BY ORDER OF THE COMMANDER
SEYMOUR JOHNSON AIR FORCE BASE (ACC)

AIR FORCE INSTRUCTION 21-101

AIR COMBAT COMMAND
Supplement

SEYMOUR JOHNSON AIR FORCE BASE
Supplement
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Maintenance

AIRCRAFT AND EQUIPMENT MAINTENANCE MANAGEMENT

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This supplement implements and extends the guidance of Air Force Instruction (AFI) 21-101_ACCSUP, *Aircraft and Equipment Maintenance Management*. This supplement prescribes policies and procedures governing aerospace equipment maintenance management for 4th Maintenance Group (MXG) and Munitions Support Squadron (MUNS) sites. It applies to these organizations and personnel maintaining aircraft, aircraft systems, equipment, support equipment, and components regardless of Air Force Specialty Code (AFSC). It provides broad management framework for commanders to adjust procedures to compensate for mission, facility, and geographic differences. This supplement does not apply to the Air National Guard (ANG) or Air Force Reserve Command (AFRC); however, ANG/AFRC personnel assigned to Classis Associate Units supporting 4 MXG will comply with the guidance provided within this supplement. 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 in accordance with the Air Force Records Disposition Schedule. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command through channels to 4 MXG/Maintenance Programs, 1305 Hangar Row, Building 4534, Seymour Johnson Air Force Base, North Carolina 27531.

SUMMARY OF CHANGES

This publication has been substantially revised and must be completely reviewed in its entirety.

1.13.3. **(Added**) Mandatory double hearing protection within 50 feet of the following: aircraft with operating engines, A/M32A-60 generator set, and hydraulic test stands. All other operating, powered aerospace ground equipment (AGE) requires single hearing protection within 25 feet unless identified by Bio Environmental survey.

1.13.4. **(Added)** When aircraft are towed into any hangar, Aircraft Tow Super will document LCL-4MXG-001, F-15E Tow Prep/Hangar Entry Checklist and store on forward section of aircraft while in hangar.

1.15.2.1.1. **(Added)** No personal electronic devices shall be authorized in areas where classified information is stored, processed, or discussed. All photography is prohibited. Cell phone usage is not authorized in munitions operations areas, munitions storage locations, anywhere live explosives and/or munitions are present or during explosive or open fuel cell maintenance. At no time will personnel enter a cockpit with a cell phone. Driving while using a cell phone is not authorized. The usage of cell phones is to be used to expedite personnel, equipment, material, and maintenance data throughout the maintenance areas. Additionally, use is authorized in extenuating circumstances which require accessibility for emergency situations. All personnel will always maintain positive control and accountability of their cell phones.

2.4.44.1. **(Added)** Use criteria in Technical Order (TO) 00-35D-54 coupled with historical serialized information to identify a potential Bad Actor.

2.4.44.1.1. **(Added)** For first time repeat/recur (second time in repair cycle) the following procedures apply. Conduct standard line replaceable unit (LRU) testing. If testing results in a Bench Checked Serviceable (BCS) without a repair action taken (CND), open the LRU, inspected for internal chassis damage, foreign objects/debris and all components reseated. Repeat standard testing. If the unit tests without error or fault, notify work center supervisor for history review, annotate Global Eye or Reliability, Availability, Maintainability Logistics Support System for Pods (RAMPOD) database.

2.4.44.1.2. **(Added)** For second repeat/recur failure (third time in repair cycle) the following procedures apply. Conduct standard LRU testing. If testing results in a BCS with no repair action taken (CND), take the suspect LRU to Fighter Generation Squadron (FGS) for aircraft ground/built in test (BIT) checks. Coordination will be routed through 4 CMS Production superintendent to contact the FGS Super. If not possible, enter the LRU into the Bad Actor Program. Return LRUs to depot with a Deficiency Report (DR). Brief the avionics flight chief, maintenance supervision, and FGS maintenance supervision on LRU history for each bad actor returned to depot.

2.4.59.1. **(Added)** Turn time is defined as the time from aircraft landing to next takeoff. MXG CC/Deputy Commander (CD) can grant permission to perform a quick turn when minimum turn times fall below standard.

2.4.59.2. **(Added)** The minimum turn time will be 3.5 hours. Turn times under the minimum will be approved by MXG/CC or MXG/CD.

2.4.59.5. **(Added)** The following guidelines have been established to standardize scheduling practices in the 4 Fighter Wing:

2.4.59.5.1. **(Added)** The flying window is defined as the first local takeoff to the last local landing, considering early returns or late departures of cross-country sorties. The wing should adhere to a 12-hour maximum flying window, unless otherwise approved by the 4 Operations Group/Maintenance Group Commander.

2.4.75.1. **(Added)** Refer to Local Job Guide LJG-4MXG-013 for Rapid Crew Swap procedures.

2.4.76. **(Added)** Inputs for the monthly schedule will be provided to 4th Maintenance Operations Flight/Plans, Scheduling and Documentation Section no later than close of business of the 3rd Thursday of the preceding month. The following agencies will provide inputs for the monthly schedule.

2.4.76.1. **(Added)** Fighter Generation Squadron (FGS) Schedulers will submit the finalized monthly maintenance checkerboard for the coming month.

2.4.76.2. **(Added)** Operation squadrons will submit the finalized monthly flying contracts for the coming month.

2.4.76.3. **(Added)** The weekly signed PEX printout will be used as the official source document to process all 2407s and record all flying schedule deviations.

2.4.76.4. **(Added)** See **Attachment 7** for sortie line number assignments.

2.7.13.1. **(Added)** Parking, launch and recovery of explosives-loaded aircraft, end-of-runway procedures, hung stores/jammed gun system safing procedures are contained in LCL-4MXG-003 Emergency Action Checklist.

3.2.7.1 **(Added)** Provide input to MMA by the 8th calendar day (or prior duty day if 8th falls on a non-duty day) for the monthly metrics report to MAJCOM.

3.9.7.4. **(Added)** Units will establish a method of tracking pod parts with the Specialist Expediter as the primary point of contact (POC). Track pod parts from the unit once the unit takes possession from the Wing Avionics Manager.

4.4.4.1.1.1.1. **(Added)** FGSs will track all maintenance on Conformal Fuel Tanks (CFTs), External Fuel Tanks (EFTs), and Special Purpose Recoverable Authorized Maintenance (SPRAM) account/assets per AFI 23-101. Component Maintenance Squadron (CMS) Fuels Systems Section will manage maintenance status of CFTs and EFTs during maintenance and will distribute status to 4 CMS Production Superintendent

4.4.4.1.2.1. **(Added)** All EFTs shall be bottom-drained prior to delivery to the 4 CMS Fuels Systems Section.

4.4.4.1.3.1. **(Added)** The owning FGS will supply "L" Stands and install all required caps, plugs, ground cords and covers on CFTs while stored on the “L” Stands.

4.4.4.1.3.2. **(Added)** The owning FGS will control and maintain the “L” stands with current Air Force Technical Order Form (AFTO) 244s.

4.5.1.2.2.1. **(Added)** Users of bomb lifts must ensure that the equipment is returned to the AGE Servicing Section team within 5 duty days of being signed out or prior to a weekend or holiday for proper inspection and servicing.

4.5.1.2.3. **(Added)** Users of mobile AGE (-60, C-10, THOR cart, etc.) will ensure that the equipment is wrapped up in a neat fashion and placed away from aircraft at an accessible point for pick-up by AGE personnel when no longer in use or at the end of maintenance task.

4.9.2.2. **(Added)** Refer to **Table 4.1** for R&R Specific tasks

Table 4.1. (Added) R&R Section Task

CANOPY & COCKPIT					
SUBSYSTEM	**RIGGING**	**REMOVE & REPLACE**	**OPS CHK**	**RIG CHK**	**FOM**
Canopy (Note 3)	YES	YES	NO	YES	YES
Windscreen	N/A	YES	N/A	N/A	N/A
Throttle Quad	N/A	YES	YES	YES	YES
Throttle Cables	YES	YES	NO	YES	NO
FLIGHT CONTROLS					
SUBSYSTEM	**RIGGING**	**REMOVE & REPLACE**	**OPS CHK**	**RIG CHK**	**FOM**
ARI	NO	NO	YES	YES	NO
PRCA	NO	NO	YES	YES	NO
Longitudinal FTA	YES	YES	YES	YES	NO
Lateral FTA	YES	YES	YES	YES	NO
Directional FTA	YES	YES	YES	YES	NO
Longitudinal Control Linkage & Cables	YES	YES	YES	YES	YES
Lateral Control Linkage & Cables	YES	YES	YES	YES	YES
Directional Control Linkage & Cables	YES	YES	YES	YES	YES
Control Stick	YES	YES	YES	YES	YES
Rudder Pedals (Note 2)	YES	YES	YES	YES	YES
Pitch Ratio Controller	N/A	NO	YES	N/A	NO
Pitch Ratio Changer	N/A	NO	YES	N/A	NO
Pitch Trim Controller	N/A	NO	YES	N/A	NO
Pitch Trim Compensator	N/A	NO	YES	N/A	NO
Roll Ratio Controller	N/A	NO	YES	N/A	NO

Roll Ratio Changer	N/A	NO	YES	N/A	NO
Rudder Travel Limiter (Note 4)	YES	YES	YES	YES	NO
Yaw Ratio Controller	N/A	NO	YES	N/A	NO
Mode Select Assy	N/A	NO	YES	N/A	NO
Emergency Press Assy	N/A	NO	YES	N/A	NO
Stab Surface	YES	YES	YES	YES	YES
Stab Actuator	YES	NO	YES	YES	NO
Aileron Surface	YES	NO	YES	YES	NO
Aileron Actuator	YES	NO	YES	YES	NO
Rudder Surface	YES	NO	YES	YES	NO
Rudder Actuator	YES	NO	YES	YES	NO
Mixer Assy	YES	YES	YES	YES	YES
Rudder Breakout Assy	YES	YES	YES	YES	YES
Flap Surface	YES	NO	YES	YES	NO
Flap Actuator	YES	NO	YES	YES	NO
Speed Brake Surface	YES	NO	NO	YES	NO
Speed Brake Actuator	YES	NO	NO	YES	NO
LANDING GEAR					
SUBSYSTEM	**RIGGING**	**REMOVE & REPLACE**	**OPS CHK**	**RIG CHK**	**FOM**
NLG Strut (Notes 1, 3, & 6)	YES	YES	YES	YES	YES
NLG Doors	YES	YES	YES	YES	NO
NWS Cable	YES	YES	N/A	YES	NO
MLG Strut (Notes 1, 3, & 6)	YES	YES	YES	YES	YES
MLG Doors	YES	YES	YES	YES	NO

Gear Door Mechanism	YES	YES	YES	YES	NO
Brake Control Cables	YES	YES	NO	YES	NO
LG Emergency Cables	YES	YES	YES	YES	NO
Arresting Gear (Note 3)	YES	NO	NO	YES	NO
RAMP SYSTEM					
SUBSYSTEM	**RIGGING**	**REMOVE & REPLACE**	**OPS CHK**	**RIG CHK**	**FOM**
1st, 2nd, & 3rd Ramp Assy (Note 5)	YES	YES	YES	YES	YES
Diffuser Ramp (Note 5)	NO	YES	NO	YES	YES
Ramp System Actuators (Note 5)	NO	NO	NO	NO	NO
Note 1 – The owning FGS is responsible for removal and installation of the NWS unit, actuators, wheel & tire assemblies, brakes, and attached wiring harnesses. Note 2 – R&R will perform the "system forces" portion of the functional check due to the requirement of special tools. Note 3 – The owning FGS is responsible for servicing and air bleeding of the system. Note 4 – The owning FGS and R&R will provide an individual for removal and replacement of component. Also, the owning FGS will provide an individual for component wiring. Note 5 – Unit performing this task is responsible for required rigging. Note 6 – R&R will be responsible for the installation, removal, and servicing for the crutch struts and crutch strut wheels.					

4.11.3.6.3. **(Added)** Ensure that all engine maintenance actions are input into Integrated Maintenance Data System (IMDS) at the time of occurrence, if possible, but no later than the end of the duty day. Prior to an engine going to test cell, all components and modules will be installed in IMDS. Ensure there are no event numbers against the engine or modules prior to work packages being returned to Engine Management and engine placed into spare status.

5.2.5.3.4.2.3. **(Added)** Users requesting MIS (IMDS) access will submit a completed DD Form 2875 to the MIS Management email (4MXG.DBM@us.af.mil) in an unencrypted message.

5.2.5.3.4.2.4. **(Added)** Users with MIS access will out-process with MIS Management when access is no longer required.

5.2.5.3.4.3.1. **(Added)** Users will provide the MIS Management section with an IMDS screenshot, user input, and error message by unencrypted email at 4MXG.DBM@us.af.mil for problem resolution.

5.2.5.3.4.12.3. **(Added)** TRIC access letters will be re-accomplished annually and when changes are necessary. There will be a maximum of one TRIC access letter per squadron.

6.12.2.1.2. **(Added)** Refer to 4 MXGI 21-269 for FCF procedures.

7.6.1.1. **(Added)** QA will provide the impound official the impoundment Job Standard Tasking (JST) using the original discrepancy Job Control number (JCN) or referencing the original JCN. The impoundment official will report to QA with the aircraft forms within 2 hours of being notified that the impound JST is ready. QA will brief the impoundment official on his/her duties. For engines, use the Engine Impoundment Checklist, for equipment; use the AGE and Equipment Impoundment Checklist. Annotate the reason for the impoundment, the impoundment authority, and the official's name.

8.2.3.2. **(Added)** The program manager maintains a list of all warranty tools, ensures broken or damaged warranty tools are isolated and under strict control until properly replaced.

8.2.3.3. **(Added)** Warranty replacement tools will be isolated from other replacement tools. Identify warranty tools with an asterisk, a check mark or the word warranty in TC-Max and on all Composite Tool Kit (CTK) Master Inventory Listings (MIL).

8.2.3.4. **(Added)** Spare bin rosters will identify warranty tools.

8.2.3.5. **(Added)** Replace broken warranty tools according to the manufacturer's warranty agreement. De-etching will be based upon manufacturer's warranty agreement.

8.2.4.1.1. **(Added)** The Support Section shift supervisor (or equivalent) will issue replacement expendable and consumable hand tools or Hazardous Materials (HAZMAT) contained in CTKs; replace items on a one-for-one basis only.

8.2.5.1.1. **(Added)** The Flight/FGS Supervision will authorize all flight line CTK turnovers and keep transfers to a minimum. When transfers do occur, a senior non-commissioned officer (SNCO) or a representative from the support section must inventory the CTK. Use an AF Form 1297 (Temporary Issue Receipt) to issue the CTK to the next person. The person being relieved of control of the CTK will ensure the hand receipt is delivered to the support section and processed in TC-Max.

8.2.9.3.1. **(Added)** Keep containers of five rags for issue and mark the number of rags on the container. Any time rags are changed, it will be on a one-for-one swap. Issue single rags using an AF Form 1297. Missing rags will be treated the same as a lost tool.

8.2.10.1. **(Added)** Individuals authorized to procure tools will be limited to those who are government purchase cardholders and/or resource advisors.

8.2.11.1. **(Added)** CTK custodians will maintain a file of all approved local manufacture authorization letters and place them on the MIL. Item(s) will be etched/marked with CTK or bin location number.

8.2.12.1. **(Added)** When a depot team, factory representative or contract field team works on aircraft or equipment they will comply with applicable Air Force procedures for tool control and accountability. Approved deviations to these tool control guidelines must be in writing by the MXG/CC and maintained by QA.

8.2.14.1. **(Added)** Refer to SJAFBI 21-202, paragraph 1.2.3.1.

8.2.15.2. **(Added)** When situations require, the SNCO will act as a second party to conduct an inventory of the tool kit.

8.2.16.1. **(Added)** Units will identify by name, or position, individuals authorized unescorted access to tool rooms and will post the list near the main entry to support. Section leadership will sign authorized access letter.

8.2.16.2 **(Added)** Tools, which are no longer part of the CTK or shadow board, will have the respective cutout filled or shadowing removed. Accomplish this action by permanently filling in the tool cutout or by painting over the shadowed area in the appropriate background color of the shadow board. Permanently removed tools from a CTK or shadow board will have their respective cutout or shadowing modified to show clearly that a tool is no longer part of the CTK or shadow board. Accomplish this action by permanently filling in the tool cutout with material (foam) or by painting the shadowed area back to the color of the surrounding material.

8.3.1.1.1 **(Added)** All CTKs will have, as a minimum, a 90-day inspection performed and documented. As a minimum, inspect the following items: etchings, legibility of etchings and required markings (double etchings, defined as 2 different etchings, are not authorized), condition of CTK/TK cases (i.e. broken latches, missing hardware and broken casters), tools, corrosion, foreign objects and condition/currency of any technical data in the CTK, proper ACC Form 140 documentation (when TC-Max is not available), MIL and TC-Max. Also, ensure all MILs are legible and add changes to TC-Max. Check for overdue calibration and ensure all sets contain the proper number of items (as marked on the container). Inspect all tools for serviceability IAW TO 32-1-101, Use and Care of Hand Tools.

8.3.1.1.2. **(Added)** Mobility CTKs in storage will have a 180-day inspection completed. The 90-day inspection criteria will start upon its first use. Only use mobility CTKs for actual or simulated deployments. The support section or deployed section supervisor will provide a secure area for storing mobility CTKs. Annotate mobility CTKs/TKs in TC-Max as being mobility assets.

8.6.1.2.1.2.1. **(Added)** Use Equipment Identifiers (EIDs) with alphanumeric characters. Squadrons may use alphanumeric designators but only after the 4th character of the EID. See Table 8.1.

Table 8.1. (Added) 4th Maintenance Group World Wide Identification (WWID).

SJAFB FIRST TWO DIGIT WWID: **SM**			
FGS	CMS	EMS	MXG
3RD PLACE: **A**	3RD PLACE: **C**	3RD PLACE: **E**	3RD PLACE: **M**
4TH PLACE IDENTIFIER			
333 FGS: **L**	AIS: **V**	AGE: **A**	AMQP: **T**
334 FGS: **E**	E&E: **E**	ARMAMENT: **R**	AFETS: **A**
335 FGS: **C**	EGRESS: **G**	CONVENTIONAL MX: **C**	AFREP: **G**
336 FGS: **R**	FUELS: **A**	INSPECTION: **F**	WSS: **W**
EOR: **A**	HYDRO SHOP: **H**	LINE D: **L**	QA: **Q**
	ENGINE SHOP: **P**	METALS TECH: **M**	
	TEST CELL: **T**	MX FLT: **T**	
	PMEL: **D**	NDI: **N**	
		PGM: **P**	
		SHEET METAL: **S**	
		STORAGE: **B**	
		TRAILER MX: **D**	
		WHEEL & TIRE: **W**	
		AMMO TRNG: **X**	
4 OG – LIFE SUPPORT			
3RD PLACE: **G**			
4TH PLACE IDENTIFIER			
333 FS: **L**			
334 FS: **E**			
335 FS: **C**			
336 FS: **R**			
ACMI Rangeless Pod			
SMGEACTSO			
372 TRS DET 1			
SMTD			

8.6.1.5.1. **(Added)** Test Measurement and Diagnostic Equipment (TMDE) items will have both the EID and AFTO Form 66 attached to items routinely dispatched from work centers.

8.9.2.3.1.1. **(Added)** ACC Form 145, Lost Tool/Object Report procedures are as follows: QA will review and stamp ACC Form 145 to indicate all actions are complete. If item is not located, prior to QA, route ACC Form 145 to Group Supervision for Block 8 signature. File a copy of the ACC Form 145 with the CTK custodian.

8.9.2.3.2.1. **(Added)** If a tool/object is lost while performing maintenance on or around an aircraft the affected flight or FGS will immediately stop aircraft movement on ground until all involved flight line areas can be searched. All available personnel will stop all maintenance and assist in a search until the FGS Commander/Director of Operations or Superintendent/Assistant Superintendent or equivalent releases personnel and calls off the search. Refer to Local Checklist LCL-4MXG-003, *Emergency Action Checklist* for quick freeze actions.

9.17.3. **(Added)** Only applicable Source, Maintenance, and Recoverability (SMR) codes contained in TO 00-25-195, Source, Maintenance, and Recoverability Coding of Air Force Weapons, Sys, and Equip can be local manufactured. Order assets that are procurable items, depot manufactured, salvage, etc.

9.17.3.1. **(Added)** Requester will follow and complete the Coordination and Final Approval sections.

9.17.3.1.1. **(Added)** MXG/CC or CD are authorized to approve LM requests.

9.17.3.1.2. **(Added)** Provide a drawing, sample, technical data and DD1348M, *DOD Single Line Item Requisition System Document* as required. Obtain drawings from the appropriate repository (e.g. Engineering Data Service Center (EDSC) or Joint Engineering Management Information and Control System (JEDMICS)).

9.17.3.1.3. **(Added)** Requesters will use SJAFB Form 273, *Local Manufacture* and AF 2005, *Issue/Turn-in Request* for supply item local requests. Use an AF Form 601, *Authorization Change Request* for equipment requests.

9.17.3.1.4. **(Added)** Verify parts availability with FGS Decentralized Material Support (DMS). The requester will complete all required documentation with Flight Service Center (FSC) or the Aircraft Parts Store (APS) to begin the LM process.

9.17.3.1.5. **(Added)** LM disapproval will include specific information, i.e., why the LM cannot or will not be performed.

9.17.3.1.6. **(Added)** The manufacturing activity will identify and annotate the stock numbers or part numbers and quantities of the materials required on the SJAFB Form 273, as prescribed by this supplement. The manufacturing shop's section chief or designee signs/dates the appropriate coordination fields and provides an estimated cost of fabrication on the SJAFB Form 273.

9.17.3.1.7. **(Added)** If all materials are on hand, the part will be LM and will coordinate with the FSC to complete all supporting documentation by the next duty day.

9.17.3.1.8. **(Added)** If material is not on hand, fabricating element will annotate on SJAFB Form 273 to ensure requester or FGS DMS orders required parts/materials (using the requester's Organization/Shop Code). Fabricating activity will sign SJAFB Form 273 once all annotations are complete.

9.17.3.1.9. **(Added)** Submit the requirement to the Logistics Readiness Squadron (LRS), Material Management Flight on SJAFB Form 273 and AF Form 2005 or DD1348M (with necessary drawings) for non-stock numbered items.

9.17.3.1.10. **(Added)** Forward the SJAFB Form 273, AF Form 2005, DD Form 1348, engineering or technical drawings and IMDS screen #122, to the FSC LM Monitor for processing.

9.17.3.1.11. **(Added)** Upon completion of the local manufacture, collect the asset from the manufacturing section and section 15 on the SJAFB Form 273. Copy 3 of the DD1348M must be signed and final cost annotated by the manufacturing section's supervision. Turn in all paperwork to FSC or APS.

9.17.3.1.12. **(Added)** Contact the manufacturing shop to validate the local manufacture need, verify capability and determine the bits and pieces required to manufacture the item. The requester submits the AFTO Form 350, as applicable, to the manufacturing activity.

10.19. **(Added)** ICT pre-requisites are as follows:

10.19.1. **(Added)** The Weapons Load Crew must be removed from Proficiency Review status prior to being trained. This requirement can be waived by the WWM based on mission needs and requirements.

10.19.1.2. **(Added)** The A-man, B-man and Aircraft Turn Supervisor (ATS) must be hot-pit and marshal qualified prior to being trained.

10.19.2. (**(Added)** ICT Training is as follows:

10.19.2.1. **(Added)** A-man, B-man and ATS must attend ICT academics and practical training provided by Weapons Standardization (WS).

10.19.2.2. **(Added)** ATS must attend ATS Academics training provided by WS.

10.19.2.3. **(Added)** A-man, B-man and ATS will perform a qualifying HOT ICT with a WS or QA certifier within 60 days of the academics and practical course. If the individual does not get qualified within the 60 days, the academics and practical courses must be re-accomplished.

10.19.2.4. **(Added)** A-man, B-man and ATS must perform a qualifying HOT ICT with a WS or QA certifier every 6 months to maintain currency. If the individual does exceed the 6 month currency requirement, the individual must re-accomplish the academics and practical course.

10.19.3. **(Added)** Weapons Load Crew training is as follows:

10.19.3.1. **(Added)** Attend initial and annually recurring Weapons Academics taught by WS.

10.19.3.2. **(Added)** Attend ICT practical training provided by WS.

10.19.3.3. **(Added)** Perform a qualifying HOT ICT evaluated by WS and QA within 60 days of receiving the practical training.

10.19.4. **(Added)** See **Attachment 4** for course codes and proficiencies qualifications.

10.19.5. **(Added)** Weapons Standardization will:

10.19.5.1. **(Added)** Provide Weapons Academics, ICT Academics, and ATS Academics as well as ICT practical training.

10.19.5.2. **(Added)** Ensure that the Loading Standardization Crew (LSC) are ATS certifiers in order to certify and evaluate the ATS during their initial and recurring ICTs.

10.19.5.3. **(Added)** Squadron Lead Crew (SLC) members can only qualify weapons load crew members on ICT.

10.19.6. **(Added)** Quality Assurance will:

10.19.6.1. **(Added)** QA will have a training program to certify and evaluate A-man, B-man and ATS.

10.19.6.2. **(Added)** Provide at least 1 QA individual to evaluate the non-loading portions of an ICT during the A-man, B-man and ATS initial and recurring ICT and recertification.

10.19.6.3. **(Added)** Ensure there are QA ATS certifiers in order to certify and evaluate the ATS during their initial and recurring ICT for proficiency.

10.19.7. **(Added)** Fighter Generation Squadron will:

10.19.7.1. **(Added)** Combat units will schedule ICTs on days that support flying operations and will be forecasted to maintain qualifications in support of wing PLANORD and deployment taskings.

10.19.7.2. **(Added)** Coordinate with munitions squadron and operations squadron for munitions request. If qualification or certification ICTs are being performed, load crews must perform an integrated load.

10.19.7.3. **(Added)** Coordinate with QA and WS to ensure evaluators and certifiers are available for qualifying members during ICTs.

10.19.7.4. **(Added)** Ensure at a minimum, the number of ICT teams trained and qualified meets readiness requirements.

10.19.7.5. **(Added)** The Weapons section will continuously work towards qualifying all Load Crew Members to meet Unit Committed Munitions List (UCML) requirements.

11.8.2.1. **(Added)** Define Foreign Object (FO) in two distinct categories:

11.8.2.1.1. **(Added)** Hard FO: some examples are metallic objects (safety wire, nuts, bolts, rivets, washers etc.), rocks or any other non-pliable substance.

11.8.2.1.2. **(Added)** Soft FO: some examples are mop strings, paper, rubber etc.

11.8.2.1.3. **(Added)** Store all screws/fasteners whenever any panel or component is being removed in screw bags or equivalent and attach directly to each panel/component. Ensure the aircraft serial number, panel number (component serial number), and quantities are identified on the bag. Doors and panels that cannot be physically removed from the aircraft will have the screw bags attached through a screw hole to be visible to all personnel. All maintenance personnel prior to installing any door or panel will complete a visual FOD inspection. Clean all work areas upon task completion or at the end of work shift. Remove and dispose of all metal clips, shavings, lock wire, tie wraps, rivets, excess sealant, etc., in the nearest FOD container. Components removed to FOM, awaiting parts (AWP), or awaiting maintenance (AWM) will have all fasteners/screws etc., removed and store in the tail number bins (TNBs).

11.8.3.1.1.1. **(Added)** Items that are actively being disconnected, installed, and/or removed will be capped IAW technical data or at completion of the task to include: FOM parts, test and support equipment.

11.8.3.6.6. **(Added)** Hats (with the exception of cold weather headgear/bump caps with inserts) are not authorized on the flight line. Cold weather headgear and bump caps must be properly worn and secured at all times. Do not wear hats or loose clothing within 25 feet of an operating engine.

11.8.3.11.1.1. **(Added)** Perform FOD walks, at a minimum of one hour prior to crew show. Publish FOD walk times on the weekly flying schedule.

11.8.3.11.1.2. **(Added)** FOD walks will include the parking ramp, all AGE sub-pools and areas in front of hangars.

11.8.3.11.1.3. **(Added)** Conduct a FOD walk in every hangar, including Phase docks, at the beginning of each shift. End of runway crews and hot pit crews will have a FOD walk conducted prior to start of operations.

11.8.3.11.1.4. **(Added)** Each FGS will use magnetic push bars on daily FOD walks for areas under the aircraft.

11.8.3.11.1.5. **(Added)** All FGSs are required to pull their FOD Boss on the flight line to the maximum extent possible except while launching and recovering aircraft. During inclement weather, FGSs are not required to pull their FOD Boss. Clean the FOD Boss out after every use. All broken or unserviceable FOD Bosses will be reported to the 4 FW FOD NCO to help coordinate repairs or replacements.

11.8.3.12.4. **(Added)** Prior to entering the cockpit all personnel will remove all potential FO (coins, keys, etc.).

11.8.3.14.1.1. **(Added)** All -21 equipment and covers with streamers must be marked with appropriate aircraft serial number. (Example: 89-0482 on streamer or equipment) Double markings are not authorized. Aircraft -21 must be installed at all times except while crew ready during launch window or unless removal is necessary to FOM.

11.8.3.16.2.1. **(Added)** Each FGS will ensure their grounding points are free of debris and cleaned/vacuumed as needed.

11.8.3.21.1. **(Added)** Inspect aircraft and engine run-up areas, including sound suppressers and test cells for the presence of loose or foreign objects prior to use. Aircraft trim pad engine runs require the Trim Pad Checklist to be completed with prior to the run.

11.8.5.8. **(Added)** FOD/Dropped Object Program (DOP) monitor will:

11.8.5.8.1. **(Added)** Monitor the overall effectiveness of the Wing FOD/DOP Program.

11.8.5.8.2. **(Added)** Prepare and present data for Senior FOD Prevention committee meetings.

11.8.5.8.3. **(Added)** Maintain listings of 4 FW Senior FOD/DOP committee members.

11.8.5.8.4. **(Added)** Conduct the Senior FOD Prevention Committee meetings and prepare the minutes.

11.8.5.8.5. **(Added)** Manage and coordinate Monthly/Quarterly FOD Awards Incentive Program.

11.8.5.8.6. **(Added)** Perform Dedicated Crew Chief Training and Initial Block Training briefings on FOD/DOP.

11.8.5.8.7. **(Added)** Develop and distribute FOD Flashes on FOD/DOP topics as required.

11.8.5.8.8. **(Added)** Coordinate with all involved agencies for clearance during wing FOD walks.

11.8.5.8.9. **(Added)** Brief and provide checklist for all deployed location FOD monitors.

11.8.5.8.10. **(Added)** If there is not an established Deployed FOD Manager, a deploying QA inspector will represent the Wing FOD Manager. On deployments where there are no QA personnel, the deploying FGS will appoint an individual to act as the FOD/DOP NCO.

11.8.6.7.2.3. **(Added)** All aircraft/engines sustaining FOD, will be assessed utilizing the 4 FW FOD Incident Flowchart, Installed or Uninstalled. This is to ensure minimum requirements are met prior to returning an aircraft/engine to service by following the FOD incident flow chart Figure 1 (Installed) or Figure 2 (Uninstalled).

11.8.6.7.2.4. **(Added)** The following are the minimum actions that will be taken following a minor FOD incident. As defined, a minor FOD incident is damage to engine blades that are within blendable limits.

11.8.6.7.2.5. **(Added)** Only qualified 2A6Xl/2A3X3 Airmen will maintain and update the Pin Wheel Worksheet, on first stage fan blades. Owning units will ensure all aircraft have an engine Pin Wheel Worksheet for each engine. Maintain the worksheet in the aircraft forms behind the AFTO Form 781K, *Aerospace Vehicle Inspection, Engine Data, Calendar Inspection and Delayed Discrepancy Document,* and will stay with the 781K if the engine is transferred. Complete an initial Pin Wheel Worksheet, within 7 workdays when new assets are received to the wing (i.e. a new engine, fan module or replacement of first stage blades). Send the initial worksheet to EM to update historical data and establish the baseline.

11.8.6.7.2.6. **(Added)** All addressable damage (measured .010 and greater), blends and prior blends deemed serviceable/blendable will be identified on both the front and backside of the Pin Wheel Worksheet including all measurements. Once the Pin Wheel Worksheet is complete, forward a copy of the Pin Wheel Worksheet to EM to update the engine historical records in the CEMS.

11.10.2.1. **(Added)** MXG ASIP Project Officer will compile data files to the 239 data backup spreadsheet and maintain a 239 data tracker. Ensure the 239 data files are correct and e-mailed to the system engineers on a weekly basis.

11.14.5.1.2. **(Added)** Upon entering Cat 1 Hangar Queen status, insert JST/781A for hangar queen rebuild in the aircraft forms (aircraft that fly on day 30 do not require hangar queen procedures).

11.14.5.4.5. **(Added)** When cannibalizing from depot possessed ‘Mod’ aircraft, the FGS will require authorization from MXG/CC or MXG/CD in coordination with and through the 4 FW Aircraft Modification Program Manager.

11.14.5.4.6. **(Added)** The FGS will document and report to Engine Management (EM) the removal and replacement of serially controlled and time change engine components within 24 hours of removal.

11.15.1.1.1. **(Added)** Funding requests for Ground Instructional Training Aircraft (GITA) will be coordinated through the 4 MOF Resource Advisor.

11.15.4.2.12.5.2.1. **(Added)** MTS will manage GITA and MXG/CC will appoint a GITA manager(s).

11.15.4.2.12.5.2.2. **(Added)** Dedicated Crew Chiefs (DCC) will maintain a log book for each aircraft that lists discrepancies that accumulated in the 781 series forms and are not of a nature that affect the use of the aircraft as a trainer (i.e. removed panels, etc.).

11.15.4.2.12.5.2.3. **(Added)** Document 30-day aircraft forms reviews, annual aircraft wash, and any regularly scheduled calendar inspections on AF2411 in the GITA program book.

11.15.4.2.12.5.2.4. **(Added)** A general accountability inspection of installed hardware and the FOM bin will be accomplished on the first and last day of the training week. Document any items unaccounted for on a memo for record that includes nomenclature, date, time and any pertinent information. Report occurrence(s) to the MTS Section Chief immediately. Lost tool/item procedures will be followed when items are discovered missing.

11.15.4.2.16. **(Added)** 372nd Field Training Detachment (FTD) and/ or Maintenance Training Section (MTS) Tactical Aircraft Maintenance Specialist (TAMS) and Weapons instructors will utilize the GITA 76-0126 for: jacking; oil, air and hydraulic component servicing training; hydraulic systems and component air bleeding training, and gun boresight training.

11.15.4.2.17. **(Added)** 372 FTD and/or MTS TAMS, Crash Recovery and Weapons instructors will utilize the GITA 76-0133 for: Crash recovery lift training; removal and installation of hydraulic actuators, dampers, and reservoirs, secondary power and flight control components, and gun bore site training.

11.15.4.2.18. **(Added)** Do not cannibalize parts unless vetted through the MXG/CC or CD for approval by the System Program Office.

11.15.4.2.18.1. **(Added)** Notify Flight Chief and Chief of Development & Instructor Section prior to the cannibalization action.

11.15.4.2.18.2. **(Added)** The unit cannibalizing the part will also be responsible for the installation of the replacement part as soon as the part becomes available to include all operational checks associated with the installation per the applicable technical data.

11.15.4.2.19. **(Added)** GITA 76-0126 will maintain the following: Two installed engine assemblies, operational hydraulic and electrical systems. Secondary power system installed but not operational. Gun system installed but not operational. Canopy installed and functional. Both ejection seats installed but not operational.

11.15.4.2.20. **(Added)** GITA 76-0133 will maintain the following: At least one engine assembly installed. Hydraulic and electrical systems installed but not operational. Secondary power system installed but not operational. Gun system installed but not operational. Canopy installed and functional. Aft ejection seat will remain installed for center of gravity purposes. Both aircraft will remain non-explosive loaded, to include the egress and fire control systems.

11.38.1.1. **(Added)** Ensure all newly assigned personnel who will be taking oil samples attend Oil Analysis Program (OAP) training during initial Maintenance Orientation Training. Maintenance Training Section will provide training on local OAP procedures, document the training in IMDS and provide a formal training program to train all OAP Managers IAW TO 33-1-37-1.

11.38.1.2. **(Added)** Flight line personnel must coordinate with the OAP prior to drain-and flush actions. After drain-and-flush action is accomplished, document it in the remarks section of the DD Form 2026, Oil Analysis Request.

11.38.8.8. **(Added)** Notify the OAP Lab of all engine removals or installations. Include the serial number of the engine removed, the engine installed, the affected aircraft, engine position and name of person forwarding the data.

11.38.8.9. **(Added)** Ensure that a Red Cap sample is taken immediately prior to and after maintenance is performed affected the oil lubricated system, including the removal and

replacement of oil lubricated system component. Take the “After replacement” sample after ground/functional run-up.

11.38.11.6.1. **(Added)** When permanently reassigning an engine to another organization, ship the OAP historical record, DD Form 2027, Oil Analysis Record. Send a copy of the most current DD Form 2027 with all deployed spares.

11.38.11.6.2. **(Added)** When the DD Form 2026 is incomplete or improperly filled out, the OAP Lab will not analyze the sample. The OAP Lab will place the engine on lab recommendation Code "D" unable to analyze sample received. If not corrected as of one (1) hour after unit(s) flying day, ground and code the aircraft as a “P” until the errors are corrected.

11.38.11.6.3. **(Added)** After each sortie, the Engine Flight Time (EFT) shall be added to the EOT on the DD Form 2026. If the DD Form 2026 contains a deviation within +5 hours from OAP analysis database, the sample will not be considered an error. The OAP Lab shall confer with IMDS or CEMS prior to EOT error consideration.

11.38.11.6.4. **(Added)** Track and calculate DD Form 2026 data entry errors. The 4 FW quarterly OAP error rate standard shall be 5% which is calculated for each FGS and presented at the quarterly OAP meeting.

11.38.11.9.1. **(Added)** NDI will notify MOC and 4 EMS Production Superintendent of all missing or overdue oil cart samples NLT 1200 the next day the OAP lab is manned. MOC, in turn, will immediately contact each respective FGS of the missing oil cart samples to ensure these samples are turned in that day.

11.38.11.9.2. **(Added)** Users will document oil samples in part III and part V of AFTO Form 244. Document Part III with date completed and date due. Document Part V with a red dash “Equipment due JOAP sample” and cleared with sample code.

11.45.1.1.1. **(Added)** Local corrosion prevention training is required annually and instructed during initial maintenance orientation and maintenance refresher training. The Wing Corrosion Manager will provide more in-depth training upon request.

14.2.6.1.2 **(Added)** See **Attachment 6** for manual JCN assignment listing.

16.1.1. **(Added)** See Figures 1-13 for the 4 FW aircraft marking guidance.

16.2.2.1. **(Added)** Aircraft scheduled for Program Depot Maintenance (PDM) within 12 months will not have a complete repaint performed, regardless of the paint score condition; only minor paint touch-ups can be accomplished to prevent corrosion.

16.2.3. **(Added)** Prior to any scheduled aircraft paint, each FGS will perform the following procedures:

16.2.3.1. **(Added)** Ensure aircraft is clean. Aircraft washes will be performed no earlier than 7 days prior to an aircraft touch-up or full scuff sand/paint.

16.2.3.2. **(Added)** Repair all leaks to the maximum extent possible. All leaks that reach the aircraft external surfaces will not be painted.

16.2.3.3. **(Added)** Ensure the aircraft is in position in the Aircraft Paint facility (Hangar 5E) no later than 0700. During inclement weather or when the overnight temperature drops below 50° F,

aircraft will be in place no later than 0100 to allow snow and ice to melt, rainwater and condensation to evaporate, and to allow the aircraft surface reach required temperatures.

16.2.3.4. **(Added)** It will be decided by the Wing Corrosion Manager and/or the Aircraft Paint NCOIC whether aircraft arriving after the prescribed time will be accepted or turned away.

16.2.3.5. **(Added)** For aircraft scored at a category 2 and above: remove external stores (e.g. pylons and launchers), including conformal fuel tanks (CFT), and battery is disconnected prior to being towed into the Aircraft Paint facility. For aircraft scored at a category 1: contact the Aircraft Paint NCOIC to determine the requirements of external stores.

16.2.3.6. **(Added)** If CFTs are to be painted along with the aircraft, the CFTs are to be transferred to the Aircraft Paint facilities maintenance stands no later than 0700.

16.2.3.7. **(Added)** If the aircraft is scheduled to receive a full scuff sand/paint: ensure the aircraft is jacked (if center of gravity allows), landing gear retracted, speed brake is lowered, tail hook is raised, and dummy plugs are installed in chaff and flare.

16.3.1.1. **(Added)** All markings identified in this instruction as subdued shall be painted in flat black (F37038).

16.3.2.2. **(Added)** See Figure 1 and Figure 2 for unit identifier marking lay-up.

16.3.4.3. **(Added)** Squadron or group insignia may be used on the left forward fuselage, placed on the CFT. The 4 FW/CC will use the ‘Follow Us’. The 4 OG/CC will use the 6 inch patch insignia consisting of the 333d, 334th, 335th, 336th, 4th Ops, and 4th TS patches.

16.3.4.4. **(Added)** 4 FW insignia will be used on the right forward fuselage, placed on the CFT.

16.3.5.9. **(Added)** Field aircraft are marked with a 6-inch stripe, inboard and outboard, in each squadron’s respective color.

16.3.7.4. **(Added)** Paint identification placard will be flat black (F37038), 6 inches in height, and placed on the right fuselage strake.

16.3.8.2.1. **(Added)** Squadrons will produce a Memorandum for Record (MFR) with all approved aircrew call signs signed by their commander and a copy sent to the Aircraft Paint NCOIC.

16.3.8.3.1. **(Added)** The Aircraft Paint section will manufacture all Aircrew and Crew Chief names out of black vinyl. Names will be ‘FLASH.MOD.ACCT.AK.REV.C’, capitalized, and the length will not exceed 28 inches. Names will be 2 inches in height, with the exception of Commander’s flagships.

16.3.8.3.2. **(Added)** Commander’s aircraft aircrew names will be 1.75 inches tall with the title 0.75 inches tall.

16.3.8.3.3. **(Added)** Aircrew and crew chief names belonging to a commander’s aircraft will be shadowed. Shadowing will be 0.15 inches with a -45 degree for aircrew and -120 degree for crew chiefs. The shadowing color will be in each squadron’s respective color with the exception of the WG/CC, which will be in gloss white.

16.3.8.4.1. **(Added)** The 'Eagle Head' name block will be used. It will consist of a 44.5 inch x 9.75 inch block with a 34.75 inch x 5.5 inch inner block. The border will be 0.5 inches and subdued in color.

16.3.9.4. **(Added)** On all assigned F-15 aircraft, the "Wright Flyer" silhouette will be used in lieu of the 'Bird of Prey'. It will be placed on the inboard of the vertical stabilizers. Placement shall be 22 inches below the bottom of the cradle, centered between the leading edge and trailing edge of the vertical stabilizer.

16.3.10.2.2. **(Added)** Commander's flagships will have a unit identifier 20 inches in height with 1 inch shadowing in light grey (F26173) and be placed 6 inches higher than standard position. Refer to Figure 1.

16.3.10.3. **(Added)** Commander's flagships will have a commander designation, i.e. 4 FW, 4 OG, 4 TS, 333 FS, etc. Designation shall be centered horizontally between leading edge of vertical stabilizer and leading edge of rudder and vertically between the unit identifier and radio call numbers. Designation will be subdued and numbers will be 15 inches and have a 0.75 inch light grey (F26173) shadowing and the letters will be 7 inches with 0.25 inch light grey (F26173) shadowing Use of "th" script will not be used.

16.3.10.3.1. **(Added)** WG/CC and OG/CC tails are marked with a 5 inch multi-squadron stripe. WG/CC stripe will have a white (F17925) 0.5 inch border above, below, and separating colors. OG/Cc will have a flat black (F37038) 0.5 inch border above, below, and separating colors.

16.3.10.3.2. **(Added)** FS/CC's are marked with a 5 inch stripe in each respective color and have a flat black (F37038) 0.5 inch border above and below the color.

16.3.10.3.3. **(Added)** TS/CC is marked with a 5 inch multi-squadron stripe and have a flat black (F37038) 0.5 inch border above, below, and separating the colors.

16.3.10.3.4. **(Added)** 307 FS and 414 FG are marked with a 5 inch black stripe (F37038) and have a yellow (F13538) border above and below. The 'stingers' decal will be applied and clear-coated.

16.3.10.3.5. **(Added)** All inboard tail stripe colors will be that of the owning squadron.

16.3.12.1. **(Added)** The WG/CC aircraft will have the 'Spirit of Goldsboro' patch, subdued, applied 2.5 inches above door 6 and 14.5 inches aft from the T/E of door 3, centered above the formation light and placed on both sides of the fuselage.

16.3.13.4. **(Added)** The WG/CC aircraft with have the 'E.S. Bird' patch, in color. It will be placed 2.5 inches above the top pitot pin on door 3L, centered between the antenna and T/E of door 3L.

16.3.14.1. **(Added)** A87-0487 is the only aircraft authorized this marking. Marking will have 'HELO' stenciled inside the star.

MORGAN P. LOHSE, Colonel, USAF
Commander, Seymour Johnson AFB

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References
DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 16 Jan 2020
AFI 21-101_ACCSUP, *Aircraft and Equipment Maintenance Management,* 23 Jun 2020
AFI 23-101, *Materiel Management Policy*, 22 October 2020, GM 14 Aug 2023
SJAFBI 21-202 *Crashed, Damaged, Disabled Aircraft Recovery (CDDAR) Emergency*, 10 Aug 2023
TO 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, 9 Aug 2013
TO 32-1-101, *Use and Care of Hand Tools and Measuring Tools*, 26 Apr 2017
TO 33-1-37-1*, Joint Oil Analysis Program Laboratory Manual, Volume I, 15 Sep 2014*

Prescribed Forms
None

Adopted Forms
ACC Form 140*, CTK Inventory and Control Log*
ACC Form 145*, Lost Tool/Object Report*
AF Form 601, *Authorization Change Request*
AF Form 2005, *Issue/Turn-In Request*
AFTO Form 781A*, Maintenance Discrepancy and Work Document*
AFTO Form 781K, *Aerospace Vehicle Inspection, Engine Data, Calendar Inspection and Delayed Discrepancy Document*
AFTO Form 66*, TMDE Bar Codes (Polyester Film)*
AFTO Form 244*, Industrial/Support Equipment Record*
DD Form 1348-6, *DoD Single Line Item Requisition System Document*
F-15E Tow Prep/Hangar Entry Checklist
LCL-4MXG-003—*Emergency Action Checklist*
SJAFB Form 273, *Local Manufacture*
LJG-4MXG-013 for Rapid Crew Swap Procedures
4 MXGI 21-269, *F-15E Functional Check Flight Program*

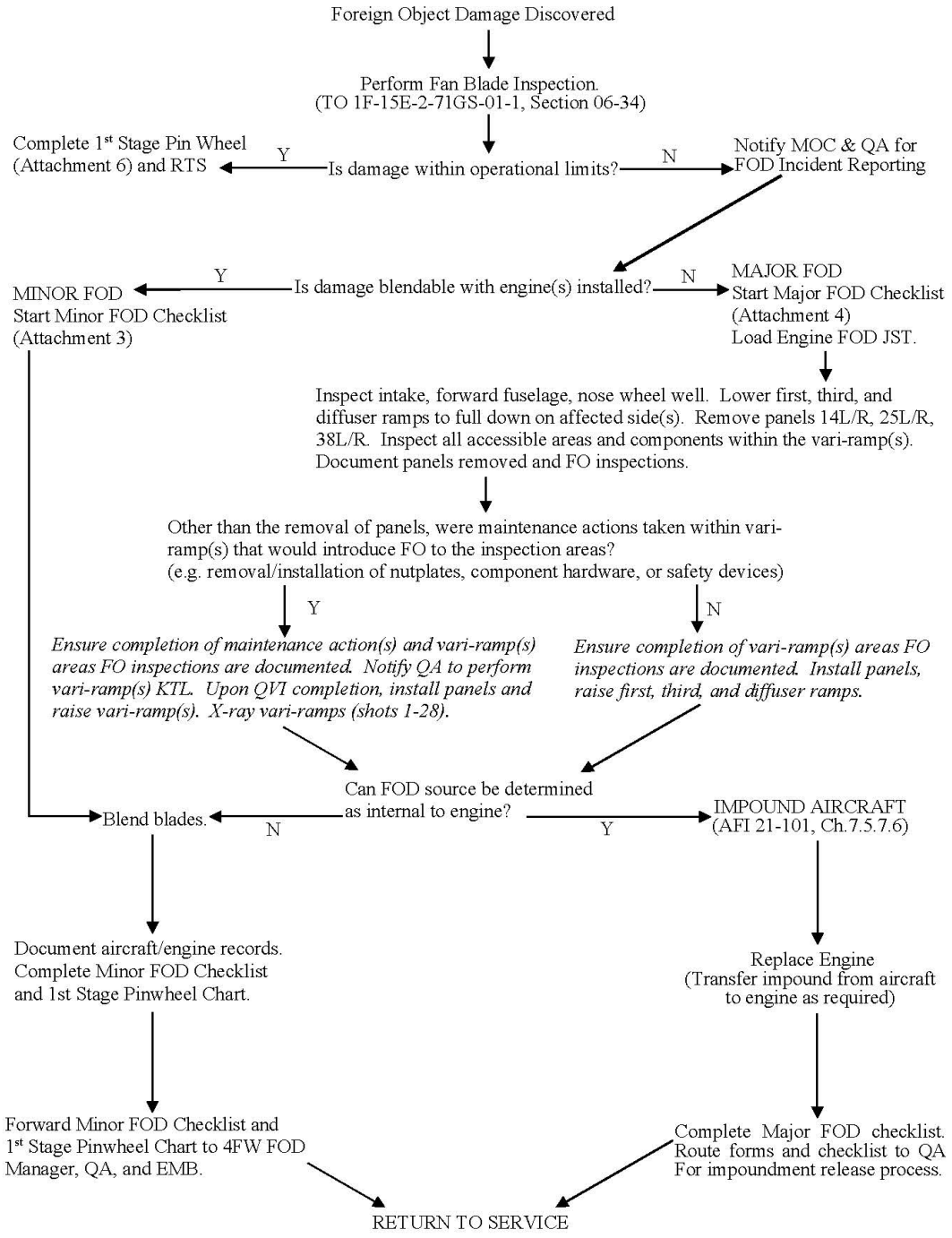
Abbreviations and Acronyms
AFI—Air Force Instruction
AFMAN—Air Force Manual
AFRIMS—Air Force Information Management System
AFTO—Air Force Technical Order
ATS—Aircraft Turnaround Supervisor
AGE—Airspace Ground Equipment
AMXS—Aircraft Maintenance Squadron
APS—Aircraft Parts Store
ASIP—Aircraft Structural Integrity Program
AWM—Awaiting Maintenance

AWP—Awaiting Parts
CANN—Cannibalize
CATM—Captive Air Training Missiles
CC—Combat Coded
CEMS—Comprehensive Engine Management System
CND—Could Not Duplicate
CMS—Component Maintenance Squadron
CTK—Composite Tool Kit
CFT—Conformal fuel Tank
DAFI—Department of the Air Force Instruction
DMS—Decentralized Material Support
DR—Deficiency Report
EID—Equipment Identifiers
EDSC—Engineering Data Service Center
EFT—External Fuel Tank / Engine Flight Time
EM—Engine Management
EMS—Equipment Maintenance Squadron
FCF—Functional Check Flight
FGS – Fighter Generation Squadron
FOD—Foreign Object Damage
FO—Foreign Object
FSC—Flight Service Center
FTD—Field Training Detachment
FTU—Flying Training Unit
FW—Fighter Wing
FW/CC—Fighter Wing Commander
GITA—Ground Instructional Trainer Aircraft
HAZMAT—Hazardous Materials
ICT—Integrated Combat Turnaround
IMDS—Integrated Maintenance Data System
JST—Job Standard Tasking
JCN—Job Control Number
JEDMICS—Joint Engineering Management Information and Control System
LSC—Loading Standardization Crew
LRU—Line Replaceable Unit
LRS—Logistics Readiness Squadron
MIL—Master Inventory Listing
MOC—Maintenance Operations Center
MOF—Maintenance Operations Flight
MFR—Memorandum For Record
MTF—Maintenance Training Flight
MTS—Maintenance Training Section
MXG/CC—Maintenance Group Commander
MXG/CD—Maintenance Group Deputy Commander
NCO—Noncommissioned Officer
NCOIC—Noncommissioned Officer In Charge

NLT—No Later Than
OAP—Oil Analysis Program
OCF—Operational Check Flight
OG/CC—Operations Group Commander
OPR—Office of Responsibilities
PDM—Programmed Depot Maintenance
PEX—Patriot Excalibur
POC—Point of Contact
QA—Quality Assurance
RAMPOD-- Reliability, Availability, Maintainability Logistics Support System for Pods
SCR—Special Certification Roster
SJAFB—Seymour Johnson Air Force Base
SNCO—Senior Noncommissioned Officer
TAMS—Tactical Aircraft Maintenance Specialist
TDY—Temporary Duty Assignment
TMDE—Test Measurement and Diagnostic Equipment
TNB—Tail Number Bin
UMCL—Unit Committed Munitions List
WLCMT—Weapons Load Crew Management Tool
WS—Weapons Standardization
WWM—Wing Weapons Manager

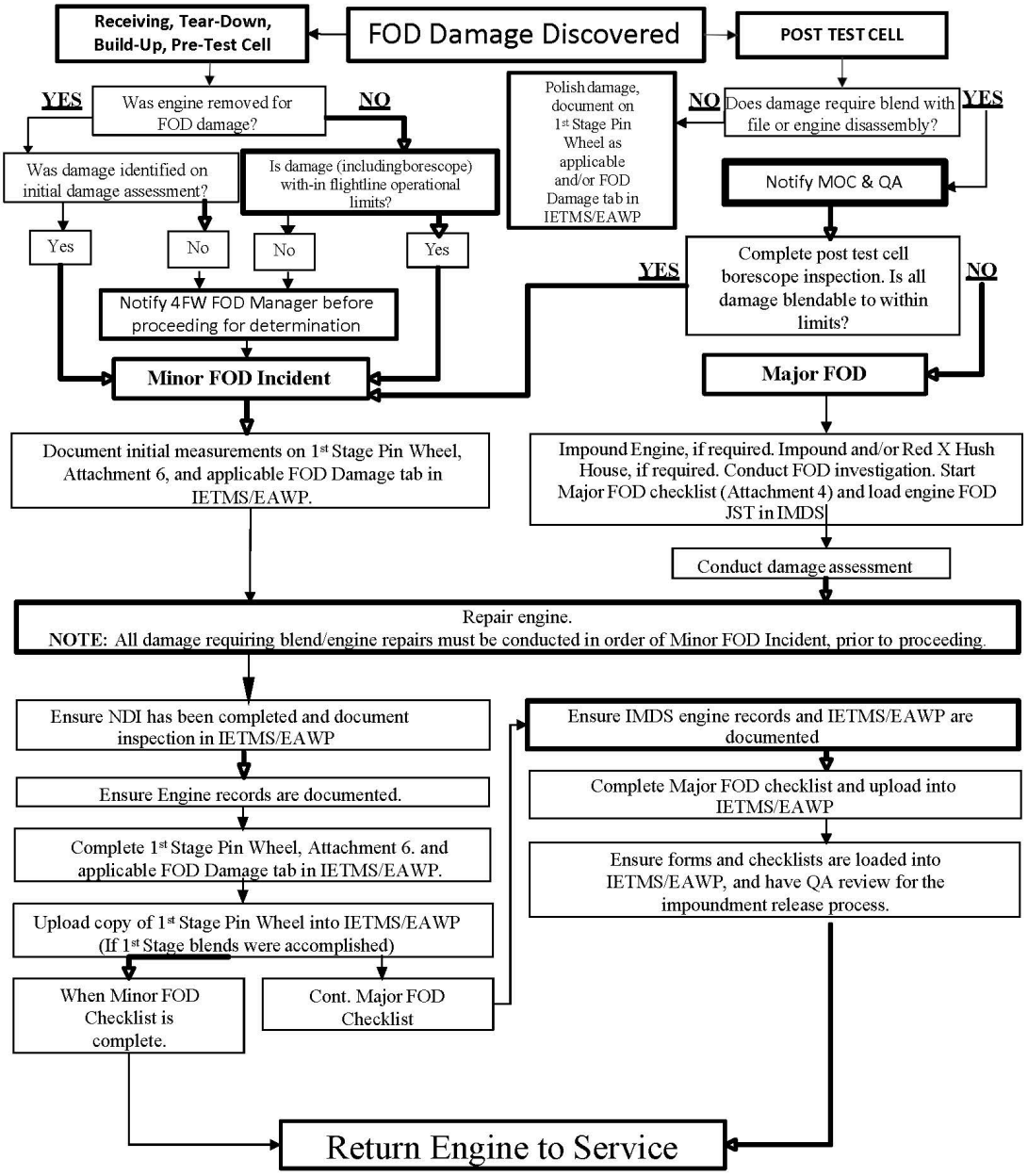
Attachment 2
4 FW FOD INCIDENT FLOW CHART (INSTALLED)

Table A2.1. (Added) 4 FW FOD Incident Flow Chart (Installed).



Attachment 3
4 FW FOD INCIDENT FLOW CHART (UNINSTALLED)

Figure A3.1. (Added) 4 FW FOD Incident Flow Chart (Uninstalled).



Attachment 4

COURSE CODE

Table A4.1. Course Code.

PREREQUISTES		
HOT PITS INTIAL (ONE TIME)		
COURSE	COURSE CODE	DESCRIPTION
ACADEMICS	16140	MTF CLASS
PAD SUPER	2985	MTF CLASS
A MAN	2998	MTF CLASS
B MAN	2995	MTF CLASS
D MAN	2997	MTF CLASS
PROFICIENCY (6 MONTHS)		
COURSE	COURSE CODE	DESCRIPTION
QA EVAL	16141	
PAD SUPER	16143	
A MAN	3924	
B MAN	3921	
D MAN	3923	
ICT INTIAL (ONE TIME)		
COURSE	COURSE CODE	DESCRIPTION
ICT ACADEMICS/PRACTICAL (2A)	022525	WS CLASS
ATS ACADEMICS	01002	WS CLASS
PROFICIENCY (6 MONTHS)		
COURSE	COURSE CODE	DESCRIPTION
ATS QUALIFIED	1004	
HOT ICT QUALIFIED (2A)	1001	
QA / WS ICT CERTIFIER		
COURSE	COURSE CODE	DESCRIPTION
ICT/ATS CERTIFIER	1003	

Figure A4.1. (Added) Commander Aircraft Marking.

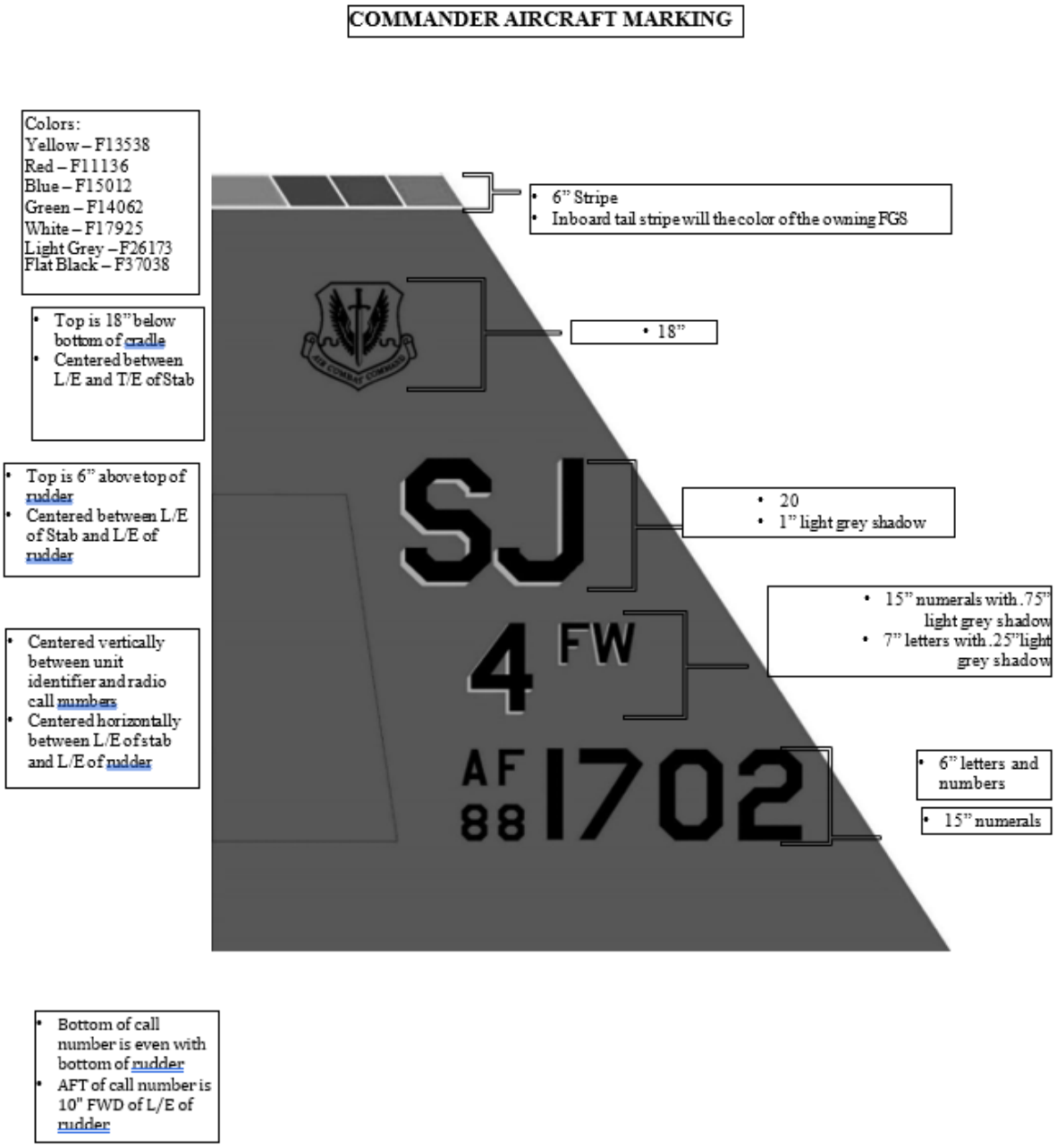


Figure A4.2. (Added) Field Aircraft Marking.

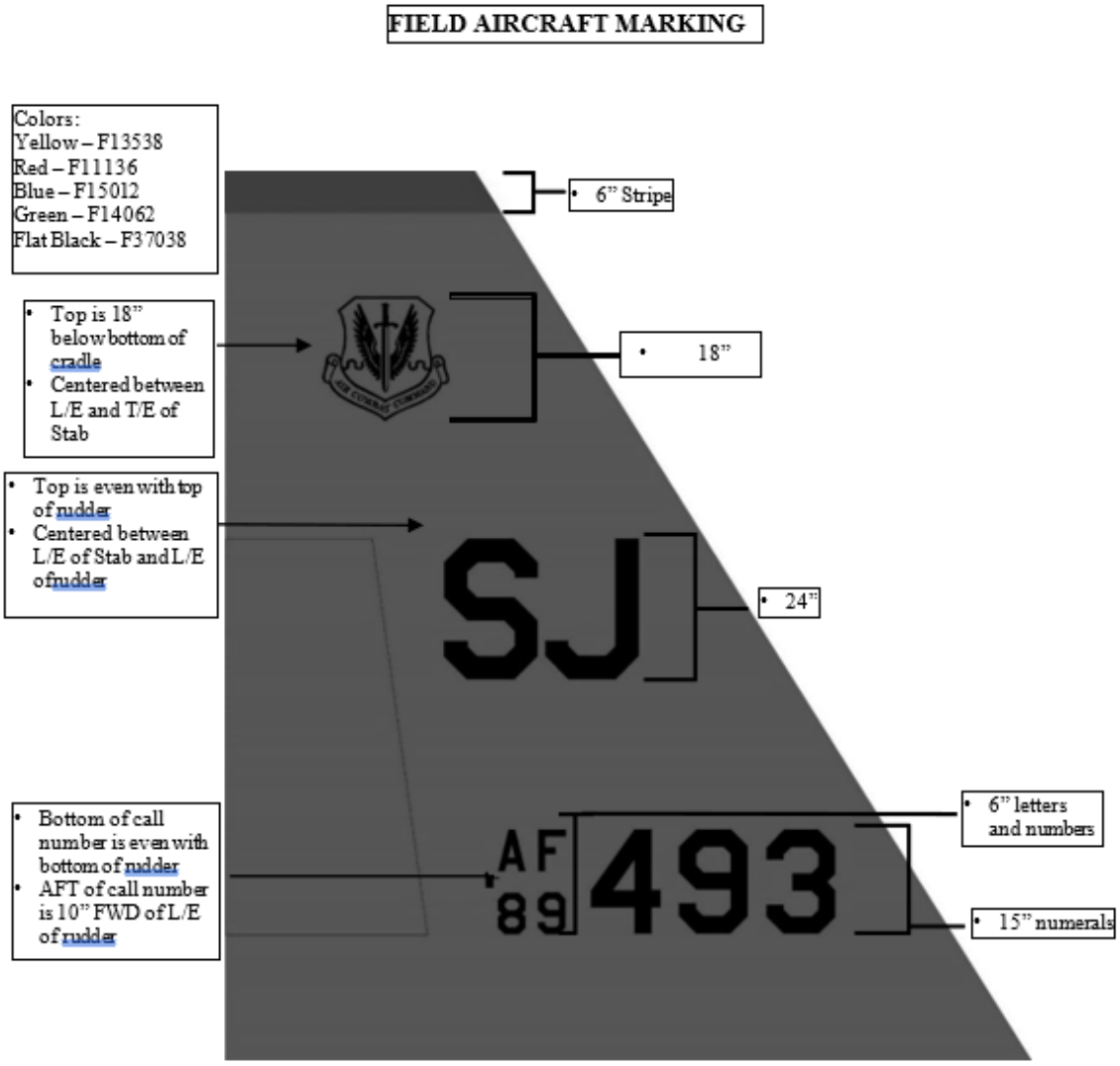


Figure A4.3. (Added) Tail.

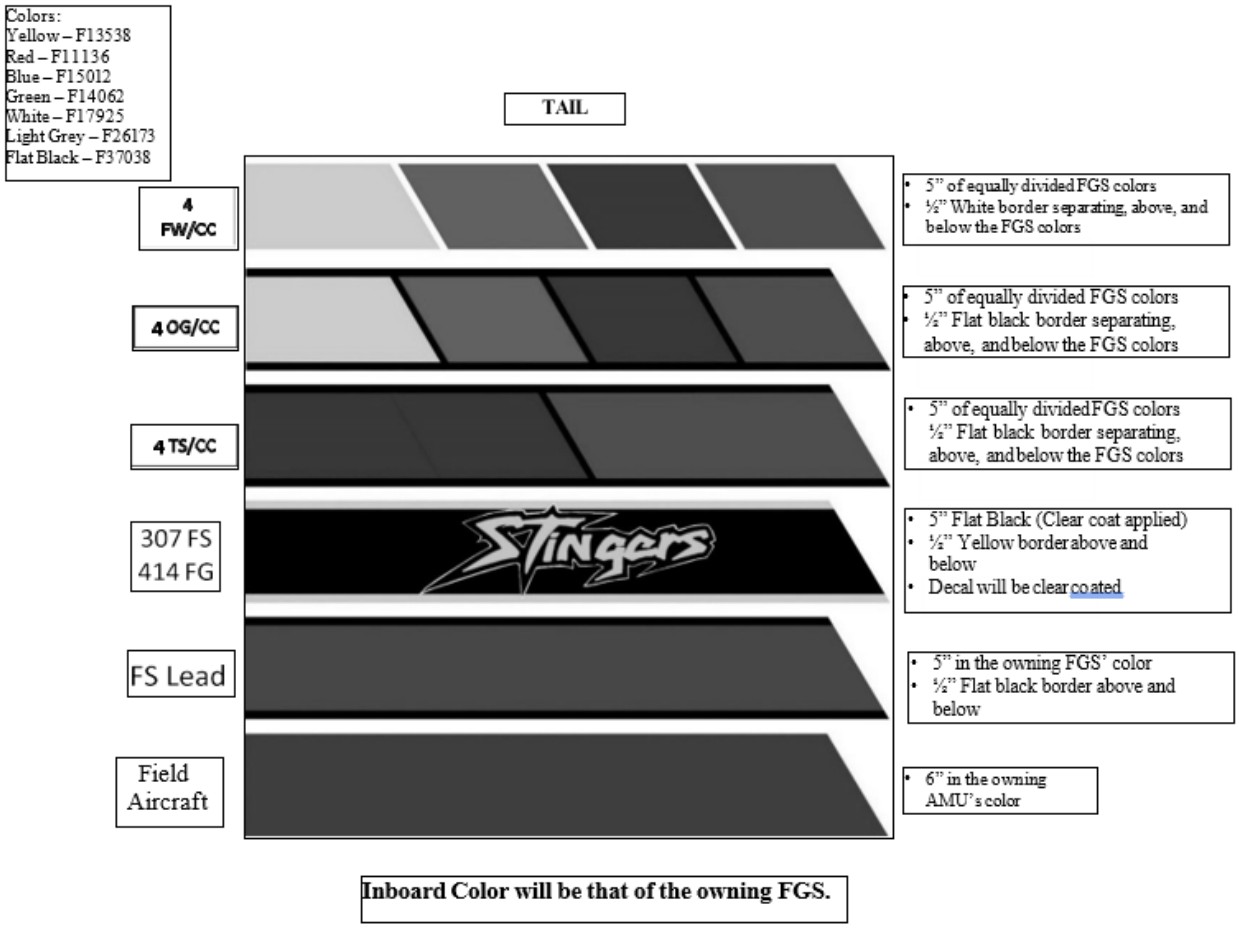


Figure A4.4. (Added) Organizational Insignia (Squadron) Left Forward Fuselage.

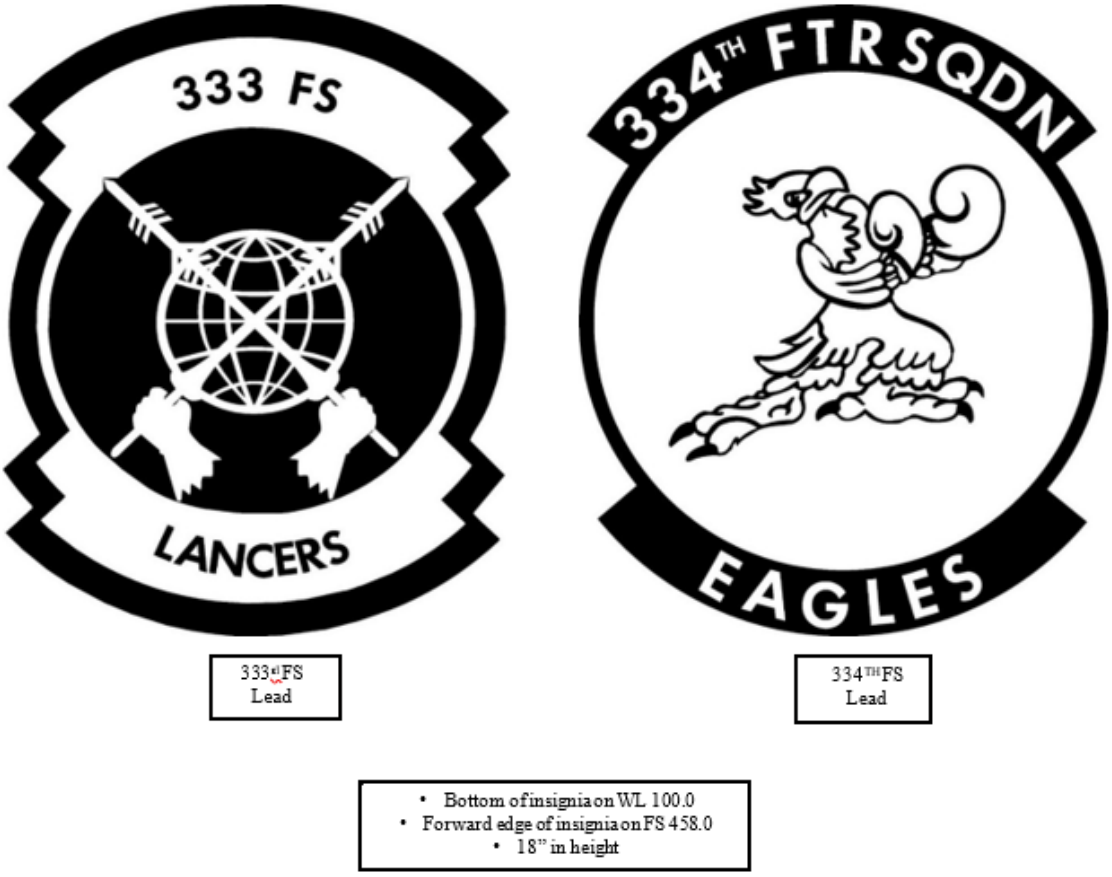


Figure A4.5. (Added) Organizational Insignia (Squadron).

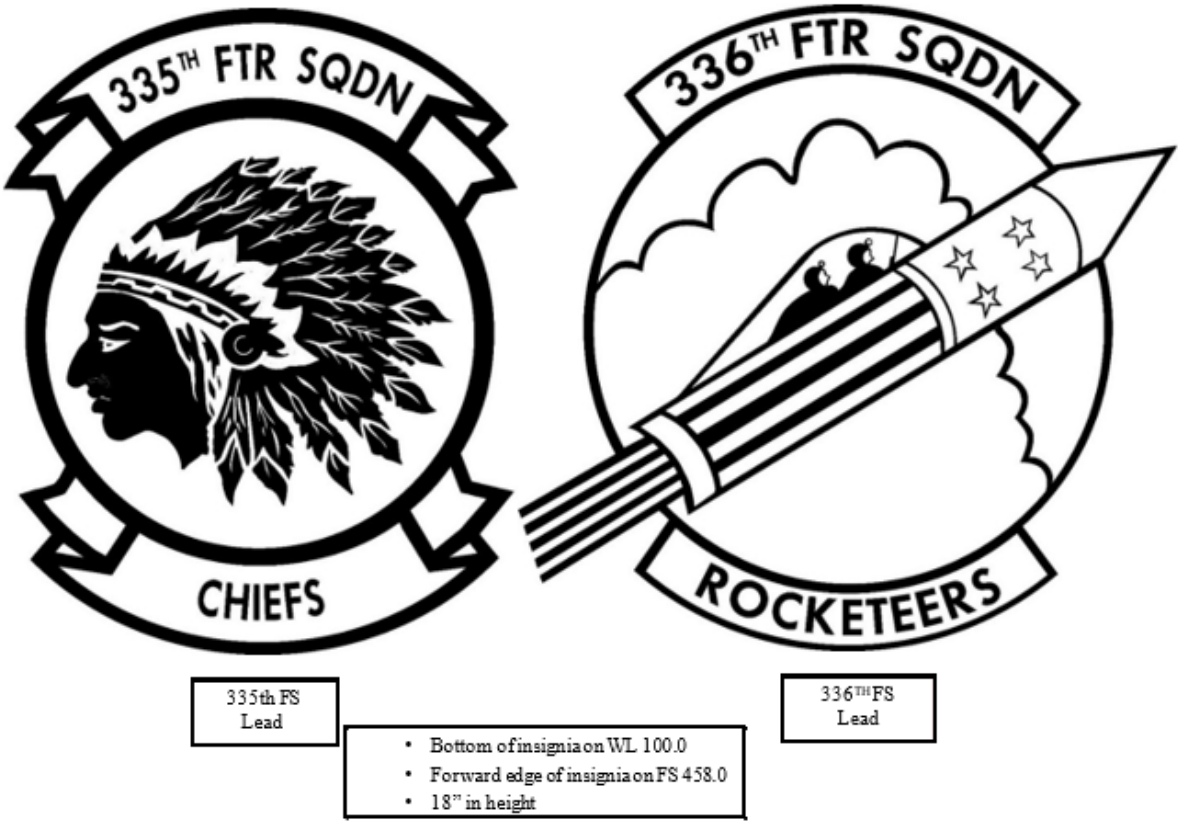


Figure A4.6. (Added) Organizational Insignia (Squadron) Left Forward.

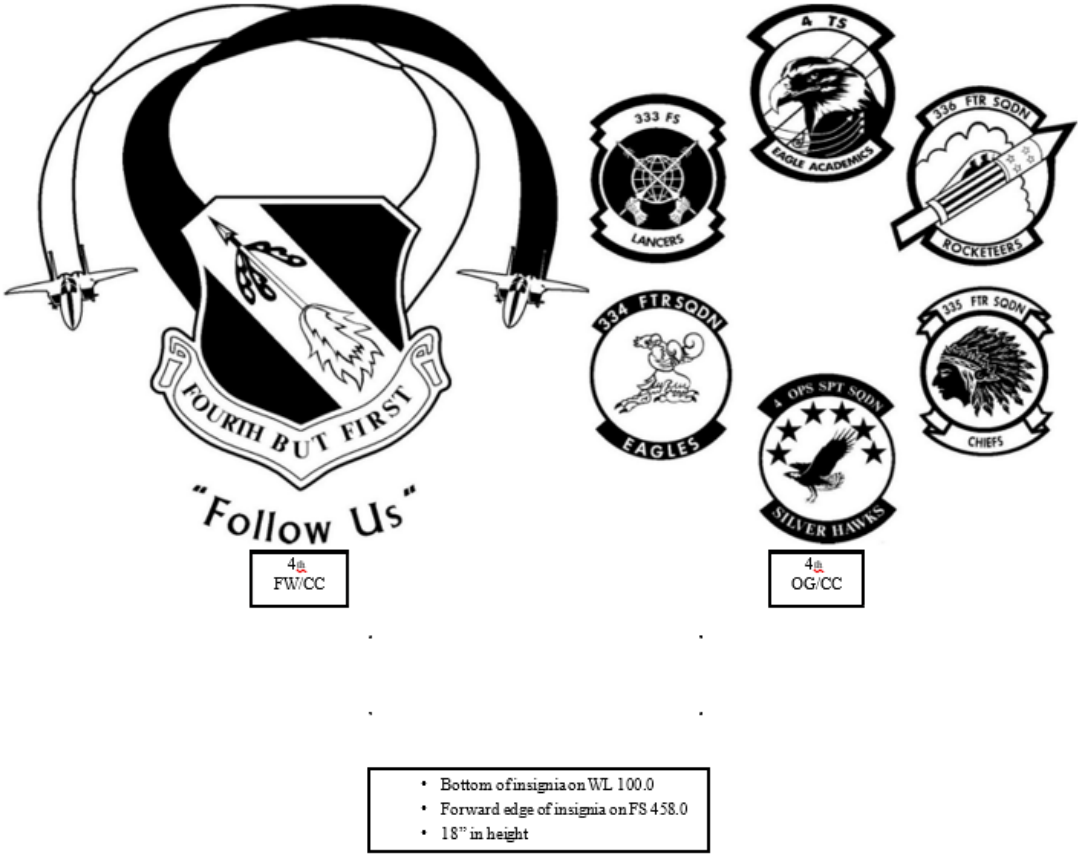


Figure A4.7. (Added) Organizational Insignia (Wing) Right Forward Fuselage.

4th FW

- Bottom of insignia on WL 100.0
- Forward edge of insignia on FS 458.0
- 18″ in height

Figure A4.8. (Added) Pilot and Crew Chief Name Block.

- Pilot block centered below left windscreen frame
- Crew chief centered below right windscreenframe
- Eagle Head' will be flat black F37038

Figure A4.9. (Added) Nose Art.

- Authorized on the 4 FW/CC aircraft
- 2.5" above pitot pin on door 3L
- Centered between antenna and T/E of door 3L
- 18" in height

Figure A4.10. (Added) Aircraft Naming.

Spirit of Goldsboro

- Authorized on the 4 FW/CC aircraft
- 2.5" above door 6
- 14.5" AFT of T/E of door 3
- Placed on both sides
- 11.5" x 25" in size
- Will be flat black F37038

Figure A4.11. (Added) Aerial Victory Marking.

- 6" green star with ½" black border
- ½" 'HELO' shall be placed centered in star
- Placed centered and below pilot's name block
- Authorized on A87-0487

Figure A4.12. (Added) Wright Flyer.

- Will be used in lieu of 'Bird of Prey' silhouette
- 10" x 25"
- Placed on INBD vertical stabilizers
- Top of stencil will be 22" down from bottom ofthe cradle centered between the two rows of screws, pilot will face FWD
- Will be flat black F37038

Figure A4.13. (Added) Paint Identification Placard.

- Placed 6" FWD of current placard
- Will be 6" in height
- Will be flat black F37038

Attachment 5
STANDARDIZED MAINTENANCE DEFER CODES

Table A5.1. (Added) Standardized Maintenance Defer Codes

DD Code	Narrative	Category
AAA	Awaiting Aircraft/Equipment Availability	AWM
AAJ	Awaiting Associated JCN Completion	AWM
AAR	Awaiting APU Run	AWM
AAW	Awaiting Aircraft Wash	AWM
ABC	Awaiting Bench Chk/Rep/RTN	AWM
ABT	Awaiting Boresight/Borescope	AWM
ACK	Awaiting Cryptographic Keying Material	AWM
ACM	Awaiting Associated Circuit Maintenance	AWM
ACR	Awaiting CANN Rebuild	AWM
ACT	Awaiting Cure Time	AWM
ADM	Awaiting Depot Maintenance (CFT/DFT)/Instruction	AWM
ADT	Awaiting Downtime	AWM
AER	Awaiting Engine Removal/Change/Install	AWM
AFC	Awaiting Functional/In-flight Check	AWM
ALC	Awaiting Leak/Ops Check	AWM
ALM	Awaiting Local Manufacture	AWP
ALO	Awaiting LO Repair	AWM
ALS	Awaiting Lateral Support	AWM
AMM	Awaiting Major Mx/ISO/Phase/HPO	AWM
AOC	Awaiting Out of Configuration	AWM
APA	Awaiting Power and Air	AWM
APM	Awaiting PMEL	AWM
APQ	Awaiting PQDR	AWM
APT	Awaiting Paint	AWM
APY	Awaiting Pylon Removal	AWM
ASE	Awaiting Support Equipment/Tools	AWM
ATA	Awaiting Technical Assistance/Data/Order	AWM
ATE	Awaiting Test Equipment	AWM
ATS	Awaiting Troubleshooting	AWM
ATT	Awaiting TCTO Compliance/Software Update/TCI/SI	AWM
AWF	Awaiting Fuel Cell Maintenance/Defuel	AWM
AWI	Awaiting Installation/Removal	AWM
AWM	Awaiting Maintenance	AWM
AWP	Awaiting Parts	AWP
AWR	Awaiting Engine Run	AWM
AXR	Awaiting NDI/X-Ray	AWM
DAF	Awaiting Facilities	AWM
GIR	Awaiting Gun Install/Removal	AWM

Attachment 6 (Added)
MANUAL JCN ASSIGNMENT LISTING

Table A6.1. (Added) Manual JCN Assignment Listing

JCN	Used For	Controlled By
0001-1999	Integrated Maintenance Data System (IMDS)	N/A
2000-2049	Preplans (Sched, TCTO, Time Changes)	MXO Mx Mgrs
2050-2099	Preplans (Sched, TCTO, Time Changes)	333 FGS
2100-2149	Preplans (Sched, TCTO, Time Changes)	334 FGS
2150-2199	Preplans (Sched, TCTO, Time Changes)	335 FGS
2200-2249	Preplans (Sched, TCTO, Time Changes)	336 FGS
2250-2349	Maintenance Managers	MXO Mx Mgrs
2350-2419	Avionics	CMS
2420-2519	Egress	CMS
2520-2549	Electrical-Environmental	CMS
2550-2639	Engines	CMS
2640-2709	Fuels	CMS
2710-2779	Hydraulics	CMS
2780-2809	Test Cell	CMS
2810-2839	Module Backshop	CMS
2840-2899	CMS Other	CMS
2900-2989	AGE	EMS
2990-3029	NDI	EMS
3030-3049	Wheel & Tire	EMS
3050-3089	Metals Tech	EMS
3090-3179	Repair & Reclamation	EMS
3180-3209	Structural Mx	EMS
3210-3229	Paint	EMS
3230-3269	EMS Other	EMS
3270-3349	Armament	MUNS
3350-3369	Conventional Maintenance	MUNS
3370-3399	Equipment Maintenance	MUNS
3400-3419	Precision Guided Munitions	MUNS
3420-3449	Other MUNS	MUNS
3450-3499	Quality Assurance	MXG QA
3500-3999	333 FGS Home Station	333 FGS

4000-4299	333 FGS Deployed	333 FGS
4300-4399	333 FGS Manual JCN	333 FGS
4400-4899	334 FGS Home Station	334 FGS
4900-5199	334 FGS Deployed	334 FGS
5200-5299	334 FGS Manual JCN	334 FGS
5300-5799	335 FGS Home Station	335 FGS
5800-6099	335 FGS Deployed	335 FGS
6100-6199	335 FGS Manual JCN	335 FGS
6200-6699	336 FGS Home Station	336 FGS
6700-6999	336 FGS Deployed	336 FGS
7000-7099	336 FGS Manual JCN	336 FGS
7100-9999	Will remain open for future use	

Attachment 7 (Added)
SORTIE LINE NUMBER ASSIGNMENT

Table A7.1. (Added) Sortie Line Number Assignment

Unit	On Station/ Sortie Surges	XC/ Adds/ Special Tasking	FCF/ OCF	Off Station TDY	Contingency/ Deployment	Demo Sorties
333 FGS	301-360	361-389	390-399	801-850		201-210
334 FGS	401-460	461-489	490-499	851-900		201-210
335 FGS	501-560	561-589	590-599	901-950	001-099	201-210
336 FGS	601-660	661-689	690-699	951-999	101-199	201-210