

1 May 1998



Maintenance

**AIRCRAFT MAINTENANCE GROUND
ENGINE OPERATION**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the HQ AFRC WWW site at: <http://www.afrc.af.mil> and the AFRCEPL (CD-ROM) published monthly.

OPR: 302 FS/MA (CMSgt Dennis Nielsen)
Supersedes 944 FWI 21-129, 27 December 95

Certified by: 302 FS/MA (1Lt Max Stitzer)
Pages: 3
Distribution: F

This instruction implements AFRPD 21-1, *Managing Aerospace Equipment Maintenance* and establishes procedures for ground maintenance operation of aircraft engines. This instruction is applicable to maintenance activities within the 944th Fighter Wing.

SUMMARY OF REVISIONS

This revision reorganizes text.

1. Responsibilities:

- 1.1. The Operations Group and Logistics Group Commanders will appoint engine run certifying officials by a letter.
- 1.2. To ensure safe and efficient operation of aircraft engines, maintenance personnel involved will follow these procedures and the specific technical data provided for the weapon system.
- 1.3. Certifying officials are responsible for co-conducting ground engine operation training. This training is conducted in three phases:
 - 1.3.1. Phase I. Classroom and a 25 question written examination.
 - 1.3.2. Phase II. Engine emergency procedures. This training is conducted using a cockpit simulator. If a simulator is not available, training may be conducted using an F-16 cockpit (dry run).
 - 1.3.3. Phase III. Training and evaluation in the aircraft with a 25 question written examination. A minimum of two engine starts through engine shutdown procedures will be accomplished to ensure the technician is proficient.
 - 1.3.4. Certifying officials/work center supervisors will ensure appropriate CAMS products are updated to reflect engine run training and proficiency.

1.3.5. Training management function (944LG/LGLT) will be responsible for controlling the written examinations for Phase I and III and will assist certifying officials/work center supervisors to ensure training is scheduled, accomplished, and documented.

2. Procedures:

2.1. When procedures for ground operation of aircraft engines conflict with this instruction, the applicable technical order will prevail.

2.2. The engine run operator/supervisor will check the AFTO Form 781A, **Maintenance Discrepancy and Work Document**, prior to entering the cockpit. Operator/supervisor will ensure that the AFTO Form 781 series reflect that the aircraft is safe and properly configured for aircraft engine ground operations. The operator/supervisor will operate the engine within applicable check list and technical data and will verify the currency of the technical data. The operator/supervisor along with the ground run assistant will further ensure:

2.2.1. Individuals which may be in and around engine operation areas are briefed on safe minimum distances during ground engine operation.

2.2.2. Loose clothing and other objects, such as hats and line badges, must be removed and or secured to prevent possible foreign object damage (FOD) hazard.

2.2.3. An intake and tail pipe inspection will be completed and signed off in the AFTO Form 781A before and after the engine maintenance run is accomplished.

2.2.4. The antipersonnel engine run screen is inspected for serviceability and loose hardware prior to installing on aircraft and is documented in AFTO Form 781A on a Red "X" symbol.

2.2.5. The expediter will inform the maintenance control center (MCC) of the engine run, spot, tail number, and completion of the run.

2.2.6. Engine run operator/supervisor must obtain approval from ground control or tower if such facilities are available before engine start and monitor ground control while the engine run is in progress.

2.2.7. The engine run operator/supervisor and the ground personnel are in microphone communication at all times during ground engine operations.

2.2.8. Aircraft operation will not exceed 80% engine military power in aircraft parking areas.

NOTE: Beware of jet intakes and exhaust areas during engine operation. Use required hearing protection when in and around aircraft jet engine operations.

CRAIG S. FERGUSON, Colonel, USAFR
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 11-218, *Aircraft Operation and Movement on the Ground*

AFI 21-101, *Maintenance Management of Aircraft*

AFM 66-279, *Core Automated Maintenance System (CAMS)* (Various Volumes)

AFRCI 21-101, *Aircraft Maintenance Guidance and Procedures*

944 FWI 21-127, *Hush House Procedures*

944 FWI 21-128, *Maintenance of Munitions Loaded Aircraft*

T.O. IF-16C-1, *Flight Manual*

T.O. IF-16C-2-10JG-00-1, *Aircraft Safe for Maintenance*

T.O. IF-16C-2-70JG-00-21, *Aircraft Engine Run Low Power*

T.O. IF-16C-2-70JG-00-22, *Aircraft Engine Run High Power Restrained*