

**BY ORDER OF THE COMMANDER
51ST FIGHTER WING**

**51ST FIGHTER WING INSTRUCTION
21-107**



**23 NOVEMBER 2022
Certified Current, 6 March 2024
Maintenance**

**HUSH HOUSE
OPERATING PROCEDURES**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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(Col Todd A. Wydra)

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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Maintenance of Military Materiel*. It establishes procedures and responsibilities to be followed whenever the Hush House (HH) noise sound suppresser is used for installed engine runs and applies to all personnel assigned or attached to the 51st Fighter Wing (51 FW). Additional guidance for HH operating procedures are found in Technical Order (T.O.) 33D4-6-645-1, *Operation and Maintenance Instructions Enclosed Noise Suppressor System Aircraft Engine (Hush House)*. Ensure all records generated as a result of processes prescribed in this publication adhere to AFI 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. 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 Department of the Air Force.

SUMMARY OF CHANGES

This publication has been substantially revised and needs to be completely reviewed. Major changes include changes the OPR office symbol (MXMTP); adds removal of practice AIM-9 missiles from A-10 aircraft; adds procedures for cold weather operations and X-RAY inspections.

1. Responsibility.

1.1. The 51 MXS will manage the HH and will be responsible for the upkeep and repairs, for maintaining Hush House Operator (HHO) qualifications, and supplying the HHO for installed engine runs. The 51 MXS will also maintain qualifications for trainer/certifier purposes. The user must ensure maintenance is performed according to applicable T.O.s or directives assuring system reliability, safety, configuration control, and continued spare parts logistical support. Primary maintenance of these systems is assigned to the designated user, with limited support from the Civil Engineer Squadron.

1.2. The HHO will give a mandatory briefing on emergency evacuation procedures, and on the fire suppression system before aircraft operation. It is the responsibility of the HHO and each team member to ensure these procedures are followed. Individuals will enter their man numbers and date of the briefing on Functional Checklist #348, Aircraft Engine Pre-Post Run Hush House (INSTALLED) Checklist. The HHO will ensure all information is accurate and complete prior to signing the form. Functional Checklist #348 will be kept in the control room during run procedures.

2. Procedures.

2.1. Personnel requesting use of the HH will review the aircraft forms prior to aircraft delivery to ensure an unsafe condition does not exist. The HH will ensure the aircraft is configured as follows: proper fuselage fuel load to complete required maintenance, all munitions/explosives removed (except for target practice ammunition, providing the gun is safed), and practice AIM-9 missiles will have umbilical cables disconnected (practice AIM-9 missiles will be removed from A-10 aircraft to allow appropriate clearance to HH walls). Additionally, Functional Checklist #307, F-16 Hangar Entry Checklist or Functional Checklist #306, A-10 Hangar Entry Checklist, will be completed with the exception of egress components and provided to HHO prior to aircraft entering the HH.

2.2. Personnel requesting use of the HH will notify 51 MXS/Production Superintendent (MXM). The 51 MXS/MXM will notify 51 MXS Manager and verify HH status. During the winter months and cold weather operations (32F and below), the HH door gearbox heaters need to be operated prior to door operation. Those needing to use the HH will provide the 51 MXS/MXM an HHO at a minimum, 40 minutes prior to aircraft delivery. The 51 MXS/MXM will notify the requester with the HH status. The requester will coordinate with Maintenance Operations Center (MOC) for aircraft engine run approval. For X-RAY operations, the HHO is required only if door heater operation is required.

2.3. Prior to the delivery of an aircraft to the HH, the HHO will set up the HH IAW T.O. 33D4-6-645-1. The aircraft Tow Supervisor will position the tires on the appropriate guidelines or as directed by the HHO and run supervisor.

2.4. A minimum of four people will be required on all installed engine operations. Installed engine runs will be accomplished by the requesting organization and will furnish ground restraints, an engine operator, a ground supervisor, and a fireguard.

2.5. The aircraft operator will ensure all required aircraft run checklists, T.O.s, and local directives are complied with. For F-16 aircraft Hydrazine safety provisions, follow T.O. 1F-16CG-2-70JG-00-11, *Engine Operation*, paragraph 1.13.

- 2.6. Repair of engine-related discrepancies discovered during HH operation is permissible. Aircraft jacking and other extensive maintenance will not be performed inside the HH unless approved by the 51 MXS/CC or designated representative (51 MXS/DO, SEL, MX Supt, or Pro Super). Open fuel cell maintenance is not permitted inside the HH.
- 2.7. If the aircraft requires additional refueling prior to completion of required maintenance runs, the aircraft will be configured IAW T.O. 33D4-6-645-1, paragraph 4-73 prior to refueling.
- 2.8. For emergency precautions, no vehicles or equipment will be parked in front of the HH main doors when an aircraft is inside the HH. In case of an emergency, Tow Supervisor will supervise the removal of the aircraft from the HH. The HHO will ensure applicable tug and tow bar are available during HH operations.
- 2.9. If the HH fire suppression system is not operational, the Fire Department must be present during all engine run operations, IAW OSANABI 32-2001, *Fire Prevention Program*. The 51 MXS will request an operational waiver from Warner Robins-Air Logistics Complex (WR-ALC) to continue HH operation. If WR-ALC issues a waiver, the Fire Department will be called to provide standby support just prior to engine start. In the event of an emergency, the HHO will open main doors to allow Fire Department access as required.
- 2.10. In the event of a fire, the HHO will initiate the Fire Control System, notify MOC and the Fire Department, and implement emergency evacuation of personnel and aircraft.
- 2.11. Upon completion of aircraft functional checks, the owning organization using the HH will remove the aircraft from the HH as soon as possible and perform an engine Foreign Object Damage (FOD) inspection. This will allow 51 MXS personnel the ability to perform a post-run inspection of the HH in a timely manner.
- 2.12. The organization using the HH will ensure all spills are cleaned up.

JOSHUA T. WOOD, Colonel, USAF
Commander

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

AFPD 21-1, *Maintenance of Military Materiel*, 1 August 2018

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

OSANABI 32-2001, *Fire Prevention Program*, 20 March 2019

T.O. 33D4-6-645-1, *Operation and Maintenance Instructions Enclosed Noise Suppressor System Aircraft Engine (Hush House)*, 2 April 2022

T.O. 1F-16CG-2-70JG-00-11, *Engine Operation*, 1 November 2011

Prescribed Forms

None

Adopted Forms

DAF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

51 FW—51st Fighter Wing

AFI—Air Force Instruction

AFPD—Air Force Policy Directive

DAF—Department of the Air Force

FOD—Foreign Object Damage

FWI—Fighter Wing Instruction

HH—Hush House

HHO—Hush House Operator

MOC—Maintenance Operations Center

OPR—Office of Primary Responsibility

OSANABI—Osan Air Base Instruction

T.O.—Technical Order

WR-ALC—Warner Robins-Air Logistics Complex