

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 You Tube Channel: <https://youtu.be/OzwZvJPcGIs>.

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

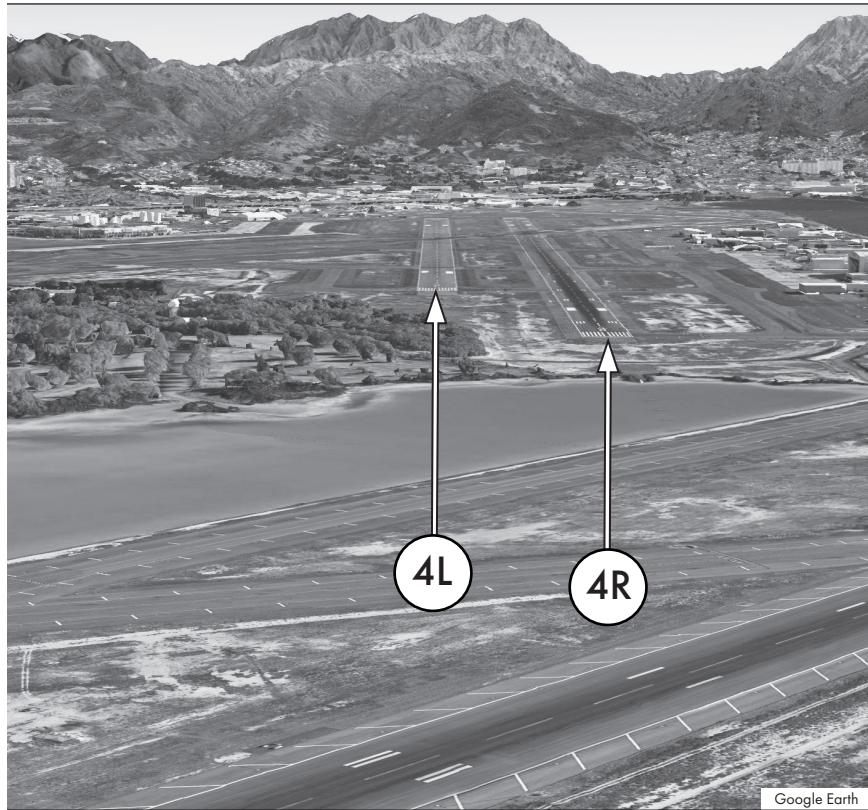
A permanent laser light operation is being conducted nightly between sunset and sunrise at Keck Observatory and Gemini Observatory N19-49-26/W155-28-09, Kamuela VOR (MUE) 122 degree radial at 16 nautical miles. The laser beam may be injurious to eyes if viewed on axis. Cockpit illumination and flash 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.

DANIEL K INOUYE INTL (HNL) ARRIVAL ALERT

Landing Northeast RWY 4L and RWY 4R



Pilot sometimes confuse RWY 4L and RWY 4R.

**Not for Navigational Purposes
For Situational Awareness Only**

CHANGE NOTICE

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

VMC FLIGHT (VFR)

1. The Oakland OCA/FIR, unless otherwise specified, is classified as class A airspace 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."

Office of Primary Responsibility (OPR): Oakland Center – FAA/AJT-ZOA-IAP
Contact Information: 510-745-3326/3464; email: AJT-ZOA-IAP@faa.gov
Amended: August 2023

ADDRESSING FLIGHT PLANS WITH OAKLAND OCEANIC

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

OCEANIC IFR SEPARATION STANDARDS

1. LONGITUDINAL: At least 10 minutes between turbojet aircraft on the same or continuously diverging course. Non-turbojet aircraft, at least 15 minutes. Between two RNP-10 aircraft with ADS-C connections, 50 nautical miles and between two RNP-4 aircraft with ADS-C connections, 30 nautical miles.
2. CROSSING: All aircraft at least 15 minutes.
3. LATERAL: At least 100 nautical miles between intended routes, 50 nautical miles between aircraft certified RNP-10 and 30 nautical miles between aircraft certified RNP-4. Lateral separation minima may be reduced in some cases when suitable NAVAIDS are available.
4. VERTICAL: Oakland OCA is classified as Reduced Vertical Separation Minimum (RVSM) airspace. Vertical separation standards are therefore at least 1,000 feet from the lower limit to flight level 410. Above flight level 410 at least 2,000 feet.

LOWER SEPARATION MINIMA – OAKLAND OCEANIC FIR

In accordance with ICAO Regional Supplementary Procedures – DOC 7030 PAC 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.

AIRSPACE

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

NAVIGATIONAL AIDS

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

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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:

Difference in Mach number between aircraft	Minimum separation between aircraft
0.02 Mach	9 Minutes
0.03 Mach	8 Minutes
0.04 Mach	7 Minutes
0.05 Mach	6 Minutes
0.06 Mach	5 Minutes

- 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.

Office of Primary Responsibility (OPR): Oakland Center – FAA/AJT-ZOA-IAP
Contact Information: 510-745-3326/3464; email: AJT-ZOA-IAP@faa.gov
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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:

INMARSAT number
436697

Office of Primary Responsibility (OPR), Oakland Center – FAA/AJT-ZOA-IAP
Contact Information: 510-745-3326/3464; email: AJT-ZOA-IAP@faa.gov
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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.

Office of Primary Responsibility (OPR): Aviation Safety, Flight Operations Group, AFS-410
Contact Information: 202-267-8806; email: 9-AWA-AVS-AFS410@faa.gov

Amended: August 2023

AMERICAN SAMOA**PAGO PAGO INTERNATIONAL AIRPORT****PROCEDURES**

Inbound. About 30 miles from the airport, monitor 118.3 for broadcasts from other aircraft. At 15 miles from the airport broadcast your position, altitude and intentions. Follow this with your position on downwind, base leg and final approach.

Outbound. Monitor 118.3 for broadcasts from other aircraft before taxiing. Broadcast your position on the airport and intentions. Follow this with an announcement before you taxi onto the runway for takeoff.

HAZARDS, CAUTIONS AND WARNINGS

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

HONOLULU CTA/HAWAII**GENERAL INFORMATION ON FLYING TO HAWAII**

(Entry and Departure Requirements)

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

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

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

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

ADVANCE NOTICE REQUIRED. Advance notice of each arrival must be furnished to U.S. Customs officials at or nearest to the place of intended first landing who will notify the Immigration and Public Health officials.

Advance notice should be sent so as to be received in sufficient time to enable the officers designated to inspect the aircraft to reach the place of landing before the arrival of the aircraft. At most airports, at least 2 hours advance notice is required for this purpose.

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

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

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

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.

STRATEGIC LATERAL OFFSET PROCEDURE (SLOP) IN HONOLULU CONTROL FACILITY AIRSPACE TO MITIGATE WAKE TURBULENCE AND TO MITIGATE COLLISION RISK

1. Aircraft are encouraged to use the Strategic Lateral Offset Procedure (SLOP) published in the USA AIP (Aeronautical Information Publication) within the Honolulu CF CTA (Honolulu Control Facility Control Area).
2. In addition to the airspace authorized for SLOP in the USA AIP, flights may use SLOP while on ATS routes in the Honolulu CF CTA.
 - a. Departing oceanic flights may apply SLOP within the Honolulu CF CTA upon reaching initial cruise flight level and within 70 NM from oceanic entry point.
 - b. Oceanic flights arriving Hawaii should terminate SLOP no later than 70 NM after oceanic exit point or when receiving radar vectors whichever occurs first.
 - c. Oceanic overflights should remain on SLOP offset throughout the Honolulu CTA.
3. Hawaiian inter-island flights must not use SLOP.

For questions about SLOP in HCF CTA call 808-840-6204

VFR FLIGHT WITHIN HAWAII

NOTE: CAUTION – HIGH DENSITY COMMUTER AND SIGHTSEEING TRAFFIC

VFR Cruising altitude at or below 3,000 feet AGL

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

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

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

NORTH SHORE MOLOKAI–MAUI

The route from Koko Head (CKH) VORTAC to and along the north shore of Molokai and Maui is extremely heavily traveled by aircraft engaged in commuter and sightseeing operations. As many as seven aircraft may be operating along Molokai north shore in both east and west bound directions, simultaneously and on a routine basis. The number may be up to 15 aircraft during peak traffic periods.

VFR CHECKPOINTS: ILIO POINT, KALAUPAPA, and CAPE HALAWA on Molokai; NAKALELE POINT on Maui.

The following precautions are recommended:

–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.

–Maintain an alert listening watch on 122.9 MHz and announce aircraft position, direction of flight and altitude when passing the VFR checkpoints named above.

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

–Landing aircraft–Molokai Airport: Before crossing within one mile of the shoreline, or before passing abeam 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

–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–Aircraft 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.

ATC PROCEDURES

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

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

CLASS D/CLASS E AIRSPACE

Elimination of Special VFR (FAR 91.157) Operations within Certain CLASS D/CLASS E airspace (FAR 93.113)

Special VFR flight operations by fixed-wing aircraft have been suspended within Honolulu CLASS D/CLASS E airspace which contains the following airports:

Honolulu (Daniel K Inouye Intl) Airport

At all other CLASS D/CLASS E airspace, Special VFR operations will be permitted only if IFR operations are not delayed.

Requests for relief from the special VFR prohibition will be considered for certain frequently recurring flight operations, including agricultural, industrial, and flights conducted by IFR-rated pilots in IFR equipped aircraft.

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

TRAFFIC ADVISORIES AT NON-TOWER AIRPORTS

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

1. AT A NON-UNICOM AIRPORT

- a. When inbound, tune to 122.9 MHz about 15 miles from the airport (if IFR, when the controller advises: "CHANGE TO ADVISORY FREQUENCY APPROVED") and listen for broadcasts from any other aircraft. Then, about 5 miles from the airport broadcast your position, altitude, and intentions. Follow this up with appropriate announcements of your position on downwind, base and final approach.
- b. When outbound, tune to 122.9 MHz before taxiing and listen for broadcasts from any other aircraft. Then broadcast your position on the airport and intentions. Follow this up with an announcement before you taxi onto the runway for takeoff.

2. AT AN AIRPORT LISTED AS HAVING UNICOM

- a. When inbound, tune to 122.8 MHz about 15 miles from the airport (if IFR, when the controller advises: "CHANGE TO ADVISORY FREQUENCY APPROVED") and listen for any other aircraft communicating with the UNICOM operator. Then, about 5 miles from the airport, inform the UNICOM operator of your position, altitude and intentions.
- b. When outbound, contact the UNICOM operator on 122.8 MHz before taxiing and furnish your position on the airport and intentions.
- c. In both cases, the UNICOM operator will provide runway, wind, and at his discretion, traffic information.

3. PART TIME TOWER (WHEN CLOSED)

- a. When inbound at about 15 miles from the airport (if IFR, when the controller advises: "CHANGE TO ADVISORY FREQUENCY APPROVED") tune to and listen for broadcasts from other aircraft on the appropriate frequency listed below. Then, about 5 miles from the airport, broadcast your position, altitude and intentions. Follow this up with appropriate announcements of your position on downwind, base and final approach.
 1. Hilo Intl – 118.1 MHz
 2. Kahului Airport – 118.7 MHz
 3. Keahole Airport – 120.3 MHz
 4. Lihue Airport – 118.9 MHz
 5. Molokai Airport – 125.7 MHz

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

HONOLULU TERMINAL AREA – VFR CLASS B DEPARTURE ROUTES**RESPONSIBILITIES**

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

DEPARTURE PROCEDURES

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

Example: Pilot – N86DD SHORELINE FOUR DEPARTURE WITH INFORMATION QUEBEC.

ATC – N86DD IS CLEARED OUT OF CLASS B VIA SHORELINE FOUR DEPARTURE SQUAWK 0271.

NOTE: Large acft expect clearance via radar vectors, initial heading 155°/200°

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

AREA NOTICES

within $\frac{1}{2}$ mile offshore passing abeam Kewalo Basin then within $\frac{1}{2}$ 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 H-201), 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 $\frac{1}{2}$ 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 R. 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 R. 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 (MKK262 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 Five 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 Freeway to Fort Shafter to enter a left downwind to Runway 04R. Downwind leg must overfly Runway 08L over Taxiway G/L. Aircraft must remain north of Taxiway R; 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 R. Maintain 2000' until advised by tower.

SIMULTANEOUS OPERATIONS

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

HONOLULU (Daniel K Inouye Intl) AIRPORT

Gatehold Procedures

THE FOLLOWING GATEHOLD PROCEDURES ARE ESTABLISHED FOR ALL NORTH AMERICA-BOUND TURBOJET DEPARTURES FROM HONOLULU (DANIEL K INOUYE INTL) AIRPORT:

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

- NOTES: 1. Compliance will ensure an orderly sequence of altitude/route assignments during peak traffic movements.
 2. Oceanic departures are sequenced with Hilo, Kona, Kahului and Lihue 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 turbojet; and any other aircraft with a minimum zero fuel weight in excess of 35,000 pounds will be assigned runway as follows:

GROUP I

Turbojet aircraft capable of 300,000 pounds gross takeoff weight or more
 4 or more engine turbojet, and military fighter interceptor turbojet type aircraft
 (DC10, L1011, DC8, B747, B707, KC135, B52, F15, F16, E6, etc).

GROUP II

Other turbojet, turbine, powered and propeller driven type aircraft.
 (B727, B737, MD80, C130, etc).

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.

AIRCRAFT LANDING RUNWAY 4R: For aircraft parking on the South Ramp, expect to exit Runway 4R at Taxiway D or North. Taxiway F is a primary departure point for Runway 4R.

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 R3, R2 or J, if given standardized taxi route instructions by Honolulu Tower, comply with the assigned taxi route:

North Route Bravo

From taxiway J taxi north via taxiway J, hold short of taxiway B. From taxiway R2, or R3 turn left on taxiway R, turn right on taxiway J, taxi north via taxiway J, hold short of taxiway B. Hold short of taxiway B until further taxi instructions are received.

North Route Sierra

From taxiway J taxi north via taxiway J, turn right on taxiway B, turn left on taxiway Sierra, hold short of Runway 26R. From taxiway R2, or R3 turn left on taxiway R, turn right on taxiway J, taxi north via taxiway J, 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 KAHULUI AIRPORT:

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

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

Informal Runway Use Program

The area directly south of Lihue Airport and west of Carters Point has been designated as a noise sensitive area. The opening of Rwy 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 Rwy 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 Rwy 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 Rwy 17–35. Downwind leg for Rwy 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 prefare 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 minute to taxi" declarations. Those flights that taxi without receiving enroute clearance will receive no altitude/route priority.

AREA NOTICES

- 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 Volcanoes 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 N22°06.81' /W159°39.83' 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 Rotocraft 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 – KAHOOLAE 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 – KAHLULUI 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 apt manager 808-872-3880.

MAUI – KAHLULUI 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 taxilane. 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'.

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-KAHOOLawe CONTROLLED FIRING AREA: The Kahoolawe Hawaii Controlled Firing Area is described as follows: From SFC up to and including 5000' MSL within that area bounded by N20°37' 30"W156°32' 48", to N20°34' 48"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' 12"W156°44' 30", to N20°37' 30"W156°36' 24", thence to point of beginning. The CFA includes the entire island of Kahoolawe.

Ordnance disposal/demolition work potentially hazardous to aircraft shall be conducted by NOTAM during daylight hours only. The controlling agency is FAA Honolulu Control Facility. The status of the CFA can be obtained by contacting the controlling facility.

MAUI – PARASAILING AREA: Parasailing off-shore Lahaina (OGG VORTAC 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 KAHULUI 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 from the air traffic control tower. The area lying between the non movement area boundary lines inbound toward the concourse falls under the jurisdiction of the airport operator (State). The aircraft pilot and ground vehicle equipment operator crossing the non movement boundary lines from the taxiway is responsible for avoiding collisions, accidents, and using safe operating procedures in the non movement area.

OAHU – HONOLULU (DANIEL K 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 KALAELOA (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-KALAELOA AIRPORT NOISE ABATEMENT: Avoid overflight residential areas and schools north and east of arpt. Rwy 11/29 available Cat A a/cft 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: Kaneohe 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 – KALAELOA (JOHN RODGERS FLD): Tanker vessels with mast height up to 170 feet intermittently operating 2 NM South of approach end Rwy 04.

OAHU – KALAELOA (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.

AREA	DIMENSIONS	LOCATION FROM HNL VORTAC
NAD Waikele	1.5 NM Radius	353 radial at 5.2 DME
NAD Lualualei	2.5 NM Radius	316 radial at 9.7 DME

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

AREA NOTICES

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 Runways 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.

OAHL – 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, $\frac{1}{2}$ 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 ChuukAirport@mail.fm. The Chuuk Airport Executive Manager must be notified three (3) days prior for the ETA of the aircraft. A flight plan must be filed 12 hours prior for the ETA, include Pohnpei Intl Airport (PTPN) as an additional address of the Fit 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.
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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.

FRANCISCO MANGLONA BORJA/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 N13°33' E144°50' 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 setting for instrument approaches will be provided, on request, with a QFE for the aerodrome elevation except for:
 - a. An instrument runway, if the runway threshold is 7 feet or more below the aerodrome elevation;
 - b. A precision approach runway; in which case the QFE for the relevant threshold elevation will be provided.
- 1.7.2 QFE values passed to an aircraft will be rounded down to the nearest whole hPa.

2. Enroute Communications

- 2.1 The Auckland Oceanic Control System (OCS) is fully FANS 1/A compliant. The Logon address is "NZZO"
- 2.1.1 Auckland Oceanic Control will accept Automatic Dependent Surveillance – Contract (ADS-C) position reports; and Controller Pilot Datalink Communications (CPDLC).
- 2.1.2 SELCAL checks by CPDLC equipped aircraft are not required when entering NZZO FIR. Aircraft filing a SELCAL code in item 18 of their flight plan will be assumed to have a serviceable SELCAL and to be maintaining a SELCAL watch on the HF primary frequency advised in the appropriate MONITOR instruction passed by the transferring CPDLC authority.
NOTE: There is no requirement for FANS 1/A aircraft entering NZZO FIR to contact Auckland Radio for a SELCAL check.
- 2.2 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.
- 2.3 Unless using Datalink and logged onto NZZO, 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.
- 2.4 Aircraft entering the Samoa, Tonga, Cook or New Zealand domestic sectors, will be instructed when to change from route frequency to the frequency of the appropriate ATC unit. Aircraft leaving these sectors will be instructed by ATC when to change to the route frequency.

3. Enroute Air Navigation Facilities and Service Charges

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

Office of Primary Responsibility (OPR): Auckland Oceanic Area Control Centre - Oceanic Operations Team Leader
 Contact Information: +64 9 275 5473; email: AKLOCATLGroup@airways.co.nz
 Amended: August 2023

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 filed 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.

AREA NOTICES

- 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.

4. Aircraft Over-Flying Honolulu Control Facility (HCF) Airspace.

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.

6. Aircraft Over-Flying Guam CERAP Airspace.

The CPDLC and ADS connection with Oakland ARTCC may be terminated within the Guam CTA. If the CPDLC connection with KZAK is not terminated, do not use CPDLC for ATC COM until Guam CERAP advises you to again contact en route communications or 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. 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.
- 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. Certain restrictions may apply for non-PACOTS traffic operating in the opposite direction to the published PACOTS tracks.

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 apply to aircraft operating within the Oakland Oceanic FIR on the PACOTS during the effective time of the Track. These restrictions do not affect aircraft filing on ATS routes.

(a) Participating Aircraft

- 1. Aircraft requesting altitudes at or above FL280 may flight plan via the route published in the daily NOTAM or track message.
- 2. Operators must file appropriate SIDs and STARs associated with the departure/arrival airports.
- 3. Operators must flight plan to avoid active military airspace and comply with NOTAM restrictions.

- (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) Aircraft utilizing a PACOTS Track must be RNAV 10 (RNP10) or RNP4 approved.
- (2) Aircraft flight planning via an approved UPR procedure have the same priority for altitude assignment as aircraft flight planning a PACOTS Track.
- (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) PACOTS TRACK DESIGNATOR AND DETAILS TABLE

TRACK NAME	ROUTE	TDM DAILY PUBLICATION TIME	REQUIRED USE OR UPR ALTERNATIVES
A	Hawaii to Japan	Daily at 1100 UTC by KZAK	Track A is optional, operators may file a UPR.
B	Hawaii to Japan	Optional at 1100 UTC by KZAK	Track B is optional, operators may file a UPR.
11	Japan to Hawaii	Daily at 2200 UTC by RJJJ	Track 11 is optional, operators may file a UPR.
12	Japan to Hawaii	Optional at 2200 UTC by RJJJ	Track 12 is optional, operators may file a UPR.
C	North American West Coast to Japan	Daily at 1100 UTC by KZAK	Track C is required for westbound aircraft crossing 160E between 0230 and 0600 UTC. During the Track C required times operators may file a UPR at least 50 NM north or south of Track C.
D	North American West Coast to Japan	Optional at 1100 UTC by KZAK	For westbound aircraft crossing 160E between 0230 and 0600 UTC, operators may file a UPR at least 50 NM north or south of Track C.
E	North American West Coast to Japan	Daily at 1100 UTC by KZAK	For westbound aircraft crossing 160E between 0230 and 0600 UTC, operators may file a UPR at least 50 NM north or south of Track C.
F	North American West Coast to Japan	Daily at 1100 UTC by KZAK	For westbound aircraft crossing 160E between 0230 and 0600 UTC, operators may file a UPR at least 50 NM north or south of Track C.
1	Japan to North American West Coast	Daily at 2200 UTC by RJJJ	For eastbound aircraft crossing 160E between 1100 and 1230 UTC, operators may file a UPR at least 50 NM north or south of Track 2.
2	Japan to North American West Coast	Daily at 2200 UTC by RJJJ	Track 2 is required for eastbound aircraft crossing 160E between 1100 and 1230 UTC. During the Track 2 required times operators may file a UPR at least 50 NM north or south of Track 2.
3	Japan to North American West Coast	Daily at 2200 UTC by RJJJ	For eastbound aircraft crossing 160E between 1100 and 1230 UTC, operators may file a UPR at least 50 NM north or south of Track 2.
4	Japan to North American West Coast	Optional at 2200 UTC by RJJJ	For eastbound aircraft crossing 160E between 1100 and 1230 UTC, operators may file a UPR at least 50 NM north or south of Track 2.
H	North American West Coast to Asia	Daily at 1100 UTC by KZAK	For westbound aircraft crossing 160E between 0230 and 0600 UTC, operators may file a UPR at least 50 NM north or south of Track C.
J	North American West Coast to Asia	Daily at 0000 UTC by KZAK	Track J is required for westbound aircraft crossing 160E between 1500 and 1800 UTC. During the Track J required times operators may file a UPR at least 50 NM north or south of Track J.
14	Asia to North American West Coast	Daily at 2200 UTC by RJJJ	For eastbound aircraft crossing 160E between 1100 and 1230 UTC, operators may file a UPR at least 50 NM north or south of Track 2.
15	Asia to North American West Coast	Optional at 2200 UTC by RJJJ	For eastbound aircraft crossing 160E between 1100 and 1230 UTC, operators may file a UPR at least 50 NM north or south of Track 2.

NOTE: Operators may contact Oakland ARTCC Traffic Management Unit to be added to the daily publication of Westbound PACOTS Tracks.

USER PREFERRED ROUTE (UPR) GUIDELINES

1. UPR General Guidelines:

- a. The UPR must be planned to avoid military special use and NOTAMed airspace when active.
- b. The UPR must utilize a published STAR where appropriate.
- c. PACOTS UPRs have the same priority for altitude assignment as aircraft on an optional PACOTS Track. There is one exception, operators which flight plan a UPR that is not laterally separated from an opposite direction PACOTS/UPR traffic flow will likely be restricted vertically while in conflict with the major traffic flow.
- d. Conditions that may not allow the use of UPRs

- (1) Operators will be informed via International NOTAM whenever a condition exists that may restrict the use of UPRs within a particular FIR.
- (2) Conditions that may restrict the use of UPRs include:
 - (a) Large scale military operations
 - (b) Typhoons.

AREA NOTICES

- (c) Volcanic Ash
- (d) Space Launches

2. UPR Specific Guidelines

a. North America – Asia PACOTS UPR Guidelines

- (1) The North America – Asia PACOTS UPR guidelines are applicable to the Oakland, Fukuoka and Anchorage Oceanic FIRs.
- (2) The UPR route must enter or exit the Oakland Oceanic FIR over a published waypoint on the FIR boundary offshore of North America.
- (3) The UPR must comply with the procedures published by Japan and Anchorage ARTCC.
- (4) The PACOTS Track UPR must follow the Guidelines published above in the PACOTS Track Designator Details Table.

b. Hawaii – Asia PACOTS UPR Guidelines

- (1) The Hawaii-Asia PACOTS UPR guidelines are applicable to the Oakland and Fukuoka Oceanic FIRs.
- (2) The UPR shall be planned to incorporate a published waypoint on the Honolulu Control Facility (HCF) boundary.
- (3) The UPR must comply with the procedures published by Japan.
- (4) The PACOTS Track UPR must follow the Guidelines published above in the PACOTS Track Designator and Details Table.
- (5) The UPR route must begin or end over one of the following Hawaiian Gateway waypoints in the HCF CTA:
 - (a) THOMA
 - (b) DANNO
 - (c) CANON
 - (d) LILIA
 - (e) PUPPI
 - (f) SYVAD
 - (g) HOOPA

NOTE: Operators may contact Oakland ARTCC Traffic Management Unit to be added to the daily publication of available Hawaiian Gateway waypoints due to Hawaii Warning Area Activity.

c. Japan – Oceania UPR Procedures.

In association with operations between Japan (RJAA, RJTT, RJBB and RJGG) and Oceania (YSSY, YBBN, YBCS, YBCG, NZAA and NWWW) the following procedures must be used when planning UPRs:

- (1) The northbound and southbound UPRs must remain in the Fukuoka, Oakland, Guam, Port Moresby, Honiara, Auckland and Brisbane FIRs.
- (2) The UPR must include filed reporting points on the Control Center boundary crossings.
- (3) Within the Guam CTA aircraft may flight plan UPRs at or above FL310. Aircraft at FL300 and below must flight plan via Air Traffic Service (ATS) Routes in the Guam CTA.
- (4) The UPR must comply with the published procedures for the Fukuoka, Port Moresby, Brisbane and Auckland CTAs.

d. Asia -- Koror UPR Procedures.

In association with operations between Asia and Koror (PTRO) the following procedures must be used when planning UPRs:

- (1) The UPR must remain in the Fukuoka FIR, Oakland FIR and Guam CTA.
- (2) Aircraft must flight plan via existing ATS routes within the Guam CTA or remain clear of the Guam CTA by 50 NM or more.
- (3) The UPR must remain at least 50 NM clear of the Manila FIR.
- (4) The UPR must comply with the published procedures in the Japan AIP for the Fukuoka FIR.

e. Central East Pacific (CEP) UPR Procedures.

The Central Eastern Pacific Routes (CEPs) are published ATC airways between Hawaii and California. The CEP routes include R463, R464, R465, R585, R576, R577, and R578. One CEP UPR Flight may have a negative impact on multiple aircraft flight planned on a CEP airway. To preserve the overall efficiency of the CEP airspace, CEP UPRs will likely be subject to vertical restrictions below or above the traffic established on the CEP routes.

- (1) CEP UPR General restrictions.
 - (a) Aircraft on UPR routes in the CEP have a lower priority for altitude assignment than aircraft flight planned on a CEP route. CEP UPRs should expect to be at FL300 or below or FL430 and above until established on a CEP Route. Higher altitude may be available traffic permitting.
 - (b) Aircraft that cross multiple tracks will encounter more traffic and will hold to lower altitude while crossing CEP routes.
 - (c) CEP UPR aircraft must enter/depart the HCF CTA on a CEP route.
 - (d) Aircraft should cross the CEP airways as expeditiously as possible.
 - (e) CEP UPRs may cross a CEP Route to join a CEP route in the direction the route is published to be flown.

- (2) UPRs between Hawaii and California:
 - (a) Flight plan the UPR utilizing the waypoints of the CEP routes, do not file points in between CEP airways.
 - (b) Aircraft entering KZAK airspace north of R585 may flight plan a UPR route east of 142 West longitude. Aircraft must be established on a CEP route west of 142 West longitude.

- (3) UPRs from the South Pacific to California within the CEP airspace
 - (a) Northbound UPRs that cross the CEP must be capable of climbing to FL390 by the time they cross R578.
 - (b) Northbound UPRs that cannot cross R578 at FL390 or above, should expect to be restricted to cross below CEP Traffic.

- (4) UPRs California to the South Pacific within the CEP airspace
 - (a) California departures to the South Pacific are typically heavy and requesting initial oceanic altitudes below the CEP traffic established on routes. The California departures will be held below the CEP Traffic until they are clear of the CEP airspace or join a CEP route.

- (5) UPRs between the Pacific Northwest and the South Pacific
 - (a) UPRs that cross the CEP must be capable of climbing to FL390 by the time they reach the CEP airspace.
 - (b) UPRs that cannot cross the CEP airspace at F390 or above, should expect to be restricted to cross below the CEP

Traffic established on routes.

- f. **UPRs between Hawaii and Alaska.** UPRs between Hawaii and Alaska typically cross the heavy East or Westbound PACOTS/UPR North America traffic flows.
- (1) While in conflict with the NA PACOTS/UPR traffic flows, the Hawaii – Alaska UPRs will likely experience vertical restrictions below or above the PACOTS/UPR traffic.
 - (2) The Hawaii – Alaska UPRs must exit/enter the HCF CTA over one of the following route segments:
 - (a) ZIGIE ZOULU or ZOULU ZIGIE
 - (b) APACK AUNTI or AUNTI APACK
 - (c) ZIGIE to a point north ZOULU or point north ZOULU to ZIGIE

4. For further information or questions regarding UPRs, contact the Oakland Oceanic Supervisor at (510) 745-3342.

GUAM AREA PREFERENTIAL ROUTING

1. Due to traffic congestion within the Oakland OCA/FIR north, south and west of the airspace delegated to Guam CERAP (A 250NM radius of 13°32'N/144°55'E) preferred routings have been established. This notice applies to all turbojet aircraft at or above FL280 operating within the Oakland OCA/FIR north, south or west of the Guam CTA. The following are the Guam area preferential routings within the Oakland OCA/FIR. Aircraft operators must ensure that these preferential routes are indicated in Field 15 of the ICAO standard flight plan. The acronym FPRD in the descriptions below means flight plan route 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 – PAKDO G339 RIDLL FPRD
- c. OVER MONPI – MONPI A597 REEDE FPRD MONPI A216 RIDLL FPRD
- d. OVER OMLET – OMLET B586 WINZR FPRD
- e. OVER TEGOD – TEGOD G205 GUYES FPRD TEGOD A337 SNAPP W21 HIRCH FPRD

3. Northbound aircraft originating within Guam CERAP delegated airspace, en route to destinations within the Fukuoka OCA/FIR:

- a. OVER MIKY – MIKY 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 TERYY – TERYY 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 150°E longitude will not be affected.

Office of Primary Responsibility (OPR): International Airspace and Procedures
Contact Information: 510-745-3464; email: AJT-ZOA-IAP@faa.gov
Amended: November 2023

OAKLAND 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.

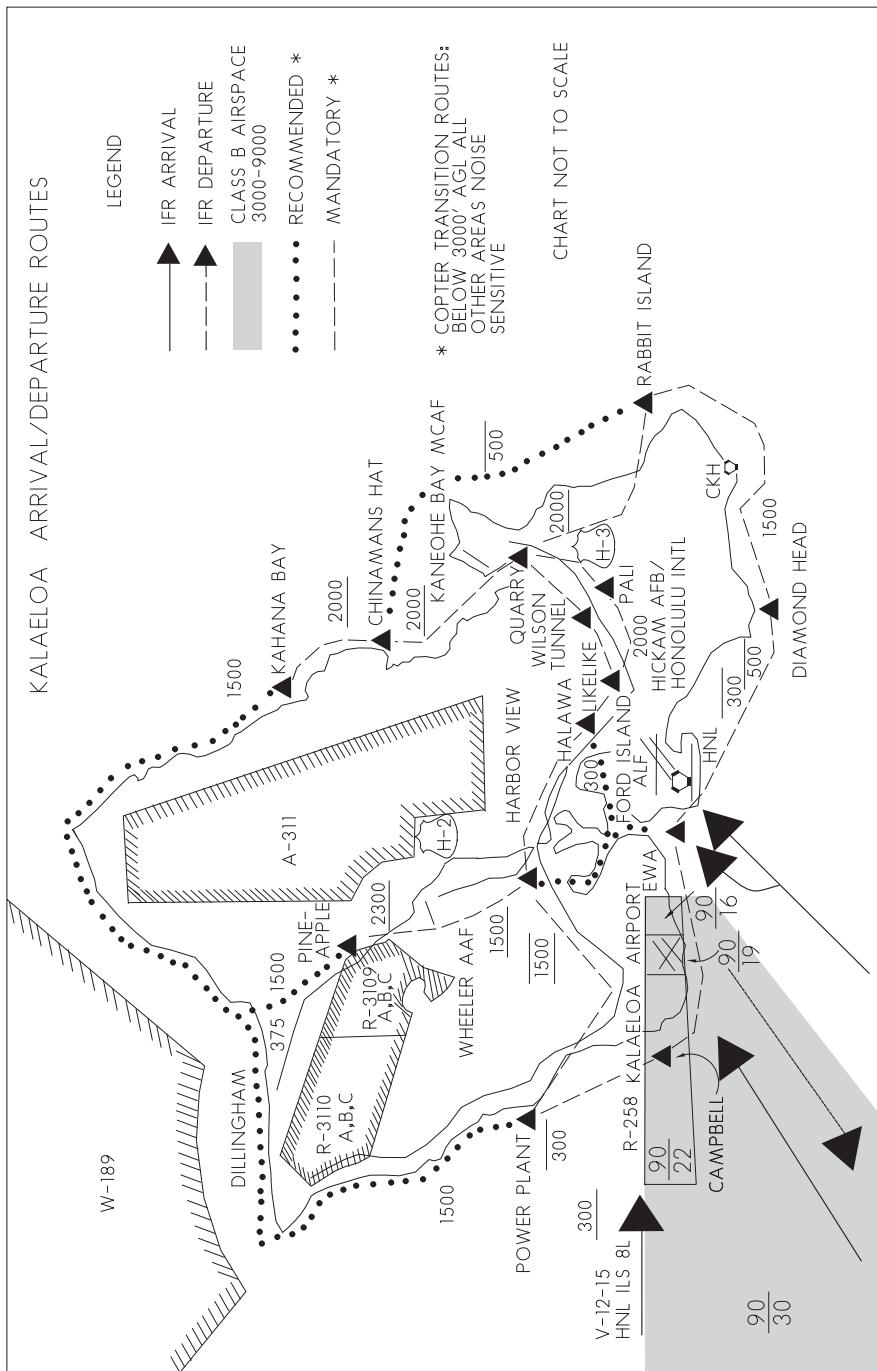
NOTE: Rules pertaining to VFR flight may be found within Section III-General Notices of this supplement.

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.

Office of Primary Responsibility (OPR): Oakland Center – FAA/AJT-ZOA-IAP
Contact Information: 510-745-3326/3464; email: AJT-ZOA-IAP@faa.gov
Amended: August 2023

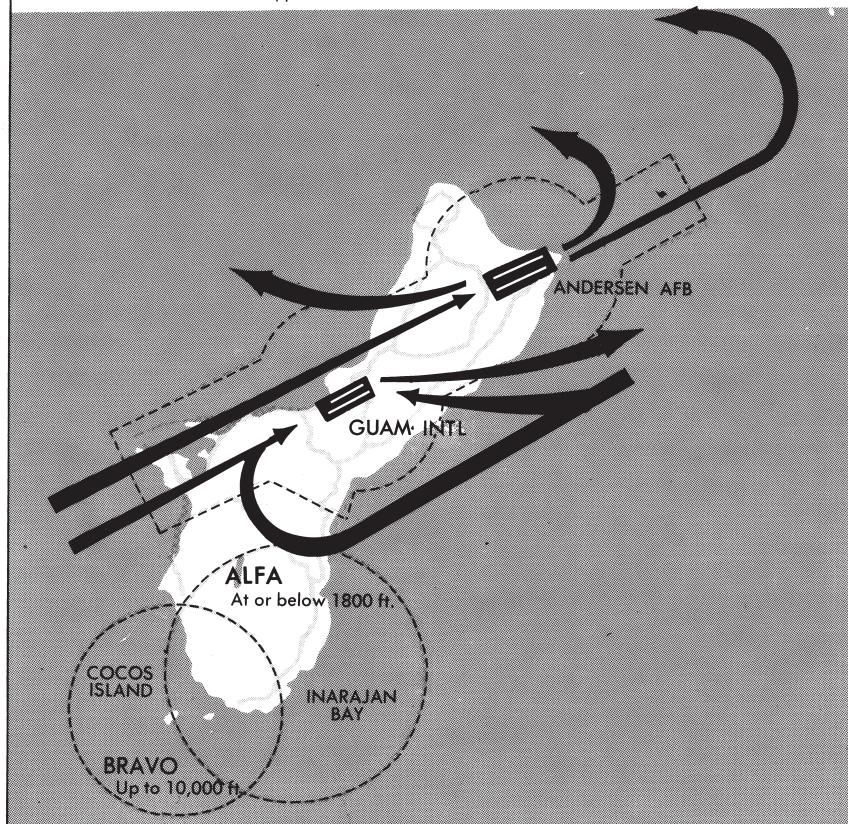
AREA NOTICES

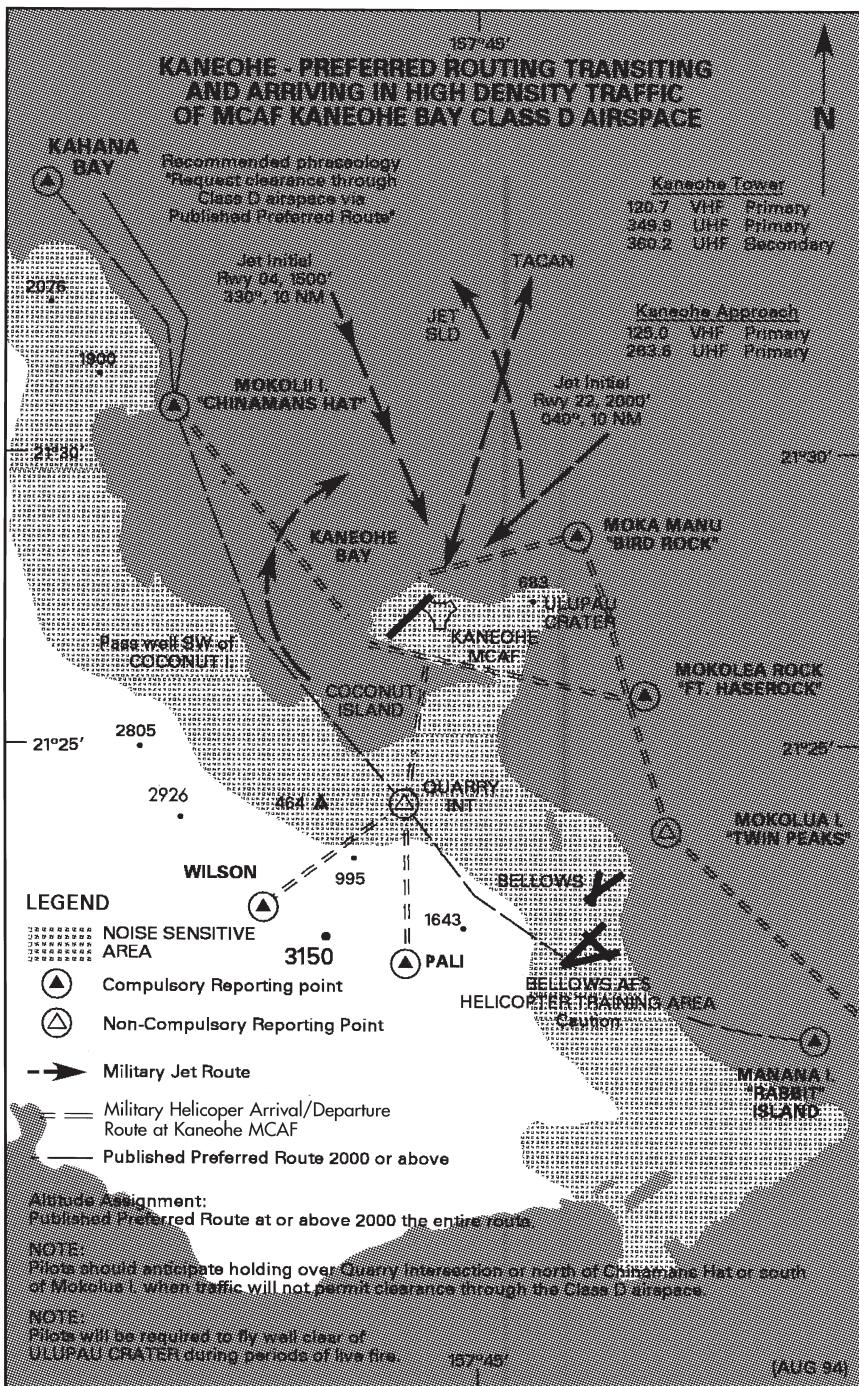


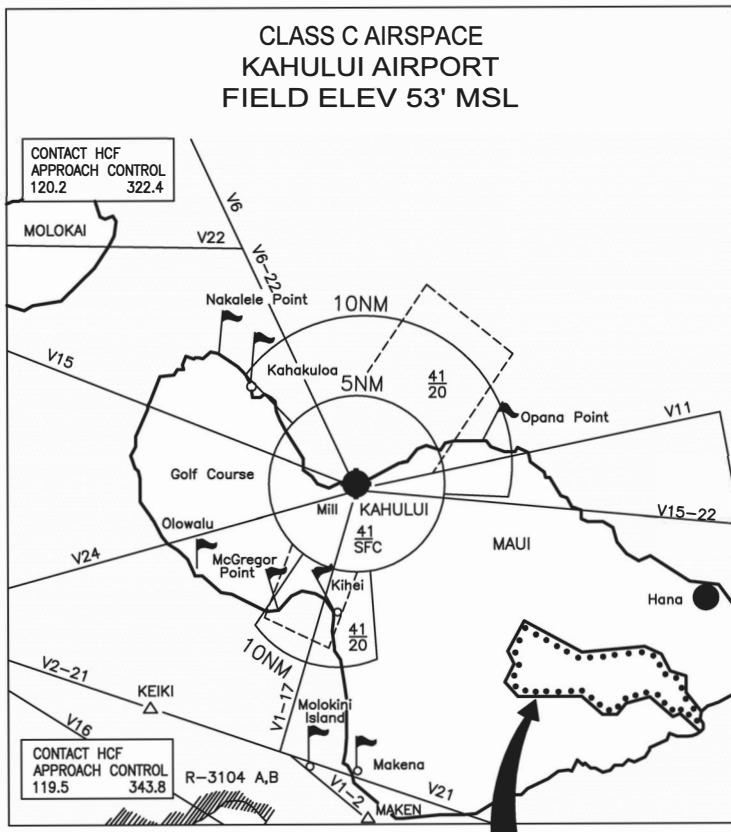
GUAM TERMINAL AREA

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.





**LEGEND**

VFR CHECK POINTS

FLOOR IN HUNDREDS
OF FEET MSL41
20CEILING IN HUNDREDS
OF FEET MSL**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.

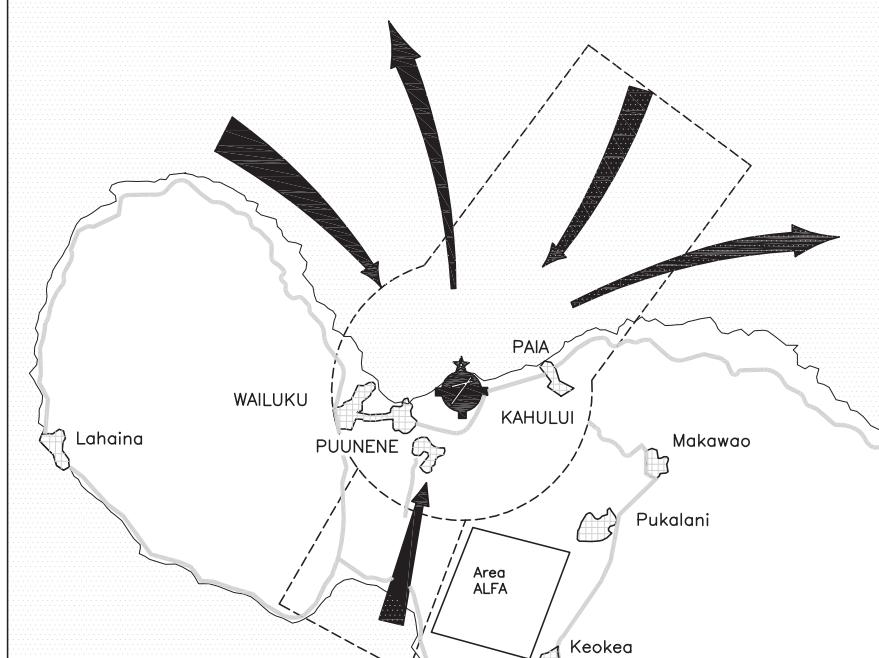
CLASS C AIRSPACE PROCEDURES

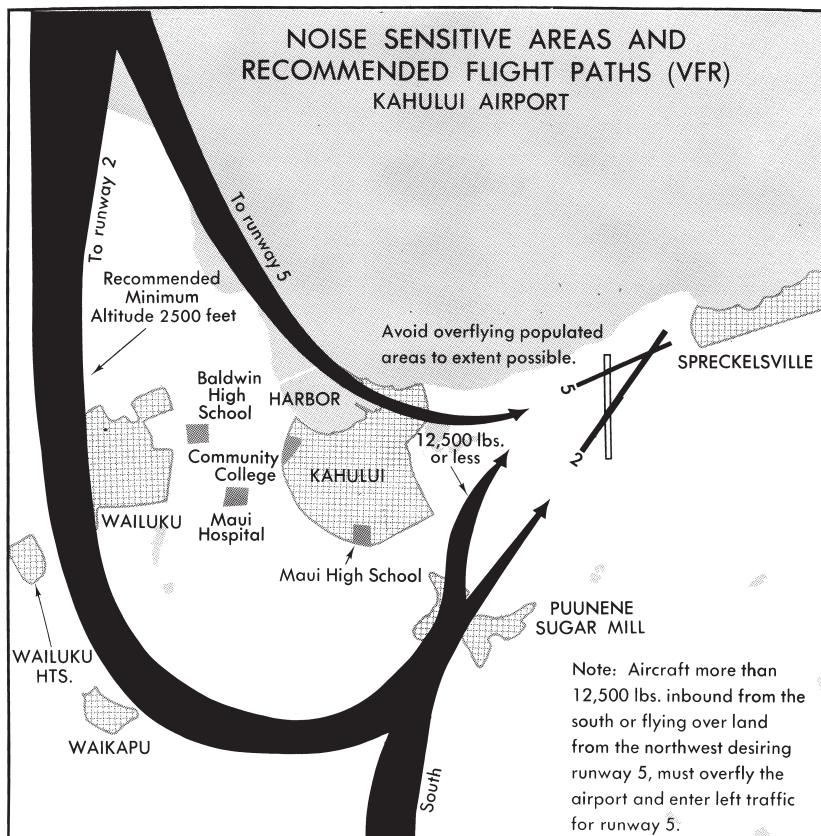
VFR AIRCRAFT PROPOSING TO ENTER KAHULUI AIRPORT CLASS C AIRSPACE ARE REQUIRED TO CONTACT ATC PRIOR TO ENTRY. INITIAL CONTACT: REFER TO CHARTED VFR CHECK POINTS OR 10 DME FROM THE OGG VORTAC. INITIAL CALLS IN CLOSE PROXIMITY TO THE AIRSPACE BOUNDARY MAY RECEIVE INSTRUCTIONS TO "REMAIN CLEAR OF CHARLIE AIRSPACE AND STANDBY." INITIAL CALLS FROM THE MORE DISTANT CHECK POINTS ARE PREFERRED.

FREQUENCIES: NORTH OF V15 – 120.2, SOUTH OF V15 – 119.5.

KAHULUI, MAUI

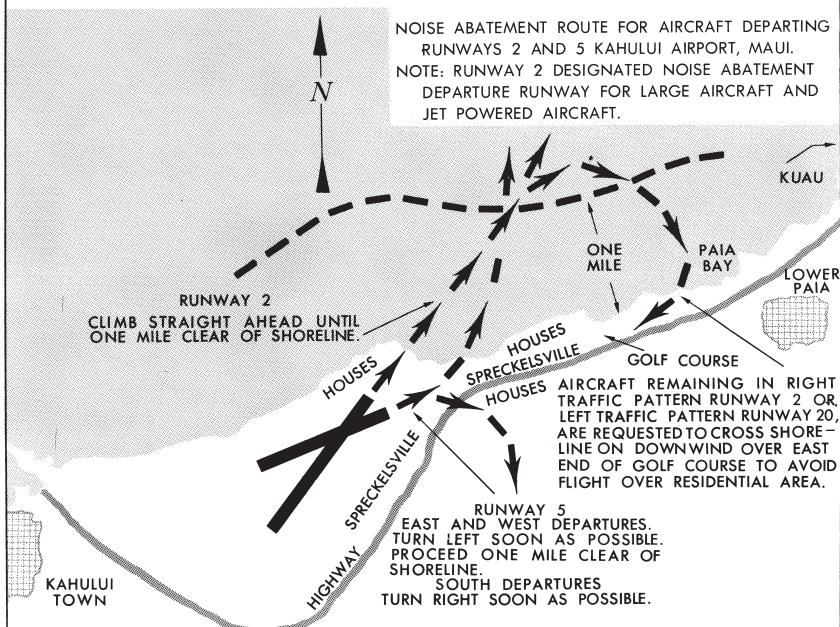
Shown are the most heavily traveled routes for high performance aircraft arriving and departing Kahului Airport, Maui. Light plane pilots flying VFR in these areas should maintain an alert lookout and monitor HCF Approach Control frequency. Aircraft transiting north of the Kahului Airport in VFR conditions are requested to remain at least 8 NM north of the airport at or below 4500 ft. if 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.





INFORMAL RUNWAY USE PROGRAM—KAHULUI ARPT, MAUI

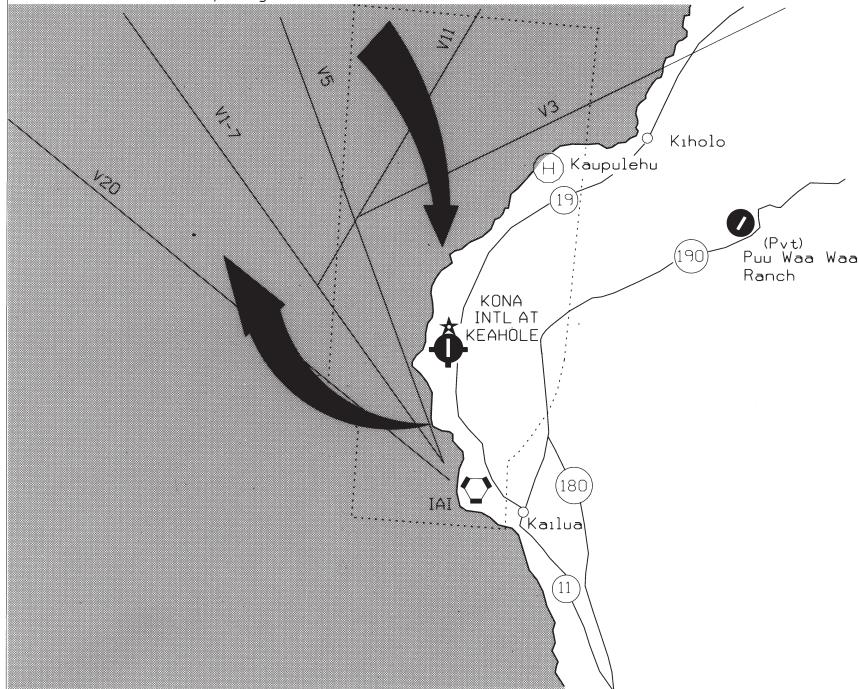
Aircraft noise complaints from Spreckelsville Beach area located adjacent to Kahului Airport have become a matter of serious concern. To alleviate the situation, noise abatement departure runways and flight patterns have been developed. All pilots are urged to follow these procedures to the maximum extent 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.



KONA INTERNATIONAL AT KEAHOLE AIRPORT, HAWAII

Depicted on this chart are the most heavily traveled routes for high performance aircraft arriving and departing Kona Intl At Keahole Airport, Kona, Hawaii.

General Aviation pilots flying VFR should be extra alert in these areas. Contact Kona Tower on frequency 120.3 for traffic advisories.



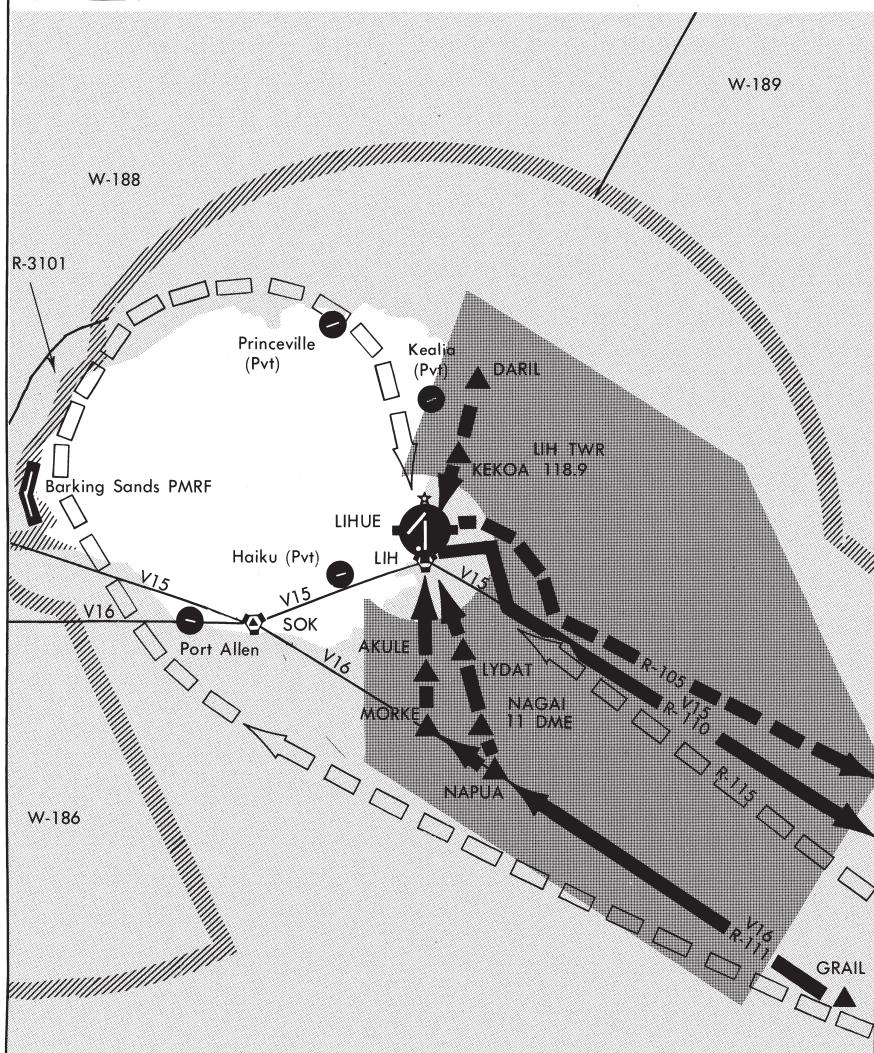
PREFERRED VFR ROUTING LIHUE AIRPORT, LIHUE, KAUAI

LEGEND

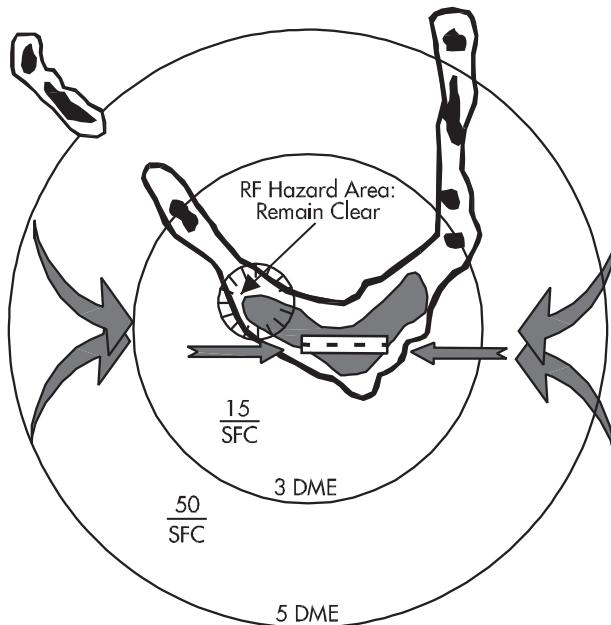
- PREFERRED VFR ARRIVAL ROUTES
- PREFERRED VFR DEPARTURE ROUTES
- IFR ARRIVAL/DEPARTURE ROUTES
- REQUEST CENTER ADVISORIES PRIOR TO TRANSITING AREA 126.5

AIRCRAFT INBOUND TO LIHUE FROM THE EAST CONTACT HONOLULU CENTER 126.5 BY MID-CHANNEL.

VFR AIRCRAFT DEPARTING LIHUE AIRPORT VIA RUNWAY 3/35 EASTBOUND, FLY OUTBOUND ON OR NORTH OF LIH 105 RADIAL UNTIL 25 MILES EAST.



Bucholz Army Airfield (Kwajalein Atoll) VFR Arrival/Departure RF Avoidance Routing



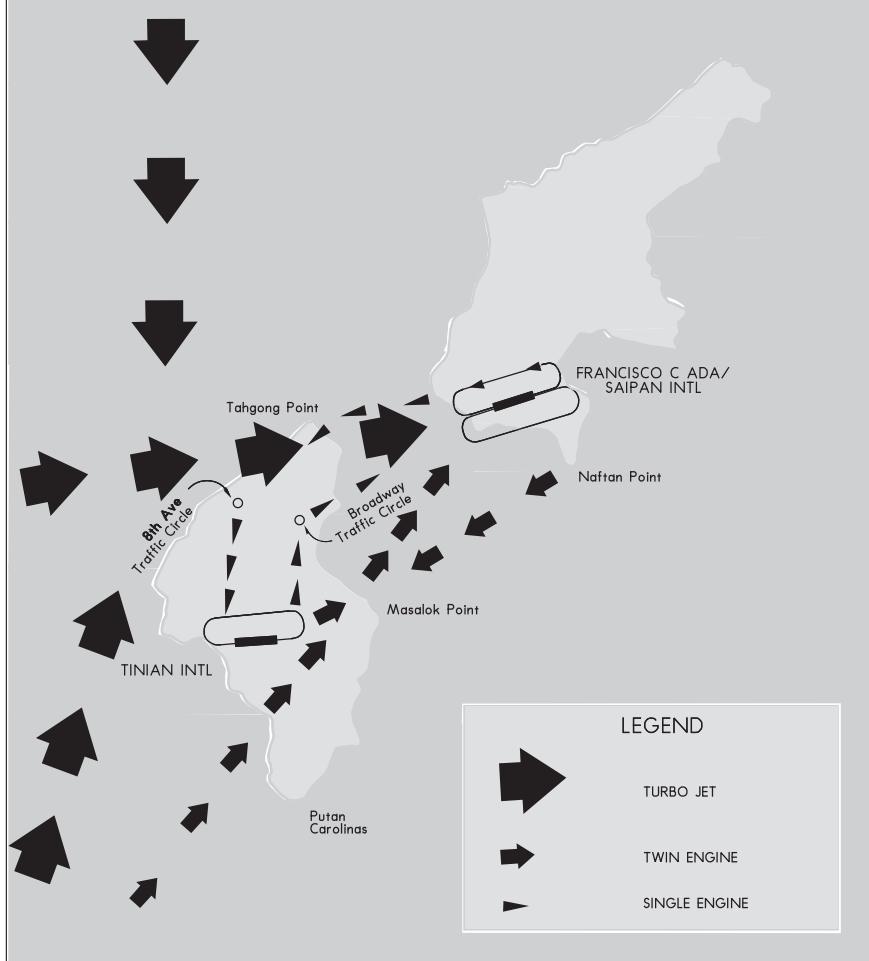
1. VFR arriving or departing aircraft must maintain indicated altitudes in vicinity of Bucholz Army Airfield. A high intensity radiated field can exist in vicinity of Bucholz and the possibility of interference exists if procedure is not followed.
2. Avoid overflight of indicated area at NW corner of Kwajalein.

PREFERRED VFR ROUTING AT SAIPAN AND WEST TINIAN AIRPORTS

Tradewind Condition

(Northeast Winds, Rwy 07, Rwy 08 In Use)

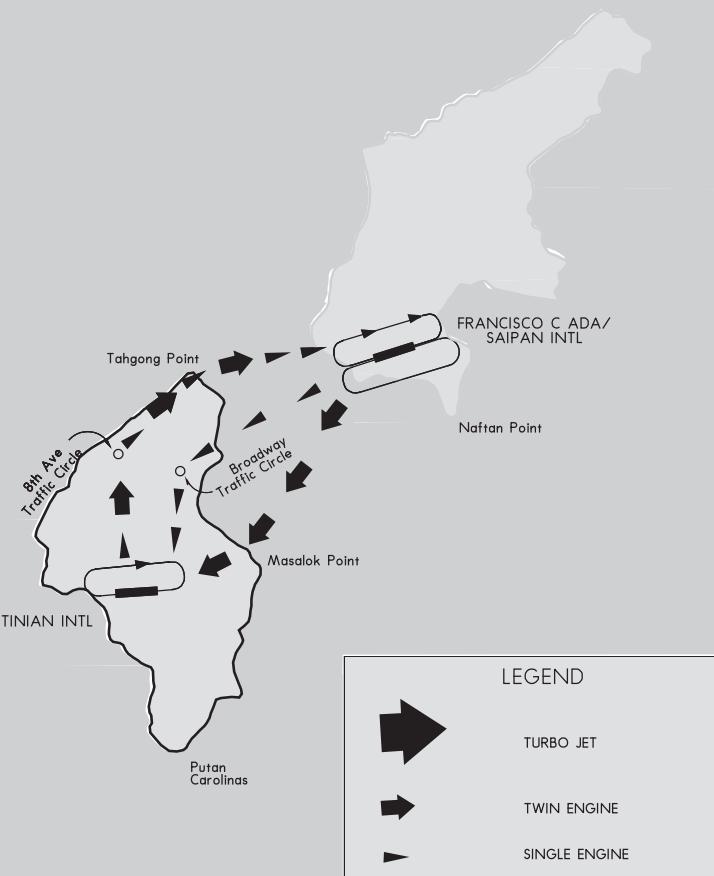
1. VFR turbo jet aircraft arriving Saipan from the southwest should proceed northbound along the west coast of Tinian. VFR turbo jets from the north-northwest should proceed southbound about 10 miles west of Saipan. They should intercept the I-GSN localizer at 10 DME and proceed inbound on the localizer maintaining at or above 2300' above mean sea level until passing KORDY (localizer/7 DME).
2. VFR twin engine aircraft arriving at Saipan from Tinian, Rota/Guam should proceed to Undi Masalok and direct to Puntan Opyan.
3. VFR single engine aircraft arriving Saipan from Tinian should turn left after takeoff and proceed northbound via BROADWAY to the traffic circle, then northeast to Asiga Point, then across Saipan channel for straight-in to Rwy 07.
4. VFR twin engine aircraft from Saipan should make right traffic to Naftan Point, then southwest bound to Puntan Masalok, then enter left traffic for Rwy 08 at West Tinian.
5. VFR single engine aircraft from Saipan should make left traffic downwind to Puntan Aagingan, 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)

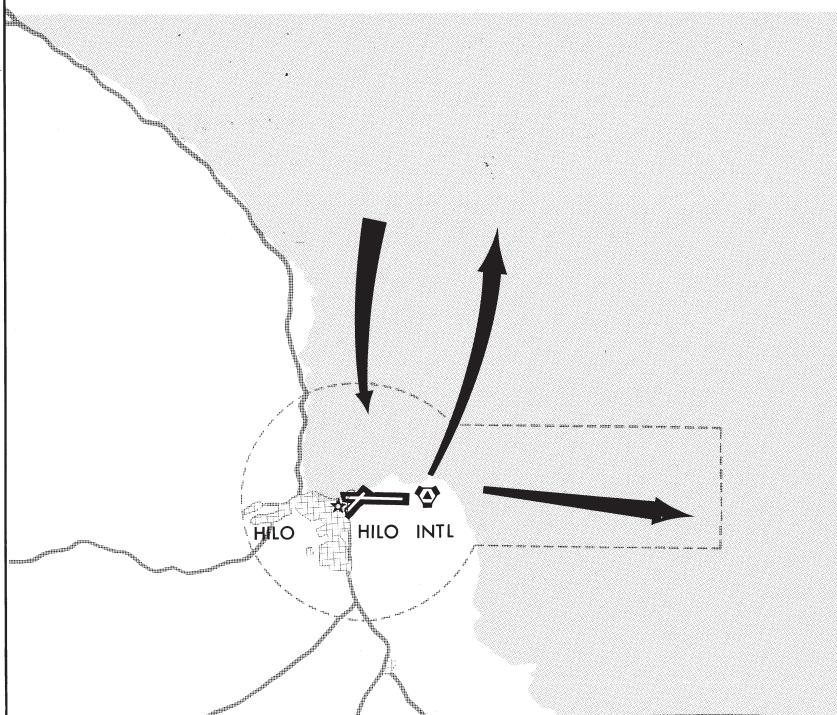
1. VFR single engine aircraft from Saipan Rwy 25 to West Tinian, direct across Saipan Channel to Broadway Traffic Circle, via BROADWAY to enter a right base leg for Rwy 26.
2. VFR twin engine aircraft from Saipan Rwy 25 left turn direct Unai Masalok, make straight-in to Rwy 26 at West Tinian.
3. VFR twin and single engine aircraft from West Tinian, Rwy 26 to Saipan, right turn follow 8th Avenue to Traffic Circle, direct to Puntan Tahgong across Saipan Channel to Agingan Point, enter right downwind for Rwy 25 at Saipan.

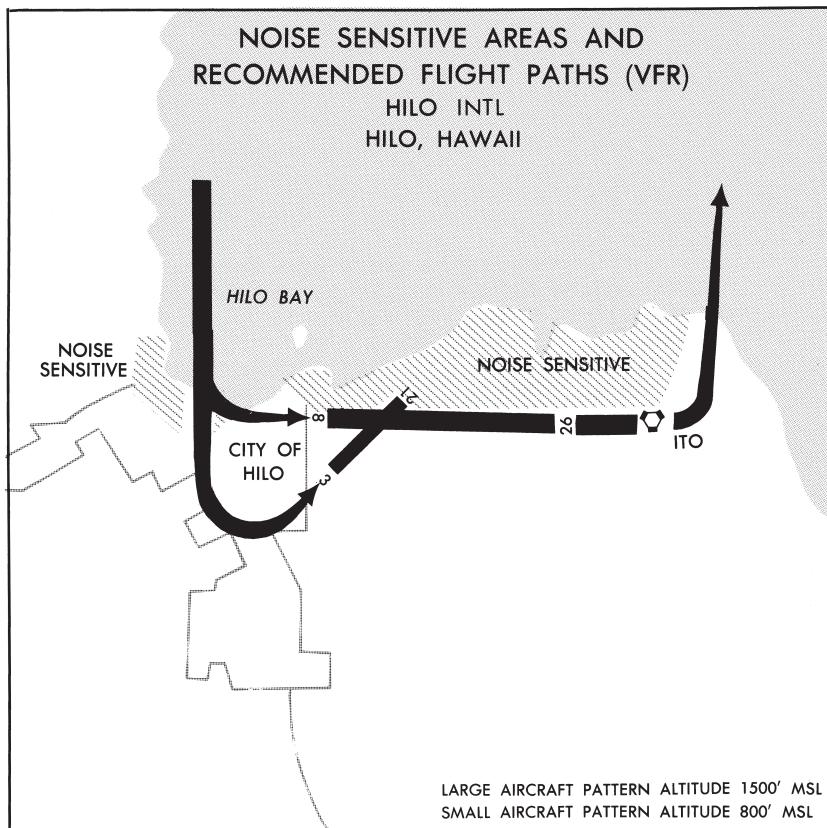


HILO INTL, HILO

Depicted on this chart are the most heavily traveled routes for high performance aircraft arriving and departing Hilo Intl, Hilo, Hawaii.

General aviation pilots flying VFR should be extra alert in these areas. Contact Hilo Approach Control on frequency 119.7 for traffic advisories.





DILLINGHAM AIRFIELD, OAHU

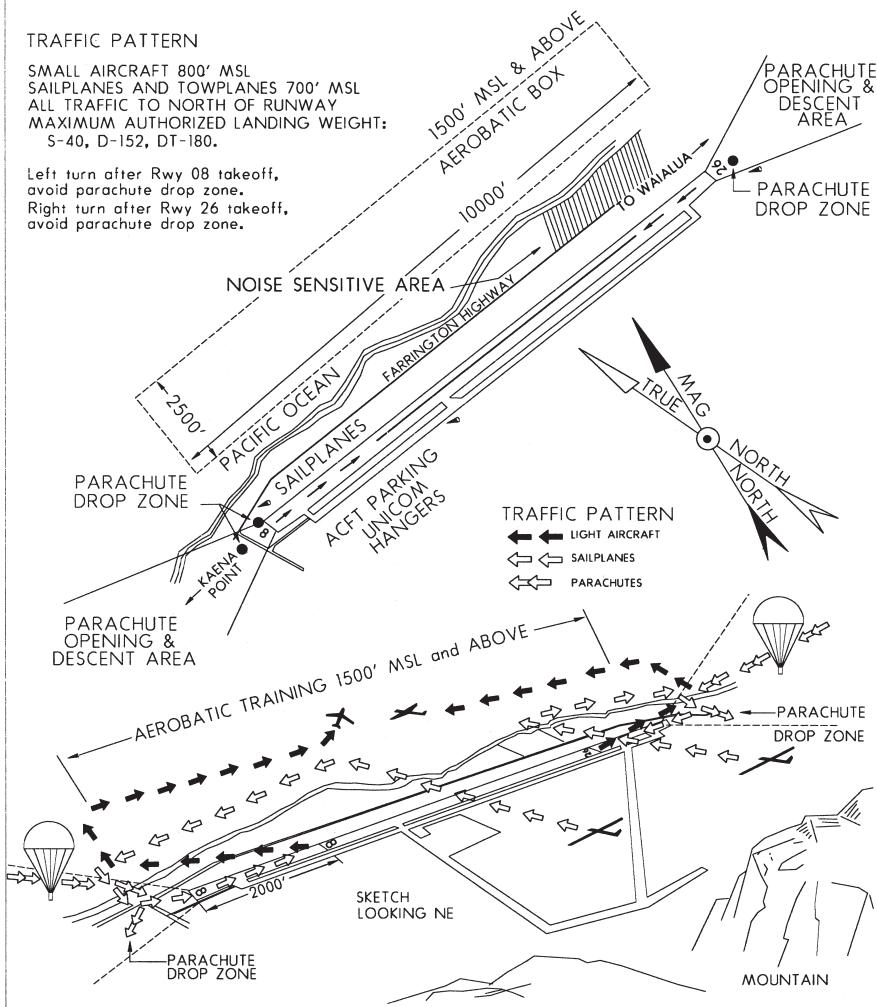
Glider Operations: Gliders are normally air-towed and routinely depart the traffic pattern to the South. (Right turn after takeoff Rwy 08, left turn after takeoff Rwy 26.) Gliders normally fly the ridge line to the south of the airport, within 5 NM. Most gliders are not radio equipped. The powered aircraft towing the gliders have radios and routinely use the glider traffic pattern, entering the traffic pattern from the South.

Sky Dive Operations: Extensive parachute operations occur daily at 16,000' and below. Parachutists normally exit the aircraft upwind of the airport and during strong winds may exit as far as 3 NM from the drop zone. Parachutes are usually opened between 2,000' and 4,500' altitude, and then flow to the drop zone entering an abbreviated left traffic pattern (Rwy 08) or right traffic pattern (Rwy 26). During light and no wind conditions, the parachutes may open directly above the airport and adjacent beach area.

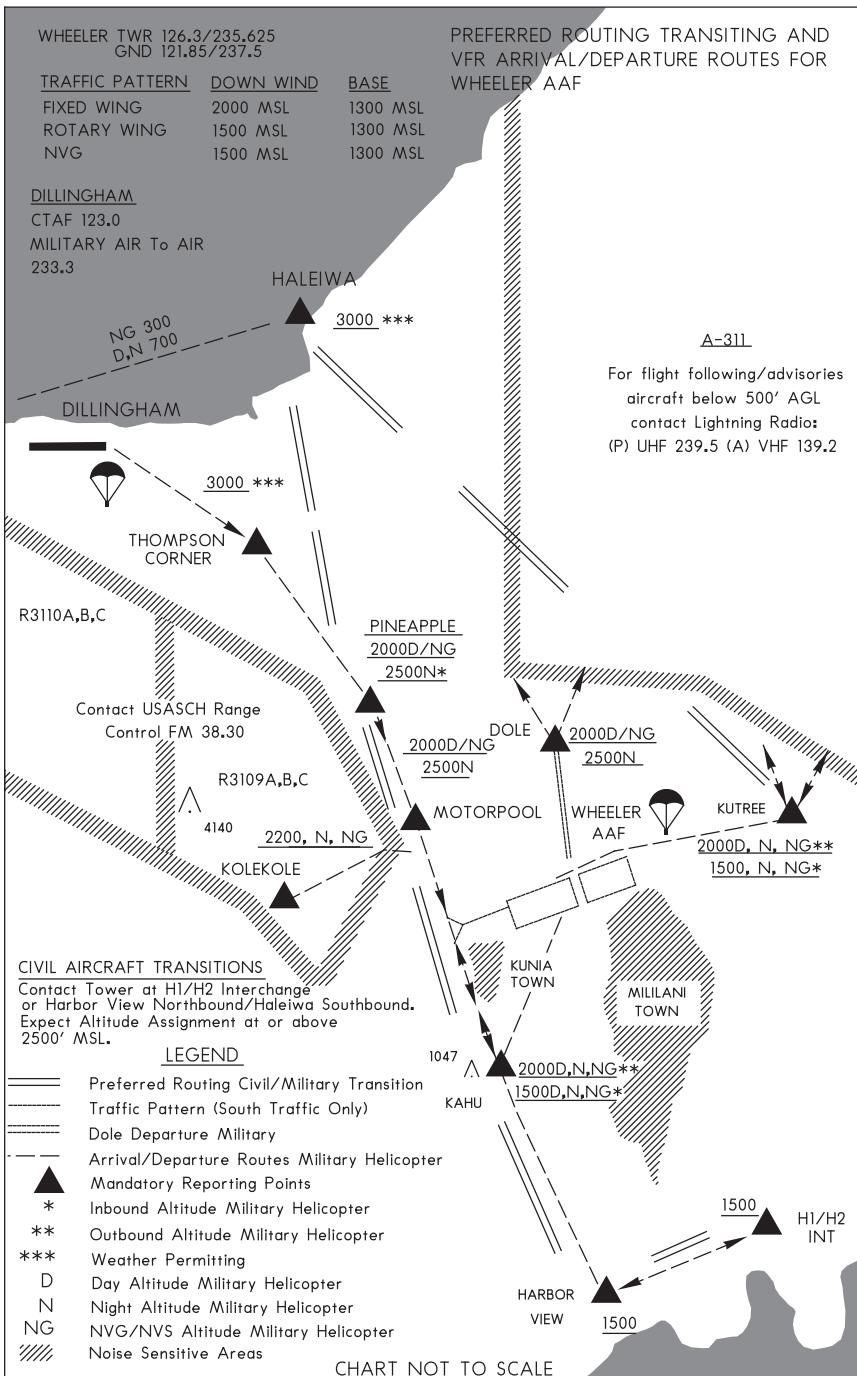
TRAFFIC PATTERN

SMALL AIRCRAFT 800' MSL
SAILPLANES AND TOWPLANES 700' MSL
ALL TRAFFIC TO NORTH OF RUNWAY
MAXIMUM AUTHORIZED LANDING WEIGHT:
S-40, D-152, DT-180.

Left turn after Rwy 08 takeoff,
avoid parachute drop zone.
Right turn after Rwy 26 takeoff,
avoid parachute drop zone.



ARRIVAL/DEPARTURE GRAPHICS



**INTENTIONALLY
LEFT
BLANK**

RADIO NAVIGATIONAL AIDS BY IDENT

Ident	Name	Ident	Name
AJA	Mt. Macajna (NDB)	NDJ	Bucholz (NDB)
		OGG	Maui (VORTAC)
AWK	Wake (VORTAC)	PNI	Pohnpei (NDB/DME)
CKH	Koko Head (VORTAC)	POA	Pahoa (NDB)
GRO	Rota (NDB)	ROR	Koror (NDB/DME)
HN	Ewabe (NDB)	SN	Saipan (NDB)
HNL	Honolulu (VORTAC)	SOK	South Kauai (VORTAC)
IAI	Kona (VORTAC)	TKK	Truk (NDB/DME)
ITO	Hilo (VORTAC)	TUT	Pago Pago (NDB)
LIH	Lihue (VORTAC)	UKS	Kosrae (NDB/DME)
LNY	Lanai (VORTAC)	UNZ	NIMITZ (VORTAC)
MAJ	Majuro (NDB/DME)	UPP	Upolu Point (VORTAC)
MDY	Midway (NDB)		
MKK	Molokai (VORTAC)	XI	Christmas Island (NDB)
MUE	Kamuela (VOR/DME)	YP	Yap (NDB/DME)

VOR RECEIVER CHECK

Airborne and ground checkpoints consist of certified radials that should be received at specific points on the airport surface, or over specific landmarks while airborne in the immediate vicinity of the airport.

Should an error in excess of $\pm 4^\circ$ be indicated through use of the ground check, or $\pm 6^\circ$ 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.

GROUND RECEIVER CHECKPOINTS

Nimitz	063	3.3 NM	Tw A between Rwy 06L and Rwy 06R.
Pago Pago	242	0.8 NM	On twy Rwy 05.
Wake Island	98	1.3 NM	Runup area Rwy 28.

VOR TEST FACILITIES (VOT)

STATION	FREQ.	TYPE VOT FACILITY
Honolulu	111.0	G

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.

Office of Primary Responsibility (OPR): Oakland Center – FAA/AJT-ZOA-IAP
 Contact Information: 510-745-3326 and/or 510-745-3464; email: AJT-ZOA-IAP@faa.gov
 Amended: June 2023

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.

AREA NAME	LOCATION	REMARKS
Agat Bay Drop Zone, GU	244 radial, 11.2 NM, UNZ VORTAC	2 NM radius. Intermittent. Up to 10,000 ft MSL. Military use only.
Anderson Drop Zone, GU	054 radial, 13.5 NM, UNZ VORTAC	2 NM radius. Intermittent. Up to 18,000 ft.
Apra Harbor, GU	265 radial, 4 NM, UNZ VORTAC	2 NM radius. Intermittent. Up to 12,000 ft.
Basilan Drop Zone, HI	326 radial, 16.6 NM, HNL VORTAC	2 NM radius. Intermittent. FSS HNL. Military. Up to 12,500 ft. Honolulu Control Facility ARTCC 126.5.
Dandan Drop Zone, GU	018 radial, 2.4 NM, SN NDB	1 NM radius. Daily. Up to 14,000 ft AGL.
Dillingham, HI	310 radial, 21.5 NM, HNL VORTAC	3 NM radius. Daily. Up to 16,000 ft.
	306 radial, 22.1 NM, HNL VORTAC	3 NM radius. Up to 16,000 ft.
East Range/Taro Drop Zone, HI	332 radial, 11.8 NM, HNL VORTAC	0.5 NM radius. Intermittent. Greatest activity on weekends. Military. Maximum altitude 12,500 ft MSL.
Ferguson Hill Drop Zone, GU	040 radial, 9.5 NM, UNZ VORTAC	2 NM radius. Intermittent. Up to 14,000 ft. MSL. Military use only.
Guam Intl, GU	080 radial, 5.8 NM, UNZ VORTAC	1 NM radius. Daily. Up to 14,000 ft FSS HNL.
Holister Drop Zone, HI	179 radial, 9.1 NM, MUE VOR/DME	1 NM radius. 0700-2200. Up to 35,000 ft. Honolulu Control Facility ARTCC 118.45.
Honolulu, HI Helemano Military Reservation, HI	340 radial, 14.5 NM, HNL VORTAC	0.7 NM radius. Daily. Greatest activity on weekends. Up to 15,000 ft.
Inouye Drop Zone, HI	178 radial, 10.7 NM, MUE VOR/DME	1 NM radius. 0700-2200. Up to 35,000 ft. Honolulu Control Facility ARTCC 118.45.
Kahuku, HI	351 radial, 22.6 NM, HNL VORTAC	Intermittent. Up to 12,500 ft AGL.
Kanes Drop Zone, HI	341 radial, 22.5 NM, HNL VORTAC	2 NM radius. Intermittent. FSS HNL. Military. Maximum Alt 12,500 ft AGL. Honolulu Control Facility ARTCC 126.5.
Mangilao Drop Zone, GU	090 radial, 4.6 NM, UNZ VORTAC	2 NM radius. Daily. Up to 14,000 ft FSS HNL. Guam Intl Twr 118.7.
Northwest Fld Drop Zone, GU	035 radial, 12 NM, UNZ VORTAC	2 NM radius. Intermittent up to 18,000 ft. Military.
Orote Point, GU	254 radial, 5.5 NM, UNZ VORTAC	2 NM radius. Intermittent. Up to 12,000 ft.
Pokai Bay, HI	285 radial, 17.5 NM, HNL VORTAC	3 NM radius. Intermittent. Up to 3,000 ft.
Port Allen, HI	256 radial, 4.2 NM, SOK VORTAC	2 NM radius. Daily. Max altitude 10,000 ft. Honolulu Control Facility Center 126.5.
Puukapu Drop Zone, HI	345 radial, 22.6 NM, HNL VORTAC	Intermittent. Up to 12,000 ft AGL. FSS HNL.
Tigershark-Inland Drop Zone, HI		1 NM radius. M-F 0700-2200, Sat-Sun, Hol 0900-2200. Up to 7,000 ft. Honolulu Cont Fac (ZHN) 142.45.
Uncle Drop Zone, HI	179 radial, 8.7 NM, MUE VOR/DME	1 NM radius. 0700-2200. Up to 35,000 ft. Honolulu Control Facility ARTCC 118.45.
Upolu Point Drop Zone, HI		5 NM radius. Daily, all hours. Up to 13,000 ft MSL. Honolulu Control Facility (ZHN) 126.0

SPECIAL USE AIRSPACE

No.	Name	Altitude	Time	Controlling Agency
				Using Agency
A-311	Wheeler AAF	To 500' AGL	1730-0900Z	Lightning Control VHF 139.2 UHF 239.5 FM 39.35
				25th Infantry Division, Schofield Barracks, HI
W-11A		To FL300	By NOTAM	FAA, Guam CERAP
				Commander Joint Region Marianas
W-11B		To FL300	By NOTAM	FAA, Guam CERAP
				Commander Joint Region Marianas
W-12		To FL600	By NOTAM	FAA, Guam CERAP
				Commander Joint Region Marianas

ASSOCIATED DATA

W-13A LOW	To FL300	By NOTAM	FAA, Guam CERAP Commander Joint Region Marianas
W-13B LOW	To FL300	By NOTAM	FAA, Guam CERAP Commander Joint Region Marianas
W-13C LOW	To FL300	By NOTAM	FAA, Guam CERAP Commander Joint Region Marianas
W-13A HIGH	To FL300 to FL600	By NOTAM	FAA, Guam CERAP Commander Joint Region Marianas
W-13B HIGH	To FL300 to FL600	By NOTAM	FAA, Guam CERAP Commander Joint Region Marianas
W-13C HIGH	To FL600	By NOTAM	FAA, Guam CERAP Commander Joint Region Marianas
W-11A	To FL300	By NOTAM	FAA, Guam CERAP Commander Joint Region Marianas
W-186	To 9,000'	Cont	FAA, Honolulu Control Facility CO PMRFAC HAWAREA
W-187	To 18,000'	Mon-Fri 1700-0800Z Sat-Sun 1800-0200Z other times by NOTAM	FAA, Honolulu Control Facility FACSFAC PH, Pearl Harbor, HI
W-188	Unltd	Cont	FAA, Honolulu Control Facility CO PMRFAC HAWAREA
W-189	Unltd	Mon-Fri 1700-0800Z Sat-Sun 1800-0200Z Other times by NOTAM	FAA, Honolulu Control Facility FACSFAC PH, Pearl Harbor, HI
W-190	Unltd	Mon-Fri 1700-0800Z Sat-Sun 1800-0200Z Other times by NOTAM	FAA, Honolulu Control Facility FACSFAC PH, Pearl Harbor, HI
W-191	To 3000'	Mon-Fri 1700-0800Z Sat-Sun 1800-0200Z Other times by NOTAM	FAA, Honolulu Control Facility FACSFAC PH, Pearl Harbor, HI
W-192	Unltd	Mon-Fri 1700-0800Z Sat-Sun 1800-0200Z Other times by NOTAM	FAA, Honolulu Control Facility FACSFAC PH, Pearl Harbor, HI
W-193	Unltd	Mon-Fri 1700-0800Z Sat-Sun 1800-0200Z Other times by NOTAM	FAA, Honolulu Control Facility FACSFAC PH, Pearl Harbor, HI
W-194	Unltd	Mon-Fri 1700-0800Z Sat-Sun 1800-0200Z Other times by NOTAM	FAA, Honolulu Control Facility FACSFAC PH, Pearl Harbor, HI

SPECIAL USE AIRSPACE (Continued from preceding page)

No.	Name	Altitude	Time	Controlling Agency
				Using Agency
W-196		to 2,000'	on-Fri 1700-0800Z Sat-Sun 1800-0200Z Other times by NOTAM	FAA, Honolulu Control Facility FACSFAC PH, Pearl Harbor, HI
W-517	Guam	Unltd	By NOTAM	FAA GUAM CERAP Commander Joint Region Marianas
R-3101	PMRF Barking Sands 4	Unltd	Mon-Fri 1600-0400Z Other times by NOTAM	FAA, Honolulu Control Facility CO Pacific Missile Range Fac
R-3103	Humuula	to 30,000'	By NOTAM	FAA, Honolulu Control Facility Commanding Gen. US Army Schofield Barracks, HI
R-3107	Kaula Rock	to 18,000'	Mon-Fri 1700-0800Z Sat-Sun 1800-0200Z, other times by NOTAM	FAA, Honolulu Control Facility FACSFAC PH, Pearl Harbor, HI issued at least 24 hours in advance.
R-3109A	Schofield-Makua	to 8,999'	By NOTAM	FAA, Honolulu Control Facility US Army Schofield Barracks, HI
R-3109B	Schofield-Makua	9,000' to 18,999'	Intermittent	FAA, Honolulu Control Facility US Army Schofield Barracks, HI
R-3109C	Schofield-Makua	to 8,999'	By NOTAM	FAA, Honolulu Control Facility US Army Schofield Barracks, HI
R-3110A	Schofield-Makua	to 8,999'	By NOTAM	FAA, Honolulu Control Facility US Army Schofield Barracks, HI
R-3110B	Schofield-Makua	9,000' to 18,999'	Intermittent	FAA, Honolulu Control Facility US Army Schofield Barracks, HI
R-3110C	Schofield-Makua	to 8,999'	By NOTAM	Honolulu Twr US Army Schofield Barracks, HI
R-7201	Farallon de Medinilla Is.	To FL600	By NOTAM	FAA, Guam CERAP Commander Joint Region Marianas
R-7201A	Farallon de Medinilla Is.	To FL600	By NOTAM	FAA, Guam CERAP Commander Joint Region Marianas

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 KPIT 091730Z 091818 15005KT 5SM HZ.FEW020 WS010/31022KT
 FM1930 30015G25KT 3SM SHRA OVC015 TEMPO 2022 1/2SM +TSRA
 OVC008CB
 FM0100 27008KT 5SM SHRA BKN020 OVC040 PROB40 0407 1SM -RA BR
 FM1015 18005KT 6SM -SHRA OVC020 BECMG 1315 P6SM NSW SKC

METAR KPIT 091955Z COR 22015G25KT 3/4SM R28L/2600FT TSRA OVC010CB
 18/16 A2992 RMK SLP045 T01820159

Forecast	Explanation	Report
TAF	Message type: <u>TAF</u> -routine or <u>TAF AMD</u> -amended forecast, <u>METAR</u> -hourly, <u>SPECI</u> -special or <u>TESTM</u> -non-commissioned ASOS report	METAR
KPIT	ICAO location indicator	KPIT
091730Z	Issuance time: ALL times in UTC <u>"Z"</u> , 2-digit date, 4-digit time	091955Z
091818	Valid period: 2-digit date, 2-digit beginning, 2-digit ending times	COR
15005KT	In U.S. METAR : <u>COR</u> rected ob; or <u>AUTO</u> matized ob for automated report with no human intervention; omitted when observer logs on	22015G25KT
5SM	Wind: 3 digit true-north direction, nearest 10 degrees (or <u>VaRiaBle</u>); next 2-3 digits for speed and unit, <u>KT</u> (KMH or MPS); as needed, <u>Gust</u> and maximum speed; 00000KT for calm; for METAR , if direction varies 60 degrees or more, <u>Variability</u> appended, e.g. 180 <u>V</u> 260	3/4SM
HZ	Prevailing visibility: in U.S., <u>Statute Miles</u> & fractions; above 6 miles in TAF <u>Plus6SM</u> . (Or, 4-digit minimum visibility in meters and as required, lowest value with direction)	R28L/2600FT
FEW020	Runway Visual Range: <u>R</u> ; 2-digit runway designator <u>Left</u> , <u>Center</u> , or <u>Right</u> as needed; <u>"/"</u> ; <u>Minus</u> or <u>Plus</u> in U.S., 4-digit value, <u>Feet</u> in U.S., (usually meters elsewhere); 4-digit value <u>Variability</u> 4-digit value (and tendency <u>Down</u> , <u>Up</u> or <u>No</u> change)	TSRA OVC010CB
	Significant present, forecast and recent weather: see table (on back)	
	Cloud amount, height and type: <u>SKy</u> <u>Clear</u> 0/8, <u>FEW</u> >0/8-2/8, <u>SCaTtered</u> 3/8-4/8, <u>BroKeN</u> 5/8-7/8, <u>OverCast</u> 8/8; 3-digit height in hundreds of ft; <u>Towering</u> <u>CUmulus</u> or <u>CumulonimBus</u> in METAR ; in TAF , only <u>CB</u> . <u>Vertical Visibility</u> for obscured sky and height "VV004". More than 1 layer may be reported or forecast. In automated METAR reports only, <u>CLeaR</u> for "clear below 12,000 feet"	
	Temperature: degrees Celsius; first 2 digits, temperature <u>"/"</u> last 2 digits, dew-point temperature; <u>Minus</u> for below zero, e.g., M06	18/16
	Altimeter setting: indicator and 4 digits; in U.S., <u>A</u> -inches and hundredths; (<u>Q</u> -hectoPascals, e.g., Q1013)	A2992

KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

Forecast	Explanation	Report
WS010/31022KT	In U.S. TAF , non-convective low-level ($\leq 2,000$ ft) <u>Wind Shear</u> ; 3-digit height (hundreds of ft); "/"; 3-digit wind direction and 2-3 digit wind speed above the indicated height, and unit, <u>KT</u> In METAR , <u>ReMark</u> indicator & remarks. For example: <u>Sea-Level Pressure</u> in hectoPascals & tenths, as shown: 1004.5 hPa; <u>Temp/dew-point</u> in tenths °C, as shown: temp. 18.2°C, dew-point 15.9°C	
FM1930	<u>FroM</u> and 2-digit hour and 2-digit minute beginning time: indicates significant change. Each FM starts on new line, indented 5 spaces.	RMK SLP045 T01820159
TEMPO 2022	<u>TEMPOrary</u> : changes expected for < 1 hour and in total, < half of 2-digit hour beginning and 2-digit hour ending time period	
PROB40 0407	<u>PROBability</u> and 2-digit percent (30 or 40): probable condition during 2-digit hour beginning and 2-digit hour ending time period	
BECMG 1315	<u>BECoMinG</u> : change expected during 2-digit hour beginning and 2-digit hour ending time period	

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 ($\geq 5/8$ SM)	FG Fog ($< 5/8$ SM)	FU Smoke	VA Volcanic ash
SA Sand	HZ Haze	PY Spray	DU Widespread dust
Other			
SQ Squall	SS Sandstorm	DS Duststorm	PO Well developed dust/sand whirls
FC Funnel cloud	+FC tornado/waterspout		

- 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 fcsts
- 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

PIREP FORM

3 or 4 letter Identifier

1.	UA	UUA
	Routine	Urgent

2.	/OV	Location
3.	/TM	Time
4.	/FL	Altitude/Flight Level
5.	/TP	Aircraft Type

Items 1 through 5 are mandatory for all PIREPs

6.	/SK	Sky Condition
7.	/WX	Flight Visibility & Weather
8.	/TA	Temperature (Celsius)
9.	/WV	Wind
10.	/TB	Turbulence
11.	/IC	Icing
12.	/RM	Remarks

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-SLI120005, /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, HZ, 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, /LGT 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
/RM MTN WAVE, /RM DURC, /RM DURD, /RM MULLAN PASS
/RM BA RWY 02L BA MEDIUM TO POOR 3IN DRY SN OVER COMPACTED

SN

Examples of Completed PIREPS

UA /OV RFD /TM 1315 /FL160 /TP PA44 /SK OVC025-TOP095/OVC150 /TA M12 /TB INTMT LGT CHOP

UA /OV DHT360015-AMA /TM 2116 /FL050 /TP PA32 /SK BKN090 /WX FV05SM -RA /TA 04 /TB LGT /IC NEG

UUA /OV PDZ010018 /TM 1520 /FL125 /TP C172 /WV 270048KT TB SEV 055-085 /RM CAJON PASS

*

FLIGHT SERVICE STATIONS NATIONAL WEATHER SERVICE OFFICES

Flight Service Station (FSS) facilities process flight plans and provide flight planning and weather briefing services to pilots. FSS services in the contiguous United States, Hawaii and Puerto Rico, are provided by a contract provider at two large facilities. In Alaska, FSS services are delivered through a network of three hub facilities and 14 satellite facilities, some of which operate part-time and some are seasonal. Because of the interconnectivity between the facilities, all FSS services including radio frequencies are available continuously using published data.

National Weather Service Office (WSO): Only general weather information is available on the National Weather Service Office (WSO) telephone numbers listed. NOTE: National Weather Service Offices in the United States are not authorized to provide official Pilot Weather Briefings.

NATIONAL FSS TELEPHONE NUMBER

Pilot Weather Briefings 1-800-WX-BRIEF (1-800-992-7433) *

OTHER FSS TELEPHONE NUMBERS

Medevac Flights Only (except in Alaska) 1-877-LIF-GRD3 (1-877-543-4733)

Location	Frequencies
Honolulu, Oahu	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 296.7 233.7

Remarks:

FSS—1-800-WX-BRIEF, available 24 hours.

WSO—973-5286, operates 24 hours.

Surface weather reports available on request via air/ground voice communication frequencies.

Best VHF enroute communication coverage due to location of RCO sites:

122.2-Molokai & Lanai routes, 122.6-Lihue routes, 123.6-Maui & Hawaii routes

Routine and selected special reports—Honolulu/Hilo/Kahului/Guam.

Terminal forecast—Honolulu/Hilo/Guam.

Hilo WSO—933-6941, operates 1000–0200Z.

Lihue WSO—245-2420, operates 1000–0200Z.

R—Receive only T—Transmit only

Emerg Freq. 121.5 and 243.0 are available at most stations and are not tabulated.

* Outer Islands may be required to dial LD 808-833-8440 for FSS weather briefing and flight planning svc.

KEY AIR TRAFFIC FACILITIES
Air Traffic Control System Command Center
Main Number..... 540-422-4100

AIR ROUTE TRAFFIC CONTROL CENTERS (ARTCCs)

ARTCC NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #	**CLEARANCE DELIVERY TELEPHONE #
Albuquerque	817-222-5006	7:30 a.m.-4:00 p.m.	505-856-4300	505-856-4561
Anchorage	907-271-5936	7:30 a.m.-4:00 p.m.	907-269-1137	
Atlanta	404-305-5180	7:30 a.m.-5:00 p.m.	770-210-7601	770-210-7692
Boston	404-305-5156	7:30 a.m.-4:00 p.m.	617-455-3100	603-879-6859
Chicago	817-222-5006	8:00 a.m.-4:00 p.m.	630-906-8221	630-906-8921
Cleveland	817-222-5006	8:00 a.m.-4:00 p.m.	440-774-0310	440-774-0490
Denver	206-231-2099	7:30 a.m.-4:00 p.m.	303-651-4100	303-651-4257
Ft. Worth	817-222-5006	7:30 a.m.-4:00 p.m.	817-858-7500	817-858-7584
Honolulu	310-725-3300	7:30 a.m.-4:00 p.m.	808-840-6100	808-840-6201
Houston	817-222-5006	7:30 a.m.-4:00 p.m.	281-230-5300	281-230-5622
Indianapolis	817-222-5006	8:00 a.m.-4:00 p.m.	317-247-2231	317-247-2411
Jacksonville	404-305-5180	8:00 a.m.-4:30 p.m.	904-549-1501	904-845-1592
Kansas City	817-222-5006	7:30 a.m.-4:00 p.m.	913-254-8500	913-254-8508
Los Angeles	661-265-8200	7:30 a.m.-4:00 p.m.	661-265-8200	661-575-2079
Memphis	404-305-5180	7:30 a.m.-4:00 p.m.	901-368-8103	901-368-8453
Miami	404-305-5180	7:00 a.m.-3:30 p.m.	305-716-1500	305-716-1731
Minneapolis	817-222-5006	8:00 a.m.-4:00 p.m.	651-463-5580	651-463-5588
New York	718-995-5426	8:00 a.m.-4:40 p.m.	631-468-1001	631-468-1425
Oakland	310-725-3300	6:30 a.m.-3:00 p.m.	510-745-3331	
Salt Lake City	206-231-2099	7:30 a.m.-4:00 p.m.	801-320-2500	801-320-2568
San Juan	404-305-5180	7:30 a.m.-4:00 p.m.	787-253-8663	787-253-8664
Seattle	206-231-2099	7:30 a.m.-4:00 p.m.	253-351-3500	253-351-3694
Washington	718-995-5426	8:00 a.m.-4:30 p.m.	703-771-3401	703-771-3587

*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)

TRACON NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Atlanta	404-305-5180	7:00 a.m.-3:30 p.m.	404-669-1200
Chicago	817-222-5006	8:00 a.m.-4:00 p.m.	847-608-5509
Dallas/Ft. Worth	817-222-5006	7:30 a.m.-4:00 p.m.	972-615-2500
Denver	425-227-1389	7:30 a.m.-4:00 p.m.	303-342-1500
Houston	817-222-5006	7:30 a.m.-4:00 p.m.	281-230-8400
New York	718-995-5426	8:00 a.m.-4:30 p.m.	516-683-2901
Northern CA	310-725-3300	7:00 a.m.-3:30 p.m.	916-366-4001
Potomac	718-995-5426	8:00 a.m.-4:30 p.m.	540-349-7500
Southern CA	310-725-3300	7:30 a.m.-4:00 p.m.	858-537-5800

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

**KEY AIR TRAFFIC FACILITIES
DAILY NAS REPORTABLE AIRPORTS**

AIRPORT NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque Intl Sunport, NM	817-222-5006	8:00 a.m.-5:00 p.m.	505-842-4366
Andrews AFB, MD	718-995-5426	8:00 a.m.-4:30 p.m.	301-735-2380
Baltimore/Washington Intl Thurgood Marshall, MD	718-995-5426	8:00 a.m.-4:30 p.m.	410-962-3555
Boston Logan Intl, MA	404-305-5156	7:30 a.m.-4:00 p.m.	617-561-5901
Bradley Intl, CT	404-305-5156	7:30 a.m.-4:00 p.m.	203-627-3428
Burbank/Bob Hope, CA	301-725-3300	7:00 a.m.-5:30 p.m.	818-567-4806
Charlotte Douglas Intl, NC	404-305-5180	8:00 a.m.-4:30 p.m.	704-344-6487
Chicago Midway, IL	817-222-5006	8:00 a.m.-4:00 p.m.	773-884-3670
Chicago O'Hare Intl, IL	817-222-5006	8:00 a.m.-4:00 p.m.	773-601-7600
Cleveland Hopkins Intl, OH	817-222-5006	8:00 a.m.-4:00 p.m.	216-352-2000
Covington/Cincinnati, OH	708-294-7401	8:00 a.m.-4:30 p.m.	606-767-1006
Dallas/Ft. Worth Intl, TX	817-222-5006	8:30 a.m.-5:00 p.m.	972-615-2531
Dayton Cox Intl, OH	817-222-5006	7:30 a.m.-4:00 p.m.	937-454-7300
Denver Intl, CO	425-227-1389	7:30 a.m.-4:00 p.m.	303-342-1600
Detroit Metro, MI	817-222-5006	8:00 a.m.-4:00 p.m.	734-955-5000
Fairbanks Intl, AK	907-271-5936	7:30 a.m.-4:00 p.m.	907-474-0050
Fort Lauderdale Intl, FL	404-305-5180	7:00 a.m.-3:30 p.m.	305-356-7932
George Bush Intercontinental/Houston, TX	817-222-5006	7:30 a.m.-4:00 p.m.	713-230-8400
Hartsfield-Jackson Atlanta Intl, GA	404-305-5180	7:00 a.m.-3:30 p.m.	404-669-1200
Honolulu (Daniel K Inouye Intl), HI	310-725-3300	7:30 a.m.-4:00 p.m.	808-840-6100
Houston Hobby, TX	817-222-5006	8:00 a.m.-5:00 p.m.	713-847-1400
Indianapolis Intl, IN	817-222-5006	8:00 a.m.-4:00 p.m.	317-484-6600
Kahului/Maui, HI	310-725-3300	7:30 a.m.-4:00 p.m.	808-877-0725
Kansas City Intl, MO	817-222-5006	7:30 a.m.-4:00 p.m.	816-329-2700
Las Vegas McCarran, NV	310-725-3300	7:30 a.m.-4:00 p.m.	702-262-5978
Los Angeles Intl, CA	310-725-3300	7:00 a.m.-3:30 p.m.	310-342-4900
Louis Armstrong New Orleans Intl, LA	817-222-5006	7:00 a.m.-4:30 p.m.	504-471-4300
Memphis Intl, TN	404-305-5180	7:30 a.m.-4:00 p.m.	901-322-3350
Miami Intl, FL	404-305-5180	7:00 a.m.-4:00 p.m.	305-869-5400
Minneapolis/St. Paul, MN	817-222-5006	8:00 a.m.-4:00 p.m.	612-713-4000
Nashville Intl, TN	404-305-5180	7:00 a.m.-3:30 p.m.	615-781-5460
New York Kennedy Intl, NY	718-995-5426	8:00 a.m.-4:30 p.m.	718-656-0335
New York La Guardia, NY	718-995-5426	8:00 a.m.-4:30 p.m.	718-335-5461
Newark Liberty Intl, NJ	718-995-5426	7:30 a.m.-4:00 p.m.	973-565-5000
Norman Y. Mineta San Jose Intl, CA	310-725-3300	7:30 a.m.-4:00 p.m.	408-982-0750
Ontario Intl, CA	310-725-3300	7:30 a.m.-4:00 p.m.	909-983-7518
Orlando Intl, FL	404-305-5180	7:30 a.m.-5:00 p.m.	407-850-7000
Philadelphia Intl, PA	718-995-5426	8:00 a.m.-4:30 p.m.	215-492-4100
Phoenix Sky Harbor Intl, AZ	310-725-3300	7:30 a.m.-4:00 p.m.	602-379-4226
Pittsburgh Intl, PA	718-995-5426	8:00 a.m.-4:30 p.m.	412-269-9237
Portland Intl, OR	425-227-1389	7:30 a.m.-4:00 p.m.	503-493-7500
Raleigh-Durham, NC	404-305-5180	8:00 a.m.-4:30 p.m.	919-380-3125
Ronald Reagan Washington National, DC	718-995-5426	8:00 a.m.-4:30 p.m.	703-413-0330
Salt Lake City, UT	425-227-1389	7:30 a.m.-4:00 p.m.	801-325-9600
San Antonio Intl, TX	817-222-5006	8:00 a.m.-4:30 p.m.	210-805-5507
San Diego Lindbergh Intl, CA	310-725-3300	8:00 a.m.-4:30 p.m.	619-299-0677
San Francisco Intl, CA	310-725-3300	7:00 a.m.-3:30 p.m.	650-876-2883
San Juan Intl, PR	404-305-5180	7:30 a.m.-5:00 p.m.	809-253-8663
Seattle-Tacoma Intl, WA	425-227-1389	7:30 a.m.-4:00 p.m.	206-768-2900
St. Louis Lambert, MO	817-222-5006	7:30 a.m.-4:00 p.m.	314-890-1000
Tampa Intl, FL	404-305-5180	7:30 a.m.-4:00 p.m.	813-371-7700
Ted Stevens Anchorage Intl, AK	907-271-5936	7:30 a.m.-4:00 p.m.	907-271-2700
Teterboro, NJ	718-995-5426	8:00 a.m.-4:30 p.m.	201-288-1889
Washington Dulles Intl, DC	718-995-5426	8:00 a.m.-4:30 p.m.	571-323-6372
West Palm Beach, FL	404-305-5180	8:00 a.m.-4:30 p.m.	561-683-1867
Westchester Co, NY	718-995-5426	8:00 a.m.-4:30 p.m.	914-948-6520

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

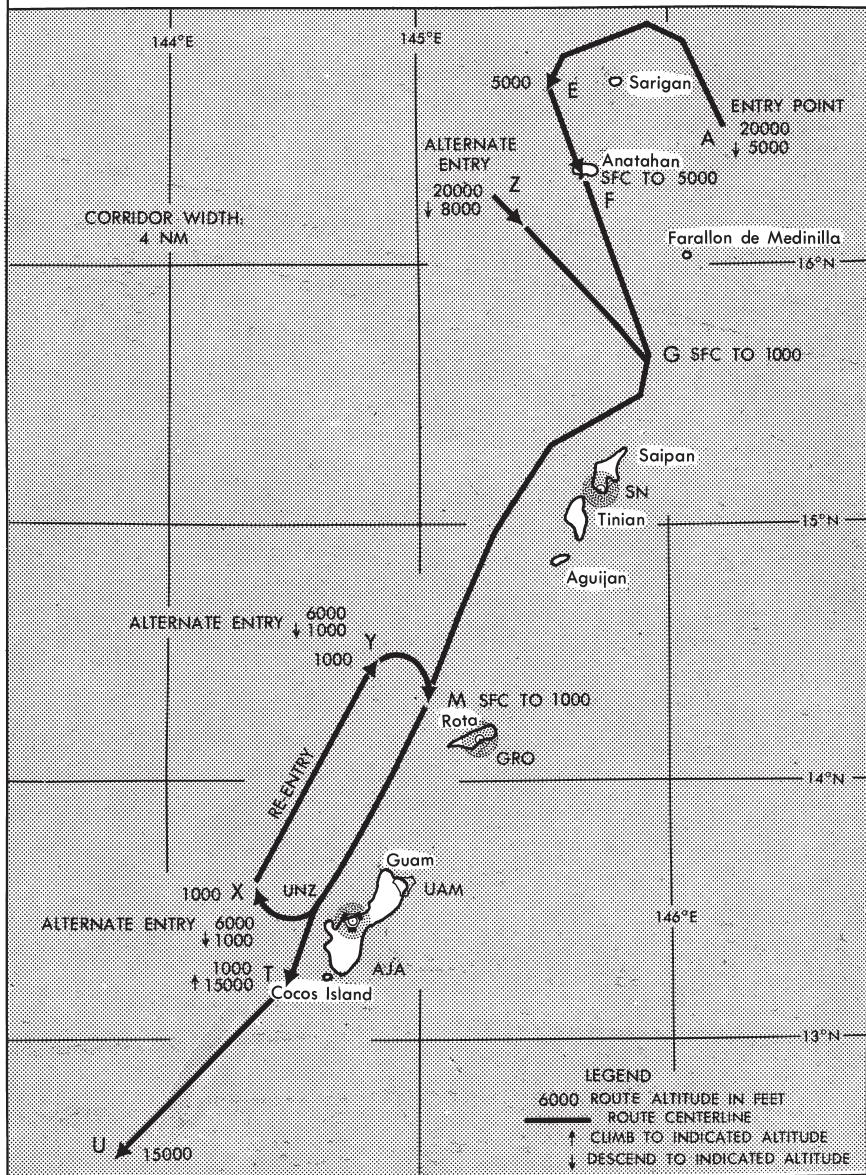
MILITARY TRAINING ROUTES

The DOD Flight Information Publication AP/1B provides textual and graphic descriptions and operating instructions for all military training routes (IR, VR, SR) and refueling tracks/anchors. Complete and more comprehensive information relative to policy and procedures for IRs and VRs is published in FAA Handbook 7610.4 (Special Military Operations) which is agreed to by the DOD and therefore directive for all military flight operations. The AP/1B is the official source of route data for military users.

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.

MILITARY TRAINING ROUTES
MARIANAS ISLANDS
IR-983

Hours of Operation—Continuous



DISTANCES

METERS/FEET		
MTRS	FT/MTRS	FT
0.305	1	3.281
0.610	2	6.562
0.914	3	9.843
1.219	4	13.123
1.524	5	16.404
1.829	6	19.685
2.134	7	22.966
2.438	8	26.247
2.743	9	29.528
3.048	10	32.808
6.096	20	65.617
9.144	30	98.425
12.192	40	131.233
15.240	50	164.042
18.288	60	196.850
21.336	70	229.658
24.384	80	262.467
27.432	90	295.275
30.480	100	328.083
60.960	200	656.2
91.440	300	984.3
121.920	400	1312.3
152.400	500	1640.4
304.800	1000	3280.8
609.601	2000	6561.7
914.402	3000	9842.5
1219.202	4000	13123.3
1524.003	5000	16404.2

NAUTICAL MILES TO		
KM	NM	SM
0.185	0.1	0.115
0.370	0.2	0.230
0.556	0.3	0.345
0.741	0.4	0.460
0.926	0.5	0.575
1.111	0.6	0.690
1.296	0.7	0.806
1.482	0.8	0.921
1.667	0.9	1.036
1.85	1	1.15
3.70	2	2.30
5.56	3	3.45
7.41	4	4.60
9.26	5	5.75
11.11	6	6.90
12.96	7	8.06
14.82	8	9.21
16.67	9	10.36
18.52	10	11.51

NAUTICAL MILES TO		
KM	NM	SM
37.04	20	23.02
55.56	30	34.52
74.08	40	46.03
92.60	50	57.54
111.12	60	69.05
129.64	70	80.55
148.16	80	92.06
166.68	90	103.57
185.20	100	115.08
370.40	200	230.16
555.60	300	345.23
740.80	400	460.31
926.00	500	575.39
1111.20	600	690.47
1296.40	700	805.54
1481.60	800	920.62
1666.80	900	1035.70
1852.00	1000	1150.78

MTRS	NM
100	0.054
500	0.270
1000	0.540
2000	1.080
3000	1.620
4000	2.160

MTRS	NM
5000	2.700
6000	3.240
7000	3.780
8000	4.320
9000	4.860
10,000	5.399

MILLIBARS TO INCHES

mb	0	1	2	3	4	5	6	7	8	9
	INCHES									
940	27.76	27.79	27.82	27.85	27.88	27.91	27.94	27.96	27.99	28.02
950	28.05	28.08	28.11	28.14	28.17	28.20	28.23	28.26	28.29	28.32
960	28.35	28.38	28.41	28.44	28.47	28.50	28.53	28.56	28.59	28.61
970	28.64	28.67	28.70	28.73	28.76	28.79	28.82	28.85	28.88	28.91
980	28.94	28.97	29.00	29.03	29.06	29.09	29.12	29.15	29.18	29.21
990	29.23	29.26	29.29	29.32	29.35	29.38	29.41	29.44	29.47	29.50
1000	29.53	29.56	29.59	29.62	29.65	29.68	29.71	29.74	29.77	29.80
1010	29.83	29.85	29.88	29.91	29.94	29.97	30.00	30.03	30.06	30.09
1020	30.12	30.15	30.18	30.21	30.24	30.27	30.30	30.33	30.36	30.39
1030	30.42	30.45	30.47	30.50	30.53	30.56	30.59	30.62	30.65	30.68
1040	30.71	30.74	30.77	30.80	30.83	30.86	30.89	30.92	30.95	30.98
1050	31.01	31.04	31.07	31.10	31.12	31.15	31.18	31.21	31.24	31.27

TEMPERATURE SCALES IN DEGREES

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
-40	-40.0	-28	-18.4	-16	3.2	-4	24.8	8	46.4	20	68.0	32	89.6
-39	-38.2	-27	-16.6	-15	5.0	-3	26.6	9	48.2	21	69.8	33	91.4
-38	-36.4	-26	-14.8	-14	6.8	-2	28.4	10	50.0	22	71.6	34	93.2
-37	-34.6	-25	-13.0	-13	8.6	-1	30.2	11	51.8	23	73.4	35	95.0
-36	-32.8	-24	-11.2	-12	10.4	0	32.0	12	53.6	24	75.2	36	96.8
-35	-31.0	-23	-9.4	-11	12.2	1	33.8	13	55.4	25	77.0	37	98.6
-34	-29.2	-22	-7.6	-10	14.0	2	35.6	14	57.2	26	78.8	38	100.4
-33	-27.4	-21	-5.8	-9	15.8	3	37.4	15	59.0	27	80.6	39	102.2
-32	-25.6	-20	-4.0	-8	17.6	4	39.2	16	60.8	28	82.4	40	104.0
-31	-23.8	-19	-2.2	-7	19.4	5	41.0	17	62.6	29	84.2	41	105.8
-30	-22.0	-18	-0.4	-6	21.2	6	42.8	18	64.4	30	86.0	42	107.6
-29	-20.2	-17	1.4	-5	23.0	7	44.6	19	66.2	31	87.8	43	109.4

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	HOT SPOT	DESCRIPTION
HAWAII		
HONOLULU		
DANIEL K INOUYE INTL (HNL) (PHNL)	HS 1	Acft ldg Rwy 04R and exiting left onto Twy K sometimes fail to hold short of Rwy 04L–22R and Rwy 08L–26R. When holding short, ATC is aware the acft tail is encroaching the ldg rwy.
	HS 2	Acft proceeding north or south on Twy E and instructed to turn onto Twy B sometimes miss the turn onto Twy B and enter Rwy 08L–26R or 04L–22R without clearance.
	HS 3	Twy V, Twy T, Twy A and Twy J in close proximity to Rwy 08L.
	HS 4	Minimal distance between rwy hold short lines between Rwy 04L–22R/Rwy 04R–22L.
KAHULUI		
KAHULUI (OGG) (PHOG)	HS 1	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.
	HS 2	Rwy holding position marking Rwy 02–20 located at the intersection of Twy E and the ramp.
	HS 3	Acft ldg Rwy 02 that are instructed to exit left on Twy A sometimes cross Rwy 05–23 wo clnc.
KAILUA/KONA		
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)	HS 1	Extv helicopter OPS on twy A abm ramp K.
	HS 2	Extv helicopter OPS on twy A S of twy C.
KAUNAKAKAI		
MOLOKAI (MKK) (PHMK)	HS 1	Area not visible from ctl twr.

**INTENTIONALLY
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Approved OMB No. 2120-0026
Exp. 7/31/2020

 U S Department of Transportation Federal Aviation Administration		International Flight Plan				
PRIORITY <=FF	ADDRESSEE(S)					
FILING TIME	ORIGINATOR			<=		
SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND / OR ORIGINATOR						
3 MESSAGE TYPE <=(FPL		7 AIRCRAFT IDENTIFICATION		8 FLIGHT RULES		TYPE OF FLIGHT
9 NUMBER	TYPE OF AIRCRAFT		WAKE TURBULENCE CAT.		10 EQUIPMENT	
13 DEPARTURE AERODROME		TIME		/		
15 CRUISING SPEED		LEVEL		ROUTE		<=
						<=
16 DESTINATION AERODROME		TOTAL EET HR MIN		ALTN AERODROME		2ND ALTN AERODROME
						<=
18 OTHER INFORMATION						
						<=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES)						
19 ENDURANCE HR MIN E/	PERSONS ON BOARD P/		EMERGENCY RADIO UHF R/ <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		VHF <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> ELT <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
SURVIVAL EQUIPMENT POLAR DESERT MARITIME JUNGLE		JACKETS <input type="checkbox"/> / <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		LIGHT <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		FLUORES <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
DINGHIES NUMBER CAPACITY COVER		COLOR		UHF <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>		VHF <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
D/	C/		<=			
AIRCRAFT COLOR AND MARKINGS A/						
REMARKS N/						
PILOT-IN-COMMAND C/)<=						
FILED BY	ACCEPTED BY			ADDITIONAL INFORMATION		

FAA Form 7233-4 (7/15)

PROCEDURES

FLIGHT PLANS

1. Requirement for Flight Plan Filing

ICAO Annex 2 requires a flight plan to be submitted for any flight across international borders. This permits en route stations and the destination station to render better service by having prior knowledge of flights. Aircraft on VFR flight plans must make regular position reports to ATC for flight following, weather safety advisories, and prompt search and rescue action in the proper area if necessary. Flight plans may be submitted to Flight Service through www.1800wxbrief.com, any flight planning application, or by calling 1-800-WX-BRIEF. Aircraft radio may be used if no other means are available. If Flight Service cannot be reached, 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:
M084F340 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 A3, 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).

PROCEDURES

- 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 120 W BOUNDARIES

- a. Aircraft entering the Oakland OCA/FIR over 120 degrees West longitude without a KZAK ADS-C connection are requested to forward boundary position reports via San Francisco Radio or CPDLC.

NOTE: See AIP ENR 7.1 General Procedures 5 "Position Reporting in the Oceanic Environment"

- b. Aircraft leaving the lateral limits of the Oakland OCA/FIR and entering uncontrolled airspace shall forward the time over the boundary outbound.

OPR: Oakland Oceanic Supervisor Contact: 510-745-3342

**CLIMB TIMES/CHANGE OF FLIGHT LEVEL
OAKLAND OCEANIC FIR****1. CLIMB TIMES**

A distinction should be made between the time at which higher flight level is requested and the time at which the next higher flight level can be accepted.

2. CHANGE OF FLIGHT LEVEL

- a. Pilots are advised that when an aircraft is proceeding from one Oceanic Control Area to another at the time that a change of flight level is desired, coordination must be effected between the Oceanic Control Centers concerned before an ATC clearance can be issued.
 - b. A flight level request shown on a filed flight plan does not constitute authority for an aircraft to change flight level; a specific ATC clearance for the flight level change is required.
-

**CHANGE OF TRUE AIRSPEED/MACH NUMBER
OAKLAND OCEANIC FIR****CHANGE OF SPEED**

Pilots must inform ATC prior to making a planned en route speed change, as indicated in Item 15 of a filed flight plan. Additionally, pilots are reminded that such changes are not authorized when a specific ATC clearance assigning a Mach number to maintain has been issued.

ATTN ALL AIRCREWS: New procedural requirement for flights operating in Oakland Oceanic Control Area (KZAK). In order to support cost index or econ speeds and maintain ATC separation spacing, aircrews are required to use the following procedures in the KZAK FIR.

A pilot must inform ATS via voice or CPDLC each time the cruising Mach number varies or is expected to vary by a value equal to or greater than 0.02 Mach from:

- (1) the Mach number at FIR entry; or
- (2) any subsequent speed change notified to ATC in flight.

**CHANGES TO THE NAVIGATION CAPABILITIES FILED IN
THE ORIGINAL FLIGHT PLAN**

All flights entering the Oakland Oceanic FIR are required to advise Oakland Center of any changes to the Navigational Capabilities filed in the original Flight Plan prior to entering oceanic airspace.

OPR: Oakland Oceanic Supervisor Contact: 510-745-3342

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

- a. National security in the control of air traffic is governed by Title 14 of the U.S. Code of Federal Regulations, Part 99.
- 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

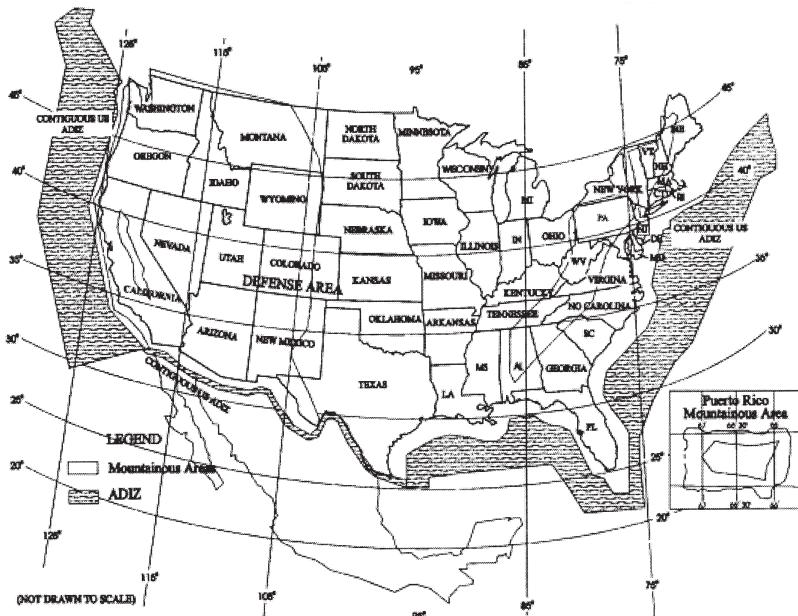


Fig 1-4-2. Alaska Air Defense Identification Zones/Designated Mountainous Areas

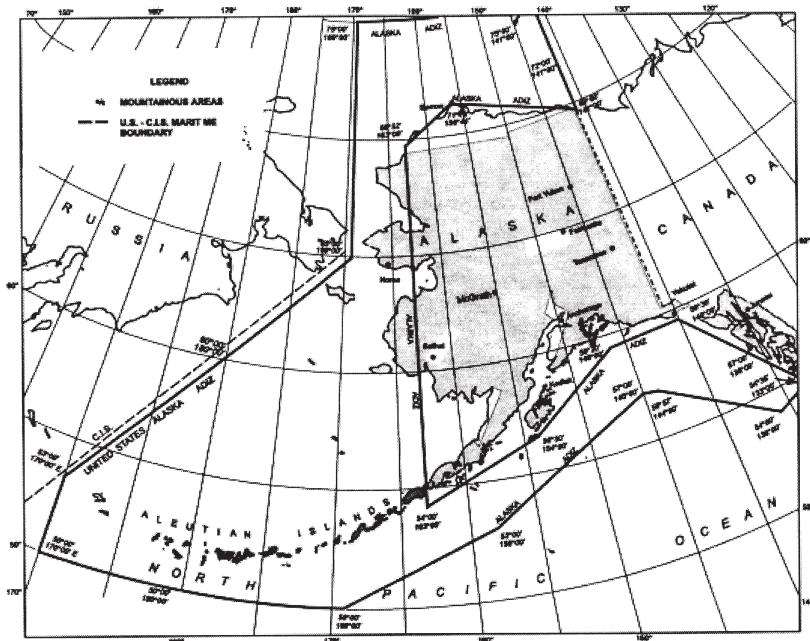


Fig 1-4-3. Guam Air Defense Identification Zone and Defense Area

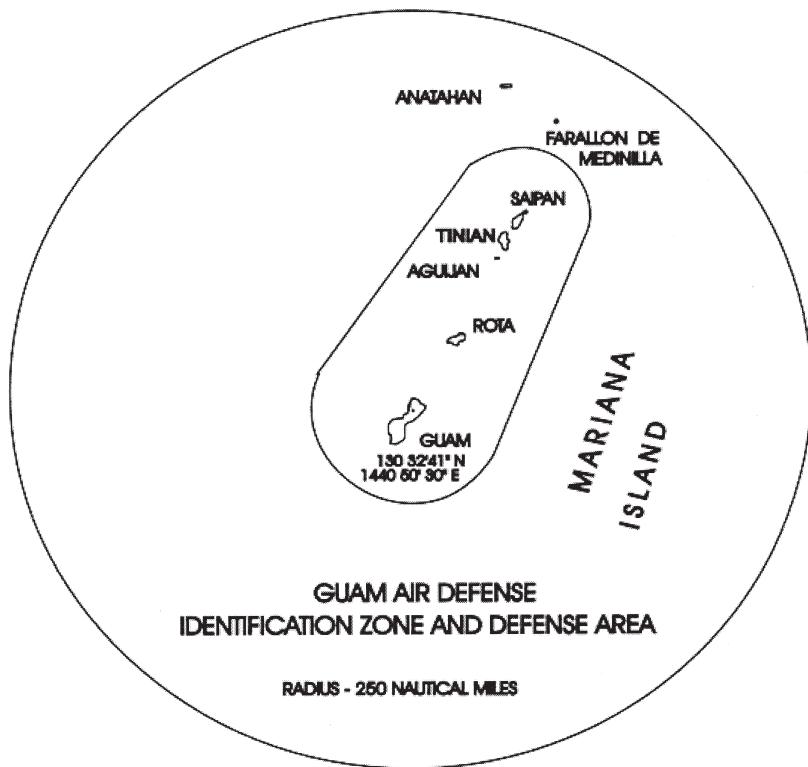
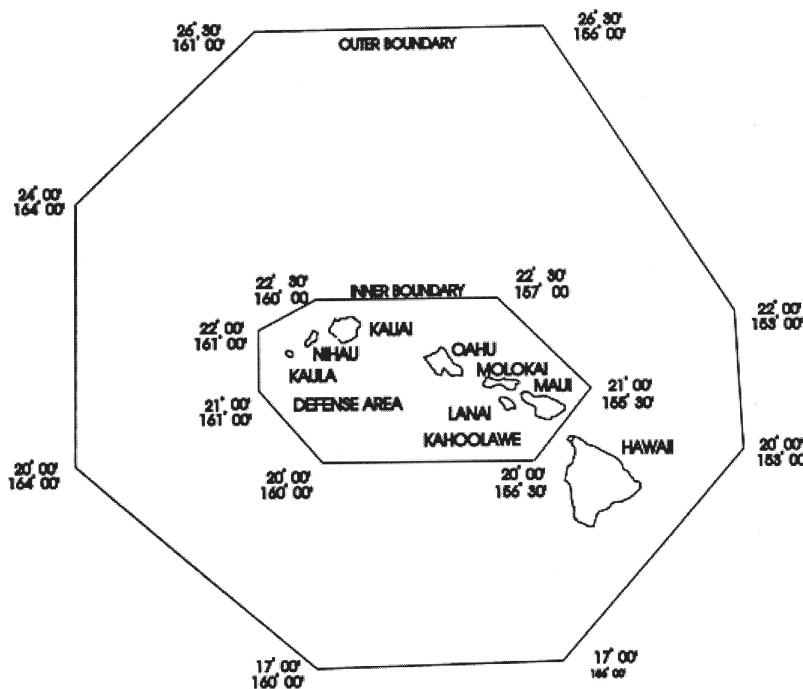


Fig 1-4-4. Hawaiian Air Defense Identification Zone and Defense Area



Office of Primary Responsibility (OPR): Air Traffic Organization, Mission Support Services, Policy, Airspace Rules and Regulations
Contact Information: (202) 267-8783
Amended: August 2023

EMERGENCY PROCEDURES
INTERCEPTION SIGNALS
ICAO STANDARD

**SIGNALS INITIATED BY INTERCEPTING AIRCRAFT AND
 RESPONSES BY INTERCEPTED AIRCRAFT**

SERIES	INTERCEPTING AIRCRAFT SIGNALS	MEANING	INTERCEPTED AIRCRAFT RESPONSE	MEANING
1	<p>AIRPLANES: DAY—Rocking wings from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft and, after acknowledgement, a slow level turn, normally to the left, on to the desired heading.</p> <p>NIGHT—Same and, in addition, flashing navigational lights at irregular intervals.</p> <p>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.</p> <p>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.</p>	<p>You have been intercepted. Follow me.</p>	<p>AIRPLANES: DAY—Rocking wings and following.</p> <p>Night—Same and, in addition, flashing navigational lights at irregular intervals.</p>	<p>Understood, will comply.</p>
2	<p>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.</p>	<p>You may proceed.</p>	<p>AIRPLANES: DAY or NIGHT—Rocking wings.</p> <p>HELICOPTERS: DAY or NIGHT—Rocking aircraft, flashing navigational lights at irregular intervals and following.</p>	<p>Understood, will comply.</p>
3	<p>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.</p> <p>NIGHT—Same and, in addition, showing steady landing lights.</p>	<p>Land at this aerodrome.</p>	<p>AIRPLANES: DAY—Lowering landing gear, following the intercepting aircraft and, if after overflying the runway landing is considered safe, proceeding to land.</p> <p>NIGHT—Same and, in addition, showing steady landing lights (if carried).</p> <p>HELICOPTERS: DAY or NIGHT—Following the intercepting aircraft and proceeding to land, showing a steady landing light (if carried).</p>	<p>Understood, will comply.</p>

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 Center 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.

PACIFIC SAR COORDINATOR (PACSARCOORD):

Coast Guard Commander, Pacific Area (PACSARCOORD), 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 42°N, 124°13'W(California-Oregon State Line), to 40°N, 150°W to 07°09'N, 120°W to 30°N,
120°W to 30°45'N, 120°50'W to 32°33'N, 117°05'W thence north along the Pacific coastline back to 42°N,
124°13'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 03°30'N, 120°W to 07°09'N, 120°W to 40°N, 150°W to 40°N, 165°E to 27°N, 165°E to 27°N,
155°E to 21°N, 155°E to 21°N, 130°E to 07°N, 130°E to 3°30'N, 133°E to 3°30'N, 141°E to 00°N,
141°E to 00°N, 160°E to 3°30'N, 160°E to 03°30'N, 180° to 5°S, 180° to 5°S, 155°W to 3°30'N,
145°W to 03°30'N, 120°W. (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 17°N, 130°E to 17°N, 160°E to 09°30'N, 160°E to 07°N, 165°E to 03°30'N, 165°E to 03°30'N,
160°E to 00°N, 160°E to 00°N, 141°E to 03°30'N, 141°E to 3°30'N, 133°E to 07°N, 130°E to 17°N,
130°E. 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 48°20'N, 145°W to 40°N, 150°W to 42°N, 124°13'W thence north along the Pacific coastline to
49°00'07"N, 122°49'05"W to 49°00'07"N, 123°19'21"W to 48°49'53"N, 123°00'30"W to
48°46'02"N, 123°00'32"W to 48°41'35"N, 123°16'27"W to 48°32'56"N, 123°13'09"W to
48°27'14"N, 123°09'39"W to 48°25'24"N, 123°06'51"W to 48°17'04"N, 123°14'51"W to
48°13'30"N, 123°32'25"W to 48°14'26"N, 123°40'41"W to 48°17'50"N, 124°00'40"W to 48°30'N,
124°45'W to 48°30'N, 125°W to 48°20'N, 128°W to 48°20'N, 145°W. (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 50°05'N, 159°E to 43°N, 165°E to 40°N, 165°E to 40°N, 150°W to 48°20'N, 145°W to
54°40'N, 140°W to 54°40'N, 136°W to 54°N, 136°W to 54°13'N, 134°57'W to 54°39'27"N,
132°41'W to 54°42'30"N, 130°36'30"W thence north along the United States/Canada National border
to 69°39'47"N, 141°W to North Pole to 65°N, 168°58'24"W to 64°03'N, 172°12'W to 60°N, 180°
to 54°49'N, 170°12'E to 54°N, 169°E to 50°05'N, 159°E. (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:
- If equipped with IFF, switch to "Emergency" position.
 - 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):

Frequency	Emission	Effective Range in Nautical Miles	Guarded By
121.5 MHz	Voice	Generally limited to Radio line-of-sight	All military twrs, most civil twrs, VHF direction finding stns, radar facilities, ocean station vessels.
243.0 MHz	Voice	Generally limited to radio line-of-sight	All military twrs, most civil twrs, VHF direction finding stns, radar facilities, ocean station vessels.
2182 kHz	Voice	Generally less than 300 miles for average aircraft installations	Some ships and boats at sea, most Coast Guard stations, most commercial coast stations.
500 kHz	CW	Generally less than 100 miles for average aircraft installations.	Most large ships at sea, most Coast Guard radio stations, most commercial coast stations.
8364 kHz	CW	Up to several thousand miles, depending upon propagation conditions. Subject to "skip".	U.S.N. direction finding stations, ocean station vessels and most Coast Guard radio stations

Transmit as much of the following as possible:

- MAYDAY, MAYDAY, MAYDAY (if distress), or PAN, PAN, PAN (if uncertainty or alert). If CW transmission use SOS (distress) or XXX (uncertainty or alert).
- Aircraft identification repeated three times.
- Type of aircraft.
- Position or estimated position (stating which).
- Heading (True or Magnetic) (stating which).
- True airspeed or estimated true airspeed (stating which).
- Altitude.
- Fuel remaining in hours and minutes.
- Nature of distress.
- Pilot's intentions (bailout, ditch, crash landing, etc.).
- Assistance desired (fix, steer, bearing, escort, etc.).
- 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 C'S:

- Confess** your predicament to any ground radio station. Do not wait too long. Give SAR a chance!
- 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!
- 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!

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21336

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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 20910-3281

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

21336

INOP COMPONENTS 19339

**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

Inoperative Component or Visual Aid	Increase Visibility
All ALS types (except ODALS)	1/4 mile

(2) ILS, LPV, GLS with visibility minima of RVR 1800†/2000*/2200*

Inoperative Component or Visual Aid	Increase Visibility
ALSF 1 & 2, MALS, SSALR	To RVR 4000† To RVR 4500*
TDZL or RCLS	To RVR 2400#
RVR	To 1/2 mile

#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

Inoperative Component or Visual Aid	Increase Visibility
ALSF 1 & 2, MALS, SSALR	1/2 mile
MALSF, MALS, SSALF, SSALS, SALSF, SALS	1/4 mile

(4) Sidestep minima (CAT C-D)

Inoperative Component or Visual Aid to Sidestep Runway	Increase Visibility
ALSF 1 & 2, MALS, SSALR	1/2 mile

(5) All Approach Types, All lines of minima

Inoperative Component or Visual Aid	Increase Visibility
ODALS (CAT A-B)	1/4 mile
ODALS (CAT C-D)	1/8 mile

INOP COMPONENTS 19339

TERMS/LANDING MINIMA DATA 20142

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 (ABCDE and COPTER). In the absence of COPTER MINIMA, helicopters may use the CAT A minimums of other procedures.

LANDING MINIMA FORMAT

		DA	Visibility (RVR 100's of feet)	Aircraft Approach Category		
		CATEGORY	A	B	C	D
Straight-in ILS to Runway 27	S-ILS 27		1352/24		200	(200-½)
Straight-in with Glide Slope Inoperative or not used to Runway 27	S-LOC 27		1440/24	288	(300-½)	1440/50 288 (300-1)
	CIRCLING		1540-1 361 (400-1)	1640-1 461 (500-1)	1640-1½ 461 (500-½)	1740-2 561 (600-2)
		MDA	HAA	Visibility in Statute Miles		

All weather minima in parentheses not applicable to Civil Pilots.
Military Pilots refer to appropriate regulations.

COPTER MINIMA ONLY

CATEGORY	COPTER		
H-176°		680-½	363 (400-½)

Copter Approach Direction Height of MDA/DA Above Landing Area (HAL) No circling minimums are provided

NOTE: The **W** symbol indicates outages of the WAAS vertical guidance may occur daily at this location due to initial system limitations. WAAS NOTAMS for vertical outages are not provided for this approach. Use LNAV minima for flight planning at these locations, whether as a destination or alternate. For flight operations at these locations, when the WAAS 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 minimums are dependent on navigation equipment capability, as stated in the applicable AFM, AFMS, or other FAA approved document. See AIM paragraph 5-4-5, AC 90-105 and AC 90-107 for detailed requirements for each line of minima.

COLD TEMPERATURE AIRPORTS

NOTE: A **-12°C** symbol indicates a cold temperature altitude correction is required at this airport when reported temperature is at or below the published temperature. See the following Cold Temperature Error Table to make manual corrections. Advise ATC with altitude correction. Advising ATC with altitude corrections is not required in the final segment. See Aeronautical Information Manual (AIM), Chapter 7, for guidance and additional information. For a complete list, see the "Cold Temperature Airports" link under the Additional Resources heading at the bottom of the following page:
http://www.faa.gov/air_traffic/flight_info/aeronav/ditpp/search/

COLD TEMPERATURE ERROR TABLE

HEIGHT ABOVE AIRPORT IN FEET

REPORTED TEMP °C	200	300	400	500	600	700	800	900	1000	1500	2000	3000	4000	5000
+10	10	10	10	10	20	20	20	20	20	30	40	60	80	90
0	20	20	30	30	40	40	50	50	60	90	120	170	230	280
-10	20	30	40	50	60	70	80	90	100	150	200	290	390	490
-20	30	50	60	70	90	100	120	130	140	210	280	420	570	710
-30	40	60	80	100	120	140	150	170	190	280	380	570	760	950
-40	50	80	100	120	150	170	190	220	240	360	480	720	970	1210
-50	60	90	120	150	180	210	240	270	300	450	590	890	1190	1500

AIRCRAFT APPROACH CATEGORIES

Aircraft approach category indicates a grouping of aircraft based on a speed of VREF, if specified, or if VREF not specified, 1.3 VSO at the maximum certificated landing weight. VREF, VSO, and the maximum certificated landing weight are those values as established for the aircraft by the certification authority of the country of registry. Helicopters are Category A aircraft. An aircraft shall fit in only one category. When necessary to operate the aircraft at an airspeed in excess of the maximum airspeed of its certified aircraft approach category, pilots should use the applicable higher category minima. For additional options and to ensure the aircraft remains within protected airspace, consult the AIM. See following category limits:

MANEUVERING TABLE

Approach Category	A	B	C	D	E
Speed (Knots)	0-90	91-120	121-140	141-165	Abv 165

TERMS/LANDING MINIMA DATA 20142

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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 **C** symbol on the circling line of minima.

Circling MDA in feet MSL	Approach Category and Circling Radius (NM)				
	CAT A	CAT B	CAT C	CAT D	CAT E
All Altitudes	1.3	1.5	1.7	2.3	4.5

C 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 **C** symbol on the circling line of minima.

Circling MDA in feet MSL	Approach Category and Circling Radius (NM)				
	CAT A	CAT B	CAT C	CAT D	CAT E
1000 or less	1.3	1.7	2.7	3.6	4.5
1001-3000	1.3	1.8	2.8	3.7	4.6
3001-5000	1.3	1.8	2.9	3.8	4.8
5001-7000	1.3	1.9	3.0	4.0	5.0
7001-9000	1.4	2.0	3.2	4.2	5.3
9001 and above	1.4	2.1	3.3	4.4	5.5

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.

RVR (feet)	Visibility (SM)						
1600	¼	2400	½	3500	⅓	5500	1
1800	½	2600	⅓	4000	⅔	6000	1⅓
2000	⅓	3000	⅔	4500	⅔		
2200	⅓	3200	⅔	5000	1		

RADAR MINIMA

RWY	GP/TCH/RPI	CAT	DA/ MDA-VIS	HAT	CEIL-VIS	CAT	DA/ MDA-VIS	HAT	CEIL-VIS
PAR	10 2.5°/42/1000	ABCDE	195/16	100	(100-⅓)				
	28 2.5°/48/1068	ABCDE	187/16	100	(100-⅓)				
ASR	10	ABC	560/40	463	(500-¾)	DE	560/50	463	(500-1)
	28	AB	600/50	513	(600-1)	CDE	600/60	513	(600-1⅓)
CIR	10	AB	560-1⅓	463	(500-1⅓)	CDE	560-1½	463	(500-1⅓)
	28	AB	600-1⅓	503	(600-1⅓)	CDE	600-1½	503	(600-1⅓)

Visibility in Statute Miles

All minimums in parentheses not applicable to Civil Pilots. Military Pilots refer to appropriate regulations.

- Radar Minima:
1. Minima shown are the lowest permitted by established criteria. Pilots should consult applicable directives for their category of aircraft.

2. The circling MDA and weather minima to be used are those for the runway to which the final approach is flown—not the landing runway. In the above RADAR MINIMA example, a category C aircraft flying a radar approach to runway 10, circling to land on runway 28, must use an MDA of 560 feet with weather minima of 500-1½.

NOTE: Military RADAR MINIMA may be shown with communications symbology that indicates emergency frequency monitoring capability by the radar facility as follows:

- (E) VHF and UHF emergency frequencies monitored
- (V) VHF emergency frequency (121.5) monitored
- (U) UHF emergency frequency (243.0) monitored

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

A Alternate Minimums not standard. Civil users refer to tabulation. USA/USN/USAFA pilots refer to appropriate regulations.

NA Alternate minimums are Not Authorized due to unmonitored facility or absence of weather reporting service.

T Airport is published in the Takeoff Minimums, (Obstacle) Departure Procedures, and Diverse Vector Area (Radar Vectors) tabulation.

TERMS/LANDING MINIMA DATA 19339

GENERAL INFO 23334

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-11919 (FAA-O). Military procedures do not show AL number, but do show the appropriate authority for the procedure, e.g., (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.



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. Radials/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.

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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 online. 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, IIGE: RNAV-1 GPS, RNAV-1GPS from MAP to YARKU. DME required for LOC only.
Equipment Requirements Box	
Standard Procedure Notes Box	▼ Circling to Rwy 25 NA at night. #For inop MALSR increase S-ILS 16R off 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

Reference the Chart Supplement for detailed information on pilot controlled lighting (PCL) systems.

Available FAA standard approach lighting systems are charted as a negative symbol to indicate pilot controlled lighting, e.g.,  

Available airport lighting systems that are charted as notes, e.g. REIL, MIRL, are shown with a negative "0" symbol beside the name to indicate pilot controlled lighting.

To activate lights, use frequency indicated in the communication section of the chart with a 0 or the appropriate lighting system identification e.g., UNICOM 122.8   

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)

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ABBREVIATIONS

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

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ABBREVIATIONS

ODALS.....	Omnidirectional Approach	VDA.....	Vertical Descent Angle
ODP.....	Light System	VDP.....	Visual Descent Point
OM.....	Obstacle Departure	VGSI.....	Visual Glide Slope Indicator
PAR.....	Procedure	VNAV.....	Vertical Navigation
PDC.....	Outer Marker	WAAS.....	Wide Area Augmentation System
PRM.....	Precision Approach Radar	WP/WPT.....	Waypoint (RNP)
R.....	Pre-Departure Clearance		
RA.....	Precision Runway Monitor		
RAIL.....	Radial		
RCLS.....	Radio Altimeter setting height		
REIL.....	Runway Alignment Indicator Lights		
RF.....	Runway Centerline Light System		
RLLS.....	Runway End Identifier Lights		
RNAV.....	Radius-to-Fix		
RNP.....	Runway Lead-in Light System		
RPI.....	Area Navigation		
RRL.....	Required Performance Navigation		
Rwy.....	Runway Point of Intercept(ion)		
RVR.....	Runway Remaining Lights		
S.....	Runway		
SALS.....	Runway Visual Range		
SALSF.....	Straight-in		
SSALF.....	Short Approach Light System		
SSALR.....	System		
SSALS.....	Short Approach Lighting System with Sequenced Flashing Lights		
SDF.....	Simplified Short Approach Lighting System with RAIL		
SM.....	Simplified Short Approach Lighting System		
SOIA.....	Simplified Directional Facility		
SR-SS.....	Statute Mile		
TAA.....	Simultaneous Offset		
TAC.....	Instrument Approach		
TCH.....	Sunrise-Sunset		
TDZ.....	Terminal Arrival Area		
TDZE.....	TACAN		
TDZ/CL.....	Threshold Crossing Height (height in feet above ground level)		
TDZL.....	Touchdown Zone		
THR.....	Touchdown Zone Elevation		
TODA.....	Touchdown Zone and Runway Centerline Lighting		
TORA.....	Touchdown Zone Lights		
TR.....	Threshold		
VASI.....	Takeoff Distance Available		
VCOA.....	Takeoff Run Available		
VASL.....	Track		
VCOA.....	Visual Approach Slope Indicator		
VCOA.....	Visual Climb over Airport		

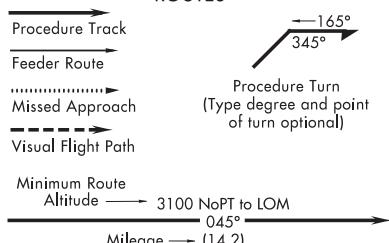
23054

LEGEND 23334

INSTRUMENT APPROACH PROCEDURES (CHARTS)

PLANVIEW SYMBOLS

ROUTES



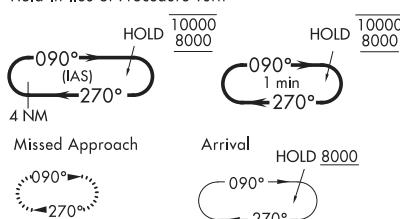
Procedure Turn
(Type degree and point of turn optional)

ALTITUDES

<u>5500</u>	Mandatory Altitude	3000	Recommended Altitude
<u>2500</u>	Minimum Altitude	5000	Mandatory Block
4300	Maximum Altitude	3000	Altitude

HOLDING PATTERNS

Hold-in-lieu of Procedure Turn



Holding pattern with maximum restricted airspeed: (175K) applies to all altitudes.
(210K) applies to altitudes above 6000' and including 14000'.
Arrival Holding Pattern altitude restrictions will be indicated when they deviate from the adjacent leg.

Timing or distance limits for Hold-in-lieu of Procedure Turn Holding Patterns will be shown.
DME fixes may be shown.

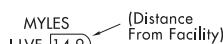
FIXES/ATC REPORTING REQUIREMENTS

△ Reporting Point



◆ Waypoint

◆ MAP WP (Flyby)



◆ MAP WP (Flyover)



○ Flyover Point

× Computer Navigation Fix (CNF)-No ATC Function ("x" omitted when it is a MAP)

— R-198 — Radial line and value

— LR-198 — Lead Radial

— LB-198 — Lead Bearing

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

○ VOR ◆ VORTAC ◇ TACAN

□ VOR/DME □ DME

○ NDB □ NDB/DME

◇ LOM (Compass locator at Outer Marker)

◆ Marker Beacon

◆ Marker beacons that are not specifically part of the procedure.

— Localizer Front Course (LOC/LDA)
Right side shading: Front course

— Localizer Back Course
Left side shading: Back Course

— SDF Course

○ LOC/LDA/SDF Transmitter □ LOC/DME

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

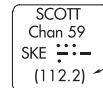
Primary NAVAID



Secondary NAVAID



TACAN or DME NAVAID



VHF
Paired Frequency

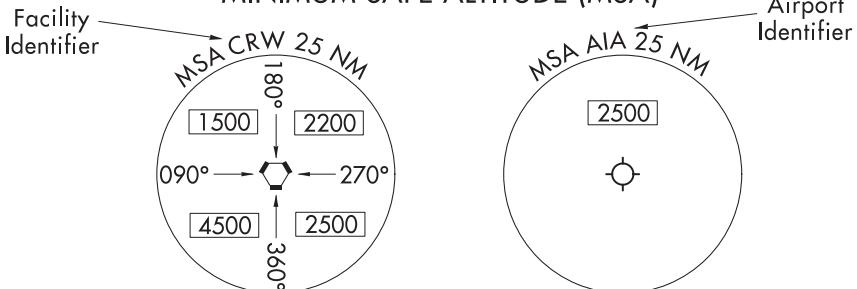
LEGEND 23334

LEGEND 23110

INSTRUMENT APPROACH PROCEDURES (CHARTS)

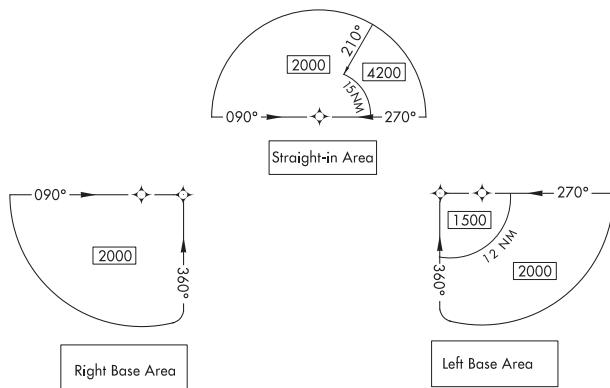
PLANVIEW SYMBOLS

MINIMUM SAFE ALTITUDE (MSA)



(arrows on distance circle identify sectors)

TERMINAL ARRIVAL AREA (TAA)



MISCELLANEOUS



VOR Changeover Point

RWY 15 S12° 00.52'
W77° 06.91'End of Rwy Coordinates
(DoD only)

SPECIAL USE AIRSPACE



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

~~~~~ Distance not to scale

— — — International Boundary

..... Air Defense Identification Zone

## AIRPORTS



Civil

Primary and  
Secondary (named  
in planview)

Seaplane Base



Heliport



Joint (Civil-Military)

## OBSTACLES

• Spot Elevation

△ Obstacle

▲ Highest Obstacle

● Highest Spot Elevation

▲ Group of Obstacles

± Doubtful accuracy

## LEGEND 23110

## LEGEND 22251

## INSTRUMENT APPROACH PROCEDURES (CHARTS)

## PROFILE VIEW

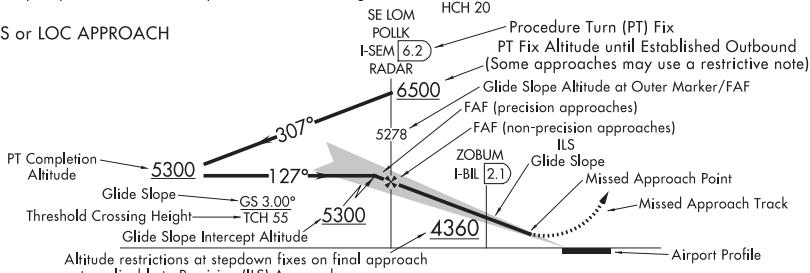
Three different methods are used to depict either electronic or vertical guidance: "GS", "GP", or "VDA".

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 3.00°. TCH 55

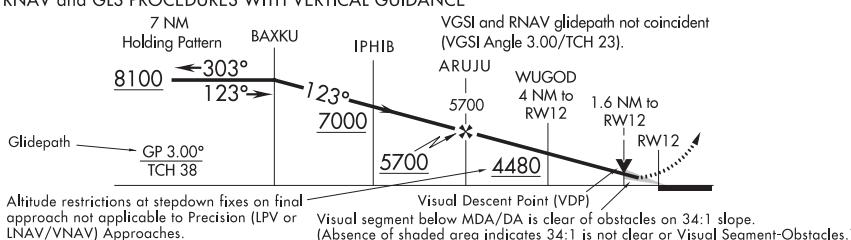
2. "GP" on GLS and RNAV procedures indicates that either electronic vertical guidance (via Wide Area Augmentation System - WAAS or Ground Based Augmentation System - GBAS) or barometric vertical guidance is provided. GLS and RNAV procedures with a published decision altitude (DA/H) depict a GP angle and TCH in the following format: GP 3.00°. TCH 50

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:  $\triangle 3.00^\circ$ . On Copter procedures this is depicted in the following format:  $\triangle 7.30^\circ$ . TCH 55

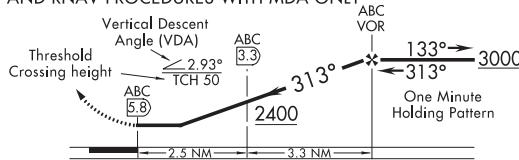
## ILS or LOC APPROACH



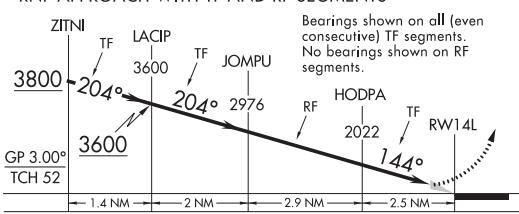
## RNAV and GLS PROCEDURES WITH VERTICAL GUIDANCE



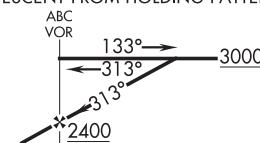
## NON-VERTICALLY GUIDED CONVENTIONAL PROCEDURES AND RNAV PROCEDURES WITH MDA ONLY



## RNP APPROACH WITH TF AND RF SEGMENTS



## DESCENT FROM HOLDING PATTERN



|      |                    |      |                          |
|------|--------------------|------|--------------------------|
| 5500 | Mandatory Altitude | 3000 | Recommended Altitude     |
| 2500 | Minimum Altitude   | 5000 | Mandatory Block Altitude |
| 4300 | Maximum Altitude   | 3000 | Altitude                 |

## PROFILE SYMBOLS

- Glide Slope/Glidepath Intercept Altitude and final approach fix for vertically guided approach procedures.
- Visual Descent Point (VDP)
- Visual Flight Path
- Note: Facilities and waypoints are depicted as a solid vertical line while fixes and intersections are depicted as a dashed vertical line.

## LEGEND 22251

## LEGEND 23334 STANDARD TERMINAL ARRIVAL (STAR) CHARTS

## RADIO AIDS TO NAVIGATION

Compulsory:



Non-Compulsory:



LOM  
(Compass locator at outer marker)

Marker Beacon

Localizer Front Course

BACK COURSE

Localizer Back Course  
(Shading on left)

(T) indicates frequency protection range



Underline indicates no voice transmitted on this frequency

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

TACAN or DME NAVIDA Box



VHF Paired Frequency

## FIXES/ATC REPORTING REQUIREMENTS

Unnamed DME fix

Reporting Point (Compulsory)

Reporting Point (Non-Compulsory)

Obvious DME (DME mileage matches route mileage) DME Mileage (when not obvious)

Waypoint (Compulsory)

Waypoint (Non-Compulsory)

Flyover Point

x (CFTSP) Computer Navigation Fix (CNF) - No ATC Function

## AIRPORTS

Civil

Military

Joint (Civil-Military)

Airports not served by the procedure shown in screened color

Civil

Military

Joint (Civil-Military)

## ROUTES

MAA FL200 Maximum Authorized Altitude

4500 MEA-Minimum Enroute Altitude

\*3500 MOCA-Minimum Obstruction Clearance Altitude

← 270° Arrival Route

(65) Mileage between Radio Aids, Reporting Points, and Route Breaks

↔ Transition Route

↔ R-275 Radial line and value

↔ Lost Communications Track

V12 J80 Airway/Jet Route Identification

(IAS) Holding Pattern
 Lost Comm Holding Pattern

Holding pattern with maximum restricted airspeed (175K) applies to all altitudes  
(210K) applies to altitudes above 6000' to and including 14000'

## SPECIAL USE AIRSPACE



R=Restricted

W=Warning

P=Prohibited

A=Alert

MOA=Military Operations Area

## ALTITUDES

|                               |                                      |                                      |
|-------------------------------|--------------------------------------|--------------------------------------|
| <u>5500</u>                   | <u>2300</u>                          | <u>4800</u>                          |
| Mandatory Altitude (Cross at) | Minimum Altitude (Cross at or above) | Maximum Altitude (Cross at or below) |

15000  
12000  
Block Altitude

— Altitude change at other than Radio Aids to Navigation

## INDICATED AIRSPEED

|                    |                  |                  |
|--------------------|------------------|------------------|
| <u>175K</u>        | <u>120K</u>      | <u>250K</u>      |
| Mandatory Airspeed | Minimum Airspeed | Maximum Airspeed |

## MISCELLANEOUS

Changeover Point

Air Defense Identification Zone

N

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

|                   |                     |
|-------------------|---------------------|
| Ldg KLAS and KHND | Terminus identifier |
| Ldg Rwy 16L/C/R   |                     |

## LEGEND 23334

## DEPARTURE PROCEDURE (DP) CHARTS

## RADIO AIDS TO NAVIGATION

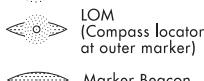
## Compulsory:



## Non-Compulsory:



LOC LOC/DME  
(shown when installation is offset from its normal position off the end of the runway.)

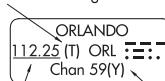


## Localizer Front Course

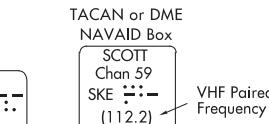
## BACK COURSE

Localizer Back Course  
(Shading on left)

(T) indicates frequency protection range



Underline indicates no voice transmitted on this frequency



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

## FIXES/ATC REPORTING REQUIREMENTS

→ Unnamed DME fix

- ▲ Reporting Point (Compulsory)
- △ Reporting Point (Non-Compulsory)

→ Obvious DME (DME mileage matches route mileage) → DME Mileage (when not obvious)



Computer Navigation Fix (CNF) - No ATC Function

## MISCELLANEOUS

Changeover Point Distance not to scale

— International Boundary

— Sector Boundary

\*\*\*\*\* Air Defense Identification Zone

▼ Takeoff Minimums and (Obstacle) Departure Procedures entry published.

## 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

[V12] [J80] Airway/Jet Route Identification

○ (IAS) Holding Pattern

○ - - - Lost Comm Holding Pattern

Holding pattern with maximum restricted airspeed (175K) applies to all altitudes  
(210K) applies to altitudes above 6000' to and including 14000'

## SPECIAL USE AIRSPACE



R-Restricted

W-Warning

P-Prohibited

A-Alert

MOA-Military Operations Area

## ALTITUDES

5500

2300

Mandatory Altitude  
(Cross at)

Minimum Altitude  
(Cross at or above)

4800

15000

Maximum Altitude  
(Cross at or below)

12000

Block Altitude

TOP ALTITUDE:  
5000

Top altitude restriction

## INDICATED AIRSPEED

175K 120K 250K

Mandatory Airspeed Minimum Airspeed Maximum Airspeed

## AIRPORTS

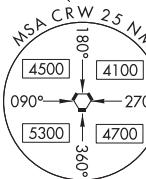


(H) Heliport

○ Civil ◊ Military Ⓜ (Civil-Military)

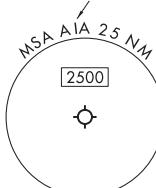
## MINIMUM SAFE ALTITUDE (MSA)

Facility Identifier



(arrows on distance circle identify sectors)

Airport Identifier



## LEGEND 23334

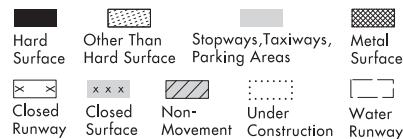
24025

## LEGEND

## INSTRUMENT APPROACH PROCEDURES (CHARTS)

## AIRPORT DIAGRAM/AIRPORT SKETCH

## Runways



Helicopter Alighting Areas (H) (H) (H) (A) (A)

Negative Symbols used to identify Copter Procedures  
landing point..... (O) (H) (W) (A) (B)

## NOTE:

Landmark features depicted on Copter Approach insets and sketches are provided for visual reference only.

Runway TDZ elevation..... TDZE 123

Runway Slope..... → -0.3% Down..... 0.8% UP →  
(shown when rounded runway slope is ≥ 0.3%)

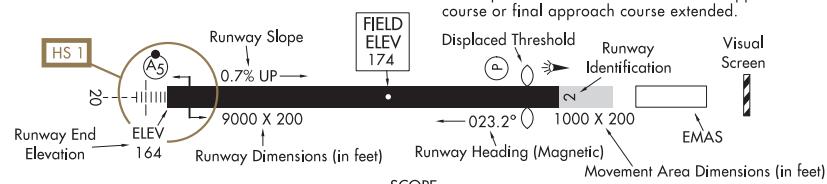
## NOTE:

Runway Slope measured to midpoint on runways  
8000 feet or longer.U.S. Navy Optical Landing System (OLS)  
location is shown because of its height of  
approximately 7 feet and proximity to edge of  
runway may create an obstruction for some types  
of aircraft.Approach light symbols are shown in the  
Flight Information Handbook.

Airport diagram scales are variable.

True/magnetic North orientation may vary from  
diagram to diagramCoordinate values are shown in 1 or ½ minute  
increments. They are further broken down into  
6 second ticks, within each 1 minute increments.Positional accuracy within ± 600 feet unless otherwise  
noted on the chart.Runway length depicted is the physical length of  
the runway (end-to-end, including displaced thresholds  
if any) but excluding areas designated as stopways.D symbol is shown to indicate runway declared  
distance information available, see appropriate Chart  
Supplement for distance information.

## NOTE:

All new and revised airport diagrams are shown refer-  
enced to the World Geodetic System (WGS) (noted on  
appropriate diagram), and may not be compatible  
with local coordinates published in DoD FLIP.  
(Foreign Only)The airport sketch box includes the final approach  
course or final approach course extended.

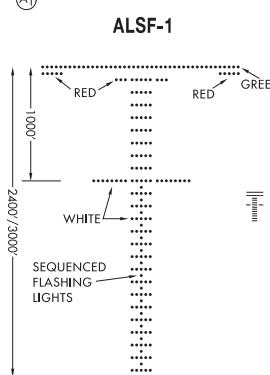
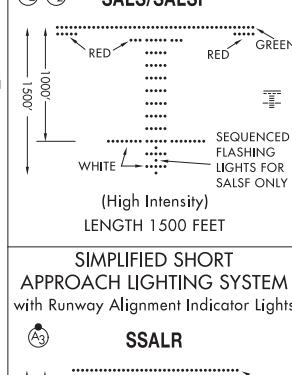
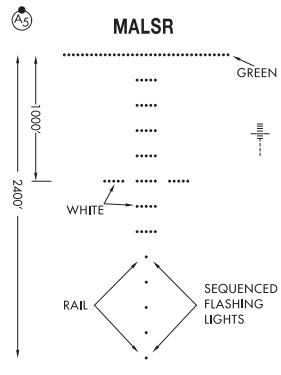
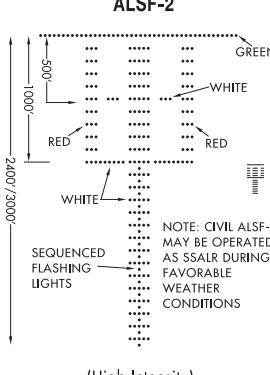
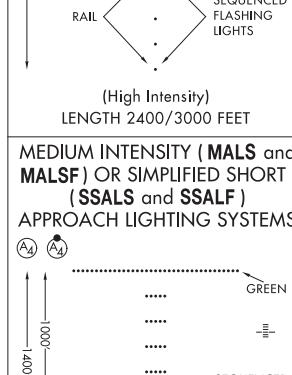
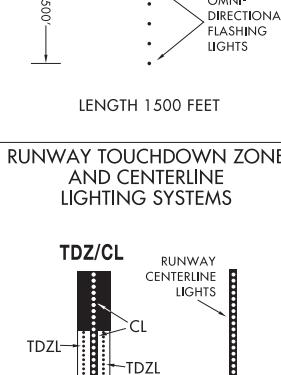
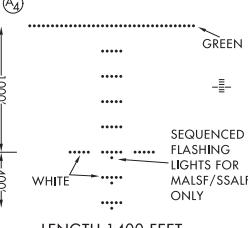
Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

## LEGEND

**LEGEND** 22195**INSTRUMENT APPROACH PROCEDURES (CHARTS)  
APPROACH LIGHTING SYSTEM - UNITED STATES**

Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, e.g.,  $\textcircled{A}_2$ ,  $\textcircled{V}$ , etc.

A dot "●" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g.,  $\textcircled{A}_1$ . Negative symbology, e.g.,  $\textcircled{A}_1$ ,  $\textcircled{V}$  indicates Pilot Controlled Lighting (PCL).

| CATEGORY I<br>APPROACH LIGHTING SYSTEM                                                                                                                                                                                                             | SHORT APPROACH<br>LIGHTING SYSTEM<br><b>SALS/SALSF</b>                                                                                                                | MEDIUM INTENSITY<br>APPROACH LIGHTING SYSTEM<br>with Runway Alignment Indicator Lights                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>ALSF-1</b><br><br>(High Intensity)<br>LENGTH 2400/3000 FEET                                                                                                    | <br>SEQUENCED FLASHING LIGHTS FOR SALSF ONLY<br>(High Intensity)<br>LENGTH 1500 FEET | <br>SEQUENCED FLASHING LIGHTS<br>LENGTH 2400 FEET  |
| <b>ALSF-2</b><br><br>NOTE: CIVIL ALSF-2<br>MAY BE OPERATED<br>AS SSALR DURING<br>FAVORABLE<br>WEATHER<br>CONDITIONS<br>(High Intensity)<br>LENGTH 2400/3000 FEET | <br>SEQUENCED FLASHING LIGHTS<br>(High Intensity)<br>LENGTH 2400/3000 FEET          | <br>SEQUENCED FLASHING LIGHTS<br>LENGTH 1500 FEET |
| <b>CATEGORY II<br/>APPROACH LIGHTING SYSTEM</b>                                                                                                                                                                                                    |                                                                                                                                                                       | RUNWAY TOUCHDOWN ZONE<br>AND CENTERLINE<br>LIGHTING SYSTEMS                                                                         |
| <b>TDZ/CL</b><br><br>SEQUENCED FLASHING LIGHTS FOR MALSF/SSALF ONLY<br>LENGTH 1400 FEET                                                                         |                                                                                                                                                                       | RUNWAY CENTERLINE LIGHTS<br>CL<br>TDZL<br>TDZI<br>AVAILABILITY of TDZ/CL will be shown by<br>NOTE in SKETCH e.g. "TDZ/CL Rwy 15"    |

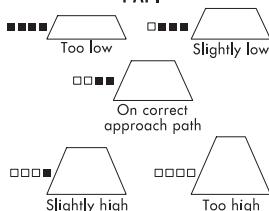
**LEGEND** 22195

**LEGEND** 22195INSTRUMENT APPROACH PROCEDURES (CHARTS)  
APPROACH LIGHTING SYSTEM - UNITED STATES

Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, (P), (V) 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, V indicates Pilot Controlled Lighting (PCL).

(P) PRECISION APPROACH PATH INDICATOR  
**PAPI**

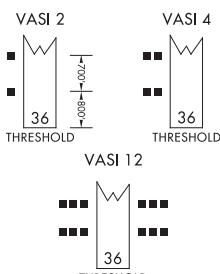


Legend: □ White ■ Red

(V) VISUAL APPROACH SLOPE INDICATOR  
**VASI**

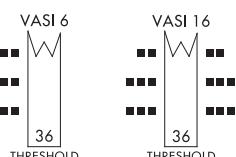
VISUAL APPROACH SLOPE INDICATOR WITH STANDARD THRESHOLD CLEARANCE PROVIDED.

ALL LIGHTS WHITE — TOO HIGH  
FAR LIGHTS RED — ON GLIDE SLOPE  
NEAR LIGHTS WHITE —  
ALL LIGHTS RED — TOO LOW



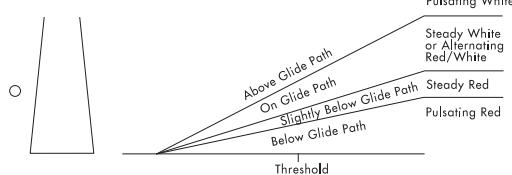
(V<sub>3</sub>) VISUAL APPROACH SLOPE INDICATOR  
**VASI**

3-BAR, 6 OR 16 BOX, VISUAL APPROACH SLOPE INDICATOR THAT PROVIDES 2 GUIDE ANGLES AND 2 THRESHOLD CROSSING HEIGHTS.



(V<sub>2</sub>)

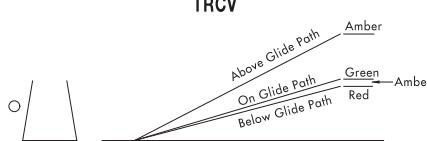
PULSATING VISUAL APPROACH SLOPE INDICATOR  
**PVASI**



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.

(V<sub>4</sub>)

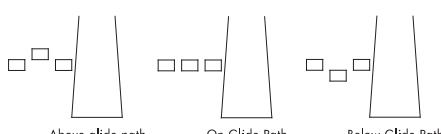
TRI-COLOR VISUAL APPROACH SLOPE INDICATOR  
**TRCV**



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

(V<sub>5</sub>)

ALIGNMENT OF ELEMENTS SYSTEMS  
**APAP**



Painted panels which may be lighted at night.  
To use the system the pilot positions the aircraft so the elements are in alignment.

**LEGEND** 22195

## FREQ PAIRING 20198

FREQUENCY PAIRING TABLE

| TACAN<br>CHANNEL | VHF<br>FREQUENCY | TACAN<br>CHANNEL | VHF<br>FREQUENCY | TACAN<br>CHANNEL | VHF<br>FREQUENCY |
|------------------|------------------|------------------|------------------|------------------|------------------|
| 17Y              | 108.05           | 40X              | 110.30           | 88Y              | 114.15           |
| 18X              | 108.10           | 40Y              | 110.35           | 89Y              | 114.25           |
| 18Y              | 108.15           | 41Y              | 110.45           | 90Y              | 114.35           |
| 19Y              | 108.25           | 42X              | 110.50           | 91Y              | 114.45           |
| 20X              | 108.30           | 42Y              | 110.55           | 92Y              | 114.55           |
| 20Y              | 108.35           | 43Y              | 110.65           | 93Y              | 114.65           |
| 21Y              | 108.45           | 44X              | 110.70           | 94Y              | 114.75           |
| 22X              | 108.50           | 44Y              | 110.75           | 95Y              | 114.85           |
| 22Y              | 108.55           | 45Y              | 110.85           | 96Y              | 114.95           |
| 23Y              | 108.65           | 46X              | 110.90           | 97Y              | 115.05           |
| 24X              | 108.70           | 46Y              | 110.95           | 98Y              | 115.15           |
| 24Y              | 108.75           | 47Y              | 111.05           | 99Y              | 115.25           |
| 25Y              | 108.85           | 48X              | 111.10           | 100Y             | 115.35           |
| 26X              | 108.90           | 48Y              | 111.15           | 101Y             | 115.45           |
| 26Y              | 108.95           | 49Y              | 111.25           | 102Y             | 115.55           |
| 27Y              | 109.05           | 50X              | 111.30           | 103Y             | 115.65           |
| 28X              | 109.10           | 50Y              | 111.35           | 104Y             | 115.75           |
| 28Y              | 109.15           | 51Y              | 111.45           | 105Y             | 115.85           |
| 29Y              | 109.25           | 52X              | 111.50           | 106Y             | 115.95           |
| 30X              | 109.30           | 52Y              | 111.55           | 107Y             | 116.05           |
| 30Y              | 109.35           | 53Y              | 111.65           | 108Y             | 116.15           |
| 31Y              | 109.45           | 54X              | 111.70           | 109Y             | 116.25           |
| 32X              | 109.50           | 54Y              | 111.75           | 110Y             | 116.35           |
| 32Y              | 109.55           | 55Y              | 111.85           | 111Y             | 116.45           |
| 33Y              | 109.65           | 56X              | 111.90           | 112Y             | 116.55           |
| 34X              | 109.70           | 56Y              | 111.95           | 113Y             | 116.65           |
| 34Y              | 109.75           | 80Y              | 113.35           | 114Y             | 116.75           |
| 35Y              | 109.85           | 81Y              | 113.45           | 115Y             | 116.85           |
| 36X              | 109.90           | 82Y              | 113.55           | 116Y             | 116.95           |
| 36Y              | 109.95           | 83Y              | 113.65           | 117Y             | 117.05           |
| 37Y              | 110.05           | 84Y              | 113.75           | 118Y             | 117.15           |
| 38X              | 110.10           | 85Y              | 113.85           | 119Y             | 117.25           |
| 38Y              | 110.15           | 86Y              | 113.95           |                  |                  |
| 39Y              | 110.25           | 87Y              | 114.05           |                  |                  |

See the Chart Supplement for a complete listing.

## FREQ PAIRING 20198

## INDEX

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## INDEX OF TERMINAL CHARTS AND MINIMUMS

| NAME                                                             | PROC | SECT PG | NAME                                                 | PROC | SECT PG |
|------------------------------------------------------------------|------|---------|------------------------------------------------------|------|---------|
| <b>AMATA KABUA INTL<br/>---SEE MAJURO ATOLL,MH</b>               |      |         |                                                      |      |         |
| <b>ANDERSEN AFB(UAM)(PGUA)<br/>YIGO, GU</b>                      |      |         | <b>BUCHOLZ AAF(KWA)(PKWA)<br/>KWAJALEIN USAKA,MH</b> |      |         |
| TAKEOFF MINIMUMS .....                                           | L    |         | TAKEOFF MINIMUMS .....                               | L    |         |
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| TACAN Y RWY 06R .....                                            | 12   |         |                                                      |      |         |
| TACAN Y RWY 24L .....                                            | 13   |         |                                                      |      |         |
| TACAN Z RWY 24R .....                                            | 14   |         |                                                      |      |         |
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| <b>BABELTHUAP ISLAND,PW<br/>PALAU INTL(ROR)(PTRO)</b>            |      |         |                                                      |      |         |
| TAKEOFF MINIMUMS .....                                           | L    |         | TAKEOFF MINIMUMS .....                               | L    |         |
| ALTERNATE MINIMUMS .....                                         | M    |         | ALTERNATE MINIMUMS .....                             | M    |         |
| IAPS ..... RNAV (GPS) RWY 09 .....                               | 20   |         | IAPS ..... ILS OR LOC RWY 06L .....                  | 40   |         |
| RNAV (GPS) RWY 27 .....                                          | 21   |         | ILS OR LOC RWY 06R .....                             | 41   |         |
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| <b>KEKAHA,KAUAI, HI</b>                                          |      |         |                                                      |      |         |
| TAKEOFF MINIMUMS .....                                           | L    |         | TAKEOFF MINIMUMS .....                               | L    |         |
| IAPS ..... RNAV (GPS) RWY 16 .....                               | 24   |         | ALTERNATE MINIMUMS .....                             | M    |         |
| RNAV (GPS) RWY 34 .....                                          | 25   |         | IAPS ..... ILS OR LOC RWY 06L .....                  | 40   |         |
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| <b>--SEE KAPOLEI, HI</b>                                |      |         |                                        |                               |         |                                        |     |  |  |                         |     |  |                             |     |  |                                        |     |  |  |                         |     |  |                             |     |  |                           |     |  |
| <b>KALAUPAPA, HI</b>                                    |      |         |                                        |                               |         |                                        |     |  |  |                         |     |  |                             |     |  |                                        |     |  |  |                         |     |  |                             |     |  |                           |     |  |
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## TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



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INSTRUMENT APPROACH PROCEDURE CHARTS

### T 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.

#### ANDERSEN AFB (UAM) (PGUA)

YIGO, GU

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES (23110) (USAF)

##### TAKEOFF OBSTACLE NOTES:

- Rwy 6L, terrain at DER, 222' right of centerline, 618' MSL.
- Terrain 3' from DER, 501' left of centerline, 620' MSL.
- Terrain 41' from DER, 500' left of centerline, 619' MSL.
- Terrain 46' from DER, 512' left of centerline, 619' MSL.

#### BABELTHUAP ISLAND, PW

PALAU INTL (ROR) (PTRO)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2 31DEC09 (23222) (FAA)

##### TAKEOFF MINIMUMS:

- Rwy 27, 300-1½ or std w/min climb of 320' per NM to 500.

##### DEPARTURE PROCEDURE:

- Rwy 27, climb to 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.
- Trees 89' from DER, 271' left of centerline, 178' MSL.
- Vegetation, trees beginning 107' from DER, 131' left of centerline, up to 187' MSL.
- Tree 390' from DER, 320' right of centerline, 34' AGL/191' MSL.
- Rwy 27, trees beginning 23' from DER, 296' right of centerline, up to 17' AGL/180' MSL.
- Trees 238' from DER, 382' right of centerline, 184' MSL.
- Trees beginning 439' from DER, 372' right 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' right 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)



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



### BARKING SANDS PMRF (BKH) (PHBK)

KEKAHA, HI

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES  
ORIG 14JUL22 (22195) (USN)

DEPARTURE PROCEDURE:  
Diverse departure NA.

### BRADSHAW AAF (BSF) (PHSF)

CAMP POHAKULOA, HI

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES  
AMDT 2 07SEP23 (23250) (USA)

TAKEOFF MINIMUMS:

Rwy 9, 8200-5 for VCOA.

DEPARTURE PROCEDURE:

Rwy 9, obtain ATC approval for VOCA when requesting IFR clearance. Climb in visual conditions to cross Bradshaw AAF at or above 14,200 before proceeding on course.

Rwy 27, climb hdg 271° to join UPP VORTAC R-154 to UPP, climb and maintain at or above 8000 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 9, pylon 2667' from DER, 705' right of centerline, 55' AGL/6339' MSL.

Pylon 2578' from DER, 764' right of centerline, 55' AGL/6332' MSL.

Pylon 2382' from DER, 804' right of centerline, 55' AGL/6326' MSL.

Pylon 2193' from DER, 841' right of centerline, 55' AGL/6320' MSL.

Pylon 2005' from DER, 879' right of centerline, 55' AGL/6304' MSL.

Pylon 1785' from DER, 925' right of centerline, 55' AGL/6287' MSL.

Terrain 2000' from DER, 51' left of centerline, 6258' MSL.

### BUCHOLZ AAF (KWA) (PKWA)

KWAJALEIN USAKA, MI

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 02DEC21 (21336) (USA)

TAKEOFF OBSTACLE NOTES:

Rwy 6, RADAR antenna 10' from DER, 244' left of centerline, 13' AGL/28' MSL.

Terrain 201' from DER, 546' left of centerline, 30' MSL.

### GUAM, GU

GUAM INTL (GUM) (PGUM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 25JAN24 (24025) (FAA)

TAKEOFF MINIMUMS:

Rwy 6L, 400-1/4 or std w/min climb of 450'/NM to 800.

Rwy 6R, 400-1/4 or std w/min climb of 522'/NM to 900.

Rwy 24L, std w/min climb of 280'/NM to 1700.

Rwy 24R, std w/min climb of 286'/NM to 1700.

DEPARTURE PROCEDURE:

Rwys 6L/R, climb on heading 063° to 1000 before turning southeast.

TAKEOFF OBSTACLE NOTES:

Rwy 6L, terrain 11' from DER, 300' left of centerline, 306' MSL.

Vegetation, terrain beginning 159' from DER, 316' left of centerline, up to 312' MSL.

Terrain beginning 196' from DER, 316' right of centerline, up to 315' MSL.

Terrain 321' from DER, 452' left of centerline, 315' MSL.

Terrain 328' from DER, 563' right of centerline, 322' 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, terrain beginning 432' from DER, 336' left of centerline, up to 352' MSL.

Terrain beginning 528' from DER, 443' right of centerline, up to 332' MSL.

Trees beginning 599' from DER, 387' left of centerline, up to 361' MSL.

Terrain beginning 611' from DER, 430' right of centerline, up to 337' MSL.

Terrain 700' from DER, 586' right of centerline, 341' MSL.

Trees, terrain beginning 711' from DER, 348' left of centerline, up to 371' MSL.

Terrain 768' from DER, 644' right of centerline, 344' MSL.

Terrain beginning 774' from DER, 465' right of centerline, up to 345' MSL.

Trees, terrain beginning 802' from DER, 358' left of centerline, up to 376' MSL.

Terrain 853' from DER, 688' right of centerline, 348' MSL.

Fences, terrain beginning 885' from DER, 447' right of centerline, up to 9' AGL/358' MSL.

Tree, terrain, fences, pole, sign beginning 993' from DER, 409' right of centerline, up to 371' MSL.

Trees, pole, terrain beginning 1050' from DER, 375' left of centerline, up to 380' MSL.

Trees, traverse ways, sign, poles, terrain, fences beginning 1194' from DER, 389' right of centerline, up to 385' MSL.

Trees, terrain beginning 1215' from DER, 341' left of centerline, up to 392' MSL.

Trees, terrain, poles, fences, traverse ways beginning 1328' from DER, 339' right of centerline, up to 390' MSL.

Trees, terrain beginning 1482' from DER, 318' left of centerline, up to 407' MSL.

Trees, terrain, fences, poles, traverse ways beginning 1524' from DER, 329' right of centerline, up to 395' MSL.

CON'T



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



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



24025

### GUAM, GU (CON'T)

#### GUAM INTL (GUM) (PGUM) (CON'T)

**Rwy 6L (CON'T)**, trees, terrain, vegetation beginning 1649' from DER, 79' left of centerline, up to 411' MSL.  
 Trees, terrain, fences, buildings, poles, traverse way beginning 1701' from DER, 71' right of centerline, up to 399' MSL.  
 Tree 1861' from DER, 618' left of centerline, 415' MSL.  
 Trees, terrain beginning 1861' from DER, 3' left of centerline, up to 417' MSL.  
 Tree, fences beginning 1914' from DER, 733' right of centerline, up to 404' MSL.  
 Trees, terrain, building, fences beginning 1933' from DER, 110' right of centerline, up to 406' MSL.  
 Trees, terrain, traverse way, building, fences, pole beginning 1986' from DER, 68' right of centerline, up to 413' MSL.  
 Trees, buildings, terrain, fences, poles, traverse way beginning 2056' from DER, 78' right of centerline, up to 423' MSL.  
 Trees, building, fence, pole beginning 2271' from DER, 463' right of centerline, up to 427' MSL.  
 Trees, terrain, fences, buildings, traverse ways, poles, vertical structure beginning 2301' from DER, 301' right of centerline, up to 435' MSL.  
 Trees, terrain beginning 2418' from DER, 294' left of centerline, up to 419' MSL.  
 Trees, terrain beginning 2611' from DER, 297' left of centerline, up to 423' MSL.  
 Trees, terrain beginning 2761' from DER, 302' left of centerline, up to 426' MSL.  
 Trees beginning 2908' from DER, 504' left of centerline, up to 427' MSL.  
 Trees, building beginning 2918' from DER, 497' right of centerline, up to 437' MSL.  
 Trees, terrain, vegetation, transmission lines, poles beginning 2924' from DER, 15' left of centerline, up to 434' MSL.  
 Transmission lines, trees, fences, terrain, buildings, poles, traverse ways, signs, tanks, walls, vegetation beginning 2933' from DER, 2' right of centerline, up to 67' AGL/469' MSL.  
 Poles, trees, transmission line beginning 3770' from DER, 7' left of centerline, up to 86' AGL/436' MSL.  
 Trees, buildings, vegetation, traverse way, pole, rig, terrain beginning 4058' from DER, 45' right of centerline, up to 473' MSL.  
 Trees, poles, fences, buildings beginning 4683' from DER, 578' right of centerline, up to 474' MSL.  
 Trees, poles beginning 5048' from DER, 254' right of centerline, up to 480' MSL.  
 Pole, trees, building beginning 5205' from DER, 266' right of centerline, up to 34' AGL/516' MSL.  
 Trees, pole beginning 5486' from DER, 378' right of centerline, up to 536' MSL.  
 Trees, buildings beginning 5635' from DER, 492' right of centerline, up to 556' MSL.  
 Trees, poles, buildings beginning 5767' from DER, 640' right of centerline, up to 576' MSL.  
 Trees, poles beginning 1.1 NM from DER, 697' right of centerline, up to 622' MSL.  
**Rwy 6R**, terrain beginning 0' from DER, 110' left of centerline, up to 302' MSL.  
 Light poles 9' from DER, 159' left of centerline, 1' AGL/303' MSL.  
 Signs beginning 58' from DER, 280' left of centerline, up to 4' AGL/304' MSL.  
 Trees beginning 139' from DER, 442' right of centerline, up to 378' MSL.  
 Trees, terrain beginning 163' from DER, 408' right of centerline, up to 390' MSL.  
 Trees, terrain beginning 616' from DER, 408' right of centerline, up to 405' MSL.  
 Trees, pole, terrain beginning 939' from DER, 276' right of centerline, up to 407' MSL.  
 Trees, terrain beginning 1110' from DER, 449' right of centerline, up to 414' MSL.  
 Trees beginning 1231' from DER, 572' right of centerline, up to 417' MSL.  
 Trees, terrain beginning 1291' from DER, 406' right of centerline, up to 424' MSL.  
 Trees, terrain, fences, buildings, poles, traverse ways, wall beginning 1648' from DER, on and right of centerline, up to 432' MSL.  
 Terrain 1853' from DER, 10' left of centerline, 348' MSL.  
 Fences beginning 1884' from DER, 27' left of centerline, up to 9' AGL/358' MSL.  
 Pole, fences, sign beginning 2073' from DER, 20' left of centerline, up to 14' AGL/362' MSL.  
 Trees, sign, pole, fences beginning 2194' from DER, 12' left of centerline, up to 385' MSL.  
 Trees, pole, fences beginning 2328' from DER, on and left of centerline, up to 390' MSL.  
 Trees, fences beginning 2524' from DER, 24' left of centerline, up to 395' MSL.  
 Tree 2903' from DER, 20' left of centerline, 397' MSL.  
 Tree, fence beginning 2932' from DER, 12' left of centerline, up to 406' MSL.  
 Trees, fences beginning 3033' from DER, on and left of centerline, up to 409' MSL.  
 Buildings, trees, fences, poles beginning 3208' from DER, 6' right of centerline, up to 29' AGL/435' MSL.  
 Trees, fences, buildings beginning 3298' from DER, 16' right of centerline, up to 444' MSL.  
 Transmission line, buildings, traverse way, trees, fences, poles, vertical structure beginning 3359' from DER, 5' right of centerline, up to 76' AGL/482' MSL.  
 Tree 3363' from DER, 1081' left of centerline, 419' MSL.  
 Trees beginning 3430' from DER, 220' left of centerline, up to 415' MSL.  
 Trees beginning 3524' from DER, 60' left of centerline, up to 417' MSL.  
 Transmission lines, trees, buildings, fences, traverse ways, poles, signs, terrain beginning 3571' from DER, 20' right of centerline, up to 81' AGL/486' MSL.  
 Tree 3590' from DER, 1430' left of centerline, 419' MSL.  
 Tree 3609' from DER, 338' left of centerline, 421' MSL.  
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 Tree 3920' from DER, 1257' left of centerline, 427' MSL.  
 Trees beginning 3924' from DER, 37' left of centerline, up to 434' MSL.  
 Trees, poles, buildings, tanks, transmission line, traverse ways beginning 4375' from DER, 56' right of centerline, up to 516' MSL.  
 Trees, transmission lines, pole beginning 4427' from DER, 42' left of centerline, up to 446' MSL.  
 Trees, buildings, pole, traverse way beginning 4681' from DER, 179' right of centerline, up to 522' MSL.  
 Trees, buildings, poles beginning 4792' from DER, 29' right of centerline, up to 554' MSL.  
 Trees, poles beginning 4814' from DER, 23' left of centerline, up to 456' MSL.  
 Trees, poles, traverse ways, buildings beginning 5014' from DER, 590' right of centerline, up to 568' MSL.  
 Trees, vegetation beginning 5058' from DER, 9' left of centerline, up to 473' MSL.  
 Trees, buildings, pole beginning 5218' from DER, 16' right of centerline, up to 585' MSL.

CON'T



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



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

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**GUAM, GU (CON'T)****GUAM INTL (GUM) (PGUM) (CON'T)**

**Rwy 6R (CON'T), trees, buildings, pole beginning 5418' from DER, 19' right of centerline, up to 597' MSL.**

Trees, pole beginning 5684' from DER, 54' right of centerline, up to 615' MSL.

Tree 5814' from DER, 2036' right of centerline, 636' MSL.

Poles, trees beginning 5850' from DER, 113' right of centerline, up to 41' AGL/654' MSL.

Trees, pole beginning 5965' from DER, 529' right of centerline, up to 660' MSL.

Buildings, trees, poles, terrain beginning 1 NM from DER, 26' right of centerline, up to 90' AGL/702' MSL.

Tree 1.1 NM from DER, 150' left of centerline, 479' MSL.

**Rwy 24L, light poles, terrain beginning 10' from DER, 85' right of centerline, up to 2' AGL/233' MSL.**

Light poles 11' from DER, 4' left of centerline, 1' AGL/232' MSL.

Signs beginning 59' from DER, 282' right of centerline, up to 3' AGL/239' MSL.

Tree 1416' from DER, 365' left of centerline, 269' MSL.

Tree 1511' from DER, 405' left of centerline, 270' MSL.

Tree 1578' from DER, 333' left of centerline, 273' MSL.

**Rwy 24R, light poles, sign beginning 12' from DER, 2' right of centerline, up to 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 669' from DER, 394' left of centerline, 29' AGL/37' MSL.

Stack on building 2486' from DER, 219' right of centerline, 72' AGL/22' 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 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 4LR, 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 22LR, 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 360' per NM to 3700.**

**Rwy 26R, heading as assigned by ATC; requires min. climb of 430' per NM to 4400.**

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

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

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**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 235' 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 2 05OCT23 (23278) (FAA)

Rwys 2, 5, heading as assigned by ATC.

Rwy 20, heading as assigned by ATC; requires min climb of 490'/NM to 5000.

**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.

**KAMUELA, HI**

WAIMEA-KOHALA (MUE) (PHMU)

## TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 17MAR05 (05076) (FAA)

TAKEOFF MINIMUMS:

Rwy 4, 400-2 or std. with a min. climb of 240' per NM to 3100.

DEPARTURE PROCEDURE:

Rwy 4, climb via heading 041° to 3100 then climbing right turn via heading 080° and MUE VOR/DME R-057 to 6000 to VELLA INT, then as assigned.

Rwy 22, climb via heading 233° and MUE VOR/DME R-234 to 5000 to JASON INT, then as assigned.

TAKEOFF OBSTACLE NOTES:

Rwy 4, windsock 158' from DER, 299' right of centerline, 25' AGL/2702' MSL.

Fence 2754' from DER, 323' right of centerline, 12' AGL/2741' MSL.

Tree 5200' from DER, 179' right of centerline, 50' AGL/2817' MSL.

Tree 5331' from DER, 110' left of centerline, 50' AGL/2829' MSL.

Tree 1.3 NM from DER, 739' right of centerline, 50' AGL/2864' MSL.

Tree 1.3 NM from DER, 1741' left of centerline, 50' AGL/2889' 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.

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

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



### KANEOHE BAY MCAS (NGF) (PHNG)

MOKAPU POINT, HI

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 12AUG21 (21224) (USN)

##### TAKEOFF MINIMUMS:

**Rwy 4**, diverse departures authorized 335° clockwise 020°.

**Rwy 22**, diverse departure NA. Std w/min climb of 975'NM to 3900 or 1300-3 for VCOA.

##### VCOA:

Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross NGF TACAN at or above 1200, intercept NGF TACAN R-340 or R-360 as assigned by ATC. Do not exceed 250K until passing NGF.

##### TAKEOFF OBSTACLE NOTES:

**Rwy 4**, terrain 0' from DER, 484' right of centerline, 26' MSL.

Terrain 28' from DER, 479' right of centerline, 26' 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 305' from DER, 195' left of centerline, 15' AGL/26' MSL.

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

### KAUNAKAKAI, HI

MOLOKAI (MKK) (PHMK)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 19MAY14 (14149) (FAA)

##### DEPARTURE PROCEDURE:

Use KAUNAKAKAI DEPARTURE.

#### DIVERSE VECTOR AREA (RADAR VECTORS)

AMDT 1 15OCT15 (15288) (FAA)

**Rwy 17**, heading as assigned by ATC.

**Rwy 23**, heading as assigned by ATC; requires minimum climb of 460' per NM to 2000.

### KOSRAE, FM

KOSRAE (TTK) (PTSA)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 12MAR09 (09071) (FAA)

CAUTION: Ships with masts to 200' traverse harbor entrance located on west side of runway.

##### DEPARTURE PROCEDURE:

**Rwy 5**, left turn.

**Rwy 23**, right turn, climb to 2000 or above before turning east.

### LANAI CITY, HI

LANAI (LNY) (PHNY)

#### TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 27AUG09 (09239) (FAA)

##### TAKEOFF MINIMUMS:

**Rwy 3**, 400-1 or std. w/ min. climb of 370' per NM to 2700 or 2500-3 for climb in visual conditions.

##### DEPARTURE PROCEDURE:

**Rwy 3**, climb heading 033° to 1720 before turning left. Climb heading 300° or 180° to intercept route or airway, then continue as cleared. Maintain maximum 210 kts until turn is completed or for climb in visual conditions cross LNY VORTAC eastbound at or above 2700 and climb as cleared. Westbound - climb westbound to cross LNY VORTAC eastbound at or above 2700 and climb as cleared. Eastbound - 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.



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



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

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**LIHUE, HI****LIHUE (LIH) (PHL)****TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**

AMDT 9 15JUN23 (23166) (FAA)

**DEPARTURE PROCEDURE:**

Use KAUAI DEPARTURE.

**TAKEOFF OBSTACLE NOTES:****Rwy 3, NAVAID 83' from DER, 418' left of centerline, 8' AGL/85' MSL.**

Trees beginning 221' from DER, 188' right of centerline, up to 35' AGL/88' MSL.

Trees beginning 240' from DER, 19' right of centerline, up to 43' AGL/95' MSL.

Trees beginning 250' from DER, 7' left of centerline, up to 34' AGL/93' MSL.

Trees beginning 395' from DER, 38' left of centerline, up to 34' AGL/94' MSL.

Trees beginning 415' from DER, 39' left of centerline, up to 39' AGL/95' MSL.

Trees beginning 431' from DER, 38' left of centerline, up to 34' AGL/103' MSL.

Trees beginning 473' from DER, 14' left of centerline, up to 50' AGL/107' MSL.

Tree 541' from DER, 4' right of centerline, 54' AGL/103' MSL.

Trees beginning 548' from DER, 8' right of centerline, up to 56' AGL/104' MSL.

Tree 972' from DER, 67' left of centerline, 68' AGL/115' MSL.

Tree 1563' from DER, 53' left of centerline, 90' AGL/127' MSL.

Tree 1750' from DER, 783' left of centerline, 120' AGL/165' MSL.

**Rwy 17, light poles 4' from DER, 6' left of centerline, 2' AGL/94' MSL.**

Tree 135' from DER, 272' right of centerline, 10' AGL/95' MSL.

Trees beginning 857' from DER, 565' right of centerline, up to 45' AGL/131' MSL.

Tree 1289' from DER, 734' right of centerline, 57' AGL/132' MSL.

**Rwy 21, light poles 9' from DER, 54' left of centerline, 3' AGL/154' MSL.**

Light poles 9' from DER, 55' right of centerline, 3' AGL/155' MSL.

Terrain 33' from DER, 457' right of centerline, 156' MSL.

Pole 192' from DER, 546' left of centerline, 44' AGL/183' MSL.

Pole 366' from DER, 550' left of centerline, 46' AGL/184' MSL.

Tree, pole beginning 497' from DER, 563' left of centerline, up to 70' AGL/206' MSL.

Trees beginning 1148' from DER, 231' right of centerline, up to 42' AGL/203' MSL.

Tree 1457' from DER, 185' right of centerline, 67' AGL/212' MSL.

Trees beginning 1466' from DER, 53' right of centerline, up to 77' AGL/230' MSL.

Trees beginning 1510' from DER, 62' right of centerline, up to 87' AGL/241' MSL.

Tree 1538' from DER, 3' left of centerline, 70' AGL/208' MSL.

Tree, pole beginning 1660' from DER, 9' right of centerline, up to 96' AGL/248' MSL.

Trees beginning 1903' from DER, 267' left of centerline, up to 68' AGL/217' MSL.

Tree 2017' from DER, 280' left of centerline, 70' AGL/218' MSL.

Trees beginning 2029' from DER, 296' left of centerline, up to 73' AGL/221' MSL.

Trees beginning 2212' from DER, 337' left of centerline, up to 82' AGL/227' MSL.

Tree 3102' from DER, 442' left of centerline, 107' AGL/231' MSL.

Trees beginning 2.1 NM from DER, 2126' left of centerline, up to 3' AGL/896' MSL.

Tree 2.2 NM from DER, 2973' left of centerline, 25' AGL/947' MSL.

Trees beginning 2.2 NM from DER, 2747' left of centerline, up to 212' AGL/1329' MSL.

Tree 2.3 NM from DER, 3671' left of centerline, 2' AGL/1474' MSL.

Tree 2.4 NM from DER, 4032' left of centerline, 100' AGL/1488' MSL.

Trees beginning 2.4 NM from DER, 2595' left of centerline, up to 100' AGL/1488' MSL.

Trees beginning 2.5 NM from DER, 3483' left of centerline, up to 23' AGL/1294' MSL.

**Rwy 35, fence 40' from DER, 308' right of centerline, 13' AGL/94' MSL.**

Tree 106' from DER, 435' right of centerline, 19' AGL/100' MSL.

Trees beginning 203' from DER, 379' right of centerline, up to 51' AGL/131' MSL.

**DIVERSE VECTOR AREA (RADAR VECTORS)**

AMDT 1 15OCT15 (15288) (FAA)

Rwys 3, 17, heading as assigned by ATC.

Rwy 21, heading as assigned by ATC; requires min. climb of 400' per NM to 4500.

Rwy 35, heading as assigned by ATC; requires min. climb of 230' per NM to 700.

**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, 23' AGL/29' MSL.

Tree 934' 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 51' 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.

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

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

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**PAGO PAGO, AS**

PAGO PAGO INTL (PPG) (NSTU)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

ORIG-A 12MAR09 (09071) (FAA)

TAKEOFF MINIMUMS:

Rwy 23, std. w/min. climb of 320' per NM to 800, or 2700-3 for climb in visual conditions.

Rwy 26, NA-obstacles.

DEPARTURE PROCEDURE:

Rwys 5, 8, climbing right turn southbound between TUT R-090 clockwise to R-180 to 2800, then proceed on course.

Rwy 23, climbing left turn heading 150° southbound between TUT R-090 clockwise to R-180 to 2800, then proceed on course. For climb in visual conditions: cross Pago Pago Intl airport at or above 2600 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 5, bush 1' from DER, 237' right of centerline, 3' AGL/12' MSL.

Bush 379' from DER, 362' left of centerline, 14' AGL/23' MSL.

Ship 998' from DER, 57' right of centerline, 150 AGL/150' MSL.

Rwy 8, bush 689' from DER, 360' left of centerline, 15' AGL/23' MSL.

Ship 1435' from DER, 304' left of centerline, 150 AGL/150' MSL.

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 264° CW 083° from DER to 2600 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 27, fence 92' from DER, left to right of centerline, up to 9' AGL/15' MSL.

Trees 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 TAISACAN 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**

FRANCISCO MANGLONA BORJA/TINIAN INTL (TNI) (PGWT)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 27AUG09 (23222) (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.

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

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

24025

**WAKE ISLAND AFLD (AWK) (PWAK)**

WAKE ISLAND, QW

## TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1 (19227)

## TAKEOFF OBSTACLE NOTES:

- Rwy 10, terrain 0' from DER, 500' left of centerline, 23' MSL.
- Terrain 48' from DER, 110' left of centerline, 23' MSL.
- Bunker 819' from DER, 370' right of centerline, 12' AGL/40' MSL.
- Bunker 377' from DER, 497' left of centerline, 15' AGL/41' MSL.
- Bush 383' from DER, 483' left of centerline, 7' AGL/45' MSL.
- Bush 813' from DER, 367' right of centerline, 6' AGL/40' MSL.
- Rwy 28, terrain 0' inward of DER, 484' right of centerline, 25' MSL.
- Terrain 75' from DER, 510' right of centerline, 26' 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.

**WHEELER AAF (HHI) (PHHI)**

WAHIAWA, HI

## TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 7 07SEP23 (23250) (USA)

## TAKEOFF MINIMUMS:

- Rwy 6, 300-1 w/min climb of 357'/NM to 3600 or std w/min climb of 473'/NM to 2900.
- Rwy 24, NA-Obstacles.

## DEPARTURE PROCEDURE:

- Rwy 6, climbing right turn to hdg 150° to intercept CKH VORTAC R-294 to CKH VORTAC.

## TAKEOFF OBSTACLE NOTES:

- Rwy 6, pylon 5417' from DER, 33' right of centerline, 90' AGL/979' MSL.
- Pylon 3192' from DER, 858' left of centerline, 100' AGL/972' MSL.
- Pylon 3182' from DER, 845' left of centerline, 100' AGL/972' MSL.
- Pylon 4800' from DER, 113' left of centerline, 90' AGL/966' MSL.
- Pylon 3954' from DER, 644' left of centerline, 100' AGL/962' MSL.
- Pylon 3612' from DER, 357' left of centerline, 90' AGL/959' MSL.
- Pylon 2802' from DER, 512' left of centerline, 90' AGL/956' MSL.

**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.

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

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**ALTERNATE MINS**

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## INSTRUMENT APPROACH PROCEDURE CHARTS

**A IFR ALTERNATE AIRPORT MINIMUMS**

Pilots must review the IFR Alternate Minimums Notes to determine alternate airport suitability.

**A<sub>NA</sub>** designation on the approach chart means that pilots may not use that approach as an alternate due to unmonitored facility, absence of weather reporting service, or lack of adequate navigation coverage. Approaches with the **A<sub>NA</sub>** designation are not listed in this section. **A** designation on the approach chart indicates that the approach procedure has non-standard minimums (for aircraft other than helicopters) or restrictions (for all users) for its use as an alternate.

**Alternate Minima (ref: 14 CFR 91.169)**

|                                       | Precision Approach                                                                                                                            | Non-Precision Approach |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Standard                              | <b>600-2</b>                                                                                                                                  | <b>800-2</b>           |
| <b>A</b> Non-Standard or restrictions | As indicated below                                                                                                                            | As indicated below     |
| Helicopters                           | For the selected approach:<br>Ceiling: 200' above published ceiling<br>Visibility: the greater of 1 SM visibility or the published visibility |                        |
| US Military<br>(USA/USN/USAF)         | See Service Regulations                                                                                                                       |                        |

**Note:** For alternate airport flight planning purposes, precision approach operations include: ILS, PAR, and GLS, and Non-Precision approach operations include: NDB, VOR, LOC, TACAN, LDA, SDF, ASR, RNAV (GPS) and RNAV (RNP).

## NAME ALTERNATE MINIMUMS

**BABELTHUAP ISLAND, PW**

PALAU INTL (ROR) (PTOR).....NDB Rwy 9<sup>1</sup>  
RNAV (GPS) Rwy 9  
RNAV (GPS) Rwy 27

NA except standard for operators with approved weather reporting service.

<sup>1</sup>Categories A, B, 900-2; Category C, 900-2½;  
Category D, 900-2¼.

**GUAM, GU**

GUAM  
INTL (GUM) (PGUM).....ILS or LOC Rwy 6<sup>1</sup>

ILS or LOC Rwy 6R<sup>1</sup>

RNAV (GPS) Y Rwy 24<sup>1,2</sup>

RNAV (GPS) Y Rwy 24R<sup>3</sup>

RNAV (RNP) Z Rwy 24L<sup>4</sup>

RNAV (RNP) Z Rwy 24R<sup>5</sup>

VOR or TACAN Rwy 24R<sup>6</sup>

<sup>1</sup>LOC, Categories A, B, 1200-2;  
Categories C, D, 1200-3.

<sup>2</sup>Categories A, B, 900-2; Category C, 900-2½.

<sup>3</sup>Categories A, B, 900-2; Category C, 900-2½.

<sup>4</sup>Categories A, B, C, D, 900-3.

<sup>5</sup>Categories A, B, C, D, 800-2½.

<sup>6</sup>Categories A, B, 900-2; Categories C, D 900-2½.

**HANA, HI**

HANA (HNM) (PHHN).....RNAV (GPS) Rwy 26

Category A, 900-2; Category B, 1100-2.

## NAME ALTERNATE MINIMUMS

**HILO, HI**

HILO INTL (ITO) (PHTO).....ILS or LOC Rwy 26<sup>1,2</sup>  
RNAV (GPS) Rwy 21<sup>3</sup>  
RNAV (GPS) Rwy 26<sup>3</sup>  
VOR-B<sup>3</sup>  
VOR/DME or TACAN Rwy 26<sup>3</sup>  
VOR/DME or TACAN-A<sup>3</sup>

<sup>1</sup>NA when control tower closed.

<sup>2</sup>LOC, Category C, 900-2½; Category D, 1300-3.

<sup>3</sup>Category C, 900-2½; Category D, 1300-3.

**HONOLULU, HI**

DANIEL K INOUYE  
INTL (HNL) (PHNL).....LOC Rwy 4R<sup>1</sup>  
LOC Rwy 8L<sup>1</sup>  
RNAV (GPS) Rwy 4L<sup>2</sup>  
RNAV (GPS) Rwy 8R<sup>3</sup>  
RNAV (GPS) Y Rwy 4R<sup>4</sup>  
RNAV (GPS) Y Rwy 8L<sup>5</sup>  
VOR or TACAN Rwy 4R<sup>6</sup>  
VOR or TACAN-A<sup>1</sup>  
VOR or TACAN-B<sup>1</sup>

<sup>1</sup>Category C, 800-2½; Category D, 1400-3.

<sup>2</sup>Category C, 900-2½; Category D, 1400-3;

Category E, 2000-3.

<sup>3</sup>Category C, 900-2½; Category D, 1400-3;

Category E, 2100-3.

<sup>4</sup>Category D, 1300-3.

<sup>5</sup>Category C, 900-2½; Category D, 1300-3.

<sup>6</sup>Category C, 900-2½; Category D, 1400-3.

**ALTERNATE MINS**

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**A ALTERNATE MINS**

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**A**

| NAME                                                                                                                                                 | ALTERNATE MINIMUMS                                                                                                                                                                                                      | NAME                                                                                                                                                    | ALTERNATE MINIMUMS                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>KAHULUI, HI</b><br>KAHULUI (OGG)<br>(PHOG).....                                                                                                   | .ILS Y or LOC Y Rwy 2 <sup>12</sup><br>ILS Z or LOC Z Rwy 2 <sup>12</sup><br>RNAV (GPS) Rwy 20 <sup>3</sup><br>RNAV (GPS) Rwy 23 <sup>4</sup><br>RNAV (GPS) Y Rwy 2 <sup>15</sup><br>VOR Z or TACAN Rwy 20 <sup>3</sup> | <b>LIHUE, HI</b><br>LIHUE (LHI) (PHLI).....                                                                                                             | .ILS or LOC Rwy 35 <sup>1</sup><br>RNAV (GPS) Rwy 17 <sup>23</sup><br>RNAV (GPS) Y Rwy 21 <sup>23</sup><br>RNAV (GPS) Y Rwy 35 <sup>4</sup><br>RNAV (RNP) Z Rwy 21 <sup>5</sup><br>VOR or TACAN Rwy 21 <sup>2</sup> |
| <sup>1</sup> NA when control tower closed.                                                                                                           |                                                                                                                                                                                                                         | <sup>1</sup> NA when control tower closed.                                                                                                              |                                                                                                                                                                                                                     |
| <sup>2</sup> LOC, Category D, 1100-3; Category E, 1700-3.                                                                                            |                                                                                                                                                                                                                         | <sup>2</sup> NA when local weather not available.                                                                                                       |                                                                                                                                                                                                                     |
| <sup>3</sup> Category D, 1100-3.                                                                                                                     |                                                                                                                                                                                                                         | <sup>3</sup> Categories C, D, 800-2½.                                                                                                                   |                                                                                                                                                                                                                     |
| <sup>4</sup> Category D, 1200-3.                                                                                                                     |                                                                                                                                                                                                                         | <sup>4</sup> Category C, 800-2½; Category D, 800-2½.                                                                                                    |                                                                                                                                                                                                                     |
| <sup>5</sup> NA when local weather not available.                                                                                                    |                                                                                                                                                                                                                         | <sup>5</sup> RNP 0.30, Categories A, B, C, D, 1000-4.                                                                                                   |                                                                                                                                                                                                                     |
| <b>KAILUA/KONA, HI</b><br>ELLISON ONIZUKA KONA INTL AT<br>KEAHOLE (KOA) (PHKO).....                                                                  | .ILS or LOC Rwy 17 <sup>1</sup><br>LOC BC Rwy 35 <sup>2</sup><br>RNAV (GPS) Rwy 35 <sup>2</sup><br>RNAV (GPS) Y Rwy 17 <sup>2</sup><br>VOR or TACAN Rwy 17 <sup>2</sup><br>VOR or TACAN Rwy 35 <sup>2</sup>             | <b>MIDWAY ATOLL, QM</b><br>HENDERSON                                                                                                                    |                                                                                                                                                                                                                     |
| <sup>1</sup> NA when control tower closed.                                                                                                           |                                                                                                                                                                                                                         | FLD (MDY) (PMDY).....                                                                                                                                   | .NDB Rwy 6<br>NDB Rwy 24<br>RNAV (GPS) Rwy 6<br>RNAV (GPS) Rwy 24                                                                                                                                                   |
| <sup>2</sup> NA when local weather not available.                                                                                                    |                                                                                                                                                                                                                         | NA except standard for operators with approved<br>weather reporting service.                                                                            |                                                                                                                                                                                                                     |
| <b>KAPOLEI, OAHU ISLAND, HI</b><br>KALAELOA (JOHN RODGERS<br>FLD) (JRF) (PHJR).....                                                                  | .NDB Rwy 4R <sup>1</sup><br>RNAV (GPS) Rwy 4R <sup>2</sup>                                                                                                                                                              | <b>PAGO PAGO, AS</b><br>PAGO PAGO                                                                                                                       |                                                                                                                                                                                                                     |
| <sup>1</sup> Category C, 800-2½; Category D, 800-2½.                                                                                                 |                                                                                                                                                                                                                         | INTL (PPG) (NSTU).....                                                                                                                                  | .ILS or LOC Rwy 5 <sup>1</sup><br>RNAV (GPS) Rwy 5 <sup>2</sup><br>RNAV (GPS) Rwy 23 <sup>2</sup><br>VOR or TACAN-B <sup>2</sup>                                                                                    |
| <sup>2</sup> NA when local weather not available.                                                                                                    |                                                                                                                                                                                                                         | <sup>1</sup> ILS, Categories A, B, C, D, 900-2;<br>LOC, Category C, 800-2½; Category D, 900-2½.<br><sup>2</sup> Category C, 800-2½; Category D, 900-2¾. |                                                                                                                                                                                                                     |
| <b>KAUNAKAKAI, HI</b><br>MOLOKAI (MKK) (PHMK).....                                                                                                   | .RNAV (GPS)-B <sup>12</sup><br>VOR or TACAN-A <sup>3</sup>                                                                                                                                                              | <b>POHNPEI ISLAND, FM</b><br>POHNPEI INTL (PNI) (PTPN).....                                                                                             | .NDB-A <sup>1</sup><br>RNAV (GPS) Rwy 27 <sup>2</sup><br>RNAV (GPS) X Rwy 9 <sup>1</sup><br>RNAV (RNP) Y Rwy 9 <sup>3</sup>                                                                                         |
| <sup>1</sup> NA when local weather not available.                                                                                                    |                                                                                                                                                                                                                         | <sup>1</sup> Categories A, B, 1000-2; Categories C, D, 1000-3.<br><sup>2</sup> Category D, 800-2½.<br><sup>3</sup> Categories A, B, C, D, 1000-4.       |                                                                                                                                                                                                                     |
| <b>KOSRAE, FM</b><br>KOSRAE (TTK) (PTSA).....                                                                                                        | .RNAV (GPS) Rwy 5 <sup>1</sup><br>RNAV (GPS) Rwy 23 <sup>2</sup>                                                                                                                                                        | <b>ROTA ISLAND, CQ</b><br>BENJAMIN TAISACAN MANGLONA                                                                                                    |                                                                                                                                                                                                                     |
| <sup>1</sup> NA except standard for operators with approved<br>weather reporting service.                                                            |                                                                                                                                                                                                                         | INTL (GRO) (PGRO).....                                                                                                                                  | .RNAV (GPS) Rwy 9<br>RNAV (GPS) Rwy 27<br>NDB Rwy 9 <sup>1</sup><br>NDB Rwy 27                                                                                                                                      |
| <sup>2</sup> NA except categories A,B, standard, Category C,<br>800-2½, Category D 800-2½, for operators with<br>approved weather reporting service. |                                                                                                                                                                                                                         | NA except standard for operators with approved<br>weather reporting service.                                                                            |                                                                                                                                                                                                                     |
| <b>LANAI CITY, HI</b><br>LANAI (LNY) (PHNY).....                                                                                                     | .RNAV (GPS) Rwy 3 <sup>12</sup><br>VOR or TACAN or GPS-A <sup>3</sup>                                                                                                                                                   | <sup>1</sup> Categories A, B, 1200-2; Categories C, D,<br>1200-3.                                                                                       |                                                                                                                                                                                                                     |
| <sup>1</sup> NA when local weather not available.                                                                                                    |                                                                                                                                                                                                                         | <b>SAIPAN ISLAND, CQ</b><br>FRANCISCO C ADA/<br>SAIPAN INTL (GSN) (PGSN).....                                                                           | .NDB Y Rwy 7                                                                                                                                                                                                        |
| <sup>2</sup> Category C, 900-2½.                                                                                                                     |                                                                                                                                                                                                                         | Category D, 800-2½.                                                                                                                                     |                                                                                                                                                                                                                     |
| <sup>3</sup> NA when local weather not received except for<br>operators with approved weather reporting<br>service.                                  |                                                                                                                                                                                                                         |                                                                                                                                                         |                                                                                                                                                                                                                     |

**A ALTERNATE MINS**

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**A** PAC

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**A ALTERNATE MINS**

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M3



| NAME | ALTERNATE MINIMUMS | NAME | ALTERNATE MINIMUMS |
|------|--------------------|------|--------------------|
|------|--------------------|------|--------------------|

**TINIAN ISLAND, CQ**

FRANCISCO MANGLONA BORJA  
 TINIAN INTL (TNI) (PGWT). .... **RNAV (GPS) Rwy 8**  
**RNAV (GPS) Rwy 26**

NA when local weather not available.  
 Category D, 800-2½.

**WENO ISLAND, FM**

CHUUK INTL (PTKK)..... **NDB Rwy 4<sup>1</sup>**  
**NDB Rwy 22<sup>23</sup>**  
**RNAV (GPS) Rwy 4<sup>24</sup>**  
**RNAV (GPS) Rwy 22<sup>25</sup>**

<sup>1</sup>NA except for operators with approved weather reporting service. Categories A, B, C, D, 800-2½.

<sup>2</sup>NA except standard for operators with approved weather reporting service.

<sup>3</sup>Categories C, D, 800-2½.

<sup>4</sup>Categories A, B, C, D, 800-3.

<sup>5</sup>Categories A, B, 900-2; Category C, 900-2½;  
 Category D, 900-2¾.

**YAP ISLAND, FM**

YAP INTL (T11) (PTYA)..... **NDB Rwy 7<sup>1</sup>**  
**NDB Rwy 25<sup>2</sup>**  
**NDB/DME Rwy 25<sup>2</sup>**

<sup>1</sup>Category D, 800-2½;

<sup>2</sup>Categories A, B, 1000-2; Categories C, D, 1000-3.

**A ALTERNATE MINS**

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**RADAR MINS**

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**RADAR INSTRUMENT APPROACH MINIMUMS****KANEOHE BAY MCAS (PHNG/NGF)**, Mokapu Point, Oahu I, HI Amdt 6

12AUG21 (21224) (USN)

ELEV 143

RADAR- (E) Call KANEOHE APP CON 263.5 125.0 316.1 310.1 **T**

| <b>RWY</b>                         | <b>GS/TCH/RPI</b> | <b>CAT</b>  | <b>DH/<br/>MDA-VIS</b> | <b>HAT/<br/>HATH/<br/>HAA</b> | <b>CEIL-VIS</b>      |
|------------------------------------|-------------------|-------------|------------------------|-------------------------------|----------------------|
| PAR <sup>1</sup>                   | 22                | 3.0°/48/990 | ABCDE*                 | 223-¾                         | 200                  |
| PAR (W/O GS)                       | 22                |             | AB                     | 440-1                         | (200-¾)<br>(500-1)   |
|                                    |                   |             | CDE*                   | 440-1½                        | (500-1½)             |
| ASR                                | 22                |             | AB*                    | 920-1¼                        | 897                  |
|                                    |                   |             | CDE*                   | 920-2½                        | (900-1½)<br>(900-2½) |
| <b>C</b> CIR <sup>2</sup> (W/O GS) | 22                | A           | 480-1                  | 457                           | (500-1)              |
|                                    |                   | B           | 500-1                  | 477                           | (500-1)              |
|                                    |                   | C           | 1020-3                 | 997                           | (1000-3)             |
|                                    |                   | D           | NA                     |                               |                      |
|                                    |                   | E           | NA                     |                               |                      |
| <b>C</b> ASR CIR <sup>2</sup>      | 22                | AB          | 920-1¼                 | 897                           | (900-1½)             |
|                                    |                   | C           | 1020-3                 | 997                           | (1000-3)             |
|                                    |                   | DE          | NA                     |                               |                      |

CAUTION—Mountainous terrain E, S, and W of afld.

<sup>1</sup>VGSI (Angle 3.0°/TCH 44) and PAR glidepath (Angle 3.0°/TCH 53) not coincident.<sup>2</sup> Circling not authorized SE of Rwy 4-22.

\* Missed Approach Minimum Climb Rate

|                   | Rwy | Knots    | 60  | 120  | 180  | 240  | 300  | 360  |
|-------------------|-----|----------|-----|------|------|------|------|------|
| PAR               |     |          |     |      |      |      |      |      |
| CAT C             | 22  | V/V(fpm) | 258 | 516  | 774  | 1032 | 1290 | 1548 |
| CAT D             | 22  | V/V(fpm) | 312 | 624  | 936  | 1248 | 1560 | 1872 |
| CAT E             | 22  | V/V(fpm) | 573 | 1146 | 1719 | 2292 | 2865 | 3438 |
| PAR CAT C to 1900 |     |          |     |      |      |      |      |      |
| PAR CAT D to 2200 |     |          |     |      |      |      |      |      |
| PAR CAT E to 3200 |     |          |     |      |      |      |      |      |
| PAR (W/O GS)      |     |          |     |      |      |      |      |      |
| CAT D             | 22  | V/V(fpm) | 256 | 512  | 768  | 1024 | 1280 | 1536 |
| CAT E             | 22  | V/V(fpm) | 344 | 688  | 1032 | 1376 | 1720 | 2064 |
| PAR (W/O GS)      |     |          |     |      |      |      |      |      |
| CAT D to 2100     |     |          |     |      |      |      |      |      |
| PAR (W/O GS)      |     |          |     |      |      |      |      |      |
| CAT E to 3000     |     |          |     |      |      |      |      |      |
| ASR               |     |          |     |      |      |      |      |      |
| CAT ABCDE to 3000 | 22  | V/V(fpm) | 300 | 600  | 900  | 1200 | 1500 | 1800 |

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**RADAR INSTRUMENT APPROACH MINIMUMS****RADAR MINS**

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17117

## 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.

| CITY/AIRPORT                      | LDG RWY           | HOLD-SHORT POINT              | AVBL LDG DIST                          |
|-----------------------------------|-------------------|-------------------------------|----------------------------------------|
| HONOLULU, HI                      |                   |                               |                                        |
| DANIEL K INOUYE INTL (HNL) (PHNL) | 04L<br>04R<br>08L | 08L-26R<br>08L-26R<br>04L-22R | 3,700 feet<br>6,250 feet<br>9,300 feet |

17117

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**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                                                         | HOT SPOT                     | DESCRIPTION*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HONOLULU, HI</b>                                                  |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DANIEL K INOUYE INTL (HNL) (PHNL)                                    | HS 1<br>HS 2<br>HS 3<br>HS 4 | Aircraft ldg Rwy 04R and exiting left onto Twy K, sometimes fail to hold short of Rwy 04L-22R and Rwy 08L-26R. When holding short, ATC is aware the aircraft tail is encroaching the ldg rwy.<br>Aircraft proceeding north or south on Twy E and instructed to turn onto Twy B sometimes miss the turn onto Twy B and enter Rwy 08L-26R or 04L-22R without clearance.<br>Twy V, Twy T, Twy A and Twy J in close proximity to Rwy 08L.<br>Minimal distance between rwy hold short lines between Rwy 04L-22R/Rwy 04R-22L. |
| KAHULUI, HI<br>KAHULUI (OGG) (PHOG)                                  | HS 1<br>HS 2<br>HS 3         | Rwy 05, Twy A, Twy F, and Twy G.<br>Rwy 02-20, Twy E and the ramp.<br>Twy A, Rwy 05-23                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| KAILUA/KONA, HI<br>ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO) | HS 1<br>HS 2                 | Extensive helicopter operations on Twy A abeam ramp K.<br>Extensive helicopter operations on Twy A south of Twy C.                                                                                                                                                                                                                                                                                                                                                                                                      |
| KAUNAKAKAI, HI<br>MOLOKAI (MKK)(PHMK)                                | HS 1                         | Area not visible from control tower.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

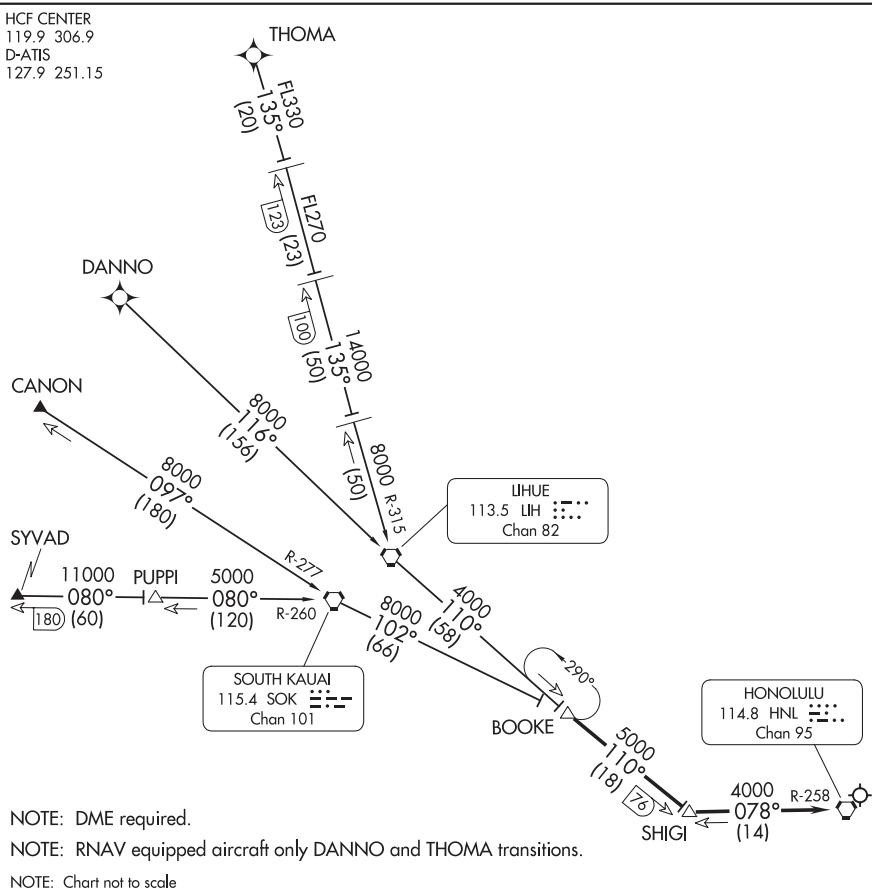
\*See appropriate Chart Supplement HOT SPOT table for additional information.

24025

(BOOKE.BOOKE8) 23334

## BOOKE EIGHT ARRIVAL

AI-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

## ARRIVAL 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.

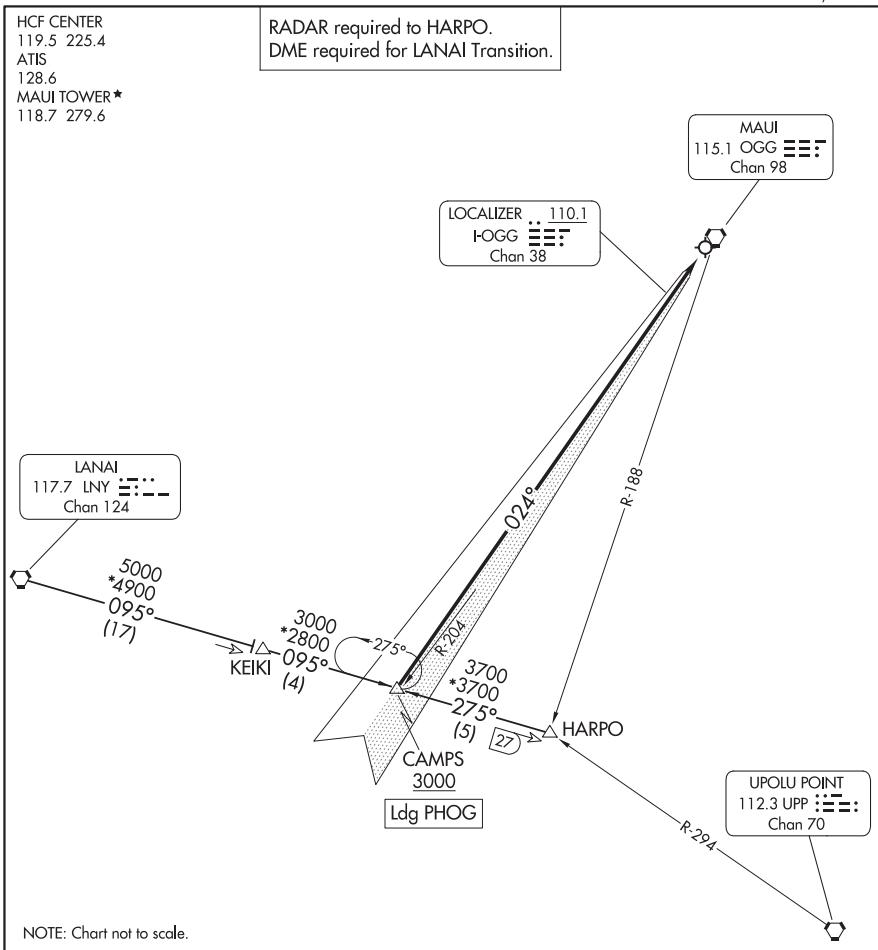
**BOOKE EIGHT ARRIVAL**  
(BOOKE.BOOKE8) 27MAY93

HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(CAMPSCAMPS4) 23278

## CAMPSCAMPS4 ARRIVAL

AL-762 (FAA)

KAHULUI (OGG)(PHOG)  
KAHULUI, HAWAII

## ARRIVAL ROUTE DESCRIPTION

HARPO TRANSITION (HARPO.CAMPS4): From over HARPO on LNY R-095 to CAMPS.  
Thence . . . .

LANAI TRANSITION (LNY.CAMPS4): From over LNY VORTAC on LNY R-095 to CAMPS.  
Thence . . . .

. . . . cross CAMPS at or above 3000, then on I-OGG localizer course. Expect  
ILS Y or LOC Y RWY 2 approach.

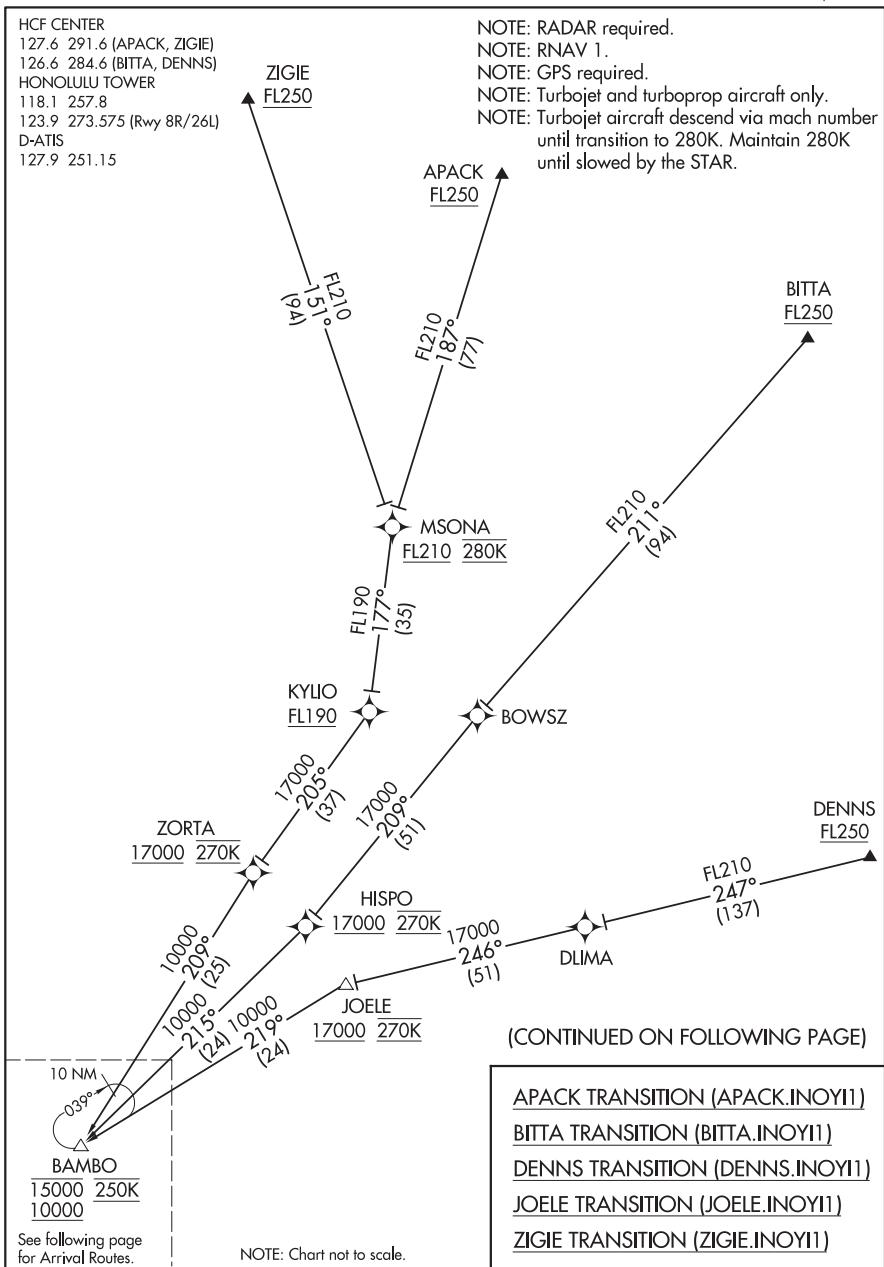
CAMPSCAMPS4 ARRIVAL  
(CAMPSCAMPS4) 05OCT23KAHULUI, HAWAII  
KAHULUI (OGG)(PHOG)

## TERMINAL PROCEDURES

(BAMBO.INOYI1) 20030

AL-754 (FAA)

INOYI ONE ARRIVAL (RNAV) Transition Routes

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAIIINOYI ONE ARRIVAL (RNAV) Transition Routes  
(BAMBO.INOYI1) 30JAN20HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

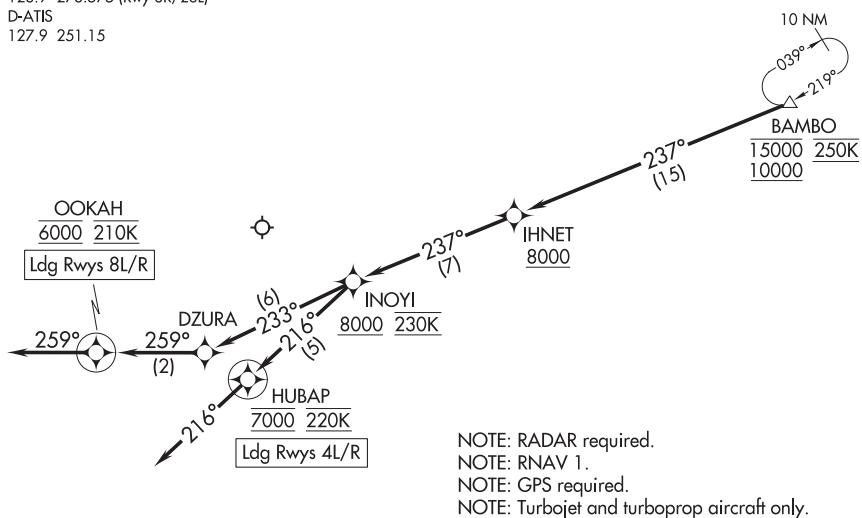
(BAMBO,INOYI1) 20030

AL-754 (FAA)

INOYI ONE ARRIVAL (RNAV) Arrival Routes

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

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-ATIS  
 127.9 251.15



NOTE: Chart not to scale.

**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.

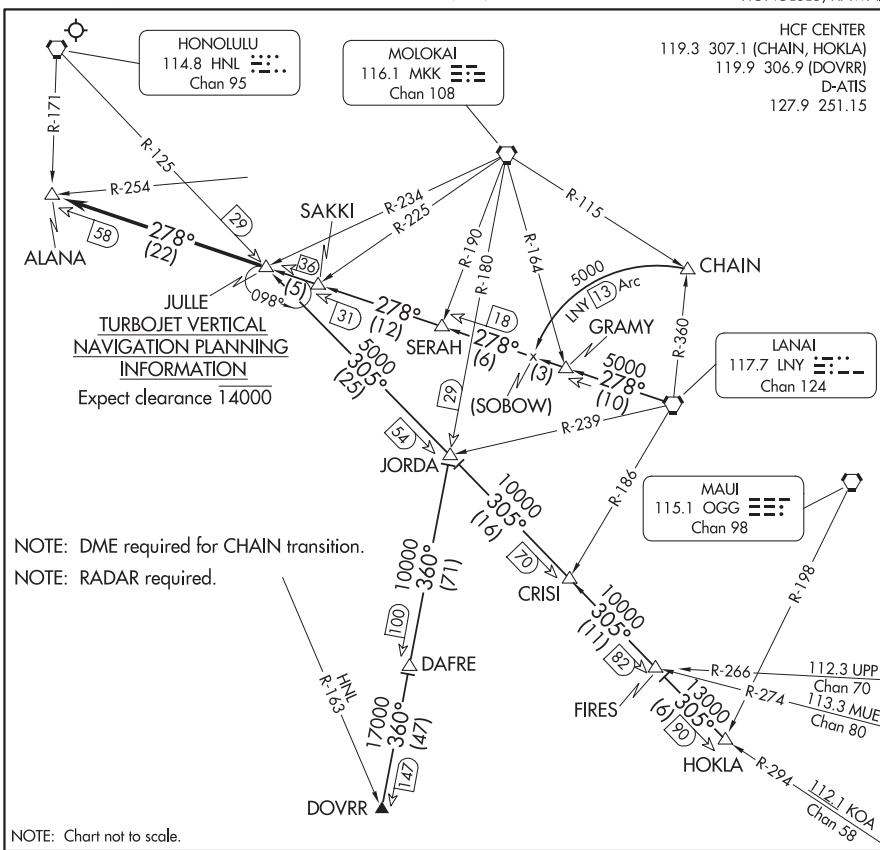
INOYI ONE ARRIVAL (RNAV) Arrival Routes  
 (BAMBO,INOYI1) 30JAN20

HONOLULU, HAWAII  
 DANIEL K INOUYE INTL (HNL) (PHNL)

(JULLE.JULLE5) 23334

## JULLE FIVE ARRIVAL

AI-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

## 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.

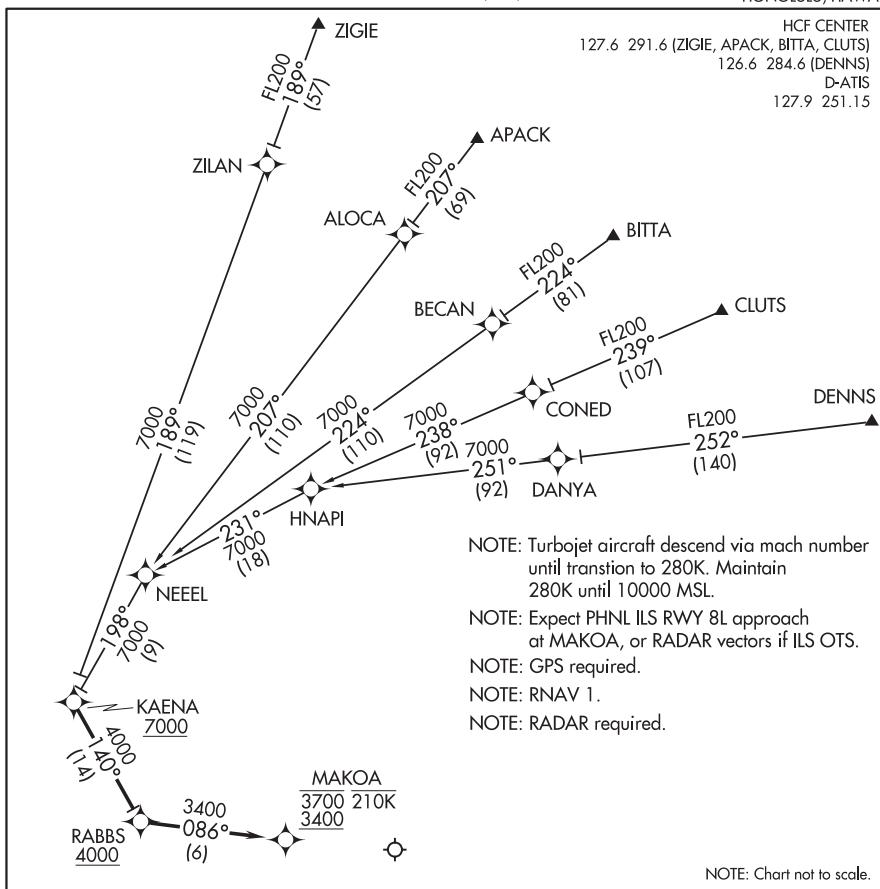
**JULLE FIVE ARRIVAL**  
(JULLE.JULLE5) 25AUG11

HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(KAENA.KAENA2) 17117

## KAENA TWO ARRIVAL (RNAV)

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

## 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.

KAENA TWO ARRIVAL (RNAV)

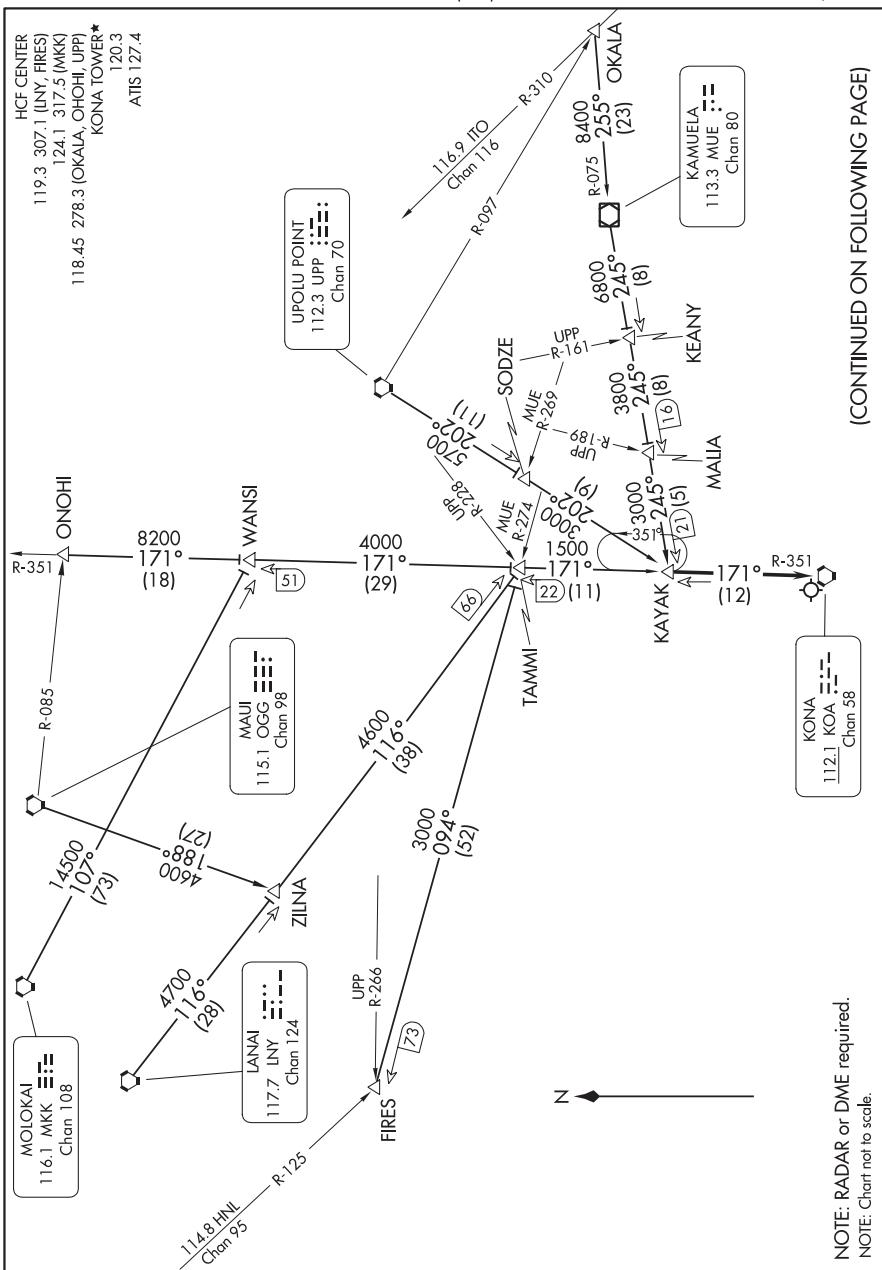
(KAENA.KAENA2) 20OCT11

HONOLULU, HAWAII

DANIEL K INOUYE INTL (HNL) (PHNL)

(KAYAK.KAYAK6) 24025  
KAYAK SIX ARRIVAL

ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)  
AL-5761 (FAA)  
KAILUA-KONA, HAWAII



KAYAK SIX ARRIVAL  
(KAYAK.KAYAK6) 07DEC17

KAILUA-KONA, HAWAII  
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

(CONTINUED ON FOLLOWING PAGE)

(KAYAK.KAYAK6) 17341  
KAYAK SIX ARRIVAL

ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)  
AL-5761 (FAA) KAILUA-KONA, HAWAII

## ARRIVAL ROUTE DESCRIPTION

FIRE TRANSITION (FIRES.KAYAK6): From over FIRES on MUE R-274 to TAMMI , then on KOA R-351 to KAYAK . Thence. . . .

LANAI TRANSITION (LNY.KAYAK6): From over LNY VORTAC on LNY R-116 to TAMMI , then on KOA R-351 to KAYAK . Thence. . . .

MAUI TRANSITION (OGG.KAYAK6): From over OGG VORTAC on OGG R-188 to ZILNA, then on LNY R-116 to TAMMI , then on KOA R-351 to KAYAK . Thence. . . .

MOLOKAI TRANSITION (MKK.KAYAK6): From over MKK VORTAC on MKK R-107 and KOA R-351 to TAMMI , then on KOA R-351 to KAYAK . Thence. . . .

OKALA TRANSITION (OKALA.KAYAK6): From over OKALA on MUE VOR/DME R-075 to MUE VOR/DME, then on MUE R-245 to KAYAK . Thence. . . .

ONOHI TRANSITION (ONOHI.KAYAK6): From over ONOHI on KOA R-351 to KAYAK. Thence. . . .

UPOLU POINT TRANSITION (UPP.KAYAK6): From over UPP VORTAC on UPP R-202 to KAYAK . Thence. . . .

. . . . From over KAYAK on KOA R-351 to KOA VORTAC. Expect RADAR vectors.

LOST COMMUNICATIONS: At KAYAK proceed on VOR/DME or TACAN RWY 17 approach.

KAYAK SIX ARRIVAL  
(KAYAK.KAYAK6) 07DEC17

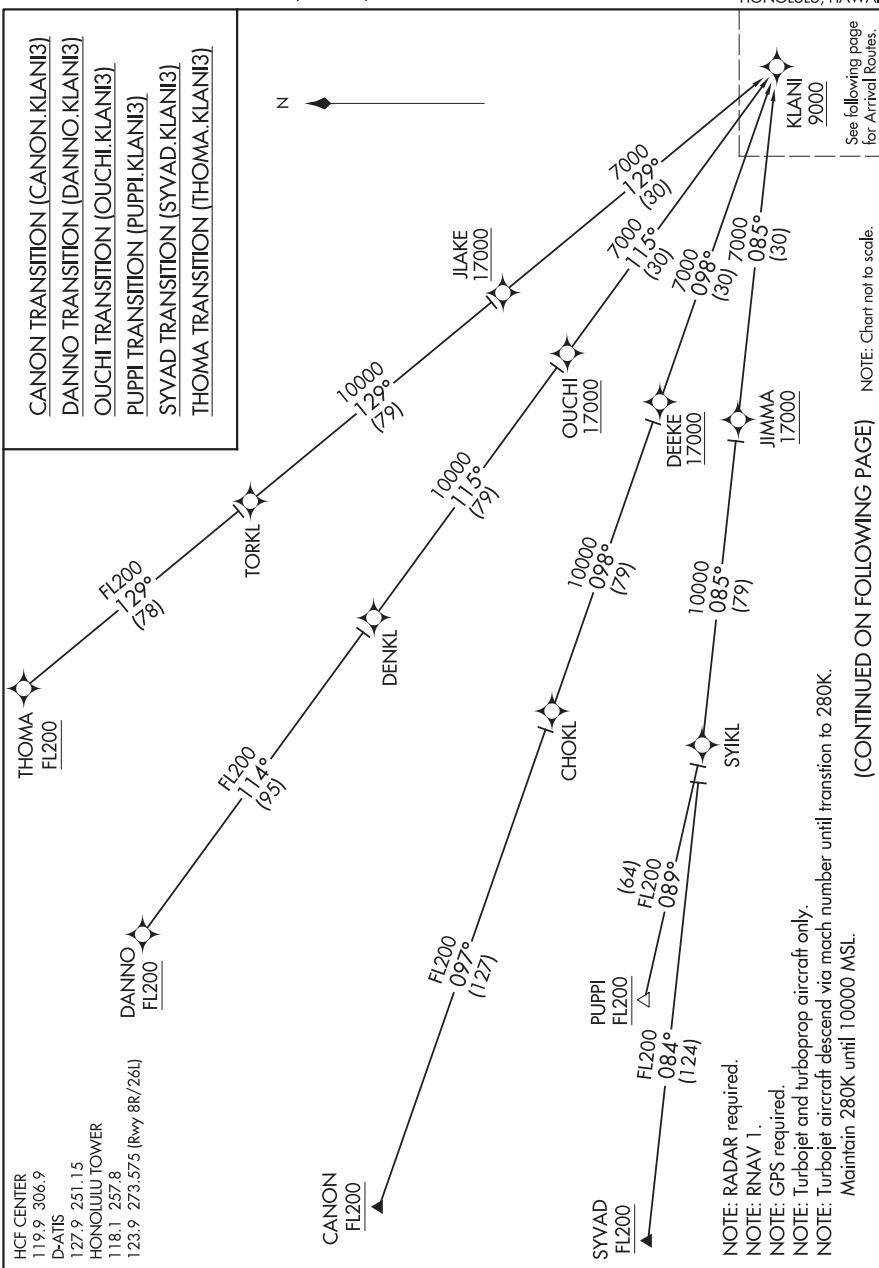
KAILUA-KONA, HAWAII  
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

## TERMINAL PROCEDURES

(KLANI.KLANI3) 20030

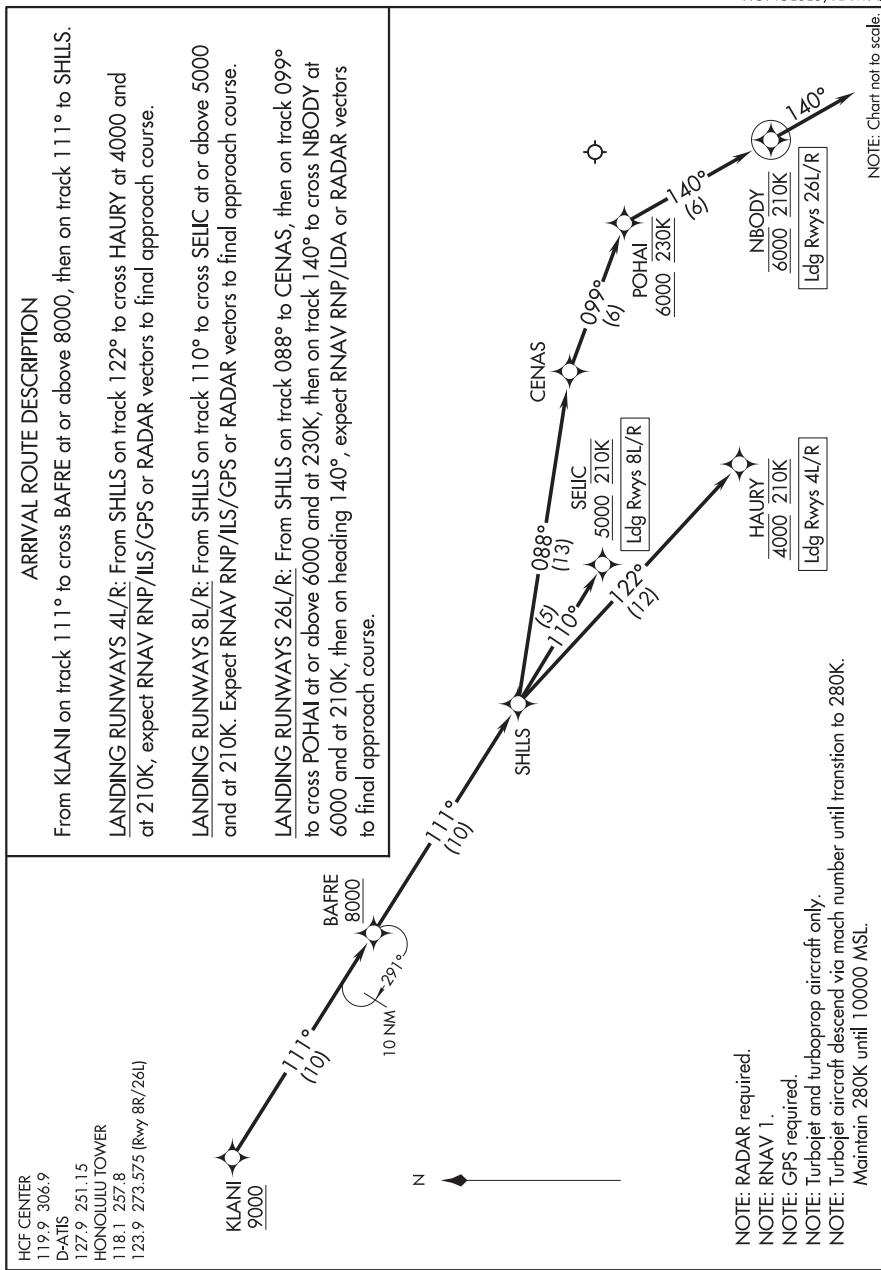
AL-754 (FAA) DANIEL K INOUYE INTL (HNL) (PHNL)  
KLANI THREE ARRIVAL (RNAV) Transition Routes

HONOLULU, HAWAII

KLANI THREE ARRIVAL (RNAV) Transition Routes  
(KLANI.KLANI3) 30JAN20HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(KLANI.KLANI3) 20030

## KLANI THREE ARRIVAL (RNAV) Arrival Routes

AL-754 (FAA) DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

KLANI THREE ARRIVAL (RNAV) Arrival Routes

(KLANI.KLANI3) 30JAN20

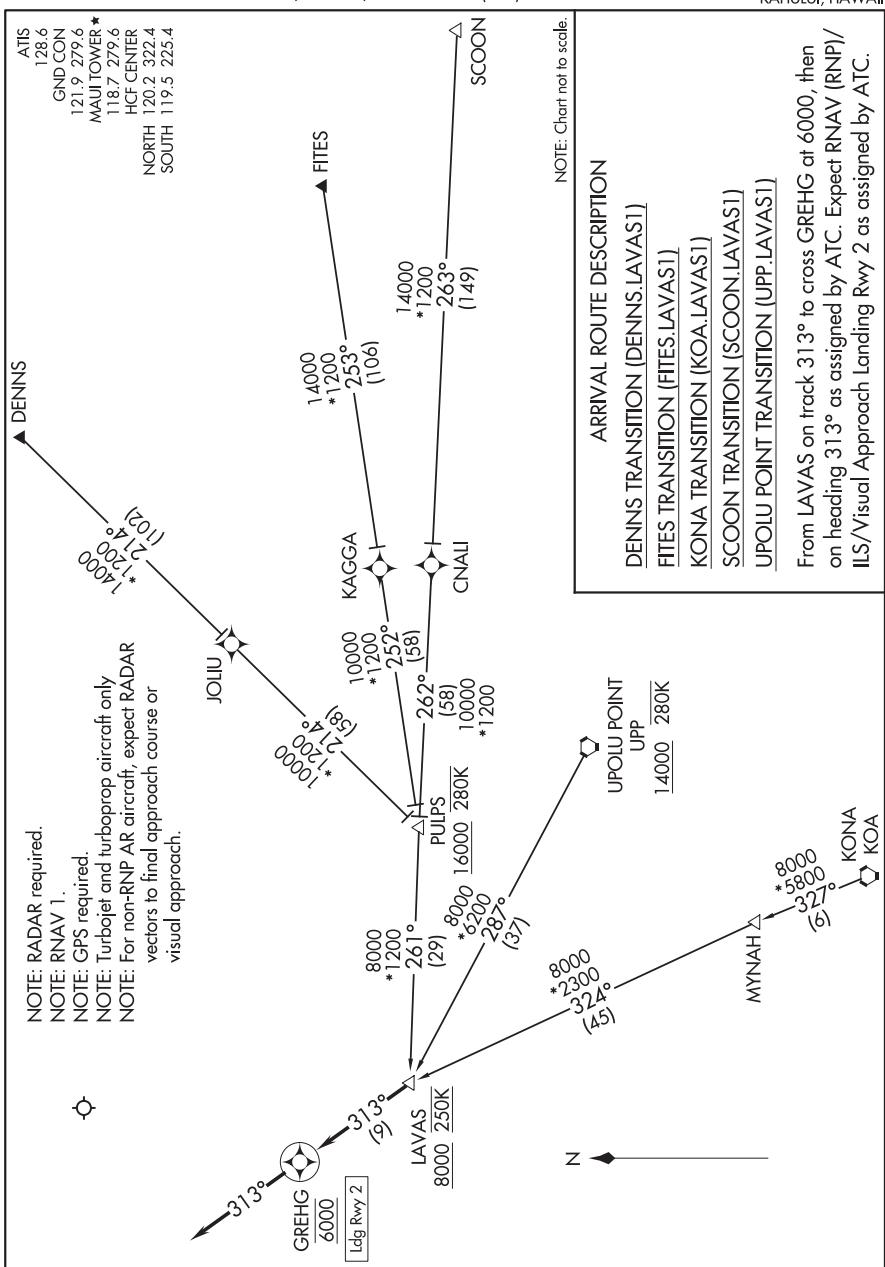
HONOLULU, HAWAII

DANIEL K INOUYE INTL (HNL) (PHNL)

(LAVAS.LAVAS1) 19171

## LAVAS ONE ARRIVAL (RNAV)

AL-762 (FAA)

KAHULUI (OGG) (PHOG)  
KAHULUI, HAWAIILAVAS ONE ARRIVAL (RNAV)  
(LAVAS.LAVAS1) 20JUN19KAHULUI, HAWAII  
KAHULUI (OGG) (PHOG)

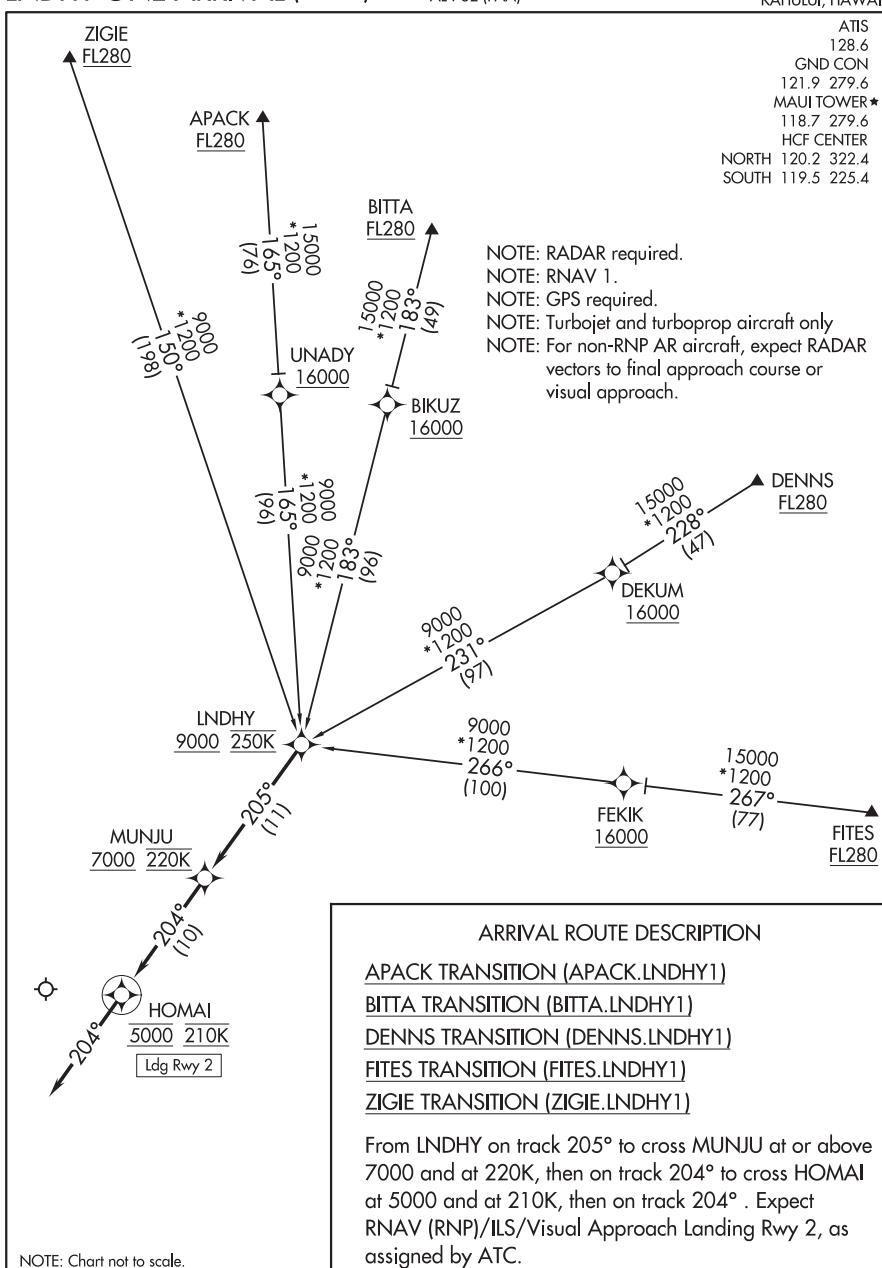
(LNDHY.LNDHY1) 19171

## LNDHY ONE ARRIVAL (RNAV)

AL-762 (FAA)

KAHULUI (OGG) (PHOG)

KAHULUI, HAWAII



LNDHY ONE ARRIVAL (RNAV)

(LNDHY.LNDHY1) 20JUN19

KAHULUI, HAWAII

KAHULUI (OGG) (PHOG)

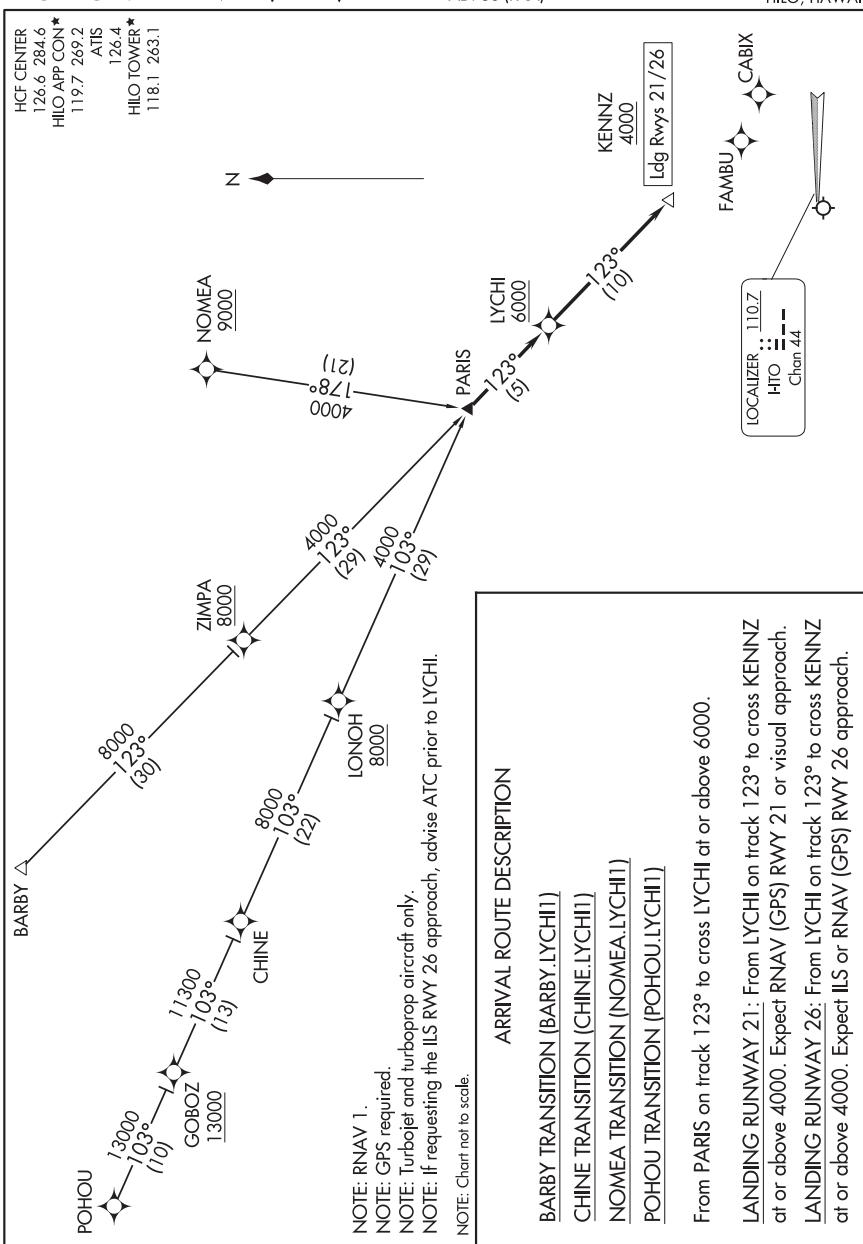
(PARIS.LYCH11) 24025

## LYCHI ONE ARRIVAL (RNAV)

AL-756 (FAA)

HILO INTL (ITO)(PHTO)

HILO, HAWAII



LYCHI ONE ARRIVAL (RNAV)

(PARIS.LYCH11) 25FEB21

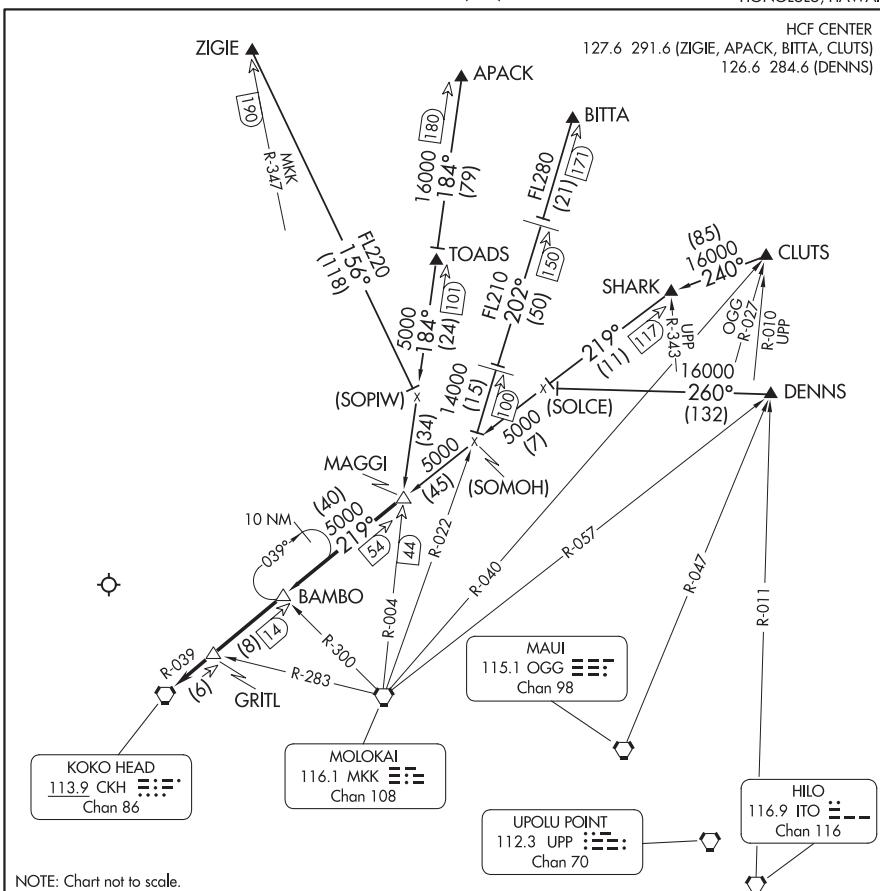
HILO, HAWAII

HILO INTL (ITO)(PHTO)

(MAGGI.MAGGI3) 23334

**MAGGI THREE ARRIVAL**

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII**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.

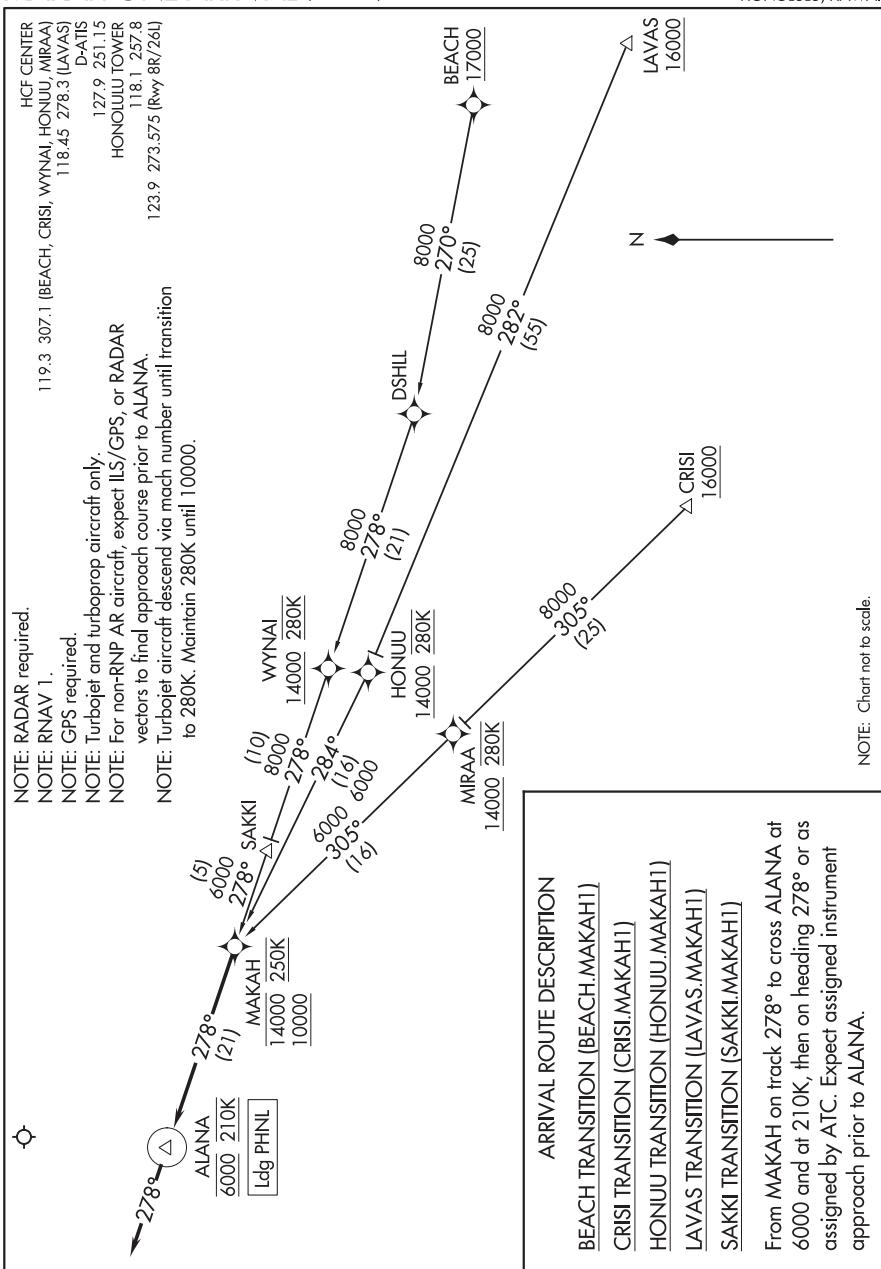
**MAGGI THREE ARRIVAL**  
(MAGGI.MAGGI3) 09SEP99

HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(MAKAH.MAKAH1) 21112

MAKAH ONE ARRIVAL (RNAV)

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

MAKAH ONE ARRIVAL (RNAV)

(MAKAH.MAKAH1) 30JAN20

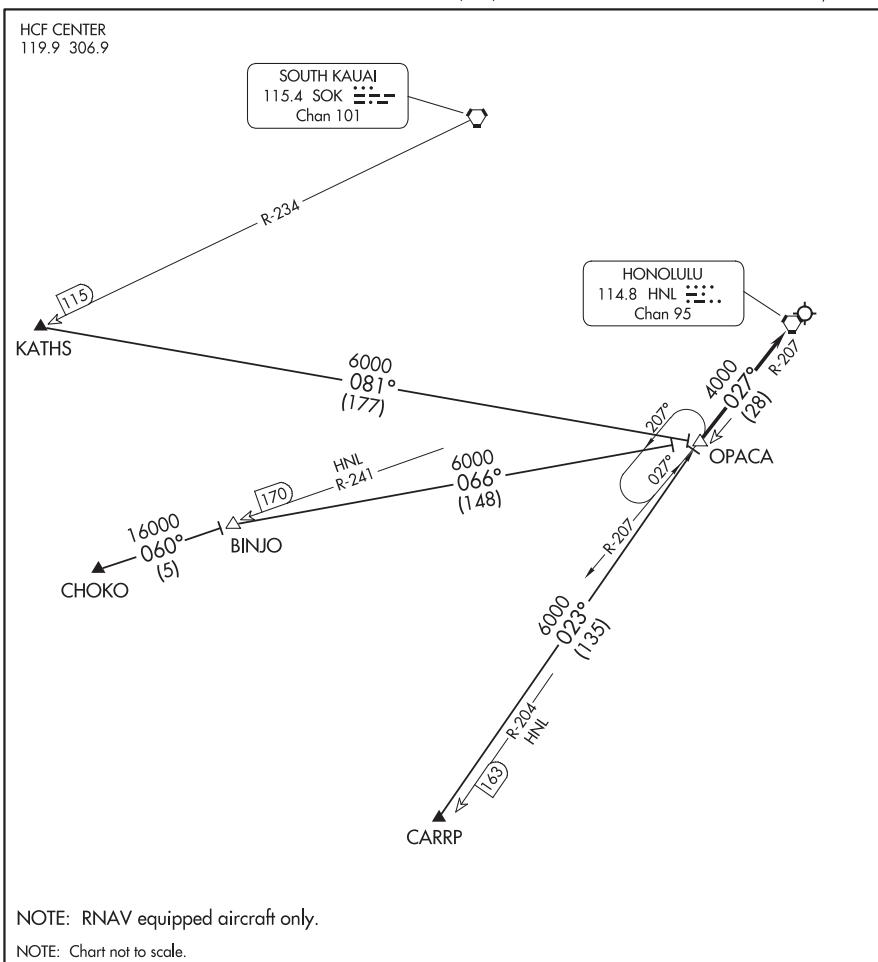
HONOLULU, HAWAII

DANIEL K INOUYE INTL (HNL) (PHNL)

(OPACA.OPACA4) 23334

**OPACA FOUR ARRIVAL**

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII**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.

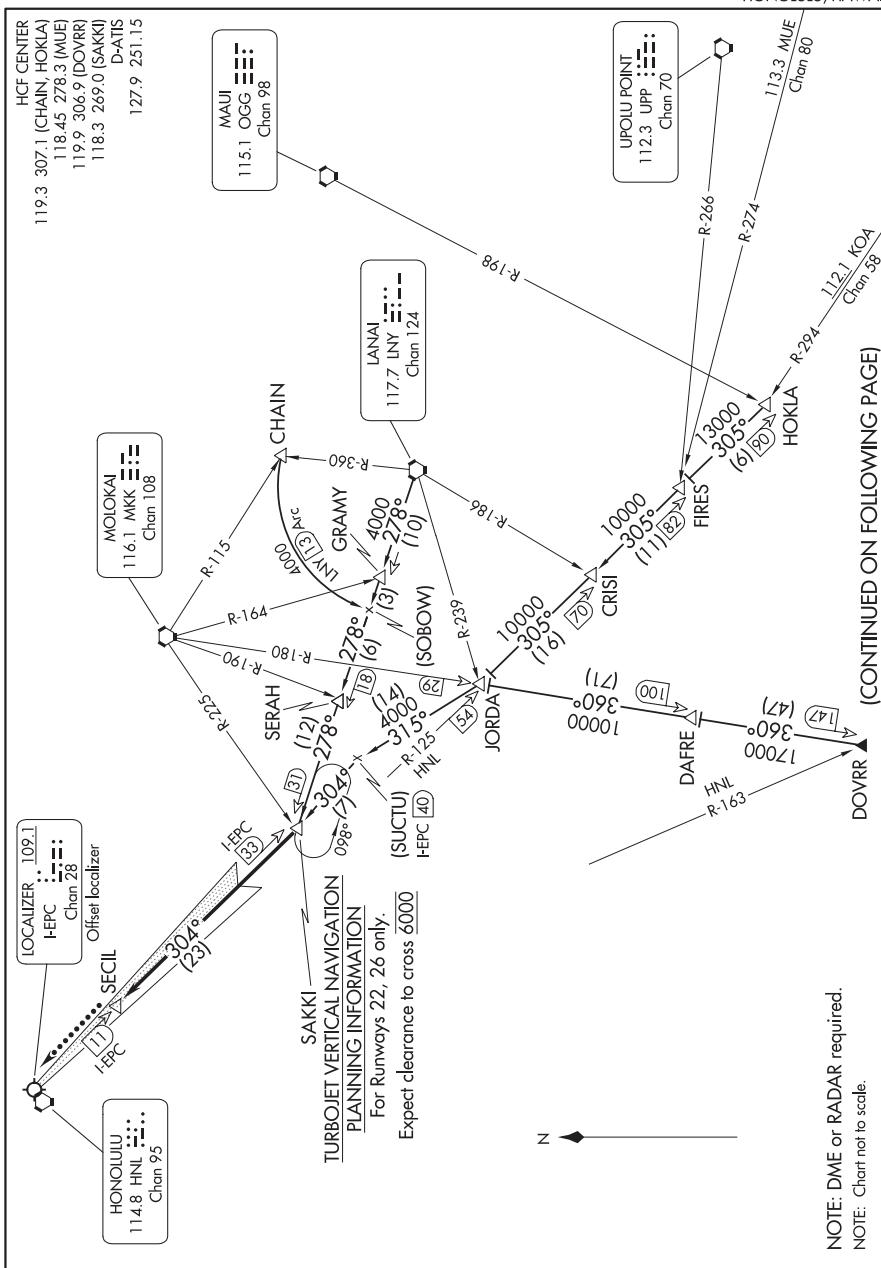
**OPACA FOUR ARRIVAL**  
(OPACA.OPACA4) 06JAN94

HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(SAKKI.SAKK15) 23334

## SAKKI FIVE ARRIVAL

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAIISAKKI FIVE ARRIVAL  
(SAKKI.SAKK15) 25AUG11HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(SAKKI.SAKKI5) 17117  
SAKKI FIVE ARRIVAL

AI-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

## 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.

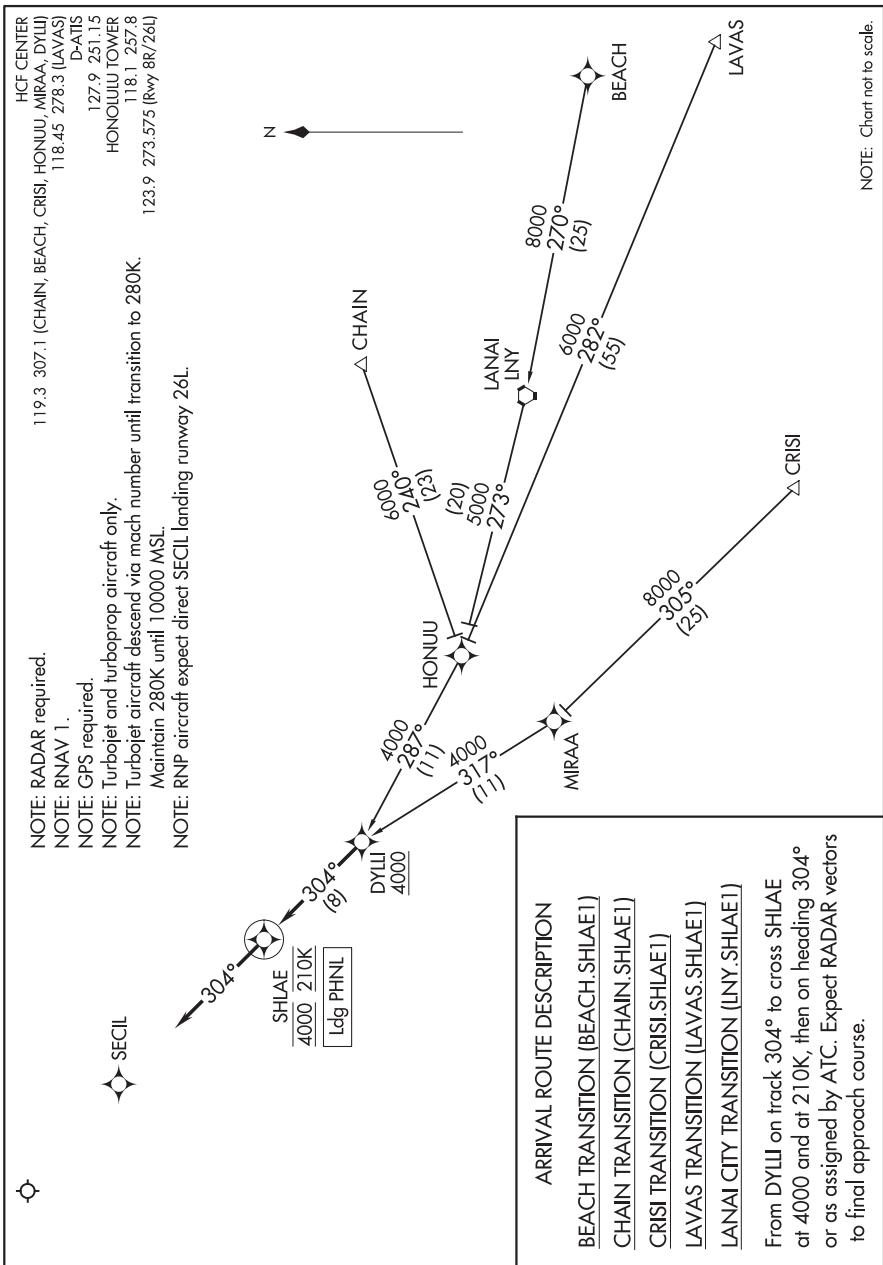
SAKKI FIVE ARRIVAL  
(SAKKI.SAKKI5) 25AUG11

HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(DYLLI.SHLAE1) 21112

## SHLAE ONE ARRIVAL (RNAV)

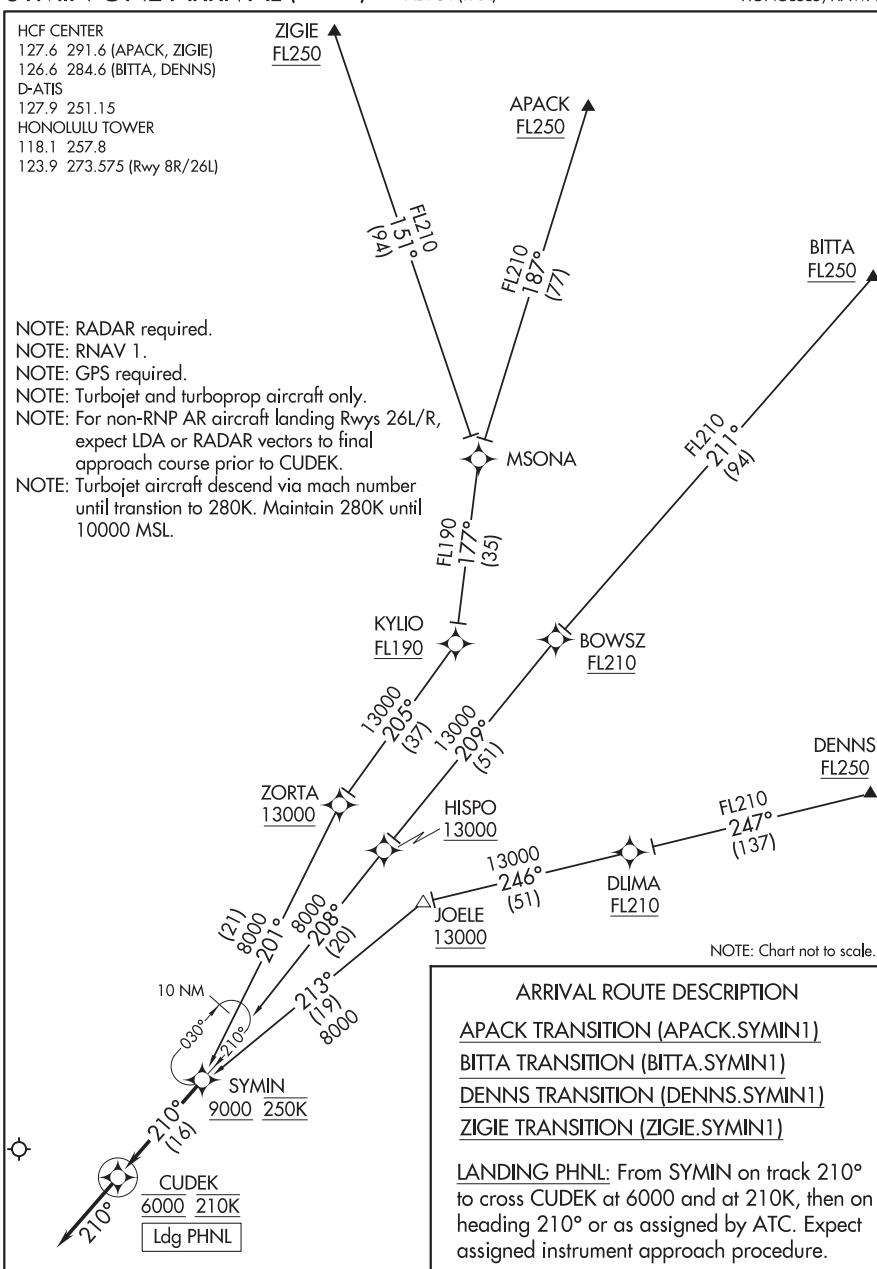
AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAIISHLAE ONE ARRIVAL (RNAV)  
(DYLLI.SHLAE1) 30JAN20HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(SYMIN.SYMIN1) 20030

## SYMIN ONE ARRIVAL (RNAV)

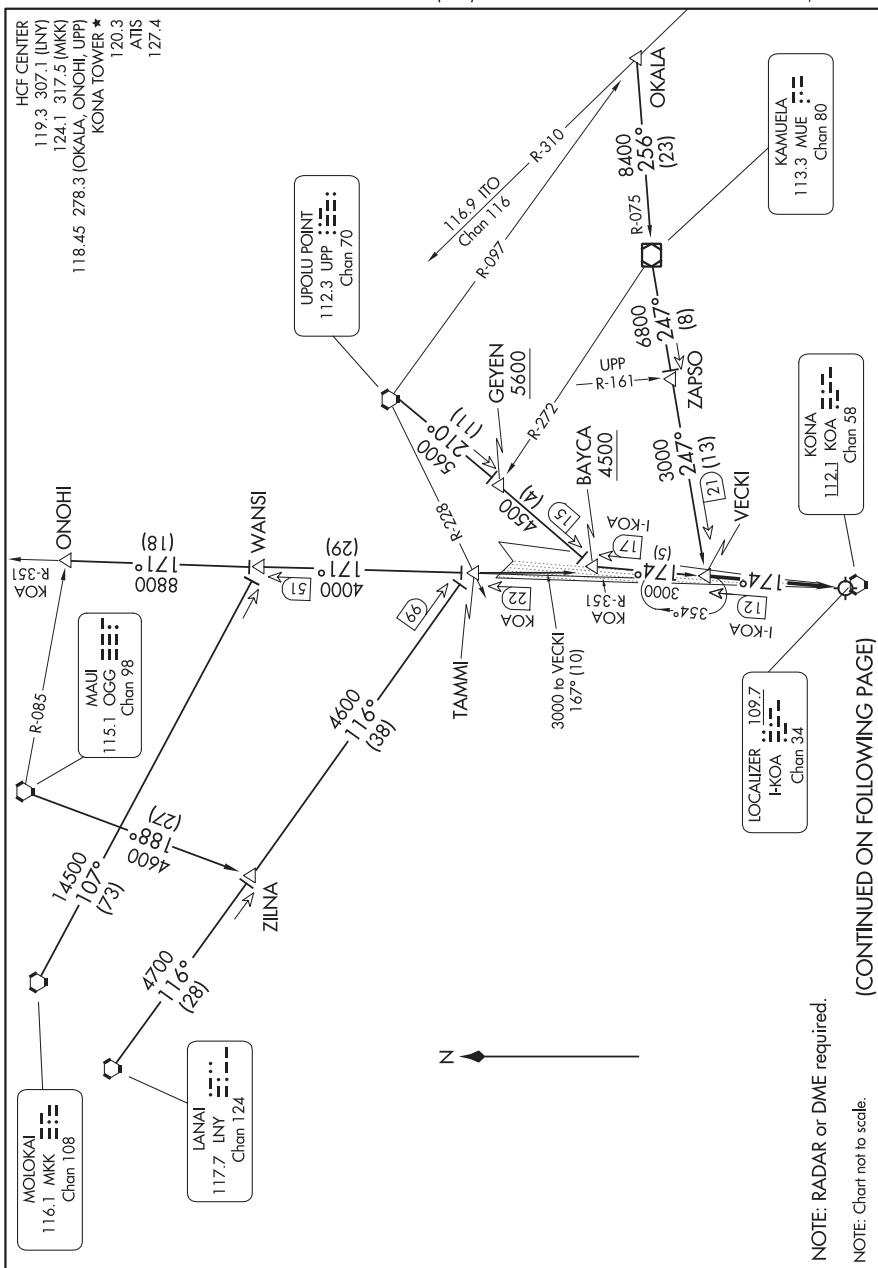
AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

(VECKI.VECKI9) 24025  
VECKI NINE ARRIVAL

ELLISON ONIZUKA KONA INTL AT KEAHOLE(KOA)(PHKO)  
AL-5761 (FAA)

KAILUA-KONA, HAWAII



VECKI NINE ARRIVAL  
(VECKI.VECKI9) 07DEC17

KAILUA-KONA, HAWAII  
ELLISON ONIZUKA KONA INTL AT KEAHOLE(KOA)(PHKO)

[CONTINUED ON FOLLOWING PAGE]

NOTE: RADAR or DME required.

NOTE: Chart not to scale.

(VECKI.VECKI9) 17341  
VECKI NINE ARRIVAL

ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA)(PHKO)  
AL-5761 (FAA)  
KAILUA-KONA, HAWAII

#### ARRIVAL ROUTE DESCRIPTION

LANAI TRANSITION (LNY.VECKI9): From over LNY VORTAC on LNY R-116 to TAMMI , then on heading 167° to VECKI . Thence . . . .

MAUI TRANSITION (OGG.VECKI9): From over OGG VORTAC on OGG R-188 to ZILNA , then on LNY R-116 to TAMMI , then on heading 167° to VECKI .  
Thence . . . .

MOLOKAI TRANSITION (MKK.VECKI9): From over MKK VORTAC on MKK R-107 to WANSI , then on KOA R-351 to TAMMI , then on heading 167° to VECKI .  
Thence . . . .

OKALA TRANSITION (OKALA.VECKI9): From over OKALA on MUE VOR/DME R-075 to MUE VOR/DME, then on MUE R-247 to VECKI . Thence . . . .

ONOHI TRANSITION (ONOHI.VECKI9): From over ONOHI on KOA R-351 to TAMMI , then on heading 167° to VECKI . Thence . . . .

UPOLU POINT TRANSITION (UPP.VECKI9): From over UPP VORTAC on UPP R-210 to BAYCA , then on I-KOA 174° course to VECKI . Thence . . . .

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

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

VECKI NINE ARRIVAL  
(VECKI.VECKI9) 07DEC17

KAILUA-KONA, HAWAII  
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA)(PHKO)

**INTENTIONALLY  
LEFT  
BLANK**

# TERMINAL PROCEDURES

1

YIGO, GUAM I, GUAM

23110

## HI-ILS Y or LOC/DME Y RWY 06L

|                           |                         |                                                                  |                |                     |
|---------------------------|-------------------------|------------------------------------------------------------------|----------------|---------------------|
| LOC I-AND<br><b>109.3</b> | APCH CRS<br><b>064°</b> | Rwy Idg <b>10,528</b><br>TDZE <b>539</b><br>Arpt Elev <b>617</b> | AL-2147 [USAF] | ANDERSEN AFB (PGUA) |
|---------------------------|-------------------------|------------------------------------------------------------------|----------------|---------------------|

ATC RADAR monitoring required.

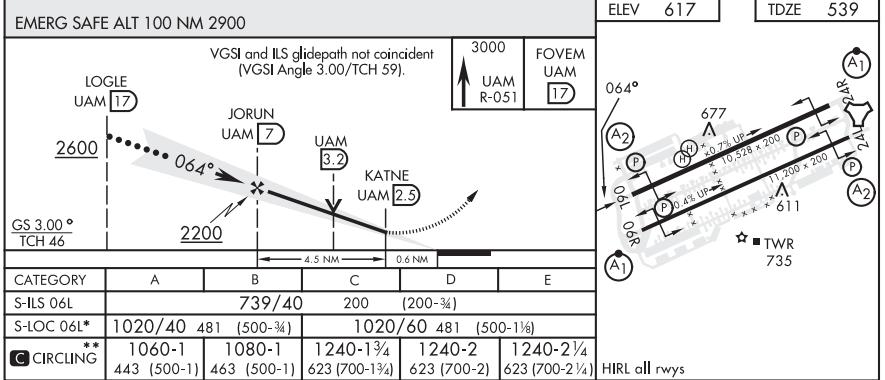
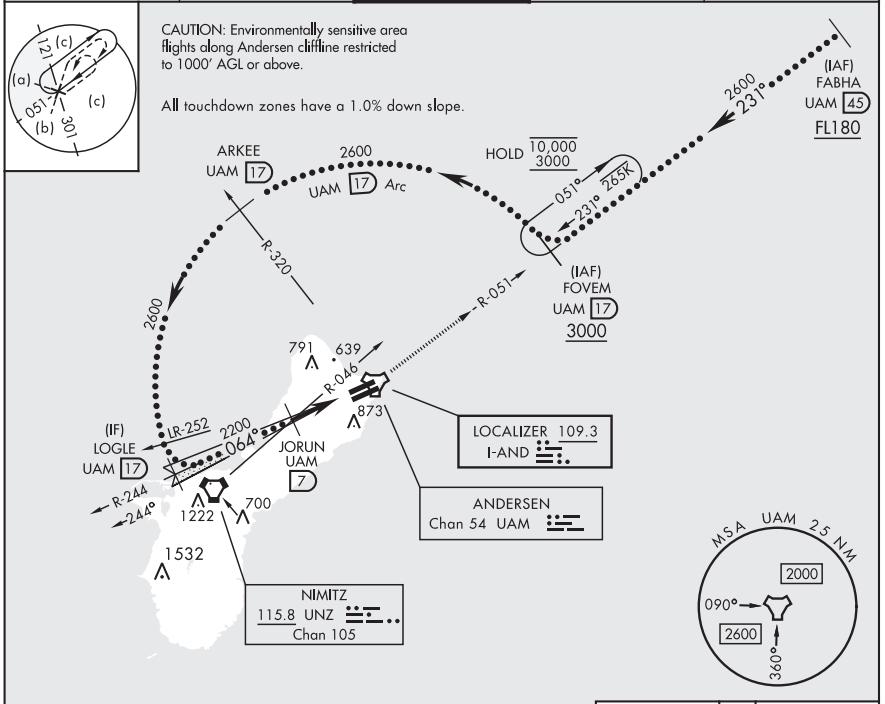
▼ \* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CDE vis to 1½ miles.  
\*\* Circling not authorized NW of Rwy 06L-24R.

SALS



MISSIED APPROACH: Climb to 3000, intercept UAM R-051 to FOVEM and hold.

|                                |                                    |                             |                               |                                  |
|--------------------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------------|
| ATIS<br><b>118.175 254.325</b> | GUAM APP CON<br><b>119.8 269.0</b> | TOWER<br><b>126.2 233.7</b> | GND CON<br><b>121.7 275.8</b> | CLNC DEL<br><b>126.725 256.7</b> |
|--------------------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------------|

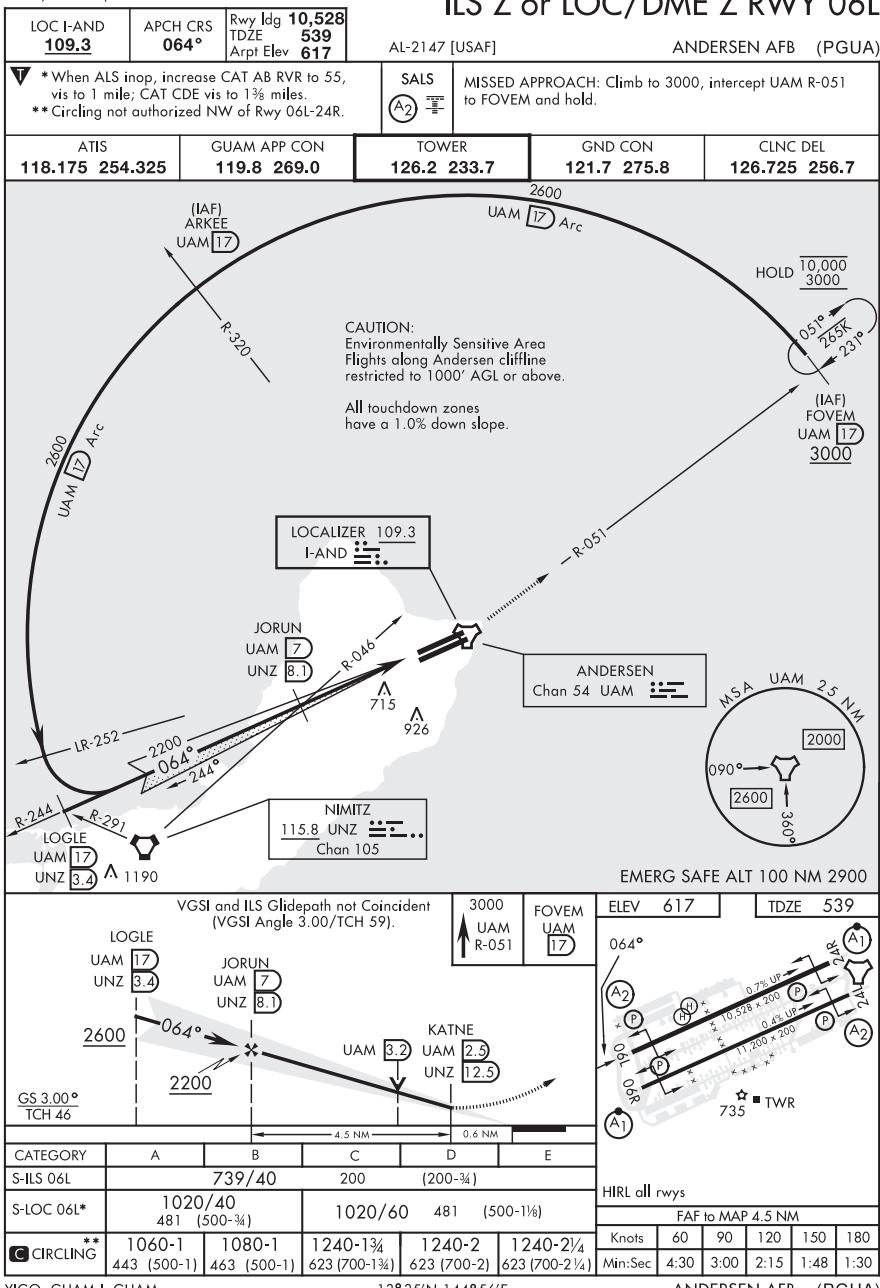


## HI-ILS Y or LOC/DME Y RWY 06L

## TERMINAL PROCEDURES

23110

YIGO, GUAM I, GUAM



YIGO, GUAM I, GUAM

Amrdt 1 08SEP22  
TERPS

13°35'N-144°56'E

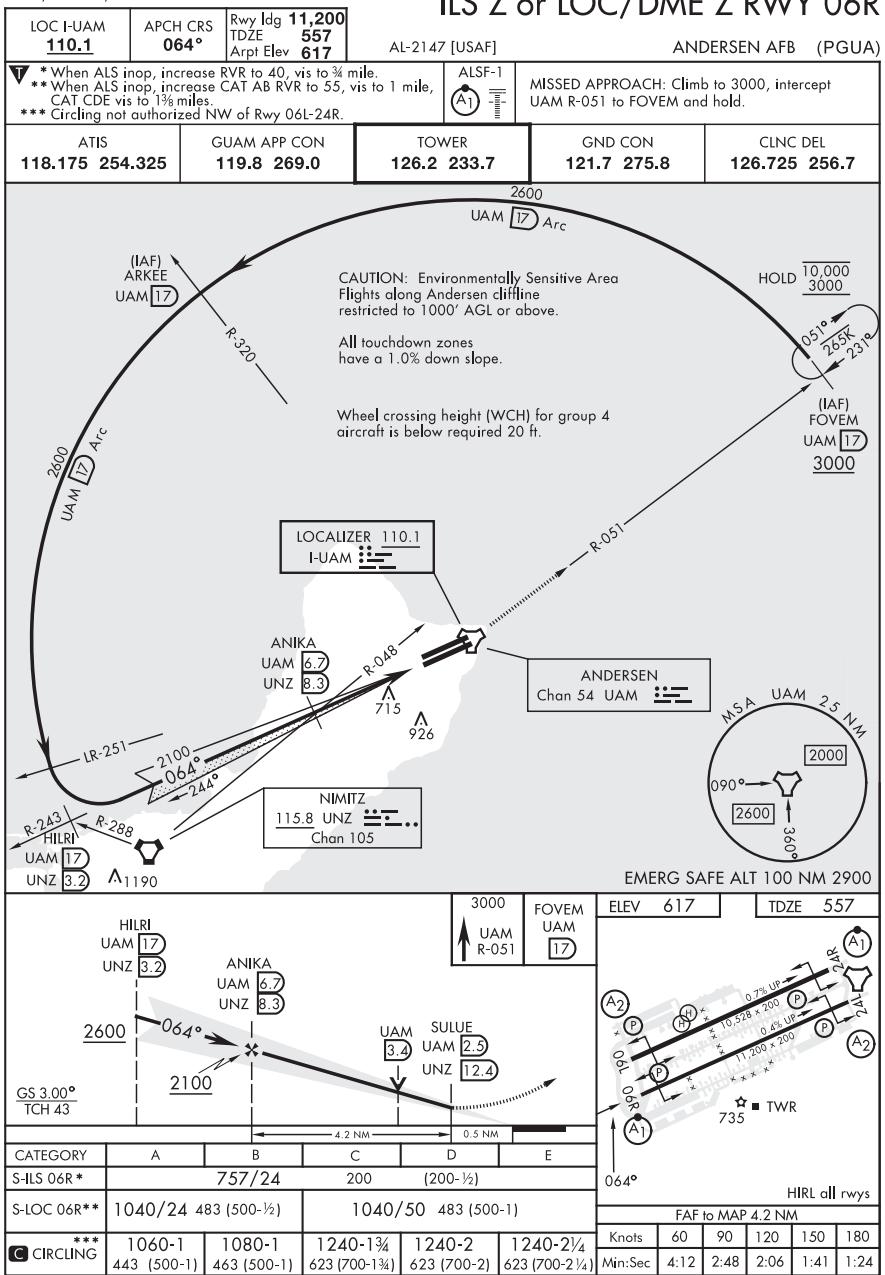
ANDERSEN AFB (PGUA)

**ILS Z or LOC/DME Z RWY 06L**

YIGO, GUAM I, GUAM

23110

## ILS Z or LOC/DME Z RWY 06R



YIGO, GUAM I, GUAM

13°35'N-144°56'E

Amdt 1 08SEP22  
TERPS

## TERMINAL PROCEDURES

23110

YIGO, GUAM I, GUAM

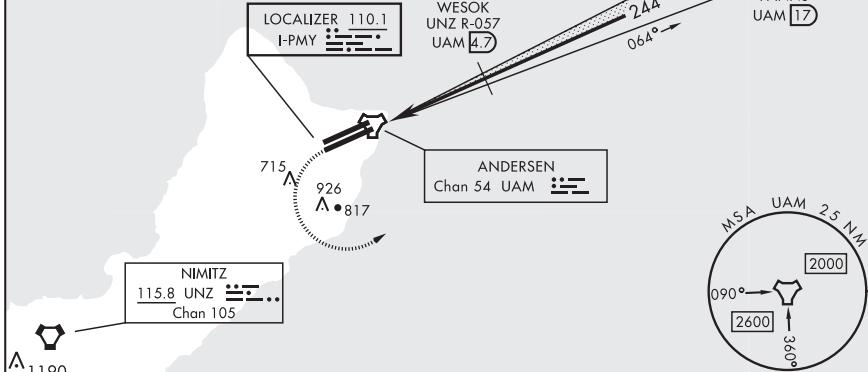
|                                                                                                                                                                                                                                |                                    |                                                                  |                               |                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------------------------------|-------------------------------|-----------------------------------|
| LOC I-PMY<br><b>110.1</b>                                                                                                                                                                                                      | APCH CRS<br><b>244°</b>            | Rwy Idg <b>11,200</b><br>TDZE <b>607</b><br>Aptl Elev <b>617</b> | AL-2147 [USAF]                | ANDERSEN AFB (PGUA)               |
| <b>T</b> * When ALS inop, increase RVR to 45, vis to $\frac{7}{8}$ mile.<br>** When ALS inop, increase CAT AB RVR to 55, vis to 1 mile;<br>CAT CDE RVR to 50, vis to 1 mile.<br>*** Circling not authorized NW of Rwy 06L-24R. |                                    |                                                                  |                               | SALS<br>(A2)                      |
| ATIS<br><b>118.175 254.325</b>                                                                                                                                                                                                 | GUAM APP CON<br><b>119.8 269.0</b> | TOWER<br><b>126.2 233.7</b>                                      | GND CON<br><b>121.7 275.8</b> | CINCL DEL<br><b>126.725 256.7</b> |

CAUTION: GS unusable below 900' MSL/300' AGL due to runway supervisory unit.

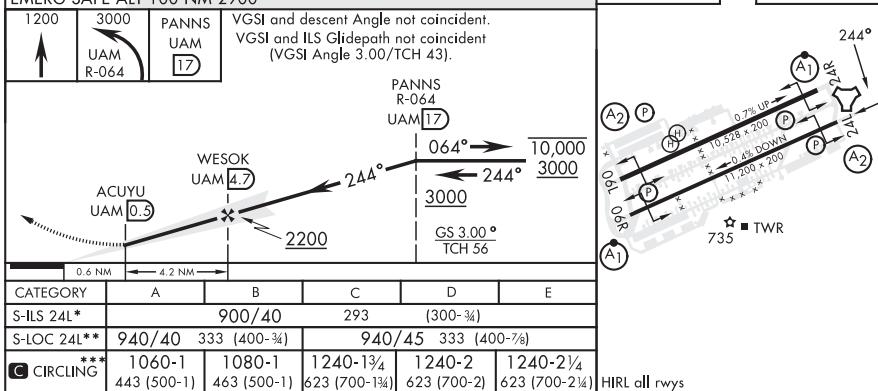
CAUTION: Environmentally Sensitive Area  
Flights along Andersen cliffline restricted to 1000' AGL or above.

All touchdown zones have a 1.0% down slope.

HOLD  $\frac{10,000}{3000}$   
 $064^{\circ}$   $244^{\circ}$   $255^{\circ}$  R-06A



EMERG SAFE ALT 100 NM 2900



YIGO, GUAM I, GUAM

13° 35'N-144° 56'E

ANDERSEN AFB (PGUA)

Orig 12AUG21  
TERPS

ILS Z or LOC/DME Z RWY 24L

23110

YIGO, GUAM I, GUAM

|                           |                         |                                                                  |
|---------------------------|-------------------------|------------------------------------------------------------------|
| LOC I-YIG<br><b>109.3</b> | APCH CRS<br><b>244°</b> | Rwy Idg <b>10,528</b><br>TDZE <b>617</b><br>Arpt Elev <b>617</b> |
|---------------------------|-------------------------|------------------------------------------------------------------|

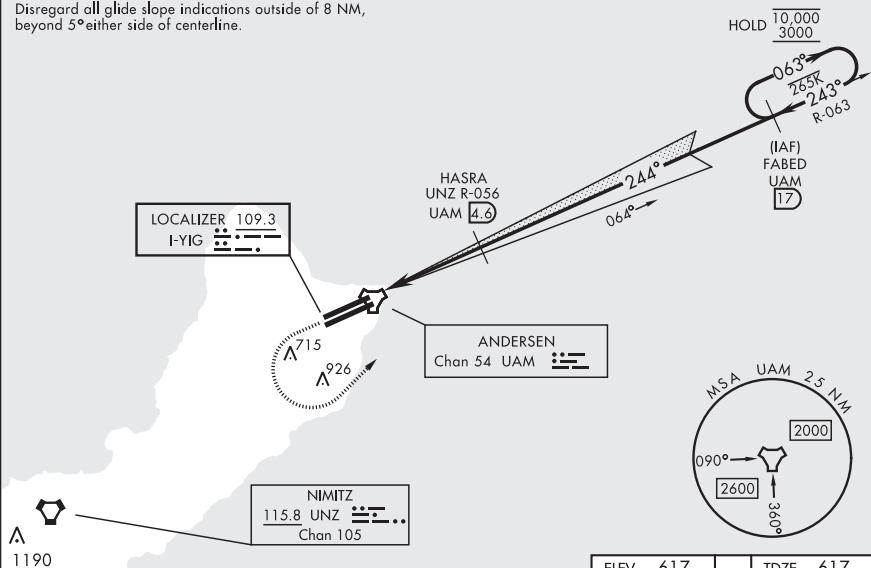
AL-2147 [USAF]

ANDERSEN AFB (PGUA)

▼ \* When ALS inop, increase RVR to 40, vis to  $\frac{3}{4}$  mile.  
 \*\* When ALS inop, increase RVR to 55, vis to 1 mile.  
 \*\*\* Circling not authorized NW of Rwy 06L-24R.



MISSIED APPROACH: Climb to 1100, then climbing left turn to 3000 to intercept UAM R-063 direct FABED and hold.

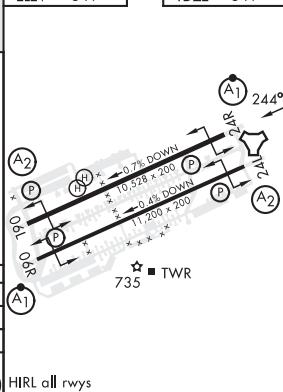
ATIS  
**118.175 254.325**GUAM APP CON  
**119.8 269.0**TOWER  
**126.2 233.7**GND CON  
**121.7 275.8**CLNC DEL  
**126.725 256.7**CAUTION: Environmentally Sensitive Area  
Flights along Andersen cliffline  
restricted to 1000' AGL or above.All touchdown zones  
have a 1.0% down slope.Disregard all glide slope indications outside of 8 NM,  
beyond 5° either side of centerline.

1190

EMERG SAFE ALT 100 NM 2900

|               |                        |                        |
|---------------|------------------------|------------------------|
| 1100          | 3000                   | FABED UAM 17           |
| UAM R-063     |                        |                        |
| INIME UAM 0.5 |                        |                        |
| HASRA UAM 4.6 |                        |                        |
| 0.7 NM        | 4.1 NM                 |                        |
| CATEGORY      | A                      | B                      |
| S-ILS 24R*    | 817/24                 | 200 (200-½)            |
| S-LOC 24R**   | 940/24 323 (400-½)     | 940/26 323 (400-½)     |
| C CIRCLING    | 1060-1 443 (500-1)     | 1080-1 463 (500-1)     |
|               | 1240-1½ 623 (700-1½)   | 1240-2 623 (700-2)     |
|               | 1240-2 ½ 623 (700-2 ½) | 1240-2 ½ 623 (700-2 ½) |

ELEV 617 TDZE 617



YIGO, GUAM I, GUAM

Orig 12AUG21  
TERPS

13° 35'N-144° 56'E

ANDERSEN AFB (PGUA)

ILS Z or LOC/DME Z RWY 24R

## TERMINAL PROCEDURES

23110

YIGO, GUAM I, GUAM

|                  |                          |
|------------------|--------------------------|
| APCH CRS<br>064° | Rwy Idg<br><b>10,528</b> |
| TDZE<br>539      | Arpt Elev<br><b>617</b>  |
|                  |                          |

AL-2147 (USAF)

**RNAV (GPS) RWY 06L**

ANDERSEN AFB (PGUA)

RNP APCH

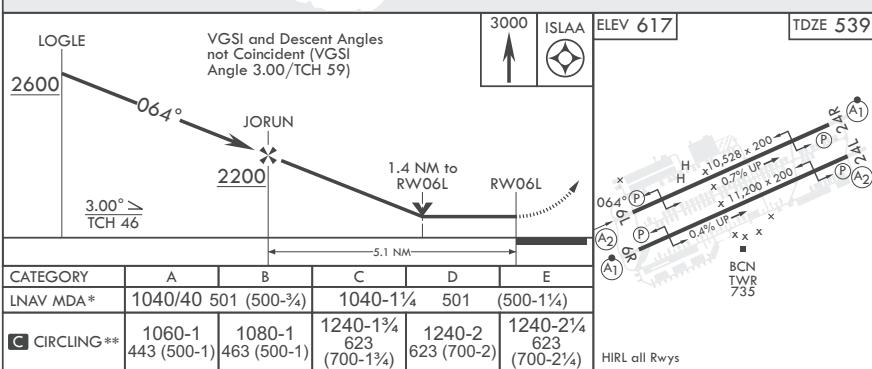
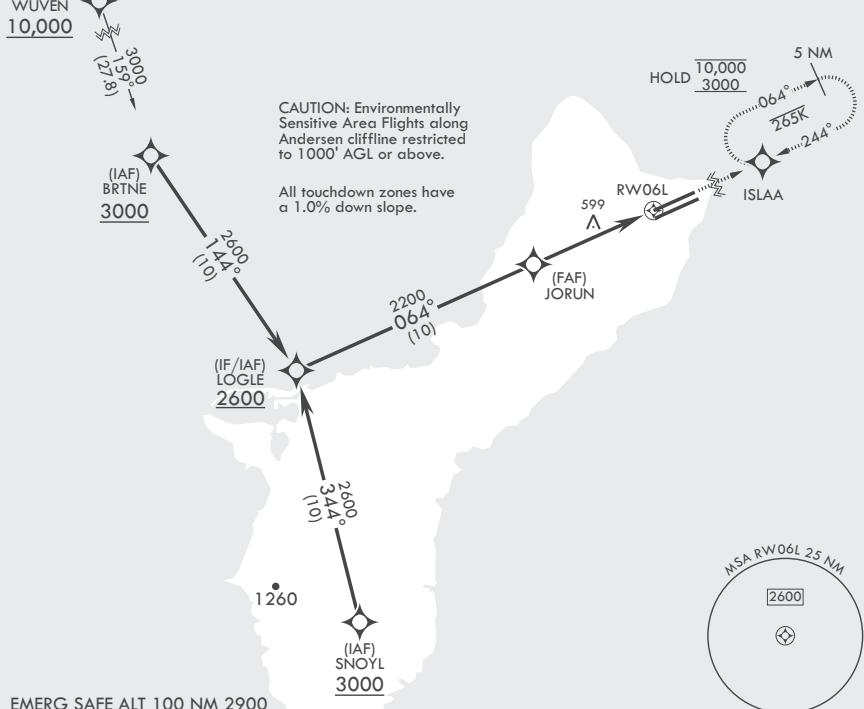
▼ \* When ALS inop increase CAT AB RVR to 55, vis to 1 mile; CAT CDE vis to 1 3/8 miles.  
 \*\* Circling not authorized NW of Rwy 06L-24R. Circling not authorized to Rwy 06L and 24R.



MISSSED APPROACH: Climb to 3000 direct ISLAA and hold.

ATIS  
118.175 254.325GUAM APP CON/DEP CON  
119.8 269.0TOWER  
126.2 233.7GND CON  
121.7 275.8CLNC DEL  
126.725 256.7WUVEN  
10,000

DME/DME RNP-0.3 NA.



YIGO, GUAM I, GUAM

13°35'N - 144°56'E

ANDERSEN AFB (PGUA)

Amdt 1 17JUN21  
TERPS**RNAV (GPS) RWY 06L**

YIGO, GUAM I, GUAM

|                  |                   |
|------------------|-------------------|
| APCH CRS<br>064° | Rwy Idg<br>11,200 |
| TDZE             | 557               |
| Apt Elev         | 617               |

AL-2147 (USAF)

23110

## RNAV (GPS) RWY 06R

ANDERSEN AFB (PGUA)

RNP APCH

▼ \* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile; CAT CDE vis to 1 3/8 miles.  
 \*\* Circling not authorized NW of Rwy 6L-24R.



MISSSED APPROACH: Climb to 3000  
 direct OSKKR and hold.

ATIS  
118.175 254.325

GUAM APP CON/DEP CON  
119.8 269.0

TOWER  
126.2 233.7

GND CON  
121.7 275.8

CINCL DEL  
126.725 256.7

WUVEN  
10,000

DME/DME RNP-0.3 NA.

(IAF)  
BRTNE  
3000

CAUTION: Environmentally  
 Sensitive Area Flights along  
 Andersen cliffline restricted  
 to 1000' AGL or above.

All touchdown zones have  
 a 1.0% down slope.

(IF/IAF)  
HILRI  
2700

1260

(IAF)  
SNOYL  
3000

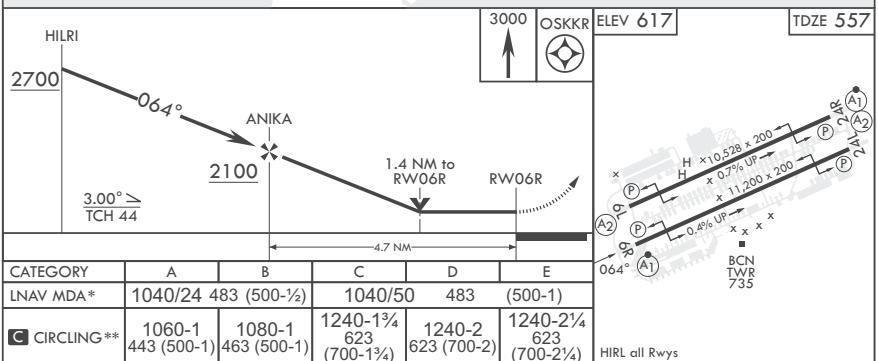
HOLD  
10,000  
3000

5 NM

MSA RW06R 25 NM

2600

EMERG SAFE ALT 100 NM 2900



YIGO, GUAM I, GUAM

13°35'N - 144°56'E

ANDERSEN AFB (PGUA)

Amdt 1 17JUN21

TERPS

RNAV (GPS) RWY 06R

## TERMINAL PROCEDURES

23110

YIGO, GUAM I, GUAM

|                  |                                             |
|------------------|---------------------------------------------|
| APCH CRS<br>244° | Rwy Idg 11,200<br>TDZE 607<br>Arpt Elev 617 |
|------------------|---------------------------------------------|

AL-2147 (USAF)

## RNAV (GPS) RWY 24L

ANDERSEN AFB (PGUA)

RNP APCH

▽ \* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile; CAT CDE RVR to 50, vis to 1 mile.  
 \*\* Circling not authorized NW of Rwy 06L-24R.



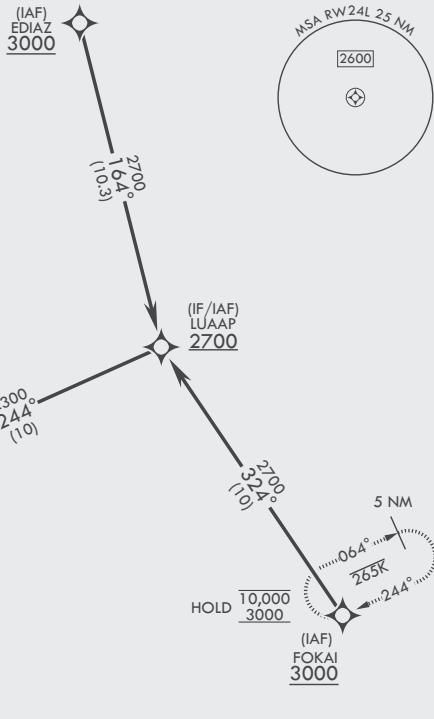
MISSED APPROACH: Climb to 1200, then climbing left turn to 3000 direct FOKAI and hold.

ATIS  
118.175 254.325GUAM APP CON/DEP CON  
119.8 269.0TOWER  
126.2 233.7GND CON  
121.7 275.8CLNC DEL  
126.725 256.7

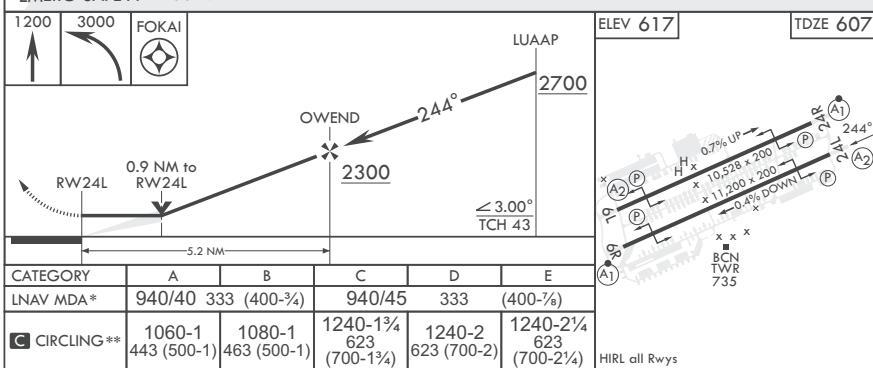
DME/DME RNP - 0.3 NA.

CAUTION: Environmentally Sensitive Area Flights along Andersen cliffline restricted to 1000' AGL or above.

All touchdown zones have a 1.0% down slope.



EMERG SAFE ALT 100 NM 2900



YIGO, GUAM I, GUAM

13°35'N - 144°56'E

ANDERSEN AFB (PGUA)

Amdt 1 17JUN21  
TERPS

## RNAV (GPS) RWY 24L

YIGO, GUAM I, GUAM

|                  |                          |
|------------------|--------------------------|
| APCH CRS<br>244° | Rwy Idg<br><b>10,528</b> |
| TDZE             | <b>617</b>               |
| Apt Elev         | <b>617</b>               |

AL-2147 (USAF)

**RNAV (GPS) RWY 24R**

23110

ANDERSEN AFB (PGUA)

RNP APCH

▼ \* When ALS inop, increase RVR to 55, vis to 1 mile.  
\*\* Circling not authorized NW of Rwy 06L-24R.

ALSF-1



MISSSED APPROACH: Climb to 1200, then climbing left turn to 3000 direct FOKAI and hold.

ATIS  
**118.175 254.325**GUAM APP CON/DEP CON  
**119.8 269.0**

TOWER

**126.2 233.7**

GND CON

**121.7 275.8**

CLNC DEL

**126.725 256.7**

DME/DME RNP - 0.3 NM.

CAUTION: Environmentally Sensitive Area Flights along Andersen cliffline restricted to 1000' AGL or above.

All touchdown zones have a 1.0% down slope.

(IAF)  
EDIAZ  
**3000**2700  
167°  
(0.1)2200°  
244°  
(10)(IF/IAF)  
ROUDY  
**2700**HOLD  
10,000  
30002700  
222°  
(0.2)MSA RW24R 25 NM  
**2600**(IAF)  
FOKAI  
**3000**

EMERG SAFE ALT 100 NM 2900



ELEV 617

TDZE 617

ROUDY  
**2700**2.00°  
TCH 59JWILL  
2200

244°

RW24R 1 NM to RW24R

4.8 NM

CATEGORY A B C D E

LNAV MDA\*

960/24 343 (400-½)

1060-1 443 (500-1)

RW24R 1 NM to RW24R

4.8 NM

CATEGORY A B C D E

LNAV MDA\*

960/30 343 (400-½)

1240-1 623 (700-1)

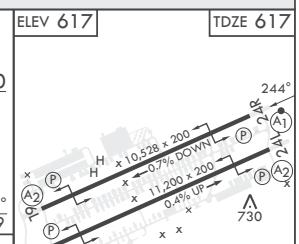
ROUDY  
**2700**2.00°  
TCH 59

CATEGORY A B C D E

LNAV MDA\*

1240-2 623 (700-2)

1240-2 1/4 623 (700-2 1/4)

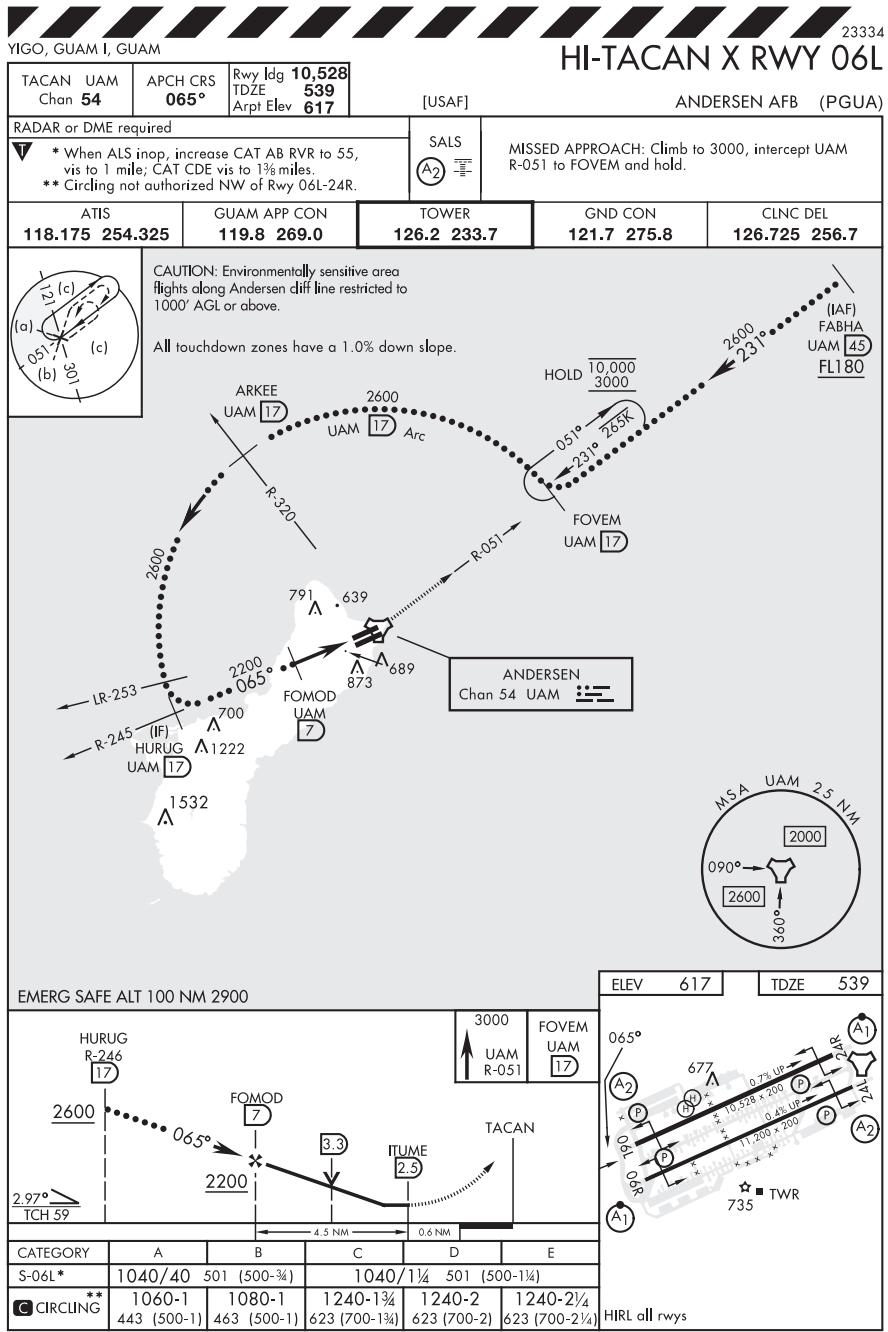


YIGO, GUAM I, GUAM

13°35'N - 144°56'E

ANDERSEN AFB (PGUA)

Amdt 1 17JUN21  
TERPS**RNAV (GPS) RWY 24R**



YIGO, GUAM I, GUAM

13°35'N-144°56'E

ANDERSEN AFB (PGUA)

Amdt 1 30NOV23

TERPS

**HI-TACAN X RWY 06L**

23222

## TACAN Y RWY 06L

YIGO, GUAM I, GUAM

|                                 |                  |                                             |
|---------------------------------|------------------|---------------------------------------------|
| VORTAC UNZ<br>115.8<br>Chan 105 | APCH CRS<br>053° | Rwy Idg 10,528<br>TDZE 539<br>Arpt Elev 617 |
| AL-2147 (USAF)                  |                  |                                             |

T \* When ALS inop, increase CAT AB RVR to 55 and vis to 1 mile, CAT CDE vis to 1 1/2 miles.  
 \*\* Circling not authorized NW of Rwy 06L-24R.

SALS  
 MISSED APPROACH: Climb to 3000, intercept UNZ R-053 to HAAMR and hold.

ATIS  
118.175 254.325

GUAM APP CON/DEP CON  
119.8 269.0

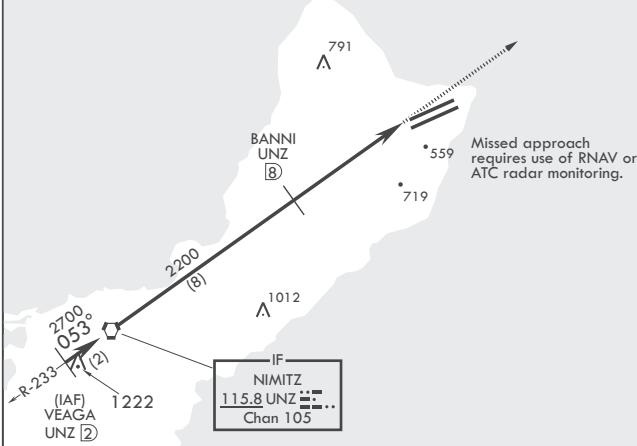
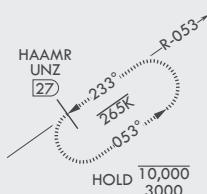
TOWER  
126.2 233.7

GND CON  
121.7 275.8

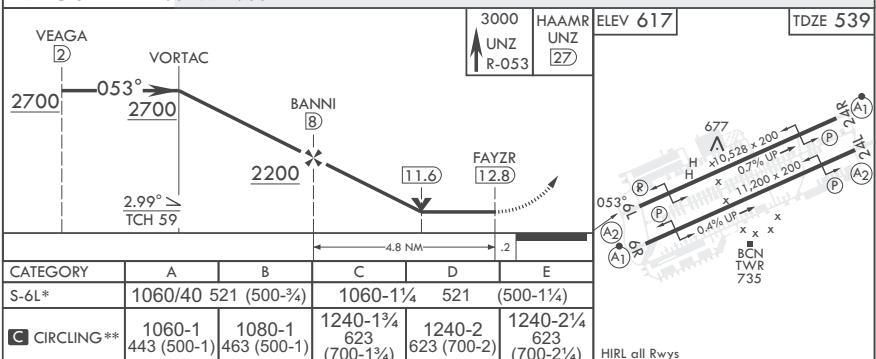
CLNC DEL  
126.725 256.7

CAUTION: Environmentally Sensitive Area Flights along Anderson cliff line restricted to 1000' AGL or above.

All touchdown zones have a 1.0% down slope.



EMERG SAFE ALT 100 NM 2900



YIGO, GUAM I, GUAM

13°35'N - 144°56'E

Amdt 3 10AUG23  
 TERPS

ANDERSEN AFB (PGUA)

## TACAN Y RWY 06L

## TERMINAL PROCEDURES

23110

YIGO, GUAM I, GUAM

|                                 |                  |                                                      |
|---------------------------------|------------------|------------------------------------------------------|
| VORTAC UNZ<br>115.8<br>Chan T05 | APCH CRS<br>054° | Rwy Idg<br>11,200<br>TDZE<br>557<br>Arpt Elev<br>617 |
|---------------------------------|------------------|------------------------------------------------------|

AL-2147 (USAF)

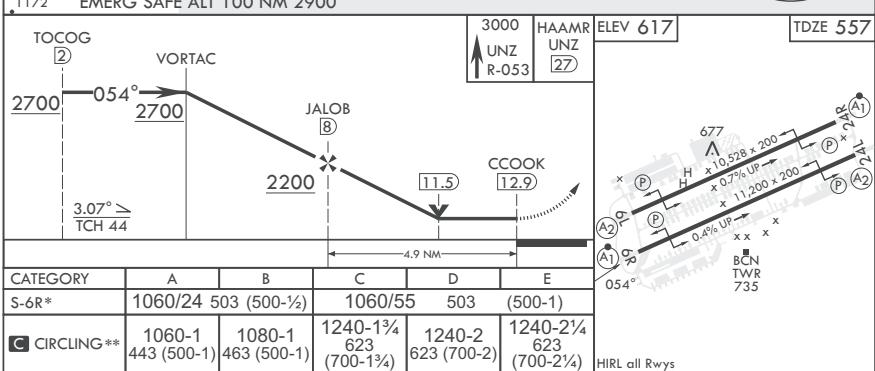
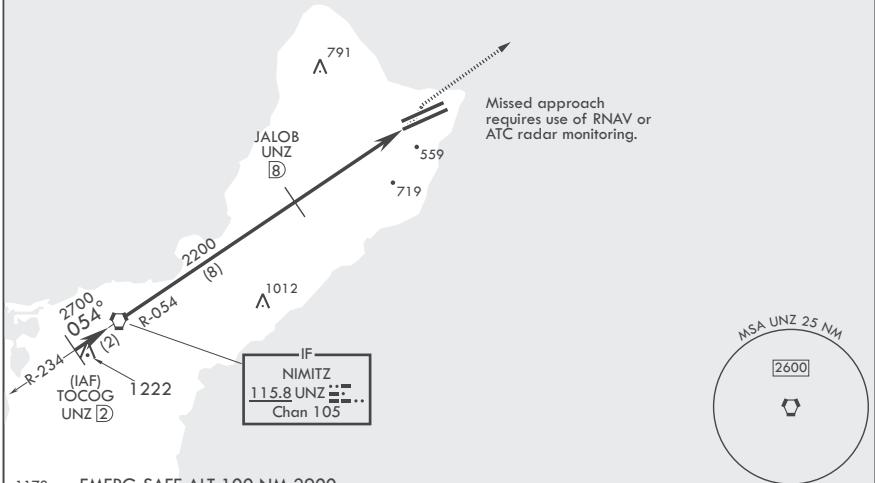
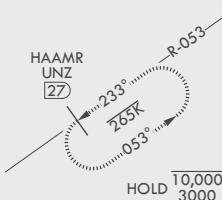
## TACAN Y RWY 06R

ANDERSEN AFB (PGUA)

|                                                                                                                                                 |                                     |                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------|
| <b>W</b> * When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CDE vis to 1 3/8 miles.<br>** Circling not authorized NW of Rwy 6L-24R. | ALSF-1<br>(A1)                      | MISSIED APPROACH: Climb to 3000, intercept UNZ R-053 to HAAMR and hold. |
| ATIS<br>118.175 254.325                                                                                                                         | GUAM APP CON/DEP CON<br>119.8 269.0 | TOWER<br>126.2 233.7                                                    |

CAUTION: Environmentally Sensitive Area Flights along Anderson cliff line restricted to 1000' AGL or above.

All touchdown zones have a 1.0% down slope.



YIGO, GUAM I, GUAM

13°35'N - 144°56'E

ANDERSEN AFB (PGUA)

Amdt 2 17JUN21  
TERPS

TACAN Y RWY 06R

YIGO, GUAM I, GUAM

23110

## TACAN Y RWY 24L

|                                 |                  |                                             |
|---------------------------------|------------------|---------------------------------------------|
| VORTAC UNZ<br>115.8<br>Chan 105 | APCH CRS<br>236° | Rwy Idg 11,200<br>TDZE 607<br>Arpt Elev 617 |
| AL-2147 (USAF)                  |                  |                                             |

▼ \* When ALS inop increase CAT AB RVR to 55, vis to 1 mile;  
CAT CDE RVR to 50, vis to 1 mile.  
\*\* Circling not authorized NW of Rwy 06L-24R.



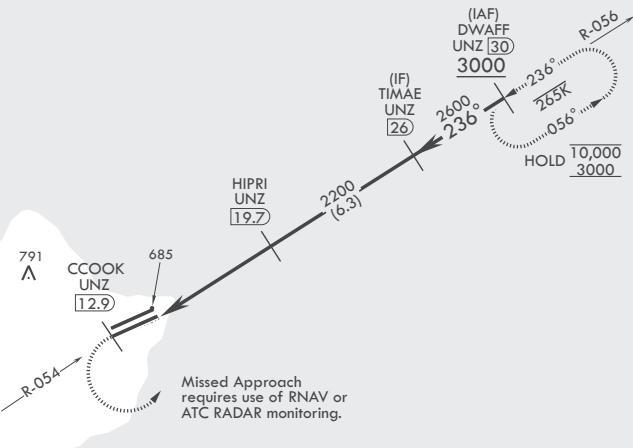
SALS

MISSSED APPROACH: Climb to 3000 direct CCOOK, then climbing left turn to intercept UNZ R-056 to DWAFF and hold.

ATIS  
118.175 254.325GUAM APP CON/DEP CON  
119.8 269.0TOWER  
126.2 233.7GND CON  
121.7 275.8CLNC DEL  
126.725 256.7

CAUTION: Environmentally Sensitive Area Flights along Andersen cliff line restricted to 1000' AGL or above.

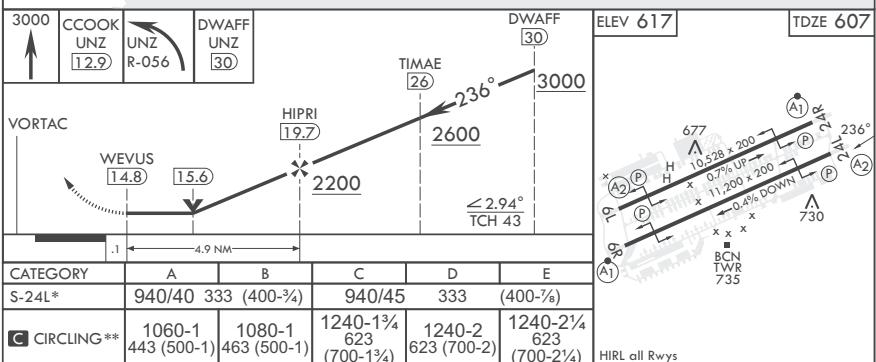
All touchdown zones have a 1.0% down slope.



|                     |          |
|---------------------|----------|
| NIMITZ<br>115.8 UNZ | Chan 105 |
| 791                 | A        |

1074

EMERG SAFE ALT 100 NM 2900



YIGO, GUAM I, GUAM

13°35'N - 144°56'E

ANDERSEN AFB (PGUA)

Amdt 2 17JUN21  
TERPS

TACAN Y RWY 24L

## TERMINAL PROCEDURES

23222

YIGO, GUAM I, GUAM

|                                 |                  |                                                      |
|---------------------------------|------------------|------------------------------------------------------|
| VORTAC UNZ<br>115.8<br>Chan 105 | APCH CRS<br>234° | Rwy Idg<br>10,528<br>TDZE<br>617<br>Arpt Elev<br>617 |
|---------------------------------|------------------|------------------------------------------------------|

AL-2147 (USAF)

## TACAN Y RWY 24R

ANDERSEN AFB (PGUA)

RNAV or RADAR required for missed approach

▼ \* When ALS inop increase CAT AB RVR to 55, vis to 1 mile; CAT CDE RVR to 50, vis to 1 mile.  
 \*\* Circling not authorized NW of Rwy 06L-24R.

ALSF-1



MISSED APPROACH: Climb to 1100, then climbing left turn to intercept UNZ R-054 to MDBUG and hold.

ATIS  
118.175 254.325GUAM APP CON/DEP CON  
119.8 269.0TOWER  
126.2 233.7GND CON  
121.7 275.8CLNC DEL  
126.725 256.7

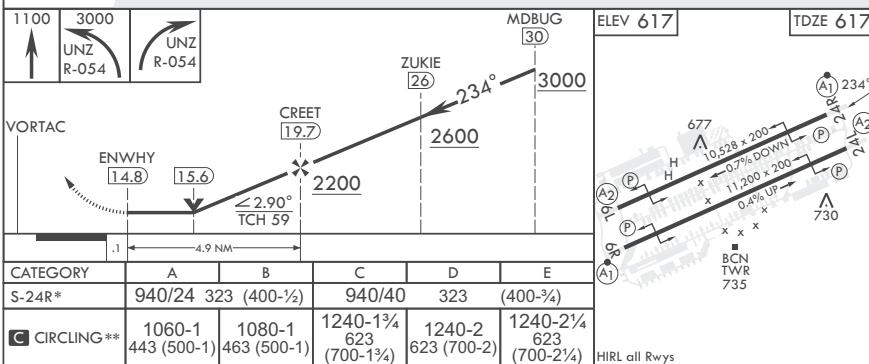
CAUTION: Environmentally Sensitive Area Flights along Andersen cliff line restricted to 1000' AGL or above.

All touchdown zones have a 1.0% down slope.

NIMITZ  
115.8 UNZ  
Chan 105

972  
• 1074

EMERG SAFE ALT 100 NM 2900



YIGO, GUAM I, GUAM

Amdt 3 10AUG23  
TERPS

ANDERSEN AFB (PGUA)

## TACAN Y RWY 24R

YIGO, GUAM I, GUAM

|                   |               |                                        |
|-------------------|---------------|----------------------------------------|
| TACAN UAM Chan 54 | APCH CRS 065° | Rwy Idg 10,528<br>539<br>Arpt Elev 617 |
|-------------------|---------------|----------------------------------------|

- (USAF)

RADAR or DME required.

- ▼ \* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CDE vis 1 3/8 miles.  
\*\* Circling not authorized NW of Rwy 06L-24R.

23334  
**TACAN Z RWY 06L**

ANDERSEN AFB (PGUA)

ATIS 118.175 254.325

GUAM APP CON/DEP CON 119.8 269.0

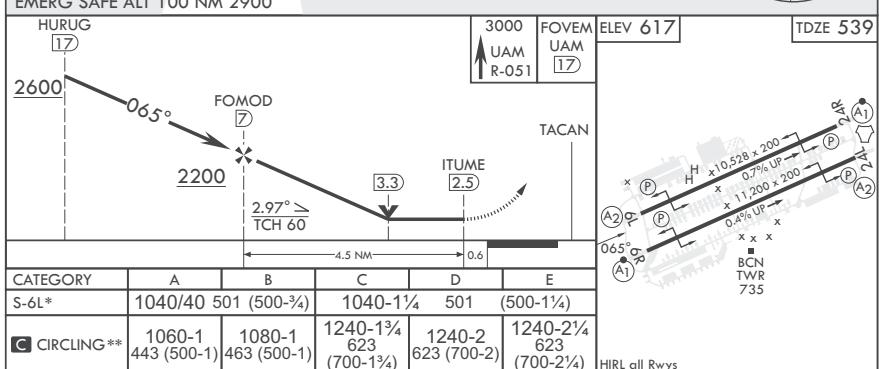
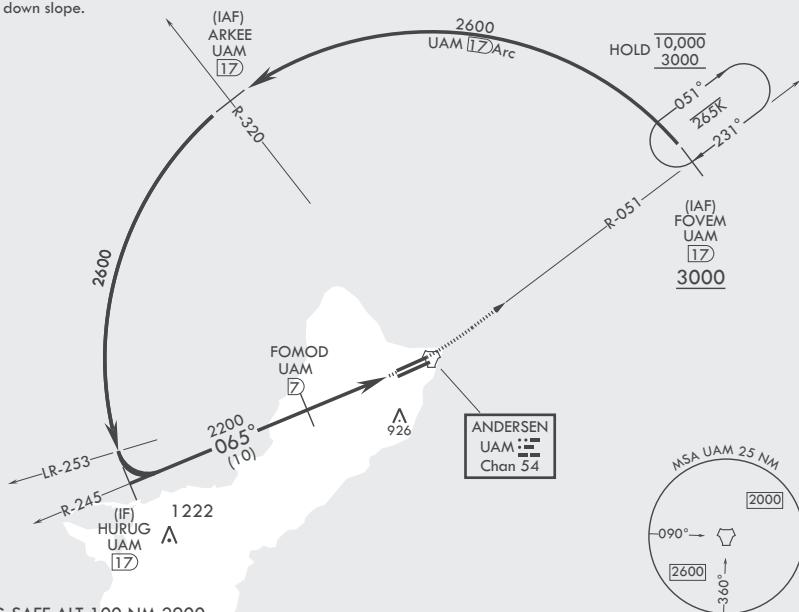
TOWER 126.2 233.7

GND CON 121.7 275.8

CLNC DEL 126.725 256.7

CAUTION: Environmentally Sensitive Area. Flights along Andersen cliffline restricted to 1000' AGL or above

All touchdown zones have a 1.0% down slope.



YIGO, GUAM I, GUAM

Amdt 3 30NOV23  
TERPS

13°35'N - 144°56'E

ANDERSEN AFB (PGUA)  
**TACAN Z RWY 06L**

23110

YIGO, GUAM I, GUAM

|                   |               |                                             |
|-------------------|---------------|---------------------------------------------|
| TACAN UAM Chan 54 | APCH CRS 060° | Rwy Idg 11,200<br>TDZE 557<br>Arpt Elev 617 |
|-------------------|---------------|---------------------------------------------|

AL-2147 (USAF)

## TACAN Z RWY 06R

ANDERSEN AFB (PGUA)

RADAR or DME required.

- ▼ \* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile, CAT CDE vis to 1 3/8 miles.  
 \*\* Circling not authorized NW of Rwy 06L-24R.



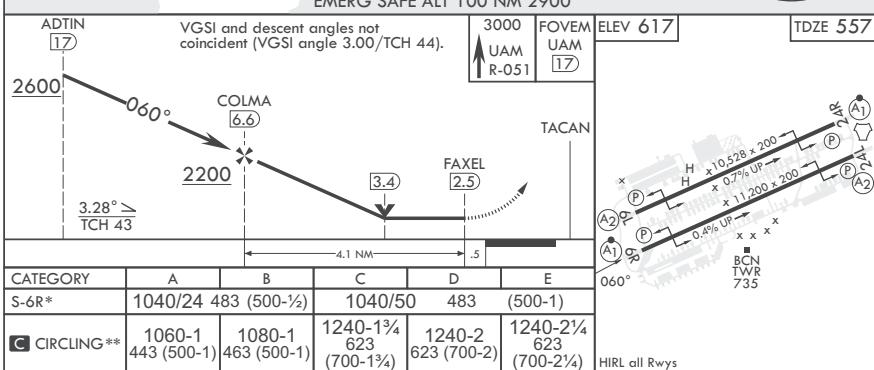
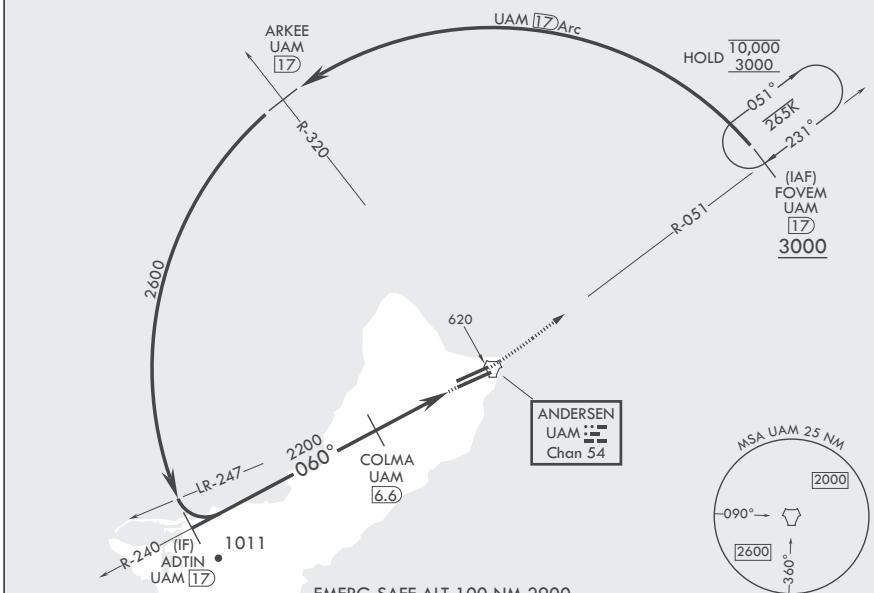
MISSSED APPROACH: Climb to 3000,  
 intercept UAM R-051 to FOVEM and  
 hold.

ATIS 118.175 254.325

GUAM APP CON/DEP CON  
119.8 269.0TOWER  
126.2 233.7GND CON  
121.7 275.8CLNC DEL  
126.725 256.7

CAUTION: Environmentally sensitive area flights along Andersen cliff line restricted to 1000' AGL or above.

All touchdown zones have a 1.0% down slope.



YIGO, GUAM I, GUAM

13°35'N - 144°56'E

ANDERSEN AFB (PGUA)

Amdt 2 17JUN21  
 TERPS

TACAN Z RWY 06R

YIGO, GUAM I, GUAM

|                      |                  |                                             |
|----------------------|------------------|---------------------------------------------|
| TACAN UAM<br>Chan 54 | APCH CRS<br>256° | Rwy Idg 11,200<br>TDZE 607<br>Arpt Elev 617 |
|----------------------|------------------|---------------------------------------------|

AL-2147 (USAF)

23110

## TACAN Z RWY 24L

ANDERSEN AFB (PGUA)

RADAR or DME required.

▼ \* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile; CAT CDE RVR to 50, vis to 1 mile.  
 \*\* Circling not authorized NW of Rwy 6L-24R.

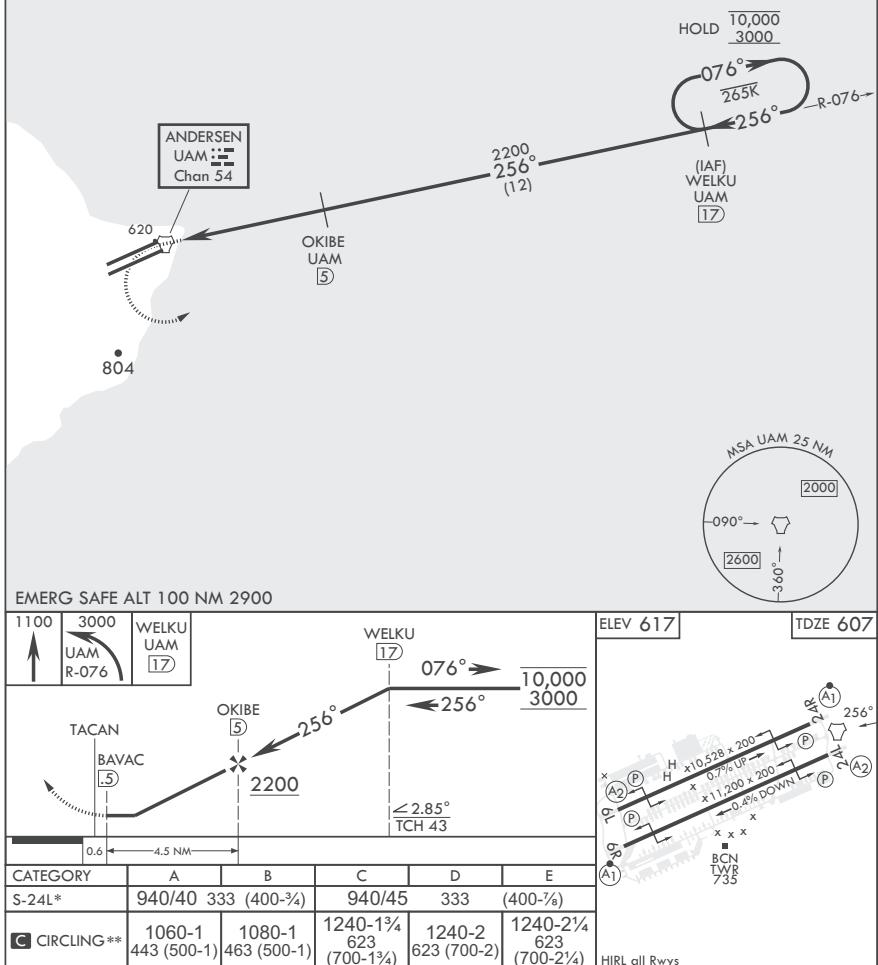
SALS  
(A2)  
—

MISSSED APPROACH: Climb to 1100, then climbing left turn to 3000 to intercept UAM R-076 to WELKU and hold.

| ATIS<br>118.175 254.325 | GUAM APP CON/DEP CON<br>119.8 269.0 | TOWER<br>126.2 233.7 | GND CON<br>121.7 275.8 | CLNC DEL<br>126.725 256.7 |
|-------------------------|-------------------------------------|----------------------|------------------------|---------------------------|
|-------------------------|-------------------------------------|----------------------|------------------------|---------------------------|

CAUTION: Environmentally Sensitive Area Flights along Andersen cliff line restricted to 1000' AGL or above.

All touchdown zones have a 1.0% down slope.



YIGO, GUAM I, GUAM

Amdt 2 17JUN21  
TERPS

13°35'N - 144°56'E

ANDERSEN AFB (PGUA)

## TACAN Z RWY 24L

23110

YIGO, GUAM I, GUAM

|                   |               |                                             |
|-------------------|---------------|---------------------------------------------|
| TACAN UAM Chan 54 | APCH CRS 231° | Rwy Idg 10,528<br>TDZE 617<br>Arpt Elev 617 |
|-------------------|---------------|---------------------------------------------|

AL-2147 (USAF)

## TACAN Z RWY 24R

ANDERSEN AFB (PGUA)

RADAR or DME required.

▼ \* When ALS inop, increase CAT AB RVR to 55, vis to 1 mile; CAT CDE RVR to 50, vis to 1 mile.  
 \*\* Circling not authorized NW of Rwy 06L-24R.

ALSF-1



MISSSED APPROACH: Climb to 1100, then climbing left turn to 3000 to intercept UAM R-051 to FOVEM and hold.

ATIS 118.175 254.325

GUAM APP CON/DEP CON 119.8 269.0

TOWER 126.2 233.7

GND CON 121.7 275.8

CLNC DEL 126.725 256.7

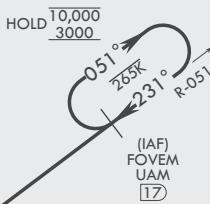
CAUTION: Environmentally Sensitive Area Flights along Andersen cliff line restricted to 1000' AGL or above.

All touchdown zones have a 1.0% down slope.

972

EMERG SAFE ALT 100 NM 2900

ANDERSEN  
UAM Chan 54

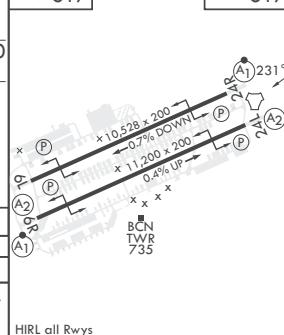
EVEBE  
UAM 5

1100 3000 FOVEM UAM 17  
UAM R-051

VGSI and ILS glidepath not coincident (VGSI angle 3.00/TCH 59).

ELEV 617

TDZE 617



CATEGORY

A

B

C

D

E

S-24R\*

940/24 323 (400-1/2)

940/40 323 (400-3/4)

1240-2 1/4

C CIRCLING\*\*

1060-1 443 (500-1)

1240-2 623 (700-1 3/4)

1240-2 1/4 623

YIGO, GUAM I, GUAM

13°35'N - 144°56'E

ANDERSEN AFB (PGUA)

Amdt 2 17JUN21  
TERPS

TACAN Z RWY 24R

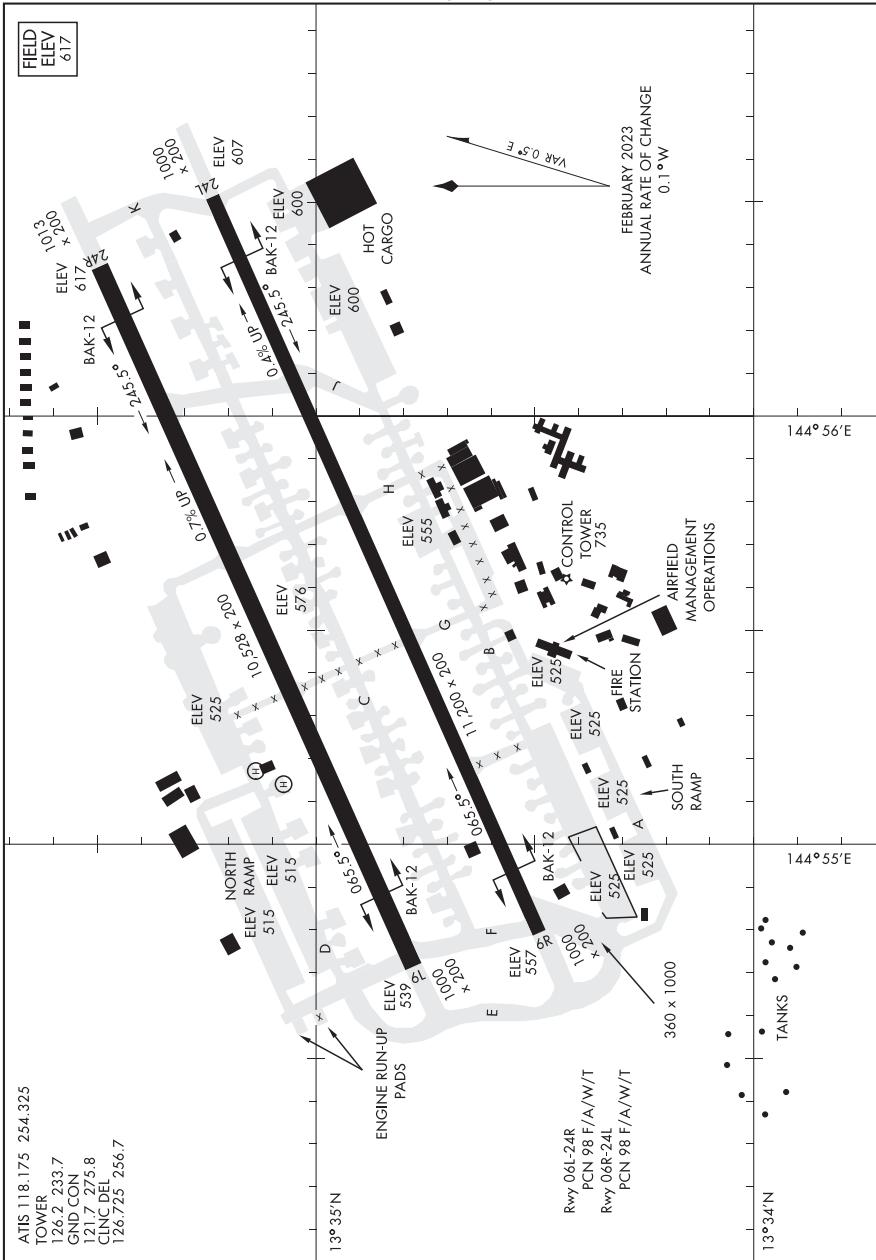
23110

## AIRPORT DIAGRAM

AL-2147 [USAF]

ANDERSEN AFB (PGUA)

YIGO, GUAM I, GUAM



## AIRPORT DIAGRAM

YIGO, GUAM I, GUAM

ANDERSEN AFB (PGUA)

BABELTHUAP ISLAND, PW

AL-6432 (FAA)

23222

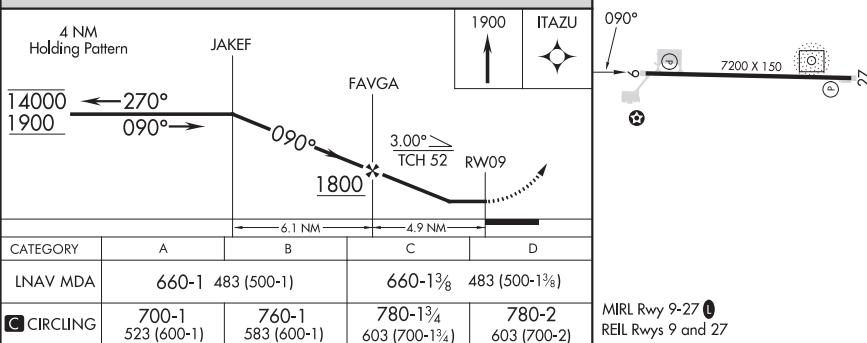
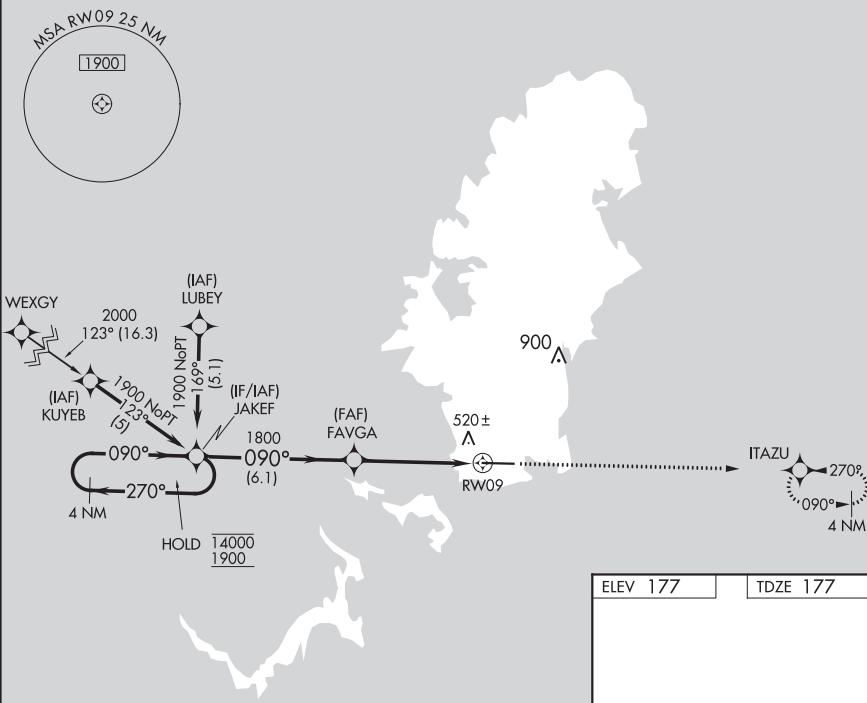
|             |         |             |
|-------------|---------|-------------|
| APP CRS     | Rwy Idg | <b>7200</b> |
| <b>090°</b> | TDZE    | <b>177</b>  |
| Apt Elev    |         | <b>177</b>  |

**RNAV (GPS) RWY 9**  
 PALAU INTL (ROR)(PTRO)

RNP APCH-GPS.

**V** Circling NA north of Rwy 9-27.  
**A** Rwy 9 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.  
 Obtain local altimeter setting on CTAF; when not received, procedure NA. No controlled airspace below 5500.

MISSIED APPROACH: Climb to 1900 direct ITAZU and hold.

KOROR RADIO  
123.6 (CTAF)

BABELTHUAP ISLAND, PW

Orig-C 08SEP22

PALAU INTL (ROR)(PTRO)

07°22'N-134°33'E

**RNAV (GPS) RWY 9**

BABELTHUAP ISLAND, PW

AL-6432 (FAA)

23222

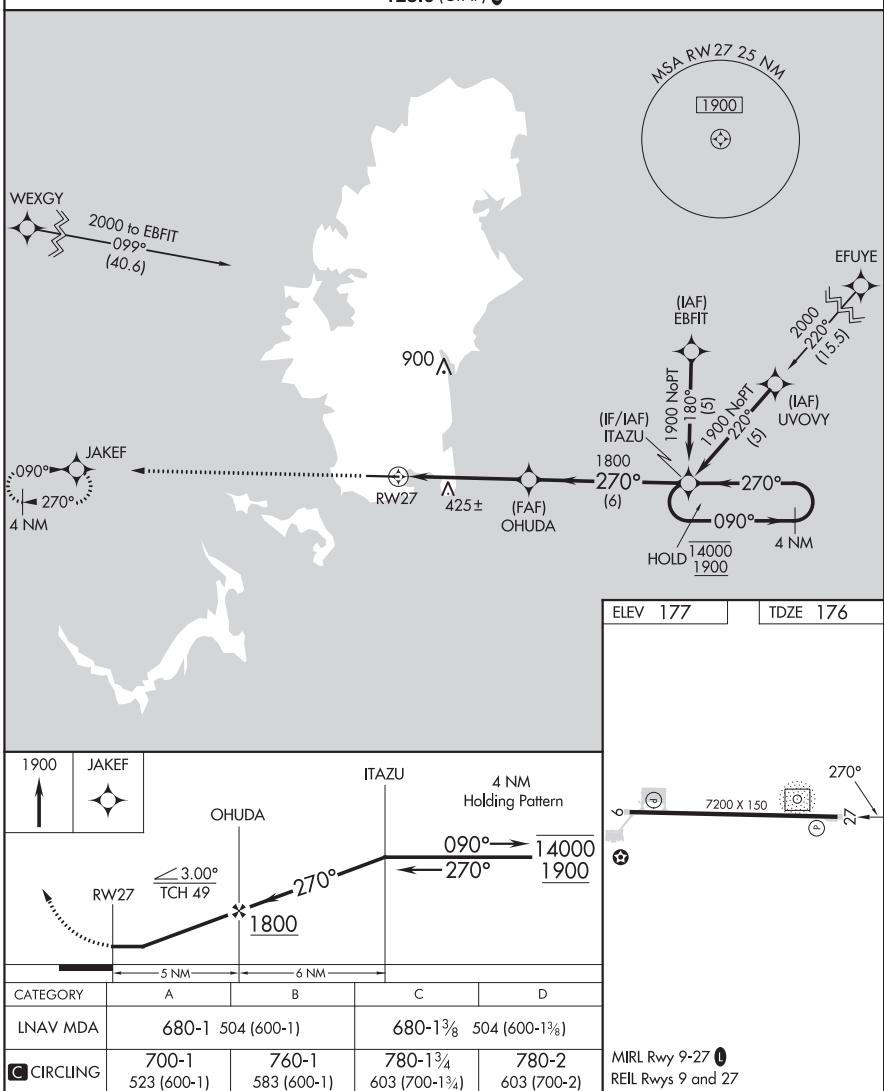
|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>270°</b> | Rwy Idg<br><b>7200</b> |
| TDZE                   | <b>176</b>             |
| Apt Elev               | <b>177</b>             |

**RNAV (GPS) RWY 27**  
PALAU INTL (ROR)(PTRO)

RNP APCH-GPS.

- ▼ Circling NA north of Rwy 9-27.  
 ▲ Rwy 27 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.  
 Obtain local altimeter setting on CTAF; when not received, procedure NA. No controlled airspace below 5500.

MISSIED APPROACH: Climb to 1900 direct JAKEF and hold.

KOROR RADIO  
**123.6 (CTAF)**

BABELTHUAP ISLAND, PW

Orig-C 08SEP22

07°22'N-134°33'E

PALAU INTL (ROR)(PTRO)  
**RNAV (GPS) RWY 27**

BABELTHUAP ISLAND, PW

AL-6432 (FAA)

23222

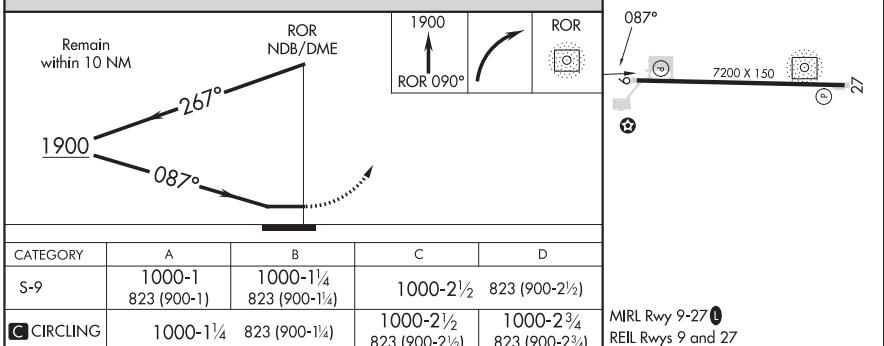
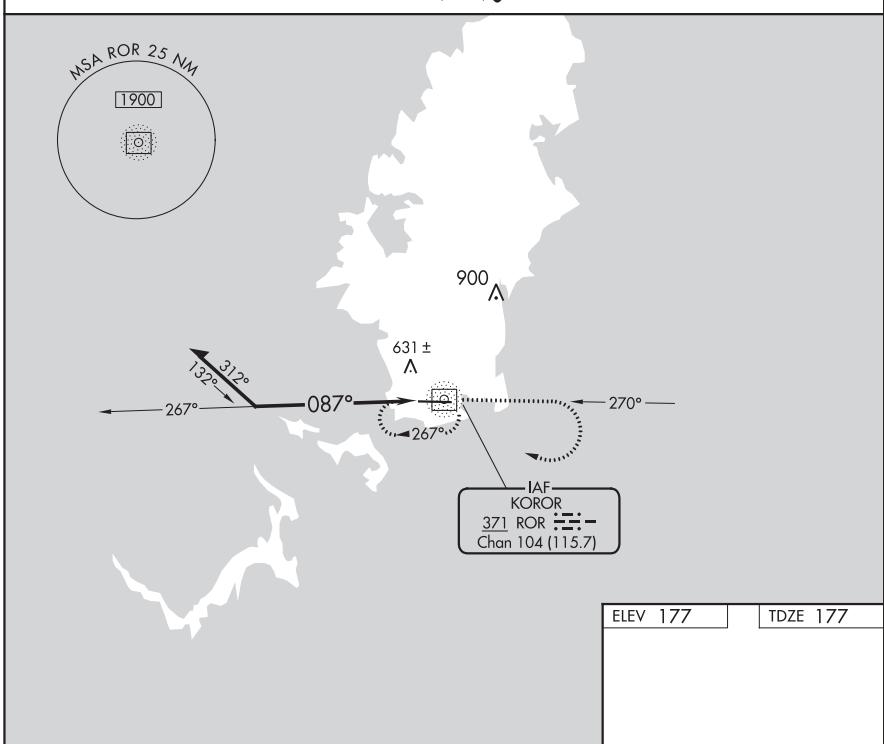
|                                               |                        |                                                                        |
|-----------------------------------------------|------------------------|------------------------------------------------------------------------|
| NDB/DME ROR<br><b>371</b><br>Chan 104 (115.7) | APP CRS<br><b>087°</b> | Rwy Idg<br>TDZE<br>Apt Elev<br><b>7200</b><br><b>177</b><br><b>177</b> |
|-----------------------------------------------|------------------------|------------------------------------------------------------------------|

**NDB RWY 9**  
PALAU INTL (ROR)(PTRO)

- T** Circling NA north of Rwy 9-27.  
**A** Rwy 9 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.  
 Obtain local altimeter setting on CTAF; when not received, procedure NA. No controlled airspace below 5500.

MISSED APPROACH: Climb to 1900 on ROR bearing 090° then right turn direct ROR NDB/DME and hold.

KOROR RADIO  
**123.6 (CTAF)**



BABELTHUAP ISLAND, PW

Orig-C 08SEP22

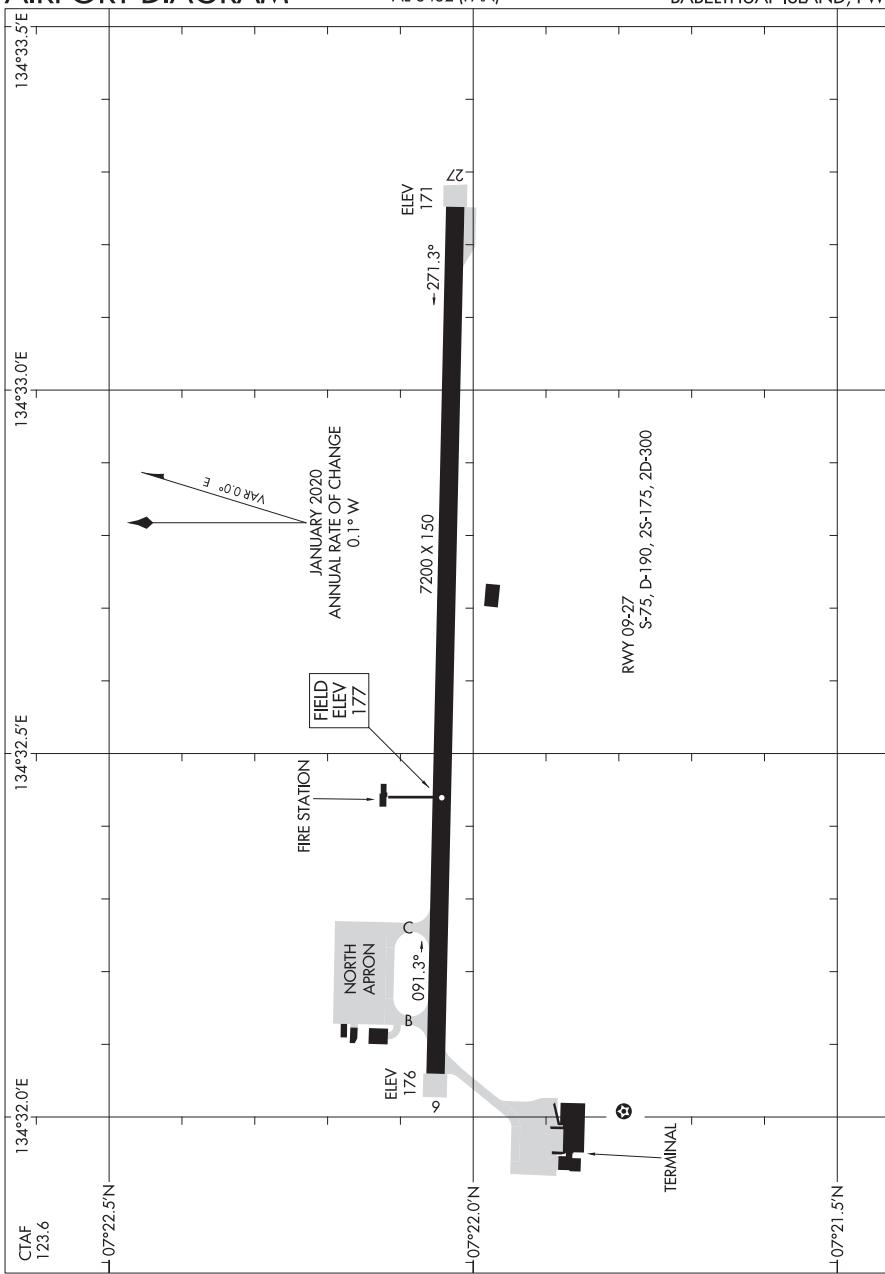
07°22'N-134°33'E

PALAU INTL (ROR)(PTRO)  
**NDB RWY 9**

23222  
AIRPORT DIAGRAM

AL-6432 (FAA)

PALAU INTL (ROR) (PTRO)  
BABELTHUAP ISLAND, PW



BABELTHUAP ISLAND, PW  
PALAU INTL (ROR) (PTRO)

## TERMINAL PROCEDURES

23054

KEKAHA, KAUAI I, HAWAII

|                  |                 |
|------------------|-----------------|
| APCH CRS<br>160° | Rwy Idg<br>6002 |
| TDZE<br>23       | Arpt Elev<br>23 |
|                  |                 |

AL-767 (USN)

## RNAV (GPS) RWY 16

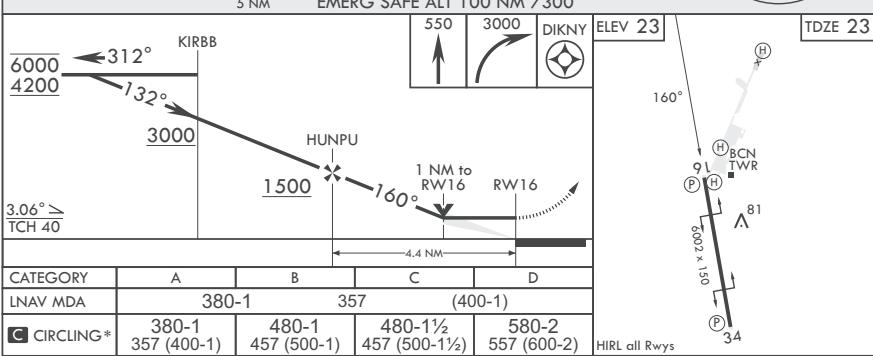
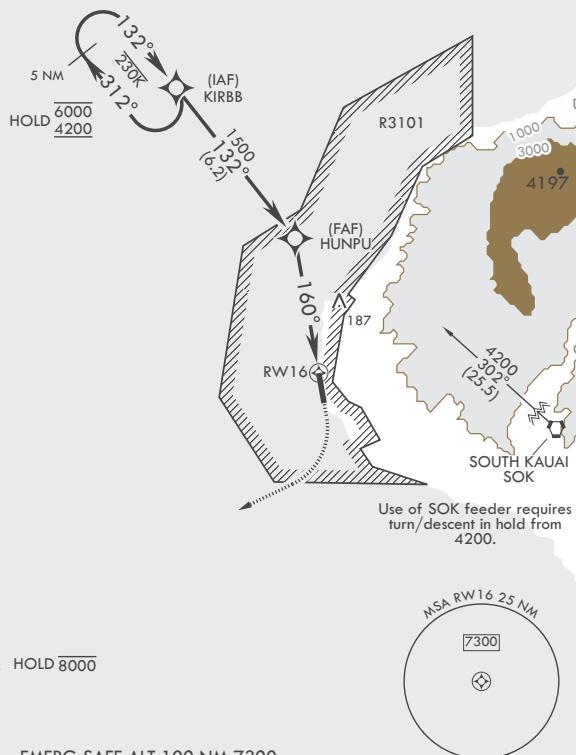
BARKING SANDS PMRF (PHBK)

RNP APCH

V \* Circling not authorized E of Rwy 16-34.

MISSIED APPROACH: Climb to 550 then climbing right turn to 3000 direct DIKNY and hold.

ATIS \*128.0

HCF CENTER  
126.5 269.4TOWER \*  
126.2 360.2GND CON \*  
124.2 340.2UNICOM  
122.8

KEKAHA, KAUAI I, HAWAII

22°01'N - 159°47'W

BARKING SANDS PMRF (PHBK)

Amdt 5 14JUL22

RNAV (GPS) RWY 16

KEKAHA, KAUAI I, HAWAII

|          |           |             |
|----------|-----------|-------------|
| APCH CRS | Rwy Idg   | <b>6002</b> |
| 340°     | TDZE      | 21          |
|          | Arpt Elev | 23          |

AL-767 (USN)

23054

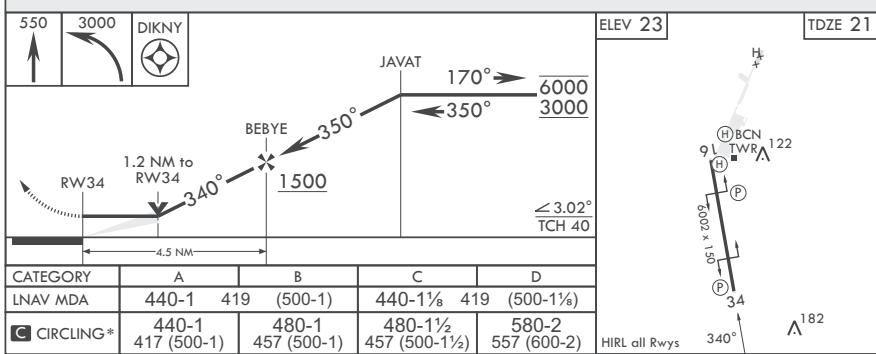
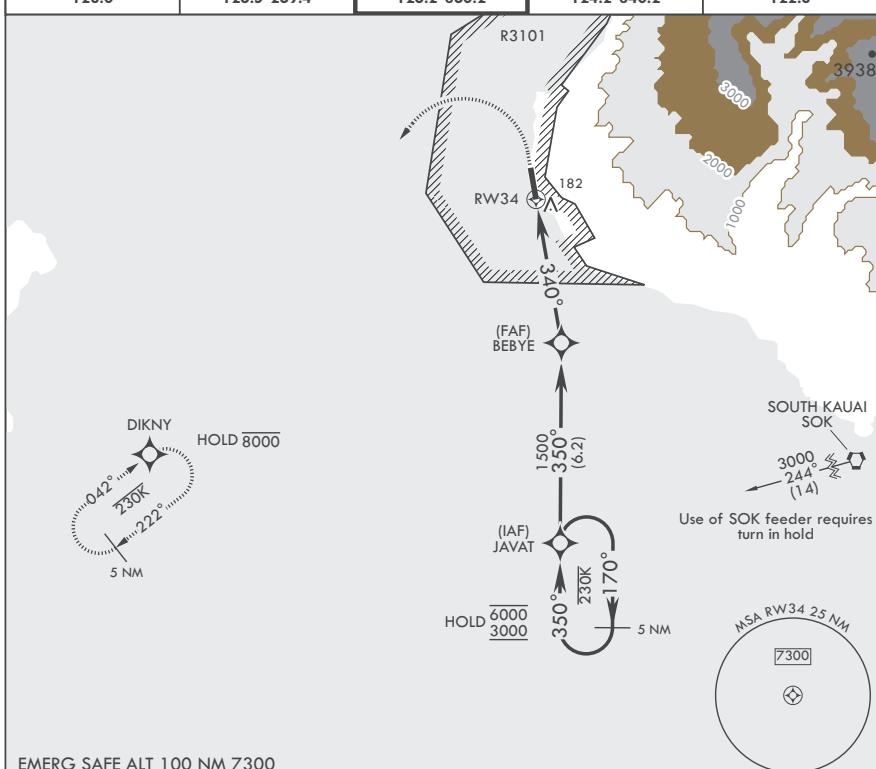
**RNAV (GPS) RWY 34**

BARKING SANDS PMRF (PHBK)

RNP APCH

▼ \* Circling not authorized E of Rwy 16-34.

MISSIED APPROACH: Climb to 550 then climbing left turn to 3000 direct DIKNY and hold.

ATIS★  
128.0HCF CENTER  
126.5 269.4TOWER★  
126.2 360.2GND CON★  
124.2 340.2UNICOM  
122.8

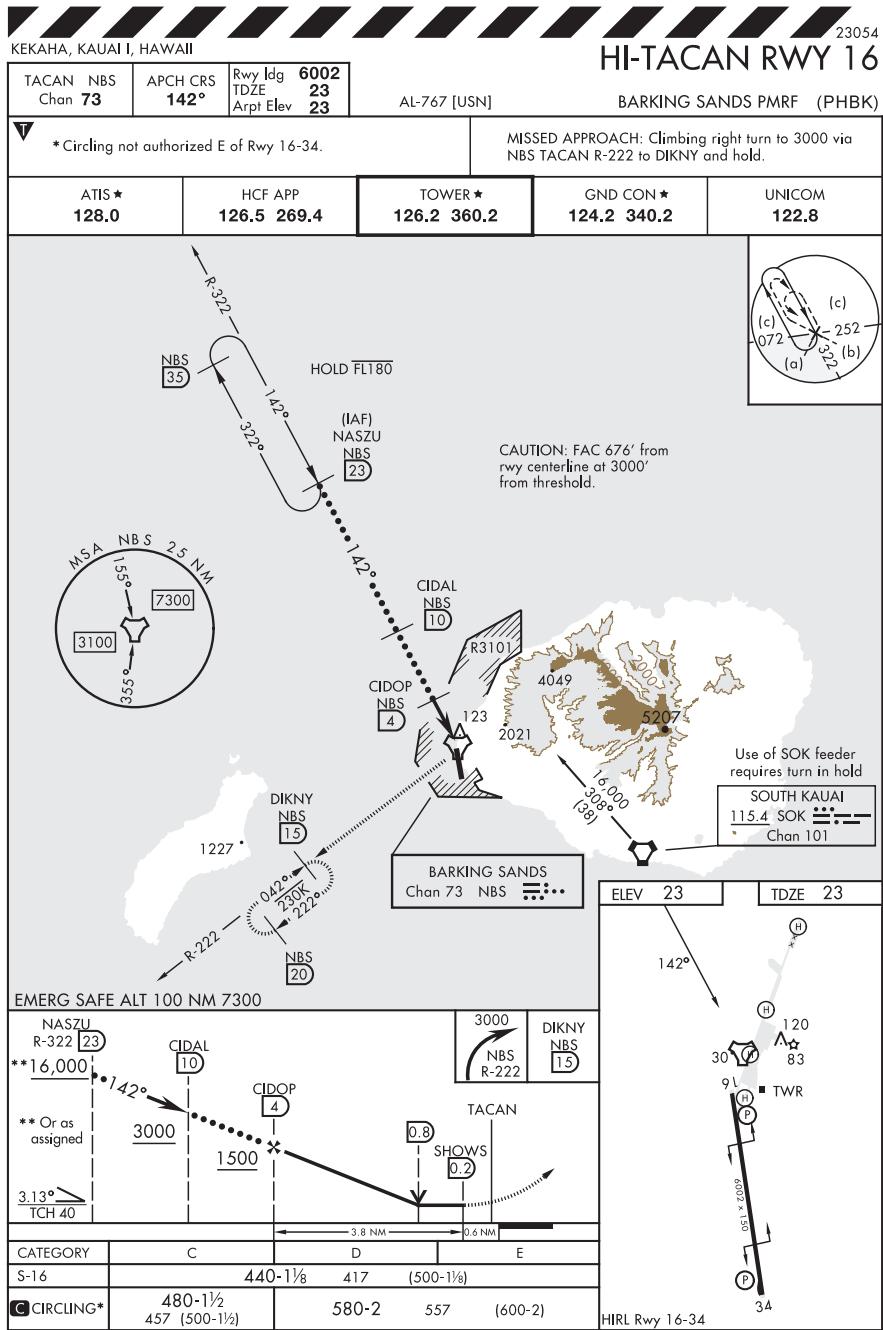
KEKAHA, KAUAI I, HAWAII

Amdt 5 14JUL22

22°01'N - 159°47'W

BARKING SANDS PMRF (PHBK)

**RNAV (GPS) RWY 34**

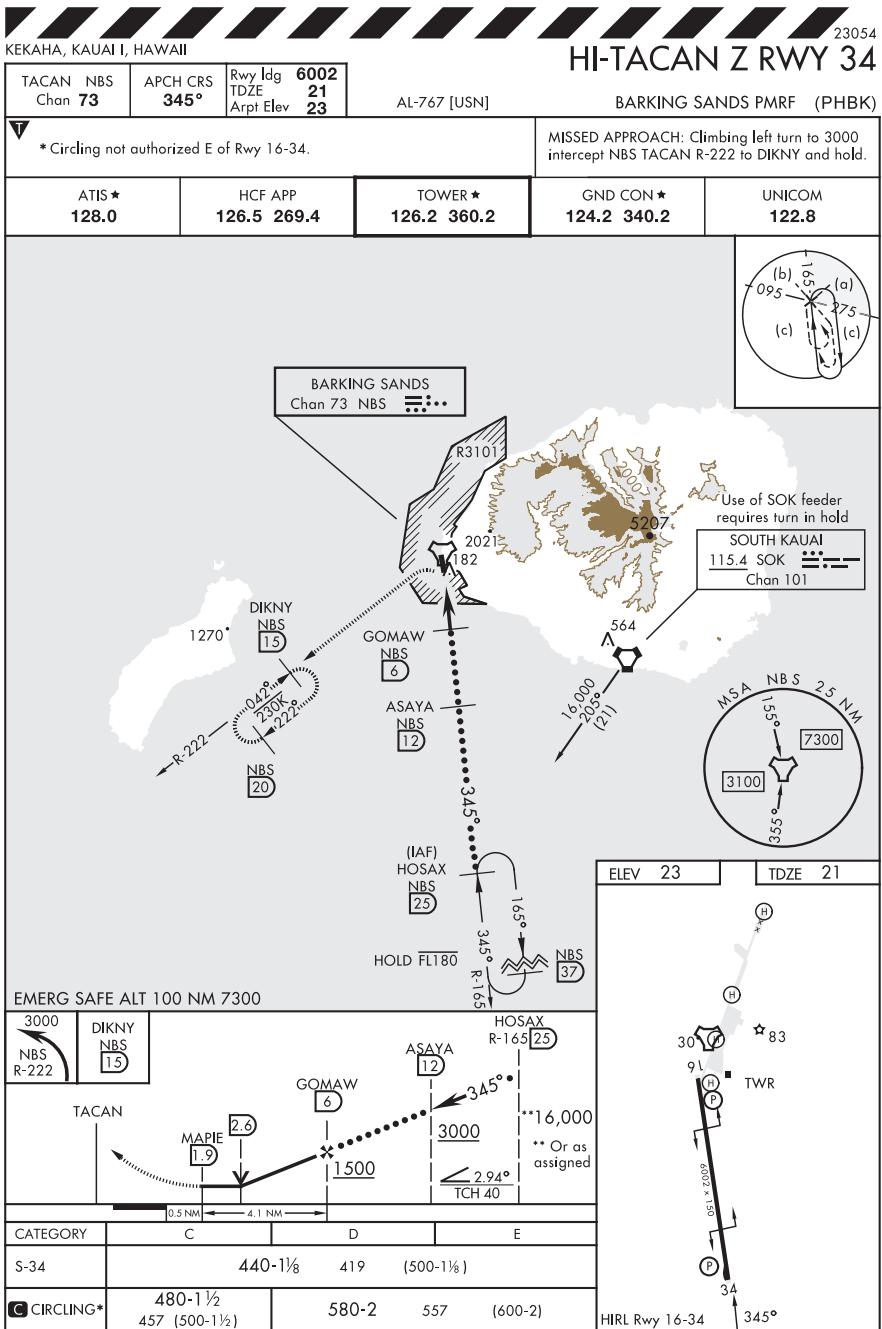


KEKAHA, KAUAI I, HAWAII

Amdt 5 14JUL22

BARKING SANDS PMRF (PHBK)

**HI-TACAN RWY 16**



HI-TACAN Z RWY 34

23054

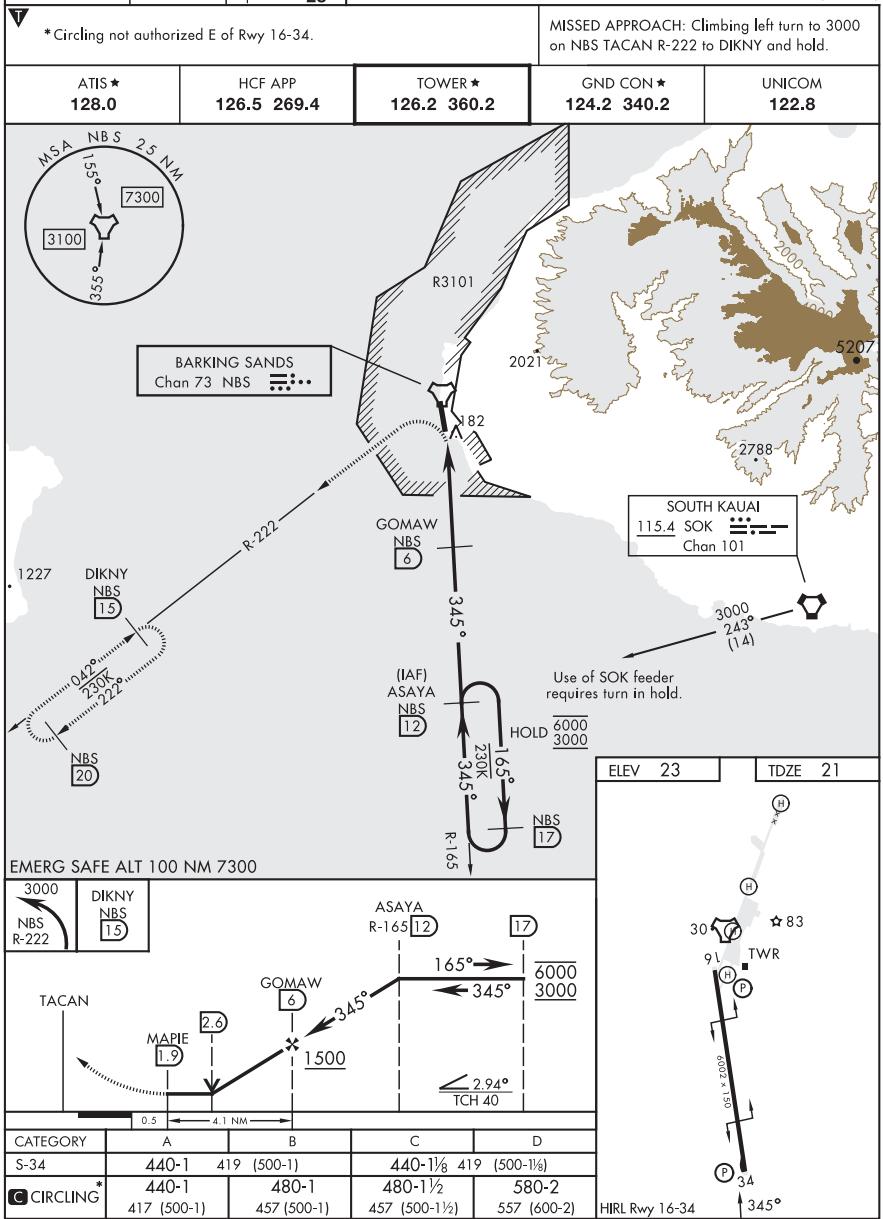
## TACAN Y RWY 34

KEKAHA, KAUAI I, HAWAII

|                      |                         |                                                              |
|----------------------|-------------------------|--------------------------------------------------------------|
| TACAN NBS<br>Chan 73 | APCH CRS<br><b>345°</b> | Rwy Idg <b>6002</b><br>TDZE <b>21</b><br>Arpt Elev <b>23</b> |
| AL-767 [USN]         |                         |                                                              |

AL-767 [USN]

BARKING SANDS PMRF (PHBK)



KEKAHA, KAUAI I, HAWAII

Amdt 6 14JUL22

22°01'N 159°47'W

BARKING SANDS PMRF (PHBK)

TACAN Y RWY 34

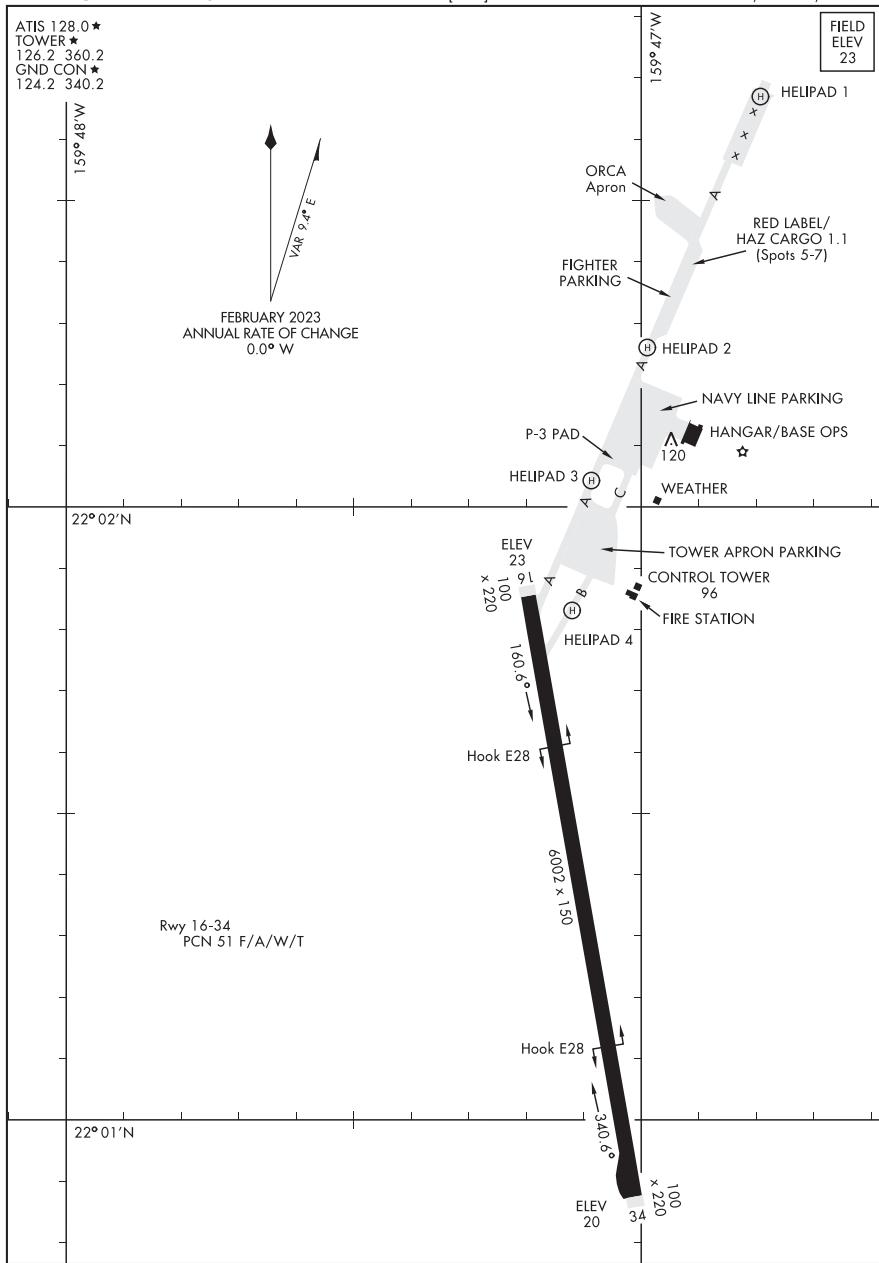
23054

## AIRPORT DIAGRAM

AL-767 [USN]

BARKING SANDS PMRF (PHBK)

KEKAHA, KAUAI, HAWAII



AIRPORT DIAGRAM

23054

## KEKAHA FIVE DEPARTURE (RNAV) (OBSTACLE) (KEKAH5.SOK)

BARKING SANDS PMRF (PHBK)

KEKAHA, KAUAI I, HAWAII

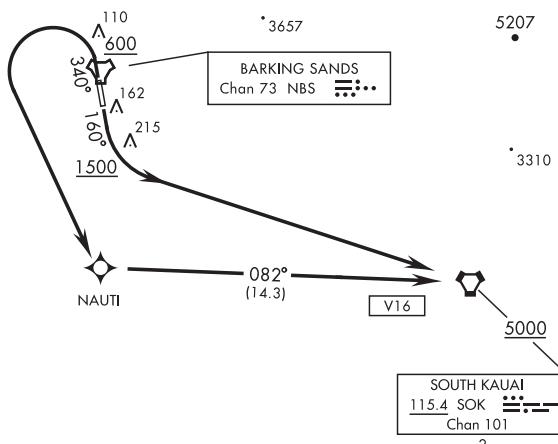
BARKING SANDS TOWER ★  
 126.2 360.2  
 HCF APP  
 126.5 269.4

AL-767 [USN]

| Rwy | Knots    | 60  | 120 | 180 | 240  | 300  | 360  |
|-----|----------|-----|-----|-----|------|------|------|
| 16  | V/V(fpm) | 300 | 600 | 900 | 1200 | 1500 | 1800 |
| 34  | V/V(fpm) | 260 | 520 | 780 | 1040 | 1300 | 1560 |

ATC Climb Rate to 5000

4284



RNAV1-GPS

SOUTH KAUI  
 115.4 SOK  
 Chan 101

2

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 16: Climb on heading 160° to 1500, thence...

TAKEOFF RWY 34: Climb on heading 340° to 600, then turn left direct NAUTI, thence...

...turn direct SOK VORTAC. Cross SOK at or above 5000.

KEKAHA FIVE DEPARTURE (RNAV) (OBSTACLE) (KEKAH5.SOK)

KEKAHA, KAUAI I, HAWAII

BARKING SANDS PMRF (PHBK)

23054

## SOUTH KAUAI-SIX DEPARTURE (OBSTACLE) (SOK6.SOK)

KEKAHA, KAUAI, HAWAII

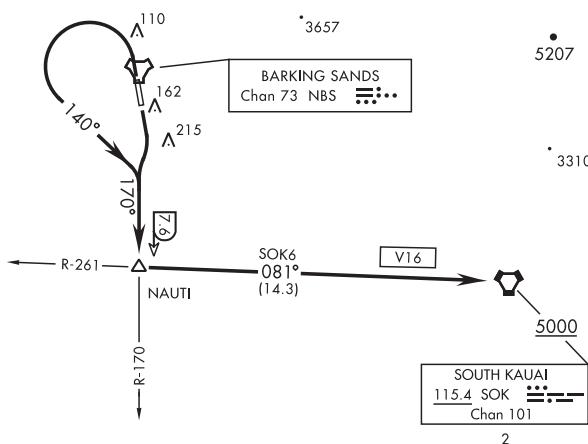
BARKING SANDS TOWER ★  
 126.2 360.2  
 HCF APP  
 126.5 269.4

AL-767 [USN]

| Rwy | Knots    | 60  | 120 | 180 | 240  | 300  | 360  |
|-----|----------|-----|-----|-----|------|------|------|
| 16  | V/V(fpm) | 300 | 600 | 900 | 1200 | 1500 | 1800 |
| 34  | V/V(fpm) | 260 | 520 | 780 | 1040 | 1300 | 1560 |

ATC Climb Rate to 5000

4284



2



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 16: Climbing right turn to intercept NBS TACAN R-170 to NAUTI, thence...

TAKEOFF RWY 34: Climbing left turn heading 140° to intercept NBS TACAN R-170 to NAUTI, thence...

...turn left to intercept SOK VORTAC R-261(V16) direct SOK. Cross SOK at or above 5000.

## SOUTH KAUAI-SIX DEPARTURE (OBSTACLE) (SOK6.SOK)

KEKAHA, KAUAI, HAWAII

Orig 14JUL22

BARKING SANDS PMRF (PHBK)

23278

CAMP POHAKULOA, HAWAII

|          |           |      |
|----------|-----------|------|
| APCH CRS | Rwy Idg   | 3696 |
|          | TDZE      | 6168 |
| 109°     | Aptl Elev | 6190 |

AL-17449 [USA]

RNAV (GPS) RWY 9

BRADSHAW AAF (PHSF)

RNP APCH - GPS

V \* Circling not authorized at night.

\* Circling not authorized N of Rwy 09-27.

ANA Helicopter visibility reduction below  $\frac{3}{4}$  SM not authorized.

MISSIED APPROACH: Climbing right turn to 8700 direct ZIDNO and on track 316° to JASON and hold.

ATIS ★  
124.7 293.225HONOLULU CENTER★  
118.45 278.3TOWER ★  
119.275 (CTAF) 236.6GND CON★  
121.7 226.675(IAF)  
FLITTProcedure not authorized for arrivals at FLITT  
on V11 northeast bound.

5 NM

234°

054°

8000

JASON

105°

&gt; 8

8000

FNA course offset 18.2°, crosses rwy

extended centerline 5167' from thld.

(IF)  
HINUN

8000

109°

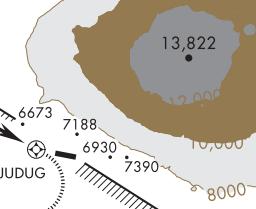
&gt; 8

(FAF)  
YIPUP

8000

109°

&gt; 8

Procedure not authorized via V3 southwest bound  
without holding at JASON. ATC Clearance required.

MSA JUDUG 25 NM

15,000

VGSI and descent angles not coincident  
(VGSI Angle 3.00/TCH 30).

HINUN

YIPUP

8700  
ZIDNO  
tr  
316°

JASON

8000

109°

8000

8000

8000

2.9 NM to

JUDUG

3.00°

TCH 40

JUDUG

0.9 NM

5.1 NM

← →

CATEGORY

A

B

C

D

LNAV MDA

7300-1½

1132 (1200-1½)

7300-1½

1132 (1200-1½)

7300-3

1132 (1200-3)

NOT

AUTHORIZED

CIRCLING\*

7300-1½

1110 (1200-1½)

7700-1½

1510 (1600-1½)

NOT AUTHORIZED

MIRL Rwy 09-27

CAMP POHAKULOA, HAWAII

Amdt 1 13JUL23

19° 46'N - 155° 33'W

BRADSHAW AAF (PHSF)

RNAV (GPS) RWY 9

KWAJALEIN USAKA, MARSHALL I

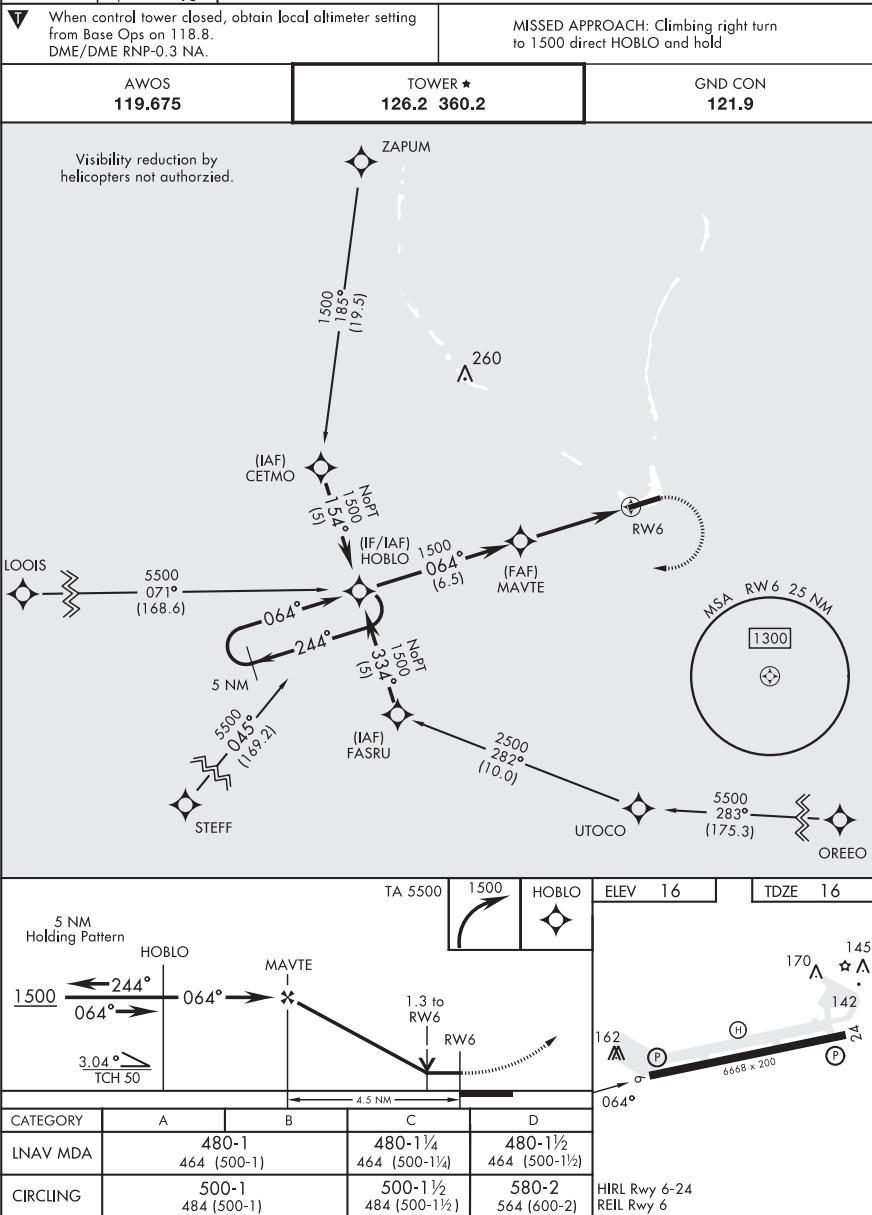
23334

|                         |                        |
|-------------------------|------------------------|
| APCH CRS<br><b>064°</b> | Rwy Idg<br><b>6668</b> |
| TDZE<br><b>16</b>       | Arpt Elev<br><b>16</b> |
|                         | DME/DME RNP-0.3 NA.    |

[USA]

**RNAV (GPS) RWY 6**

BUCHOLZ AAF (PKWA)



KWAJALEIN USAKA, MARSHALL I

08°43'N-167°44'E

BUCHOLZ AAF (PKWA)

Amdt 2 02DEC21

**RNAV (GPS) RWY 6**

23334

KWAJALEIN, MARSHALL I, MARSHALL ISLANDS

|                  |                        |
|------------------|------------------------|
| APCH CRS<br>244° | Rwy Idg<br><b>6668</b> |
| TDZE<br>16       | Arpt Elev<br>16        |
|                  |                        |

- (USA)

**RNAV (GPS) RWY 24**

BUCHOLZ AAF (PKWA)

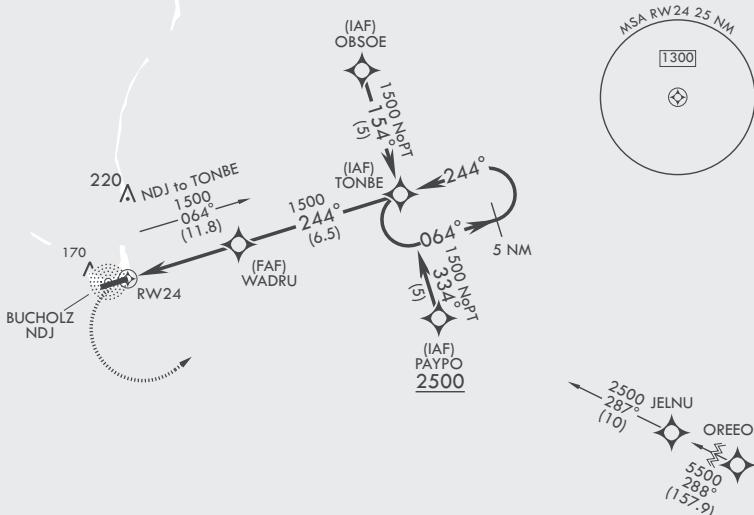
|                 |                                                                    |
|-----------------|--------------------------------------------------------------------|
|                 | MISSED APPROACH: Climbing left turn to 1500 direct TONBE and hold. |
| AWOS<br>119.675 | TOWER*<br>126.2 360.2                                              |
|                 | GND CON<br>121.9                                                   |



DME/DME RNP- 0.3 NA.

When control tower closed obtain local altimeter setting from Base Ops on 118.8

Visibility reduction by helicopters not authorized.



|          |       |             |                                         |                      |         |
|----------|-------|-------------|-----------------------------------------|----------------------|---------|
| 1500     | TONBE | TA 5500     | VGSI and RNAV glidepath not coincident. | ELEV 16              | TDZE 16 |
|          |       |             | 5 NM Holding Pattern                    |                      |         |
|          |       |             | 064°                                    |                      |         |
|          |       |             | 244°                                    |                      |         |
|          |       |             | 1500                                    |                      |         |
|          |       |             | ≤ 3.03°<br>TCH 52                       |                      |         |
| RW 24    | WADRU | TONBE       |                                         |                      |         |
| 4.5 NM   |       | 064°        |                                         |                      |         |
| CATEGORY | A     | B           | C                                       | D                    |         |
| LNAV MDA | 460-1 | 444 (500-1) | 460-1½                                  | 444 (500-1)          |         |
| CIRCLING | 500-1 | 484 (500-1) | 500-1½<br>484 (500-1½)                  | 580-2<br>564 (600-2) |         |

KWAJALEIN, MARSHALL I, MARSHALL ISLANDS

08°43'N - 167°44'E

Amdt 2A 02DEC21

BUCHOLZ AAF (PKWA)

**RNAV (GPS) RWY 24**

KWAJALEIN USAKA, MARSHALL I

|                         |                        |
|-------------------------|------------------------|
| APCH CRS<br><b>064°</b> | Rwy Idg<br><b>6668</b> |
| TDZE<br><b>16</b>       | Arpt Elev<br><b>16</b> |
| DME/DME RNP-0.3 NA      |                        |

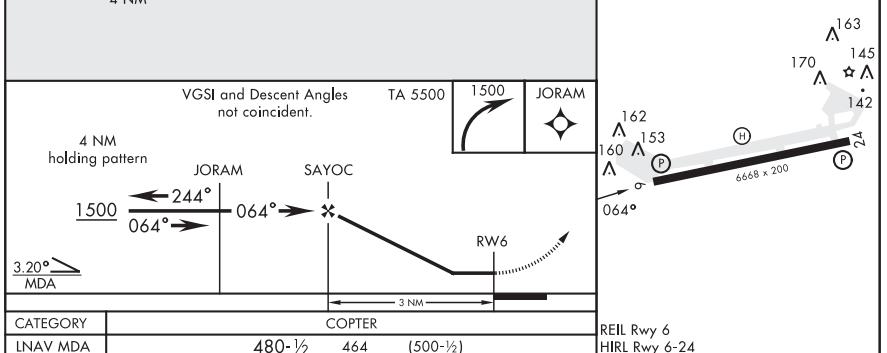
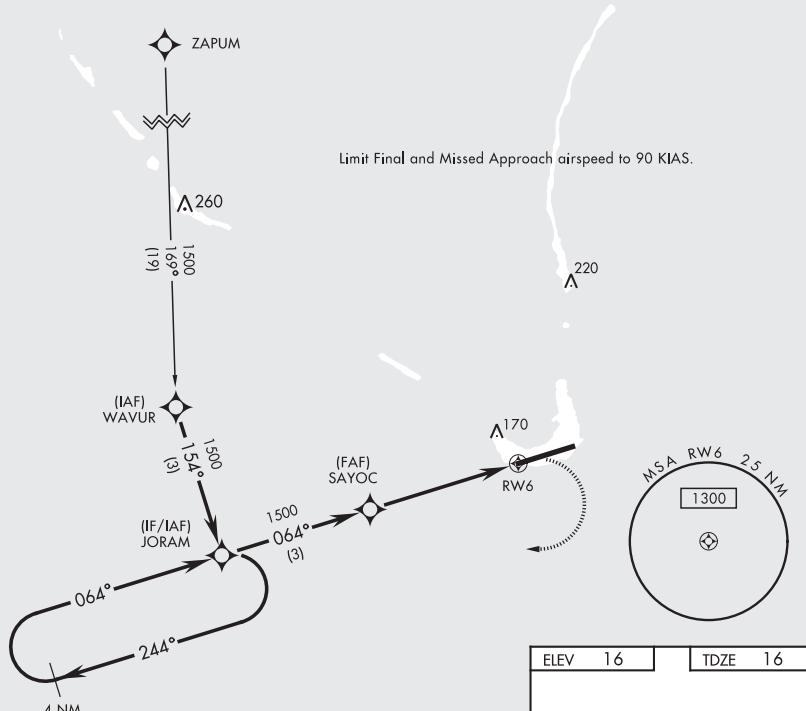
23334  
COPTER RNAV (GPS) RWY 6

[USA]

BUCHOLZ AAF (PKWA)

▼ When control tower closed, obtain local altimeter setting from Base Ops on 118.8.  
DME/DME RNP-0.3 NA

MISSIED APPROACH: Climbing right turn to 1500 direct JORAM and hold.

AWOS  
**119.675**TOWER \*  
**126.2 360.2**GND CON  
**121.9**

KWAJALEIN USAKA, MARSHALL I

08°43'N-167°44'E

BUCHOLZ AAF (PKWA)

Amdt 1 05JAN17

COPTER RNAV (GPS) RWY 6

23334

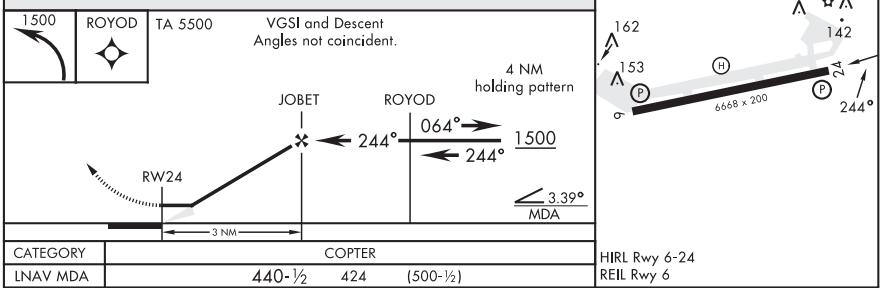
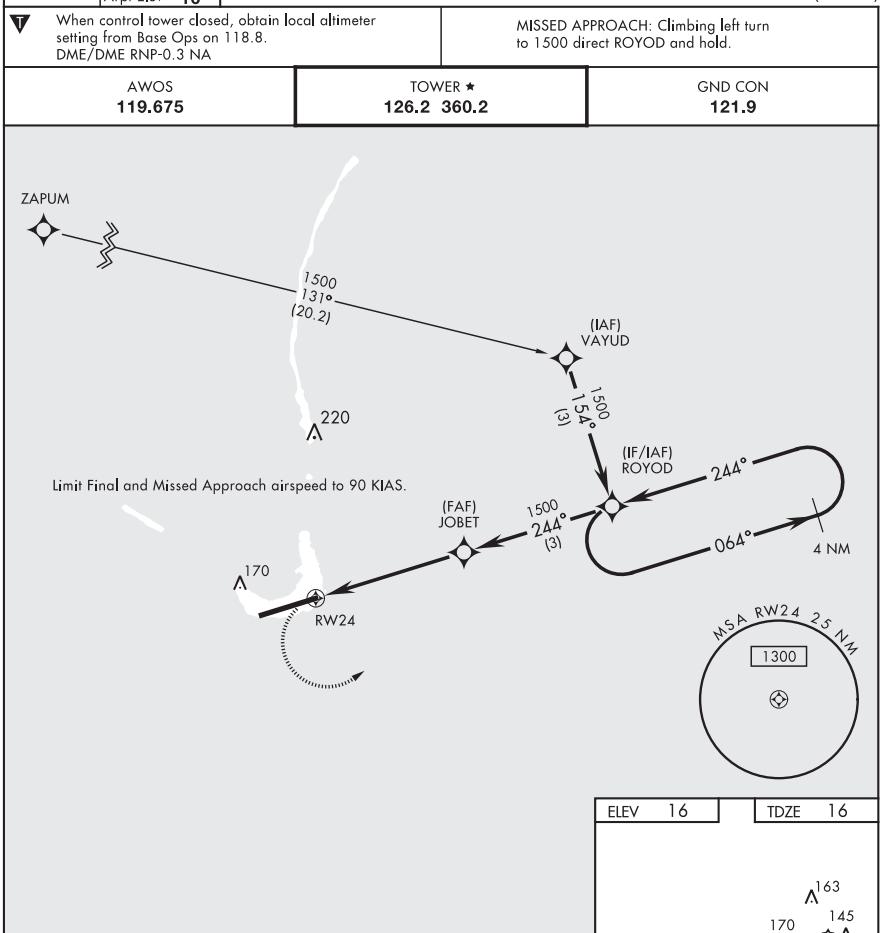
KWAJALEIN USAKA, MARSHALL I

|                  |                        |
|------------------|------------------------|
| APCH CRS<br>244° | Rwy Idg<br><b>6668</b> |
| TDZE<br>16       | Apt Elev<br><b>16</b>  |
|                  |                        |

[USA]

**COPTER RNAV (GPS) RWY 24**

BUCHOLZ AAF (PKWA)



KWAJALEIN USAKA, MARSHALL I

08°43'N-167°44'E

BUCHOLZ AAF (PKWA)

Amdt 1 02DEC21

**COPTER RNAV (GPS) RWY 24**

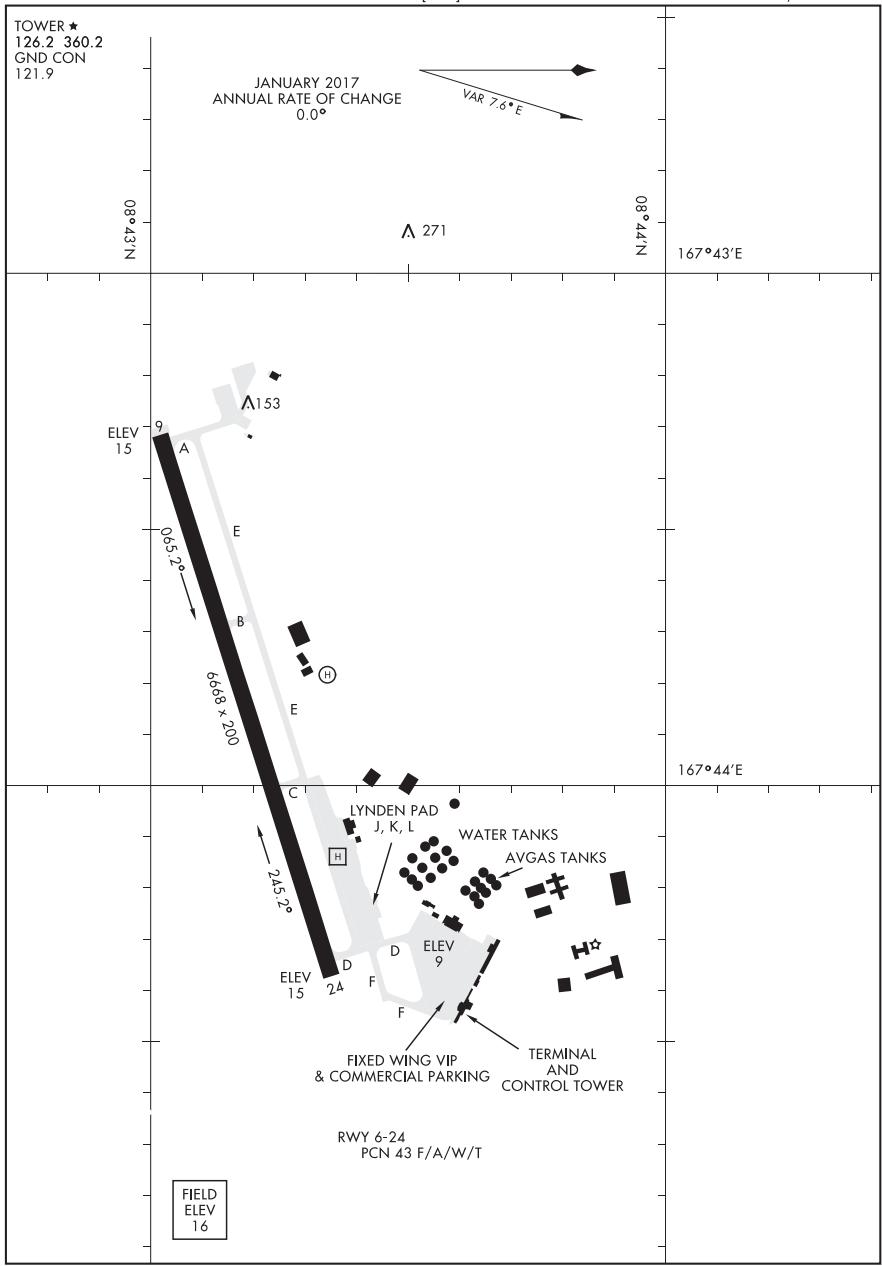
23334

## AIRPORT DIAGRAM

[USA]

BUCHOLZ AAF (PKWA)

KWAJALEIN USAKA, MARSHALL I



24025

KWAJALEIN USAKA, MARSHALL I.

|                         |                                                                       |
|-------------------------|-----------------------------------------------------------------------|
| APCH CRS<br><b>039°</b> | Rwy Idg<br><b>4499</b><br>TDZE<br><b>14</b><br>Aptl Elev<br><b>14</b> |
|-------------------------|-----------------------------------------------------------------------|

[USA]

RNAV (GPS) RWY 04

DYESS AAF (PKRO)

**A NA** \* Circling not authorized E of Rwy 04-22.  
DME/DME RNP-0.3 NA

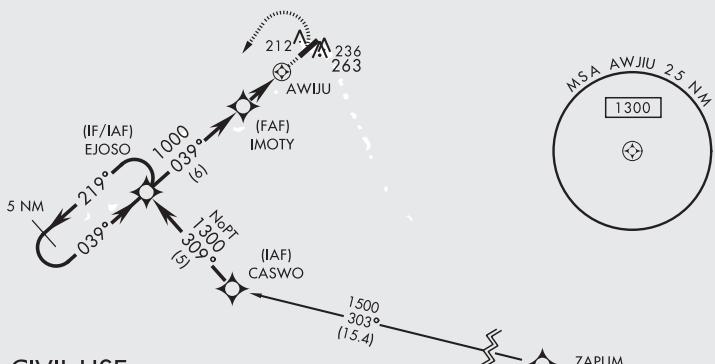
MISSSED APPROACH: Climbing left turn to 1300 direct EJOSO and hold.

KWAJALEIN APP CON  
**126.2 360.2**

KWAJALEIN TOWER ★  
**126.2 360.2**

Procedure not authorized at night except by prior arrangement for runway lights.

Obtain local altimeter setting on CTAF.  
When not received, use Bucholz AAF altimeter setting. Dyess Advisory 118.1.



NOT FOR CIVIL USE

| CATEGORY                               | A     |             | B | C                      | D              |
|----------------------------------------|-------|-------------|---|------------------------|----------------|
|                                        | 420-1 | 406 (500-1) |   | 420-1½<br>406 (500-1½) | NOT AUTHORIZED |
| CIRCLING *                             | 580-1 | 566 (600-1) |   | 580-1½<br>566 (600-1½) | NOT AUTHORIZED |
| BUCHOLZ AAF ALTIMETER SETTING MINIMUMS |       |             |   |                        |                |
| LNAV MDA                               | 520-1 | 506 (600-1) |   | 520-1½<br>506 (600-1½) | NOT AUTHORIZED |
| CIRCLING *                             | 680-1 | 666 (700-1) |   | 680-1¾<br>666 (700-1¾) | NOT AUTHORIZED |

KWAJALEIN USAKA, MARSHALL I.

09°24'N-167°28'E

DYESS AAF (PKRO)

Orig

RNAV (GPS) RWY 04

KWAJALEIN USAKA, MARSHALL I

|                         |                     |
|-------------------------|---------------------|
| APCH CRS<br><b>219°</b> | Rwy Idg <b>4499</b> |
| TDZE <b>14</b>          | Apt Elev <b>14</b>  |
| RNP APCH - GPS          | [USA]               |

▲ NA

\* Circling not authorized E of Rwy 04-22.

**RNAV (GPS) RWY 22**

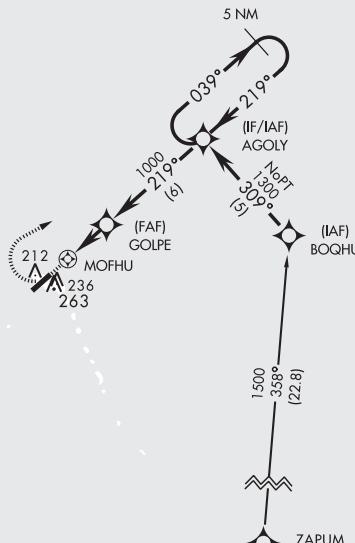
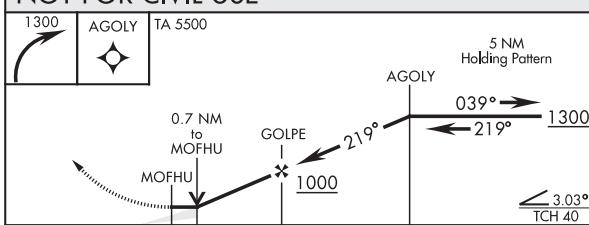
24025

DYESS AAF (PKRO)

|                                         |                                       |
|-----------------------------------------|---------------------------------------|
| KWAJALEIN APP CON<br><b>126.2 360.2</b> | KWAJALEIN TOWER<br><b>126.2 360.2</b> |
|-----------------------------------------|---------------------------------------|

Procedure not authorized at night except by prior arrangement for runway lights.

Obtain local altimeter setting on CTAF. When not received, use Buchholz AAF altimeter setting. Dyess Advisory 118.1

**NOT FOR CIVIL USE**

| CATEGORY   | A                 | B | C                  | D              |
|------------|-------------------|---|--------------------|----------------|
| LNAV MDA   | 580-1 566 (600-1) |   | 580-1 566 (600-1%) | NOT AUTHORIZED |
| CIRCLING * | 580-1 566 (600-1) |   | 580-1 566 (600-1%) | NOT AUTHORIZED |

**BUCHOLZ AAF ALTIMETER SETTING MINIMUMS**

|            |                   |                    |                |
|------------|-------------------|--------------------|----------------|
| LNAV MDA   | 680-1 666 (700-1) | 680-1 666 (700-1%) | NOT AUTHORIZED |
| CIRCLING * | 680-1 666 (700-1) | 680-1 666 (870-1%) | NOT AUTHORIZED |

HIRL Rwy 04-22  
REIL Rwy 04 and 22

KWAJALEIN USAKA, MARSHALL I

Amdt 1 02DEC21

09°24'N-167°28'E

DYESS AAF (PKRO)

**RNAV (GPS) RWY 22**

GUAM, GU

AL-2146 (FAA)

24025

|                                   |                 |                                                    |
|-----------------------------------|-----------------|----------------------------------------------------|
| LOC/DME I-GUM<br>110.3<br>Chan 40 | APP CRS<br>063° | Rwy Idg<br>TDZE<br>Apt Elev<br>11014<br>256<br>305 |
|-----------------------------------|-----------------|----------------------------------------------------|

DME or RADAR required.

▼ Cirding NA southeast of Rwy 6R-24L. For inop ALS, increase S-ILS 6L all Cats visibility to 1 SM; MOBKE fix minimums (DME required); For inop ALS, increase S-LOC 6L Cats C and D visibility to 2 1/2 SM. Inop table does not apply to S-LOC 6L Cats C and D.

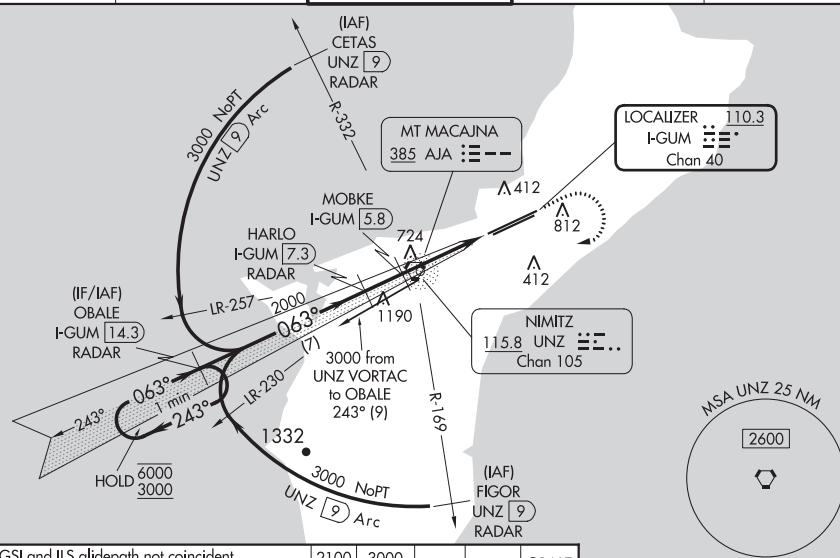


## ILS or LOC RWY 6L

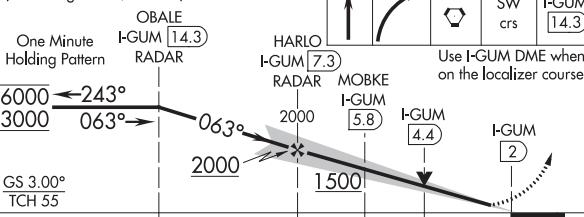
### GUAM INTL (GUM)(PGUM)

MISSIED APPROACH: Climb to 2100 then climbing right turn to 3000 direct UNZ VORTAC then on I-GUM localizer SW course to OBALLE/I-GUM 14.3 DME/RADAR and hold.

|               |                           |                            |                        |                   |
|---------------|---------------------------|----------------------------|------------------------|-------------------|
| ATIS<br>119.0 | GUAM CERAP<br>119.8 269.0 | AGANA TOWER<br>118.1 340.2 | GND CON<br>121.9 336.4 | CLNC DEL<br>121.9 |
|---------------|---------------------------|----------------------------|------------------------|-------------------|



VGSI and ILS glidepath not coincident (VGS Angle 3.00° TCH 73).



CATEGORY      A      B      C      D

S-ILS 6L      590-1/2      334 (300-1/2)

S-LOC 6L      1500-3/4      1500-1      1500-3      1244 (1200-3)

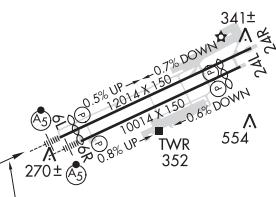
C CIRCLING      1500-1 1/4      1500-1 1/2      1500-3      1195 (1200-1 1/4)      1195 (1200-1 1/2)      1195 (1200-3)      NA

#### MOBKE FIX MINIMUMS (DME REQUIRED)

S-LOC 6L      1100-3/4      844 (800-3/4)      1100-2      844 (800-2)

C CIRCLING      1100-1      1100-1 1/4      1100-2 1/2      795 (800-1)      795 (800-1 1/4)      795 (800-2 1/2)      NA

ELEV 305      TDZE 256



HIRL all Rwy's

FAF to MAP 5.4 NM

Knots      60      90      120      150      180

Min:Sec      5:24      3:36      2:42      2:10      1:48

GUAM, GU  
Amdt 4C 25JAN24

13°29'N-144°48'E

GUAM INTL (GUM)(PGUM)

ILS or LOC RWY 6L

GUAM, GU

AL-2146 (FAA)

2405

|                                          |                        |                                                                         |
|------------------------------------------|------------------------|-------------------------------------------------------------------------|
| LOC/DME I-AWD<br><b>110.9</b><br>Chan 46 | APP CRS<br><b>063°</b> | Rwy Idg<br><b>10014</b><br>TDZE<br>Apt Elev<br><b>258</b><br><b>305</b> |
|------------------------------------------|------------------------|-------------------------------------------------------------------------|

DME or RADAR required.

V Circling NA southeast of Rwy 6R-24L. Rwy 6R helicopter visibility reduction below  $\frac{1}{2}$  SM NA. Inop table does apply to S-LOC 6R Cat C and D. ZAXUS fix minimums (DME required): For inop ALS, increase S-LOC 6R Cat A and B visibility to 1 SM and Cats C and D to 2 SM.

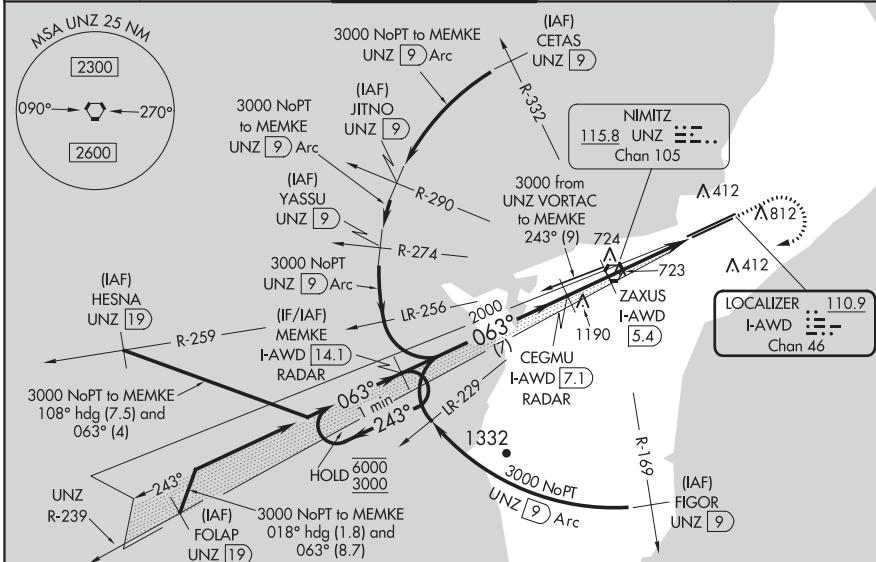


## ILS or LOC RWY 6R

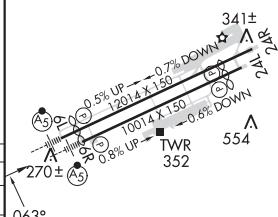
### GUAM INTL (GUM)(PGUM)

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

|                      |                                  |                                   |                               |                         |
|----------------------|----------------------------------|-----------------------------------|-------------------------------|-------------------------|
| ATIS<br><b>119.0</b> | GUAM CERAP<br><b>119.8 269.0</b> | AGANA TOWER<br><b>118.1 340.2</b> | GND CON<br><b>121.9 336.4</b> | CNC DEL<br><b>121.9</b> |
|----------------------|----------------------------------|-----------------------------------|-------------------------------|-------------------------|



|                                                                 |                                                      |                                                      |                                                |                         |       |                                         |          |            |
|-----------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------|-------------------------|-------|-----------------------------------------|----------|------------|
| VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 76). |                                                      | 2100                                                 | 3000                                           | UNZ                     | I-AWD | MEMKE I-AWD [14.1]                      | ELEV 305 | D TDZE 258 |
| One Minute Holding Pattern                                      | MEMKE I-AWD [14.1] RADAR                             |                                                      |                                                |                         |       | Use I-AWD DME when on localizer course. |          |            |
| 6000                                                            | 243°                                                 | 3000                                                 | 063°                                           | 063°                    |       |                                         |          |            |
| GS 3.00°                                                        | TCH 57°                                              | 2000                                                 |                                                |                         |       |                                         |          |            |
| CATEGORY                                                        | A                                                    | B                                                    | C                                              | D                       |       |                                         |          |            |
| S-ILS 6R                                                        |                                                      | 603- $\frac{3}{4}$                                   | 345 (300- $\frac{3}{4}$ )                      |                         |       |                                         |          |            |
| S-LOC 6R                                                        | 1440- $\frac{3}{4}$<br>1182 (1200- $\frac{3}{4}$ )   | 1440-1<br>1182 (1200-1)                              |                                                | 1440-3 1182 (1200-3)    |       |                                         |          |            |
| C CIRCLING                                                      | 1440-1 $\frac{1}{4}$<br>1135 (1200-1 $\frac{1}{4}$ ) | 1440-1 $\frac{1}{2}$<br>1135 (1200-1 $\frac{1}{2}$ ) |                                                | 1440-3<br>1135 (1200-3) |       | NA                                      |          |            |
| ZAXUS FIX MINIMUMS (DME REQUIRED)                               |                                                      |                                                      |                                                |                         |       |                                         |          |            |
| S-LOC 6R                                                        | 980- $\frac{3}{4}$ 722 (700- $\frac{3}{4}$ )         |                                                      | 980-1 $\frac{5}{8}$ 722 (700-1 $\frac{5}{8}$ ) |                         |       |                                         |          |            |
| C CIRCLING                                                      | 980-1 675 (700-1)                                    |                                                      | 980-2<br>675 (700-2)                           |                         | NA    |                                         |          |            |



GUAM, GU  
Orig-E 25JAN24

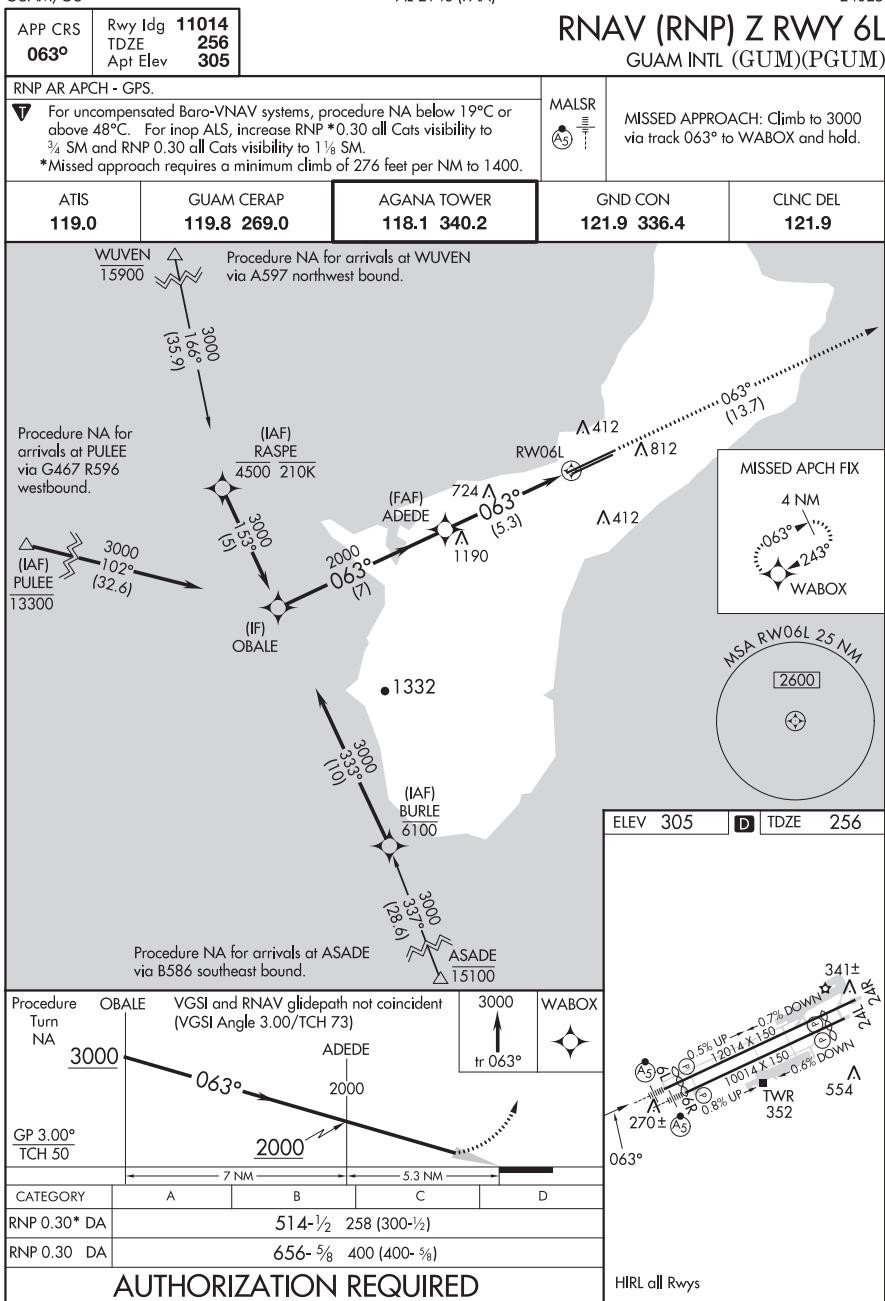
13°29'N-144°48'E

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

GUAM, GU

AL-2146 (FAA)

24025

GUAM, GU  
Orig-E 25JAN24

13°29'N-144°48'E

GUAM INTL (GUM)(PGUM)

RNAV (RNP) Z RWY 6L

GUAM, GU

AL-2146 (FAA)

24025

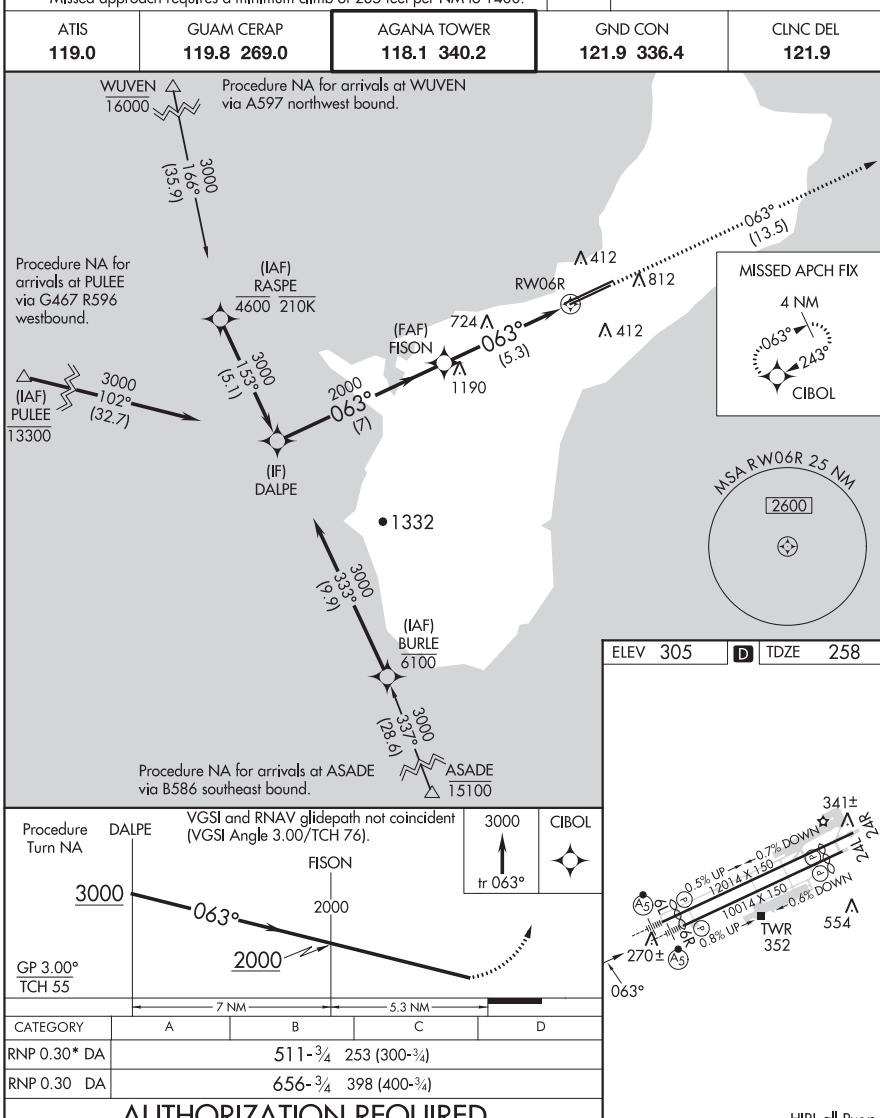
|                 |                         |
|-----------------|-------------------------|
| APP CRS<br>063° | Rwy Idg<br><b>10014</b> |
| TDZE            | <b>258</b>              |
| Apt Elev        | <b>305</b>              |

RNP AR APCH - GPS.

▼ For uncompensated Baro-VNAV systems, procedure NA below 19°C or above 48°C. For inop ALS, increase RNP 0.30 all Cals visibility to 1 1/8 SM. Inop table does not apply to RNP 0.30.\*  
\*Missed approach requires a minimum climb of 285 feet per NM to 1400.

## RNAV (RNP) Z RWY 6R

GUAM INTL (GUM)(PGUM)



GUAM, GU  
Orig-D 25JAN24

13°29'N-144°48'E

GUAM INTL (GUM)(PGUM)

## RNAV (RNP) Z RWY 6R

GUAM, GU

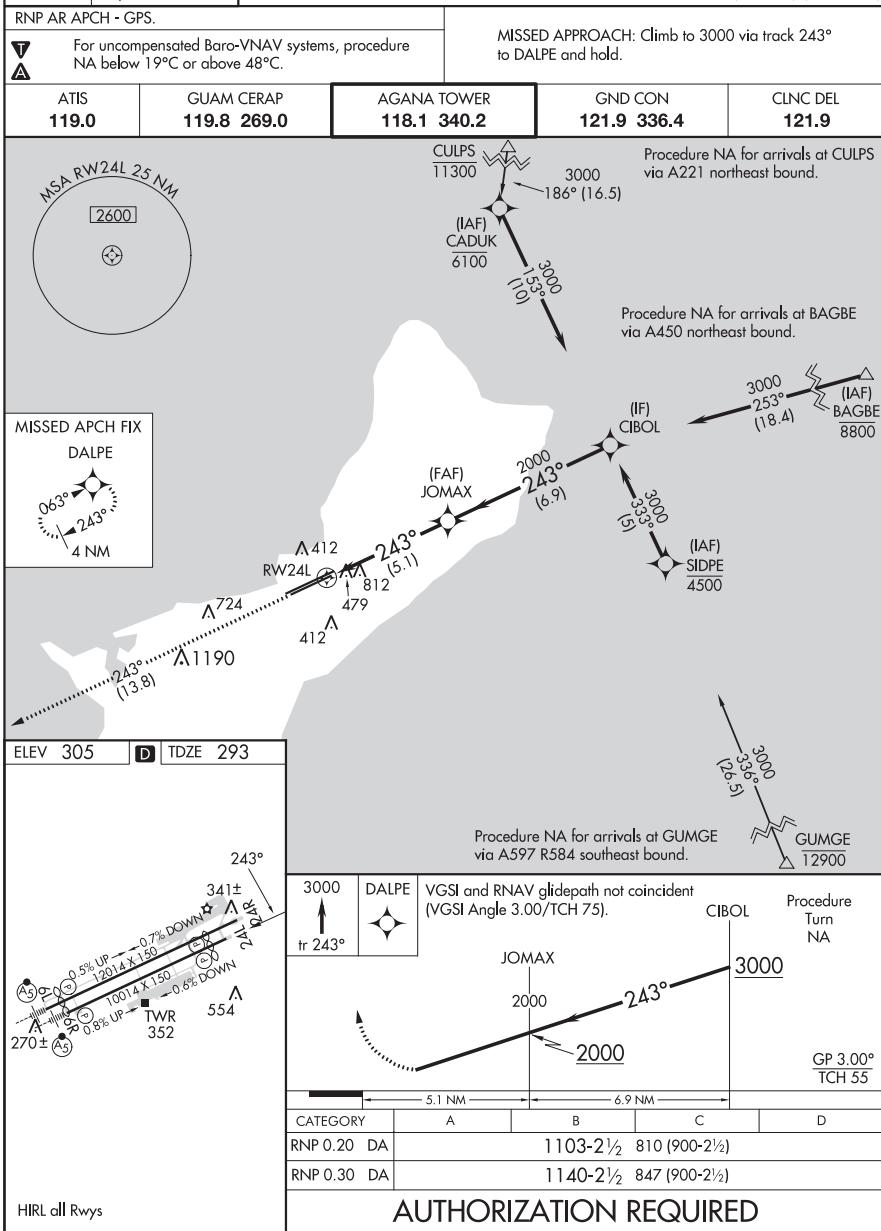
AI-2146 (FAA)

23334

|                 |                             |                    |
|-----------------|-----------------------------|--------------------|
| APP CRS<br>243° | Rwy Idg<br>TDZE<br>Apt Elev | 8710<br>293<br>305 |
|-----------------|-----------------------------|--------------------|

# RNAV (RNP) Z RWY 24L

GUAM INTL (GUM)(PGUM)



GUAM, GU  
Orig-F 30NOV23

13°29'N-144°48'E

GUAM INTL (GUM)(PGUM)

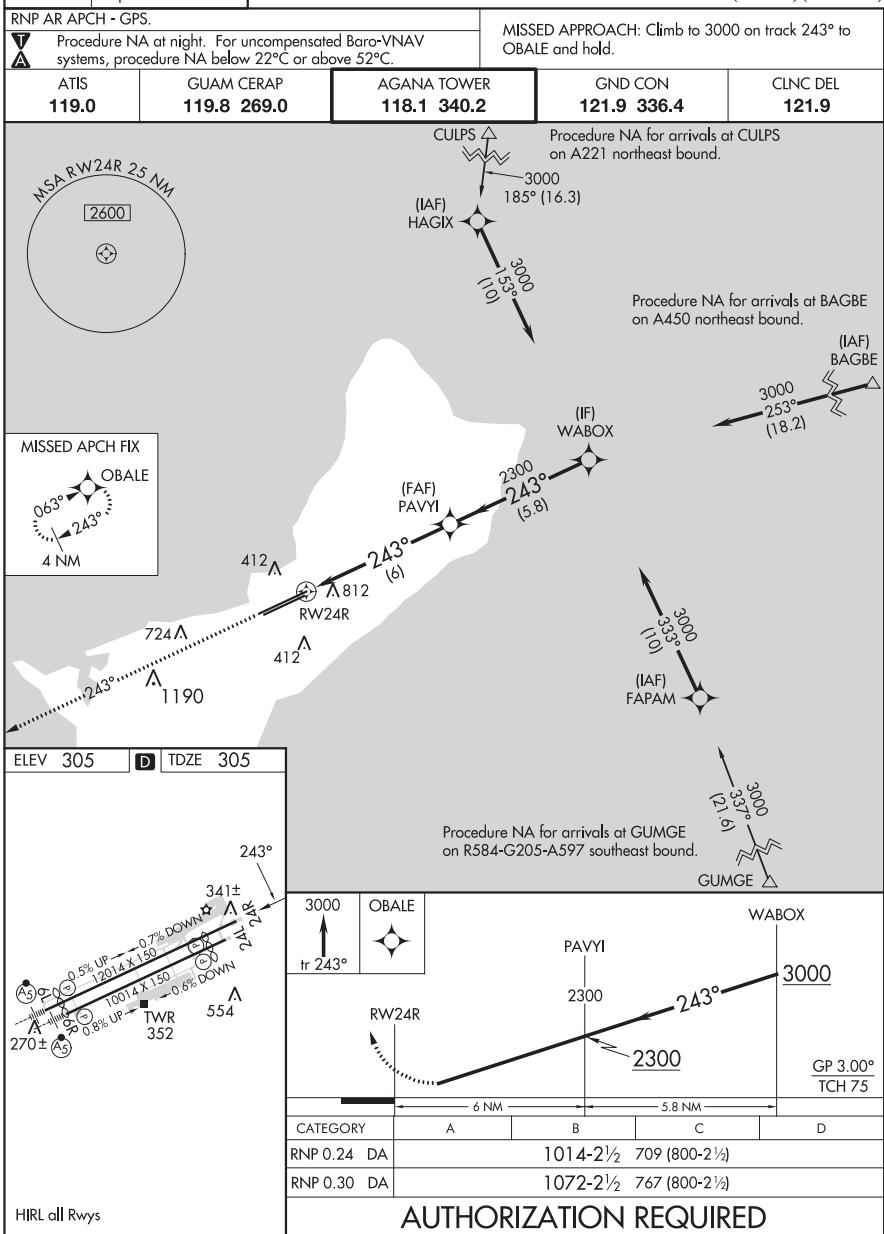
**RNAV (RNP) Z RWY 24L**

GUAM, GU

|                 |                             |                     |
|-----------------|-----------------------------|---------------------|
| APP CRS<br>243° | Rwy Idg<br>TDZE<br>Apt Elev | 12014<br>305<br>305 |
|-----------------|-----------------------------|---------------------|

AL-2146 (FAA)

23334

**RNAV (RNP) Z RWY 24R**  
GUAM INTL (GUM)(PGUM)GUAM, GU  
Amdt 1B 30NOV23

13°29'N-144°48'E

GUAM INTL (GUM)(PGUM)

**RNAV (RNP) Z RWY 24R**

GUAM, GU

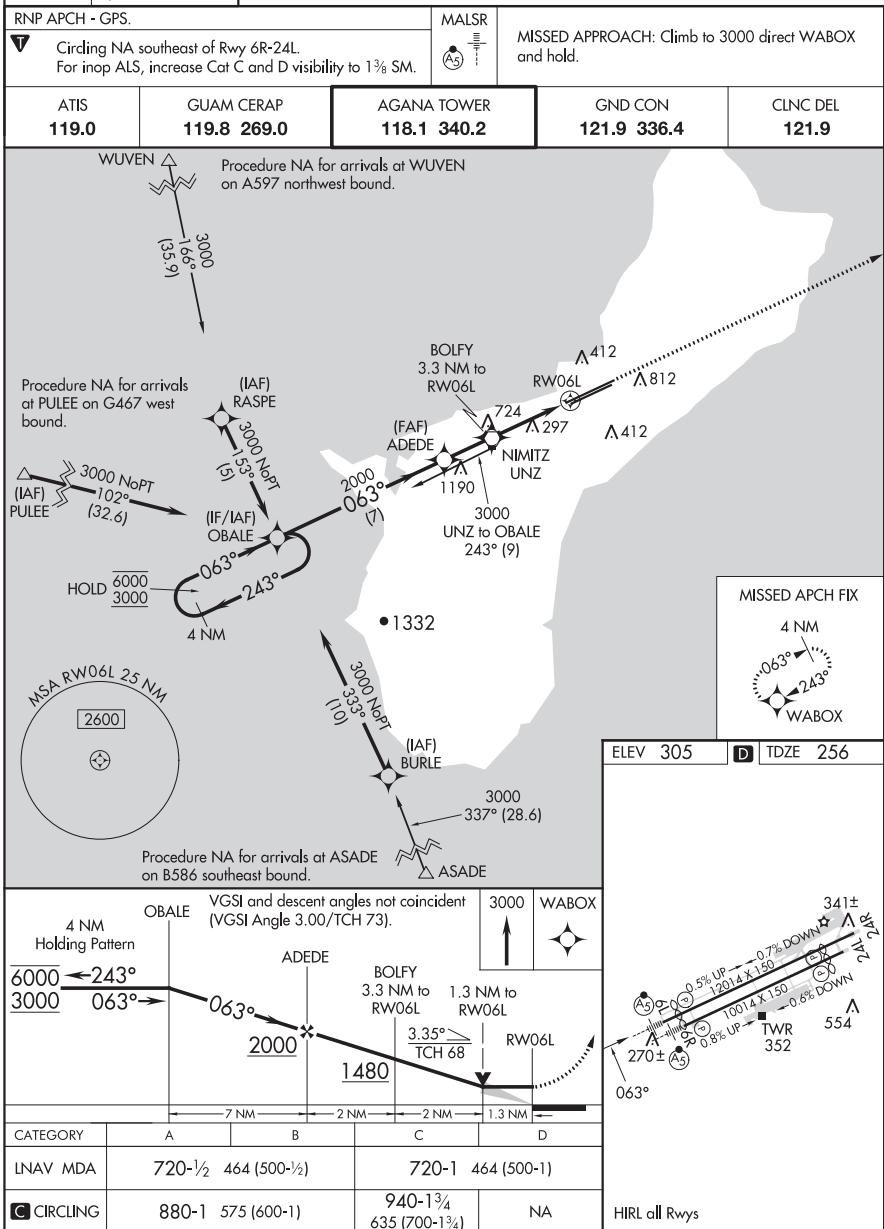
AL-2146 (FAA)

24025

|         |          |              |
|---------|----------|--------------|
| APP CRS | Rwy Idg  | <b>11014</b> |
|         | TDZE     | <b>256</b>   |
|         | Apt Elev | <b>305</b>   |

# RNAV (GPS) Y RWY 6L

GUAM INTL (GUM)(PGUM)



GUAM, GU  
Amdt 1C 25JAN24

13°29'N-144°48'E

GUAM INTL (GUM)(PGUM)

# RNAV (GPS) Y RWY 6L

GUAM, GU

AL-2146 (FAA)

24025

|                        |                                                                         |
|------------------------|-------------------------------------------------------------------------|
| APP CRS<br><b>063°</b> | Rwy Idg<br><b>10014</b><br>TDZE<br><b>258</b><br>Apt Elev<br><b>305</b> |
|------------------------|-------------------------------------------------------------------------|

RNP APCH - GPS.

▼ Rwy 6R helicopter visibility reduction below  $\frac{3}{4}$  SM NA. For inop ALS, increase Cat A and B visibility to 1 SM, and Cat C and D to 2 SM. Circling NA southeast of Rwy 6R-24L.

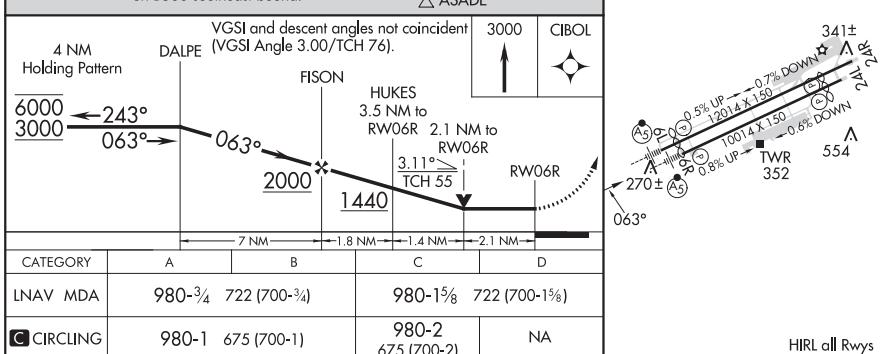
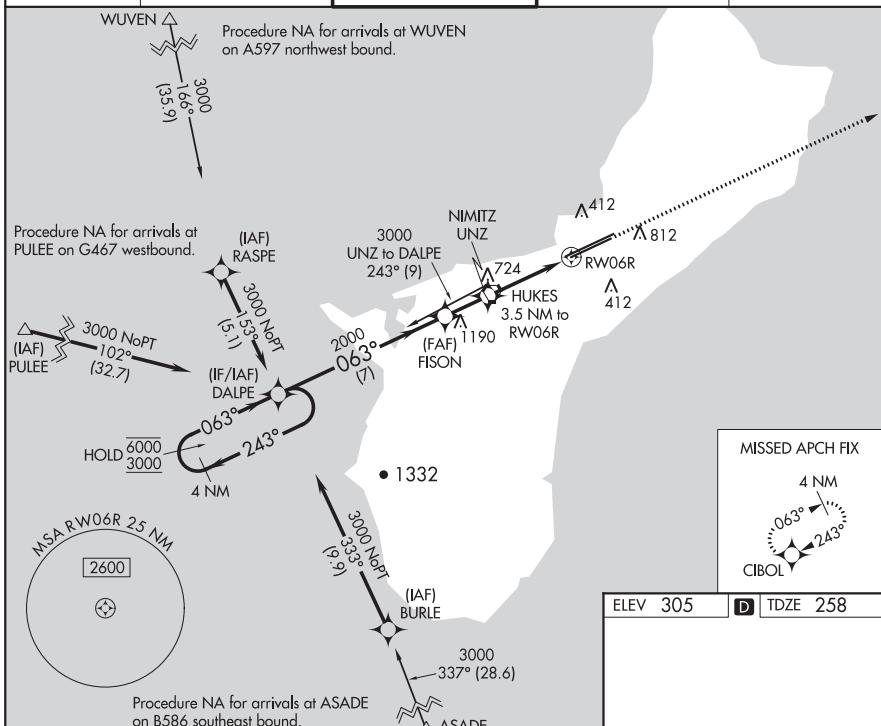
MALS R



## RNAV (GPS) Y RWY 6R

GUAM INTL (GUM)(PGUM)

|                      |                                  |                                   |                               |                          |
|----------------------|----------------------------------|-----------------------------------|-------------------------------|--------------------------|
| ATIS<br><b>119.0</b> | GUAM CERAP<br><b>119.8 269.0</b> | AGANA TOWER<br><b>118.1 340.2</b> | GND CON<br><b>121.9 336.4</b> | CLNC DEL<br><b>121.9</b> |
|----------------------|----------------------------------|-----------------------------------|-------------------------------|--------------------------|



GUAM, GU  
Amdt 1D 25JAN24

13°29'N-144°48'E

GUAM INTL (GUM)(PGUM)

## RNAV (GPS) Y RWY 6R

GUAM, GU

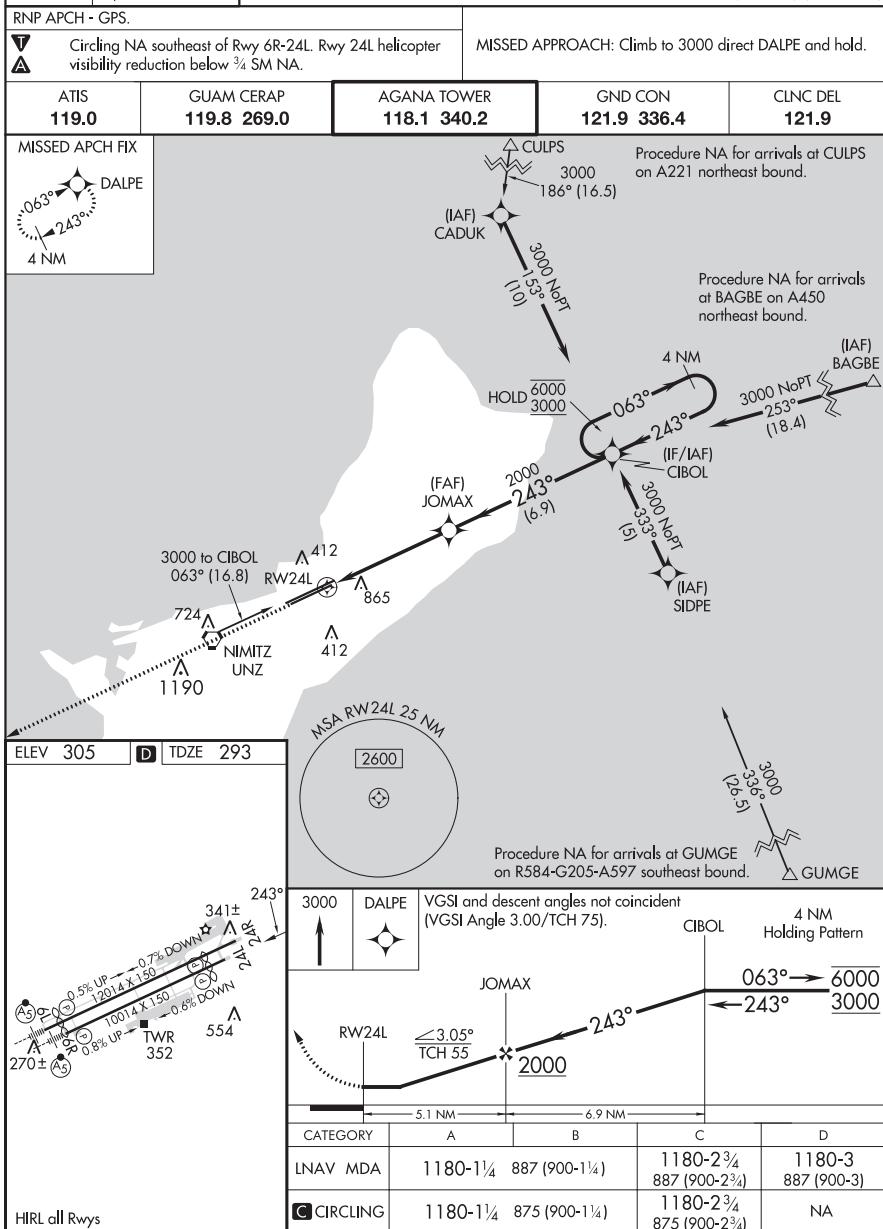
AI-2146 (FAA)

24025

|                 |                 |      |
|-----------------|-----------------|------|
| APP CRS<br>243° | Rwy Idg<br>293  | 8710 |
|                 | Apt Elev<br>305 | 293  |

# RNAV (GPS) Y RWY 24L

GUAM INTL (GUM)(PGUM)



GUAM, GU  
Amdt 1D 25JAN24

13°29'N-144°48'E

GUAM INTL (GUM)(PGUM)

# RNAV (GPS) Y RWY 24L

GUAM, GU

AL-2146 (FAA)

2405

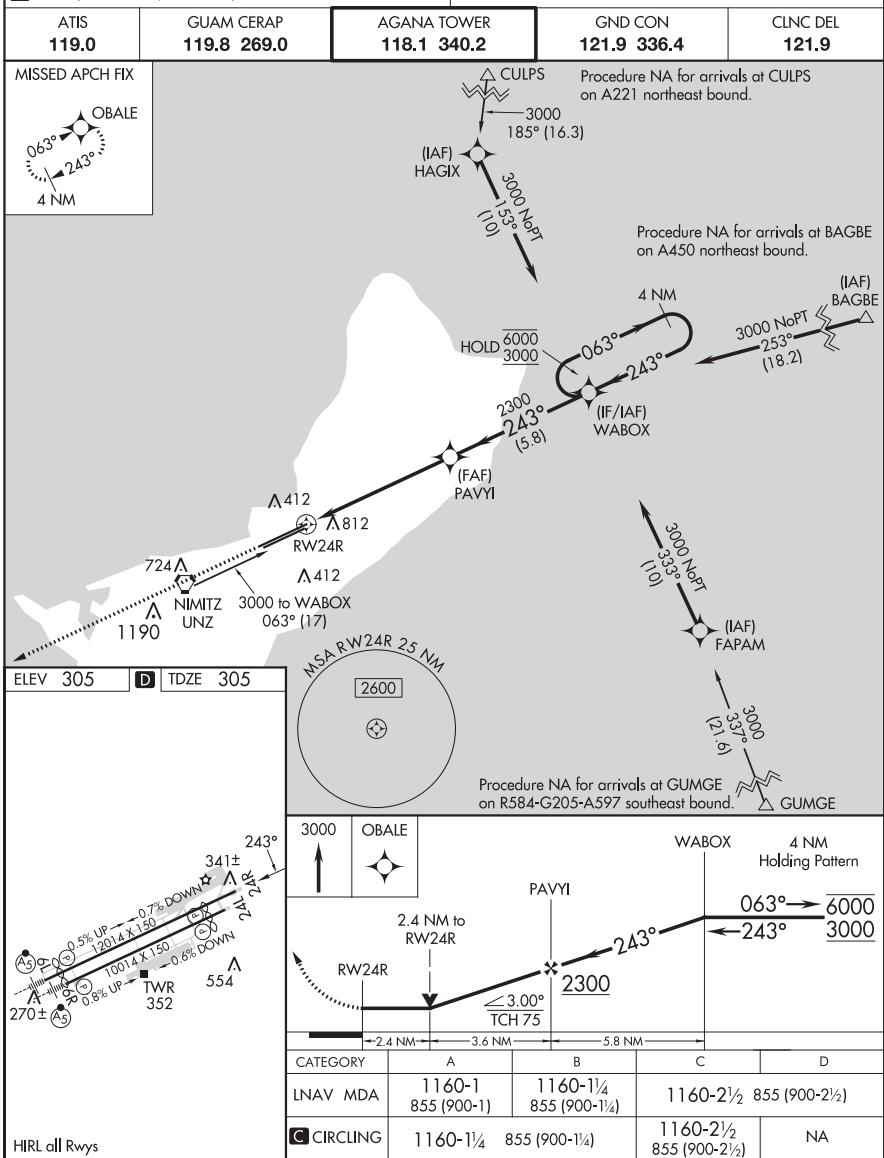
|                 |                                           |
|-----------------|-------------------------------------------|
| APP CRS<br>243° | Rwy Idg 12014<br>TDZE 305<br>Apt Elev 305 |
|-----------------|-------------------------------------------|

RNP APCH - GPS.

▼ Cirding NA southeast of Rwy 6R-24L.  
Rwy 24R helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

## RNAV (GPS) Y RWY 24R

GUAM INTL (GUM)(PGUM)



GUAM, GU  
Amdt 2B 25JAN24

13°29'N-144°48'E

GUAM INTL (GUM)(PGUM)

## RNAV (GPS) Y RWY 24R

GUAM, GU

AL-2146 (FAA)

24025

|                                 |                 |                                           |
|---------------------------------|-----------------|-------------------------------------------|
| VORTAC UNZ<br>115.8<br>Chan 105 | APP CRS<br>242° | Rwy Idg 12014<br>TDZE 305<br>Apt Elev 305 |
|---------------------------------|-----------------|-------------------------------------------|

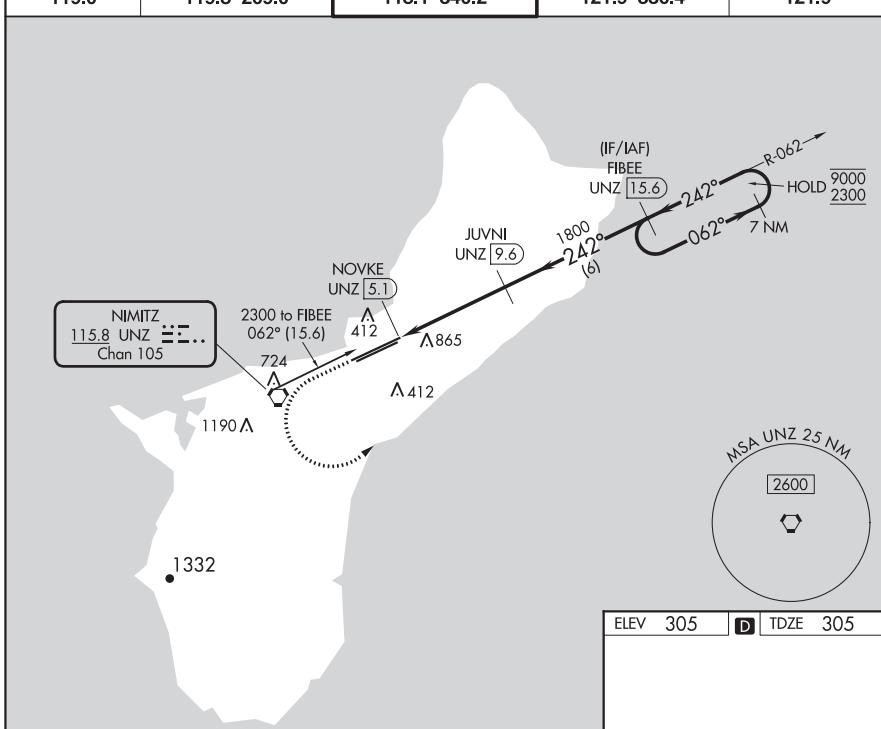
## VOR or TACAN RWY 24R

GUAM INTL (GUM)(PGUM)

DME required.

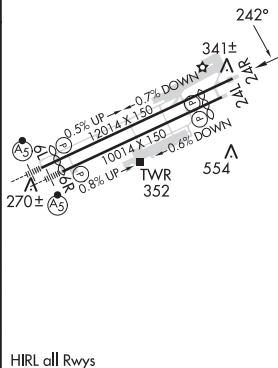
▀ Circling NA southeast of Rwy 6R-24L.  
 △ Rwy 24R helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

MISSIED APPROACH: Climb to 2300 then left turn on UNZ VORTAC R-062 to FIBEE/UNZ 15.6 DME and hold.

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

ELEV 305 D TDZE 305

| 2300     | ↑                       | UNZ R-062               | FIBEE UNZ [15.6] | JUVNI UNZ [9.6]         | FIBEE UNZ [15.6] | 7 NM Holding Pattern      |
|----------|-------------------------|-------------------------|------------------|-------------------------|------------------|---------------------------|
|          |                         |                         |                  | UNZ [7.6]               |                  |                           |
|          |                         |                         |                  | 3.00° TCH 75            |                  |                           |
|          |                         |                         |                  |                         | 1800             |                           |
|          |                         |                         |                  |                         |                  | 062° → 9000 ← 242° ← 2300 |
|          |                         |                         |                  |                         |                  | 2.5 NM - 2 NM - 6 NM      |
| CATEGORY | A                       | B                       | C                | D                       |                  |                           |
| S-24R    | 1180-1<br>875 (900-1)   | 1180-1½<br>875 (900-1½) |                  | 1180-2½<br>875 (900-2½) |                  |                           |
| CIRCLING | 1180-1½<br>875 (900-1½) |                         |                  | 1180-2½<br>875 (900-2½) | NA               |                           |

GUAM, GU  
Amdt 1B 25JAN24

13°29'N-144°48'E

GUAM INTL (GUM)(PGUM)

VOR or TACAN RWY 24R

GUAM, GU

AL-2146 (FAA)

24025

|                |                 |                                           |
|----------------|-----------------|-------------------------------------------|
| NDB AJA<br>385 | APP CRS<br>241° | Rwy Idg 12014<br>TDZE 305<br>Apt Elev 305 |
|----------------|-----------------|-------------------------------------------|

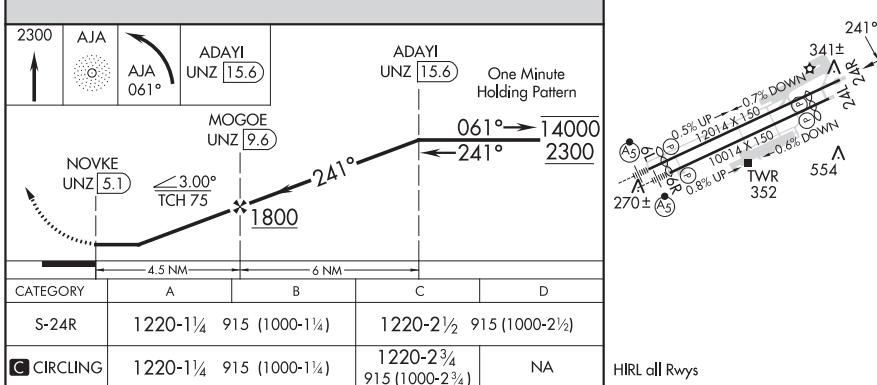
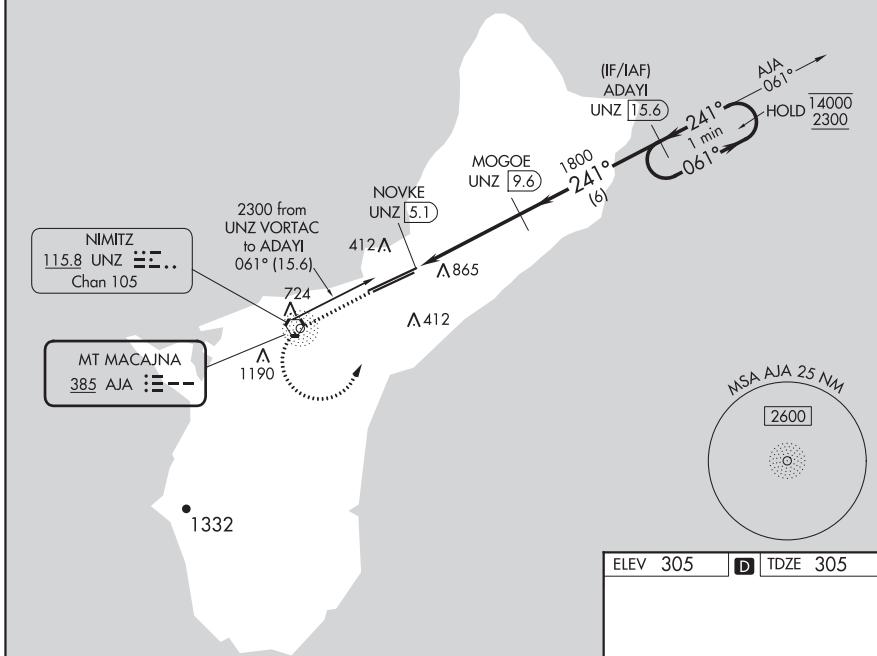
NDB RWY 24R  
GUAM INTL (GUM)(PGUM)

DME required.

**V** **ANA** Cirding NA southeast of Rwy 6R-24L. Rwy 24R helicopter visibility reduction below  $\frac{3}{4}$  SM NA. Simultaneous reception of AJA NDB and UNZ DME required.

MISSED APPROACH: Climb to 2300 direct AJA NDB and left turn on AJA NDB bearing 061° to ADAYI/UNZ 15.6 DME and hold.

|               |                           |                            |                        |                   |
|---------------|---------------------------|----------------------------|------------------------|-------------------|
| ATIS<br>119.0 | GUAM CERAP<br>119.8 269.0 | AGANA TOWER<br>118.1 340.2 | GND CON<br>121.9 336.4 | CLNC DEL<br>121.9 |
|---------------|---------------------------|----------------------------|------------------------|-------------------|



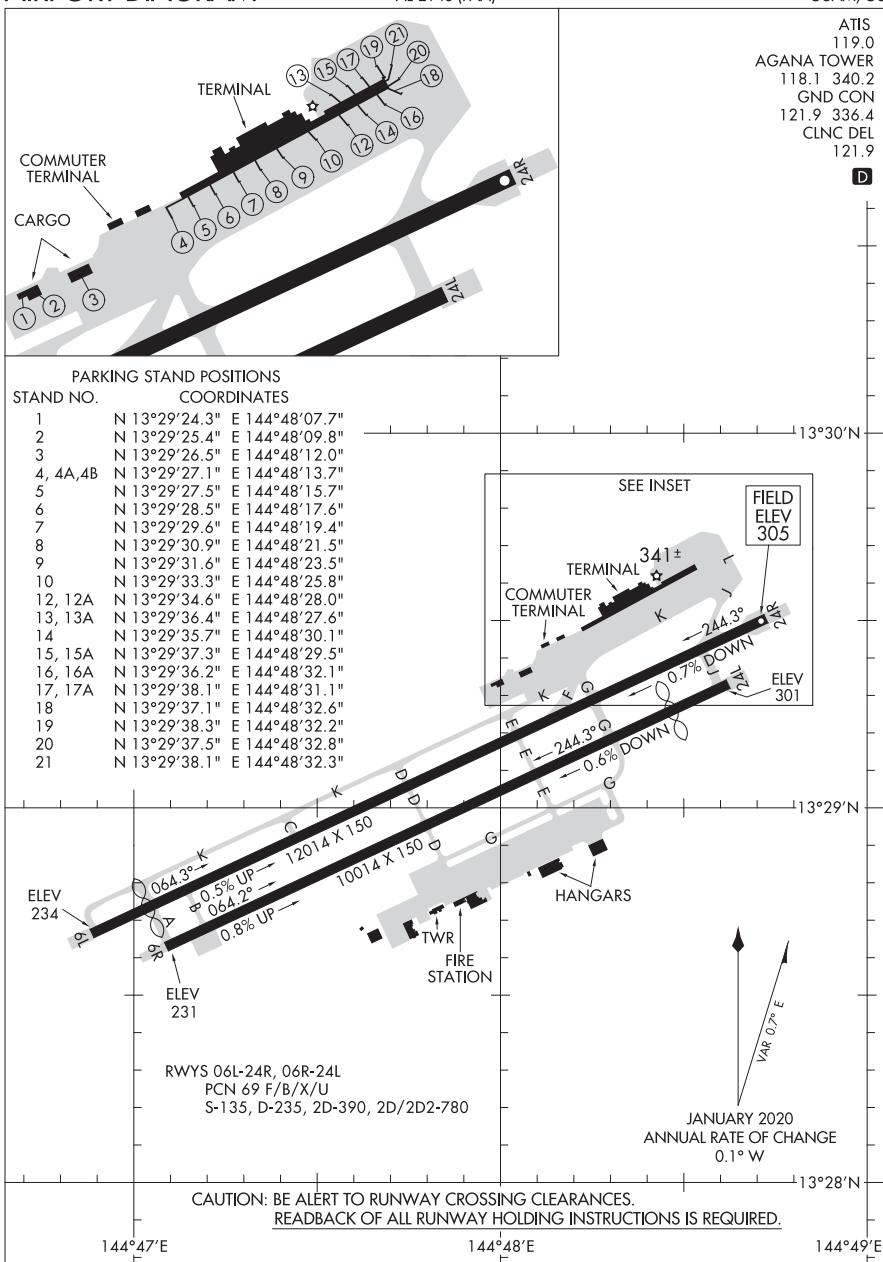
GUAM, GU  
Amdt 1B 25JAN24

13°29'N-144°48'E

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

23110  
AIRPORT DIAGRAM

AL-2146 (FAA)

GUAM INTL (GUM)(PGUM)  
GUAM, GU

23110  
AIRPORT DIAGRAM

GUAM, GU  
GUAM INTL (GUM)(PGUM)

HANA, HAWAII

AI-5156 (FAA)

20254

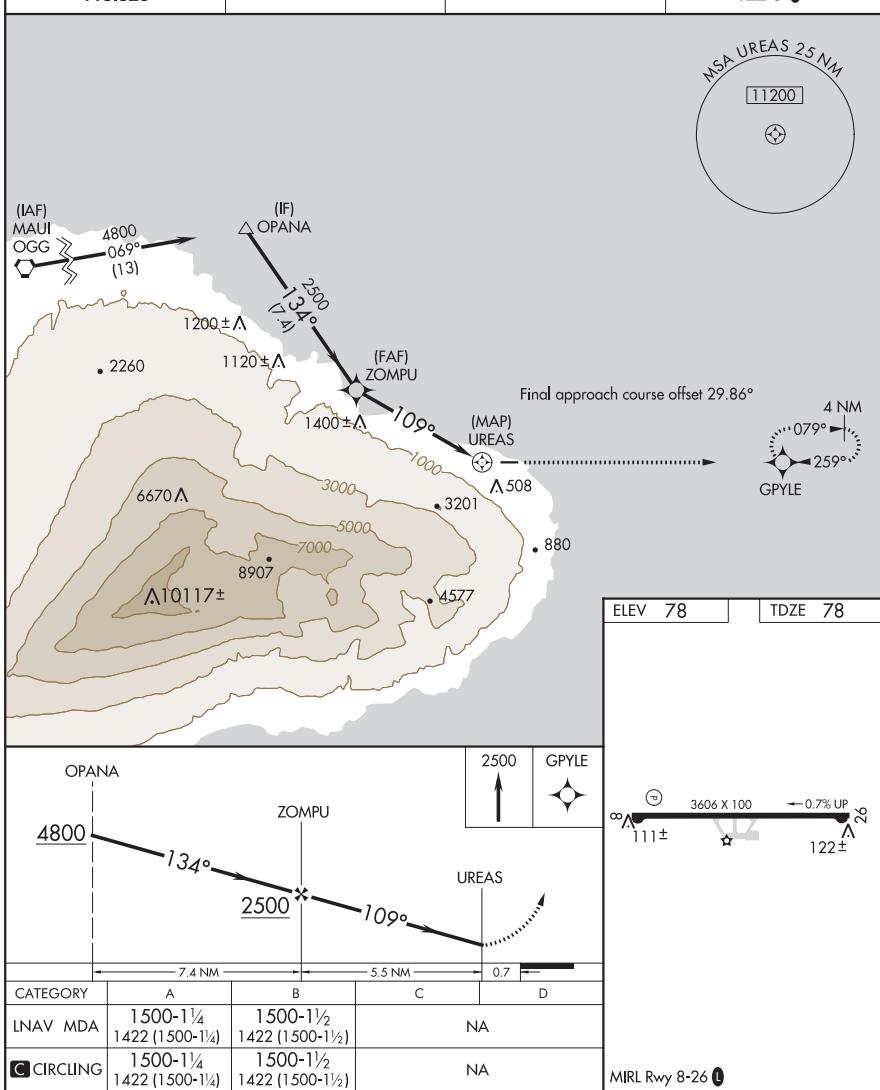
|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>109°</b> | Rwy Idg<br><b>3606</b> |
|                        | TDZE<br><b>78</b>      |
|                        | Apt Elev<br><b>78</b>  |

**RNAV (GPS) RWY 8**  
 HANA (HNM)(PHHN)

RNP APCH.

▼ Circling NA south of Rwy 8-26. Procedure NA at night.  
 ▲ NA Rwy 8 helicopter visibility reduction below 1 SM NA.  
 When local altimeter setting not received, procedure NA.

MISSSED APPROACH: Climb to 2500 direct GPYLE and hold.

AWOS-3PT  
**118.325**HCF CENTER  
**118.45 278.3**CLNC DEL  
**122.3**CTAF  
**122.9 0**

HANA, HAWAII

Orig 30JAN20

20°48'N-156°01'W

 HANA (HNM)(PHHN)  
**RNAV (GPS) RWY 8**

HANA, HAWAII

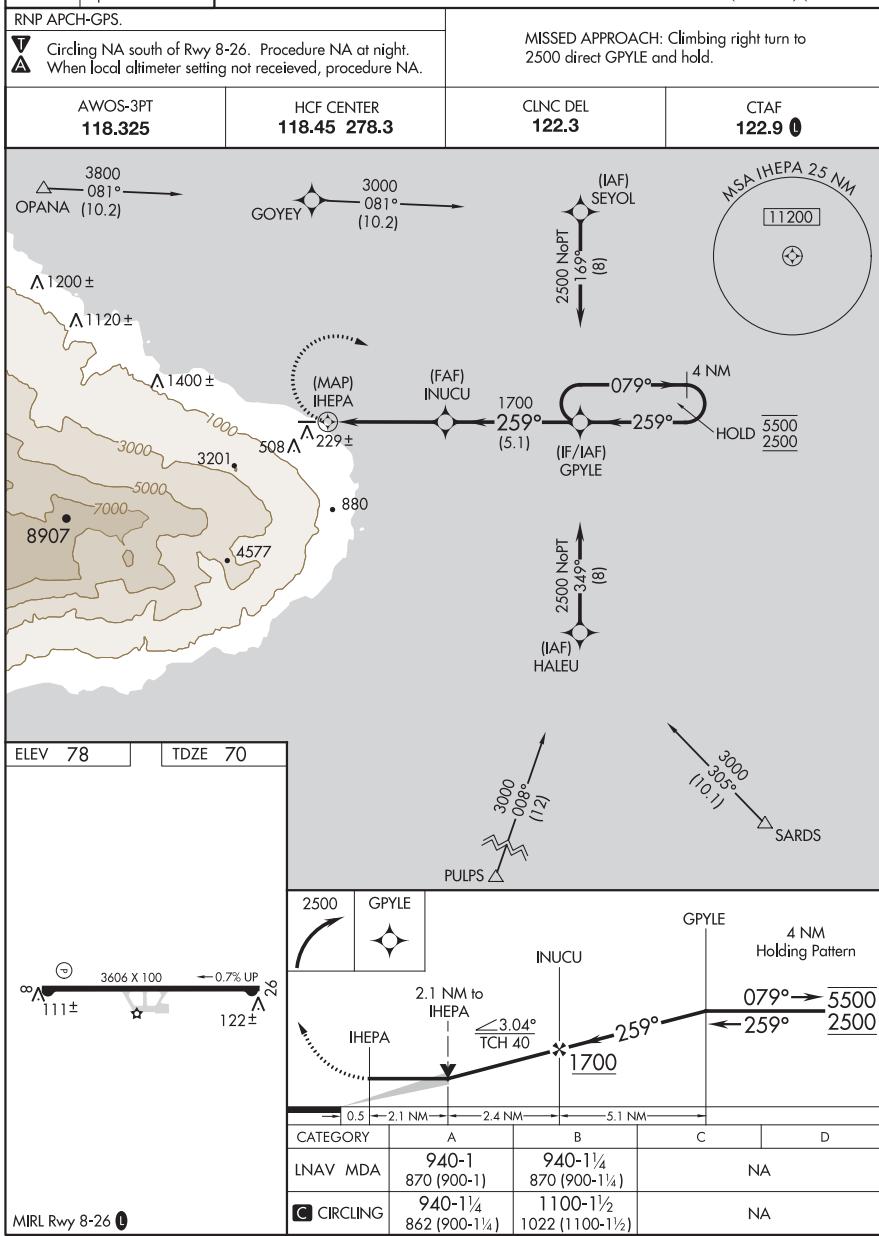
AL-5156 (FAA)

22251

|                 |                 |
|-----------------|-----------------|
| APP CRS<br>259° | Rwy Idg<br>3606 |
|                 | TDZE<br>70      |
|                 | Apt Elev<br>78  |

# RNAV (GPS) RWY 26

HANA (HNM)(PHHN)



HANA, HAWAII

Amdt 1A 08SEP22

20°48'N-156°01'W

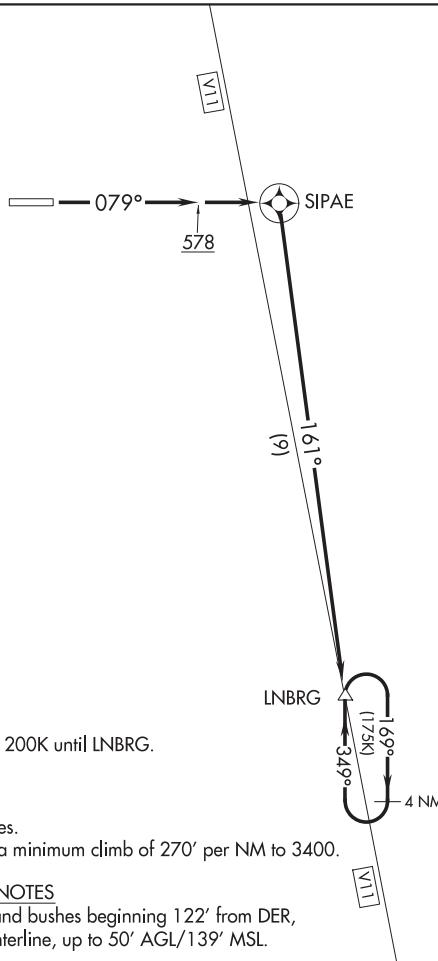
HANA (HNM)(PHHN)  
RNAV (GPS) RWY 26

(LNBRG2.LNBRG) 20254

**LINDBERG TWO DEPARTURE (OBSTACLE) (RNAV)**HANA (HNM)(PHHN)  
AL-5156 (FAA)

HANA, HAWAII

HCF CENTER  
118.45 278.3  
CLNC DEL  
122.3  
CTAF  
122.9



NOTE: Chart not to scale

**DEPARTURE ROUTE DESCRIPTION**

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

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

**LINDBERG TWO DEPARTURE (OBSTACLE) (RNAV)**  
(LNBRG2.LNBRG) 25AUG11

HANA, HAWAII  
HANA (HNM)(PHHN)

HILO, HAWAII

AL-756 (FAA)

24025

|                                   |                 |                                        |
|-----------------------------------|-----------------|----------------------------------------|
| LOC/DME I-ITO<br>110.7<br>Chan 44 | APP CRS<br>259° | Rwy Idg 9800<br>TDZE 38<br>Apt Elev 38 |
|-----------------------------------|-----------------|----------------------------------------|

ILS or LOC RWY 26  
HILO INTL (ITO) (PHTO)

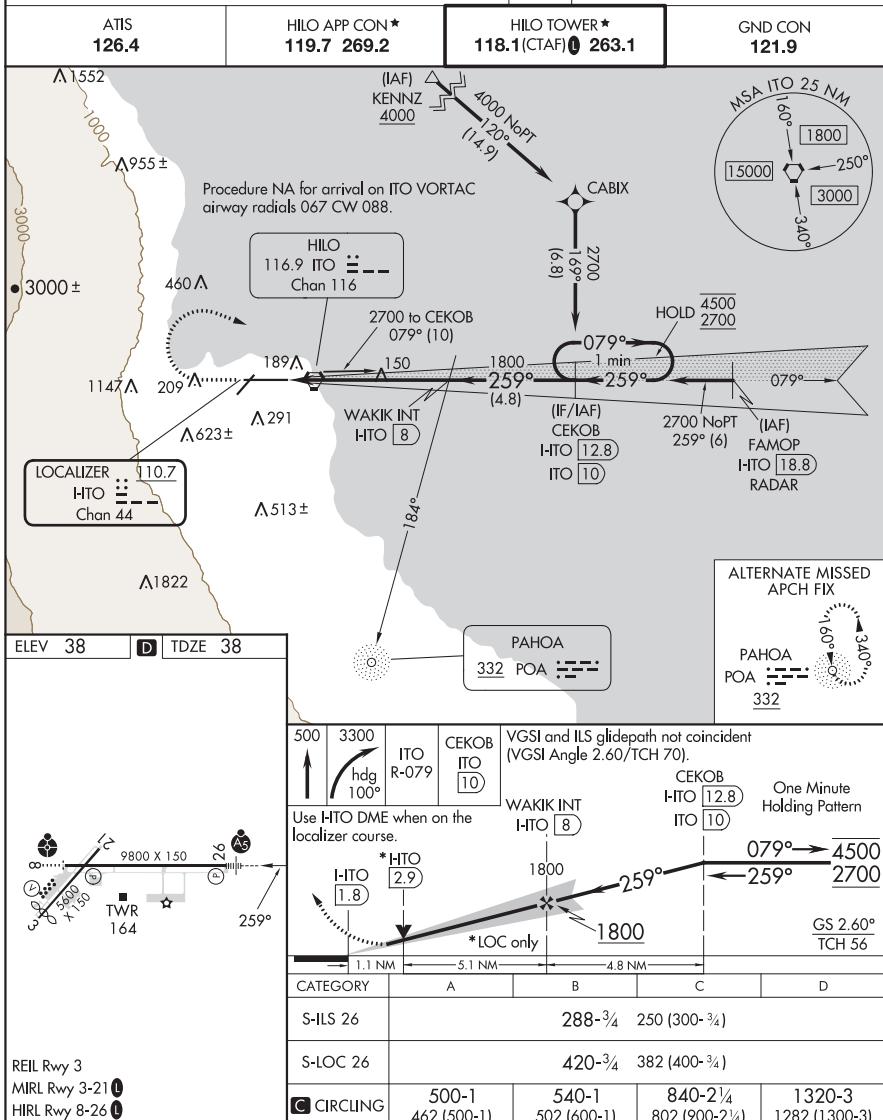
DME required. From KENNZ: RNAV 1-GPS required.

▼ Circling NA south of Rwy 8-26.  
 ▲ Inop table does not apply to S-ILS 26 all Cats. For inop ALS, increase S-LOC 26 Cat A/B visibility to 1 SM, and Cat C/D to 1 1/8 SM.

MALSR



MISSIED APPROACH: Climb to 500 then climbing right turn to 3300 on heading 100° and on ITO VORTAC R-079 to CEKOB/ITO VORTAC 10 DME and hold, continue climb-in-hold to 3300.



HILO, HAWAII

Amdt 14A 17JUN21

19°43'N-155°03'W

HILO INTL (ITO) (PHTO)  
ILS or LOC RWY 26

HILO, HAWAII

AL-756 (FAA)

21056

|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>210°</b> | Rwy Idg<br><b>5510</b> |
| TDZE<br><b>31</b>      | Apt Elev<br><b>38</b>  |
|                        |                        |

RNP APCH.

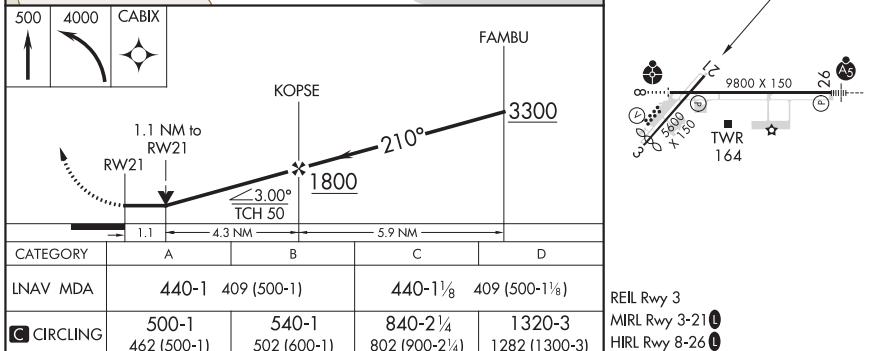
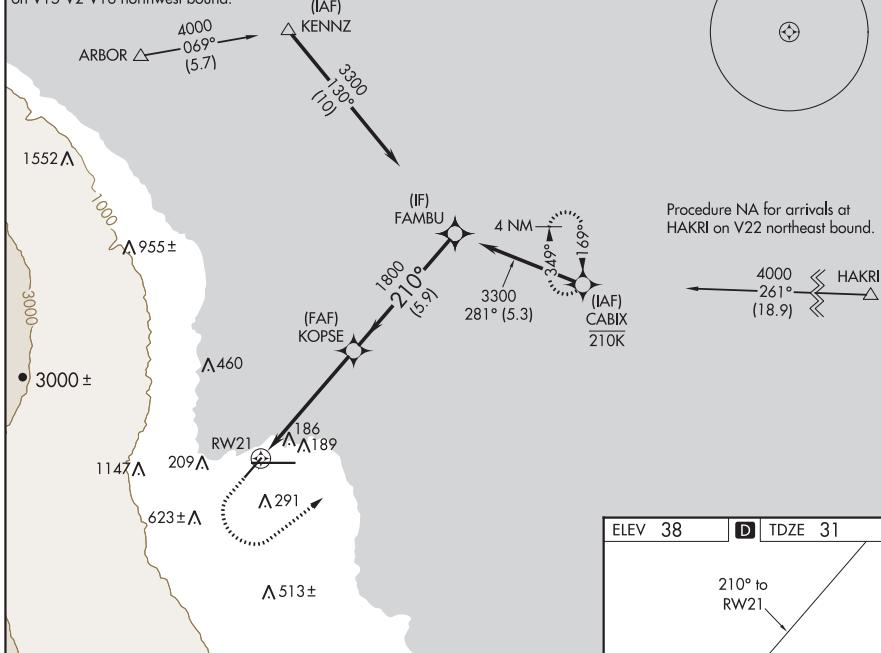
**T** Circling NA south of Rwy 8-26. Rwy 21 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

## RNAV (GPS) RWY 21

HILO INTL (ITO)(PHTO)

|                      |                                      |                                            |                         |
|----------------------|--------------------------------------|--------------------------------------------|-------------------------|
| ATIS<br><b>126.4</b> | HILO APP CON *<br><b>119.7 269.2</b> | HILO TOWER *<br><b>118.1(CTAF) 0 263.1</b> | GND CON<br><b>121.9</b> |
|----------------------|--------------------------------------|--------------------------------------------|-------------------------|

Procedure NA for arrivals at ARBOR on V15-V2-V16 northwest bound.



HILO, HAWAII  
Amdt 1 25FEB21

19°43'N-155°03'W

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

HILO, HAWAII

AL-756 (FAA)

21056

|                 |                 |
|-----------------|-----------------|
| APP CRS<br>259° | Rwy Idg<br>9800 |
|                 | TDZE<br>38      |
|                 | Apt Elev<br>38  |

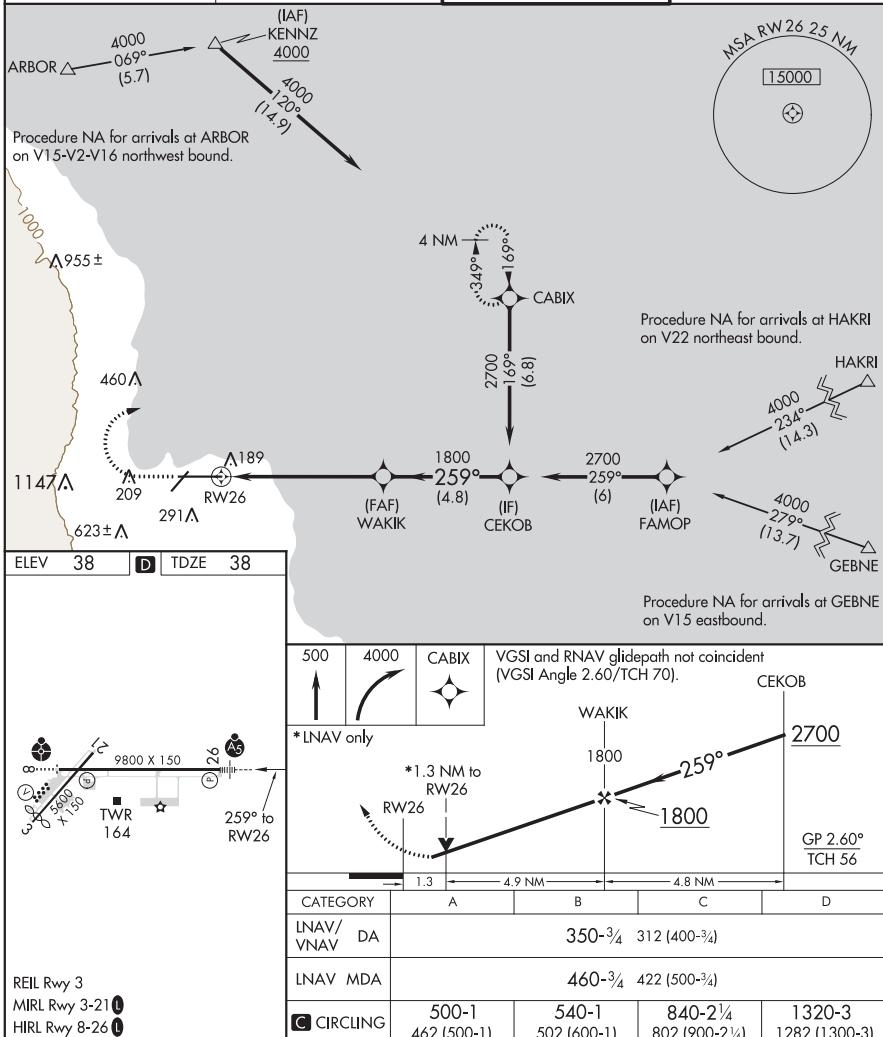
RNP APCH.

▼ Circling NA south of Rwy 8-26. Rwy 26 helicopter visibility reduction below  $\frac{3}{4}$  SM NA. WAAS VNAV NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 15°C or above 54°C. For inop ALS, increase LNAV/VNAV all Cat visibility to  $\frac{1}{2}$  SM and increase LNAV Cat A/B visibility to 1 SM.

## RNAV (GPS) RWY 26

HILO INTL (ITO) (PHTO)

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

ATIS  
126.4HILO APP CON★  
119.7 269.2HILO TOWER★  
118.1(CTAF) 0 263.1GND CON  
121.9

HILO, HAWAII

Amdt 2 25FEB21

19°43'N-155°03'W

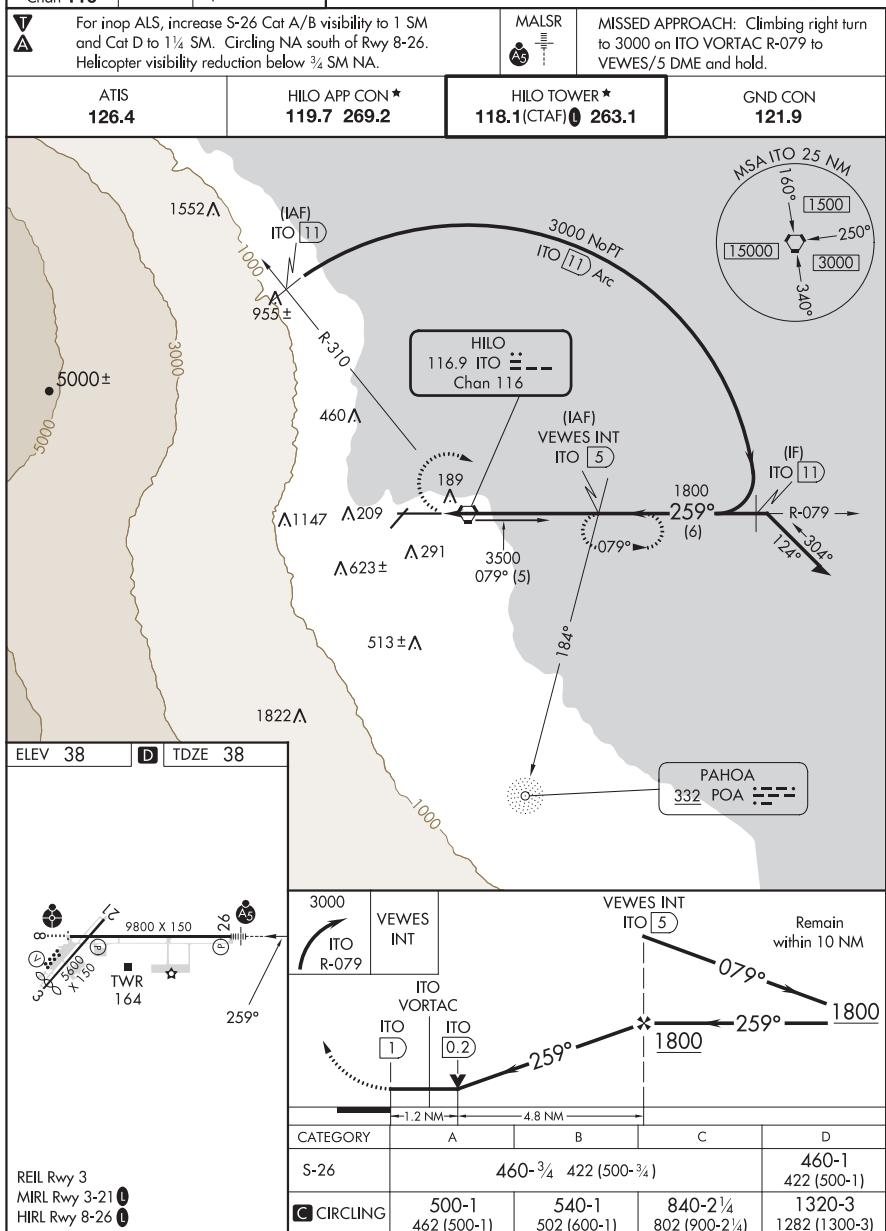
HILO INTL (ITO) (PHTO)  
RNAV (GPS) RWY 26

HILO, HAWAII

|                     |                 |                                        |
|---------------------|-----------------|----------------------------------------|
| VORTAC ITO<br>116.9 | APP CRS<br>259° | Rwy Idg 9800<br>TDZE 38<br>Apt Elev 38 |
| Chan 116            |                 |                                        |

AL-756 (FAA)

24025

VOR/DME or TACAN RWY 26  
HILO INTL (ITO) (PHTO)

HILO, HAWAII

Amdt 5E 16JUL20

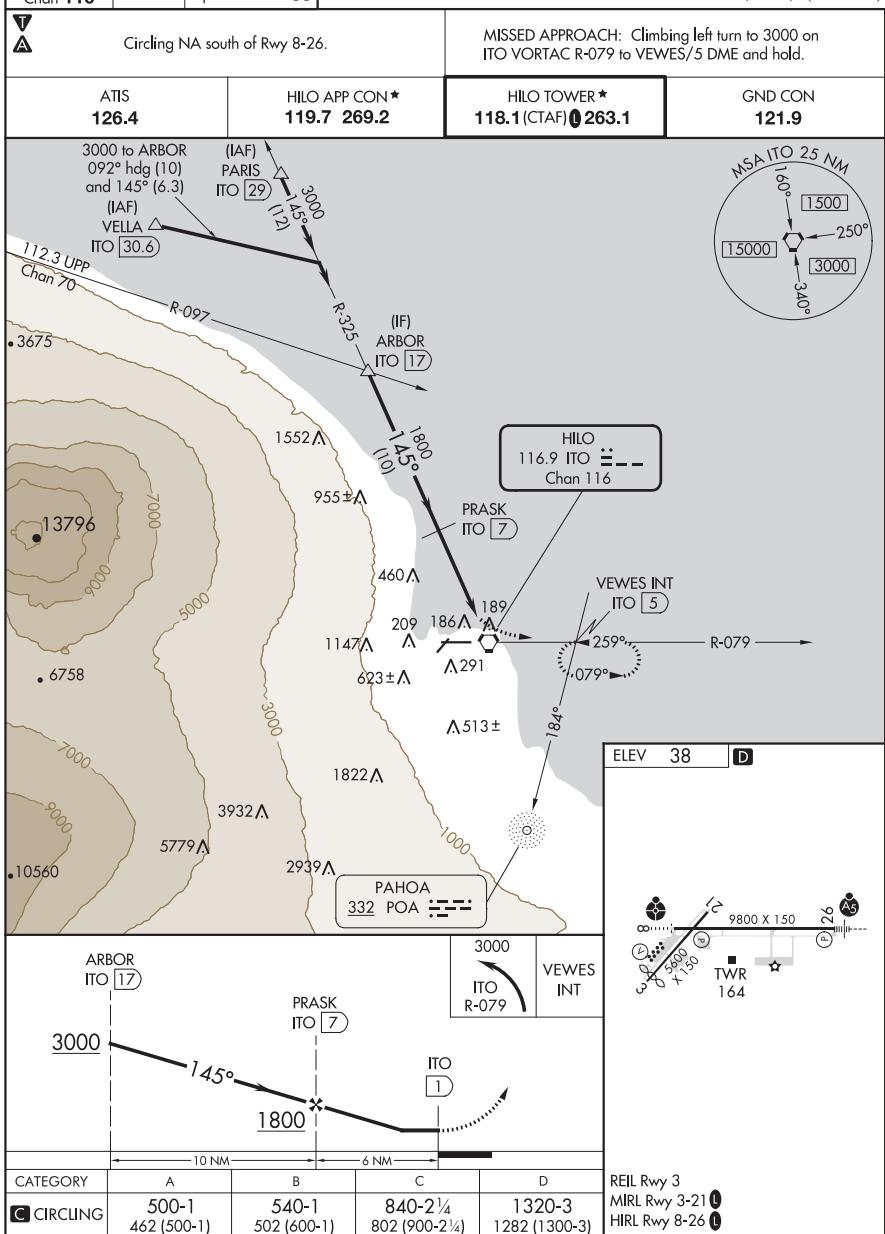
19°43'N-155°03'W

HILO INTL (ITO) (PHTO)  
VOR/DME or TACAN RWY 26

|                                 |                 |                             |                  |
|---------------------------------|-----------------|-----------------------------|------------------|
| VORTAC ITO<br>116.9<br>Chan 116 | APP CRS<br>145° | Rwy Idg<br>TDZE<br>Apt Elev | N/A<br>N/A<br>38 |
|---------------------------------|-----------------|-----------------------------|------------------|

AL-756 (FAA)

24025

VOR/DME or TACAN-A  
HILO INTL (ITO) (PHTO)HILO, HAWAII  
Amdt 7D 16JUL20

19°43'N-155°03'W

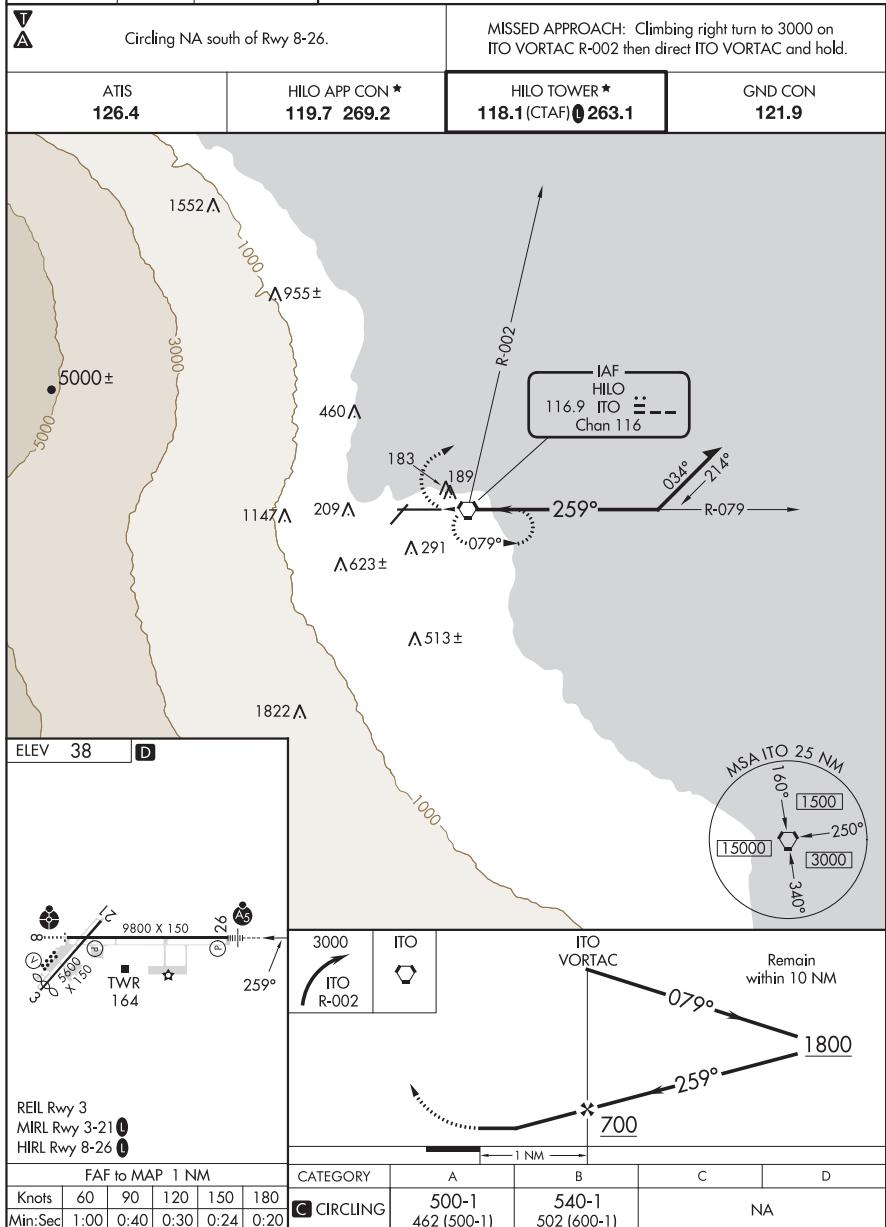
HILO INTL (ITO) (PHTO)  
VOR/DME or TACAN-A

HILO, HAWAII

AL-756 (FAA)

24025

|                                 |                 |                                        |
|---------------------------------|-----------------|----------------------------------------|
| VORTAC ITO<br>116.9<br>Chan 116 | APP CRS<br>259° | Rwy Idg N/A<br>TDZE N/A<br>Apt Elev 38 |
|---------------------------------|-----------------|----------------------------------------|

VOR-B  
HILO INTL (ITO) (PHTO)HILO, HAWAII  
Orig-E 14JUL22

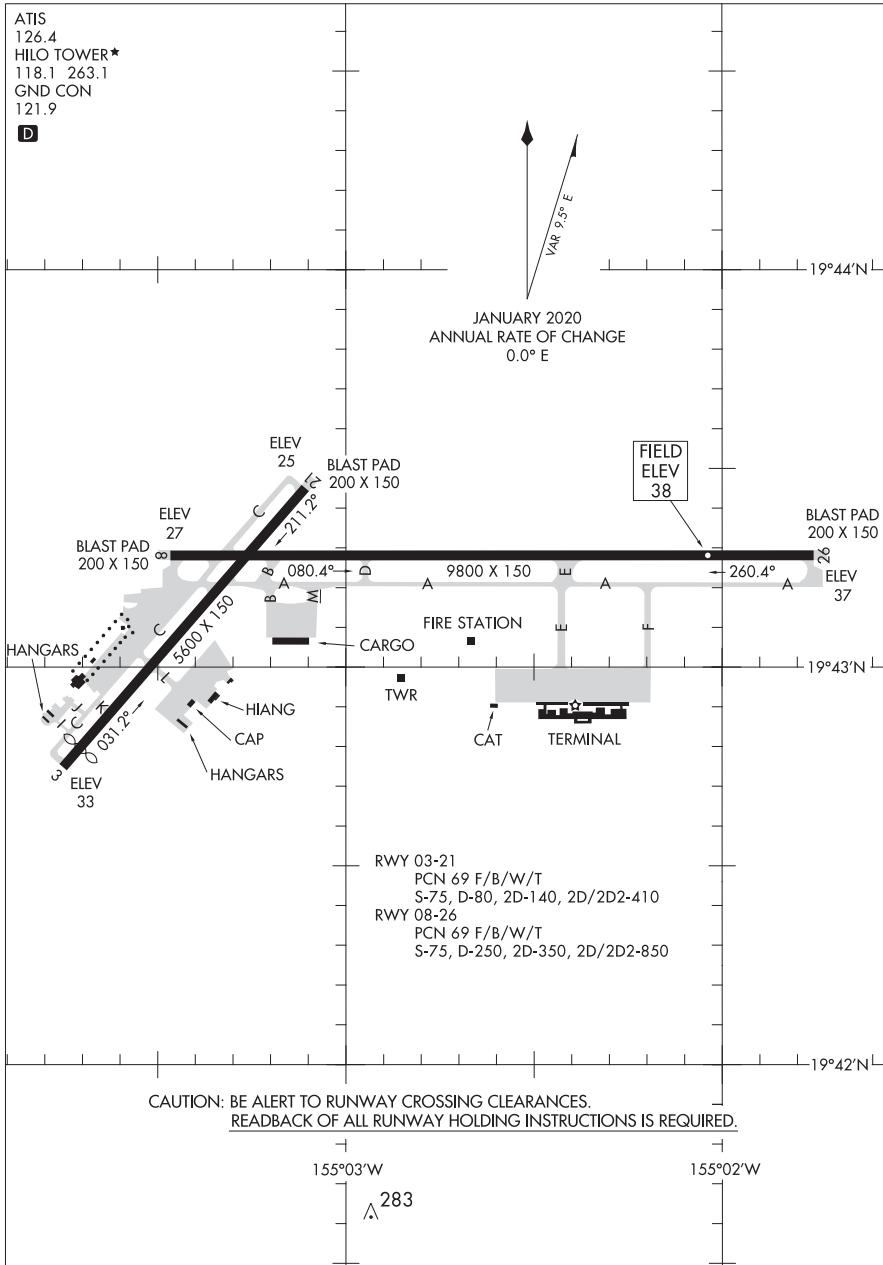
19°43'N-155°03'W

HILO INTL (ITO) (PHTO)  
VOR-B

20310

## AIRPORT DIAGRAM

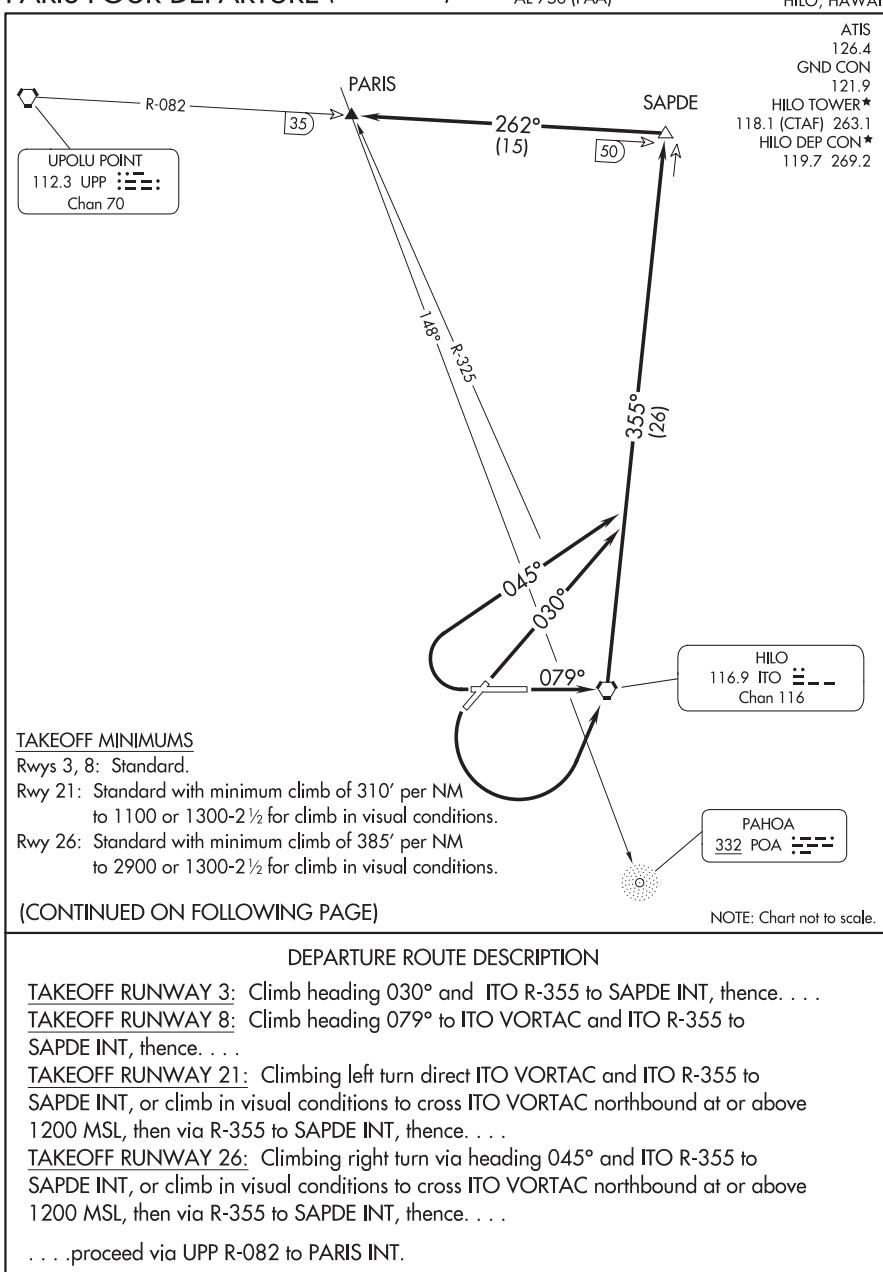
AL-756 (FAA)

HILO INTL (ITO) (PHTO)  
HILO, HAWAII

(PARIS4.PARIS) 24025

## PARIS FOUR DEPARTURE (OBSTACLE)

AI-756 (FAA)

HILO INTL (ITO)(PHTO)  
HILO, HAWAII

PARIS FOUR DEPARTURE (OBSTACLE)

(PARIS4.PARIS) 11FEB10

HILO, HAWAII  
HILO INTL (ITO)(PHTO)

(PARIS4.PARIS) 24025

PARIS FOUR DEPARTURE (OBSTACLE)

AL-756 (FAA)

HILO INTL (ITO)(PHTO)  
HILO, HAWAIITAKEOFF 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.

PARIS FOUR DEPARTURE (OBSTACLE)

HILO, HAWAII

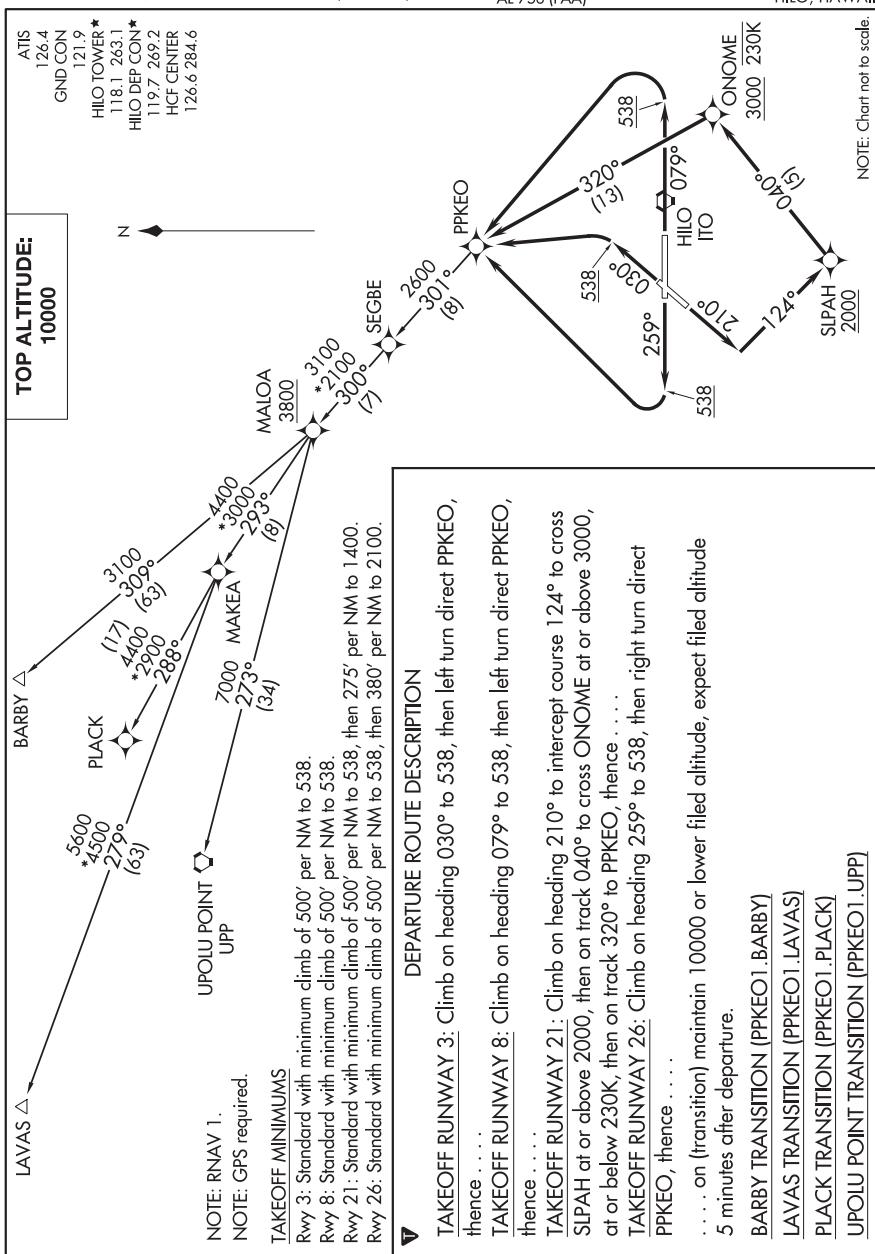
(PARIS4.PARIS) 11FEB10

HILO INTL (ITO)(PHTO)

(PPKEO1.PPKEO) 22195

## PPKEO ONE DEPARTURE (RNAV)

AL-756 (FAA)

HILO INTL (ITO)(PHTO)  
HILO, HAWAII

PPKEO ONE DEPARTURE (RNAV)

(PPKEO1.PPKEO) 25FEB21

HILO, HAWAII  
HILO INTL (ITO)(PHTO)

## TERMINAL PROCEDURES

HONOLULU, HAWAII

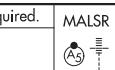
AL-754 (FAA)

24025

|                                   |                 |                                         |
|-----------------------------------|-----------------|-----------------------------------------|
| LOC/DME I-HNL<br>111.7<br>Chan 54 | APP CRS<br>079° | Rwy Idg 12312<br>TDZE 13<br>Apt Elev 13 |
|-----------------------------------|-----------------|-----------------------------------------|

From OOKAH: RNAV 1-GPS required. DME or RADAR required.

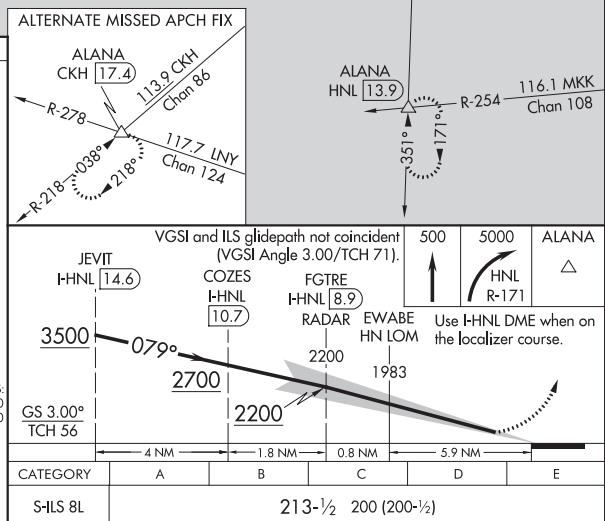
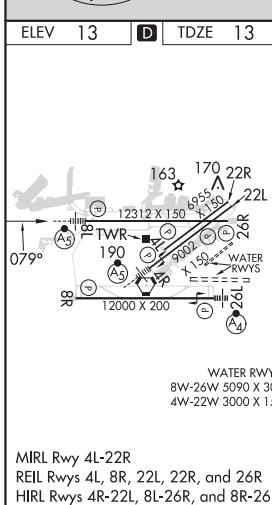
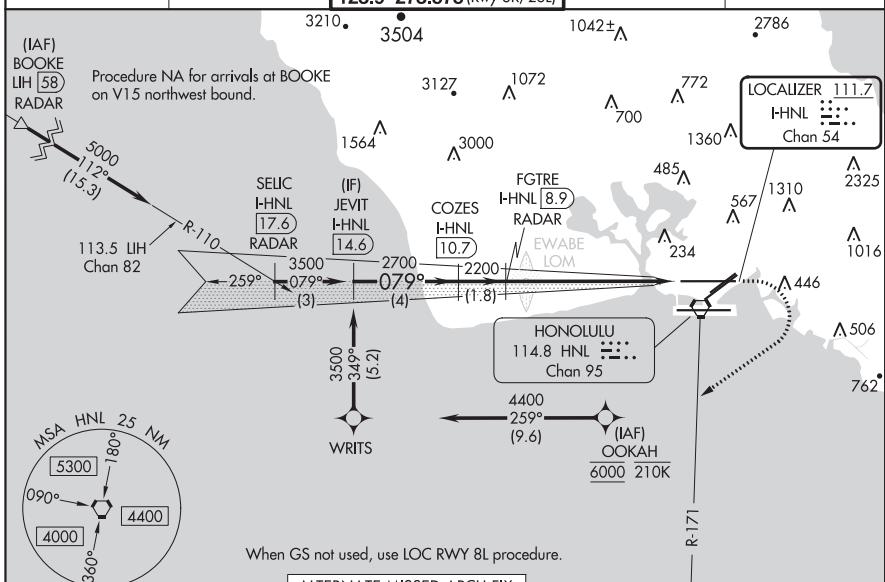
For inop ALS, increase Cat E visibility to  $\frac{3}{4}$  SM.  
OOKAH transition NA for Cat E aircraft.



DANIEL K INOUYE INTL (HNL) (PHNL)

ILS RWY 8L

| D-ATIS<br>127.9 251.15 | HCF APPROACH<br>118.3 269.0 | HONOLULU TOWER<br>118.1 257.8<br>123.9 273.575 (Rwy 8R/26L) | GND CON<br>121.9 348.6 | CLNC DEL<br>121.4 281.4 |
|------------------------|-----------------------------|-------------------------------------------------------------|------------------------|-------------------------|
|------------------------|-----------------------------|-------------------------------------------------------------|------------------------|-------------------------|



HONOLULU, HAWAII

Amdt 24A 16JUL20

DANIEL K INOUYE INTL (HNL) (PHNL)

21°19'N-157°55'W

ILS RWY 8L

HONOLULU, HAWAII

AL-754 (FAA)

24025

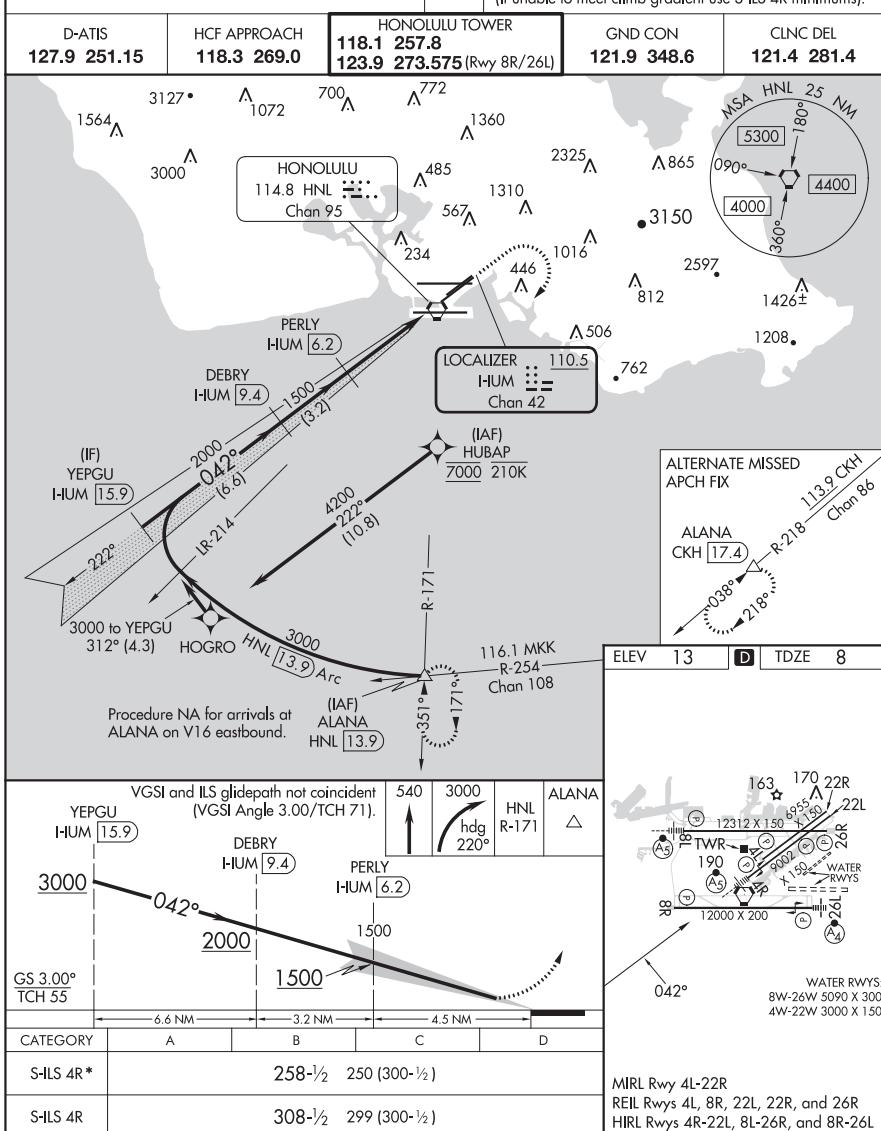
|                                 |                 |                                       |
|---------------------------------|-----------------|---------------------------------------|
| LOC/DME HUM<br>110.5<br>Chan 42 | APP CRS<br>042° | Rwy Idg 8950<br>TDZE 8<br>Apt Elev 13 |
|---------------------------------|-----------------|---------------------------------------|

DME required. From HUBAP: RNAV 1-GPS required.  
DME or RADAR required for procedure entry.

For inop ALS, increase S-ILS 4R dcl Cnts visibility to  $\frac{3}{4}$  SM.

ILS Y RWY 4R  
DANIEL K INOUYE INTL (HNL) (PHNL)

MISSIED APPROACH: Climb to 540 then climbing right turn to 3000 on heading 220° and on HNL VORTAC R-171 to ALANA INT/HNL 13.9 DME and hold. \*Missed approach requires minimum climb of 318 feet per NM to 1820. (If unable to meet climb gradient use S-ILS 4R minimums).



HONOLULU, HAWAII

Amdt 2A 08SEP22

DANIEL K INOUYE INTL (HNL) (PHNL)

21°19'N-157°55'W

ILS Y RWY 4R

HONOLULU, HAWAII

AL-754 (FAA)

24025

## ILS Z RWY 4R

DANIEL K INOUYE INTL (HNL) (PHNL)

|                                          |                        |                                                                     |
|------------------------------------------|------------------------|---------------------------------------------------------------------|
| LOC/DME I-HUM<br><b>110.5</b><br>Chan 42 | APP CRS<br><b>042°</b> | Rwy Idg<br><b>8950</b><br>TDZE<br>Apt Elev<br><b>8</b><br><b>13</b> |
|------------------------------------------|------------------------|---------------------------------------------------------------------|

From HAURY: RNAV 1-GPS required. DME or RADAR required.  
DME or RADAR required for procedure entry.

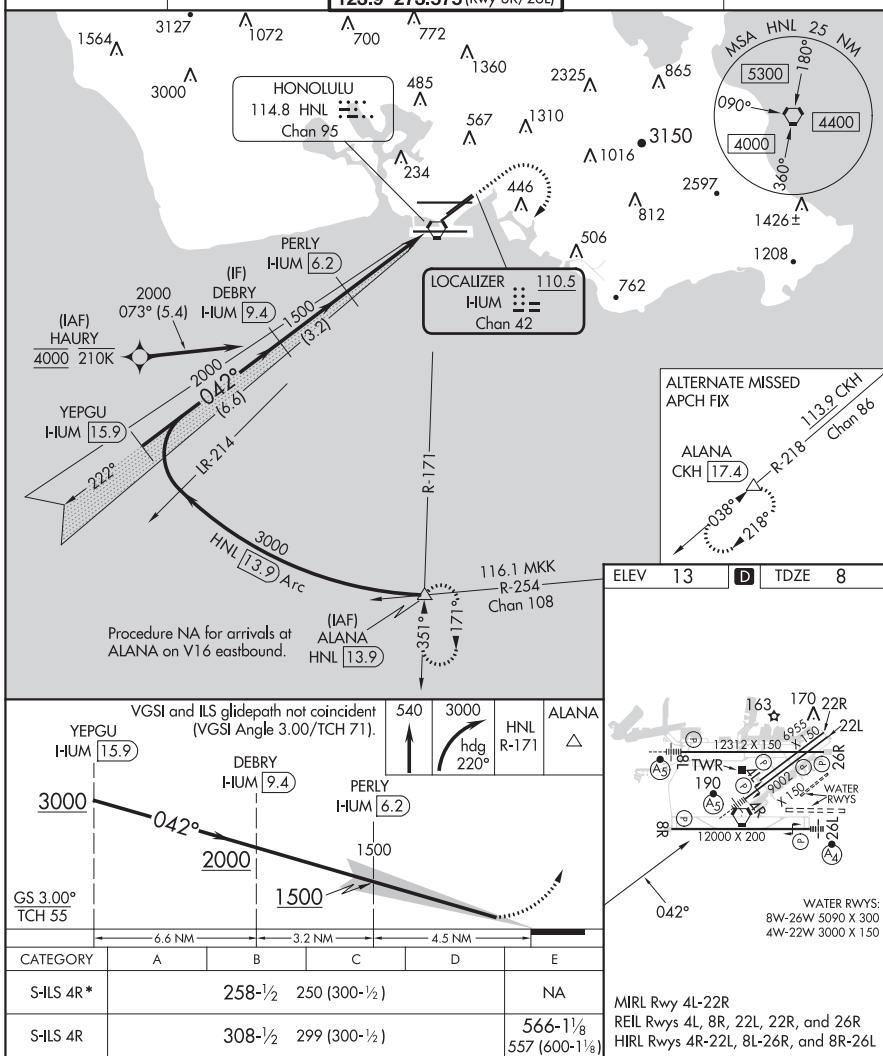
▼ HAURY transition NA for Cat E aircraft. For inop ALS, increase S-ILS 4R Cats A-D visibility to  $\frac{1}{2}$  SM, increase S-ILS 4R Cat E visibility to 1% SM.

MALS/R



MISSSED APPROACH: Climb to 540, Cat E climb to 780 then climbing right turn to 3000 on heading 220° and on HNL VORTAC R-171 to ALANA INT/HNL VORTAC 13.9 DME and hold. \*Missed approach requires minimum climb of 318 feet per NM to 1820, (if unable to meet climb gradient use S-ILS 4R minimums).

|                               |                                    |                                                                           |                               |                                |
|-------------------------------|------------------------------------|---------------------------------------------------------------------------|-------------------------------|--------------------------------|
| D-ATIS<br><b>127.9 251.15</b> | HCF APPROACH<br><b>118.3 269.0</b> | HONOLULU TOWER<br><b>118.1 257.8</b><br><b>123.9 273.575</b> (Rwy 8R/26L) | GND CON<br><b>121.9 348.6</b> | CINL DEL<br><b>121.4 281.4</b> |
|-------------------------------|------------------------------------|---------------------------------------------------------------------------|-------------------------------|--------------------------------|



HONOLULU, HAWAII

Amdt 2A 08SEP22

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)  
ILS Z RWY 4R

HONOLULU, HAWAII

AL-754 (FAA)

24025

|                 |                                         |
|-----------------|-----------------------------------------|
| APP CRS<br>259° | Rwy Idg 12000<br>TDZE 10<br>Apt Elev 13 |
|-----------------|-----------------------------------------|

RNP AR APCH, RF required.

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

NA

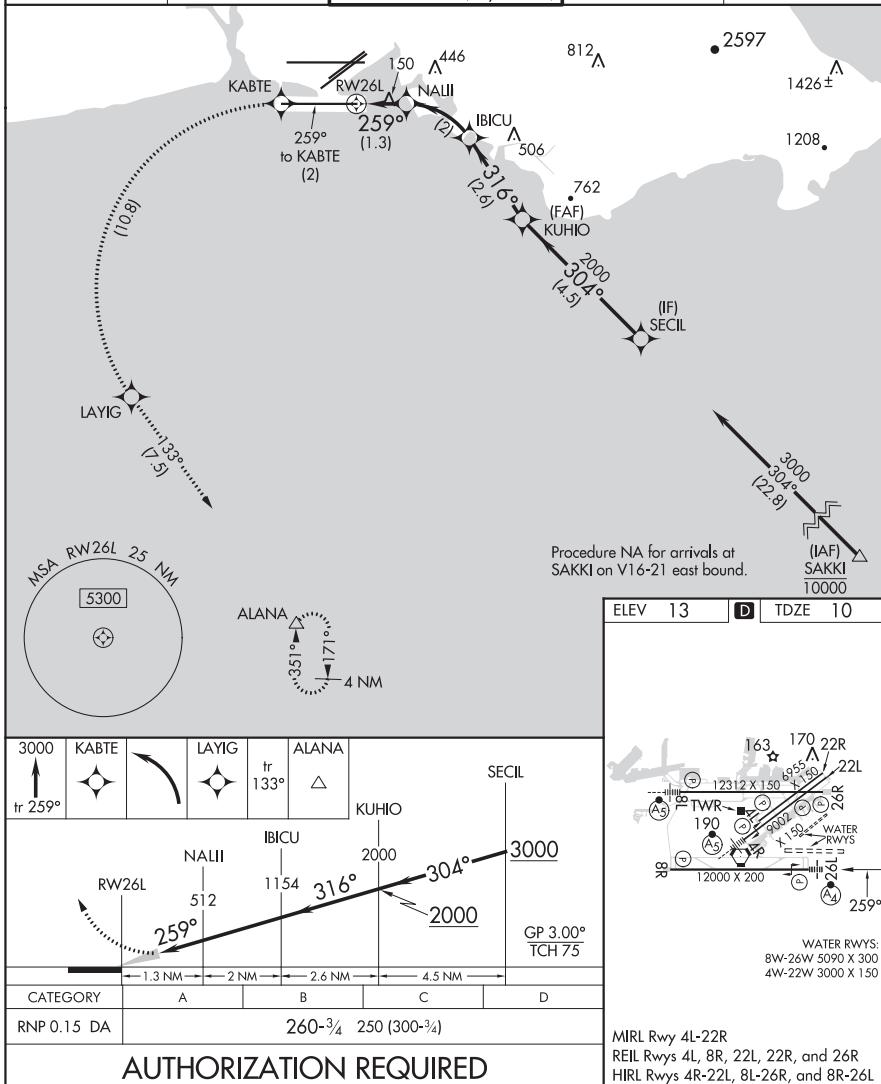
MALSF

**RNAV (RNP) RWY 26L**

DANIEL K INOUYE INTL (HNL) (PHNL)

MISSED APPROACH: Climb to 3000 on track 259° to KABTE, left turn to LAYIG, then track 133° to ALANA and hold. Missed approach requires minimum climb of 234 feet per NM to 300.

| D-ATIS<br>127.9 251.15 | HCF APPROACH<br>118.3 269.0 | HONOLULU TOWER<br>118.1 257.8<br>123.9 273.575 (Rwy 8R/26L) | GND CON<br>121.9 348.6 | CLNC DEL<br>121.4 281.4 |
|------------------------|-----------------------------|-------------------------------------------------------------|------------------------|-------------------------|
|------------------------|-----------------------------|-------------------------------------------------------------|------------------------|-------------------------|



HONOLULU, HAWAII

Orig-E 28FEB19

DANIEL K INOUYE INTL (HNL) (PHNL)  
21°19'N-157°55'W

RNAV (RNP) RWY 26L

HONOLULU, HAWAII

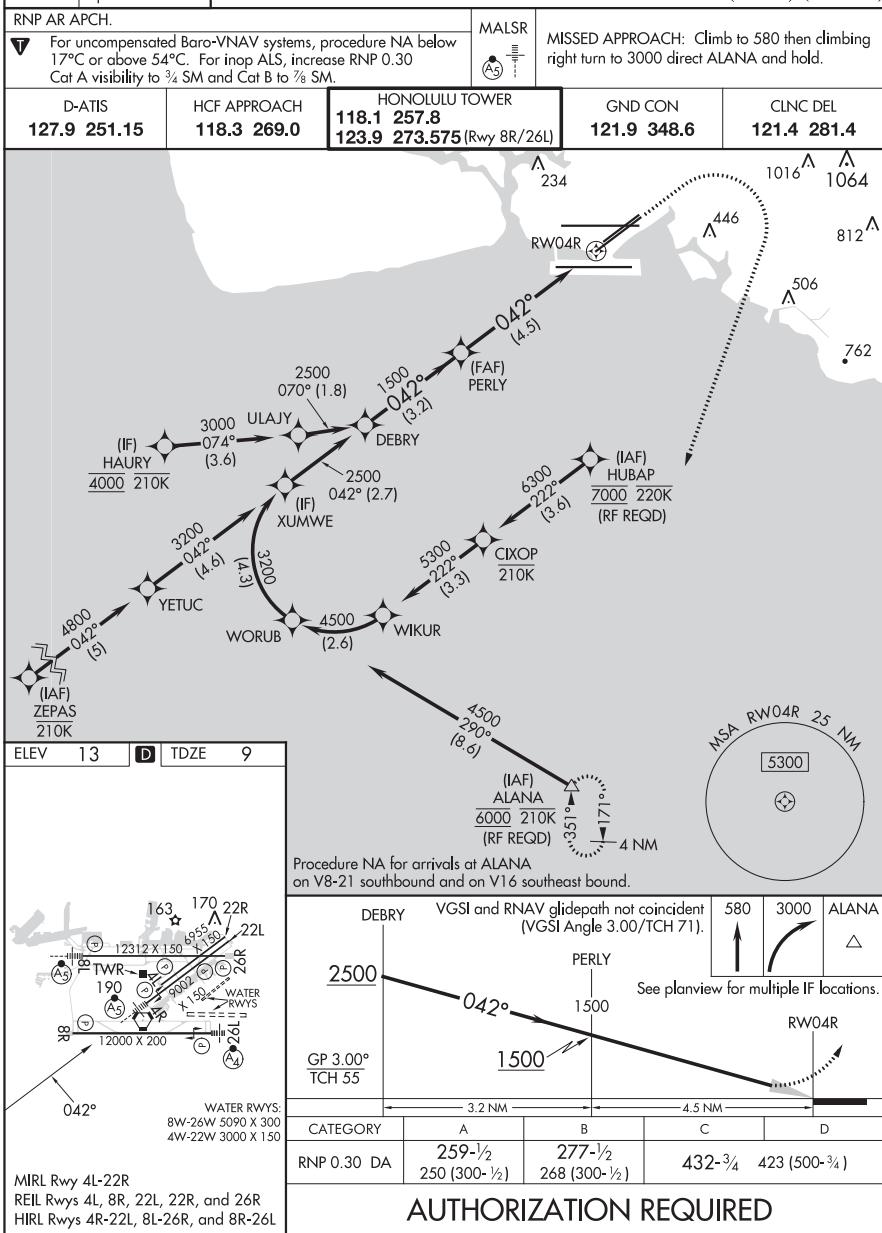
AL-754 (FAA)

24025

|                        |                             |
|------------------------|-----------------------------|
| APP CRS<br><b>042°</b> | Rwy Idg<br><b>8950</b><br>9 |
|                        | TDZE<br>Apt Elev<br>13      |
|                        |                             |

# RNAV (RNP) Z RWY 4R

DANIEL K INOUYE INTL (HNL) (PHNL)



HONOLULU, HAWAII

Amdt 2 30JAN20

DANIEL K INOUYE INTL (HNL) (PHNL)  
**RNAV (RNP) Z RWY 4R**

HONOLULU, HAWAII

AL-754 (FAA)

24025

|          |         |              |
|----------|---------|--------------|
| APP CRS  | Rwy Idg | <b>12312</b> |
| 079°     | TDZE    | 13           |
| Apt Elev |         | 13           |

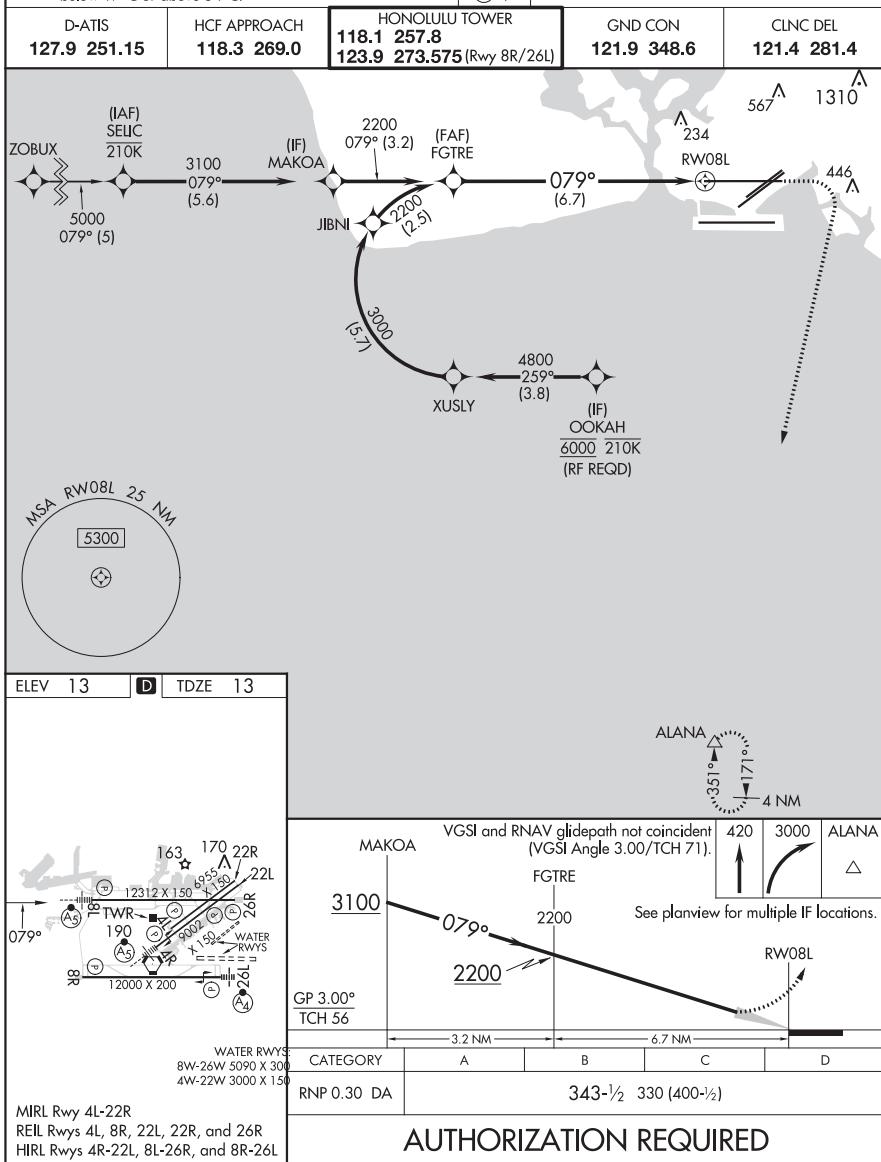
RNP AR APCH.

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



## RNAV (RNP) Z RWY 8L

DANIEL K INOUYE INTL (HNL) (PHNL)



HONOLULU, HAWAII

Amdt 3 30JAN20

DANIEL K INOUYE INTL (HNL) (PHNL)  
**RNAV (RNP) Z RWY 8L**

21°19'N-157°55'W

## TERMINAL PROCEDURES

HONOLULU, HAWAII

AL-754 (FAA)

24025

|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>042°</b> | Rwy Idg<br><b>6952</b> |
| TDZE<br><b>10</b>      | Apt Elev<br><b>13</b>  |
|                        |                        |

**RNAV (GPS) RWY 4L**  
DANIEL K INOUYE INTL (HNL) (PHNL)

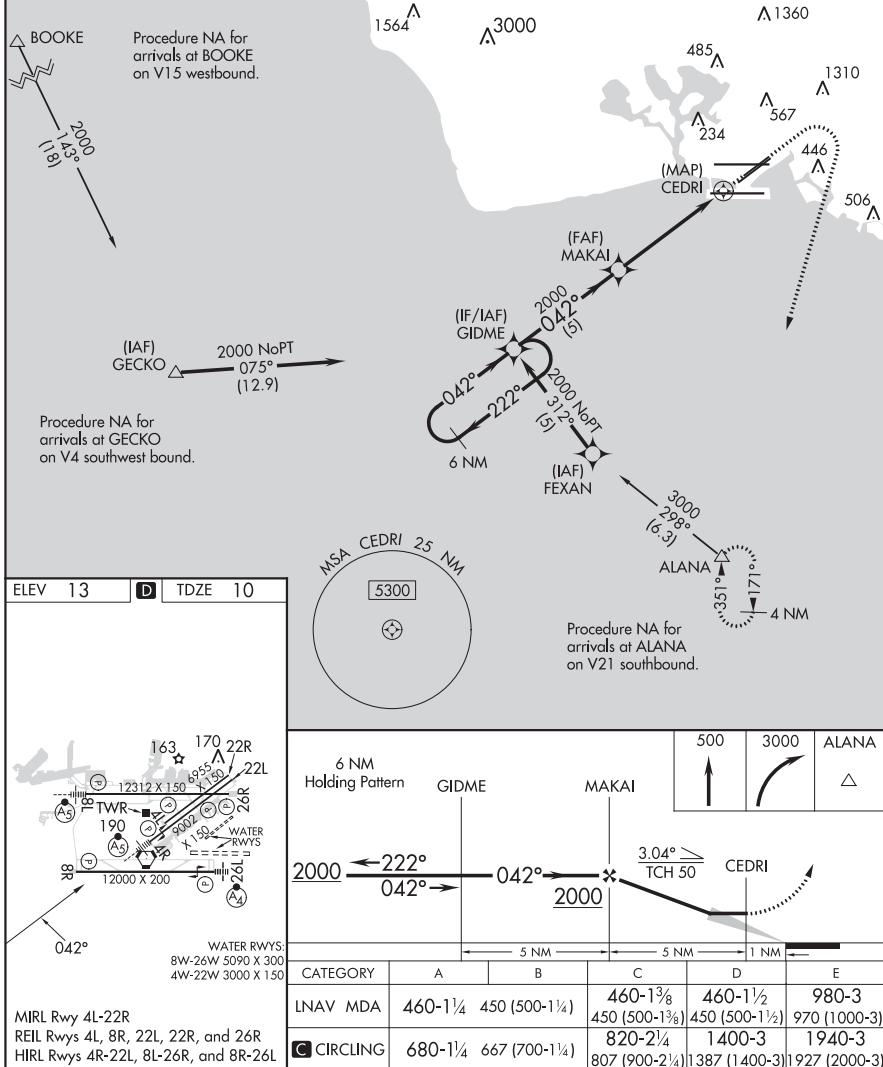
RNP APCH.

**T** Circling Rwy 22R NA at night. Circling NA for Cats A and B northwest of Rwy 8L and 22R. Circling NA for Cats C, D, and E north of Rwy 8L-26R. Circling NA to Sea Lanes 4W, 8W, 22W, and 26W. Rwy 4L helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

**MISSSED APPROACH:** Climb to 500 then climbing right turn to 3000 direct ALANA and hold.

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**

HONOLULU, HAWAII

Orig-C 08SEP22

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)  
**RNAV (GPS) RWY 4L**

HONOLULU, HAWAII

AL-754 (FAA)

24025

|                        |                         |
|------------------------|-------------------------|
| APP CRS<br><b>079°</b> | Rwy Idg<br><b>12000</b> |
| TDZE<br><b>10</b>      | Apt Elev<br><b>13</b>   |
|                        |                         |

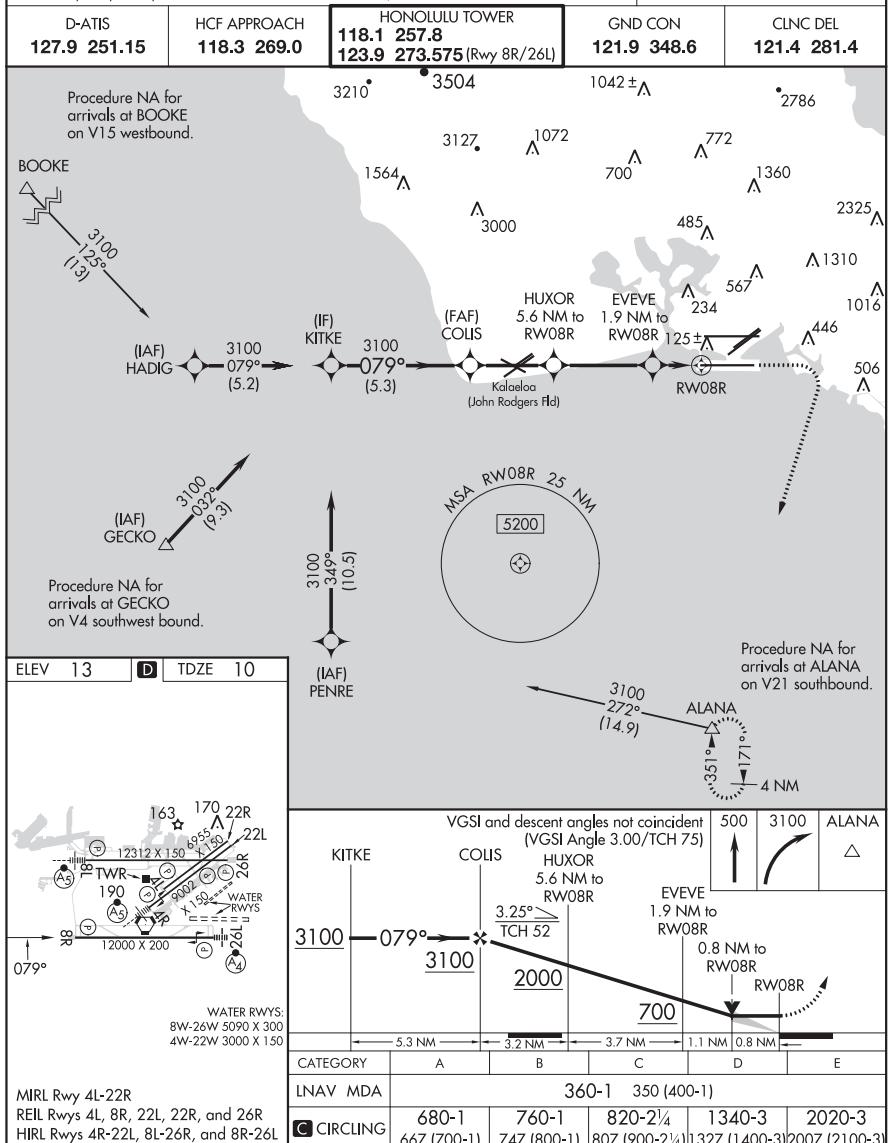
RNP APCH.

- ▼ Circling Rwy 22R NA at night. Circling NA for Cats A and B northwest of Rwy 8L and 22R. Circling NA for Cats C, D, and E north of Rwy 8L-26R. Circling NA to Sea Lanes 4W, 8W, 22W, and 26W. Cat E restricted to USAF/USN Aircraft.

## RNAV (GPS) RWY 8R

DANIEL K INOUYE INTL (HNL) (PHNL)

MISSED APPROACH: Climb to 3000 then climbing right turn to 3100 direct ALANA and hold, continue climb-in-hold to 3100.



HONOLULU, HAWAII

Amdt 1 17JUN21

DANIEL K INOUYE INTL (HNL) (PHNL)  
21°19'N-157°55'W  
**RNAV (GPS) RWY 8R**

HONOLULU, HAWAII

AL-754 (FAA)

24025

|                        |                                                                     |
|------------------------|---------------------------------------------------------------------|
| APP CRS<br><b>042°</b> | Rwy Idg<br><b>8950</b><br>TDZE<br><b>8</b><br>Apt Elev<br><b>13</b> |
|------------------------|---------------------------------------------------------------------|

# RNAV (GPS) Y RWY 4R

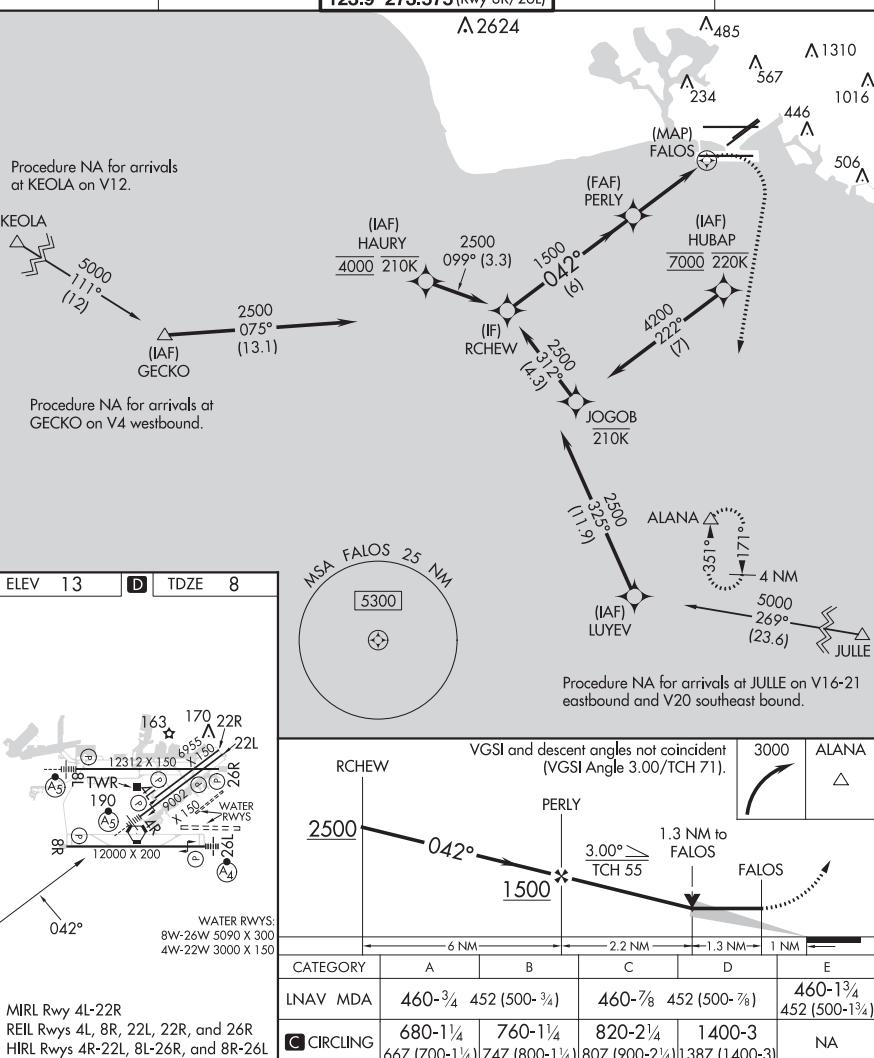
DANIEL K INOUYE INTL (HNL) (PHNL)

RNP APCH.

- V Circling Rwy 22R NA at night. 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. For inop ALS, increase LNAV Cat E visibility to 2 SM. Circling NA to sea lanes 4W, 8W, 22W, and 26W. HUBAP transition NA for Cat E aircraft. HAURY transition NA for Cat E aircraft.



**MISSSED APPROACH:**  
Climbing right turn to 3000 direct ALANA and hold.

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**

HONOLULU, HAWAII

Amdt 3A 25FEB21

DANIEL K INOUYE INTL (HNL) (PHNL)  
**RNAV (GPS) Y RWY 4R**

HONOLULU, HAWAII

AL-754 (FAA)

24025

|                 |                     |
|-----------------|---------------------|
| APP CRS<br>079° | Rwy Idg 12312<br>13 |
| Apt Elev        | 13                  |

# RNAV (GPS) Y RWY 8L

DANIEL K INOUYE INTL (HNL) (PHNL)

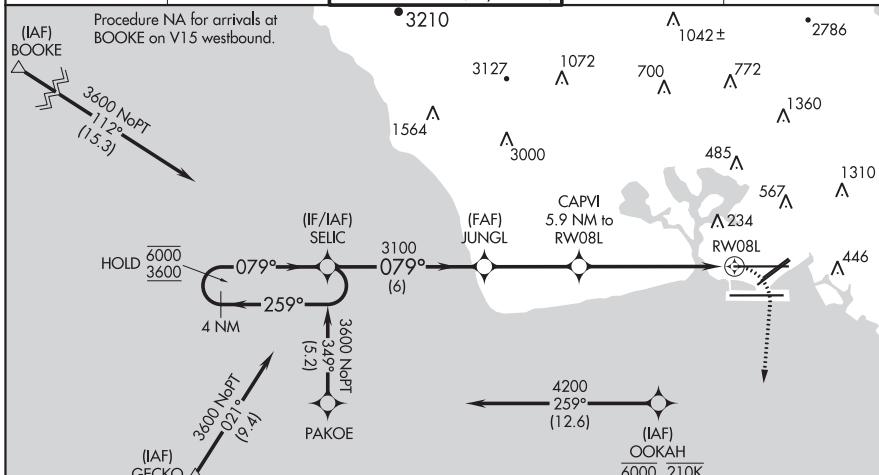
RNP APCH.

V Circling Rwy 22R NA at night. For inop ALS, increase Cats C, D, and E visibility to 1 1/2 SM. Circling NA to sea lanes 4W, 8W, 22W, and 26W. Circling NA for Cats A and B northwest of Rwy 8L-22R. Circling NA for Cats C and D north of Rwy 8L-26R. OOKAH transition NA for Cat E aircraft.

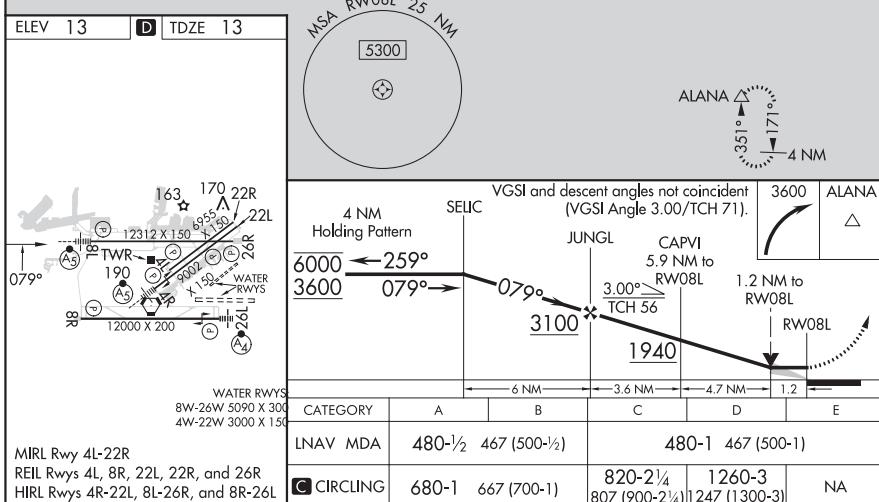


MISSSED APPROACH: Climbing right turn to 3600 direct ALANA and hold, continue climb-in-hold to 3600.

| D-ATIS<br>127.9 251.15 | HCF APPROACH<br>118.3 269.0 | HONOLULU TOWER<br>118.1 257.8<br>123.9 273.575 (Rwy 8R/26L) | GND CON<br>121.9 348.6 | CINC DEL<br>121.4 281.4 |
|------------------------|-----------------------------|-------------------------------------------------------------|------------------------|-------------------------|
|------------------------|-----------------------------|-------------------------------------------------------------|------------------------|-------------------------|



Procedure NA for arrivals at GECKO on V16 northwest bound and V4 southwest bound.



HONOLULU, HAWAII

Amdt 3B 08SEP22

DANIEL K INOUYE INTL (HNL) (PHNL)  
RNAV (GPS) Y RWY 8L

21°19'N-157°55'W

## TERMINAL PROCEDURES

HONOLULU, HAWAII

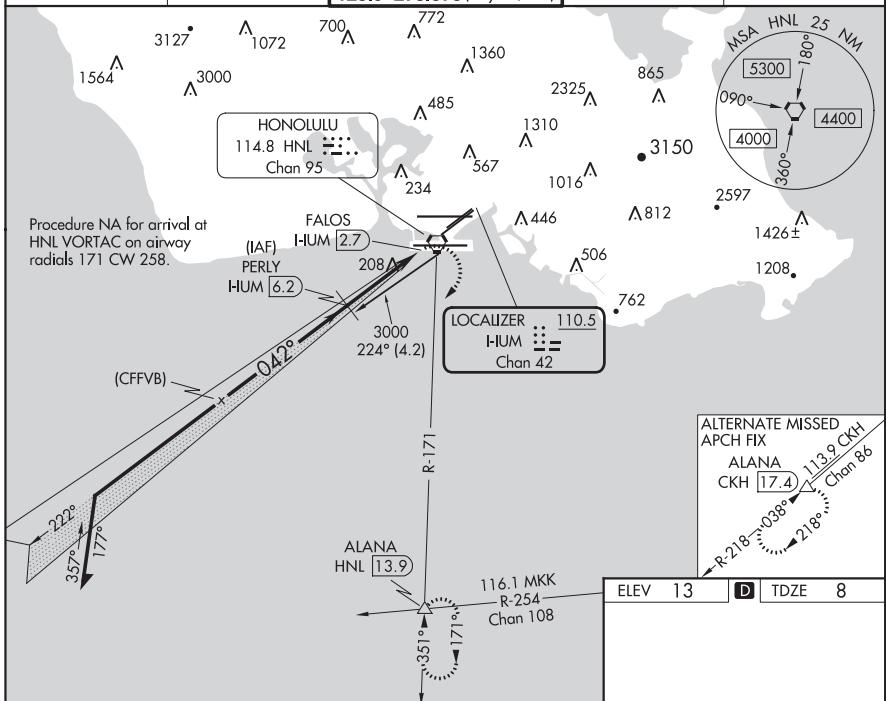
AL-754 (FAA)

24025

|                                          |                        |                                                              |
|------------------------------------------|------------------------|--------------------------------------------------------------|
| LOC/DME I-HUM<br><b>110.5</b><br>Chan 42 | APP CRS<br><b>042°</b> | Rwy Idg<br><b>8950</b><br>TDZE<br>8<br>Apt Elev<br><b>13</b> |
|------------------------------------------|------------------------|--------------------------------------------------------------|

DANIEL K INOUYE INTL (HNL) (PHNL)

|                               |                                    |                                                                           |                               |                                |
|-------------------------------|------------------------------------|---------------------------------------------------------------------------|-------------------------------|--------------------------------|
| D-ATIS<br><b>127.9 251.15</b> | HCF APPROACH<br><b>118.3 269.0</b> | HONOLULU TOWER<br><b>118.1 257.8</b><br><b>123.9 273.575 (Rwy 8R/26L)</b> | GND CON<br><b>121.9 348.6</b> | CLNC DEL<br><b>121.4 281.4</b> |
|-------------------------------|------------------------------------|---------------------------------------------------------------------------|-------------------------------|--------------------------------|



| CATEGORY   | A                            | B                            | C                            | D                       | E  |
|------------|------------------------------|------------------------------|------------------------------|-------------------------|----|
| S-4R       | 460-3/4                      | 452 (500-3/4)                | 460-7/8                      | 452 (500-7/8)           |    |
| C CIRCLING | 680-1 1/4<br>667 (700-1 1/4) | 760-1 1/4<br>747 (800-1 1/4) | 820-2 1/4<br>807 (900-2 1/4) | 1400-3<br>1387 (1400-3) | NA |

HONOLULU, HAWAII

Amdt 1D 25FEB21

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)

LOC RWY 4R

HONOLULU, HAWAII

AL-754 (FAA)

24025

|                                          |                        |                                                              |
|------------------------------------------|------------------------|--------------------------------------------------------------|
| LOC/DME I-HNL<br><b>111.7</b><br>Chan 54 | APP CRS<br><b>079°</b> | Rwy Idg <b>12312</b><br>TDZE <b>13</b><br>Apt Elev <b>13</b> |
|------------------------------------------|------------------------|--------------------------------------------------------------|

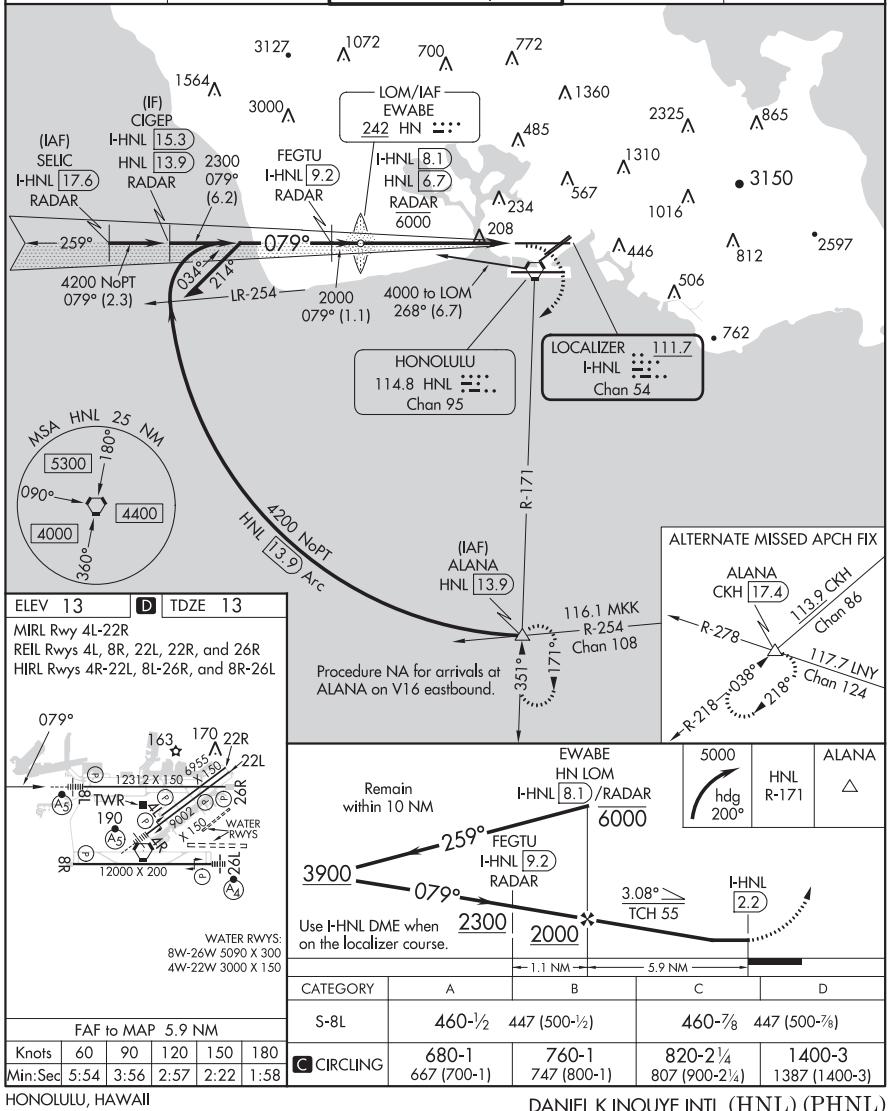
DME or RADAR required.

V Circling Rwy 22R NA at night. 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.

DANIEL K INOUYE INTL (HNL) (PHNL)

MALS R MISSED APPROACH: Climbing right turn to 5000 on heading 200° and HNL VORTAC R-171 to ALANA INT/HNL 13.9 DME and hold, continue climb-in-hold to 5000.

|                               |                                    |                                                                           |                               |                                |
|-------------------------------|------------------------------------|---------------------------------------------------------------------------|-------------------------------|--------------------------------|
| D-ATIS<br><b>127.9 251.15</b> | HCF APPROACH<br><b>118.3 269.0</b> | HONOLULU TOWER<br><b>118.1 257.8</b><br><b>123.9 273.575 (Rwy 8R/26L)</b> | GND CON<br><b>121.9 348.6</b> | CINC DEL<br><b>121.4 281.4</b> |
|-------------------------------|------------------------------------|---------------------------------------------------------------------------|-------------------------------|--------------------------------|



## TERMINAL PROCEDURES

HONOLULU, HAWAII

AL-754 (FAA)

24025

|                                           |                        |                                                              |
|-------------------------------------------|------------------------|--------------------------------------------------------------|
| LOC/DME I-EPIC<br><b>109.1</b><br>Chan 28 | APP CRS<br><b>304°</b> | Rwy Idg <b>12000</b><br>TDZE <b>10</b><br>Apt Elev <b>13</b> |
|-------------------------------------------|------------------------|--------------------------------------------------------------|

DANIEL K INOUYE INTL (HNL) (PHNL)

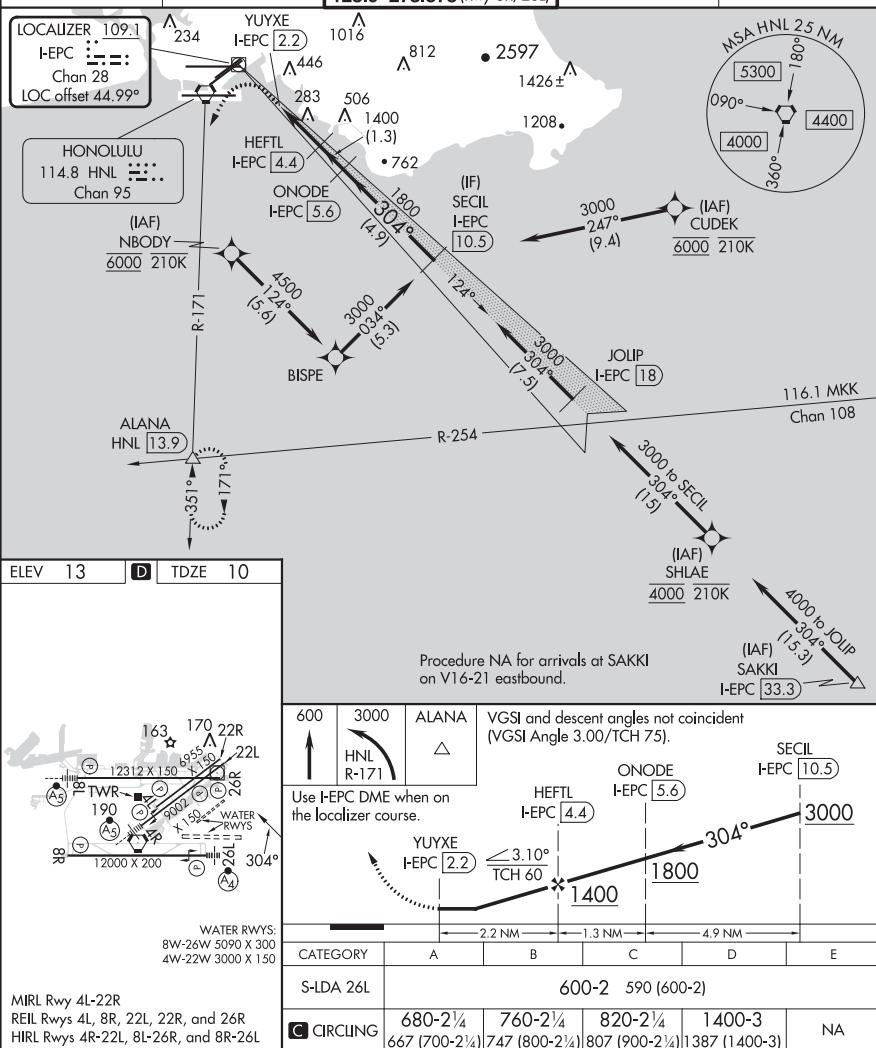
**LDA RWY 26L**

DME required. From CUDEK, NBODY, SHLAE: RNAV 1-GPS required.

**VNA** Circling Rwy 22R NA at night. Circling NA to sea lanes 4W, 8W, 22W and 26W. NBODY transition, CUDEK transition, SHLAE transition NA for Cat E aircraft. Follow flasher lights to Rwy 26L. Procedure NA when ALS or SFL inop. Circling Cat E NA. Circling NA for Cats A and B northwest of Rwy 8L-22R. Circling NA for Cats C and D north of Rwy 8L-26R.

**MALSF** MISSED APPROACH: Climb to 600 then climbing left turn to 3000 on HNL VORTAC R-171 to ALANA INT/HNL 13.9 DME and hold.

|                               |                                    |                                                                           |                               |                                |
|-------------------------------|------------------------------------|---------------------------------------------------------------------------|-------------------------------|--------------------------------|
| D-ATIS<br><b>127.9 251.15</b> | HCF APPROACH<br><b>118.3 269.0</b> | HONOLULU TOWER<br><b>118.1 257.8</b><br><b>123.9 273.575 (Rwy 8R/26L)</b> | GND CON<br><b>121.9 348.6</b> | CLNC DEL<br><b>121.4 281.4</b> |
|-------------------------------|------------------------------------|---------------------------------------------------------------------------|-------------------------------|--------------------------------|



HONOLULU, HAWAII

Amdt 6A 25FEB21

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)  
**LDA RWY 26L**

HONOLULU, HAWAII

AL-754 (FAA)

24025

|                                |                 |                             |                 |
|--------------------------------|-----------------|-----------------------------|-----------------|
| VORTAC HNL<br>114.8<br>Chan 95 | APP CRS<br>018° | Rwy Idg<br>TDZE<br>Apt Elev | 8950<br>8<br>13 |
|--------------------------------|-----------------|-----------------------------|-----------------|

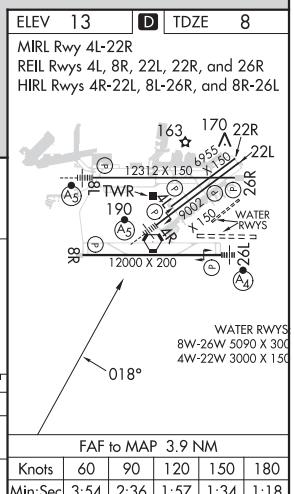
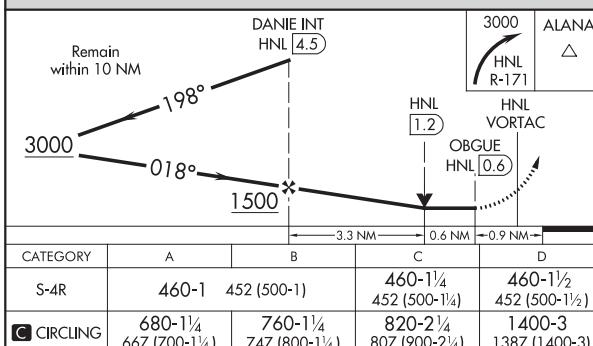
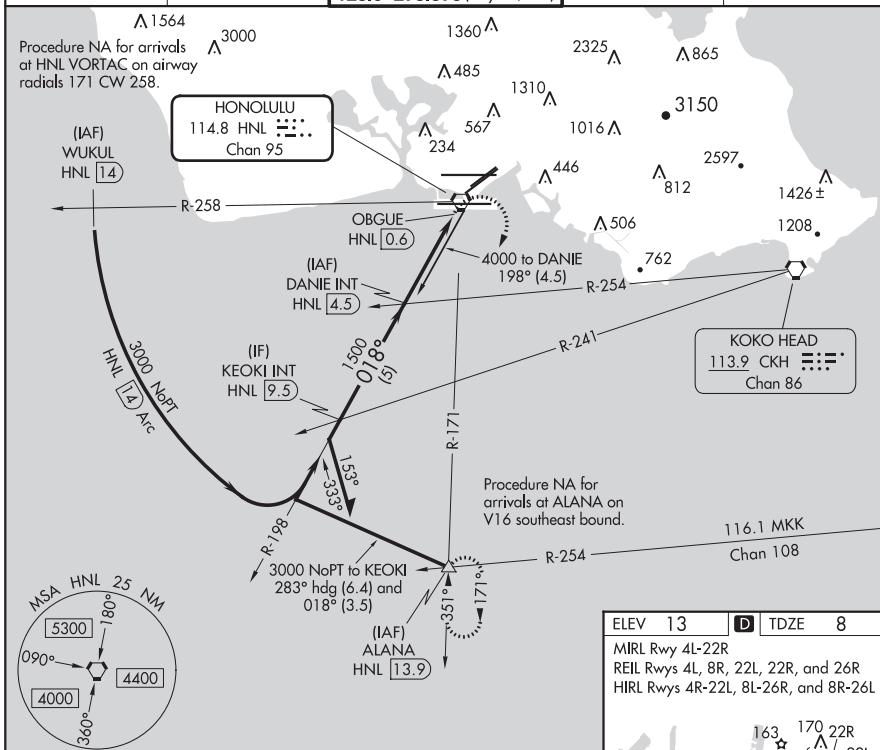
▼ Circling Rwy 22R NA at night. Inop table does not apply. Circling NA for Cats A and B northwest of Rwy 8L and 22R. Circling NA for Cats C and D north of Rwy 8L-26R. Circling NA to sea lanes 4W, 8W, 22W, and 26W.

## VOR or TACAN RWY 4R

DANIEL K INOUYE INTL (HNL) (PHNL)

MALSR (A3)  
MISSSED APPROACH: Climbing right turn to 3000 on HNL VORTAC R-171 to ALANA INT/HNL 13.9 DME and hold.

|                        |                             |                                                             |                        |                         |
|------------------------|-----------------------------|-------------------------------------------------------------|------------------------|-------------------------|
| D-ATIS<br>127.9 251.15 | HCF APPROACH<br>118.3 269.0 | HONOLULU TOWER<br>118.1 257.8<br>123.9 273.575 (Rwy 8R/26L) | GND CON<br>121.9 348.6 | CLNC DEL<br>121.4 281.4 |
|------------------------|-----------------------------|-------------------------------------------------------------|------------------------|-------------------------|



HONOLULU, HAWAII

Orig-E 25FEB21

DANIEL K INOUYE INTL (HNL) (PHNL)  
21°19'N-157°55'W  
VOR or TACAN RWY 4R

HONOLULU, HAWAII

AL-754 (FAA)

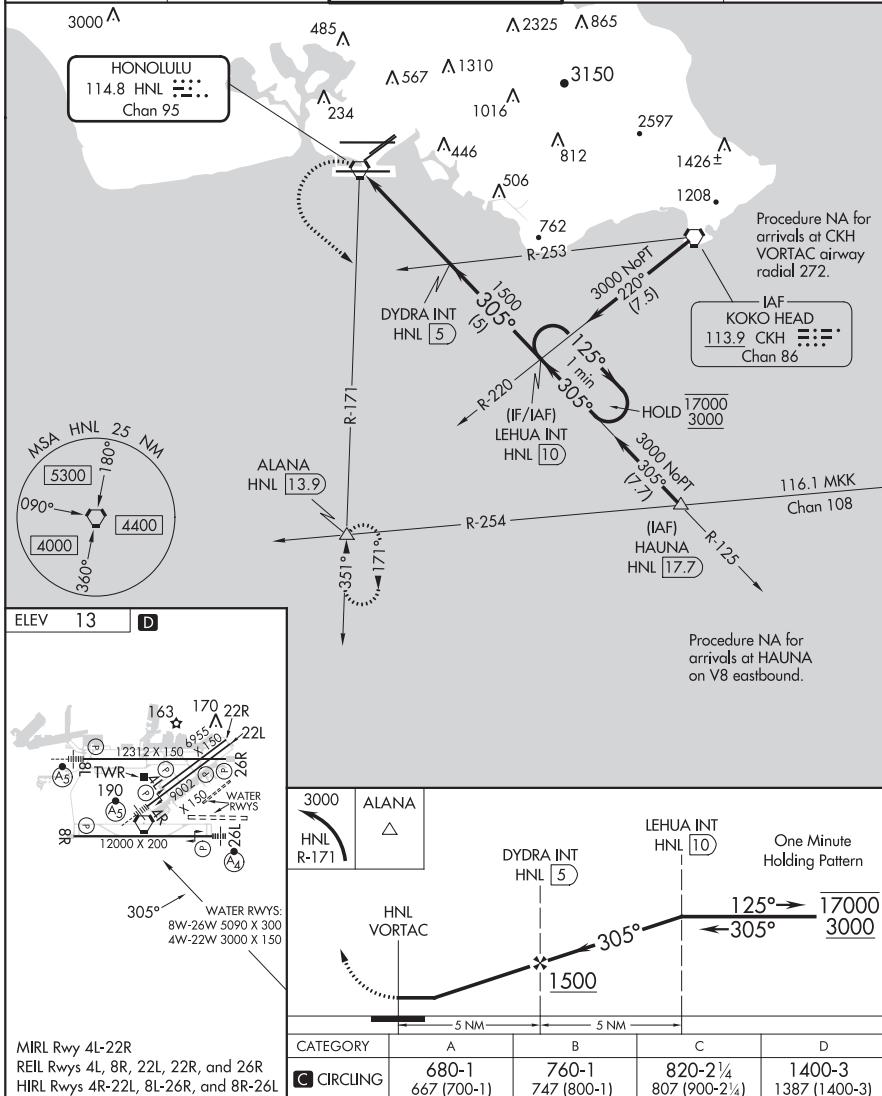
24025

|                                |                 |                             |                  |
|--------------------------------|-----------------|-----------------------------|------------------|
| VORTAC HNL<br>114.8<br>Chan 95 | APP CRS<br>305° | Rwy Idg<br>TDZE<br>Apt Elev | N/A<br>N/A<br>13 |
|--------------------------------|-----------------|-----------------------------|------------------|

## VOR or TACAN-A

DANIEL K INOUYE INTL (HNL) (PHNL)

|                                                                                                                                                    |                                    |                                                                                               |                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>T</b> Circling Rwy 22R NA at night. 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. |                                    | MISSIED APPROACH: Climbing left turn to 3000 on HNL R-171 to ALANA INT/HNL 13.9 DME and hold. |                                                                 |
| D-ATIS<br><b>127.9 251.15</b>                                                                                                                      | HCF APPROACH<br><b>118.3 269.0</b> | <b>HONOLULU TOWER</b><br><b>118.1 257.8</b><br><b>123.9 273.575 (Rwy BR/26L)</b>              | GND CON<br><b>121.9 348.6</b><br>CLNC DEL<br><b>121.4 281.4</b> |



HONOLULU, HAWAII

Amdt 1D 25FEB21

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

21°19'N-157°55'W

HONOLULU, HAWAII

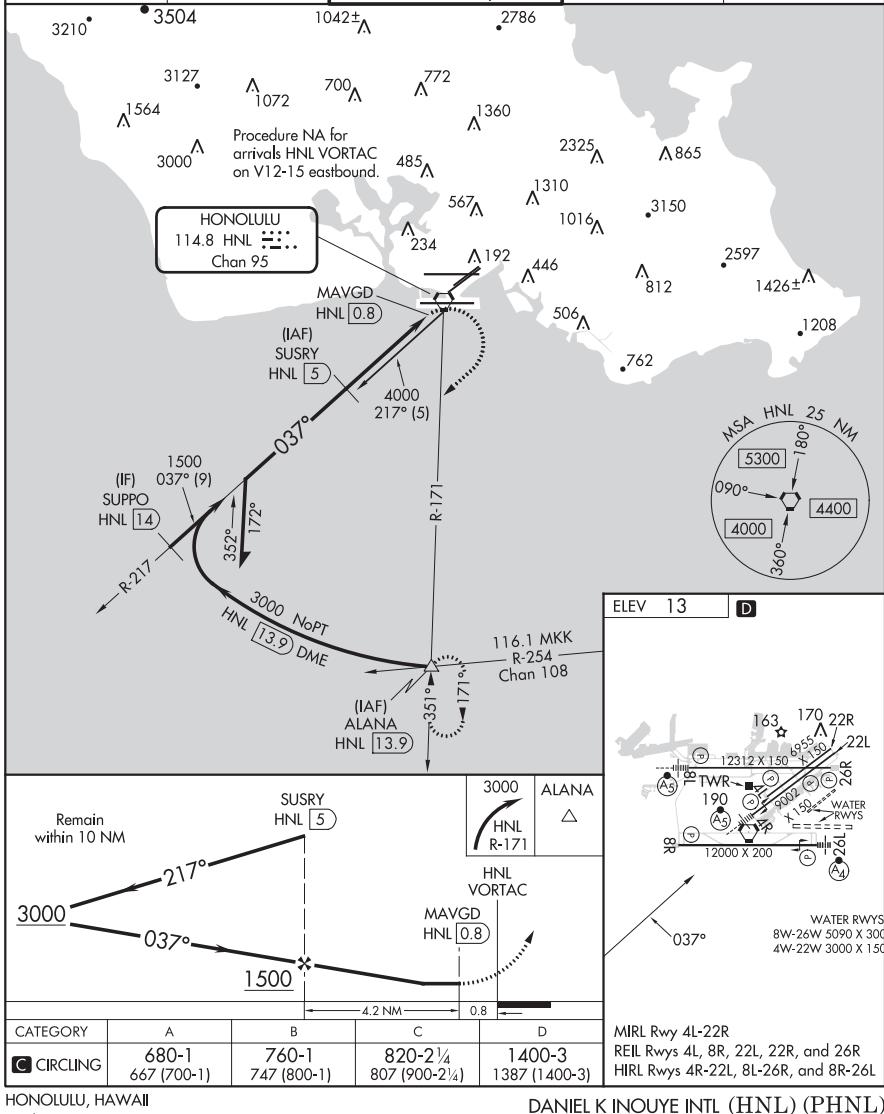
AL-754 (FAA)

24025

|                                |                 |                             |                  |
|--------------------------------|-----------------|-----------------------------|------------------|
| VORTAC HNL<br>114.8<br>Chan 95 | APP CRS<br>037° | Rwy Idg<br>TDZE<br>Apt Elev | N/A<br>N/A<br>13 |
|--------------------------------|-----------------|-----------------------------|------------------|

DME required.

|                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                |                                                             |                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------|
|  Circling Rwy 22R NA at night.<br> 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. | MISSDED APPROACH: Climbing right turn to 3000 on HNL R-171 to ALANA INT/HNL 13.9 DME and hold. |                                                             |                        |
| D-ATIS<br>127.9 251.15                                                                                                                                                                                                                                                                                                                                          | HCF APPROACH<br>118.3 269.0                                                                    | HONOLULU TOWER<br>118.1 257.8<br>123.9 273.575 (Rwy 8R/26L) | GND CON<br>121.9 348.6 |



HONOLULU, HAWAII

Amdt 2D 25FEB21

DANIEL K INOUYE INTL (HNL) (PHNL)  
21°19'N-157°55'W

VOR or TACAN-B

17117

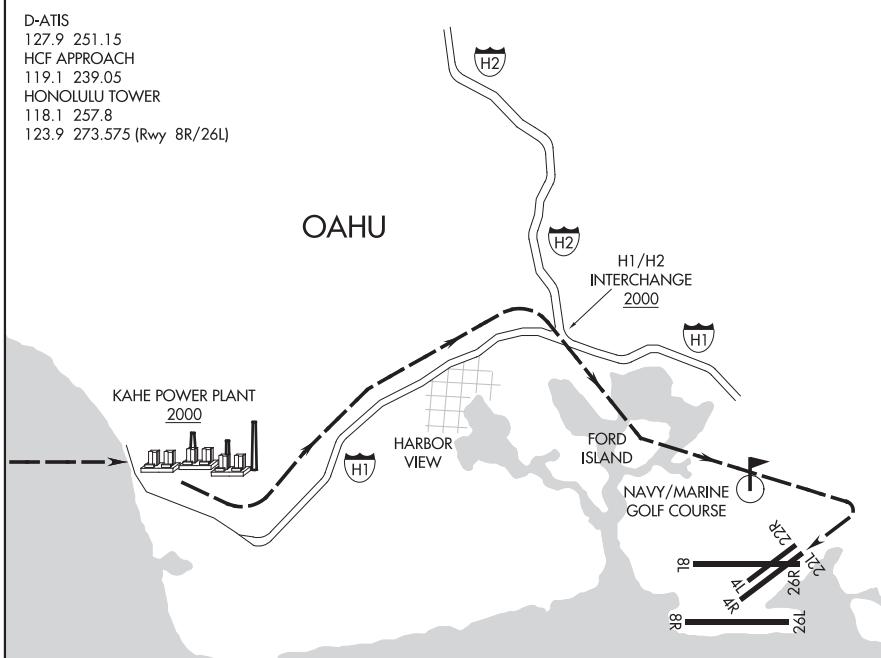
AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)

**KAHE POWER PLANT VISUAL RWY 22L**

HONOLULU, HAWAII

D-ATIS  
 127.9 251.15  
 HCF APPROACH  
 119.1 239.05  
 HONOLULU TOWER  
 118.1 257.8  
 123.9 273.575 (Rwy 8R/26L)

**RADAR REQUIRED**

Weather Minimums: 5100 feet ceiling  
 and 3 statute miles visibility.

Vertical Guidance Navaid and angle:  
 PAPI Rwy 22L- 3.44°

|      |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
|------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|
| 1 NM | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|

**KAHE POWER PLANT VISUAL APPROACH RWY 22L**

PROCEDURE NOT AUTHORIZED AT NIGHT  
 RESTRICTED TO CAT I AND CAT II AIRCRAFT ONLY  
 Pilots may expect landing Runway 22R.

**KAHE POWER PLANT VISUAL RWY 22L**

HONOLULU, HAWAII

Amdt 1 27APR17

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)

23334

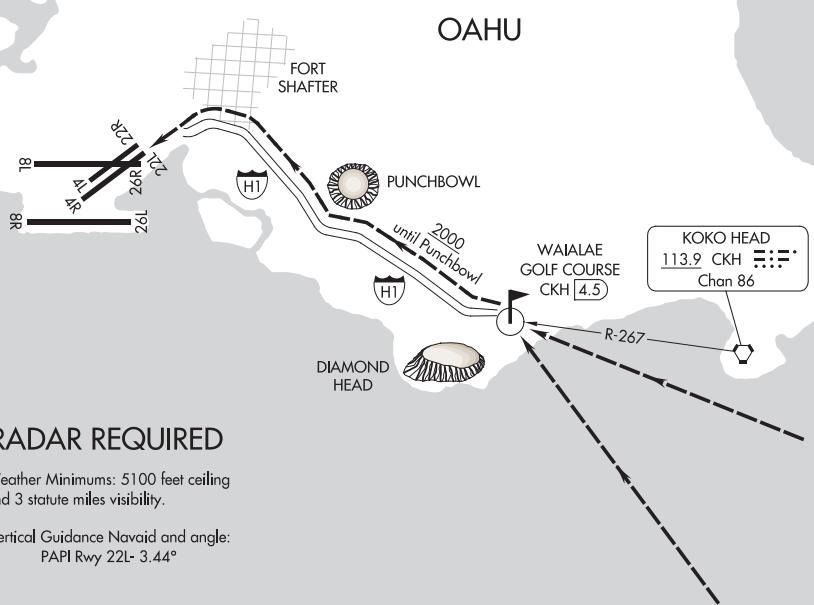
AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)

**WAIALAE GOLF COURSE VISUAL RWY 22L**

HONOLULU, HAWAII

D-ATIS  
 127.9 251.15  
 HCF APPROACH  
 119.1 239.05  
 HONOLULU TOWER  
 118.1 257.8  
 123.9 273.575 (Rwy 8R/26L)

**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.

**WAIALAE GOLF COURSE VISUAL RWY 22L**

HONOLULU, HAWAII

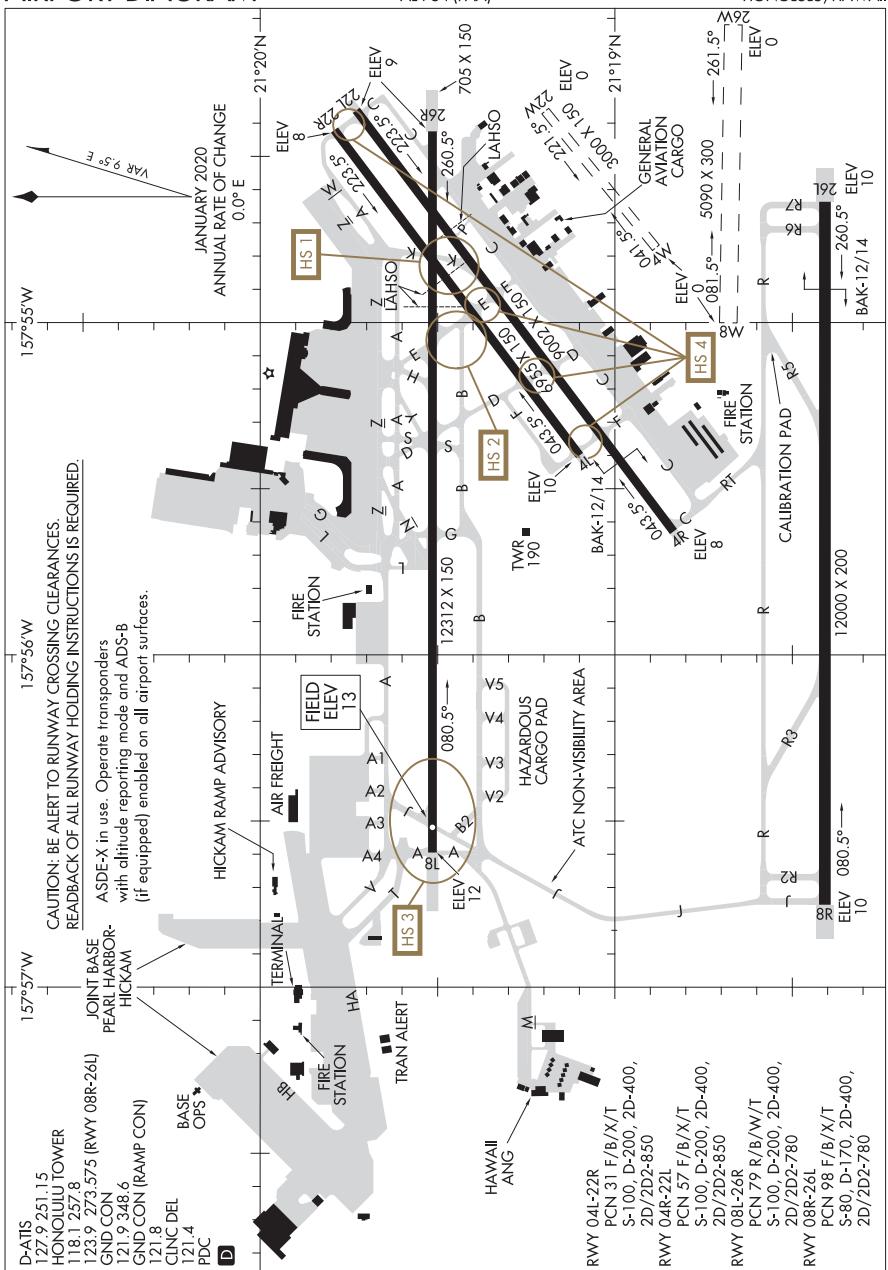
Amdt 1 27APR17

21°19'N-157°55'W DANIEL K INOUYE INTL (HNL) (PHNL)

## TERMINAL PROCEDURES

24025

## AIRPORT DIAGRAM



## AIRPORT DIAGRAM

24025

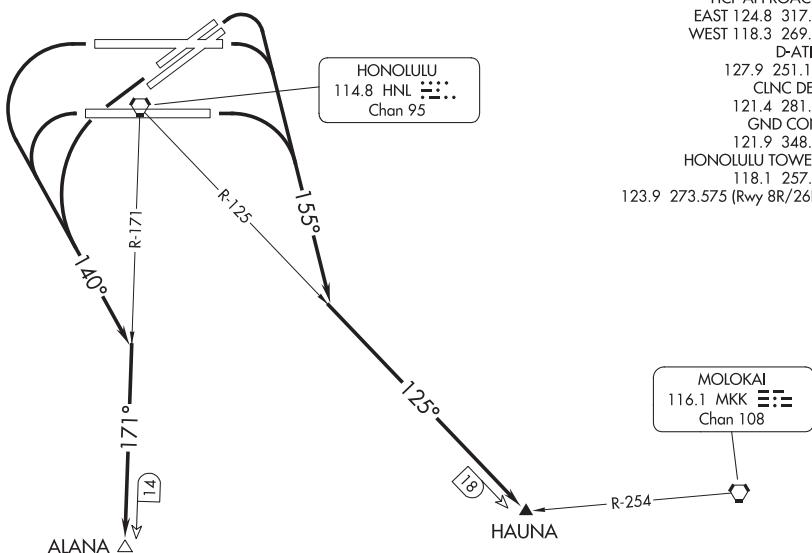
DANIEL K INOUYE INT'L (HNL) (PHNL)  
HONOLULU, HAWAII

(HNL2.HNL) 23334

## HONOLULU TWO DEPARTURE (OBSTACLE)

DANIEL K INOUYE INTL (HNL) (PHNL)  
AL-754 (FAA)

HCF APPROACH  
EAST 124.8 317.6  
WEST 118.3 269.0  
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)

TAKEOFF MINIMUMS

Rwys 4W, 8W, 22W, 26W: NA-ATC.

Rwys 22L/R, 26R: Standard.

Rwys 4L/R: Standard with minimum climb of 425' per NM to 1900, do not exceed 180K until southeast bound on 155° heading, or 1700-2½ for VCOA.

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

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

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

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 4L/R, 8L/R: Climbing right turn to 3000 on heading 155° to intercept HNL R-125 to HAUNA INT before proceeding on course, or . . . .

TAKEOFF RUNWAYS 22L/R, 26L/R: Climbing left turn to 3000 on heading 140° to intercept HNL R-171 to ALANA INT before proceeding on course, or . . . .

. . . . for visual climb over airport: obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Daniel K. Inouye Int'l Airport southbound at 1600, continue climb to 3000 on HNL R-171 to ALANA INT before proceeding on course.

HONOLULU TWO DEPARTURE (OBSTACLE)  
(HNL2.HNL) 08NOV18HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(HNL2.HNL) 18312

**HONOLULU TWO DEPARTURE (OBSTACLE)**DANIEL K INOUYE INTL (HNL) (PHNL)  
AL-754 (FAA)

HONOLULU, HAWAII

**TAKEOFF OBSTACLE NOTES**

- Rwy 4L: Multiple lights beginning 630' from DER, 236' left of centerline, 102' right of centerline, up to 84' AGL/92' MSL.  
Light on building 669' from DER, 394' left of centerline, 29' AGL/37' MSL.  
Stack on building 2488' from DER, 219' right of centerline, 72' AGL/80' MSL.  
Multiple trees beginning 1253' from DER, 209' left of centerline, 935' right of centerline, up to 64' AGL/72' MSL.  
Bush 450' from DER, 234' left of centerline, 14' AGL/22' MSL.
- Rwy 4R: Stack on building, 2442' from DER, 283' left of centerline, 72' AGL/80' MSL.  
Multiple trees beginning 1206' from DER, 711' left of centerline, 433' right of centerline, up to 64' AGL/72' MSL.  
Multiple lights beginning 1072' from DER, 399' left of centerline, 504' right of centerline, up to 36' AGL/44' MSL.  
Pole 2110' from DER, 951' left of centerline, 59' AGL/67' MSL.
- Rwy 22L: Multiple bushes beginning 265' from DER, 396' right of centerline, up to 17' AGL/31' MSL.  
Tree 1065' from DER, 499' right of centerline, 30' AGL/38' MSL.
- Rwy 22R: 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.

**HONOLULU TWO DEPARTURE (OBSTACLE)**  
(HNL2.HNL) 08NOV18HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

21112

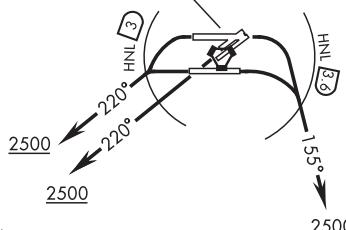
DANIEL K INOUYE INTL (JOINT BASE PEARL HARBOR HICKAM) (HNL)(PHNL)(PHIK)  
**ALANA TWO DEPARTURE (ALANA2•ALANA)**

AL-754 [USA]

HONOLULU, HAWAII

D-ATIS  
 127.9 251.15  
 CLNC DEL  
 121.4 281.4  
 GND CON  
 121.9 348.6  
 HONOLULU TOWER  
 118.1 257.8  
 HCF APP  
 118.3 317.6  
 N119.1 265.0  
 W118.3 269.0

HONOLULU  
 114.8 HNL  
 Chan 95



Departure from Rwy 8L/R:  
 Right turn heading 155° must be completed within 2 NM of departure end of rwy (HNL VORTAC 3.6 DME).

Departure from Rwy 26L/R:  
 Left turn to heading 220° must be completed within 2 NM of departure end of rwy (HNL VORTAC 3 DME).

**CAUTION:** Large ships operating in channel waters surrounding HNL airport.

**TAKEOFF MINIMUMS**  
 Rwy 4L/R: NA - Obstacles/Noise.  
 Rwy 22L/R, 26L/R: Standard.  
 Rwy 8L: Standard with minimum climb of 305 ft per NM to 600.  
 Rwy 8R: Standard with climb of 296 ft per NM to 500.

**TAKEOFF OBSTACLES**

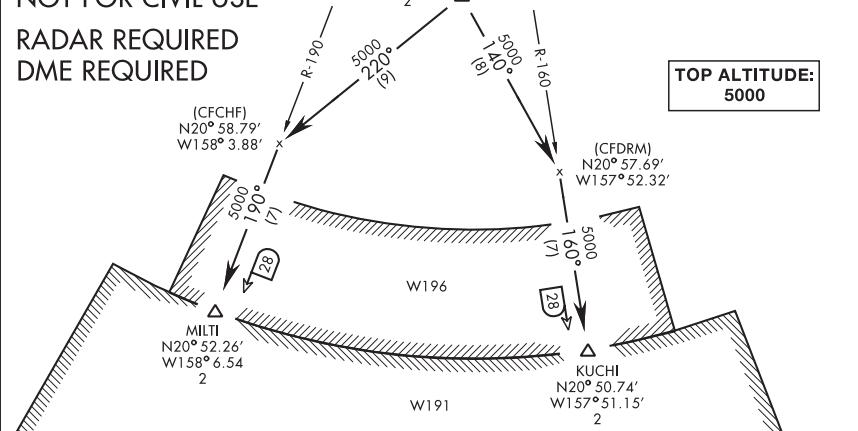
Rwy 22L: Tree 58'2" from DER, 472' right of centerline, 31' MSL/23' AGL.  
 Rwy 22R: Tower 1451' from DER, 827' right of centerline, 84' MSL/81' AGL.

**NOT FOR CIVIL USE****RADAR REQUIRED  
DME REQUIRED**

MOLOKAI  
 116.1 MKK  
 Chan 108



**TOP ALTITUDE: 5000**

**DEPARTURE ROUTE DESCRIPTION**

TAKE-OFF RWY 8 L/R: Climbing right turn heading 155° to 2500. Thence...

TAKE-OFF RWY 22 L/R: Climb heading 220° to 2500. Thence...

TAKE-OFF RWY 26 L/R: Climbing left turn heading 220° to 2500. Thence...

... expect RADAR vectors to ALANA, then on assigned transition. Maintain 5000, expect clearance to enroute altitude at ALANA.

KUCHI TRANSITION (ALANA2•KUCHI): From over ALANA on heading 140° and HNL R-160 to KUCHI.

MILTI TRANSITION (ALANA2•MILTI): From over ALANA on heading 220° and HNL R-190 to MILTI.

**ALANA TWO DEPARTURE (ALANA2•ALANA)**

Amdt 1 22APR21

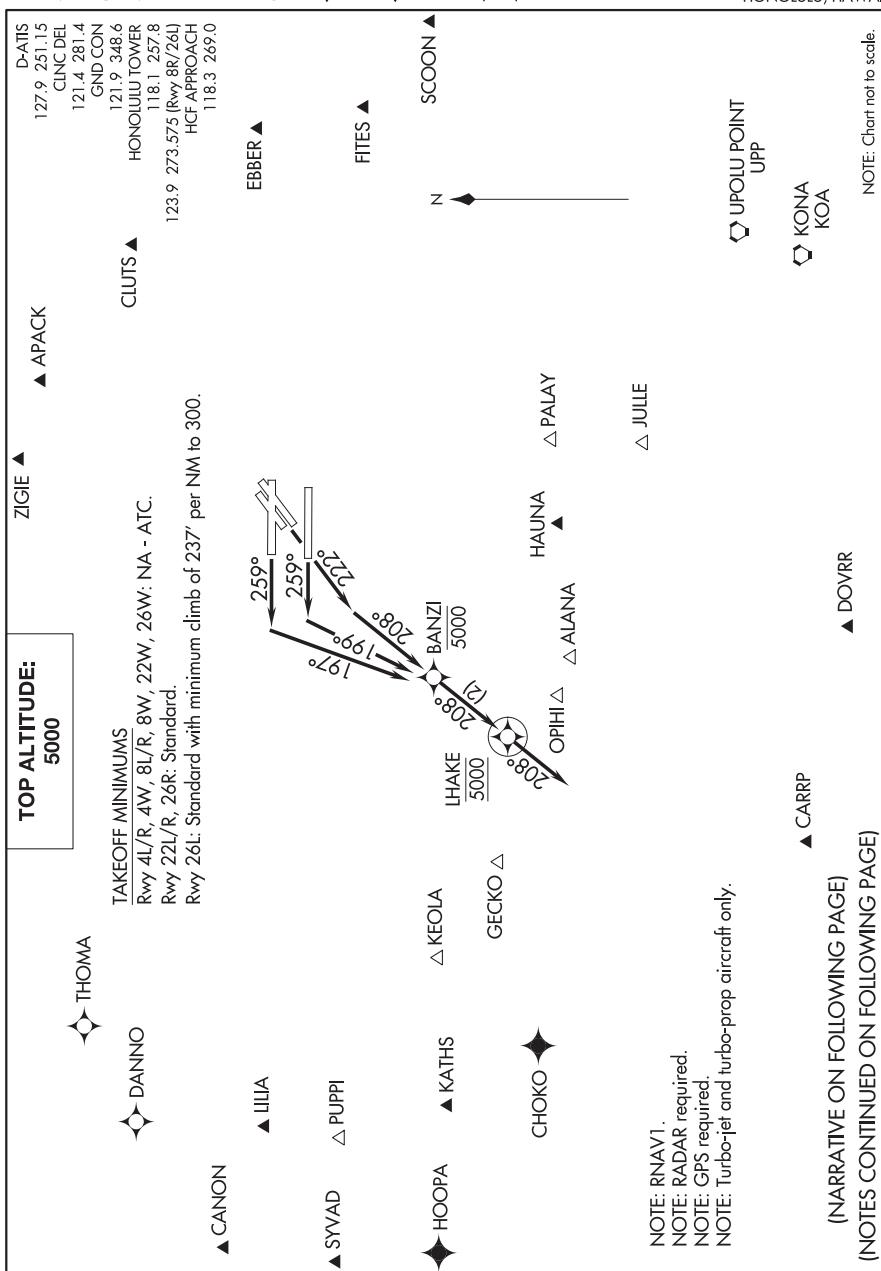
HONOLULU, HAWAII  
 DANIEL K INOUYE INTL (JOINT BASE PEARL HARBOR HICKAM) (HNL)(PHNL)(PHIK)

## TERMINAL PROCEDURES

(BANZI1.BANZI) 20030

BANZI ONE DEPARTURE (RNAV)

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAIIBANZI ONE DEPARTURE (RNAV)  
(BANZI1.BANZI) 30JAN20HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(BANZI1.BANZI) 20030

BANZI ONE DEPARTURE (RNAV)

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 22L/R: Climb on heading 222° to intercept course 208° to cross BANZI at or below 5000, thence . . . .

TAKEOFF RUNWAY 26L: Climb on heading 259° to intercept course 199° to cross BANZI at or below 5000, thence . . . .

TAKEOFF RUNWAY 26R: Climb on heading 259° to intercept course 197° to cross BANZI at or below 5000, thence . . . .

. . . . on track 208° to LHAKE, then on track 208° for RADAR vectors to assigned route/fix, maintain 5000 or as assigned by ATC. Expect clearance to filed altitude/flight level within 10 minutes after departure.

NOTE: ALANA departures expect direct/vectors to ALANA/V8/V16/V20/V21.

NOTE: APACK departures expect direct/vectors to APACK/R463.

NOTE: CANON departures expect direct/vectors to CANON/V15.

NOTE: CARRP departures expect direct/vectors to CARRP/A579.

NOTE: CHOKO departures expect direct/vectors to CHOKO/R584/B326.

NOTE: CLUTS departures expect direct/vectors to CLUTS/R465.

NOTE: DANNO departures expect direct/vectors to DANNO.

NOTE: DOVRR departures expect direct/vectors to DOVRR/B596.

NOTE: EBBER departures expect direct/vectors to EBBER/R577.

NOTE: FITES departures expect direct/vectors to FITES/R578.

NOTE: GECKO departures expect direct/vectors to GECKO/V4/V12/V16.

NOTE: HAUNA departures expect direct/vectors to HAUNA/V8/V16/V20/V21/LNY.

NOTE: HOOPA departures expect direct/vectors to HOOPA/A450.

NOTE: JULLE departures expect direct/vectors to JULLE/V16/V20/V21.

NOTE: KATHS departures expect direct/vectors to KATHS/A450.

NOTE: KEOLA departures expect direct/vectors to KEOLA/V16.

NOTE: KOA departures expect direct/vectors to KOA.

NOTE: LILIA departures expect direct/vectors to LILIA/V15.

NOTE: OPIHI departures expect direct/vectors to OPIHI/V8/V16/V20/V21.

NOTE: PALAY departures expect direct/vectors to PALAY/V2/V8/LNY.

NOTE: PUPPI departures expect direct/vectors to PUPPI/V16.

NOTE: SCOON departures expect direct/vectors to SCOON.

NOTE: SYVAD departures expect direct/vectors to SYVAD/V16.

NOTE: THOMA departures expect direct/vectors to THOMA.

NOTE: UPP departures expect direct/vectors to UPP.

NOTE: ZIGIE departures expect direct/vectors to ZIGIE/A331.

BANZI ONE DEPARTURE (RNAV)  
(BANZI1.BANZI) 30JAN20

HONOLULU, HAWAII

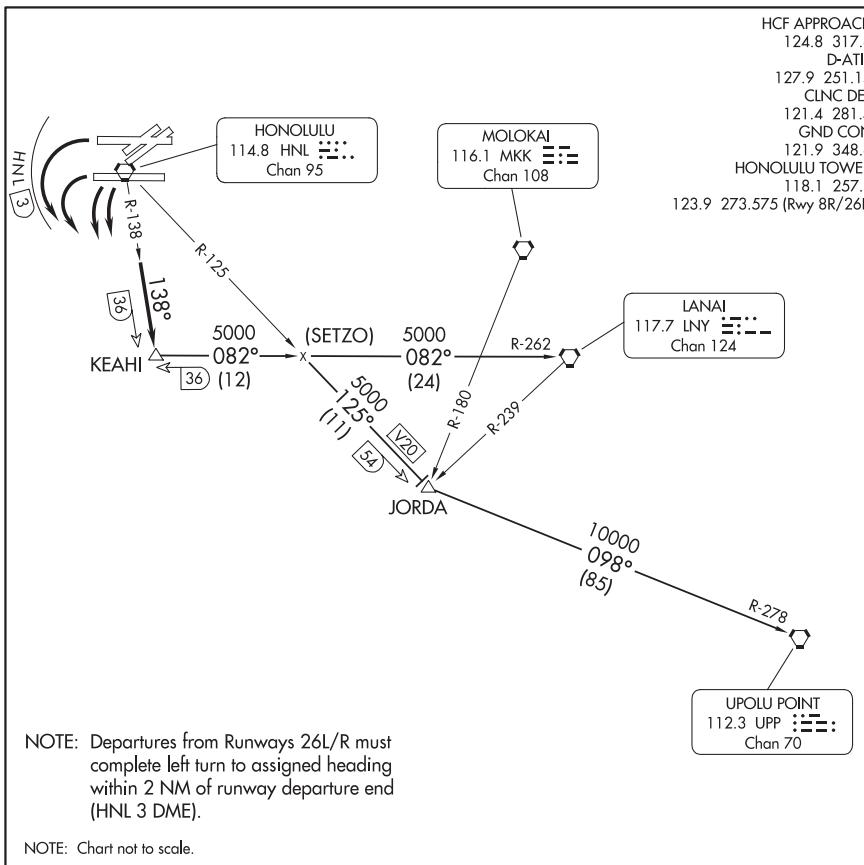
DANIEL K INOUYE INTL (HNL) (PHNL)

(KEAHI3.KEAHI) 23334

## KEAHI THREE DEPARTURE

DANIEL K INOUYE INTL (HNL) (PHNL)  
AL-754 (FAA)

HCF APPROACH  
124.8 317.6  
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)



## DEPARTURE ROUTE DESCRIPTION

**TAKOFF 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.

**KEAHI THREE DEPARTURE**  
(KEAHI3.KEAHI) 06JAN94

HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(KEOLA3.KEOLA) 23334

## KEOLA THREE DEPARTURE

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

|                            |
|----------------------------|
| HCF APPROACH               |
| 118.3 269.0                |
| D-ATIS                     |
| 127.9 251.5                |
| 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) |

N



## 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 LH R-148 to LH VORTAC.

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

**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.

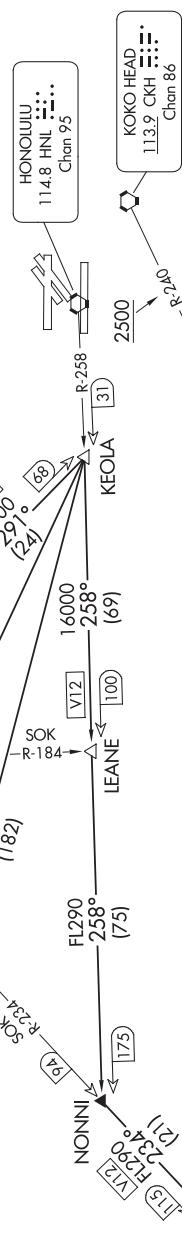
## SOUTH KAUI TRANSITION (KEOLA3.SOK): From over KEOLA on SOK R-111 to SOK VORTAC.

## TAKEOFF MINIMUMS

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

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 from Rwy 26L/R left turn to assigned heading must be completed within 2 NM of departure end of runway (HNL 3 DME).



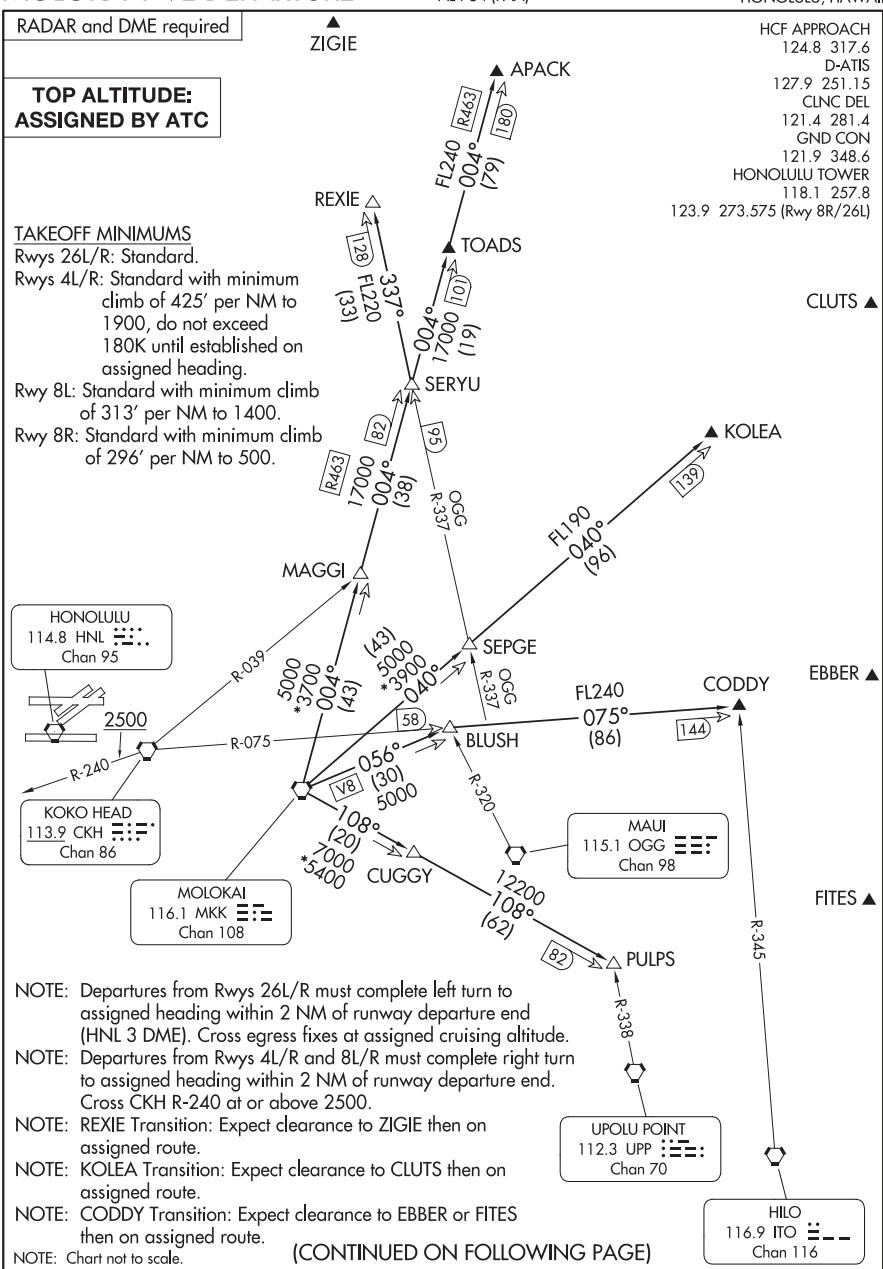
NOTE: Chart not to scale.

KEOLA THREE DEPARTURE  
(KEOLA3.KEOLA) 25FEB21HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(MKK5.MKK) 23334

## MOLOKAI FIVE DEPARTURE

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAIIMOLOKAI FIVE DEPARTURE  
(MKK5.MKK) 03NOV22HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(MKK5.MKK) 22307

**MOLOKAI FIVE DEPARTURE**DANIEL K INOUYE INTL (HNL) (PHNL)  
AL-754 (FAA) HONOLULU, HAWAII**DEPARTURE ROUTE DESCRIPTION**

Turn right/left to heading as assigned by Tower, expect vectors to MKK VORTAC, maintain 5000; then on transition. Expect clearance to enroute altitude/flight level at MKK VORTAC. Cross egress fixes REXIE, APACK, KOLEA, and CODDY at assigned cruising altitude, unless otherwise advised by ATC.

APACK TRANSITION (MKK5.APACK): From over MKK VORTAC on MKK R-004 to APACK.

CODDY TRANSITION (MKK5.CODDY): From over MKK VORTAC on MKK R-056 and CKH R-075 to CODDY.

KOLEA TRANSITION (MKK5.KOLEA): From over MKK VORTAC on MKK R-040 to KOLEA.

PULPS TRANSITION (MKK5.PULPS): From over MKK VORTAC on MKK R-108 to PULPS.

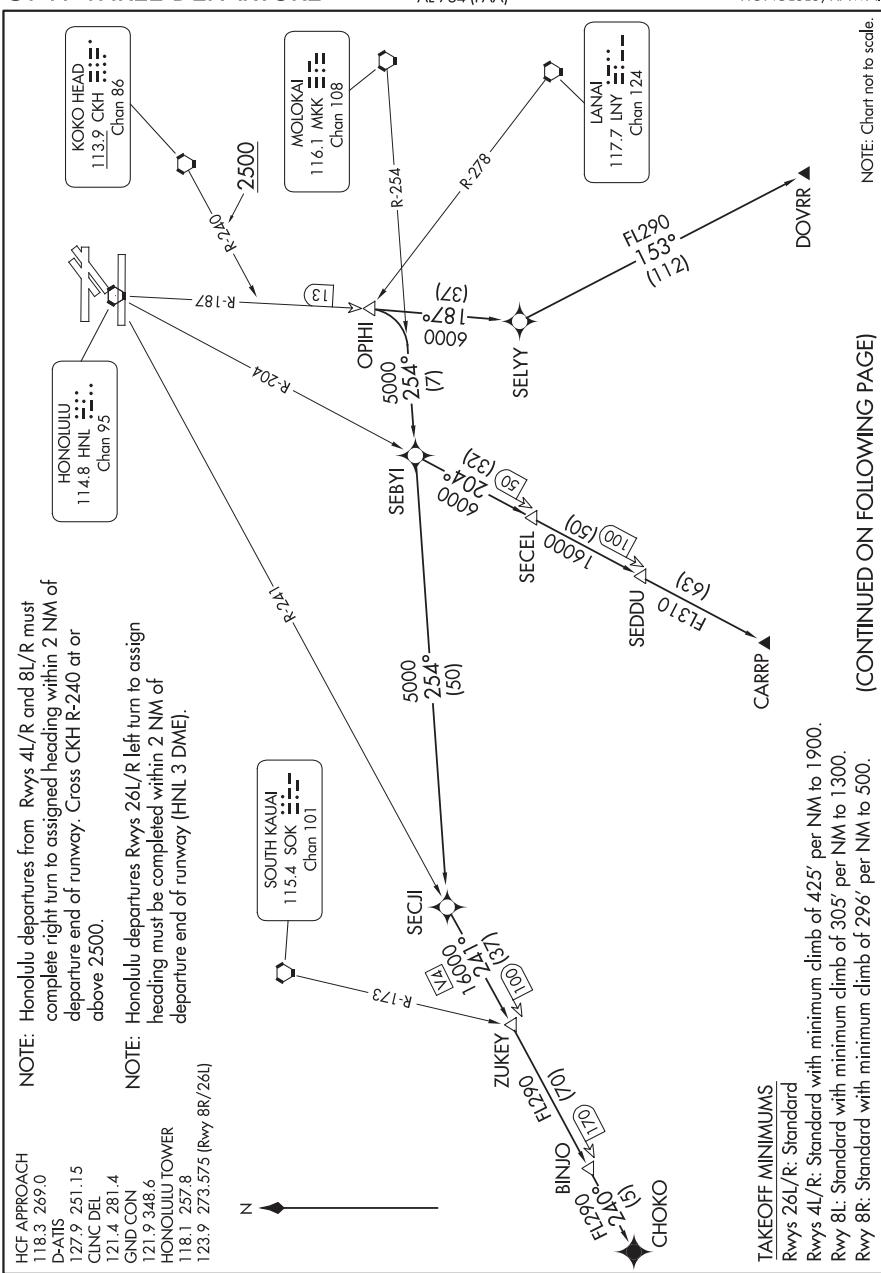
REXIE TRANSITION (MKK5.REXIE): From over MKK VORTAC on MKK R-004 and OGG R-337 to REXIE.

**MOLOKAI FIVE DEPARTURE**  
(MKK5.MKK) 03NOV22HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(OPIH13.OPIHI) 23334

## OPIHI THREE DEPARTURE

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAIIOPIHI THREE DEPARTURE  
(OPIH13.OPIHI) 25FEB21HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(OPIHI3.OPIHI) 21056

**OPIHI THREE DEPARTURE**

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII**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.

**OPIHI THREE DEPARTURE**  
(OPIHI3.OPIHI) 25FEB21HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(PALAY3.PALAY) 23334  
**PALAY THREE DEPARTURE**

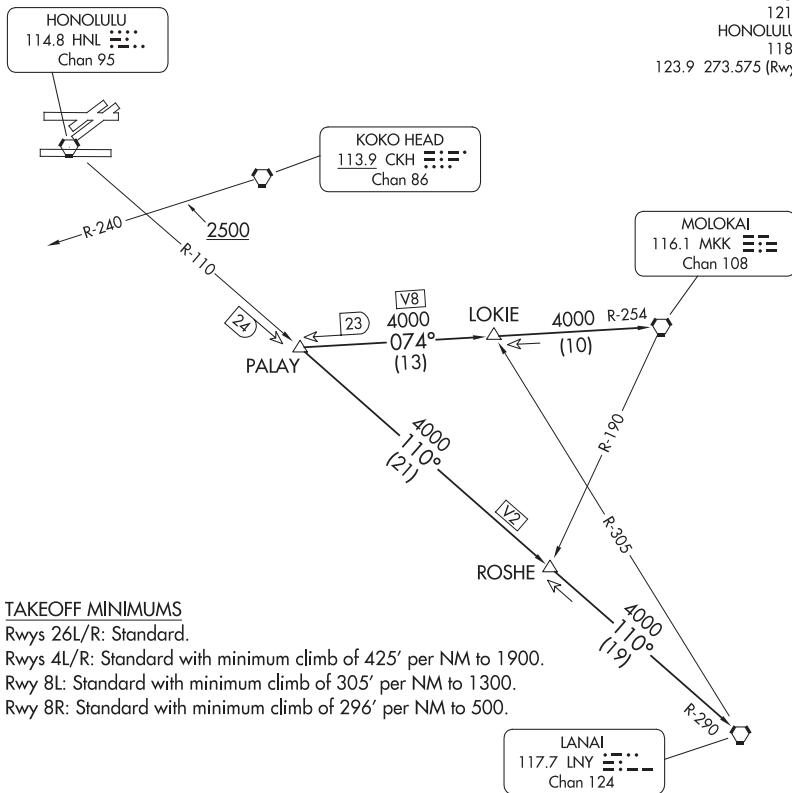
AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

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).

|              |                            |              |
|--------------|----------------------------|--------------|
| HCF APPROACH | 124.8                      | 317.6        |
|              | 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) |              |



#### DEPARTURE ROUTE DESCRIPTION

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

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

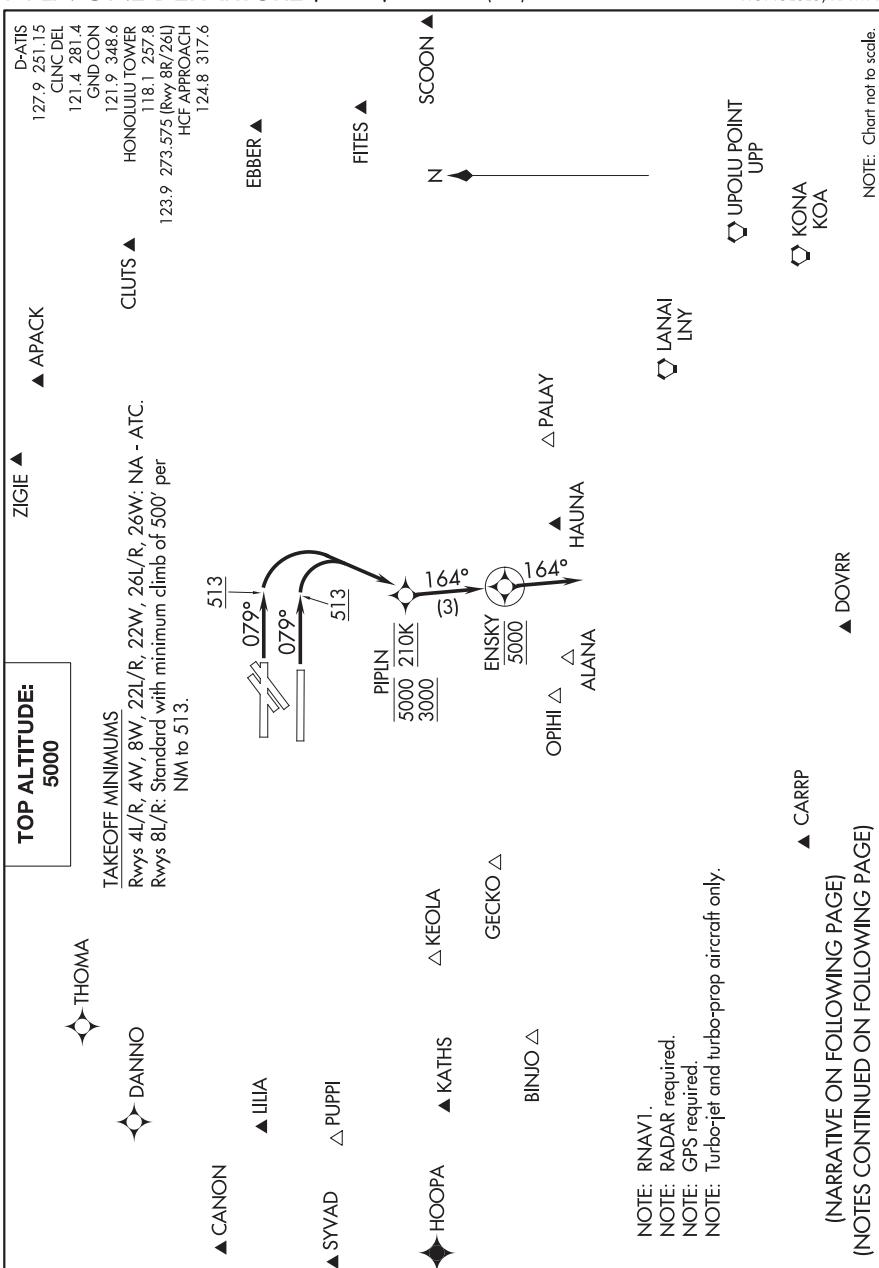
**MOLOKAI TRANSITION (PALAY3.MKK):** From over PALAY INT on MKK R-254 to MKK VORTAC.

**PALAY THREE DEPARTURE**  
(PALAY3.PALAY) 25FEB21

HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

(PIPLN1.PIPLN) 20030

## PIPLN ONE DEPARTURE (RNAV)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII  
AL-754 (FAA)

(PIPLN1.PIPLN) 20030

PIPLN ONE DEPARTURE (RNAV)

AL-754 (FAA)

DANIEL K INOUYE INTL (HNL) (PHNL)  
HONOLULU, HAWAII

## DEPARTURE ROUTE DESCRIPTION

TAKEOF 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 clearnace 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: LILIA departures expect direct/vectors to LILIA/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.

PIPLN ONE DEPARTURE (RNAV)  
(PIPLN1.PIPLN) 30JAN20HONOLULU, HAWAII  
DANIEL K INOUYE INTL (HNL) (PHNL)

23054

DANIEL K INOUYE INTL (JOINT BASE PEARL HARBOR HICKAM) (HNL)(PHNL)(PHIK)  
**SAITO TWO DEPARTURE (SAITO2•SAITO)**

AI-754 [USAF]

HONOLULU, HAWAII

D-ATIS

127.9 251.15

CLNC DEL

121.4 281.4

GND CON

121.9 348.6

HONOLULU TOWER

118.1 257.8

123.9 273.575

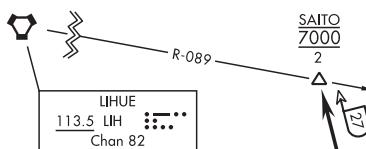
(Rwy 8R - 26L)

HCF APP

118.3 317.6

N119.1 265.0

W118.3 269.0



NOT FOR CIVIL USE

TOP ALTITUDE:  
7000

**CAUTION:** Large ships operating in channel waters surrounding HNL airport.

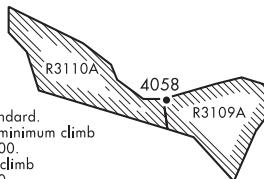
Terrain in heights to 2200 occur within 5 NM.

**TAKEOFF MINIMUMS**

Rwy 22L/R, 26L/R: Standard.

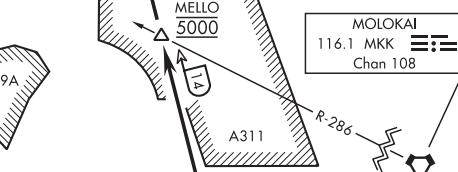
Rwy 8L: Standard with minimum climb of 305 ft per NM to 1300.

Rwy 8R: Standard with climb of 296 ft per NM to 500.

**TAKEOFF OBSTACLES**

Rwy 22L: Tree 58' from DER, 472' right of centerline, 31' MSL/23' AGL.

Rwy 22R: Tower 1451' from DER, 827' right of centerline, 84' MSL/81' AGL.



Departure from Rwy 8L/R:

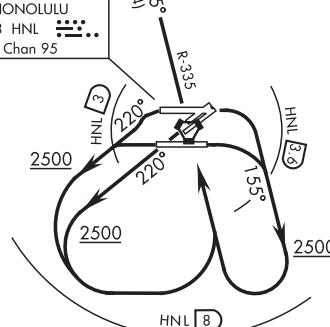
Right turn to heading 155° must be completed within 2 NM of departure end of rwy (HNL VORTAC 3.6 DME). Leaving 2500 and right turn to intercept HNL VORTAC R-335 must be completed within 8 DME.

Departure from Runways 22L/R:

Leaving 2500 and left turn to intercept HNL VORTAC R-335 must be completed within 8 DME.

Departure from Rwy 26L/R:

Left turn to heading 220° must be completed within 2 NM of departure end of rwy (HNL VORTAC 3 DME). Leaving 2500 and left turn to intercept HNL VORTAC R-335 must be completed within 8 DME.

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAYS 8L/R:** Climbing right turn heading 155° to 2500, then climbing right turn to HNL VORTAC and on HNL R-335 to cross MELLO at 5000. Thence....

**TAKEOFF RUNWAYS 22L/R:** Climb heading 220° to 2500, then climbing left turn to HNL VORTAC and on HNL R-335 to cross MELLO at 5000. Thence....

**TAKEOFF RUNWAYS 26L/R:** Climbing left turn heading 220° to 2500, then climbing left turn to HNL VORTAC and on HNL R-335 to cross MELLO at 5000. Thence....

... continue on HNL R-335 to cross SAITO at 7000, expect clearance to enroute altitude at SAITO.

**SAITO TWO DEPARTURE (SAITO2•SAITO)**

Amdt 1 22APR21

HONOLULU, HAWAII  
 DANIEL K INOUYE INTL (JOINT BASE PEARL HARBOR HICKAM) (HNL)(PHNL)(PHIK)

KAHULUI, HAWAII

AI-762 (FAA)

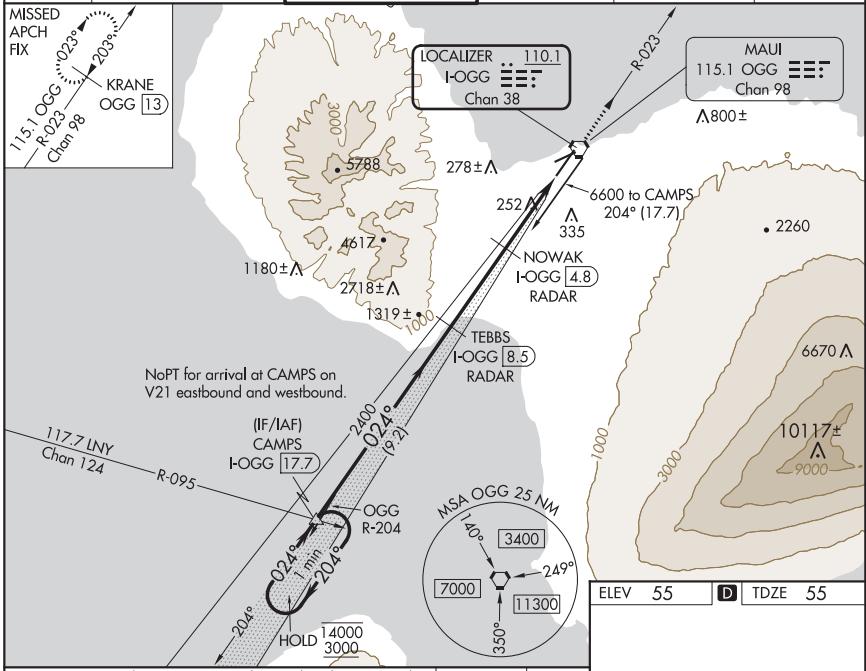
23278

|                                   |                 |                                              |
|-----------------------------------|-----------------|----------------------------------------------|
| LOC/DME I-OGG<br>110.1<br>Chan 38 | APP CRS<br>024° | Rwy Idg<br>6995<br>TDZE 55<br>Apt Elev<br>55 |
|-----------------------------------|-----------------|----------------------------------------------|

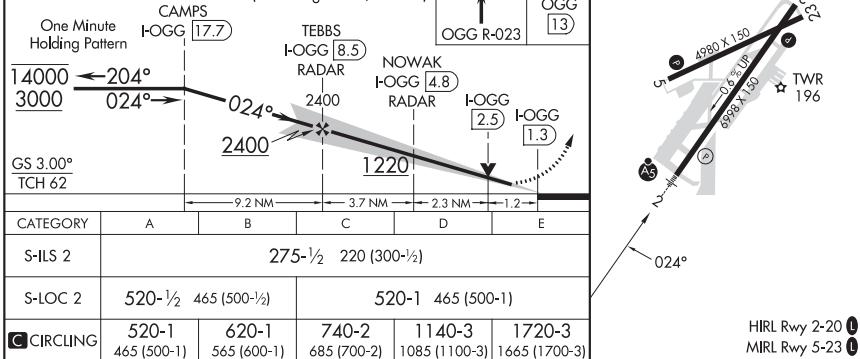
## ILS Y or LOC Y RWY 2

KAHULUI (OGG)(PHOG)

| DME required.                                                            |                                     | MALS R              | MISSIED APPROACH: Climb to 3000 on OGG VORTAC R-023 to KRANE/OGG 13 DME and hold. |               |
|--------------------------------------------------------------------------|-------------------------------------|---------------------|-----------------------------------------------------------------------------------|---------------|
| HCF APPROACH<br>ATIS 128.6<br>120.2 322.4 (NORTH)<br>119.5 225.4 (SOUTH) | MAUI TOWER★<br>118.7 (CTAF) 0 279.6 | GND CON 121.9 279.6 | CLNC DEL 120.6 290.5                                                              | UNICOM 122.95 |



Use I-OGG DME when on VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 77).



KAHULUI, HAWAII  
Orig-A 05OCT23

20°54'N-156°26'W

KAHULUI (OGG)(PHOG)  
**ILS Y or LOC Y RWY 2**

KAHULUI, HAWAII

AL-762 (FAA)

23278

|                                   |                 |                                                 |
|-----------------------------------|-----------------|-------------------------------------------------|
| LOC/DME I-OGG<br>110.1<br>Chan 38 | APP CRS<br>024° | Rwy Idg<br>TDZE<br>Apt Elev<br>6995<br>55<br>55 |
|-----------------------------------|-----------------|-------------------------------------------------|

RNP APCH-GPS. From HOMAI or KEIKI or GREHG.

DME required.

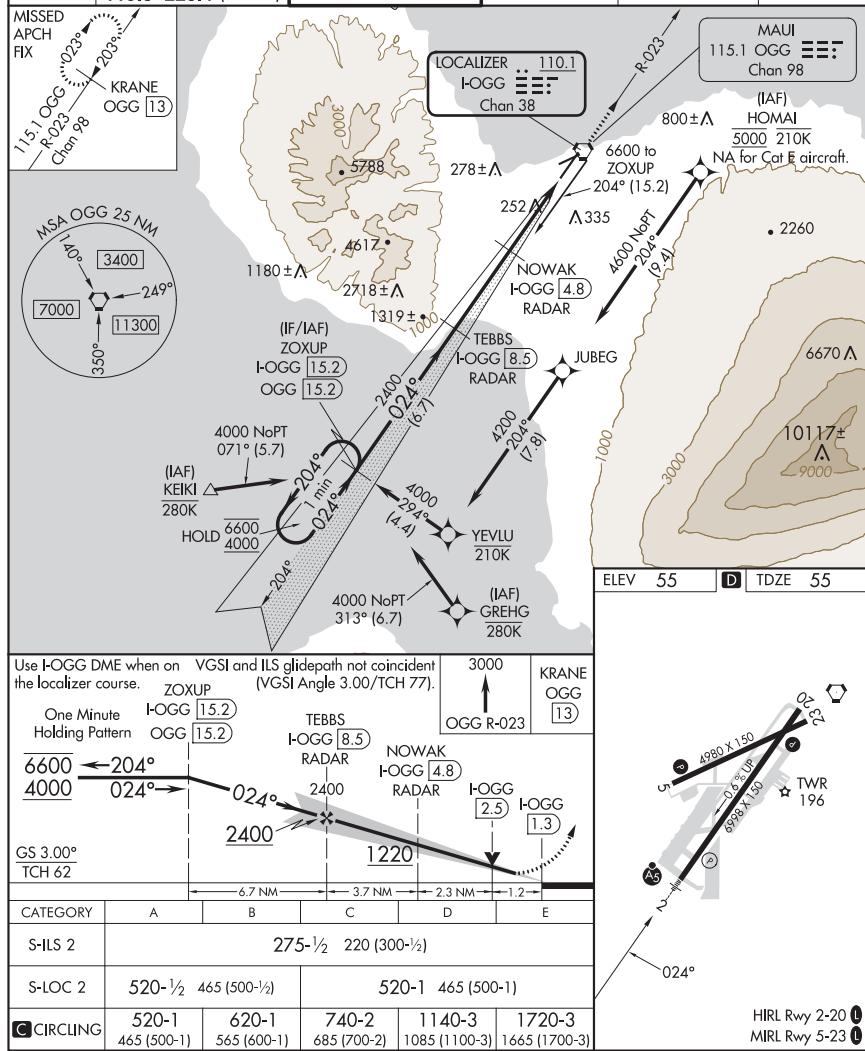
For inop ALS, increase S-ILS 2 Cat E visibility to  $\frac{3}{4}$  SM,  
and S-LOC 2 Cats C/D/E visibility to  $\frac{1}{3}$  SM.

MALS/R



MISSSED APPROACH: Climb to 3000 on OGG VORTAC R-023 to KRANE/OGG 13 DME and hold.

| ATIS<br>128.6 | HCF APPROACH<br>120.2 322.4 (NORTH)<br>119.5 225.4 (SOUTH) | MAUI TOWER ★<br>118.7 (CTAF) 0 279.6 | GND CON<br>121.9 279.6 | CLNC DEL<br>120.6 290.5 | UNICOM<br>122.95 |
|---------------|------------------------------------------------------------|--------------------------------------|------------------------|-------------------------|------------------|
|---------------|------------------------------------------------------------|--------------------------------------|------------------------|-------------------------|------------------|



KAHULUI, HAWAII

AL-762 (FAA)

23166

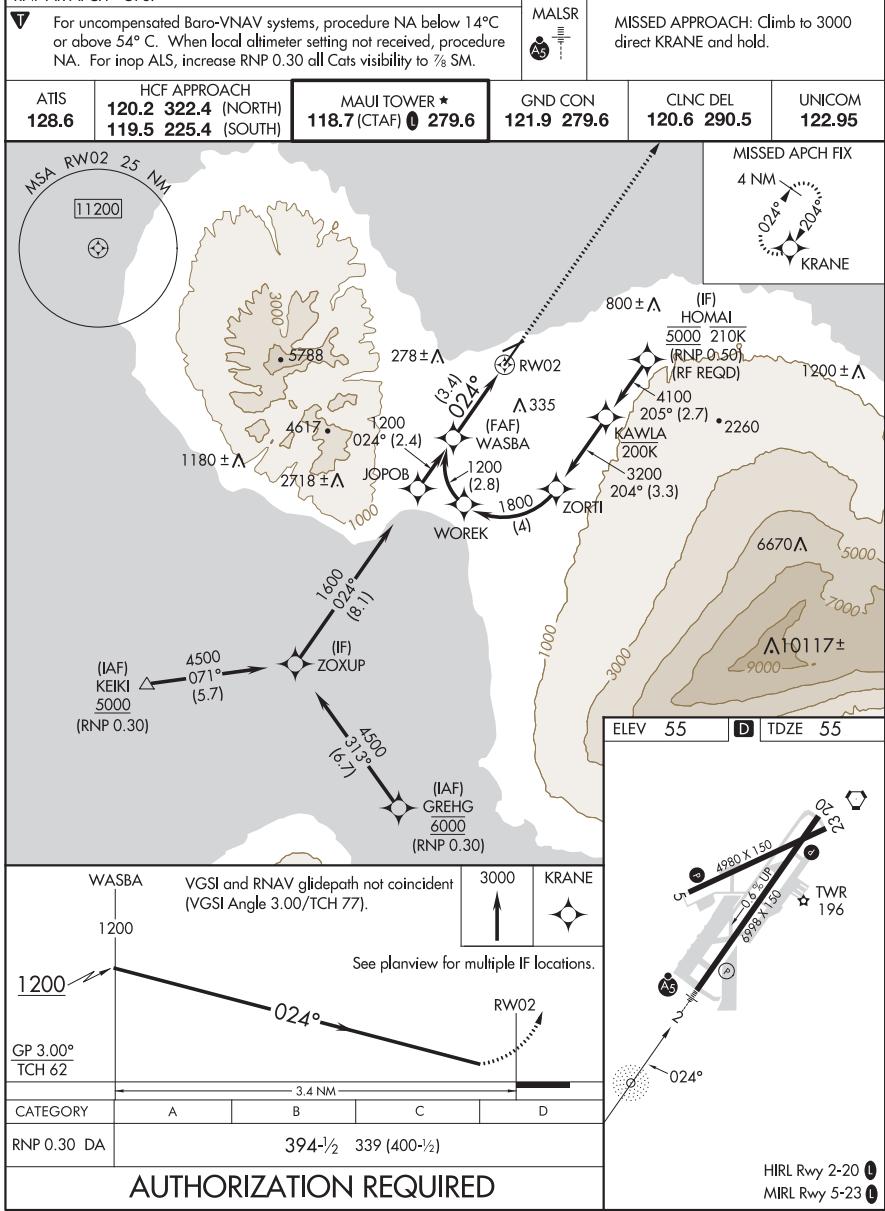
|          |         |             |
|----------|---------|-------------|
| APP CRS  | Rwy Idg | <b>6995</b> |
| TDZE     |         | <b>55</b>   |
| Apt Elev |         | <b>55</b>   |

RNP AR APCH - GPS.

▼ For uncompensated Baro-VNAV systems, procedure NA below 14°C or above 54° C. When local altimeter setting not received, procedure NA. For inop ALS, increase RNP 0.30 all Cnts visibility to  $\frac{1}{2}$  SM.

## RNAV (RNP) Z RWY 2

KAHULUI (OGG)(PHOG)



KAHULUI, HAWAII

AL-762 (FAA)

2030

|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>204°</b> | Rwy Idg<br><b>6995</b> |
| TDZE<br><b>25</b>      |                        |
| Apt Elev<br><b>53</b>  |                        |

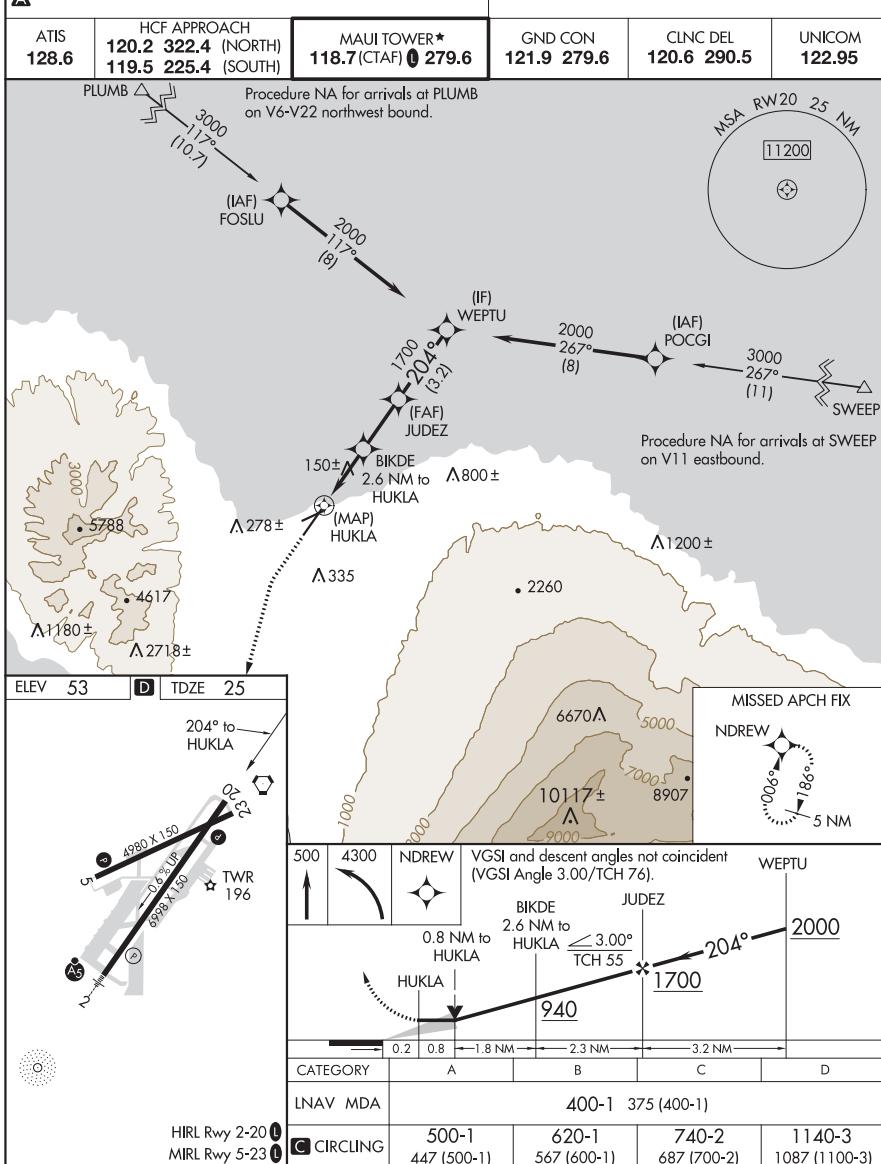
RNP APCH.



When local altimeter setting not received, procedure NA.

## RNAV (GPS) RWY 20

KAHULUI (OGG)(PHOG)



KAHULUI, HAWAII

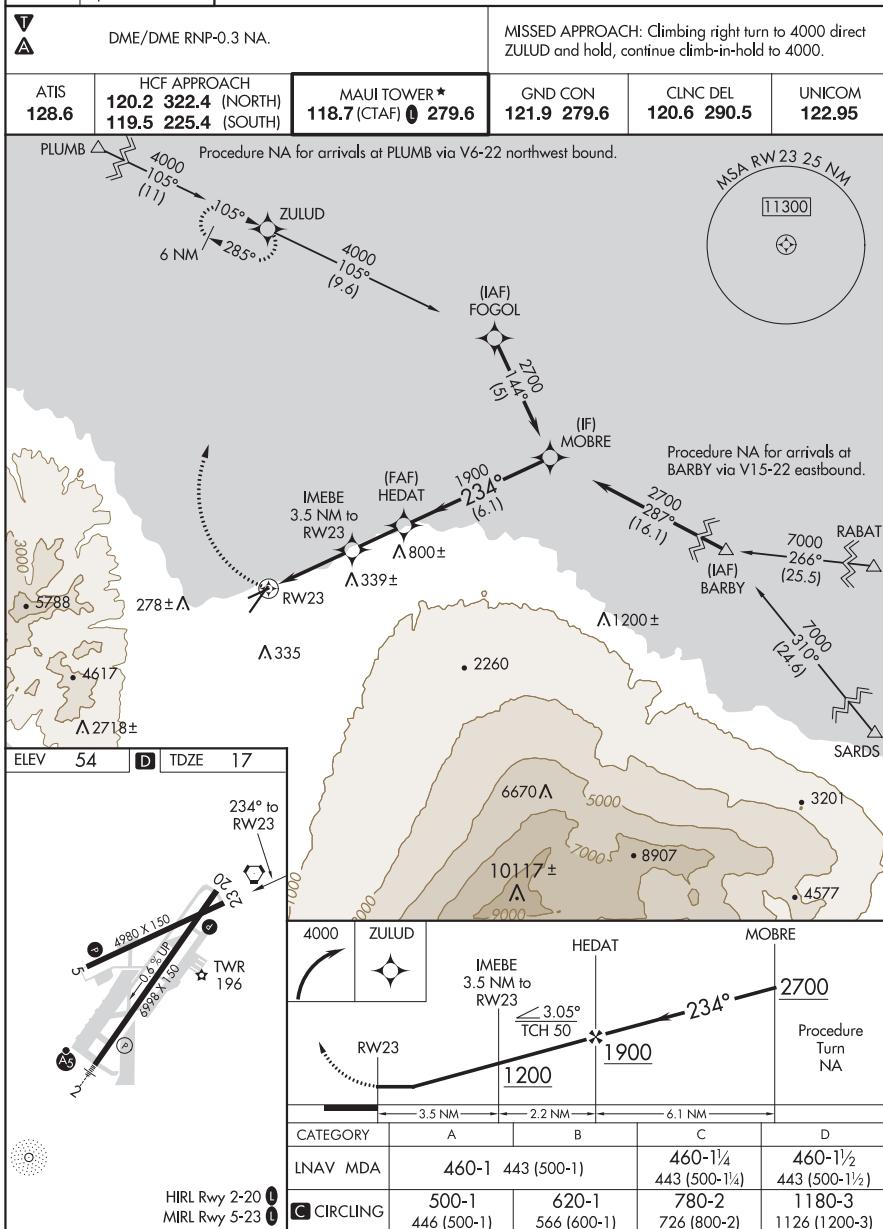
AL-762 (FAA)

20310

|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>234°</b> | Rwy Idg<br><b>4980</b> |
| TDZE<br><b>17</b>      | Apt Elev<br><b>54</b>  |
|                        |                        |

# RNAV (GPS) RWY 23

KAHULUI (OGG)(PHOG)



KAHULUI, HAWAII

Amdt 1A 21JUL16

20°54'N-156°26'W

KAHULUI (OGG)(PHOG)  
**RNAV (GPS) RWY 23**

KAHULUI, HAWAII

|                 |                        |
|-----------------|------------------------|
| APP CRS<br>024° | Rwy Idg<br><b>6995</b> |
| TDZE            | 55                     |
| Apt Elev        | 55                     |

AL-762 (FAA)

22251

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

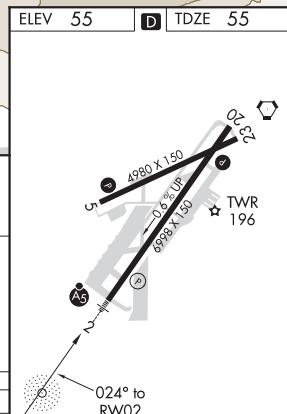
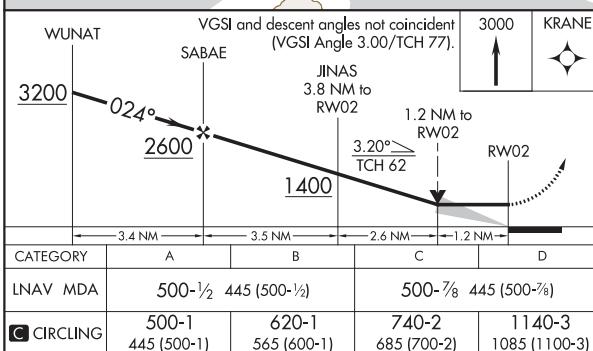
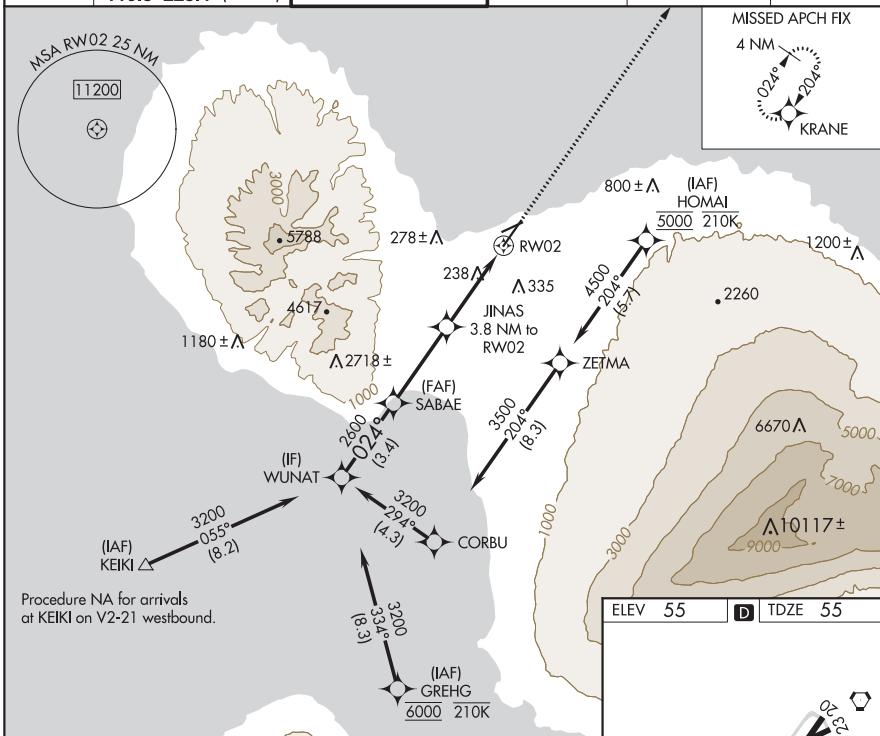
RNP APCH-GPS.

When Kahului altimeter setting not received, procedure NA.



MISSSED APPROACH: Climb to 3000 direct KRANE and hold.

|               |                                                                   |                                             |                               |                                |                         |
|---------------|-------------------------------------------------------------------|---------------------------------------------|-------------------------------|--------------------------------|-------------------------|
| ATIS<br>128.6 | HCF APPROACH<br><b>120.2 322.4 (NORTH)</b><br>119.5 225.4 (SOUTH) | MAUI TOWER ★<br><b>118.7 (CTAF) 0 279.6</b> | GND CON<br><b>121.9 279.6</b> | CLNC DEL<br><b>120.6 290.5</b> | UNICOM<br><b>122.95</b> |
|---------------|-------------------------------------------------------------------|---------------------------------------------|-------------------------------|--------------------------------|-------------------------|



KAHULUI, HAWAII

Amdt 3 08SEP22

KAHULUI (OGG)(PHOG)  
**RNAV (GPS) Y RWY 2**  
20°54'N-156°26'W

KAHULUI, HAWAII

AL-762 (FAA)

23278

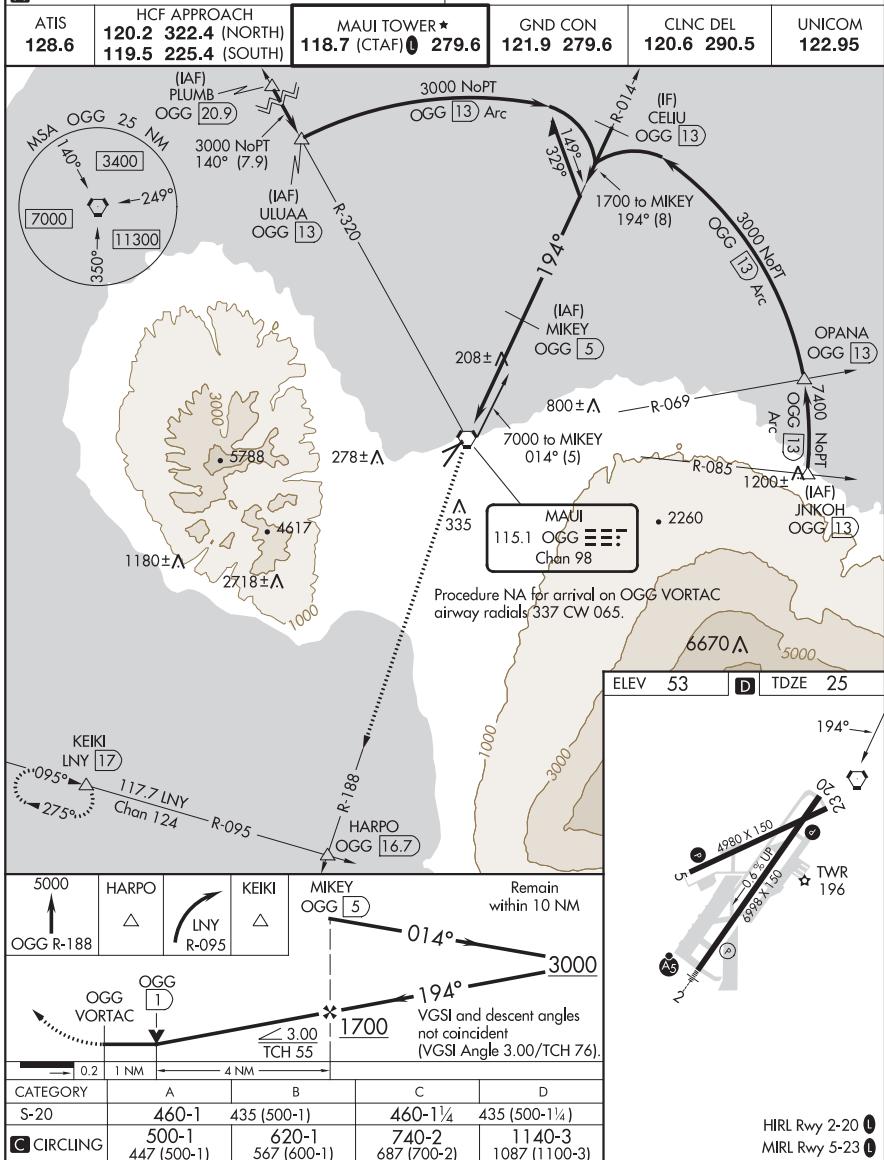
|                                |                 |                             |                  |
|--------------------------------|-----------------|-----------------------------|------------------|
| VORTAC OGG<br>115.1<br>Chan 98 | APP CRS<br>194° | Rwy Idg<br>TDZE<br>Apt Elev | 6995<br>25<br>53 |
|--------------------------------|-----------------|-----------------------------|------------------|

VOR Z or TACAN RWY 20  
KAHULUI (OGG)(PHOG)

DME required.



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

KAHULUI, HAWAII  
Amdt 1A 05OCT23

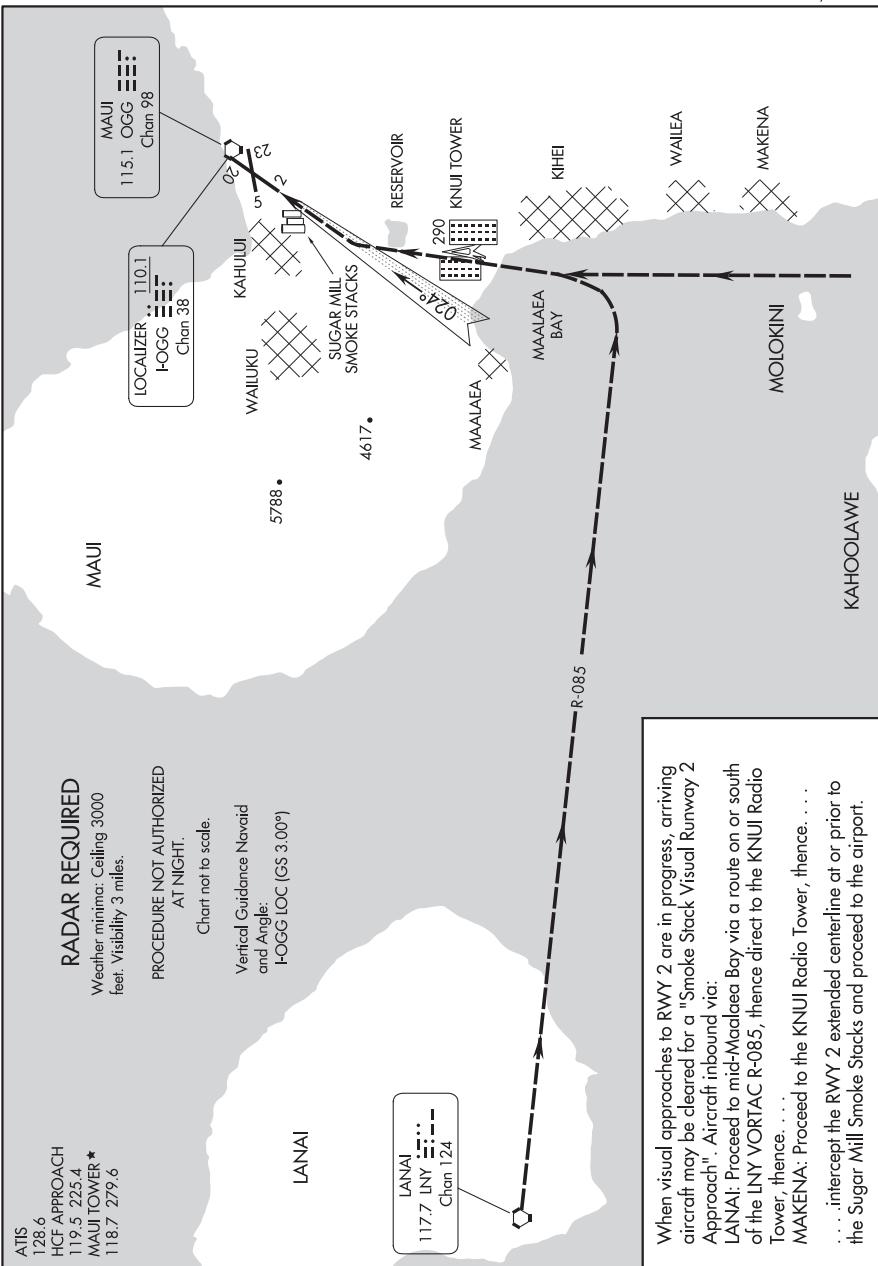
20°54'N-156°26'W

KAHULUI (OGG)(PHOG)  
VOR Z or TACAN RWY 20

23334

AL-762 (FAA)

## SMOKE STACK VISUAL RWY 2

KAHULUI (OGG)(PHOG)  
KAHULUI, HAWAII

## SMOKE STACK VISUAL RWY 2

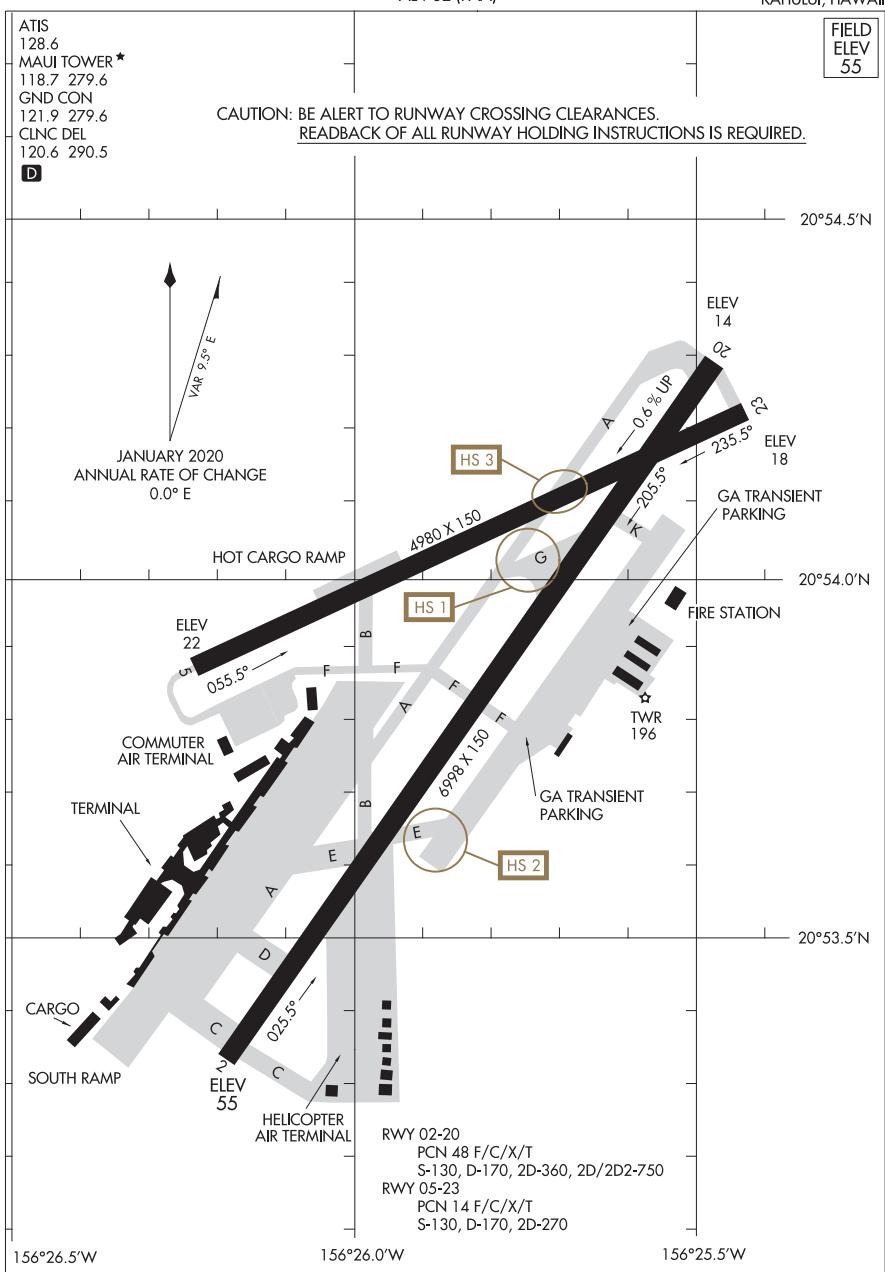
Amdt 1A 30NOV23

KAHULUI, HAWAII  
KAHULUI (OGG)(PHOG)

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:  
**LANA:** 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.

20310  
AIRPORT DIAGRAM

AL-762 (FAA)

KAHULUI (OGG)(PHOG)  
KAHULUI, HAWAII

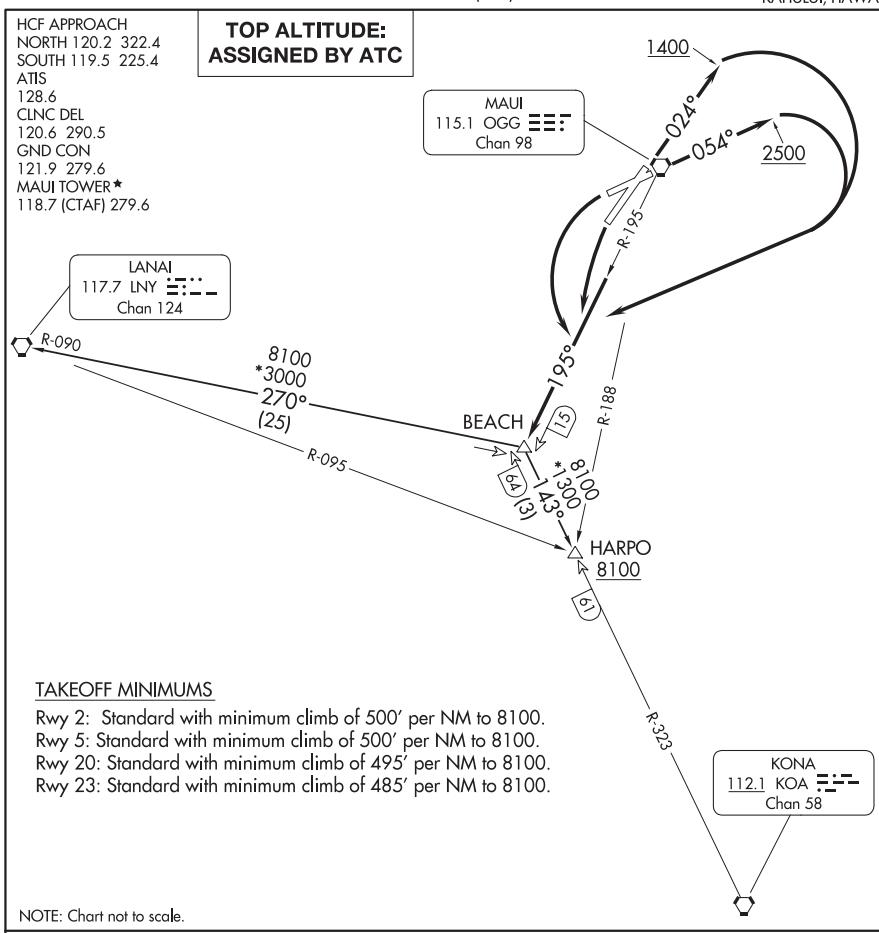
20310  
AIRPORT DIAGRAM

KAHULUI, HAWAII  
KAHULUI (OGG)(PHOG)

(BEACH4.BEACH) 23278

**BEACH FOUR DEPARTURE**

AL-762 (FAA)

KAHULUI (OGG)(PHOG)  
KAHULUI, HAWAII**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.

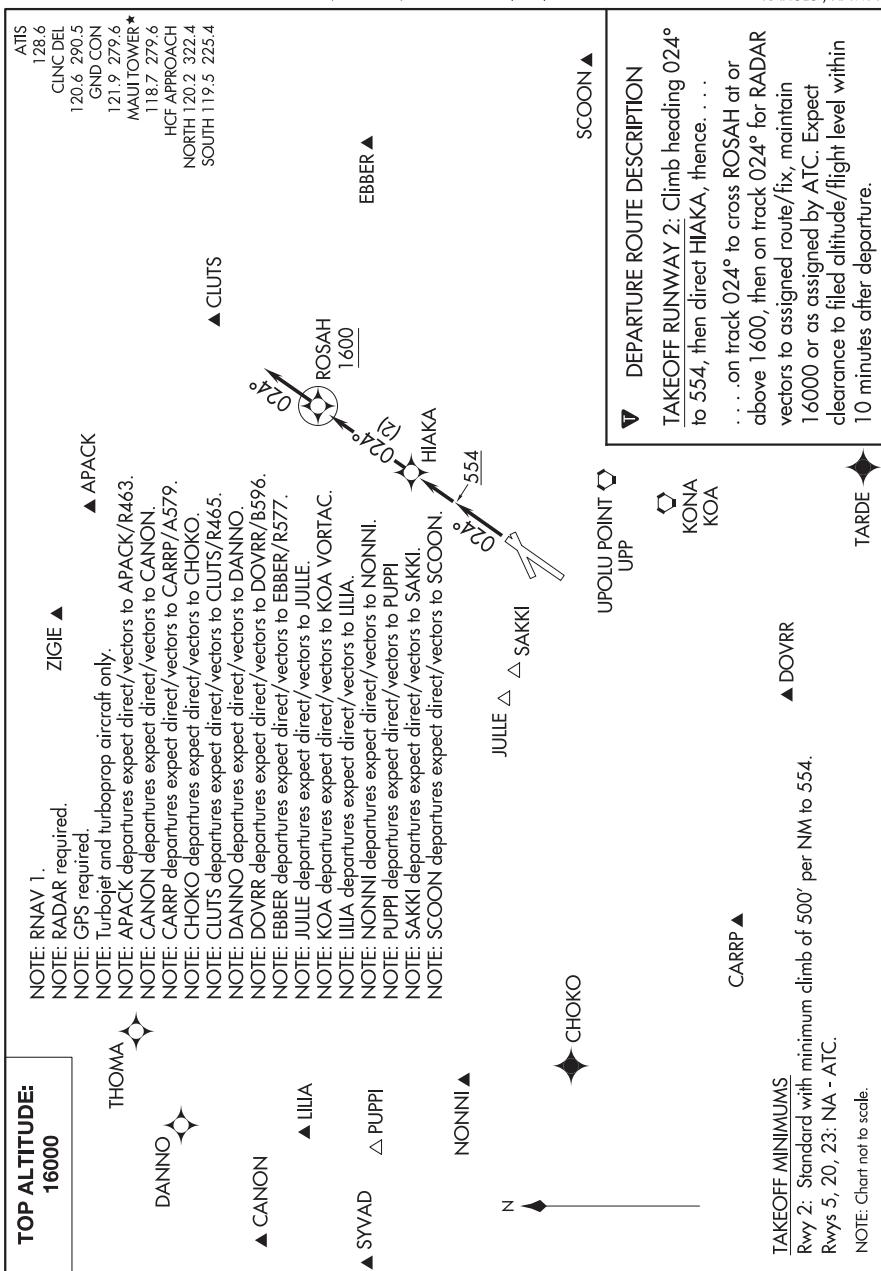
**BEACH FOUR DEPARTURE**  
(BEACH4.BEACH) 20AUG15

KAHULUI, HAWAII  
KAHULUI (OGG)(PHOG)

(HIAKA1.HIAKA) 20030

## HIAKA ONE DEPARTURE (RNAV)

AL-762 (FAA)

KAHULUI (OGG)(PHOG)  
KAHULUI, HAWAIIHIAKA ONE DEPARTURE (RNAV)  
(HIAKA1.HIAKA) 20JUN19KAHULUI, HAWAII  
KAHULUI (OGG)(PHOG)

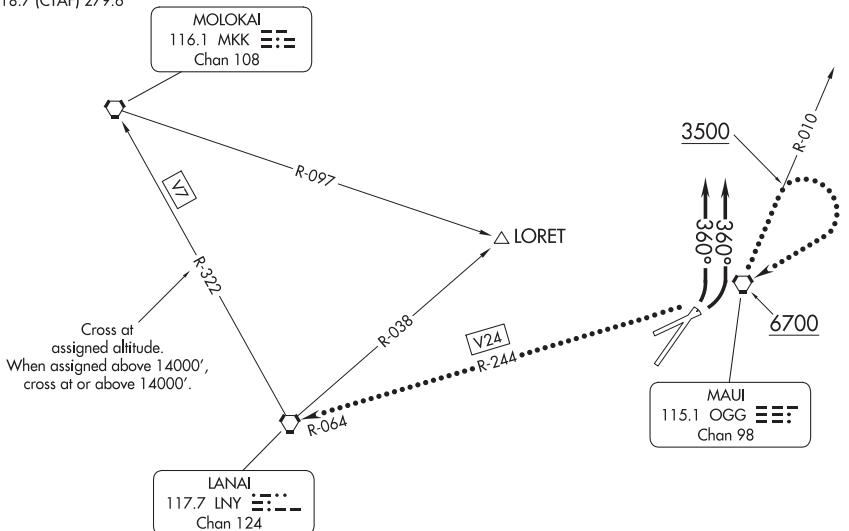
(MAUI5.0GG) 23278

## MAUI FIVE DEPARTURE

AL-762 (FAA)

KAHULUI (OGG)(PHOG)  
KAHULUI, HAWAII

HCF APPROACH  
120.2 322.4  
ATIS  
128.6  
CLNC DEL  
120.6 290.5  
GND CON  
121.9 279.6  
MAUI TOWER\*  
118.7 (CTAF) 279.6



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'.

MAUI FIVE DEPARTURE  
(MAUI5.0GG) 09SEP99

KAHULUI, HAWAII  
KAHULUI (OGG)(PHOG)

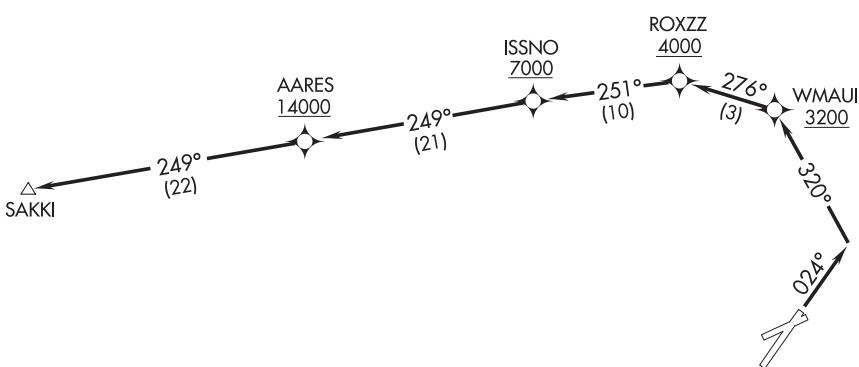
(NPLII2.SAKKI) 18032

## NPLII TWO DEPARTURE (RNAV)

AL-762 (FAA)

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  
 HCF APPROACH  
 NORTH 120.2 322.4  
 SOUTH 119.5 225.4

TOP ALTITUDE:  
ASSIGNED BY ATC

NOTE: RNAV 1.

NOTE: GPS required.

TAKEOFF MINIMUMS

Rwy 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.

NPLII TWO DEPARTURE (RNAV)  
 (NPLII2.SAKKI) 20AUG15

KAHULUI, HAWAII  
KAHULUI (OGG)(PHOG)

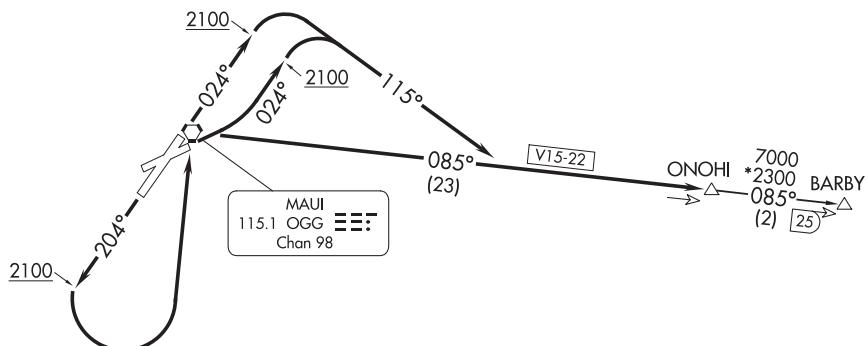
(ONOHI2.ONOHI) 23278

## ONOHI TWO DEPARTURE

AL-762 (FAA)

KAHULUI (OGG)(PHOG)  
KAHULUI, HAWAII

HCF APPROACH  
NORTH 120.2 322.4  
SOUTH 119.5 225.4  
ATIS  
128.6  
CLNC DEL  
120.6 290.5  
GND CON  
121.9 279.6  
MAUI TOWER★  
118.7 (CTAF) 279.6

TOP ALTITUDE:  
7000

NOTE: DME required.

## TAKEOFF MINIMUMS

Rwy 23: NA- obstacles and ATC.

Rwy 2: Standard with ATC climb of 480' per NM to 2200.

Rwy 5: Standard with ATC climb of 480' per NM to 2900.

Rwy 20: Standard with minimum climb of 480' per NM to 7000.

NOTE: Chart not to scale.



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb on heading 024° to 2100 then climbing right turn to 7000 to 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: Climb 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.

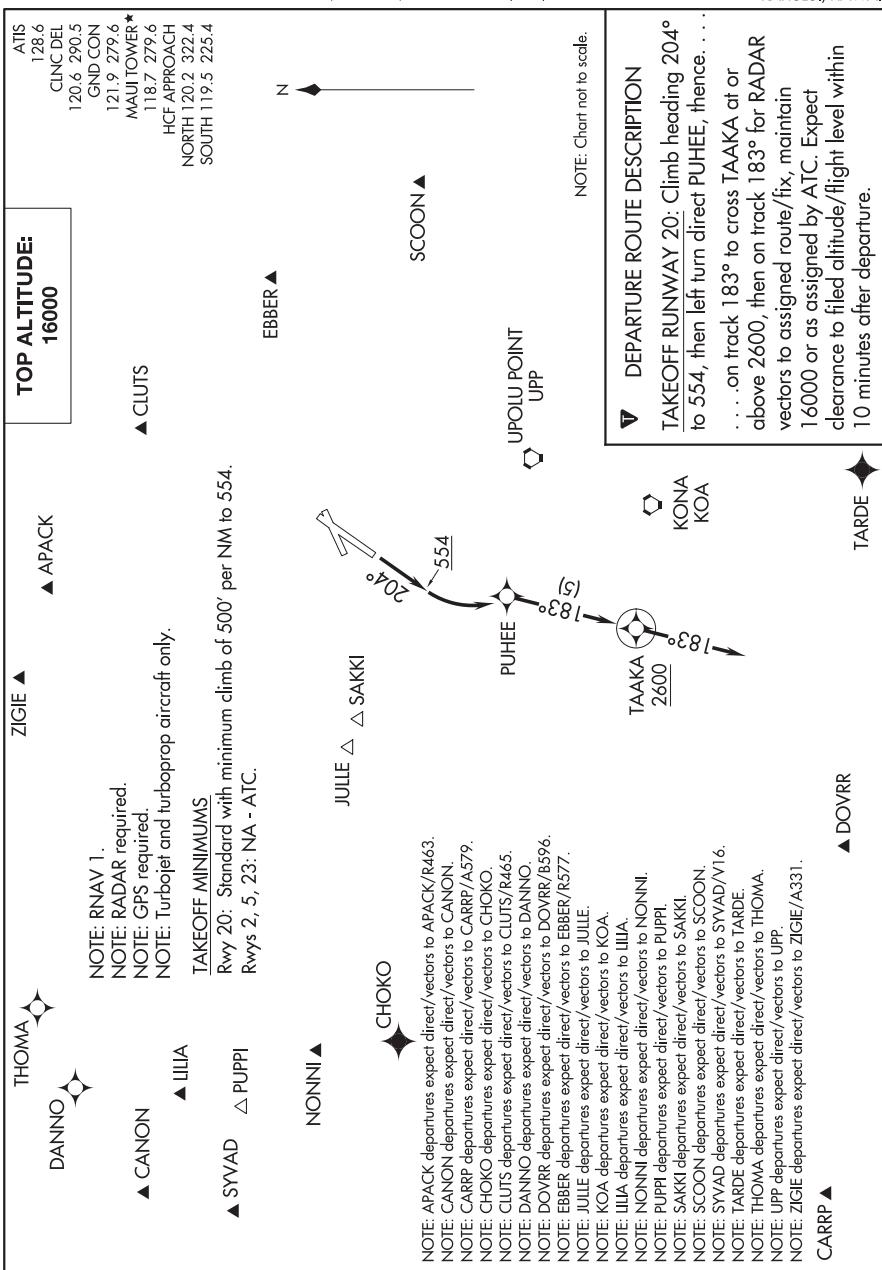
ONOHI TWO DEPARTURE  
(ONOHI2.ONOHI) 20AUG15

KAHULUI, HAWAII  
KAHULUI (OGG)(PHOG)

(PUHEE1.PUHEE) 20030

## PUHEE ONE DEPARTURE (RNAV)

AL-762 (FAA)

KAHULUI (OGG)(PHOG)  
KAHULUI, HAWAII

PUHEE ONE DEPARTURE (RNAV)

(PUHEE1.PUHEE) 20JUN19

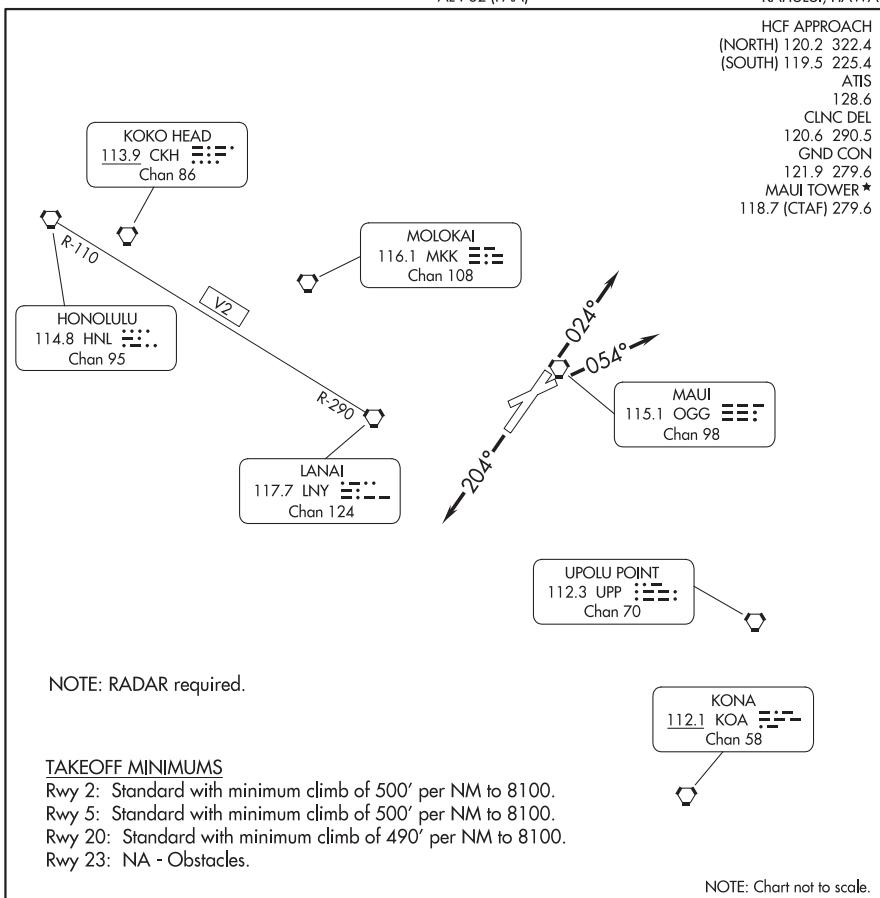
KAHULUI, HAWAII

KAHULUI (OGG)(PHOG)

(STACY2.0GG) 23278

## STACEY TWO DEPARTURE

AL-762 (FAA)

KAHULUI (OGG)(PHOG)  
KAHULUI, HAWAII

## 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  
(STACY2.0GG) 03APR14KAHULUI, HAWAII  
KAHULUI (OGG)(PHOG)

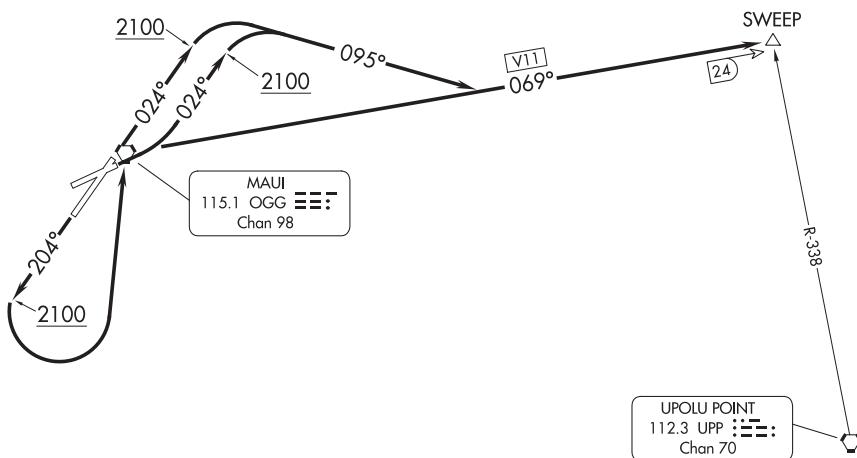
(SWEEP2.SWEEP) 23278

## SWEEP TWO DEPARTURE

AL-762 (FAA)

KAHULUI (OGG)(PHOG)  
KAHULUI, HAWAII

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  
ATIS  
128.6  
CLNC DEL  
120.6 290.5  
GND CON  
121.9 279.6  
MAUI TOWER\*  
118.7 (CTAF) 279.6

TOP ALTITUDE:  
6000TAKEOFF 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.

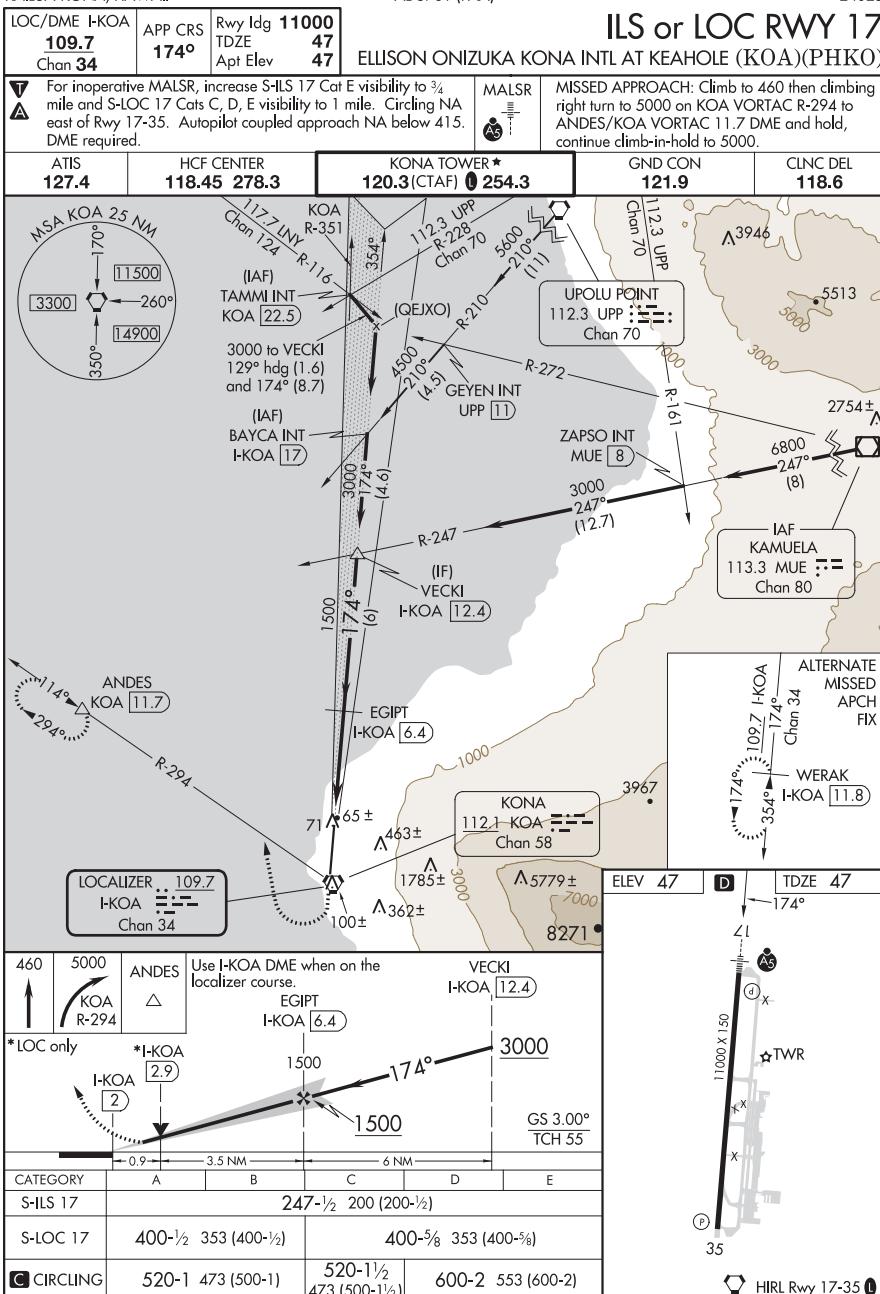
**SWEEP TWO DEPARTURE**  
(SWEEP2.SWEEP) 20AUG15

KAHULUI, HAWAII  
KAHULUI (OGG)(PHOG)

KAILUA-KONA, HAWAII

AL-5761 (FAA)

24025



KAILUA-KONA, HAWAII

Amdt 2C 05NOV20

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

19°44'N-156°03'W

ILS or LOC RWY 17

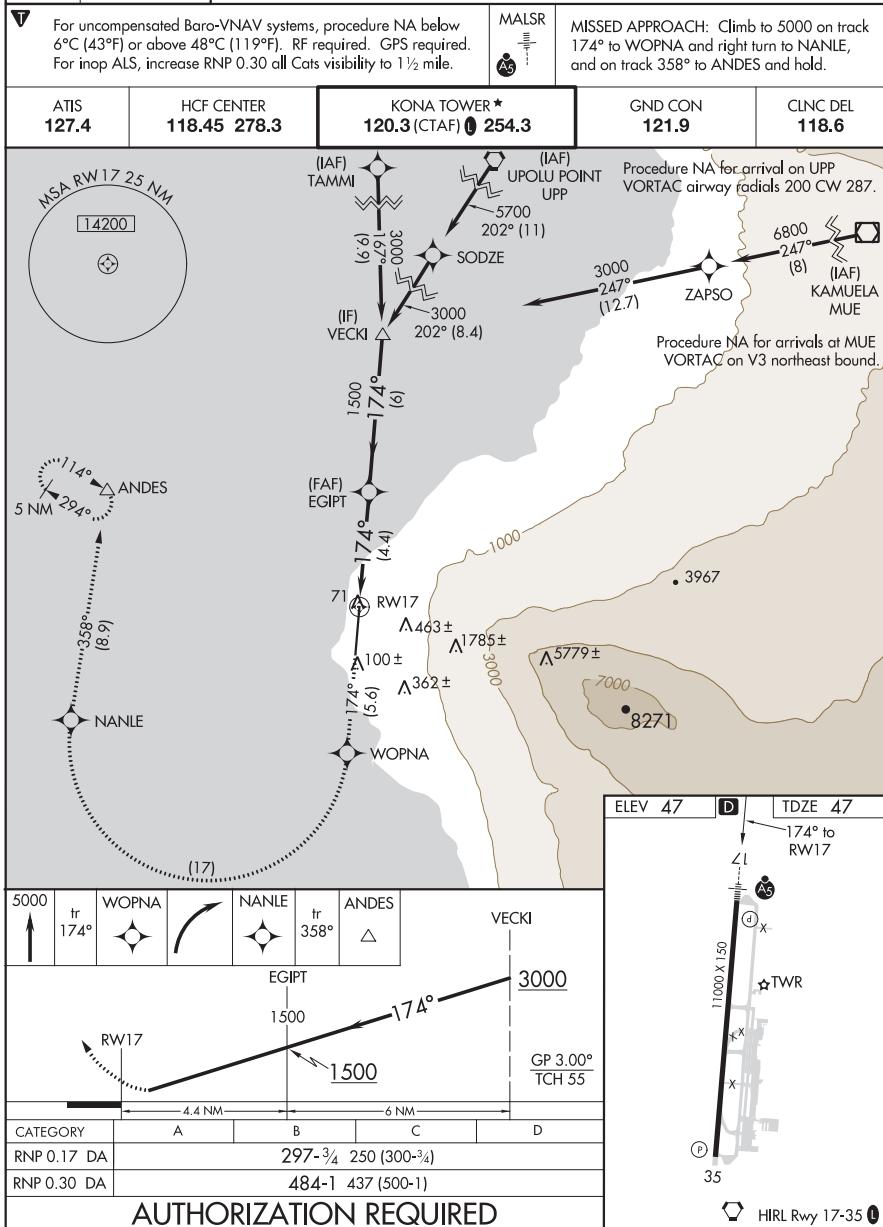
KAILUA-KONA, HAWAII

AL-5761 (FAA)

22083

|                        |                       |
|------------------------|-----------------------|
| APP CRS<br><b>174°</b> | Rwy Idg <b>11000</b>  |
| TDZE<br><b>47</b>      | Apt Elev<br><b>47</b> |

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



KAILUA-KONA, HAWAII

Orig-B 24MAY18

ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)  
19°44'N-156°03'W**RNAV (RNP) Z RWY 17**

KAILUA-KONA, HAWAII

AL-5761 (FAA)

23334

|                 |                                    |
|-----------------|------------------------------------|
| APP CRS<br>354° | Rwy Idg 11000<br>38<br>Apt Elev 49 |
|-----------------|------------------------------------|

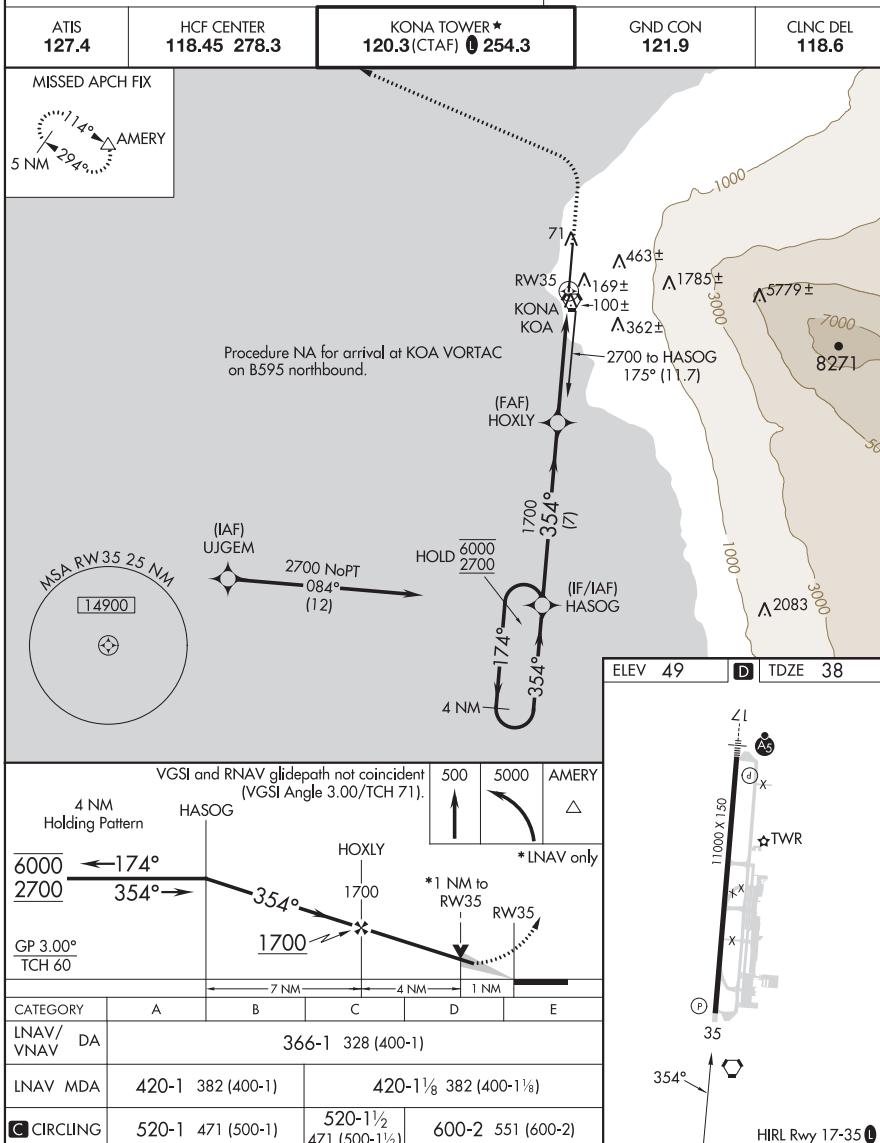
RNP APCH - GPS.

▼ 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.

KONA TOWER★  
120.3(CTA) 0 254.3

## RNAV (GPS) RWY 35

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



KAILUA-KONA, HAWAII

Amdt 2A 30NOV23

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

RNAV (GPS) RWY 35

KAILUA-KONA, HAWAII

AL-5761 (FAA)

22083

|                 |               |
|-----------------|---------------|
| APP CRS<br>174° | Rwy Idg<br>47 |
| Apt Elev<br>47  |               |

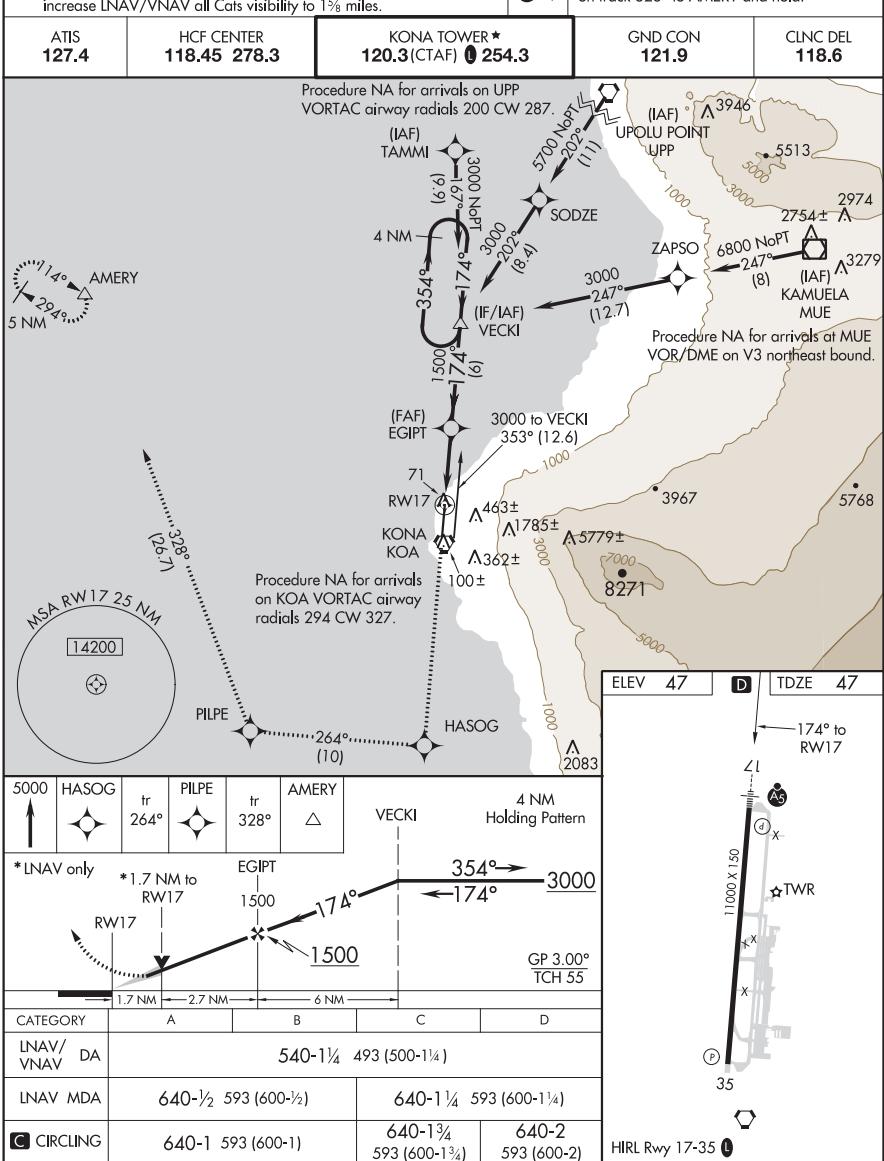
WAAS VNAV NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -5°C (23°F) or above 43°C (109°F). Circling NA east of Rwy 17-35. DME/DME RNP-0.3 NA. For inop ALS, increase LNAV/VNAV all Cat's visibility to 1 1/2 miles.

MALS R



## RNAV (GPS) Y RWY 17

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



KAILUA-KONA, HAWAII

Amtd 1D 05NOV20

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

19°44'N-156°03'W

RNAV (GPS) Y RWY 17

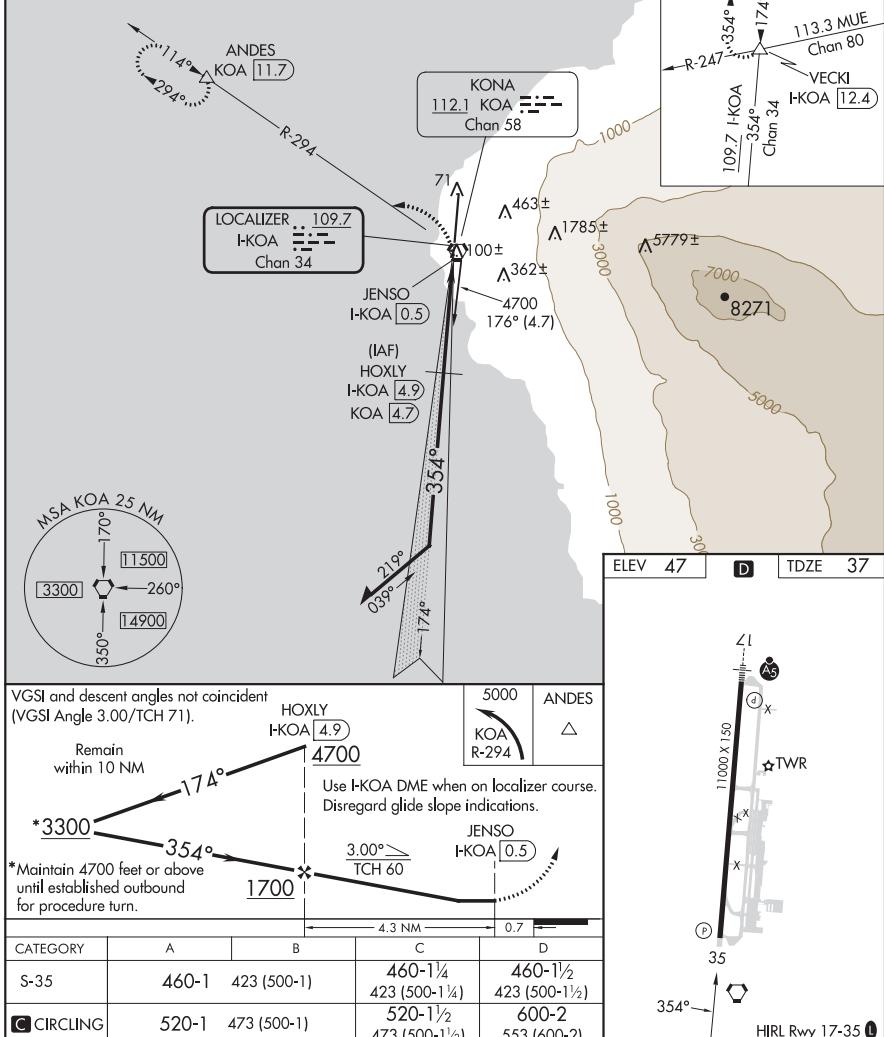
KAILUA-KONA, HAWAII

AL-5761 (FAA)

24025

|                                                                   |                         |                                                                                                                                         |                                                   |
|-------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| LOC/DME I-KOA<br>109.7<br>Chan 34                                 | APP CRS<br>354°         | Rwy Idg 11000<br>37<br>Apt Elev<br>47                                                                                                   | ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO) |
| <b>T</b> Circling NA east of Rwy 17-35.<br><b>A</b> DME required. |                         | MISSIED APPROACH: Climbing left turn to 5000 on KOA VORTAC R-294 to ANDES/KOA VORTAC 11.7 DME and hold, continue climb-in-hold to 5000. |                                                   |
| ATIS 127.4                                                        | HCF CENTER 118.45 278.3 | KONA TOWER★<br>120.3(CTAF) 0 254.3                                                                                                      | GND CON 121.9                                     |

## BACK COURSE



KAILUA-KONA, HAWAII

Amdt 10C 05NOV20

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

19°44'N-156°03'W

**LOC BC RWY 35**

KAILUA-KONA, HAWAII

AL-5761 (FAA)

24025

|                                |                 |                                         |
|--------------------------------|-----------------|-----------------------------------------|
| VORTAC KOA<br>112.1<br>Chan 58 | APP CRS<br>171° | Rwy Idg 11000<br>TDZE 47<br>Apt Elev 47 |
|--------------------------------|-----------------|-----------------------------------------|

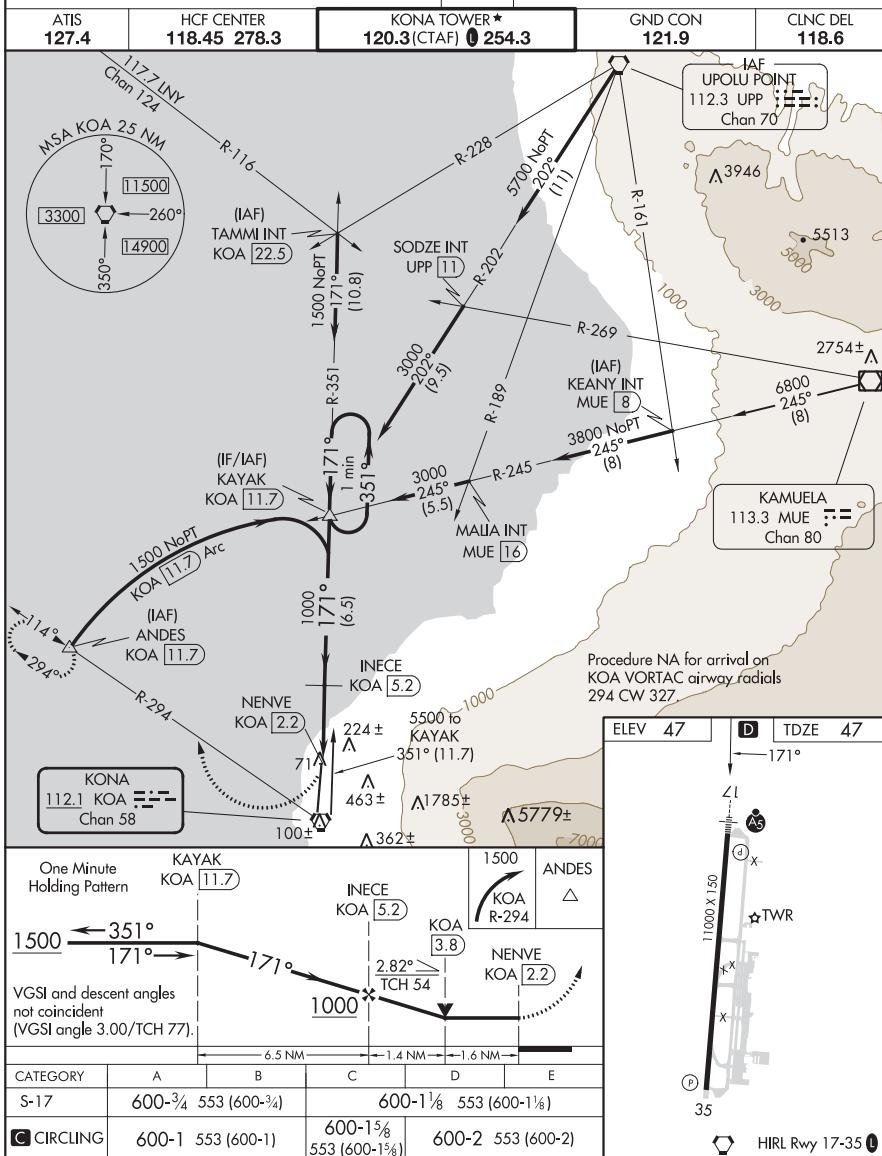
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

DME required.  
 T Cirding NA east of Rwy 17-35. For inop ALS, increase S-17 Cat A, B visibility to 1 mile, Cat E visibility to 1½ mile.



## VOR or TACAN RWY 17

MISSIED APPROACH: Climbing right turn to 1500 on KOA VORTAC R-294 to ANDES/11.7 DME and hold.



KAILUA-KONA, HAWAII

Orig-D 05NOV20

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

19°44'N-156°03'W

VOR or TACAN RWY 17

KAIKUA-KONA, HAWAII

AL-5761 (FAA)

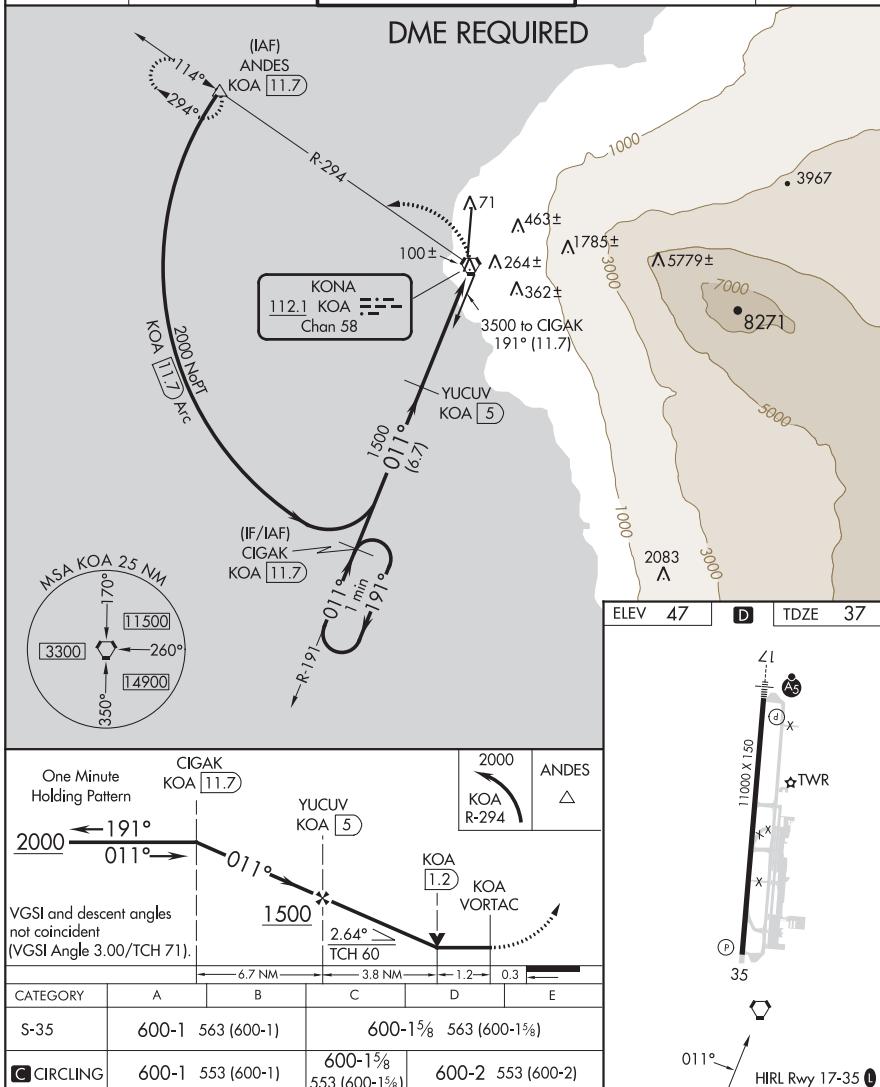
24025

|                                |                 |                                    |
|--------------------------------|-----------------|------------------------------------|
| VORTAC KOA<br>112.1<br>Chan 58 | APP CRS<br>011° | Rwy Idg 11000<br>37<br>Apt Elev 47 |
|--------------------------------|-----------------|------------------------------------|

VOR or TACAN RWY 35  
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

DME required.

V A Cirling NA east of Rwy 17-35.

MISSIED APPROACH: Climbing left turn to 2000 on  
KOA VORTAC R-294 to ANDES/11.7 DME and hold.ATIS  
127.4HCF CENTER  
118.45 278.3KONA TOWER\*  
120.3 (CTAF) 0 254.3GND CON  
121.9CLNC DEL  
118.6

KAIKUA-KONA, HAWAII

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

Orig-D 05NOV20

19°44'N-156°03'W

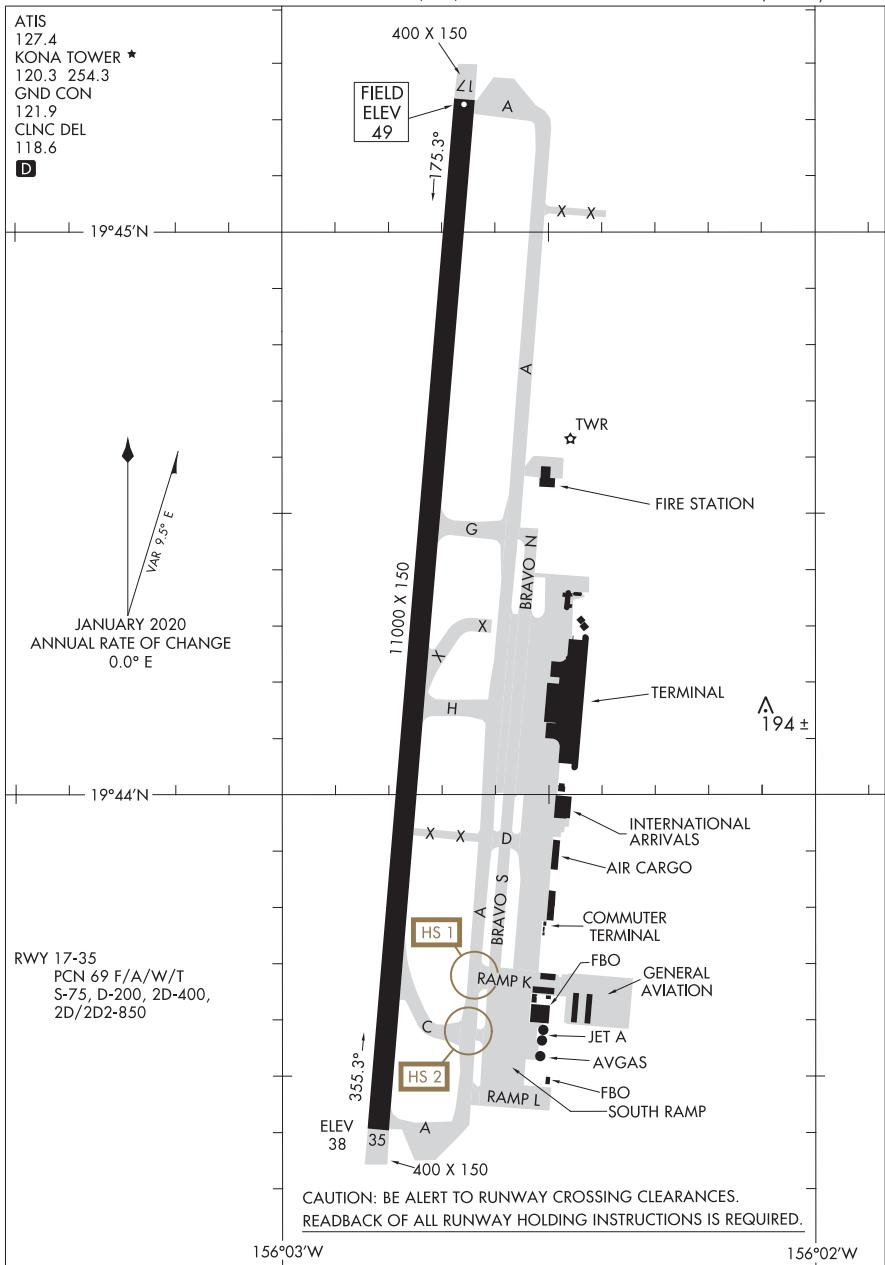
VOR or TACAN RWY 35

23054

## AIRPORT DIAGRAM

ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)  
AL-5761 (FAA)

KAILUA/KONA, HAWAII



## AIRPORT DIAGRAM

23054

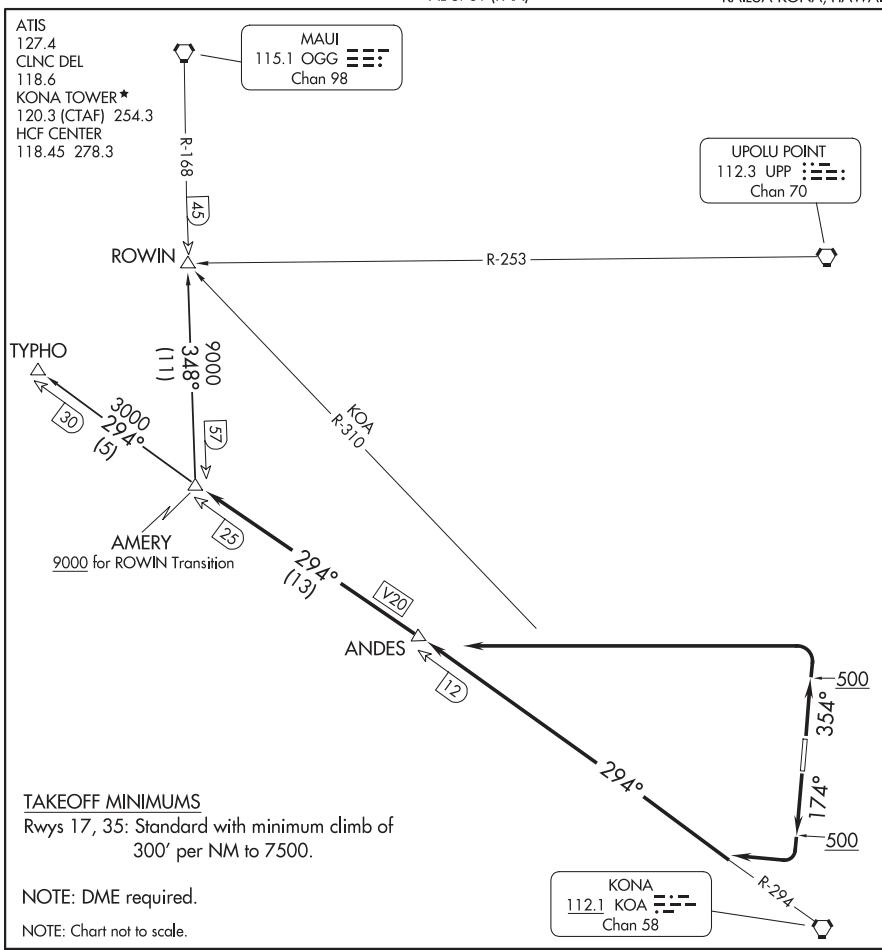
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

KAILUA/KONA, HAWAII

(AMERY4.AMERY) 24025

**AMERY FOUR DEPARTURE**ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)  
Al-5761 (FAA)

KAILUA-KONA, HAWAII

**DEPARTURE ROUTE DESCRIPTION**

**TAKEOFF RUNWAY 17:** Climb heading 174° to 500, then climbing right turn to intercept KOA R-294 to AMERY INT, Thence. . . .

**TAKEOFF RUNWAY 35:** Climb heading 354° to 500, then climbing left turn to intercept KOA R-294 to AMERY INT, Thence. . . .

. . . via transition.

**ROWIN TRANSITION (AMERY4.ROWIN):** From AMERY INT on OGG R-168 to ROWIN INT.

**TYPHO TRANSITION (AMERY4.TYPHO):** From AMERY INT on KOA R-294 to TYPHO INT.

**AMERY FOUR DEPARTURE**  
(AMERY4.AMERY) 07DEC17

KAILUA-KONA, HAWAII  
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

(CRISI2.CRISI) 20254

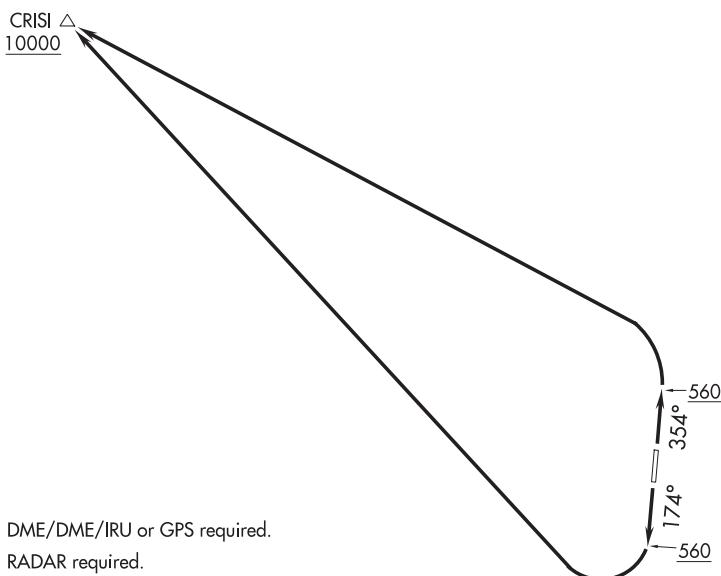
CRISI TWO DEPARTURE (RNAV)

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

AL-5761 (FAA)

KAILUA-KONA, HAWAII

ATIS  
127.4  
CLNC DEL  
118.6  
KONA TOWER ★  
120.3 254.3  
HCF CENTER  
118.45 278.3



NOTE: DME/DME/IRU or GPS required.

NOTE: RADAR required.

NOTE: RNAV 1

TAKEOFF MINIMUMS

Rwys 17, 35: Standard.

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.

CRISI TWO DEPARTURE (RNAV)

(CRISI2.CRISI) 07DEC17

KAILUA-KONA, HAWAII

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

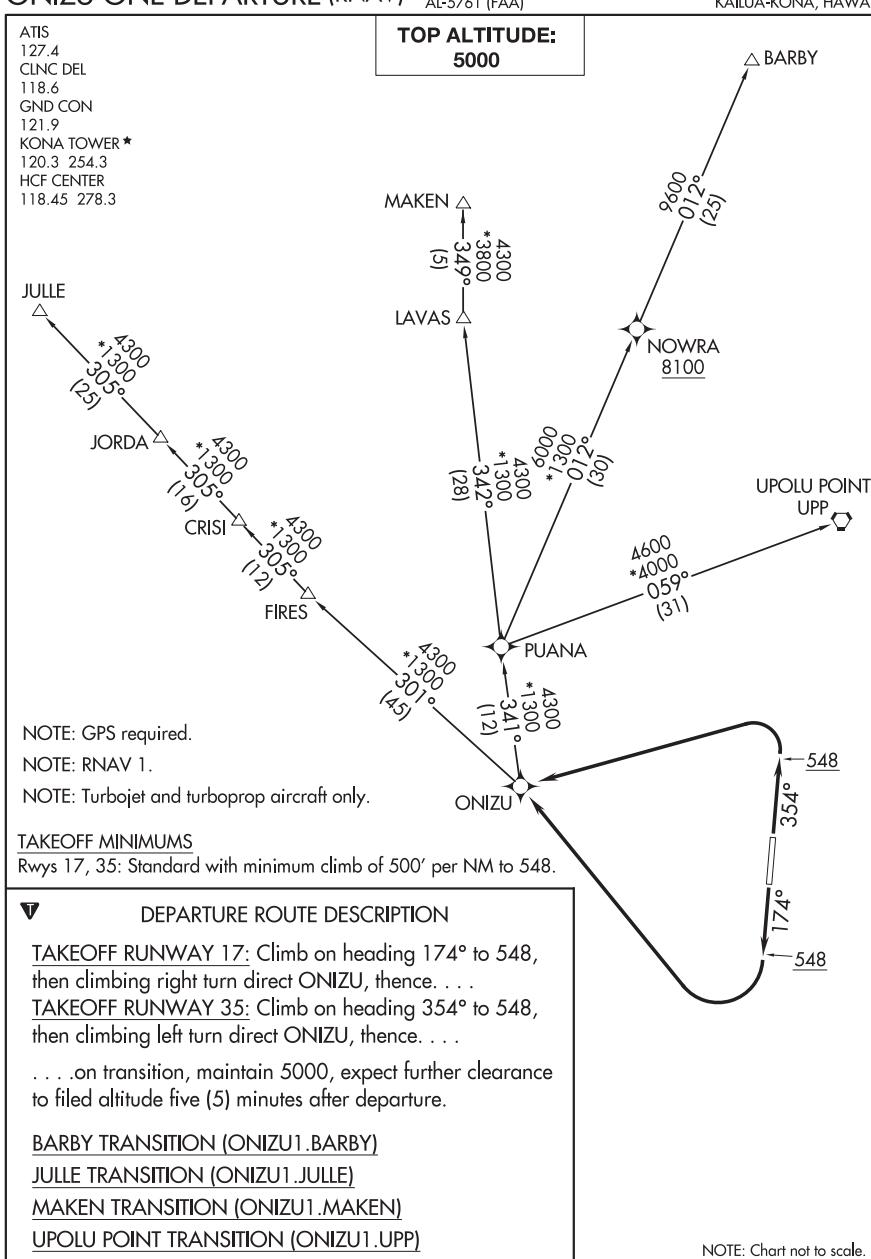
(ONIZU1.ONIZU) 21056

ONIZU ONE DEPARTURE (RNAV)

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

AL-5761 (FAA)

KAILUA-KONA, HAWAII



ONIZU ONE DEPARTURE (RNAV)

(ONIZU1.ONIZU) 25FEB21

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

KAILUA-KONA, HAWAII

KALAUPAPA, HAWAII

AL-6993 (FAA)

19171

|                        |                |     |
|------------------------|----------------|-----|
| APP CRS<br><b>232°</b> | Rwy Idg<br>N/A | N/A |
| TDZE                   | N/A            |     |
| Apt Elev<br>24         |                |     |

# RNAV (GPS)-A

KALAUPAPA (LUP) (PHLU)

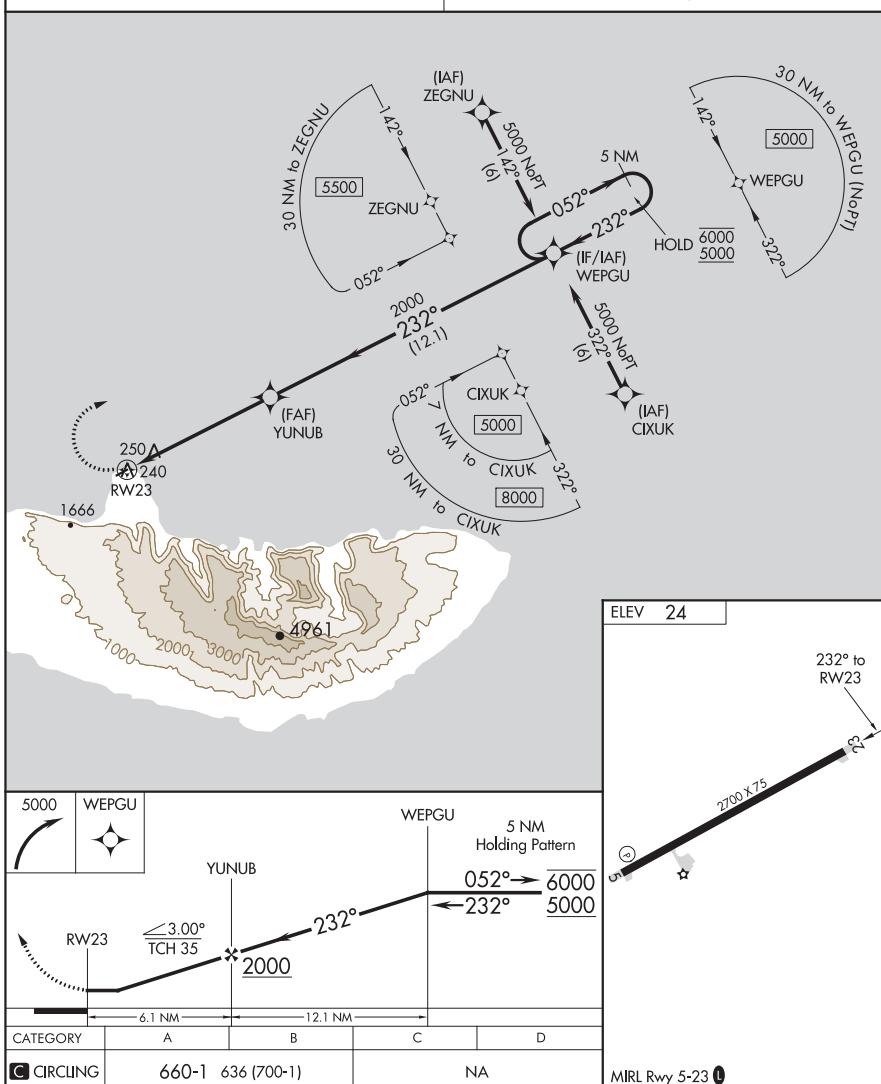
RNP APCH.

▼ Circling NA southeast of Rwy 5-23.  
 ▲ NA 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 1



KALAUPAPA, HAWAII

Amdt 1 20JUN19

21°13'N-156°58'W

KALAUPAPA (LUP) (PHLU)

RNAV (GPS)-A

KALAUPAPA, HAWAII

AL-6993 (FAA)

20310

|                        |                 |            |
|------------------------|-----------------|------------|
| APP CRS<br><b>101°</b> | Rwy Idg<br>TDZE | <b>N/A</b> |
| Apt Elev<br><b>24</b>  |                 |            |

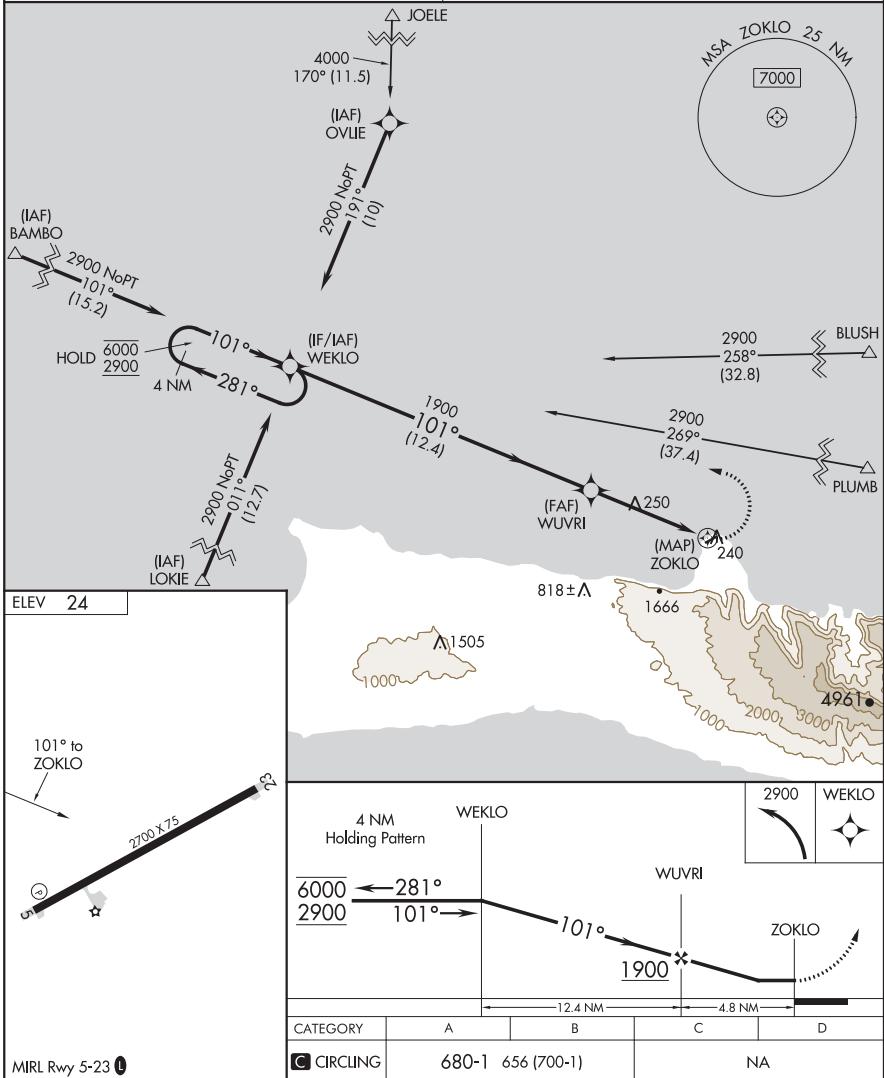
RNP APCH.



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

## RNAV (GPS)-B

### KALAUPAPA (LUP) (PHLU)

HCF CENTER  
**124.1 317.5**CTAF  
**122.9**

KALAUPAPA, HAWAII  
Orig 20JUN19

21°13'N-156°58'W

KALAUPAPA (LUP) (PHLU)  
RNAV (GPS)-B

(LUP1.LUP) 23334

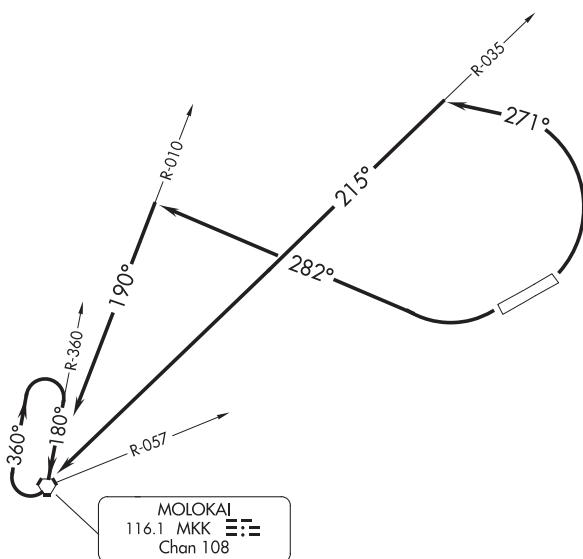
## KALAUPAPA ONE DEPARTURE (OBSTACLE)

KALAUPAPA (LUP) (PHLU)

AL-6993 (FAA)

KALAUPAPA, HAWAII

HCF CENTER  
124.1 317.5  
CTAF  
122.9

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 DESCRIPTIONTAKEOFF 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) 10MAR11KALAUPAPA, HAWAII  
KALAUPAPA (LUP) (PHLU)

KAMUELA, HAWAII

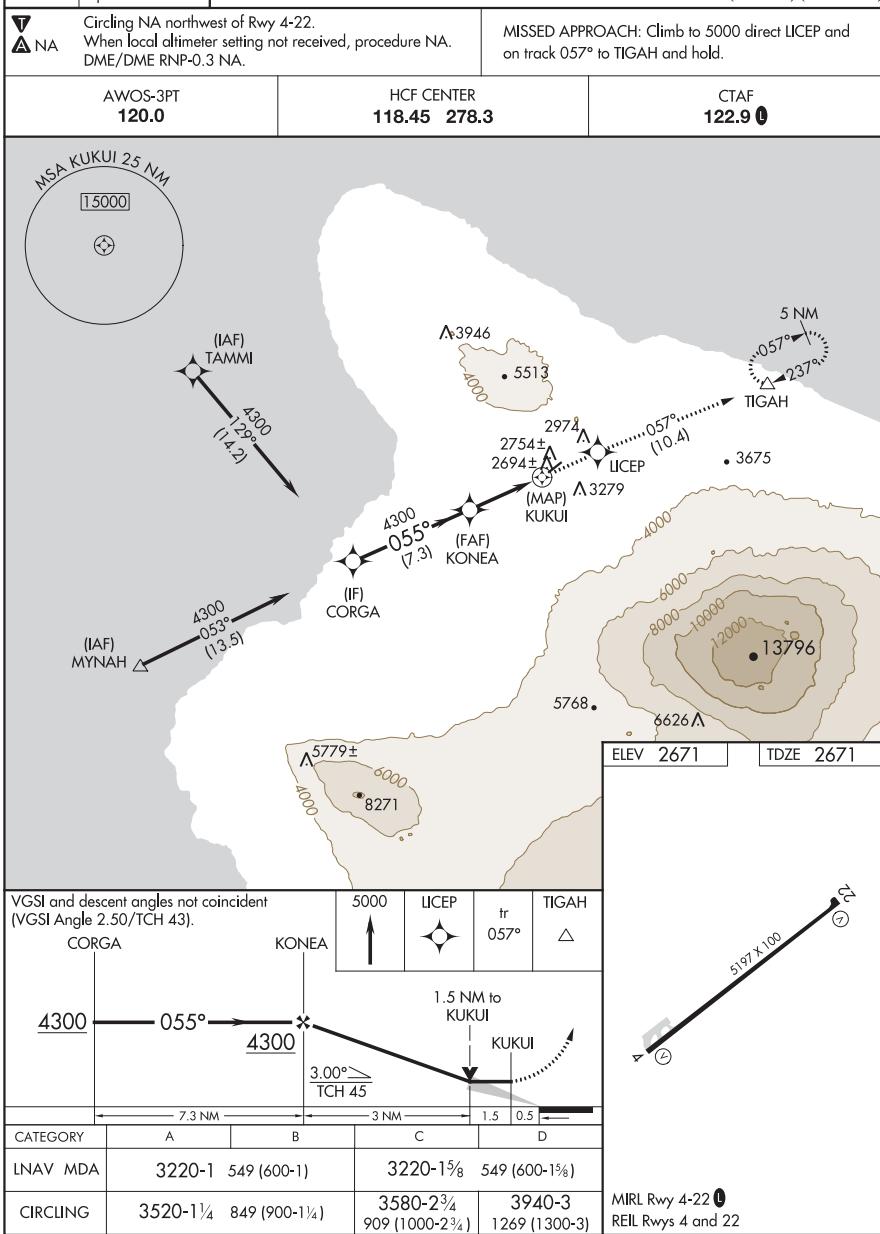
AL-5306 (FAA)

22027

|                 |                         |
|-----------------|-------------------------|
| APP CRS<br>055° | Rwy Idg<br><b>5197</b>  |
|                 | TDZE<br><b>2671</b>     |
|                 | Apt Elev<br><b>2671</b> |

## RNAV (GPS) RWY 4

WAIMEA-KOHALA (MUE)(PHMU)



KAMUELA, HAWAII  
Amdt 1B 27JAN22

20°00'N-155°40'W

KAMUELA, HAWAII

AI-5306 (FAA)

22027

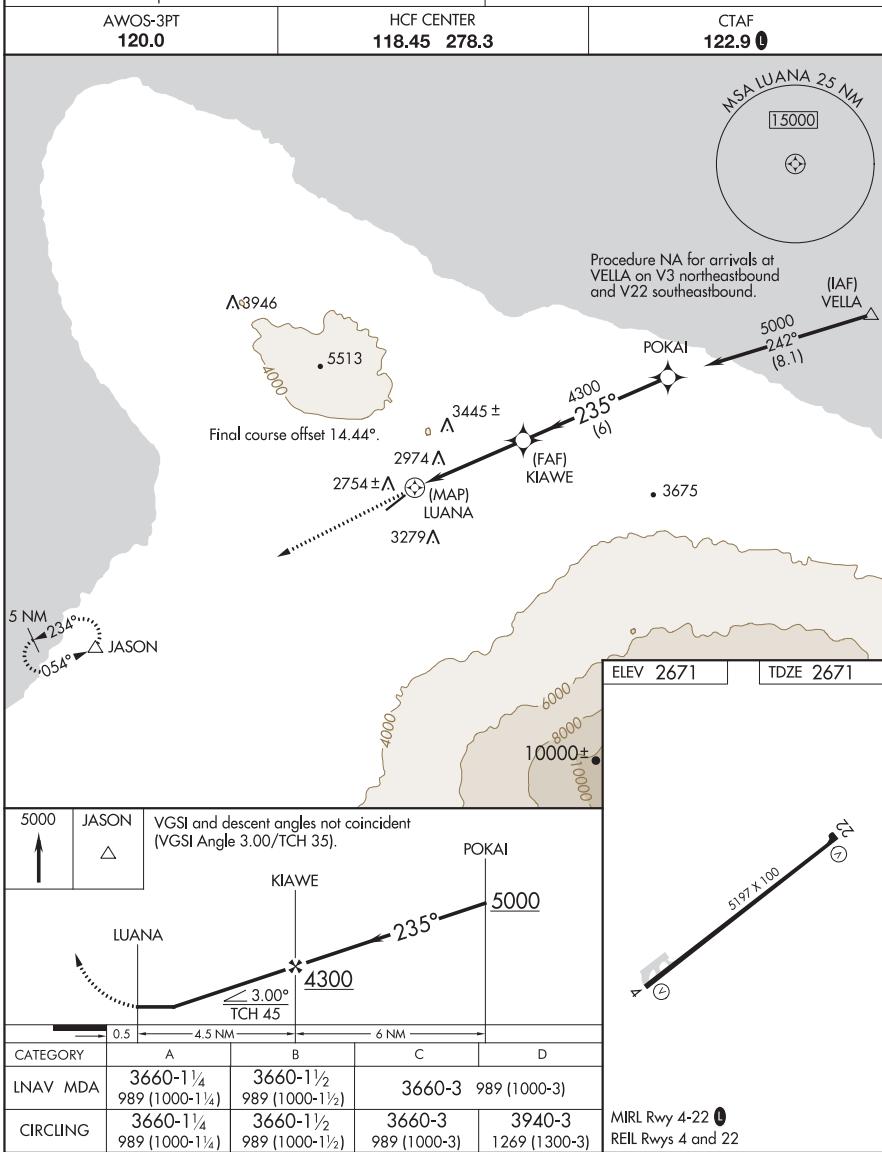
|                        |                         |
|------------------------|-------------------------|
| APP CRS<br><b>235°</b> | Rwy Idg<br><b>5197</b>  |
| TDZE<br><b>2671</b>    | Apt Elev<br><b>2671</b> |
|                        |                         |

RNP APCH

▼ Circling NA NW of Rwy 4-22. Rwy 22 helicopter visibility reduction below 1 SM NA. When local altimeter setting not received procedure NA.

## RNAV (GPS) RWY 22

WAIMEA-KOHALA (MUE)(PHMU)



KAMUELA, HAWAII

Orig-D 27JAN22

20°00'N-155°40'W

WAIMEA-KOHALA (MUE)(PHMU)

**RNAV (GPS) RWY 22**

KAMUELA, HAWAII

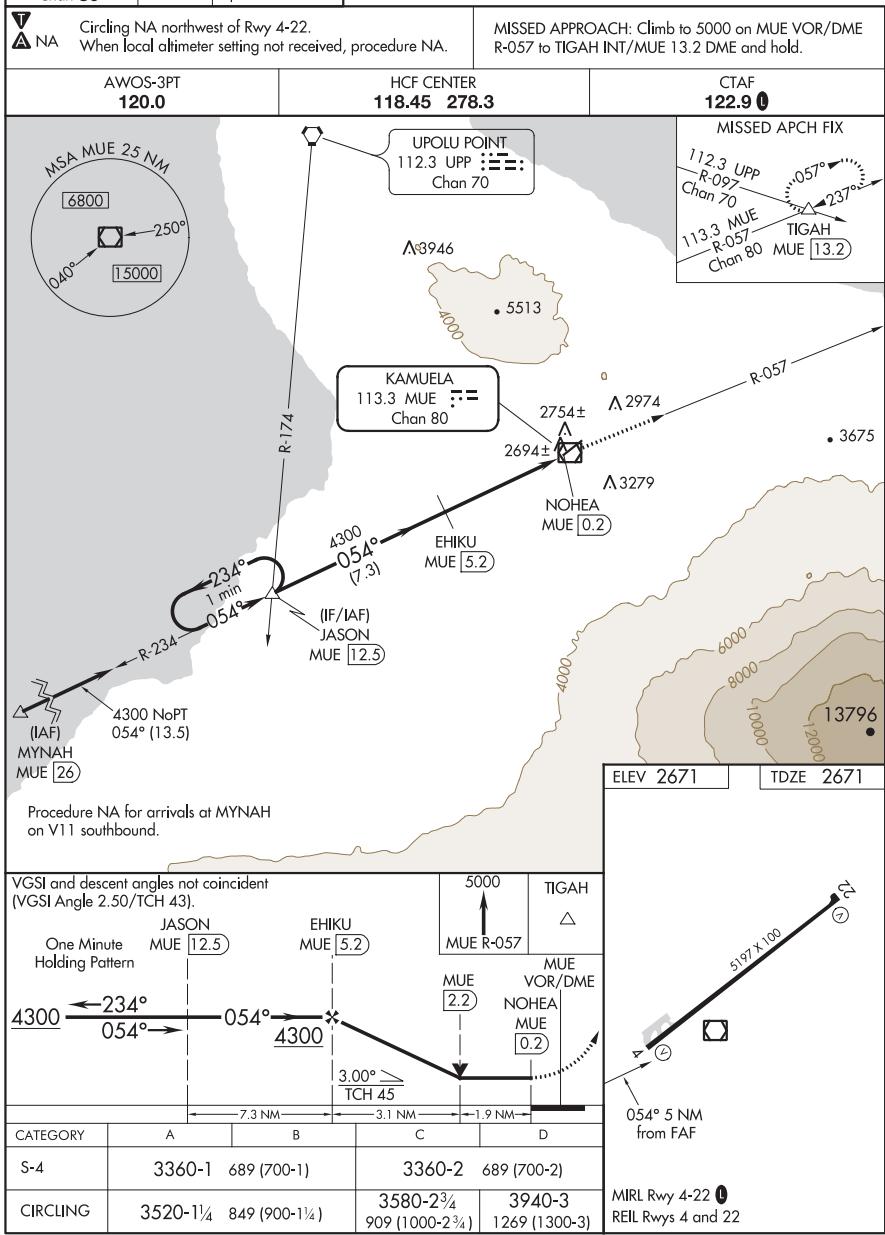
AL-5306 (FAA)

22027

|                                 |                 |                                                     |
|---------------------------------|-----------------|-----------------------------------------------------|
| VOR/DME MUE<br>113.3<br>Chan 80 | APP CRS<br>054° | Rwy Idg<br>5197<br>TDZE<br>2671<br>Apt Elev<br>2671 |
|---------------------------------|-----------------|-----------------------------------------------------|

**VOR/DME RWY 4**

WAIMEA-KOHALA (MUE)(PHMU)



KAMUELA, HAWAII

Amdt 1C 27JAN22

WAIMEA-KOHALA (MUE)(PHMU)

20°00'N-155°40'W

**VOR/DME RWY 4**

KAMUELA, HAWAII

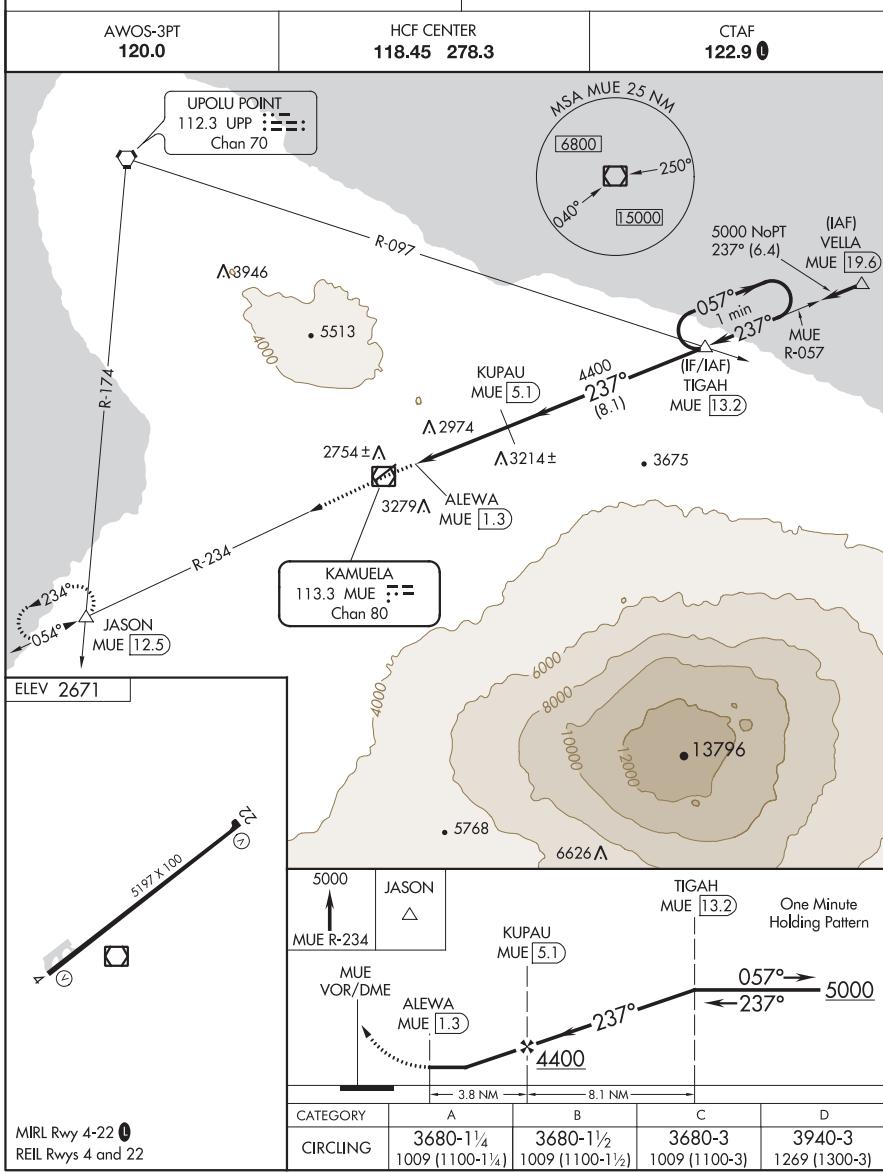
AL-5306 (FAA)

22027

|                                 |                 |                             |                    |
|---------------------------------|-----------------|-----------------------------|--------------------|
| VOR/DME MUE<br>113.3<br>Chan 80 | APP CRS<br>237° | Rwy Idg<br>TDZE<br>Apt Elev | N/A<br>N/A<br>2671 |
|---------------------------------|-----------------|-----------------------------|--------------------|

**NA** When local altimeter not received, procedure NA.  
Circling NA northwest of Rwy 4-22.

MISSED APPROACH: Climb to 5000 via MUE R-234 to JASON INT/12.5 DME and hold.

HCF CENTER  
118.45 278.3CTAF  
122.9

KAMUELA, HAWAII

Orig-B 27JAN22

WAIMEA-KOHALA (MUE)(PHMU)

20°00'N-155°40'W

VOR/DME-A

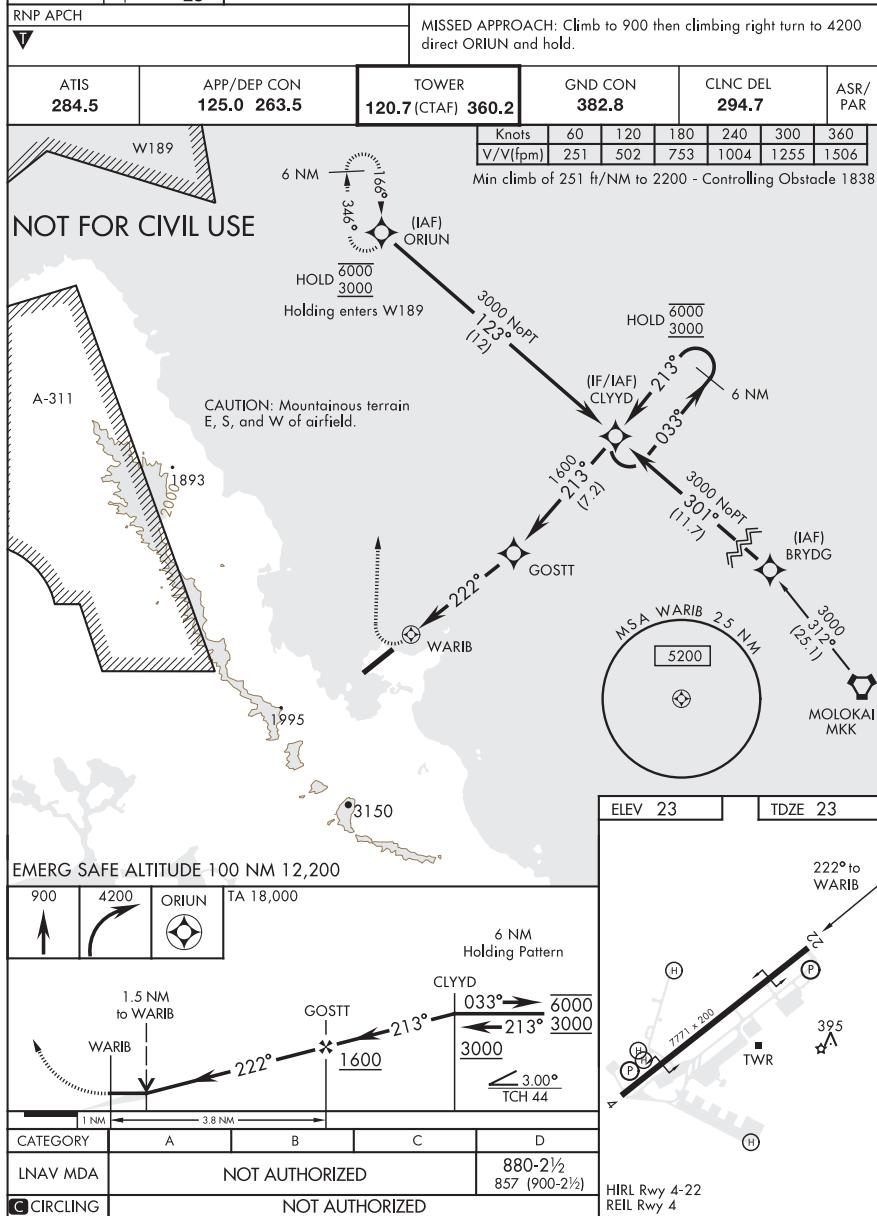
MOKAPU POINT, OAHU I, HAWAII

|                  |                 |
|------------------|-----------------|
| APCH CRS<br>222° | Rwy Idg<br>7772 |
| TDZE<br>23       | Aptl Elev<br>23 |
| RNP APCH         |                 |

AL-757 [USN]

22027  
RNAV (GPS) Y RWY 22

KANEOHE BAY MCAS (PHNG)



MOKAPU POINT, OAHU I, HAWAII

Amdt 2 12AUG21

21° 27'N-157° 46'W

KANEOHE BAY MCAS (PHNG)

RNAV (GPS) Y RWY 22

MOKAPU POINT, OAHU I, HAWAII

|                  |                 |
|------------------|-----------------|
| APCH CRS<br>222° | Rwy Idg<br>7772 |
| TDZE<br>23       |                 |
| Arpt Elev<br>23  |                 |

AI-757 [USN]

22027

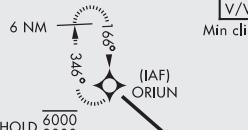
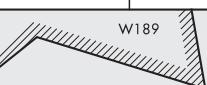
## RNAV (GPS) Z RWY 22

KANEOHE BAY MCAS (PHNG)

RNP APCH

▼ \* Circling not authorized SE of Rwy 4-22.

MISSSED APPROACH: Climbing right turn to 4100 direct ORIUN and continue climb-in-hold.

ATIS  
284.5APP/DEP CON  
125.0 263.5TOWER  
120.7 (CTAF) 360.2GND CON  
382.8CLNC DEL  
294.7ASR/  
PAR

| Knots    | 60  | 120 | 180 | 240  | 300  | 360  |
|----------|-----|-----|-----|------|------|------|
| V/V(fpm) | 254 | 508 | 762 | 1016 | 1270 | 1524 |

Min climb of 254 ft/NM to 1980 - Controlling Obstacle 1625

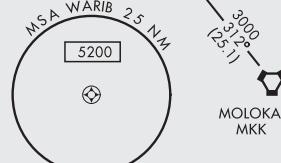
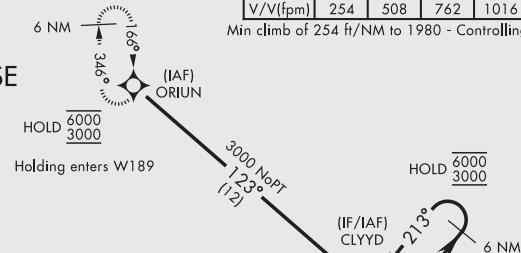
NOT FOR CIVIL USE

A-311

CAUTION: Mountainous terrain  
E, S, and W of airfield.

1624  
165  
702  
192  
3150

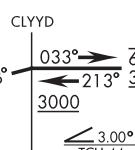
EMERG SAFE ALTITUDE 100 NM 12,200



ELEV 23 TDZE 23



6 NM Holding Pattern



0.9 NM to WARIB

WARIB

222°

1600

3.8 NM

CATEGORY A

LNAV MDA 680-1 1/4 657 (700-1 1/4)

CIRCLING\* 680-1 1/4 657 (700-1 1/4)

GOSTT

1600

213°

6000

3000

3.00°

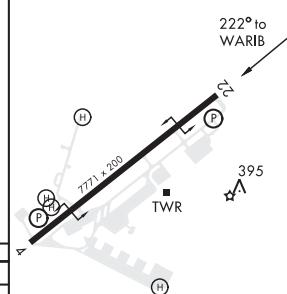
TCH 44

213°

3000

3.00°

TCH 44



MOKAPU POINT, OAHU I, HAWAII

Amdt 2 12AUG21

21° 27'N-157°46'W

KANEOHE BAY MCAS (PHNG)

## RNAV (GPS) Z RWY 22

MOKAPU POINT, OAHU I, HAWAII

22027  
HI-TACAN Y RWY 22

|                      |                  |                                       |      |
|----------------------|------------------|---------------------------------------|------|
| TACAN NGF<br>Chan 93 | APCH CRS<br>206° | Rwy Idg<br>TDZE 23<br>Arpt Elev<br>23 | 7772 |
|----------------------|------------------|---------------------------------------|------|

AL-757 [USN]

KANEOHE BAY MCAS (PHNG)

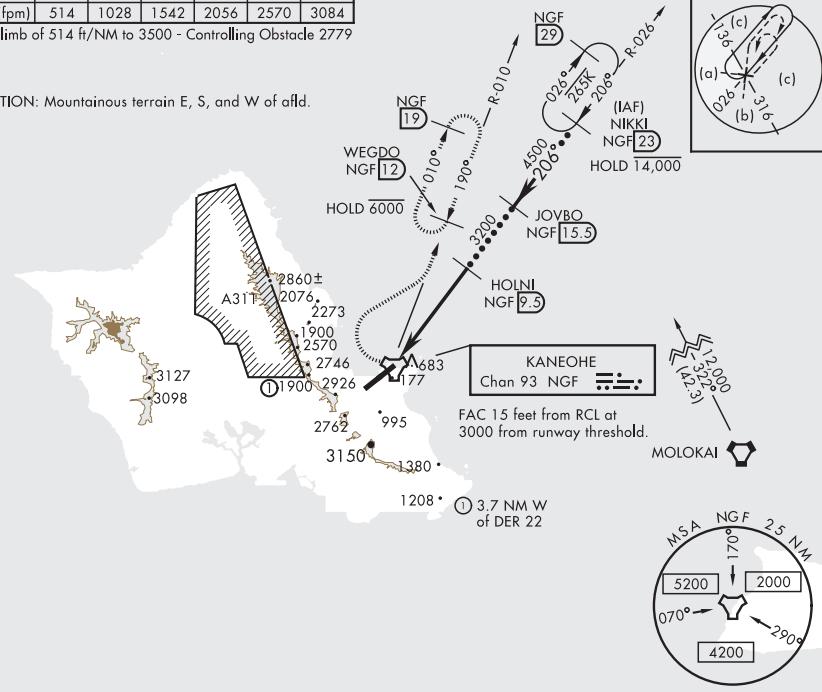
▼ \*Circling not authorized SE of Rwy 4-22.

† MISSED APPROACH: Climbing right turn to 4100, intercept NGF TACAN R-010 and proceed direct WEGDO and hold.

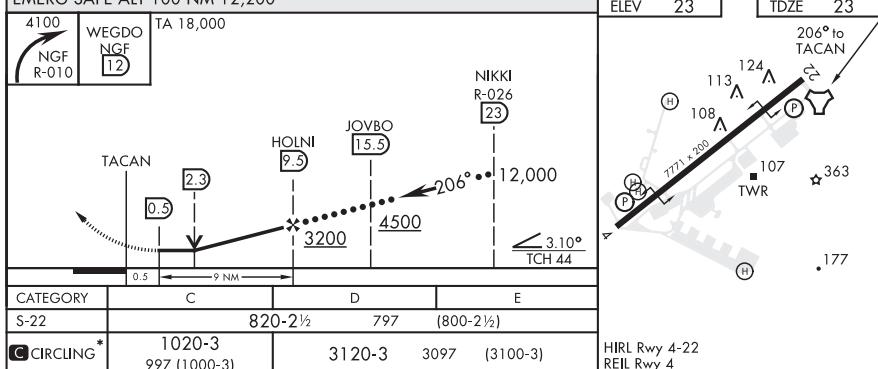
| ATIS<br>284.5                         | APP/DEP CON<br>125.0 263.5 | TOWER<br>120.7(CTA) 360.2 | GND CON<br>382.8 | CLNC DEL<br>294.7 | ASR/PAR |
|---------------------------------------|----------------------------|---------------------------|------------------|-------------------|---------|
| Knots 60 120 180 240 300 360          |                            |                           |                  |                   |         |
| V/V(fpm) 514 1028 1542 2056 2570 3084 |                            |                           |                  |                   |         |

† Min climb of 514 ft/NM to 3500 - Controlling Obstacle 2779

CAUTION: Mountainous terrain E, S, and W of airfield.



EMERG SAFE ALT 100 NM 12,200



MOKAPU POINT, OAHU I, HAWAII

21° 27'N 157° 46'W

KANEOHE BAY MCAS (PHNG)

Amdt 1 12AUG21

HI-TACAN Y RWY 22

MOKAPU POINT, OAHU I, HAWAII

|                      |                         |                                                              |
|----------------------|-------------------------|--------------------------------------------------------------|
| TACAN NGF<br>Chan 93 | APCH CRS<br><b>206°</b> | Rwy Idg <b>7772</b><br>TDZE <b>23</b><br>Arpt Elev <b>23</b> |
|----------------------|-------------------------|--------------------------------------------------------------|

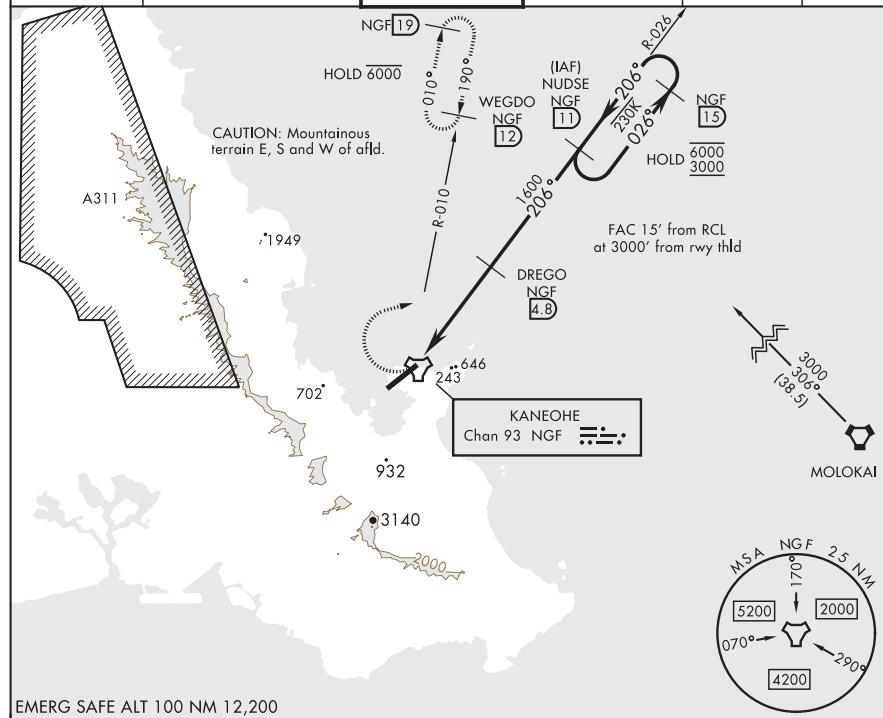
AL-757 [USN]

22027

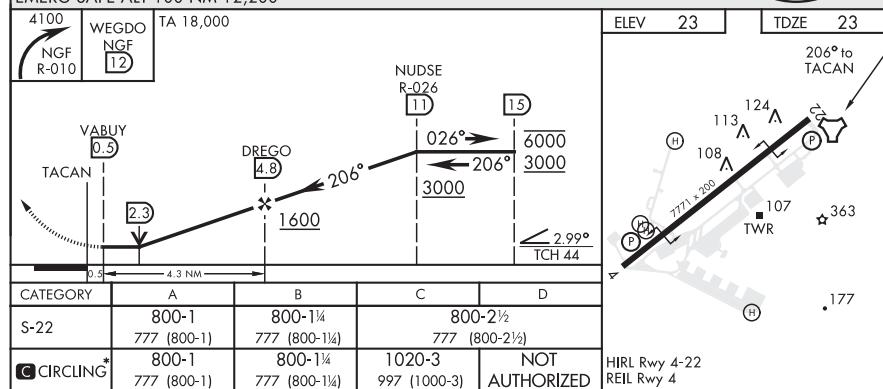
**TACAN Z RWY 22**

KANEOHE BAY MCAS (PHNG)

|                                             |                                                                                                                                    |                                |                      |                       |           |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------|-----------------------|-----------|
| ▼ * Circling not authorized SE of Rwy 4-22. | MISSDED APPROACH: Climbing right turn to 4100, intercept NGF TACAN R-010 and proceed direct WEGDO. Continue climb-in-hold to 4100. |                                |                      |                       |           |
| ATIS <b>284.5</b>                           | APP/DEP CON <b>125.0 263.5</b>                                                                                                     | TOWER <b>120.7(CTAF) 360.2</b> | GND CON <b>382.8</b> | CLNC DEL <b>294.7</b> | ASR / PAR |



EMERG SAFE ALT 100 NM 12,200



MOKAPU POINT, OAHU I, HAWAII

Amdu 3 12AUG21

21° 27'N-157° 46'W

KANEOHE BAY MCAS (PHNG)

**TACAN Z RWY 22**

MOKAPU POINT, OAHU I, HAWAII

|                      |                  |                                         |
|----------------------|------------------|-----------------------------------------|
| TACAN NGF<br>Chan 93 | APCH CRS<br>192° | Rwy Idg 7772<br>TDZE 23<br>Arpt Elev 23 |
|----------------------|------------------|-----------------------------------------|

AL-757 [USN]

22027  
**COPTER TACAN RWY 22**

KANEOHE BAY MCAS (PHNG)

RADAR required.

▼ \* Circling not authorized SE of Rwy 04-22.  
Visibility reduction not authorized.

† MISSED APPROACH: Climbing right turn to 1800, intercept NGF TACAN R-010 and proceed direct WEGDO and hold.

|               |                            |
|---------------|----------------------------|
| ATIS<br>284.5 | APP/DEP CON<br>125.0 263.5 |
|               | TOWER<br>120.7(CTAF) 360.2 |

|                      |       |
|----------------------|-------|
| TOWER<br>120.7(CTAF) | 360.2 |
|----------------------|-------|

|         |       |
|---------|-------|
| GND CON | 382.8 |
|---------|-------|

|          |       |
|----------|-------|
| CLNC DEL | 294.7 |
|----------|-------|

|             |
|-------------|
| ASR/<br>PAR |
|-------------|

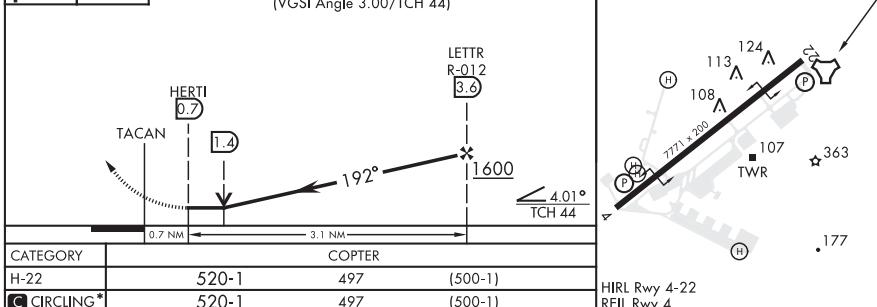
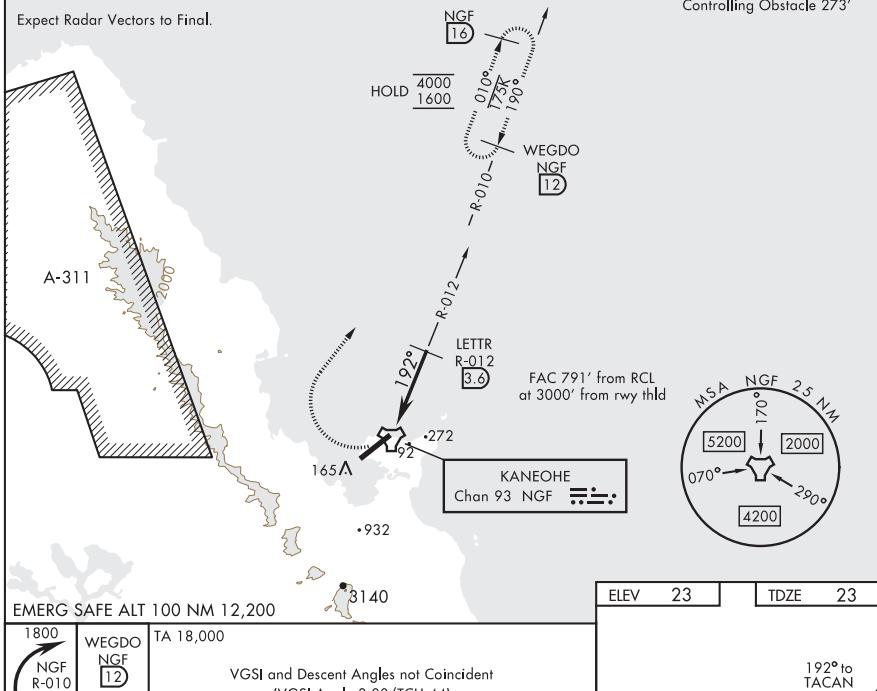
CAUTION: Mountainous terrain E, S, and W of airfield.

Max procedure airspeed 90 KIAS.

Expect Radar Vectors to Final.

|          |     |     |
|----------|-----|-----|
| Knots    | 60  | 120 |
| V/V(fpm) | 326 | 652 |

† Min climb of 326 ft/NM to 800  
Controlling Obstacle 273'



MOKAPU POINT, OAHU I, HAWAII

21° 27'N-157° 46'W

KANEOHE BAY MCAS (PHNG)

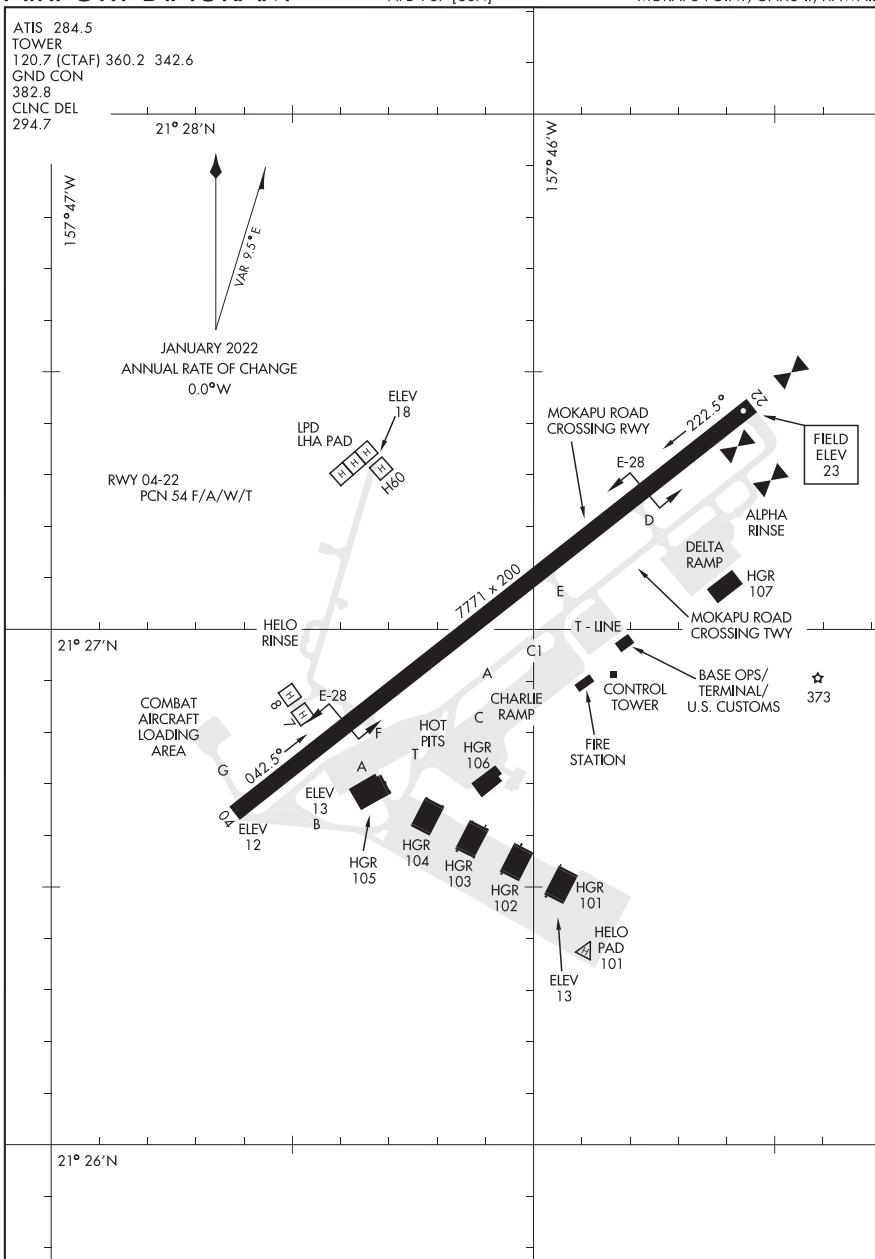
Amdt 4 12AUG21

**COPTER TACAN RWY 22**

22027

## AIRPORT DIAGRAM

AFD-757 [USN]

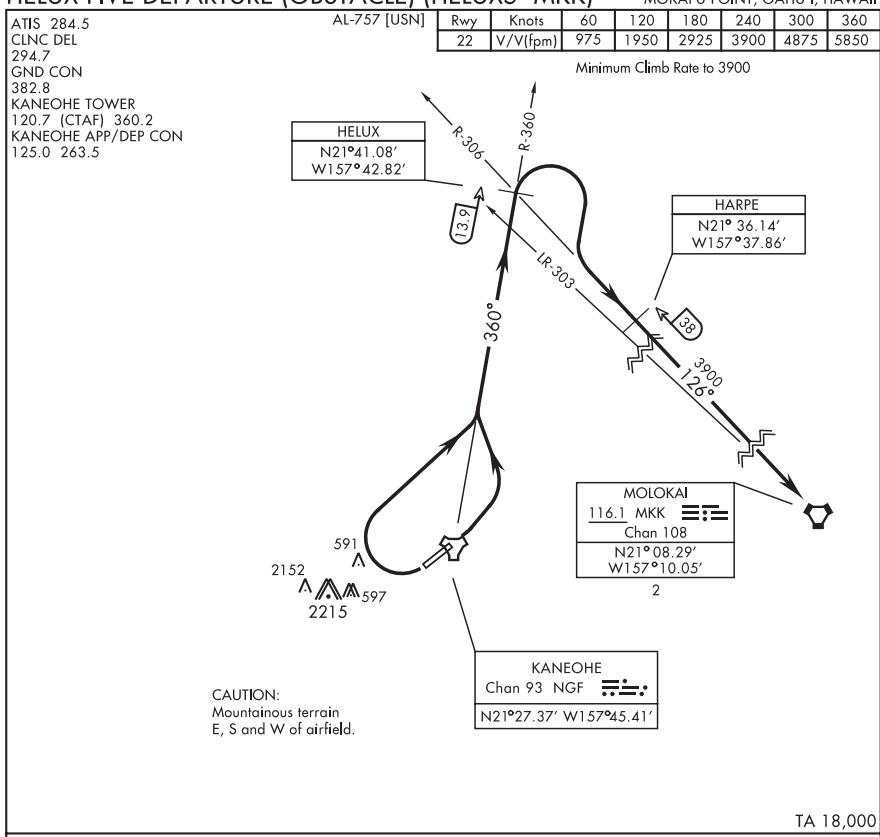
KANEOHE BAY MCAS (PHNG)  
MOKAPU POINT, OAHU I., HAWAII

21224

## HELUX FIVE DEPARTURE (OBSTACLE) (HELUX5•MKK)

KANEOHE BAY MCAS (PHNG)

MOKAPU POINT, OAHU I, HAWAII



## DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 4: Turn left to intercept NGF TACAN R-360 to HELUX, then intercept MKK VORTAC R-306 to MKK.

TAKE-OFF RWY 22: Turn right as soon as practicable to intercept NGF TACAN R-360 to HELUX, then intercept MKK VORTAC R-306 to MKK.

HELUX FIVE DEPARTURE (OBSTACLE) (HELUX5•MKK)  
Orig 12AUG21

MOKAPU POINT, OAHU I, HAWAII  
KANEOHE BAY MCAS (PHNG)

21224

## KANEOHE FIVE DEPARTURE (OBSTACLE) (NGF5•SOK)

KANEOHE BAY MCAS (PHNG)  
MOKAPU POINT, OAHU I, HAWAII

ATIS 284.5  
CLNC DEL  
294.7  
GND CON  
382.8

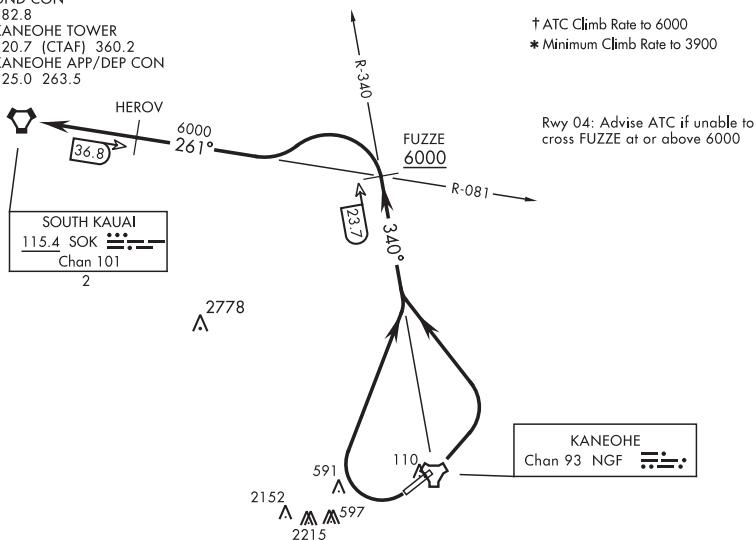
KANEOHE TOWER  
120.7 (CTAF) 360.2  
KANEOHE APP/DEP CON  
125.0 263.5

AL-757 [USN]

| Rwy | Knots    | 60  | 120  | 180  | 240  | 300  | 360  |
|-----|----------|-----|------|------|------|------|------|
| 04† | V/V(fpm) | 247 | 494  | 741  | 988  | 1235 | 1482 |
| 22* | V/V(fpm) | 975 | 1950 | 2925 | 3900 | 4875 | 5850 |

† ATC Climb Rate to 6000

\* Minimum Climb Rate to 3900



NOTE: Chart not to scale.

TA 18,000



## DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 4: Turn left to intercept NGF TACAN R-340 to FUZZE, then intercept SOK VORTAC R-081 to SOK. Cross FUZZE at or above 6000.

TAKE-OFF RWY 22: Turn right as soon as practicable to intercept NGF TACAN R-340 to FUZZE, then intercept SOK VORTAC R-081 to SOK.

KANEOHE FIVE DEPARTURE (OBSTACLE) (NGF5•SOK)  
Orig 12AUG21

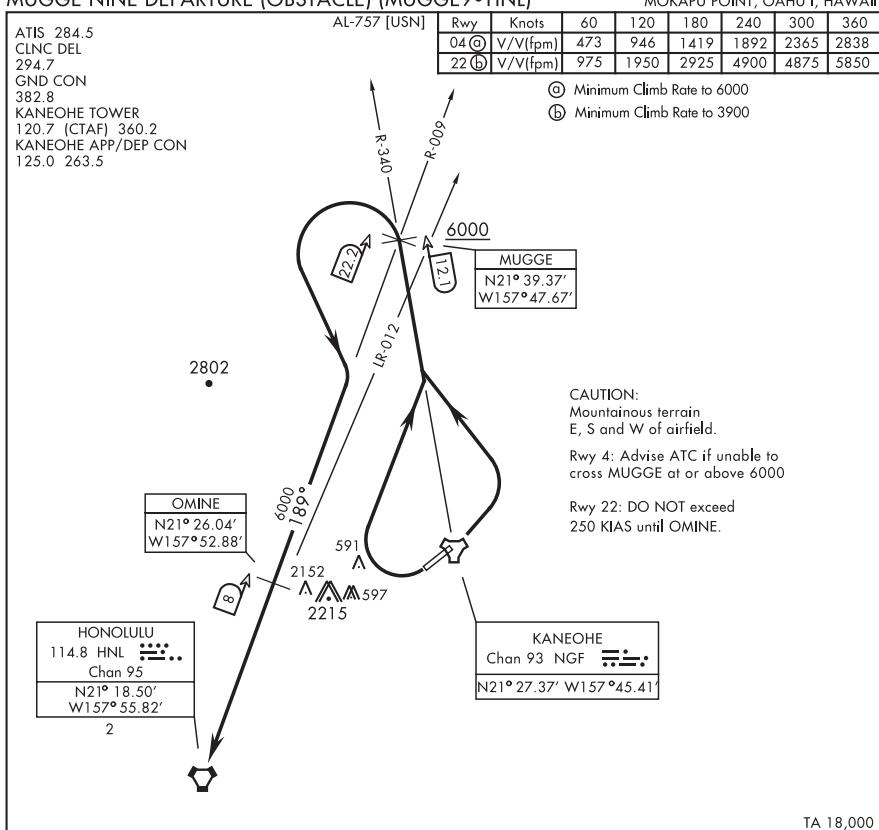
MOKAPU POINT, OAHU I, HAWAII  
KANEOHE BAY MCAS (PHNG)

21224

## MUGGE NINE DEPARTURE (OBSTACLE) (MUGGE9•HNL)

KANEOHE BAY MCAS (PHNG)

MOKAPU POINT, OAHU I, HAWAII



## DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 4: Turn left to intercept NGF TACAN R-340 to MUGGE, then intercept HNL VORTAC R-009 to HNL. Cross MUGGE at or above 6000.

TAKE-OFF RWY 22: Turn right as soon as practicable to intercept NGF TACAN R-340 to MUGGE, then intercept HNL VORTAC R-009 to HNL.

MUGGE NINE DEPARTURE (OBSTACLE) (MUGGE9•HNL)  
Orig 12AUG21

MOKAPU POINT, OAHU I, HAWAII  
KANEOHE BAY MCAS (PHNG)

KAPOLEI, HAWAII

|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>044°</b> | Rwy Idg<br><b>8000</b> |
| TDZE<br><b>17</b>      | Apt Elev<br><b>30</b>  |
|                        |                        |

AI-761 (FAA)

23222

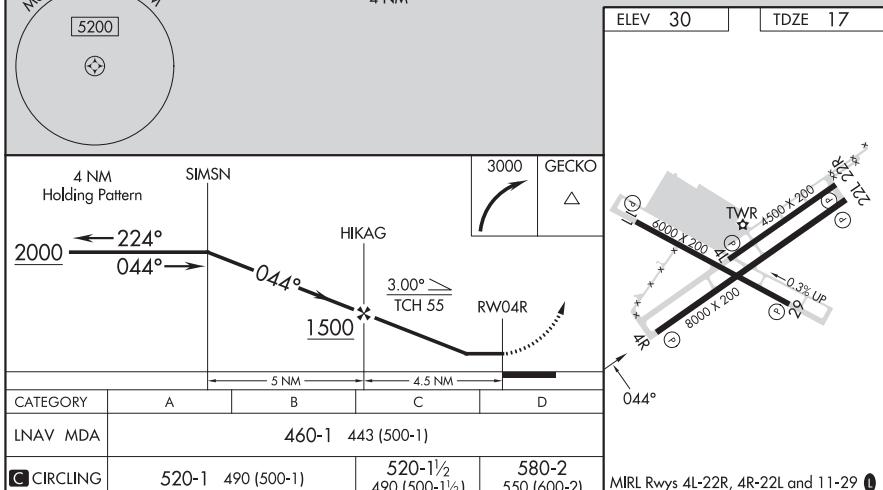
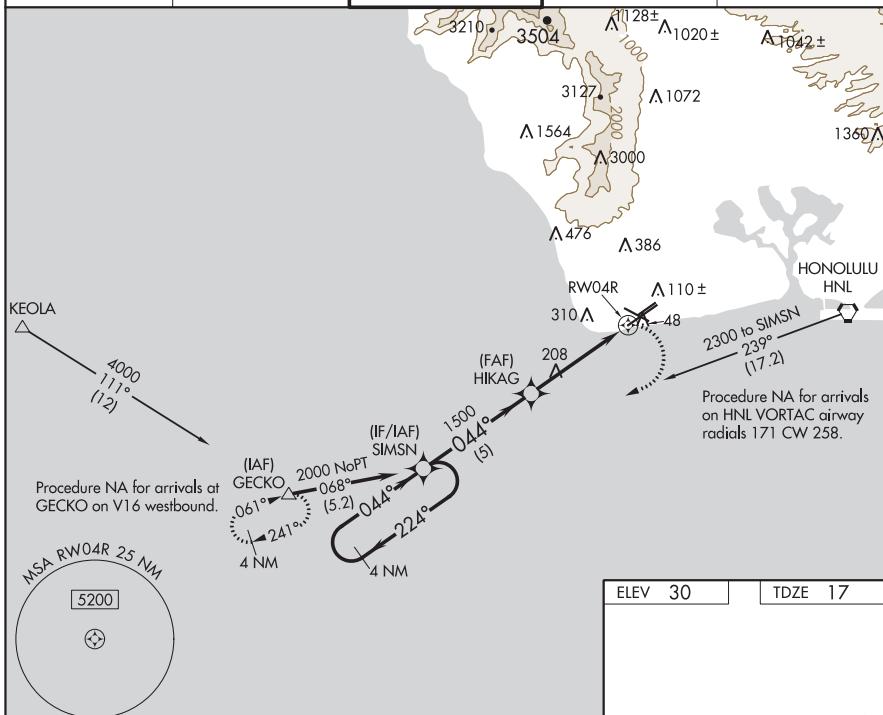
**RNAV (GPS) RWY 4R**

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

**⚠** Circling NA north of Rwy 4R-22L DME/DME RNP-0.3 NA. When local altimeter setting not received, use Honolulu altimeter setting and increase all MDA 40 feet. For inop MALSR, increase LNAV Cat C/D visibility to 1½ miles. For inop MALSR when using Honolulu altimeter setting increase LNAV Cat C/D visibility to 1½ miles. Helicopter visibility reduction below 1 SM NA. Procedure NA at night.

MISSIED APPROACH: Climbing right turn to 3000 direct GECKO and hold.

| ATIS<br><b>119.8</b> | HCF APP CON<br><b>118.3 269.0</b> | KALAELOA TOWER★<br><b>132.6 (CTAF) 340.2</b> | GND CON<br><b>123.8 336.4</b> | CLNC DEL<br><b>121.7 380.5</b> |
|----------------------|-----------------------------------|----------------------------------------------|-------------------------------|--------------------------------|
|----------------------|-----------------------------------|----------------------------------------------|-------------------------------|--------------------------------|



KAPOLEI, HAWAII  
Orig-A 26MAY16

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)  
21°18'N-158°04'W

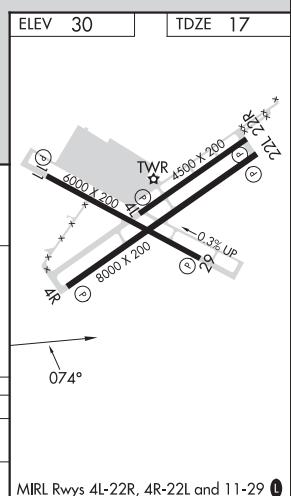
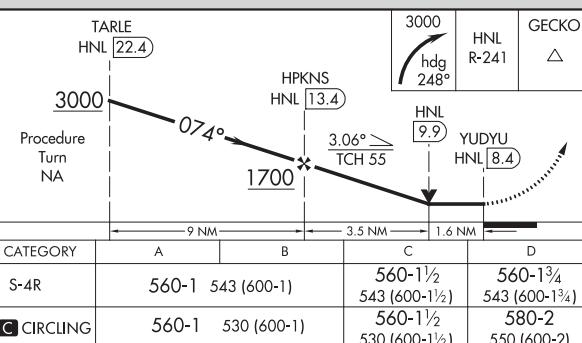
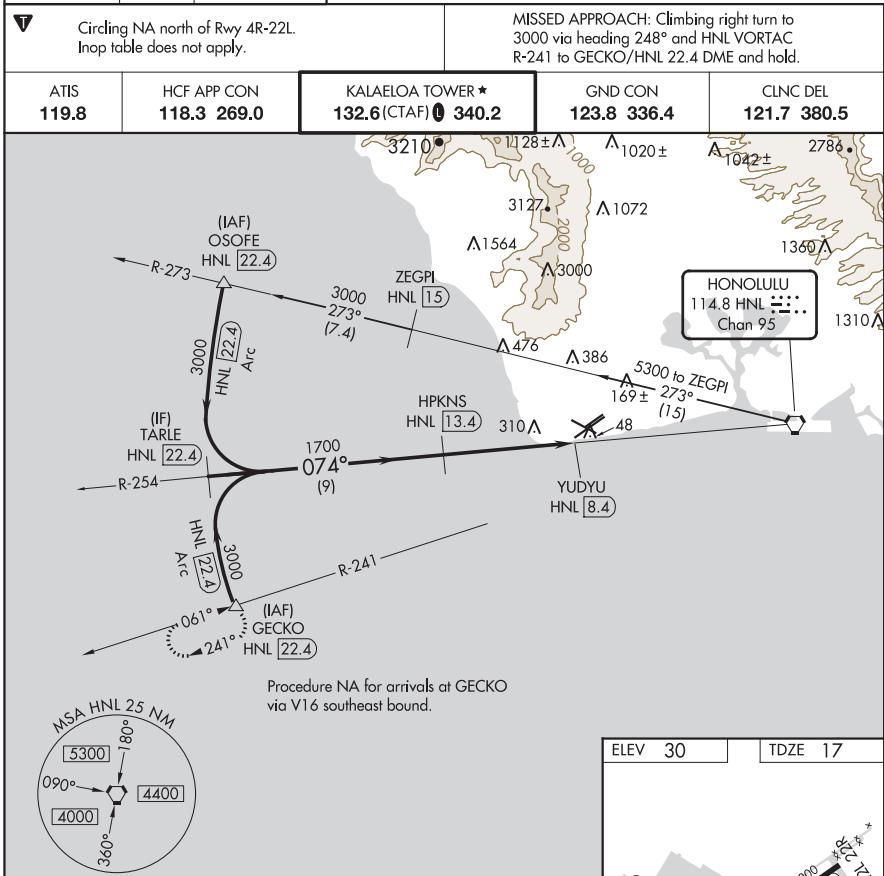
**RNAV (GPS) RWY 4R**

KAPOLEI, HAWAII

|                                |                 |                                        |
|--------------------------------|-----------------|----------------------------------------|
| VORTAC HNL<br>114.8<br>Chan 95 | APP CRS<br>074° | Rwy Idg 8000<br>TDZE 17<br>Apt Elev 30 |
|--------------------------------|-----------------|----------------------------------------|

AL-761 (FAA)

23222

VOR/DME RWY 4R  
KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)KAPOLEI, HAWAII  
Amdt 1A 05NOV20KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)  
VOR/DME RWY 4R

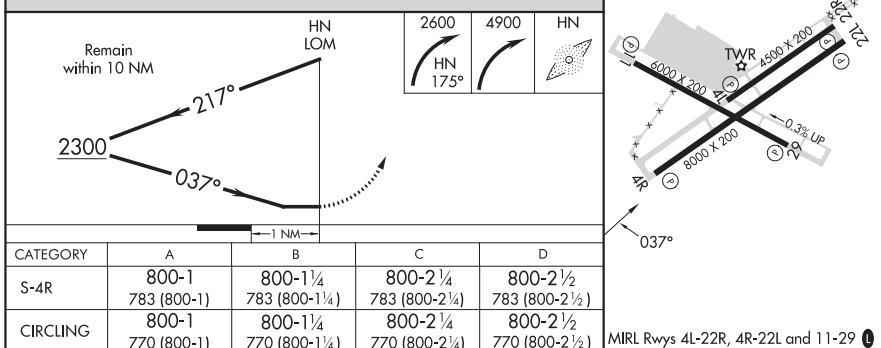
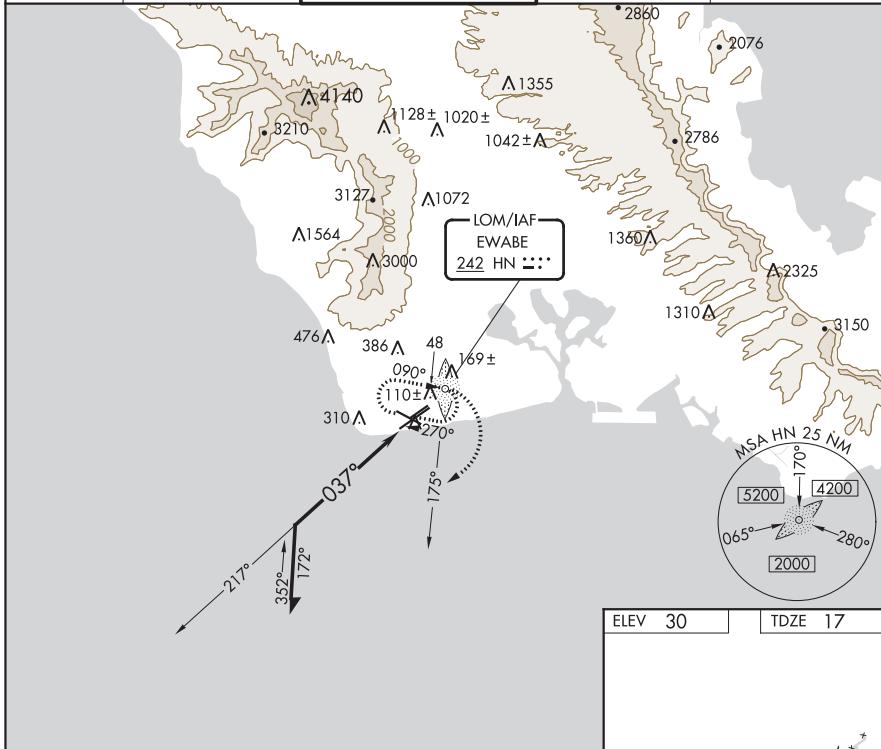
KAPOLEI, HAWAII

AL-761 (FAA)

23222

|                      |                        |                             |                                       |
|----------------------|------------------------|-----------------------------|---------------------------------------|
| HN LOM<br><b>242</b> | APP CRS<br><b>037°</b> | Rwy Idg<br>TDZE<br>Apt Elev | <b>8000</b><br><b>17</b><br><b>30</b> |
|----------------------|------------------------|-----------------------------|---------------------------------------|

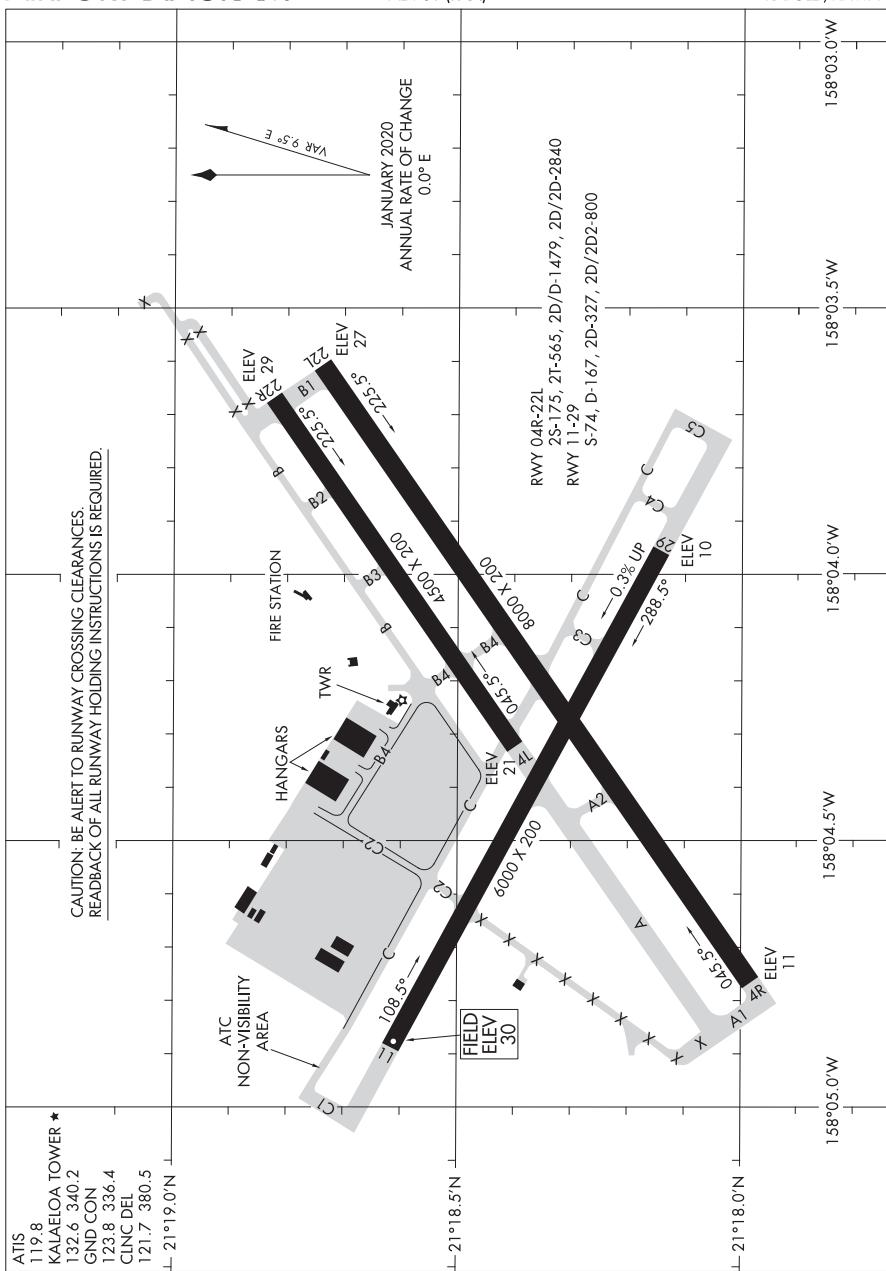
|                      |                                                  |                                                                                                                                                   |
|----------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>V</b>             | Circling not authorized north of Rwy 11 and 22R. | <b>MISSIED APPROACH:</b> Climbing right turn to 2600<br>via 175° bearing from HN LOM, then climbing right<br>turn to 4900 direct HN LOM and hold. |
| ATIS<br><b>119.8</b> | HCF APP CON<br><b>118.3 269.0</b>                | KALAELOA TOWER ★<br><b>132.6(CTAF) 340.2</b>                                                                                                      |

KAPOLEI, HAWAII  
Orig 15JUL99KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)  
21°18'N-158°04'W  
**NDB RWY 4R**

21112

## AIRPORT DIAGRAM

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)  
AL-761 (FAA) KAPOLEI, HAWAII



AIRPORT DIAGRAM  
21112

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)  
KAPOLEI, HAWAII

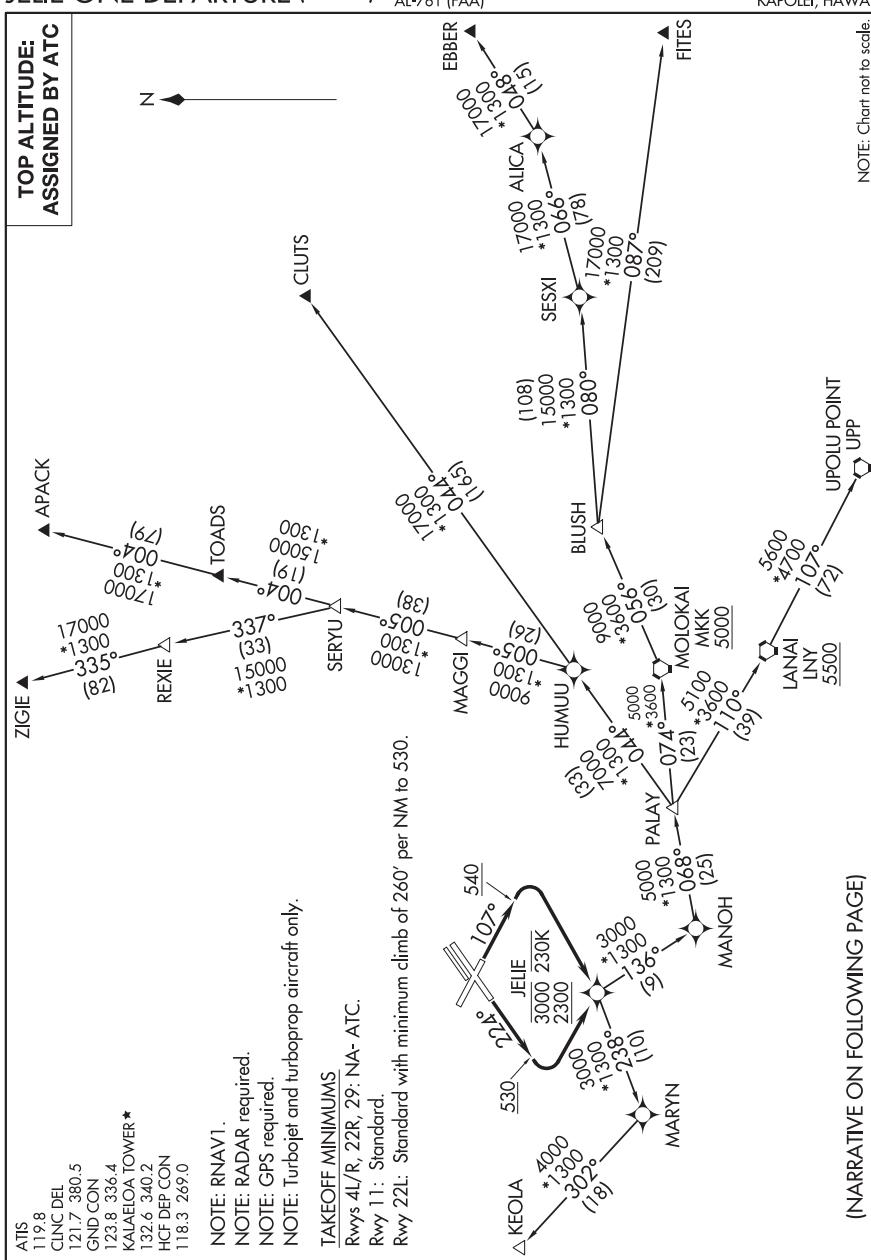
(JELIE1.JELIE) 22307

## JELIE ONE DEPARTURE (RNAV)

AL-761 (FAA)

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

KAPOLEI, HAWAII



JELIE ONE DEPARTURE (RNAV)

(JELIE1.JELIE) 25FEB21

KAPOLEI, HAWAII

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

(JELIE1.JELIE) 21112

**JELIE ONE DEPARTURE (RNAV)**KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)  
AL-761 (FAA) KAPOLEI, HAWAII**DEPARTURE ROUTE DESCRIPTION**

TAKEOF 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. . . .

TAKEOF 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)

**JELIE ONE DEPARTURE (RNAV)**  
(JELIE1.JELIE) 25FEB21

KAPOLEI, HAWAII  
KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

KAUNAKAKAI, HAWAII

AL-759 (FAA)

21056

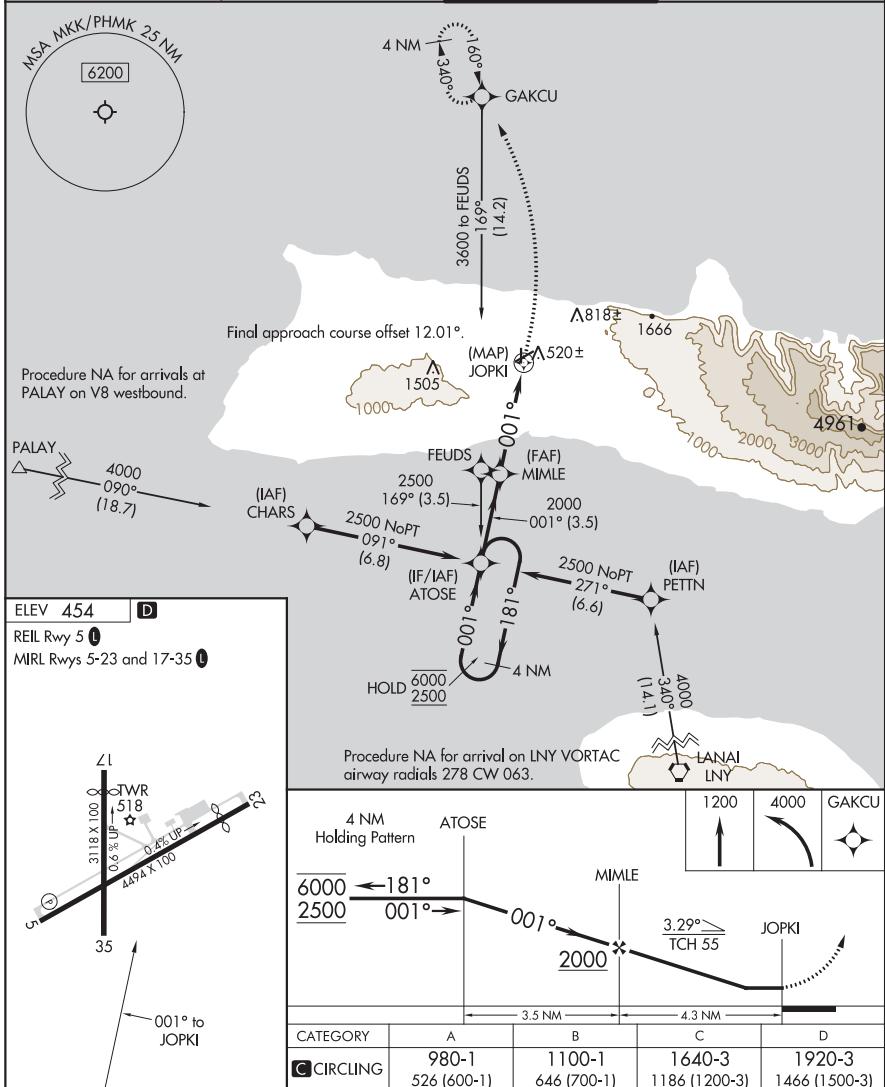
|                        |                             |                   |
|------------------------|-----------------------------|-------------------|
| APP CRS<br><b>001°</b> | Rwy Idg<br>TDZE<br>Apt Elev | N/A<br>N/A<br>454 |
|------------------------|-----------------------------|-------------------|

**RNAV (GPS)-B**  
MOLOKAI (MKK)(PHMK)

RNP APCH.

- ▼ Circling to Rwy 17, 23 NA at night.  
 ▲ Circling NA east of Rwy 35 and southeast of Rwy 23.

MISSIED APPROACH: Climb to 1200 then climbing left turn 4000 direct GAKCU and hold, continue climb-in-hold to 4000.

ATIS  
**128.2**HCF CENTER  
**124.1 317.5**MOLOKAI TOWER ★  
**125.7 (CTAF) 306.2**GND CON  
**121.9**

KAUNAKAKAI, HAWAII

Amdt 2 25FEB21

21°09'N-157°06'W

MOLOKAI (MKK)(PHMK)  
**RNAV (GPS)-B**

KAUNAKAKAI, HAWAII

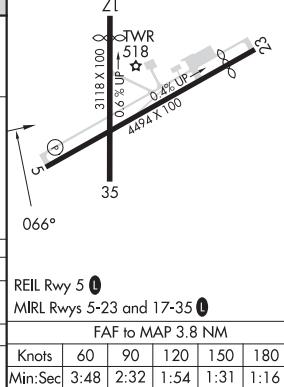
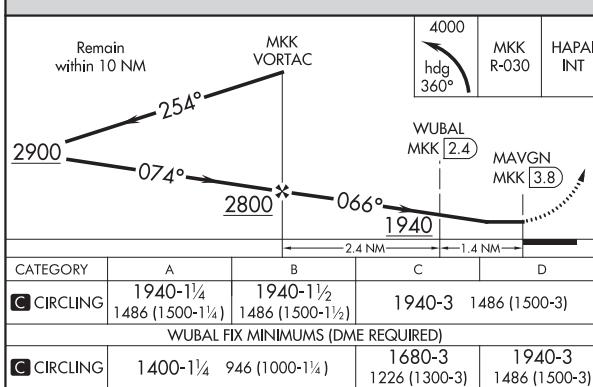
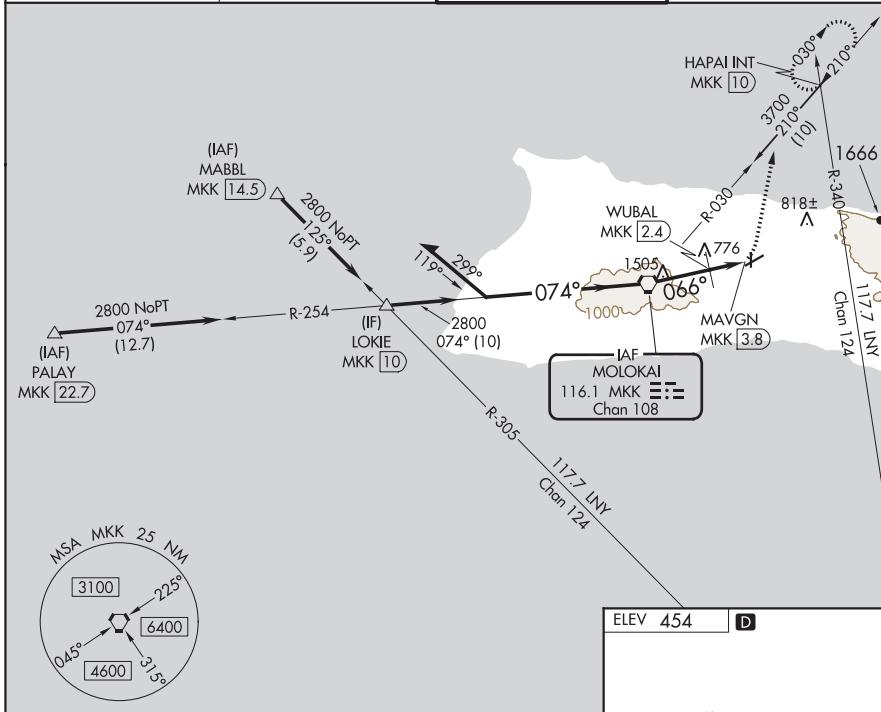
AL-759 (FAA)

23334

|                                 |                 |                 |                   |
|---------------------------------|-----------------|-----------------|-------------------|
| VORTAC MKK<br>116.1<br>Chan 108 | APP CRS<br>066° | Rwy Idg<br>TDZE | N/A<br>N/A<br>454 |
|---------------------------------|-----------------|-----------------|-------------------|

VOR or TACAN-A  
MOLOKAI (MKK) (PHMK)

|                                      |                                                                                                                                                        |                                       |                  |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------|
| <br>Circling Rwy 17, 23 NA at night. | MISSIED 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. |                                       |                  |
| ATIS<br>128.2                        | HCF CENTER<br>124.1 317.5                                                                                                                              | MOLOKAI TOWER ★<br>125.7 (CTAF) 306.2 | GND CON<br>121.9 |

KAUNAKAKAI, HAWAII  
Amdt 17A 05NOV20

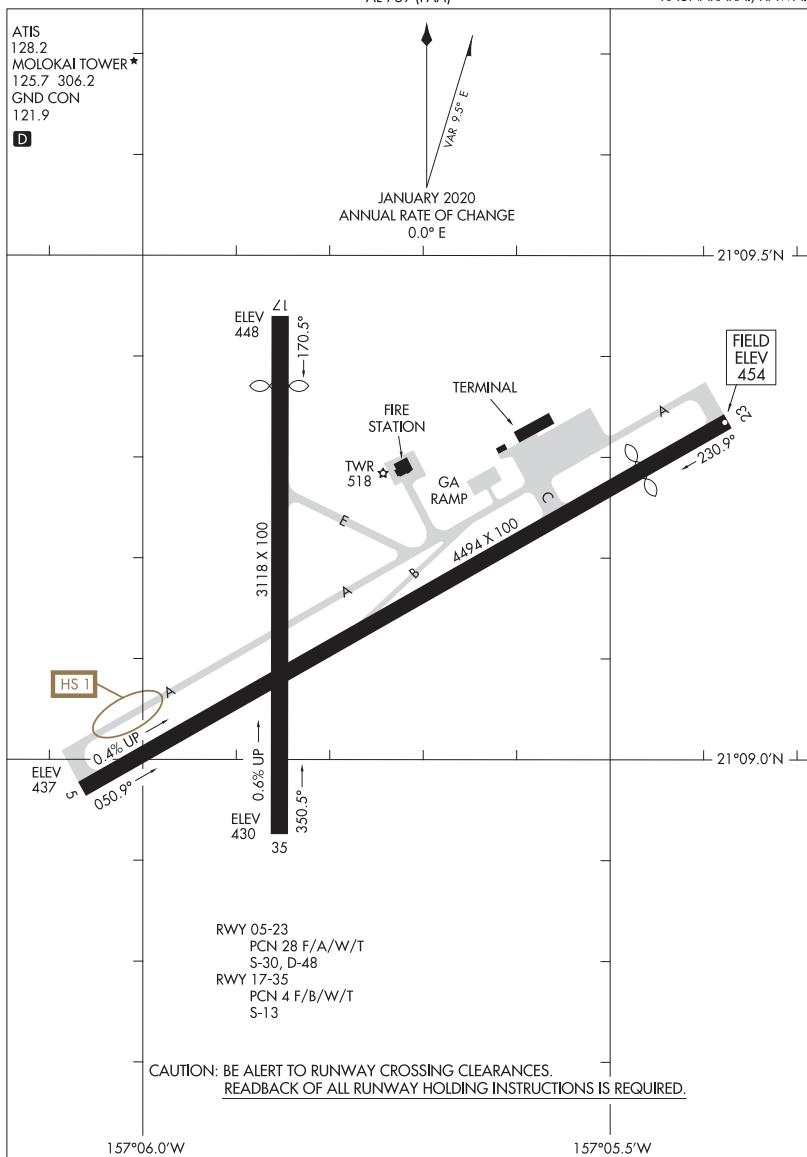
21°09'N-157°06'W

MOLOKAI (MKK) (PHMK)  
VOR or TACAN-A

22195

## AIRPORT DIAGRAM

AL-759 (FAA)

MOLOKAI (MKK) (PHMK)  
KAUNAKAKAI, HAWAII

## AIRPORT DIAGRAM

22195

KAUNAKAKAI, HAWAII  
MOLOKAI (MKK) (PHMK)

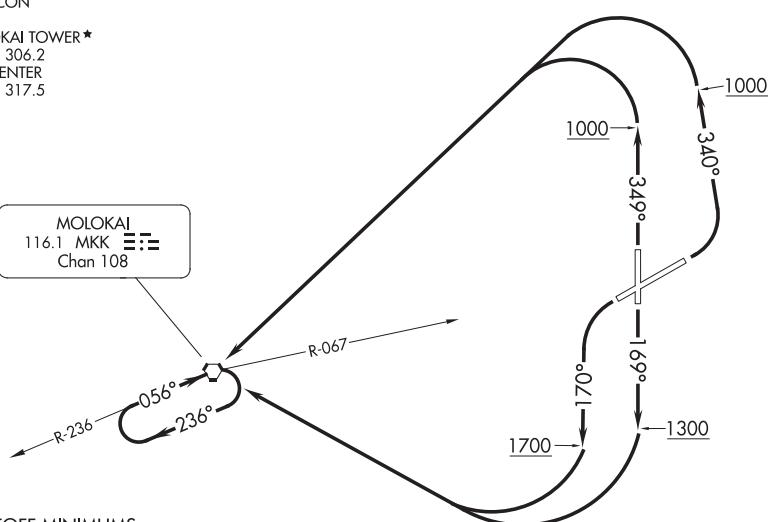
(HMK1.MKK) 23334

## KAUNAKAKAI ONE DEPARTURE (OBSTACLE)

MOLOKAI (MKK) (PHMK)  
AL-759 (FAA) KAUNAKAKAI, HAWAII

ATIS  
128.2  
GND CON  
121.9  
MOLOKAI TOWER\*  
125.7 306.2  
HCF CENTER  
124.1 317.5

MOLOKAI  
116.1 MKK Chan 108

TAKEOFF MINIMUMS

Rwy 17: Standard.

Rwy 5: 300-1 with minimum climb of 325' per NM to 1500 or standard with minimum climb of 540' per NM to 800 or 1500-2½ for climb in visual conditions.

Rwy 35: 300-1 or standard with minimum climb of 535' per NM to 800.

Rwy 23: Standard with minimum climb of 435' per NM to 1500 or 1500-2½ for climb in visual conditions.

(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 5: Climbing left turn heading 340° to 1000 then climbing left turn direct MKK VORTAC, thence. . . .TAKEOFF RUNWAY 17: Climb heading 169° to 1300 then climbing right turn direct MKK VORTAC, thence. . . .TAKEOFF RUNWAY 23: Climbing left turn heading 170° to 1700 then climbing right turn direct MKK VORTAC, thence. . . .TAKEOFF RUNWAY 35: Climb heading 349° to 1000 then climbing left turn direct MKK VORTAC, thence. . . .VCOA RUNWAYS 5 and 23: Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Molokai Airport southwest bound at or above 1800 on MKK R-067 to MKK VORTAC, thence. . . .

. . . climb in MKK VORTAC hold pattern to cross MKK at or above MEA/MCA for route of flight.

KAUNAKAKAI ONE DEPARTURE (OBSTACLE)  
(HMK1.MKK) 29MAY14KAUNAKAKAI, HAWAII  
MOLOKAI (MKK) (PHMK)

(HMK1.MKK) 23334

**KAUNAKAKAI ONE DEPARTURE (OBSTACLE)**MOLOKAI (MKK) (PHMK)  
AL-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.

**KAUNAKAKAI ONE DEPARTURE (OBSTACLE)**  
(HMK1.MKK) 29MAY14KAUNAKAKAI, HAWAII  
MOLOKAI (MKK) (PHMK)

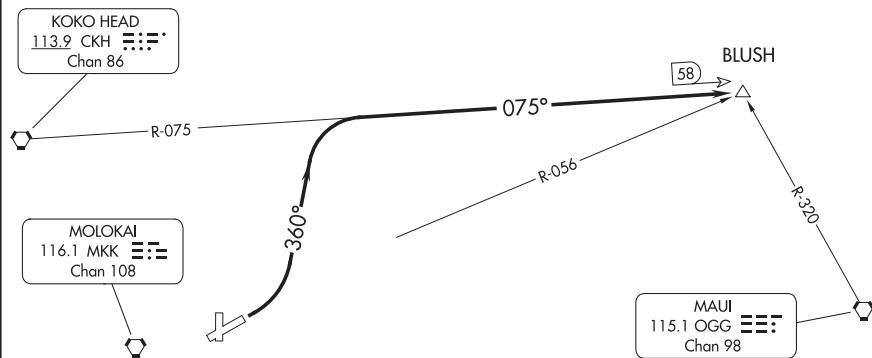
(BLUSH2.BLUSH) 23334

**BLUSH TWO DEPARTURE**

AL-759 (FAA)

MOLOKAI (MKK) (PHMK)  
KAUNAKAKAI, HAWAII

ATIS  
128.2  
GND CON  
121.9  
MOLOKAI TOWER \*  
125.7 306.2  
HCF CENTER  
124.1 317.5

**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**

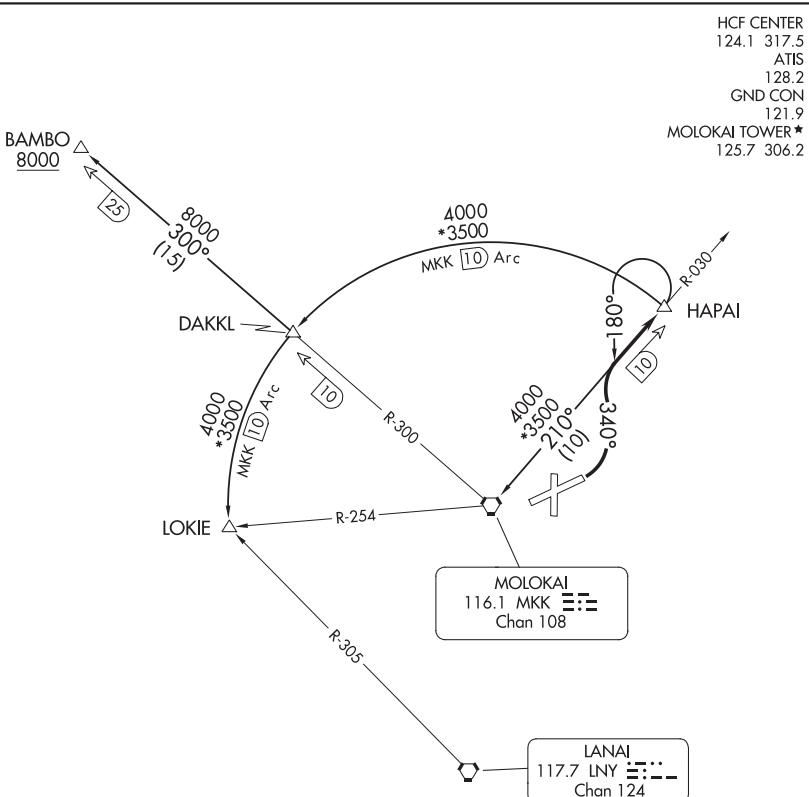
**TAKEOFF RUNWAY 5:** Climbing left turn to 5000 on heading 360° and CKH VORTAC R-075 to BLUSH INT/CKH 58 DME.

**BLUSH TWO DEPARTURE**  
(BLUSH2.BLUSH) 29MAY14

KAUNAKAKAI, HAWAII  
MOLOKAI (MKK) (PHMK)

(HAPAI3.HAPAI) 24025  
HAPAI THREE DEPARTURE

AI-759 (FAA)

MOLOKAI (MKK) (PHMK)  
KAUNAKAKAI, HAWAII

## 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: DME required.

NOTE: Chart not to scale



## DEPARTURE ROUTE DESCRIPTION

TAKEOF RUNWAY 5: Climbing left turn heading 340° and MKK VORTAC R-030 to HAPAI/MKK 10 DME, thence . . .

. . . on assigned transition.

BAMBO TRANSITION (HAPAI3.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 (HAPAI3.LOKIE): From over HAPAI/MKK 10 DME on MKK VORTAC 10 DME Arc CCW to LOKIE INT/MKK 10 DME.

MOLOKAI TRANSITION (HAPAI3.MKK): From over HAPAI/MKK 10 DME, left turn heading 180° and MKK R-030 to MKK VORTAC.

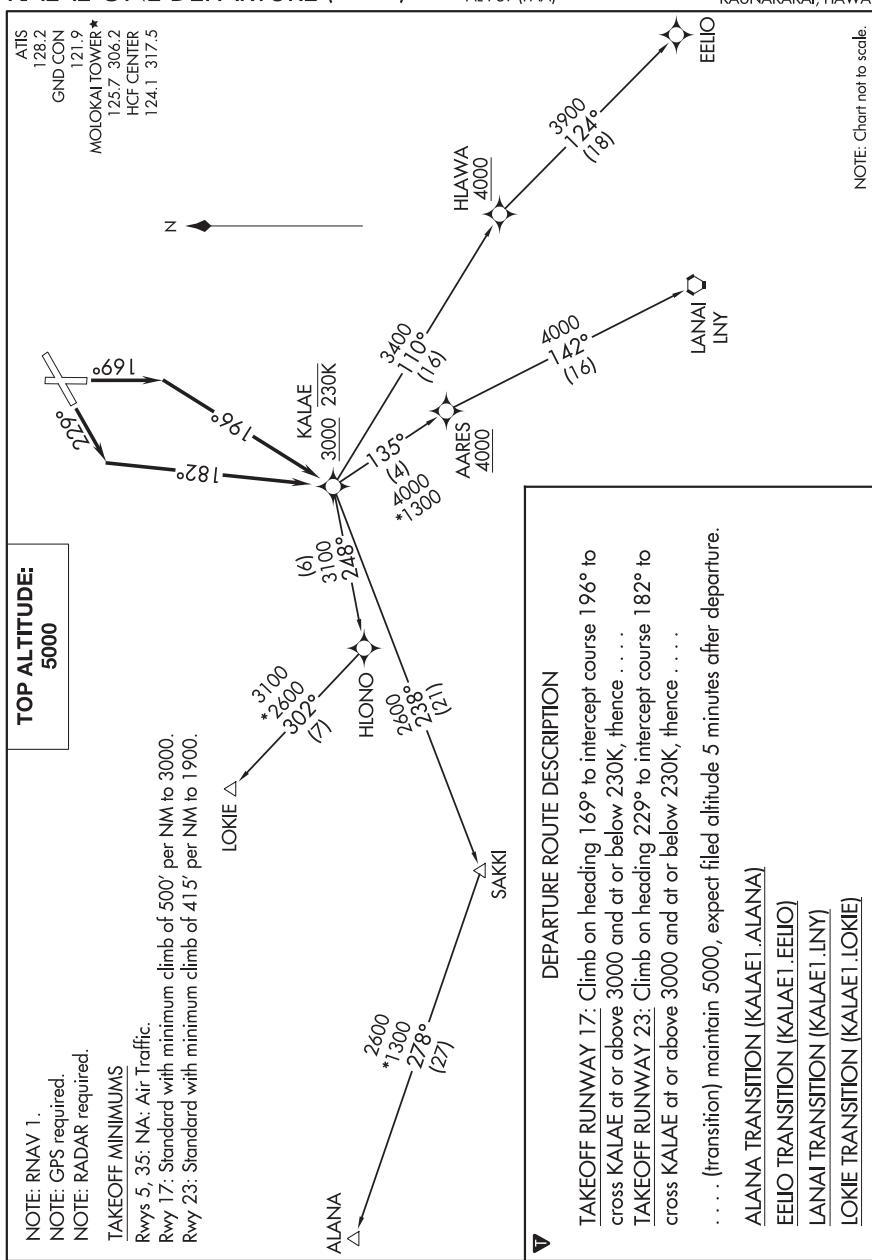
HAPAI THREE DEPARTURE  
(HAPAI3.HAPAI) 29MAY14

KAUNAKAKAI, HAWAII  
MOLOKAI (MKK) (PHMK)

(KALAE1.KALAE) 21056

## KALAE ONE DEPARTURE (RNAV)

AL-759 (FAA)

MOLOKAI (MKK) (PHMK)  
KAUNAKAKAI, HAWAII

KALAE ONE DEPARTURE (RNAV)

(KALAE1.KALAE) 25FEB21

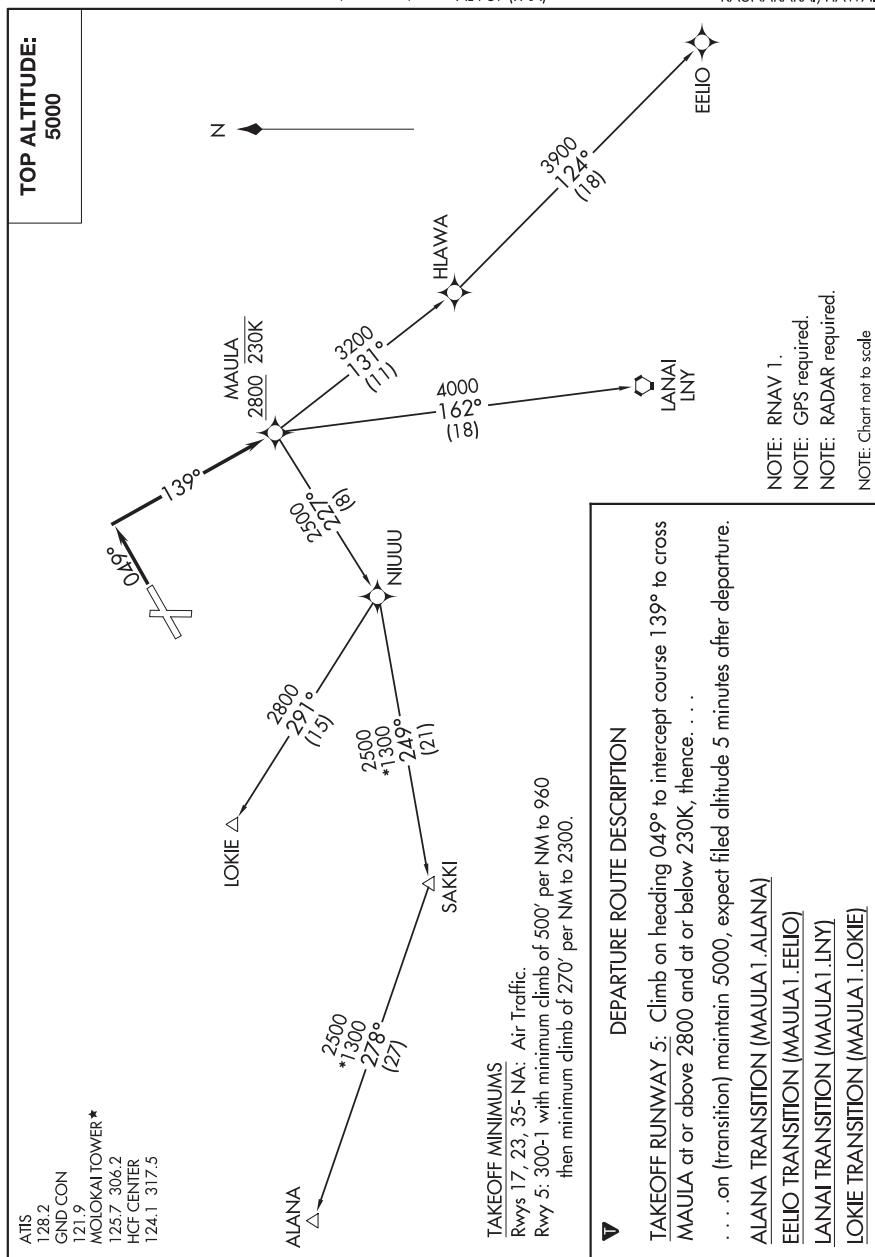
KAUNAKAKAI, HAWAII

MOLOKAI (MKK) (PHMK)

(MAULA1.MAULA) 21056

## MAULA ONE DEPARTURE (RNAV)

AL-759 (FAA)

MOLOKAI (MKK) (PHMK)  
KAUNAKAKAI, HAWAIIMAULA ONE DEPARTURE (RNAV)  
(MAULA1.MAULA) 25FEB21KAUNAKAKAI, HAWAII  
MOLOKAI (MKK) (PHMK)

KOSRAE, FM

AL-6887 (FAA)

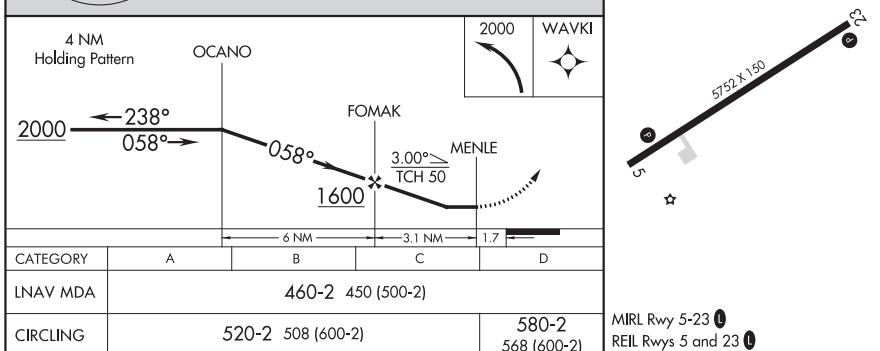
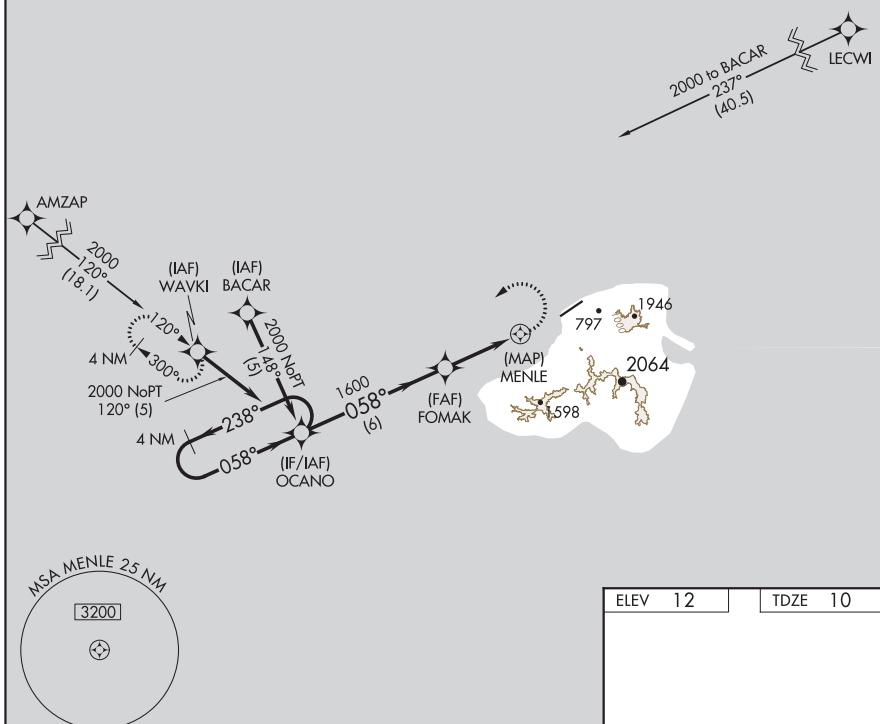
21336

|                 |                        |
|-----------------|------------------------|
| APP CRS<br>058° | Rwy Idg<br><b>5752</b> |
|                 | TDZE<br>10             |
|                 | Apt Elev<br>12         |

**V** Circling not authorized southeast of Rwy 5-23.  
 Obtain local altimeter setting on CTAFF; when not received, procedure not authorized. DME/DME RNP-0.3 NA.  
 No controlled airspace below 5500.

MISSIED APPROACH: Climbing left turn to 2000 direct WAVKI WP and hold.

KOSRAE RADIO  
**123.6 (CTAF)**



KOSRAE, FM  
 Orig-C 02DEC21

05°21'N-162°58'E

KOSRAE (TTK)(PTSA)  
**RNAV (GPS) RWY 5**

KOSRAE, FM

AL-6887 (FAA)

21336

|                 |                 |
|-----------------|-----------------|
| APP CRS<br>213° | Rwy Idg<br>5752 |
|                 | TDZE<br>11      |
| Apt Elev<br>12  |                 |

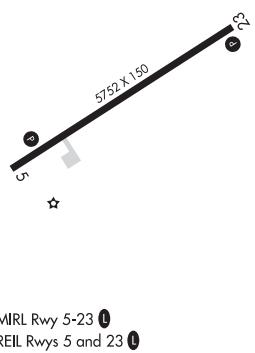
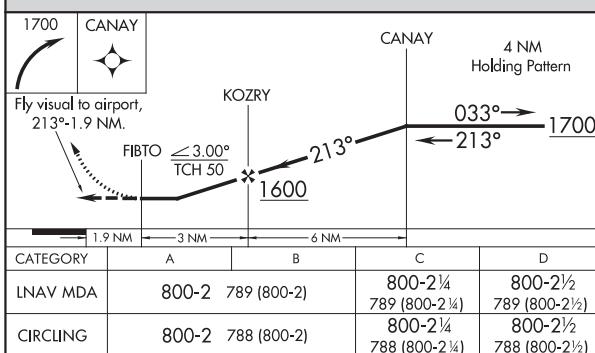
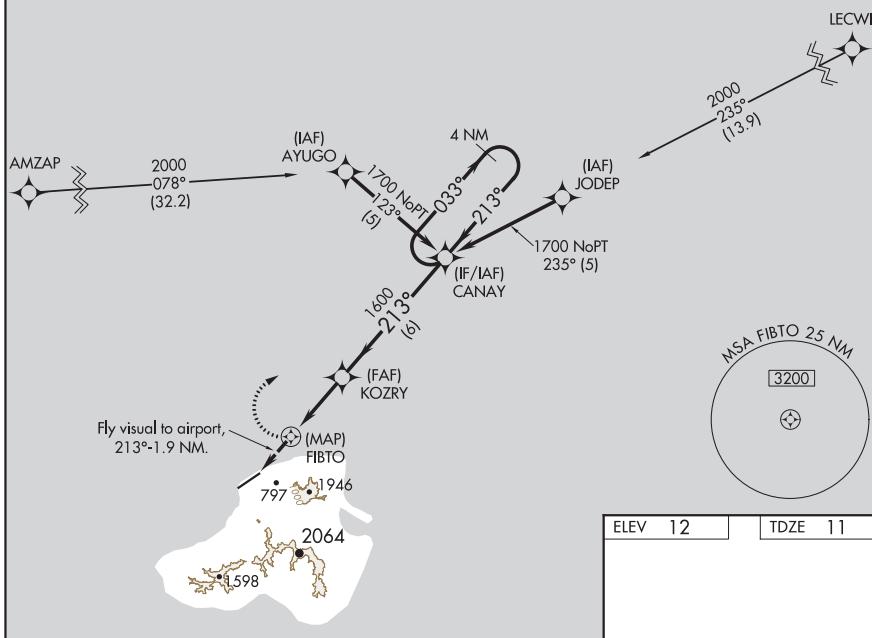
# RNAV (GPS) RWY 23

KOSRAE (TTK)(PTSA)

**V** 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-C 02DEC21

05°21'N-162°58'E

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

KOSRAE, FM

AL-6887 (FAA)

21336

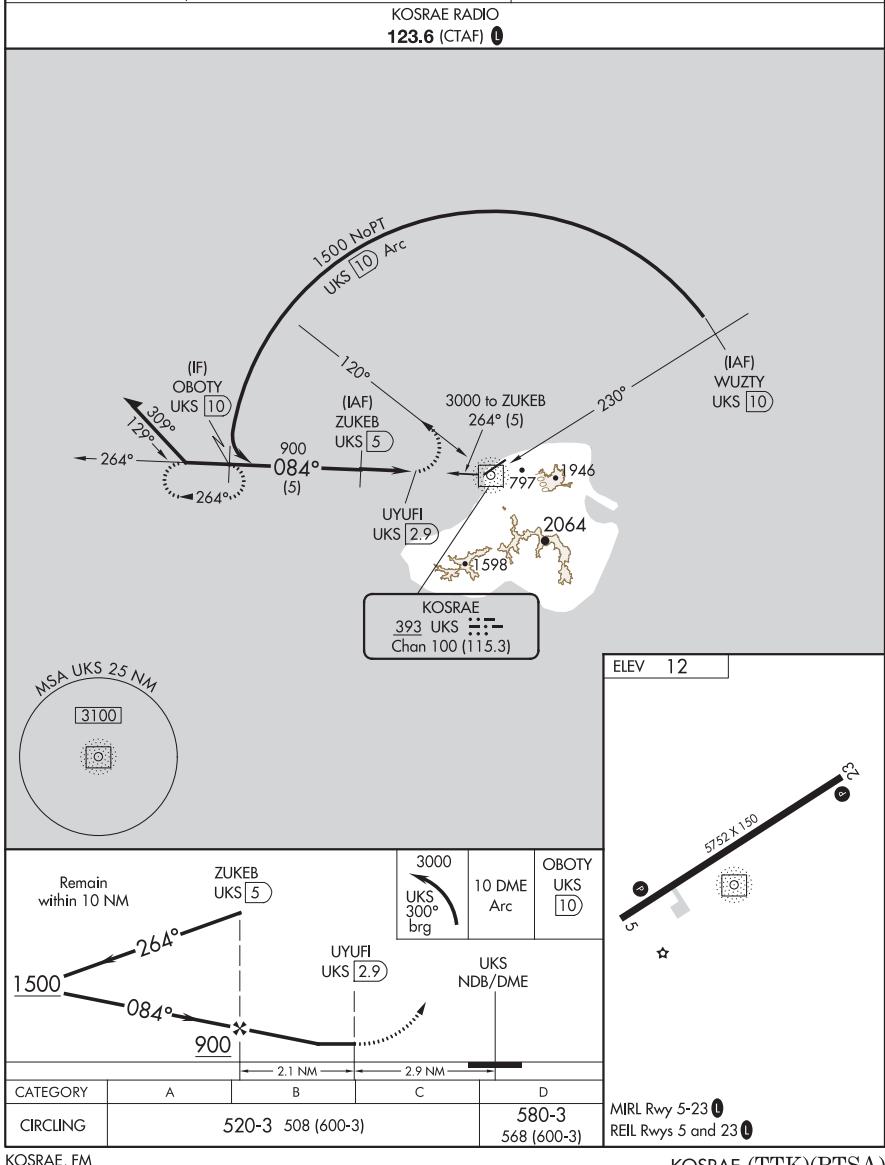
|                                               |                        |                             |                                       |
|-----------------------------------------------|------------------------|-----------------------------|---------------------------------------|
| NDB/DME UKS<br><b>393</b><br>Chan 100 (115.3) | APP CRS<br><b>084°</b> | Rwy Idg<br>TDZE<br>Apt Elev | <b>N/A</b><br><b>N/A</b><br><b>12</b> |
|-----------------------------------------------|------------------------|-----------------------------|---------------------------------------|

DME required.

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

KOSRAE RADIO  
**123.6 (CTAF)****NDB-A**  
KOSRAE (TTK)(PTSA)

MISSSED APPROACH: Climbing left turn to 3000 on UKS NDB/DME 300° bearing and 10 DME Arc to OBOTY/10 DME.

KOSRAE, FM  
Orig-D 02DEC21

05°21'N-162°58'E

KOSRAE (TTK)(PTSA)  
**NDB-A**

LANAI CITY, HAWAII

AL-777 (FAA)

23166

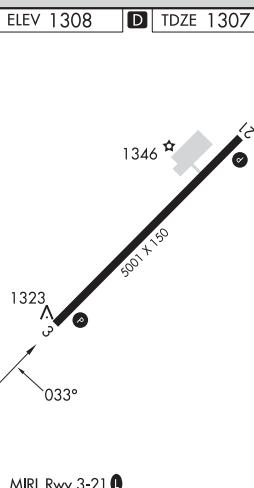
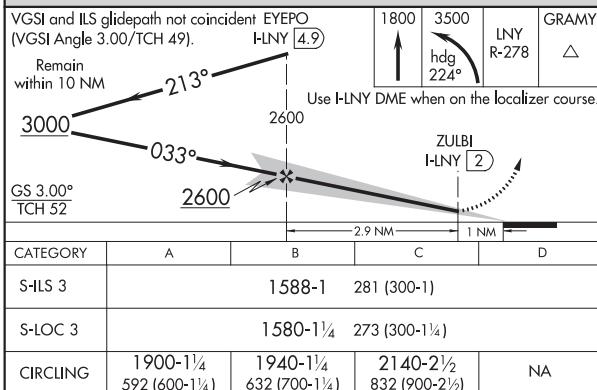
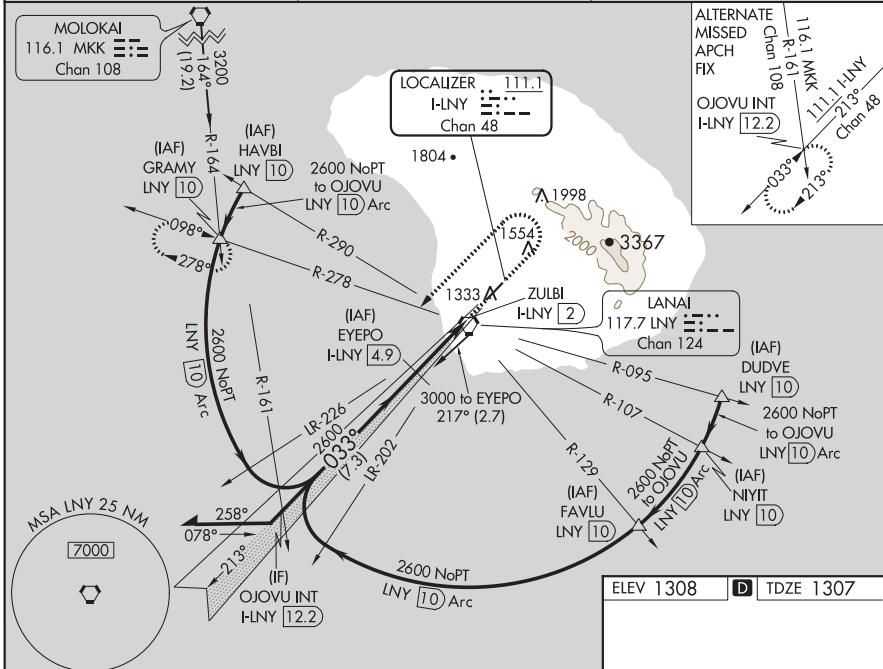
|                                   |                 |                  |
|-----------------------------------|-----------------|------------------|
| LOC/DME I-LNY<br>111.1<br>Chan 48 | APP CRS<br>033° | Rwy Idg<br>5000  |
|                                   |                 | TDZE<br>1307     |
|                                   |                 | Apt Elev<br>1308 |

ILS or LOC RWY 3  
LANAI (LNY)(PHNY)

DME required.

**T** Circling Rwy 21 NA at night. Autopilot coupled approach NA below 1505. When local altimeter setting not received, procedure NA, except for operators with approved weather reporting service. Circling NA for Cat C southeast of Rwy 3-21.

**MISSED APPROACH:** Climb to 1800 then climbing left turn to 3500 on heading 224° and LNY VORTAC R-278 to GRAMY INT/LNY VORTAC 10 DME and hold.

AVOS-3P  
118.375HCF CENTER  
119.3 307.1CTAF  
122.9 0

LANAI CITY, HAWAII

Amdt 1C 12AUG21

20°47'N-156°57'W

LANAI (LNY)(PHNY)  
ILS or LOC RWY 3

LANAI CITY, HAWAII

AL-777 (FAA)

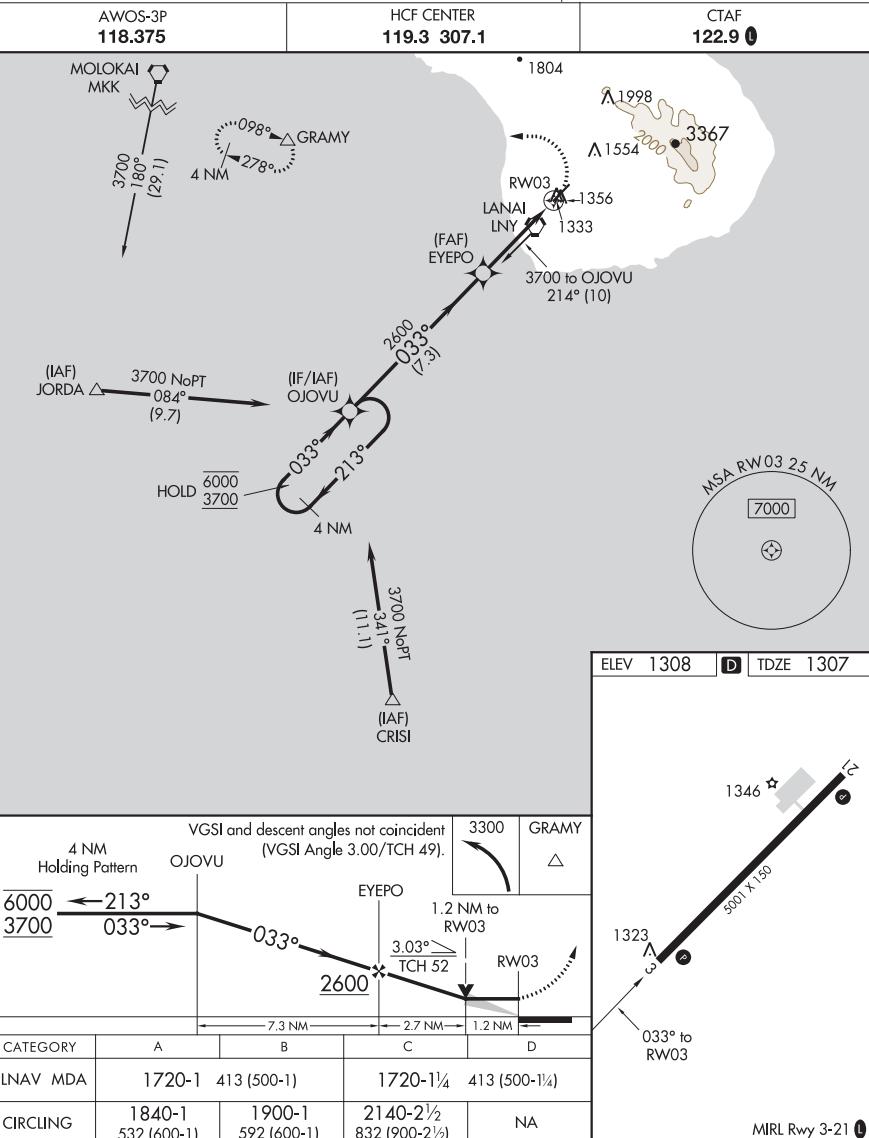
21224

|                 |                  |
|-----------------|------------------|
| APP CRS<br>033° | Rwy Idg<br>5000  |
|                 | TDZE<br>1307     |
|                 | Apt Elev<br>1308 |

RNP APCH.

V 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 Cat C southeast of Rwy 3-21.

## RNAV (GPS) RWY 3 LANAI (LNY)(PHNY)



LANAI CITY, HAWAII

Orig-D 12AUG21

20°47'N-156°57'W

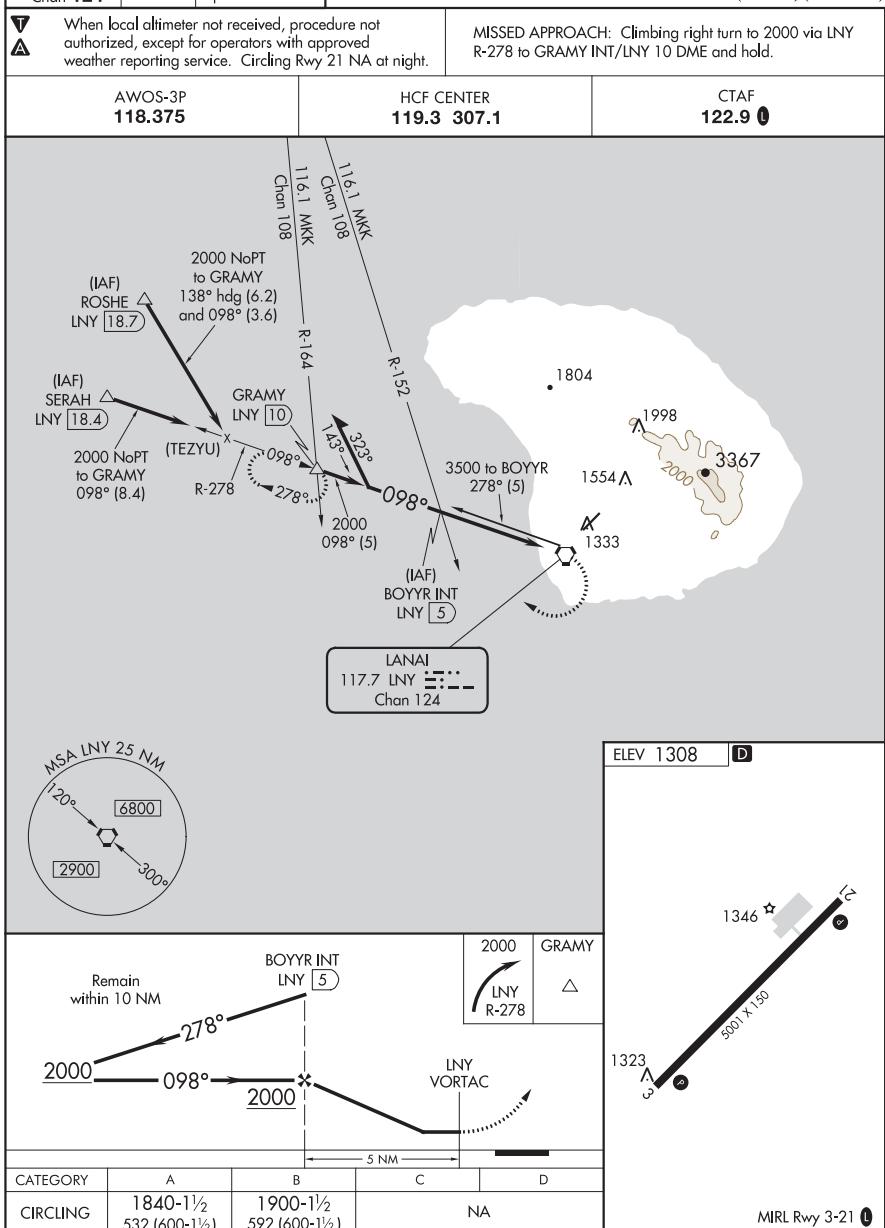
LANAI (LNY)(PHNY)  
RNAV (GPS) RWY 3

LANAI CITY, HAWAII

AL-777 (FAA)

21224

|                                 |                 |                             |                    |
|---------------------------------|-----------------|-----------------------------|--------------------|
| VORTAC LNY<br>117.7<br>Chan 124 | APP CRS<br>098° | Rwy Idg<br>TDZE<br>Apt Elev | N/A<br>N/A<br>1308 |
|---------------------------------|-----------------|-----------------------------|--------------------|

VOR or TACAN or GPS-A  
LANAI (LNY)(PHNY)

LANAI CITY, HAWAII

Amdt 8B 12AUG21

20°47'N-156°57'W

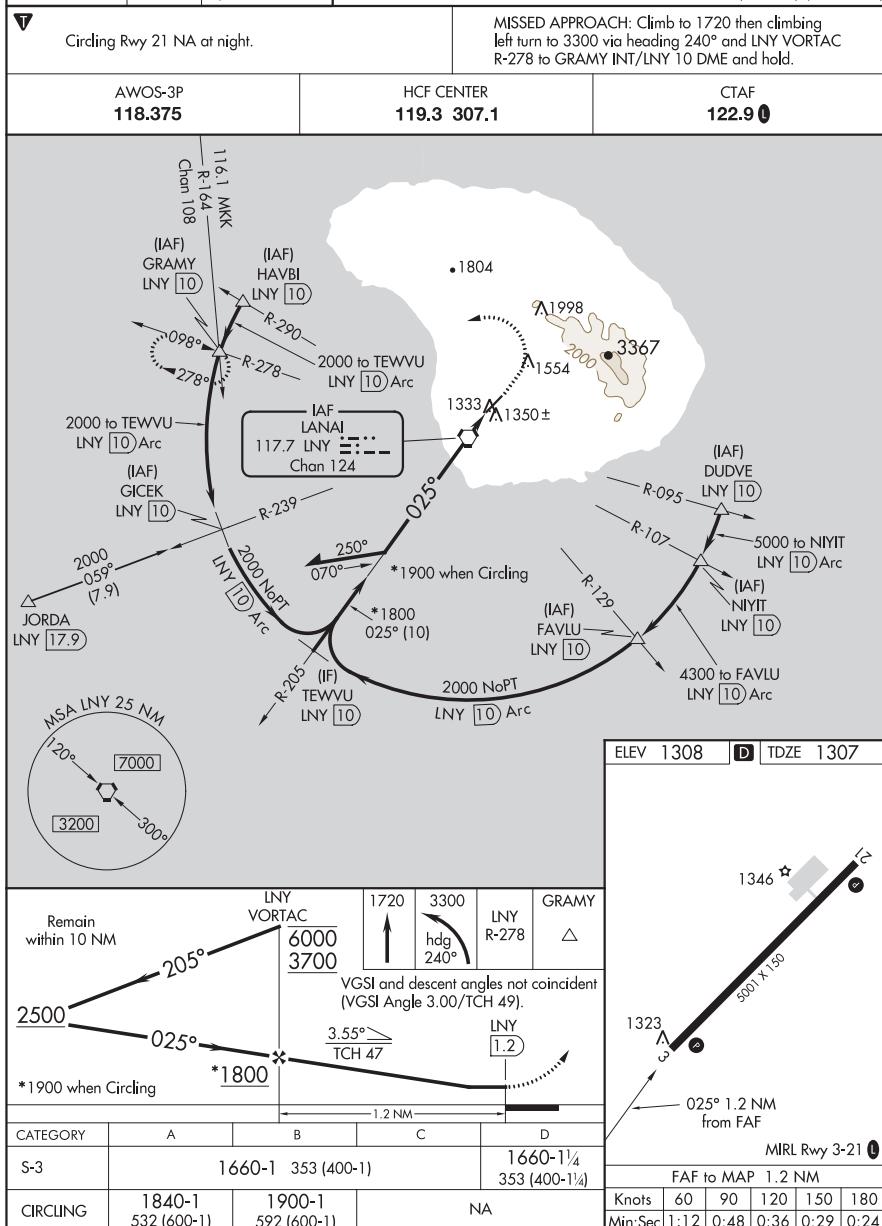
LANAI (LNY)(PHNY)  
VOR or TACAN or GPS-A

LANAI CITY, HAWAII

AL-777 (FAA)

21224

|                                 |                 |                             |                      |
|---------------------------------|-----------------|-----------------------------|----------------------|
| VORTAC LNY<br>117.7<br>Chan 124 | APP CRS<br>025° | Rwy Idg<br>TDZE<br>Apt Elev | 5000<br>1307<br>1308 |
|---------------------------------|-----------------|-----------------------------|----------------------|

VOR or TACAN RWY 3  
LANAI (LNY)(PHNY)LANAI (LNY)(PHNY)  
VOR or TACAN RWY 3

LIHUE, HAWAII

AL-776 (FAA)

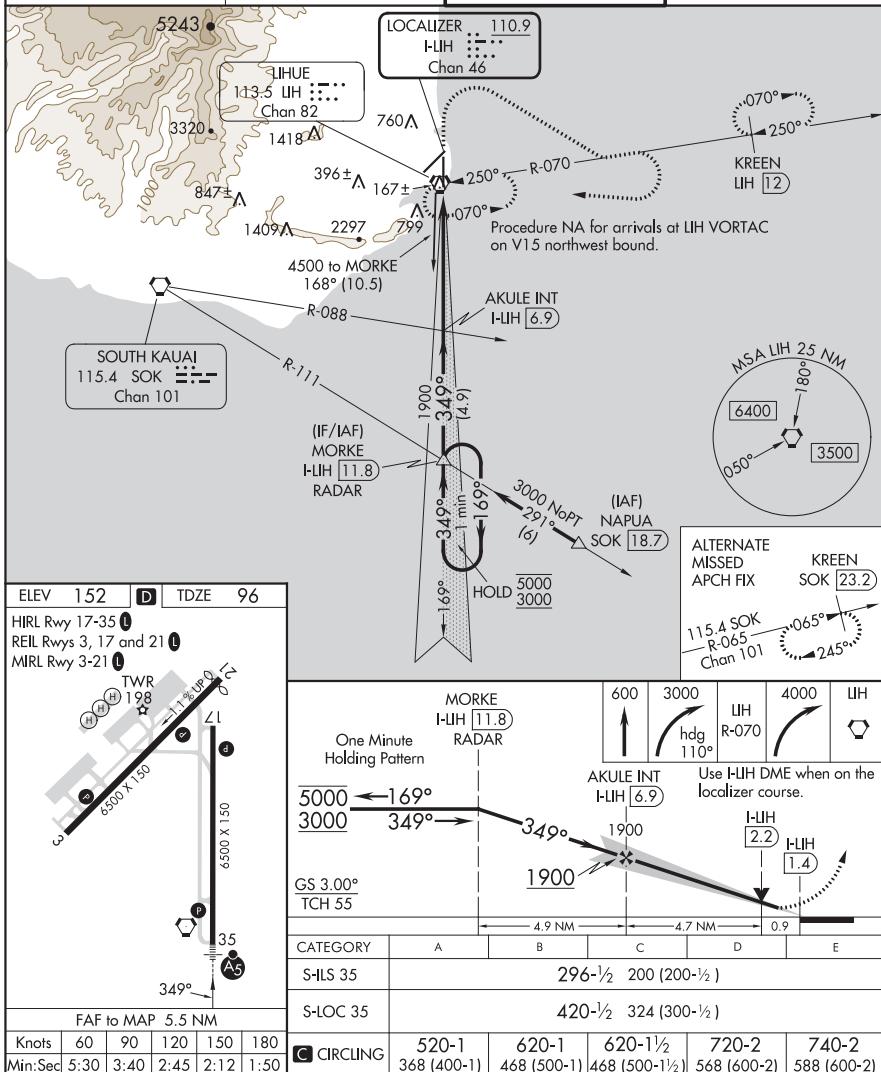
24025

|                                   |                 |               |             |             |
|-----------------------------------|-----------------|---------------|-------------|-------------|
| LOC/DME I-LIH<br>110.9<br>Chan 46 | APP CRS<br>349° | Rwy Idg<br>96 | TDZE<br>152 | 6500<br>152 |
|-----------------------------------|-----------------|---------------|-------------|-------------|

MALS R



MISSSED APPROACH: Climb to 600 then climbing right turn to 3000 on heading 110° and LIH VORTAC R-070 then climbing right turn to 4000 direct LIH VORTAC and hold. (TACAN or DME equipped aircraft continue on LIH VORTAC R-070 to KRENN/LIH VORTAC 12 DME and hold, east, RT, 250° inbound, continue climb-in to 3000).

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

LIHUE, HAWAII

Amdt 7 23FEB23

21°59'N-159°20'W

LIHUE (LIH)(PHLI)

ILS or LOC RWY 35

LIHUE, HAWAII

AL-776 (FAA)

23166

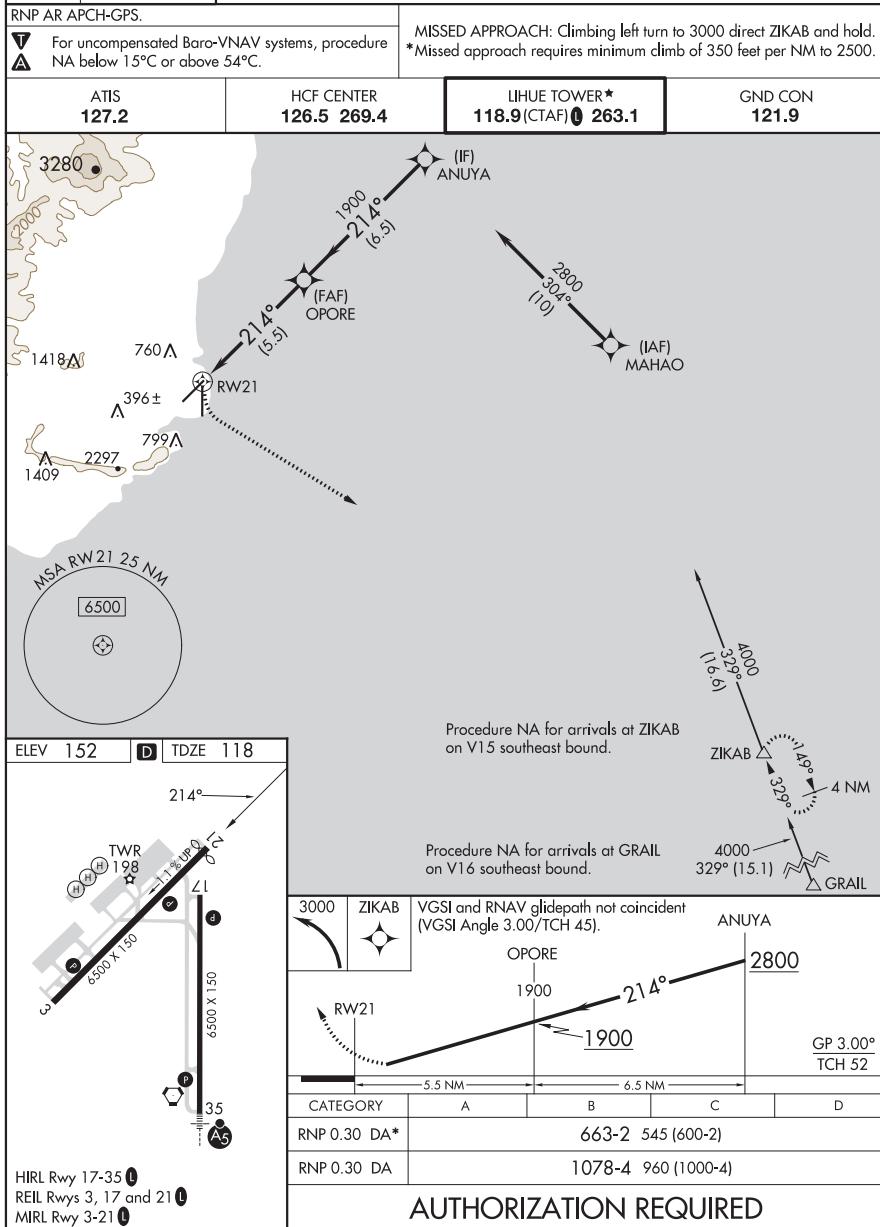
|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>214°</b> | Rwy Idg<br><b>6295</b> |
| TDZE<br><b>118</b>     | Apt Elev<br><b>152</b> |
|                        |                        |

RNP AR APCH-GPS.

▼ For uncompensated Baro-VNAV systems, procedure NA below 15°C or above 54°C.

## RNAV (RNP) Z RWY 21

LIHUE (LIH)(PHLI)



HIHL Rwy 17-35 L

REIL Rwy 3, 17 and 21 L

MIRL Rwy 3-21 L

Orig-B 07OCT21

21°59'N-159°20'W

LIHUE, HAWAII

AL-776 (FAA)

23166

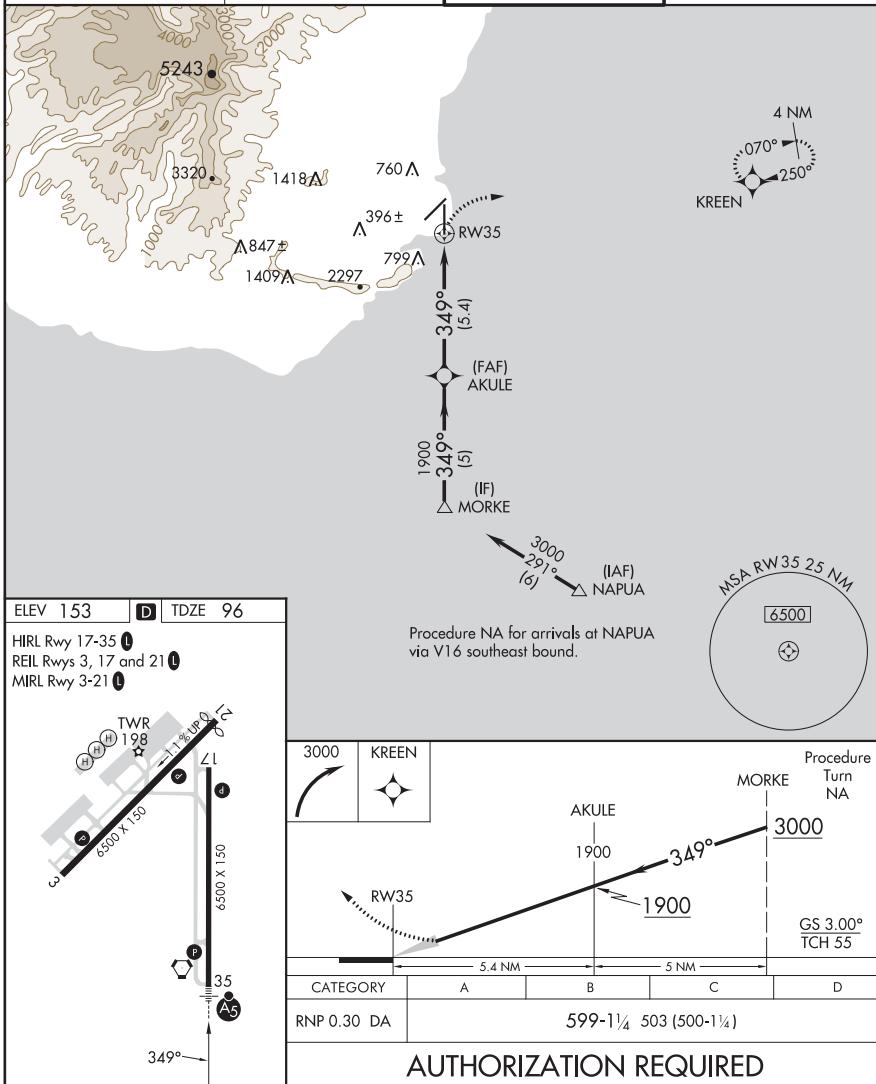
|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>349°</b> | Rwy Idg<br><b>6500</b> |
|                        | TDZE<br><b>96</b>      |
|                        | Apt Elev<br><b>153</b> |

**RNAV (RNP) Z RWY 35**  
LIHUE (LIH)(PHLI)

▼ GPS required. For inoperative MALSR, increase RNP 0.30 visibility to  $1\frac{3}{4}$ . For uncompensated Baro-VNAV systems, procedure NA below  $14^{\circ}\text{C}$  ( $57^{\circ}\text{F}$ ) or above  $48^{\circ}\text{C}$  ( $119^{\circ}\text{F}$ ).



MISSED APPROACH: Climbing right turn to 3000 direct KREEN and hold.

ATIS  
**127.2**HCF CENTER  
**126.5 269.4**LIHUE TOWER ★  
**118.9(CTAF) 0 263.1**GND CON  
**121.9**

LIHUE, HAWAII

Orig-A 20OCT11

21°59'N-159°20'W

LIHUE (LIH)(PHLI)

**RNAV (RNP) Z RWY 35**

LIHUE, HAWAII

AL-776 (FAA)

23166

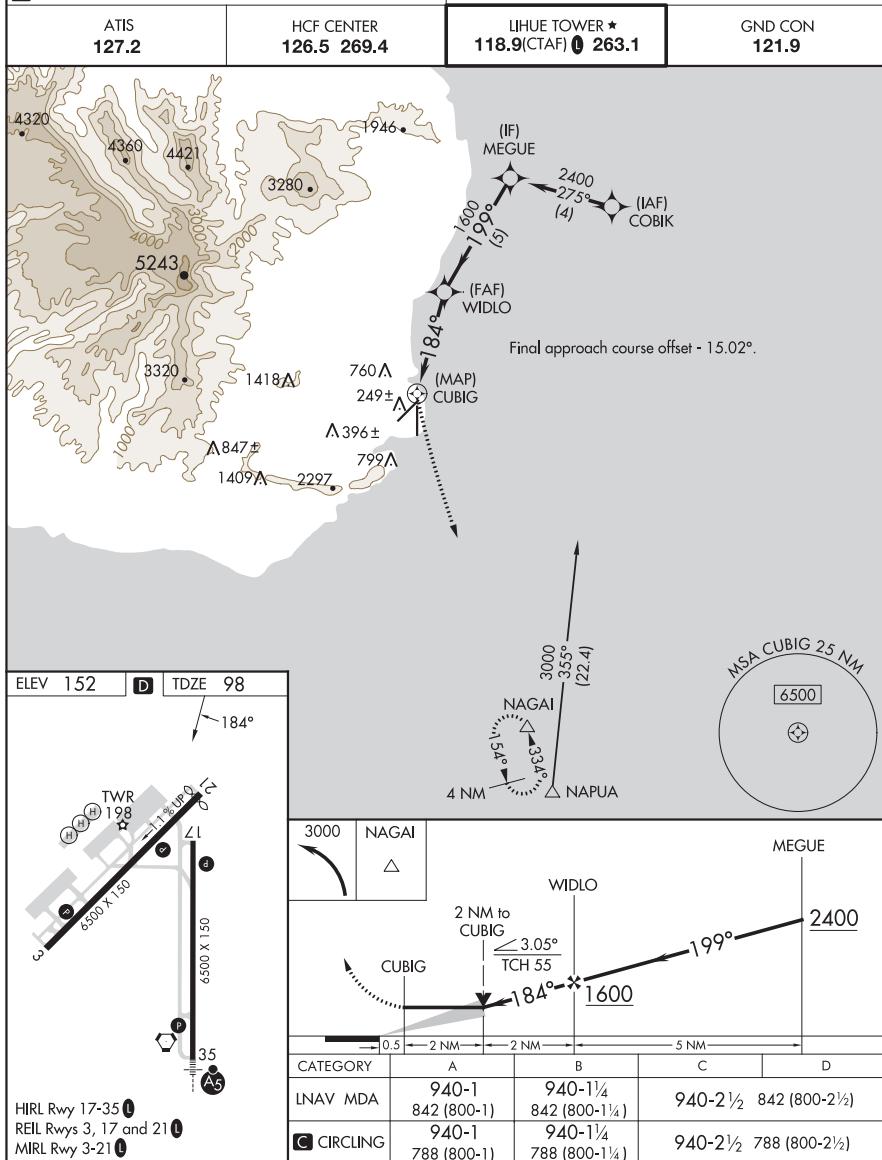
|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>184°</b> | Rwy Idg<br><b>6500</b> |
| TDZE<br><b>98</b>      | Apt Elev<br><b>152</b> |
|                        |                        |

RNP APCH-GPS.

Circling NA at night. Circling NA west of Rwy 17-35.

## RNAV (GPS) RWY 17

LIHUE (LIH)(PHLI)



LIHUE, HAWAII

Orig-B 23FEB23

21°59'N-159°20'W

LIHUE (LIH)(PHLI)

## RNAV (GPS) RWY 17

LIHUE, HAWAII  
 APP CRS 214°  
 Rwy Idg 6295  
 TDZE 118  
 Apt Elev 152

AL-776 (FAA)

24025

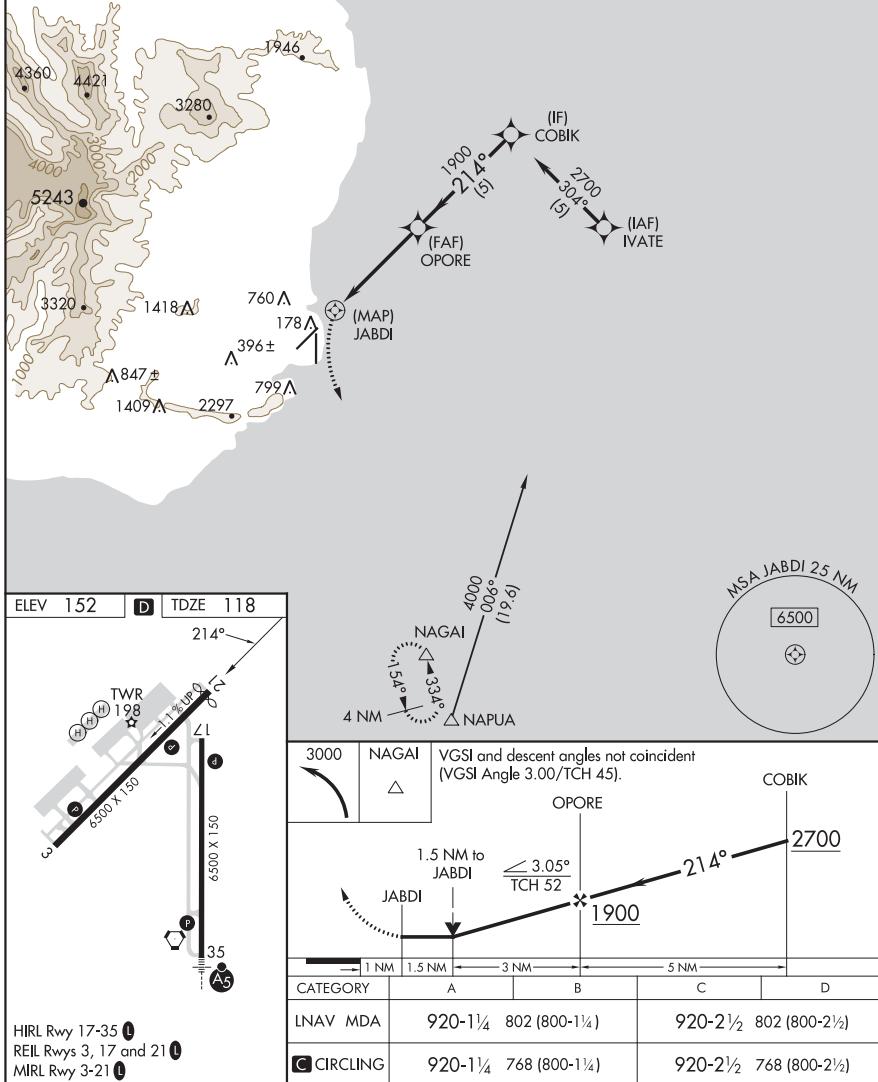
# RNAV (GPS) Y RWY 21

LIHUE (LIH)(PHLI)

RNP APCH-GPS.

Circling NA at night. Circling NA west of Rwy 17-35.  
 Rwy 21 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

MISSSED APPROACH: Climbing left turn to 3000 direct NAGAI and hold.

ATIS  
127.2HCF CENTER  
126.5 269.4LIHUE TOWER ★  
118.9 (CTAF) 0 263.1GND CON  
121.9

LIHUE, HAWAII  
 Orig-C 23FEB23

21°59'N-159°20'W

LIHUE (LIH)(PHLI)  
 RNAV (GPS) Y RWY 21

LIHUE, HAWAII

AL-776 (FAA)

23166

|                 |                       |             |
|-----------------|-----------------------|-------------|
| APP CRS<br>349° | Rwy Idg<br>TDZE<br>96 | <b>6500</b> |
|                 | Apt Elev              | <b>153</b>  |

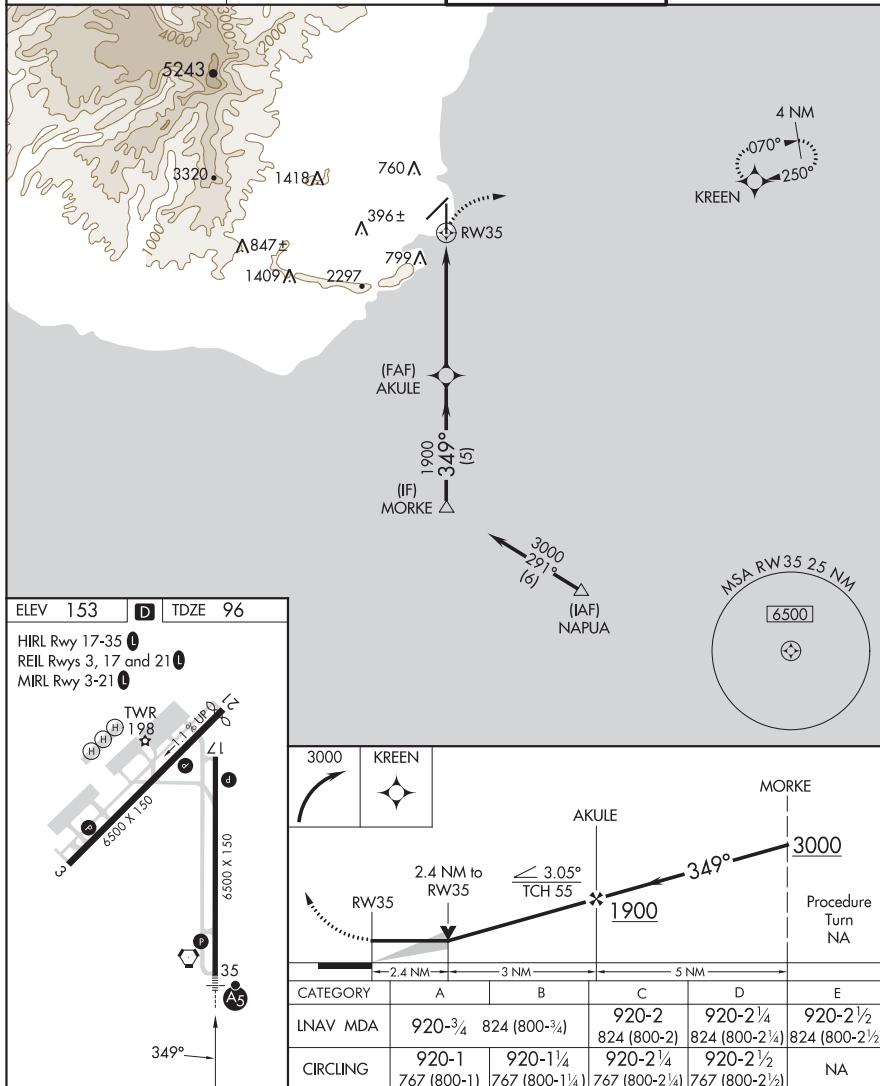


For inoperative MALSR, increase LNAV Cat A visibility to 1 mile and Cat E to 3 miles. Circling NA west of Rwy 17-35. Circling NA at night. DME/DME RNP-0.3 NA.

MALSR



MISSSED APPROACH: Climbing right turn to 3000 direct KREEN WP and hold.

ATIS  
127.2HCF CENTER  
126.5 269.4LIHUE TOWER \*  
118.9(CTA) 0 263.1GND CON  
121.9LIHUE, HAWAII  
Orig-D 05JUL07

21°59'N-159°20'W

LIHUE (LIH)(PHLI)

RNAV (GPS) Y RWY 35

LIHUE, HAWAII

AL-776 (FAA)

24025

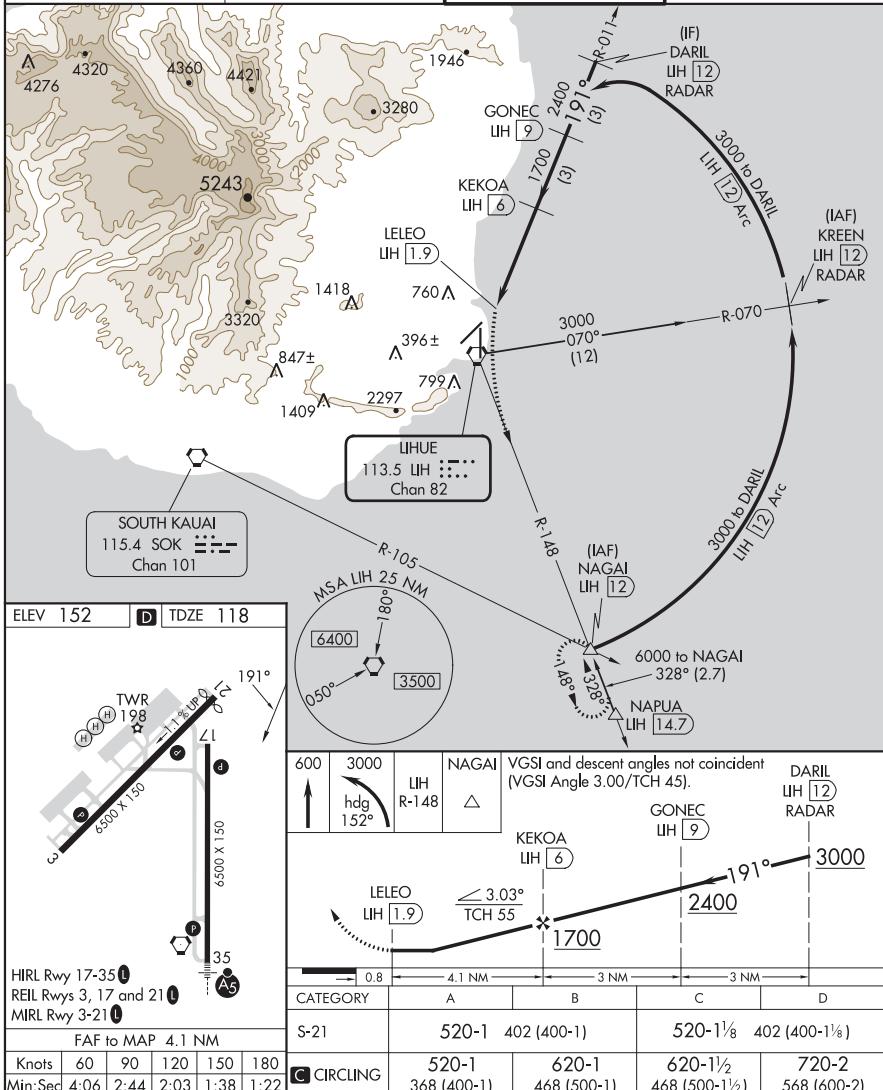
|                     |                 |                 |
|---------------------|-----------------|-----------------|
| VORTAC LIH<br>113.5 | APP CRS<br>191° | Rwy Idg<br>6295 |
| Chan 82             |                 | TDZE 118        |
|                     |                 | Apt Elev 152    |

DME required.

▼ Circling NA at night. Circling NA west of Rwy 17-35.  
 ▲ Rwy 21 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

VOR or TACAN RWY 21  
LIHUE (LIH)(PHLI)

|               |                           |                                      |                  |
|---------------|---------------------------|--------------------------------------|------------------|
| ATIS<br>127.2 | HCF CENTER<br>126.5 269.4 | LIHUE TOWER ★<br>118.9(CTAF) 0 263.1 | GND CON<br>121.9 |
|---------------|---------------------------|--------------------------------------|------------------|



LIHUE, HAWAII

Amdt 5 20APR23

21°59'N-159°20'W

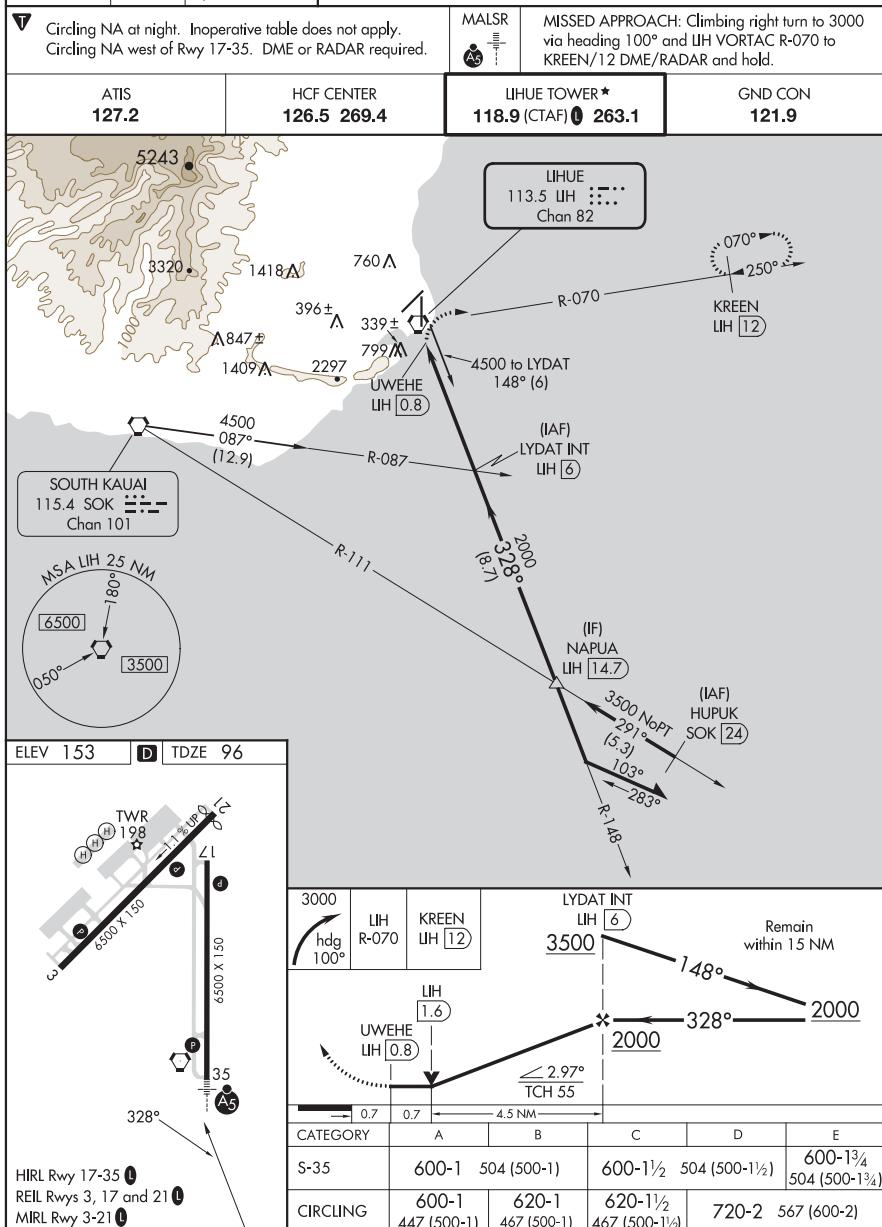
LIHUE (LIH)(PHLI)  
VOR or TACAN RWY 21

LIHUE, HAWAII

|                                |                 |                                         |
|--------------------------------|-----------------|-----------------------------------------|
| VORTAC LIH<br>113.5<br>Chan 82 | APP CRS<br>328° | Rwy Idg 6500<br>TDZE 96<br>Apt Elev 153 |
|--------------------------------|-----------------|-----------------------------------------|

AL-776 (FAA)

24025

VOR or TACAN RWY 35  
LIHUE (LIH)(PHLI)LIHUE, HAWAII  
Amdt 7A 25AUG11

21°59'N 159°20'W

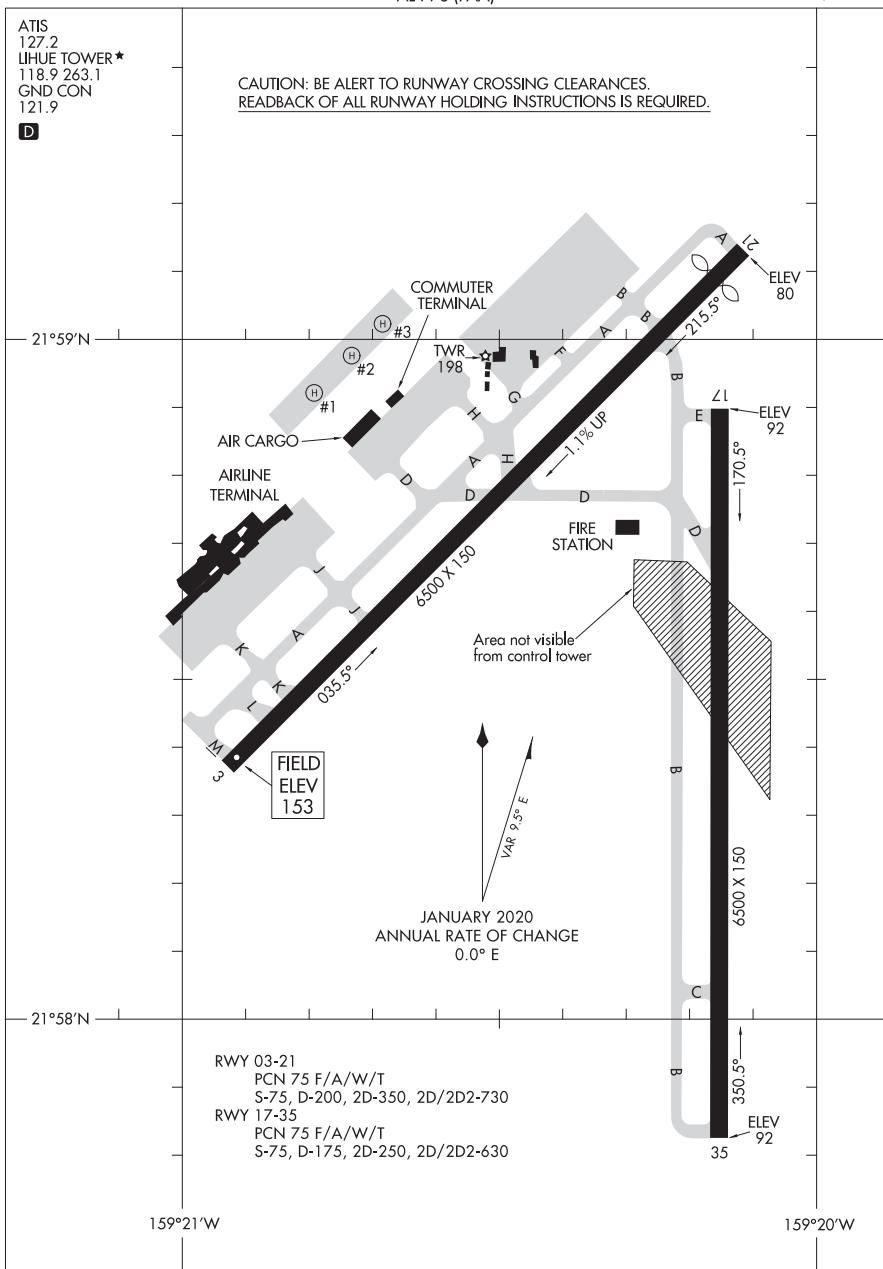
LIHUE (LIH)(PHLI)

VOR or TACAN RWY 35

20310

## AIRPORT DIAGRAM

AL-776 (FAA)

LIHUE (LIH)(PHLI)  
LIHUE, HAWAII

## AIRPORT DIAGRAM

20310

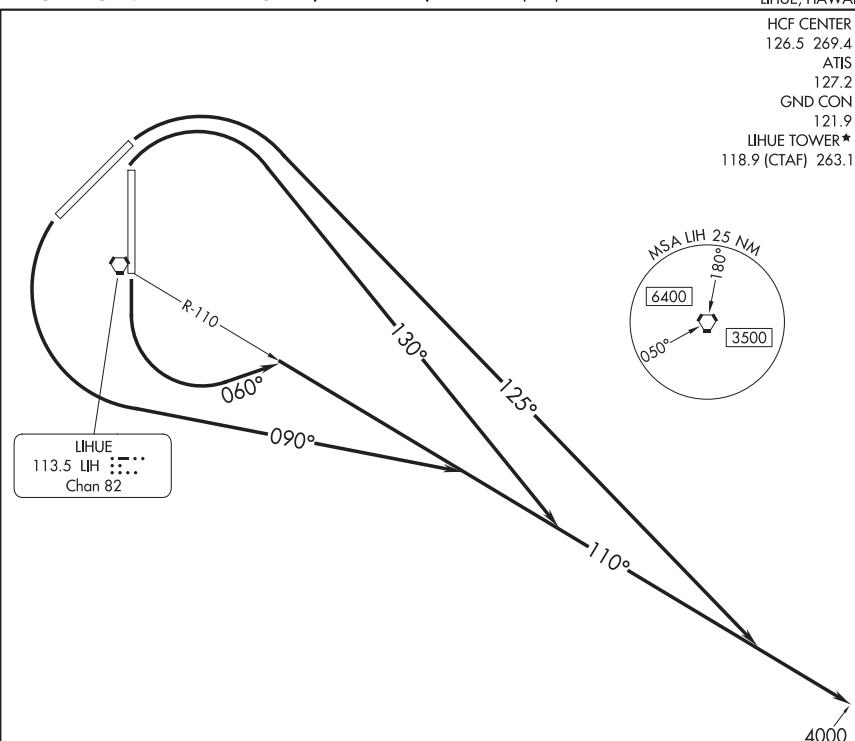
(KAUAI1.KAUAI) 24025

## KAUAI ONE DEPARTURE (OBSTACLE)

AL-776 (FAA)

LIHUE (LIH)(PHLI)  
LIHUE, HAWAII

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

**TAKEOFF MINIMUMS**

Rwy 3, 17, 35: Standard

Rwy 21: Standard with minimum climb of 720' per NM to 2100 or 4900-3 for VCOA.

NOTE: Rwy 21: Obtain ATC approval for VCOA when requesting IFR clearance. Climb in visual conditions to cross Lihue Airport at or above 4900 before proceeding on course.

NOTE: Chart not to scale.

(CONTINUED ON FOLLOWING PAGE)

**DEPARTURE ROUTE DESCRIPTION****TAKEOFF RUNWAY 3:** Climbing right turn to heading 125° thence. . . .**TAKEOFF RUNWAY 17:** Climbing left turn to heading 060° thence. . . .**TAKEOFF RUNWAY 21:** Climbing left turn to heading 090° thence. . . .**TAKEOFF RUNWAY 35:** Climbing right turn to heading 130° thence. . . .

. . . intercept LIH VORTAC R-110 eastbound to 4000 before proceeding on course.

KAUAI ONE DEPARTURE (OBSTACLE)  
(KAUAI1.KAUAI) 15JUN23LIHUE, HAWAII  
LIHUE (LIH)(PHLI)

(KAUAI1.KAUAI) 23166

KAUAI ONE DEPARTURE (OBSTACLE)

AL-776 (FAA)

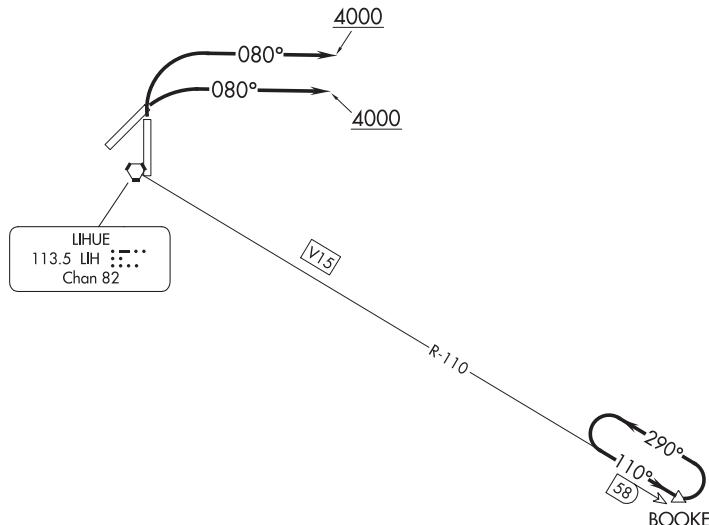
LIHUE (LIH)(PHLI)  
LIHUE, HAWAIITAKEOFF OBSTACLE NOTES

- Rwy 3: Navaid 85' from DER, 418' left of centerline, 8' AGL/85' MSL.  
 Trees beginning 221' from DER, 188' right of centerline, up to 35' AGL/88' MSL.  
 Trees beginning 240' from DER, 19' right of centerline, up to 43' AGL/95' MSL.  
 Trees beginning 250' from DER, 7' left of centerline, up to 34' AGL/93' MSL.  
 Trees beginning 395' from DER, 38' left of centerline, up to 34' AGL/94' MSL.  
 Trees beginning 415' from DER, 39' left of centerline, up to 39' AGL/95' MSL.  
 Trees beginning 431' from DER, 38' left of centerline, up to 34' AGL/103' MSL.  
 Trees beginning 473' from DER, 14' left of centerline, up to 50' AGL/107' MSL.  
 Tree 541' from DER 4' right of centerline 54' AGL/103' MSL.  
 Trees beginning 548' from DER, 8' right of centerline, up to 56' AGL/104' MSL.  
 Tree 972' from DER, 676' left of centerline, 68' AGL/115' MSL.  
 Tree 1563' from DER, 538' left of centerline, 90' AGL/127' MSL.  
 Tree 1750' from DER, 783' left of centerline, 120' AGL/165' MSL.
- Rwy 17: Light poles 4' from DER, 6' left of centerline, 2' AGL/94' MSL.  
 Tree 135' from DER, 272' right of centerline, 10' AGL/95' MSL.  
 Trees beginning 857' from DER, 565' right of centerline, up to 45' AGL/131' MSL.  
 Tree 1289' from DER, 734' right of centerline, 57' AGL/132' MSL.
- Rwy 21: Light poles 9' from DER, 54' left of centerline, 3' AGL/154' MSL.  
 Light poles 9' from DER, 55' right of centerline, 3' AGL/155' MSL.  
 Terrain 33' from DER, 457' right of centerline, 156' MSL.  
 Pole 192' from DER, 546' left of centerline, 44' AGL/183' MSL.  
 Pole 366' from DER, 550' left of centerline, 46' AGL/184' MSL.  
 Tree, pole beginning 497' from DER, 563' left of centerline, up to 70' AGL/206' MSL.  
 Trees beginning 1148' from DER, 231' right of centerline, up to 42' AGL/203' MSL.  
 Tree 1457' from DER, 185' right of centerline, 67' AGL/212' MSL.  
 Trees beginning 1466' from DER, 53' right of centerline, up to 77' AGL/230' MSL.  
 Trees beginning 1510' from DER, 62' right of centerline, up to 87' AGL/241' MSL.  
 Tree 1536' from DER, 3' left of centerline, 70' AGL/208' MSL.  
 Tree, pole beginning 1660' from DER, 9' right of centerline, up to 96' AGL/248' MSL.  
 Trees beginning 1903' from DER, 267' left of centerline, up to 68' AGL/217' MSL.  
 Tree 2017' from DER, 280' left of centerline, 70' AGL/218' MSL.  
 Trees beginning 2029' from DER, 296' left of centerline, up to 73' AGL/221' MSL.  
 Trees beginning 2212' from DER, 337' left of centerline, up to 82' AGL/227' MSL.  
 Tree 3102' from DER, 442' left of centerline, 107' AGL/231' MSL.  
 Trees beginning 2.1 NM from DER, 2126' left of centerline, up to 3' AGL/896' MSL.  
 Tree 2.2 NM from DER, 2973' left of centerline, 25' AGL/947' MSL.  
 Trees beginning 2.2 NM from DER, 2747' left of centerline, 212' AGL/1329' MSL.  
 Tree 2.3 NM from DER, 3671' left of centerline, 2' AGL/1474' MSL.  
 Tree 2.4 NM from DER, 4032' left of centerline, 100' AGL/1488' MSL.  
 Trees beginning 2.4 NM from DER, 2595' left of centerline, 100' AGL/1488' MSL.  
 Trees beginning 2.5 NM from DER, 3483' left of centerline, up to 23' AGL/1294' MSL.
- Rwy 35: Fence 40' from DER, 308' right of centerline, 13' AGL/94' MSL.  
 Tree 106' from DER, 435' right of centerline, 19' AGL/100' MSL.  
 Trees beginning 203' from DER, 379' right of centerline, up to 51' AGL/131' MSL.

KAUAI ONE DEPARTURE (OBSTACLE)  
(KAUAI1.KAUAI) 15JUN23LIHUE, HAWAII  
LIHUE (LIH)(PHLI)

(LIHUE6.BOOKE) 24025  
LIHUE SIX DEPARTURE

AL-776 (FAA)

LIHUE (LIH)(PHLI)  
LIHUE, HAWAIIHCF CENTER  
126.5 269.4TOP ALTITUDE:  
ASSIGNED BY ATCTAKEOFF MINIMUMS

Rwy 3: Standard.

Rwy 35: Standard with minimum climb of 230' per NM to 700.

NOTE: RADAR required.

NOTE: DME required.

NOTE: Chart not to scale.



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 3, 35: Climbing right turn heading 080° to 4000, thence. . . .

. . . Expect RADAR vectors to intercept LIH VORTAC R-110 to BOOKE/LIH 58 DME fix, maintain ATC assigned altitude. Expect clearance to filed altitude/flight level 10 minutes after departure.

LOST COMMUNICATIONS: If not in contact with HCF 1 minute after departure, maintain SID heading until 10 NM east of LIH VORTAC, then intercept LIH R-110 to BOOKE DME fix.

LIHUE SIX DEPARTURE  
(LIHUE6.BOOKE) 23FEB23

LIHUE, HAWAII  
LIHUE (LIH)(PHLI)

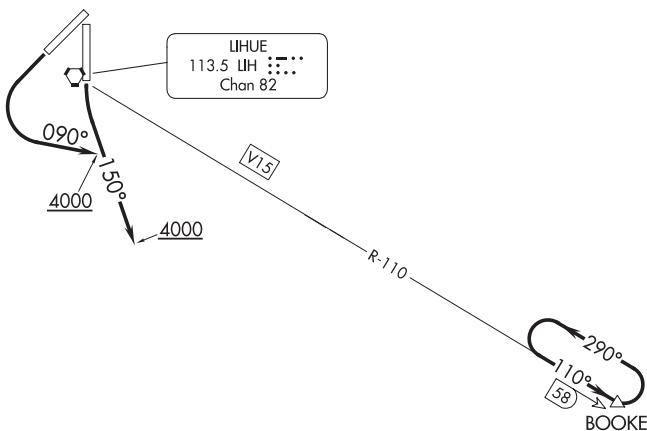
(RICHE3.BOOKE) 24025  
RICHE THREE DEPARTURE

AI-776 (FAA)

LIHUE (LIH)(PHLI)  
LIHUE, HAWAII

HCF CENTER  
126.5 269.4

**TOP ALTITUDE:  
ASSIGNED BY ATC**



#### TAKEOF MINIMUMS

Rwy 17: Standard.

Rwy 21: Standard with minimum climb of 720' per NM to 2100.

NOTE: RADAR required.

NOTE: DME required.

NOTE: Chart not to scale.



#### DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17: Climbing left turn heading 150° to 4000, thence . . . .

TAKEOFF RUNWAY 21: Climbing left turn heading 090° to 4000, thence . . . .

. . . . Expect RADAR vectors to intercept LIH VORTAC R-110 eastbound to BOOKE/LIH 58 DME fix, maintain ATC assigned altitude. Expect clearance to filed altitude/flight level 10 minutes after departure.

LOST COMMUNICATIONS: If not in contact with HCF 1 minute after departure maintain SID heading until 10 NM east of LIH VORTAC, then intercept LIH R-110 to BOOKE DME fix.

**RICHE THREE DEPARTURE**  
(RICHE3.BOOKE) 23FEB23

LIHUE, HAWAII  
LIHUE (LIH)(PHLI)

MAJURO ATOLL, MH

AL-6049 (FAA)

22195

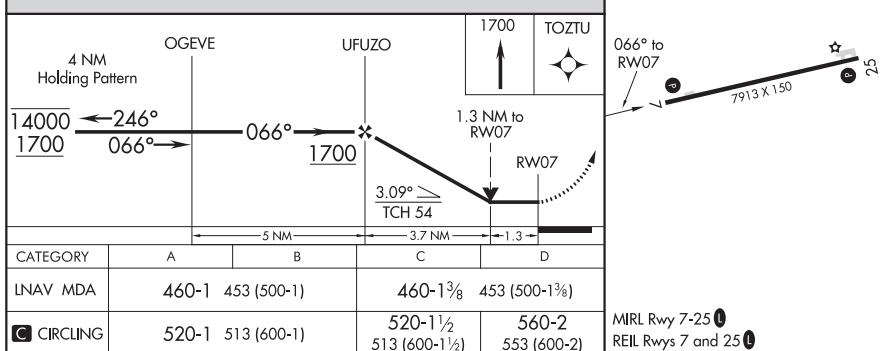
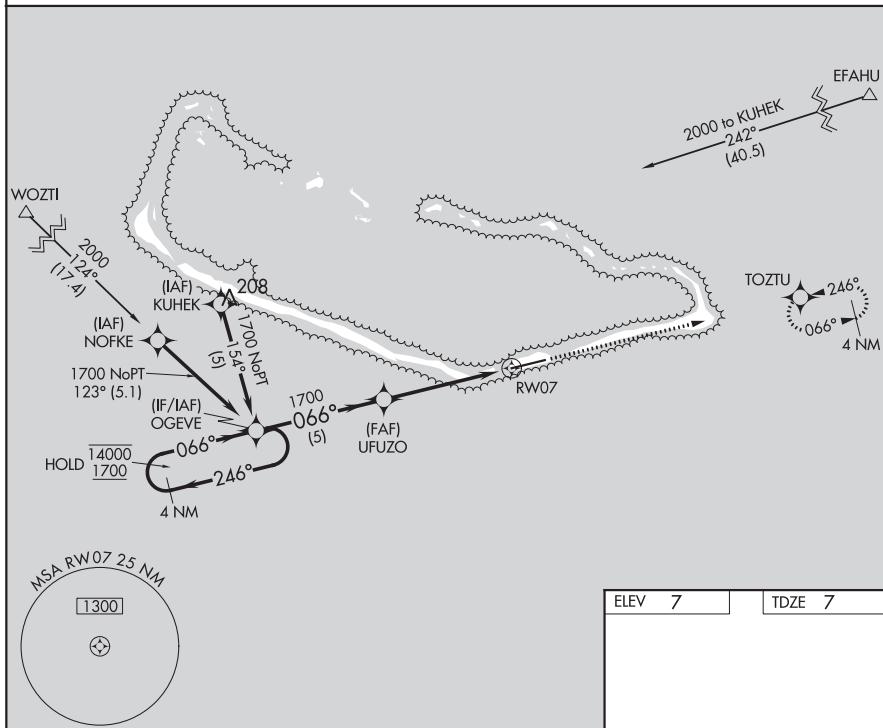
|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>066°</b> | Rwy Idg<br><b>7913</b> |
| TDZE<br><b>7</b>       |                        |
| Appt Elev<br><b>7</b>  |                        |

**RNAV (GPS) RWY 7**

AMATA KABUA INTL (MAJ)(PKMJ)

RNP APCH-GPS

|                                                                                                                                                                                     |                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| ▼ Rwy 7 helicopter visibility reduction below $\frac{3}{4}$ SM NA.<br>Obtain local altimeter setting on CTAF; when not received,<br>procedure NA. Uncontrolled airspace below 5500. | MISSIED APPROACH: Climb to 1700 direct TOZTU and hold. |
|                                                                                                                                                                                     | MAJURO RADIO<br><b>123.6 (CTAF)</b>                    |



MAJURO ATOLL, MH

Orig-F 14JUL22

AMATA KABUA INTL (MAJ)(PKMJ)

07°04'N-171°16'E

**RNAV (GPS) RWY 7**

MAJURO ATOLL, MH

AL-6049 (FAA)

22195

|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>246°</b> | Rwy Idg<br><b>7913</b> |
| TDZE<br><b>7</b>       | Apt Elev<br><b>7</b>   |
|                        |                        |

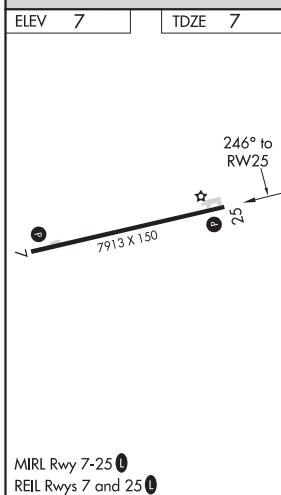
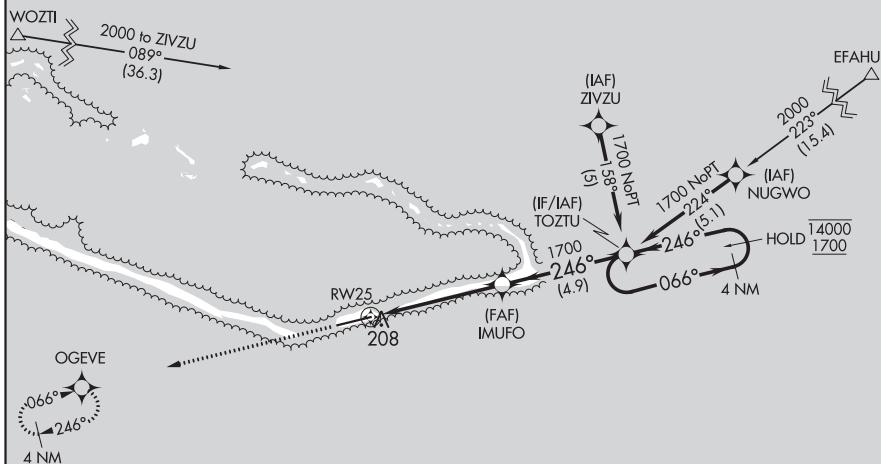
RNP APCH-GPS.

▼ Rwy 25 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.  
Obtain local altimeter setting on CTAFF; when not received,  
procedure NA. Uncontrolled airspace below 5500.

## RNAV (GPS) RWY 25

AMATA KABUA INTL (MAJ)(PKMJ)

MAJURO RADIO  
**123.6** (CTAF)



| 1700           |                   | OGEVE | VGSI and RNAV glidepath not coincident<br>(VGS Angle 3.00/TCH 46). | 4 NM Holding Pattern |             |
|----------------|-------------------|-------|--------------------------------------------------------------------|----------------------|-------------|
| 1.3 NM to RW25 | 1700              | IMUFO | TOZTU                                                              | 066° → 14000         | 246° ← 1700 |
| RW25           | 1.3 NM to RW25    | 1700  | 246°                                                               | 246°                 | 246°        |
| TCH 54         | 3.00°             | 1700  |                                                                    |                      |             |
| CATEGORY       | A                 | B     | C                                                                  | D                    |             |
| LNAV MDA       | 460-1 453 (500-1) |       | 460-1 $\frac{3}{8}$ 453 (500-1 $\frac{1}{2}$ )                     |                      |             |
| CIRCLING       | 520-1 513 (600-1) |       | 520-1 $\frac{1}{2}$ 513 (600-1 $\frac{1}{2}$ )                     | 560-2                | 553 (600-2) |

MAJURO ATOLL, MH  
Orig-F 14JUL22

07°04'N-171°16'E

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

MAJURO ATOLL, MH

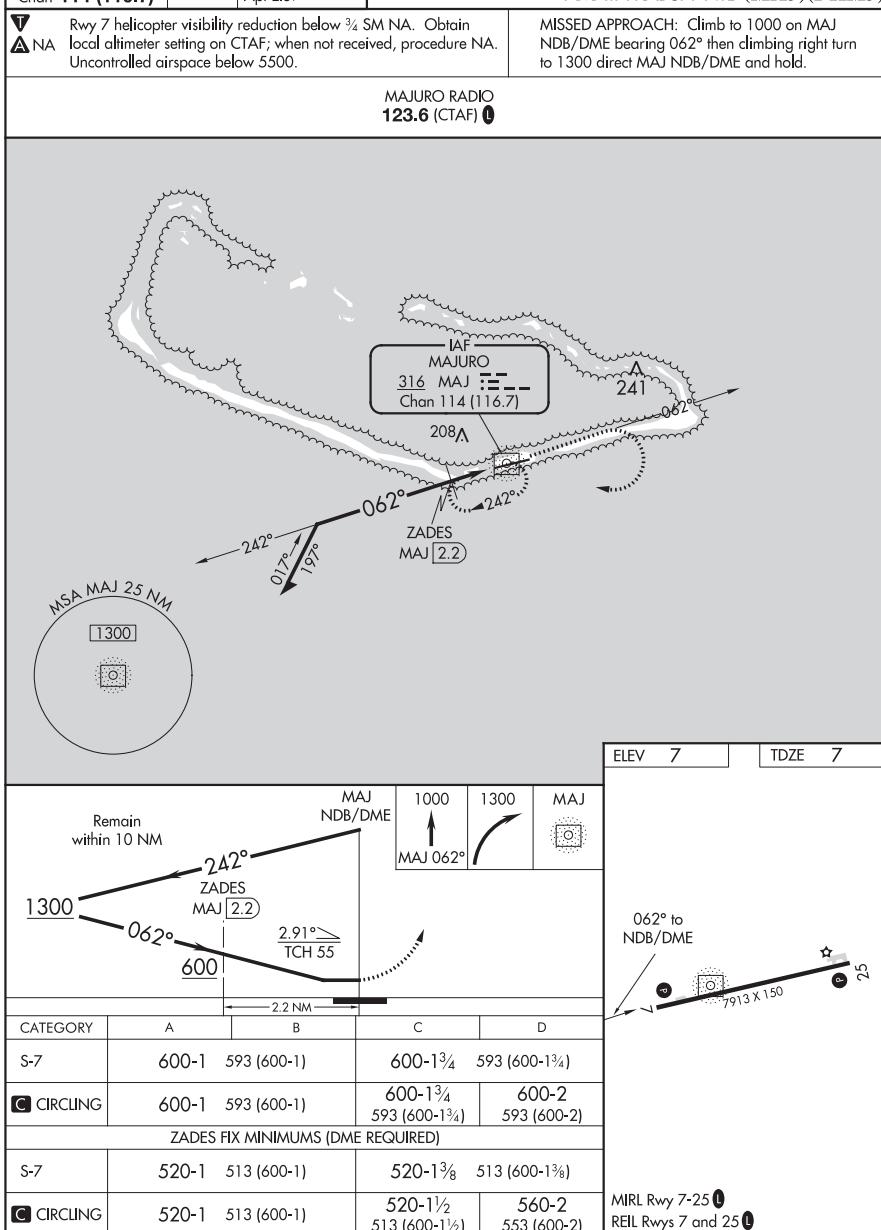
|                                        |                 |                                      |
|----------------------------------------|-----------------|--------------------------------------|
| NDB/DME MAJ<br>316<br>Chan 114 (116.7) | APP CRS<br>062° | Rwy Idg 7913<br>TDZE 7<br>Apt Elev 7 |
|----------------------------------------|-----------------|--------------------------------------|

AL-6049 (FAA)

21224

**NDB RWY 7**

AMATA KABUA INTL (MAJ)(PKMJ)

MAJURO ATOLL, MH  
Amdt 1B 31DEC20

07°04'N-171°16'E

AMATA KABUA INTL (MAJ)(PKMJ)  
**NDB RWY 7**

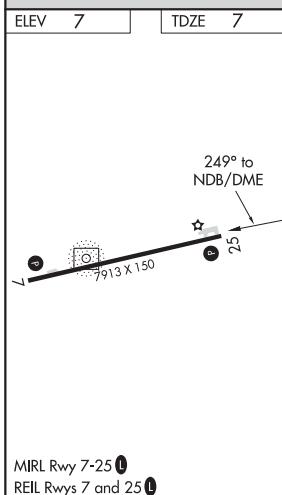
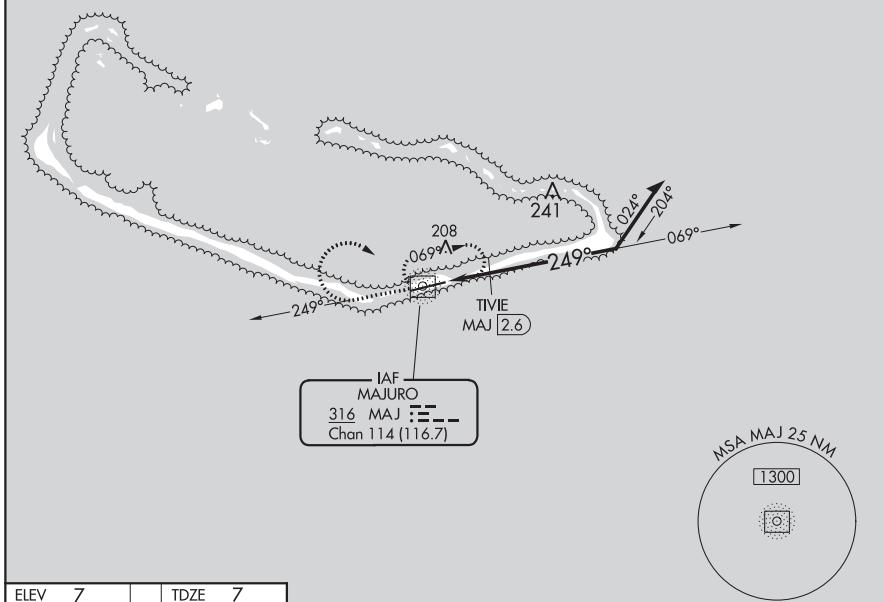
MAJURO ATOLL, MH

AL-6049 (FAA)

21224

|                    |                 |                 |           |               |
|--------------------|-----------------|-----------------|-----------|---------------|
| NDB/DME MAJ<br>316 | APP CRS<br>249° | Rwy Idg<br>7913 | TDZE<br>7 | Apt Elev<br>7 |
| Chan 114 (116.7)   |                 |                 |           |               |

|                                                                                                                                                                                                     |                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>V</b> Rwy 25 helicopter visibility reduction below $\frac{1}{2}$ SM NA.<br><b>▲ NA</b> Obtain local altimeter setting on CTA; when not received, procedure NA. Uncontrolled airspace below 5500. | MISSED APPROACH: Climb to 1000 on MAJ NDB/DME bearing 249° then climbing right turn to 1300 direct MAJ NDB/DME and hold. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|

MAJURO RADIO  
123.6 (CTAF) NDB RWY 25  
AMATA KABUA INTL (MAJ)(PKMJ)MAJURO ATOLL, MH  
Amdt 1B 31DEC20AMATA KABUA INTL (MAJ)(PKMJ)  
07°04'N-171°16'E  
NDB RWY 25

MIDWAY ATOLL, QM

AL-2154 (FAA)

2203

|                 |               |            |
|-----------------|---------------|------------|
| APP CRS<br>059° | Rwy Idg<br>12 | 7800<br>12 |
| Apt Elev        |               |            |

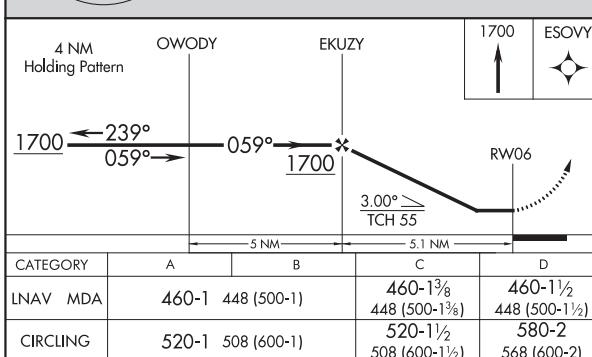
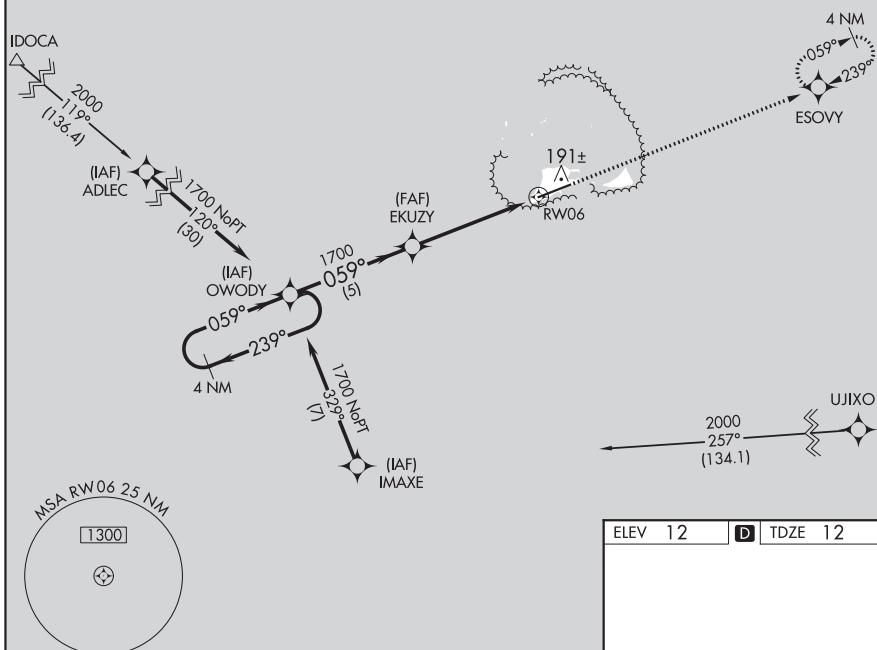
# RNAV (GPS) RWY 6

HENDERSON FLD (MDY) (PMDY)

RNP APCH.

**A** No controlled airspace below 5500. When local altimeter setting not received procedure NA. Rwy 6 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

MISSED APPROACH: Climb to 1700 direct ESOVY WP and hold.

AWOS-3P  
118.325MIDWAY RADIO  
126.20 257.8CTAF  
122.9

MIDWAY ATOLL, QM  
Orig-E 12AUG21

28°12'N-177°23'W

HENDERSON FLD (MDY) (PMDY)  
**RNAV (GPS) RWY 6**

MIDWAY ATOLL, QM

AL-2154 (FAA)

22083

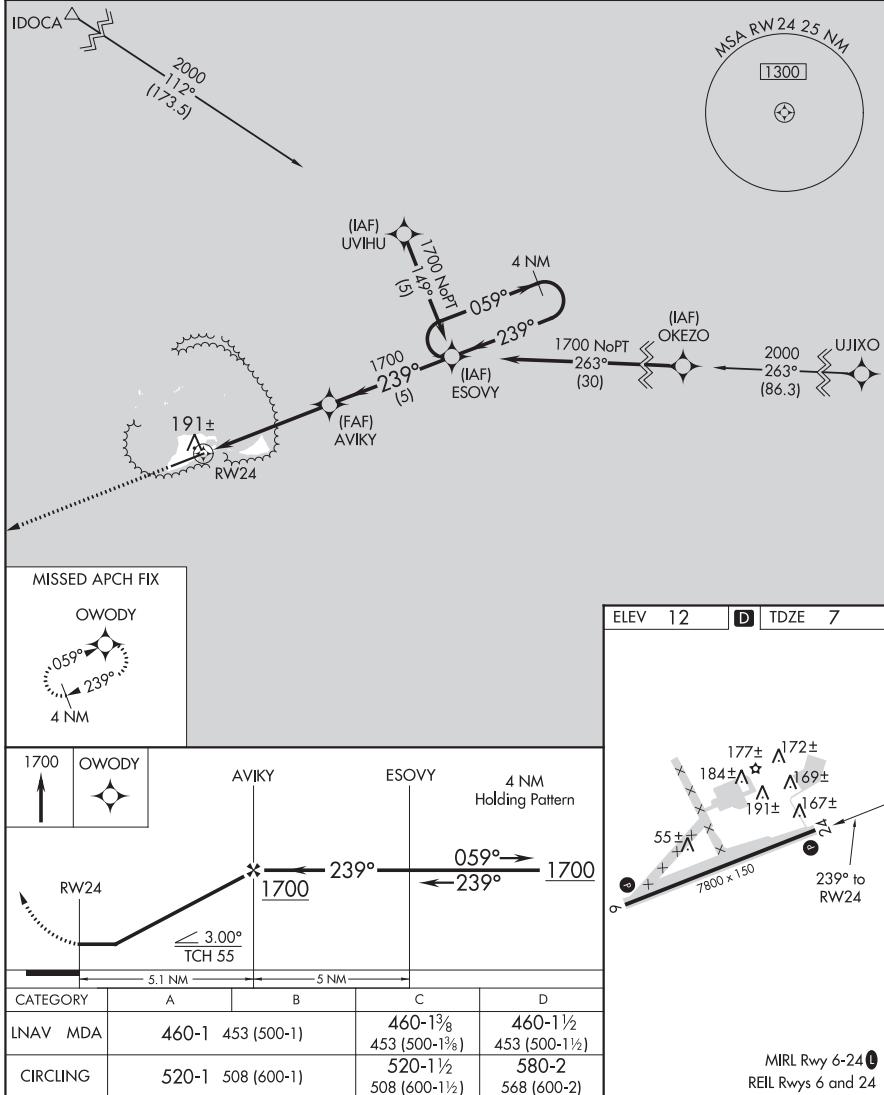
|                 |                                                |
|-----------------|------------------------------------------------|
| APP CRS<br>239° | Rwy Idg<br>7400<br>TDZE<br>7<br>Apt Elev<br>12 |
|-----------------|------------------------------------------------|

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

RNP APCH.

⚠ No controlled airspace below 5500. When local altimeter setting not received procedure NA. Rwy 24 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

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

AWOS-3P  
118.325MIDWAY RADIO  
126.2 0 257.8CTAF  
122.9

MIDWAY ATOLL, QM

AL-2154 (FAA)

2203

|                       |                        |                                                                      |
|-----------------------|------------------------|----------------------------------------------------------------------|
| NDB MDY<br><b>400</b> | APP CRS<br><b>055°</b> | Rwy Idg<br><b>7800</b><br>TDZE<br><b>12</b><br>Apt Elev<br><b>12</b> |
|-----------------------|------------------------|----------------------------------------------------------------------|

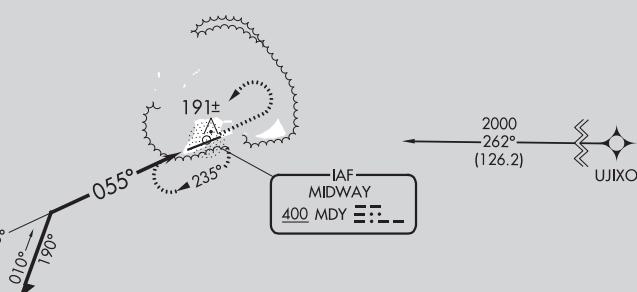
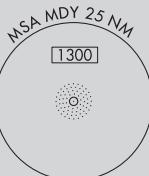
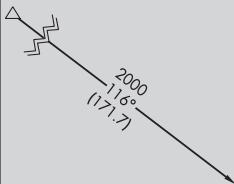
**NDB RWY 6**  
HENDERSON FLD (MDY) (PMDY)

**A** No controlled airspace below 5500 feet. When local altimeter not received, procedure NA. Rwy 6 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

MISSED 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**

IDOCA

Remain  
within 10 NM

MDY NDB

2000



MDY

1200

235°

055°

ELEV 12 D TDZE 12

CATEGORY

A

B

C

D

|          |                   |                                                   |                                                   |
|----------|-------------------|---------------------------------------------------|---------------------------------------------------|
| S-6      | 560-1 548 (600-1) | 560-1 $\frac{1}{8}$<br>548 (600-1 $\frac{1}{8}$ ) | 560-1 $\frac{1}{4}$<br>548 (600-1 $\frac{1}{4}$ ) |
| CIRCLING | 560-1 548 (600-1) | 560-1 $\frac{1}{8}$<br>548 (600-1 $\frac{1}{8}$ ) | 580-2<br>568 (600-2)                              |

MIRL Rwy 6-24 0

REIL Rwy 6 and 24

MIDWAY ATOLL, QM  
Orig-D 12AUG21

HENDERSON FLD (MDY) (PMDY)

28°12'N-177°23'W

**NDB RWY 6**

MIDWAY ATOLL, QM

AL-2154 (FAA)

22083

|                       |                        |                                                            |
|-----------------------|------------------------|------------------------------------------------------------|
| NDB MDY<br><b>400</b> | APP CRS<br><b>243°</b> | Rwy Idg <b>7400</b><br>TDZE <b>7</b><br>Apt Elev <b>12</b> |
|-----------------------|------------------------|------------------------------------------------------------|

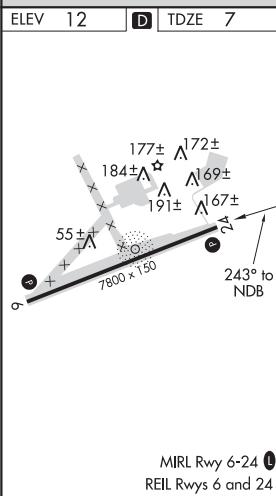
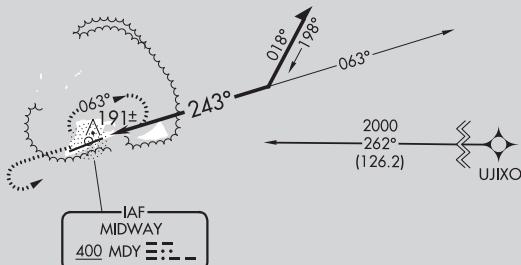
NDB RWY 24  
HENDERSON FLD (MDY) (PMDY)

**A** No controlled airspace below 5500 feet. When local altimeter setting not received, procedure NA. Rwy 24 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.

MISSIED APPROACH: Climb to 2000, then left turn direct MDY NDB and hold.

AWOS-3P  
**118.325**MIDWAY RADIO  
**126.2** 257.8CTAF  
**122.9**

IDOCA

2000  
(171.7)MIDWAY ATOLL, QM  
Orig-D 12AUG21

28°12'N-177°23'W

HENDERSON FLD (MDY) (PMDY)  
NDB RWY 24

PAGO PAGO, AS

AL-5018 (FAA)

22083

|                                          |                        |                                                       |
|------------------------------------------|------------------------|-------------------------------------------------------|
| LOC/DME I-TUT<br><b>110.3</b><br>Chan 40 | APP CRS<br><b>046°</b> | Rwy Idg<br><b>29</b><br>TDZE<br>Apt Elev<br><b>31</b> |
|------------------------------------------|------------------------|-------------------------------------------------------|

DME required.

**V** Circling NA northwest of Rwy 5-23. Rwy 5 helicopter visibility reduction below  $\frac{3}{4}$  SM NA. For inop ALS, increase S-ILS 5 all Cats visibility to  $2\frac{1}{2}$  SM; increase S-LOC 5 Cat A visibility to 1 SM and Cats C/D to 2 SM.



A5

## ILS or LOC RWY 5

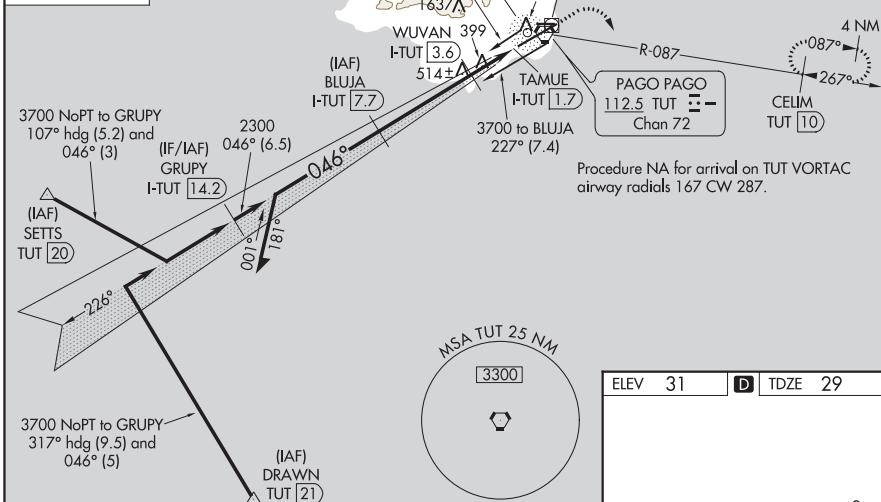
PAGO PAGO INTL (PPG) (NSTU)

|                            |                                           |                      |                |
|----------------------------|-------------------------------------------|----------------------|----------------|
| AWOS-3PT<br><b>127.925</b> | FALEOLO APP CON<br><b>118.1 6.553(HF)</b> | CTAF<br><b>122.9</b> | <b>118.3 L</b> |
|----------------------------|-------------------------------------------|----------------------|----------------|

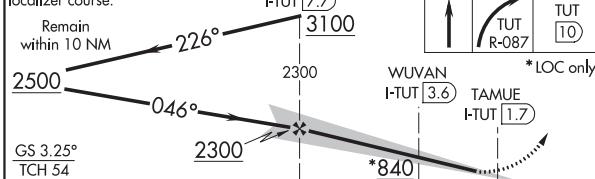
ALTERNATE MISSED APCH FIX



Procedure NA for arrivals at TUT NDB on bearing 344 CW 104.



Use I-TUT DME when on the localizer course.



| CATEGORY          | A                    | B                                                 | C                                                 | D                                                 |
|-------------------|----------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|
| S-ILS 5           |                      | 841-1 $\frac{1}{8}$                               | 812 (900-1 $\frac{1}{8}$ )                        |                                                   |
| S-LOC 5           | 780- $\frac{3}{4}$   | 751 (800- $\frac{3}{4}$ )                         | 780- $1\frac{1}{4}$                               | 751 (800- $1\frac{1}{4}$ )                        |
| <b>C</b> CIRCLING | 780-1<br>749 (800-1) | 780-1 $\frac{1}{4}$<br>749 (800-1 $\frac{1}{4}$ ) | 820-2 $\frac{1}{2}$<br>789 (800-2 $\frac{1}{2}$ ) | 860-2 $\frac{3}{4}$<br>829 (900-2 $\frac{3}{4}$ ) |

PAGO PAGO, AS  
Amdt 15 12AUG21

PAGO PAGO INTL (PPG) (NSTU)

## ILS or LOC RWY 5

PAGO PAGO, AS

AI-5018 (FAA)

22083

|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>047°</b> | Rwy Idg<br><b>8200</b> |
| TDZE<br><b>32</b>      | Apt Elev<br><b>32</b>  |
|                        |                        |

AL-5018 (FAA)

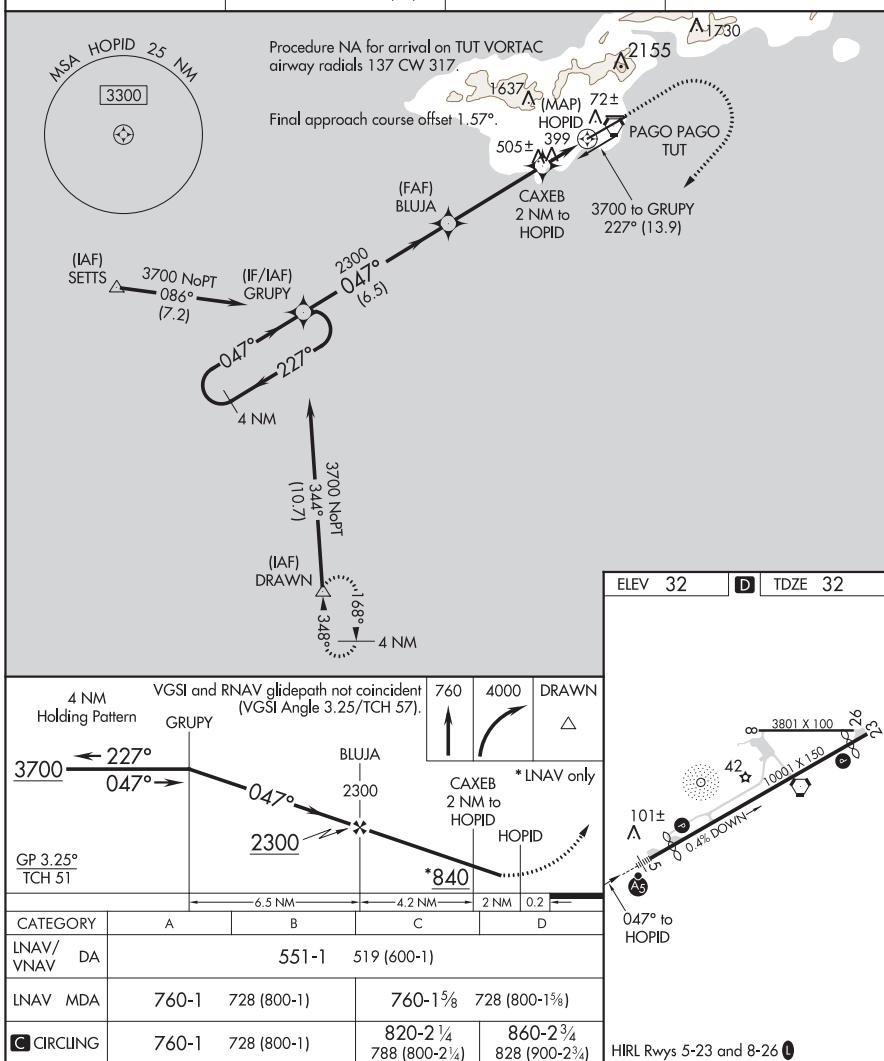
## RNAV (GPS) RWY 5 PAGO PAGO INTL (PPG) (NSTU)

RNP APCH.

**W** 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. Rwy 5 helicopter visibility reduction below  $\frac{3}{4}$  SM NA. Inop table does not apply to LNAV Cats A/B. For inop ALS, increase LNAV/VNAV all Cats visibility to 1% SM and LNAV Cats C/D visibility to 2 SM.

MALS/R

MISSED APPROACH:  
(Maintain 185 K max until 760) Climb to 760 then climbing right turn to 4000 direct DRAWN and hold.

AWOS-3PT  
**127.925**FALELO APP CON  
**118.1 6.553(HF)**CTAF  
**122.9****118.3 0**PAGO PAGO, AS  
Orig-B 15AUG19

14°20'S-170°43'W

PAGO PAGO INTL (PPG) (NSTU)  
**RNAV (GPS) RWY 5**

PAGO PAGO, AS

AL-5018 (FAA)

22083

|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>228°</b> | Rwy Idg<br><b>9200</b> |
|                        | TDZE<br><b>9</b>       |
|                        | Apt Elev<br><b>32</b>  |

RNP APCH.

**T** 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.

**RNAV (GPS) RWY 23**

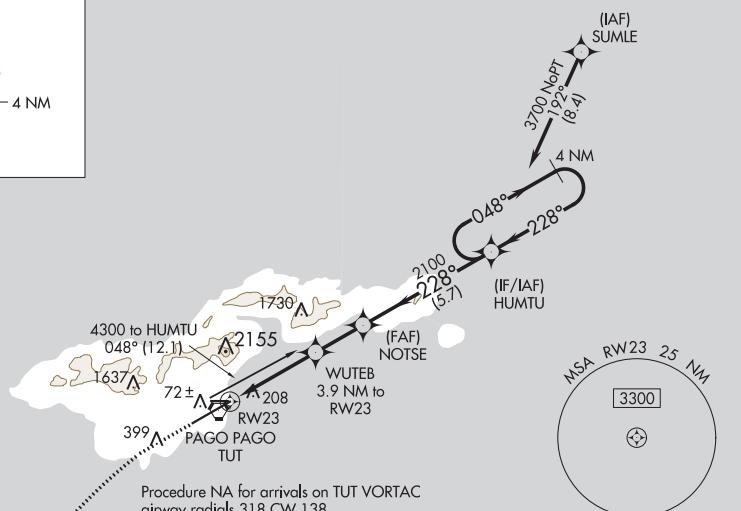
PAGO PAGO INTL (PPG) (NSTU)

MISSIED APPROACH: Climb to 500 then climbing left turn to 4000 direct DRAWN and hold.

AWOS-3PT  
127.925FALEOLO APP CON  
118.1 6.553(HF)CTAF  
122.9

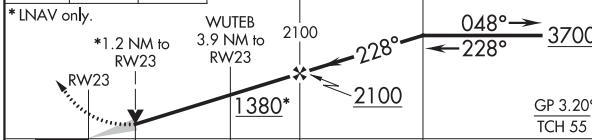
118.3 0

MISSIED APCH FIX



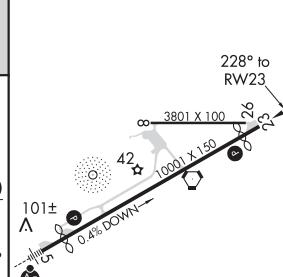
|     |      |       |
|-----|------|-------|
| 500 | 4000 | DRAWN |
|     |      | △     |

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



| CATEGORY      | A                    | B                    | C                            | D                            |
|---------------|----------------------|----------------------|------------------------------|------------------------------|
| LNAV/ VNAV DA |                      | 489-1 1/8            | 480 (500-1 1/8)              |                              |
| LNAV MDA      | 460-1                | 451 (500-1)          | 460-1 1/8                    | 451 (500-1 1/8)              |
| C CIRCLING    | 520-1<br>488 (500-1) | 700-1<br>668 (700-1) | 820-2 1/4<br>788 (800-2 1/4) | 860-2 3/4<br>828 (900-2 3/4) |

ELEV 32 D TDZE 9

PAGO PAGO, AS  
Orig-A 08NOV18

14°20'S-170°43'W

PAGO PAGO INTL (PPG) (NSTU)

**RNAV (GPS) RWY 23**

PAGO PAGO, AS

|                     |                 |                 |     |
|---------------------|-----------------|-----------------|-----|
| VORTAC TUT<br>112.5 | APP CRS<br>238° | Rwy Idg<br>TDZE | N/A |
| Chan 72             |                 |                 | N/A |
|                     |                 | Apt Elev        | 31  |

AL-5018 (FAA)

22083

## VOR or TACAN-B

PAGO PAGO INTL (PPG) (NSTU)

DME required.

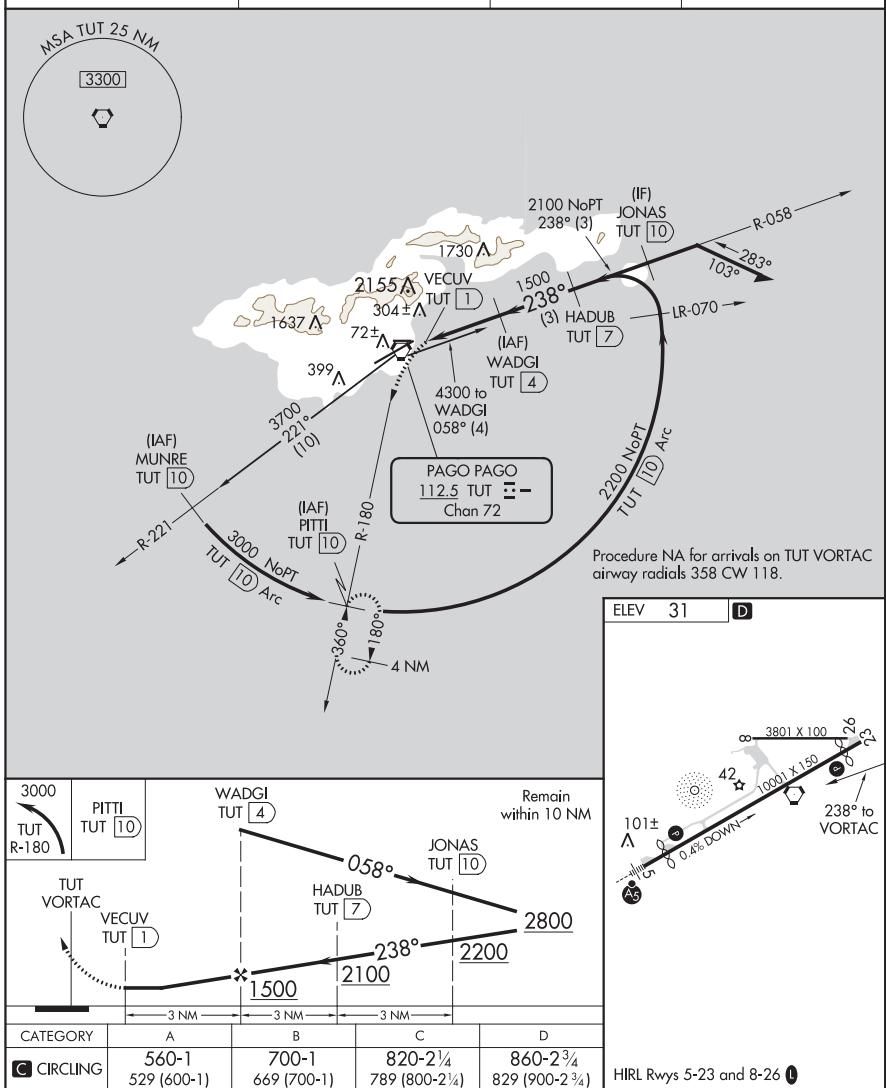


Circling NA northwest of Rwy 5-23.

MISSSED 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  
127.925FALEOLO APP CON  
118.1 6.553(HF)CTAF  
122.9

118.3 0

PAGO PAGO, AS  
Amdt 6B 12AUG21

PAGO PAGO INTL (PPG) (NSTU)

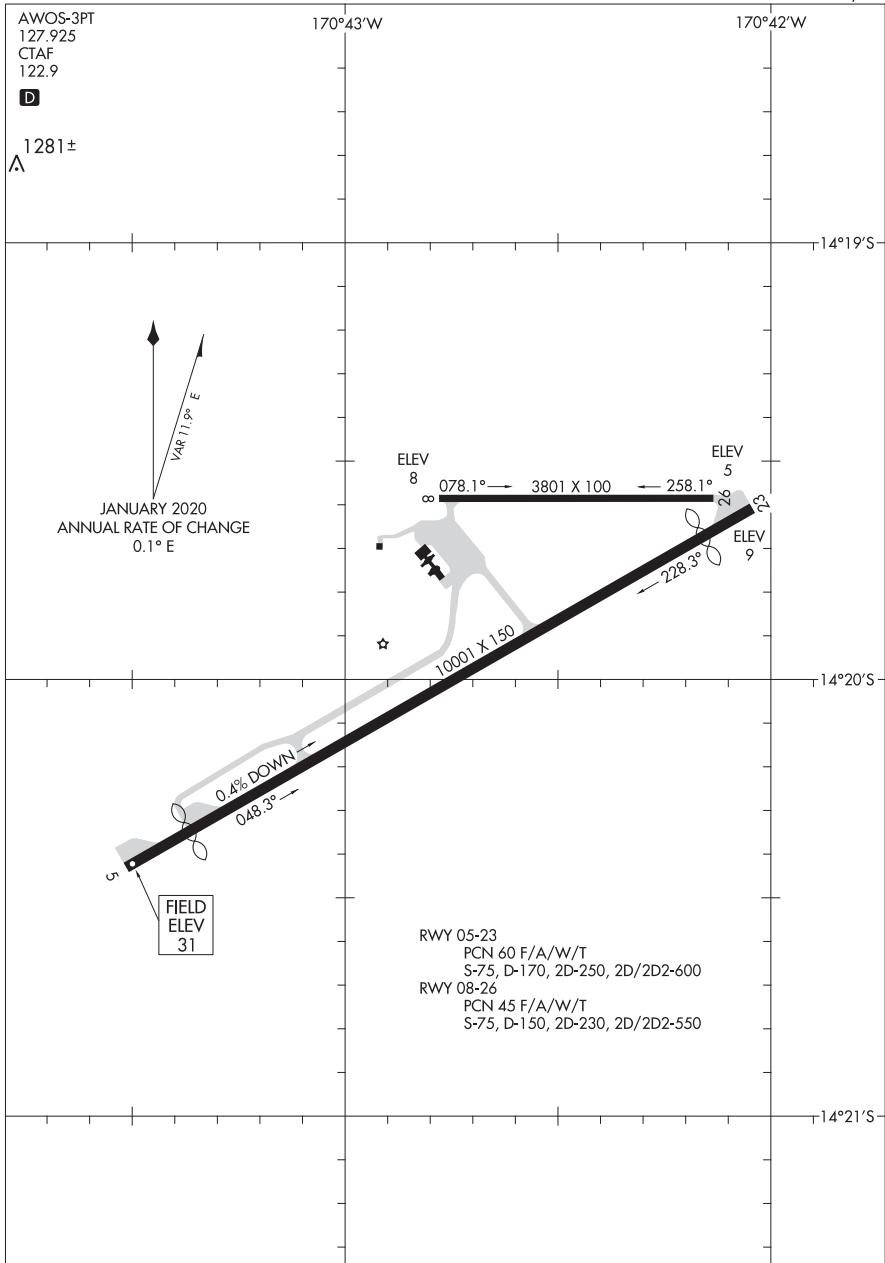
14°20'S-170°43'W

VOR or TACAN-B

22083

## AIRPORT DIAGRAM

AL-5018 (FAA)

PAGO PAGO INTL (PPG) (NSTU)  
PAGO PAGO, AS

## AIRPORT DIAGRAM

22083

PAGO PAGO, AS  
PAGO PAGO INTL (PPG) (NSTU)

POHNPEI ISLAND, FM

AL-6167 (FAA-O)

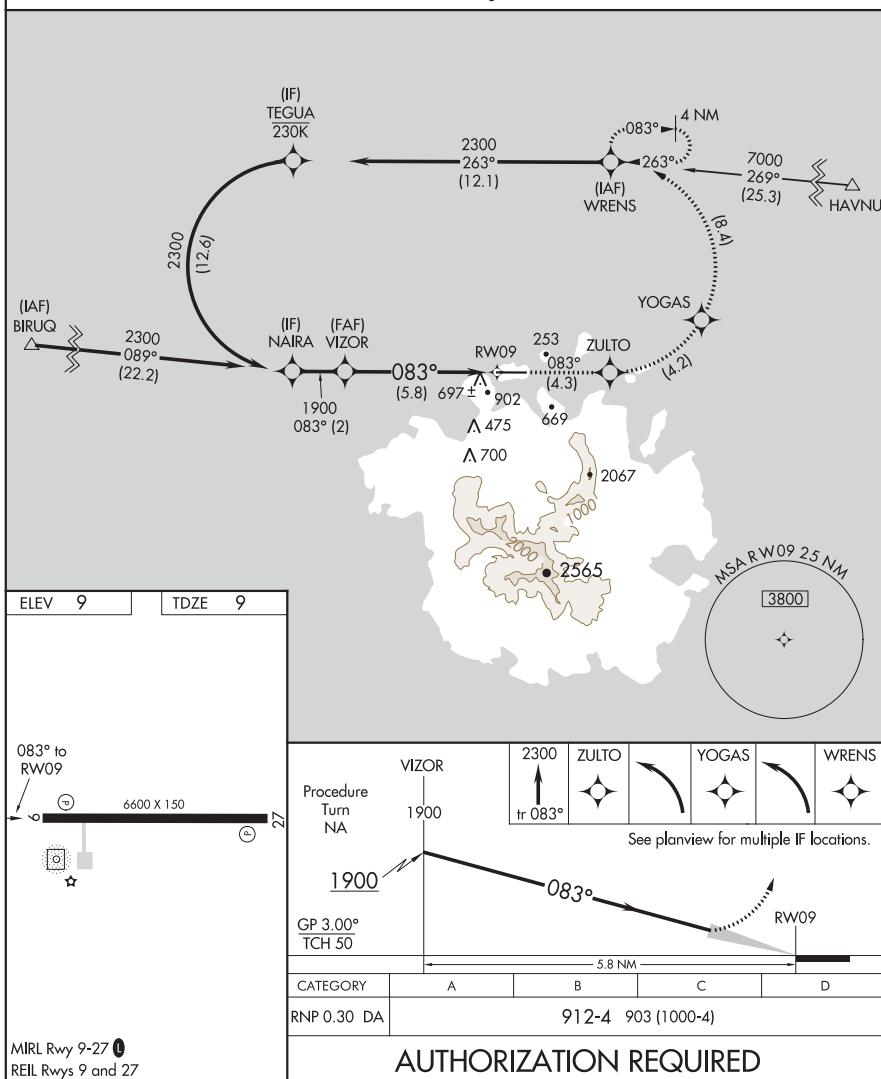
22251

|          |         |             |
|----------|---------|-------------|
| APP CRS  | Rwy Idg | <b>6600</b> |
| 083°     | TDZE    | 9           |
| Apt Elev |         | 9           |

**RNAV (RNP) Y RWY 9**  
POHNPEI INTL (PNI)(PTPN)

▼ Obtain local altimeter setting on CTAF; when not received, procedure NA.  
 ▲ For uncompensated Baro-VNAV systems, procedure NA below 20°C (68°F) or above 54°C (130°F). Missed approach requires RNP less than 1.0. RF required. GPS required. No controlled airspace below 5500 feet.

MISSED APPROACH: (Do not exceed 230K until WRENS) Climb to 2300 on the RNAV missed approach route to WRENS and hold.

POHNPEI RADIO  
**123.6 (CTAF)**POHNPEI ISLAND, FM  
Amdt 2A 13SEP18POHNPEI INTL (PNI)(PTPN)  
**RNAV (RNP) Y RWY 9**

POHNPEI ISLAND, FM

AL-6167 (FAA-O)

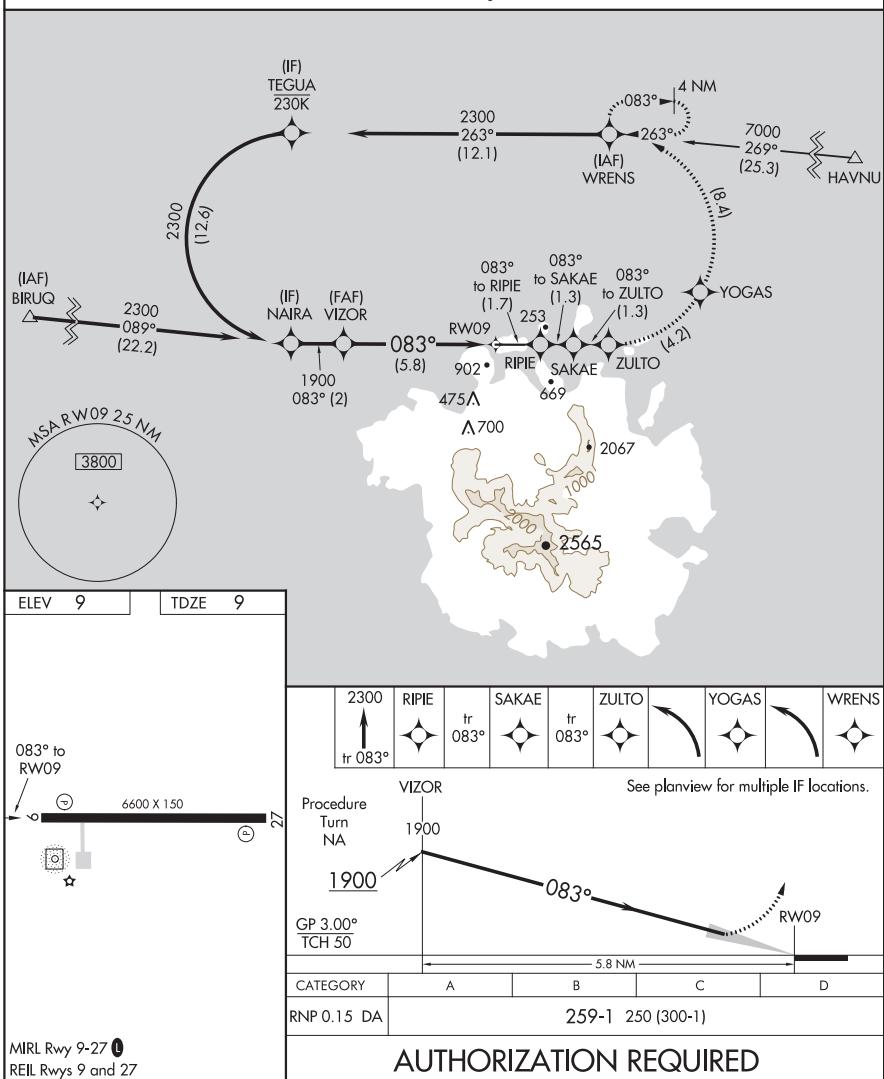
22251

|             |          |             |
|-------------|----------|-------------|
| APP CRS     | Rwy Idg  | <b>6600</b> |
|             | TDZE     | <b>9</b>    |
| <b>083°</b> | Apt Elev | <b>9</b>    |

**RNAV (RNP) Z RWY 9  
POHNPEI INTL (PNI)(PTPN)**

▼ Obtain local altimeter setting on CTAF; when not received, procedure NA. For uncompensated Baro-VNAV systems, procedure NA below 20°C (68°F) or above 54°C (130°F). Missed approach requires RNP less than 1.0. RF required. GPS required. No controlled airspace below 5500 foot.

**MISSSED APPROACH:** (Do not exceed 230K until WRENS) Climb to 2300 on the RNAV missed approach route to WRENS and hold.

POHNPEI RADIO  
**123.6 (CTAF)**

POHNPEI ISLAND, FM

Amdt 2 27APR17

POHNPEI INTL (PNI)(PTPN)

06°59'N-158°13'E

**RNAV (RNP) Z RWY 9**

POHNPEI ISLAND, FM

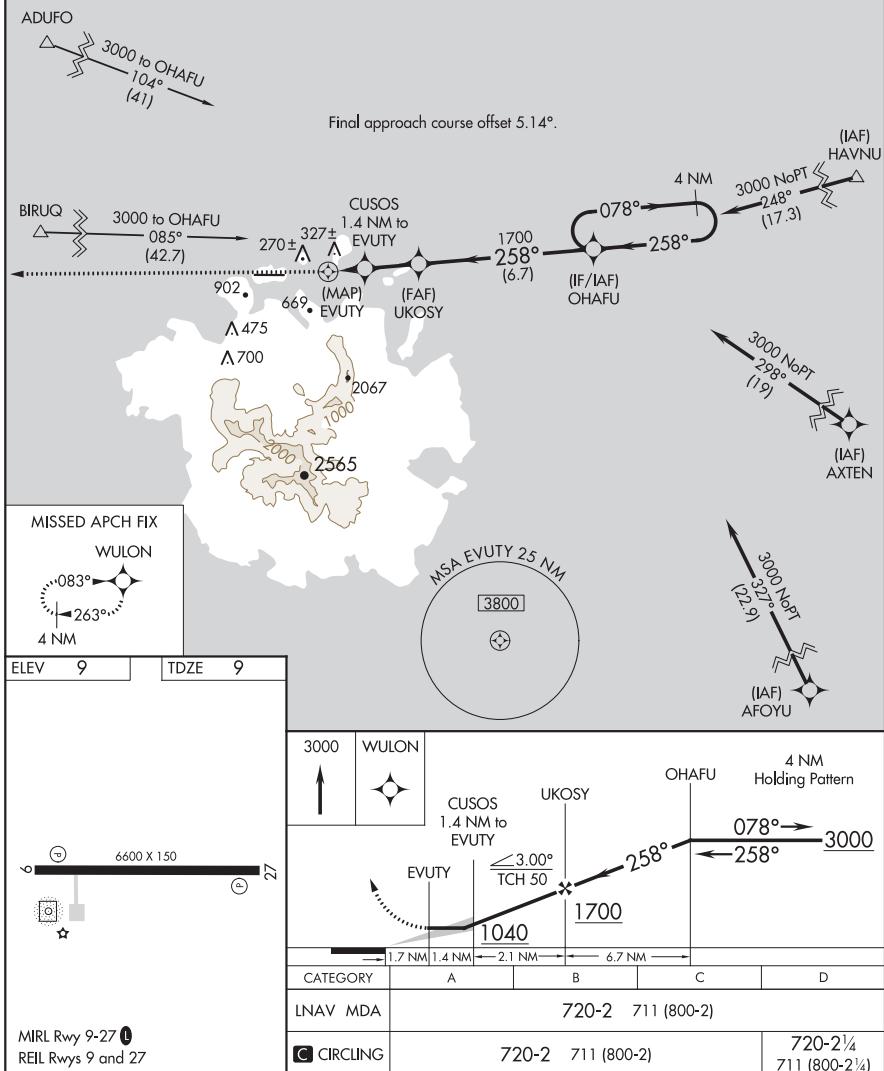
AL-6167 (FAA)

19283

|                 |                 |                         |
|-----------------|-----------------|-------------------------|
| APP CRS<br>258° | Rwy Idg<br>TDZE | <b>6600</b><br><b>9</b> |
| Apt Elev        |                 | 9                       |

**RNAV (GPS) RWY 27**  
POHNPEI INTL (PNI)(PTPN)

- T 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.

MISSIED APPROACH:  
Climb to 3000 direct WULON and hold.POHNPEI RADIO  
123.6 (CTAF)POHNPEI ISLAND, FM  
Amdt 2 27APR17

06°59'N-158°13'E

POHNPEI INTL (PNI)(PTPN)  
**RNAV (GPS) RWY 27**

POHNPEI ISLAND, FM

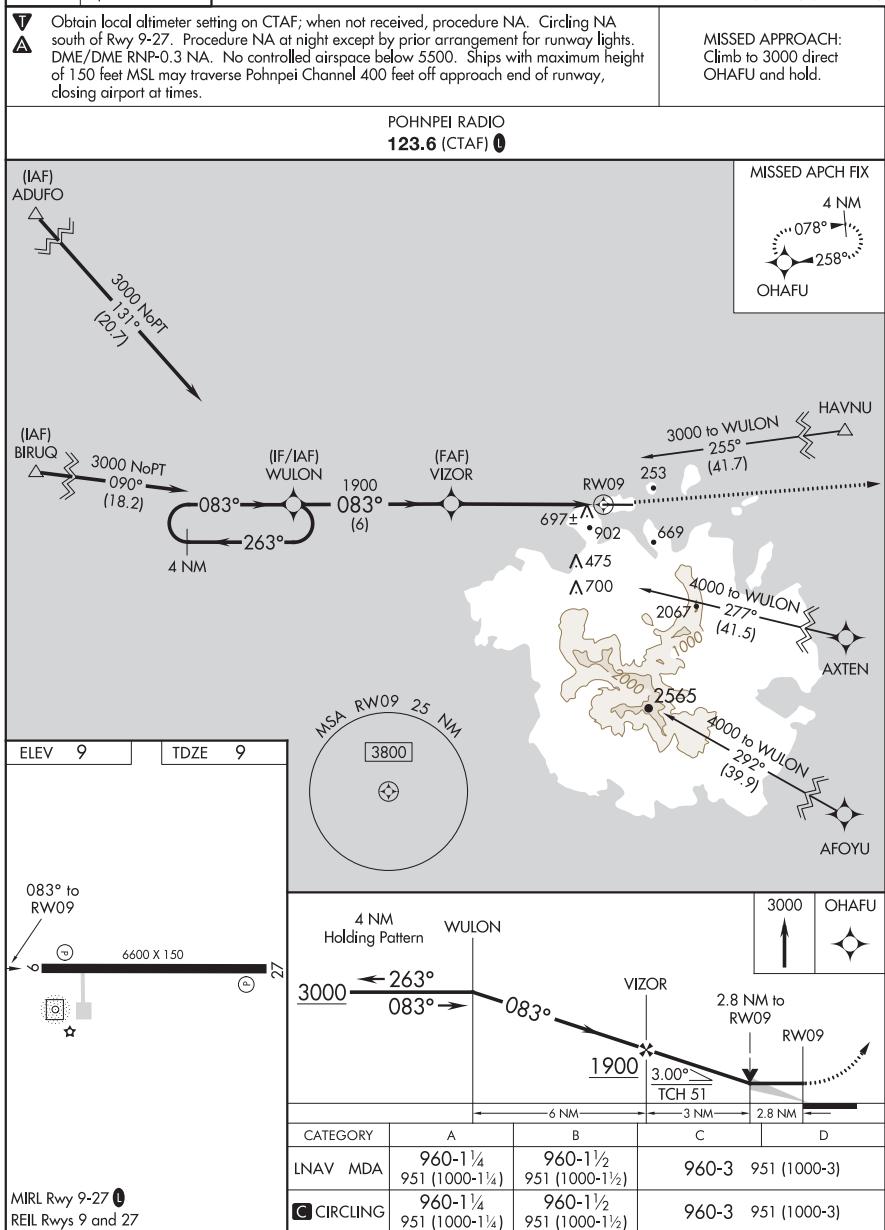
AL-6167 (FAA)

19283

|             |          |             |
|-------------|----------|-------------|
| APP CRS     | Rwy Idg  | <b>6600</b> |
|             | TDZE     | <b>9</b>    |
| <b>083°</b> | Apt Elev | <b>9</b>    |

## RNAV (GPS) X RWY 9

POHNPEI INTL (PNI)(PTPN)



POHNPEI ISLAND, FM

Amdt 1 27APR17

POHNPEI INTL (PNI)(PTPN)

06°59'N-158°13'E

## RNAV (GPS) X RWY 9

POHNPEI ISLAND, FM

AL-6167 (FAA)

20310

|                                              |                        |                             |                 |
|----------------------------------------------|------------------------|-----------------------------|-----------------|
| NDB/DME PNI<br><b>366</b><br>Chan 47 (111.0) | APP CRS<br><b>252°</b> | Rwy Idg<br>TDZE<br>Apt Elev | N/A<br>N/A<br>9 |
|----------------------------------------------|------------------------|-----------------------------|-----------------|

**NDB-A**  
 POHNPEI INTL (PNI)(PTPN)

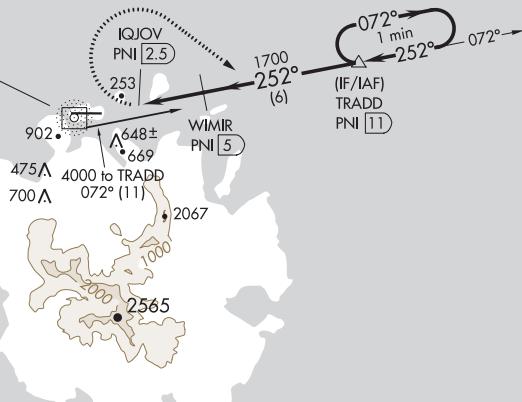
▼ Obtain local altimeter setting on CTAF; when not received, procedure NA.  
 ▲ Circling NA south of Rwy 9-27. Procedure NA at night except by prior arrangement for runway lights. DME required. No controlled airspace below 5500 feet. Ships with maximum height of 150 feet MSL may traverse Pohnpei Channel 400 feet off approach end of runway 9, closing airport at times.

MISSIED APPROACH: Climbing right turn to 3000 on heading 120° and on PNI NDB bearing 072° to TRADD/PNI 11 DME and hold.

POHNPEI RADIO

123.6 (CTAF) ①

## DME REQUIRED

 POHNPEI  
 366 PNI ② -  
 Chan 47 (111.0)

 MSA PNI 25 NM  
 [3800]

ELEV 9

|               |           |                  |                |                            |
|---------------|-----------|------------------|----------------|----------------------------|
| 3000          | hdg 120°  | PNI 072°         | TRADD PNI [11] | One Minute Holding Pattern |
| IQJOV PNI 2.5 |           |                  | WIMIR PNI [5]  |                            |
|               |           |                  |                | 072° → 3000                |
|               |           |                  |                | 072° ← 252°                |
|               |           |                  |                | 252°                       |
|               |           |                  |                | 2.5 NM      6 NM           |
| CIRCLING      | 960-1 1/4 | 951 (1000-1 1/4) | CATEGORY A     | B C D                      |
|               |           |                  |                |                            |
|               |           |                  | 960-3          | 951 (1000-3)               |

 6600 X 150  
 27

 MIRL Rwy 9-27 ①  
 REIL Rwy 9 and 27

 POHNPEI ISLAND, FM  
 Orig 27APR17

06°59'N-158°13'E

 POHNPEI INTL (PNI)(PTPN)  
**NDB-A**

ROTA ISLAND, CQ

AL-6596 (FAA)

24025

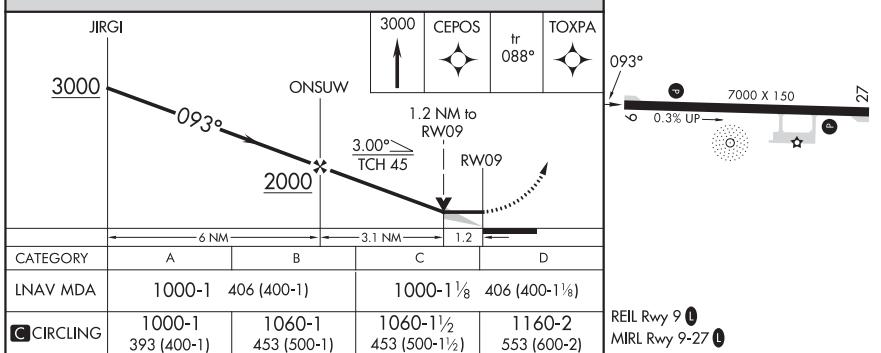
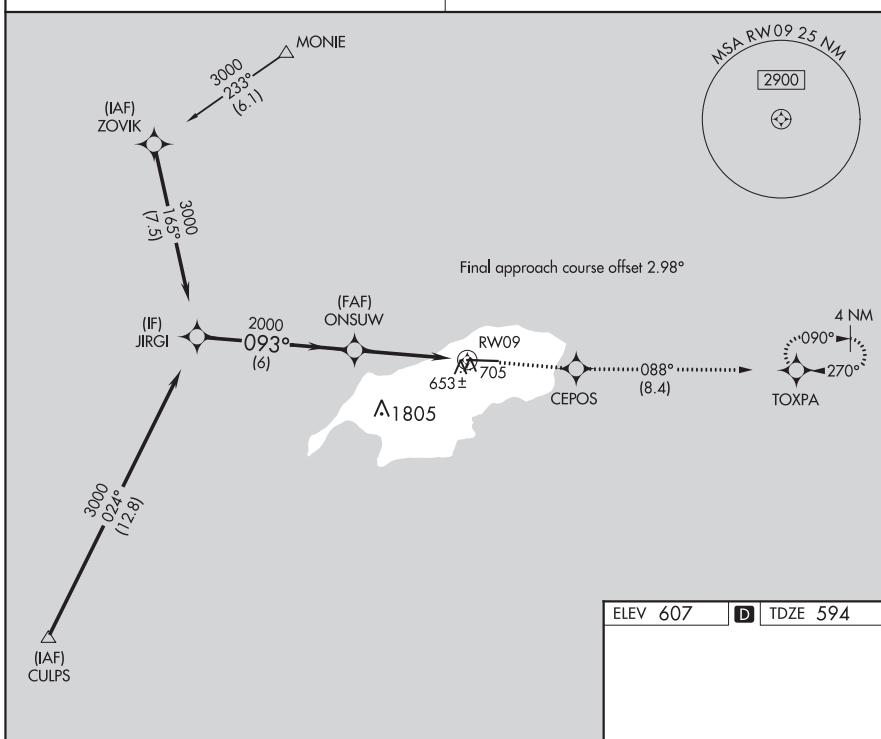
|                 |                 |
|-----------------|-----------------|
| APP CRS<br>093° | Rwy Idg<br>7000 |
| TDZE            | 594             |
| Apt Elev        | 607             |

BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)

**RNAV (GPS) RWY 9**

T 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  $\frac{1}{8}$  mile, Circling Cat C, D visibility  $\frac{3}{4}$  mile. VDP NA when using Andersen AFB altimeter setting.

MISSSED APPROACH: Climb to 3000 direct CEPOS and on track 088° to TOXPA and hold.

GUAM CERAP  
120.5 263.0CTAF  
123.6ROTA ISLAND, CQ  
Amdt 1A 29MAY14BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)  
14°10'N-145°14'E  
**RNAV (GPS) RWY 9**

ROTA ISLAND, CQ

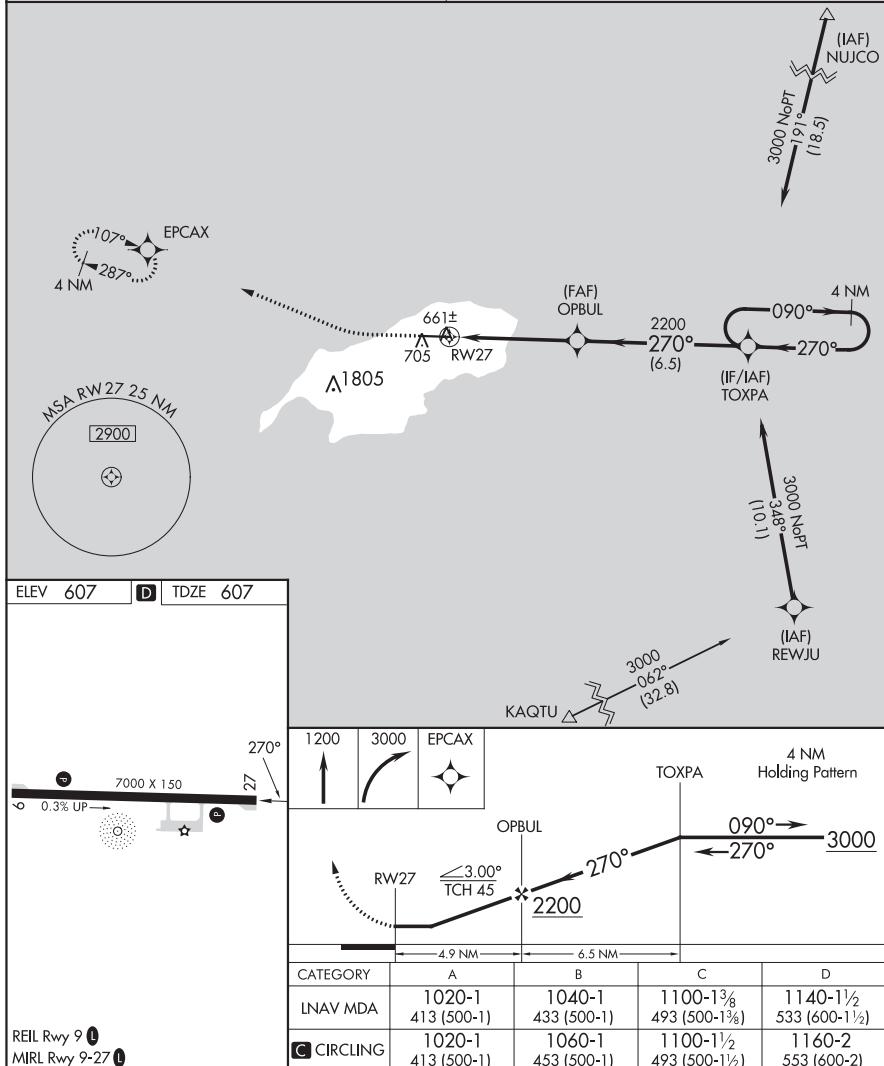
AI-6596 (FAA)

24025

|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>270°</b> | Rwy Idg<br><b>7000</b> |
| TDZE                   | <b>607</b>             |
| Apt Elev               | <b>607</b>             |

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  $\frac{1}{4}$  mile, Cat C visibility  $1\frac{1}{2}$  mile, Cat D visibility 1 mile, Circling Cat C visibility 1 mile Cat D visibility  $\frac{3}{4}$  mile. DME/DME RNP -0.3 NA.
- ▲ MISSED APPROACH: Climb to 1200 then climbing right turn to 3000 direct EPCAX and hold.

GUAM CERAP  
120.5 263.0CTAF  
123.6 0ROTA ISLAND, CQ  
Amdt 1A 02MAR17

BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)

14°10'N-145°14'E

RNAV (GPS) RWY 27

ROTA ISLAND, CQ

AL-6596 (FAA)

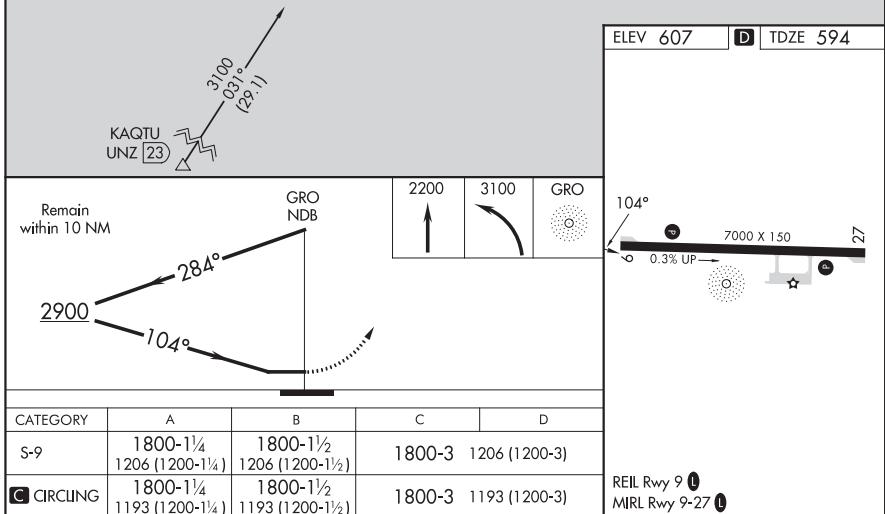
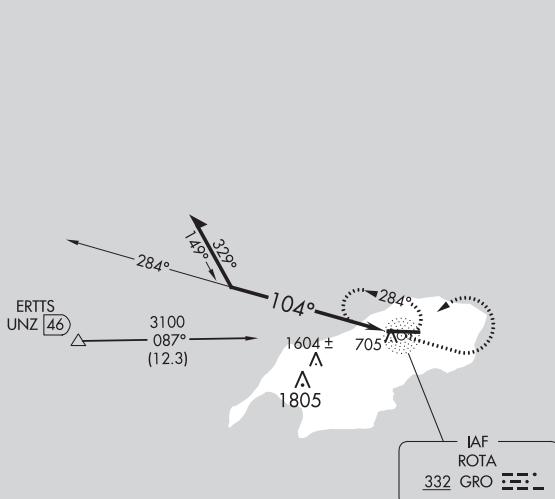
24025

|                       |                        |                                                               |
|-----------------------|------------------------|---------------------------------------------------------------|
| NDB GRO<br><b>332</b> | APP CRS<br><b>104°</b> | Rwy Idg <b>7000</b><br>TDZE <b>594</b><br>Apt Elev <b>607</b> |
|-----------------------|------------------------|---------------------------------------------------------------|

BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)

**NDB RWY 9**

|                                                                                                                                                                  |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>T</b> When local altimeter setting not received, use Andersen AFB altimeter setting and increase all MDA 320 feet.<br><b>A</b> Circling NA south of Rwy 9-27. | MISSED APPROACH: Climb to 2200 then climbing left turn to 3100 direct GRO NDB and hold. |
| GUAM CERAP<br><b>120.5 263.0</b>                                                                                                                                 | CTAF<br><b>123.6 0</b>                                                                  |

ROTA ISLAND, CQ  
Amdt 4A 22JUN17BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)  
14°10'N-145°14'E**NDB RWY 9**

ROTA ISLAND, CQ

AI-6596 (FAA)

24025

|            |             |          |            |
|------------|-------------|----------|------------|
| NDB GRO    | APP CRS     | Rwy Idg  | 7000       |
| <b>332</b> | <b>260°</b> | TDZE     | <b>607</b> |
|            |             | Apt Elev | <b>607</b> |

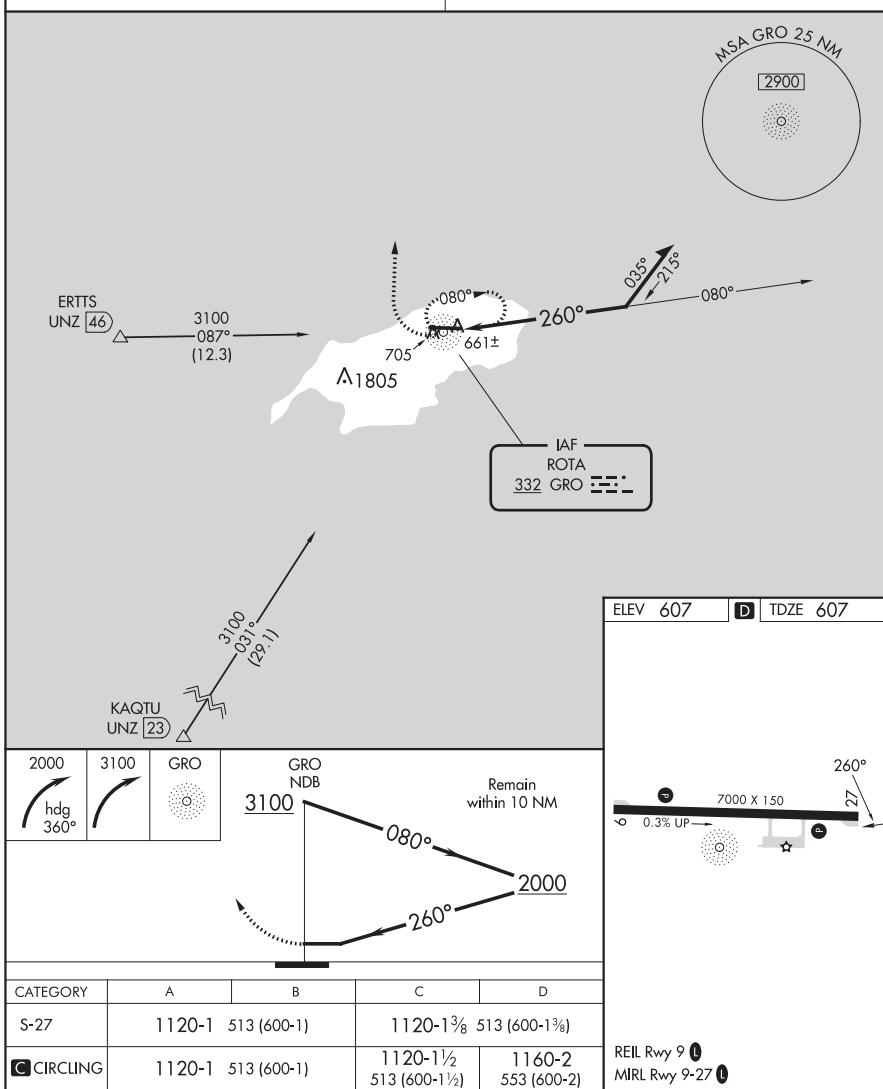
AL-6596 (FAA)

BENJAMIN TAISACAN MANGLONA INTL(GRO)(PGRO)

**NDB RWY 27**

**V** When local altimeter setting not received, use Andersen AFB altimeter setting and increase all MDA 320 feet, increase S-27 Cat B visibility  $\frac{1}{4}$  mile, Cat C, D visibility  $1\frac{1}{8}$  mile, Circling Cat A, B visibility  $\frac{1}{4}$  mile, Cat C 1 mile, Cat D  $\frac{3}{4}$  mile. Circling NA south of Rwy 9-27.

**MISSSED APPROACH:** Climbing right turn to 2000 on heading 360° then continue climbing right turn to 3100 direct GRO NDB and hold.

GUAM CERAP  
120.5 263.0CTAF  
123.6 0ROTA ISLAND, CQ  
Amdt 4A 02MAR17BENJAMIN TAISACAN MANGLONA INTL(GRO)(PGRO)  
14°10'N-145°14'E**NDB RWY 27**

SAIPAN ISLAND, CQ

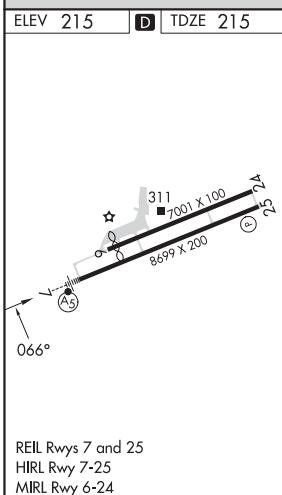
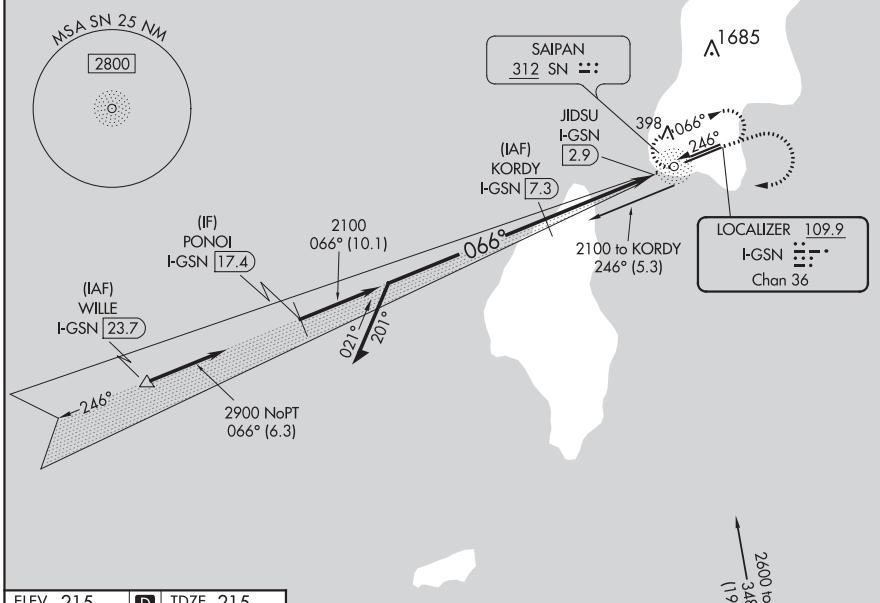
AL-6293 (FAA)

23222

|                                   |                 |                                          |
|-----------------------------------|-----------------|------------------------------------------|
| LOC/DME I-GSN<br>109.9<br>Chan 36 | APP CRS<br>066° | Rwy Idg 8010<br>TDZE 215<br>Apt Elev 215 |
|-----------------------------------|-----------------|------------------------------------------|

ILS or LOC RWY 7  
FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

|               |                                                         |                             |                                                                                             |
|---------------|---------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------|
| V<br>▲ NA     | Circling NA north of Rwy 6-24.<br>ADF and DME required. | MALSR<br>AS                 | MISSIED APPROACH: Climb to 1600 then climbing<br>right turn to 2800 direct SN NDB and hold. |
| ATIS<br>127.2 | GUAM CERAP<br>118.4 290.5                               | SAIPAN TOWER<br>125.7 256.9 | GND CON<br>121.8                                                                            |

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)  
15°07'N-145°44'E  
ILS or LOC RWY 7SAIPAN ISLAND, CQ  
Amdt 6 02MAR17

SAIPAN ISLAND, CQ

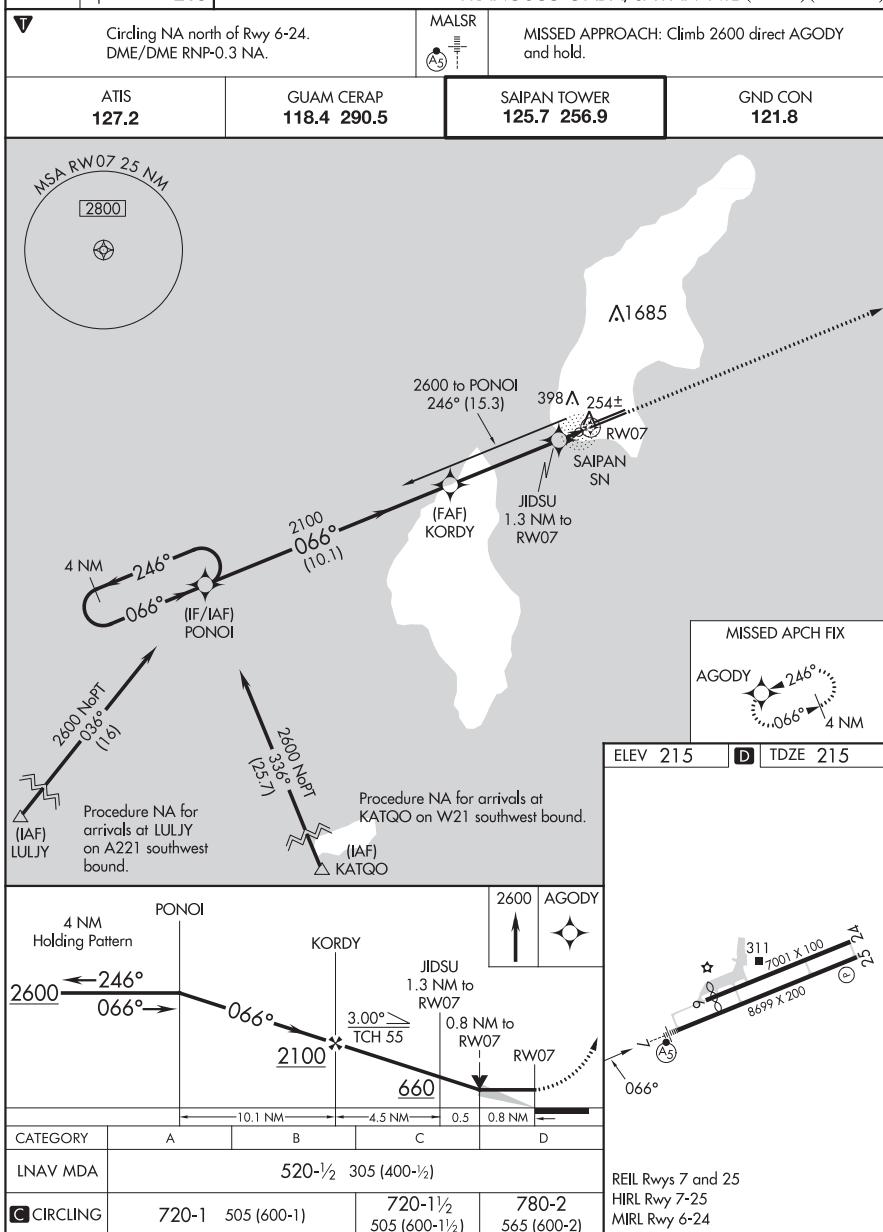
AL-6293 (FAA)

23222

|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>066°</b> | Rwy Idg<br><b>8010</b> |
| TDZE<br><b>215</b>     | Apt Elev<br><b>215</b> |
|                        |                        |

## RNAV (GPS) RWY 7

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)



SAIPAN ISLAND, CQ

Amdt 1 02MAR17

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)  
15°07'N-145°44'E

**RNAV (GPS) RWY 7**

SAIPAN ISLAND, CQ

AL-6293 (FAA)

23222

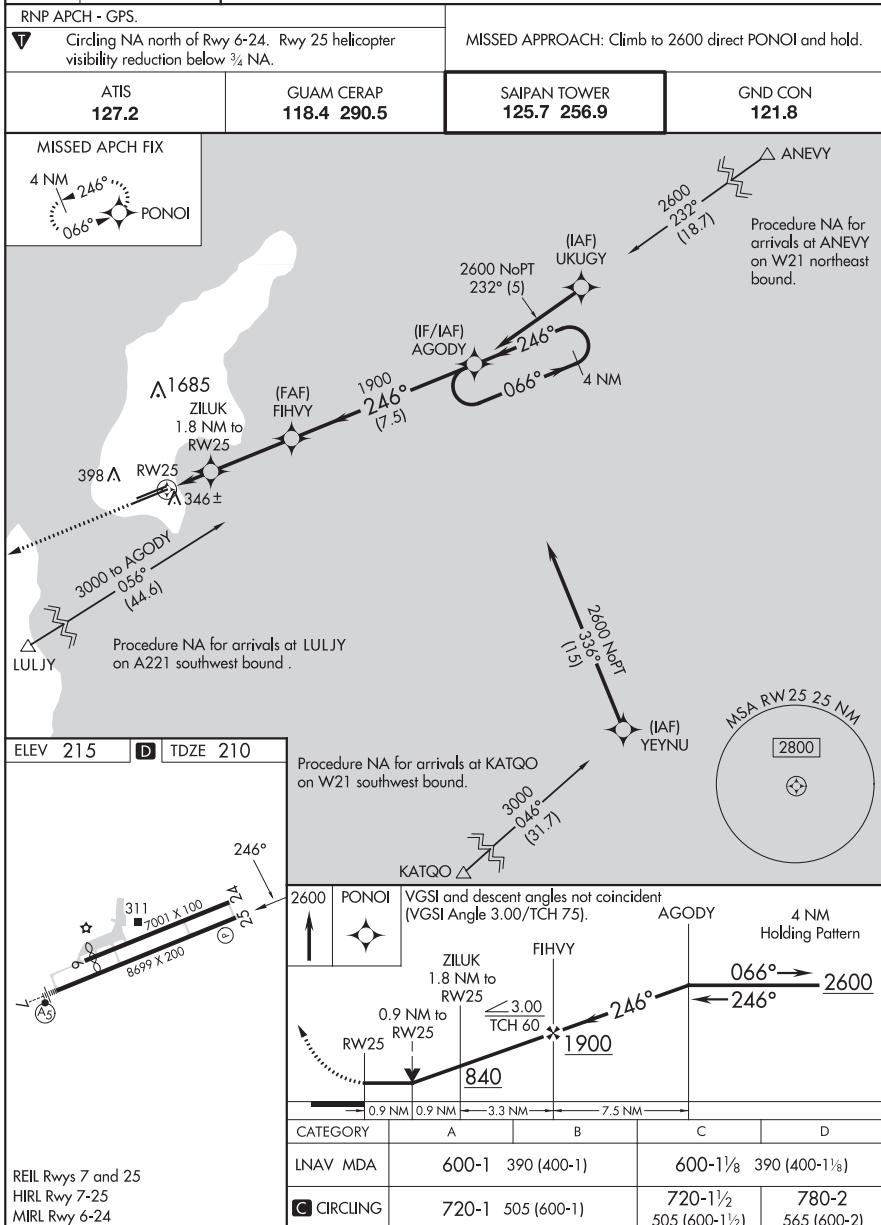
|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>246°</b> | Rwy Idg<br><b>8010</b> |
| TDZE<br><b>210</b>     | Apt Elev<br><b>215</b> |
|                        |                        |

RNP APCH - GPS.

▼ Circling NA north of Rwy 6-24. Rwy 25 helicopter visibility reduction below  $\frac{3}{4}$  NA.

## RNAV (GPS) RWY 25

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)



SAIPAN ISLAND, CQ

Amdt 1A 08SEP22

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

15°07'N-145°44'E

## RNAV (GPS) RWY 25

SAIPAN ISLAND, CQ

AL-6293 (FAA)

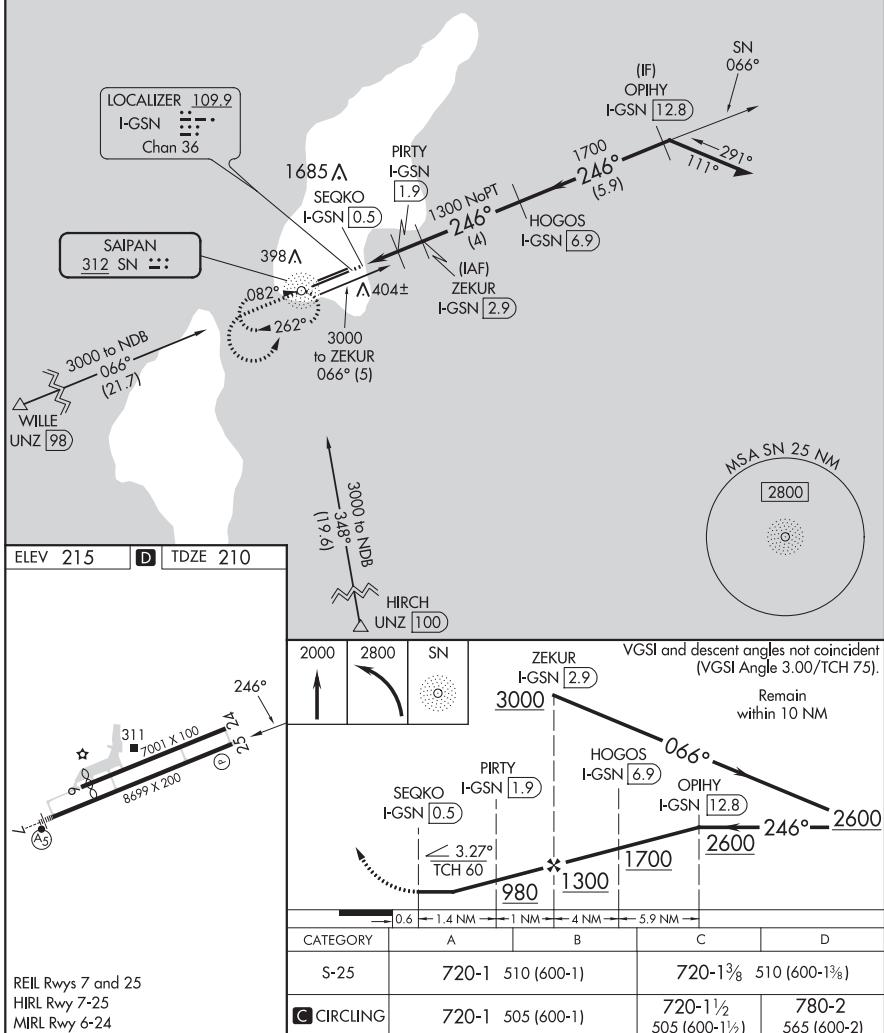
23222

|            |              |                                          |
|------------|--------------|------------------------------------------|
| NDB SN 312 | APP CRS 246° | Rwy Idg 8010<br>TDZE 210<br>Apt Elev 215 |
|------------|--------------|------------------------------------------|

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

**NDB RWY 25**

|                                                                                                                        |                        |                                                                                            |               |
|------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------|---------------|
| ▼ Circling NA north of Rwy 6-24.<br>Rwy 25 helicopter visibility reduction below $\frac{3}{4}$ SM NA.<br>DME required. |                        | MISSIED APPROACH: Climb to 2000 then climbing<br>left turn to 2800 direct SN NDB and hold. |               |
| ATIS 127.2                                                                                                             | GUAM CERAP 118.4 290.5 | SAIPAN TOWER 125.7 256.9                                                                   | GND CON 121.8 |

**DME REQUIRED**SAIPAN ISLAND, CQ  
Amdt 3A 03JAN19FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)  
15°07'N-145°44'E  
**NDB RWY 25**

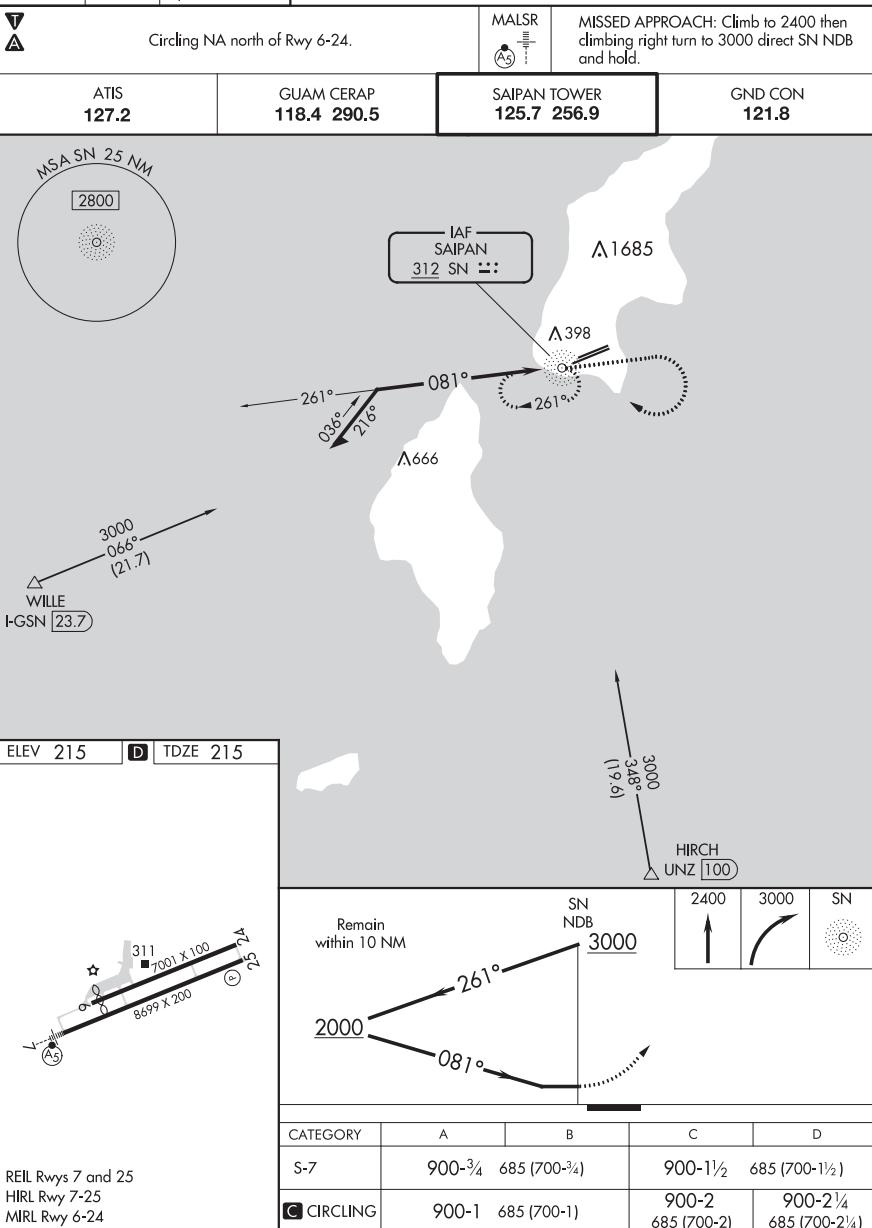
SAIPAN ISLAND, CQ

AL-6293 (FAA)

23222

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| NDB SN<br><b>312</b>   | APP CRS<br><b>081°</b> | Rwy Idg<br><b>8010</b> |
| TDZE<br><b>215</b>     |                        |                        |
| Apt Elev<br><b>215</b> |                        |                        |

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

**NDB Y RWY 7**SAIPAN ISLAND, CQ  
Amdt 6 02MAR17FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)  
15°07'N-145°44'E**NDB Y RWY 7**

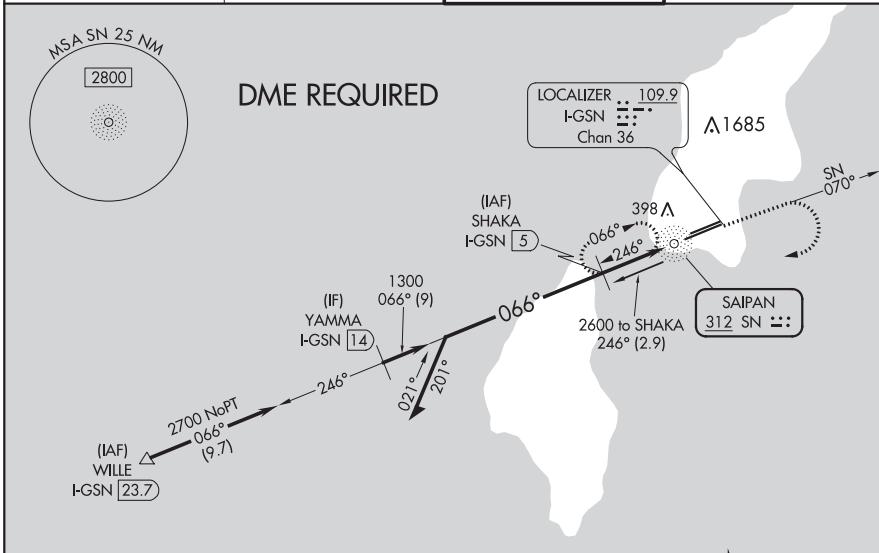
SAIPAN ISLAND, CQ

AL-6293 (FAA)

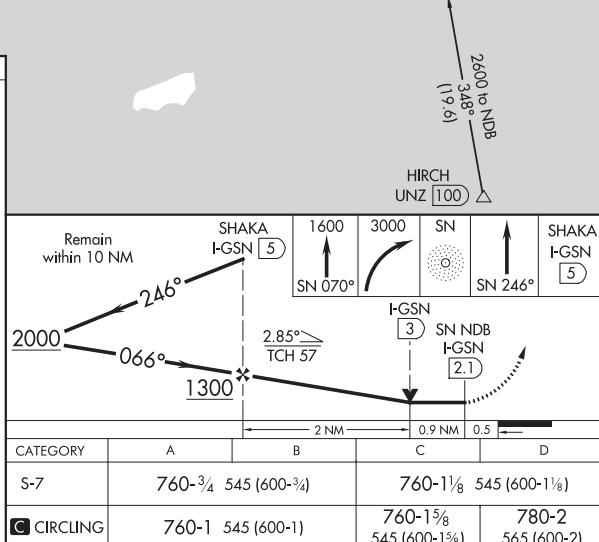
23222

|                      |                        |                                                                        |
|----------------------|------------------------|------------------------------------------------------------------------|
| NDB SN<br><b>312</b> | APP CRS<br><b>066°</b> | Rwy Idg<br><b>8010</b><br>TDZE<br><b>215</b><br>Apt Elev<br><b>215</b> |
|----------------------|------------------------|------------------------------------------------------------------------|

|                                                             |                                  |                                                                                                                                                                  |
|-------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>V</b><br>Circling NA north of Rwy 6-24.<br>DME required. | MALS R<br>                       | MISSIED APPROACH: Climb to 1600 on SN NDB bearing 070° then climbing right turn to 3000 direct SN NDB then on SN NDB bearing 246° to SHAKA/I-GSN 5 DME and hold. |
| ATIS<br><b>127.2</b>                                        | GUAM CERAP<br><b>118.4 290.5</b> | SAIPAN TOWER<br><b>125.7 256.9</b>                                                                                                                               |



|                                               |          |          |
|-----------------------------------------------|----------|----------|
| ELEV 215                                      | <b>D</b> | TDZE 215 |
| <b>REIL Rwy 7 and 25</b>                      |          |          |
| <b>HIRL Rwy 7-25</b>                          |          |          |
| <b>MIRL Rwy 6-24</b>                          |          |          |
| <b>FRANCISCO C ADA/SAINP INTL (GSN)(PGSN)</b> |          |          |
| <b>15°07'N-145°44'E</b>                       |          |          |
| <b>NDB Z RWY 7</b>                            |          |          |

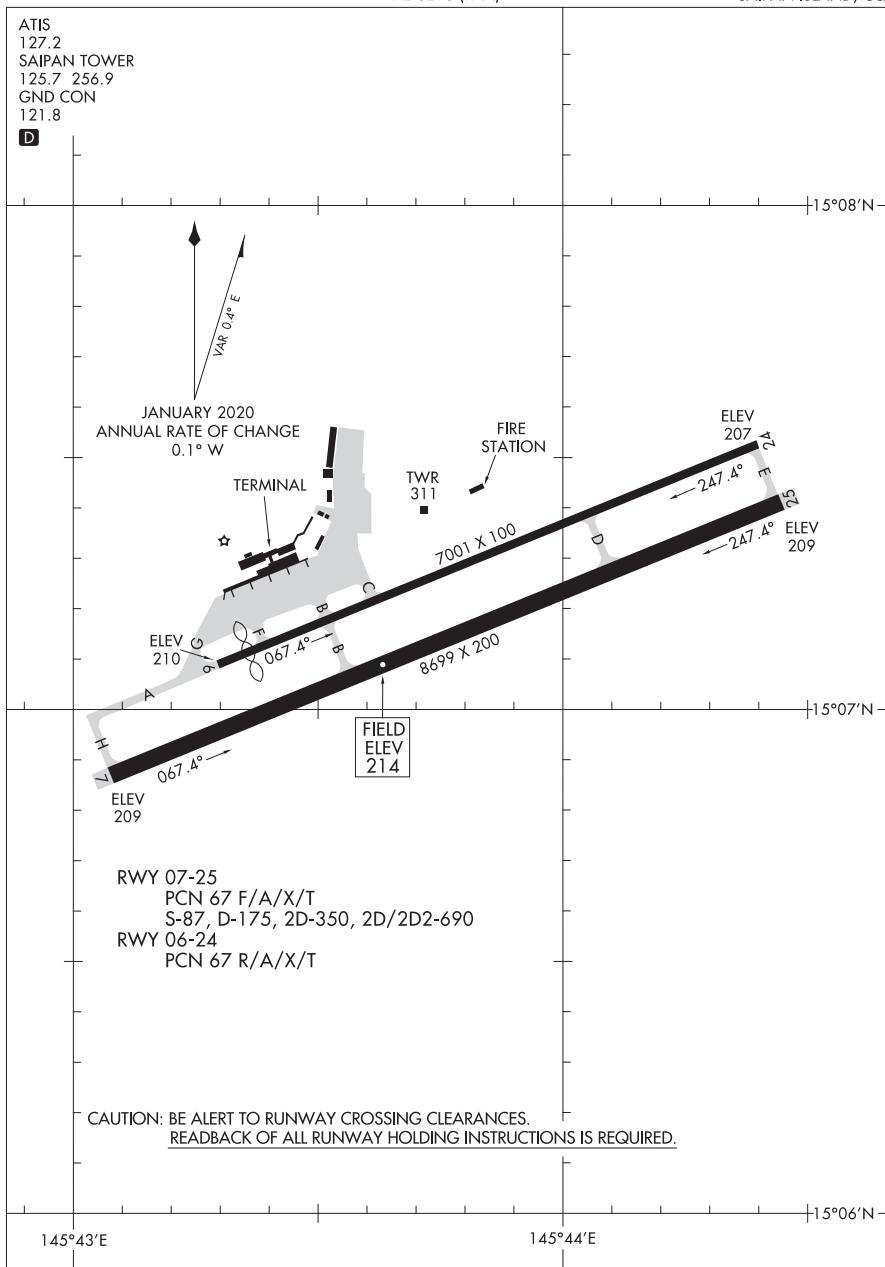
SAIPAN ISLAND, CQ  
Amdt 4 02MAR17

22027

## AIRPORT DIAGRAM

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)  
AL-6293 (FAA)

SAIPAN ISLAND, CQ

AIRPORT DIAGRAM  
22027SAIPAN ISLAND, CQ  
FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

TINIAN ISLAND, CQ

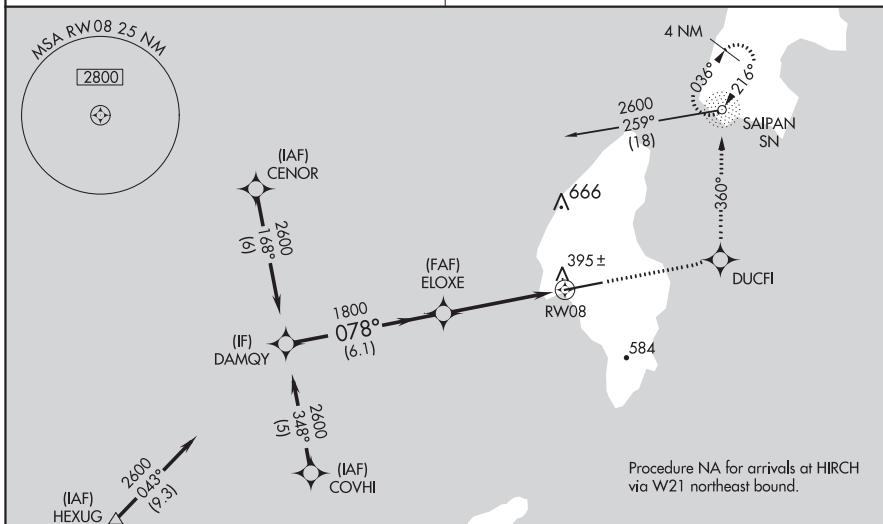
AL-6848 (FAA)

24025

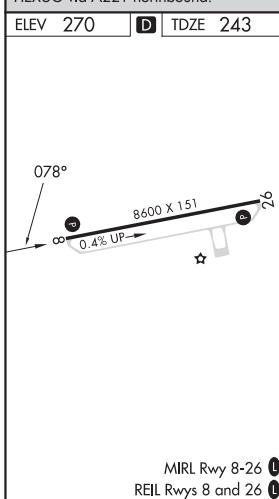
|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>078°</b> | Rwy Idg<br><b>8600</b> |
| TDZE<br><b>243</b>     | Apt Elev<br><b>270</b> |
|                        |                        |

FRANCISCO MANGLONA BORJA/TINIAN INTL (TNI)(PGWT)

|                                         |                                                                                                                                      |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>TINIAN ISLAND, CQ</b>                |                                                                                                                                      |
| <b>RNP APCH.</b>                        | Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting. VDP NA when using Saipan altimeter setting. |
| <b>GUAM CERAP</b><br><b>118.4 290.5</b> | <b>MISSIED APPROACH:</b> Climb to 2800 direct DUCFI and via 360° track to SN NDB and hold, continue climb-in-hold to 2800.           |
|                                         | <b>SAIPAN RADIO</b><br><b>123.6 (CTAF) ①</b>                                                                                         |



Procedure NA for arrivals at HIRCH via W21 northeast bound.



TINIAN ISLAND, CQ

Amdt 1A 26MAR20

FRANCISCO MANGLONA BORJA/TINIAN INTL (TNI)(PGWT)

15°00'N-145°37'E

**RNAV (GPS) RWY 8**

TINIAN ISLAND, CQ

AL-6848 (FAA)

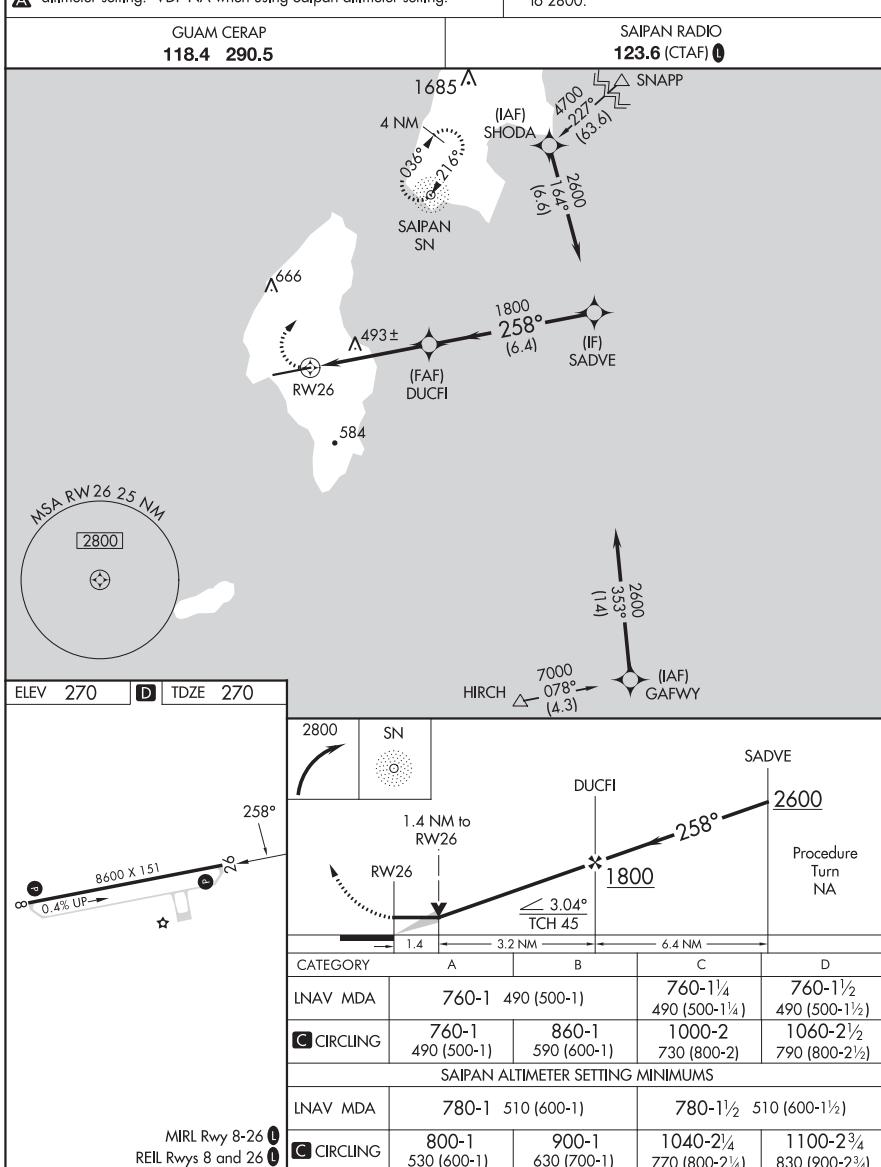
24025

|         |          |             |
|---------|----------|-------------|
| APP CRS | Rwy Idg  | <b>8600</b> |
| 258°    | TDZE     | <b>270</b>  |
|         | Apt Elev | <b>270</b>  |

FRANCISCO MANGLONA BORJA/TINIAN INTL (TNI)(PGWT)

RNP APCH.

▼ Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting. VDP NA when using Saipan altimeter setting.

**RNAV (GPS) RWY 26**

TINIAN ISLAND, CQ

Amdt 1A 26MAR20

FRANCISCO MANGLONA BORJA/TINIAN INTL (TNI)(PGWT)

15° 00'N-145° 37'E

**RNAV (GPS) RWY 26**

TINIAN ISLAND, CQ

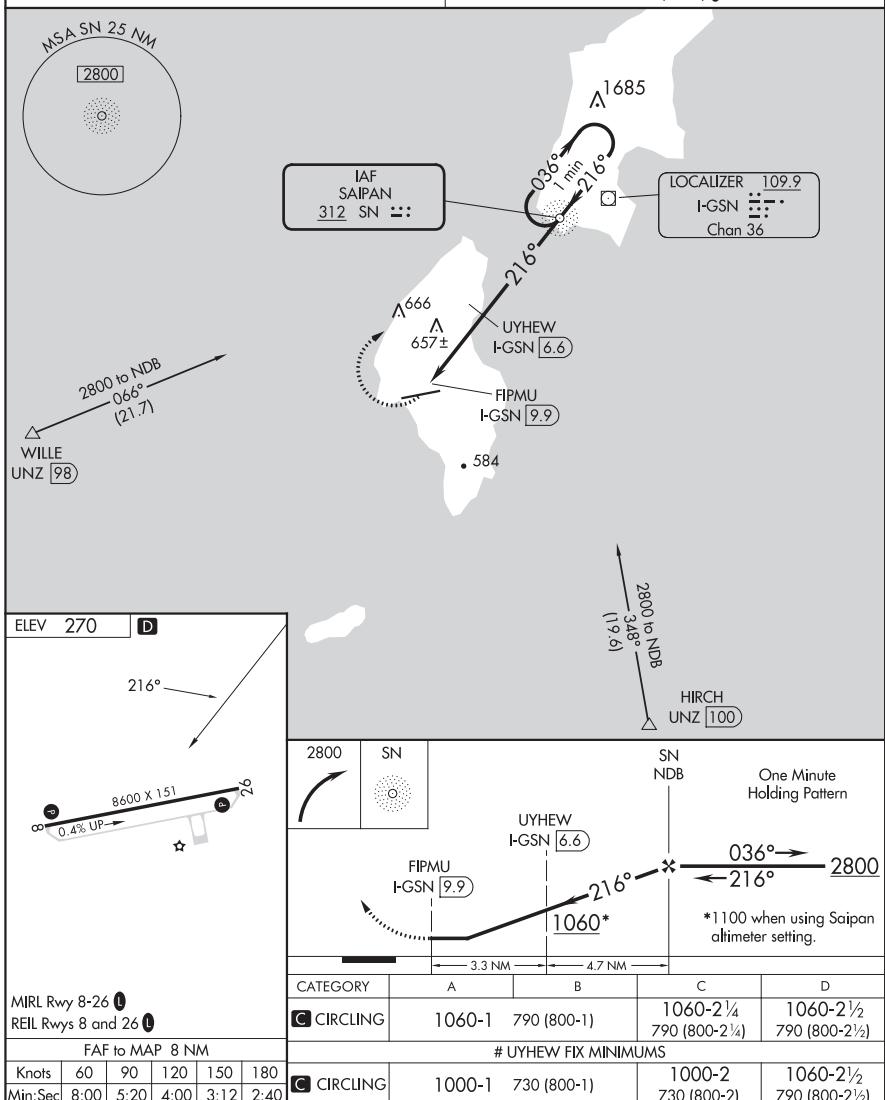
AL-6848 (FAA)

24025

**NDB-A**

|                                                  |                        |                                                           |
|--------------------------------------------------|------------------------|-----------------------------------------------------------|
| SN NDB<br><b>312</b>                             | APP CRS<br><b>216°</b> | Rwy Idg<br>TDZE<br>Apt Elev<br><b>N/A<br/>N/A<br/>270</b> |
| FRANCISCO MANGLONA BORJA/TINIAN INTL (TNI)(PGWT) |                        |                                                           |

|           |                                                                                                                                                                                                                                                                      |                                                                       |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>NA</b> | Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting and increase all MDA 40 feet, and all Cats visibility $\frac{1}{4}$ SM. Increase UYHEW fix minimums Cats C and D visibility $\frac{1}{4}$ mile.<br># DME from I-GSN LOC/DME. | MISSIED APPROACH: Climbing right turn to 2800 direct SN NDB and hold. |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|

GUAM CERAP  
**118.4 290.5**SAIPAN RADIO  
**123.6 (CTAF) 1**

TINIAN ISLAND, CQ

Amdt 3A 20JUN19

FRANCISCO MANGLONA BORJA/TINIAN INTL (TNI)(PGWT)  
15°00'N-145°37'E**NDB-A**

WAKE ISLAND, WAKE ISLAND

|                         |                                                             |
|-------------------------|-------------------------------------------------------------|
| APCH CRS<br><b>096°</b> | Rwy Idg <b>9844</b><br>TDZE <b>20</b><br>Apt Elev <b>23</b> |
|-------------------------|-------------------------------------------------------------|

RNP APCH-GPS

▼ \* Circling not authorized N of Rwy 10-28.

AL-2162 (USAF)

23110  
RNAV (GPS) RWY 10

WAKE ISLAND AFLD (PWAK)

MISSSED APPROACH: Climbing to 4000 direct NONEY and hold.  
Continue climb-in-hold to 4000.WAKE OPS  
128.0 349.4

CAUTION: Procedure in uncontrolled airspace. Uncontrolled airspace below 5500' AGL.

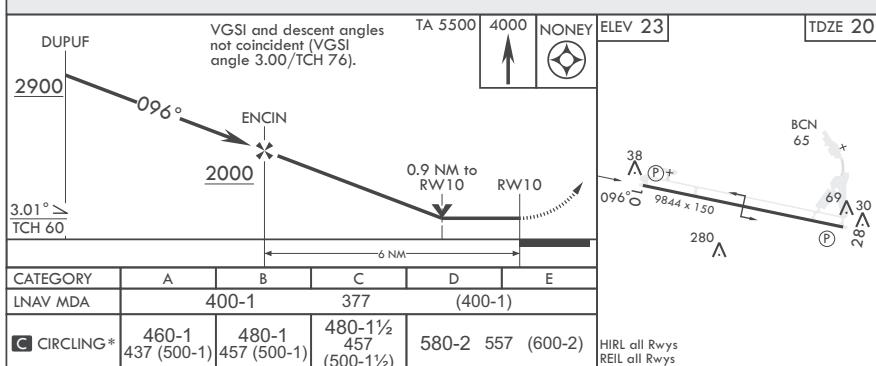
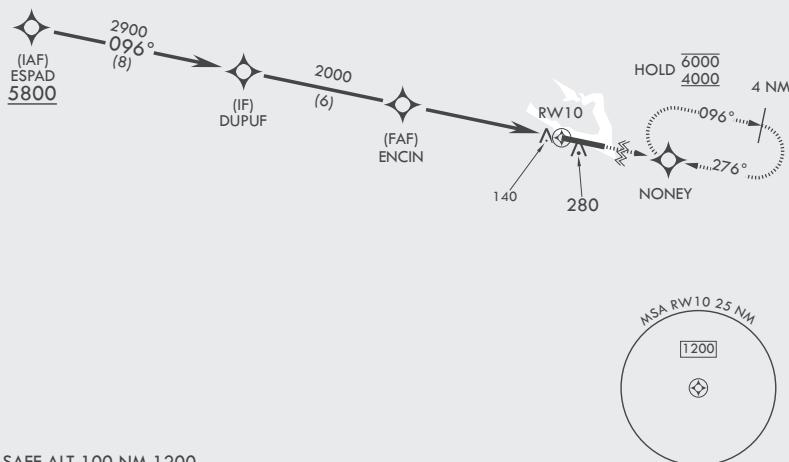
Contact Wake Island Operations for advisory services.

CAUTION: When Rwy 28 VGSI inop, circling to Rwy 28 not authorized at night.

DME/DME RNP-0.3 NA.

When VGSI inop, procedure not authorized at night.

USAF only: when VGSI inop, straight-in Rwy 10 authorized at night with MAJCOM A3 approval.



WAKE ISLAND, WAKE ISLAND

19°17'N - 166°38'E

WAKE ISLAND AFLD (PWAK)

Amdt 2 20APR23  
TERPS

RNAV (GPS) RWY 10

23110

## WAKE ISLAND, WAKE ISLAND

|                         |                                                       |
|-------------------------|-------------------------------------------------------|
| APCH CRS<br><b>276°</b> | Rwy Idg <b>9844</b><br>TDZE<br>Arpt Elev<br><b>23</b> |
|-------------------------|-------------------------------------------------------|

RNP APCH-GPS

▼ \* Circling not authorized N of Rwy 10-28.

AL-2162 (USAF)

**RNAV (GPS) RWY 28**

WAKE ISLAND AFLD (PWAK)

MISSIED APPROACH: Climbing to 4000 direct DUPUF and hold.  
Continue climb-in-hold to 4000.WAKE OPS  
**128.0 349.4**

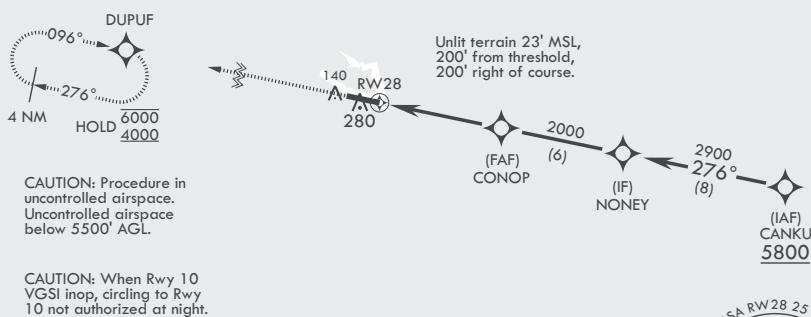
## DME/DME RNP-0.3 NA

When VGSI inop, procedure not authorized at night.

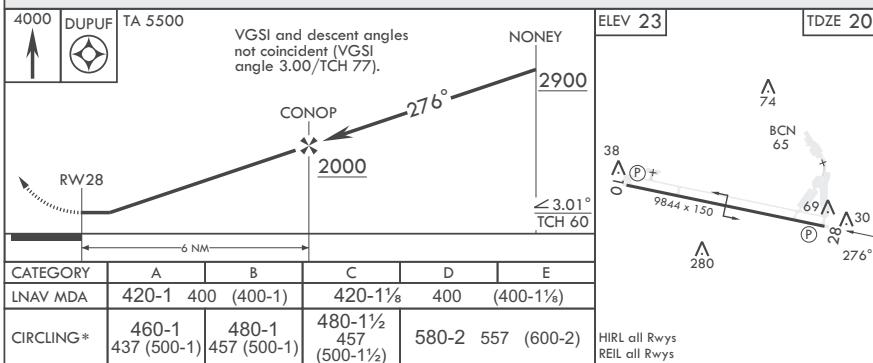
USAF only: when VGSI inop, straight-in Rwy 28 authorized at night with MAJCOM A3 approval.

Contact Wake Island Operations for advisory services.

RWY 28 helicopter visibility reduction below 1 SM not authorized.



EMERG SAFE ALT 100 NM 1200



## WAKE ISLAND, WAKE ISLAND

19°17'N - 166°38'E

WAKE ISLAND AFLD (PWAK)

Amtd 2 20APR23  
TERPS**RNAV (GPS) RWY 28**

WAKE ISLAND, WAKE ISLAND

|                                |                  |                                         |
|--------------------------------|------------------|-----------------------------------------|
| VORTAC AWK<br>113.5<br>Chan 82 | APCH CRS<br>086° | Rwy Idg 9844<br>TDZE 23<br>Arpt Elev 23 |
|--------------------------------|------------------|-----------------------------------------|

AI-2162 [USAF]

## TACAN or VOR/DME RWY 10

22195

WAKE ISLAND AFLD (PWAK)

▼ \* Circling not authorized N of Rwy 10-28.  
Visibility reduction by helicopters not authorized.

MISSED APPROACH: Climb to 4000 on AWK VORTAC R-100 direct BRYSA and hold. Continue climb-in-hold to 4000.

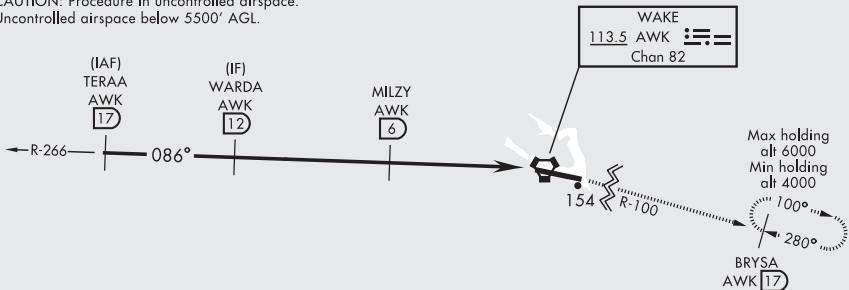
CONTACT WAKE ISLAND OPERATIONS FOR ADVISORY SERVICES

128.0 349.4

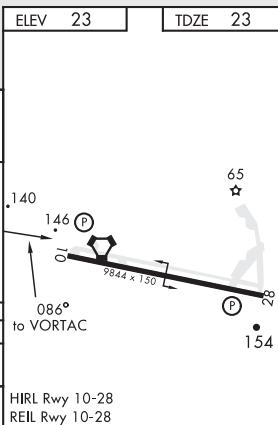
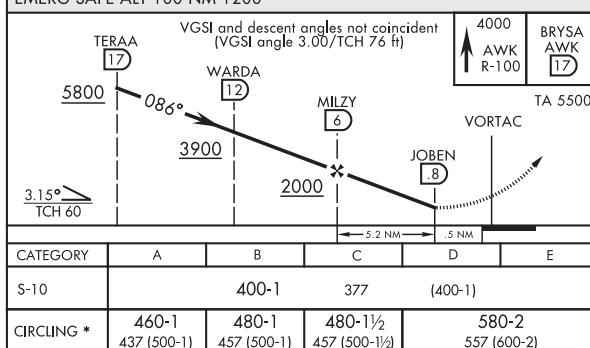
When VGSI inop, procedure not authorized at night.  
USAF only: when VGSI inop, straight-in Rwy 10  
authorized at night with MAJCOM A3 approval.

CAUTION: When Rwy 28 VGSI inop,  
circling to Rwy 28 not authorized at night.

CAUTION: Procedure in uncontrolled airspace.  
Uncontrolled airspace below 5500' AGL.



EMERG SAFE ALT 100 NM 1200



WAKE ISLAND, WAKE ISLAND

Amdt 3 10OCT19

TERPS

19°17'N-166°38'E

WAKE ISLAND AFLD (PWAK)

## TACAN or VOR/DME RWY 10

22195

## WAKE ISLAND, WAKE ISLAND

|                                |                  |                                         |
|--------------------------------|------------------|-----------------------------------------|
| VORTAC AWK<br>113.5<br>Chan 82 | APCH CRS<br>280° | Rwy Idg 9844<br>TDZE 20<br>Arpt Elev 23 |
|--------------------------------|------------------|-----------------------------------------|

AL-2162 [USAF]

WAKE ISLAND AFLD (PWAK)

▼ \* Circling not authorized N of Rwy 10-28.  
Visibility reduction by helicopter not authorized.

## TACAN or VOR/DME RWY 28

MISSSED APPROACH: Climbing to 4000 on AWK VORTAC R-266 direct TERRAA and hold. Continue climb-in-hold to 4000.

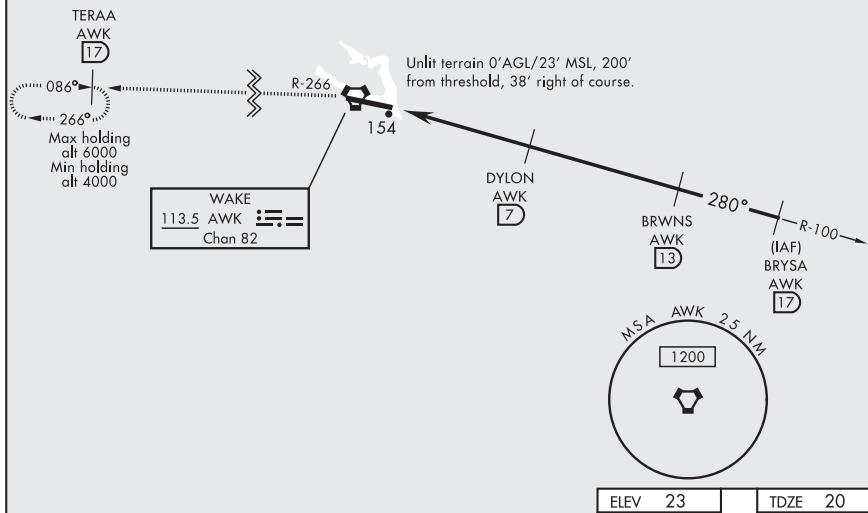
CONTACT WAKE ISLAND OPERATIONS FOR ADVISORY SERVICES

128.0 349.4

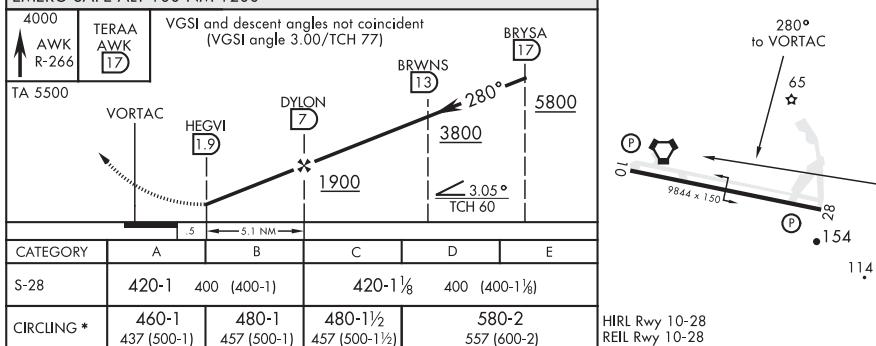
When VGSI inop, procedure not authorized at night.  
USAF only: when VGSI inop, straight-in Rwy 28  
authorized at night with MAJCOM A3 approval.

CAUTION: When Rwy 10 VGSI inop,  
circling to Rwy 10 not authorized at night.

CAUTION: Procedure in uncontrolled airspace.  
Uncontrolled airspace below 5500' AGL.



## EMERG SAFE ALT 100 NM 1200



## WAKE ISLAND, WAKE ISLAND

19° 17'N-166° 38'E

WAKE ISLAND AFLD (PWAK)

Amdt 3 10OCT19

TERPS

## TACAN or VOR/DME RWY 28

WENO ISLAND, FM

AL-2655 (FAA)

22027

|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>041°</b> | Rwy Idg<br><b>6013</b> |
| TDZE<br><b>10</b>      | Apt Elev<br><b>10</b>  |
|                        |                        |

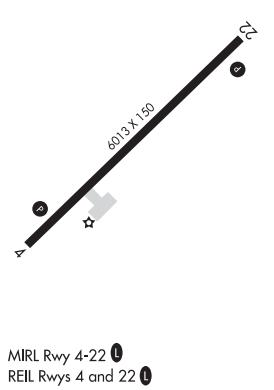
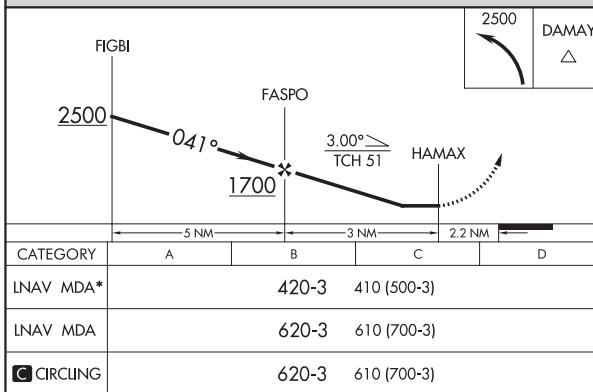
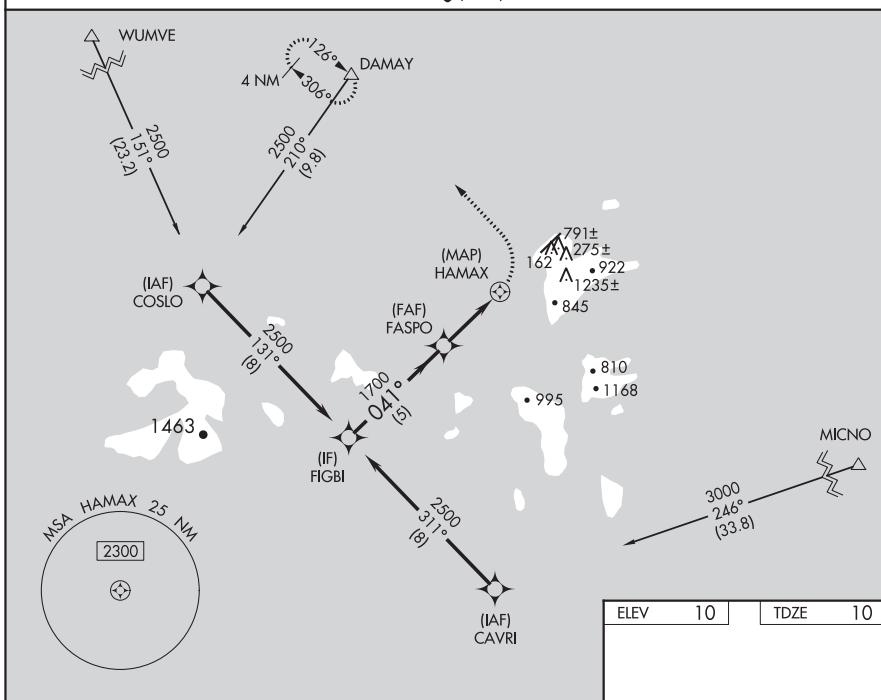
RNP APCH.

- ▼ Obtain local altimeter setting on CTAF; when not received, procedure NA.  
 ▲ Circling NA southeast of Rwy 4-22.  
 No controlled airspace below 5500.

## 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.

TRUK RADIO  
**123.6** (CTAF)



WENO ISLAND, FM

Amtd 1A 28FEB19

07°28'N-151°51'E

CHUUK INTL (TKK) (PTKK)  
**RNAV (GPS) RWY 4**

WENO ISLAND, FM

AI-2655 (FAA)

22027

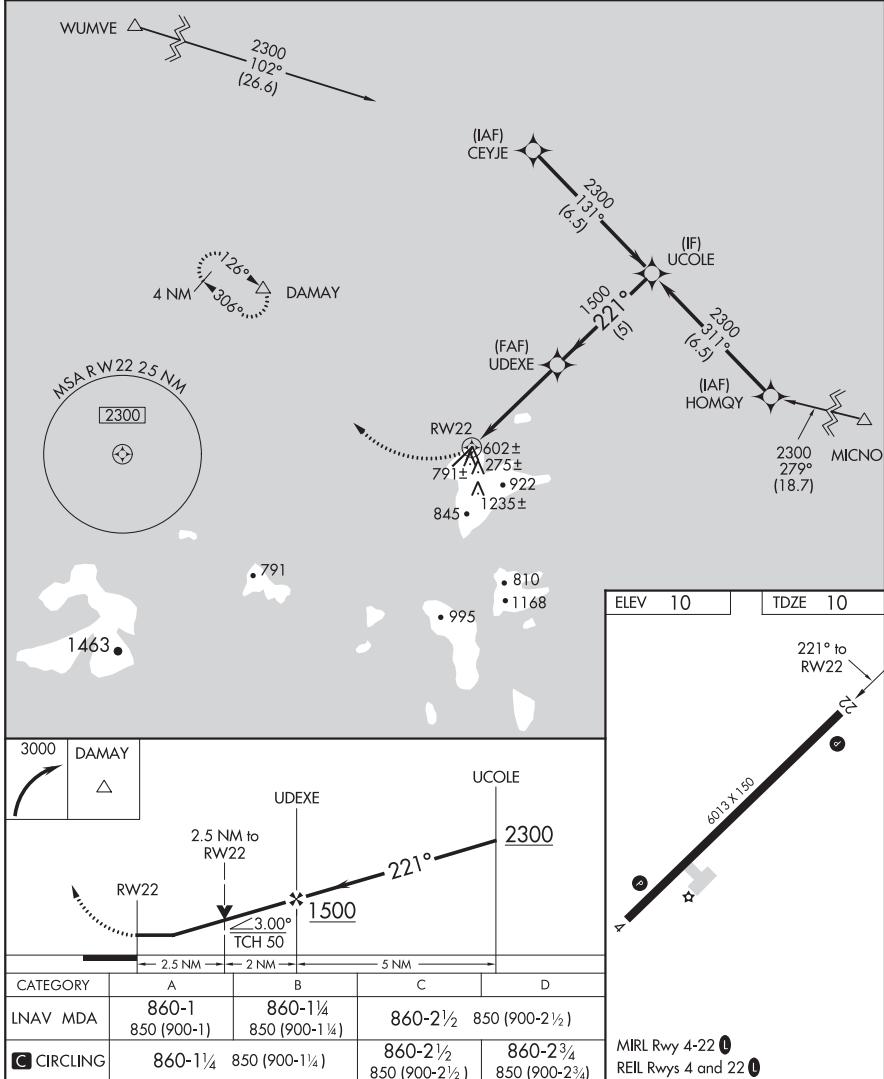
|                        |                        |
|------------------------|------------------------|
| APP CRS<br><b>221°</b> | Rwy Idg<br><b>6013</b> |
| TDZE<br><b>10</b>      | Apt Elev<br><b>10</b>  |
|                        |                        |

RNP APCH.

▼ Circling NA southeast of Rwy 4-22.

▲ Obtain local altimeter setting on CTAF; when not received, procedure NA.  
No controlled airspace below 5500.**RNAV (GPS) RWY 22**  
CHUUK INTL (TKK) (PTKK)

MISSIED APPROACH: Climbing right turn to 3000 direct DAMAY and hold.

TRUK RADIO  
**123.6** (CTAF)

WENO ISLAND, FM

Orig-A 28FEB19

07°28N-151°51'E

CHUUK INTL (TKK) (PTKK)  
**RNAV (GPS) RWY 22**

WENO ISLAND, FM

AL-2655 (FAA)

19059

|                                        |                 |                                        |
|----------------------------------------|-----------------|----------------------------------------|
| NDB/DME TKK<br>375<br>Chan 111 (116.4) | APP CRS<br>054° | Rwy Idg 6013<br>TDZE 10<br>Apt Elev 10 |
|----------------------------------------|-----------------|----------------------------------------|

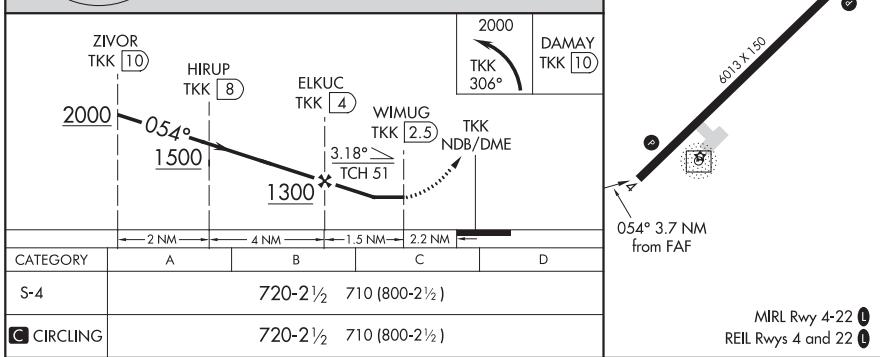
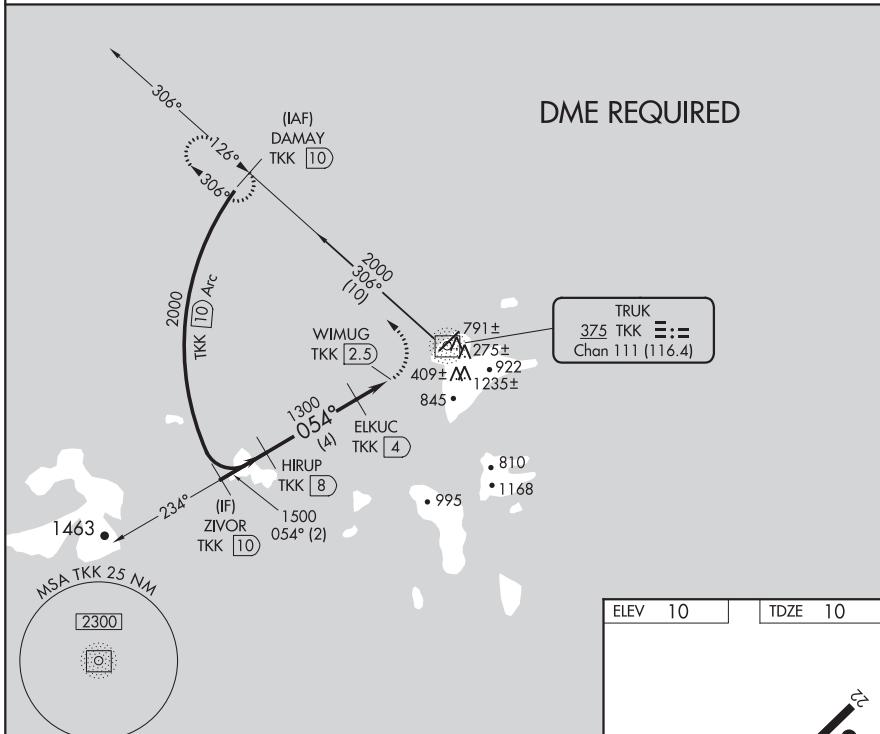
NDB RWY 4  
CHUUK INTL (TKK) (PTKK)

- ▼ 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.

MISSIED APPROACH: Climbing left turn to 2000 on TKK NDB/DME bearing 306° to DAMAY/TKK 10 DME and hold.

TRUK RADIO  
123.6 (CTAF)

DME REQUIRED

WENO ISLAND, FM  
Amtd 1A 28FEB19

07°28'N-151°51'E

CHUUK INTL (TKK) (PTKK)  
NDB RWY 4

WENO ISLAND, FM

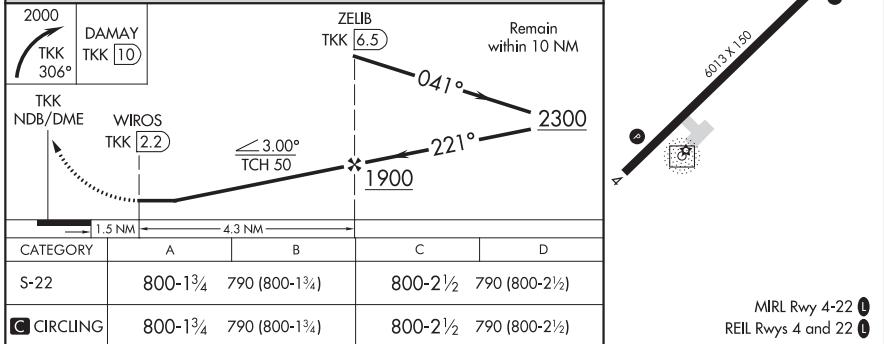
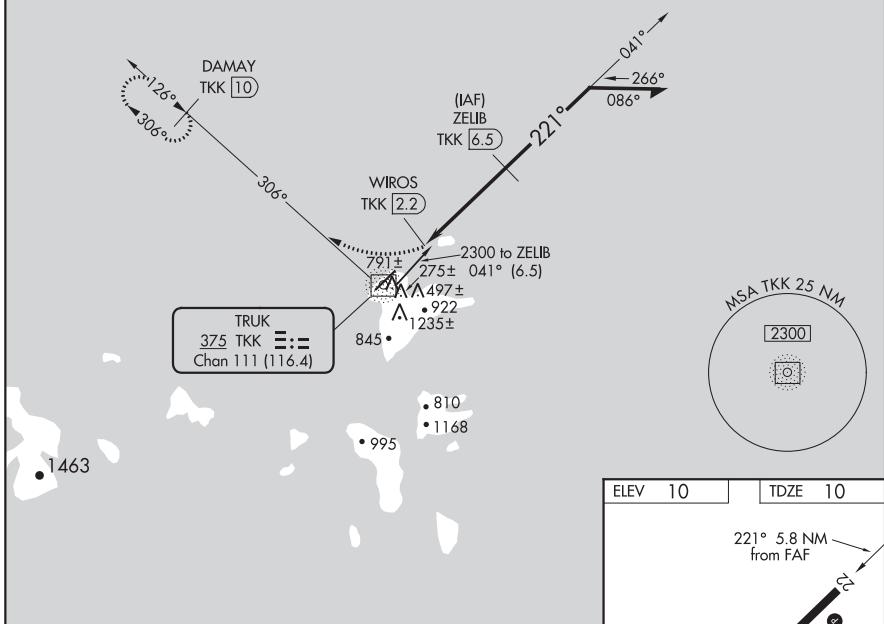
AL-2655 (FAA)

19059

|                                        |                 |                                        |
|----------------------------------------|-----------------|----------------------------------------|
| NDB/DME TKK<br>375<br>Chan 111 (116.4) | APP CRS<br>221° | Rwy Idg 6013<br>TDZE 10<br>Apt Elev 10 |
|----------------------------------------|-----------------|----------------------------------------|

|                                                                                                                                                                                      |                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>T</b> Obtain local altimeter setting on CTAF; when not received, procedure NA.<br><b>A</b> Circling NA southeast of Rwy 4-22. DME Required.<br>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<br><b>123.6</b> (CTAF)                                                                                                                                                    |                                                                                                        |

## DME REQUIRED



WENO ISLAND, FM

Orig-A 28FEB19

07°28'N-151°51'E

CHUUK INTL (TKK) (PTKK)  
**NDB RWY 22**

WAHIAWA, OAHU I, HAWAII

|                         |                         |
|-------------------------|-------------------------|
| APCH CRS<br><b>352°</b> | Rwy Idg<br><b>N/A</b>   |
| TDZE<br><b>N/A</b>      | Arpt Elev<br><b>843</b> |
|                         |                         |

AL-2832 [USA]

23250

**RNAV (GPS)-C**

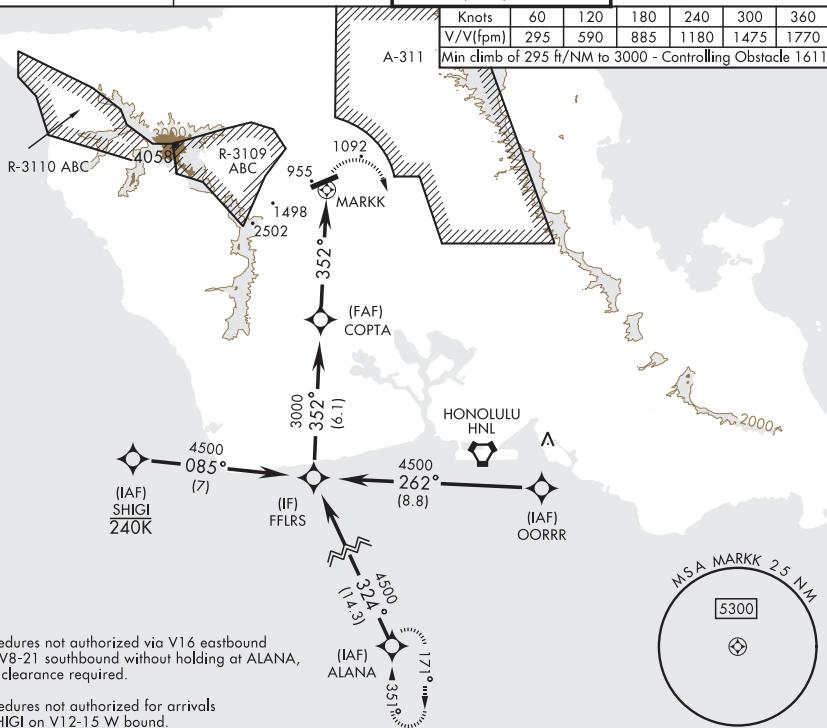
WHEELER AAF (PHHI)

RNP APCH - GPS

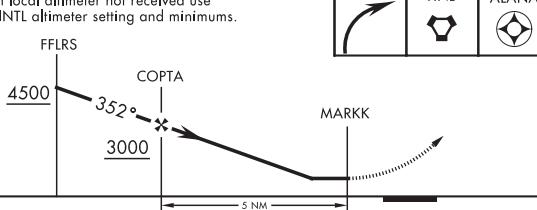
DME required

▼ \* Circling to Rwy 24 not authorized at night.  
Circling not authorized N Rwy 6-24 when class D surface area is VFR.

MISSIED APPROACH: (Do not exceed 220 KIAS until initial turn completion.) Climbing right turn to 6000 direct HNL VORTAC, track 171° to ALANA and hold.

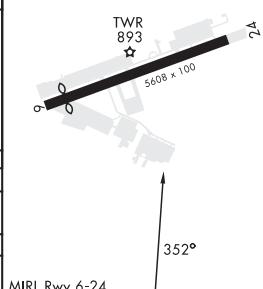
ATIS  
**119.675 242.4**HCF APP CON  
**118.3 269.0**TOWER ★  
**126.3 (CTAF) 235.625**GND CON  
**41.5 FM 121.85 237.5**

When local altimeter not received use HNL INTL altimeter setting and minimums.



ELEV 843

Rwy 6 Idg 5038'



WAHIAWA, OAHU I, HAWAII

Amdt 1 07SEP23

21° 29'N-158°02'W

WHEELER AAF (PHHI)

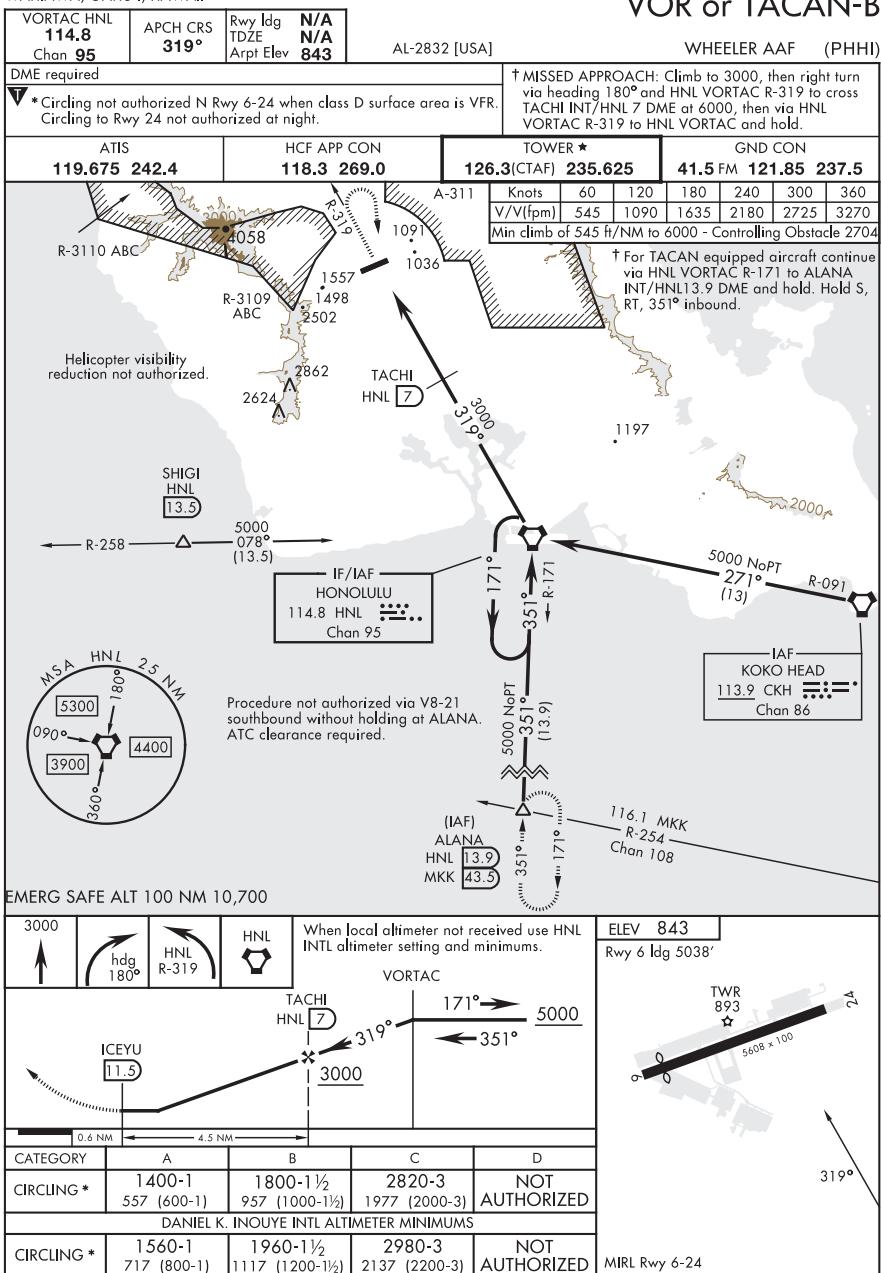
**RNAV (GPS)-C**

23250

## VOR or TACAN-B

WHEELER AAF (PHHI)

WAHIAWA, OAHU I, HAWAII



WAHIAWA, OAHU I, HAWAII

Amdt 4 07SEP23

21° 29'N-158° 02'W

WHEELER AAF (PHHI)

## VOR or TACAN-B

23250

## GECKO TWO DEPARTURE (GECKO2• GECKO)

AL-2832 [USA]

WHEELER AAF (PHHI)

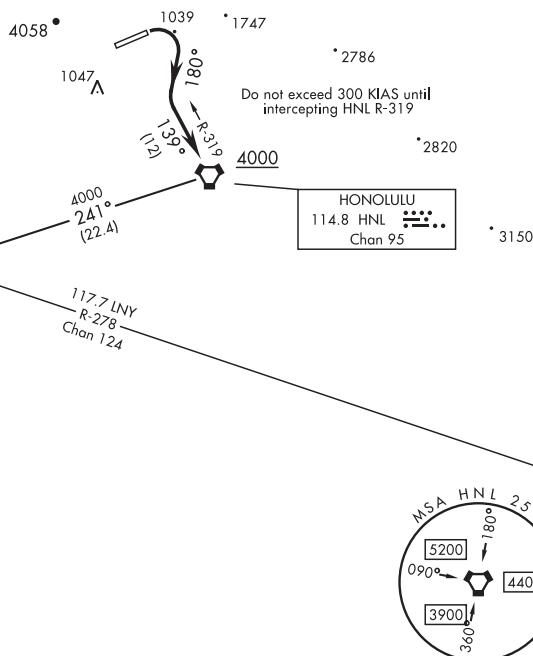
WAHIAWA, OAHU I, HAWAII

| HCF APP                            | DME required     | Rwy | Knots | 60   | 120  | 180  | 240  | 300 | 360 |
|------------------------------------|------------------|-----|-------|------|------|------|------|-----|-----|
| 124.8 317.6 (E)<br>118.3 269.0 (W) | *06 (a) V/V(fpm) | 365 | 730   | 1095 | 1460 | 1825 | 2190 |     |     |
|                                    | +06 (b) V/V(fpm) | 252 | 504   | 756  | 1008 | 1260 | 1512 |     |     |

\* Minimum      † ATC Climb Rate

(a) to 3600

(b) to HNL to 4000



## DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 6: Climbing right turn via heading 180° and HNL VORTAC R-319 to cross HNL at or above 4000, thence...

GECKO TRANSITION: ...via HNL R-241 to GECKO (HNL R-241/22.4 DME).

GECKO TWO DEPARTURE (GECKO2• GECKO)  
07SEP23

WAHIAWA, OAHU I, HAWAII  
WHEELER AAF (PHHI)

23250

## KOKO HEAD TWO DEPARTURE

WHEELER AAF (PHHI)  
WAHIAWA, OAHU I, HAWAIIHCF APP  
124.8 317.6 (E)  
118.3 269.0 (W)TOP ALTITUDE  
5000

AL-2832 [USA]

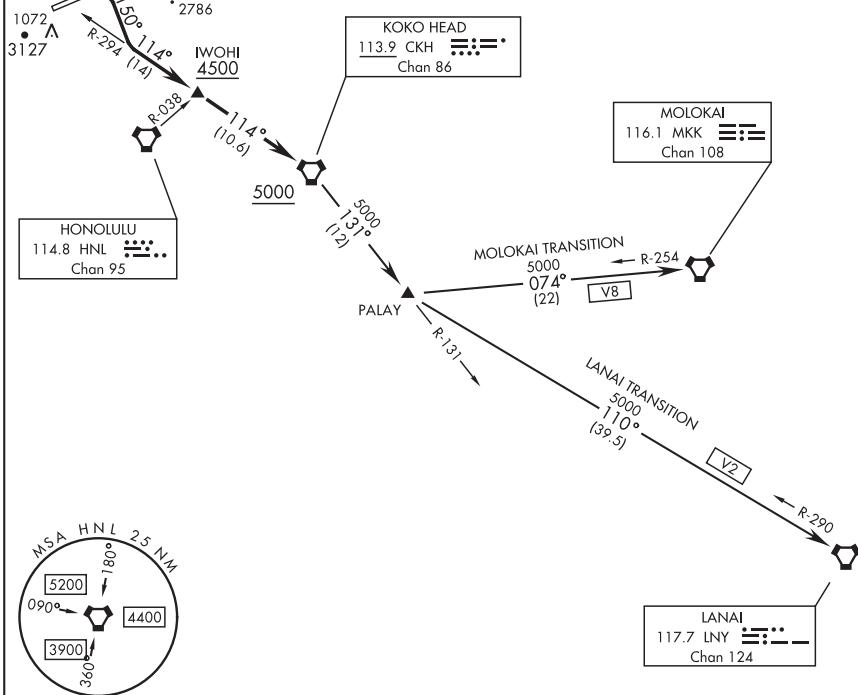
| Rwy  | Knots    | 60  | 120 | 180  | 240  | 300  | 360  |
|------|----------|-----|-----|------|------|------|------|
| 06 @ | V/V(fpm) | 365 | 730 | 1095 | 1460 | 1825 | 2190 |
| 06 @ | V/V(fpm) | 302 | 604 | 906  | 1208 | 1510 | 1812 |

\* Minimum      † ATC Climb Rate

@ to 3600

@ to IWOHI to 4500

\* 2860



## DEPARTURE ROUTE DESCRIPTION

TAKEOF RWY 06: Climbing right turn to heading 150° to intercept CKH VORTAC R-294 to cross IWOHI at or above 4500, then on CKH R-294 to cross CKH at or above 5000, thence...

LANAI TRANSITION (KOKOH2.LNY): ...from over CKH on R-131 to PALAY then on LNY VORTAC R-290 to LNY.

MOLOKAI TRANSITION (KOKOH2.MKK): ...from over CKH on R-131 to PALAY then on MKK VORTAC R-254 to MKK.

KOKO HEAD TWO DEPARTURE  
07SEP23WAHIAWA, OAHU I, HAWAII  
WHEELER AAF (PHHI)

YAP ISLAND, FM

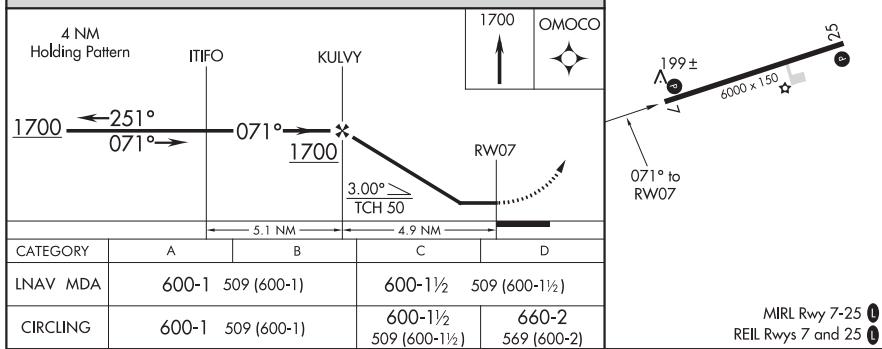
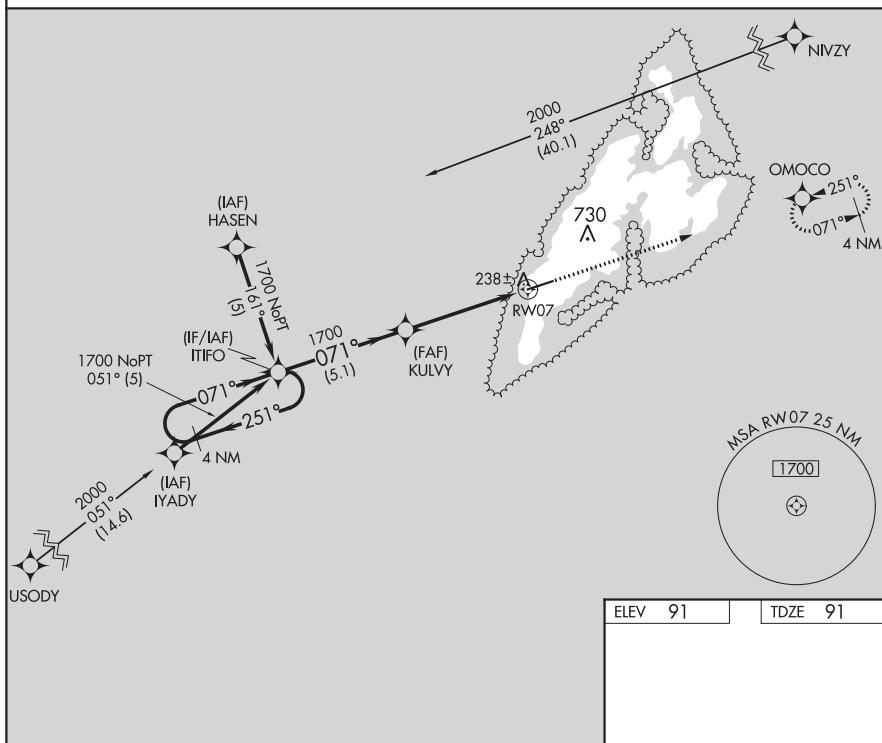
AL-6048 (FAA)

2227

|                        |                     |
|------------------------|---------------------|
| APP CRS<br><b>071°</b> | Rwy Idg <b>6000</b> |
| TDZE                   | <b>91</b>           |
| Apt Elev               | <b>91</b>           |

**RNAV (GPS) RWY 7**  
YAP INTL (T11)(PTYA)

|                                                                                                                                                                                            |                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>▼</b> Obtain local altimeter setting on CTAF; when not received, procedure not authorized.<br>Circling NA North of Rwy 7-25. DME/DME RNP-0.3 NA.<br>No controlled airspace below 5500'. | MISSIED APPROACH: Climb to 1700 direct<br>OMOCO WP and hold. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|

YAP RADIO  
**123.6** (CTAF)YAP ISLAND, FM  
Orig-A 11MAY06

09°30'N-138°05'E

YAP INTL (T11)(PTYA)  
**RNAV (GPS) RWY 7**

YAP ISLAND, FM

AL-6048 (FAA)

22027

|                 |                 |
|-----------------|-----------------|
| APP CRS<br>251° | Rwy Idg<br>6000 |
|                 | TDZE<br>89      |
|                 | Apt Elev<br>91  |

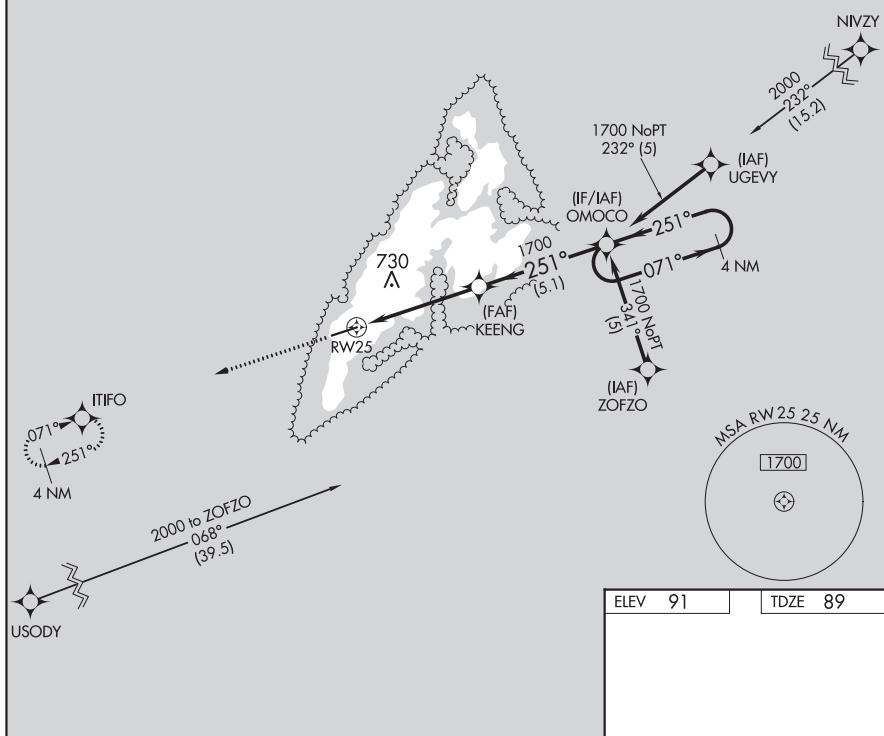
▼ Obtain local altimeter setting on CTAF; when not received, procedure not authorized.  
Circling NA North of Rwy 7-25. DME/DME RNP-0.3 NA.  
No controlled airspace below 5500'.

## RNAV (GPS) RWY 25

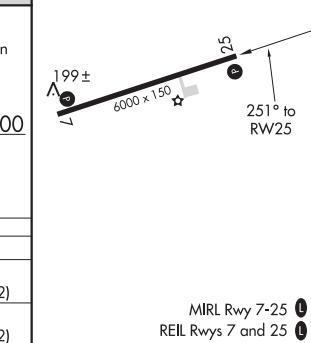
YAP INTL (T11)(PTYA)

MISSED APPROACH: Climb to 1700 direct ITIFO WP and hold.

YAP RADIO  
123.6 (CTAF)



| 1700     | ITIFO             | KEENG  | OMOCO             | 4 NM Holding Pattern |
|----------|-------------------|--------|-------------------|----------------------|
| ↑        | ◆                 |        |                   |                      |
| RW25     |                   | 251°   | 071°              | 1700                 |
|          |                   | 3.00°  | 251°              |                      |
|          |                   | TCH 50 |                   |                      |
| 4.9 NM   |                   |        | 5.1 NM            |                      |
| CATEGORY | A                 | B      | C                 | D                    |
| LNAV MDA | 700-1 611 (700-1) |        | 700-1 611 (700-1) | 700-2 611 (700-2)    |
| CIRCLING | 700-1 609 (700-1) |        | 700-1 609 (700-1) | 700-2 609 (700-2)    |



YAP ISLAND, FM  
Orig-A 11MAY06

09°30'N-138°05'E

YAP INTL (T11)(PTYA)  
RNAV (GPS) RWY 25

YAP ISLAND, FM

AL-6048 (FAA)

22027

|                   |                 |                 |
|-------------------|-----------------|-----------------|
| NDB/DME YP<br>317 | APP CRS<br>074° | Rwy Idg<br>6000 |
| Chan 122 (117.5)  |                 | TDZE 91         |
|                   |                 | Apt Elev 91     |

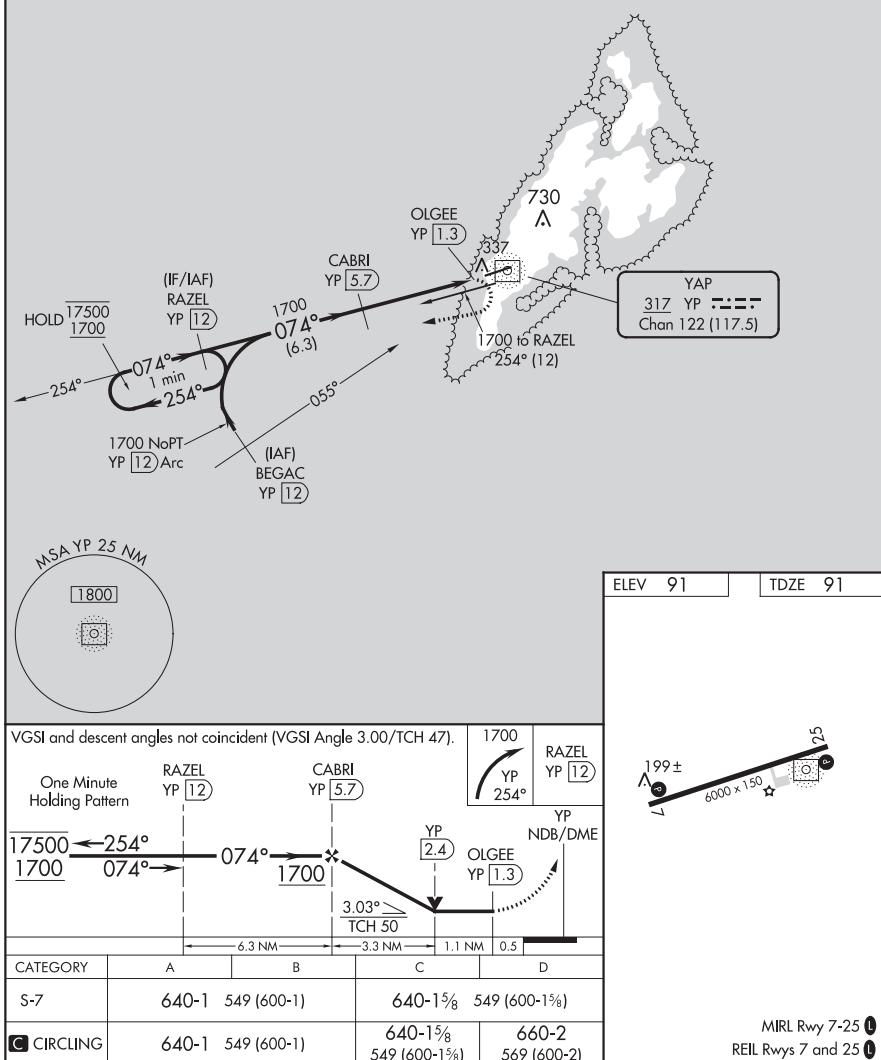
# NDB/DME RWY 7

YAP INTL (T11)(PTYA)

▼ Circling NA north of Rwy 7-25.  
 Rwy 7 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.  
 GPS required for procedure entry at BEGAC.  
 No controlled airspace below 5500.

MISSIED APPROACH: Climbing right turn to 1700 on  
 254° bearing from YP NDB/DME to RAZEL/12 DME  
 and hold.

YAP RADIO  
**123.6** (CTAF)

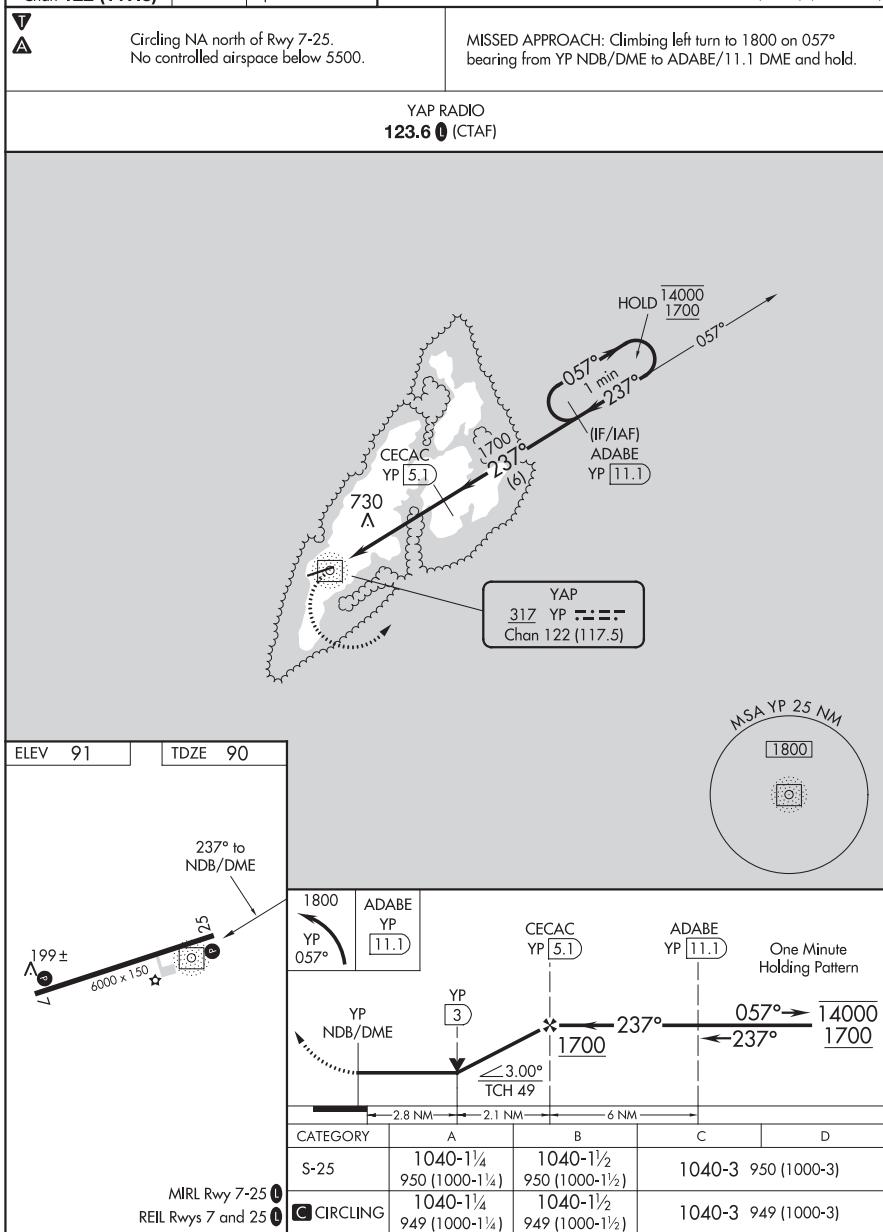


YAP ISLAND, FM

AL-6048 (FAA)

22027

|                   |                 |                             |                  |
|-------------------|-----------------|-----------------------------|------------------|
| NDB/DME YP<br>317 | APP CRS<br>237° | Rwy Idg<br>TDZE<br>Apt Elev | 6000<br>90<br>91 |
| Chan 122 (117.5)  |                 |                             |                  |

**NDB/DME RWY 25**  
YAP INTL (T11)(PTYA)

YAP ISLAND, FM

AL-6048 (FAA)

22027

|                   |                 |                                                            |
|-------------------|-----------------|------------------------------------------------------------|
| NDB/DME YP<br>317 | APP CRS<br>074° | Rwy Idg 6000<br>TDZE 91<br>Apt Elev 91<br>Chan 122 (117.5) |
|-------------------|-----------------|------------------------------------------------------------|

**NDB RWY 7**  
YAP INTL (T11)(PTYA)

▼ Circling NA north of Rwy 7-25.  
 ▲ Rwy 7 helicopter visibility reduction below  $\frac{3}{4}$  SM NA.  
 No controlled airspace below 5500 feet.

MISSIED APPROACH: Climbing right turn to 1800 on 180° bearing from YP NDB/DME then right turn direct YP NDB/DME and hold.

YAP RADIO  
123.6 (CTAF)

IAF  
YAP  
317 YP - - -  
Chan 122 (117.5)

MSA YP 25 NM



Remain within 10 NM

\*YP  
NDB/DME  
1800

1800  
YP  
180°

YP  
180°

\* YP NDB/DME arrivals descend to 1800 in YP NDB/DME holding pattern (E, RT, 254° inbound), prior to commencing approach.

| CATEGORY   | A                 | B | C                 | D                         |
|------------|-------------------|---|-------------------|---------------------------|
| S-7        | 820-1 729 (800-1) |   | 820-2 729 (800-2) |                           |
| C CIRCLING | 820-1 729 (800-1) |   | 820-2 729 (800-2) | 820-2 1/4 729 (800-2 1/4) |

|         |         |
|---------|---------|
| ELEV 91 | TDZE 91 |
|---------|---------|

199±  
A  
6000x150  
074° to NDB/DME

MIRL Rwy 7-25 ( )  
REIL Rwy 7 and 25 ( )

YAP ISLAND, FM  
Amdt 2B 27JAN22

09°30'N-138°05'E

YAP INTL (T11)(PTYA)  
**NDB RWY 7**

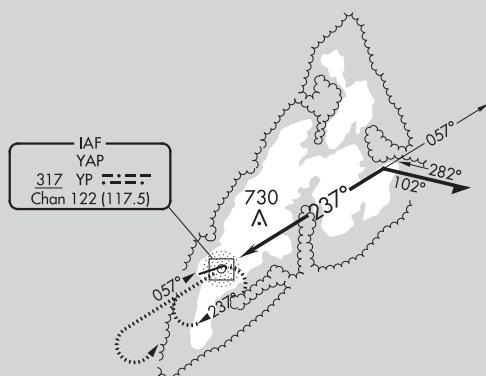
YAP ISLAND, FM

AL-6048 (FAA)

22027

|                                       |                 |                                        |
|---------------------------------------|-----------------|----------------------------------------|
| NDB/DME YP<br>317<br>Chan 122 (117.5) | APP CRS<br>237° | Rwy Idg 6000<br>TDZE 90<br>Apt Elev 91 |
|---------------------------------------|-----------------|----------------------------------------|

|                                                                     |                                                                               |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Cirding NA north of Rwy 7-25.<br>No controlled airspace below 5500. | MISSIED APPROACH: Climb to 1800 then left turn direct<br>YP NDB/DME and hold. |
| YAP RADIO<br><b>123.6 </b> (CTAF)                                   |                                                                               |



|                    |                 |
|--------------------|-----------------|
| ELEV 91            | TDZE 90         |
|                    | 237° to NDB/DME |
| 199±<br>6000 x 150 |                 |

MIRL Rwy 7-25   
REIL Rwy 7 and 25

| * YP NDB/DME arrivals descend to 1800 in YP NDB/DME holding pattern (SW, RT, 057° inbound) prior to commencing approach. | 1800                     | YP                       | *YP    | NDB/DME      | 057° | 1800 | Remain within 10 NM |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------|--------------|------|------|---------------------|
|                                                                                                                          |                          |                          |        |              |      |      |                     |
|                                                                                                                          |                          |                          |        |              |      |      | 2.9 NM              |
| CATEGORY                                                                                                                 | A                        | B                        | C      | D            |      |      |                     |
| S-25                                                                                                                     | 1080-1½<br>990 (1000-1½) | 1080-1½<br>990 (1000-1½) | 1080-3 | 990 (1000-3) |      |      |                     |
| <b>C CIRCLING</b>                                                                                                        | 1080-1½<br>989 (1000-1½) | 1080-1½<br>989 (1000-1½) | 1080-3 | 989 (1000-3) |      |      |                     |

YAP ISLAND, FM  
Orig-C 27JAN22

09°30'N-138°05'E

YAP INTL (T11)(PTYA)  
**NDB RWY 25**

**INTENTIONALLY  
LEFT  
BLANK**

**INTENTIONALLY  
LEFT  
BLANK**

## TERMINAL PROCEDURES

21224

| INSTRUMENT TAKEOFF OR APPROACH PROCEDURE CHARTS<br>RATE OF CLIMB/DESCENT TABLE<br>(ft per min) |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
|------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|

A rate of climb/descent table is provided for use in planning and executing climbs or descents under known or approximate ground speed conditions. It will be especially useful for approaches when the localizer only is used for course guidance. A best speed, power, altitude combination can be programmed which will result in a stable glide rate and altitude favorable for executing a landing if minimums exists upon breakout. Care should always be exercised so that minimum descent altitude and missed approach point are not exceeded.

| ft/NM | %    | GROUND SPEED (knots) |     |      |      |      |      |      |      |      |      |      | ANGLE |
|-------|------|----------------------|-----|------|------|------|------|------|------|------|------|------|-------|
|       |      | 60                   | 90  | 120  | 150  | 180  | 210  | 240  | 270  | 300  | 330  | 360  |       |
| 152   | 2.50 | 150                  | 230 | 300  | 380  | 460  | 530  | 610  | 680  | 760  | 840  | 910  | 1.43  |
| 200   | 3.29 | 200                  | 300 | 400  | 500  | 600  | 700  | 800  | 900  | 1000 | 1100 | 1200 | 1.89  |
| 210   | 3.46 | 210                  | 320 | 420  | 530  | 630  | 740  | 840  | 950  | 1050 | 1160 | 1260 | 1.98  |
| 220   | 3.62 | 220                  | 330 | 440  | 550  | 660  | 770  | 880  | 990  | 1100 | 1210 | 1320 | 2.07  |
| 230   | 3.79 | 230                  | 350 | 460  | 580  | 690  | 810  | 920  | 1040 | 1150 | 1270 | 1380 | 2.17  |
| 240   | 3.95 | 240                  | 360 | 480  | 600  | 720  | 840  | 960  | 1080 | 1200 | 1320 | 1440 | 2.26  |
| 250   | 4.11 | 250                  | 380 | 500  | 630  | 750  | 880  | 1000 | 1130 | 1250 | 1380 | 1500 | 2.36  |
| 260   | 4.28 | 260                  | 390 | 520  | 650  | 780  | 910  | 1040 | 1170 | 1300 | 1430 | 1560 | 2.45  |
| 270   | 4.44 | 270                  | 410 | 540  | 680  | 810  | 950  | 1080 | 1220 | 1350 | 1490 | 1620 | 2.54  |
| 280   | 4.61 | 280                  | 420 | 560  | 700  | 840  | 980  | 1120 | 1260 | 1400 | 1540 | 1680 | 2.64  |
| 290   | 4.77 | 290                  | 440 | 580  | 730  | 870  | 1020 | 1160 | 1310 | 1450 | 1600 | 1740 | 2.73  |
| 300   | 4.94 | 300                  | 450 | 600  | 750  | 900  | 1050 | 1200 | 1350 | 1500 | 1650 | 1800 | 2.83  |
| 310   | 5.10 | 310                  | 470 | 620  | 780  | 930  | 1090 | 1240 | 1400 | 1550 | 1710 | 1860 | 2.92  |
| 320   | 5.27 | 320                  | 480 | 640  | 800  | 960  | 1120 | 1280 | 1440 | 1600 | 1760 | 1920 | 3.01  |
| 330   | 5.43 | 330                  | 500 | 660  | 830  | 990  | 1160 | 1320 | 1490 | 1650 | 1820 | 1980 | 3.11  |
| 340   | 5.60 | 340                  | 510 | 680  | 850  | 1020 | 1190 | 1360 | 1530 | 1700 | 1870 | 2040 | 3.20  |
| 350   | 5.76 | 350                  | 530 | 700  | 880  | 1050 | 1230 | 1400 | 1580 | 1750 | 1930 | 2100 | 3.30  |
| 360   | 5.92 | 360                  | 540 | 720  | 900  | 1080 | 1260 | 1440 | 1620 | 1800 | 1980 | 2160 | 3.39  |
| 370   | 6.09 | 370                  | 560 | 740  | 930  | 1110 | 1300 | 1480 | 1670 | 1850 | 2040 | 2220 | 3.48  |
| 380   | 6.25 | 380                  | 570 | 760  | 950  | 1140 | 1330 | 1520 | 1710 | 1900 | 2090 | 2280 | 3.58  |
| 390   | 6.42 | 390                  | 590 | 780  | 980  | 1170 | 1370 | 1560 | 1760 | 1950 | 2150 | 2340 | 3.67  |
| 400   | 6.58 | 400                  | 600 | 800  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 3.77  |
| 450   | 7.41 | 450                  | 680 | 900  | 1130 | 1350 | 1580 | 1800 | 2030 | 2250 | 2480 | 2700 | 4.24  |
| 500   | 8.23 | 500                  | 750 | 1000 | 1250 | 1500 | 1750 | 2000 | 2250 | 2500 | 2750 | 3000 | 4.70  |
| 550   | 9.05 | 550                  | 830 | 1100 | 1380 | 1650 | 1930 | 2200 | 2480 | 2750 | 3030 | 3300 | 5.17  |

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