Federal Aviation Administration

TM

UNITED STATES GOVERNMENT FLIGHT INFORMATION PUBLICATION

CHART SUPPLEMENT PACIFIC

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GENERAL INFORMATION

This Chart Supplement is a Civil Flight Information Publication updated every eight weeks by the U.S. Department of Transportation, Federal Aviation Administration, Aeronautical Information Services, http://www.faa.gov/go/ais.
It is designed for use with Flight Information Publication Enroute Charts, and the Sectional Aeronautical Chart covering the State of Hawaii and that area of the Pacific served by U.S. facilities.

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

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

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Effective Date	Airport Information Cut–off date	Airspace Information* Cut–off date
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16 May 24	3 Apr 24	19 Mar 24

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

FOR PROCUREMENT:

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

CHART SUPPLEMENT PACIFIC. This supplement is issued every 56 days.
HAWAIIAN ISLAND–MARIANA ISLANDS SECTIONAL CHART. This chart is issued every 56 days.
NORTH PACIFIC OCEAN ROUTE CHARTS. Charts are issued every 56 days at 1:12,000,000 composite or four 1:7,000,000 area charts.

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

NGA Combat Support Center, ATTN: DDCP
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AMENDMENT NOTICE

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

This Airport/Facility Directory comprises part of the following sections of the United States Aeronautical Information Publication (AIP): GEN, AGA 3, COM 2.

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ABBREVIATIONS

The following abbreviations/acronyms are those commonly used within this Directory. Other abbreviations/acronyms may be found in the Legend and are not duplicated below. The abbreviations presented are intended to represent grammatical variations of the basic form. (Example–"req" may mean "request", "requesting", "requested", or "requests").

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

Abbreviation	Description
A/G	air/ground
AAF	Army Air Field
AAS	Airport Advisory Service
AB	Airbase
abm	abeam
ABn	Aerodrome Beacon
abv	above
ACC	Air Combat Command Area Control Center
acft	aircraft
ACLS	Automatic Carrier Landing System
ACN	Aircraft Classification Number
ACR	Aircraft Classification Rating
act	activity
ACWS	Aircraft Control and Warning Squadron
ADA	Advisory Area
ADCC	Air Defense Control Center
ADCUS	Advise Customs
addn	addition
ADF	Automatic Direction Finder
adj	adjacent
admin	administration
ADR	Advisory Route
advs	advise
advsy	advisory
AEIS	Aeronautical Enroute Information Service
AER	approach end rwy
AFA	Army Flight Activity
AFB	Air Force Base
afct	affect
AFFF	Aqueous Film Forming Foam
AFHP	Air Force Heliport
AFIS	Automatic Flight Information Service
afld	airfield
AFOD	Army Flight Operations Detachment
AFR	Air Force Regulation
AFRC	Armed Forces Reserve Center/Air Force Reserve Command
AFRS	American Forces Radio Stations
AFS	Air Force Station
AFTN	Aeronautical Fixed Telecommunication Network
AG	Agriculture
A–G, A–GEAR	Arresting Gear
agcy	Agency
AGL	above ground level
AHP	Army heliport
AID	Airport Information Desk
AIS	Aeronautical Information Services
AL	Approach and Landing Chart
ALF	Auxiliary Landing Field
ALS	Approach Light System
ALSF–1	High Intensity ALS Category I configuration with sequenced Flashers (code)
ALSF–2	High Intensity ALS Category II configuration with sequenced Flashers (code)

Abbreviation	Description
alt	altitude
altn	alternate
AM	Amplitude Modulation, midnight til noon
AMC	Air Mobility Command
amdt	amendment
AMSL	Above Mean Sea Level
ANGS	Air National Guard Station
ant	antenna
AOE	Airport/Aerodrome of Entry
AP	Area Planning
APAPI	Abbreviated Precision Approach Path Indicator
apch	approach
apn	apron
APP	Approach Control
Apr	April
aprx	approximate
APU	Auxiliary Power Unit
apv, apvl	approve, approval
ARB	Air Reserve Base
ARCAL (CANADA)	Aircraft Radio Control of Aerodrome Lighting
ARFF	Aircraft Rescue and Fire Fighting
ARINC	Aeronautical Radio Inc
arng	arrange
arpt	airport
arr	arrive
ARS	Air Reserve Station
ARSA	Airport Radar Service Area
ARSR	Air Route Surveillance Radar
ARTCC	Air Route Traffic Control Center
AS	Air Station
ASAP	as soon as possible
ASDA	Accelerate–Stop Distance Available
ASDE	Airport Surface Detection
ASDE–X	Airport Surface Detection Equipment–Model X
asgn	assign
ASL	Above Sea Level
ASOS	Automated Surface Observing System
ASR	Airport Surveillance Radar
ASSC	Airport Surface Surveillance Capability
ASU	Aircraft Starting Unit
ATA	Actual Time of Arrival
ATC	Air Traffic Control
ATCC	Air Traffic Control Center
ATCT	Airport Traffic Control Tower
ATD	Actual Time of Departure Along Track Distance
ATIS	Automatic Terminal Information Service
ATS	Air Traffic Service
attn	attention
Aug	August
auth	authority
auto	automatic
AUW	All Up Weight (gross weight)
aux	auxiliary
AVASI	abbreviated VASI
avbl	available

Abbreviation	Description
AvGas	Aviation gasoline
avn	aviation
AvOil	aviation oil
AWOS	Automatic Weather Observing System
AWSS	Automated Weather Sensor System
awt	await
awy	airway
az	azimuth
BA	braking action
BASH	Bird Aircraft Strike Hazard
BC	back course
bcn	beacon
bcst	broadcast
bdry	boundary
bldg	building
blkd	blocked
blo, blw	below
BOQ	Bachelor Officers Quarters
brg	bearing
btn	between
bus	business
byd	beyond
C	Commercial Circuit (Telephone)
CAC	Centralized Approach Control
cap	capacity
cat	category
CAT	Clear Air Turbulence
CCW or cntclkws	counterclockwise
ceil	ceiling
CERAP	Center Radar Approach Control
CG	Coast Guard
CGAF	Coast Guard Air Facility
CGAS	Coast Guard Air Station
CH, chan	channel
CHAPI	Chase Helicopter Approach Path Indicator
chg	change
cht	chart
cir	circle, circling
CIV, civ	Civil, civil, civilian
ck	check
CL	Centerline Lighting System
cl	class
clnc	clearance
clsd	closed
CNATRA	Chief of Naval Air Training
cnl	cancel
cntr	center
cntrln	centerline
Co	Company, County
CO	Commanding Officer
com	communication
comd	command
Comdr	Commander
coml	commercial
compul	compulsory
comsn	commission
conc	concrete
cond	condition
const	construction
cont	continue
CONUS	Continental United States
convl	conventional
coord	coordinate
copter	helicopter
corr	correct
CPDLC	Controller Pilot Data Link Communication
crdr	corridor
cros	cross
CRP	Compulsory Reporting Point
crs	course
CS	call sign
CSTMS	Customs
CTA	Control Area
CTAF	Common Traffic Advisory Frequency
ctc	contact
ctl	control
ctn	caution
CTLZ	Control Zone
CVFR	Controlled Visual Flight Rules Areas
CW	Clockwise, Continuous Wave, Carrier Wave
dalgt	daylight
D–ATIS	Digital Automatic Terminal Information Service
daylt	daylight
db	decibel
DCL	Departure Clearance
Dec	December
decom	decommission
deg	degree
del	delivery
dep	depart
DEP	Departure Control
destn	destination
det	detachment
DF	Direction Finder
DH	Decision Height
DIAP	DoD Instrument Approach Procedure
direc	directional
disem	disseminate
displ	displace
dist	district, distance
div	division
DL	Direct Line to FSS
dlt	delete
dly	daily
DME	Distance Measuring Equipment (UHF standard, TACAN compatible)
DNVT	Digital Non–Secure Voice Telephone
DoD	Department of Defense
drct	direct
DSN	Defense Switching Network (Telephone)
DSN	Defense Switching Network
dsplcd	displaced
DT	Daylight Savings Time
dur	during
durn	duration
DV	Distinguished Visitor
E	East
ea	each
EAT	Expected Approach Time
ECN	Enroute Change Notice
eff	effective, effect
E–HA	Enroute High Altitude
E–LA	Enroute Low Altitude

Abbreviation	Description
elev	elevation
ELT	Emergency Locator Transmitter
EMAS	Engineered Material Arresting System
emerg	emergency
eng	engine
EOR	End of Runway
eqpt	equipment
ERDA	Energy Research and Development Administration
E–S	Enroute Supplement
est	estimate
estab	establish
ETA	Estimated Time of Arrival
ETD	Estimated Time of Departure
ETE	Estimated Time Enroute
ETS	European Telephone System
EUR	European (ICAO Region)
ev	every
evac	evacuate
exc	except
excld	exclude
exer	exercise
exm	exempt
exp	expect
extd	extend
extn	extension
extv	extensive
F/W	Fixed Wing
FAA	Federal Aviation Administration
fac	facility
FAWS	Flight Advisory Weather Service
fax	facsimile
FBO	Fixed Base Operator
FCC	Flight Control Center
FCG	Foreign Clearance Guide
FCLP	field carrier landing practice
fcst	forecast
Feb	February
FIC	Flight Information Center
FIH	Flight Information Handbook
FIR	Flight Information Region
FIS	Flight Information Service
FL	flight level
fld	field
flg	flashing
FLIP	Flight Information Publication
flt	flight
flw	follow
FM	Fan Marker, Frequency Modulation
FOC	Flight Operations Center
FOD	Foreign Object Damage
fone	telephone
FPL	Flight Plan
fpm	feet per minute
fr	from
freq	frequency, frequent
Fri	Friday
frng	firing
FSS	Flight Service Station
ft	foot
ftr	fighter

Abbreviation	Description
GA	Glide Angle
gal	gallon
GAT	General Air Traffic (Europe–Asia)
GCA	Ground Control Approach
GCO	Ground Communication Outlet
gldr	glider
GND	Ground Control
gnd	ground
govt	government
GP	Glide Path
Gp	Group
GPI	Ground Point of Intercept
grad	gradient
grd	guard
GS	glide slope
GWT	gross weight
H	Enroute High Altitude Chart (followed by identification)
H+	Hours or hours plus...minutes past the hour
H24	continuous operation
HAA	Height Above Airport/Aerodrome
HAL	Height Above Landing Area
HAR	Height Above Runway
HAT	Height Above Touchdown
haz	hazard
hdg	heading
HDTA	High Density Traffic Airport/Aerodrome
HF	High Frequency (3000 to 30,000 KHz)
hgr	hangar
hgt	height
hi	high
HIRL	High Intensity Runway Lights
HO	Service available to meet operational requirements
hol	holiday
HOLF	Helicopter Outlying Field
hosp	hospital
HQ	Headquarters
hr	hour
HS	Service available during hours of scheduled operations
hsg	housing
hvy	heavy
HW	Heavy Weight
hwy	highway
HX	station having no specific working hours
Hz	Hertz (cycles per second)
I	Island
IAP	Instrument Approach Procedure
IAS	Indicated Air Speed
IAW	in accordance with
ICAO	International Civil Aviation Organization
ident	identification
IFF	Identification, Friend or Foe
IFR	Instrument Flight Rules
IFR–S	FLIP IFR Supplement
ILS	Instrument Landing System
IM	Inner Marker
IMC	Instrument Meteorological Conditions
IMG	Immigration

Abbreviation	Description
immed	immediate
inbd	inbound
Inc	Incorporated
incl	include
incr	increase
indef	indefinite
info	information
inop	inoperative
inst	instrument
instl	install
instr	instruction
int	intersection
intcntl	intercontinental
intcp	intercept
intl	international
intmt	intermittent
ints	intense, intensity
invof	in the vicinity of
irreg	Irregularly
Jan	January
JASU	Jet Aircraft Starting Unit
JATO	Jet Assisted Take–Off
JOAP	Joint Oil Analysis Program
JOSAC	Joint Operational Support Airlift Center
JRB	Joint Reserve Base
Jul	July
Jun	June
K or Kt	Knots
kHz	kilohertz
KIAS	Knots Indicated Airspeed
KLIZ	Korea Limited Identification Zone
km	Kilometer
kw	kilowatt
L	Compass locator (Component of ILS system) under 25 Watts, 15 NM, Enroute Low Altitude Chart (followed by identification)
L	Local Time
LAHSO	Land and Hold–Short Operations
L–AOE	Limited Airport of Entry
LAWRS	Limited Aviation Weather Reporting Station
lb, lbs	pound (weight)
LC	local call
lcl	local
LCP	French Peripheral Classification Line
lctd	located
lctn	location
lctr	locator
LCVASI	Low Cost Visual Approach Slope Indicator
lczr	localizer
LD	long distance
LDA	Landing Distance Available
ldg	landing
LDIN	Lead–in Lights
LDOCF	Long Distance Operations Control Facility
len	length
lgt, lgtd, lgts	light, lighted, lights
LIRL	Low Intensity Runway Lights
LLWAS	Low–Level Wind Shear Alert System

Abbreviation	Description
LLZ	Localizer (Instrument Approach Procedures Identification only)
LMM	Compass locator at Middle Marker ILS
lo	low
LoALT or LA	Low Altitude
LOC	Localizer
LOM	Compass locator at Outer Marker ILS
LR	Long Range, Lead Radial
LRA	Landing Rights Airport
LRRS	Long Range RADAR Station
LSB	lower side band
ltd	limited
M	meters, magnetic (after a bearing), Military Circuit (Telephone)
MACC	Military Area Control Center
mag	magnetic
maint	maintain, maintenance
maj	major
MALS	Medium Intensity Approach Lighting System
MALSF	MALS with Sequenced Flashers
MALSR	MALS with Runway Alignment Indicator Lights
Mar	March
MARA	Military Activity Restricted Area
MATO	Military Air Traffic Operations
MATZ	Military Aerodrome Traffic Zone
max	maximum
mb	millibars
MCAC	Military Common Area Control
MCAF	Marine Corps Air Facility
MCALF	Marine Corps Auxiliary Landing Field
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MCC	Military Climb Corridor
MCOLF	Marine Corps Outlying Field
MDA	Minimum Descent Altitude
MEA	Minimum Enroute Altitude
med	medium
MEHT	Minimum Eye Height over Threshold
mem	memorial
MET	Meteorological, Meteorology
METAR	Aviation Routine Weather Report (in international MET figure code)
METRO	Pilot–to–Metro voice cell
MF	Medium Frequency (300 to 3000 KHz), Mandatory Frequency (Canada)
MFA	Minimum Flight Altitude
mgmt	Management
mgr	manager
MHz	Megahertz
mi	mile
MID/ASIA	Middle East/Asia (ICAO Region)
MIJI	Meaconing, Intrusion, Jamming, and Interference
Mil, mil	military
min	minimum, minute
MIRL	Medium Intensity Runway Lights
misl	missile
mkr	marker (beacon)
MM	Middle Marker of ILS
mnt	monitor
MOA	Military Operations Area

Abbreviation	Description
MOCA	Minimum Obstruction Clearance Altitude
mod	modify
MOG	Maximum (aircraft) on the Ground
MON	Minimum Operational Network
Mon	Monday
MP	Maintenance Period
MR	Medium Range
MRA	Minimum Reception Altitude
mrk	mark, marker
MSAW	minimum safe altitude warning
msg	message
MSL	Mean Sea Level
msn	Mission
mt	mount, mountain
MTAF	Mandatory Traffic Advisory Frequency
MTCA	Military Terminal Control Area
mthly	monthly
MUAC	Military Upper Area Control
muni	municipal
MWARA	Major World Air Route Area
N	North
N/A	not applicable
NA	not authorized (For Instrument Approach Procedure take–off and alternate MINIMA only)
NAAS	Naval Auxiliary Air Station
NADC	Naval Air Development Center
NADEP	Naval Air Depot
NAEC	Naval Air Engineering Center
NAES	Naval Air Engineering Station
NAF	Naval Air Facility
NALCO	Naval Air Logistics Control Office
NALF	Naval Auxiliary Landing Field
NALO	Navy Air Logistics Office
NAS	Naval Air Station
NAT	North Atlantic (ICAO Region)
natl	national
nav	navigation
navaid	navigation aid
NAVMTO	Navy Material Transportation Office
NAWC	Naval Air Warfare Center
NAWS	Naval Air Weapons Station
NCRP	Non–Compulsory Reporting Point
NDB	Non–Directional Radio Beacon
NE	Northeast
nec	necessary
NEW	Net Explosives Weight
ngt	night
NM	nautical miles
nml	normal
NMR	nautical mile radius
No or Nr	number
NOLF	Naval Outlying Field
NORDO	Lost communications or no radio installed/available in aircraft
NOTAM	Notice to Air Missions
Nov	November
npi	non precision instrument
Nr or No	number
NS	Naval Station
NS ABTMT	Noise Abatement
NSA	Naval Support Activity
NSF	Naval Support Facility

Abbreviation	Description
NSTD, nstd	nonstandard
ntc	notice
NVD	Night Vision Devices
NVG	Night Vision Goggles
NW	Northwest
NWC	Naval Weapons Center
O/A	On or about
O/S	out of service
O/R	On Request
OAT	Operational Air Traffic
obsn	observation
obst	obstruction
OCA	Oceanic Control Area
ocnl	occasional
Oct	October
ODALS	Omnidirectional Approach Lighting System
ODO	Operations Duty Officer
offl	official
OIC	Officer In Charge
OLF	Outlying Field
OLS	Optical Landing System
OM	Outer Marker, ILS
opr	operate, operator, operational
OPS, ops	operations
orig	original
OROCA	Off Route Obstruction Clearance Altitude
ORTCA	Off Route Terrain Clearance Altitude
OT	other times
OTS	out of service
outbd	outbound
ovft	overflight
ovrn	overrun
OX	oxygen
P/L	plain language
PAC	Pacific (ICAO Region)
PAEW	personnel and equipment working
PALS	Precision Approach and Landing System (NAVY)
PAPI	Precision Approach Path Indicator
PAR	Precision Approach Radar
para	paragraph
parl	parallel
pat	pattern
PAX	Passenger
PCL	pilot controlled lighting
PCN	Pavement Classification Number
PCR	Pavement Classification Rating
PDC	Pre–Departure Clearance
pent	penetrate
perm	permanent
perms	permission
pers	personnel
PFC	Porous Friction Courses
PJE	Parachuting Activities/Exercises
p–line	power line
PM	Post meridian, noon til midnight
PMRF	Pacific Missile Range Facility
PMSV	Pilot–to–Metro Service
PN	prior notice
POB	persons on board
POL	Petrol, Oils and Lubricants
posn	position

Abbreviation	Description
PPR	prior permission required
prcht	parachute
pref	prefer
prev	previous
prim	primary
prk	park
PRM	Precision Runway Monitor
pro	procedure
proh	prohibited
pt	point
PTD	Pilot to Dispatcher
pub	publication
publ	publish
PVASI	Pulsating Visual Approach Slope Indicator
pvt	private
pwr	power
QFE	Altimeter Setting above station
QNE	Altimeter Setting of 29.92 inches which provides height above standard datum plane
QNH	Altimeter Setting which provides height above mean sea level
qtrs	quarters
quad	quadrant
R/T	Radiotelephony
R/W	Rotary/Wing
RACON	Radar Beacon
rad	radius, radial
RAIL	Runway Alignment Indicator Lights
RAMCC	Regional Air Movement Control Center
R–AOE	Regular Airport of Entry
RAPCON	Radar Approach Control (USAF)
RATCF	Radar Air Traffic Control Facility (Navy)
RCAG	Remote Center Air to Ground Facility
RCAGL	Remote Center Air to Ground Facility Long Range
RCL	runway centerline
RCLS	Runway Centerline Light System
RCO	Remote Communications Outlet
rcpt	reception
RCR	Runway Condition Reading
rcv	receive
rcvr	receiver
rdo	radio
reconst	reconstruct
refuel	refueling
reg	regulation, regular
REIL	Runway End Identifier Lights
rel	reliable
relctd	relocated
REP	Reporting Point
req	request
RETIL	Rapid Exit Taxiway Indicator Light
Rgn	Region
Rgnl	Regional
rgt	right
rgt tfc	right traffic
rlgd	realigned
RLLS	Runway Lead-in Light System
rmk	remark
rng	range, radio range
RNP	Required Navigation Performance

Abbreviation	Description
RON	Remain Overnight
Rot Lt or Bcn	Rotating Light or Beacon
RPI	Runway Point of Intercept
rpt	report
rqr	require
RR	Railroad
RRP	Runway Reference Point
RSC	Runway Surface Condition
RSDU	Radar Storm Detection Unit
RSE	Runway Starter Extension/Starter Strip
RSRS	Reduced Same Runway Separation
rstd	restricted
rte	route
ruf	rough
RVR	Runway Visual Range
RVSM	Reduced Vertical Separation Minima
rwy	runway
S	South
S/D	Seadrome
SALS	Short Approach Lighting System
SAR	Search and Rescue
Sat	Saturday
SAVASI	Simplified Abbreviated Visual Approach Slope Indicator
SAWRS	Supplement Aviation Weather Reporting Station
sby	standby
Sched	scheduled services
sctr	sector
SDF	Simplified Directional Facility
SE	Southeast
sec	second, section
secd	secondary
SELCAL	Selective Calling System
SELF	Strategic Expeditionary Landing Field
SEng	Single Engine
Sep	September
SFA	Single Frequency Approach
SFB	Space Force Base
sfc	surface
SFL	Sequence Flashing Lights
SFRA	Special Flight Rules Area
SID	Standard Instrument Departure
SIDA	Secure Identification Display Area
SIF	Selective Identification Feature
sked	schedule
SM	statute miles
SOAP	Spectrometric Oil Analysis Program
SOF	Supervisor of Flying
SPB	Seaplane Base
SR	sunrise
SRE	Surveillance Radar Element of GCA (Instrument Approach Procedures Identification only)
SS	sunset
SSALS/R	Simplified Short Approach Lighting System/with RAIL
SSB	Single Sideband
SSR	Secondary Surveillance Radar
STA	Straight-in Approach
std	standard
stn	station
stor	storage
str–in	Straight–in

Abbreviation	Description
stu	student
subj	subject
survl	survival, surveillance
sum	summer
Sun	Sunday
sur	surround
suspd	suspended
svc	service
svcg	servicing
SW	Southwest
sys	system
TA	Transition Altitude
TAC	Tactical Air Command
TAF	Aerodrome (terminal or alternate) forecast in abbreviated form
TALCE	Tanker Aircraft Control Element
TCA	Terminal Control Area
TCH	Threshold Crossing Height
TCTA	Transcontinental Control Area
TD	Touchdown
TDWR	Terminal Doppler Weather Radar
TDZ	Touchdown Zone
TDZL	Touchdown Zone Lights
tfc	traffic
thld	threshold
thou	thousand
thru	through
Thu	Thursday
til	until
tkf, tkof	take–off
TLv	Transition Level
tmpry	temporary
TODA	Take–Off Distance Available
TORA	Take–Off Run Available
TP	Tire Pressure
TPA	Traffic Pattern Altitude
TRACON	Terminal Radar Approach Control (FAA)
tran	transient
trans	transmit
trml	terminal
trng	training
trns	transition
TRSA	Terminal Radar Service Area
Tue	Tuesday
TV	Television
twr	tower
twy	taxiway
UACC	Upper Area Control Center (used outside US)
UAS	Unmanned Aerial Systems
UC	Under Construction
UCN	Urgent Change Notice
UDA	Upper Advisory Area
UDF	Ultra High Frequency Direction Finder
UFN	until further notice
UHF	Ultra High Frequency (300 to 3000 MHz)
UIR	Upper Flight Information Region
una	unable
unauthd	unauthorized
unavbl	unavailable
unctl	uncontrolled
unk	unknown
unlgtd	unlighted
unltd	unlimited

Abbreviation	Description
unmrk	unmarked
unmto	unmonitored
unrel	unreliable
unrstd	unrestricted
unsatfy	unsatisfactory
unsked	unscheduled
unsvc	unserviceable
unuse, unusbl	unusable
USA	United States Army
USAF	United States Air Force
USB	Upper Side Band
USCG	United States Coast Guard
USMC	United States Marine Corps
USSF	United States Space Force
USN	United States Navy
UTA	Upper Control Area
UTC	Coordinated Universal Time
V	Defense Switching Network (telephone, formerly AUTOVON)
V/STOL	Vertical and Short Take–off and Landing aircraft
VAL	Visiting Aircraft Line
var	variation (magnetic variation)
VASI	Visual Approach Slope Indicator
vcnty	vicinity
VDF	Very High Frequency Direction Finder
veh	vehicle
vert	vertical
VFR	Visual Flight Rules
VFR–S	FLIP VFR Supplement
VHF	Very High Frequency (30 to 300 MHz)
VIP	Very Important Person
vis	visibility
VMC	Visual Meteorological Conditions
VOIP	Voice Over Internet Protocol
VOT	VOR Receiver Testing Facility
W	Warning Area (followed by identification), Watts, West, White
WCH	Wheel Crossing Height
Wed	Wednesday
Wg	Wing
WIE	with immediate effect
win	winter
WIP	work in progress
WSO	Weather Service Office
WSFO	Weather Service Forecast Office
wk	week
wkd	weekday
wkly	weekly
wng	warning
wo	without
WSP	Weather System Processor
wt	weight
wx	weather
yd	yard
yr	year
Z	Greenwich Mean Time (time groups only)

INTENTIONALLY

LEFT

BLANK

SAMPLE

(1) **CITY NAME**

AIRPORT NAME (ALTERNATE NAME) (LTS)(KLTS) CIV/MIL 3 N UTC–6(–5DT) N34º41.93´ W99º20.20´ (2) (3) (4) (5) (6) (7) (8)

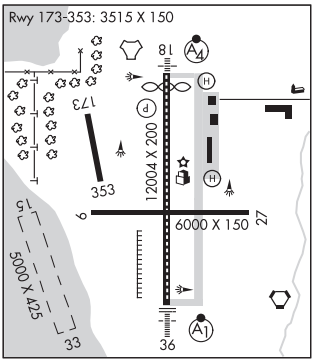
200 B TPA—1000(800) AOE LRA Class IV, ARFF Index A NOTAM FILE ORL Not insp. MON Airport

(11) (12) (13) (14) (15) (16) (17) (18)

JACKSONVILLE
COPTER
H–4G, L–19C
IAP, DIAP, AD

(9)

(19) **RWY 18–36:** H12004X200 (ASPH–CONC–GRVD)
S–90, D–160, 2D–300 PCN 80 R/B/W/T HIRL CL
RWY 18: RLLS. MALSF. TDZL. REIL. PAPI(P2R)—GA 3.0º TCH 36´.
RVR–TMR. Thld dsplcd 300´. Trees. Rgt tfc. 0.3% up.
RWY 36: ALSF1. 0.4% down.
RWY 09–27: H6000X150 (ASPH) PCR 1234 R/B/W/T MIRL
RWY 173–353: H3515X150 (ASPH–PFC) AUW PCN 59 F/A/W/T



(10)

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

LDG RWY	HOLD–SHORT POINT	AVBL LDG DIST
RWY 18	09–27	6500
RWY 36	09–27	5400

(21) **RUNWAY DECLARED DISTANCE INFORMATION**
RWY 18: TORA–12004 TODA–12004 ASDA–11704 LDA–11504
RWY 36: TORA–12004 TODA–12004 ASDA–12004 LDA–11704

(22) **ARRESTING GEAR/SYSTEM**
RWY 18 HOOK E5 (65´ OVRN) BAK–14 BAK–12B (1650´)
BAK–14 BAK–12B (1087´) HOOK E5 (74´ OVRN) **RWY 36**

(23) **SERVICE:** S4 **FUEL** 100LL, JET A **OX** 1, 3 **LGT** ACTIVATE MALSR Rwy 29, REIL Rwy 11, VASI Rwy 11, HIRL Rwy 11–29, PAPI Rwy 17 and Rwy 35, MIRL Rwy 17–35—CTAF. **MILITARY— A–GEAR** E–5 connected on dep end, disconnected on apch end.
JASU 3(AM32A–60) 2(A/M32A–86) **FUEL** J8(Mil)(NC–100, A)
FLUID W SP PRESAIR LOX **OIL** D–128 **MAINT** S1 Mon–Fri 1000–2200Z‡
TRAN ALERT Avbl 1300–0200Z‡ svc limited weekends.

(24) **NOISE:** Noise abatement 3 miles from Rwy 18. Contact tower manager.

(25) **AIRPORT REMARKS:** Special Air Traffic Rules—Part 93, see Regulatory Notices. Attended 1200–0300Z‡. Parachute Jumping. Deer invof arpt. Heavy jumbo jet training surface to 9000´. Twy A clsd indef. Flight Notification Service (ADCUS) avbl.

(26) **MILITARY REMARKS: ANG** PPR/Official Business Only. Base OPS DSN 638–4390, C503–335–4222. Ctc Base OPS 15 minutes prior to ldg and after dep. Limited tran parking.

(27) **AIRPORT MANAGER:** (580) 481–5739

(28) **WEATHER DATA SOURCES: AWOS–1** 120.3 (202) 426–8000. LAWRS.

(29) **COMMUNICATIONS: SFA CTAF** 122.8 **UNICOM** 122.95 **ATIS** 127.25 273.5 (202) 426–8003 **PTD** 372.2
NAME FSS (ORL) on arpt. 123.65 122.65 122.2
NAME RCO 112.2T 112.1R (NAME RADIO)
Ⓡ **NAME APP/DEP CON** 128.35 257.725 (1200–0400Z‡)
TOWER 119.65 255.6 (1200–0400Z‡) **GND CON** 121.7 **GCO** 135.075 (ORLANDO CLNC) **CLNC DEL** 125.55
CPDLC D–HZWXR, D–TAXI, DCL (LOGON KMEM)
NAME COMD POST (GERONIMO) 311.0 321.4 6761 **PMSV METRO** 239.8 **NAME OPS** 257.5

(30) **AIRSPACE: CLASS B** See VFR Terminal Area Chart.

(31) **VOR TEST FACILITY (VOT):** 116.7

(32) **RADIO AIDS TO NAVIGATION:** NOTAM FILE ORL. VHF/DF ctc FSS.
(VH) (H) VORTAC 112.2 MCO Chan 59 N28º32.55´ W81º20.12´ at fld. 1110/8E.
(H) TACAN Chan 29 CBU (109.2) N28º32.65´ W81º21.12´ at fld. 1115/8E.
HERNY NDB (LOM) 221 OR N28º37.40´ W81º21.05´ 177º 5.4 NM to fld.
ILS/DME 108.5 I–ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.
ASR/PAR (1200–0400Z‡)

(33) **COMM/NAV/WEATHER REMARKS:** Emerg frequency 121.5 not avbl at twr.

HELIPAD H1: H100X75 (ASPH)
HELIPAD H2: H60X60 (ASPH)
HELIPORT REMARKS: Helipad H1 lctd on general aviation side and H2 lctd on air carrier side of arpt.
187 TPA 1000(813)

(1)

WATERWAY 15–33: 5000X425 (WATER)
SEAPLANE REMARKS: Birds roosting and feeding areas along river banks. Seaplanes operating adjacent to SW side of arpt not visible from twr and are required to ctc twr.

All bearings and radials are magnetic unless otherwise specified. All mileages are nautical unless otherwise noted.
All times are Coordinated Universal Time (UTC) except as noted. All elevations are in feet above/below Mean Sea Level (MSL) unless otherwise noted.
The horizontal reference datum of this publication is North American Datum of 1983 (NAD83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).

(10)

19171

SKETCH LEGEND

RUNWAYS/LANDING AREAS

Hard Surface . . . . . .

Metal Surface . . . . . .

Other than Hard Surface Runways. . . .

Water Runway . . . . . .

Under Construction . . . . .

Closed Rwy . . . . . .

Closed Pavement . . . . . x x x x

Helicopter Landings Area . . . . . (H)

Displaced Threshold . . . . . .

Taxiway, Apron and Stopways . .

MISCELLANEOUS BASE AND CULTURAL FEATURES

Buildings . . . . . .

Power Lines . . . . . —T——T—

Towers . . . . . .

Wind Turbine. . . . . .

Tanks . . . . . .

Oil Well . . . . . .

Smoke Stack . . . . . .

Obstruction 5812

Controlling Obstruction . . . . . +5812

Trees . . . . . .

Populated Places . . . . . .

Cuts and Fills . . . . . Cut Fill

Cliffs and Depressions . .

Ditch . . . . . .

Hill . . . . . .

RADIO AIDS TO NAVIGATION

VORTAC . . . VOR . . . . . .

VOR/DME . . NDB . . . . . .

TACAN . . . . NDB/DME . . . .

DME . . . .

MISCELLANEOUS AERONAUTICAL FEATURES

Airport Beacon . . . . . .

Wind Cone . . . . . .

Landing Tee . . . . . .

Tetrahedron . . . . . .

Control Tower . . . . . TWR

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

APPROACH LIGHTING SYSTEMS

A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g. (A1) Negative symbology, e.g., (A1) (V) indicates Pilot Controlled Lighting (PCL).

Runway Centerline Lighting . . . . .

(A) Approach Lighting System ALSF-2 . .

(A1) Approach Lighting System ALSF-1 . .

(A2) Short Approach Lighting System SALS/SALSF . . . . . .

(A3) Simplified Short Approach Lighting System (SSALR) with RAIL . . . . .

(A4) Medium Intensity Approach Lighting System (MALS and MALSF)/(SSALS and SSALF) . . . . . .

(A5) Medium Intensity Approach Lighting System (MALSR) and RAIL . . . . . .

Omnidirectional Approach Lighting System (ODALS) . . . . . .

(D) Navy Parallel Row and Cross Bar . . .

(‡) Air Force Overrun . . . . . .

(V) Visual Approach Slope Indicator with Standard Threshold Clearance provided

(V2) Pulsating Visual Approach Slope Indicator (PVASI)

(V3) Visual Approach Slope Indicator with a threshold crossing height to accomodate long bodied or jumbo aircraft

(V4) Tri-color Visual Approach Slope Indicator (TRCV)

(V5) Approach Path Alignment Panel (APAP)

(P) Precision Approach Path Indicator (PAPI)

LEGEND

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

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

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

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

① CITY/AIRPORT NAME

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

② ALTERNATE NAME

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

③ LOCATION IDENTIFIER

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

④ OPERATING AGENCY

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

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

⑤ AIRPORT LOCATION

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

⑥ TIME CONVERSION

Hours of operation of all facilities are expressed in Coordinated Universal Time (UTC) and shown as "Z" time. The directory indicates the number of hours to be subtracted from UTC to obtain local standard time and local daylight saving time UTC–5(–4DT). The symbol ‡ indicates that during periods of Daylight Saving Time (DST) effective hours will be one hour earlier than shown. In those areas where daylight saving time is not observed the (–4DT) and ‡ will not be shown. Daylight saving time is in effect from 0200 local time the second Sunday in March to 0200 local time the first Sunday in November. Canada and all U.S. Conterminous States observe daylight saving time except Arizona and Puerto Rico, and the Virgin Islands. If the state observes daylight saving time and the operating times are other than daylight saving times, the operating hours will include the dates, times and no ‡ symbol will be shown, i.e., April 15–Aug 31 0630–1700Z, Sep 1–Apr 14 0600–1700Z.

⑦ GEOGRAPHIC POSITION OF AIRPORT—AIRPORT REFERENCE POINT (ARP)

Positions are shown as hemisphere, degrees, minutes and hundredths of a minute and represent the approximate geometric center of all usable runway surfaces.

⑧ CHARTS

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

⑨ INSTRUMENT APPROACH PROCEDURES, AIRPORT DIAGRAMS

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

⑩ AIRPORT SKETCH

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

⑪ ELEVATION

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

⑫ ROTATING LIGHT BEACON

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

⑬ TRAFFIC PATTERN ALTITUDE

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

⑭ AIRPORT OF ENTRY, LANDING RIGHTS, AND CUSTOMS USER FEE AIRPORTS

U.S. CUSTOMS USER FEE AIRPORT—Private Aircraft operators are frequently required to pay the costs associated with customs processing.

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

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

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

U.S. CUSTOMS AIR AND SEA PORTS, INSPECTORS AND AGENTS

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

⑮ CERTIFICATED AIRPORT (14 CFR PART 139)

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

AIRPORT CLASSIFICATIONS

Type of Air Carrier Operation	Class I	Class II	Class III	Class IV
Scheduled Air Carrier Aircraft with 31 or more passenger seats	X			
Unscheduled Air Carrier Aircraft with 31 or more passengers seats	X	X		X
Scheduled Air Carrier Aircraft with 10 to 30 passenger seats	X	X	X	

INDICES AND AIRCRAFT RESCUE AND FIRE FIGHTING EQUIPMENT REQUIREMENTS

Airport Index	Required No. Vehicles	Aircraft Length	Scheduled Departures	Agent + Water for Foam
A	1	<90´	≥1	500#DC or HALON 1211 or 450#DC + 100 gal H_2O
B	1 or 2	≥90´, <126´ —————— ≥126´, <159´	≥5 —— <5	Index A + 1500 gal H_2O
C	2 or 3	≥126´, <159´ —————— ≥159´, <200´	≥5 —— <5	Index A + 3000 gal H_2O
D	3	≥159´, <200´ —————— >200´	—— <5	Index A + 4000 gal H_2O
E	3	≥200´	≥5	Index A + 6000 gal H_2O

> Greater Than; < Less Than; ≥ Equal or Greater Than; ≤ Equal or Less Than; H_2O–Water; DC–Dry Chemical.

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

⑯ NOTAM SERVICE

All public use landing areas are provided NOTAM service. A NOTAM FILE identifier is shown for individual landing areas, e.g., "NOTAM FILE BNA". See the AIM, Basic Flight Information and ATC Procedures for a detailed description of NOTAMs. Current NOTAMs are available from flight service stations at 1–800–WX–BRIEF (992–7433) or online through the FAA PilotWeb at https://pilotweb.nas.faa.gov. Military NOTAMs are available using the Defense Internet NOTAM Service (DINS) at https://www.notams.faa.gov. Pilots flying to or from airports not available through the FAA PilotWeb or DINS can obtain assistance from Flight Service.

⑰ FAA INSPECTION

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

⑱ MINIMUM OPERATIONAL NETWORK (MON) AIRPORT DESIGNATION

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

⑲ RUNWAY DATA

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

RUNWAY DESIGNATION

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

RUNWAY DIMENSIONS

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

RUNWAY SURFACE AND SURFACE TREATMENT

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

(AFSC)—Aggregate friction seal coat
(AM2)—Temporary metal planks coated with nonskid material
(ASPH)—Asphalt
(CONC)—Concrete
(DIRT)—Dirt
(GRVD)—Grooved
(GRVL)—Gravel, or cinders
(MATS)—Pierced steel planking, landing mats, membranes
(PEM)—Part concrete, part asphalt
(PFC)—Porous friction courses
(PSP)—Pierced steel plank
(RFSC)—Rubberized friction seal coat
(SAND)—Sand
(TURF)—Turf
(TRTD)—Treated
(WC)—Wire combed

RUNWAY WEIGHT BEARING CAPACITY

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

CURRENT	NEW	NEW DESCRIPTION
S	S	Single wheel type landing gear (DC3), (C47), (F15), etc.
D	D	Dual wheel type landing gear (BE1900), (B737), (A319), etc.
T	D	Dual wheel type landing gear (P3, C9).
ST	2S	Two single wheels in tandem type landing gear (C130).
TRT	2T	Two triple wheels in tandem type landing gear (C17), etc.
DT	2D	Two dual wheels in tandem type landing gear (B707), etc.
TT	2D	Two dual wheels in tandem type landing gear (B757, KC135).
SBTT	2D/D1	Two dual wheels in tandem/dual wheel body gear type landing gear (KC10).
None	2D/2D1	Two dual wheels in tandem/two dual wheels in tandem body gear type landing gear (A340–600).
DDT	2D/2D2	Two dual wheels in tandem/two dual wheels in double tandem body gear type landing gear (B747, E4).
TTT	3D	Three dual wheels in tandem type landing gear (B777), etc.
TT	D2	Dual wheel gear two struts per side main gear type landing gear (B52).
TDT	C5	Complex dual wheel and quadruple wheel combination landing gear (C5).

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

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

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

Omission of weight bearing capacity indicates information unknown.

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

NOTE: ICAO adopted the ACR/PCR System as the new standard method for reporting pavement strength in July 2020. The ACR/PCR System methodology remains unchanged from the ACN/PCN system described above. The Pavement Classification Rating (PCR) remains a five-part code (e.g. PCR 460 R/B/W/T) with the number being one order of magnitude higher than PCNs. The details of the code below are not changed with PCR. ICAO has established a four year transition period during which time a PCN or a PCR may be reported. Currently Aircraft Classification Rating (ACR) data may not be available for all aircraft.

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

(1) The PCN/PCR NUMBER—The reported PCN/PCR indicates that an aircraft with an ACN/ACR equal or less than the reported PCN/PCR can operate on the pavement subject to any limitation on the tire pressure.

(2) The type of pavement:
R — Rigid
F — Flexible

(3) The pavement subgrade category:
A — High
B — Medium
C — Low
D — Ultra–low

(4) The maximum tire pressure authorized for the pavement:
W — Unlimited, no pressure limit
X — High, limited to 254 psi (1.75 MPa)
Y — Medium, limited to 181 psi (1.25MPa)
Z — Low, limited to 73 psi (0.50 MPa)

(5) Pavement evaluation method:
T — Technical evaluation
U — By experience of aircraft using the pavement

RUNWAY LIGHTING

Lights are in operation sunset to sunrise. Lighting available by prior arrangement only or operating part of the night and/or pilot controlled lighting with specific operating hours are indicated under airport or military remarks. At USN/USMC facilities lights are available only during airport hours of operation. Since obstructions are usually lighted, obstruction lighting is not included in this code. Unlighted obstructions on or surrounding an airport will be noted in airport or military remarks. Runway lights nonstandard (NSTD) are systems for which the light fixtures are not FAA approved L–800 series: color, intensity, or spacing does not meet FAA standards. Nonstandard runway lights, VASI, or any other system not listed below will be shown in airport remarks or military service. Temporary, emergency or limited runway edge lighting such as flares, smudge pots, lanterns or portable runway lights will also be shown in airport remarks or military service. Types of lighting are shown with the runway or runway end they serve.

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

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

VISUAL GLIDESLOPE INDICATORS

APAP—A system of panels, which may or may not be lighted, used for alignment of approach path.
PNIL APAP on left side of runway
PNIR APAP on right side of runway

PAPI—Precision Approach Path Indicator
P2L 2–identical light units placed on left side of runway
P2R 2–identical light units placed on right side of runway
P4L 4–identical light units placed on left side of runway
P4R 4–identical light units placed on right side of runway

PVASI—Pulsating/steady burning visual approach slope indicator, normally a single light unit projecting two colors.
PSIL PVASI on left side of runway
PSIR PVASI on right side of runway

SAVASI—Simplified Abbreviated Visual Approach Slope Indicator
S2L 2–box SAVASI on left side of runway
S2R 2–box SAVASI on right side of runway

SAVASI—Simplified Abbreviated Visual Approach Slope Indicator

S2L	2–box SAVASI on left side of runway	S2R	2–box SAVASI on right side of runway

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

TRIL	TRCV on left side of runway	TRIR	TRCV on right side of runway

VASI—Visual Approach Slope Indicator

V2L	2–box VASI on left side of runway	V6L	6–box VASI on left side of runway
V2R	2–box VASI on right side of runway	V6R	6–box VASI on right side of runway
V4L	4–box VASI on left side of runway	V12	12–box VASI on both sides of runway
V4R	4–box VASI on right side of runway	V16	16–box VASI on both sides of runway

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

PILOT CONTROL OF AIRPORT LIGHTING

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

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

Where the airport is not served by an instrument approach procedure and/or has an independent type system of different specification installed by the airport sponsor, descriptions of the type lights, method of control, and operating frequency will be explained in clear text. See AIM, "Aeronautical Lighting and Other Airport Visual Aids," for a detailed description of pilot control of airport lighting.

RUNWAY SLOPE

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

RUNWAY END DATA

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

⑳ 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.

㉑ RUNWAY DECLARED DISTANCE INFORMATION

TORA—Take–off Run Available. The length of runway declared available and suitable for the ground run of an aeroplane take–off.
TODA—Take–off Distance Available. The length of the take–off run available plus the length of the clearway, if provided.
ASDA—Accelerate–Stop Distance Available. The length of the take–off run available plus the length of the stopway, if provided.
LDA—Landing Distance Available. The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

㉒ ARRESTING GEAR/SYSTEMS

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

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

BI–DIRECTIONAL CABLE (B)

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

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

BAK–14	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to five seconds to fully raise the cable.)
H	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to one and one–half seconds to fully raise the cable.)

UNI–DIRECTIONAL CABLE

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

FOREIGN CABLE

TYPE	DESCRIPTION	US EQUIVALENT
44B–3H	Rotary Hydraulic (Water Brake)	
CHAG	Chain	E–5

UNI–DIRECTIONAL BARRIER

TYPE	DESCRIPTION
MA–1A	Web barrier between stanchions attached to a chain energy absorber.
BAK–15	Web barrier between stanchions attached to an energy absorber (water squeezer, rotary friction, chain). Designed for wing engagement.

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

OTHER

TYPE	DESCRIPTION
EMAS	Engineered Material Arresting System, located beyond the departure end of the runway, consisting of high energy absorbing materials which will crush under the weight of an aircraft.

㉓ SERVICE

SERVICING—CIVIL

S1: Minor airframe repairs.
S2: Minor airframe and minor powerplant repairs.
S3: Major airframe and minor powerplant repairs.
S4: Major airframe and major powerplant repairs.
S5: Major airframe repairs.
S6: Minor airframe and major powerplant repairs.
S7: Major powerplant repairs.
S8: Minor powerplant repairs.

FUEL

CODE	FUEL
100	Grade 100 gasoline (Green)
100LL	100LL gasoline (low lead) (Blue)
A	Jet A, Kerosene, without FS–II*, FP** minus 40° C.
A+	Jet A, Kerosene, with FS–II*, FP** minus 40°C.
A++	Jet A, Kerosene, with FS–II*, CI/LI#, SDA##, FP** minus 40°C.
A++100	Jet A, Kerosene, with FS–II*, CI/LI#, SDA##, FP** minus 40°C, with +100 fuel additive that improves thermal stability characteristics of kerosene jet fuels.
A1	Jet A–1, Kerosene, without FS–II*, FP** minus 47°C.
A1+	Jet A–1, Kerosene with FS–II*, FP** minus 47° C.
J5 (JP5)	(JP–5 military specification) Kerosene with FS–II, FP** minus 46°C.
J8 (JP8)	(JP–8 military specification) Jet A–1, Kerosene with FS–II*, CI/LI#, SDA##, FP** minus 47°C.
J8+100	(JP–8 military specification) Jet A–1, Kerosene with FS–II*, CI/LI#, SDA##,FP** minus 47°C, with +100 fuel additive that improves thermal stability characteristics of kerosene jet fuels.
J	(Jet Fuel Type Unknown)
MOGAS	Automobile gasoline which is to be used as aircraft fuel.
UL91	Unleaded Grade 91 gasoline
UL94	Unleaded Grade 94 gasoline
UL100	Unleaded Grade 100 gasoline

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

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

Data shown on fuel availability represents the most recent information the publisher has been able to acquire. Because of a variety of factors, the fuel listed may not always be obtainable by transient civil pilots. Confirmation of availability of fuel should be made directly with fuel suppliers at locations where refueling is planned.

OXYGEN—CIVIL

OX 1	High Pressure	OX 3	High Pressure—Replacement Bottles
OX 2	Low Pressure	OX 4	Low Pressure—Replacement Bottles

SERVICE—MILITARY

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

JET AIRCRAFT STARTING UNITS (JASU)—MILITARY

The numeral preceding the type of unit indicates the number of units available. The absence of the numeral indicates ten or more units available. If the number of units is unknown, the number one will be shown. Absence of JASU designation indicates non–availability. The following is a list of current JASU systems referenced in this publication:

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

ELECTRICAL STARTING UNITS:

A/M32A–86	AC: 115/200v, 3 phase, 90 kva, 0.8 pf, 4 wire DC: 28v, 1500 amp, 72 kw (with TR pack)
MC–1A	AC: 115/208v, 400 cycle, 3 phase, 37.5 kva, 0.8 pf, 108 amp, 4 wire DC: 28v, 500 amp, 14 kw
MD–3	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD–3A	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD–3M	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 500 amp, 15 kw
MD–4	AC: 120/208v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 175 amp, "WYE" neutral ground, 4 wire, 120v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 303 amp, "DELTA" 3 wire, 120v, 400 cycle, 1 phase, 62.5 kva, 0.8 pf, 520 amp, 2 wire

AIR STARTING UNITS

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

COMBINED AIR AND ELECTRICAL STARTING UNITS:

AGPU	AC: 115/200v, 400 cycle, 3 phase, 30 kw gen DC: 28v, 700 amp AIR: 60 lb/min @ 40 psig @ sea level
AM32A–60*	AIR: 120 +/– 4 lb/min (1644 +/– 55 cfm) at 49 +/– 2 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire, 120v, 1 phase, 25 kva DC: 28v, 500 amp, 15 kw
AM32A–60A	AIR: 150 +/– 5 lb/min (2055 +/– 68 cfm at 51 +/– psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw
AM32A–60B*	AIR: 130 lb/min, 50 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw

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

USN JASU

ELECTRICAL STARTING UNITS:

NC–8A/A1	DC: 500 amp constant, 750 amp intermittent, 28v; AC: 60 kva @ .8 pf, 115/200v, 3 phase, 400 Hz.
NC–10A/A1/B/C	DC: 750 amp constant, 1000 amp intermittent, 28v; AC: 90 kva, 115/200v, 3 phase, 400 Hz.

AIR STARTING UNITS:

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

COMBINED AIR AND ELECTRICAL STARTING UNITS:

NCPP–105/RCPT	180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. 700 amp, 28v DC. 120/208v, 400 Hz AC, 30 kva.

ARMY JASU

59B2–1B	28v, 7.5 kw, 280 amp.

OTHER JASU

ELECTRICAL STARTING UNITS (DND):

CE12	AC 115/200v, 140 kva, 400 Hz, 3 phase
CE13	AC 115/200v, 60 kva, 400 Hz, 3 phase
CE14	AC/DC 115/200v, 140 kva, 400 Hz, 3 phase, 28vDC, 1500 amp
CE15	DC 22–35v, 500 amp continuous 1100 amp intermittent
CE16	DC 22–35v, 500 amp continuous 1100 amp intermittent soft start

AIR STARTING UNITS (DND):

CA2	ASA 45.5 psig, 116.4 lb/min

COMBINED AIR AND ELECTRICAL STARTING UNITS (DND)

CEA1	AC 120/208v, 60 kva, 400 Hz, 3 phase DC 28v, 75 amp AIR 112.5 lb/min, 47 psig

ELECTRICAL STARTING UNITS (OTHER)

C–26	28v 45kw 115–200v 15kw 380–800 Hz 1 phase 2 wire
C–26–B, C–26–C	28v 45kw: Split Bus: 115–200v 15kw 380–800 Hz 1 phase 2 wire
E3	DC 28v/10kw

AIR STARTING UNITS (OTHER):

A4	40 psi/2 lb/sec (LPAS Mk12, Mk12L, Mk12A, Mk1, Mk2B)
MA–1	150 Air HP, 115 lb/min 50 psia
MA–2	250 Air HP, 150 lb/min 75 psia

CARTRIDGE:

MXU–4A	USAF

FUEL—MILITARY

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

SUPPORTING FLUIDS AND SYSTEMS—MILITARY

CODE	
ADI	Anti–Detonation Injection Fluid—Reciprocating Engine Aircraft.
W	Water Thrust Augmentation—Jet Aircraft.
WAI	Water–Alcohol Injection Type, Thrust Augmentation—Jet Aircraft.
SP	Single Point Refueling.
PRESAIR	Air Compressors rated 3,000 PSI or more.
De–Ice	Anti–icing/De–icing/Defrosting Fluid (MIL–A–8243).

OXYGEN:

LPOX	Low pressure oxygen servicing.
HPOX	High pressure oxygen servicing.
LHOX	Low and high pressure oxygen servicing.
LOX	Liquid oxygen servicing.
OXRB	Oxygen replacement bottles. (Maintained primarily at Naval stations for use in acft where oxygen can be replenished only by replacement of cylinders.)
OX	Indicates oxygen servicing when type of servicing is unknown.

NOTE: Combinations of above items is used to indicate complete oxygen servicing available;

LHOXRB	Low and high pressure oxygen servicing and replacement bottles;
LPOXRB	Low pressure oxygen replacement bottles only, etc.

NOTE: Aircraft will be serviced with oxygen procured under military specifications only. Aircraft will not be serviced with medical oxygen.

NITROGEN:

LPNIT — Low pressure nitrogen servicing.

HPNIT — High pressure nitrogen servicing.

LHNIT — Low and high pressure nitrogen servicing.

OIL—MILITARY

US AVIATION OILS (MIL SPECS):

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

TRANSIENT ALERT (TRAN ALERT)—MILITARY

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

㉔ NOISE

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

㉕ AIRPORT REMARKS

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

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

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

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

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

㉖ MILITARY REMARKS

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

Type of restrictions:

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

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

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

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

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

㉗ AIRPORT MANAGER

The phone number of the airport manager.

㉘ WEATHER DATA SOURCES

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

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

AWOS—Automated Weather Observing System

AWOS–A—reports altimeter setting (all other information is advisory only).

AWOS–AV—reports altimeter and visibility.

AWOS–1—reports altimeter setting, wind data and usually temperature, dew point and density altitude.

AWOS–2—reports the same as AWOS–1 plus visibility.

AWOS–3—reports the same as AWOS–1 plus visibility and cloud/ceiling data.

AWOS–3P reports the same as the AWOS–3 system, plus a precipitation identification sensor.

AWOS–3PT reports the same as the AWOS–3 system, plus precipitation identification sensor and a thunderstorm/lightning reporting capability.

AWOS–3T reports the same as AWOS–3 system and includes a thunderstorm/lightning reporting capability.

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

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

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

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

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

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

TDWR—indicates airports that have Terminal Doppler Weather Radar.

WSP—indicates airports that have Weather System Processor.

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

㉙ COMMUNICATIONS

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

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

The FSS telephone nationwide is toll free 1–800–WX–BRIEF (1–800–992–7433). When the FSS is located on the field it will be indicated as "on arpt". Frequencies available at the FSS will follow in descending order. Remote Communications Outlet (RCO) providing service to the airport followed by the frequency and FSS RADIO name will be shown when available. FSS's provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service (AAS) is provided on the CTAF by FSS's for select non–tower airports or airports where the tower is not in operation.

(See AIM, Para 4–1–9 Traffic Advisory Practices at Airports Without Operating Control Towers or AC 90–42C.)

Aviation weather briefing service is provided by FSS specialists. Flight and weather briefing services are also available by calling the telephone numbers listed.

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

Civil Communications Frequencies–Civil communications frequencies used in the FSS air/ground system are operated on 122.0, 122.2, 123.6; emergency 121.5; plus receive–only on 122.1.

a. 122.2 is assigned as a common enroute frequency.

b. 123.6 is assigned as the airport advisory frequency at select non–tower locations. At airports with a tower, FSS may provide airport advisories on the tower frequency when tower is closed.

c. 122.1 is the primary receive–only frequency at VOR's.

d. Some FSS's are assigned 50 kHz frequencies in the 122–126 MHz band (eg. 122.45). Pilots using the FSS A/G system should refer to this directory or appropriate charts to determine frequencies available at the FSS or remoted facility through which they wish to communicate.

Emergency frequency 121.5 and 243.0 are available at all Flight Service Stations, most Towers, Approach Control and RADAR facilities.

Frequencies published followed by the letter "T" or "R", indicate that the facility will only transmit or receive respectively on that frequency. All radio aids to navigation (NAVAID) frequencies are transmit only. In cases where communications frequencies are annotated with (R) or (E), (R) indicates Radar Capability and (E) indicates Emergency Frequency.

TERMINAL SERVICES

SFA—Single Frequency Approach.

CTAF—A program designed to get all vehicles and aircraft at airports without an operating control tower on a common frequency.

ATIS—A continuous broadcast of recorded non–control information in selected terminal areas.

D–ATIS—Digital ATIS provides ATIS information in text form outside the standard reception range of conventional ATIS via landline & data link communications and voice message within range of existing transmitters.

AUNICOM—Automated UNICOM is a computerized, command response system that provides automated weather, radio check capability and airport advisory information selected from an automated menu by microphone clicks.

UNICOM—A non–government air/ground radio communications facility which may provide airport information.

PTD—Pilot to Dispatcher.

APP CON—Approach Control. The symbol Ⓡ indicates radar approach control.

TOWER—Control tower.

GCA—Ground Control Approach System.

GND CON—Ground Control.

GCO—Ground Communication Outlet—An unstaffed, remotely controlled, ground/ground communications facility. Pilots at uncontrolled airports may contact ATC and FSS via VHF to a telephone connection to obtain an instrument clearance or close a VFR or IFR flight plan. They may also get an updated weather briefing prior to takeoff. Pilots will use four "key clicks" on the VHF radio to contact the appropriate ATC facility or six "key clicks" to contact the FSS. The GCO system is intended to be used only on the ground.

DEP CON—Departure Control. The symbol Ⓡ indicates radar departure control.

CLNC DEL—Clearance Delivery.

CPDLC—Controller Pilot Data Link Communication. FANS ATC data communication capability from the aircraft to the ATC Data Link system.

PDC—Pre-Departure Clearance. ACARS-based clearance delivery capability from tower to gate printer or aircraft.

PRE TAXI CLNC—Pre taxi clearance.

VFR ADVSY SVC—VFR Advisory Service. Service provided by Non–Radar Approach Control. Advisory Service for VFR aircraft (upon a workload basis) ctc APP CON.

COMD POST—Command Post followed by the operator call sign in parenthesis.

PMSV—Pilot–to–Metro Service call sign, frequency and hours of operation, when full service is other than continuous. PMSV installations at which weather observation service is available shall be indicated, following the frequency and/or hours of operation as "Wx obsn svc 1900–0000Z‡" or "other times" may be used when no specific time is given. PMSV facilities manned by forecasters are considered "Full Service". PMSV facilities manned by weather observers are listed as "Limited Service".

OPS—Operations followed by the operator call sign in parenthesis.

CON

RANGE

FLT FLW—Flight Following

MEDIVAC

NOTE: Communication frequencies followed by the letter "X" indicate frequency available on request.

㉚ AIRSPACE

Information concerning Class B, C, and part–time D and E surface area airspace shall be published with effective times, if available.

CLASS B—Radar Sequencing and Separation Service for all aircraft in CLASS B airspace.

CLASS C—Separation between IFR and VFR aircraft and sequencing of VFR arrivals to the primary airport.

TRSA—Radar Sequencing and Separation Service for participating VFR Aircraft within a Terminal Radar Service Area.

Class C, D, and E airspace described in this publication is that airspace usually consisting of a 5 NM radius core surface area that begins at the surface and extends upward to an altitude above the airport elevation (charted in MSL for Class C and Class D). Class E surface airspace normally extends from the surface up to but not including the overlying controlled airspace.

When part–time Class C or Class D airspace defaults to Class E, the core surface area becomes Class E. This will be formatted as:
AIRSPACE: CLASS C svc "times" ctc **APP CON** other times CLASS E:
or
AIRSPACE: CLASS D svc "times" other times CLASS E.

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

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

NOTE: CLASS E AIRSPACE EXTENDING UPWARD FROM 700 FEET OR MORE ABOVE THE SURFACE, DESIGNATED IN CONJUNCTION WITH AN AIRPORT WITH AN APPROVED INSTRUMENT PROCEDURE.
Class E 700´ AGL (shown as magenta vignette on sectional charts) and 1200´ AGL (blue vignette) areas are designated when necessary to provide controlled airspace for transitioning to/from the terminal and enroute environments. Unless otherwise specified, these 700´/1200´ AGL Class E airspace areas remain in effect continuously, regardless of airport operating hours or surface area status. These transition areas should not be confused with surface areas or arrival extensions.

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

㉛ VOR TEST FACILITY (VOT)

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

㉜ RADIO AIDS TO NAVIGATION

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

NAVAID information is tabulated as indicated in the following sample:

NAVAIDs with Single SSV (VOR, DME, TACAN, NDB, NDB/DME)

Class

NAME (L) VORW 117.55 ABE N40°43.60' W75°27.30' 180° 4.1 NM to fld. 1110/8E

NAVAIDs with Two SSVs (VOR/DME, VORTAC)

SSV for each component shown in paired parentheses with the VOR SSV shown first followed by the DME or TACAN SSV.

TACAN/DME Channel — Geographical Position — Site Elevation — Magnetic Variation

NAME (VL) (L) ABVORTAC 117.55 ABE Chan 122(Y) N40°43.60' W75°27.30' 180° 4.1 NM to fld. 1110/8E **AWOS**

Classes — Frequency — Identifier — Bearing and distance facility to center of airport — Automated Weather Observing System

VOR unusable 020°–060° byd 26 NM blo 3,500'

Restriction within the normal altitude/range of the navigational aid
(See primary alphabetical listing for restrictions on VORTAC and VOR/DME).

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

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

RADIO CLASS DESIGNATIONS

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

SSV Class	Altitudes	Distance (NM)
(T) Terminal	1000´ to 12,000´	25
(L) Low Altitude	1000´ to 18,000´	40
(H) High Altitude	1000´ to 14,500´	40
	14,500´ to 18,000´	100
	18,000´ to 45,000´	130
	45,000´ to 60,000´	100
(VL) VOR Low	1000´ to 5,000´	40
	5,000´ to 18,000´	70
(VH) VOR High	1000´ to 5,000´	40
	5,000´ to 14,500´	70
	14,500´ to 18,000´	100
	18,000´ to 45,000´	130
	45,000´ to 60,000´	100
(DL) DME Low & (DH) DME High*	1000´ to 12,900´	40 increasing to 130
(DL) DME Low	12,900´ to 18,000´	130
(DH) DME High	12,900´ to 45,000´	130
	45,000´ to 60,000´	100

*Between 1000´ to 12,900´, DME service volume follows a parabolic curve used by flight management computers.

NOTES: Additionally, High Altitude facilities provide Low Altitude and Terminal service volume and Low Altitude facilities provide Terminal service volume. Altitudes are with respect to the station's site elevation. Coverage is not available in a cone of airspace directly above the facility. In some cases local conditions (terrain, buildings, trees, etc.) may require that the service volume be restricted. The public shall be informed of any such restriction by a remark in the NAVAID entry in this publication or by a Notice to Airmen (NOTAM).

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

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

ILS FACILITY PERFORMANCE CLASSIFICATION CODES

Codes define the ability of an ILS to support autoland operations. The two portions of the code represent Official Category and farthest point along a Category I, II, or III approach that the Localizer meets Category III structure tolerances.

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

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

ILS information is tabulated as indicated in the following sample:

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

ILS Facility Performance Classification Code

FREQUENCY PAIRING TABLE

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

FREQUENCY PAIRING TABLE

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

TACAN CHANNEL	VHF FREQUENCY	TACAN CHANNEL	VHF FREQUENCY	TACAN CHANNEL	VHF FREQUENCY	TACAN CHANNEL	VHF FREQUENCY
2X	134.50	43X	110.60	72X	112.50	101X	115.40
2Y	134.55	43Y	110.65	72Y	112.55	101Y	115.45
11X	135.40	44X	110.70	73X	112.60	102X	115.50
11Y	135.45	44Y	110.75	73Y	112.65	102Y	115.55
12X	135.50	45X	110.80	74X	112.70	103X	115.60
12Y	135.55	45Y	110.85	74Y	112.75	103Y	115.65
17X	108.00	46X	110.90	75X	112.80	104X	115.70
17Y	108.05	46Y	110.95	75Y	112.85	104Y	115.75
18X	108.10	47X	111.00	76X	112.90	105X	115.80
18Y	108.15	47Y	111.05	76Y	112.95	105Y	115.85
19X	108.20	48X	111.10	77X	113.00	106X	115.90
19Y	108.25	48Y	111.15	77Y	113.05	106Y	115.95
20X	108.30	49X	111.20	78X	113.10	107X	116.00
20Y	108.35	49Y	111.25	78Y	113.15	107Y	116.05
21X	108.40	50X	111.30	79X	113.20	108X	116.10
21Y	108.45	50Y	111.35	79Y	113.25	108Y	116.15
22X	108.50	51X	111.40	80X	113.30	109X	116.20
22Y	108.55	51Y	111.45	80Y	113.35	109Y	116.25
23X	108.60	52X	111.50	81X	133.40	110X	116.30
23Y	108.65	52Y	111.55	81Y	113.45	110Y	116.35
24X	108.70	53X	111.60	82X	113.50	111X	116.40
24Y	108.75	53Y	111.65	82Y	113.55	111Y	116.45
25X	108.80	54X	111.70	83X	113.60	112X	116.50
25Y	108.85	54Y	111.75	83Y	113.65	112Y	116.55
26X	108.90	55X	111.80	84X	113.70	113X	116.60
26Y	108.95	55Y	111.85	84Y	113.75	113Y	116.65
27X	109.00	56X	111.90	85X	113.80	114X	116.70
27Y	109.05	56Y	111.95	85Y	113.85	114Y	116.75
28X	109.10	57X	112.00	86X	113.90	115X	116.80
28Y	109.15	57Y	112.05	86Y	113.95	115Y	116.85
29X	109.20	58X	112.10	87X	114.00	116X	116.90
29Y	109.25	58Y	112.15	87Y	114.05	116Y	116.95
30X	109.30	59X	112.20	88X	114.10	117X	117.00
30Y	109.35	59Y	112.25	88Y	114.15	117Y	117.05
31X	109.40	60X	133.30	89X	114.20	118X	117.10
31Y	109.45	60Y	133.35	89Y	114.25	118Y	117.15
32X	109.50	61X	133.40	90X	114.30	119X	117.20
32Y	109.55	61Y	133.45	90Y	114.35	119Y	117.25
33X	109.60	62X	133.50	91X	114.40	120X	117.30
33Y	109.65	62Y	133.55	91Y	114.45	120Y	117.35
34X	109.70	63X	133.60	92X	114.50	121X	117.40
34Y	109.75	63Y	133.65	92Y	114.55	121Y	117.45
35X	109.80	64X	133.70	93X	114.60	122X	117.50
35Y	109.85	64Y	133.75	93Y	114.65	122Y	117.55
36X	109.90	65X	133.80	94X	114.70	123X	117.60
36Y	109.95	65Y	133.85	94Y	114.75	123Y	117.65
37X	110.00	66X	133.90	95X	114.80	124X	117.70
37Y	110.05	66Y	133.95	95Y	114.85	124Y	117.75
38X	110.10	67X	134.00	96X	114.90	125X	117.80
38Y	110.15	67Y	134.05	96Y	114.95	125Y	117.85
39X	110.20	68X	134.10	97X	115.00	126X	117.90
39Y	110.25	68Y	134.15	97Y	115.05	126Y	117.95
40X	110.30	69X	134.20	98X	115.10		
40Y	110.35	69Y	134.25	98Y	115.15		
41X	110.40	70X	112.30	99X	115.20		
41Y	110.45	70Y	112.35	99Y	115.25		
42X	110.50	71X	112.40	100X	115.30		
42Y	110.55	71Y	112.45	100Y	115.35		

(33) **COMM/NAV/WEATHER REMARKS:** These remarks consist of pertinent information affecting the current status of communications, NAVAIDs, weather, and in the absence of air-ground radio outlets identified in the Communications section some approach control facilities will have a clearance delivery phone number listed here.

INTENTIONALLY
LEFT
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AMERICAN SAMOA
OFU ISLAND
Ofu 31
TAU ISLAND
Fitiuta 31
TUTUILA ISLAND
Pago Pago Intl 31

FEDERATED STATES OF MICRONESIA
KOSRAE ISLAND
Kosrae 33
POHNPEI ISLAND
Pohnpei Intl 33
*ULITHI ATOLL
Ulithi 34
WENO ISLAND
Chuuk Intl 34
YAP ISLAND
Yap Intl 35

GUAM
Guam Intl 36

HAWAII
HAWAII
Bradshaw Army Airfield 37
Hilo Intl 38
Kona Intl at Keahole (Ellison Onizuka) 39
Upolu 40
Waimea-Kohala 41
KAUAI
Barking Sands PMRF 41
Lihue 42
Port Allen 43
Princeville 43
LANAI
Lanai 44
MAUI
Hana 44
Kahului 45
Kapalua 46
MOLOKAI
Kalaupapa 47
Molokai 48
OAHU
Kawaihapai Airfield 49
Honolulu (Daniel K Inouye Intl) 50
Kalaeloa (John Rodgers Fld) 53
Wheeler AAF 54
TERN ISLAND
French Frigate Shoals 54

KIRIBATI
KIRITIMATI (CHRISTMAS ISLAND)
Cassidy Intl 55

MARSHALL ISLANDS
*ARNO ATOLL
Ine 56
Tinak 56
ENEWETAK ATOLL
Enewetak Aux AF 56
*JABOR JALUIT ATOLL
Jaluit 56
*KILI ISLAND
Kili 56
KWAJALEIN ATOLL
Bucholz AAF 57
Dyess AAF 58
MAJURO ATOLL
Amata Kabua Intl 58
*MEJIT ATOLL
Mejit 58
*MILI ATOLL
Mili 59
*NAMORIK ATOLL
Namorik 59
*TAORA ISLAND/MALOELAP ATOLL
Maloelap 59
*UTIRIK ATOLL
Utirik 59
*WOTJE ATOLL
Wotje 59

MIDWAY ATOLL
MIDWAY ATOLL
Henderson Fld 60

NORTHERN MARIANA ISLANDS
PAGAN ISLAND
Pagan Airstrip 61
ROTA ISLAND
Benjamin Taisacan Manglona Intl 61
SAIPAN ISLAND
Commonwealth Health Center Heliport 62
Francisco C Ada/Saipan Intl 62
TINIAN ISLAND
Francisco Manglona Borja/Tinian Intl 63

PALAU
ANGAUR ISLAND
Angaur Airstrip 64
BABELTHUAP ISLAND
Palau Intl 64
Peleliu 64

WAKE ISLAND
Wake Island Airfield 65

*indicates unknown datum

AMERICAN SAMOA

OFU ISLAND

OFU (ZØ8)(NSAS) 1 SE UTC–11 S14°11.06′ W169°40.21′ **HAWAIIAN–MARIANA**
12.2 Class III, ARFF Index A NOTAM FILE HNL
RWY 08–26: H1980X60 (CONC–WC) S–12.5 D–12.5 PCN 7 R/C/Z/U
RWY 08: Tree.
RWY 26: Tree.
AIRPORT REMARKS: Attended during scheduled flights only. To land ctc airport manager Pago Pago Intl, call 699–9101. Brush and trees Rwy 08–26 along ldg area encroach into imaginary sfc defined by FAR PART 77. Boulders/rocks adjacent to Rwy 08 apch. 400′ MSL powerlines between OFU and Olosega Islands. Numerous high voltage transformer boxes 3′ high along north side of rwy. Numerous hydrants 4+′ along north side of rwy.
AIRPORT MANAGER: (684) 699–9101
COMMUNICATIONS: CTAF/UNICOM 122.95
COMM/NAV/WEATHER REMARKS: For arpt information ctc New Zealand NOTAM and briefing office (643) 358–1688/FAX (643) 358–9192.

TAU ISLAND

FITIUTA (FAQ)(NSFQ) 0 N UTC–11 S14°12.97′ W169°25.41′ **HAWAIIAN–MARIANA**
110.4 B Class III, ARFF Index A NOTAM FILE HNL
RWY 12–30: H3200X75 (CONC–GRVD) S–12.5 PCN 7 R/C/Z/U MIRL
RWY 12: REIL. PAPI(P2L)—GA 3.0° TCH 39′.
RWY 30: REIL. PAPI(P2L)—GA 3.0° TCH 39′.
SERVICE: LGT ACTVT REIL Rwys 12 and 30; PAPI Rwys 12 and 30; MIRL Rwy 12–30—CTAF (122.9). Rwy 12 and Rwy 30 PAPI OTS indef.
AIRPORT REMARKS: Attended 1600–0400Z.
AIRPORT MANAGER: (684) 699–9101
COMMUNICATIONS: CTAF 122.9
COMM/NAV/WEATHER REMARKS: For arpt information ctc New Zealand NOTAM and briefing office (643) 358–1688. FSS: NEW ZEALAND, 643–358–1688/FAP 643–358–9192.

TUTUILA ISLAND

PAGO PAGO INTL (PPG)(NSTU) 3 SW UTC–11 S14°19.90′ W170°42.69′ **HAWAIIAN–MARIANA**
31.2 B Class I, ARFF Index C NOTAM FILE PPG **IAP**
RWY 05–23: H10001X150 (ASPH–GRVD) S–75, D–170, 2D–250, 2D/2D2–600 PCN 60 F/A/W/T HIRL
RWY 05: MALSR. PAPI(P4L)—GA 3.25° TCH 57′. Thld dsplcd 1002′. Hill. Rgt tfc.
RWY 23: PAPI(P4L)—GA 3.0° TCH 75′. Thld dsplcd 790′. Fence.
RWY 08–26: H3801X100 (ASPH–GRVD) S–75, D–150, 2D–230, 2D/2D2–550 PCN 45 F/A/W/T HIRL
RWY 08: Rgt tfc.
SERVICE: S8 **FUEL** 100, JET A1+ **LGT** Dusk–Dawn. ACTIVATE MALSR Rwy 05; PAPI Rwy 05 and Rwy 23; HIRL Rwy 05–23 and Rwy 08–26; twy lgts freq—118.3.
AIRPORT REMARKS: Attended continuously. Olotele Mt. 1617′ MSL 3.5 miles west of thld Rwy 08. 399′ MSL obstruction light on LOG NDB located on hill 2.0 SM southwest of thld Rwy 05. Permanently lighted and marked 226′ tower atop Mt. Alava 4.3 SM north-northeast of airport. All flights (except scheduled) prior permission from airport manager required with 24 hour prior notice. All aircraft transitioning Pago Pago (except commercial carriers) must make fuel arrangements with PPG at (684) 733–3158. Sea spray from surf and blow holes may drift across Rwy 05–23 under rough sea conditions. Minor power plant repairs only. Customs available. Landing fee.

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AIRPORT MANAGER: (684) 733–3076
WEATHER DATA SOURCES: AWOS–3PT 127.925 (684) 699–0179.
COMMUNICATIONS: CTAF 122.9
FALEOLO APP/DEP CON 118.1
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
(H) VORTACW 112.5 TUT Chan 72 S14°19.96′ W170°42.50′ at fld. 7.1/12E.
VOR unusable:
005°–032° byd 26 NM blo 16,000′
050°–228° byd 24 NM blo 4,000′
228°–287° byd 34 NM blo 16,000′
287°–005° byd 18 NM
345°–005°
TACAN AZIMUTH unusable:
005°–032° byd 32 NM blo 16,000′
032°–050° byd 34 NM blo 16,000′
287°–005° byd 13 NM
345°–005° byd 5 NM blo 6400′
DME unusable:
005°–032° byd 20 NM blo 16,000′
345°–005° byd 5 NM blo 6400′
NDB (HHW) 403 TUT S14°19.93 W170°43.17 at fld. 12E. Unmonitored.
ILS/DME 110.3 I–TUT Chan 40 Rwy 05. Unmonitored.
COMM/NAV/WEATHER REMARKS: For IFR clearances ctc Faleolo Air Traffic Control unit phone (685) 42050 or Primary Apch freq 118.1, Secondary Apch freq 118.5, HF freq 6.553. Christchurch NZ NOF is issuing agency for PAGO PAGO Intl NOTAMS ctc NR 64 33581688. For NOTAM ctc New Zealand (643) 358-1688. FSS: NEW ZEALAND.

FEDERATED STATES OF MICRONESIA

KOSRAE ISLAND

KOSRAE (TTK)(PTSA) 6 NW UTC+11 N5º21.42´ E162º57.50´ **P–1B**
12 NOTAM FILE HNL **IAP**

RWY 05–23: H5752X150 (ASPH–GRVD) D–152, 2S–175 MIRL
RWY 05: REIL. PAPI(P4L)—GA 3.0º TCH 52´.
RWY 23: REIL. PAPI(P4L)—GA 3.0º TCH 52´. Rgt tfc.

SERVICE: FUEL JET A1 **LGT** ACTIVATE MIRL Rwy 05–23, PAPI and REIL Rwy 05 and Rwy 23—CTAF.

AIRPORT REMARKS: Attended Mon–Fri 1900–0300Z, Sat 2000–0100Z, Sun on call. Flt plan must be filed 12 hrs prior to estimated time of arrival, include Pohnpei Intl (PTPN) as address of flt plan. PPR for landing to be filed 48 hr in advance with FSM Secretary of Transportation, Communications and Infrastructure. Please see FSM Dept of Transportation, Communications, and Infrastructure, Division of Civil Aviation website for procedures and forms used to request PPR into FSM: HTTP://WWW.ICT.FM/CIVILAVIATION/FORMS.HTML. Unmarked/unlighted terrain at elev 797´ MSL located approximately 7200´ southeast of arpt. Ship vessels with mast as high as 200´ MSL may be traversing harbor entrance located South of rwy. For fuel transient acft must make prior arrangements by calling (691) 370–2477.

AIRPORT MANAGER: (691) 370–2154

COMMUNICATIONS: CTAF 123.6
KOSRAE RADIO 123.6

RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
NDB/DME (MHW) 393 UKS Chan 100 N05º21.18´ E162º57.41´ at fld. 13/8E.

POHNPEI ISLAND

POHNPEI INTL (PNI)(PTPN) 1 N UTC+11 N6º59.11´ E158º12.59´ **P–1A**
9 B AOE NOTAM FILE HNL **IAP**

RWY 09–27: H6600X150 (ASPH–GRVD) S–75, D–170, 2S–175, 2D–290 MIRL
RWY 09: REIL. PAPI(P4L)—GA 3.0º TCH 51´.
RWY 27: REIL. PAPI(P4L)—GA 3.0º TCH 50´. Rgt tfc.

SERVICE: FUEL 100, 100LL, JET A1+ **LGT** ACTIVATE MIRL Rwy 09–27 and Twy lgts—CTAF. For rotating beacon, PAPI Rwy 09 and Rwy 27, REIL Rwy 09 and Rwy 27, wind cone lgts ctc Pohnpei Radio 123.6.

AIRPORT REMARKS: Attended Mon–Fri 1900–0400Z, Sat 1900–0200Z, Sun 0600–1300Z. PPR for landing to be filed 48 hr in advance with Federated States of Micronesia Secretary of Transportation, Communications and Infrastructure. Please see FSM Dept of Transportation, Communications, and Infrastructure, Division of Civil Aviation website for procedures and forms used to request PPR into FSM: HTTP://WWW.ICT.FM/CIVILAVIATION/FORMS.HTML. Security on duty 24hr/7 days, ARFF and SAWR on duty for non–scheduled flights. 110´ tower located at 06º58´58"N, 158º12´32"E, obstruction lighted. Flt plan must be filed 12 hrs prior to estimated time of arrival, ctc arpt manager (691) 320–2682. One hour notice required to clear rwy. Center of rwy has asph patch, hard breaking not recommended. Obstruction lighted 662´ Peipalap Peak located 4900´ SW of threshold. Be alert to ships with maximum height of 150´ in Pohnpei channel 400´ off approach end of Rwy 09. For advisory contact Pohnpei Radio prior to final approach or departure. Construction in progress on airfield. Fuel 100 and 100LL stored off airport. Available on request. For fuel unscheduled acft prior notice required call (671) 649–8861. Landing fee.

AIRPORT MANAGER: (691) 320–2793

COMMUNICATIONS: CTAF 123.6
RADIO 123.6 LAA. 5205X USB emerg only, 2182 emerg only.

RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
NDB/DME (HW) 366 PNI Chan 47 N06º58.94´ E158º12.12´ at fld. 4/7E.
DME channel 47 is paired with VHF freq 111.0. DME unusable 035º-089º byd 40 NM, 090º–249º, 250º–270º byd 35 NM.

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

ULITHI ATOLL

ULITHI (TTØ2) 0 N UTC+10 N10°01.20′ E139°47.39′ **P–1A**

16 NOTAM FILE HNL Not insp.

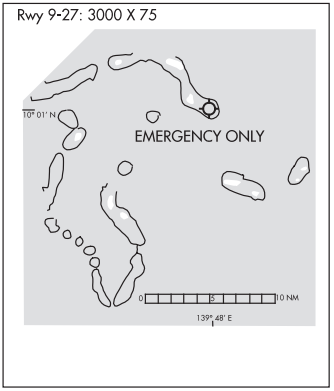
RWY 09–27: H3000X75 (ASPH)

AIRPORT REMARKS: Unattended. PPR from FSM DOT, COMMUNICATION and INFRASTRUCTURE: CIVIL AVIATION DIVISION (691) 320–2865. Remain in ctc with PTYA.

AIRPORT MANAGER: 9731/9300

COMMUNICATIONS: CTAF 123.6

YAP RADIO 123.6 daylight only.



WENO ISLAND

CHUUK INTL (TKK)(PTKK) 0 SE UTC+10 N7°27.71′ E151°50.58′ **P–1A**

10 B AOE NOTAM FILE HNL **IAP**

RWY 04–22: H6013X150 (ASPH–GRVD) S–115, D–176, 2S–175 MIRL

RWY 04: REIL. PAPI(P4L)—GA 3.0° TCH 51′. Berm.

RWY 22: REIL. PAPI(P4L)—GA 3.0° TCH 50′. Berm. Rgt tfc.

SERVICE: FUEL 100LL, JET A1+ **LGT** PPR for rotating beacon contact Chuuk Radio 123.6. ACTIVATE MIRL VASIs and REILs Rwy 4–22—123.6. Rwy 22 PAPI unusable byd 7° left of cntrln.

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

AIRPORT MANAGER: (691) 330–2352

COMMUNICATIONS: CTAF 123.6

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

RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.

TRUK NDB/DME (HW) 375 TKK Chan 111 N7°27.54′ E151°50.51′ at fld. 6/5E.

DME portion unusable:

040°–205° byd 8 NM blo 7,000′

040°–205° byd 19 NM blo 11,000′

040°–205° byd 29 NM blo 22,000′

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

TRUK N7°27.54′ E151°50.51′ NOTAM FILE HNL.

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

DME portion unusable:

040°–205° byd 8 NM blo 7,000′

040°–205° byd 19 NM blo 11,000′

040°–205° byd 29 NM blo 22,000′

YAP ISLAND

YAP INTL (T11)(PTYA) 0 SW UTC+10 N9°29.93′ E138°04.95′ **P–1A**
91 B AOE NOTAM FILE HNL **IAP**

RWY 07–25: H6000X150 (ASPH–GRVD) S–75, D–160, 2D–230 MIRL
RWY 07: REIL. PAPI(P4L)—GA 3.0° TCH 47′. Ground.
RWY 25: REIL. PAPI(P4L)—GA 3.0° TCH 49′. Ground.

SERVICE: FUEL JET A1 **LGT** ACTVT REILs 07 and 25; PAPI Rwy 07 and 25; MIRL Rwy 07-25 – 123.6. Bcn OTS.

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

AIRPORT MANAGER: (691) 350–2128

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

RADIO AIDS TO NAVIGATION:
YAP NDB/DME (HW/DME) 317 YP Chan 122 N09°29.97′ E138°05.31′ at fld. 80/1E.
DME unusable:
001°–009° byd 10 NM
010°–035° byd 10 NM blo 12,000′
035°–075° byd 25 NM blo 4,000′
076°–105° byd 25 NM
280°–000° byd 25 NM blo 12,000′

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

GUAM

ANDERSEN N13°35.47′ E144°56.80′ NOTAM FILE PGUA. HAWAIIAN–MARIANA
H–TACAN 111.7 UAM Chan 054 at Andersen AFB. 615/2E. No NOTAM MP Mon, Wed 2000–2300Z. P–1A

GUAM INTL (GUM)(PGUM) 3 NE UTC+10 N13°29.04′ E144°47.83′ HAWAIIAN–MARIANA
305 B LRA TPA—1307(1002) P–1A
Class I, ARFF Index E NOTAM FILE GUM IAP, AD

RWY 06L–24R: H12014X150 (ASPH–CONC–GRVD) S–135 D–235 2D–390 2D/2D2–780 PCN 69 F/B/X/U HIRL
RWY 06L: MALSR. PAPI(P4L)—GA 3.0° TCH 73′. Thld dsplcd 1000′. 0.5% up.
RWY 24R: PAPI(P4L)—GA 3.0° TCH 75′. Rgt tfc. 0.7% down.
RWY 06R–24L: H10014X150 (ASPH–CONC–GRVD) S–135 D–235 2D–390 2D/2D2–780 PCN 69 F/B/X/U HIRL
RWY 06R: MALSR. PAPI(P4R)—GA 3.0° TCH 76′. 0.7% up.
RWY 24L: PAPI(P4L)—GA 3.0° TCH 75′. Thld dsplcd 1004′. Hill. Rgt tfc. 0.5% down.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 06L: TORA–12014 TODA–12014 ASDA–12014 LDA–11014
RWY 06R: TORA–10014 TODA–10014 ASDA–10014 LDA–10014
RWY 24L: TORA–9714 TODA–9714 ASDA–9714 LDA–8710
RWY 24R: TORA–12014 TODA–12014 ASDA–12014 LDA–12014
SERVICE: S2 **FUEL** 100LL, JET A1 OX 1, 2, 3 **LGT** Rwy 24L PAPI unusable byd 5° left of centerline.
AIRPORT REMARKS: Attended continuously. Rwy 06L--24R less than 1000' overrun south end & 450' overrun north end. Rwy 06 and Rwy 24 wind cone NSTD. Lighted tower 780′ 1.3 NM east-northeast of Rwy 24L thld. Rising terrain 75′ from Rwy 24L thld 140′ east of centerline extended +8′. Departing VFR acft maintain rwy heading until past departure end of rwy and reaching 1000′ AGL; right pattern 24L/R do not exceed 1500′ AGL in tfc pattern. Class III acft are prohibited from making any turns onto or off Twy Golf (south) while utilizing Twy Echo. The first 500' of the left shoulder of Rwy 24L is not visible from the twr. Pilots are advised to caution for any presence of wildlife in that area. For taxiing B747-8 acft on Twy K fronting the acft prkg apn from Gates 5-16 at the main trml, max taxiing speed shall be no more than 15 mph. For the B747-8, dur Rwy 24L and 24R ops and due to jet blast effects at Gate 14, 16 and 18, the B747-8 will be towed from Gate 4 on Twy K to Twy J with the acft positioned on Twy J facing toward Rwy 24R. Dur taxiing of the B747-8 btn Gates 5-16, all veh shall yield and remain clear of the veh tfc pat and are rstd to a max hgt of 14'. For all arr, the B747-8 airline will tow the acft into Gates 4 or 18 from Twy K and airline to provide wing-walkers as the acft is being towed into Gates 4 or 18. ADG-VI airplanes may depart on Rwy 06L and Rwy 24R with acft on parallel Twy K as long as no ADG-VI acft occupies the parallel twy byd 1500' of the point of tkof roll. For parking information all acft ctc ramp control. All acft dep terminal parking ctc ramp control for engine start and pushback. Tsnt acft prvd 24 hrs advn info to Exec Mgr Guam Intl Arpt Authority; 1–671–642–4455 Mon–Fri 2200–0700Z or Fax 1–671–646–8587. Customs available 24 hours daily. Landing fee. Consult special notice section of International NOTAMS.
AIRPORT MANAGER: (671) 646–0300
WEATHER DATA SOURCES: ASOS (671) 472–7399
COMMUNICATIONS: ATIS 119.0
Ⓡ **GUAM CERAP APP/DEP CON** 119.8
AGANA TOWER 118.1 **GND CON** 121.9 **CLNC DEL** 121.9 **RAMP CON** 121.6
AIRSPACE: CLASS D svc
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
NIMITZ (H) VORTACW 115.8 UNZ Chan 105 N13°27.27′ E144°44.00′ 063° 4.1 NM to fld. 674/2E.
VORTAC unusable:
110°–130° byd 35 NM blo 3,000′.
200°–238° byd 14 NM blo 7,000′.
MT MACAJNA NDB (HW) 385 AJA N13°27.21′ E144°44.22′ 061° 3.9 NM to fld. 658/2E.
ILS/DME 110.3 I–GUM Chan 40 Rwy 06L.
ILS/DME 110.9 I–AWD Chan 46 Rwy 06R. Class IE. DME unusable byd 15° right of course.
ASR
COMM/NAV/WEATHER REMARKS: For radar advisory beyond 25 NM ctc Guam Center on 118.7. SSB receiving capability available on all HF freq. Aeronautical Radio, Inc. (ARINC) see Associated Data.

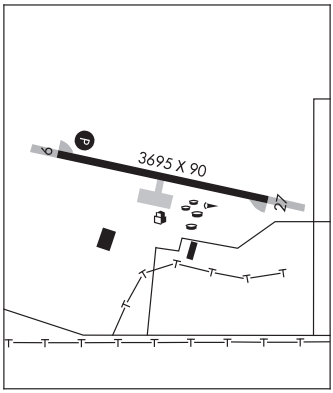
GUAM ARTCC (ZUA) (PGZU)
118.7 119.8 120.5 121.5 remoted at Mount Santa Rosa. 118.4 remoted at Saipan. P–1A

MT MACAJNA N13°27.21′ E144°44.22′ NOTAM FILE PGUM. HAWAIIAN–MARIANA
NDB (HW) 385 AJA 061° 3.9 NM to Guam Intl. 658/2E. P–1A

NIMITZ N13°27.27′ E144°44.00′ NOTAM FILE PGUM. HAWAIIAN–MARIANA
(H) VORTACW 115.8 UNZ Chan 105 063° 4.1 NM to Guam Intl. 674/2E. P–1A
VORTAC unusable
110°–130° byd 35 NM blo 3,000′.
200°–238° byd 14 NM blo 7,000′.

HAWAII

BRADSHAW army AIRFIELD (BSF)(PHSF) 1 W UTC–10 N19°45.60′ W155°33.23′ **HAWAIIAN –MARIANA**
6190 TPA—See Remarks NOTAM FILE HNL **P–2H**



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

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

MILITARY REMARKS: Attended Mon–Fri 1715–0100Z except holidays, phone Honolulu C808–433–1810 extn 461. Terminal, planes and marked twr on arpt. Arpt is VFR for mil training. Parachute Jumping. **RSTD** PPR for full stop ldg, parking and for non–tenant acft. 72 hrs PPR for hazardous cargo ops, fixed wing ops, and code movement, 24 hr PPR for all tran acft; overflight of ammo supply point located 3300′ South of airfield is prohibited. Hazardous cargo on/off load approach end Rwy 09 only. Hazardous cargo advise twr IAW AR 95–27/AFR 55–14/OPNAVINST. Flight within 4900′ or direct overflight blo 9000′ over Mauna Kea State Park located 8200′ ESE of airfield is prohibited. Flt within 3/4 NM or overflight below 7,000′ of Waikii Ranch 7.9 NM NW prohibited. No acft with skids on Fixed Wing ramp. When twr closed, acft remain N of Saddle Road and establish two–way communication with Range Control prior to entry R–3103. Fixed wing acft are not auth tkof Rwy 09 and Rwy 27. Fixed wing tkof and ldg not avbl when twr clsd. Fixed wing apch/land Rwy 09 only. Overflight or landing at Kawaihae Docks is prohibited for military acft. **CAUTION** Located in R–3103. 500′ asph overrun each end of Rwy 09–27. 7′ lip at W end of overrun. 75′ of lava rock each side of rwy for dust control. Extensive dust hazard to fixed wing acft on E and W copter park ramps. High FOD potential in all areas of airfield. Extensive copter tfc vicinity of arpt. Terrain rises rapidly N of fld to 13,796 MSL. Overrun available for takeoff Rwy 27 end. High winds and low level wind shear may exist. **TFC PAT** TPA—Tfc pattern R/W N of rwy, 6900′. Fixed wing 7700′ or as directed by ATC. **MISC** Ltd ARFF facilities for scheduled flights during airfield opr hrs. Base wx station open Mon–Fri 1700–0100Z exc holidays. Wx observers view obstructed by buildings S–SW. Remote wx briefings avbl from 17 OWS wx Squadron 24 hrs at DSN/COMM 449–8333, 2 hr prior notice required for brief.

AIRPORT MANAGER: 808-961-6232

COMMUNICATIONS: CTAF 126.3 **ATIS** 124.7
KAMUELA RCO 122.1R 113.3T (HONOLULU RADIO)
HCF CENTER APP/DEP CON 118.45 (1715–0100Z Except Holidays) 278.3
TOWER 126.3 (1715–0100Z Mon–Fri)
HICKAM METRO 346.6 Remote brief avbl. **RANGE** 125.2 38.3 (Opr 24 hrs)
PMSV METRO 122.75

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

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

RADIO AIDS TO NAVIGATION: NOTAM FILE MUE.

KAMUELA (H) VOR/DME 113.3 MUE Chan 80 N19°59.88′ W155°40.19′ 144° 15.7 NM to fld. 2670/11E.
VOR portion unusable:
001°–030° byd 10 NM blo 6,000′
070°–084° byd 25 NM blo 7,000′
070°–084° byd 35 NM blo 13,000′
085°–210° byd 15 NM blo 15,500′
290°–360° byd 10 NM blo 7,500′
290°–360° byd 20 NM blo 16,000′
DME unusable:
070°–084° byd 25 NM blo 7,000′
070°–084° byd 35 NM blo 13,000′
085°–210° byd 15 NM blo 15,500′
290°–030° byd 10 NM
HILO (H) VORTAC 116.9 ITO Chan 116 N19°43.28′ W155°00.66′ 263° 30.8 NM to fld. 23/11E. NOTAM FILE ITO.

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

HAMAKU N19°54.62′ W155°11.36′ **HAWAIIAN ISLANDS**
RCO 122.2 (HONOLULU RADIO) **P–2H**

HILO INTL (ITO)(PHTO) 2 E UTC–10 N19º43.22´ W155º02.91´ **HAWAIIAN ISLANDS**
38 B LRA ARFF Index—See Remarks NOTAM FILE ITO **P–1C, 2H**
RWY 08–26: H9800X150 (ASPH–GRVD) S–75, D–250, 2D–350, 2D/2D2–850 PCN 69 F/B/W/T HIRL **IAP**
RWY 08: ODALS. PAPI(P4R)—GA 3.0º TCH 71´. Tree.
RWY 26: MALSR. PAPI(P4L)—GA 2.6º TCH 70´. Tree.
RWY 03–21: H5600X150 (ASPH–GRVD) S–75, D–80, 2D–140, 2D/2D2–410 PCN 69 F/B/W/T MIRL
RWY 03: REIL. VASI(V4L)—GA 3.25º TCH 48´. Thld dsplcd 349´. Fence.
RWY 21: Pole.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 03: TORA–5600 TODA–5600 ASDA–5600 LDA–5251
RWY 08: TORA–9800 TODA–9800 ASDA–9800 LDA–9800
RWY 21: TORA–5251 TODA–5251 ASDA–5510 LDA–5510
RWY 26: TORA–9800 TODA–9800 ASDA–9800 LDA–9800
SERVICE: S1 **FUEL** 100LL, JET A **LGT** ACTIVATE MIRL Rwy 3–21, HIRL Rwy 08–26, MALSR Rwy 26 and ODALS Rwy 08—118.1. Rwy 08 PAPI unusable byd 3 NM.
NOISE: Avoid overflight of noise sensitive residential areas north, west and southwest of arpt.
AIRPORT REMARKS: Attended 1700–0630Z. Rwy 03–21 closed to turbine acft 0400–1600. Be alert—occasional bird flocks on arpt and in flight across Rwy 08–26 and Rwy 03–21. Twy E btn Twy A and Rwy 08–26 ponding drg hvy rains. For fuel advance notice required, for 100LL call (808) 960–5146 or ctc freq 128.95, for JET A call 808–934–7757 or ctc freq 130.8. ARFF avbl 24 hrs, ctc 118.1 or (808) 934–5830/5831. Class I, ARFF Index C. ARFF avbl 24 hrs, contact 118.1 or 808–961-9317. The 1325´ paved area at approach end Rwy 08 marked by chevrons not usable for landing, takeoff, overrun or stopway and cannot be used in computing takeoff data for Rwy 08–26. Obstruction lighted 181´ smoke stack located 1/2 mile south of field. Rwys 08, 21 and 26 wind cones are lctd in the ROFA. Tower controls entry/exit traffic on taxiways F and E to east terminal ramp. Division 1.1, 1.2, 1.3 explosives prohibited. PPR from arpt manager for transportation of Division 1.4 explosives and hazardous material in or out of arpt. Rwy 03–21 no jet operations between 0400–1600Z. PPR from arpt manager for transient parking. Customs available. 100 grade fuel available Mon–Sat 1800–0300Z call (808) 961–6601 or 925–7395/889–6460 (nights and Sundays). Jet fuel available Mon–Sat 1800–0300Z call (808) 935–6881/6122 or 961–6601. NOTE: See Area Notices—General Information On Flying To Hawaii.
AIRPORT MANAGER: (808) 961–9300.
WEATHER DATA SOURCES: ASOS (808) 961–2077.
COMMUNICATIONS: CTAF 118.1 **ATIS** 126.4
RCO 122.6 122.1R 116.9T (HONOLULU RADIO)
Ⓡ **HILO APP/DEP CON** 119.7 (1600–0800Z)
Ⓡ **HCF CENTER APP/DEP CON** 126.6 (0800–1600Z) 284.6
TOWER 118.1 (1600–0800Z) **GND CON** 121.9
CLEARANCE DELIVERY PHONE: For CD when ATCT is clsd ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS D svc 1600–0800Z other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE ITO.
(H) VORTAC 116.9 ITO Chan 116 N19º43.28´ W155º00.66´ 257º 2.1 NM to fld. 23/11E.
ILS/DME 110.7 I–ITO Chan 44 Rwy 26. Class: IA. Unmonitored when ATCT clsd.

KAMUELA N19º59.88´ W155º40.19´ NOTAM FILE MUE. **HAWAIIAN–MARIANA**
(H) VOR/DME 113.3 MUE Chan 80 at Waimea–Kohala Fld. 2670/11E. **P–2H**
VOR portion unusable:
001º–030º byd 10 NM blo 6,000´
070º–084º byd 25 NM blo 7,000´
070º–084º byd 35 NM blo 13,000´
085º–210º byd 15 NM blo 15,500´
290º–360º byd 10 NM blo 7,500´
290º–360º byd 20 NM blo 16,000´
DME unusable:
070º–084º byd 25 NM blo 7,000´
070º–084º byd 35 NM blo 13,000´
085º–210º byd 15 NM blo 15,500´
290º–030º byd 10 NM
RCO 122.1R 113.3T (HONOLULU RADIO)

KILAUEA N19°26.15′ W155°16.37′ HAWAIIAN ISLANDS
RCO 122.4 (HONOLULU RADIO) P–2H

KONA INTL AT KEAHOLE (ELLISON ONIZUKA) (KOA)(PHKO) 6 NW UTC–10 N19°44.33′ W156°02.74′ HAWAIIAN ISLANDS
P–1C, 2G
AD, IAP
49 B TPA—See Remarks LRA Class I, ARFF Index D NOTAM FILE KOA
RWY 17–35: H11000X150 (ASPH–GRVD) S–75, D–200, 2D–400, 2D/D1–450, 2D/2D2–850 PCN 69 F/A/W/T HIRL
RWY 17: MALSR. PAPI(P4L)—GA 3.0° TCH 77′. Terrain. Rgt tfc.
RWY 35: PAPI(P4L)—GA 3.0° TCH 71′.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 17: TORA–11000 TODA–11000 ASDA–11000 LDA–11000
RWY 35: TORA–11000 TODA–11000 ASDA–11000 LDA–11000
SERVICE: S8 **FUEL** 100, JET A **LGT** ACTIVATE MALSR Rwy 17, HIRL Rwy 17–35 and twy lgts—CTAF.
AIRPORT REMARKS: Attended 1600–0800Z. Migratory bird activity within a 5 NM radius of arpt. All wide–body aircraft contact tower prior to engine start. Kona Tower not responsible for movement on ramp within demarcation line. Request four engine acft taxi with outboard engines at idle due to narrow twy. Minor powerplant repairs available. Traffic pattern altitudes small aircraft 800(751) large aircraft 1500(1451). Rwy 17–35 double dual tandem wheel for DC10–10 450,000 lbs GWT, B747–SP 700,000 lbs GWT, B747–100 850,000 lbs GWT. PPR from arpt manager for transient parking call 808–327–9520. Division 1.1, 1.2, 1.3 explosives prohibited. PPR from arpt manager for transportation of Division 1.4 explosives and hazardous material in and out of arpt. Arpt ARFF mnt CTAF 120.3 when tower clsd. Push back/pull out required from terminal parking positions for all acft, no power out. Helicopter operations on and invof Twy Alpha. All helicopters confine operations to paved areas. Jet A and 100 octane fuel available daily 1800–0300Z, other times with prior arrangements, call (808) 329–4682. U.S. Customs lctd on south ramp. Jet acft on cargo and south ramp ctc twr prior to engine start.
AIRPORT MANAGER: (808) 327–9520
WEATHER DATA SOURCES: ASOS (808) 329–0412 LAWRS.
COMMUNICATIONS: CTAF 120.3 **ATIS** 127.4
RCO 122.45 (HONOLULU RADIO)
Ⓡ**HCF CENTER APP/DEP CON** 118.45 278.3
TOWER 120.3 (1600–0800Z) **GND CON** 121.9 **CLNC DEL** 118.6
CLEARANCE DELIVERY PHONE: For CD when ATCT is clsd ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS D svc 1600–0800Z other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE KOA.
(H) VORTAC 112.1 KOA Chan 58 N19°43.03′ W156°02.70′ 347° 1.3 NM to fld. 36/11E.
VOR unusable:
040°–110°
TACAN unusable:
065°–110°
215°–280° byd 13 NM blo 2,000′
215°–280° byd 18 NM
DME unusable:
065°–110°
215°–280° byd 13 NM blo 2,000′
215°–280° byd 18 NM
ILS/DME 109.7 I–KOA Chan 34 Rwy 17. ILS unmonitored when tower closed. LOC backcourse unusable 22° left and 25° right of centerline.

PAHOA N19°32.47′ W154°58.33′ NOTAM FILE ITO. HAWAIIAN–MARIANA
NDB (HW) 332 POA 327° 11.6 NM to Hilo Intl. 495/11E. Unmonitored when twr clsd. P–2H

UPOLU (UPP)(PHUP) 3 NW UTC–10 N20°15.91′ W155°51.60′ **HAWAIIAN ISLANDS**
96 B TPA—See Remarks NOTAM FILE UPP **P–2G**

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

SERVICE: LGT ACTVT MIRL Rwy 07–25—CTAF.

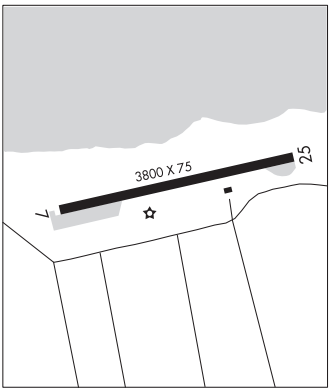
AIRPORT REMARKS: Unattended. No facilities. PPR for transient parking. PPR from arpt manager phone (808) 327–9520 for transportation of Division 1.1, 1.2, 1.3 explosives in or out of arpt. Occasional flocks of birds on and invof arpt. Skydiving activity on and invof arpt. All helicopters confine ops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

AIRPORT MANAGER: (808) 327–9520

COMMUNICATIONS: CTAF 122.9
UPOLU POINT RCO 122.1R 112.3T (HONOLULU RADIO)

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

RADIO AIDS TO NAVIGATION: NOTAM FILE UPP.
UPOLU POINT (H) VORTAC 112.3 UPP Chan 70 N20°12.03′ W155°50.60′ 335° 4.0 NM to fld. 1760/11E.
VOR unusable:
022°–040° blo 5,000′
123°–130°
203°–292° byd 30 NM blo 8,000′
VORTAC unusable:
145°–160° byd 27 NM blo 19,000′
168°–180° byd 25 NM blo 10,000′



UPOLU POINT N20°12.03′ W155°50.60′ NOTAM FILE UPP. **HAWAIIAN–MARIANA**
(H) VORTAC 112.3 UPP Chan 70 335° 4.0 NM to fld. 1760/11E. **P–2G**
VOR unusable:
022°–040° blo 5,000′
123°–130°
203°–292° byd 30 NM blo 8,000′
VORTAC unusable:
145°–160° byd 27 NM blo 19,000′
168°–180° byd 25 NM blo 10,000′
RCO 122.1R 113.3T (HONOLULU RADIO)

WAIMEA–KOHALA (MUE)(PHMU) 1 SW UTC–10 N20°00.08′ W155°40.09′ HAWAIIAN ISLANDS
2671 B TPA—See Remarks NOTAM FILE MUE P–2H
RWY 04–22: H5197X100 (ASPH) S–55, D–90, 2S–110, 2D–150 MIRL IAP
RWY 04: REIL. VASI(V4R)—GA 2.5° TCH 43′. Rgt tfc.
RWY 22: REIL. VASI(V4L)—GA 3.0° TCH 35′. Fence.
SERVICE: LGT ACTIVATE MIRL Rwy 04–22—CTAF. VASI Rwy 04 unusable byd 8° left of centerline. VASI Rwy 22 unusable byd 5° left and right of centerline.
AIRPORT REMARKS: Attended 1600–0530Z. Telephone line 1000′ from approach end Rwy 04. Rwy 04 30′ trees 275′ rgt of centerline 3000′ from approach end rwy. PPR for transient parking. PPR from arpt manager phone (808) 327–9520 for transportation of Division 1.1, 1.2, 1.3 explosives in or out of arpt. Occasional flocks of pigeons on arpt and near Rwy 04–22. All helicopters confine ops to paved areas only. TPA—Traffic pattern altitudes small acft 3500(829), large acft 4200(1529). NOTE: See Area Notices—TRAFFIC ADVISORIES AT NON–TOWER AIRPORTS.
AIRPORT MANAGER: (808) 327–9520
WEATHER DATA SOURCES: AWOS–3PT 120.0 (808) 887–8127.
COMMUNICATIONS: CTAF 122.9
Ⓡ **HCF CENTER APP/DEP CON** 118.45 278.3
CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS E
RADIO AIDS TO NAVIGATION: NOTAM FILE MUE.
KAMUELA (H) VOR/DME 113.3 MUE Chan 80 N19°59.88′ W155°40.19′ at fld. 2670/11E.

KAUAI

BARKING SANDS PMRF (BKH)(PHBK) N 5 NW UTC–10 N22°01.37′ W159°47.10′ HAWAIIAN ISLANDS
23 B NOTAM FILE Not insp. P–2F
RWY 16–34: H6002X150 (ASPH) PCN 51 F/A/W/T HIRL
RWY 16: PAPI(P4L)—GA 3.0° TCH 40′.
RWY 34: PAPI(P4L)—GA 3.0° TCH 40′.
ARRESTING GEAR/SYSTEM
RWY 16 BAK–12 HOOK E28 (B) (1502') HOOK E28 (B) (1500')
NOISE: N shoreline Kauai and the island of Nihau extremely noise sensitive, acft avoid by at least 5 NM.
MILITARY REMARKS: RSTD 72 hr PPR for all acft, user reimburse contractor overtime, DSN 315–421–6310/6311, C808–335–4310/4311. For R3101, ctc RNG Outrider 322.85 or twr 126.2 prior to entry.
COMMUNICATIONS: UNICOM 122.8 **ATIS** 128.0 (1700–0400Z Mon–Fri exc hol, OT by OPE NEC only)
Ⓡ **HCF CENTER APP/DEP CON** 126.5 269.4
NAVY BARKING SANDS TOWER 126.2 360.2 Mon–Fri 1700–0400Z except holidays. Other times by OPR NEC only.
GND CON 124.2 340.2
CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS D svc Mon–Fri 1700–0400Z except holidays. Other times by OPR NEC only. Other times CLASS G.
TACAN 112.6 NBS Chan 073 N22°02.26′ W159°47.11′ at Barking Sands PMRF. 26/10E. NOTAM FILE HNL.
TACAN unusable:
010°–040° byd 15 NM blo 17,000′
040°–075° byd 15 NM
075°–120° byd 20 NM blo 17,000′

LIHUE (LIH)(PHLI) 2 E UTC–10 N21°58.56′ W159°20.34′ **HAWAIIAN ISLANDS**
152 B TPA—See Remarks LRA Class I, ARFF Index C NOTAM FILE LIH **P–2F**
RWY 03–21: H6500X150 (ASPH–GRVD) S–75, D–200, 2D–350, 2D/2D2–730 **IAP**
PCN 75 F/A/W/T MIRL
RWY 03: REIL. PAPI(P4L)—GA 3.0° TCH 46′. Rgt tfc. 1.1% up SW.
RWY 21: REIL. PAPI(P4L)—GA 3.0° TCH 45′. Thld dsplcd 205′. Tree.
RWY 17–35: H6500X150 (ASPH–GRVD) S–75, D–175, 2D–250, 2D/2D2–630 PCN 75 F/A/W/T HIRL
RWY 17: REIL. PAPI(P4L)—GA 3.0° TCH 54′.
RWY 35: MALSR. PAPI(P4L)—GA 3.0° TCH 55′. Rgt tfc.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 03: TORA–6500 TODA–6500 ASDA–6500 LDA–6500
RWY 17: TORA–6500 TODA–6500 ASDA–6500 LDA–6500
RWY 21: TORA–6500 TODA–6500 ASDA–6500 LDA–6295
RWY 35: TORA–6500 TODA–6500 ASDA–6500 LDA–6500
SERVICE: S2 **FUEL** 100, JET A **LGT** When ATCT clsd ACTVT MALSR Rwy 35; REIL Rwys 03, 17 and 21; PAPI Rwy 03, 17, 21, and 35; MIRL Rwy 03–21; HIRL Rwy 17–35; twy lgts—CTAF. PAPI Rwy 03 unusable byd 1.5 NM and 7° left of centerline and offset 9.5° E of centerline due to rapidly rising terrain. PAPI Rwy 17 unusable byd 5° rgt of centerline.
AIRPORT REMARKS: Attended 1600–0800Z. Extensive large and small bird activity invof rwys including the nene goose. Stadium flood lights 125′ AGL/282′ MSL 2400′ SW from Rwy 03 threshold. PPR for parking all transient acft, call arpt ops control (808) 651–6255; fax (808) 241–3939 btn 1700Z and 0230Z; other times, call (808) 274–3814. Military/civilian acft carrying munitions/HAZMAT must coordinate itinerary no later than 24 hours prior to arrival. Acft needing engine runups for other than normal start–up and taxi out are required to coordinate these runups with arpt mgr. Normal runup area is on Twy Alpha north of Twy B and alpha intersection. Acft orientation is dependent on wind and with twr approval. Power setting will not cause damage to lgts and signs, if run may cause damage an alternate location will be selected. 405′ of Rwy 17–35 500′ south of Twy D and Rwy 17–35 intersection not visible from twr. Due to non-visibility twr unable to provide air traffic control svc between acft and/or vehicles on Twy B from 220′ to 500′ S of Twy D. Tfc departing and entering movement areas ctc twr. Intersection departures from Twy D on Rwy 17–35 not authorized. ARFF available 24 hrs. 100 octane fuel available 1900–0300Z. For JET A fuel call 1 (800) 776–2138 or 1 (800) 821–3122. Military acft make fuel arrangements before arrival. PPR for transportation of Division 1.1, 1.2, 1.3 explosives and hazardous material in and out of arpt. Call 1 (808) 241–3912. Rwy 17–35 weight limit DC 10–10 340,000 lbs, DC 10–30 430,000 lbs. TPA—single engine 1000(847), Multi engine 1500(1347).
AIRPORT MANAGER: (808) 274–3800
WEATHER DATA SOURCES: ASOS (808) 246–3707
COMMUNICATIONS: CTAF 118.9 **ATIS** 127.2
RCO 122.4 122.1R 113.5T (HONOLULU RADIO)
TOWER 118.9 (128.4 Helicopters) (1600–0800Z) (when twr clsd ctc HCF)
Ⓡ**HCF CENTER APP/DEP CON - CLNC DEL** 126.5 269.4 (If unavailable ctc 134.0)
GND CON 121.9
CLEARANCE DELIVERY PHONE: For CD when ATCT is clsd ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS D svc 1600–0800Z other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE LIH.
(H) VORTAC 113.5 LIH Chan 82 N21°57.92′ W159°20.29′ at fld. 101/11E.
TACAN AZIMUTH and DME unusable:
180°–240° byd 16 NM
241°–330° byd 18 NM
331°–355° byd 30 NM blo 7,500'
VOR unusable:
180°–240° byd 33 NM blo 11,500'
241°–330° byd 18 NM
331°–355° byd 30 NM blo 7,500′
ILS/DME 110.9 I–LIH Chan 46 Rwy 35. Class IE. LOC unusable byd 20° left of course. ILS/DME unmonitored when ATCT closed. DME unusable byd 20° left of course.
ASR
COMM/NAV/WEATHER REMARKS: When twr closed, A/C on ground ctc Honolulu Center (HCF) on 126.5/ HCF Apch 134.0.

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HELIPAD H1: H40X40 (CONC)
HELIPAD H2: H40X40 (CONC)
HELIPAD H3: H40X40 (CONC)
HELIPORT REMARKS: Helicopter pads 1 through 20 located west of control twr.

NORTH KAUAI N22°12.55′ W159°26.63′ **HAWAIIAN–MARIANA**
RCO 122.3 (HONOLULU RADIO) **P–2F**

PORT ALLEN (PAK)(PHPA) 1 SW UTC–10 N21°53.82′ W159°36.19′ **HAWAIIAN–MARIANA**

24 TPA—824(800) NOTAM FILE LIH

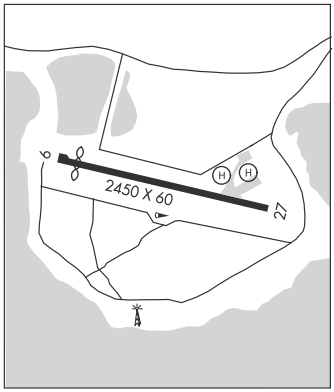
RWY 09–27: H2450X60 (ASPH) S–18

RWY 09: Thld dsplcd 189′. Rgt tfc.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 09: TORA–2361 TODA–2361 ASDA–2361 LDA–2361

RWY 27: TORA–2450 TODA–2450 ASDA–2450 LDA–2450



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

AIRPORT REMARKS: Unattended. Skydiving on and invof arpt. Daily helicopter activity on and invof arpt. Arpt restricted by owner to aircraft weighing less than 12,500 lbs. No airfield security, overnight acft parking not authorized. NOTE: See Area Notices—TRAFFIC ADVISORIES AT NON–TOWER AIRPORTS.

AIRPORT MANAGER: (808) 274–3800

COMMUNICATIONS: CTAF 122.9

LIHUE RCO 122.4 122.1R 113.5T (HONOLULU RADIO)

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

RADIO AIDS TO NAVIGATION: NOTAM FILE LIH.

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

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

PRINCEVILLE (HIØ1) 3 E UTC–10 N22°12.55′ W159°26.73′ **HAWAIIAN ISLANDS**

344 **P–2F**

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

RWY 05: Trees.

RWY 23: Pole.

SERVICE: LGT NSTD LIRL OTS indef.

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

AIRPORT MANAGER: (808) 826–3040

COMMUNICATIONS:

NORTH KAUAI RCO 122.3 (HONOLULU RADIO)

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

RADIO AIDS TO NAVIGATION: NOTAM FILE LIH.

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

TACAN AZIMUTH and DME unusable:

180°–240° byd 16 NM

241°–330° byd 18 NM

331°–355° byd 30 NM blo 7,500'

VOR unusable:

180°–240° byd 33 NM blo 11,500'

241°–330° byd 18 NM

331°–355° byd 30 NM blo 7,500′

SOUTH KAUAI N21°54.02′ W159°31.73′ NOTAM FILE LIH. **HAWAIIAN–MARIANA**

(H) VORTAC 115.4 SOK Chan 101 256° 4.2 NM to Port Allen. 602/11E. **P–2F**

VORTAC unusable:

060°–070° byd 30 NM blo 5,000′

305°–010° byd 15 NM blo 8,500′

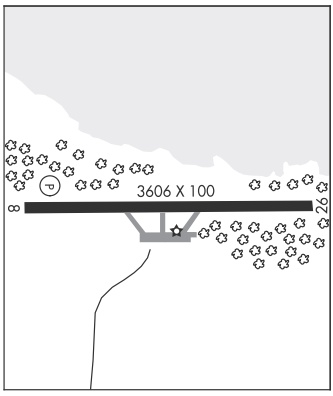
RCO 122.1R 115.4T (HONOLULU RADIO)

LANAI (LNY)(PHNY) 3 SW UTC–10 N20°47.14′ W156°57.09′ **HAWAIIAN ISLANDS**
1308 B TPA—See Remarks Class I, ARFF Index A NOTAM FILE LNY **P–2G**
RWY 03–21: H5001X150 (ASPH–GRVD) S–75, D–110, 2D–170, C5–517 PCN 12 F/A/W/T MIRL **IAP**
RWY 03: PAPI(P4R)—GA 3.0° TCH 49′.
RWY 21: PAPI(P4L)—GA 3.76° TCH 45′. Antenna.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 03: TORA–5000 TODA–5000 ASDA–5000 LDA–5000
RWY 21: TORA–5000 TODA–5000 ASDA–5000 LDA–5000
SERVICE: FUEL JET A **LGT** ACTIVATE PAPI Rwy 03 and Rwy 21, MIRL Rwy 03–21—CTAF. Rwy 21 PAPI unusable byd 2 NM due to terrain.
AIRPORT REMARKS: Attended 1600–0400Z. Jet A fuel 5000 gal. POC (808) 286–7075. 24 hrs PPR for Division 1.1, 1.2, 1.3 explosives and 4 hrs PPR for hazardous material in/out of arpt ctc (808) 565–7941/7943. Arpt CLOSED to air carrier ops with more than 10 passenger seats 0530–1600Z except PPR, call (808) 565–7942. TPA--- small acft 2100 (792) large acft 2800 (1492). Possible severe updrafts/downdrafts from 2 mile final apch to Rwy 3 thld. Due to ramp limitations all acft parking limited to one hour except via PPR call (808) 565–7942, FAX (808) 565–7940 or (808) 872–3880. Jet parking SW side of ramp is conc. Fixed wing transient parking SW side of ramp is asph. NOTE: See Area Notices—TRAFFIC ADVISORIES AT NON–TOWER ARPTS.
AIRPORT MANAGER: (808) 872–3830
WEATHER DATA SOURCES: AWOS-3P 118.375 (808) 565–6586.
COMMUNICATIONS: CTAF 122.9
LANAI RCO 122.5R, (serves OGG VORTAC 115.1T & LNY VORTAC 117.7T) (HONOLULU RADIO)
Ⓡ**HCF CENTER APP/DEP CON** 119.3
CLEARANCE DELIVERY PHONE: For CD if una to ctc on FSS freq, ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS E svc continuous.
RADIO AIDS TO NAVIGATION: NOTAM FILE LNY.
(H) VORTAC 117.7 LNY Chan 124 N20°45.87′ W156°58.13′ 027° 1.6 NM to fld. 1250/11E.
TACAN unusable:
005°–063° byd 20 NM blo 15,000′
VOR unusable:
020°–060° byd 27 NM blo 5,000′
ILS/DME 111.1 I–LNY Chan 48 Rwy 03. Class IT. ILS unmonitored. Glideslope unusable for coupled apchs blo 1,505′ MSL.

MAUI

HALEAKALA N20°42.32′ W156°15.90′ **HAWAIIAN ISLANDS**
RCO 122.2 (HONOLULU RADIO) **P–2G**

HANA (HNM)(PHHN) 3 NW UTC–10 N20°47.74′ W156°00.87′ **HAWAIIAN ISLANDS**
78 B TPA—See Remarks NOTAM FILE HNM **P–2G**
RWY 08–26: H3606X100 (ASPH) S–34, D–48, 2D–80 MIRL **IAP**
0.7% up W
RWY 08: PAPI(P2L)—GA 3.6° TCH 26′.
RWY 26: Rgt tfc.
SERVICE: LGT ACTIVATE MIRL (only high intensity avbl) Rwy 8–26—CTAF. Rwy 08 PAPI daylight ops only. Rwy 08 PAPI OTS indef.
AIRPORT REMARKS: Attended 1745–0230Z. Wild boars on and invof arpt. Parachute ldg area on east infield btn Twy B and C. Helicopter pilot training maneuvers will be conducted at the approach end of Rwy 26 only. Ultralights on and invof arpt. 24 hrs PPR for Division 1.1, 1.2, 1.3 explosives and 4 hrs PPR for other hazardous cargo in/out of arpt ctc (808) 248–4861 or (808) 872–3880. Rwy 08–26 35′ trees along both sides of rwy 200′ from centerline. Helicopter parking on grass infield areas between ramp and runway. TPA—Traffic pattern altitudes small acft 800(722) large acft 1500(1422). NOTE: See Area Notices—TRAFFIC ADVISORIES AT NON–TOWER AIRPORTS.
AIRPORT MANAGER: (808) 872–3808
WEATHER DATA SOURCES: AWOS–3PT 118.325 (808) 248–4864.
COMMUNICATIONS: CTAF 122.9
HANA RCO 122.3 (HONOLULU RADIO)
Ⓡ**HCF CENTER APP/DEP CON** 118.45 278.3
CLNC DEL 122.3
CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at 808-840-6262.
RADIO AIDS TO NAVIGATION: NOTAM FILE OGG.
MAUI (H) VORTAC 115.1 OGG Chan 98 N20°54.39′ W156°25.26′ 095° 23.8 NM to fld. 24/11E.



KAHULUI (OGG)(PHOG) 3 E UTC–10 N20°53.92′ W156°25.83′
55 B LRA Class I, ARFF Index D NOTAM FILE OGG
RWY 02–20: H6998X150 (ASPH–GRVD) S–130, D–170, 2D–360, 2D/2D2–750 PCN 48 F/C/X/T HIRL 0.6% up SW
RWY 02: MALSR. PAPI(P4R)—GA 3.0° TCH 77′. Stack. Rgt tfc.
RWY 20: PAPI(P4L)—GA 3.0° TCH 76′. Bldg.
RWY 05–23: H4980X150 (ASPH–GRVD) S–130, D–170, 2D–270 PCN 14 F/C/X/T MIRL
RWY 05: PAPI(P4L)—GA 3.0° TCH 40′. Trees.
RWY 23: Pole. Rgt tfc.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 02: TORA–6995 TODA–6995 ASDA–6995 LDA–6995
RWY 05: TORA–4990 TODA–4990 ASDA–4990 LDA–4990
RWY 20: TORA–6995 TODA–6995 ASDA–6995 LDA–6995
RWY 23: TORA–4990 TODA–4990 ASDA–4990 LDA–4990
SERVICE: S2 **FUEL** 100, JET A **LGT** When twr clsd ACTIVATE MALSR Rwy 02, PAPI Rwy 20 and Rwy 05, HIRL Rwy 02–20, MIRL Rwy 05–23—CTAF. Rwy 05 PAPI unusable byd 4 NM from thld due to rapidly rising terrain.
NOISE: NOTE: See Area Notices—Landing Rights Airports–Gatehold Procedures–Hazards, Cautions and Warnings–CLASS C Airspace–Arrival/Departure Routes–Noise Sensitive Areas–Informal Runway Use Program.
AIRPORT REMARKS: Attended continuously. Class I, ARFF Index D, however, can accommodate Index E as required, call arpt manager prior to arrival. ARFF available 24 hrs. 24 hrs PPR for Division 1.1, 1.2, 1.3 explosives and 4 hrs PPR for other hazardous cargo in/out of arpt; ctc (808) 872–3830 1745–0230Z other times (808) 872–3888. Lighted tower 570′ MSL approximately 3 miles west of airport. Migratory bird activity blo 1500′ within 5 NM radius of arpt during August–May. Acft over 30,000 lbs ldg on Rwy 02–20 unable to turn off onto Rwy 05–23 due to pavement condition. Due to nonvisibility twr unable to provide ATC svc between acft and ground vehicles on the commuter air terminal S of Taxiway F and the helicopter air terminal E of apch end Rwy 02. Due to non-visibility twr unable to determine if following area is clear of obstructions and/or tfc: portion of Taxiway F between the commuter air terminal and apch end Rwy 05. Ramp area E side Rwy 02 under state authority. Transient parking located on northeast section of E ramp. FAA not responsible for direction and control gnd tfc in area. Area E of apch end Rwy 02 designated as helicopter operations area. No fixed wing acft may operate on helipad during operational hours SR–SS. PPR for fixed wing acft operations on helipad during nonoperational hours call (808) 872–3880 1515–0800Z. Access to helipad from Twy C only. Mil hel ops with PPR rstrd to the SW corner of Hot Cargo Apron (HAZMAT) N of Rwy 05–23. Commuter terminal ramp restricted to acft 140,000 lbs or less. Jet A fuel avbl 1700–0400Z, other times by prior arrangement with FBO 24 hrs, (808) 871–5572, or (808) 873–6060. 100 octane fuel avbl 24 hrs self–service. Commuter air trml rstrd to Part 121 and Part 135 oprs only. Acft at the trml shall call the twr on 121.9 prior to pushback. Flight Notification Service (ADCUS) available. NOTE: See General Notices—Entry and Departure Requirements.
AIRPORT MANAGER: (808) 872–3808
WEATHER DATA SOURCES: ASOS (808) 877–6282. LAWRS (1600–0900Z).
COMMUNICATIONS: CTAF 118.7 **ATIS** 128.6 **UNICOM** 122.95
MAUI RCO 122.5R, (serves OGG VORTAC 115.1T & LNY VORTAC 117.7T) (HONOLULU RADIO)
Ⓡ **HONOLULU CONTROL FACILITY APP/DEP CON** 120.2 (North) 119.5 (South) (1600–0900Z, effective starting at 0200 local time the second Sunday in March through 0200 local time the first Sunday in November. 1600Z-1000Z, effective starting at 0200 local time the first Sunday in November through 0200 local time the second Sunday in March), OT ctc
Ⓡ **HCF CENTER APP/DEP CON** 119.3 307.1
MAUI TOWER 118.7 **GND CON** 121.9 **MAUI CLNC DEL** 120.6 (1600–0900Z, effective starting at 0200 local time the second Sunday in March through 0200 local time the first Sunday in November. 1600Z-1000Z, effective starting at 0200 local time the first Sunday in November through 0200 local time the second Sunday in March)
CLEARANCE DELIVERY PHONE: For CD when ATCT is clsd ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS C svc (1600–0900Z, effective starting at 0200 local time the second Sunday in March through 0200 local time the first Sunday in November. 1600–1000Z, effective starting at 0200 local time the first Sunday in November through 0200 local time the second Sunday in March) ctc **APP CON** other times CLASS E..
RADIO AIDS TO NAVIGATION: NOTAM FILE OGG.
MAUI (H) VORTAC 115.1 OGG Chan 98 N20°54.39′ W156°25.26′ at fld. 24/11E.
VALLEY ISLAND NDB (MHW) 327 VYI N20°52.85′ W156°26.56′ 022° 1.3 NM to fld. 62/11E. NDB unusbl 075°–160° byd 5 NM; 225°–310° byd 5 NM.
ILS/DME 110.1 I–OGG Chan 38 Rwy 02. Class IB. Unmonitored when ATCT closed. LOC unusable byd 15° left of course. GS unusable byd 6 deg left of crs.
COMM/NAV/WEATHER REMARKS: IFR tfc on the ground ctc Honolulu Control Facility on 119.3 0900–1600Z, effective starting at 0200 local time the second Sunday in March through 0200 local time the first Sunday in November and 1000–1600Z, effective starting at 0200 local time the first Sunday in November through 0200 local time the second Sunday in March). All tfc is requested to follow the procedures described for Traffic Advisories at Non–Tower Airports under Area Notices except to utilize Maui tower freq 118.7 instead of 122.9.

HELIPAD H1: H125X125 (ASPH)

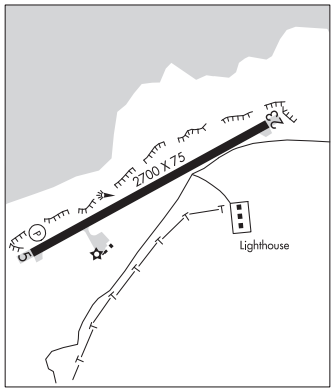
KAPALUA (JHM)(PHJH) 5 NW UTC–10 N20°57.78′ W156°40.38′ **HAWAIIAN ISLANDS**
256 Class I, ARFF Index A NOTAM FILE JHM **P–2G**
RWY 02–20: H3000X100 (ASPH) D–44 PCN 2 F/B/W/T
RWY 20: Tree. Rgt tfc.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 02: TORA–3000 TODA–3000 ASDA–3000 LDA–3000
RWY 20: TORA–3000 TODA–3000 ASDA–3000 LDA–3000
NOISE: Special noise level standards for acft operating at arpt. Restriction on number of daily flts depending on acft capacity and size.
AIRPORT REMARKS: Attended 1600–0400Z. Private use only. Arpt restricted to Part 121 and Part 135 FAR operators with PPR, ctc Kahului arpt ops (808) 872–3880 (24 hrs). ARFF hrs 1600–0400Z. No helicopter ops permitted. No jet powered acft allowed. No practice and training flights permitted. Rapidly rising terrain up to 300′ MSL along the full length of Rwy 02–20 approximately 160′ E of centerline.Tsnt acft ctc FBO for fuel 808--490--2400.
AIRPORT MANAGER: (808) 872–3830
WEATHER DATA SOURCES: AWOS–3PT 118.525 (808) 665–6101.
COMMUNICATIONS: CTAF/UNICOM 122.7
Ⓡ **HONOLULU CONTROL FACILITY APP/DEP CON** 124.1
CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS E svc 1600–0430Z other times CLASS G.
RADIO AIDS TO NAVIGATION: NOTAM FILE OGG.
MAUI (H) VORTAC 115.1 OGG Chan 98 N20°54.39′ W156°25.26′ 272° 14.6 NM to fld. 24/11E.
COMM/NAV/WEATHER REMARKS: UNICOM opn 1600–0400Z daily. Transient acft may call for tfc advys.

MAUI N20°54.23′ W156°25.15′ NOTAM FILE OGG **HAWAIIAN ISLANDS**
(H) VORTAC 115.1 OGG Chan 98 at Kahului fld. 24/11E.
VOR unusable:
065°–084° byd 30 NM blo 7,000′
085°–089° byd 30 NM blo 10,000′
090°–105° byd 31 NM blo 12,500′
106°–160° byd 19 NM blo 24,000′
161°–165° byd 23 NM blo 7,000′
210°–240° byd 6 NM blo 9,000′
210°–240° byd 17 NM blo 20,000′
241°–249° byd 27 NM blo 20,000′
250°–285° byd 27 NM blo 20,000′
250°–260° byd 35 NM
TACAN AZM unusable:
065°–084° byd 30 NM blo 7,000′
085°–089° byd 28 NM blo 7,000′
085°–089° byd 30 NM blo 10,000′
090°–105° byd 28 NM blo 12,500′
106°–160° byd 19 NM blo 24,000′
161°–165° byd 19 NM blo 7,000′
210°–285° byd 19 NM blo 20,000′
250°–260° byd 35 NM
DME unusable:
065°–084° byd 30 NM blo 7,000′
085°–089° byd 28 NM blo 7,000′
085°–089° byd 30 NM blo 10,000′
090°–105° byd 28 NM blo 12,500′
106°–160° byd 19 NM blo 24,000′
161°–165° byd 19 NM blo 7,000′
210°–285° byd 19 NM blo 20,000′
250°–260° byd 35 NM

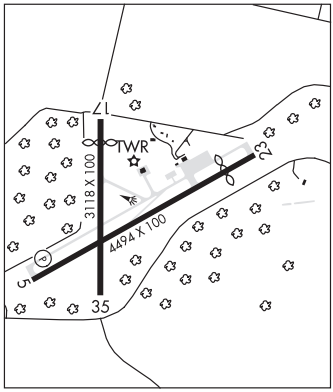
VALLEY ISLAND N20°52.85′ W156°26.56′ NOTAM FILE OGG **HAWAIIAN ISLANDS**
NDB (MHW) 327 VYI 022° 1.3 NM to Kahului. 62/11E. **P–2G**
NDB unusbl 075°–160° byd 5 NM; 225°–310° byd 5 NM.

MOLOKAI

KALAUPAPA (LUP)(PHLU) 2 N UTC–10 N21°12.66′ W156°58.42′ **HAWAIIAN ISLANDS**
24 B TPA—800(776) NOTAM FILE MKK **P–2G**
RWY 05–23: H2700X75 (ASPH) S–17 MIRL **IAP**
RWY 05: PAPI(P2L)—GA 3.0° TCH 19′.
RWY 23: Rgt tfc.
SERVICE: LGT ACTVT MIRL Rwy 05–23 med intst only–CTAF. PAPI Rwy 05 daytime VFR use only. Rwy 05 PAPI unusbl byd 2.2 NM. Terrain penetrates PAPI safety slope at 2.7 NM.
AIRPORT REMARKS: Attended Mon–Fri 1700–0130Z. PPR from State Department of Health, Communicable Disease Division to enter settlement area phone Honolulu (808) 586–4580. 24 hrs PPR for Division 1.1, 1.2, 1.3 explosives and 4 hrs PPR for other hazardous material in/out of arpt ctc (808) 567–9660/9663. Deer and wild animals on and invof arpt at night. Oct–May large waves impacting shoreline resulting in salt water sprays 40′ high. NOTE: See Area Notices—TRAFFIC ADVISORIES AT NON–TOWER ARPTS.
AIRPORT MANAGER: (808) 872–3830
COMMUNICATIONS: CTAF 122.9
MOLOKAI RCO 122.1R 116.1T (HONOLULU RADIO)
Ⓡ **HCF CENTER APP/DEP CON** 124.1
CLEARANCE DELIVERY PHONE: For CD ctc Honolulu Control Facility at 808-840-6262.
RADIO AIDS TO NAVIGATION: NOTAM FILE MKK.
MOLOKAI (H) VORTAC 116.1 MKK Chan 108 N21°08.29′ W157°10.05′ 057° 11.7 NM to fld. 1421/11E.
VORTAC unusable:
275°–285° byd 25 NM blo 3,500′



MOLOKAI (MKK)(PHMK) 6 NW UTC–10 N21°09.17′ W157°05.78′
454 B TPA—See Remarks Class I, ARFF Index A NOTAM FILE MKK
RWY 05–23: H4494X100 (ASPH–GRVD) S–30, D–48 PCN 28 F/A/W/T MIRL 0.4% up NE
RWY 05: REIL. PAPI(P4L)—GA 4.0° TCH 49′
RWY 23: Thld dsplcd 593′. Brush.
RWY 17–35: H3118X100 (ASPH) S–13 PCN 04 F/B/W/T MIRL 0.6% up N
RWY 17: Thld dsplcd 426′. Fence.
RWY 35: Fence.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 05: TORA–4494 TODA–4494 ASDA–4494 LDA–4494
RWY 17: TORA–3118 TODA–3118 ASDA–3118 LDA–2692
RWY 23: TORA–4494 TODA–4494 ASDA–4494 LDA–3901
RWY 35: TORA–3118 TODA–3118 ASDA–3118 LDA–3118



SERVICE: LGT When twr closed ACTIVATE MIRL Rwy 05–23 and Rwy 17–35, REIL Rwy 05—CTAF. Rwy 05 PAPI not authorized 1.8 NM byd landing thld due to rapidly rising terrain.
AIRPORT REMARKS: Attended 1500–0615Z. Be alert to egrets and pigeons on and in vicinity of arpt. TPA—small acft 1250(796) large acft 1950(1496). Arpt CLOSED to air carrier operations with more than 10 passenger seats 0530–1600Z except PPR call (808) 567–9660/9663. 24 hrs PPR for Division 1.1, 1.2, 1.3 explosives and 4 hrs PPR for other hazardous material in/out of arpt ctc (808) 567–6140/6008. Large acft with wingspan greater than 78′ may not use Twy A or Rwy 05–23 for simultaneous ops. Mountain approximately 1280′ MSL located 2.8 NM from threshold Rwy 05 on extended centerline. Standing water/ponding on Rwy 17–35 near Twy Echo during inclement weather.
AIRPORT MANAGER: (808) 872–3808
WEATHER DATA SOURCES: ASOS (808) 567–6106
COMMUNICATIONS: CTAF 125.7 **ATIS** 128.2
MOLOKAI RCO 122.1R 116.1T (HONOLULU RADIO)
Ⓡ**HCF CENTER APP/DEP CON** 124.1
TOWER 125.7 (1600–0430Z) **GND CON** 121.9
CLEARANCE DELIVERY PHONE: For CD when ATCT is clsd ctc Honolulu Control Facility at 808-840-6262.
AIRSPACE: CLASS D svc 1600–0430Z other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE MKK.
(H) VORTAC 116.1 MKK Chan 108 N21°08.29′ W157°10.05′ 067° 4.1 NM to fld. 1421/11E.
VORTAC unusable:
275°–285° byd 25 NM blo 3,500′

OAHU

EWABE N21°19.48′ W158°02.94′ NOTAM FILE HNL — HAWAIIAN ISLANDS
NDB (MHW/LOM) 242 HN 218° 1.6 NM to Kalaeloa (John Rodgers Fld.) 43/11E. — P–2G

HONOLULU CONTROL FACILITY (ZHN)(PHZH) — P–1C, 2G

HALEAKALA RCAG
118.45 121.5

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

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

MT HALEAKALA RCAG
119.3 Primary for Lanai area.
124.1 Primary for area NE and E of HNL VORTAC out to approxly 90 NM.
127.6 Freq used about 90 NM NE and E of Oahu to vicinity of Apack, Bitta, Cluts, and Zigie DME fixes.

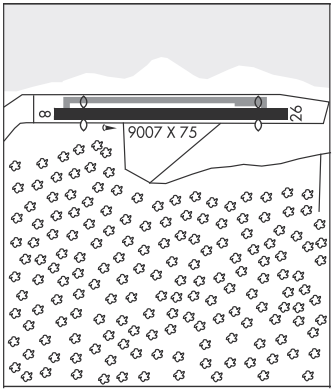
MT KAALA RCAG
119.9 Back up for area S of Honolulu and for area W and NW of Lihue.
126.5 Primary for area W and NW of Honolulu and Lihue.
135.4 Back up for all other frequencies.

MAUNA KAPU RCAG
126.5
135.4

WAIMANALO RCAG
118.45
119.3
124.1
127.6

KAWAIHAPAI AIRFIELD (HDH)(PHDH) MIL/CIV A 2 W UTC–10 N21°34.77′ W158°11.84′ — HAWAIIAN ISLANDS
14 TPA—800(786) NOTAM FILE HNL — P–2G

RWY 08–26: H9007X75 (ASPH) S–40, D–152, 2D–180
RWY 08: Thld dsplcd 1993′.
RWY 26: Thld dsplcd 1995′. Trees. Rgt tfc.



SERVICE: S4 **FUEL** 100, JET A **LGT** Wind indcrs are not lgtd.

AIRPORT REMARKS: Attended 1700–0130Z. Located within Dillingham Military Reservation. CLOSED to Civil acft SS–SR. Open to civil use thru agreement between the US Army and the State of Hawaii, check NOTAM′s prior to use, no ATCT in opn. Parachute Jumping. Sky diving activity on and in vicinity of arpt. Ultralights on and invof arpt. Simultaneous glider/powered acft opns. Tree line with 90′ trees N and S of rwy approximately 425′ from centerline. A 5000′ x 75′ rwy for light powered acft has been painted in the center of the existing 9007′ x 75′ paved area for civil use starting approximately 2000′ from each rwy end. NOTE: See Area Notices TRAFFIC ADVISORIES AT NON TOWER AIRPORTS.

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

AIRPORT MANAGER: 808-836-6533

COMMUNICATIONS: CTAF/UNICOM 123.0
RADIO: 122.6 (HONOLULU RADIO)

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

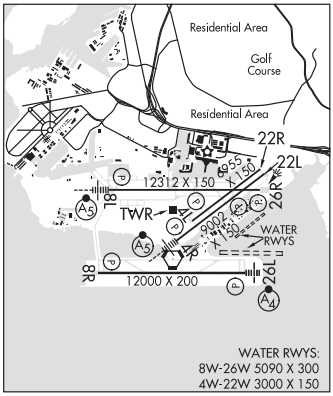
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
HONOLULU (H) VORTAC 114.8 HNL Chan 95 N21°18.50′ W157°55.82′ 306° 22.0 NM to fld. 10/11E.

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

HONOLULU

DANIEL K INOUYE INTL (JOINT BASE PEARL HARBOR–HICKAM) (HNL)(PHNL) P (AF) 3 NW **HAWAIIAN ISLANDS**
UTC–10 N21°19.07´ W157°55.21´ **P–1C, 2G**
12.6 B TPA—See Remarks LRA Class I, ARFF Index E NOTAM FILE HNL **IAP, AD**

RWY 08L–26R: H12312X150 (ASPH–GRVD) S–100, D–200, 2D–400, 2D/2D2–780 PCN 79 R/B/W/T HIRL
RWY 08L: MALSR. PAPI(P4L)—GA 3.0° TCH 71´.
RWY 26R: REIL. PAPI(P4L)—GA 3.25° TCH 65´. Road.
RWY 08R–26L: H12000X200 (ASPH–GRVD) S–80, D–170, 2D–400, 2D/2D2–780 PCN 98 F/B/X/T HIRL
RWY 08R: REIL. PAPI(P4L)—GA 3.0° TCH 75´.
RWY 26L: MALSF. PAPI(P4L)—GA 3.0° TCH 75´.
RWY 04R–22L: H9002X150 (ASPH–GRVD) S–100, D–200, 2D–400, 2D/2D2–850 PCN 57 F/B/X/T HIRL
RWY 04R: MALSR. PAPI(P4L)—GA 3.0° TCH 71´. Tree.
RWY 22L: REIL. PAPI(P4L)—GA 3.44° TCH 80´. Stack.
RWY 04L–22R: H6955X150 (ASPH) S–100, D–200, 2D–400, 2D/2D2–850 PCN 31 F/B/X/T MIRL
RWY 04L: REIL. PAPI(P4L)—GA 3.0° TCH 50´.
RWY 22R: REIL. Antenna.



LAND AND HOLD–SHORT OPERATIONS

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

RUNWAY DECLARED DISTANCE INFORMATION

RWY 04L:	TORA–6952	TODA–6952	ASDA–6952	LDA–6952
RWY 04R:	TORA–9000	TODA–9000	ASDA–8950	LDA–8950
RWY 08L:	TORA–12312	TODA–12312	ASDA–12312	LDA–12312
RWY 08R:	TORA–12000	TODA–12000	ASDA–12000	LDA–12000
RWY 22L:	TORA–9000	TODA–9000	ASDA–8937	LDA–8937
RWY 22R:	TORA–6952	TODA–6952	ASDA–6952	LDA–6952
RWY 26L:	TORA–12000	TODA–12000	ASDA–12000	LDA–12000
RWY 26R:	TORA–12300	TODA–12300	ASDA–12300	LDA–12300

ARRESTING GEAR/SYSTEMS
RWY 04R BAK–14 BAK–12B (1500´)
HOOK MB 60 (200´) → **RWY 26R**
BAK–14 BAK 12B(B) (1500´) **RWY 26L**

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

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AIRPORT REMARKS: Attended continuously. 100 octane fuel avbl thru FBO. Bird strike hazard all runways. ASDE–X in use. Opr transponders with altitude reporting mode and ADS–B (if equipped) enabled on all airport surfaces. Due to location of twr, controllers unable to determine whether acft are on correct final apch to Rwy 04L, Rwy 04R, Rwy 22L and Rwy 22R. Due to non–visibility twr una to dtrm if the flwg areas are clear of obstns and/or tfc: ptns of Twy J btn Twy B and Rwy 08R; ptns of Inter–Island acft prkg ramp. Rwy 08L–26R 200' wide with lgts outside, pvmt striped 150' wide. TPA—Tfc pattern altitude for small acft entering from northwest 800(787). Tfc pattern altitude for small acft entering from south 1000(987). Tfc pattern altitude for large acft entering from south 1500(1487). During periods of repeated precipitation anticipate wet rwy conditions, if current conditions rqr confirmation ctc Honolulu twr on initial ctc. Remain at least 1 mile offshore of Waikiki Diamond Head Koko Head and EWA Beach. Arrival Rwy 08L, fly ILS apch procedure or a close–in base leg remaining over center of Pearl Harbor Channel. Arrival Rwy 26L and Rwy 26R, remain at tfc pattern altitudes as long as possible before beginning descent for ldg. Twy G ADG V and below power in w/PPR. Tower approval required to use Taxiway Kilo from Runway 4R. Apron Taxilane 6 btn Twy C and south ramp clsd except GA/fixed wing loading/unloading only. Apron Taxilane 2 east end 360´ clsd. Rwy 04R and Rwy 08R wind cones in nonstandard lctn. All jet acft ctc ramp control prior to engine start at gate or hard stand. PPR from arpt manager for transportation of Class A and B explosives in and out of HNL. LRA: 2 hrs advance notice rqr outside regular business hrs. Ldg fee and storage charges collectable on arrival. NOTE: See Area Notices. NOTE: See General Notices—GENERAL INFORMATION ON FLYING TO HAWAII. NOTE: See Special Notices—Tower Data Link System. NOTE: See Special Notices—HNL Runway Incursion Risk. NOTE: See Special Notices—Arrival Alert.

MILITARY REMARKS: See FLIP AP/3 Supplementary arpt information, route and area rstd, and Oakland FIR flt haz. All military acft with VIP code 7 or abv ctc 15WG command post or relay thru HF/SSB airway 1 hour out to confirm blocktime. All units planning to stage ops from JBPH-H must contact 15 WG/XP (315) 449-1591 at least 60 days prior to arrival. **ANG** HI ANG afld ops opr 1500-0300Z Mon-Fri and UTA wkends; clsd Sat, Sun and hol. **RSTD** JBPH–H is PPR to all non–TFWC msn, AMC trng msn and KC–135 8 UN & 8 EN msn call 735th MOC at DSN (315) 499–6970 for PPR. All amc PPR will be coord Mon–Fri 1700–0400Z only. All non–AMC acft such as foreign, sister svc, tnst acft and otr msn must ctc 15 OSS/OSA (AMOPS) at DSN (315) 449–0046/0048 for PPR coord. All PPR will be apvd no earlier than 72 hr but no later than 24 hr prior. All tran acft not on an AMC/TWCF msn and home stn acft terminating at JBPH–H, will provide a 3 hr out call (comm 808–448–6900) as well as a 20–30 min out call on 292.5 to the 15 WG/CP (KOA CONTROL). Upon arr, crews will prvd crew order/EAL to 647 SFS Patrol and procd drctly to command post (bldg 2050) and cmplt an oubd setup sheet to facilitate dep rqmnts. Mil acft opr during Bird Watch Condition MODERATE (initial tkof or full stop ldg only, no multiple IFR/VFR approaches) and SEVERE (tkof and ldg prohibited w/o 15 OG/CC approval or 154 OG/CC approval for HIANG acft) ctc HIK ramp, PTD, 15 WG command post, 735 AMC command post, 154 WG command post for current conditions. Twr apvl rqrd to use Twy Kilo from Rwy 04R. Hold line in efct for Twy R7 btn ptn of twy xng apch zone for Rwy 04L/R. Twy P clsd to acft over 12500 lbs. If acft is carrying haz cargo, cargo manifest is also rqrd. avbl times to accept haz cargo are 0400--1600Z; All haz cargo must coordinate with AMOPS 449--0046/48 48 hrs prior to msn. **CAUTION** No fighter transient support available in accordance with ACC LSET Flash Safety 06–02. Transient fighter units should provide their own maintenance support. Foreign object damage hazard exits on all movement areas east of Twy S. FOD hazard exists on all twys and rwys, but especially on Rwy 04L–22R and twys north of Rwy 08L–26R. Fighter acft exercise extreme caution when taxiing. Hickam ramp taxi instr NOT valid within PHNL Airport Operating Area (AOA) which includes Twys A, B, portions of Twys V (south of Twy A) and T, and all rwys. Aircrews must ctc HNL twr or HNL gnd as drct prior to entering or while within the PHNL AOA. Hickam ramp will instr all acft at the Haz cargo pad adj to Twy B, Twys A1–A4, B1–B4 and PHIK ramp side portions of Twy T and V (North of Twy A). **TFC PAT** Overhead tfc pat alt 2000' rstd to 154 WG (HIANG) and 15 Wing Ftr/C17 and Sentry Aloha acft **CSTMS/AG/IMG** All military acft rqr Customs/Agriculture/Immigration inspection must ctc 15 WG command post or if Air Mobility Command ctc Hickam AMCC, no later than 3 hrs prior to arrival with departure location, estimated block time, number of aircrew, Civilian/Military Passengers/Foreign Nationals/and Distinguished Visitor codes. **MISC** Afld ops DSN 449–0046/0048 Fax DSN 449–7624. Wx opr H24, DSN 449-2251, C808–658–9961. Remote flt wx briefings ctc 17th Wx Sq H24, DSN (315) 449–7950/8333, FAX DSN (315) 449–8336; 2 hr prior notice rqr for timely brief. Official obsn taken by FAA. Cooperative wx watch procedures do not exist between Wx and ATC. No COMSEC material avbl thru Hickam Airfield Ops. Due to sensitivities of citizens, fighter aircraft dep only authorized from Mon–Sat 1700–0700Z, and Sun and holidays 1800–0700Z. All request for waivers will be sent to the 15/OG/CC or 154 OG/CC for HIANG aircraft at least 5 working days in advance. Waivers will be granted on extreme necessity. If short notice mission essential waivers are necessary, ctc 15OG/CC by phone thru 15 WG Comd Post (15 WG/CP) or 154 OG/CC for HI ANG aircraft. 15 WG Comd Post will pass approval to Hickam flight svc and Hickam ramp advisory. All fpl must be filed with PHNL as destn. If mil side of arpt is final destn, place “destination HIK” in rmks of fpl. For NOTAM use PHNL ident.**COMM** Bedtime (All Coronet W tankers use 311.0 for tanker–fighter inter–plane on launch day. After duty hr DSN 448–8888 613AOC/AMD, Fit Management.

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AIRPORT MANAGER: 808-836-6533
WEATHER DATA SOURCES: ASOS (808) 836–0449 WSP.
COMMUNICATIONS: D–ATIS 127.9 251.15 **PTD** 133.6 (HICKAM)
Ⓡ **HONOLULU CONTROL FACILITY APP CON** 118.3 (West)
TOWER 118.1 123.9 (08R–26L) 257.8 273.575 (08R–26L) **GND CON** 121.9
ADVISORY RAMP 121.8 (HNL INTL) 133.6 254.4 (HICKAM) **CLNC DEL** 121.4
Ⓡ **HONOLULU CONTROL FACILITY DEP CON** 118.3 (West) 124.8 (East)
PDC
COMD POST 168.0 292.5 295.5 **SHAKA OPS** 125.3 349.4
AIRSPACE: CLASS B See VFR Terminal Area Chart **CLASS E** svc Honolulu Intl arpt.
VOR TEST FACILITY (VOT) 111.0
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
HONOLULU (H) VORTAC 114.8 HNL Chan 95 N21°18.50′ W157°55.82′ at fld. 5/11E.
TACAN AZIMUTH & DME unusable:
055°–085° byd 15 NM blo 7,000'
251°–260° byd 20 NM blo 2,200′
261°–280° byd 20 NM blo 3,000′
281°–305° byd 20 NM blo 7,500′
306°–330° byd 30 NM blo 7,500′
331°–340° byd 32 NM blo 5,500′
360°–055° byd 15 NM blo 6,000′
360°–085° byd 25 NM blo 8,000′
360°–085° byd 30 NM blo 12,000′
VOR unusable:
055°–085° byd 15 NM blo 7,000′
100°–115° byd 30 NM blo 4,000′
120°–140° byd 35 NM blo 5,000′
170°–210° byd 20 NM blo 3,000′
240°–250° byd 30 NM blo 3,000′
241°–250° byd 35 NM blo 4,000′
251°–260° byd 20 NM blo 2,200′
261°–280° byd 20 NM blo 3,000′
281°–305° byd 20 NM blo 7,500′
306°–330° byd 30 NM blo 7,500′
331°–340° byd 32 NM blo 5,500′
351°–359° byd 25 NM blo 7,500′
360°–055° byd 15 NM blo 6,000′
360°–085° byd 25 NM blo 8,000′
360°–085° byd 30 NM blo 12,000′
KOKO HEAD (H) VORTACW 113.9 CKH Chan 86 N21°15.91′ W157°42.18′ 274° 12.6 NM to fld. 640/11E.
VOR unusable:
285°–294° byd 27 NM blo 8,000′
295°–000° byd 21 NM blo 5,500′
295°–000° byd 32 NM blo 8,000′
TACAN AZM/DME unusable:
285°–294° byd 20.5 NM blo 5,000′
285°–294° byd 27 NM blo 8,000′
295°–000° byd 19 NM blo 5,500′
295°–000° byd 26 NM blo 8,000′
295°–000° byd 32 NM
EWABE NDB (MHW/LOM) 242 HN N21°19.48′ W158°02.94′ 082° 7.2 NM to fld. 43/11E.
ILS/DME 110.5 I–IUM Chan 42 Rwy 04R. Class IE.
ILS/DME 111.7 I–HNL Chan 54 Rwy 08L. Class IE. LOM EWABE NDB. Excessive oscillation over mnts ne of LOM.
LDA/DME 109.1 I–EPC Chan 28 Rwy 26L. LOC unusable byd 25 degrees north of centerline due to terrain.
ASR
COMM/NAV/WEATHER REMARKS: San Francisco Radio, see Associated Data. Excessive needle oscillation can be expected over mountainous terrain NE of NDB—CAUTION advised. Hickam ramp twr (Non–ATC facility) All acft on HIK flightline including haz cargo pad will ctc HIK Ramp prior to eng start/taxi. HIK Ramp will provide advisory directions and will relay to AFLD Ops via VHF capable acft. All acft departing to CONUS must complete USDA inspection prior to eng start/taxi. Rwys 4R and 8R wind cones in nonstandard lctn.

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WATERWAY 08W–26W: 5090X300 (WATER)
WATERWAY 04W–22W: 3000X150 (WATER)
SEAPLANE REMARKS: Rwy 04W–22W and Rwy 08W–26W recreational boating activities on and invof waterways.

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR) P (HANG CG) 2 S UTC–10 N21°18.44′ W158°04.22′ HAWAIIAN ISLANDS
30 B TPA—See Remarks NOTAM FILE JRF P–2G
RWY 04R–22L: H8000X200 (ASPH) 2S–175, 2T–565, 2D-287, 2D/D1–479, 2D/2D2–840 MIRL IAP
RWY 04R: PAPI(P4R)—GA 3.0° TCH 55′.
RWY 22L: PAPI(P4L)—GA 3.0° TCH 32′.
RWY 11–29: H6000X200 (ASPH) S–74, D–167, 2D–327, 2D/2D2–800 MIRL 0.3% up NW
RWY 11: PAPI(P4L)—GA 3.0° TCH 48′.
RWY 29: PAPI(P4L)—GA 3.0° TCH 52′.
RWY 04L–22R: H4500X200 (ASPH) MIRL
RWY 04L: PAPI(P2L)—GA 3.0° TCH 35′.
RWY 22R: PAPI(P2L)—GA 3.0° TCH 33′.
SERVICE: FUEL 100LL, JET A, A1 **LGT** When ATCT clsd ACTVT MIRL Rwy 04R–22L; MIRL Rwy 04L–22R; MIRL Rwy 11–29; twy lgts—CTAF. PAPI Rwys 04L, 04R, 11, 22L, 22R, and 29 oper consly.
AIRPORT REMARKS: Attended 1630–0030Z. TPA—Traffic pattern alt small aircraft 830(800), large aircraft 1030(1000). Avoid overflight refineries west of airport, gaseous exhaust plumes and flames may rise to 267′ AGL without warning. TFC: Large acft requesting Rwy 11 can expect right traffic. Occasional bird hazard approach end Rwy 04L and Rwy 04R. Potential hydroplaning all aircraft due to standing water at intersection Rwy 04R and Rwy 11. Military helicopter operations on and invof arpt due to U.S. Coast Guard military helipad near Rwy 04R. NAVAIR 0800 R-14 NATOPS US Navy Aircraft Firefighters and Rescue Manual, Category II Airfield (ARFF INDEX B equivalent). Tsnt acft ctc FBO for fuel 808–490–2400.
AIRPORT MANAGER: (808) 836–6533
WEATHER DATA SOURCES: ASOS 119.8 (808) 673–7454.
COMMUNICATIONS: CTAF 132.6 **ATIS** 119.8
Ⓡ **HONOLULU CONTROL FACILITY APP CON** 118.3
KALAELOA TOWER 132.6 (1600–0800Z) **GND CON** 123.8 **CLNC DEL** 121.7
VFR ADVSY SVC ctc HONOLULU APP CON
AIRSPACE: CLASS D svc 1600–0800Z other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
HONOLULU (H) VORTAC 114.8 HNL Chan 95 N21°18.50′ W157°55.83′ 259° 7.8 NM to fld. 5/11E.
EWABE NDB (MHW/LOM) 242 HN N21°19.48′ W158°02.94′ 218° 1.6 NM to fld. 43/11E.
COMM/NAV/WEATHER REMARKS: Twr operated by Air National Guard. GCA OTS indef.

KANEOHE BAY MCAS (MARION E CARL FLD) (NGF)(PHNG) N 2 SW UTC–10 N21°27.03′ W157°46.08′
NOTAM FILE PHNG. HAWAIIAN–MARIANA
AIRSPACE: CLASS D svc Mon–Thu 1700–1000Z, Fri 1700–0800Z, Sat 1800–0300Z (CLASS D svc only), P–2G
Closed Sun and Federal holidays. Other times CLASS E.

KOKO HEAD N21°15.91′ W157°42.18′ NOTAM FILE HNL HAWAIIAN–MARIANA
(H) VORTACW 113.9 CKH Chan 86 274° 12.7 NM to Daniel K Inouye Intl. 640/11E. P–2G
VOR portion unusable:
285°–294° byd 27 NM blo 8,000′
295°–000° byd 21 NM blo 5,500′
295°–000° byd 32 NM blo 8,000′
TACAN AZM/DME unusable:
285°–294° byd 20.5 NM blo 5,000′
285°–294° byd 27 NM blo 8,000′
295°–000° byd 19 NM blo 5,500′
295°–000° byd 26 NM blo 8,000′
295°–000° byd 32 NM

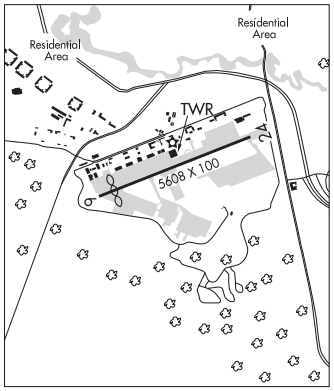
MAUNA KAPU N21°23.83′ W158°06.08′ HAWAIIAN–MARIANA
RCO 122.2 (HONOLULU RADIO) P–2G

MT KAALA N21°30.50′ W158°08.85′ HAWAIIAN –MARIANA
RCO 122.6 (HONOLULU RADIO) P–2G

WAIMANALO N21°19.21′ W157°40.90′ **HAWAIIAN–MARIANA**
RCO 122.2 (HONOLULU RADIO) **P–2G**

WAHIAWA

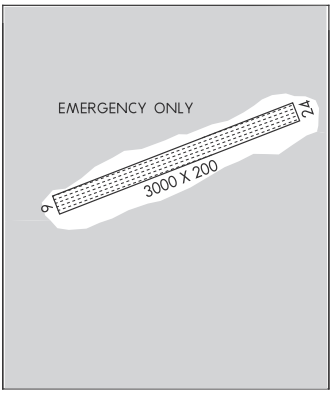
WHEELER AAF (HHI)(PHHI) A 1 SW UTC–10 N21°28.89′ W158°02.27′ **HAWAIIAN ISLANDS**
843 B TPA—See Remarks NOTAM FILE PHHI Not insp. **P–2G**



RWY 06–24: H5608X100 (ASPH) PCN 47 F/A/W/T MIRL 0.4% up NE
RWY 06: Thld dsplcd 570′. Rgt tfc.
RWY 24: Rgt tfc.
SERVICE: S2 **LGT** ACTVT MIRL Rwy 06–24—CTAF. Rotating bcn 1/8 mile north of twr. LED lgts installed on rwy and all twys. **FUEL** F24, JAA, 1730-0845Z M-F, OT by NOTAM.
NOISE: Extremely noise sensitive area; avoid ovft communities surrounding Wheeler AAF.
MILITARY REMARKS: Attended Mon–Fri 1730–0900Z, exc hol and wkend; other times by NOTAM. **RSTD** PPR for full stop ldg, prk and for non–tenant acft, ctc Wheeler OPS C808–656–1282, DSN 456–1282. Hillclimber Apron rstd to Unmanned Shadow (RQ–7) OPS conducted btn 140′ and 500′ fr RCL with four sets of 4′ net barriers mrk with obst lgt. No tsnt fixed–wing acft on Twy A thru Twy F, see AP3 for additional restrictions. **CAUTION** Extensive helicopter tfc invof arpt. Night vision goggle training A311 500′ and below from 1 hr after SS thru 1 hr before SR. Extreme caution sweeper on rwy 1500–1700Z Mon–Fri. Use caution on north side of Rwy. Hold Lines are 50′ from Rwy 06–24 edge. Remain on parallel Twy A when holding for Rwy. Use caution on Twy A due to no twy edge lights and rwy hold signs installed. All afld markings are extremely faded on all aprons and twys. Use caution when taxiing on Twy A; do not taxi behind acft in position and hold on Twy B, C, D, E, F due to recommended rotor/wingtip clnc avbl. Blue twy edge reflectors instld on Twy A north of rwy and on Twy J adj to south apn. Mult tree obstn hazard penetration Rwy 24 40:1 apch clinc sfc slope out 6000 ft (east side). **TFC PAT** All acft arr from north will cross arpt at or abv 2500′ enter tfc from the south. South traffic only. TPA—Rotary Wing 1500(657) fixed wing 2000(1157). **MISC** Wheeler Ops opr 1730–0900Z Mon–Fri exc hols and wkend, OT by NOTAM. Practice approaches by non–tenant acft restricted and approved only contingent upon tenant acft activity. Auto wx obsn, human backup avbl H24. Human wx obsn view obst by bldg W thru NE (250°–060°). Vis evaluation is ltd to 1/6 to 1/4 mile in this sctr. Wx svcs opr 24 hrs. 2 hr PN rqr for timely brief.
AIRPORT MANAGER: 808-656-2656
COMMUNICATIONS: CTAF 126.3 **ATIS** 119.675 242.4 **D–ATIS** 808–656–1789
Ⓡ **HONOLULU CONTROL FACILITY APP/DEP CON** 118.3 269.0
TOWER 126.3 235.625 (Opr 1730–0900Z Mon–Fri exc hol and wkend; OT by NOTAM.)
GND CON 121.85 237.5
LIGHTNING RADIO 141.65 239.5 (Mon–Fri after opr 1730–0900Z. **PINEAPPLE** Opr Mon–Fri 1730–0900Z.
PMSV METRO Wx svs opr H24 125.1 DSN 315-456-1016/1017, C808-656-1016/1017. Alt ctc 17 OWS, DSN 315-449-8333/7950, C808-449-8333/7950. Alt METRO - 346.6 Hickam.
VFR ADZY SVC ctc HONOLULU Apch Ctrl
AIRSPACE: CLASS D svc Mon–Fri 1730Z–0900Z exc hol and wkend, OT by NOTAM; other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
HONOLULU (H) VORTAC 114.8 HNL Chan 95 N21°18.50′ W157°55.82′ 319° 12.0 NM to fld. 10/11E.

TERN ISLAND

FRENCH FRIGATE SHOALS (HFS)(PHHF) 0 N UTC–11 N23°51.84′ W166°17.08′ **HAWAIIAN ISLANDS**
6



RWY 06–24: 3000X200 (CORAL)
AIRPORT REMARKS: CLOSED except in emergency or PPR Fish and Wildlife. Phone Honolulu 541–1201.
AIRPORT MANAGER: (808) 541–1201

KIRIBATI

KIRITIMATI (CHRISTMAS ISLAND)

CASSIDY INTL (PLCH) UTC +14 N01°59.18′ W157°21.00′ **P–1C**

5 AOE

RWY 08–26: H6896X148 (ASPH) LIRL PCN 48 F/B/X/T

RWY 08: REIL. PAPI—TCH 57′

RWY 26: REIL.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 08: TORA–6896 TODA–7388 ASDA–6896 LDA–6896

RWY 26: TORA–6896 TODA–7388 ASDA–6896 LDA–6896

SERVICE: FUEL 100, JET A1 **LGT** Rwy 08–26 edge lgts spaced 312' apart.

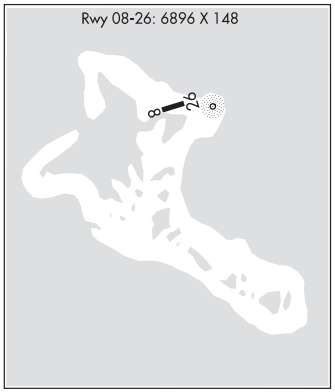
AIRPORT REMARKS: Attended SR–SS with 48 hr prior notice, manned only for scheduled flight. PPR for 600 gal fuel or more. 150′ mast 2 NM SW of arpt. 180° turns in turning nodes rqr for acft over 12,566 lbs. All non–sked flights are required to notify civ aviation, Tarawa, not later than 1 week prior to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

COMMUNICATIONS:

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

RADIO AIDS TO NAVIGATION:

CHRISTMAS ISLAND NDB 333 XI N01°59.28′ W157°21.20′ at fld. 9E. Avbl for all notified movements. No aux pwr. Opr HO.



CHRISTMAS ISLAND N01°59.28′ W157°21.20′ **P–1C**

NDB (MHW) 333 XI at Cassidy Intl. 9E. Avbl for all notified movements. No aux pwr. Opr HO.

MARSHALL ISLANDS

ARNO ATOLL

INE (N2Ø) 0 NW UTC+12 N07°01.00′ E171°29.00′
4 NOTAM FILE HNL Not insp.
RWY 08–26: 2450X50 (GRVL–CORAL)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9

TINAK (N18) 0 N UTC+12 N07°08.00′ E171°55.00′
4 NOTAM FILE HNL Not insp.
RWY 05–23: 2850X45 (GRVL–CORAL)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9

ENEWETAK

ENEWETAK AUX AF (PKMA) (AF) UTC+12 N11°20.45′ E162°19.67′ **P–1B**
13 AOE Not insp.
RWY 06–24: H7700X148 (ASPH) D–106, 2S–134, 2D–170, C5–575
AIRPORT REMARKS: Opr Mon–Sat 2000–0500Z, Enewetak date. Official business only, PPR. Multi unlighted twr up to 100′ in vicinity rwy. Rwy badly deteriorated, emergency ldg only. IFR acft arr Enewetak remain in ctc with Hickam till cleared to Enewetak Radio. Request 2 hour eta notice. No com watch on radio freq outside normal hour of opr. Arr acft trans in blind on 121.5 acft call sign, ETA–100 NM from station. 2 trans, 3 min intervals, IFR dep clnc fr Hickam.
COMM/NAV/WEATHER REMARKS: Trml advisory svc.

JABOR JALUIT ATOLL

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

KILI ISLAND

KILI (C51) 0 N UTC+12 N05°39.00′ E169°07.00′
5 NOTAM FILE HNL Not insp.
RWY 04–22: 4400X100 (GRVL–CORAL)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9

KWAJALEIN ATOLL

BUCHOLZ AAF (KWA)(PKWA) UTC+12 N08°43.21´ E167°43.90´ **P–1B**

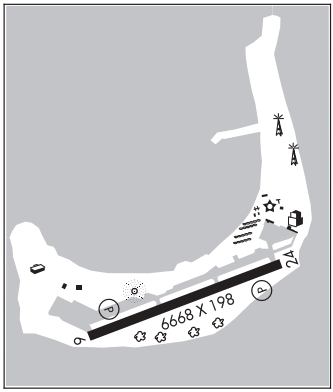
16 B NOTAM FILE PKWA

RWY 06–24: H6668X198 (ASPH) S–158, D–205, 2D–308 HIRL

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

RWY 24: PAPI(P4L)—GA 3.0° TCH 44´.

SERVICE: FUEL JET B+ OX 1, 2



AIRPORT REMARKS: Attended (Base Ops) 1730–0930Z Tue–Sat, 1830–0930Z Mon. **RSTD**–PPR, with 24 hr ntc and billeting conformation no. req for all acft, exc reg sked coml and AMC Channel msn. **COMMUNICATIONS**–BUCHOLZ TWR –Opr–1900–0500Z Tues– Sat excld fed hol. (E) TWR 126.2 360.2 GND 121.9 all acft within 50 NM maint. Twr ctc. Ot ctc Base Ops 118.8 (advsy Svc only) Remarks: Class D eff 1900–0500Z Tue–Sat Tues–Sat excld fed hol. OT Class E. SAN FRANCISCO ARINC 13462 21985 8903 17904 6532 13300 4666 11384 2998. **MISC** Weather available 24 hours on 119.675. Ltd staffing available from 0400–0700Z Mon, Wed, Fri and 2000–2330 Tue, Thu, Sat due to scheduled air carriers. Transient Acft with cargo must plan all up–load, down load opr btn 2000–0400Z Mon, Wed, Fri and 2330–0530 Tue, Thu, Sat. Exceptions will be considered on a day–to–day basis. Limit engine run–ups to a minimum. 250´ tower 8.5 NM PKWA bearing 300°. Electromagnetic radiation may exist 24 hrs daily within 5 NM from surface to 30,000´. CAUTION—Pilots have experienced vertigo during night operations especially during periods of reduced visibility due to lack of visual cues. Portions of Twy E not visible from tower. Avoid rain catchments on N side of rwy and taxiway. CAUTION—men equipment and vehicles may be operating in close proximity to rwy. Acft with explosive cargo require a special PPR and any additional cost of operation may be charged to shipper. Numerous trees and other obstructions within 300´ S of rwy. TACAN tower 75´ high lctd 164´ N of Twy E centerline. Airfield closed to all traffic on Sundays. Transient aircraft hours of service 1900Z–0800Z. OPS outside these hours requires US Army, Kwajalein Atoll (USAKA), Aviation Officer approval and support personnel scheduled and funded. Unattended airfield ops not authorized except in an emergency. Airfield lighting secured 30 minutes after last scheduled departure. Airfield lighting available with 30 minute response in support of in–flight emergencies. Aircraft utilizing Bucholz AAF for an emergency divert outside of regular operating hours should contact the FAA controller at Oakland Center to arrange for Base OPS/TWR personnel recall. Aircraft arriving with hazardous cargo or explosives and information on RF hazards see FLIP AP/3. Use of parallel Taxiway E limited to C–141 and smaller acft. During airfield opr periods when twr not avbl, all acft will use standard advisory procedure of section 4–1–9 of US AIM and self announce all movements on CTAF and ground and within 10 NM of the arpt. NOTE: See Area Notices—MARSHALL ISLANDS. Twy A and Twy E are weight restricted for the following acft: B737, B757, B767, C–5, C–17, C–130, C–141, and DC–8 back taxi and 180° turn on rwy will be required, for either arr or dep. Exceptions may be granted for Twy A, in order to access explosive cargo parking locations.

COMMUNICATIONS:

SAN FRANCISCO ARINC (KWA). NOTAM FILE PKWA.

ROI RADIO 118.1

GND CON 121.9

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

RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.

NDB (HW) 359 NDJ N08°43.25´ E167°43.67´ at fld. 15/9E.

DYESS AAF (ROI)(PKRO) UTC+12 N09°23.81′ E167°28.25′ **P–1B**
14 B
RWY 04–22: H4499X150 (ASPH) PCN 11 F/B/W/T
RWY 04: PAPI(P4L)—GA 3.0° TCH 38′.
RWY 22: PAPI(P4L)—GA 3.0° TCH 38′.
AIRPORT REMARKS: No facilities—ARFF available. No transient acft authorized. Electromagnetic radiation will exist 24 hrs daily within 10 NM radius of Dyess AAF from surface to 50,000. Acft within the abv airspace will be exposed to direct radiation which may produce harmful effect to persons and equipment. REIL available Rwy 04 with prior notice. Five lighted antennae; 263 dish located 0.6 NM E, 175 dish located 0.7 NM ENE, 273 located 1.3 NM SE. 150 located 800S, 210 located 0.4 NM NNW. Military rotating beacon atop 137 water tower 950 SE. Taxiway lighted. NOTE: See Area Notices—MARSHALL ISLANDS.
COMMUNICATIONS:
SAN FRANCISCO ARINC (HNL) NOTAM FILE HNL.
ROI RADIO 118.1

MAJURO ATOLL

MAJURO N07°03.92′ E171°16.11′ NOTAM FILE HNL **P–1B**
NDB/DME (HW/DME) 316 MAJ Chan 114 at Marshall Islands Intl. 4/10E. DME Chan 114 paired with VHF freq 116.7

AMATA KABUA INTL (MAJ)(PKMJ) 7 SW UTC+12 N07°03.90′ E171°16.32′ **P–1B**
7 B NOTAM FILE HNL **IAP**
RWY 07–25: H7913X150 (ASPH–GRVD) S–120, D–171, 2D–290 PCN 64 F/B/X/T MIRL
RWY 07: REIL. PAPI(P4L)—GA 3.0° TCH 55′.
RWY 25: REIL. PAPI(P4L)—GA 3.0° TCH 46′. Tree.
SERVICE: FUEL JET A1+ **LGT** ACTIVATE MIRL Rwy 07–25, PAPI and REIL Rwys 07 and 25—CTAF.
AIRPORT REMARKS: Attended on request. PPR for ldg from arpt mgr 24 hrs in advance. After sender has confirmed fuel delivery, he must give 24 hours advance notice to Airport Superintendent and Immigration Officer, Majuro, Marshall Islands. If ETA is between 0400Z Fri to 2200Z Mon, 48 hours advance notice must be given to Airport Superintendent. Message will include name of sender, type of aircraft, aircraft identification number, ETA purpose of landing, such as ferry flight, number of crew, PAX and citizenships, and that sender has obtained fuel confirmation from MOBILE OIL Guam including quantity and type of fuel. Include RON in message if applicable. Arpt Superintendent available Sun–Fri 2000–0500Z phone (692) 247–7612/3113, Fax (692) 247–3888.
AIRPORT MANAGER: (692) 247-3113
COMMUNICATIONS: CTAF 123.6
MAJURO RADIO 123.6 LAA 126.6 emerg only 5205X USB emerg only 2182 emerg only.
RADIO AIDS TO NAVIGATION:
MAJURO NDB/DME (HW/DME) 316 MAJ Chan 114 N07°03.92′ E171°16.11′ at fld. 4/10E. DME Channel 114 paired with VHF freq 116.7.

MEJIT ATOLL

MEJIT (C3Ø) 0 NE UTC+12 N10°17.00′ E170°53.00′
5 NOTAM FILE HNL Not insp.
RWY 07–25: 3000X50 (GRVL–CORAL)
AIRPORT REMARKS: Attended on call.
AIRPORT MANAGER: (692) 625-6179
COMMUNICATIONS: CTAF 122.9

MILI ISLAND

MILI (1Q9) 0 N UTC+12 N06º05.00´ E171º44.00´
4 NOTAM FILE HNL Not insp.
RWY 05–23: 2850X75 (TURF)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9

NAMORIK ATOLL

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

TAORA ISLAND/MALOELAP ATOLL

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

UTIRIK ATOLL

UTIRIK (Ø3N) 0 SE UTC+12 N11º14.00´ E169º51.00´
4 NOTAM FILE HNL Not insp.
RWY 07–25: 2400X50 (GRVL–CORAL)
AIRPORT REMARKS: Attended on call.
COMMUNICATIONS: CTAF 122.9

WOTJE ATOLL

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

MIDWAY ATOLL

HENDERSON FLD (MDY)(PMDY) P 0 SW UTC–11 N28°12.09′ W177°22.88′ **P–1B**
IAP
12 B Class IV, ARFF Index A NOTAM FILE MDY

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

RUNWAY DECLARED DISTANCE INFORMATION
RWY 06: TORA–7800 TODA–7800 ASDA–7800 LDA–7800
RWY 24: TORA–7800 TODA–7800 ASDA–7400 LDA–7400

SERVICE: LGT ACTVT REIL Rwy 06 and 24; PAPI Rwy 06 and 24; MIRL Rwy 06–24—126.2.

AIRPORT REMARKS: Attended 1900–0400Z. Use freq 126.2 for all inbound and outbound communications. Arpt clsd to all tran acft. Arpt open for ETOPS and approved acft ops only. Approved acft opns permitted only during hrs of darkness Nov–Jun due to heavy bird activity. PPR for ldg for approved acft opns from arpt manager 24 hrs in advance due to heavy bird activity call 808–954-4829. Be alert for heavy bird strike hazards at all times. Current bird activity status avbl during initial ctc inbound and prior to tkf and ldg on freq 126.2. Except when necessary for tkf and ldng, all acft maintain minimum alt of 5,000 MSL within 12 miles of arpt. Arpt pri ctc (808) 674–1237. Backup contact sat phone Arpt Manager 011-8816-327-20578, USFWS Refuge Manager 011-8816-327-33725, DBSI Manager 001-8816-327-33825. Emergency pager 24 hrs (480) 768–2500 ID 881631492770. Landing fee.

AIRPORT MANAGER: (808) 954–4829

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

COMMUNICATIONS: CTAF 122.9

AIRSPACE: CLASS E svc

RADIO AIDS TO NAVIGATION: NOTAM FILE MDY.
MIDWAY NDB (HW) 400 MDY N28°12.25′ W177°22.75′ at fld. 16/10E.

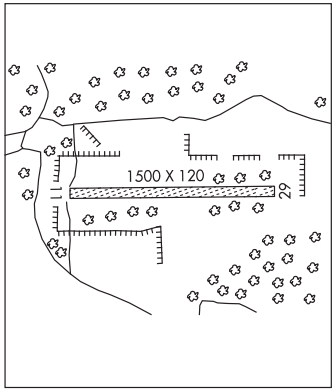
COMM/NAV/WEATHER REMARKS: No ATCT ops. Inbound acft ctc 100 NM out for advisories. CTAF not monitored ctc freq 126.2. Freq 126.2 monitored 1900–0400Z and during approved acft ops. Arpt advisory on 126.2/257.8; 121.5/243.0 avbl.

MIDWAY N28°12.25′ W177°22.75′ NOTAM FILE MDY **P–1B**
NDB (HW) 400 MDY at Henderson fld. 16/10E.

NORTHERN MARIANA ISLANDS

PAGAN ISLAND

PAGAN AIRSTRIP (TTØ1) 0 S UTC+10 N18º07.47´ E145º46.12´
34 NOTAM FILE HNL Not insp.
RWY 11–29: 1500X120 (TURF–GRVL) S–4 1.5% up E
RWY 11: Trees.
RWY 29: Brush.
AIRPORT REMARKS: Unattended. Arpt CLOSED indefinitely. Survey marker 1 foot high on centerline, approach end of Rwy 11.
COMMUNICATIONS: CTAF 122.9



ROTA ISLAND

BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO) 6 NE UTC+10 **HAWAIIAN–MARIANA**
N14º10.46´ E145º14.47´ **P–1A**
606 B TPA—See Remarks LRA Class I, ARFF Index A NOTAM FILE HNL **IAP**
RWY 09–27: H7000X150 (ASPH–GRVD) S–90, D–130, 2D–220 PCN 57 F/A/X/T MIRL 0.3% up E
RWY 09: REIL. PAPI(P4L)—GA 3.0º TCH 45´.
RWY 27: PAPI(P4L)—GA 3.0º TCH 45´. Rgt tfc.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 09: TORA–7000 TODA–7000 ASDA–7000 LDA–7000
RWY 27: TORA–7000 TODA–7000 ASDA–7000 LDA–7000
SERVICE: LGT REIL Rwy 09, PAPI Rwy 09 and 27, MIRL Rwy 09–27, twy lgts and windcone oper 2000–0800Z. After 0800Z and durg emergencies ACTVT REIL Rwy 09, PAPI Rwy 09 and 27, MIRL Rwy 09–27, twy lights, windcone—CTAF. Rotating bcn located 950' south of ARP and 300' west of terminal bldg centerline extended.
AIRPORT REMARKS: Attended 2000–0800Z. Rdo operator, ARFF psnl, and Wx daily 2000–0800Z. Lgtd twr 1798´ MSL (262´AGL) located 4 miles southwest of arpt. PPR for unsked acft opns fm Rota flight service. Immigration customs and quarantine avbl during scheduled acft operations, other times prior arrangements must be made with field supervisors (670) 532–0026/0027/9455/9493 respectively. TPA—Large and Turbine powered acft 2100(1494), small acft 1600(994).
AIRPORT MANAGER: (670) 532–9497
WEATHER DATA SOURCES: SAWRS (2000–0930Z).
COMMUNICATIONS: CTAF 123.6
ROTA RADIO 123.6
GUAM ARTCC APP/DEP CON 120.5
RADIO AIDS TO NAVIGATION: NOTAM FILE HNL.
ROTA NDB (HW) 332 GRO N14º10.30´ E145º14.40´ at fld. 587/2E.

SAIPAN ISLAND

COMMONWEALTH HEALTH CENTER HELIPORT (C21) 1 E UTC+10 **HAWAIIAN–MARIANA**

N15°12.59′ E145°43.47′

16 NOTAM FILE HNL Not insp.

HELIPAD H1: H45X45 (CONC)

HELIPORT REMARKS: Attended continuously. Rwy H1 110′ hotel bldgs west and 85′ water tank east of helipad.

AIRPORT MANAGER: (670) 234–8950

COMMUNICATIONS: CTAF 125.7

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN) 4 SW UTC+10 N15°07.21′ E145°43.80′ **HAWAIIAN–MARIANA**

214 B TPA—See Remarks LRA Class I, ARFF Index D **P–1A**

NOTAM FILE GSN **IAP**

RWY 07–25: H8699X200 (ASPH–GRVD) S–87, D–175, 2D–350, 2D/2D2–690 PCN 67 F/A/X/T HIRL

RWY 07: MALSR. REIL. Rgt tfc.

RWY 25: REIL. PAPI(P4L)—GA 3.0° TCH 75′

RWY 06–24: H7001X100 (ASPH) PCN 67 R/A/X/T MIRL

RWY 06: Thld dsplcd 396′.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 06:	TORA–7001	TODA–6800	ASDA–6645	LDA–6600
RWY 07:	TORA–8699	TODA–8669	ASDA–8664	LDA–8010
RWY 24:	TORA–6400	TODA–7001	ASDA–6302	LDA–7000
RWY 25:	TORA–8699	TODA–8699	ASDA–8045	LDA–8010

SERVICE: FUEL 100, 100LL, JET A1+ **LGT** SS–SR. Rwy 07 VASI and glidepath not coincident.

AIRPORT REMARKS: Attended continuously. PPR from Executive Director Commonwealth Ports Authority Saipan call (670) 237–6500 Mon–Fri 2130–0630Z other times call 670-237-6535. For Apt Security call (670) 237–6529. Immigration and Customs available during scheduled operations. Other times prior arrangements must be made with CBP port director call (670) 288–0025/26. Rwy 06–24 open for taxiing only (not avbl for lng and tkof). Open for ldg and tkof when Rwy 07–25 clsd. ARFF Index: Clsd to unsked acr opns with more than 30 psgr seats exc PPR call or write amgr 670–237–6500/670–285–0128 (cell), P.O. Box 501055 Saipan MP 96950. TPA—Traffic pattern altitude for large and turbine powered acft 1699(1485), small aircraft 1199(985).

AIRPORT MANAGER: (670) 237–6500

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

COMMUNICATIONS: ATIS 127.2

GUAM ARTCC APP/DEP CON 118.4

TOWER 125.7 **GND CON** 121.8

AIRSPACE: CLASS D svc

RADIO AIDS TO NAVIGATION:

SAIPAN NDB (HW) 312 SN N15°06.68′ E145°42.62′ 066° 1.2 NM to fld. 83/2E.

ILS/DME 109.9 I–GSN Chan 36 Rwy 07.

SAIPAN N15°06.68′ E145°42.62′ NOTAM FILE GSN **HAWAIIAN–MARIANA**

NDB (HW) 312 SN 066° 1.2 NM to Francisco C Ada/Saipan Intl. 83/2E. **P–1A**

TINIAN ISLAND

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

HAWAIIAN–MARIANA P–1A IAP

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

RWY 08: REIL. PAPI(P4L)—GA 2.98º TCH 43´. Hill.

RWY 26: REIL. PAPI(P4L)—GA 2.99º TCH 45´. Rgt tfc.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 08: TORA–8600 TODA–8600 ASDA–8600 LDA–8600

RWY 26: TORA–8600 TODA–8600 ASDA–8600 LDA–8600

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

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

AIRPORT MANAGER: (670) 433–9294

COMMUNICATIONS: CTAF 123.6

GUAM ARTCC APP/DEP CON 118.4

RADIO AIDS TO NAVIGATION

SAIPAN NDB (HW) 312 SN N15º06.68´ E145º42.62´ 216º 8.7 NM to fld. 83/2E.

PALAU

ANGAUR ISLAND

ANGAUR AIRSTRIP (ANG) 30 SW UTC+9 N06°54.00′ E134°09.00′
20 NOTAM FILE HNL
RWY 05–23: 7000X150 (GRVL)
RWY 05: Trees.
RWY 23: Trees.
AIRPORT REMARKS: Unattended.
COMMUNICATIONS: CTAF 122.9

BABELTHUAP ISLAND

PALAU INTL (ROR)(PTRO) 4 NE UTC+9 N07°22.04′ E134°32.66′ **P–1A**
177 B NOTAM FILE HNL **IAP**
RWY 09–27: H7200X150 (ASPH–CONC–PFC) S–75, D–190, 2S–175, 2D–300 MIRL
RWY 09: REIL. PAPI(P4L)—GA 3.0° TCH 52′.
RWY 27: REIL. PAPI(P4L)—GA 3.0° TCH 52′. Trees.
SERVICE: FUEL JET A1 **LGT** For MIRL Rwy 09–27 and rotating beacon contact KOROR RADIO—123.6.
AIRPORT REMARKS: Attended continuously. Be alert to large number of birds on rwy at night. ARFF avbl 24/7. All unscheduled flts must file a flt plan at least 7 days prior to arr and all flts must ctc Koror Communications on 123.6 at least 20 min prior to arr. Entry permit rqr call 011 (680) 488–2498, fax 011 (680) 488–4385; landing permit rqrd must give 7 days notice. All acft exceeding 100,000 lbs GWT taxi to thld turn around before taxing to apron. Acft under 100,000 lbs GWT may make a turn around where feasible.
AIRPORT MANAGER: (680) 488–2111
COMMUNICATIONS: CTAF 123.6
KOROR RADIO 123.6 AAS avbl 2 hr prior arr, clsd 1 hr after dep. 2182 5205X.
RADIO AIDS TO NAVIGATION:
KOROR NDB/DME (HW/DME) 371 ROR Chan 104 N07°22.13′ E134°33.02′ at fld. 183/1E. DME channel 104 paired with VHF freq 115.7
DME unusable:
006°–030° byd 25 NM blo 4,500′
031°–050° byd 25 NM blo 3,500′
051°–220° byd 25 NM blo 2,200′
221°–240° byd 25 NM
241°–290° byd 25 NM blo 3,500′
291°–335° byd 25 NM
336°–005°
COMM/NAV/WEATHER REMARKS: LAA available 2hrs prior to scheduled acft arrival and until 1hr after departure.

KOROR N07°22.13′ E134°33.02′ NOTAM FILE HNL **P–1A**
NDB/DME (HW/DME) 371 ROR Chan 104 At Palau Intl Airport. 183/1E. DME channel 104 paired with VHF freq 115.7
DME unusable:
006°–030° byd 25 NM blo 4,500′
031°–050° byd 25 NM blo 3,500′
051°–220° byd 25 NM blo 2,200′
221°–240° byd 25 NM
241°–290° byd 25 NM blo 3,500′
291°–335° byd 25 NM
336°–005°

PELELIU (C23) 20 SW UTC+9 N07°00.00′ E134°14.00′
9 NOTAM FILE HNL
RWY 04–22: 6000X40 (GRVL)
RWY 04: Trees.
RWY 22: Trees.
AIRPORT REMARKS: Unattended. Rwy 04–22 first 1000′ Rwy 04 unusable.
COMMUNICATIONS: CTAF 122.9

WAKE ISLAND

WAKE ISLAND AIRFIELD (AWK)(PWAK) AF 0 N UTC+12 N19°16.95′ E166°38.20′ **P–1B**

23 B ARFF Index C NOTAM FILE HNL Not insp.

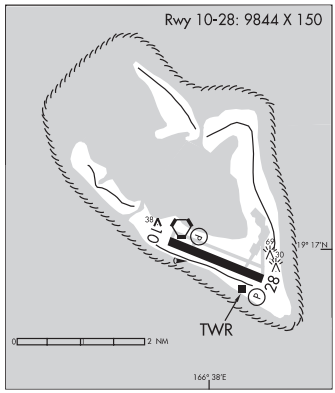
RWY 10–28: H9844X150 (ASPH) PCN 101 F/A/W/T HIRL

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

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

ARRESTING GEAR/SYSTEM

HOOK BAK–12B (4921'). **RWY 28**



SERVICE: **A-GEAR** 30 min PN rqr. **FUEL** Acft refueling at PWAK: Site arr req must be obtained from 907-552-5781 and submitted for apvl prior to arr. Flt crew rqr to assist in refuel. J5 (Mil). **LGT** Several obst lgt o/s: Controlling obst lgt tower 101′ AGL aprx 1700′ S of Rwy 28 thld. **FLUID** W, SP, PRESAIR **TRAN ALERT** Svcg fees rqr Tran Svc hrs 2000–0400Z (0800L–1600L) Tue–Sat. Clsd Sun, Mon, hol. Lav svc unavbl.

MILITARY REMARKS: Attended Mon–Sat 2000–0400Z (0800–1600L. Tue–Sat), except holidays. **RSTD** PPR for all acft at least 24 hr in advance. Email for PPR req form: PRSCDET1.AIRFIELD.MANAGEMENT@US.AF.MIL. After PPR apvl, PWAK ETA/ETD deviations byd 2 hr rqr reapproval. Base Ops fone DSN 315-424-2101, C808-424-2101, FAX DSN 315-424-2165. Very limited opr status, avbl for emergency ldg and minimal priority tfc. Emerg divert acft outside published hrs, ctc FAA controller at Oakland Center to arrange base ops/ATC specialist personnel recall via Wake fire dispatch at phone (808) 424–2911 primary or (808) 424–2232 secondary. No aircraft maintenance available.Twy line restriction located at intersection of Twy E and Twy D. Restriction continues west onto the warm–up pad, does not provide wingtip clearance to acft with wingspan greater than 60′. **CAUTION** Rwy markings worn/faded. Rwy is non–precision instrument rwy but is painted to precision instrument standards. Be alert to bird hazard on approach to Rwy 10 and Rwy 28 departure. 4′x 8′ area of gradual pavement rise (hump) of aprx 2" lctd 2300′ E of apch end Rwy 10, 40′ rgt of cntrln. Be alert to ocean vessels with mast approximately 125′ periodically located at mooring buoys 3600′ west of thld Rwy 10. Afld has mixture of regular and LED obstruction lgts. LED obstruction lgts may not be visible to some NVD. **TFC PAT**—right break Rwy 10 all acft, left break Rwy 28 all acft. DD–175–1 **MISC** ETOPS divert location. Firefighting svcs reduced to NFPA category 7, ARFF Index C. Remote WX briefings avbl 24 hrs from 17 OWS at DSN 315–449–8333/7950 or 448–3809, 2 hr notice rqr for timely brief. When normal SATCOM out of svc, IMARSAT is available. Space avbl passengers are not allowed to remain overnight. Rwy 10--28 900' coral overrun.

AIRPORT MANAGER: (808) 424–2101/2000

WEATHER DATA SOURCES: AWOS–3P

COMMUNICATIONS:

WAKE OPERATIONS: 128.0 349.4 (2000–0400Z)

RADIO AIDS TO NAVIGATION:

WAKE ISLAND (H) VORTACW 113.5 AWK Chan 82 N19°17.20′ E166°37.64′ at fld. 18/6E. No–NOTAM MP: VOR 2030–2230Z Tue; TACAN 2030–2230Z Wed.

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

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 relocted, 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

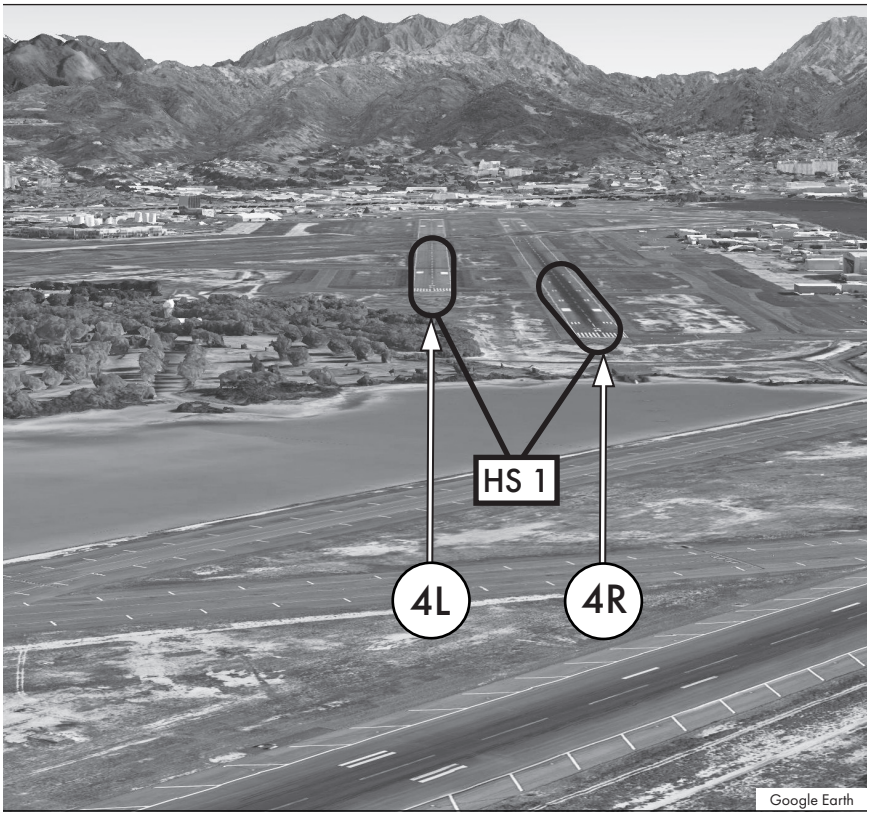
A permanent laser light operation is being conducted nightly between sunset and sunrise at Keck Observatory and Gemini Observatory N19–49–26/W155–28–09, Kamuela VOR (MUE) 122 degree radial at 16 nautical miles. The laser beam may be injurious to eyes if viewed on axis. Cockpit illumination and flash 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
For Inquiries: 9-awa-RunwaySafety@faa.gov
Effective 19 MAY 2022 to 16 MAY 2024

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.”

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	NAVIGATIONAL AIDS
100 NM seaward of the boundary of the Honolulu Domestic area	SOK, LIH, HNL, MKK, LNY, OGG, ITO, UPP and KOA VORTACS
50 NM of Guam	AJA NDB
130 NM of Wake Island	AWK VORTAC FL180–450
40 NM of Wake Island	AWK VORTAC SFC–FL180
130 NM of Midway Island	NQM TACAN FL180–450
40 NM of Midway Island	NQM TACAN SFC–FL180
50 NM of Majuro Island	MAJ NDB/DME
50 NM of Kwajalein Island	NDJ NDB
50 NM of Weno Island/Chuuk	TKK NDB/DME
50 NM of Yap Island	YP NDB/DME
50 NM of Ponape Island	PNI NDB/DME
50 NM of Saipan Island	SN NDB
50 NM of Babelthuap Island/Koror	ROR NDB/DME

MACH NUMBER TECHNIQUE

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

2. APPLICATION

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

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

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

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

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

f. REDUCTIONS TO SEPARATION WHEN APPLYING MNT.

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

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

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.

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

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.

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 155º/200º

Runway 04/08L Procedures

Shoreline Six Departure

Departing Runway 04L/04R maintain runway heading to the H-1 Freeway. Departing Runway 08L maintain runway heading to Nimitz Highway. Turn right, parallel Nimitz Highway proceeding direct to the center of Honolulu Harbor. Fly

within ½ mile offshore passing abeam Kewalo Basin then within ½ mile of the shoreline until south of Diamond Head. Turn left and resume own navigation remaining within 2 miles of the shoreline until departing Class B. Fixed wing aircraft maintain 1500 feet. Helicopters maintain at or below 500 feet. Departure Control frequency will be 124.8/317.6. Procedure intended for twin engine aircraft and helicopters.

Freeway Two Departure

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

Redhill Two Departure

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

Punchbowl Two Departure

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

Runway 22/26R Procedures

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

Kona Five Departure

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

West Loch Five Departure

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

ARRIVAL PROCEDURES

Arrivals must contact Approach Control and recieve 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 flight 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 and Kahului traffic.

Informal Runway Use Program

Unless runway closures, wind, weather or traffic conditions, aircraft emergencies, actual air defense missions or operational necessities require otherwise, all turbojet aircraft and all aircraft having a maximum passenger capacity of more than 30 seats or a

maximum payload capacity of more than 7,500 pounds, including all models of the Convair 240, 350, and 440; Martin 202 and 404; F–27 and FH227; Hawker Siddeley 748; military fighter interceptor 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	GROUP II
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).	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 Honolulu and Hilo traffic.

KONA INTL AT KEAHOLE (ELLISON ONIZUKA)

Gatehold Procedures

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

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

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

LIHUE AIRPORT

Gatehold Procedures

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

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

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

Informal Runway Use Program

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

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

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

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

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

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

HILO INTERNATIONAL AIRPORT

Gatehold Procedures

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

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

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

Preferred Departure Routing

Hilo departures planning U.S. Mainland destinations via the Central East Pacific (CEP)–Hawaii to U.S. Mainland will be cleared as follows:

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

Flight plan format for these routes is as follows:

ITO345039	FITES	R578
ITO345055	EBBER	R577
ITO345158	CLUTS	R465

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

HAZARDS, CAUTIONS, AND WARNINGS

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

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

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

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

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

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

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

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

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

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

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

MAUI – KAHULUI AIRPORT RAMP AREA: Yellow segmented and solid lines painted on the apron area fronting the passenger terminal represents the line of demarcation between the authority of the FAA and the State. The FAA is responsible for the control and direction of all ground traffic from the solid yellow line outward toward the field. That area is considered to be an active operating area. Aircraft, vehicles, and/or ground equipment entering this area must have prior clearance from the tower. The area lying between the line and the terminal building falls under the jurisdiction of the State. The 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 N20º42.42´/W156º15.38´) and expanding outward and upward in a conical shape from this 1 NM radius based on an angle from the observatory of 15 degrees above the horizontal. The conical boundary leaves the 1 NM radius at 10,000 feet MSL and passes through 20,000 feet MSL at the 7.22NM radius and through 42,000 feet at the 20.90 NM radius. Pulsed Ruby Laser operations potentially hazardous to eyesight will be conducted within this area intermittently for 5 to 30 minute periods generally at night and advertised by NOTAM. Laser operations are predicted on the non–interference with IFR operations through coordination with the Honolulu Control Facility. Pilots of aircraft flying VFR should avoid the controlled firing area during its advertised time of use. As a precautionary measure however Laser operations will be suspended if an aircraft penetrates the area of concern. The status of the controlled firing area can be obtained by contacting the controlling facility.

MAUI–KAHOOLAWE CONTROLLED FIRING AREA: The Kahoolawe Hawaii Controlled Firing Area is described as follows: From SFC up to and including 5000´MSL within that area bounded by N20º37´30″/W156º32´48″, to N20º34´48″/W156º30´24″, to N20º28´56″/W156º30´24″, to N20º28´06″/W156º41´48″, to N20º20´30″/W156º44´12″, to N20º33´12″/W156º44´30″, to N20º37´30″/W156º36´24″, thence to point of beginning. The CFA includes the entire island of Kahoolawe.

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

MAUI – PARASAILING AREA: Parasailing off-shore Lahaina (OGG VORTAC 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 acft only; fly downwind over dep ends rwys 4. All other acft Rwy 11 dep only, Rwy 29 arr only.

OAHU – KANEOHE BAY MCAS – HIGH PERFORMANCE AIRCRAFT: Kaneohe Bay MCAS advises high performance aircraft will make maximum performance VFR climbs from takeoff Rwys 04/05 at various times following a warning broadcast on Kaneohe Tower and Approach Control frequencies. Request all aircraft contact Kaneohe Tower prior to transiting CLASS D airspace northeast of Rwys 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 $1\frac{1}{2}$NM (9,120 feet). Potential personnel and electro–explosive device hazards exist due to high power radio frequency transmitters.

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

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

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

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

OAHU – RIFLE/PISTOL RANGE: Military rifle/pistol range located on west side of Pearl Harbor channel entrance between Ewa Beach and Keahi Point (HNL264R 3.0 DME) (N21º18.81´/W157º58.84´) active Monday through Friday between 0700 to 1700 HST. Danger area from the shoreline extends one nautical mile southeast, 4500 feet wide, from the surface to 200 feet. All aircraft inbound to HNL Rwys 4R/L and 8R/L, remain above 200 feet until east of this area.

OAHU – NAVIGATIONAL WARNING: Electromagnetic radiation will continuously exist within a 2800 foot radius and 2800 feet above all antenna systems along a three mile stretch of mountain ridge between N21º33.81´/W158º13.83´ and N21º33.81´/W158º15.83´ as part of the Kaena Point Satellite Tracking Station, Oahu, Hawaii. Helicopters and slow speed aircraft, including hang gliders, flying within the above airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment. Radiation is not visually apparent and must be presumed by all pilots to continuously exist.

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

OAHU – AIRBORNE HAZARD: Fireworks Displays will be conducted every Friday between 7:00 pm and 9:00 pm, for three minutes at Hilton Hawaiian Village (HNL VORTAC 096R/5NM), 600 ft and below, $^1/_2$ NM radius. Avoidance Advised.

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

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

KIRIBATI

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

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

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

Non–scheduled Flight Procedures

1. If an operator intends to carry out a non–scheduled flight in transit across, or make non–traffic stops in the territory of Kiribati, he may do so without the necessity of obtaining prior permission. However, the attention of operators is drawn to the need for prior notification in respect to navigation aids.
2. If an operator intends to perform a non–scheduled flight into Kiribati for the purpose of taking on or discharging passengers, cargo, or mail he shall apply to:
   Postal Address: Director of Civil Aviation
   P. O. Box 487
   Betio, Tarawa
   Kiribati
   Telegraphic Address: AVIATION, BETIO, Tarawa
3. The application for permission to carry out such operations must include the following information in the same order as shown hereunder:
   A. Name and address of applicant.
   B. Type of aircraft and registration marks.
   C. Date and times of arrival and departure from airfields in Kiribati.
   D. Place or places of embarkation or disembarkation, as the case may be, of passengers and/or freight.
   E. Purpose of flight and number of passengers, and/or nature and amount of freight.
   F. Name, address and business of charterer, if any.
4. Normally the time required for consideration of applications is brief, but applicants should make allowances for communication delays.

FEDERATED STATES OF MICRONESIA
WENO ISLAND–CHUUK INTERNATIONAL AIRPORT

1. Prior permission required for all non–scheduled aircraft from Civil Aviation Directorate, Department of Transportation, Communications and Infrastructure, Division of Civil Aviation, P.O. Box PS 2, Palikir, Pohnpei, FM 96941–0000; Tel (691) 320–2865; Fax (691) 320–5853; e–mail TransFSM@mail.fm
2. A copy of clearance and schedule must then be submitted to:
   a) Chuuk International Airport, P.O. Box 189, Weno, Chuuk State, FM 96942; Tel–Office (691) 330–5940, SWARS (691) 330–2352; FAX (691) 330–4242; e–mail ChuukAirport@mail.fm. The Chuuk Airport Executive Manager must be notified three (3) days prior for the ETA of the aircraft. A flight plan must be filed 12 hours prior for the ETA, include Pohnpei Intl Airport (PTPN) as an additional address of the Flt Plan.
   b) Immigration Office, P.O. Box 666, Weno, Chuuk State, FM 96942; Tel. (691) 330–2355; FAX (691) 330–4135; e–mail CIL@mail.fm
   c) Customs Office, P.O. Box 610, Weno, Chuuk State, FM 96942; Tel. (691) 330–4482; FAX (691) 330–5893; e–mail CTAChk@mail.fm
   d) Quarantine Office, Tel (691) 330–3720; FAX (691) 330–3721; e–mail ChuukQuart@mail.fm
3. Transient aircraft must make prior arrangements with Mobil Oil Guam for fuel and also Mobil Oil Micronesia–Chuuk, P.O. Box 130, Weno, Chuuk State, FM 96942, Tel (691) 330–2540; FAX (691) 330–2688.

GUAM CTA/MARIANA ISLANDS

GUAM–APRA HARBOR—OROTE POINT

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

RADAR SERVICE PROGRAM GUAM TERMINAL AREA

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

NOTES: 1. A graphic depiction of the Guam Terminal Area 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 N13º33´/E144º50´ between 1100–1115Z and 2300–2315Z. Instrument equipment consists of 6 foot diameter rubber balloon with string train 100 feet in length containing a red paper parachute and small white plastic radiosonde instrument. Equipment estimated to ascend to altitudes of 10,000 feet within a 5 mile radius by 1130Z and 2330Z. Ascends to 50,000 feet by 1215Z and 0015Z. Ascends to 100,000 feet by 1300Z and 0100Z respectively.

AUCKLAND OCEANIC FIR

1. Altimeter Setting Requirements

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

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

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

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

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

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

1.7 Use of QFE Altimeter Setting.

1.7.1 Where suitable equipment is available, a QFE altimeter setting will be provided, on request, for flights operating by visual reference within an aerodrome traffic circuit. Additionally, foreign operators normally using a QFE altimeter 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.

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.

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 flight plan a UPR.
B	Hawaii to Japan	Optional at 1100 UTC by KZAK	Track B is optional, operators may flight plan a UPR.
11	Japan to Hawaii	Daily at 2200 UTC by RJJJ	Track 11 is optional, operators may flight plan a UPR.
12	Japan to Hawaii	Optional at 2200 UTC by RJJJ	Track 12 is optional, operators may flight plan a UPR.

TRACK NAME	ROUTE	TDM DAILY PUBLICATION TIME	REQUIRED USE OR UPR ALTERNATIVES
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 0900 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 0900 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 0900 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 0900 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 0900 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 0900 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.

(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 ControlFacility (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 held 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 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 MIKYY – MIKYY R584 KEITH FPRD

b. OVER NATSS – NATSS G339 PAKDO FPRD

c. OVER OATSS – OATSS A216 MONPI FPRD

d. OVER RICHH – RICHH A597 MONPI FPRD

e. OVER TOESS – TOESS B586 OMLET FPRD

f. OVER 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 150E longitude will not be affected.

OAKLAND OCA ISLAND AIRPORTS

1. Clearances

a. When requesting an IFR clearance while on the ground, make every effort to communicate through 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.

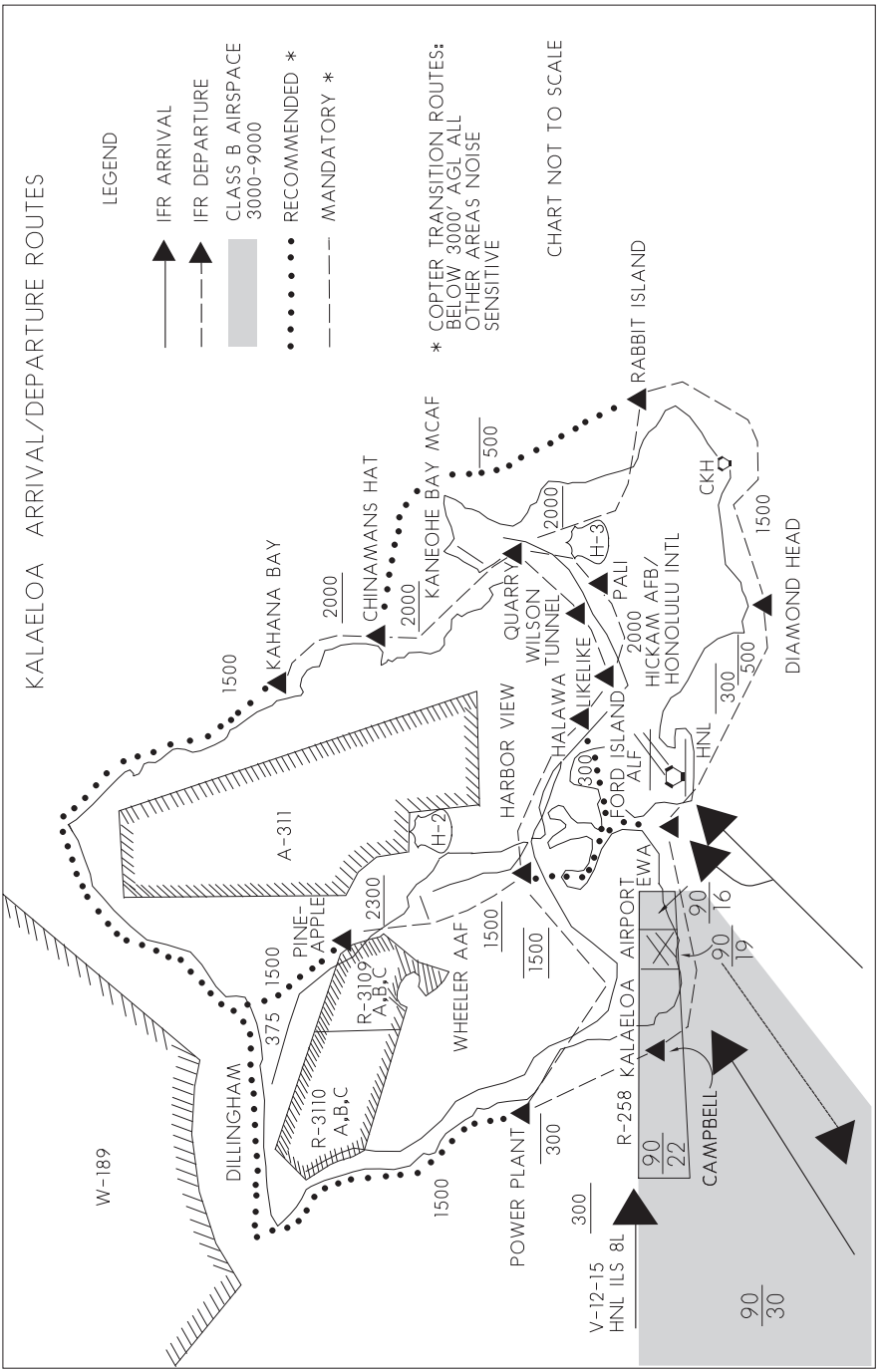
NOTE: Rules pertaining to VFR flight may be found within Section III–General Notices of this supplement.

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.

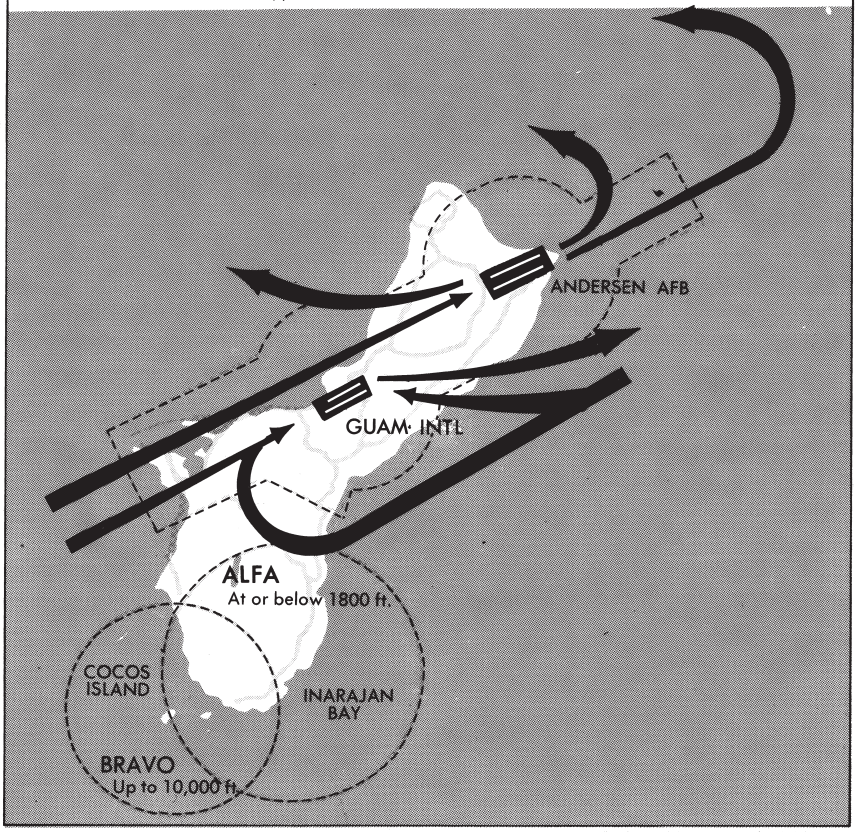
c. Kwajalein Atoll-180 NM Radius: Hazardous military activity will be conducted which affect aircraft at all altitudes and flight levels within a 180 NM radius of 0843.3N/16743.8E until further notice. All nonparticipating VFR pilots are advised to remain well clear of the area. IFR flights under ATC jurisdiction may expect possible reroute to and from Bucholz Airport. For further information, contact Kwajalein Range Safety Officer at 805–355–1516.

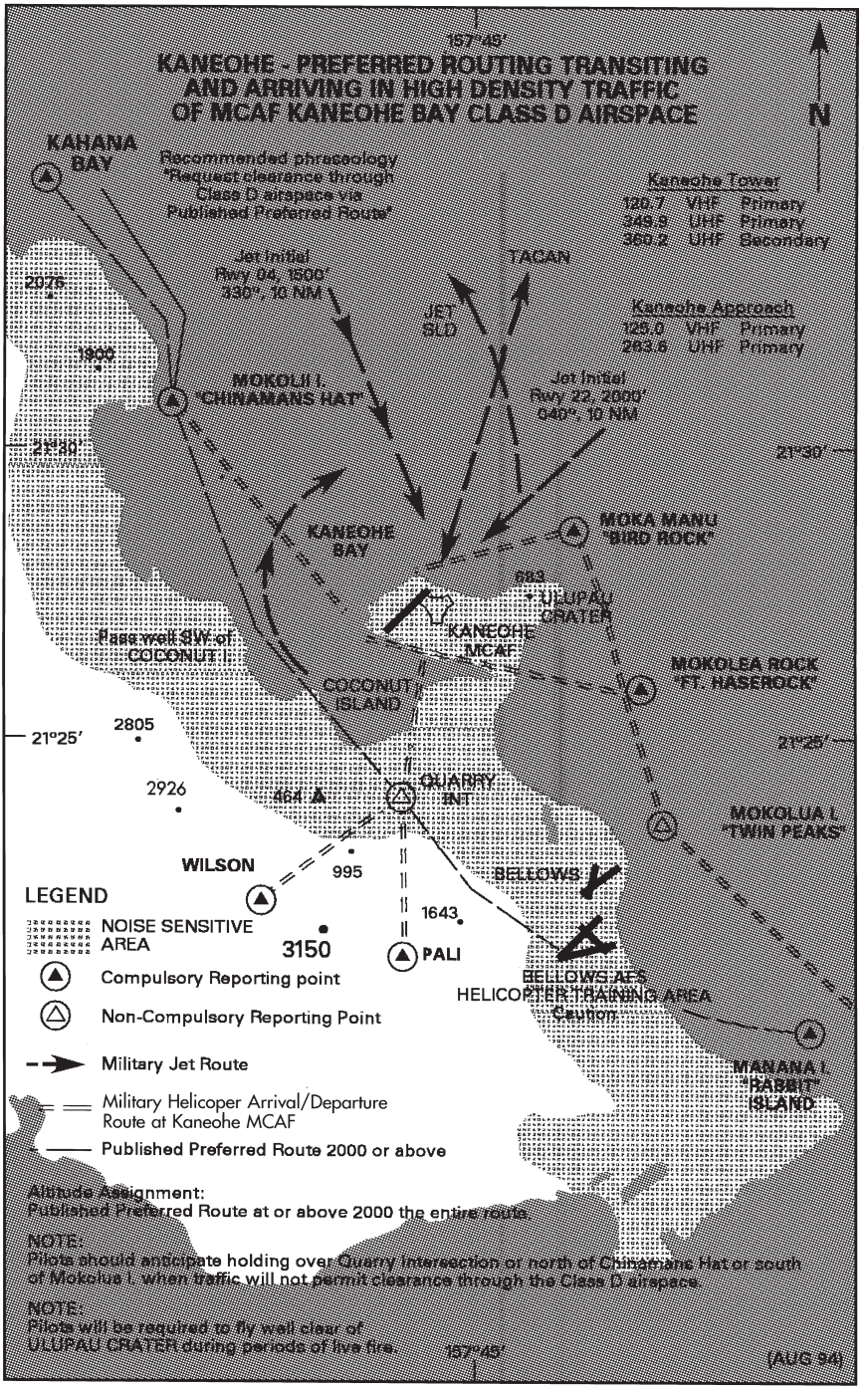

KALAELOA ARRIVAL/DEPARTURE ROUTES
LEGEND
IFR ARRIVAL
IFR DEPARTURE
CLASS B AIRSPACE 3000-9000
RECOMMENDED *
MANDATORY *
* COPTER TRANSITION ROUTES: BELOW 3000' AGL ALL OTHER AREAS NOISE SENSITIVE
CHART NOT TO SCALE
W-189
DILLINGHAM
375
1500
PINE-APPLE
R-3110 A,B,C
R-3109 A,B,C
2300
A-311
WHEELER AAF
H-2
1500
KAHANA BAY
CHINAMANS HAT
2000
KANEOHE BAY MCAF
500
HARBOR VIEW
QUARRY
WILSON TUNNEL
HALAWA
IKELIKE
PALI
H-3
RABBIT ISLAND
CKH
FORD ISLAND
ALF
HICKAM AFB/ HONOLULU INTL
HNL
DIAMOND HEAD
POWER PLANT
300
R-258
KALAELOA AIRPORT
EWA
90/22
90/16
90/19
90/30
CAMPBELL
V-12-15
HNL ILS 8L

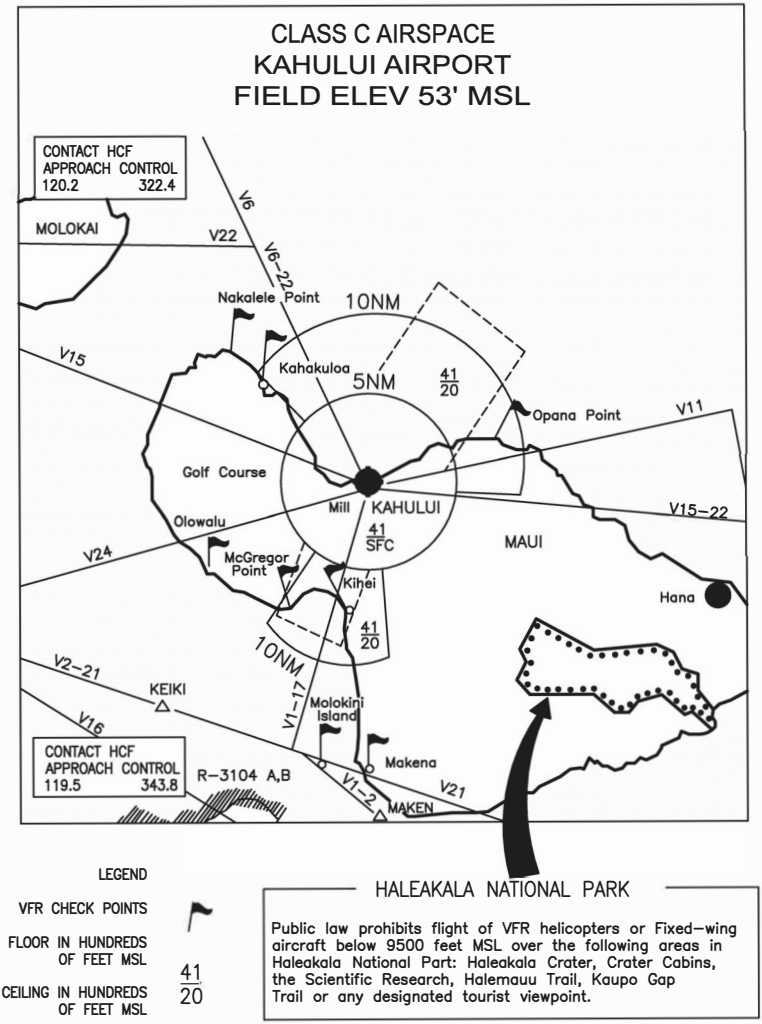
GUAM TERMINAL AREA

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.




KANEOHE - PREFERRED ROUTING TRANSITING AND ARRIVING IN HIGH DENSITY TRAFFIC OF MCAF KANEOHE BAY CLASS D AIRSPACE
157°45'
N
KAHANA BAY
Recommended phraseology
"Request clearance through Class D airspace via Published Preferred Route"
Kaneohe Tower
120.7 VHF Primary
348.8 UHF Primary
360.2 UHF Secondary
Kaneohe Approach
125.0 VHF Primary
283.6 UHF Primary
Jet Initial
Rwy 04, 1500'
330°, 10 NM
TACAN
JET SID
2978
1900
MOKOLII I.
"CHINAMANS HAT"
Jet Initial
Rwy 22, 2000'
040°, 10 NM
21°30'
KANEOHE BAY
MOKA MANU
"BIRD ROCK"
883
ULUPAU CRATER
KANEOHE MCAF
Pass well SW of COCONUT I.
COCONUT ISLAND
MOKOLEA ROCK
"FT. RASEROCK"
21°25'
2805
2926
464
QUARRY INT
MOKOLUA I.
"TWIN PEAKS"
WILSON
995
BELLOWS
1643
LEGEND
NOISE SENSITIVE AREA
3150
PALI
Compulsory Reporting point
Non-Compulsory Reporting Point
BELLOWS AFS
HELICOPTER TRAINING AREA
Caution
Military Jet Route
MANANA I.
"RABBIT" ISLAND
Military Helicoper Arrival/Departure Route at Kaneohe MCAF
Published Preferred Route 2000 or above
Altitude Assignment:
Published Preferred Route at or above 2000 the entire route.
NOTE:
Pilots should anticipate holding over Quarry Intersection or north of Chinamans Hat or south of Mokolua I. when traffic will not permit clearance through the Class D airspace.
NOTE:
Pilots will be required to fly well clear of ULUPAU CRATER during periods of live fire.
157°45'
(AUG 94)



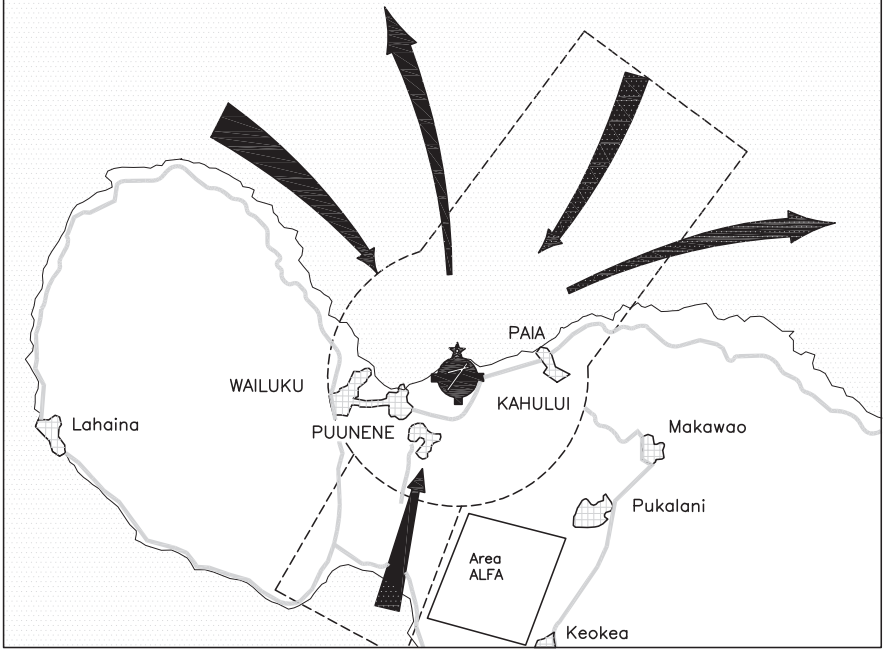
CLASS C AIRSPACE PROCEDURES

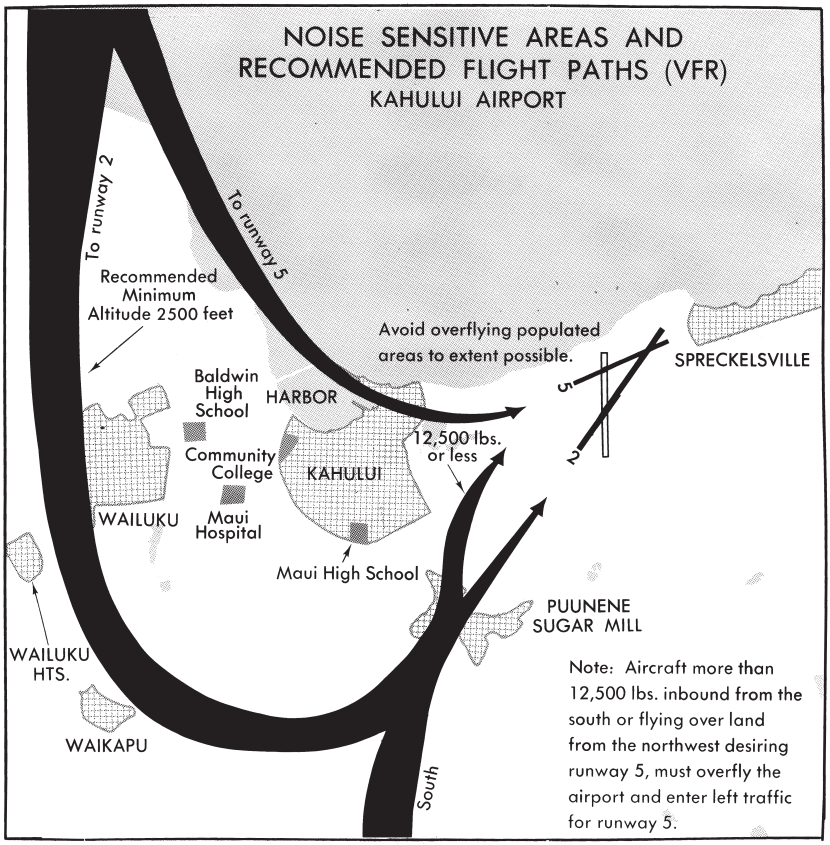
VFR AIRCRAFT PROPOSING TO ENTER KAHULUI AIRPORT CLASS C AIRSPACE ARE REQUIRED TO CONTACT ATC PRIOR TO ENTRY. INITIAL CONTACT: REFER TO CHARTED VFR CHECK POINTS OR 10 DME FROM THE OGG VORTAC. INITIAL CALLS IN CLOSE PROXIMITY TO THE AIRSPACE BOUNDARY MAY RECEIVE INSTRUCTIONS TO "REMAIN CLEAR OF CHARLIE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

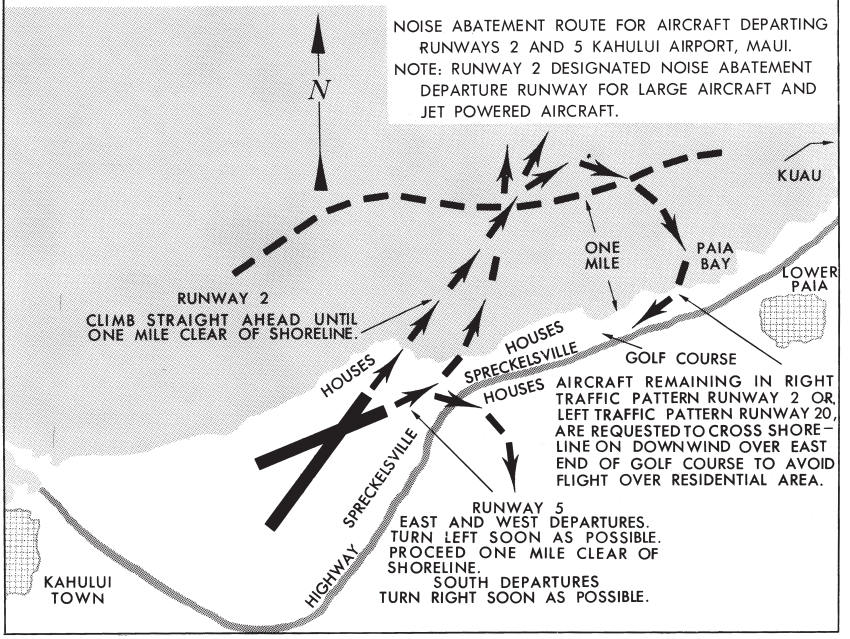
Shown are the most heavily traveled routes for high performance aircraft arriving and departing Kahului Airport, Maui. Light plane pilots flying VFR in these areas should maintain an alert lookout and monitor HCF Approach Control frequency. Aircraft transiting north of the Kahului Airport in VFR conditions are requested to remain at least 8 NM north of the airport at or below 4500 ft. if westbound, 3500 ft. if eastbound, or following the shoreline at or below 2500 ft. and be responsive to routing changes issued by HCF Approach Control or Maui Tower. The area depicted as "ALFA" is a light aircraft local training area. Area is outside Kahului Airport Class C airspace. Aircraft training in area normally operate at or below 3000 ft. and monitor HCF Approach Control.




NOISE SENSITIVE AREAS AND
RECOMMENDED FLIGHT PATHS (VFR)
KAHULUI AIRPORT
To runway 2
To runway 5
Recommended
Minimum
Altitude 2500 feet
Avoid overflying populated
areas to extent possible.
SPRECKELSVILLE
Baldwin
High
School
HARBOR
Community
College
KAHULUI
12,500 lbs.
or less
WAILUKU
Maui
Hospital
Maui High School
PUUNENE
SUGAR MILL
WAILUKU
HTS.
WAIKAPU
South
Note: Aircraft more than
12,500 lbs. inbound from the
south or flying over land
from the northwest desiring
runway 5, must overfly the
airport and enter left traffic
for runway 5.

INFORMAL RUNWAY USE PROGRAM—KAHULUI ARPT, MAUI

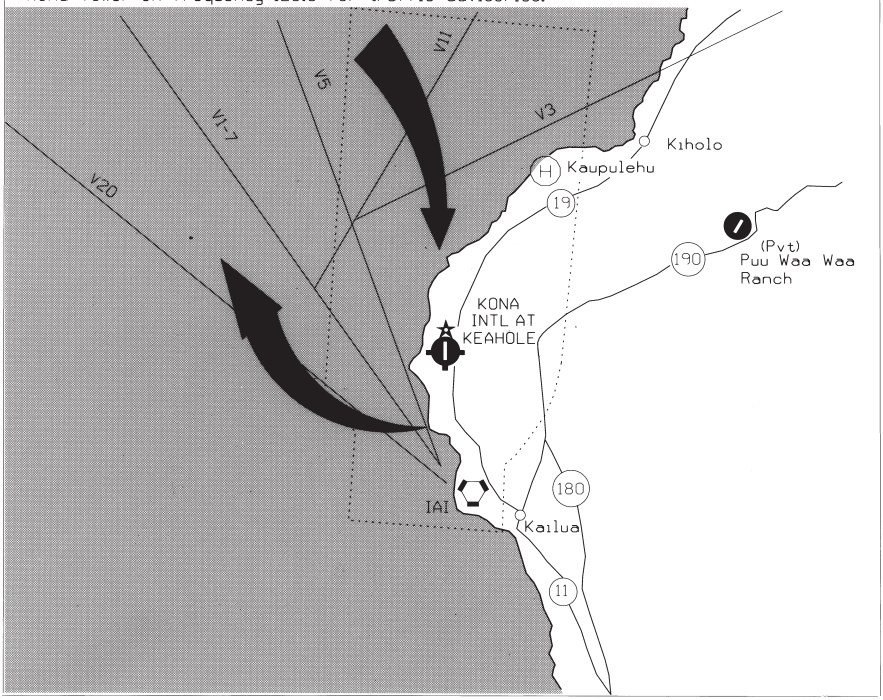
Aircraft noise complaints from Spreckelsville Beach area located adjacent to Kahului Airport have become a matter of serious concern. To alleviate the situation, noise abatement departure runways and flight patterns have been developed. All pilots are urged to follow these procedures to the maximum extent possible consistent with operational and safety requirements. Runway 2 is designated as the noise abatement departure runway for both large and jet powered aircraft. Departure flight pattern runway 2: – Climb straight ahead until one mile clear of shoreline before commencing turns. If takeoff on runway 5 is necessary, both large and jet powered aircraft are requested to: if east or westbound, turn left as soon as possible and proceed one mile clear of shoreline; if southbound, turn right as soon as possible if traffic permits, otherwise turn left.



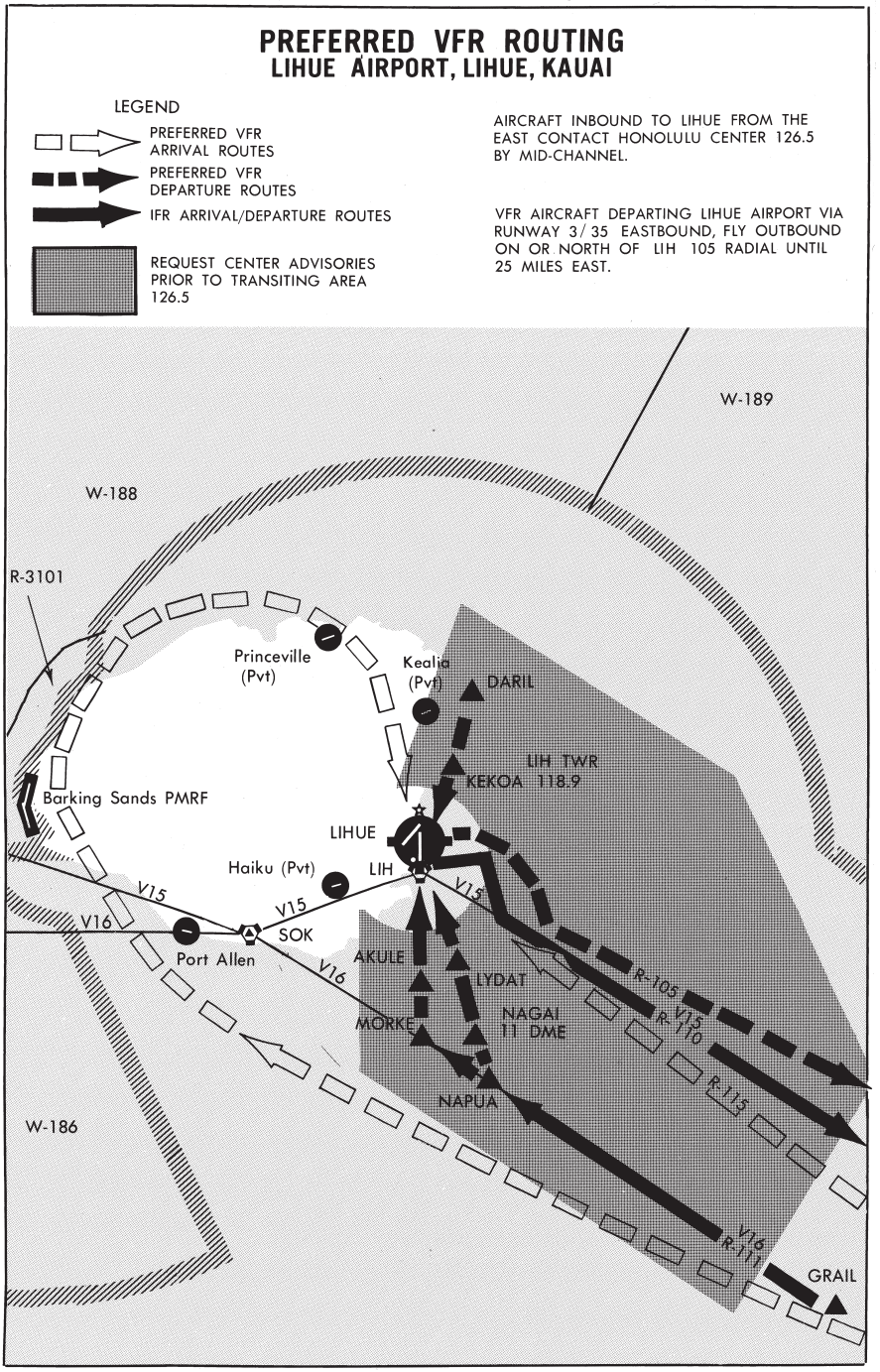
KONA INTERNATIONAL AT KEAHOLE AIRPORT, HAWAII

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

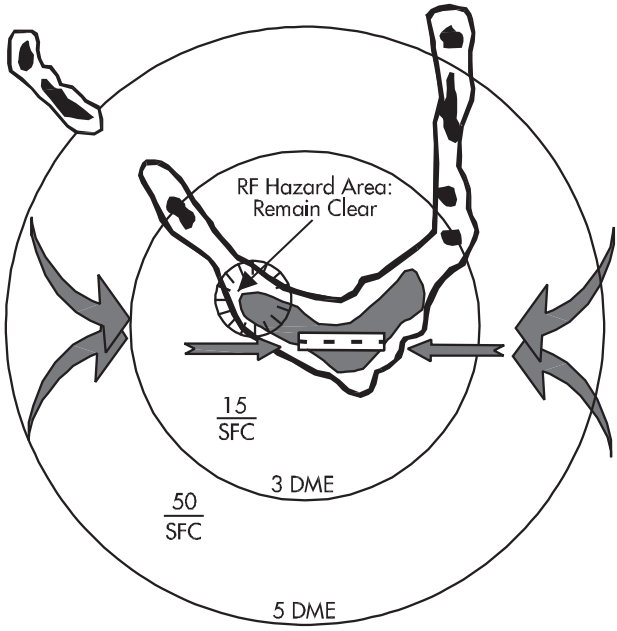
General Aviation pilots flying VFR should be extra alert in these areas. Contact Kona Tower on frequency 120.3 for traffic advisories.



PREFERRED VFR ROUTING
LIHUE AIRPORT, LIHUE, KAUAI



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)

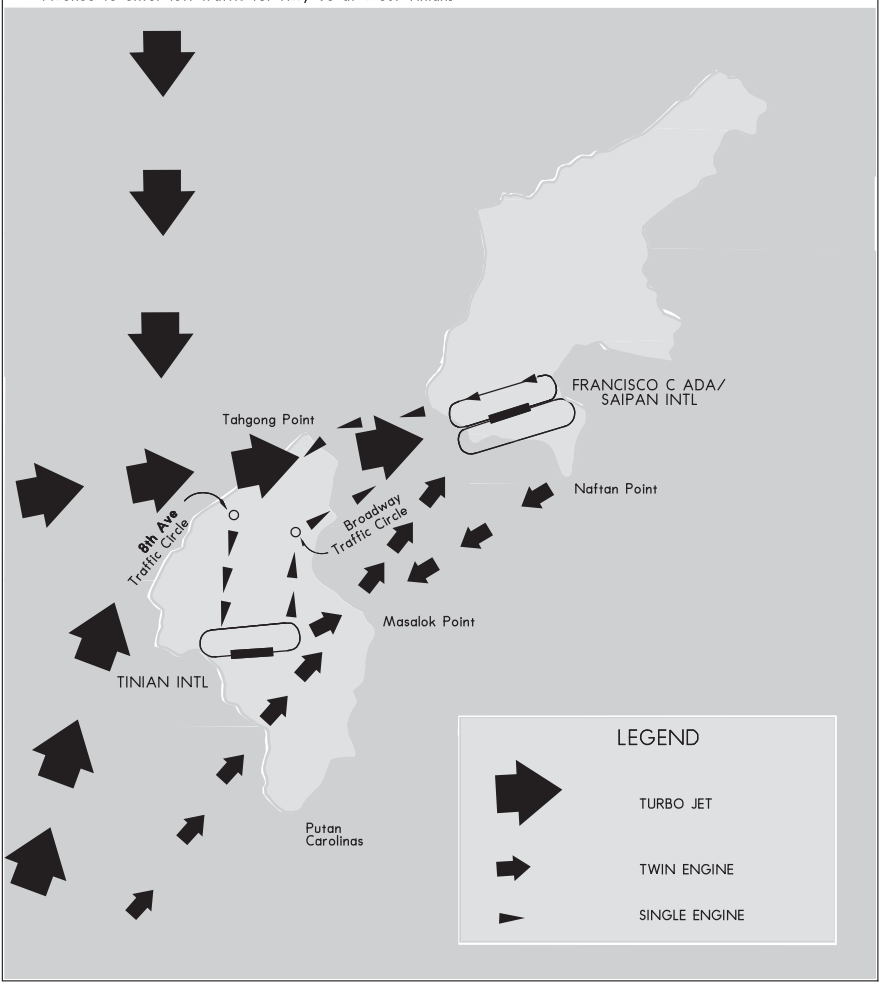
1. VFR turbo jet aircraft arriving Saipan from the southwest should proceed northbound along the west coast of Tinian. VFR turbo jets from the north-northwest should proceed southbound about 10 miles west of Saipan. They should intercept the I-GSN localizer at 10 DME and proceed inbound on the localizer 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 Unai Masalok and direct to Puntan Opyan.

3. VFR single engine aircraft arriving Saipan from Tinian should turn left after takeoff and proceed northbound via BROADWAY to the traffic circle, then northeast to Asiga Point, then across Saipan channel for straight-in to Rwy 07.

4. VFR twin engine aircraft from Saipan should make right traffic to Naftan Point, then southwest bound to Puntan Masalok, then enter left traffic for Rwy 08 at West Tinian.

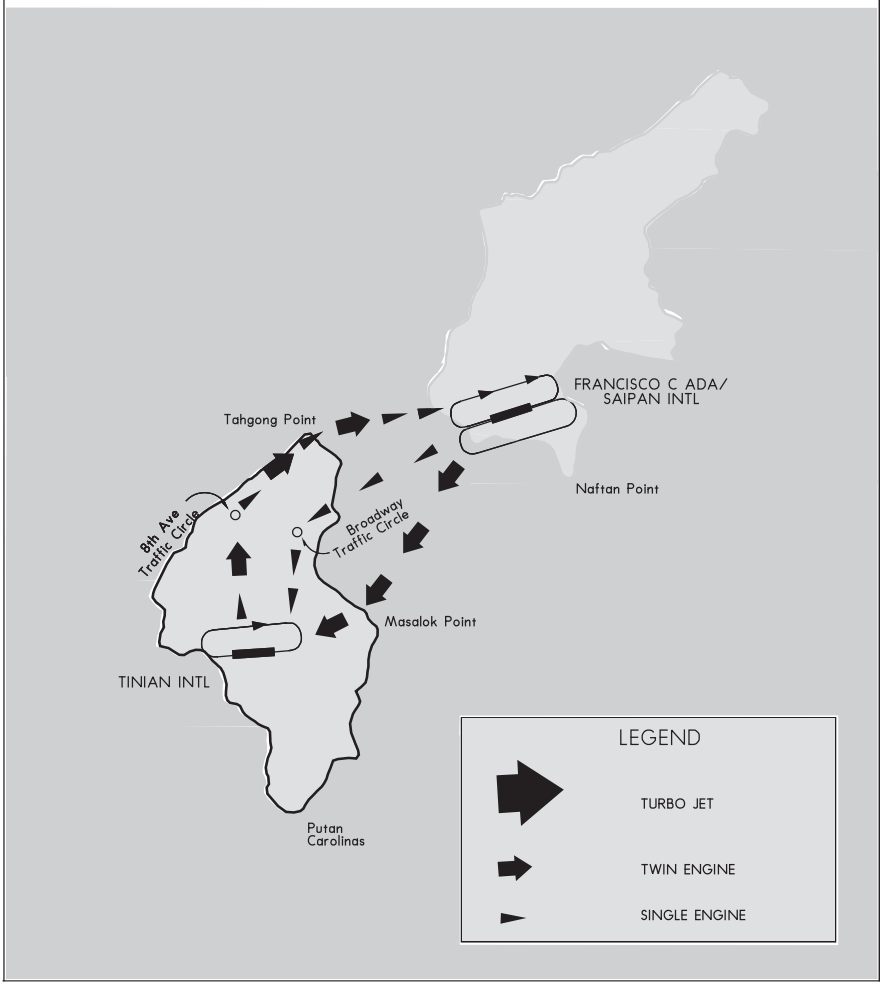
5. VFR single engine aircraft from Saipan should make left traffic downwind to Puntan Agingan, across Saipan channel to Puntan Tahgong (north tip of Tinian), direct to 8th Avenue traffic circle, thence via 8th Avenue to enter left traffic for Rwy 08 at West Tinian.



PREFERRED VFR ROUTING AT SAIPAN AND WEST TINIAN AIRPORTS

Southwest Wind Condition
(Rwy 25 and Rwy 26 In Use)

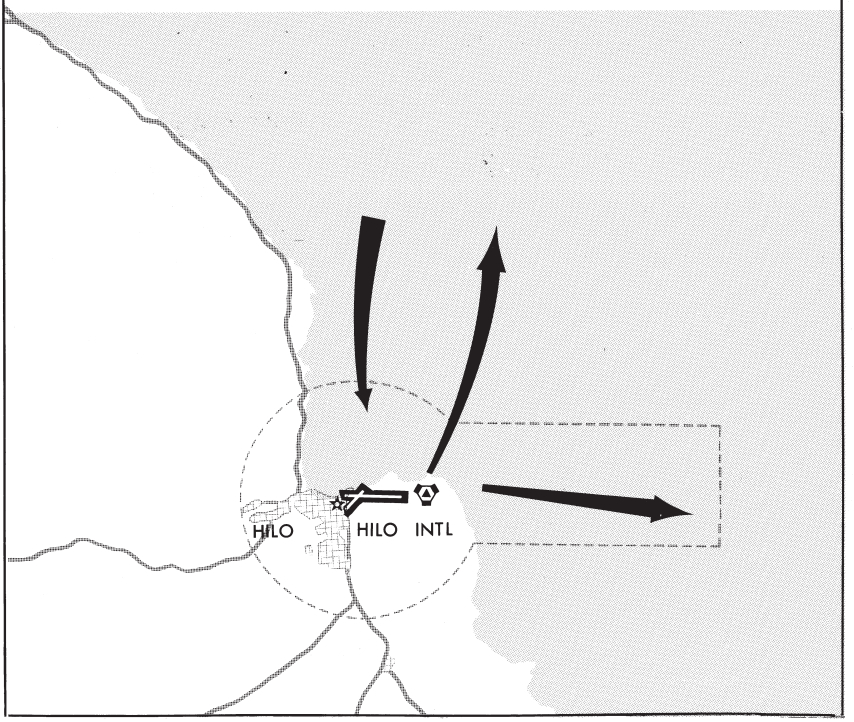
1. VFR single engine aircraft from Saipan Rwy 25 to West Tinian, direct ascoss Saipan Channel to Broadway Traffic Circle, via BROADWAY to entr a right base leg for Rwy 26.
2. VFR twin engine aircraft from Saipan Rwy 25 left turn direct Unai Masalok, make straight-in to Rwy 26 at West Tinian.
3. VFR twin 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.

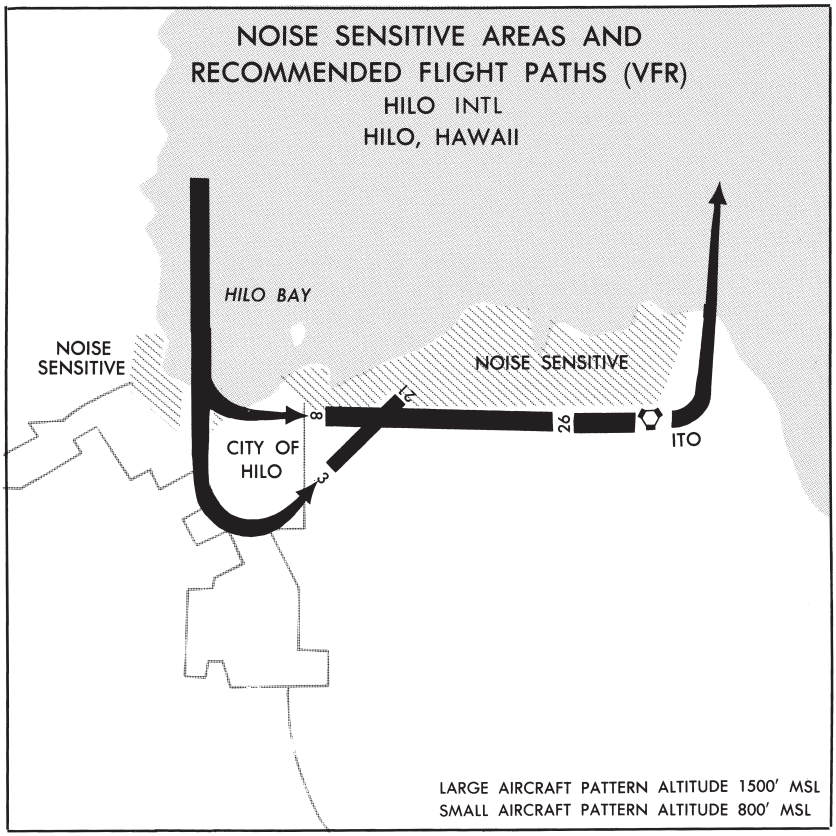


HILO INTL, HILO

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.

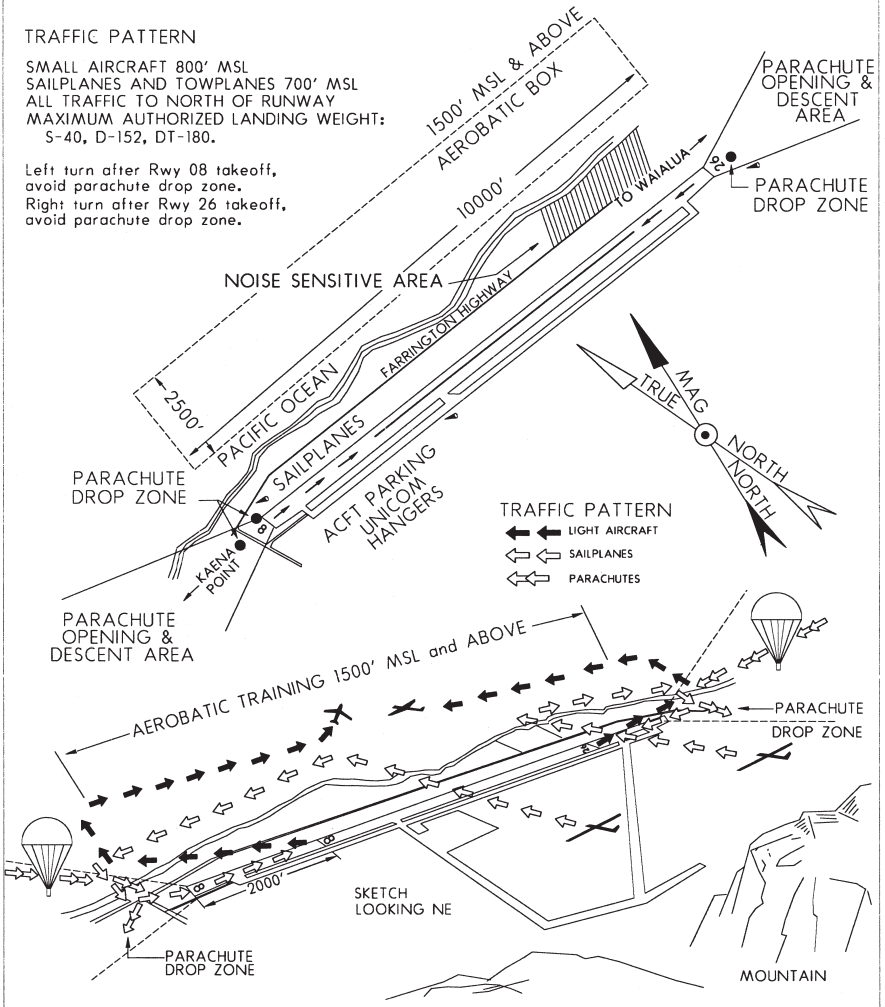



NOISE SENSITIVE AREAS AND
RECOMMENDED FLIGHT PATHS (VFR)
HILO INTL
HILO, HAWAII
HILO BAY
NOISE SENSITIVE
NOISE SENSITIVE
CITY OF HILO
8
21
26
3
ITO
LARGE AIRCRAFT PATTERN ALTITUDE 1500′ MSL
SMALL AIRCRAFT PATTERN ALTITUDE 800′ MSL

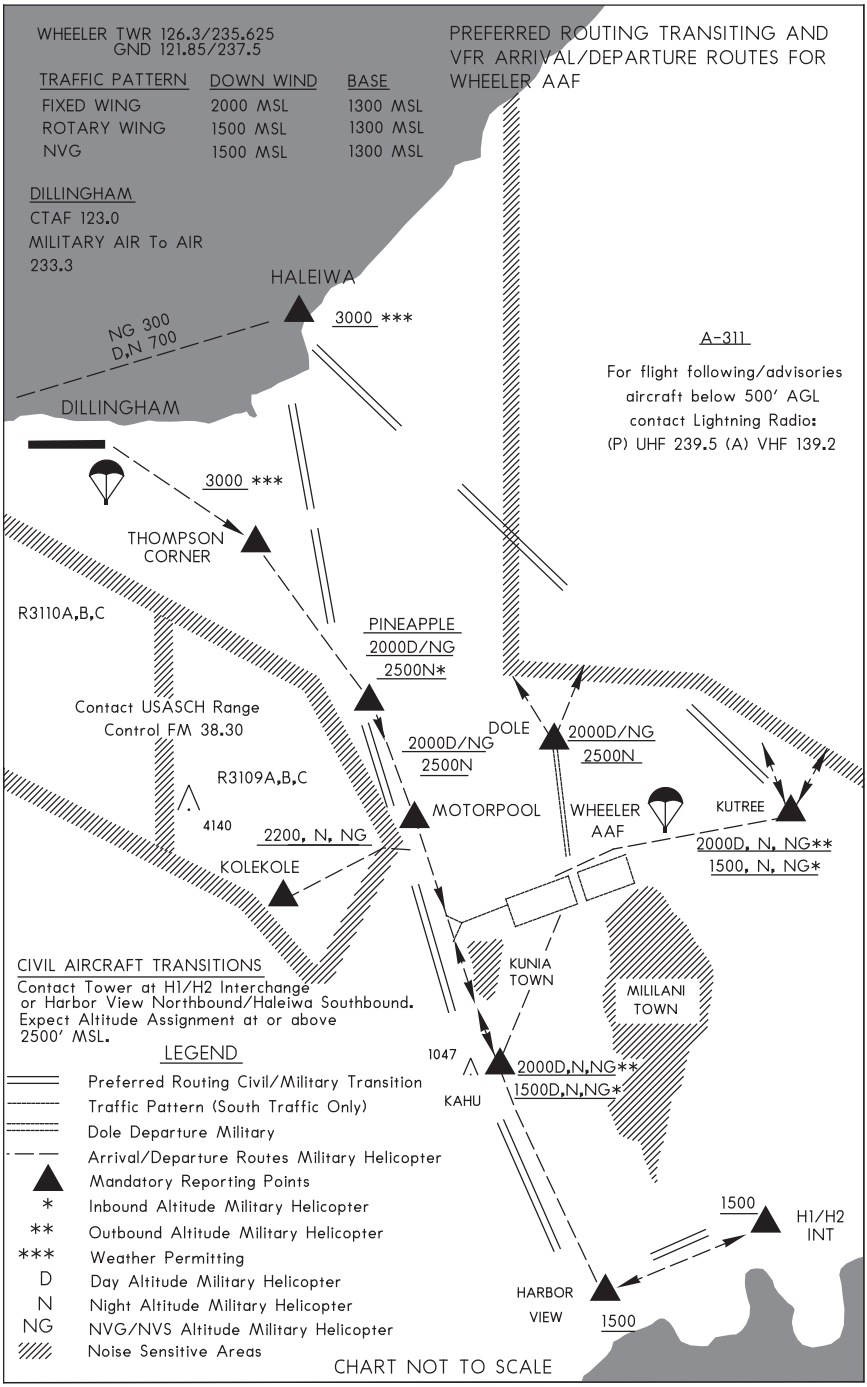
DILLINGHAM AIRFIELD, OAHU

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.



ARRIVAL/DEPARTURE GRAPHICS



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RADIO NAVIGATIONAL AIDS BY IDENT

Ident	Name
AJA	Mt. Macajna (NDB)
AWK	Wake (VORTAC)
CKH	Koko Head (VORTAC)
GRO	Rota (NDB)
HN	Ewabe (NDB)
HNL	Honolulu (VORTAC)
IAI	Kona (VORTAC)
ITO	Hilo (VORTAC)
LIH	Lihue (VORTAC)
LNY	Lanai (VORTAC)
MAJ	Majuro (NDB/DME)
MDY	Midway (NDB)
MKK	Molokai (VORTAC)
MUE	Kamuela (VOR/DME)
NDJ	Bucholz (NDB)
OGG	Maui (VORTAC)
PNI	Pohnpei (NDB/DME)
POA	Pahoa (NDB)
ROR	Koror (NDB/DME)
SN	Saipan (NDB)
SOK	South Kauai (VORTAC)
TKK	Truk (NDB/DME)
TUT	Pago Pago (NDB)
TUT	Pago Pago (VORTAC)
UKS	Kosrae (NDB/DME)
UNZ	NIMITZ (VORTAC)
UPP	Upolu Point (VORTAC)
VYI	Valley Island (NDB)
XI	Christmas Island (NDB)
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 ±4° be indicated through use of the ground check, or ±6° 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	Twy 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
LDOC (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. Maxium 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

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	FAA, Honolulu Control Facility
		Sat–Sun 1800–0200Z other times by NOTAM	FACSFAC PH, Pearl Harbor, HI
W–188	Unltd	Cont	FAA, Honolulu Control Facility
			CO PMRFAC HAWAREA
W–189	Unltd	Mon–Fri 1700–0800Z	FAA, Honolulu Control Facility
		Sat–Sun 1800–0200Z Other times by NOTAM	FACSFAC PH, Pearl Harbor, HI
W–190	Unltd	Mon–Fri 1700–0800Z	FAA, Honolulu Control Facility
		Sat–Sun 1800–0200Z Other times by NOTAM	FACSFAC PH, Pearl Harbor, HI
W–191	To 3000´	Mon–Fri 1700–0800Z	FAA, Honolulu Control Facility
		Sat–Sun 1800–0200Z Other times by NOTAM	FACSFAC PH, Pearl Harbor, HI
W–192	Unltd	Mon–Fri 1700–0800Z	FAA, Honolulu Control Facility
		Sat–Sun 1800–0200Z Other times by NOTAM	FACSFAC PH, Pearl Harbor, HI
W–193	Unltd	Mon–Fri 1700–0800Z	FAA, Honolulu Control Facility
		Sat–Sun 1800–0200Z Other times by NOTAM	FACSFAC PH, Pearl Harbor, HI
W–194	Unltd	Mon–Fri 1700–0800Z	FAA, Honolulu Control Facility
		Sat–Sun 1800–0200Z Other times by NOTAM	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	FAA, Honolulu Control Facility
			Sat–Sun 1800–0200Z Other times by NOTAM	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	FAA, Honolulu Control Facility
			Other times by NOTAM	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	FAA, Honolulu Control Facility
			Sat–Sun 1800–0200Z, other times by NOTAM	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: TAF-routine or TAF AMD-amended forecast, METAR-hourly, SPECI-special or TESTM-non-commissioned ASOS report	**METAR**
KPIT	ICAO location indicator	**KPIT**
091730Z	Issuance time: ALL times in UTC "Z", 2-digit date, 4-digit time	**091955Z**
091818	Valid period: 2-digit date, 2-digit beginning, 2-digit ending times	
	In U.S. **METAR**: CORrected ob; or AUTOmated ob for automated report with no human intervention; omitted when observer logs on	**COR**
15005KT	Wind: 3 digit true-north direction, nearest 10 degrees (or VaRiaBle); next 2-3 digits for speed and unit, KT (KMH or MPS); as needed, Gust and maximum speed; 00000KT for calm; for **METAR**, if direction varies 60 degrees or more, Variability appended, e.g. 180V260	**22015G25KT**
5SM	Prevailing visibility: in U.S., Statute Miles & fractions; above 6 miles in **TAF** Plus6SM. (Or, 4-digit minimum visibility in meters and as required, lowest value with direction)	**3/4SM**
	Runway Visual Range: R; 2-digit runway designator Left, Center, or Right as needed; "/"; Minus or Plus in U.S., 4-digit value, FeeT in U.S., (usually meters elsewhere); 4-digit value Variability 4-digit value (and tendency Down, Up or No change)	**R28L/2600FT**
HZ	Significant present, forecast and recent weather: see table (on back)	**TSRA**
FEW020	Cloud amount, height and type: SKy Clear 0/8, FEW >0/8-2/8, SCaTtered 3/8-4/8, BroKeN 5/8-7/8, OVerCast 8/8; 3-digit height in hundreds of ft; Towering CUmulus or CumulonimBus in **METAR**; in **TAF**, only CB. Vertical Visibility for obscured sky and height "VV004". More than 1 layer may be reported or forecast. In automated **METAR** reports only, CLeaR for "clear below 12,000 feet"	**OVC010CB**
	Temperature: degrees Celsius; first 2 digits, temperature "/" last 2 digits, dew-point temperature; Minus for below zero, e.g., M06	**18/16**
	Altimeter setting: indicator and 4 digits; in U.S., A-inches and hundredths; (Q-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 (≤2,000 ft) Wind Shear; 3-digit height (hundreds of ft); "/"; 3-digit wind direction and 2-3 digit wind speed above the indicated height, and unit, KT	
	In **METAR**, ReMarK indicator & remarks. For example: Sea-Level Pressure in hectoPascals & tenths, as shown: 1004.5 hPa; Temp/ dew-point in tenths °C, as shown: temp. 18.2°C, dew-point 15.9°C	**RMK SLP045 T01820159**
FM1930	FroM and 2-digit hour and 2-digit minute **beginning** time: indicates significant change. Each FM starts on new line, indented 5 spaces.	
TEMPO 2022	TEMPOrary: changes expected for < 1 hour and in total, < half of 2-digit hour **beginning** and 2-digit hour **ending** time period	
PROB40 0407	PROBability and 2-digit percent (30 or 40): probable condition during 2-digit hour **beginning** and 2-digit hour **ending** time period	
BECMG 1315	BECoMinG: 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 (≥5/8SM)	FG Fog (<5/8SM)	FU Smoke	VA Volcanic ash
SA Sand	HZ Haze	PY Spray	DU Widespread dust

Other

SQ Squall	SS Sandstorm	DS Duststorm	PO Well developed 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.–4:00p.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.

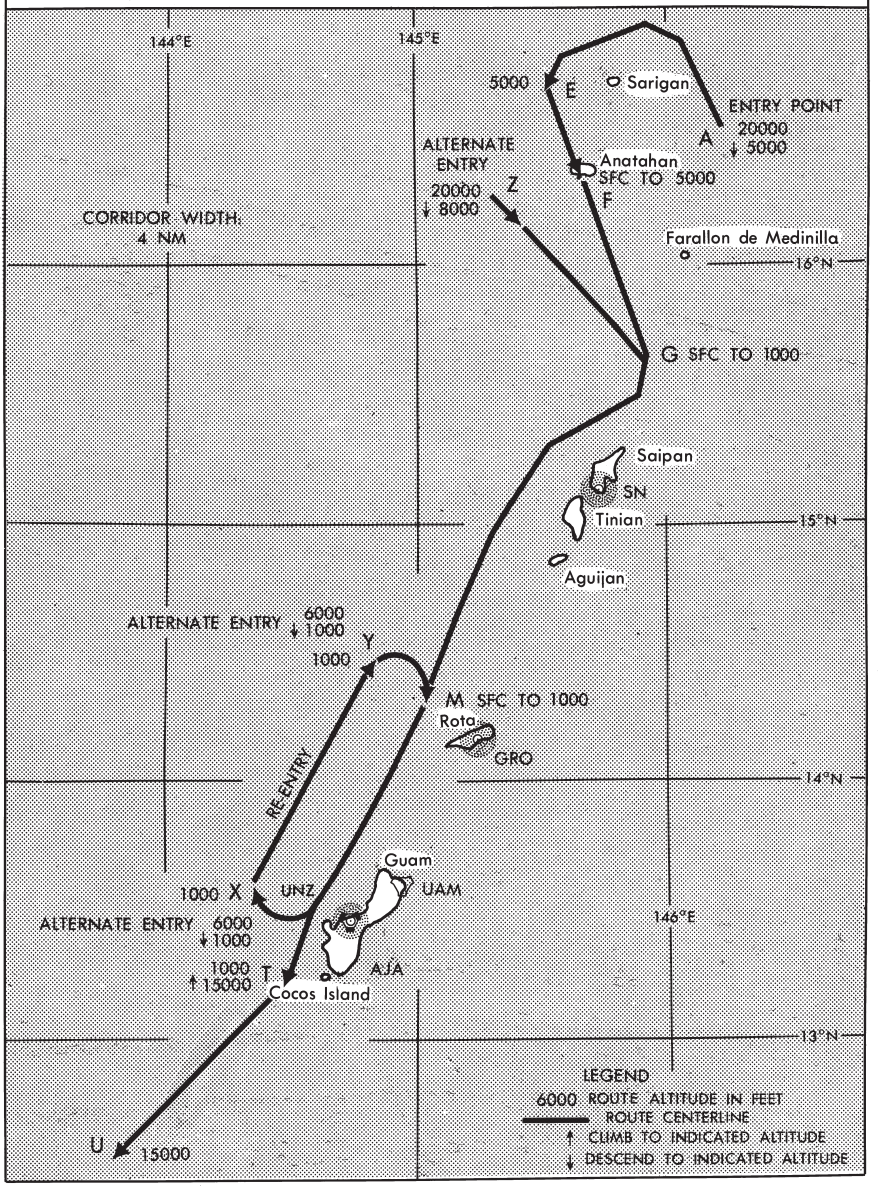
MILITARY TRAINING ROUTES

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	°C	°F
−40	−40.0	−28	−18.4	−16	3.2	−4	24.8	8	46.4	20	68.0	32	89.6	44	111.2
−39	−38.2	−27	−16.6	−15	5.0	−3	26.6	9	48.2	21	69.8	33	91.4	45	113.0
−38	−36.4	−26	−14.8	−14	6.8	−2	28.4	10	50.0	22	71.6	34	93.2	46	114.8
−37	−34.6	−25	−13.0	−13	8.6	−1	30.2	11	51.8	23	73.4	35	95.0	47	116.6
−36	−32.8	−24	−11.2	−12	10.4	0	32.0	12	53.6	24	75.2	36	96.8	48	118.4
−35	−31.0	−23	−9.4	−11	12.2	1	33.8	13	55.4	25	77.0	37	98.6	49	120.2
−34	−29.2	−22	−7.6	−10	14.0	2	35.6	14	57.2	26	78.8	38	100.4	50	122.0
−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)	HS 1	Pilots sometimes confuse Rwy 04L and Rwy 04R on arrival.
	HS 2	Acft ldg Rwy 04R and exiting left onto Twy K sometimes fail to hold short of Rwy 04L–22R and Rwy 08L–26R.
	HS 3	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 4	Twy A, Twy V, Twy T, Twy J, and Twy M all converge at or in close proximity to Rwy 08L.
	HS 5	Minimal dist btn rwy hold short lines btn Rwy 04L–22R/Rwy 04R–22L. Plan to hold short of the parl rwy. ATC is aware the acft tail is encroaching the landed rwy.
KAHULUI		
KAHULUI (OGG)	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)	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)	HS 1	Area not visible from ctl twr.
HONOLULU		

INTENTIONALLY
LEFT
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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 ADDRESSEE(S)

<=FF

<=

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

<=

TOTAL EET

16 DESTINATION AERODROME 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 **R/** UHF [U] VHF [V] ELT [E]

SURVIVAL EQUIPMENT / POLAR [P] DESERT [D] MARITIME [M] JUNGLE [J]

JACKETS / LIGHT [L] FLUORES [F] UHF [U] VHF [V]

DINGHIES **D /** NUMBER CAPACITY COVER [C] COLOR <=

AIRCRAFT COLOR AND MARKINGS **A/**

REMARKS **N /** <=

PILOT-IN-COMMAND **C/**)<=

FILED BY	ACCEPTED BY	ADDITIONAL INFORMATION

FAA Form 7233-4 (7/15)

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 A/3, Code 7700 for a period of 1 minute.
   b. Change to Code 7600 and remain on 7600 for period of 15 minutes or the remainder of flight, whichever occurs first.
   c. Repeat steps a and b, as practicable.
4. The pilot should understand that he might not be in an area of radar coverage. Many radar facilities are not presently equipped to automatically display Code 7600 and will interrogate 7600 only when the aircraft is under direct radar control at the time of radio failure. Replying on Code 7700 first increases the probability of early detection of a radio failure condition.

OCEANIC POSITION REPORTING PROCEDURES
OAKLAND OCEANIC FIR

1. GENERAL

For non ADS equipped aircraft, any waypoint filed in the route of flight (Item 15 of the ICAO flight plan) must be reported as a position report whether the filed waypoint is compulsory or not. If a non-compulsory waypoint is not filed in item 15, it does not need to be reported.

2. POSITION REPORTS

a. When operating on a published ATS Route or a temporary route established by NOTAM, report and estimate the designated reporting points using the specified waypoint names or geographic coordinates as specified in the NOTAM.

b. When operating on a random route:

(1) Flights whose tracks are predominantly east and west shall report over each 5 degrees or 10 degrees (10 degrees will be used if the speed of the aircraft is such that 10 degrees will be traversed within 80 minutes or less) meridian longitude extending east and west from 180 degrees.

(2) Flights whose tracks are predominantly north and south shall report over each 5 degrees or 10 degrees (10 degrees if traversed within 80 minutes) parallel of latitude extending north and south of the equator.

c. ATC may require specific flights to report more frequently than each 5 degrees for aircraft with slow ground speeds.

d. Position reports shall be transmitted at the time of crossing the designated reporting point or as soon thereafter as possible.

3. CONTENTS OF POSITION REPORT

Position reports shall include information on present position, estimated next position, and ensuing position in sequence as indicated below.

a. PRESENT POSITION – Information shall include:
   (1) The word “position.”
   (2) Aircraft identification.
   (3) Reporting point name, or if not named:
      (a) Latitude (2 digits or more) and,
      (b) Longitude (3 digits or more).

b. Time over reporting point (4 digits UTC).

c. Altitude (Flight Level). When forwarding an altitude report within the Oakland OCA/FIR, pilots should report their present altitude and their assigned altitude exactly as cleared if the present and assigned altitudes differ. Aircraft assigned a block altitude must report their current altitude and the assigned block altitude. A restriction to cross a point at an altitude is not a block altitude assignment and should not be reported as a block of altitudes.

d. ESTIMATED NEXT POSITION
   (1) Reporting point name, or if not named, latitude and longitude as in a.3 above and,
   (2) Estimated time over next position (4 digits UTC).

e. ENSUING FIX
   (1) Name only of the next succeeding fix whether compulsory or not, or if not named, latitude and longitude as in a.3 above.

4. WEATHER REPORTS

a. Weather reports shall be included as provided in Section 3 of Standard AIREP Form by all flights unless exempted from weather reporting by the Weather Service and/or ATC.

5. ADHERENCE TO ATC APPROVED ROUTE

a. If an aircraft, notwithstanding all action taken to adhere to the route specified in the ATC clearance, inadvertently deviates from this route, action shall be taken to regain it as soon as reasonable and not further ahead than 200 nautical miles from the DR position at which the heading was altered to regain the route specified in the ATC clearance. Action to regain this route shall not be delayed in anticipation of obtaining a requested re-clearance.

6. EXCEPTIONS TO POSITION REPORTING PROCEDURES

a. Within Oakland OCA/FIR, no 5 degree report need be made that would fall within 100 NM of Guam. Aircraft cleared via terminal area routes report compulsory reporting fixes. Other aircraft report 100 NM from Nimitz VORTAC. Where other island destinations within the Oakland Oceanic FIR are not more than one-degree latitude-longitude from a 5 degrees fixed line reporting point, the ETA and arrival report may be substituted in lieu of the adjacent fixed line report.

b. To the east of the Hawaiian Islands it will not be necessary to report the 155 degree west position if position will be reported at the entry/exit fixes on the Honolulu Control Facility boundary. To the west of the Hawaiian Islands, the 160 degree west need not be reported.

7. POSITION REPORTS OVER OAKLAND OCEANIC OCA/FIR 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

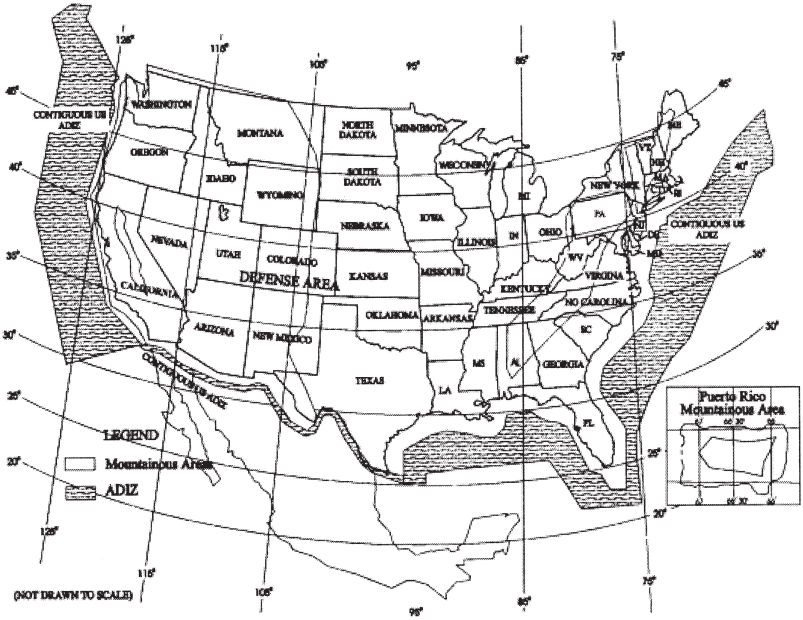


Fig 1-4-2. Alaska Air Defense Identification Zones/Designated Mountainous Areas

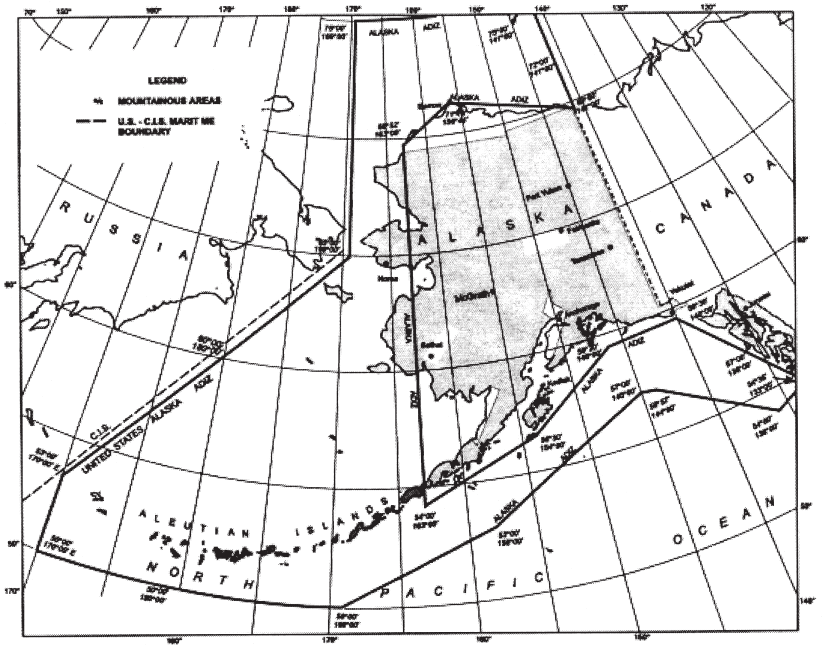


Fig 1-4-3. Guam Air Defense Identification Zone and Defense Area

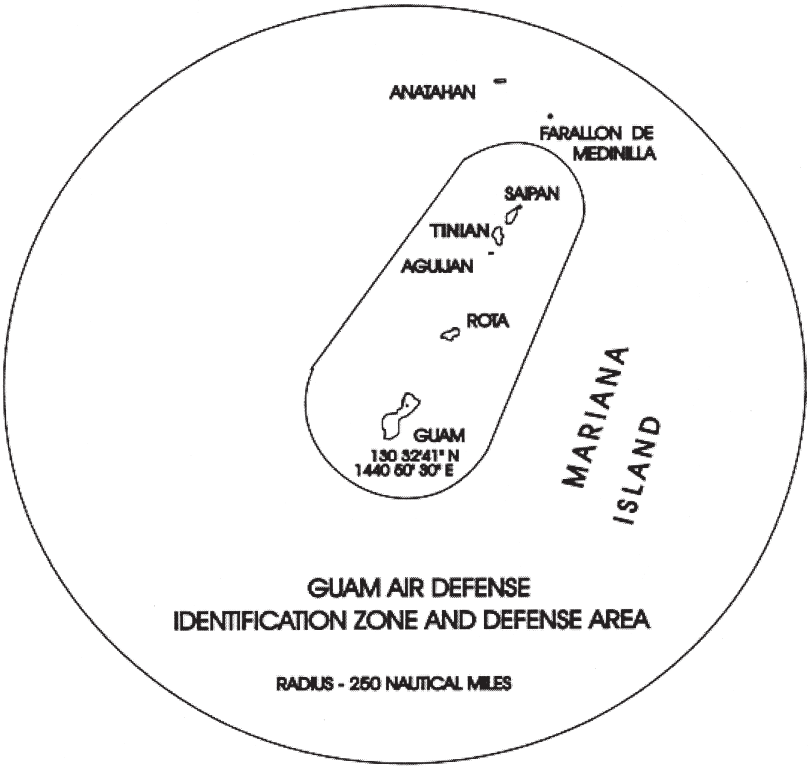
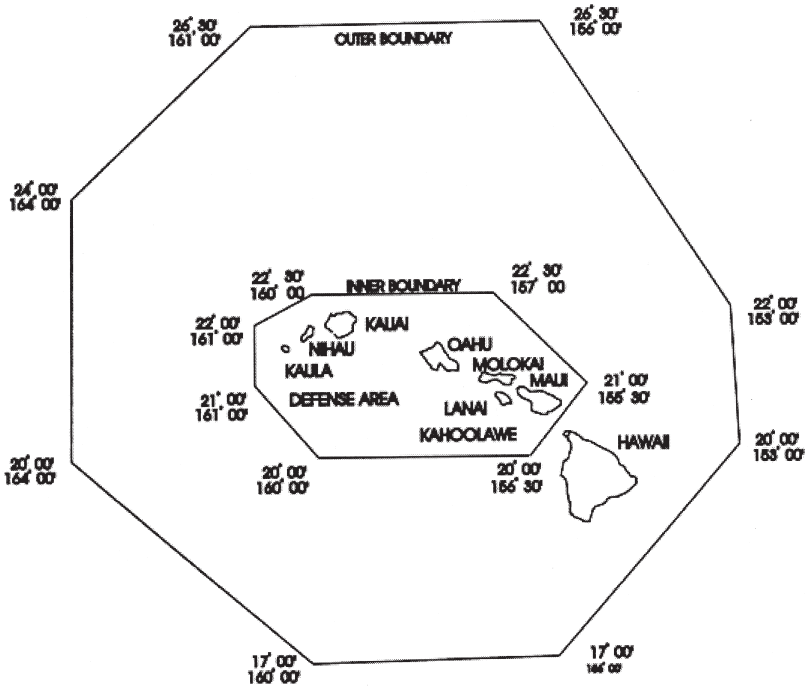


Fig 1-4-4. Hawaiian Air Defense Identification Zone and Defense Area



INTERCEPTION SIGNALS
ICAO STANDARD

SIGNALS INITIATED BY INTERCEPTING AIRCRAFT AND RESPONSES BY INTERCEPTED AIRCRAFT

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

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 42ºN, 124º13'W(California-Oregon State Line), to 40ºN, 150ºW to 07º09'N, 120ºW to 30ºN, 120ºW to 30º45'N, 120º50'W to 32º33'N, 117º05'W thence north along the Pacific coastline back to 42ºN, 124º13'W. (Telephone number for RCC Alameda is 510-437-3701)

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

SRS GUAM:
Joint Rescue Sub-Center (JRSC) Guam is responsible for the coordination and conduct of SAR operations in aeronautical SRS Guam. Aeronautical SRS Guam is established within following coordinates:
From 17ºN, 130ºE to 17ºN, 160ºE to 09º30'N, 160ºE to 07ºN, 165ºE to 03º30'N, 165ºE to 03º30'N, 160ºE to 00ºN, 160ºE to 00ºN, 141ºE to 03º30´N, 141ºE to 3º30'N, 133ºE to 07ºN, 130ºE to 17ºN, 130ºE. Guam Joint Rescue Sub-Center (JRSC) at Guam has responsibility for SAR in this area. (Telephone for JRSC Guam 671-355-4824)

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

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

COAST GUARD RESCUE COORDINATION CENTERS: Coast Guard Rescue Coordination Centers are served by major radio stations which guard 500kHz (CW). 8364 kHz (CW), and 2182 kHz (Voice). In addition to these major radio stations, the 247 Coast Guard units along the sea coasts of the United States and shores to the Great Lakes guard 2182 kHz (Voice). All of these facilities are available for reporting distress or potential distress. THE CALL "NCU" (CW) or "COAST GUARD" (VOICE) ALERTS ALL COAST GUARD RADIO STATIONS WITHIN RANGE.

EMERGENCY PROCEDURES

I. A pilot in any emergency phase (uncertainty, alert, or distress) should do three things to obtain assistance:

a. If equipped with IFF, switch to "Emergency" position.

b. Contact controlling agency and give nature of distress and pilots intentions.—If unable to contact controlling agencies attempt to contact any agency on assigned frequency or any of the following frequencies (transmit and receive):

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:

1. MAYDAY, MAYDAY, MAYDAY (if distress), or PAN, PAN, PAN (if uncertainty or alert). If CW transmission use SOS (distress) or XXX (uncertainty or alert).
2. Aircraft identification repeated three times.
3. Type of aircraft.
4. Position or estimated position (stating which).
5. Heading (True or Magnetic) (stating which).
6. True airspeed or estimated true airspeed (stating which).
7. Altitude.
8. Fuel remaining in hours and minutes.
9. Nature of distress.
10. Pilot's intentions (bailout, ditch, crash landing, etc.).
11. Assistance desired (fix, steer, bearing, escort, etc.).
12. Two 10–second dashes with mike (voice) or key (CW) followed by aircraft identification (once) OVER (Voice) or K (CW).

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:

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

b. Communicate with your ground link and pass as much of the distress message on first transmission as possible. We need information for best SAR action!

c. Climb if possible for better radar and DF detection. If flying at low altitude, the chance for establishing radio contact is improved by climbing, also chances of alerting radar systems are sometimes improved by climbing or descending.

NOTE:—Climbing or descending under IFR conditions within controlled air space is not permitted except in EMERGENCY. Air traffic control will operate on the assumption that the provisions of FAR 91.185 are being followed by the pilot.

d. Comply—especially Comply—with advice and instructions received, if you really want to help. Assist the ground "communications control" station to control communications on the distress frequency on which you are working (as that is the distress frequency for your case). Tell interfering stations to maintain silence until you call. Cooperate!

III. For bail–out, set radio for continuous emission. For ditching or crash landing, the radio equipment should if it is considered that there is no additional risk of fire and if circumstances permit, be set for continuous transmission.

When a pilot is in doubt of his position, or feels apprehensive for his safety, he should not hesitate to request assistance. Search and Rescue facilities, including Radar, Radio and DF stations, are ready and willing to help. There is no penalty for using them. Delay has caused crashes and cost lives. Take action!

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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)	¼ mile

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

Inoperative Component or Visual Aid	Increase Visibility
ALSF 1 & 2, MALSR, SSALR	To RVR 4000† To RVR 4500*
TDZL or RCLS	To RVR 2400#
RVR	To ½ 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, MALSR, SSALR	½ mile
MALSF, MALS, SSALF, SSALS, SALSF, SALS	¼ mile

(4) Sidestep minima (CAT C-D)

Inoperative Component or Visual Aid to Sidestep Runway	Increase Visibility
ALSF 1 & 2, MALSR, SSALR	½ mile

(5) All Approach Types, All lines of minima

Inoperative Component or Visual Aid	Increase Visibility
ODALS (CAT A-B)	¼ mile
ODALS (CAT C-D)	⅛ mile

INOP COMPONENTS 19339

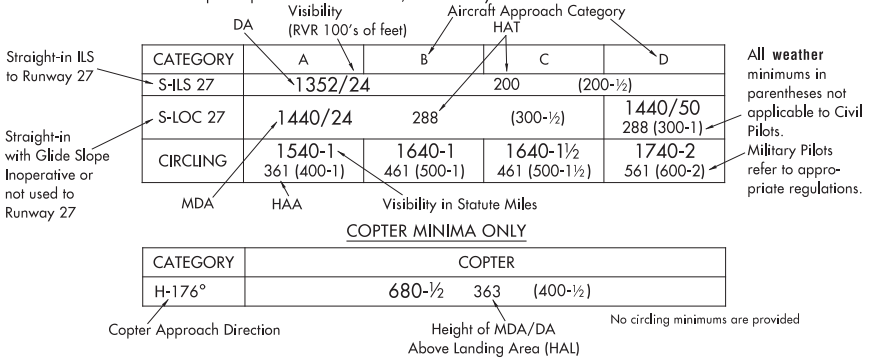
TERMS/LANDING MINIMA DATA 20142

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

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



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/digital_products/dtpp/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

TERMS/LANDING MINIMA DATA 19339

CIRCLING APPROACH OBSTACLE PROTECTED AIRSPACE

The circling MDA provides vertical obstacle clearance during a circle-to-land maneuver. The circling MDA protected area extends from the threshold of each runway authorized for landing following a circle-to-land maneuver for a distance as shown in the tables below. The resultant arcs are then connected tangentially to define the protected area.

STANDARD CIRCLING APPROACH MANEUVERING RADIUS

Circling approach protected areas developed prior to late 2012 used the radius distances shown in the following table, expressed in nautical miles (NM), dependent on aircraft approach category. The approaches using standard circling approach areas can be identified by the absence of the 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)	RVR (feet)	Visibility (SM)	RVR (feet)	Visibility (SM)	RVR (feet)	Visibility (SM)
1600	¼	2400	½	3500	⅝	5500	1
1800	½	2600	½	4000	¾	6000	1¼
2000	½	3000	⅝	4500	⅞		
2200	½	3200	⅝	5000	1		

RADAR MINIMA

	RWY	GP/TCH/RPI	CAT	DA/ MDA-VIS	HAT HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT HAA	CEIL-VIS
PAR	10	2.5°/42/1000	ABCDE	**195**/16	100	(100-¼)				
	28	2.5°/48/1068	ABCDE	**187**/16	100	(100-¼)				
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	(600-1¼)
CIR	10		AB	**560-**1¼	463	(500-1¼)	CDE	**560-**1½	463	(500-1½)
	28		AB	**600-**1¼	503	(600-1¼)	CDE	**600-**1½	503	(600-1½)

Visibility (RVR 100's of feet)

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/USAF pilots refer to appropriate regulations.

A 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 19339

GENERAL INFORMATION

This publication is issued every 56 days and includes Standard Instrument Approach Procedures (SIAPS), Standard Instrument Departures (SIDs), Standard Terminal Arrivals (STARs), IFR Takeoff Minimums and (Obstacle) Departure Procedures (ODPs), IFR Alternate Minimums, and Radar Instrument Approach Minimums for use by civil and military aviation. The organization responsible for SIAPs, Radar Minimums, SIDs, STARs and graphic ODPs is identified in parentheses in the top margin of the procedure; e.g., (FAA), (FAA-O), (USA), (USAF), (USN). SIAPS with the (FAA) and (FAA-O) designation are regulated under 14 CFR, Part 97. SIAPs with the (FAA-O) designation have been developed under Other Transaction Agreement (OTA) by private providers and have been certified by the FAA. See 14 CFR, Part 91.175 (a) and the AIM for further details. 14 CFR, Part 91.175 (g) and the Special Notices section of the Chart Supplement contain information on civil operations at military airports.

The FAA uses an internal numbering system on all charts in the TPP. This Approach and Landing (AL) number is located on the top center margin of the chart followed by the organization responsible for the procedure in parentheses, e.g., AL-18 (FAA), AL-227 (USAF).

CHART CURRENCY INFORMATION

Date of Latest Revision 09365

The Date of Latest Revision identifies the Julian date the chart was added or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest revision of any kind has been made to the chart.

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.

GENERAL INFO 19339

GENERAL INFO 22027

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, LIBGE: RNAV-1 GPS, RNAV-1GPS from MAP to YARKU.
Equipment Requirements Box →	DME required for LOC only.
Standard Procedure Notes Box →	(T) Circling to Rwy 25 NA at night. #For inop MALSR increase S-ILS 16R all cats visibility to 2½ SM.

RNAV STAR and DP PBN/Equipment Requirements Notes Box

PBN Requirements Box →	RNAV 1 - DME/DME/IRU or GPS
Equipment Requirements Box →	RADAR required

PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

Available pilot controlled lighting (PCL) systems are indicated as follows:
1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g., (A1), (V), (✿)
2. Approach lighting systems that do not bear a system identification are indicated with a negative "(L)" beside the name.
A star (★) indicates non-standard PCL, consult Chart Supplement, e.g., (L★)
To activate lights, use frequency indicated in the communication section of the chart with a (L) or the appropriate lighting system identification e.g., UNICOM 122.8 (L), (A1), (V)

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)

GENERAL INFO 22027

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ABBREVIATIONS

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

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23054

ABBREVIATIONS

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

23054

LEGEND 22139

INSTRUMENT APPROACH PROCEDURES (CHARTS)

PLANVIEW SYMBOLS

TERMINAL ROUTES

Procedure Track

Missed Approach

Visual Flight Path

165°
345°
Procedure Turn
(Type degree and point of turn optional)

3100 NoPT 5.6 NM to GS Intcpt
045°
(14.2 to LOM)
Minimum Route Altitude
2000
155°
Feeder Route
(15.1)
Mileage

HOLDING PATTERNS

Missed Approach
090°
270°

Hold-in-lieu of Procedure Turn
090°
1 min
270°

HOLD 8000
Arrival
090°
270°

090°
(IAS)
270°
4 NM

Holding pattern with max. restricted airspeed:
(175K) applies to all altitudes.
(210K) applies to altitudes above 6000′ to 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

Intersection

WAYPOINT

FLYOVER POINT

MAP WP (Flyover)

Computer Navigation Fix (CNF) - No ATC Function
x (NAME) ("x" omitted when it conflicts with runway pattern)

15 DME Distance From Facility

AUSTN INT
ARC/DME/RNAV Fix

R-198 Radial line and value

LR-198 Lead Radial

LB-198 Lead Bearing

ALTITUDES

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

INDICATED AIRSPEED

175K	120K	250K	180K
Mandatory Airspeed	Minimum Airspeed	Maximum Airspeed	Recommended Airspeed

RADIO AIDS TO NAVIGATION

110.1 Underline indicates No Voice transmitted on this frequency

VOR
VORTAC
TACAN
VOR/DME
DME
NDB
NDB/DME

LOM/LMM (Compass locator at Outer Marker/Middle Marker)

Marker Beacon

Marker beacons that are not specifically part of the procedure.

Localizer (LOC/LDA) Course
Right side shading- Front course; Left side shading- Back Course

SDF Course

LOC/DME

LOC/LDA/SDF Transmitter
(shown when installation is offset from its normal postion off the end of the runway.)

Primary NAVAID with Coordinate Values

LIMA
114.5 LIM
Chan 92
S12°00.80′
W77°07.00′

Secondary NAVAID

LMM
LIMA
248 NT

SCOTT
Chan 59
SKE
(112.2)

VHF Paired Frequency

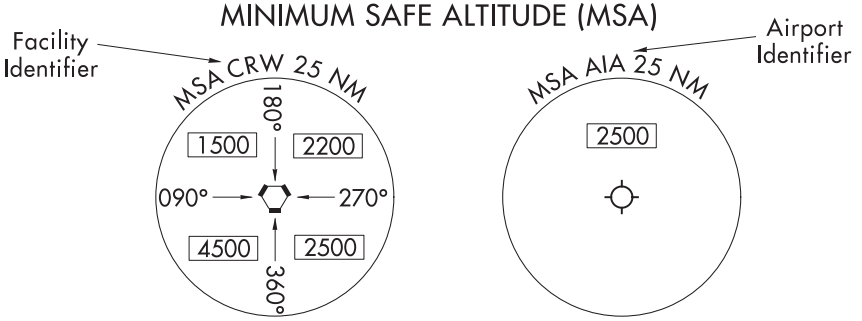
LEGEND 22139

LEGEND 23110

INSTRUMENT APPROACH PROCEDURES (CHARTS)

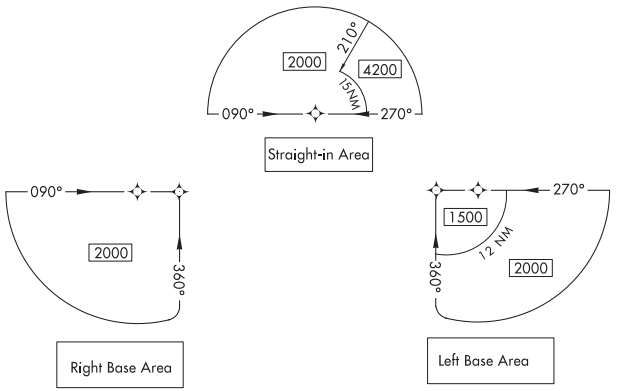
PLANVIEW SYMBOLS

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)

Distance not to scale

International Boundary

Air Defense Identification Zone

SPECIAL USE AIRSPACE

R-352

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

AIRPORTS

Primary and Secondary (named in planview)

Civil

Seaplane Base

Heliport

Joint (Civil-Military)

OBSTACLES

- Spot Elevation
- Obstacle
- Highest Obstacle
- Highest Spot Elevation
- Group of Obstacles
- ± Doubtful accuracy

LEGEND 23110

LEGEND 22251

INSTRUMENT APPROACH PROCEDURES (CHARTS)

PROFILE VIEW

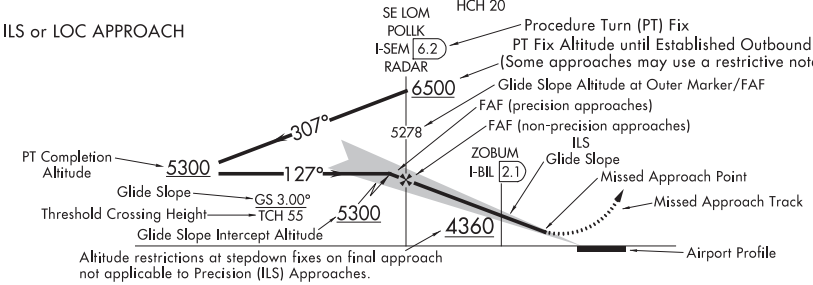
Three different methods are used to depict either electronic or vertical guidance: "GS", "GP", or "VDA".

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

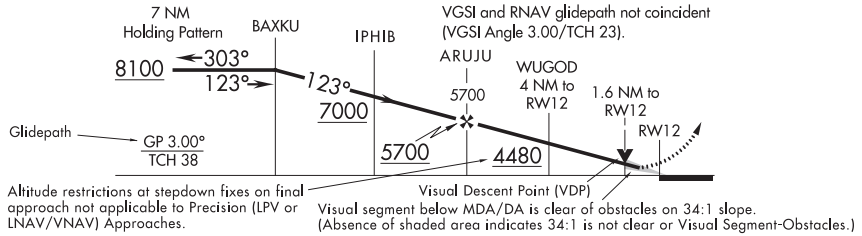
2. "GP" on GLS and RNAV procedures indicates that either electronic vertical guidance (via Wide Area Augmentation System - WAAS or Ground Based Augmentation System - GBAS) or barometric vertical guidance is provided. GLS and RNAV procedures with a published decision altitude (DA/H) depict a GP angle 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: 3.00°, TCH 55. On Copter procedures this is depicted in the following format: 7.30°, HCH 20

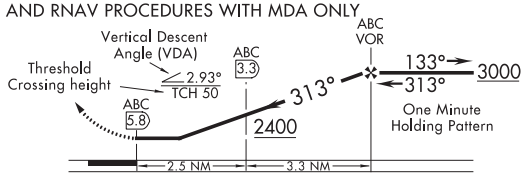
ILS or LOC APPROACH



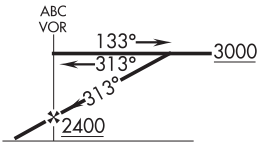
RNAV and GLS PROCEDURES WITH VERTICAL GUIDANCE



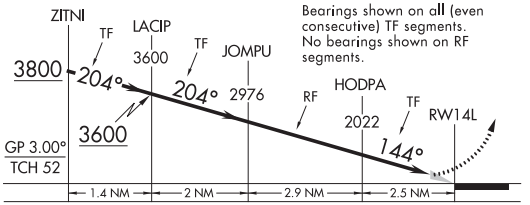
NON-VERTICALLY GUIDED CONVENTIONAL PROCEDURES AND RNAV PROCEDURES WITH MDA ONLY



DESCENT FROM HOLDING PATTERN



RNP APPROACH WITH TF AND RF SEGMENTS



ALTITUDES

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

PROFILE SYMBOLS

2400 — 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 22251 STANDARD TERMINAL ARRIVAL (STAR) CHARTS

RADIO AIDS TO NAVIGATION

Compulsory:

VOR, VORTAC, DME, VOR/DME, TACAN, NDB, NDB/DME

Non-Compulsory:

VOR, VORTAC, DME, VOR/DME, TACAN, NDB, NDB/DME

LMM, LOM (Compass locator)

Marker Beacon

Localizer Front Course

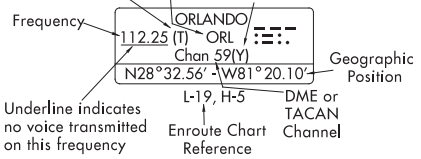
BACK COURSE

Localizer Back Course (Shading on left)

SDF Course

(T) indicates frequency protection range

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



FIXES/ATC REPORTING REQUIREMENTS

Reporting Points
N00°00.00'
W00°00.00'

▲ Fix-Compulsory and
△ Non-Compulsory Position Report

DME fix

Obvious DME (DME mileage matches route mileage)

75 DME Mileage (when not obvious)

WAYPOINT (Compulsory)

WAYPOINT (Non-Compulsory)

FLYOVER POINT

X Computer Navigation Fix (CNF) - No ATC Function

(JEHNN)
N00°00.00'
W00°00.00'

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 max. restricted airspeed
(175K) applies to all altitudes
(210K) applies to altitudes above 6000' to and including 14000'

SPECIAL USE AIRSPACE

R-352

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

ALTITUDES

5500 Mandatory Altitude (Cross at)

2300 Minimum Altitude (Cross at or above)

4800 Maximum Altitude (Cross at or below)

15000 / 12000 Block Altitude

Altitude change at other than Radio Aids to Navigation

INDICATED AIRSPEED

175K Mandatory Airspeed

120K Minimum Airspeed

250K Maximum Airspeed

MISCELLANEOUS

Changeover Point

Air Defense Identification Zone

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

Ldg KLAS and KHND

Ldg Rwys 16L/C/R

Terminus identifier

LEGEND 22251

LEGEND 22251

DEPARTURE PROCEDURE (DP) CHARTS

RADIO AIDS TO NAVIGATION

Compulsory:

VOR · VORTAC · DME · NDB/DME
VOR/DME · TACAN · NDB

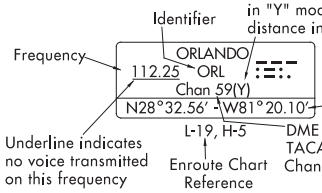
Non-Compulsory:

VOR · VORTAC · DME · NDB/DME
VOR/DME · TACAN · NDB

LMM, LOM (Compass locator)
Marker Beacon
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)
SDF Course

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



FIXES/ATC REPORTING REQUIREMENTS

Reporting Points
N00°00.00'
W00°00.00'
▲ Fix-Compulsory and
△ Non-Compulsory
Position Report
DME fix

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

WAYPOINT (Compulsory)
WAYPOINT (Non-Compulsory)

FLYOVER POINT

X Computer Navigation Fix (CNF) - No ATC Function
(JEHNN)
N00°00.00'
W00°00.00'

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 with max. restricted airspeed (175K) applies to all altitudes (210K) applies to altitudes above 6000' to and including 14000'
Lost Comm Holding Pattern

SPECIAL USE AIRSPACE

R-352
R-Restricted W-Warning
P-Prohibited A-Alert
MOA-Military Operations Area

ALTITUDES

5500 Mandatory Altitude (Cross at)
2300 Minimum Altitude (Cross at or above)
4800 Maximum Altitude (Cross at or below)
15000 / 12000 Block Altitude
TOP ALTITUDE: 5000 Top altitude restriction

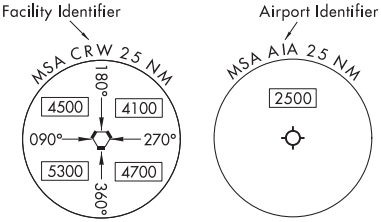
INDICATED AIRSPEED

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

AIRPORTS

H Heliport
Civil · Military · Joint (Civil-Military)

MINIMUM SAFE ALTITUDE (MSA)



(arrows on distance circle identify sectors)

LEGEND 22251

23110

LEGEND

INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM/AIRPORT SKETCH

Runways

Hard Surface | Other Than Hard Surface | Stopways,Taxiways, Parking Areas | Metal Surface

Closed Runway | Closed Surface | Under Construction | Water Runway

ARRESTING GEAR: Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.

uni-directional | bi-directional | Jet Barrier

ARRESTING SYSTEM ☐ (EMAS)

REFERENCE FEATURES

Displaced Threshold.....
Hot Spot .....
Runway Holding Position Markings.....
Buildings.....
Self-Serve Fuel ##.....
Tanks.....
Obstructions.....
Airport Beacon #.....
Runway Radar Reflectors.....
Bridges.....
Control Tower #..... TWR

When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

See appropriate Chart Supplement for information.

NOTE:
All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in FLIP. (Foreign Only)

Runway Weight Bearing Capacity or Pavement Classification Number (PCN)/Pavement Classification Rating (PCR) is shown as a codified expression. Refer to the appropriate Supplement/Directory for applicable codes e.g., RWY 14-32 PCR 560 R/B/W/T; S-75, D-185, 2S-175, 2D-325

Helicopter Alighting Areas Ⓗ ⊞ H H ⊞

Negative Symbols used to identify Copter Procedures

landing point..... Ⓗ ⊞ H H ⊞

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

Runway TDZ elevation.....TDZE 123

←0.3% DOWN

Runway Slope.....0.8% UP→
(shown when rounded runway slope is greater than or equal to 0.3%)

NOTE:
Runway Slope measured to midpoint on runways 8000 feet or longer.

U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Approach light symbols are shown in the Flight Information Handbook.

Airport diagram scales are variable.

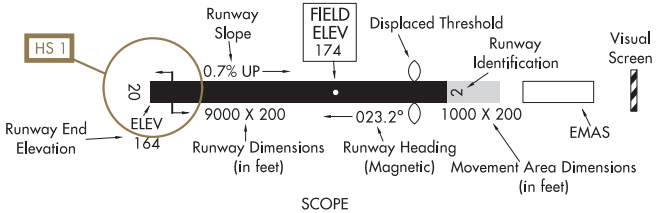
True/magnetic North orientation may vary from diagram to diagram

Coordinate values are shown in 1 or ½ minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.

Positional accuracy within ±600 feet unless otherwise noted on the chart.

Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.

A D symbol is shown to indicate runway declared distance information available, see appropriate Chart Supplement for distance information.



SCOPE

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

LEGEND

LEGEND 22195

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

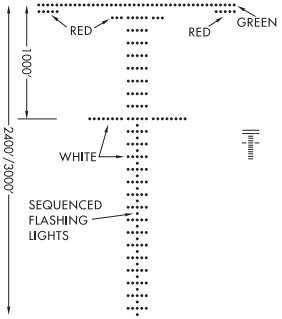
Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, e.g., (A2), (V), etc.

A dot "●" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., (A1). Negative symbology, e.g., (A1), (V) indicates Pilot Controlled Lighting (PCL).

CATEGORY I APPROACH LIGHTING SYSTEM

(A1)

ALSF-1

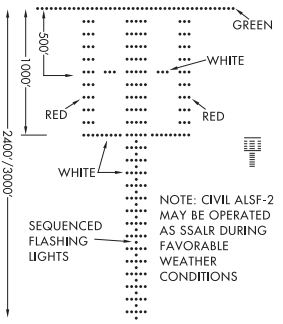


(High Intensity)
LENGTH 2400/3000 FEET

CATEGORY II APPROACH LIGHTING SYSTEM

(A)

ALSF-2

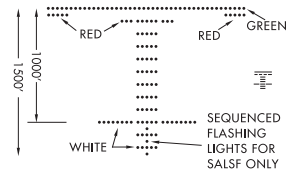


(High Intensity)
LENGTH 2400/3000 FEET

SHORT APPROACH LIGHTING SYSTEM

(A2) (A2)

SALS/SALSF

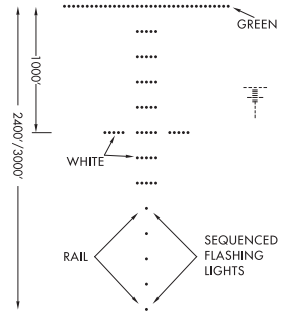


(High Intensity)
LENGTH 1500 FEET

SIMPLIFIED SHORT APPROACH LIGHTING SYSTEM with Runway Alignment Indicator Lights

(A3)

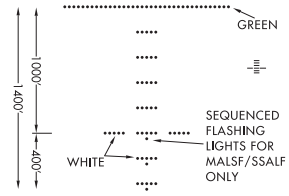
SSALR



(High Intensity)
LENGTH 2400/3000 FEET

MEDIUM INTENSITY (**MALS** and **MALSF**) OR SIMPLIFIED SHORT (**SSALS** and **SSALF**) APPROACH LIGHTING SYSTEMS

(A4) (A4)

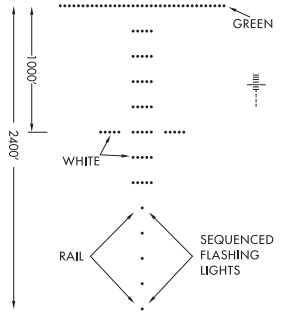


LENGTH 1400 FEET

MEDIUM INTENSITY APPROACH LIGHTING SYSTEM with Runway Alignment Indicator Lights

(A5)

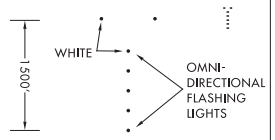
MALSR



LENGTH 2400 FEET

OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM

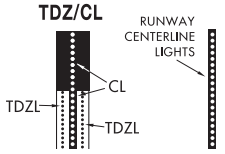
ODALS



LENGTH 1500 FEET

RUNWAY TOUCHDOWN ZONE AND CENTERLINE LIGHTING SYSTEMS

TDZ/CL



AVAILABILITY of TDZ/CL will be shown by NOTE in SKETCH e.g. "TDZ/CL Rwy 15"

LEGEND 22195

LEGEND 22195

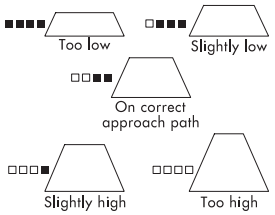
INSTRUMENT APPROACH PROCEDURES (CHARTS)
APPROACH LIGHTING SYSTEM - UNITED STATES

Approach lighting and visual glide slope systems are indicated on the airport sketch by an identifier, (A2), (V) etc.

A dot " ● " portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., (A1). Negative symbology, e.g., (A1), (V) indicates Pilot Controlled Lighting (PCL).

(P) PRECISION APPROACH PATH INDICATOR

PAPI



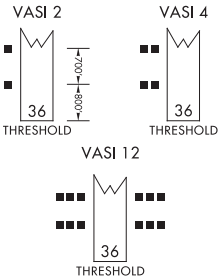
Legend: □ White ■ Red

(V) VISUAL APPROACH SLOPE INDICATOR

VASI

VISUAL APPROACH SLOPE INDICATOR WITH STANDARD THRESHOLD CLEARANCE PROVIDED.

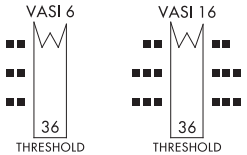
ALL LIGHTS WHITE — — TOO HIGH
FAR LIGHTS RED, NEAR LIGHTS WHITE — ON GLIDE SLOPE
ALL LIGHTS RED — — TOO LOW



(V3) VISUAL APPROACH SLOPE INDICATOR

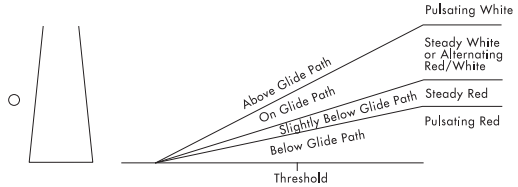
VASI

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



(V2) PULSATING VISUAL APPROACH SLOPE INDICATOR

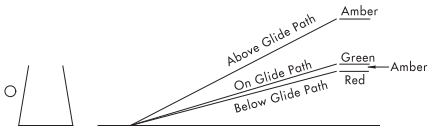
PVASI



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.

(V4) TRI-COLOR VISUAL APPROACH SLOPE INDICATOR

TRCV

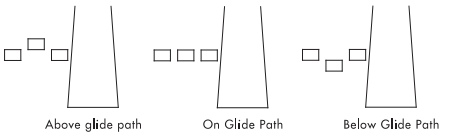


CAUTION: When the aircraft descends from green to red, the pilot may see a dark amber color during the transition from green to red.

(V5)

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 CHANNEL	VHF FREQUENCY	TACAN CHANNEL	VHF FREQUENCY	TACAN CHANNEL	VHF 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

K1

INDEX

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INDEX OF TERMINAL CHARTS AND MINIMUMS

NAME	PROC	SECT PG
AMATA KABUA INTL		
---SEE MAJURO ATOLL,MH		
BABELTHUAP ISLAND,PW		
PALAU INTL(ROR)(PTRO)		
TAKEOFF MINIMUMS		L
ALTERNATE MINIMUMS		M
IAPS	RNAV (GPS) RWY 09	1
	RNAV (GPS) RWY 27	2
	NDB RWY 09	3
AIRPORT DIAGRAM		4
BENJAMIN TAISACAN MANGLONA INTL		
---SEE ROTA ISLAND,CQ		
CHUUK INTL		
---SEE WENO ISLAND,FM		
DANIEL K INOUYE INTL		
---SEE HONOLULU, HI		
ELLISON ONIZUKA KONA INTL AT KEAHOLE		
---SEE KAILUA-KONA, HI		
FRANCISCO C ADA/SAIPAN INTL		
---SEE SAIPAN ISLAND,CQ		
FRANCISCO MANGLONA BORJA/TINIAN INTL		
---SEE TINIAN ISLAND,CQ		
GUAM INTL		
---SEE GUAM,GU		
GUAM,GU		
GUAM INTL(GUM)(PGUM)		
TAKEOFF MINIMUMS		L
ALTERNATE MINIMUMS		M
IAPS	ILS OR LOC RWY 06L	5
	ILS OR LOC RWY 06R	6
	RNAV (RNP) Z RWY 06L	7
	RNAV (RNP) Z RWY 06R	8
	RNAV (RNP) Z RWY 24L	9
	RNAV (RNP) Z RWY 24R	10
	RNAV (GPS) Y RWY 06L	11
	RNAV (GPS) Y RWY 06R	12
	RNAV (GPS) Y RWY 24L	13
	RNAV (GPS) Y RWY 24R	14
	VOR OR TACAN RWY 24R	15
	NDB RWY 24R	16
AIRPORT DIAGRAM		17
HANA, HI		
HANA(HNM)(PHHN)		
TAKEOFF MINIMUMS		L
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TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR takeoff minimums other than standard, are listed below. Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. An entry may also be listed that contains only Takeoff Obstacle Notes. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are textually described below, or published separately as a graphic procedure. If the ODP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned an ODP, SID, or RADAR vector as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the airport, a fix, or a NAVAID in a specified direction, at or above a specified altitude. These procedures are called Visual Climb Over Airport (VCOA). To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when requesting their IFR clearance.

At some locations where an ODP has been established, a diverse vector area (DVA) may be created to allow RADAR vectors to be used in lieu of an ODP. DVA information will state that headings will be as assigned by ATC and climb gradients, when applicable, will be published immediately following the specified departure procedure.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: (1) For aircraft, other than helicopters, having two engines or less – one statute mile visibility. (2) For aircraft having more than two engines – one-half statute mile visibility. (3) For helicopters – one-half statute mile visibility. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) takeoff minima are published below. For military takeoff minima, refer to appropriate service directives.

BABELTHUAP ISLAND, PW

PALAU INTL (ROR) (PTRO)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 31DEC09 (23222) (FAA)

TAKEOFF MINIMUMS:

Rwy 27, 300-1⅛ or std w/min climb of 320' per NM to 500.

DEPARTURE PROCEDURE:

Rwy 27, climb on heading 271° to 600 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 9, trees beginning 19' from DER, 317' right of centerline, up to 26' AGL/188' MSL.
Tree 89' from DER, 271' left of centerline, 178' MSL.
Vegetation, trees beginning 107' from DER, 131' left of centerline, up to 187' MSL.
Tree 390' from DER, 320' right of centerline, 34' AGL/191' MSL.
Rwy 27, trees beginning 23' from DER, 296' right of centerline, up to 17' AGL/180' MSL.
Tree 238' from DER, 382' right of centerline, 184' MSL.
Trees beginning 439' from DER, 372' right of centerline, up to 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

L2

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

23222

GUAM, GU

GUAM INTL (GUM) (PGUM)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 1A 17JUN21 (21168) (FAA)

TAKEOFF MINIMUMS:

Rwy 6L, 400-1¾ or std. w/min. climb of 450' per NM to 800.
Rwy 6R, 400-1¾ or std. w/min. climb of 520' per NM to 900.
Rwy 24L, std. w/min. climb of 280' per NM to 1700.
Rwy 24R, std. w/min. climb of 286' per NM to 1700.

DEPARTURE PROCEDURE:

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

TAKEOFF OBSTACLE NOTES:

Rwy 6L, terrain abeam DER, 472' right of centerline, 307' MSL.
Vegetation 160' from DER, 366' left of centerline, 312' MSL.
Terrain 186' from DER, 304' right of centerline, 313' MSL.
Terrain 196' from DER, 446' right of centerline, 315' MSL.
Terrain 378' from DER, 333' left of centerline, 317' MSL.
Terrain beginning 426' from DER, 374' right of centerline, up to 326' MSL.
Trees beginning 467' from DER, 387' left of centerline, up to 348' MSL.
Terrain beginning 611' from DER, 430' right of centerline, up to 336' MSL.
Trees beginning 712' from DER, 377' left of centerline, up to 371' MSL.
Terrain beginning 768' from DER, 472' right of centerline, up to 344' MSL.
Fence, terrain beginning 885' from DER, 468' right of centerline, up to 358' MSL.
Trees beginning 1052' from DER, 490' left of centerline, up to 374' MSL.
Pole, fence beginning 1074' from DER, 617' right of centerline, up to 12' AGL/360' MSL.
Tree, pole, fence beginning 1194' from DER, 493' right of centerline, up to 385' MSL.
Trees beginning 1233' from DER, 411' left of centerline, up to 376' MSL.
Tree, pole, fence beginning 1328' from DER, 376' right of centerline, up to 390' MSL.
Trees beginning 1435' from DER, 613' left of centerline, up to 388' MSL.
Tree, fence beginning 1524' from DER, 533' right of centerline, up to 395' MSL.
Tree, fence, pole, building, terrain beginning 1570' from DER, 71' right of centerline, up to 397' MSL.
Tree, terrain beginning 1667' from DER, 79' left of centerline, up to 400' MSL.
Tree, terrain beginning 1879' from DER, 73' left of centerline, up to 401' MSL.
Tree, terrain, building, fence beginning 1986' from DER, 68' right of centerline, up to 413' MSL.
Tree, building, fence, pole beginning 2057' from DER, 340' right of centerline, up to 423' MSL.
Trees beginning 2123' from DER, 329' left of centerline, up to 405' MSL.
Trees beginning 2236' from DER, 334' left of centerline, up to 409' MSL.
Tree, building, fence, pole beginning 2306' from DER, 343' right of centerline, up to 431' MSL.
Trees beginning 2479' from DER, 359' left of centerline, up to 414' MSL.
Trees beginning 2702' from DER, 375' left of centerline, up to 419' MSL.
Tree, building, fence, pole beginning 2786' from DER, 367' right of centerline, up to 433' MSL.
Tree 2898' from DER, 1153' right of centerline, 435' MSL.
Tree, building beginning 2918' from DER, 497' right of centerline, up to 437' MSL.
Trees beginning 2920' from DER, 370' left of centerline, up to 427' MSL.
Pole, tree, building, fence, vehicle on road, tank, vegetation, rig beginning 2933' from DER, 2 ' right of centerline, up to 67' AGL/469' MSL.
Tree, vegetation, pole beginning 3137' from DER, 15' left of centerline, up to 434' MSL.
Pole, tree beginning 3771' from DER, 22' left of centerline, up to 86' AGL/436' MSL.
Tree, fence, pole, building beginning 4888' from DER, 1023' right of centerline, up to 471' MSL.
Tree, pole beginning 5042' from DER, 255' right of centerline, up to 481' MSL.
Pole, tree beginning 5206' from DER, 266' right of centerline, up to 34' AGL/516' MSL.
Tree, building beginning 5494' from DER, 378' right of centerline, up to 522' MSL.
Tree, pole beginning 5732' from DER, 1535' right of centerline, up to 555' MSL.
Tree, building beginning 5924' from DER, 1631' right of centerline, up to 559' MSL.
Trees beginning 1 NM from DER, 1820' right of centerline, up to 567' MSL.
Trees beginning 1.1 NM from DER, 697' right of centerline, up to 616' MSL.
Tree 1.4 NM from DER, 1777' right of centerline, 534' MSL.
Rwy 6R, lighting 10' from DER, 160' left of centerline, 1' AGL/303' MSL.
Sign 60' from DER, 280' left of centerline, 3' AGL/304' MSL.
Trees beginning 140' from DER, 460' right of centerline, up to 378' MSL.
Trees beginning 725' from DER, 465' right of centerline, up to 384' MSL.
Tree, pole beginning 952' from DER, 276' right of centerline, up to 390' MSL.
Trees beginning 1080' from DER, 449' right of centerline, up to 407' MSL.
Trees beginning 1279' from DER, 471' right of centerline, up to 410' MSL.
Trees beginning 1472' from DER, 539' right of centerline, up to 411' MSL.
Tree 1637' from DER, 723' right of centerline, 421' MSL.
Tree, fence, pole, building, terrain beginning 1653' from DER, on centerline, up to 423' MSL.
Fence beginning 1885' from DER, 27' left of centerline, up to 9' AGL/358' MSL.
Pole, fence beginning 2074' from DER, 21' left of centerline, up to 12' AGL/360' MSL.
Tree, pole, fence beginning 2194' from DER, 12' left of centerline, up to 385' MSL.
Tree, pole, fence beginning 2328' from DER, 2' left of centerline, up to 390' MSL.
Tree 2524' from DER, 166' left of centerline, 395' MSL.
Tree, fence beginning 2570' from DER, 10' left of centerline, up to 397' MSL.
Building, fence, tree, pole beginning 3076' from DER, 45' right of centerline, up to 20' AGL/426' MSL.
CON'T

L3

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

23222

GUAM, GU (CON'T)

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

Rwy 6R (CON'T), tree 3200' from DER, 1029' left of centerline, 398' MSL.
Building, fence, tree, pole beginning 3208' from DER, 57' right of centerline, up to 29' AGL/435' MSL.
Tree, fence beginning 3214' from DER, 1' left of centerline, up to 405' MSL.
Tree, building beginning 3297' from DER, 135' right of centerline, up to 437' MSL.
Tree 3343' from DER, 1034' left of centerline, 409' MSL.
Pole, building, fence, tree beginning 3360' from DER, 4' right of centerline, up to 76 ' AGL/482' MSL.
Trees beginning 3431' from DER, 220' left of centerline, up to 415' MSL.
Trees beginning 3525' from DER, 60' left of centerline, up to 417' MSL.
Pole, building, tree, fence, vehicle on road, tank beginning 3571' from DER, 19' right of centerline, up to 81' AGL/486' MSL.
Tree 3609' from DER, 339' left of centerline, 421' MSL.
Trees beginning 3616' from DER, 57' left of centerline, up to 425' MSL.
Trees beginning 3920' from DER, 69' left of centerline, up to 427' MSL.
Trees beginning 4039' from DER, 37' left of centerline, up to 432' MSL.
Trees beginning 4137' from DER, 65' left of centerline, up to 434' MSL.
Tree, tank, building, pole, vehicle on road beginning 4403' from DER, 55' right of centerline, up to 487' MSL.
Tree, pole beginning 4427' from DER, 42' left of centerline, up to 446' MSL.
Tree, building beginning 4606' from DER, 292' right of centerline, up to 501' MSL.
Tree, building, pole beginning 4676' from DER, 152' right of centerline, up to 514' MSL.
Tree, pole, building beginning 4868' from DER, 63' right of centerline, up to 534' MSL.
Tree, building, pole beginning 5057' from DER, 647' right of centerline, up to 548' MSL.
Tree, building beginning 5287' from DER, 54' right of centerline, up to 556' MSL.
Tree, pole, building beginning 5502' from DER, 581' right of centerline, up to 569' MSL.
Tree, pole beginning 5680' from DER, 643' right of centerline, up to 611' MSL.
Trees beginning 5814' from DER, 698' right of centerline, up to 636' MSL.
Trees beginning 5965' from DER, 616' right of centerline, up to 660' MSL.
Building, pole, tree beginning 1 NM from DER, 488' right of centerline, up to 89' AGL/700' MSL.
Tree 1.4 NM from DER, 2200' right of centerline, 521' MSL.
Rwy 24L, lighting 10' from DER, 84' right of centerline, 2' AGL/233' MSL.
Lighting 11' from DER, 4' left of centerline, 1' AGL/232' MSL.
Sign 58' from DER, 416' right of centerline, 3' AGL/239' MSL.
Tree 1415' from DER, 365' left of centerline, 269' MSL.
Tree 1510' from DER, 405' left of centerline, 270' MSL.
Tree 1578' from DER, 334' left of centerline, 273' MSL.
Rwy 24R, lighting 8' from DER, 2' right of centerline, 2' AGL/235' MSL.

HANA, HI

HANA (HNM) (PHHN)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 01SEP05 (05244) (FAA)
DEPARTURE PROCEDURE:
Use LINDBERG DEPARTURE.

HILO, HI

HILO INTL (ITO) (PHTO)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 6 22DEC05 (05356) (FAA)
DEPARTURE PROCEDURE:
Use PARIS DEPARTURE.

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 1 26MAY16 (16147) (FAA)
Rwys 3, 8, heading as assigned by ATC.
Rwy 21, heading as assigned by ATC; requires minimum climb of 300' per NM to 1300.
Rwy 26, heading as assigned by ATC; requires minimum climb of 420' per NM to 2800.

HONOLULU, HI

DANIEL K INOUYE INTL (HNL) (PHNL)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 8B 08NOV18 (18312) (FAA)
DEPARTURE PROCEDURE:
Use HONOLULU DEPARTURE.
TAKEOFF OBSTACLE NOTES:
Rwy 4L, multiple lights beginning 630' from DER, 236' left of centerline, 102' right of centerline, up to 84' AGL/ 92' MSL.
Light on building 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.
CON'T

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

23222

HONOLULU, HI (CON'T)

DANIEL K INOUYE INTL (HNL) (PHNL) (CON'T)

Rwy 4R (CON'T), 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 4L/R, heading as assigned by ATC; requires min. climb of 490' per NM to 2100, do not exceed 180K until established on assigned heading.
Rwy 8L, heading as assigned by ATC; requires min. climb of 360' per NM to 1700.
Rwy 8R, heading as assigned by ATC; requires min. climb of 305' per NM to 500.
Rwys 22L/R, heading as assigned by ATC; requires min. climb of 320' per NM to 3700.
Rwy 26L, heading as assigned by ATC; requires min. climb of 360' per NM to 3700.
Rwy 26R, heading as assigned by ATC; requires min. climb of 430' per NM to 4400.

KAHULUI, HI

KAHULUI (OGG) (PHOG)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 7 29MAY14 (14149) (FAA)
TAKEOFF MINIMUMS:
Rwy 23, NA-ATC.
DEPARTURE PROCEDURE:
Rwy 2, climb on a heading 316° CW 052° from DER to 10600 before proceeding on course.
Rwy 5, climb on a heading 312° CW 040° from DER to 10700 before proceeding on course.
Rwy 20, climb on heading 185° from DER to 11000 before proceeding on course.
TAKEOFF OBSTACLE NOTES:
Rwy 2, bush and trees beginning 190' from DER, 363' left of centerline, up to 60' AGL/79' MSL.
Bushes and obstruction light on building beginning 339' from DER, 289' right of centerline, up to 20' AGL/25' MSL.
Rwy 5, tree 2359' from DER, 512' left of centerline, 56' AGL/75' MSL.
Fence 20' from DER, 304' right of centerline, 11' AGL/31' MSL.
Bushes, trees and fence beginning 228' from DER, 300' right of centerline, up to 76' AGL/95' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 1 26MAY16 (16147) (FAA)
Rwys 2, 5, 20, heading as assigned by ATC.

KAILUA-KONA, HI

ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
AMDT 5A 29MAR18 (18088) (FAA)
DEPARTURE PROCEDURE:
Rwy 17, climb on heading 174° to 500 then climbing right turn heading 357° and KOA R-327 to MYNAH INT for assigned route.
Rwy 35, eastbound climb on heading 354° to intercept MUE R-246 for assigned route; northwest bound climb heading 354° to 500 then climbing left turn to assigned route.
TAKEOFF OBSTACLE NOTES:
Rwy 17, obstruction light on AMOM at DER, 350' right of centerline, 25' AGL/62' MSL.
Rwy 35, tree 1606' from DER, 7211' right of centerline, 15' AGL/94' MSL.

DIVERSE VECTOR AREA (RADAR VECTORS)
AMDT 1 15OCT15 (15288) (FAA)
Rwys 17, 35, heading as assigned by ATC.

KALAUPAPA, HI

KALAUPAPA (LUP) (PHLU)
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES
ORIG 10MAR11 (11069) (FAA)
DEPARTURE PROCEDURE:
Use KALAUPAPA ONE DEPARTURE.

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

23222

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.

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.

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

23222

LANAI CITY, HI

LANAI (LNY) (PHNY)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 5 27AUG09 (09239) (FAA)

TAKEOFF MINIMUMS:

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

DEPARTURE PROCEDURE:

Rwy 3, climb heading 033° to 1720 before turning left. Climb heading 300° or 180° to intercept route or airway, then continue as cleared. Maintain maximum 210 kts until turn is completed or for climb in visual conditions cross LNY VORTAC eastbound at or above 3700.

Rwy 21, climb heading 213° to assigned altitude. Eastbound - climb westbound to cross LNY VORTAC eastbound at or above 2700 and climb as cleared. Westbound - climb direct LNY VORTAC then via assigned route.

TAKEOFF OBSTACLE NOTES:

Rwy 3, multiple poles, trees, and terrain beginning 2108' from DER, 1011' left of centerline, up to 200' AGL/2202' MSL.

Rwy 21, lighted windsock 8' from DER, 191' right of centerline, 30' AGL/1323' MSL.

LIHUE, HI

LIHUE (LIH) (PHLI)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 9 15JUN23 (23166) (FAA)

DEPARTURE PROCEDURE:

Use KAUAI DEPARTURE.

TAKEOFF 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, 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.

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

23222

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.

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.
Tree 1.2 NM from DER, 1175' left of centerline, 62' AGL/203' MSL.
CAUTION: **Rwy 27,** ships with maximum height of 150' MSL may traverse Pohnpei channel 400' off DER, closing airport at times.

ROTA ISLAND, CQ

BENJAMIN 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.

L8

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

23222

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.

WENO ISLAND, FM

CHUUK INTL (TKK) (PTKK)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 11FEB10 (10042) (FAA)

DEPARTURE PROCEDURE:

Rwy 4, climb heading 041° to 1100 before proceeding on course.
Rwy 22, climb heading 221° to 1500 before proceeding on course.

TAKEOFF OBSTACLE NOTES:

Rwy 4, bush 205' from DER, 203' right of centerline, 7' AGL/17' MSL.
Rwy 22, bush 5' from DER, 241' right of centerline, 14' AGL/24' MSL.
Bush 221' from DER, 85' right of centerline, 7' AGL/17' MSL.
CAUTION: Ships with superstructure to 150' traverse channels west of runway 4/22.

YAP ISLAND, FM

YAP INTL (T11) (PTYA)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 2 08DEC94 (94342) (FAA)

DEPARTURE PROCEDURE:

Rwy 7, climbing right turn to 1500 via 090° bearing from YP NDB/DME, then climb on course.
Rwy 25, climb to 500, then climb on course.

M1

ALTERNATE MINS

23222

INSTRUCTION APPROACH PROCEDURE CHARTS

IFR ALTERNATE AIRPORT MINIMUMS

Pilots must review the IFR Alternate Minimums Notes to determine alternate airport suitability. ANA 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 ANA 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	**600-2**	**800-2**
ANon-Standard or restrictions	As indicated below	As indicated below
Helicopters	For the selected approach: Ceiling: 200' above published ceiling Visibility: the greater of 1 SM visibility or the published visibility	
US Military (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**[1]
RNAV (GPS) Rwy 9
RNAV (GPS) Rwy 27

NA except standard for operators with approved weather reporting service.

[1]Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.

GUAM, GU

GUAM
INTL (GUM) (PGUM)..... **ILS or LOC Rwy 6L**[1]
ILS or LOC Rwy 6R[1]
RNAV (GPS) Y Rwy 6L[2]
RNAV (GPS) Y Rwy 6R[2]
RNAV (GPS) Y Rwy 24L[3]
RNAV (RNP) Z Rwy 24L[4]
RNAV (RNP) Z Rwy 24R[5]
VOR or TACAN Rwy 24R[6]

[1]LOC, Categories A, B, 1200-2; Categories C, D, 1200-3.
[2]Category D, 900-2¾.
[3]Categories A, B, 900-2; Category C, 900-2¾; Category D, 900-3.
[4]Categories A, B, C, D, 900-3.
[5]Categories A, B, C, D, 800-2½.
[6]Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.

NAME — ALTERNATE MINIMUMS

HANA, HI

HANA (HNM) (PHHN)..... **RNAV (GPS) Rwy 26**
Category A, 900-2; Category B, 1100-2.

HILO, HI

HILO INTL (ITO) (PHTO)..... **ILS or LOC Rwy 26**[12]
RNAV (GPS) Rwy 21[3]
RNAV (GPS) Rwy 26[3]
VOR-B[3]
VOR/DME or TACAN Rwy 26[3]
VOR/DME or TACAN-A[3]

[1]NA when control tower closed.
[2]LOC, Category C, 900-2¼; Category D, 1300-3.
[3]Category C, 900-2¼; Category D, 1300-3.

ALTERNATE MINS

PAC

23222

M1

M2

ALTERNATE MINS

23222

NAME	ALTERNATE MINIMUMS
HONOLULU, HI	
DANIEL K INOUYE INTL (HNL) (PHNL)	**LOC Rwy 4R**[1] **LOC Rwy 8L**[1] **RNAV (GPS) Rwy 4L**[2] **RNAV (GPS) Rwy 8R**[3] **RNAV (GPS) Y Rwy 4R**[4] **RNAV (GPS) Y Rwy 8L**[5] **VOR or TACAN Rwy 4R**[6] **VOR or TACAN-A**[1] **VOR or TACAN-B**[1]
[1]Category C, 800-2¼; Category D, 1400-3. [2]Category C, 900-2¼; Category D, 1400-3; Category E, 2000-3. [3]Category C, 900-2¼; Category D, 1400-3; Category E, 2100-3. [4]Category D, 1300-3. [5]Category C, 900-2¼; Category D, 1300-3. [6]Category C, 900-2¼; Category D, 1400-3.	
KAHULUI, HI	
KAHULUI (OGG) (PHOG)	**ILS Y or LOC Y Rwy 2**[12] **ILS Z or LOC Z Rwy 2**[12] **NDB Rwy 2**[13] **RNAV (GPS) Rwy 20**[4] **RNAV (GPS) Rwy 23**[5] **RNAV (GPS) Y Rwy 2**[46] **VOR Y Rwy 20**[4] **VOR Z or TACAN Rwy 20**[4]
[1]NA when control tower closed. [2]LOC, Category D, 1100-3; Category E, 1700-3. [3]Category C, 800-2½; Category D, 1200-3. [4]Category D, 1100-3. [5]Category D, 1200-3. [6]NA when local weather not available.	
KAILUA/KONA, HI	
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)	**ILS or LOC Rwy 17**[1] **LOC BC Rwy 35**[2] **RNAV (GPS) Rwy 35**[2] **RNAV (GPS) Y Rwy 17**[2] **VOR or TACAN Rwy 17**[2] **VOR or TACAN Rwy 35**[2]
[1]NA when control tower closed. [2]NA when local weather not available.	
KAPOLEI, OAHU ISLAND, HI	
KALAELOA (JOHN RODGERS FLD) (JRF) (PHJR)	**NDB Rwy 4R**[1] **RNAV (GPS) Rwy 4R**[2]
[1]Category C, 800-2¼; Category D, 800-2½. [2]NA when local weather not available.	
KAUNAKAKAI, HI	
MOLOKAI (MKK) (PHMK)	**RNAV (GPS)-B**[12] **VOR or TACAN-A**[3]
[1]NA when local weather not available. [2]Category C, 1200-3; Category D, 1500-3. [3]Categories A, B, 1500-2; Categories C, D, 1500-3.	
KOSRAE, FM	
KOSRAE (TTK) (PTSA)	**RNAV (GPS) Rwy 5**[1] **RNAV (GPS) Rwy 23**[2]
[1]NA except standard for operators with approved weather reporting service. [2]NA except categories A,B, standard, Category C, 800-2¼, Category D 800-2½, for operators with approved weather reporting service.	
LANAI CITY, HI	
LANAI (LNY) (PHNY)	**RNAV (GPS) Rwy 3**[12] **VOR or TACAN or GPS-A**[3]
[1]NA when local weather not available. [2]Category C, 900-2½. [3]NA when local weather not received except for operators with approved weather reporting service.	
LIHUE, HI	
LIHUE (LIH) (PHLI)	**ILS or LOC Rwy 35**[1] **RNAV (GPS) Rwy 17**[23] **RNAV (GPS) Y Rwy 21**[23] **RNAV (GPS) Y Rwy 35**[4] **RNAV (RNP) Z Rwy 21**[5] **VOR or TACAN Rwy 21**[2]
[1]NA when control tower closed. [2]NA when local weather not available. [3]Categories C, D, 800-2½. [4]Category C, 800-2¼; Category D, 800-2½. [5]RNP 0.30, Categories A, B, C, D, 1000-4. [6]Category B, 900-2; Category C, 1000-2¾; Category D, 1000-3.	
MIDWAY ATOLL, QM	
HENDERSON FLD (MDY) (PMDY)	**NDB Rwy 6** **NDB Rwy 24** **RNAV (GPS) Rwy 6** **RNAV (GPS) Rwy 24**
NA except standard for operators with approved weather reporting service.	
PAGO PAGO, AS	
PAGO PAGO INTL (PPG) (NSTU)	**ILS or LOC Rwy 5**[1] **RNAV (GPS) Rwy 5**[2] **RNAV (GPS) Rwy 23**[2] **VOR or TACAN-B**[2]
[1]ILS, Categories A, B, C, D, 900-2; LOC, Category C, 800-2½; Category D, 900-2¾. [2]Category C, 800-2¼; Category D, 900-2¾.	
POHNPEI ISLAND, FM	
POHNPEI INTL (PNI) (PTPN)	**NDB-A**[1] **RNAV (GPS) Rwy 27**[2] **RNAV (GPS) X Rwy 9**[1] **RNAV (RNP) Y Rwy 9**[3]
[1]Categories A, B, 1000-2; Categories C, D, 1000-3. [2]Category D, 800-2¼. [3]Categories A, B, C, D, 1000-4.	

ALTERNATE MINS

PAC

23222 M2

ALTERNATE MINS

23222

NAME	ALTERNATE MINIMUMS

ROTA ISLAND, CQ

BENJAMIN TAISACAN MANGLONA INTL (GRO) (PGRO)…….....…..**RNAV (GPS) Rwy 9**
RNAV (GPS) Rwy 27
NDB Rwy 9[1]
NDB Rwy 27

NA except standard for operators with approved weather reporting service.
[1]Categories A, B, 1200-2; Categories C, D, 1200-3.

SAIPAN ISLAND, CQ

FRANCISCO C ADA/
SAIPAN INTL (GSN) (PGSN)…..……..**NDB Y Rwy 7**
Category D, 800-2¼.

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 (TKK) (PTKK)....……..**NDB Rwy 4**[1]
NDB Rwy 22[23]
RNAV (GPS) Rwy 4[24]
RNAV (GPS) Rwy 22[25]

[1]NA except for operators with approved weather reporting service. Categories A, B, C, D, 800-2½.
[2]NA except standard for operators with approved weather reporting service.
[3]Categories C, D, 800-2½.
[4]Categories A, B, C, D, 800-3.
[5]Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.

YAP ISLAND, FM

YAP INTL (T11) (PTYA)…..……....**NDB Rwy 7**[1]
NDB Rwy 25[2]
NDB/DME Rwy 25[2]

[1]Category D, 800-2¼;
[2]Categories A, B, 1000-2; Categories C, D, 1000-3.

N1

RADAR MINS

03275

RADAR INSTRUMENT APPROACH MINIMUMS

THERE ARE NO RADAR PROCEDURES
FOR PACIFIC

RADAR INSTRUMENT APPROACH MINIMUMS
RADAR MINS
03275
N1

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	08L-26R	3,700 feet
	04R	08L-26R	6,250 feet
	08L	04L-22R	9,300 feet

17117

23222

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*
HONOLULU, HI		
DANIEL K INOUYE INTL (HNL) (PHNL)	HS 1	Rwy 04L and Rwy 04R.
	HS 2	Aircraft ldg Rwy 04R and exiting left onto Twy K, sometimes fail to hold short of Rwy 04L-22R and Rwy 08L-26R. When holding short, ATC is aware the aircraft tail is encroaching the ldg rwy.
	HS 3	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.
	HS 4	Pilot confusion may be caused by the convergence of Twy A, Twy V, Twy T, Twy J, and Twy M, in close proximity to Rwy 08L.
	HS 5	Minimal distance between rwy hold short lines between Rwy 04L-22R/Rwy 04R-22L.
KAHULUI, HI		
KAHULUI (OGG) (PHOG)	HS 1	Rwy 05, Twy A, Twy F, and Twy G.
	HS 2	Rwy 02-20, Twy E and the ramp.
	HS 3	Twy A, Rwy 05-23
KAILUA/KONA, HI		
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)	HS 1	Extensive helicopter operations on Twy A abeam ramp K.
	HS 2	Extensive helicopter operations on Twy A south of Twy C.
KAUNAKAKAI, HI		
MOLOKAI (MKK)(PHMK)	HS 1	Area not visible from control tower.

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

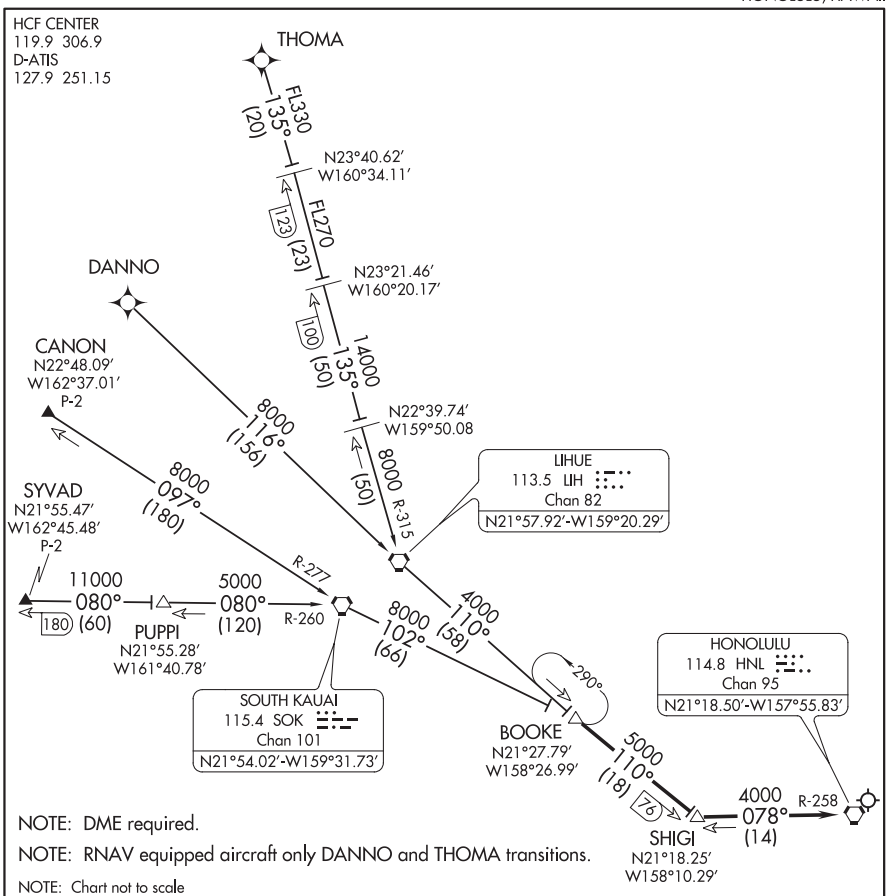
23222

(BOOKE.BOOKE8) 21112

BOOKE EIGHT ARRIVAL

AL-754 (FAA)

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



NOTE: DME required.

NOTE: RNAV equipped aircraft only DANNO and THOMA transitions.

NOTE: Chart not to scale

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

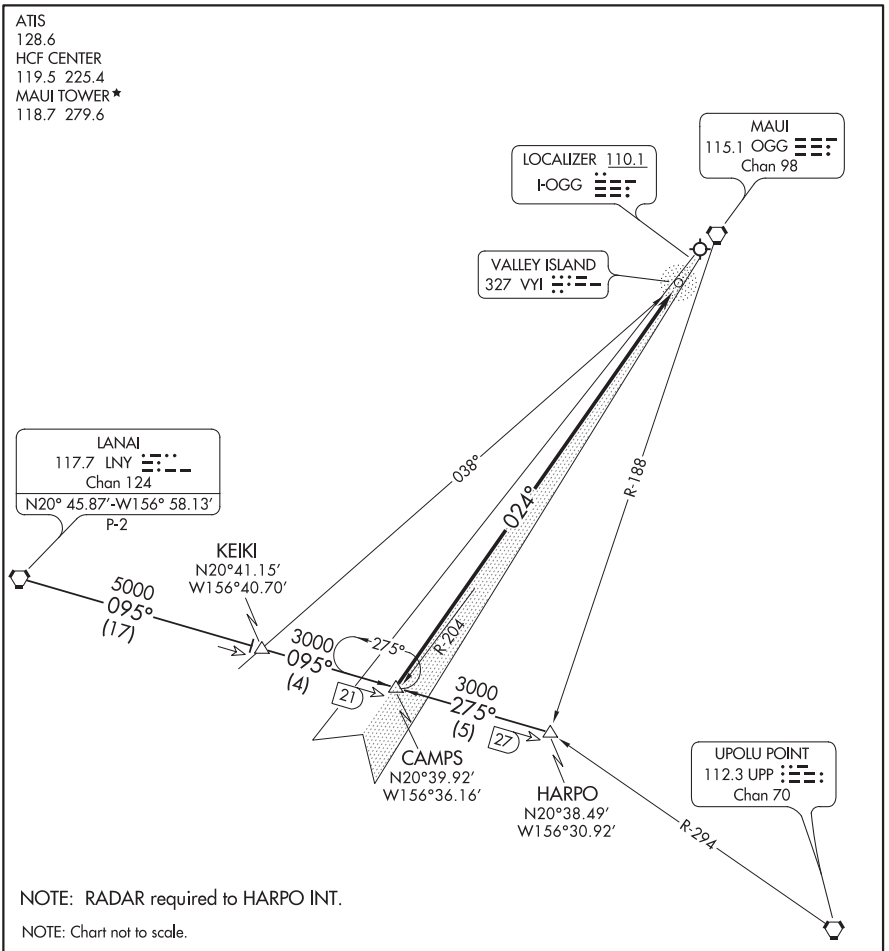
HONOLULU, HAWAII
DANIEL K INOUYE INTL (HNL) (PHNL)

(CAMPS.CAMPS3) 16035

CAMPS THREE ARRIVAL

ST-762 (FAA)

KAHULUI (OGG)(PHOG)
KAHULUI, HAWAII



ARRIVAL ROUTE DESCRIPTION

HARPO TRANSITION (HARPO.CAMPS3): From over HARPO INT via LNY R-095 to CAMPS INT. Thence . . . .

LANAI TRANSITION (LNY.CAMPS3): From over LNY VORTAC via KEIKI INT and LNY R-095 to CAMPS INT. Thence . . . .

. . . . From over CAMPS INT on I-OGG localizer course to Kahului Airport.

LOST COMMUNICATIONS:

At CAMPS INT, proceed with the ILS RWY 2 approach.

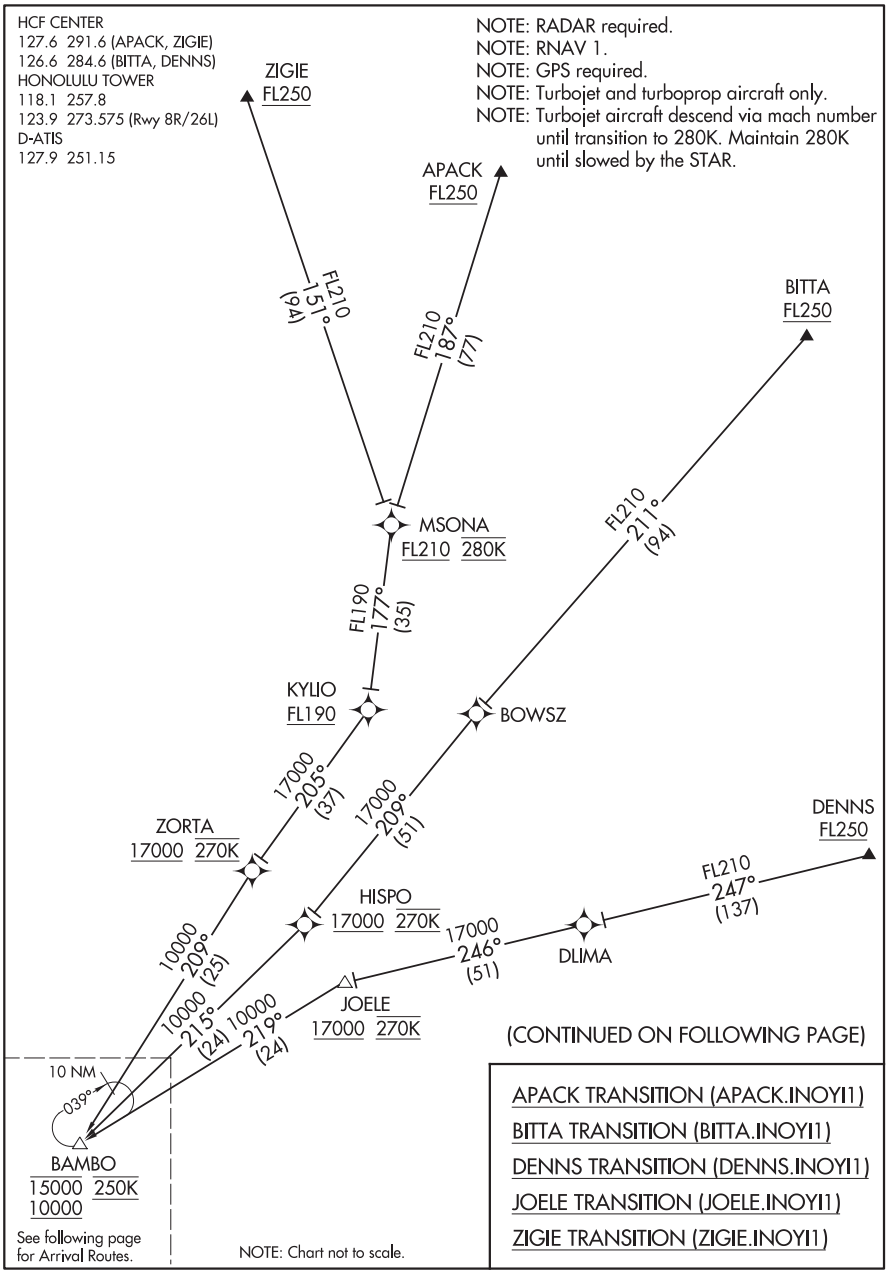
CAMPS THREE ARRIVAL
(CAMPS.CAMPS3) 25AUG11

KAHULUI, HAWAII
KAHULUI (OGG)(PHOG)

(BAMBO.INOYI1) 20030 AL-754 (FAA)

INOYI ONE ARRIVAL (RNAV) Transition Routes

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

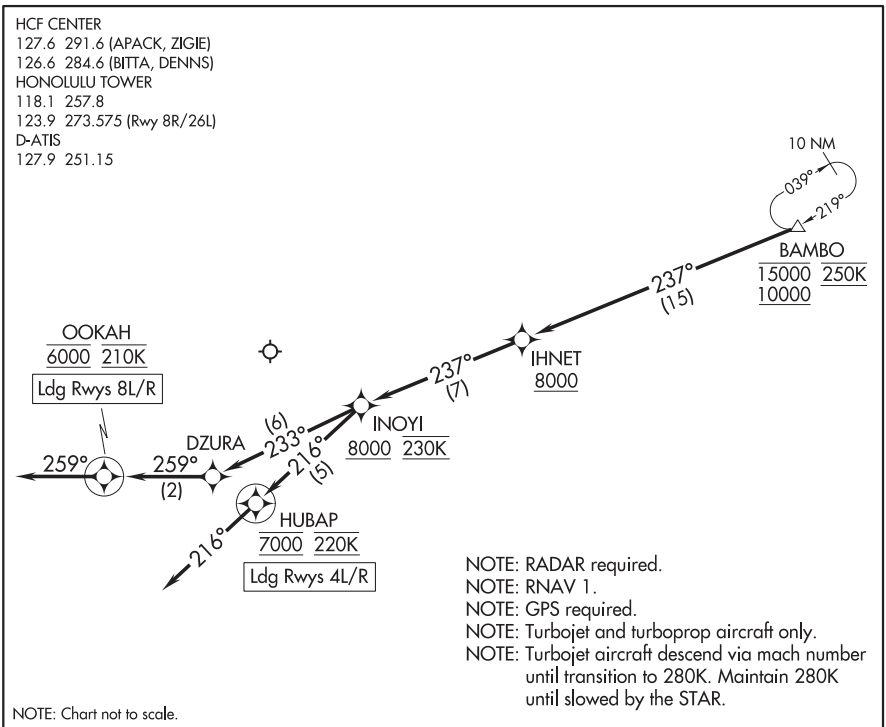


INOYI ONE ARRIVAL (RNAV) Transition Routes
HONOLULU, HAWAII
(BAMBO.INOYI1) 30JAN20
DANIEL K INOUYE INTL (HNL) (PHNL)

(BAMBO.INOYI1) 20030 AL-754 (FAA)

INOYI ONE ARRIVAL (RNAV) Arrival Routes

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



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

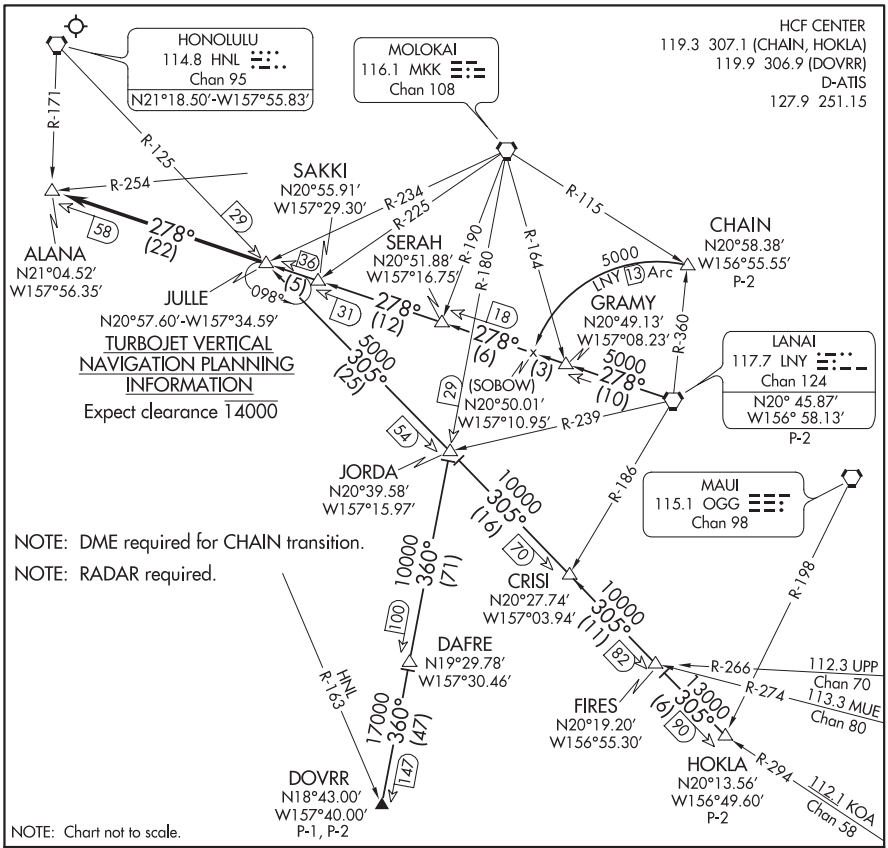
HONOLULU, HAWAII
DANIEL K INOUYE INTL (HNL) (PHNL)

(JULLE.JULLE5) 17117

JULLE FIVE ARRIVAL

AL-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

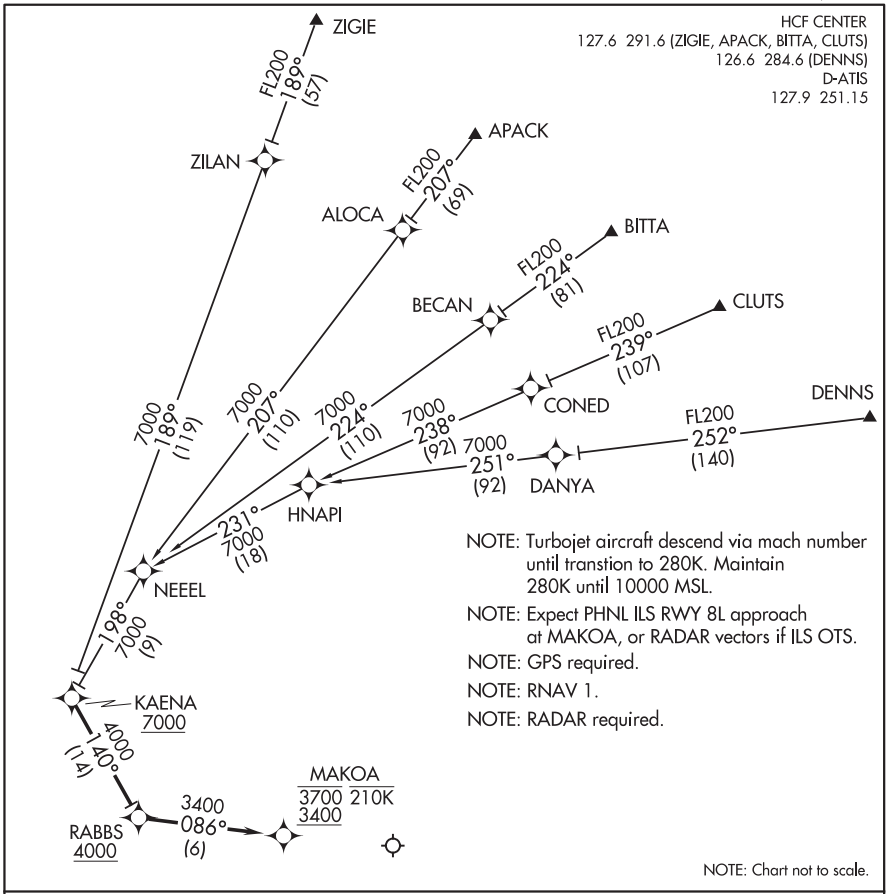
HONOLULU, HAWAII
DANIEL K INOUYE INTL (HNL) (PHNL)

(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.

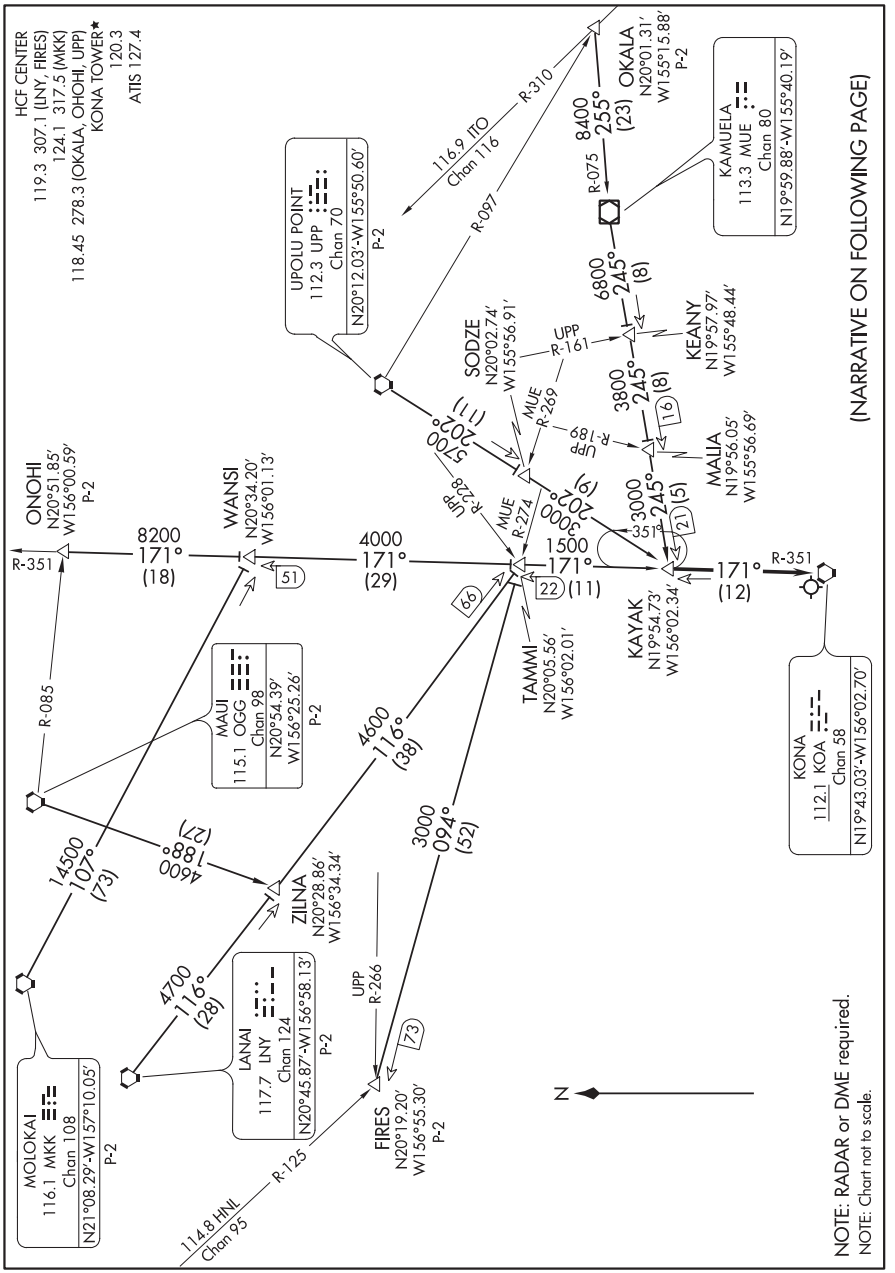
KAENA TWO ARRIVAL (RNAV)
(KAENA.KAENA2) 20OCT11

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

(KAYAK.KAYAK6) 20254

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)

(KAYAK.KAYAK6) 17341
KAYAK SIX ARRIVAL

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

ARRIVAL ROUTE DESCRIPTION

FIRES TRANSITION (FIRES.KAYAK6): From over FIRES on MUE R-274 to TAMMI , then on KOA R-351 to KAYAK . Thence. . . .
LANAI TRANSITION (LNY.KAYAK6): From over LNY VORTAC on LNY R-116 to TAMMI , then on KOA R-351 to KAYAK . Thence. . . .
MAUI TRANSITION (OGG.KAYAK6): From over OGG VORTAC on OGG R-188 to ZILNA, then on LNY R-116 to TAMMI , then on KOA R-351 to KAYAK . Thence. . . .
MOLOKAI TRANSITION (MKK.KAYAK6): From over MKK VORTAC on MKK R-107 and KOA R-351 to TAMMI , then on KOA R-351 to KAYAK . Thence. . . .
OKALA TRANSITION (OKALA.KAYAK6): From over OKALA on MUE VOR/DME R-075 to MUE VOR/DME, then on MUE R-245 to KAYAK . Thence. . . .
ONOHI TRANSITION (ONOHI.KAYAK6): From over ONOHI on KOA R-351 to KAYAK. Thence. . . .
UPOLU POINT TRANSITION (UPP.KAYAK6): From over UPP VORTAC on UPP R-202 to KAYAK . Thence. . . .

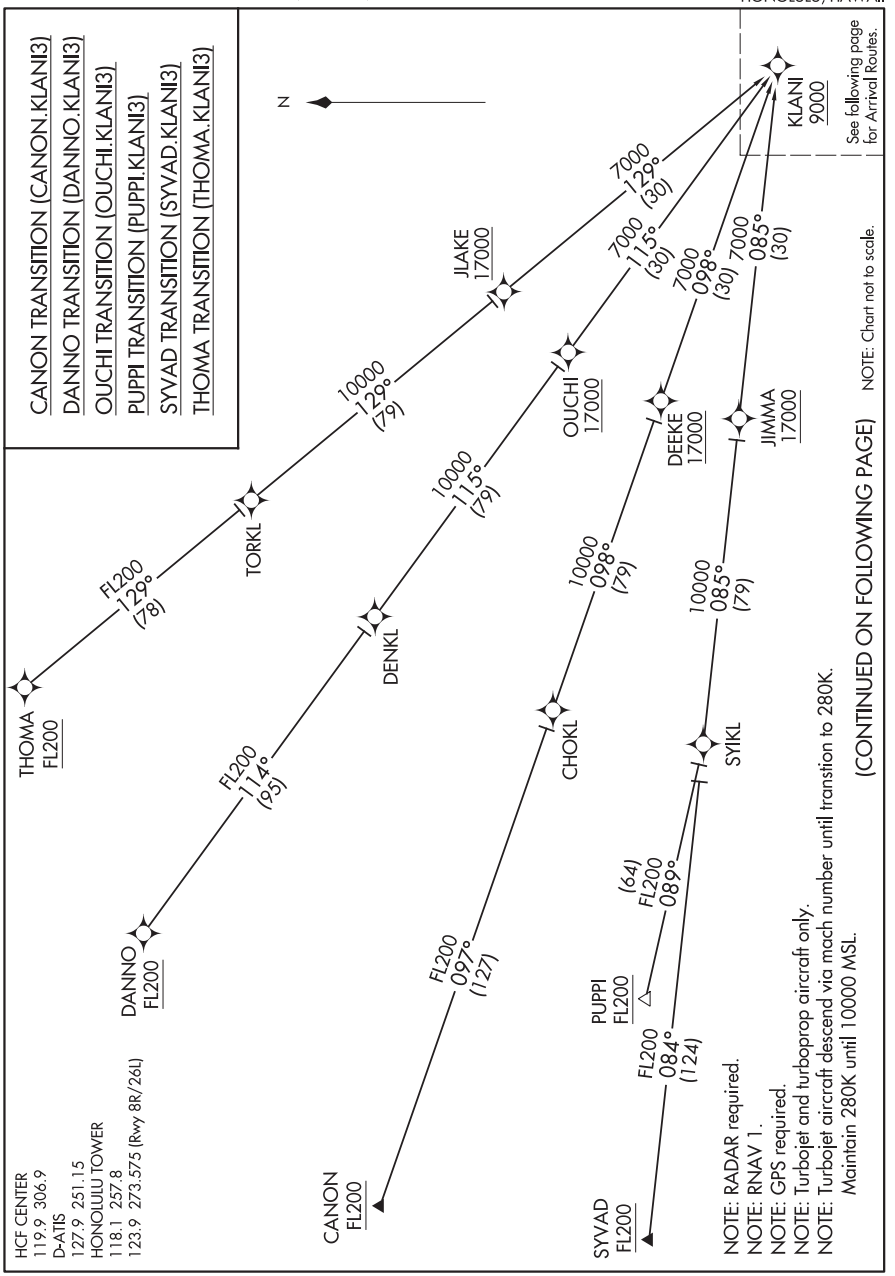
. . . .From over KAYAK on KOA R-351 to KOA VORTAC. Expect RADAR vectors.

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

(KLANI.KLANI3) 20030 AL-754 (FAA) DANIEL K INOUYE INTL (HNL) (PHNL)

KLANI THREE ARRIVAL (RNAV) Transition Routes

HONOLULU, HAWAII

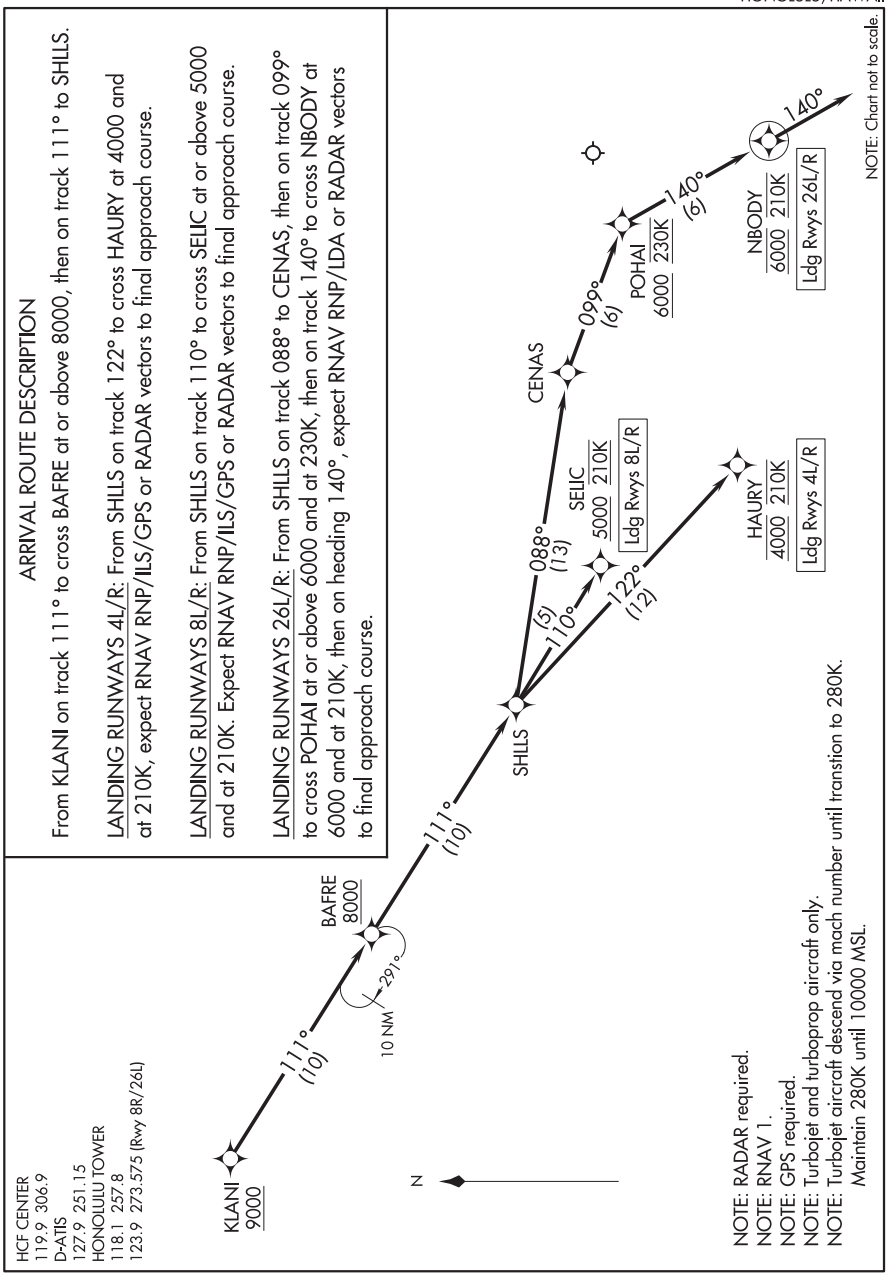


KLANI THREE ARRIVAL (RNAV) Transition Routes

HONOLULU, HAWAII

(KLANI.KLANI3) 30JAN20 DANIEL K INOUYE INTL (HNL) (PHNL)

(KLANI.KLANI3) 20030
AL-754 (FAA)
KLANI THREE ARRIVAL (RNAV) Arrival Routes
DANIEL K INOUYE INTL (HNL) (PHNL)
HONOLULU, HAWAII



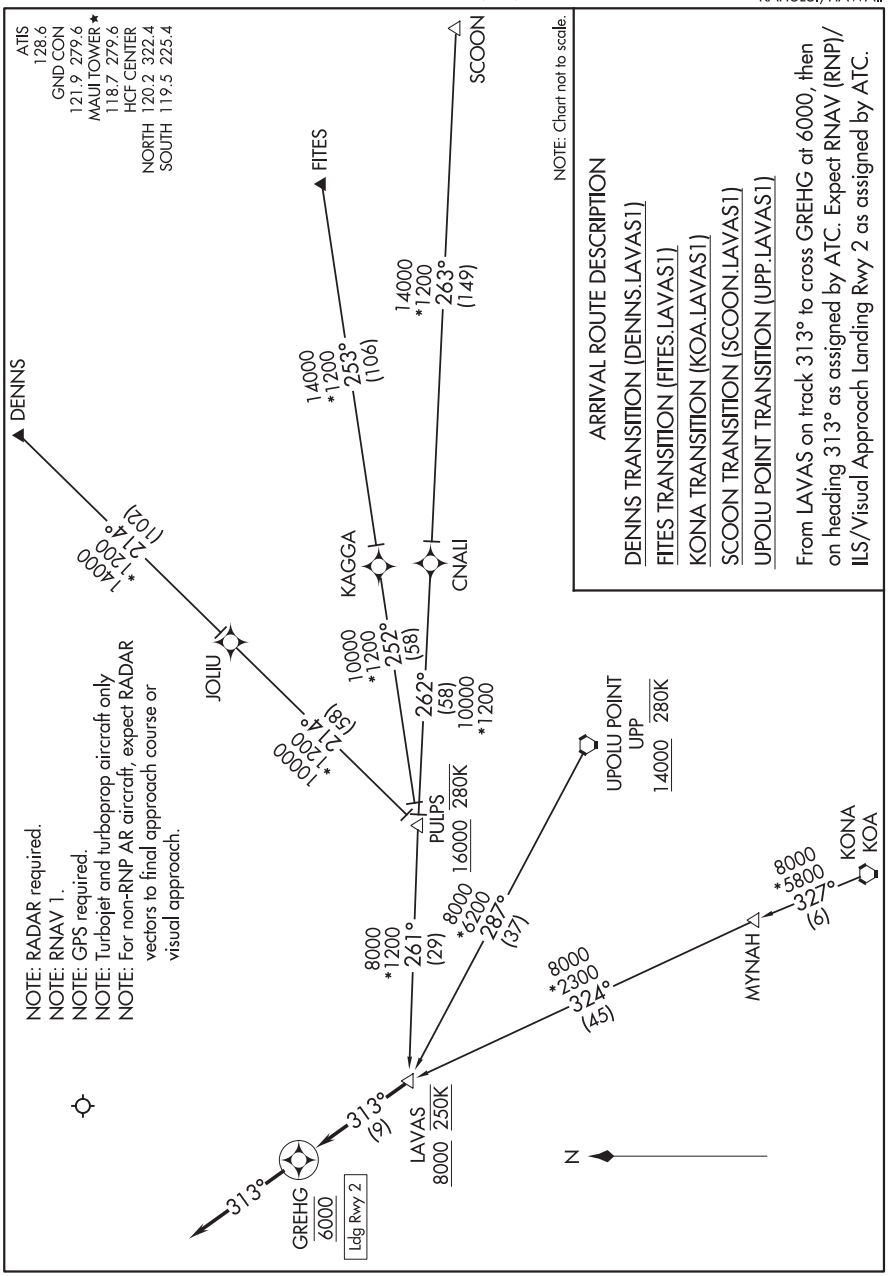
KLANI THREE ARRIVAL (RNAV) Arrival Routes
HONOLULU, HAWAII
(KLANI.KLANI3) 30JAN20
DANIEL K INOUYE INTL (HNL) (PHNL)

(LAVAS.LAVAS1) 19171

LAVAS ONE ARRIVAL (RNAV)

AL-762 (FAA)

KAHULUI (OGG) (PHOG)
KAHULUI, HAWAII



LAVAS ONE ARRIVAL (RNAV)

(LAVAS.LAVAS1) 20JUN19

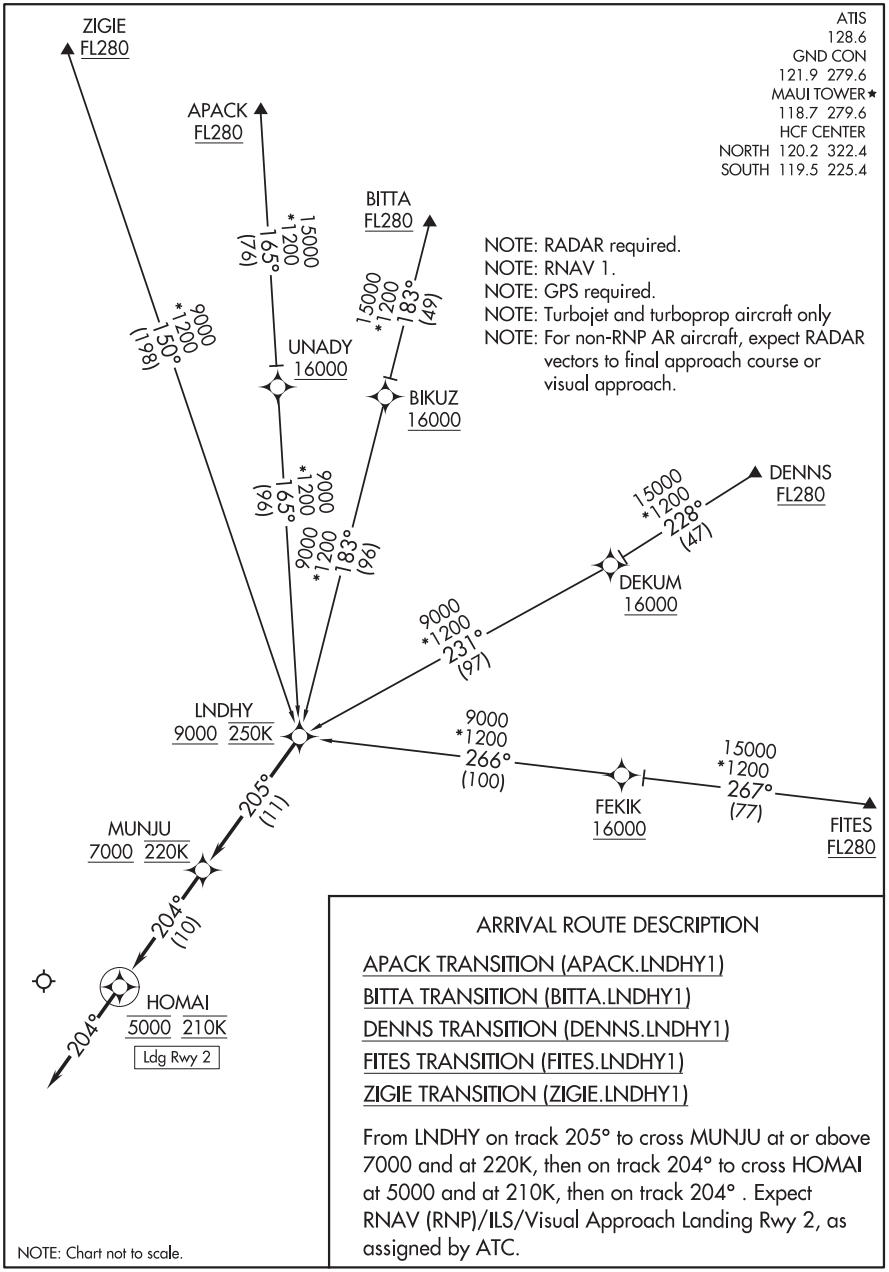
KAHULUI, HAWAII
KAHULUI (OGG) (PHOG)

(LNDHY.LNDHY1) 19171

LNDHY ONE ARRIVAL (RNAV)

AL-762 (FAA)

KAHULUI (OGG) (PHOG)
KAHULUI, HAWAII



NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

APACK TRANSITION (APACK.LNDHY1)
BITTA TRANSITION (BITTA.LNDHY1)
DENNS TRANSITION (DENNS.LNDHY1)
FITES TRANSITION (FITES.LNDHY1)
ZIGIE TRANSITION (ZIGIE.LNDHY1)

From LNDHY on track 205° to cross MUNJU at or above 7000 and at 220K, then on track 204° to cross HOMAI at 5000 and at 210K, then on track 204° . Expect RNAV (RNP)/ILS/Visual Approach Landing Rwy 2, as assigned by ATC.

LNDHY ONE ARRIVAL (RNAV)

(LNDHY.LNDHY1) 20JUN19

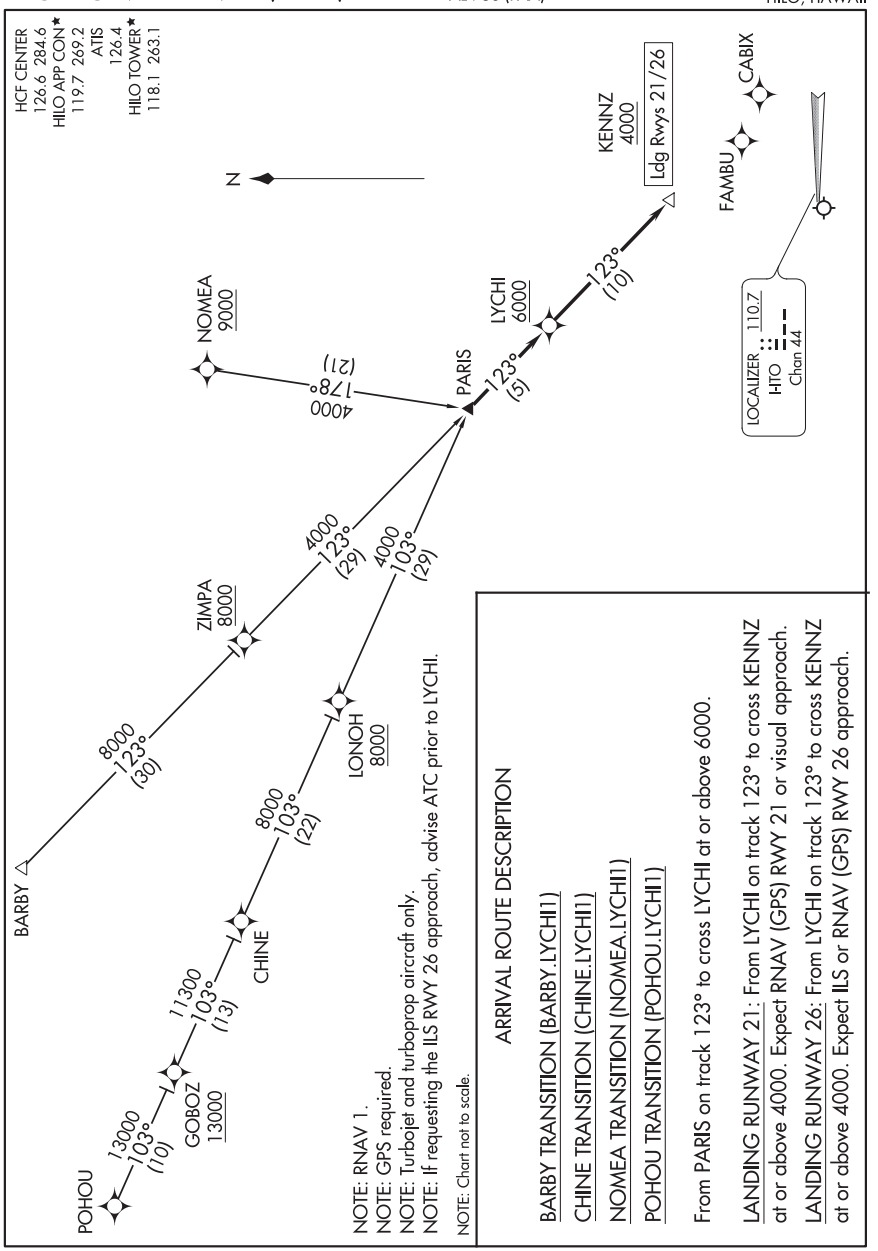
KAHULUI, HAWAII
KAHULUI (OGG) (PHOG)

(PARIS.LYCHI1) 21056

LYCHI ONE ARRIVAL (RNAV)

AL-756 (FAA)

HILO INTL (ITO)(PHTO)
HILO, HAWAII



ARRIVAL ROUTE DESCRIPTION

BARBY TRANSITION (BARBY.LYCHI1)

CHINE TRANSITION (CHINE.LYCHI1)

NOMEA TRANSITION (NOMEA.LYCHI1)

POHOU TRANSITION (POHOU.LYCHI1)

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

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

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

LYCHI ONE ARRIVAL (RNAV)
(PARIS.LYCHI1) 25FEB21

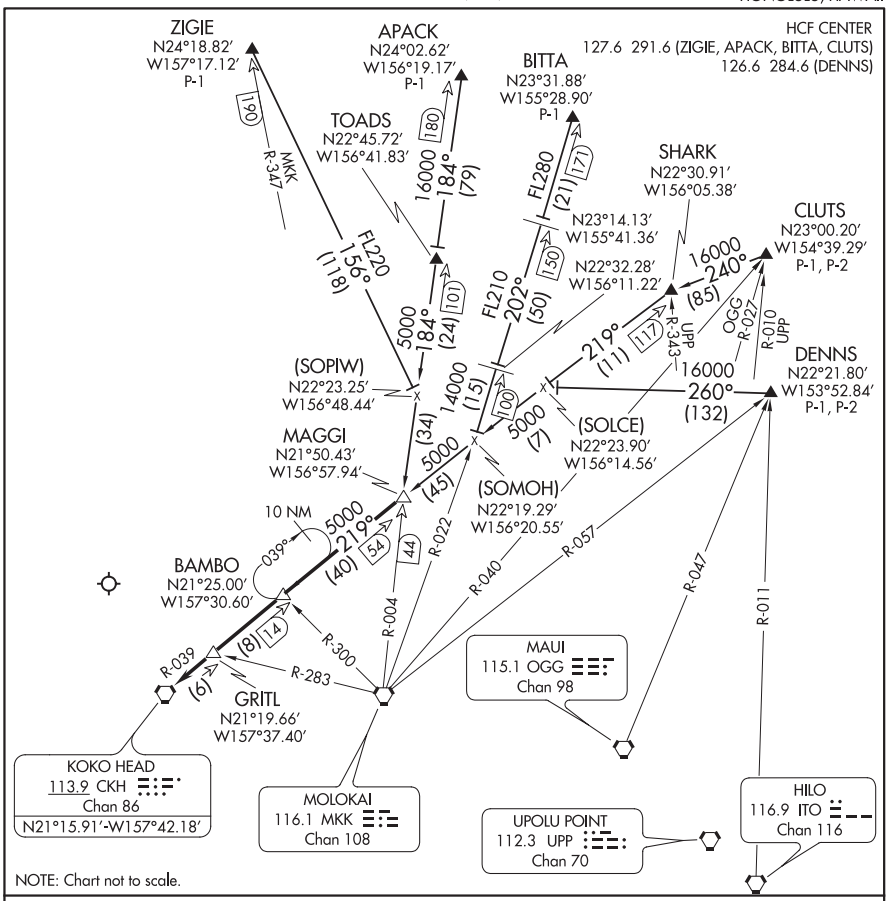
HILO, HAWAII
HILO INTL (ITO)(PHTO)

(MAGGI.MAGGI3) 21056

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

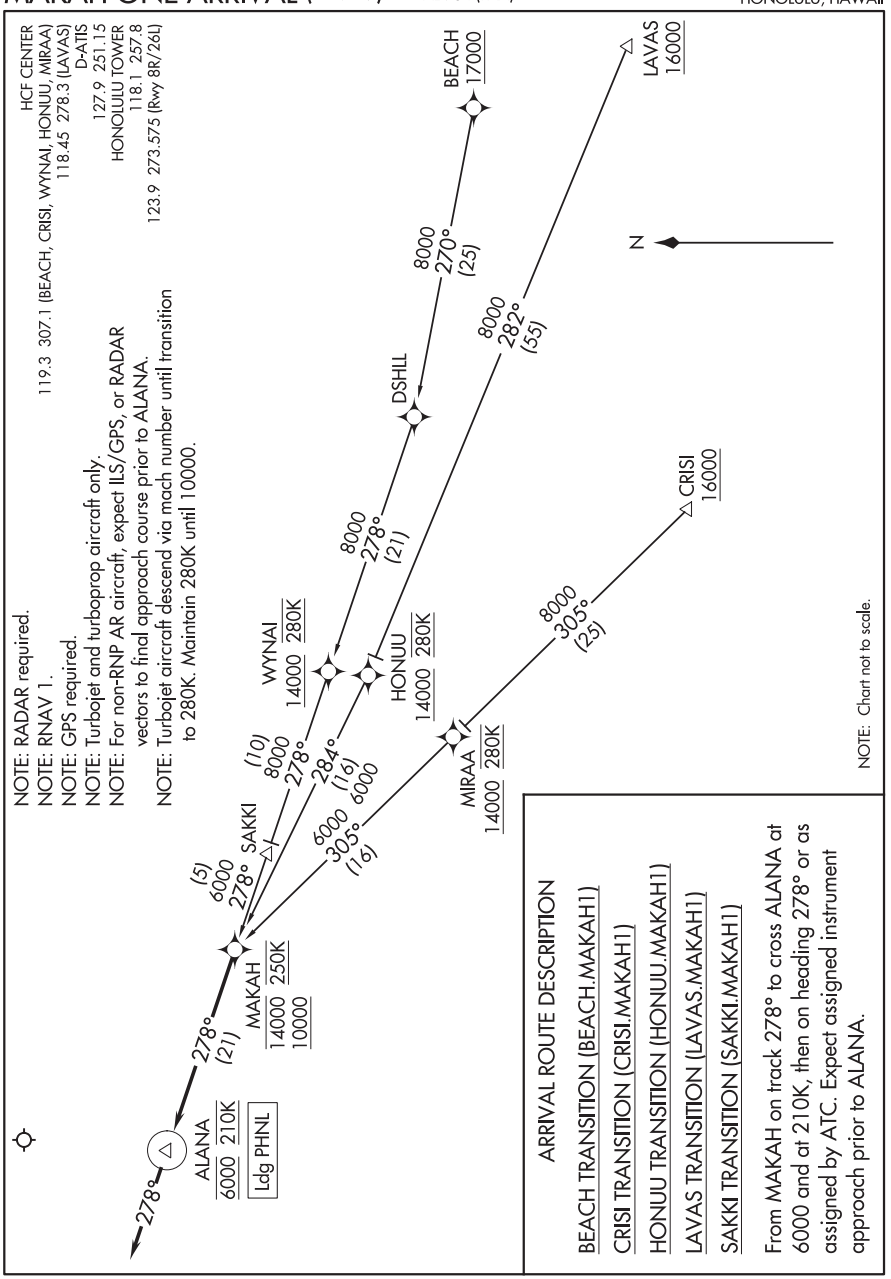
HONOLULU, HAWAII
DANIEL K INOUYE INTL (HNL) (PHNL)

(MAKAH.MAKAH1) 21112

MAKAH ONE ARRIVAL (RNAV)

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

AL-754 (FAA)



MAKAH ONE ARRIVAL (RNAV)
(MAKAH.MAKAH1) 30JAN20

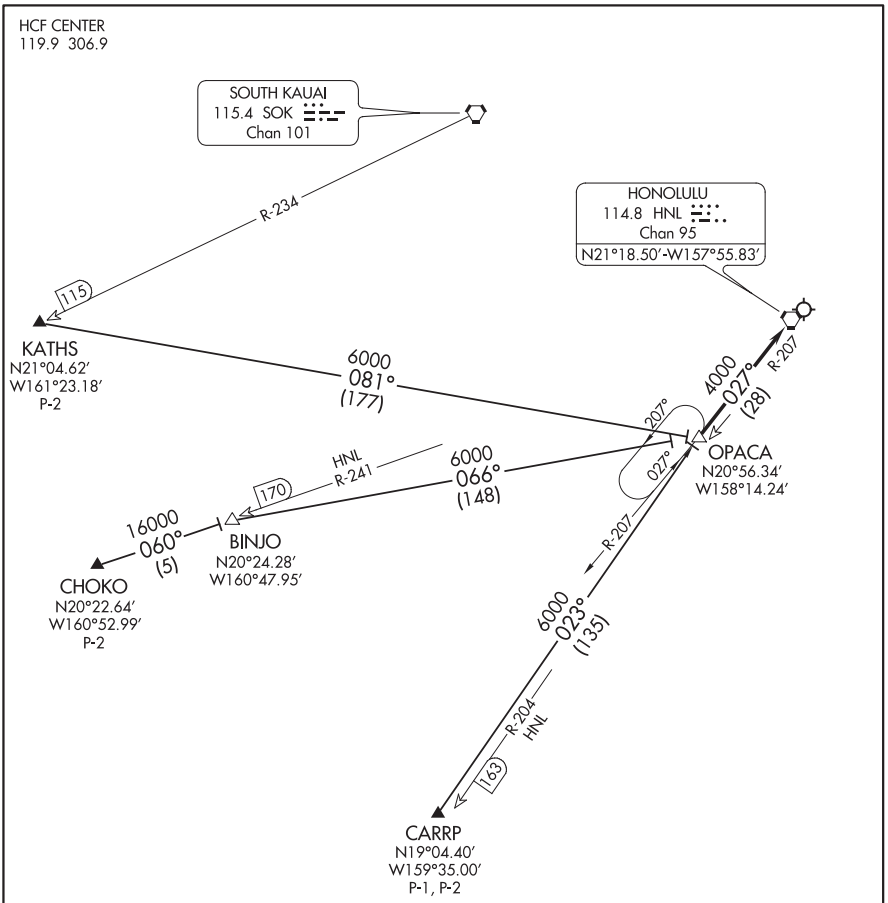
DANIEL K INOUYE INTL (HNL) (PHNL)
HONOLULU, HAWAII

(OPACA.OPACA4) 20030

OPACA FOUR ARRIVAL

AL-754 (FAA)

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



NOTE: RNAV equipped aircraft only.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

CARRP TRANSITION (CARRP.OPACA4): From over CARRP WP, RNAV direct to OPACA DME. Thence. . . .

CHOKO TRANSITION (CHOKO.OPACA4): From over CHOKO WP, RNAV direct to BINJO DME, then direct to OPACA DME. Thence. . . .

KATHS TRANSITION (KATHS.OPACA4): From over KATHS WP, RNAV direct to OPACA DME. Thence. . . .

. . . .From over OPACA DME via HNL R-207 to HNL VORTAC, expect RADAR vectors to final approach course.

OPACA FOUR ARRIVAL

(OPACA.OPACA4) 06JAN94

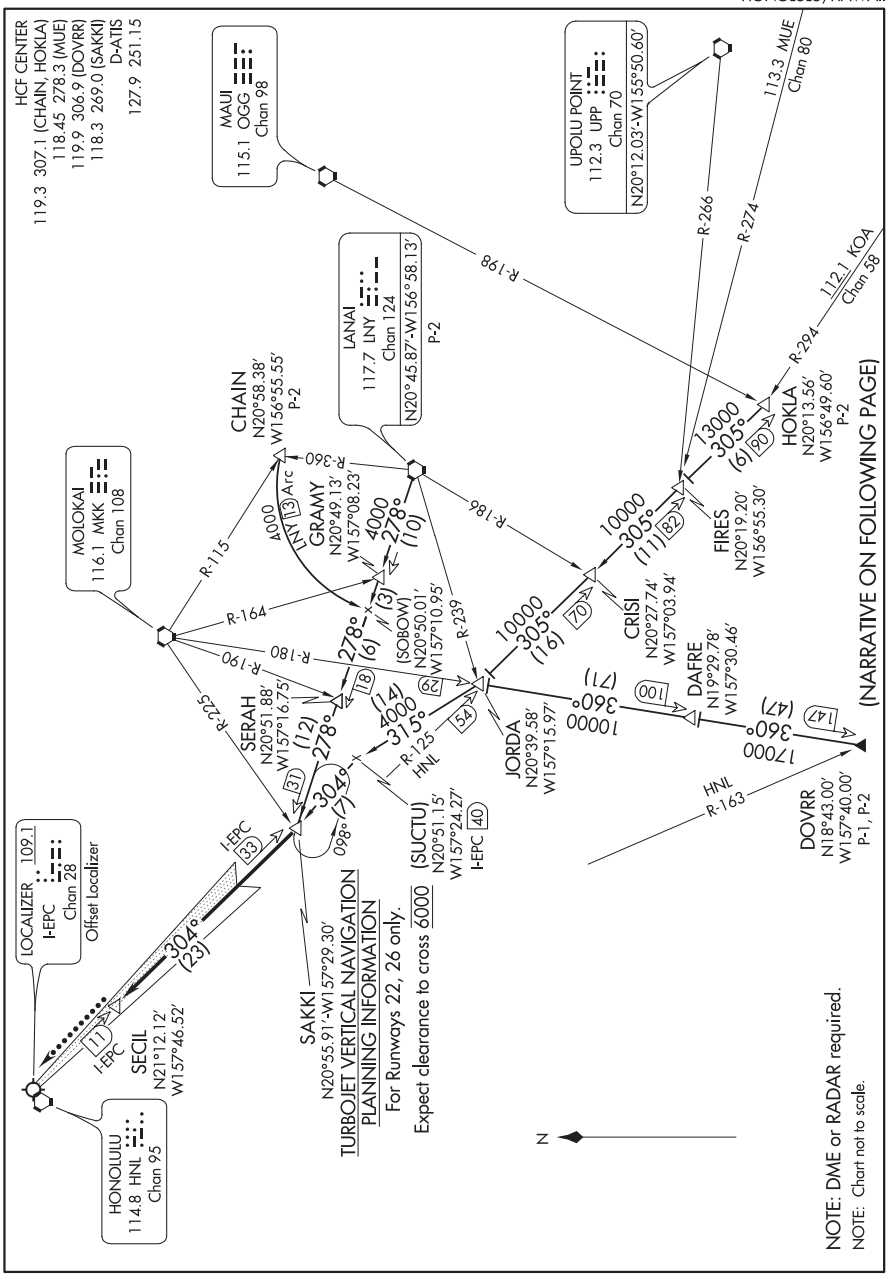
DANIEL K INOUYE INTL (HNL) (PHNL)
HONOLULU, HAWAII

(SAKKI.SAKKI5) 21112

SAKKI FIVE ARRIVAL

AL-754 (FAA)

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



SAKKI FIVE ARRIVAL

(SAKKI.SAKKI5) 25AUG11

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

(SAKKI.SAKKI5) 17117
SAKKI FIVE ARRIVAL

AL-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.

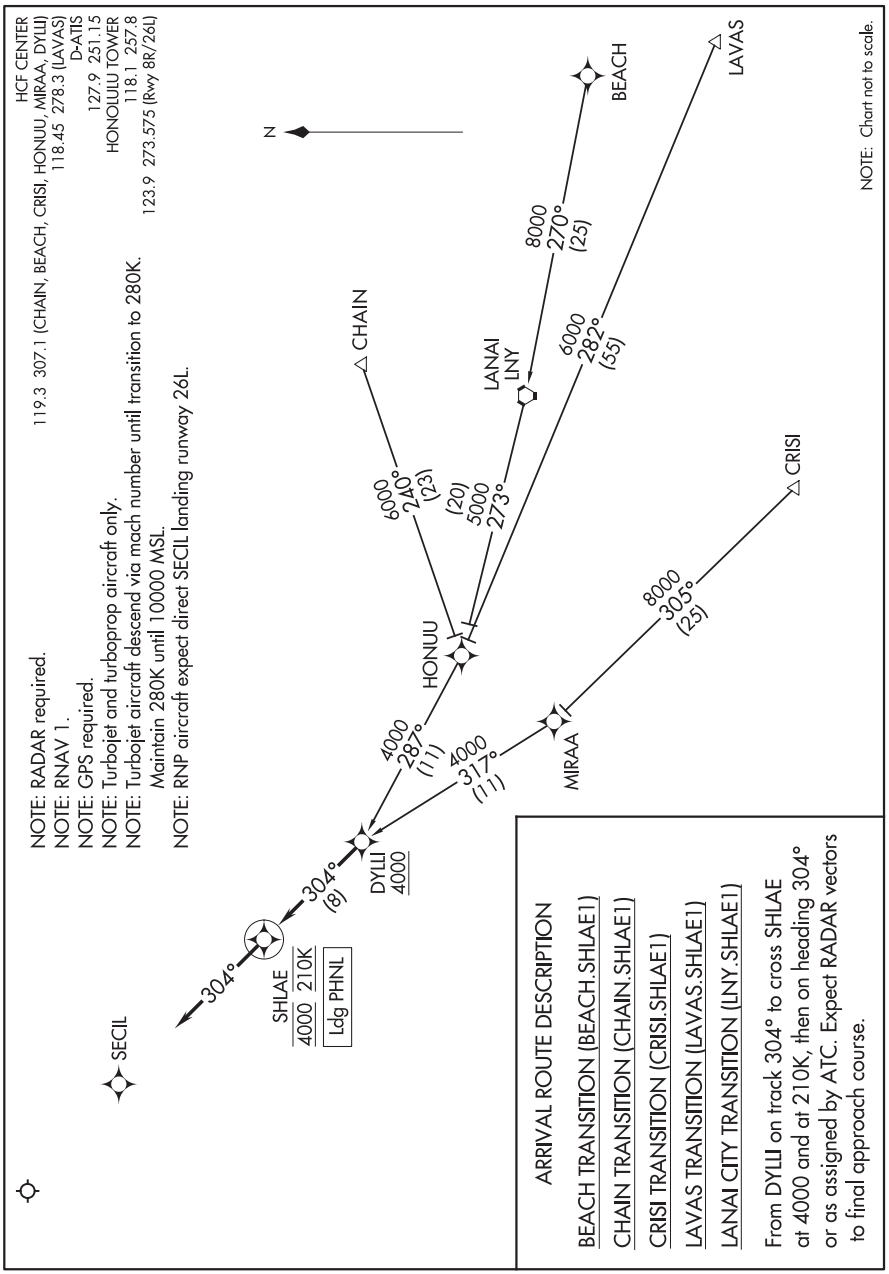
LOST COMMUNICATIONS: At SECIL INT/WP proceed with the LDA/DME RWY 26L approach.

(DYLLI.SHLAE1) 21112

SHLAE ONE ARRIVAL (RNAV)

AL-754 (FAA)

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



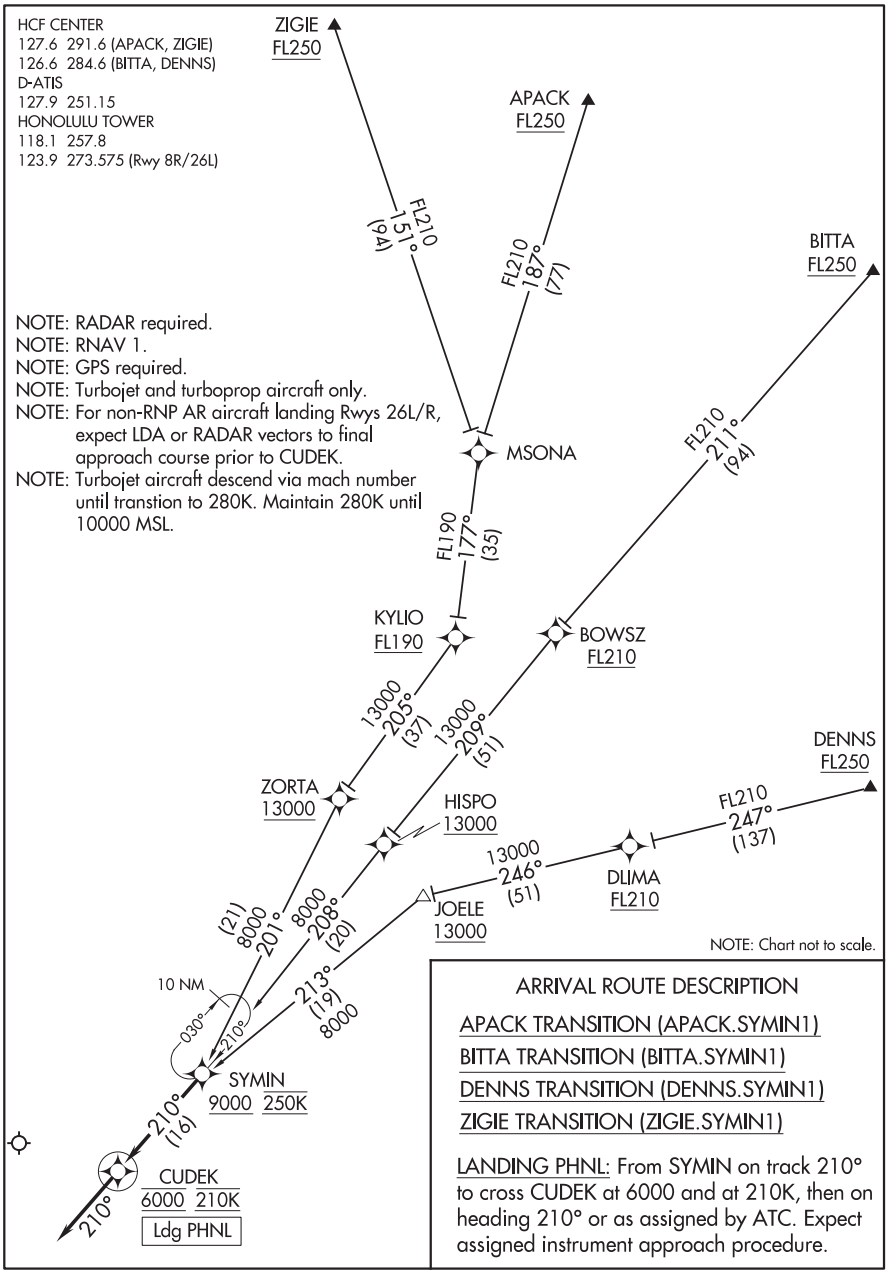
SHLAE ONE ARRIVAL (RNAV)
(DYLLI.SHLAE1) 30JAN20
HONOLULU, HAWAII
DANIEL K INOUYE INTL (HNL) (PHNL)

(SYMIN.SYMIN1) 20030

SYMIN ONE ARRIVAL (RNAV)

AL-754 (FAA)

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



ARRIVAL ROUTE DESCRIPTION

APACK TRANSITION (APACK.SYMIN1)

BITTA TRANSITION (BITTA.SYMIN1)

DENNS TRANSITION (DENNS.SYMIN1)

ZIGIE TRANSITION (ZIGIE.SYMIN1)

LANDING PHNL: From SYMIN on track 210° to cross CUDEK at 6000 and at 210K, then on heading 210° or as assigned by ATC. Expect assigned instrument approach procedure.

SYMIN ONE ARRIVAL (RNAV)

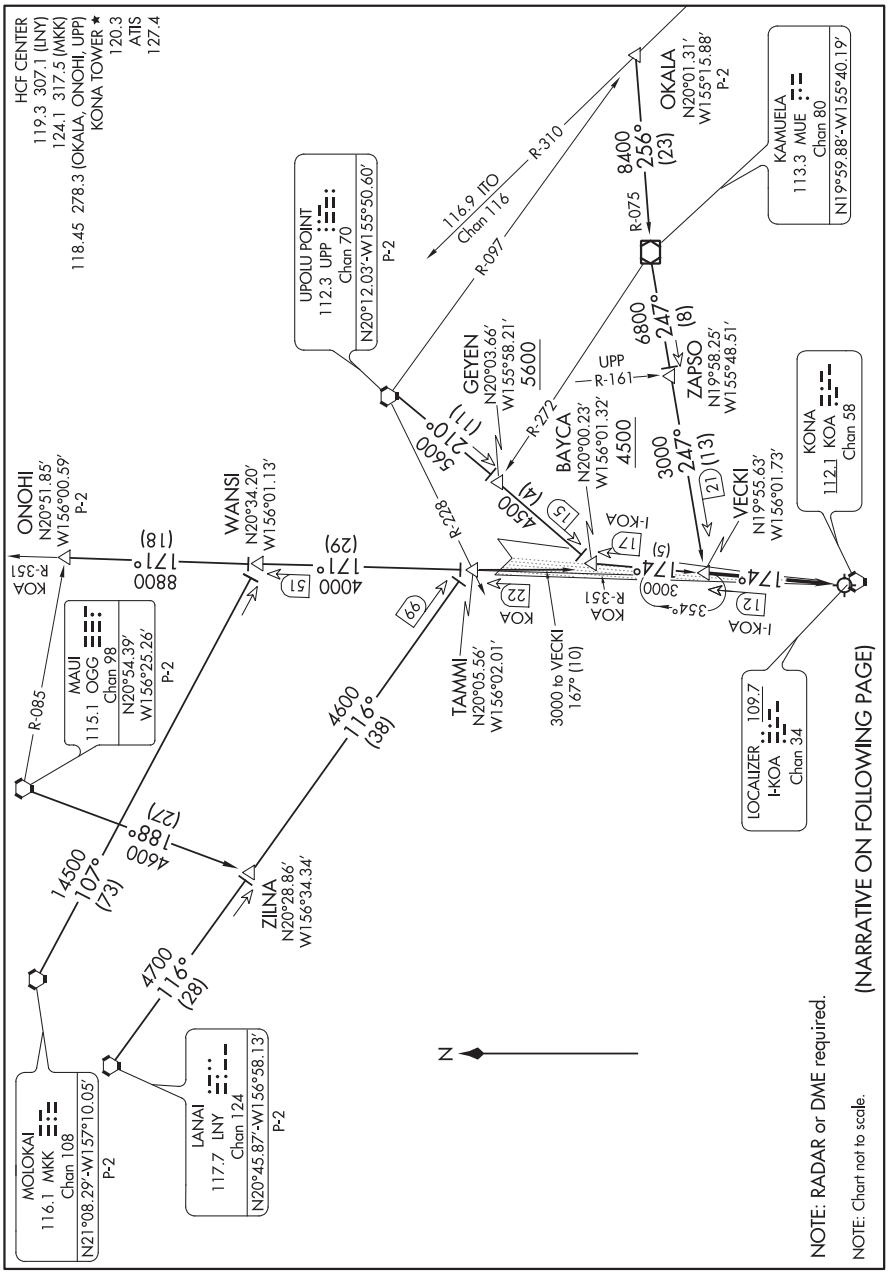
(SYMIN.SYMIN1) 30JAN20

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

(VECKI.VECKI9) 20254

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)

(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.

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BABELTHUAP ISLAND, PW AL-6432 (FAA) 23222

RNAV (GPS) RWY 9

PALAU INTL (ROR)(PTRO)

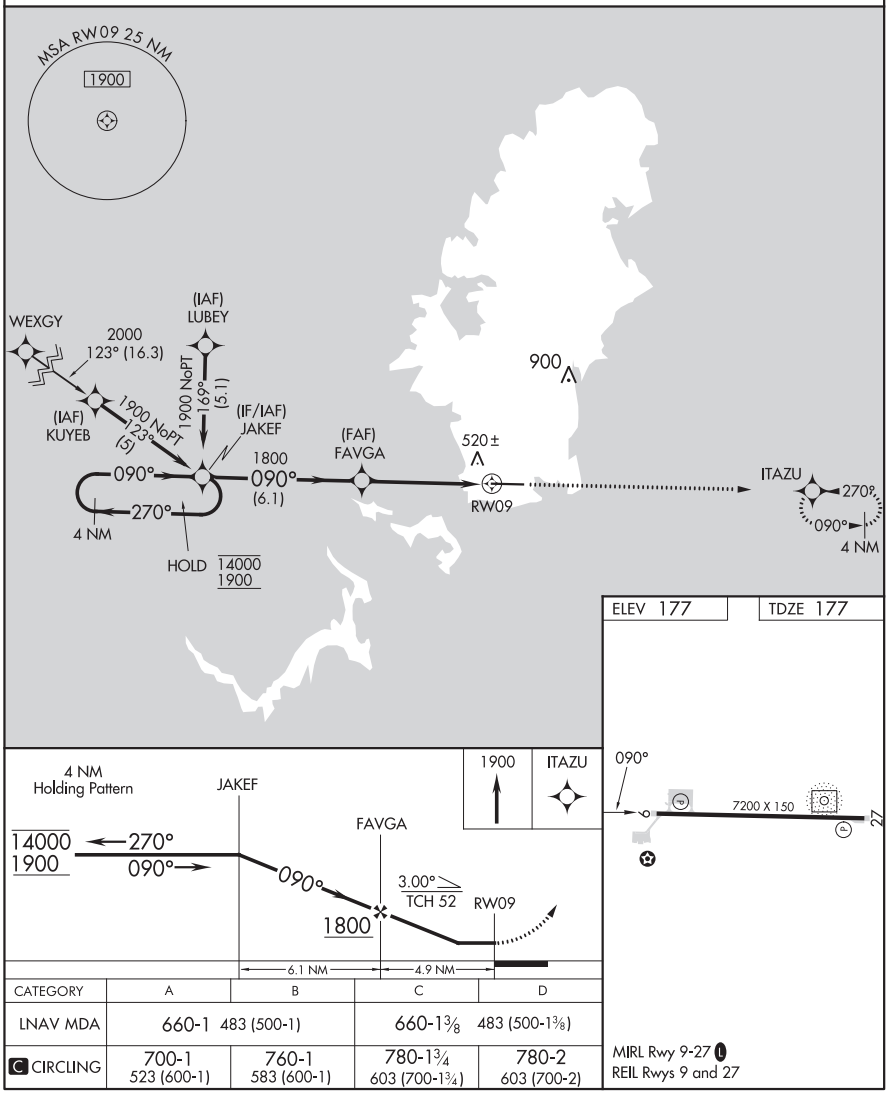
APP CRS	Rwy Idg	7200
090°	TDZE	177
	Apt Elev	177

RNP APCH-GPS.

T A Circling NA north of Rwy 9-27.
Rwy 9 helicopter visibility reduction below ¾ SM NA.
Obtain local altimeter setting on CTAF; when not received, procedure NA. No controlled airspace below 5500.

MISSED APPROACH: Climb to 1900 direct ITAZU and hold.

KOROR RADIO
123.6 (CTAF) L



CATEGORY	A	B	C	D
LNAV MDA	660-1 483 (500-1)		660-1⅜ 483 (500-1⅜)	
C CIRCLING	700-1 523 (600-1)	760-1 583 (600-1)	780-1¾ 603 (700-1¾)	780-2 603 (700-2)

MIRL Rwy 9-27 L
REIL Rwys 9 and 27

BABELTHUAP ISLAND, PW
Orig-C 08SEP22

07°22'N-134°33'E

PALAU INTL (ROR)(PTRO)

RNAV (GPS) RWY 9

BABELTHUAP ISLAND, PW AL-6432 (FAA) 23222

APP CRS	Rwy Idg	7200
270°	TDZE	176
	Apt Elev	177

RNAV (GPS) RWY 27

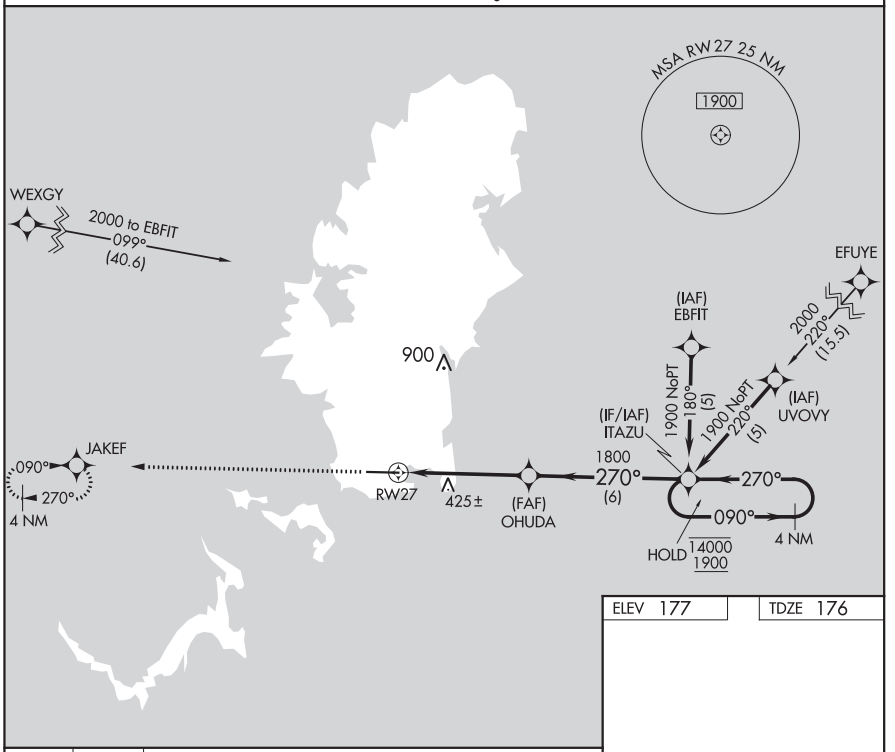
PALAU INTL (ROR)(PTRO)

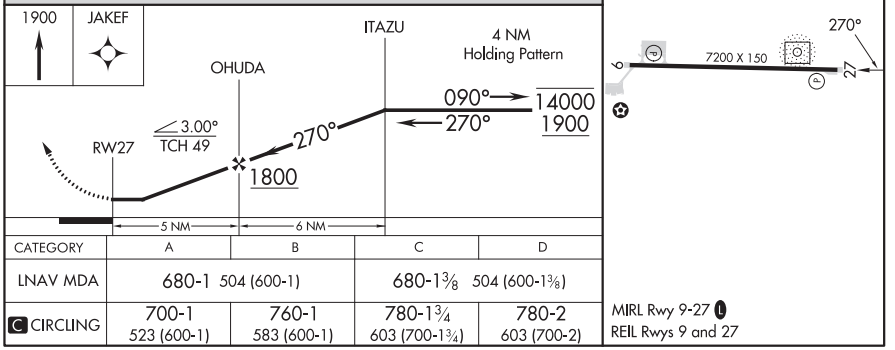
RNP APCH-GPS.

Circling NA north of Rwy 9-27.
Rwy 27 helicopter visibility reduction below ¾ SM NA.
Obtain local altimeter setting on CTAF; when not received, procedure NA. No controlled airspace below 5500.

MISSED APPROACH: Climb to 1900 direct JAKEF and hold.

KOROR RADIO
123.6 (CTAF) L





ELEV 177 TDZE 176

CATEGORY	A	B	C	D
LNAV MDA	680-1 504 (600-1)		680-1⅜ 504 (600-1⅜)	
C CIRCLING	700-1 523 (600-1)	760-1 583 (600-1)	780-1¾ 603 (700-1¾)	780-2 603 (700-2)

MIRL Rwy 9-27 L
REIL Rwys 9 and 27

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 RWY 9

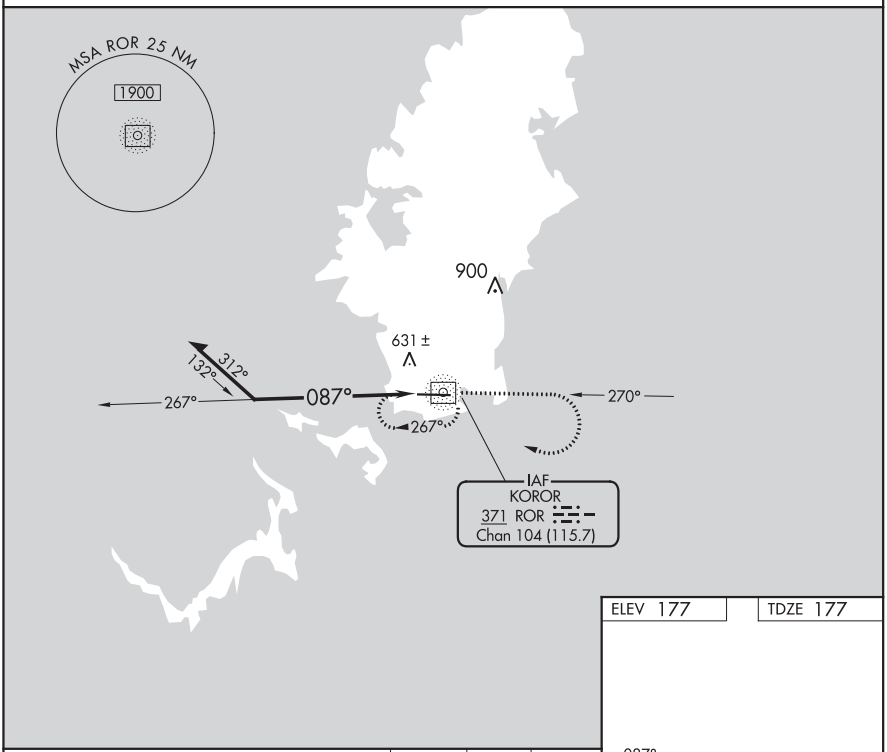
PALAU INTL (ROR)(PTRO)

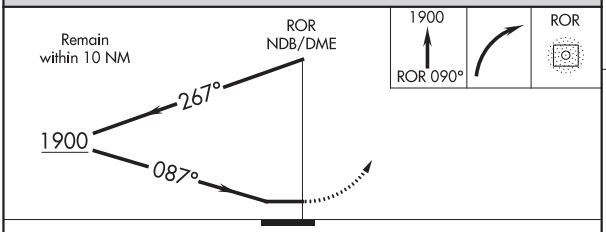
NDB/DME ROR	APP CRS	Rwy Idg	7200
371	087°	TDZE	177
Chan 104 (115.7)		Apt Elev	177

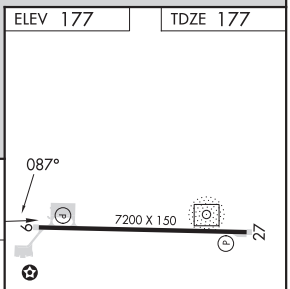
Circling NA north of Rwy 9-27.
Rwy 9 helicopter visibility reduction below ¾ SM NA.
Obtain local altimeter setting on CTAF; when not received, procedure NA. No controlled airspace below 5500.

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

KOROR RADIO
123.6 (CTAF) L







CATEGORY	A	B	C	D
S-9	1000-1 823 (900-1)	1000-1¼ 823 (900-1¼)	1000-2½	823 (900-2½)
C CIRCLING	1000-1¼	823 (900-1¼)	1000-2½ 823 (900-2½)	1000-2¾ 823 (900-2¾)

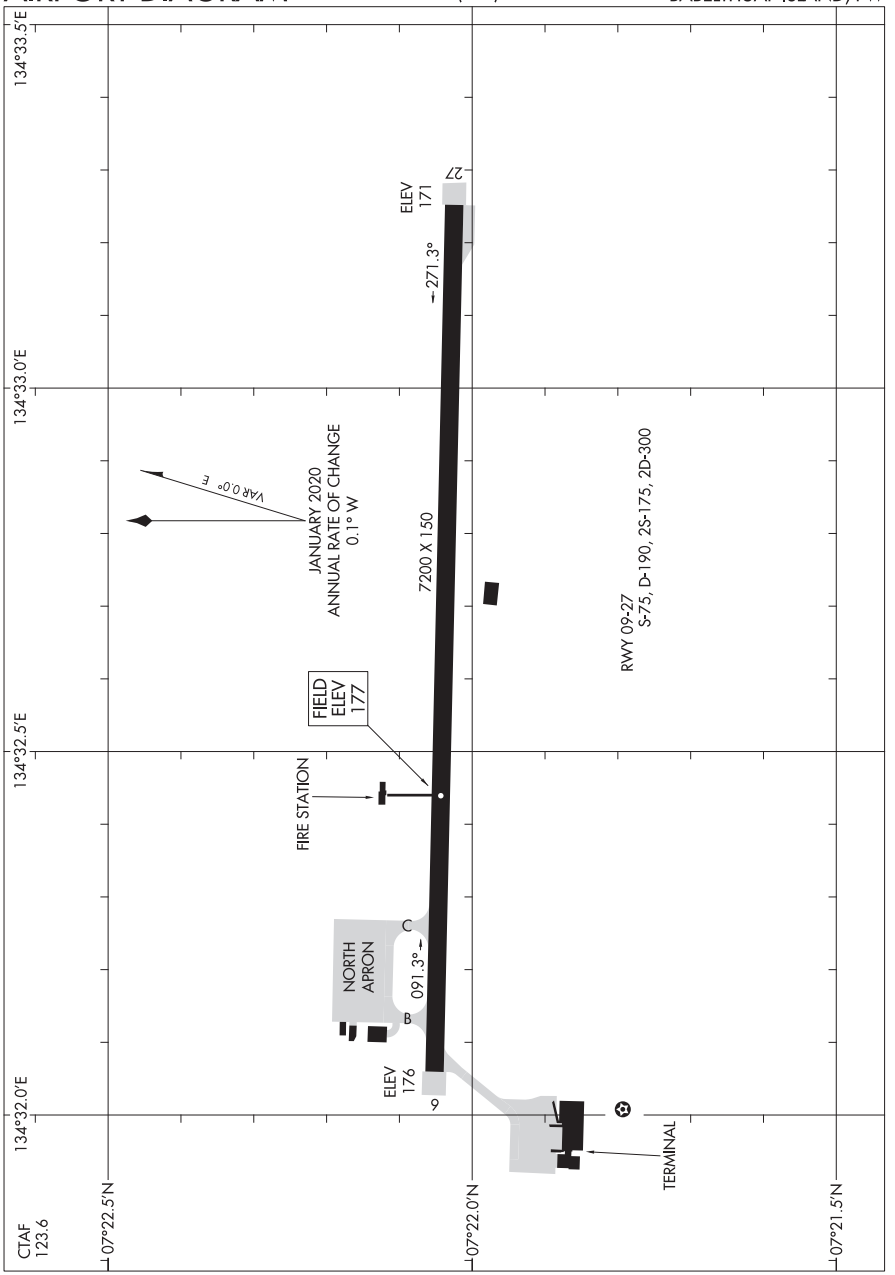
MIRL Rwy 9-27 L
REIL Rwys 9 and 27

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



23222
AIRPORT DIAGRAM
BABELTHUAP ISLAND, PW
PALAU INTL (ROR) (PTRO)

GUAM, GU AL-2146 (FAA) 23110

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

ILS or LOC RWY 6L

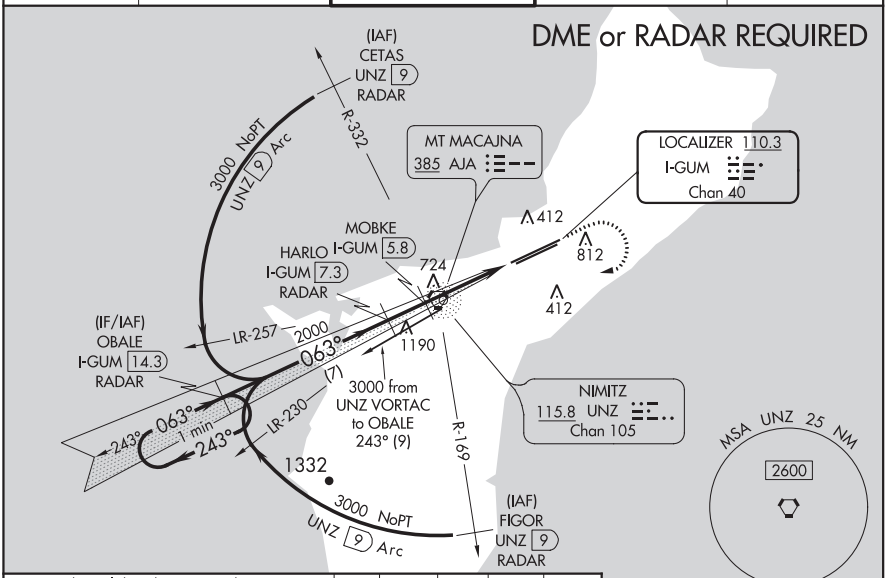
GUAM INTL (GUM)(PGUM)

Circling NA southeast of Rwy 6R-24L. DME or RADAR required. For inop ALS, increase S-ILS 6L all Cats visibility to 1 SM; MOBKE DME minimums: For inop ALS, increase S-LOC 6L Cat A visibility to 1 SM. Inop table does not apply to S-LOC 6L Cats C and D.

MALSR

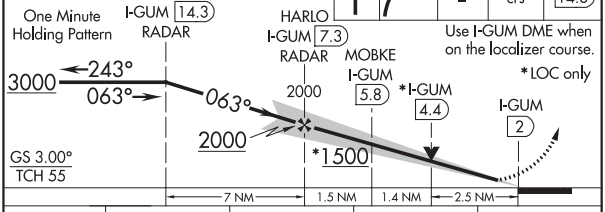
MISSED APPROACH: Climb to 2100 then climbing right turn to 3000 direct UNZ VORTAC then on I-GUM localizer SW course to OBALE/I-GUM 14.3 DME/RADAR and hold.

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



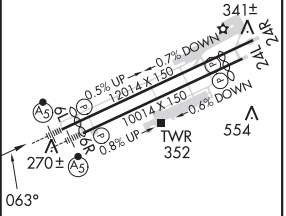
VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 73).

2100	3000	UNZ	I-GUM SW crs	OBALE I-GUM 14.3



CATEGORY	A	B	C	D
S-ILS 6L	590-½ 334 (300-½)			
S-LOC 6L	1500-¾ 1244 (1200-¾)	1500-1 1244 (1200-1)	1500-3 1244 (1200-3)	
C CIRCLING	1500-1¼ 1195 (1200-1¼)	1500-1½ 1195 (1200-1½)	1500-3 1195 (1200-3)	
MOBKE FIX MINIMUMS (DME REQUIRED)				
S-LOC 6L	1100-¾ 844 (800-¾)		1100-2 844 (800-2)	
C CIRCLING	1100-1 795 (800-1)	1100-1¼ 795 (800-1¼)	1100-2½ 795 (800-2½)	1140-2¾ 835 (900-2¾)

ELEV 305 D TDZE 256



HIRL all Rwys

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 4B 20JUN19

13°29'N-144°48'E

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

GUAM, GU AL-2146 (FAA) 23110

ILS or LOC RWY 6R

GUAM INTL (GUM)(PGUM)

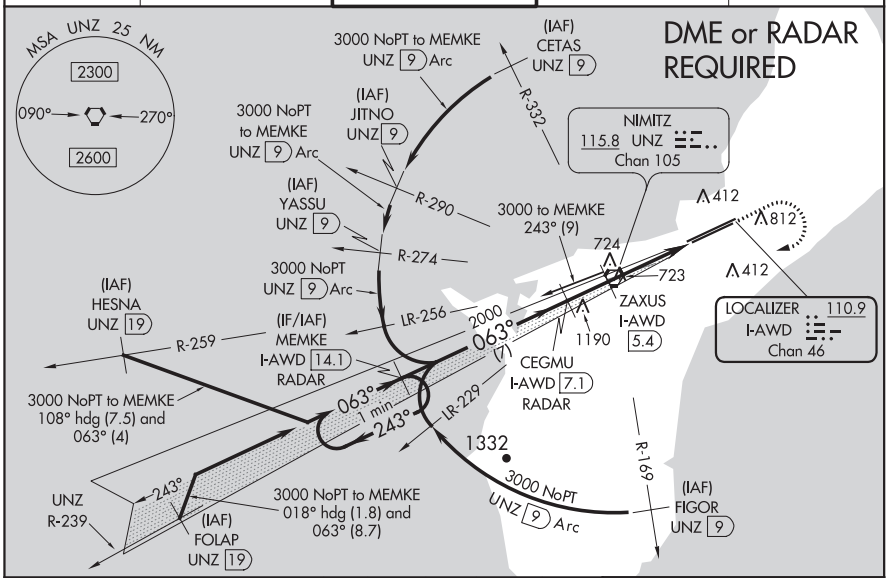
LOC/DME I-AWD	APP CRS	Rwy Idg	10014
110.9	063°	TDZE	258
Chan 46		Apt Elev	305

Circling NA southeast of Rwy 6R-24L. Rwy 6R helicopter visibility reduction below ¾ SM NA. DME or RADAR required. Inop table does apply to S-LOC 6R Cat C/D. ZAXUS DME minimums: For inop ALS, increase S-LOC 6R Cat A/B visibility to 1 SM.

MALSR

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

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



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

2100	3000	UNZ	I-AWD	MEMKE I-AWD 14.1

One Minute Holding Pattern

MEMKE I-AWD 14.1 RADAR

CEGMU I-AWD 7.1 RADAR

ZAXUS I-AWD 5.4

*I-AWD 3.9

I-AWD 1.8

*LOC only

3000 ←243° 063°→

063°

2000

GS 3.00° TCH 57

2000

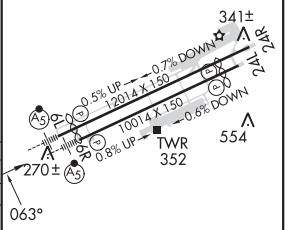
*1440

Use I-AWD DME when on localizer course.

7 NM | 1.7 NM | 1.5 NM | 2.1 NM

CATEGORY	A	B	C	D
S-ILS 6R	603-¾ 345 (300-¾)			
S-LOC 6R	1440-¾ 1182 (1200-¾)	1440-1 1182 (1200-1)	1440-3 1182 (1200-3)	
C CIRCLING	1440-1¼ 1135 (1200-1¼)	1440-1½ 1135 (1200-1½)	1440-3 1135 (1200-3)	
ZAXUS DME MINIMUMS				
S-LOC 6R	980-¾ 722 (700-¾)		980-1⅝ 722 (700-1⅝)	
C CIRCLING	980-1 675 (700-1)		980-2 675 (700-2)	1140-2¾ 835 (900-2¾)

ELEV 305 D TDZE 258



HIRL all Rwys

FAF to MAP 5.3 NM

Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

GUAM, GU
Orig-D 20JUN19

13°29'N-144°48'E

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

GUAM, GU AL-2146 (FAA) 23110

APP CRS	Rwy Idg	11014
063°	TDZE	256
	Apt Elev	298

RNAV (RNP) Z RWY 6L

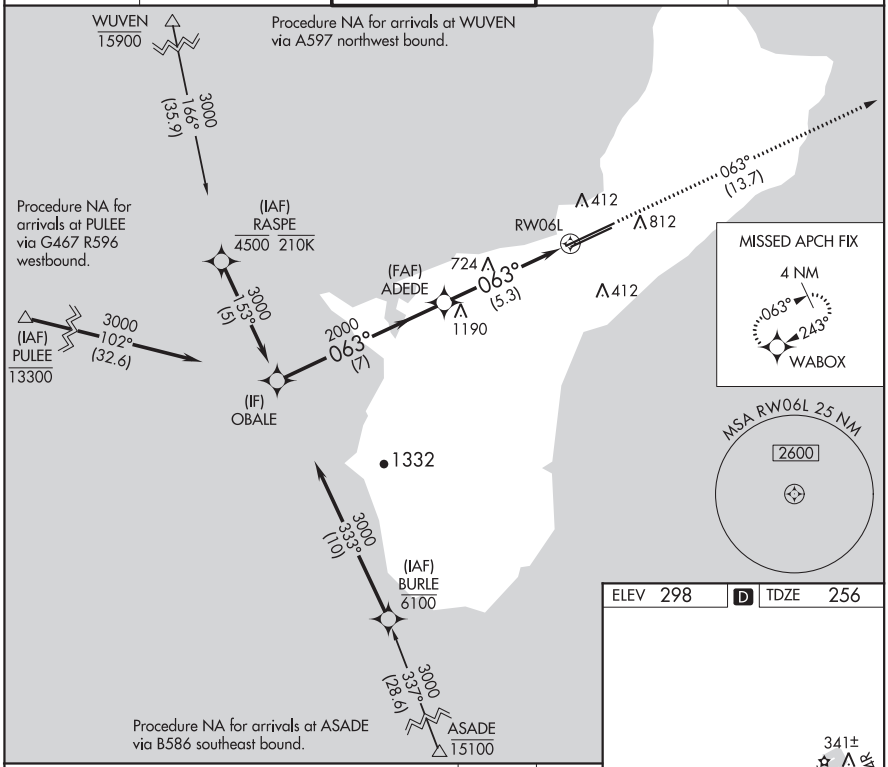
GUAM INTL (GUM)(PGUM)

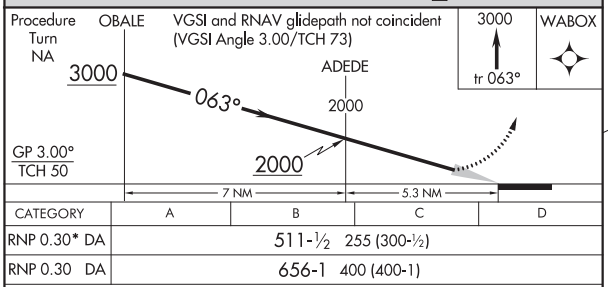
For uncompensated Baro-VNAV systems, procedure NA below 19°C (66°F) or above 48°C (119°F). GPS required. For inoperative MALSR, increase RNP 0.30* visibility to 1 mile and RNP 0.30 visibility to 1½ mile.
*Missed approach requires a minimum climb of 276 feet per NM to 1400.

MALSR

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

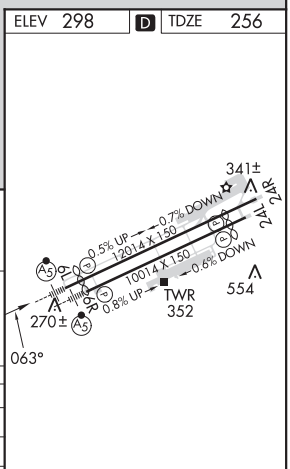
ATIS	GUAM CERAP	AGANA TOWER	GND CON	CLNC DEL
119.0	119.8 269.0	118.1 340.2	121.9 336.4	121.9





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

AUTHORIZATION REQUIRED



GUAM, GU
Orig-D 15DEC11

13°29'N-144°48'E

GUAM INTL (GUM)(PGUM)

RNAV (RNP) Z RWY 6L

GUAM, GU AL-2146 (FAA) 23110

RNAV (RNP) Z RWY 6R

GUAM INTL (GUM)(PGUM)

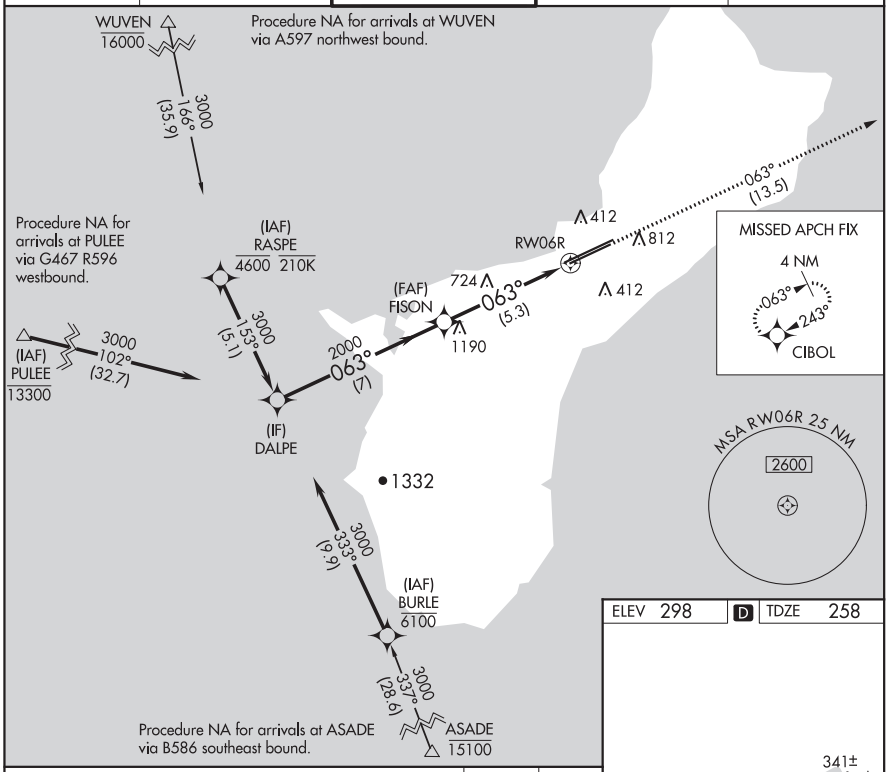
APP CRS	Rwy Idg	10014
063°	TDZE	258
	Apt Elev	298

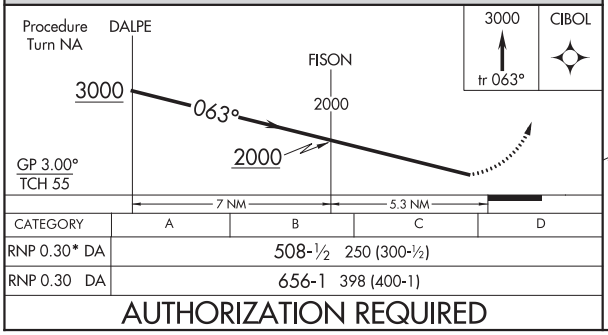
For uncompensated Baro-VNAV systems, procedure NA below 19°C (66°F) or above 48°C (119°F). GPS required.
*Missed approach requires a minimum climb of 285 feet per NM to 1400.

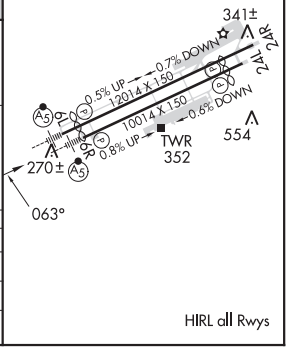
MALSR

MISSED APPROACH: Climb to 3000 via track 063° to CIBOL and hold.

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







CATEGORY	A	B	C	D
RNP 0.30* DA	508-½ 250 (300-½)			
RNP 0.30 DA	656-1 398 (400-1)			

AUTHORIZATION REQUIRED

GUAM, GU
Orig-C 15DEC11

13°29′N-144°48′E

GUAM INTL (GUM)(PGUM)

RNAV (RNP) Z RWY 6R

GUAM, GU AL-2146 (FAA) 23110

RNAV (RNP) Z RWY 24L

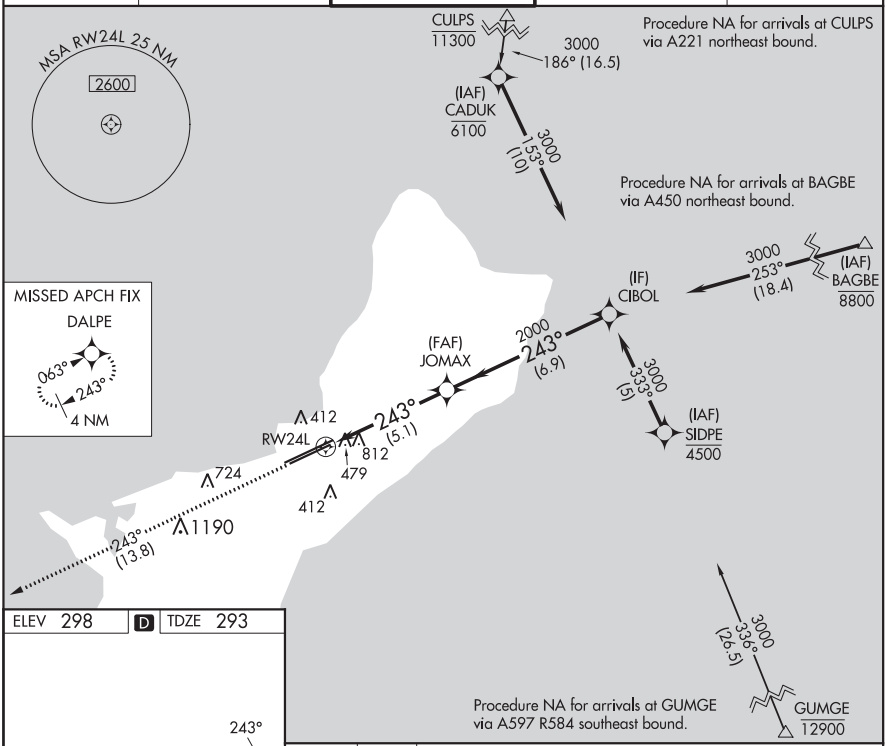
GUAM INTL (GUM)(PGUM)

APP CRS	Rwy Idg	8710
243°	TDZE	293
	Apt Elev	298

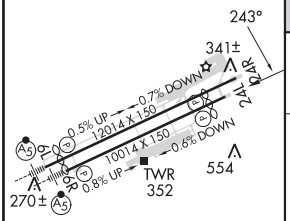
For uncompensated Baro-VNAV systems, procedure NA below 19°C (66°F) or above 48°C (119°F).
GPS required.
Procedure NA at night.

MISSED APPROACH: Climb to 3000 via track 243° to DALPE and hold.

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



ELEV 298 D TDZE 293

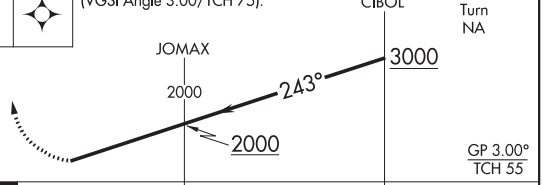


HIRL all Rwys

3000 tr 243°

DALPE

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



CATEGORY	A	B	C	D
RNP 0.20 DA	1103-2¾ 810 (900-2¾)			
RNP 0.30 DA	1140-3 847 (900-3)			

AUTHORIZATION REQUIRED

GUAM, GU
Orig-E 15DEC11

13°29′N-144°48′E

GUAM INTL (GUM)(PGUM)

RNAV (RNP) Z RWY 24L

GUAM, GU AL-2146 (FAA) 23110

RNAV (RNP) Z RWY 24R

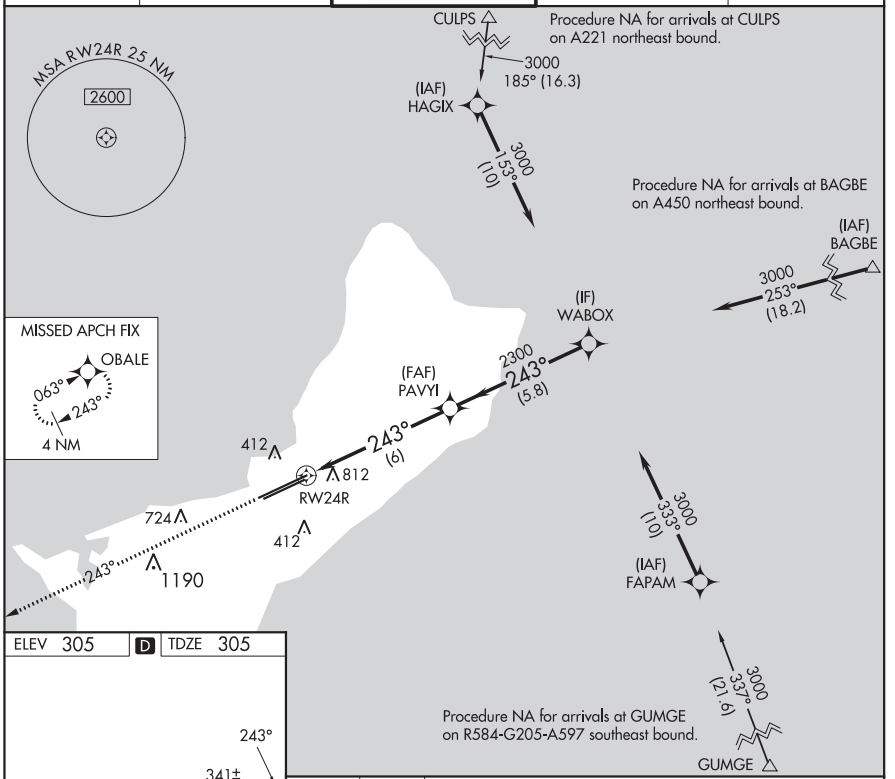
GUAM INTL (GUM)(PGUM)

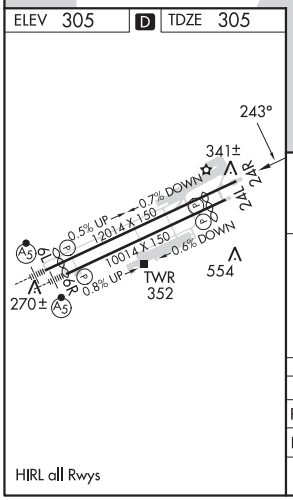
APP CRS	Rwy Idg	12014
243°	TDZE	305
	Apt Elev	305

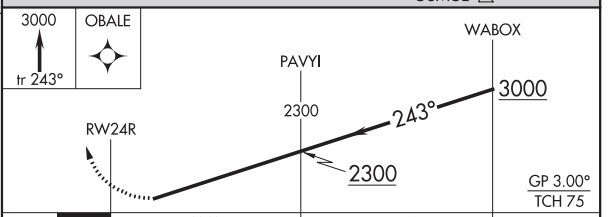
GPS required. For uncompensated Baro-VNAV systems, procedure NA below 22°C (72°F) or above 52°C (127°F).

MISSED APPROACH: Climb to 3000 on track 243° to OBALE and hold.

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







CATEGORY	A	B	C	D
RNP 0.24 DA	1014-2½ 709 (800-2½)			
RNP 0.30 DA	1072-2½ 767 (800-2½)			

HIRL all Rwys

AUTHORIZATION REQUIRED

GUAM, GU
Amdt 1A 24MAY18

13°29′N-144°48′E

GUAM INTL (GUM)(PGUM)

RNAV (RNP) Z RWY 24R

GUAM, GU AL-2146 (FAA) 23110

RNAV (GPS) Y RWY 6L

GUAM INTL (GUM)(PGUM)

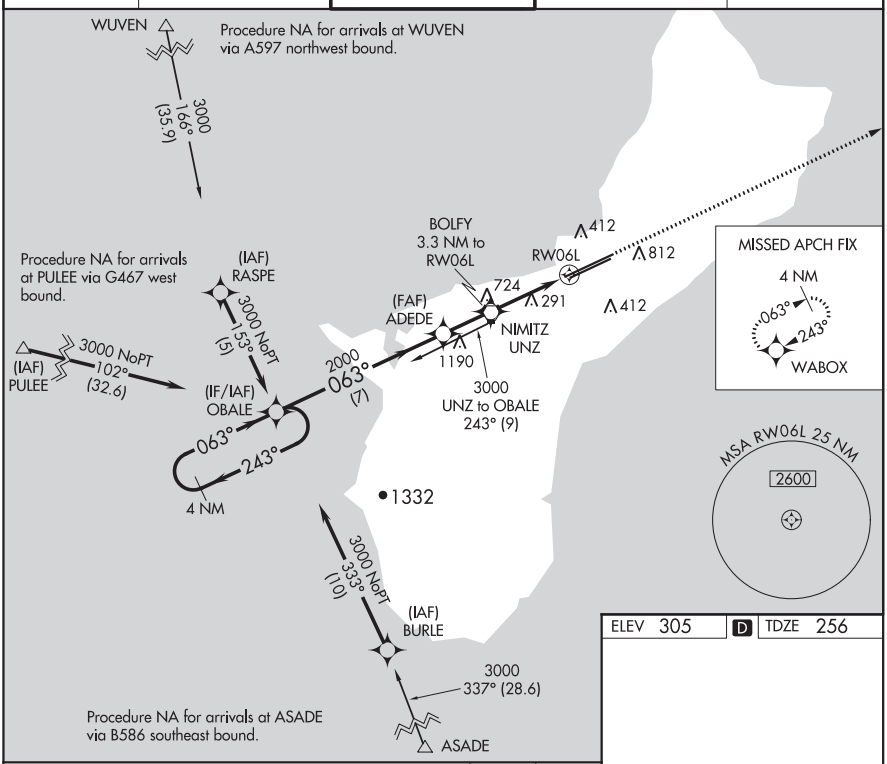
APP CRS	Rwy Idg	11014
063°	TDZE	256
	Apt Elev	305

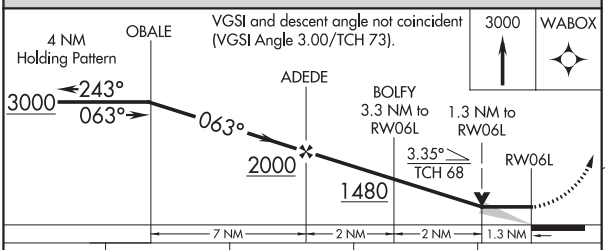
T A Circling NA southeast of Rwy 6R-24L.
DME/DME RNP-0.3 NA.
For inop ALS, increase Cat C/D visibility to 1⅜ SM.

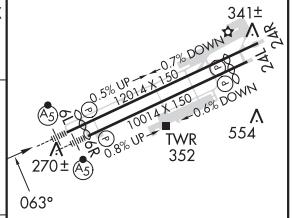
MALSR (A5)

MISSED APPROACH: Climb to 3000 direct WABOX and hold.

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







ELEV 305 D TDZE 256

CATEGORY	A	B	C	D
LNAV MDA	720-½ 464 (500-½)		720-1 464 (500-1)	
C CIRCLING	860-1 555 (600-1)		940-1¾ 635 (700-1¾)	1140-2¾ 835 (900-2¾)

HIRL all Rwys

GUAM, GU
Amdt 1B 24MAY18

13°29′N-144°48′E

GUAM INTL (GUM)(PGUM)

RNAV (GPS) Y RWY 6L

GUAM, GU AL-2146 (FAA) 23110

RNAV (GPS) Y RWY 6R

GUAM INTL (GUM)(PGUM)

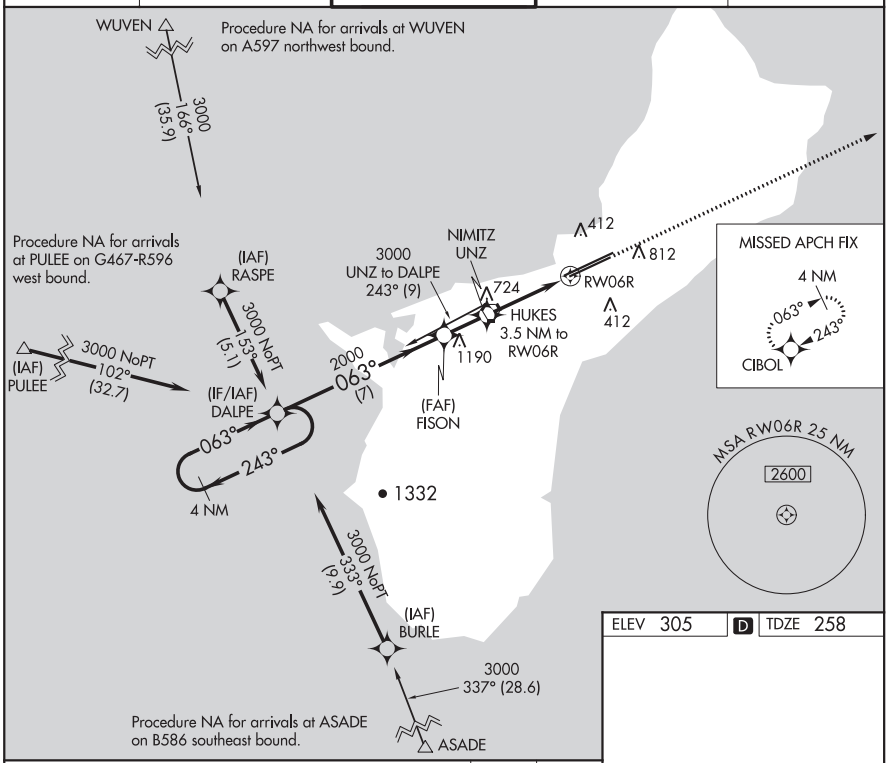
APP CRS	Rwy Idg	10014
063°	TDZE	258
	Apt Elev	305

Rwy 6R helicopter visibility reduction reduction below ¾ SM NA. DME/DME RNP-0.3 NA. For inop ALS, increase Cat A/B visibility to 1 SM, and Cat C/D to 2 SM. Circling NA southeast of Rwy 6R-24L.

MALSR

MISSED APPROACH: Climb to 3000 direct CIBOL and hold.

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



CATEGORY	A	B	C	D
LNAV MDA	980-¾ 722 (700-¾)		980-1⅝ 722 (700-1⅝)	
C CIRCLING	980-1 675 (700-1)		980-2 675 (700-2)	1140-2¾ 835 (900-2¾)

HIRL all Rwys

GUAM, GU
Amdt 1C 26MAR20

13°29′N-144°48′E

GUAM INTL (GUM)(PGUM)

RNAV (GPS) Y RWY 6R

GUAM, GU AL-2146 (FAA) 23110

RNAV (GPS) Y RWY 24L

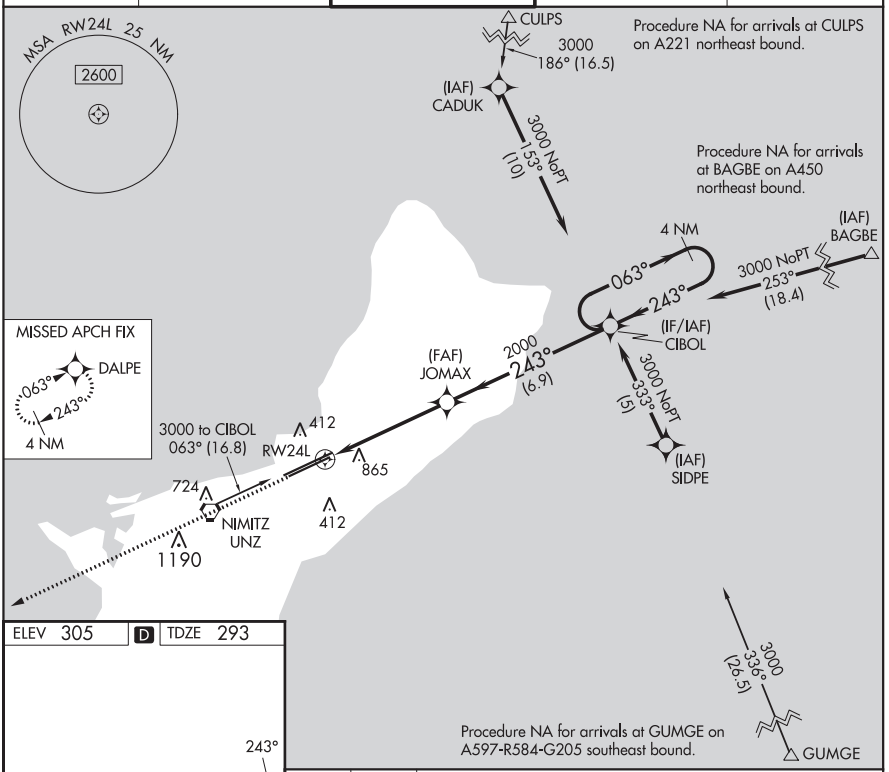
GUAM INTL (GUM)(PGUM)

APP CRS	Rwy Idg	8710
243°	TDZE	293
	Apt Elev	305

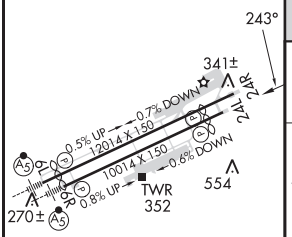
Circling NA southeast of Rwy 6R-24L.
Rwy 24L helicopter visibility reduction below ¾ SM NA.
DME/DME RNP-0.3 NA.

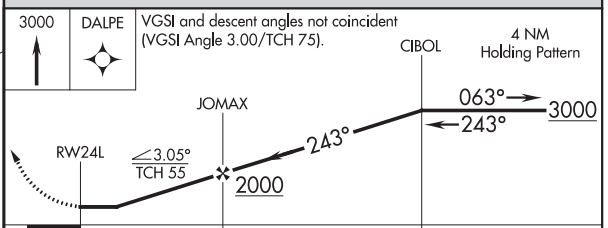
MISSED APPROACH: Climb to 3000 direct DALPE and hold.

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



ELEV 305 D TDZE 293





CATEGORY	A	B	C	D
LNAV MDA	1180-1¼	887 (900-1¼)	1180-2¾ 887 (900-2¾)	1180-3 887 (900-3)
C CIRCLING	1180-1¼	875 (900-1¼)	1180-2¾ 875 (900-2¾)	1180-3 875 (900-3)

HIRL all Rwys

GUAM, GU
Amdt 1C 24MAY18

13°29′N-144°48′E

GUAM INTL (GUM)(PGUM)

RNAV (GPS) Y RWY 24L

GUAM, GU AL-2146 (FAA) 23110

APP CRS	Rwy Idg	12014
243°	TDZE	305
	Apt Elev	305

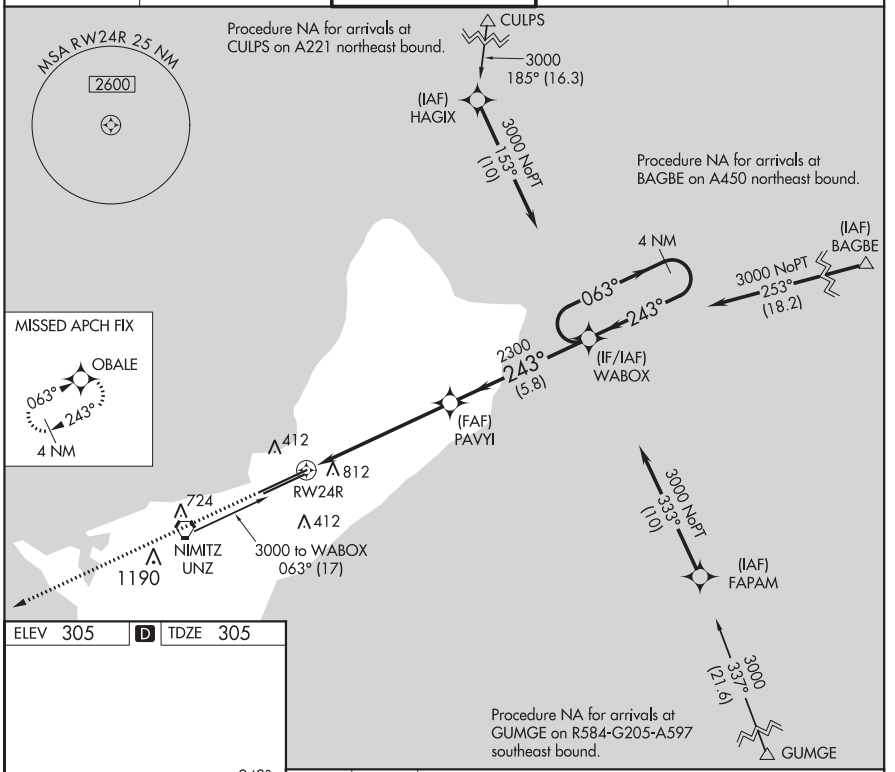
RNAV (GPS) Y RWY 24R

GUAM INTL (GUM)(PGUM)

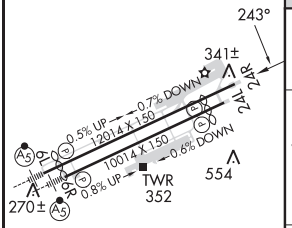
DME/DME RNP-0.3 NA.
Circling NA southeast of Rwy 6R-24L.
Rwy 24R helicopter visibility reduction below ¾ SM NA.

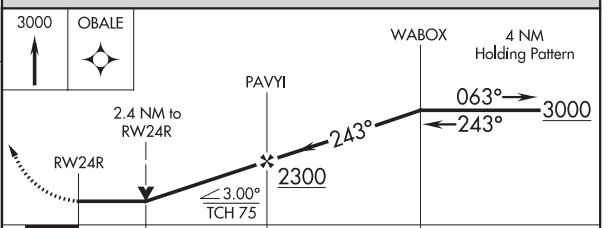
MISSED APPROACH: Climb to 3000 direct OBALE and hold.

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



ELEV 305 D TDZE 305





CATEGORY	A	B	C	D
LNAV MDA	1160-1 855 (900-1)	1160-1¼ 855 (900-1¼)	1160-2½ 855 (900-2½)	
C CIRCLING	1160-1¼ 855 (900-1¼)		1160-2½ 855 (900-2½)	1160-2¾ 855 (900-2¾)

HIRL all Rwys

GUAM, GU
Amdt 2A 24MAY18

13°29′N-144°48′E

GUAM INTL (GUM)(PGUM)

RNAV (GPS) Y RWY 24R

GUAM, GU AL-2146 (FAA) 23110

VORTAC UNZ	APP CRS	Rwy Idg	12014
115.8	242°	TDZE	305
Chan 105		Apt Elev	305

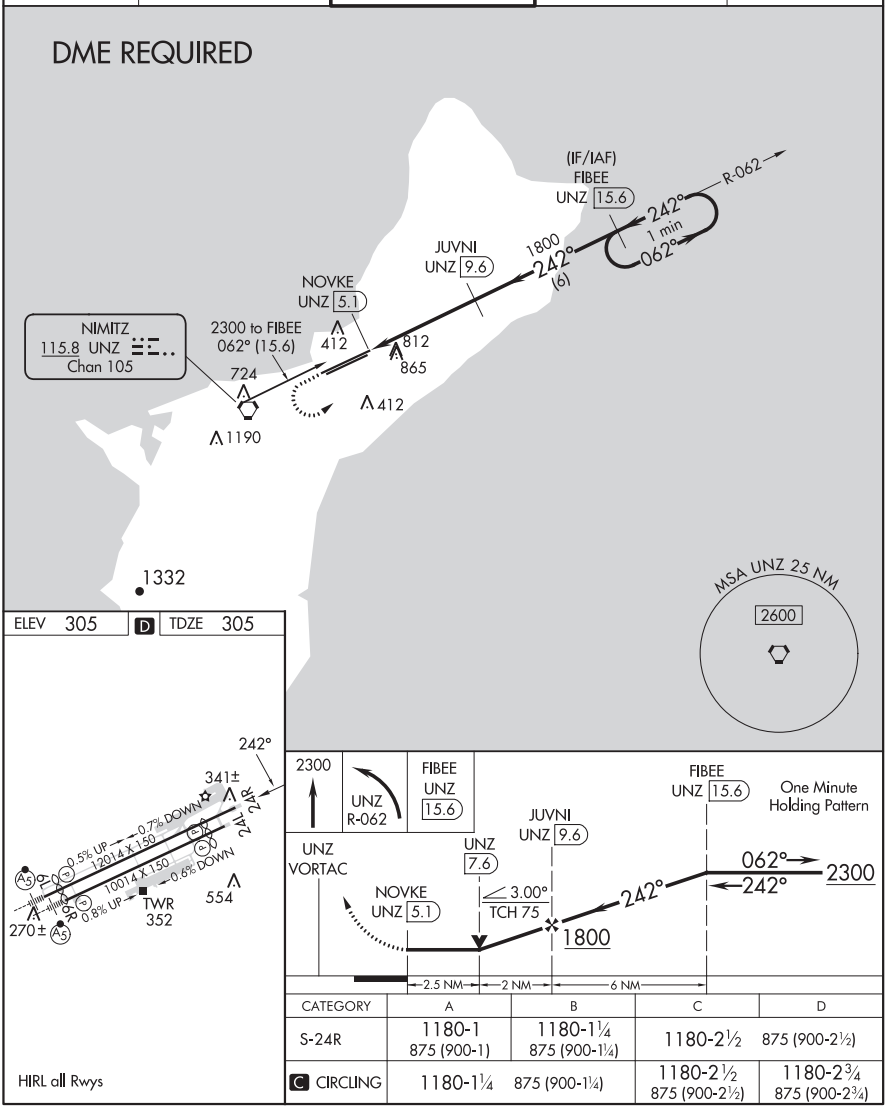
VOR or TACAN RWY 24R

GUAM INTL (GUM)(PGUM)

Circling NA southeast of Rwy 6R-24L.
Rwy 24R helicopter visibility reduction below ¾ SM NA.

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

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



CATEGORY	A	B	C	D
S-24R	1180-1 875 (900-1)	1180-1¼ 875 (900-1¼)	1180-2½	875 (900-2½)
C CIRCLING	1180-1¼	875 (900-1¼)	1180-2½ 875 (900-2½)	1180-2¾ 875 (900-2¾)

GUAM, GU
Amdt 1A 24MAY18

13°29′N-144°48′E

GUAM INTL (GUM)(PGUM)

VOR or TACAN RWY 24R

GUAM, GU | AL-2146 (FAA) | 23110

NDB AJA	APP CRS	Rwy Idg	12014
385	241°	TDZE	305
		Apt Elev	305

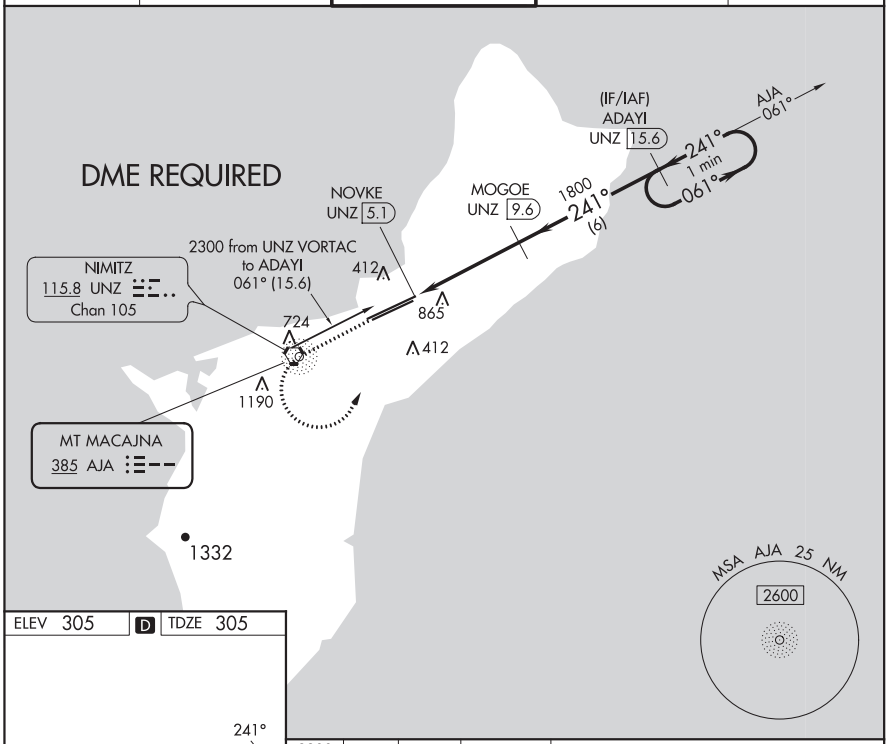
NDB RWY 24R

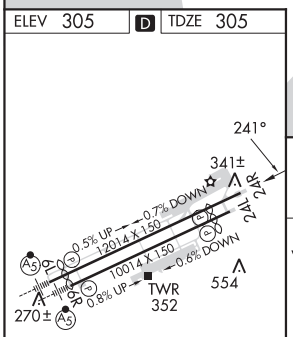
GUAM INTL (GUM)(PGUM)

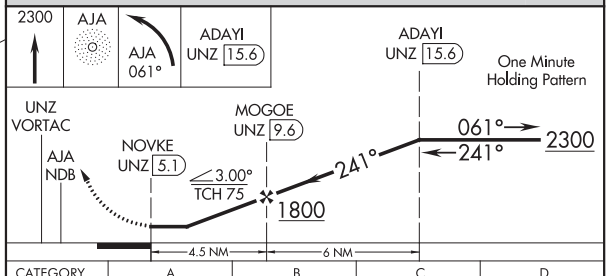
Circling NA southeast of Rwy 6R-24L. Rwy 24R helicopter visibility reduction below ¾ SM NA. DME from UNZ VORTAC, simultaneous reception of AJA NDB and UNZ DME required.

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

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







CATEGORY	A	B	C	D
S-24R	1220-1¼ 915 (1000-1¼)		1220-2½ 915 (1000-2½)	
C CIRCLING	1220-1¼ 915 (1000-1¼)		1220-2¾ 915 (1000-2¾)	1220-3 915 (1000-3)

HIRL all Rwys

GUAM, GU
Amdt 1A 24MAY18

13°29′N-144°48′E

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

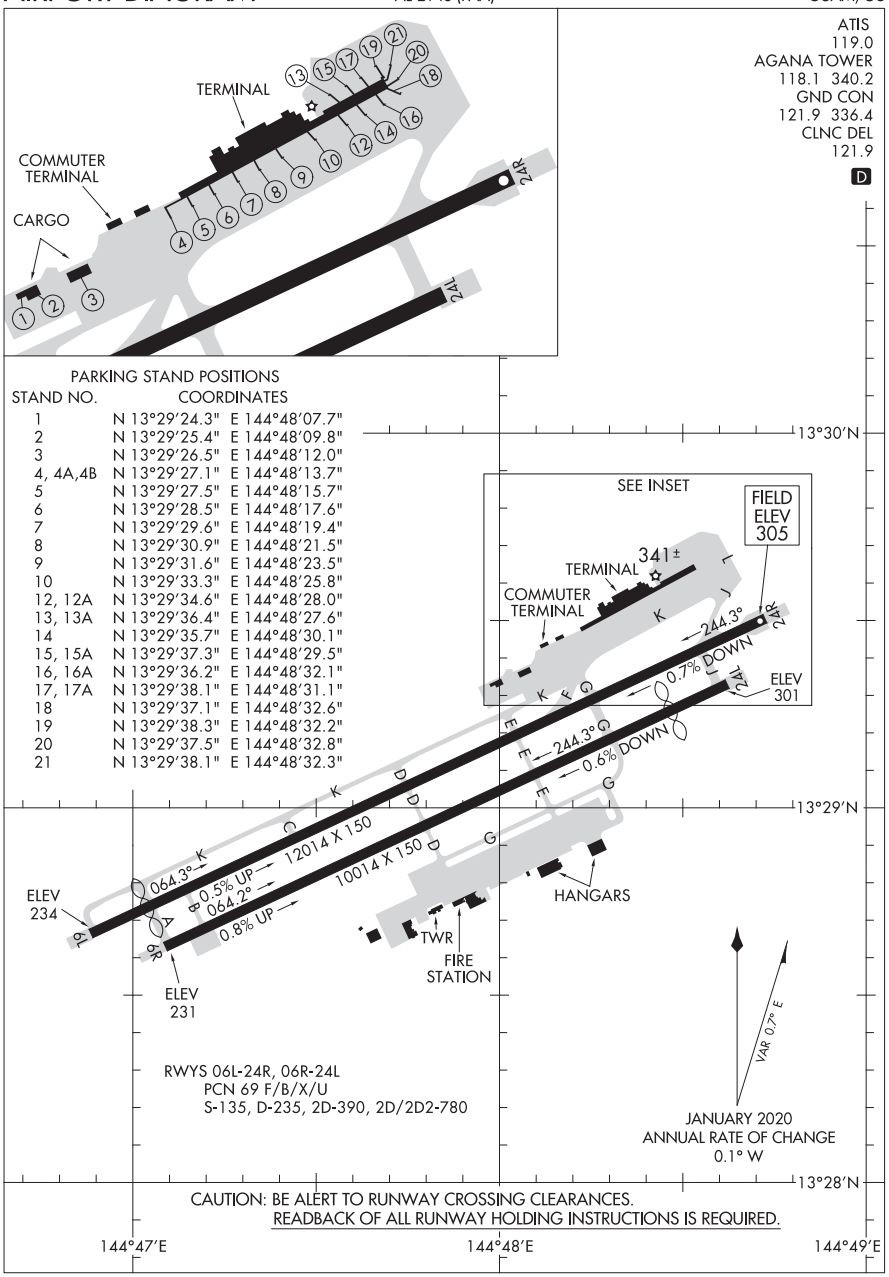
23110

AIRPORT DIAGRAM

AL-2146 (FAA)

GUAM INTL (GUM)(PGUM)

GUAM, GU



AIRPORT DIAGRAM

23110

GUAM, GU

GUAM INTL (GUM)(PGUM)

HANA, HAWAII | AL-5156 (FAA) | 20254

RNAV (GPS) RWY 8

HANA (HNM)(PHHN)

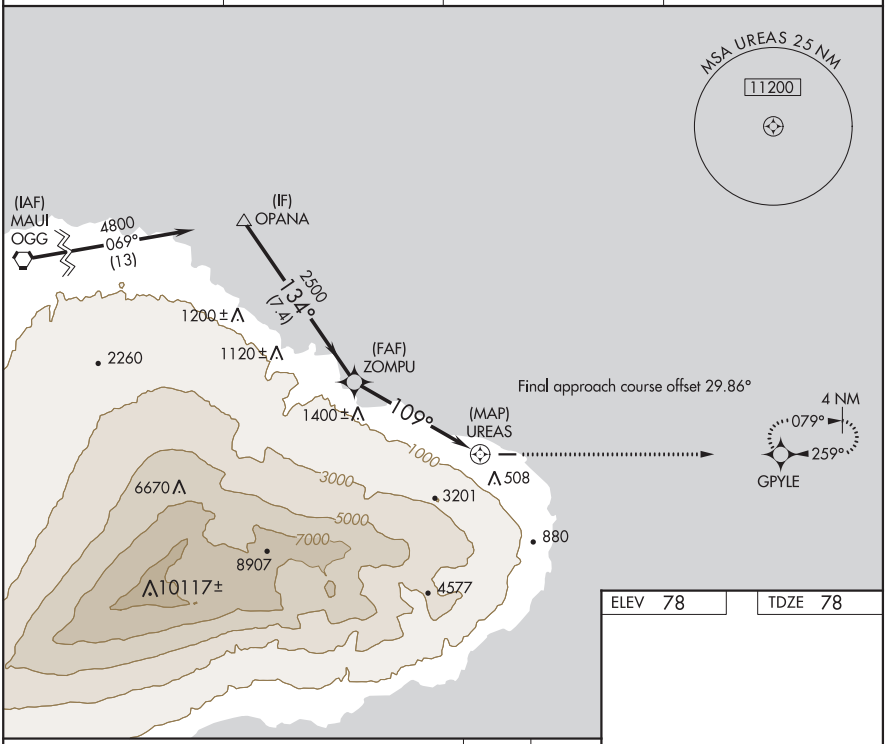
APP CRS	Rwy Idg	3606
109°	TDZE	78
	Apt Elev	78

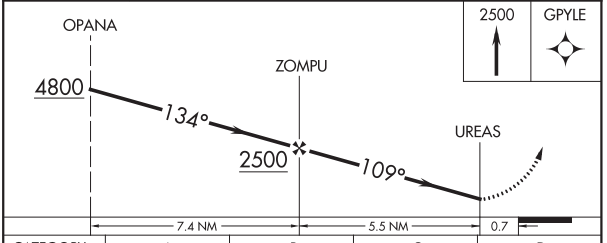
RNP APCH.

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.

MISSED APPROACH: Climb to 2500 direct GPYLE and hold.

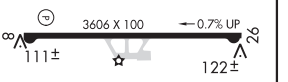
AWOS-3PT	HCF CENTER	CLNC DEL	CTAF
118.325	118.45 278.3	122.3	122.9 L





2500 | GPYLE

ELEV 78 | TDZE 78



MIRL Rwy 8-26 L

CATEGORY	A	B	C	D
LNAV MDA	1500-1¼ 1422 (1500-1¼)	1500-1½ 1422 (1500-1½)	NA	
C CIRCLING	1500-1¼ 1422 (1500-1¼)	1500-1½ 1422 (1500-1½)	NA	

HANA, HAWAII
Orig 30JAN20

20°48′N-156°01′W

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

HANA, HAWAII AL-5156 (FAA) 22251

RNAV (GPS) RWY 26

HANA (HNM)(PHHN)

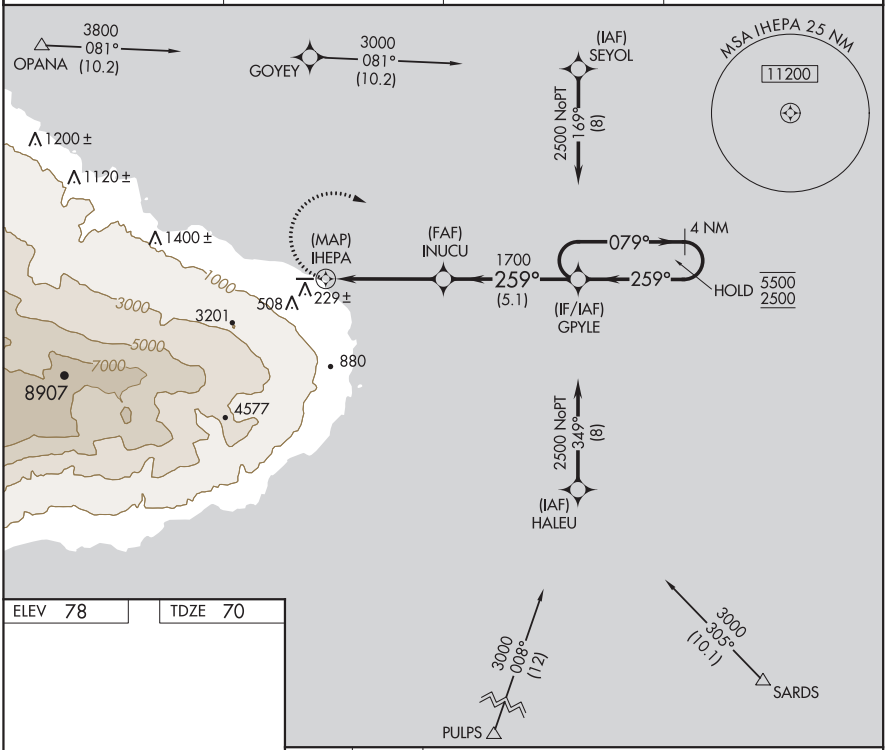
APP CRS	Rwy ldg	3606
259°	TDZE	70
	Apt Elev	78

RNP APCH-GPS.

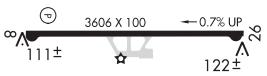
Circling NA south of Rwy 8-26. Procedure NA at night. When local altimeter setting not receieved, procedure NA.

MISSED APPROACH: Climbing right turn to 2500 direct GPYLE and hold.

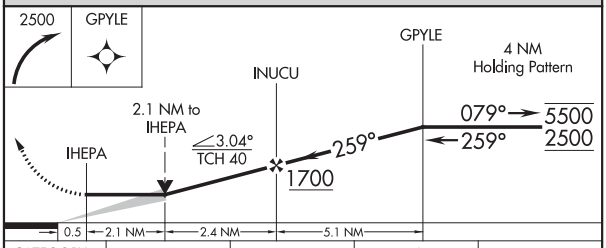
AWOS-3PT	HCF CENTER	CLNC DEL	CTAF
118.325	118.45 278.3	122.3	122.9 L



ELEV 78 TDZE 70



MIRL Rwy 8-26 L



CATEGORY	A	B	C	D
LNAV MDA	940-1 870 (900-1)	940-1¼ 870 (900-1¼)	NA	
C CIRCLING	940-1¼ 862 (900-1¼)	1100-1½ 1022 (1100-1½)	NA	

HANA, HAWAII
Amdt 1A 08SEP22

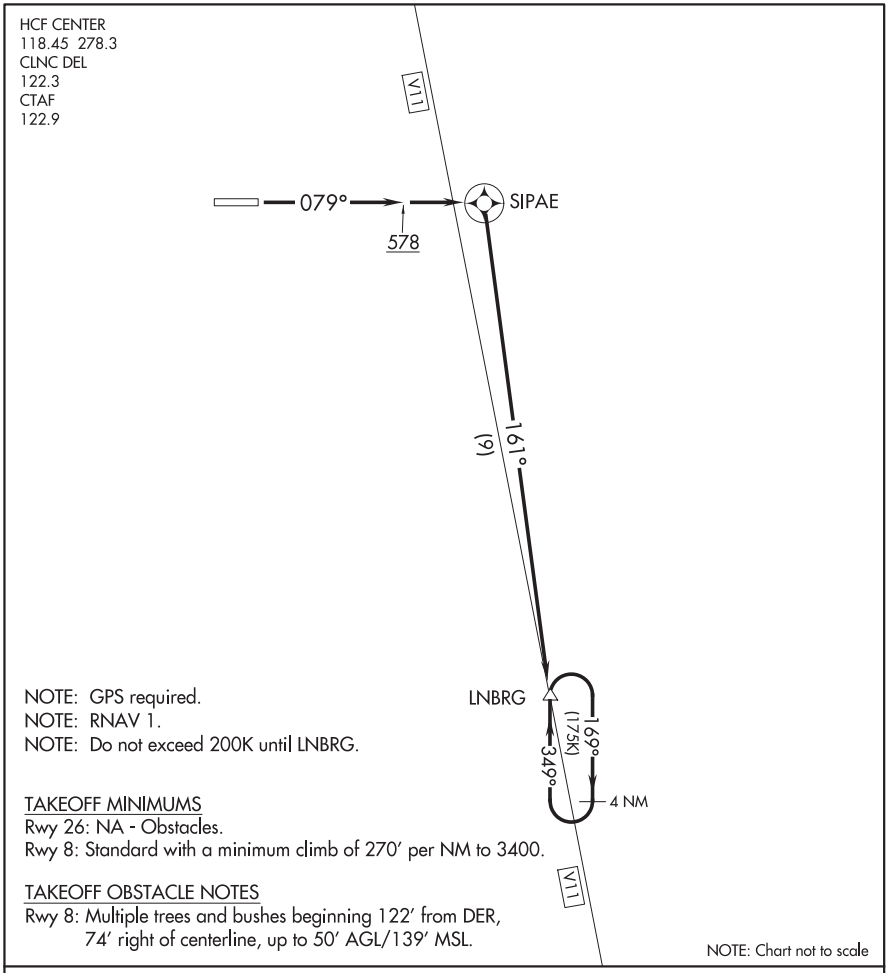
20°48'N-156°01'W

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

(LNBRG2.LNBRG) 20254

LINDBERG TWO DEPARTURE (OBSTACLE) (RNAV)

HANA (HNM)(PHHN)
AL-5156 (FAA) HANA, HAWAII



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) 21168

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

ILS or LOC RWY 26

HILO INTL (ITO) (PHTO)

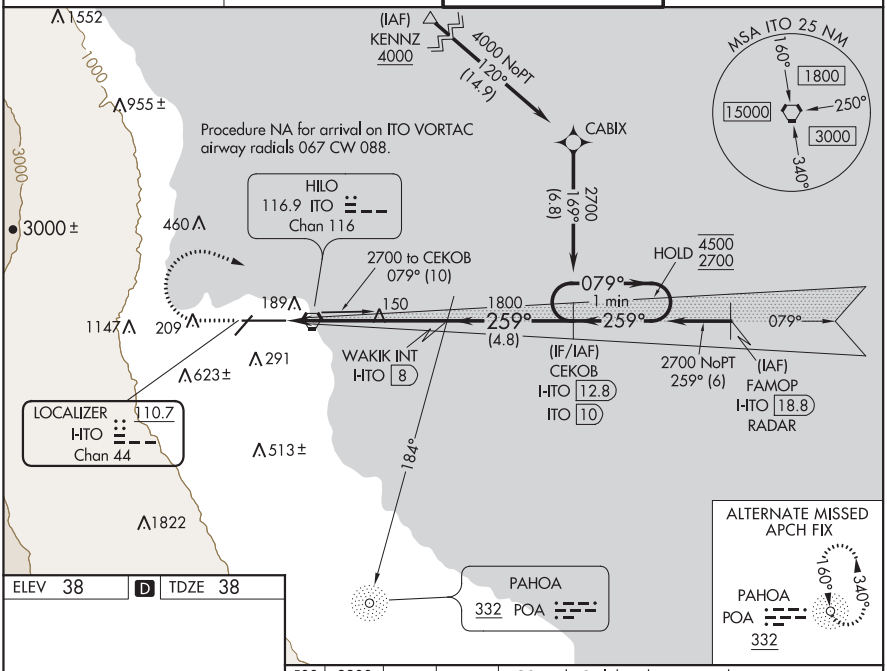
DME required. From KENNZ: RNAV 1-GPS required.

Circling NA south of Rwy 8-26. Rwy 26 helicopter visibility reduction below ¾ SM NA. 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 1⅛ SM.

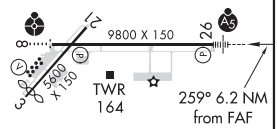
MALSR

MISSED 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.

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



ELEV 38 | D | TDZE 38

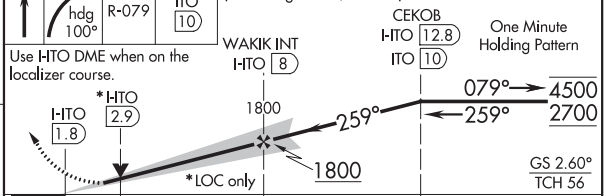


REIL Rwy 3
MIRL Rwy 3-21 L
HIRL Rwy 8-26 L

500 | 3300 hdg 100° | ITO R-079 | CEKOB ITO 10

VGSI and ILS glidepath not coincident (VGSI Angle 2.60/TCH 70).

Use I-HITO DME when on the localizer course.



CATEGORY	A	B	C	D
S-ILS 26	288-¾	250 (300-¾)		
S-LOC 26	420-¾	382 (400-¾)		
C CIRCLING	500-1 462 (500-1)	540-1 502 (600-1)	840-2¼ 802 (900-2¼)	1320-3 1282 (1300-3)

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

RNAV (GPS) RWY 21

HILO INTL (ITO) (PHTO)

APP CRS	Rwy Idg	5510
210°	TDZE	31
	Apt Elev	38

RNP APCH.

Circling NA south of Rwy 8-26. Rwy 21 helicopter visibility reduction below ¾ SM NA.

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

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

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

ARBOR 4000 069° (5.7) (IAF) KENNZ 3300 130° (10)

(IF) FAMBU 4 NM 349° 169° 3300 281° (5.3) (IAF) CABIX 210K

FAMBU 1800 210° (5.9) (FAF) KOPSE

RW21 186 189 209 291

1552 1000 955± 3000 3000± 460 1147 623± 513±

MSA RW21 25 NM 15000

Procedure NA for arrivals at HAKRI on V22 northeast bound.

HAKRI 4000 261° (18.9)

500 4000 CABIX

FAMBU 3300 210° 1800 3.00° TCH 50 KOPSE 1.1 NM to RW21 RW21

1.1 4.3 NM 5.9 NM

CATEGORY	A	B	C	D
LNAV MDA	440-1 409 (500-1)		440-1⅛ 409 (500-1⅛)	
C CIRCLING	500-1 462 (500-1)	540-1 502 (600-1)	840-2¼ 802 (900-2¼)	1320-3 1282 (1300-3)

ELEV 38 D TDZE 31

210° to RW21

9800 X 150 21 26 5600 X 150 8 26 TWR 164

REIL Rwy 3

MIRL Rwy 3-21 L

HIRL Rwy 8-26 L

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	Rwy Idg	9800
259°	TDZE	38
	Apt Elev	38

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

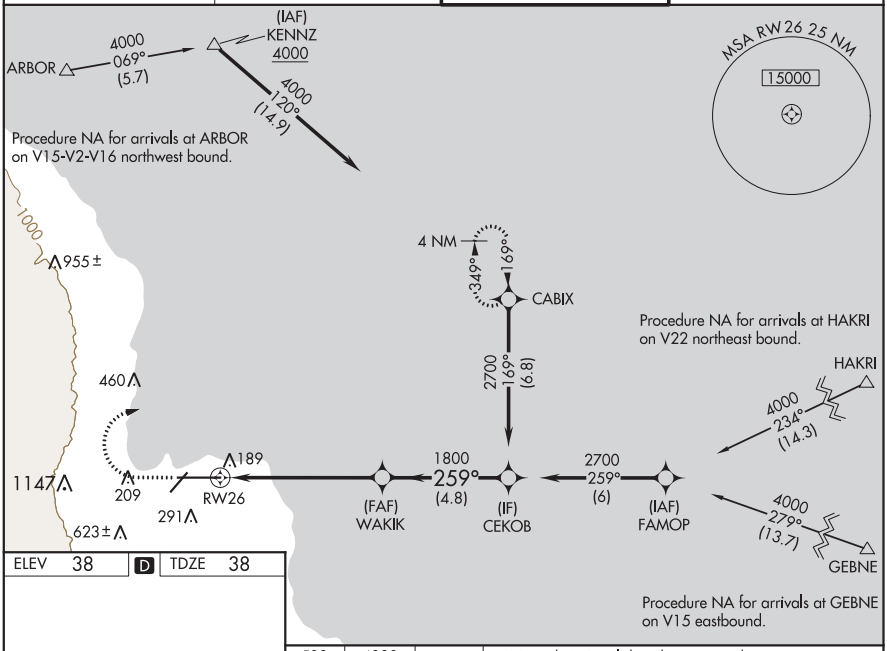
RNP APCH.

T A Circling NA south of Rwy 8-26. Rwy 26 helicopter visibility reduction below ¾ 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 Cats visibility to ⅞ SM and increase LNAV Cat A/B visibility to 1 SM.

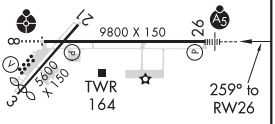
MALSR

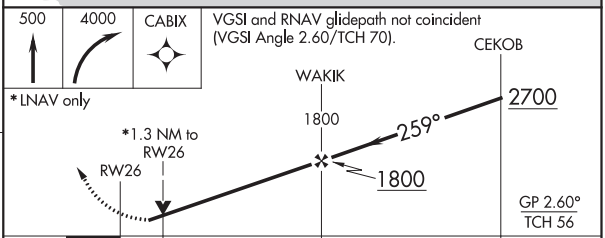
MISSED APPROACH: Climb to 500 then climbing right turn to 4000 direct CABIX and hold, continue climb-in-hold to 4000.

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



ELEV 38 D TDZE 38





CATEGORY	A	B	C	D
LNAV/VNAV DA	350-¾ 312 (400-¾)			
LNAV MDA	460-¾ 422 (500-¾)			
C CIRCLING	500-1 462 (500-1)	540-1 502 (600-1)	840-2¼ 802 (900-2¼)	1320-3 1282 (1300-3)

REIL Rwy 3
MIRL Rwy 3-21 L
HIRL Rwy 8-26 L

HILO, HAWAII
Amdt 2 25FEB21

19°43'N-155°03'W

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

HILO, HAWAII AL-756 (FAA) 20254

VOR/DME or TACAN RWY 26

HILO INTL (ITO) (PHTO)

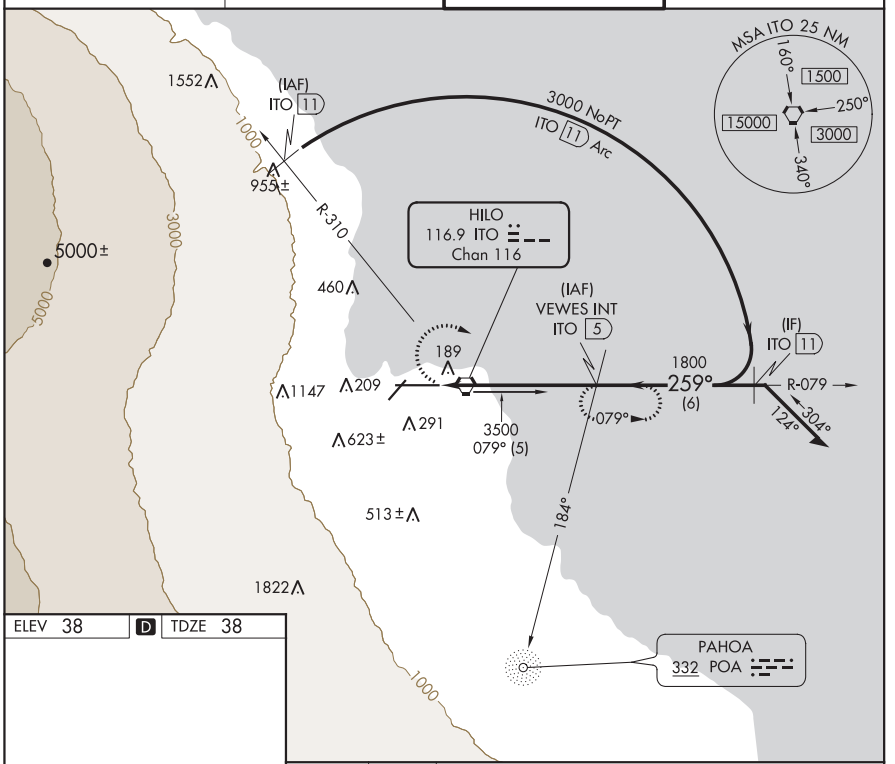
VORTAC ITO	APP CRS	Rwy Idg	9800
116.9	259°	TDZE	38
Chan 116		Apt Elev	38

T A For inop ALS, increase S-26 Cat A/B visibility to 1 SM and Cat D to 1¼ SM. Circling NA south of Rwy 8-26. Helicopter visibility reduction below ¾ SM NA.

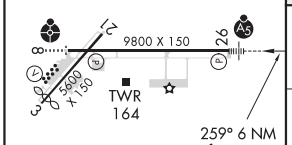
MALSR

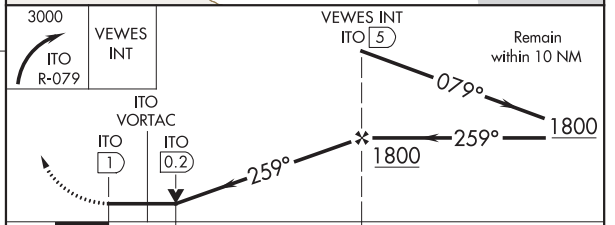
MISSED APPROACH: Climbing right turn to 3000 on ITO VORTAC R-079 to VEWES/5 DME and hold.

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



ELEV 38 D TDZE 38





CATEGORY	A	B	C	D
S-26	460-¾ 422 (500-¾)			460-1 422 (500-1)
C CIRCLING	500-1 462 (500-1)	540-1 502 (600-1)	840-2¼ 802 (900-2¼)	1320-3 1282 (1300-3)

REIL Rwy 3
MIRL Rwy 3-21 L
HIRL Rwy 8-26 L

HILO, HAWAII
Amdt 5E 16JUL20

19°43'N-155°03'W

HILO INTL (ITO) (PHTO)

VOR/DME or TACAN RWY 26

HILO, HAWAII AL-756 (FAA) 22083

VOR/DME or TACAN-A

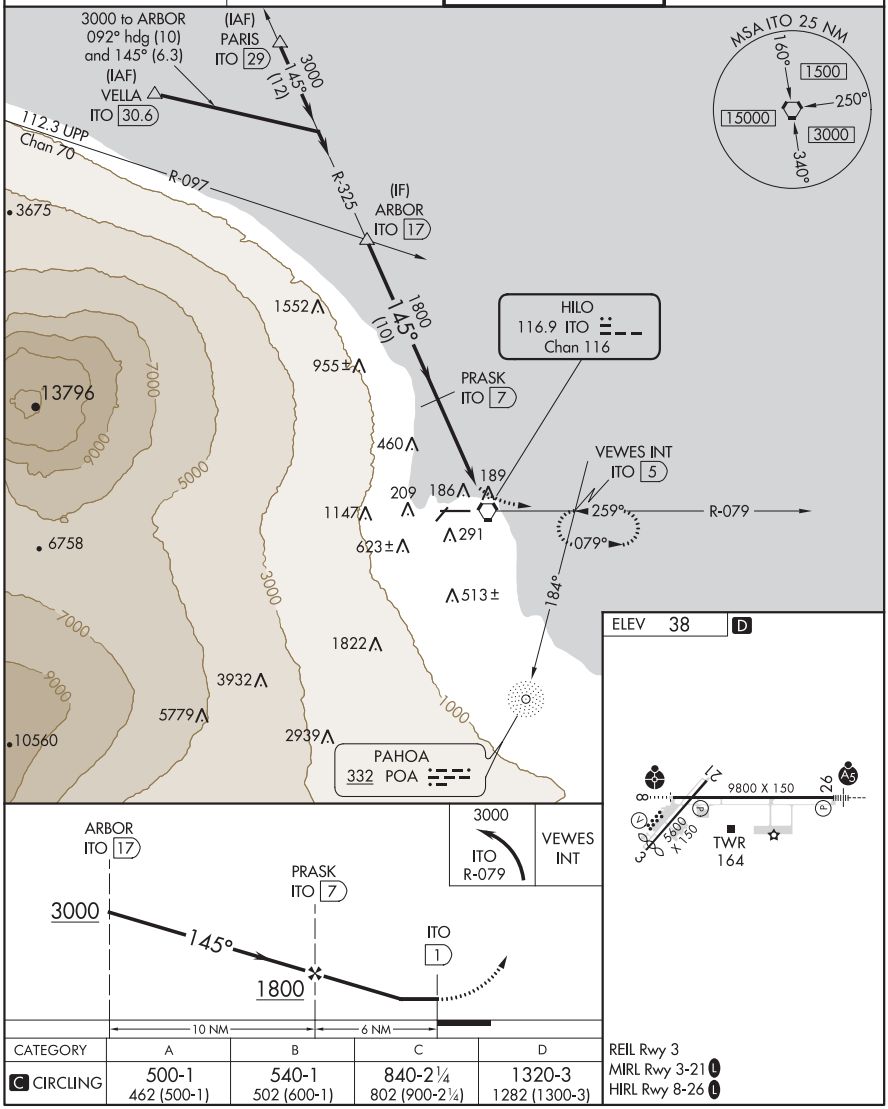
HILO INTL (ITO) (PHTO)

VORTAC ITO 116.9 Chan 116	APP CRS 145°	Rwy Idg N/A TDZE N/A Apt Elev 38

Circling NA south of Rwy 8-26.

MISSED APPROACH: Climbing left turn to 3000 on ITO VORTAC R-079 to VEWES/5 DME and hold.

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



CATEGORY	A	B	C	D
C CIRCLING	500-1 462 (500-1)	540-1 502 (600-1)	840-2¼ 802 (900-2¼)	1320-3 1282 (1300-3)

REIL Rwy 3
MIRL Rwy 3-21 L
HIRL Rwy 8-26 L

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) 22195

VOR-B

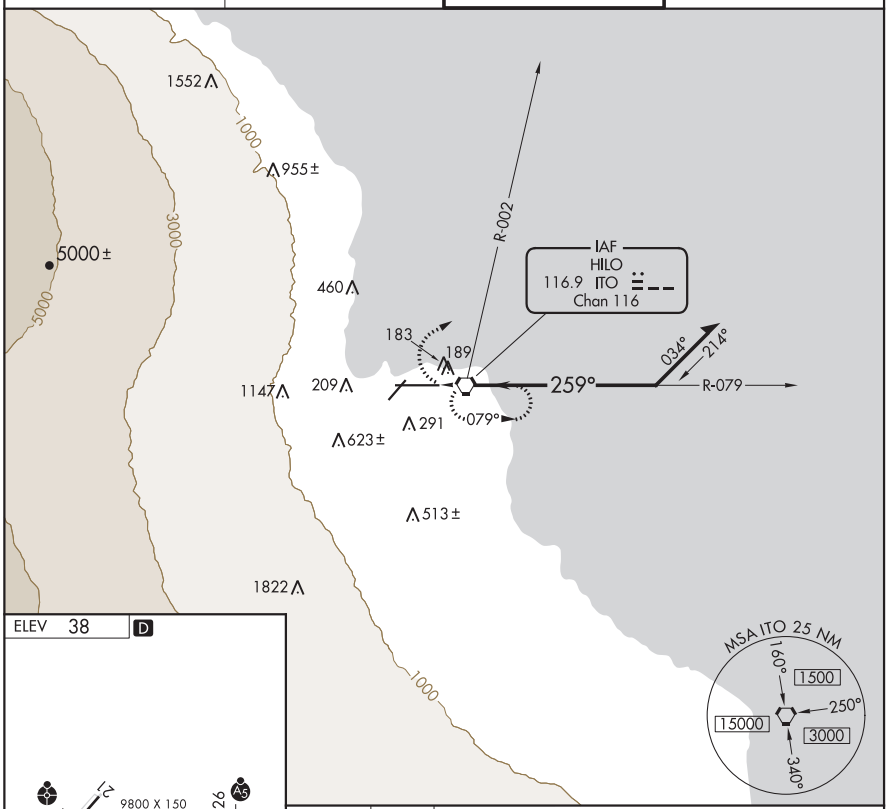
HILO INTL (ITO) (PHTO)

VORTAC ITO	APP CRS	Rwy Idg	N/A
116.9	259°	TDZE	N/A
Chan 116		Apt Elev	38

Circling NA south of Rwy 8-26.

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

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



REIL Rwy 3
MIRL Rwy 3-21 L
HIRL Rwy 8-26 L

FAF to MAP 1 NM					
Knots	60	90	120	150	180
Min:Sec	1:00	0:40	0:30	0:24	0:20

CATEGORY	A	B	C	D
C CIRCLING	500-1 462 (500-1)	540-1 502 (600-1)	NA	

HILO, HAWAII
Orig-E 14JUL22

19°43'N-155°03'W

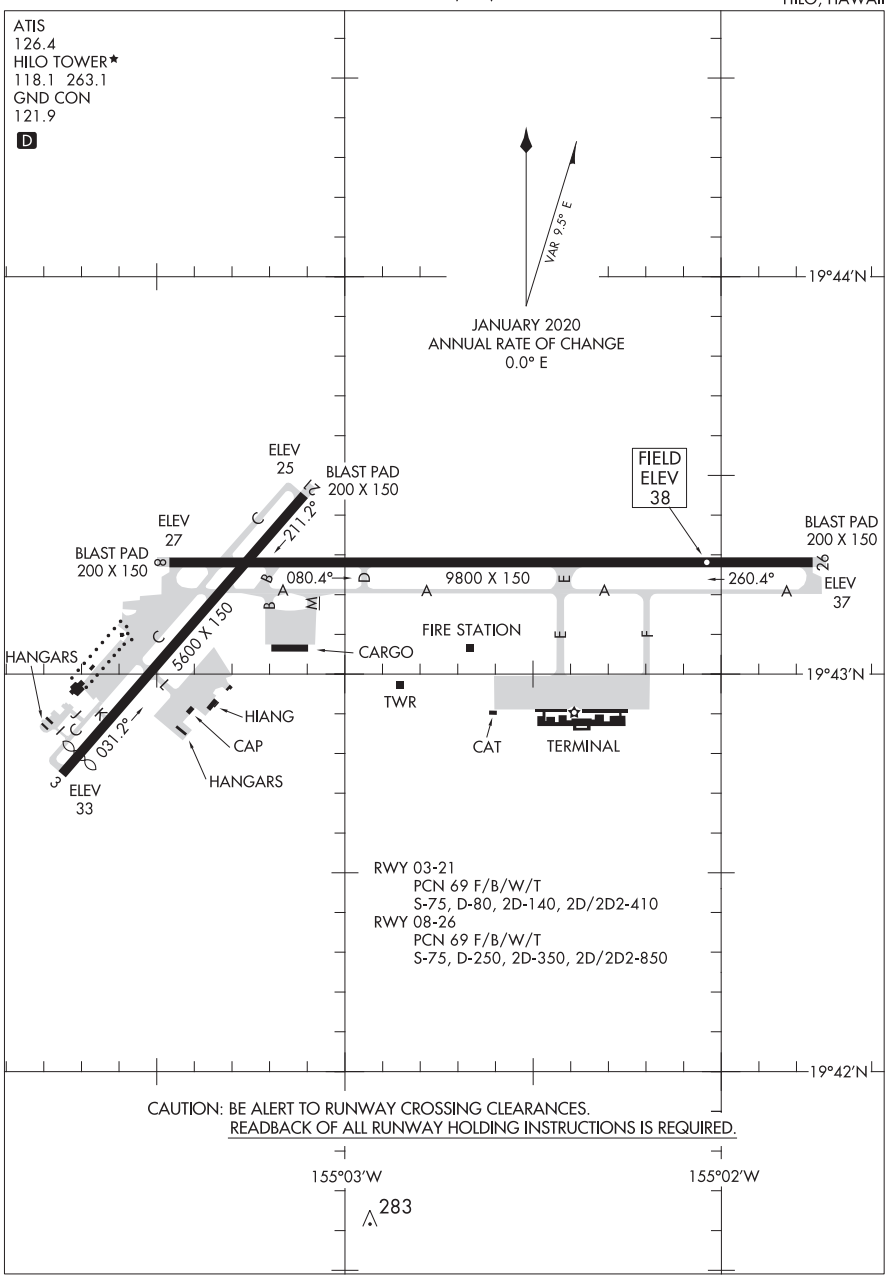
HILO INTL (ITO) (PHTO)
VOR-B

20310

AIRPORT DIAGRAM

AL-756 (FAA)

HILO INTL (ITO) (PHTO)
HILO, HAWAII



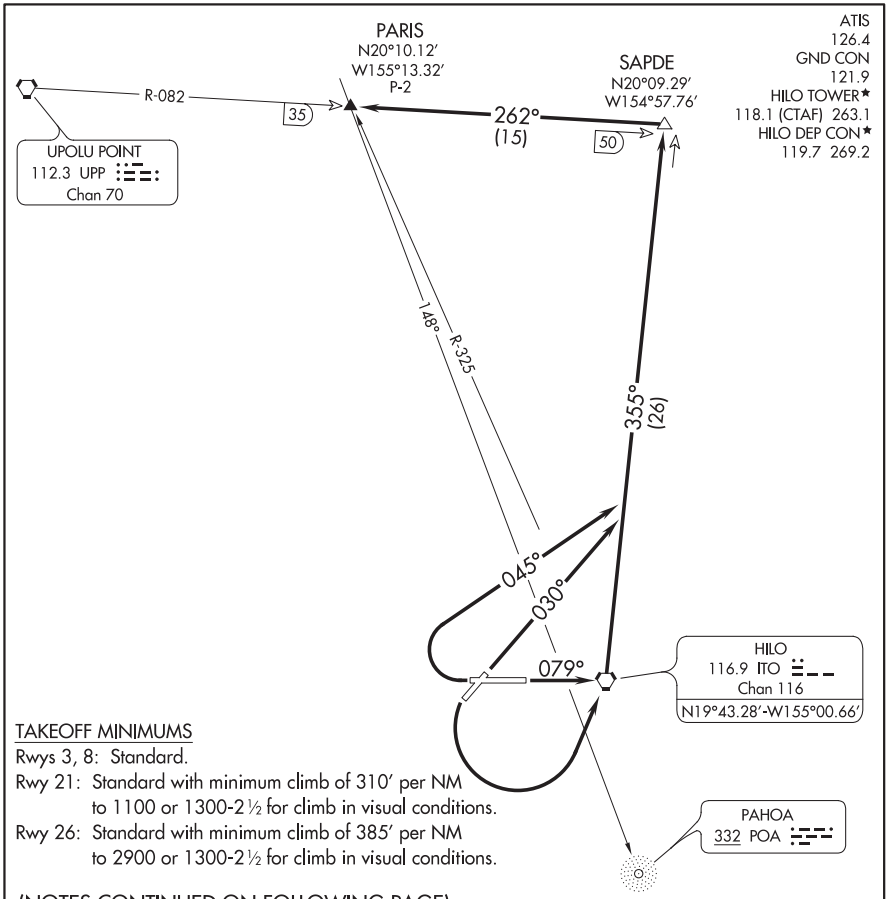
AIRPORT DIAGRAM
20310
HILO, HAWAII
HILO INTL (ITO) (PHTO)

(PARIS4.PARIS) 16259

PARIS FOUR DEPARTURE (OBSTACLE)

SL-756 (FAA)

HILO INTL (ITO)(PHTO)
HILO, HAWAII



TAKEOFF MINIMUMS

Rwys 3, 8: Standard.

Rwy 21: Standard with minimum climb of 310′ per NM to 1100 or 1300-2½ for climb in visual conditions.

Rwy 26: Standard with minimum climb of 385′ per NM to 2900 or 1300-2½ for climb in visual conditions.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb heading 030° and ITO R-355 to SAPDE INT, thence. . . .

TAKEOFF RUNWAY 8: Climb heading 079° to ITO VORTAC and ITO R-355 to SAPDE INT, thence. . . .

TAKEOFF RUNWAY 21: Climbing left turn direct ITO VORTAC and ITO R-355 to SAPDE INT, or climb in visual conditions to cross ITO VORTAC northbound at or above 1200 MSL, then via R-355 to SAPDE INT, thence. . . .

TAKEOFF RUNWAY 26: Climbing right turn via heading 045° and ITO R-355 to SAPDE INT, or climb in visual conditions to cross ITO VORTAC northbound at or above 1200 MSL, then via R-355 to SAPDE INT, thence. . . .

. . . .proceed via UPP R-082 to PARIS INT.

PARIS FOUR DEPARTURE (OBSTACLE)

(PARIS4.PARIS) 11FEB10

HILO, HAWAII
HILO INTL (ITO)(PHTO)

(PARIS4.PARIS) 16035

PARIS FOUR DEPARTURE (OBSTACLE)

SL-756 (FAA)

HILO INTL (ITO)(PHTO)
HILO, HAWAII

TAKEOFF OBSTACLE NOTES

Rwy 3: Numerous trees and WSK beginning 395′ from DER, 68′ left of centerline, up to 86′ AGL/115′ MSL.
Numerous trees beginning 325′ from DER, 137′ right of centerline, up to 66′ AGL/95′ MSL.

Rwy 8: Tree 1198′ from DER, 480′ left of centerline, 37′ AGL/70′ MSL.
Numerous trees beginning 414′ from DER, 328′ right of centerline, up to 46′ AGL/79′ MSL.

Rwy 21: Numerous trees and poles beginning 1077′ from DER, 272′ left of centerline, up to 70′ AGL/490′ MSL.
Numerous trees and poles beginning 236′ from DER, 43′ right of centerline, up to 83′ AGL/362′ MSL.
Vehicles on road beginning 234′ from DER, 260′ left of centerline, 15′ AGL/58′ MSL.

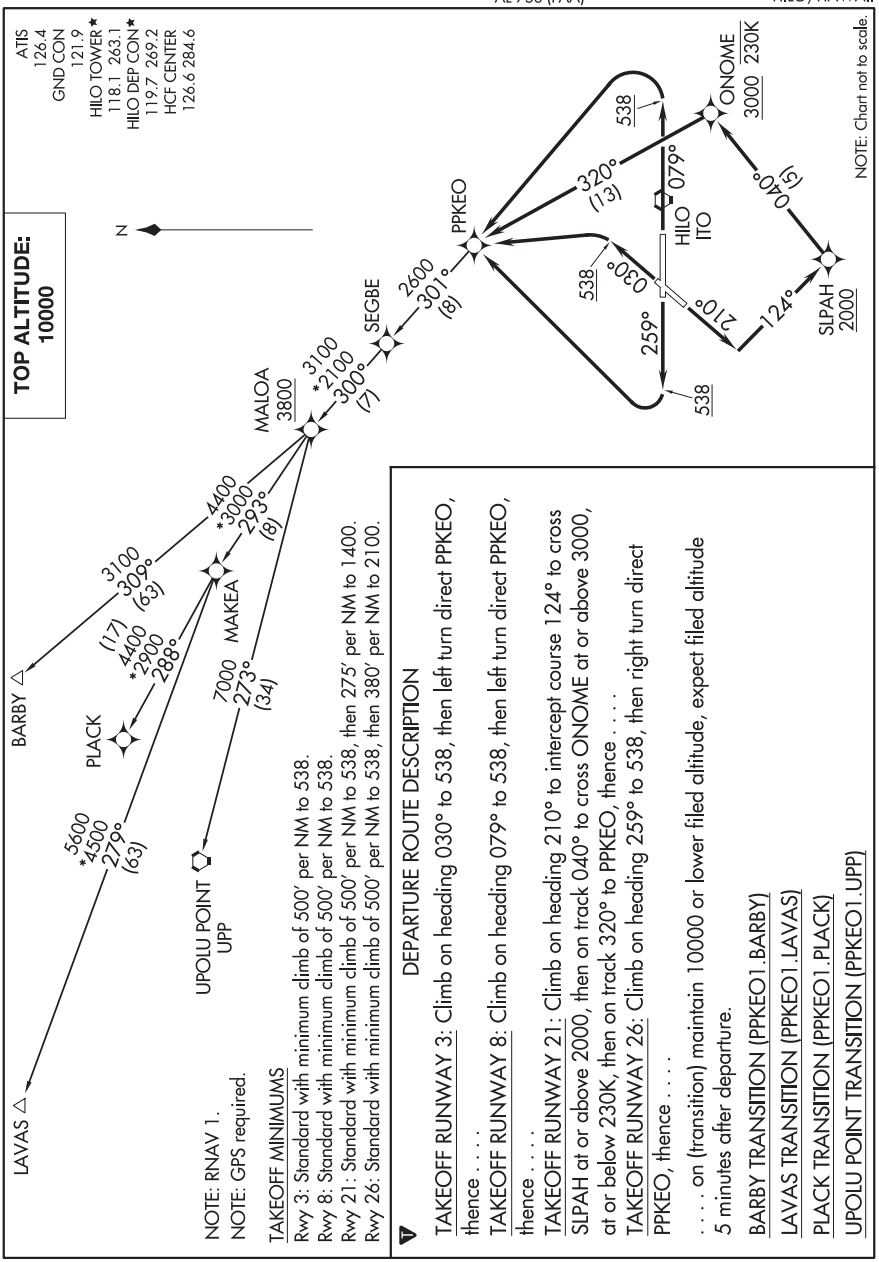
Rwy 26: Numerous vehicles beginning 6′ from DER, 452′ right of centerline, up to 15′ AGL/39′ MSL.
Numerous trees and light poles beginning 542′ from DER, 471′ left of centerline, up to 86′ AGL/92′ MSL.
Numerous trees beginning 1645′ from DER, 266′ right of centerline, up to 93′ AGL/119′ MSL.
Windsock 3′ from DER, 269′ right of centerline, 19′ AGL/46′ MSL.
RADAR reflector 373′ from DER, 346′ right of centerline, 10′ AGL/37′ MSL.

(PPKEO1.PPKEO) 22195

PPKEO ONE DEPARTURE (RNAV)

HILO INTL (ITO)(PHTO)
HILO, HAWAII

AL-756 (FAA)



NOTE: RNAV 1.
NOTE: GPS required.

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

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 3: Climb on heading 030° to 538, then left turn direct PPKEO, thence . . . .

TAKEOFF RUNWAY 8: Climb on heading 079° to 538, then left turn direct PPKEO, thence . . . .

TAKEOFF RUNWAY 21: Climb on heading 210° to intercept course 124° to cross SIPAH at or above 2000, then on track 040° to cross ONOME at or above 3000, at or below 230K, then on track 320° to PPKEO, thence . . . .

TAKEOFF RUNWAY 26: Climb on heading 259° to 538, then right turn direct PPKEO, thence . . . .

. . . . on (transition) maintain 10000 or lower filed altitude, expect filed altitude 5 minutes after departure.

BARBY TRANSITION (PPKEO1.BARBY)

LAVAS TRANSITION (PPKEO1.LAVAS)

PLACK TRANSITION (PPKEO1.PLACK)

UPOLU POINT TRANSITION (PPKEO1.UPP)

PPKEO ONE DEPARTURE (RNAV)
(PPKEO1.PPKEO) 25FEB21

HILO, HAWAII
HILO INTL (ITO)(PHTO)

HONOLULU, HAWAII | AL-754 (FAA) | 23222

LOC/DME I-HNL 111.7 Chan 54	APP CRS 079°	Rwy Idg 12312 TDZE 13 Apt Elev 13

ILS RWY 8L

DANIEL K INOUYE INTL (HNL) (PHNL)

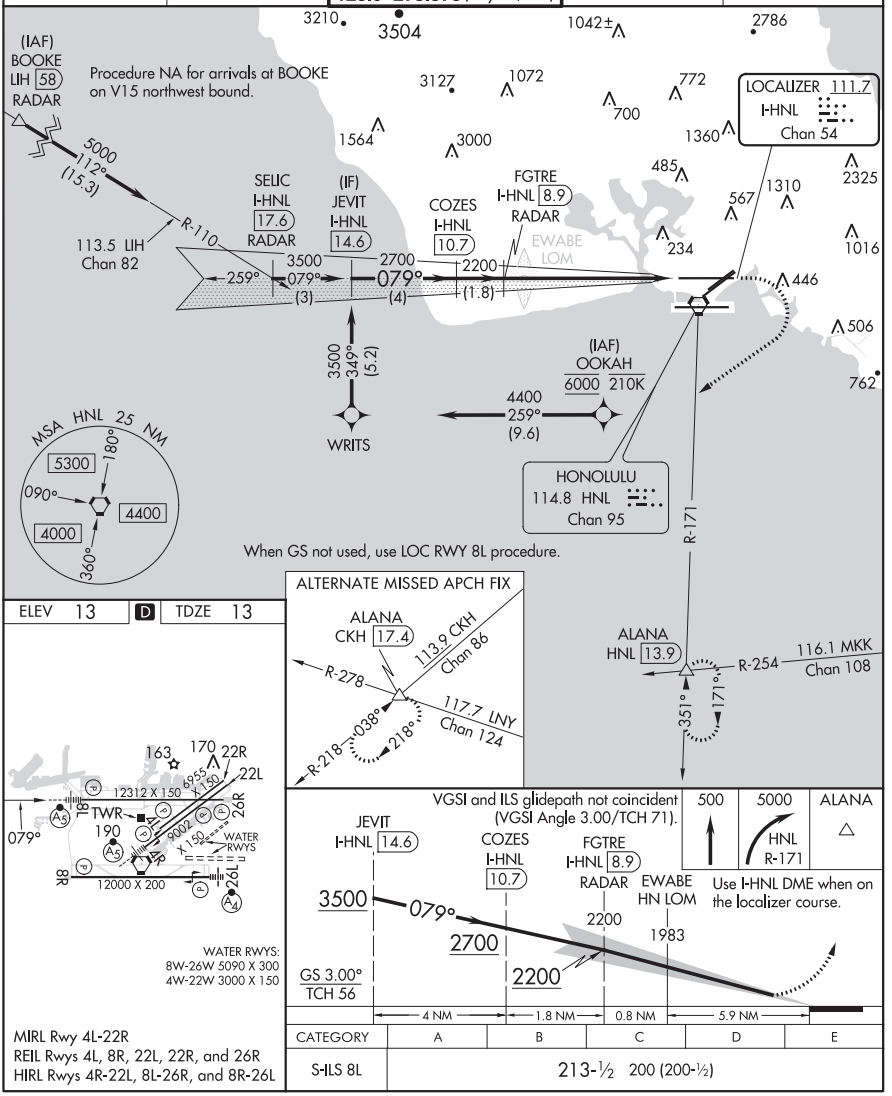
From OOKAH: RNAV 1-GPS required. DME or RADAR required.

For inop ALS, increase Cat E visibility to ¾ SM. OOKAH transition NA for Cat E aircraft.

MALSR

MISSED APPROACH: Climb to 500 then climbing right turn to 5000 on HNL VORTAC R-171 to ALANA INT/HNL 13.9 DME and hold, continue climb-in-hold to 5000.

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4



CATEGORY	A	B	C	D	E
S-ILS 8L	213-½ 200 (200-½)				

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) 23222

ILS Y RWY 4R

DANIEL K INOUYE INTL (HNL) (PHNL)

LOC/DME I-HUM	APP CRS	Rwy Idg	8950
110.5	042°	TDZE	8
Chan 42		Apt Elev	13

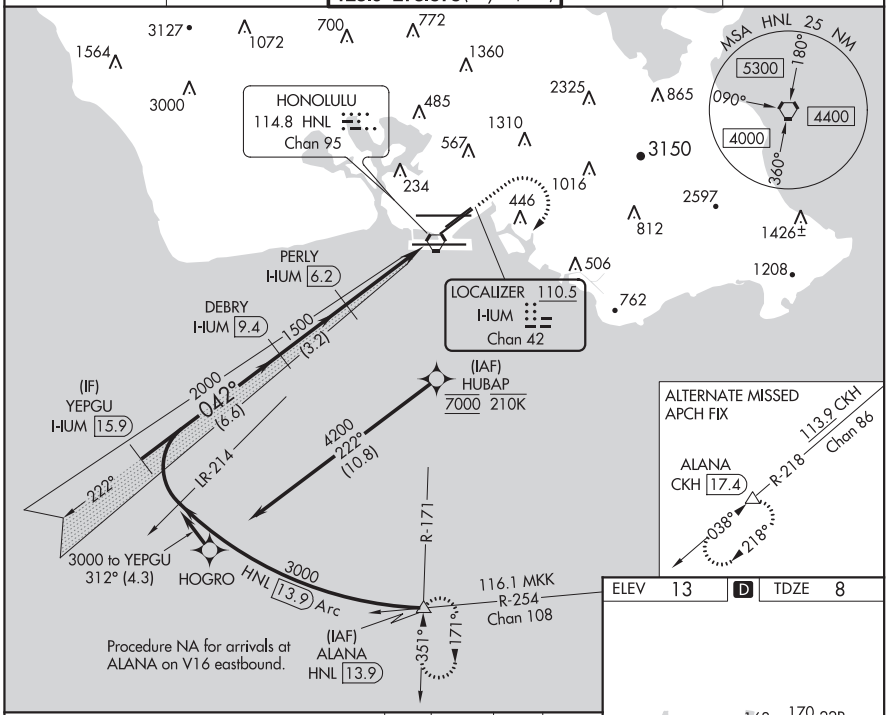
DME required. From HUBAP: RNAV 1-GPS required. DME or RADAR required for procedure entry.

For inop ALS, increase S-ILS 4R all Cats visibility to ⅞ SM.

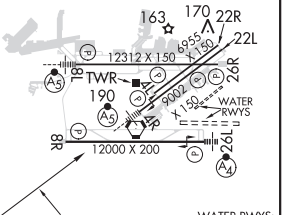
MALSR

MISSED 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).

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4



ELEV 13 D TDZE 8

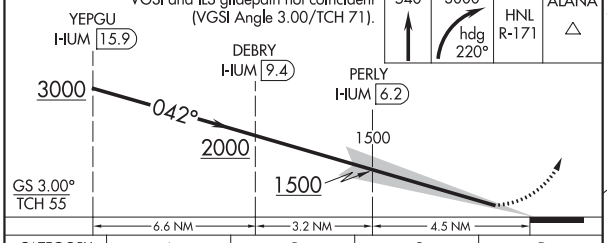


WATER RWYS:
8W-26W 5090 X 300
4W-22W 3000 X 150

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 71).

540	3000 hdg 220°	HNL R-171	ALANA △



CATEGORY	A	B	C	D
S-ILS 4R*	258-½	250 (300-½)		
S-ILS 4R	308-½	299 (300-½)		

HONOLULU, HAWAII
Amdt 2A 08SEP22

21°19′N-157°55′W

DANIEL K INOUYE INTL (HNL) (PHNL)

ILS Y RWY 4R

HONOLULU, HAWAII AL-754 (FAA) 23222

LOC/DME I-HUM	APP CRS	Rwy Idg	8950
110.5	042°	TDZE	8
Chan 42		Apt Elev	13

ILS Z RWY 4R

DANIEL K INOUYE INTL (HNL) (PHNL)

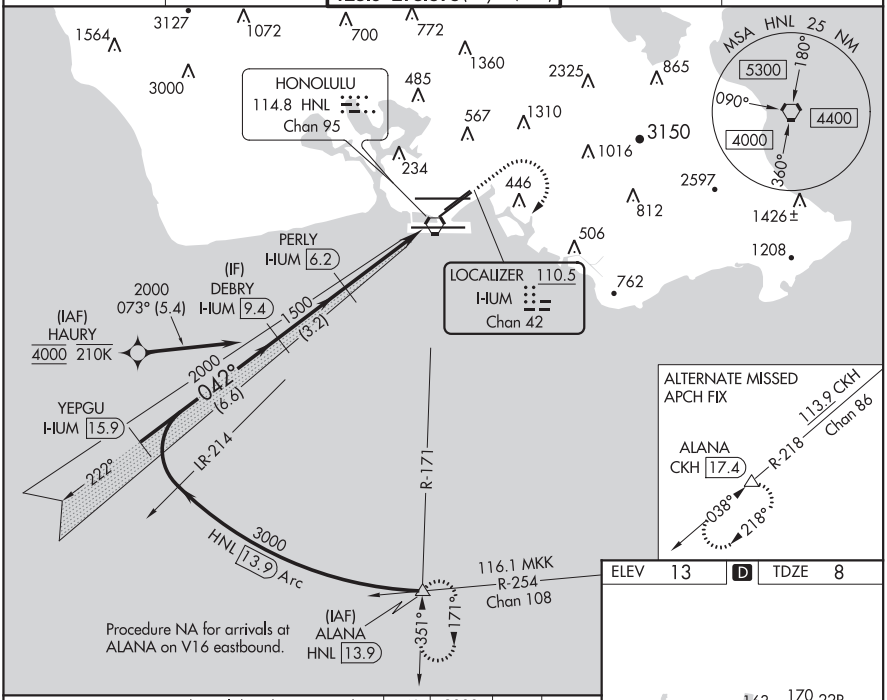
From HAURY: RNAV 1-GPS required. DME or RADAR required. DME or RADAR required for procedure entry.

HAURY transition NA for Cat E aircraft. For inop ALS, increase S-ILS 4R Cats A-D visibility to ⅞ SM, increase S-ILS 4R Cat E visibility to 1⅝ SM.

MALSR

MISSED 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).

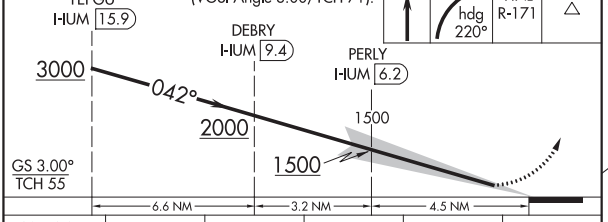
D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4



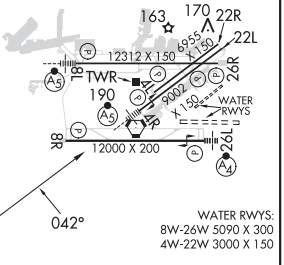
ELEV 13 D TDZE 8

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 71).

540	3000 hdg 220°	HNL R-171	ALANA △



CATEGORY	A	B	C	D	E
S-ILS 4R*	258-½	250 (300-½)			NA
S-ILS 4R	308-½	299 (300-½)			566-1⅛ 557 (600-1⅛)



MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L

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) 23222

APP CRS	Rwy Idg	12000
259°	TDZE	10
	Apt Elev	13

RNAV (RNP) RWY 26L

DANIEL K INOUYE INTL (HNL) (PHNL)

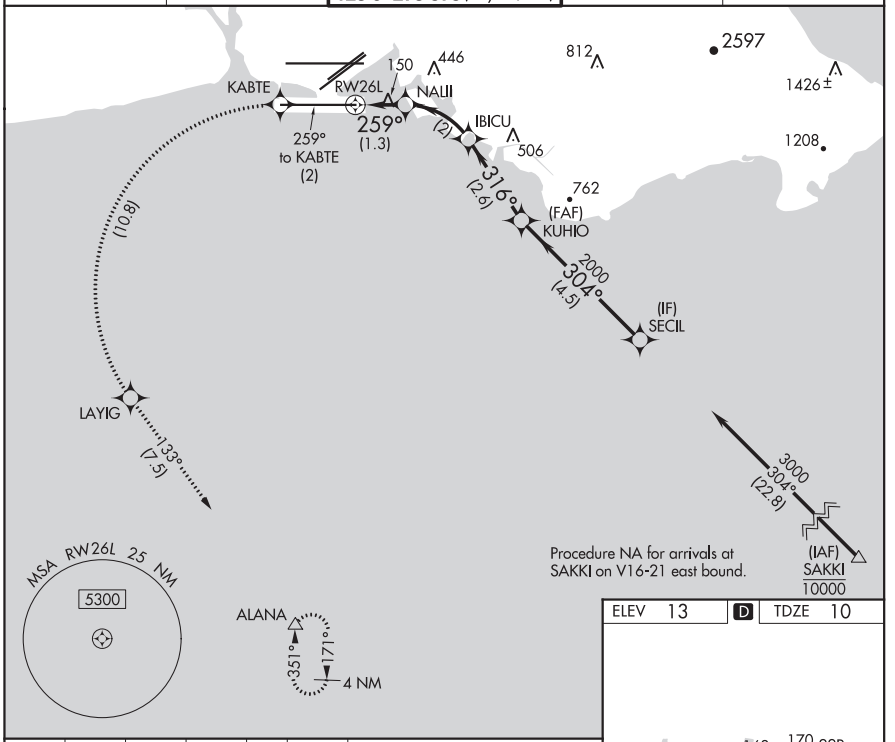
RNP AR APCH, RF required.

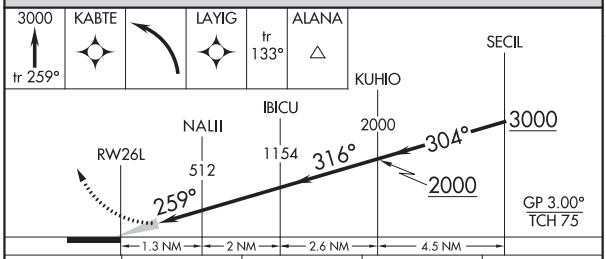
▼ For uncompensated Baro-VNAV systems, procedure NA below 15°C (58°F) or above 53°C (128°F).
▲ NA

MALSF

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	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4

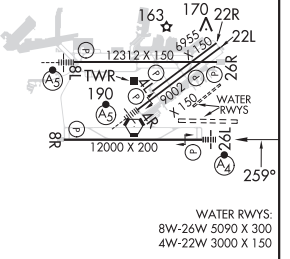




CATEGORY	A	B	C	D
RNP 0.15 DA	260-¾ 250 (300-¾)			

AUTHORIZATION REQUIRED

ELEV 13 D TDZE 10



WATER RWYS:
8W-26W 5090 X 300
4W-22W 3000 X 150

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L

HONOLULU, HAWAII
Orig-E 28FEB19

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)
RNAV (RNP) RWY 26L

HONOLULU, HAWAII | AL-754 (FAA) | 23222

APP CRS	Rwy Idg	8950
042°	TDZE	9
	Apt Elev	13

RNAV (RNP) Z RWY 4R

DANIEL K INOUYE INTL (HNL) (PHNL)

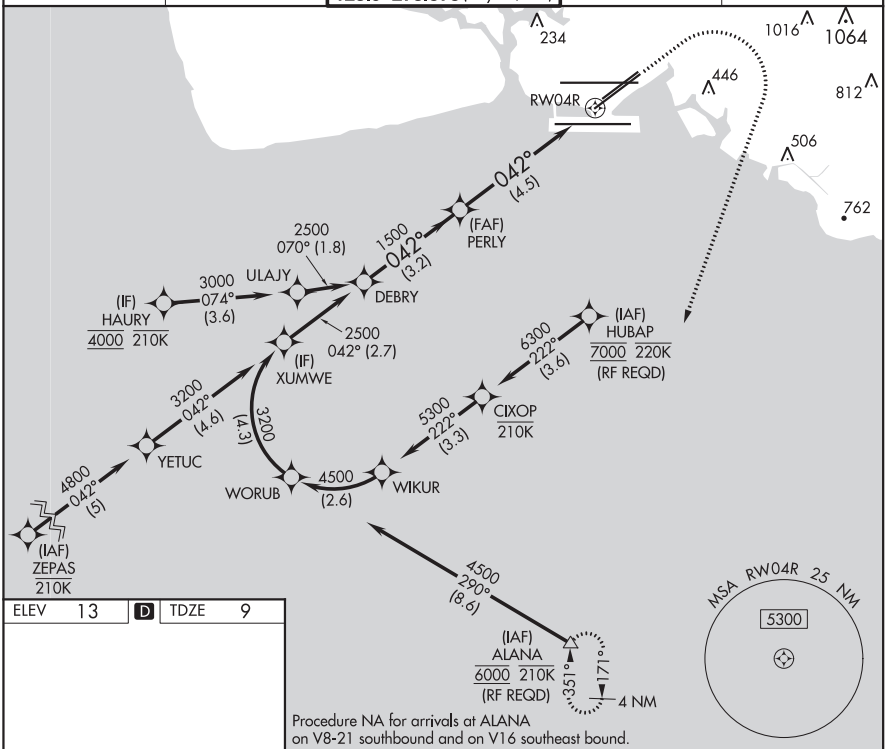
RNP AR APCH.

For uncompensated Baro-VNAV systems, procedure NA below 17°C or above 54°C. For inop ALS, increase RNP 0.30 Cat A visibility to ¾ SM and Cat B to ⅞ SM.

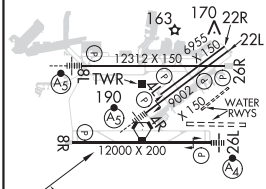
MALSR

MISSED APPROACH: Climb to 580 then climbing right turn to 3000 direct ALANA and hold.

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4

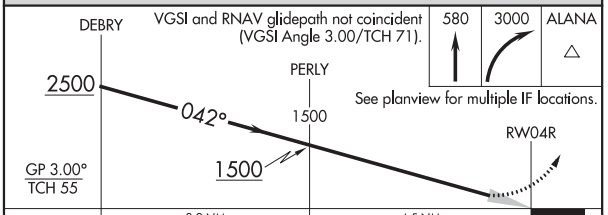


ELEV 13 | D | TDZE 9



WATER RWYS:
8W-26W 5090 X 300
4W-22W 3000 X 150

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L



CATEGORY	A	B	C	D
RNP 0.30 DA	259-½ 250 (300-½)	277-½ 268 (300-½)	432-¾	423 (500-¾)

AUTHORIZATION REQUIRED

HONOLULU, HAWAII
Amdt 2 30JAN20

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)
RNAV (RNP) Z RWY 4R

HONOLULU, HAWAII AL-754 (FAA) 23222

APP CRS	Rwy Idg	12312
079°	TDZE	13
	Apt Elev	13

RNAV (RNP) Z RWY 8L

DANIEL K INOUYE INTL (HNL) (PHNL)

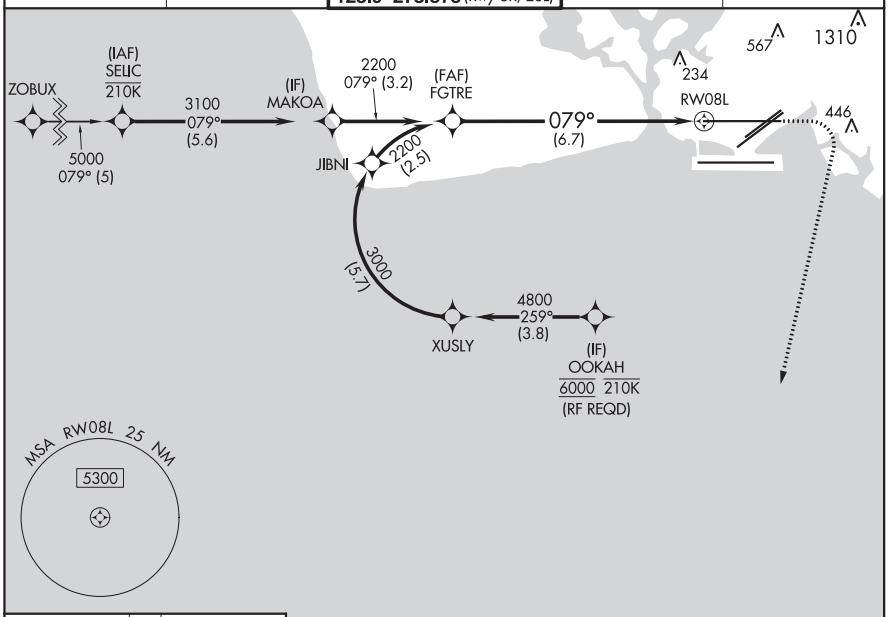
RNP AR APCH.

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

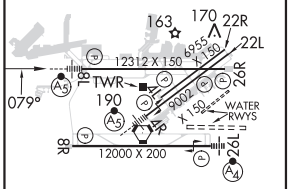
MALSR

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

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4

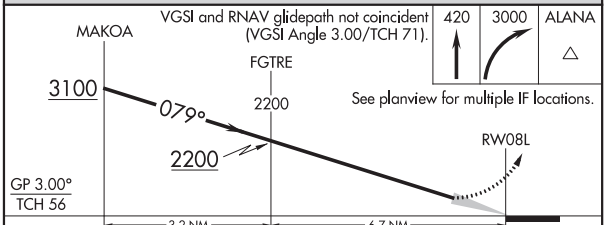


ELEV 13 D TDZE 13



WATER RWYS:
8W-26W 5090 X 300
4W-22W 3000 X 150

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L



CATEGORY	A	B	C	D
RNP 0.30 DA	343-½ 330 (400-½)			

AUTHORIZATION REQUIRED

HONOLULU, HAWAII
Amdt 3 30JAN20

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)
RNAV (RNP) Z RWY 8L

HONOLULU, HAWAII AL-754 (FAA) 23222

APP CRS	Rwy Idg	6952
042°	TDZE	10
	Apt Elev	13

RNAV (GPS) RWY 4L

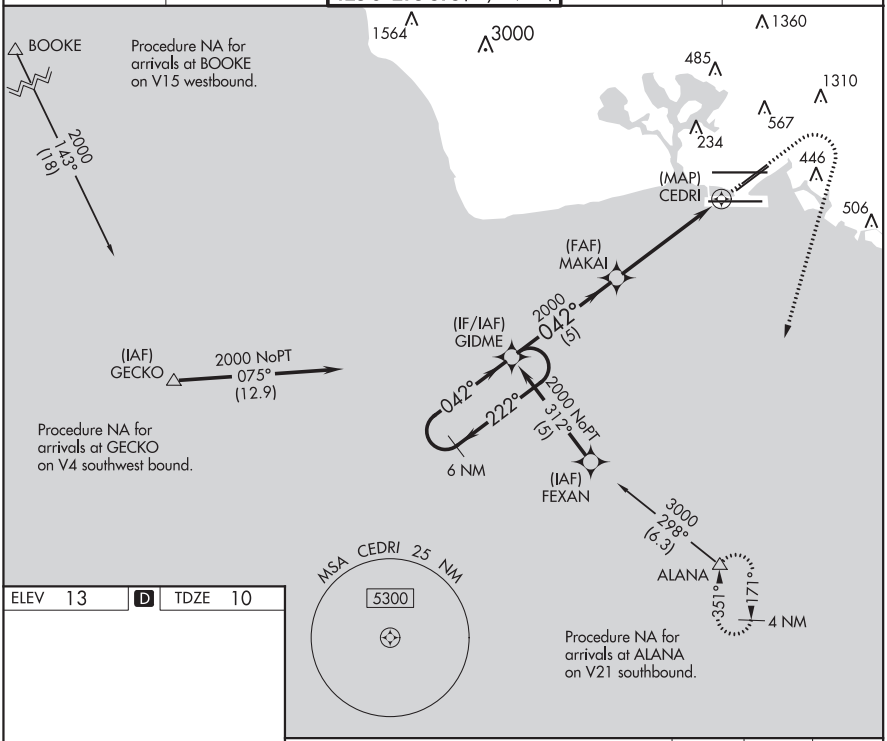
DANIEL K INOUYE INTL (HNL) (PHNL)

RNP APCH.

Circling Rwy 22R NA at night. Circling NA for Cats A and B northwest of Rwys 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 ¾ SM NA.

MISSED APPROACH: Climb to 500 then climbing right turn to 3000 direct ALANA and hold.

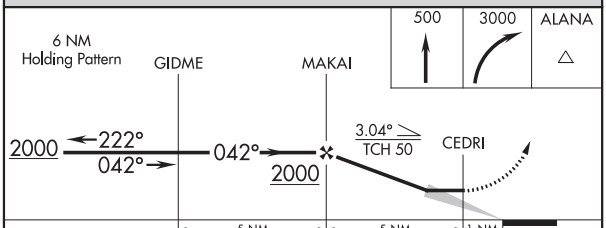
D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4



ELEV 13 D TDZE 10

WATER RWYS:
8W-26W 5090 X 300
4W-22W 3000 X 150

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L



CATEGORY	A	B	C	D	E
LNAV MDA	460-1¼	450 (500-1¼)	460-1⅜ 450 (500-1⅜)	460-1½ 450 (500-1½)	980-3 970 (1000-3)
C CIRCLING	680-1¼	667 (700-1¼)	820-2¼ 807 (900-2¼)	1400-3 1387 (1400-3)	1940-3 1927 (2000-3)

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) 23222

APP CRS		
079°	Rwy Idg	12000
	TDZE	10
	Apt Elev	13

RNAV (GPS) RWY 8R

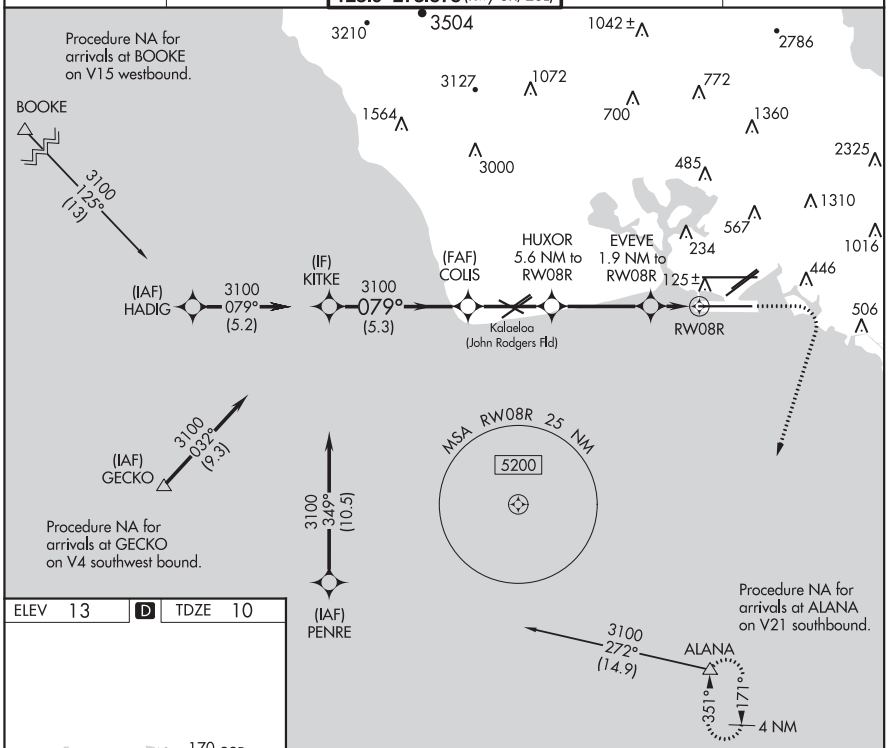
DANIEL K INOUYE INTL (HNL) (PHNL)

RNP APCH.

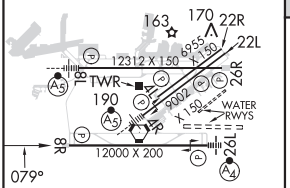
Circling Rwy 22R NA at night. Circling NA for Cats A and B northwest of Rwys 8L and 22R. Circling NA for Cats C, D, and E north of Rwy 8L-26R. Circling NA to Sea Lanes 4W, 8W, 22W, and 26W. Cat E restricted to USAF/USN Aircraft.

MISSED APPROACH: Climb to 500 then climbing right turn to 3100 direct ALANA and hold, continue climb-in-hold to 3100.

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4

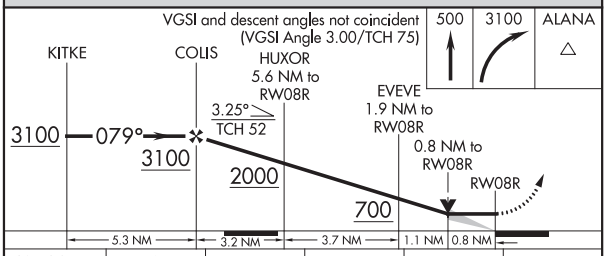


ELEV 13 D TDZ 10



WATER RWYS:
8W-26W 5090 X 300
4W-22W 3000 X 150

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L



CATEGORY	A	B	C	D	E
LNAV MDA	360-1 350 (400-1)				
C CIRCLING	680-1 667 (700-1)	760-1 747 (800-1)	820-2¼ 807 (900-2¼)	1340-3 1327 (1400-3)	2020-3 2007 (2100-3)

HONOLULU, HAWAII
Amdt 1 17JUN21

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)

RNAV (GPS) RWY 8R

HONOLULU, HAWAII AL-754 (FAA) 23222

APP CRS	Rwy Idg	8950
042°	TDZE	8
	Apt Elev	13

RNAV (GPS) Y RWY 4R

DANIEL K INOUYE INTL (HNL) (PHNL)

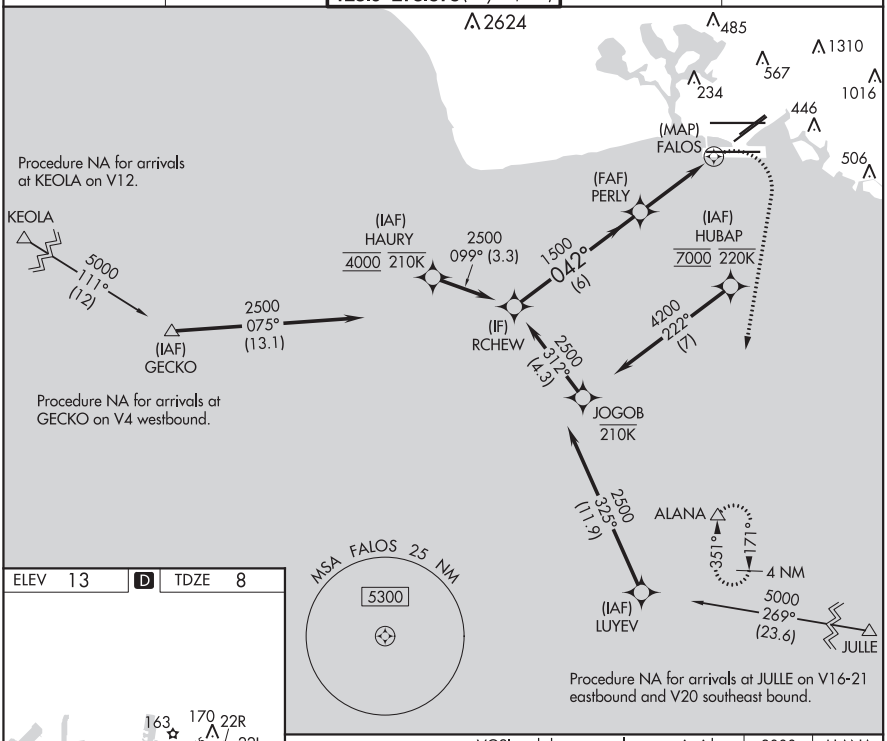
RNP APCH.

Circling Rwy 22R NA at night. Circling NA for Cats A and B northwest of Rwy 8L and 22R. Circling NA for Cats C 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.

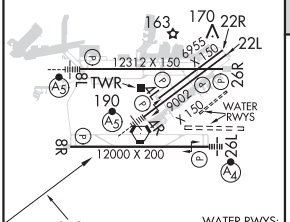
MALSR

MISSED APPROACH: Climbing right turn to 3000 direct ALANA and hold.

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4



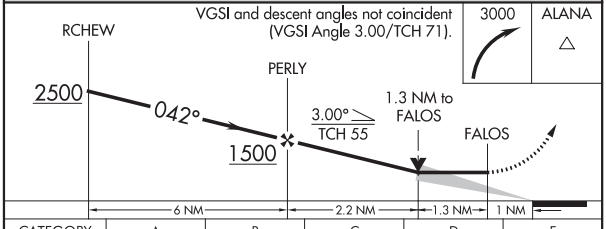
ELEV 13 D TDZE 8



WATER RWYS:
8W-26W 5090 X 300
4W-22W 3000 X 150

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L

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



3000 ALANA

CATEGORY	A	B	C	D	E
LNAV MDA	460-3/4 452 (500-3/4)		460-7/8 452 (500-7/8)		460-1 3/4 452 (500-1 3/4)
C CIRCLING	680-1 1/4 667 (700-1 1/4)	760-1 1/4 747 (800-1 1/4)	820-2 1/4 807 (900-2 1/4)	1400-3 1387 (1400-3)	NA

HONOLULU, HAWAII
Amdt 3A 25FEB21

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)

RNAV (GPS) Y RWY 4R

HONOLULU, HAWAII AL-754 (FAA) 23222

APP CRS	Rwy Idg	12312
079°	TDZE	13
	Apt Elev	13

RNAV (GPS) Y RWY 8L

DANIEL K INOUYE INTL (HNL) (PHNL)

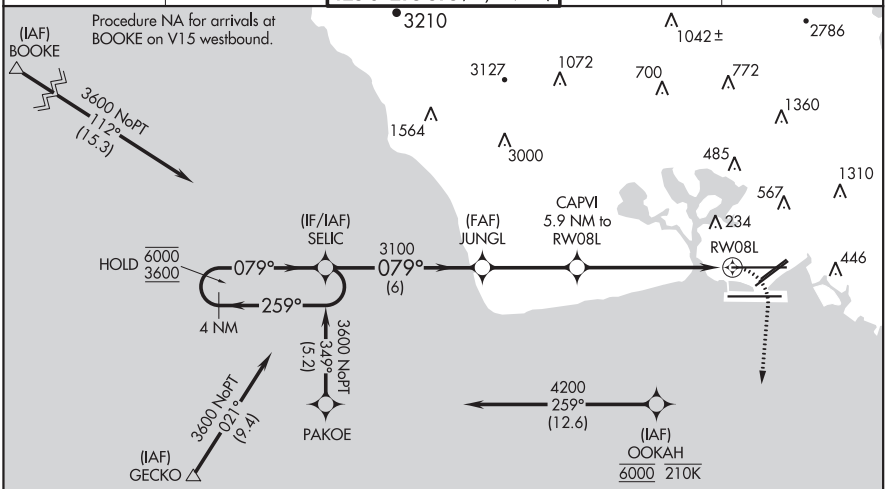
RNP APCH.

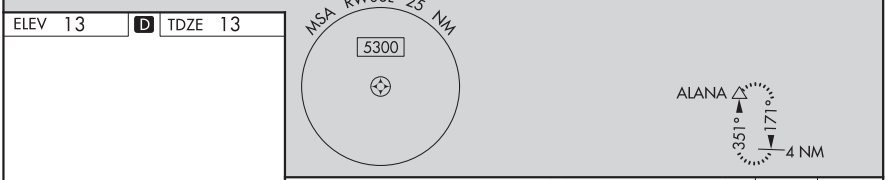
Circling Rwy 22R NA at night. For inop ALS, increase Cats C, D, and E visibility to 1⅜ SM. Circling NA to sea lanes 4W, 8W, 22W, and 26W. Circling NA for Cats A and B northwest of Rwy 8L-22R. Circling NA for Cats C and D north of Rwy 8L-26R. OOKAH transition NA for Cat E aircraft.

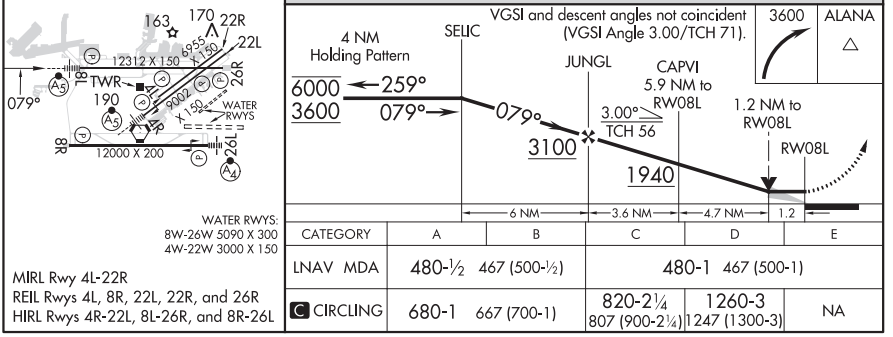
MALSR

MISSED APPROACH: Climbing right turn to 3600 direct ALANA and hold, continue climb-in-hold to 3600.

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4







WATER RWYS:
8W-26W 5090 X 300
4W-22W 3000 X 150

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L

CATEGORY	A	B	C	D	E
LNAV MDA	480-½ 467 (500-½)		480-1 467 (500-1)		
C CIRCLING	680-1 667 (700-1)		820-2¼ 807 (900-2¼)	1260-3 1247 (1300-3)	NA

HONOLULU, HAWAII
Amdt 3B 08SEP22

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)

RNAV (GPS) Y RWY 8L

HONOLULU, HAWAII AL-754 (FAA) 23222

LOC/DME I-HUM	APP CRS	Rwy Idg	8950
110.5	042°	TDZE	8
Chan 42		Apt Elev	13

LOC RWY 4R

DANIEL K INOUYE INTL (HNL) (PHNL)

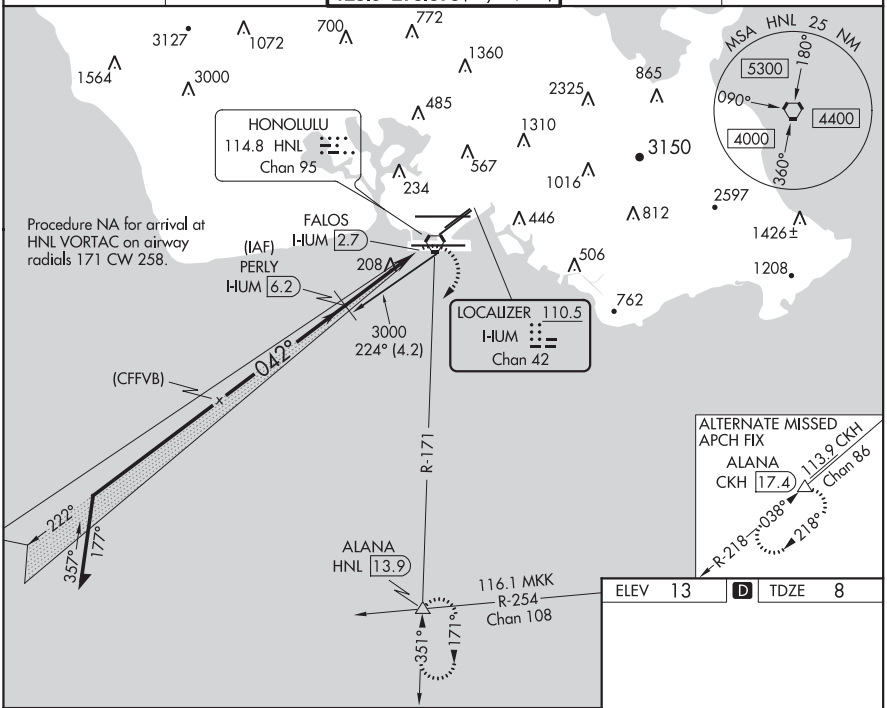
DME required.

Circling Rwy 22R NA at night. For inop ALS, increase Cat E visibility to 1⅜ SM. Circling NA for Cats A and B northwest of Rwys 8L and 22R. Circling NA for Cats C and D north of Rwy 8L-26R. Circling NA to sea lanes 4W, 8W, 22W, and 26W.

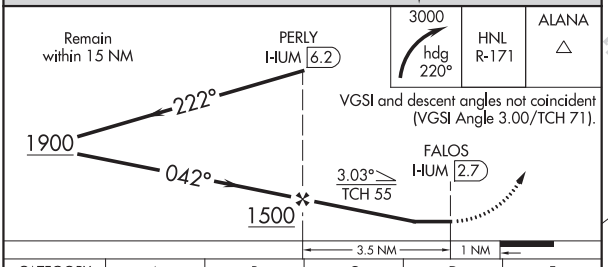
MALSR

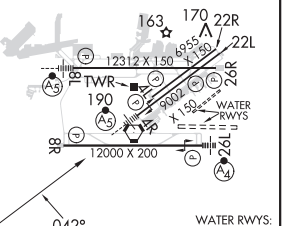
MISSED APPROACH: Climbing right turn to 3000 on heading 220° and HNL VORTAC R-171 to ALANA INT/ HNL 13.9 DME and hold.

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4



ELEV 13 D TDZE 8





CATEGORY	A	B	C	D	E
S-4R	460-¾ 452 (500-¾)		460-⅞ 452 (500-⅞)		
C CIRCLING	680-1¼ 667 (700-1¼)	760-1¼ 747 (800-1¼)	820-2¼ 807 (900-2¼)	1400-3 1387 (1400-3)	NA

WATER RWYS:
8W-26W 5090 X 300
4W-22W 3000 X 150

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L

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) | 23222

LOC RWY 8L

DANIEL K INOUYE INTL (HNL) (PHNL)

LOC/DME I-HNL	APP CRS	Rwy Idg	12312
111.7	079°	TDZE	13
Chan 54		Apt Elev	13

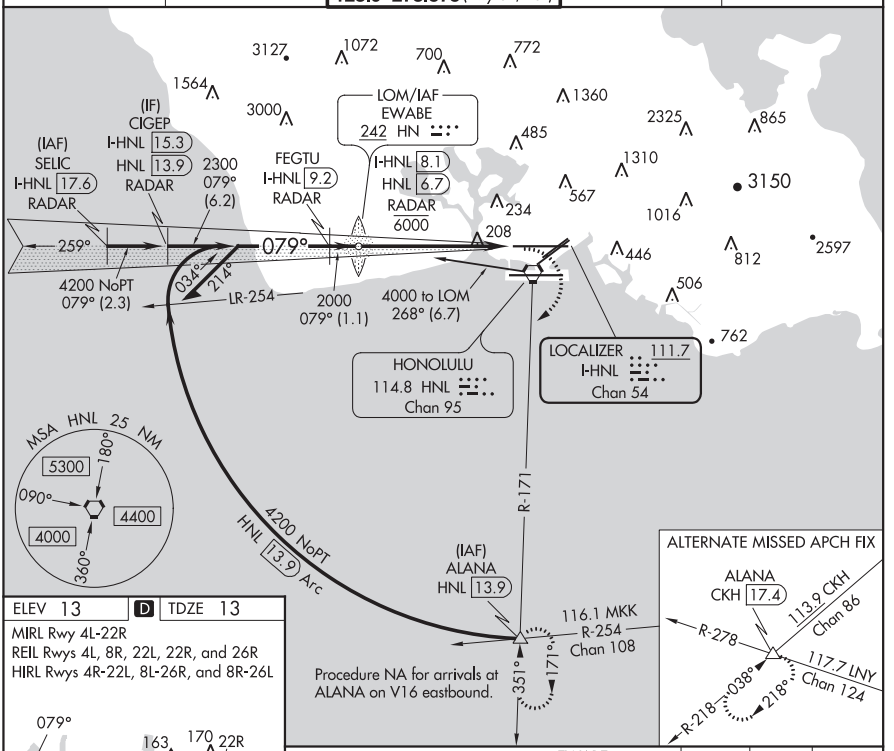
DME or RADAR required.

Circling Rwy 22R NA at night. Circling NA for Cats A and B northwest of Rwys 8L and 22R. Circling NA for Cats C and D north of Rwy 8L-26R. Circling NA to sea lanes 4W, 8W, 22W, and 26W.

MALSR

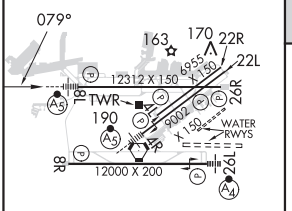
MISSED APPROACH: Climbing right turn to 5000 on heading 200° and HNL VORTAC R-171 to ALANA INT/HNL 13.9 DME and hold, continue climb-in-hold to 5000.

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4

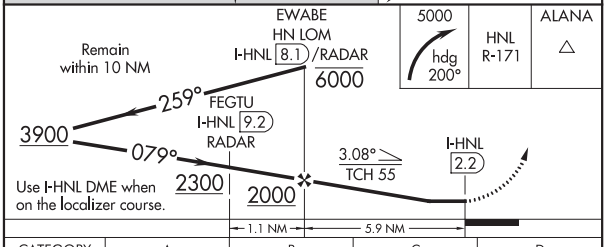


ELEV 13 | D | TDZE 13

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L



WATER RWYS:
8W-26W 5090 X 300
4W-22W 3000 X 150



FAF to MAP 5.9 NM					
Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

CATEGORY	A	B	C	D
S-8L	460-½ 447 (500-½)		460-⅞ 447 (500-⅞)	
C CIRCLING	680-1 667 (700-1)	760-1 747 (800-1)	820-2¼ 807 (900-2¼)	1400-3 1387 (1400-3)

HONOLULU, HAWAII
Amdt 1C 25FEB21

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)
LOC RWY 8L

HONOLULU, HAWAII AL-754 (FAA) 23222

LOC/DME I-EPC	APP CRS	Rwy Idg	12000
109.1	304°	TDZE	10
Chan 28		Apt Elev	13

LDA RWY 26L

DANIEL K INOUYE INTL (HNL) (PHNL)

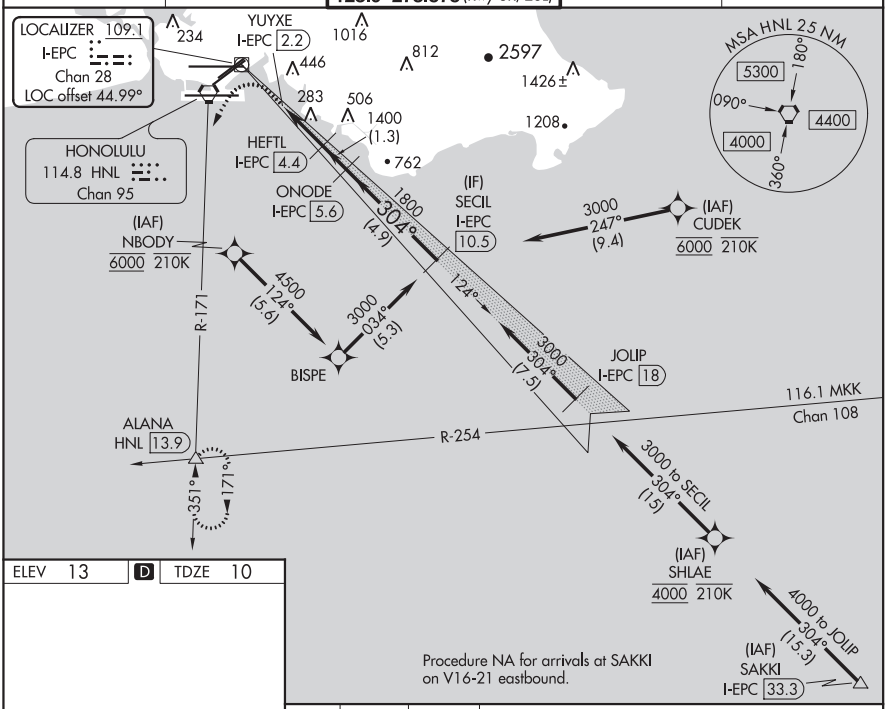
DME required. From CUDEK, NBODY, SHLAE: RNAV 1-GPS required.

V A NA — 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.

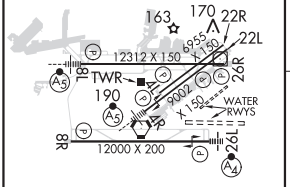
MALSF (A4)

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	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4



ELEV 13 | D | TDZE 10



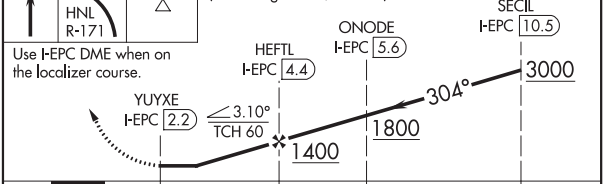
WATER RWYS:
8W-26W 5090 X 300
4W-22W 3000 X 150

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L

600	3000	ALANA
	HNL R-171	

Use I-EPC DME when on the localizer course.

VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 75).



CATEGORY	A	B	C	D	E
S-LDA 26L	600-2 590 (600-2)				
C CIRCLING	680-2¼ 667 (700-2¼)	760-2¼ 747 (800-2¼)	820-2¼ 807 (900-2¼)	1400-3 1387 (1400-3)	NA

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) | 23222

VOR or TACAN RWY 4R

DANIEL K INOUYE INTL (HNL) (PHNL)

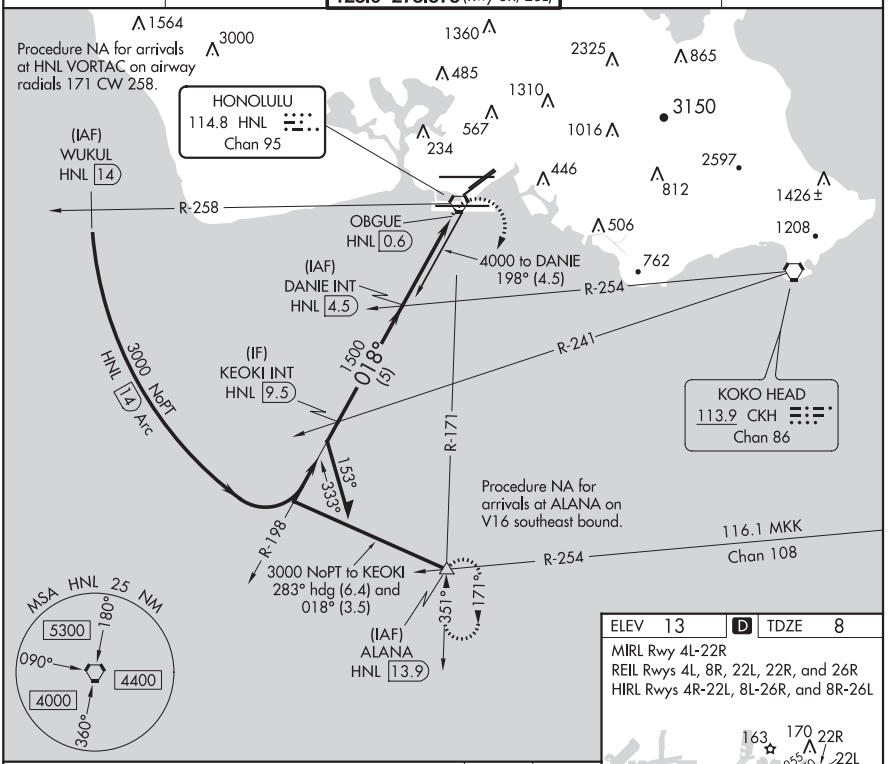
VORTAC HNL	APP CRS	Rwy Idg	8950
114.8	018°	TDZE	8
Chan 95		Apt Elev	13

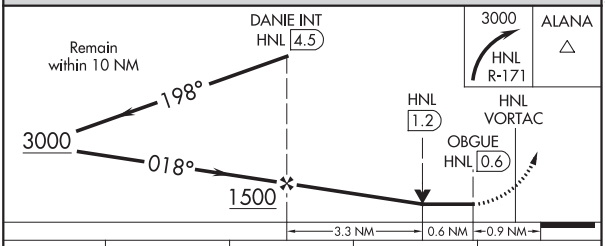
Circling Rwy 22R NA at night. Inop table does not apply. Circling NA for Cats A and B northwest of Rwys 8L and 22R. Circling NA for Cats C and D north of Rwy 8L-26R. Circling NA to sea lanes 4W, 8W, 22W, and 26W.

MALSR

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

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4

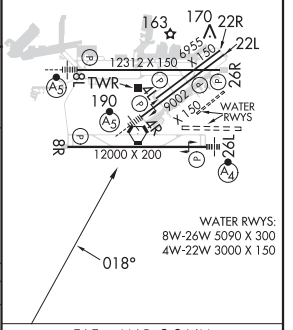




CATEGORY	A	B	C	D
S-4R	460-1 452 (500-1)		460-1¼ 452 (500-1¼)	460-1½ 452 (500-1½)
C CIRCLING	680-1¼ 667 (700-1¼)	760-1¼ 747 (800-1¼)	820-2¼ 807 (900-2¼)	1400-3 1387 (1400-3)

ELEV 13 | D | TDZE 8

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L



FAF to MAP 3.9 NM

Knots	60	90	120	150	180
Min:Sec	3:54	2:36	1:57	1:34	1:18

HONOLULU, HAWAII
Orig-E 25FEB21

21°19'N-157°55'W

DANIEL K INOUYE INTL (HNL) (PHNL)
VOR or TACAN RWY 4R

HONOLULU, HAWAII | AL-754 (FAA) | 23222

VORTAC HNL	APP CRS	Rwy Idg	N/A
114.8	305°	TDZE	N/A
Chan 95		Apt Elev	13

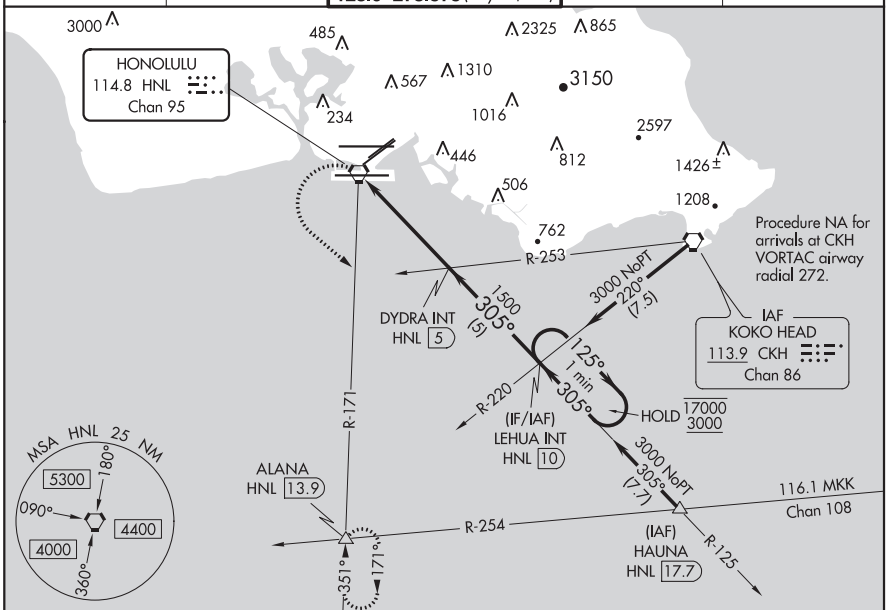
VOR or TACAN-A

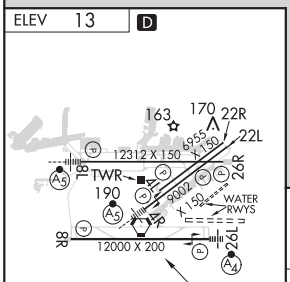
DANIEL K INOUYE INTL (HNL) (PHNL)

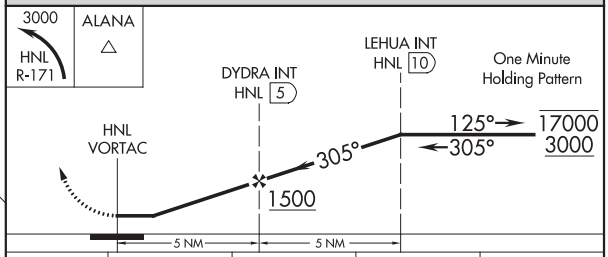
Circling Rwy 22R NA at night. Circling NA for Cats A and B northwest of Rwys 8L and 22R. Circling NA for Cats C and D north of Rwy 8L-26R. Circling NA to sea lanes 4W, 8W, 22W, and 26W.

MISSED APPROACH: Climbing left turn to 3000 on HNL R-171 to ALANA INT/HNL 13.9 DME and hold.

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4







MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L

CATEGORY	A	B	C	D
C CIRCLING	680-1 667 (700-1)	760-1 747 (800-1)	820-2¼ 807 (900-2¼)	1400-3 1387 (1400-3)

HONOLULU, HAWAII
Amdt 1D 25FEB21

21°19′N-157°55′W

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

HONOLULU, HAWAII AL-754 (FAA) 23222

VORTAC HNL	APP CRS	Rwy Idg	N/A
114.8	037°	TDZE	N/A
Chan 95		Apt Elev	13

VOR or TACAN-B

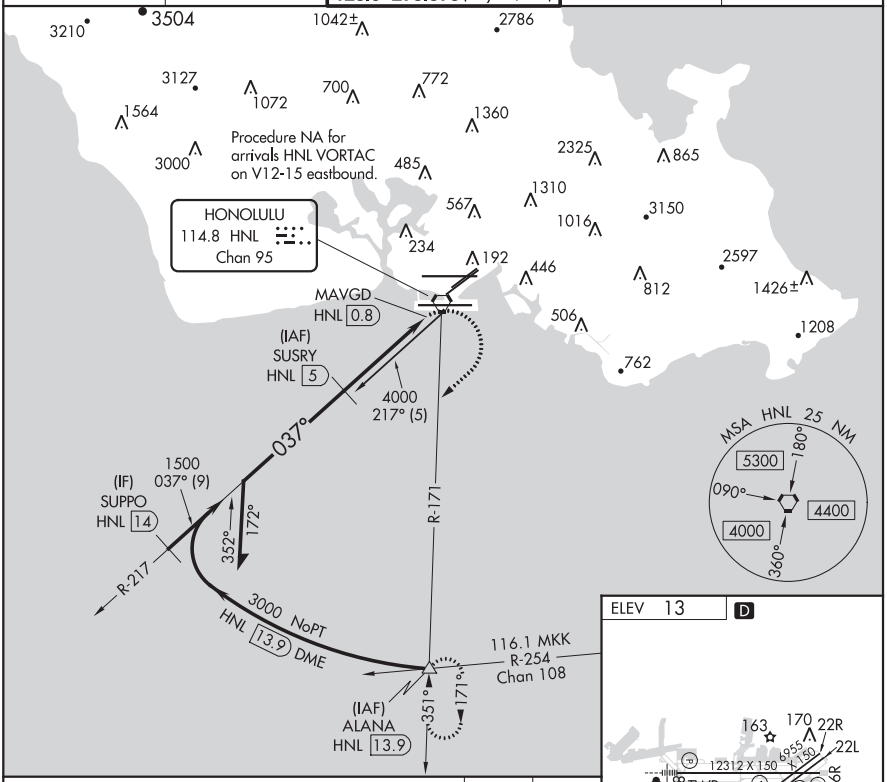
DANIEL K INOUYE INTL (HNL) (PHNL)

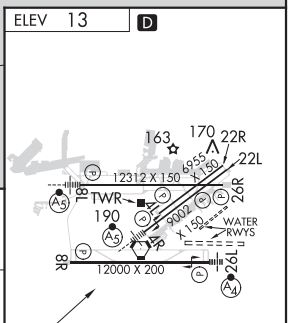
DME required.

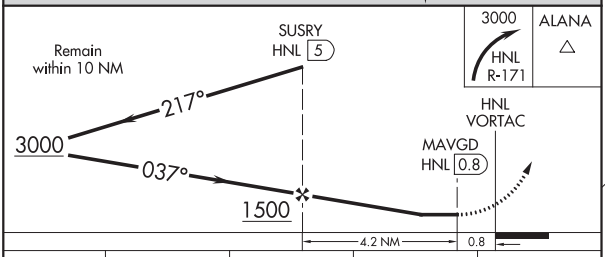
Circling Rwy 22R NA at night. Circling NA for Cats A and B northwest of Rwys 8L and 22R. Circling NA for Cats C and D north of Rwy 8L-26R. Circling NA to sea lanes 4W, 8W, 22W, and 26W.

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

D-ATIS	HCF APPROACH	HONOLULU TOWER	GND CON	CLNC DEL
127.9 251.15	118.3 269.0	118.1 257.8 123.9 273.575 (Rwy 8R/26L)	121.9 348.6	121.4 281.4







CATEGORY	A	B	C	D
C CIRCLING	680-1 667 (700-1)	760-1 747 (800-1)	820-2¼ 807 (900-2¼)	1400-3 1387 (1400-3)

MIRL Rwy 4L-22R
REIL Rwys 4L, 8R, 22L, 22R, and 26R
HIRL Rwys 4R-22L, 8L-26R, and 8R-26L

HONOLULU, HAWAII
Amdt 2D 25FEB21

21°19'N-157°55'W

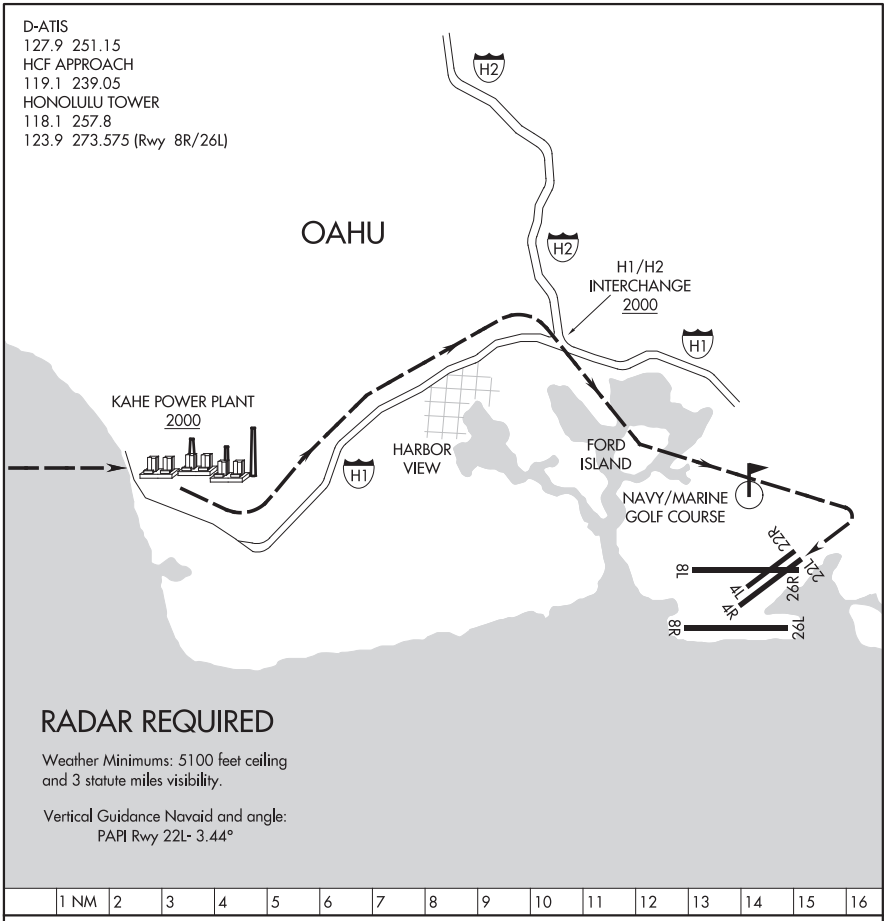
DANIEL K INOUYE INTL (HNL) (PHNL)

VOR or TACAN-B

17117 AL-754 (FAA) DANIEL K INOUYE INTL (HNL) (PHNL)

KAHE POWER PLANT VISUAL RWY 22L

HONOLULU, HAWAII



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

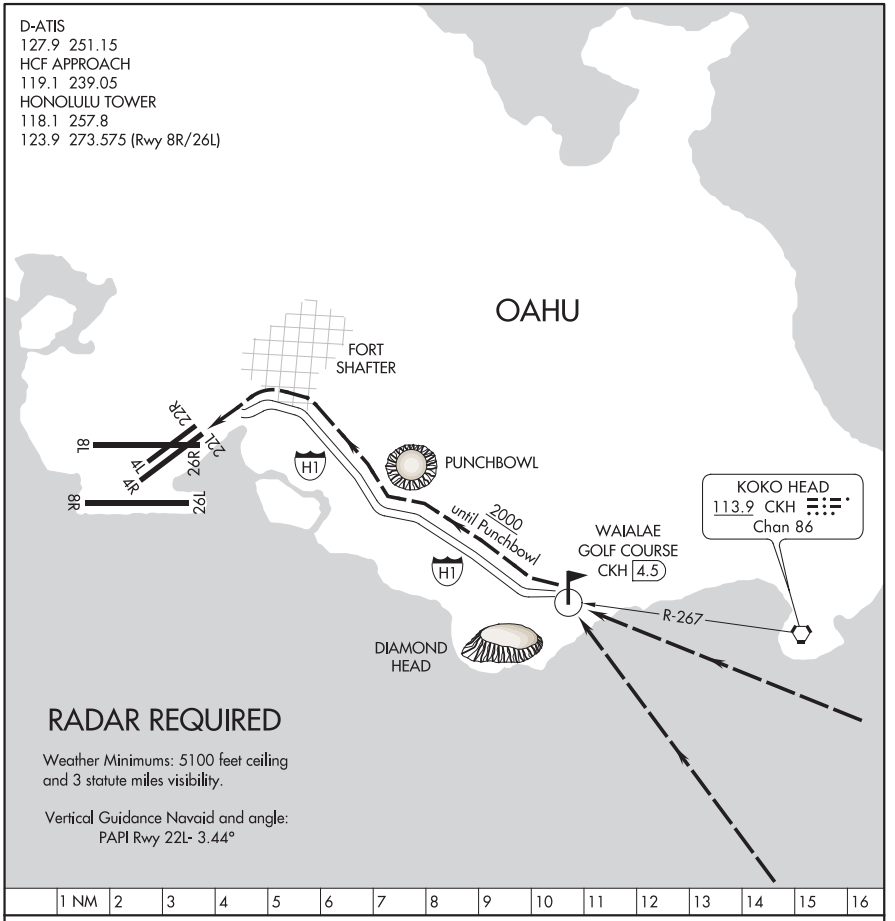
HONOLULU, HAWAII

Amdt 1 27APR17 21°19'N-157°55'W DANIEL K INOUYE INTL (HNL) (PHNL)

17117 AL-754 (FAA) DANIEL K INOUYE INTL (HNL) (PHNL)

WAIALAE GOLF COURSE VISUAL RWY 22L

HONOLULU, HAWAII



WAIALAE GOLF COURSE VISUAL APPROACH RWY 22L

PROCEDURE NOT AUTHORIZED AT NIGHT

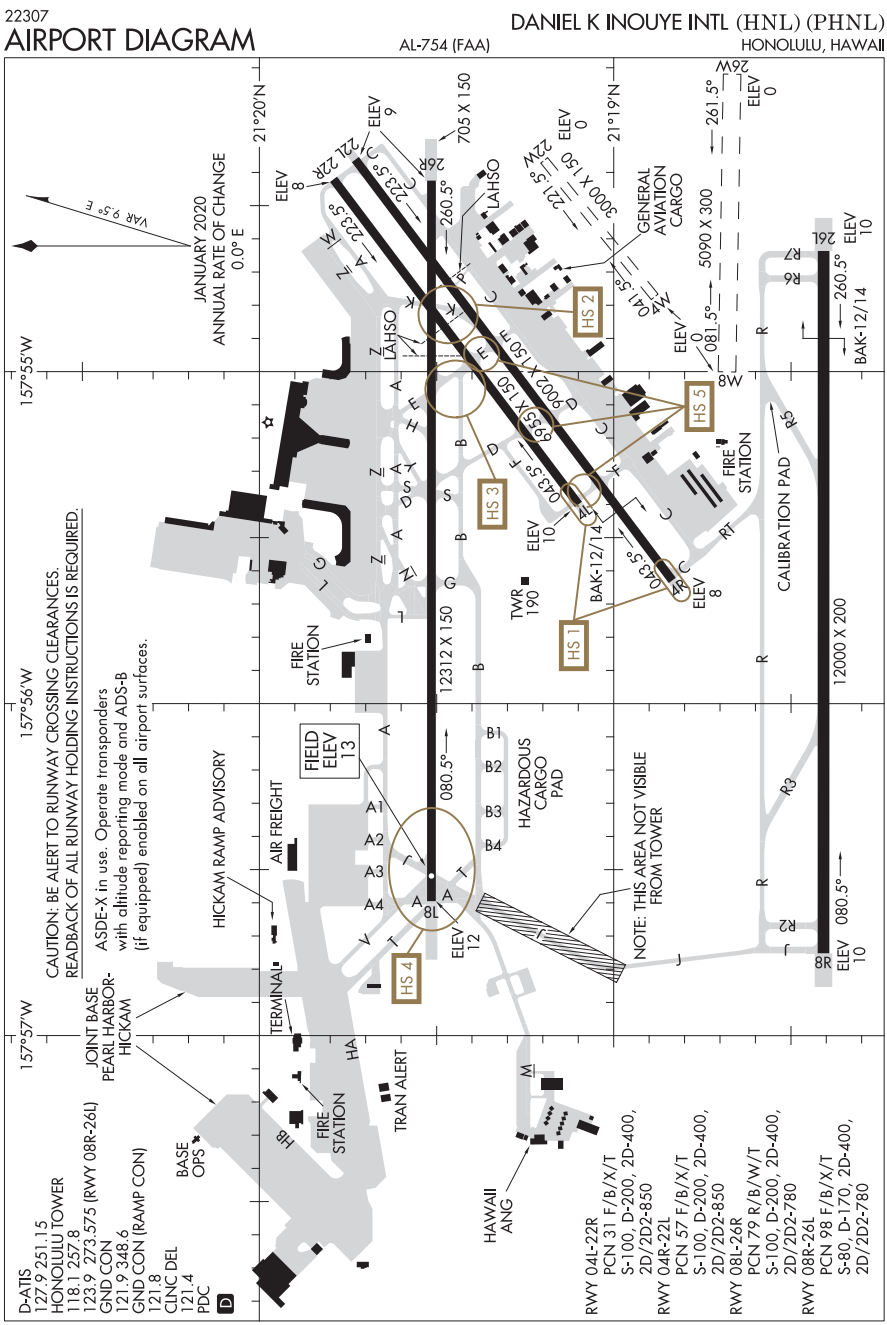
RESTRICTED TO CAT I AND CAT II AIRCRAFT ONLY

Pilots may expect landing Runway 22R.

WAIALAE GOLF COURSE VISUAL RWY 22L

HONOLULU, HAWAII

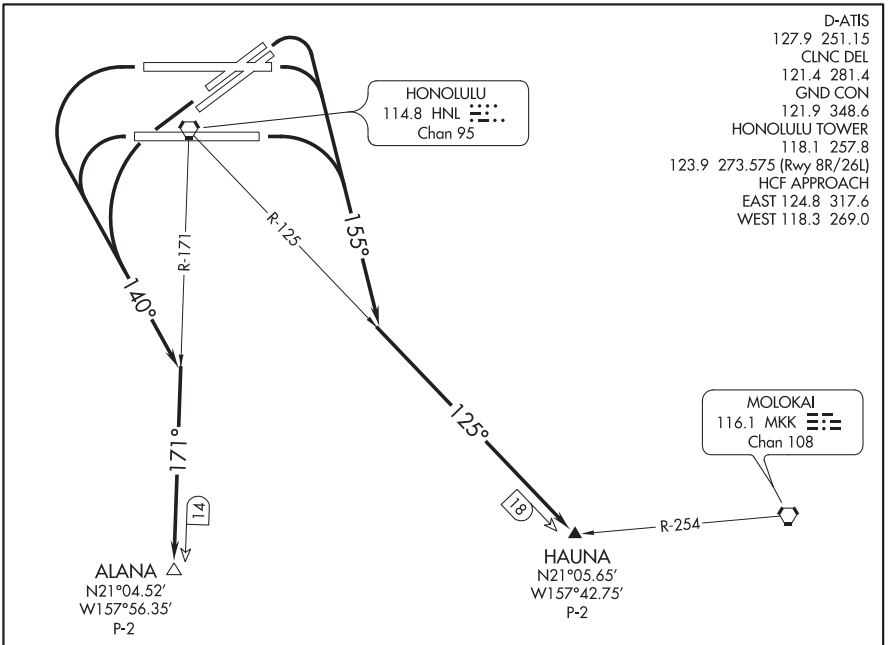
Amdt 1 27APR17 21°19′N-157°55′W DANIEL K INOUYE INTL (HNL) (PHNL)


22307
AIRPORT DIAGRAM
DANIEL K INOUYE INTL (HNL) (PHNL)
AL-754 (FAA)
HONOLULU, HAWAII
JANUARY 2020
ANNUAL RATE OF CHANGE
0.0° E
VAR 9.5° E
21°20'N
21°19'N
157°57'W
157°56'W
157°55'W
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
ASDE-X in use. Operate transponders
with altitude reporting mode and ADS-B
(if equipped) enabled on all airport surfaces.
D-ATIS
127.9 251.15
HONOLULU TOWER
118.1 257.8
123.9 273.575 (RWY 08R-26L)
GND CON
121.9 348.6
GND CON (RAMP CON)
121.8
CLNC DEL
121.4
PDC
JOINT BASE
PEARL HARBOR-
HICKAM
BASE
OPS
TERMINAL
FIRE
STATION
TRAN ALERT
HICKAM RAMP ADVISORY
AIR FREIGHT
FIELD
ELEV
13
HAWAII
ANG
FIRE
STATION
LAHSO
705 X 150
260.5°
12312 X 150
080.5°
ELEV
12
TWR
190
ELEV
10
HS 1
HS 2
HS 3
HS 4
HS 5
BAK-12/14
HAZARDOUS
CARGO
PAD
NOTE: THIS AREA NOT VISIBLE
FROM TOWER
GENERAL
AVIATION
CARGO
FIRE
STATION
CALIBRATION PAD
ELEV
8
ELEV
9
ELEV
0
5090 X 300
261.5°
081.5°
12000 X 200
080.5°
BAK-12/14
260.5°
ELEV
10
RWY 04L-22R
PCN 31 F/B/X/T
S-100, D-200, 2D-400,
2D/2D2-850
RWY 04R-22L
PCN 57 F/B/X/T
S-100, D-200, 2D-400,
2D/2D2-850
RWY 08L-26R
PCN 79 R/B/W/T
S-100, D-200, 2D-400,
2D/2D2-780
RWY 08R-26L
PCN 98 F/B/X/T
S-80, D-170, 2D-400,
2D/2D2-780
AIRPORT DIAGRAM
22307
DANIEL K INOUYE INTL (HNL) (PHNL)
HONOLULU, HAWAII

(HNL2.HNL) 20030

HONOLULU TWO DEPARTURE (OBSTACLE)

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



TAKEOFF MINIMUMS
Rwys 4W, 8W, 22W, 26W: NA-ATC.
Rwys 22L/R, 26R: Standard.
Rwys 4L/R: Standard with minimum climb of 425' per NM to 1900, do not exceed 180K until southeast bound on 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.

(NOTES 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 Intl Airport southbound at 1600, continue climb to 3000 on HNL R-171 to ALANA INT before proceeding on course.

HONOLULU TWO DEPARTURE (OBSTACLE)

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

(HNL2.HNL) 08NOV18

(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.

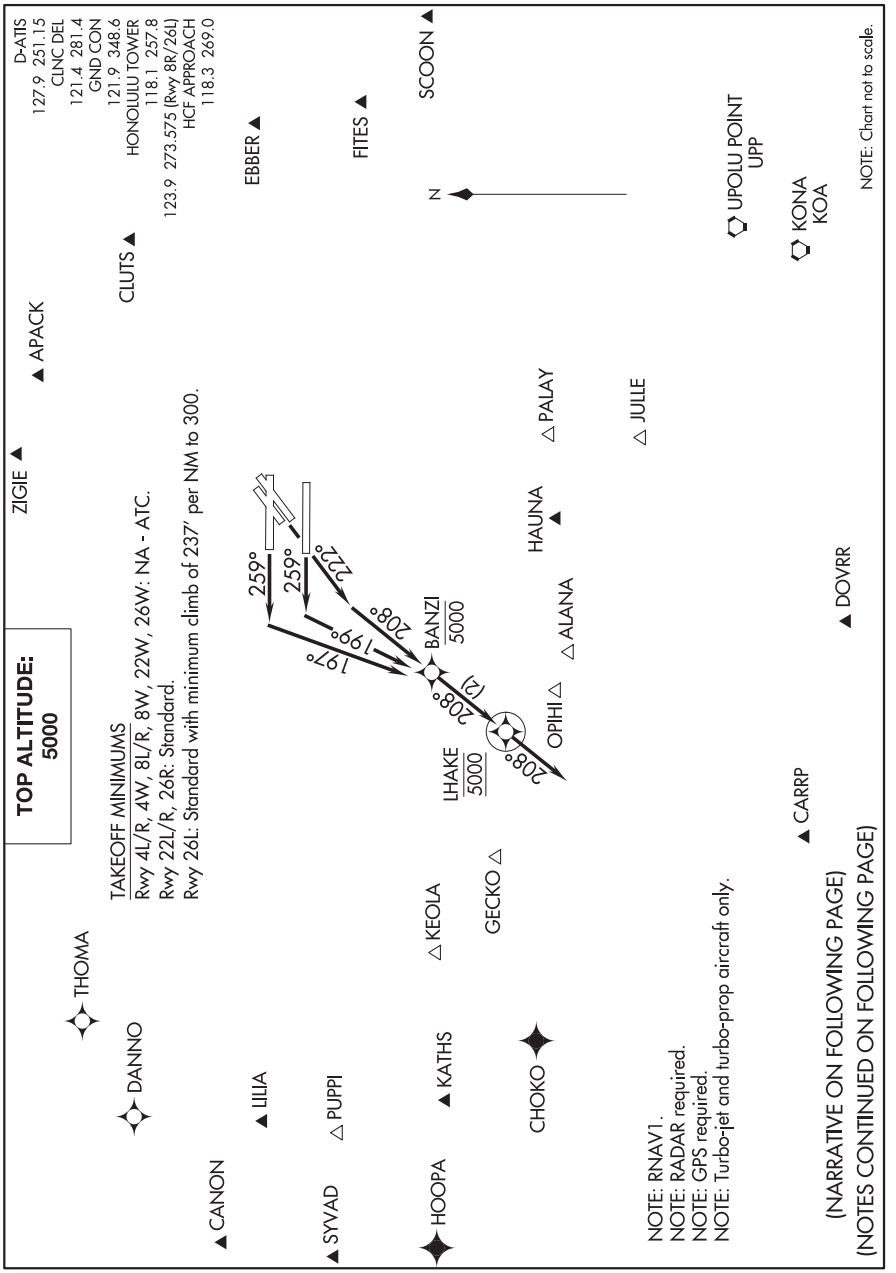
Rwy 26R: Multiple light poles beginning 2120′ from DER, 813′ right of centerline, up to 105′ AGL/111′ MSL.

(BANZI1.BANZI) 20030

BANZI ONE DEPARTURE (RNAV)

AL-754 (FAA)

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



BANZI ONE DEPARTURE (RNAV)
(BANZI1.BANZI) 30JAN20

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

(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 . . . .

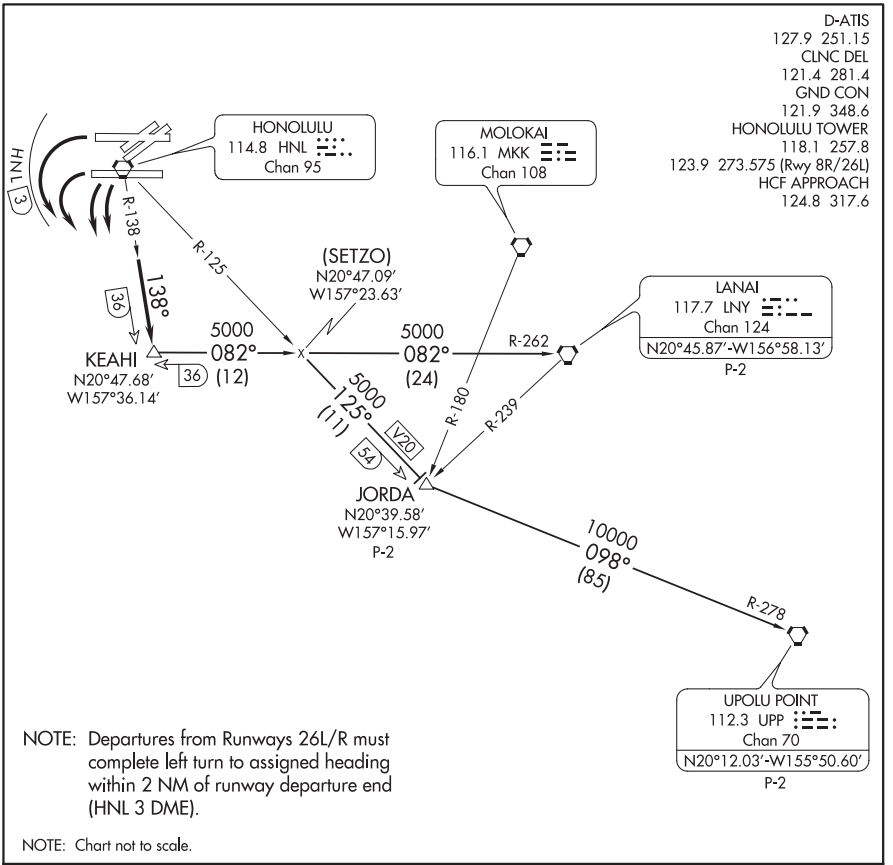
. . . . on track 208° to LHAKE, then on track 208° for RADAR vectors to assigned route/fix, maintain 5000 or as assigned by ATC. Expect clearance to filed altitude/flight level within 10 minutes after departure.

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.

(KEAHI3.KEAHI) 17117

KEAHI THREE DEPARTURE

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



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

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 22/26 ONLY: Turn left to heading assigned by tower, expect RADAR vectors to intercept HNL R-138; then via HNL R-138 to KEAHI INT, maintain 5000'; then via (transition). Expect clearance to enroute altitude/flight level at JORDA INT or LNY VORTAC.

JORDA TRANSITION (KEAHI3.JORDA): From over KEAHI INT via LNY R-262 and HNL R-125 to JORDA INT.

LANAI TRANSITION (KEAHI3.LNY): From over KEAHI INT via LNY R-262 to LNY VORTAC.

UPOLU TRANSITION (KEAHI3.UPP): From over KEAHI INT via LNY R-262 and HNL R-125 to JORDA INT, thence via UPP R-278 to UPP VORTAC.

KEAHI THREE DEPARTURE

(KEAHI3.KEAHI) 06JAN94

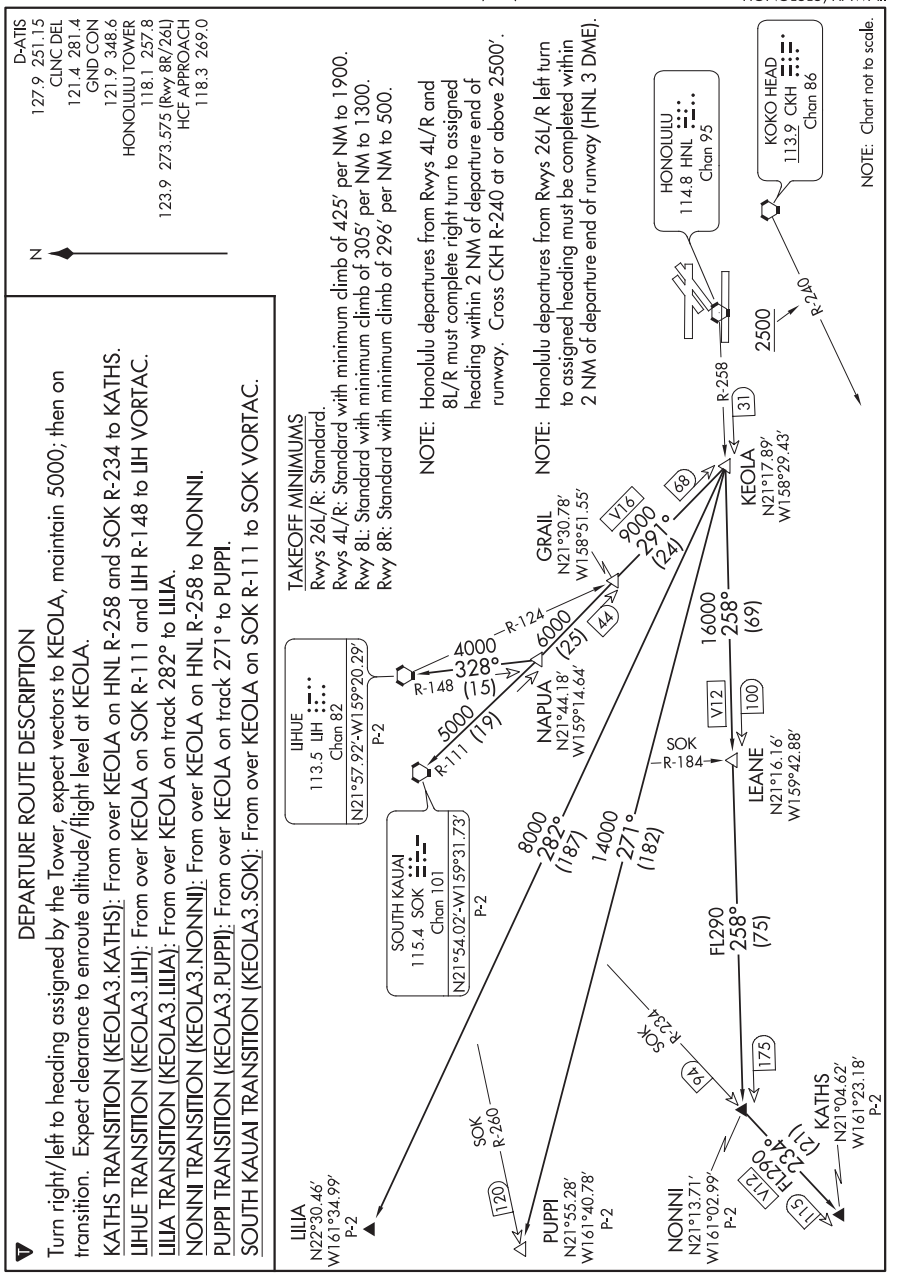
HONOLULU, HAWAII
DANIEL K INOUYE INTL (HNL) (PHNL)

(KEOLA3.KEOLA) 21056

KEOLA THREE DEPARTURE

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

AL-754 (FAA)



KEOLA THREE DEPARTURE

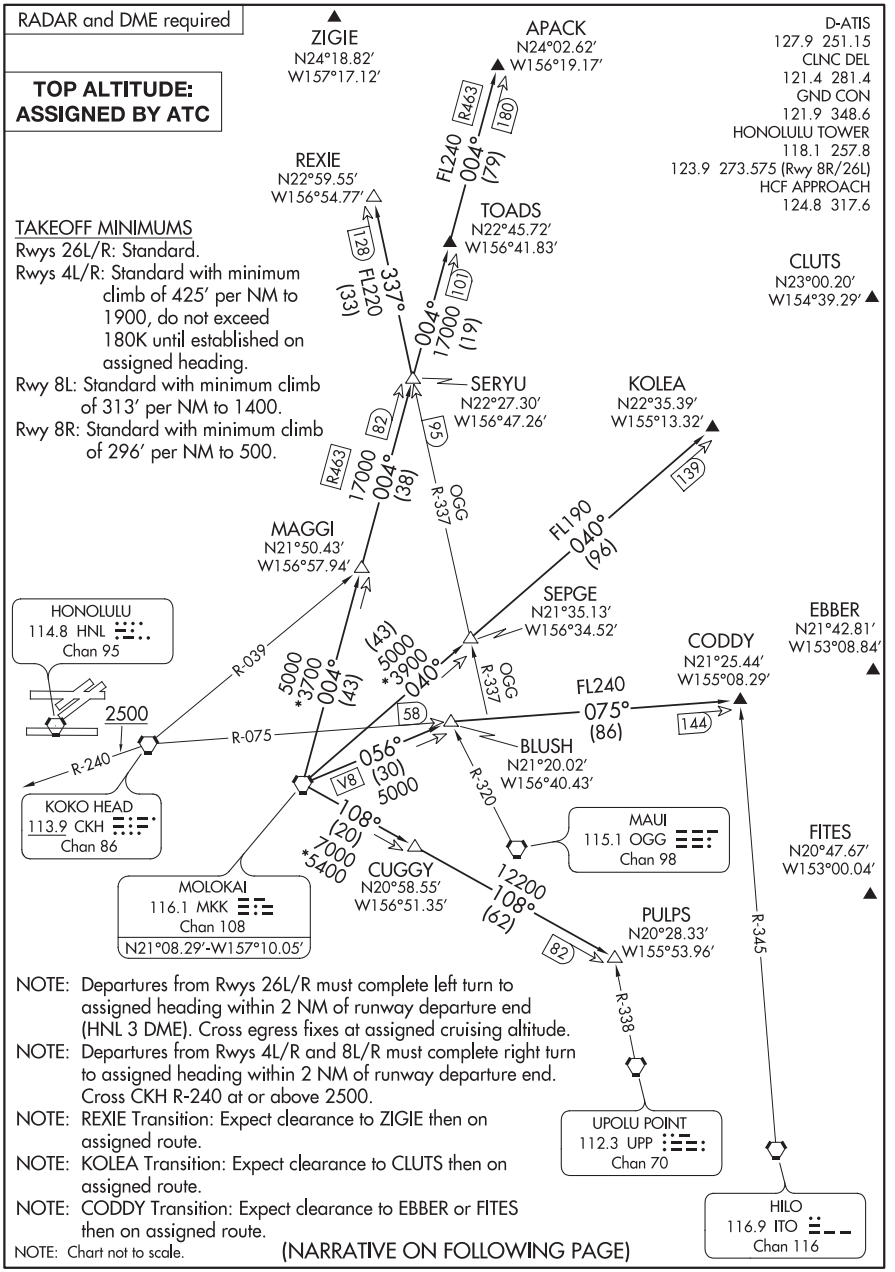
(KEOLA3.KEOLA) 25FEB21

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

(MKK5.MKK) 22307

MOLOKAI FIVE DEPARTURE

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



MOLOKAI FIVE DEPARTURE

(MKK5.MKK) 03NOV22

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

(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.

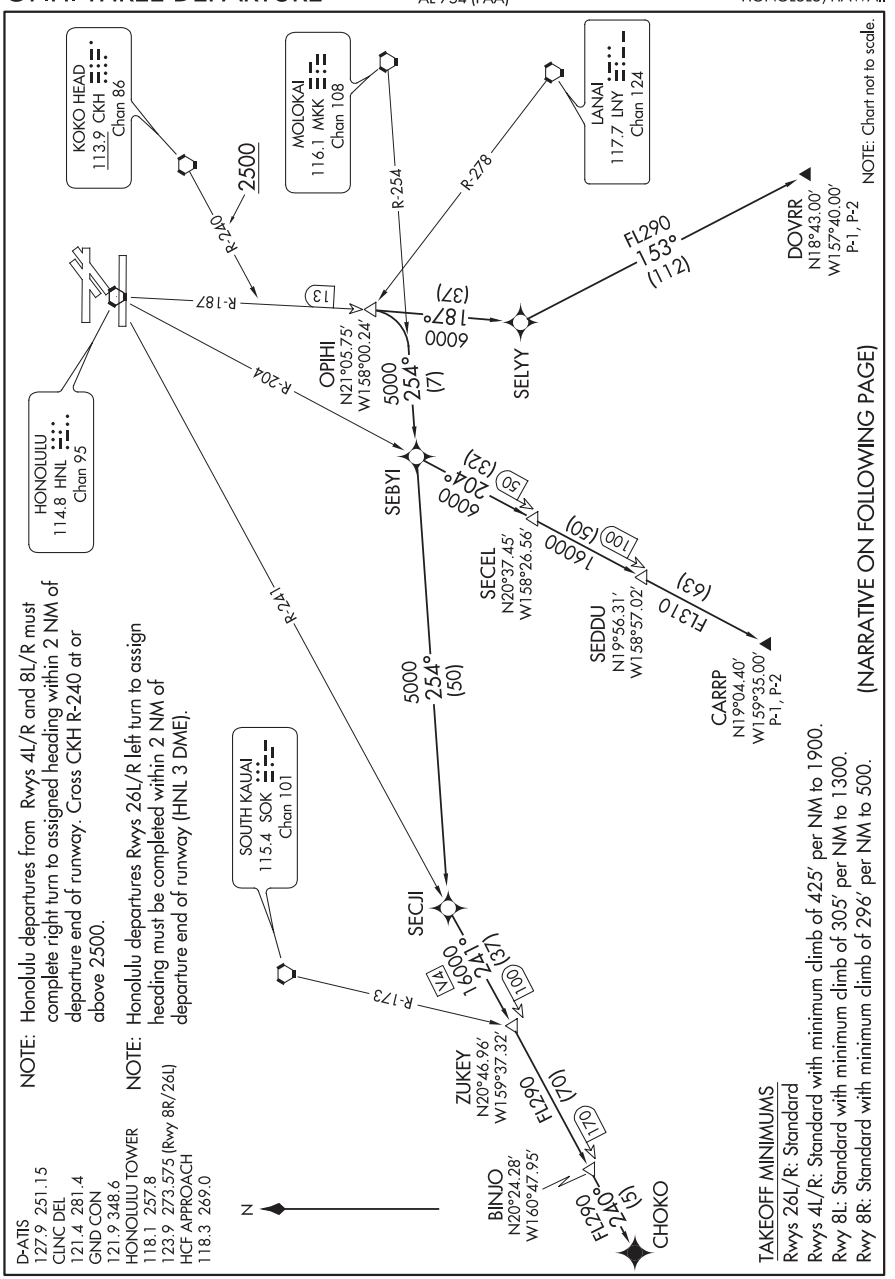
REXIE TRANSITION (MKK5.REXIE): From over MKK VORTAC on MKK R-004 and OGG R-337 to REXIE.

(OPIHI3.OPIHI) 21056

OPIHI THREE DEPARTURE

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

AL-754 (FAA)



OPIHI THREE DEPARTURE

(OPIHI3.OPIHI) 25FEB21

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

(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.

(PALAY3.PALAY) 21056

PALAY THREE DEPARTURE

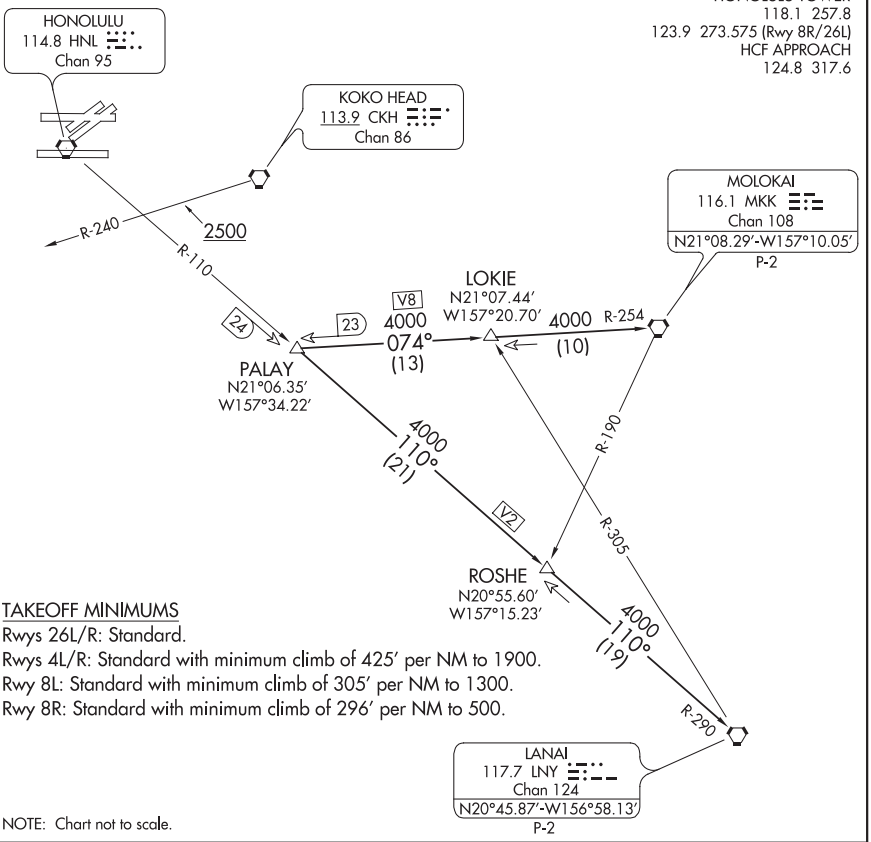
AL-754 (FAA)

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).

D-ATIS
127.9 251.15
CLNC DEL
121.4 281.4
GND CON
121.9 348.6
HONOLULU TOWER
118.1 257.8
123.9 273.575 (Rwy 8R/26L)
HCF APPROACH
124.8 317.6



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: Chart not to scale.

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.

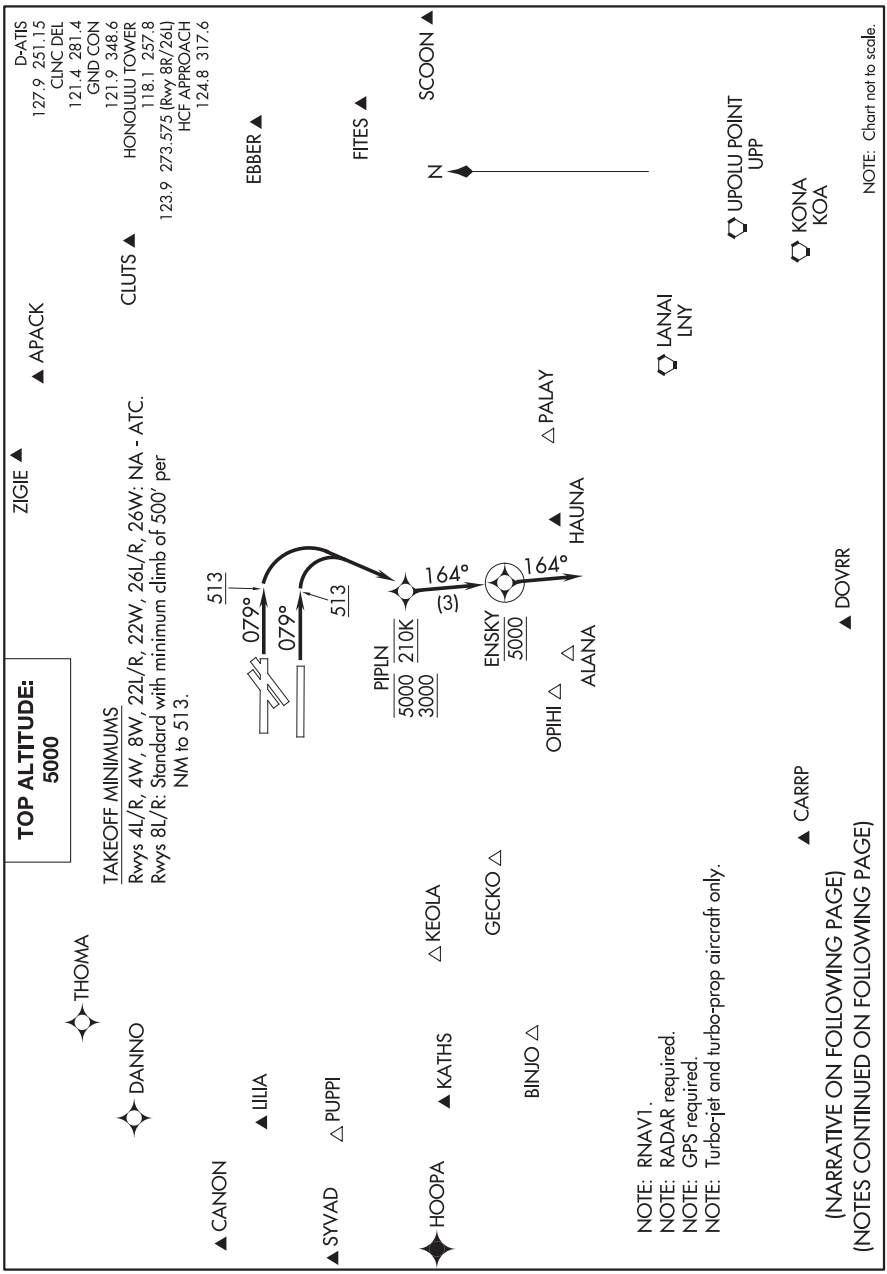
PALAY THREE DEPARTURE
(PALAY3.PALAY) 25FEB21

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)



PIPLN ONE DEPARTURE (RNAV)
DANIEL K INOUYE INTL (HNL) (PHNL)
HONOLULU, HAWAII

(PIPLN1.PIPLN) 30JAN20

(PIPLN1.PIPLN) 20030

PIPLN ONE DEPARTURE (RNAV)

AL-754 (FAA)

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

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAYS 8L/R: Climb on heading 079° to 513, then right turn direct PIPLN between 3000 and 5000 at 210K, thence. . . .

. . . .on track 164° to ENSKY, then on track 164° for RADAR vectors to assigned route/fix, maintain 5000 or as assigned by ATC. Expect 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.

KAHULUI, HAWAII AL-762 (FAA) 22027

ILS Y or LOC Y RWY 2

KAHULUI (OGG)(PHOG)

LOC/DME I-OGG	APP CRS	Rwy Idg	6995
110.1	024°	TDZE	55
Chan 38		Apt Elev	55

DME required.

For inop ALS, increase S-ILS 2 Cat E visibility to ¾ SM, and S-LOC 2 Cats C/D/E visibility to 1⅜ SM.

MALSR

MISSED APPROACH: Climb to 3000 on OGG VORTAC R-023 to KRANE/OGG 13 DME and hold.

ATIS	HCF APPROACH	MAUI TOWER ★	GND CON	CLNC DEL	UNICOM
128.6	120.2 322.4 (NORTH)	118.7 (CTAF) L 279.6	121.9 279.6	120.6 290.5	122.95
	119.5 225.4 (SOUTH)				

MISSED APCH FIX 023° 203° KRANE OGG 13 115.1 OGG R-023 Chan 98

ALTERNATE MISSED APCH FIX 116.1 MKK R-071 Chan 108 HOKUX INT 155° 335° 155° 327 VYI

LOCALIZER 110.1 I-OGG Chan 38

MAUI 115.1 OGG Chan 98

R-023

∧800±

3000

5788

278±∧

6600 to CAMPS 204° (17.7)

VALLEY ISLAND 327 VYI

252∧

∧335

2260

4617

1180±∧

2718±∧

NOWAK I-OGG 4.8 RADAR

1319±

1000

TEBBS I-OGG 8.5 RADAR

6670∧

NoPT for arrival at CAMPS on V21 eastbound and westbound.

117.7 LNY Chan 124 R-095

(IF/IAF) CAMPS I-OGG 17.7

2400 024° (9.2)

10117±∧

9000

3000

1000

MSA OGG 25 NM 140° 3400 249° 11300 350° 7000

024° 1 min 204° 204°

HOLD 14000 3000

ELEV 55 D TDZE 55

Use I-OGG DME when on the localizer course.

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 77).

3000 OGG R-023

KRANE OGG 13

One Minute Holding Pattern

CAMPS I-OGG 17.7

TEBBS I-OGG 8.5 RADAR

NOWAK I-OGG 4.8 RADAR

I-OGG 2.5

I-OGG 1.3

14000 3000 ←204° 024°→

024°

2400

1220

GS 3.00° TCH 62

9.2 NM 3.7 NM 2.3 NM 1.2

CATEGORY	A	B	C	D	E
S-ILS 2	275-½ 220 (300-½)				
S-LOC 2	520-½ 465 (500-½)		520-1 465 (500-1)		
C CIRCLING	520-1 465 (500-1)	620-1 565 (600-1)	740-2 685 (700-2)	1140-3 1085 (1100-3)	1720-3 1665 (1700-3)

4980 X 150

0.6% UP

6998 X 150

TWR 196

024° 7.2 NM from FAF

HIRL Rwy 2-20 L

MIRL Rwy 5-23 L

KAHULUI, HAWAII

Orig 27JAN22

20°54'N-156°26'W

KAHULUI (OGG)(PHOG)

ILS Y or LOC Y RWY 2

KAHULUI, HAWAII AL-762 (FAA) 22027

ILS Z or LOC Z RWY 2

KAHULUI (OGG)(PHOG)

LOC/DME I-OGG **110.1** Chan **38**	APP CRS **024°**	Rwy ldg **6995** TDZE **55** Apt Elev **55**

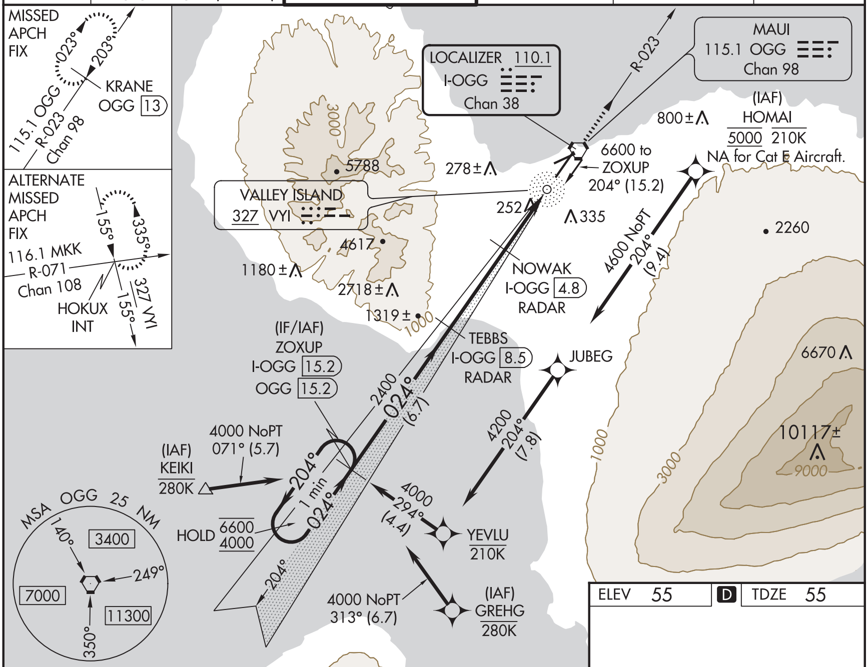
DME required. RNP APCH-GPS. From HOMAI or KEIKI or GREHG.

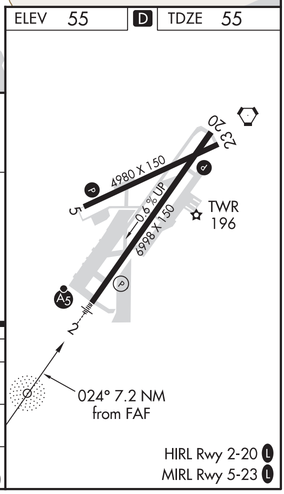
T A For inop ALS, increase S-ILS 2 Cat E visibility to ¾ SM, and S-LOC 2 Cats C/D/E visibility to 1⅜ SM.

MALSR A5

MISSED APPROACH: Climb to 3000 on OGG VORTAC R-023 to KRANE/OGG 13 DME and hold.

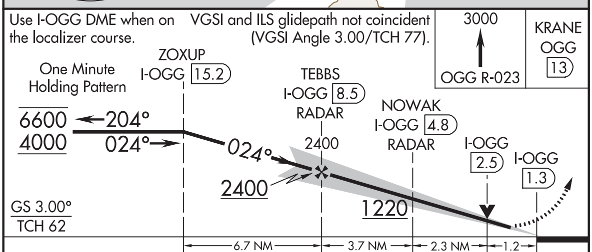
ATIS	HCF APPROACH	MAUI TOWER ★	GND CON	CLNC DEL	UNICOM
128.6	120.2 322.4 (NORTH) 119.5 225.4 (SOUTH)	118.7 (CTAF) L 279.6	121.9 279.6	120.6 290.5	122.95





Use I-OGG DME when on the localizer course.

VGSI and ILS glidepath not coincident (VGSI Angle 3.00/TCH 77).



CATEGORY	A	B	C	D	E
S-ILS 2	275-½ 220 (300-½)				
S-LOC 2	520-½ 465 (500-½)		520-1 465 (500-1)		
C CIRCLING	520-1 465 (500-1)	620-1 565 (600-1)	740-2 685 (700-2)	1140-3 1085 (1100-3)	1720-3 1665 (1700-3)

KAHULUI, HAWAII
Amdt 26 27JAN22

20°54'N-156°26'W

KAHULUI (OGG)(PHOG)

ILS Z or LOC Z RWY 2

KAHULUI, HAWAII AL-762 (FAA) 23166

APP CRS	Rwy Idg	6995
024°	TDZE	55
	Apt Elev	55

RNAV (RNP) Z RWY 2
KAHULUI (OGG)(PHOG)

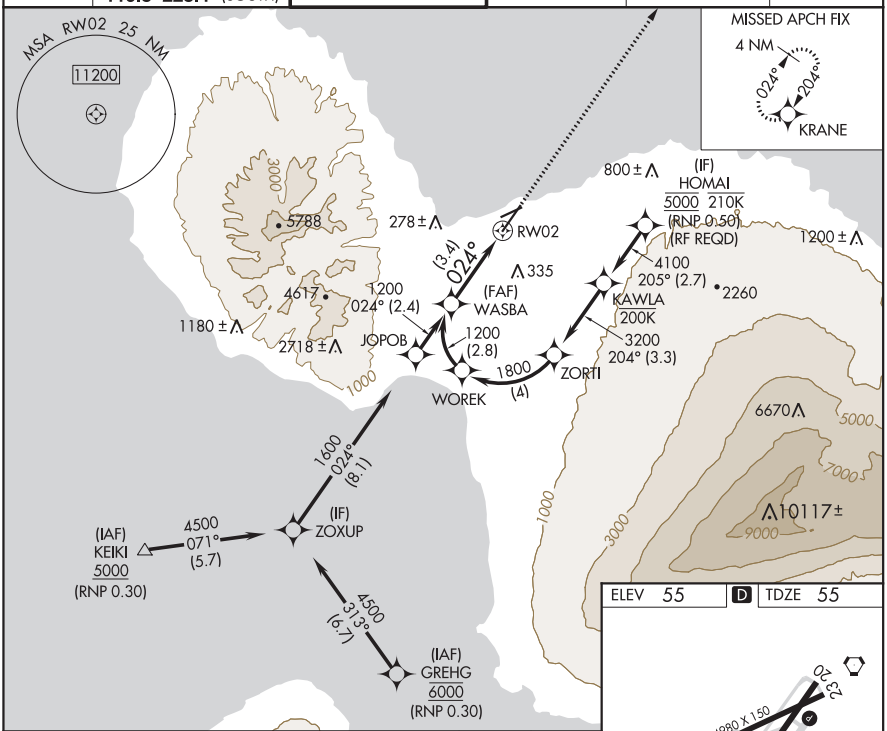
RNP AR APCH - GPS.

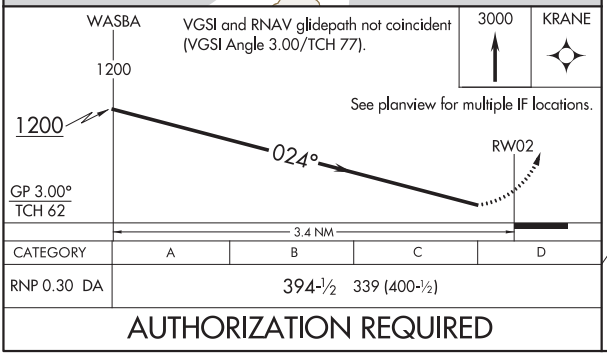
For uncompensated Baro-VNAV systems, procedure NA below 14°C or above 54° C. When local altimeter setting not received, procedure NA. For inop ALS, increase RNP 0.30 all Cats visibility to ⅞ SM.

MALSR

MISSED APPROACH: Climb to 3000 direct KRANE and hold.

ATIS	HCF APPROACH	MAUI TOWER ★	GND CON	CLNC DEL	UNICOM
128.6	120.2 322.4 (NORTH) 119.5 225.4 (SOUTH)	118.7 (CTAF) L 279.6	121.9 279.6	120.6 290.5	122.95





CATEGORY	A	B	C	D
RNP 0.30 DA	394-½	339 (400-½)		

AUTHORIZATION REQUIRED

KAHULUI, HAWAII
Amdt 1B 15JUN23

20°54'N-156°26'W

KAHULUI (OGG)(PHOG)
RNAV (RNP) Z RWY 2

KAHULUI, HAWAII AL-762 (FAA) 20310

RNAV (GPS) RWY 20

KAHULUI (OGG)(PHOG)

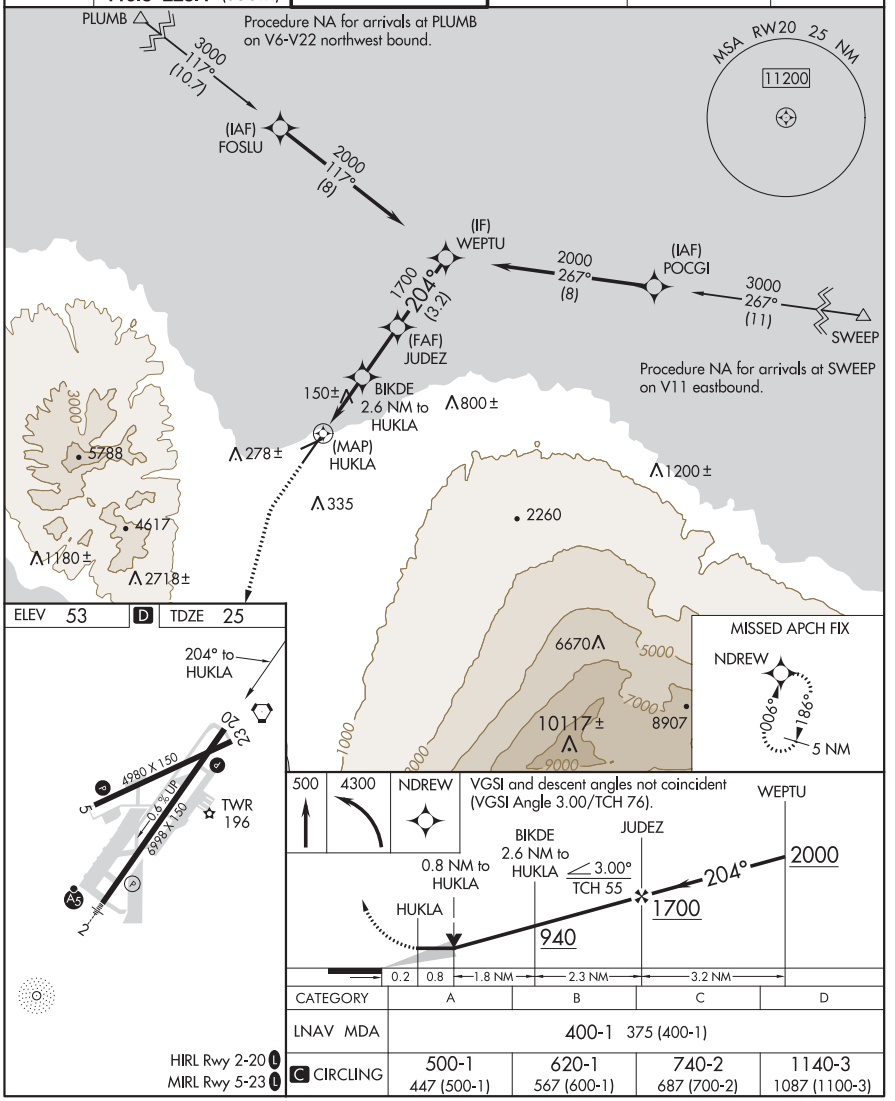
APP CRS	Rwy Idg	6995
204°	TDZE	25
	Apt Elev	53

RNP APCH.

When local altimeter setting not received, procedure NA.

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

ATIS	HCF APPROACH	MAUI TOWER★	GND CON	CLNC DEL	UNICOM
128.6	120.2 322.4 (NORTH) 119.5 225.4 (SOUTH)	118.7 (CTAF) L 279.6	121.9 279.6	120.6 290.5	122.95



CATEGORY	A	B	C	D
LNAV MDA	400-1 375 (400-1)			
C CIRCLING	500-1 447 (500-1)	620-1 567 (600-1)	740-2 687 (700-2)	1140-3 1087 (1100-3)

HIRL Rwy 2-20 L
MIRL Rwy 5-23 L

KAHULUI, HAWAII
Amdt 2A 16JUL20

20°54′N-156°26′W

KAHULUI (OGG)(PHOG)

RNAV (GPS) RWY 20

KAHULUI, HAWAII | AL-762 (FAA) | 20310

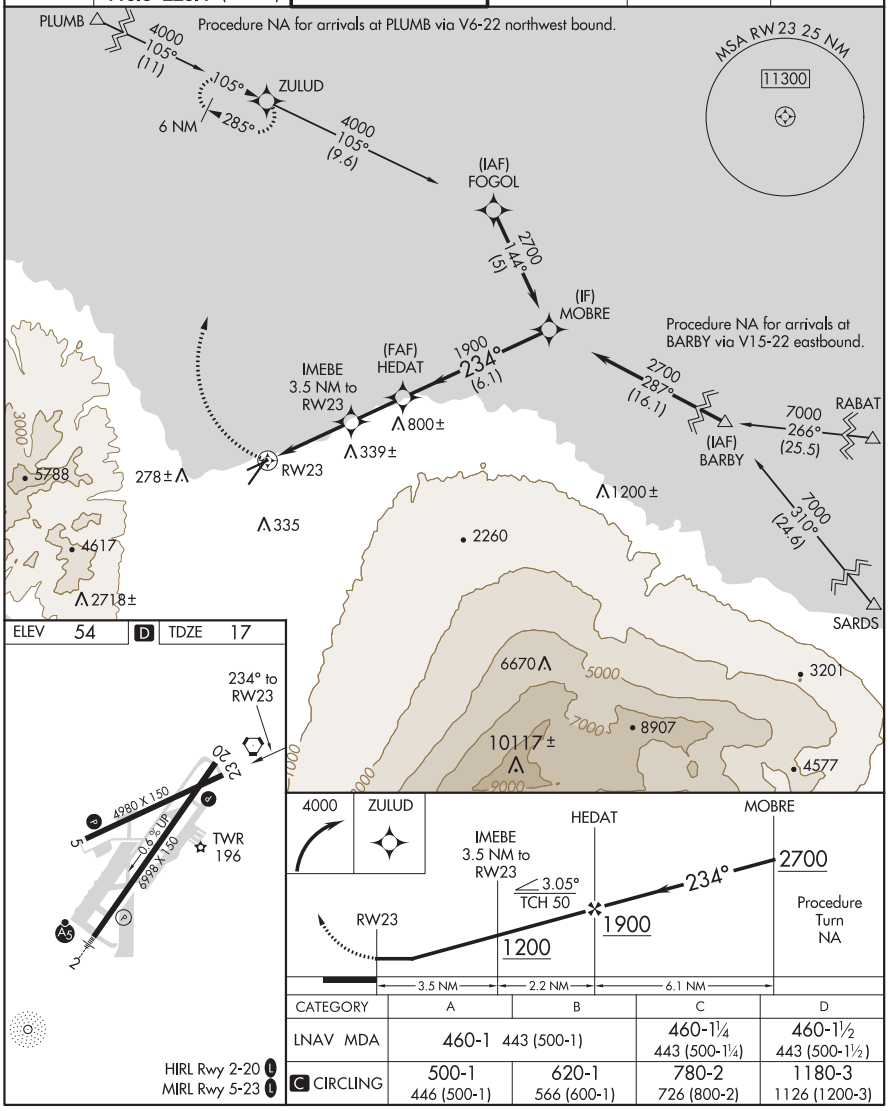
RNAV (GPS) RWY 23
KAHULUI (OGG)(PHOG)

APP CRS	Rwy Idg	4980
234°	TDZE	17
	Apt Elev	54

DME/DME RNP-0.3 NA.

MISSED APPROACH: Climbing right turn to 4000 direct ZULUD and hold, continue climb-in-hold to 4000.

ATIS	HCF APPROACH	MAUI TOWER*	GND CON	CLNC DEL	UNICOM
128.6	120.2 322.4 (NORTH) 119.5 225.4 (SOUTH)	118.7 (CTAF) L 279.6	121.9 279.6	120.6 290.5	122.95



CATEGORY	A	B	C	D
LNAV MDA	460-1 443 (500-1)		460-1¼ 443 (500-1¼)	460-1½ 443 (500-1½)
C CIRCLING	500-1 446 (500-1)	620-1 566 (600-1)	780-2 726 (800-2)	1180-3 1126 (1200-3)

HIRL Rwy 2-20 L
MIRL Rwy 5-23 L

KAHULUI, HAWAII
Amdt 1A 21JUL16

20°54'N-156°26'W

KAHULUI (OGG)(PHOG)
RNAV (GPS) RWY 23

KAHULUI, HAWAII AL-762 (FAA) 22251

RNAV (GPS) Y RWY 2

KAHULUI (OGG)(PHOG)

APP CRS	Rwy Idg	6995
024°	TDZE	55
	Apt Elev	55

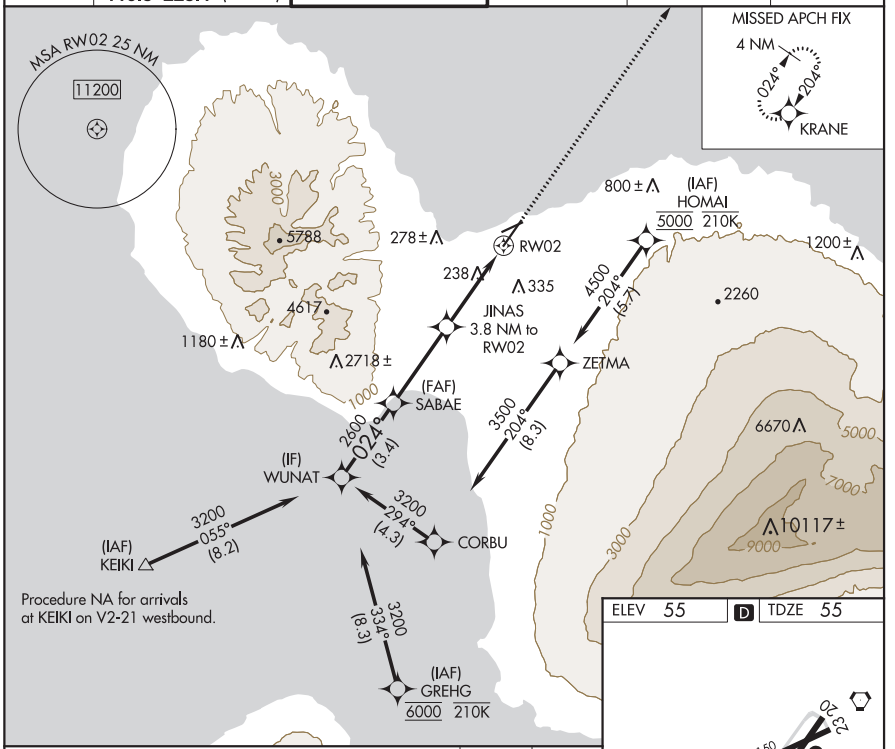
RNP APCH-GPS.

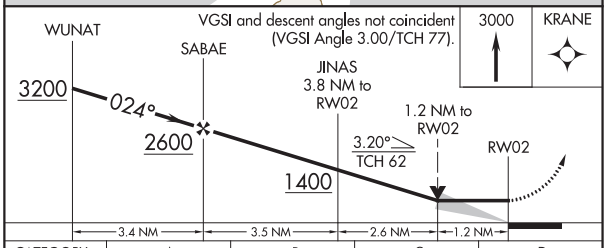
When Kahului altimeter setting not received, procedure NA.

MALSR

MISSED APPROACH: Climb to 3000 direct KRANE and hold.

ATIS	HCF APPROACH	MAUI TOWER ★	GND CON	CLNC DEL	UNICOM
128.6	120.2 322.4 (NORTH) 119.5 225.4 (SOUTH)	118.7 (CTAF) L 279.6	121.9 279.6	120.6 290.5	122.95





CATEGORY	A	B	C	D
LNAV MDA	500-½ 445 (500-½)		500-⅞ 445 (500-⅞)	
C CIRCLING	500-1 445 (500-1)	620-1 565 (600-1)	740-2 685 (700-2)	1140-3 1085 (1100-3)

KAHULUI, HAWAII

Amdt 3 08SEP22

20°54′N-156°26′W

KAHULUI (OGG)(PHOG)

RNAV (GPS) Y RWY 2

KAHULUI, HAWAII AL-762 (FAA) 23054

VORTAC OGG	APP CRS	Rwy Idg	6995
115.1	194°	TDZE	25
Chan 98		Apt Elev	53

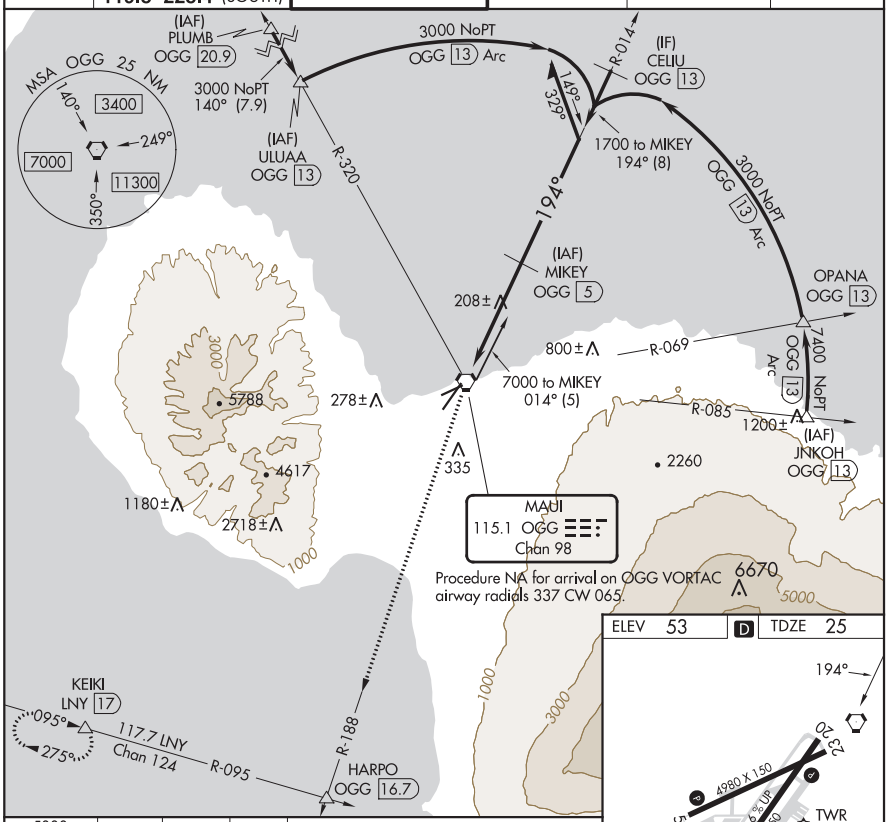
VOR Z or TACAN RWY 20

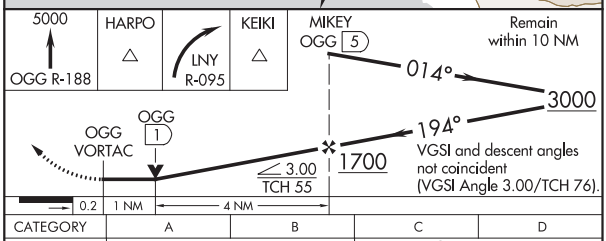
KAHULUI (OGG)(PHOG)

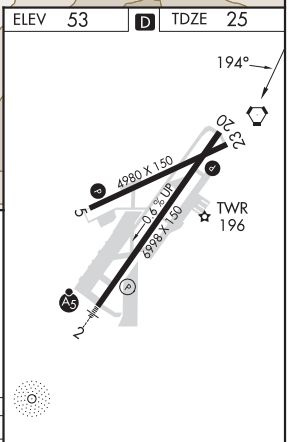
DME required.

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

ATIS	HCF APPROACH	MAUI TOWER ★	GND CON	CLNC DEL	UNICOM
128.6	120.2 322.4 (NORTH) 119.5 225.4 (SOUTH)	118.7 (CTAF) L 279.6	121.9 279.6	120.6 290.5	122.95







CATEGORY	A	B	C	D
S-20	460-1	435 (500-1)	460-1¼	435 (500-1¼)
C CIRCLING	500-1 447 (500-1)	620-1 567 (600-1)	740-2 687 (700-2)	1140-3 1087 (1100-3)

HIRL Rwy 2-20 L
MIRL Rwy 5-23 L

KAHULUI, HAWAII
Amdt 1 10OCT19

20°54'N-156°26'W

KAHULUI (OGG)(PHOG)
VOR Z or TACAN RWY 20

KAHULUI, HAWAII AL-762 (FAA) 20310

VOR Y RWY 20

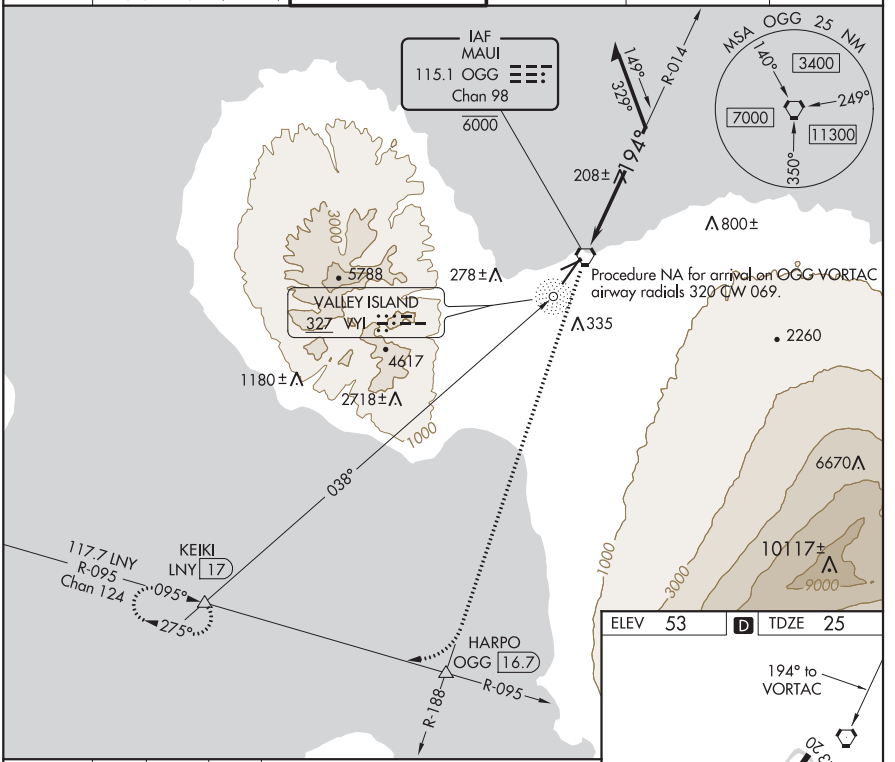
KAHULUI (OGG)(PHOG)

VORTAC OGG	APP CRS	Rwy Idg	6995
115.1	194°	TDZE	25
Chan 98		Apt Elev	53

ADF or DME required.

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

ATIS	HCF APPROACH	MAUI TOWER ★	GND CON	CLNC DEL	UNICOM
128.6	120.2 322.4 (NORTH) 119.5 225.4 (SOUTH)	118.7 (CTAF) L 279.6	121.9 279.6	120.6 290.5	122.95



CATEGORY	A	B	C	D
S-20	600-1 575 (600-1)		600-1⅝ 575 (600-1⅝)	
C CIRCLING	600-1 547 (600-1)	620-1 567 (600-1)	740-2 687 (700-2)	1140-3 1087 (1100-3)

HIRL Rwy 2-20 L
MIRL Rwy 5-23 L

KAHULUI, HAWAII
Amdt 1 10OCT19

20°54'N-156°26'W

KAHULUI (OGG)(PHOG)
VOR Y RWY 20

KAHULUI, HAWAII AL-762 (FAA) 20310

NDB VYI	APP CRS	Rwy Idg	6995
327	005°	TDZE	54
		Apt Elev	54

NDB RWY 2

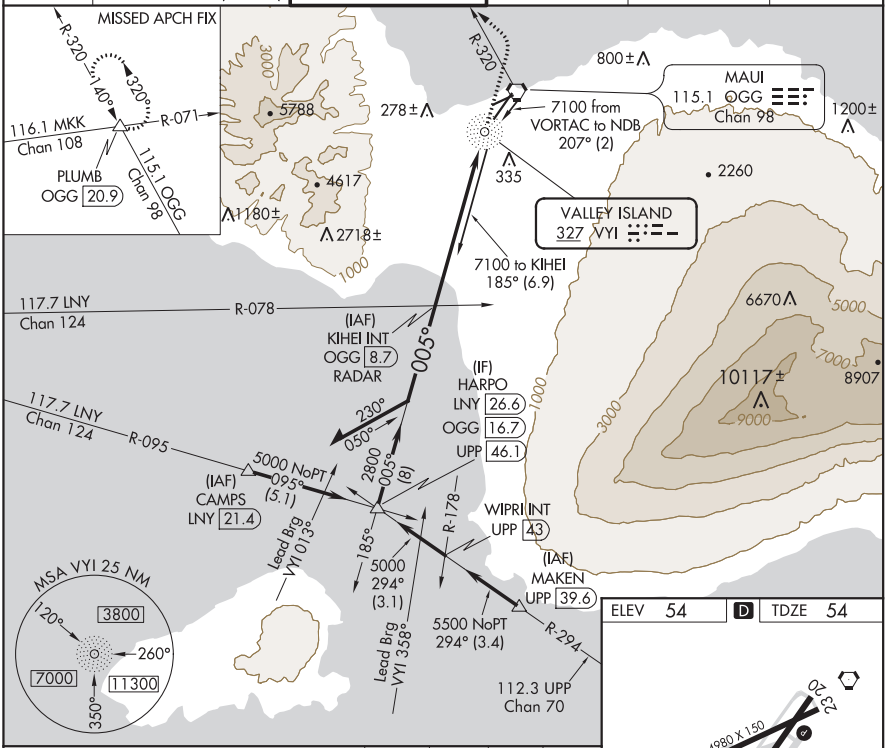
KAHULUI (OGG)(PHOG)

TA Inoperative table does not apply to S-2 Cats C and D.

MALSR A5

MISSED APPROACH: Climb to 2200 on VYI NDB bearing 005° then climbing left turn to 5000 on heading 300° and OGG VORTAC R-320 to PLUMB/OGG 20.9 DME and hold, continue climb-in-hold to 5000.

ATIS	HCF APPROACH	MAUI TOWER ★	GND CON	CLNC DEL	UNICOM
128.6	120.2 322.4 (NORTH) 119.5 225.4 (SOUTH)	118.7 (CTAF) L 279.6	121.9 279.6	120.6 290.5	122.95



CATEGORY	A	B	C	D
S-2	840-¾ 786 (800-¾)	840-1 786 (800-1)	840-2½ 786 (800-2½)	
C CIRCLING	840-1 786 (800-1)	840-1¼ 786 (800-1¼)	840-2½ 786 (800-2½)	1180-3 1126 (1200-3)

HIRL Rwy 2-20 L
MIRL Rwy 5-23 L

KAHULUI, HAWAII
Orig-B 21JUL16

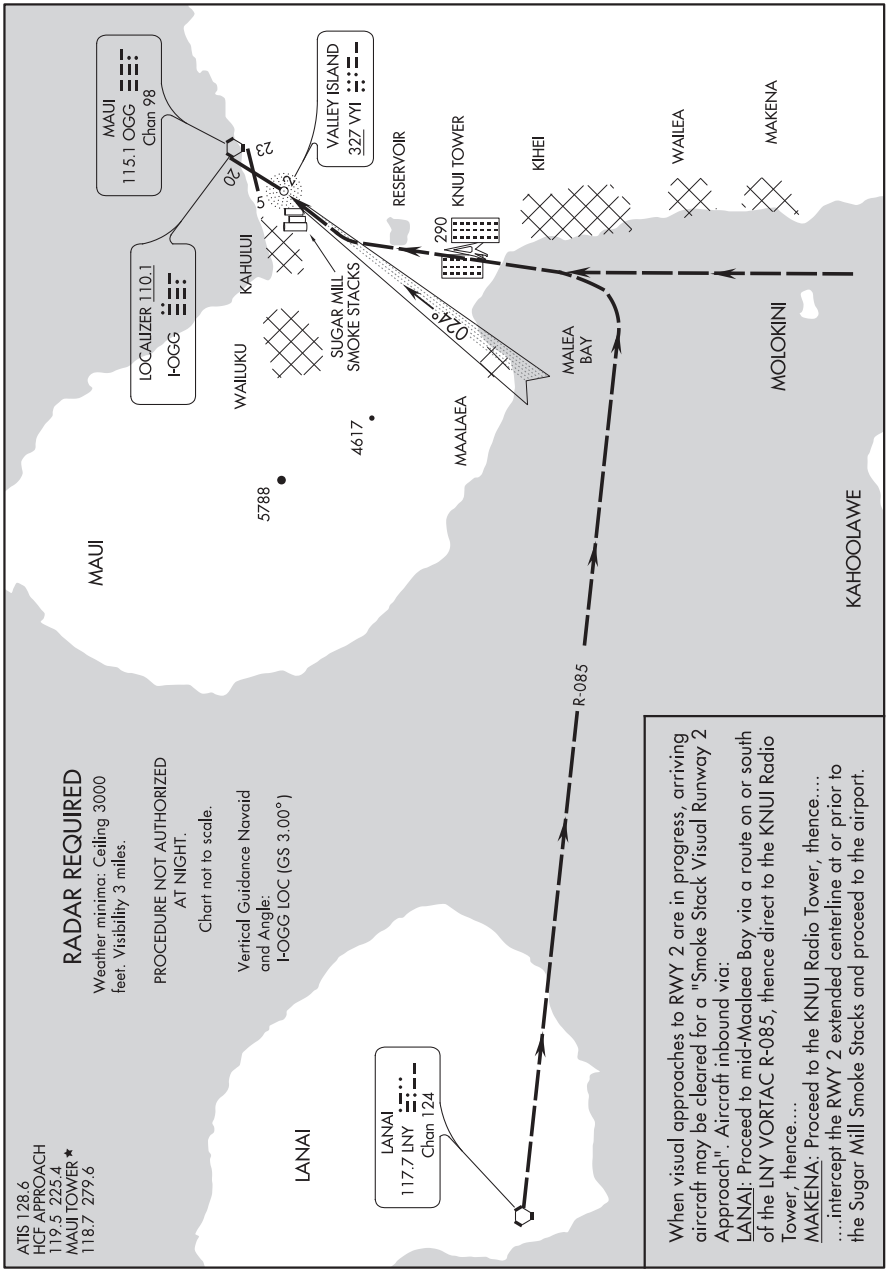
20°54'N-156°26'W

KAHULUI (OGG)(PHOG)
NDB RWY 2

16035 AL-762 (FAA)

SMOKE STACK VISUAL RWY 2

KAHULUI (OGG)(PHOG)
KAHULUI, HAWAII



SMOKE STACK VISUAL RWY 2

20° 54'N-156° 26'W

KAHULUI, HAWAII
KAHULUI (OGG)(PHOG)

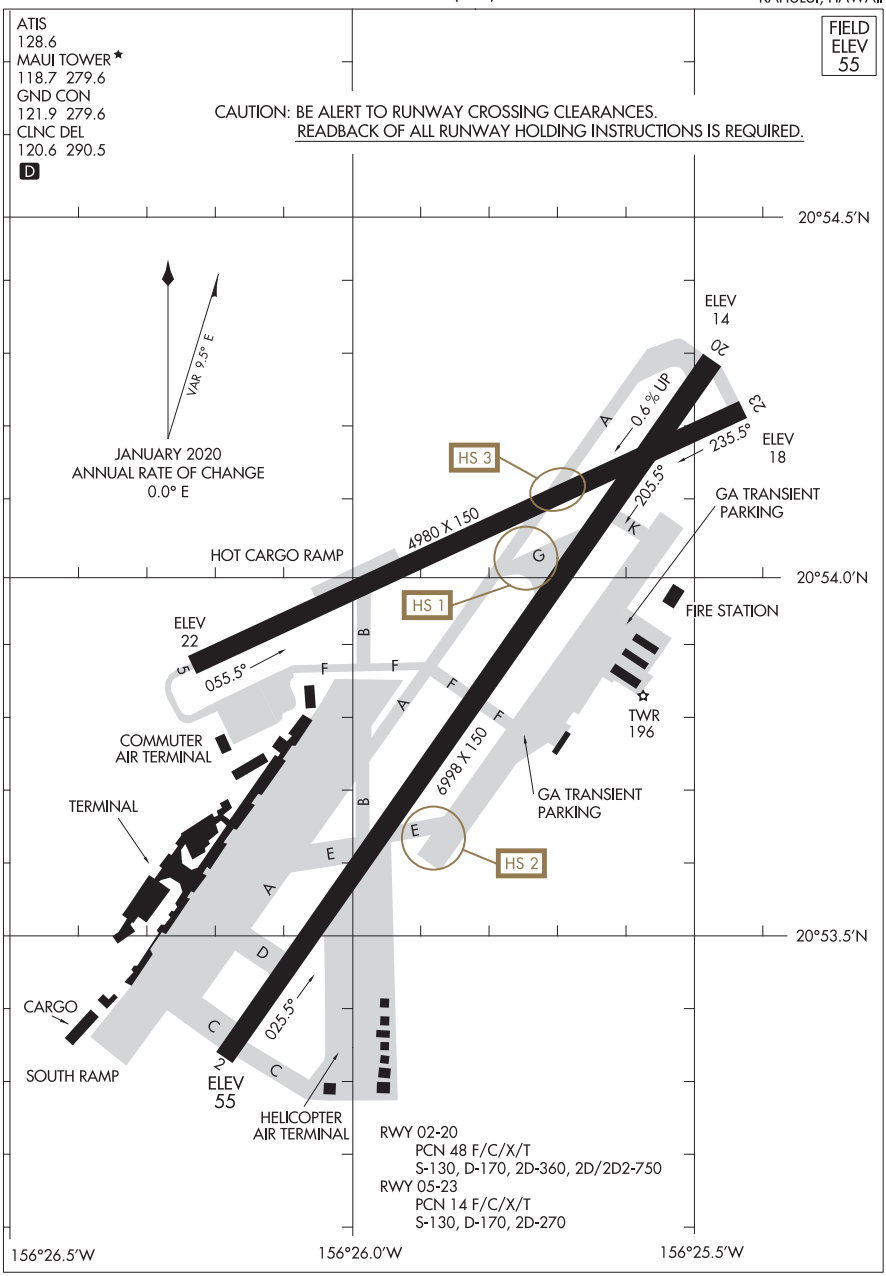
Amdt 1 09SEP99

20310

AIRPORT DIAGRAM

AL-762 (FAA)

KAHULUI (OGG)(PHOG)
KAHULUI, HAWAII



AIRPORT DIAGRAM
20310

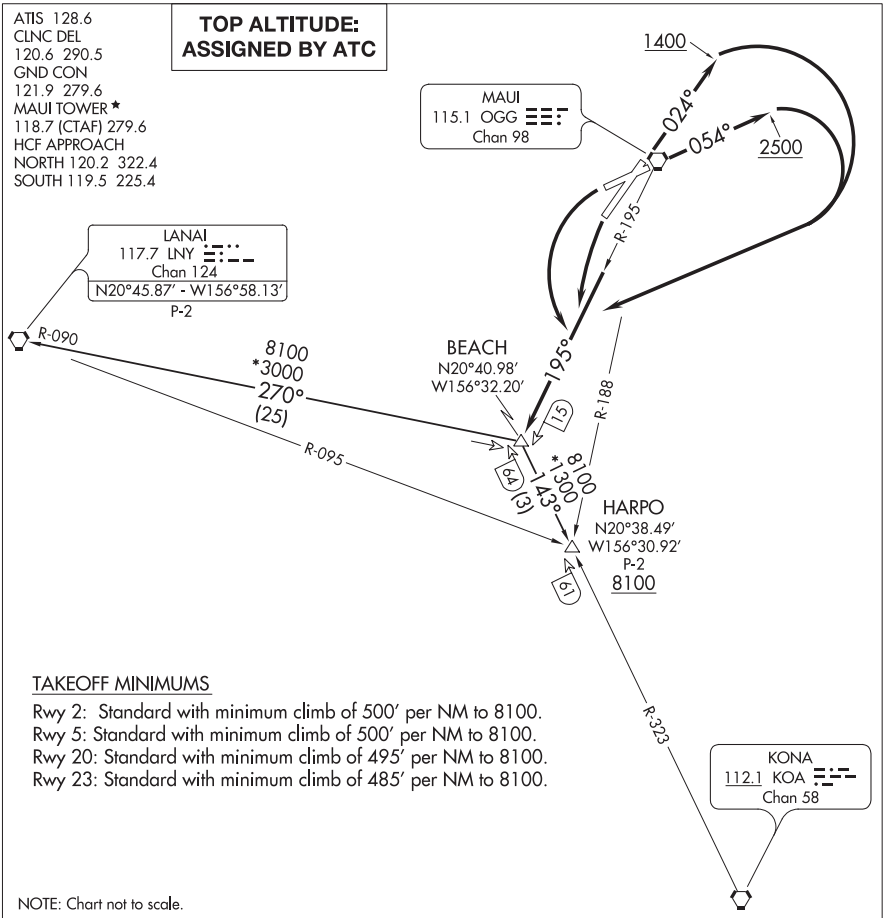
KAHULUI, HAWAII
KAHULUI (OGG)(PHOG)

(BEACH4.BEACH) 18032

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

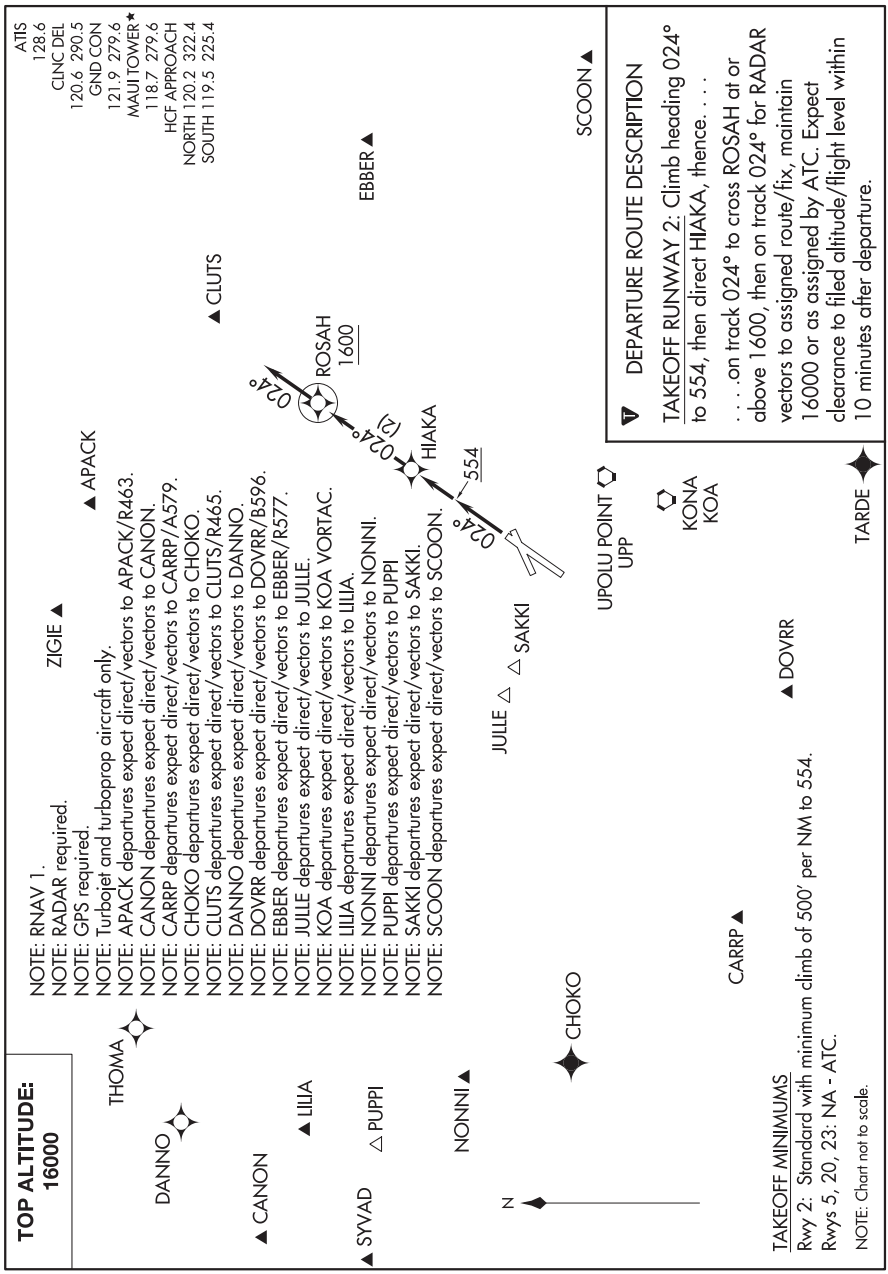
KAHULUI, HAWAII
KAHULUI (OGG)(PHOG)

(HIAKA1.HIAKA) 20030

HIAKA ONE DEPARTURE (RNAV)

AL-762 (FAA)

KAHULUI (OGG)(PHOG)
KAHULUI, HAWAII



HIAKA ONE DEPARTURE (RNAV)
KAHULUI, HAWAII
KAHULUI (OGG)(PHOG)

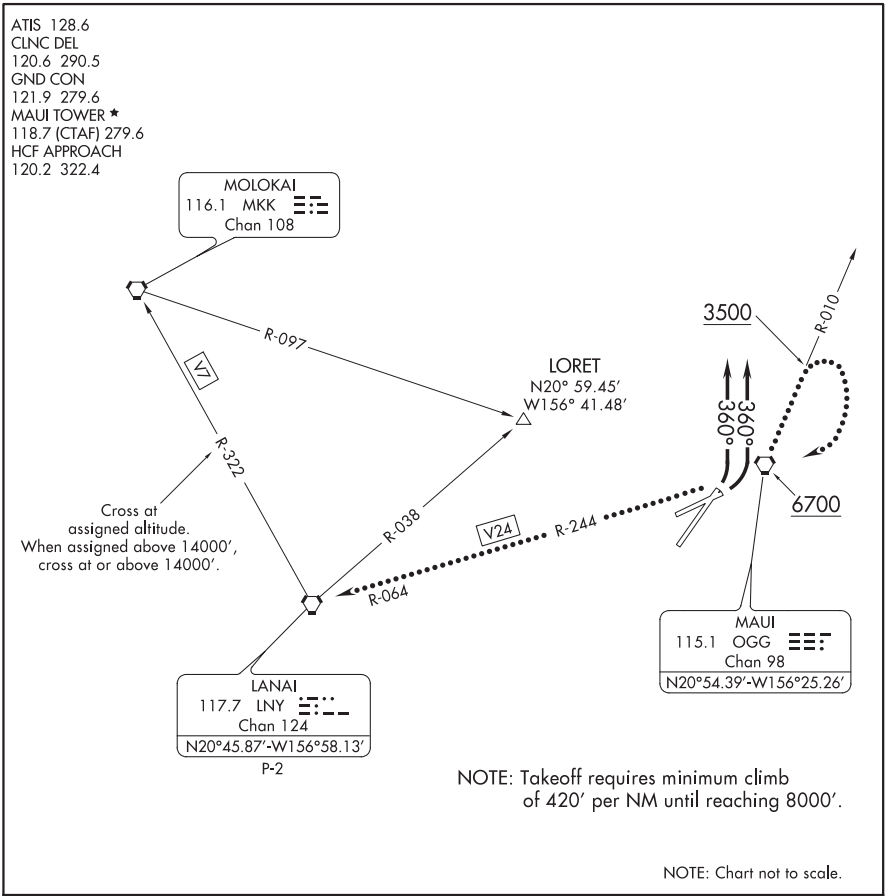
(HIAKA1.HIAKA) 20JUN19

(MAUI5.OGG) 18032

MAUI FIVE DEPARTURE

AL-762 (FAA)

KAHULUI (OGG)(PHOG)
KAHULUI, HAWAII



▼

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.OGG) 09SEP99

KAHULUI (OGG)(PHOG)
KAHULUI, HAWAII

(NPLII2.SAKKI) 18032

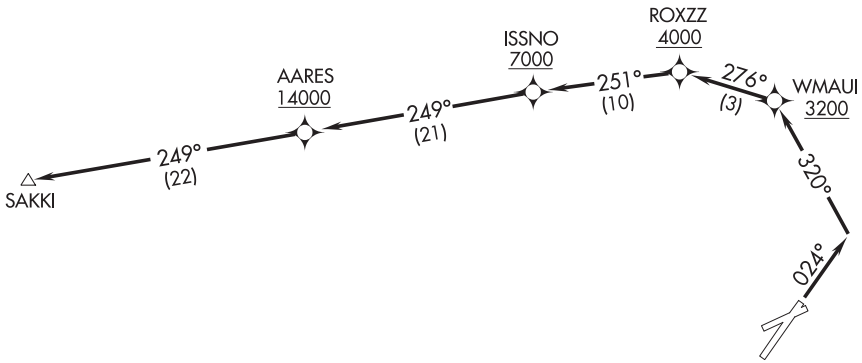
NPLII TWO DEPARTURE (RNAV)

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
Rwys 5, 20, 23, NA - Air Traffic.
Rwy 2: Standard with minimum climb of 355′ per NM to 11200.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb to assigned altitude on heading 024° to intercept course 320° to cross WMAUI at or above 3200, and on track 276° to cross ROXZZ at or above 4000, and on track 251° to cross ISSNO at or above 7000, and on track 249° to cross AARES at or above 14000, and on track 249° to SAKKI.

(ONOHI2.ONOHI) 18032

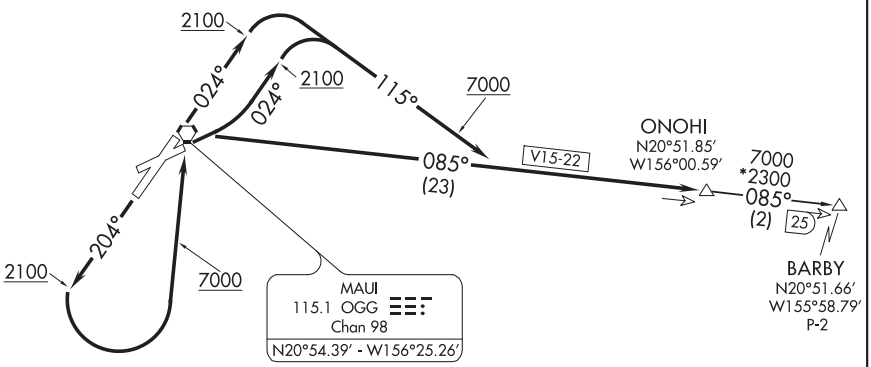
ONOHI TWO DEPARTURE

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: 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)

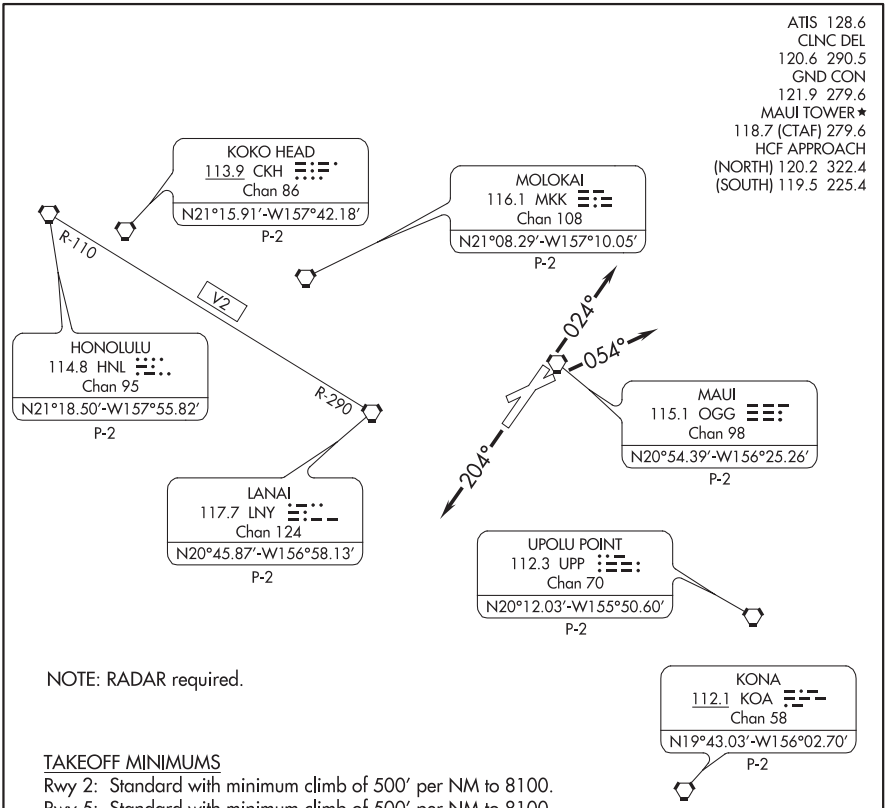
(PUHEE1.PUHEE) 20JUN19

KAHULUI, HAWAII
KAHULUI (OGG)(PHOG)

(STACY2.OGG) 18032
STACEY TWO DEPARTURE

AL-762 (FAA)

KAHULUI (OGG)(PHOG)
KAHULUI, HAWAII



NOTE: RADAR required.

TAKEOFF MINIMUMS
Rwy 2: Standard with minimum climb of 500' per NM to 8100.
Rwy 5: Standard with minimum climb of 500' per NM to 8100.
Rwy 20: Standard with minimum climb of 490' per NM to 8100.
Rwy 23: NA - Obstacles.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb heading 024° (or ATC assigned heading 310° CW 053°); thence. . . .
TAKEOFF RUNWAY 5: Climbing heading 054° (or ATC assigned heading 307° CW 054°); thence. . . .
TAKEOFF RUNWAY 20: Climb heading 204° (or ATC assigned heading 169° CW 204°); thence. . . .
TAKEOFF RUNWAY 23: NA - Obstacles.

. . . .expect RADAR vectors to join assigned route. Maintain assigned altitude; expect filed altitude/flight level 5 minutes after departure.

LOST COMMUNICATIONS: If not in contact with departure control 1 minute after departure, climb southbound to join V2 to LNY VORTAC, then on assigned route.

STACEY TWO DEPARTURE
(STACY2.OGG) 03APR14

KAHULUI, HAWAII
KAHULUI (OGG)(PHOG)

(SWEEP2.SWEEP) 18032

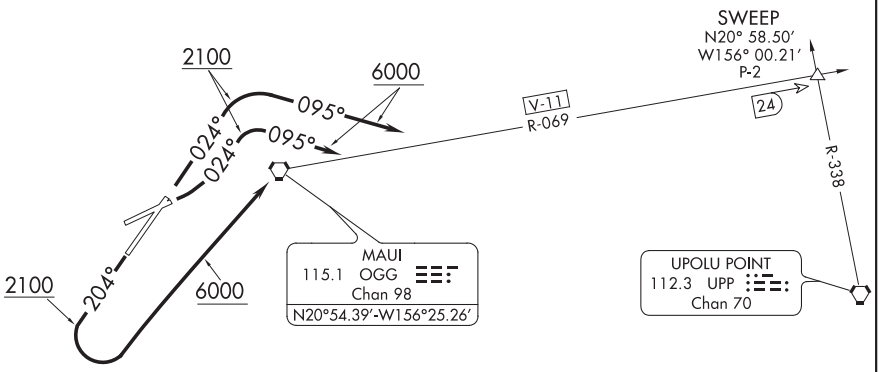
SWEEP TWO DEPARTURE

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
MAUI DEP CON
NORTH 120.2 322.4
SOUTH 119.5 225.4
HCF APPROACH
NORTH 120.2 322.4
SOUTH 119.5 225.4

TOP ALTITUDE: 6000



TAKEOFF MINIMUMS
Rwy 23: NA Obstacle and ATC.
Rwys 2, 5: Standard with ATC climb of 480′ per NM to 2100.
Rwy 20: Standard with minimum climb of 480′ per NM to 2100.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2: Climb heading 024° to 2100 then climbing right turn to 6000 via heading 095° to intercept OGG VORTAC R-069 (V11) to SWEEP INT/OGG 24 DME.
TAKEOFF RUNWAY 5: Climbing left turn heading 024° to 2100 then right turn to 6000 via heading 095° to intercept OGG VORTAC R-069 (V11) to SWEEP INT/OGG 24 DME.
TAKEOFF RUNWAY 20: Climb heading 204° to 2100 then climbing left turn to 6000 direct OGG VORTAC then via OGG R-069 (V11) to SWEEP INT/OGG 24 DME.

SWEEP TWO DEPARTURE

(SWEEP2.SWEEP) 20AUG15

KAHULUI, HAWAII
KAHULUI (OGG)(PHOG)

KAILUA-KONA, HAWAII AL-5761 (FAA) 22083

ILS or LOC RWY 17

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

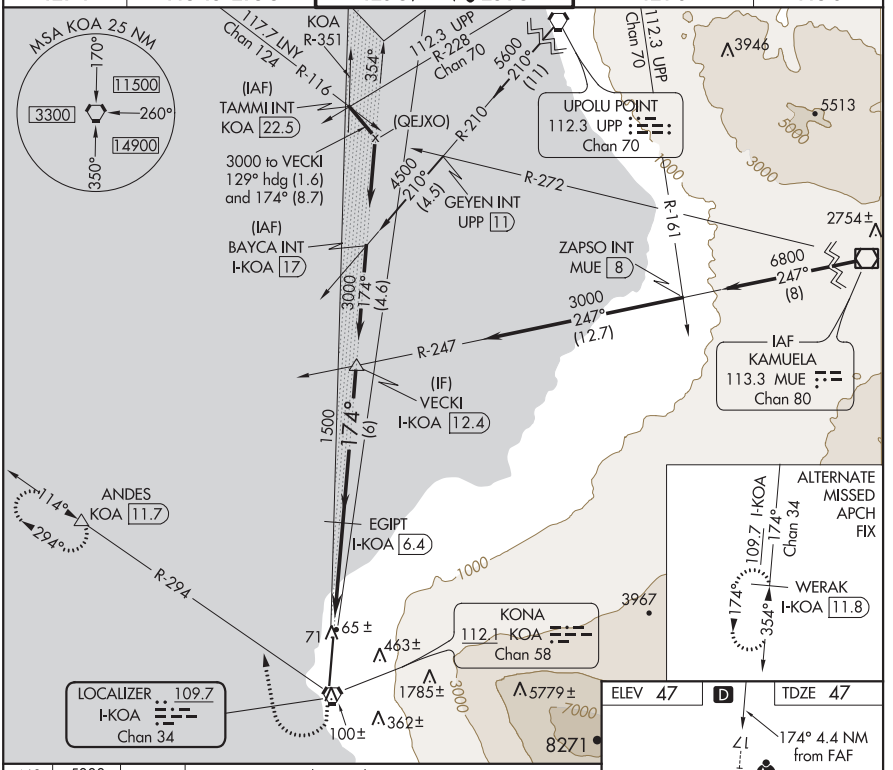
LOC/DME I-KOA	APP CRS	Rwy Idg 11000
109.7	174°	TDZE 47
Chan 34		Apt Elev 47

For inoperative MALSR, increase S-ILS 17 Cat E visibility to ¾ mile and S-LOC 17 Cats C, D, E visibility to 1 mile. Circling NA east of Rwy 17-35. Autopilot coupled approach NA below 415. DME required.

MALSR

MISSED APPROACH: Climb to 460 then climbing right turn to 5000 on KOA VORTAC R-294 to ANDES/KOA VORTAC 11.7 DME and hold, continue climb-in-hold to 5000.

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



CATEGORY	A	B	C	D	E
S-ILS 17	247-½ 200 (200-½)				
S-LOC 17	400-½ 353 (400-½)		400-⅝ 353 (400-⅝)		
C CIRCLING	520-1 473 (500-1)		520-1½ 473 (500-1½)	600-2 553 (600-2)	

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

RNAV (RNP) Z RWY 17

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

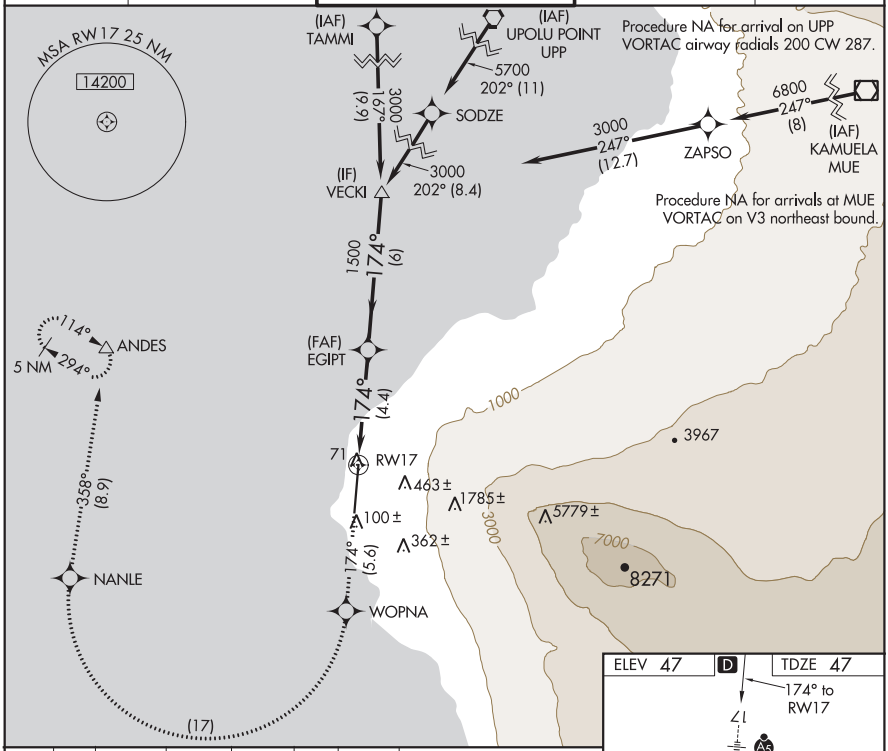
APP CRS	Rwy Idg	11000
174°	TDZE	47
	Apt Elev	47

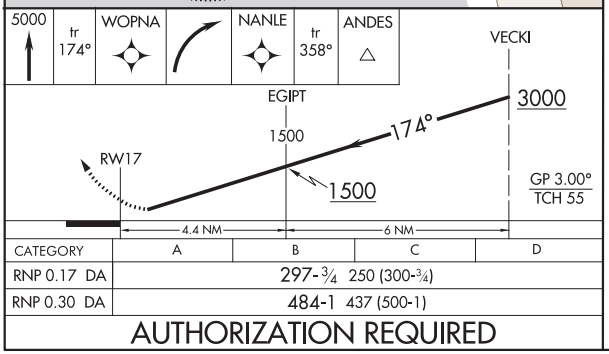
For uncompensated Baro-VNAV systems, procedure NA below 6°C (43°F) or above 48°C (119°F). RF required. GPS required. For inop ALS, increase RNP 0.30 all Cats visibility to 1½ mile.

MALSR

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

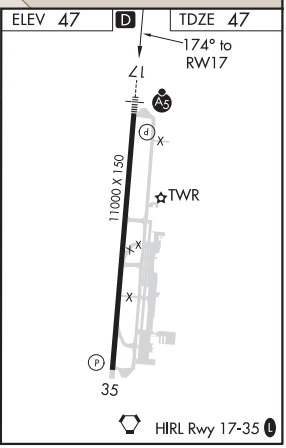
ATIS	HCF CENTER	KONA TOWER ★	GND CON	CLNC DEL
127.4	118.45 278.3	120.3 (CTAF) L 254.3	121.9	118.6





CATEGORY	A	B	C	D
RNP 0.17 DA	297-¾ 250 (300-¾)			
RNP 0.30 DA	484-1 437 (500-1)			

AUTHORIZATION REQUIRED



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) 22083

APP CRS	Rwy Idg	11000
354°	TDZE	37
	Apt Elev	47

RNAV (GPS) RWY 35

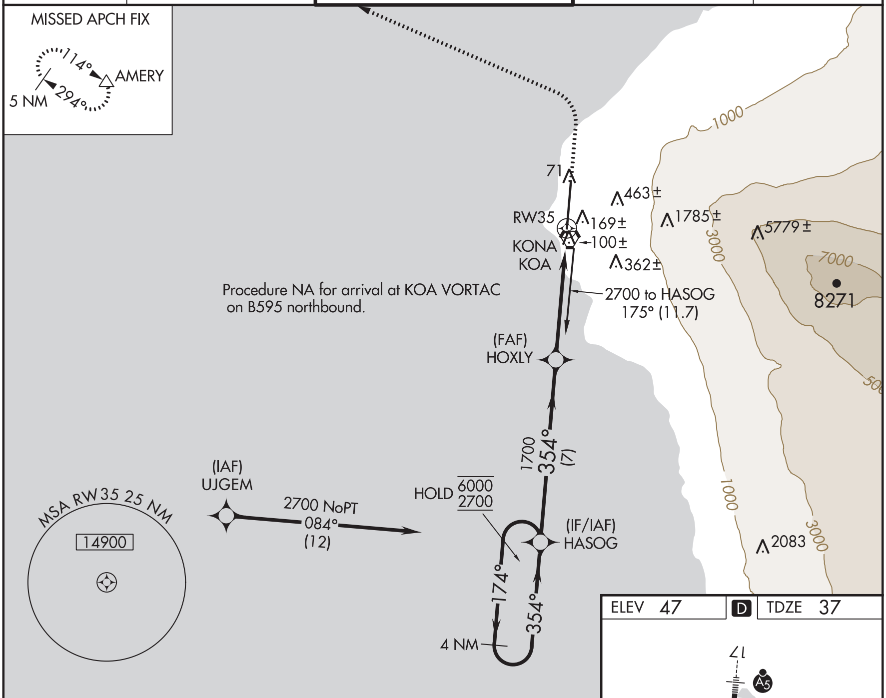
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

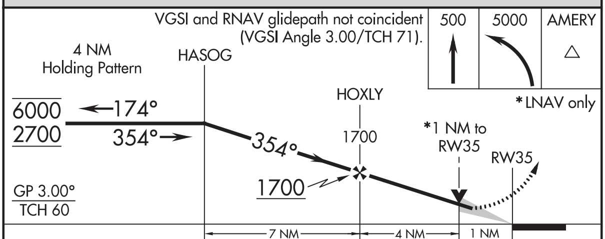
RNP APCH.

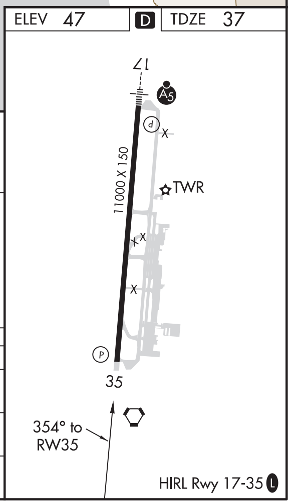
Circling NA east of Rwy 17-35. WAAS VNAV NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 17°C or above 54°C.

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

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







CATEGORY	A	B	C	D	E
LNAV/VNAV DA	366-1 329 (400-1)				
LNAV MDA	420-1 383 (400-1)		420-1⅛ 383 (400-1⅛)		
Ⓒ CIRCLING	520-1 473 (500-1)		600-2 553 (600-2)		

KAILUA-KONA, HAWAII
Amdt 2 19JUL18

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	Rwy Idg	11000
174°	TDZE	47
	Apt Elev	47

RNAV (GPS) Y RWY 17

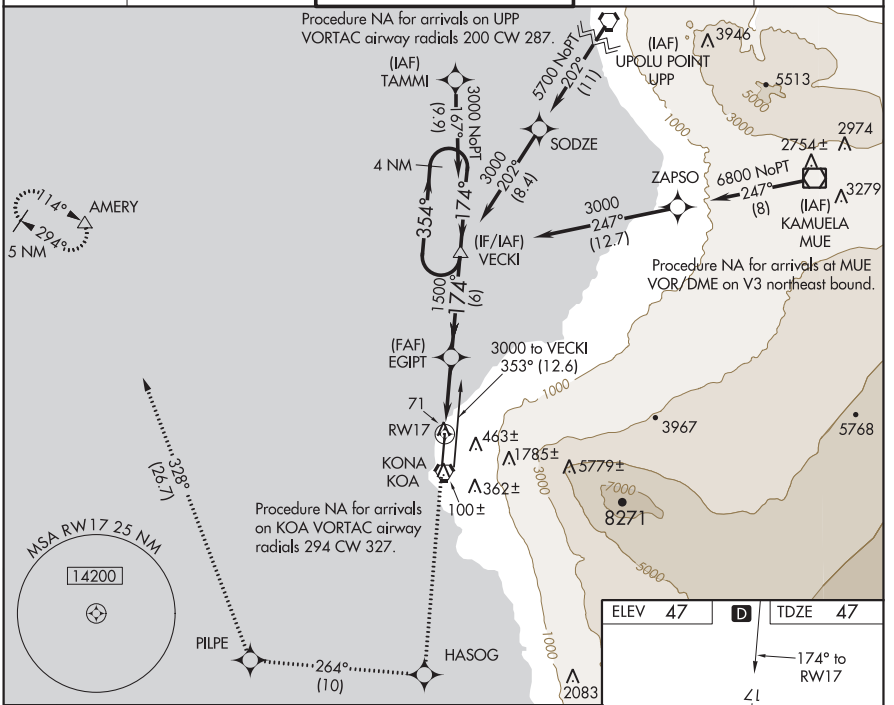
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

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 Cats visibility to 1⅝ miles.

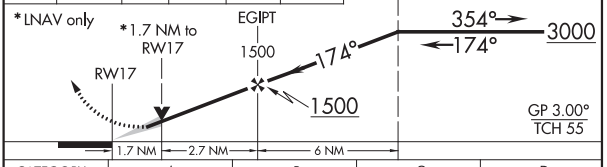
MALSR

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

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

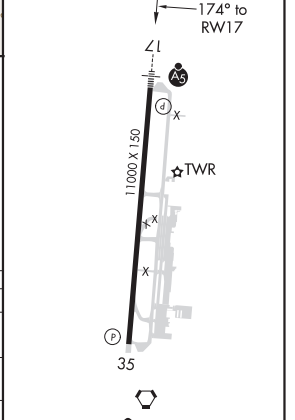


5000	HASOG	tr 264°	PILPE	tr 328°	AMERY



CATEGORY	A	B	C	D
LNAV/VNAV DA	540-1¼ 493 (500-1¼)			
LNAV MDA	640-½ 593 (600-½)		640-1¼ 593 (600-1¼)	
C CIRCLING	640-1 593 (600-1)		640-1¾ 593 (600-1¾)	640-2 593 (600-2)

ELEV 47 D TDZE 47



KAILUA-KONA, HAWAII
Amdt 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) | 22083

LOC BC RWY 35

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

LOC/DME I-KOA	APP CRS	Rwy Idg	11000
109.7	354°	TDZE	37
Chan 34		Apt Elev	47

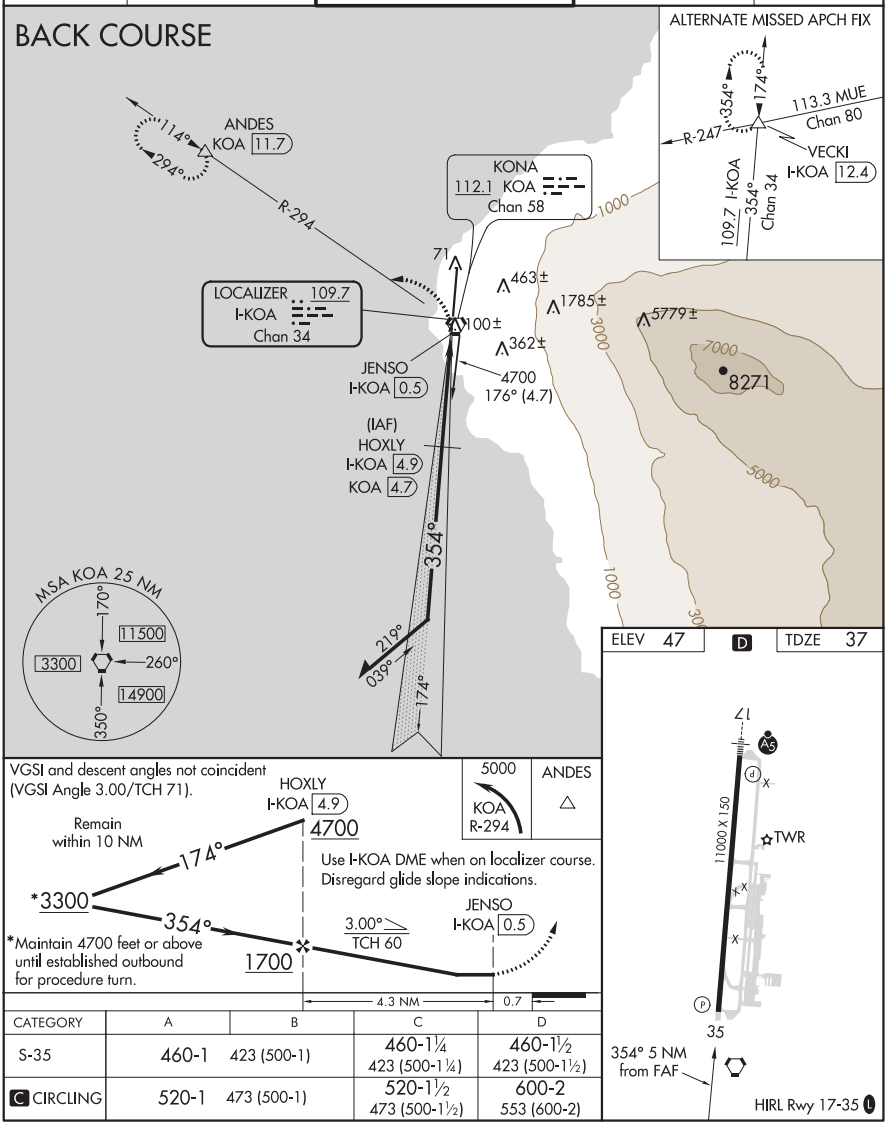
Circling NA east of Rwy 17-35.
DME required.

MISSED APPROACH: Climbing left turn to 5000 on KOA VORTAC R-294 to ANDES/KOA VORTAC 11.7 DME and hold, continue climb-in-hold to 5000.

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

BACK COURSE

ALTERNATE MISSED APCH FIX



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

CATEGORY	A	B	C	D
S-35	460-1	423 (500-1)	460-1¼ 423 (500-1¼)	460-1½ 423 (500-1½)
C CIRCLING	520-1	473 (500-1)	520-1½ 473 (500-1½)	600-2 553 (600-2)

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) 22083

VOR or TACAN RWY 17

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

VORTAC KOA	APP CRS	Rwy Idg 11000
112.1	171°	TDZE 47
Chan 58		Apt Elev 47

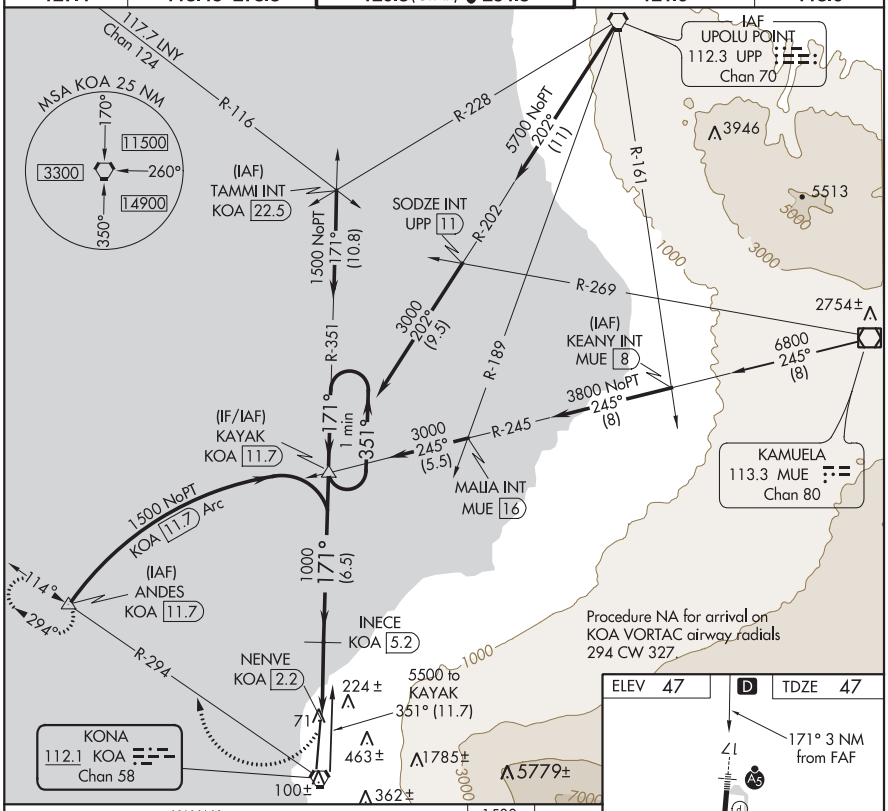
DME required.

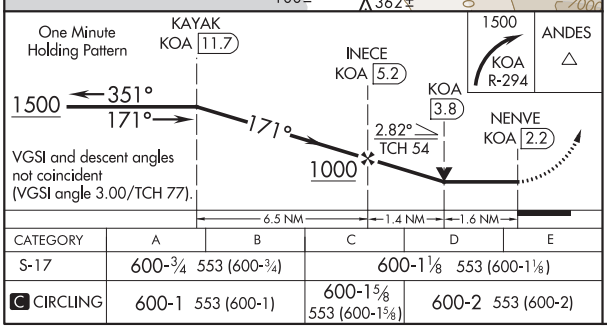
Circling NA east of Rwy 17-35. For inop ALS, increase S-17 Cat A, B visibility to 1 mile, Cat E visibility to 1⅝ mile.

MALSR

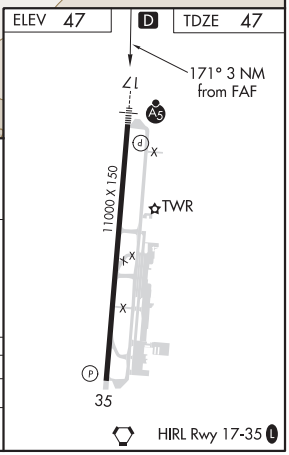
MISSED APPROACH: Climbing right turn to 1500 on KOA VORTAC R-294 to ANDES/11.7 DME and hold.

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





CATEGORY	A	B	C	D	E
S-17	600-¾ 553 (600-¾)		600-1⅛ 553 (600-1⅛)		
C CIRCLING	600-1 553 (600-1)		600-1⅝ 553 (600-1⅝)	600-2 553 (600-2)	



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

KAILUA-KONA, HAWAII | AL-5761 (FAA) | 22083

VOR or TACAN RWY 35

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

VORTAC KOA	APP CRS	Rwy Idg	11000
112.1	011°	TDZE	37
Chan 58		Apt Elev	47

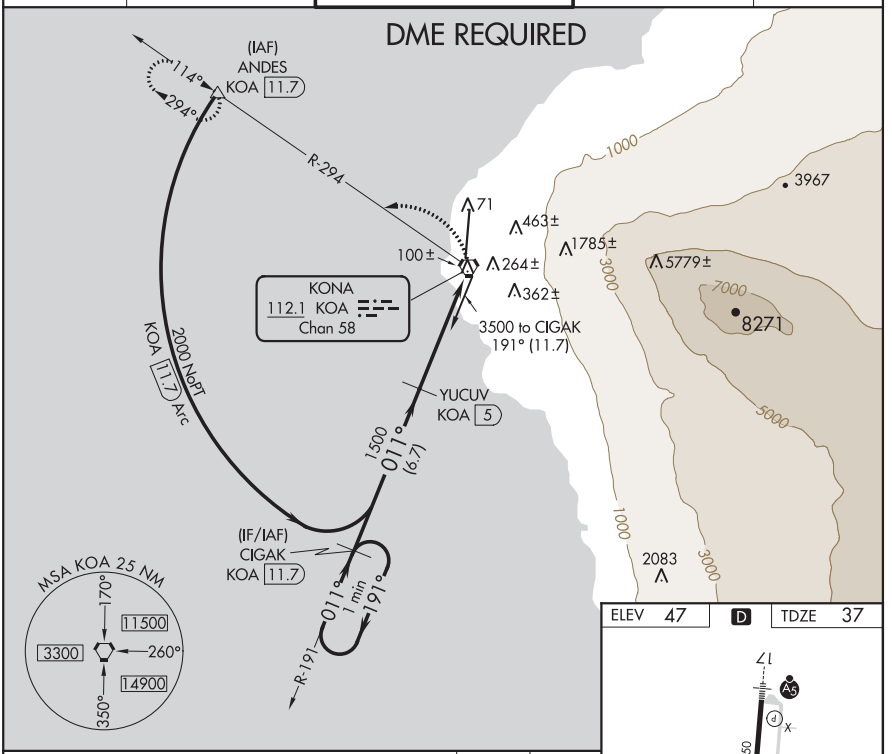
DME required.

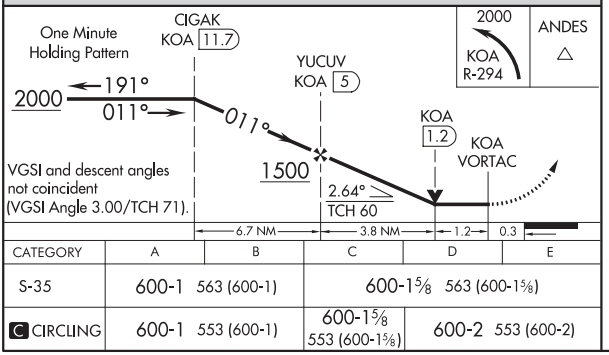
Circling NA east of Rwy 17-35.

MISSED APPROACH: Climbing left turn to 2000 on KOA VORTAC R-294 to ANDES/11.7 DME and hold.

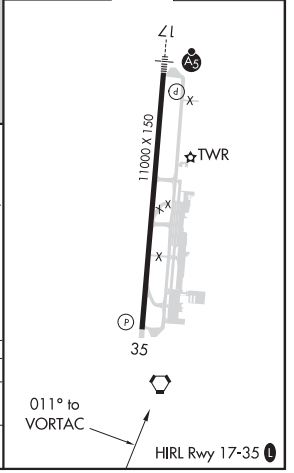
ATIS	HCF CENTER	KONA TOWER ★	GND CON	CLNC DEL
127.4	118.45 278.3	120.3 (CTAF) L 254.3	121.9	118.6

DME REQUIRED





CATEGORY	A	B	C	D	E
S-35	600-1 563 (600-1)		600-1⅝ 563 (600-1⅝)		
C CIRCLING	600-1 553 (600-1)		600-1⅝ 553 (600-1⅝)	600-2 553 (600-2)	



KAILUA-KONA, HAWAII
Orig-D 05NOV20

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

19°44'N-156°03'W

VOR or TACAN RWY 35

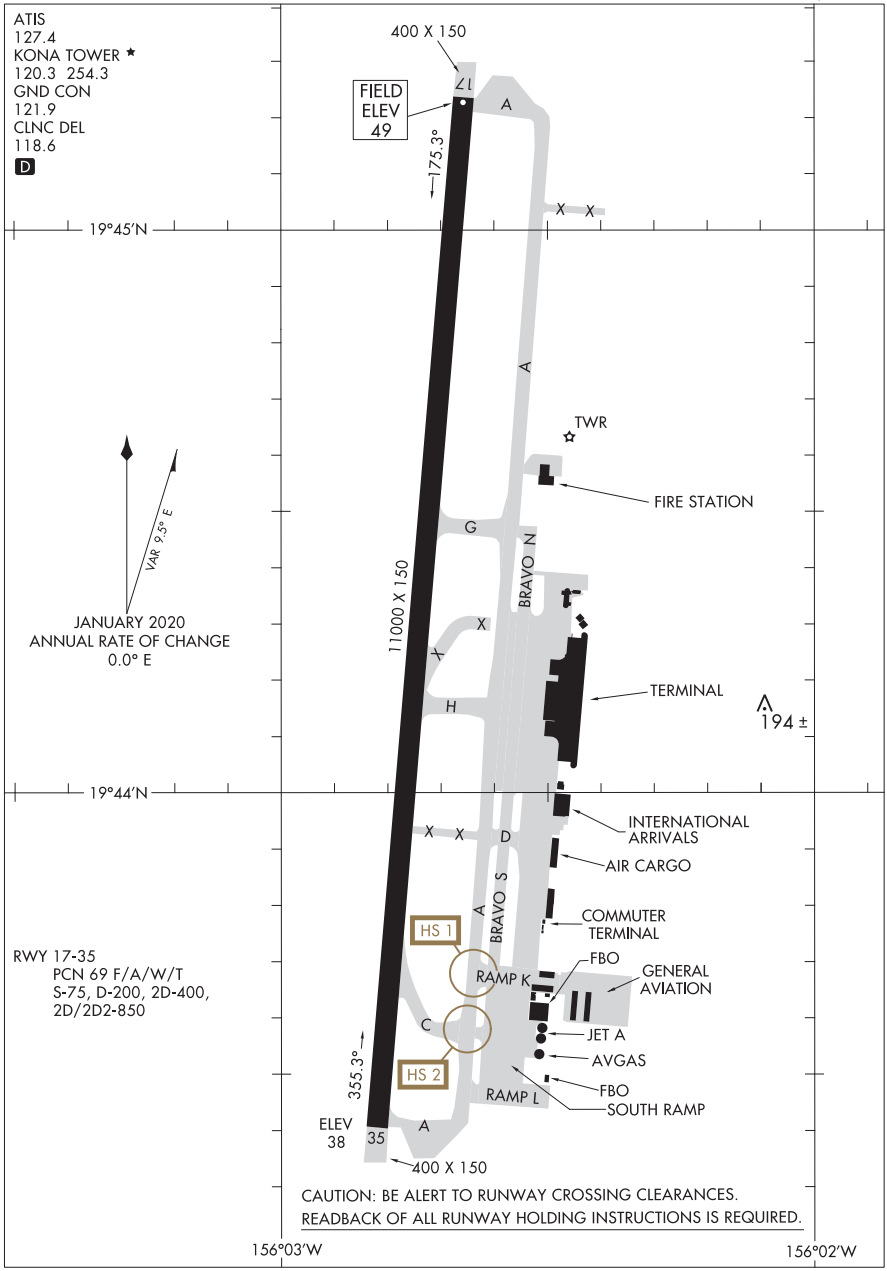
23054

AIRPORT DIAGRAM

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

AL-5761 (FAA)

KAILUA/KONA, HAWAII

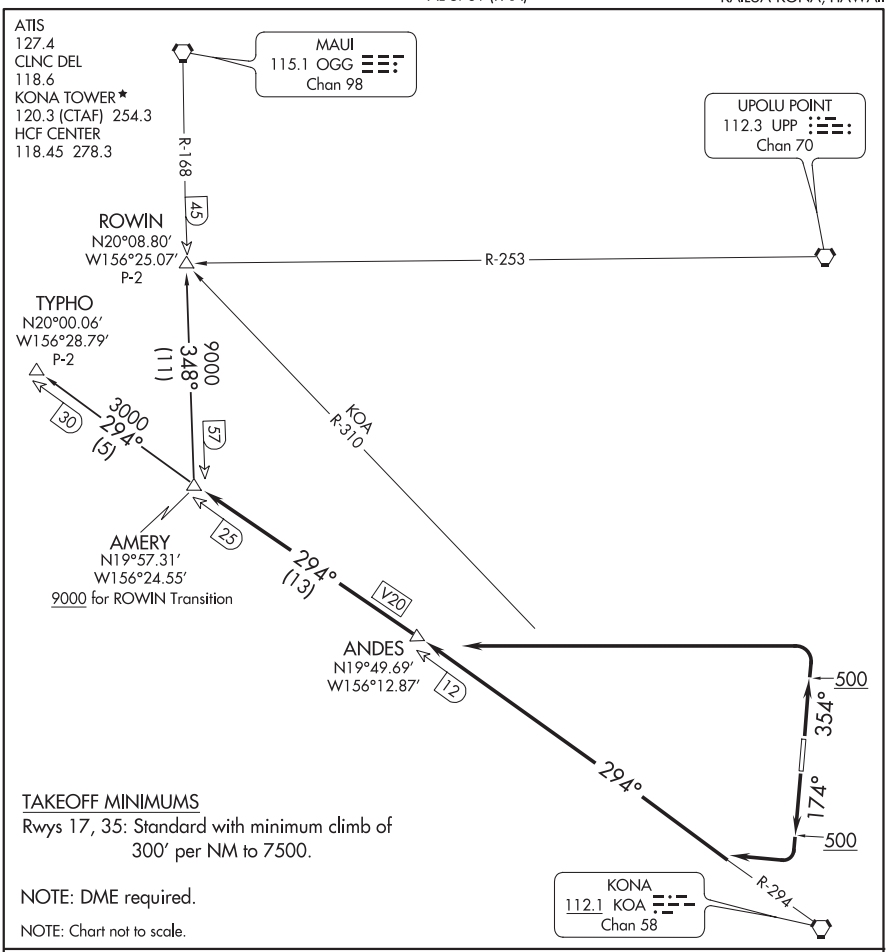


AIRPORT DIAGRAM
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)
KAILUA/KONA, HAWAII
23054

(AMERY4.AMERY) 20254

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.

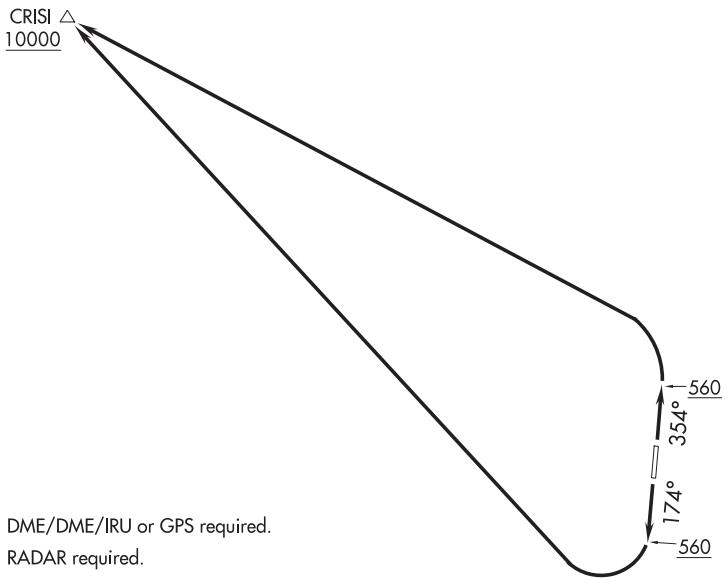
AMERY FOUR DEPARTURE
(AMERY4.AMERY) 07DEC17
KAILUA-KONA, HAWAII
ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

(CRISI2.CRISI) 20254 ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

CRISI TWO DEPARTURE (RNAV)

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

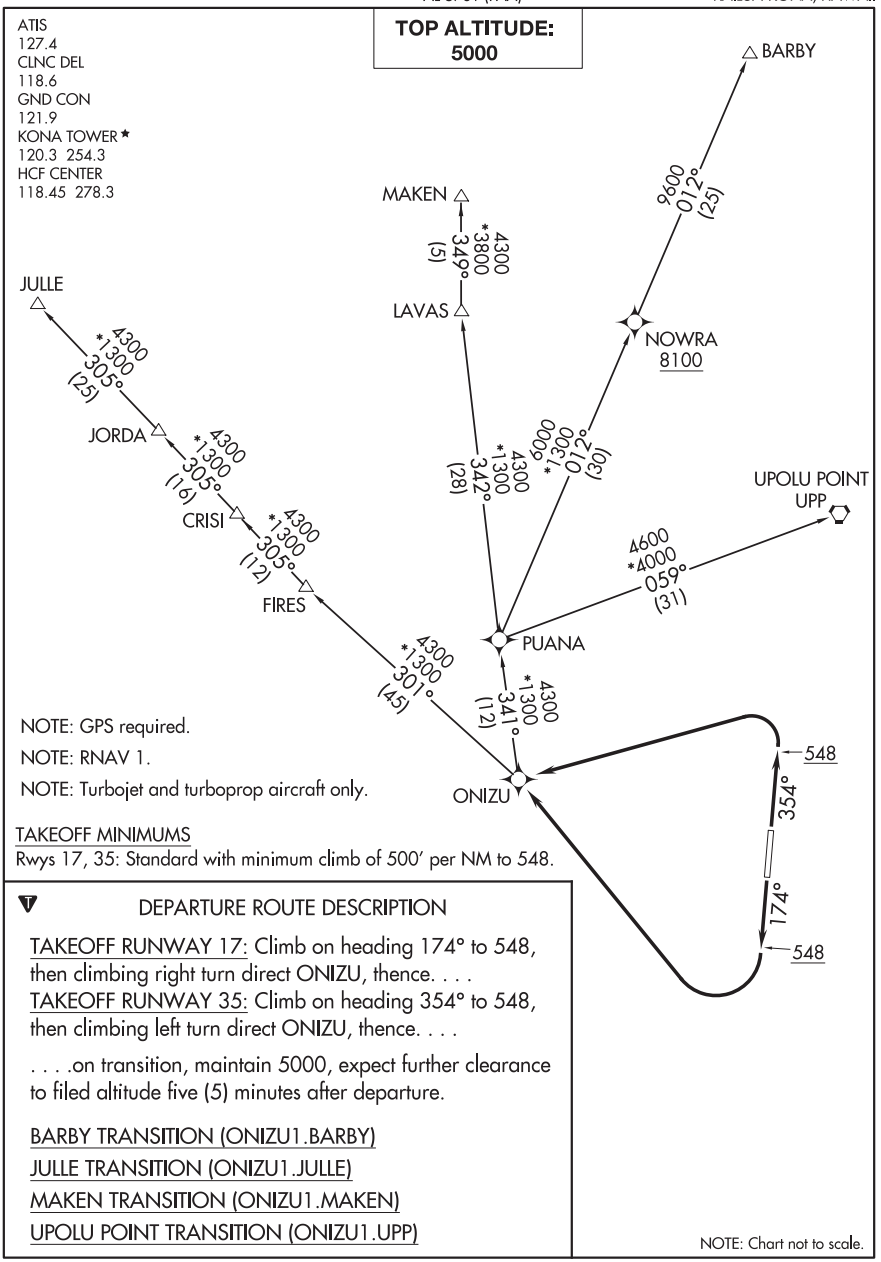
TAKEOFF RUNWAY 17: Climb on heading 174° to 560 then climbing right turn to 10000 direct CRISI.
TAKEOFF RUNWAY 35: Climb on heading 354° to 560 then climbing left turn to 10000 direct CRISI.

CRISI TWO DEPARTURE (RNAV) KAILUA-KONA, HAWAII
(CRISI2.CRISI) 07DEC17 ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

(ONIZU1.ONIZU) 21056 ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

ONIZU ONE DEPARTURE (RNAV)

AL-5761 (FAA) KAILUA-KONA, HAWAII



ONIZU ONE DEPARTURE (RNAV) KAILUA-KONA, HAWAII

(ONIZU1.ONIZU) 25FEB21 ELLISON ONIZUKA KONA INTL AT KEAHOLE (KOA) (PHKO)

KALAUPAPA, HAWAII | AL-6993 (FAA) | 19171

RNAV (GPS)-A

KALAUPAPA (LUP) (PHLU)

APP CRS	Rwy Idg	N/A
232°	TDZE	N/A
	Apt Elev	24

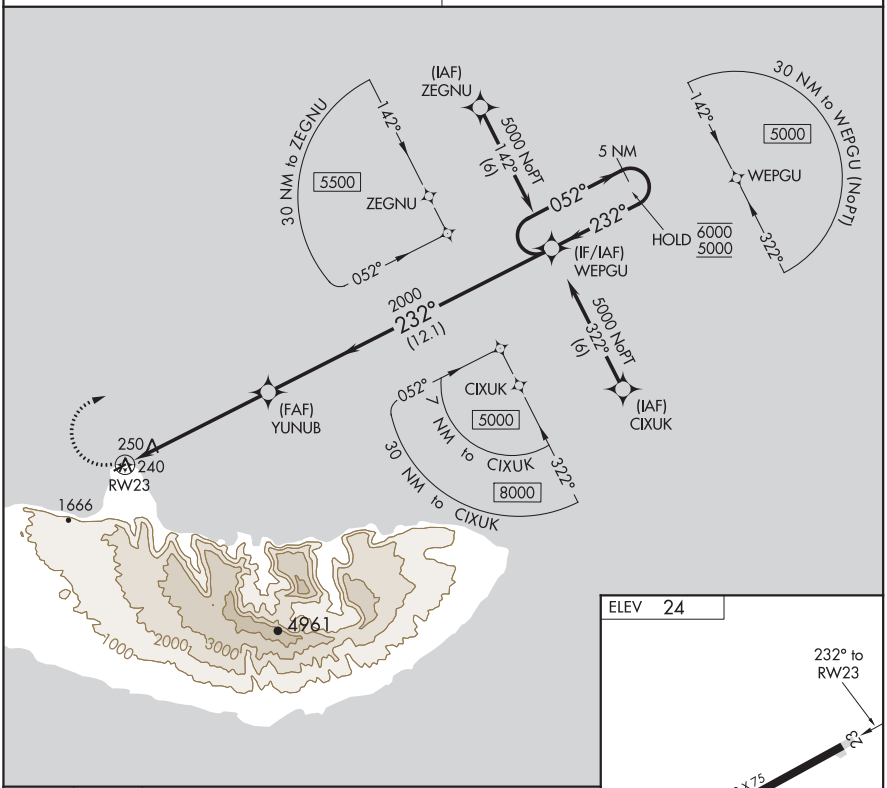
RNP APCH.

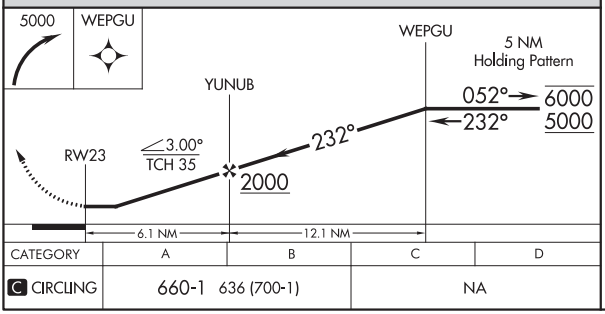
T A NA — Circling NA southeast of Rwy 5-23. Procedure NA at night. Use Kaunakakai altimeter setting.

MISSED APPROACH: Climbing right turn to 5000 direct WEPGU and hold, continue climb-in-hold to 5000.

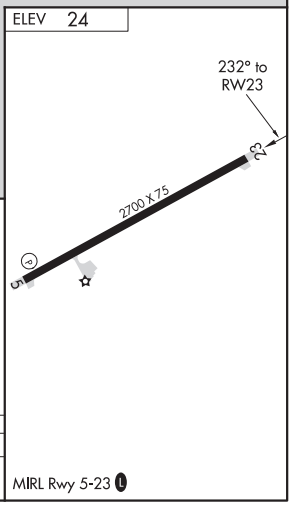
HCF CENTER
124.1 317.5

CTAF
122.9 L





CATEGORY	A	B	C	D
C CIRCLING	660-1 636 (700-1)		NA	



MIRL Rwy 5-23 L

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

RNAV (GPS)-B
KALAUPAPA (LUP) (PHLU)

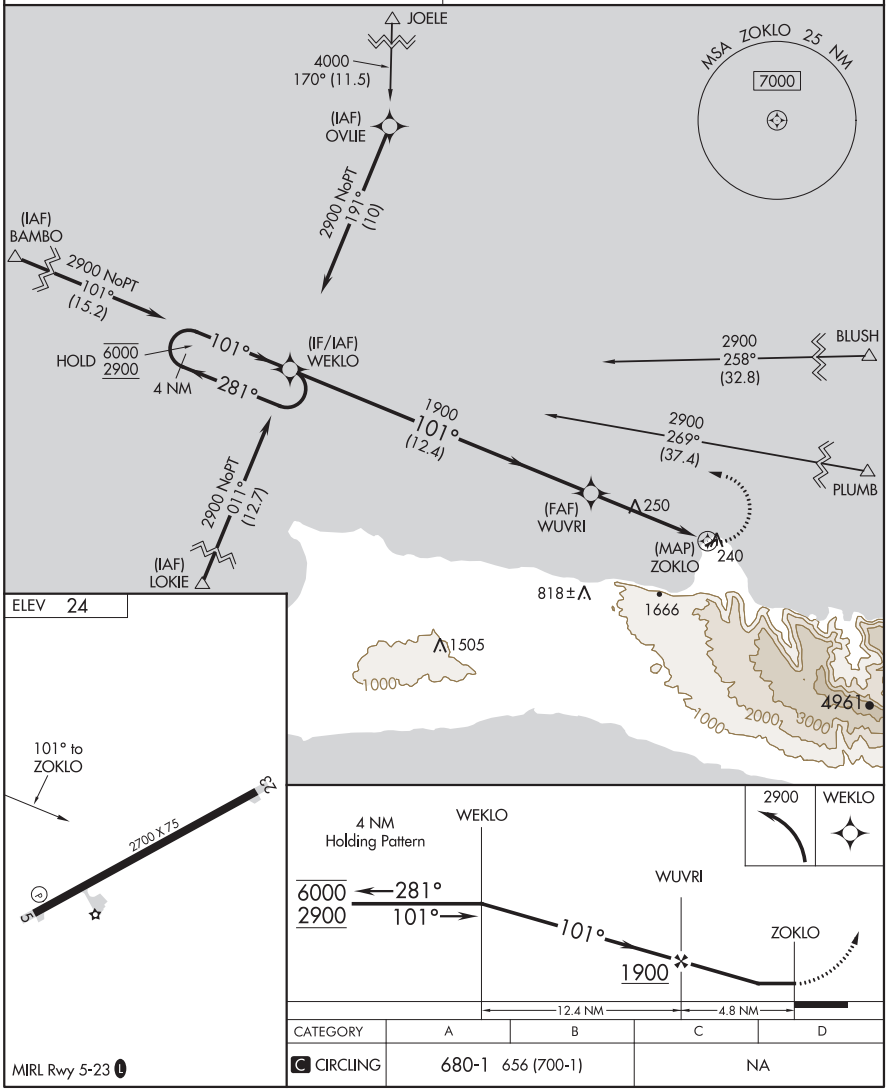
RNP APCH.

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

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

HCF CENTER
124.1 317.5

CTAF
122.9 L



KALAUPAPA, HAWAII
Orig 20JUN19

21°13'N-156°58'W

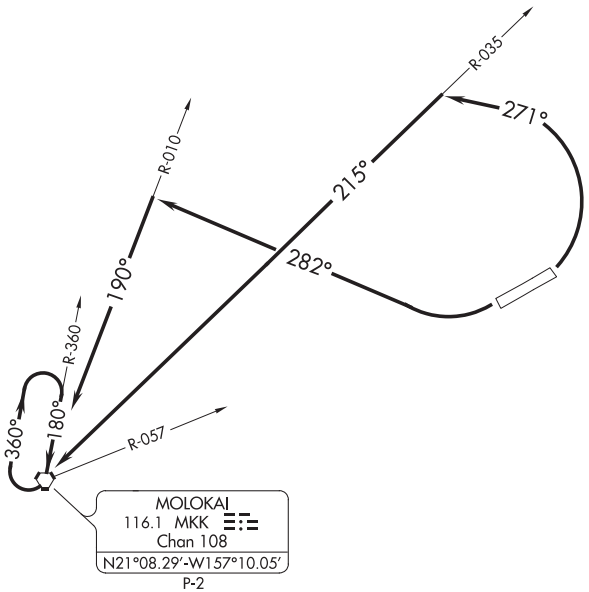
KALAUPAPA (LUP) (PHLU)
RNAV (GPS)-B

(LUP1.LUP) 16035

KALAUPAPA ONE DEPARTURE (OBSTACLE)

KALAUPAPA (LUP) (PHLU)
SL-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 DESCRIPTION

TAKEOFF RUNWAY 5: Climbing left turn to 4000 heading 271° to intercept MKK R-035 to MKK VORTAC, Thence. . . .

TAKEOFF RUNWAY 23: Climbing right turn to 4000 heading 282° to intercept MKK R-010 to MKK VORTAC, Thence. . . . or for climb in visual conditions, cross Kalaupapa Airport southwest bound at or above 3100 MSL then proceed on MKK R-057 to MKK VORTAC.

. . . .Climb in MKK VORTAC holding pattern to cross MKK VORTAC at or above MEA before proceeding enroute.

KALAUPAPA ONE DEPARTURE (OBSTACLE)
KALAUPAPA, HAWAII
KALAUPAPA (LUP) (PHLU)

(LUP1.LUP) 10MAR11

KAMUELA, HAWAII AL-5306 (FAA) 22027

RNAV (GPS) RWY 4

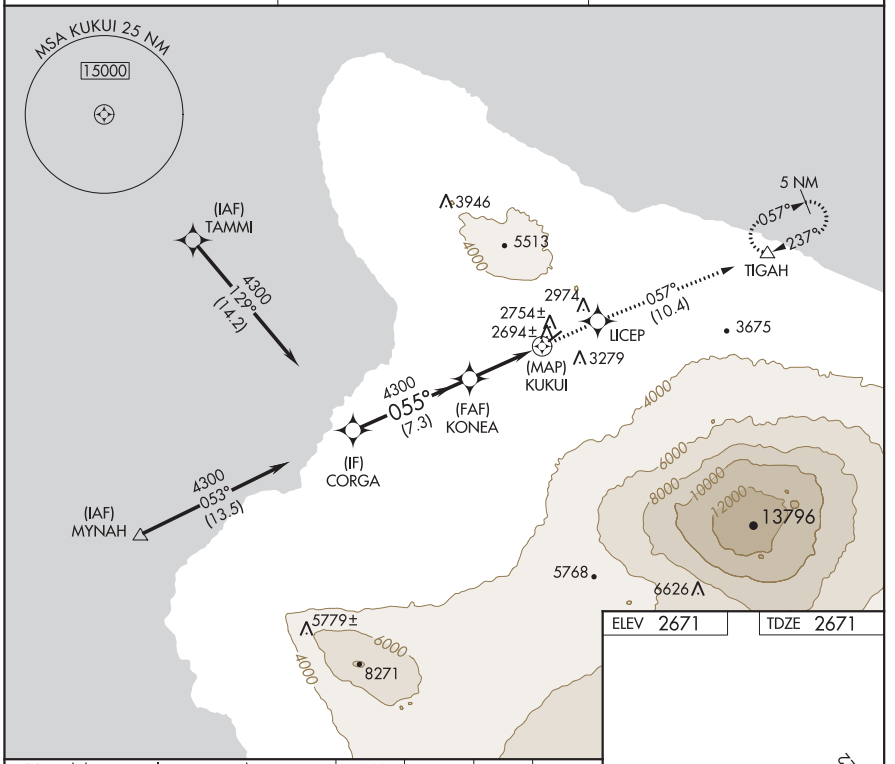
WAIMEA-KOHALA (MUE)(PHMU)

APP CRS	Rwy Idg	5197
055°	TDZE	2671
	Apt Elev	2671

Circling NA northwest of Rwy 4-22.
When local altimeter setting not received, procedure NA.
DME/DME RNP-0.3 NA.

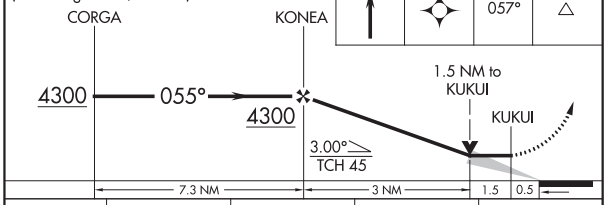
MISSED APPROACH: Climb to 5000 direct LICEP and on track 057° to TIGAH and hold.

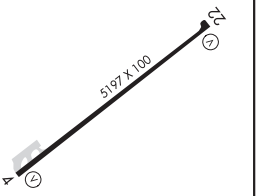
AWOS-3PT	HCF CENTER	CTAF
120.0	118.45 278.3	122.9 (L)



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

5000	LICEP	tr 057°	TIGAH





CATEGORY	A	B	C	D
LNAV MDA	3220-1 549 (600-1)		3220-1⅝ 549 (600-1⅝)	
CIRCLING	3520-1¼ 849 (900-1¼)		3580-2¾ 909 (1000-2¾)	3940-3 1269 (1300-3)

MIRL Rwy 4-22 (L)
REIL Rwys 4 and 22

KAMUELA, HAWAII
Amdt 1B 27JAN22

20°00'N-155°40'W

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

KAMUELA, HAWAII AL-5306 (FAA) 22027

RNAV (GPS) RWY 22

WAIMEA-KOHALA (MUE)(PHMU)

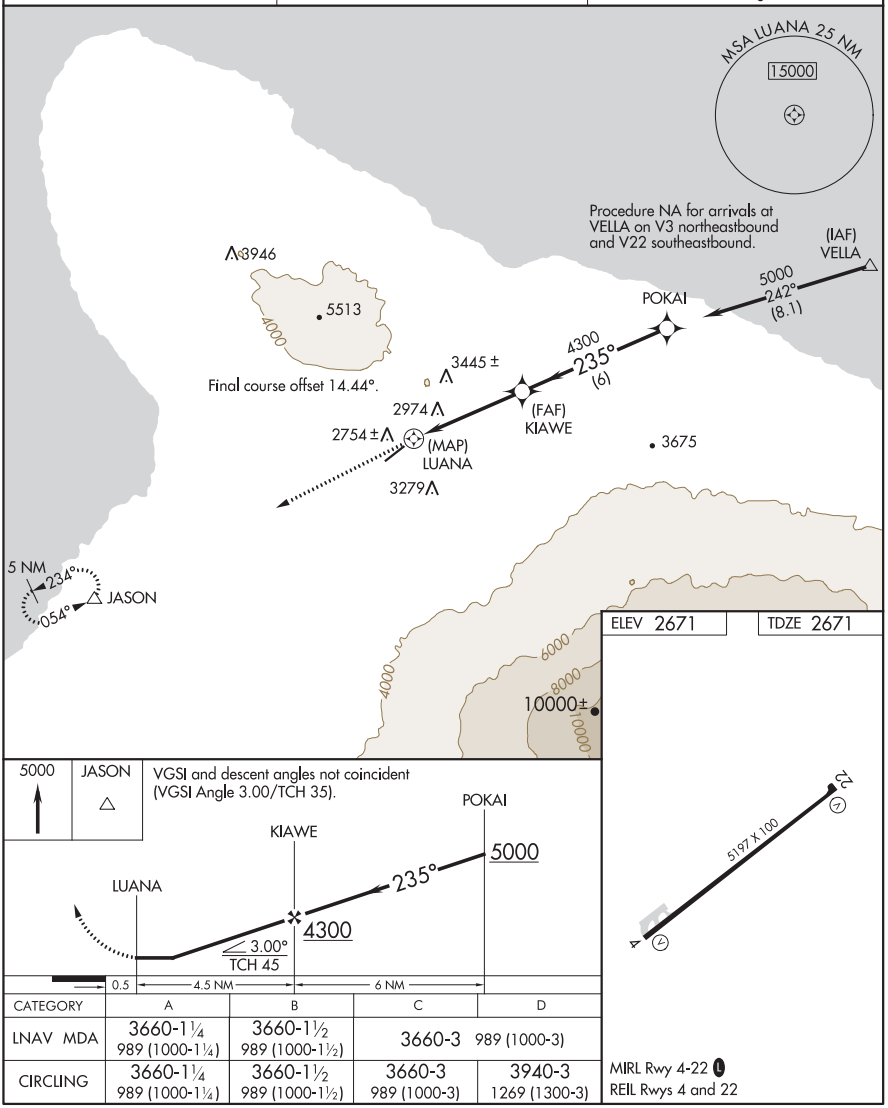
APP CRS	Rwy Idg	5197
235°	TDZE	2671
	Apt Elev	2671

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.

MISSED APPROACH: Climb to 5000 direct JASON and hold.

AWOS-3PT	HCF CENTER	CTAF
120.0	118.45 278.3	122.9 L



CATEGORY	A	B	C	D
LNAV MDA	3660-1¼ 989 (1000-1¼)	3660-1½ 989 (1000-1½)	3660-3 989 (1000-3)	
CIRCLING	3660-1¼ 989 (1000-1¼)	3660-1½ 989 (1000-1½)	3660-3 989 (1000-3)	3940-3 1269 (1300-3)

MIRL Rwy 4-22 L
REIL Rwys 4 and 22

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 RWY 4

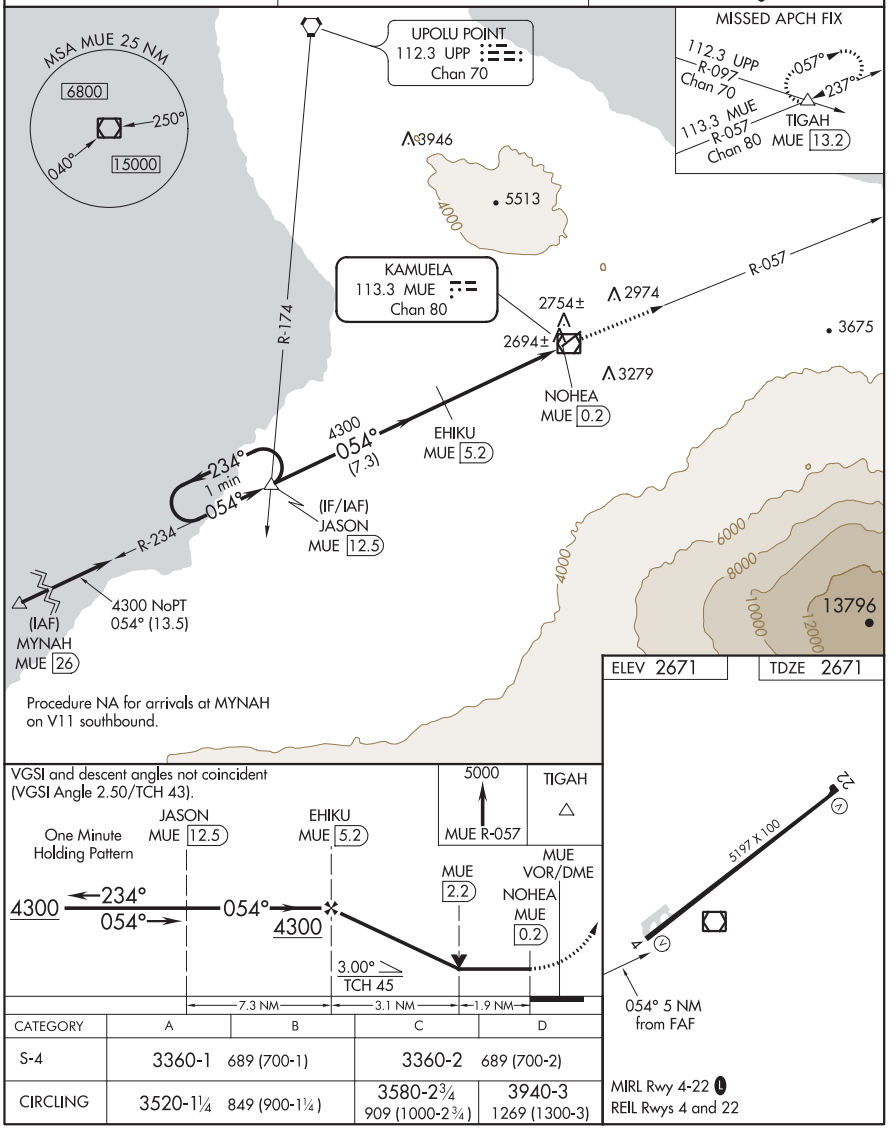
WAIMEA-KOHALA (MUE)(PHMU)

VOR/DME MUE	APP CRS	Rwy Idg	5197
113.3	054°	TDZE	2671
Chan 80		Apt Elev	2671

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

MISSED APPROACH: Climb to 5000 on MUE VOR/DME R-057 to TIGAH INT/MUE 13.2 DME and hold.

AWOS-3PT	HCF CENTER	CTAF
120.0	118.45 278.3	122.9 L



CATEGORY	A	B	C	D
S-4	3360-1	689 (700-1)	3360-2	689 (700-2)
CIRCLING	3520-1¼	849 (900-1¼)	3580-2¾ 909 (1000-2¾)	3940-3 1269 (1300-3)

MIRL Rwy 4-22 L
REIL Rwys 4 and 22

KAMUELA, HAWAII
Amdt 1C 27JAN22

20°00′N-155°40′W

WAIMEA-KOHALA (MUE)(PHMU)

VOR/DME RWY 4

KAMUELA, HAWAII AL-5306 (FAA) 22027

VOR/DME MUE	APP CRS	Rwy Idg	N/A
113.3	237°	TDZE	N/A
Chan 80		Apt Elev	2671

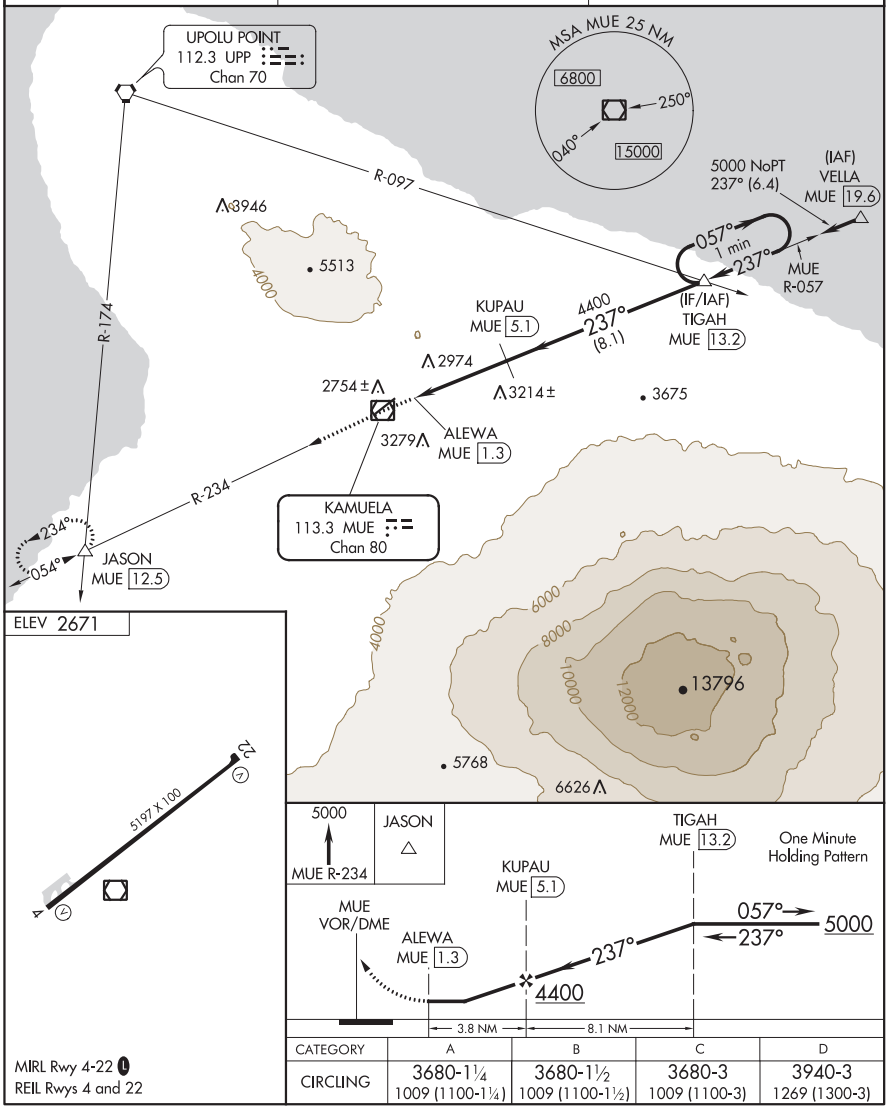
VOR/DME-A

WAIMEA-KOHALA (MUE)(PHMU)

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.

AWOS-3PT	HCF CENTER	CTAF
120.0	118.45 278.3	122.9 L



CATEGORY	A	B	C	D
CIRCLING	3680-1¼ 1009 (1100-1¼)	3680-1½ 1009 (1100-1½)	3680-3 1009 (1100-3)	3940-3 1269 (1300-3)

MIRL Rwy 4-22 L
REIL Rwys 4 and 22

KAMUELA, HAWAII
Orig-B 27JAN22

20°00'N-155°40'W

WAIMEA-KOHALA (MUE)(PHMU)

VOR/DME-A

KAPOLEI, HAWAII

AL-761 (FAA)

23222

RNAV (GPS) RWY 4R

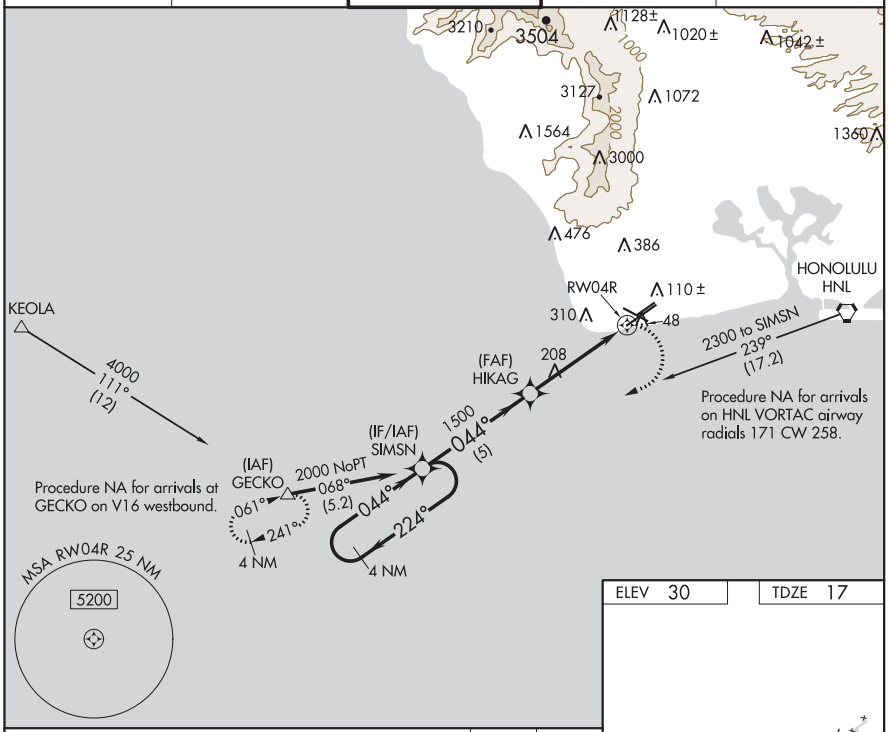
KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

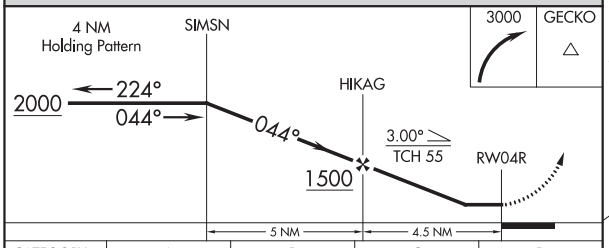
APP CRS	Rwy Idg	8000
044°	TDZE	17
	Apt Elev	30

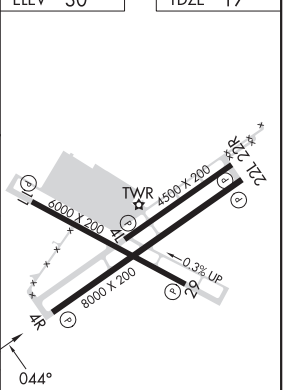
Circling NA north of Rwy 4R-22L. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Honolulu altimeter setting and increase all MDA 40 feet. For inop MALSR, increase LNAV Cat C/D visibility to 1⅜ miles. For inop MALSR when using Honolulu altimeter setting increase LNAV Cat C/D visibility to 1⅜ miles. Helicopter visibility reduction below 1 SM NA. Procedure NA at night.

MISSED APPROACH: Climbing right turn to 3000 direct GECKO and hold.

ATIS	HCF APP CON	KALAELOA TOWER★	GND CON	CLNC DEL
119.8	118.3 269.0	132.6 (CTAF) 340.2	123.8 336.4	121.7 380.5







CATEGORY	A	B	C	D
LNAV MDA	460-1 443 (500-1)			
C CIRCLING	520-1 490 (500-1)		520-1½ 490 (500-1½)	580-2 550 (600-2)

MIRL Rwys 4L-22R, 4R-22L and 11-29 L

KAPOLEI, HAWAII

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

Orig-A 26MAY16

21°18'N-158°04'W

RNAV (GPS) RWY 4R

KAPOLEI, HAWAII | AL-761 (FAA) | 23222

VORTAC HNL	APP CRS	Rwy Idg	8000
114.8	074°	TDZE	17
Chan 95		Apt Elev	30

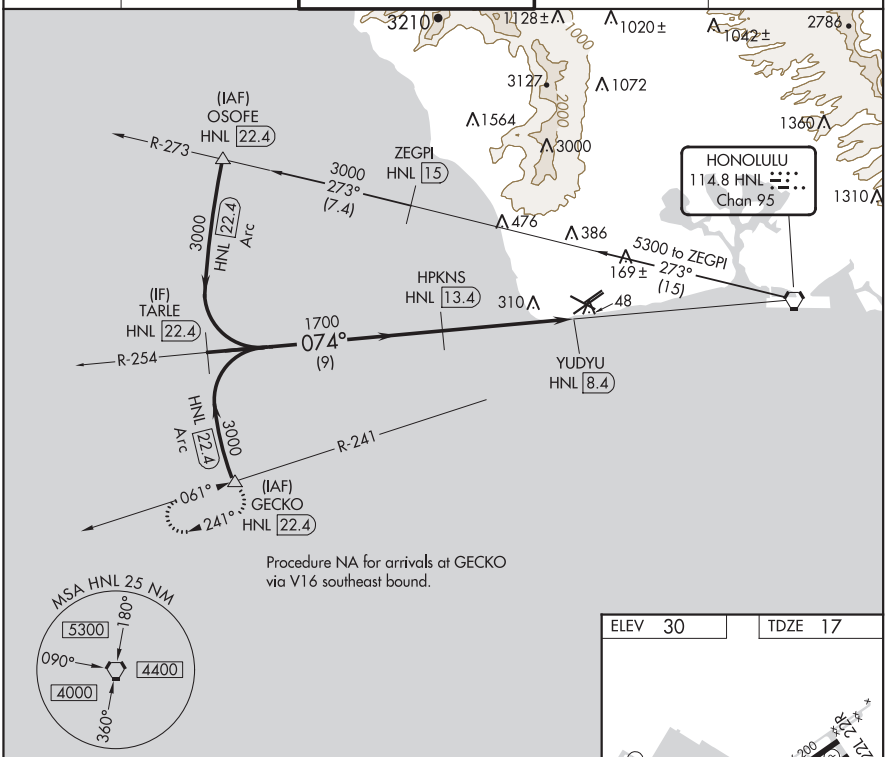
VOR/DME RWY 4R

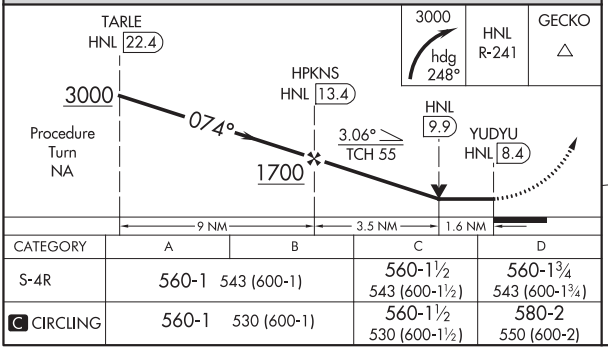
KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

Circling NA north of Rwy 4R-22L.
Inop table does not apply.

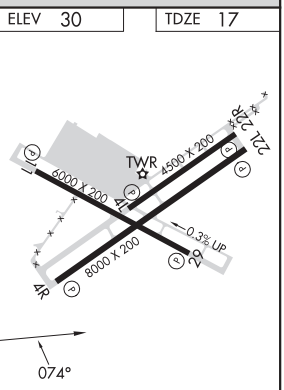
MISSED APPROACH: Climbing right turn to 3000 via heading 248° and HNL VORTAC R-241 to GECKO/HNL 22.4 DME and hold.

ATIS	HCF APP CON	KALAELOA TOWER ★	GND CON	CLNC DEL
119.8	118.3 269.0	132.6 (CTAF) L 340.2	123.8 336.4	121.7 380.5





CATEGORY	A	B	C	D
S-4R	560-1	543 (600-1)	560-1½ 543 (600-1½)	560-1¾ 543 (600-1¾)
C CIRCLING	560-1	530 (600-1)	560-1½ 530 (600-1½)	580-2 550 (600-2)



MIRL Rwys 4L-22R, 4R-22L and 11-29 L

KAPOLEI, HAWAII
Amdt 1A 05NOV20

21°18'N-158°04'W

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

VOR/DME RWY 4R

KAPOLEI, HAWAII AL-761 (FAA) 23222

HN LOM	APP CRS	Rwy Idg	8000
242	037°	TDZE	17
		Apt Elev	30

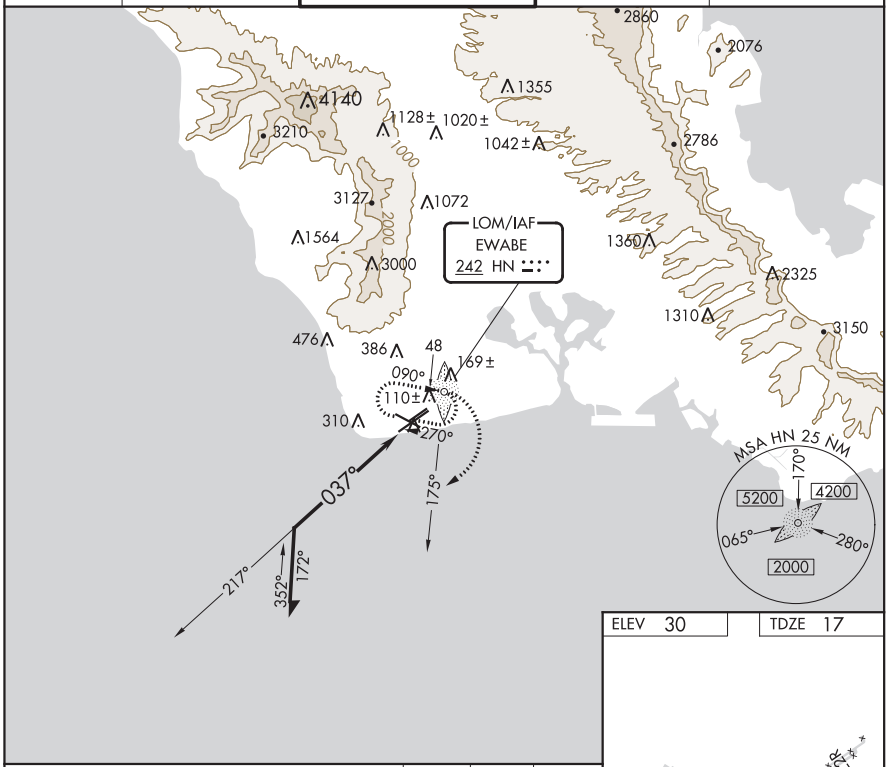
NDB RWY 4R

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

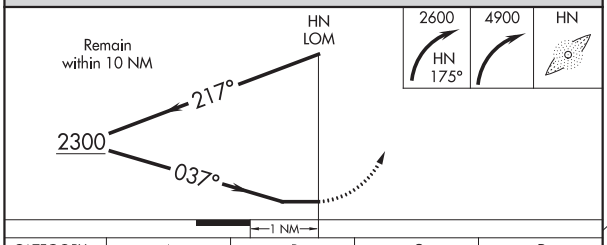
Circling not authorized north of Rwys 11 and 22R.

MISSED APPROACH: Climbing right turn to 2600 via 175° bearing from HN LOM, then climbing right turn to 4900 direct HN LOM and hold.

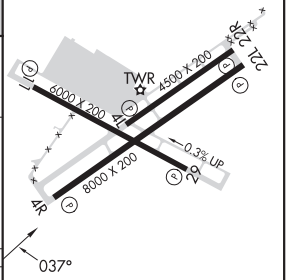
ATIS	HCF APP CON	KALAELOA TOWER ★	GND CON	CLNC DEL
119.8	118.3 269.0	132.6 (CTAF) 340.2	123.8 336.4	121.7 380.5



ELEV 30 TDZE 17



2600	4900	HN
HN 175°		



CATEGORY	A	B	C	D
S-4R	800-1 783 (800-1)	800-1¼ 783 (800-1¼)	800-2¼ 783 (800-2¼)	800-2½ 783 (800-2½)
CIRCLING	800-1 770 (800-1)	800-1¼ 770 (800-1¼)	800-2¼ 770 (800-2¼)	800-2½ 770 (800-2½)

MIRL Rwys 4L-22R, 4R-22L and 11-29 L

KAPOLEI, HAWAII
Orig 15JUL99

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)
21°18′N-158°04′W
NDB RWY 4R

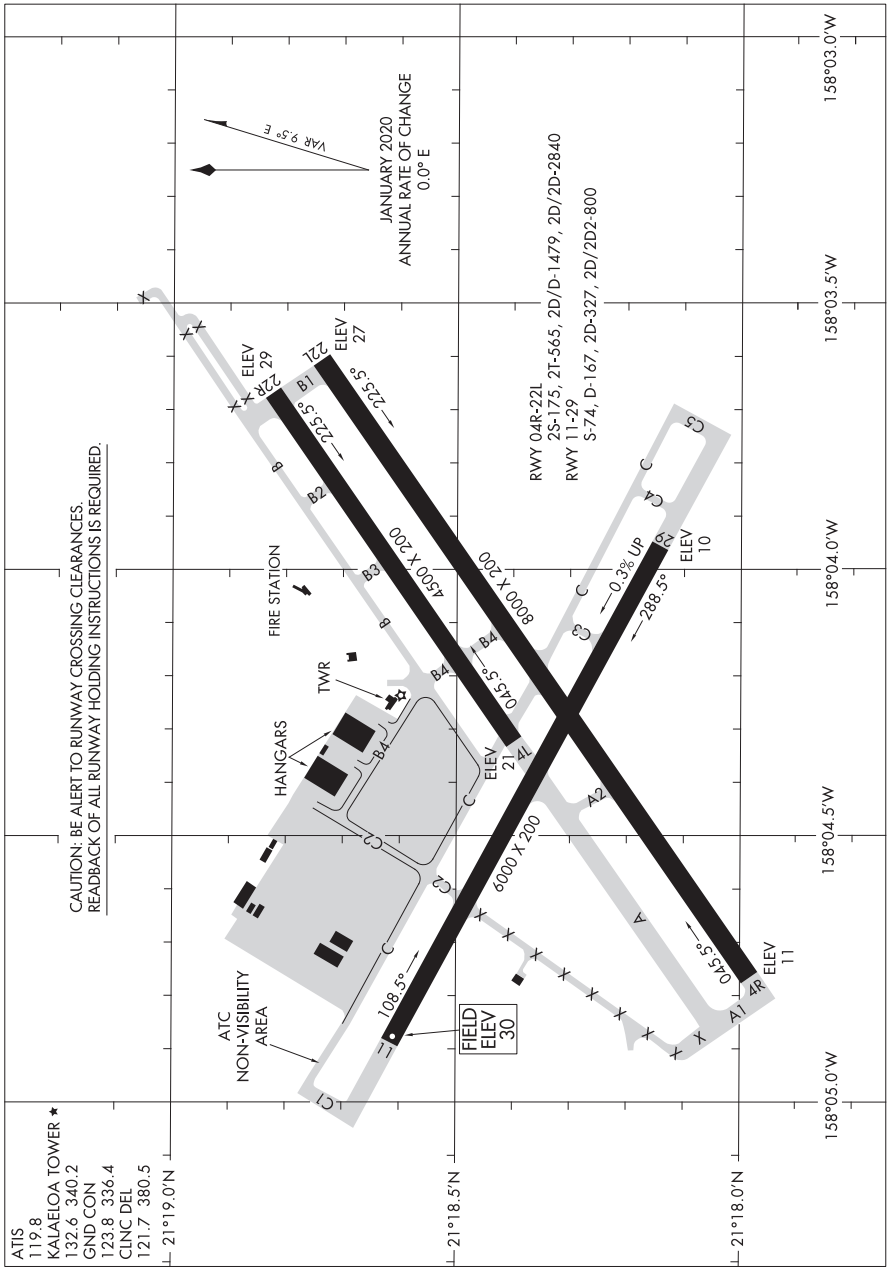
21112

AIRPORT DIAGRAM

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

AL-761 (FAA)

KAPOLEI, HAWAII



AIRPORT DIAGRAM

21112

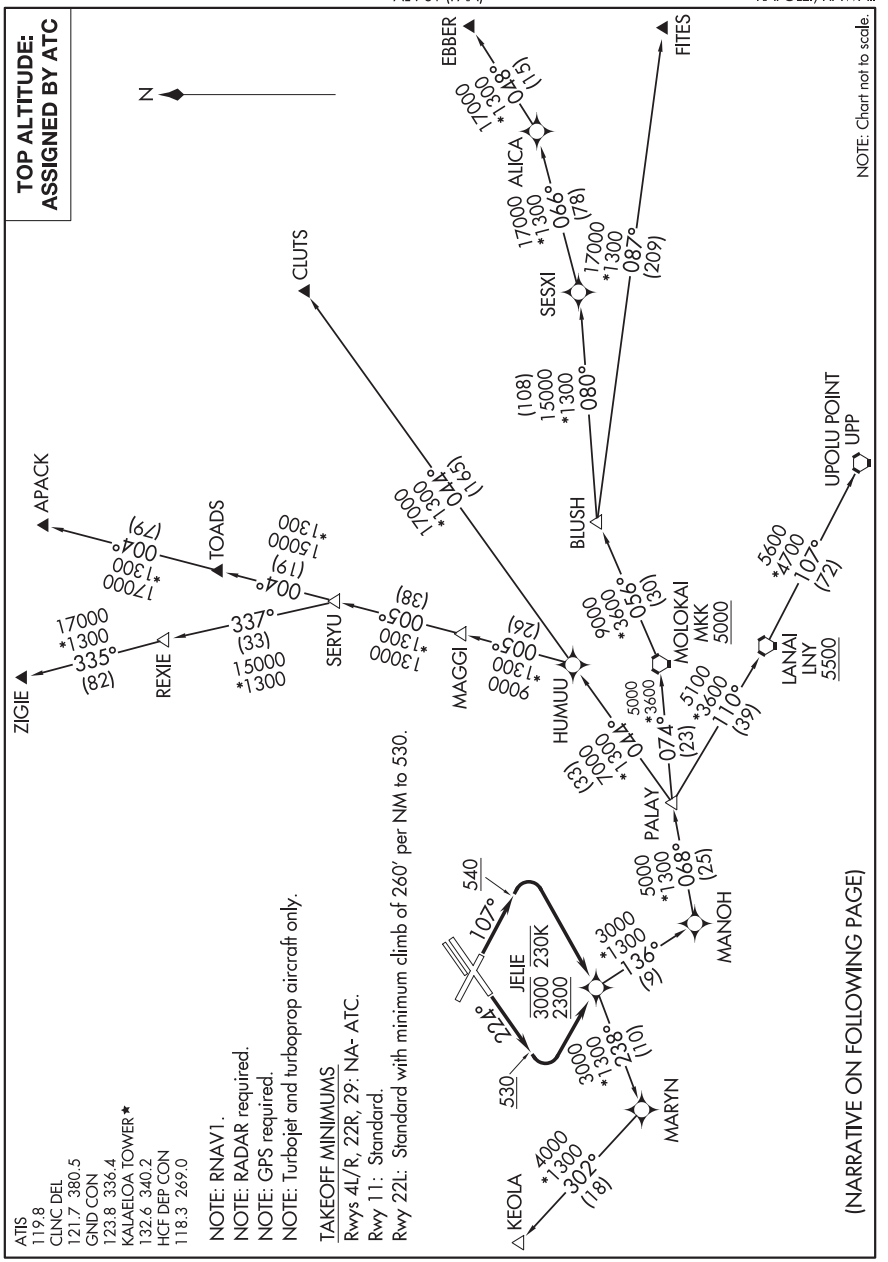
KAPOLEI, HAWAII

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

(JELIE1.JELIE) 22307

JELIE ONE DEPARTURE (RNAV)

KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)
KAPOLEI, HAWAII
AL-761 (FAA)



KAPOLEI, HAWAII
KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)

JELIE ONE DEPARTURE (RNAV)

(JELIE1.JELIE) 25FEB21

(JELIE1.JELIE) 21112
JELIE ONE DEPARTURE (RNAV)
KALAELOA (JOHN RODGERS FLD) (JRF)(PHJR)
AL-761 (FAA)
KAPOLEI, HAWAII

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 11: Climb on heading 107° to 540, then climbing right turn direct JELIE. Cross JELIE between 2300 and 3000, at or below 230K, thence. . . .
TAKEOFF RUNWAY 22L: Climb on heading 224° to 530, then climbing left turn direct JELIE. Cross JELIE between 2300 and 3000, at or below 230K, thence. . . .

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

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

KAUNAKAKAI, HAWAII AL-759 (FAA) 21056

APP CRS		
001°	Rwy Idg	N/A
	TDZE	N/A
	Apt Elev	454

RNAV (GPS)-B

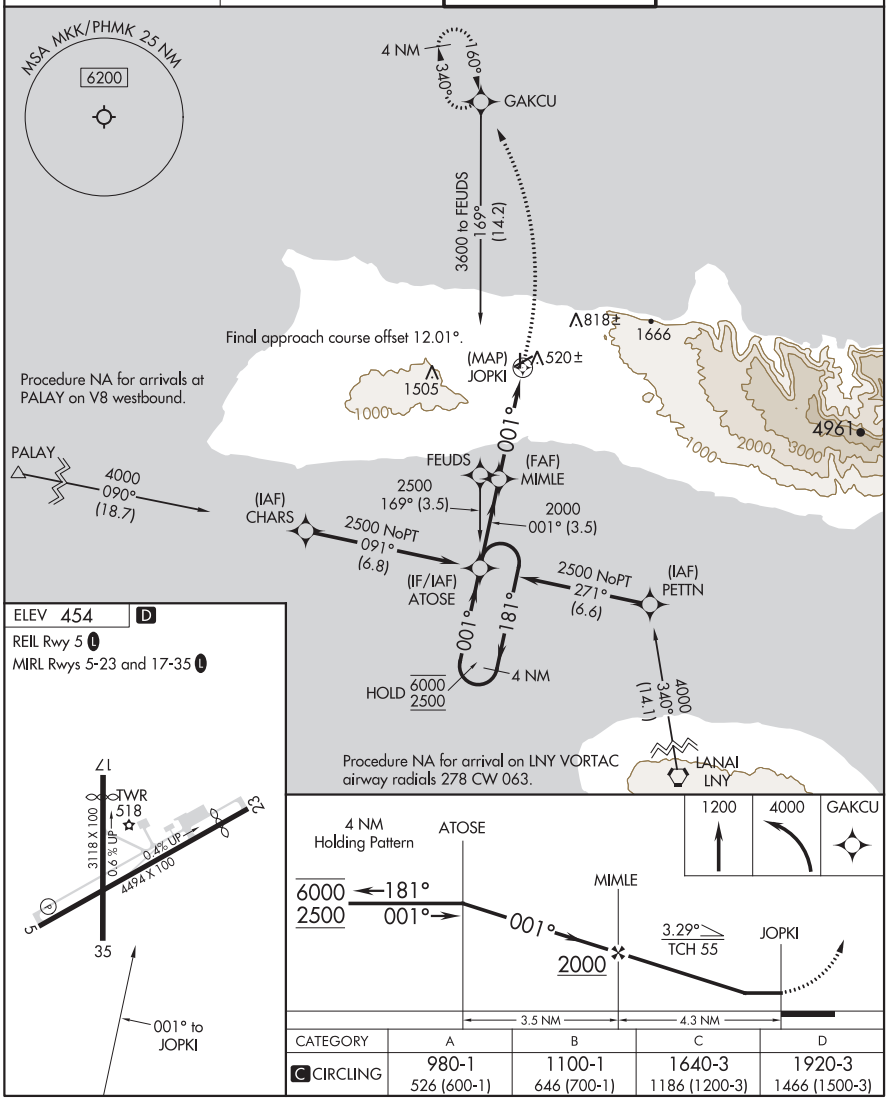
MOLOKAI (MKK)(PHMK)

RNP APCH.

Circling to Rwy 17, 23 NA at night.
Circling NA east of Rwy 35 and southeast of Rwy 23.

MISSED APPROACH: Climb to 1200 then climbing left turn 4000 direct GAKCU and hold, continue climb-in-hold to 4000.

ATIS	HCF CENTER	MOLOKAI TOWER ★	GND CON
128.2	124.1 317.5	125.7 (CTAF) L 306.2	121.9



CATEGORY	A	B	C	D
C CIRCLING	980-1 526 (600-1)	1100-1 646 (700-1)	1640-3 1186 (1200-3)	1920-3 1466 (1500-3)

KAUNAKAKAI, HAWAII
Amdt 2 25FEB21

21°09'N-157°06'W

MOLOKAI (MKK)(PHMK)
RNAV (GPS)-B

KAUNAKAKAI, HAWAII | AL-759 (FAA) | 21056

VORTAC MKK	APP CRS	Rwy Idg	N/A
116.1	066°	TDZE	N/A
Chan 108		Apt Elev	454

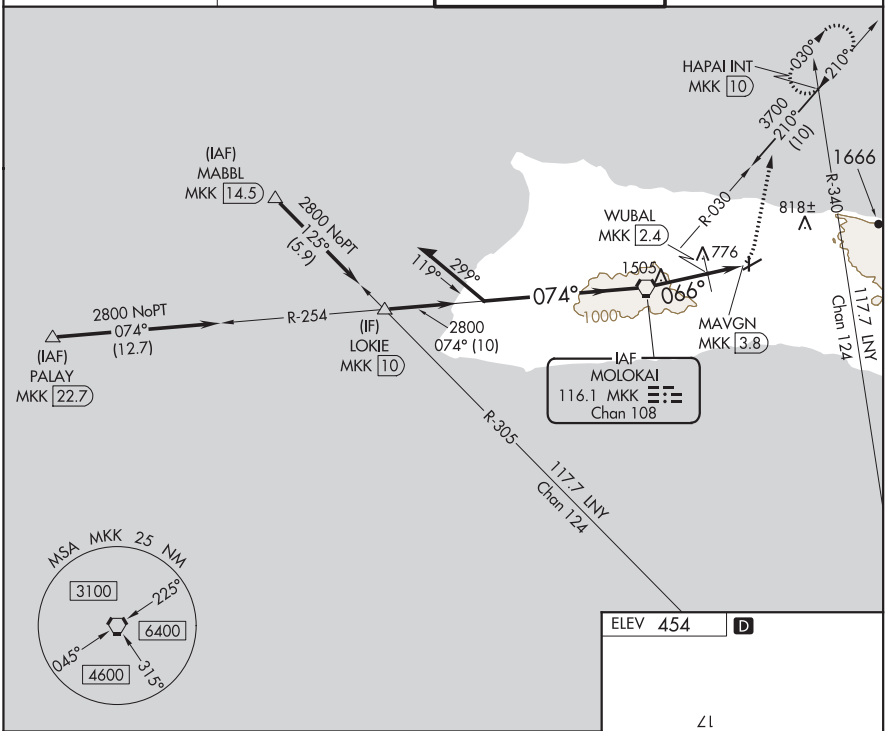
VOR or TACAN-A

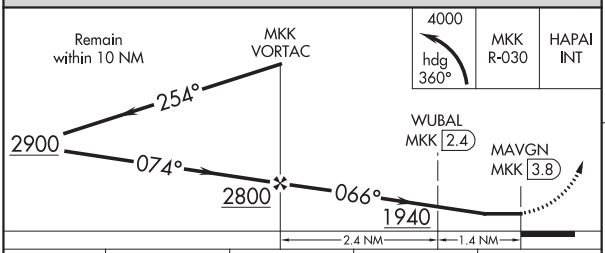
MOLOKAI (MKK) (PHMK)

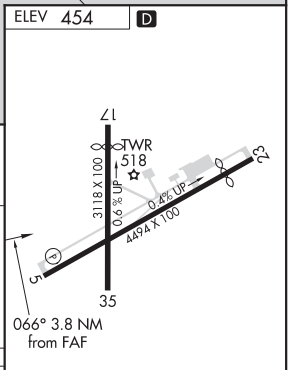
Circling Rwy 17, 23 NA at night.

MISSED APPROACH: Climbing left turn to 4000 on heading 360° and on MKK VORTAC R-030 to HAPAI INT/MKK 10 DME and hold, continue climb-in-hold to 4000.

ATIS	HCF CENTER	MOLOKAI TOWER★	GND CON
128.2	124.1 317.5	125.7 (CTAF) L 306.2	121.9







CATEGORY	A	B	C	D
C CIRCLING	1940-1¼ 1486 (1500-1¼)	1940-1½ 1486 (1500-1½)	1940-3 1486 (1500-3)	
WUBAL FIX MINIMUMS (DME REQUIRED)				
C CIRCLING	1400-1¼ 946 (1000-1¼)		1680-3 1226 (1300-3)	1940-3 1486 (1500-3)

REIL Rwy 5 L
MIRL Rwys 5-23 and 17-35 L

FAF to MAP 3.8 NM

Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

KAUNAKAKAI, HAWAII
Amdt 17A 05NOV20

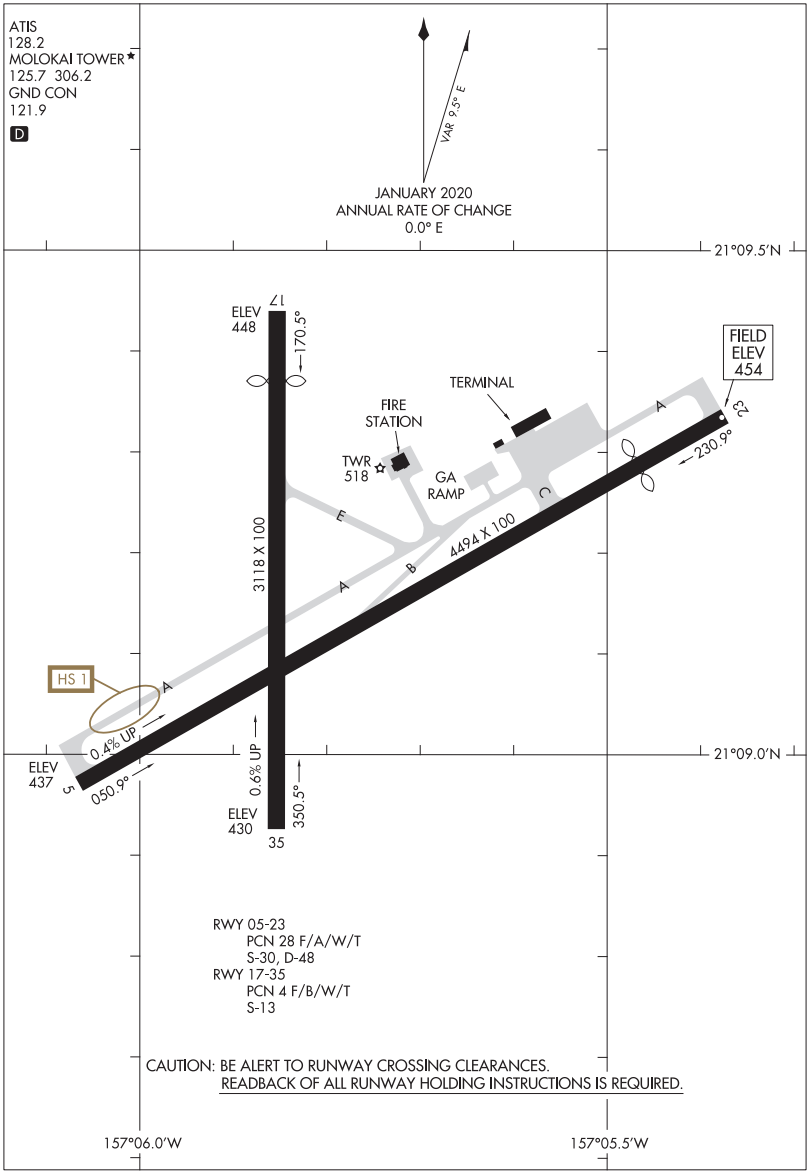
21°09'N-157°06'W

MOLOKAI (MKK) (PHMK)
VOR or TACAN-A

22195

AIRPORT DIAGRAM

MOLOKAI (MKK) (PHMK)
KAUNAKAKAI, HAWAII

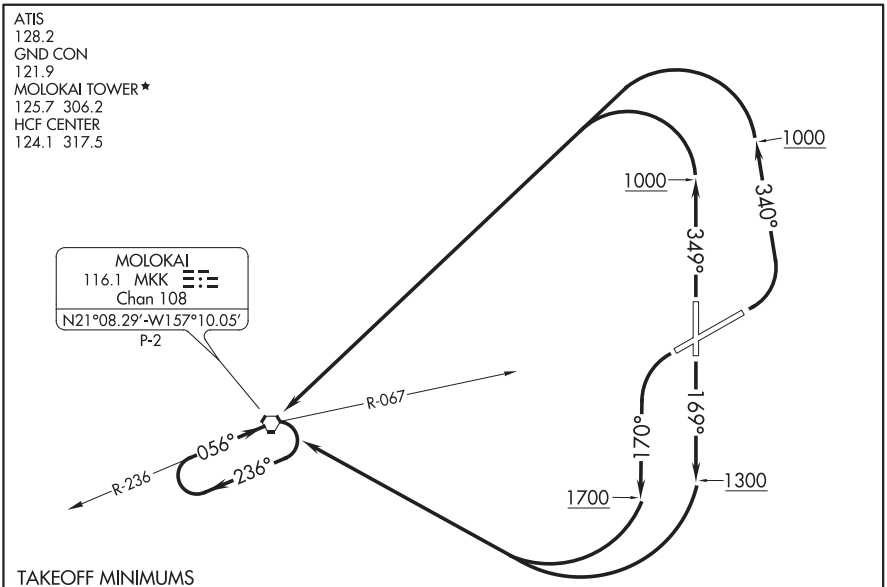


AIRPORT DIAGRAM
22195
KAUNAKAKAI, HAWAII
MOLOKAI (MKK) (PHMK)

(HMK1.MKK) 16035

KAUNAKAKAI ONE DEPARTURE (OBSTACLE)

MOLOKAI (MKK) (PHMK)
SL-759 (FAA) KAUNAKAKAI, HAWAII



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.

(NOTES 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) 29MAY14

KAUNAKAKAI, HAWAII
MOLOKAI (MKK) (PHMK)

(HMK1.MKK) 16035
KAUNAKAKAI ONE DEPARTURE (OBSTACLE)

MOLOKAI (MKK) (PHMK)
SL-759 (FAA) KAUNAKAKAI, HAWAII

TAKEOFF OBSTACLES NOTES

Rwy 5: Rising terrain and vehicles on roadway beginning 14′ from DER, 238′ right of centerline, up to 17′ AGL/476′ MSL.
Vehicles on roadway beginning 28′ from DER, 484′ left of centerline, up to 17′ AGL/509′ MSL.
Multiple fences and bushes beginning 49′ from DER, 95′ left of centerline, up to 21′ AGL/480′ MSL.
Multiple fences and bushes beginning 437′ from DER, 65′ right of centerline, up to 31′ AGL/490′ MSL.
Multiple trees and bushes beginning 735′ from DER, 496′ left of centerline, up to 27′ AGL/551′MSL.
Multiple bushes and vehicles on roadway beginning 950′ from DER, left and right of centerline, up to 17′ AGL/552′ MSL.
Electrical system 1367′ from DER, 78′ right of centerline, 35′ AGL/528′ MSL.
Multiple towers, poles and trees beginning 1887′ from DER, 33′ right of centerline, up to 43′ AGL/602′ MSL.
Multiple towers, poles and trees beginning 2386′ from DER, 644′ left of centerline, up to 60′ AGL/617′ MSL.

Rwy 17: Bush 46′ from DER, 266′ right of centerline, 13′ AGL/443′ MSL.
Vehicles on roadway beginning 124′ from DER, 505′ left of centerline, up to 17′ AGL/443′ MSL.
Vehicles on roadway beginning 484′ from DER, 590′ right of centerline, up to 17′ AGL/443′ MSL.

Rwy 23: Trees beginning 691′ from DER, 491′ left of centerline, up to 77′ AGL/470′ MSL.
Trees beginning 1.9 NM from DER, 2279′ left of centerline, up to 60′ AGL/880′ MSL.
Trees beginning 2.2 NM from DER, 541′ left of centerline, up to 60′ AGL/1208′ MSL.

Rwy 35: Bush 28′ from DER, 288′ left of centerline, 12′ AGL/461′ MSL.
Bush 48′ from DER, 118′ right of centerline, 14′ AGL/463′ MSL.
Fence beginning 70′ from DER, on centerline through 35′ left of centerline, 4′ AGL/460′ MSL.
Multiple bushes vehicles on roadway and trees beginning 107′ from DER, 48′ right of centerline, up to 65′ AGL/514′ MSL.
Bushes beginning 133′ from DER, 34′ left of centerline, up to 26′ AGL/489′ MSL.
Bushes beginning 1170′ from DER, 259′ right of centerline, up to 15′ AGL/514′ MSL.
Trees beginning 2286′ from DER, 407′ right of centerline, up to 90′ AGL/615′ MSL.
Trees beginning 2942′ from DER, 75′ right of centerline, up to 123′ AGL/648′ MSL.

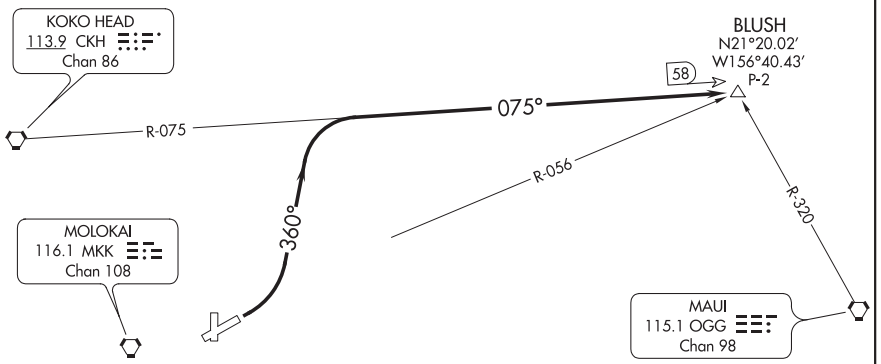
(BLUSH2.BLUSH) 18312

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

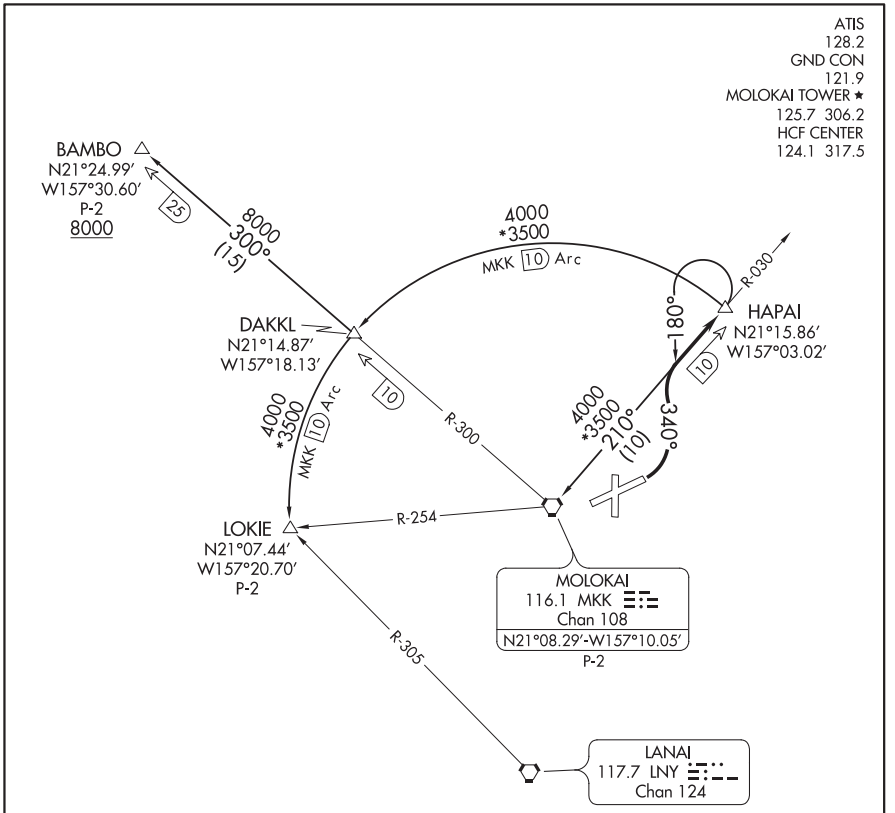
KAUNAKAKAI, HAWAII
MOLOKAI (MKK) (PHMK)

(HAPAI3.HAPAI) 18312

HAPAI THREE DEPARTURE

AL-759 (FAA)

MOLOKAI (MKK) (PHMK)
KAUNAKAKAI, HAWAII



TAKEOFF MINIMUMS

Rwys 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

TAKEOFF 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

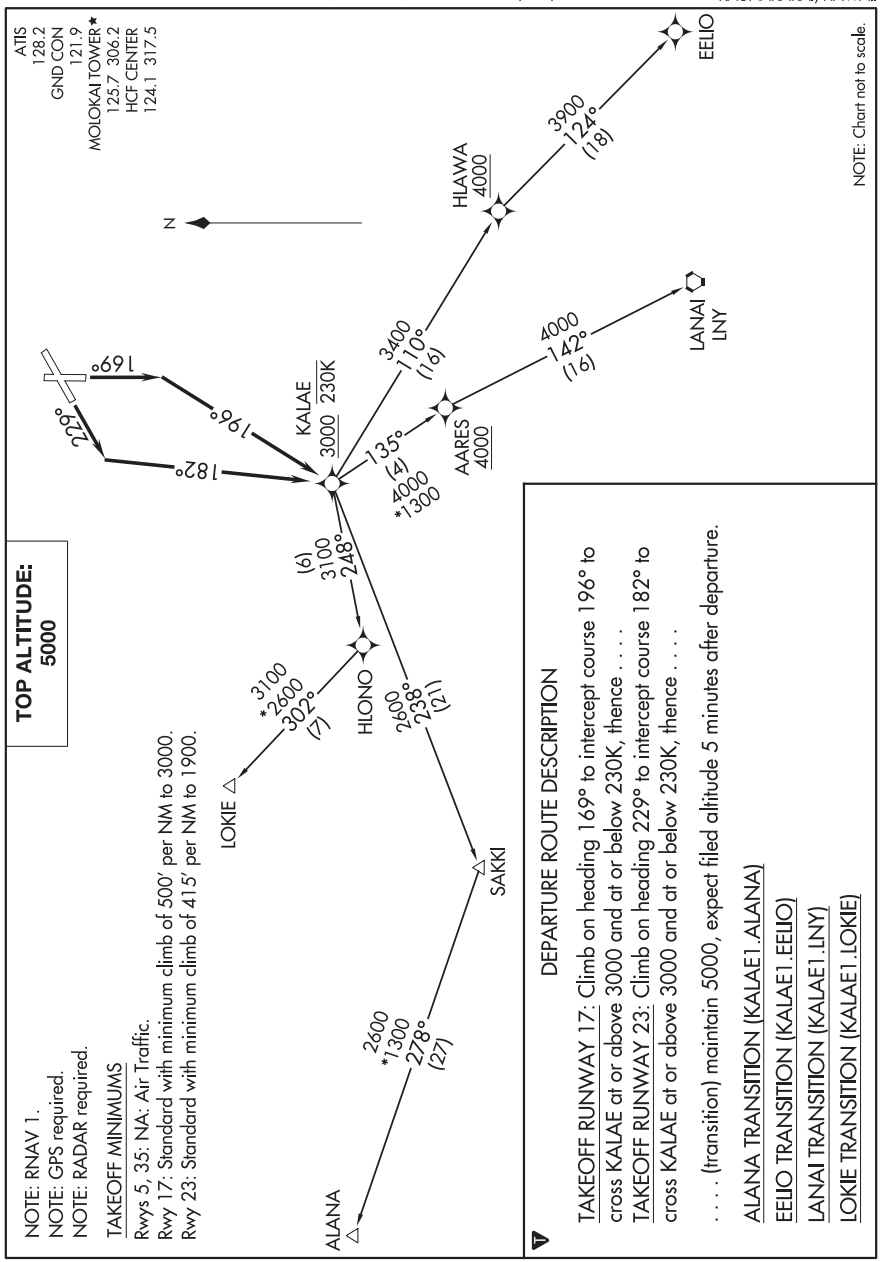
KAUNAKAKAI, HAWAII
MOLOKAI (MKK) (PHMK)

(KALAE1.KALAE) 21056

KALAE ONE DEPARTURE (RNAV)

AL-759 (FAA)

MOLOKAI (MKK) (PHMK)
KAUNAKAKAI, HAWAII



KALAE ONE DEPARTURE (RNAV)

(KALAE1.KALAE) 25FEB21

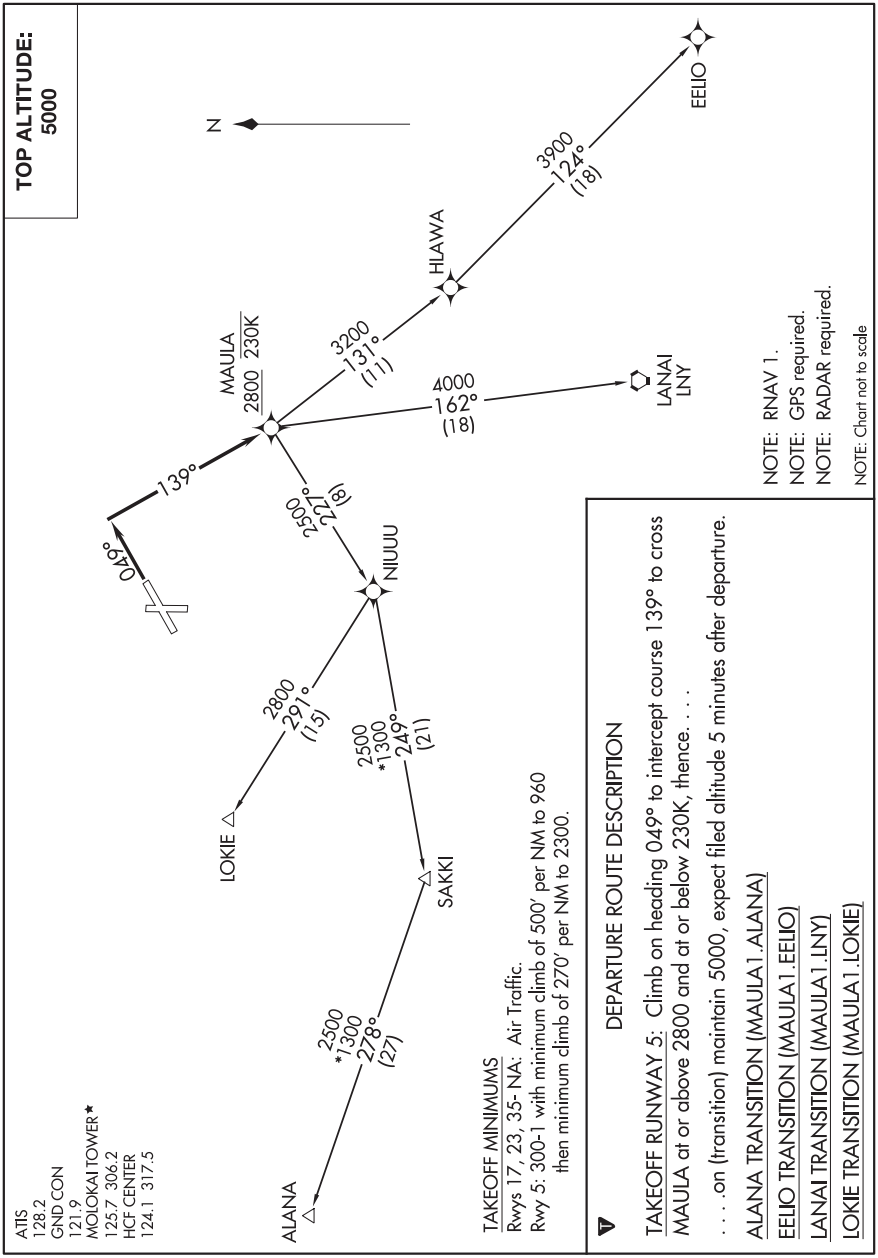
KAUNAKAKAI, HAWAII
MOLOKAI (MKK) (PHMK)

(MAULA1.MAULA) 21056

MAULA ONE DEPARTURE (RNAV)

AL-759 (FAA)

MOLOKAI (MKK) (PHMK)
KAUNAKAKAI, HAWAII



MAULA ONE DEPARTURE (RNAV)
(MAULA1.MAULA) 25FEB21

KAUNAKAKAI, HAWAII
MOLOKAI (MKK) (PHMK)

KOSRAE, FM | AL-6887 (FAA) | 21336

RNAV (GPS) RWY 5

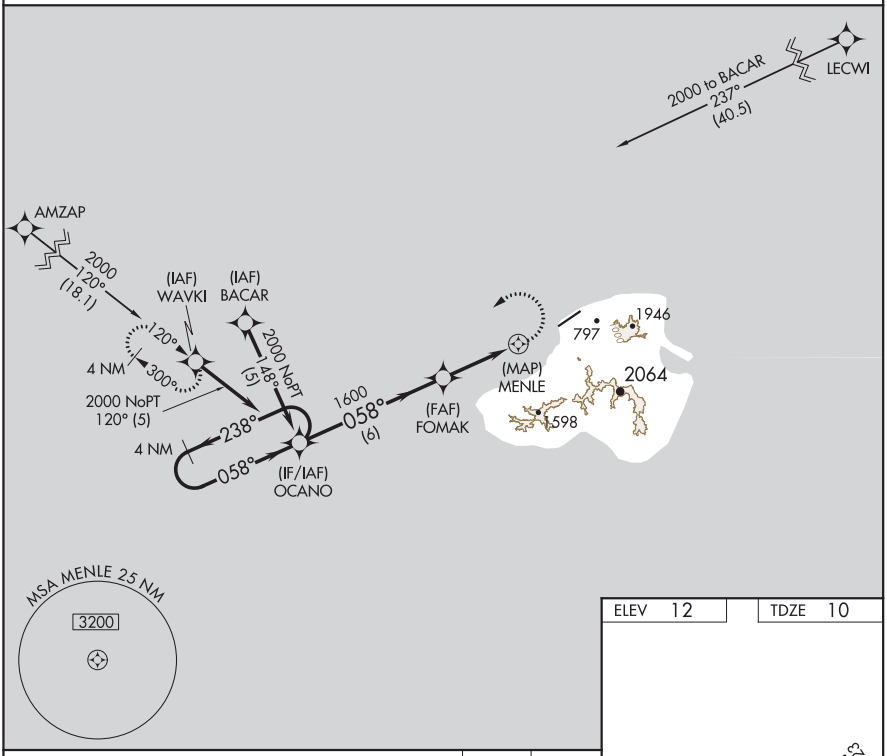
KOSRAE (TTK)(PTSA)

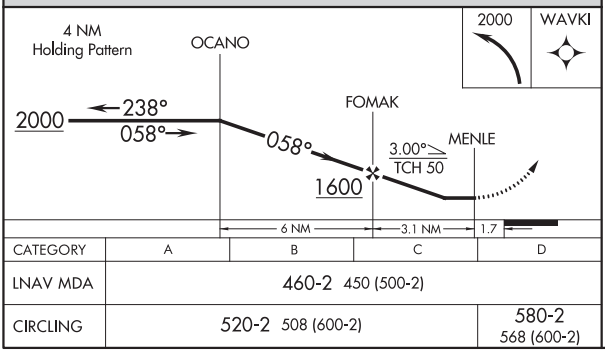
APP CRS		
058°	Rwy Idg	5752
	TDZE	10
	Apt Elev	12

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 left turn to 2000 direct WAVKI WP and hold.

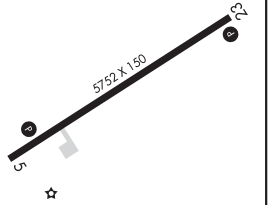
KOSRAE RADIO
123.6 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	460-2 450 (500-2)			
CIRCLING	520-2 508 (600-2)			580-2 568 (600-2)

ELEV 12 | TDZE 10



MIRL Rwy 5-23 L
REIL Rwys 5 and 23 L

KOSRAE, FM
Orig-C 02DEC21

05°21'N-162°58'E

KOSRAE (TTK)(PTSA)
RNAV (GPS) RWY 5

KOSRAE, FM | AL-6887 (FAA) | 21336

RNAV (GPS) RWY 23

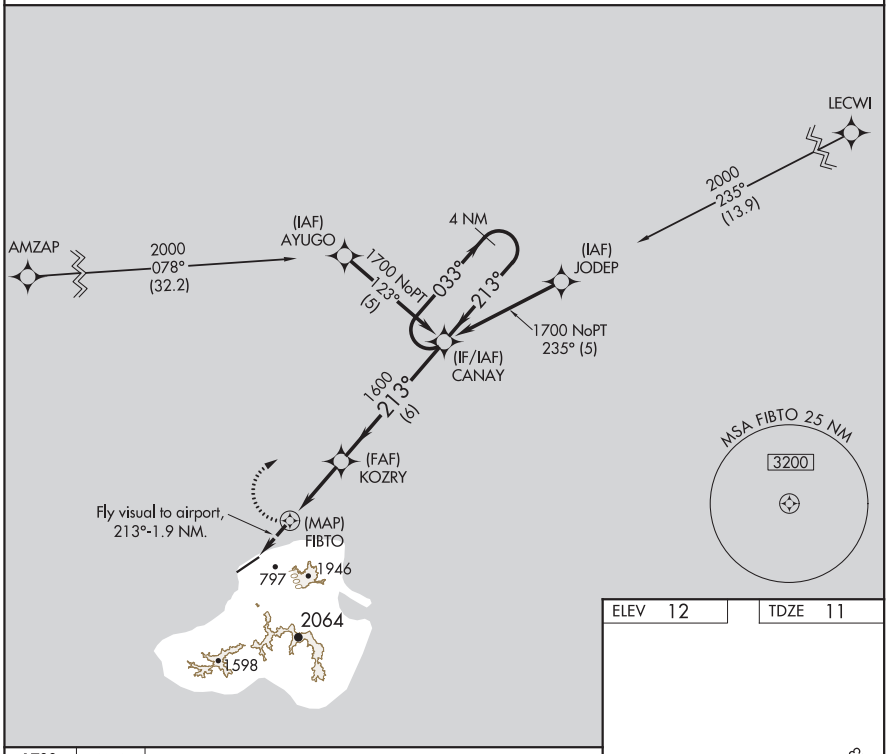
KOSRAE (TTK)(PTSA)

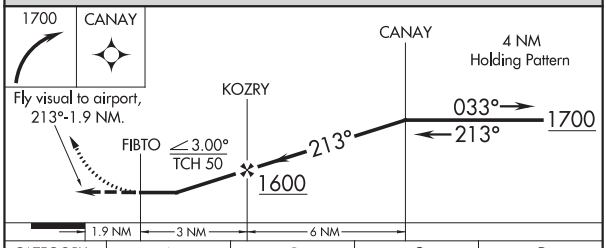
APP CRS	Rwy Idg	5752
213°	TDZE	11
	Apt Elev	12

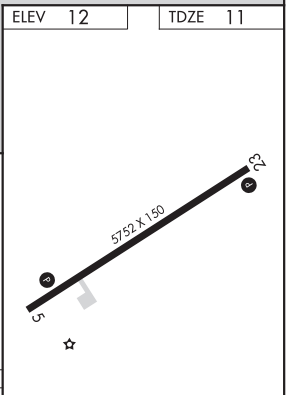
Circling not authorized southeast of Rwy 5-23. Obtain local altimeter setting on CTAF; when not received, procedure not authorized. DME/DME RNP-0.3 NA. No controlled airspace below 5500.

MISSED APPROACH: Climbing right turn to 1700 direct CANAY WP and hold.

KOSRAE RADIO
123.6 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	800-2	789 (800-2)	800-2¼ 789 (800-2¼)	800-2½ 789 (800-2½)
CIRCLING	800-2	788 (800-2)	800-2¼ 788 (800-2¼)	800-2½ 788 (800-2½)

MIRL Rwy 5-23 L
REIL Rwys 5 and 23 L

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	APP CRS	Rwy Idg	N/A
393	084°	TDZE	N/A
Chan 100 (115.3)		Apt Elev	12

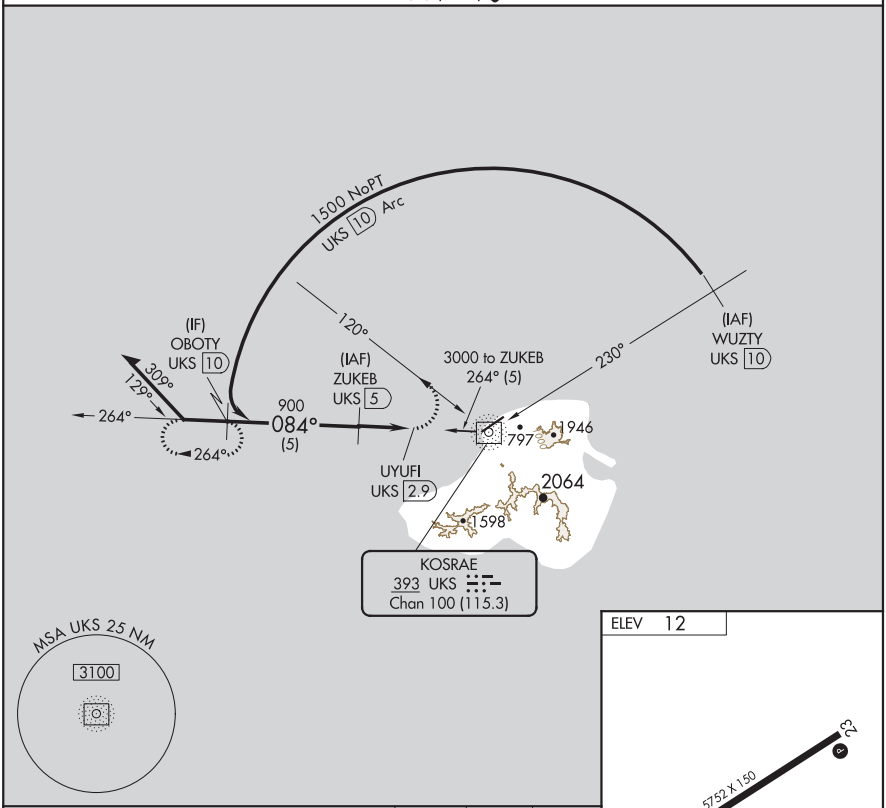
NDB-A
KOSRAE (TTK)(PTSA)

DME required.

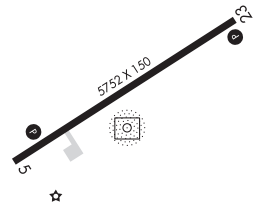
T NA — Circling NA southeast of Rwy 5-23. Obtain local altimeter setting on CTAF; when not received, procedure NA. No controlled airspace below 5500 feet.

MISSED APPROACH: Climbing left turn to 3000 on UKS NDB/DME 300° bearing and 10 DME Arc to OBOTY/10 DME.

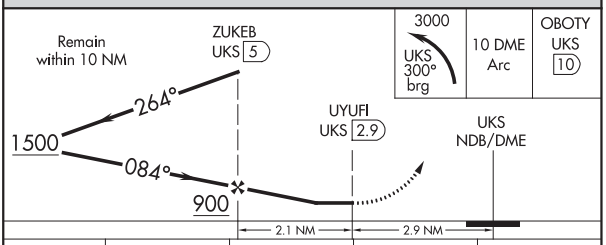
KOSRAE RADIO
123.6 (CTAF) L



ELEV 12



MIRL Rwy 5-23 L
REIL Rwys 5 and 23 L



CATEGORY	A	B	C	D
CIRCLING	520-3 508 (600-3)			580-3 568 (600-3)

KOSRAE, FM
Orig-D 02DEC21

05°21'N-162°58'E

KOSRAE (TTK)(PTSA)
NDB-A

LANAI CITY, HAWAII | AL-777 (FAA) | 23166

ILS or LOC RWY 3
LANAI (LNY)(PHNY)

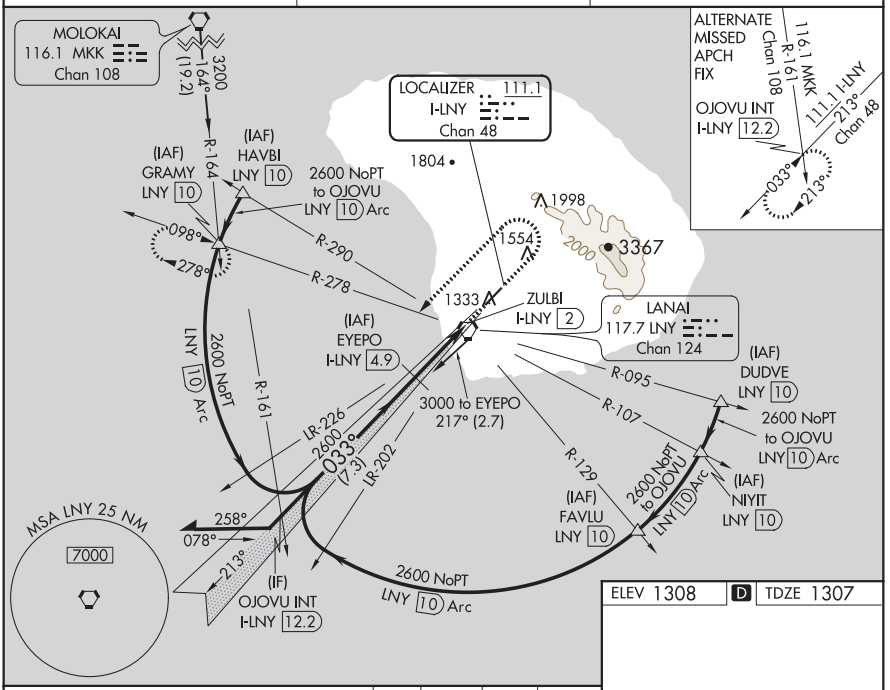
LOC/DME I-LNY	APP CRS	Rwy Idg	5000
111.1	033°	TDZE	1307
Chan 48		Apt Elev	1308

DME required.

T A NA — 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.

AWOS-3P	HCF CENTER	CTAF
118.375	119.3 307.1	122.9 L

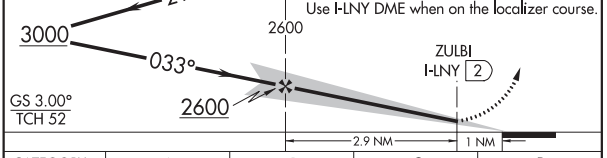


VGSI and ILS glidepath not coincident EYEPO (VGSI Angle 3.00/TCH 49). I-LNY 4.9

Remain within 10 NM

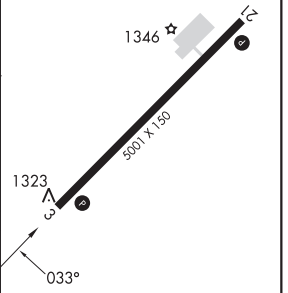
1800	3500	LNY R-278	GRAMY
↑	hdg 224°		△

Use I-LNY DME when on the localizer course.



CATEGORY	A	B	C	D
S-ILS 3	1588-1	281 (300-1)		
S-LOC 3	1580-1¼	273 (300-1¼)		
CIRCLING	1900-1¼ 592 (600-1¼)	1940-1¼ 632 (700-1¼)	2140-2½ 832 (900-2½)	NA

ELEV 1308 | D | TDZE 1307



MIRL Rwy 3-21 L

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

RNAV (GPS) RWY 3

LANAI (LNY)(PHNY)

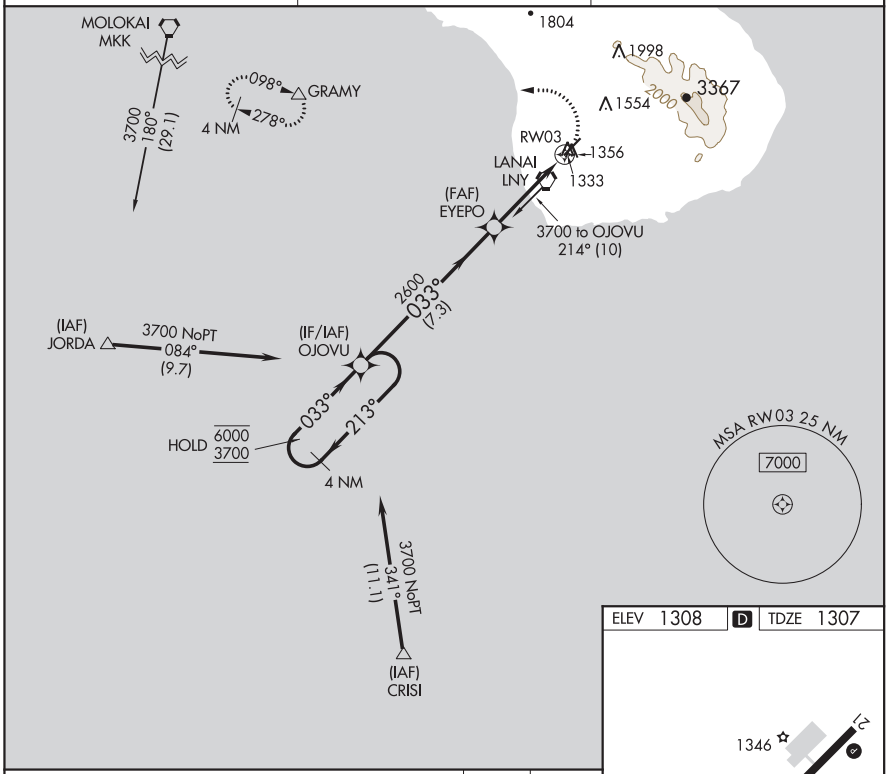
APP CRS	Rwy Idg	5000
033°	TDZE	1307
	Apt Elev	1308

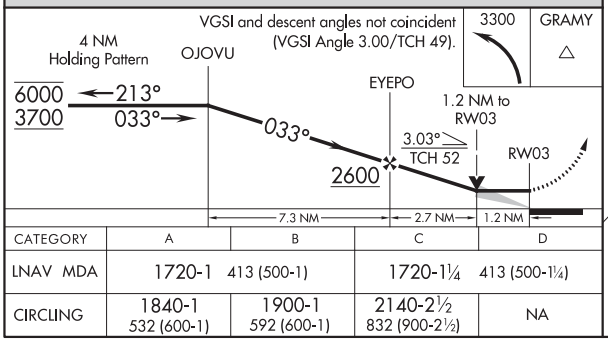
RNP APCH.

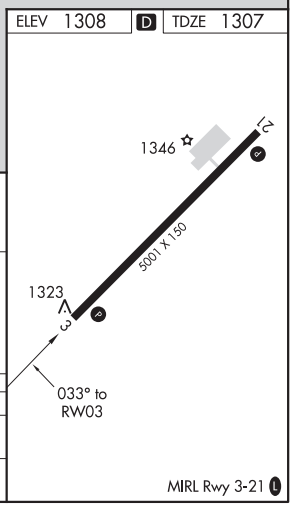
T A Circling Rwy 21 NA at night. When local altimeter setting not received, procedure NA, except for operators with approved weather reporting service. Circling NA for Cat C southeast of Rwy 3-21.

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

AWOS-3P	HCF CENTER	CTAF
118.375	119.3 307.1	122.9 L







CATEGORY	A	B	C	D
LNAV MDA	1720-1 413 (500-1)		1720-1¼ 413 (500-1¼)	
CIRCLING	1840-1 532 (600-1)	1900-1 592 (600-1)	2140-2½ 832 (900-2½)	NA

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

VOR or TACAN or GPS-A

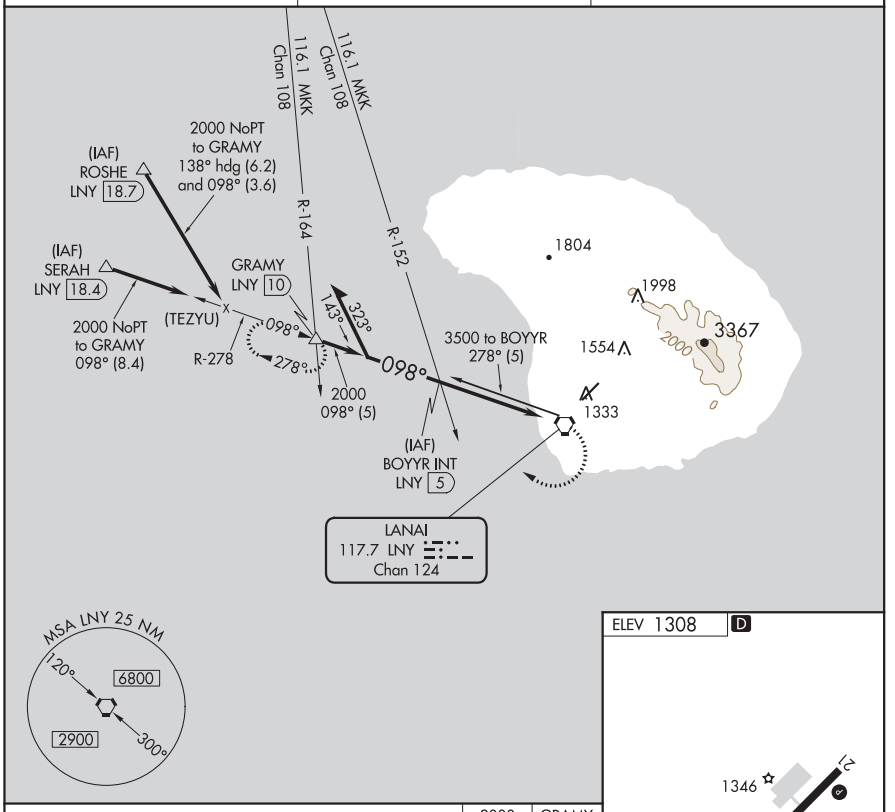
LANAI (LNY)(PHNY)

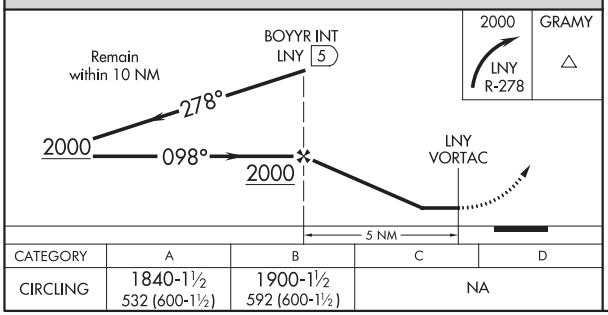
VORTAC LNY 117.7 Chan 124	APP CRS 098°	Rwy Idg N/A TDZE N/A Apt Elev 1308

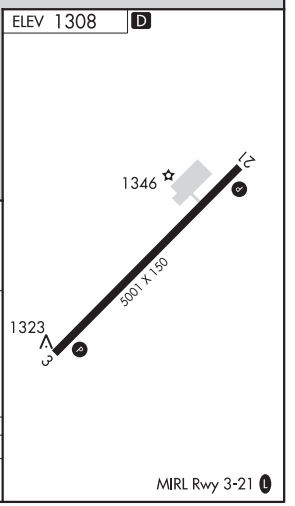
When local altimeter not received, procedure not authorized, except for operators with approved weather reporting service. Circling Rwy 21 NA at night.

MISSED APPROACH: Climbing right turn to 2000 via LNY R-278 to GRAMY INT/LNY 10 DME and hold.

AWOS-3P 118.375	HCF CENTER 119.3 307.1	CTAF 122.9 L







CATEGORY	A	B	C	D
CIRCLING	1840-1½ 532 (600-1½)	1900-1½ 592 (600-1½)	NA	

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

VOR or TACAN RWY 3

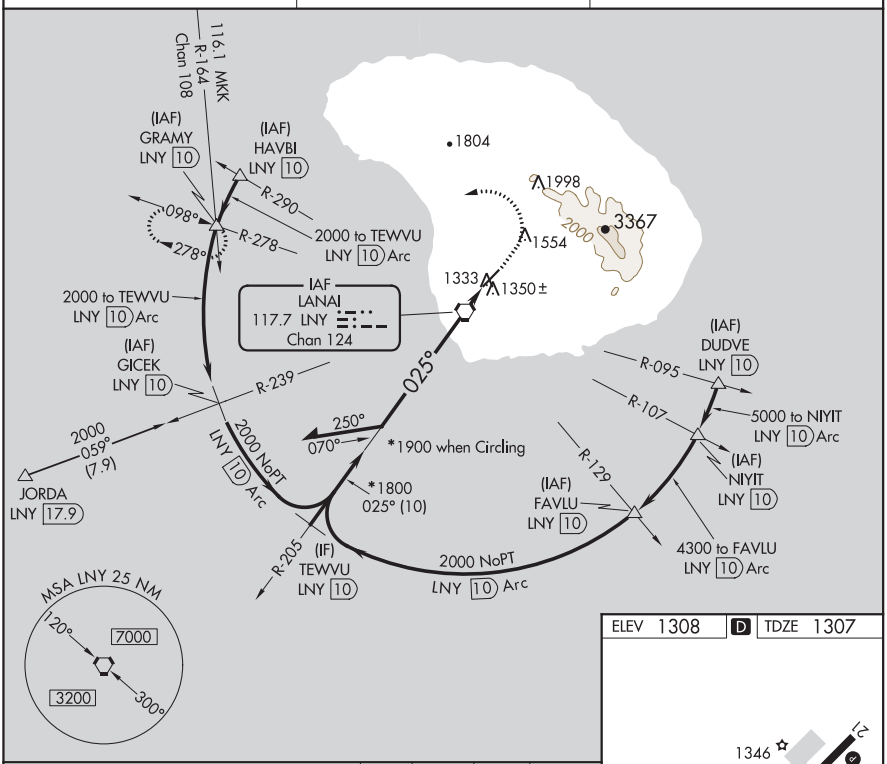
LANAI (LNY)(PHNY)

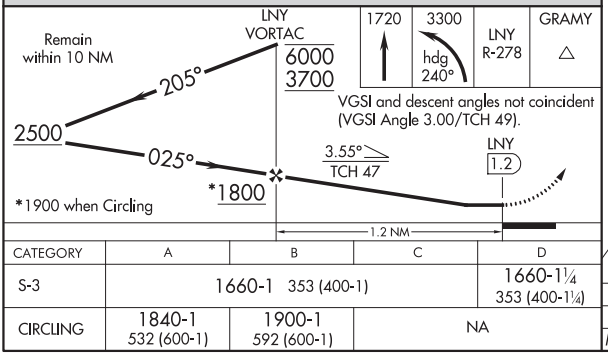
VORTAC LNY 117.7 Chan 124	APP CRS 025°	Rwy Idg 5000 TDZE 1307 Apt Elev 1308

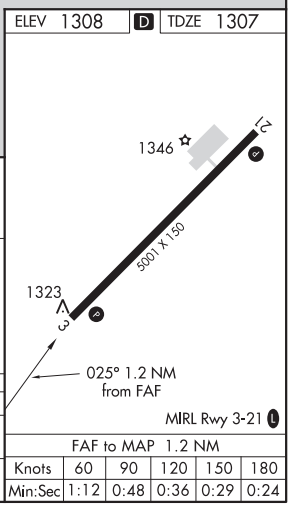
Circling Rwy 21 NA at night.

MISSED APPROACH: Climb to 1720 then climbing left turn to 3300 via heading 240° and LNY VORTAC R-278 to GRAMY INT/LNY 10 DME and hold.

AWOS-3P	HCF CENTER	CTAF
118.375	119.3 307.1	122.9 L







CATEGORY	A	B	C	D
S-3	1660-1 353 (400-1)			1660-1¼ 353 (400-1¼)
CIRCLING	1840-1 532 (600-1)	1900-1 592 (600-1)	NA	

FAF to MAP 1.2 NM					
Knots	60	90	120	150	180
Min:Sec	1:12	0:48	0:36	0:29	0:24

LANAI CITY, HAWAII
Amdt 7C 12AUG21

20°47'N-156°57'W

LANAI (LNY)(PHNY)

VOR or TACAN RWY 3

LIHUE, HAWAII — AL-776 (FAA) — 23166

ILS or LOC RWY 35

LIHUE (LIH)(PHLI)

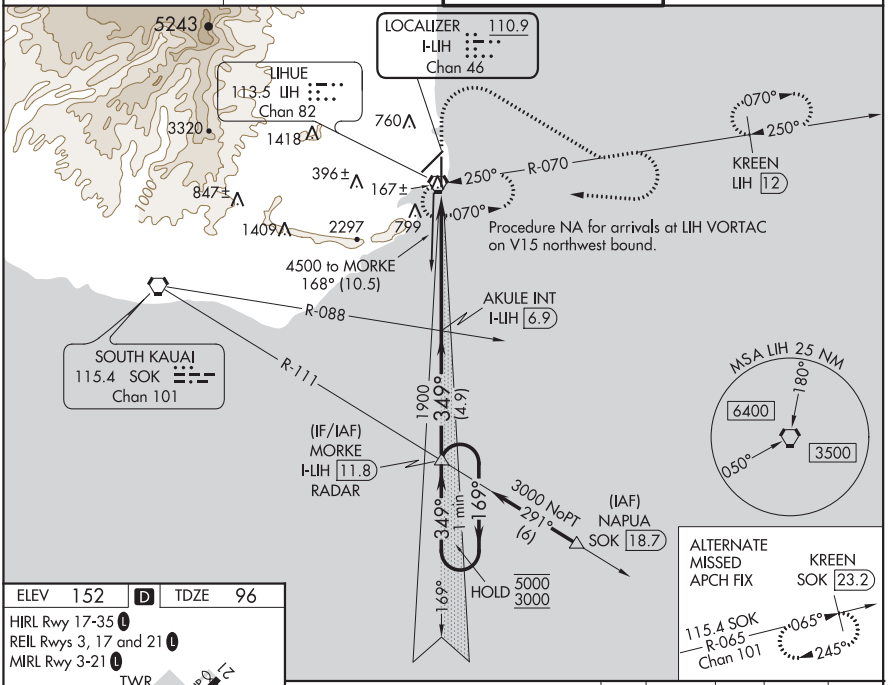
LOC/DME I-LIH	APP CRS	Rwy Idg	6500
110.9	349°	TDZE	96
Chan 46		Apt Elev	152

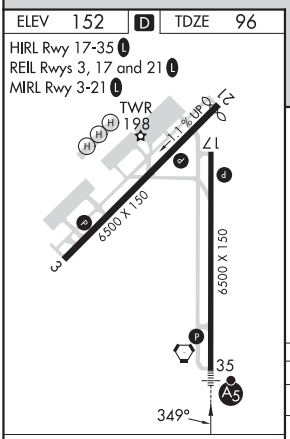
Circling NA at night. Circling NA west of Rwy 17-35. For inop ALS, increase S-ILS 35 Cat E visibility to ¾ SM and increase S-LOC 35 Cat E visibility to 1 SM.

MALSR

MISSED 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 KREEN/LIH VORTAC 12 DME and hold, east, RT, 250° inbound, continue climb-in-hold to 3000).

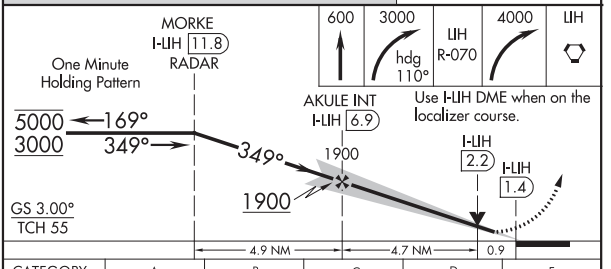
ATIS	HCF CENTER	LIHUE TOWER ★	GND CON
127.2	126.5 269.4	118.9(CTAF) L 263.1	121.9





FAF to MAP 5.5 NM

Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50



CATEGORY	A	B	C	D	E
S-ILS 35	296-½ 200 (200-½)				
S-LOC 35	420-½ 324 (300-½)				
C CIRCLING	520-1 368 (400-1)	620-1 468 (500-1)	620-1½ 468 (500-1½)	720-2 568 (600-2)	740-2 588 (600-2)

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	Rwy Idg	6295
214°	TDZE	118
	Apt Elev	152

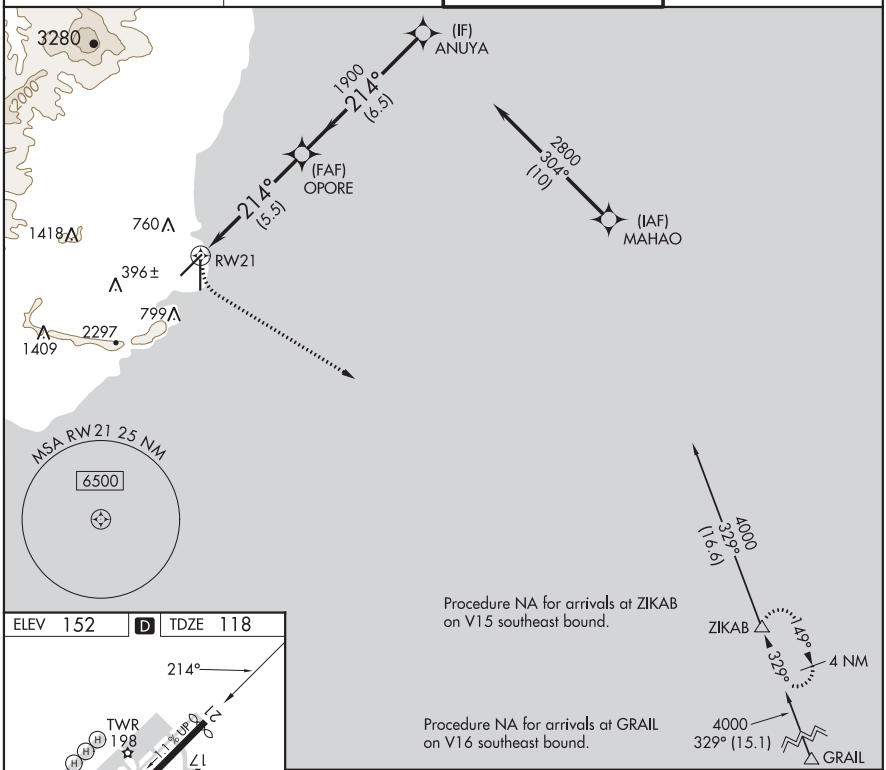
RNAV (RNP) Z RWY 21
LIHUE (LIH)(PHLI)

RNP AR APCH-GPS.

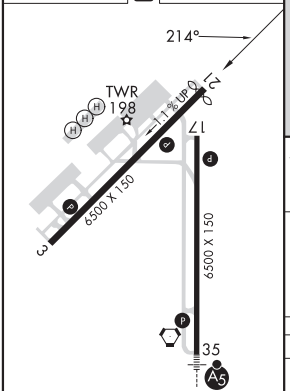
For uncompensated Baro-VNAV systems, procedure NA below 15°C or above 54°C.

MISSED APPROACH: Climbing left turn to 3000 direct ZIKAB and hold.
*Missed approach requires minimum climb of 350 feet per NM to 2500.

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



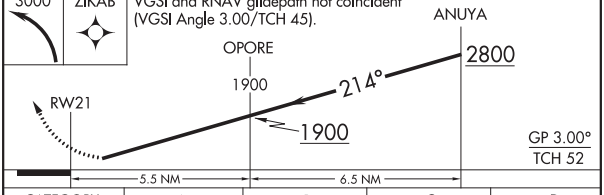
ELEV 152 D TDZE 118



HIRL Rwy 17-35 L
REIL Rwys 3, 17 and 21 L
MIRL Rwy 3-21 L

3000 ZIKAB

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 45).



CATEGORY	A	B	C	D
RNP 0.30 DA*	663-2 545 (600-2)			
RNP 0.30 DA	1078-4 960 (1000-4)			

AUTHORIZATION REQUIRED

LIHUE, HAWAII
Orig-B 07OCT21

21°59'N-159°20'W

LIHUE (LIH)(PHLI)
RNAV (RNP) Z RWY 21

LIHUE, HAWAII AL-776 (FAA) 23166

RNAV (RNP) Z RWY 35

LIHUE (LIH)(PHLI)

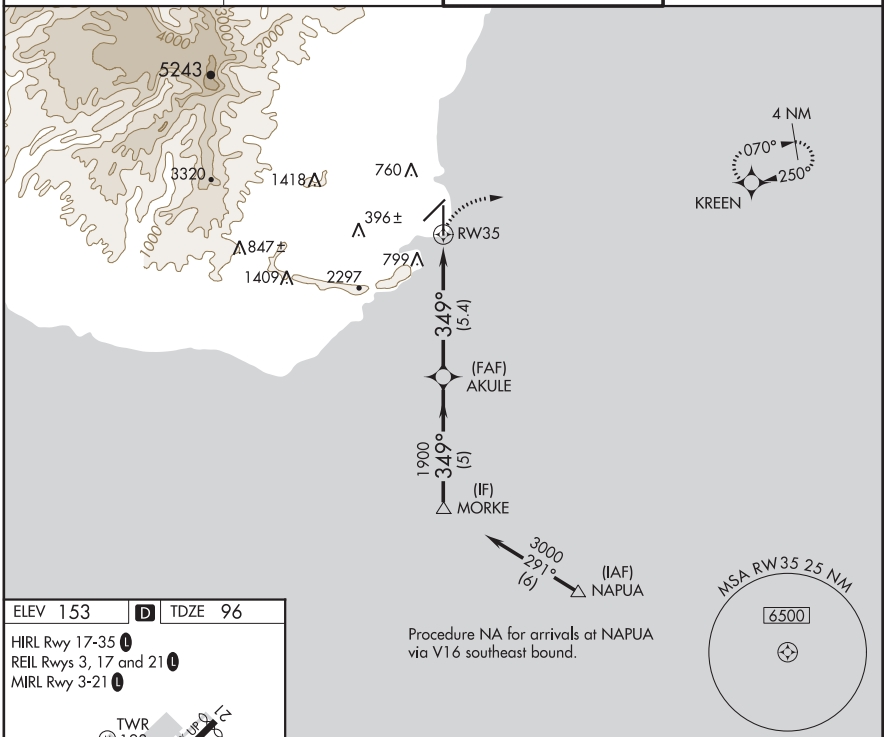
APP CRS	Rwy Idg	6500
349°	TDZE	96
	Apt Elev	153

GPS required. For inoperative MALSR, increase RNP 0.30 visibility to 1¾. For uncompensated Baro-VNAV systems, procedure NA below 14°C (57°F) or above 48°C (119°F).

MALSR

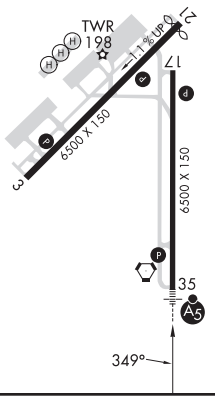
MISSED APPROACH: Climbing right turn to 3000 direct KREEN and hold.

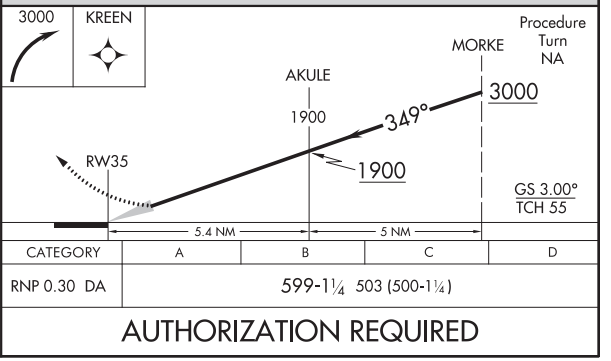
ATIS	HCF CENTER	LIHUE TOWER *	GND CON
127.2	126.5 269.4	118.9 (CTAF) L 263.1	121.9



ELEV 153 D TDZE 96

HIRL Rwy 17-35 L
REIL Rwys 3, 17 and 21 L
MIRL Rwy 3-21 L





CATEGORY	A	B	C	D
RNP 0.30 DA	599-1¼ 503 (500-1¼)			

AUTHORIZATION REQUIRED

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	Rwy Idg	6500
184°	TDZE	98
	Apt Elev	152

RNAV (GPS) RWY 17

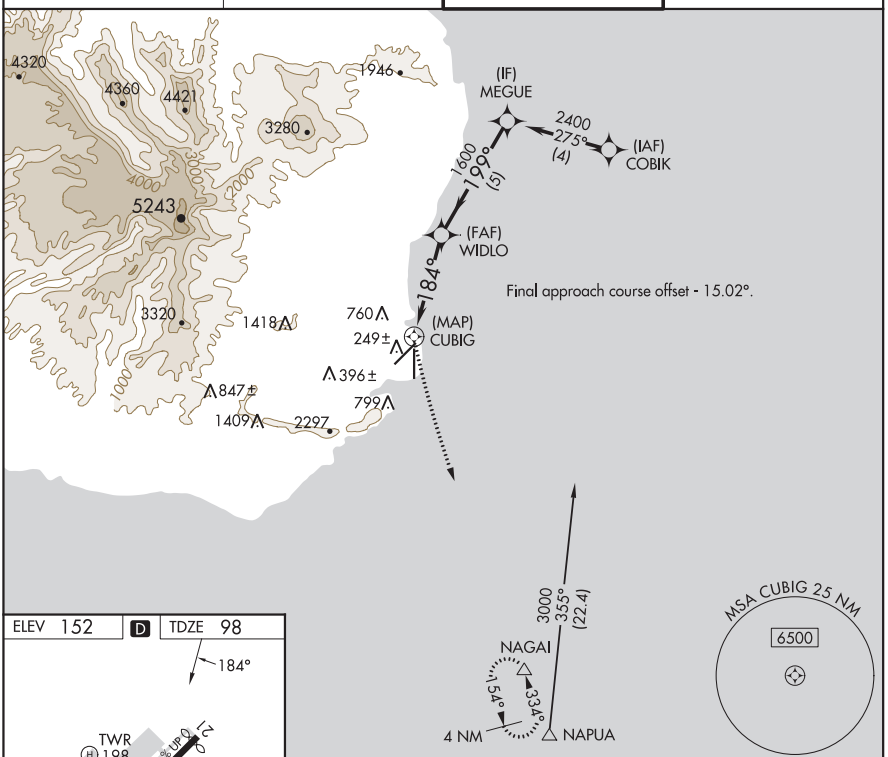
LIHUE (LIH)(PHLI)

RNP APCH-GPS.

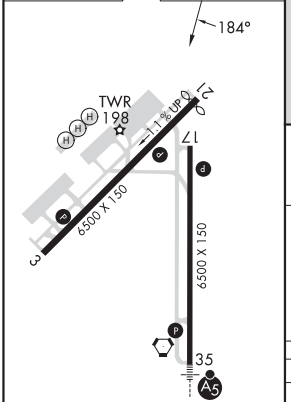
T A Circling NA at night. Circling NA west of Rwy 17-35.

MISSED APPROACH: Climbing left turn to 3000 direct NAGAI and hold.

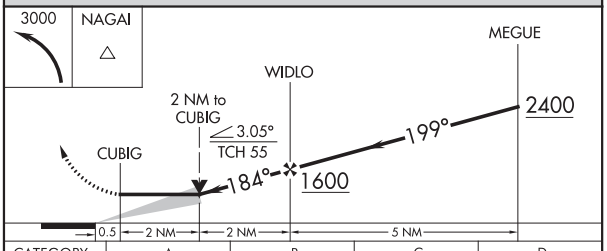
ATIS	HCF CENTER	LIHUE TOWER ★	GND CON
127.2	126.5 269.4	118.9(CTAF) L 263.1	121.9



ELEV 152 D TDZE 98



HIRL Rwy 17-35 L
REIL Rwys 3, 17 and 21 L
MIRL Rwy 3-21 L



CATEGORY	A	B	C	D
LNAV MDA	940-1 842 (800-1)	940-1¼ 842 (800-1¼)	940-2½ 842 (800-2½)	
C CIRCLING	940-1 788 (800-1)	940-1¼ 788 (800-1¼)	940-2½ 788 (800-2½)	

LIHUE, HAWAII
Orig-B 23FEB23

21°59′N-159°20′W

LIHUE (LIH)(PHLI)

RNAV (GPS) RWY 17

LIHUE, HAWAII AL-776 (FAA) 23166

RNAV (GPS) Y RWY 21

LIHUE (LIH)(PHLI)

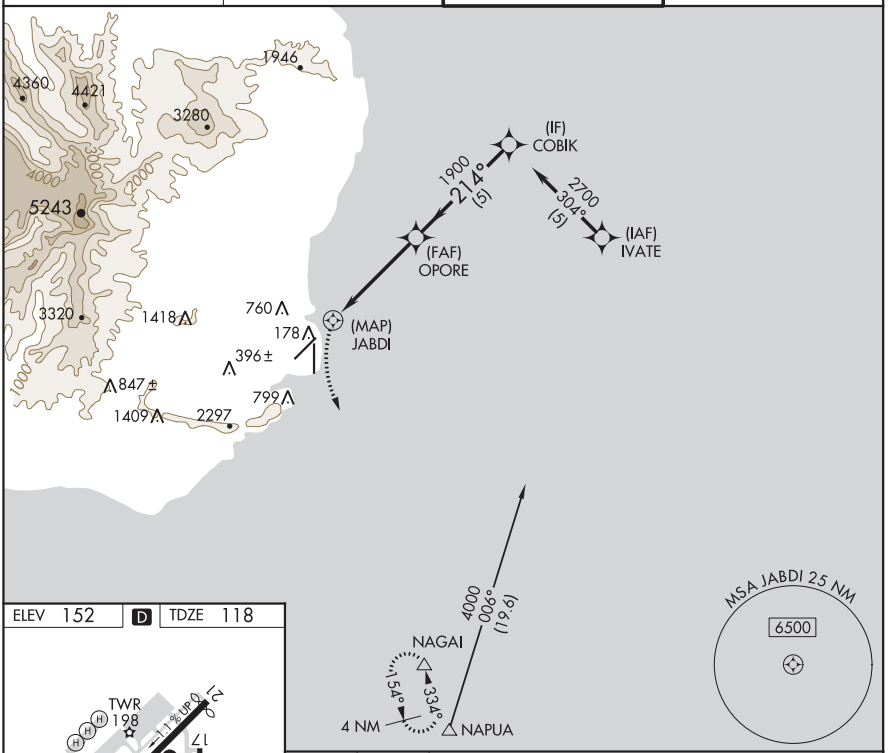
APP CRS	Rwy Idg	6295
214°	TDZE	118
	Apt Elev	152

RNP APCH-GPS.

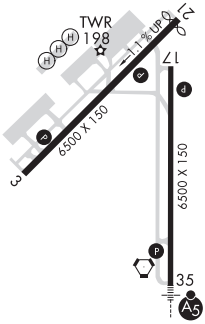
Circling NA at night. Circling NA west of Rwy 17-35. Rwy 21 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climbing left turn to 3000 direct NAGAI and hold.

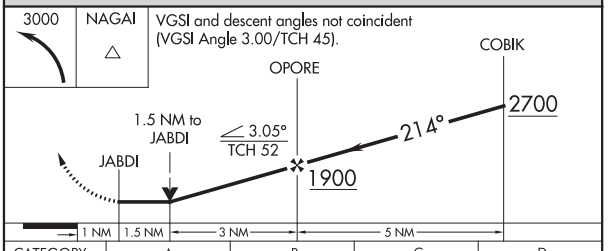
ATIS	HCF CENTER	LIHUE TOWER ★	GND CON
127.2	126.5 269.4	118.9 (CTAF) L 263.1	121.9



ELEV 152 D TDZE 118



HIRL Rwy 17-35 L
REIL Rwy 3-21 L
MIRL Rwy 3-21 L



CATEGORY	A	B	C	D
LNAV MDA	920-1¼ 802 (800-1¼)		920-2½ 802 (800-2½)	
C CIRCLING	920-1¼ 768 (800-1¼)		920-2½ 768 (800-2½)	

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	Rwy Idg	6500
349°	TDZE	96
	Apt Elev	153

RNAV (GPS) Y RWY 35

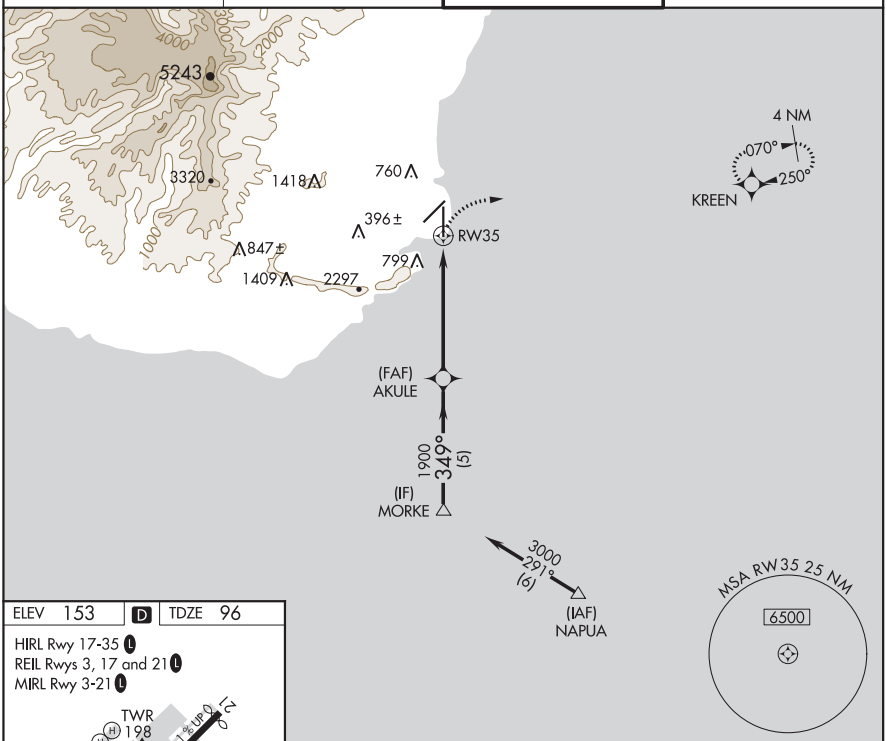
LIHUE (LIH)(PHLI)

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

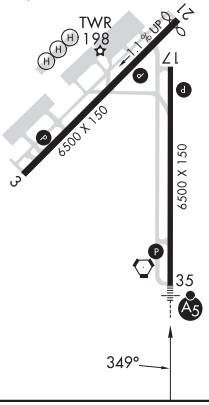
MISSED APPROACH: Climbing right turn to 3000 direct KREEN WP and hold.

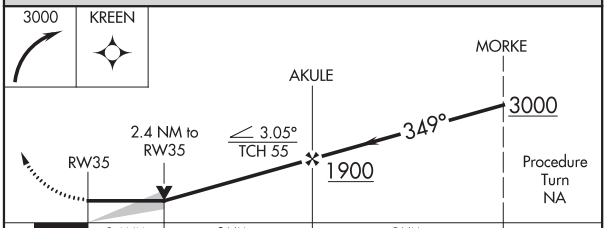
ATIS	HCF CENTER	LIHUE TOWER ★	GND CON
127.2	126.5 269.4	118.9(CTAF) L 263.1	121.9



ELEV 153 D TDZE 96

HIRL Rwy 17-35 L
REIL Rwys 3, 17 and 21 L
MIRL Rwy 3-21 L





CATEGORY	A	B	C	D	E
LNAV MDA	920-¾ 824 (800-¾)		920-2 824 (800-2)	920-2¼ 824 (800-2¼)	920-2½ 824 (800-2½)
CIRCLING	920-1 767 (800-1)	920-1¼ 767 (800-1¼)	920-2¼ 767 (800-2¼)	920-2½ 767 (800-2½)	NA

LIHUE, HAWAII
Orig-D 05JUL07

21°59'N-159°20'W

LIHUE (LIH)(PHLI)

RNAV (GPS) Y RWY 35

LIHUE, HAWAII AL-776 (FAA) 23166

VOR or TACAN RWY 21

LIHUE (LIH)(PHLI)

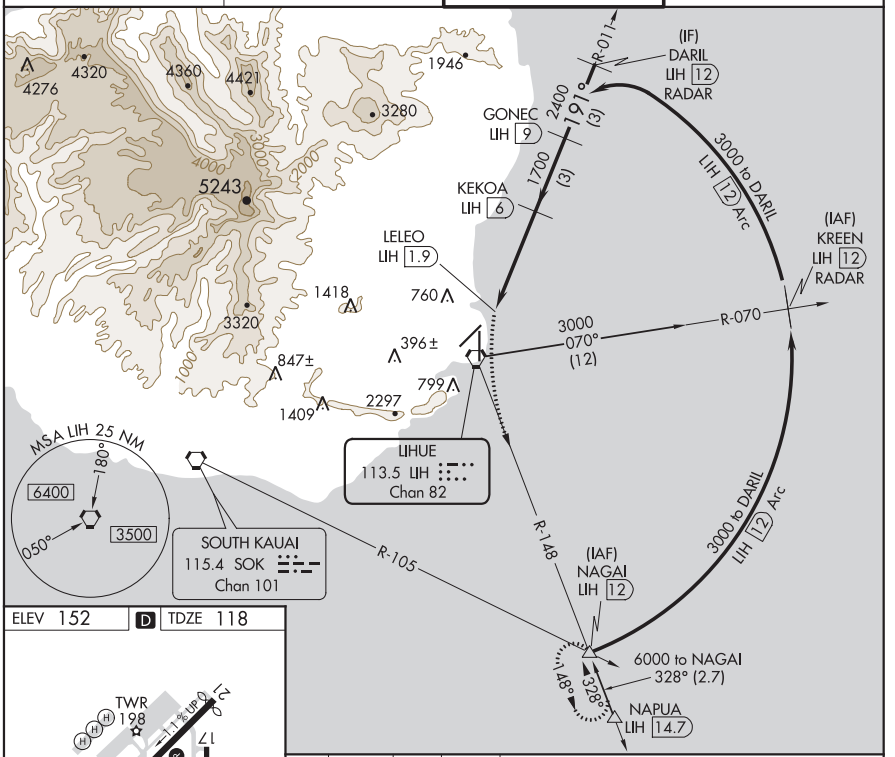
VORTAC LIH	APP CRS	Rwy Idg	6295
113.5	191°	TDZE	118
Chan 82		Apt Elev	152

DME required.

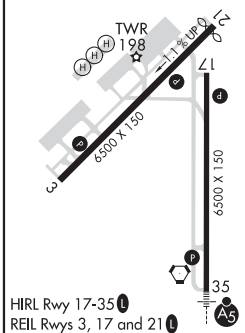
Circling NA at night. Circling NA west of Rwy 17-35. Rwy 21 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 600 then climbing left turn to 3000 on heading 152° and LIH VORTAC R-148 to NAGAI/12 DME and hold.

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



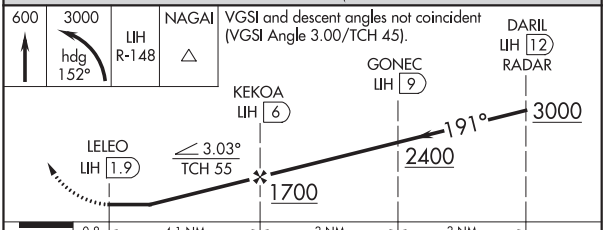
ELEV 152 D TDZE 118



HIRL Rwy 17-35 L
REIL Rwys 3, 17 and 21 L
MIRL Rwy 3-21 L

FAF to MAP 4.1 NM

Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22



CATEGORY	A	B	C	D
S-21	520-1 402 (400-1)		520-1⅛ 402 (400-1⅛)	
C CIRCLING	520-1 368 (400-1)	620-1 468 (500-1)	620-1½ 468 (500-1½)	720-2 568 (600-2)

LIHUE, HAWAII
Amdt 5 20APR23

21°59′N-159°20′W

LIHUE (LIH)(PHLI)
VOR or TACAN RWY 21

LIHUE, HAWAII AL-776 (FAA) 23166

VOR or TACAN RWY 35

LIHUE (LIH)(PHLI)

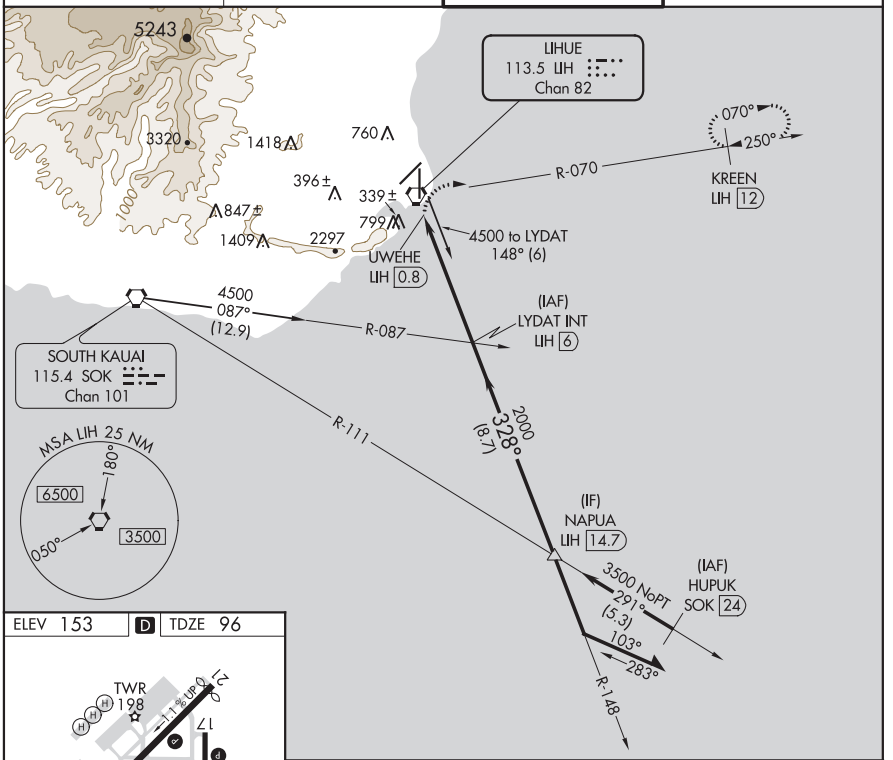
VORTAC LIH	APP CRS	Rwy Idg	6500
113.5	328°	TDZE	96
Chan 82		Apt Elev	153

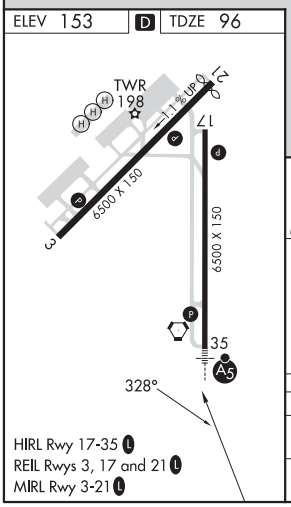
Circling NA at night. Inoperative table does not apply.
Circling NA west of Rwy 17-35. DME or RADAR required.

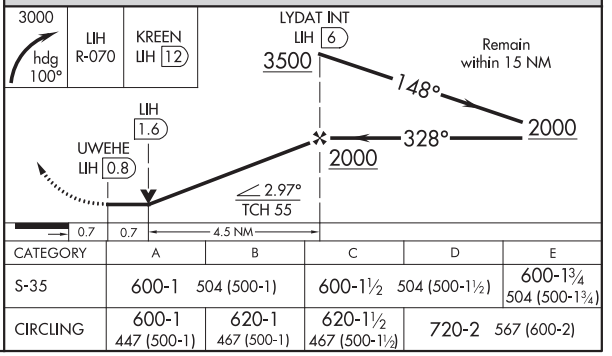
MALSR

MISSED APPROACH: Climbing right turn to 3000 via heading 100° and LIH VORTAC R-070 to KREEN/12 DME/RADAR and hold.

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







CATEGORY	A	B	C	D	E
S-35	600-1 504 (500-1)		600-1½ 504 (500-1½)		600-1¾ 504 (500-1¾)
CIRCLING	600-1 447 (500-1)	620-1 467 (500-1)	620-1½ 467 (500-1½)	720-2 567 (600-2)	

HIRL Rwy 17-35 L
REIL Rwys 3, 17 and 21 L
MIRL Rwy 3-21 L

LIHUE, HAWAII
Amdt 7A 25AUG11

21°59'N-159°20'W

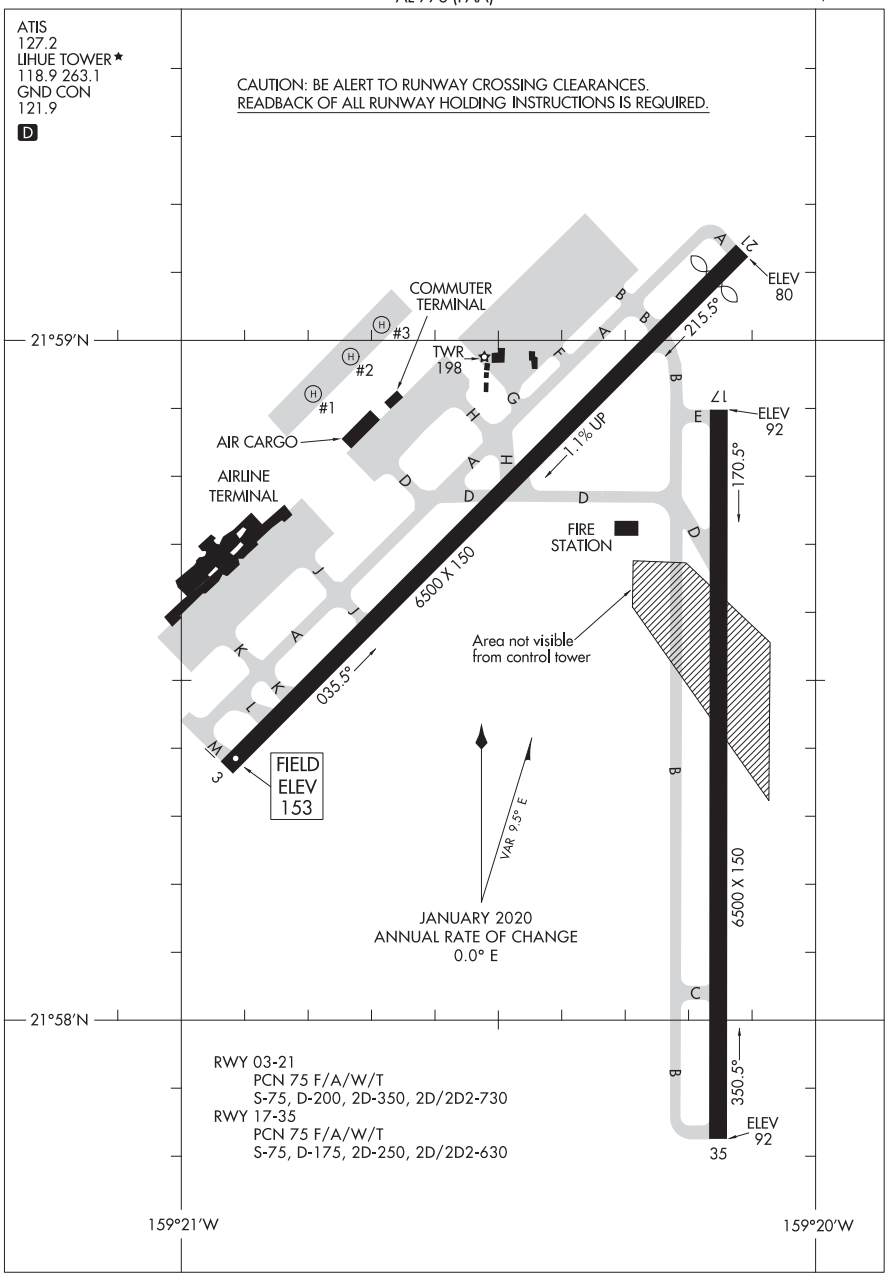
LIHUE (LIH)(PHLI)
VOR or TACAN RWY 35

20310

AIRPORT DIAGRAM

AL-776 (FAA)

LIHUE (LIH)(PHLI)
LIHUE, HAWAII



AIRPORT DIAGRAM

20310

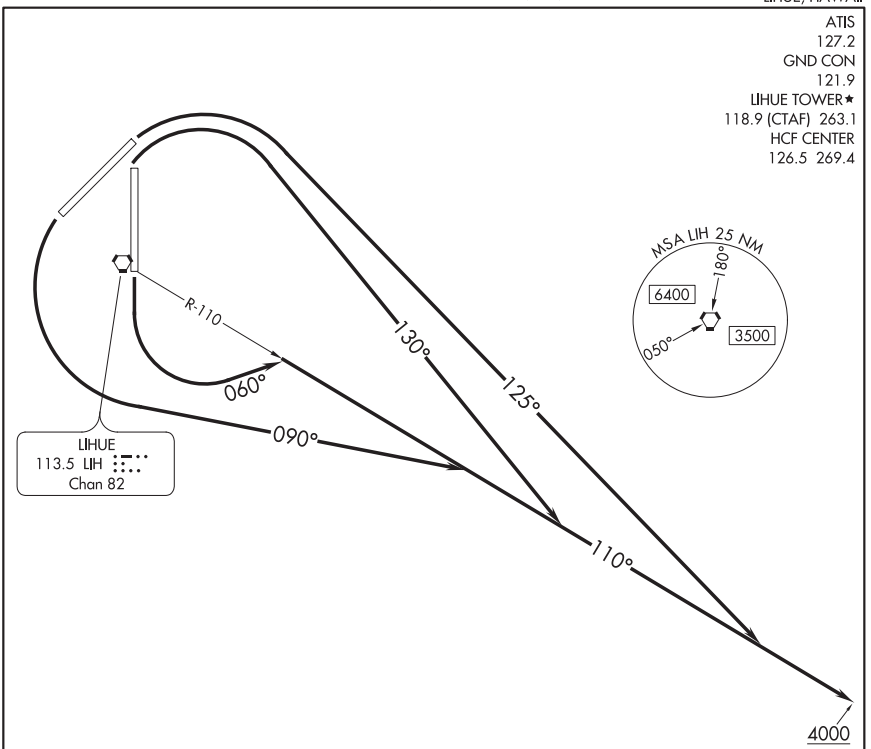
LIHUE, HAWAII
LIHUE (LIH)(PHLI)

(KAUAI1.KAUAI) 23166

KAUAI ONE DEPARTURE (OBSTACLE)

AL-776 (FAA)

LIHUE (LIH)(PHLI)
LIHUE, HAWAII



TAKEOFF MINIMUMS

Rwys 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.

(NOTES 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) 15JUN23

LIHUE, HAWAII
LIHUE (LIH)(PHLI)

(KAUAI1.KAUAI) 23166

KAUAI ONE DEPARTURE (OBSTACLE) AL-776 (FAA)

LIHUE (LIH)(PHLI)
LIHUE, HAWAII

TAKEOFF 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.

(LIHUE6.BOOKE) 23054

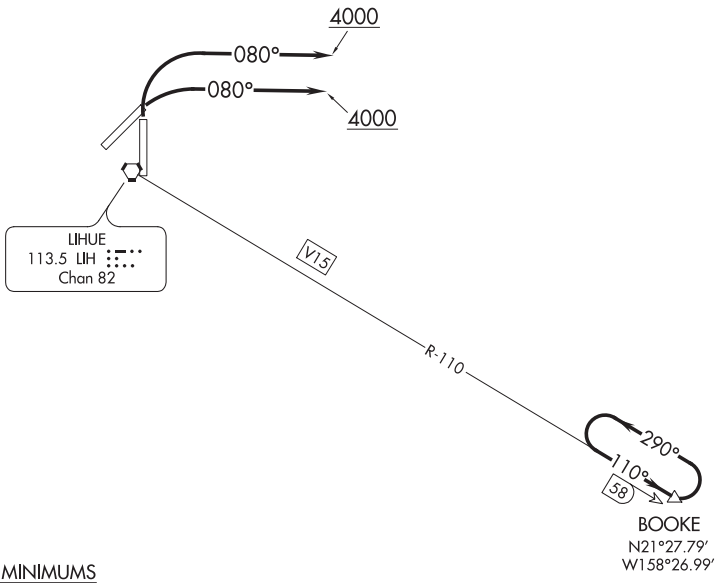
LIHUE SIX DEPARTURE

AL-776 (FAA)

LIHUE (LIH)(PHLI)
LIHUE, HAWAII

HCF CENTER
126.5 269.4

TOP ALTITUDE: ASSIGNED BY ATC



TAKEOFF 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.

(RICHE3.BOOKE) 23054

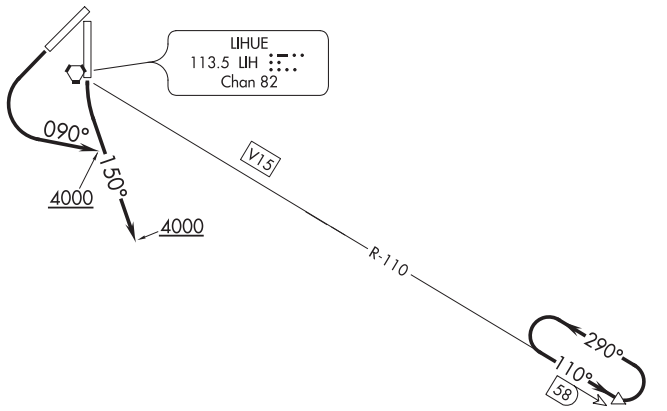
RICHE THREE DEPARTURE

AL-776 (FAA)

LIHUE (LIH)(PHLI)
LIHUE, HAWAII

HCF CENTER
126.5 269.4

TOP ALTITUDE: ASSIGNED BY ATC



TAKEOFF 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.

MAJURO ATOLL, MH | AL-6049 (FAA) | 22195

RNAV (GPS) RWY 7

AMATA KABUA INTL (MAJ)(PKMJ)

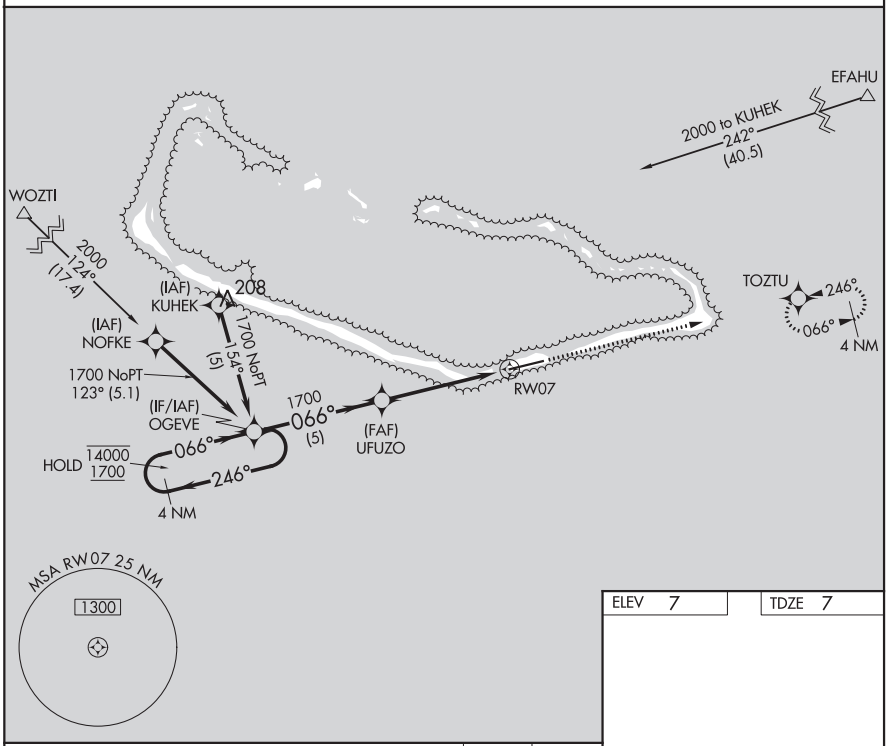
APP CRS	Rwy Idg	7913
066°	TDZE	7
	Apt Elev	7

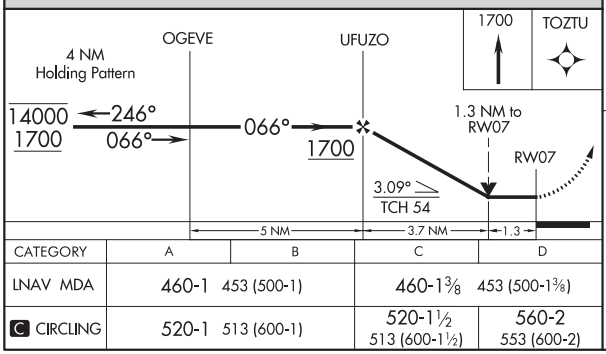
RNP APCH-GPS

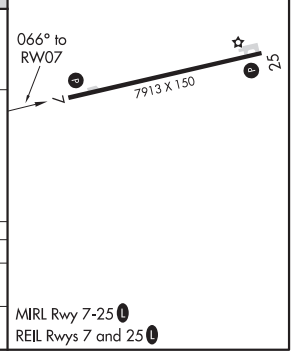
Rwy 7 helicopter visibility reduction below ¾ SM NA. Obtain local altimeter setting on CTAF; when not received, procedure NA. Uncontrolled airspace below 5500.

MISSED APPROACH: Climb to 1700 direct TOZTU and hold.

MAJURO RADIO
123.6 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	460-1 453 (500-1)		460-1⅜ 453 (500-1⅜)	
C CIRCLING	520-1 513 (600-1)		520-1½ 513 (600-1½)	560-2 553 (600-2)

MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

MAJURO ATOLL, MH
Orig-F 14JUL22

07°04′N-171°16′E

AMATA KABUA INTL (MAJ)(PKMJ)

RNAV (GPS) RWY 7

MAJURO ATOLL, MH | AL-6049 (FAA) | 22195

RNAV (GPS) RWY 25

AMATA KABUA INTL (MAJ)(PKMJ)

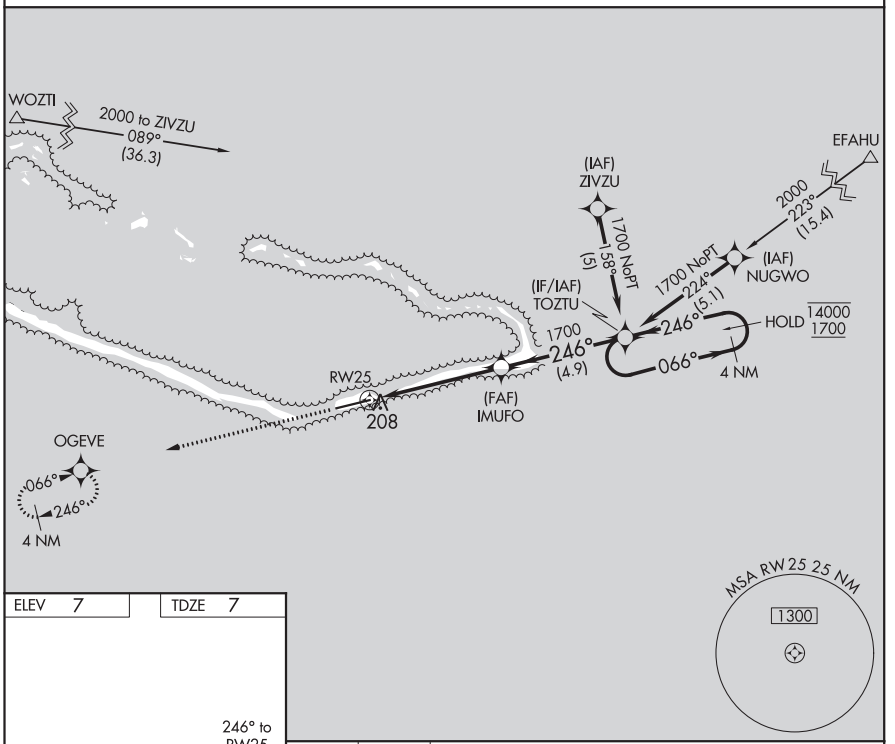
APP CRS	Rwy Idg	7913
246°	TDZE	7
	Apt Elev	7

RNP APCH-GPS.

Rwy 25 helicopter visibility reduction below ¾ SM NA. Obtain local altimeter setting on CTAF; when not received, procedure NA. Uncontrolled airspace below 5500.

MISSED APPROACH: Climb to 1700 direct OGEVE and hold.

MAJURO RADIO
123.6 (CTAF) L

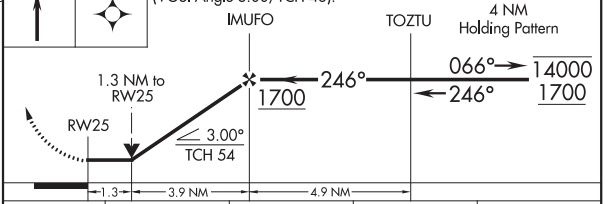


ELEV 7 | TDZE 7

MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

1700 | OGEVE

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 46).



CATEGORY	A	B	C	D
LNAV MDA	460-1 453 (500-1)		460-1⅜ 453 (500-1⅜)	
C CIRCLING	520-1 513 (600-1)		520-1½ 513 (600-1½)	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 — AL-6049 (FAA) — 21224

NDB/DME MAJ	APP CRS	Rwy Idg	7913
316	062°	TDZE	7
Chan 114 (116.7)		Apt Elev	7

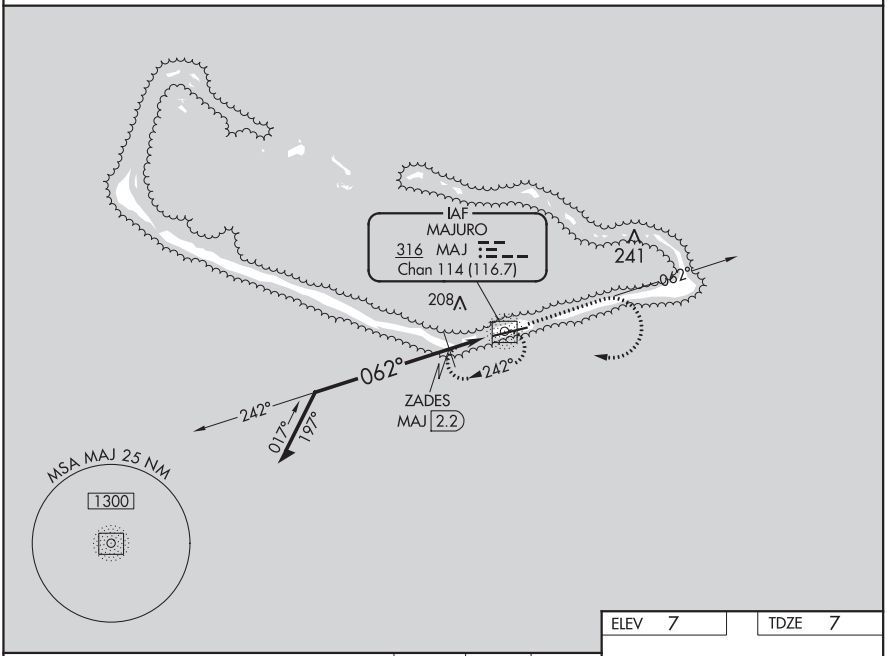
NDB RWY 7

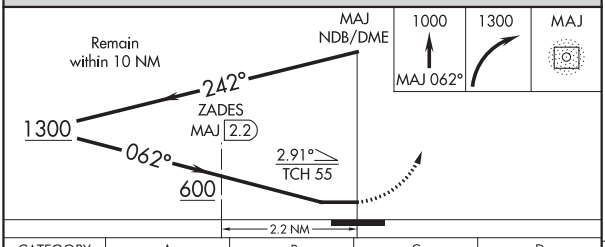
AMATA KABUA INTL (MAJ)(PKMJ)

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

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

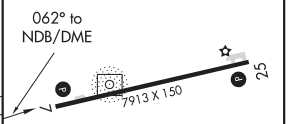
MAJURO RADIO
123.6 (CTAF) L





CATEGORY	A	B	C	D
S-7	600-1	593 (600-1)	600-1¾	593 (600-1¾)
C CIRCLING	600-1	593 (600-1)	600-1¾	600-2
			593 (600-1¾)	593 (600-2)
ZADES FIX MINIMUMS (DME REQUIRED)				
S-7	520-1	513 (600-1)	520-1⅜	513 (600-1⅜)
C CIRCLING	520-1	513 (600-1)	520-1½	560-2
			513 (600-1½)	553 (600-2)

ELEV 7 — TDZE 7



MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

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	APP CRS	Rwy Idg	7913
316	249°	TDZE	7
Chan 114 (116.7)		Apt Elev	7

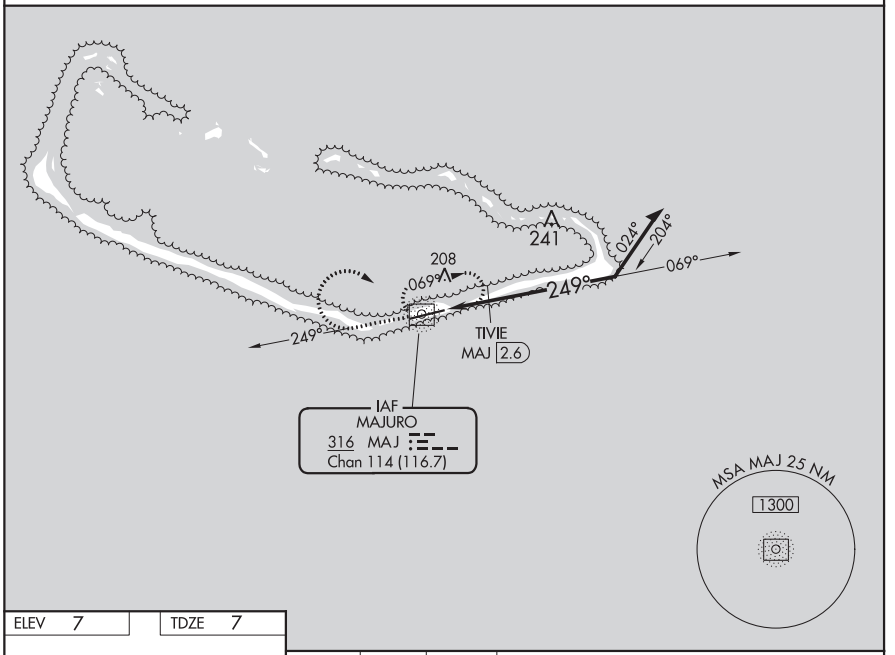
NDB RWY 25

AMATA KABUA INTL (MAJ)(PKMJ)

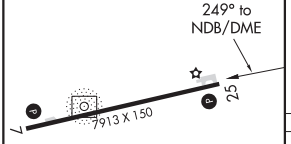
Rwy 25 helicopter visibility reduction below ¾ SM NA.
NA Obtain local altimeter setting on CTAF; when not received, procedure NA. Uncontrolled airspace below 5500.

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

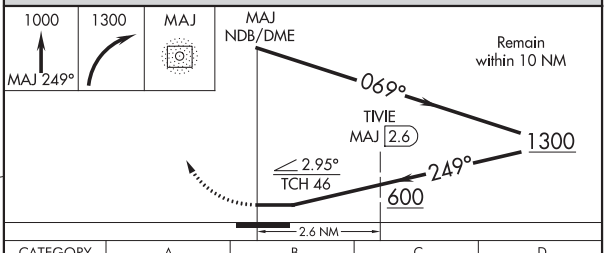
MAJURO RADIO
123.6 (CTAF) L



ELEV 7 TDZE 7



MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L



CATEGORY	A	B	C	D
S-25	600-1	593 (600-1)	600-1¾	593 (600-1¾)
C CIRCLING	600-1	593 (600-1)	600-1¾ 593 (600-1¾)	600-2 593 (600-2)
	TIVIE FIX MINIMUMS (DME REQUIRED)			
S-25	520-1	513 (600-1)	520-1⅜	513 (600-1⅜)
C CIRCLING	520-1	513 (600-1)	520-1½ 513 (600-1½)	560-2 553 (600-2)

MAJURO ATOLL, MH
Amdt 1B 31DEC20

07°04'N-171°16'E

AMATA KABUA INTL (MAJ)(PKMJ)

NDB RWY 25

MIDWAY ATOLL, QM | AL-2154 (FAA) | 22083

RNAV (GPS) RWY 6

HENDERSON FLD (MDY) (PMDY)

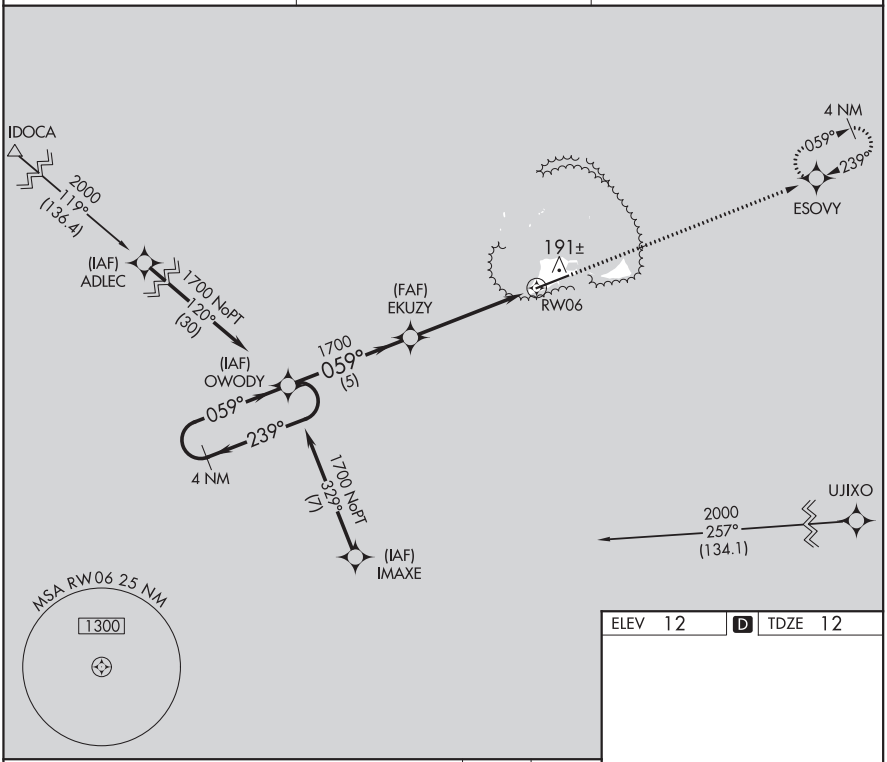
APP CRS	Rwy Idg	7800
059°	TDZE	12
	Apt Elev	12

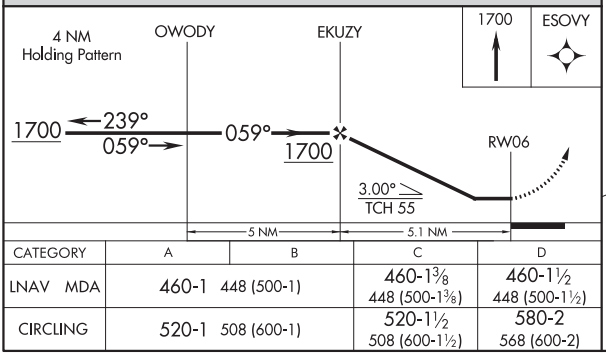
RNP APCH.

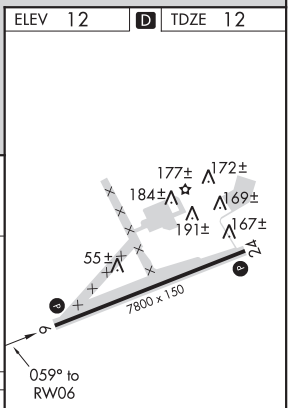
⚠ No controlled airspace below 5500. When local altimeter setting not received procedure NA. Rwy 6 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 1700 direct ESOVY WP and hold.

AWOS-3P	MIDWAY RADIO	CTAF
118.325	126.2 (L) 257.8	122.9







CATEGORY	A	B	C	D
LNAV MDA	460-1 448 (500-1)		460-1⅜ 448 (500-1⅜)	460-1½ 448 (500-1½)
CIRCLING	520-1 508 (600-1)		520-1½ 508 (600-1½)	580-2 568 (600-2)

MIRL Rwy 6-24 (L)
REIL Rwys 6 and 24

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

RNAV (GPS) RWY 24

HENDERSON FLD (MDY) (PMDY)

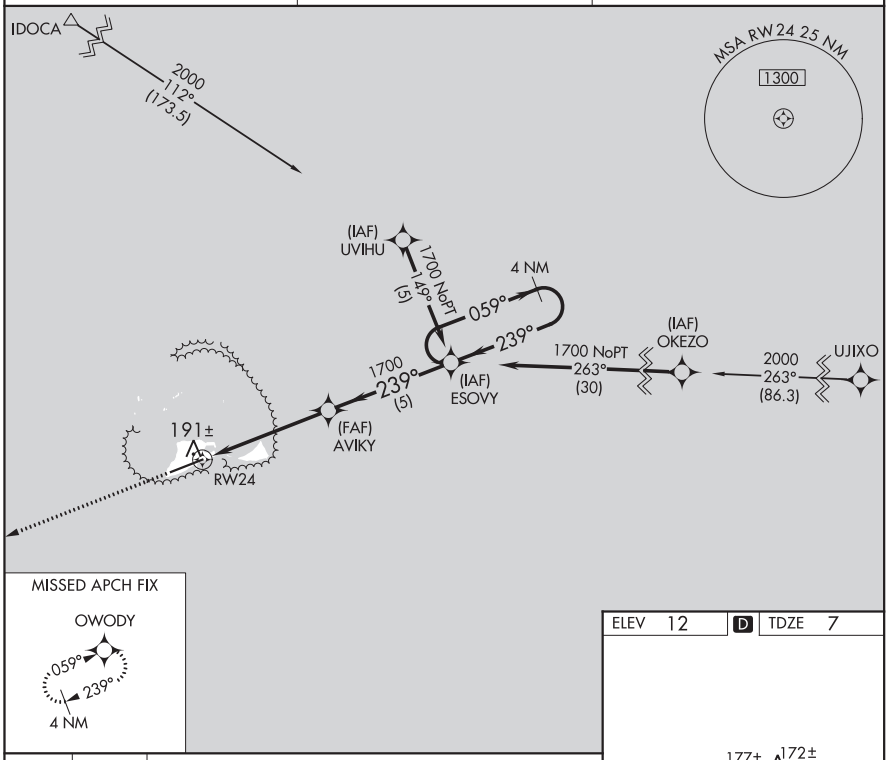
APP CRS	Rwy Idg	7400
239°	TDZE	7
	Apt Elev	12

RNP APCH.

⚠ No controlled airspace below 5500. When local altimeter setting not received procedure NA. Rwy 24 helicopter visibility reduction below ¾ SM NA.

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

AWOS-3P	MIDWAY RADIO	CTAF
118.325	126.2 (L) 257.8	122.9



CATEGORY	A	B	C	D
LNAV MDA	460-1 453 (500-1)		460-1⅜ 453 (500-1⅜)	460-1½ 453 (500-1½)
CIRCLING	520-1 508 (600-1)		520-1½ 508 (600-1½)	580-2 568 (600-2)

MIRL Rwy 6-24 (L)
REIL Rwys 6 and 24

MIDWAY ATOLL, QM
Orig-E 12AUG21

28°12'N-177°23'W

HENDERSON FLD (MDY) (PMDY)

RNAV (GPS) RWY 24

MIDWAY ATOLL, QM | AL-2154 (FAA) | 22083

NDB RWY 6

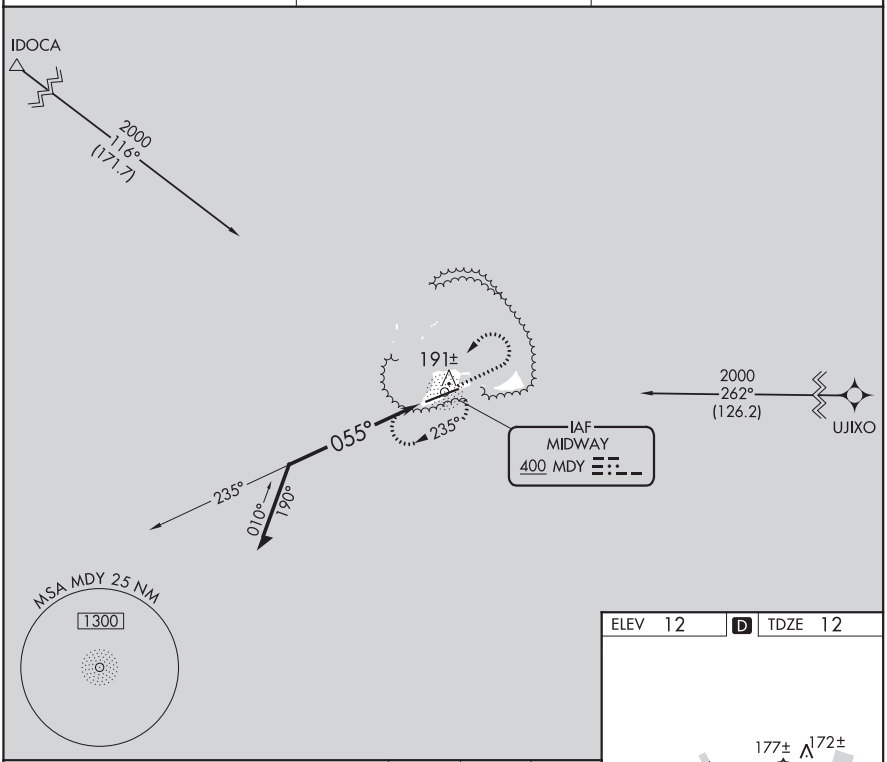
HENDERSON FLD (MDY) (PMDY)

NDB MDY	APP CRS	Rwy Idg	7800
400	055°	TDZE	12
		Apt Elev	12

⚠ No controlled airspace below 5500 feet. When local altimeter not received, procedure NA. Rwy 6 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 2000, then left turn direct MDY NDB and hold.

AWOS-3P	MIDWAY RADIO	CTAF
118.325	126.2 (L) 257.8	122.9



CATEGORY	A	B	C	D
S-6	560-1 548 (600-1)		560-1⅝ 548 (600-1⅝)	560-1¾ 548 (600-1¾)
CIRCLING	560-1 548 (600-1)		560-1⅝ 548 (600-1⅝)	580-2 568 (600-2)

MIRL Rwy 6-24 (L)
REIL Rwys 6 and 24

MIDWAY ATOLL, QM
Orig-D 12AUG21

28°12'N-177°23'W

HENDERSON FLD (MDY) (PMDY)

NDB RWY 6

MIDWAY ATOLL, QM

AL-2154 (FAA)

22083

NDB RWY 24

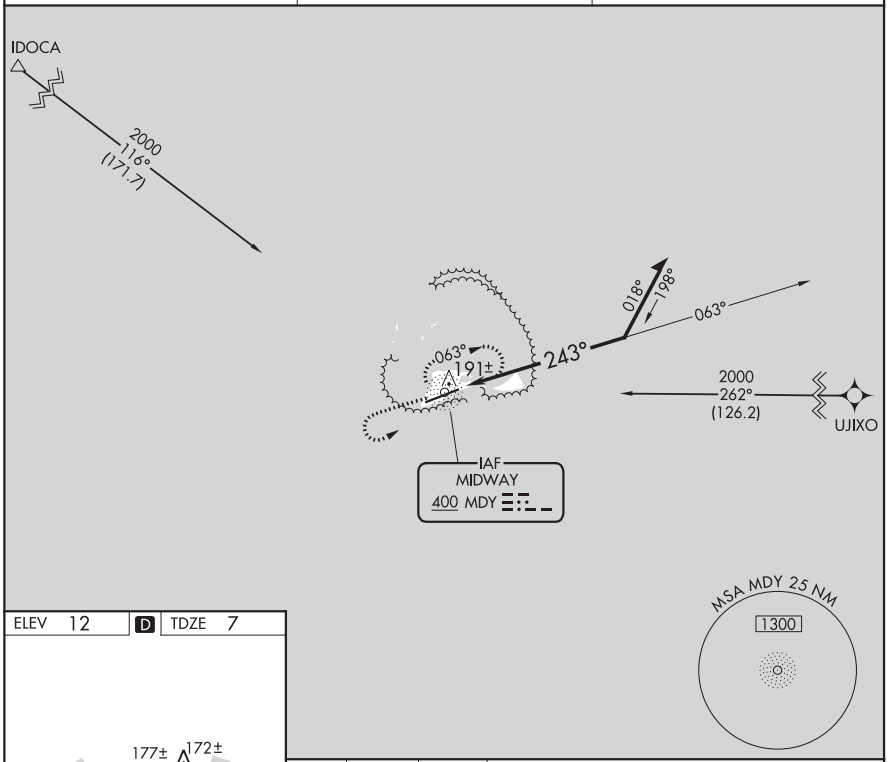
HENDERSON FLD (MDY) (PMDY)

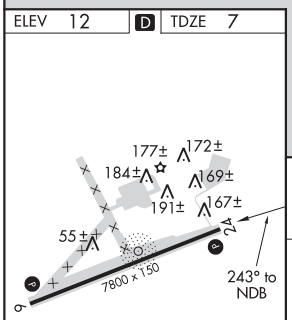
NDB MDY 400	APP CRS 243°	Rwy Idg 7400 TDZE 7 Apt Elev 12

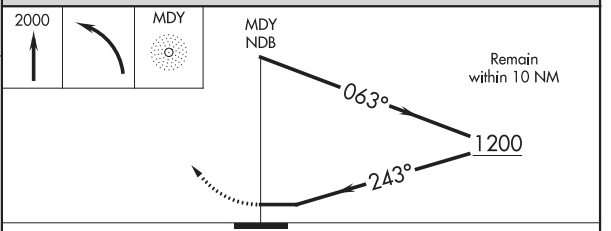
⚠ No controlled airspace below 5500 feet. When local altimeter setting not received, procedure NA. Rwy 24 helicopter visibility reduction below ¾ SM NA.

MISSED APPROACH: Climb to 2000, then left turn direct MDY NDB and hold.

AWOS-3P	MIDWAY RADIO	CTAF
118.325	126.2 (L) 257.8	122.9







CATEGORY	A	B	C	D
S-24	560-1 553 (600-1)		560-1⅝ 553 (600-1⅝)	560-1¾ 553 (600-1¾)
CIRCLING	560-1 548 (600-1)		560-1⅝ 548 (600-1⅝)	580-2 568 (600-2)

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

ILS or LOC RWY 5

PAGO PAGO INTL (PPG) (NSTU)

LOC/DME I-TUT	APP CRS	Rwy Idg	8200
110.3	046°	TDZE	29
Chan 40		Apt Elev	31

DME required.

Circling NA northwest of Rwy 5-23. Rwy 5 helicopter visibility reduction below ¾ SM NA. For inop ALS, increase S-ILS 5 all Cats visibility to 2½ SM; increase S-LOC 5 Cat A visibility to 1 SM and Cats C/D to 2 SM.

MALSR

MISSED APPROACH: Climb to 1100 then climbing right turn to 3000 on TUT VORTAC R-087 to CELIM/TUT 10 DME and hold, continue climb-in-hold to 3000.

AWOS-3PT	FALEOLO APP CON	CTAF	
127.925	118.1 6.553(HF)	122.9	118.3 L

ALTERNATE MISSED APCH FIX
PAGO PAGO TUT 403
048° 228°

Procedure NA for arrivals at TUT NDB on bearing 344 CW 104.

LOCALIZER 110.3 I-TUT Chan 40 LOC offset 1.69°

PAGO PAGO 403 TUT

1730

3700 to BLUJA 224° (6.8)

2155

1637

72±

WUVAN 399 I-TUT 3.6 514±

(IAF) BLUJA I-TUT 7.7

TAMUE I-TUT 1.7

3700 to BLUJA 227° (7.4)

PAGO PAGO 112.5 TUT Chan 72

R-087

4 NM

087° 267°

CELIM TUT 10

3700 NoPT to GRUPY 107° hdg (5.2) and 046° (3)

2300 046° (6.5)

(IF/IAF) GRUPY I-TUT 14.2

046°

181° 001°

(IAF) SETTS TUT 20

226°

Procedure NA for arrival on TUT VORTAC airway radials 167 CW 287.

MSA TUT 25 NM
3300

3700 NoPT to GRUPY 317° hdg (9.5) and 046° (5)

(IAF) DRAWN TUT 21

ELEV 31 | D | TDZE 29

3801 X 100

10001 X 150

26 23

42

101±

0.4% DOWN

046° 6.4 NM from FAF

Use I-TUT DME when on the localizer course.

Remain within 10 NM

BLUJA I-TUT 7.7 3100

226°

2500

046°

2300

WUVAN I-TUT 3.6

TAMUE I-TUT 1.7

GS 3.25° TCH 54

2300

*840

4.1 NM 1.9 NM 0.4

1100	3000	CELIM
	TUT R-087	TUT 10

*LOC only

CATEGORY	A	B	C	D
S-ILS 5	841-1⅞ 812 (900-1⅞)			
S-LOC 5	780-¾ 751 (800-¾)		780-1¾ 751 (800-1¾)	
C CIRCLING	780-1 749 (800-1)	780-1¼ 749 (800-1¼)	820-2½ 789 (800-2½)	860-2¾ 829 (900-2¾)

HIRL Rwys 5-23 and 8-26 L

PAGO PAGO, AS
Amdt 15 12AUG21

14°20'S-170°43'W

PAGO PAGO INTL (PPG) (NSTU)

ILS or LOC RWY 5

PAGO PAGO, AS | AL-5018 (FAA) | 22083

APP CRS	Rwy Idg	8200
047°	TDZE	32
	Apt Elev	32

RNAV (GPS) RWY 5

PAGO PAGO INTL (PPG) (NSTU)

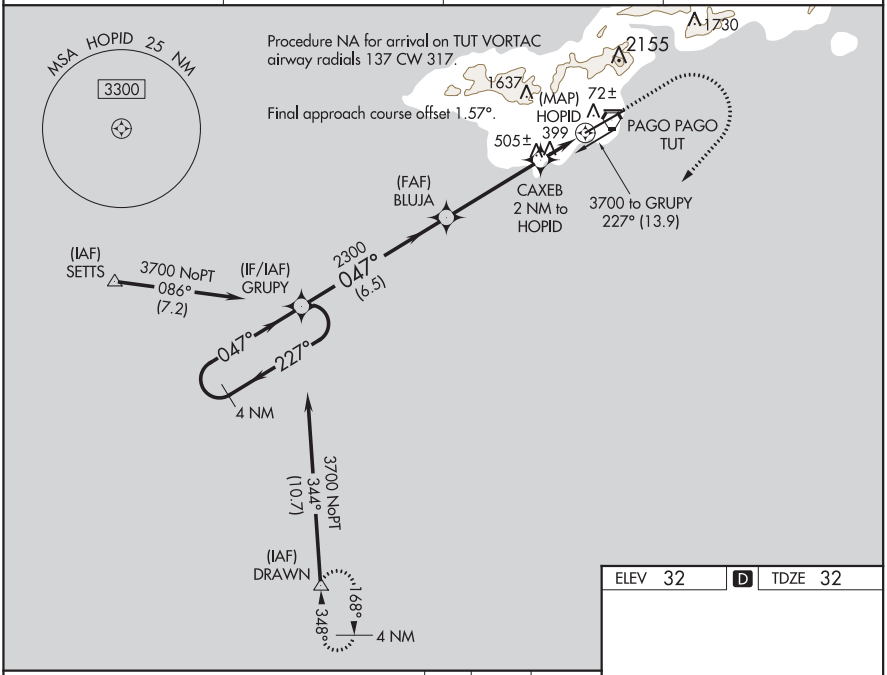
RNP APCH.

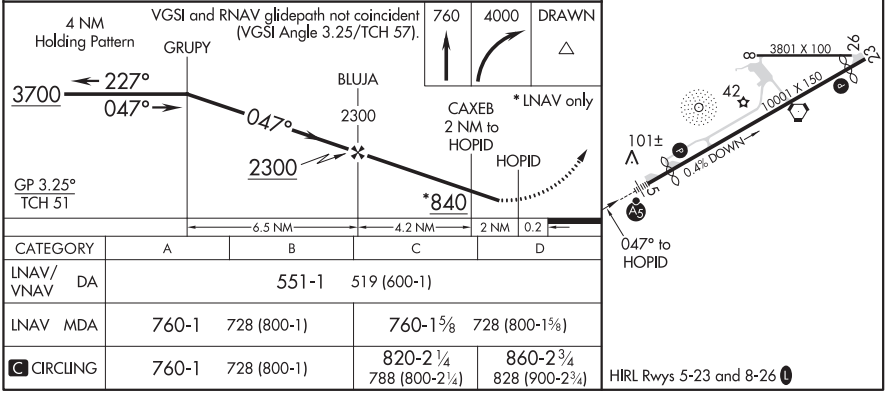
V A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 22°C or above 54°C. When local altimeter setting not received, procedure NA. Circling NA northwest of Rwy 5-23. Rwy 5 helicopter visibility reduction below ¾ SM NA. Inop table does not apply to LNAV Cats A/B. For inop ALS, increase LNAV/VNAV all Cats visibility to 1⅜ SM and LNAV Cats C/D visibility to 2 SM.

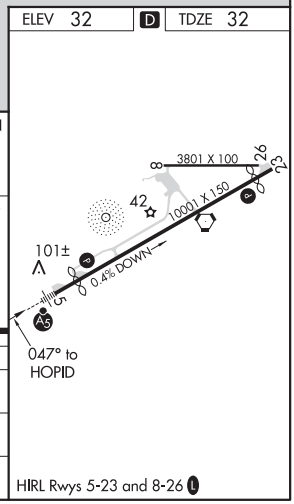
MALSR

MISSED APPROACH: (Maintain 185 K max until 760) Climb to 760 then climbing right turn to 4000 direct DRAWN and hold.

AWOS-3PT	FALEOLO APP CON	CTAF	
127.925	118.1 6.553 (HF)	122.9	118.3 L







CATEGORY	A	B	C	D
LNAV/VNAV DA	551-1	519 (600-1)		
LNAV MDA	760-1	728 (800-1)	760-1⅝	728 (800-1⅝)
C CIRCLING	760-1	728 (800-1)	820-2¼ 788 (800-2¼)	860-2¾ 828 (900-2¾)

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

RNAV (GPS) RWY 23

PAGO PAGO INTL (PPG) (NSTU)

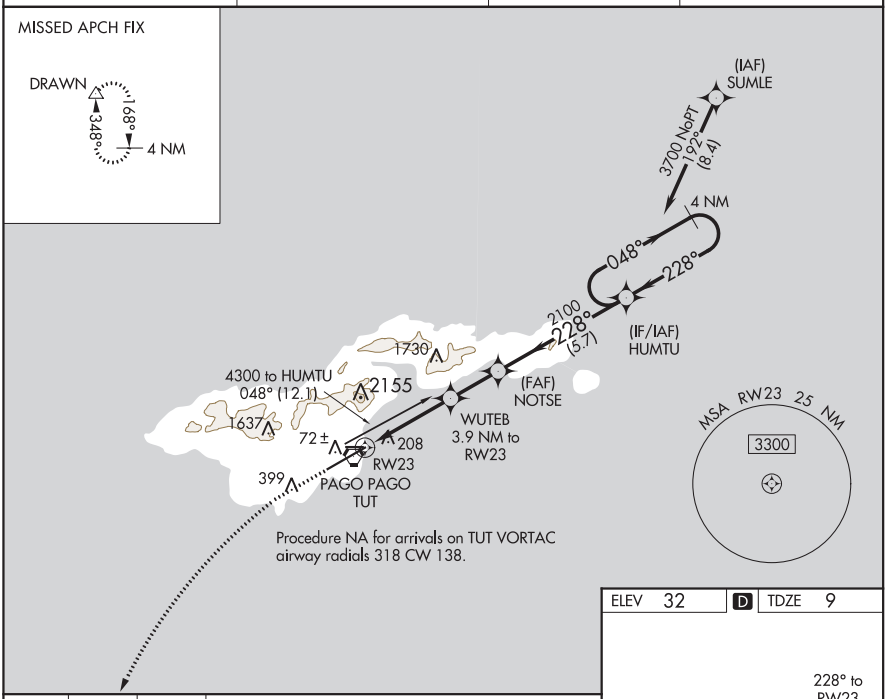
APP CRS		
228°	Rwy Idg	9200
	TDZE	9
	Apt Elev	32

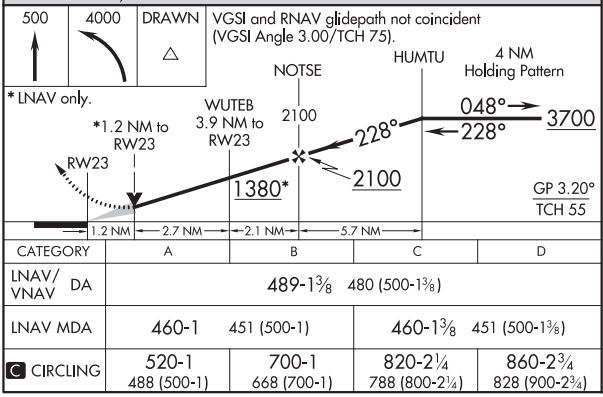
RNP APCH.

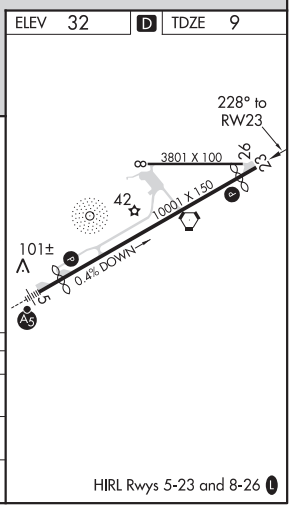
V A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below 22°C or above 54°C. When local altimeter settting not received, procedure NA. Circling NA northwest of Rwy 5-23.

MISSED APPROACH: Climb to 500 then climbing left turn to 4000 direct DRAWN and hold.

AWOS-3PT	FALEOLO APP CON	CTAF	
127.925	118.1 6.553 (HF)	122.9	118.3 L







CATEGORY	A	B	C	D
LNAV/VNAV DA	489-1⅜ 480 (500-1⅜)			
LNAV MDA	460-1 451 (500-1)		460-1⅜ 451 (500-1⅜)	
C CIRCLING	520-1 488 (500-1)	700-1 668 (700-1)	820-2¼ 788 (800-2¼)	860-2¾ 828 (900-2¾)

PAGO PAGO, AS
Orig-A 08NOV18

14°20'S-170°43'W

PAGO PAGO INTL (PPG) (NSTU)

RNAV (GPS) RWY 23

PAGO PAGO, AS | AL-5018 (FAA) | 22083

VOR or TACAN-B

PAGO PAGO INTL (PPG) (NSTU)

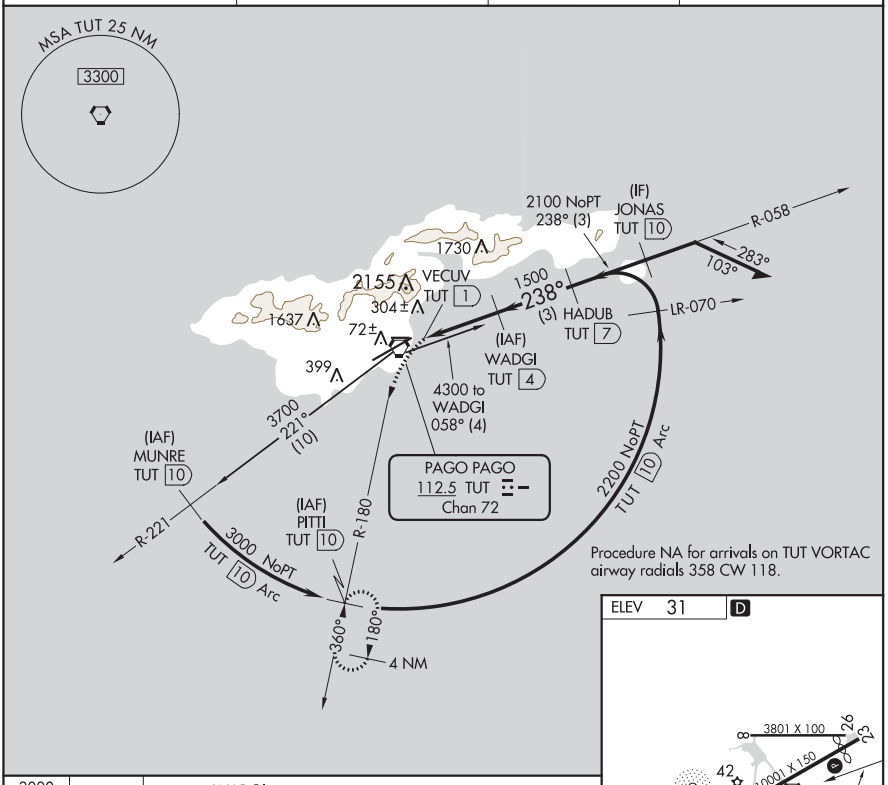
VORTAC TUT 112.5 Chan 72	APP CRS 238°	Rwy Idg N/A TDZE N/A Apt Elev 31

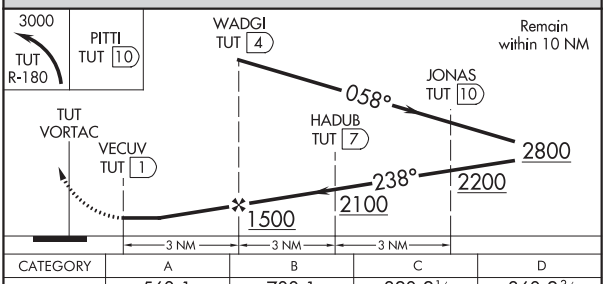
DME required.

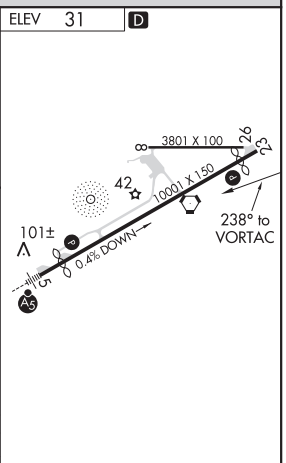
Circling NA northwest of Rwy 5-23.

MISSED APPROACH: Climbing left turn to 3000 on TUT VORTAC R-180 to PITTI/10 DME and hold, continue climb-in-hold to 3000.

AWOS-3PT	FALEOLO APP CON	CTAF	
127.925	118.1 6.553 (HF)	122.9	118.3 L







CATEGORY	A	B	C	D
C CIRCLING	560-1 529 (600-1)	700-1 669 (700-1)	820-2¼ 789 (800-2¼)	860-2¾ 829 (900-2¾)

PAGO PAGO, AS
Amdt 6B 12AUG21

14°20′S-170°43′W

PAGO PAGO INTL (PPG) (NSTU)

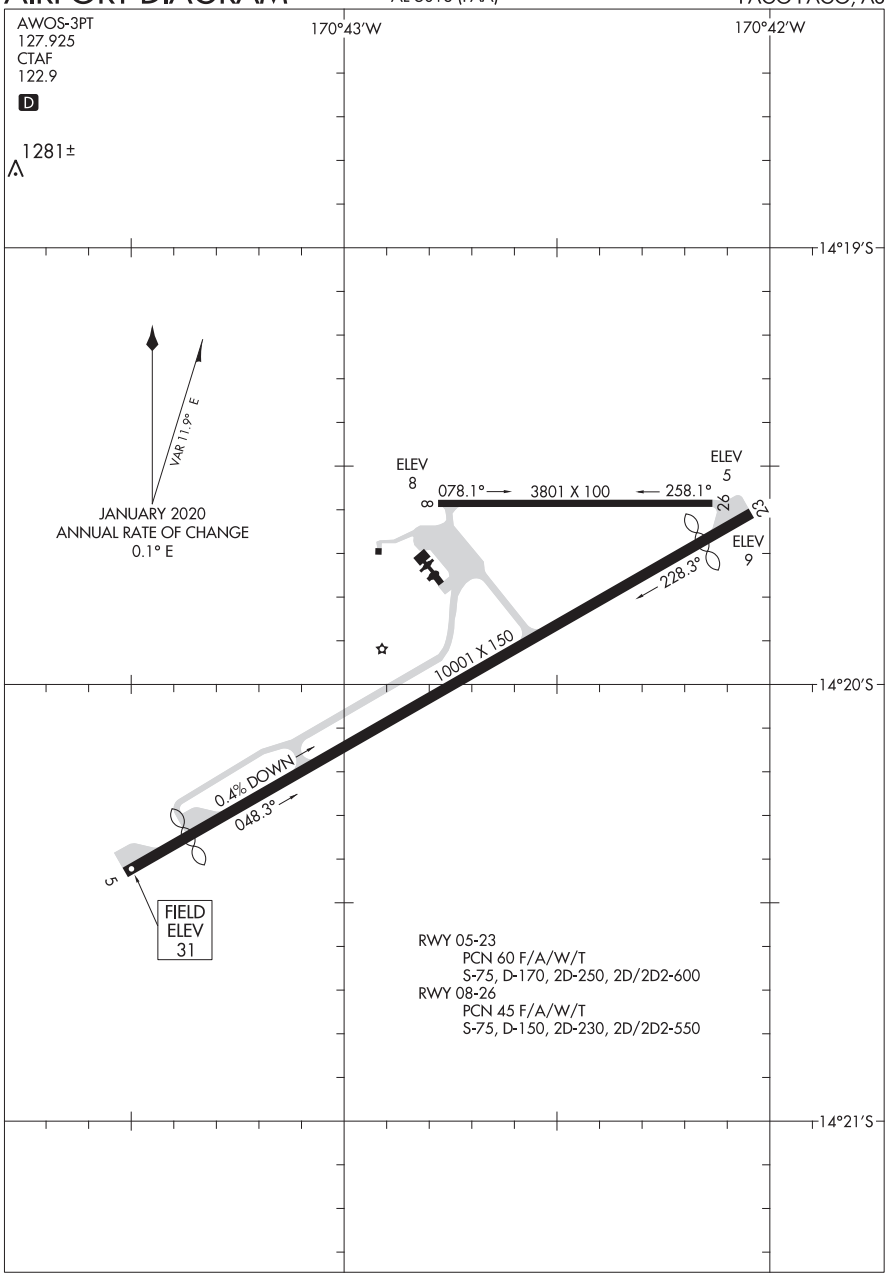
VOR or TACAN-B

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	6600
083°	TDZE	9
	Apt Elev	9

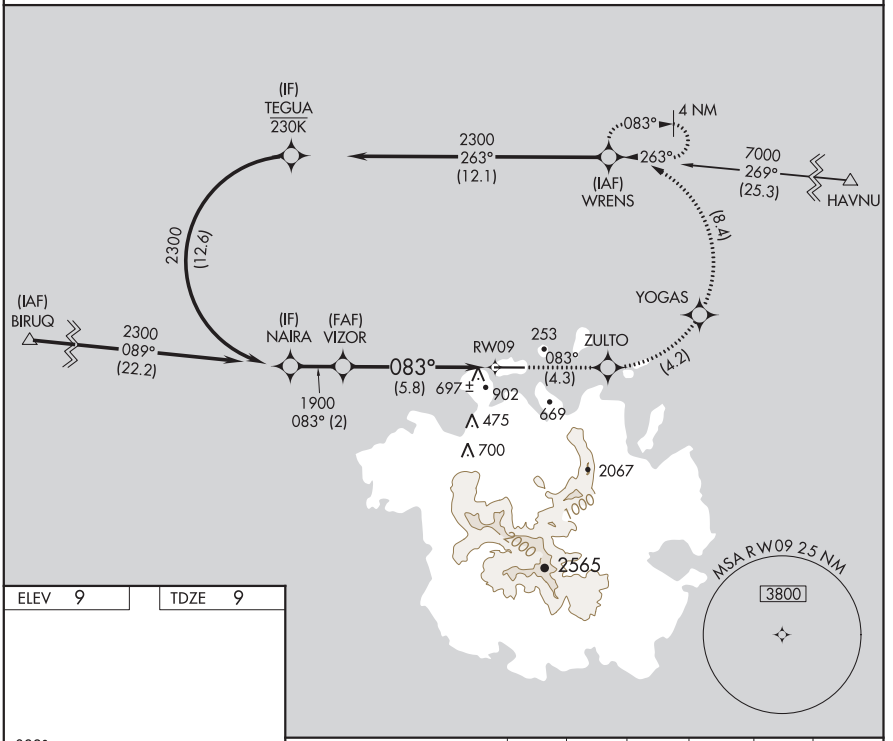
RNAV (RNP) Y RWY 9

POHNPEI INTL (PNI)(PTPN)

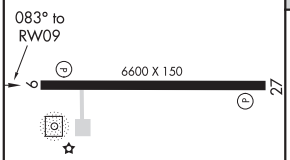
Obtain local altimeter setting on CTAF; when not received, procedure NA. For uncompensated Baro-VNAV systems, procedure NA below 20°C (68°F) or above 54°C (130°F). Missed approach requires RNP less than 1.0. RF required. GPS required. No controlled airspace below 5500 feet.

MISSED APPROACH: (Do not exceed 230K until WRENS) Climb to 2300 on the RNAV missed approach route to WRENS and hold.

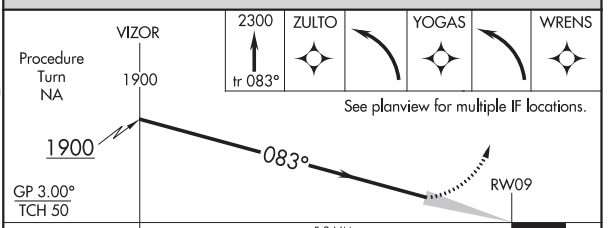
POHNPEI RADIO
123.6 (CTAF) L



ELEV 9	TDZE 9



MIRL Rwy 9-27 L
REIL Rwys 9 and 27



CATEGORY	A	B	C	D
RNP 0.30 DA	912-4 903 (1000-4)			

AUTHORIZATION REQUIRED

POHNPEI ISLAND, FM
Amdt 2A 13SEP18

06°59'N-158°13'E

POHNPEI INTL (PNI)(PTPN)
RNAV (RNP) Y RWY 9

POHNPEI ISLAND, FM | AL-6167 (FAA-O) | 22251

APP CRS	Rwy Idg	6600
083°	TDZE	9
	Apt Elev	9

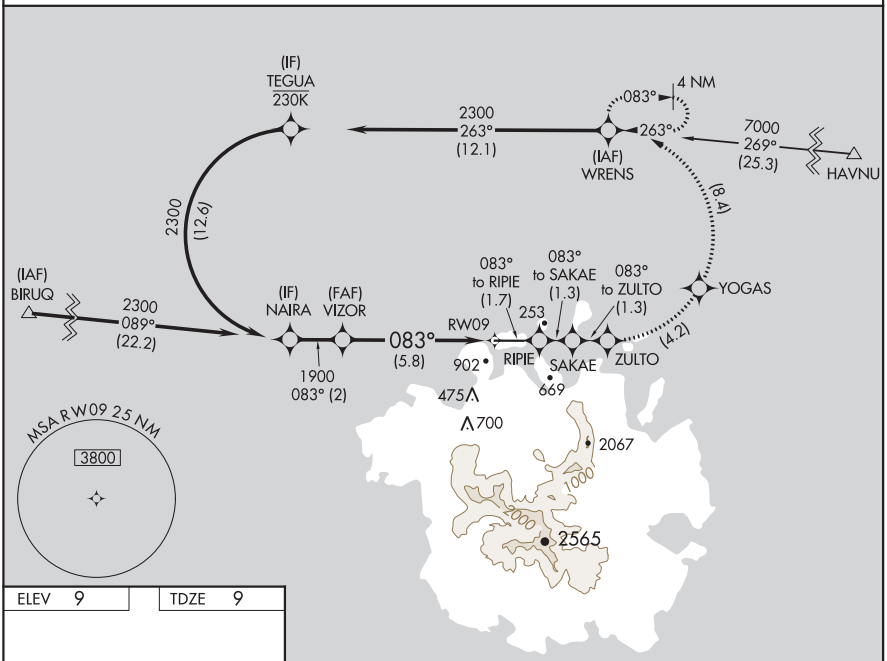
RNAV (RNP) Z RWY 9

POHNPEI INTL (PNI)(PTPN)

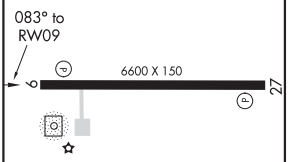
Obtain local altimeter setting on CTAF; when not received, procedure NA. For uncompensated Baro-VNAV systems, procedure NA below 20°C (68°F) or above 54°C (130°F). Missed approach requires RNP less than 1.0. RF required. GPS required. No controlled airspace below 5500 feet.

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) L



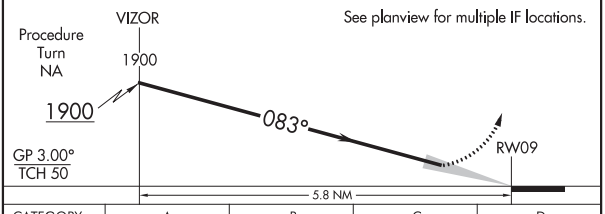
ELEV 9	TDZE 9



MIRL Rwy 9-27 L
REIL Rwys 9 and 27

2300 ↑ tr 083°	RIPIE	tr 083°	SAKAE	tr 083°	ZULTO	YOGAS	WRENS

See planview for multiple IF locations.



CATEGORY	A	B	C	D
RNP 0.15 DA	259-1 250 (300-1)			

AUTHORIZATION REQUIRED

POHNPEI ISLAND, FM
Amdt 2 27APR17

06°59'N-158°13'E

POHNPEI INTL (PNI)(PTPN)
RNAV (RNP) Z RWY 9

POHNPEI ISLAND, FM | AL-6167 (FAA) | 19283

RNAV (GPS) RWY 27

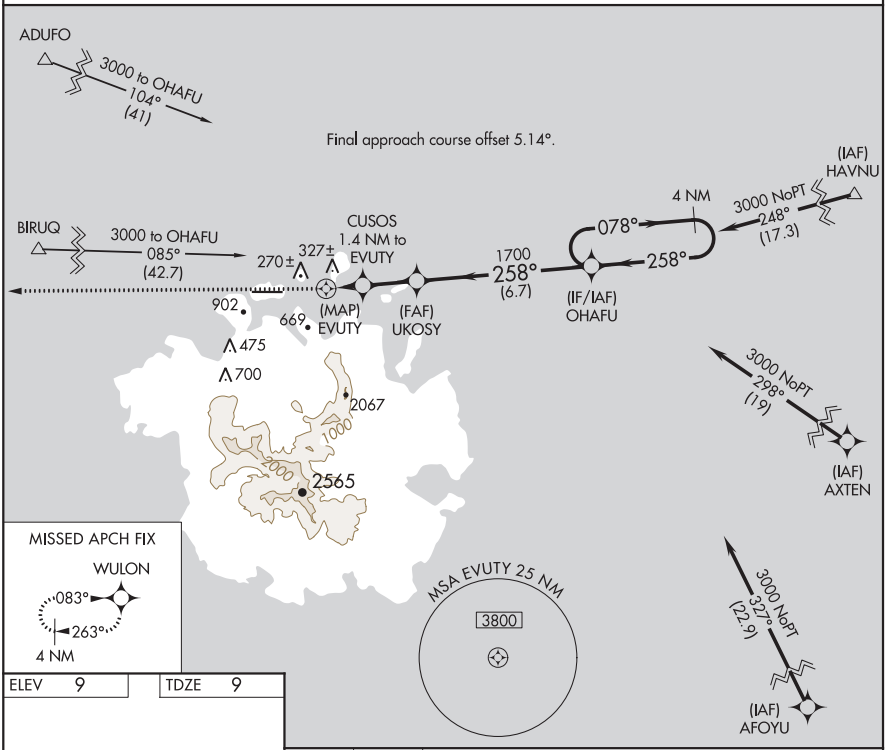
POHNPEI INTL (PNI)(PTPN)

APP CRS	Rwy Idg	6600
258°	TDZE	9
	Apt Elev	9

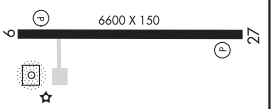
Obtain local altimeter setting on CTAF; when not received, procedure NA. Circling NA south of Rwy 9-27. Procedure NA at night except by prior arrangement for runway lights. DME/DME RNP-0.3 NA. No controlled airspace below 5500. Ships with maximum height of 150 feet MSL may traverse Pohnpei Channel 400 feet off approach end of runway 9, closing airport at times.

MISSED APPROACH: Climb to 3000 direct WULON and hold.

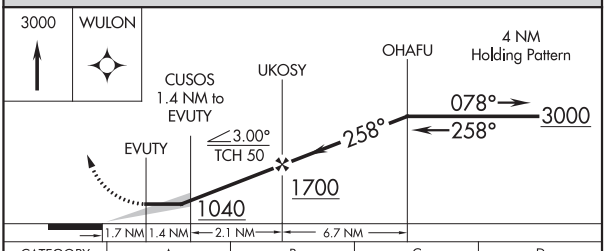
POHNPEI RADIO
123.6 (CTAF) L



ELEV 9 | TDZE 9



MIRL Rwy 9-27 L
REIL Rwys 9 and 27



CATEGORY	A	B	C	D
LNAV MDA	720-2 711 (800-2)			
C CIRCLING	720-2 711 (800-2)			720-2¼ 711 (800-2¼)

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	6600
083°	TDZE	9
	Apt Elev	9

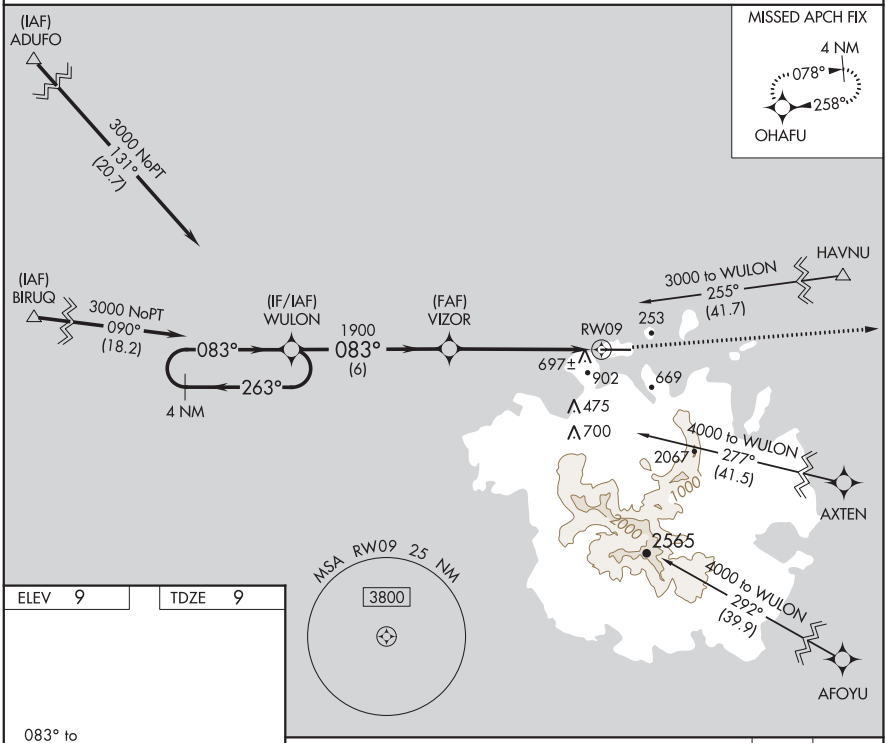
RNAV (GPS) X RWY 9

POHNPEI INTL (PNI)(PTPN)

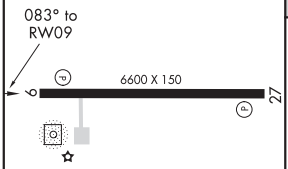
Obtain local altimeter setting on CTAF; when not received, procedure NA. Circling NA south of Rwy 9-27. Procedure NA at night except by prior arrangement for runway lights. DME/DME RNP-0.3 NA. No controlled airspace below 5500. Ships with maximum height of 150 feet MSL may traverse Pohnpei Channel 400 feet off approach end of runway, closing airport at times.

MISSED APPROACH: Climb to 3000 direct OHAFU and hold.

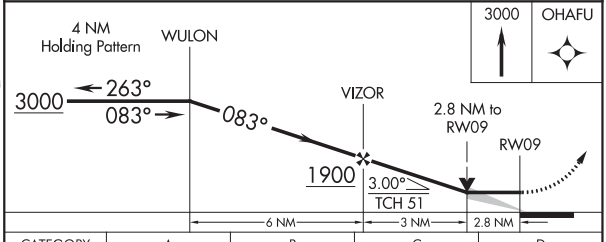
POHNPEI RADIO
123.6 (CTAF) L



ELEV 9 | TDZE 9



MIRL Rwy 9-27 L
REIL Rwys 9 and 27



CATEGORY	A	B	C	D
LNAV MDA	960-1¼ 951 (1000-1¼)	960-1½ 951 (1000-1½)	960-3	951 (1000-3)
C CIRCLING	960-1¼ 951 (1000-1¼)	960-1½ 951 (1000-1½)	960-3	951 (1000-3)

POHNPEI ISLAND, FM
Amdt 1 27APR17

06°59′N-158°13′E

POHNPEI INTL (PNI)(PTPN)
RNAV (GPS) X RWY 9

POHNPEI ISLAND, FM — AL-6167 (FAA) — 20310

NDB/DME PNI	APP CRS	Rwy Idg	N/A
366	252°	TDZE	N/A
Chan 47 (111.0)		Apt Elev	9

NDB-A

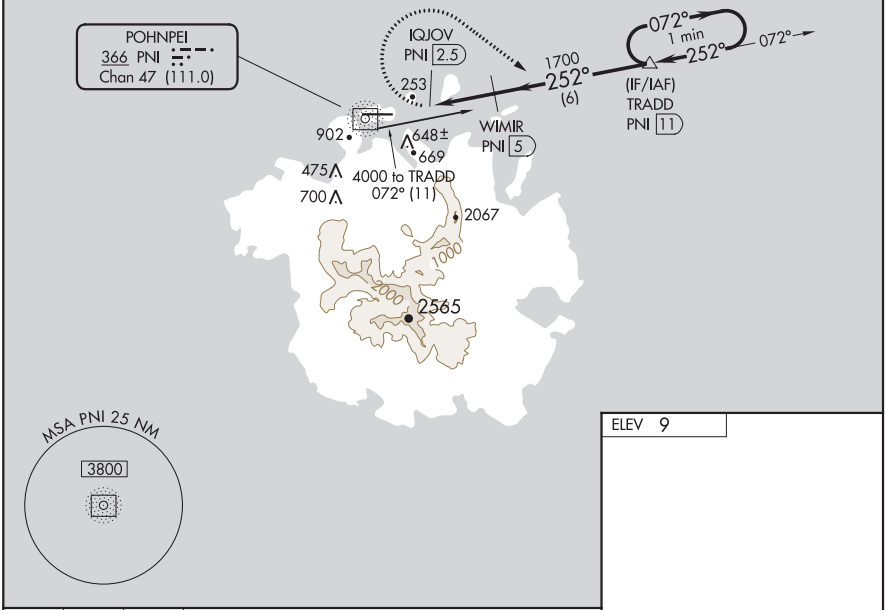
POHNPEI INTL (PNI)(PTPN)

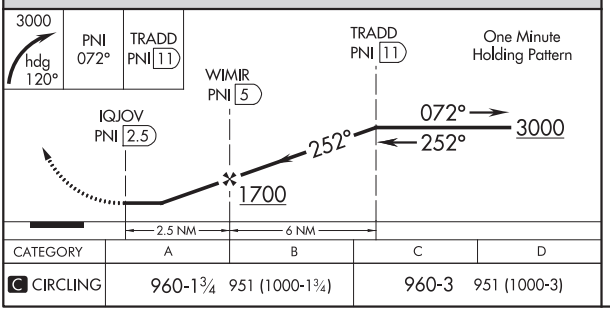
Obtain local altimeter setting on CTAF; when not received, procedure NA. Circling NA south of Rwy 9-27. Procedure NA at night except by prior arrangement for runway lights. DME required. No controlled airspace below 5500 feet. Ships with maximum height of 150 feet MSL may traverse Pohnpei Channel 400 feet off approach end of runway 9, closing airport at times.

MISSED APPROACH: Climbing right turn to 3000 on heading 120° and on PNI NDB bearing 072° to TRADD/PNI 11 DME and hold.

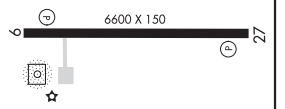
POHNPEI RADIO
123.6 (CTAF) L

DME REQUIRED





ELEV 9



CATEGORY	A	B	C	D
C CIRCLING	960-1¾ 951 (1000-1¾)		960-3 951 (1000-3)	

MIRL Rwy 9-27 L
REIL Rwys 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) | 19003

RNAV (GPS) RWY 9

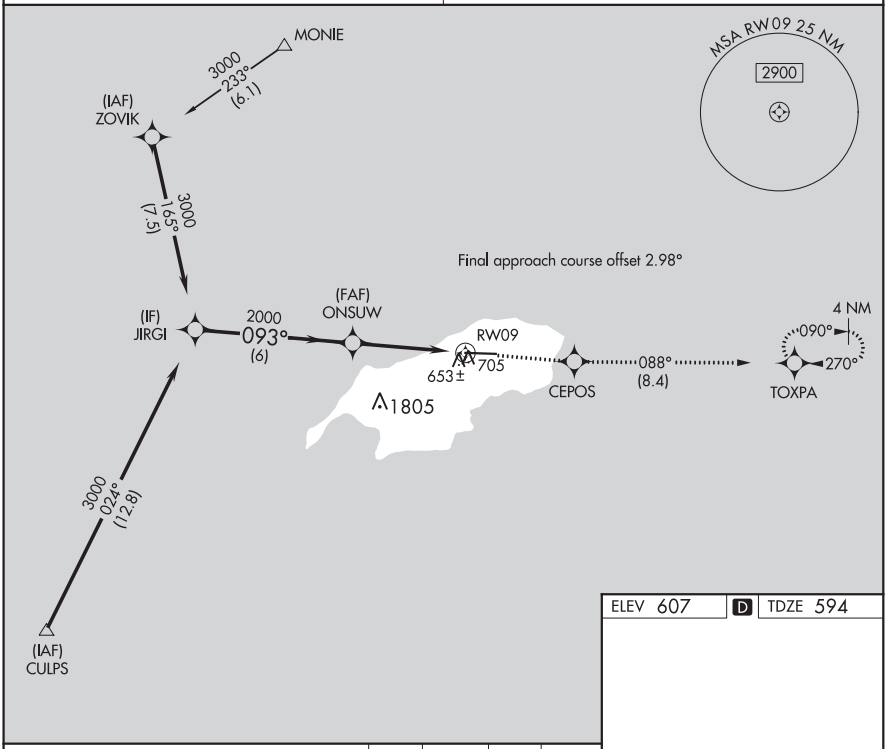
BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)

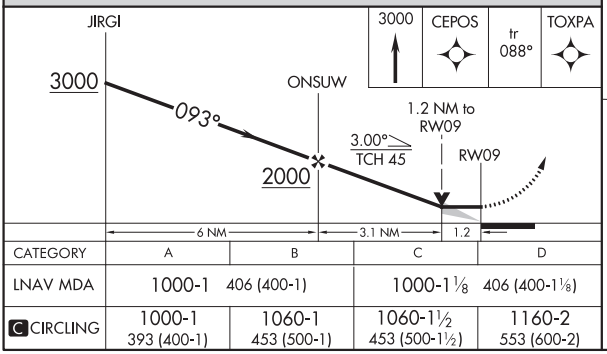
APP CRS	Rwy Idg	7000
093°	TDZE	594
	Apt Elev	607

T A 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 ⅞ mile, Circling Cat C, D visibility ¾ mile. VDP NA when using Andersen AFB altimeter setting.

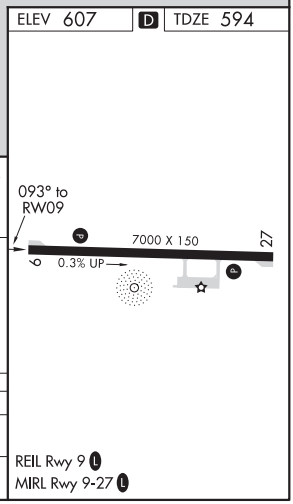
MISSED APPROACH: Climb to 3000 direct CEPOS and on track 088° to TOXPA and hold.

GUAM CENTER	CTAF
120.5 263.0	123.6 L





CATEGORY	A	B	C	D
LNAV MDA	1000-1 406 (400-1)		1000-1⅛ 406 (400-1⅛)	
C CIRCLING	1000-1 393 (400-1)	1060-1 453 (500-1)	1060-1½ 453 (500-1½)	1160-2 553 (600-2)



ROTA ISLAND, CQ
Amdt 1A 29MAY14

BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)
14°10′N-145°14′E

RNAV (GPS) RWY 9

ROTA ISLAND, CQ | AL-6596 (FAA) | 19003

APP CRS	Rwy Idg	7000
270°	TDZE	607
	Apt Elev	607

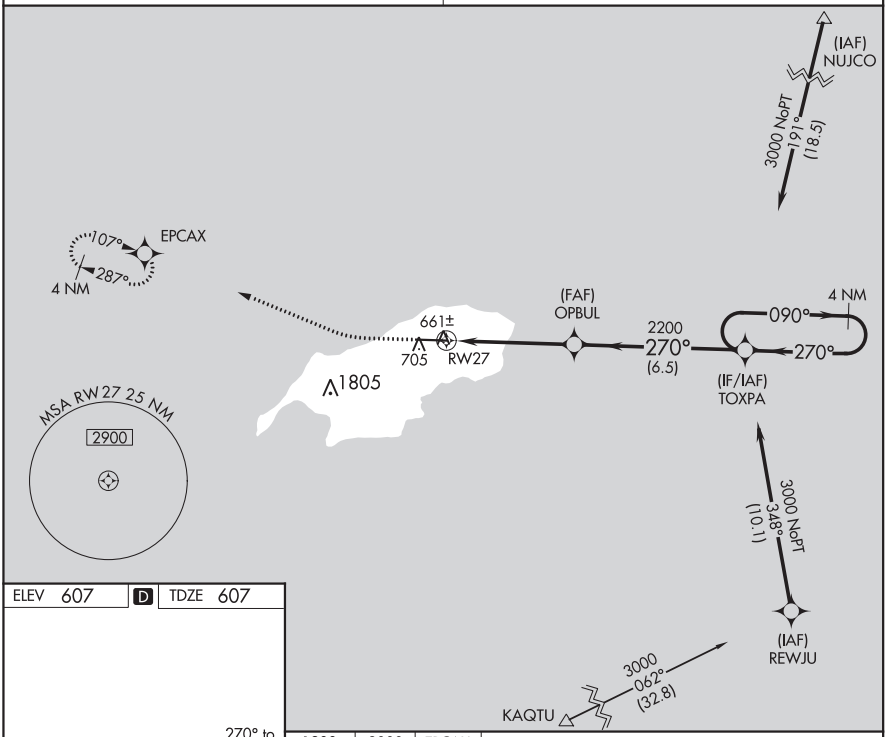
RNAV (GPS) RWY 27

BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)

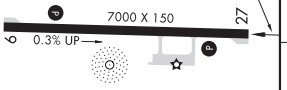
Circling NA south of Rwy 9-27. When local altimeter setting not received, use Andersen AFB altimeter setting and increase all MDA 320 feet, increase LNAV Cat B visibility ¼ mile, Cat C visibility 1⅛ mile, Cat D visibility 1 mile, Circling Cat C visibility 1 mile Cat D visibility ¾ mile. DME/DME RNP -0.3 NA.

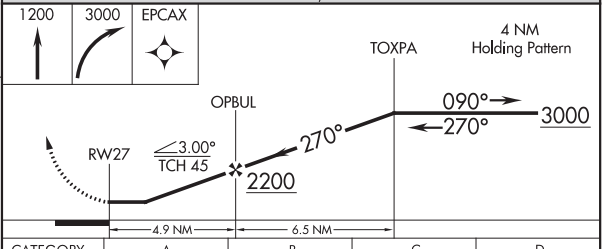
MISSED APPROACH: Climb to 1200 then climbing right turn to 3000 direct EPCAX and hold.

GUAM CENTER	CTAF
120.5 263.0	123.6 (L)



ELEV 607 | D | TDZE 607





CATEGORY	A	B	C	D
LNAV MDA	1020-1 413 (500-1)	1040-1 433 (500-1)	1100-1⅜ 493 (500-1⅜)	1140-1½ 533 (600-1½)
C CIRCLING	1020-1 413 (500-1)	1060-1 453 (500-1)	1100-1½ 493 (500-1½)	1160-2 553 (600-2)

REIL Rwy 9 (L)
MIRL Rwy 9-27 (L)

ROTA 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) | 20310

NDB GRO 332	APP CRS 104°	Rwy Idg 7000 / TDZE 594 / Apt Elev 607

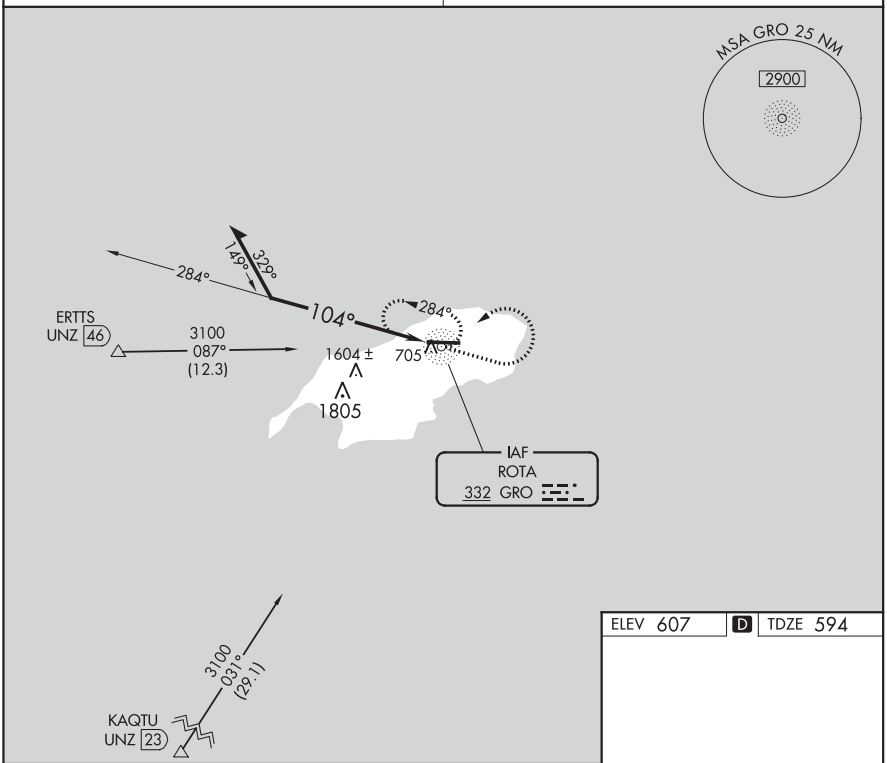
NDB RWY 9

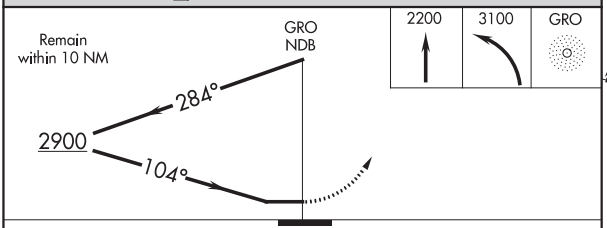
BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)

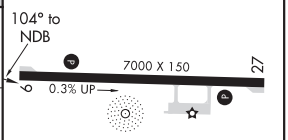
When local altimeter setting not received, use Andersen AFB altimeter setting and increase all MDA 320 feet. Circling NA south of Rwy 9-27.

MISSED APPROACH: Climb to 2200 then climbing left turn to 3100 direct GRO NDB and hold.

GUAM CENTER	CTAF
120.5 263.0	123.6 L







CATEGORY	A	B	C	D
S-9	1800-1¼ 1206 (1200-1¼)	1800-1½ 1206 (1200-1½)	1800-3	1206 (1200-3)
C CIRCLING	1800-1¼ 1193 (1200-1¼)	1800-1½ 1193 (1200-1½)	1800-3	1193 (1200-3)

REIL Rwy 9 L
MIRL Rwy 9-27 L

ROTA ISLAND, CQ
Amdt 4A 22JUN17

BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)
14°10'N-145°14'E

NDB RWY 9

ROTA ISLAND, CQ AL-6596 (FAA) 20310

NDB GRO 332	APP CRS 260°	Rwy Idg 7000 TDZE 607 Apt Elev 607

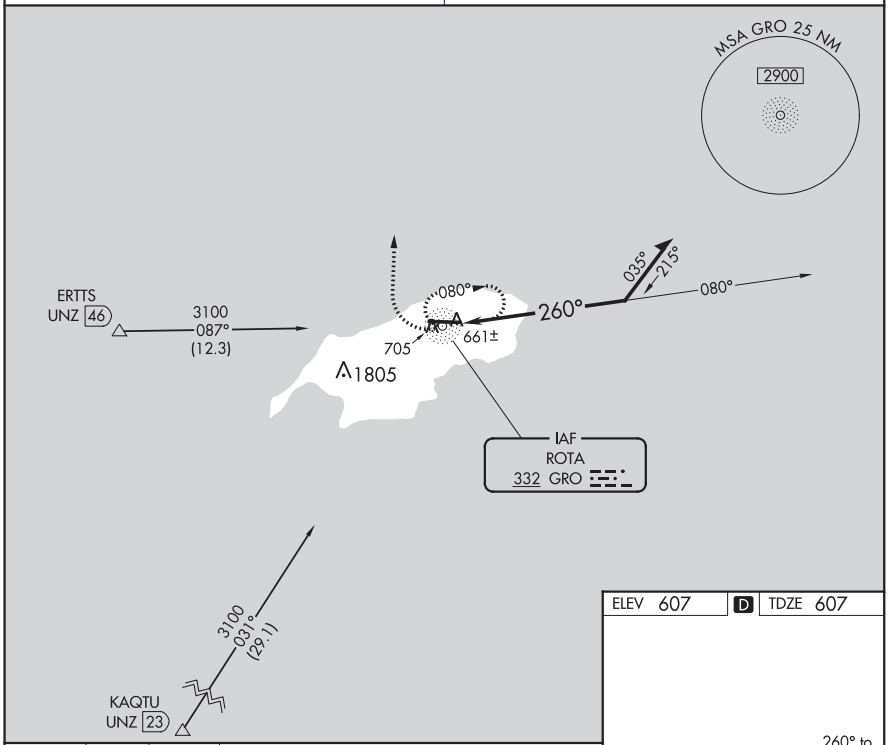
NDB RWY 27

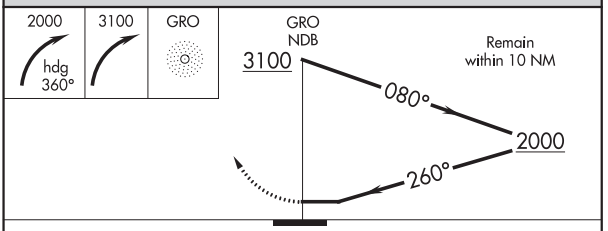
BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)

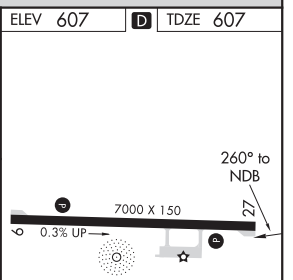
When local altimeter setting not received, use Andersen AFB altimeter setting and increase all MDA 320 feet, increase S-27 Cat B visibility ¼ mile, Cat C, D visibility 1⅛ mile, Circling Cat A, B visibility ¼ mile, Cat C 1 mile, Cat D ¾ mile. Circling NA south of Rwy 9-27.

MISSED APPROACH: Climbing right turn to 2000 on heading 360° then continue climbing right turn to 3100 direct GRO NDB and hold.

GUAM CENTER	CTAF
120.5 263.0	123.6 L







CATEGORY	A	B	C	D
S-27	1120-1	513 (600-1)	1120-1⅜	513 (600-1⅜)
C CIRCLING	1120-1	513 (600-1)	1120-1½ 513 (600-1½)	1160-2 553 (600-2)

REIL Rwy 9 L
MIRL Rwy 9-27 L

ROTA ISLAND, CQ
Amdt 4A 02MAR17

BENJAMIN TAISACAN MANGLONA INTL (GRO)(PGRO)
14°10′N-145°14′E

NDB RWY 27

SAIPAN ISLAND, CQ | AL-6293 (FAA) | 23222

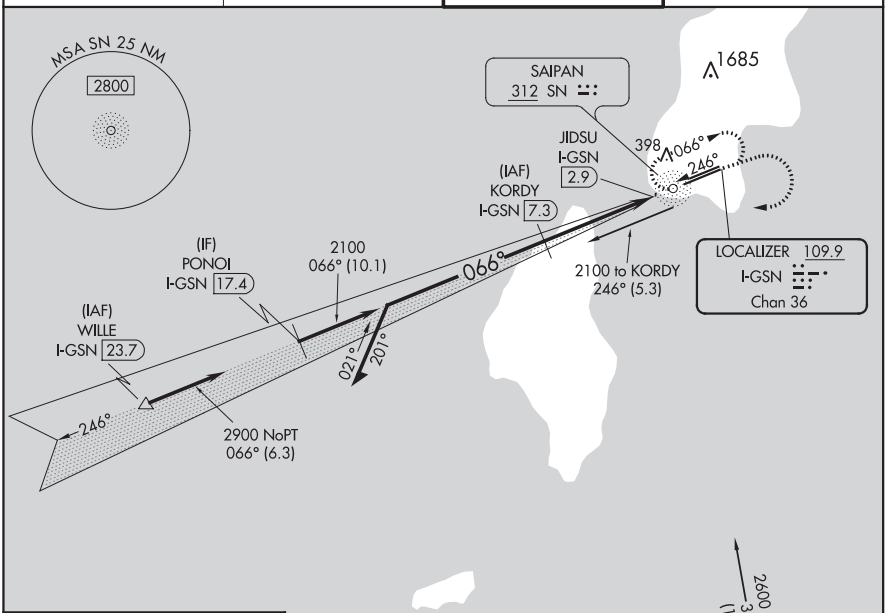
LOC/DME I-GSN	APP CRS	Rwy Idg	8010
109.9	066°	TDZE	215
Chan 36		Apt Elev	215

ILS or LOC RWY 7

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

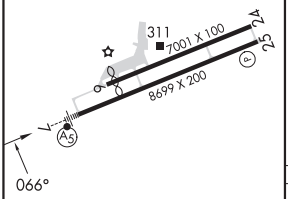
V A NA: Circling NA north of Rwy 6-24. ADF and DME required.	MALSR	MISSED APPROACH: Climb to 1600 then climbing right turn to 2800 direct SN NDB and hold.	

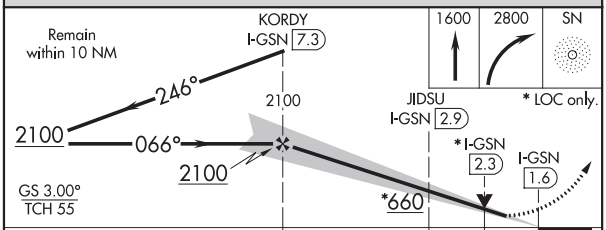
ATIS	GUAM CERAP	SAIPAN TOWER	GND CON
127.2	118.4 290.5	125.7 256.9	121.8



ELEV 215 | D | TDZE 215

DME REQUIRED





CATEGORY	A	B	C	D
S-ILS 7	415-½ 200 (200-½)			
S-LOC 7	480-½ 265 (300-½)			
C CIRCLING	720-1 505 (600-1)		720-1½ 505 (600-1½)	780-2 565 (600-2)

REIL Rwys 7 and 25
HIRL Rwy 7-25
MIRL Rwy 6-24

SAIPAN ISLAND, CQ
Amdt 6 02MAR17

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)
15°07'N-145°44'E
ILS or LOC RWY 7

SAIPAN ISLAND, CQ AL-6293 (FAA) 23222

RNAV (GPS) RWY 7

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

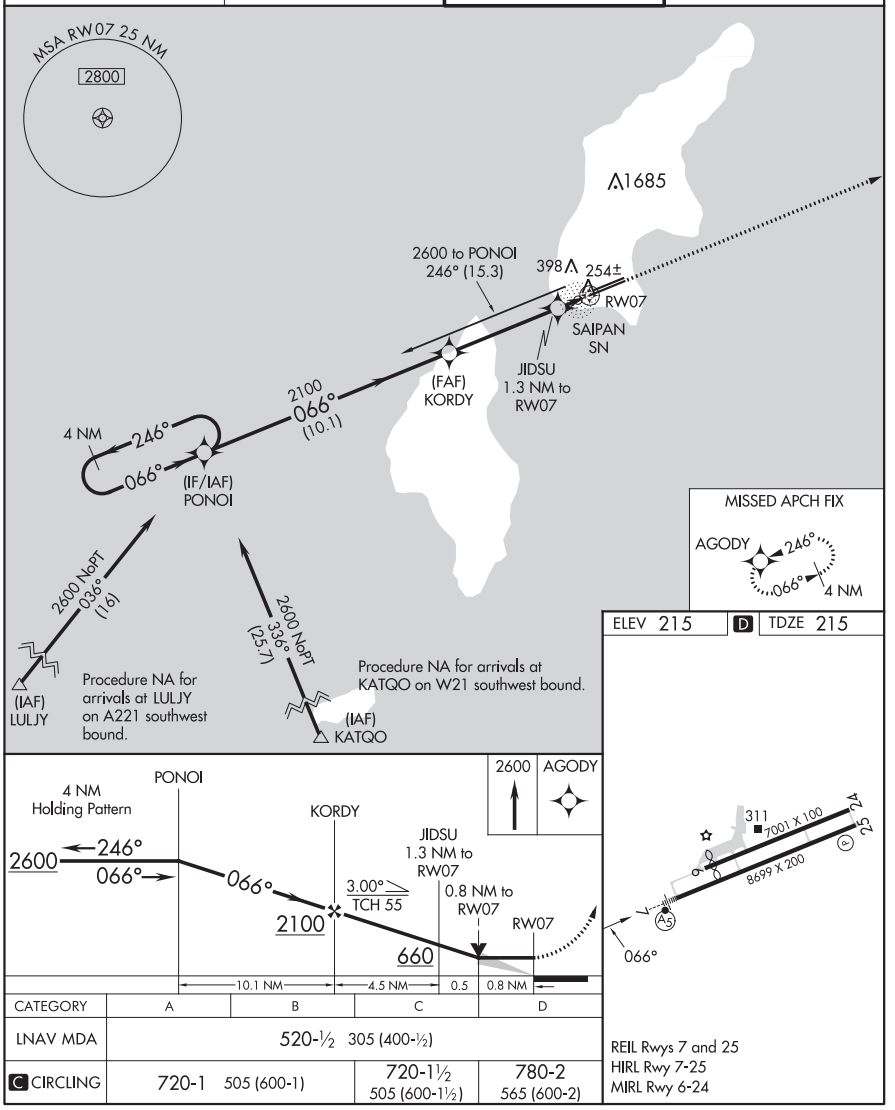
APP CRS	Rwy Idg	8010
066°	TDZE	215
	Apt Elev	215

Circling NA north of Rwy 6-24.
DME/DME RNP-0.3 NA.

MALSR

MISSED APPROACH: Climb 2600 direct AGODY and hold.

ATIS	GUAM CERAP	SAIPAN TOWER	GND CON
127.2	118.4 290.5	125.7 256.9	121.8



CATEGORY	A	B	C	D
LNAV MDA	520-½ 305 (400-½)			
C CIRCLING	720-1 505 (600-1)		720-1½ 505 (600-1½)	780-2 565 (600-2)

REIL Rwys 7 and 25
HIRL Rwy 7-25
MIRL Rwy 6-24

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	Rwy Idg	8010
246°	TDZE	210
	Apt Elev	215

RNAV (GPS) RWY 25

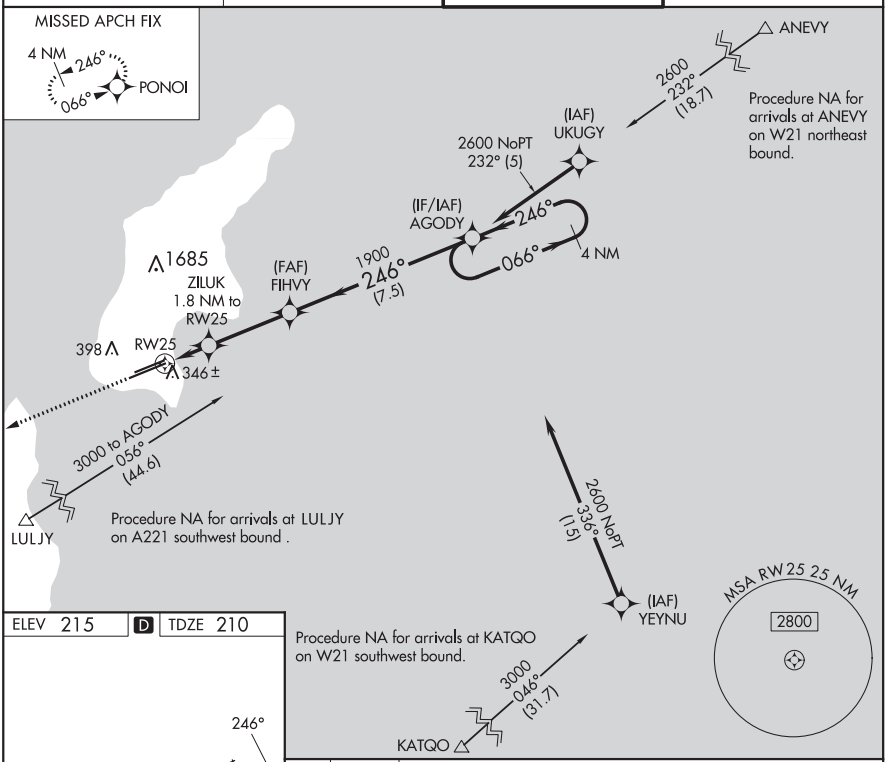
FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

RNP APCH - GPS.

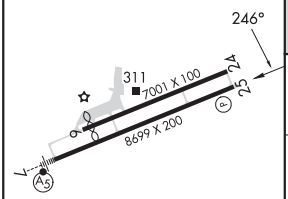
Circling NA north of Rwy 6-24. Rwy 25 helicopter visibility reduction below ¾ NA.

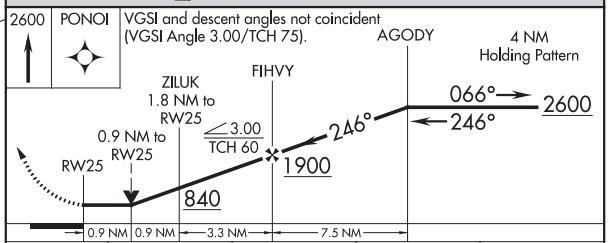
MISSED APPROACH: Climb to 2600 direct PONOI and hold.

ATIS	GUAM CERAP	SAIPAN TOWER	GND CON
127.2	118.4 290.5	125.7 256.9	121.8



ELEV 215 | D | TDZE 210





CATEGORY	A	B	C	D
LNAV MDA	600-1 390 (400-1)		600-1⅛ 390 (400-1⅛)	
C CIRCLING	720-1 505 (600-1)		720-1½ 505 (600-1½)	780-2 565 (600-2)

REIL Rwys 7 and 25
HIRL Rwy 7-25
MIRL Rwy 6-24

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	APP CRS	Rwy Idg	8010
312	246°	TDZE	210
		Apt Elev	215

NDB RWY 25

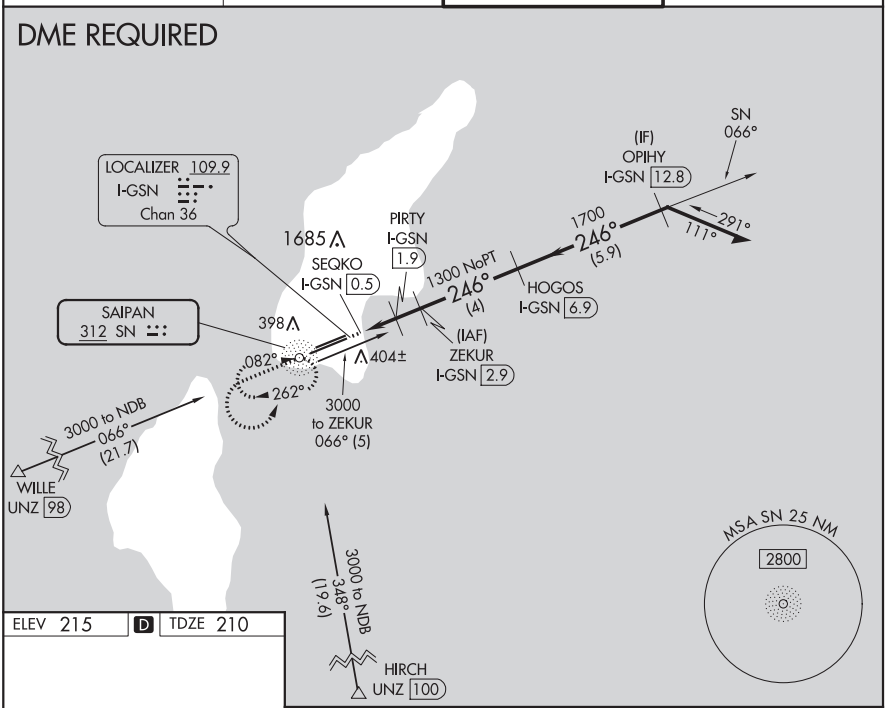
FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

Circling NA north of Rwy 6-24.
Rwy 25 helicopter visibility reduction below ¾ SM NA.
DME required.

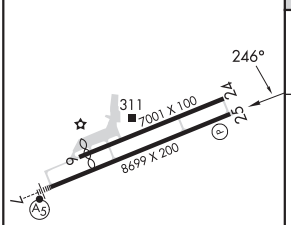
MISSED APPROACH: Climb to 2000 then climbing left turn to 2800 direct SN NDB and hold.

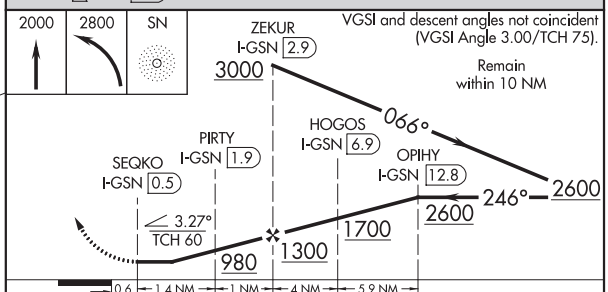
ATIS	GUAM CERAP	SAIPAN TOWER	GND CON
127.2	118.4 290.5	125.7 256.9	121.8

DME REQUIRED



ELEV 215 D TDZE 210





CATEGORY	A	B	C	D
S-25	720-1 510 (600-1)		720-1⅜ 510 (600-1⅜)	
C CIRCLING	720-1 505 (600-1)		720-1½ 505 (600-1½)	780-2 565 (600-2)

REIL Rwys 7 and 25
HIRL Rwy 7-25
MIRL Rwy 6-24

SAIPAN ISLAND, CQ
Amdt 3A 03JAN19

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)
15°07'N-145°44'E
NDB RWY 25

SAIPAN ISLAND, CQ | AL-6293 (FAA) | 23222

NDB Y RWY 7

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

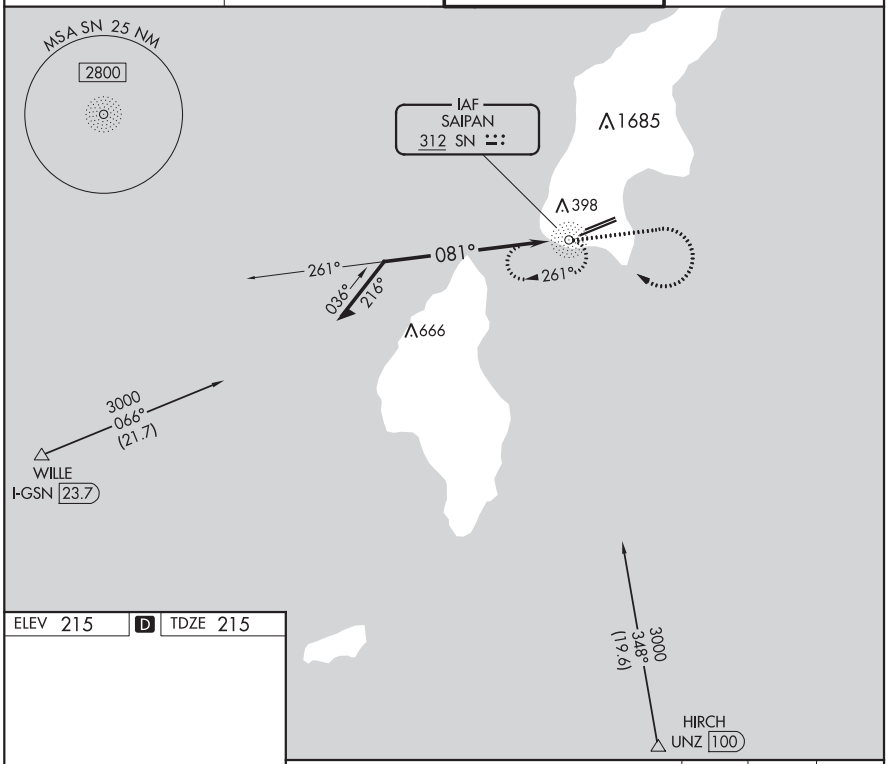
NDB SN	APP CRS	Rwy Idg	8010
312	081°	TDZE	215
		Apt Elev	215

Circling NA north of Rwy 6-24.

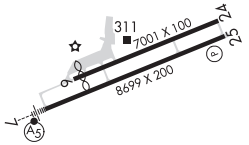
MALSR

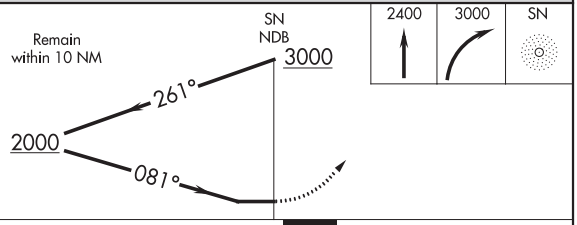
MISSED APPROACH: Climb to 2400 then climbing right turn to 3000 direct SN NDB and hold.

ATIS	GUAM CERAP	SAIPAN TOWER	GND CON
127.2	118.4 290.5	125.7 256.9	121.8



ELEV 215 | D | TDZE 215





CATEGORY	A	B	C	D
S-7	900-¾ 685 (700-¾)		900-1½ 685 (700-1½)	
C CIRCLING	900-1 685 (700-1)		900-2 685 (700-2)	900-2¼ 685 (700-2¼)

REIL Rwys 7 and 25
HIRL Rwy 7-25
MIRL Rwy 6-24

SAIPAN ISLAND, CQ
Amdt 6 02MAR17

FRANCISCO 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	APP CRS	Rwy Idg	8010
312	066°	TDZE	215
		Apt Elev	215

NDB Z RWY 7

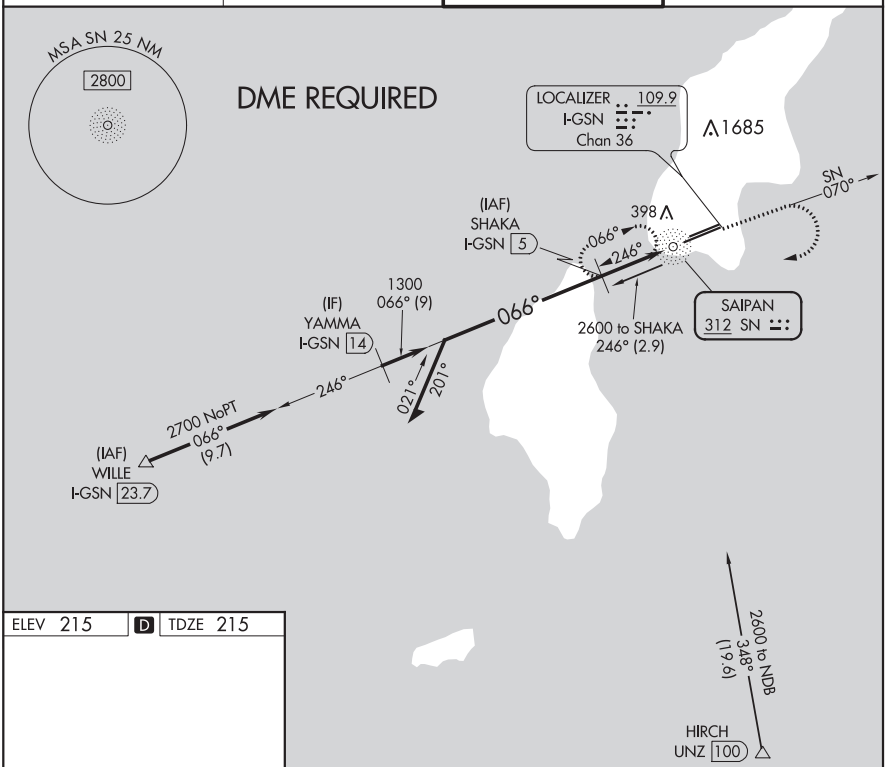
FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

Circling NA north of Rwy 6-24. DME required.

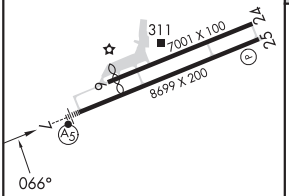
MALSR

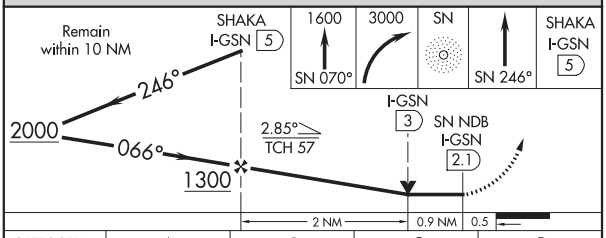
MISSED APPROACH: Climb to 1600 on SN NDB bearing 070° then climbing right turn to 3000 direct SN NDB then on SN NDB bearing 246° to SHAKA/I-GSN 5 DME and hold.

ATIS	GUAM CERAP	SAIPAN TOWER	GND CON
127.2	118.4 290.5	125.7 256.9	121.8



ELEV 215 | D | TDZE 215





CATEGORY	A	B	C	D
S-7	760-¾ 545 (600-¾)		760-1⅛ 545 (600-1⅛)	
C CIRCLING	760-1 545 (600-1)		760-1⅝ 545 (600-1⅝)	780-2 565 (600-2)

REIL Rwys 7 and 25
HIRL Rwy 7-25
MIRL Rwy 6-24

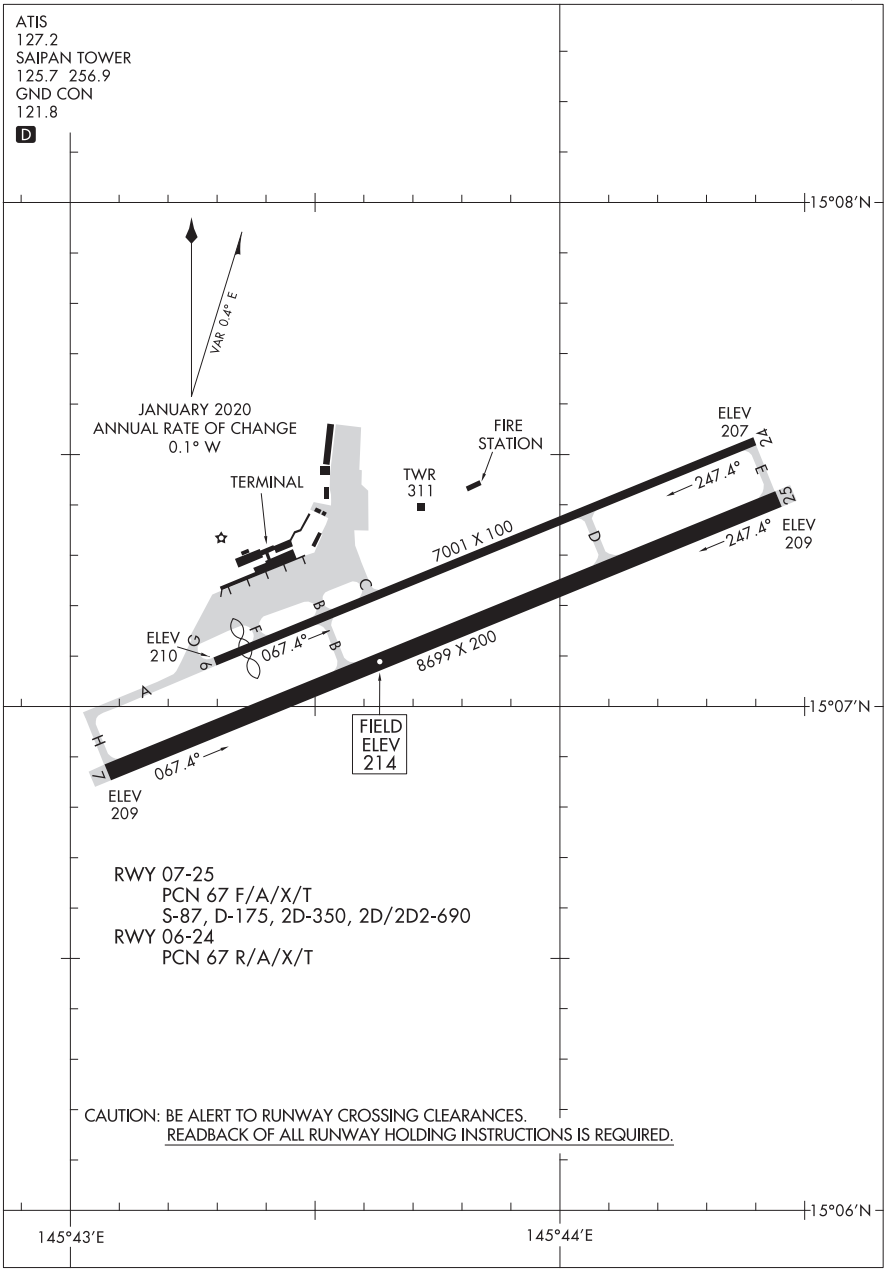
SAIPAN ISLAND, CQ
Amdt 4 02MAR17

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)
15°07'N-145°44'E
NDB Z RWY 7

22027

AIRPORT DIAGRAM

FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)
AL-6293 (FAA)
SAIPAN ISLAND, CQ



AIRPORT DIAGRAM

22027

SAIPAN ISLAND, CQ
FRANCISCO C ADA/SAIPAN INTL (GSN)(PGSN)

TINIAN ISLAND, CQ | AL-6848 (FAA) | 23222

RNAV (GPS) RWY 8

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

APP CRS	Rwy Idg	8600
078°	TDZE	243
	Apt Elev	270

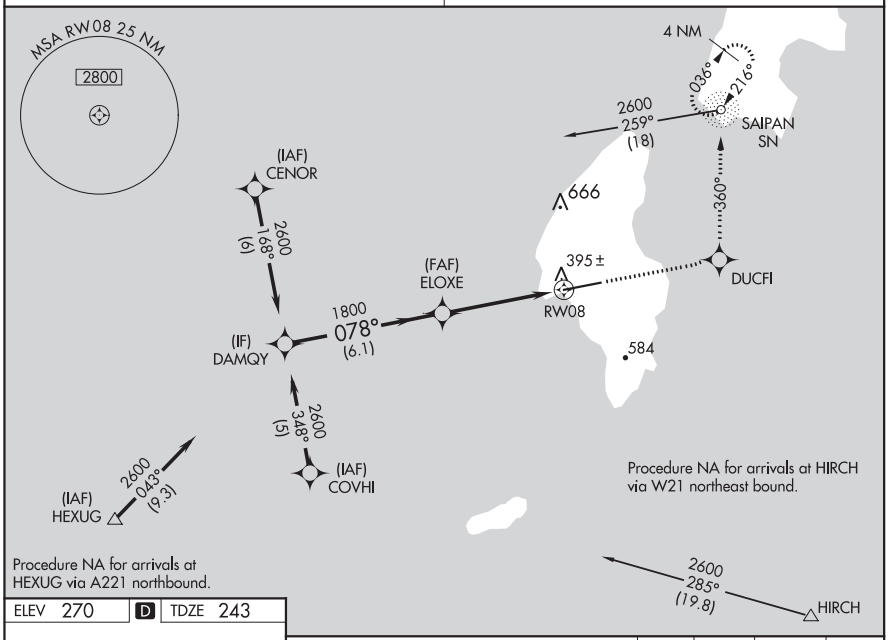
RNP APCH.

Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting.
VDP NA when using Saipan altimeter setting.

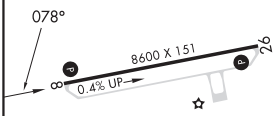
MISSED APPROACH: Climb to 2800 direct DUCFI and via 360° track to SN NDB and hold, continue climb-in-hold to 2800.

GUAM APP CON
118.4 290.5

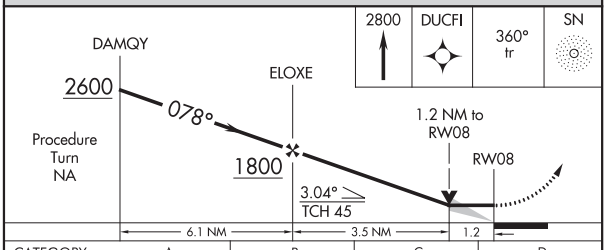
SAIPAN RADIO
123.6 (CTAF) L



ELEV 270 | D | TDZE 243



MIRL Rwy 8-26 L
REIL Rwys 8 and 26 L



CATEGORY	A	B	C	D
LNAV MDA	660-1 417 (400-1)		660-1¼ 417 (400-1¼)	
C CIRCLING	760-1 490 (500-1)	860-1 590 (600-1)	1000-2 730 (800-2)	1060-2½ 790 (800-2½)
SAIPAN ALTIMETER SETTING MINIMUMS				
LNAV MDA	680-1 437 (500-1)		680-1¼ 437 (500-1¼)	680-1½ 437 (500-1½)
C CIRCLING	800-1 530 (600-1)	900-1 630 (700-1)	1040-2¼ 770 (800-2¼)	1100-2¾ 830 (900-2¾)

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) | 23222

RNAV (GPS) RWY 26

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

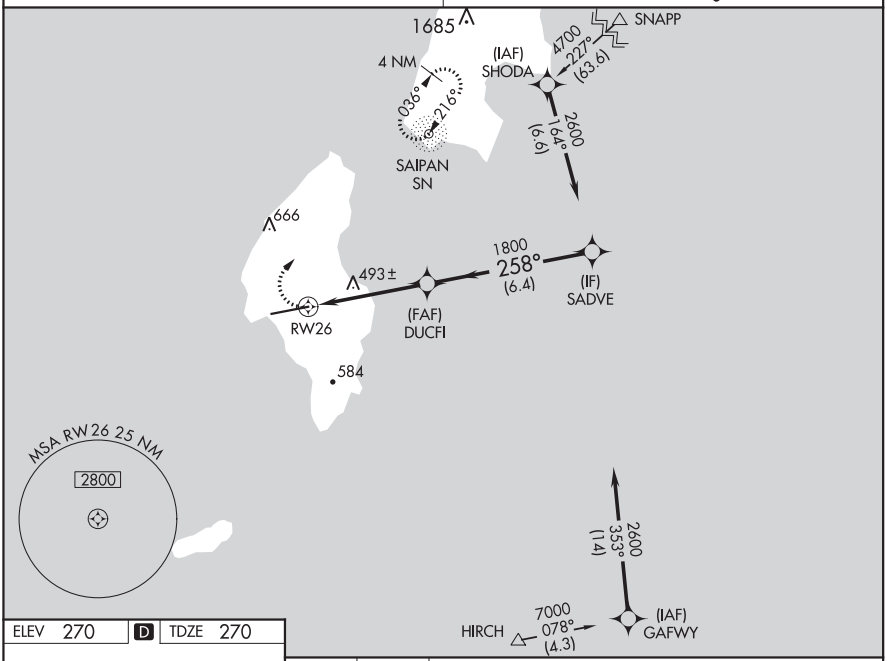
APP CRS		
258°	Rwy Idg	8600
	TDZE	270
	Apt Elev	270

RNP APCH.

T Obtain local altimeter setting on CTAF; when not received, use Saipan
A altimeter setting. VDP NA when using Saipan altimeter setting.

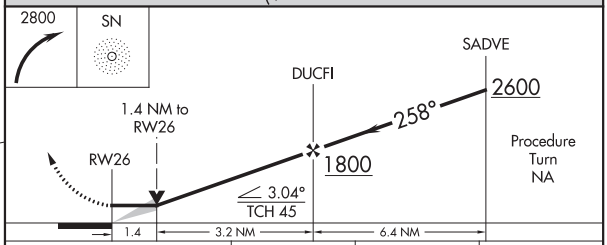
MISSED APPROACH: Climbing right turn to 2800 direct SN NDB and hold, continue climb-in-hold to 2800.

GUAM APP CON	SAIPAN RADIO
118.4 290.5	123.6 (CTAF) L



ELEV 270 | D | TDZE 270

MIRL Rwy 8-26 L
REIL Rwys 8 and 26 L



CATEGORY	A	B	C	D
LNAV MDA	760-1 490 (500-1)		760-1¼ 490 (500-1¼)	760-1½ 490 (500-1½)
C CIRCLING	760-1 490 (500-1)	860-1 590 (600-1)	1000-2 730 (800-2)	1060-2½ 790 (800-2½)
SAIPAN ALTIMETER SETTING MINIMUMS				
LNAV MDA	780-1 510 (600-1)		780-1½ 510 (600-1½)	
C CIRCLING	800-1 530 (600-1)	900-1 630 (700-1)	1040-2¼ 770 (800-2¼)	1100-2¾ 830 (900-2¾)

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) 23222

SN NDB	APP CRS	Rwy Idg	N/A
312	216°	TDZE	N/A
		Apt Elev	270

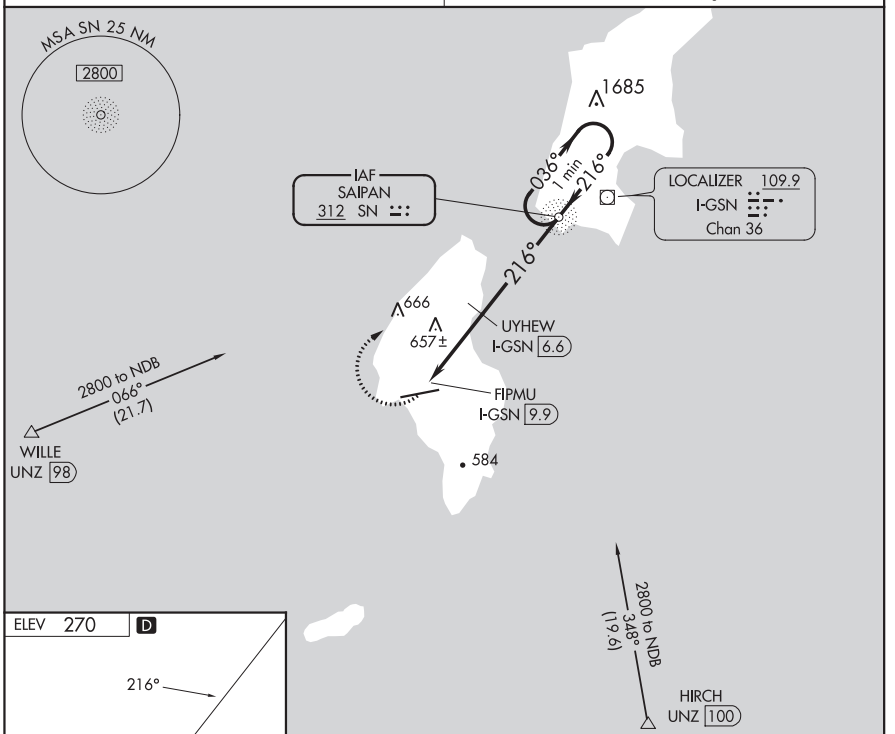
NDB-A

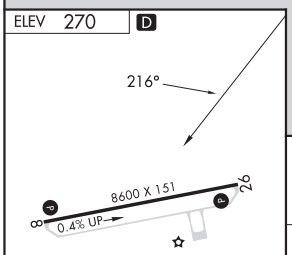
FRANCISCO MANGLONA BORJA/TINIAN INTL (TNI)(PGWT)

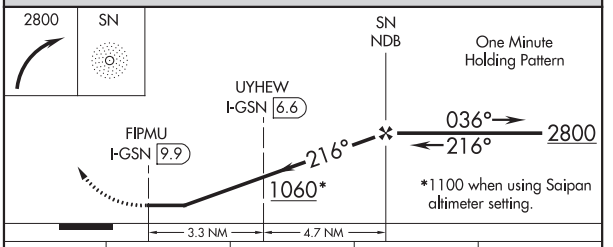
V A NA — Obtain local altimeter setting on CTAF; when not received, use Saipan altimeter setting and increase all MDA 40 feet, and all Cats visibility ¼ SM. Increase UYHEW fix minimums Cats C and D visibility ¼ mile.
DME from I-GSN LOC/DME.

MISSED APPROACH: Climbing right turn to 2800 direct SN NDB and hold.

GUAM APP CON	SAIPAN RADIO
118.4 290.5	123.6 (CTAF) L







MIRL Rwy 8-26 L
REIL Rwys 8 and 26 L

FAF to MAP 8 NM					
Knots	60	90	120	150	180
Min:Sec	8:00	5:20	4:00	3:12	2:40

CATEGORY	A	B	C	D
C CIRCLING	1060-1	790 (800-1)	1060-2¼ 790 (800-2¼)	1060-2½ 790 (800-2½)
# UYHEW FIX MINIMUMS				
C CIRCLING	1000-1	730 (800-1)	1000-2 730 (800-2)	1060-2½ 790 (800-2½)

TINIAN ISLAND, CQ
Amdt 3A 20JUN19

FRANCISCO MANGLONA BORJA/TINIAN INTL (TNI)(PGWT)
15°00'N-145°37'E
NDB-A

WENO ISLAND, FM | AL-2655 (FAA) | 22027

RNAV (GPS) RWY 4

CHUUK INTL (TKK) (PTKK)

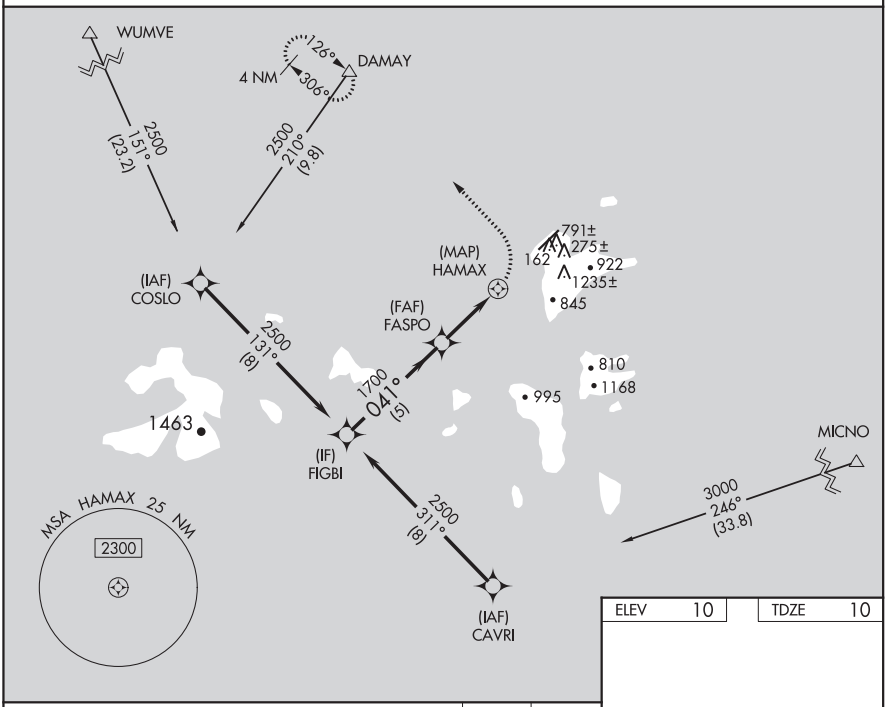
APP CRS	Rwy Idg	6013
041°	TDZE	10
	Apt Elev	10

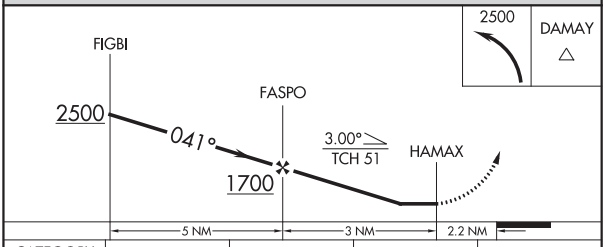
RNP APCH.

Obtain local altimeter setting on CTAF; when not received, procedure NA.
Circling NA southeast of Rwy 4-22.
No controlled airspace below 5500.

MISSED APPROACH: Climbing left turn to 2500 direct DAMAY and hold.
* Missed approach requires minimum climb of 375 feet per NM to 960.

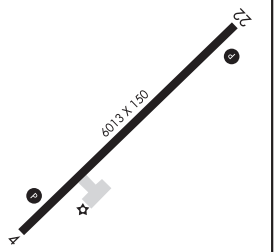
TRUK RADIO
123.6 L (CTAF)





CATEGORY	A	B	C	D
LNAV MDA*	420-3	410 (500-3)		
LNAV MDA	620-3	610 (700-3)		
C CIRCLING	620-3	610 (700-3)		

ELEV 10 | TDZE 10



MIRL Rwy 4-22 L
REIL Rwys 4 and 22 L

WENO ISLAND, FM
Amdt 1A 28FEB19

07°28′N-151°51′E

CHUUK INTL (TKK) (PTKK)
RNAV (GPS) RWY 4

WENO ISLAND, FM | AL-2655 (FAA) | 22027

RNAV (GPS) RWY 22

CHUUK INTL (TKK) (PTKK)

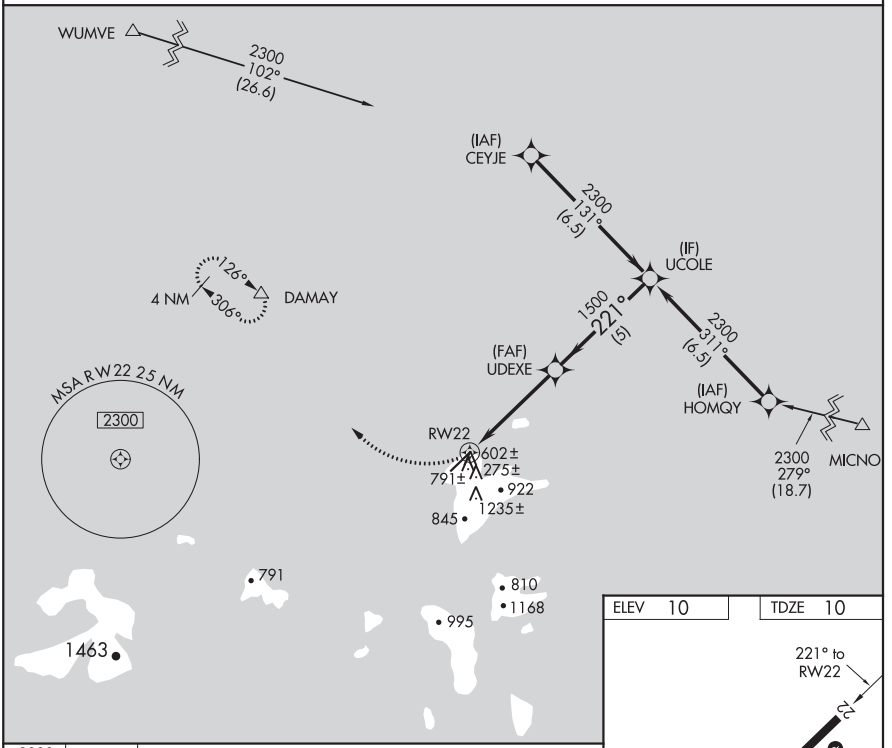
APP CRS	Rwy Idg	6013
221°	TDZE	10
	Apt Elev	10

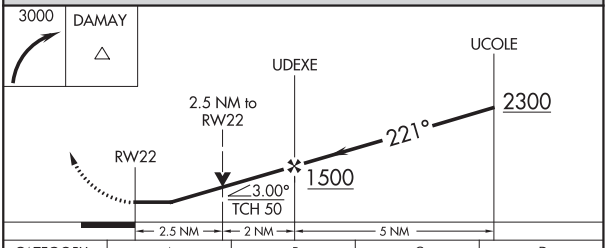
RNP APCH.

Circling NA southeast of Rwy 4-22.
Obtain local altimeter setting on CTAF; when not received, procedure NA.
No controlled airspace below 5500.

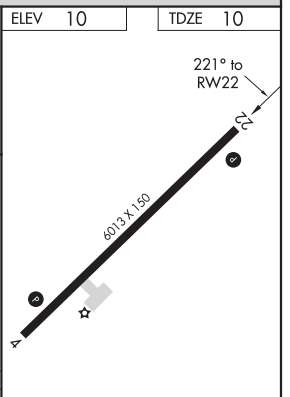
MISSED APPROACH: Climbing right turn to 3000 direct DAMAY and hold.

TRUK RADIO
123.6 L (CTAF)





CATEGORY	A	B	C	D
LNAV MDA	860-1 850 (900-1)	860-1¼ 850 (900-1¼)	860-2½ 850 (900-2½)	
C CIRCLING	860-1¼ 850 (900-1¼)		860-2½ 850 (900-2½)	860-2¾ 850 (900-2¾)



MIRL Rwy 4-22 L
REIL Rwys 4 and 22 L

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 375 Chan 111 (116.4)	APP CRS 054°	Rwy Idg 6013 TDZE 10 Apt Elev 10

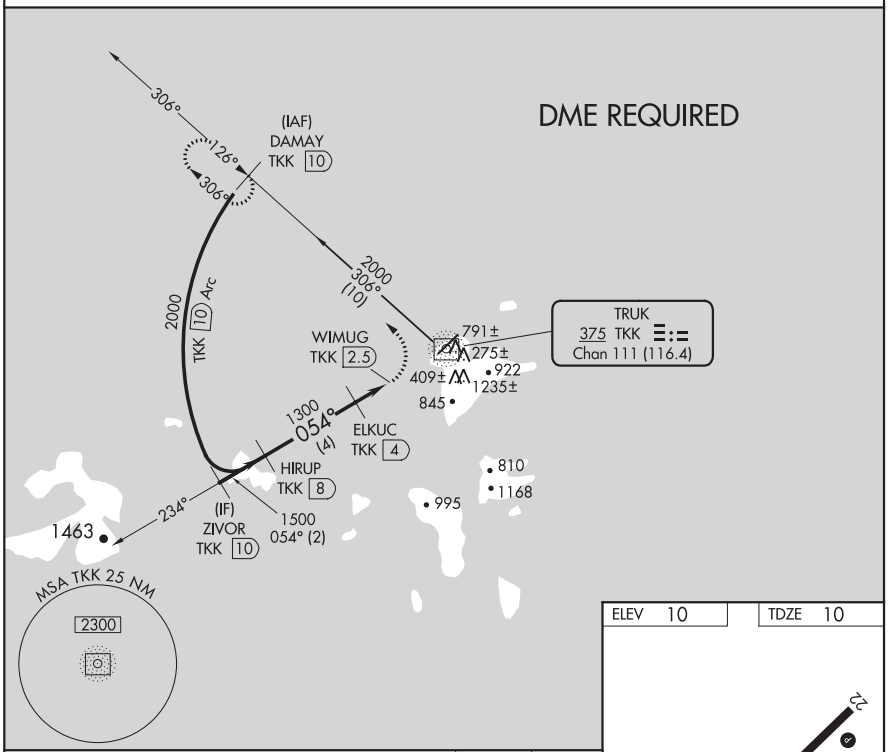
NDB RWY 4

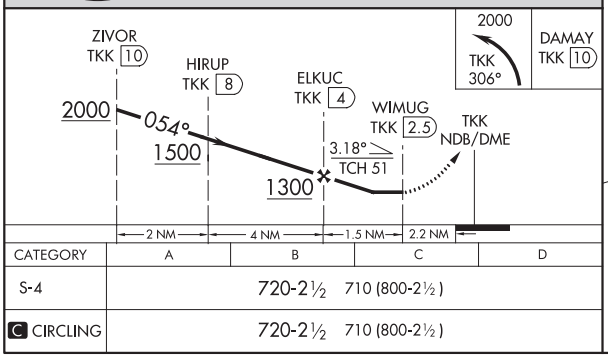
CHUUK INTL (TKK) (PTKK)

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.

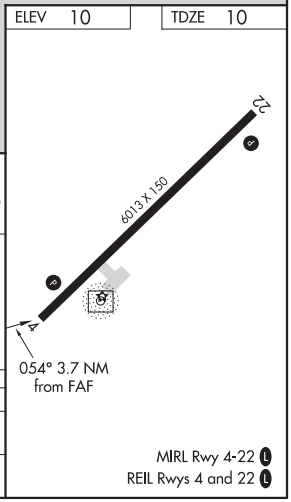
MISSED APPROACH: Climbing left turn to 2000 on TKK NDB/DME bearing 306° to DAMAY/TKK 10 DME and hold.

TRUK RADIO
123.6 L (CTAF)





CATEGORY	A	B	C	D
S-4	720-2½	710 (800-2½)		
C CIRCLING	720-2½	710 (800-2½)		



WENO ISLAND, FM
Amdt 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 375 Chan 111 (116.4)	APP CRS 221°	Rwy Idg 6013 TDZE 10 Apt Elev 10

NDB RWY 22

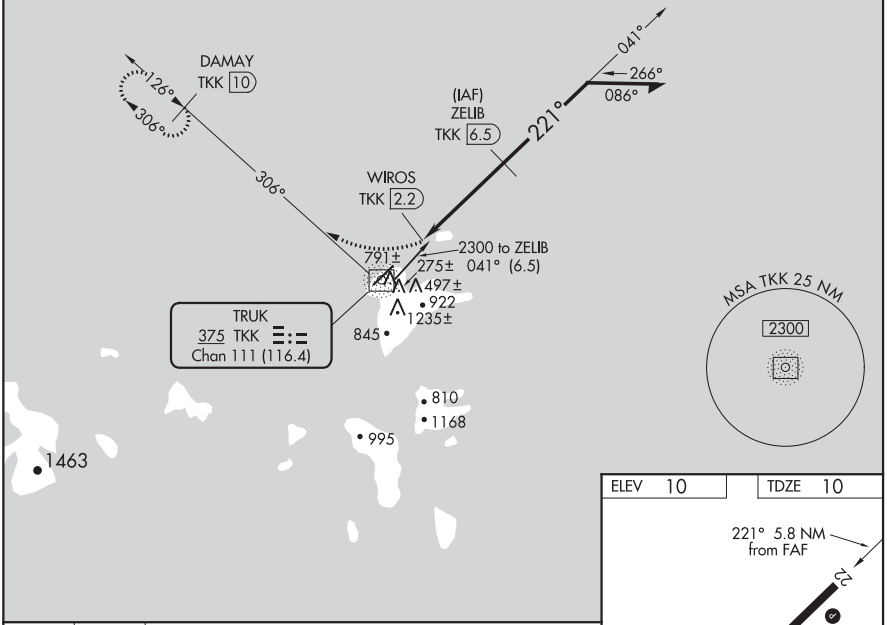
CHUUK INTL (TKK) (PTKK)

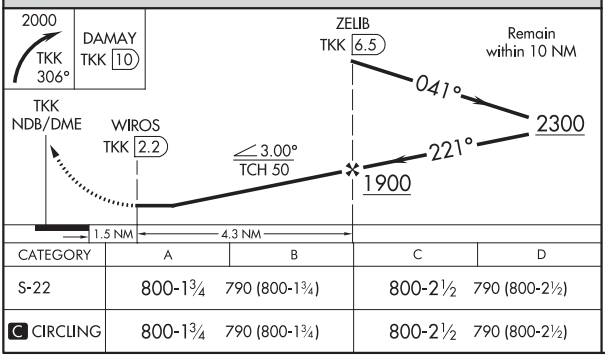
Obtain local altimeter setting on CTAF; when not received, procedure NA.
Circling NA southeast of Rwy 4-22. DME Required.
No controlled airspace below 5500.

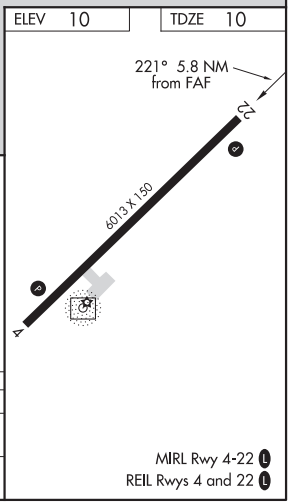
MISSED APPROACH: Climbing right turn to 2000 on BRG-306 from TKK NDB/DME to DAMAY/TKK 10 DME and hold.

TRUK RADIO
123.6 L (CTAF)

DME REQUIRED







CATEGORY	A	B	C	D
S-22	800-1¾	790 (800-1¾)	800-2½	790 (800-2½)
C CIRCLING	800-1¾	790 (800-1¾)	800-2½	790 (800-2½)

MIRL Rwy 4-22 L
REIL Rwys 4 and 22 L

WENO ISLAND, FM
Orig-A 28FEB19

07°28'N-151°51'E

CHUUK INTL (TKK) (PTKK)
NDB RWY 22

YAP ISLAND, FM | AL-6048 (FAA) | 22027

RNAV (GPS) RWY 7

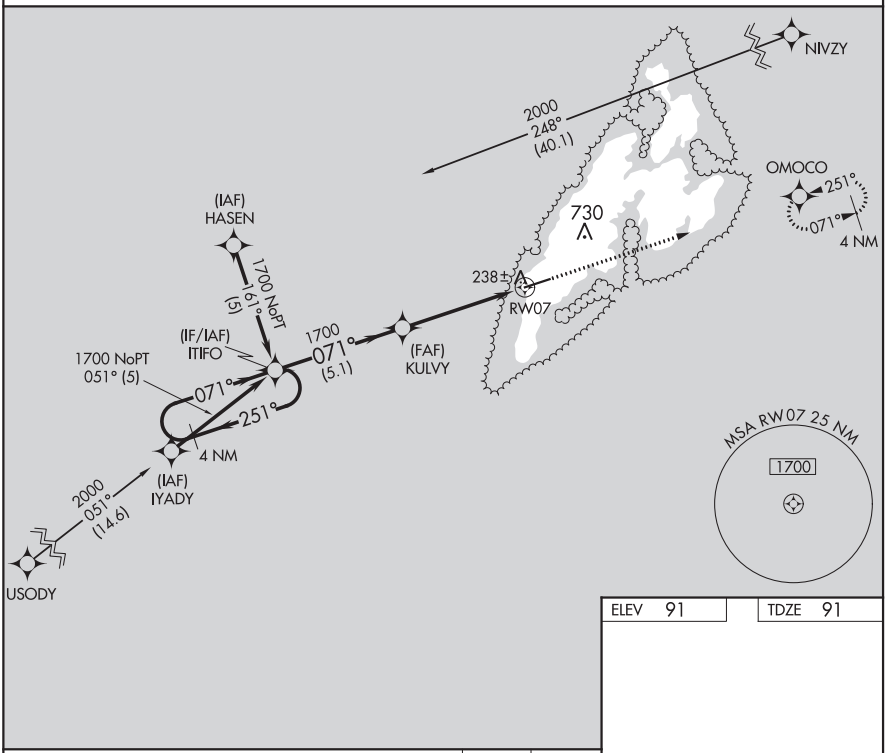
YAP INTL (T11)(PTYA)

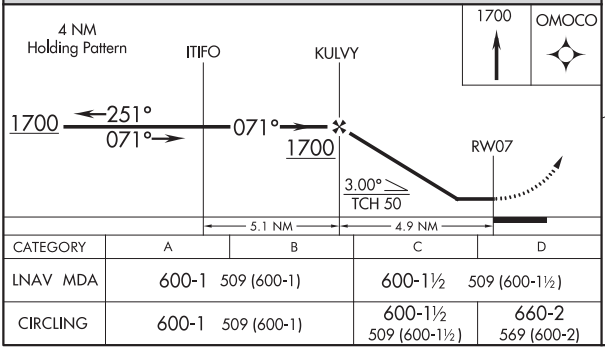
APP CRS	Rwy Idg	6000
071°	TDZE	91
	Apt Elev	91

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'.

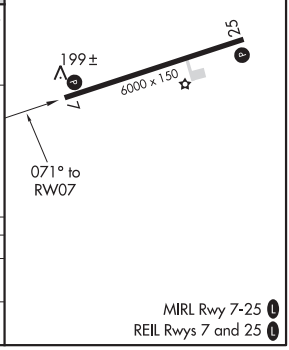
MISSED APPROACH: Climb to 1700 direct OMOCO WP and hold.

YAP RADIO
123.6 L (CTAF)





CATEGORY	A	B	C	D
LNAV MDA	600-1 509 (600-1)		600-1½ 509 (600-1½)	
CIRCLING	600-1 509 (600-1)		600-1½ 509 (600-1½)	660-2 569 (600-2)



MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

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

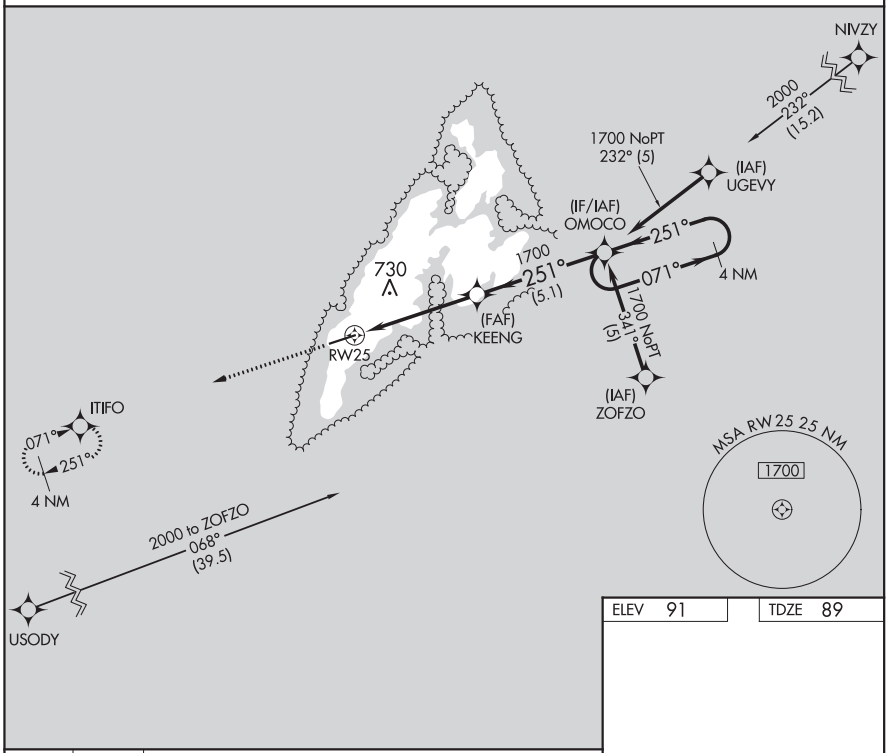
RNAV (GPS) RWY 25
YAP INTL (T11)(PTYA)

APP CRS	Rwy Idg	6000
251°	TDZE	89
	Apt Elev	91

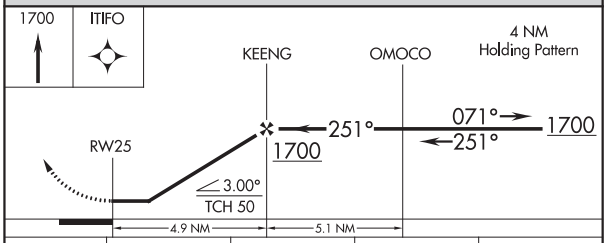
Obtain local altimeter setting on CTAF; when not received, procedure not authorized.
Circling NA North of Rwy 7-25. DME/DME RNP-0.3 NA.
No controlled airspace below 5500'.

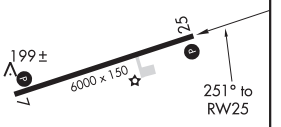
MISSED APPROACH: Climb to 1700 direct ITIFO WP and hold.

YAP RADIO
123.6 L (CTAF)



ELEV 91 | TDZE 89





CATEGORY	A	B	C	D
LNAV MDA	700-1 611 (700-1)		700-1¾ 611 (700-1¾)	700-2 611 (700-2)
CIRCLING	700-1 609 (700-1)		700-1¾ 609 (700-1¾)	700-2 609 (700-2)

MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

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 RWY 7

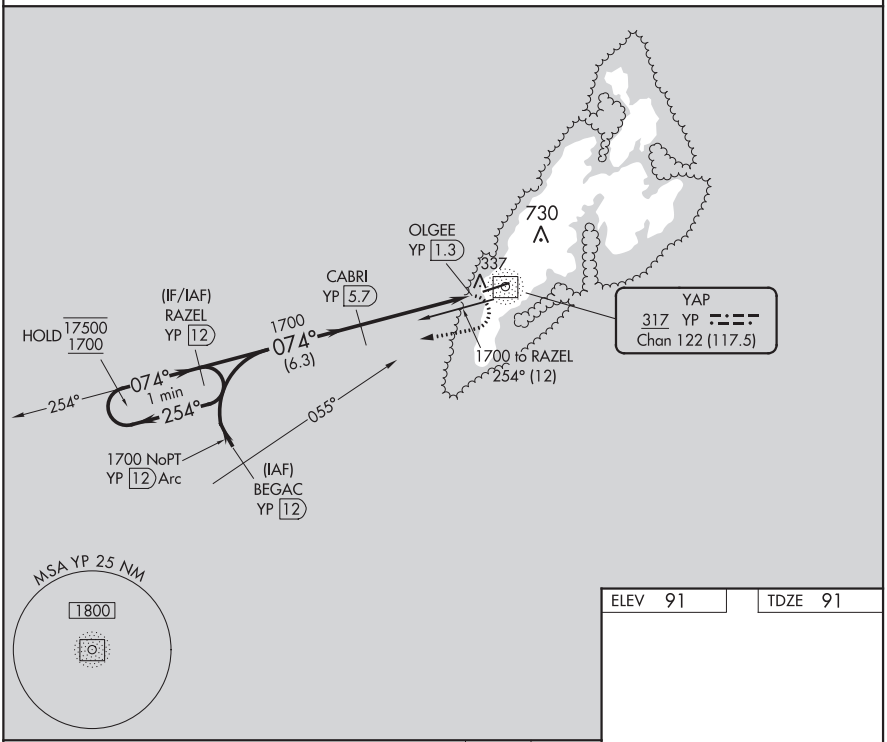
YAP INTL (T11)(PTYA)

NDB/DME YP 317 Chan 122 (117.5)	APP CRS 074°	Rwy Idg 6000 TDZE 91 Apt Elev 91

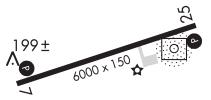
Circling NA north of Rwy 7-25.
Rwy 7 helicopter visibility reduction below ¾ SM NA.
GPS required for procedure entry at BEGAC.
No controlled airspace below 5500.

MISSED APPROACH: Climbing right turn to 1700 on 254° bearing from YP NDB/DME to RAZEL/12 DME and hold.

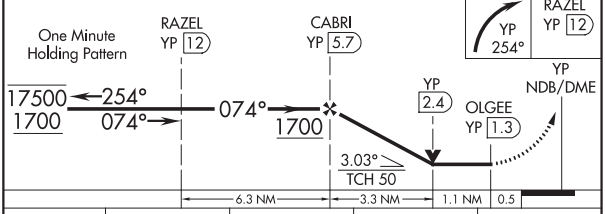
YAP RADIO
123.6 L (CTAF)



ELEV 91 | TDZE 91



VGSI and descent angles not coincident (VGSI Angle 3.00/TCH 47).



CATEGORY	A	B	C	D
S-7	640-1 549 (600-1)		640-1⅝ 549 (600-1⅝)	
C CIRCLING	640-1 549 (600-1)		640-1⅝ 549 (600-1⅝)	660-2 569 (600-2)

MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

YAP ISLAND, FM
Amdt 2B 27JAN22

09°30′N-138°05′E

YAP INTL (T11)(PTYA)
NDB/DME RWY 7

YAP ISLAND, FM | AL-6048 (FAA) | 22027

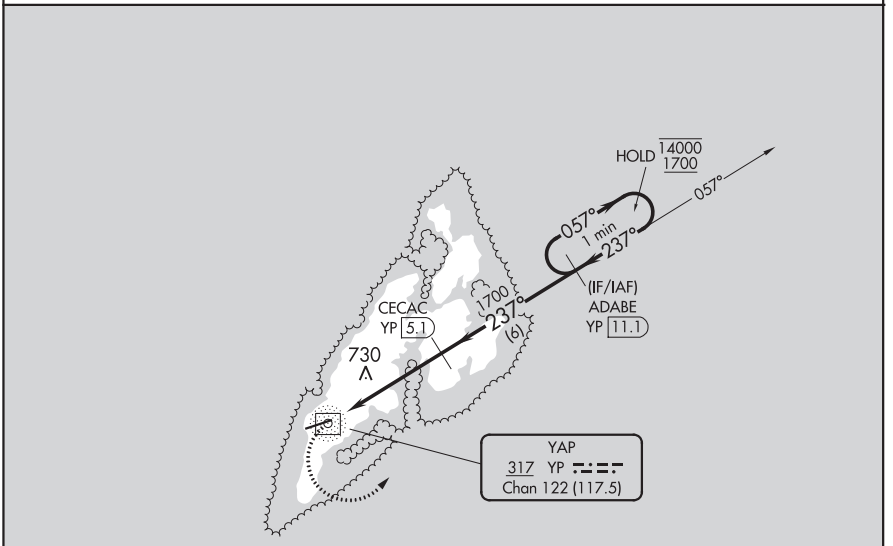
NDB/DME YP 317 Chan 122 (117.5)	APP CRS 237°	Rwy Idg 6000	TDZE 90	Apt Elev 91

NDB/DME RWY 25
YAP INTL (T11)(PTYA)

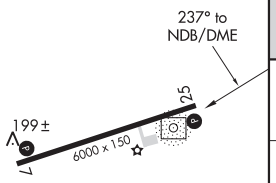
Circling NA north of Rwy 7-25.
No controlled airspace below 5500.

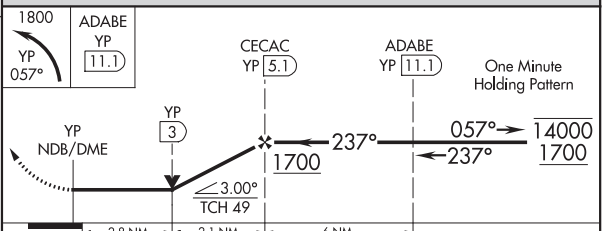
MISSED APPROACH: Climbing left turn to 1800 on 057° bearing from YP NDB/DME to ADABE/11.1 DME and hold.

YAP RADIO
123.6 L (CTAF)



ELEV 91 | TDZE 90





CATEGORY	A	B	C	D
S-25	1040-1¼ 950 (1000-1¼)	1040-1½ 950 (1000-1½)	1040-3 950 (1000-3)	
C CIRCLING	1040-1¼ 949 (1000-1¼)	1040-1½ 949 (1000-1½)	1040-3 949 (1000-3)	

MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

YAP ISLAND, FM
Orig-C 27JAN22

09°30'N-138°05'E

YAP INTL (T11)(PTYA)
NDB/DME RWY 25

YAP ISLAND, FM | AL-6048 (FAA) | 22027

NDB RWY 7

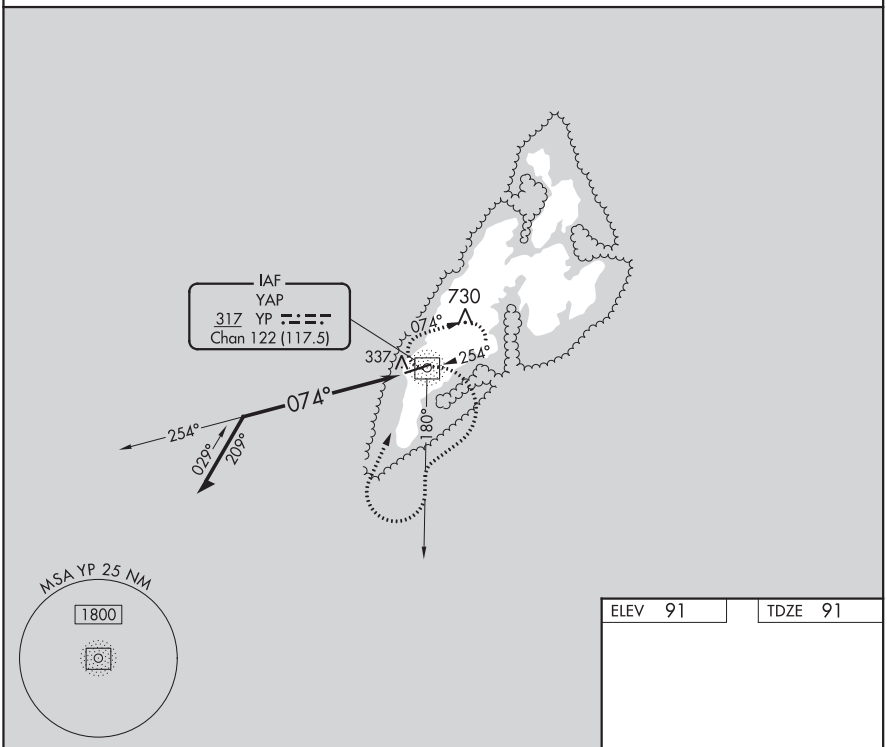
YAP INTL (T11)(PTYA)

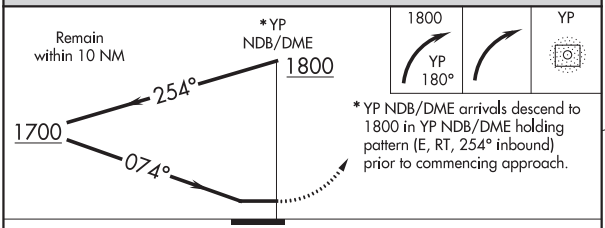
NDB/DME YP	APP CRS	Rwy Idg	6000
317	074°	TDZE	91
Chan 122 (117.5)		Apt Elev	91

Circling NA north of Rwy 7-25.
Rwy 7 helicopter visibility reduction below ¾ SM NA.
No controlled airspace below 5500 feet.

MISSED APPROACH: Climbing right turn to 1800 on 180° bearing from YP NDB/DME then right turn direct YP NDB/DME and hold.

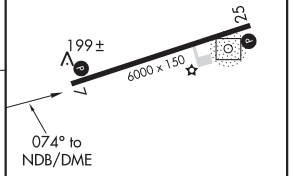
YAP RADIO
123.6 L (CTAF)





* YP NDB/DME arrivals descend to 1800 in YP NDB/DME holding pattern (E, RT, 254° inbound) prior to commencing approach.

ELEV 91 | TDZE 91



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)	820-2¼ 729 (800-2¼)

MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

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 RWY 25

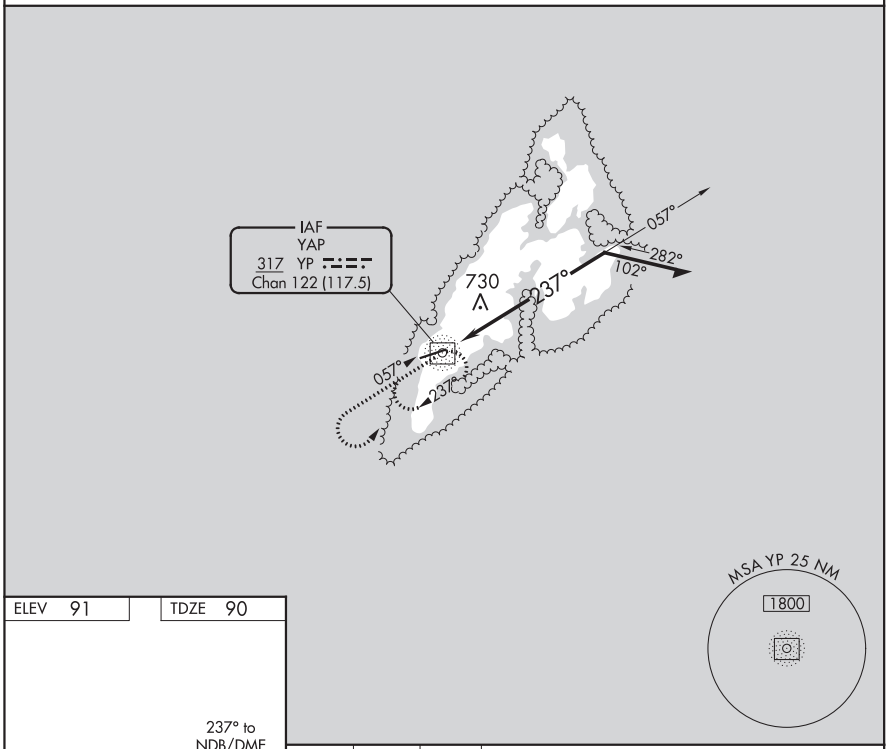
YAP INTL (T11)(PTYA)

NDB/DME YP	APP CRS	Rwy Idg	6000
317	237°	TDZE	90
Chan 122 (117.5)		Apt Elev	91

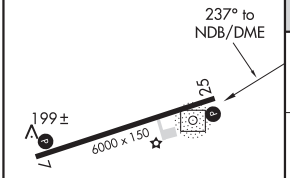
Circling NA north of Rwy 7-25.
No controlled airspace below 5500.

MISSED APPROACH: Climb to 1800 then left turn direct YP NDB/DME and hold.

YAP RADIO
123.6 L (CTAF)



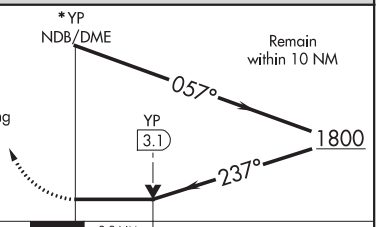
ELEV 91 | TDZE 90



MIRL Rwy 7-25 L
REIL Rwys 7 and 25 L

1800 | YP

* YP NDB/DME arrivals descend to 1800 in YP NDB/DME holding pattern (SW, RT, 057° inbound) prior to commencing approach.



CATEGORY	A	B	C	D
S-25	1080-1¼ 990 (1000-1¼)	1080-1½ 990 (1000-1½)	1080-3	990 (1000-3)
C CIRCLING	1080-1¼ 989 (1000-1¼)	1080-1½ 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

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INTENTIONALLY LEFT BLANK

21224

INSTRUMENT TAKEOFF OR APPROACH PROCEDURE CHARTS
RATE OF CLIMB/DESCENT TABLE
(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

21224

I. POSITION REPORTS

A. INSTRUMENT FLIGHT RULES (IFR) POSITION REPORT

1. Identification
2. Position
3. Time
4. Altitude/FL (Include actual altitude/FL when operating on a “VFR Conditions on Top” clearance).
5. Type of Flight Plan (not required in IFR position reports made direct to ARTCC).
   State “VFR Conditions on Top” if so cleared.
6. Next reporting point and Estimated Time of Arrival (ETA)
7. Name only of the next succeeding reporting point along the route of flight.
8. Remarks

If entering ADIZ give appropriate ADIZ Position Reports listed under ADIZ Procedures.

B. VISUAL FLIGHT RULES (VFR) POSITION REPORT

1. Identification
2. Position
3. Time
4. Altitude
5. VFR Flight Plan
6. Destination

If entering ADIZ give appropriate ADIZ Position Reports listed under ADIZ Procedures.

II. CHANGE OF FLIGHT PLAN

A. CHANGE OF ROUTE OR DESTINATION

1. Type of Flight Plan
2. Aircraft Identification
3. Type of Aircraft/TD Code
4. Estimated True Airspeed
5. Original Destination (if applicable)
6. Departure Point
7. Position and Time
8. New Route and Altitude/FL
9. New Destination (if applicable)
10. ETE or ETA
11. Fuel Endurance
12. Alternate (if required)
13. Station where original flight plan filed.

B. CHANGE OF ETA BY MORE THAN 30 MINUTES

1. Aircraft Identification
2. Position and Time
3. “IFR (or VFR) to (destination)”
4. “New ETA – and hours of fuel remaining”

III. FILING FLIGHT PLANS

1. Aircraft Identification
2. Flight Rules
3. Type of Flight
4. Number of Aircraft
5. Type of Aircraft
6. Wake Turbulence Category
7. Aircraft Surveillance Code
8. Departure Aerodrome
9. Proposed Departure Time
10. Estimated True Airspeed(ETE)
11. Cruising Altitude/FL
12. Route of Flight
13. Destination Aerodrome
14. Estimated Time Enroute (ETE)
15. First Alternate
16. Second Alternate
17. Other Information
18. Fuel Endurance
19. Persons onboard
20. Emergency Equipment
21. Color of Aircraft
22. Pilot’s Name/Contact Information

NOTE: Request available NOTAM and weather information for new route and destination.

FAA Product ID: PCS
NSN 7641015059601
NGA REF. NO. ENRXXFAAPCS
EFF. DATE 23222
OK-10-2862

PAC **PACIFIC**

10 AUG 2023 TO 5 OCT 2023