KADENA AIR BASE
MID-AIR
COLLISION AVOIDANCE (MACA)
PAMPHLET

Kadena Air Base, Japan
"HOME OF THE SHOGUNS"

OPR: 18 WG/SEF
October 2025
COORDINATED WITH 18 OSS/OSA

POINTS OF CONTACT

Kadena AB, Japan
Operator 098-961-1110

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All military aircrew should reach out to their respective unit standardization and safety offices for the most current local regulations. Transient and temporarily assigned military aircrew may reach out to the 18th Wing Flight Safety office at 18wg.sefflightsafety@us.af.mil for more information.

MIDAIR COLLISION AVOIDANCE
18TH WING FLIGHT SAFETY
KADENA AIR BASE, JAPAN

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GENERAL INFORMATION

Definition of a "Near Mid-Air Collision" (NMAC)

A NMAC is defined in the Aeronautical Information Manual (AIM) as:

> An incident associated with the operation of an aircraft in which a possibility of collision occurs as a result of proximity of less than 500 feet to another aircraft, or a report is received from a pilot or flight crew member stating a collision hazard existed between two or more aircraft.

AFMAN 91-223 defines a NMAC as:

> Aircrew took abrupt evasive action or would have taken such action if circumstance allowed, or another aircraft was within 500' or inside "well clear" and presented a hazard to flight safety. Traffic Collision Avoidance System Resolution Advisories which require the aircrew to deviate from a planned or assigned flight path.

How to Report It

If you have a NMAC, make an airborne report to the nearest Air Traffic Control facility or Flight Service Station as soon as possible and provide them with the following information:

- Your identification and call sign
- Time and place (name of NAVAID, radial and distance, and GPS coordinates if available) of event.
- Altitude or Flight Level
- Description of the other aircraft in the event
- Advise the controlling agency a written report will be filed and request all available data be saved.

Anyone aware of a NMAC event can report the incident on SAFEREP website (https://saferep.safety.af.mil) or mobile application. Individuals may also use the AF Form 651, *Hazardous Air Traffic Report (HATR)*, or AF Form 457, *USAF Hazard Report*. Turn in a completed copy of AF FORM 651 within 24 hours of the incident to the Wing Safety Office or provide the Wing Safety Office with all available information needed to complete the form. The 18th Wing Flight Safety office may be reached via email at 18wg.sefflightsafety@us.af.mil.

Communications Problems

In order to avoid a mid-air collision, you need to be able to detect other aircraft in the crowded skyways. While some aircraft flying around in the local area have a Traffic Collision Avoidance System (TCAS) that can alert them to oncoming traffic, many do not, including most aircraft flying below 1500' AGL and following Visual Flight Rules (VFR).

A breakdown in communication is a common factor in mishap studies. Here are some things to watch out for:

Similar Sounding Alphanumeric

There are often multiple aircraft operating on the same frequency with similar call signs. Don't make the mistake of following someone else's clearance.

Hearing Problems

Ensure the controller heard, repeated, and understood what you said. If either party has any doubts, it is important to initiate clarification or repeat the read back. Remember, controllers monitor and simulcast many frequencies at once and may not hear pilots the first time.

Phraseology

Use standard terminology prescribed in the Pilot/Controller Glossary in the AIM. Nonstandard phrases lead to misunderstandings and radios full of pilots explaining what they really meant.

Blocked or Simultaneous Transmissions

Listen to the radio before talking. Don't initiate a transmission if someone else is about to read back controller instructions.

Enunciation

English is the official language of aviation but is often an aviator's second language. Accents affect both speaking and listening. When you speak, use a normal speaking voice and proper phraseology to minimize the confusion of similar sounds.

Radio Discipline

Poor technique by pilots and controllers confuses and frustrates the ATC system. Maintain efficiency in each radio transmission.

Collision Avoidance Tips

1. Know where the high-density traffic areas are.
2. Obtain an IFR clearance or participate in flight-following whenever possible.
3. Clear constantly for other aircraft, both visually and over the radio.
4. Use landing lights at lower altitudes, especially near airports.
5. Always use your Mode C transponder and crosscheck its accuracy whenever possible.
6. Fly at the appropriate hemispheric altitudes and don't let your altimeter wander.
7. Keep your windscreen clean and clear.
8. Learn proper task management in the air.
9. Understand the limitations of your eyes and use proper visual scanning techniques.
10. Avoid complacency.

Airfield Description

Kadena Air Base is located 11 NM north-northeast of Naha International Airport and 4 NM north of Futenma Marine Corps Air Station (MCAS) on the west coast of the southern half of the main island of Okinawa. The base is surrounded by the densely-populated Naha/Okinawa City metropolitan area. The airfield is a joint-use facility that regularly accommodates the following aircraft:

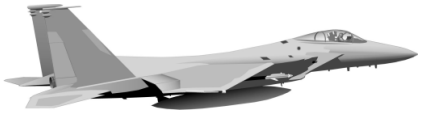
- Air Force: C-130, E-3, E-8, F-15, F-22, F-35, HH-60, KC-135, RC-135
- Navy: C-12s, P-3, P-8
- Marine Corps: AH-1, F-18, F-35, H-53, MV-22, UH-1
- Aero Club: Cessna 172
- Transient aircraft: B-190, B747, C-5, C-12, C-17, C-500, E-2, KC-10, LJ-35, and MD-11

Terrain

Aircrew should be aware of the following terrain located near Kadena Air Base. Pay special attention while conducting VFR traffic patterns, as well as local departures/arrivals:

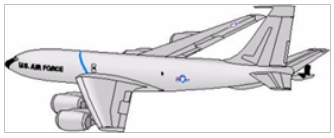
- Mt. Onna: KAD 042/9 NM – 1,191 feet
- Mt. Yae: KAD 033/19 NM – 1,486 feet
- Mountain Peaks: KAD 052/33 NM – 1,634 feet
- Antenna: KAD 206/12 NM – 766 feet

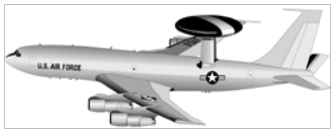
Primary Aircraft Information



F-15s fly in the Kadena pattern from 150-400 knots at altitudes between 1,800' to 6,000' MSL (Standard overhead pattern altitude is 1,800' MSL with high or tactical initial flown up to 6,000' MSL). Often formation flights will be flying in trail (2-4 aircraft). If you are instructed to follow a flight of F-15s, make sure that you have the last aircraft in the trail in sight.

HH-60s approach the airfield from the north and south at 800' MSL. They may cross all of the runways en-route to their landing site. Outside Airport Traffic Areas (Class Delta), HH-60s conduct night operations at 500' MSL and below using infrared lighting only.





Heavy KC-135, E-3, MC-130, C-12, and Cessna aircraft may stay in the IFR and VFR traffic patterns for extended periods. These types of aircraft have limited cockpit visibility and maneuverability. Circling Approach, VFR Rectangular, and Instrument Patterns are the most common types of approaches. KC-135s and E-3s fly in the Kadena pattern from 125-250 knots at altitudes between 700' to 4000' MSL. MC-130 and C-12 aircraft fly in the Kadena pattern from 120-170 knots at altitudes from 1300' to 1800' MSL. MC-130 formation flights of 2-3 aircraft will accomplish day/NVG tactical VFR approaches from 200-220 knots at altitudes from 100' to 1800' MSL. Aero Club Cessna C-172s fly at approximately 50 knots at 800' MSL.

Air Traffic System Conflicts

There are several recurring conflicts inherent to the air traffic system. ATC depends on the following procedures to assure separation (see **Figure 1** and **Figure 2**):

- The Naha VORTAC 007 radial and any visual downwind or base turns for Kadena RWY 05L/R. Commercial aircraft inbound for Naha RWY 18 will pass within 3 NMs of Bolo Point at 1,200' MSL, so controllers will always rely on altitude to assure separation: 1,700' MSL for VFR aircraft, and 2,200' MSL for IFR aircraft executing a visual approach who are not yet established on a 5 NM final.

- The Naha VORTAC 007 radial and the standard radar climb out for Kadena RWY 23L/R (runway heading, cross departure end of runway at or below 1,300', make climbing right turn to 360 within 2 DME, climb and maintain 3,000'). Heading 360 within 2 DME of the Kadena RWY 23L/R departure end makes an almost perfect reciprocal course for the Naha RWY 18 final approach course. Failure of the controller to issue traffic advisories on aircraft established on final, and the pilot to climb as quickly as possible through 2,200' MSL after crossing the departure end, could lead to unsafe proximity between aircraft.

- Any instrument approach to Kadena RWY 05L/R. Northbound departures from Naha RWY 36, arrivals to Naha RWY 18 (both at 1,200' MSL or below), and F-15s/T-4s in the Naha overhead pattern (1,500' MSL) all fly courses intersecting the instrument final approach courses to Kadena RWY 05L/R. Arrival will typically wait until any departure or arrival traffic has been reported in-sight by the pilot, before switching an aircraft to Tower, but they usually cannot see primary radar targets or altitude information on aircraft in the Naha overhead pattern.

- The Futenma north VFR downwind and visual operations in the south Kadena downwind. Aircraft executing any visual maneuvers south of Kadena RWY 05R should remain within 3 DME of Kadena, and never lower than 2,500' MSL outside of 3 DME without approval from ATC to ensure separation from MCAS Futenma's Class D airspace. Futenma Tower's conventional pattern altitude is 1,500' MSL and descending lower than 2,000' MSL outside 3 DME without coordination by Kadena Tower could lead to unsafe proximity between aircraft.

AIRSPACE

Naha Arrival/Departure Flow

Figure 1. Naha Runway 36 Flow

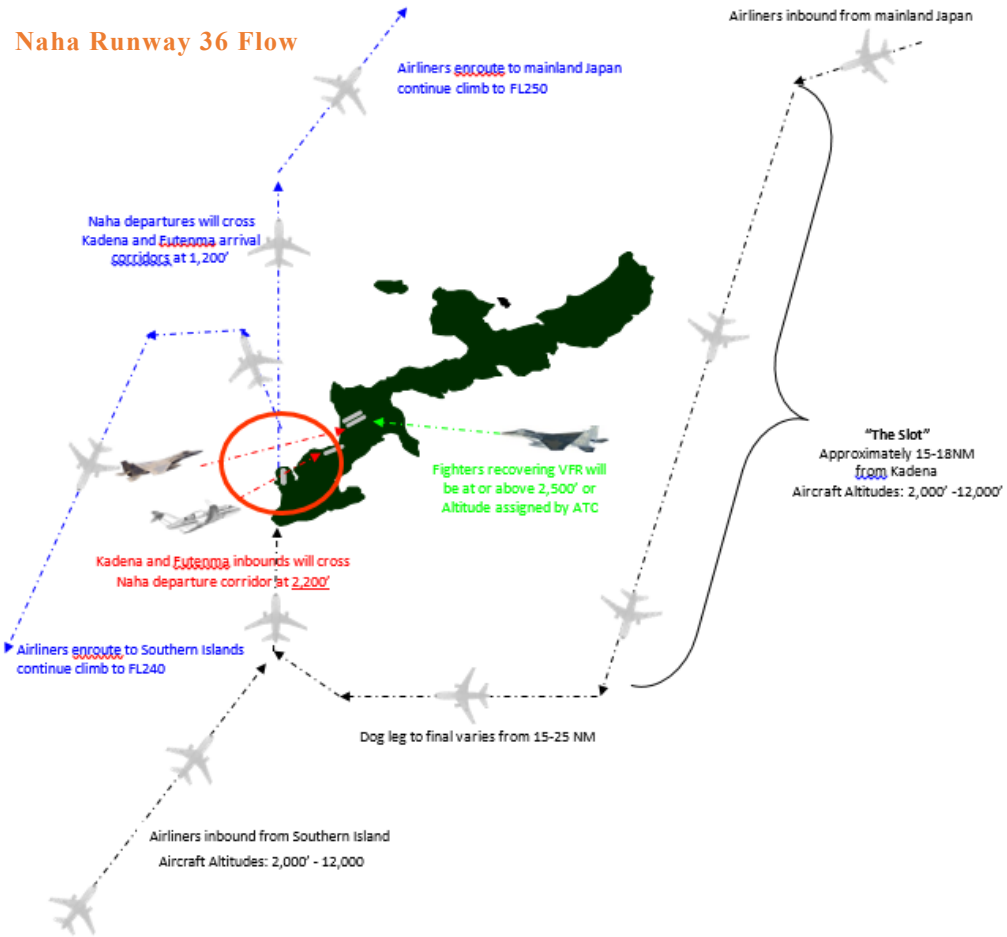
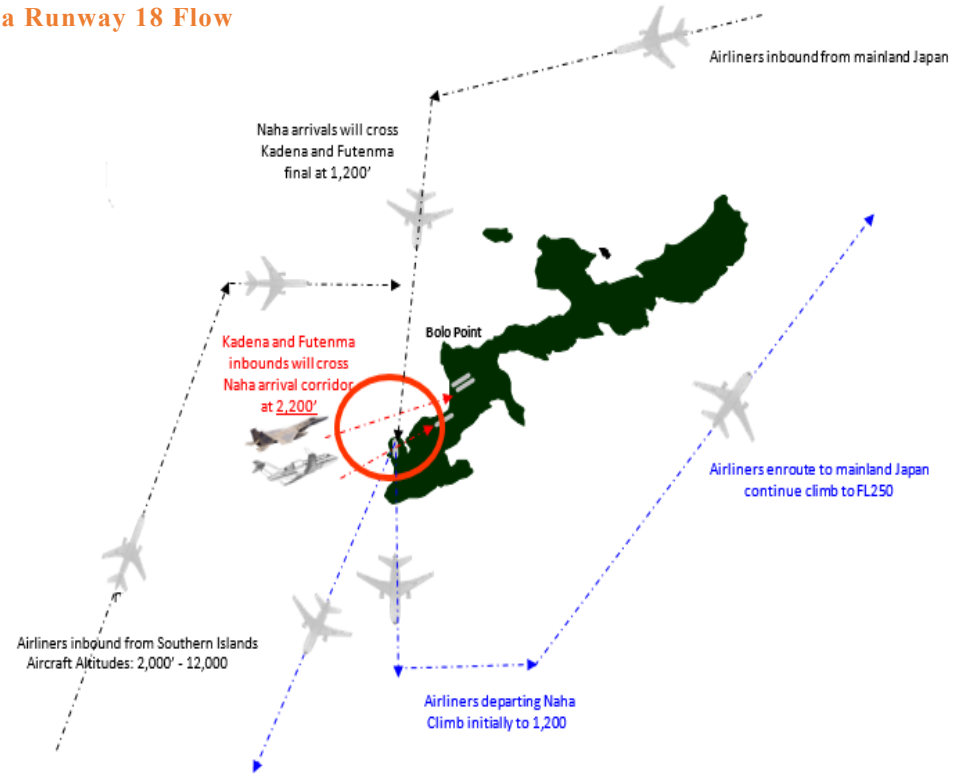


Figure 2. Naha Runway 18 Flow



Naha Positive Control Area (PCA) / Terminal Control Area (TCA) / Naha Approach Control Area

Naha Approach Control provides air traffic control services from Naha up to Amami (**Figure 23**), from the surface up to and including 25,000' MSL (see **Figure 3** and **Figure 4**). Air traffic control services are also provided within a 30 NM radius of Kume-Jima Island, up to and including 20,000' MSL. Services are provided to six airports within its assigned airspace. The three primary airports include Kadena AB, Futenma MCAS, and Naha International airport. Three secondary airports are located on Kume-Jima, Aguni-Jima islands, and Amami. VFR traffic are highly encouraged while transiting by uncontrolled airport to follow CTAF procedures.

ATC separation standards can be found in the Federal Aviation Administration (FAA) Order JO 7110.65. Pilots should increase separation when dealing with heavy jets and formation flights. ATC will not apply visual separation between military and civilian airline traffic.

Figure 3. Okinawa Positive Control Airspace (PCA) (Class B Airspace)

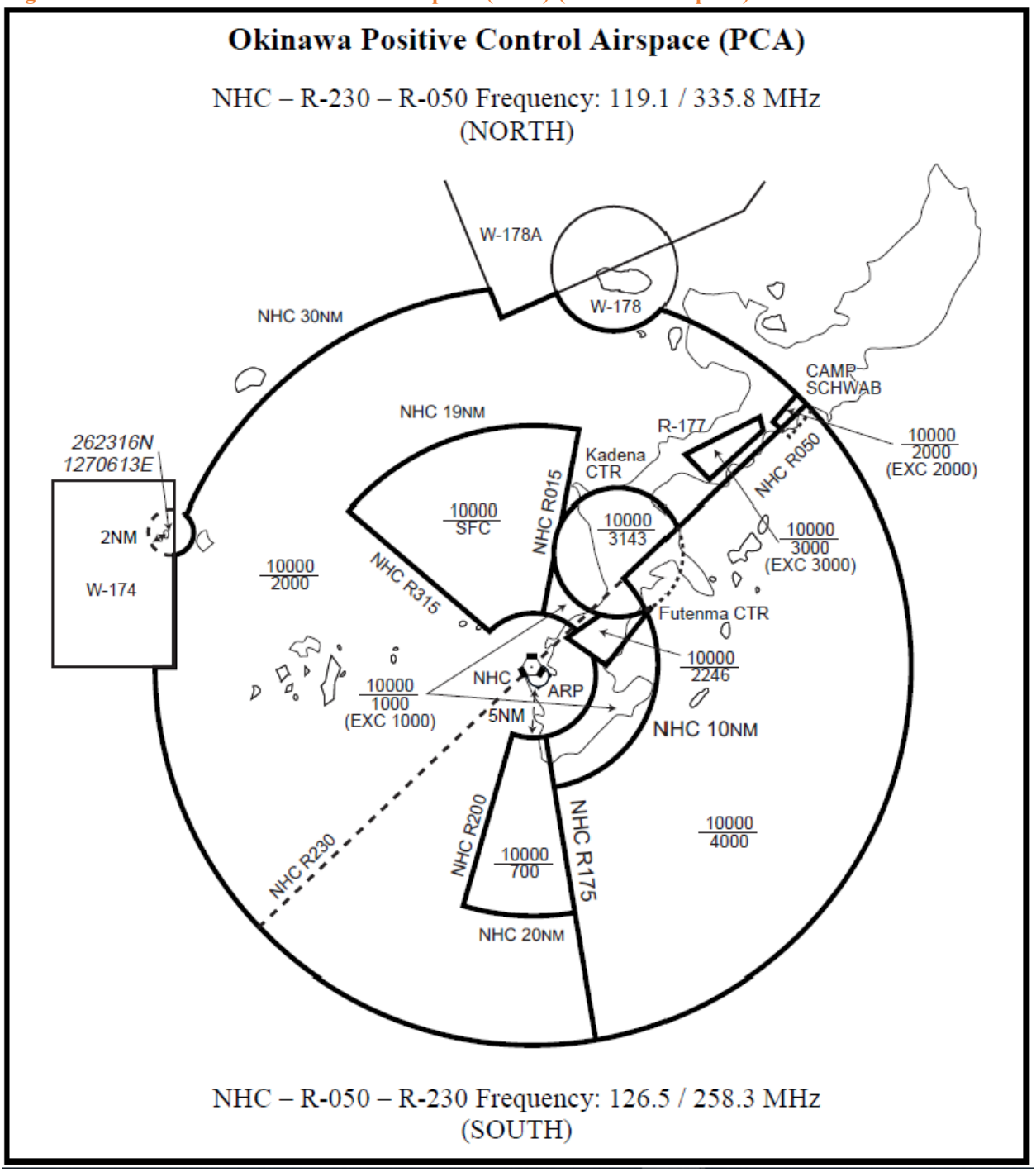


Figure 4. Naha Terminal Control Area (TCA) (Class E Airspace)

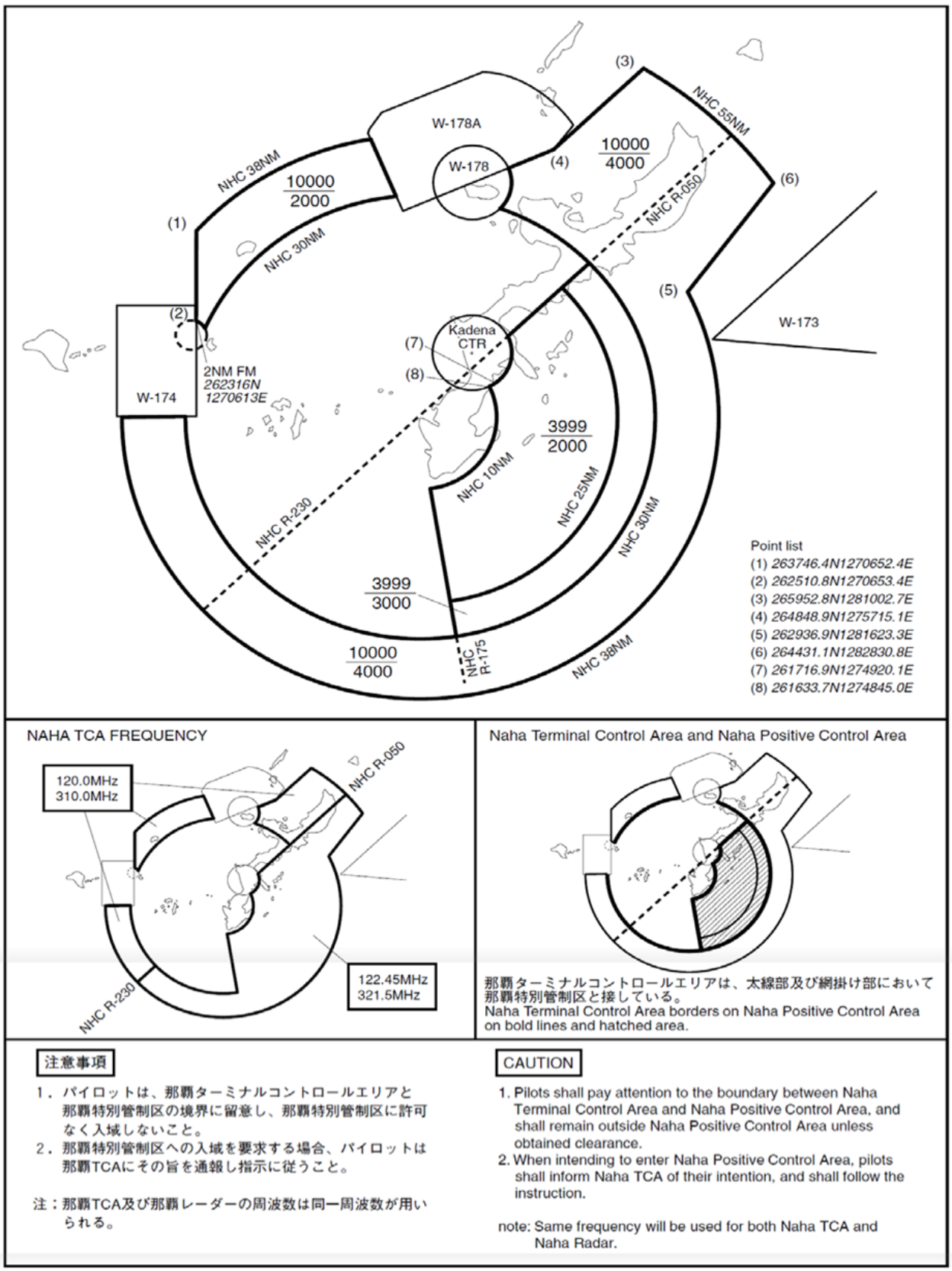
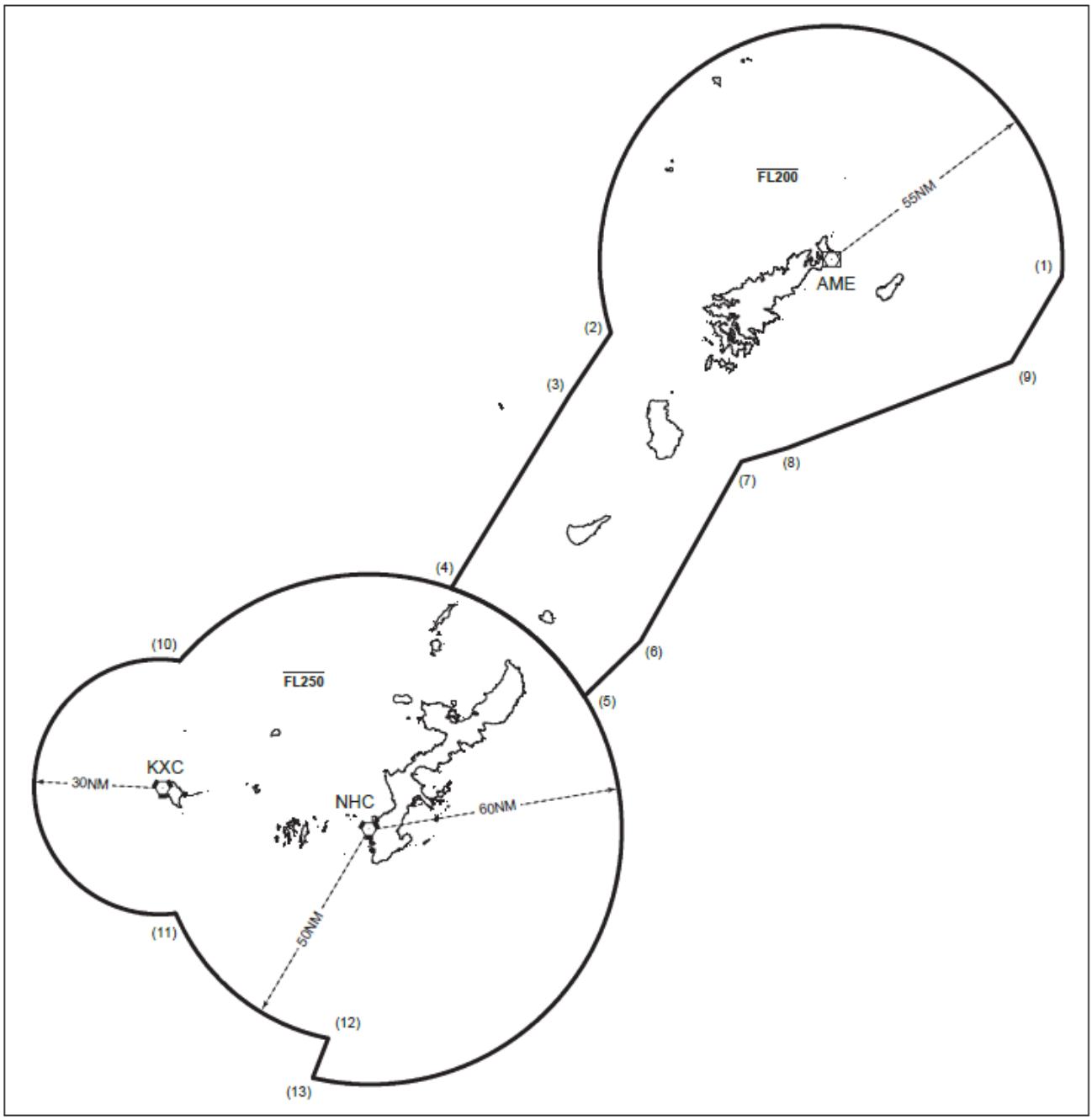


Figure 23. Naha Approach Control Area

那覇進入管制区
Naha Approach Control Area

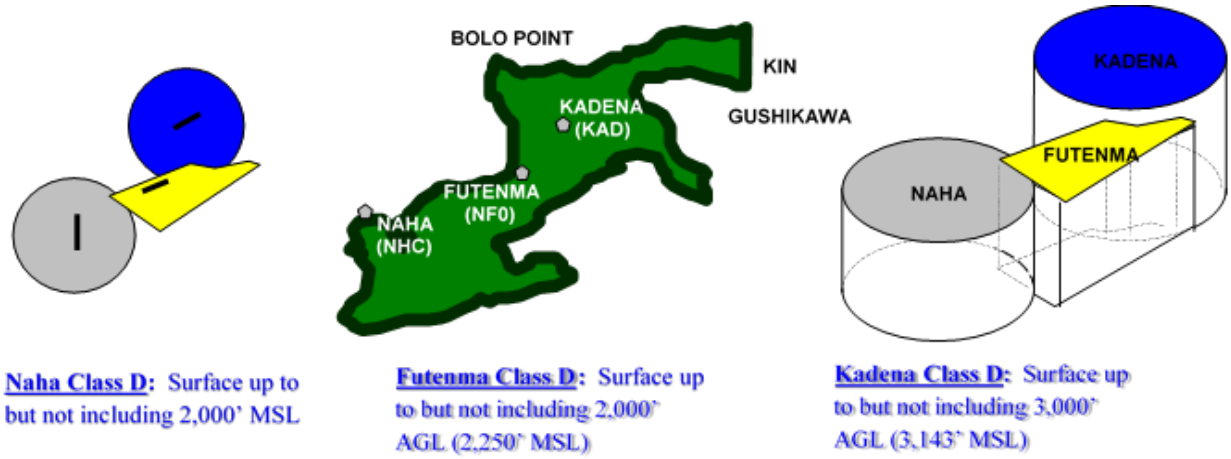


Point list

(1) *282121N/1304450E*
(2) *280927N/1284315E*
(3) *275507N/1283205E*
(4) *270928N/1280014E*
(5) *264352N/1283540E*
(6) *265648N/1285042E*
(7) *273900N/1291757E*
(8) *274201N/1293022E*
(9) *280130N/1303045E*
(10) *265159N/1264807E*
(11) *255229N/1264740E*
(12) *252316N/1272802E*
(13) *251400N/1272404E*

Kadena Air Base Class D airspace overlaps Naha International Airport and Futenma MCAS Class D airspace (Figure 5). Pilots and controllers must be vigilant of the potential conflicts that exist due to the close proximity of the airports.

Figure 5. Okinawa Class D Airspace

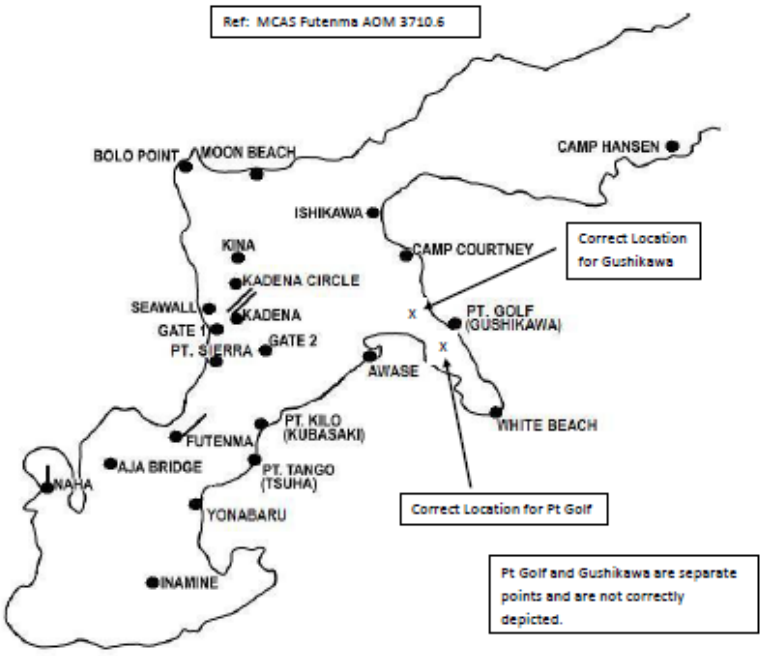


Okinawa VFR Traffic

US Military VFR aircraft should utilize the appropriate Central Training Area (CTA; Habu 336.2) and North Training Area (NTA; NTA Common 345.8) frequencies when operating in those areas as outlined in the Joint Course Rules Pilot Controller Handbook (Joint PCH). Additionally, 119.7 should be utilized as an island-wide CTAF frequency for civilian and military VFR traffic. Please see Figure 6 and Figure 7 for a depiction of the VFR reporting points used by ATC. The names, locations, and descriptions can be found in the most up-to-date Joint PCH document. Figure 22 shows a depiction of the CTA/NTA airspace.

Figure 6. Kadena VFR Reporting Points

Figure 3. MCAS Futenma VFR Reporting Points

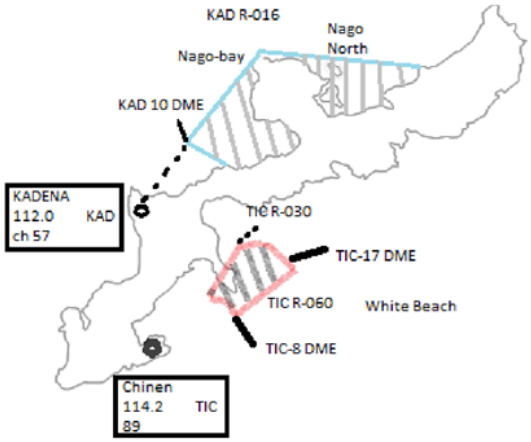


Aero Club Operations

Kadena has an active Aero Club operating light Cessna aircraft. **Figure 8** depicts the Aero Club training areas; Nago Bay, Nago North, and White Beach. Aero Club CTAF 119.7 is dedicated to Aero Club operations but not always monitor as every aircraft does not have two working radios.

NOTE: Aero Club aircraft operate in the local traffic pattern at or below 1,000' MSL at Futenma and at or below 800' MSL at Kadena.

Figure 8. Aero Club Training Areas



White Beach Training Area:	
N 26° 24'	W 127° 01'
N26° 19'	W 128 ° 26'
N26 ° 14'	W 127 ° 05'
N26 ° 17'	W 127 ° 08'
N26 ° 23'	W 127 ° 05'

Helicopter & Tiltrotor Activity

There is a significant amount of Air Force, Marine Corps, and Japan Self-Defense Force (JASDF) helicopter activity in the Okinawa airspace. Most helicopter & tiltrotor arrivals/departures (**Figure 9**) from Kadena AB occur at 800' MSL and below. Aircraft typically fly to either Bolo Point (Zampa Lighthouse) or Gushikawa City. From these two points, helicopters & tiltrotor travel north and south along the coastline. Additionally, helicopters that are transitioning from Futenma to Kadena will often be instructed to hold over Gate 1 prior to being given clearance to cross the runways for landing at the Rescue Pad on Taxiway Charlie. This could present a traffic conflict for aircraft established on downwind for RWY 05R as they turn to base. Finally, Marine helicopters & tiltrotor will normally transition from Bolo Point to Futenma MCAS along the coastline. This transition is called the "Seawall Transition". When Marine aircraft report "Seawall", expect to see them at 500' MSL immediately off the approach end of Kadena RWY 05L/R along the seawall heading either north or south. This traffic (USMC & USAF) is normally transiting the airspace to conduct training at the helicopter landing zones (HLZ) at Ie Shima (W-178), or in the restricted areas adjacent to Camps Hansen and Schwab (R-177) as well as the Jungle Warfare Training Center (R-201) in northeast Okinawa. For more detailed information reference page 23 of the JPCH. **Figure 24** Shows all the VFR points utilized for all those procedures

Figure 9. VFR Helicopter Routes

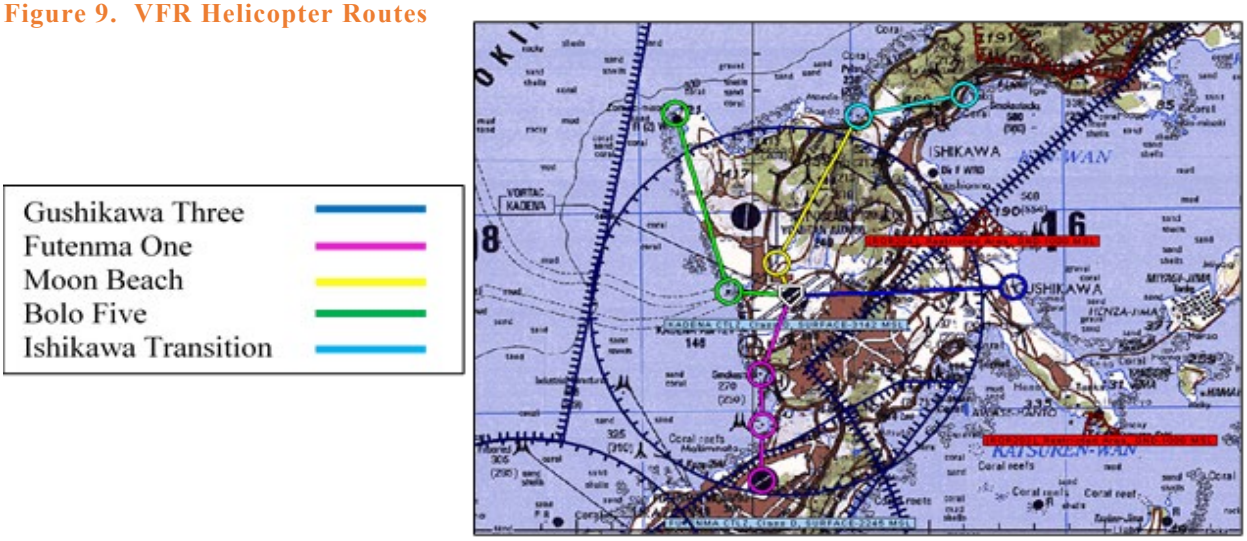
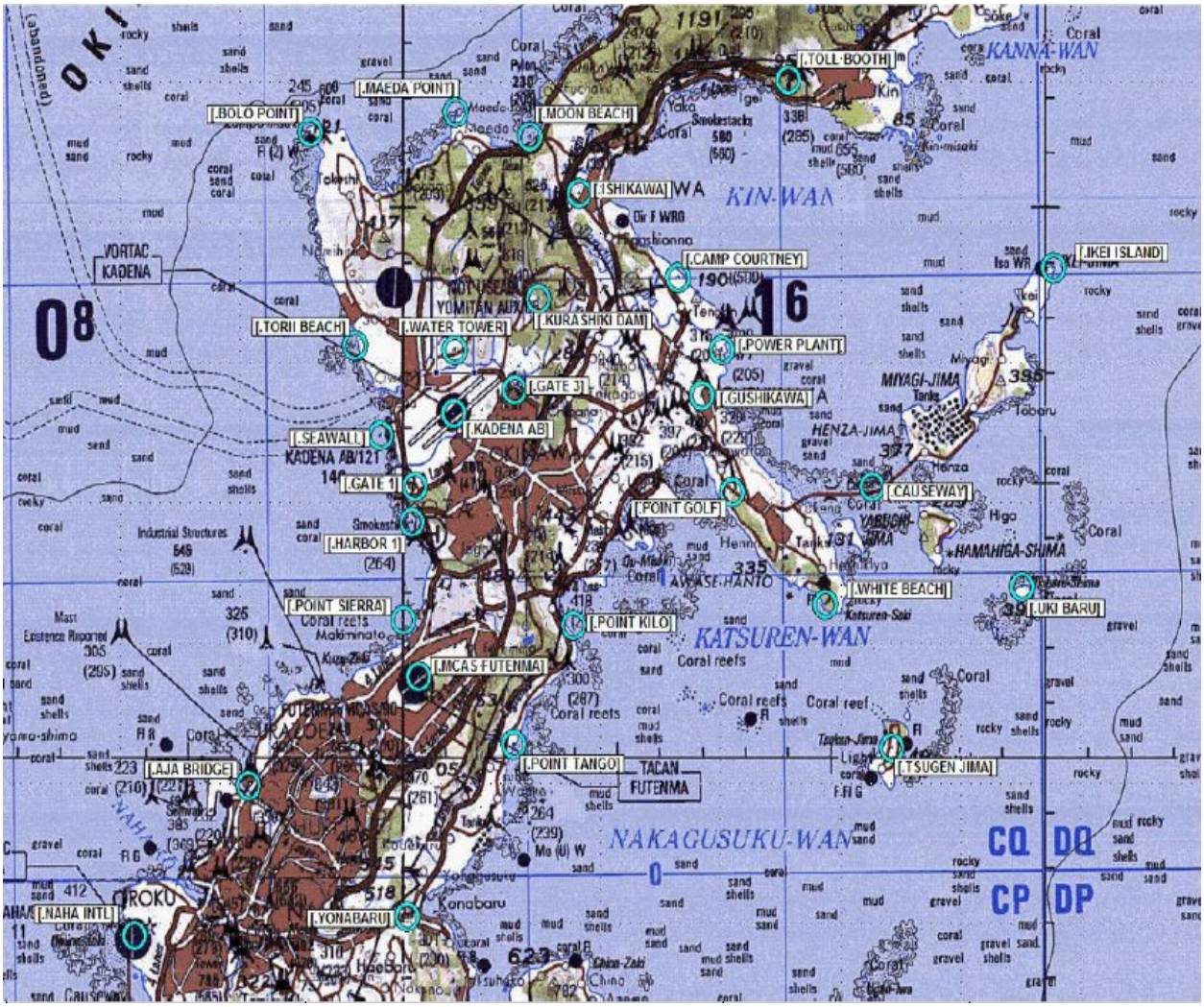


Figure 24. VFR Points



Kadena VFR Arrival Information

At Kadena, VFR traffic operations will not be conducted by conventional aircraft unless the reported ceiling is 1,700’ AGL or higher. Jet aircraft require a reported ceiling of 2,200’ AGL or higher. Even if the reported weather conditions meet these criteria the tower controller will deny aircraft entry into the VFR pattern if they cannot maintain visual contact with the aircraft.

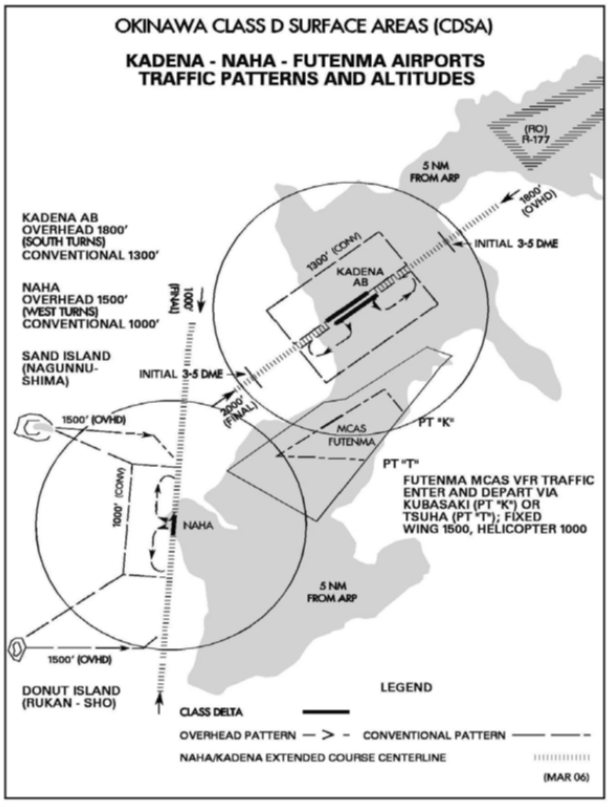
Tower will issue traffic advisories to arriving aircraft to help locate aircraft already established in the pattern. To avoid conflict with traffic departing from the parallel runway, pilots executing closed traffic patterns are not to cross the departure end of the parallel runway without approval. Aircraft entering Kadena’s airspace from the southwest or transitioning from Futenma’s airspace should be aware of potential conflicts with traffic in Kadena’s civilian/rotary wing pattern at 800’ MSL. Aircraft should be prepared to hold if directed by tower. Additionally, aircrew should be aware of traffic flying north and

south along the coastline entering/exiting Kadena's airspace via the "Bolo Arrival/Departure." Aircraft fly at altitudes up to 800' MSL along the coastline frequently through day and night.

Aircraft making visual approaches from the north downwind to RWY 05L/R will be advised by ATC to maintain 2,200' MSL until 5 DME to avoid IFR arrivals into Naha and Kadena. Aircraft should execute a base turn by 3 DME to avoid such conflicts. The higher terrain northeast of Kadena often causes cloud formations at traffic pattern attitudes. This causes a unique problem when landing on RWY 23L/R. In some cases, this will prevent the pilot from seeing other traffic in Delta airspace and runway acquisition in time to make a safe visual approach. Pattern procedures for Kadena AB can be found in the Kadena Air Base Instruction 13-204, available from USAF E-Publishing: https://www.e-publishing.af.mil/.

Many heavy aircraft near Kadena AB use TCAS. It is extremely important to be aware of heavy aircraft in the Class D airspace around Kadena AB or on approach/departure from Naha IAP. Rapid changes in heading or altitude by fighter aircraft may cause a Resolution Advisory (RA) forcing the heavy aircraft to take evasive action, whether it is warranted or not. (See **Figure 10**).

Figure 4. VFR Traffic Patterns



MC-130 SPECIAL OPERATIONS TRAINING

Kadena MC-130 VFR Low Level Flying and Standard Departures

The MC-130s assigned to the 353d Special Operations Group regularly fly VFR low-level routes at 2,000’ MSL and below throughout the Ryukyu Islands. The low level traffic monitors Okinawa Approach, Naha Center, Range Control, and CTA/NTA frequencies as appropriate for their route of flight.

Figure 11. Ikei Departures

Figure 12. Sesoko Departures

RWY 05: Maintain at or below 1,000’ MSL until outside 10 DME. At 5 DME, proceed directly to Ikei Island. Advise ATC when passing 10 DME from Kadena VORTAC.	**RWY 05:** Climb runway heading to 1,500’ MSL, cross departure end at or below 1,300’ MSL. At 5 DME turn direct Sesoko. Advise ATC when passing 10 DME from Kadena VORTAC.
RWY 23: Maintain at or below 1,000’ MSL. Turn left within 2 DME to a downwind and proceed to Gushikawa (KAD 085/006). After Gushikawa proceed direct to Ikei Island. Advise ATC when passing 10 DME from Kadena VORTAC.	**RWY 23:** Climb runway heading to 1,500’ MSL. Cross departure end at or below 1,300’ MSL and turn right within 2 DME direct Moon Beach, then Sesoko. Advise ATC when passing 10 DME from Kadena VORTAC.*
*Outside Class D airspace, traffic advisories will be based on controller workload.	

Kadena Standard MC-130 Recoveries

Straight-in VFR recoveries will usually maintain 2,000’ MSL until 5 DME to avoid Naha approach and departure corridors. Turning VFR recoveries will maintain 1,000’ MSL and below.

MC-130s typically fly at night, 1,000’ AGL and below and will request all runway lighting to be turned OFF for their recoveries to facilitate Night Vision Goggle (NVG) training. This is approved on a non-interference basis only.

Figure 13. Turning VFR Recoveries

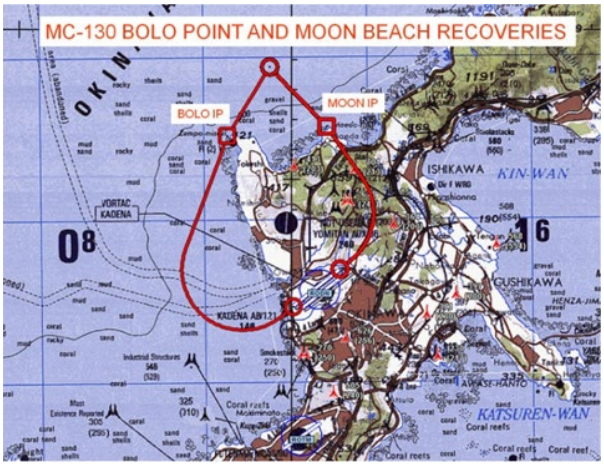
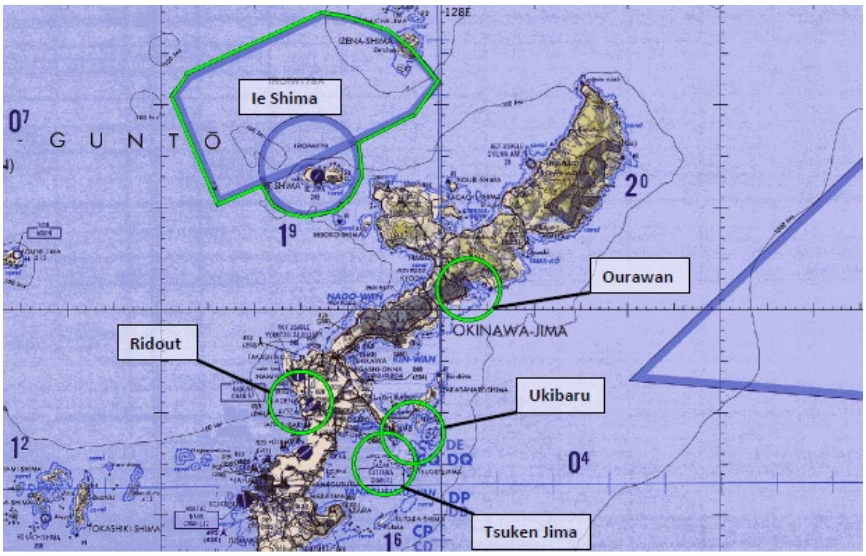


Figure 14. Straight-in VFR Recoveries

Airdrop Activity

Parachute jumping and equipment air drops occur at Ie Shima, approximately 20 NM north of Kadena, and at the Tsuken Jima Drop Zone (DZ), approximately 10 NM east of Futenma. The DZs can be approached from various directions. (**Figure 15**).

Figure 5. Okinawa Drop Zones

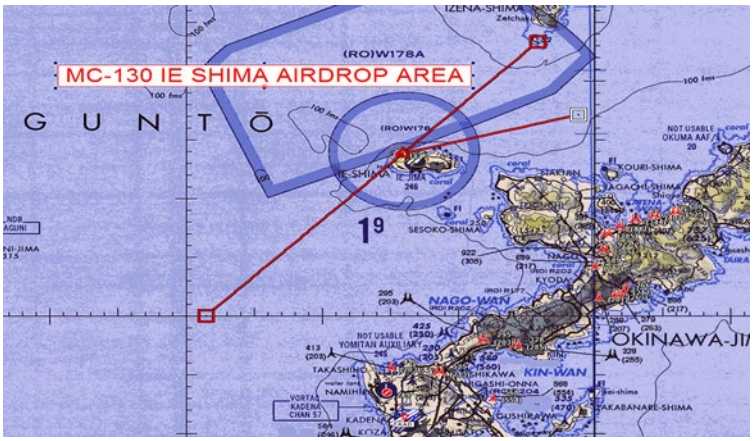


Ie Shima Drop Zone (W-178)

Ie Shima DZ (**Figure 16**) is approached from the northeast via two locations. One run-in begins just south of Izena Shima and the other from halfway between Izena Shima and Kouri Shima. The Ie Shima DZ can also be approached from the southwest starting about 10 NM WNW of Bolo Point. Airdrops are conducted at altitudes from 500' AGL to 10,000' MSL.

NOTE: Landings at the Coral LZ on Ie Shima are often conducted in conjunction with airdrop operations. This area presents a high potential for hazardous traffic due to numerous Cessna aircraft utilizing these routes below 2,000' MSL.

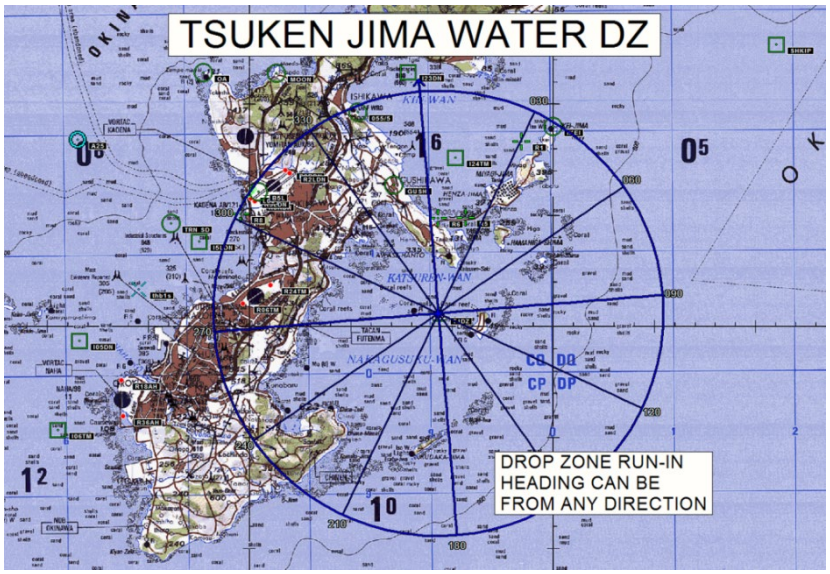
Figure 16. Ie Shime Drop Zone



Tsuken Jima Drop Zone

Tsuken Jima (**Figure 17**) can be approached from any direction with run in heading from 230 degrees to 360 degrees depending on the wind. Airdrops are conducted at altitudes from SFC to 20,000' MSL.

Figure 6. Tsuken Jima Drop Zone

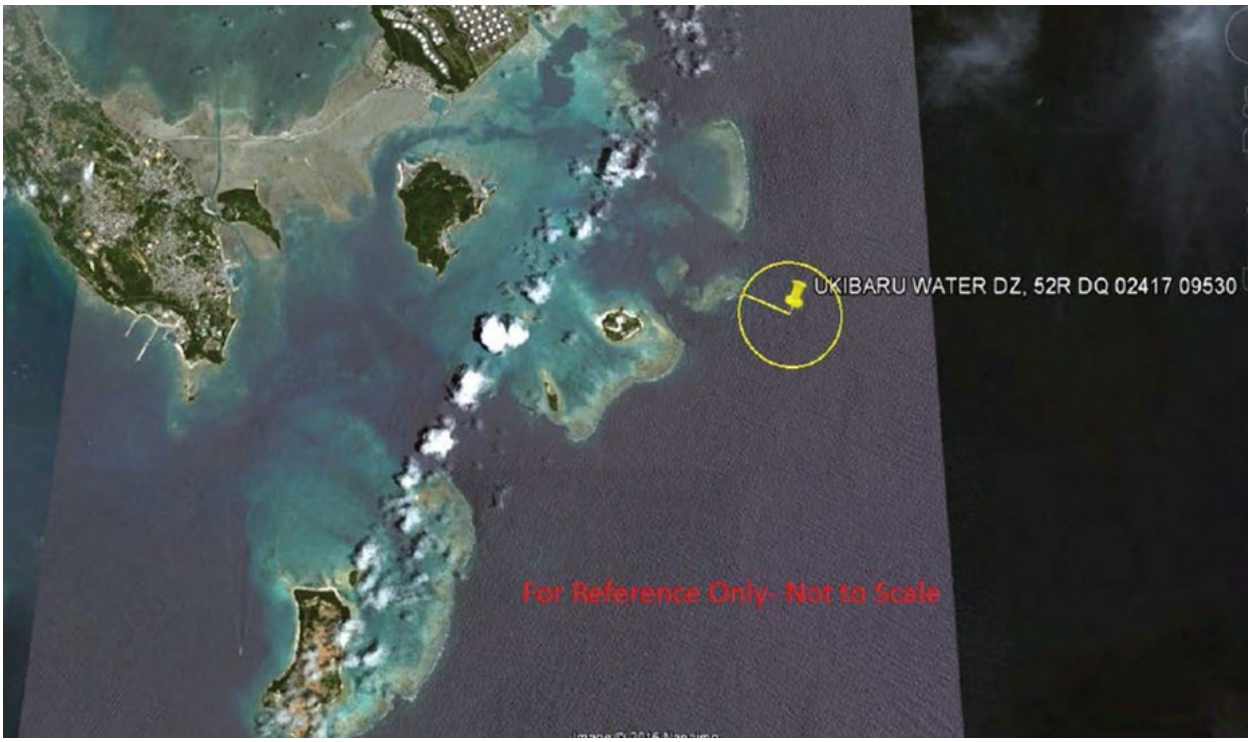


Ukibaru Drop Zone

The Ukibaru Drop Zone (red triangle in **Figure 18**) is located within the Okinawa Positive Control Area (PCA) and can be approached from any direction. Run in headings will depend on wind conditions and types of loads being dropped. Typical drop altitudes are between 2,000' – 4,000' MSL, but can be up to 20,000' MSL. Aircraft will contact Naha Approach Control for coordination and clearance to fly within the PCA.

Figure 18. Ukibaru Drop Zone Location

Figure 19. Ukibaru Drop Zone



HELICOPTER AND TILT-ROTOR AIR REFUELING

Helicopter and tilt-rotor aerial refueling in the local area occurs between 1,000' – 8,000' MSL depending on weather. The primary tracks are SHOOTER and GREEN depending on helicopter training profile. This is a VFR maneuver and track space is not allocated in the AP. Collision avoidance with civilian and military aircraft is strictly based on visual detection.

Figure 20. Helicopter and Tilt-Rotor Air Refueling Tracks

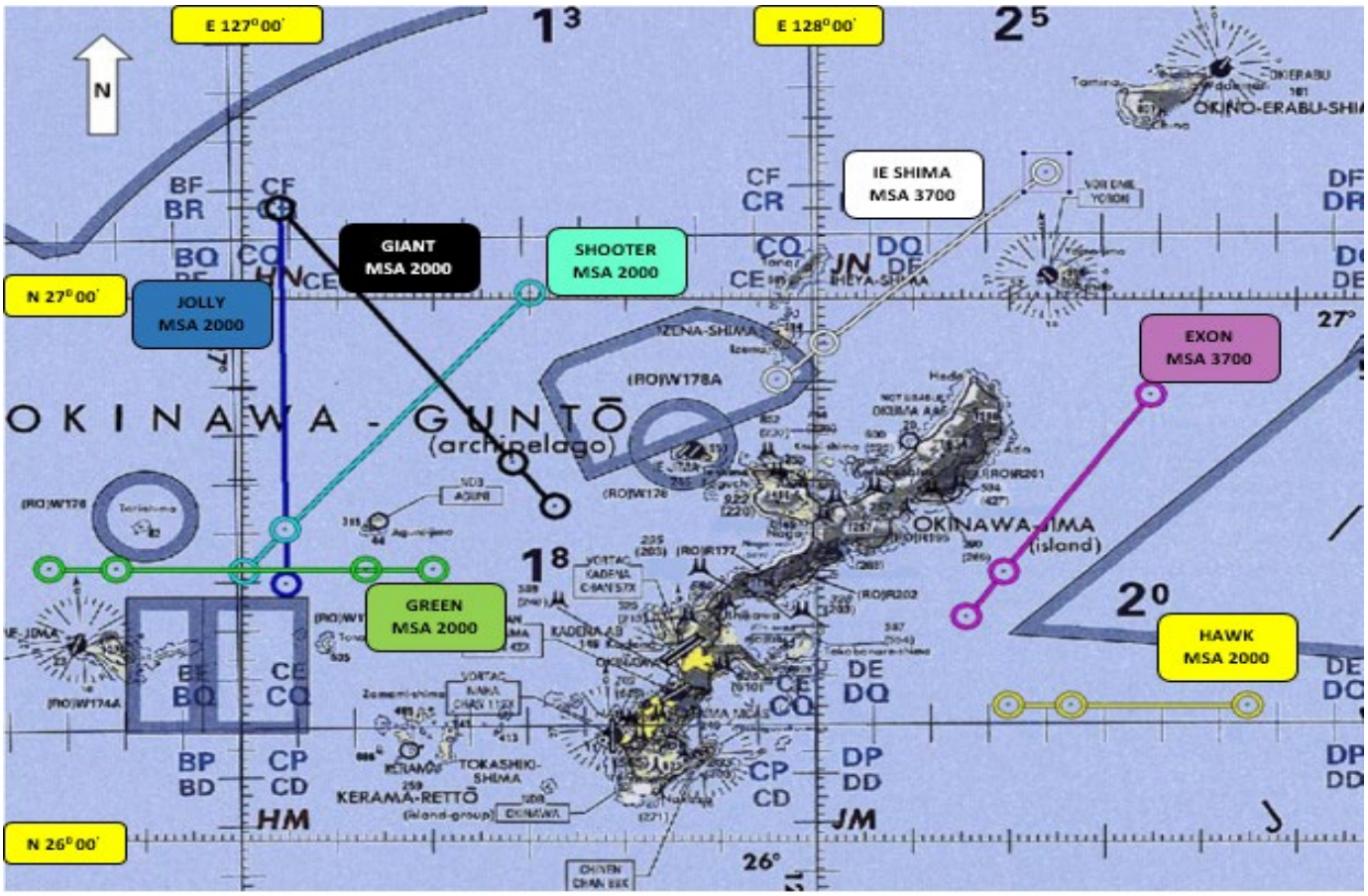


Figure 21: HAAR Track Coordinates

EXXON HAAR TRACK			
PT ID	Latitude	Longitude	Notes
ARIP	N 26 24.80	E 128 15.63	062 MC
ARCP	N 26 29.73	E 128 19.47	3700 MSA
AREP	N 26 49.43	E 128 34.88	Freq 230.700

SHOOTER HAAR TRACK			
PT ID	Latitude	Longitude	Notes
ARIP	N 26 29.78	E 127 00.31	045 MC
ARCP	N 26 34.30	E 127 04.60	2000 MSA
AREP	N 27 10.00	E127 30.09	Freq 299.600

JOLLY HAAR TRACK			
PT ID	Latitude	Longitude	Notes
ARIP	N 26 28.37	E 127 04.70	005 MC
ARCP	N 26 34.40	E 127 04.60	2000 MSA
AREP	N 27 10.00	E 127 04.00	Freq 281.900

IE SHIMA HAAR TRACK			
PT ID	Latitude	Longitude	Notes
ARIP	N 26 50.96	E 127 55.84	047 MC
ARCP	N 26 55.05	E 128 00.77	3700 MSA
AREP	N 27 13.98	E 128 23.87	Freq 249.800

HAWK HAAR TRACK			
PT ID	Latitude	Longitude	Notes
ARIP	N 26 15.00	E 128 20.00	094 MC
ARCP	N 26 15.00	E 128 26.50	2000 MSA
AREP	N 26 15.00	E 128 45.00	Freq 316.400

GREEN HAAR TRACK			
PT ID	Latitude	Longitude	Notes
EARIP	N 26 30.00	E 127 20.05	275 MC
EARCP	N 26 30.00	E 127 13.00	2000 MSA
WARIP	N 26 30.00	E 126 39.96	095 MC
WARCP	N 26 30.00	E 126 46.99	2000 MSA

GIANT HAAR TRACK			
PT ID	Latitude	Longitude	Notes
ARIP	N 26 36.95	E 127 32.67	328 MC
ARCP	N 26 41.87	E 127 28.35	2000 MSA
AREP	N 27 10.00	E 127 04.00	

CENTRAL TRAINING AREA AND NORTHERN TRAINING AREA VFR ROUTES

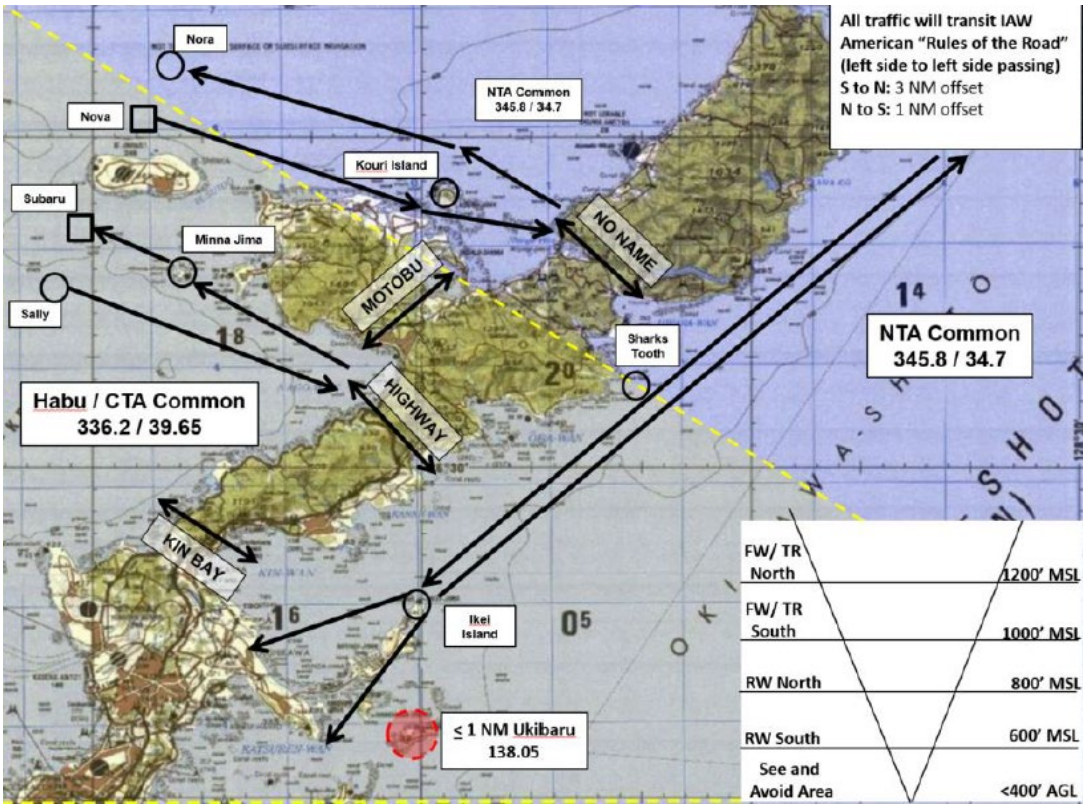
Military helicopter aviators conduct most of their training in the Central Training Area (CTA) and North Training Area (NTA). Aircraft use these training areas frequently at all hours for training – all pilots should use caution for heavy VFR traffic once north of Kadena's controlled airspace. **Figure 22** shows high density traffic routing that military traffic use both day and night.

Fixed wing and tilt-rotor aircraft typically transit the island of Okinawa between 1,000' and 1,500' AGL. Rotary wing and tilt-rotor in conversion mode typically transit from 500' AGL up to 1000' AGL.

Military Helicopter traffic operate up to ten miles off the east and west coasts of the island and may make unannounced run-ins at or below 1,200' AGL directly to/from the island.

Aircraft operating in the CTA monitor and advise on CTA Common (336.2) as a common traffic advisory frequency. Additionally, aircraft operating in the CTA may contact Habu Control on 336.2 for traffic advisories. Similarly, aircraft in the NTA monitor and advise on NTA Common (345.8). There is no traffic advisory service available in the northern training area.

Figure 22. CTA/NTA High Density Transitions/Routing



WARNING AND RESTRICTED AREAS AROUND KADENA

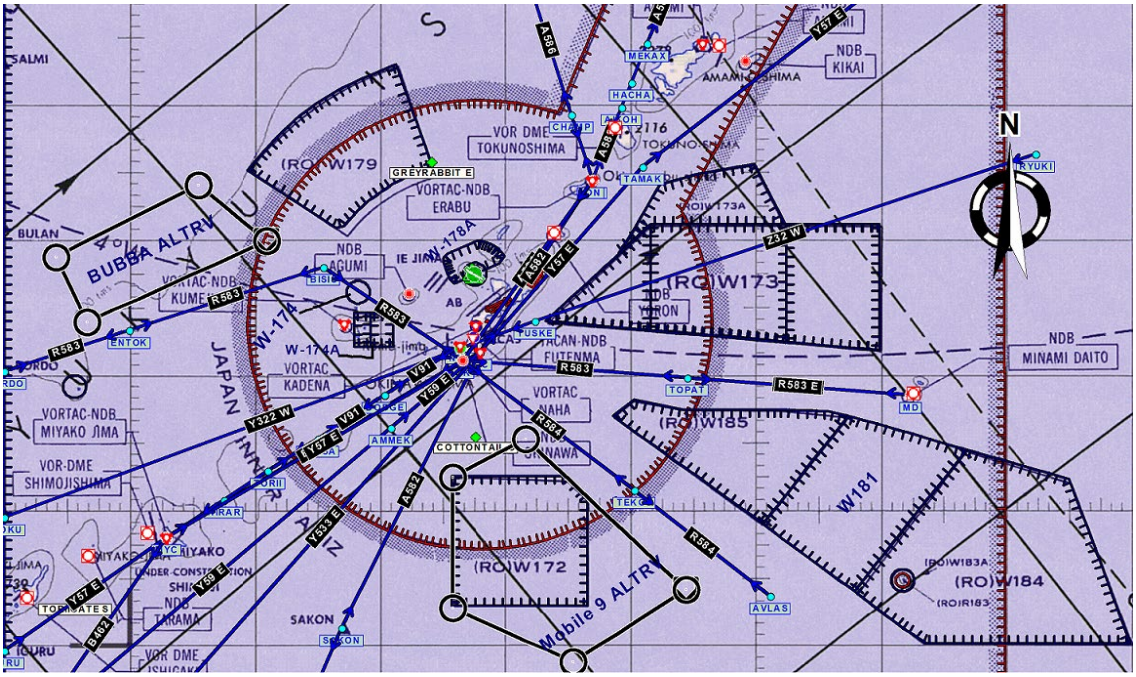
There are multiple restricted and warning areas within 50 miles of Kadena as shown in **Figure 23**. Aircrew should familiarize themselves with the Area Planning – Pacific/Australia/Antarctica (AP3/A) for details regarding range boundaries and operating times. As always, pilots should review NOTAMS prior to flight for additional data on local/warning restricted areas. Aircraft operating in the warning and restricted areas around Kadena should be aware of the possible conflicts with traffic arriving to/from Naha and Kadena as noted below.

Naha RWY 36 arrivals inbound from Mainland Japan will enter Naha's Approach airspace descending from FL240 down to 12,000' MSL. The aircraft enter Approach's airspace 5 miles north of W-173A/B entry/exit point ELSOL (**Figure 23**). A course direct to the airfield (when departing the warning area) could present conflict with a descending Naha arrival. By flying the Hotel 1 stereo route, the possibility of a conflict between civilian airliners and fighters returning from W-173 is eliminated.

The Naha 007 radial almost perfectly bisects W-178, meaning Naha RWY 18 arrivals from the northeast will likely intercept the radial inbound and rely on altitude separation from W-178/A and its participating aircraft. Aircraft canceling IFR and entering W-178/A should reconfirm their assigned W-178/A altitude prior to entering the airspace and contacting range controllers.

Aircraft planning to over-fly restricted areas should contact ATC to determine the status of that area.

Figure 23. Paragliding & Hang gliding Launch Sites



Approach Control will assist pilots with VFR traffic advisories within 60 NM of Kadena, when requested by pilots (traffic permitting), up to, but not in Warning and Restricted airspace. ATC will not approve or disapprove entry into or exit from warning areas located within or adjacent to Approach Control airspace. ATC's only responsibility is to keep non-participating aircraft clear of the active areas.

PARAGLIDE AND HANG GLIDE OPERATIONS

Civil operations for paragliding and hang gliding occur throughout the island. Flight operations are from the surface to 150M (500') AGL. Flights are operated with no radio communication and can take place in controlled airspace. **Figure 24** below shows a few of the launch sites. This is not an all-inclusive list. Within the Kadena airspace, Toguchi Beach is an active launch site during daylight hours.

Figure 24. Paragliding & Hang Gliding Launch Sites