

**BY ORDER OF THE COMMANDER
35TH FIGHTER WING**

**COMBAT AIR FORCE INSTRUCTION
21-105**



**35TH FIGHTER WING
Supplement**

**27 DECEMBER 2016
Certified Current, 30 August 2018
Maintenance**

FABRICATION PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-publishing website at www.e-publishing.af.mil for downloading or ordering

RELEASABILITY: there are no releasability restriction on this publication

OPR: 35 MXG/MXMF

Certified by: 35 MXG/CC
(Colonel John K. Cartwright)

Pages: 19

This instruction implements Air Force Policy Directive (AFPD) 21-1, Maintenance of Military Materiel and fulfills the requirement of Combat Air Force Instruction (CAFI) 21-105, *Fabrication Program*, by establishing procedures for: Wing Corrosion Program Manager Responsibilities, Aircraft Structural Maintenance (ASM) Responsibilities, Maintenance Operations Officer Responsibilities, Wash Crew Supervisor Responsibilities, Aerospace Ground Equipment (AGE) Flight Chief Responsibilities, and Unit Corrosion Control Program Requirements. Unit commanders and supervisors are responsible for compliance with the provisions of this instruction. Commanders and supervisors will ensure that all personnel subject to operations covered by this instruction are thoroughly knowledgeable of the inherent dangers of the operation and the safety precautions necessary for safe and efficient accomplishment. It is applicable to all 35th Fighter Wing aircraft, transient aircraft and units deployed to Misawa Air Base, Japan. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route the AF Forms 847 from the field through the appropriate functional chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

3.5.2.1.1. **(Added)** All maintenance personnel will receive annual Corrosion Prevention and Control training during Mission Orientation and annually during Block training.

3.5.2.4.1. **(Added)** Attachment 10 of this supplement contains a more detailed instruction on 35FW aircraft paint identification placard.

3.8.3.1. **(Added)** Ensures stands are provided to eliminate the need to walk on top of a wet aircraft if fall restraint system is not in service.

3.8.7. **(Added)** Call in work orders to CE customer service to repair any discrepancies concerning the wash rack facility. Work orders will be called in immediately upon discovery or notification. Wash Rack Facility manager will ensure that all open work orders are up channeled to the 35 MXS Facility Manager.

3.8.8. **(Added)** Coordinate with the squadron and wing schedulers by attending the shared resource meeting, ensuring proper utilization of the aircraft wash facility.

3.9.1.1. **(Added)** Wash Crew Supervisor Responsibilities apply to aircraft wash operations with 35 MXG personnel only. For Contractor aircraft wash operations see the Performance-Based Work Statement (PWS) For Aircraft Corrosion Prevention Cleaning at Misawa Air Base, Aomori, Japan.

3.9.1.2. **(Added)** Aircraft must have a completed Hangaring Checklist (Locally approved Quality Assurance checklist) and perform safety brief IAW local safety brief. (Attachment 14).

3.9.3.1. **(Added)** Informs and ensures aircraft wash crews use only authorized aircraft cleaners and products during aircraft cleaning operations.

3.9.4.1. **(Added)** Ensures all documentation is accomplished IAW T.O. 00-20-1, Aerospace Vehicle/Equipment Inspection and Documentation.

3.9.4.2. **(Added)** The following AFTO Form 781-A, Maintenance Discrepancy and Work Document entries, as a minimum, are required for an aircraft wash:

3.9.4.2.1. **(Added)** “90 Day Aircraft Wash Due” which is entered on a red dash and is signed-off by the aircraft owning unit Wash Crew Supervisor.

3.9.4.2.2. **(Added)** “Aircraft taped for wash” which is entered on a red X prior to the wash and is signed-off by the owning unit Wash Crew Supervisor. This entry should be cleared after the aircraft has been de-taped, completion of all tasks associated with equipment, such as removing and storing of the intake plug and wheel covers, and the cleanliness inspection has been conducted and signed-off.

3.9.4.2.3. **(Added)** “After Wash Cleanliness Inspection Due” which is entered on a red dash and is signed-off by the aircraft owning unit Wash Crew Supervisor.

3.9.4.2.4. **(Added)** “Corrosion Inspection Due” which is entered on a red dash and is signed off by a 2A7X3 technician holding a 5 or 7 skill level.

3.9.4.2.5. **(Added)** “Aircraft Paint Score Due” which is entered on a red dash and is signed-off by a 2A7X3 technician holding a 5 or 7 skill level.

- 3.9.4.2.6. **(Added)** “Aircraft post-wash lubrication due” which is entered on a red X prior to the wash and is signed-off by the technician performing the post wash lubrication.
- 3.9.9. **(Added)** Ensures Wash Crew Supervisor Checklist is completed, signed and returned to the ASM Section (Attachment 13).
- 3.9.10. **(Added)** Reports facility and equipment malfunctions to ASM element or wash rack facility manager immediately.
- 3.9.11. **(Added)** Upon issue of the wash rack CTK to the wash crew supervisor the ASM Support Section will also issue the wash consumables(i.e. wash tape and sponges) via AF Form 1297. After the completion of the wash, all items issued via AF Form 1297 must be returned to the ASM Support Section after the wash has been completed.
- 3.9.12. **(Added)** Ensures FOD Control on the Wash Rack Facility.
- 3.9.13. **(Added)** The Wash Crew will perform a FOD walk before the aircraft is towed into the wash rack and immediately after the aircraft is towed out of the wash rack.
- 3.9.14. **(Added)** The Wash Crew Supervisor or designated Owing Squadron representative will contact the ASM section to set a time after removal of the aircraft to inspect the facility for cleanliness.
- 3.9.15. **(Added)** The Wash Crew Supervisor or designated owning squadron representative and ASM personnel or 35 MXS Production Supervisor (Knight Super) will inspect the Wash Rack for FOD, soap and lubrication residue. After the Wash Rack has passed inspection the by ASM personnel or Knight Super the Wash Crew Supervisor is released from responsibility of the Wash Rack.
- 3.9.16. **(Added)** Coordinates and schedules use of the wash rack facility through the 35th Maintenance Operations Squadron Plans, Scheduling and Documentation (35 MXG/MXOS) for aircraft washes. Due to the limitations of the wash facility, every effort should be attempted to schedule one wash per day. If scheduling conflicts requires more than one wash on a single day then the scheduled day should be divided in half, (morning wash 0700 to 1300 and evening wash 1300 to 1900) in order to accommodate both AMUs.
- 3.9.17. **(Added)** Any special or out of cycle washes not scheduled through 35 MXG/MXOS will be coordinated through the ASM Section Chief, Assistant Section Chief or Wash Rack Facility Manager.
- 3.10.3. **(Added)** All Evaluations will be accomplished IAW the 35 MXG/QA Maintenance Standardization and Evaluation Program (MSEP).
- 3.11.2.1. **(Added)** AGE units will be scored by AGE technicians utilizing a locally developed score sheet (Attachment 12).
- 3.11.2.2. **(Added)** 2A7X3 technicians will assist the AGE Flight with any corrosion related issues.
- 3.11.7.2. **(Added)** The AGE flight is responsible for marking all equipment. Uniformity will be maintained to ensure a professional looking fleet.
- 3.12.3. **(Added)** The ASM section will develop a local aircraft wash training outline and all wash crew supervisors will receive training from the ASM section to ensure proper wash

methods and equipment usage. A roster will be maintained by the ASM section of all trained wash crew supervisors. All other personnel involved with aircraft washing will receive OJT training offered by the ASM section or trained wash crew supervisor. This training will be updated in TBA by the member's supervisor or the wash crew supervisor

3.14.2.1. **(Added)** Aircraft scoring will be accomplished after each aircraft wash and reviewed semi-annually. By accomplishing an aircraft paint score every wash ensures that all aircraft meet the 6 month intervals prescribed in this instruction as well as to ensure aircraft requiring corrosion attention are prioritized and scheduled accordingly within their mid-life cycle.

3.14.2.2. **(Added)** All aircraft will be scored using the 35 MXS ASM section's locally developed scoring sheet (Attachment 11). The Aircraft Paint Score will be updated and posted on the Misawa Fleet Condition status sheet on the 35 MXS Share Point and can be accessed through the following link: <https://misawa.eim.pacaf.af.mil/35FW/35MXG/35MXS/CorrosionControl/default.aspx?PageView=Shared>

3.14.2.3. **(Added)** Scheduled down time for repainting the aircraft depends on the level of deterioration on the coating system as determined by the aircraft paint score and corrosion control personnel.

3.14.2.4. **(Added)** Flagship and Commander's Aircraft rotation schedule should be based on aircraft already scheduled for depot maintenance (PMB). The decision on which aircraft to be selected will be coordinated between the 35 OG, 35 MXG, wing scheduler, and wing corrosion manager.

3.14.2.5. **(Added)** Paint Preparation Procedures

3.14.2.5.1. **(Added)** Aircraft requiring full paint or touch-up will be thoroughly washed by the owning organization in accordance with TO 1-1-691 no earlier than the day prior to placement in the aircraft paint facility. Aircraft will not be flown after the pre-paint wash is completed. Aircraft requiring full paint will be delivered no later than the Friday prior to the scheduled paint week.

3.14.2.5.2. **(Added)** Aircraft arriving at the paint facility dirty will be directed back to the wash rack. Spot washes are not acceptable.

3.14.2.5.3. **(Added)** One complete set of external stores (pylons, launchers, external fuel tanks, etc.) may be included during a full scuff sand and overcoat. Owing unit will remove all external stores from the aircraft prior to placement in the paint facility. Owing unit will also ensure all aircraft internal fuel tanks are defueled and depressurized to prevent leakage and center of gravity problems during painting operations. External fuel tanks must be completely drained and aircraft will be jacked and landing gear will be retracted prior to painting.

3.14.2.5.4. **(Added)** Owing unit will ensure aircraft is safe for maintenance TO 1F-16CJ-2-10JG-00-1 (chaff and flare removed, gun system empty, battery disconnected, etc.) and all appropriate entries are annotated in Integrated Maintenance Data System (IMDS) and AFTO Form 781s.

3.14.2.5.4.1. **(Added)** Owing unit does not need to disconnect the battery if the aircraft is placed on jacks and the landing gear is retracted while it is in the paint facility.

3.14.2.5.5. **(Added)** Aircraft forms will remain with the aircraft during the entire paint process.

3.14.2.5.6. **(Added)** No other aircraft maintenance or cannibalizing will be performed during painting operations without prior approval from MXG/CC or MXG/CD.

3.14.2.5.7. **(Added)** ASM will contact MXG QA to coordinate weight and balance requirements. Upon completion of aircraft paint touch-ups and tail flashes the total square footage painted will be reported by tail number to QA for recording and possible reweigh of the aircraft upon accumulation of square footage limit.

3.14.3.3.1. **(Added)** Attachment 9 of this supplement contains a more detailed instruction on 35FW tail markings and locations.

3.14.3.4.1. **(Added)** Attachment 9 of this supplement contains a more detailed instruction on 35FW tail markings and locations.

3.14.3.5.1. **(Added)** Attachment 9 of this supplement contains a more detailed instruction on 35FW tail markings and locations.

3.14.3.6.1. **(Added)** Aircrew and Crew Chief names will be Helvetica Medium Accent font, dark gray, MIL-C-36118 in color for standard aircraft. The NAF, Wing, OG, and flying squadron commander's aircraft will be Brush Grip, gray MIL-C-36118 in color with white shadowing.

3.14.3.7.2.1. **(Added)** Attachment 9 of this supplement contains a more detailed instruction on 35FW tail markings and locations.

3.14.3.9.1. **(Added)** Owing organization are responsible for ensuring external fuel tanks are maintained in the same high standard of appearance as the aircraft and are responsible for scheduling them for paint and wash as required.

3.17. **(Added)** Aircraft Maintenance Squadron Supervision Responsibilities:

3.17.1. **(Added)** 35 AMXS supervision and 35 MXS ASM will inspect aircraft at least 2 weeks prior to any cross country departure to ensure acceptable appearance. Once ASM determines what corrosion maintenance is required, ASM will contact 35 MXS production supervision to coordinate the scheduling of the aircraft into paint facility.

3.17.2. **(Added)** 35 AMXS will ensure aircrew and crew chief names are updated and provided to 35 MXS ASM quarterly. 35 MXS ASM will cut new name tapes upon creation of job in IMDS.

3.17.2.1. **(Added)** 35 AMXS will be responsible for removing aircrew and crew chiefs names from the aircraft for contingency operations.

TRAVIS D. REX, Colonel, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFPD 21-1, *Maintenance of Military Materiel*, 29 Oct 2015

CAFI 21-105, *Fabrication Program*, 5 Sep 2012

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

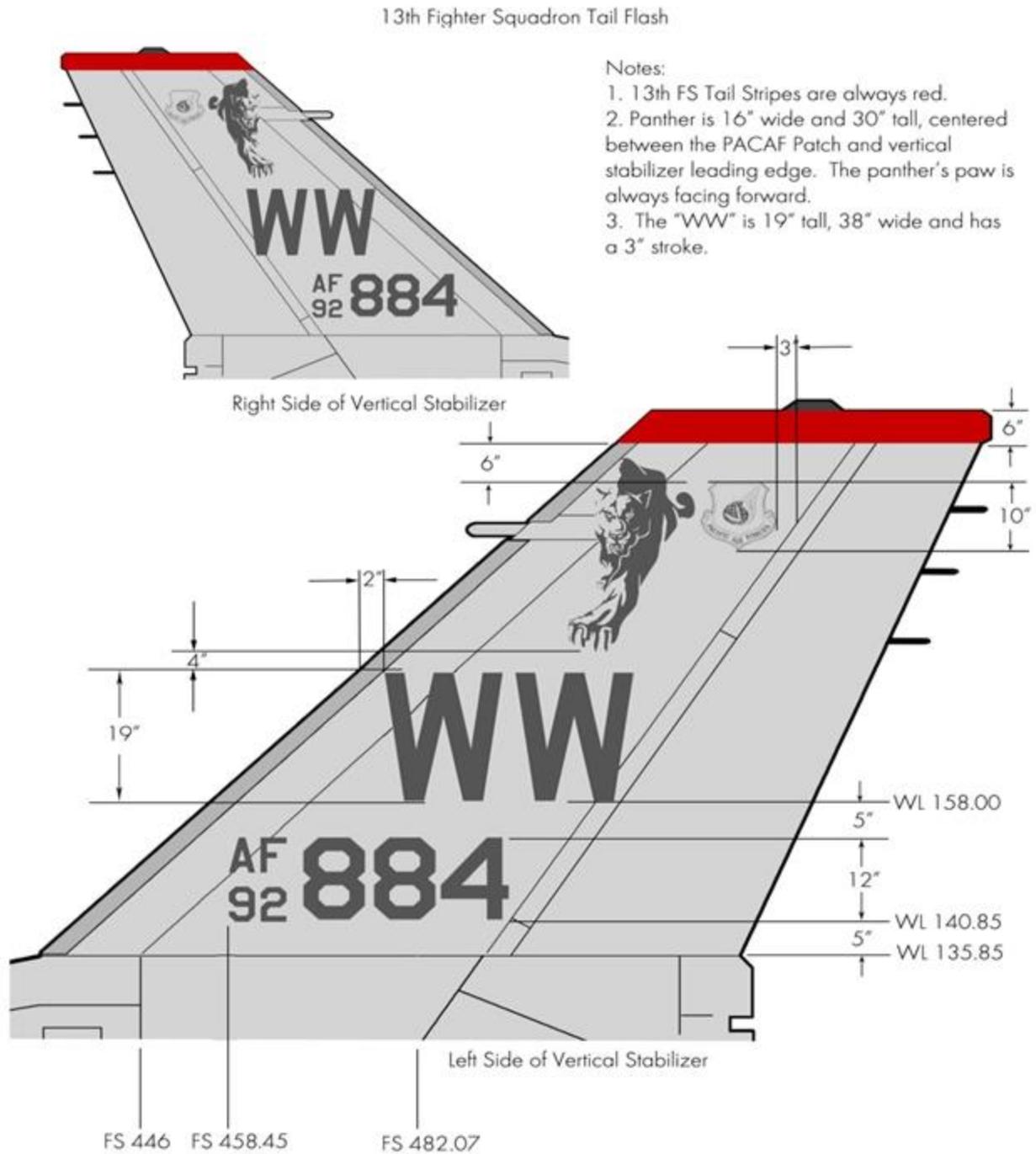
AF Form 1297, *Temporary Issue Receipt*

AFTO 781-A, *Maintenance Discrepancy and Work Document*

Attachment 9 (Added)

MDS MARKING SPECIFICATION

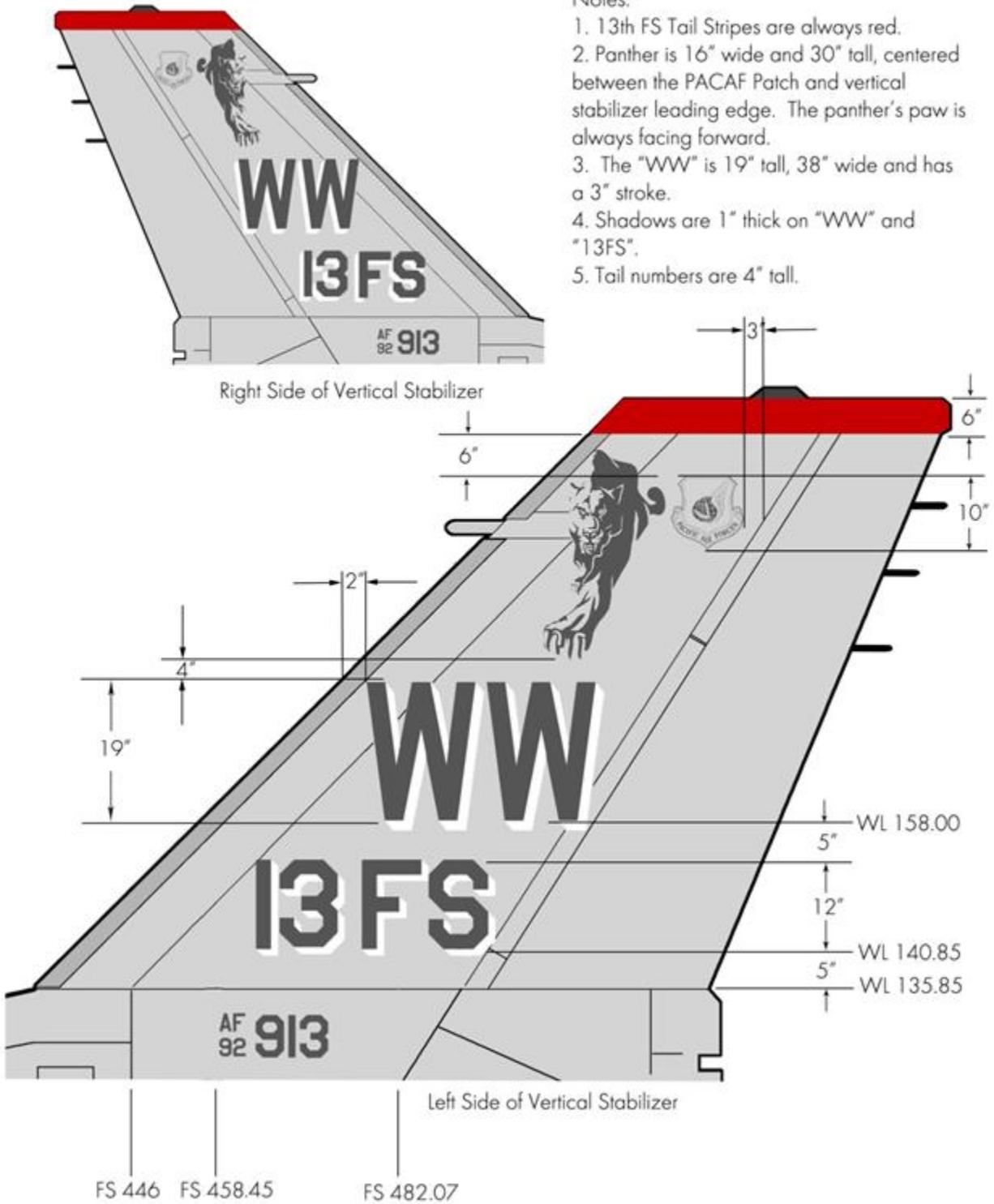
Figure A9.1. (Added) MDS Marking Specification



13th Fighter Squadron Lead Aircraft Tail Flash

Notes:

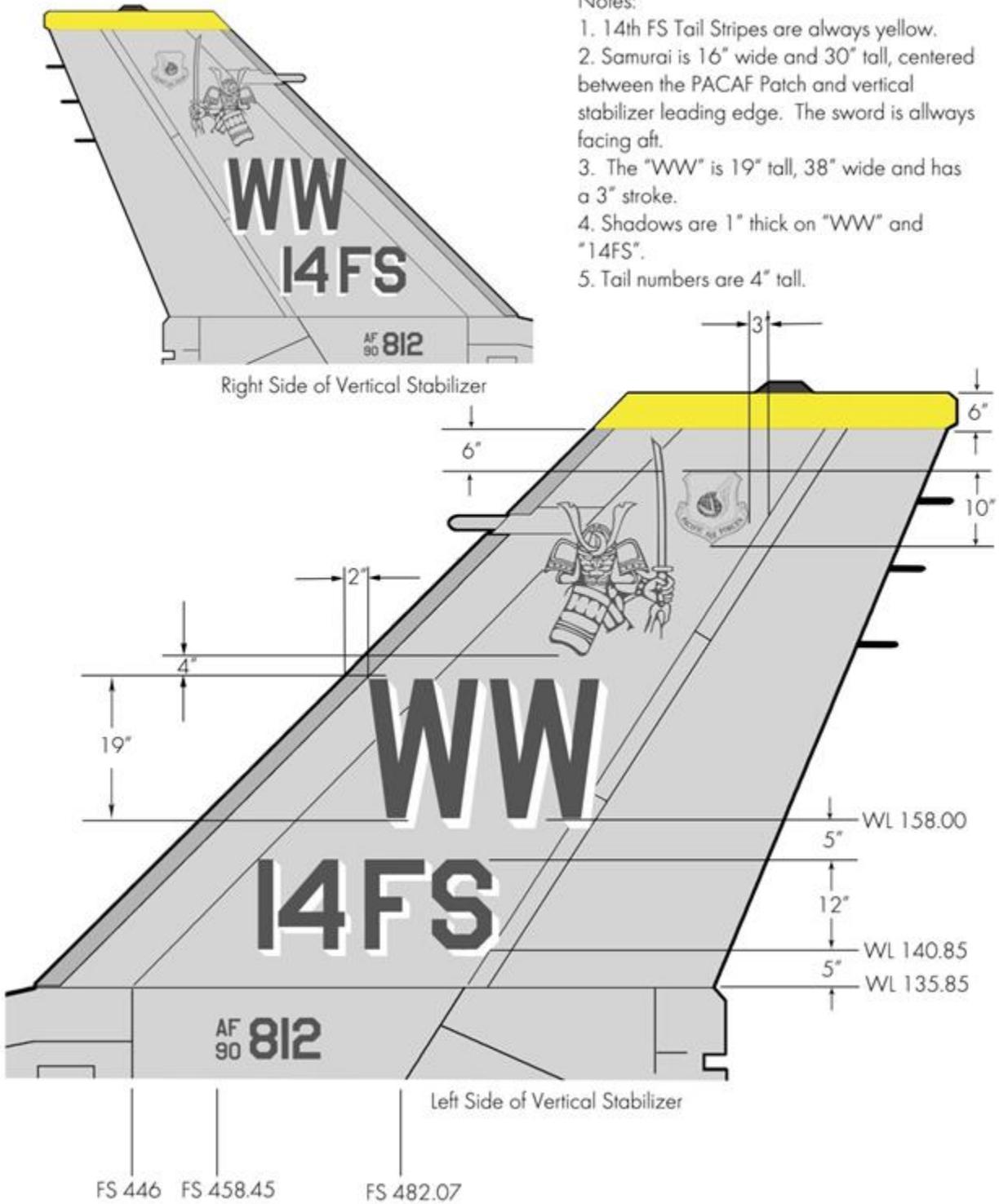
1. 13th FS Tail Stripes are always red.
2. Panther is 16" wide and 30" tall, centered between the PACAF Patch and vertical stabilizer leading edge. The panther's paw is always facing forward.
3. The "WW" is 19" tall, 38" wide and has a 3" stroke.
4. Shadows are 1" thick on "WW" and "13FS".
5. Tail numbers are 4" tall.



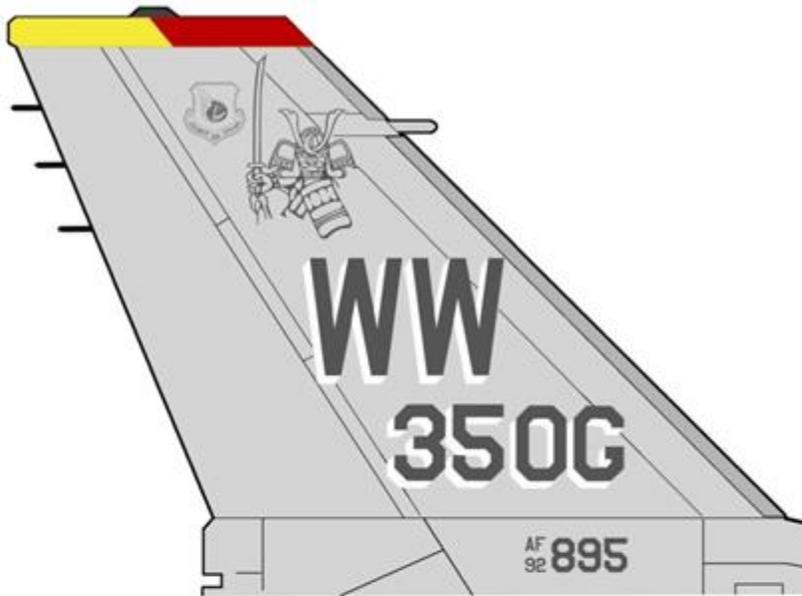
14th Fighter Squadron Led Aircraft Tail Flash

Notes:

1. 14th FS Tail Stripes are always yellow.
2. Samurai is 16" wide and 30" tall, centered between the PACAF Patch and vertical stabilizer leading edge. The sword is always facing aft.
3. The "WW" is 19" tall, 38" wide and has a 3" stroke.
4. Shadows are 1" thick on "WW" and "14FS".
5. Tail numbers are 4" tall.



35 OG Tail Flash



Right Side of Vertical Stabilizer



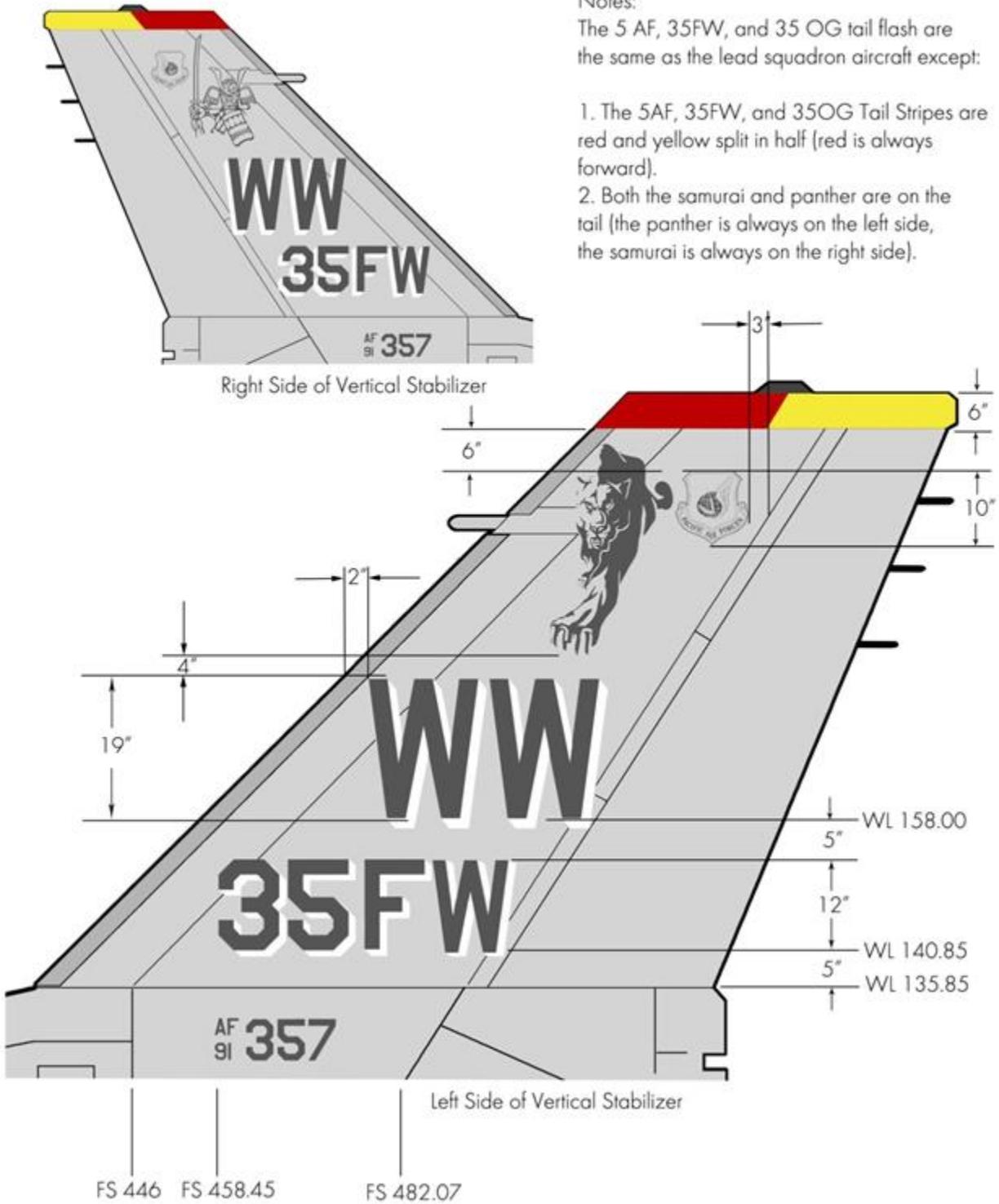
Left Side of the Vertical Stabilizer

5AF, 35FW, and 35 OG Tail Flash

Notes:

The 5 AF, 35FW, and 35 OG tail flash are the same as the lead squadron aircraft except:

1. The 5AF, 35FW, and 35OG Tail Stripes are red and yellow split in half (red is always forward).
2. Both the samurai and panther are on the tail (the panther is always on the left side, the samurai is always on the right side).



5th Air Force Tail Flash



Right Side of Vertical Stabilizer



Left Side of the Vertical Stabilizer

Attachment 10 (Added)**PAINT PLACARD**

A10.1. (Added) Paint Placard will not exceed 6 x 6 inches and will match the color of other markings on the aircraft.

Figure A10.1. Paint Placard.



Attachment 11 (Added)

AIRCRAFT FIELD SCORING SHEET

Figure A11.I. Aircraft Field Scoring Sheet.

Rules of Engagement for Field Scoring Aircraft

AIRCRAFT TAIL NUMBER: _____ PAINT PLACARD DATE: _____ DATE OF PAINT SCORE: _____
 SQUADRON: 13 / 14 PAINTED BY: _____ APC TOPCOAT: _____ Y / N

Left Fuselage	Right Fuselage	Left Wing	Right Wing	Left Stabilizer	Right Stabilizer	Vertical Stabilizer	Bottom Fuselage	Intake	Total Score

Each aircraft section will be rated on a scale of 0 to 3 with 0 being the best and 3 being the worst

POINT GUIDE FOR RATINGS

0 Sound paint, no defects: All patches and markings legible.

1 Minor defects: Small chips less than 1-inch in diameter, slight fading between color #'s 36118, 36270, less than 5 mismatched panels (7 or less for fuselage section), stencils slightly fading or minor peeling. Minor scratches on surface, but not penetrating primer coat. Overall still sound coating.

2 Moderate defects: Chipped paint larger than 1-inch diameter, noticeable fading between color #'s 36118, 36270, 5 or more mismatched panels (7 or more for fuselage section), stencils noticeably faded or moderate peeling occurring. Moderate scratches with noticeable penetration of primer coating.

3 Severe defects: Areas having no more than 6 large chips (1-inch or more in diameter) within a 1-foot radius. White patches noticed on color # 36118, or color #'s 36270 extensively stained. Noticeable primer areas less than 40% of total piece showing due to paint wear. Color distinctions becoming unnoticeable between color #'s 36118 and 36270.

*Color # 36118 (Dark Camo Gray) Color # 36270 (Medium Camo Gray)

Rating criteria is broken up into four sections ranging from 0-27, 0 being the best and 27 being the worst. All scores are based upon date of last painting, amount of fading and contrasting color scheme, peeling/chipped paint, and markings and overall appearance.

Cat #0	Cat #1	Cat #2	Cat #3
0 thru 6	7 thru 12	13 thru 19	20 thru 27
New or sound paint, no defects	Minor defects, awaiting mid-life paint touch-up	Moderate defects, requiring mid-life paint touch-up	Major paint failure, will require full paint when scheduling permits

PAINT SCORED BY: _____ EMPLOYEE NUMBER: _____

NOTES: _____

Attachment 12 (Added)

AGE/MUNITION TRAILERS FIELD SCORING SHEET

Figure A12.1. AGE Munition Trailers Field Scoring Sheet.

Rules of Engagement for Field Scoring AGE/Munitions Trailers

AGE UNIT/TRAILER NUMBER: _____ CATEGORY: _____ DATE OF PAINT SCORE: _____

PAINT COLOR: _____ DATE: _____

Touch Up Date	Left Body	Right Body	Front Body	Rear Body	Tow Bar	Corrosion From Axles	Interior as Required	Frame	Total Score

Each AGE Unit/Trailer will be rated on a scale of 1 to 4 with 1 being the best and 4 being the worst.

RATING CRITERIA

#1 New paint or recently touched-up. No chips, cracks, or scratches exposing bare metal. Coating not faded or mismatched. No visible rust or blistering of coating at seams.

#2 Minor corrosion or surface rust that can be removed by sanding or wire brush. Minor paint chipping, peeling or scratches. Minor paint fading or chalking. Replacement of corroded fasteners, latches, fittings, and handles.

#3 Moderate corrosion or surface rust. Moderate paint chipping, peeling or scratches. Moderate paint fading or chalking. Moderate to localized extensive corrosion on removable panels or parts. There is excessive paint chipping, peeling or scratches. There is excessive amount of paint missing. Spot-welded panel seams leading rust. Overall look is excessively faded or weathered.

#4 75% of the total exterior surface displays obvious oxidation, bleaching, peeling, cracking, flaking, etc. Severe corrosion or surface rust and pitting. Extensive paint chipping or peeling covering whole sections. Rusting through leaving holes through panels, seams, framework, chassis or axles. Units requiring extensive local manufacturing of new panels, framework or chassis components.

DAW TO-35-13 TABLE 32

Rating criteria is broken up into nine sections ranging from 9-36, 9 being the best and 36 being the worst. All scores are based upon date of last painting, amount of fading, peeling/chipped paint, contrasting color scheme, markings and overall appearance. The paint "Touch Up Date" will be scored with 1 point for each year since AGE Unit/Trailer has received a full paint up to 4 points.

Cat #1	Cat #2	Cat #3	Cat #4
9 thru 15	16 thru 22	23 thru 29	30 thru 36
New or sound paint, no defects	Minor defects, awaiting mid-life paint touch-up	Moderate defects, requiring mid-life paint touch-up	Major paint failure, will require full paint when scheduling permits

PAINT SCORED BY: _____ EMPLOYEE NUMBER: _____

AGE UNIT/TRAILER ESTIMATE DAYS IN WORK: _____

NOTES: _____

Attachment 13 (Added)

WASH CREW SUPERVISOR CHECKLIST

Figure A13.1. Wash Crew Supervisor Checklist.

WASH CREW SUPERVISOR CHECKLIST		
Aircraft Tail Number:	Squadron:	Date:
Initials	Tasks	
	1. Sign out wash rack CTK from the Aircraft Structural Maintenance (ASM) Support Section. The ASM Support Section will verify that the Wash Crew Supervisor has completed the appropriate training. If the wash rack facility is locked the ASM Support Section will be responsible for unlocking the facility. The wash rack facility keys will not be issued to the Wash Crew Supervisor.	
	2. Inventory the wash rack CTK, ensure all tools, equipment and PPE are serviceable and accounted for. Report any discrepancies to the ASM Support Section (226-2725).	
	3. Conduct the wash rack safety briefing. (All employees briefed must sign the safety briefing.)	
	4. Perform Safe for Maintenance and ensure the aircraft is properly grounded.	
	5. Verify all wash related entries are entered in the forms. Verify pre-prints if used.	
	5. Ensure aircraft is properly masked IAW TO1F-16CJ-23.	
	6. Complete aircraft wash IAW applicable technical data.	
	7. Upon completion of wash procedures, the Wash Crew Supervisor must: <ul style="list-style-type: none"> a. Properly roll up all hoses. b. Place soap foamer back into the CTK and ensure all attachments are properly stowed. c. Account for all equipment cage items and return to the appropriate shadowed areas. d. Return used scrub pads and tape rolls to ASM Support Section. e. Notify ASM personnel of wash completion for aircraft score requirement. f. Conduct inventory and sign in wash rack CTK. 	
	8. The wash crew is responsible for removal of all trash from the wash rack.	
	9. The wash crew is responsible for cleaning the floors after the aircraft has been towed out.	
	10. The Wash Crew Supervisor is responsible for ensuring a FOD walk is accomplished before the wash rack is returned back to the ASM Support Section.	
Wash Crew Supervisor acknowledgement of checklist completion		
Rank	Printed Name	Signature

Attachment 14 (Added)

WASH RACK SAFETY BRIEFING

Figure A14.1. Wash Rack Safety Briefing.

1. Food and drink are prohibited in wash rack area

2. Prior to starting wash operations, check emergency eyewash for proper operation. If not operating properly, notify the Aircraft Structural Maintenance (ASM) Section immediately. **DO NOT proceed with wash until eyewash is available.**

3. Aircraft soap and solution is highly alkaline and will burn skin and eyes if it comes in contact with them. If splashed in to eyes rinse immediately with fresh water for at least 15 minutes and report to the medical facility. Inform the wash rack supervisor.

4. The following protective equipment will be worn

- Rain gear (Top and Bottom) with hood up
- Safety goggles
- Rubber gloves/Boots

5. If there is anything wrong with your protective equipment, do not use it. Report discrepancies to the ASM support section so that the defective equipment/items can be replaced.

6. Remove rings, watches, bracelets, etc...

7. Do not position yourself below any area of the aircraft that is being cleaned by personnel above you. Avoid getting yourself and co-workers wet with soap solution and water, especially during winter months when air temperature are low.

8. Use care because of safety wire, sharp edges, and corners

9. **Do not stand on aircraft at any time.** Use a stand to reach the upper surfaces of the aircraft.

10. **Aircraft soap is highly concentrated.** Soap solution shall be mixed to manufacturer's specifications **IAW T.O. 1F-16CJ-23.** Do not mix solvents or other materials/chemicals with soap. **Only the wash crew supervisor will mix soap solutions.**

11. Soap on floors and aircraft can be slippery. Use care in wash rack area. Report all injuries to the wash crew supervisor.

12. Report any hazards that pose a threat to personnel or equipment to the ASM section. Report other hazards on an AF Form 457.

Wash Crew Acknowledgement	
Print	Sign