSHOOT.

CAUTION: When the aircraft descends from green to red, the pilot may see a dark amber color during the transition from green to red.

**P** \hspace{1cm} TRI-COLOR VISUAL APPROACH SLOPE INDICATOR \hspace{1cm} TRCV

**P** \hspace{1cm} ALIGNMENT OF ELEMENTS SYSTEMS \hspace{1cm} APAP

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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<th>MLS CHANNEL</th>
<th>VHF FREQUENCY</th>
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T1 TERMINAL PROCEDURES

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS) INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

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 ISLAND, PW

BABELTHUAP/KOROR (ROR) (PTRO) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2 31DEC09 (21224) (FAA)

TAKEOFF MINIMUMS:

Rwy 27, 300-11/3 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 300’ from DER, 320’ right of centerline, 34’ AGL/191’ MSL.

Rwy 27, trees beginning 23’ from DER, 296’ left of centerline, up to 17’ AGL/180’ MSL.

Tree 238’ from DER, 382’ right of centerline, 184’ MSL.

Trees beginning 439’ from DER, 372’ left of centerline, up to 46’ AGL/206’ MSL.

Tree 824’ 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’ left of centerline, 43’ AGL/371’ MSL.

Tree 5736’ from DER, 670’ right of centerline, 363’ MSL.
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

GUAM, GU
GUAM INTL (GUM) (PGUM)

AMDT 1A 17JUN21 (21168) (FAA)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

TAKEOFF MINIMUMS:

Rwy 6L, 400-1¾ or std. w/min. climb of 450' per NM to 800.

Rwy 6R, 400-1¾ 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 286' per NM to 1700.

DEPARTURE PROCEDURE:

Rwys 6L/R, climb on heading 063° to 1100 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 6L, terrain abeam DER, 472' right of centerline, 307' MSL. Vegetation 160' from DER, 366' left of centerline, 312' MSL.

Terrain 186' from DER, 304' right of centerline, 313' MSL.

Terrain 196' from DER, 448' right of centerline, 315' MSL.

Terrain 378' from DER, 333' left of centerline, 317' MSL.

Terrain beginning 426' from DER, 374' right of centerline, up to 326' MSL.

Trees beginning 467' from DER, 387' left of centerline, up to 348' MSL.

Terrain beginning 611' from DER, 430' right of centerline, up to 336' MSL.

Trees beginning 712' from DER, 377' left of centerline, up to 371' MSL.

Terrain beginning 768' from DER, 472' right of centerline, up to 344' MSL.

Pole, terrain beginning 885' from DER, 468' right of centerline, up to 358' MSL.

Trees beginning 1052' from DER, 490' left of centerline, up to 374' MSL.

Pole, fence beginning 1074' from DER, 617' right of centerline, up to 12' AGL/360' MSL.

Pole, fence beginning 1194' from DER, 493' right of centerline, up to 365' MSL.

Trees beginning 1233' from DER, 411' left of centerline, up to 376' MSL.

Tree, pole, fence beginning 1328' from DER, 376' right of centerline, up to 390' MSL.

Trees beginning 1435' from DER, 613' left of centerline, up to 388' MSL.

Tree, fence beginning 1524' from DER, 533' right of centerline, up to 395' MSL.

Tree, fence, pole, building, terrain beginning 1570' from DER, 71' right of centerline, up to 397' MSL.

Tree, terrain beginning 1667' from DER, 79' left of centerline, up to 400' MSL.

Tree, terrain beginning 1879' from DER, 73' left of centerline, up to 401' MSL.

Tree, pole, building, fence beginning 1986' from DER, 68' right of centerline, up to 413' MSL.

Tree, building, fence, pole beginning 2057' from DER, 340' right of centerline, up to 423' MSL.

Trees beginning 2123' from DER, 329' left of centerline, up to 405' MSL.

Trees beginning 2236' from DER, 334' left of centerline, up to 409' MSL.

Tree, building, fence, pole beginning 2306' from DER, 343' right of centerline, up to 431' MSL.

Trees beginning 2479' from DER, 359' left of centerline, up to 414' MSL.

Trees beginning 2702' from DER, 375' left of centerline, up to 419' MSL.

Tree, pole, building, fence, pole beginning 2786' from DER, 367' right of centerline, up to 433' MSL.

Tree 2898' from DER, 1153' right of centerline, 435' MSL.

Tree, building beginning 2918' from DER, 497' right of centerline, up to 437' MSL.

Trees beginning 2920' from DER, 370' left of centerline, up to 427' MSL.

Pole, tree, building, fence, vehicle on road, tank, vegetation, rig beginning 2933' from DER, 2' right of centerline, up to 67' AGL/469' MSL.

Tree, vegetation, pole beginning 3137' from DER, 15' left of centerline, up to 434' MSL.

Tree, pole beginning 3771' from DER, 22' left of centerline, up to 86' AGL/436' MSL.

Tree, fence, pole, building beginning 4888' from DER, 1023' right of centerline, up to 471' MSL.

Tree, pole beginning 5042' from DER, 255' right of centerline, up to 481' MSL.

Tree, pole beginning 5206' from DER, 266' right of centerline, up to 34' AGL/516' MSL.

Tree, building beginning 5404' from DER, 375' right of centerline, up to 522' MSL.

Tree, pole beginning 5732' from DER, 1535' right of centerline, up to 555' MSL.

Tree, building beginning 5924' from DER, 1631' right of centerline, up to 559' MSL.

Trees beginning 1 NM from DER, 1820' right of centerline, up to 567' MSL.

Trees beginning 1.1 NM from DER, 897' right of centerline, up to 616' MSL.

Tree 1.4 NM from DER, 1777' right of centerline, 534' MSL.

Rwy 6R, lighting 10' from DER, 160' left of centerline, 1' AGL/303' MSL.

Sign 60' from DER, 280' left of centerline, 3' AGL/304' MSL.

Trees beginning 140' from DER, 460' right of centerline, up to 378' MSL.

Trees beginning 725' from DER, 465' right of centerline, up to 384' MSL.

Tree, pole beginning 952' from DER, 276' right of centerline, up to 390' MSL.

Trees beginning 1080' from DER, 449' right of centerline, up to 407' MSL.

Trees beginning 1279' from DER, 471' right of centerline, up to 410' MSL.

Trees beginning 1472' from DER, 539' right of centerline, up to 411' MSL.

Tree 1637' from DER, 723' right of centerline, 421' MSL.

Tree, fence, pole, building, terrain beginning 1653' from DER, on centerline, up to 423' MSL.

Fence beginning 1885' from DER, 27' left of centerline, up to 9' AGL/358' MSL.

Pole, fence beginning 2074' from DER, 21' left of centerline, up to 12' AGL/360' MSL.

Tree, pole, fence beginning 2194' from DER, 12' left of centerline, up to 385' MSL.

Tree, pole, fence beginning 2328' from DER, 2' left of centerline, up to 390' MSL.

Tree 2524' from DER, 166' left of centerline, 395' MSL.

Tree, fence beginning 2570' from DER, 10' left of centerline, up to 397' MSL.

Building, fence, tree, pole beginning 3076' from DER, 48' right of centerline, up to 20' AGL/426' MSL.

CONT
GUAM, GU (CON’T)
GUAM INTL (GUM) (PGUM) (CON’T)

Rwy 6R (CON’T), tree 3200’ from DER, 1029’ left of centerline, 396’ MSL.
Building, fence, tree, pole beginning 3208’ from DER, 57’ right of centerline, up to 29’ AGL/435’ MSL.
Tree, fence beginning 3214’ from DER, 1’ left of centerline, up to 405’ MSL.
Tree, building beginning 3297’ from DER, 135’ right of centerline, up to 437’ MSL.
Tree 3343’ from DER, 1034’ left of centerline, 409’ MSL.

Pole, building, fence, tree beginning 3360’ from DER, 4’ right of centerline, up to 76’ AGL/482’ MSL.
Trees beginning 3431’ from DER, 220’ left of centerline, up to 415’ MSL.
Trees beginning 3525’ from DER, 60’ left of centerline, up to 417’ MSL.

Pole, building, fence, vehicle on road, tank beginning 3571’ from DER, 19’ right of centerline, up to 81’ AGL/486’ MSL.

Tree 3609’ from DER, 339’ left of centerline, 421’ MSL.
Trees beginning 3616’ from DER, 57’ left of centerline, up to 425’ MSL.

Trees beginning 3920’ from DER, 69’ left of centerline, up to 427’ MSL.

Trees beginning 4039’ from DER, 37’ left of centerline, up to 432’ MSL.

Trees beginning 4137’ from DER, 65’ left of centerline, up to 434’ MSL.
Tree, tank, building, pole, vehicle on road beginning 4403’ from DER, 55’ right of centerline, up to 487’ MSL.
Tree, pole beginning 4427’ from DER, 42’ left of centerline, up to 446’ MSL.

Tree, building beginning 4606’ from DER, 292’ right of centerline, up to 501’ MSL.
Tree, building, pole beginning 4678’ from DER, 152’ right of centerline, up to 514’ MSL.
Tree, pole, building beginning 4868’ from DER, 63’ right of centerline, up to 534’ MSL.

Tree, building, pole beginning 5057’ from DER, 64’ right of centerline, up to 548’ MSL.
Tree, building beginning 5287’ from DER, 54’ right of centerline, up to 556’ MSL.

Tree, pole, building beginning 5502’ from DER, 581’ right of centerline, up to 569’ MSL.
Tree, pole beginning 5680’ from DER, 843’ right of centerline, up to 611’ MSL.

Trees beginning 5814’ from DER, 698’ right of centerline, up to 636’ MSL.
Trees beginning 5965’ from DER, 616’ right of centerline, up to 660’ MSL.

Building, pole, tree beginning 1 NM from DER, 488’ right of centerline, up to 89’ AGL/700’ MSL.
Tree 1.4 NM from DER, 2200’ right of centerline, 521’ MSL.

Rwy 24L, lighting 10’ from DER, 84’ right of centerline, 2’ AGL/233’ MSL.
Lighting 11’ from DER, 4’ left of centerline, 1’ AGL/232’ MSL.

Sign 58’ from DER, 416’ right of centerline, 3’ AGL/239’ MSL.

Tree 1415’ from DER, 365’ left of centerline, 269’ MSL.
Tree 1510’ from DER, 405’ left of centerline, 270’ MSL.
Tree 1578’ from DER, 334’ left of centerline, 273’ MSL.

Rwy 24R, lighting 8’ from DER, 2’ right of centerline, 2’ AGL/235’ MSL.

HANA, HI

HANA (HNM) (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)

Rwys 3, 8, heading as assigned by ATC.

Rwy 21, heading as assigned by ATC; requires minimum climb of 300’ per NM to 1300.

Rwy 26, heading as assigned by ATC; requires minimum climb of 420’ per NM to 2800.

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 699’ from DER, 304’ 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.

CON’T

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)
HONOLULU, HI (CON’T)

DAVIDK INOUEY INTL (HNL) (PHNL) (CON’T)
- 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 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.

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 2 25FEB21 (21056) (FAA)
- Rwys 4L/R, heading as assigned by ATC; requires min. climb of 490’ per NM to 2100, do not exceed 180K until established on assigned heading.
- Rwy 8L, heading as assigned by ATC; requires min. climb of 360’ per NM to 1700.
- Rwy 8R, heading as assigned by ATC; requires min. climb of 305’ per NM to 500.
- Rwys 22L/R, heading as assigned by ATC; requires min. climb of 320’ per NM to 3700.
- Rwy 26L, heading as assigned by ATC; requires min. climb of 300’ per NM to 3700.
- Rwy 26R, heading as assigned by ATC; requires min. 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:
- Rwy 2, climb on a heading 316° CW 052° from DER to 10600 before proceeding on course.
- Rwy 5, climb on a heading 312° CW 040° from DER to 10700 before proceeding on course.
- Rwy 20, climb on heading 185’ from DER to 11000 before proceeding on course.
TAKEOFF OBSTACLE NOTES:
- Rwy 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.
- Rwy 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:
- Rwy 17, climb on heading 174° to 500 then climbing right turn heading 357° and KOA R-327 to MYNAH INT for assigned route.
- Rwy 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:
- Rwy 17, obstruction light on AMOM at DER, 350’ right of centerline, 25’ AGL/62’ MSL. Rwy 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.
**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.
- 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 FLD) (JRF) (PHJR)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG 22OCT09 (21112) (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 309' from DER, 195' left of centerline, 15' AGL/26' MSL.

RWY 29, tree 1794' from DER, 573' left of centerline, 60' AGL/99' MSL.

**KAUNAKAIGHT, HI**

MOLOKA'I (MKK) (PHMK)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 19MAY14 (14149) (FAA)

DEPARTURE PROCEDURE:

Use KAUNAKAIGHT 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 minimum 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, to V15, climb runway heading to 500 then climbing right turn, heading 125°, then as assigned.
Rwy 17, to V15, climb runway heading to 500 then climbing left turn, heading 045°, then as assigned. To LIH-150 climb runoff heading to 500 then climbing left turn, heading 120°, then as assigned.
Rwy 21, to V15, climb runway heading to 550 then climbing left turn, heading 090°, to intercept LIH R-110, maintain 5000, direct BOOKE INT or as assigned. To LIH-148, climb runway heading to 550, then climbing left turn, heading 120°, to intercept LIH R-148, maintain 3000, direct NAPUA INT or as assigned.

MAJURO ATOLL, MH
AMATA KABUA INTL (MAJ) (PKMJ)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG  08APR10  (21224)  (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, 8' AGL/14' MSL.
Tree 834' from DER, 243' left of centerline, 39' AGL/45' MSL.
Bush 555' from DER, 187' right of centerline, 17' AGL/23' MSL.
Rwy 25, obstruction light on WSK 11' from DER, 246' left of centerline, 23' AGL/29' MSL.
Post 5' from DER, 252' right of centerline, 8' AGL/14' MSL.
Tree 996' from DER, 39' left of centerline, 31' 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.

PAGO PAGO, AS
Pago Pago Intl (PPG) (NSTU)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG-A  12MAR09  (09071)  (FAA)
TAKEOFF OBSTACLE NOTES:
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:
Rwy 5, a, 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 26, bush 889' from DER, 360' left of centerline, 15' AGL/23' MSL.
Ship 1435' from DER, 304' left of centerline, 150' AGL/150' MSL.
CON’T
TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

PAGO PAGO, AS (CON’T)
PAGO PAGO INTL (PPG) (NSTU) (CON’T)

- **Rwy 23**, multiple trees beginning 352’ from DER, 173’ left of centerline, up to 20’ AGL/132’ MSL.
- Multiple trees beginning 881’ from DER, 296’ right 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.

Pohnpei Island, FM
Pohnpei 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 254° 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 Taishacan 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.

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.

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**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)**

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**PAC, 12 AUG 2021 to 7 OCT 2021**
INSTRUMENT APPROACH PROCEDURE CHARTS

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.

<table>
<thead>
<tr>
<th>NAME (Airport)</th>
<th>ALTERNATE MINIMUMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BABELTHUAP ISLAND, PW</td>
<td>NDB Rwy 9</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 27</td>
</tr>
<tr>
<td></td>
<td>NA except standard for operators with approved weather reporting service.</td>
</tr>
<tr>
<td></td>
<td>Category A, B, 900-2; Category C, 900-2-½; Category D, 900-2-½.</td>
</tr>
<tr>
<td>GUAM, GU</td>
<td>ILS or LOC Rwy 6L</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Y Rwy 2L</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Y Rwy 6R</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Y Rwy 24L</td>
</tr>
<tr>
<td></td>
<td>RNAV (RNP) Z Rwy 24R</td>
</tr>
<tr>
<td></td>
<td>VOR or TACAN Rwy 24</td>
</tr>
<tr>
<td></td>
<td>1LOC, Categories A, B, 1200-2; Categories C, D, 1200-3.</td>
</tr>
<tr>
<td></td>
<td>2Category D, 900-2-½.</td>
</tr>
<tr>
<td></td>
<td>3Categories A, B, 900-2-½; Category C, 900-2-½; Category D, 900-3.</td>
</tr>
<tr>
<td></td>
<td>4Categories A, B, C, D, 900-3.</td>
</tr>
<tr>
<td></td>
<td>5Categories A, B, C, D, 800-2-½.</td>
</tr>
<tr>
<td></td>
<td>6Categories A, B, 900-2-½; Category C, 900-2-½; Category D, 900-2-½.</td>
</tr>
<tr>
<td>HANA, HI</td>
<td>RNAV (GPS) Rwy 26</td>
</tr>
<tr>
<td></td>
<td>Category A, 900-2; Category B, 1100-2.</td>
</tr>
<tr>
<td>HILO, HI</td>
<td>ILS or LOC Rwy 26</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 21</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 26</td>
</tr>
<tr>
<td></td>
<td>VOR or TACAN Rwy 26</td>
</tr>
<tr>
<td></td>
<td>1NA when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>2LOC, Category C, 900-2-½; Category D, 1300-3.</td>
</tr>
<tr>
<td></td>
<td>3Category C, 900-2-½; Category D, 1300-3.</td>
</tr>
<tr>
<td>KAULÜ/KAUGA, HI</td>
<td>ILS or LOC Rwy 17</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 35</td>
</tr>
<tr>
<td></td>
<td>RNAV (GPS) Rwy 17</td>
</tr>
<tr>
<td></td>
<td>VOR or TACAN Rwy 17</td>
</tr>
<tr>
<td></td>
<td>1NA when control tower closed.</td>
</tr>
<tr>
<td></td>
<td>2NA when local weather not available.</td>
</tr>
<tr>
<td>NAME</td>
<td>ALTERNATE MINIMUMS</td>
</tr>
<tr>
<td>------</td>
<td>--------------------</td>
</tr>
<tr>
<td><strong>KAPOLEI, OAHU ISLAND, HI</strong>&lt;br&gt;KALAELOA (JOHN RODGERS FLD) (JRF)</td>
<td>NDB Rwy 4R&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 4R&lt;sup&gt;2&lt;/sup&gt; Category C, 800-2¼; Category D, 800-2½. NA when local weather not available.</td>
</tr>
<tr>
<td><strong>KAUNAKAKAI, HI</strong>&lt;br&gt;MOLOKAI (MKK)</td>
<td>RNAV (GPS)-B1&lt;sup&gt;12&lt;/sup&gt;&lt;br&gt;VOR or TACAN-A&lt;sup&gt;3&lt;/sup&gt; Category C, 1200-3; Category D, 1500-3. Category A, B, 1500-2; Categories C, D, 1500-3.</td>
</tr>
<tr>
<td><strong>KOSRAE, FM</strong>&lt;br&gt;KOSRAE (TTK)</td>
<td>RNAV (GPS) Rwy 5&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 23&lt;sup&gt;2&lt;/sup&gt; NA except for operators with approved weather reporting service. NA except categories A,B, standard, Category C, 800-2¼, Category D, 800-2½, for operators with approved weather reporting service.</td>
</tr>
<tr>
<td><strong>LANAI CITY, HI</strong>&lt;br&gt;LANAI (LNY)</td>
<td>RNAV (GPS) Rwy 3&lt;sup&gt;12&lt;/sup&gt;&lt;br&gt;VOR or TACAN or GPS-A&lt;sup&gt;3&lt;/sup&gt; Category C, 900-2¼. NA when local weather not received except for operators with approved weather reporting service.</td>
</tr>
<tr>
<td><strong>LIHUE, HI</strong>&lt;br&gt;LIHUE (LIH)</td>
<td>ILS or LOC Rwy 35&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 17&lt;sup&gt;2&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Y Rwy 21&lt;sup&gt;2&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Y Rwy 35&lt;sup&gt;2&lt;/sup&gt;&lt;br&gt;VOR/DME or TACAN Rwy 21&lt;sup&gt;2&lt;/sup&gt; Category C, 1200-2; Categories C, D, 1200-3.</td>
</tr>
<tr>
<td><strong>MIDWAY ATOLL, QM</strong>&lt;br&gt;HENDERSON FLG (MDY)</td>
<td>NDB Rwy 6&lt;br&gt;NDB Rwy 24&lt;br&gt;RNAV (GPS) Rwy 6&lt;br&gt;RNAV (GPS) Rwy 24 NA except standard for operators with approved weather reporting service.</td>
</tr>
<tr>
<td><strong>PAGO PAGO, AS</strong>&lt;br&gt;PAGO PAGO INTL (PPG)</td>
<td>ILS or LOC Rwy 5&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 5&lt;sup&gt;2&lt;/sup&gt;&lt;br&gt;VOR or TACAN-B&lt;sup&gt;4&lt;/sup&gt; Categories A, B, C, D, 900-2; LOC, Category C, 800-2¼; Category D, 900-2½.</td>
</tr>
<tr>
<td><strong>POHNPEI ISLAND, FM</strong>&lt;br&gt;POHNPEI INTL (PNI)</td>
<td>NDB-A&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 27&lt;sup&gt;2&lt;/sup&gt;&lt;br&gt;RNAV (GPS) X Rwy 9&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;RNAV (RNP) Y Rwy 9&lt;sup&gt;2&lt;/sup&gt; Categories A, B, 1000-2; Categories C, D, 1000-3.</td>
</tr>
<tr>
<td><strong>ROTA ISLAND, CQ</strong>&lt;br&gt;BENJAMIN TAISACAN MANGLONA INTL (GRO)</td>
<td>RNAV (GPS) Rwy 9&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 27&lt;br&gt;NDB Rwy 9&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;NDB Rwy 27 NA except standard for operators with approved weather reporting service. Categories A, B, 1200-2; Categories C, D, 1200-3.</td>
</tr>
<tr>
<td><strong>SAIPAN ISLAND, CQ</strong>&lt;br&gt;FRANCISCO C ADA/SAIPAN INTL (GSN)</td>
<td>NDB Y Rwy 7 Category D, 800-2¼.</td>
</tr>
<tr>
<td><strong>TINIAN ISLAND, CQ</strong>&lt;br&gt;TINIAN INTL (TNI)</td>
<td>RNAV (GPS) Rwy 8&lt;br&gt;RNAV (GPS) Rwy 26 NA when local weather not available. Category D, 800-2½.</td>
</tr>
<tr>
<td><strong>WENO ISLAND, FM</strong>&lt;br&gt;CHUUK INTL (TKK)</td>
<td>NDB Rwy 4&lt;sup&gt;1&lt;/sup&gt;&lt;br&gt;NDB Rwy 22&lt;sup&gt;23&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 4&lt;sup&gt;24&lt;/sup&gt;&lt;br&gt;RNAV (GPS) Rwy 22&lt;sup&gt;25&lt;/sup&gt; Category C, D, 800-2½. Categories A, B, C, D, 800-3. Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2½.</td>
</tr>
<tr>
<td>NAME</td>
<td>ALTERNATE MINIMUMS</td>
</tr>
<tr>
<td>-------------------</td>
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</tr>
<tr>
<td>YAP ISLAND, FM</td>
<td></td>
</tr>
<tr>
<td>YAP INTL (T11)</td>
<td>NDB Rwy 25(^1)</td>
</tr>
<tr>
<td></td>
<td>NDB/DME Rwy 25(^2)</td>
</tr>
</tbody>
</table>

\(^1\)Categories A, B, 900-2; Category C, 900-2½; Category D, 900-3.
\(^2\)Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2½.
THERE ARE NO RADAR PROCEDURES FOR PACIFIC
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.

<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></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DANIEL K INOUYE INTL (HNL) (PHNL)</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>
**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/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>HNL</td>
<td></td>
</tr>
<tr>
<td>DANIEL K INOYUE INTL (HNL) (PHNL)</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></td>
<td>HS 2 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></td>
<td>HS 3 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></td>
<td>HS 4 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></td>
<td>HS 5 Tower Non-visibility area. Area not visible from the control tower due to trees.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HS 6 Minimal distance between rwy hold short lines between Rwy 04L-22R/Rwy 04R-22L.</td>
</tr>
<tr>
<td>KAHULUI, HI</td>
<td>OGG</td>
<td></td>
</tr>
<tr>
<td>KAHULUI (OGG) (PHOG)</td>
<td>HS 1</td>
<td>Rwy 05, Twy A, Twy F, and Twy G.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HS 2 Rwy 02-20, Twy E and the ramp.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HS 3 Twy A, Rwy 05-23</td>
</tr>
<tr>
<td>KAILUA/KONA, HI</td>
<td>KOA</td>
<td></td>
</tr>
<tr>
<td>ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)</td>
<td>HS 1 Extensive helicopter operations on Twy A abeam ramp K.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HS 2 Extensive helicopter operations on Twy A south of Twy C.</td>
</tr>
<tr>
<td>KAUNAKAKAI, HI</td>
<td>MKK</td>
<td></td>
</tr>
<tr>
<td>MOLOKAI (MKK) (PHMK)</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.*
TERMINAL PROCEDURES

BOOKE EIGHT ARRIVAL (BOOKE.BOOKE8) 21112

BOOKE EIGHT ARRIVAL

HCF CENTER
119° 306.9
D-ATIS
127° 251.15

THOMA
N23°40.62’
W160°34.11’

DANNO
N22°48.09’
W162°37.01’

SYVAD
N21°55.47’
W162°45.48’

PUPPI
N21°55.28’
W161°40.78’

SOUTH KAUAI
N21°54.02’
W159°31.73’

LIHU E
113.5 LIH
N21°57.92’
W159°26.99’

BOOKE
N21°27.79’
W158°26.99’

HONOLULU
114.8 HNL
N21°18.50’
W157°55.83’

SHIGI
N21°18.25’
W158°10.29’

NOTE: DME required.
NOTE: RNAV equipped aircraft only DANNO and THOMA transitions.
NOTE: Chart not to scale

ARIVAL ROUTE DESCRIPTION

CANON TRANSITION (CANON.BOOKE8): From over CANON 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.

BOOKE EIGHT ARRIVAL
(BOOKE.BOOKE8) 27MAY93

HONOLULU, HAWAII
DANIEL K INOUE INTL (HNL) (PHNL)
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.

NOTE: RADAR required to HARPO INT.
NOTE: Chart not to scale.
TERMINAL PROCEDURES

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)

INOY1 ONE ARRIVAL (RNAV) Transition Routes
(BAMBO, INOY11) 20030

APACK FL250
FL210 280K

BITTA FL250

ZIGIE FL250

HISPO 17000 270K

JOELE 17000 270K

KYLIO FL190

17000 209K

17000 209K

17000 219K

FL210 FL250

DENNS FL250

BAMBO 15000 250K

See following page
for Arrival Routes.

NOTE: Chart not to scale.

PAC, 12 AUG 2021 to 7 OCT 2021

HONOLULU, HAWAII

INOY1 ONE ARRIVAL (RNAV) Transition Routes
(BAMBO, INOY11) 30JAN20

DANIEL K INOUYE INTL (HNL) (PHNL)

PAC, 12 AUG 2021 to 7 OCT 2021

HONOLULU, HAWAII

DANIEL K INOUYE INTL (HNL) (PHNL)
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

PAC, 12 AUG 2021 to 7 OCT 2021

JULLE FIVE ARRIVAL

AL-754 (FAA)

HONOLULU, HAWAII

NOTE: DME required for CHAIN transition.
NOTE: RADAR required.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

CHAIN TRANSITION (CHAIN JULLE5): From over CHAIN 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 INOYUE INTL (HNL) (PHNL)
ARRIVAL ROUTE DESCRIPTION

APACK TRANSITION [APACK, KAENA2]
BITTA TRANSITION [BITTA, KAENA2]
CLUTS TRANSITION [CLUTS, KAENA2]
DENNS TRANSITION [DENNS, 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.

NOTE: Chart not to scale.
NOTE: RADAR or DME required.
NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)
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 (OKAL.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.
TERMINAL PROCEDURES Z9

CANON TRANSITION (CANON.KLANI3)
DANNO TRANSITION (DANNO.KLANI3)
OUCHI TRANSITION (OUCHI.KLANI3)
PUPPI TRANSITION (PUPPI.KLANI3)
SYVAD TRANSITION (SYVAD.KLANI3)
THOMA TRANSITION (THOMA.KLANI3)

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.

(CONTINUED ON FOLLOWING PAGE) NOTE: Chart not to scale.

See following page for Arrival Routes.
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.

NOTE: Chart not to scale.
NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: GPS required.
NOTE: Turbojet and turboprop aircraft only
NOTE: For non-RNP AR aircraft, expect RADAR vectors to final approach course or visual approach.

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.

LNDHY ONE ARRIVAL (RNAV)

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.
NOTE: RNAV 1.
NOTE: GPS required.
NOTE: Turbojet and turboprop aircraft only.
NOTE: If requesting the ILS RWY 26 approach, advise ATC prior to LYCHI.
NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

BARBY TRANSITION [BARBY.LYCHI1]
CHINE TRANSITION [CHINE.LYCHI1]
NOMEA TRANSITION [NOMEA.LYCHI1]
POHOU TRANSITION [POHOU.LYCHI1]

From PARIS on track 123° to cross LYCHI at or above 6000.

LANDING RUNWAY 21: From LYCHI on track 123° to cross KENNZ at or above 4000. Expect RNAV (GPS) RWY 21 or visual approach.

LANDING RUNWAY 26: From LYCHI on track 123° to cross KENNZ at or above 4000. Expect ILS or RNAV (GPS) RWY 26 approach.
ARRIVAL 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

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.

NOTE: RNAV equipped aircraft only.

NOTE: Chart not to scale.
ARRIVAL ROUTE DESCRIPTION

CHAIN TRANSITION (CHAIN.SAKKI5): From over CHAIN INT on LNY 13 DME CCW arc to SOBOW and LNY R-278 to SAKKI INT. Thence. . . .

DOVRR TRANSITION (DOVRR.SAKKI5): From over DOVRR on MKK R-180 to JORDA, turn left heading 315° to join I-EPC LDA course at SUCTU 40 DME then to SAKKI INT. Thence. . . .

HOKLA TRANSITION (HOKLA.SAKKI5): From over HOKLA on HNL R-125 to JORDA, turn right heading 315° to join I-EPC LDA course at SUCTU 40 DME then to SAKKI INT. Thence. . . .

LANAI TRANSITION (LNY.SAKKI5): 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: 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.
NOTE: RADAR or DME required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)
ARRIVAL ROUTE DESCRIPTION

LANAI TRANSITION (LNY.VECK19): From over LNY VORTAC on LNY R-116 to TAMMI, then on heading 167° to VECK1. Thence . . . .

MAUI TRANSITION (OGG.VECK19): From over OGG VORTAC on OGG R-188 to ZILNA, then on LNY R-116 to TAMMI, then on heading 167° to VECK1. Thence . . . .

MOLOKAI TRANSITION (M KK.VECK19): From over MKK VORTAC on MKK R-107 to WANSI, then on KOA R-351 to TAMMI, then on heading 167° to VECK1. Thence . . . .

OKALA TRANSITION (OKALA.VECK19): From over OKALA on MUE VOR/DME R-075 to MUE VOR/DME, then on MUE R-247 to VECK1. Thence . . . .

ONOHI TRANSITION (ONOHI.VECK19): From over ONOHI on KOA R-351 to TAMMI, then on heading 167° to VECK1. Thence . . . .

UPOLU POINT TRANSITION (UPP.VECK19): From over UPP VORTAC on UPP R-210 to BAYCA, then on I-KOA 174° course to VECK1. Thence . . . .

. . . . from over VECKI INT on I-KOA localizer course to Ellison Onizuka Kona Intl at Keahole.

LOST COMMUNICATIONS: At VECK1 INT proceed with ILS or LOC/DME RWY 17 approach.
TERMINAL PROCEDURES

BABELTHUAP ISLAND, PW

APP CRS
090°

TDZE
176

Apt Elev
176

PAC, 12 AUG 2021 to 7 OCT 2021

RNAV (GPS) RWY 9
BABELTHUAP/KOROR (ROR)(PTRO)

KOROR RADIO
123.6 (CTAF)

Circling NA north of Rwy 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.

WEXGY
2000
124° (15.4)

(IAF)
LUBEY
1900 Noot

(IAF/IAF)
JAKEF
1800

(FAF)
FAVGA

520±

A

RWO9

4 NM

090°

270°

1900

090°

1800

3.00°

TCH 52

RNAV (GPS) RWY 9

CATEGORY
LNAV MDA
CIRCLING

A
B
720-1
720-1

544 (600-1)
544 (600-1)

1/2
1/2

C
D
720-1/2
720-1/2

544 (600-1/2)
544 (600-1/2)

1/4
1/4

RNAV (GPS) RWY 9

AL-6432 (FAA)

BABELTHUAP ISLAND, PW
Orig-A 18JAN07

07°22'N-134°33'E

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

PAC, 12 AUG 2021 to 7 OCT 2021

- RNAV (GPS) RWY 27
- BABELTHUAP/KOROR (ROR)(PTRO)

**APP CRS**

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<th>7200</th>
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<tr>
<td>TDZE</td>
<td>176</td>
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<tr>
<td>Ap  Elev</td>
<td>176</td>
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</tbody>
</table>

- **KOROR RADIO**
  - 123.6 (CTAF)

- **MISSING APPROACH:** Climb to 1900 direct JAKEF WP and hold.

- **Circling NA north of Rwy 9-27. Obtain local altimeter setting on CTAF; when not received, procedure NA. DME/DME RNP-0.3 NA. No controlled airspace below 5500.**

- **RNAV (GPS) RWY 27**
  - BABELTHUAP/KOROR (ROR)(PTRO)

- **ELEV 176**
- **TDZE 176**

- **RNAV (GPS) RWY 27**
  - BABELTHUAP/KOROR (ROR)(PTRO)

- **BABELTHUAP ISLAND, PW**
  - Orig-A 18JAN07
  - 07°22'N-134°33'E

- **RNAV (GPS) RWY 27**
  - BABELTHUAP/KOROR (ROR)(PTRO)
Circling NA north of Rwy 9-27. Obtain local altimeter setting on CTAF; when not received procedure NA. No controlled airspace below 5500.

MISS APPROACH: Climb to 1900 via 090° bearing from ROR NDB, then right turn direct ROR NDB and hold.

CATEGORY | A | B | C | D
--- | --- | --- | --- | ---
S-9 | 980-1 804 (900-1) | 980-1/4 804 (900-1/4) | 980-2/4 804 (900-2/4) | 980-2/2 804 (900-2/2)
CIRCLING | 980-1 804 (900-1) | 980-1/4 804 (900-1/4) | 980-2/4 804 (900-2/4) | 980-2/2 804 (900-2/2)
GUAM, GU
Al-2146 (FAA) 20030

TERMINAL PROCEDURES

LOC/DME I-AWD 
110.9 
Chan 46

APP CRS 
063°

Rwy Idg 
TDZE

Apt Elev 
305

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

ILS or LOC RWY 6R
GUAM INTL (GUM)(PGUM)

MSCD APPROACH: Climb to 2100 then climbing right turn to 3000 direct UNZ VORTAC then an I-AWD to MEMKE/IAWD 14.1 DME/RADAR and hold.

MISSING ORGANIZATION

DME or RADAR REQUIRED

ILS or LOC RWY 6R
GUAM INTL (GUM)(PGUM)

LOCATOR: 110.9
Channel 46

ELEV 305 D TDZE 258

VGS and ILS glidepath not coincident (VGS Angle 3.00/TCH 76).

One Minute Holding Pattern
MEMKE I-AWD 14.1 RADAR

GS 3.00° TCH 57°

Use I-AWD DME when on localizer course.

CATEGORY A B C D

S-ILS 6R

1440-3/4 1182 (1200-3/4) 1440-3 1182 (1200-3)

1440-1 1182 (1200-3) 1440-3 1182 (1200-3)

1440-1 1135 (1200-1) 1135 (1200-1)

S-LOC 6R

1440-1 1135 (1200-1)

1440-1 1135 (1200-1)

ZAXUS DME MINIMUMS

S-LOC 6R

980-3/4 722 (700-3/4)

980-1 722 (700-1)

ZAXUS DME

980-2 1140-2/4

675 (700-2) 835 (900-2/3)

FAF to MAP 3.3 NM

HRL all Rwy

Knots

60

90

120

150

180

Min:Sec

5:18

3:32

2:39

2:07

1:46

GUAM, GU
Orig-D 20JUN19

13°29’N-144°48’E

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

PAC, 12 AUG 2021 to 7 OCT 2021

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 1½ mile.

*Missed approach requires a minimum climb of 276 feet per NM to 1400.

MALSР

MISSING APPROACH:
Climb to 3000 via track 063° to WABOX and hold.

ATIS
GUAM CERAP
AGANA TOWER
GND CON
CLNC DEL
119.0
119.8 269.0
118.1 340.2
121.9 336.4
121.9

WUVEN
T5900

Procedure NA for arrivals at WUVEN via A597 northwest bound.

 Procedure NA for arrivals at PULSE via G467 R596 westbound.

 Procedure NA for arrivals at ASADE via 8586 southeast bound.

 Procedure NA for arrivals at OBALE.

VGS1 and RNAV glidepath not coincident (VGS1 Angle 3.00°/TCH 73)

CATEGORY
A
B
C
D
RNP 0.30° DA
511-½ 255 (300-½)
RNP 0.30° DA
656-1 400 (400-1)

AUTHORIZATION REQUIRED

GUAM, GU
Orig-D 15DEC11

13°29'N-144°48'E

RNAV (RNP) Z RWY 6L

GUAM INTL (GUM)(PGUM)

RNAV (RNP) Z RWY 6L

GUAM INTL (GUM)(PGUM)

PAC, 12 AUG 2021 to 7 OCT 2021
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.

**Missed Approach:**
Climb to 3000 via track 063° to CIBOL and hold.

<table>
<thead>
<tr>
<th>ATIS</th>
<th>GUAM CERAP</th>
<th>AGANA TOWER</th>
<th>GND CON</th>
<th>CLNC DEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>119.0</td>
<td>119.8</td>
<td>269.0</td>
<td>121.9</td>
<td>121.9</td>
</tr>
</tbody>
</table>

Procedure NA for arrivals at WUVEN via A597 northeast bound.

Procedure NA for arrivals at PUJEE via G467 R596 westbound.

Procedure NA for arrivals at ASADE via I8586 southeast bound.

**Category:**
- A: 0.30°
- B: 0.30°
- C: 0.30°
- D: 0.30°

**RNP 0.30° DA:**
- 508½ 250 (300-½)
- 656-1 398 (400-1)

**Authorization Required:**

**Map Details:**
- Guam Intl (GUM) (PGUM)
- RNAV (RNP) Z Rwy 6R
- PAC 12 Aug 2021 to 7 Oct 2021
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.**

**VGSI and RNAV glideslope not coincident (VGSI Angle 3.00/TCH 75).**

**Procedure Turn NA.**

**Authorization Required:**

**RNP 0.20 DA**: 1103-2 3/4 810 (900-24)

**RNP 0.30 DA**: 1140-3 847 (900-3)
Circling NA southeast of Rwy 6R-24L.
DME required.
For inop ALS, increase Cat C visibility to 1½ SM.

**VOR or TACAN RWY 6L**
GUAM INTL (GUM) (PGUM)

**ATIS**
119.0

**AGANA TOWER**
118.1  340.2

**GND CON**
121.9  336.4

**CINC DEL**
121.9

**MSA UNZ 25 NM**

**2600**

**VORTAC UNZ**
115.8
Chan 105

**APP CRS**
062°

**Rwy Ldg**
11014

**TDZE**
256

**Apt Elev**
305

**MALSR**

**MISSING APPROACH:** Climbing to 2600 then right turn on UNZ VORTAC R-242 to FLAKE/7 DME and hold.

**ELEV 305**

**TDZE 256**

**062° 4.8 NM from FAF**

**341°**

**270°**

**554**

**TWR 352**

**HIRL all Rwy**

**GUM, GU**

**Orig-F 24MAY18**

**13°29'N, 144°48'E**

**PAC, 12 AUG 2021 to 7 OCT 2021**
Circling NA southeast of Rwy 6R-24L.
Rwy 24R helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 2300 then left turn on UNZ VOR/LOC R-062 to FIBEE/UNZ 15.6 DME 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

DME REQUIRED

242° 4.5 NM from FAF
341° 1000 ft

270° 1000 ft

VOR/LOC UNZ R-062
UNZ 7.6
TWR 352

2300
3000 to FIBEE
062° (15.6)

FIBEE UNZ 15.6
One Minute Holding Pattern

UNZ UNZ 25 NM

HRL all Rwys

13°29'S-144°48'E

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

NDB RWY 24R
GUAM INTL (GUM)(PGUM)

Circling NA southeast of Rwys 6R-24L. Rwys 24R helicopter visibility reduction below 1/2 SM NA. DME from UNZ VORTAC, simultaneous reception of AJA NDB and UNZ DME required.

ATIS
GUAM CERAP
AGANA TOWER
GND CON
CLNC DEL
119.0
119.8 269.0
118.1 340.2
121.9 336.4
121.9

DME REQUIRED

2300 from UNZ VORTAC to ADAYI 061° (15.6)

One Minute Holding Pattern

CATEGORY
A
B
C
D
S-24R
1220-1¼
915 (1000-1¼)
1220-2¼
915 (1000-2¼)

CIRCLING
1220-1¼
915 (1000-1¼)
1220-2¼
915 (1000-2¼)
1220-3
915 (1000-3)

GUAM, GU
Amdt 1A 24 May 2018

PAC, 12 Aug 2021 to 7 Oct 2021
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.

MISSING APPROACH: Climb to 2500 direct GPYLE and hold.
NOTE: GPS required.
NOTE: RNAV 1.
NOTE: Do not exceed 200K until LNBKG.

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.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 8: Climb heading 079° to 578 then direct SIPAE, then on track 161° to LNBKG, thence . . .

. . . .climb in holding (if required) to cross LNBKG at or above 5400 before proceeding on assigned route.
TERMINAL PROCEDURES

RNAV (GPS) RWY 21
HILO INTL (ITO) (PHTO)

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

RNAV (GPS) RWY 26
HILO INTL (ITO) (PHTO)

ATIS 126.4
HILO APP CON 119.7 269.2
HILO TOWER 118.1 (CTAF) 263.1
GND CON 121.9

Circling NA south of Rwy 8-26. Rwy 26 helicopter visibility reduction below 3/4 SM NA. WAAS VNAV NA. For uncompensated Baro-VNAV systems, UNAV/VNAV NA below 15°C or above 54°C. For inop AIS, increase UNAV/VNAV all Cats visibility to 3/4 SM and increase UNAV Cat A/B to 1 SM.

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 V13 eastbound.

[^1] VNAV glidepath not coincident (VGS Angle 2.60° TCH 70).

**CIRCLING**

**RNAV**

**MALS**

**MISSED APPROACH:** Climb to 500 then climbing right turn to 4000 direct CABIX and hold, continue climb-in-held to 4000.

---

**ATIS**

**HILO APP CON**

**HILO TOWER**

**GND CON**

**ELEV**

**TDZE**

---

**REIL**

**MIRL**

**HIRL**

---

**Category**

**A**

**B**

**C**

**D**

**UNAV/ VNAV**

**DA**

**MDA**

**CIRCLING**

**500**

**4000**

**CABIX**

**WAKIK**

**CEKOB**

**1800**

---

**19°43'N-155°03'W**

---

**PAC, 12 AUG 2021 to 7 OCT 2021**
Circling NA south of Rwy 8-26.

MIssed Approach: Climbing right turn to 3000 on ITO VORTAC R-002 then direct ITO VORTAC and hold.

ATIS 126.4
HILO APP CON 119.7 269.2
HILO TOWER 118.1 (CTAF) 263.1
GND CON 121.9

ELEV 38

FAF to MAP 1 NM

CATEGORY A B C D
Knots 60 90 120 150 180
Min/Sec 1.00 0.40 0.30 0.24 0.20

CIRCLING 500-1 540-1
462 (500-1) 502 (600-1)
840-2 802 (900-2)
1320-3 1282 (1300-3)

HILO, HAWAII
Orig-D 16JUL20

19º43'N-155º03'W

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

20310

ATIS
126.4
HILO TOWER
118.1, 263.1
GND CON
121.9

PAC, 12 AUG 2021 to 7 OCT 2021

20310

PAC, 12 AUG 2021 to 7 OCT 2021
TAKING OFF 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.

NOTE: Chart not to scale.
TERMINAL PROCEDURES

PARIS FOUR DEPARTURE (OBSTACLE)

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

NOTE: RNAV 1.
NOTE: GPS required.

TAKEOFF MINIMUMS
Rwy 3: Standard with minimum climb of 500’ per NM to 538.
Rwy 8: Standard with minimum climb of 500’ per NM to 538.
Rwy 21: Standard with minimum climb of 500’ per NM to 538, then 275’ per NM to 1400.
Rwy 26: Standard with minimum climb of 500’ per NM to 538, then 380’ per NM to 2100.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 030° to 538, then left turn direct PPKEO, thence . . . .
TAKEOFF RUNWAY 8: Climb on heading 079° to 538, then left turn direct PPKEO, thence . . . .
TAKEOFF RUNWAY 21: Climb on heading 210° to intercept course 124° to cross SLPAH at or above 2000, then on track 040° to cross ONOME at or above 3000, at or below 230K, then on track 320° to PPKEO, thence . . . .
TAKEOFF RUNWAY 26: Climb on heading 259° to 538, then right turn direct PPKEO, thence . . . .
. . . on (transition) maintain 10000 or lower filed altitude, expect filed altitude 5 minutes after departure.

BARBY TRANSITION (PPKEO1.BARBY)
LAVAS TRANSITION (PPKEO1.LAVAS)
PLACK TRANSITION (PPKEO1.PLACK)
UPOLU POINT TRANSITION (PPKEO1.UPP)
RNAV (RNP) RWY 26L

DANIEL K INOUYE INTL (HNL) (PHNL)

HONOLULU, HAWAII

APP CRS
Rwy Idg 12000
TDZE 10
Apt Elev 13

RNP AR APCH; RF required.

NA
For uncompensated Baro-VNAV systems, procedure NA below 15°C (58°F) or above 53°C (128°F).

MALSF

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

RNQP 0.15 DA
260°-7/4 250 (300-7/4)

AUTHORIZATION REQUIRED

HONOLULU, HAWAII
Orig: 17FEB19

21°19′N 157°55′W

PAC, 12 AUG 2021 to 7 OCT 2021

RNQP AR APCH; RF required.

NA
For uncompensated Baro-VNAV systems, procedure NA below 15°C (58°F) or above 53°C (128°F).

MALSF

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

RNQP 0.15 DA
260°-7/4 250 (300-7/4)

AUTHORIZATION REQUIRED

HONOLULU, HAWAII
Orig: 17FEB19

21°19′N 157°55′W

PAC, 12 AUG 2021 to 7 OCT 2021
RNAV (RNP) Z RWY 4R
DANIEL K INOUYE INTL (HNL) (PHNL)

**TERMINAL PROCEDURES**

**HONOLULU, HAWAII**

**APP CRS**
- Rwy ldg 8950
- TDZE 9
- Apit Elev 13

**RNAV (RNP) Z RWY 4R**

**Missed Approach:** Climb to 3800 then climbing right turn to 3000 direct ALANA and hold.

**GND CON**
- 121.9 348.6
- 121.4 281.4

Procedure NA for arrivals at ALANA on V8-21 southbound and on V16 southeast bound.

**AUTHORIZATION REQUIRED**

**HONOLULU, HAWAII**

**Amdt 2 30JAN20**

**PAC, 12 AUG 2021 to 7 OCT 2021**
RNAV (RNP) Z RWY 8L

For uncompensated Baro-VNAV systems, procedure NA below 17°C or above 54°C.

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

MALSR

For uncompensated Baro-VNAV systems, procedure NA below 17°C or above 54°C.

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

MALSR

MISSING APPROACH: Climb to 420 then climbing right turn to 3000 direct ALANA and hold.

ELEV 13 TDZE 13

See planview for multiple IF locations.

VERIPOS Glidepath not coincident (VERIPOS Angle 3.00/TCH 71).

RNP 0.30 DA 343-1/2 330 (400-1/2)

AUTHORIZATION REQUIRED
Procedure NA for arrivals at BOOKE on V15 westbound.

Procedure NA for arrivals at GECKO on V16 northwest bound and V4 southwest bound.
LOC RWY 4R

AAL-754 (FAA)

TERMINAL PROCEDURES

HONOLULU, HAWAII

LOC/DME HUM

110.5

Chan 42

APP CRS

042°

Rwy Idg

8950

TDZE

8

Apt Elev

13

DME required.

Circling Rwy 22R NA at night. 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.

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

ALTERNATE MISSED APCH FIX

ALANA CKH [17.4]

ELEV 13

TDZE 8

TERMINAL PROCEDURES

HONOLULU, HAWAII

LOC RWY 4R

DANIEL K INOUYE INTL (HNL) (PHNL)

2021

MISSING APPROACH: Climbing right turn to 3000 on heading 220° and HNL VORTAC R-171 to ALANA INT/ HNL 13.9 DME and hold.

170°

22R

HNL 13.9

ALANA

116.1 MKK

R-254

Chan 108

3000

224° (4.2)

HNL R-171

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 71).

FALOS I-HUM 2.7

3.03° TCH 55

3000

hgd 220°

PERLY I-HUM 6.2

ALANA

△

3.5 NM

1 NM

3.5 NM

1 NM

WAYPOINTS

WATER RWYS: 8W-26W 300X300

REIL Rwy 4L, 8R, 22L, 22R and 26R

HNL Rwy 4L-22R, 4R-22L, 8L-26R and 8R-26L

HONOLULU, HAWAII

Amdt 1D 25FEB21

21°19'N-157°55'W

PAC, 12 AUG 2021 to 7 OCT 2021
VOR or TACAN RWY 4R

DANIEL K INOUYE INTL (HNL) (PHNL)

**TERMINAL PROCEDURES**

**HONOLULU, HAWAII**

**AL-754 [FAA]**

**VORTAC HNL**

114.8

**Chn 95**

**APP CRS**

018°

**Rwy Idg**

8950

**TDZE**

8

**Fig A**

13

**MAISR**

34

**MISSING TABLE**

Circling Rwy 22R NA at night. Inop table does not apply. Circling NA for

**Cat A and B** northwest of Rwy 8L and 22R. Circling NA for Cat C and D

north of Rwy 8L-26R. Circling NA to sea lanes 4W, 8W, 22W, and 26W.

**Procedure NA for arrivals at HNL VORTAC on airway radials 171 CW 258.**

**HONOLULU TOWER**

118.1 257.8

**GND CON**

121.9 348.6

**CINC DEL**

121.4 281.4

**REL RWYS 4L, 8R, 22L, 22R and 26R**

**HI'IALA RWYS 4L-22R, 4R-22L, 8L-26R and 8R-26L**

**ELEV 13**

**TDZE**

8

**REL RWYS 8W, 22W, 5090 X 300, 4W-22W, 3000 X 150**

**WATER RWYS**

**At 18**

**4.8 NM from FAF**

**FAR TO MAP 3.9 NM**

**HONOLULU, HAWAII**

**Orig'E 29FEB21**

21°19'N-157°55'W
TERMINAL PROCEDURES

HONOLULU, HAWAII
AL-754 (FAA) 21056

VOR or TACAN-A
DANIEL K INOUYE INTL (HNL) (PHNL)

Circling Rwy 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 Rwy 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 127.9 251.15
HCF APPROACH 118.3 269.0
HONOLULU TOWER 118.1 257.8
GND CON 121.9 348.6
CNC DEL 121.4 281.4

Procedure NA for arrivals at CKH VORTAC airway radial 272.

Procedure NA for arrivals at HAUNA on V8 eastbound.

REI Rwys 4L, 8R, 22L, 22R and 26R
HIRL Rwys 4L-22R, 4R-22L, 8L-26R and 8R-26L

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HONOLULU, HAWAII
Amdt 1D 25FEB21

PAC, 12 AUG 2021 to 7 OCT 2021
**TERMINAL PROCEDURES**

**DME required.**

Circling Rwy 22R NA at night. Circling NA for Cats A and B northwest of Rwys B1 and 22R. Circling NA for Cats C and D north of Rwy B1-26R. 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

**GND CON**

121.9 348.6

**CLNC DEL**

121.4 281.4

**MISSING APPROACH:** Climbing right turn to 3000 on HNL R-171 to ALANA INT/HNL 13.9 DME and hold.

**Procedure NA for arrivals HNL VORTAC on V12-13 eastbound.**

**ELEV 13**

**CATEGORY**

A

B

C

D

**CIRCLING**

680-1

760-1

820-2½

1400-3

667 (700-1)

747 (800-1)

807 (900-2½)

1387 (1400-3)

HONOLULU, HAWAII

Amnd 2D 25FEB21

VOR or TACAN-B

DANIEL K INOUEY INTL (HNL) (PHNL)

21°19’N-157°55’W

PAC, 12 AUG 2021 to 7 OCT 2021
KAHE POWER PLANT VISUAL RWY 22L

PROCEDURE NOT AUTHORIZED AT NIGHT
RESTRICTED TO CAT I AND CAT II AIRCRAFT ONLY
Pilots may expect landing Runway 22R.
WAIALAE GOLF COURSE VISUAL RWY 22L

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**

---

**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 155º heading, or 1700-2½ for VCOA.

Rwys 8L: Standard with minimum climb of 310' per NM to 1000, or 1700-2½ for VCOA.

Rwys 8R: Standard with minimum climb of 270' per NM to 1000, or 1700-2½ for VCOA.

Rwys 26L: Standard with minimum climb of 237' per NM to 300, or 1700-2½ for VCOA.

---

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 4L/R, 8L/R:** Climbing right turn to 3000 on heading 155º 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 140º 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. Climb 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.

---

**HONOLULU TWO DEPARTURE (OBSTACLE)**

**HONOLULU, HAWAII**

**DANIEL K INOuye INTL (HNL) (PHNL)**

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**PAC, 12 AUG 2021 to 7 OCT 2021**
TAKEN OFF 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.
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 LHAKEL, 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: DANNNO departures expect direct/vectors to DANNNO.
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: JULL departures expect direct/vectors to JULL/V16/V20/V21.
NOTE: KATHS departures expect direct/vectors to KATHS/A450.
NOTE: KFOLA departures expect direct/vectors to KFOLA/V16.
NOTE: KOA departures expect direct/vectors to KOA.
NOTE: LLIA departures expect direct/vectors to LLIA/V15.
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: SOOON departures expect direct/vectors to SOOON.
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.
DEPARTURE ROUTE DESCRIPTION

Turn right/left to heading assigned by the Tower, expect vectors to KEOLA, maintain 5000; then on transition. Expect clearance to enroute altitude/flight level at KEOLA.

KATHS TRANSITION (KEOLA3.KATHS): From over KEOLA on HNL R-258 and SOK R-234 to KATHS.

LIHUE TRANSITION (KEOLA3.LIH): From over KEOLA on SOK R-111 and LIH R-148 to LIH VORTAC.

LILIA TRANSITION (KEOLA3.LILIA): From over KEOLA on track 282° to LILIA.

NONNI TRANSITION (KEOLA3.NONNI): From over KEOLA on HNL R-258 to NONNI.

PUPPI TRANSITION (KEOLA3.PUPPI): From over KEOLA on track 271° to PUPPI.

SOUTH KAUA'I TRANSITION (KEOLA3.SOK): From over KEOLA on SOK R-111 to SOK VORTAC.

TAKEOFF MINIMUMS

Rwys 26L/R: Standard.
Rwys 4L/R: Standard with minimum climb of 425’ per NM to 1900.
Rwys 8L: Standard with minimum climb of 305’ per NM to 1300.
Rwys 8R: Standard with minimum climb of 296’ per NM to 500.

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. Cross CKH R-240 at or above 2500’.

NOTE: Honolulu departures from Rwys 26L/R left turn to assigned heading must be completed within 2 NM of departure end of runway (HNL 3 DME).
NOTE: Departures from Rwys 26L/R must complete left turn to assigned heading within 2 NM of runway departure end (HNL 3 DME). Cross egress fixes at assigned cruising altitude.

NOTE: Departures from Rwys 4L/R and 8L/R must complete right turn to assigned heading within 2 NM of runway departure end (HNL 3 DME). Cross CKH R-240 at or above 2500'.

(NARRATIVE ON FOLLOWING PAGE)
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 Rwy 4L/R and 8L/R must complete right turn to assigned heading within 2 NM of departure end of runway. Cross CKH R-240 at or above 2500.

NOTE: Honolulu departures Rwy 26L/R left turn to assign heading must be completed within 2 NM of departure end of runway (HNL 3 DME).
DEPARTURE ROUTE DESCRIPTION

Turn right/left to heading assigned by Tower, expect vectors to OPIHI, maintain 5000; then on (transition). Expect clearance to enroute altitude/flight level at OPIHI.

CARRP TRANSITION (OPIHI3.CARRP): From over OPIHI right turn to intercept MKK R-254 to SEBYI, then on HNL R-204 to CARRP.

CHOKO TRANSITION (OPIHI3.CHOKO): From over OPIHI right turn to intercept MKK R-254 to SECJI, then on HNL R-241 to BINJO, then on track 240° to CHOKO.

DOVRR TRANSITION (OPIHI3.DOVRR): From over OPIHI on HNL R-187 to SELYY, then on track 153° to DOVRR.
NOTE: Departures from Runways 4L/R and 8L/R must complete right turn to assigned heading within 2 NM of runway departure end. Cross CKH R-240 at or above 2500.

NOTE: Departures Runways 26L/R must complete left turn to assign heading within 2 NM of runway departure end (HNL 3 DME).

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 8R/26L)
HCF APPROACH
124.8 317.6

**PALAY THREE DEPARTURE**

**LANAI TRANSITION (PALAY3.LNY):** From over PALAY INT on HNL R-110 and LNY R-290 to LNY VORTAC.

**MOLOKAI TRANSITION (PALAY3.MKK):** From over PALAY INT on MKK R-254 to MKK VORTAC.

NOTE: Chart not to scale.
TERMINAL PROCEDURES

PAC, 12 AUG 2021 to 7 OCT 2021

TERMINAL PROCEDURES

PIPLN ONE DEPARTURE (RNAV)

TOP ALTITUDE:
5000

TAKEOFF MINIMUMS
Rwys 4L/R, 4W, 8W, 22L/R, 22W, 26L/R, 26W: NA - ATC.
Rwys 8L/R: Standard with minimum climb of 500' per NM to 513.

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)

NOTE: Chart not to scale.
TERMINAL PROCEDURES

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: LIUA departures expect direct/vectors to LIUA/V15.
NOTE: LNY departures expect direct/vectors to LNY.
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.
RNAV (GPS) RWY 20
KAHULUI (OGG)(PHOG)

Procedure NA for arrivals at PLUMB on V6-V22 northwest bound.

Procedure NA for arrivals at SWEEP on V11 eastbound.

MISSED APPROACH: Climb to 500 then climbing left turn to 4300 direct NDREW and hold.

ATIS 128.6  HCF APPROACH (NORTH) 120.2 322.4  119.5 225.4
ATIS 128.6  HCF APPROACH (SOUTH) 118.7 (CTAF) 0 279.6

KAHULUI, HAWAII
AL-762 (FAA)
20310

20°54'N-156°26'W

KAHULUI, HAWAII
Amdt 2A 16JUL20

PAC, 12 AUG 2021 to 7 OCT 2021
RNAV (GPS) RWY 23
KAHULUI (OGG)(PHOG)

**TERMINAL PROCEDURES**

**APP CRS**
- **234°**

**DME/DME RNP-0.3 NA.**
- **ATIS**
  - **128.6**
  - **HCF APPROACH**
    - **120.2 322.4 (NORTH)**
    - **119.5 225.4 (SOUTH)**
  - **MAUI TOWER**
    - **118.7 (CTAF)**
  - **GND CON**
    - **121.9 279.6**
  - **CLNC DEL**
    - **120.6 290.5**
  - **UNICOM**
    - **122.95**

**TERMINAL PROCEDURES**

- **PAC, 12 AUG 2021 to 7 OCT 2021**

**KAHULUI, HAWAII**

**AL-762 (FAA)**

**ELEV 54**

**TDZE 17**

**234° to RW23**

**Profile NA for arrivals at PLUMB via V6-22 northwest bound.**

**Profile NA for arrivals at BARBY via V15-22 eastbound.**

**KAHULUI, HAWAII**

**Amdt: 1A 21 JUL 16**

**20°54′N-156°26′W**

**PAC, 12 AUG 2021 to 7 OCT 2021**
RNAV (GPS) Y RWY 2
KAHULUI (OGG)(PHOG)

TERMINAL PROCEDURES

KAHULUI, HAWAII

AL-762 (FAA)

20310

PAC, 12 AUG 2021 to 7 OCT 2021

APP CRS
Rwy Idg
TDZE
Apt Elev

024°
6995
53
53

MALSR

MISS DR. APPROACH: Climb to 3000 direct KRANE and hold.

ATIS
HCF APPROACH
MAUI TOWER
GND CON
CLNC DEL
UNICOM

128.6
120.2 322.4
118.7 (CTAF)
121.9 279.6
120.6 290.5
122.95

RNAV (GPS) Y RWY 2
KAHULUI (OGG)(PHOG)

KAHULUI, HAWAII
Amnd 2A 16JUL20

HRL Rwy 2-20
MIRL Rwy 5-23

20°54′N-156°26′W

RNAV (GPS) Y RWY 2

PAC, 12 AUG 2021 to 7 OCT 2021

RNAV (GPS) Y RWY 2
KAHULUI (OGG)(PHOG)
PAC, 12 AUG 2021 to 7 OCT 2021

TERMINAL PROCEDURES

KAHULUI, HAWAII

AL-762 (FAA)

VOR Y RWY 20

KAHULUI (OGG)(PHOG)

20310

ADFA or DME required.

ATIS 128.6

HCF APPROACH

IAF MAUI 115.1 OGG

HAU MAUI 118.7 (CTAF) 279.6

GND CON 121.9 279.6

CLNC DEL 120.6 290.5

UNICOM 122.95

MISSED APPROACH: Climb to 5000 on OGG R-188 to HARPO INT/OGG 16.7 DME then right turn on LNY R-095 to KEIKI INT/17 DME and hold.

Procedure NA for arrival on airway radials 320° or 069°.

KAHULUI, HAWAII

Amddt 1 10OCT19
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

JANUARY 2020
ANNUAL RATE OF CHANGE
0.0° E

HOT CARGO RAMP

COMMUTER AIR TERMINAL

TERMINAL

CARGO

SOUTH RAMP

HELICOPTER AIR TERMINAL

RWY 02-20
PCN 48 F/C/X/T
S-130, D-170, 2D-360, 2D/202-750

RWY 05-23
PCN 14 F/C/X/T
S-130, D-170, 2D-270

GA TRANSIENT PARKING

FIRE STATION

20°54.0'N
20°54.5'N
20°53.5'N
**TERMINAL PROCEDURES**

**BEACH FOUR DEPARTURE**

---

**TOP ALTITUDE: ASSIGNED BY ATC**

**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:** Chart not to scale.
**TERMINAL PROCEDURES**

**TOP ALTITUDE:**
16000

- **NOTE:** RNAV 1.
- **NOTE:** RADAR required.
- **NOTE:** GPS required.
- **NOTE:** Turboprop and turboprop aircraft only.
- **NOTE:** APACK departures expect direct/vectors to APACK/R463.
- **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/B596.
- **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 VORTAC.
- **NOTE:** LILIA departures expect direct/vectors to LILIA.
- **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.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 2:** Climb heading 024° to 554, then direct HIKA, 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.

**TAKEOFF MINIMUMS**

- **Rwy 2:** Standard with minimum climb of 500' per NM to 554.
- **Rwys 5, 20, 23:** NA - ATC.

**NOTE:** Chart not to scale.
TERMINAL PROCEDURES

MAUI FIVE 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
120.2 322.4

MOLOKAI
116.1 MKK
Chan 108

LORET
N20° 59.45'
W156° 41.48'

3500
R-010

6700

MAUI
115.1 OGG
Chan 98
N20°54.39' W156°25.26'

LANAI
117.7 LNY
Chan 124
N20°45.87' W156°58.13'

R-097
R-322

P-2

Cross at assigned altitude. When assigned above 14000', cross at or above 14000'.

NOTE: Takeoff requires minimum climb of 420' per NM until reaching 8000'.

NOTE: Chart not to scale.

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'.
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.
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 ONOHI/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 ONOHI/OGG 23 DME via heading 115° and OGG R-085.
TAKEOFF RUNWAY 20: Climbing on heading 204° to 2100 then climbing left turn to 7000 to ONOHI/OGG 23 DME via direct OGG VORTAC and OGG R-085.
BARBY TRANSITION (ONOHI2.BARBY): From over ONOHI/OGG 23 DME on OGG R-085 to BARBY/OGG 25 DME.
TERMINAL PROCEDURES

STACEY TWO DEPARTURE

KAHULUI (OGG)(PHOG)
KAHULUI, HAWAII

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.

STACEY TWO DEPARTURE
(STACY2.OGG) 03APR14

KAHULUI, HAWAII

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

(SWEEP2.SWEEP) 18032

SWEEP TWO DEPARTURE

KAHULUI (OGG)(PHOG) KAHULUI, HAWAII

ATIS 128.6
CLNC 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’
P-2

UPOLU POINT
112.3 UPP
Chan 70

MAUI
115.1 OGG
Chan 98
N20°54.39’-W156°25.26’

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.

SWEEP TWO DEPARTURE
(SWEEP2.SWEEP) 20AUG15

KAHULUI, HAWAII

KAHULUI (OGG)(PHOG)

PAC, 12 AUG 2021 to 7 OCT 2021
For uncompensated Baro-VNAV systems, procedure NA below 6°C (43°F) or above 48°C (118°F). RF required. GPS required. For inop ALS, increase RNP 0.30 all Cts visibility to 1½ mile.

**MISSING APPROACH:** Climb to 5000 on track 174° to WOPNA and right turn to NANLE, and on track 358° to ANDES and hold.

**AUTHORIZATION REQUIRED**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<tr>
<td>RNP 0.17 DA</td>
<td>297-3/4</td>
<td>250 (300-3/4)</td>
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<tr>
<td>RNP 0.30 DA</td>
<td>484-1</td>
<td>437 (500-1)</td>
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</tbody>
</table>
TERMINAL PROCEDURES

KAILUA-KONA, HAWAII

APP CRS  
Rwy Ldg 11000 
TDZE 37 
Apt Elev 47 

RNP APCH:

Circling NA east of Rwy 17-35. WAAS VNAV NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 17°C or above 54°C.

MISSED APPROACH: Climb to 500 then climbing left turn to 5000 direct AMERY and hold.

ATIS  127.4  
HCF CENTER 118.45 278.3  
KONA TOWER 120.3 (CTAF) 254.3  
GND CON 121.9  
CLNC DEL 118.6  

ELEV 47  
TDZE 37  

Procedure NA for arrival at KOA VORTAC on 8595 northbound.

VGS and RNAV glidepath not coincident (VGS Angle 3.00/TCH 71).

500  5000  AMERY

LNAV/ VNAV DA 366-1 329 (400-1)

LNAV MOA 420-1 383 (400-1)  420-1 383 (400-1½)

CIRCLING 520-1 473 (500-1)  600-2 553 (600-2)

KAILUA-KONA, HAWAII

Amnd 2 19JUL18

ELLISON ONIZUKA KONA INTL AT KEAHOE (KOA) (PHKO)
19°44’N-156°03’W

PAC, 12 AUG 2021 to 7 OCT 2021
**TERMINAL PROCEDURES**

**KAILUA-KONA, HAWAII**

- **APP CRS 174°**
- **Rwy Idg 11000**
- **TDZE 47**
- **Apt Elev 47**

**NOTE:** WAA VNAV NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -5°C (23°F) or above 43°F (109°F). Circling NA east of Rwy 17-35. DME/DME RNA-0.3 NA. For inop ALS, increase LNAV/VNAV all Cts visibility to 1¾ miles.

**MALSR**

**MISSING APPROACH:** Climb to 5000 direct HASOG and on track 264° to PILPE and on track 328° to AMERY and hold.

**ATIS 127.4**

**HCF CENTER 118.45 278.3**

**KONA TOWER 120.3 (CTAF) 254.3**

**GND CON 121.9**

**CLNC DEL 118.6**

---

**RNAV (GPS) Y RWY 17**

**ELLISON ONIZUKA KONA INTL AT KEAOHOLE (KOAP) (PHKO)**

**Procedure NA for arrivals on UPP VORTAC airways radials 200 CW 287.**

**Procedure NA for arrivals on KOA VORTAC airways radials 294 CW 327.**

---

**CATEGORY**

- **A**
- **B**
- **C**
- **D**

**LNAV DA**

- 540-1¾ 493 (500-1¾)

**LNAV MDA**

- 640-½ 593 (600-½)
- 640-1¾ 593 (600-1¾)

**CIRCLING**

- 640-1 593 (600-1)
- 640-1¾ 593 (600-1¾)
- 640-2 593 (600-2)

---

**KAILUA-KONA, HAWAII**

Amrd 1D 05NOV20

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**RNAV (GPS) Y RWY 17**

**ELLISON ONIZUKA KONA INTL AT KEAOHOLE (KOAP) (PHKO)**

19°44'N 156°03'W

---

**PAC, 12 AUG 2021 to 7 OCT 2021**
### BACK COURSE

- **LOC/AUZER**: I-KOA 109.7 Chan 34
- **ANDES**: KOA 11.7
- **KONA**: 112.1 Chan 38
- **JENSO**: I-KOA 0.5
- **HOXLY**: I-KOA 4.9
- **KOAA**: 4.7

**Route**:
- **Rwy Idg**: 11000
- **TDZE**: 37
- **Apt Elev**: 47

**Notes**:
- **ATIS**: 127.4
- **HCF CENTER**: 118.45 278.3
- **KONA TOWER**: 120.3 (CTAF) 254.3
- **GND CON**: 121.9
- **CLNC DEL**: 118.6

---

**VGS1 and descent angles not coincident**
(VGS1 Angle 3.00/TCH 71).

- **Remain within 10 NM**
- **Maintain 4700 feet or above until established outbound for procedure turn**

**Use I-KOA DME when on localizer course. Disregard glide slope indications.**

**354° 5 NM from FAF**

**Category**
- **A**: 460-1 423 (500-1)
- **B**: 520-1 473 (500-1)
- **C**: 460-1/4 423 (500-1/4)
- **D**: 520-1/2 473 (500-1/2)

---

**Ellison Onizuka Kona Intl at Keahole (KOA) (PHKO)**

**Location**: 19°44'N-156°03'W

**Effective Dates**: 12 August 2021 to 7 October 2021
**Terminal Procedures**

**VOR or TACAN RWY 17**

**Ellison Onizuka Kona Intl At Keahole (KOA) (PHKO)**

**ATIS** 127.4

**HCF CENTER** 118.45 278.3

**Kona Tower** 120.3 (CTAF) 254.3

**GND CON** 121.9

**CINC DEL** 118.6

**VORTAC KOA** 112.1

**Channel** 58

**App CRS** 171°

**Rwy Ldg** 11000

**TDZE** 47

**Mslr** 47

**DME** required.

**Circling NA east of Rwyy 17-35. For imop ALS, increase S-17 Cat A, B visibility to 1 mile, Cat E visibility to 1½ mile.**

**Missed Approach:** Climbing right turn to 1500 on KOA VORTAC R-294 to ANDES/11.7 DME and hold.

**Procedure NA for arrival on KOA VORTAC airway, radials 294 CW 327.**

**One Minute Holding Pattern**

**KAYAK KOA** 117°

**NENVE KOA** 22°

**INECE KOA** 52°

**KOA** 1500

**Andes KOA** R-294

**Category**

A 600-1/4 553 (600-1/4) 600-1 553 (600-1/4) 600-2 553 (600-2)

B 600-1 553 (600-1) 600-1 553 (600-1) 600-2 553 (600-2)

C 600-1 553 (600-1) 600-1 553 (600-1) 600-2 553 (600-2)

D 600-1 553 (600-1) 600-1 553 (600-1) 600-2 553 (600-2)

E 600-1 553 (600-1) 600-1 553 (600-1) 600-2 553 (600-2)

**Kailua-Kona, Hawaii**

Orig-D 05NOV20

**Ellison Onizuka Kona Intl At Keahole (KOA) (PHKO)**

**VOR or TACAN RWY 17**

PAC, 12 Aug 2021 to 7 Oct 2021
TERMINAL PROCEDURES

(AMERY4.AMERY) 20254
AMERY FOUR DEPARTURE
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)
AL-5761 (FAA)
KAILUA-KONA, HAWAII

ATIS
127.4
CINC DEL
118.6
KONA TOWER
120.3 (CTAF) 254.3
HCF CENTER
118.45 278.3

MAUI
115.1 OGG
Chan 98

UPOLU POINT
112.3 UPP
Chan 70

TAKENMINS
Rwys 17, 35: Standard with minimum climb of 300' 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.

(AMERY4.AMERY) 07DEC17
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

PAC, 12 AUG 2021 to 7 OCT 2021
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required.
NOTE: RNAV 1

TAKEOFF MINIMUMS
Rwys 17, 35: Standard.

NOTE: Chart not to scale.

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.
TERMINAL PROCEDURES

(ONIZU1, ONIZU) 21056
ONIZU ONE DEPARTURE (RNAV)

ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

ATIS
127.4
CLNC DEL
118.6
GND CON
121.9
KONA TOWER
120.3 254.3
HCF CENTER
118.45 278.3

TOP ALTITUDE: 5000

NOTE: GPS required.
NOTE: RNAV 1.
NOTE: Turbojet and turboprop aircraft only.

TAKING OFF MINIMUMS
Rwys 17, 35: Standard with minimum climb of 500’ per NM to 548.

V DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climb on heading 174° to 548, then climbing right turn direct ONIZU, thence. . . .
TAKEOFF RUNWAY 35: Climb on heading 354° to 548, then climbing left turn direct ONIZU, thence. . . .
. . . . on transition, maintain 5000, expect further clearance to filed altitude five (5) minutes after departure.

BARBY TRANSITION (ONIZU1.BARBY)
JULLE TRANSITION (ONIZU1.JULLE)
MAKEN TRANSITION (ONIZU1.MAKEN)
UPOLU POINT TRANSITION (ONIZU1.UPP)

NOTE: Chart not to scale.
RNAV (GPS)-A
KALAUPAPA (LUP) (PHLU)

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.

HCF CENTER
124.1 317.5

CTAF
122.9 0
RNAV (GPS)-B
KALAUPAPA (LUP) (PHLU)

TERMINAL PROCEDURES

KALAUPAPA, HAWAII
AL-6993 (FAA) 20310

APP CRS 101°
Rwy Idg N/A
TDZE N/A
Apt Elev 24

RNP APCH.
NA
Circling NA southeast of Rwy 5-23.
Procedure NA at night.
Use Kaunakakai altimeter setting.

MISSED APPROACH: Climbing left turn to 2900 direct WEKLO and hold.

HCF CENTER
124.1 317.5

CTAF
122.9

ELEV 24

MIRL Rwy 5-23

KALAUPAPA, HAWAII
Orig 20JUN19

PAC, 12 AUG 2021 to 7 OCT 2021

21°13'N-156°58'W
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) 16035
KALAUPAPA, HAWAII
KALAUPAPA, HAWAI
KALAUPAPA (LUP) (PHLU)
SL-6993 (FAA)
KALAUPAPA, HAWAII

PAC, 12 AUG 2021 to 7 OCT 2021
PAC, 12 AUG 2021 to 7 OCT 2021

TERMINAL PROCEDURES

RNAV (GPS) RWY 4
WAIMEA-KOHALA (MUE) (PHMU)

MISSING APPROACH. Climb to 5000 direct LICEP and on track 057° to TIGAH and hold.

AWOS-3PT 120.0
HCF CENTER 118.45 278.3
CTAF 122.9

VGS and descent angles not coincident (VGS Angle 2.5°/TCH 45).

MIRL Rwy 4-22
REIL Rwy 4 and 22

KAMUELA, HAWAII
Amend 1A 24JUL14

20°00'N-155°40'W
TERMINAL PROCEDURES

KAMUELA, HAWAII

VOR/DME RWY 4
WAIMEA-KOHALA (MUE)(PHMU)

AWOS-3PT 120.0
HCF CENTER 118.45 278.3
CTAF 122.9

Circling NA northwest of RwY 4-22.
When local altimeter setting not received, procedure NA.

MISSED 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.

VGGI and descent angles not coincident
(VGGI Angle 2.50/TCH 43).

One Minute
Holding Pattern

MUE 12.5
MUE 5.2

MUE R-057
MUE VOR/DME

7.3 NM
3.1 NM
1.9 NM

CATEGORY
A
B
C
D

S-4
3360-1 689 (700-1)
3360-2 689 (700-2)

CIRCLING
3520-1½ 849 (900-1¼)
3520-2½ 849 (900-2½)
3880-3 1209 (1300-3)

KAMUELA, HAWAII
Amdt 18 15AUG19

WAIMEA-KOHALA (MUE)(PHMU)
VOR/DME RWY 4

PAC, 12 AUG 2021 to 7 OCT 2021
When local altimeter not received, procedure NA.

Circling NA northwest of Rwy 4-22.

**TERMINAL PROCEDURES**

**AWOS-3PT**

120.0

**HCF CENTER**

118.45 278.3

**CTAF**

122.9

**UPOLU POINT**

112.3 UPP

Chan 70

**MUA MUE 25 NM**

5000

5000 NoPT 237° (6.4)

**II/IAF**

VELLA MUE 19.6

**KUPAU MUE 13.2**

**TIGAH MUE 13.2**

One Minute Holding Pattern

**MUE R-234**

**ALEWA MUE 1.3**

**JASON**

**KAMUELA**

113.3 MUE

Chan 80

**ELEV 2671**

**MIRL Rwy 4-22**

REIL Rwy 4 and 22

**KAMUELA, HAWAII**

Orig-A 15SEP16

**WAIMEA-KOHALA (MUE)(PHMU)**

**VOR/DME-A**

**PAC, 12 AUG 2021 to 7 OCT 2021**
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 1 1/2 miles. For inop MALSR when using Honolulu altimeter setting increase LNAV Cat C/D visibility to 1 1/2 miles. Helicopter visibility reduction below 1 SM NA. Procedure NA at right.

Procedure NA for arrivals at GECKO on V16 westbound.

For inop MALSR, increase LNAV Cat C/D visibility to 1 1/2 miles. For inop MALSR when using Honolulu altimeter setting increase LNAV Cat C/D visibility to 1 1/2 miles. Helicopter visibility reduction below 1 SM NA. Procedure NA at right.

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<tr>
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<th>B</th>
<th>C</th>
<th>D</th>
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<td>LNAV MDA</td>
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<td>443 (500-1)</td>
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<tr>
<th>CIRCLING</th>
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<th>490 (500-1)</th>
<th>520-1 1/2</th>
<th>580-2</th>
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<tr>
<td>490 (500-1)</td>
<td>550 (600-2)</td>
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PAC, 12 AUG 2021 to 7 OCT 2021

KAPOLEI, HAWAII
Orig-A 26MAY16

KALAELOA (JOHN RODGERS FLD) (JRF) (PHJ JR)

RNAV (GPS) RWY 4R
Circling NA north of Rwy 4R-22L
Inop table does not apply

ATIS
119.8

HCF CENTER
118.3 269.0

KALAELOA TOWER* 132.6 (CTAF) 340.2

GND CON 123.8 336.4

CLNC DEL 121.7 380.5

Procedure NA for arrivals at GECKO via V16 southeast bound.
DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 11: Climb on heading 107° to 540, then climbing right turn direct JELIE. Cross JELIE between 2300 and 3000, at or below 230K, thence. . . .

TAKEOFF RUNWAY 22L: Climb on heading 224° to 530, then climbing left turn direct JELIE. Cross JELIE between 2300 and 3000, at or below 230K, thence. . . .

. . . (transition), maintain ATC assigned altitude. Expect filed altitude 10 minutes after departure.

APACK TRANSITION (JELIE1.APACK)
CLUTS TRANSITION (JELIE1.CLUTS)
EBBER TRANSITION (JELIE1.EBBER)
FITES TRANSITION (JELIE1.FITES)
KEOLA TRANSITION (JELIE1.KEOLA)
MOLOKAI TRANSITION (JELIE1.MKK)
UPOLU POINT TRANSITION (JELIE1.UPP)
ZIGIE TRANSITION (JELIE1.ZIGIE)
108 TERMINAL PROCEDURES

CIRCLING Rwy 17, 23 NA at night.

MISSING 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.

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<thead>
<tr>
<th>ATIS</th>
<th>HCF CENTER</th>
<th>MOLOKAI TOWER</th>
<th>GND CON</th>
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<tbody>
<tr>
<td>128.2</td>
<td>124.1</td>
<td>125.7 (CTAF)</td>
<td>121.9</td>
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**MSA** MKK 25 NM

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**CATEGORY**

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<td>D</td>
<td>1400-1/2</td>
<td>946 (1000-1/4)</td>
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**WUBAL FIX MINIMUMS (DME REQUIRED)**

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<th>946 (1000-1/4)</th>
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<tr>
<td>WUBAL</td>
<td>2.4</td>
<td>MAVGN MKK 3.8</td>
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**ELEV 454**

---

**REL Rwy 5**

MIRL Rwsys 5-23 and 17-35

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**KAUNAKAKAI, HAWAII**

Amdt 17A 05NOV20

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21°09’N-157°06’W

---

PAC, 12 AUG 2021 to 7 OCT 2021
TAKENOFF 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.

NOTES CONTINUED ON FOLLOWING PAGE

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKENOFF RUNWAY 5: Climbing left turn heading 340° to 1000 then climbing left
        turn direct MKK VORTAC, thence. . . .
TAKENOFF RUNWAY 17: Climbing heading 169° to 1300 then climbing right turn direct
        MKK VORTAC, thence. . . .
TAKENOFF RUNWAY 23: Climbing left turn heading 170° to 1700 then climbing right
        turn direct MKK VORTAC, thence. . . .
TAKENOFF RUNWAY 35: Climbing 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.

KAUNAKAKAI ONE DEPARTURE (OBSTACLE)

(HMK1 .MKK) 16035
KAUNAKAKAI ONE DEPARTURE (OBSTACLE)
(HMK1 .MKK) 29 MAY 14

MOLOKAI (MKK) (PHMK)

KAUNAKAKAI, HAWAII

SL-759 (FAA)
TERMINAL PROCEDURES

TERMINAL PROCEDURES

PAC, 12 AUG 2021 to 7 OCT 2021

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.
TERMINAL PROCEDURES

BLUSH TWO DEPARTURE

MOLOKAI (MKK) (PHMK)
KAUNAKAKAI, HAWAI'I

(112 TERMINAL PROCEDURES)
PAC, 12 AUG 2021 to 7 OCT 2021

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°20.02'
W156°40.43'
P-2

TAKEOFF MINIMUMS
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.

BLUSH TWO DEPARTURE
(BLUSH2.BLUSH) 29MAY14

KAUNAKAKAI, HAWAI'I
MOLOKAI (MKK) (PHMK)

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

(HAPA3.HAPAI) 18312
HAPAI THREE DEPARTURE
AL-759 (FAA)
MOLOKAI (MKK) (PHMK)
KALUNAKAKAI, HAWAII

NOTE: DME required.
NOTE: Chart not to scale

TAKING OFF MINIMUMS
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.

DEPARTURE 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 (HAPA3.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 (HAPA3.LOKIE): From over HAPAI/MKK 10 DME on MKK VORTAC
10 DME Arc CCW to LOKIE INT/MKK 10 DME.

MOLOKAI TRANSITION (HAPA3.MKK): From over HAPAI/MKK 10 DME, left turn heading 180°
and MKK R-030 to MKK VORTAC.

HAPAI THREE DEPARTURE
(HAPA3.HAPAI) 29MAY14

KAUNAKAKAI, HAWAII
MOLOKAI (MKK) (PHMK)

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

MAULA ONE DEPARTURE (RNAV)

ALANA

LOKIE

SAKKI

NIUUU

MAULA

2800

230K

TOP ALTITUDE: 5000

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climb on heading 049° to intercept course 139° to cross MAULA at or above 2800 and at or below 230K, thence. . . . .

. . . . on (transition) maintain 5000, expect filed altitude 5 minutes after departure.

ALANA TRANSITION (MAULA1.ALANA)

EELIO TRANSITION (MAULA1.EELIO)

LANAI TRANSITION (MAULA1.LNLY)

LOKIE TRANSITION (MAULA1.LOKIE)

NOTE: RNAV 1.

NOTE: GPS required.

NOTE: RADAR required.

NOTE: Chart not to scale
TERMINAL PROCEDURES

RNAV (GPS) RWY 23
KOSRAE (TTK)(PTSA)

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.

KOSRAE RADIO
123.6 (CTAF) 

KOSRAE, FM
Orig-B 12MAR09

PAC, 12 AUG 2021 to 7 OCT 2021

RNAV (GPS) RWY 23
KOSRAE (TTK)(PTSA)

PAC, 12 AUG 2021 to 7 OCT 2021
**TERMINAL PROCEDURES**

**KOSRAE, FM**  
**NDB/DME UKS 393**  
**Chan 100 (115.3)**

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<th>B</th>
<th>C</th>
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<td>CIRCLING</td>
<td>500-3</td>
<td>488 (500-3)</td>
<td>580-3</td>
<td>568 (600-3)</td>
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**APP CRS**  
**Rwy Idg** N/A  
**TDZE** N/A  
**Apt Elev** 12

**DME required.**

⚠️ **Circling NA southeast of Rwy 5-23.** Obtain local altimeter setting on CTAF; when not received, procedure NA. No controlled airspace below 5500 feet.

**KOSRAE RADIO**  
123.6 (CTAF)

**MISSING APPROACH:** Climbing left turn to 3000 on UKS NDB/DME 300° bearing and 10 DME Arc to OBOY 10 DME.

**KOSRAE**  
**393 UKS 084°**  
**Chan 100 (115.3)**
Circling Rwy 21 NA at night. When local altimeter setting not received, procedure NA, except for operators with approved weather reporting service. Circling NA for Cal C southeast of Rwy 3-21.

MISSING APPROACH: Climbing left turn to 3300 direct GRAMY and hold.
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.

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.

Use I-IH DME when on the localizer course.

**LOC only.**

**21°59'N-159°20'W**
For uncompensated Baro-VNAV systems, procedure NA below 14°C (57°F) or above 48°C (118°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.**

**Authorization Required**

**RNAV (RNP) Z RWY 21**

**TWR**, **TDZE**, **HIRL**, **REIL**, **MIRL**

**20218**

**LIHUE, HAWAII**

**AL-776 (FAA)**

**LIHUE (LIH)(PHLI)**

**21º59'N-159º20'W**

**PAC, 12 AUG 2021 to 7 OCT 2021**
**TERMINAL PROCEDURES**

**RNAV (RNP) Z RWY 35**

**LIHUE (LIH)(PHLI)**

**PAC, 12 AUG 2021 to 7 OCT 2021**

**APP CRS**
- **349°**
  - **Rwy Idg**: 6500
  - **TDZE**: 96
  - **Apt Elev**: 153

**ATIS**
- **127.2**

**HCF CENTER**
- **126.5**
  - **269.4**

**LIHUE TOWER**
- **118.9**
  - **CTAF**: 263.1

**GND CON**
- **121.9**

**ELEV 153**
- **TDZE 96**

**HIRL Rwy 17-35**
- **REIL Rwy 3, 17 and 21**
- **MIRL Rwy 3-21**

**Autorization Required**

**RNP 0.30 DA**
- **599-1/4**
  - **503 (500-1/4)**

**CATEGORY**
- **A**
- **B**
- **C**
- **D**

**MIAL Rwy 35, 35 NM**
- **GS 3.00°**
- **TCH 55**

**Procedure NA for arrivals at NAPUA via V16 southeast bound.**

For inoperative MALSR, increase RNP 0.30 visibility to 1/4. For uncompensated VOR-NAV systems, procedure NA below 14°C (57°F) or above 48°C (119°F).
RNAV (GPS) Y RWY 35
LIHUE (LHI)(PHLI)

For inoperative MALS, increase LNAV Cat A visibility to 1 mile and Cat E to 3 miles. Circling NA west of RW 17-35. Circling NA at night. DME/DME RNP-0.3 NA.

ATIS 127.2
HCF CENTER 126.5 269.4
LIHUE TOWER * 118.9(CTAF) 263.1
GND CON 121.9

ELEV 153
TDZE 96

RNAV (GPS) Y RWY 35
LIHUE (LHI)(PHLI)

TERMINAL PROCEDURES

PAC, 12 AUG 2021 to 7 OCT 2021

21°59’N-159°20’W

LIHUE, HAWAII
Orig-D 05Jul07
TERMINAL PROCEDURES

VOR/DME or TACAN RWY 21
DARIL LIH 12 RADAR
NAGAI LIH 12
KEKO LIH 9
LELEO LIH 1.9
LHUE TOWER 118.9 (CTAF) 263.1
GND CON 121.9

ATIS 127.2
HCF CENTER 126.5 269.4
LIHUE 113.5 LIH 127.2

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

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

VOR or TACAN RWY 35
LIHUE (LIH)(PHLI)

- CIRCLING NA at night. Inoperative table does not apply.
- CIRCLING NA west of RWY 17-35. DME or RADAR required.
- MISSED APPROACH: Climbing right turn to 3000 via heading 100° and LIH VORTAC R-070 to KREEN/1 DME/RADAR and hold.

ATIS 127.2
HCF CENTER 126.5 269.4
LIHUE TOWER 118.9 (CTAF) 263.1
GND CON 121.9

LIHUE 113.5 LIH
Chan 82

LIHUE, HAWAII
Amdt 7A 23AUG11

PAC, 12 Aug 2021 to 7 Oct 2021
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READERBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
NOTE: DME required.

NOTE: Chart not to scale.

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.

DEPARTURE ROUTE DESCRIPTION

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.
RNAV (GPS) RWY 7
AMATA KABUA INTL (MAJ)(PKMJ)

MISSED APPROACH: Climb to 1700 direct TOZTU and hold.

MAJURO RADIO
123.6 (CTAF)

RNAV (GPS) RWY 7
AMATA KABUA INTL (MAJ)(PKMJ)
TERMINAL PROCEDURES

RNAV (GPS) RWY 25
AMATA KABUA INTL (MAJ)(PKMJ)

MAJURO RADIO
123.6 (CTAF)

RNP APCH.

Rwy 25 helicopter visibility reduction below 3/4 SM NA. Obtain local altimeter setting on CTAF; when not received, procedure NA. Uncontrolled airspace below 5500.

MISSED APPROACH: Climb to 1700 direct OGEVE and hold.

MAJURO ATOLL, MH
AL-6049 (FAA) 21224

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

MAJURO ATOLL, MH

AL-6049 (FAA)

NDB/DME MAJ

316

APP CRS

062°

Rwy ldg

7913

TDZE

7

Apt Elev

7

MAJURO RADIO

123.6 (CTAF)

MAJURO

316 MAJ

Channel 114 (116.7)

208°

241°

242°

MAJURO

316 MAJ

Channel 114 (116.7)

062°

ZADES MAJ 2.2

ZADES MAJ 2.2

ZADES MAJ 2.2

NA

Rwy 7 helicopter visibility reduction below ¾ SM NA. Obtain local altimeter setting on CTAF; when not received, procedure NA. Uncontrolled airspace below 5500.

MisSED APPROACH: Climb to 1000 on MAJ NDB/DME bearing 062° then climbing right turn to 1300 direct MAJ NDB/DME and hold.

MAJURO ATOLL, MH

Amdt 18 31DEC20

07°04'N-171°16'E

AMATA KABUA INTL (MAJ)(PKMJ)

NDB RWY 7

PAC, 12 AUG 2021 to 7 OCT 2021
TERMINAL PROCEDURES

NDB RWY 25
AMATA KABUA INTL (MAJ) (PKMJ)

MAJURO RADIO 123.6 (CTAF)

MAJURO ATOLL, MH

NDB/DME MAJ 316
Ch 114 (116.7)
APP CRS 249°
Rwy Idg 7913
TDZE 7
Apt Elev 7

NA Rwy 25 helicopter visibility reduction below 1/2 SM NA.
Obtain local altimeter setting on CTAF; when not received, procedure NA. Uncontrolled airspace below 5500.

MAJURO ATOLL, MH

MISSED APPROACH: Climb to 1000 on MAJ NDB/DME bearing 249° then climbing right turn to 1300 direct MAJ NDB/DME and hold.

CIRCLING

CATEGORY A B C D
S-25 600-1 593 (600-1) 600-1 593 (600-1½) 593 (600-1¼)
TIVIE FIX MINIMUMS (DME REQUIRED)
S-25 520-1 513 (600-1) 520-1 513 (600-1½) 513 (600-1¼)

PAC, 12 AUG 2021 to 7 OCT 2021
**TERMINAL PROCEDURES**

**RNAV (GPS) RWY 6**

**HENDERSON FLD (MDY) (PMDY)**

**MIDWAY ATOLL, QM**

<table>
<thead>
<tr>
<th>APP CRS</th>
<th>Rwy Idg</th>
<th>TDZE</th>
<th>Apt Elev</th>
</tr>
</thead>
<tbody>
<tr>
<td>059°</td>
<td>7800</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

**RNP A/PCH:**

- No controlled airspace below 5500. When local altimeter setting not received procedure NA. Rwy 6 helicopter visibility reduction below 3/4 SM NA.
- **MISSING APPROACH:** Climb to 1700 direct ESOVY WP and hold.

**AWOS-3P**

<table>
<thead>
<tr>
<th>MIDWAY RADIO</th>
<th>CTAF</th>
</tr>
</thead>
<tbody>
<tr>
<td>118.325</td>
<td>126.2</td>
</tr>
<tr>
<td></td>
<td>122.9</td>
</tr>
</tbody>
</table>

**RNAV (GPS) RWY 6**

**MIDWAY ATOLL, QM**

**AL-2154 (FAA)**

**21224**

**RNAR (GPS) RWY 6**

**HENDERSON FLD (MDY) (PMDY)**

**MIDWAY ATOLL, QM**

**Origin E 12AUG21**

**PAC, 12 AUG 2021 to 7 OCT 2021**

**ELEV 12**

**TDZE 12**

**4 NM Holding Pattern**

**OWODY**

**EKUZY**

**1700**

**ESOVY**

**1700**

**RW06**

**CATEGORY**

<table>
<thead>
<tr>
<th>LNAV MDA</th>
<th>CIRCLING</th>
</tr>
</thead>
<tbody>
<tr>
<td>460-1</td>
<td>520-1</td>
</tr>
<tr>
<td>448 (500-1)</td>
<td>508 (600-1)</td>
</tr>
</tbody>
</table>

**5 NM**

**TCH 55**

**5.1 NM**

**28°12'N-177°23'W**

**PAC, 12 AUG 2021 to 7 OCT 2021**
RNAV (GPS) RWY 24
HENDERSON FLD (MDY) (PMDY)

TERMINAL PROCEDURES

APP CRS
239°

Rwy Idg 7400
TDZE 7
Apt Elev 12

RNP APCH.

No controlled airspace below 5500. When local altimeter setting not received procedure NA. Rwy 24 helicopter visibility reduction below 3/4 SM NA.

RNAV (GPS) RWY 24

MISSING APPROACH: Climb to 1700 direct OWODY WP and hold.

AWOS-3P
118.325

MIDWAY RADIO
126.20 257.8

CTAF
122.9

MISSING APCH FIX

OWODY

2000 (1715)

191°

RW24

1700

AVIKY

ESOVY

4 NM

Holding Pattern

1700

SUMMARY

CATEGORY
LNAV
CIRCLING

A
MDA
460-1
520-1

B
453 (500-1)
508 (600-1)

C
453 (500-1½)
508 (600-1½)

D
453 (500-1½)
508 (600-1½)

MIDWAY ATOLL, QM
Org-E 12AUG21

HENDERSON FLD (MDY) (PMDY)
RNAV (GPS) RWY 24

PAC, 12 AUG 2021 to 7 OCT 2021

28°12'N-177°23'W
No controlled airspace below 5500 feet. When local altimeter not received, procedure NA. Rwy 6 helicopter visibility reduction below 3/4 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**

**NDB RWY 6**

**HENDERSON FLD (MDY) (PMDY)**

**MIDWAY ATOLL, QM**

NDB MDY

<table>
<thead>
<tr>
<th>NDB</th>
<th>MDY</th>
<th>APP CRS</th>
<th>Rwy Idg</th>
<th>TDZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>055°</td>
<td>7800</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

**TUNA**

**1300**

**MDA**

**2000**

**MIDWAY**

**262° (126.2)**

**UJXO**

**ELEV 12**

**TDZE 12**

**Remain within 10 NM**

**1200**

**235°**

**055°**

**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-6</td>
<td>560-1</td>
<td>548 (600-1)</td>
<td>560-1</td>
<td>548 (600-1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>548 (600-1/2)</td>
<td>560-1/2</td>
<td>548 (600-1/2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>548 (600-1/3)</td>
<td>560-1/3</td>
<td>548 (600-1/3)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>560-1</td>
<td>548 (600-1)</td>
<td>560-1/2</td>
<td>548 (600-1/2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>548 (600-1/2)</td>
<td>580-2</td>
<td>548 (600-2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>548 (600-2)</td>
<td>568 (600-2)</td>
<td></td>
</tr>
</tbody>
</table>

**MIDWAY ATOLL, QM**

Orig D 12AUG21

**HENDERSON FLD (MDY) (PMDY)**

**NDB RWY 6**

**AL-2154 (FAA)**

**PAC, 12 AUG 2021 to 7 OCT 2021**
TERMINAL PROCEDURES

MIDWAY ATOOLL, QM

AL-2154 (FAA)

NDB RWY 24
HENDERSON FLD (MDY) (PMDY)

NDI 400
APP CRS 243°
Rwy Idg TDZE
Apt Elev 7 12

No controlled airspace below 5500 feet. When local altimeter setting not received, procedure NA. Rwy 24 helicopter visibility reduction below 1/8 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

ELEV 12
TDZE 7

MIRL Rwy 6-24
REL Rwy 6 and 24

MIDWAY ATOOLL, QM
Org-D 12AUG21

28°12'N-177°23'W

PAC, 12 AUG 2021 to 7 OCT 2021

CATEGORY A B C D
S-24 560-1 553 (600-1) 560-1 1/2 553 (600-1 1/2) 560-1 3/4 553 (600-1 3/4)
CIRCLING 560-1 548 (600-1) 560-1 1/2 548 (600-1 1/2) 580-2 568 (600-2)
**TERMINAL PROCEDURES**

**ILS or LOC RWY 5**

**PAGO PAGO INTL (PPG) (NSTU)**

**LOC/DME - I-TUT**

<table>
<thead>
<tr>
<th>LOC/DME</th>
<th>I-TUT</th>
<th>App CRS</th>
<th>Rwy Hdg</th>
<th>TDZE</th>
<th>Apt Elev</th>
</tr>
</thead>
<tbody>
<tr>
<td>110.3</td>
<td>110.3</td>
<td>046°</td>
<td>8999</td>
<td>29</td>
<td>31</td>
</tr>
</tbody>
</table>

**DME required.**

Circling NA northwest of Rwy 5-23. Rwy 5 helipad visibility reduction below 3/4 SM NA. For inap ALS, increase S-ILS 5 all Cloud visibility to 2 3/4 SM; increase 5-LOC 5 Cat A visibility to 1 SM and Cats C/D to 2 SM.

**AWOS 3 PT**

127.925

**FALEOLO APP CON**

118.1 6.553(HF)

**CTAF**

122.9

**118.3**

**ALTERNATE MISSED APCH FIX**

PAGO PAGO TUT 110.3

**LOCALIZER**

110.3 I-TUT

Chan 40

LOC offset 1.6°

**MISSp ROACH.** Climb to 1100 then climbing right turn to 3000 on TUT VORTAC.

**REGION**

R-087 to CELIM/TUT 10 DME and hold, continue climb-in-hold to 3000.

**AWOS 3 PT**

127.925

**FALEOLO APP CON**

118.1 6.553(HF)

**CTAF**

122.9

**118.3**

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110.3 I-TUT

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127.925

**FALEOLO APP CON**

118.1 6.553(HF)

**CTAF**

122.9

**118.3**

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**LOCALIZER**

110.3 I-TUT

Chan 40

LOC offset 1.6°

**MISSp ROACH.** Climb to 1100 then climbing right turn to 3000 on TUT VORTAC.

**REGION**

R-087 to CELIM/TUT 10 DME and hold, continue climb-in-hold to 3000.
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. Rw 5 helicopter visibility reduction below 3/4 SM NA. Inop table does not apply to LNAV CATS A/B. For inop ALS, increase LNAV/VNAV all CATS visibility to 1 1/2 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 1/2°.

MALSR Maintain 185 K max until 760. Climb to 760 then climbing right turn to 4000 direct DRAWN and hold.

RNAP PROCEDURES

<table>
<thead>
<tr>
<th>App CRS</th>
<th>Rwly Leg</th>
<th>TDZE</th>
<th>Apt Elev</th>
</tr>
</thead>
<tbody>
<tr>
<td>047°</td>
<td>8999</td>
<td>32</td>
<td>32</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AWOS-3Pt</th>
<th>Faleolo App Con</th>
<th>CTA</th>
<th>CTAF</th>
<th>118.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>127.925</td>
<td>118.1</td>
<td>6.553 (HF)</td>
<td>122.9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MSA</th>
<th>Hopid 25 NM</th>
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<tbody>
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<td>3300</td>
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<table>
<thead>
<tr>
<th>Holding Pattern</th>
<th>VGI and RNAV glidepath not coincident (VGI Angle 3.25°/TCH 57)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3700</td>
<td>227°</td>
</tr>
<tr>
<td>047°</td>
<td>2300</td>
</tr>
<tr>
<td>047°</td>
<td>2300</td>
</tr>
</tbody>
</table>

<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>LNAV/VNAV DA</td>
<td>551-1</td>
<td>519 (600-1)</td>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>LNAV MDA</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>760-1</td>
<td>728 (800-1)</td>
<td>760-1 1/2</td>
<td>728 (800-1 1/2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CIRCLING</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>760-1</td>
<td>728 (800-1)</td>
<td>820-2 1/2</td>
<td>860-2 1/2</td>
</tr>
</tbody>
</table>

PAGO PAGO, AS
Orig-B 13AUG19

14°20'S-170°43'W

PAGO PAGO INTL (PPG) (NSTU)

RNAP PROCEDURES

TERMINAL PROCEDURES

RNAV (GPS) RWY 5

PAGO PAGO INTL (PPG) (NSTU)

RNAV (GPS) RWY 5

PAC, 12 AUG 2021 to 7 OCT 2021
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.

**MISSPAPCH FIX**

**DRAWN**

**50NM**

**4000**

**DRAWN**

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 75).

LNAV only.

- 1.2 NM to RW23
- 3.9 NM to RW23

WUTEK

**NOTSE**

**HUMTU**

4 NM Holding Pattern

- **3700**
- **048°**
- **228°**

Procedure NA for arrivals on TUT VORTAC airway racials 318 CW 138.

**CATEGORY**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
</table>

**LNAV/VNAV DA**

- 489-1/8 (500-1%)
- 480 (500-1%)

**LNAV MDA**

- 460-1
- 451 (500-1%)
- 460-1/8
- 451 (500-1%)}

**CIRCLING**

- 520-1
- 700-1
- 820-2/4
- 860-2/4

- 488 (500-1)
- 668 (700-1)
- 788 (800-2/4)
- 828 (900-2/4)

**HRI Rwy 5-23 and B-26**

**PAGO PAGO, AS**

**Orig-A 08NOV18**

**14°20'5"-170°43'W**
**TERMINAL PROCEDURES**

**VOR or TACAN-B**

**Pago Pago Intl (PPG) (NSTU)**

**VORTAC TUT**

112.5
Chan 72

**APP CRS**

238°

**Rwy Idg**

TDZE

**Apt Elev**

N/A

N/A

31

**DME required.**

**Circling NA northwest of Rwy 5-23.**

**MISSED APPROACH:** Climbing left turn to 3000 on TUT VORTAC R-180 to PITI/10 DME and hold, continue climb-in-hold to 3000.

**AWOS-3PT**

127.925

**FALEOLEO APP CON**

118.1 6.553 (HF)

**CTAF**

122.9

**118.3**

**Procedure NA for arrivals on TUT VORTAC airway radials 358° CW 118.**

**ELEV 31**

** CATEGORY**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRCLING</td>
<td>560-1</td>
<td>700-1</td>
<td>820-2 ¼</td>
</tr>
<tr>
<td></td>
<td>529 (600-1)</td>
<td>669 (700-1)</td>
<td>789 (800-2 ¼)</td>
</tr>
</tbody>
</table>

**HIRL Rwy 5-23 and 8-26**

**PAC, 12 Aug 2021 to 7 Oct 2021**
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 5,500 feet.

MISSED APPROACH: (Do not exceed 230K until WRENS) Climb to 2300 on the RNAV missed approach route to WRENS and hold.
Obtain local altitude 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.

**RNAV (RNP) Z RWY 9**

**Pohnpei Intl (PNI)(PTPN)**

**POHNEPI RADIO 123.6 (CTAF)**

**MISSED APPROACH:** (Do not exceed 230K until WRENS) Climbs to 2300 on the RNAV missed approach route to WRENS and hold.

**Procedure Turn NA**

See plan view for multiple IF locations.

**RATIONALE**

- **RNAV (RNP) Z RWY 9**
- **Pohnpei Intl (PNI)(PTPN)**

**Authorization Required**

**CATEGORY**

A | B | C | D
---|---|---|---
RNP 0.15 DA | 259-1 | 250 (300-1)

**PAC, 12 AUG 2021 to 7 OCT 2021**
TERMINAL PROCEDURES

PAC, 12 AUG 2021 to 7 OCT 2021

RNAV (GPS) RWY 27
POHNPEN INTL (PNI)(PTPN)

POHNPEN RADIO
123.6 (CTAF)

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.

MISSED APPROACH:
Climb to 3000 direct WULON and hold.

POHNPEN ISLAND, FM
Amrd 2 27APR17

06°59'S-158°13'W

PAC, 12 AUG 2021 to 7 OCT 2021
Obtain local altimeter setting on CTA F; 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 RNAV-0.3 NA. No controlled airspace below 5500 feet. Ships with maximum height of 120 feet MSL may traverse Pohnpei Channel 400 feet off approach end of runway, closing airport at times.

**Terminal Procedural Area (TPA)**

- **RNAV (GPS) X RWY 9**
- **POHNPEI INTL (PNI)(PTPN)**

**Procedure Details**

- **IAF**
  - ADUFO
  - BIRUQ
  - IF/IAF WULON
  - FAF VIZOR
- **MSA**
  - RW09
  - 25 NM
- **ELEV**
  - 9
- **TDZE**
  - 9

**RNAV (GPS) X RWY 9**

- **CIRCLING**
  - LNAV
  - MDA 960-1/4 951 (1000-1/1)
  - 960-1 951 (1000-1/1)
  - 960-3 951 (1000-3)
- **MIRL**
  - Rwy 9-27
  - REIL Rwy 9 and 27

**RNAV (GPS) X RWY 9**

- **CATEGOR**
  - A
  - B
  - C
  - D
- **A**
  - 960-1 951 (1000-1/1)
  - 960-1 951 (1000-1/1)
  - 960-3 951 (1000-3)
- **B**
  - 960-1 951 (1000-1/1)
  - 960-1 951 (1000-1/1)
  - 960-3 951 (1000-3)
- **C**
  - 960-1 951 (1000-1/1)
  - 960-1 951 (1000-1/1)
  - 960-3 951 (1000-3)
- **D**
  - 960-1 951 (1000-1/1)
  - 960-1 951 (1000-1/1)
  - 960-3 951 (1000-3)

**RNAV (GPS) X RWY 9**

- **POHNPEI INTL (PNI)(PTPN)**

**Amdt 1 27 APR 17**

**06°59'N-158°13'E**

**PAC, 12 AUG 2021 to 7 OCT 2021**
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 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.

**MISSING APPROACH:** Climbing right turn to 3000 on heading 120° and on PNI NDB bearing 072° to TRADD/PNI 11 DME and hold.
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 1/4 mile, Circling Cat C, D visibility 1/4 mile. VDP NA when using Andersen AFB altimeter setting.

MISSED APPROACH: Climb to 3000 direct CEPOS and on track 088° to TOBPA and hold.

---

**RNAV (GPS) RWY 9**

**BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)**

**RNAV (GPS) RWY 9**

**BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)**

Rota Island, CQ

**ROTA ISLAND, CQ**

**AL-6596 (FAA)**

Amdt 1A 29MAY14

PAC, 12 AUG 2021 to 7 OCT 2021

**152 TERMINAL PROCEDURES**

**PAC, 12 AUG 2021 to 7 OCT 2021**

---

**APP CRS 093°**

**Rwy Idg 7000**

**TDZE 594**

**Apt Elev 607**

**GUAM CENTER 120.5 263.0**

**CTAF 123.6**

**CTAF 123.6**

**ELEV 607**

**TDZE 594**

---

**JIRGI**

**ONSUW**

**RW09**

**W075°**

**S**

**088°**

**700 X 150**

**27**

**093° to RW09**

**3000**

**ONSUW**

**RW09**

**3.00 NM TCH 45**

**1.2 NM to RW09**

**1.2**

**CIRCLING**

**1000-1**

**1060-1**

**1160-2**

**1160-2**

**14°10’N-145°14’E**

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---
TERMINAL PROCEDURES

RNAV (GPS) RWY 27

PAC, 12 AUG 2021 to 7 OCT 2021

BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)

Circling NA south of RWy 9-27. When local altimeter setting not received, use Andersen AFB altimeter setting and increase all MDA 320 feet, increase LNAV Cat B visibility ½ mile, Cat C visibility 1½ mile, Cat D visibility 1 mile, Circling Cat C visibility 1 mile Cat D visibility ¾ mile. DME/DME RNP -0.3 NA.

MISSED APPROACH: Climb to 1200 then climbing right turn to 3000 direct EPCAX 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.

MISSING APPROACH: Climb to 2200 then climbing left turn to 3100 direct GRO NDB and hold.

GUAH CENTER
120.5 263.0

CTAF
123.6

ERITIS UNZ [46]

3100 087°
(12.3)

1604 ±
A

1805

KAQTL UNZ [22]

Remain within 10 NM

2900

104°

2200

3100

GRO NDB

CATEGORY
A  B  C  D
S-9
1800-1/4  1800-1/2  1800-3  1206

CIRCLING

REL Rwy 9
MIROL Rwy 9-27

PAC, 12 AUG 2021 to 7 OCT 2021
When local altimeter setting not received, use Andersen AFB altimeter setting and increase all MDA 320 feet, increase S-27 Cat B visibility ¼ mile, Cat C, D visibility ½ mile. Circling Cat A, B visibility ⅛ mile, Cat C 1 mile, Cat D ⅜ mile. Circling NA south of Rwy 9-27.

**TERMINAL PROCEDURES**

**NDB RWY 27**

**BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)**

---

**GUAM CENTER**
120.5 263.0

**CTAF**
123.6

---

**ERTTS**
UNZ [46]

3100
087°
(12.3)

---

**KAQTOU**
UNZ [23]

3000
081°
(29.1)

---

**CATEGORY**

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**REIL** Rwy 9
**MIRL** Rwy 9-27

---

**PAC, 12 AUG 2021 to 7 OCT 2021**

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**ROTA ISLAND, CQ**

**AL-6596 (FAA)**

**20310**

---

**ROTARY ISLAND, CQ**

Amdt 4A 02MAR17

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**BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)**

14°10’N-145°14’E
Circling NA north of Rwy 6-24.
Rwy 25 helicopter visibility reduction below ¾ NA.
DME/DME RNP-0.3 NA.

MISSING APPROACH: Climb to 2600 direct PONOI and hold.

- **ATIS**: 127.2
- **GUAM APP CON**: 118.4 290.5
- **SAIPAN TOWER**: 125.7 256.9
- **GND CON**: 121.8

Procedure NA for arrivals at LULIJY on A221 southwest bound.

Procedure NA for arrivals at KATQO on W21 southwest bound.

**SAIPAN ISLAND, CQ**

**RNAV (GPS) Rwy 25**

**FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)**

**PAC, 12 AUG 2021 to 7 OCT 2021**

**Missed Approach:** Climb to 2000 then climbing left turn to 2800 direct SN NDB and hold.

**ATIS**
127.2

**GUAM APP CON**
118.4 290.5

**SAIPAN TOWER**
125.7 256.9

**GND CON**
121.8

**DME REQUIRED**

---

**TERMINAL PROCEDURES**

**SAIPAN ISLAND, CQ**

**AL-6293 (FAA)**

**FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)**

**NDB RWY 25**

**FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)**

**15°07'N-145°44'E**
ATIS 127.2
SAIPAN TOWER 125.7 256.9
GND CON 121.8

JANUARY 2020
ANNUAL RATE OF CHANGE
0.1° W

TERMINAL

TWR 311

FIRE STATION

ELEV 208

ELEV 210

ELEV 211

067.5°

067.4°

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.

PAC, 12 AUG 2021 to 7 OCT 2021
RNAV (GPS) RWY 8

TINIAN INTL (TNI)(PGWT)

Procedure NA for arrivals at HIRCH via W21 northeast bound.

Procedure NA for arrivals at HEXUG via A221 northbound.

TERMINAL PROCEDURES

TINIAN ISLAND, CQ

APP CRS
Rwy Idg 8600
TDZE 243
Apt Elev 270

RNP APCH:
Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting.
VDP NA when using Saipan altimeter setting.

GUAM APP CON
118.4 290.5

SAIPAN RADIO
123.6 (CTAF)

MISSED APPROACH: Climb to 2800 direct DUCFI and via 360° track to SN NDB and hold, continue climb-in-hold to 2800.

Procedure NA for arrivals at HIRCH via W21 northeast bound.

ELEV 270
TDZE 243

TERMINAL PROCEDURES

TINIAN ISLAND, CQ

APP CRS
Rwy Idg 8600
TDZE 243
Apt Elev 270

RNP APCH:
Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting.
VDP NA when using Saipan altimeter setting.

GUAM APP CON
118.4 290.5

SAIPAN RADIO
123.6 (CTAF)

MISSED APPROACH: Climb to 2800 direct DUCFI and via 360° track to SN NDB and hold, continue climb-in-hold to 2800.

Procedure NA for arrivals at HIRCH via W21 northeast bound.

ELEV 270
TDZE 243

TERMINAL PROCEDURES

TINIAN ISLAND, CQ

APP CRS
Rwy Idg 8600
TDZE 243
Apt Elev 270

RNP APCH:
Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting.
VDP NA when using Saipan altimeter setting.

GUAM APP CON
118.4 290.5

SAIPAN RADIO
123.6 (CTAF)

MISSED APPROACH: Climb to 2800 direct DUCFI and via 360° track to SN NDB and hold, continue climb-in-hold to 2800.

Procedure NA for arrivals at HIRCH via W21 northeast bound.

ELEV 270
TDZE 243
TERMINAL PROCEDURES

NDB-A
TINIAN INTL (TNI)(PGWT)

Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting and increase all MDA 40 feet, and all CATS visibility ½ SM. Increase UYHEW fix minimums CATS C and D visibility ½ mile.

# DME from I-GSN LOC/DME.

GUAM APP CON
118.4  290.5

SAIPAN RADIO
123.6 (CTAF)

MISSED APPROACH: Climbing right turn to 2800 direct SN NDB and hold.

TINIAN ISLAND, CQ
AL-6848 (FAA)

TERMINAL PROCEDURES

NDB-A
TINIAN INTL (TNI)(PGWT)

Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting and increase all MDA 40 feet, and all CATS visibility ½ SM. Increase UYHEW fix minimums CATS C and D visibility ½ mile.

# DME from I-GSN LOC/DME.

GUAM APP CON
118.4  290.5

SAIPAN RADIO
123.6 (CTAF)

MISSED APPROACH: Climbing right turn to 2800 direct SN NDB and hold.

TINIAN ISLAND, CQ
AL-6848 (FAA)

TERMINAL PROCEDURES

NDB-A
TINIAN INTL (TNI)(PGWT)

Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting and increase all MDA 40 feet, and all CATS visibility ½ SM. Increase UYHEW fix minimums CATS C and D visibility ½ mile.

# DME from I-GSN LOC/DME.

GUAM APP CON
118.4  290.5

SAIPAN RADIO
123.6 (CTAF)

MISSED APPROACH: Climbing right turn to 2800 direct SN NDB and hold.

TINIAN ISLAND, CQ
AL-6848 (FAA)

TERMINAL PROCEDURES

NDB-A
TINIAN INTL (TNI)(PGWT)

Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting and increase all MDA 40 feet, and all CATS visibility ½ SM. Increase UYHEW fix minimums CATS C and D visibility ½ mile.

# DME from I-GSN LOC/DME.

GUAM APP CON
118.4  290.5

SAIPAN RADIO
123.6 (CTAF)

MISSED APPROACH: Climbing right turn to 2800 direct SN NDB and hold.

TINIAN ISLAND, CQ
AL-6848 (FAA)

TERMINAL PROCEDURES

NDB-A
TINIAN INTL (TNI)(PGWT)

Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting and increase all MDA 40 feet, and all CATS visibility ½ SM. Increase UYHEW fix minimums CATS C and D visibility ½ mile.

# DME from I-GSN LOC/DME.

GUAM APP CON
118.4  290.5

SAIPAN RADIO
123.6 (CTAF)

MISSED APPROACH: Climbing right turn to 2800 direct SN NDB and hold.

TINIAN ISLAND, CQ
AL-6848 (FAA)

TERMINAL PROCEDURES

NDB-A
TINIAN INTL (TNI)(PGWT)

Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting and increase all MDA 40 feet, and all CATS visibility ½ SM. Increase UYHEW fix minimums CATS C and D visibility ½ mile.

# DME from I-GSN LOC/DME.

GUAM APP CON
118.4  290.5

SAIPAN RADIO
123.6 (CTAF)

MISSED APPROACH: Climbing right turn to 2800 direct SN NDB and hold.
TERMINAL PROCEDURES

WENO ISLAND, FM

APP CRS
041°

Rwy Idg 6013
TDZE 10
Apt Elev 10

RNP APCH

\* Obtain local altimeter setting on CTAF; when not received, procedure NA.
\* Circling NA southeast of Rwy 4-22.
\* No controlled airspace below 5500.

TRUK RADIO
123.6 (CTAF)

RNAV (GPS) RWY 4
CHUUK INTL (TKK) (PTKK)

MISSED APPROACH: Climbing left turn to 2500 direct DAMAY and hold.
* Missed approach requires minimum climb of 375 feet per NM to 960.

<table>
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<th>C</th>
<th>D</th>
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<td>LNAV MDA*</td>
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<tr>
<td>LNAV MDA</td>
<td>620-3</td>
<td>610 (700-3)</td>
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<tr>
<td>CIRCLING</td>
<td>620-3</td>
<td>610 (700-3)</td>
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</table>

WENO ISLAND, FM
Amdt 1A 28FEB19
07°28′N-151°51′E

CHUUK INTL (TKK) (PTKK)
RNAV (GPS) RWY 4

PAC, 12 AUG 2021 to 7 OCT 2021
Obtain local altimeter setting on CTAF; when not received, procedure NA.

Circling NA southeast of Rwy 4-22. DME required.
No controlled airspace below 5300.

**TRUK RADIO**

**123.6 (CTAF)**

**DME REQUIRED**

**NDB RWY 4**

**CHUUK INTL (TKK) (PTKK)**

**TERMINAL PROCEDURES**

**NDDB/DME TKK**

**Ch 111 (116.4)**

**APP CRS**

**054°**

**Rwy Idg**

**TDZE**

**10**

**Apt Elev**

**10**

**2000**

**2000**

**ZIVOR TKK**

**10**

**HIRUP TKK**

**8**

**ELKUC TKK**

**4**

**WIMUG TKK**

**2.5**

**DAMAY TKK**

**10**

**MIRL Rwy 4-22**

**REIL Rwys 4 and 22**

**CHUUK INTL (TKK) (PTKK)**

**NDB RWY 4**

**07°28’N-151°51’E**

**PAC, 12 AUG 2021 to 7 OCT 2021**
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.

MISSED APPROACH: Climbing right turn to 2000 on BRG-306 from TKK NDB/DME to DAMAY/TKK 10 DME and hold.

TRUK RADIO
123.6 (CTAF)

DME REQUIRED
Obtain local altimeter setting on CTAF; when not received, procedure not authorized.
Circling NA North of Rwy 7-25. DME/DME RNAF-0.3 NA.
No controlled airspace below 5500’.

MISSING APPROACH: Climb to 1700 direct
OMOCO WP and hold.

YAP RADIO
123.6 (CTAF)
Obtain local altimeter setting on CTAF; when not received, procedure not authorized.
Circling NA North of Rwy 7-25. DME/DME RNP-0.3 NA.
No controlled airspace below 5500'.

MISSED APPROACH: Climb to 1700 direct MIFO WP and hold.

YAP RADIO
123.6 [CTAF]
TERMINAL PROCEDURES

NDB/DME RWY 7
YAP INTL (T11)(PTYA)

YAP RADIO 123.6 (CTAF)

Obtain local altimeter setting on CTA; when not received, procedure NA.
Circling NA north of Rwy 7-25.
No controlled airspace below 5500.

MISSED APPROACH: Climbing right turn to 1700 via 254° bearing from YP NDB/DME to RAZEL/12 DME and hold.

ELEV 91  TDZE 91

PAC, 12 AUG 2021 to 7 OCT 2021
Obtain local altimeter setting on CTAF; when not received, procedure NA.
Circling NA north of Rwy 7-25.
No controlled airspace below 5500.

**TERMINAL PROCEDURES**

**YAP ISLAND, FM**

**AL-6048 (FAA)**

**10008**

**NDB/DME RWY 25**

**YAP INTL (T11)(PTYA)**

**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 ADAEB/11.1 DME and hold.

**YAP RADIO**

**123.6** (CTAF)

**ELEV 91**

**TDZE 89**

**CECAC YP 51**

**YP 057°**

**ADABE YP 11.1**

**One Minute Holding Pattern**

<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-25</td>
<td>1020-1 ¼</td>
<td>931 (1000-1 ¼)</td>
<td>1020-2 ½</td>
<td>931 (1000-2 ½)</td>
</tr>
<tr>
<td>CIRCLING</td>
<td>1020-1 ¼</td>
<td>929 (1000-1 ¼)</td>
<td>1020-2 ½</td>
<td>929 (1000-2 ½)</td>
</tr>
</tbody>
</table>

**YAP ISLAND, FM**

**Orig-B 08JAN15**

**09°30'N-138°05'E**

**PAC, 12 AUG 2021 to 7 OCT 2021**
Obtain local altimeter setting on CTAF; when not received, procedure NA.
Circling NA north of Rwy 7-25.
No controlled airspace below 5500 feet.

**TERMINAL PROCEDURES**

**NDB RWY 7**

**YAP INTL (T11)(PTYA)**

<table>
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<tr>
<th>Category</th>
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<th>C</th>
<th>D</th>
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<td>S-7</td>
<td>700-1</td>
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<td>700-1½</td>
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<td>CIRCLING</td>
<td>700-1</td>
<td>609 (700-1)</td>
<td>700-1½</td>
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**PAC, 12 AUG 2021 to 7 OCT 2021**

**YAP RADIO**

123.6 (CTAF)

**YAP ISLAND, FM**

**AL-6048 (FAA)**

**20310**

**1700**

**IAF**

**YAP**

317 YP

**Chan 122 (117.5)**

**ELEV 91**

**TDZE 91**

**254°** to NDB/DME

**074° to NDB/DME**

**55° to NDB/DME**

**1700**

**YP NDB/DME**

**074°**

**254°**

**180°**

**609 (700-1)**

**609 (700-1½)**

**609 (700-2)**

**609 (700-2)**

**199°** to NDB/DME

**609 x 1°50’**

**NDB/RWY 7**

**REIL Rwys 7 and 25**

**MIRL Rwy 7-25**

**09°30’N-138°05’E**

**YAP INTL (T11)(PTYA)**

**NDB RWY 7**

**PAC, 12 AUG 2021 to 7 OCT 2021**
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: Climb to 1700 then left turn direct YP NDB/DME and hold.

YAP RADIO
123.6 (CTAF)

YAP ISLAND, FM
AL-6048 (FAA)

NDB/RWY 25
YAP INTL (T11)(PTYA)

NDB/DME YP
Chan 122 (117.5)

APP CRS
237°

Rwy Idg
TDZE
Apt Elev
6000
89
91

ELEV 91
TDZE 89

MIRL Rwy 7-25
REIL Rwys 7 and 25

CATEGORY
A
B
C
D
S-25
1060-1 1/4
971 (1000-1 1/4)
1060-1 1/2
971 (1000-1 1/2)
1060-3
971 (1000-3)
CIRCLING
1060-1 1/4
969 (1000-1 1/4)
1060-1 1/2
969 (1000-1 1/2)
1060-3
969 (1000-3)

09°30'N-138°05'E

YAP INTL (T11)(PTYA)
NDB RWY 25

PAC, 12 AUG 2021 to 7 OCT 2021
INTENTIONALLY LEFT BLANK
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 exists upon breakout. Care should always be exercised so that minimum descent altitude and missed approach point are not exceeded.

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<th>%</th>
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</table>
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.