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Maintenance

INTEGRATED COMBAT TURNAROUNDS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFD 21-1, *Managing Aerospace Equipment Maintenance*. It establishes local policy, procedures, responsibilities, and qualification requirements for F-15 integrated combat turnarounds (ICTs). It applies to 18th Wing and associate units at Kadena AB. This publication does not apply to the Air National Guard or US Air Force Reserve.

1. References: PACAFI 21-101, *Objective Wing Aircraft Maintenance*, AFMAN 91-201, *Explosives Safety Standards*, TOs 00-25-172, *Ground Servicing of Aircraft and static Grounding/Bonding*, 1F-15A-33-1-4, *Integrated Combat Turnaround Procedures*, and 11A-1-33, *Handling and Maintenance of Explosives Loaded Aircraft*.

2. Responsibilities:

2.1. Maintenance Operations Center (MOC) will:

2.1.1. Coordinate changes in aircraft downtime, landing codes, and aircraft parking.

2.1.2. Maintain communications with the Combat Turn Director (CTD) and Ramp Rat (if activated) and inform them of circumstances that affect ICT operations such as IFEs, etc.

2.1.3. Dispatch fuel truck(s) to the Combat Turn Area (CTA) 60 minutes prior and notify fire department 30 minutes prior to scheduled ICT start times.

2.2. 18 OG Quality Assurance (QA) will:

2.2.1. Provide four qualified personnel to assist Weapons Standardization (WS) in evaluating ICTs.

2.2.2. Ensure QA evaluators receive non-2W1X1 academic training.

2.3. Weapons Standardization (WS) will:

- 2.3.1. Provide initial and annual refresher ICT academic instruction and familiarization training to all personnel (except CTDs) and document training in the Core Automated Maintenance System (CAMS) or Weapons Load Crew Management Program (WLCMP) as applicable.
- 2.3.2. Arrive at the spot in sufficient time to assist/direct trainees on site setup and evaluate ICTs.
- 2.3.3. Track ICT qualification and provide a monthly update/report.
- 2.3.4. Maintain an ICT briefing book containing contents shown in [Attachment 1](#).
- 2.3.5. Ensure all load crews assigned to WS maintain ICT qualification.
- 2.3.6. Augment each fighter squadron with tow ICT-qualified weapons load crews.
- 2.3.7. Establish an annual training schedule designating when ICTs will be performed in Hardened Aircraft Shelters (HAS) and Chemical Warfare Defense Ensemble (CWDE).
- 2.4. Fighter Squadron Intelligence Element will:
 - 2.4.1. Establish procedures for aircrew mission briefing and debriefing for ICT operations.
 - 2.4.2. Establish procedures to conduct briefing/debriefing in a chemical environment.
 - 2.4.3. Be in place 30 minutes prior to scheduled ICT start time (when required).
- 2.5. Sortie Generation and Weapons Flight Chiefs will:
 - 2.5.1. Maintain a minimum of 12 APG, 6 area turn supervisors (ATs), and 6 weapons load crews ICT qualified. **NOTE:** Two of each fighter squadron's weapons load crews will come from WS.
 - 2.5.2. Ensure an equal number of APG personnel maintain qualification in A or B position.
 - 2.5.3. Ensure a minimum of one 7-level APG, or waived equivalent, is assigned to each ICT crew.
 - 2.5.4. Ensure weapons personnel perform an ICT quarterly and APG personnel perform an ICT semi-annually in each position they are qualified in.
 - 2.5.5. Ensure aircraft are loaded with a full standard conventional load (SCL) of munitions during ICTs.
 - 2.5.6. Ensure ICT personnel receive HAS ICT training annually.
 - 2.5.7. During HAS ICTs, personnel in training status will install external fuel tanks (if required). Immediately after positioning aircraft in HAS, remove aircraft liquid oxygen (LOX) bottle.
 - 2.5.8. Ensure CWDE ICT training is conducted annually for all ICT personnel. (**NOTE:** Personnel in training status will not be required to wear CWDE until fully qualified).
 - 2.5.9. Ensure ATs are staff sergeants or above in any maintenance Air Force Specialty Code.
 - 2.5.10. Ensure all assigned dedicated crew chiefs/assistants and eligible specialists complete initial and annual ICT academic refresher training to facilitate possible contingency spin-up requirements.
 - 2.5.10.1. All personnel will be fully qualified on basic flightline operations and safety procedures prior to scheduling ICT academic training.

- 2.5.11. Provide an ICT qualified safety monitor when two or more non-2W1X1 is in initial ICT training.
 - 2.5.12. Maintain an ICT briefing book that mirrors WS' master copy (see [Attachment 1](#)).
 - 2.5.13. Ensure external tanks are hung on all daily practice ICTs.
 - 2.5.14. Submit an ICT schedule with tentative times and names for the following week to WS no later than 1500, Thursday, and ensure scheduled ICTs are printed in the weekly flying schedule.
 - 2.5.15. Ensure changes to the weekly flying schedule are coordinated through MOC, WS, and the munitions flight at least 24 hours prior to the scheduled start time.
- 2.6. The Combat Turn Director (CTD) will:
- 2.6.1. Remain in a position to maintain visual or radio communication with all ATSS.
 - 2.6.2. Be responsible for all personnel and equipment dedicated to the CTA.
 - 2.6.3. Only one CTD is required per CTA (see [Attachment 2](#) for CTD checklist).
 - 2.6.4. Ensure all personnel are in place 1 hour and 15 minutes prior to the scheduled ICT.
 - 2.6.5. Inform AT(S) of aircraft status and munitions expenditures prior to aircraft entering CTA.
 - 2.6.6. Ensure a fuel truck is in place 30 minutes prior to the scheduled ICT start time and fuel servicing personnel receive a safety briefing (IAW LCL-18OG-011 and 1F-15A-33-1-4CL-1).
 - 2.6.7. Ensure a fire truck is in the CTA at least 15 minutes prior to the first scheduled ICT.
 - 2.6.8. Coordinate with the weapons expeditor to ensure munitions delivery, as required.
 - 2.6.9. Ensure ICTs are performed only in authorized locations. (Do not perform daily training ICTs in flow throughs 1 through 8, 24 and 25, and 37 through 50.)
- 2.7. The Area Turn Supervisor (ATS) will:
- 2.7.1. Wear an easily identifiable vest and maintain visual contact with all personnel involved in the ICT.
 - 2.7.2. Keep the CTD informed of the ICT progress and request technical assistance when necessary.
 - 2.7.3. Maintain communication with MOC and other flightline supervisors.
 - 2.7.4. Coordinate with the CTD for all support equipment and movement of munitions and fuel tanks into the CTA.
 - 2.7.5. Conduct an initial safety briefing at least 30 minutes prior to the first scheduled ICT. Additionally, all replacement personnel must receive a safety briefing prior to entering the ICT lane.
 - 2.7.6. Ensure CWDE and necessary decontamination equipment is readily available for all personnel during chemical warfare ICTs. (Personnel in training status will not wear the CWDE until qualified).
 - 2.7.7. Supervise one ICT at a time and insure the integrity of the fuel servicing safety zone.
 - 2.7.8. Ensure FOD walks are performed upon completion of each ICT.
- 2.8. ICT Team Members:

2.8.1. Will be in place in the CTA at least 1 hour and 15 minutes prior to the aircraft scheduled downtime for site preparation. (See **Attachment 3** for equipment and **Attachment 4** and **Attachment 5** for site setup).

2.8.2. Will ensure aircraft and equipment decontamination procedures are used during simulated chemical environment ICTs. **NOTE:** The A-man will ensure the aircrew keeps the canopy closed until chemical detection/decontamination procedures are accomplished.

2.8.3. Will use an air-horn or equivalent when backing aircraft into an HAS during simulated chemical environment (MOPP 4), ICTs.

2.8.4. Position munitions trailer so that no part of the aircraft extends over the trailer during towing or taxiing operations. **NOTE:** During HAS ICTs, reposition trailer after aircraft is positioned in HAS.

2.9. Combat Generation Operations/Exercises:

2.9.1. Munitions service alleys (if required) should be located between two ICT spots for ICTs performed in flow-throughs or revetments. Munitions will be prepositioned and resupplied within the service alley to support both adjacent combat turn spots.

2.9.2. If ICT operations are required, a minimum of four ICT lanes with service alleys (when required) should be established for each aircraft squadron supported. Quantity of operational ICT lanes should be scaled up or down, based on sortie generation requirements and resource availability.

2.9.3. During local/HHQ exercises, aircrew CWDE for MOPP 4 conditions will be IAW PACAF-approved simulations.

2.10. Contingency Spin-Up:

2.10.1. The Operations Group Commander (provisional commander at deployed location) will initiate the ICT contingency spin-up to qualify additional ICT crews (if required).

2.10.2. Units will establish ICT lanes for repetitive taxi, ICT training at Kadena or to perform actual combat loading operations for qualification at deployed location. Quality Assurance and the squadron lead crews will train and qualify deployed personnel.

2.10.3. The Load Standardization Crew and ICT instructor will train and qualify non-deployed personnel and augmentation forces.

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

Attachment 1

ICT BRIEFING BOOK CONTENTS

A1.1. Policy memos.

A1.2. ICT training guide.

A1.3. 18 Wing Instruction 21-105

A1.4. ICT ITALS

A1.5. Memo designating CTDs

A1.6. Memo designating squadron ICT trainers

Attachment 2

COMBAT TURN DIRECTOR SAMPLE CHECKLIST

ALL PURPOSE CHECKLIST		PAGE 1	OF 1	PAGES
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR 18OG/ CMAW	DATE 20000301	
NO.	ITEM <i>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph.)</i>	Y	N	N/A
1.	Radio - Available			
2.	ATS(s) - Available			
3.	APG crew(s) - Available			
4.	Weapons load crew(s) - Available			
5.	Hearing protection - Available			
6.	Fire truck - Available			
7.	Fuel truck(s) - Available			
8.	Tow vehicle or aircraft handler - Available (If applicable)			
9.	External fuel tanks - Available			
10.	Required munitions - Available			
11.	CTA - Ready (i.e. support equipment, oil carts, fuel bowers, MJ-1)			
12.	Intel and/or maintenance debriefer - Available			
13.	Safety briefing conducted			
14.	FOD walk conducted			
15.	Chemical warfare gear - Available (If applicable)			
16.	Tank dolly - Available			
17.	NF-2 light all, (If applicable) (On each side of aircraft)			
18.	External fuel tank manual lift bars (Buddy bars, if applicable)			
19.	Spare tow vehicle or handler (As required)			
20.	Spare MJ-1 (As required)			

Attachment 3**MINIMUM PERSONNEL AND EQUIPMENT****A3.1. CTA requirements**

A3.1.1. Supplied by SGF:

- A3.1.1.1. Aircraft chocks.
- A3.1.1.2. Aircraft ground safety pins.
- A3.1.1.3. Aircraft static ground wires.
- A3.1.1.4. Communication set/Y-cord(s).
- A3.1.1.5. Fuel bowser (1 per turn area).
- A3.1.1.6. Approved fuel catch containers.
- A3.1.1.7. Oil servicing cart (1 per 4 spots).
- A3.1.1.8. Hydraulic cart (1 per 4 spots).
- A3.1.1.9. 150 lb halon fire extinguisher (2 required per ICT lane)

A3.1.2. Requirements for APG personnel:

- A3.1.2.1. Tow vehicle and tow bar/aircraft (1 per CTA).
- A3.1.2.2. Marshaling wands (for night operations).
- A3.1.2.3. Hearing protection (as required).
- A3.1.2.4. Marshaler's and ATS vests.
- A3.1.2.5. LOX converter available.
- A3.1.2.6. APG CTK (one per spot).
- A3.1.2.7. TO 1F-15A-33-1-4CL-1 (one per ATS and A-person).
- A3.1.2.8. Serviceable external fuel tanks
- A3.1.2.9. Step ladder(s) as required.
- A3.1.2.10. FOD can (one per spot).
- A3.1.2.11. Fuel spill quick response kit (1 per CTA).
- A3.1.2.12. LOX protective equipment.
- A3.1.2.13. One spare tow vehicle per CTA.

A3.1.3. Requirements for weapons load crews:

- A3.1.3.1. Weapons CTK (one per spot).
- A3.1.3.2. Step ladder (two per spot).
- A3.1.3.3. ARD-446 impulse carts (as required).
- A3.1.3.4. MJ-1 bomblift.

A3.1.3.5. One step loading adapter (OSLA) (One per spot or as required).

A3.1.3.6. Hearing protection (as required).

A3.1.3.7. 1/4" torque wrench/in-line torque adapter (one per crew).

A3.1.3.8. 3/8" torque wrench (one per crew).

A3.1.3.9. Expended impulse cart can (one per spot).

A3.1.3.10. Serviceable impulse cart can (one per spot).

A3.1.3.11. One spare MJ-1 bomblift per CTA.

A3.1.4. Supplied by Flight Line Support Equipment Flight:

A3.1.4.1. MC-2A low pack (as required).

A3.1.4.2. NF-2 light-all (as required).

A3.1.5. Supplied by 18 MUNS:

A3.1.5.1. Required munitions will be delivered at least 1 hour and 15 minutes prior to ICT start time.

A3.1.5.2. UALS fully serviced with ammunition and air (one per spot).

A3.1.5.3. AIM-7, AIM-9, and AIM-120 missiles (as required).

A3.1.5.4. Chaff/flare magazines (as required).

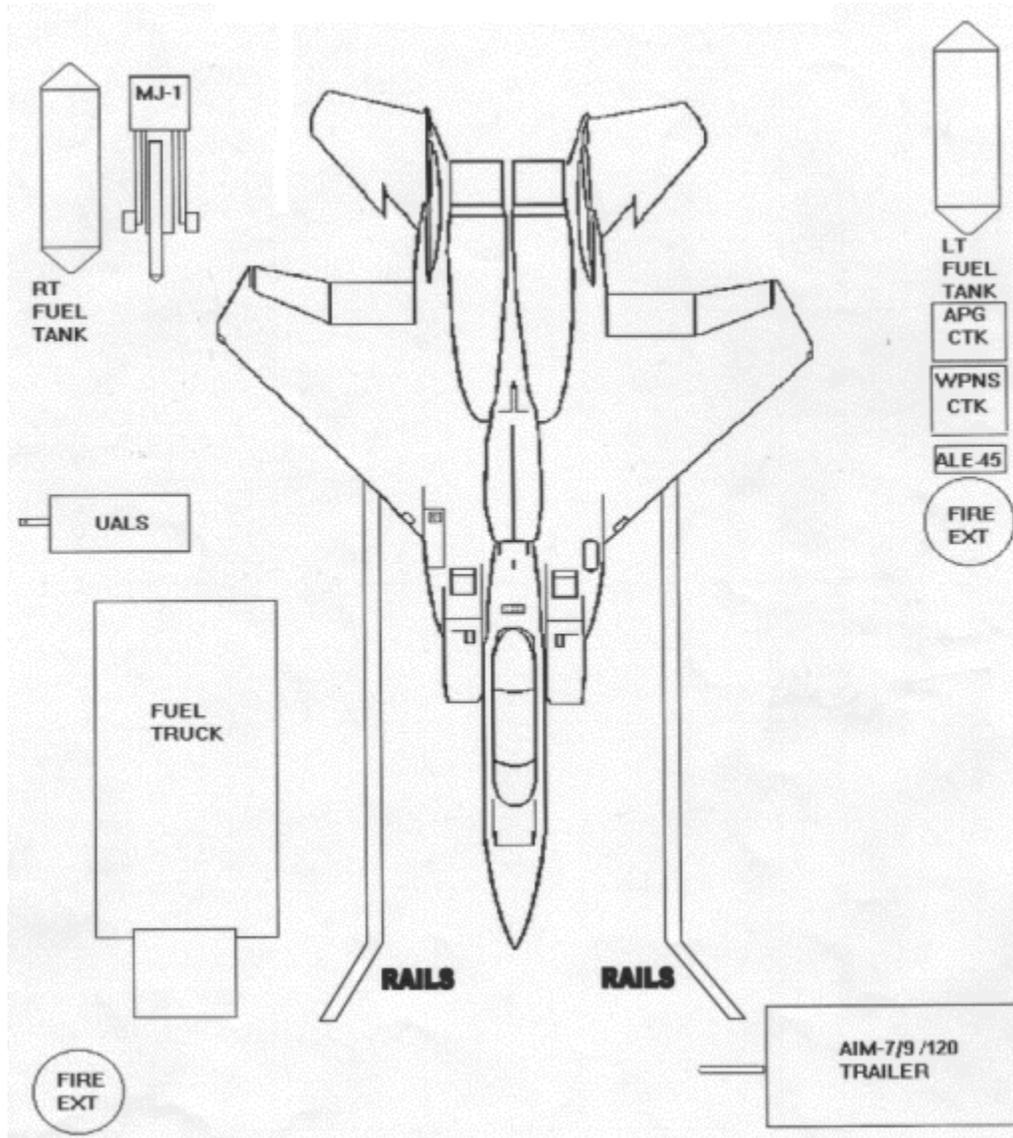
A3.1.6. Supplied by outside agencies:

A3.1.6.1. Fire truck (as required).

A3.1.6.2. Fuel trucks (as required).

Attachment 4

ICT SETUP PLAN FOR FIRST GENERATION HARDENED SHELTERS, KADENA AB, FORWARD LOCATION



Attachment 5

FORWARD LOCATION AIRCRAFT REVETMENT SETUP PLAN

