

**NONDESTRUCTIVE INSPECTION**

**(F-16)**

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1. **Objective.** As prescribed in AFI 38-201, *Determining Manpower Requirements*, this Air National Guard Manpower Standard (ANGMS) quantifies the manpower required to accomplish the tasks described in the work center description.
  2. **Authority.** Air National Guard Regulation 66-14, *Maintenance Management*, 13 July 1988, contains policy and procedural guidance for the Nondestructive Inspection work center. This ANGMS has been developed in accordance with functional review procedures contained in AFPAM 38-208V1, *Air Force Management Engineering Program (MEP) Processes*, (formerly AFR 25-5).
  3. **Applicability.** Applies to ANG F-16 Fighter Wings, Groups, and the 114th Fighter Squadron. It excludes the 162nd Fighter Group and the 184th Fighter Group. This standard only applies to peacetime operations.
  4. **Standard Data:**
    - a. Classification. Type II.
    - b. Approval Date. 1 August 1992.
    - c. Man-hour Data Source. Operational Audit method (historical record and technical estimate techniques).
    - d. Standard Man-hour Equation.  $Y = 54.09 + 0.4535X$ .
    - e. Workload Factor:
      - (1) Title. A Programmed Flying Hour.
      - (2) Definition. The average monthly programmed flying hours.
      - (3) Source. USAF Program Document, Volume II, maintained by NGB/FM.
  5. **Application Instructions:**
    - a. The valid man-hour range for this ANGMS is 157.51 through 311.60.
    - b. This ANGMS is appropriate for use with all peacetime civilian man-hour availability factors.
    - c. Determine the whole manpower requirements for this work center and refer to the appropriate column in the standard manpower table at attachment 2 to determine the required specialties.
  6. **Statement of Conditions:**
    - a. There were no general conditions (environmental, equipment, or facility) which had an impact on the development or application of this manpower standard.
    - b. There were no approved enhancements that impacted the manpower equation for this work center.

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**2 Attachments**  
**1. Work Center Description**  
**2. Standard Manpower Table**

**WORK CENTER DESCRIPTION****Nondestructive Inspection****(F-16)****DIRECT:**

- 1. ELECTROMAGNETIC INSPECTION.** Prepares for work, performs preinspection to determine method suitability, performs inspection, and completes documentation.
  - 1.1. PERFORMS IN-SHOP EDDY CURRENT INSPECTION.**
  - 1.2. PERFORMS OUT-OF-SHOP EDDY CURRENT INSPECTION.**
  - 1.3. PERFORMS CONDUCTIVITY INSPECTION.**
- 2. MAGNETIC PARTICLE INSPECTION.** Prepares for work, performs preinspection to determine method suitability, performs inspection, and completes documentation.
  - 2.1. PERFORMS IN-SHOP DIRECT CURRENT AND ALTERNATING CURRENT INSPECTION.**
  - 2.2. PERFORMS OUT-OF-SHOP DIRECT CURRENT AND ALTERNATING CURRENT INSPECTION.**
- 3. PENETRATING RADIATION (X-RAY) INSPECTION.** Prepares for work, performs preinspection, performs x-ray safety inspection, and completes documentation.
  - 3.1. PERFORMS IN-SHOP X-RAY INSPECTION.**
  - 3.2. PERFORMS OUT-OF-SHOP X-RAY INSPECTION.**
- 4. OPTICAL INSPECTION.** Prepares for work, performs preinspection, performs inspection, and completes documentation.
  - 4.1. PERFORMS IN-SHOP OPTICAL INSPECTION.**
  - 4.2. PERFORMS OUT-OF-SHOP OPTICAL INSPECTION.**
- 5. ULTRASONIC INSPECTION.** Prepares for work, performs preinspection, performs inspection, and completes documentation.
  - 5.1. PERFORMS IN-SHOP ULTRASONIC INSPECTION.**
  - 5.2. PERFORMS OUT-OF-SHOP ULTRASONIC INSPECTION.**
- 6. FLUORESCENT DYE PENETRANT INSPECTION.** Prepares for work, performs preinspection, performs inspection, and completes documentation.
  - 6.1. PERFORMS IN-SHOP FLUORESCENT DYE PENETRANT INSPECTION.**
  - 6.2. PERFORMS OUT-OF-SHOP FLUORESCENT DYE PENETRANT INSPECTION.**

**7. JOINT OIL ANALYSIS PROGRAM MANAGEMENT:**

**7.1. PERFORMS OIL ANALYSIS.** Prepares for work, performs oil analysis on aircraft engine or support equipment oil wetted system, and completes documentation.

**7.2. PERFORMS OIL ANALYSIS MONTHLY CORRELATION.** Analyzes correlations sample to maintain certification.

**7.3. PERFORMS OPERATOR MAINTENANCE AND CALIBRATION.** Calibrates and repairs oil analysis equipment.

**8. RADIATION SAFETY PROGRAM MANAGEMENT.** Inspects X-ray facility for serviceability and possible radiation exposure. Documents results of X-ray equipment, safety device, and X-ray facility inspection on ledger or general purpose form.

**9. PRECIOUS METAL PROGRAM.** Identifies, labels, contains, and disposes of precious metal. Maintains precious metal container. Inspects and maintains protective equipment.

**10. ONE-TIME INSPECTION.** Performs one-time inspection directed by group, wing, numbered air force, or command.

**11. COMPOSITE TOOL KIT (CTK) MAINTENANCE.** Performs start and end-of-day inspection. Maintains CTK by inspecting for serviceability.

**12. TECHNICAL ORDER SUBACCOUNT MAINTENANCE.** Receives and posts data and change to technical order file. Maintains file for serviceability.

**13. UNIT TRAINING ASSEMBLY (UTA) PREPARATION.** Performs planning and scheduling task associated with preparation for UTA.

**INDIRECT:** Indirect work involves those tasks that are not readily identifiable with the work center's product or service. The major categories of standard indirect work are Supervision, Administration, Meetings, Training, Supply, Equipment Maintenance, and Cleanup. See AFMS 00AA for the standard indirect description.

STANDARD MANPOWER TABLE										
WORK CENTER/FAC					APPLICABILITY MAN-HOUR RANGE					
Nondestructive Inspection/23170D					157.51 - 311.60					
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT							
Nondestructive Inspection	458X1	Civ	1	2						
TOTAL			1	2						
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT							
TOTAL										