

**BY ORDER OF THE COMMANDER
KADENA AIR BASE**

**KADENA AIR BASE INSTRUCTION
13-204**



23 MAY 2024

***Nuclear, Space, Missile, Command and
Control***

AIRFIELD OPERATING INSTRUCTION

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: This publication is available for downloading or ordering on the e-Publishing website at www.e-Publishing.af.mil

RELEASABILITY: There are no releasability restrictions on this publication

OPR: 18 OSS/OSA

Certified by: 18 OSS/CC
(Lt Col Robert C. Hendrick)

Supersedes: KADENAABI13-204, 13 August 2020

Pages: 160

This instruction implements Air Force Policy Directive (AFPD) 13-2, *Air Traffic Control, Airfield, Airspace and Range Management*; Air Force Manual (AFMAN) 13-204V1, *Management of Airfield Operations*; AFMAN 13-204V2, *Airfield Management*; and AFMAN 13-204V3, *Air Traffic Control*; and AFMAN 13-204V4, *Radar, Airfield, And Weather Systems*. It provides guidance and procedures on Air Traffic Control, Airspace, Airfield Operations, and Airfield Management. In accordance with (IAW) AFMAN 13-204V3, the effective date of this publication will be 30 days after the publication date to allow familiarization for all affected agencies and pre-implementation actions. It applies to 18th Wing (18WG) and partner units at Kadena Air Base (KAB). Temporary Duty (TDY) aircraft and personnel operating from KAB are considered "base assigned" and subject to the provisions of this instruction. Deviations are authorized in the interest of safety or in an emergency; however, full details and justification concerning deviations from these procedures will be briefed to the 18 Operations Support Squadron Commander (18 OSS/CC) and/or Director of Operations (18 OSS/DO) who will, in turn, brief the 18th Operations Group Commander (18 OG/CC). Waiver authority for this instruction is the 18 OG/CC. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed IAW the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the Department of Air Force (DAF) Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. Major changes include but are not limited to updating throughout to reflect AFMAN 13-204V1 through V4 change from AFI 13-204V1 through V4, removing all mentions of PAR as it is no longer available at KAB, updating Air Traffic Control and Landing Systems (ATCALs) Preventative Maintenance Schedule and Equipment Priority Listing/Response Times, fighter surge operations updated routes, noise abatement procedures during local holidays, chaff and flare use, standard radar climb-out procedures, Airfield Operations Board (AOB) attendance, hot pit refueling locations restrictions, Forward Air Refueling Point (FARP) operations notification procedures, and combat offload operations.

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Chapter 1

GENERAL INFORMATION

1.1. Scope. Procedures in this instruction are designed to promote safe and efficient airfield operations and flying activities within Kadena Air Base (KAB) delegated airspace and to respect host nation agreements. Commanders of assigned, tenant, and deployed units operating on KAB will ensure compliance with this publication.

1.2. Policy and Word Meaning. Each partner unit or assigned organization is responsible for ensuring its personnel are familiar with this instruction.

1.2.1. Word Meanings. The following definitions apply within this instruction.

1.2.1.1. Shall or must - indicate a mandatory procedure.

1.2.1.2. Will - means futurity, not a requirement for the application of the procedure.

1.2.1.3. Should - indicates a recommended practice.

1.2.1.4. May or need not - indicates an optional practice.

1.2.2. General Prudential Rule. The procedures and policies set forth herein are not intended to cover every contingency or outline every rule of safety or good practice. All personnel are expected to exercise prudent judgment in the performance of their mission.

1.3. Administration. The 18 OG/CC is the waiver authority for this regulation unless otherwise annotated. The 18 OG/CC may issue waivers or immediate action changes to this regulation when necessary for accomplishment of normal or special mission requirements, normally issued as Flight Crew Information File (FCIF) published by 18 OGV. All procedural changes affecting Air Traffic Control (ATC) must be forwarded to HQ PACAF/A3OF for review and approval before implementation IAW AFMAN 13-204V3. Send suggested changes to 18 OSS/OSA.

1.4. Published In-Flight Guide. 18th Operations Group Standardization and Evaluation (18 OG/OGV) shall retain current copies of all In-flight Guides from each 18 OG flying squadron and make available via the 18 OG/OGV site: <https://usaf.dps.mil/sites/kadena/18OG/OGV/SitePages/Home.aspx>.

Chapter 2

AIRFIELD FACILITIES INFORMATION

2.1. Airfield Information. KAB is located at N26°21.34, E127°46.06', with a field elevation of 143 feet Mean Sea Level (MSL).

2.1.1. Operating Hours: Airfield is open 24 hours per day, 7 days per week, including holidays.

2.2. ATC Facilities.

2.2.1. Kadena Tower (TWR) is open 24 hours per day, 7 days per week.

2.2.2. Futenma Ground Control Approach (GCA) is open 0700L - 2200L Monday through Friday except US Holidays and other times as indicated by Notice to Airmen (NOTAM). Futenma GCA provides airport surveillance radar (ASR) approaches into KAB from their facility aboard Marine Corp Air Station (MCAS) Futenma. Instrument approach monitoring is not available. The remainder of this instruction will refer to this facility as a GCA.

2.2.3. Kadena Arrival Control (ARR) is open daily 0600L - 2200L, and as required for Department of Defense (DoD) missions. Provides radar/instrument pattern control for U.S. airfields in Okinawa. ARR also provides Aviation Liaison to the Japan Civil Aviation Bureau (JCAB). ARR is located at the Naha Approach (APP) Control Facility at Naha Airport.

2.2.4. Naha Approach (APP) Control is open 24 hours per day, 7 days per week.

2.3. Runways (RWY). See Flight Information Publication (FLIP) for airfield diagram or [Figure A2.1](#) for detailed airfield depiction. The distance between runway centerlines is 1,352 feet. RWY 05L/23R is the primary instrument RWY.

2.3.1. RWY 05L/23R: Dimensions. 12,101 feet by 300 feet (concrete/asphalt). RWY 23R has 1,000 feet of non-load bearing overrun. RWY 05L has no overrun. RWY 05L has grooved concrete from RWY threshold to 3,600 feet down the RWY. RWY 23R has grooved concrete commencing at the RWY threshold extending 2,000 feet down the RWY. The middle portion of RWY 05L/23R is grooved asphalt.

2.3.2. RWY 05R/23L is 12,101 feet by 200 feet (concrete/asphalt). RWY 05R and RWY 23L have 1,000 feet non-load bearing overruns. RWY 05R has 75 feet of grooved pavement centered on the RWY centerline with un-grooved pavement immediately beyond until 8,500 feet when the grooved surface is continuous across the RWY.

2.4. RWY Selection Procedures.

2.4.1. RWY 23 is the calm wind RWY.

2.4.2. TWR Watch Supervisor (WS) selects the RWY IAW Federal Aviation Administration Joint Order (FAA JO) 7110.65, *Air Traffic Control*.

2.4.3. When RWY change is anticipated, TWR shall notify APP, ARR, GCA, Airfield Management Operations (AMOPS), Futenma TWR, Fire Department, Barrier Maintenance (MX), Weather (WX), and MX Operations Control Center (MOCC).

2.4.4. Upon RWY change, TWR will change the Instrument Landing System (ILS) to the RWY in use and notify APP, ARR, and GCA.

2.4.5. MCAS Futenma will align their operations with Kadena's active runways.

2.5. Opening, Closing, and Suspending RWYs. AMOPS shall open, close, or suspend RWY operations IAW AFMAN 13-204V2. TWR may suspend operations, but only AMOPS will close and/or resume operations. NOTAM(s) will be published for closures greater than 1 hour. RWY closures require OG/CC approval with coordination through the Airfield Manager.

2.5.1. TWR shall notify APP, ARR, GCA, and AMOPS when runway operations are suspended. A suspension announcement will be made on TWR frequencies (and GUARD, when directed by the Supervisor of Flying [SOF], with fighters airborne).

2.5.2. TWR will automatically suspend operations for an emergency, unless otherwise determined by the SOF IAW [paragraph 7.5.2.1.3](#) or any other unsafe condition within 100 feet of the RWY.

2.5.3. AMOPS will complete an airfield check. Report the airfield status and RWY condition prior to resuming operations.

2.5.4. When airfield closures or reduced operations are planned, AMOPS will publish NOTAM(s) 7 days in advance. AMOPS will advise local agencies and 5 AF for closures greater than 72 hours.

2.6. RSC and/or RCR Values. AMOPS will conduct and report RWY Surface Condition (RSC) on all active RWYs IAW AFMAN 13-204V2. RWY Condition Reading (RCR) is not reported at KAB. TWR will notify AMOPS as soon as practical upon observation of a condition that may affect the landing area.

2.7. Taxiways (TWY). See [Figure A2.1](#) for a detailed map of the RWY and TWYs.

2.7.1. TWY Widths. All TWYs are 75 feet wide except as noted in [Table 2.1](#).

2.7.2. Closing/Suspending TWYs. TWY closures/suspensions shall be directed by AMOPS. AMOPS will coordinate with TWR to minimize impact to airfield operations.

Table 2.1. Non-Standard TWY Widths.

TWY	Between RWY 05L/TWY L	Between RWY 05L/05R	Between RWY 05R/TWY K
Bravo	442 feet	295 feet	295 feet
Charlie	96 feet		
Delta	96 feet		
Echo	96 feet		

2.7.3. Exercise. The 18 WG/IG or any other agency planning an exercise (353d, Commander Fleet Activities Okinawa [CFAO], Marine Wing Liaison Kadena [MWLK], etc.) will coordinate exercise requirements which pertain to the airfield facilities and Airfield Operations (AO) personnel, as well as all exercise activities that take place on the airfield, with the 18 OSS/CC, DO, and AOF/CC as early as feasible, but no later than 7 days prior to execution. Coordination will include scenario details, timing, and portions of the airfield involved. This coordination will ensure flight safety, effective support, and continued operations for non-participating units. WS/ Senior Controller (SC) shall interrupt TWR exercise participation to ensure safety of flight.

2.8. Airfield Visual Blind Spots.

2.8.1. Primary TWR. TWR cannot provide positive control for aircraft operating in these areas. The following TWYs cannot be seen from the TWR: November, Papa, and Kilo between TWYs Echo and Foxtrot, TWY Hotel, Upper Fighter Ramp (UFR) spots 1-50, Combat Mobility Element (CME) parking apron, Service Apron (SA) 4, Northeast Connector, and the intersection of TWYs Juliet and Delta.

2.8.2. Alternate TWR. Operations will be severely impacted by visual blind spots due to location. Be prepared for significant delays. TWR cannot provide positive control for aircraft operating in these areas. The following areas cannot be seen from the alternate TWR: the UFR, TWY Golf East of TWY Echo, TWY Whiskey south of the Navy Ramp, TWY Hotel, TWY Lima West of parking spot L-8 to TWY Alpha, TWY November West of TWY Charlie, TWY Papa West of parking spot P-11 and TWY Charlie between TWY Lima and Mike cannot be seen from the Alternate TWR. Parts of TWY Juliet are not visible when aircraft are parked on SA2 or spots 102-114.

2.9. Closed Portions of Airfield.

2.9.1. Hardstands (HS) 116 and 118 are permanently closed to aircraft.

2.9.2. SA 5/6 require Wing/CC approval to park aircraft on. Due to Government of Japan (GOJ) agreements, these aprons are to be utilized for humanitarian or contingency operations only.

2.10. Restricted/Controlled Areas on the Airfield.

2.10.1. Controlled Areas.

2.10.1.1. The airfield is a controlled area as defined in KAB PLAN 31-101, *Integrated Defense Plan*, and DAFI 31-101, *Integrated Defense (ID)*. Entry to the airfield is for Official Business Only and all personnel on the airfield must have identifying credentials.

2.10.1.2. Unauthorized or suspicious individuals within controlled areas will be challenged. Unauthorized individuals will be immediately reported to Base Defense Operations Center (BDOC) (Routine calls: 634-2475/2476, Emergencies: Helping Hand Hotline at 634-4444).

2.10.1.3. Contractors will possess DBIDS (Defense Biometric Identification System) cards issued by the SFS Pass and registration office. A list of contractors performing duties on the airfield will be provided to BDOC, MOCC, and AMOPS for verification purposes. All contractors operating a privately owned vehicle (POV) on the airfield will have proper escort for access to controlled areas and must comply with requirements in DAFI 13-213, KADENAABSUP, *Airfield Driving*.

2.10.2. Restricted Areas.

2.10.2.1. KAB PLAN 31-101 outlines restricted area numbers, physical locations, descriptions of the areas, priority, organizations who control designated areas, and escort and control procedures.

2.10.2.2. All personnel within restricted areas must be vigilant for unauthorized intruders or any suspicious acts. Personnel will challenge any person that at a specific time or place appears questionable; to include individuals without a restricted area badge listing the appropriate restricted area number. To initiate implementation of a security incident, notify security forces immediately after the individual is in the final challenge position.

2.10.2.3. Report observed or suspected security violations to BDOC (634-2475).

2.10.2.4. Crossing the restricted area boundary, red rope, or painted red line at locations other than designated entry points without pre-approval by BDOC controllers is unauthorized. This act violates security procedures and will initiate a Security Incident.

2.10.3. Free Zone.

2.10.3.1. Free zones (no protection level resources) are areas established within restricted areas when construction projects and similar activities make it inappropriate or impractical to apply normal circulation controls.

2.10.3.2. Requests for the establishment of a Free Zone will be submitted to the Integrated Defense Council IAW KAB PLAN 31-101.

2.10.3.3. Static displays on the airfield must be coordinated through 18th Maintenance and 18th Wing Scheduling and approved by the Airfield Manager.

2.11. Airfield Lighting Systems.

2.11.1. RWY Lighting. Approach Lighting and Visual Glide Slope Indicator systems can be found in FLIP or [Table 2.2](#).

2.11.2. RWY Distance Markers. RWY distance markers indicate RWY remaining in 1,000 feet increments and are lit for night operations.

2.11.3. TWY Lighting. TWY lighting is available on the airfield except TWYs Golf (west end), Echo (south of Kilo), Mike, November, Papa and UFR. 18 WG and partner/rotational units are approved to use unlit TWYs. Transient Alert (TA) Follow-Me services will be provided for all transient aircrew when operating in these areas.

2.11.4. Airport Rotating Beacon. The airport rotating beacon is located atop the TWR.

Table 2.2. RWY Lighting.

RWY	Lighting Type	RWY	Lighting Type
05L	HIRL, SFL, ALSF-1, PAPI, AMP3	23R	HIRL, SALSF, PAPI
05R	HIRL, REIL, PAPI	23L	HIRL, REIL, PAPI

2.12. Aircraft Arresting Systems (AAS). Barrier Arresting Kit-12s (BAK) are located on RWY 05L/23R and BAK-14s located on RWY 05R/23L (See [Table 2.3](#)). BAK-12s have 8-point tie downs and BAK-14s have 20-point tie downs. It takes 20-30 min to raise or lower a BAK-12 if needed, and BAK-14s are normally controlled from the TWR and can be raised and lowered from the TWR.

2.12.1. AAS require 15-30 minutes to restore and recertify following a normal engagement. Fire Department, Barrier MX, and Crash Recovery will develop procedures to ensure safe engagement, disengagement, and restoration of the AAS, and will coordinate with AMOPS, TWR, and the SOF as required to prioritize restoration of the AAS or runway as required for resumption of RWY operations. AAS locations are displayed on [Figure A2.1](#). Barrier MX is the only qualified agency to certify operational status.

2.12.2. During periods of active fighter flying, AAS will be configured IAW [Table 2.4](#).

2.12.3. During periods of no proposed or active fighter flying, all AAS will be lowered unless deemed necessary by the 18 OG/CC for Japan Air Self Defense Force (JASDF) contingency operations.

2.12.4. The BAK-14 cable will normally be in the lowered position, unless fighter aircraft are flying. The BAK-14 cable will be lowered if heavy aircraft are required to land or taxi on 05R/23L. All aircraft should avoid taxiing over or landing on a raised BAK-14 cable. Reference [paragraph 9.5.5.1](#) for fighter aircraft procedures.

2.12.4.1. The BAK-14 was not designed to operate in the up position with repeated aircraft roll-overs. Repeated high speed roll-overs will damage system components which will reduce system reliability, increase the chance of a missed engagement, and cause increased maintenance cost, as well as system downtime. Low speed taxi roll-overs must be kept to a minimum to prevent degradation of system performance.

Table 2.3. Aircraft Arresting Systems.

SYS	Type	Dir	Location
1	BAK-12B	BI	1402' from RWY 05L Threshold
2	BAK-12B	BI	3210' from RWY 05L Threshold
3	BAK-12B	BI	3177' from RWY 23R Threshold
4	BAK-12B	BI	1598' from RWY 23R Threshold
5	BAK-14B	BI	1512' from RWY 23L Threshold
6	BAK-14B	BI	2709' from RWY 05R Threshold

Table 2.4. AAS Configuration during Fighter Operations.

	Standard Configuration	
	Day	Night/IMC (1000/3SM)
05R	5	5
05L	4	2,3,4
23L	6	6
23R	1	3,2,1
Unless otherwise specified, the barriers will be raised in the above configurations during fighter flying operations.		

2.12.5. Barrier Certifications. When a barrier has not been used for over a year, or major modification and/or repair work has been accomplished, a barrier certification is required IAW AFMAN 32-1040, *Civil Engineer Airfield Infrastructure Systems*. Certifications will be scheduled by Barrier MX and the Airfield Manager (AFM). The AFM will coordinate with all agencies prior to certifications. All barrier certifications will be scheduled and conducted at a time to ensure minimum impact to wing flying. Certifications will be scheduled Monday through Friday, normally on the last sortie of the day. All certifications will take place during daylight hours.

2.12.5.1. Prior to engagement, AMOPS will notify the airfield sweeper and Barrier MX and ensure the airfield sweeper is positioned at the TWY entrance nearest the system to be engaged. AMOPS will perform a Foreign Object Damage (FOD) check of the area before and after the engagement.

2.12.5.2. The tasked pilot will review flight manual procedures and direct any questions to Barrier MX regarding engagement procedures during the face-to-face briefing. Pilots will set up to engage the barrier with enough RWY to stop if a barrier is missed.

2.12.5.3. Certifications will normally be conducted by aircraft following landing from a scheduled training line. In all cases, TWR will notify AMOPS when the designated aircraft is taxiing towards the staging area.

2.12.5.4. Aircraft will shut down engines and be removed from the cable using tow procedures. Sling shot procedures will not be utilized during barrier certifications. The Fire Chief is designated as the on-scene commander.

2.12.5.5. Once the engagement is complete and the aircraft has been removed from the cable, Barrier MX will inspect the system for any damage, and certify the system back into service. Once the certification is complete, Barrier MX will inform Airfield Management of system status.

2.12.5.6. Wing Safety will observe planned engagements on site. If a safety violation is detected, the engagement will be cancelled.

2.12.6. Navy and Marine Corps AAS usage at KAB. Pilots and/or units will not use AAS for routine use. If heavy rains and/or crosswinds are forecasted and the unit anticipates use of AAS, the unit will delay or cancel operations. The primary RWY is 05R/23L. If RWY 05L/23R must be utilized and the AAS must be used for WX, pilot and/or unit will notify ATC no later than (NLT) 20 minutes prior to engagement due to the time required to manually raise the AAS and complete a FOD check on RWY 05L/23R. APP or ARR will notify TWR who will notify AMOPS. Crash alarm systems will not be active as this is not a declared emergency.

2.12.7. When notified, AMOPS will notify Barrier MX, Fire Department, and the airfield sweeper. The Fire Department will pre-position a Crash Fire Response and Command vehicle for the duration of the operation. Crash recovery or Fire Department will remove the engaged aircraft from the AAS; Barrier MX will prepare the cable for subsequent engagement. Post engagement AMOPS will conduct a RWY check and report status prior to subsequent engagements or resuming normal operations.

2.12.8. MX Procedures. AAS MX will be conducted outside flying hours to the max extent possible. Normal Barrier MX duty hours are 0530L to 2230L. During surge operations, 05R/23L closures, and during alternate TWR operations, duty hours are 0400L- 2230L. During normal duty hours Barrier MX will be available within 10 minutes. If a cable needs to be raised or removed outside normal duty hours, AMOPS will contact Barrier MX via standby cell at 090-8517-5241 or 090-1763-9113. If Barrier MX cannot be reached via standby cell, AMOPS will contact the Fire Department to notify Barrier MX of any issues regarding AAS in addition to raising or removing AAS. If Fire Department reconfigures the barriers, only Barrier MX can determine the AAS is in service/operational. To meet mission requirements, Barrier MX needs access to the AAS for 2 hours, prior to the first fighter departure.

2.12.8.1. Monday through Friday from 0500L – 0730L, Barrier MX will have availability to the RWY to perform uninterrupted MX actions to a single AAS. Barrier MX will inform TWR via ramp net of which AAS will be out of service during the MX window. TWR will ensure RWY operations are suspended for repairs occurring on the RWY. **Note:** Only one RWY will be suspended during the MX window. Once Repairs are complete, AMOPS will complete a FOD check and resume runway operations as applicable.

2.12.8.2. If the QKF shows fighters departing before 0800L, TWR will inform Barrier MX via ramp net when they request permission onto the RWY to refrain from conducting MX actions that will deem the AAS out of service. For repairs exceeding the repair window, Barrier MX will coordinate a maintenance repair window with the NCOIC Airfield Management Operations (NAMO).

2.12.9. BAK-14 Operation. The BAK-14 system is designed to be raised and lowered at the user's discretion to meet operational requirements. After Barrier MX certifies the system in their daily checks the system can be raised/lowered for a 24-hour period and considered useable.

2.12.10. Barrier Removal for Cable Bird Operations.

2.12.10.1. RWY 05R/23L is the primary RWY for Cable Bird operations. Annotate and highlight "Cable Bird" in the Remarks section of the DD Form 1801, *International Flight Plan, DoD*. **Note:** Failure to pre-identify as a "cable bird" could result in delayed departure.

2.12.10.2. If RWY 05R/23L is not available, TWR will ensure barriers are removed from RWY 05L/23R prior to Cable Bird missions, unless other configurations are approved by the pilot. If not broadcasted on ATIS, TWR clearance for takeoff and landing will include the phrase: "BARRIERS ARE DOWN" or "BARRIERS INDICATE DOWN." Barriers will not be removed until Cable Bird plans a full stop. Cable Bird requests for touch-and-go training will be approved by the 18OG/CC at the weekly scheduling meeting.

2.13. ATC and Landing Systems (ATCALs). See [Table 2.5](#) for ATCALs Preventive Schedules.

2.13.1. Ground (GND) Navigational Aid (NAVAID) checkpoints are located on all warm-up pads.

2.13.2. Naha Airport Surveillance Radar (ASR) with Trajectorized Airport Traffic Data Processing System (TAPS) system. The two primary ASR antennas and TAPS are located at Naha Airport. APP and ARR utilize the TAPS with ASR to provide radar approach, departure, and arrival services for all aircraft operations within the Naha Positive Control Area (PCA), terminal approach control, and arrival control delegated airspace.

2.13.3. KAB Digital Airport Surveillance Radar (DASR) with Standard Terminal Automation Replacement System (STARS). The DASR antenna is located on KAB. Kadena TWR and Futenma TWR/GCA utilize the DASR to provide TWR and GCA services. Kadena and Futenma STARS systems are separate for each facility. ARR uses the DASR and STARS for the ARR Contingency Facility (ARRCF).

2.13.4. Civil Use of Military ATCALs. Non-foreign operated civil aircraft are permitted to use USAF NAVAIDs for practice and multiple low approaches at KAB and may be issued radar vectors to not delay mission essential traffic. ATC supervisory personnel make the determination based on current and projected traffic conditions. Civil aircraft must have a landing permit or approval from the senior operational commander to land.

2.14. Auxiliary Power Requirements. The primary back-up power system for the TWR and ARRCF is the air commercial power plant, which has an auto-start capability. The back-up systems for the air commercial power plant are TWR and ARRCF individual facility generators in Buildings 3418 and 3413. In the event both air commercial power plant and the individual facility generators fail to auto-start, controllers, if trained, are authorized to manually start the units. Under such circumstances, the WS or Senior Controller (SC) shall perform the following actions:

2.14.1. Follow the appropriate facility checklist.

2.14.2. Ensure the generators are started.

2.14.3. Under normal conditions following a commercial power outage, air commercial power will auto-start with a 5 second delay and feed 100% of the load to both the TWR and ARRCF. In the event air commercial power fails to auto-start, the individual facility generators should assume the load within 10 to 15 seconds. The facility generator in the ARRCF feeds only the technical load in the Instrument Flight Rules (IFR) room (scopes and Enhanced Terminal Voice Switch [ETVS]); the TWR facility generator feeds the elevator and technical load. Once air commercial power is online, the building generators' transfer system times out and switches the load to the air commercial power plant. The building generators will then automatically shut down.

2.14.4. The ARRCF and the TWR radios, ETVS, and Digital Audio Legal Recording (DALR) are equipped with Uninterrupted Power Supply (UPS) systems. During all transfer processes, the UPS will assume load on initial outage and act as a filter to incoming generator power. When commercial power is restored, air commercial power plant generator will automatically begin re-transfer and shut-down operations. Once the transfer systems have timed out the generator will automatically shutdown. The air commercial power plant is normally manned. However, during severe weather and tropical cyclone conditions of readiness (TCCOR) conditions, power plant production personnel are on standby at the 18 CEG/UCC, Building 1461, 24 hours a day.

2.14.5. 18 CES/CEO shall ensure:

2.14.5.1. Power production personnel complete required preventive MX inspections (PMIs) to achieve a 100% reliability rate. PMIs include checking fluid level and ensures the power transfer control panel are properly set.

2.14.5.2. During periods of extended operations on auxiliary power, check and notify facility managers of generator fuel status when able. However, facility managers must be proactive and ensure generator(s) are checked every two hours.

2.14.5.3. The auto-start or auto-transfer system is tested IAW AFMAN 13-204V3, *Air Traffic Control*, and AFI 32-1062, *Electrical Systems, Power Plants and Generators*. Use procedures which duplicate conditions during a nonscheduled power outage (e.g., kill commercial power to auto transfer panel).

2.14.5.4. Power production personnel coordinate with Radar, Airfield, and Weather Systems (RAWS) prior to testing or transferring power at an ATCALs and/or with the affected ATC facility prior to transferring power at transmitter or receiver site.

2.14.5.5. Qualified personnel will respond to emergency ATCALs back-up generator failure within 20 minutes during normal duty hours (0730L-1630L). After hours (1630L-0730L, weekends, and holidays), response time will be as soon as possible but not to exceed one hour.

2.14.5.6. Generator certification training is provided to 18 OSS/OSA as necessary, but not less than annually.

2.14.6. 18 OSS/OSA shall:

2.14.6.1. Ensure the ARRCF and TWR WS notify other ATC agencies prior to ATCALs transferring to back-up power. This will allow 18 CES personnel to check the building generators' auto-start and load assumption feature without impacting flying operations.

2.14.6.2. Ensure personnel are trained by 18 CES/CEO as required, but not less than annually, and maintain documentation of training.

2.14.7. RAWS shall ensure:

2.14.7.1. On-site technicians are available for any generator test affecting an ATCALs component.

2.14.7.2. The RAWS is the coordinating element between ATC and 18 CES.

2.14.7.3. Under extended auxiliary power operations (continuous generator operations longer than one hour), 18 OSS/OSA facility managers, via their certified generator personnel, will visually check the generator(s) for signs of concern (e.g., fuel, coolant or oil leaks), document the AF Form 487, *Generator Operating Log (Inspection Checklist)*, of the appropriate reading/data per their training, and check and schedule fuel deliveries through base fuels.

2.15. ATCALs Preventive Maintenance (PM) Procedures.

2.15.1. All PM on systems listed in **Table 2.5** should be performed when the current weather conditions and/or forecasted conditions (forecasted to remain for the PM window +1 hour) are as follows:

2.15.2. Ceiling: 3,000 feet or greater.

2.15.3. Visibility: 5 miles or greater.

2.15.4. PM may be suspended under the following conditions:

2.15.4.1. The weather conditions unexpectedly deteriorate below those outlined in paragraphs **2.15.2** and **2.15.3**.

2.15.4.2. An emergency aircraft request the use of the equipment.

2.15.5. With regard to the schedule in **Table 2.5**, only one ATCALs at a time shall be released between 0500L-0800L.

2.15.6. ATC radio frequencies may be released at WS discretion. Kadena Arrival Controller in Charge concurrence is required for the release of shared use radio frequencies.

2.15.7. The 18 OG/CC has approved the ATCALs Preventive Maintenance (PM) Schedule in **Table 2.5**.

Table 2.5. ATCALs Preventive Maintenance (PM) Schedule.

Equipment	Local Times	Day
DASR	0100-0530	Monday-Friday
ILS	0500-0800	Monday-Friday
Very High Frequency Omni- Directional and Radio Range Tactical Air Navigation (VORTAC)	0000-0600	Monday-Friday
Next Generation Radar (NEXRAD)	0000-0600	Monday-Friday
Tower's Enhanced Terminal Voice Switch (ETVS)	0100-0500	Monday-Friday
Automatic Meteorological Station (AN/FMQ-19)	0700-1200	Monday-Friday

2.15.8. RAWs technicians will respond to non-mission capable outages IAW **Table 2.6**.

Table 2.6. ATCALs Equipment Priority Listing/Response Times (RT).

Facility	Priority	Duty Hours RT	After Hours RT
Radios	1	30 Minutes	60 Minutes
Tower/ARRCF ETVS	2	30 Minutes	60 Minutes
VORTAC (TACAN)	3	30 Minutes	60 Minutes
VORTAC (VOR)	4	30 Minutes	60 Minutes
ILS (Localizer)	5	30 Minutes	60 Minutes
ILS (Glideslope)	6	30 Minutes	60 Minutes
DASR	7	30 Minutes	60 Minutes
STARS	8	30 Minutes	60 Minutes
DALR	9	30 Minutes	60 Minutes
NEXRAD	10	60 Minutes	120 Minutes
Inactive ILS (Localizer)	11	30 Minutes	60 Minutes
Inactive ILS (Glideslope)	12	30 Minutes	60 Minutes
FMQ-19	13	30 Minutes	60 Minutes

Notes:

1. In an event of multiple radio outages, the Tower WS will determine restoral priority.
2. In the event the ARRCF is stood up, priority level of the DASR, STARS, and DALR will increase.
3. In the event of typhoon conditions, priority level of the FMQ-19 will increase.

2.15.9. The facilities listed in **Table 2.7** are the ATCALs and ATC communications facilities which require auxiliary backup power generators and automatic start and transfer systems to ensure long term, seamless operation in the event of a commercial power failure.

Table 2.7. ATCALs Facilities Requiring a Generator.

Building Number	Nomenclature
3413	Arrival Contingency Facility-ARRCF
3423	Air Traffic Control Tower (ATC)
3417	ATC Transmitter Site
White Beach NAS - 1410	Next Generation Radar - NEXRAD
73419	Digital Airport Surveillance Radar - DASR
3391	Very High Frequency Omnidirectional and Radio Range Tactical Air Navigation - VORTAC
73335, 73396, 73056, 73566	Instrument Landing Systems - ILS
3414	ATC Receiver Site

2.16. Protection of Precision Approach Critical Areas and Precision Obstacle Free Zone (POFZ). Instrument hold lines provide protection for localizer and glide slope critical areas and the POFZ.

2.16.1. ILS Precision Approach Critical Areas.

2.16.1.1. Protect Localizer and Glideslope Critical Areas IAW FAAO JO 7110.65 and AFMAN 13- 204V3 (see **Figure A2.1.**).

2.16.1.2. GND will restrict vehicles from using centerline road between TWYs Alpha and Bravo (RWY 05), or TWYs Echo and Foxtrot (RWY 23) when the ceiling is less than 800 feet and/or visibility is less than two miles and an aircraft executing an ILS is at or inside the final approach fix.

2.16.2. POFZ. The POFZ is a volume of airspace above the area beginning at the RWY threshold, at the threshold elevation, and centered on the extended RWY centerline, 200 feet long by 800 feet wide.

2.16.2.1. Protect the POFZ IAW Federal Aviation Administration Order (FAAO) JO 7110.65, *Air Traffic Control*.

2.16.3. Instrument Hold Lines. Critical areas are marked by instrument hold lines.

2.17. WX Dissemination and Coordination Procedures.

2.17.1. Automated observations are available 24/7 through the FMQ-19 sensors located on RWY 05 and RWY 23. 18 OSS/OSW is responsible for back-up procedures to disseminate observations if there is a sensor outage. Procedures are outlined in the KADENAABI 15-101, *Weather Support*.

2.17.2. 18 OSS/OSW's primary method for disseminating WX information to command and control agencies, and to ground operation centers, is via the Joint Environmental Toolkit (JET). 18 OSS/OSW will disseminate WX information by phone to all applicable units during JET outages. ATC shall relay significant WX condition changes (e.g., hazardous/severe WX, lightning, etc.) reported by 18 OSS/OSW IAW FAAO JO 7110.65 and KADENAABI 15-101.

2.18. Automatic Terminal Information Service (ATIS) Procedures. ATIS will be operated IAW FAAO JO 7110.65 in Meteorological Aviation Report (METAR) format. ATIS operating hours are 0600L-2200L daily, and/or 30 minutes prior to scheduled flying. WX, field conditions, barrier status, and approach information are broadcasted on ATIS (124.2/280.5). Pilots shall attempt to receive ATIS before initial contact with ATC. NOTAMs older than 24 hours will not be on ATIS.

2.19. Transient Alert (TA) Services. KAB TA operates 24 hours per day, 7 days per week. See Pacific, Antarctica, and Australia (PAA) FLIP for TA Services.

2.20. Supervisor of Flying (SOF) TWR Procedures.

2.20.1. The SOF is a qualified fighter aircrew member certified by 18 OG/OGV and appointed by the 18 OG/CC to act as their representative in the TWR to ensure safe and effective execution of flight operations. The Kadena SOF, call-sign SHOGUN-10, should be contacted on Ultra High Frequency (UHF) 302.5 for airfield status, in-flight emergency coordination, WX, alternates, divert coordination, etc. See also [Chapter 7](#), Emergency Procedures.

2.20.2. 18 WG SOF Responsibilities.

2.20.2.1. The SOF will be certified IAW AFI11-418, 18WGSUP, *Operations Supervision*.

2.20.2.2. The SOF shall coordinate with the TWR WS for prioritization of operations as necessary to ensure safe and effective flight and ground aircraft operations. If necessary, the SOF shall coordinate with the TWR WS to use an ATC frequency IAW AFMAN 13-204V3, [paragraph 11.2](#). The SOF shall also coordinate with the WS for any additional radios required to perform duties (**Example:** CM350).

2.20.2.3. Alert the TWR WS and ARR facility of any potential or actual in-flight emergencies, GND emergencies, or other special circumstances as soon as possible. During WX recalls or in-flight emergencies with or without cable engagements, coordinate aircraft prioritization and emergency responses, if necessary, with the TWR WS (i.e. sequencing fighter aircraft prior to barrier engagement and/or RWY closure).

2.20.2.3.1. In situations involving RWY closures, WX recalls, WX diverts, etc., the SOF will use judgment to prioritize contact of airborne formations via area common or flight discrete frequencies (based on configuration and time airborne) to ensure flight leads are afforded requisite information to ensure safety of flight.

2.20.2.3.2. When a SOF is on duty in the TWR, they may direct no RWY check is required or "SOF-Call" due to the nature of the emergency (e.g., emergency fuel, cabin depressurization, crew member or passenger medical emergency, environmental control system (ECS) light, navigational equipment failure, etc.). TWR will relay this information to AMOPS immediately.

2.20.2.4. Inform both the TWR WS and ARR of any major changes to the 18 WG fighter flying schedule or airspace changes.

2.20.2.5. Unless delegated otherwise by the TWR WS, the SOF shall route all ATC coordination through the WS.

2.20.2.6. Advise the TWR WS of any Enhanced Terminal Voice Switch (ETVS) communications outages.

2.20.2.7. Upon assumption of duties, the SOF will request an airfield briefing from the on-duty WS.

2.20.3. Responsibilities for TWR WS.

2.20.3.1. Provide the oncoming SOF with a thorough airfield status briefing and provide updates of any changes to the airfield status throughout the shift.

2.20.3.2. Provide the SOF with timely updates on all in-flight emergencies (IFE) and ground emergencies (GE).

2.20.3.3. When requested by the SOF, include any mission essential messages in the ATIS broadcast, if not prohibited by FAAO JO 7110.65.

2.20.3.4. Log SOF position outages with RAWS.

2.20.3.5. Provide SOFs with equipment familiarization training, as required, to include use of radio, telephone, and WX receiving equipment.

2.20.3.6. Provide the SOF with additional backup radios when it does not interfere with the TWR communication capabilities. If additional radios are required for SOF duties, the WS may provide a CRM350 or another unused discrete frequency. In no way will the use of these radios inhibit TWR operations.

2.20.4. 18 OG/OGV Responsibilities.

2.20.4.1. Provide operational training for all SOF-qualified wing personnel.

2.20.4.2. Ensure all publications are current.

2.20.4.3. Maintain all equipment specifically for SOF use.

2.20.4.4. Invite the AOF/CC, Air Traffic Manager, Chief Controller, and all WSs to semi-annual SOF meetings.

2.21. Airfield Maintenance.

2.21.1. Airfield Sweeper Operations. 18 CES will provide a dedicated airfield sweeper to remain on the airfield during wing flying to accomplish airfield sweeping IAW daily schedule coordinated with AMOPS.

2.21.1.1. During standby periods (nights and weekends), sweeper vehicles may be requested through AMOPS. The maximum response time by a sweeper will be 30 minutes. Request should include rank, name, unit, phone number, and area to sweep. If a HS, nose dock, hardened aircraft shelter, flow-thru, or hangar requires sweeping, the requester must ensure a spotter is available. AMOPS will contact 18 CES Service Call at 634-2424 for emergency requests after normal duty hours.

2.21.1.2. Grass Mowing Schedule. Mowing season is year round. Mowing operations are conducted by 18 CES. Airfield grass height will be 7-14 inches. 18 CES will advise AMOPS daily of the areas to be mowed. Mowing operations are conducted from 0730-1630. Simultaneous RWY closures are not authorized. AMOPS is authorized to suspend RWY operations when mowing is close to the runways.

2.21.2. Annual Airfield Maintenance.

2.21.2.1. Rubber removal, painting, and re-striping will be scheduled annually, as needed.

2.21.2.2. To the max extent possible, RWYs will be closed to accomplish annual MX during periods which will minimize operational impacts and enable operation of both runways during wing flying. RWY closures require OG/CC approval and are coordinated through the Airfield Manager.

2.21.2.3. 18 CES/CC will ensure availability of equipment for rubber removal, sufficient yellow and white paint, painting supplies, and other support equipment. All airfield painting and projects will be IAW AF/CE directives.

2.22. RWY Inspections/Checks.

2.22.1. Airfield inspections and checks. Accomplished by AMOPS IAW AFMAN 13-204V2 and Airfield Management Operating Instruction (AMOI) 13-204.

2.22.2. Annual Airfield Certification/Safety Inspections are conducted IAW AFMAN 13-204V2 and Unified Facilities Criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design*. The AOF/CC will staff the inspection report IAW AFMAN 13-204V1.

2.22.3. Airfield Lighting Checks.

2.22.3.1. Airfield Lighting will:

2.22.3.1.1. Report to AMOPS Monday through Friday (except holidays) to review documented outages, provide repair status, and sign the Airfield Lighting Sign-in Log to verify receipt of documented outages. Report problems to the AMOPS or NCOIC, Airfield Management Operations (NAMO).

2.22.3.1.2. Conduct daily checks of RWY 05L/23R lighting that extends off base.

2.22.3.1.3. Request permission from TWR prior to performing MX on airfield lighting and/or taking control of airfield lighting.

2.22.3.1.4. Airfield Lighting will provide TWR an expected time of return and direct contact information (DSN, cell phone number, or call sign), and will notify TWR when MX is complete.

2.22.3.2. After normal duty hours, the AMOPS Supervisor will determine the severity of an outage and implement corrective actions or submit work orders, as necessary.

2.23. Aircraft Priorities. ATC services are provided on a first-come, first-served basis as circumstances permit, with the exception of the operational priorities listed in FAAO JO 7110.65, or as directed by the OG/CC or SOF. The KAB priorities are:

2.23.1. Emergencies.

2.23.2. Active air defense scrambles, Nightwatch, and Echo Item launches.

2.23.3. Rescue aircraft using the USAF Rescue call sign and Air Evac/Med Evac call sign. **Note:** Air Evac call signs requesting a priority should be given preferential ATC handling to minimize delays if a delay will affect the patient's well-being.

2.23.4. Joint Chief of Staff (JCS)-Directed missions provided aircrews input "JCS Priority Departure" in the remarks block of the DD Form 1801.

2.23.5. Any additional Higher Headquarters (HHQ)-directed launches not covered above.

2.23.6. Aircraft operations specified in the "Special Flights" section of FAAO JO 7110.65, as required.

2.23.7. Distinguished Visitors (DVs) Code 6 or Higher (equal to 18 WG/CC or Higher).

2.23.8. Controlled Departures.

2.23.9. Arrivals: IFR then Visual Flight Rules (VFR).

2.23.10. Departures: IFR then VFR.

2.23.11. Aero Club pattern work.

2.24. Airfield Photography. Photography, video, and audio recording within the airfield controlled area and KAB restricted areas are prohibited without prior coordination. Refer to KAB PLAN 31-101 and **Section 8.9** of this document for additional details.

2.25. Local Frequencies/Channelization. Local frequencies and channelization are outlined in **Tables 2.8** through **Table 2.12**. Channelization may only be used between ATC and local fighter aircraft (A/C).

Table 2.8. Kadena VHF ATC Channels.

FIGHTER CHANNELS	FREQ	AGENCY
01	123.3	Kadena Clearance Delivery
02	118.5	Kadena GND
03	134.1	Kadena TWR
04	126.5	Naha App./Dep. South & East
05	119.1	Naha App./Dep. North & West
06	135.9	Kadena Arrival
07	121.1	Kadena Arrival (Discrete)
08	132.8	Kadena Arrival (Discrete)
09	126.2	Kadena Arrival (Discrete)
10	124.2	ATIS

Table 2.9. Kadena UHF ATC Channels.

FIGHTER CHANNELS	FREQ	AGENCY
01	XXX.X	Squadron Ops
02	275.8	Kadena GND
03	315.8	Kadena TWR
04	258.3	Naha App/Dep. (S & E)
05	335.8	Naha App/Dep. (N & W)
06	255.8	Kadena Arrival
07	301.2	Kobe ACC
08	276.5	Fukuoka ACC
09	279.4	Shogun Control
10	302.5	Shogun 10 (SOF)

Table 2.10. Fighter Channels.

CHANNELS	FREQ	AGENCY
11	233.1	C2 Check-In
12-15		Tactical Freq.
16	280.5	ATIS
17	235.0	Clearance Delivery
18	290.3	Single Frequency Approach
19	355.2	Command Post Time of day (TOD)

Table 2.11. Tanker Frequencies.

FREQ	AGENCY
276.5	Fukuoka Air Control Center (ACC)
301.2	Kobe ACC
364.6	Mobile 8 Boom
344.6	Kadena Metro
280.5	Kadena ATIS
235.0	Kadena Clearance Delivery

Table 2.12. Helicopter Frequencies.

FREQ	AGENCY	FREQ	AGENCY
236.0	33d RQS “Jolly Ops”	287.5	W-174
41.85	33d RQS FM Primary	287.2	W-176
33.75	33d RQS FM Secondary	250.9	W-178
336.2	CTA COMMON	139.85	USNHO Helicopter
345.8	NTA COMMON		

Table 2.13. ATC Interfacility Communication Lines.

Facility	Primary	Secondary	Tertiary
Kadena Tower	Kadena CD	DSN: 632-9799	DSN: 634-6466
Kadena Alt Tower	DSN: 634-4525	DSN: 630-1852	DSN: 632-7636
Naha Arrival	Kadena Arrival	DSN: 634-4647	N/A
Naha Approach	North & South Approach	DSN 634-4641	098-859-5349
MCAS Futenma Tower	Futenma TWR/OTM SHT	DSN: 636-6040	N/A
Kobe Center	Kobe ACC/CTR NTH	DSN: 634-4935	078-996-0791
Fukuoka Center	Fukuoka ACC/CTR STH	DSN: 252-2090	092-607-9974

2.26. Airfield Snow Removal Operations. KAB does not have snow removal capabilities.

2.27. Aircraft Ground Equipment (AGE) Storage. AGE is authorized to be stored at the following locations:

- 2.27.1. Fuels AGE location: Hardstand located east of Hardstand 207 on Taxiway Juliet.
- 2.27.2. Fighter AGE location: Paved surface located south of Upper Fighter Ramp taxilane behind flows 1 – 20.
- 2.27.3. Crash Recovery/Transient Alert AGE location: Hardstand located west of Building 3431.
- 2.27.4. Kilo AGE location: Paved surface on access road east of Service Apron 2, between Taxiways Kilo and Juliet.

2.27.5. 733d AGE location: Paved surface west of Building 3466 and paved surface at east end of Service Apron 2.

2.27.6. Papa AGE location: Spots P-10 & P15 but are subject to change due to unit requirement.

2.27.7. 33d AGE location: Paved surface northeast of Building 3534.

2.27.8. 909th AGE location: near Building 3535 and on spot N-1

2.27.9. AGE equipment can be staged at EOR locations during Wing fighter flying.

2.27.10. Outside Wing flying hours, equipment may be pre-staged on parking aprons or HSs no earlier than one hour prior to the arrival of the aircraft it will support. It must be removed immediately after the aircraft departs the parking apron or HS and stored in a safe, designated location that conforms to AFMAN 11-218, *Aircraft Operations and Movement on The Ground*, requirements.

2.28. Airfield Contingency Enroute Patient Staging System (EPSS). ERPSS 200 tent is approved for the following locations.

2.28.1. Grassy area between Taxiway Kilo and CME Ramp (primary). ERPSS 200 must be stacked in the four corners using provided latitude/longitude coordinates: 26°20'33.56"N 127°45'28.71"E (northwest corner), 26°20'34.69"N 127°45'30.28"E (northeast corner), 26°20'32.93"N 127°45'29.32"E (southwest corner), 26°20'34.08"N 127°45'30.90"E. Support tents will be located in the grassy area north of Pease Road and south of the CME ramp.

2.28.2. Paved area between P-17 and P-19, east of the parking spots, will serve as an alternate location.

2.28.3. 18 MDSS/SGSX personnel will ensure the AFM and/or Deputy Airfield Manager (DAFM) are present for exercise prep meeting(s) involving EPSS usage and will coordinate with the AFM, prior to tent installation, to validate correct tent siting and support equipment siting.

Chapter 3

FLIGHT PLANNING

3.1. Flight Plan Procedures.

3.1.1. A flight plan is mandatory for all aircraft arriving and departing KAB, except in the case of an emergency, or when otherwise coordinated in a Local Operating Procedure (LOP). Flight plans can be filed in person or emailed to: 18oss.osam.airfieldmanagement@us.af.mil. After sending a flight plan, aircrew must call AMOPS at DSN 634-3118/2492/2494 to confirm receipt. Flight plans will not be processed/filed without confirmation. Original flight plans will not be accepted by AMOPS via radio or phone. Flight plans may be amended via any means provided an original flight plan is on file at AMOPS. **Note:** If an organization desires to email flight plans, that organization must have a Letter of Agreement (LOA) on file with AFM. Units e-filing their own flight plans must include ROAHYWYX and RODNYXYX as addressees and crew must still confirm AMOPS receives the flight plan.

3.1.1.1. IFR flight plans will be filed no sooner than 24 hours prior to departure and not less than 2 hours before departure. Flight plan proposals originating from KAB with a route of flight in the local area shall be submitted in one of the following forms: DD Form 1801, *International Flight Plan, DoD*, or AF Form 4327, *ARMS Flight Authorization (FA)*.

3.1.1.2. Arriving aircraft without a flight plan shall contact AMOPS, as soon as possible, on frequency 266.0 or 131.4 for coordination. AMOPS will coordinate with TA and Air Mobility Command and Control (AMCC/Keystone) to determine the status and parking location of the aircraft and will advise the TWR. In the event of an emergency, if coordination has not been completed prior to the aircraft's actual landing, the aircraft will be held on TWY Bravo between the RWYs or on TWY Delta between TWY Lima and RWY 05L/23R and 18 SFS will be notified. If the aircraft is carrying hazardous cargo, the aircraft will be held and instructed to not shut down engines until its final parking location has been determined. AMOPS will notify 18 WG/SEF. If an emergency is not declared and an aircraft attempts to land regardless, ATC will withhold a landing clearance and notify AMOPS, who will notify 18 SFS. All parties will follow procedures outlined in the KAB PLAN 31-101. For access to KAB PLAN 31-101, contact 18 SFS/S5P (634-0901).

3.1.1.3. Aircraft shall not be allowed to taxi until TWR receives a flight plan from AMOPS. **Exceptions:** Nightwatch, Air Evac, Alert, or Echo Item. AMOPS will notify TWR that the aircraft will be authorized to taxi for departure without a flight plan, but the flight plan must be on file prior to departure. 18 WG aircraft will not taxi until flight plan has been confirmed by AMOPS or TWR.

3.1.2. Tactical. To support ATC abbreviated clearance procedures, pilots flying a tactical flight plan shall file a radar departure. See [Chapter 6](#) for Tactical/Whiskey clearances.

3.1.3. Unit Flying Schedules.

3.1.3.1. All 18 WG units (including TDY units) and 353 SOW may file flight plans via the Unit Flying Schedule in person or via email. Each flying unit shall maintain the original flight proposal IAW Service directives. A confirmation call must be made to AMOPS to verify receipt of faxed or emailed Unit Flying Schedule. All information requirements in paragraphs **3.1.3.2** and **3.1.3.4** and its subparagraphs must be met. **Note:** When requesting priority, annotate type of priority in comments/remarks of flight plan. When requesting barriers to be lowered for departure/arrival annotate “CB” in remarks/comments of flight plan.

3.1.3.2. Upon arrival, Kadena Partner/USAF rotational units, Marine Wing Liaison Kadena (MWLK) and U.S. Navy (USN) rotational units shall coordinate flight plan requirements with AMOPS and confirm understanding of all requirements in **Section 3.1** and all subparagraphs. This coordination will negate a requirement for a separate LOA. Following coordination, units may file flight plans via Unit Flying Schedule in person or via email. Each flying unit shall maintain the original flight proposal IAW Service directives. A confirmation call must be made to AMOPS to verify receipt of faxed or emailed Unit Flying Schedule. All information requirements in **paragraph 3.1.3.4** and subparagraphs must be met. **Note:** Rotational units which have not coordinated with the AFM are not authorized to email flight proposals.

3.1.3.3. The PATRIOT EXCALIBUR (PEX) system shall be used to the maximum extent possible to plan and monitor 18 WG aircraft on stereo flight plans (to include Theater Security Package, and fighter units). Flying squadrons will ensure the local flying schedule is loaded in PEX by 1500L for day flying weeks, and by 1800L for night flying weeks on the day preceding the proposed flights. Flying units assigned or deployed to Kadena will still email AMOPS and the SOF org box (18og.ogv.sof@us.af.mil) with a copy of the next day’s flying schedule when finalized. The schedule will contain the aircraft call sign, number of aircraft in the flight, scheduled takeoff and landing times, clearance requests, estimated time enroute, pilot weather categories, formation discrete frequencies, and crew names. Units **MUST** contact AMOPS when changes occur. AMOPS does not monitor PEX. PEX shall be the system of record for changes and/or updates to the 18 WG flying schedule during execution (e.g., changes to call signs, takeoff times, tail numbers, cancellations, ground aborts, airspace/clearance changes, and landing codes). PEX shall also be utilized by the SOF to advise TWR of schedule changes/updates, as safety of flight dictates, or clearance requests to include delays, additions, cancellations, and update takeoff and land times to maintain accountability of airborne aircraft. The TWR will notify APP/ARR of pertinent schedule and flight plan changes. If any element of a flight is canceled or delayed, the flight lead will inform Kadena Ground Control when requesting clearance. Delayed elements that takeoff separately will have their squadron call AMOPS to coordinate a new flight plan.

3.1.3.4. Required items for unit flying schedules:

3.1.3.4.1. Number and Type of Aircraft.

3.1.3.4.2. Call Sign(s).

3.1.3.4.3. Estimated Time of Departure.

- 3.1.3.4.4. Total Estimated Elapsed Time. As per Kobe Area Control Center (ACC) and Fukuoka ACC request, aircraft filing for a terminal delay at Kadena will include mission timing plus terminal delay timing in block 16, TOTAL estimated elapsed time. Additionally, aircrews will annotate block 18, OTHER INFORMATION, with a remark stating estimated terminal delay timing, e.g., RMK/KAD: TRANS 3+00.
- 3.1.3.4.5. Pilot's name.
- 3.1.3.4.6. Fuel.
- 3.1.3.4.7. Area of flight (warning areas or local VFR).
- 3.1.3.4.8. Formation Discrete Frequency.
- 3.1.3.4.9. Approval authority.
- 3.1.3.4.10. Local contact number. **Note:** A confirmation call must be made to AMOPS to verify receipt of emailed flight proposals. If the flight proposal is emailed, the submitting organization must maintain the original on file IAW Service directives.
- 3.1.4. Units using the AF Form 4327 will deliver or email the signed copy of the form to AMOPS by the end of the duty day before the effective date. Flying squadrons shall immediately call or email all updates and add-ons to AMOPS and 18 WG/CP. Emails shall be followed up with a phone call. All items in **paragraph 3.1.3.4** must be provided for each change.
- 3.1.5. Fighter Surge Operations. The below flight data administration procedures will be used for 18 OG fighter surges.
- 3.1.5.1. On squadron schedules, clearly annotate that the total mission enroute time from the first estimated takeoff time to the last land time will be indicated for hot-pit refueling missions. For full squadron surge schedules, identify airspace(s) that formations are most likely to utilize. This airspace is understood to be a "place holder" but allows for ATC to preload clearances versus loading complete clearances immediately prior to execution. Significant delays will be necessarily incurred if clearances are not preloaded due to required ATC coordination with the JCAB.
- 3.1.5.2. During schedule execution, aircrews may, with notification to ATC and AMOPS, assume any previous call sign on subsequent sorties. Squadron Aviation Resource Management (SARM/IC0s) personnel will ensure aircrew-to-call sign changes and estimated enroute times are reflected in PEX to ensure accountability is maintained and distributed in a timely manner or call the SOF with the changes.
- 3.1.5.3. Flight leads will submit subsequent flight plans with ATC on CLEARANCE DELIVERY frequency to include call sign, estimated time of departure, airspace, and number of aircraft in flight as soon as information is available to limit delays. When hot-pit refueling missions commence, ATC will assume responsibility to input, amend, cancel, and refile subsequent flight plans for participating aircraft. Once hot-pit refueling missions conclude, this responsibility will revert to AMOPS.
- 3.1.5.4. Standardized taxi route. The following routes will be utilized during surge/hot pit operations:
- 3.1.5.4.1. Runway 05 in use.

- 3.1.5.4.1.1. Exit runway 05R at Foxtrot South to de-arm.
 - 3.1.5.4.1.2. Taxi Foxtrot South to Golf to Hotel to PAS-13, 14, or 15 for cursory inspection and #1 engine shutdown.
 - 3.1.5.4.1.3. Taxi Hotel to Kilo to Service Apron 3 (SA3) for hot pit operations.
 - 3.1.5.4.1.4. Taxi Kilo to Echo to Juliet to Transient Ramp (TR) for #1 engine restart.
 - 3.1.5.4.1.5. Taxi Juliet to Delta to Kilo to Alpha South for arming.
- 3.1.5.4.2. Runway 23 in use.
- 3.1.5.4.2.1. Exit runway 23L at Alpha South to de-arm.
 - 3.1.5.4.2.2. Taxi Kilo to Delta to Golf to Hotel to PAS-13, 14, or 15 for cursory inspection and #1 engine shutdown.
 - 3.1.5.4.2.3. Taxi Hotel to Kilo to Service Apron 3 (SA3) for hot pit operations.
 - 3.1.5.4.2.4. Taxi Kilo to Echo to Juliet to Transient Ramp (TR) for #1 engine restart.
 - 3.1.5.4.2.5. Taxi Juliet to Delta to Golf to Foxtrot to Foxtrot South for arming.
- 3.1.5.4.3. In order to reduce verbiage, pilots will make the following requests to ATC, “(aircraft call sign), REQUEST STANDARD TAXI FROM DE-ARM TO HOT PITS” and “(aircraft call sign), REQUEST STANDARD TAXI FROM HOT PITS TO ARM.”
- Note:** Any taxi deviations require specific request/approval.

Figure 3.1. Surge Runway 05 Taxi Route.

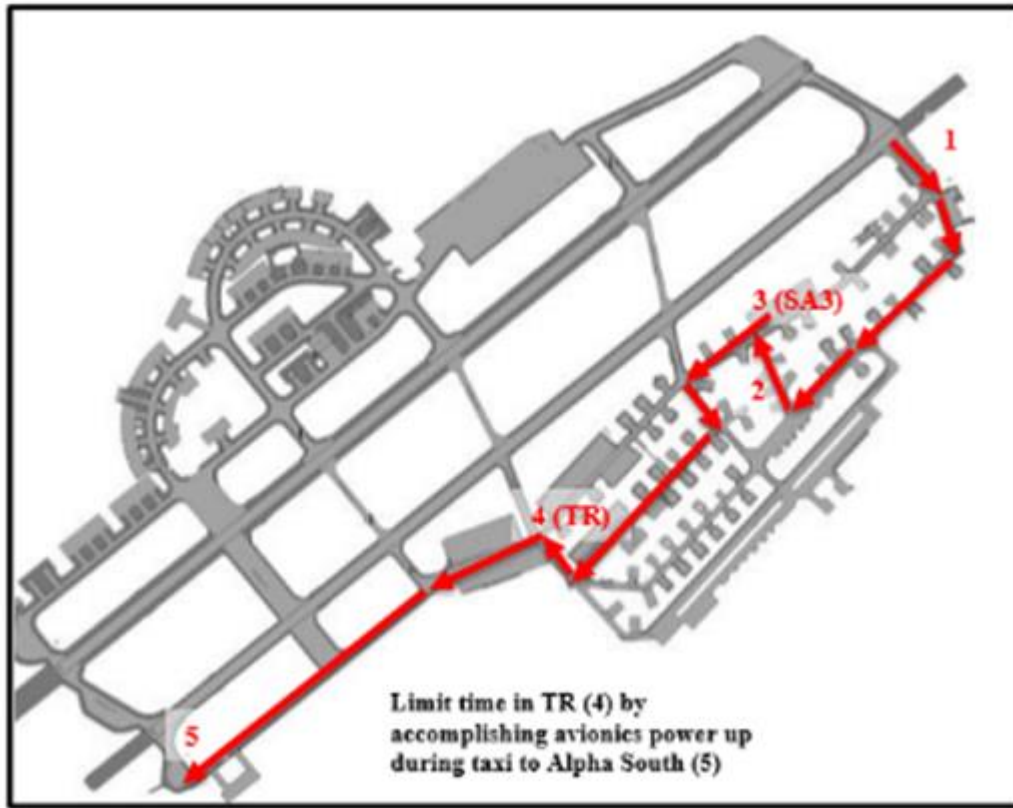


Figure 3.2. Surge Runway 23 Taxi Route.

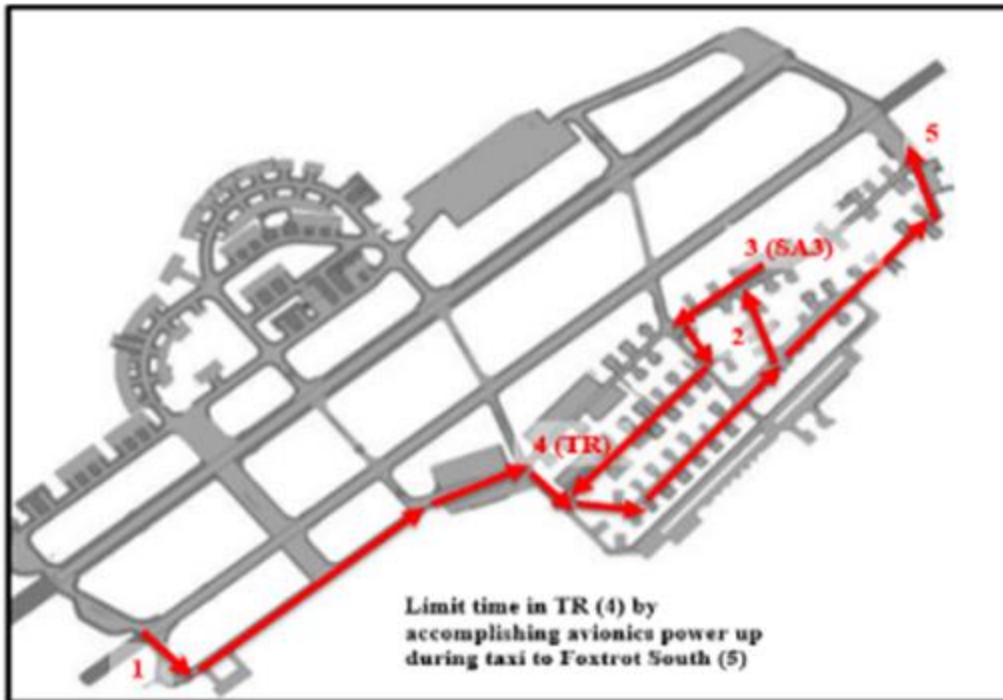
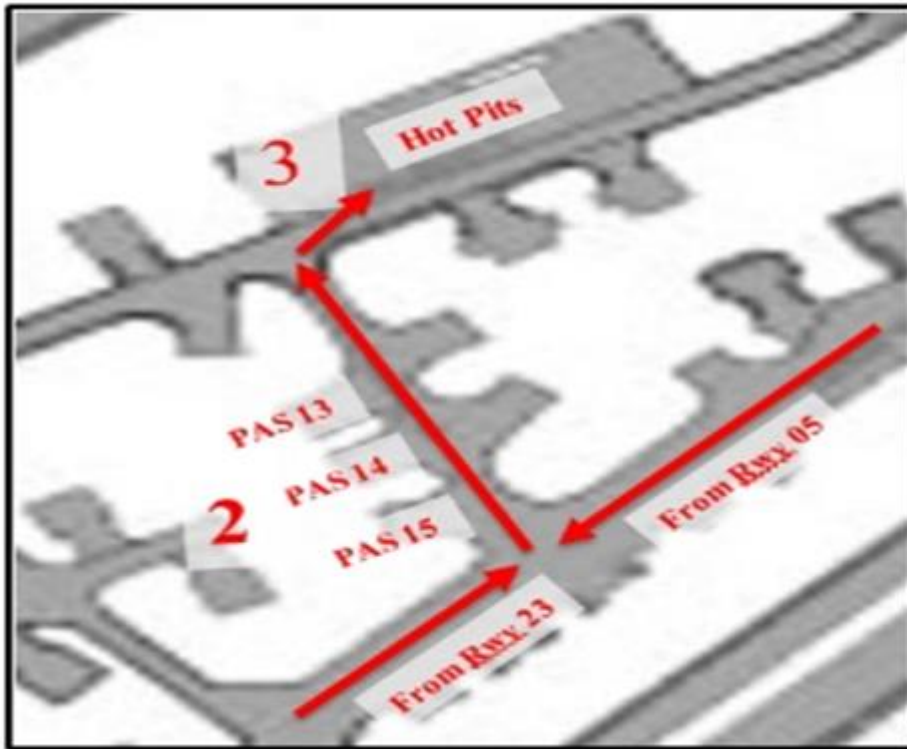


Figure 3.3. Surge Cursory & Engine Shutdown Flow.



3.2. Bird and Wildlife Aircraft Strike Hazard (BASH) Program.

3.2.1. BASH Program. The KAB BASH Program is conducted IAW DAFI 91-202, *The US Air Force Mishap Prevention Program*, DAFI 91-212, *Bird/Wildlife Aircraft Strike Hazard (BASH) Management Program*, and KAB PLAN 91-212, *Kadena Air Base Bird/Wildlife Aircraft Strike Hazard (BASH) Plan*.

3.2.2. Aircrew Responsibility. Aircrew observing or encountering any bird activity which could constitute a flight hazard should pass the following information to the SOF (Shogun 10: UHF 302.5), TWR, or 18 WG/CP:

3.2.2.1. Aircraft call sign, location, altitude, time.

3.2.2.2. Approximate number and type/size of bird(s), if known and bird behavior (on ground, flying to/from a location).

3.2.3. Bird Strikes. Promptly report all bird strikes to 18 WG/SE by completing an AF Form 853, *Air Force Wildlife Strike Report*.

3.3. Bird Watch Conditions (BWC). Aircraft shall comply with BWC procedures outlined IAW KAB Plan 91-212, additionally BWC Takeoff and Landing Criteria (**Table 3.1.**). ATC shall disseminate bird activity IAW FAAO JO 7110.65. The primary means of transmitting BWCs will be via the Automated Terminal Information Service (ATIS).

Table 3.1. BWC Takeoff and Landing Criteria.

PHASE	BWC LOW	BWC MODERATE	BWC SEVERE
Takeoff	Normal Ops	Only trail formation T/O 2. Utilize AB for T/O unless clean configured 3. T/O only when departure routes avoid identified bird activity	1. Prohibited w/out OG/CC or higher approval 2. 353 SOW/CC or CD may approve takeoff for 353 SOW aircraft only 3. Naval forces will follow Commander Fleet Activity Okinawa (CFAO)/CC direction
Patterns	Normal Ops	1. Only trail formation approaches 2. Multiple approaches (IFR or VFR) require OG/CC approval	Aircraft will hold (fuel permitting) well clear of the increased bird activity
Landings	Normal Ops	Only trail formation landings 2. 6,000 feet min spacing between aircraft 3. Only when arrival routes avoid identified bird activity	1. All non-emergency aircraft must obtain OG/CC or CD approval 2. 353 SOW/CC or CD may approve landing for 353 SOW aircraft only 3. Naval forces will follow CFAO/CC direction
Training Areas	Normal Ops	Make changes in flight profile or altitudes to avoid bird hazards	All flights must avoid using the area

3.4. Noise Abatement (Quiet Hours) Procedures. Per bilateral agreement with the GOJ, aircrews are expected to minimize noise to the max extent practical. The following procedures, when combined with airfield traffic pattern policies, exceed the requirements of the agreement. All assigned and transient flying and MX personnel must abide by these requirements. See [Table 3.2](#) for amplified instructions. Local squadrons, detachments or deployed squadrons will brief transient units on these procedures before the transient unit may conduct daily operations at KAB. The 18 OG/CC is the waiver authority for quiet hour and noise abatement procedures. The procedures are listed in the note in [Table 3.2](#).

3.4.1. Aero Club aircraft are exempt from all US Holiday and Host Nation Holiday restrictions but will comply with all Quiet Hour NOTAMs unless specified otherwise.

3.4.2. Additional Flight Operation Rules. These rules apply to flight operations during and outside quiet hours.

3.4.2.1. After Civil Twilight, circling approaches will be kept to a minimum required for the completion of a check ride, operational necessity, or to fulfill continuation training requirements.

3.4.2.2. High-Power “carrier-type” tactical approaches and Field carrier landing practice approaches are not authorized.

3.4.2.3. Multi-engine aircraft will minimize use of thrust reversers to the max extent possible.

3.4.2.4. Use of afterburners is limited to that required for safety of flight and operational necessity. Afterburner use during takeoff will be terminated as soon as practical.

3.4.2.5. Supersonic flight is prohibited over and in the vicinity of the main island of Okinawa for training.

3.4.2.6. Aerobatic flight for training within 5NM of KAB is prohibited except for programmed demonstrations of aerobatic flight.

Table 3.2. Noise Abatement Procedures.

TIME	ALLOWANCES	RESTRICTIONS	NOTES
Mon-Fri 0600-2200L (2100-1300Z)	Normal Operations	None	Schedule fighter takeoffs NET0800 to the max extent possible
Saturday 0600-2200L (2100-1300Z)	Operational missions, deployments, and redeployments. Navy P3 and P8 training missions with prior approval. Aero club operations (IFR and VFR)	Training missions, VFR patterns and all fighter operations require 18 OG/CC approval	Schedule fighter takeoffs NET0800 to the max extent possible
Sunday 0600-2200L (2100-1300Z)	Operational missions, deployments, and redeployments. Aero club operations (VFR only)	Training missions, VFR patterns and all fighter operations require 18 OG/CC approval	Schedule fighter takeoffs NET0800 to the max extent possible
US Holidays and PACAF Family Days (as defined on 18 WG calendar) 0600-2200L (2100-1300Z)	Aircraft may takeoff or land for operational missions, deployments, and redeployments. Aero club operations (IFR and VFR).	Training missions and all fighter operations require 18 OG/CC approval	Consideration will be given to minimize flight operations
Japanese National Holidays (Noise Abatement) 0600-2400L (2100-1500Z)	Aircraft may takeoff or land for operational missions, deployments, and redeployments.	Training missions and all fighter operations require 18 OG/CC approval. Multiple IFR/VFR patterns require 18 OG/CC approval	Consideration will be given to minimize flight operations Example: Mountain Day

<p>Japanese National Holidays (No Fly) 0600-2400L (2100-1500Z)</p>	<p>No departures except for higher headquarters, aeromedical evacs, and operational support. Recoveries are limited to straight in full stop approaches. Aero club is not exempt</p>	<p>Training missions and all fighter operations require 18 OG/CC approval. Multiple IFR/VFR patterns not authorized.</p>	<p>Consideration will be given to minimize flight operations Local Holidays of significance are based on recommendations by 18 WG/PA recommendation</p>
<p>Scheduled Local Events (Quiet Hours) (Times vary depending on event)</p>	<p>No departures except for higher headquarters, aeromedical evacuations, and operational support. Recoveries are limited to straight in full stop approaches. Aero club is not exempt</p>	<p>Training missions and all fighter operations require 18 OG/CC approval. Multiple IFR/VFR patterns not authorized.</p>	<p>Consideration will be given to minimize flight operations Events of significance, such as high school and university exams are based on recommendations by 18 WG/PA recommendation</p>
<p>Sun-Sat 2200-0600L (1300-2100Z)</p>	<p>Straight-in arrivals to a full stop 1st MAW fixed wing aircraft are authorized to land after 2200L (1300Z) for NVD ordnance training</p>	<p>No departures or fighter arrivals, unless required for operational necessity. 1st MAW fixed wing aircraft must depart no later than 2250L (1350Z) Multiple IFR/VFR approaches not authorized</p>	<p>Terminate flight ops as early as possible. Coordinate requests through MWLK and ensure aircraft arrive with sufficient time for training & departure NLT 2250L (1350Z). Avoid overflight of populated areas.</p>
<p>Mon-Fri 0600-2400L (2100-1500Z)</p>	<p>Helicopters, C-130, and V-22 type aircraft are authorized to extend operations up to 2400L (1500Z) for NVD training.</p>	<p>After 2200L: C-130 and V-22 Type aircraft are limited to straight in full stop approaches only. Multiple IFR/VFR patterns not authorized.</p>	<p>Limit number of arrivals and departures to minimum necessary to meet mission requirements. Shut down engines as soon as practical after landing.</p>

Note: Any deviation from **Table 3.2** will require Quiet Hours waiver and must be submitted NLT 10 working days prior to the requested period to 18th Wing Scheduling (18oss.wingscheduling@us.af.mil) for approval by the 18 OG/CC. Missions published to the 18 WG weekly schedule, 353 SOW weekly schedule, and Navy 48-hour projection message have been coordinated and approved by the 18 OG/CC. If aircraft are added to the schedule after publication, changes shall be coordinated with the 18 OG/CC through 18 WG/CP (DSN 634-1800) NLT two hours prior to takeoff. 18 WG/CP will notify AMOPS, TWR and APP of approval/disapproval.

3.5. Prior Permission Required (PPR) Procedures. A valid AMOPS-issued PPR number is required for all transient aircraft desiring to terminate in a full-stop landing at KAB. Air Evac, Special Air Missions, and DV-6 are PPR exempt, however coordination for parking and support should still be made prior to departing previous station. Permanent party and TDY/Temporary Assigned Duty (TAD) personnel on KAB do not require PPR numbers. AMOPS will verify transient support requirements for USAF, USN, USA and USMC missions. AMOPS will verify TA support can be provided as required prior to approval of a PPR. AMOPS will coordinate with 733d MOCC to issue PPR numbers for all transient wide-body aircraft (C-5/C-17/KC-46/etc.) and AMC scheduled missions. **Note:** Japan Self-Defense Forces do not require an Aircraft Landing Authorization Number (ALAN) to land at KAB. However, a PPR number is still required.

3.5.1. Procedures.

3.5.1.1. Prior to issuing a PPR number, AMOPS will check standard noise abatement criteria and any additional noise restriction NOTAMs to determine if 18th Wing Scheduling and 18 OG/CC approval is required. **Note:** The 18 OG/CC waiver does not constitute a PPR number.

3.5.1.2. If the quiet-hours waiver is approved, 18 WG/CP will notify AMOPS for PPR coordination with TA or MWLK.

3.5.1.3. If the quiet-hours waiver is approved, but the PPR is denied, AMOPS will notify 18 WG/CP.

3.5.1.4. If the quiet-hours waiver is disapproved, AMOPS will notify requester.

3.6. Unscheduled/Unauthorized Aircraft Arrivals. In the event of an unscheduled aircraft arrival, AMOPS will initiate actions contained in AFI 10-1001, *Civil Aircraft Landing Permits*. Additionally, all applicable work centers will initiate actions in KAB PLAN 31-101 (copies may be obtained from 18 SFS/S5P 634-0901). For civil aircraft divers, AMOPS will notify 18 WG/CP and 18 OSS Chain of Command.

3.7. Distinguished Visitor (DV) Notification Requirements. AMOPS is the only 18 WG agency authorized to request 50-mile-out calls. AMOPS is responsible for notifying ARR/APP and TWR of the call sign and type of the DV aircraft. ARR/APP will notify AMOPS when the aircraft is 50 miles from the airfield.

3.8. Functional Check Flights (FCF). FCF aircraft will normally fly standard mission profiles and require no special handling. **Note:** Standard takeoff for FCF aircraft is a static departure. ATC will not solicit rolling/immediate takeoffs from FCF aircraft. Aircrew will notify ATC of takeoff intentions two minutes prior to takeoff.

3.9. Dangerous/Hazardous Cargo.

3.9.1. 733 MOCC shall notify AMOPS of aircraft arriving or departing with hazardous cargo. For non-AMC aircraft, AMOPS shall obtain hazardous cargo information when the PPR is requested.

3.9.2. When an aircraft carrying hazardous cargo intends to arrive or depart KAB, AMOPS shall obtain the aircraft call sign, aircraft type, cargo classification, net explosive weight, estimated arrival time, and estimated departure time. Additionally, AMOPS will notify TWR, Fire Department, 18 WG/CP, and TA.

3.10. Local Area Orientation (LAO) for Visiting Units. Units TDY/TAD to KAB that will conduct training missions in the local area are required to receive a LAO or "Course Rules" briefing from 18 OG/OGV (Stan/Eval) or designated representative prior to conducting regular local training.

3.10.1. The LAO briefings and Joint Okinawa Scheduling Cell (JOSC) Airspace and Scheduling academics as well as other Stan/Eval and airspace information are maintained and disseminated by 18 OG/OGV.

3.10.2. LAO briefings shall be reviewed for accuracy by 18 OG/OGV. Airspace academics shall be reviewed for accuracy by 18 OSS/JOSC.

3.10.3. Chief, 18 OG/OGV can be contacted at 18og.ogvpersonnel@us.af.mil or DSN 634-4567. The JOSC can be contacted at 18OSS_OSOJOSC@us.af.mil or DSN 315-634-4360. The JOSC alert cell phone number is 080-6481- 1559.

3.10.4. Units needing to drive on the airfield must complete local airfield driver certification IAW DAFI 13-213 Kadena Supplement prior to operation of vehicles or non-vehicular equipment on Kadena airfield.

Chapter 4

LOCAL AIRSPACE

4.1. General Airspace Information.

4.1.1. The area within 100 nautical miles (NM) of KAB is considered the local flying area. The extended local flying area is within 200 NM of KAB. Training operations are conducted in the Joint Okinawa Training Range Complex (JOTRC). The Naha PCA (Class B airspace) is within 30 NM of Naha VORTAC and is governed by International Civil Aviation Organization (ICAO)/Japanese regulations, see **Section 4.2**, Controlled Airspace diagrams. Outside the Naha PCA (Class B airspace) ICAO rules apply except as noted in FLIP AP3/A. See Japan Aeronautical Information Publication (AIP) and the JOTRC website for additional information.

4.1.2. JOTRC. Local Training Areas are defined by the Joint Okinawa Scheduling Cell (JOSC). To reserve training areas input your request via data collection and scheduling tool (DCAST) at <https://dcast.csd.disa.mil> for questions, contact the JOSC at DSN 315-634-4797. Aircrews will request permission from controlling agency prior to entry into the JOTRC.

4.2. Controlled Airspace. See **Figure A2.3.**, **Figure A2.4.**, **Figure A2.5**, and **Figure A2.6** for detailed diagrams.

4.2.1. Classification. Aircrew will contact APP/ARR for ATC instructions prior to entering Naha Class B airspace. Aircrew will provide aircraft identification, position, altitude, and intentions. APP/ARR will provide instructions for the areas overlapping Naha, RODN, and ROTM Class D Airspace.

4.2.1.1. RODN Class D (Japan AIP: Class D Surface Area) (Japan AIP: Control Zone): The airspace from surface up to but not including 3,143 feet MSL within 5 NM of KAD VORTAC (N26 21.40, E127 46.11), excluding the area 3 miles south of RWY 5R/23L, ROTM Class D Airspace (Surface up to but not including 2,246 feet MSL).

4.2.1.2. Two-way communication shall be established prior to entering the Kadena Class D airspace.

4.2.1.3. The Kadena Class D Airspace is classified as US airspace and falls under US Federal Aviation Administration guidance.

4.2.2. Approach Control Area.

4.2.2.1. Naha Approach Control: Positive Control Area (PCA) and Terminal Control Area (TCA), see AIP Japan for depiction.

4.2.2.2. Kadena Arrival Airspace: The airspace delegated by APP for ARR service to RODN and ROTM. Generally, the airspace from 2,000 feet MSL to 6,000 feet MSL within a 20 NM X 30 NM rectangular area centered on KAD VORTAC.

4.2.2.2.1. RWY 05: The KAD R-325 out to 10 NM, then left turn 90° southwest bound to 30 NM. The KAD R-145 out to 10 NM, then right turn 90° southwest bound to 30 NM, excluding that airspace owned by APP.

4.2.2.2.2. RWY 23: The KAD R-325 out to 10 NM, then right turn 90° northeast bound to 30 NM. The KAD R-145 out to 10 NM, then left turn 90° northeast bound to 30 NM excluding that airspace owned by APP.

4.2.2.3. Class E Airspace. That airspace from 700 feet Mean Sea Level (MSL) up to FL290 (from Naha airport to 20 NM), from 1,000 feet MSL up to FL290 between 20 – 30 NM of Naha airport excluding the Naha PCA (Class B airspace) and all Class D airspace.

4.3. Uncontrolled Airspace.

4.3.1. Class E Airspace. That controlled airspace from 1,000 feet MSL up to FL290 (between 31 – 40 NM of Naha airport), 2,000 feet MSL up to Flight Level (FL) 290 (between 41-60 NM of Naha Airport) and 5,500 feet MSL up to FL 290 (outside of 60 NM from Naha airport not classified as oceanic airspace).

4.3.2. Class G Airspace. That airspace below Class E in [paragraph 4.3.1](#) from surface up to but not including 700 feet, 1,000 feet, 2,000 feet, and 5,500 MSL with the exclusion of all Class D and Naha PCA (Class B airspace).

4.4. Restricted Areas. See [Figure A2.7](#) for depiction of airspace and FLIP AP/3A for additional information. Restricted Area altitudes are listed in [Table 4.1](#).

Table 4.1. Restricted Area Altitudes.

R-177	R-195	R-201	R-202	R-203	R-204
SFC - 3K'	SFC - 2K'	SFC - 2K'	SFC - 1K'	SFC - 1K'	SFC – 1K'

4.4.1. R-201, R-202, R-203, and R-204. U.S. Military aircraft may enter and proceed through these areas without restrictions/coordination. Civil aviation is restricted from using this airspace.

4.4.2. Warning Areas and Stationary Altitude Reservations (SALTRVs) for Air-to-Air Refueling (AAR). See FLIP AP/3A and [Table A2.1](#) for SALTRV Altitudes and AAR information. See [Figure A2.13](#) and [Table A2.1](#) for graphical depiction and additional information.

4.5. VFR Local Training Areas.

4.5.1. Departure to off-island airspace or out of the Naha PCA (Class B airspace) will be via an established route, clearance or standard radar departure.

4.5.2. ATC radar flight following is mandatory during departure. Radar flight following after VFR- on-top will be requested with either APP or Ground Control Intercept (GCI).

4.5.3. AAR Airspace. See FLIP AP/3A and [Figure A2.8.](#), [Table A2.1](#) and KC-135 In Flight Guide (IFG) v15.x for additional details.

4.6. Chaff and Flare Use.

4.6.1. Chaff. Chaff may only be used within the appropriate warning areas and ALTRVs as per AFMAN 13-212V1 Kadena AB Sup.

4.6.1.1. Aircrew Procedures. Before flight, aircrews must check winds aloft. Aircrews must assess in-flight winds to determine if chaff will drift over land or into ATC airways. Pay particular attention to high winds aloft blowing toward Okinawa from W-179. Chaff employment in W-179 is not authorized when winds aloft are reported or forecasted to be greater than 50 knots, unless it is RR-188 chaff.

4.6.1.2. ATC will immediately notify 18 WG/CP of chaff use that significantly impacts flying operations.

4.6.1.3. Deployed and local units causing the problem units will suspend chaff operations until approved by 18 OG/CC.

4.6.2. Flares. Flares are not authorized outside of approved training ranges and airspaces. For more information consult AFMAN 13-212V1 Kadena AB Sup.

Chapter 5

GROUND OPERATIONS

5.1. Controlled Movement Area (CMA).

5.1.1. Kadena's CMA includes RWYs (05R/23L, 05L/23R), and all areas between the RWYs, overruns, centerline road, C Helipad, Vertical Take-Off and Landing (VTOL) Pad, Rescue Helipad, E Helipad, and any area within 100 feet of these areas (see [Figure A2.2.](#)). All aircraft, vehicles, and pedestrian traffic operating within the CMA require 2- way radio communication and approval from TWR. In the event of lost communication, light gun signals will be used. If light gun signals prove ineffective, ATC will flash the RWY lights at five second intervals (at highest intensity) to direct all vehicles, equipment, and personnel to exit the RWY without delay. As a last resort, ATC will contact AMOPS and request assistance to escort vehicles out of the CMA. Drivers requesting permission into the CMA from a hardened surface (e.g. Taxiway) will continue with the established procedures listed in DAFI 13-213, KADENABSUP. In the event of radio failure, personnel are required to exit the CMA and wait at the nearest TWY behind the VFR holding prior to proceeding onto any hardened surface (e.g. RWYs and TWYs).

5.1.2. The TWR will issue safety advisories to both aircraft and vehicles when personnel and equipment are within 100 feet from the RWY during aircraft operations.

5.2. Lightning Procedures.

5.2.1. The control TWR will broadcast "LIGHTNING OBSERVED WITHIN [5 NM]" on all appropriate frequencies. TWR will update the ATIS with all WX advisories.

5.2.2. Lightning within 5 NM. All takeoffs and landings will be suspended, unless waived by the OG, and the flight line will be cleared of personnel. All arriving aircraft will hold until either "LIGHTNING WITHIN 5 NM" of KAB has been terminated, the aircraft declares an IFE, or the aircraft reaches divert fuel. If on duty, the SOFs will contact aircraft operating in the training airspace to inform them of the lightning condition and instruct them to begin conserving fuel. SOFs will also coordinate with Operations Supervisors and the OG/CC for contingency divert planning. The OG/CC may authorize the SOF to recover aircraft prior to lightning condition termination if risk of lightning strike to aircraft is assessed to be low, and aircraft can execute an approach to Kadena while preserving divert fuel. On the ground, pilots should expect to hold without chocks until the lightning condition is terminated. If the aircrew risk assessment warrants, aircrew are authorized to taxi into the upper fighter ramp shelters without required marshalls. In extreme circumstances, aircrew will coordinate with Squadron Ops/SOF to shut-down their aircraft prior to flame-out. If required and available, the SOF may coordinate with the OG/CC who will coordinate with the MXG/CC to identify a minimum risk means of chocking the aircraft prior to shut-down.

5.2.2.1. F-35A Ground Operations with Lightning within 5NM. F-35s outside of a lightning protected shelter when lightning within 5NM is declared should return to a lightning protected area. F-35 pilots will contact ground to make this request but can expect to be cleared to taxi at their own risk. F-35s should return to the Upper Fighter Ramp and taxi into the shelter even if no ground crew is present to marshal them in. Engine shutdown in this case will be coordinated with the SOF and squadron operations supervisors.

5.3. Aircraft Parking Plan. AMOPS is the focal point for aircraft parking on the Airfield. The AFM will approve changes to the parking plan. The parking spots listed in **Table 5.1** are delegated to 18 WG, partner units, and transient aircraft use. AMOPS will coordinate and/or direct the use of the delegated parking spots for overflow and/or contingency operations.

Table 5.1. Delegated Parking Spots.

Unit	Location
44/67FS	Upper Fighter Ramp (UFR) Flow-Thru spots 1-50, 336
18 EMS	Protective Aircraft Shelter (PAS) 1-15, T1-T5, Ops 1 (DV Spot), 2, 3, Spots: 102, 104, 106, 108, 110, 112, 114
909 AMU	L4-6, L9-13 ² , M2-3, N2, N3, N5, N6, N7, N9. TWY M is designated as quick turn spot. ⁴
961st/Other PL-2	N10-15 ¹
733 AMS	SA-1 (A-C), SA-2 (A-D)
353 SOW	SA-7 (1-5), L7-8
31/33 RQS	H3534 Pad, CME Ramp
MWLK	HS111, 113, 115, 117, 119, 302, 304, 306, 308, 313, Lower Fighter Ramp (LFR) Flow-Thru Spots 51-62, Harrier Trim Pad
US NavyAssets	SA-4 (1-11), 326 ⁵ , 331, 333
18 FSS (Aero Club)	HS 401, 402
MX AGE	P15, N1
18 OSS	HS 123, 125, 126, 201-212, SA-3, SA-5, SA-6, BTS/BTC/BTN/DTN ³ , Papa Loop
Note: Contact AMOPS for overflow parking. Parking on L11 (Birdbath) must coordinate with AMOPS. Parking spots not assigned will be coordinated and approved by AMOPS. TWY M requires coordination with AMOPS for closure to be utilized as a quick turn spot. Tow in/out.	

5.3.1. Restricted Parking spots. If TWY Bravo south is needed for parking, MX will coordinate with AMOPS NLT 2 hours prior to use.

5.3.2. Spots SA4 (8-11) restricted to idle engine runs.

5.3.3. Explosive Cargo Storage and Parking Areas.

5.3.3.1. Designated hazardous cargo parking areas are IAW Explosives Loaded Aircraft Parking Plan. Contact AMOPS with hazardous cargo parking requests.

5.3.3.2. Parking or storage of explosives in amounts greater than specified or outside authorized areas, must be approved by 18 WG/SEW, and AFM.

5.3.3.3. Coordinate with AFM and 18 WG/SE to use TWY Bravo or Delta for an explosive cargo parking area.

5.3.4. F-16 Hydrazine Emergency Parking Areas. Aircraft with suspected hydrazine leaks or Emergency Power Unit (EPU) activation will be directed to exit the RWY at TWY Bravo or Echo and stop between RWYs. Alternate parking locations are TWYs Alpha or Foxtrot between RWYs. Routine (non-emergency) maintenance of F-16 EPU/hydrazine systems or subsystems will be performed on Hardstand 126 or 336 adjacent to the fuels maintenance facility. Any aircraft taxiing near a hydrazine aircraft will be instructed by ATC to utilize 100% oxygen. 18 MOCC will coordinate with AMOPS for use of the area(s) and will advise with the start and termination of MX.

5.3.5. Upper Fighter Ramp (UFR). The UFR is specifically designed and marked for fighter type aircraft (wingspan less than 45 feet). Taxi lines provide at least a 10-foot clearance from all obstacles behind the yellow wingtip clearance line. Pilots will comply with AFMAN 11-218, *Aircraft Operations and Movement on the Ground*, and Mission Design Series (MDS) specific directives when taxiing on the UFR.

5.3.6. PL2 Asset Parking. PL2 parking spots are N10-N15. PL2 overflow parking spots are M1-M3 and L12-L13. Parking spot priority will be M2, M3, M1, L13, L12. Usage of overflow parking requires coordination between AMOPS, 718 AMXS, SFS and the requesting unit. M1 is an alternate fuel cell MX location and should remain available if possible. Spots L6-8 have been certified as alternate fuel cell MX locations.

5.3.7. Operations Row Spot Parking Coordination. When ops row is used for aircraft with wingspan of 99 feet or greater, MX personnel must remove all equipment and vehicles along the concourse walkway. MX personnel will coordinate with AMOPS and position a wing walker along the concourse during taxi.

5.3.8. Overflow Parking: TWY Bravo south is designated as overflow parking for wide body aircraft, coordinate parking approval with AFM.

5.3.9. C/MV-22 Parking: Only authorized on concrete surfaces. Aircraft authorized to park on 100 series hardstands, 200 row, L Row revetments, and SA-7 only. Aircraft are not authorized to enter Papa Loop. Any other parking requirements must be approved by the AFM prior to use.

5.3.10. Use of the Papa Loop parking apron should be used with emphasis placed on noise pollution mitigation. Maximize opportunities to restrict fixed wing aircraft movement to tow on/off only. If taxi in/out is required, aircraft should use the minimum number of engines and power settings necessary for movement. Reverse taxi is not authorized between sunset and sunrise. Maintenance engine runs will use the minimum power setting necessary to complete the run, with engine exhaust facing toward the runways and shall not be accomplished during quiet hours without MXG/CC approval.

5.4. Aircraft Taxiing Requirements/Routes. See [Chapter 9](#) through [Chapter 11](#) for aircraft specific guidance.

5.4.1. Taxi Restrictions.

5.4.1.1. GND will delay taxi of large aircraft (B-747, C-5, KC-10, E-4, etc.) from service aprons and parking spots when jet blast may affect landing/departing aircraft.

5.4.1.2. 733 AMS/TA marshaller(s) are required on TWY Kilo when parking aircraft on SA-1/2. Marshaller(s) shall give way to any aircraft already taxiing on TWY Kilo. Aircraft shall not taxi between parking aircraft and marshaller(s).

5.4.1.3. C/MV-22 aircraft are prohibited from taxiing on TWY Charlie, Delta between RWY 05R- 23L and Lima, Echo between RWY 05R/23L and Lima, and Kilo between Delta and Foxtrot. MV-22 aircraft may taxi over TWY Kilo, between Delta and Foxtrot but may not stop on the asphalt while engines are running. These restrictions are due to high exhaust temperatures.

5.4.2. Weight Bearing Limitations.

5.4.2.1. AFM will be consulted prior to aircraft operations above weight limitations listed on Airfield Suitability Report.

5.4.2.2. The 18 OG/CC has delegated the approval authority for weight bearing capacity waivers to the AFM. AFM will obtain a recommendation from 718 CES prior to approving a waiver.

5.4.3. Wing Tip Clearance Restrictions. See [Table 5.2](#) for requirements and restrictions.

Table 5.2. Wing Tip Clearance Restrictions.

Location	Max Wingspan
UFR; Taxilane D between J and UFR; Taxilane E between Taxilane G and UFR; Taxilane G between Taxilane D and E intersection; Northeast Connector between UFR and Taxilane G	46 feet
Taxiway A South and Taxiway F South when arm/dearm ops are on-going	55 Feet
Taxilane H; Taxilane E between Taxilane J and Taxilane G; Taxilane G between Taxilane E and PAS 9	67 Feet
Taxilane D between Taxilane K and Taxilane J; Taxilane E between Taxilane K and Taxilane J; Taxilane G between PAS 9 and TWY F; Taxilane J	135 feet
Taxilane N between L and C	144 feet
Taxilane C between Taxilane L and Taxilane N; Taxilane L; Taxilane M; Taxilane N between TWY C and Taxilane P; Taxilane P	152 feet
Taxilane K between TWY D and TWY F	170 feet

5.5. Aircraft Towing. All aircraft tows require two-way radio contact with and approval from the control tower. **Exception:** Within boundaries of the UFR. **Note:** All tow operators must give way to taxiing aircraft.

5.6. Engine Test/Run-ups. All engine-runs will be requested through unit MOCC. MOCC will coordinate with AMOPS (634-3118), TWR, and BDOC (634-2475). **Note:** CFAO may approve P-3/P-8A/EP-3/C-2 aircraft engine runs for mission essential write-ups. These aircraft must still comply with [Table 5.3](#). Maintainers and MOCC are responsible for engine-runs including adherence to noise abatement procedures. See [Table 5.3](#) for aircraft specific procedures and locations.

Table 5.3. Engine Run Approved Locations, Times, and Power Settings.

Type	Power	Location
Fighters	up to 80%	UFR, LFR, Hard Stands ¹ , and Hush House
	above 80%	Eagle Trim Pad, Hush House, & HS 304/306
RC/KC-135	up to 62%	L, M, N row, TWY B North ³
	up to 80%	L12, L13, M row, N2, N3, N5, N6, N7, and N10-N15 ²
	above 80%	TWY B North ³
	2 Eng at MRT/TRT	TWY B North ³
E-3/WC-135	up to 80%	N/M ² rows and TWY B North ³
	above 80%	E-3: M Row ² , N10-15 ² , Warm-up Pad 1 ⁸ , TWY B North ³ , WC-135: L12-L13 ² , TWY B North ³
HH-60 ⁹	100%	P1, P3, P5; Helo Spots 1 - 3, N9
UH-1/Other Helo	100%	HS 111-119 ¹²
MQ-9	100%	TWY K Trim Pad
MV/CV-22 ¹³	≤50%	L4-L8, HS 111-119 ¹²
	>50%	Coordinate with AFM
AV-8 ⁵	≤100%	Harrier Trim Pad (Mon – Fri: 0830L – 1630L)
C-12/UC-35/C-146 & Similar	≤50%	Spots 201-210, TA Ramp
	≤80%	SA4
	≤100%	TWY W ⁷ , TWY B South ⁴
C-130	≤60%	SA7, L4-L8 Warm-Up Pad 1 ⁸ , P2 ⁹ , P4 ⁹ , P6 ⁹ , P8 ⁹ , P17 ¹⁰ , P19 ¹⁰
	≤100%	P17 ¹⁰ , P19 ¹⁰ , L4-L8, L12-L13, Warm-up Pad 1 ⁸
C-17	≤100%	SA1 ⁶ , SA2 ¹¹ , TWY B south ⁴ , TWY B north ³
C-5, KC-46, B-747 and similar airframes	≤100%	SA1 ⁶ , TWY B south ⁴ and TWY B north ³
P-3/P8	≤100%	TWY W ⁷ , Warm-Up Pad 1 ⁸ (P3 Only), Warmup pad 3/4 ⁸ , and TWY B north (P3/P8) ³
	50% or less	SA4 (only for the P3)
	40 % or less	P-8: SA4 P-3: HS 123, 125, 126, 331, 333
	≤90%	TWY B south ⁴ , TWY B north ³

All Other MDS	>90%	Coordinate with AFM
	4 Eng Power Runs	Warm-up Pad 1 ⁸ , TWY Bravo North ³

Notes:

1. Power up to 80% on HS111, 113, 115, 117,119, 121, 123, & 125 require radio contact with TWR.
2. Aircraft run to MRT/TRT in revetments will be towed forward until outboard engines are even with forward edge of revetment wall on both sides. Twy operations will be suspended for the duration and AMOPS will conduct a FOD sweep prior to resuming ops.
3. Orient aircraft heading 050/230. When oriented to 050, RWY 05L/23R and TWY L (between TWY B and SA-7) will be suspended due to FOD and jet blast. When oriented to 230, RWY 05L/23R and TWY L (between TWY B and TWY C) will be suspended. AMOPS will conduct a FOD sweep prior to resuming ops.
4. Orient aircraft heading 060/220. Aircraft may also be oriented with nose toward 05R/23L and aligned 45 degrees off taxi line (Rwy 05R/23L and TWY B center will be suspended). Max power will be 2 engines less than 90% and 2 engines at idle (MX Ops Officer/Sup approval). TWY K and TWY B intersection will be suspended. AMOPS will conduct a FOD sweep prior to resuming ops.
5. Orient aircraft toward TWY L. RWY 05R/23L will be suspended. AMOPS will conduct a FOD sweep prior to resuming ops. Requires radio contact with TWR.
6. Requires AFM approval for above idle engine runs.
7. Engine runs are not authorized when Hot Pits are on SA3. Requires AMOPS approval. Twy W will be suspended. AMOPS will conduct FOD check prior to resuming ops.
8. Orient aircraft 050/230 depending on winds. Suspend ops on Warm-up Pad. AMOPS will conduct FOD check prior to resuming ops. Only allowed outside fighter flying hours.
9. Aircraft must be oriented with nose facing the taxiway/engine wash going away from base boundary.
10. Aircraft must be oriented with nose facing into the spot/engine wash toward the taxiway. Taxiway Papa will be suspended and AMOPS will conduct a FOD check prior to resuming ops.
11. Requires AMOPS approval. Orient aircraft 050/230. If oriented 230 on SA2-D, must not have an aircraft on HS111. If oriented 050 on SA2-A or SA2-B-W, Twy D-south will be suspended and AMOPS will conduct a FOD check prior to resuming ops.
12. Requestor must de-conflict with MWLK.
13. Suspend Twy operations adjacent to aircraft parking spot. AMOPS will conduct a FOD check prior to resuming ops.

5.6.1. Hours. Engine runs may be conducted Monday through Saturday: 0600L - 2200L and Sunday/holidays: 1200L – 1800L. Normal engine-run hours may be restricted by NOTAM(s). Engine-runs outside normal hours or when a NOTAM is published require 18 OG/CC approval, which has been delegated to the 18 MXG/CC. Waiver requests for outside normal hour engine-runs are through 18 WG/CP (634-1800/349.4). **Exception:** 733 AMS/CC, CFAO, and 353 SOW/CC are the waiver authorities for mission essential write-ups on aircraft they control.

5.6.2. Engine runs during quiet hours (2200-0600L). A blanket approval for idle engine runs is granted during quiet hours under the following conditions:

5.6.2.1. F-15 engine runs up to 80% will be unrestricted and are only allowed on the UFR.

5.6.2.2. KC-135/E-3 idle engine runs are only permitted if the aircraft is on the next day's flying schedule as a flyer or spare.

5.6.2.3. HH-60 idle engine runs will be unrestricted with rotors locked for engine rinses that are required after every flight in a salt water environment IAW 1H-60(H) G-6.

5.6.2.4. Navy aircraft idle engine runs are approved to be performed on SA4.

5.6.2.5. For any aircraft requiring engine run above idle, follow procedures identified in **Section 5.6**.

5.6.3. Procedures.

5.6.3.1. Prior to the engine run.

5.6.3.1.1. MX personnel will contact GND Control – providing tail number, parking row, spot and will monitor GND Control frequency (275.8) at all times during the engine run. MX personnel will provide reasoning if unable to provide the required information (i.e. classification restrictions).

5.6.3.1.2. MX personnel performing run-ups will clear the area and control vehicles passing behind the aircraft.

5.6.3.1.3. MX personnel will ensure that engine run-ups will take place in hush houses and engine test cells to max extent possible (no quiet hour restrictions).

5.6.3.2. During the engine run.

5.6.3.2.1. When engine run-up turbulence is a hazard to aircraft, the TWR will terminate the engine run-up or detour aircraft.

5.6.3.3. After the engine run.

5.6.3.3.1. MX personnel will ensure FOD is removed following the engine run.

5.6.3.4. Prohibited run-up locations: For engine run-up's in locations not listed, contact AMOPS.

5.7. Hot Brakes, Jammed Gun, Hot Pit, and Arm/De-Arm Areas.

5.7.1. Hot Brake/Jammed Gun Areas. Hot brakes/jammed gun locations are located on Warm-up pads 1-4 (See **Figure A2.1**). Alternate hot brake Area: TWY Bravo center and Echo center. See **Section 7.6** for hot brake procedures. Refer to **Chapter 9** (fighter) and **Chapter 11** (helicopter) for jammed gun procedures based on MDS.

5.7.2. Hot Pit Refueling Areas/Procedures. Refer to **Chapter 9** (fighter) and **Chapter 11** (helicopter) for expanded procedures.

5.7.3. Arming/De-Arming Areas and Headings. To be used by aircraft possessing forward firing ordnance as indicated in **Table 5.4**.

Table 5.4. Arm/De-Arm Area and Heading.

Location	Heading	Location	Heading
Warm-Up Pad 1	230	Warm-Up Pad 3	050
Warm-Up Pad 2	070	Warm-Up Pad 4	230
TWY D north	225	SA 3	050
HS 111/113/115/117/119	270-030	HS 123/125	270

5.8. Aircraft Anti-Hijacking. All KAB flightline personnel will be alert to unauthorized movement or theft of aircraft. Strange behavior of person(s) in parking areas will be reported to security forces immediately. Suspicious persons will be challenged and detained pending arrival of proper authority. Unusual/unannounced MX-related engine starts or aircraft movements without exterior aircraft lights, without an aircraft marshaller or ground crew, will be reported immediately to 18 WG/CP. If more immediate action appears warranted, a Security Incident will be reported to BDOC (Helping Hand Hotline at 634-4444). Security will be provided to all aircraft on KAB to prevent access from unqualified/unauthorized persons. Specific anti- hijacking instructions are contained in FAAO JO 7610.4, *Special Operations* (FOUO), and KAB PLAN 31-101. ATC will be familiar with AFI 13-207-O, *Preventing and Resisting Aircraft Piracy (Hijacking)* (FOUO).

5.9. Radar Warning Receiver/Identification Friend or Foe (RWR/IFF) Check Responsibilities. 18 WG/MOCC will notify AMOPS of scheduled RWR checks on TWY Echo South. IFF checks will be accomplished in parking. AMOPS will issue a NOTAM and impose restrictions for aircraft, if required. Upon completion of the checks, units will inform 18 WG/MOCC when all equipment and personnel are cleared from the area and the TWYs are cleared. 18 WG/MOCC will then notify AMOPS of the termination, and AMOPS will conduct a FOD check of the area and cancel the applicable NOTAM, if published. All equipment shall be removed immediately once RWR/IFF checks are complete.

5.10. Crosswalk Procedure. A “Crosswalk” is defined as: A large number of personnel crossing an active taxiway and/or areas of the CMA on foot. A point of contact (POC) for the group must coordinate with AMOPS and SFS NLT 24 hours prior to the event. On the day of the event, the POC must establish two-way radio communication with and receive approval from the Control TWR prior to crossing. This will de-conflict pedestrian operations and taxiing aircraft. The POC must advise the Control TWR when the crossing is complete and unit escort will conduct a FOD check when required.

5.11. Transient Aircraft Jacking Operations. Aircraft jacking operations are subject to strict location requirements and must be coordinated with Maintenance (733 MOCC or 18 EMS/TA) and AMOPS as early as possible. For wide-body aircraft, parking spot SA-2D best meets slope requirements. If needed for aircraft with wingspans greater than 170 feet, AMOPS will implement control measures, such as wingspan restrictions, once the aircraft to be jacked is in place.

Chapter 6

GENERAL FLYING OPERATIONS

6.1. Reduced Same RWY Separation (RSRS). RSRS is authorized by PACAF A3/6. All PACAF, Commander, U.S. Pacific Fleet (COMPACFLT), and Commander, U.S. Marine Forces Pacific (COMMARFORPAC) assigned aircraft are authorized to utilize RSRS procedures as defined below at KAB. For non-PACAF/PACOM assigned aircraft, units must coordinate a Letter of Agreement with 18 OG/OGV in order to apply RSRS. See [Table 6.1](#) and [Table 6.2](#) for RSRS operations.

6.1.1. Conditions for application of RSRS standards.

6.1.1.1. Air traffic controllers must be able to see the aircraft involved and determine distances by reference to suitable landmarks (i.e., distance markers, taxiways) for daytime and nighttime.

6.1.1.2. Any aircrew or air traffic controller may refuse RSRS when safety of flight may be jeopardized. In these cases, apply appropriate separation standards published in FAAO JO 7110.65.

6.1.1.3. Revert to nighttime RSRS standards when the RSC is reported as wet.

6.1.1.4. For fighter-type aircraft only: A low-approach following a full stop shall use the alternate side of the runway when passing the aircraft on landing roll. Aircraft will not over-fly aircraft on the runway. Responsibility for separation rests with the pilot. Controllers must provide appropriate traffic advisories to aircraft involved. Advisories will be issued prior to the aircraft reaching a critical phase of flight.

6.1.1.5. Pilots are responsible for wake turbulence separation when maintaining visual separation or operating VFR. Controllers must provide appropriate cautionary wake turbulence advisories in these cases.

6.1.1.6. Same fighter-type aircraft operations mean the same airframe, i.e. F-15 behind F-15, F-16 behind F-16, etc.

6.1.1.7. Dissimilar fighter-type aircraft operations mean not the same airframe, i.e., F-15 behind F-16, F-16 behind A-10, etc.

6.1.1.8. Non-heavy, non-fighter-type aircraft operations mean C-130, C-12, B-737, etc.

6.1.1.9. RSRS between formation full stops (holding hands) are authorized provided all aircraft involved are the same type aircraft (e.g., all F-15s, all F-16s, etc.). Separation is measured between the trailing aircraft in the lead formation and the lead aircraft in the trailing formation.

6.1.1.10. All aircraft must maintain at least 500 feet lateral or vertical separation when over flying aircraft on the RWY. Responsibility for separation rests with the pilot.

6.1.1.11. RWY separation within formations (similar or dissimilar) rests with the individual aircraft. ATC will take action to prevent unsafe conditions from developing, or to ensure safe separation of aircraft.

6.1.1.12. All fighter type aircraft shall rollout to the end of the RWY, maintaining rollout speed, unless authorized an early runway exit, or a 60 Knots Indicated Airspeed (KIAS) landing (for AV-8 and F-35B aircraft).

6.1.1.13. Aircraft may request an early turn off. This request should be made to TWR as soon as possible for planning purposes.

6.1.1.14. Reduced same runway separation standards do not apply to:

6.1.1.14.1. Any situation involving an emergency aircraft.

6.1.1.14.2. Civil aircraft.

6.1.1.14.3. Air evacuation aircraft.

6.1.1.14.4. A touch-and-go behind a full stop or when either aircraft involved has been cleared for the option.

6.1.1.14.5. "Heavy" aircraft as classified IAW FAAO 7110.65. **Exception:** Kadena AB, Japan assigned KC-135 formations not at maximum landing weight.

6.1.1.14.6. RSRs will not be applied to emergency aircraft or when either aircraft involved has been cleared for the options or when braking action reports of less than "good to medium" are reported.

Table 6.1. Daytime RSR Standards.

Pairings	FS behind TG	FS behind LA	LA behind LA	FS behind FS	LA behind FS	TG behind TG	TG behind LA
Same Fighter-Type	*3,000'	*3,000'	*3,000'	*3,000'	6,000'	*3,000'	*3,000'
Dissimilar Fighter-Type	+	+	+	6,000'	6,000'	+	+
Same, Non-Heavy, Non-Fighter Type	+	+	+	6,000'	+	+	+
Same-Type Aircraft Formations	+	+	+	6,000' **7,000'	+	**7,000'	+
Fighter-Type behind Non-Heavy, Non-Fighter Type	+	+	+	9,000'	+	+	+
Non-Heavy, Non-Fighter Type behind Fighter Type	+	+	+	9,000'	+	+	+
+: Standard FAAO JO 7110.65 separation will be provided. *: For any separations less than 6,000', reference paragraph 7.12.1.6 . **: For Kadena AB, Japan assigned KC-135 formations not at maximum landing weight. FS – Full-Stop; TG – Touch-and-Go; LA – Low-Approach.							

Table 6.2. Nighttime RSR Standards.

Pairings	FS behind TG	FS behind LA	LA behind LA	FS behind FS	LA behind FS	TG behind TG	TG behind LA
Fighter-Type	+	+	+	6,000'	9,000'	+	+
Same, Non-Heavy, Non-Fighter Type	+	+	+	6,000'	+	+	+
Same-Type Aircraft Formations	+	+	+	6,000'	+	+	+
Fighter-Type behind Non-Heavy, Non-Fighter Type	+	+	+	9,000'	+	+	+
Non-Heavy, Non-Fighter Type behind Fighter Type	+	+	+	9,000'	+	+	+
+: Standard FAAO JO 7110.65 separation will be provided							

6.2. Intersection Departures. Intersection departures may be authorized by the TWR from any intersection if the pilot concurs and traffic flow permits. Intersection departure procedures will comply with FAAO JO 7110.65. TWR will issue appropriate distance remaining from the intersection to end of runway to military aircrew ([Table 6.3.](#)). Pilots are responsible for ensuring sufficient RWY length is available for safe takeoff and climb, and that the intersection takeoff is authorized by unit directives.

Table 6.3. Intersection Departure Distance.

	05L	05R	23L	23R
TWY BRAVO	9,300 feet	9,700 feet	2,300 feet	2,700 feet
TWY CHARLIE	7,800 feet	8,200 feet	3,800 feet	4,200 feet
TWY DELTA	5,700 feet	6,400 feet	5,600 feet	6,300 feet
TWY ECHO	2,600 feet	3,700 feet	8,300 feet	9,400 feet
TWY WHISKEY	N/A	1,700 feet	10,300 feet	N/A

6.3. Reporting. Unless stated otherwise, Air Traffic Controllers will issue instructions including distances utilizing Distance Measuring Equipment (DME) range from Kadena. Pilots will make position reports to ATC using radial and DME from Kadena unless otherwise stated.

6.4. Departures. Additional information for VFR/IFR departures is located in [Section 6.11](#) and [Section 6.15](#).

6.4.1. Departure Altitude Restriction. All aircraft will remain at or below 1,300 feet MSL until passing the departure end the RWY, unless safety of flight or ATC instructions dictate otherwise.

6.4.2. Whiskey Clearances (local IFR clearances to/from the Joint Okinawa Training Range Complex - JOTRC). Pilots shall depart on local IFR clearances issued by Clearance Delivery via the published JILEE # (RWY 05) or TUCOF # (RWY 23) standard instrument departure procedure (see current DoD FLIP for #). **Example:** “EAGLE01 CLEARED TO EAGLE VIA JILLE # DEPARTURE DIRECT, CLIMB VIA SID UP TO 10,000, EXPECT FL190 AFTER DEPARTURE, DEPARTURE FREQUENCY LOCAL CHANNEL 4/5/ SQUAWK XXXX. ”. See **Table 6.4** for defined entry fix locations, associated airspaces and altitudes at the entry/exit fix.

6.4.2.1. Pilots will be cleared to the fix associated with the requested warning area or SALTRV as noted in **Table 6.4**.

6.4.2.2. Units requesting departure clearances for altitudes/fixes other than **Table 6.4** must file flight plans IAW paragraphs **3.1.2** and **3.1.3**, and ensure the desired clearance limit is specified.

Table 6.4. JOTRC Entry Fix Locations.

Local Entry/ Exit Fix	From KAD TACAN	LAT / LONG	Associated Airspaces	Altitude at Fix
TIGER-GATE NORTH	KAD 085/40	N 26 27.7 / E 128 30.3	Tiger, W-173	9,000
TIGER-GATE SOUTH	KAD 100/40	N 26 17.2 / E 128 30.6	Tiger, W-173	FL190
EAGLE-GATE	KAD 145/40	N 25 50.6 / E 128 14.9	Eagle, W-185	FL190
LION-GATE	KAD 175/45	N 25 36.6 / E 127 54.7	Lion, W-172	FL190
MOOSE- GATE	KAD 320/45	N 26 55.6 / E 127 14.2	Browns N/S, Moose N/S, W-174, W-179, W-176	FL190

6.4.3. Elements greater than a 2-ship must always have the last element squawk 5300 until rejoined to standard formation.

6.5. General Arrival Procedures. Additional information for VFR and IFR arrivals is located in **Sections 6.12, 6.16, and Chapter 8**.

6.5.1. All aircraft exiting the JOTRC shall contact APP per airspace specific procedures outlined in JOSC Airspace and Scheduling Academics, and briefly covered in **Chapters 9** through **Chapter 11**.

6.5.2. Due to APP radar capabilities, arriving VFR-On-Top aircraft will recover squawking the recovery discrete beacon code issued with their clearance. Aircraft not assigned a discrete beacon code (e.g., EAGLE 2 recovers prior to lead), will recover squawking 5300. APP will then assign a discrete beacon code, enabling ATC radar to display call sign, beacon code, altitude, GND speed, and other information to expedite the flow of traffic.

6.6. Standard Radar Climb-Out Instructions. The following subparagraphs are standard climb-out instructions for aircraft re-entering or remaining in the radar pattern for multiple approaches. KAB aircraft/TDY units should expect to hear “EXECUTE STANDARD RADAR CLIMB-OUT” when conducting multiple instrument approaches. If required, the controller may issue alternate climb-out instructions which will supersede the Standard Radar Climb-Out.

6.6.1. RWY 23. After completing (type landing), CROSS DEPARTURE END OF THE RUNWAY (OR 1.0 DME IF IMC) AT OR BELOW ONE THOUSAND THREE HUNDRED, COMPLETE CLIMBING RIGHT TURN HEADING THREE SIX ZERO WITHIN TWO D-M-E (OR 1 NM OF RWY END), CLIMB AND MAINTAIN THREE THOUSAND. **Note:** Delay in climb and turn may result in conflict with arriving/departing aircraft at Naha. **Exception:** Single ship heavy aircraft may complete the turn northbound within 3 DME (2 NM OF RWY END) but should make every effort within operational limitations to remain within 2 DME.

6.6.2. RWY 05. After completing (type landing), CROSS DEPARTURE END OF THE RUNWAY (OR 1.0 DME IF IMC) AT OR BELOW ONE THOUSAND THREE HUNDRED, COMPLETE CLIMBING LEFT TURN HEADING THREE SIX ZERO WITHIN TWO D-M-E (1 NM OF RWY END), CLIMB GRADIENT TWO HUNDRED THIRTY FEET PER NAUTICAL MILE UNTIL LEAVING ONE THOUSAND. CLIMB AND MAINTAIN THREE THOUSAND. **Exception:** Single heavy aircraft may complete the turn northbound within 3 DME (2 NM of RWY end) but should make every effort within operational limitations to remain within 2 DME.

6.7. Breakout/Go-Around/Carry Straight-Through/Missed Approach Procedures.

6.7.1. A BREAKOUT is an instruction used to direct aircraft out of the approach stream if issued by the Radar Approach Control (RAPCON), or the visual traffic pattern if issued by TWR, to prevent unsafe conditions from developing, or to ensure safe separation of aircraft (e.g., aircraft approaching base turn that conflicts with aircraft on final, conflicting IFR/VFR traffic, etc.).

6.7.1.1. IFR BREAKOUT procedures. Aircraft issued BREAKOUT instructions prior to entering Class D airspace shall be turned to avoid entering Class D airspace. GCA must coordinate with ARR/APP, for instructions prior to breaking aircraft out that have not entered the Class D. When breakout instructions are issued within the Class D airspace:

6.7.1.1.1. RWY 05 IFR procedure – “BREAKOUT, TURN LEFT HEADING 360, CLIMB AND MAINTAIN 2,200 FEET IMMEDIATELY, (reason for breakout), ACKNOWLEDGE.”

6.7.1.1.2. RWY 23 IFR procedure – “BREAKOUT, TURN RIGHT HEADING 360, CLIMB AND MAINTAIN 2,200 FEET IMMEDIATELY, (reason for breakout), ACKNOWLEDGE.”

6.7.1.2. VFR pattern BREAKOUT procedures.

6.7.1.2.1. RWY 05/23 VFR procedure – “CALLSIGN, BREAKOUT, (As directed by ATC).” Pilots will remain within the Kadena Class D airspace and clear of the Futenma Class D airspace.

6.7.2. GO-AROUND is an instruction for a pilot to abandon the approach to landing due to an imminent situation (e.g., insufficient RWY spacing, vehicle on RWY, etc.). If available, aircrew may request a closed pattern following execution of a GO-AROUND. The following are standard GO-AROUND procedures for KAB.

6.7.2.1. RWY 05/23: “CALLSIGN, GO AROUND (left/right) SIDE OF RWY (if required) (Reason, if time permits).”

6.7.2.1.1. IFR Approach: Aircrew on IFR flight plans executing instrument approaches will execute the published missed approach procedure unless alternate instructions are issued prior to commencing the approach (see [paragraph 6.7.4](#)), or proceed as instructed by ATC. **Note:** Delay in climb and/or turn on RWY 23 may result in conflict with arriving aircraft to Naha RWY 18.

6.7.2.1.2. VFR Approach: Aircrew may request a closed pattern, if applicable, or go around the rectangular traffic pattern IAW [paragraph 6.13.2](#).

6.7.3. Carry-Straight Through. Fly runway heading and expect further ATC instruction.

6.7.4. Missed Approach. In the event of a missed approach aircraft will execute the missed approach procedure published on the instrument flight procedure chart unless otherwise specified by ATC. **Note:** Delay in climb and/or turn on RWY 23 may result in conflict with arriving aircraft to Naha RWY 18.

6.8. Opposite Direction Take-Offs and Landings. All opposite direction traffic will be approved or disapproved based solely on known traffic. Except for specific military missions, opposite direction traffic will not normally be given priority.

6.8.1. IFR opposite direction operations require approval from TWR, ARR, and APP. IFR/IFR opposite direction procedures shall be used only when Naha ASR is operational.

6.8.2. Minima.

6.8.2.1. IFR Opposite Direction Departure/Low Approach vs IFR Arrival: An opposite direction departure/low approach aircraft must be airborne and turning to avoid conflict prior to an arrival aircraft reaching 15 flying miles from the runway.

6.8.2.2. IFR Opposite Direction Arrival vs IFR Departure/Low Approach: An opposite direction arrival aircraft shall be no closer than 15 flying miles from the runway prior to a departure/low approach aircraft becoming airborne and turning to avoid conflict.

6.8.2.3. IFR Opposite Direction Arrival vs IFR Arrival: An opposite direction arrival aircraft shall be no closer than 15 flying miles from the runway when the preceding opposite direction arrival aircraft crosses the landing threshold.

6.8.2.4. VFR Opposite Direction Straight-in Arrival vs IFR Arrival: An opposite direction arrival aircraft shall be no closer than 15 flying miles from the runway when the preceding arrival aircraft crosses the landing threshold.

6.8.2.5. VFR Opposite Direction Departure vs IFR Arrival and IFR Opposite Direction Departure/Low Approach vs VFR Arrival: An opposite direction departure/low approach aircraft must be airborne and turning to avoid conflict prior to an arrival aircraft reaching 15 flying miles from the runway.

6.8.2.6. VFR Opposite Direction Departure vs VFR Arrival: An opposite direction departure/low approach aircraft must be airborne and turning to avoid conflict prior to an arrival aircraft reaching 5 flying miles from the runway.

6.8.2.7. VFR Opposite Direction Arrival vs VFR Departure/Low Approach: An opposite direction arrival aircraft shall be no closer than 5 flying miles from the runway prior to a departure/low approach aircraft becoming airborne and turning to avoid conflict.

6.8.2.8. VFR Opposite Direction Straight-in Arrival vs VFR Arrival: An opposite direction arrival aircraft shall be no closer than 5 flying miles from the runway when the preceding arrival aircraft crosses the landing threshold.

6.9. Lost Communications Procedures. Aircrew will adhere to the following procedures if two-way communication is completely lost unless safety of flight dictates otherwise.

6.9.1. Single Ship. Aircraft will squawk 7600, monitor guard if able, and set VCS/FLTID to NRDOXX (if applicable). If an emergency exists, squawk 7700. The PAPI lights can be used to verify landing direction.

6.9.1.1. VFR. Proceed to a 3-mile initial. At initial, descend to 1,500 feet MSL; fly alongside expected landing RWY while rocking wings. Check to ensure the RWY is clear, and discern which RWY is active. At departure end, pull closed traffic and monitor TWR for a steady green light (clearance to land) on base leg or final. Fighter aircraft are expected to land on 5R/23L, heavy aircraft are expected to land on 5L/23R.

6.9.1.2. IFR.

6.9.1.2.1. Departures (fixed wing).

6.9.1.2.1.1. RWY 05 to IMONO. Climb to 10,000 feet MSL and hold as published, then proceed direct KAD, direct IDMEK (IAF). Hold for 20 minutes, then descend to 6,000 feet MSL and commence approach. **Note:** If VFR conditions are encountered and can be maintained, proceed VFR IAW [paragraph 6.9.1.1](#).

6.9.1.2.1.2. RWY 23 to IDMEK. Climb to 10,000 feet MSL and hold as published, then proceed direct KAD, direct IMONO (IAF). Hold for 20 minutes, then descend to 6,000 feet MSL and commence approach. **Note:** If VFR conditions are encountered and can be maintained, proceed VFR IAW [paragraph 6.9.1.1](#).

6.9.1.2.2. Arrivals (fixed wing).

6.9.1.2.2.1. Follow published recovery procedures and proceed direct to applicable IAF. Following IAF, descend to 6,000 feet MSL in holding and execute approach. **Note:** If VFR conditions are encountered and can be maintained, proceed VFR IAW [paragraph 6.9.1.1](#).

6.9.1.2.2.2. Instrument Pattern. Approach clearance is automatic; proceed with the coordinated approach. Maintain 3,000 feet MSL until established on a segment of the approach.

6.9.1.2.2.3. Complete Electrical Failure. If able, proceed VFR IAW [paragraph 6.9.1.1](#). Descend to the minimum safe altitude with available instrumentation to achieve Visual Meteorological Conditions (VMC) and maintain VFR.

6.9.2. Barrier Engagement. If barrier is required, extend tail-hook while flying past the control TWR (VFR) or flash landing light if on straight-in final (IFR/VFR).

6.10. General Procedures - VFR Pattern Operations.

6.10.1. WX Requirements. Ceilings must be at least 500 feet above type aircraft pattern altitude, listed in [Table 6.6](#), with visibility greater than 3 miles for VFR pattern operations.

6.10.2. TWR controllers will not allow VFR pattern operations when controllers are unable to provide visual separation between aircraft in the VFR pattern, regardless of the official WX observation.

6.10.3. Aircraft will avoid over-flying highly populated off-base areas to the max extent possible.

6.10.3.1. The overhead pattern is open from sunrise to sunset.

6.10.4. Special VFR. ARR is the approval authority for Special Visual Flight Rules (SVFR) within KAB and MCAS Futenma Class D airspaces. MCAS Futenma has been granted automatic approval for SVFR. When ARR is closed, APP assumes this authority.

6.10.5. Leaving Class D to the west/northwest, requires prior coordination if flight path and altitude will enter the Naha PCA (Class B airspace).

6.10.6. VFR Reporting Points. Aircraft (non-fighter) operating or intending to operate VFR inside Kadena Class D and outside Naha PCA (Class B airspace) will establish and maintain two-way communication with TWR prior to entering the Class D and report the VFR reporting points listed in [Table 6.5](#) and depicted in [Figure A2.9](#).

6.10.6.1. Gate 1 and Seawall VFR reporting points are located in extremely close proximity to the runways at Kadena (see [Figure A2.9](#)). Neither point is procedurally separated from aircraft arrivals on final, aircraft in the VFR pattern to RWY 5R/L, or from departures from runways 23R/L. Aircraft will not be directed to hold at Gate 1 or Seawall.

6.10.6.2. When holding at Harbor 1 and Torii Beach, hold over land to prevent traffic conflicts with aircraft descending out of the south and north VFR patterns.

Table 6.5. VFR Reporting Points.

Point	Description	Position	Radial/DME
Bolo Point	Beach area north of hwy intersection	N 26 26.37 E 127 42.88	KAD 326 / 5.5
KAB Gate 1	Security Gate entrance to KAB on Hwy 58	N 26 19.91 E 127 45.19	KAD 201 / 2
KAB Gate 3	Security Gate entrance to KAB by Chibana Base Housing	N 26 21.67 E 127 47.63	KAD 075 / 1.5
Gushikawa	Sport Dome east of base	N 26 21.58 E 127 52.01	KAD 087 / 5.5
Power Plant	River Inlet immediately South of Power Plant	N 26 22.41 E 127 52.49	KAD 083 / 5.9
Moon Beach	Beach area shaped like a crescent moon	N 26 26.28 E 127 47.99	KAD 019 / 5
Sea Wall	Sea Wall on south edge of river	N 26 20.85 E 127 44.50	KAD 280 / 1.5
Water TWR	North of airfield	N 26 22.41 E 127 46.24	KAD 006 / 01
Ikei Island	North Island east/northeast of Kadena	N 26 23.90 E 128 00.22	KAD 085 / 12
Maeda Point	Rock outcrop peninsula	N 26 26.74 E 127 46.27	KAD 007/5.3
Torii Beach	Beach due west of Torii Station	N 26 22.48 E 127 43.92	KAD 305/2.1
Harbor 1	Harbor inlet southwest of Airfield	N 26 19.27 E 127.45.25	KAD 205/2.2
Kurashiki Dam	Reservoir Dam north of field	N 26 23.33 E 127 48.19	KAD 047/2.8
Kin Bay	Bay 1NM east of Mt. Ishikawa	N 26 26.90 E 127 51.05	KAD 040/19

6.11. VFR Departures. To ensure separation, VFR aircraft departing Class D airspace will obtain specific departure instructions, be flying a published VFR departure, and/or on a Naha PCA (Class B airspace) clearance. Helicopter takeoffs will be made from the designated helicopter pad, RWY, or non-controlled movement areas. Departures from helipads and non-controlled movement areas will avoid overflight of the runways and continue on the initially assigned departure routing until otherwise instructed by TWR. For the following VFR departures, advise ATC when passing 10 DME from KAD VORTAC.

6.11.1. Sesoko Departure (C-130):

6.11.1.1. **RWY 05.** Climb RWY heading to 1,500 feet MSL, cross departure end at or below 1,300 feet MSL, at 5 DME turn direct Sesoko.

6.11.1.2. **RWY 23.** Climb RWY heading to 1,500 feet MSL, cross departure end at or below 1,300 feet MSL and complete a right turn within 2 DME direct Moon Beach then Sesoko.

6.11.2. Ikei Departure (C-130):

6.11.2.1. **RWY 05.** Maintain at or below 1,000 feet MSL until outside 10 DME. At 5 DME proceed direct Ikei Island.

6.11.2.2. **RWY 23.** Maintain at or below 1,000 feet MSL. Complete a left turn within 2 DME to a downwind and proceed to Gushikawa then direct to Ikei Island.

6.11.3. Moon Beach (KC-135/RC-135/WC-135/E-3/C-130):

6.11.3.1. **RWY 05.** Cross departure end of the RWY at or below 1,300 feet MSL. Within 2 DME, complete a climbing left turn to 1,500 feet MSL then direct to Moon Beach (N 26 26.14 E 127 47.53). Do not over fly the Renaissance Hotel. Proceed to Sesoko (N 26 38.22 E 127 52.15) at 1,500 feet MSL then flight plan route.

6.11.3.2. **RWY 23.** Not applicable.

6.11.4. Manza Beach (KC-135/RC-135/WC-135/E-3/C-130):

6.11.4.1. **RWY 23.** Cross departure end of the RWY at or below 1,300 feet MSL. Within 2 DME, complete climbing right turn to 1,500 feet MSL then direct to Manza Beach (N 26 30.22 E 127 51.33). Passing Manza beach proceed to Sesoko (N 26 38.22 E 127 52.15) at 1,500 feet MSL then flight plan route.

6.11.4.2. **RWY 05.** Not applicable.

6.12. VFR Arrivals. Establish two-way communication with ATC/TWR prior to entering the Kadena Class D airspace. Heavy aircraft are not authorized to re-enter at Koza/Yomitan.

6.12.1. VFR Straight-In Approach. An approach conducted by aircraft operating under VFR whereby the aircraft enters the VFR traffic pattern by intercepting the extended RWY centerline without executing any other portion of the traffic pattern. VFR Straight-Ins must be approved by ATC. **Note:** Aircraft shall maintain 2,200 feet MSL, when approaching from the NW-NE, and 2,500 feet MSL, when approached from SE-SW until 5 DME.

6.12.1.1. Koza. Straight-ins from Koza will not be requested, but may be directed by ATC for spacing or safety.

6.12.1.2. Yomitan (KAD 340/2.5). Request a "STRAIGHT-IN APPROACH" from Yomitan. Once approved, maintain 1,800 MSL until established on a 3 to 4 NM final. Remain within 5 DME of Kadena. Pilots may request 1,300 MSL due to weather.

6.12.2. Moon Beach. Maintain VFR hemispherical altitudes and fly direct Moon Beach. Cross Moon Beach at 1,300 feet MSL then proceed to downwind or base. Advise ATC prior to entering the Class D airspace. If requesting a 5 NM initial for the overhead do not fly west of the Zampa lighthouse, this will put you in Naha Class B. If conditions dictate a flight path west of Zampa lighthouse contact ARR prior to entering the Naha PCA (Class B airspace).

6.13. Traffic Pattern Procedures. Fighters will fly patterns to the south, heavy aircraft will fly patterns to the north, and helicopters/aero club/propeller aircraft can fly patterns in either direction. Pilots must ensure adherence to VFR traffic pattern due to proximity to ROAH and ROTM. Pilots will limit multiple VFR traffic patterns to those required for proficiency and training of aircrew and TWR personnel. Formations will be controlled as a single flight until each aircraft passes the runway threshold on their first approach. TWR will control subsequent approaches as individual aircraft and apply increased separation unless otherwise requested by the flight lead before the completion of the initial approach.

6.13.1. Traffic Pattern altitudes. Strict adherence to the altitudes listed in **Table 6.6** will ensure safe de-confliction of traffic inside the TWR airspace. All pattern altitudes are listed in MSL.

Table 6.6. VFR Traffic Pattern Altitudes.

Aircraft Type	High Tactical / High Initial	Initial / Tactical Initial	Rectangular
Fighter	Normally 4,000-6,000 feet (Request Block with ATC)	1,800 feet*	1,800 feet*
Heavy	N/A	1,800 feet*	1,300 feet
C-130 / Tilt Rotor	Up to 4,500 feet	1,800 feet*	1,300 feet
Rotary Wing/Aero Club	N/A	N/A	800 feet

* Maintain 2,500 feet until 5 DME

6.13.2. Traffic Pattern procedures.

6.13.2.1. When operations are in progress above 500 feet above ground level (AGL) at the 18 MUNS Explosive Ordinance Disposal (EOD) Range, OSA will comply with the EOD range ops letter.

6.13.2.2. Altitude Restricted Low Approach. Restricted low approach will not be less than 500 feet AGL (1,000 feet AGL for heavy aircraft). Aircraft will not perform a restricted low approach over a departing aircraft or an aircraft in departure position. When issuing an altitude restricted low approach due to personnel on the RWY, TWR will ensure that personnel on the RWY are informed of the intended operation prior to the aircraft crossing the landing threshold.

6.13.2.3. When landing on RWY 05L/R, extend inside downwind until feet wet, fly at least a one-mile final aligned with the RWY centerline prior to feet dry. See **Figure A2.11**.

6.13.2.4. Closed Patterns. Aircraft will turn crosswind at the departure end of RWY 05L/R and between Taxiway Bravo and the departure end of RWY 23L/R, unless otherwise directed or approved by TWR.

6.13.2.5. Rectangular Patterns. Aircraft in the 1,300 foot pattern will remain within 1 NM southeast of RWY 05R/23L centerline to avoid conflicts with MCAS Futenma Class D.

6.13.2.6. Overhead Patterns. ATC will protect the overhead pattern when in use and will utilize BREAKOUT, GO-AROUND, and CARRY STRAIGHT-THROUGH instructions per section **6.7** to maintain safe and effective sequencing and separation of aircraft

conducting pattern operations. TWR will ensure all non-base assigned aircraft maintain at or below 1,300 feet until departure end while the overhead pattern is in use. Additional guidance can be found in Fighter, Heavy, and Helicopter Operations chapters (**Chapters 9, Chapter 10, and Chapter 11** respectively).

6.13.2.6.1. Initial. Maintain 2,500 feet MSL or ATC assigned altitude inbound to initial and descend to 1,800 feet MSL at 5 DME. Report Initial between 3 to 5 DME.

6.13.2.6.2. Tactical Initial. Adhere to procedures outlined for Initial. Additionally, aircraft 2 will fly tactical formation, not to exceed the confines of KAB. Aircraft 3 and 4 fly 1-NM trail.

6.13.2.6.3. High Initial. Aircrew may request altitude up to 6,000 feet MSL, and the block 4,000 to 6,000 feet MSL is normally available from Kadena ARR. Report "HIGH INITIAL" per Initial ground track, and execute a descending break at the departure end of the runway. Due to altitude required to safely lose, aircrew should normally break at the departure end of the runway to safely position their aircraft at 1,800 feet MSL on inside downwind. Due to this, TWR should not issue break instructions for aircraft on High Initial. If absolutely required to maintain safe separation of aircraft, TWR should direct breaks to be executed no earlier than mid-field. Otherwise, ATC may issue CARRY STRAIGHT-THROUGH instructions per **paragraph 6.7.3**.

6.13.2.6.4. High-Tactical Initial. Adhere to Tactical and High Initial procedures. For noise abatement, High-Tac Initial shall be the primary fighter VFR pattern.

6.13.3. Simulated Flameout Procedures (SFO)/Precautionary Flameout Procedures (PFO).

6.13.3.1. General requirements and restrictions.

6.13.3.1.1. These procedures apply to US Forces fighters and UC-12 aircraft assigned, either permanently or on temporary duty, to KAB.

6.13.3.1.2. 18 OG shall ensure all aircrew receive local area academics to include SFO/PFO procedures and operational requirements prior to requesting SFO approaches.

6.13.3.1.3. Overhead SFO/PFO airspace is defined as the lateral limits of the Kadena Class D from the surface up to and including 10,000' MSL. When activated, TWR is responsible for the cylinder of airspace.

6.13.3.1.4. SFO/PFO patterns are VFR maneuvers and pilots are not relieved of their responsibility to see and avoid. Provision of the SFO/PFO service by the TWR does not in any way absolve the pilot from his/her responsibility to comply with 14 Code of Federal Regulations (CFR) Parts 91.111 and 91.113, other appropriate subparts of 14 CFR Part 91, and/or applicable military regulations.

6.13.3.1.5. ATC shall only approve SFOs/PFOs between official sunrise and sunset.

6.13.3.1.6. SFOs/PFOs may be disapproved or canceled due to conflicting traffic or other safety of flight reasons, either before or after the start of the maneuver, but cancellations will not occur later than aircrew notification of "Low Key". If an SFO/PFO is cancelled prior to aircrew calling "LOW KEY", TWR will instruct aircrew

to report High Key again. If a conflict exists after aircrew report “LOW KEY,” TWR will instruct aircrew to break-out/go around/re-enter in accordance with **Section 6.7**.

6.13.3.1.7. No more than four Fighter aircraft or one UC-12 are/is allowed in the overhead SFO/PFO pattern at once. Fighters that execute simultaneous overhead SFO/PFO pattern must maintain visual separation from each other at all times. Simultaneous SFO/PFO patterns between Fighter aircraft and UC-12s are not authorized.

6.13.3.1.8. Pilots executing overhead SFO/PFO patterns must remain at or above 2,500 MSL as long as necessary to remain outside Futenma TWR’s airspace (>5 DME of Kadena). Once the SFO/PFO pattern commences, pilots will remain within 3NM of the Kadena airfield.

6.13.3.1.9. All SFO/PFO patterns shall terminate in a low approach.

6.13.3.2. SFO/PFO pattern description.

6.13.3.2.1. The Overhead SFO/PFO approach pattern is the same ground track as the high initial pattern. This pattern allows gliding of the aircraft to the runway in the event of engine failure (see **Attachment 3**).

6.13.3.2.1.1. The primary runway for Overhead SFO/PFO procedure is RWY 5R/23L.

6.13.3.2.1.2. Direction of turns for overhead SFO/PFO: All patterns will be flown to the south: RWY 05, Right turns; RWY 23, Left turns.

6.13.3.2.2. The Fighter aircraft Straight-In SFO/PFO procedure begins at 5 NM from runway threshold.

6.13.3.2.2.1. The primary runway for Straight in SFO/PFO procedure is RWY 5L/23R.

6.13.3.2.3. Aircraft speed should remain between 140 KIAS and 120 KIAS for all patterns, unless a higher speed is dictated by tech order guidance or safety of flight.

6.13.3.2.4. Fighter Aircraft SFO/PFO Pattern Altitudes:

6.13.3.2.4.1. High Key: 6,000-10,000’ MSL.

6.13.3.2.4.2. Low Key: 3,000-5,000.

6.13.3.2.4.3. Base Key: \geq 2,000’ MSL.

6.13.3.2.4.4. Straight-In SFO/PFO 5 NM final: 6,000-10,000.

6.13.3.2.5. UC-12 SFO Pattern Altitudes:

6.13.3.2.5.1. High Key: 3,200’ MSL.

6.13.3.2.5.2. Low Key: 1,700’ MSL.

6.13.3.2.5.3. Base Key: \geq 1,000’ MSL.

6.13.3.3. Overhead SFO/PFO Pattern Procedures:

- 6.13.3.3.1. SFOs/PFOs will not be performed without TWR approval. Pilots must request an SFO/PFO approach on initial contact with APP/ARR. The pilot may also request an SFO/PFO approach with TWR while in the VFR pattern; TWR will coordinate with ARR/APP as soon as possible. Fighters shall include the desired High Key altitude (6,000-10,000 feet MSL) in their initial request. UC- 12's will proceed to High Key at 3,200. Refer to **Attachment 3** for a detailed communications guide.
- 6.13.3.3.2. All pilots shall report HIGH KEY over the approach end of the runway. If TWR instructs HOLD AT HIGH KEY pilots shall make a 360-degree turn through south and report reaching HIGH KEY again. When TWR approves the pilot to REPORT LOW KEY this constitutes ATC approval to commence the maneuver.
- 6.13.3.3.3. All pilots shall report LOW KEY when abeam the approach end of the runway on downwind. TWR will issue a landing clearance for a LOW APPROACH or issue alternate instructions (i.e. BREAKOUT) at this point.
- 6.13.3.3.4. All pilots shall report BASE KEY with gear. This will be acknowledged by the controller.
- 6.13.3.3.5. After executing the SFO/PFO pattern to a low approach, pilots will maintain at or below 1,300' MSL until the departure end of the runway.
- 6.13.3.3.6. If safe separation of aircraft becomes a concern after aircrew report Low Key, TWR may direct aircrew to BREAKOUT. If directed to BREAKOUT, pilots shall follow the guidance provided in **Section 6.7**.
- 6.13.3.4. Fighter SFO/PFO Straight-In Pattern Procedures.
- 6.13.3.4.1. SFOs/PFOs will not be performed without TWR approval. Pilots may request a Straight-in SFO/PFO approach on initial contact with APP/ARR or with TWR while established in the VFR pattern; TWR will coordinate with ARR/APP as soon as possible for the release of airspace. Pilots will include desired Straight-In initial altitude (6,000-10,000 feet MSL) in their initial request.
- 6.13.3.4.2. Pilots shall report 5NM SFO/PFO from the runway threshold. TWR will indicate SFO/PFO approval by issuing clearance to low approach. Hold procedures do not exist for Straight-In SFO patterns. If a conflict exists, TWR may issue BREAKOUT (per **paragraph 6.7.1.1**) or CARRY STRAIGHT-THROUGH instructions (per **paragraph 6.7.3**). If directed to CARRY STRAIGHT- THROUGH, pilots may alternatively request to report HIGH KEY for an overhead SFO. If the request is denied or not made, pilots may request Straight-In SFO or High-Key upon re-entry.
- 6.13.3.4.3. After executing a Straight-In SFO/PFO to a low approach, pilots will maintain at or below 1,300' MSL until the departure end of the runway.
- 6.13.3.5. ATC Coordination Requirements.
- 6.13.3.5.1. Naha APP shall:
- 6.13.3.5.1.1. Handoff/inbound aircraft to ARR with; call sign, number/type of aircraft, type SFO/PFO requesting (Overhead/straight-in) and altitude of hi key.
- 6.13.3.5.1.2. Release SFO/PFO airspace 10,000 feet within the horizontal limits of RODN Class Delta airspace and below or as coordinated to ARR/TWR.

6.13.3.5.2. ARR shall:

6.13.3.5.2.1. Handoff inbound SFO/PFO aircraft to TWR as early as practical, but no later than 20 flying miles from the runway threshold. Inbound information must include: call sign, number/ type of aircraft, distance from the runway threshold, type SFO/PFO (Overhead/straight-in) and altitude if other than 10,000 ft (Fighter) or 3,200 ft (UC-12). ARR's inbound constitutes authorization for TWR to approve SFOs/PFOs and assures TWR that ARR will provide at least 15 miles of separation between successive aircraft to the same runway while SFOs/PFOs are in progress. If TWR is unable to accommodate SFOs/PFOs, TWR will advise ARR during the inbound and advise alternate procedure the aircraft may expect.

6.13.3.5.2.2. Coordinate with approach for release of SFO/PFO airspace above 3,100 feet if an SFO/PFO request is made while the aircraft is in the TWR pattern.

6.13.3.5.3. Kadena TWR shall:

6.13.3.5.3.1. Request control of SFO/PFO airspace from ARR when an aircraft on the go requests to proceed to HIGH KEY or 5 MILE SFO FINAL. If ARR is unable to release control of the SFO/PFO airspace to TWR, TWR must issue alternate instructions to aircrew and advise ARR.

6.13.3.5.3.2. Obtain approval for holding aircraft at HIGH KEY with ARR as soon as practical to enable ARR to adjust traffic flow for subsequent aircraft inbound to the visual pattern. If ARR is unable to accommodate holding at HIGH KEY, TWR will issue alternate instructions to aircrew and advise ARR.

6.13.3.5.3.3. Not authorize aircraft to execute an Overhead or Straight-In SFO/PFO when another aircraft is inside of 8NM on final approach to the same runway. If this situation occurs and holding at HIGH KEY is not approved by ARR in the case of an Overhead SFO/PFO, TWR will issue alternate instructions to aircrew and advise ARR.

6.13.3.5.3.4. Give priority to USAF/USN/USMC/JSDF fighter SFO/PFO A/C amongst other A/C established in the visual pattern. If conflicts arise, spacing should be developed by breaking-out non-SFO/PFO aircraft first.

6.13.3.5.3.5. Not clear an aircraft for takeoff or place an aircraft into departure position when an aircraft is within 8 miles on a straight-in SFO/PFO approach to the same runway or has departed High Key while conducting an Overhead SFO/PFO approach to the same runway.

6.13.4. WX Requirements.

6.13.4.1. The VFR rectangular and the 360-degree overhead patterns may be closed per discretion of the TWR/WS.

6.13.4.2. Initial/Tactical Initial Pattern. The minimum reported ceiling required is 2,200 feet AGL.

6.13.4.3. High-Initial/High-Tactical Initial. The minimum reported ceiling is 2,200 feet AGL. The sky condition must also permit VMC descent while maneuvering from High-Initial/High- Tactical Initial pattern entry to the runway threshold.

6.13.4.4. SFO/PFO: ceiling at least 1,000' above High key (6,900- 10,900 AGL Fighter, 4,100 AGL UC-12); at least 5 miles visibility.

6.13.4.5. Rectangular Pattern. The minimum reported ceiling of 1,700 feet AGL is required for operations in the 1,300 feet MSL rectangular VFR pattern. 2,200 feet AGL is required for the fighter rectangular pattern.

6.13.4.6. Helicopter/Aero Club Pattern. The minimum reported ceiling of 1,200 feet AGL is required for operation in the 800 feet MSL VFR pattern.

6.13.5. Naha Terminal Control Area Procedures. Provides radar traffic information, navigation guidance, position correlation, and sequencing upon pilot request. See [Figure A2.6](#).

6.13.5.1. Times of service – 0730 -2030 local.

6.13.5.2. Frequencies – Naha North 120.0/310.0.MHz / Naha South 122.45/321.5MHz.

6.13.5.3. VFR Departure. Provide aircraft call sign, request for TCA advisory service, flight direction/route of flight, and other pertinent information.

6.13.5.4. VFR Arrival. Provide aircraft call sign, type aircraft, and request for TCA advisory, present position, altitude, flight direction/route of flight, and other pertinent information.

6.14. General Procedures – Flying Operations IFR.

6.14.1. Radar Traffic Patterns.

6.14.1.1. Local Radar Traffic Pattern and Multiple Instrument Approaches pilots will contact APP or ARR on the appropriate frequency, state the type approach requested, how the approach will terminate if other than a full stop, and intentions to follow.

6.14.1.2. Aircraft executing missed approach will cross departure end of the RWY at or below 1,300 feet MSL when operating under VMC and the VFR traffic pattern is open. Under Instrument Meteorological Conditions (IMC), aircraft will execute missed approach per FLIP or ATC issued alternate instructions.

6.14.1.3. Radar In-Trail. Radar In-Trail recovery is limited to a maximum of four aircraft and will not terminate on ASR approaches. Aircrews conducting radar in-trail recoveries are responsible for separation between elements of their flight while on final for full-stop landings. To ensure appropriate departure separation, multiple practice radar in-trail approaches that do not terminate with a full-stop landing shall be conducted only in VMC. During practice approaches in VMC conditions, after an executed low approach/landing, the flight is responsible for their own separation until ATC completes flight split-ups providing individual control. **Note:** In order to assist pilots with their flight splits, the lead aircraft can expect to execute Standard Radar Climb-Out and the trailing aircraft can expect to fly RWY heading.

6.14.2. Transition Procedures (IFR circle-to-land/split-to-land).

6.14.2.1. In order to expedite recoveries and add flexibility to arrival operations at KAB, base- assigned or attached fighter aircraft may execute transition procedures to the parallel RWY.

6.14.2.2. Terminology:

6.14.2.2.1. Split-to-land indicates a flight of two aircraft will accomplish an instrument approach to a RWY. One aircraft will continue the straight-in approach, and the other aircraft will offset to land on the parallel RWY.

6.14.2.2.2. Circle-to-Land is an IFR maneuver that indicates an aircraft (or 2-ship in non-standard trail) will accomplish an instrument approach to a RWY and the aircraft or flight will offset to land on the parallel RWY or the opposite RWY. These instructions are issued together with the instrument approach clearance.

6.14.2.2.3. Transition-to-Land is a VFR maneuver that indicates an aircraft (or 2-ship in non-standard trail) will accomplish a VFR arrival to a RWY and the aircraft or flight will offset and transition to land on the parallel RWY. These VFR instructions are issued/approved by the Control Tower.

6.14.2.3. Procedures:

6.14.2.3.1. Aircraft maneuvering to the parallel RWY are considered to be executing a circling approach and will maintain circling approach minima in VMC with the RWY in sight.

6.14.2.3.2. Circling is only authorized if identified on the particular approach procedure being flown.

6.14.2.3.3. Aircraft will not commence circle-to-land/split-to-land transition until after final approach fix (FAF) and RWY is in sight under VMC.

6.14.2.4. Landing Options. Aircrew may request full-stop, low approach to TWR for one or both aircraft (with visual pattern open), or low approach to the radar pattern for one aircraft only (only to the outside RWY, RWY 05L or 23R). In the latter situation, the other aircraft must full-stop or enter the visual traffic pattern (if open) to avoid conflict at the departure end of the RWY.

6.14.3. For base-assigned aircraft and long term TDY/TAD (including Theater Support Package [TSP]) conducting multiple approaches, controllers may issue "EXECUTE STANDARD RADAR CLIMB-OUT" to reduce excess verbiage.

6.15. IFR Departures.

6.15.1. Local Departure Procedures.

6.15.1.1. Clearance Delivery. All aircraft proposing to depart KAB on an IFR clearance shall contact Kadena Clearance Delivery on frequency 235.0 or 123.3 prior to engine start (if able).

6.15.1.1.1. When delay is expected or the altitude requested cannot be assigned for long-range flight, ATC shall provide pilots with an expected departure clearance time (EDCT), if available.

6.15.1.1.2. Updated information on expected clearance times will be passed directly to the aircraft on the clearance delivery frequency.

6.15.1.1.3. If a delay is due to non-receipt of IFR flight by Kobe ACC or Fukuoka ACC, the aircraft will be instructed to contact AMOPS on frequency 266.0 or 131.4. IAW AFMAN 13-204V2, paragraph 2.5.2.11.8., AMOPS is not authorized to accept original flight plans via radio. AMOPS is the single point of contact for filing flight plans. ATC is not authorized to input nor relay flight plans to AMOPS. However, locally filed flight plans can be amended by any means prior to departure provided an original flight plan is on file at the departure AMOPS section.

6.15.2. Altitude Restrictions. Departing aircraft shall maintain at or below 1,300 feet MSL until the departure end-of-RWY to protect the overhead traffic pattern. All pilots are expected to climb out as published in this regulation or as published on the published Instrument Departure Procedure.

6.15.3. Other Restrictions. No battle-box takeoffs, simultaneous single ship takeoffs from parallel RWYs, or other non-standard departures will be authorized without 18 OG/CC approval. To the maximum extent possible, after-burner equipped aircraft should depart on RWY 05R/23L for noise abatement. **Exception:** KC-135 dual runway takeoff operations are authorized to be conducted IAW AFTTP 3- 3 KC-135.

6.15.4. Unrestricted Climbs. All unrestricted climbs must be approved by the 18 OG/CC. Requests for unrestricted climbs should be made at the weekly 18 OG/CC scheduling meeting. In certain circumstances, unrestricted climbs may be approved by 18 OG/CC following coordination through the SOF and respective units. Once approved, final approval by ATC is required before executing an unrestricted climb.

6.16. IFR Arrivals.

6.16.1. IFR Arrival Procedures.

6.16.1.1. The primary method of recovery for locally assigned fighter aircraft returning from the JOTRC is to the overhead pattern (High-Tactical Initial preferred for noise abatement) via direct initial (traffic permitting) and/or radar vectors. The alternate method is an instrument approach. If unable to recover VFR, pilots must ask for an IFR clearance prior to entering the Naha PCA (Class B airspace).

6.16.1.2. The primary method of recovery for locally assigned heavy aircraft returning from the JOTRC IFR is to request vectors. Heavy aircraft will request vectors to an instrument or visual approach when contacting ARR. Alternatively, aircrew may request VFR arrival outlined in **Section 6.12**.

6.16.1.3. Naha APP will vector IFR arrivals via enroute descent for an ILS approach, unless aircrew request another approach on initial contact.

6.16.1.4. Surveillance Approaches (ASR) are available upon request during operational hours published in the FLIPs.

6.16.2. IFR Straight-In and Visual Approaches shall be conducted IAW FAA JO 7110.65. Aircraft shall maintain 2,200 feet MSL (when approaching from the NW-NE) and 2,500 feet MSL (when approaching from SE-SW) until 5 DME.

6.16.3. Circling approaches are not authorized NW of KAB.

Chapter 7

EMERGENCY PROCEDURES

7.1. General. Due to the limited number of alternate airfields near KAB, all emergency response personnel must strive to minimize RWY closure times due to disabled aircraft or arrested landings (See **Section 7.5**, Emergency Aircraft Arresting System Procedures). Safe, effective, and efficient recovery of IFE aircraft and termination following recovery or GND emergency is the responsibility of, and reliant upon, effective communication, coordination, and job execution of the aircrew, the Fire Chief (on-scene commander), AMOPS, SOF, and ARR/APP/TWR WS. The following factors will be considered as the aforementioned entities coordinate towards and execute a unified plan of action:

- 7.1.1. The time requirement to re-open the RWY for operational use due to airborne aircraft (SOF or WS, if SOF not available).
- 7.1.2. Prevention of initial or secondary damage to the aircraft.
- 7.1.3. The requirement to gather and preserve evidence for accident investigation.
- 7.1.4. Sweepers will respond to all barrier engagements, blown tire emergencies, and any other emergencies with a FOD potential.
- 7.1.5. SOF, when applicable, will ensure OG approval for any action is secured as required.

7.2. Operation of the Primary Crash Alarm System (PCAS).

7.2.1. PCAS. The following agencies are on the PCAS (all agencies must have 2-way capability with a push-to-talk feature): TWR, AMOPS, 18 CES Fire Department, and 18 MDG Flight Medicine Clinic. The following emergency conditions will be relayed via PCAS:

- 7.2.1.1. In-flight emergencies declared by pilot/officials responsible for operation of the aircraft.
- 7.2.1.2. GND emergencies.
- 7.2.1.3. Any aircraft in a distress or urgent condition which includes the terms MAYDAY and/or —PAN-PAN.
- 7.2.1.4. Dropped object (canopy, fuel tanks, etc.).
- 7.2.1.5. AAS Engagement. **Note:** This does not include preplanned engagements.
- 7.2.1.6. Known or suspected hijacking and/or theft.
- 7.2.1.7. Aircraft landing with hung ordnance, except inert practice ordnance, as specified in **Section 9.6**.
- 7.2.1.8. Class III fuel spills.
- 7.2.1.9. Hot brakes.
- 7.2.1.10. Lost aircraft.
- 7.2.1.11. Aircraft mishap.

7.2.1.12. No radio (NORDO) aircraft, unless accompanied by a chase aircraft and the chase pilot can confirm no other problems exist with the NORDO aircraft.

7.2.1.13. TWR evacuation.

7.2.1.14. Blown tire.

7.2.1.15. If, in the judgment of the controller, an emergency exists, and the controller deems it necessary to activate the PCAS.

7.2.2. Flight Medicine Clinic shall use military personnel to answer the PCAS.

7.2.3. After Flight Medicine Clinic operating hours, Fire Department shall assume responsibility for notifying medical personnel of any emergency conditions passed via the PCAS.

7.2.4. Base exercises involving ATC facilities, airfield, or air traffic operations must coordinate with 18 OSS/OSA NLT 48 hours before proposed event.

7.2.4.1. The PCAS will only be activated for exercises in response to an exercise inject, or at the direction of a Wing Inspection Team (WIT) member.

7.2.4.2. Preface and terminate all exercise PCAS activations with EXERCISE, EXERCISE, EXERCISE

7.3. Operation of the Secondary Crash Net (SCN).

7.3.1. SCN. The purpose of the base SCN system is to establish a communication system for rapid dissemination of information regarding in-flight emergencies, aircraft accidents or incidents, and GND emergencies.

7.3.1.1. AMOPS is the SCN activation authority and conducts a test of the SCN system each day between 0830-0900L to ensure operational capability. Any station failing to respond will be called via phone to determine the reason.

7.3.1.2. Individuals who answer the crash net shall be trained on SCN procedures to include use of the phonetic alphabet, responding with brevity and clarity with pertinent information, and their initials. Individuals will remain silent until AMOPS has completed the message and conducts a roll call, and remain online until directed by AMOPS.

7.3.1.3. Stations on the SCN are expected to receive and disseminate information in minimal time.

7.3.1.4. AMOPS shall relay, verbatim, information received from the TWR. AMOPS will also broadcast information received on the airfield LMR net.

7.4. Use of Single Frequency Approach (SFA) emergency discrete frequency.

7.4.1. IFE aircrew will request, or APP will direct IFE aircraft to the SFA (290.3/channel 18 is the normal frequency/channel).

7.4.1.1. Once the IFE aircraft is on the SFA, the pilot will relay the initial information regarding the IFE to both the SOF and ATC. Pilots will then initiate communications with ATC for recovery sequence and to ensure traffic separation.

7.4.1.2. SFA is an ATC frequency and SOFs will request use of SFA from TWR WS unless safety of flight dictates immediate use.

7.4.2. If the IFE occurs after the aircraft is under ATC control, the pilot will not depart the ATC frequency for the SFA until instructed to by the controlling agency.

7.4.3. Responsibilities.

7.4.3.1. SOF and TWR WS responsibilities are per **Section 2.20**, Supervisor of Flying (SOF)- TWR Procedures.

7.4.3.2. APP and ARR: Provide an additional frequency when the SFA is already in use and an additional IFE aircraft needs to recover using SFA procedures.

7.5. Emergency Response Procedures.

7.5.1. Aircrew IFE procedures.

7.5.1.1. Advise SOF, APP/ARR, or TWR as soon as able of the emergency. When conditions permit, communicate the following to ATC:

7.5.1.1.1. Aircraft identification and type.

7.5.1.1.2. Nature of emergency.

7.5.1.1.3. Estimated time until landing; desired RWY (left or right, if applicable).

7.5.1.1.4. Type of ordnance/hazardous cargo. If Cat I or Cat II explosives are involved, indicate the exact ordnance by type or munitions and any other data that is known.

7.5.1.1.5. Number of personnel on-board (forward and aft, time permitting).

7.5.1.1.6. Remaining fuel in pounds and time.

7.5.1.1.7. Present position.

7.5.1.1.8. Intention to engage AAS, if applicable.

7.5.1.2. After landing, if conditions permit, taxi at least 200 feet clear of the RWY before stopping the aircraft or shutting down engines.

7.5.1.3. If conditions require the aircraft to be stopped on the RWY, notify ATC ASAP.

7.5.2. Airfield Operations emergency response procedures for IFE and GND emergencies.

7.5.2.1. Control TWR shall:

7.5.2.1.1. When notified of, or upon observing, an emergency condition, TWR will activate the PCAS and provide as much of the information from **paragraph 7.3.1.1** as is available. **Note:** IAW FAAO JO 7110.65, minimum required information for emergencies includes aircraft identification and type, nature of emergency, and pilot's intentions.

7.5.2.1.2. If the SOF is on duty, the WS will coordinate with the SOF to de-conflict other, non-emergency airborne and taxiing aircraft, as well as timing to allow priority landing to the aircraft in distress and free access to responding emergency vehicles.

7.5.2.1.3. If normal RWY operations must be suspended, TWR will immediately broadcast on TWR frequencies, "THIS IS KADENA TWR, RUNWAY (identifier) SUSPENDED/CLOSED FOR (number) MINUTES/HOURS (or) INDEFINITELY."

7.5.2.1.4. RWY Sterilization. All aircraft operations to and from the RWY to be used by an emergency aircraft will be suspended once the emergency aircraft reaches 5 miles on final approach for full stop. If, in the controller's judgment, safety of flight for the emergency aircraft would not be affected, sequential aircraft operations (multiple ship recoveries, etc.) may continue to the same RWY until the emergency aircraft reaches 3-mile final for full stop. If RWY ops are suspended, AMOPS shall determine when operations to the RWY may resume.

7.5.2.1.5. Time permitting; the TWR will evacuate all aircraft from the approach end hammerheads during recoveries of large/heavy aircraft experiencing flight control problems.

7.5.2.2. AMOPS shall:

7.5.2.2.1. Emergency response/RWY check. AMOPS will respond to all IFEs and standby at the approach end of the RWY in use unless otherwise deemed necessary. A RWY check will be conducted prior to resuming RWY operations unless a "SOF- Call" is made IAW Section 2.20. All "SOF-Calls". As soon as practical (based on Paragraph coordination), AMOPS vehicle(s) will be given expeditious clearance onto the active RWY.

7.5.2.2.2. If RWY operations must be suspended longer than 15 minutes due to an unsafe condition, AMOPS will consider closing the RWY and send NOTAM(s) as required. This determination will be based on anticipated operations and the situation at hand.

7.5.2.2.3. AMOPS will check the RWY surfaces the aircraft landed on, used for roll out, and all TWYs used to get to parking. AMOPS will report any objects of significance to the emergency which were found on the RWY after an IFE landed to 18 WG FOD Manager (18 WG/CVF) and 18 WG/SEF.

7.5.2.2.4. AMOPS will respond to all GND emergencies and determine if a TWY, parking spot, etc., requires closure until the emergency is terminated.

7.6. Fuel Dumping.

7.6.1. Fuel dumping will be conducted only to reduce aircraft gross weight in an emergency or when a JCS priority mission/operational necessity dictates. When circumstances permit, fuel will be dumped at least ten miles offshore and as high as practical, but at least 5,000 feet MSL.

7.6.2. Unless an emergency condition dictates otherwise, KC-135/E-3 aircrews will jettison fuel between the KAD 120 and 170 radials, from 30-50 DME. Altitude: As high as practical, but at least 5,000 feet MSL (recommended altitude above FL200).

7.6.3. Advise ATC of intentions, altitude and location prior to commencing fuel dumping operations. Advise ATC when fuel dumping is complete.

7.6.4. In all non-emergency situations, crews will avoid fuel dumping over land.

7.7. Emergency Aircraft Arresting System Procedures. For normally executed arrested landings, CEG and OG personnel should strive to return the runway to service with an objective of 15 minutes, but not later than 30 minutes, following suspension. To facilitate this target, aircrew will notify ATC and SOF at least 15 minutes prior to an arrested landing, when possible. SOF and TWR WS coordination shall be executed per **Section 2.20**, SOF-TWR Procedures. The Fire Chief (on-scene commander), AMOPS, SOF, and TWR WS will all coordinate as required to ensure a shared plan is executed.

7.7.1. When aircrew are required to execute an emergency arrested landing, SOF, APP, ARR, and TWR will be advised of the intended AAS to be used. TWR will subsequently activate the PCAS.

7.7.2. Upon notification via the SCN of an impending engagement, the Barrier MX crew will respond immediately and stand-by the appropriate system, at a safe distance from the RWY. Following engagement, restoration of the AAS will be accomplished in the following manner:

7.7.2.1. The aircraft will shut down engines and be removed from the cable by tow procedures.

7.7.2.2. When the arrested aircraft's tail hook is immediately clear of cable, and the aircraft is safe to taxi, the on-scene commander may request aircrew to taxi clear of the RWY, or at least clear of the cable.

7.7.2.3. When resumption of RWY operations is required prior to resetting the engaged AAS due to mission requirements based off of SOF coordination (requires OG approval), Barrier MX will pull the engaged cable to the side of the runway until such a time that operations allow for re-rigging the cable. On the outside runway, consideration should be given to rigging cable 2 or 3 simultaneously with clearing the aircraft from the engaged cable.

7.7.2.4. As a planning factor, rigging/de-rigging a cable requires approximately 20 minutes.

7.7.3. AMOPS will conduct a RWY check and report the status prior to resuming normal operations.

7.8. Hot Brake Procedures. When it is known or suspected that brakes are overheated, the aircrew should expect the following:

7.8.1. Hot Brake Aircraft on RWY or TWY:

7.8.1.1. The TWR, upon notification or suspicion of an aircraft with hot brakes, will activate the PCAS and direct the aircraft to a designated Hot Brake Area (Warm-Up Pads 1-4). Other aircraft or vehicles should proceed via alternate routes to avoid passing within 300 feet of the aircraft with actual/suspected hot brakes.

7.8.1.2. The Senior Fire Official will be designated as the on-scene commander. The Fire Department will respond to the hot brake aircraft and assume a surveillance position not closer than 300 feet, unless the on-scene commander determines a fire is imminent. Fire Department personnel will provide fire coverage for Aircraft Recovery personnel as they approach the aircraft to assess for hot brakes.

7.8.1.3. Aircraft Recovery will dispatch the Crash Recovery Crew. The Crash Recovery Supervisor in coordination with the on-scene commander (Chief 2) will do the following:

7.8.1.3.1. Verify the Hot Brake Condition. **Caution:** Approach hot brakes from front or rear only.

7.8.1.3.2. Advise the on-scene commander and AFM of the actions required.

7.8.1.4. Engines will not be shut down until a signal is received from the Aircraft Recovery Supervisor after coordination with the on-scene commander, unless the aircraft is already in a designated hot brake area.

7.8.2. Hot Brake Aircraft Detected in the Parking Area:

7.8.2.1. If engines are running, the aircraft will advise TWR and taxi to the nearest clear area and stop. If the aircraft is parked in the UFR, advise TWR and taxi to the clear area adjacent to Spot 50.

7.8.2.2. If engines are shut down, all non-essential personnel will evacuate beyond at least 300 feet. Aircraft within 300 feet will be removed if possible.

7.8.2.3. Only the on-scene commander can terminate a hot brake emergency. **Note:** Brakes normally attain peak temperatures 15 to 30 minutes after braking action occurs. Taxiing the aircraft in an attempt to cool the brakes with airflow can cause additional heat buildup. Taxi only as necessary to reach a clear area.

7.9. Abandonment of Aircraft.

7.9.1. Repair and Reclamation (Aircraft Recovery) is responsible for removing crashed/disabled aircraft obstructing the use of the RWY. Partner units are responsible for assisting in the recovery of their aircraft. Aircraft Recovery personnel will be organized to respond immediately on a 24-hr basis.

7.9.2. Aircraft Recovery crew will report to the on-scene commander.

7.9.3. The on-scene commander will establish an entry control point IAW KAB PLAN 31-101.

7.9.4. Removing the disabled or crashed aircraft is the responsibility of the Aircraft Recovery Team. Unless specifically requested to advise and assist, all other personnel will remain at a safe distance, regardless of aircraft assignment. The partner commander will report to the on-scene commander. Partner MX representatives will report to the entry control point to assist Aircraft Recovery.

7.9.5. Crashed aircraft and associated debris will not be disturbed until after the alert photographer has taken pictures and the aircraft has been released by 18 WG/SE Wing Safety. Fuels Quality Control and Inspection personnel must be cleared for entry to obtain a required fuel sample as soon as possible.

7.9.6. The AFM will coordinate all activities for repair and clearing of airfield facilities affected by disabled and crashed aircraft.

7.9.7. Only the OG/CC can authorize a RWY to be reopened for operational use subsequent to suspension or closure caused by a disabled or damaged aircraft with the advice from the AFM.

7.10. Personnel/Crash Locator Beacon Signal/Emergency Locator Transmitter Response Procedures.

7.10.1. Each flying organization, along with Kadena AMOPS, is responsible for monitoring flying activities to assure accountability of aircraft. Directing the Search and Rescue (SAR) effort is the responsibility of the 18 WG/CP. 18 WG flying organizations may be called upon to augment host nation airborne search effort at the request of the 18 WG/CP. In the event of an off base incident, follow procedures outlined in USFJI 10-200, *Off Base US Military Aircraft Accidents in Japan*.

7.10.1.1. Daytime fighter aircraft flying requires rescue support be available (33 RQS, Japan Air Self Defense Force (JASDF), or the Japanese Coast Guard). Night fighter aircraft flying requires 33 RQS rescue support, unless waived by the 18 OG/CC.

7.10.1.2. Normally, the JASDF Southwestern Division Headquarters will be the primary rescue contact during daytime 18 WG local flying.

7.10.2. Emergency Locator Transmitter (ELT) Procedures.

7.10.2.1. Any base agency aware of an ELT transmission will notify AMOPS immediately.

7.10.2.2. AMOPS will:

7.10.2.2.1. Notify Naha FSS, 18 CS/SCO (Installation Spectrum Manager), Kobe ACC and Fukuoka ACC, Futenma TWR, 18 WG/CP, 733 AMS, Kadena TA, 33 RQS, 18 OSS/AFE, Aero Club, MWLK, and deployed units of the ELT heard at Kadena. Request status update from each agency no later than 1-hr after notification.

7.10.2.2.2. Request Installation Spectrum Manager to search for ELT and notify AMOPS of their findings every hour until the ELT is terminated. If ELT continues past 12 hours, AMOPS will again notify the agencies listed in [paragraph 7.10.2.2.1](#). AMOPS will notify all agencies of signal termination.

7.10.3. Aircrew Flight Equipment (AFE) and Egress will notify AMOPS of their findings every 2 hours until the ELT is terminated. AFE and Egress will locate and silence ELT used in life saving devices (survival kits/vest, parachutes) that broadcast on the 243.0 frequency. **Note:** AFE and Egress do not have the ability to locate ELT broadcasting on 121.5 or 406 frequencies. AFE and Egress do not maintain beacons/locators (crash beacons) installed in aircraft.

7.10.4. 18 CS Installation Spectrum Manager (SCO) will contact the organizations responsible for aircraft MX, to include Aero Club, and AMOPS, when the ELT actuation is located.

7.10.5. Operational GND testing of ELT will be accomplished per FAAO JO 7110.65. Operational GND testing of ELTs is authorized during the first 5 minutes of each hour. To avoid confusing the tests with an actual alarm, the testing is restricted to no more than three audio sweeps.

7.11. AMOPS Overdue Aircraft Procedures.

7.11.1. When aircraft exceed their Estimated Time of Arrival (ETA) by 30 minutes, AMOPS will conduct a preliminary communications check through the following agencies as prescribed in [Table 7.1](#).

Table 7.1. Overdue Aircraft Checklist.

1	Kadena TWR
2	Naha Approach Control
3	Kadena Arrival
4	Kobe ACC and Fukuoka ACC
5	TA
6	Organization Aircraft Assigned
7	18 WG/CP
8	Base of Departure (If Applicable)

7.11.2. Each agency is allowed 30 minutes from time of contact to report its findings back to AMOPS.

7.11.3. If the aircraft is not located within 1-hour of ETA, AMOPS will contact the 18 WG/CP with all pertinent information.

7.12. Wind Limitations on Control TWR.

7.12.1. The TWR shall evacuate when wind gusts in excess of 50 knots are present, and all arriving aircraft have landed. Unless otherwise directed by the Chief Controller (CCTLR), or the chain of command, the TWR will close when Tropical Cyclone Condition of Readiness (TCCOR)- 1C is declared.

7.12.2. TWR shall resume operations when wind gusts diminish to less than 50 knots and are forecasted to remain so, when TCCOR-1R is declared, or when directed by the chain of command.

7.13. Evacuation of Airfield Operations (AO) Facilities.

7.13.1. Concept of Operations.

7.13.1.1. The alternate TWR facility is located in Bldg 3579 (Fire Station #3) at the intersection of TWYs Delta and Lima. The alternate ARR facility is the ARRCF facility, Bldg 3413. The alternate AMOPS facilities are the Bldg 3413 conference room, Bldg 3423, and Bldg 856.

7.13.1.2. Unless during contingency operations, or otherwise directed by the 18 OG/CC, flow of air traffic will be reduced or curtailed to straight-in/full-stop and departures only.

7.13.1.3. Facility WS or SC will direct evacuation, when necessary. Additionally, the facility CCTLR, AOF/CC, On-Scene Commander, Security Forces Flight Chief of EOD supervisor may direct the evacuation of an ATC facility.

7.13.1.4. The TWR's visibility of the airfield is limited during alternate TWR operations. All vehicles will use TWY Delta for RWY crossings until primary TWR operations resume.

7.13.2. TWR Evacuation (Other Than Typhoon/High Winds).

7.13.2.1. During TWR evacuation, and until operations resume in the alternate facility, the airfield will be closed.

7.13.2.2. AMOPS shall:

7.13.2.2.1. Pass TWR evacuation messages and airfield closure announcements over the SCN. Include an advisory for all agencies with vehicles that operate on the flight line to remain clear of the controlled movement area/radio control area until communications are re-established with the TWR.

7.13.2.2.2. Make an immediate broadcast over the Airfield Net advising TWR evacuation and that all vehicles will remain off RWYs until alt TWR communications are established.

7.13.2.2.3. Notify airfield lighting personnel to proceed to the airfield lighting vault and standby for contact from TWR personnel concerning control and adjustment to the light intensities.

7.13.2.2.4. AMOPS shall disseminate a NOTAM temporarily closing the airfield for the evacuation period.

7.13.2.3. Airfield Lighting shall:

7.13.2.3.1. Immediately proceed to the airfield lighting vault and await contact by TWR personnel.

7.13.2.3.2. During periods when WX conditions of at least 3,000 feet ceiling and 5 mile visibility exist, and are forecasted to remain such, airfield lighting personnel may be released to standby duty by the TWR supervisor, but are subject to a 15 minute recall response via Service Call.

7.13.2.4. RAWs shall:

7.13.2.4.1. Immediately proceed to the VORTAC and ILS sites to verify equipment is operational.

7.13.2.4.2. Notify TWR of any NAVAID malfunctions.

7.13.2.5. The 18 WG SOF shall if required, proceed to the alternate TWR facility or relocate to squadron operations and re-establish operations.

7.13.2.6. Resuming Normal Operations:

7.13.2.6.1. Operations in the primary TWR shall resume when approved by the TWR CCTLR, or the chain of command.

7.13.2.6.2. After resuming control in the primary or alternate facility, TWR shall notify all concerned agencies.

7.13.2.7. Comm Focal Point (18 CS/CFP) shall:

7.13.2.7.1. Notify Command Post (18 WG/CP).

7.13.2.7.2. Prepare a PACAF Report.

7.13.2.7.3. Notify RAWs.

7.13.3. Evacuation of AMOPS.

7.13.3.1. In the event of a fire, bomb threat, typhoon, electrical failure, or other threatening situations, AMOPS may have to evacuate from their primary operating location, Bldg 3409, and relocate to an alternate location.

7.13.3.2. Determination to evacuate AMOPS will be made by the AMOPS non-commissioned officer in charge (NCOIC), Airfield Manager (AFM), or the chain of command. If immediate evacuation is required and determination by the aforementioned entities is not possible, the AMOPS Supervisor will direct evacuation and inform leadership when conditions permit.

7.13.3.3. AMOPS Personnel will:

7.13.3.3.1. If time and personnel safety permits, activate the SCN prior to evacuating and notify all agencies that AMOPS is relocating. Include intended destination in notification.

7.13.3.3.2. Notify Command Naha Flight Service Station and AFM of evacuation.

7.13.4. ARR Evacuation Procedures: Because of the geographical separation between the Arrival facility and KAB, evacuation to the ARRCF facility, Bldg 3413, will only occur if directed by the Air Traffic Manager. If a decision to evacuate to KAB is made, aircraft can expect anywhere from one to two hours of interruption to ARR service.

7.13.4.1. The necessary equipment for ARR to provide contingency ATC service and ensure flight safety consist of as a minimum; one STARS TDW, landline communications capability to Kobe ACC, Fukuoka ACC, Naha TWR, Kadena TWR, Futenma TWR, and Futenma GCA.

7.13.4.2. ARR should operate on its normal common frequencies (255.8/135.9), have access to normal discrete frequencies, have the capability to monitor/broadcast on Very High Frequency (VHF)/UHF emergency frequencies (121.5/243.0), and have access to UHF/VHF multichannel radios. Recording equipment (if capability exists) shall record as a minimum the primary Arrival/Emergency frequencies.

7.13.4.3. When directed by the Air Traffic Manager to return to the primary facility, the next scheduled crew will report to the Naha facility. Once the primary facility is ready, the ARRCF facility will hand off all functions to the Naha primary facility.

7.14. Alternate Facility Procedures.

7.14.1. Alternate Control TWR Limiting Factors (LIMFACS). The following LIMFACs affect ATC operations when alternate TWR procedures are in effect:

7.14.1.1. During the initial period of evacuation and activation of the alternate facility, ATC operations at KAB shall be suspended and the airfield will be closed. Resumption of limited operations should begin within 30 minutes.

7.14.1.2. UHF/VHF radio capability.

7.14.1.2.1. Availability. The alternate TWR can operate on its normal TWR (315.8/134.1) and GND control frequencies (275.8/118.5), as well as VHF/UHF emergency frequencies (121.5/243.0). Additionally, the alternate TWR has 315.8 B/U and 134.1 B/U capability along with one UHF and one VHF multichannel radio (shared with the ARRCF).

7.14.1.3. Airfield Lighting Controls. No lighting controls are contained in the alternate facility. TWR personnel set lights appropriately upon evacuation for current/forecasted WX conditions and time of day/night. Subsequent lighting adjustments are controlled by lighting personnel following their arrival at the vault.

7.14.1.4. Radar Traffic Information/Advisories/Spacing. No radar displays exist in the alternate facility. Radar traffic information/advisories/spacing will not be provided.

7.14.1.5. Visual blind spots are covered in **Section 2.8**.

7.14.1.6. Alternate Tower limitations. The numerous coordination procedures TWR normally provides will decrease due to equipment limitations. Flying organizations and other agencies on or near the flight line must be more aware of:

7.14.1.6.1. Aircraft anti-hijacking.

7.14.1.6.2. Aircraft engine MX runs and aircraft rows.

7.14.1.6.3. Traffic flow and pattern operations.

7.14.1.6.4. Flow of air traffic and vehicle access shall be suspended from the time controller personnel evacuate the primary TWR until operations are resumed in the alternate facility.

7.14.1.6.5. The TWR's traffic pattern workload (total VFR and IFR) may be reduced.

7.14.1.6.6. Traffic pattern operations will be at the sole discretion of the TWR WS based on existing WX, time of day, pending arrivals, pending departures, and types of aircraft involved.

7.14.1.7. RSRS minima between separate flights shall be no less than 6,000 feet between all applicable aircraft.

7.14.2. AMOPS alternate facility operations.

7.14.2.1. The primary AMOPS alternate location is in the 18 OSS/OSA conference room in Bldg 3413.

7.14.2.2. The following LIMFACS will exist:

7.14.2.2.1. Possible delay in response to the airfield.

7.14.2.2.2. The alternate location does not have fax capability. Email or hand-carry proposed flight plans to the alternate location.

7.14.2.2.3. Delay in BASH response capabilities.

7.14.2.3. AMOPS Personnel will:

7.14.2.3.1. Activate SCN conference call and notify all agencies that AMOPS has arrived at the alternate location.

7.14.2.3.2. When directed to return to the primary facility, AMOPS will activate the SCN and notify all agencies that has returned to primary location.

Chapter 8

MISCELLANEOUS PROCEDURES

8.1. Airfield Operations Board (AOB).

8.1.1. Responsibilities.

8.1.1.1. The AOB will convene quarterly and the agenda will include mandatory items as defined in AFMAN 13-204V1 as well as the following items, at a minimum:

8.1.1.1.1. Military Deviation reports.

8.1.1.1.2. Installation Mission Sustainment Team (IMST) report.

8.1.1.1.3. Open Inspection Items.

8.1.1.1.4. Air Traffic Reports (HATR).

8.1.1.1.5. Annual review items will occur during the quarter indicated:

8.1.1.1.5.1. KADENA ABI 13-204 (First Quarter).

8.1.1.1.5.2. Special Interest Items (SII). (First Quarter).

8.1.1.1.5.3. Terminal Instrument Procedures (First Quarter).

8.1.1.1.5.4. Air Compatible Use Zone (AICUZ) (optional). (Second Quarter).

8.1.1.1.5.5. Parking Plan Review (Second Quarter).

8.1.1.1.5.6. LOP Index Review (Second Quarter).

8.1.1.1.5.7. Results of the Annual Airfield Certification/Safety Inspection (Second Quarter).

8.1.1.1.5.8. OPLAN Tasking (Third Quarter).

8.1.1.1.5.9. Letters of Agreement (Third Quarter).

8.1.1.1.5.10. Operations Letters (Third Quarter).

8.1.1.1.5.11. Host-Nation Agreements and Base Support Agreements (Fourth Quarter).

8.1.1.1.5.12. Airfield Waivers, Results of Annual Self Inspection (Fourth Quarter).

8.1.2. Airfield Operations Board Minutes. AOB minutes will be distributed to base agencies, command levels through Major Command (MAJCOM), and HQ Air Force Flight Standards Agency (AFFSA). Minutes will include, the agenda and all items listed in [paragraph 8.1.1.1](#).

8.1.3. Membership of the AOB will include, but not be limited to the following:

8.1.3.1. 18 OG/CC (Chairman). **Note:** This is 18 WG/CV delegated.

8.1.3.2. 18 MSG/CC.

8.1.3.3. 18 CEG/CC.

8.1.3.4. 18 OG/OGV (OG rated representative).

- 8.1.3.5. 353 SOW representative.
- 8.1.3.6. 733 AMS representative.
- 8.1.3.7. 82 RS representative.
- 8.1.3.8. MWLK representative.
- 8.1.3.9. CFAO representative.
- 8.1.3.10. Fixed Wing Patrol Detachment (WPDET) representative.
- 8.1.3.11. 18 WG/SEF.
- 8.1.3.12. 18 OSS/CC and/or DO.
- 8.1.3.13. 18 OSS/OSA, including ATC, AFM, RAWS, NCOIC Airfield Automation Manager (NAAM).
- 8.1.3.14. 18 OSS/OLA Airspace Traffic Manager.
- 8.1.3.15. 18 CES Representative.
- 8.1.3.16. 718 CES Representative.
- 8.1.3.17. 18 OSS/OSW.
- 8.1.3.18. Aero Club Manager.
- 8.1.3.19. 18WG/CP.

8.2. Notice to Air Mission (NOTAM) Procedures. A NOTAM is any information concerning the establishment of, condition of, or change in any aeronautical facility, service, procedure, or hazard; the timely knowledge of which is essential to personnel concerned with flight operations.

8.2.1. Procedures.

8.2.1.1. Agencies requesting a NOTAM should contact AMOPS. The AFM is the authority for publishing NOTAM(s).

8.2.1.2. Kadena TWR is designated as the NOTAM monitoring facility. AMOPS is the NOTAM issuing facility.

8.2.1.3. AMOPS will:

8.2.1.3.1. Process local and flight safety NOTAMs on ATCALs outages, airfield hazards (RWY closure, threshold displacement, airfield lighting, etc.), etc. IAW AFI 11-208, *Department of Defense Notice to Airman (NOTAM) System*.

8.2.1.3.2. Provide NOTAMs to transient aircrews, when requested.

8.2.1.3.3. Notify all required agencies IAW OSAA OI 13-204 when NOTAMs are initiated or canceled.

8.3. Flight Information Publication (FLIP) Account Procedures. FLIPs are no longer provided hard-copy, and have migrated to digital via the National Geospatial Intelligence Agency (NGA). Units that require a FLIP account will need to contact AMOPS section to develop one. Any unit that requires verbiage changes in FLIPs, contact AMOPS for coordination.

8.4. Unlawful Seizure of Aircraft. Base response procedures are IAW KAB PLAN 31-101.

8.5. Silent Launch Procedures (Steel Tiger).

8.5.1. Coordination: All silent launches will be coordinated with AOF/CC and ARR at least 24 hours in advance of scheduled launch time, unless precluded by Operations Security (OPSEC) considerations, in which case they will be coordinated as soon as possible. AOF/CC will coordinate as required with ARR to preserve mission OPSEC. **Note:** Exercise Steel Tiger operations are not authorized during Alternate TWR operations due to visibility limitations.

8.5.2. Safety: As a safeguard, aircraft will monitor guard frequency at all times. In the case of any unusual or emergency situation, radio silence shall be broken at the discretion of the controller or pilot. SAFETY IS PARAMOUNT. Flight leaders will make all required communications unless safety or mission dictates otherwise. Under no circumstances will anyone compromise safety for radio silent procedures. If a safety problem arises or briefed timing cannot be met, TALK ON THE RADIO.

8.5.3. Mission Aircraft/Parent Organization shall:

8.5.3.1. Provide AMOPS with a completed flight plan with the phrase “Steel Tiger” highlighted in the remarks section.

8.5.3.2. During mission planning, the aircrew/unit will deliver the following information to AMOPS, TWR and 18 WG/CP at least 2 hours prior to the proposed departure time, unless precluded by OPSEC considerations, in which case this action will be accomplished as soon as possible.

8.5.3.2.1. Aircraft call sign (lead aircraft) and parking spot.

8.5.3.2.2. Wingmen call signs and parking spots.

8.5.3.2.3. Spare aircraft call sign and parking spot.

8.5.3.2.4. Preferred runway.

8.5.3.2.5. Proposed departure date.

8.5.3.2.6. Proposed departure time.

8.5.3.2.7. Requested engine start time (departure time minus 25 minutes).

8.5.3.2.8. Requested taxi time (departure time minus 15 minutes).

8.5.3.2.9. Requested hold line time (departure time minus 10 minutes).

8.5.3.2.10. Put an “Off Block Time” 30 minutes prior to takeoff time to ensure the clearance is ready. Clearance should be ready from Kadena Clearance Delivery 1 hour prior to launch time, and will contain instructions for departing both RWYs 05/23.

8.5.3.3. IFR clearance.

8.5.3.3.1. Parent units will furnish a runner to pick up IFR clearances from the ATC TWR.

8.5.3.4. Ensure mission aircraft taxi according to the timing sheet plus or minus five minutes. Unless otherwise coordinated with ATC, AMOPS and 18 WG/CP, any aircraft not able to meet their scheduled times must use normal radio procedures for taxi/takeoff. GND spare aircraft that will taxi in the departure flow shall be identified in the remarks section of the timing sheet.

8.5.4. Aircrew Procedures:

8.5.4.1. Aircrew will monitor guard, GND, TWR, and departure ATC frequencies at the appropriate times.

8.5.4.2. Taxi: Monitor ATIS for current active RWY and taxi on time after visually clearing the taxi route. Stop at the hammerhead for RWY 05L/23R and point the aircraft away from TWR until ready to cross or take off. When ready to cross, turn the aircraft toward TWR and flash the taxi/landing lights. TWR will respond with a flashing green light gun signal to authorize taxi across a RWY. A steady red light gun signal or lack of light signal indicates to hold position. Non-standard taxi flows due to TWY closures will be coordinated at the time the silent launch scheduling sheet is brought to the TWR. Any deviation from the scheduled taxi route will require additional coordination. **CAUTION:** Do not mistake airfield rotating beacon for light gun signal.

8.5.4.3. Takeoff: When ready for takeoff, turn toward TWR and flash taxi/landing lights again. If appropriate, the TWR will respond with a steady green light gun signal as clearance for takeoff. Receipt of a steady green light gun signal is both takeoff clearance and clearance to switch to departure control frequency. A steady red light gun signal or lack of a light signal indicates to hold position.

8.5.4.4. Departure: When cleared for takeoff, aircraft will switch to departure control frequency and squawk assigned beacon code. Departure control will address the aircraft by its beacon code. **Example:** “(Beacon Code) RADAR CONTACT PASSING (altitude).” Once airborne, acknowledge all radio transmissions from APP or ARR, including handoff to Naha Area Control Center, with an “IDENT” on assigned beacon code. Once with Naha Area Control Center, normal radio procedures will be used. For departures into the radar pattern, normal radio procedures begin after the aircraft has turned crosswind.

8.5.4.5. Helicopters will coordinate an opposite direction departure by runner, at least 15 minutes prior to taxiing. Most launches will not be able to accept any tailwind for takeoff. Helicopters will taxi to the rescue pad hold-short line and flash landing light to obtain approval to taxi onto the pad for hover-checks. If appropriate, TWR will indicate approval with a flashing green light. When ready for takeoff, the helicopter will turn toward TWR and flash landing light, TWR will indicate takeoff clearance with a steady green light. Helicopters will depart on requested standard VFR departures.

8.5.5. ATC Procedures:

8.5.5.1. Kadena Clearance Delivery shall request clearance from Kobe or Fukuoka Area Control Center, based on route of flight, utilizing normal procedures. Have a hard copy available for the runner 1-hour prior to departure.

8.5.5.2. TWR shall:

8.5.5.2.1. Monitor Engine Start and Taxi.

8.5.5.2.2. Use a flashing green light gun signal to approve an aircraft across an active RWY. If temporarily unable to approve crossing, TWR will issue a steady red light gun signal. When able to approve crossing, TWR will issue a flashing green light gun signal. TWR will use a steady green light gun signal to clear aircraft for departure and frequency change.

8.5.5.2.3. At 15 minutes prior to takeoff time, ensure Automatic Terminal Information System (ATIS) is current. At 5 minutes prior to takeoff time, confirm temperature, pressure altitude, and departure end winds are current on ATIS broadcast. Relay any changes to aircrew by UHF broadcast in-the-blind.

8.5.5.2.4. Request release 5 minutes prior to scheduled takeoff, using the beacon code as the aircraft call sign.

8.5.6. Other Agencies Responsibilities:

8.5.6.1. Scheduling will annotate the silent launch on the weekly flying schedule, unless precluded by OPSEC considerations.

8.5.6.2. 18 WG/CP will not initiate any radio calls to the aircraft unless there is a problem requiring use of the radio. Command Post (18 WG/CP) will mark aircraft as an “on-time” departure unless otherwise told by Mission Aircraft/Parent Organization.

8.5.6.3. Base transportation will be briefed on the aircrew pick up time and place with special emphasis on not using telephones to discuss the pick-up.

8.6. Military Unmanned Aerial Systems (UAS) Operation Procedures. Kadena is a divert location for the Global Hawk (GH), (RQ-4). There are no base assigned RPA platforms.

8.6.1. GH Emergency Divert. The following actions are taken:

8.6.1.1. The GH Operations Center (GHOC) will make telephone notification to the ARR Controller in Charge providing the aircraft call sign, location, intended route of flight, and ETA.

8.6.1.2. Upon divert notification, the ARR Controller in Charge will provide current airfield status and update the GHOC with changes in Airfield Status as required.

8.6.1.3. Unless the GHOC directs otherwise, the GH will fly a Self-Contained Global Positioning System Approach, shut engine off at the Initial Approach Fix, land and stop on the RWY, and contact TWR via phone.

8.6.1.4. Due to radiation hazards, GND Personnel should remain well clear of the aircraft (50-foot perimeter) anytime the engine is operating, unless cleared by the GHOC. However, there is no radiation hazard if the engine is off.

8.6.1.5. GND handling needs are very similar to other aircraft. Tow procedures are outlined in the GH Aircraft Recovery Procedures document.

8.6.1.6. GH is a PL3 asset. The sensor payload is classified. The GH survey team has concluded that there is not suitable hangar space to shelter this platform. The GH will be parked in the designated PL2 restricted area parking location and protected IAW KAB PLAN 31-101.

8.6.1.7. GH is an unmanned asset, do not risk rescue crews' safety if the asset is on fire. The GH carries up to 17,000 lbs of JP-8. There are no other hazardous chemicals or propellants.

8.6.1.8. TWR will lower the BAK-14 barriers or have Barrier MX remove the BAK-12 barriers prior to RPA arrivals, departures, and taxi on the RWY.

8.6.1.9. All RPA departures will normally take place from the active RWY. Any special requests such as departures from an intersection may be approved at the discretion of the Local Controller, based upon the RWY in use and known traffic.

8.6.2. NORDO. In addition to the procedures outlined above the following actions are taken:

8.6.2.1. The GH will squawk 7700.

8.6.2.2. The GH will utilize a 5.25 degree glideslope along the approach path.

8.6.3. In crosswind conditions, the GH may deviate from the centerline during rollout due to inoperable nose wheel steering.

8.6.4. The aircraft will have to be towed clear of the RWY.

8.6.5. All communications between the GH and ATC will be via landlines. If applicable, radios can be used.

8.6.6. UAS Designated Start Areas: On TWY Lima between TWY B and TWY C, and Warmup Pad 2. Any other areas will require AFM approval. GH can only taxi on previously programmed routes.

8.7. Commercial/Community interest unmanned object operations inside the Kadena Class D Airspace and/or other managed airspace areas (balloons, commercial UASs). For the purposes of this instruction, unmanned objects are defined as any airplane, rotorcraft, glider, or airship that does not carry people, and is controlled autonomously or remotely by an operator or programmed autopilot, and is either purchased or constructed. Operations involving unmanned objects in any of the Kadena managed airspaces create safety and security concerns. Therefore, 18 OG/CC approval for such operations is required. Requests driven by legitimate requirements and/or community benefit will be approved as long as they are coordinated effectively with relevant stake holders, and a de-confliction plan is agreed upon to ensure safe and operationally secure operations.

8.7.1. POC. Effective immediately, all requests require the operations proponent to submit a request form.

8.7.1.1. Request by U.S. military operational units for official missions shall adhere to AFMAN 11-502, *Small Unmanned Aircraft Systems*, and must submit both the local sUAS (Drone) request form and a Concept of Employment (CONEM).

8.7.1.2. Requests originating from any other source (i.e. local communities, private individuals, contract companies, local government, etc.) shall be submitted to the Okinawa Defense Bureau's (ODB) Liaison and Coordination Office, 3rd Subsection for coordination.

8.7.2. Requests. Requests for unmanned objects to utilize Kadena's Class-D airspace fall into two categories:

8.7.2.1. Category-1 requests involve commercial operations (private use, contractor use, Japanese Government use) of unmanned objects within airspace managed by Kadena and the lateral boundaries of any US ground installation. Per current security guidance all category-1 request are automatically denied without further action.

8.7.2.2. Category-2 requests involve operations of unmanned objects within airspace managed by Kadena, but outside the lateral boundaries of all U.S. ground installations. Non-U.S. category-2 requests will be processed by the Airspace Manager, ATC management, Joint Okinawa Scheduling Cell (JOSC), appropriate installation security/installation protection office, and 18th Wing Scheduling office for coordination as submitted by the activity proponent. The request should be received at least 14 days prior to the requested date for Airspace Advisories and Airspace Authorizations, and should be received at least 60 days prior to the requested date for Airspace Waivers.

8.7.3. De-confliction. In general, all category-2 requests with legitimate requirements or community benefit will be approved as long as a plan to de-conflict the activity with flying operations is agreed upon in advance. If operations cannot be de-conflicted by time or altitude, real-time de-confliction via two-way communication (cell phone is acceptable) with Kadena TWR will be required.

8.7.4. Coordination/Approval Process.

8.7.4.1. Civil Engineering Community Planners shall create a detailed map of requested flight area.

8.7.4.2. The Installation Anti-terrorism Officer and/or Security Forces 18 SFS/S5X (634-0108) shall complete a security review and recommendation.

8.7.4.3. If within a training area, the JOSC shall complete appropriate scheduling deconfliction.

8.7.4.4. The Airspace Manager shall complete the airspace and aeronautical effect evaluation.

8.7.4.5. Wing Scheduling shall coordinate with Public Affairs Community Relations Office, Air Traffic Control, Airfield Management, Wing Safety, and the relevant owner of area of requested operations as necessary.

8.7.4.6. Wing Scheduling will seek approval for requests from the OG/CC during the weekly OG/MXG Scheduling Meeting. Approval may be delegated to the 18 OSS/CC or DO.

8.7.4.7. Upon receipt of approval/denial, Wing Scheduling will send a response to ODB with acceptance or denial NLT 72 hours prior to the requested operations date.

8.7.5. Operations. AMOPS will publish a NOTAM for the event to ensure aircrews are aware of the hazard. If operations cannot be de-conflicted by time or altitude, real-time de-confliction via two-way communication (cell phone is acceptable) with Kadena TWR will be required and coordinated by Wing Scheduling as a condition of approval.

8.8. Weather Balloon Launches within Kadena Class D Airspace. Weather balloon launches within the Kadena Class D airspace require 18 OG/CC approval. **Note:** The Kadena TWR Watch Supervisor has final authority to approve/deny balloon launches based on traffic conditions and higher priority operations inside Class D airspace. Once weather balloon operations begin, Kadena TWR will notify ARR, who will, in turn notify affected Japanese air traffic control facilities.

8.8.1. All personnel requesting to operate weather balloons within Kadena Class D airspace shall:

8.8.1.1. Submit a request form to 18th Wing Scheduling (18oss.wingscheduling@us.af.mil or DSN 634- 4493/5031) no later than 14 days prior to proposed weather balloon operations.

8.8.1.2. Contact Kadena TWR (DSN 632-9799) NLT one hour prior to launch and provide the launch team's landline or cellular phone contact information for real-time coordination purposes.

8.8.1.3. Request TWR approval (DSN 632-9799) for balloon release not later than 15 minutes prior to launch.

8.8.1.3.1. If TWR is unable to approve the launch due to traffic conditions or other reasons, they will inform the launch team "UNABLE" and to stand by.

8.8.1.3.2. Do not release the balloon without TWR approval.

8.8.1.3.3. Once TWR is able to authorize release, they will contact the launch team and verbally state the launch is approved.

8.8.1.3.4. Continue to track balloon progress and provide TWR updates when:

8.8.1.3.4.1. The balloon passes 4,000 feet MSL.

8.8.1.3.4.2. The balloon passes 7,000 feet MSL.

8.8.1.3.4.3. The balloon passes 40,000 feet MSL or the balloon disintegrates, whichever happens first.

8.8.2. Once approved, 18th Wing Scheduling shall request AMOPS (DSN 634-3118) to initiate a NOTAM and disseminate the advisory.

8.8.3. Kadena TWR shall:

8.8.3.1. Record launch team cell phone or landline information one hour prior to launch.

8.8.3.2. Notify ARR of the proposed launch and request they relay information to Naha APP and Center.

8.8.3.3. Approve or deny launch requests based on real-time traffic conditions 15 minutes prior to launch.

8.8.3.3.1. If traffic conditions permit, restrict air traffic operations as required to de-conflict aircraft and weather balloon operations.

8.8.3.3.2. If traffic conditions do not permit, instruct the launch team to standby. As soon as traffic conditions allow, restrict air traffic operations as required and contact the launch team to approve the launch.

8.8.3.4. Pass appropriate advisories to aircraft operating in Kadena airspace and include on the ATIS.

8.8.3.5. The launch team will advise TWR when the balloon has passed 4,000, 7,000 and 40,000 MSL or the balloon disintegrates, whichever happens first. Advise ARR and request they relay information to Naha APP and Center.

8.8.3.6. Discontinue restricting aircraft operations in Kadena TWR airspace when the balloon passes 4,000 MSL.

8.9. Aerial Photography within Kadena Class D Airspace. Aerial Photography within the Kadena Class D Airspace and over US possessions (including Torii Station) is not authorized and requires 18 OG/CC approval. Organizations and individuals desiring to conduct aerial photography of KAB within Kadena Class D Airspace will follow the same coordination outlined in **Section 8.7** for Category-1 requests.

8.9.1. Unauthorized aerial photography. Aircraft believed to be conducting unauthorized aerial photography of any US possession within the Kadena Class D airspace will be directed to depart Kadena controlled airspace.

8.9.2. TWR controllers who identify unauthorized aerial photography will immediately notify the WS, who in turn will report the incident to the KAB Office of Special Investigations (OSI) detachment, and notify 18 OSS Chain of Command and 18 WG/CP. The report will include: time, location, type of aircraft, duration of operation, controller action taken, and incident termination.

8.9.3. OSI will determine, at a minimum, identification of the operator, the aircraft, and point of origin/destination, and supply this information to 18 OSS/CC and DO. 18 OSS/CC or DO will forward all relevant information to 5 AF/A3 and 18 OG for bilateral resolution.

8.10. Aircraft Deviation within Kadena Class D Airspace. Aircrew who do not comply with TWR controller instructions or do not comply with TWR pattern procedures and cause unsafe conditions to potentially develop will be ejected from the Kadena Class D airspace. If the aircraft is based at, or is temporarily operating from Kadena, the aircrew will be directed to land as soon as practical.

8.10.1. Once the situation has been safely addressed, TWR WS will report the incident immediately to through their Chain of Command. The report will include: time, location, type of aircraft, specific unsafe actions, controller action taken, and incident termination.

8.10.2. Radar tapes will be preserved of the incident and made available to OSS leadership based on the situation or if directed.

8.10.3. Based on the nature of the incident and identification of perpetrator, 18 OSS/CC or DO will pass all relevant information to the appropriate echelon for resolution:

8.10.3.1. KAB based aircrew. Information will be passed to relevant SQ/CC for resolution.

8.10.3.2. Non-Kadena based USF aircrew. Information will be passed to 18 OG/CC for forwarding to relevant O-6 counterpart for resolution. 5 AF/A3 will be courtesy copied.

8.10.3.3. Non-US aircrew. Information will be passed to 5 AF/A3 for resolution and courtesy copy 18 OG/CC.

Chapter 9

FIGHTER OPERATIONS

9.1. General Operations.

9.1.1. Supersonic Flight. Peacetime supersonic flight is allowed only within the JOTRC where specifically authorized, and is prohibited over land. Outside the Naha PCA (Class B airspace), ICAO rules apply (per [Section 4.1](#)) except as noted in FLIP AP3/A.

9.2. GND Operations.

9.2.1. Trim Pads. The Eagle Trim Pad is located between taxiway Whiskey and HS 123 off of TWY Kilo. The Harrier Trim Pad is located north of the intersection of TWY Alpha and Lima. See [Figure A2.3](#) for additional information.

9.2.2. Taxiing.

9.2.2.1. Taxi Spacing. Taxi on the centerline with 300 feet spacing. If congestion dictates, aircraft may stagger with 150 feet spacing as they approach and hold short of End of Runway (EOR), the RWYs, or are taxiing between the RWYs. Spacing may be reduced when holding short of or entering the RWY. Taxiing past objects within 10-24 feet require a wing walker. Do not taxi past vehicles or equipment less than 10 feet from wingtips. The dashed yellow lines in the Upper Fighter Ramp area provide 10 feet wingtip spacing and may be used in lieu of a wing walker (if taxiing on the yellow line). The solid yellow lines on TWYs do not provide wingtip clearance. Therefore, do not taxi past vehicles or equipment on TWY shoulders with less than 25 feet clearance or a wing walker.

9.2.2.2. Upper Fighter Ramp (UFR) waiver. PACAF/DO has issued waivers for F-15 and F-22 aircraft parking inside UFR concrete protective shelters due to wingtip spacing of less than 10 feet. Pilots will not attempt to taxi into or out of UFR aircraft shelters without a marshaller clearly visible to the pilot. During hours of darkness, marshallers will use lighted flashlight wands. Additionally, while towing F-15 aircraft into or out of UFR protective shelters, wingtip walkers will be utilized. Finally, existing taxi lines in each UFR protective shelter will be maintained to ensure marshallers and pilots maximize obstacle clearances. Pilots will also ensure wingtips are clear of pylons prior to initiating turns, and will taxi at controlled speed to ensure space and time exist to engage alternate brake systems, if required.

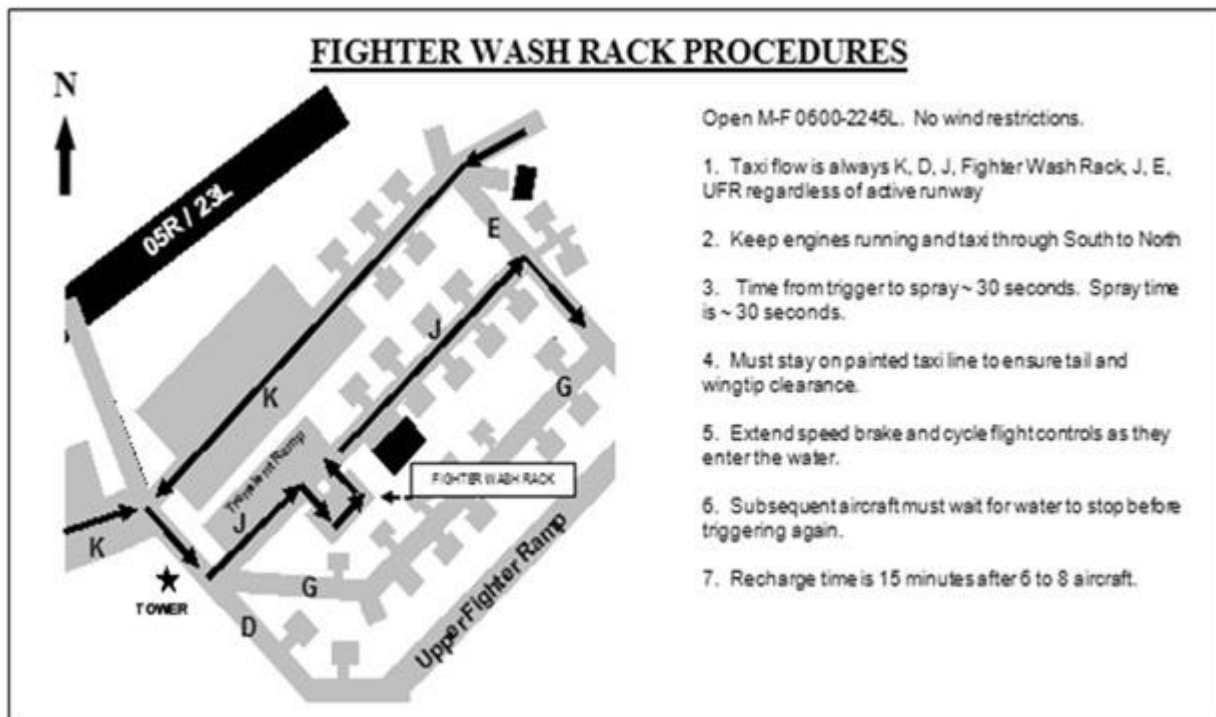
9.2.2.2.1. F-15 waived obstructions: Permanently affixed storage boxes (8 ft horizontal, 4.8 ft vertical), Maintenance Dehumidifier Units (MDU) (2.42 ft horizontal, 1.25 ft vertical), and the protective shelter vertical pylons (9.7 ft horizontal, 0 ft vertical). Vertical wingtip clearance exists for both the storage boxes and MDUs, but due to only a 1.25 foot clearance to MDUs when installed, pilots and MX will ensure no objects are placed on top of MDUs, when installed.

9.2.2.2.2. F-22 waived obstructions: Permanently affixed storage boxes (seven feet horizontal, 2.5 feet vertical) and the protective shelter vertical pylons (nine feet horizontal, zero feet vertical). Vertical wingtip clearance does not exist to MDUs, and are therefore not authorized to be installed in concrete protective shelters intended for F-22 parking.

9.2.2.3. Maximum Taxi Speed. 25 knots; 10 knots on the UFR or while making sharp turns. **Caution:** When using TWY Delta and Echo, the significant slope requires speed management that allows time for action should brakes or nose-wheel steering fail.

9.2.2.4. Fighter Rinse Facility standard taxi flow unless otherwise directed by ATC (see [Figure 9.1](#)). Taxi via Kilo, Delta, Juliet, wash rack. Following rinse, Juliet, Echo, and UFR.

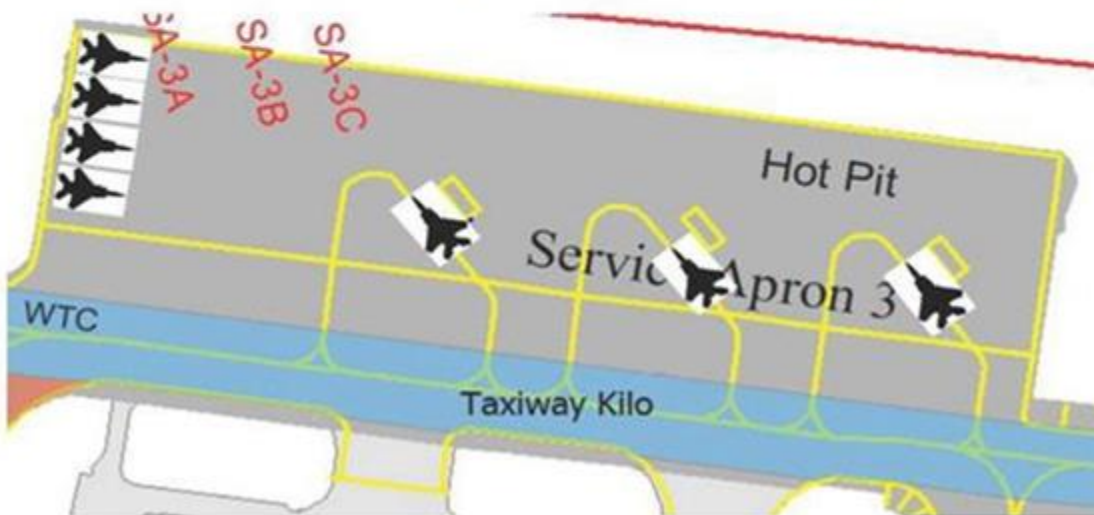
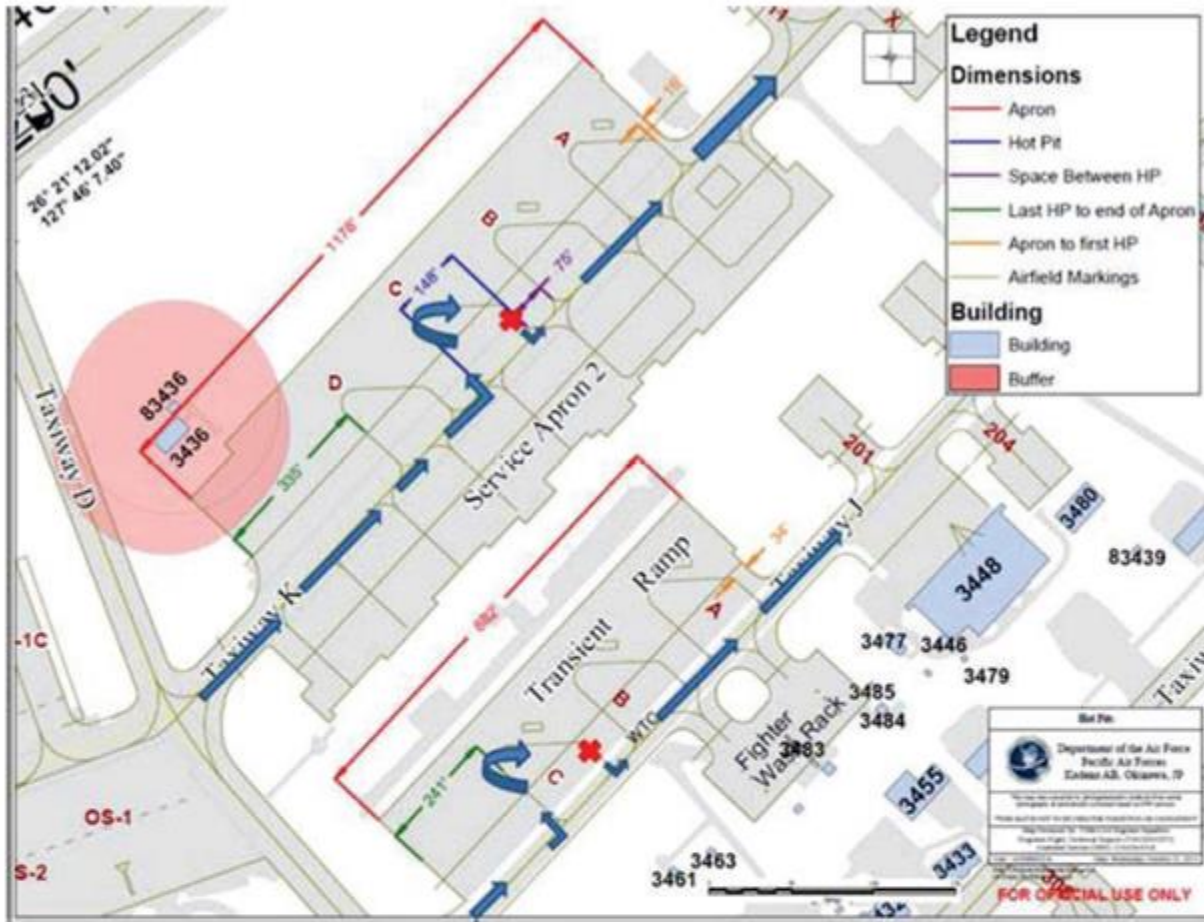
Figure 9.1. Fighter Rinse Facility.



9.2.2.5. Hot pit refueling location restrictions. During use of the Hot Pit Refueling site on SA 3, TWY Kilo abeam SA will be limited to aircraft with a wingspan less than 55 feet. For the purpose of NOTAM publication, MOCC will contact AMOPS to confirm location for any hot pit refueling scheduled in the next 24 hours. Twy Kilo restrictions during hot pit refueling at SA-3 are published in the FLIP. See [Figure 9.2](#) for detailed parking plan.

9.2.2.5.1. Alternate hot-pit locations are the Transient Ramp and SA-2.

Figure 9.2. Hot Pit Locations.



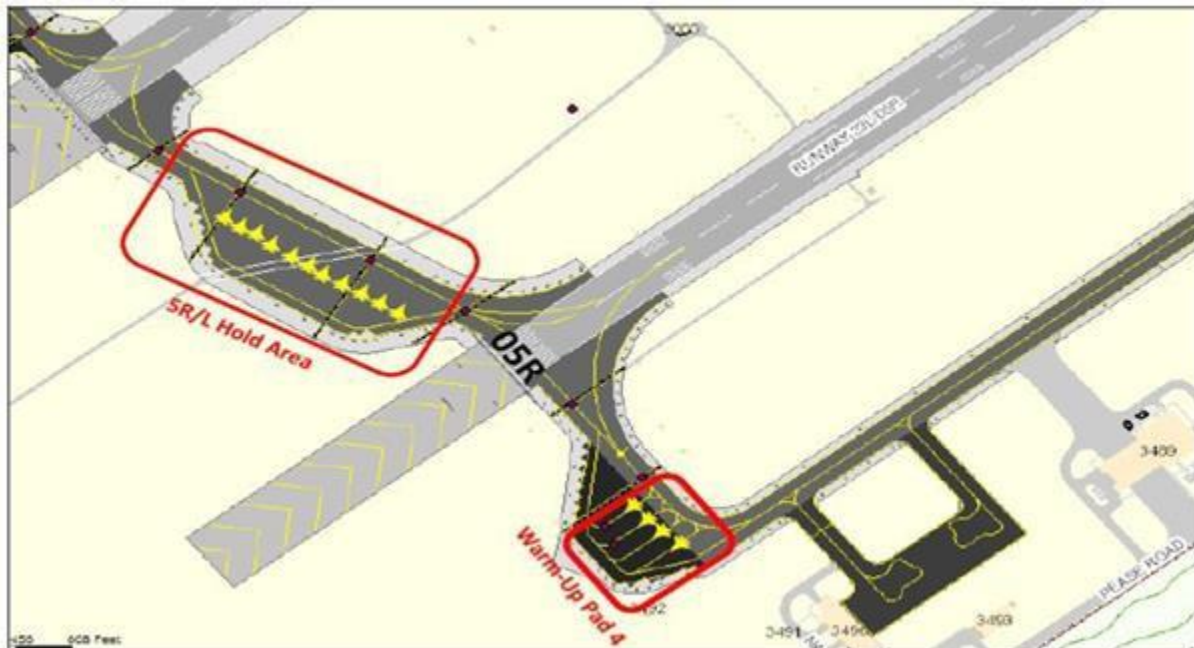
9.2.3. EOR Operations. Upon entering the arming area, park in the first available position farthest from the RWY with the flight echeloned toward the RWY. MX personnel will stop aircraft following roll-over checks with nose-gear tire on the painted nose-gear tire box. Both RWYs have four arming locations, with overflow spots as described below.

9.2.3.1. RWY 05 EOR Operations. TWY Alpha center (TWY A-C) contains 11 painted lines for overflow aircraft to hold after arming while awaiting takeoff on either RWY 05R or 05L. Spots are numbered 1-11, with the southernmost spot being Spot 1. Pilots should stop on the painted nose- gear tire boxes on hold lines to ensure nose-to-wingtip and wingtip-to-tail clearances for aircraft taxiing in front or behind holding aircraft.

9.2.3.1.1. If all 11 aircraft holding spots are occupied on Alpha center, DO NOT cross RWY 05R to Alpha center. Coordinate alternate holding with TWR. TWY Bravo center (primary) or Bravo south will likely be available, but Alpha north should not be utilized.

9.2.3.1.2. When the ceiling is less than or equal to 800 feet AGL, aircraft will not hold on Alpha center.

Figure 9.3. RWY 5R/L Hold Plan.

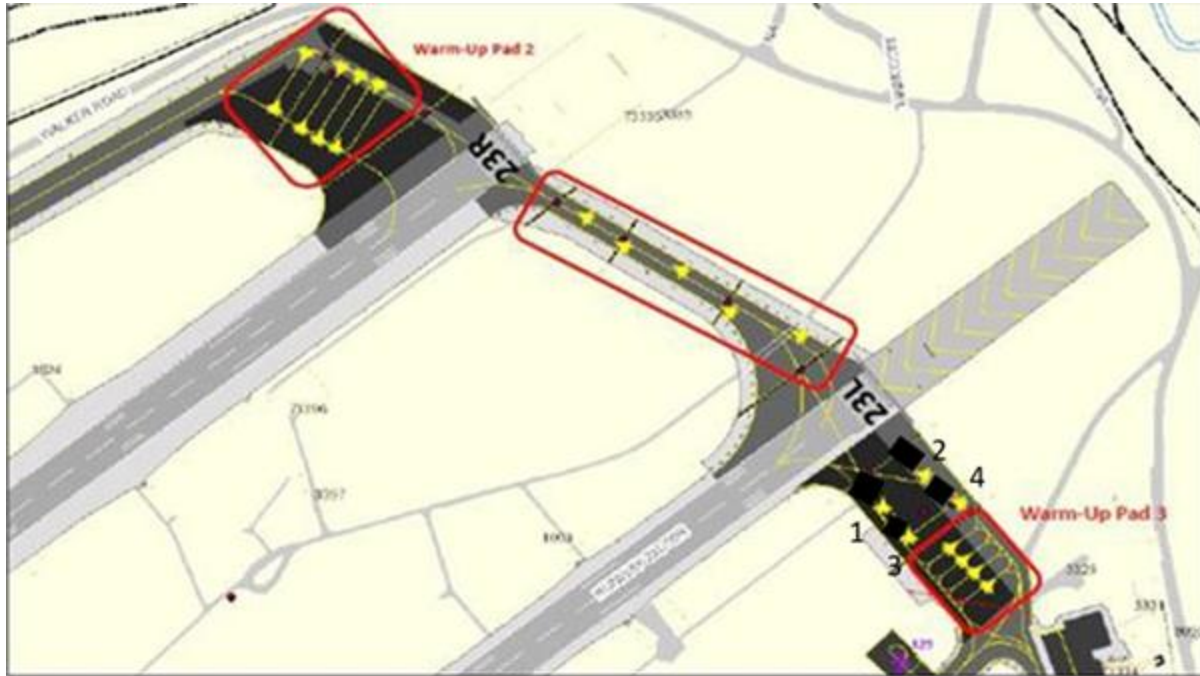


9.2.3.2. RWY 23 EOR Operations. TWY Foxtrot South allows for four fighter aircraft positioned at 45 degrees to hold between the VFR and Instrument (INST) hold lines (two on the East side and two on the West side), and four aircraft South of the INST hold line in the designated arming/de-arming locations. Aircraft should fill the holding spots in the following order: Closest to the Runway on the west side, closest to the runway on the east side, furthest from the runway on the west side then furthest from the runway on the east side (see [Figure 9.4](#)). Exercise caution: this is not reflected in the current markings. With four aircraft in arming and four aircraft in holding, wingtip clearance does not exist to allow for other holding aircraft to taxi back to park. In this case, pilots should contact TWR to request taxi down RWY 23L and exit at TWY Whiskey to park.

9.2.3.2.1. If TWR directs aircraft to cross RWY 23L and hold short RWY 23R for departure, up to five aircraft may cross and hold between the runways with 150 foot staggered spacing. There are no holding spots between RWYs on TWY Foxtrot.

9.2.3.2.2. Overflow holding is available on TWYs Foxtrot north, Whiskey, or SA-3. If extended holding is anticipated, Foxtrot north should not be utilized.

Figure 9.4. RWY 23R/L Hold Plan.



9.3. General Flying Operations. Pilots will operate under IFR control to the maximum extent possible and will, at a minimum, receive flight following to prevent possible Traffic Collision Avoidance System (TCAS) Resolution Advisories. Pilots will also remain with ATC on departure, even following cancellation of IFR, until frequency change is approved to enable ATC to ensure no conflicts along the route of flight exist. If mission changes occur prior to entering assigned airspace, pilots will contact ATC prior to deviating from expected route of flight. When ATC service is not available, avoid civilian airliners by 10 NM and 5,000 feet to preclude TCAS warnings.

9.3.1. When departing as a flight of four, the second element will be issued a separate beacon code for use if recovering as a separate flight.

9.3.2. Unless issued a “MARSA” (Military Authority Assumes Responsibility for Separation of Aircraft) clearance to enter the training airspace, pilots must report reaching VMC and cancel IFR prior to reaching the entry point in order to proceed VFR into the warning areas. If unable to reach VMC, maintain assigned altitude within 40 DME and advise APP.

9.3.3. Airspace. Per **Section 4.1**, the extended local flying area is all airspace within 200 NM of Kadena VORTAC (KAD). The air-to-air training areas within the JOTRC are listed in **Table A2.1** and **Table A2.2** and depicted in **Figure A2.13**.

9.3.3.1. Naha Approach Control Area (ACA). APP controls the airspace within a 60 NM radius of Naha VORTAC (NHC) minus the indentation to 50 NM crossing A582 and V91 airways to the South- West, from surface (SFC) up to and including FL 200, and a 30 NM radius of Kume-Jima VORTAC (KXC) from SFC up to and including FL 160 in the area extending beyond 60NM from NHC. KAB lies within the Naha PCA (Class B airspace), which extends 30 NM from the NHC, up to 10,000 feet MSL with varying sector lower limit floors. Radar sequencing and separation service are in effect for aircraft within the Naha PCA (Class B airspace). Do not enter the Naha PCA (Class B airspace) without clearance from APP/ARR (see [Figure A2.5](#)).

9.3.3.2. Separation of traffic. ATC will separate all non-participating IFR aircraft from all active training airspaces (Warning Areas, Restricted Areas, Air Traffic Control Assigned Airspace (ATCAA) and Altitude Reservations [ALTRVs]). ATC will also warn of any non-participating VFR aircraft entering active training airspace, if possible. ATC cannot provide this service below as high as 5,500 feet MSL due to radar limitations, but IFR aircraft are not permitted to operate at or below this altitude. Airspaces defined to the surface, when scheduled, are also NOTAM'd for use to the surface. In the NOTAM system, the term surface is defined and understood to be the surface of the Earth. Regardless, all participating aircrew should remain alert for the rare instance of non- participating traffic, and take appropriate action if detected.

9.3.3.3. JOTRC ordnance operations refer to AFMAN 13-212V1_KADENAABSUP. Ordnance operations in JOTRC airspaces are permissible based on bilateral agreements, DoD guidance, and ICAO agreement/guidance. Any ordnance use beyond chaff and flare must be explicitly requested during the scheduling process and NOTAM'd prior to use. Per FAA JO 7610.4, paragraph 3-1-3.c, "Stationary ALTRVs within oceanic and offshore airspace may encompass rocket, missile, and state activities." Because the air/sea space below the floor of controlled airspace which varies refer to [Section 4.3](#) DoD Instruction 4540.01, *Use of International Airspace by U.S. Military Aircraft and for Missile and Projectile Firings*, applies: "U.S. Military aircraft and missile and projectile firings operate with due regard for the safety of all air and surface traffic."

9.3.3.4. Definitions and Scheduling. Refer to AFMAN 13-212V1_KADENAABSUP for scheduling process information, specific area depictions, frequencies, restrictions, and procedures.

9.3.4. Local operating restrictions. Avoid using afterburner over land, unless necessary to ensure safety of flight. Avoid overflight of any island within the Ryukyu chain below 2,000 AGL, unless operating at approved tactical ranges, or for safety of flight. Avoid Aguni Jima (N2635 E12713) by 1 NM.

9.3.5. Maritime Operations (MAROPS). Without specific coordination and clearance, avoid aircraft carriers by 20 NM below 5,000 feet MSL. Avoid fishing and merchant ships by 1 NM.

9.3.6. Altimeter Setting. Use 29.92 at/above the transition altitude (FL 140) to and from the airspace, and during AAR. If operating VFR, remain clear of Reduced Vertical Separation Minimum (RVSM) airspace, and fly appropriate VFR hemispherical altitudes. Use last known local altimeter setting during area work to ensure minimum altitude clearances IAW AFMAN 11-214, *Air Operations Rules and Procedures*. Upon entering the area, C2/flight leads/mission commanders will pass the local altimeter setting.

9.4. Departures.

9.4.1. IFR and non-standard Fighter departures.

9.4.1.1. General. Fighter aircraft typically depart in non-standard formation.

9.4.1.1.1. All instructions issued by ATC apply to the entire formation. Altitude instructions issued to non-standard formations immediately apply to all aircraft in the formation.

9.4.1.1.2. All aircraft in the formation must individually adhere to FLIP departure procedure restrictions.

9.4.1.2. Pilots Shall:

9.4.1.2.1. Upon establishing non-standard formation, the lead aircraft will continue to squawk the ATC assigned Mode-C on the approach control assigned discrete beacon code for the formation. The last fighter of the formation will squawk Mode-C and the non-discrete 5300 beacon code.

9.4.1.2.2. Ensure spacing does not exceed 3 NM (ATC limit, USAF fighter limit 1.5-2.5NM, at no time less than 1 NM) between individual aircraft within the formation, unless otherwise authorized by ATC.

9.5. Arrival.

9.5.1. General procedures. All aircraft must obtain an ATC clearance in order to operate in the Naha PCA (Class B airspace). Fighter aircraft assigned permanently or temporarily to KAB who have received 18 OG/OGV Local Area Orientation and JOSCAirspace and Scheduling academics are automatically cleared to enter the Naha PCA (Class B airspace) upon radar identification and initial control instruction. Pilots will maintain VFR during recovery unless an IFR clearance is requested and issued by ATC, as indicated when APP/ARR issues "CLEARED TO KADENA VIA RADAR VECTORS."

9.5.2. IFR.

9.5.2.1. Flight leads squawk assigned recovery code prior to departing area boundaries, wingmen squawk standby, unless non-standard formation (squawk 5300). **Note:** When exiting W173/S-ALTRV TIGER to the west, use caution near the KAD 059° Radial due to Naha airport departures and arrivals.

9.5.2.2. VFR exit/reporting points. VFR cloud clearances permitting, fighter aircraft recovering to Kadena will report respective VFR airspace gate points ([Table 9.1](#)) within the depicted altitude block. If recovering standard, the first requirement to communicate with APP is upon approaching/reaching the reporting point, but APP frequency should be monitored no later than departing the airspace.

Table 9.1. VFR Exit/Reporting points.

Name	From KAD TACAN	Altitude
TIGER GATE NORTH	KAD R-085/40	9,000' MSL
TIGER GATE SOUTH	KAD R-100/40	FL 210-250
EAGLE GATE	KAD R-145/40	FL 210-250
LION GATE	KAD R-175/45	FL 210-250
MOOSE GATE	KAD R-320/45	FL 210-250
DORIS	KAD R-258/60	11,000' MSL

9.5.2.2.1. Non-standard altitude/route. If a non-standard route or altitude is required due to weather or safety of flight, flight leads should inform APP prior to departing the airspace, or immediately upon determination. In all cases, contact APP no later than 50 DME from Kadena and prior to the Naha PCA (Class B airspace) boundary with call sign, ATIS, and recovery intentions.

9.5.2.2.2. **Note:** S-ALTRV BROWNS and MOOSE-SOUTH recoveries require coordination of exit instructions with ATC prior to departing the airspace. Refer to the JOSAC Airspace and Scheduling Academics, or SHOGUN IFG Volume I, for specific guidance.

9.5.2.3. Reporting Gear Down. When TWR issues landing clearance to the flight lead prior to ATC flight split-up, it is clearance for all aircraft in the formation to land. Flight leads will acknowledge landing clearance for the flight. Subsequent flight members will make a “gear” call only and do not need to state intentions. Flight members who do not wish to land will make their request with TWR and receive a separate clearance.

9.5.3. VFR Recovery.

9.5.3.1. Kadena VFR traffic pattern. Per [paragraph 6.13.2.6](#), the standard fighter recovery is High-Tactical Initial for noise abatement, followed by initial to RWY 5R or RWY 23L.

9.5.3.2. ATC VFR traffic pattern management. See [Section 6.7](#), Breakout/Go-Around/Carry Straight-Through/Missed Approach Procedures. In the VFR pattern, BREAKOUT, GO- AROUND, and CARRY STRAIGHT-THROUGH instructions from ATC are intended to manage safe traffic separation and efficient flow. Instructions to BREAKOUT, GO- AROUND, and CARRY STRAIGHT-THROUGH apply to ALL aircraft in the flight unless otherwise specified by the controller.

9.5.3.3. Initial. Fly to initial at 300 KIAS and 2,500 feet MSL. At 5 DME, descend to 1,800 feet MSL and turn to line up with the inside RWY (05R/23L), unless otherwise directed by TWR. Proceed to 3 DME Initial and call “C/S, INITIAL, FULL STOP/LOW APPROACH”.

9.5.3.3.1. Unless issued alternate break instructions from TWR, fighters reporting Initial will break at the approach end of the RWY, and always towards the TWR (south).

9.5.3.3.2. On inside downwind, maintain 1,800 feet until reaching base turn (see [Figure A2.12.](#)). Report base with intentions and landing RWY. “C/S, BASE, GEAR DOWN, FULL STOP/LOW APPROACH, RWY”.

9.5.3.4. Tactical Initial. Adhere to Initial procedures, but report Tactical Initial at 350 KIAS. Additionally, wingmen will fly tactical formation with lead aircraft, not to exceed the confines of KAB. Aircraft 3 and 4 fly 1-NM trail. Lead and 2 will pitch out, pause at 90° (belly check), and execute another 90° turn to normal spacing on inside downwind. The second element will execute the same maneuvers, delaying pitch out to roll out with normal separation behind 2.

9.5.3.5. High Initial. Aircrew may request altitude up to 6,000 feet MSL, and the block 4,000 to 6,000 feet MSL is normally available from Kadena ARR. Report “HIGH INITIAL” per Initial ground track at 350 KIAS, and execute a descending break at the departure end of the runway. Due to altitude required to safely lose, aircrew should normally break at the departure end of the runway position their aircraft safely at 1,800 feet MSL on inside downwind. Due to this, TWR should not issue break instructions for aircraft on High Initial. If absolutely required to maintain safe separation of aircraft, TWR should direct breaks to be executed no earlier than mid-field. Otherwise, ATC may issue CARRY STRAIGHT-THROUGH instructions per [paragraph 6.7.3.](#)

9.5.3.6. High-Tactical Initial. Procedures remain the same as for Tactical and High Initial. For noise abatement, High-Tac Initial shall be the primary fighter VFR pattern.

9.5.3.7. Re-entry to VFR traffic pattern.

9.5.3.7.1. Yomitan/Koza. Following ATC or pilot initiated BREAKOUT or re-entry (e.g. “C/S, BREAKOUT TO YOMITAN/KOZA” due to insufficient pattern spacing or other developing dangerous situations), climb to 2,500’ MSL and proceed direct to Yomitan/Koza as directed. Upon re-entry, report the applicable point and make request: “C/S, RE-ENTERING YOMITAN/KOZA, REQUEST INITIAL/ STRAIGHT-IN (Yomitan only, reference [paragraph 6.12.1.1.](#))” Continue southwest (RWY 05) / northeast (RWY 23) until abeam 3 DME initial, then turn direct initial and descend to 1,800’ MSL. Do not descend below 2,500 feet MSL beyond 3.0 DME south of KAD. When lined up with the runway, report “C/S, INITIAL, FULL-STOP / LOW APPROACH.” Remain within 4.3 DME of Kadena (see [Figure A2.12.](#)). If a request to re-enter is made and granted following a low-approach, “C/S REQUEST RE-ENTER YOMITAN/KOZA,” “C/S, RE- ENTER YOMITAN/KOZA,” climb runway heading to 2,200’ MSL (maintain at or below 1,300’ MSL until past departure end), turn crosswind and continue climb to 2,500’ MSL. Follow the outside downwind ground track to and report Yomitan/Koza with request: “C/S, YOMITAN, REQUEST INITIAL.”

9.5.3.7.2. Yomitan Straight-In. On departure, request a Straight-In Approach from Yomitan, “C/S, RE-ENTER YOMITAN STRAIGHT-IN.” If approved, maintain 1,800 feet MSL until established on a left or right base. If required for WX, 1,300 feet MSL may be requested and will be granted if TWR perceives no conflict exists at that altitude. Remain within KAB Class D.

- 9.5.3.7.3. IAW [paragraph 6.13](#) above, all formations are controlled as a single flight until each aircraft passes the runway threshold on their first approach. Unless otherwise specified, instructions issued to the lead aircraft of a flight, apply to the entire flight.
- 9.5.4. IFR and non-standard Fighter recoveries.
- 9.5.4.1. General. Fighter aircraft may recover in non-standard formation. Non-standard formations shall not recover via ASR approaches.
- 9.5.4.1.1. Non-Standard formation approaches must be approved by ATC.
- 9.5.4.1.2. All instructions issued by ATC apply to the entire flight, including clearance for the approach and clearance to land, unless specific instructions are given for individual aircraft in the formation. ATC may include the term “flight” to the end of a call-sign, for clarity of control instructions.
- 9.5.4.1.3. Altitude instructions issued to non-standard formations immediately apply to all aircraft in the formation.
- 9.5.4.2. Pilots Shall:
- 9.5.4.2.1. Request non-standard approach from ATC and include type landing (e.g. “EAGLE 01, 2-SHIP, REQUEST ILS, NON-STANDARD, 05 LEFT, FULL- STOP”).
- 9.5.4.2.2. Upon establishing non-standard formation, the lead aircraft will continue to squawk the ATC assigned Mode-C on the approach control assigned discrete beacon code for the formation. The last fighter of the formation will squawk Mode-C and the non-discrete 5300 beacon code.
- 9.5.4.2.3. Establish non-standard trail formation while in VMC, ensuring all members of formation have good NAVAIDS and air-to-air radars. Spacing will not exceed 3 NM (ATC limit, USAF fighter limit 1.5-2.5NM, at no time less than 1 NM) between individual aircraft within the formation, unless otherwise authorized by ATC. Each aircraft will fly approaches and initiate descents at FLIP published descent points. During radar vectors, all aircraft within a formation are simultaneously cleared to descend/ascend to assigned altitudes, unless a specific descent point is directed.
- 9.5.4.2.4. If lost communications occur after the flight is established in non-standard formation, affected aircraft should squawk beacon code 7600, maintain own-ship radar separation, and continue the approach. If the affected flight member is lead, ATC will issue amended clearance to the remainder of the flight, if necessary. If lost communications occur in conjunction with an in-flight emergency, squawk beacon code 7700 and continue with the approach (Refer to [Chapter 6](#), Lost Communication Procedures).
- 9.5.4.2.5. ATC shall only vector the lead aircraft of the flight, unless flight split-up occurs prior to the FAF.
- 9.5.4.3. When pilots report “FIELD IN SIGHT”, their IFR clearance is cancelled and they are expected to maintain VFR. ARR will continue to issue traffic advisories and may assign headings and altitudes for traffic de-confliction, especially commercial, until aircrew call “TRAFFIC IN SIGHT”, and visual de-confliction can be maintained.
- 9.5.5. After landing.

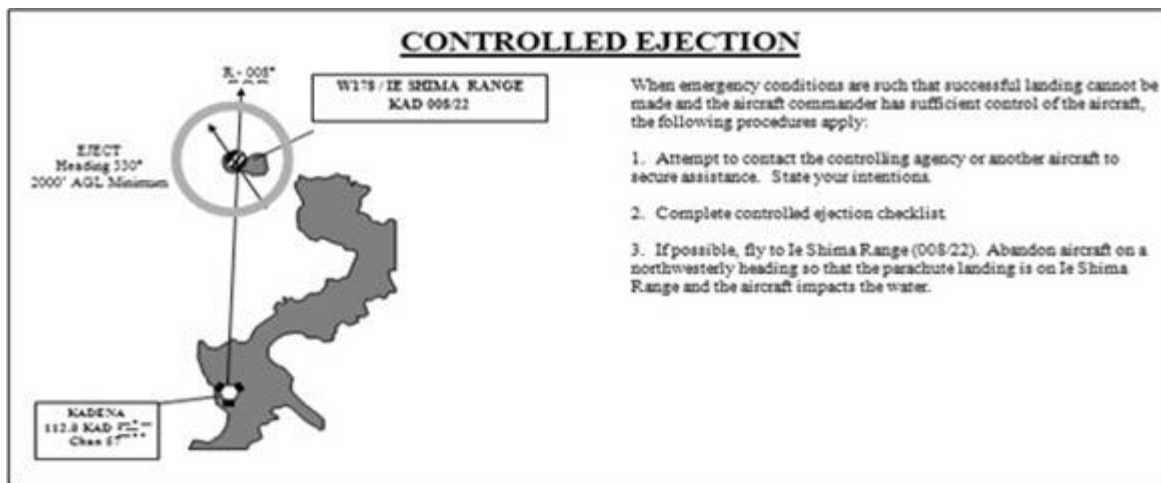
9.5.5.1. BAK-14 damage mitigation. During normal landing rollout on RWY 05R/23L (inside RWY), fighter aircraft will cross raised BAK-14 cables at NO GREATER THAN 5 KTS. The ATC TWR will be diligent about lowering the BAK-14 cables whenever they are not in use to avoid undo damage.

9.5.5.2. BAK-14 cables are located on: RWY 05R (SYS 5) - 1512' from DER (10589' from AER); RWY 23L (SYS 6) - 2709' from DER (9392' from AER).

9.6. Emergency Procedures.

9.6.1. Controlled Bailout Area: Ie Shima Range (KAD R-008/22). Abandon aircraft on a northwesterly heading such that the parachute landing occurs on Ie Shima Range. Recommended altitude is 2,000-3,000 feet MSL. See [Figure 9.5](#).

Figure 9.5. Controlled Bailout Area.



9.6.2. External Stores Jettison Areas Procedures.

9.6.2.1. External Stores/Cargo Jettison Area: The Primary IFR/Night Jettison Area is in W-176 (TORI SHIMA N 26° 35' 00 E126° 50' 00).

9.6.2.2. Emergency Jettison: Emergency jettison stores whenever safety dictates. If able, jettison at least 1 NM from any land mass and clear of ships. Find jettison point using inertial navigation system (INS), Tactical Air Navigation (TACAN) or vectors.

9.6.2.2.1. Option 1: Jettison hung ordnance within the confines of the weapons delivery range, if able.

9.6.2.2.2. Option 2: If outside the confines of the weapons delivery range, return to the weapons delivery range and attempt to jettison.

9.6.2.2.3. Option 3: If unable to return to the weapons delivery range, jettison ordnance beyond 12 NM from land and visually clear the area of surface vessels.

9.6.2.2.4. Option 4: Jettison westbound on KAD 288 radial at 52 DME (W-176, Tori Shima range). Jettison so that stores impact the island, if able. This is the primary IFR/night jettison option.

9.6.2.3. APP may provide radar vectors/flight following to W-173, W-174, W-176, and W-178. ATC assistance is limited to vectors to the warning area boundary. The pilot remains solely responsible for the release of external stores.

9.6.3. Drag chute Jettison Areas. Request Aircraft to drop chutes at the end of the runways off to the side. Preferred locations: TWY A, F and W. Units will require to have airfield driver's license to include CMA access to pick up chutes if left on airfield.

9.6.4. Hung Ordnance Procedures. **Note:** ATC will question non-18 WG aircraft to determine if the ordnance is safe or unsafe. After the determination is made, the applicable procedure will be followed.

9.6.4.1. Ordnance Explosive Types:

9.6.4.1.1. Live. Ordnance containing actual wartime explosive charges.

9.6.4.1.2. Practice. Ordnance containing small explosive charges designed for ease of scoring.

9.6.4.1.3. Inert. Ordnance without explosive charge.

9.6.4.1.4. Unexpended Ordnance. Live, practice or inert armament attached to an aircraft for which no attempt was made to fire, launch or jettison.

9.6.4.1.5. Hung Ordnance. Live, practice or inert armament that failed to depart the aircraft when an attempt to fire, launch or jettison was made. **Note:** It is the aircrew's responsibility to inform ATC if ordnance is secure (safe) or unsecured (unsafe).

9.6.4.1.5.1. Hung Secure or Safe. Release attempt was made, but there is no indication that the release mechanism activated. Switches are de-armed and safe indications are observed in the cockpit. **Note:** Unless otherwise requested by the pilot, this condition does not warrant emergency procedures.

9.6.4.1.5.2. **Hung Unsecured or Unsafe.** Some portion of the release mechanism activated or an unsafe indication is observed in the cockpit. **Examples:** A bomb with one release lug released, or a rocket or missile which has moved in its tube or on its launcher.

9.6.4.1.6. Live Armament Departures and Recoveries. RWY 23L/R will be used for departures with live externally mounted armament unless aircraft characteristics dictate otherwise. RWY 05L/R will be used for recoveries with live bombs unless aircraft characteristics dictate otherwise.

9.6.4.2. Aircrew will comply with MDS specific guidance for landing with hung ordnance. Landings will normally be from a straight-in approach while minimizing flight over land. TWR will activate PCAS for hung, unsecure or unsafe ordnance emergencies. AMOPS will activate the SCN.

9.6.4.3. Aircrew Procedures after Landing with Hung Ordnance:

9.6.4.3.1. After landing, aircraft will taxi to the end of the RWY then to Run-Up Pads 1, 2, 3 or 4 or as directed by TWR for de-arming. Observe published de-arm headings if forward firing ordnance is involved.

9.6.4.3.2. Aircraft will not proceed from the de-arming area until safing is complete.

9.6.4.3.3. If AAS are used, ordnance will be put in safe before the aircraft is removed from the cable.

9.6.5. Hot/Jammed Gun Procedures.

9.6.5.1. RWY 05. Aircraft Weapons MX personnel will attempt to safe and clear the jammed gun at Warm-Up Pad 3. If the gun cannot be made safe and cleared, the aircraft will be shut down and towed to HS 125. If aircraft is to be held as an exhibit for gun rapid response team IAW DAFI 21-101, *Aircraft and Equipment Maintenance Management* (determined by Wing Weapons Manager and 18 MX Group Commander [18 MXG/CC]), aircraft may be placed in a PAS provided hangar doors remain closed until system is safe.

9.6.5.2. RWY 23. Aircraft Weapons MX personnel will attempt to safe the gun at the parking spot on Warm-Up Pad 4. If the gun cannot be made safe, the aircraft will be shut down at that spot and towed to HS 125. If aircraft is to be held as an exhibit for gun rapid response team IAW DAFI 21-101 (determined by Wing Weapons Manager and 18 MXG/CC), aircraft may be placed in a PAS provided hangar doors remain closed until system is safe.

9.7. AV-8/F-35B Operations at KAB.

9.7.1. Responsibilities. AV-8 units operating at Kadena will comply with the spirit and intent of 18 WG directives governing GND and flight operations except as follows:

9.7.1.1. VTOL will only be accomplished utilizing the VTOL pad located on TWY Charlie (See [Figure A2.3](#)).

9.7.1.2. Arming and de-arming (live munitions) will be conducted on TWY Delta between TWY Lima and RWY 05L/23R. On TWY Delta, the arm and/or de-arming heading will be 225 degrees.

9.7.1.3. WX minima for press-up operations will be at least an 800 foot AGL ceiling and 1 mile visibility.

9.7.1.4. Approaches to and departures from the VTOL pad will normally be conducted over RWY 05R/23L.

9.7.1.5. The pilot will advise TWR and request clearance to enter or exit the lateral boundaries of the RWY airspace if crosswinds dictate an approach or departure that might violate the boundaries.

9.7.1.6. Under certain emergency conditions requiring a conventional landing, pilots may request cables to be removed from the runway.

9.7.1.7. When crosswinds exceed 10 knots, AV-8s may require a landing on the VTOL pad. If the WX is below 1,700 feet AGL/3SM, a qualified Landing Site Supervisor (LSS) must be available to assist AV-8 VTOL pad landings, or flight operations will be terminated.

9.7.2. Responsibilities. F-35B Vertical and/or Short Takeoff and Landing (V/STOL) units requesting other than conventional take-offs and landings to the runway should be treated as making an operational request in addition to their landing or take-off clearance. V/STOL aircraft conducting vertical landings are treated like a helicopter in most regards to include phraseology (JO 7110.65). **Note:** STOL landings on the runway are prohibited unless for safety of flight or wet runway.

9.7.2.1. Types of landings and takeoffs for F-35B V/STOL aircraft include the following:

9.7.2.1.1. Takeoffs.

9.7.2.1.1.1. Conventional Takeoff or Landing (CTOL). 2800' to 3200' at Mil power. 2400' to 2800' Max (afterburner).

9.7.2.1.1.2. Stick Short Takeoff (SSTO) 280' to 2470' based off of 0' Pressure Altitude.

9.7.2.1.1.3. Button Short Takeoff (BSTO) 280' to 2470' based off of 0' Pressure Altitude. **Note:** Stick/Button STO are the same. Only difference is pilot action in the cockpit. It's essentially a manual or automatic rotation of the A/C.

9.7.2.1.1.4. Trundle Short Takeoff (Trundle STO) 1100' to 2670' based off of 0' Pressure Altitude. Used on an asphalt runway.

9.7.2.1.1.5. Auto Short Takeoff (Auto STO) 300' to 750'. Used during Field Carrier Landing Practice (FCLP) or aboard USS Ship.

9.7.2.1.1.6. Vertical Takeoff (VTO). The jet is capable of a VTO. Prohibited maneuver per F-35B Interim Flight Clearance (IFC) guidance. Prohibited from AM-2 matting.

9.7.2.1.1.7. Rolling Vertical Takeoff (RVTO) is prohibited.

9.7.2.1.2. Landings.

9.7.2.1.2.1. Conventional Takeoff or Landing (CTOL). 6600' to 8000' landing roll.

9.7.2.1.2.2. Slow Landing (SL) 750' to 2700' landing roll based off of 0' pressure altitude.

9.7.2.1.2.3. Vertical Landing (VL). Requires special concrete or AM-2 matting. Day VL on AM-2 matting requires a minimum of 120' x 120' pad dimensions. Night VL on AM-2 matting requires a minimum of 150' x 150' pad dimensions.

9.7.2.1.2.4. Rolling Vertical Landing (RVL) requires a minimum of 150' x 400' surface dimensions.

9.7.2.1.2.5. Creeping Vertical Landing (CVL) Permitted in an emergency only. Concrete surface runway desired. Asphalt surface runway would be damaged.

9.7.3. Restrictions.

9.7.3.1. AV-8/F-35Bs are restricted from crossing over arresting cables at speeds exceeding 5 knots.

9.7.3.2. AV-8/F-35Bs will fly normal traffic patterns as depicted as described in **Chapter 6** and seen in **Figure A2.11**. Maintain pattern altitude until turning base. When RWYs 05L/R are in use, extend inside downwind until feet wet. Perform water checks, if necessary, feet wet. Avoid angling final, fly at least a 1 mile final, and be aligned with the RWY centerline prior to becoming feet dry. Use minimum practical power settings, commensurate with flight safety, until feet wet. VFR go-arounds may be flown gear down.

9.7.3.3. When operations are conducted to/from the VTOL pad, operations on RWY 05R/23L shall be limited as if the AV-8/F-35B was utilizing the RWY itself.

9.7.3.4. When an arriving aircraft is established in a hover to land on the VTOL pad, or when press-up operations are being conducted, vehicle and aircraft taxi operations may be conducted anywhere along RWY 05R/23L but will be restricted to a wingspan of 200 feet or less between TWYs Bravo and Delta. **Note:** If the AV-8 requests to depart during a press-up maneuver, **paragraph 9.7.3.3** applies. Other arrival and/or departure operations on RWY 05R/23L are prohibited during AV-8 press-up operations.

9.7.3.5. Harrier AV-8 trim pad use is restricted to properly identified spots only. 100% engine runs are authorized for fighter type aircraft. AV-8 aircraft may use no greater than 10 degrees of exhaust deflection. Strict adherence to this restriction is critical, as trim pad spots are limited and AV-8 aircraft using greater than 10 degrees exhaust deflection will damage the pavement and render spots permanently unusable.

9.7.3.6. Due to noise abatement requirements, VTOL pad operations are only permitted for emergencies, functional aircraft checks, or if needed due to excessive crosswinds.

9.7.3.7. Other restrictions as directed by 18 OG/CC apply.

Chapter 10

HEAVY/NON-FIGHTER OPERATIONS

10.1. General Operations.

10.1.1. KC-135 Formation Procedures.

10.1.1.1. Responsibilities. Aircraft commanders assume responsibility for the safe separation of aircraft when MARSA is specified in the “Other Information” section of the flight plan or on the ALTRV.

10.1.1.2. Cell (Formation) Procedures. A “cell” operation shall be handled as a formation flight. Separation within a cell is the responsibility of the cell leader and MARSA procedures will apply.

10.1.1.2.1. For cell departures, TWR will issue taxi, takeoff, and departure clearance to the lead aircraft pilot, who will acknowledge for the cell. Succeeding aircraft will normally take off at 30- to-60 second intervals behind the lead aircraft. Per [paragraph 6.15.3](#), dual runway departures are authorized for KC-135 aircraft.

10.1.1.2.2. GND spare aircraft may sequence into cells or depart single ship as required by aircraft aborts. GND spare aircraft will file individual flight plans and use a separate call sign from the primary aircraft.

10.2. GND Operations.

10.2.1. Aircraft Taxi and Parking (see [Table 5.1](#) for Primary Parking plan).

10.2.1.1. Heavy aircraft will not conduct 180 degree turns on the asphalt portion of 05L/23R.

10.2.1.2. C-17/C-130 Backup Procedures. When a C-17/C-130 requires a back-up from a HS or parking spot, a spotter will be positioned to control the flow of vehicles. Spotter(s) will be equipped with wands or will be in a vehicle. Vehicles will not be allowed to pass the area until the aircraft has taxied. A clearance distance of 200 feet must be maintained behind aircraft engines.

10.2.1.3. Taxi flow plan: RC-135, WC-135, KC-135, E-3 and P-8A. See [Figure A2.14](#).

10.2.1.3.1. RWY 05 - Taxi Out:

10.2.1.3.1.1. Aircraft parked on TWYs Mike, November parking spots N-10 thru N-15, and Papa. Turn north/northeast out of parking, taxi to TWY Lima via TWY Delta intersection, then right on TWY Lima.

10.2.1.3.1.2. Aircraft parked on TWY November parking spots N-1 thru N-9. Turn south out of parking to TWY Lima via TWY Bravo intersection, then right on TWY Lima.

10.2.1.3.1.3. Aircraft parked on TWY Lima, right turn on TWY Lima.

10.2.1.3.2. RWY 23 - Taxi Out:

10.2.1.3.2.1. Aircraft parked on TWYs Mike, November parking spots N-10 thru N-15, and Papa. Turn left out of parking, taxi to TWY Lima via TWY Delta intersection then left on TWY Lima.

10.2.1.3.2.2. Aircraft parked on TWY November parking spots N-1 thru N-9. Turn south out of parking, taxi to TWY Lima via TWY Bravo intersection, then left on TWY Lima.

10.2.1.3.2.3. Aircraft parked on TWY Lima, left turn on TWY Lima.

10.2.1.3.3. RWY 05/23 - Taxi In: Aircraft parking on TWYs Mike, November, and Papa will enter via TWY Charlie, turn left to enter TWY November parking spots N-1 thru N-9. Turn right to TWYs Mike, November, and Papa. Aircraft parking on TWY Lima will use TWY Lima and will either nose in or be towed into parking. If TWY Charlie is closed or occupied, TWY November can be utilized as an alt taxi out/in procedure.

10.2.2. Aircraft Wash.

10.2.2.1. Outdoor Wash Rack (HS1019). Located between L-10 and L-11 (See **Figure A2.14**). Taxi operations are prohibited in wash rack due to limited wingtip clearance and FOD. All aircraft must be towed into wash rack.

10.2.2.2. L-11 Bird Bath. Taxi through wash rack located on spot L-11 (see **Figure A2.14**). Enter bird bath from TWY Lima or Mike. Vehicle movement on bird bath treadles (pressure switches) is prohibited.

10.2.2.3. Aircraft washes in aircraft parking spots other than those listed above require notification to and written approval from CE Environmental prior to operations. Protective barriers must be put in place to collect and prevent wastewater runoff from entering airfield drainage systems.

10.2.3. GND Operation of E-3 Surveillance Radar. Radiation from the E-3 surveillance radar has the potential to injure exposed personnel, detonate electro-explosive devices (e.g., firing of ejection seats, jettison fuel tanks), ignite flammable liquids, and affect “fly-by-wire” controlled aircraft. When GND operation of the E-3 aircraft surveillance radar is in progress, a radar hazard zone (Live Fire Zone) extends upward from the aircraft at an angle of approximately 22 degrees and approximately 15 degrees either side of the centerline of the main beam out to a distance of 1,300 feet.

10.2.3.1. Location of Operating Area. At KAB, the E-3 aircraft will only be positioned in the North corner of Warm-Up Pad 2 facing the runway. The rotodome will be positioned so the main beam is pointed toward Echo helipad, creating a "Live Fire" zone 15 degrees to either side of the beam between taxiway Lima and runway 05L/23R. **Note:** Aircraft and personnel may not transit this area prior to termination of "Live Fire" operations.

10.2.3.2. 18 WG/MOCC will notify the agencies listed in **Table 10.1** at least 8 hours prior to the commencement of scheduled GND operations.

Table 10.1. MOCC 8-Hr Advanced Notifications.

AOF (AMOPS and ATC)
18 Wing Safety
Fire Emergency Services Emergency Communication Center
CFAO Safety
Security Forces Control Center
18 Medical Group Bio-Environmental Engineering
18 Wing Operations Representative Quality Assurance
18 Logistics Readiness Squadron/Fuels Resource Control Center

10.2.4. Forward Area Refueling Point Operations (FARP). FARP involves hot refueling from one aircraft (tanker) to another (receiver) with engines running. Aircraft and vehicles involved in the operations are completely blacked out. Operations will not be conducted if lightning is within 5 nautical miles or high winds present a hazardous condition. Prior to commencing and at the conclusion of FARP operations, the 353 JOAC shall notify AMOPS, 18 SFS, Fire Department, 733 AMS and 18 WG/MOCC for all MX units. Additionally, the crews conducting FARP shall maintain vigilance of the FARP area and call “knock-it-off” if the perimeter is breached by non- participating vehicle operators.

10.2.4.1. The primary FARP location is on SA-7 (SOW Ramp). Alternate locations are TWYs Alpha north (Warmup Pad 1), and Bravo south.

10.2.4.2. The 353 OSS/A3 will coordinate FARP training thru 18 OSS/Wing Scheduling Office. After obtaining 18 OG/CC approval, the 353 OSS/A3 will notify in writing (via fax/email) the AFM and TWR CCLTR of the date(s) and time(s) of the FARP training.

10.2.4.3. AMOPS will issue NOTAMs limiting the FARP area to participating aircraft only and suspend the adjacent runway, as required. This provides participating aircraft the necessary escape routing from the FARP site in case of emergency.

10.2.4.4. The Fire Department will be notified NLT 24 hours prior to FARP operations and again 30 minutes prior to mission execution (via Air Traffic Control, Ground Controller Frequency, or land line).

10.2.4.5. The 1 SOS current operations section and 353 SOAMXS will coordinate NLT 3 days prior to FARP operations to ensure no aircraft are parked within 200 feet of the active FARP site.

10.2.5. Static FARP Training. Static FARP training involves a single static (engines not running) C-130 aircraft that pressurizes its FARP cart hoses outside of the aircraft. Aircraft involved in the operations are completely blacked out. Prior to commencing and at the conclusion of FARP operations, the 353 OSS/SOCC shall notify AMOPS, 18 SFS, Fire Department, 733 AMS and 18 WG/MOCC for all MX units. Additionally, the crews conducting FARP shall maintain vigilance of the FARP area and call “knock-it-off” if the perimeter is breached. **Note:** If more than one aircraft and/or vehicle are transferring fuel, the operations are NOT Static FARP Training and FARP rules from [paragraph 10.2.4](#) apply.

10.2.5.1. The primary static FARP training location is on Warm-Up Pad 1. The alternate FARP location is TWY Papa or SA-7 (SOW Ramp).

10.2.5.2. The 353 OSS/A3 will coordinate FARP training thru 18 OSS/Wing Scheduling Office. After obtaining 18 OG/CC approval, the 353 SOSS/A3 will notify in writing (via fax/email) the AFM of the date(s) and time(s) of the FARP training.

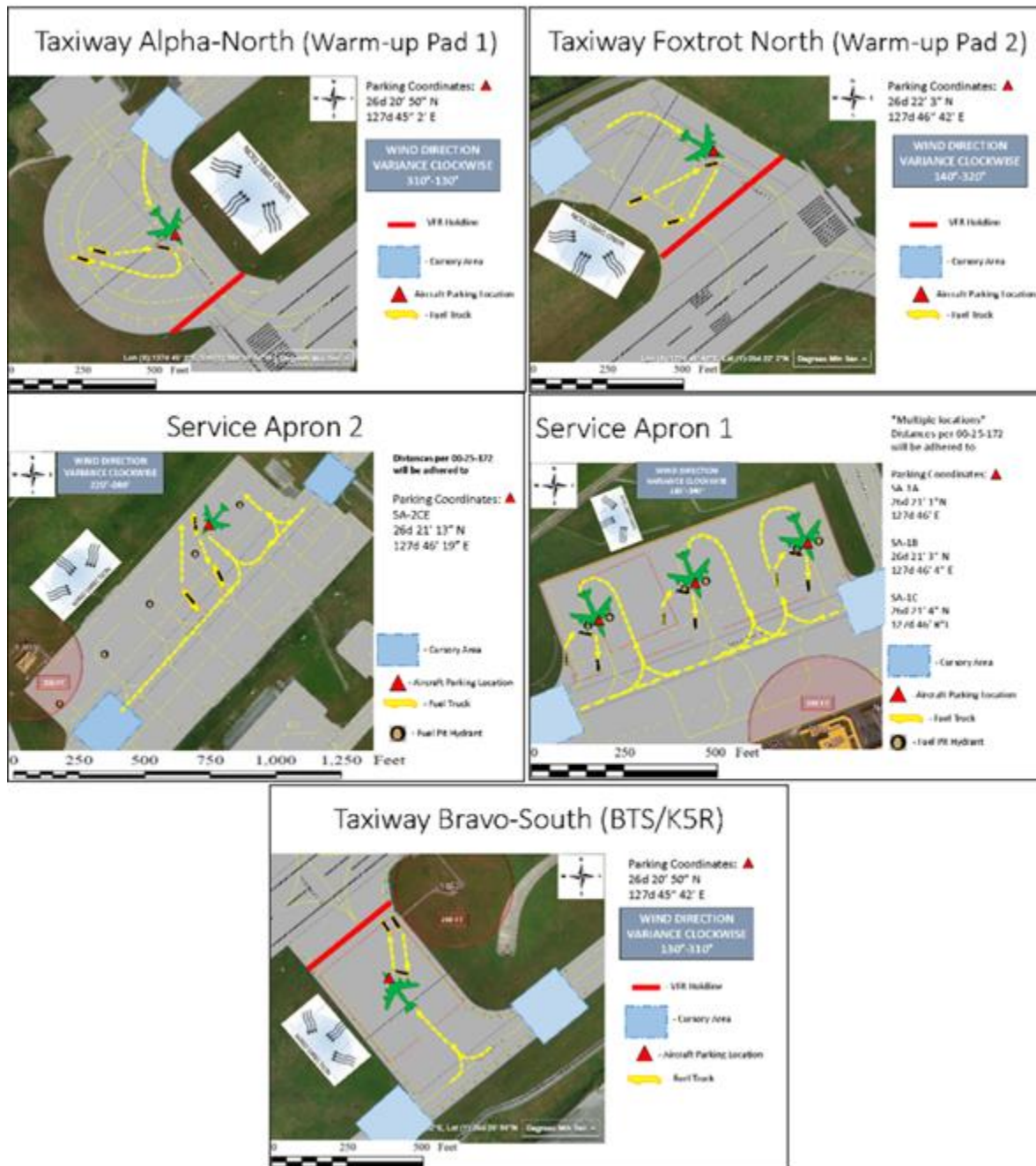
10.2.5.3. AMOPS will issue NOTAMs limiting the FARP area to participating aircraft only.

10.2.5.4. There are no additional restrictions required for emergency egress during static FARP operations.

10.2.5.5. Fire Department will be notified that static FARP training is occurring but are not required to be on-scene.

10.2.6. KC-135 Hot Pit Refueling location restrictions. During use of the Hot Pit Refueling site on TWY Alpha north, TWY Foxtrot north, or TWY Bravo south, the TWY portion being used will be limited to hot pit participants only. For the purpose of NOTAM publication, MOCC will notify AMOPS of any hot pit refueling scheduled in the next 24 hours. See [Figure 10.1](#) for detailed parking plan.

Figure 10.1. KC-135 Hot Pit Refueling.



10.3. General Flying Operations.

10.3.1. VFR Traffic Pattern. When it is reasonable to assume that an aircraft under TWR's control will/may exit the class Delta airspace to the west or northwest, ATC will climb aircraft to be at 2,200 feet MSL and will coordinate with ARR or APP, as appropriate, prior to issuing instructions.

10.3.1.1. Climb downwind extensions to 2,200 feet MSL prior to exiting Kadena Control Traffic Region (CTR) during RWY 5 operations. This ensures separation from Naha arrivals and/or departures.

10.3.1.2. Climb upwind extensions to 2,200 feet MSL prior to exiting Kadena CTR during RWY 23 operations. This ensures separation from Naha arrivals and/or departures.

10.3.1.3. If instructed by ATC to make a 360 on the downwind or hold midfield downwind, aircraft will make a 360 turn on the downwind as instructed by ATC and it is the aircraft responsibility to remain inside the Class Delta airspace. Pilots should inform TWR if they are unable to remain within the Class Delta and expect a climb to at least 2,200 feet MSL.

10.3.2. Air-Evac Notification and Response Procedures. AMOPS will notify TWR, 18 WG/CP, 733 AMS, TA, and Customs of all Air-Evac inbounds.

10.3.2.1. TWR will handle requests from priority Air-Evac aircraft to the max extent possible.

10.3.3. Parachute Drop Zone Procedures. Parachute drop zone procedures within or through the Naha PCA (Class B airspace) are contained in the Okinawa Air Traffic Control Agreement.

10.3.3.1. Paradrops in W-178 (Ie Shima) and W-178A. Refer to Base Order (BO) 3500.1D, *Hansen Range Control*, for detailed coordination procedures. The procedures for execution outlined in Base Order (BO) 3500.1D, *Hansen Range Control*, also apply.

10.3.3.2. Paradrops at Ourawan, Ukibaru, and Tsuken-Jima Drop Zones (DZ) below the Naha PCA (Class B airspace) will use the following procedures:

10.3.3.2.1. Coordination. Any organization requesting paradrop operations within the confines of APP airspace shall contact the Naha APP ATC Liaison by 18OSS.OLA.18WGAIRSPACE@us.sf.mil to request the airspace at least 48 hours (72 hours when the parajump airspace activated above FL200) in advance. If no reply has been received call 634-4647 to ensure the request has been received. Naha APP ATC Liaison will then coordinate the request with Naha APP. Once the drop zone request is approved, the Naha APP ATC Liaison will email the approval notification to the requesting organization, Joint Okinawa Scheduling Cell, and AMOPS (18oss.osam.airfieldmanagement@us.af.mil). After receiving approval, AMOPS will then create the NOTAM at least 48 hours in advance.

10.3.3.2.2. ATC requires the following information: Date and time of the paradrop activity, call sign, type, and number of aircraft involved, drop area (e.g., KAD 114/09), drop altitude (e.g., 4,000 feet MSL and below), point of contact name, and phone number.

10.3.3.3. RIDOUT DZ. Paradrops at RIDOUT will use the following procedures:

10.3.3.3.1. Parajump Operators shall:

10.3.3.3.1.1. Not control non-participating vehicle or aircraft movement through RIDOUT DZ.

10.3.3.3.1.2. Ensure all parajump vehicle operations conducted on the airfield are in compliance with local airfield/flight line driving procedures and all vehicle operators have a valid KAB airfield driver's license (AF Form 483, *Certificate of Competency*).

10.3.3.3.1.3. Ensure personnel have CMA airfield driver's license to drive and escort any and all vehicles participating in DZ operations.

10.3.3.3.1.4. The Drop Zone Safety Officer (DZSO) must establish/maintain communications with TWR throughout the parachute operations on the local UHF GND Control Frequency/275.8. The DZSO will also monitor UHF 270.6 (Primary) or 317.8 (Backup). This is the frequency that the aircrew will be switched to by TWR or ARR prior to paradrop operations. The DZSO can make limited essential radio calls on this frequency (Clear to drop/abort/confirmation of parachutists and wind calls on this frequency).

10.3.3.3.1.4.1. DZSO shall request access to the RIDOUT DZ from TWR. This access authorizes the DZSO to enter the RIDOUT DZ area and set up equipment and establish radio communications. The DZSO shall request and receive permission from TWR prior to entering the RWY(s) each time access is needed.

10.3.3.3.1.4.2. DZSO shall request "Control" of RIDOUT DZ from TWR prior to parajump operations. This is normally 10-15 minutes prior to commencing parajump operations. This "Control" authorizes the DZSO to operate within the RIDOUT DZ area until "Control" is relinquished. **Note:** "Control" is defined as authority of surface operations only within the RIDOUT DZ.

10.3.3.3.1.4.3. Notify TWR when the DZ has been checked for safety and is ready for operations to commence.

10.3.3.3.1.4.4. Notify TWR when all Parajump Operators are out of the aircraft.

10.3.3.3.1.4.5. Notify TWR when all Parajump Operators are on the GND. This notification returns the airspace to the TWR.

10.3.3.3.1.4.6. Relinquish "Control" of RIDOUT DZ to TWR upon completion of parajump operations, or when required by TWR for safety. This notification authorizes TWR to resume all surface operations. The DZSO must comply with all TWR instructions.

10.3.3.3.2. TWR Shall:

10.3.3.3.2.1. During active RIDOUT DZ operations (distinguished when DZSO gains "Control" of RIDOUT DZ), not taxi any aircraft while DZSO has "Control" of RIDOUT DZ. Aircraft will be in their parking locations or airborne prior to TWR releasing "Control" of the DZ.

10.3.3.3.2.2. Ensure fighter aircraft on the UFR are the only aircraft on the airfield that may have their engines on during active RIDOUT DZ operations.

10.3.3.3.2.3. Relinquish "Control" of RIDOUT DZ to the Parajump Operators, when requested, based on existing traffic conditions. **Note:** "Control" is defined as authority of surface operations only within the RIDOUT DZ.

10.3.3.3.2.4. Not allow non-participating vehicles to enter the RIDOUT DZ beyond the VFR hold lines at the respective TWY intersections while the DZSO has "Control" of the DZ.

10.3.3.3.2.5. Prior to notification that the area is ready for operations, in the interest of safety, may regain "Control" without consent.

10.3.3.3.3. AMOPS Shall:

10.3.3.3.3.1. Notify 18 WG/CP, 18 SFS, contractors working in/near the DZ, and Unit Airfield Driving Program Managers (ADPM) of proposed rescue training activity and requirement to remain clear of DZ during the operation.

10.3.3.3.3.2. Remain outside the DZ during active drops.

10.3.3.3.3.3. Perform RWY/TWY FOD checks following notification that all parajump operators are on the ground.

10.3.3.3.3.4. Resume RWY/TWY ops when safe to do so.

10.4. Arrival.

10.4.1. See **Section 6.10**, **Section 6.12** and **Section 6.16** or general information and IFR/VFR arrival/pattern procedures.

10.4.2. Reentry to Initial. Heavy aircraft are not authorized to re-enter at Koza/Yomitan. If requesting a 5 NM initial for RWY 5, Heavy aircraft will climb to 2,700 feet MSL until within KAB class Delta.

10.5. Emergency Procedures.

10.5.1. KC-135 Emergency AAR Procedures.

10.5.1.1. The 18 WG/CP will notify AMOPS of an impending launch.

10.5.1.1.1. The tanker aircrew or mission coordinator will deliver the flight plan to AMOPS as quickly as possible. If a flight plan is faxed, units will verify receipt and resolve discrepancies via telephone confirmation at 634-3118.

10.5.1.1.2. Unless otherwise coordinated, emergency AAR communications plan will be HABA 3: 286.4/primary, 306.4/secondary, 255.6/back-up, APN 69 3-1-1. Airborne Warning and Control System (AWACS) shall make initial radio contact on 233.1.

10.6. 353 SOW Operations at Kadena AB.

10.6.1. Night Vision Device (NVD) Operations.

10.6.1.1. NVD Landing Operations. NVD operations may be conducted during 353 SOW MC-130 aircraft during night flying. All operations will be conducted within the guidelines set in AFMAN 13-204V3, *Air Traffic Control*, FAAO JO 7110.65, and MDSv3, MC130 Operations Procedures.

10.6.1.2. Scheduling and Notification. NVD operations are authorized Monday through Friday after sunset and approved at the discretion of TWR supervisor based on non-participating traffic and other priority aircraft. When approved, the TWR will include the following statement in the ATIS, "Use caution, Night Vision Device operations in effect in the vicinity of Kadena Airfield. Kadena utilizing non-standard lighting settings."

10.6.1.3. WX/lunar Requirements.

10.6.1.3.1. The minimum in flight visibility for NVD contour operations is 3 SM. Higher minimum visibility may be required to identify and clear obstacles. **Note:** Lack of sufficient illumination may prevent NVD contour operations in otherwise VMC conditions.

10.6.1.3.2. Any training or operational missions planned when the lunar illumination is forecast to be less than 10 percent during the mission will require an additional level of Operational Risk Management (ORM).

10.6.1.4. Procedures.

10.6.1.4.1. Aircraft will contact APP or ARR prior to entering the Naha PCA (Class B airspace) and request own- navigation to final. Once established on final, report field in sight for visual Straight-In, Base Turn, Simultaneous, or Minimum Interval Landing (as applicable). Thereafter, all landings will be conducted via downwind, base turn, or visual straight-in. **Note:** Aircraft returning VFR operating outside the Naha Class B will contact TWR prior to Bolo Point (RWY 05L/R) or Moon Beach (RWY 23L/R) with intentions.

10.6.1.4.2. Non-participating aircraft will not mix with participating NVD aircraft in any traffic pattern or any controlled area. Current covert lighting operations will be terminated and normal runway lighting will be resumed when non-participating aircraft are inbound to and within 10NM final to KAB, and for any aircraft that will be departing KAB.

10.6.1.4.3. APP or ARR will, upon initial contact, inform TWR of the type of operation requested.

10.6.1.4.4. TWR will control subsequent visual patterns and coordinate any additional straight- in approaches with APP or ARR.

10.6.1.4.5. Aircraft shall specify the type of landing and will not be cleared for the option.

10.6.1.5. Aircraft Responsibilities:

10.6.1.5.1. Conduct NVD operations at their own risk.

10.6.1.5.2. Provide position reports when requested.

10.6.1.5.3. Request ATC set lighting as specified in Air Force Special Operations Command (AFSOC) operating instructions and approved AFSOC aircrew waivers.

10.6.1.5.4. Notify Ground Control when taxiing for departure or Kadena Arrival for arrivals as soon as possible with NVD operation intentions.

10.6.1.5.5. Use taxi lights during all taxi operations. There will be no NVD taxi operations.

10.6.1.5.6. Light aircraft IAW AFMAN 11-202V3, *Flight Operations*.

10.6.1.6. APP or ARR Responsibilities:

10.6.1.6.1. Advise TWR as soon as possible of aircraft intentions.

10.6.1.6.2. Provide vectors or own-navigation to visual final.

10.6.1.7. TWR Responsibilities:

10.6.1.7.1. When requested by the pilot, turn off all RWY and approach lights, and switch RWY lights to non-landing RWY, operations permitting. During alternate TWR operations, NVD operations cannot be conducted due to the inability to make lighting changes.

10.6.1.7.2. Inform participating aircraft prior to turning on RWY or approach lights required prior to completion of NVD operations.

10.6.1.7.3. Advise non-participating aircraft of NVD operations.

10.6.1.7.4. Suspend NVD operations if necessary for safety and issue control instructions to participating aircraft (See [paragraph 10.6.1.4.2](#) and [paragraph 10.6.1.4.3](#)).

10.6.1.7.5. TWR is unable to visually ensure the aircraft's gear is down.

10.6.1.7.6. Issue only "LANDING WILL BE AT YOUR OWN RISK" clearances due to inability to properly scan RWY for obstacles.

10.6.1.7.7. TWR will operate airfield lighting IAW FAAO JO 7110.65. Lighting will be set to the appropriate level requested by the pilot, when able.

10.6.1.7.8. Light levels within the TWR do not affect NVD operations. Controllers do not use NVDs in the TWR.

10.6.1.8. Vehicle Operations. All participating vehicles will remain within the vicinity of TWY Alpha, with their lights pointed away from the cockpit of participating aircraft, and a NOTAM will be issued closing the area. Non-participating vehicles will be kept out of the NOTAM- closed area to the max extent possible.

10.6.1.8.1. Normal vehicle operations (RWY checks) are authorized on RWY 05R/23L. These operations will not interfere with NVD operations.

10.6.2. Silent Launch and Recovery (Steel Tiger) Procedures.

10.6.2.1. Coordination: All silent launches will be coordinated with Airfield Management, TWR, and APP or ARR using the procedures outlined in [Section 8.5](#) of this instruction.

10.6.2.2. Departure: Departures will be executed IAW [paragraph 8.5.4.4](#) with the exception of:

10.6.2.2.1. IFR Departures will file ADDAN as the clearance limit. Upon reaching ADDAN, the aircraft's IFR clearance will automatically be cancelled and the pilot shall resume normal communications procedures.

10.6.2.2.2. VFR departures shall file or fly either the IKEI or SESOKO DEPARTURE. At IKEI/SESOKO, descend to low level and remain clear of Naha Class B.

10.6.2.3. Arrivals:

10.6.2.3.1. The mission timing sheet will include the ETA at the KAD 320R/045 DME (plus/minus 15 minutes).

10.6.2.3.2. Silent arrivals are not authorized during quiet hours and will only be flown during periods when APP radar is operational. The 18 OG/CC is the approval authority for any silent arrival ops during quiet hours. These requests will be made via the weekly 18 OG/CC scheduling meeting. All arrivals will adhere their coordinated time on the timing sheet, +/- 5 minutes. Any aircraft not able to meet scheduled timing must use normal radio procedures.

10.6.2.3.3. WX minimums for arrival phase of flight will be 3,000 feet AGL ceiling and 5 SM visibility. If WX is below minimums, the aircraft will remain VFR and contact approach for IFR clearance.

10.6.2.3.4. IFR Arrivals will track inbound on the KAD 320/045 DME at 4,000 feet MSL squawking a pre-determined Mode 3 code. APP will radar identify aircraft using the assigned code and give current WX and RWY in use in the blind, aircraft will acknowledge radar identification with an IDENT. If aircraft is not radar identified prior to Naha PCA (Class B airspace) (30 DME), aircraft will remain clear of Naha PCA (Class B airspace) and contact APP for non-radar routing or clearance to enter Naha PCA (Class B airspace) for a VFR recovery.

10.6.2.3.5. VFR arrivals shall file the radial/DME of the points via which they will enter Naha PCA (Class B airspace). Provide APP or ARR with the time the aircraft will arrive over these points. If the aircraft is more than 30 seconds from the planned time, notify APP or ARR. Aircraft will maintain at or below 500 feet AGL. When arriving RWY 23, climb to 1300 feet MSL when feet dry. If a blacked out landing is planned and coordinated with TWR, the RWY lights will be turned off 2 minutes prior to the planned arrival time. Once the turn to final is made, aircraft shall monitor both approach and TWR frequencies until touchdown. At 5 miles, TWR will issue the current wind in the blind. Then TWR will give the aircraft the appropriate light gun signal for the given conditions.

10.6.2.3.6. After landing, aircraft shall exit the RWY as soon as practical and observe the TWR for a light gun signals. Aircraft will acknowledge instructions by flashing landing lights.

10.6.3. Radio Failure.

10.6.3.1. Departures will follow lost communications procedures outlined in **Section 6.9**.

10.6.3.2. Arrivals will proceed inbound to KAD 320/020 and enter a standard holding pattern at 4,000 feet MSL. After completing 2 turns in holding, the aircraft shall then proceed inbound on a 15 DME arc to the final approach course for the TACAN approach to RWY 05R/23L. Aircraft will maintain 4,000 feet MSL until established on the inbound radial and comply with Standard Instrument Approach Procedures (SIAP). Monitor TWR for a steady green light (clearance to land).

10.6.4. Self-Contained Approaches (SCA) Procedures. Pilots shall specifically state “own navigation” or “self-contained approach” on initial contact with TWR prior to reaching Bolo Point (BP) or Moon Beach.

10.6.4.1. These approaches are conducted under VFR flight rules (flight plan) and although the approach begins outside of the Kadena Class D Airspace, the aircraft do not penetrate the Naha PCA (Class B airspace). The only difference between the MC-130P (JAKAL) and MC-130H (GOOSE) SCAs is the timing from BP (circa 45 seconds) to the landing threshold.

10.6.4.1.1. The SCA RWY 05 will commence at BP. Aircraft will be at 500 feet AGL (unless a different altitude is approved by ATC) from Bolo inbound at 210 -230 KIAS. Aircraft will fly a course of 195-200 degrees until the depicted slowdown point. At Slowdown; the aircraft will go flight idle and turn left to intercept the final course. Upon rollout, the aircraft will be 120-140 KIAS—finessing the airspeed to hit a predetermined time (to the second) at the threshold. The GND track for each aircraft and route to the particular RWY is depicted on [Figure A2.15](#) thru [Figure A2.16](#). **Note:** The main focus for the pilots is to hit threshold down to the second that is predetermined in preflight planning.

10.6.4.1.2. The SCA 23 will commence at Moon Beach. Aircraft will be at 1,000 MSL at Moon Beach slowing from 210-230 KIAS to 140 KIAS. Aircraft will turn right to intercept the final course. Upon rollout, the aircraft will be 120-140 KIAS— finessing the airspeed to hit a predetermined time (to the second) at the threshold. The GND track for each aircraft and route to the particular RWY is depicted on [Figure A2.17](#).

10.6.5. Covert/Tactical Landing Zone Operations. RWY 5L/23R are configured for covert operations. The following procedures are contingency procedures if the covert lighting system is inoperative. With proper coordination, 353 SOW- approved Landing Zone Control Officer (LZCO) personnel can set up and run covert or overt lighted tactical landing zones on RWY 05R/23L. Qualified personnel will place overt or covert lights on the RWY to delineate a short-field or tactical landing zone. 353 SOW-approved LZCO personnel are only allowed to control participating aircraft. AMOPS retains final approval authority.

10.6.5.1. 353 SOW Schedulers will:

10.6.5.1.1. Coordinate training requirements at the weekly 18 OG/CC scheduling meeting. Special requirements for 353 SOW night training will be coordinated with the 18 OG/CC to minimize conflicts with other units.

10.6.5.1.2. Coordinate with both AMOPS and TWR.

10.6.5.1.3. Request 733 AMS Air Mobility Command Center to turn off Service Apron 1 security lights, if required.

10.6.5.1.4. Provide a qualified LZCO who will:

10.6.5.1.4.1. Obtain TWR approval to set up landing zone.

10.6.5.1.4.2. Maintain radio contact with TWR throughout the training (this will be accomplished via FM-1 Net, Or UHF Freq. 275.8.).

10.6.5.1.4.3. Conduct operations on a discrete frequency. The LZCO WILL NOT broadcast on TWR frequency.

10.6.5.1.4.4. Remain in close proximity to the landing zone throughout the training.

10.6.5.1.4.5. Take down the landing zone at the completion of training, or when directed by the TWR, within 15 minutes.

10.6.5.1.4.6. If covert or overt lighted tactical landing zones will not be used, a LZCO is not required.

10.6.5.2. AMOPS will:

10.6.5.2.1. Immediately inform the C-130 unit of any conflicts with their planned training. **Note:** Due to mission requirements, or at TWR WS discretion, night flying training may be terminated.

10.6.5.2.2. Perform RWY check to ensure all lights and FOD have been removed.

10.6.5.3. TWR will:

10.6.5.3.1. Turn off all RWY lights on RWY 05R/23L and 05L/23R during these operations (when requested, traffic permitting).

10.6.5.3.2. Issue "LANDING WILL BE AT YOUR OWN RISK" in lieu of a clearance due to inability to properly scan RWY for obstacles.

10.7. ALTRV AAR.

10.7.1. Flight Plan Procedures:

10.7.1.1. Contact AMOPS to file the appropriate flight plan for the scheduled refueling track.

10.7.1.2. Pass call signs, departure times, and tail numbers, etc., as per normal DD Form 1801, *International Flight Plan, DoD*, filing procedures.

10.7.2. Sequencing. The tanker will normally take off after all receivers are airborne. During VFR conditions, the fighters will fly a rectangular pattern and the tanker(s) will take off when the receivers are downwind abeam the field. Once tankers are airborne, the fighters will turn crosswind and rejoin on the tanker in the climb. During IFR conditions, the fighters will depart to the first point of the ALTRV and hold.

10.7.3. Rendezvous. When cleared, flight leads will proceed direct to the entry point, FL240, or as cleared by Naha Center. Clearance to the entry point is clearance for the rendezvous via a point parallel or fighter turn-on.

10.7.4. WX Conditions. Tanker Crews shall pass WX conditions in the refueling track to Shogun 10 if IMC refueling is expected for 18 WG aircraft.

10.7.5. Transition. With the last receiver on the boom, the tanker will coordinate exit procedures with Naha Center. Once within radio range of destination, receivers may depart the ALTRV and work their own clearance as desired for recovery prior to the tankers.

10.8. Combat Offload Operations. C-130 units desiring to conduct combat offload exercise/training must request 18 OG/CC approval via 18 OSS/Wing Scheduling NLT 72 hours prior to scheduled operations. Primary location for combat offload procedures is on TWY Lima between TWY Echo and TWY Foxtrot. Precautions will be taken to reduce and/or mitigate damage to TWY pavement during this training.

Chapter 11

HELICOPTER OPERATIONS

11.1. General Operations.

11.1.1. Helicopter Priorities. HH-60 aircraft responding to an emergency (using an Air Force Rescue call sign) will be given priority IAW [paragraph 2.23](#) while departing or entering Kadena airfield. See Helipad and VTOL pad locations in [Figure A2.1](#). Controller/pilots may request to land/takeoff on non-movement areas; a takeoff/landing clearance will not be issued. The phrase “DEPARTURE FROM/LANDING AT (location) WILL BE AT YOUR OWN RISK (additional instructions, as necessary), USE CAUTION” (if applicable).

11.1.2. Building 10 Helipad. A helipad is located near Building 10. It is not visible from the TWR. Pilots contact 18 WG/CP for use. Pilots shall coordinate with TWR for entry into the Class D airspace.

11.1.3. Uncontrolled helipads within the Kadena TWR airspace exist at the US Naval Hospital Okinawa, Plaza Housing on Foster, and Chubu Hospital.

11.1.4. V-22 type aircraft in conversion mode are considered helicopters except for the requirements in [Table 3.2](#). Quiet Hours.

11.2. GND Operations.

11.2.1. Hot Pit Refueling Locations and Restrictions.

11.2.1.1. The primary location for Rotary Wing Hot Pit refueling is on Papa Row at spots P5, P3, and P1. Aircraft should taxi into the Hot Refuel pit along the line with refuel port facing north, stopping within the wheel blocks. Do not taxi over areas marked with yellow hashed stripes. Taxi into the refuel locations with appropriate MDS marshalling requirements. **Note:** Markings for Papa 3 hot pit ensure H-60 type aircraft rotor clearances greater than 25'. Monitor GND during refueling operations.

11.2.1.2. The alternate location for Rotary Wing Hot Pit refueling is the CME Ramp. Taxi into the refuel locations with appropriate MDS marshalling requirements. Monitor GND during refueling operations.

11.2.2. Forward Area Refueling Point (FARP). FARP involves hot refueling from one aircraft (tanker) to another (receiver) with engines running. Operations will not be conducted if lightning is within 5 miles or high winds present a hazardous condition. The primary FARP location is on Warm-Up Pad 1 with an alternate location of TWY Papa. The 353 OSS/A3 will coordinate FARP training at the weekly 18 OG scheduling meeting. After obtaining 18 OG/CC approval, notify AMOPS of the date(s) and time(s) of the FARP training in writing via fax or e-mail. AMOPS will issue a NOTAM closing TWY Alpha and appropriate airfield areas for the operation of the FARP. This provides participating aircraft the necessary escape routing from the FARP site in case of emergency. For Fixed-Wing to Rotary-Wing FARP, close TWY Alpha between RWY 05L/23R and TWY Lima.

11.2.3. Helicopters Taxi and Hover Procedures (Both RWYs). Taxi as directed by ATC.

11.2.4. Helicopter hover-checks. Hover altitudes above 50 feet require TWR approval.

11.3. VFR Arrival/Departure Procedures.

11.3.1. BOLO:

11.3.1.1. Arrival: Maintain 600' MSL, minimum 100m offshore. Fly direct from Point BOLO to SEAWALL then to landing area as requested/directed. Climb and maintain VFR pattern altitude at SEAWALL and prior to turning overland.

11.3.1.2. Departure: Maintain 800' MSL. Proceed and maintain minimum of 100m offshore, fly direct to BOLO point.

11.3.2. GUSHIKAWA:

11.3.2.1. Arrival: Maintain 800' MSL NLT overland. Fly direct to POWERPLANT thence direct GATE 3 then to landing area as requested/directed or VFR pattern.

11.3.2.2. Departure: Maintain 800' MSL until offshore. Fly direct to GATE3 when cleared thence direct to GUSHIKAWA then IKEI.

11.3.3. MOON BEACH:

11.3.3.1. Arrival: Maintain 800' MSL NLT overland. Fly direct to MAEDA thence direct WATER TOWER then to landing area as requested/directed or VFR pattern.

11.3.3.2. Departure: Maintain 800' MSL until offshore. Fly direct to KURASHIKI DAM thence direct to MOON BEACH.

11.3.4. KIN BAY:

11.3.4.1. Arrival: Maintain 800' MSL NLT overland. Fly direct to KIN BAY thence to landing area as requested/directed or VFR pattern. Remain north of runway centerline.

11.3.4.2. Departure: Maintain 800' MSL and north of runway centerline until offshore. Fly direct to KIN BAY.

11.3.5. Night VFR Operations. Helicopter crews may conduct night VFR operations from any designated helipad. A landing and/or departure clearance will not be issued when operating to/from all helipads on the airfield during the hours of darkness, as Kadena's helipads are not lighted IAW USAF and FAA standards. Instead, the following phraseology will be used, "DEPARTURE/LANDING WILL BE AT YOUR OWN RISK, USE CAUTION (reason and additional instructions, as necessary)". This practice is also applicable to NVD operations to/from the helipads.

11.3.6. Transition to Land: Helicopters may request a transition from an instrument approach to a helipad or taxiway. Transition to land indicates the helicopter will accomplish an instrument approach to a runway then transition visually to the landing area requested/directed by TWR. Transition to land is NOT considered circling for helicopters. A request to transition to a helipad or taxiway from an instrument approach indicates cancellation of IFR flight when the request is made.

11.4. Emergency Procedures.

11.4.1. Hot/Jammed Gun Procedures. Helicopters returning to KAB with a weapon that cannot be made safe will inform the TWR and request landing on RWY 05L/23R for taxi to Warm-Up Pad 1 or Warm-Up Pad 2. The weapon will be aimed IAW [Table 5.4](#) until aircraft MX personnel can remove the weapon from the aircraft. If the gun cannot be made safe, the aircraft will be shut down at the spot and towed to HS125.

11.5. Local Helicopter Air-to-Air Refueling (HAAR) Operations.

11.5.1. All HAAR operations are conducted in uncontrolled airspace. AAR tracks are specified in the bi-lateral agreement and outlined in [Table 11.1](#).

Table 11.1. AAR Tracks.

Track Name	RVIP	RVCP	AREP	Track HDG (M)	Inadvertent MSA	IMC Type
Jolly (1)	N2630.0 E12704.0	N2635.0 E12704.0	N2710.0 E112704.0	004	2000	Non-Mts
Hawk (2)	N2615.0 E12820.0	N2615.0 E12826.5	N2615.0 E12845.0	094	2000	Non-Mts
Shark (3)	N2637.55 E12815.62	N2640.7 E12821.33	N2652.77 E12843.26	062	3700	Mts
Ie Shima (4)	N2650.96 E12755.79	N2655.05 E12704.60	N2713.98 E12823.87	047	3700	Mts
Shooter	N2629.78 E12700.31	N2634.40 E12704.60	N2700.62 E12730.09	045	2000	Mts

Notes:

1. Runs south to north, just north of W-174, used in conjunction with gun missions to W-174.
2. Runs west to east, 20 NM east of Tsuken-Jima, used in conjunction with water ops/AR requiring pilot seat swaps.
3. The primary AR track when operating with the 17 SOS. Kadena VORTAC R062/31 to 062/60.
4. North of W-174, running northeast over Aguni-Jima towards W-178 is backup track for 17 SOS.

Chapter 12

CIVIL AIRCRAFT OPERATIONS

12.1. Civil Aircraft Operations. Civil aircraft desiring to operate at KAB must comply with procedures in AFI 10-1001, *Civil Aircraft Landing Permits*; AFI 10-1002, *Joint Use Agreements for Military and Civilian Flying Facilities*, and AFI 10-1801, *Foreign Governmental Aircraft Landings at United States Air Force Installations*, as applicable.

12.2. Aero Club GND Operations.

12.2.1. Aero Club aircraft will confine GND operations to the southeast side of the airfield, unless prior coordination is made with AFM or instructed by ATC.

12.2.2. Flight Plans:

12.2.2.1. Flight plans will be filed with AMOPS a minimum of 30 minutes prior to departure for local VFR operations, and 1 hour prior to departure for cross country and IFR flights.

12.2.2.2. All flight plans will be approved and signed by an Aero Club approving authority.

12.2.3. Aero Club Ramp Restrictions. Aircraft will be shut down and towed to refueling and parking spots.

12.2.4. Engine Start/Run-Up Procedures. Aero Club aircraft must obtain approval from GND Control prior to engine start.

12.2.4.1. Run-Up Procedures. All run-ups will be accomplished on the ramp prior to taxi. Do not enter the active TWY until ready for departure and clearance is obtained from ATC.

12.2.5. Taxi. Unless otherwise directed, taxi route will be via TWY Delta to RWY 05R/23L.

12.2.6. Wake Turbulence. Pilots should be alert for jet blast from taxiing aircraft and should stay at least 500 feet behind a moving jet aircraft.

12.3. Aero Club General Flight Procedures.

12.3.1. Departures/Arrivals.

12.3.1.1. RWY 05R/L Departure. Takeoff will normally be from TWY Delta at RWY 05R/L and 23R/L.

12.3.1.2. RWY 05R/L Arrival. Aircraft will touch down after the arresting cables at Taxiway Bravo intersection. No aircraft will intentionally roll out over cables. Exit the RWY as soon as possible, preferably at TWY Delta. Taxiing over cables is permitted if required to exit the RWY.

12.3.1.3. RWY 23L/R Arrival. Aircraft will touch down after the arresting cable at TWY Echo intersection and exit the RWY as soon as possible, preferably at TWY Delta. **Note:** Use extreme caution when taxiing on AMC ramp due to operation of large aircraft and increased vehicle traffic.

12.3.2. Traffic Patterns. See [Figure A2.11](#).

12.3.2.1. Aero Club aircraft will fly rectangular traffic patterns; 360° overhead patterns are not authorized.

12.3.2.2. The downwind for all patterns is located not more than 1 NM from the RWY.

12.3.2.3. After takeoff, turn crosswind leg after climbing above 400 feet MSL and continue climb to 800 feet MSL on crosswind leg, unless otherwise specified by TWR.

12.3.2.3.1. If departing the traffic pattern, depart to the initial point on the VFR departure route to be used. TWR will direct frequency change to Aero Club aircraft when appropriate.

12.3.2.3.2. For closed patterns, the downwind lateral spacing and altitude are the same as the rectangular pattern. **Note:** Multiple VFR/IFR approaches or straight-in approaches to KAB will be based on controller workload when 18 WG aircraft are in the local patterns.

12.3.3. VFR Aero Club Arrival/Departure Routes.

12.3.3.1. Aero Club aircraft will use the following routes to enter/depart Class D airspace. The altitudes on the routes are for daytime VFR operations. Any deviations from the published arrival/departure routes must be approved by the controlling ATC agency. For nighttime VFR operations, altitudes will be assigned by APP or ARR. See [Figure A2.10](#).

12.3.4. Arrival/Departure Routings.

12.3.4.1. FUTENMA 1: VIA POINT SIERRA (KAD R-194, 3.6 NM), DIRECT TO GATE ONE, THEN AS DIRECTED BY KADENA TWR TO REQUESTED LANDING AREA. MAINTAIN 800 FEET MSL. Reverse route is flown for departures. **Note:** This route is for Aero Club aircraft transiting between Futenma and Kadena Class D airspace. Aircraft departing Kadena will contact Futenma TWR over Point Sierra, and aircraft departing Futenma will contact Kadena TWR over Point Sierra.

12.3.4.2. MOON BEACH: VIA MOON BEACH DIRECT WATER TWR (KAD R- 013, 1.2 NM), THEN AS DIRECTED BY KADENA TWR TO REQUESTED LANDING AREA. MAINTAIN 800 FEET MSL. Reverse route is flown for departures. Departures additionally will MAINTAIN 800 FEET MSL UNTIL CLEAR OF CLASS D AIRSPACE. Aircraft will remain clear of Naha PCA (Class B airspace) unless they are in radio contact with APP/ARR and have received a Naha PCA (Class B airspace) clearance.

12.3.4.3. GUSHIKAWA 3: VIA GUSHIKAWA DIRECT CHIBANA, DIRECT KADENA GATE THREE, THEN AS DIRECTED BY KADENA TWR TO REQUESTED LANDING AREA. CROSS CHIBANA AT AND MAINTAIN 800 FEET MSL. Reverse route is flown for departures. Additionally, departures will MAINTAIN 800 FEET MSL UNTIL CLEAR OF CLASS D AIRSPACE. Aircraft will remain clear of Naha PCA (Class B airspace) unless they are in radio contact with APP/ARR and have received a Naha PCA (Class B airspace) clearance.

12.3.4.4. BOLO FIVE: VIA BOLO POINT DIRECT KADENA SEAWALL, THEN AS DIRECTED BY KADENA TWR TO REQUESTED LANDING AREA. Reverse route is flown for departures. Departures additionally will MAINTAIN 800 FEET MSL UNTIL CLEAR OF CLASS D AIRSPACE. Aircraft will remain clear of Naha PCA (Class B airspace) unless they are in radio contact with APP/ARR and have received a Naha PCA (Class B airspace) clearance.

12.3.5. Aero Club aircraft will use the following procedures to request entrance into Naha PCA (Class B airspace).

12.3.5.1. Departures from Kadena. Make initial request through Kadena GND Control for a Class B clearance. Include the following information:

12.3.5.1.1. Departure route to be used.

12.3.5.1.2. Destination airport or training area.

12.3.5.1.3. Requested altitude.

12.3.5.2. Kadena GND Control will relay request to APP.

12.3.5.3. APP will issue a Class B clearance or instructions for the aircraft to “REMAIN CLEAR OF THE NAHA P-C-A.”.

12.3.5.4. Aircraft operating within the Futenma Class D Surface Area shall make request through Futenma TWR.

12.3.5.5. Airborne operations already clear of the Kadena/Futenma Class D Surface Area:

12.3.5.5.1. Make request directly with APP. Contact the appropriate sector, Naha APP South on 126.5 or APP North on 119.1. Refer to the current edition of the AIP Japan for sector information.

12.3.5.6. When flight following is requested under or outside the Naha PCA (Class B airspace), APP will provide the requested service on a workload permitting basis.

12.3.5.7. Aero Club aircraft must diligently exercise See and Avoid while operating on the VFR arrival/departure routes and while entering and exiting the Kadena/Futenma traffic patterns.

12.3.6. Aero Club Training Area. There are three training areas: White Beach (east), Nago Bay (north), and Nago Bay North (northeast). See [Figure A2.10](#).

12.4. Emergency Procedures.

12.4.1. In-Flight Transponder Failure. Aero Club aircraft with known transponder failure will notify APP of the failure prior to entering Naha PCA (Class B airspace).

12.4.2. NORDO. Aero Club aircraft experiencing in-flight radio failure will squawk code 7600 for recovery. Aircraft with radio failure will be considered an emergency aircraft and will be given priority as listed in [Section 2.23](#).

12.4.2.1. NORDO in KAB Traffic Pattern. Enter a midfield downwind and orbit until a steady green light (cleared to land) signal is received from TWR. After receiving a steady green light, enter the traffic pattern and land on RWY 05L/23R, depending on direction of traffic. Exit the RWY at TWY Delta and observe light signals from TWR for taxi instructions. Taxi to Aero Club ramp with caution.

12.5. Supervised Solo Operations.

12.5.1. Prior to a supervised solo, the instructor pilot is required to inform TWR and AMOPS of operations prior to aircraft taxi.

12.5.2. The instructor pilot is required to stay on HS 402 as much as possible while observing the student. Aero Club student pilots may drop the instructor pilot off at TWY Charlie, Delta, or Echo, next to the RWY or at the base of control tower. The instructor shall remain off TWYs as much as possible. When required, the instructor pilot may proceed onto TWYs. The instructor pilot shall not cross the RWY 05L/23R hold line and shall give way to all aircraft.

NICHOLAS B. EVANS
Brigadier General, USAF
Commander, 18th Wing

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

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KADENAABI 15-101, *Weather Support*, 29 June 2023

KAB PLAN 31-101, *Integrated Defense Plan*, 2 November 2023

KAB PLAN 91-212, *Kadena Air Base Bird/Wildlife Aircraft Strike Hazard (BASH) Plan*, February 2021

Prescribed Forms

None

Adopted Forms

DD Form 1801, *International Flight Plan*, DoD

AF Form 483, *Certificate of Competency*

AF Form 487, *Generator Operating Log (Inspection Checklist)*

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AF Form 853, *Air Force Wildlife Strike Report*

AF Form 4327, *ARMS Flight Authorization (FA)*

Abbreviations and Acronyms

AAR—Air-to-Air Refueling

AAS—Aircraft Arresting System

ACA—Approach Control Area

ACC—Area Control Center

AER—Approach End of Runway

AFE—Aircrew Flight Equipment

AFFSA/A3—AF Flight Standards Agency Airfield Operations Directorate (Office Symbol)

AFI—Air Force Instruction

AFM—Airfield Manager

AFPD—Air Force Policy Directive

AFSOC—Air Force Special Operations Command

AFFSA—Air Force Flight Standards Agency

AFM—Airfield Manager

AFMAN—Air Force Manual
AFRIMS—Air Force Records Information Management System
AFSOC—Air Force Special Operations Command
AGE—Aircraft GND Equipment
AGL—Above GND Level
AICUZ—Air Compatible Use Zone
AIP—Aeronautical Information Publication
ALAN—Aircraft Landing Authorization Number
ALTRV—Altitude Reservation
AMC—Air Mobility Command
AMCC—Air Mobility Command and Control
AMOI—Airfield Management Operating Instruction
AMOPS—Airfield Management Operations
AMS—Air Mobility Squadron
AO—Airfield Operations
AOB—Airfield Operations Board
AOF—Airfield Operations Flight
AOF/CC—Airfield Operations Flight Commander
APP—Naha Approach Control
ARR—Kadena Arrival Control
ARRCF—Kadena Arrival Control Contingency Facility
ASR—Airport Surveillance Radar
ATC—Air Traffic Control
ATCAA—Air Traffic Control Assigned Airspace
ATCALS—Air Traffic Control and Landing Systems
ATIS—Automatic Terminal Information Service
AWACS—Airborne Warning and Control System
BAK—Barrier Arresting Kit
BASH—Bird and Wildlife Aircraft Strike Hazard
BDOC—Base Defense Operations Center
BO—Base Order
BP—Bolo Point

BSTO—Button Short Takeoff
BWC—Bird Watch Condition
CAT—Category
CCTLR—Chief Controller
CE—Civil Engineering
CES—Civil Engineering Squadron
CFAO—Commander Fleet Activities Okinawa
CFR—Code of Federal Regulations
CMA—Controlled Movement Area
CME—Combat Mobility Element
COMMARFORPAC—Commander, U.S. Marine Forces Pacific
COMPACFLT—Commander, U.S. Pacific Fleet
CONEM—Concept of Employment
COR—Contracting Officer Representative
CP—Command Post
CTOL—Conventional Takeoff or Landing
CTR—Control Traffic Region
CVL—Creeping Vertical Landing
DAFI—Department of Air Force Instruction
DAFM—Deputy Airfield Manager
DALR—Digital Audio Legal Recording
DASR—Digital Airport Surveillance Radar
DBIDS—Defense Biometric Identification System
DCAST—Data Collection and Scheduling Tool
DER—Departure End of Runway
DME—Distance Measuring Equipment
DoD—Department of Defense
DV—Distinguished Visitor
DZ—Drop Zone
DZSO—Drop Zone Safety Officer
EAL—Entry Authority Listing
ECP—Entry Control Point

ECS—Environmental Control System
EDCT—Expected Departure Clearance Time
ELT—Emergency Locator Transmitter
EOD—Explosive Ordnance Disposal
EOR—End of RWY
EPU—Emergency Power Unit
ETA—Estimated Time of Arrival
ETVS—Enhanced Terminal Voice Switch
FAA—Federal Aviation Administration
FAA JO—Federal Aviation Administration Joint Order
FAF—Final Approach Fix
FARP—Forward Air Refueling Point
FCF—Functional Check Flight
FCIF—Flight Crew Information File
FCLP—Field Carrier Landing Practice
FL—Flight Level
FLIP—Flight Information Publication
FM—Frequency Modulation
EPSS—Enroute Patient Staging System
FOD—Foreign Object Debris or Damage
FOUO—For Official Use Only
FS—Fighter Squadron
FSS—Force Support Squadron
GCA—Ground Control Approach (Futenma)
GCI—Ground Control Intercept
GE—Ground Emergency
GH—Global Hawk
GHOC—GH Operations Center
GND—Ground
GOJ—Government of Japan
GPS—Global Positioning Satellite
HAAR—Helicopter Air-to-Air Refueling

HATR—Hazardous Air Traffic Report
HIRL—High Intensity RWY Lights
HHQ—Higher Headquarters
HS—Hardstand
HQ—Headquarters
IAF—Initial Approach Fix
IAW—In accordance with
ICAO—International Civil Aviation Organization
ID—Integrated Defense
IFE—In-Flight Emergency
IFF—Identify Friend or Foe
IFG—In Flight Guide
IFR—Instrument Flight Rules
ILS—Instrument Landing System
IMC—Instrument Meteorological Conditions
IMST—Installation Mission Sustainment Team
INS—Inertial Navigation System
INST—Instrument
JASDF—Japan Air Self Defense Force
JCAB—Joint Civil Aeronautics Bureau
JCS—Joint Chiefs of Staff
JET—Joint Environment Toolkit
JO—Joint Order
JOSC—Joint Okinawa Scheduling Cell
JOTRC—Joint Okinawa Training Range Complex
KAB—Kadena Air Base
KAD—Kadena VORTAC
KADENAOI—Kadena Airfield Operating Instruction
KADENAABSUP—Kadena Air Base Supplement
KIAS—Knots Indicated Airspeed
LAO—Local Area Orientation
LIMFACS—Limiting Factors

LMR—Land Mobile Radio
LOA—Letter of Agreement
LOP—Local Operating Procedure
LSS—Landing Site Supervisor
LZCO—Landing Zone Control Officer
MAJCOM—Major Command
MAROPS—Maritime Operations
MARSA—Military Assumes Responsibility for Separation of Aircraft
MCAS—Marine Corps Air Station
MDA—Minimum Descent Altitude
MDG—Medical Group
MDS—Mission Design Series
MDU—Maintenance Dehumidifier Units
METAR—Meteorological Aviation Report
MOCC—Maintenance Operations Control Center
MSL—Mean Sea Level
MTS—Mountainous
MUNS—Munitions
MWLK—Marine Wing Liaison Kadena
MX—Maintenance
NAVAID—Navigational Aid
NAAM—NCOIC Airfield Automation Manager
NAMO—NCOIC Airfield Management Operations
NCOIC—Non-Commissioned Officer In-Charge
NGA—National Geospatial Intelligence Agency
NLT—No later than
NM—Nautical Miles
NORDO—No Radio
NOTAM—Notice to Airmen
NVD—Night Vision Device
ODB—Okinawa Defense Bureau
OI—Operating Instruction

OG—Operations Group
OGV—Operations Group Standardization and Evaluation (Office Symbol)
OPLAN—Operation Plan
OPR—Office of Primary Responsibility
OPS—Operations
OPSEC—Operations Security
ORM—Operational Risk Management
OSA—Airfield Operations Flight Commander/Staff (Office Symbol)
OSAA—Operations Support Airfield Management (Office Symbol)
OSAM—Operational Support RAWS (Office Symbol)
OSAR—Operations Support Airfield Radar Approach Control (Office Symbol)
OSAT—Operations Support Airfield TWR (Office Symbol)
OSAV—Operations Support Airfield Training (Office Symbol)
OSI—Office of Special Investigations
OSS—Operations Support Squadron
PAA—Pacific, Antarctica, and Australia
PACAF—Pacific Air Force
PAPI—Precision Approach Path Indicators
PAR—Precision Approach Radar
PAS—Protective Aircraft Shelter
PCA—Positive Control Area
PCAS—Primary Crash Alarm System
PEX—PATRIOT EXCALIBUR
PFO—Precautionary Flameout Procedures
PL—Protection Level
PM—Preventive Maintenance
PMA—Personal Model Aircraft
PMI—Preventive MX Inspection
POC—Point of Contact
POFZ—Precision Obstacle Free Zone
PPR—Prior Permission Required
RAPCON—Radar Approach Control

RAWS—Radar, Airfield, and Weather Systems
RCR—Runway Condition Report
RDS—Records Disposition Schedule
REIL—RWY End Identifier Lights
RQS—Rescue Squadron
RSC—Runway Surface Condition
RS—Reconnaissance Squadron
RSRS—Reduced Same RWY Separation
RT—Response Time
RVIP—Air Refueling Initiation Point
RVSM—Reduced Vertical Separation Minimum
RVTO—Rolling Vertical Takeoff
RWY—Runways
RWR—Radar Warning Receiver
RWY—Runways
SA—Service Apron
SALS—Simplified Approach Lighting System
SALTRV—Stationary Altitude Reservation
SAR—Search and Rescue
SARM—Squadron Aviation Resource Management
SC—Senior Controller
SCA—Self-Contained Approaches
SCN—Secondary Crash Net
SCO—18 CS Installation Spectrum Manager
SEF—Flight Safety
SETA—Southeast Training Area
SFA—Single Frequency Approach
SFC—Surface
SFL—Sequenced Flashing Lights
SFO—Simulated Flame Out
SFS—Security Forces Squadron
SI—Straight In

SIAP—Standard Instrument Approach Procedures
SIF—Selective Identification Feature
SII—Special Interest Item
SL—Slow Landing
SM—Statute Miles
SNG FREQ—Single Frequency
SOF—Supervisor of Flying
SOS—Special Operations Squadron
SOW—Special Operations Wing
SSS—Terminal Equipment
SSTO—Stick Short Takeoff
STARS—Standard Terminal Automation Replacement System
STOL—Short Takeoff and Landing
STU—Secure Telephone Unit
SVFR—Special Visual Flight Rules
TA—Transient Alert
TACAN—Tactical Air Navigation
TAD—Temporary Assigned Duty
TAPS—Trajectorized Airport Traffic Data Processing System
TCA—Terminal Control Area
TCAS—Terminal Collision Avoidance System
TCCOR—Tropical Cyclone Condition of Readiness
TDY—Temporary Duty
TERPS—Terminal Instrument Procedure Specialist
TR—Transient Ramp
TRSA—Terminal Radar Service Area
TSP—Theater Support Package
TWR—Tower
TWY—Taxiway
UAS—Unmanned Aerial Systems
UFC—Unified Facilities Criteria
UFR—Upper Fighter Ramp

UHF—Ultra High Frequency

UPS—Uninterrupted Power Supply

USN—U.S. Navy

VFR—Visual Flight Rules

VHF—Very High Frequency

VL—Vertical Landing

VMC—Visual Meteorological Conditions

VMGR—Marine Air Refuel and Transport Squadron

VOR—VHF Omnidirectional Radio Range

VORTAC—VHF Omnidirectional and Radio Range Tactical Air Navigation Aid

VSTOL—Vertical and/or Short Take-Off and landing

VTOL—Vertical Take-Off and Landing

WG—Wing

WGI—Wing Instruction

WIT—Wing Inspection Team

WPDET—Wing Patrol Detachment

WS—Watch Supervisor

WTC—Wing Tip Clearance

WX—Weather

Attachment 2 DIAGRAMS

Figure A2.1. Airfield Diagram.

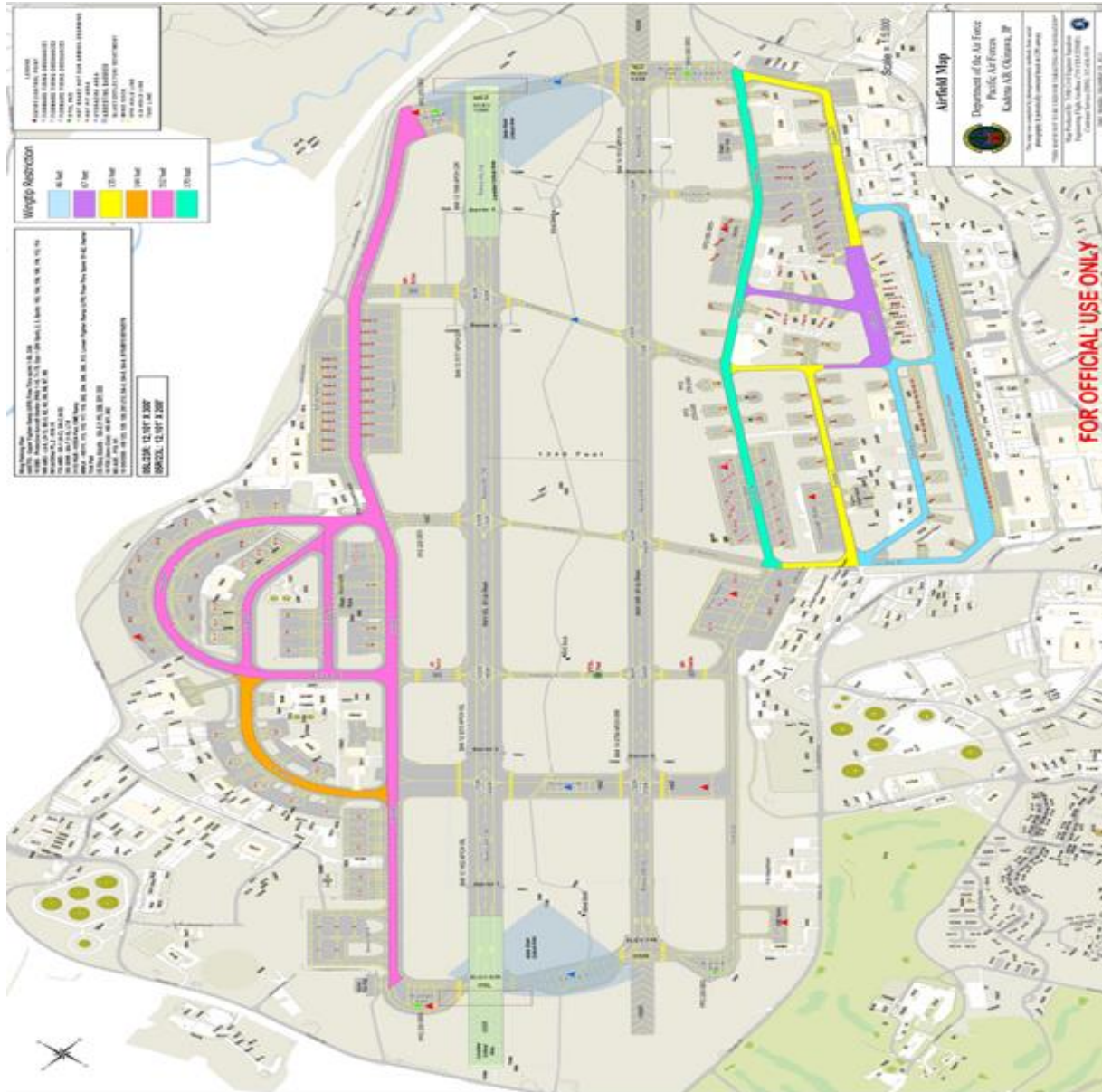


Figure A2.2. Controlled Movement Area (CMA).

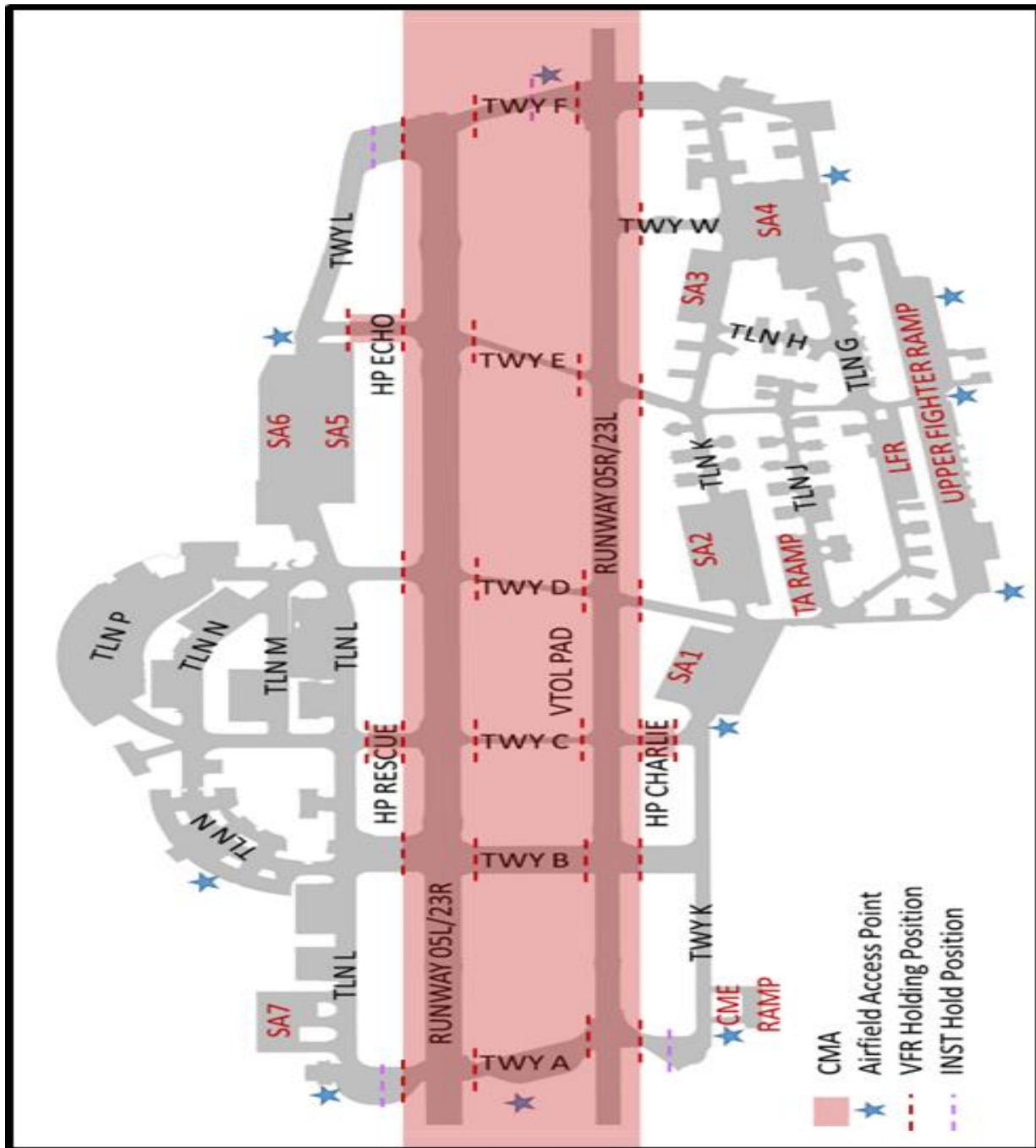


Figure A2.3. Naha PCA (Class B Airspace).

那覇特別管制区
Naha Positive Control Area(Class B)

NAME	LATERAL LIMITS	UPPER LIMIT (AMSL) LOWER LIMIT (AMSL) M(ft)	UNIT PROVIDING SERVICE	REMARKS
1	2	3	4	5
那覇 Naha	下記に示される区域 The area shown below		1. 那覇VORTACのR050及びR230の線の北西で飛行する航空機: Naha APP 119.1MHz/335.8MHz 1. Aircraft operating northwest of the Naha VORTAC 050/230 radials: Naha APP 119.1MHz/335.8MHz 2. 那覇VORTACのR050及びR230の線の南東で飛行する航空機: Naha APP 126.5MHz/258.3MHz 2. Aircraft operating southeast of the Naha VORTAC 050/230 radials: Naha APP 126.5MHz/258.3MHz	当該空域を飛行しようとする航空機は、入域前に那覇アプローチに連絡し、コールサイン、現在位置、高度及び意図を通報し指示を受けること。 (当該空域と重複する那覇管制圏を飛行しようとする航空機に対しては、那覇アプローチから当該管制圏内の飛行に係る指示が発出される。) All aircrafts requiring transit of Naha Positive Control Area must call Naha Approach prior to the point of entry to provide aircraft identification, position, altitude and intention. (Pilots intending to fly in the portion of the overlapping Naha CTR with Naha PCA should maintain contact with Naha Approach for ATC clearances and instructions.)

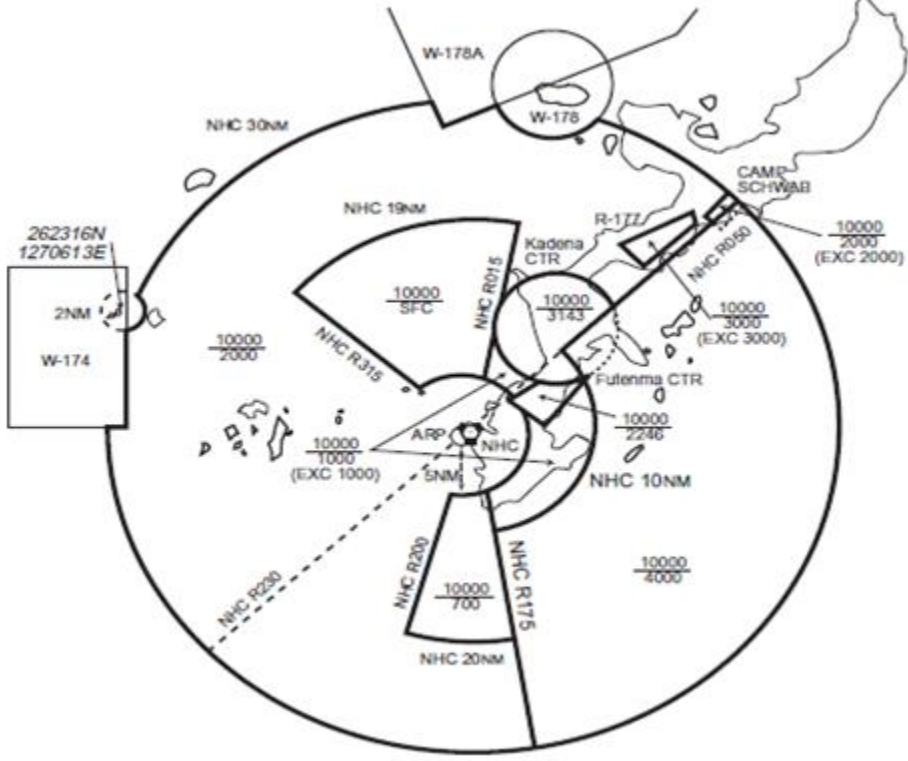
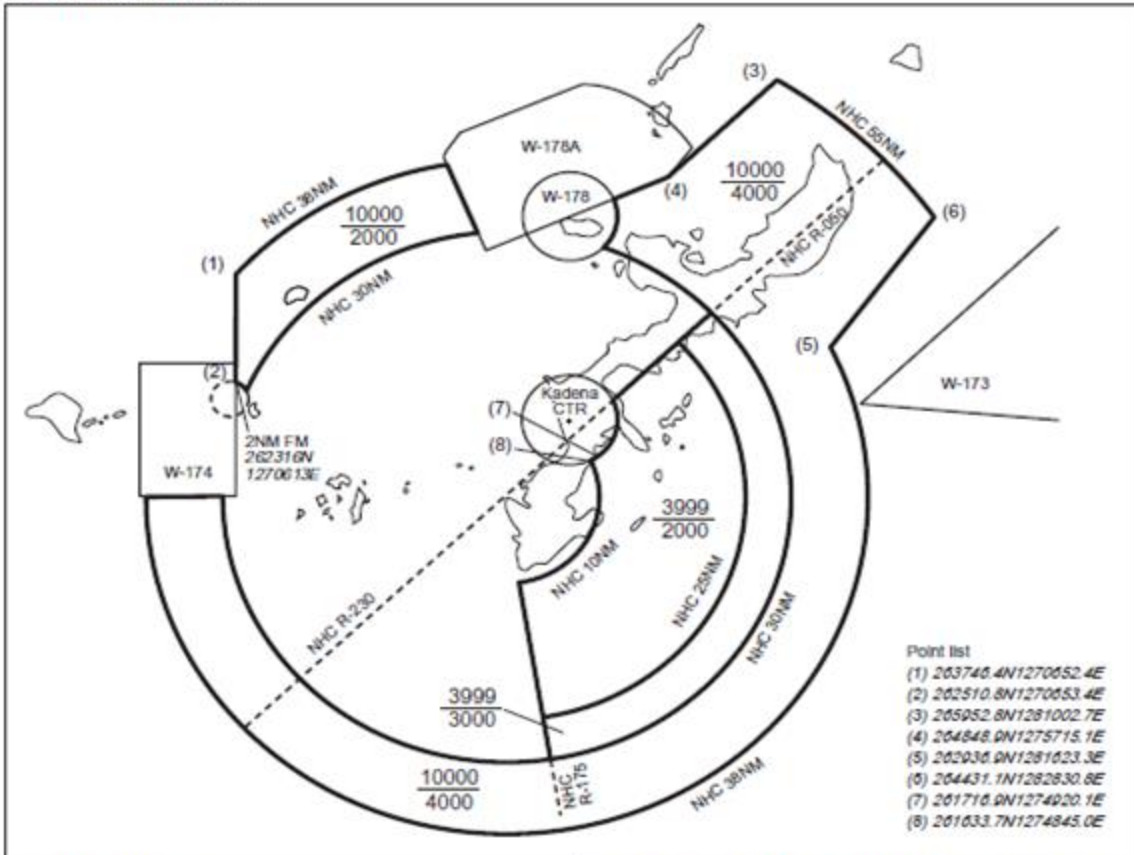
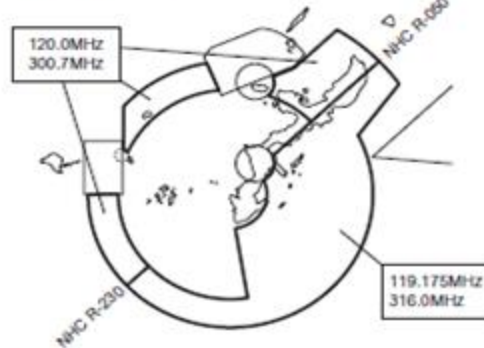


Figure A2.4. Naha Terminal Control Area.

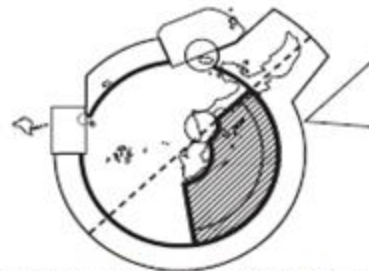
那覇ターミナルコントロールエリア
Naha Terminal Control Area



NAHA TCA FREQUENCY



Naha Terminal Control Area and Naha Positive Control Area



那覇ターミナルコントロールエリアは、太線部及び網掛け部において那覇特別管制区と接している。
Naha Terminal Control Area borders on Naha Positive Control Area on bold lines and hatched area.

注意事項

1. パイロットは、那覇ターミナルコントロールエリアと那覇特別管制区の境界に留意し、那覇特別管制区に許可なく入域しないこと。
2. 那覇特別管制区への入域を要求する場合、パイロットは那覇TCAにその旨を通報し指示に従うこと。

CAUTION

1. Pilots shall pay attention to the boundary between Naha Terminal Control Area and Naha Positive Control Area, and shall remain outside Naha Positive Control Area unless obtained clearance.
2. When intending to enter Naha Positive Control Area, pilots shall inform Naha TCA of their intention, and shall follow the instruction.

Figure A2.5. Naha Approach Airspace.

那覇進入管制区
Naha Approach Control Area

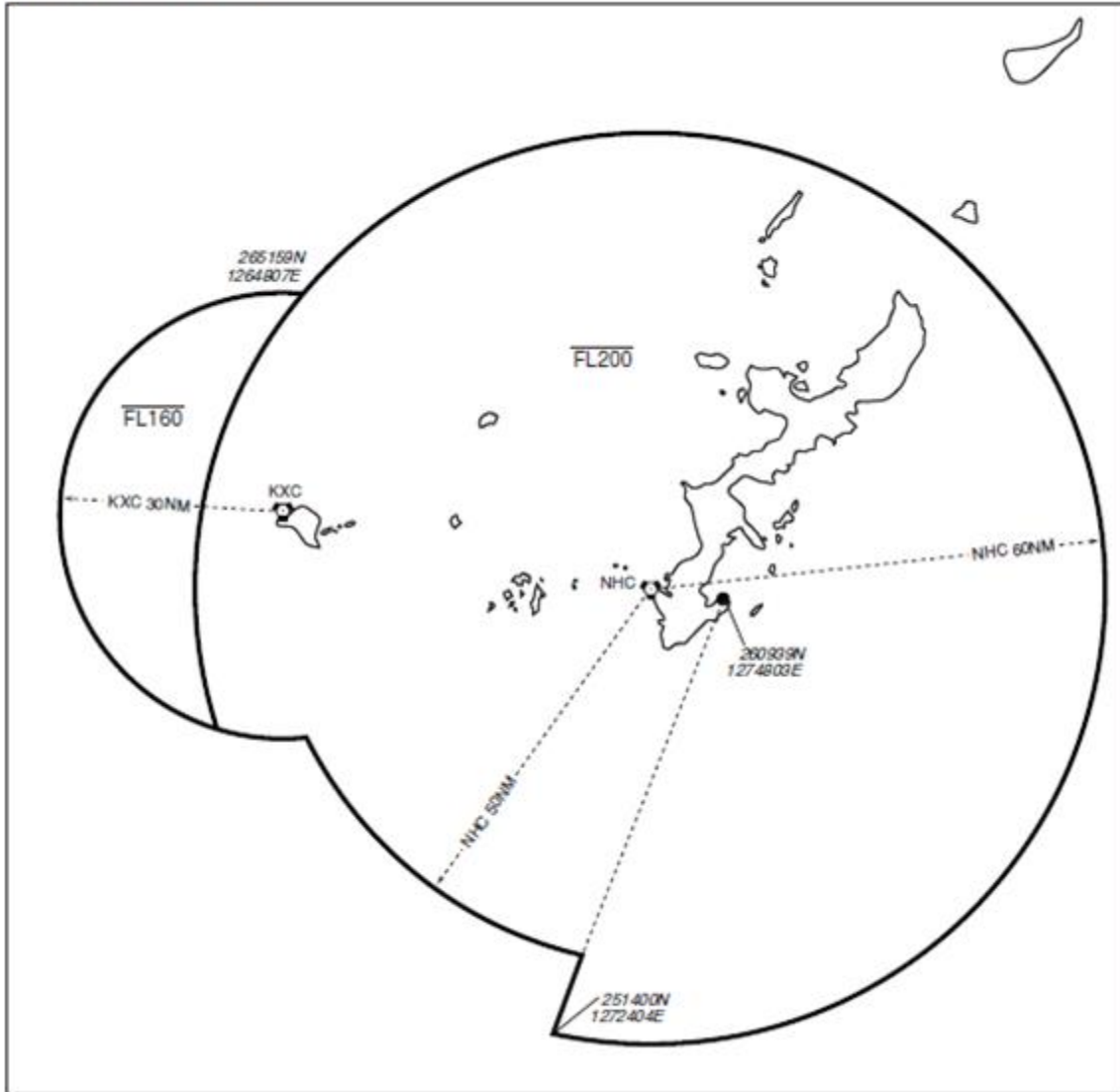


Figure A2.6. Okinawa Class D Airspace (Class D Surface Area).

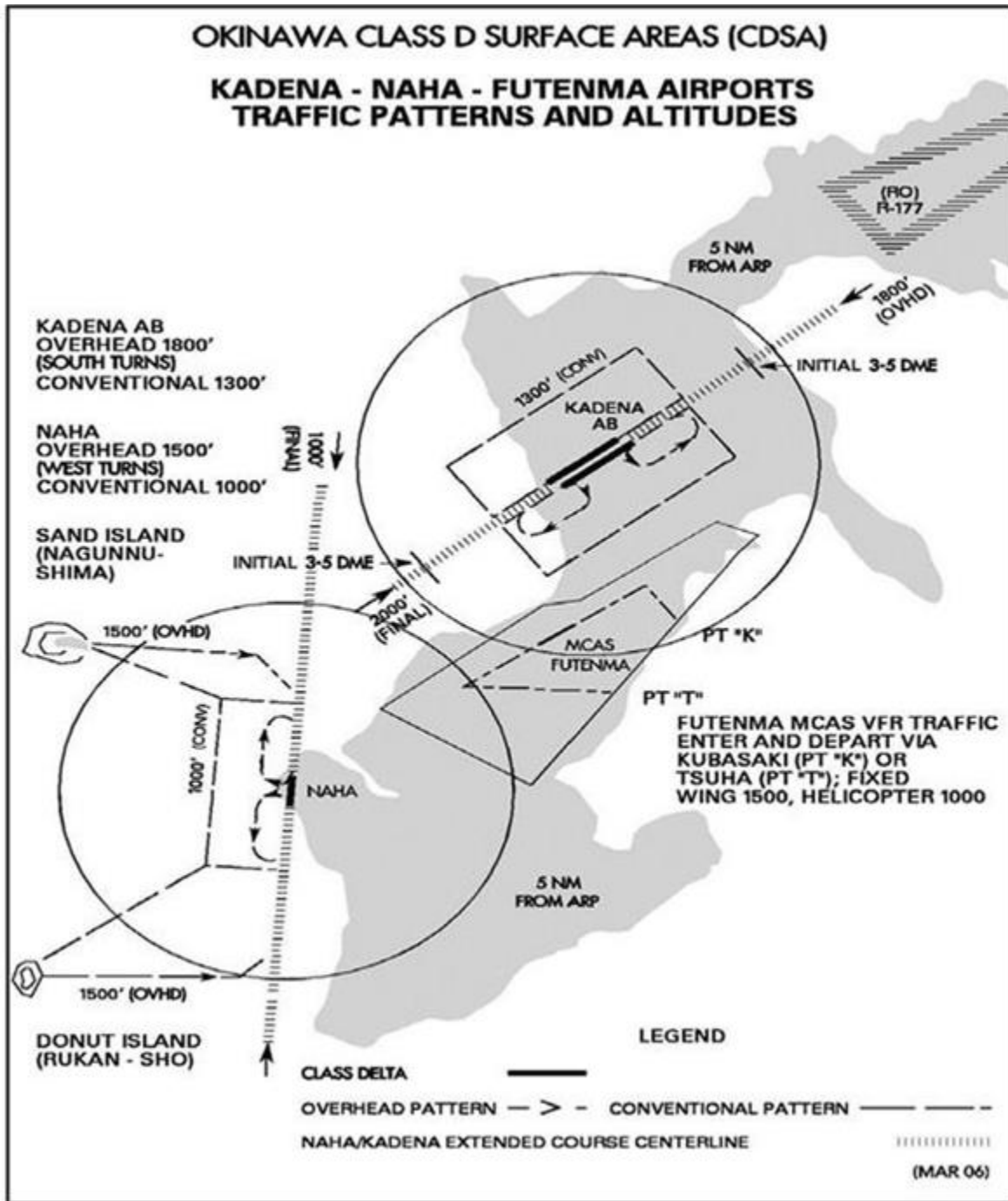


Figure A2.8. VFR Arrival/Departure Routes.

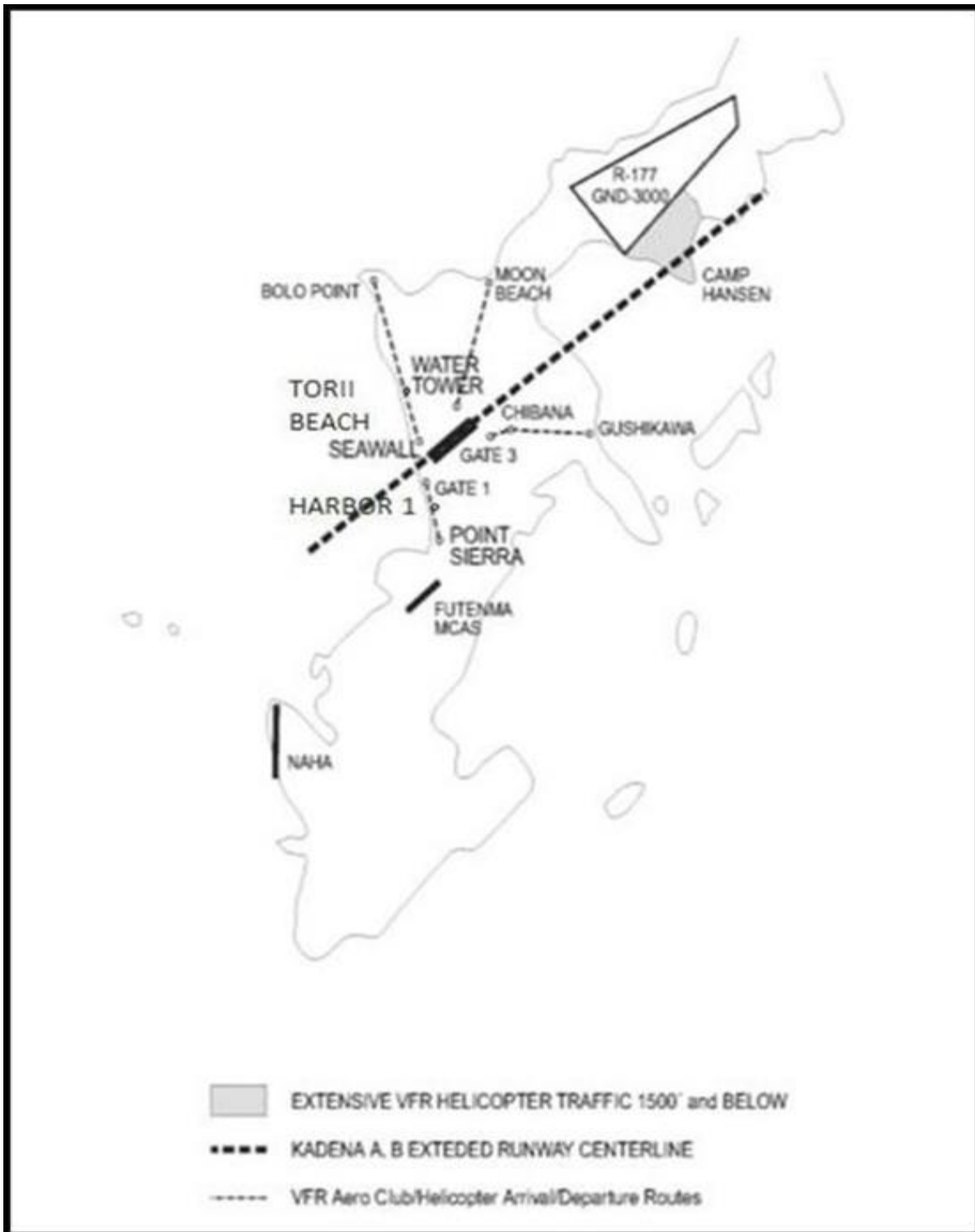


Figure A2.10. Aero Club Training Areas.

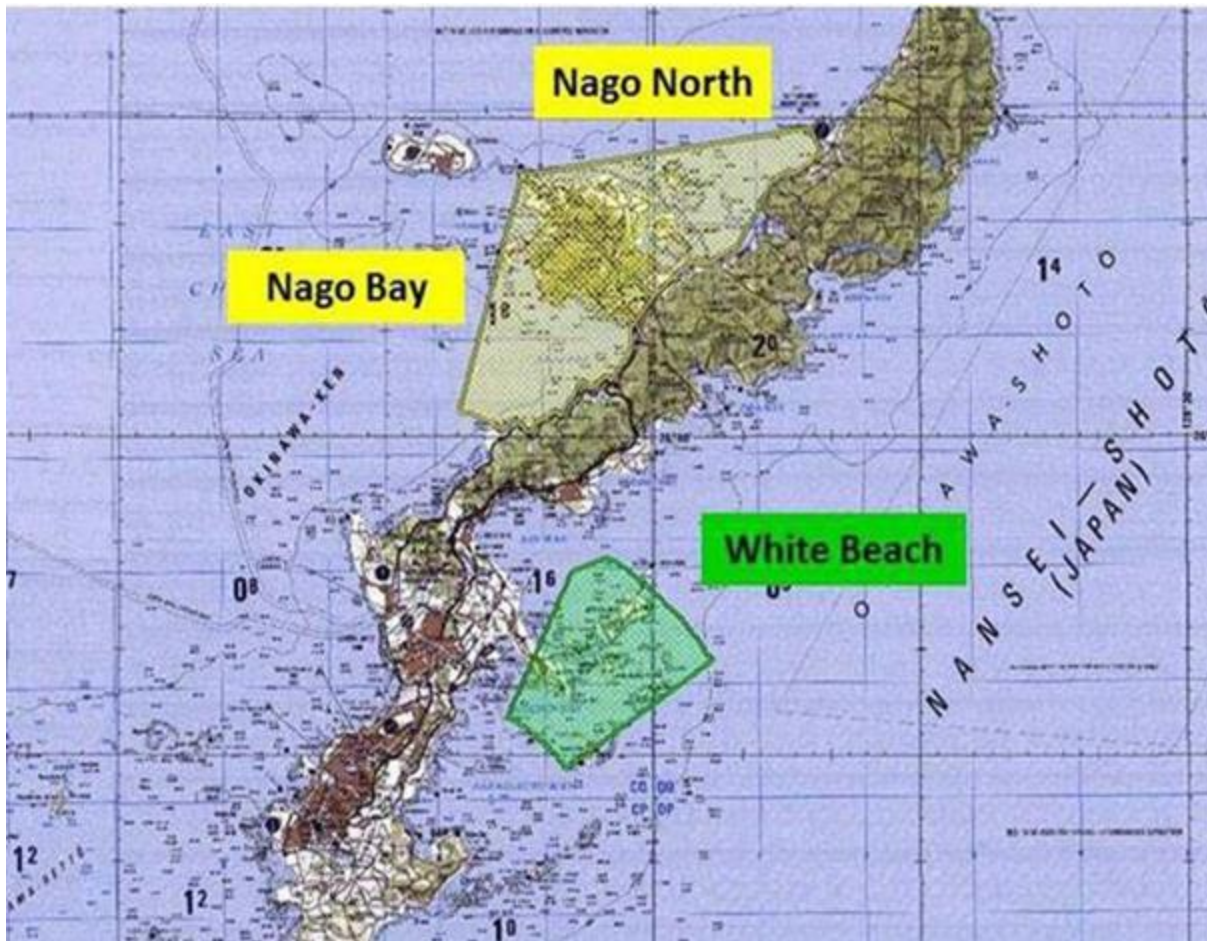


Figure A2.11. Rectangular and Helicopter/Aero Club Patterns.

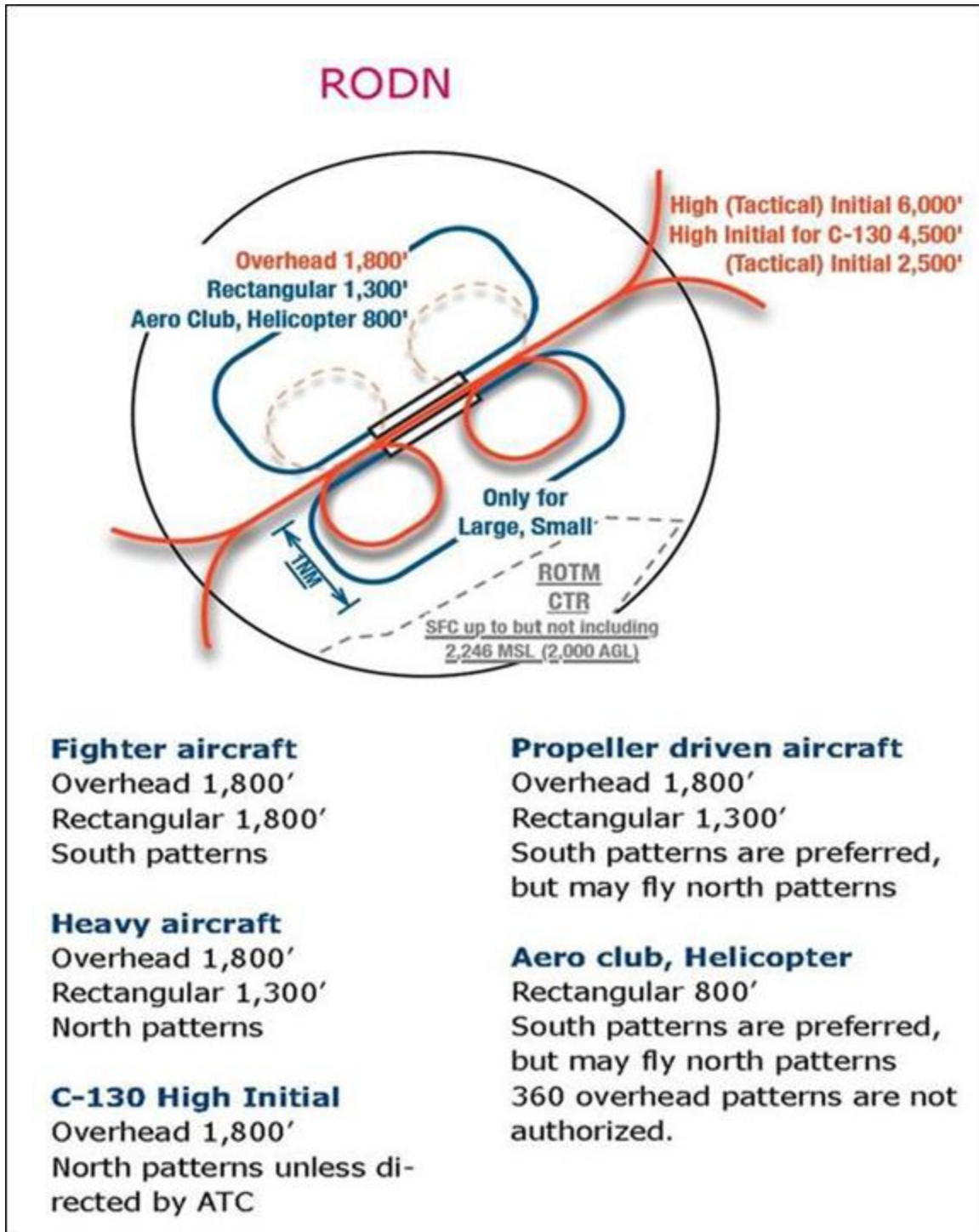


Figure A2.12. Kadena Overhead Procedures.

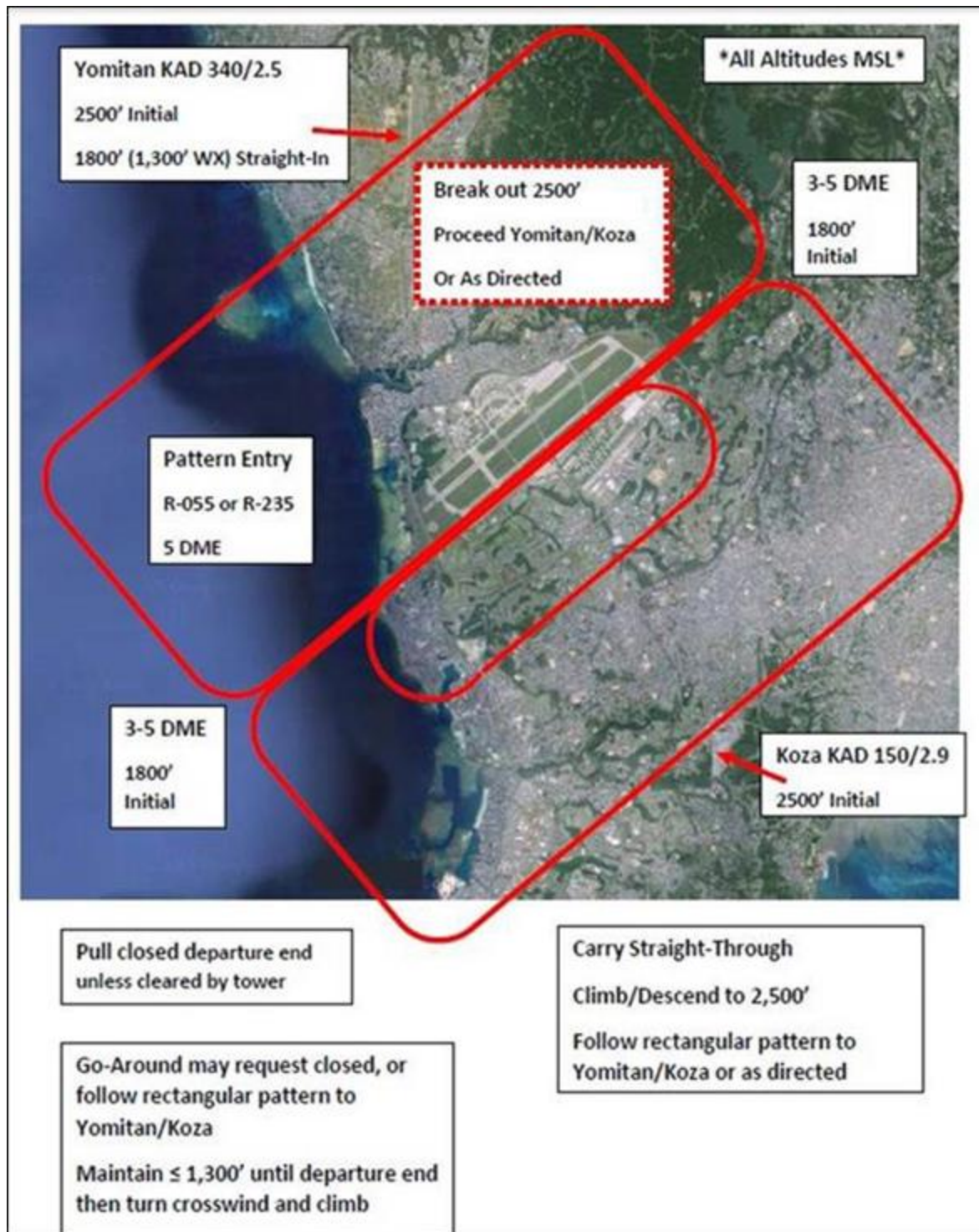


Figure A2.13. Kadena Local Area – Warning Areas & ALTRVs.

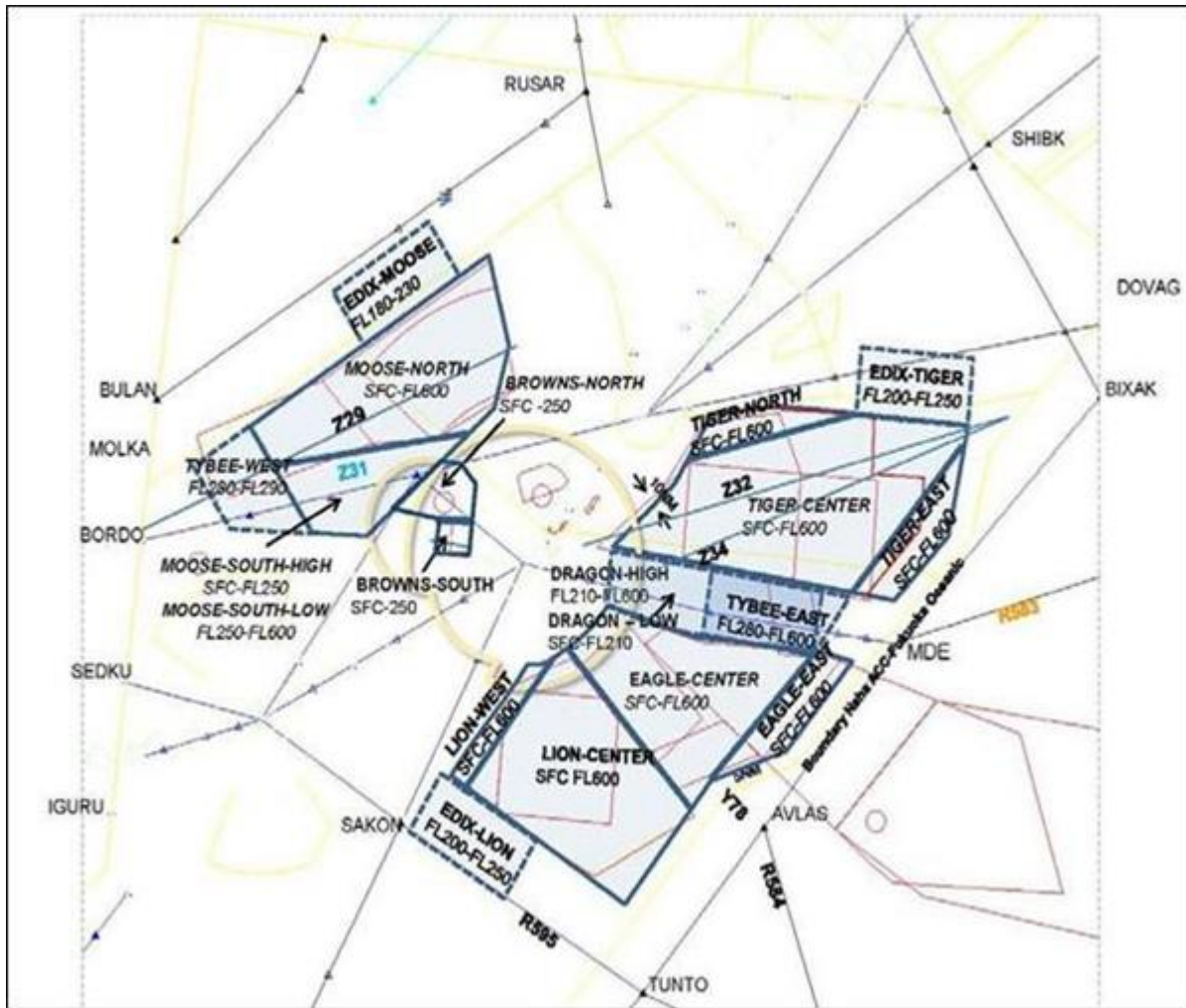


Table A2.1. JOTRC S-ALTRV Coordinates and Altitudes.

NAME (ID)	Lateral Limits	Altitudes
MOOSE – NORTH	The area bounded by straight lines connecting following points: (1)265833N/1245721E (2)282843N/1270315E (3)274812N/1271916E (4)271755N/1271315E (5)270503N/1265939E (6)264143N/1251240E to the point of origin (1).	SFC – FL600
MOOSE – SOUTH –LO	The area bounded by straight lines connecting following points: (6)264143N/1251240E (5)270503N/1265939E (8)261603N/1260835E (7)261420N/1253719E to the	SFC – FL250
MOOSE – SOUTH – HI	point of origin (6).	FL250 – FL600
TIGER – CENTER	The area bounded by straight lines connecting following points: (9)262209N/1283442E (10)264724N/1290402E (16)273846N/1303351E (12)273835N/1305554E (13)273741N/1320215E (14)272637N/1315941E (15)261056N/1305036E to the point of origin (9).	SFC – FL600
TIGER – WEST	The area bounded by straight lines connecting following points: (10)264724N/1290402E (18)272807N/1293023E (16)273846N/1303351E to the point of origin (10).	SFC – FL600
TIGER – EAST	The area bounded by straight lines connecting following points: (14)272637N/1315941E (21)264746N/1315044E (20)262726N/1313418E (19)260830N/1311653E (15)261056N/1305036E to the point of origin (14).	SFC – FL600
EAGLE – CENTER	The area bounded by straight lines connecting following points, the line connecting point (29) to (22) is the minor arc with a radius of 50NM of NahaVORTAC. (22)255335N/1283000E (23)254837N/1290219E (24)254415N/1292552E (25)254445N/1302413E (26)254423N/1303001E (27)243950N/1293955E (28)242328N/1292737E (29)253107N/1280953E	SFC – FL600
EAGLE – EAST	The area bounded by straight lines connecting following points: (26)254423N/1303001E (32)254239N/1305528E (31)250914N/1302929E (30)245628N/1301753E (27)243950N/1293955E to the point of origin (26).	SFC – FL600
LION – CENTER	The area bounded by straight lines connecting following points, the line connecting point (33) to (29) is the minor arc with a radius of 50NM of NahaVORTAC. (29)253107N/1280953E (28)242328N/1292737E (35)234201N/1285647E (34)242247N/1271822E (33)252745N/1280336E	SFC – FL600
LION – WEST	The area bounded by straight lines connecting following points, the line connecting point (37) to (33) is the minor arc with a radius of 50NM of Naha VORTAC. (33)252745N/1280336E (34)242247N/1271822E (63)242755N/1270543E (37)252234N/1274335E	SFC – FL600
EDIX – TIGER	The area bounded by straight lines connecting following points: (38)281217N/1305619E (39)281121N/1320301E (13)273741N/1320215E (12)273835N/1305554E to the point of origin (38).	FL200 – FL250

EDIX – LION	The area bounded by straight lines connecting following points: (36)242908N/1270242E (40)240502N/1280139E (41)233416N/1274637E (42)235817N/1264752E to the point of origin (36).	FL200 – FL250
EDIX – MOOSE	The area bounded by straight lines connecting following points: (43)284131N/1262540E (44)281732N/1264719E (45)274036N/1255521E (46)280412N/1253353E to the point of origin (43).	FL180 – FL230
TYBEE – EAST	The area bounded by straight lines connecting following points: (59)261801N1292547E (24)254415N/1292552E (25)254445N/1302413E (26)254423N/1303001E (60)261234N1303107E to the point of origin (59).	FL280 – FL290 (Per TAB-D)
TYBEE – WEST	The area bounded by straight lines connecting following points: (48)263705N1242812E (1)265833N1245721E (7)261420N1253719E (47)261144N1245118E to the point of origin (48).	FL280 – FL290 (Per TAB-D)
BROWNS – NORTH	The area bounded by straight lines connecting following points: (53)262714N1264754E (54)263038N1264326E (55)263305N1262613E (49)265138N1264536E (50)265131N1270131E (51)264440N1270652E (52)262714N1270653E to the point of origin (53).	SFC – FL250
	The area bounded by straight lines connecting following points: (53)262714N1264754E (58)262939N1262239E (55)263305N1262613E (54)263038N1264326E to the point of origin (53).	5000ft – FL250
BROWNS – SOUTH	The area bounded by straight lines connecting following points: (53)262714N1264754E (52)262714N1270653E (56)261214N1270653E (57)261214N1264754E to the point of origin (53).	5000ft – FL250
DRAGON	The area bounded by straight lines connecting following points: (9)262209N/1283442E (15)261056N/1305036E (26)254423N/1303001E (25)254445N/1302413E (24)254415N/1292552E (23)254837N/1290219E (22)255335N/1283000E to the point of origin (9).	FL210 – FL600 (*)
(*) Altitude shall be determined with coordination among the parties.		

Table A2.2. JOTRC Warning Airspace Coordinates.

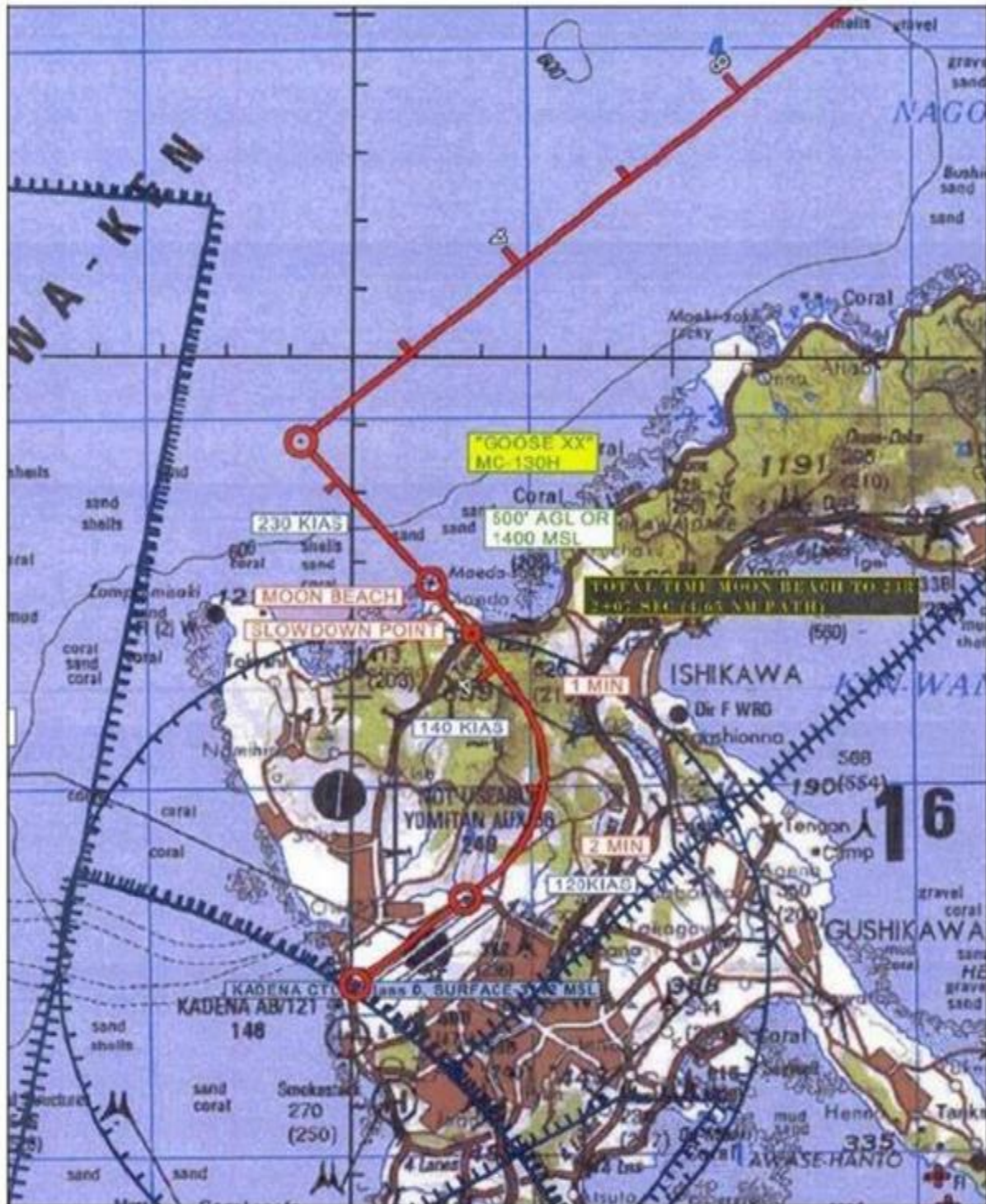
W-172 (COTTON TAIL)				
AIRSPACE BOUNDRIES	N25 14 / E127 35	N24 16 / E127 35	N24 16 / E128 40	N25 05 / E128 40
	N25 14 / E128 30			
W-173A (KATANA)				
AIRSPACE BOUNDRIES	N26 53 / E128 55	N 27 06 / E129 10	N27 06 / E 130 15	N27 33 / E130 00
	N27 29 / E129 35	N27 24 / E129 15		
W-173E				
AIRSPACE BOUNDRIES	N26 19 / E129 10	N26 14 / E130 15	N27 06 / E130 15	N27 06 / E129 10
W-173F				
AIRSPACE BOUNDRIES	N26 14 / E130 15	N26 10 / E131 00	N27 06 / E131 00	N27 06 / E130 15
W-179				
AIRSPACE BOUNDRIES	N27 21 / E127 00	N27 32 / E127 26	N28 17 / E127 08	N28 01 / E126 30
	N27 30 / E125 57	N27 04 / E126 39	N27 05 / E126 43	
W-185				
AIRSPACE BOUNDRIES	N25 48 / E129 02	N25 44 / E 129 26	N25 44 / E130 11	N25 43 / E130 36
	N25 41 / E130 45	N24 53 / E130 04	N25 41 / E128 52	
BARNEY ALTRV				
AIRSPACE BOUNDRIES	N26 59 / E126 06	N27 24 / E125 53	N26 52 / E124 25	N26 23 / E124 40
BUBBA ALTRV				
AIRSPACE BOUNDRIES	N26 59 / E126 06	N27 24 / E125 53	N26 52 / E124 25	N26 23 / E124 40
CONEY ALTRV				
AIRSPACE BOUNDRIES	N25 26 / E131 42	N25 15 / E133 45	N23 37 / E133 45	N23 35 / E131 40
	N24 32 / E130 48			
DOWNUNDER ALTRV				
AIRSPACE BOUNDRIES	N25 28 / E128 16	N24 45 / E129 02	N25 09 / E129 28	N25 50 / E128 41
FLATTOP ALTRV				
AIRSPACE BOUNDRIES	N27 06 / E131 30	N27 06 / E132 37	N26 06 / E132 37	N26 06 / E131 30

GECKO ALTRV				
AIRSPACE BOUNDRIES	N25 42 / E130 09	N26 15 / E130 00	N26 13 / E130 25	N2542 E130 35
GOLD ALTRV				
AIRSPACE BOUNDRIES	N25 10 / E128 35	N25 20 / E129 22	N25 18 / E128 26	N25 29 / E129 11
INDIA ALTRV				
AIRSPACE BOUNDRIES	N24 23 / E128 52	N25 26 / E131 42	N25 13 / E132 31	N24 00 / E133 00
	N24 00 / E131 23	N24 07 / E131 11		
IDAMAS ALTRV				
AIRSPACE BOUNDRIES	N30 15 / E129 05	N30 05 / E129 25	N28 37 / E128 26	N28 47 / E128 06
MOBILE 9 EAST				
AIRSPACE BOUNDRIES	N25 04 / E128 40	N24 24 / E125 27	N24 00 / E128 40	
MOBILE 9 SOUTH				
AIRSPACE BOUNDRIES	N24 16 / E127 35	N24 16 / E128 40	N24 00 / E 128 40	N23 52 / E128 33
SHOOTER ALTRV				
AIRSPACE BOUNDRIES	N25 41 / E130 45	N25 26 / E 131 42	N24 23 / E130 48	N24 53 / E130 04
SHOVEL ALTRV				
AIRSPACE BOUNDRIES	N28 28 / E128 55	N27 32 / E127 26	N27 02 / E126 26	N26 59 / E126 06
	N27 18 / E125 24			
SILVER ALTRV				
AIRSPACE BOUNDRIES	N26 22 / E128 55	N26 21 / E128 45	N25 47 / E128 56	N25 46 / E129 07
STOUT ALTRV				
AIRSPACE BOUNDRIES	N26 10 / E131 00	N26 10 / E 131 30	N27 06 / E131 30	N27 06 / E131 00
TRINITY ALTRV				
AIRSPACE BOUNDRIES	N27 33 / E129 59	N27 33 / E 130 59	N27 06 / E130 59	N27 06 / E130 14

Figure A2.16. Runway 5 Bolo Point SCA for MC-130 Aircraft (GOOSE).



Figure A2.17. Runway 23 Bolo Point SCA for MC-130 Aircraft.



Attachment 3

SIMULATED FLAME OUT /PRECAUTIONARY FLAMEOUT DIAGRAMS AND COMMUNICATIONS

A3.1. Standard Overhead SFO/PFO Radio Communications:

A3.1.1. Aircraft: “APPROACH/ARRIVAL/TWR, [CALL SIGN], “REQUEST OVERHEAD SFO/PFO AT (altitude)”, if requested with TWR proceed to [paragraph A3.1.4](#) below.

A3.1.2. APP/ARR: [CALL SIGN], “ROGER ON REQUEST WITH TWR.”

A3.1.3. Aircraft: “TWR, [CALL SIGN], “REQUEST OVERHEAD SFO/PFO.”

A3.1.4. TWR: “[CALL SIGN], REPORT HIGH KEY RWY [NUMBER].”

A3.1.5. Aircraft: “[CALL SIGN], HIGH KEY RWY [NUMBER].”

A3.1.6. TWR: “[CALL SIGN], REPORT LOW KEY” or “[CALL SIGN], HOLD AT HIGH KEY.”

A3.1.7. Aircraft:

A3.1.7.1. If approved: “[CALL SIGN], LOW KEY, LOW APPROACH, RUNWAY [NUMBER].”

A3.1.7.2. If instructed to hold at High Key: “[CALL SIGN], HOLD AT HIGH KEY”. Then repeat step (e) above.

A3.1.8. TWR: “[CALL SIGN], RUNWAY [NUMBER], WIND [DIRECTION/SPEED], CLEARED LOW APPROACH [OR ALTERNATE INSTRUCTIONS].”

A3.1.9. Aircraft: “[CALL SIGN], RUNWAY [NUMBER], CLEARED LOW APPROACH [OR ALTERNATE INSTRUCTIONS].”

A3.1.10. Aircraft: “[CALL SIGN], BASE KEY, GEAR DOWN, [STATE INTENTIONS ON THE GO].”

A3.1.11. TWR: “[CALL SIGN], ROGER.”

A3.2. Standard Fighter Straight-In SFO/PFO Radio Communications:

A3.2.1. Aircraft: “APP/ARR/TWR, [CALL SIGN], REQUEST STRAIGHT-IN SFO/PFO AT (altitude) (if requested with TWR proceed to [paragraph A3.2.4](#) below).

A3.2.2. APP/ARR: [CALL SIGN], ROGER ON REQUEST WITH TWR.

A3.2.3. Aircraft: “TWR, [CALL SIGN], REQUEST STRAIGHT-IN SFO/PFO.”

A3.2.4. TWR: “[CALL SIGN], REPORT 5 MILE SIMULATED FLAME OUT / RECAUTIONARY FLAMEOUT FINAL RUNWAY [NUMBER].”

A3.2.5. Aircraft: “[CALL SIGN], 5 MILE SFO/PFO FINAL RUNWAY [NUMBER].”

A3.2.6. TWR: “[CALL SIGN], RUNWAY [NUMBER], WIND [DIRECTION/SPEED], CLEARED LOW APPROACH” or [OR ALTERNATE INSTRUCTIONS].

Figure A3.1. F-16/F-35 Overhead Pattern Profile.

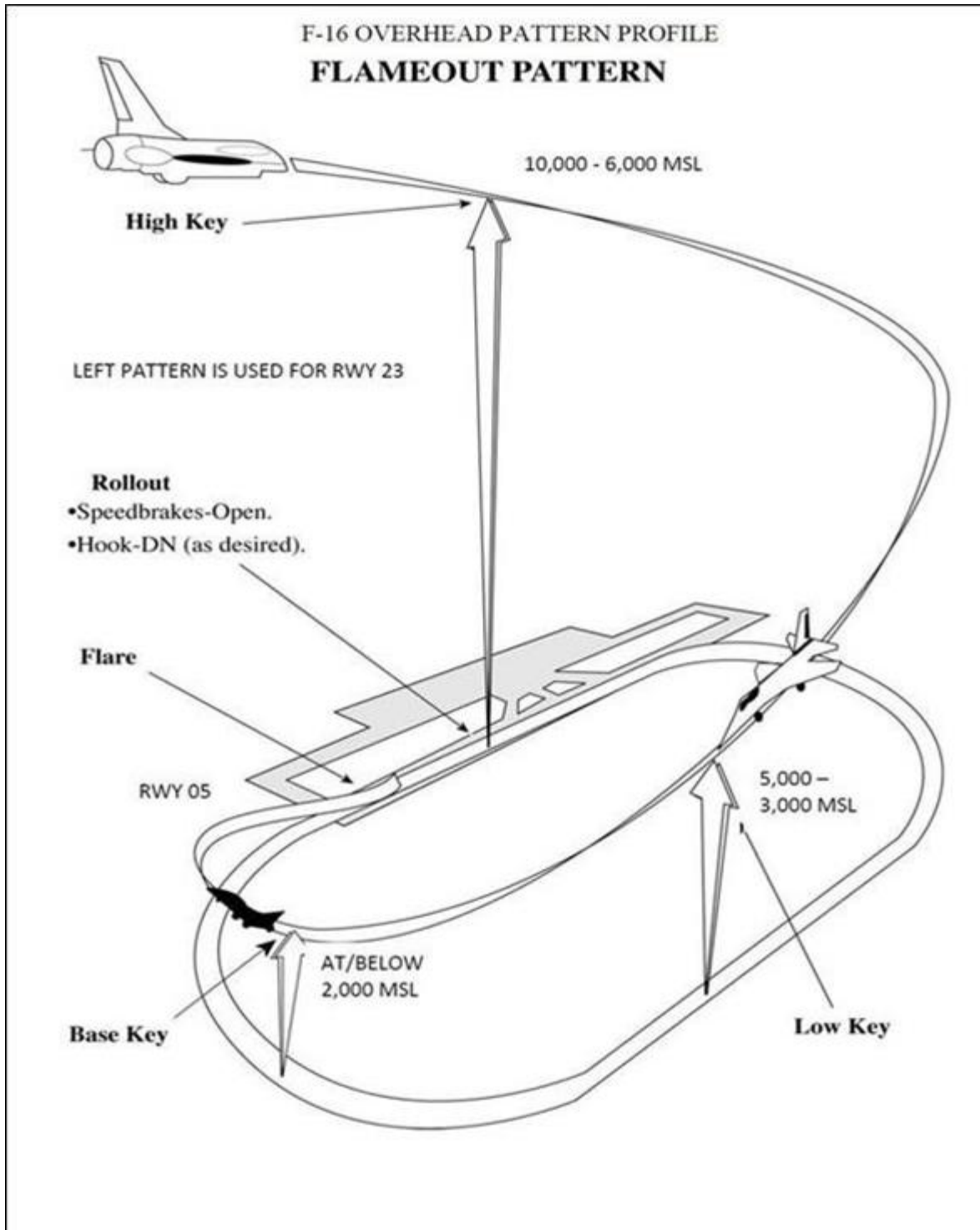


Figure A3.2. F-16/F-35 Overhead SFO/PFO Pattern.

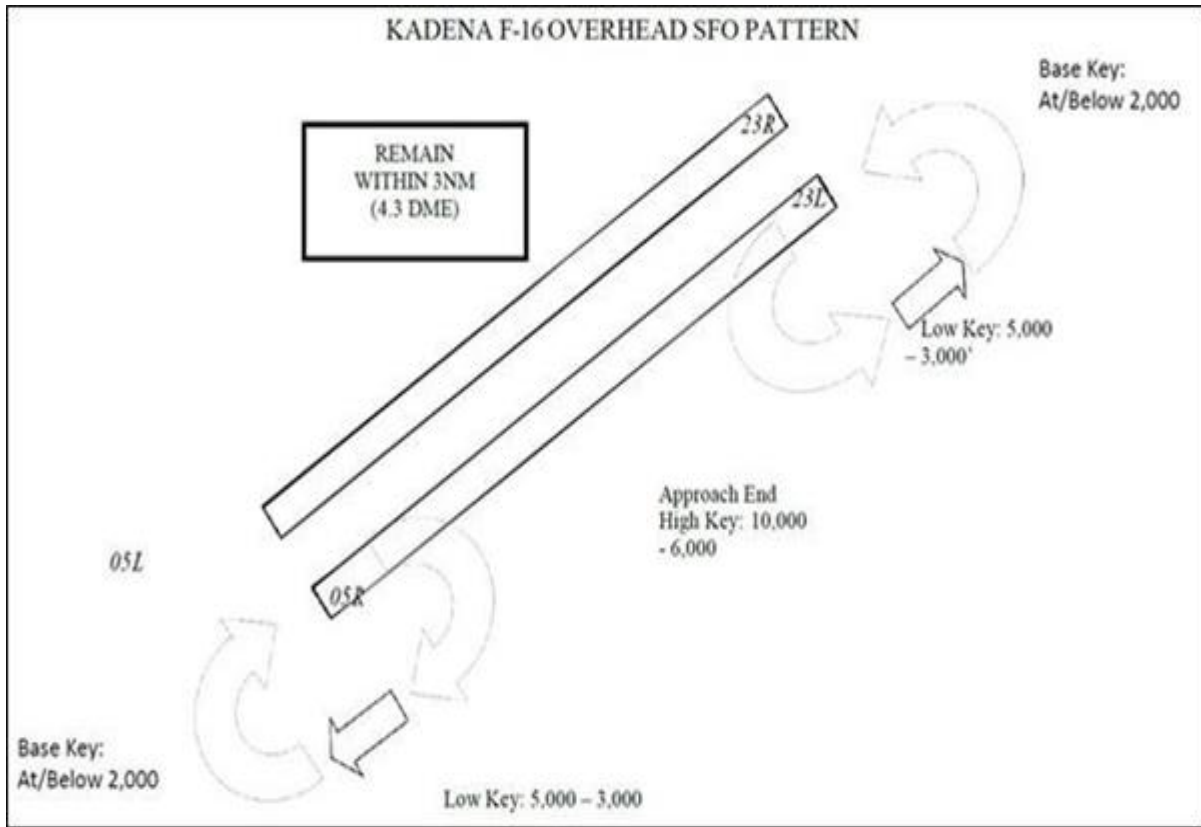


Figure A3.3. UC-12 Overhead Pattern Depiction.

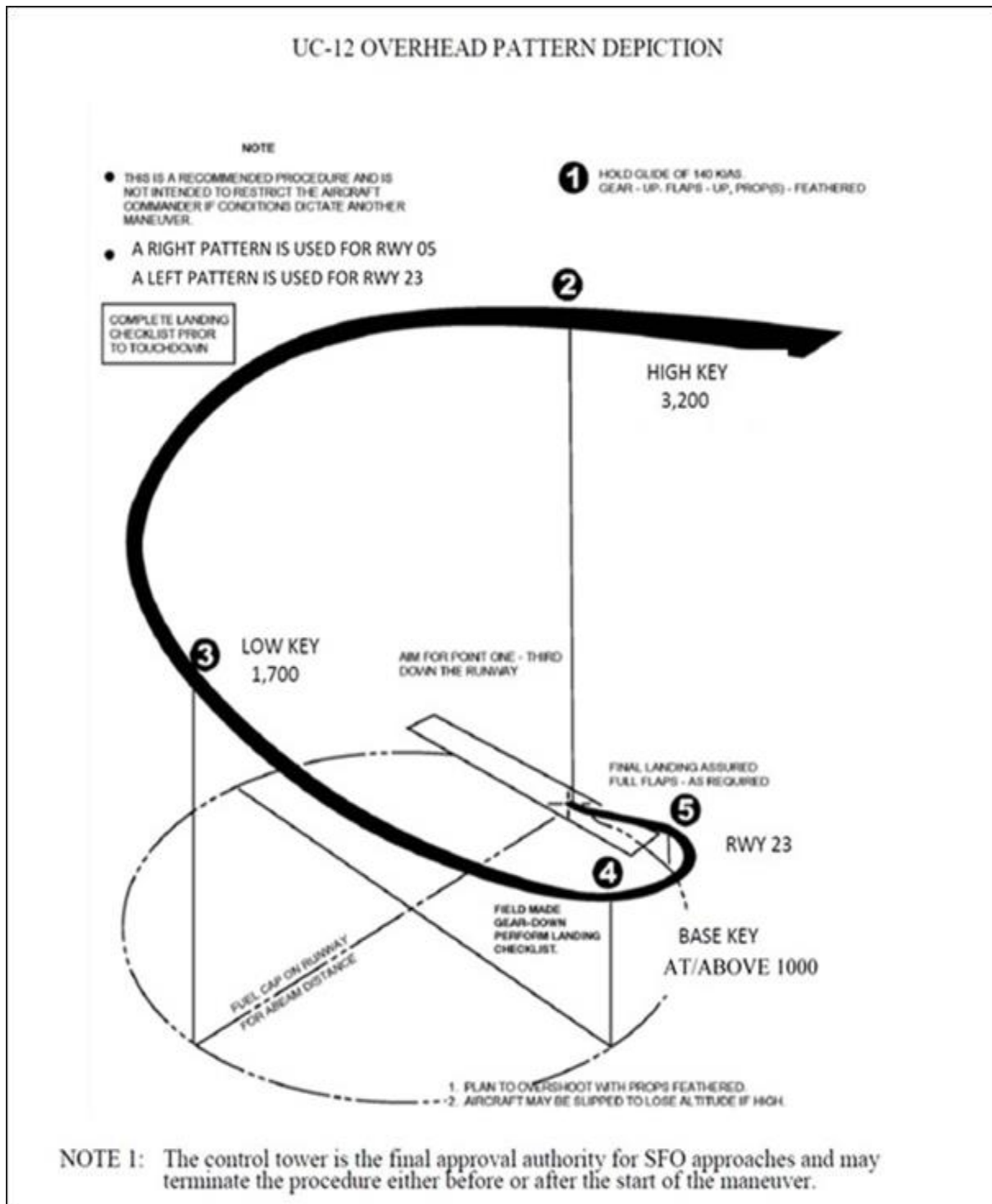


Figure A3.4. UC-12 Overhead SFO Pattern.

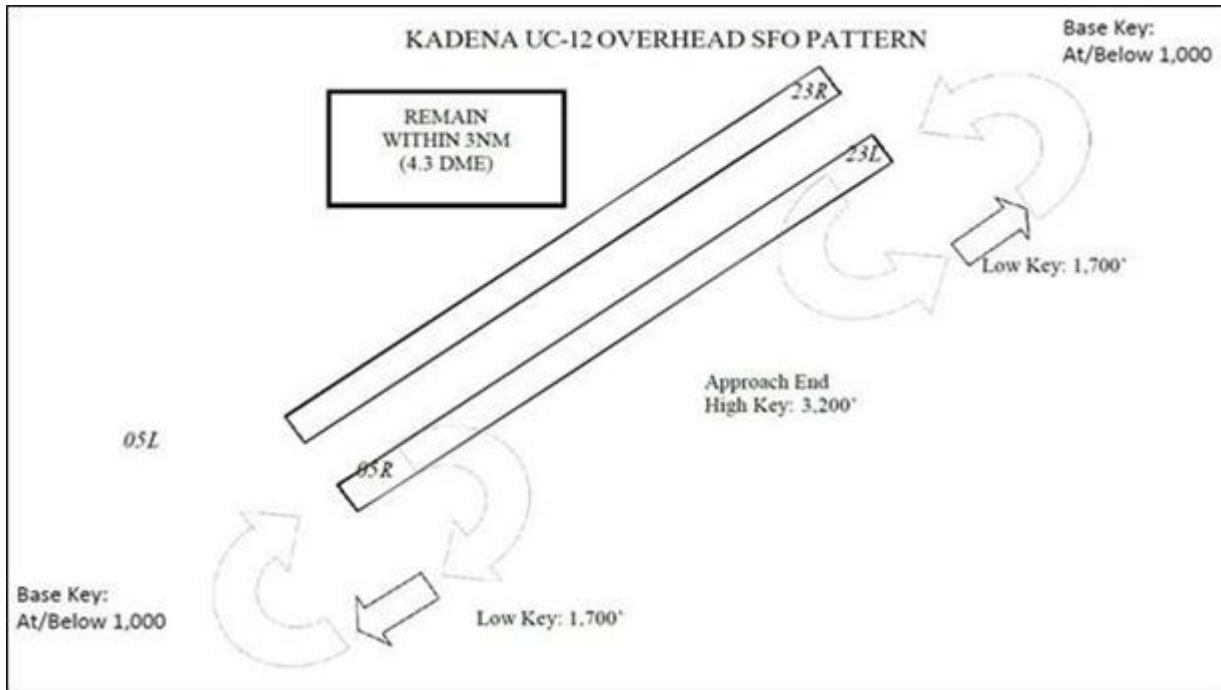


Figure A3.5. F-16/F-35 Straight-In SFO/PFO Pattern Depiction.

