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**AEROSPACE EQUIPMENT MAINTENANCE INSPECTION,  
DOCUMENTATION, POLICIES, AND PROCEDURES**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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and TO 00-20-5/AETC Sup 1, 19 March 2002

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**TO 00-20-1, 30 April 2003, is supplemented as follows in accordance with the provisions of TO 00-5-1, *Air Force Technical Order System*:**

***SUMMARY OF REVISIONS***

TO 00-20-1 is a complete revision of TOs 00-20-1 and 00-20-5. Therefore, this supplement is a complete revision and must be completely reviewed.

***NOTES:***

**1. All AETC units will maintain this publication in current status and make reference to this publication on the title page and each affected paragraph of the basic technical order (TO). This supplement does not apply to AETC-gained Air Force Reserve Command (AFRC) units or Air National Guard units. File this supplement behind the basic TO and retain until revised or rescinded by HQ AETC. Paragraph renumbering is authorized to align this supplement with changes or to a new basic TO (00-5-1). Recommendations for change, improvement, or waivers to this supplement should be annotated on AETC Form 1236, Request for Improving/Changing AETC Maintenance Publications. Requests must be approved by the appropriate group commander (or squadron commander, if not assigned to a group) prior to forwarding to HQ AETC/LGM, 555 E Street East, Randolph AFB TX 78150-4440.**

**2. Maintain and dispose of records created as a result of processes prescribed in this publication in accordance with AFMAN 37-139, *Records Disposition Schedule*.**

2.2.3. The Aircraft Maintenance Branch (HQ AETC/LGMA), in coordination with the system manager (SM), may authorize the use of USAF-approved modified inspection workcard decks during contingency or increased readiness conditions.

2.3.1. A specified flying period begins with the first flight after a pre-flight, combined pre-flight/basic post-flight, or combined pre-flight/thru-flight is accomplished. Unit commanders may extend flying periods during contingency, increased readiness, or operational readiness inspection (ORI) situations, but the provisions of paragraph 2.4.3, as supplemented, still apply. The duration of specified flying periods for AETC aircraft are as follows:

2.3.1.1. (Added)(AETC) For T-1, T-6, T-37, T-38, F-15, F-16, C-21 aircraft—24 hours.

2.3.1.2. (Added)(AETC) For T-43, C-5, C-17, KC-135, C-141, UH-1, and H-53 aircraft—48 hours.

2.3.1.3. (Added)(AETC) For C-130 aircraft—72 hours.

2.4.3. The pre-flight validity period for AETC aircraft is 72 hours.

2.4.6. Accomplish the PLI or WAI as close to takeoff as practical, but not earlier than 6 hours before flight. Document the PLI or WAI in block 5 of AFTO Form 781H, **Aerospace Vehicle Flight Status and Maintenance Document**.

2.11.3. The Aircraft Maintenance Branch (HQ AETC/LGMA), in coordination with the system manager (SM), may authorize the accomplishment of phases in advance to cover the period of the extended mission.

2.13.4.1. Send requests for isochronal inspection schedule deviations to HQ AETC/LGMA.

2.13.4.1.15. (Added)(AETC) Landing condition status of last four sorties (if code-3, list the system failure).

2.21.1. When gaining aerospace vehicles from another unit, AETC units will contact the losing organization to set up a combined acceptance and transfer inspection at the losing organization's location unless waived by the AETC LG. This requirement for a combined inspection at the losing organization is not applicable to aircraft gained from PDM, CFT, or other depot facilities. When the acceptance inspection is complete, discrepancies discovered at the gaining AETC unit's location are the responsibility of the gaining unit. Detected discrepancies attributable to depot maintenance (organic or contracted) will be processed as prescribed in 00-20 series TOs and TO 00-35D-54, *USAF Deficiency Reporting and Investigating System*.

2.21.2.2. The T-6 ejection seat must be removed and all visible seat and cockpit egress items must be inspected.

2.21.3. During acceptance inspections, inspecting and repacking T-6 ejection seat parachutes is not required when aircraft return from depot contract field teams or depot "speed lines" where the aircrew life support equipment had no maintenance other than "safeing."

2.24.1. AETC-specific guidance for the use of locally prepared inspection workcards is found in TO 00-5-1/AETC Sup 1.

3.3.1. Permanently grounded ground instructional training aircraft (GITA) are not required to use automated forms as per HQ USAF/ILMM waiver, 10 September 2001. This waiver only applies to those aircraft coded as permanently grounded. Units desiring to use PCAMS must request approval from the HQ AETC/LGM.

4.1.2. Units may overwrite computer-generated symbols in red. However, units must maintain standardization.

4.2.7.2. See paragraph 2.21.2.2, this supplement, for additional guidance.

5.9.2.1. (Added)(AETC) Assign a 5000-series code for nonmission-essential faults on F100-PW-220 engines. These advisory codes defer and/or delay maintenance until it is convenient to fix them. The 5000-series codes are in the engine diagnostic unit (EDU) and can only be detected by reviewing the event or fault data collected at the end of each flying period.

5.9.2.2. (Added)(AETC) Use codes 5011 through 5017 for fan turbine inlet temperature (FTIT) probes. Enter a red diagonal in the Symbol block of AFTO Form 781K, **Aerospace Vehicle Inspection, Engine Data, Calendar Inspection and Delayed Discrepancy Document**, when two or less advisory codes occur to defer maintenance until it is convenient to fix them. When three or more probes fail, transfer the discrepancy to AFTO Form 781A, **Maintenance Discrepancy and Work Document**, and upgrade it to a Red X, which requires immediate maintenance to correct all open discrepancies coded 5011 through 5017.

5.9.4.17.8. Locally approved forms or lists will have a date on each page so previous versions can be easily identified and purged.

5.14.3.7. Annotate the following for those aircraft that use JP-8+100 fuel: "CAUTION, defueled JP-8+100 requires special handling. Contact aircraft home station maintenance activity." Units may also use this block for other information as required as long as the entries are standardized.

5.16.3.6. Units may document the time of completion in either local or Zulu time, but it must be kept standard throughout the unit.

5.16.3.9. Use of this block is required to indicate the status of internally loaded munitions.

5.17.8.3. (Added)(AETC) Use the following procedures to record or monitor oil consumption on F-15 and F-16 aircraft when engines are fitted with engine events history recorders (EHR):

5.17.8.3.1. (Added)(AETC) After each flight or engine ground run:

5.17.8.3.1.1. (Added)(AETC) Check engine oil quantity within 30 minutes of shutdown.

5.17.8.3.1.2. (Added)(AETC) Record oil level and amount serviced in pints in block 13 of AFTO Form 781H.

5.17.8.3.1.3. (Added)(AETC) Obtain engine operating time (EOT) from EHR and enter on AFTO Form 93, **Modular Engine Time/Cycle Accumulation**.

5.17.8.3.2. (Added)(AETC) To determine oil consumption, compare the amount of oil in the tank from the previous flight, recorded in block 13 of AFTO Form 781H, to the amount of oil in the tank after the current flight.

5.17.8.3.3. (Added)(AETC) Compare the amount of oil consumed to the flight time recorded in block 9 of AFTO Form 781H. If the hourly amount consumed is less than the maximum specified in the applicable engine TO, no further action is required. If the amount consumed and serviced exceeds maximum limits, accomplish the following:

5.17.8.3.3.1. (Added)(AETC) Obtain the EOT reading from the previous flight's AFTO Form 93 or, if this was the first flight of the day, from the AFTO Form 781J, **Aerospace Vehicle – Engine Flight Document**.

5.17.8.3.3.2. (Added)(AETC) Subtract the previous EOT reading from the present EOT reading to obtain the EOT for that sortie.

5.17.8.3.3.3. (Added)(AETC) Divide the EOT by the quantity of oil serviced for the same period of time.

5.17.8.3.3.4. (Added)(AETC) If hourly consumption is exceeded, investigate according to applicable TOs.

5.17.8.4. (Added)(AETC) For engines with an engine monitoring system (EMS):

5.17.8.4.1. (Added)(AETC) After each flight or engine ground run:

5.17.8.4.1.1. (Added)(AETC) Check engine oil quantity within 30 minutes of shutdown.

5.17.8.4.1.2. (Added)(AETC) Record oil level and amount serviced in pints on AFTO Form 781H, block 13.

5.17.8.4.2. (Added)(AETC) Compare the amount of oil in the tank from the previous flight, recorded in block 13 of AFTO Form 781H, to the amount of oil in the tank after the current flight to determine the amount of oil consumed.

5.17.8.4.3. (Added)(AETC) Calculate the hourly amount of oil consumption to the flight time recorded in block 9 of AFTO Form 781H. If the hourly amount consumed is less than that specified in applicable TOs, no further action is required. If the amount consumed and serviced exceeds maximum limits, accomplish the following:

5.17.8.4.3.1. (Added)(AETC) Download engine EMS to obtain EOT since last service.

5.17.8.4.3.2. (Added)(AETC) Calculate the hourly consumption to the EOT. (See paragraphs 5.17.8.3.3.2 and 5.17.8.3.3.3, this supplement.)

5.17.8.4.3.3. (Added)(AETC) If hourly consumption is exceeded, investigate in accordance with applicable TOs.

5.17.11.2. For aircraft with installed F100-PW-100/200/220E engines, enter the following on AFTO Form 781J:

5.17.11.2.1. (Added)(AETC) Engine EHR time window value and the EOT.

5.17.11.2.2. (Added)(AETC) Enter the same type of data as outlined in paragraph 3-19.11.2.1 for the second engine, using block 2 on dual-engine aircraft.

5.17.11.2.3. (Added)(AETC) On engines with monitoring systems, enter "EDU ET" instead of "EHR ET."

5.17.11.2.4. (Added)(AETC) Units may use the remaining blocks of AFTO Form 781J to monitor other engine maintenance requirements (for example, oil analysis program [OAP] documentation).

7.1. AFTO Forms 244, **Industrial/Support Equipment Record**, must accompany all aerospace associated SE and training equipment. Group commanders may direct the use of AFTO Forms 244 for items of SE and training equipment not specifically required by TO 00-20-1.

7.5.2. Document delayed discrepancies on AFTO Form 244 and AFTO Form 245, **Industrial/Support Equipment Record (Continuation Sheet)**.

7.11.6.3. Use of blocks 11 and 12 is a MXG/CC option.

10.2.2. Documentation procedures for T-1A and T-6 FAA engine and propeller logbooks are as follows: (**NOTE:** If additional training or clarification of logbook entries is required, consult your field service representative.)

10.2.2.1. (Added)(AETC) Record all on-equipment engine and propeller maintenance in the logbook, MIS, and on applicable AFTO forms. This includes TCTOs, time change items (TCI), and line replaceable units (LRU) for the engines and balancing, lubricating, and blending of blades for all T-6A on-equipment propeller maintenance. Removal and/or replacement of minor hardware such as cotter pins, safety wire, adel clamps, etc., do not require logbook entries. Maintain a logbook for each installed engine and propeller and return it with each engine and propeller to the contractor operated and managed base supply (COMBS). (These logbooks are provided with each engine and propeller issued from the COMBS.) Make all logbook entries in blue or black ink.

10.2.2.2. (Added)(AETC) It is not necessary to record FAA airframe and power plant (A&P) mechanic ratings for maintenance or to annotate the maintenance action in the logbook.

10.2.2.3. (Added)(AETC) Do not use red symbols (diagonals, dashes, Xs, etc.) in the log book.

10.2.2.4. (Added)(AETC) For inspection and maintenance records, documentation is self-explanatory for the date, total time, and maintenance performed. Following the description of maintenance performed, the individual signs the Inspection or Maintenance Performed Agency and Certificate No. block. Enter n/f (nothing follows) to indicate completion of entry. This will preclude added entries for the person who performed that particular maintenance. A certificate number (no.) entry is not required.

10.2.2.5. (Added)(AETC) For airworthiness directive (AD)/factory bulletin (bull) compliance records, enter the TCTO number under the AD/factory bull number block. Enter the LRU affected or inspected in the item affected block. Enter removed and replaced, inspected, etc., as appropriate in the method of compliance block. Date and hours at completion, type of AD, and next completion date/hrs/cycle blocks are self-explanatory. Enter the individual's signature in the authorized signature certificate number block. The certificate number is not required.

10.2.2.6. (Added)(AETC) For installation records, documentation is self-explanatory with the exception of the agency certification number. Enter NA in that block.

10.6. The MXG/CC may prescribe additional uses of the AFTO Form 95, **Significant Historical Data**.

JOE F. HARRISON, Colonel, USAF  
Deputy Director of Logistics