

**12 January 1999**

**Maintenance**



**CALIBRATION AND REPAIR OF TEST  
MEASUREMENT AND DIAGNOSTIC  
EQUIPMENT (TMDE)**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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OPR: 434 MXS/LGMV  
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This instruction implements AFPD 21-1, *Managing Aerospace Equipment Maintenance*. It establishes procedures applicable to all Grissom Air Reserve Base work centers requiring Test Measurement Equipment and Diagnostic Equipment (TMDE) and calibration support from the Precision Measurement Equipment Laboratory (PMEL) at Selfridge Air National Guard Base (ANGB) MI.

**SUMMARY OF REVISIONS**

Changes made to section 2.4. reflect differing duties of the PMEL drivers provided by the 434 transportation section and the PMEL riders provided by Grissom PMEL customers. Changes made to paragraphs 2.7.4., 2.7.5., and 2.7.6. An addition of paragraph to section 2.10. Changes to attachment 1. Deleted all references to Technical Orders (TOs). Also additions to special terms. A (I) indicates revisions from previous edition.

**1. Special Terms.** PMEL Tuesday, PMEL Wednesday, PMEL Thursday, PMEL driver and PMEL rider.

**2. Procedures.**

2.1. Wing Commander. The 434 ARW commander appoints two individual, a primary and an alternate, to serve as wing PMEL monitors. The PMEL monitors coordinate on-site calibration of TMDE and serve as points of contact for PMEL related questions at Grissom ARB. The PMEL monitor appointments are disseminated to all organizations within the 434 wing via official bulletin, inter-agency memo, or any suitable means.

2.2. Wing PMEL Monitors. The wing PMEL monitors perform the following functions:

2.2.1. Act as a focal point for PMEL related questions within the 434 ARW. Maintain a list of equipment, per paragraph 2.5.1., requiring “on-site” calibration.

2.2.2. Coordinate on-site calibration requests between owning work centers and Selfridge ANGB PMEL.

2.2.3. Provide PMEL training to TMDE coordinators on an annual and as needed basis. This function is delegated to the squadron level, where possible. However, the wing PMEL monitors are responsible for providing training to other trainers on an annual basis

2.3. Squadron Commanders. The squadron commanders within the 434 ARW at Grissom ARB solicit volunteers from TMDE customers within their squadron to perform PMEL rider duties on a rotating monthly basis. PMEL riders can be either management or bargaining unit employees. Squadron assignments for PMEL riders are shown in **Attachment 1**. PMEL riders must possess: (1) secret security clearances and (2) valid state drivers licenses.

2.4. PMEL Drivers and Riders. PMEL drivers consist of one 434 transportation section driver. PMEL riders consist of one TMDE customer, usually a volunteer reference paragraph 2.3. If there are no volunteers available, select riders on the basis of best qualifications to accomplish the task.

2.4.1. PMEL drivers perform the following:

2.4.2. Sign out the PMEL vehicle at vehicle operations each PMEL Tuesday.

2.4.3. Assist the PMEL rider with the loading and unloading of TMDE.

2.4.4. Drive the PMEL delivery vehicle to and from Selfridge ANGB, MI.

2.4.5. PMEL riders perform the following:

2.4.6. Receive TMDE and Selfridge ANGB PMEL receipts from the 434 MXS avionics section and loads TMDE equipment into the PMEL vehicle between 1300 and 1500 hours on PMEL Tuesday. 434 MXS avionics is located in building 595, room 130.

2.4.6.1. 434 MXS avionics notifies the PMEL rider of any classified equipment requiring pick-up. Classified equipment is picked up at the owning work center prior to departure to Selfridge ANGB PMEL Wednesday morning. The classified equipment hand receipts are placed in the PMEL receipt folder provided by the avionics section.

2.4.6.2. PMEL riders ensure that they receive a security briefing from the owning work center prior to departure to Selfridge.

2.4.7. Deliver TMDE directly to Selfridge ANGB on PMEL Wednesdays. Drivers and riders report to billeting after TMDE has been off-loaded at PMEL.

2.4.8. Receive TMDE and any correspondence from Selfridge ANGB PMEL at the time designated by the Selfridge PMEL scheduler on PMEL Thursdays. Riders ensure that PMEL receipts are used for pick up and delivery of TMDE at Selfridge ANGB PMEL. The PMEL generated hand receipts are maintained in the PMEL receipt folder by 434 MXS avionics section.

2.4.9. PMEL riders comply with all the instructions contained in the PMEL vehicle continuity folder.

2.4.10. Upon return to Grissom ARB, the PMEL riders deliver TMDE and PMEL receipt folder to the 434 MXS avionics section. Classified equipment is delivered directly to the owning work

center. The PMEL vehicle is returned to vehicle operation on PMEL Thursday, if possible, or by 0900 hours on PMEL Friday.

## 2.5. Work Center Responsibilities:

2.5.1. Notify the wing PMEL monitors, in writing, of all TMDE requiring on-site calibration. Information provided to the PMEL monitors includes the following:

2.5.1.1. Equipment ID number.

2.5.1.2. Equipment nomenclature.

2.5.1.3. Equipment national stock number (NSN) and part number.

2.5.1.4. Equipment location.

2.5.1.5. Calibration interval.

2.5.1.6. Calibration due date.

2.5.1.7. Work center ID number.

2.5.2. Appoint a primary and alternate TMDE coordinator and notify PMEL, through the 434 MXS avionics section, 434 MXS/LGMV, by letter. Provide the following information:

2.5.2.1. Full name and rank of primary and alternate TMDE coordinators.

2.5.2.2. Duty phone number, work center number, name of work center, and organizational address.

2.5.3. Retain one copy of the TMDE appointment letter in the Owing Work Center (OWC). The OWC informs the PMEL monitor by letter of any changes in the above information and sends a courtesy copy to the 434 MXS/LGMV.

## 2.6. TMDE Coordinator Duties. TMDE coordinators are responsible for the following:

2.6.1. Establishing a TMDE folder that includes the following:

2.6.1.1. A current copy of this instruction.

2.6.1.2. Appointment letter for primary and alternate TMDE coordinators.

2.6.1.3. OWC master ID listing.

2.6.1.4. OWC 90 day forecast.

2.6.1.5. OWC's hand receipts (generated by 434 MXS/LGMV) for items in PMEL.

2.6.1.6. Any customer handout(s) provided by PMEL.

2.6.1.7. Proof of attendance to the TMDE monitor class.

2.6.2. Reviewing the 90 day forecast and master ID listing for accuracy. Notifying Selfridge ANGB PMEL, through 434 MXS/LGMV, of any error or corrections and requesting corrected listings.

2.6.3. Monitoring, listing, and ensuring all TMDE due calibration is delivered to the 434 MXS avionics section, building 595, between 0800 – 1100 hours each PMEL Tuesday. Work center TMDE meets the following standards:

- 2.6.3.1. The TMDE is clean, it has connectors properly attached, all exposed parts protected, and the correct fuses installed.
- 2.6.3.2. The TMDE filters are clean.
- 2.6.3.3. The TMDE contains all ancillary equipment (e.g. preamplifiers, power supplies, adapters, cables, or probes) needed for calibration.
- 2.6.3.4. For initial calibration or equipment in need of repair, ensure an AFTO Form 350, **Repairable Item Processing Tag** is properly completed and attached to the item.
- 2.6.3.5. Do not send common power cords with TMDE.
- 2.6.3.6. Plug-in modules and other TMDE that are a part of a piece of test equipment but calibrated separately have an AFTO Form 350 tag attached to it indicating the type of equipment that the module is used with.
- 2.6.4. Initiate priority/emergency calibration requests as necessary. 434 MXS/LGMV is notified if the TMDE requires priority/emergency handling. A letter is required to justify and expedite calibration.
- 2.6.5. Ensure a hand receipt is received for each item delivered to the 434 MXS avionics section.
- 2.6.6. After notification by 434 MXS/LGMV, TMDE coordinators pick up equipment between the hours of 0800 and 1400 on Friday. If Friday is a holiday, pick up the TMDE on the first duty day following the holiday weekend. Individuals picking up equipment must bring their copies of the hand receipts. In the event the hand receipts have been lost, the customer must sign for the equipment before it can be released.
- 2.7. 434 MXS Avionics Section Procedures.
  - 2.7.1. Serves as a collection point for TMDE going to and coming from Selfridge ANGB PMEL.
  - 2.7.2. Accepts TMDE from TMDE coordinators between 0800 – 1100 hours on each PMEL Tuesday. No TMDE is accepted after 1100 on PMEL Tuesday.
  - 2.7.3. Issues hand receipts to TMDE coordinators for TMDE going to PMEL.
  - 2.7.4. Notifies the PMEL rider of any classified equipment requiring pick-up at any owning work center.
  - 2.7.5. Issues TMDE, any correspondence from work centers, and the PMEL receipt folder to the PMEL riders.
  - 2.7.6. Receives TMDE, correspondence, and PMEL receipt folder from PMEL riders upon their return from Selfridge ANGB PMEL.
  - 2.7.7. Issues TMDE to work center representatives from 0800 – 1400 hours each PMEL Friday unless the Friday is a holiday. In this case, TMDE is issued on the first duty day following the holiday weekend.
  - 2.7.8. Forwards Selfridge ANGB PMEL correspondence to appropriate work centers.
- 2.8. 434 ARW/XP. This office is the focal point for coordination of support agreements between 434 ARW agencies and Selfridge ANGB PMEL as required.

2.9. 434 ARW/FM. This office is responsible for advising the affected units as to the proper funding and forms to utilize when procuring PMEL support from Selfridge ANGB. Each unit is responsible for funding their own PMEL requirements and documenting expenditures.

2.10. 434 Vehicle Operation Responsibilities.

2.10.1. Provide the PMEL delivery vehicle and a qualified driver.

2.10.2. Establish the PMEL driver continuity folder that is issued with the PMEL delivery vehicle each week. The continuity folder contains as a minimum: Maps of Indiana and Michigan, and a map of Selfridge ANGB., safety checklist, procedures for vehicle breakdowns, accidents, hijacking, and theft, also procedures for safeguarding of classified equipment.

2.11. On-site Calibration. Items of TMDE identified as being too large or too fragile to move require "on-site" calibration. Coordinate on-site calibration through the wing PMEL monitor. Selfridge ANGB PMEL determines which items are non-mobile.

2.12. Correspondence. All correspondence between Selfridge ANGB PMEL and organizations within the 434 Wing at Grissom ARB is processed through the 434 MXS avionics section. The avionics section ensures that all correspondence is routed to the appropriate agencies.

### 3. TMDE Coordinator Training:

3.1. TMDE coordinators must receive training before assuming their duties and on an annual basis. Training sessions are conducted by the 434 wing PMEL monitors or squadron representatives. Contact the wing PMEL monitor or squadron representative for an appointment.

3.2. Document training on an AF Form 2426, **Training Request And Completion**. This form serves as the certificate of attendance and is placed in the work center TMDE folder. Work center supervisors ensure PMEL training is input into G081, if applicable.

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Commander

**Attachment 1**

**ASSIGNMENT OF PMEL RIDERS BY SQUADRON**

<b>ORGANIZATION</b>	<b>MONTHS</b>
SUPPORT COMM	OCT – FEB – JUN
MXS	NOV – MAR – JUL
AGS	DEC – APR – AUG
AGS	JAN – MAY – SEP