

15 MARCH 2001



Maintenance

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

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the AFDPO/PP WWW site at:
<http://afpubs.hq.af.mil>.

OPR: 375 MXS/LGMD (MSgt Hartley)
Supersedes SAFBI 21-113, 16 April 1999.

Certified by: 375 MXS/LGMA (Capt Heilhecker)
Pages: 16
Distribution: F

This instruction outlines responsibilities and procedures applicable to the Scott AFB Precision Measurement Equipment Laboratory (PMEL) and the Test, Measurement, and Diagnostic Equipment (TMDE) Section to all organizations requiring support by the Scott AFB PMEL.

SUMMARY OF REVISIONS

This revision adds information to clarify procedures for contract calibrations and adds a paragraph on customer's responsibilities for special calibrations. A “[” indicates revised material since the last edition.

1. References. Owing Work Centers (OWC) and TMDE coordinators will be familiar with the applicable contents of these references, as they pertain to the repair and calibration of TMDE:

- 1.1. *DODI 4000.19, Interservice and Intragovernmental Support.*
- 1.2. *AFI 25-201, Support Agreements Procedures.*
- 1.3. *AFI 21-113, Air Force Metrology and Calibration (AFMETCAL) Program.*
- 1.4. *AFI 65-601V1, Budget Guidance and Procedures.*
- 1.5. *AMCI 21-101, Maintenance Management Policy.*
- 1.6. *Technical Order (T.O.) 00-20-14, Air Force Metrology and Calibration Program.*
- 1.7. *T.O. 00-25-234, General Shop Practice Requirements for the Repair, Maintenance, and Testing of Electrical Equipment.*
- 1.8. *T.O. 00-25-238, Base-Level Maintenance and Calibration of all Jet Engine Test Cells and Demountable Noise Suppressor Systems.*
- 1.9. *T.O. 00-35D-54, USAF Material Deficiency Reporting and Investigation System.*

- 1.10. *T.O. 15X-1-102, General Care and Use of Oxygen Gages and Oxygen Test Equipment.*
- 1.11. *T.O. 1F-15A-37, USAF Calibration and Measurement Summary and Work-Unit Code Manual for F-15 Eagle Weapon System.*
- 1.12. *T.O. 1F-16A-37, USAF Calibration and Measurement Summary and Work-Unit Code Manual for F-16 Falcon Weapon System.*
- 1.13. *T.O. 33K-1-100-1, Calibration Procedure for TMDE Calibration Notes, Maintenance Data Collection Codes, and Calibration Measurement Summaries.*
- 1.14. *T.O. 33K-1-100-2, Technical Manual--TMDE Calibration Interval, Technical Order, and Work Unit Code Reference.*
- 1.15. *T.O. 33-1-5, Removal of Batteries from Test Equipment in Storage/Shipent.*
- 1.16. *T.O. 33-1-27, Logistics Support of Precision Measurement Equipment.*
- 1.17. *T.O. 33-1-32, General Instructions for Input Power Wiring of Electrical/Electronic Support Equipment.*
- 1.18. *T.O. 33-1-35, Inspect FSC Equipment and Install Warning Decal.*
- 1.19. *T.O. 37Cll-1-1, Cleaning of Pressure Gauges Used on LOX Systems.*

2. Explanation of Terms:

- 2.1. Air Force Metrology and Calibration Program (AFMETCAL). The focal point for the Air Force Metrology Program. This office provides guidance, equipment, and T.O.s needed to ensure measurement traceability of Air Force weapon systems.
- 2.2. Calibration. Calibration is a comparison between items of equipment, one of which is a measurement standard of known accuracy to detect, correlate, adjust, and report any variation in the accuracy of other items.
- 2.3. Calibration, Limited. Calibration of TMDE to less than the accuracy or functional capabilities specified in the authorized calibration procedure or data. Multifunction TMDE can be limited to those functions actually needed to meet job requirements. For example, a multimeter used to measure 115 VAC can be calibrated only for AC volts. Limited calibration is helpful to reduce workload in the PMEL and is encouraged. When the PMEL does not have the capability to calibrate the full range of specifications contained in the calibration procedure or maintenance T.O., the PMEL supervisor will advise the using activity of the extent of services available. See T.O. 00-20-14, Section III, for further explanation.
- 2.4. Calibration Measurement Summary (CMS). A T.O. identifies calibration support necessary to ensure the operational readiness of a specific weapon system. The summary describes the calibration concept and identifies the organization responsible for calibration. It is also used to identify the need for new calibration standards and equipment locations.
- 2.5. Calibrate Before Use (CBU). Normally, the TMDE that is not used at least once during the calibration interval, need not be periodically calibrated. An item designated CBU doesn't need to be calibrated until it is actually used, even though the calibration due date has passed. The CBU equipment will be identified on the Master ID Listing as "CBU." See T.O. 00-20-14, Section III, for further explanation.

2.6. Certification. The documented designation that standards and TMDE have been calibrated and meet established technical requirements. It can also mean that a PMEL has the capability to perform accurate measurements.

2.7. Contract. Calibration will be obtained from a commercial source. See paragraph 10., this instruction, for more information.

2.8. Coordinator (TMDE). Serves as the focal point between the PMEL and OWC. The coordinator obtains calibration support, keeps the OWC informed on the status of their TMDE, and provides advice for their commander and supervisor. Normally, all communications from the OWC will go through the TMDE coordinator.

2.9. Initial Calibration. All TMDE received initially from Base Supply or direct manufacture shipments. Items having prior use, i.e., depot reissue or equipment transfers, are not considered initial, but unscheduled calibrations.

2.10. Master ID Listing. This is a listing of all equipment owned by the OWC and supported by PMEL. It is produced and distributed to all OWCs quarterly.

2.11. Mission Equipment. Part of an operational ground or airborne system.

2.12. No Calibration Required (NCR). Items designated NCR have been identified so, because they do not provide important quantitative measurement information, and/or accessories to other TMDEs or function only as an interface device. If NCR is listed in the CAL INT Column of the 33K-1-100-2 or CMS publications, the item does not require calibration and PMEL is responsible for performing maintenance only. **NOTE:** NCR/user and NCR/PMEL TMDE. All NCR items of TMDE require marking in accordance with (IAW) T.O. 00-20-14. Only NCR/PMEL items, as identified in T.O.s 33K-1-100-1 and -2, which have limited or full repair capabilities, are required to be on the Master ID Listings.

2.13. No Periodic Calibration (NPC) Required. Items that normally require calibration, but those that a customer determines do not need periodic calibration based on the item's applications. To be made NPC, the application must meet minimum standards: (1) performance is verified, checked or monitored by other certified TMDEs; (2) will not affect safety; and (3) not used to verify equipment performance factors or make absolute measurements. See T.O. 00-20-14, Section III, for further explanation.

2.14. Owning Work Center (OWC). An activity that owns TMDE and receives support from the PMEL.

2.15. Precision Measurement Equipment Laboratory/User. The PMEL is responsible for calibration to the extent designated in the CMS, system support plan or other calibration instructions. All other support will be provided by the owning organization. No adjustments that affect calibration will be made by the owning organization.

2.16. Precision Measurement Equipment (PME). For purposes of this instruction, PME is the same as TMDE (see "TMDE" paragraph 2.20.).

2.17. Precision Measurement Equipment Laboratory. The base-level measurement transfer organization responsible for calibration and maintenance of those items listed in T.O. 33K-1-100-2 and all CMS publications not otherwise coded. Any item listed PMEL2A will be supported by a Type IIA (Depot) PMEL.

- 2.18. Scheduled TMDE. All items of TMDE that appear on the current OWC TMDE Due- Calibration Schedule.
- 2.19. Support Equipment. A broad category of equipment and tools used to maintain and verify mission equipment. Support equipment can include equipment used to verify operation of other support equipment. The AFMETCAL Program is primarily concerned with the support equipment designated as TMDE.
- 2.20. Test Measurement and Diagnostic Equipment. Those devices used to test, measure, evaluate, inspect or otherwise examine materials, supplies, equipment, and systems to identify or isolate any actual or potential malfunction. They may be used to determine compliance with specifications established in technical documents, such as specifications, engineering drawings, and T.O.s.
- 2.21. The TMDE-Due Calibration Schedule. A listing produced and distributed monthly that reflects all TMDE-due calibration during the scheduled period (normally the next 60 days). This listing also lists all OWC TMDEs that are overdue calibration and all OWCs equipment currently in PMEL.
- 2.22. Traceability. The ability to relate individual measurement results to national standards or nationally accepted measurement systems through an unbroken chain of comparisons.
- 2.23. User. The owning activity is responsible for calibration and maintenance. If user resources are not available, the PMEL will either identify an alternate source of support at a lower organizational level or provide the required support. If NCR is listed in CAL INT Column of Equipment Calibration Requirement List, TMDE does not require calibration.
- 2.24. User/Contract. The owning activity is responsible for calibration. Maintenance support will be obtained from a commercial source using local funds.
- 2.25. User/PMEL. The owning activity is responsible for calibration. The PMEL will perform or assist in performing maintenance. The extent of PMEL maintenance is specified in the CMS, support equipment plan or other maintenance instructions.
- 2.26. Unscheduled TMDE. All items of TMDE requiring repair or calibration that do not appear on the TMDE-Due Calibration Schedule. Under normal circumstances, this term would apply to TMDE failures, initial calibrations or TMDE-designated CBU/NPC.
- 2.27. Working Standards. Precision Measurement Equipment Laboratory-owned and certified TMDE used to calibrate other TMDE.

3. Responsibilities:

- 3.1. Unit commanders, staff agencies, maintenance officers, supervisors, and TMDE coordinators at all levels of command that require PMEL services are responsible for ensuring compliance with this instruction, other referenced directives, and T.O.s.
- 3.2. As a reminder, the Air Force Judge Advocate Office has determined that individuals found to be using test equipment that is overdue calibration, can be held liable for damages or death, resulting from the use of those instruments. It is imperative that all actions be taken to ensure that use of overdue test equipment does not happen.
- 3.3. In accordance with DODI 4000.19, AFI 25-201, and supplements, tenant/off-base organizations MAY require a support agreement to obtain PMEL support. Support requests should be initiated by contacting 375 AW/XPA, so support agreement requirements can be considered.

3.4. The PMEL is sometimes authorized reimbursement for support IAW AFI 65-601V1. This usually occurs when supporting the receiver's unique equipment support requirements. When the support provided is significant enough in frequency and cost, a formal support agreement is required IAW AFI 25-201. Reimbursement details are documented in the agreement-costing annex and coordinated with supplier and receiver comptrollers.

4. The TMDE Coordinators Appointment/Briefing/Folders:

4.1. All appointed coordinators should have access to all references listed at the beginning of this instruction. They should be familiar with the contents of T.O.s 33K-1-100-1, 00-20-14, 00-25-234, 33-1-27, and 33-1-32. They also need to be familiar with any CMSs that may pertain to their weapon system.

4.1.1. All work centers supported by the PMEL must appoint a primary and alternate TMDE coordinator. One copy of the appointment letter must be forwarded to the PMEL Scheduling Section and contain the following information:

4.1.1.1. Full name and rank of primary and alternate.

4.1.1.2. Telephone number, OWC number, organization/office symbol, parent command code, complete mailing address, E-mail address if available, and requirements for calibration report of measurements.

4.2. Before assuming full coordinator's responsibilities, **ALL** primary and alternate coordinators must attend a Coordinator Orientation Briefing. Upon receipt of the appointment letter, the PMEL scheduler will schedule and then conduct the TMDE Coordinator Orientation Briefing. Briefings will be held once each month or as needed. Individuals attending this class must bring their OWC TMDE coordinator's folder. In some cases, PMEL may be able to conduct on-site coordinator briefings for off-base customers, in conjunction with TDY on-site calibration support. The PMEL Scheduling Section will notify customers when this is possible. **NOTE:** Any change in the primary or alternate TMDE coordinator will require a new appointment letter and attendance at the briefing.

4.3. Each OWC TMDE coordinator must maintain a TMDE coordinator's folder, which will include, as a minimum:

4.3.1. A current copy of this instruction.

4.3.2. A current copy of the coordinator appointment letter for both primary and alternate.

4.3.3. The current OWC Master ID Listing.

4.3.4. The current TMDE-Due Calibration Schedule.

4.3.5. The TMDE hand receipts for equipment in PMEL.

4.3.6. An AF Form 2426, **Training Request and Completion Notification**, for both primary and alternate coordinators.

4.3.7. Customer handouts that may be provided by the PMEL.

5. Owning Work Centers Master ID Listings and TMDE Due Calibration Schedules:

5.1. The TMDE coordinators are responsible for the maintenance of the OWC Master ID Listing and TMDE-Due Calibration Schedule. It is their responsibility to validate, correct, and certify the line entries on each listing and return the first copy to PMEL by the suspense date annotated on the listing.

5.2. Validate line entries by reviewing each piece of TMDE for correct part number, full serial number, if it is part of a larger system (SICL), any known warranty dates, and if it is used to support a particular weapon system.

5.3. Ensure information on the listings agrees with all information on the test equipment certification labels. (The test equipment certification takes precedence, unless a gross error is identified.) Make all corrections to the listings in RED.

6. Requests for TMDE Calibration Interval Extensions. All requests for calibration extensions must be submitted, in writing, PRIOR TO THE DATE DUE CAL OF THE UNIT, stating the reason the extension is needed and be coordinated. Procedures in T.O. 00-20-14, Section III, will be followed.

7. Calibration Responsibility Determination. Items of TMDE that are new to the Air Force inventory may not be listed in T.O. 33K-1-100-1. Before bringing these units to the PMEL, the OWC in possession of such equipment must furnish the PMEL with all the information required by T.O. 33K-1-100-1, Section 1, and T.O. 00-20-14, Section V. The PMEL will send the required information to the AFMETCAL, Det 1, for determination of calibration responsibility.

8. The TMDE Purchased with IMPAC Funds. Customers are required to notify the PMEL when equipment is bought with the IMPAC card. Unless a depot centrally manages these items, OWCs will be required to obtain calibration procedures, special tools, and provide funding for any training that may be required to support that unit. The PMEL is not funded for one-of-a-kind equipment support in this manner.

9. Acquisition of New TMDE. Each OWC will furnish the PMEL with an information copy of any action to procure new (not already supported by the PMEL) TMDE, which will/might require PMEL support (AF Form 601, **Equipment Action Request**, DD Form 1348-6, **Single Line-Item Requisition System Document**, and/or AF Form 2005, **Issue/Turn-In Request**, etc.). This information will be the source data for acquisition of test equipment, standards, technical data, specialized training or any other additional resources required by the PMEL to support this new item.

10. Contract Calibrations:

10.1. Calibration will be obtained from a commercial source. Specific calibration requirements should be identified to the contractor. This support will continue until establishment of a calibration capability within the Air Force. For local purchase items, the OWC is responsible for funding repair/calibration. Prior to sending items for contract repair/calibration PMEL will notify the OWC.

10.2. In accordance with HQ AMC/LGQP Msg, R191630Z Oct 98 and AFMETCAL, Det 1, Msg, R091300Z Feb 00, repair and calibration of stock-listed items will be coordinated through the PMEL. ALL CONTRACT TMDE WILL BE ROUTED THROUGH THE PMEL FOR REPORTING PURPOSES. The AFMETCAL, Det 1, has been funded for calibration/repair support of many items listed as Contract Calibration. This saves the customers valuable resources, reduces equipment downtime,

and maintains traceable measurements. Also, equipment calibrated outside the approval of AFMETCAL, Det 1, will be considered not traceable and should be removed from service.

11. Special Calibrations. Under new policies outlined in T.O. 00-20-14, Section 3, part number or manufacturer makes provisions for calibrating equipment that is not identified. It has come to the attention of AFMETCAL, Det 1, that many of these nonidentified items are being calibrated to specifications that are tighter than manufacturer specifications. As a general rule, that practice exceeds the boundaries of the AFMETCAL Program. This problem has been identified mostly to general-purpose gages and torque wrenches. To implement these provisions, the TMDE laboratory chief and scheduler have developed a simple checklist that customers will be required to use.

12. Mission Changes, Exercise, and Inspections:

12.1. Work center supervisors must coordinate with the TMDE section chief or laboratory chief, as far in advance as possible, for unique support requirements. This will allow for advanced planning to meet customer needs.

12.2. Calibration support at deployed locations, i.e., AEFs or other TDYs, is limited to repairs and priority units only. All equipment that is used during a TDY should be calibrated, prior to departure, to preclude it from becoming overdue during the TDY period. Equipment slated for use during an AEF rotation must be identified to the PMEL scheduler for proper record keeping and to allow calibration, prior to pallet packaging.

12.3. Any unit undergoing a mission change needs to inform the TMDE section chief of projected gains, losses or equipment upgrades. This information is needed to update support agreements, upgrade laboratory standards, and technical data or pursue other supporting PMELs if needed. This also gives the AFMETCAL, Det 1, the ability to make determinations on general metrology support.

13. Liquid Oxygen (LOX) Gages. The OWCs using LOX gages must comply with the provisions of T.O.s 37CII-1-1 and 15X-1-102 before bringing them in for calibration. Gages not within specified standards cannot be accepted. The TMDE Scheduler has a copy of required information for oxygen users. Oxygen equipment that does not meet requirements will be returned to the customer uncalibrated.

14. Technical Data File:

14.1. The OWCs must maintain a technical data file for all equipment owned and provide this technical data to the PMEL upon request.

14.2. Time Compliance Technical Orders (TCTO). The PMEL does not maintain technical data on all TMDEs supported. Therefore, it is the user's responsibility to monitor the status of their TMDE T.O.s and immediately notify the PMEL Quality Evaluation Section when a TCTO is received requiring 2P0X1 (PMEL) support. The PMEL quality evaluator will provide any assistance needed to process the items through PMEL.

15. Organizational (User) Maintenance Required on TMDE. All user-maintenance IAW T.O. 33-1-27, must be complied with, prior to delivery of the test equipment to PMEL. All open discrepancies must be annotated on an AFTO Form 350, **Repairable Item Processing Tag**, with the document number of parts ordered, if applicable, to correct the problem. Items requiring user-maintenance that have not been documented and items that have previously been identified by PMEL, but have had no corrective

action taken or documented, will be returned to the OWC without action. Items will not be accepted by PMEL until the discrepancy has been corrected. User-maintenance includes the following:

- 15.1. Replacement of defective knobs or controls.
- 15.2. Cleaning of air filters.
- 15.3. Cleaning, painting, and maintaining test equipment.
- 15.4. Replacing hasps, latches, and handles.
- 15.5. Replacing unsafe power cords.
- 15.6. Replacing defective detachable leads.
- 15.7. Maintaining connecting cables and accessories.
- 15.8. Ensuring proper fuse protection and replacing missing fuse caps.
- 15.9. Replacing pilot lights and fuses.
- 15.10. Replacement of batteries.
- 15.11. Ensuring proper wiring IAW T.O. 33-1-32.

16. In addition to the above, TMDE delivered to the PMEL must meet the following requirements in T.O. 00-20-14:

- 16.1. All unmated connectors capped or have appropriate covers on the unit.
- 16.2. Clean exterior and air filters.
- 16.3. Leads and power cords secured to the case to prevent damage.
- 16.4. Have unique or nonstandard power cords correctly wired and with the unit. (**NOTE:** Common detachable power cords are not to accompany TMDE to the PMEL.)
- 16.5. Exposed chassis protected (enclosed in a plastic bag or box).
- 16.6. Battery-operated TMDEs will be delivered with serviceable, fully charged (if rechargeable) batteries.
- 16.7. Transported properly.

17. Precision Measurement Equipment Laboratory Customer Service Hours (Delivery/Pick Up of Test Equipment):

- 17.1. Routine pick-up and delivery hours for test equipment for on-base customers are from 0700-1400, Monday through Friday. However, Wednesday and Thursday are not recommended due to large off-base customer inputs.
- 17.2. Routine pick-up and delivery hours for off-base customers are from 0900-1400, Tuesday through Thursday or by prior arrangement. Normally, the TMDE Scheduling Section will designate a particular day of the week for each off-base OWC.
- 17.3. To expedite delivery-processing time, off-base coordinators should contact the TMDE scheduler (DSN 576-2663, COMM 618-256-2663 or FAX 256-5677), 1 duty day prior to delivery and provide a list of items being delivered. This list must contain label number, full and correct part number,

and full correct serial number of each item, so that PMEL Automated Management System data can be verified during the incoming inspection.

17.4. Emergency/mission-essential priorities will be accepted at any time. A completed priority letter must accompany the unit at that time (**Attachment 3**).

17.5. Afternoons from 1300-1600, Monday through Friday, are dedicated to accomplishing laboratory logistic and administrative support. Requests for TMDE status and to obtain a delivery date for unscheduled maintenance will also be made during this time. No equipment transactions will be accomplished during this time, unless it is a priority.

18. Scheduling and Pick Up of TMDE:

18.1. On-base Customers. Scheduled TMDE inputs identified on the current TMDE Due Calibration Schedule will be delivered NLT 1 day after the date-due calibration and not earlier than 3 workdays, prior to the date-due calibration. Items may be brought in early to reduce travel time or to preclude like items being in PMEL at the same time. However, the PMEL scheduler must be notified, prior to delivery and a proper AFTO Form 350 must be clearly annotated for early calibration (unscheduled calibration).

18.2. Off-base Customers. The OWCs may consolidate all their inputs for delivery on their normal designated delivery date. Any other exceptions must be coordinated with the PMEL scheduler, prior to the date-due calibration. Early or late deliveries disrupt scheduled work flow and can delay timely repair and calibration of other scheduled equipment.

18.3. It is the responsibility of the OWC TMDE coordinator to ensure that all equipment that is due during the scheduled cycle time is brought to the PMEL. It is the policy of the TMDE section that no items should become overdue during this cycle. If items are not delivered and become overdue, appropriate action will be used to notify the proper level of supervision.

18.4. Pick Up of TMDE. The OWC TMDE coordinator will be notified by telephone when TMDE has been completed. The OWC TMDE coordinator may pick up completed TMDE during normal customer service hours. To ensure accountability is maintained, the stamped hand receipt must be presented to the PMEL scheduler when picking up TMDE. If a hand receipt is lost/missing, the TMDE coordinator will be required to sign PMELs copy of the hand receipt before the equipment will be released. This signed hand receipt will be kept at the PMEL for at least 1 year.

19. Unscheduled Calibrations/Repair (Initial Calibrations and Items Requiring Repair):

19.1. Initial Calibrations:

19.1.1. All the information in the sample format (**Attachment 1**) must be submitted to PMEL scheduling BEFORE new items can be accepted into the PMEL. This information is used by the PMEL scheduler to determine calibration capability and responsibility and to load new items to the PMEL Master ID Database.

19.1.2. When the PMEL has determined its ability to support a new item, the OWC coordinator will be notified of the date to deliver the item to the PMEL. Items WILL NOT be accepted until a determination has been made that support is available.

19.2. Unscheduled Repair/Miscellaneous Items. All items in need of repair require an appointment before being delivered to the PMEL. The OWC Coordinators will call the PMEL scheduler between

1300 and 1600, Monday through Friday, to obtain an unscheduled appointment date. Unscheduled TMDE must have a completed AFTO Form 350 (T.O. 00-20-2-10) attached to the unit when delivered to the PMEL. (See [Attachment 2](#) for sections that must be completed.)

19.3. Every effort must be made to bring unscheduled equipment into the PMEL on the appointment date. Missed appointments cause production delays and prevent other OWCs from bringing in their equipment. A missed appointment will require a letter of explanation from the NCOIC/shop chief before being rescheduled.

19.4. Hand Receipts. A stamped hand receipt will be provided for each item of TMDE delivered to the PMEL.

20. Priority Repair/Calibration Categories and Procedures. There are two priority designations: **Emergency** and **Priority**.

20.1. Emergency. This status will be used for repair/calibration of mission-essential test equipment used in direct support of operational weapon systems. Lack of this test equipment **PREVENTS** mission accomplishment. This equipment will be worked until it is repaired and calibrated or is put into an Equipment Awaiting Parts (AWP) status. If requested by the PMEL, one person from the OWC will remain with the equipment while it is "in work." This is to ensure compliance with the two-person safety concept, provide technical advice, improve communications with the OWC, and provide expeditious return of equipment after maintenance is completed.

20.1.1. Prior to initiating an emergency maintenance request, contact the TMDE section or laboratory chief to ensure a similar or substitute item is not available.

20.1.2. If a similar item is available, the phone number of the OWC will be provided to the requesting caller. (**NOTE:** Equipment loans are the prerogative of the work centers involved and not of the base PMEL.)

20.1.3. If a similar item is not available, a telephone agreement with the maintenance superintendent/equivalent or higher of the organization requesting the maintenance will be made to start maintenance immediately. The requesting organization must then follow-up with a letter signed by the maintenance superintendent/equivalent or higher, to arrive at the PMEL within 3 hours.

20.1.4. As a minimum, the letter must contain all the information shown in [Attachment 3](#).

20.2. Priority. This status will be used for repair and calibration of mission-essential test equipment, which is urgently needed to support mission requirements. Lack of this test equipment **IMPAIRS** mission accomplishment. (**NOTE:** The requirement to have an item of TMDE on-hand in case it is needed does not constitute a priority.) Priority equipment will be placed in work ahead of all routine items. Written justification must accompany the equipment and be signed by the requesting organization's section chief or higher.

20.3. The TMDE coordinators must review their calibration schedules to identify priority test equipment due scheduled calibration. Particular attention must be paid to test equipment due on weekends and holidays. The OWC coordinator must coordinate a scheduled priority 5 workdays in advance to ensure priority calibration resources are available.

20.4. Unscheduled priorities will be accepted during normal duty hours, 0700-1600. Emergency TMDE will be accepted any time.

20.5. Section chiefs (or equivalent) will be notified of an OWC's failure to pick up a priority request when the unit is completed by the PMEL.

20.6. Emergency TMDE must be picked up within 1 hour of notification.

20.7. Priority TMDE must be picked up within 4 hours of notification.

21. Abuse of the Priority System. Abuse of the system causes production backlog in the PMEL. Supervisors should consider all alternative methods of accomplishing required measurements or borrowing test equipment, prior to requesting priority services. The PMEL can assist in alternate measurement methods and in many cases locate a source to borrow test equipment. The PMEL priority system will only work if it is not abused. Remember, each time you request a priority, someone else must wait longer for his or her equipment. The TMDE section chief/NCOIC is the approval authority for all emergency and priority work requests.

22. Overdue TMDE:

22.1. The PMEL scheduler will notify customers who fail to deliver TMDE to the PMEL on the scheduled input date (the date on the TMDE Due Calibration Schedule). The scheduler will arrange a new input date at that time.

22.2. A letter will be sent to the OWC's maintenance superintendent/section chief/equivalent identifying the OWC's who failed to deliver TMDE on the second scheduled input date. This action will be taken after three telephone notices.

22.3. The PMEL scheduling will maintain a suspense file of overdue calibration letters, until appropriate action is complete. If no response is received within 30 days, the items will be deleted, a notification letter sent to the unit maintenance officer, and a letter of justification will be required for future support.

23. Test, Management, and Diagnostic Equipment Received from Base Supply:

23.1. The OWC's receiving TMDE from Base Supply will leave all condition tags and other documentation, including warranty information, attached to the unit when it is brought to PMEL for initial calibration.

23.2. Items found to be defective during initial calibration will be processed IAW T.O.00-35D-54. The PMEL will furnish technical details relating to the cause of failure for use by the OWC in submitting a Quality Material Deficiency Report (QMDR). The item will be deleted from the Master ID Listing when returned to the customer.

23.3. Customers will be responsible for following their unit's quality office, once the QMDR has been submitted. If warranty repair is available on new items, obtain authorization from the item manager, prior to shipment back to the manufacturer.

23.4. Items sent for warranty repair will be accepted back into the PMEL, as long as documentation from the manufacturer is provided that the item has been repaired.

23.5. All items sent for warranty repair must be returned to PMEL for proper calibration, annotation of Air Force certification forms, and updating of the Master ID Listing.

23.6. Information copies of all QMDR replies received by OWCs will be sent to PMEL to facilitate local trend analysis.

24. Test, Measurement, and Diagnostic Equipment Awaiting Parts (AWP):

24.1. The PMEL Material Control Section will notify the OWC within 5 days when an item of TMDE goes AWP. In many instances, replacement parts are difficult to obtain due to the age of equipment, change of vendors, parts not provisioned for new test equipment, and a variety of other reasons. Therefore, it is imperative that OWC supervisors and coordinators closely monitor the status of any items of their TMDE in AWP status.

24.2. The PMEL Material Control Section will periodically provide update information on any item in AWP status. This action will include requests for mission-impact statements from the OWCs on any TMDE part that has an extended estimated delivery date. The PMEL cannot perform the necessary follow-ups with Base Supply without mission-impact statements. Determination on not-repairable-this-station (NRTS) and replacement action is based on mission requirements and availability of replacement assets. It is impossible for PMEL to know how each item of TMDE is used or what the effect of TMDE nonavailability may be without mission impact statements.

24.3. Test Equipment Abuse. Test equipment that has been identified by PMEL as abused will be identified and elevated to the appropriate level of supervision for corrective action. The PMEL may or may not repair the item, depending on the type of damage the abuse has caused. If the PMEL cannot repair the item and it is deemed that contract repair is required, the OWC will be responsible to provide the required fund cite.

25. The PMEL Quality Evaluation:

25.1. When equipment is received from the PMEL with a discrepancy, the OWC coordinator should notify the PMEL Quality Evaluation Section. The OWC coordinator should have all information concerning the discrepancy on-hand during this conversation. If serviceability cannot be determined, the TMDE will be rescheduled into PMEL. If the difficulty is not resolved to the OWC's satisfaction, it should be reported to the TMDE section chief. The OWC coordinator must validate the accuracy of certification labels on TMDE returned from PMEL. Discrepancies will be brought to the attention of the PMEL Quality Evaluation Section. All reported discrepancies will be investigated and results provided to the OWC.

25.2. As part of the TMDE section's on-going efforts to improve communications and support to customers, the PMEL Scheduling Section periodically sends out customer feedback forms with the Master ID Listing and monthly schedules. The feedback form is in a checklist format, with space for written comments or suggestions. A timely response in returning the completed forms to PMEL will be greatly appreciated, so PMEL can resolve any problems as quickly as possible or take whatever actions are needed to improve customer support.

GREGORY M. BAYLEY, Lt Col, USAF
Commander

Attachment 1

TMDE MASTER ID TRANSACTION (SAMPLE FORMAT)

PAMS ID# (if known) _____ ADD or DELETE (CIRCLE ONE)
 POC _____ PHONE _____ DATE _____
 OWC _____ OWC MNEMONIC _____ MFR _____
 FSC# _____ ITEM PART# _____ K100 PART# _____
 NOMENCLATURE _____ SERIAL _____
 33K-1-100-2 WUC or CMS WUC _____ CAL INTERVAL _____

IS ITEM UNDER WARRANTY? YES NO DATE EXP _____
 MAINTENANCE DATA ON HAND? YES NO (CIRCLE ONE)
 COMMERCIAL DATA ON HAND? YES NO (CIRCLE ONE)
 IS EQUIPMENT COMMITTED TO MOBILITY USE? YES NO STORAGE
 REMARKS/LOCATION _____

THIS SECTION TO BE FILLED IN BY PMEL

I.D. _____ DATE LOADED IN PAMS _____ BY _____
 CALIBRATION T.O. ON FILE _____ ON ORDER _____ BY _____
 MAINTENANCE T.O. ON FILE _____ ON ORDER _____ BY _____
 (MAINTENANCE T.O. NUMBER: _____)

PMEL-TRANSACTION FORM (1 MAR 96)

Attachment 3**REQUEST FOR EMERGENCY OR PRIORITY SUPPORT**

MEMORANDUM FOR 375 MXS/LGMD

Date

FROM:

SUBJECT: Request for Emergency/Priority Support

A3.1. Request the item listed below be accepted by the Scott AFB TMDE Section as:

A3.1.1. () Priority (urgently needed).

A3.1.2. () Emergency (prevents mission accomplishment).

ID#

Part#

Serial#

A3.2. Justification for Request:

A3.2.1. Quantity of assigned-like items (TMDE):

Part No.

Number Authorized

Number on Hand

Status of Assigned TMDE

A3.3. Mission-Impact Statement required:

A3.4. The following ranges/functions/frequencies/parameters are needed, as a minimum, in order for this TMDE to complete mission requirements:

A3.5. This item is needed NLT (ASAP is unacceptable, unless the TMDE is to receive emergency support and an OWC technician is standing by at PMEL).

A3.6. I certify that we have made every attempt to borrow a like or suitable substitute item to meet this priority mission requirement and none is available.

A3.7. POC's Name: _____ POC's Phone: _____.

(Signature Block)
MAINTENANCE SUPERINTENDENT
(OR EQUIVALENT)

APPROVED/DISAPPROVED

TIME/DATE/NAME

Received: _____

Approved: _____

Tech: _____

Completed: _____

Called: _____

Picked Up: _____

TMDE Section Chief: _____