

**BY ORDER OF THE COMMANDER,
18TH WING (PACAF)**

**AIR FORCE INSTRUCTION 11-2F-15,
VOLUME 3**



**18TH WING
Supplement 1
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Flying Operations

F-15 OPERATIONS PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This publication does not apply to the Air National Guard or US Air Force Reserve.

SUMMARY OF REVISIONS

This Air Force Instruction (AFI) now replaces the Multi-command Instruction (MCI) due to revisions of Air Force Publications. COMBAT EDGE will be worn once all personnel and aircraft are equipped and all are trained. The Supervisor of Flying (SOF) can no longer cancel flights, but should make recommendations to the wing leadership and TOP-3's. Formerly numbered taxiways are now letter designated. There is no longer a requirement for Mode 4 testing prior to each sortie. Night lighting now requires both wing tip positions lights. New squawk guidance is established for wingmen in a 2NM radar trail. Standard squadron callsigns, modes 1/2, and aux frequencies are established. This instruction now requires the initial ops check to be above 10,000 ft to check proper operation of the cabin altimeter. There are new AAR procedures (both VFR and IFR). All references to ASLAR and Dart procedures have been removed. With ATC approval tactical initial (with constraints) is approved at Kadena AB. Operations group standards have changed to include new radio procedures and alternate mission specifics.

AFI 11-2F-15, Vol 3, 1 October 1998, is supplemented as follows:

SECTION A--INTRODUCTION

8.1. Scope. Establishes local operating procedures for Kadena AB supplementing the basic instruction, AFI 11-2F15 Vol 3. This supplement applies to pilots who fly 18th Operations Group (18 OG) F-15 aircraft. Most information is specific to Kadena AB. When deployed to other bases and locations, comply with this instruction as much as possible.

8.2. Deviations. The 18 OG/CC may authorize deviations.

8.3. References. This regulation will be used in conjunction with the 18 OG F-15 *In-flight Guide*, Volumes 1 through 3, maintained by 18 OG Standardization and Evaluation (18 OG/OGV). Additional local area information is in 18 WGI 13-201, *Air Traffic Control/Airfield Management*.

8.4. Changes. Recommendations for improvement are encouraged. Submit via AF Form 847, **Recommendation for Change to Publication** to 18 OG/OGV.

SECTION B--GENERAL POLICY

8.5. Pilot Rest and Duty Limitations.

8.5.1. Flying currency requirements are IAW AFI 11-2F15 Vol 1, *Pilot Training -- F-15*. The squadron commander/operations officer will apply this regulation when determining what type of mission and events may be flown after a layoff from flying. Proficiency, experience, and past 30/60 day sortie count will be considered.

8.5.2. Pilots are limited to three sorties per day. The third sortie will not be at night. Whenever a night landing or night sortie is anticipated, the maximum duty period for pilots and SOF will be 10 hours.

8.5.3. Pilots may not fly within 24 hours of travel from Hawaii/Alaska or within 48 hours of travel from the CONUS/SWA/Europe.

8.6. Go/No-Go Procedures. Pilots will be current for FCIF's Vol. I Sections A, B, C, Safety Read File, and Situational Emergency Procedures Training prior to being assigned an aircraft.

8.7. SEPT.

8.7.1. Policy: A SEPT is required before flying each month. A SEPT accomplished within the last 5 calendar days of the prior month can count towards the following month. A pilot absent from flying for an entire calendar month will accomplish an SEPT before resuming flying duties. SEPTs will be logged on 18 WG Form 18, **Situational Emergency Procedure Training**, card. The current forms will be maintained near the squadron operations desk. The squadron Chief of Stan/Eval will ensure compliance and retain completed SEPT forms from the previous year. Project officers should ensure SEPT cards are taken on flying TDYs.

8.7.2. Procedures. Each Emergency Procedure (EP) must be covered at least once per half. Each SEPT session will include at least one flight lead. At least 10 EPs from Section 3 of the F-15 Flight Manual will be covered. Operations limits are listed as a category and count as one EP. At least 5 of the 10 EPs must be "critical EPs." Additionally, you must cover one EP from each sub-area on the SEPT form. A simulator with an instructor counts as an SEPT if the minimums listed in this paragraph are met. When conducting an SEPT, one pilot should establish a situation and the other should discuss actions necessary to cope with the malfunction and carry it to a logical conclusion. Each pilot should share equal time responding to emergency situations.

8.7.3. Semiannual Flight Surgeon/Supervisor Anti-G Straining Maneuver will be reviewed and signed off on the back of the SEPT form each half.

8.8. Publications. T.O. 1F-15A-1CL-1, *Flight Checklist*, T.O. 1F-15C-34-1-3CL-1, *Nonnuclear Weapons Delivery Checklist*, and the 18 OG In-flight Guide Volume 1 will be carried on all flights. T.O. 1-1C-1-25CL-1, *F-15 Flight Crew Air Refueling Procedures* will be carried on all scheduled air refueling missions. Use the 18 WG Form 4, **F-15 Flight Data Card**, or suitable substitute, on local missions. A substitute, as a minimum, must include all information on the 18 WG Form 4, to include TOLD data.

8.9. Life Support Equipment. Thoroughly check all life support equipment before stepping to fly. The G-suit and survival vest will be worn on all flights. Daily wear of COMBAT EDGE will be IAW AFI 11-2F15 Vol 3.

8.10. Command and Control.

8.10.1. The SOF, callsign "Shogun 10", is the direct representative of the 18 OG/CC. Comm on the SOF freq (302.5) will only be for communication with the SOF.

8.10.2. Aborts. If a flight member ground aborts, the flight lead will renumber the flight as required and inform squadron operations. Squadron operations will notify the Command Post and the SOF. If an air abort occurs, flight members will retain original callsign, but may alter check-in sequence for tactical operations if briefed.

8.10.3. Single Ship Policy. Planned single ship missions are advanced handling, dedicated instrument, and FCF sorties. Single-ships must maintain radio and radar contact with RAPCON or GCI. Single ship depot delivery missions and incentive flights require 18 OG/CC or CD approval.

8.11. Fuel Requirements.

8.11.1. The SOF will monitor Kadena's weather and Traffic Pattern condition and declare the "Fuel Required" condition as follows if other than VFR:

<u>Airfield Status</u>	<u>Fuel Req'd</u>
Overhead Pattern Open	1,500 lbs.
Rectangular Pattern Open	2,000 lbs.
IFR Recoveries required	3,000 lbs.
Off Island Divert Required	6,000 lbs./or as directed

Center/Two Wing Tanks/3 Tanks

Nyutabaru	5,100 lbs.	5,600 lbs.
Shimoji-Shima	3,300 lbs.	3,600 lbs.

Reference Vol 1 In-flight Guide for divert procedures. These fuels are required at the FAF or on Initial. The SOF may declare an increased "Fuel Required" condition due to pattern congestion, abnormal operating conditions, etc. The "Fuel Required" condition will be broadcast on ATIS.

8.12. Weather Condition Terminology and Procedures.

8.12.1. Weather Conditions. When "Weather Hold" is directed, the SOF holds takeoffs for inclement weather. Pilots will continue to brief missions and wait for guidance. Weather cancellation of certain weather categories or all flying is at the discretion of the 18 WG/CC, 18 OG/CC or 18 OG/CD. Individual squadron TOP-3's may cancel for their particular squadron. SOF's will forward their observations and recommendations. If instructed to "Weather Cancel," discontinue briefings. If started or taxiing, return to parking and shutdown. When the SOF initiates a "Weather Recall," he will declare "Weather Recall" on Guard. If airborne, climb to the optimum cruise altitude and proceed towards the appropriate IAF. Con-

tact approach control as soon as possible for sequencing. Additionally, check-in with the SOF and monitor that frequency throughout recovery.

8.12.2. Sea States. If current or forecast winds on Kadena AB are 40 knots or greater, including gusts, all F-15 local training sorties will be canceled.

8.13. Bird Condition Terminology.

8.13.1. Low. The normal bird condition at Kadena AB. Under this condition, normal operations are permitted.

8.13.2. Moderate. Indicates concentration of birds represents a probable hazard to safe flying operations. Initial takeoff and final landings allowed only when departure and arrival routes avoid identified bird activity. Additionally, formation takeoffs, multiple approaches, formation approaches and formation landings are prohibited. Only full-stop landings are permitted.

8.13.3. Severe. Heavy concentration of birds is present in the local pattern. Takeoffs and landings are prohibited without OG/CC approval except in an emergency.

8.13.4. Pilot Responsibility. If you observe any bird activity which could constitute a hazard, contact the SOF, Tower, or Command Post with the following:

1. Call Sign.
2. Location.
3. Altitude.
4. Time of sighting.
5. Type of bird, if known.
6. Number of birds.
7. Action of birds (soaring, nesting, etc.).

SECTION C--GROUND OPERATIONS

8.14. Clearances. The primary departures used on local flights are the Kadena East, Kadena South, and Kadena West. These clearances provide an IFR departure, VFR en route portion, and an IFR recovery. It is issued as a silent clearance which states: "Cleared as filed, climb and maintain VFR. If not VFR by FL190, maintain FL190 and advise RAPCON." On departure, if unable to reach VMC by FL190, obtain vectors or clearance to climb, or proceed direct to a holding fix at FL190 and enter holding. IFR does not apply on recovery until RAPCON states "Cleared to Kadena". If weather is expected to preclude a VFR breakout below FL190 or by 50 NM, a Mike 3 departure should be filed.

8.15. Preflight/Engine Start.

8.15.1. Mode IV. Takeoff scheduled prior to 0930L (0030Z) will have the previous calendar day Mode IV loaded in "A," and the present calendar day loaded in "B." If takeoff is scheduled after 0930L (0030Z), the present calendar day Mode 4 will be loaded in "A" and the next calendar day loaded in "B". If the Mode IV tests bad and it is essential to mission accomplishment, have it re-keyed or abort the aircraft. Annotate the AFTO Form 781A, **Maintenance Discrepancy and Work Document**, after every flight or when the Mode IV has been zeroized or the code was lost during/after flight.

8.15.2. Abort. Ensure appropriate AFTO Form 781, **Aircrew/Mission Flight Data Document** write-ups are coordinated before stepping to a spare. Unless waived by 18 OG/CC, do not fly a scheduled sortie if you abort two aircraft after starting both. Multiple engine starts required to accomplish Redball actions do not constitute an "abort".

8.15.3. Night Lighting Requirements. Aircraft will have at least one vertical tail light, a position light on each wingtip, one formation light on each side of the fuselage, one wing root anticollision light, and a landing or taxi light.

8.15.4. Configuration. Training configurations will be IAW T.O. 1F-15A-1, Chapter 5, Figure 5-8.

8.16. Taxiing.

8.16.1. When requesting clearance to taxi, flight leads will include the ATIS code and type of departure. The maximum taxi speed on straight-aways is 25 knots; 10 knots on the upper fighter ramp and while cornering. Taxi spacing is 300 feet. If congestion dictates, aircraft may stagger as they approach and hold short of EOR with 150 feet spacing, otherwise, all taxiing will be on the centerline with 300 feet spacing. Use caution taxiing down taxiways D and E. The significant slope requires speed management that allows time for action should brakes or nosewheel steering fail. Do not taxi past vehicles or equipment less than 10 feet from wingtips. Objects within 10-24 feet require a wing walker. The dashed yellow lines in parking areas provide 10 feet wingtip spacing and may be used in lieu of a wing walker (if taxiing on the yellow line).

8.16.2. Use caution on Taxiway K between Hotel and Foxtrot. Bldg 3306, across from the Hot Pits, may be used for Radar testing. The garage door will be open (facing the runway) and a red light on when a test is in progress. There are no taxi restrictions but F-15's will not use service apron 3 to hold waiting for the Hot Pits.

8.17. Before Takeoff. F-15s will quick check before all flights except scramble takeoffs. Upon entering the arming area, park in the position furthest from the runway with the flight echelon toward the runway. The flight lead will call "2 minutes and type departure" before takeoff on Ground frequency. The term "nonstandard" will be added for flights that will maintain trail during departures.

SECTION D--FLYING OPERATIONS

8.18. Take Off.

8.18.1. If the computed take-off distance using military power exceeds one-half the available runway, use afterburner for takeoff. Use afterburners for 2 or 3-tank configurations. Terminate afterburner no later than the departure end of the runway for noise abatement (safety permitting). Afterburner selection will be IAW 1F-15A-1.

8.18.2. Single ship rolling takeoffs are authorized during exercises, surge ops and mass launches. Ensure the aircraft is aligned with the runway prior to advancing the throttles for single ship rolling takeoffs.

8.18.3. Caution: During RC-135 (cable bird) launch and recovery operations, both approach and departure end barriers will be removed from the inside runway (05R, 23L) from 5 minutes prior until 15 minutes after the launch or recovery operation. Use the runway with operational departure end barriers. Additionally, when no local fighter flying is scheduled, the barriers on 05R/23L are removed.

8.19. Departure. The lead aircraft will squawk Mode III/C as assigned by tower. The last aircraft will squawk Mode III/C 5X00 during trail departures. All flights will maintain radio contact with RAPCON until clear of the TCA in VMC.

8.20. In-flight.

8.20.1. Airspace. The local flying area is all airspace within 200 NM of Kadena. The working areas include Mobile 9, W172, W173, W179, and W185 for air-to-air; W174, W176, and W178 for special operations. Mobile 9 is an ALTRV extending from surface-FL400, unless within the confines of W172 or annotated otherwise on the daily schedule. Okinawa RAPCON controls the airspace within 50 NM of Kadena from ground level up to and including FL 200 and a 30 NM radius of Kume-Jima (N2620 E12645) from 700 feet AGL to 5,000 feet MSL. Kadena AB lies within the Okinawa TCA which extends 30 NM from the Kadena TACAN, up to 10,000 MSL. The TCA is depicted in the 18 OG In-flight Guide Vol 1 (F-15). Radar sequencing and separation service are in effect for aircraft within the TCA. Approval from RAPCON must be obtained to enter the Okinawa TCA.

8.20.2. Supersonic Flight. 18 OG F-15's will limit supersonic operations to overwater training areas and FCF routes. Over water is defined as 15 NM from any land. Supersonic flight within 15 NM of land will be reported on AF Form 121, **Sonic Boom Log**.

8.20.3. Use of Afterburner. Prohibited (except for takeoff) over the Ryukyuan Island chain unless directed for training objectives, FCF, or safety of flight.

8.20.4. Maritime Operations (MAROPS). Do not fly below 5,000 feet MSL within 20 NM radius of aircraft carriers unless approved. Do not approach fishing and merchant ships closer than 1 NM.

8.20.5. Avoid low altitude overflight of inhabited areas. Do not fly below 2,000 feet AGL over any island within the Ryukyuan chain (exception: approved tactical ranges). Avoid Aguni Shima (N2635 E12713) by 1 NM.

8.20.6. Use last known local altimeter setting during area work to ensure minimum altitude clearances IAW AFI 11-214, Training Rules. Flight Leads/Mission Commanders will pass the local altimeter setting to their flight upon entering the airspace which must be acknowledged. Fly VFR hemispheric altitudes to and from the areas when operating VFR.

8.20.7. Kadena F-15s should make every attempt to avoid being seen by civilian airliners. If possible, fly behind, below, or well above the flight path of civilian traffic until inside the boundaries of the assigned working area. Make every attempt to avoid airliners by 10 NM and 5,000 feet of altitude to help preclude setting off the TCAS system. Use of onboard radar to detect and avoid nonmilitary aircraft should be emphasized in flight briefings.

8.20.8. Aux frequencies, Mode 1/2 and callsigns: To standardize and deconflict mode 1/2s and frequencies, the following will be used. These will only be used within 200 NM of Kadena.

<u>Callsign</u>	<u>Mode1/2</u>	<u>Freq</u>	<u>Callsign</u>	<u>Mode 1/2</u>	<u>Freq</u>	<u>Callsign</u>	<u>Mode 1/2</u>	<u>Freq</u>
12 FS Dirty	12/120x	356.8	44 FS Bat	40/440x	398.0	67 FS Cock	70/670x	341.6
Knife	21/121x	388.5	Demon	41/441x	394.4	Razor	71/671x	334.6
Hook	22/122x	367.8	Dallas	42/442x	345.3	Claw	72/672x	237.8
Salty	23/123x	297.3	Spooky	43/443x	306.4	Cheta	73/673x	297.4
Rod	30/124x	283.5	Reno	50/444x	256.6	Manx	60/674x	277.2

8.21. In-flight Checks.

8.21.1. Fuel Checks. Fuel system operation will be carefully monitored throughout the flight. Monitor each internal and external wing tank to verify that fuel is transferring properly and that fuel distribution is correct. Airborne fuel checks will be initiated with a radio call. Flight members will check all their fuel tanks and note the balances. Actual internal and external wing fuel balance will be called if the imbalance is greater than 200lbs. Example with no external tanks, "C/S 11.5, squared, right heavy 300, tank one feeding". Example with external tanks, "C/S, 13.5 over 19.2, left heavy 400, tanks feeding".

8.21.2. Cabin Pressure/Oxygen System Operations. Above 10,000' but prior to passing FL 180, perform an Operations Check to include a check of cabin altitude and oxygen system. Including "Normal" after the fuel check implies that cabin and oxygen pressure as well as the oxygen flow window have been checked.

8.21.3. Whenever maneuvering flight occurs, accomplish a Battle Damage Check. If single-ship, attempt to examine the aircraft as much as possible (mirrors, etc.).

8.22. GCI/AWACS.

8.22.1. Efforts should be made by flight leads to coordinate a phone or face-to-face brief with GCI/AWACS controllers the day prior to the mission. Brief and use Have Quick and secure voice on every mission with Brigham. In general, working frequencies will be assigned during the brief or will be as listed in the 18 OG In-flight Guide Vol 1. IMC intercepts (day or night) require GCI. GCI/AWACS cannot extend or reschedule range periods. Range periods can be rescheduled or extended through squadron operations. The following control agencies are available.

8.22.2. JASDF. Operates continuously, monitors 276.3 and is available for flight following. The Sector Operations Center is RODERICK. Primary sites are: HARRIER (west), READMIT (northeast), and ZEPPELIN (remainder).

8.22.3. USAF. The 623rd Air Control Flight (623 ACF) call sign "Lightsword" operates from a joint USAF/JASDF facility at Naha.

8.22.4. USMC. Vice Squad is available only for missions as reflected in the 18 OG weekly flying schedule. Coordinate 24 hours in advance to add or cancel scheduled sorties.

8.22.5. 961st Airborne Air Control Squadron. Coordinate with "Brigham" the day before the mission or with a Ground Liaison Officer (GLO) the morning of the mission. Use the prebriefed frequency or Brigham's common frequency (233.1) for airborne contact.

NOTE:

If traffic advisories are desired when clear of the Okinawa TCA and VFR, advise approach control and remain on Okinawa Approach Control's frequency. If flight following is desired when clear of Okinawa Approach Control's airspace (50 NM radius from Kadena, up to FL 200), attempt contact with the appropriate agency on GCI common or the prebriefed frequency. Traffic advisories will be provided to the maximum extent practical. Even with GCI, devise a comm plan that allows monitoring the working area common frequency at all times (Exception: Large Force Missions). GCI/ AWACS may not have both entering and exiting flights on the same frequency. Remember to check-out with GCI/AWACS when area work is completed.

8.22.6. Standard airspace boundary pointout procedures. GCI/AWACS will make a 5NM boundary call. If aircraft continue to fight and approach the boundary, a local terminate will be transmitted. If aircraft are engaging outside the airspace boundaries, a Knock-It-Off call will be transmitted.

8.23. Alternate Missions.

8.23.1. Single-ship instrument proficiency and advanced handling may be flown as an alternate mission with TOP-3 approval. Only AHC events that were specifically briefed, or are listed in this sup, may be flown. IMC intercepts will be conducted IAW AFI 11-214, Aircrew and Airspace Director Procedures for Air Operations and under GCI control.

8.24. Working Areas.

8.24.1. Area depiction, entry/exit points, and frequencies are in 18 OG In-flight Guide Vol 1.

8.25. AAR Procedures.

8.25.1. The SOF will monitor tanker track weather and note tanker departure time. He will coordinate takeoff delays and/or cancel AAR for certain flights if appropriate. Flights will depart the tanker at the end of their allotted refueling time, regardless of whether all receivers have completed refueling. Exception: no other flights are waiting to refuel. Wingmen will not go to the tanker single ship without squadron supervisor (as defined in MCI 11-463) approval.

8.25.2. When scheduled for refueling, fighter squadron operations will contact Base Operations to file the appropriate flight plan for the scheduled refueling track if anticipating IFR conditions. Tactical departures will be used for VFR operations to the refueling track.

8.25.3. At step time, contact Clearance Delivery to activate your request. For IFR, prior to taxi, flight leads request the "Mike 3", or filed clearance from Clearance Delivery (235.0). Allow 15 minutes minimum time prior to takeoff for base operations to put the flight plan in the system. Expect "Cleared Mike 3 or as filed" vice an entire read back. Expect to be handed off to Naha Center when departing the TCA and contact the tanker with the other radio on rendezvous frequency prior to rejoin. The first flight of F-15 receivers will fly the Mike 3 or filed departure in entirety, including a hand off to Naha, to exercise the system. If this flight encounters VMC and can proceed to the ARIP VMC, they may cancel once they've talked to Naha. They will tell the tanker/GCI to advise Shogun 10 that VMC refueling can be conducted. Subsequent flights may depart on a Tactical Departure if necessary. If the first flight cannot proceed to the ARIP IAW VFR flight rules, they will tell the tanker/GCI to notify Shogun 10 that IMC refueling will be necessary.

8.25.4. VMC refueling. State you are VFR when first contacting the tanker/GCI. Depart the tanker high and proceed to the working area VFR. If unable to depart VFR, see 8.26.5.

8.25.5. IMC refueling. F-15's are cleared to launch unless held by Shogun 10. The sequence will be takeoff with departure, followed by a hand-off to Naha. On the other radio, establish contact with the tanker/GCI on the rendezvous frequency for clearance down track. If directed to hold, advise Naha and proceed to Lopan/ Beak. Once the tanker/GCI clears you to the ARIP, coordinate with Naha to proceed to the ARIP at FL 240 and tell Naha you will accept MARSAs with *Tanker C/S*. Clearance to the entry point is clearance for the rendezvous via a point parallel or fighter turn-on. During IMC cell operations, all refueling will be conducted from the trail tanker. Coordinate all end AAR requests on the boom frequency. The tanker will coordinate end AAR requests with Naha. The filed 1801 route should be direct ARIP, Direct Kadena, Direct Talon or Direct Shogun, climb to FL 450. The intent is to get VFR on top, cancel and proceed VFR. Expect significant delays for any requests other than the 1801 standard. After refueling, climb to the top of the ALTRV, or as directed. If able to proceed VFR, do so. If unable, comply with the tanker coordinated request and contact Naha for clearance out of the ALTRV.

8.26. Recoveries.

8.26.1. Flight leads squawk original departure code (or 5X00) prior to departing area boundaries, wingmen will squawk standby. For normal arrivals, contact Okinawa RAPCON 50 NM from Kadena with call sign and ATIS. A second call will include intentions. During W-173 A/B recovery, exit the air-space to avoid the Chinen (TIC) 060-degree radial/Kadena (KAD) 059-degree radial by 5 NM due to Naha departures and recoveries.

8.26.2. Traffic Pattern:

8.26.2.1. Overhead altitude is 1,800 feet MSL; airspeed is 300 KIAS. Unless tower directs otherwise, the break is to the southeast for either landing runway. Overheads are not allowed after 1800L.

8.26.2.2. If instructed to "reenter," climb to 2,500 feet MSL, fly to the reentry points depicted in the 18 OG In-flight Guide Vol. 1, and report position. If directed to "breakout", fly direct to 3 NM initial. South reentry overflies Futenma ATA. Remain above 2,500 feet MSL when south of 3.0 DME.

8.26.2.3. Yomitan reentry for straight-in altitude is 1,300 feet. Fly practice simulated single engine approaches as straight-ins. Straight-ins are not authorized from Koza.

8.26.2.4. Midfield closed patterns are not authorized unless requested by tower. When cleared for closed or low approach, remain below 1,300 feet until the departure end of the runway.

8.26.2.5. For weekend recoveries, plan on a straight-in full stop approach. Multiple approaches and overhead patterns on weekends or holidays are prohibited.

8.26.2.6. Tactical Initial: If cleared by ATC tactical initials at Kadena are authorized with the following guidance.

8.26.2.6.1. Flight leads will make the request to ATC. If not cleared or no acknowledgement, proceed with standard finger tip procedures. If cleared "Tac Initial", apply the following.

8.26.2.6.2. Two-ship line abreast (NUMBER-3/4 two-mile trail), element leads positioned to pitch out first and be directly over RWY 23L/05R. Tactical formation is a 3,000 foot level split not to exceed the confines of Kadena AB. Airspeed on initial is 350 KCAS. NUMBER-1 pitches out normal, NUMBER-2 pitches simultaneously with lead, pauses at 90 degrees (belly check) and continues to normal spacing on downwind using power and G as required. NUMBER-3 delays break to roll out in trail with NUMBER-2. Second element follows the same procedures as the lead element.

8.26.3. Nonstandard Trail. Lead aircraft in the formation and landing order will be left to the flight lead's discretion. Consideration should be given to experience level, fuel remaining, etc. Spacing between aircraft will be 9-12,000 foot trail. The first aircraft will squawk Mode III as assigned and the last aircraft Mode III/C 5X00. ASR and PAR approaches are not authorized with radar trail recoveries.

8.26.4. Split-to-land/transition-to-land. Split-to-land applies from an instrument approach or visual straight in when one aircraft continues the straight-in approach while the other aircraft offsets to land on the parallel runway. Transition-to-land indicates an aircraft (or two-ship in non-standard trail) will accomplish an instrument approach to a runway and offset to land on the parallel runway. For either approach, notify RAPCON with intentions on the initial request for the approach. The aircraft that maneuvers to the parallel runway is considered to be executing a circling approach. Since the maneuver is considered a circling approach, the approach flown may not be a precision approach. Do not begin the split or transition maneuver prior to the FAF. Maintain circling MDA until reaching the point at which a normal descent to land on the parallel runway can be started. Missed approach procedures are the same as for circling approaches. Landing options are full stops, low approaches to tower, or low approaches to radar. Only one aircraft may low approach to radar (one to tower and one to radar is acceptable). The aircraft low approach to radar should fly the approach to the "outside runway" (5L/23R) to avoid conflict at the departure end of the runway.

8.26.5. Naha/Futenma Approaches. Practice approaches or landings are not authorized at Naha. Due to noise abatement procedures, practice approaches to Futenma are not allowed without prior coordination/approval from Futenma Base Operations.

8.27. Divert Procedures. Naha is the "filed" IFR divert base. However, if approaches and landings are possible at Futenma, divert to Futenma. Monitor Shogun 10 (302.5/CH 10) when divert becomes a possibility. Divert information (airfield description, routing and/or fuel requirements) is located in the 18 OG In-flight Guide Vol 1. NOTE: Do not use Futenma as a planned weather alternate when flying to Kadena from an off-island location.

8.28. Landing. Aircraft will maintain 3,000 feet spacing behind other F-15s. Spacing will be 6,000 feet for night landings, landings with Runway Condition Reading (RCR) less than 16 (wet), or landings behind dissimilar fighter type aircraft (unless MARSAs). When landing behind non-fighter type aircraft, 9,000 feet spacing will be maintained regardless of conditions. If a go-around is required, do not directly overfly aircraft on the runway. CAUTION: The runway approach and departure ends are exceptionally slick during wet weather. Ensure the aircraft is slowed to a safe taxi speed before passing over the last available cable.

8.29. After Landing.

8.29.1. All "Hot Gun" aircraft will dearm in EOR, all other aircraft will dearm in the chocks. Squadron operations will ensure a dearm crew meets the "Hot Gun" aircraft in EOR. If going to dearm, park in the dearm position farthest from the runway with the flight echelon toward the runway. Make a 270 degree turn when exiting to reduce the possibility of a FOD incident.

8.29.2. Clear Water Rinse Procedures "Bird Bath". All aircraft will go through the "Bird Bath" after the last go of the day.

8.30. Hot Turn.

8.30.1. A "Hot Turn" is defined as refueling and launching an aircraft without shutting down or doing a through-flight/munitions reload. Hot turns may be accomplished under surge/exercise conditions. When accomplished, the crew chief may or may not plug-in with comm cord. Before taxiing for the next sortie, confirm the after start checklist is complete. No more than two hot turns (three flights) may be flown in sequence without a through-flight inspection.

8.30.1.1. JOAPS. JOAP samples will be taken after the first sortie, and the results analyzed prior to the third sortie of the day.

8.31. Maintenance Debrief.

8.31.1. Check 8 MM film to ensure the system operated properly. Write up malfunctions and poor picture quality. Debrief all flight and ground aborts in Maintenance Debrief Section. Maintenance codes for aircraft are as follows:

8.31.2. Code 1. Aircraft flyable with no additional discrepancies.

8.31.3. Code 2. Aircraft flyable. Capable of further mission assignment with normal turnaround time. However, the aircraft has minor discrepancies or partially inoperative systems.

8.31.4. Code 3. Aircraft or aircraft system has major discrepancies that may require repair/replacement prior to further mission assignment. Reference Minimum Essential Subsystem List (MESL) for Code 2 and Code 3 systems.

NOTE:

Operations supervisors will coordinate with maintenance supervisors to determine suitability of Code 2 aircraft to fly subsequent training missions.

8.32. Cross Country and Deployment Flights.

8.32.1. Procedures. IAW AFI 11-202 Vol 3, PACAF Sup, cross country requests are approved by the operations group commander. Submit a cross country request form (Attach 1), approved by SQ/CC, SQ/DO, or SQ/ADO to OG/CC NLT 1200L, 10 days prior to departure. Cross country itineraries will be posted at the squadron and 18 WG Command Post. Deviations from the itinerary, once off station, must be approved by the SQ/CC or DO/CC. 18 WG Command Post will be notified of changes to the itinerary.

8.32.2. Execution. Conduct flights on IFR flight plans to the maximum extent possible. Proposed VFR legs must be annotated on the request form and approved by the OG/CC. Carry at least one copy of flight orders. Wear an antiexposure suit when required. Landings must be accomplished before sunset unless approved by the OG/CC. Bases of intended landing must have operational and compatible instrument approaches and nav aids for anticipated or forecast weather conditions. Takeoff and landing restrictions of AFI IAW AFI 11-202 Vol 3 must be followed. JP-4/5/8 single point refueling, liquid oxygen, and nitrogen service must be available. Ensure the aircraft are equipped with JOAP kits, probe and intake covers, tank and weapons safety pins (If req'd), FLIP pubs, AFTO Form 781, the gun is mechanically and electrically safed and unloaded if the aircraft is intended for use as a static display. Ensure security is adequate. Relay the following to 18th Wing Command Post prior to takeoff when off station: tail numbers, call sign, expected takeoff time, and destination. Upon arrival (NLT 2 hours after landing), pass the following: tail numbers, call sign, aircraft status, actual takeoff and landing times, time flown, next proposed takeoff time and destination, and point of contact at cross-country location. Ensure all aircraft safety and

servicing measures are complied with before leaving the aircraft. JOAP tests must be accomplished IAW paragraph 8.31.1.

8.32.3. Deployments. Prior to deployments or cross country flights, ensure the flight planning process includes a thorough study of terrain elevations encountered enroute, in the operating areas, and during the recovery phase. Ensure aircrews are aware of, and brief, adjusted controlled and uncontrolled ejection altitudes for all phases of the deployment and on every mission at the deployed location. Non-DOD approaches require HQ PACAF approval. Forward requests for approval to 18 OG/OGV NLT 30 days prior to intended use. 18 OG/OGV will forward to PACAF. Pilots must subsequently confirm the approach has been approved.

8.32.4. Static Displays: Ensure requirements of AFI 11-209 are met.

SECTION E--WEAPONS EMPLOYMENT

8.33. 8 MM Procedures. Pilots will personally load/unload their own tapes. Title film manually and audibly IAW the checklist or exercise spins. After flight title out with the same information and mission results, if known. Tape "trigger check" for safe gun. Tape G-awareness turns for flight lead, supervisor, and/or flight surgeon review. All air-to-air engagements will be taped with the volume turned up for AGSM analysis in the debrief.

8.34. Gun Safing Procedures. Before the first intercept or engagement, place the master arm switch to arm, select gun mode, deselect training mode, point the aircraft toward a clear area, and depress the trigger to ensure the cannon will not fire or rotate.

8.35. ALE-45 (CMD) and ALQ-135 (ICS) Procedures.

8.35.1. During ground operations, the CMD will be off except when accomplishing the CMD ground bit check. Accomplish this check while on Taxiway K (Rwy 05) or Taxiway K/G (Rwy 23) and write-up any discrepancies after flight. At Kadena, keep the CMD switch in off/standby until "feet wet" and outside the TCA. Off-station, follow deployed operating procedures. Regardless of location, chaff employment is authorized only within warning area boundaries. Chaff employment in W-179 is NOT authorized when winds aloft are reported or forecast to be greater than 50 knots, unless it is RR-188 chaff. Ensure chaff expenditures remain within the confines of warning area boundaries. After each mission, the flight lead will initiate the fence out check by radio call with specific reference to turning off the CMD. Flight members will acknowledge (example: "Shogun 1, Fence out, CMD off," "2s off," "3s Off," "4s Off").

8.35.2. During ICS Band 3 Bit checks, ground personnel must be a minimum of **15** feet away from the aircraft. ICS Bit checks will be done in the same areas as CMD Bit checks.

8.36. AIM-9 Procedures.

8.36.1. During exterior preflight inspection, verify blue training adapter is in place on umbilical (must open LAU-128 nose fairing) and AIM-9 seeker moves freely from boresight position after missile cover has been removed. If seeker remains locked or frozen in the boresight position, replace the missile cover and rotate slowly one to two rotations. Remove the missile cover by slowly twisting off. If seeker still remains frozen, call for a weapons "redball." Note position of the argon needle with the crew chief. After cooling the needle should drop 400-600 psi.

8.36.2. Any in-flight AIM-9 malfunctions will be documented as descriptively as possible, including missile serial number and station. When possible, pilots will request weapons "blueballs" in an attempt to fix or troubleshoot the problem. Blueballs may change out argon (with engines running) or change out missiles.

SECTION F--ABNORMAL PROCEDURES

8.37. General Policy. Aircraft with in-flight emergencies will normally be escorted during recovery. Plan to fly an ILS or TACAN approach if an instrument recovery is required. Notify the appropriate ATC agency as soon as possible. The IFE will be switched to SFA frequency Ch 18 (370.2) and remain on this frequency for the remainder of the recovery.

8.38. Jettison Procedures. Attempt to jettison hung ordnance within the confines of the weapons delivery range. If outside the confines of the weapons delivery range, proceed outside 12 NM from land, visually clear the area of surface vessels, and jettison ordnance. In cases of emergencies which cannot be covered by any of the provisions above, jettison ordnance in the safest available area at least one mile clear of land mass and surface vessels. Sound judgment will be used by the aircrew in situations affecting their own safety, as well as, the lives and property of others, and may require modification of the above procedures.

8.39. Controlled Bailout. Procedures are located in the 18 OG In-flight Guide Vol 1.

8.40. Hung Ordnance Procedures. There are two types of hung ordnance. "Category 1" is hung live ordnance (including flares) resulting in a full response by all applicable agencies. "Category 2" includes hung inert bombs or gun anomalies resulting in limited response by all applicable agencies. With hung "Category 1" ordnance, safe switches and declare an emergency. State your hung ordnance category. Avoid populated areas on RTB and utilize a chase aircraft. Land from a straight-in approach. A flare is considered "hung" when the squib fired and the flare is partially ejected and therefore "hung" vice CMD or squib problems where there is not an attempt to eject the flare.

8.41. Engine Anomalies.

8.41.1. All engine anomalies will be reported during maintenance debrief.

8.41.2. Accomplish a battle damage check after any engine anomaly.

8.42. Landing Gear Anomalies. If you do not engage the barrier with a gear anomaly, stop straight ahead and have the gear pins installed (traffic and runway availability permitting). At the discretion of the SOF and pilot, the aircraft may then be taxied or towed to park.

8.43. Barrier Engagements. On a daily basis, all barriers will be fully operational. During a practice barrier engagement, if the cable is missed, raise the tail hook and continue with normal landing roll-out. Following a barrier engagement, the aircraft will normally be shut down and be towed off of the runway. If a power out (slingshot)/rollback is directed by crash recovery, follow these procedures:

8.43.1. Come Forward: Apply power (85% max) to extend the cable. Only used for Power Out exit. Visual Signal: Same as marshall forward for parking.

8.43.2. Move back: Reduce power and allow the aircraft to be pulled back by the cable. Use power, NOT brakes, to control the roll back. Visual signal: Arms up against chest as if performing a curl, then bring hands down palms inward as if releasing a curl.

8.43.3. Hook Up: Raise the hook. Visual signal: Hand flat palm down, other hand in a fist with thumb pointed up into flat palm.

8.43.4. Stop: Apply power, then brakes, to slow or stop roll back. Visual signal: Arms crossed in an 'X'.

8.43.5. Apply Brakes: Visual signal: Arms raised, close the hands.

8.43.6. Move Ahead: Taxi away from the cable. Visual signal: Same as marshall forward for parking.

8.44. Hot brakes Procedures. If suspected, confirmed, or aborting above 120 knots, inform tower and taxi to hot brake area. The hot brake area is located in each arm/dearm area offset towards the runway, and between Flow Through 50 and Taxiway Delta on the Upper Fighter Ramp. Stop facing into the wind. Do not shut engines down until instructed.

8.45. Brake Failures. If a brake failure occurs on the runway, lower the tail hook (if required), stop straight ahead, advise tower, wait for assistance and shut down. Exception: during single runway operations, with good emergency brakes, the SOF may advise to taxi clear. Once clear, stop immediately, advise ground, wait for assistance, and shut down. If a brake failure occurs while taxiing and stopping distance is critical, stop using the emergency brakes, advise ground, wait for assistance, and shut down.

8.46. Taxi After Emergencies. If any doubt concerning aircraft safety exists, shut down. Coordinate with the SOF to alleviate any problems with Crash Crew response and emergency termination.

8.47. One Hour and Mishap Reports. When a 1 hour report is required, fill out the form immediately upon reaching the operations building. The squadron supervisor will review the original. Squadron Operations personnel will E-Mail the report directly to the 18 OG/CC and CD. Submit a 1 hour report for the following:

8.47.1. Emergencies (ground or air). The 1 hour report lists all the safety reportable incidents. If an incident is safety reportable, follow the instructions on the 1 hour report.

8.47.2. Departures from controlled flight.

8.47.3. Unusual occurrences requiring 18 OG/CC or CD attention.

8.47.4. Hazardous bird activity or bird strikes.

8.47.5. Inadvertent releases, firing, or jettison of ordnance.

SECTION G--18 OG STANDARDS

8.48. General. OG Standards provide a common reference for conducting daily flying operations. These standards are by no means the only way to accomplish a specific task. Rather, they allow the flexibility to avoid briefing routine items and focus more on the tactical content of the mission. Flight leads have the option of modifying the standards, however, these changes must be briefed. These standards cover out and back items and not employment standards. Refer to the classified 18 OG standards for tactical employment.

8.49. Briefing.

8.49.1. Two hours before takeoff. Be in place with "Go/No-Go" items signed off and mission data cards complete a minimum of 5 minutes prior to briefing.

8.49.2. Responsibilities. NUMBER-2 is responsible for the EP, TOLD, and threat (if required). The last wingman is responsible for weather and NOTAMS. Flight members that receive a verbal weather brief must annotate forecasters initials and time of brief in flight leads remarks column on the 5 AF Form 3, **Daily Flight Authorization/Clearance/Flight Plan** (sign out log). Intel should brief the threat of the day or a special topic.

8.49.3. Deputy flight lead. NUMBER-3 for 4 to 6-ship; NUMBER-5 for 8-ship.

8.49.4. Radio procedures. If using standard hand signals, acknowledge with a head nod. Pass the hand signal down the line. "GO" requires acknowledgment prior to switching frequencies. "PUSH" requires no acknowledgment. Check-in on the new frequency is optional. R/T is assumed on the primary unless "Aux" included in the transmission.

8.50. Ground Operations.

8.50.1. For off-station sorties or surges, store AFTO Form 781 in VTR door or cockpit.

8.50.2. Pre-start IFF set. Mode 1, Mode 2--as per squadron standards (section 8.21.8)

8.50.3. Pre-Taxi. Engine start 30 minutes prior to takeoff. Radios should be set to monitor squadron ops (CH 1) aux /Ground (CH 2) prime. Always monitor ops. Each flight member will program radios (including HQ) and INS prior to check-in. Obtain a Command Post Mickey (TOD) and ATIS prior to check-in. Be sure to notify lead if delayed, shutting down, or starting back up. Check-in on squadron operations 15 minutes after start engine time. The deputy flight lead will check the flight in at 17 minutes if no contact with the flight lead. The flight lead will call for taxi, after HQ checks are complete, without check-in on Ground. Flight members will acknowledge the clearance and IFF squawk on squadron ops (CH 1) as 2,3,4. Pass tail number changes to the flight lead. The flight lead will notify squadron ops.

8.50.4. Check in: All flight members will be ready HQ in the prime / Squadron Aux 1 minute prior to check in time.

Format:

The radio the talking should be done is **Highlighted**.

	<u>Aux</u>	<u>Prime</u>	
(1)	Ch 1	AM NET 1	“Shogun 1, check aux” -- “two, three, four”
(2)	Ch 1	AM NET 1	“Shogun Go, FMT-NET 125” -- “2 loud & clear, 3 loud & clear, 4 loud & clear”
(3)	Ch 1	FMT NET (Sqd Std)	“Shogun Go, Green” -- “2 loud & clear, 3 loud & clear, 4 loud & clear”
(4)	Ch 1	Secure FMT-NET	--“Shogun Uncover Channel 2” -- “2 loud & clear, 3 loud & clear, 4 loud & clear”
(5) or lost	Ch 1	Ch 2	

8.50.5. Arming Area. Line up the helmets after arming. After the last aircraft has been checked, give a thumbs up. When sent to tower (normally visually), turn on landing light and set Manual Aux in the AUX. Flight leads will check the flight in on Man Aux.

8.51. Runway Line-Up/Take-Off.

8.51.1. 2/3 ship. Echelon into the wind.

8.51.2. 4-ship. Echelon with NUMBER-4 in the slot. If winds or runway width (deployed ops) are a factor, element spacing will be a minimum of 500 feet.

8.51.3. The standard is single ship takeoffs with 10 seconds spacing (mil), and 15 seconds spacing (afterburner).

8.51.4. Static formation takeoffs may also be briefed as "standard" IAW AFTTP 3-3 Vol 4. NUMBER-3 will not signal for run-up until NUMBER-1 and NUMBER-2 roll when element spacing is less than 500 feet.

8.52. Departure.

8.52.1. Day VMC. Wingmen rejoin to spread on element lead(s) with #4 opposite side of #2. The second element or NUMBER-3 in a 3-ship will rejoin to 1NM trail, mirroring the lead element's formation. Wingmen squawk Mode 3 standby.

8.52.2. Night VMC. Wingmen rejoin to route on the flight lead. Wingmen squawk Mode 3 standby.

8.52.3. IMC (Trail option). Trail will be standard IAW AFTTP 3-3 Vol 4, Flight Fundamentals and AFI 11-2F15 Vol 3, Chapter 4. Call "Tied" on MAN AUX. The last aircraft will squawk Mode III/C 5X00, and call "C/S, visual" when VMC on top, above the TCA, and can rejoin without entering IMC conditions. Rejoin as directed. If at anytime during the trail departure you cannot maintain spacing with onboard systems, transmit "C/S, no contact."

8.53. En Route/RTB Formations and Checks.

8.53.1. Ops checks. Flight leads will initiate the initial ops check above 10,000 feet and prior to 18,000 feet. The format will be per section 8.22.1 guidance. Wingmen, if within 500 lbs total fuel, and balanced may respond with "Same".

8.53.2. Formations (may be sent by visual signal or radio call). Fingertip/route signaled by a wing rock/yawing. Spread formation is MCM 3-3 standard. Visual signal is done by holding palm outward and "pushing" the wingmen to spread. Flight lead should remain wings level. Tactical Formation outside working airspace is line abreast, 4-6,000 feet between aircraft with less than 500 feet altitude stack. Flight lead may bank away to help expedite tactical formation.

8.53.3. Systems Check. Unless a formation takeoff was accomplished, accomplish the systems check during the rejoin into formation above 5,000 feet. The goal is to finish all "admin" as soon as possible.

8.53.3.1. If formation takeoffs are accomplished: two-ship systems check is signaled by a porpoise of lead's aircraft. Lead reduces to 800 FTIT and 300 KIAS. When NUMBER-2 is finished, rejoin to previous formation position. Lead's positive move to wingman's six is a visual navigational lead change signal to wingman (NUMBER-1 keeps radios and squawk). Wingman reduces to 800 FTIT and 300 KIAS. Flight lead returns to previous formation position and resumes total lead of the flight (acknowledged by wingman aggressively moving to tactical formation).

8.53.3.2. A 3-ship systems check is initiated with a radio call. NUMBER-3 starts from trail. When cleared by lead, NUMBER-3 accomplishes systems check and rejoins on lead opposite of NUMBER-2. NUMBER-3 assumes navigational lead and holds 300 KIAS and 800 FTIT while NUMBER-1 and NUMBER-2 maneuver to NUMBER-3's stern (NUMBER-1 and NUMBER-2 remain on respective sides for

deconfliction). NUMBER-1 maintains radios and squawk. When NUMBER-1 and NUMBER-2 are complete (signaled by wing rock), the flight lead maneuvers element to rejoin to original formation (NUMBER-1 in the middle with NUMBER-2 and NUMBER-3 on each side). Once established in this formation, the flight lead resumes total lead of the flight and wingmen acknowledge by aggressively moving to tactical formation.

8.53.3.3. A 4-ship systems check is initiated with a radio call. Start with wingmen in spread formation and second element in trail. Lead holds 800 FTIT and 300 KIAS. When cleared, NUMBER-3 and NUMBER-4 accomplish check and leapfrog around NUMBER-1 and NUMBER-2, (passing the lead element simultaneously line abreast). At the pass, NUMBER-3 assumes navigation lead of the flight. NUMBER-3 holds 800 FTIT and 300 KIAS. NUMBER-1 and NUMBER-2 accomplish their check. Signal complete by rocking wings. NUMBER-1 checks into his wingman and flies to a position line abreast with NUMBER-3. When line abreast, NUMBER-1 regains the lead of the flight. NUMBER-3 acknowledges the lead change by maneuvering to tactical formation. Wingmen are then cleared to tactical.

8.53.4. Prior to tactical maneuvering, the flight lead will call "Fence Check/Trigger Check". Reception of A/A TCN signifies fenced in. Upon entering the airspace the flight lead will pass the local altimeter, wingmen will acknowledge with 2,3,4. Re-accomplish KY-58 check and call alibis' on secure.

8.53.4.1. G-Awareness Exercise. 18 OG F-15s will accomplish a minimum of one 90 degree and one 180 degree turn. Start from any tactical formation, with any size flight, 400 KIAS minimum. Call "Standby G-Awareness, tapes on." Pilots will ensure proper G-suit operation by inflating G-suit prior to maneuvering. On the first turn, use mil power and smooth onset to approximately 4-5 Gs. Unload and accelerate to 400 KIAS minimum. Call for another turn (6-7 G's). Practice anti-G straining maneuver and ensure OWS tone is operational.

8.53.5. Fence Check Out. Direct by transmitting "C/S, fence out, CMDs off." Acknowledgment in turn, "2/3/4's off."

8.53.6. Battle Damage Check. Visual signal: clenched fist, index finger and thumb extended. Take time to look closely at all parts of the aircraft. Pilots should pay particular attention to the CMD. If anything is hanging from the CMD, treat it as a hung flare.

8.53.6.1. Two-ship: wingman flies to a high route position and inspects top side of lead's aircraft, drops low, performs a cross under, inspects bottom side of lead's aircraft, continues to a high route position on the opposite side for further inspection, stabilizes and passes a thumbs up. Lead passes navigational lead to wingman visually, accomplishes battle damage check then visually passes thumbs up. NUMBER-2 visually passes back the lead.

8.53.6.2. Three-ship: After signal from lead, NUMBER-2 checks NUMBER-1 and NUMBER-3 and returns to original position. NUMBER-3 is automatically cleared to check NUMBER-2.

8.53.6.3. Four-ship: After signal from lead, NUMBER-2 checks NUMBER-1, NUMBER-3, and NUMBER-4 and returns and passes thumbs up. When complete, NUMBER-4 is automatically cleared to check NUMBER-2.

8.54. Recovery.

8.54.1. Flight lead directs "Drill Aux" (switch to SQUADRON OPS-ATIS-MAN AUX=CH 01-00-MAN AUX). Call maintenance codes in order to ops on secure (If capable). Automatically switch to ATIS and AUX frequency. No check-in on AUX frequency required. The flight lead may check with Shogun 10 (CH 10) for any words, then meet his flight on MAN AUX.

8.54.2. Contact approach at 50 miles (NLT 30) with ATIS and intentions.

8.54.2.1. Recovery to Initial (VFR). Tactical Initial if cleared by ATC. Two-ship line abreast (NUMBER-3/4 two-mile trail), element leads positioned to pitch out first. Tactical formation is a 3,000 foot level split. Airspeed on initial is 350 KCAS or as per local directives. NUMBER-1 pitches out normal, NUMBER-2 pitches simultaneously with lead, pauses at 90 degrees (belly check) and continues to normal spacing on downwind using power and G as required. NUMBER-3 delays break to roll out in trail with NUMBER-2. Second element follows the same procedures as the lead element.

8.54.2.2. Trail Recovery (4-Ship maximum at the Home field). Wingmen lock and call "Tied" on Manual Aux. The last aircraft will squawk MODE III/C 5X00.

8.55. After Landing.

8.55.1. Radios. When clear of all active runways, automatically set squadron ops (Ch 1) in the aux and ground (Ch 2) in the prime. Flight lead calls ground for clearance to taxi back to the chocks. Lead initiates call to ops. Call "Down, no change" in order if no other changes. If proceeding to the "Bird bath" monitor ops (Ch 1) in the aux at all times. Work "Blue balls" prior to shutdown to max extent possible.

8.55.2. Post-flight Cockpit Set-up:

8.55.2.1. Mode 1 - 00.

8.55.2.2. Mode 3 - Departure Code 5400.

8.55.2.3. AAI-1/0000.

8.55.2.4. Weapons select-MRM.

8.55.2.5. INS-PP/Dest 6/Steer-to 6.

8.55.2.6. UHF 2 - Channel 1.

8.55.2.7. UHF 1 - Channel 2 set; Manual frequency 3XX.025 where "XX" denotes last MWOD day loaded (that ops checked good) and .025 denotes FMT-NETS checked good. Otherwise, set 300.050. Prior to engine shutdown, perform a visual INS update.

8.55.2.8. BIT-MPCD.

8.56. Debriefing. The last wingman is responsible for the Top Gun/Sortie summary cards. Review weapons expenditures. After debrief responsibilities: flight leads clean the briefing room and ensure 8MM/monitors off; wingmen secure the classified tapes.

8.57. Night Procedures (Start Engines/Taxi).

8.57.1. Start/Taxi. In the chocks, after engine start, check the status of the internal/external lighting. Lighting requirements are listed in para 8.16.6. After the check is complete, turn off external lights except for position lights. When the aircraft is in motion, turn on all external lights (except formation lights). When stopped (in the chocks, in EOR, or in the marshaling area), turn off external lights except position lights. When in doubt, match lead. Taxi spacing is 300 feet on the centerline.

8.57.2. Night Lighting Standards in EOR. After the last aircraft has been checked and when ready for takeoff, turn on anticollision beacons in reverse order. This signifies "ready." Delay turning on taxi light until pulling out of EOR parking spot. When cleared for takeoff, turn on formation lights (setting #3). Taxi into position and turn off taxi light when stabilized. Turning off taxi light signals ready for run-up.

8.57.3. Night Procedures for Takeoff. Flight leads call for engine run-up. Signal ready for takeoff by turning on landing light. The standard is single ship takeoffs with 20 second spacing. When rejoin is accomplished, only one anticollision beacon is required. The aircraft with the highest digit (NUMBER-4 in a 4-ship) will turn on the beacon for the flight. When night formation takeoffs are briefed, element leads will turn off the anticollision beacon. Element leads will call for run-up, brake release, and gear on the radio. Automatically retract flaps after gear.

8.58. Air Refueling.

8.58.1. Rendezvous procedures.

8.58.1.1. Buddy Departure. The tanker and first flight of the air refueling period may perform a Buddy Departure into the anchor area, if coordinated. The tanker will plan to be in the EOR 10 minutes prior to takeoff. Takeoff interval will be 60 seconds unless conditions dictate otherwise. The tanker will use a climb speed of 310 KIAS. The tanker will normally fly the SID to the Chinen VORTAC, then direct to the ARCP if on Rwy 05, or radar vectors direct the ARCP if on Rwy 23. Refueling will begin ASAP once clear of the TCA.

8.58.1.2. Subsequent rendezvous. The second flight scheduled for refueling will perform a tanker directed point parallel rendezvous (first flight if no buddy departure). All subsequent flights will conduct fighter turn-on intercepts. GCI/tankers/F-15s may coordinate for point parallel intercepts during the "15 minutes prior" radio call.

8.58.2. Communications Plan.

8.58.2.1. Buddy Departure. Prior to a buddy departure, the tanker will participate in the ground Have Quick/KY-58 radio checks. To do this, they will monitor the squadron ops frequency of the first scheduled F-15 flight at the coordinated time. Use the PACAF MWOD published in the in-flight guide and obtain a Command Post mickey. Fighters will establish a common frequency with the tanker in the prime radio (normally boom) prior to takeoff. Monitor the departure frequency in the aux until clear of the TCA. When clear, fighters may push to a discrete aux.

8.58.2.2. Radio transmissions: EMCON 2 unless using Have Quick. With Have Quick, minimize comm but use full call signs.

8.58.3. Squawks. Tanker Mode I: 33

8.58.4. Air-to-Air TCN. 29Y--F-15; 92Y--Tanker

8.58.5. Responsibilities.

NUMBER-1. Conduct the rendezvous.

NUMBER-2. Fly formation. A/A TACAN with the tanker. Once NUMBER-1 reaches the pre-contact position, deselect A/A TACAN.

NUMBER-3. Fly formation. Back-up radar.

NUMBER-4. Fly formation.

8.58.6. During the rejoin, NUMBER-1 flies to the precontact position. When NUMBER-1's slipway opens, the wingmen are cleared to the observation position on their side.

8.58.7. Refueling order. 1-3-2-4. Quick Flow procedures are not authorized.

8.58.8. Observation position. IAW MCM 3-3, Chapter 7. Note: At night, the outside fighter in the observation position will have the anticollision beacon on.

8.58.9. Departing the tanker. Flights depart the tanker after coordinating with the tanker cell lead. Unless otherwise coordinated, depart by climbing to the top/above the block. When clear, turn to the desired course.

8.59. Special Subjects.

8.59.1. Radar lookout. Standard IAW short range radar plan. Call contacts within 10 miles that are a factor.

8.59.2. Visual lookout. Everybody's responsibility. Call out factor aircraft.

8.59.3. Recall procedures. Monitor Guard. When notified, contact Shogun 10. If flight lead does not acknowledge, wingmen will query lead.

8.59.4. Dissimilar formation. Route formation unless briefed.

8.60. Abnormal Procedures.

8.60.1. In-flight Emergencies. Handled by elements.

8.60.2. Aborts. Throttles, brakes, and hook (if required) IAW checklist. Call it out. Use speed brake as a visual signal. Trailers: slow speed abort behind, or high speed takeoff over the top (use AB as required).

8.60.3. Low altitude ejection. Establish a climb immediately. Eject prior to developing a sink rate.

8.60.4. Landing immediately after takeoff. Climb to IFR/VFR downwind maintaining safe flying airspeed. Dump fuel above 5,000 feet if able and maneuver for visual/instrument straight-in. Handle the IFE as an element.

8.60.5. Jettison. Attempt to jettison over water 1 NM from land/shipping. Jettison prior to developing a thrust deficient situation.

8.60.6. Lost wingman. Transition to instruments. Execute standard AFI 11-2F15 Vol 3 procedures.

8.60.7. NORDO. Proceed to your point, in your block, VMC at 20,000 feet plus call sign (i.e., 21K, 22K, 23K, etc.) and squawk appropriately. RTB at joker fuel or the end of area time. Simple NORDO will be left at the NORDO point until the flight RTBs. After join up, follow MCI 11-F15 Vol 3, Chapter 7. If single ship, follow In-flight Guide procedures.

8.60.8. RESCAP.

8.60.8.1. Flight lead is the SAR commander with the deputy flight lead as the back up. Mark the position and call the SOF. The aircraft with the most fuel establishes the low CAP. The lower fuel aircraft establishes the high CAP. After initial contact, use 282.8 as primary SAR frequency, and CH 10 (SOF) as command and control frequency. SAR forces will take control on arrival. JASDF rescue forces may arrive on scene not on these frequencies. To prevent any conflicts, one radio in the holding stack should contact Roderick/Lightsword on 276.3 to help deconflict with JASDF MU-2 and CH-46's.

8.60.9. Emergency/Alternate airfields. First choice: Futenma. Use Naha if weather/conditions do not allow landings at Futenma. Consider Ie Shima under dire circumstances.

8.61. Alternate Missions. Alternate missions include BFM, ACM, or Instruments.

8.61.1. BFM.

8.61.1.1. General. Standard SCL (as loaded). Kill criteria: two shots or one guns track. The first 5 seconds on a perch setup and premerge (neutral setup) shots do not count towards kills. 5,000 Ft Floor. Valid separations will be defined as 12,000 feet and opening Vc within 1,000 feet of the floor. No AIM-120 only kills.

8.61.1.2. Objectives/DLOs:

Offensive.

Kill the Bandit.

Maintain the offensive.

Separate before going defensive.

DLO: Kill or separate in 60 seconds

Defensive.

Survive.

Deny/defeat initial shot.

Deny/defeat follow-on shots.

Separate or go offensive.

DLO: Survive for 60 seconds

High Aspect.

Kill the Bandit.

Get in the WEZ and shoot.

Maintain the offensive.

Separate before going defensive.

DLO: Kill or separate in 90 seconds

8.61.1.3. Perch set ups. 18,000 feet. 6,000 feet/9,000 feet perch: 430 KIAS. 3,000 feet perch: Defender 375 KIAS; Offender 400 KIAS. Perches initiated from line abreast at perch range plus 3,000 feet. Two ship check turn into the defender. Defender reverses when offender is pure pursuit and turns as required to maintain 40 degrees angle off. Offender maintains pure pursuit and calls ranges and aspect if not 4L/R. The offender calls "fight's on" at the designated range. Defender executes a break turn and both fighters be wary of over-G potential.

8.61.1.4. High Aspect butterfly set ups. IAW MCI 11-F15 VOL 3, CH 5, the offender must have some advantage in either position or performance. 18,000 feet, ≥ 350 KIAS. Start 6,000 feet to 9,000 feet line abreast. "Turn away" call means check 45 degrees away from each other. "Fight's on" means cleared to turn in and maneuver.

8.61.2. ACM.

8.61.2.1. General. 2v1 visual lookout/short range radar exercise. The element stays within 10 NM of the reference point. The element that briefed together will fly as the element.

8.61.2.2. Objectives. Element. Detect all threats using visual lookout and short range radar. Use engaged and supporting contract and engaged comm to:

Defeat initial threat.

Separate.

Go offensive and kill the bandit < two 360s.

DLO: Kill/separate in 60 seconds.

Single. Tally 2 and practice engaged maneuvering in a multi-bogey environment. Achieve one valid shot and kill or separate.

8.61.2.3. Spins:

Blocks:	Element - 10-18K feet Single - <9Kfeett, >19K feet	5,000 feet Floor unlimited maneuvering
Weapons:	Element - SCL as briefed (no reloads). Single - 2x4xgun (reload at regen.)	
Kill:	Element - MCM 3-1 Single - 2 shots/1 track	
KRemove	Permanent per engagement. Single BVR 45 sec.	
GCI:	Element - none Single - tactical	
ID:	Element - PID/VID Single - BVR	
Radar:	Element - 20 NM scope Single - Full up.	

8.61.3. Snap Shot Exercises. The following exercises can be briefed as “standard” and used to/from training areas.

8.61.3.1. Low Angle Snapshot Exercise. Objective is to establish the aircraft in the target’s plane-of-motion (POM) with sufficient lead to achieve a valid snapshot.

8.61.3.1.1. Set up. The target begins at 350 KIAS. The attacker is positioned 45 degrees off the tail at 9000 feet, airspeed as required. At the “cleared to maneuver” call, the target begins a 4 G turn into the attacker to create angle off. The attacker establishes lead, POM, and lead fire for a 60-100 degree snap shot.

8.61.3.2. High Angle Snap Shot Exercise. Objective, same as Low Angle Snap Shot.

8.61.3.2.1. Set up. The attacker starts 9,000 feet line abreast with the target's airspeed at approximately 400 KIAS. At the "cleared to maneuver" call, the attacker starts a level turn into the target. As the attacker approaches pure pursuit, the target enters a 3-4 G turn. The attacker establishes POM and lead fire for a 90-130 degree snap shot.

8.61.4. Advanced Handling.

8.61.4.1. *Given squadron top three approval*, any aircrew is qualified to fly this profile as an alternate single ship mission.

8.61.4.2. Proceed to and from the area in accordance with In-flight Guide. During RTB plan to accomplish a precision and non-precision approach.

8.61.4.3. Area Work: Accomplish a G-Awareness exercise and then any or all of the following maneuvers.

8.61.4.3.1. Acceleration Exercise x 2: Start at 15,000 feet MSL/250 KCAS, select full AB and accelerate to 550 KCAS at 1G/level flight. Note the time to increase each 50 KCAS and total time to reach 550 KCAS. Repeat exercise with the same starting parameters only this time use 8 units or .5g and note the times and altitude lost. Use caution if approaching 5000 feet \geq 45 degrees nose low.

8.61.4.3.2. Minimal. Time Turn Reversal (MTTR): Start at 15,000 feet MSL and 550 KCAS. Execute your best turn using altitude, power, and G, to turn 180 degrees and accelerate to 550 KCAS. Note the feel of each phase of the maneuver, the time required to complete the MTTR, and the altitude lost during the MTTR.

8.61.4.3.3. Sustained Turns x 3: Start at 15,000 feet MSL, MIL or AB as desired. Execute three 180 to 360 degree turns, the first turn at 450 KCAS, second turn at 350 KCAS and the third turn at 250 KCAS. Maintain altitude and airspeed during each turn. Note degrees per second turn rate for each turn.

8.61.4.3.4. Break Turns x 2: Execute your best break turn 90 to 180 degrees starting between 15,000 to 20,000 feet MSL. Keep the first break turn level then repeat using altitude as desired. Note degrees per second turn rate and feel for each turn.

9. Form Prescribed. 18 WG Form 4, **F-15 Flight Data.**

Attachment 1**CROSS COUNTRY REQUEST**

MEMORANDUM FOR XX FS/DO
 XX FS/CC
 18 OG/CC

DATE

FROM: XX FS/XX (CAPT XXXX)

SUBJECT: Cross Country Request

1. I am requesting approval for a 4-ship Cross Country beginning on XXX and returning on XXX. The itinerary and pilot qualifications are:

ITINERARY

<u>DATE</u>	<u>FROM</u> (T/O)	<u>TO</u> (LAND)	<u>FUEL</u> (IAF)	<u>PPR</u>	<u>REMARKS</u>
21 Jun	Kadena AB, JA (0800)	Kwang Ju AB, ROK (0930)	4400#	C03	Gas & Go
21 Jun	Kwang Ju AB, ROK (1100)	Osan AB, ROK (4430)	4700#	040702	RON
22 Jun	Osan AB, ROK (1030)	Kwang Ju AB, ROK (4400)	4700#	F01	Gas & Go
22 Jun	Kwang JU AB, ROK (1100)	Osan AB, ROK (4430)	4700#	040702	RON
24 Jun	Osan AB, ROK (1400)	Kadena AB, JA (1530)	4400#	N/A	Return

QUALIFICATIONS

<u>NAME</u>	<u>RANK</u>	<u>QUAL</u>	<u>EXP LVL</u>	<u>WX</u>	<u>HRS (TOT/PAA)</u>
Ragman, Joe S.	Capt	IP/SEFE	E	A	1900/1400
Paper, Wase T.	Lt	WG	I	C	400/150
Galland, Adolf G.	Maj	IP	E	B	4,000/300
Bader, Douglas	Lt	WG	E	C	5,000/200

2. The purpose of this Cross Country will be to conduct Off Station Navigation Proficiency Training and increase familiarity with the Korean AOR.

JOE B. AIRFORCE, Capt, USAF
F-15 Aircraft Commander

1st Ind, XXFS/XX, Cross Country Request, dtd____

MEMORANDUM FOR XX FS/DO

Approved/disapproved.

IAM A. WONDER, Lt Col, USAF
Operations Officer, XX FS

2d Ind, to XX FS/DO,

MEMORANDUM FOR 18 OG/CC

Approved/disapproved.

JOHN Q. COMMANDER, Lt Col, USAF
Commander, XX Fighter Squadron

3d Ind, 18OG/CC

MEMORANDUM FOR XX FS/XX

Approved/disapproved.

JOHN T. BRENNAN, Colonel, USAF
Commander, 18th Operations Group

JAMES B. SMITH, Brigadier General, USAF
Commander, 18th Wing