BY ORDER OF THE COMMANDER
AIR FORCE GLOBAL STRIKE COMMAND

AIR FORCE GLOBAL STRIKE COMMAND
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Test and Evaluation

INTERCONTINENTAL BALLISTIC MISSILE (ICBM) OPERATIONAL TEST AND EVALUATION (OT&E)

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This instruction implements Department of the Air Force Policy Directive (DAFPD) 99-1, *Test and Evaluation* and AFPD 13-5, *Air Force Nuclear Mission*. It is consistent with U.S. Strategic Command (USSTRATCOM) Instruction SI 526-01, *Guidelines for Nuclear Weapon System Operational Testing and Reporting*. It establishes Air Force Global Strike Command (AFGSC) requirements and guidance to conduct Intercontinental Ballistic Missile (ICBM) Operational Test & Evaluation (OT&E). It also implements guidance outlined in Department of the Air Force Instruction (DAFI) 99-103, *Capabilities-Based Test and Evaluation* and AFI 13-520, *Aircraft and Intercontinental Ballistic Missile Nuclear Operations.* The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See DAFMAN 90-161, *Publishing Processing and Procedures,* for a description of the authorities associated with the Tier numbers. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and disposed in accordance with (IAW) the Air Force Records Disposition Schedule which is located in the Air Force Records Information Management System. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the publication OPR for non-tiered compliance items. This instruction applies to Headquarters (HQ) AFGSC, 20th Air Force (20 AF), and subordinate units conducting or supporting ICBM operational testing (OT). It applies to United States Space Force. It does not apply to the Air Force Reserve Command or Air National Guard units. Organizations may supplement this instruction. Coordination with Headquarters Air Force Global Strike Command ICBM Test and Evaluation Branch (HQ AFGSC/A3TT) is required

prior to the publishing of unit supplements. Forward unit supplements to HQ AFGSC/A3TT, 245 Davis Avenue East, Suite 256, Barksdale AFB, LA 71110. The reporting requirements in this publication are exempt from licensing in accordance with AFI 33-324, The Information Collections and Reports Management Program. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Form 847s from the field through the appropriate functional chain of command. See **Attachment 1** for a glossary of references and supporting information.

SUMMARY OF CHANGES

This document is substantially revised to include process changes in operational test launch, software testing and simulated electronic launch procedures. Due to the extensive nature of changes in these areas it must be completely reviewed.

Chapter 1

OVERVIEW

1.1. Purpose. AFGSC conducts ICBM OT&E activities:

1.1.1. To evaluate the operational effectiveness and suitability of system modifications or upgrades prior to initial fielding.

1.1.2. To provide accuracy and reliability planning factors to the Commander, United States Strategic Command (CDRUSSTRATCOM).

1.1.3. To refine doctrine, system capabilities, and Tactics, Techniques, and Procedures (TTP) throughout the ICBM life cycle.

1.1.4. To identify and help resolve deficiencies as early as possible.

1.2. OT&E Guidance.

1.2.1. AFGSC will conduct ICBM OT&E to support full rate production and fielding decisions, evaluate changes and verify correction of deficiencies, assist in TTP development, and to reevaluate the system to ensure it continues to meet operational needs.

1.2.1.1. AFGSC test units may support Initial Operational Test and Evaluation (IOT&E), Qualification Operational Test and Evaluation (QOT&E), and Follow-on Test and Evaluation (FOT&E), but will not conduct these forms of OT&E.

1.2.1.2. AFGSC test units can support but will not lead Developmental Test and Evaluation (DT&E). DT&E support should be limited to pursuit of operational test objectives, but units may participate in integrated test force activities and resource sharing agreements that promote efficiency.

1.2.2. To ensure efficient use of AFGSC resources, manage operational risk, and ensure personnel safety, AFGSC test units will not accept taskings or offerings to participate in non-sustainment Test and Evaluation (T&E) activities without HQ AFGSC/A3/6 approval.

1.2.3. ICBM OT&E is broadly split into two categories:

1.2.3.1. Force Development Evaluations (FDE) and other operational test activities. FDE supports life cycle management, sustainability, acquisition programs, fielding decisions and the development of warfighter tactics, techniques, and procedure. Tactics Development and Evaluation (TD&E) and Software Operational Test (SOT) fall into this category of test.

1.2.3.2. Weapon System Evaluation Program (WSEP) activities which assess weapon system effectiveness, identify deficiencies, and recommend corrective actions. This category of test includes Operational Test Launches (OTL), Simulated Electronic Launch-Minuteman (SELM), and Weapon System Testing (GIANT BALL, OLYMPIC PLAY, and Hardness Surveillance Electromagnetic Pulse (HSEP) Program).

1.2.4. Operational realism is second only to safety when conducting ICBM OT&E.

1.2.4.1. When conducting OT&E, weapon systems tested must be, to the greatest extent possible, representative of the deployed force and employed environment.

1.2.4.2. When conducting OT&E in support of acquisition and fielding decisions ensure the System Under Test (SUT) is production representative.

1.2.4.3. When conducting OT&E, use typical military users to the maximum extent possible.

1.3. ICBM OT&E Process. The ICBM OT&E process consists of four parts: test request and approval, test planning, test execution, and test reporting.

1.3.1. Test Request and Approval

1.3.1.1. The OT&E process begins when an external agency notifies HQ AFGSC/A3T of the requirement for operational testing through a Test Request Memorandum. All ICBM-related acquisition programs that require Major Command (MAJCOM) Operational Test Organization (OTO) (usually to inform a full rate production or fielding decision) will submit a TRM. The memorandum will include a brief test description, resources required, funding, timeframe of required test execution, etc. (see **Attachment 24**).

1.3.1.2. HQ AFGSC/A3T will forward test requests to the appropriate test organization, typically the 377th Test & Evaluation Group (377 TEG), to determine their ability to support. Following test organization coordination and confirmation they are able to support, AFGSC/A3T will update the ICBM Test Forecast (ITF) and notify the requesting agency of test approval.

1.3.1.3. TRM Changes. Changes that significantly alter the scope, purpose, objectives, level of funding, lead test center, or participating MAJCOM of a test will require an amendment to the current TRM. The appropriate test project manager will submit the amended TRM to HQ AFGSC/A3T. HQ AFGSC/A3T will then take action for staff coordination and approval of the amended testing. Minor changes that do not include any of the above types of changes to a test program do not require an amendment.

1.3.1.3.1. Test Plan titles will be consistent with the title of the governing TRM.

1.3.1.3.2. Upon notification of an impending test the OTO will begin preparing their TP. The TP will clearly define test objectives, elements to be measured and the means by which they are measured, develop a means of comparing test results against established requirements, standards and goals, and identify how findings will be reported.

1.3.1.3.3. TPs are required to execute testing and will be valid for two years from the date of approval. For tests that execute multiple tests each year, the TP will apply to all tests of that type conducted during the TP effective period.

1.3.1.3.4. TP supplements are required for tests that execute multiple tests each year to document modifications to or deviations from the generic TP.

1.3.1.3.5. TP renewals, TP supplements, and new TPs will be coordinated through HQ AFGSC/A3/6 no later than (NLT) 60 days prior to the Test Readiness Review Board (TRRB) or TP expiration, as applicable, to allow approval NLT 30 days prior to the TRRB.

1.3.2. Test Execution Instruction

1.3.2.1. AFGSC/A3T will ensure all ICBM OTs identified on the ITF are captured in the AFGSC Operations Order (OPORD) or its Fragmentary Order (FRAGORD). **(T-2)**. The 377 TEG will prepare a Test Execution Instruction (TEI) containing specific requirements that each participating unit must accomplish to ensure mission success. Amendments to the TEI will be published and distributed to participating units.

1.3.2.2. The OTO will create detailed test procedures to execute all tests for which they have been assigned in accordance with the approved TP.

1.3.2.3. The 377 TEG/TM will prepare a FRAGORD in coordination with the 625 STOS for all tests that require the use of the ALCS and provide to AFGSC/A3TT for final distribution.

1.3.3. Test Execution: Tests will be executed in accordance with the AFGSC/A3/6 approved test plan and 377 TEG approved test procedures.

1.3.4. Test Reporting

1.3.4.1. Initial documentation of test results will be made in a Quick Look report. Quick Look contents are test specific and dictated in the following chapters and attachments.

1.3.4.2. Test results will be reported in a performance report that will address each Critical Operational Issue (COI), the system's operational effectiveness and suitability, additional information on operational capabilities, an assessment of operational mission impacts, and a production or fielding recommendation as needed.

1.3.4.2.1. Performance reports for acquisition or fielding decisions will be delivered to HQ AFGSC/A3TT NLT 45 days prior to the supported decision or NLT 60 days from receipt of the last data item, whichever is earlier.

1.3.4.2.2. HQ AFGSC/A3T is the approval authority for these performance reports.

1.3.4.2.2.1. Fielding decisions based on a Quick Look report will require a written waiver approved by the fielding authority.

1.3.4.2.2.2. Higher Authority Communication/Rapid Message Processing Element (HAC/RMPE) performance report will be delivered to HQ AFGSC/A3TT NLT 14 days after test completion.

1.3.4.2.2.3. Other performance reports will be coordinated through AFGSC/A3TT NLT 60 days from receipt of the last data item. HQ AFGSC/A3T is the approval authority for these performance reports.

1.3.4.2.3. Delivery timelines may be tailored to accommodate accelerated test schedules for specific user needs if coordinated with HQ AFGSC/A3/6 prior to test execution.

1.4. ICBM Test Forecast. This document is used by HQ AFGSC, 20 AF, Joint Nuclear Operations Center (JNOC), the Missile Wings (MW), 625th Strategic Operations Squadron (625 STOS), 377th Test and Evaluation Group (377 TEG), United States Strategic Command (USSTRATCOM), Minuteman III Systems Directorate (AFNWC/NM), National Nuclear Security Administration (NNSA), and the Western Range (WR) to track ICBM OT&E activities for scheduling and de-confliction purposes so HQ AFGSC can make efficient use of its resources. The

annual ITF includes the mission identifier, affected unit, test remarks, and key test dates for all ICBM OT&E.

1.4.1. HQ AFGSC/A3T will publish an annual ITF prior to 1 October covering tests scheduled over the span of the next five fiscal years, e.g., FY23-FY27.

1.4.2. The ITF will be coordinated with the following agencies: HQ AFGSC/A3O/A3C/A3XZ/A4B/A5I, 20 AF/A3/A4/A4W, JNOC, 625 STOS, 377 TEG, AFNWC/NM, NNSA, Reagan Test Site (RTS), 2nd Range Operations Squadron (2 ROPS/DOS), and the MW commanders.

1.4.3. In addition to those agencies listed in **paragraph 1.4.2** HQ AFGSC/A3TT will host two scheduling meetings, normally in conjunction with the Joint Test Working Group (JTWG) and Joint Test Sub-Group (JTSG), to provide inputs for the ITF and any revisions.

1.4.4. In addition to those agencies listed in **paragraph 1.4.2** the ITF will be distributed to the following agencies: HQ AFGSC/A5I/IG/SEW, AFNWC/EZT/NX, and USSTRATCOM/J33/J37/J5N.

1.4.5. HQ AFGSC/A3T, with 20 AF/A3T and 377 TEG coordination, may approve changes to the approved ITF. The distribution of the changes will be identical to the original approved ITF.

1.5. Training. All operational test managers will acquire and retain Acquisitions Technology & Logistics Workforce Level 1 test certification while assigned to the 377 TEG.

1.6. Test Team Certification. Test teams will be certified in accordance with (IAW) AFGSCI 13-5303V1.

1.7. Mission Assurance Certification (MAC). The OTO will create and use a MAC process to identify and analyze risks, assess options, develop and implement mitigation plans, and monitor, track, and implement solutions.

1.7.1. The MAC process will be utilized for all ICBM OT&E activities.

1.7.2. The MAC process results will be briefed at test readiness reviews.

1.8. Test Readiness Review Board (TRRB)

1.8.1. The TRRB is a HQ-level meeting to determine the readiness to conduct a particular test. With the exception of SELM, TRRBs will take place 5 to 14 days prior to the start of the test. For SELM, TRRBs will occur one day prior to test execution.

1.8.2. TRRBs will be organized as follows:

1.8.2.1. TRRBs will be chaired by AFGSC/A3/6, or their designated representative.

1.8.2.2. The test unit commander will conduct the TRRB for all tests other than SELM. The Test Support Manager (TSM) will conduct SELM TRRBs in coordination with the 576 FLTS Test Manager (TM).

1.8.2.3. Offices listed in **Table 1.1** and any other agencies requested by the TRRB chair will provide a representative to certify test readiness. For OTL and SELM, a representative from the affected wing will also participate.

1.8.2.4. At a minimum the TRRB briefing will include the following items:

1.8.2.4.1. Mission Overview.

1.8.2.4.2. Test or countdown summary.

1.8.2.4.3. Completed and pending actions.

1.8.2.4.4. AFNWC/NM safety review and, if applicable, verification of Certification of System Readiness for OT.

1.8.2.4.5. MAC process status of the test that identifies likely hazards and identifies risk mitigation measures.

1.8.2.4.5.1. Clear identification of the likely hazards, to include their severity and mitigation efforts. Hazards should not only include those to personnel participating in the test, but also risks to AFGSC operational assets, missions, and the public.

1.8.2.4.5.2. Clear evidence that appropriate risk acceptance authorities are informed of such hazards, mitigations, and residual risk, and that the appropriate authorities formally accept the risk prior to proceeding with the test.

1.8.2.4.6. Personnel Readiness.

1.8.2.4.7. A "Go/No-Go" poll will be conducted at the end of the briefing. The offices (or their designated representative) in **Table 1.1** will give a recommendation, based on their role, to the TRRB chair. The TRRB chair will make the final "Go/No-Go" decision.

1.8.2.5. The test unit will record meeting minutes and submit to AFGSC/A3TT for approval.

Table 1.1. TRRB Roles.

Office	**TRRB Go/No-Go Recommendation**
377 TEG/CC	Test Readiness/Concerns
AFGSC/SE	Safety Readiness/Concerns
20 AF/CC	MW Task Force (TF) Readiness/Concerns
*625 STOS/CC	Airborne Launch Control System (ALCS) Readiness/Concerns
**AFNWC/CC	SPO Concerns ***Mission Oriented Test Certification continuous evaluation process
AFGSC/A3/6	Final test execution approval
Note: * Only participates in TRRBs for tests with ALCS involvement ** TRRB participation is specific to addressing concerns/issues not previously known from Developmental Testing or engineering assessments ***For testing in support of acquisition	

1.9. General Responsibilities.

1.9.1. AFGSC/A3/6, or designated representative, will:

1.9.1.1. Approve TPs submitted by the OTO for operational tests.

1.9.1.2. Approve the annual ITF prior to distribution.

1.9.1.3. Release operational test Performance Reports for distribution.

1.9.1.4. Determine the priority of test and test objectives.

1.9.1.5. Chair applicable TRRBs, or designate a TRRB chair representative.

1.9.1.6. Ensure T&E training is provided for AFGSC personnel involved in T&E.

1.9.1.7. Advocate for ICBM T&E sustainment and infrastructure funds, as required.

1.9.1.8. Make final fielding or production decisions.

1.9.2. AFGSC/A3T, or designated representative, will:

1.9.2.1. Through AFGSC/A3TT, execute primary responsibility for ICBM OT&E.

1.9.2.2. Assign program officers as the primary POC for higher headquarters coordination and review of each ICBM OT&E to ensure results satisfy AFGSC test objectives.

1.9.2.3. Serve as HQ AFGSC/A3/6 point of contact (POC) for TRM.

1.9.2.4. Publish the annual ITF as approved by AFGSC/A3/6.

1.9.2.5. Approve updates to the annual ITF, when required.

1.9.2.6. Approve all Tactics Improvement Program (TIP) and resulting revisions of Air Force Test Techniques Procedures (AFTTP) 3-1.ICBM and AFTTP 3-3.ICBM.

1.9.2.7. Coordinate on TPs and forward to AFGSC/A3/6 for approval/publication.

1.9.2.8. Approve Performance Reports prior to forwarding them to AFGSC/A3/6 for release, when required.

1.9.2.9. Participate in Integrated Test Teams (ITTs) as required.

1.9.2.10. Ensure MAJCOM test representation on modification review boards.

1.9.2.11. Review and coordinate on ITT Charters and Test and Evaluation Master Plans (TEMPs).

1.9.2.12. Support Configuration Review Boards to determine OT requirements.

1.9.2.13. Coordinate with HQ AFGSC Program Element Monitors to authorize release of resources to test agencies as applicable.

1.9.2.14. Participate in certification and accreditation processes, as required.

1.9.2.15. Coordinate with Product Centers, Logistics Centers, and NAF/CCs to integrate and de-conflict test activities.

1.9.3. AFGSC/A3TT will:

1.9.3.1. Execute day-to-day management of all ICBM OT&E.

1.9.3.2. Provide policy and guidance in support of all ICBM OT&E.

1.9.3.3. Create the annual ITF and ensure it integrates all stakeholder's requirements.

1.9.3.4. Provide mission analysis support to assist in defining test missions to meet current and proposed test objectives.

1.9.3.5. Coordinate on TPs.

1.9.3.6. Coordinate on Performance Reports.

1.9.3.7. Provide on-site support during OT execution.

1.9.3.8. When Air Force Operational Test and Evaluation Center (AFOTEC) is the lead Operational Test Agency (OTA) provide personnel to serve as standing ITT members to assist in the transition of responsibility from AFOTEC to AFGSC.

1.9.3.9. Immediately notify AFGSC/A3T and AFGSC/A4B of any anomalies that occur during test execution.

1.9.3.10. Identify all ICBM Operational Tests utilizing assets external to the OTO in the AFGSC OPORD or its FRAGORDs. Submit yearly requirements for ICBM OT&E for publication in the AFGSC OPORD. **(T-2)**.

1.9.3.11. Facilitate all TRRBs by inviting attendees, reviewing briefings, and verifying attendance.

1.9.3.12. Approve or disapprove the release of any ICBM data requests.

1.9.3.13. Maintain Weapon System Reliability (WSR) and Weapon System Accuracy (WSA) databases in conjunction with AFNWC/NM.

1.9.3.14. Maintain the Planning Factors database and provide updates to USSTRATCOM/J59 on an annual basis.

1.9.4. AFGSC/A3C will:

1.9.4.1. Provide oversight to Electromagnetic Pulse (EMP) test and Hardness Maintenance/Hardness Surveillance (HM/HS) activities.

1.9.4.2. Coordinate with AFGSC/A3T on EMP test and HM/HS scheduling.

1.9.4.3. Receive EMP-related test reports and share with AFGSC/A3T, as applicable.

1.9.5. AFGSC/SE will:

1.9.5.1. Coordinate with the Space Launch Delta 30 Safety Office (SLD 30/SE) to ensure all range safety requirements, roles, and responsibilities are met, when applicable.

1.9.5.2. Coordinate on all TPs.

1.9.5.3. Coordinate and ensure compliance with AFGSC test safety policy, including test safety planning, risk management training, and safety/mishap response/investigation.

1.9.5.4. Advocate for OT&E test safety requirements and OT&E mishap prevention funding.

1.9.5.5. Maintain situational awareness of testing impacts on operational systems and test waivers.

1.9.5.6. Review test organization safety policies and procedures.

1.9.5.7. Maintain safety oversight of AFGSC testing, including support for test planning meetings, and act as a voting member on test readiness reviews.

1.9.6. AFGSC/A4B will:

1.9.6.1. Provide a designated maintenance representative for all SELM, FDE, and HSEP programs.

1.9.6.2. Review and track until closure, all Technical Assistance Requests, Maintenance Assistance Requests, and all Special Requests (SRs) for applicable actions regarding deployed forces. Consider fleet wide inspections, technical data changes, waivers, etc. Interface with AFNWC/NM as appropriate to accomplish all actions deemed necessary.

1.9.6.3. Review part/support equipment availability and ensure unit will have all required items to support OT&E.

1.9.6.4. Determine maintenance training requirements for any changes resulting from a test.

1.9.6.5. Submit all new Air Force Technical Order (AFTO) 22 change requests for maintenance Technical Orders (T.O.s) resulting from OT&E NLT 2 weeks from the end of test.

1.9.7. AFGSC/A5/8 will:

1.9.7.1. Act as command focal point for test infrastructure planning and funding. Ensure validated OT&E requirements to include support tails are properly vetted through the AFGSC Corporate Structure to compete for funding in the Program Objective Memorandum submission.

1.9.7.2. Monitor and take appropriate action for planning and programming of funds supporting ICBM OT&E.

1.9.7.3. Review and coordinate on ITT Charters, Test and Evaluation Strategies (TESs), and TEMPs to ensure Measures of Effectiveness/Performance/Suitability adequately address program key performance parameters/system attributes.

1.9.7.4. Oversee treaty compliance and international affairs issues according to AFI 16-601 *Implementation of, and Compliance With, Intercontinental Arms Control and Nonproliferation Agreements.*

1.9.7.5. Provide HQ AFGSC/A3/6 information concerning upcoming Initial Capability Documents (ICDs), Capability Development Document (CDDs), Analysis of Alternatives (AoAs), etc., in which MAJCOM testers may need to be involved.

1.9.7.6. Provide consolidated HQ/AFGSC inputs for AFOTEC Test Resource Plans (TRPs) concerning programs and weapon systems under AFGSC/A5/8. Coordinate with AFGSC/A3/6 if operational unit participation and/or assets are requested to fulfill AFOTEC TRP resource requests.

1.9.7.7. Prepare requirements documents for ICBM programs.

1.9.7.8. Ensure early operational tester involvement to verify requirements are testable.

1.9.8. AFGSC/JA will:

1.9.8.1. Coordinate on Programmatic Environmental, Safety, and Health Evaluation for test activities as requested.

1.9.8.2. Coordinate on safety and liability issues related to test activities, including contractor liability relationships.

1.9.8.3. Review all joint/multiple command/agency agreements.

1.9.8.4. Review test program documentation for adherence to AFI 16-601.

1.9.9. AFGSC/A5PT will: Oversee treaty compliance and international issues according to AFI 16-601 *Implementation of, and Compliance With, Intercontinental Arms Control and Nonproliferation Agreements.*

1.9.10. 377 TEG will:

1.9.10.1. Serve as the OTO for OT&E activities as directed by AFGSC/A3T.

1.9.10.2. Appoint a TM and other test team members, as necessary.

1.9.10.3. Assign program officers as the primary POCs for coordination and review of ICBM OT&E matters.

1.9.10.4. Utilize a MAC process to identify risks and certifies readiness prior to test execution.

1.9.10.5. Participate in ITTs for programs which they are assigned as OTO, or as assigned by AFGSC/A3T.

1.9.10.6. Ensure all non-377 TEG personnel participating in testing receive OT&E training.

1.9.10.7. Develop T&E policies, procedures, guidance, and Memorandums of Agreement (MOAs) to supplement this instruction as required.

1.9.10.8. Identify test capabilities, resources, and infrastructure necessary to execute testing.

1.9.10.9. Manage and/or coordinate anomaly investigations.

1.9.10.10. Provide test and evaluation personnel, logistics, technical support, and other requirements as directed by AFGSC/A3T.

1.9.10.11. Provide T.O.s for use at Vandenberg Space Force Base (VSFB).

1.9.10.12. Validate TF personnel qualifications.

1.9.10.13. Coordinate with SLD 30/SE for all hazardous operations at VSFB.

1.9.10.14. Schedule and conduct the TRRB with AFGSC/A3TT.

1.9.10.15. Prepare all reports IAW DODI 5000.89_DAFI 99-103 and the guidance contained in this document.

1.9.10.16. Serve as the primary POC for coordination and review of ICBM OT&E matters with SLD 30.

1.9.10.16.1. Maintain host-tenant support agreement with SLD 30.

1.9.10.16.2. Submit to 2 ROPS/DOF Western Range requirements using the Universal Documentation System (UDS).

1.9.10.17. The 377 TEG/CC will perform all Wing/CC, MXG/CC, and OG/CC functions as specified by 13- and 21- series instructions. MXG/CC responsibilities may be delegated to the 377th Flight Test Missile Maintenance Squadron (377 FTMMXS) as necessary. OG/CC responsibilities may be delegated to the 576 FLTS/CC as necessary.

1.9.11. USSTRATCOM has agreed to:

1.9.11.1. Have USSTRATCOM/J33 serve as the primary point of contact for USSTRATCOM coordination and review of ICBM OT&E issues.

1.9.11.2. Have USSTRATCOM/J53 coordinate requests to conduct CDRUSSTRATCOM end-to-end connectivity and command and control demonstrations with AFGSC/A3TT, as required.

1.9.11.3. Have USSTRATCOM/ICBM Codes (J374) provide test code material, as requested, to support ICBM OT&E activities.

1.9.11.4. Have USSTRATCOM/J33 and J51/J59 coordinate on the annual ITF.

1.9.11.5. Have J33 coordinate on ALCS support requests and forward requests to appropriate agencies for tasking.

1.9.12. 20 AF will:

1.9.12.1. Prepare and publish implementing instructions to supplement this instruction, as needed.

1.9.12.2. Provide assistance to subordinate units and ensure compliance with the provisions of this instruction at the MWs.

1.9.12.3. Submit all new Air Force Technical Order (AFTO) 22 change requests for operations T.O.s resulting from OT&E NLT 2 weeks from the end of test.

1.9.12.4. Ensure the unit has the equipment, support materials, and trained personnel required for each operational test. Coordinate with MWs as required for TF personnel requests and changes.

1.9.12.5. Determine operations training requirements for any changes resulting from the test.

1.9.12.6. Provide technical assistance for special requests.

1.9.13. 625 STOS will:

1.9.13.1. Provide ALCS support and coordination of FRAGORD requesting support as required for ICBM OT&E.

1.9.13.2. Participate in testing as requested by AFGSC/A3TT to support ALCS and/or E-6B associated programs.

1.9.13.3. Provide Post Mission Reports to AFGSC/A3TT for OTL mission planning.

1.9.13.4. Coordinate with USSTRATCOM/J53 (Air Room) to obtain targeting support for ICBM OT&E.

1.9.13.5. Ensure sorties selected for ICBM OT&E are approved IAW 625 STOS Nuclear Tasking Order (NTO) as changing from A-CAT to F-CAT prior to the start of testing or posturing for testing.

1.9.13.6. Participate in TRRB and certify test support and compliance as required.

1.9.14. AFNWC has agreed to:

1.9.14.1. Support TRRBs and provide "Go/No-Go" recommendation to certify readiness of AFNWC units in support of ICBM OT&E activities.

1.9.14.2. Annually compile, coordinate, and distribute the ICBM Weapon System Effectiveness Report to AFMC and AFGSC.

1.9.14.3. Maintain the WSR and WSA databases in conjunction with AFGSC/A3TT.

1.9.14.4. Chair bi-weekly Integrated Product Team (IPT) meetings for Vandenberg SFB test-unique items with 377 TEG.

1.9.14.5. Certify in memorandum format to AFGSC/A3/6 with courtesy copies to AFGSC/A3T/A3TT/A3XZ, 20 AF/A3T/A3TT, and 377 TEG/CC/CD, 377 FTMMXS/CC/DO, and 576 FLTS/CC/DO/DOV that developmental equipment and/or software is ready to enter operational testing in accordance with DAFMAN 63-119, *Mission Oriented Test Readiness Certification,* no later than 7 days prior to TRRB.

1.9.14.6. Provide the day-to-day management of the Strategic Missile Integration Complex (SMIC).

1.9.14.7. Provide personnel and equipment to monitor the test range.

1.9.14.8. Support anomaly/failure analysis to include resolving test related problems.

1.9.14.9. Review and analyze test results for use as appropriate to develop estimates of WSR.

1.9.14.10. Utilize TRM to notify AFGSC/A3/6 with courtesy copies to AFGSC/A3T/A3TT/A3O/A3C, 20 AF A3T/A3TT, and 377 TEG/CC/CD/CCJ programs that require operational test support.

1.9.14.11. Provide engineering assessments/recommendations for SRs.

1.9.14.12. Provide technical assistance as required.

1.9.14.13. Chair SELM working group meetings.

1.9.14.14. Be the OPR for MM III operational safety, suitability, and effectiveness (OSS&E).

1.9.15. The Missile Wings will:

1.9.15.1. Maintain situational awareness of testing impacts on operational systems and ensure testing does not unduly impact operational systems and overall mission accomplishment.

1.9.15.2. Assign test support personnel as required.

1.9.15.3. Use Emergency and Special Program (ESP) Code IM for all OT&E related expenses, including Task Force Temporary Duty Travel (TDY) funding. If funds are available and reimbursement is approved at AFGSC, the wings will be refunded for ESP IM coded expenditures.

1.9.15.4. Identify test capabilities, resources, and infrastructure necessary to support testing.

1.9.15.5. Ensure compliance with applicable treaties, federal, state, and local environmental laws and Security Classification/Declassification Guides (SCDGs).

1.9.15.6. MW/SE will maintain safety oversight of all T&E related activities at the MW. In addition to traditional DT&E and OT&E activities, wing safety offices will have safety oversight of Installation and Certification (I&C), Verification and Validation (V&V), and Initial Operational Checkouts.

1.10. Test Support Tasking. Assets used to support testing can be broken into two broad categories: test asset support and operational assets. Test asset support involves the use of 377 TEG assets or other dedicated test assets. Test asset support requirements are detailed in OPORDs, FRAGORDs, TPs, Memorandums for Record (MFRs), and/or TEIs as required. Operational asset support is the use of an AFGSC system or unit whose primary mission is not test and evaluation to assist in OT activities. 20 AF approves the use of AFGSC operational assets not assigned to USSTRATCOM for testing purposes.

1.10.1. Requesting AFGSC Operational Assets. Use of AFGSC operational assets requires 20 AF approval. The 377 TEG is responsible for coordinating support requests with the appropriate 20 AF section.

1.10.2. The request must include a detailed list of impacted systems, test schedule and test POCs. The 20 AF will approve based on impact to overall mission accomplishment and willingness to accept residual risk following mitigation efforts. Conflicting requests for use of assets will be adjudicated by the 20 AF/CC or designated alternate. 20 AF will establish a process for requesting and approving the use of operational assets that includes a test safety review. Operational asset support for test events will be documented on maintenance schedules or other documents as required.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Responsibilities. Roles and responsibilities for applicable agencies are noted in each subsequent chapter in reference to each test type (Operational Test Launch, software, etc.). Due to the nature of each test having differing processes each role and that role's responsibilities are described in that individual chapter, as applicable.

Chapter 3

OPERATIONAL TEST LAUNCH

3.1. General. OTL tests and evaluates the MM III ICBM in as near to an operational environment as possible from first stage ignition to impact and provides necessary data for AFGSC to report MM III accuracy and reliability. The OTL key event flow is contained in **Attachment 7**.

3.2. OTL Requirements.

3.2.1. AFGSC/A3TT will schedule and plan OTL on a five-year basis IAW requirements identified by SI 526-1 and NNSA. These flights at a minimum will include two instrumented reentry vehicles (RVs) per year per weapon system as well as one High Fidelity (HiFi) RV per system every other year.

3.2.2. The first OTL of each fiscal year will be scheduled to utilize the ALCS. If the ALCS is unavailable or unsuccessful in executing the launch, the next scheduled OTL will use the ALCS until the system is successfully validated.

3.2.2.1. 377 TEG/TM will develop a FRAGORD directing ALCS launch support in coordination with the 625 STOS for all operational directives involving ALCS support.

3.3. Responsibilities.

3.3.1. HQ AFGSC/A3/6 will:

3.3.1.1. Select a missile and associated Launch Facility (LF) components for each OTL from a pool based on mission configuration and inputs from AFNWC/NM. AFGSC/A3/6 has final determination on sorties that are or are not removed from the pool.

3.3.1.2. Approve/disapprove operational equipment Component Replacement Requests (CRR).

3.3.2. AFGSC/A3T will:

3.3.2.1. In conjunction with AFGSC/SEW and AFMAN 91-221_AFGSCSUP, *Weapons Safety Investigations and Reports* determine if a Launch Analysis Group (LAG) is required in response to a launch anomaly.

3.3.2.2. Request quarterly updates on the status of all open LAG final report recommendations from AFGSC/SEW IAW AFMAN 91-221_AFGSCSUP.

3.3.2.3. Review and approve all LAG final report recommendations in coordination with AFGSC/SEW.

3.3.2.4. Coordinate on and approve the Program Requirements Document (PRD) and Minuteman Operation Requirements (OR) Document.

3.3.2.5. Approve/disapprove Associated Operation (AO) participation.

3.3.3. AFGSC/A4B will:

3.3.3.1. Review and track until closure, all Special Requests for applicable actions regarding the deployed force.

3.3.3.2. Consider fleet-wide inspections, technical data changes, waivers, etc. Interface with the AFNWC/NM as appropriate to accomplish all necessary actions.

3.3.4. AFGSC/A3TT will:

3.3.4.1. Assume Missile Program Office responsibilities as they pertain to treaty requirements.

3.3.4.2. Provide support in determining and updating range and instrumentation requirements to support weapon system accuracy and performance objectives (present and future).

3.3.4.3. Determine sensor coverage and launch window needed for OTL missions to maximize data collection to meet the test objectives.

3.3.4.4. Procure hazards analysis studies. Hazards studies will generally be required for each mission configuration, target area, or reentry angle.

3.3.4.5. Procure preflight trajectories to verify geometry, objectives, and configurations consistent with safety and weapon system constraints.

3.3.4.6. Provide preliminary planning data package to 2 ROPS/DOF approximately T-115 days or 20 days prior to FTPM, whichever occurs first.

3.3.4.7. Coordinate on and approve AO OR Documents.

3.3.4.8. Conduct a Technical Interchange Meeting (TIM) and Flight Test Planning Meeting (FTPM) for key players to meet and exchange technical information to ensure mission accomplishment. There may be more than one TIM per mission if the complexities of the mission or timeline dictate.

3.3.4.9. Coordinate OTL and AO New START Treaty (NST) compliance with HQ Space Operations Command Operating Location N (SpOC/OL-N).

3.3.5. 377 TEG will:

3.3.5.1. Prepare and maintain the MM III PRD and OR.

3.3.5.2. Perform all test unique maintenance actions.

3.3.5.3. Monitor range instrumentation availability by reviewing range documentation and attending range meetings.

3.3.5.4. Schedule launch dates, launch windows and coordinate launch date changes with the Joint Pacific Area Scheduling Office.

3.3.5.5. Provide ALCS test code storage at VSFB.

3.3.5.6. Coordinate range safety requirements with range agencies IAW EWR 127-1, AFSPCMAN 91-710 Volume 2, and applicable SLD 30 safety requirements. **(T-2)**.

3.3.5.7. Provide SpOC/OL-N with flight telemetry clarification, interpretive data and products pertaining to OTLs in support of NST telemetry requirements.

3.3.5.8. Conduct the TRRB prior to the SLD 30’s Launch Readiness Review (LRR).

3.3.5.9. Plan and conduct, with SLD 30 coordination, an integrated launch rehearsal program. The rehearsal must promote and exercise launch team cohesiveness and communication.

3.3.5.10. Ensure all maintenance operations are performed by certified personnel IAW AFMAN 21-204.

3.3.5.11. Ensure the non-nuclear verification tests are accomplished.

3.3.5.12. Coordinate on AO ORs.

3.3.5.13. Ensure a backup instrumentation system is processed and ready for use as needed.

3.3.5.14. Ensure properly configured backup Missile Guidance Sets (MGS) are available each fiscal year.

3.3.5.15. Submit Special Requests (SR) (ETARs, CRRs, RFGs, etc.) when conditions are encountered with either operational or test components that cannot be resolved or are rejectable criteria per T.O.

3.3.5.16. Analyze telemetry data and weapon system performance.

3.3.5.17. Provide test personnel 12 hours of crew rest with opportunity for 8 hours of uninterrupted crew rest prior to conducting OTL operations. **(T-3)**.

3.3.5.18. Monitor arrival of components, suspense all inbound shipments and follow-up with TMO on shipments not received by the established due date to include the initiation of tracer actions.

3.3.5.19. Process issue transactions for repair cycle assets to be expensed and/or consumed when the OTL mission concludes.

3.3.5.20. Store, document, and issue all ordnance and inspect and/or test ordnance for the reentry system.

3.3.5.21. Generate specific OTL task requirements in the Integrated Maintenance Data System (IMDS).

3.3.5.22. Notify the SpOC/OL-N IAW the NST requirements prior to movement of any missile stage(s) and after launch of a test missile at VSFB.

3.3.5.23. Verify OTL missile configuration (major components and software) IAW the TEI.

3.3.5.24. Certify appropriate targeting data is issued to the TF and that those materials are used in targeting operations.

3.3.5.25. Develop and publish a TEI for each ICBM OTL NLT T-180 days prior to launch.

3.3.5.26. Determine launch Go/No-Go criteria based on AFGSC mission objectives and sensor requirements in coordination with SLD 30 Launch Decision Authority.

3.3.5.27. Manage and conduct LAG IAW applicable directives (AFI 91-204_AFGSCSUP, *Safety Investigations and Reports*, and AFMAN 91-221_AFGSCSUP, *Weapons Safety Investigations and Reports*).

3.3.5.28. Send ALCS FRAGORD to 625 STOS 120 days prior to OTL.

3.3.6. SLD 30 has agreed to, IAW the host-tenant support agreement:

3.3.6.1. Provide assistance to the TF to include administrative, security, dining, billeting, and motor vehicle support.

3.3.6.2. Conduct briefings for all TF personnel to ensure understanding of safety policies, procedures, and criteria. Briefings will include discussions of past missile mishaps or anomalies.

3.3.6.3. Maintain the ICBM Launch Support Center voice communications systems.

3.3.6.4. VSFB TMO will send e-mail shipment receipt acknowledgement to origin TMO within 24 hours of shipment receipt and within 2 hours of NWRM shipment receipt.

3.3.6.5. Train the TF/CC, if not already trained, on specific roles and responsibilities associated with acting as the Missile Potential Hazard Team (MPHT) weapon system element commander.

3.3.6.6. Receive and handle all Munitions Supply Account (FK4610) nuclear accountability reporting, conventional ordnance items, and FB/FV 4610 controlled RS/RV components.

3.3.6.7. Send Hazardous Areas for Operation memo to applicable organizations NLT 30 days after 377 TEG receives OTL targeting package from 625 STOS.

3.3.7. AFNWC/NM has agreed to:

3.3.7.1. Provide a list of representative LFs to AFGSC/A3TT for the purpose of missile and associated LF component selection. The list must identify representative LFs in the deployed force based on specific test requirements as identified in the ITF.

3.3.7.2. Provide engineering disposition for SRs.

3.3.7.3. Provide inputs for each performance report to the TM.

3.3.7.4. Send MGS spare and/or back-up IMDS histories to the 377 FTMMXS Instrumentation Lab (I-Lab).

3.3.7.5. Ship expanded maintenance data acquisition history with the MGS(s).

3.3.7.6. Procure special studies required to match changing objectives, configurations, etc., with the range's capabilities.

3.3.7.7. Support Safety and LAG investigations.

3.3.7.8. Conduct two preflight readiness reviews, one prior to the emplacement of the missile and one at T-7 to inform AFGSC/A3TT, SLD 30/SEAE, and 377 TEG.

3.3.7.9. Provide a Configuration Certification Letter for each flight test certifying the configuration, history, and other necessary technical information to AFGSC/A3TT and 377 TEG.

3.3.7.10. Analyze telemetry for performance, WSR, and WSA for compilation into the Weapon System Evaluation Report WSER.

3.3.8. Missile Wings will:

3.3.8.1. Designate a maintenance squadron commander or maintenance operations officer as the missile wing's OTL manager and point of contact for all OTL planning activities. Unit OTL managers will establish and maintain contact with 377 TEG/CC or designated representative.

3.3.8.2. Appoint an FGO as the TF/CC who will be responsible for TF activities and welfare while supporting the OTL. The TF/CC will be the test Wing/CC's point of contact (POC) for all TF activities.

3.3.8.3. Appoint an OTL maintenance Non-Commissioned Officer in Charge (NCOIC) NLT 125 days prior to launch to coordinate shipping procedures from the selected Missile Wing. Provide notification of this appointment to AFGSC/A4R/A4B, 20 AF/A4, and TM.

3.3.8.4. Report any defects identified during disassembly, inspection, test, and shipping IAW the instructions provided in Part II – Missile Removal and Transfer.

3.3.8.5. Ensure QA personnel inspect all OTL components prior to shipping and document any findings in a Component Damage Report.

3.3.8.6. Use ESP code IM for all costs incurred for component shipping associated with OTL to aide potential reimbursement by AFGSC.

3.3.8.7. Select operations and maintenance team members IAW the instructions provided in the TEI. Requests for relief from these requirements will be approved by AFGSC/A3/6.

3.3.8.7.1. Operations team selection:

3.3.8.7.1.1. Select mission-ready MCs as defined in AFGSCI 13-5201 V1, *Rapid Execution and Combat Targeting (REACT) Crew Training and Certification*.

3.3.8.7.1.2. Administer an evaluation prior to the TF departure for VSFB to crew members whose delinquency date is within 45 days of scheduled OTL date. Ensure crew members are Combat Mission Ready (CMR) qualified and not restricted for missed recurring training at time of arrival at VSFB. Crew members are not required to receive monthly recurring training while at VSFB. Coordinate with 377 TEG for waivers to this requirement.

3.3.8.7.2. Maintenance team selection:

3.3.8.7.2.1. Ensure all applicable training requirements referred to in AFMAN 21-202, *Missile Maintenance Management* and AFMAN 21-202_AFGSCSUP, are current through TF TDY.

3.3.8.7.2.2. Maintain maintenance team integrity. Substitute members may be selected IAW AFMAN 21-202 and AFMAN 21-202_AFGSCSUP, if required.

3.3.8.7.2.3. TF maintenance teams will include, when practical, the same individuals involved in missile removal from the LF and preparation for transportation to VSFB. Missile Wings may rotate personnel to and from VSFB after coordination with AFGSC/A3T and the 377 TEG.

3.3.8.7.2.4. The TF MMT Quality Assurance (QA) evaluator will observe critical tasks as determined by the TF/CC and 377 TEG/CC.

3.3.8.7.2.5. Maintenance teams must bring personal equipment to include hard

hats, gloves, coveralls, steel-toe boots, rain gear, and field jackets. TF EMT and MMT members must bring codes locks for each individual.

3.3.8.8. TF/CC will:

3.3.8.8.1. Act as the MW/CC and 377 TEG/CC POC for all TF matters.

3.3.8.8.2. Act as a deputy to the MPHT weapon system element commander when a MPHT is formed.

3.3.8.8.3. Certify TF readiness and mission assurance pertaining to TF buildup activities during the TRRB.

3.3.8.8.4. Ensure all equipment and T.O. hand receipts issued by 377 TEG agencies to TF personnel are cleared.

3.3.8.8.5. In conjunction with 377 TEG/CC, exercise technical control and decision authority for operational aspects of the OTL except those involving test-unique range and safety requirements and those jeopardizing OTL objectives.

3.3.8.8.6. Provide recall rosters to 377 FTMMXS Missile Maintenance Operations Control (MMOC) and OTL TM.

3.3.8.8.7. Ensure transmission of the OTL Sortie Status Report, OTL RS Component, and Ordnance Movement Report, and (if required) OTL Component Damage Report. See attachment **2**, **3**, and **4** for sample reports.

3.3.8.9. OTL NCOIC will:

3.3.8.9.1. Compile and publish the following reports:

3.3.8.9.1.1. OTL Sortie Status Report and updates (**Attachment 2**).

3.3.8.9.1.2. OTL RS Components and Ordnance Movement Report (**Attachment 3**) within five days of component shipment.

3.3.8.9.1.3. OTL Component Damage Report (**Attachment 4**) within five days of discrepancy discovery.

3.3.8.9.2. Notify the wing's TMO Cargo Movement office of required Special Packaging Instruction (SPI) requirements at least four weeks prior to OTL shipping date. This will provide TMO enough time to acquire SPI packaging materials and to construct required containers for shipment. Failure to comply could jeopardize asset availability at VSFB by the required delivery date.

3.3.8.9.3. Serve as the Wing POC for shipping and maintain constant contact with TM, 377 FTMMXS maintenance plans and scheduling, and LRS to notify them of processing and shipping status.

3.3.8.9.4. Ensure all pallets, components, containers, and documents are correctly marked before being released for shipping.

3.3.8.9.5. Ensure all missile and LF component part numbers and serial numbers agree with those taken from the selected site prior to shipping.

3.3.8.9.6. Notify the TM of component serial numbers within 48 hours of missile removal. **(T-3)**.

3.3.8.10. TF personnel will:

3.3.8.10.1. Maintain operational realism consistent with safety and OTL requirements.

3.3.8.10.2. Conduct the OTL IAW appropriate T.O.s, countdown documents and 377 TEG instructions.

3.3.8.10.3. Conduct pre-departure briefings and debriefings.

3.3.8.10.4. Coordinate all TF operations and maintenance schedules and actions, to include deviations, with 377 FTMMXS MMOC and Test Conductor (TC).

3.3.8.10.5. Verify MAF and LF status during site familiarization.

3.3.8.10.6. Assist 377 FTMMXS personnel with ensuring missiles are configured IAW the TEI.

3.3.8.10.7. Perform all operational functions necessary to place missile on alert.

3.3.8.10.8. Maintain RS accountability IAW AFMAN 21-203, *Nuclear Accountability Procedures*.

3.3.8.10.9. Process status changes, maintain logs, conduct inspections, etc., as required at the Missile Wing.

3.3.8.10.10. The TF MC is responsible for the MAF and LF following site startup through completion of countdown activities except as specified by this instruction. Responsibility for site security and the missile components begins when responsibility is transferred from 377 FTMMXS.

3.3.8.10.11. Monitor alert readiness until OTL execution or termination. MCs monitoring OTL missiles may participate in the testing of another missile or missile system when such activities do not interfere with primary duties.

3.3.8.10.12. Participate in emergency actions during potentially hazardous situations involving the OTL missile and/or TF operated facilities.

3.3.8.10.13. Provide qualified personnel to assist SLD 30 and 377 FTMMXS personnel as members of the MPHT and Emergency Response Team (ERT).

3.3.8.10.14. Support a Safety Investigation Board (SIB) or LAG as requested/required.

3.3.9. 20 AF will:

3.3.9.1. Notify the selected MWs MMOC of sortie selection and direct the initiation of Part I Testing upon receipt of the AFGSC sortie selection memorandum.

3.3.10. 625 STOS will:

3.3.10.1. Provide range safety data to 576 FLTS/DOX, SLD 30/SEL and contractors as specified by AFGSC/A3T.

3.3.10.2. Provide targeting data in the form of a target case to 576 FLTS/DOA/DOX and contractors as specified by AFGSC/A3TT.

3.3.10.3. Accomplish the following for an ALCS OTL:

3.3.10.3.1. Coordinate with the 377 TEG/TM on the FRAGORD for ALCS support and provide to AFGSC/A3TT for final distribution NLT 90 days out from ALCS check.

3.3.10.3.2. Coordinate E-6B support through Combined Task Group (CTG) 114.2 IAW the FRAGORD.

3.3.10.3.3. Appoint an Airborne Test Conductor (ATC) and an Airborne Missile Crew (AMC) for the test.

3.3.10.3.4. Coordinate with the 377 TEG to conduct an ALCS Checkout to verify operability of voice communications equipment and ensure the ability of the missile to process ALCS commands NLT T-3.

3.3.10.3.4.1. ALCS mission planning will be coordinated through CTG 114.2 and should request the same aircraft for both the ALCS Checkout and launch.

3.3.10.3.5. Coordinate on test-related pre-launch and launch checklists, planning, and preparation for test, as appropriate.

3.3.10.3.6. 625 STOS/CC participate in the TRRB.

3.3.10.3.7. Provide a representative in the ICBM Launch Support Center (ILSC) when available.

3.4. OTL Objectives. Assessing weapon system accuracy, reliability, and performance are primary test objectives on every OTL to include an evaluation of Mk 12A and Mk 21 reentry vehicles (RV) to meet NNSA and AFGSC requirements.

3.4.1. Additional test objectives such as targeting at extended ranges or testing RV modifications will be accomplished as required.

3.4.2. ALCS will be tested at a minimum of once per fiscal year during an OTL and be considered as a Cat I objective.

3.5. OTL Selection Procedures.

3.5.1. AFGSC/A3/6 selects a missile and associated LF components from a representative sample of the deployed force.

3.5.2. AFGSC/A3TT will solicit inputs from AFNWC/NM.

3.5.2.1. AFGSC/A3/6 will select the sortie a minimum of 210 days prior to scheduled launch date. The selected unit must have AFGSC/A3/6 and USSTRATCOM/J37 approval prior to taking the sortie off alert for removal.

3.5.2.2. AFGSC/A3T will issue a Sortie Selection Letter identifying the LF, missile components, and TM to 377 TEG, AFNWC/NM, and selected MW.

3.6. Planning Meetings.

3.6.1. A Technical Interchange Meeting (TIM) is conducted and hosted by AFGSC/A3TT approximately 120 days before launch. The primary purpose of the TIM is for AFGSC/A3TT to explain requirements levied on potential AOs and allow the AOs to brief stakeholders their plan of participation. TIMs also provide briefings on mission configuration, Joint Test Assembly (JTA) configuration, and START treaty compliance requirements.

3.6.2. A Flight Test Planning Meeting (FTPM) is conducted and hosted by AFGSC/A3TT approximately 90 days before launch. The primary purpose of the FTPM is to review the range sensor support plans to meet mission objectives. The FTPM also serves as a forum to conduct a final review of the operational requirements for OTL AO participation. A FTPM is required for each launch. However, a FTPM may not be required for a second launch attempt unless there are numerous factors (i.e., changes to mission configuration, target area, etc.) that have changed between the two launch dates. The PRD and mission FTPM minutes officially document the requirements for each OTL and will be provided to 2 ROPS NLT T-60 days.

3.7. Part I - Alert Readiness Test (ART).

3.7.1. Part I testing verifies the alert readiness of the selected missile by exercising launch critical components through weapon system tests. Missile Wings will not perform maintenance, modification, or inspections to the selected sortie to ensure the successful completion of Part I tests.

3.7.2. Accomplish Part I tests on the selected sortie within 5 days of removal from alert. The Missile Wing will immediately notify the TM if a delay is required for any reason. **(T-3)**.

3.7.3. Only normal LF weapon system maintenance (e.g., LF faults for which MMOC T.O. fault flow directs maintenance to be performed) will be accomplished after completion of Part I tests.

3.7.4. 377 TEG must review all scheduled maintenance actions prior to being performed following Part I testing. 377 TEG will make the final determination regarding authorized maintenance at the selected sortie. Deviations from this requirement could invalidate the test results for the selected sortie and result in a new sortie selection. **(T-3)**.

3.7.5. The following Part I tests, combined with normal monitoring of No-Go parameters, check most functions which would prevent a launch if a malfunction occurred. These tests provide weapon system alert readiness, operational countdown reliability data, and provide the maximum launch evaluation of the selected launch facility and missile.

3.7.5.1. Command IPDC to the sortie as soon as possible after notification.

3.7.5.2. Sensitive command network test (SCNT).

3.7.5.3. Missile Test.

3.7.5.4. Enable test.

3.7.6. Perform the following guidance assessment calibrations two hours after completion of Part I tests:

3.7.6.1. Phi Calibration.

3.7.6.2. Inertial Measurement Unit (IMU) Calibration, Segment 1.

3.7.6.3. IMU Calibration, Segment 2.

3.7.6.4. Perturbation Self-Alignment Technique Calibration (PSAT).

3.7.7. If a missile fails to successfully complete Part I due to ground equipment malfunctions, notify the TM of the failure, the cause of the failure, and whether the failure would have prevented successful launch on any strategic target. Then correct the malfunction and re-

accomplish Part I tests. For failures due to aerospace vehicle equipment malfunctions, notify the TM, 20 AF A3/A4, and AFGSC A3/A4 of the failure, along with whether the failure would have prevented successful launch on any strategic target. AFGSC/A3/6 will coordinate with AFNWC/NM to determine if further analysis is needed. Upon approval from AFGSC/A3/6, correct the malfunction and return the missile to alert; AFGSC/A3/6 will select another missile.

3.7.7.1. TM will document any Part I failures, along with their cause and whether the failure would have prevented successful launch on any strategic target in the test report.

3.7.7.2. Failures occurring during Part I will be documented..

3.7.8. Process the missile for shipment to VSFB if Part I completes successfully.

3.7.9. Notify the TM if a missile stage, missile stage component, or an RS malfunctions or is damaged after Part I. Coordinate with the TM as necessary to determine if repairs can be made without impacting the test schedule and where repairs must be made. AFGSC/A3/6 may terminate the mission and select another missile or missile component if a discrepancy requires depot-level maintenance.

3.8. Part II - Missile Removal and Transfer.

3.8.1. Part II consists of downstage, MGS, RS and certain other LF hardware removal, component processing for shipment, shipment to and receipt at VSFB and installation and checkout of range safety equipment.

3.8.2. During Part II the Missile Wing will:

3.8.2.1. Remove the missile from alert IAW AFGSCI 13-5204-S, *Intercontinental Ballistic Missile (ICBM) Emergency War Order (EWO) Operations (U).*

3.8.2.2. Remove LF and missile components identified by the TEI for shipment to VSFB.

3.8.2.3. Inspect and assess the removed components against the following criteria:

3.8.2.3.1. Any defects that exceed Technical Data restrictions.

3.8.2.3.2. Inspect the MGS to determine if a plate cover has been installed in place of the MGS optical window. If a plate cover is installed, notify the TM and include this in the OTL Sortie Status Report. Personnel from 377 FTMMXS will replace the plate cover with an MGS window, if required.

3.8.2.3.3. Conduct all Reentry System Test Set initial build tests and inspections in reverse order as RS disassembly is being conducted. Provide all test tapes and associate them with applicable components or hardware. Inspect and test all Electro Explosive Devices. Documented resistance measurements are required. Exact reassembly of the RS as it was configured for alert is paramount. Record and catalog all hardware associated with each specific RV and configuration of the payload. Separate attaching hardware into individual bags per RV or payload. Prepare components for shipment IAW procedures stated in applicable T.O.s and this instruction.

3.8.2.4. Document all abnormalities noted during inspection and removal in the OTL Component Damage Report

3.8.2.5. Do not repair or replace OTL items without direction from 377 TEG and AFNWC/NM.

3.8.2.6. Prepare the missile stages, RS components, guidance set, and LF ordnance for shipment to VSFB IAW DAFI 24-602V2, DTR 4500.9-R and this instruction.

3.8.3. Discrepancy Reporting: Immediately report any defects identified during Part II to AFNWC/NM, TM, 20 AF A3/A4 and AFGSC A3/A4.

3.8.3.1. . Reference all discrepancies to the applicable T.O. and/or AFMC publication depicting the standards required.

3.8.3.2. Discrepancies which have potential for causing mission failure require termination of the event and selection of another missile or RS.

3.8.3.3. Less severe discrepancies could result in component replacement action and continuation of the test. If necessary, AFNWC/NM will provide the unit shipping instructions so malfunctioning components can undergo additional testing and inspection.

3.8.3.4. 377 TEG will accomplish the necessary discrepancy reporting and resolution steps as directed in the Special Requests section.

3.8.4. Time Compliance Technical Orders (TCTO) Requirements:

3.8.4.1. For mandatory "Prior-to-Flight" modifications (Immediate Action/Urgent TCTOs) complete the required inspection and/or modification and proceed with the test. If this is not feasible, discontinue the test and AFGSC/A3/6 will select a modified missile.

3.8.4.2. For a routine TCTO issued against a selected missile/RS/RV/guidance set and is not mandatory before flight, continue the test without modification.

3.8.4.3. For Immediate Action/Urgent Action TCTO changes issued for flight safety, instrumentation, or other test-unique equipment, 377 TEG/CC will coordinate with AFGSC/A3T and may suspend the mission until completion of the required inspection/modification.

3.8.4.4. 377 TEG will develop required maintenance recovery plans if an Immediate Action/Urgent Action TCTO is received.

3.9. Part III - Missile Emplacement to Alert Readiness.

3.9.1. Part III actions consist of transportation of missile components and associated ground equipment as well as generating the missile to alert status IAW prescribed operational weapon system technical data.

3.9.2. The TF and 377 TEG share joint responsibility for posturing the sortie for alert with the TF, performing all operational weapon system maintenance actions and the 377 TEG is executing all test unique maintenance actions.

3.9.3. In instances where the TF does not have the appropriate qualifications or manning due to operational requirements at the parent wing, the 377 TEG/CC may direct 377 TEG personnel to accomplish the necessary maintenance.

3.9.4. TF MCs will assume LCC weapon system monitoring responsibility before the test LF undergoes start-up. **(T-3)**.

3.9.5. Any person noting a condition or operation adversely affecting safety of personnel or equipment, or jeopardizing OTL objectives will stop the operation and inform TF personnel

and 377 FTMMXS MMOC. Personnel safety and protection of resources will take priority in all cases.

3.10. Part IV - Alert Readiness and Flight.

3.10.1. This part consists of OTL alert readiness, countdown, launch, flight, post-mission data evaluation, OTL contingencies and anomaly resolution.

3.10.2. Except as needed in support of required Operations Directives or post maintenance, the Safety Control Switch (SCS) key and plug will remain installed in the main LF distribution box from startup until all LF final enable procedures are accomplished and the LF is ready to be secured for launch. **(T-2)**.

3.10.3. An OTL missile will not be removed from alert status without prior coordination with 377 FTMMXS MMOC and TM, and permission granted by 377 TEG/CC.

3.10.4. The TF and 377 TEG must coordinate LF close out for launch procedures. 377 TEG must perform system checks to verify operation of test unique equipment to evaluate LF and missile systems are in a launch ready condition.

3.11. Contingencies.

3.11.1. Immediately notify the TM if a missile component fails during alert. If the failure cannot be resolved with weapon system T.O.s and troubleshooting, the TM will request resolution via the Special Request process.

3.11.2. The 377 TEG will coordinate with AFGSC/A3TT/A4B for direction to accomplish repairs or request AFGSC/A3/6 select another missile if any of the following occur:

3.11.2.1. A missile component or subsystem failure results in a countdown abort and requires normal field-level or depot-level maintenance that can be performed at VSFB.

3.11.2.2. A missile failure during countdown requires depot-level repairs at the depot.

3.11.3. If a test-specific support equipment failure during countdown results in an abort, document the failure, correct the malfunction, and proceed with OTL activities.

3.11.4. If an instrumentation wafer malfunctions and requires removal, the replacement wafer will be mated to the primary MGS. MGS changes will not be made to facilitate instrumentation wafer changes without AFGSC/A3/6 approval via the Special Request process.

3.11.5. AFGSC/A3TT, through coordination with 377 TEG, may add a suffix to the GLORY TRIP identifier (e.g., GLORY TRIP 200GM-1) prior to continuing the mission if any of the following conditions exist:

3.11.5.1. A failure or policy direction results in selection of another missile or major missile component (including using a backup guidance set after successful initial start-up).

3.11.5.2. A missile failure results in countdown failure/abort or launch failure/abort.

3.11.6. A Launch Anomaly Response Team (LART) will be formed in the event of an abort, hang-fire, or premature termination to determine the circumstances surrounding the condition. The LART will perform all actions necessary to return the LF to a safe condition.

3.11.7. A LAG can be formed in the event of a launch anomaly that occurs after the first launch vote is issued. If convened, the LAG will determine the root cause of a mission anomaly and interpret data to extrapolate the effects of the anomaly to the remaining ICBM force.

3.11.7.1. AFGSC/A3T with AFGSC/SEW input, will determine if a LAG is required based on guidance contained in AFMAN 91-221_AFGSCSUP.

3.11.7.2. 20 AF/CC will appoint, in writing, an officer no lower than the grade of O-6 as LAG Chairperson. Follow AFMAN 91-221_AFGSCSUP guidance to determine mishap investigation and reporting requirements should the anomaly be deemed a mishap at any point.

3.11.7.3. At a minimum the following organizations will participate in the LAG: 576 FLTS/DOA, SLD 30/SE, AFNWC/NM, and other agencies as specified by LAG Chairperson IAW AFGSC/A3T guidance.

3.11.7.4. In the case of a safety mishap, the LAG will provide and interpret the telemetry data and/or any other data to both the safety and accident investigation board President (Reference AFMAN 91-221_AFGSCSUP for further guidance).

3.11.7.5. Classification of investigation data, data products, and reports will be in accordance with the ICBM SCDG.

3.11.7.6. The appointed LAG Chairperson will manage and control investigations and/or correction of test-unique equipment or weapon system malfunctions occurring after acceptance of the second execute launch command.

3.11.7.7. The LAG is authorized to use any data product relevant to the investigation. The LAG can also conduct personnel interviews if there is not a mishap investigation in progress.

3.11.7.8. 2 ROPS/DOF will “impound” or “impound with caveat” all range data, as directed by the LAG Chairperson. If impound with caveat is used, the range will produce and release data as directed by the LAG Chairperson. 2 ROPS/DOF will maintain all original raw data and data products. Copies of data will be provided to the LAG, as required, to facilitate the investigation. The LAG will coordinate range data requests with AFGSC/A3TT. All data will be retained for a minimum of 2 years. AFGSC/A3/6, in conjunction with AFGSC/SE, will determine data disposition after 2 years.

3.11.7.9. If a SIB is convened, the board president will determine whether the TF may depart from VSFB to their home unit. The LAG chairperson will determine whether the TF may depart from VSFB to their home unit for a LAG.

3.11.7.10. The LAG Chairperson will provide weekly status reports. AFMAN 91-221_AFGSCSUP will be used as the template. Status reports will be provided to AFNWC/CC/NM, AFGSC/A3/6/ A3T/A3TT/A4/A4B/A4WN/SE/SEW, and 377 TEG/CC. AFGSC/A3TT will determine additional distribution as required.

3.11.7.11. At a minimum, the investigation will provide an engineering analysis report and summary that includes findings, causes, and recommended corrective actions.

3.11.7.12. AFGSC/A3TT will determine MM III planning factors/fleet-wide impacts. AFGSC/SEW will determine high accident potential requirements.

3.11.7.13. A LAG Report is required whenever there is an identified missile anomaly. An initial message is required within 24 hours after an anomaly occurs. Use AFI 91-204, AFI 91-204_AFGSCSUP and AFMAN 91-221_AFGSCSUP as guidelines to accomplish reporting as information becomes available. Transmit follow-up reports with a routine precedence. The LAG will prepare a final LAG Report when an investigation is complete.

3.11.7.14. AFGSC/CC will release the LAG final report.

3.11.7.14.1. The NNSA and weapons laboratories may receive final message and report copies at the direction of AFGSC/A3/6.

3.11.7.14.2. Send final status message and reports to AFGSC/A3/6/A3T/A3TT/ A4B/A4WN/SE/SEW, AFNWC/NM, and 377 TEG/CC. AFGSC/A3TT will determine additional distribution.

3.11.8. Test asset recovery actions: The Nuclear Weapon Subsystem Test Plan (NWSSTP) serves as the basis for recovery of test assets.

3.12. Special Requests.

3.12.1. Quality Deficiency Reports will not be used to circumvent the authorities granted in the special request process.

3.12.2. For weapon system special requests:

3.12.2.1. Submit ETARs for all technical issues on support equipment common to operational wings that are not identified in a FRAGORD or in paragraph **3.12.2.2** or **3.12.2.3** Requests for waivers to T.O. policy will also be submitted using the ETAR system.

3.12.2.2. Submit Special Operational Requests (SORs) for all components identified in the FRAGORD and provided by the Missile Wing or Department of Energy. Submit SORs IAW the following guidance:

3.12.2.2.1. For components that meet specific T.O. rejection criteria, submit Component Replacement Requests (CRR) sanctioned by the 377 TEG/CC or designated representative for engineering assessment and replace/don't replace recommendation. For developmental tests, submit SORs for all new or modified weapon system components and all Aerospace Vehicle Equipment or explosives common to operational units. For developmental test, the engineering assessment recommendation will be coordinated through applicable program office prior to approval. HQ AFGSC/A3/6 or designated representative will approve or disapprove all modifications to mission configuration.

3.12.2.2.2. For components that do not meet specific T.O. rejection criteria, submit a Request for Guidance (RFG) sanctioned by the 377 TEG/CC or designated representative for engineering assessment. For developmental test, the engineering assessment recommendation will be coordinated through applicable program office prior to approval. If engineering assessment determines the component should be replaced to ensure a successful test, do not submit an additional CRR; the engineering guidance in the RFG will suffice. HQ AFGSC/A3/6 or designated representative will approve or disapprove all modifications to mission configuration. The 377 TEG/CC or designated representative will approve or disapprove implementation of all other RFG responses.

3.12.2.3. Submit Special Test Requests (STRs) for all equipment that supports telemetry, data acquisition or range safety requirements. Submit STRs IAW the following guidance:

3.12.2.3.1. For components that meet specific T.O. rejection criteria, submit Component Replacement Requests (CRR) sanctioned by the 377 TEG/CC or designated representative for engineering assessment and replace/don't replace recommendation. The 377 TEG/CC or designated representative will approve or disapprove implementation of all STRs.

3.12.2.3.2. For components that do not meet specific T.O. rejection criteria, submit a Request for Guidance (RFG) sanctioned by the 377 TEG/CC or designated representative for engineering assessment. If engineering assessment determines the component should be replaced to ensure a successful test, do not submit an additional CRR. The engineering guidance in the RFG will suffice. The 377 TEG/CC or designated representative will approve or disapprove implementation of all STRs.

3.12.3. For Joint Test Assembly special requests:

3.12.3.1. Report JTA discrepancies IAW T.O. 11N-5-1, *Unsatisfactory Reports*, as appropriate.

3.12.3.2. Report other RS/RV discrepancies IAW DAFI 91-204, *Safety Investigations and Reports*, as appropriate.

3.12.3.3. Report VSFB-specific component discrepancies (i.e., instrumentation, antennas, etc.) IAW T.O. 00-35D-54, *USAF Materiel Deficiency Reporting Investigation and Resolution*, as appropriate.

3.12.3.4. A closing summary from Defense Threat Reduction Agency will constitute the final closure action for NNSA assets.

3.12.3.5. Any changes to test or operational configuration will be documented via a SOR or STR, as applicable.

3.12.4. A component is considered operationally representative if it exemplifies or typifies other components in the deployed force.

3.12.5. A component is considered non-flight worthy if the component is known or suspected to fail, thus preventing the missile from completing its OTL mission.

3.13. Movement Procedures. Marking, handling, and notification instructions compliance protects the integrity of operational test concepts. Shippers must reference movement procedures outlined in DAFI 24-602V2, *Cargo Movement*, and the Defense Transportation Regulation prior to movement. These two publications will be used as the primary resource for any/all packaging, marking, and organic/commercial shipping requirements. The MW and 377 TEG may augment these procedures, as required, to ensure OTL components are properly documented, controlled, and handled during all phases of an OTL.

3.13.1. Markings

3.13.1.1. Remove or obliterate old markings from containers.

3.13.1.2. In addition to required markings, MWs will stencil markings IAW **Table 3.1** on the outside of all items packed for shipment to Vandenberg SFB prior to delivery to TMO

Cargo Movement (color to contrast with other markings). On stage containers, make the markings on the provided space on the right rear door.

Table 3.1. Markings.

OTL (At least 2-inch numbers and letters)
GT XXX (Sortie Identifier)
ESP CODE IM
NOTIFY 377 FTMMXS MMOC (At least 1/2 inch letters)
IMMEDIATELY UPON RECEIPT

3.13.1.3. Mark pallets "DO NOT SEPARATE" prior to delivering assets to TMO Cargo Movement.

3.13.1.4. Mark all containers and documentation with ESP code IM prior to asset delivery to LRS Supply Activity. ESP code IM is used to help identify a ballistic missile OTL conducted IAW this instruction. Strict compliance with container markings and documentation with ESP code IM ensures the wing is ultimately reimbursed for OTL movement charges.

3.13.2. Component Shipping

3.13.2.1. Expedite all missile components, as identified or as amended by the TEI, to VSFB for OT&E.

3.13.2.2. Transfer all required OTL assets for shipment to LRS at the same time and early enough to ensure carrier acquisition and routing for timely delivery to VSFB. The intent is to reduce the number of carriers required cutting transportation costs and heightening shipment in-transit visibility, security, and integrity.

3.13.2.3. MW TMO will send e-mail notification to VSFB TMO and 377 TEG for all OTL shipments when assets depart regardless of mode of shipment. Additionally, a Report of Shipment (REPSHIP) will also be sent to VSFB TMO for all OTL shipments.

3.13.2.4. 377 TEG will forward applicable information to AFGSC/A4P for determination of unit reimbursement for OTL shipping charges, as required.

3.13.2.5. Missile Stage(s) Movement Procedures.

3.13.2.5.1. The losing LRS from the MW will advise SLD 30 LRS and 377 FTMMXS/MMOC of all enroute delays as they occur.

3.13.2.5.2. Missile downstages are shipped via Depot and shipping is funded via Centralized Asset Management (CAM).

3.13.2.6. Aerospace Vehicle (AVE) Component Movement Procedures.

3.13.2.6.1. The MW LRS will notify 377 TEG by priority precedence message containing information IAW AFI 21-103, *Equipment Inventory, Status and Utilization Reporting*, and AFI 16-402, *Aerospace Vehicle Programming, Assignment,*

Distribution, Accounting, and Termination. Send the message to 377 TEG, 748 SCMG Item Manager, and 20 AF/A3/6/A4.

3.13.2.6.2. Use signature service on each shipment to provide positive control throughout the shipping process.

3.13.2.6.3. Ship MGS parameter tape or disk with their corresponding guidance set.

3.13.2.6.4. Remove the MGS battery from the MGS and pack in a separate container. Ship the primary MGS and MGS battery with the downstage, if possible. Ensure TMO Cargo Movement is provided the correct Safety Data Sheet upon asset turn in for shipping for hazmat shipment certification.

3.13.2.6.5. Send a printed copy of the IMDS histories of the primary MGS to the 377 FTMMXS I-Lab. History prints will cover the period from MGS installation through shutdown for OTL.

3.13.2.6.6. Ship MGS expanded maintenance data acquisition system history with the MGS.

3.13.2.6.7. MWs will ship MGS batteries "maintenance to maintenance" to 377 FTMMXS via DD Form 1149, *Requisition and Invoice/Shipping Document* and will provide TMO Cargo Movement with a completed DD Form 1149. 377 FTMMXS will return unused MGS batteries in the same manner.

3.13.2.6.8. Ship the Propulsion System Rocket Engine (PSRE) separately (transportation Priority 1). The PSRE is shipped via Depot and shipping is funded via Centralized Asset Management (CAM).

3.13.2.6.9. Ship PSRE historical records with the PSRE "maintenance to maintenance" to 377 FTMMXS/TMW via DD Form 1149.

3.13.2.7. RS Components and Ordnance Movement Procedures.

3.13.2.7.1. Ship all RS/RV components identified in the TEI to either 377 FTMMXS/TMW supply account or directly to 377 FTMMXS/TMW, Building 1530, 35th Street, Vandenberg SFB CA 93437-5246 IAW DAFI 24-602v2 and the Defense Transportation Regulation.

3.13.2.7.2. Provide all RS/RV, ordnance historical documents, maintenance records and buildup sheets will accompany the items.

3.13.2.7.3. Provide copies of the RS build-up sheets to AFNWC/NM.

3.13.2.7.4. FB/FV 4610 supply account, VSFB, will initiate replacement action for all unserviceable ordnance or RS components upon request from 377 TEG.

3.14. Requisition and Disposal of Supplies.

3.14.1. Request the necessary supplies to reposture LFs selected for OTL when the requirement is identified or 45 days prior to the need date. Process requests normally using ESP CODE IM (GLORY TRIP).

3.14.2. Process requests using ESP CODE IM (GLORY TRIP) as follows:

3.14.2.1. Turn in all items not to be returned to the selected Missile Wing to VSFB base supply.

3.14.2.2. Process those items to be returned to the base of origin with Expendable, Repairable, Recoverable Cost (ERRC) Designator XD1 through the VSFB Chief of Supply. Utilize current Serialized Control Asset Reporting System procedures.

3.14.2.3. Process those items to be returned to the base of origin with ERRC designator XD2 through the VSFB Chief of Supply. Use normal turn-in procedures IAW current AF guidance.

3.14.2.4. Return end of quarter type assets (ERRC XB3) to base of origin and process them as "maintenance to maintenance" (DD Form 1149) shipments to preclude additional expensing upon receipt.

3.14.2.5. The gaining and losing base's EAE office will initiate transactions to deploy and return in-use Detail Accountable (ERRC NF/ND) assets IAW current AF guidance.

3.15. Reporting.

3.15.1. Reporting is essential for effective OTL program management as well as for accurate evaluation of weapon system performance. Reporting requirements encompass two primary areas: status of program events and the detailed information following completion of each event. Data must be acquired during the alert readiness period, countdown, launch, and flight through impact. Transmit all unclassified and classified messages for GLORY TRIP missions via appropriate classification level email. Use PDF format for copies sent to email addresses.

3.15.2. OTL Sortie Status Report (**Attachment 2**).

3.15.2.1. Identifies OTL status and schedule changes.

3.15.2.2. The unit must prepare an initial report at the completion of Part I. Updates to the initial report are required after Part II and if schedule changes occur.

3.15.2.3. Reports are due within five days of completion of Part I tests and again within five days of the completion of Part II. Updates due to schedule changes are due immediately.

3.15.2.4. Send report(s) to the TM and 377 FTMMXS/TMOS.

3.15.3. OTL RS Components and Ordnance Movement Report (**Attachment 3**).

3.15.3.1. Reports the status of all RS components and ordnance movements for hardware associated with each OTL.

3.15.3.2. Publish this report within five days of component shipping. Updates to this report are required if there is a delay in component movement dates or additional shipments are required.

3.15.3.3. Send report(s) to the TM and 377 FTMMXS/TMOS.

3.15.4. OTL Component Damage Report (**Attachment 4**).

3.15.4.1. Identifies any damaged or defective components discovered during Part I or Part II. This includes any components (e.g., RV body sections) damaged or defective but not sent to PANTEX or VSFB.

3.15.4.2. Publish this report within five days of discrepancy discovery.

3.15.4.3. Send report(s) to the TM and 377 FTMMXS/TMOS.

3.15.5. OTL Mission Quick Look (**Attachment 5**).

3.15.5.1. This report is the first transmission of information on results of a GLORY TRIP operation.

3.15.5.2. The 377 TEG will issue the report NLT four hours following receipt of scores from RTS or LLNL. If a mission results in an abort or a flight anomaly with no score provided by downrange sensors, issue the report within six hours of abort/anomaly.

3.15.5.3. If technical issues necessitate a delay in scores from RTS or LLNL, emphasis should be placed on accuracy vice timeliness following coordination with AFGSC/A3T and 377 TEG/CC.

3.15.5.4. For nominal missions the report will provide background information and a preliminary score.

3.15.5.5. If a launch anomaly occurs report if destruct commands were/were not issued. Only addressees with a need-to-know will be informed of failure modes through applicable messages and reports.

3.15.5.6. The OTL Mission Quick Look Report does not meet the requirements for safety reporting, these reports will be accomplished through the appropriate safety channels.

3.15.6. OTL Follow-on Scoring Report (**Attachment 6**).

3.15.6.1. The 377 TEG will issue refined RV scores using this report for a nominal missile NLT 4 days after updates are received from RTS or LLNL.

3.15.6.2. Final accuracy data will be provided in a subsequent report (e.g., Minuteman III Operational Accuracy Report).

3.15.7. OTL Performance Report.

3.15.7.1. Performance reports must contain comments on all events and actions during the entire mission that could affect operational realism for each test. This includes comments on procedures, personnel actions, and missile system performance.

3.15.7.2. Include at a minimum an executive summary, POC listing, and content consistent with guidance in DODI 5000.89_DAFI 99-103.

3.15.7.3. TF/CC, LD, AFNWC/NM, and OTL contractor support personnel will provide inputs for each performance report to the TM.

3.15.7.4. If they occur, the following conditions will be reported and described in the final performance report:

3.15.7.4.1. A component that fails ground testing or evaluation indicates it would not have supported a successful flight, it will be declared a representative failure.

3.15.7.4.2. A component passes ground testing or engineering evaluation indicates it would have supported a successful flight, it will be declared a no-test since a ground test or engineering evaluation cannot completely replicate flight conditions.

3.15.7.4.3. When a component is scored a no-test, its replacement will be used to score the flight. If a component is deemed flight worthy but AFNWC/NM wants to subject the component to depot-level testing, they will convey their request via letter to AFGSC/A3T and 377 TEG. AFGSC/A3/6 is the final decision authority for approval or disapproval of this request.

3.15.7.4.4. A missile component or subsystem failure that results in a countdown abort but is successfully repaired at VSFB and subsequently flown will be scored as a countdown failure.

3.15.7.4.5. A missile component or subsystem failure that results in a countdown abort and requires repairs at the depot will be scored as a countdown failure.

3.15.7.4.6. A test-specific support equipment failure during countdown that results in an abort will be documented but scored as a success if the flight is nominal after the problem is resolved.

Chapter 4

SIMULATED ELECTRONIC LAUNCH – MINUTEMAN

4.1. General. SELM, designated as GIANT PACE, tests the MM III in its deployed environment at Missile Wings without an actual launch occurring. SELM tests the selected ICBMs from day-to-day operation to issuance of the first stage ignition signal. SELM test activities provide reliability data for the ICBM weapon system. The SELM key event flow is contained in **Attachment 9**.

4.1.1. Normal security procedures will be adhered to for all test LCCs and LFs throughout the SELM test.

4.1.2. The following definitions apply throughout the remainder of this chapter:

4.1.2.1. Host Squadron: The host squadron consists of the AFGSC unit (e.g. 10 MS) whose LCCs and LFs will be used for SELM testing activities.

4.1.2.2. Test Squadron: The test squadron consists of the LCCs and LFs that will be executed during Part III activities.

4.1.2.3. Non-Test LCC/LF: Any LCC or LF that is part of the host squadron but not part of the test squadron.

4.1.3. The test squadron is electrically isolated from the host squadron and specially configured for safety to allow testing of all critical commands. **(T-0)**. A SELM test squadron typically consists of two LCCs and six LFs, but deviations from these numbers may be authorized in the TEI or Test Plan. SELM test execution is divided into four parts.

4.1.3.1. Part I: Alert Readiness Test.

4.1.3.2. Part II: SELM Configuring.

4.1.3.3. Part III: Launch Demonstration.

4.1.3.4. Part IV: EWO Re-posturing.

4.2. SELM Requirements/Considerations.

4.2.1. Typically, two SELMs are conducted each year at two different MWs. A total of twelve LFs and four LCCs are tested each year to ensure different configurations are equally accounted for in the data set.

4.2.2. Data obtained from SELM testing is utilized to calculate component level reliability for the MM III weapon system as a part of planning factors reporting to USSTRATCOM.

4.3. Responsibilities.

4.3.1. USSTRATCOM has agreed to:

4.3.1.1. Assign J37 as primary point of contact for USSTRATCOM coordination and review of SELM issues.

4.3.1.2. Coordinate exercise emergency action message (EAM) transmission to support SELM.

4.3.1.3. Have USSTRATCOM/J374 provide test code materials as requested for SELM testing.

4.3.1.4. Have USSTRATCOM/J53 provide the targeting support for SELM sorties, if required.

4.3.2. 377 TEG will:

4.3.2.1. Assign a TM, Test Manager-Advisor (TM-A), Test Conductor (TC), Test Conductor-Ground (TC-G), and Test Mission Assurance Manager (TMAM).

4.3.2.2. Maintain joint responsibility with the host MW for SELM execution.

4.3.2.3. Develop and publish a TEI for each SELM test. The SELM TEI will be published NLT T-180 days prior to Last Line Isolation. The TEI will serve as the test start message, outlining key test dates, test facilities, and support required from external agencies.

4.3.2.4. Provide assistance in support of testing and technical support for maintenance deficiencies.

4.3.2.5. Develop, coordinate, and publish the SELM Test Sequence Document (TSD).

4.3.2.6. Develop standardized SELM operations training products for use by the host MWs.

4.3.2.7. Assist with initial training sessions conducted by AFNWC/NM IAW **paragraph 4.3.4.9**.

4.3.2.8. Present a pre-test briefing to the Missile Wing senior staff and SELM working group outlining test objectives, dates, and key personnel.

4.3.2.9. Create and maintain a database of Cat II and special objectives.

4.3.2.10. If required, request exercise messages executing test sorties from USSTRATCOM IAW CDRUSSTRATCOM Emergency Action Procedures, Volume 6, *Exercise Support Procedures*.

4.3.2.11. Ensure all SELM reports, except for the MW's expense report, are accurate and completed IAW the timelines in this instruction.

4.3.2.12. Send ALCS FRAGORD/Support Request to 625 STOS 120 days prior to SELM execution.

4.3.2.13. Request Preparatory Launch Command-A (PLC-A) numbers for test sorties from the 625 STOS NET 7 days before test start date.

4.3.2.14. TM will approve wing's detailed maintenance schedule for configuring for SELM testing 6 weeks prior to testing.

4.3.2.15. 377 TEG/TM will develop a FRAGORD directing ALCS launch support in coordination with the 625 STOS for all operational directives involving ALCS support.

4.3.3. 20 AF will:

4.3.3.1. Ensure completion of SELM configuration requirements at the assigned operational units.

4.3.3.2. Will maintain ownership of SELM OPLAN shell. Standardized OPLAN must contain day-by-day procedures essential to the successful preparation for and recovery from SELM Test (**T-2**). 20 AF will compile the inputs from 377 TEG in the form of the TEI. Further refinement of day-to-day operations can be delegated to the executing Missile Wing, with final approval being 20 AF **(T-2)**.

4.3.3.2.1. Finalized OPLAN will be approved and provided to the executing Missile Wing NLT T-90 upon receipt of Giant Pace TEI **(T-2)**.

4.3.3.2.2. No later than 60 days after Squadron Restoration 20 AF will provide HQ AFGSC/A3TT, HQ AFGSC/A4B, the 377 TEG and missile wing SELM key personnel with the opportunity to review and modify the OPLAN. **(T-2)**. Disposition of comments will be noted on an adjudicated comments resolution matrix which will be provided to all stakeholders upon change implementation. **(T-2)**.

4.3.3.2.3. If requested, provide on-site support during testing, as available.

4.3.3.2.4. If requested by the 377 TEG, submit exercise message request exercise messages as required by CDRUSSTRATCOM Emergency Action Procedures, Volume 6, Exercise Support Procedures.

4.3.4. AFNWC/NM has agreed to:

4.3.4.1. Maintain and assure operability of SELM test equipment and the ALCS UHF monitor equipment.

4.3.4.2. Arrange for transportation and delivery of a loaded SELM mobile test unit (MTU) to and from the Missile Wings.

4.3.4.3. Provide on-site technical advice to AFGSC and the Missile Wing during the test.

4.3.4.4. Participate with AFGSC in significant event, anomaly, or failure analysis to include resolving test-related problems beyond unit capability during all parts of SELM testing.

4.3.4.5. Provide System Engineering Level Evaluation and Correction Team (SELECT) personnel to support the SELM, significant event resolution and Anomaly Analysis Team (AAT).

4.3.4.6. Conduct detailed analysis of significant events, anomalies or failures and report results to AFGSC/A3TT/A4B/SEW, 20 AF/A3TT, and 377 TEG. Data releases to outside agencies require AFGSC/A3TT approval.

4.3.4.7. Develop and maintain T.O.s for SELM testing.

4.3.4.8. Provide Mobile Instrumentation Facility (MIF) for airborne test day of each SELM test. The MIF will have capabilities to conduct real-time analysis and record 1 MHz samples, test tone frequencies of 1024 Hz, and a range of 266.05 MHz to 382.375 MHz for UHF recordings. The MIF and technicians to operate it will arrive at the test unit at least 24 hours prior to airborne test.

4.3.4.9. Provide training on SELM configuration and the installation, removal, and use of SELM test equipment to unit training personnel NLT 6 weeks prior to the start of each SELM test.

4.3.4.10. Coordinate on TSD and Category II test objectives.

4.3.4.11. Ensure Strategic Missile Integration Complex (SMIC) availability for TSD dry run.

4.3.4.12. Coordinate on or identify sites to be selected for SELM Testing, as requested by the 377 TEG.

4.3.4.13. Review and coordinate on the TP and perform any special tests as required.

4.3.4.14. Review and coordinate on all SELM test lesson plans.

4.3.5. Missile Wings will:

4.3.5.1. Maintain joint responsibility with the 377 TEG for SELM execution.

4.3.5.2. Designate a Field Grade Officer (21M highly desired) as the SELM TSM.

4.3.5.3. Provide maintenance teams and personnel as listed in **Attachment 15**.

4.3.5.4. Ensure all sorties selected for SELM are on alert for the ART.

4.3.5.5. Provide operations and maintenance personnel for the SELM configuring and EWO reposturing of LCCs and LFs, schedule and train personnel to support the test, and execute all operational test activities.

4.3.5.6. Utilize the 20 AF SELM OPLAN to develop the wing's detailed maintenance schedule for configuring LFs for SELM testing, bringing test sorties to SELM alert and returning test sorties to operational configuration after test completion. This schedule will be approved by the TM and AFNWC/NM six weeks prior to the test week.

4.3.5.7. Appoint a maintenance OIC and NCOIC, operations OIC, and security forces OIC or NCOIC to monitor all maintenance, operations, and security actions associated with each SELM. Appointed individuals will be Personnel Reliability Program-certified. Project officers will report directly to the TSM on maintenance, operations and security matters associated with each SELM test.

4.3.5.8. Appoint enough SELM qualified Quality Assurance personnel to accomplish the following tasks:

4.3.5.8.1. Review SELM maintenance lesson plans and monitor initial training sessions.

4.3.5.8.2. Verify SELM configuration procedures in the training LF prior to LF SELM deposturing.

4.3.5.8.3. Observe SELM configuration activities at test LFs/LCCs and verify configuration prior to MGS start-up in SELM configuration.

4.3.5.9. Participate in Last Look Inspections.

4.3.5.10. Order all required parts using Project Code 244 no later than 6 months prior to last line isolation.

4.3.5.11. Verify all parts have arrived on station no later than 4 weeks prior to last line isolation and notify 20 AF/A4 and AFGSC/A4BY.

4.3.5.12. Provide storage for ALCS test codes through Codes Section (OSB).

4.3.5.13. Provide a test command post with adequate seating and working phone for all applicable representatives, to include but not limited to: 377 TEG representatives, AFGSC representatives, SELECT and 625 STOS airborne support representative.

4.3.6. The Missile Wing appointed TSM will:

4.3.6.1. Support test activities in a manner that will provide for safe, timely, efficient, and cost-effective accomplishment of the test IAW TEI, TP, TSD, SELM technical data and weapon system safety rules.

4.3.6.2. Inform the TM of all maintenance activities (both SELM and routine maintenance) at all test facilities from completion of alert readiness tests through test completion.

4.3.6.3. Approve the TSD in conjunction with 377 TEG/CC.

4.3.6.4. Review all 377 TEG- and AETC-provided SELM lesson plans.

4.3.6.5. Ensure Last Look Inspection team verification of SELM test LF configuration prior to guidance set start-up.

4.3.6.6. Verify operational configuration of LFs prior to MGS start-up following the completion of SELM testing. Document using a special inspection QA report.

4.3.6.7. Jointly with the TM, ensure the SELM Critical Task Certification Matrix is accurate and updated prior to the TRRB.

4.3.6.8. Provide a shipping POC and storage location for AFNWC/NM.

4.3.6.9. Ensure only CMR MCs IAW AFGSCI 13-5301V1 and maintenance personnel certified IAW AFMAN 21-202 participate in SELM activities.

4.3.6.10. Coordinate on the performance report prior to publication.

4.3.6.11. Ensure AFGSC/A4B, 20 AF/A3/6 and 20 AF/A4 are notified when an anomaly occurs and keep them informed of the investigation's progression.

4.3.6.12. Ensure the Missile Wing Plans and Scheduling office coordinates with 625 STOS/DOM to submit Maintenance Support Request (MSR) to extend sortie F-Cat status if additional time is needed for anomaly investigation and for sortie disposition when anomaly investigation is terminated.

4.3.6.13. Convene the Anomaly/Failure Investigation termination meeting or teleconference, if required.

4.3.7. 625 STOS has agreed to:

4.3.7.1. Appoint an Airborne Test Conductor (ATC) and an Airborne Missile Crew (AMC) for the test and provide a key personnel message by approximately T-60 to identify key personnel and positions using the format identified in **Attachment 8**.

4.3.7.2. Coordinate on the TSD and test planning activities.

4.3.7.3. Provide ALCS information messages, as appropriate, and provide input to the scheduling of the mission.

4.3.7.4. Ensure 625 STOS/CC, or designated representative participates in the TRRB. If available, provide a representative in the test command post during the airborne portion of the SELM test.

4.3.7.5. Coordinate E-6B support through 625 STOS with Test ALCS FRAGORD provided by 377 TEG.

4.3.7.6. Ensure sorties selected for SELM testing are approved IAW 625 STOS Nuclear Tasking Order (NTO) as changing from A-CAT to F-CAT prior to the start of testing or posturing for testing.

4.3.7.7. Provide PLC-As for use during SELM tests.

4.4. SELM Objectives. The basic SELM objective is to assess reliability of MM III weapon systems (including the ALCS) in their deployed environment. To achieve this basic objective, individual test objectives are identified as Cat I, Cat II, or special.

4.4.1. Cat I. Achievement of Cat I objectives is mandatory for a successful program or test. AFGSC/A3T or designated AFGSC representative will have Cat I test objective waiver authority.

4.4.1.1. Cat I objectives include:

4.4.1.1.1. Verifying the capability of the LCC and the ALCS to process required launch commands.

4.4.1.1.2. Verifying the capability of the LF ground system electronics and missile guidance ground program systems to process the launch sequence during the terminal countdown sequence.

4.4.1.1.3. Providing reliability data for the ICBM weapon system to AFGSC/A3TT and AFNWC/NM.

4.4.2. Cat II. Achievement of Cat II objectives is required to make the program or test a complete success. The Mission Director (MD)/377 TEG/CC or designated representative will have CAT II test objective waiver authority. These objectives may be waived due to performance, cost, time, or other constraints.

4.4.2.1. Cat II objectives are developed by 377 TEG, coordinated with AFGSC/A3TT and SELECT, and approved as part of the Test Plan.

4.4.2.2. The goal of Cat II objectives is to exercise the deployed weapon system to its design limits. Cat II objectives may be submitted by/coordinated with all stakeholders (i.e., 20 AF, MWs, DOE, etc.)

4.4.3. Special objectives are test specific, cannot be categorized as either Cat I or Cat II, and may be included based on AFGSC/A3TT, 377 TEG, and SELECT evaluation. The MD will be the waiver authority for special objectives.

4.5. Preparation Activities.

4.5.1. T-180 to T-70 Days: SELM preparation activities begin at T-180 days prior to the start of a test when the 377 TEG publishes the TEI containing test specific information and directions. The 377 TEG will publish a SELM selection notification, informing the unit that they have been selected for SELM and the number of ordnance sites required.

4.5.1.1. MW maintenance personnel will clear all unaccomplished TCTOs at test squadron LCCs and LFs that would affect a SELM test prior to the initiation of testing. Do not perform maintenance solely to ensure a successful test.

4.5.1.2. Missile Wings will send a GIANT PACE Key Personnel Message (**Attachment 8**) identifying key personnel no later than 10 duty days after receipt of the implementing TEI.

4.5.1.2.1. Personnel appointed by the MW/CC include, at a minimum, the TSM, operations OIC, maintenance OIC and NCOIC and security forces OIC or NCOIC. Distribute the Key Personnel Message to AFGSC/A3TT, 20 AF/A3/6/A4, and TM.

4.5.1.2.2. The TSM forms a SELM Working Group (typically MW/CC/CV, OG/CC/CD, MXG/CC/CD, SQ/CC, OSK, OSB, OGV, Safety, TM, and any other agencies deemed necessary) and begins planning for SELM activities to include: SELM configuration, EWO reposture, personnel training and review of lesson plans, procurement of supplies, and receipt of required SELM test equipment from SELECT in the MTU.

4.5.1.3. Fourteen weeks prior to test week, host wing operations and maintenance training personnel will review SELM operations and maintenance training.

4.5.1.4. Missile Wings conducting a SELM will accomplish a complete review of the SELM T.O. approximately 13 weeks prior to test week to identify deficiencies and ensure T.O.s are compatible with weapon system operations and maintenance technical data.

4.5.1.4.1. Submit Urgent Air Force Technical Order (AFTO) 22s if changes are not needed until commencement of SELM configuration actions or Emergency AFTO 22s if changes are required prior to commencement of SELM configuration actions. An additional SELM T.O. review should be accomplished following each SELM test.

4.5.1.4.2. Submit changes through normal channels. Provide information copies to 20 AF/A3/6/A4, AFGSC/A4B, 377 TEG, and AFNWC/NM.

4.5.2. T-9 Weeks to T-1 Weeks:

4.5.2.1. The TM will develop a TSD integrating SELM and weapon system T.O. procedures, WSSRs and AFGSC directives.

4.5.2.2. The draft TSD will be distributed to SELECT and the SELM working group nine weeks prior to the test.

4.5.2.2.1. The TSD will contain demand-response, step-by-step procedures for the following activities:

4.5.2.2.1.1. Last Line Isolation.

4.5.2.2.1.2. Ground and airborne test preparation and isolation verification.

4.5.2.2.1.3. Ground and airborne incremental test commit actions.

4.5.2.2.1.4. On-site test evaluation.

4.5.2.2.1.5. Emergency actions for safety related anomalies.

4.5.2.2.1.6. Contingency actions for conducting the airborne test by ground LCCs.

4.5.2.2.1.7. Anomaly analysis actions.

4.5.2.2.1.8. Squadron restoration.

4.5.2.2.1.9. Special procedures, if required.

4.5.2.2.2. 377 TEG will accomplish a dry-run of the draft TSD at the SMIC approximately eight weeks prior to test week. When possible, unit key personnel will attend the TSD dry-run at the SMIC as familiarization and training on SELM test procedures. **(T-3)**.

4.5.2.2.3. Approximately eight weeks prior to test week the TM and TC will conduct a pre-test briefing to the host wing's senior staff and SELM working group, outlining test objectives, dates, and key personnel. **(T-3)**.

4.5.2.2.4. An AFNWC/NM representative and the SELM MTU containing SELM test equipment will arrive at the tasked wing approximately twelve weeks prior to test week.

4.5.2.2.4.1. AFNWC will ship MTUs marked "For GIANT PACE" to the maintenance squadron equipment section at the test MW. A set of keys will accompany the shipping document (DD Form 1149). The MTU will be in a locked and sealed condition when received by the TSM's representative.

4.5.2.2.4.2. An AFNWC/NM representative, along with wing representatives, will jointly inventory contents of the loaded MTU to item levels and verify currency of equipment calibration dates and functional checks through test period. **(T-3)**.

4.5.2.2.4.3. An AFNWC/NM representative is authorized joint usage of test wing precision measurement electronics lab and electronic laboratory facilities for repair, calibration and certification as required. However, the AFNWC/NM representative will not interfere with or impact mission essential work. **(T-3)**.

4.5.2.2.4.4. All equipment not in use will either remain locked in the MTU or in a secure storage area designated by the TSM. **(T-3)**.

4.5.2.3. The TM, TC, and TMAM will arrive at the unit prior to the first LF SELM configuration actions and will have the TSD in final draft form upon arrival. **(T-3)**.

4.5.2.4. The TSM and TM will finalize the TSD and distribute approved final copies at least two weeks prior to test week. **(T-3)**.

4.6. Training. At a minimum, training for operations and maintenance personnel supporting and executing SELM and will consist of:

4.6.1. A review of applicable governing guidance including: this instruction, WSSRs, code component control requirements, applicable weapon system T.O.s, SELM T.O.s, the SELM OPLAN, the TEI, and the TSD.

4.6.2. At least one interactive missile procedures trainer script (detailing notional SELM events during Last Line Isolation, Ground and Airborne Test days, and squadron restoration) for all primary and backup missile combat crews scheduled to participate in SELM TSD actions in the host squadron or any wing SCP during these activities. **(T-2)**.

4.6.3. A training LF orientation detailing and demonstrating correct SELM equipment installation and site configuration to all SELM qualified maintenance personnel as well as Last

Look Inspection, quick reaction maintenance (QRM) team, and test evaluation team (TET) members. **(T-2)**.

4.6.4. Training on-site safing and emergency shutdown procedures for all QRM team personnel. **(T-3)**.

4.6.5. Training on-site safing, emergency shutdown procedures, quick look inspection procedures, SELM control monitor tape retrieval, and proper site shutdown following simulated execution to TETs. **(T-3)**.

4.6.6. Training on anomaly investigation and analysis procedures for all AAT and Anomaly Analysis Management Team (AAMT) members prior to the initiation of Last Line Isolation.

4.6.7. During Parts II, III and IV activities, all missile combat crews dispatching to the host squadron and all wing SCP crews will receive supplemental training prior to departure for alert. This training will review SELM-unique maintenance actions, current squadron configuration, and any SELM unique procedures/requirements. **(T-3)**.

4.7. Part I - Alert Readiness Test.

4.7.1. Approximately one week prior to the start of scheduled SELM configuration, the TM will direct an ART to all test facilities.

4.7.2. These tests check most functions that would prevent launch if a malfunction occurred and provides a base-line evaluation of each facility and missile prior to maintenance activities for SELM configuration. **(T-2)**.

4.7.2.1. Designated tests will be addressed to each test LF by the primary LCC and include:

4.7.2.1.1. Sensitive Command Network Test.

4.7.2.1.2. Missile Test.

4.7.2.1.3. Enable Test.

4.7.2.1.4. Inhibit Test.

4.7.2.1.5. Computer Memory Verification Check.

4.7.2.2. All test LFs are required to be on operational alert for the ART.

4.7.2.3. If a missile fails to successfully complete ART, print the CSRs for all commands and the crew logs for the ART, and coordinate with the TSM, TM, and MW AFNWC Technical Engineers to identify if further documentation is needed to determine the root cause of the failure and whether the failure would have prevented a successful launch against any strategic target. Once no further documentation is needed, correct malfunction(s), and re-accomplish ART.

4.7.2.4. Retain a detailed record of each command and all system responses including appropriate printer tapes and crew logs for both normal and abnormal indications for inclusion in the final Performance Report.

4.7.2.5. Submit a SELM Status Report within 24 hours of ART completion (**Attachment 10**).

4.8. Part II - SELM Configuration.

4.8.1. Maintenance personnel at each Missile Wing will accomplish test preparation and refurbishment as specified in the TEI, WSSRs, appropriate SELM T.O.s, and the TP. In addition to special test procedures, normal AFGSC maintenance procedures and policies will remain in effect. **(T-2)**.

4.8.2. After Part II activities begin only SELM qualified maintenance teams are permitted to perform maintenance at SELM test facilities.

4.8.3. SELM qualified QA personnel must observe and verify all test LCC and LF SELM configuration actions.

4.8.4. Plans and Scheduling and MMOC will ensure all maintenance teams and personnel dispatching to SELM LFs are SELM trained prior to dispatching.

4.8.4.1. Issue test unique Job Control Numbers for all tasks associated with SELM. Over-stamp or watermark SELM on all test related work orders. **(T-3)**.

4.8.4.2. If directed by the TM or TSM, retain SELM work orders until the SELM Performance Report is complete.

4.8.5. Prepare Test LCCs/LFs by executing the following procedures in conjunction with applicable SELM and weapon system T.O.s.

4.8.5.1. Remove and return the RS to base for any LF(s) where: ordnance will be expended, at all test LFs if only one LCC will be test-configured, or at any LF where a nuclear safety related anomaly or significant event occurs. **(T-0)**.

4.8.5.2. Configure test LFs for SELM IAW the SELM T.O.

4.8.5.3. SELM qualified personnel will:

4.8.5.3.1. Install SELM equipment and cabling. **(T-0)**.

4.8.5.3.2. Install and replace all SELM Codes and Keys IAW AFI 91-114. **(T-0)**. Control and handle these components IAW EAP-STRAT Volume 16, *ICBM Code Component Control Policy and Procedures* and AFGSCI 13-5301 Vol 5, *Wing Code Controller and Handler Standardization, Evaluation and Training.* **(T-0)**.

4.8.5.3.3. Install and configure Communication Equipment Interface Units (CEIU) to ensure Performance Assessment Data System (PADS) data is recorded in the test squadron as well as the host squadron. **(T-2)**.

4.8.5.3.4. Electrically isolate test LCCs and LFs from the remainder of the operational squadron. Verify electrical isolation using SELM T.O. and TSD isolation verification procedures. **(T-0)**.

4.8.5.3.5. Install a lock pin assembly in the SCS after start-up in SELM configuration. Remove lock pin assembly in the SCS after Last Look Inspection is accomplished at each test LF. **(T-0)**.

4.8.5.3.6. Install missile safing pins in the test missiles. **(T-0)**.

4.8.5.3.7. Target test missiles with normal target assignments and execution plans and bring to SELM alert.

4.8.6. Maintenance at SELM alert test facilities will only be conducted by SELM qualified maintenance teams. Teams dispatching to SELM facilities will pre-coordinate with the TSM or TM. If pre-coordination is not possible (e.g., an emergency), notify the TSM or TM as soon as practical. If a non-SELM trained maintenance team penetrates a SELM LF or performs maintenance in a SELM LCC, then a SELM trained maintenance team must dispatch to the facility to ensure proper configuration. Re-accomplish Last Look Inspection IAW **paragraph 4.8.7**.

4.8.7. Conduct Last Look Inspections IAW the SELM T.O. and this instruction. The Last Look Inspection team will conduct a Last Look Inspection at each test LF prior to Last Line Isolation, and at each test LCC immediately after Last Line Isolation. **(T-2)**.

4.8.7.1. The Last Look Inspection Team will consist of, at a minimum, SELM MNX OIC or NCOIC, and SELM-qualified QA personnel. The Last Look Inspection will verify **(T-2):**

4.8.7.1.1. Proper connection of all SELM test equipment.

4.8.7.1.2. Proper safing of applicable AVE.

4.8.7.1.3. Proper installation of all SELM cables.

4.8.7.1.4. Missile safing pins are installed.

4.8.7.1.5. Proper installation of isolators at test LFs.

4.8.7.1.6. Proper configuration of RS/RVs.

4.8.7.1.7. All operational codes/components replaced with test codes/components, as applicable.

4.8.7.1.8. Command line removal at test LCCs.

4.8.7.2. All SELM LCCs must be fully configured and LFs must be on SELM alert prior to Last Line Isolation. **(T-2)**.

4.8.7.3. The Last Look Inspection team will seal the launch tube opening and I-Box with a signed and dated paper label after completing their inspections at a test LF. For Last Look Inspections at an LCC only the I-Box will be sealed with a signed and dated paper label. The applicable portion of the Last Look Inspection will be re-accomplished if a seal is not intact or has been tampered with.

4.8.8. After completion of Part I and subsequent start-up in SELM configuration, secure and treat each test LF as if it were on EWO alert.

4.8.8.1. MCs at test LCCs must continuously monitor each test LF for SELM ready status following Last Look Inspections through simulated launch. **(T-0)**.

4.8.8.2. Loss of SELM ready status will be indicated by reset of Ground Maintenance Response (GMR) 15.

4.8.9. Ensure no sorties in the host squadron (except as directed by the TSD or for post-maintenance requirements) are in calibration after Last Line Isolation.

4.8.10. Submit a SELM Status Report (**Attachment 10**) within 24 hours after all test facilities are configured for SELM alert. **(T-3).** An LF is on SELM alert when SELM equipment is

installed, SELM codes are loaded, applicable post-maintenance is complete for the sortie to be called on alert, and a Last Look Inspection is accomplished. An LCC is on SELM alert when SELM codes are installed and Last Line Isolation is complete.

4.8.11. Certification of readiness to execute SELM will be accomplished after all Part II activities are completed and will proceed as follows:

4.8.11.1. The TM will conduct a TRRB IAW **paragraph 1.10** This TRRB will serve as a certification to AFGSC/A3/6 that all operational, logistical, and safety requirements within instructions, the TEI, SELM T.O., weapon system T.O.s, and WSSRs have been complied with. A sample TRRB agenda is listed in **Attachment 11**.

4.8.11.2. At a minimum, the following personnel or their designated representative must verbally certify their respective actions are complete and are ready to conduct the test:

4.8.11.2.1. TSM.

4.8.11.2.2. TM.

4.8.11.2.3. 625 STOS/CC.

4.8.11.2.4. Safety (Missile Wing Safety office and 20 AF/SE).

4.8.11.2.5. Maintenance officer or QA personnel who actually accomplished Last Look Inspections.

4.8.11.2.6. Codes Flight representative.

4.8.11.2.7. Host MW Operations Group/CC.

4.8.11.2.8. Host MW Maintenance Group/CC.

4.8.11.2.9. 20 AF/A3/6 representative.

4.8.11.2.10. MW/CC.

4.9. Part III - Launch Demonstration.

4.9.1. Part III begins with the initiation of isolation verification on both airborne and ground days and ends when all test increments are complete.

4.9.2. Part III activities will make maximum use of operational T.O.s and procedures to enhance operational realism. The TSD does not replace operational T.O.s.

4.9.3. During testing periods on airborne and ground test days, the following applies to all LCCs and LFs in the test squadron:

4.9.3.1. Security forces will not conduct any security reaction exercises.

4.9.3.2. Do not schedule any maintenance of lower priority than SELM IAW AFMAN 21-202.

4.9.3.3. Ensure no LFs in the squadron, except as directed by the TSD, are in calibration.

4.9.4. Launch Demonstration activities are divided into separate airborne test and ground test phases.

4.9.4.1. Unless otherwise stated in the Test Plan supplement or TEI, half of the test sorties will be incrementally simulated launched by AMCs from the ALCS on the first test day

and half will be incrementally simulated launched by MCs in the test LCCs on the second day.

4.9.4.2. A third test day serves as a back-up for either airborne or ground test completion.

4.9.5. Ordnance activation will occur at two sites each SELM. Simulate these events at all remaining test LFs. **(T-3)**.

4.9.5.1. At least one launcher closure door will be activated every other year.

4.9.5.1.1. When a launcher closure door is activated, the MW will construct an arresting barrier IAW SELM T.O. to restrain the launcher closure door at the activated LF. **(T-0)**.

4.9.5.1.2. Simulate launcher closure door activation at all remaining test LFs.

4.9.5.2. Critical leads disconnect, guidance and control umbilical release and retract, and missile suspension articulating arms will normally be activated at two LFs per test and will be directed in the TEI. These events are simulated at all other test LFs.

4.9.5.3. Do not expend MGS batteries during SELM tests unless specifically directed by the TEI. Remove MGS batteries from all test LFs. The portion of Terminal Countdown (TCD) which normally occurs on airborne power will take place using a ground power source allowed by SELM MGS battery by-pass procedures. If actual activation of the MGS battery is directed by the TEI, remove expended MGS battery from the MGS, place it in an approved storage container, and await disposition instructions from AFNWC/NM.

4.9.5.4. For Part III increments evaluating LFs operating on emergency power accomplish the following procedures:

4.9.5.4.1. Place LFs in the LF emergency power mode IAW the appropriate SELM T.O. Do not allow LF to be left on emergency power in excess of the T.O. 21M LGM30F-102 system emergency survivability period for any reason. During test activities, do not allow the batteries to discharge below T.O. limits. **(T-0)**.

4.9.5.4.2. After the LF is placed on emergency power, accomplish an initial and then hourly storage battery output voltage check IAW appropriate SELM T.O. **(T-0)**. Additionally, accomplish a storage battery output voltage check immediately prior to execution and just after TCD. The TSD will contain necessary steps to verify the LF is on emergency power and for an on-site TET to report voltage readings at prescribed times.

4.9.6. Do not accomplish critical commands until all SELM teams are in the following positions **(T-2)**:

4.9.6.1. Safety, security forces, and other support personnel as directed by the TSD.

4.9.6.2. TETs:

4.9.6.2.1. At test LFs where ordnance is being activated and the launcher closure door is being simulated, a TET is required either topside or in the LER.

4.9.6.2.2. At test LFs where ordnance is being activated and the launcher closure door is being activated, a TET is required. TETs will ensure all personnel, including the TET, exit LF fenced areas and maintain site security from the LF access road.

4.9.6.2.3. At test LFs where all ordnance is being simulated, a TET is not required.

4.9.6.2.4. An additional TET will be in place within the host squadron AOR.

4.9.6.3. QRMs: One Pen-qualified maintenance team at each non-host squadron AOR.

4.9.7. The MW/CC or designated representative and 377 TEG/CC or designated representative will coordinate decisions to hold, reschedule, or continue the test when:

4.9.7.1. Nuclear surety, missile, or occupational safety will be compromised.

4.9.7.2. Test activities will interfere with the wing mission in support of Operational Plans (OPLANs).

4.9.7.3. Category I, Category II, or special test objectives cannot be accomplished.

4.9.8. The TSM and TM will coordinate/reschedule activities associated with any delay. All actions having reference to the SELM T.O. will be mandatory regardless of whether they are routine or emergency. Comply with TSD detailed instructions for emergency actions to be performed.

4.9.9. Following the simulated launch of each test LF, TETs will accomplish the following actions:

4.9.9.1. At test LFs where ordnance was expended, TETs will make a Quick-Look inspection of SELM test equipment and the test LF IAW SELM T.O.s to determine TCD success. (T 2) Immediately report out of tolerance conditions either from SELM test set printouts or visual inspections of hardware (e.g., ordnance devices or weapon system hardware) to the TSM. Do not take further action, except in an emergency, until TSM direction is received.

4.9.9.2. At test LFs where all ordnance is being simulated TETs will retrieve SELM Test Set printouts and conduct a Quick-Look inspection within 24 hours of TCD and prior to initiation of another test day.

4.9.10. TSM and TM will coordinate to submit a SELM Terminal Countdown Report (**Attachment 12**) after each test day is complete. **(T-3)**.

4.10. Anomaly or Failure Analysis.

4.10.1. Unless jointly waived by the MW/CC and 377 TEG/CC or their designated representatives, immediately implement an anomaly/failure analysis for failure to achieve test objectives due to hardware/software anomalies, for countdown aborts or for significant anomalies occurring during Part III (SELM Launch Demonstration). The MW/CC and 377 TEG/CC may also implement an anomaly/failure analysis for significant anomalies occurring during Parts I, II and IV. SELM anomalies and the details of the investigation are classified IAW the ICBM SCDG. If the MW/CC and 377 TEG/CC cannot agree on implementing anomaly/failure analysis, AFGSC/A3T will make the determination.

4.10.1.1. The anomaly or failure analysis will in no way infringe upon the requirements of or relieve responsibility for accident/incident investigation and reporting IAW DAFI 91-204 and AFGSC alternate reporting guidelines. **(T-2)**.

4.10.1.2. The AAT will consist of, at a minimum, the host SQ/CC, TSM, TM, MNX Officer, SELECT, 377 TEG/CC or rep, MW Missile Safety Officer, MW AFNWC

Technical Engineering, Chief, Quality Assurance, Chief, Standardization/Evaluation, Chief, Operations Training, AFGSC Representative, 20 AF Representative, AAMT, and any other personnel deemed necessary.

4.10.2. The MW/CC and 377 TEG/CC or their designated representatives share joint responsibility for the investigation of any test objective failure, countdown abort, or significant anomaly. Assistance from the on-site SELECT personnel is mandatory for investigation of Part III failures/anomalies. If required, request SELECT assistance for Part I, II or IV anomalies.

4.10.3. For anomalies occurring during Part III, the TSM or TM will dispatch the AAMT to the anomalous LF and convene the AAT. **(T-2)**.

4.10.3.1. The AAT will form in the SELM test command post or another location with access to the SELM countdown net and develop a preliminary investigation plan. **(T-3)**. This plan will include the following:

4.10.3.1.1. A preliminary plan for maintaining and returning the site to a safe configuration and maintaining site integrity.

4.10.3.1.2. An outline of on-site investigation actions and how the investigation will proceed.

4.10.3.2. The AAMT will consist of, at a minimum, AFNWC-OL Technical Engineering and QA.

4.10.3.3. Upon AAMT arrival at the site, the TSM or TM will provide the team with preliminary instructions for maintaining site integrity and gathering status IAW the Anomaly Analysis Section of the TSD. **(T-2)**.

4.10.3.4. Do not enter test LFs or LCCs evacuated for safety reasons until approval for safe entry is declared according to provisions of the SELM T.O.s. **(T-2)**.

4.10.3.5. Should an anomaly occur which requires extensive depot analysis, the AAT investigation will proceed up to a point where a formal request for AFNWC/NM assistance is required.

4.10.4. Upon determining that an anomaly was not caused by SELM equipment or test procedures, accomplish the following:

4.10.4.1. Impound the site for detailed investigation. The on-site Team Chief or MW/CC designated representative will restrict entry to the LF to personnel specifically assigned, approved, and trained to conduct anomaly analysis.

4.10.4.2. During anomaly analysis do not alter site configuration unless mandated by HHQ guidance, Weapon System Safety Rules, or T.O.s. **(T-2)**.

4.10.4.3. Any components identified as a possible cause of an anomaly will be tested on site IAW applicable T.O. guidance, SELECT approved procedures, or removed from site for engineering analyses. **(T-2)**.

4.10.4.4. Components removed from an anomaly site will be segregated from operational weapon system components until final disposition instructions are received from AFNWC via the ETAR process. **(T-2)**. Ensure no classified information is entered into the ETAR system.

4.10.4.5. Once the AAT informs the TM that they have completed their anomaly investigations, the TM and TSM will convene an Anomaly/Failure Investigation termination meeting or teleconference. Attendees will, at a minimum consist of the AAT, AFGSC/A3TT, AFGSC/A4B and 20 AF/A3/6/A4. The MW/CC and 377 TEG/CC jointly retain final decision authority to release sorties from an anomaly investigation.

4.10.4.5.1. The Anomaly/Failure Investigation termination meeting will cover topics deemed pertinent by the MW/CC or 377 TEG/CC.

4.10.4.5.2. This includes but is not limited to the following topics

4.10.4.5.2.1. Possible root causes identified by the AAT.

4.10.4.5.2.2. Actions taken by the AAT to isolate the anomaly.

4.10.4.5.2.3. Results of the AAT investigations.

4.10.4.5.2.4. Actions required to return the site to an operational configuration.

4.10.4.5.2.5. Timeline for any associated engineering analysis.

4.10.4.5.2.6. Poll of stakeholder's concurrence to return the LF(s) to OPLAN 801X alert.

4.10.5. The MW/CC and 377 TEG/CC or their designated representatives may impound hardware to formally evaluate anomaly indications or failures, as required.

4.10.6. The AAT will assist in preparing a SELM Anomaly Analysis Report (**Attachment 13**) detailing results of its investigation. The report will cover all events, analysis results and recommendations resulting from the investigation. If necessary, the Anomaly Analysis Report will contain a statement that further analysis is being conducted by AFNWC/NM.

4.10.6.1. Document all anomalies experienced during any portion of the SELM test in the Performance Report.

4.10.6.2. The AAT and/or AFNWC/NM will provide inputs to this report, or publish a separate report, when their investigation is completed.

4.10.7. The fact that an anomaly occurred is UNCLASSIFIED. However, classify details of an anomaly or the results of an anomaly according to appropriate classification guides. **(T-0)**.

4.11. Part IV – EWO Reposturing.

4.11.1. Part IV begins when all Part III and anomaly analyses events are completed.

4.11.2. QA, along with any other personnel deemed necessary by Chief, QA will evaluate each test LCC and LF IAW the SELM T.O. and this instruction prior to returning sortie to strategic alert. This team will verify **(T-2)**:

4.11.2.1. Removal of all SELM test equipment and cabling.

4.11.2.2. Proper un-safing of applicable AVE.

4.11.2.3. Proper MGS and MGS to RS cabling configuration.

4.11.2.4. Missile safing pins are removed.

4.11.2.5. Proper installation of RS/RVs and removal of SELM spacer at the test LFs.

4.11.2.6. Removal of I-Box isolators and proper I-Box configuration at the test LFs and test LCCs.

4.11.2.7. All test codes/components replaced with operational codes/components at the test LFs and LCCs.

4.11.3. Return CEIUs to pre-test configurations. **(T-3)**.

4.11.4. EWO reposture test facilities to alert IAW JPICS. **(T-0)**.

4.11.5. Remove SELM equipment from the facilities, place in their proper containers, and return to TSM's representative. Place equipment in the MTU or other secure storage area.

4.11.5.1. An AFNWC/NM representative and TSM's representative will jointly inventory all equipment when it is returned to the support base after test week. With a correct inventory, the TSM's representative will turn over MTU keys to an AFNWC/NM representative. Both representatives will sign and date the DD Form 1149.

4.11.5.2. The maintenance squadron equipment section, upon notification, will comply with shipping instructions from AFNWC/NM.

4.11.5.3. The Missile Wing is responsible for lost and/or damaged SELM equipment. Use existing directives to seek relief for property lost or damaged while under AFGSC control.

4.11.5.4. The local base transportation officer will ship loaded MTUs after instructions for shipping are received from an AFNWC/NM representative.

4.11.5.5. Submit a SELM Status Report (**Attachment 10**) after all test facilities are EWO repostured.

4.12. Funding.

4.12.1. Non-AFGSC organizations will determine the means of internal budgeting/funding required to support this program. **(T-0)**. Expenditure of funds by AFNWC/NM in support of SELM will be IAW provisions of applicable Minuteman program management directives. **(T-0)**.

4.12.2. Project Code 244 will be used for all operation and maintenance funds obligated in support of the SELM program. This includes costs incurred to participate in 377 TEG TSD Dry Run.

4.12.3. The unit will fund all depot level reparable (DLR) cost incurred from SELM test from their unit DLR account. **(T-2)**.

4.13. Reporting.

4.13.1. Reporting is essential for effective SELM program management as well as for accurate evaluation of weapon system performance. Reporting requirements encompass the status of program events and detailed information following completion of each event.

4.13.2. SELM Status Report (**Attachment 10**).

4.13.2.1. SELM Status Report is used to report the results and completion of Part I (Alert Readiness Tests), Part II (SELM Configuration), and Part IV (EWO reposture). The TM and TSM will transmit this report within 24 hours of completion of Part I, II, or IV.

4.13.2.2. Part I results will contain the ART results for each test sortie by test type (i.e., Enable Test, Missile Test, SCNT). The TSM and TM will score test results using the following criteria:

4.13.2.2.1. SUCCESSFUL (S). LF successfully completed designated weapon system test with no anomalies noted.

4.13.2.2.2. SUCCESSFUL WITH ANOMALY (SA). LF successfully completed designated weapon system test with any anomaly noted which will not prevent launch.

4.13.2.2.3. FAILURE (F). LF failed designated weapon system test with anomaly that would prevent launch.

4.13.2.2.4. NO TEST (NT). LF was not tested due to it being off alert at time of test or T.O. restrictions prevented specific test.

4.13.2.3. The Part II and IV reports will provide the Zulu date time group that each facility was SELM configured or EWO repostured. Submit these reports after the last test facility is configured for SELM alert, and when the last sortie is EWO repostured, respectively.

4.13.2.4. SELM Status Reports will be UNCLASSIFIED and must not contain any data on causes of failures or failed components. Provide a description of abnormal indications, hardware/software anomalies or test failures in a SECRET follow-up report.

4.13.3. SELM Terminal Countdown Report (**Attachment 12**).

4.13.3.1. This is used to report results of the Part III Launch Demonstration on each of the ground and airborne test days. The TSM and 377 TEG TM will transmit each report within 12 hours of each test day completion.

4.13.3.2. The report will identify commit time, method of commit, LF committed TCD time, results by increment, and POC. The TSM and TM will score test results using the following criteria:

4.13.3.2.1. SUCCESSFUL (S). Sortie successfully completed all critical commands and TCD with no anomalies noted.

4.13.3.2.2. SUCCESSFUL WITH ANOMALY (SA). The ALCS, LCC and LF successfully completed all critical commands and TCD with anomaly noted that would not prevent launch or sortie successfully completed all critical commands and TCD.

4.13.3.2.3. FAILURE (F). The ALCS or LCC failed to correctly process and send critical commands to test LF with anomaly that would prevent launch or the LF failed to correctly process a critical command or TCD with anomaly that would prevent launch **Exception:** UHF Radio Drawer failures will be scored as SAs.

4.13.3.2.4. NO TEST (NT). Sortie was not tested or test failure was caused by test equipment.

4.13.3.2.5. TO BE DETERMINED (TBD). Score is not available due to ongoing anomaly investigation.

4.13.3.3. This report is UNCLASSIFIED and only indicates results for each test increment. Do not identify any causes of failure or failed components. Follow-up with classified SELM Anomaly Analysis Report, if required.

4.13.4. SELM Anomaly Analysis Report (**Attachment 13**).

4.13.4.1. The TSM and TM, with AFNWC/NM coordination will submit this report to detail results of an AAT investigation. The report is mandatory for any countdown abort or any anomaly occurring during Part III. It is also required anytime the AAT is formed to investigate any Part I, II or IV anomaly. Classify this report IAW the ICBM SCDG. **(T-0)**.

4.13.4.2. The report will identify test, unit, anomaly site, classification of anomaly, date and time of anomaly, test increment during which the anomaly occurred, anomaly description, test synopsis, anomaly analysis, action taken, impact of indications, recommendations, conclusions, and POC.

4.13.5. SELM Performance Report. Reports will be IAW AFGSC/A3TT approved format and include an Executive Summary and cover test objectives, significant test issues, configuration, performance data, and a recommendation for LCC and LF scoring consistent with guidance in AFI 99-103. **(T-0)**.

4.13.6. SELM Expense Report (**Attachment 14**).

4.13.6.1. This report is used to detail Missile Wing expenses incurred by conducting a SELM test and forms the basis for unit reimbursement of these expenses by AFGSC/A4P. The TSM will submit a SELM Expense Report to AFGSC/A4P, with a courtesy copy to AFGSC/FMA, within 90 days from completion of test for determination of unit reimbursement. **(T-3)**. A4P will validate expenses and will reimburse unit based on availability of funds.

4.13.6.2. The SELM Expense Report will list all test expenses incurred by EEICs.

Chapter 5

SOFTWARE OPERATIONAL TESTING

5.1. General. This chapter specifically covers testing of software changes for Higher Authority Communications/Rapid Message Processing Equipment (HAC/RMPE), Console Operating Program (COP), and Minuteman Minimum Essential Emergency Communication Network Program (MMP) sustainment as required for Operation Plan (OPLAN) changes, routine operating system upgrades, and identified system deficiencies. SOT validates these software modifications and improvements, identifies operational deficiencies, and ensures proper baseline system operation following software modification. Unless otherwise directed by AFGSC/A3TT, SOT refers to HAC/RMPE, COP, and MMP software updates only. The SOT key event flow is contained in **Attachment 15**.

5.1.1. HAC/RMPE modifications typically occur every six months. Changes to the HAC/RMPE programming are made via Air Force IMT1067 Modification Proposals that are validated, prioritized, and approved for testing by a semi-annual Operations Control Board (OCB).

5.1.2. COP modifications take place on a revolving biennial cycle to add or remove functionality and fix errors in the COP. Changes to the COP programming are made via Operational Software Change Requests that are validated, prioritized and approved by a biennial OCB that is separate from the HAC/RMPE OCB.

5.1.3. MMP modifications occur as needed to add or remove functionality and fix programming errors. Changes to the MMP software are made via Air Force IMT1067 Modification Proposals that are also vetted at an OCB.

5.2. Responsibilities.

5.2.1. AFGSC/A3T will: Co-Chair the OCB for Missile Procedures Trainer (MPT)/Minuteman Enhanced Procedures (MEP)/ALCS Procedures Trainer (APT) as applicable.

5.2.2. AFGSC/A3O will:

5.2.2.1. Chair the OCB.

5.2.2.2. Through the OCB, validate, prioritize, and forward approved AF Forms 1067, *Modification Proposals,* and Operational Software Change Requests to the 576 FLTS NLT 170 days prior to SOT.

5.2.2.3. Make final fielding decision on whether the software is ready for field deployment IAW AFGSCI 13-5306, *Intercontinental Ballistic Missile (ICBM) Software Procedures*.

5.2.2.4. Function as command lead for COP, HAC/RMPE and MMP.

5.2.2.5. Function as the office of primary responsibility for the Concept of Software Support (CSS).

5.2.2.6. Provide funding for HAC/RMPE changes and program requirements.

5.2.3. AFGSC/A3TT will:

5.2.3.1. Participate in the OCB.

5.2.3.2. Attend SOT test execution and provide support, as required.

5.2.4. 377 TEG will:

5.2.4.1. Coordinate with support agencies to ensure all test assets and sites are prepared for testing.

5.2.4.2. Participate in the OCB and TIMs, as required.

5.2.4.3. Participate in DT&E events, as applicable.

5.2.4.4. Develop and coordinate a TP, TEI, and test execution procedures (TEP) for each SOT.

5.2.4.5. Conduct SOT.

5.2.4.6. Coordinate with 20 AF/A3NK, USSTRATCOM/J37, and 625 STOS to request necessary test message support.

5.2.4.7. Request FDMs from the 625 STOS using the FDM Request Summary Sheet NLT 5 days prior to test date.

5.2.5. 20 AF will:

5.2.5.1. Assign a project officer as primary POC for coordination and review of SOT.

5.2.5.2. Observe OT to determine if the software satisfies user requirements.

5.2.5.3. Coordinate live communication test message reception and transmission requests between 377 TEG and Missile Wings (e.g., Strategic Automated Command Control System (SACCS) messages).

5.2.5.4. Provide a CMR TF from Missile Wing per the TEI.

5.2.5.5. Provide training on any new crew procedures, requirements, or operational documentation changes related to the software changes being tested to the TF prior to SOT.

5.2.5.6. Provide DT&E community and 377 TEG with all required new or updated documents to support testing.

5.2.6. 625 STOS will:

5.2.6.1. Develop and transmit test-specific Force Direction Messages as requested by 377 TEG in support of SOT.

5.2.7. USSTRATCOM has agreed to:

5.2.7.1. Have USSTRATCOM/J37 assign a project officer as the primary point of contact for coordination and review of SOT.

5.2.7.2. Have USSTRATCOM/J37 provide E-6B airborne communication support during live communications portion of MAF checkout, test dry run and SOT.

5.2.7.3. Have USSTRATCOM/J37 provide current training decode documents to the 377 TEG or SMIC, as required, in support of SOT.

5.2.8. AFNWC/NM has agreed to:

5.2.8.1. Maintain and provide a functional LCC, MGS lab, LF, test equipment and maintenance support for tests conducted at Hill AFB, UT.

5.2.8.2. Coordinate the schedule and changes for all DT&E events with the 377 TEG.

5.3. SOT Objectives. SOT ensures that software and hardware changes to the HAC/RMPE, COP, and MMP system are operationally effective and suitable for use in an operational LCC and to ensure changes did not inadvertently affect functionality. These tests take place in an operationally representative environment and focus on exercising the systems under test to the maximum extent possible. SOTs provide an independent evaluation of modifications, improvements, and performance of the software and supporting systems.

5.4. Testing Procedures. SOT procedures will be contained within the TEP. The TEP will be designed to evaluate software's performance as mandated in HQ Air Force and USSTRATCOM requirements, software specifications, Emergency Action Procedures, T.O.s, manuals, and other documents that drive software performance parameters. SOT procedures will contain anomaly analysis procedures to provide a framework for responding to any anomalies encountered in the SOT. Test procedures may refer testers to other published documents or may provide integrated step-by-step procedures compiled from those documents. At a minimum, TEP will be robust enough to ensure safe and effective test execution, adequate documentation and repeatability to facilitate anomaly analysis.

5.5. Reporting.

5.5.1. Quick Look Report. The 377 TEG will provide a Quick Look report (**Attachment 17**) within 12 hours of test completion. This report includes test activities, initial results, and an explanation for test activities not conducted, and is classified IAW the ICBM SCDG. If an anomaly occurs or is confirmed, an Anomaly Analysis Report (**Attachment 21**) will be released as soon as practical.

5.5.2. Performance Report. Performance reports will be formatted IAW AFGSC/A3TT approved format and include an Executive Summary and covers test objectives, significant test issues, configuration, performance data, anomalies, suggestions for improvements, and a fielding recommendation. All findings will be reported in detail, consistent with guidance in DAFI 99-103, to include an assessment of impact to the fielded force. Recommendations will be given for urgency of corrective actions (e.g., emergency or routine T.O. change).

5.5.2.1. HAC/RMPE SOT Performance Report. The 377 TEG will provide a final report (**Attachment 16**) within 14 days of test completion.

5.5.2.2. This report will be truncated compared to standard performance reports in order to support fielding timelines. It will include all significant test issues (if any), current 1067s, MOPs to include MOEs and MOSs, and a final assessment of impact to the fielded force. A score of MET/NOT MET will be listed along with additional information for each MOP/MOE/MOS. This report will only be used in the case of HAC/RMPE testing due to the condensed timeline before fielding.

5.6. Identifying Anomalies, Improvements and Revisions.

5.6.1. Anomalies, improvements, and revisions identified during SOT will be documented by the 377 TEG on the appropriate Air Force or AFGSC form and submitted for 20 AF or AFGSC review, approval, and prioritization.

Chapter 6

WEAPON SYSTEM TESTS

6.1. General. The alert readiness of deployed ICBMs is verified by WSTs, which include OLYMPIC PLAY tests, GIANT BALL tests, and HSEP testing.

6.2. OLYMPIC PLAY. The OLYMPIC PLAY program gathers MM III reliability data by evaluating the LF and LCCs responses to a series of weapon system commands and interrogations. This reliability data is used to develop planning factors and aids the Weapon System Aging and Surveillance program.

6.2.1. Responsibilities.

6.2.1.1. AFGSC will: Serve as the overall manager of the OLYMPIC PLAY program.

6.2.1.2. AFGSC/A3TT will:

6.2.1.2.1. Provide policy, guidance, and oversight for the OLYMPIC PLAY program.

6.2.1.2.2. Review test results for use as appropriate to develop the estimate of weapon system reliability for planning.

6.2.1.2.3. Review test results at the Reliability Scoring Panel (RSP) to identify specific missile and launch support equipment failures, identifies corrective actions, and detect trends which could impact future WSR rates.

6.2.1.2.4. Serve as the final wavier authority if Wings cannot participate in OLYMPIC PLAY

6.2.1.3. 377 TEG will:

6.2.1.3.1. Accomplish reporting for OLYMPIC PLAY testing to include publishing OLYMPIC PLAY Quarterly Reports as directed by this instruction.

6.2.1.3.2. Coordinate and implement OLYMPIC PLAY policy and procedures.

6.2.1.3.3. Collect and review MW OLYMPIC PLAY test results and Sortie Effectiveness Reports for accuracy, completeness, and timeliness.

6.2.1.3.4. Appoint an OLYMPIC PLAY Monitor and Alternate as the single point of contact for OLYMPIC PLAY matters. Notify AFGSC/A3TT/A4B, 20 AF, and MWs of these appointments. Include in notification: name, grade, office symbol, and duty phone number.

6.2.1.3.5. Collect Missile Wing OLYMPIC PLAY MFR giving reasons why Operational Wings cannot execute OLYMPIC PLAY.

6.2.1.4. 20 AF will:

6.2.1.4.1. Assist the MWs with OLYMPIC PLAY reporting and review the reports for accuracy, completeness, and timeliness.

6.2.1.4.2. Appoint an OLYMPIC PLAY Monitor and Alternate as the POC for OLYMPIC PLAY matters. Notify AFGSC/A3TT/A4B, 377 TEG, and MWs of these

appointments. Include in the notification the name, grade, office symbol, and duty phone number of the POC.

6.2.1.5. MWs will:

6.2.1.5.1. Schedule OLYMPIC PLAY tests in conjunction with T.O. 21M-LGM30F-6, *Scheduled Inspection and Maintenance Requirements – Missile Weapons Systems*.

6.2.1.5.2. Conduct OLYMPIC PLAY tests according to WSSRs, current AFGSC safety directives, appropriate T.O.s, and this instruction.

6.2.1.5.3. Train MCMs on OLYMPIC PLAY procedures.

6.2.1.5.4. Develop procedures to ensure OLYMPIC PLAY tests are conducted in a minimum amount of time consistent with safety and existing operating priorities.

6.2.1.5.5. Report results of OLYMPIC PLAY tests as directed by this policy and guidance. Report results of all OLYMPIC PLAY tests to 576 FLTS/DOA.

6.2.1.5.6. Appoint a primary and alternate OLYMPIC PLAY monitor as single point of contact for OLYMPIC PLAY matters. Notify AFGSC/A3TT/A4B, 20 AF/A3N/A4I, and 377 TEG of these appointments. Include in the notification the name, grade, office symbol, and duty phone numbers of the POC. OLYMPIC PLAY monitors must be knowledgeable of test requirements, reporting procedures and have access to this policy and guidance. The OLYMPIC PLAY monitor is responsible for the following:

6.2.1.5.6.1. Scheduling and conduct of OLYMPIC PLAY tests as required by this instruction.

6.2.1.5.6.2. Coordinate with AFNWC/NM-OL Technical Engineering to determine appropriate LF scoring following an OLYMPIC PLAY anomaly. LFs will be scored according to rules in OLYMPIC PLAY Reporting Section of this instruction.

6.2.1.5.6.3. Submit OLYMPIC PLAY Results Report within three duty days of test completion.

6.2.1.5.6.4. Ensure AFNWC Technical Engineering OL accomplishes OLYMPIC PLAY Sortie Effectiveness Reports within five duty days from resolution of the anomaly for all anomalies occurring during OLYMPIC PLAY tests.

6.2.1.5.6.5. Maintain file copies of all OLYMPIC PLAY test results until receipt of the OLYMPIC PLAY Quarterly Report for that period.

6.2.1.5.6.6. Provide rationale in MFR format to 377 TEG on why OLYMPIC PLAY could not be executed.

6.2.1.6. AFNWC/NM has agreed to:

6.2.1.6.1. Conduct an analysis of each OLYMPIC PLAY anomaly.

6.2.1.6.2. Technical engineering will submit a Sortie Effectiveness Report to the 377 TEG OLYMPIC PLAY monitor with copies to AFGSC/A3TT/A4B, 20

AF/A3TT/A4M, and 377 TEG detailing anomaly analysis results within five workdays of an LF being returned to alert or resolution of anomaly.

6.2.2. OLYMPIC PLAY Objectives. The objective of OLYMPIC PLAY testing is to gather fleet-wide performance and launch reliability data about the MM III weapon system in its deployed environment without breaking operational configuration to install test equipment or instrumentation. This data aids in the development of planning factors for MM III reliability and informs the Weapon System Aging Surveillance Program.

6.2.3. OLYMPIC PLAY Procedures.

6.2.3.1. Units must conduct OLYMPIC PLAY tests once a month for each missile squadron.

6.2.3.2. The tests will be documented in weekly operations and maintenance schedules/plans.

6.2.4. OLYMPIC PLAY Test Conduct.

6.2.4.1. An OLYMPIC PLAY Test Initiation Message will initiate OLYMPIC PLAY tests. In place of OLYMPIC PLAY Test Initiation Messages, the MC may perform OLYMPIC PLAY when directed by WCP in conjunction with a valid authentication.

6.2.4.2. OLYMPIC PLAY Test Initiation Messages will be transmitted clear text by any means available. Test Initiation Messages may be addressed to wings, groups, squadrons, flights, individual missiles, or a combination thereof. The message will contain appropriate addressing, test identifier (OLYMPIC PLAY), a reference time, and authentication.

6.2.4.3. The OLYMPIC PLAY Test Initiation Message authorizes MCs to conduct an OLYMPIC PLAY test.

6.2.4.4. The unit conducts an OLYMPIC PLAY test by performing weapon system tests, interrogations, and commands listed in **Attachment 17**. The sequence of testing may be determined locally unless required by T.O. or safety constraints. For scoring purposes, the test consists of only interrogations, commands, and responses and does not include any time between test segments.

6.2.4.5. Initiate all required weapon system tests, interrogations, and commands to each LF on alert at test initiation. Conduct the OLYMPIC PLAY test with minimum delay consistent with existing operating priorities.

6.2.4.6. Do not remove LFs from alert after test initiation unless the LF is exempted by **paragraph 6.2.5** below, until after test is complete.

6.2.4.7. Conduct all OLYMPIC PLAY activities according to existing WSSRs, current AFGSC safety directives, appropriate T.O.s, and this instruction.

6.2.4.8. A sortie which is undergoing active maintenance, but not listed as an exemption, will be tested in accordance with applicable directives. Remaining tests will be conducted upon maintenance completion.

6.2.5. Test Exemptions include LFs with missile, ground support equipment, or real property installed equipment undergoing:

6.2.5.1.

6.2.5.1.1. Major modifications.

6.2.5.1.2. Engineering change proposals.

6.2.5.1.3. Time compliance T.O. changes.

6.2.5.1.4. Master change log modifications affecting alert status.

6.2.5.1.5. LFs identified for OTL, SELM, HSEP or special ground tests.

6.2.5.1.6. LFs being reported as off-alert at test initiation.

6.2.5.1.7. LFs scheduled for retargeting where OLYMPIC PLAY testing will delay completion of retargeting actions beyond the effective time of the JPIC.

6.2.5.1.8. LFs returned to alert after reference time specified in the Test Initiation Message.

6.2.6. Reporting.

6.2.6.1. OLYMPIC PLAY Results Report.

6.2.6.1.1. The Missile Wing OLYMPIC PLAY monitor submits this report to 377 TEG OLYMPIC PLAY monitor with copies to AFGSC/A3TT/A4B and 20 AF/A3TT/A4M within three duty days of test completion and formatted IAW **Attachment 19**.

6.2.6.1.2. Each LF will be scored using the following criteria:

6.2.6.1.2.1. SUCCESSFUL (S). LF successfully completed OLYMPIC PLAY with no anomalies noted.

6.2.6.1.2.2. SUCCESSFUL WITH ANOMALY (SA). LF successfully completed OLYMPIC PLAY with an anomaly noted which would not prevent launch.

6.2.6.1.2.3. FAILURE (F). LF failed OLYMPIC PLAY with an anomaly that would prevent successful launch on any strategic target.

6.2.6.1.2.4. NO TEST (NT). LF was not tested.

6.2.6.1.3. For sorties exhibiting anomalous responses to OLYMPIC PLAY commands or interrogations technical engineering personnel will evaluate all pertinent data to determine if the sortie would have been able to accomplish its mission against strategic targets. Scoring will only be accomplished for responses that can be attributed to OLYMPIC PLAY commands or interrogations. Unrelated responses that are coincidental in timing will not result in sortie failure and will not be considered a part of OLYMPIC PLAY. A sortie will be scored based on the initial response to a command or interrogation regardless of responses to subsequent fault flow actions and annotated using an OLYMPIC PLAY Sortie Effectiveness Report **(Attachment 18)**.

6.2.6.2. OLYMPIC PLAY Quarterly Report. 576 FLTS/DOA will compile the MWs' OLYMPIC PLAY results into one report that will be formatted IAW **Attachment 20** and published within 15 duty days of the end of each quarter.

6.3. GIANT BALL Testing. AFGSC/A3TT and 20 AF/A3/6 track reports from 625 STOS and deficiencies for Air Force equipment. Deficiencies identified with aircraft communications equipment are tracked by the United States Navy.

6.3.1. Responsibilities.

6.3.1.1. AFGSC/A3TT will:

6.3.1.1.1. Review GIANT BALL test reports for MW deficiencies.

6.3.1.1.2. Review and analyze test results for use as appropriate.

6.3.1.2. 625 STOS will:

6.3.1.2.1. Coordinate GIANT BALL dates, times, and crew lists with appropriate organizations to deconflict with the ITF and aircraft and aircrew limitations. 625 STOS is the scheduling authority for GIANT BALL tests.

6.3.1.2.2. Provide a GIANT BALL test report to AFGSC/A3TT, AFGSC/A4B and 20 AF/A3/6 which includes command sequence, an ALCS Operational Test Summary for transmitter verifications, and planning and preparation for test.

6.3.1.2.3. Provide ALCS mission scheduling information, as required.

6.3.2. GIANT BALL Objectives. GIANT BALL tests verify operability of UHF radios at the LCCs and LFs at each MW and the ALCS aboard the Navy E-6B.

6.3.3. Testing Procedures

6.3.3.1. GIANT BALL testing will be executed at least twice a month at each MW.

6.3.3.1.1. During GIANT BALL tests, Launch Facility Radio Tests (LFRTs) will be sent to each LF with a repeat test to each squadron that had exceptions during the first test sequence. A UHF voice communication poll is conducted simultaneously with the LFRT, attempting to establish voice communications with each of the LCCs.

6.3.3.2. ALCS relay capability will be tested at least twice annually. This capability will either be tested as part of a regularly scheduled GIANT BALL test, during SELM, or as its own separate, dedicated test.

6.4. Hardness Surveillance EMP Program (HSEP) Testing. HSEP is an annual test that assesses the EMP hardness of LF and MAFs as well as modifications to those facilities. HSEP is capable of testing three different environments: High Altitude EMP (HEMP), Source Region EMP (SREMP) from near neighbor attack, and SREMP from direct attack.

6.4.1. Responsibilities.

6.4.1.1. AFGSC/A3/6 will:

6.4.1.1.1. Approve Implementation Management Plans (IMP) for HSEP testing.

6.4.1.2. AFGSC/A3T will:

6.4.1.2.1. Participate with AFNWC/NM in anomaly/failure analysis to include resolving test related problems.

6.4.1.3. AFGSC/A3TT will:

6.4.1.3.1. Coordinate on the IMP for HSEP testing.

6.4.1.3.2. Coordinate with AFNWC/NM before authorizing testing of mis-configured systems that may lead to equipment damage. AFGSC/A3TT is the final authority to approve testing of misconfigured sites.

6.4.1.3.3. Coordinate with USSTRATCOM/J3 and SPO in resolving anomalies, discrepancies, and degrades discovered by HSEP.

6.4.1.3.4. Review HSEP test results at ICBM Survivability Program Review (ISPR). Review test results that may have a WSR impact at the RSP.

6.4.1.4. AFGSC/A3C will:

6.4.1.4.1. Provide oversight on EMP/HM/HS testing.

6.4.1.4.2. Coordinate on EMP/HM/HS test reports.

6.4.1.5. AFGSC/A4B will:

6.4.1.5.1. Coordinate on the IMP for HSEP testing.

6.4.1.5.2. Coordinate with MWs to ensure all parts are on station prior to need date of selected test.

6.4.1.5.3. Monitor status of the High Priority Mission Support Kits (HPMSK) and work with A4R to resolve discrepancies prior to need date.

6.4.1.6. 20 AF will:

6.4.1.6.1. Coordinate on the IMP.

6.4.1.6.2. Identify the LFs and MAFs for HSEP testing at the MW identified in the ITF (T-2).

6.4.1.6.2.1. May delegate site selection to the MW at the discretion of 20 AF/CC.

6.4.1.7. AFNWC/NM has agreed to:

6.4.1.7.1. Function as the lead command and provide an AFNWC/NM Single Manager (Host Wing Rivet Mile) at the host missile wing.

6.4.1.7.2. Function as the focal point for coordinating among all agencies and have responsibility for all test activities.

6.4.1.7.3. Provide contractor interface with the host missile wing.

6.4.1.7.4. Monitor all phases of the work effort related to HSEP.

6.4.1.7.5. Ensure AFNWC/NM Single Manager monitors the General Dynamics (GD) safety program, which includes nuclear system safety and personnel safety during the technical activity.

6.4.1.7.6. Provide support services for this testing.

6.4.1.7.7. Provide Government Furnished Equipment (GFE) as defined in the contract.

6.4.1.7.8. Monitor performance of the tests to ensure the adequacy of the system configuration control.

6.4.1.7.9. Coordinate with AFGSC/A3TT and host wing staff before authorizing testing of misconfigured systems that may lead to equipment damage. AFGSC/A3TT is the final authority to approve testing of misconfigured sites.

6.4.1.7.10. Provide program findings to the ICBM Systems Engineering Office responsible for nuclear hardness (and if that office so designates, to their contractor support) which in turn will provide data analysis and assessment to interpret trends within the weapon system.

6.4.1.7.11. Formally coordinate the Implementation Plan, Test Plan, and Test Procedures with identified MW, 20 AF/A3TT/A4, AFNWC, AFGSC/A3TT/A4B, NLT 1 October of the year preceding test, and provide the host MW with an in brief prior AFGSC and provide the MW with an in-brief prior to testing.

6.4.1.7.12. To achieve HSEP test objectives, support 20 AF site selection activities with technical expertise, as required.

6.4.1.8. MW will:

6.4.1.8.1. Configure and isolate the test LFs and MAFs in accordance with the IMP.

6.4.1.8.2. If necessary, prepare for Hardened Intersite Cable (HIC) separation

6.4.1.8.3. If necessary, emplace the HIC extension cable.

6.4.1.8.4. If necessary, sever the HIC with the LF end terminated using a HIC extension cable and the MAF in the HIC Line Termination Device.

6.4.1.8.5. If necessary, restore the HIC Pressure System as needed.

6.4.1.8.6. Deliver the configured LFs and MAFs through AFNWC/NM Single Manager to GD on the Transfer Form DD 1149.

6.4.1.8.7. Perform Operational Ground Equipment (OGE), Maintenance Ground Equipment, and RPIE maintenance at the test LFs and MAFs as required to support the test program.

6.4.1.8.8. Provide Disaster Control response IAW the Base OPLAN, when requested by AFNWC/NM Single Manager. Support includes a Missile Response Cell Commander.

6.4.1.8.9. Appoint the PRP monitor/certifying official for the HSEP contractor and allow HSEP PRP personnel based at Hill AFB, UT who are assigned to the current MW being tested to be part of a two-man team by issuing them an AF Form 245 to be on file at KCCC and an AF Form 246 Dispatch. AFNWC/NM will coordinate and share with the current MW pertinent PRP information for Hill AFB, UT HSEP PRP personnel.

6.4.1.8.10. Be responsible for on-site safety, Two-Person Concept control, and site security before site acceptance by AFNWC/NM and after return to host MW.

6.4.1.8.11. Provide services and facilities in accordance with the base and MW support agreements.

6.4.1.8.12. Reposture the LFs and MAFs and restore the HIC in accordance with the applicable Deposture/Reposture procedures.

6.4.1.8.13. Perform checkout of operational and pre-instrumented drawers.

6.4.1.8.14. Perform checkout of agreed upon drawers following EMP tests.

6.4.1.8.15. If requested by AFNWC/NM, perform mishap, accident, incident investigation, and reporting IAW AFI 91-204 requirements when notified by AFNWC/NM Program Manager or associated contractor.

6.4.1.8.16. Provide tractors and driver support for transportation of the High Energy Pulse (HEP), Office Trailer, and Van 10.

6.4.1.9. HSEP Program Manager will:

6.4.1.9.1. Adhere to this plan in accomplishing the technical activity.

6.4.1.9.2. Manage the test being conducted and provide a Technical Director.

6.4.1.9.3. Provide AFNWC/NM Single Manager with a designated on-site representative for safety, security, and reporting procedures.

6.4.1.9.4. Designate the Site Supervisor as the Emergency Rescue Team Chief (ERTC) who will be trained in rendering first aid and in evacuation of incapacitated personnel.

6.4.1.9.5. Provide safety, security, fire protection, housekeeping, and sanitation in support of the on-site HSEP test activities.

6.4.1.9.6. Provide the procedures, personnel, and equipment to assure evacuation of incapacitated personnel if needed.

6.4.1.9.7. Prepare and maintain documents, drawings, and reports for HSEP activities.

6.4.1.9.8. Emplace, install, and maintain the equipment vans, site trailers, site communication system, test instrumentation, and recording systems.

6.4.1.9.9. Perform data acquisition, data handling, and processing as required for quick look evaluation of test results.

6.4.1.9.10. Provide a general HSEP safety briefing for personnel assigned to work at the site and to site visitors. This briefing may be given on site. All site personnel will receive safety instructions pertaining to their daily assignments.

6.4.1.9.11. Ensure that changes to the preplanned test effort are coordinated with the AFNWC/NM Single Manager or designated representative.

6.4.1.9.12. Provide support for mishap investigation as requested by the AFNWC/NM Single Manager.

6.4.1.9.13. Perform drawer instrumentation and visual inspections in accordance with electro-static discharge (ESD) requirements contained in T.O. 00-25-234, *General Shop Practice Requirements for the Repair, Maintenance and Test of Electrical Equip (ATOS)* and T.O. 21M –LGM30G-2-10, *Launch Facility and Support Building Procedures* (VSFB, Wing I, III, and V Integrated Program), USAF Series LGM30G Missile.

6.4.1.9.14. Maintain Two-Person Concept, Nuclear Weapons PRP, and COMSEC control in areas declared no-lone zones and all areas where critical components exist. Be responsible for providing weapon system security as well as establishing and maintaining controls. These procedures are detailed in HSEP Personnel Reliability Program Implementation Plan, which complies with DAFI 91-101, *Air Force Nuclear Weapons Surety Program,* and DoDM 5210.42-_AFMAN13-501, *Nuclear Weapons Personnel Reliability Program.* **(T-0)**.

6.4.1.9.15. Immediately report all mishaps, security, no-lone zone, Two-Person Concept violations, and site anomalies to AFNWC/NM HSEP Manager.

6.4.1.9.16. Perform tasks in compliance with federal, state, and local environmental laws, as well as Air Force environmental policies and regulations.

6.4.1.9.17. Be responsible for Joint Services Interior Intrusion Detection System installation and checkout and respond to alarms during site occupancy.

6.4.2. Test Objectives

6.4.2.1. HSEP seeks to determine the EMP hardness level of the Minuteman weapon system in the event of a nuclear attack. Test results are used to project hardness degradations to allow for the development of remediation strategies, planning factors and updates to the Weapon System Aging and Surveillance Program.

6.4.2.2. HSEP testing also serves to preform verification and validation tests on new modifications to the weapon system to ensure the weapon system has not been degraded. HSEP also identifies operational, safety, and maintenance problems which will degrade EMP survivability and documents or fixes them.

6.4.3. Test Procedures

6.4.3.1. HSEP testing is governed by an IMP that is authored by the HSEP testing contractor and coordinated through AFNWC, 20 AF/A3TT/A4, AFGSC/A3TT/A4B and approved by AFGSC/A3/6.

6.4.3.2. These procedures detail responsibilities, operational plans, safety, and security requirements as well as all other procedures necessary for successful test execution.

6.4.4. Reporting

6.4.4.1. The HSEP contractor issues their final report when testing and data analysis are completed.

6.4.4.2. The report contains findings, recommendations, and data analysis. This report is classified IAW the ICBM SCDG.

Chapter 7

OTHER OPERATIONAL TESTING

7.1. General. Modifications and upgrades to the MM III weapon system and support equipment help ensure the weapon system continues to meet warfighter requirements. IAW DAFI 99-103, *Capabilities-Based Test and Evaluation*, operational testing is required to assess the operational effectiveness and suitability of a system under test in order to inform decision makers prior to full rate production or fielding decisions.

7.2. Responsibilities.

7.2.1. AFGSC/A3/6 will: Direct type of testing required in official memo format based on OTO and ITT recommendation.

7.2.1.1. AFGSC/A3TT will:

7.2.1.1.1. Receive test support requests via TRM.

7.2.1.1.2. Provide test support, as applicable.

7.2.1.1.3. Participate in ITT if no OTO is assigned.

7.2.1.1.4. Forward TRM to intended OTO (typically 377 TEG) to determine their availability to support test.

7.2.1.2. OTO (typically 377 TEG):

7.2.1.2.1. Assign a TM, Test Manager-Advisor (TM-A) and other test team members as needed.

7.2.1.2.2. Provide assistance in support of testing and technical support for maintenance deficiencies.

7.2.1.2.3. Develop, coordinate, and publish a TSD, if required.

7.2.1.2.4. If required, request exercise messages executing test sorties from USSTRATCOM through 20 AF EWO Operations (20 AF/A3NK) per CDRUSSTRATCOM Emergency Action Procedures, Volume 6, Exercise Support Procedures.

7.2.1.2.5. Participate in DT&E events, as applicable.

7.2.1.2.6. Develop and publish a TEI when external equipment, personnel or infrastructure are needed to execute the test.

7.2.1.2.7. Provide recommended test strategy (i.e. FDE, OUE, Sufficiency of Operational Test Review (SOTR)) to AFGSC/A3/6.

7.2.1.2.8. Develop and coordinate a test plan.

7.2.1.2.9. Chair the ITT for assigned programs.

7.2.2. 20 AF will:

7.2.2.1. Provide personnel necessary to ensure satisfaction of operational user input requirements.

7.2.2.2. Provide on-site support during testing, as available.

7.2.3. AFNWC has agreed to:

7.2.3.1. Provide on-site technical advice to AFGSC and the MW during the test.

7.2.3.2. Participate with AFGSC in significant event, anomaly, or failure analysis.

7.2.3.3. Provide technical assistance as required.

7.2.3.4. Maintain and provide a functional LCC, MGS lab, LF, test equipment and maintenance support for tests conducted at Hill AFB, UT.

7.3. Objectives of OOT.

7.3.1. OOT will be conducted in an operationally representative environment to ensure all possible deficiencies are identified before the SUT is fielded. This may require testing be performed at facilities outside Vandenberg SFB (VSFB) CA or Hill AFB (HAFB) UT.

7.3.2. Programs and organizations requiring ICBM OT will ensure testers are involved early in the acquisition process IAW DAFI 99-103, to include requirements development and participation in ITTs and DT&E. This allows a better understanding of the SUT's operation and ensures OT is projected, funded, and conducted with minimal impact to the desired fielding schedule. To ensure streamlined communication, all program requests for OT&E must route through AFGSC/A3TT, who will coordinate with the designated OTO.

7.4. Testing Procedures.

7.4.1. All operational tests will be incorporated into the ITF as described in **Chapter 1** after the appropriate level of test effort is determined by the system's ITT and AFGSC/A3/6. When required, a Test Coordination Document will be sent from AFGSC/A3TT to the OTO to ascertain required resource support. The 377 TEG will provide a rough order of magnitude that will route through AFGSC/A3TT/A4B/A5I to the AFNWC/NM to ensure all test resource requirements are met. After testing concludes, the process ends with results being reported to AFGSC/A3/6. **(T-2)**. As outlined in DAFI 99-103, the 377 TEG, as the AFGSC OTO, may use the following assessment or evaluation methods to conduct operational testing: FDE, WSEP, OUE, OA, Early Operational Assessment (EOA) or SOTR.

7.4.1.1. For testing in support of a full rate production or fielding decision FDE, an OUE or SOTR is required.

7.4.1.2. All minor modification programs (e.g., AF Form 1067 modifications, etc.) require operational testing and are covered by this instruction and DAFI 99-103, *Capabilities-Based Test and Evaluation*. The overarching principles of integrated testing must be complied with.

7.4.2. The OTO is directly responsible for test accuracy and the successful execution of the test. Test procedures will be based on the system's capability document(s), ultimately supporting measures of effectiveness and suitability to answer the COIs identified in the TP. Test procedures are used to thoroughly test the entire SUT and verify changes meet user requirements without any adverse effects to the SUT. **(T-2)**.

7.5. Reporting.

7.5.1. Quick Look Report. The OTO will provide initial reports following each test. An initial test result notification message (Quick Look) will be submitted within 12 hours of test completion unless specified differently in the TP due to specific testing requirements. This report includes test activities, initial results, and an explanation for test activities not conducted. Classify the report IAW the ICBM SCDG. If an anomaly occurs or is confirmed, an Anomaly Analysis Report (**Attachment 21**) is released in message format as soon as practical.

7.5.2. Performance Report:

7.5.2.1. As required by DAFI 99-103, performance reports for tests must address each of the COIs, the system's operational effectiveness, suitability, additional information on operational capabilities, and include an assessment of operational mission impacts. When appropriate, a production or fielding recommendation may be included for OUE and FDE final reports. All Category I DRs and the top 10 Category II DRs will be listed. Detailed technical information should be published in separate data documents.

7.5.2.2. SOTR reports (**Attachment 22**) will be in memorandum format and contain the appropriate level of detail needed to fully inform the supported decision or outline the need for dedicated operational testing when required. Reports will include purpose, background, action, results, findings, special interest items and conclude with a fielding recommendation. All data and data sources used to conduct the SOTR will be identified (e.g., Developmental Test Plan and Reports) and attached to the SOTR report package. The report will be signed by the OTO. Detailed technical information should be published in separate data documents.

7.5.2.3. The OTO will submit reports to AFGSC/A3/6 as detailed in **Chapter 1** of this instruction.

7.5.2.4. Classify the report IAW the ICBM SCDG. Reports will be coordinated with AFGSC/A3TT and IAW AFGSC/A3TT approved format and include an Executive Summary and cover test objectives, significant test issues, configuration, data, performance data, anomalies, suggestions for improvements and a fielding/production recommendation consistent with guidance in DAFI 99-103.

Chapter 8

TACTICS DEVELOPMENT AND EVALUATION

8.1. AFGSC Tasking. AFGSC is tasked to serve as lead MAJCOM in developing, documenting, and disseminating tactics for the ICBM weapon systems. The ICBM Tactics Development and Evaluation (TD&E) program is designed to conduct low-cost testing to develop and validate non-material solutions to improve new or existing tactics, techniques, and procedures (TTP). Specific program guidance may be found in AFMAN 11-260, Tactics Development Program. The program's broad goals are to:

8.1.1. Identify tactical deficiencies in all aspects of the ICBM weapon systems.

8.1.2. Conduct TD&E to improve or correct tactical deficiencies.

8.1.3. Validate existing tactics against emerging threats or new technologies.

8.1.4. Disseminate tactics improvements to the ICBM community.

8.2. Tactics Development. Tactics development starts as early in the acquisition cycle as possible. Incorporate TTP objectives in FDE to the maximum extent practical.

8.3. Tactics Improvement Proposal. Each level of command will evaluate tactics for areas within its expertise and submit a TIP when appropriate IAW AFMAN 11-260, *Tactics Development Program*. Responsibilities include:

8.3.1. AFGSC and 20 AF - deployment, mission planning, ICBM operations, tasking of ICBM forces, and command and control of forces.

8.3.2. Test Units - weapons and tactics issues that result from the unit's activities.

8.3.3. Squadrons - weapons and tactics issues related to any aspect of mission planning and execution.

8.4. Approval Level Responsibilities. AFGSC/A3/6 is the tasking and approval level for the ICBM Tactics Development Program. AFGSC/A3T is the OPR and project office. AFGSC/A3/6 will:

8.4.1. When requested by AFGSC/A5/8, provide a concept of employment for the applicable OT&E or FDE to ensure tactics development starts as early as possible in the acquisition cycle.

8.4.2. Formal tasking and approval for conduct of TD&Es will be IAW the process outlined in this instruction.

8.5. Identification of Tactical Deficiencies. Identified deficiencies are documented on a TIP and forwarded through the appropriate chain of command to AFGSC/A3T. Units can submit a TIP anytime new tactics need to be validated or a tactical deficiency is recognized. AFGSC assigns the TIP to A3TW in conjunction with A3TT and A4B/A5I for action if immediate testing is required. A proposed change to operations or training procedures should be submitted by message to AFGSC/A3T. The TIP process will not be used to request modification or acquisition of hardware or software.

8.5.1. If a TIP is of immediate concern and affects current operations and testing, forward the TIP immediately to AFGSC/A3TW. A3TW will process the urgent TIP as an out-of-cycle request.

8.5.2. If the TIP does not require immediate attention, the TIP will be adjudicated at the annual Tactics Review Board (TRB). The board will be chaired by AFGSC/A3/6 no later than 1 Nov each year. Detailed procedures for the TRB are in AFMAN 11-260. The TIPs will be adjudicated at the annual Combat Air Force Weapons and Tactics Conference (CAF WEPTAC) and briefed to AFGSC/CC for approval. Any TIPs approved by AFGSC/CC which require TD&E will be added to the ITF via an amendment. All TIPs approved for TD&E are made part of the ITF and prioritized for incorporation into the respective OT&E, FDE and/or TD&E test programs.

8.5.3. Due to the time sensitive nature of tactical deficiencies, each TD&E is scoped for completion within one calendar year. Tests not completed in that calendar year will be reevaluated.

8.6. Tasking and Planning.

8.6.1. Any TD&E requiring AFGSC involvement must be placed on the ITF. The ITF combines and prioritizes all ICBM TIP testing requirements. Coordination and addition of the TD&E to the ITF constitutes direction to conduct the test. A TD&E test plan approved by AFGSC/A3/6 constitutes approval to conduct the test. A TRB approval decision constitutes approval for test execution.

8.6.2. When practical, TD&E objectives should be accomplished in conjunction with other test missions that replicate the required testing environment.

8.7. Team Composition.

8.7.1. TD&E test team composition will be determined by the 377 TEG Senior Weapons Officer and the 576 FLTS/DOW flight.

8.7.2. TD&E team composition will comprise of at least one graduate of the USAF Weapons School.

8.8. Reporting.

8.8.1. Quick Look Report: The 377 TEG will provide a Quick Look report within 24 hours of test completion formatted IAW **Attachment 24**. This report includes test activities, initial results and an explanation for test activities not conducted and be classified IAW the ICBM SCDG. If an anomaly occurs or is confirmed, the initial findings/identification will be within the report.

8.8.2. Performance Report: The 377 TEG will provide a Performance Report within 60 days of test completion formatted IAW AFGSC/A3TT approved format and include an Executive Summary and cover test objectives, significant test issues, configuration, data, performance data, anomalies, and suggestions for tactical improvements. All findings will be reported in detail, consistent with guidance in DAFI 99-103, to include an assessment of impact on current AFTTPs. Recommendations will be given for corrective actions (e.g. Tactics Bulletin/Flash Bulletin).

MICHAEL A. MILLER

Brigadier General, USAF
Director of Operations and Communications

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

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T.O. 00-35D-54, *USAF Deficiency Reporting, Investigation and Resolution*, 1 September 2015

T.O. 11A-1-10, *Air Force Munitions Surveillance Program and Serviceability Procedures*, 3 March 2022

T.O. 11N-5-1, *Unsatisfactory Reports*, 13 February 2014 (Classified)

T.O. 21M-LGM30F-6, S*cheduled Inspection and Maintenance Requirements – Missile Weapons Systems*, 1 March 2007

T.O. 21M-LGM30F-102, *Minuteman Operational Capabilities and Characteristics (Vandenberg AFB, Wing I-VI)*, 11 February 2005

T.O. 21M–LGM30G-2-10, *Launch Facility and Support Building Procedures* (VSFB, Wing I, III, and V Integrated Program), USAF Series LGM30G Missile, 24 March 2010

Prescribed Forms

This instruction does not prescribe any forms.

Adopted Forms

DD Form 1149, Requisition and Invoice/Shipping Document

AF Form 504, Weapons Custody Transfer Document

AF Form 847, Recommendation for Change of Publication

AF Form 1067, Modification Proposal

AFCOMSEC Form 9, Cryptographic Access Certificate

Abbreviations and Acronyms

AAMT—Anomaly Analysis Management Team

AAT—Anomaly Analysis Team

AF—Air Force

AFB—Air Force Base

AFGSC—Air Force Global Strike Command

AFGSCI—Air Force Global Strike Command Instruction

AFI—Air Force Instruction

AFMC—Air Force Material Command

AFNWC—Air Force Nuclear Weapons Center

AFOTEC—Air Force Operational Test and Evaluation Center

AFPD—Air Force Policy Directive

AFTO—Air Force Technical Order

ALC—Air Logistics Center

ALCS—Airborne Launch Control System

AMC—Airborne Missile Crew

AO—Associated Operation

AOR—Area of Responsibility

APT—ALCS Procedure Trainers

ART—Alert Readiness Test

ATC—Airborne Test Conductor

AVE—Aerospace Vehicle Equipment

BPAC—Budget Program Activity Code

CAT—Category

CC—Commander

CDD—Capabilities Development Document

CDRUSSTRATCOM—Commander, United States Strategic Command

CEIU—Communication Equipment Interface Unit

CMR—Combat Mission Ready

COI—Critical Operational Issue

COMSEC—Communications Security

COP—Console Operating Program

CRR—Component Replacement Request

CSR—Command Summary Report

CSS—Concept of Software Support

CTG—Combined Task Group

DAF—Department of the Air Force

DLR—Depot Level Repairable

DoDD—Department of Defense Directive

DoD—Department of Defense

DOE—Department of Energy

DOV—Standardization and Evaluation Office

DT&E—Developmental Test and Evaluation

DTG—Date Time Group

DTRA—Defense Threat Reduction Agency

EAE—Equipment Accountability Element

EAM—Emergency Action Message

EAP—Emergency Action Procedures

EEIC—Element of Expense Investment Code

EMP—Electromagnetic Pulse

EMT—Electro Mechanical Team

EOA—Early Operational Assessment

ERRC—Expendable, Repairable, Recoverable Cost Designator

ERTC—Emergency Rescue Team Chief

ERT—Emergency Response Team

ESD—Electrostatic Discharge

ESP—Emergency and Special Program

ETA—Estimated Time of Arrival

EWO—Emergency War Order

FDE—Force Development Evaluation

FLTS—Flight Test Squadron

FRAGORD—Fragmentary Order

FTPM—Flight Test Planning Meeting

GBL—Government Bill of Lading

GD—General Dynamics

GFE—Government Furnished Equipment

GMR—Ground Maintenance Response

GS—Global Strike

GST—Ground System Test

HAC/RMPE—Higher Authority Communications/Rapid Message Processing Element

HAMS—Hardness Assurance Maintenance, and Surveillance

HEMP—High Altitude Electromagnetic Pulse

HEP—High Energy Pulse

HIC—Hardened Intersite Cable

HM/HS—Hardness Maintenance/Hardness Surveillance

HPMSK—High Priority Mission Support Kits

HQ—Headquarters

HSEP—Hardness Surveillance Electromagnetic Pulse Program

I & C—Install & Certification

IAW—In Accordance With

ICBM—Intercontinental Ballistic Missile

ICD—Initial Capabilities Document

IMDS—Integrated Maintenance Data System

IMU—Inertial Measurement Unit

IOT&E—Initial Operational Test Evaluation

IPT—Integrated Product Team

ISC—Integrated Support Contract

ITF—ICBM Test Forecast

ITT—Integrated Test Team

JFCC—Joint Functional Component Command

JNOC—Joint Nuclear Operations Center

JPIC—Joint Plans Interim Change

JTSG—Joint Test Sub-Group

JTWG—Joint Test Working Group

KMISS—Kwajalein Missile Impact Scoring System

LAG—Launch Analysis Group

LART—Launch Anomaly Response Team

LCC—Launch Control Center

LDA—Launch Decision Authority

LD—Launch Director

LER—Launcher Equipment Room

LF—Launch Facility

LFRT—Launch Facility Radio Test

LIDSS—Livermore Independent Diagnostic Scoring System

LLNL—Lawrence Livermore National Labs

LR—Launch Reliability

LRR—Launch Readiness Review

LRS—Logistics Readiness Squadron

MAC—Mission Assurance Certification

MAF—Missile Alert Facility

MAJCOM—Major Command

MC-A—Missile Crew-Airborne

MC—Missile Crew

MCM—Missile Crew Member

MD—Mission Director

MEP—Minuteman Enhanced Procedures

MGS—Missile Guidance Set

MIF—Mobile Instrumentation Facility

MM III—Minuteman III

MM—Minuteman

MMOC—Missile Maintenance Operations Center

MMP—Minuteman Minimum Essential Emergency Communication Network Program

MMT—Missile Maintenance Team

MOE—Measure of Effectiveness

MOS—Measure of Suitability

MOSR—Missile Operational Status Response

MPHT—Missile Potential Hazard Team

MPT—Missile Procedure Trainer

MTMC—Military Traffic Management Command

MTU—Mobile Test Unit

MW—Missile Wing

NAF—Numbered Air Force

NCOIC—Non-commissioned Officer in Charge

NLT—No later than

NNSA—National Nuclear Security Administration

NST—New Strategic Arms Reduction Treaty

NTO—Nuclear Tasking Order

NWRM—Nuclear Weapons Related Material

OA—Operational Assessment

OCB—Operations Control Board

OGE—Operational Ground Equipment

OGV—Standardization and Evaluation Office

OIC—Officer in Charge

OPLAN—Operational Plan

OPORD—Operation Order

OPR—Office of Primary Responsibility

OR—Operational Requirements

OSK—Emergency War Order Office

OT&E—Operational Test and Evaluation

OTA—Operational Test Agency

OTL—Operational Test Launch

OTO—Operational Test Organization

OUE—Operational Utility Evaluation

PADS—Performance Assessment Data System

PBV—Post Boost Vehicle

PEO—Program Executive Officer

PLC-A—Preparatory Launch Command-A

POC—Point of Contact

PRD—Program Requirements Document

PRP—Personnel Reliability Program

PSRE—Propulsion System Rocket Engine

QA—Quality Assurance

QOT&E—Qualification Operational Test and Evaluation

QRM—Quick Reaction Maintenance

RDS—Records Disposition Schedule

REPSHIP—Report of Shipment

RFG—Request For Guidance

RPIE—Real Property Installed Equipment

RSP—Reliability Scoring Panel

RS—Reentry System

RTS—Reagan Test Site

RV—Reentry Vehicle

SACCS—Strategic Automated Command Control System

SCDG—Security Classification/Declassification Guide

SCNT—Sensitive Command Network Test

SCP—Squadron Command Post

SCS—Safety Control Switch

SDS—Squadron Data Simulator

SELECT—AFNWC/NM System Engineering Level Evaluation and Correction Team

SELM—Simulated Electronic Launch-Minuteman

SE—Safety Office

SFB—Space Force Base

SIB—Safety Investigation Board

SLD—Space Launch Delta

SMIC—Strategic Missile Integration Complex

SOR—Special Operational Request

SOTR—Sufficiency of Operational Test Review

SOT—Software Operational Test

SPM—System Program Manager

SREMP—Source Region Electromagnetic Pulse

SRR—Squadron Readiness Review

SR—Special Request

START—Strategic Arms Reduction Treaty

STR—Special Test Request

SUT—System Under Test

SW—Space Wing

T&E—Test and Evaluation

T.O.—Technical Order

TCD—Terminal Countdown

TC—Test Conductor

TCTO—Time Compliance Technical Orders

TD&E—Tactics Development and Evaluation

TD—Test Director

TDY—Temporary Duty

TEI—Test Execution Instruction

TEMP—Test and Evaluation Master Plan

TES—Test and Evaluation Strategies

TET—Test Evaluation Team

TF—Task Force

TIM—Technical Interchange Meeting

TM-A—Test Manager Advisor

TMO—Traffic Management Office

TM—Test Manager

TO—Test Order

TP—Test Plan

TRM—Test Request Memorandum

TRP—Test Resource Plan

TRRB—Test Readiness Review Board

TSD—Test Sequence Document

TSM—Test Support Manager

TTP—Tactics, Techniques, and Procedures

UDS—Universal Documentation System

UHF—Ultra High Frequency

USSTRATCOM—United States Strategic Command

V&V—Verification and Validation

VSFB—Vandenberg Space Force Base, CA

WSA—Weapon System Accuracy

WSCC—Weapon System Control Console

WSEP—Weapon System Evaluation Program

WSER—Weapon System Evaluation Report

WSR—Weapon System Reliability

WSSR—Weapon System Safety Rule

WST—Weapon System Test

Terms

Accuracy—By definition, circular error probable (CEP) is the radius of a circle centered on the target, where the probability of a score inside the circle is 50%. The radial miss should be no more than 3 1/2 times the CEP; any impact score beyond this amount is considered a reliability failure and is therefore not recorded in the accuracy database. The accuracy database is cumulative and is maintained by AFGSC/A3TT.

Anomaly Analysis Team (AAT) (SELM)—An interdisciplinary, ad hoc group convened to investigate and determine the anomaly/failure for failure to achieve test objectives due to hardware/software anomalies, for countdown aborts or for significant anomalies occurring during Part III (SELM Launch Demonstration).

Component Replacement Request (CRR)—Used to obtain permission to replace selected operational equipment items that do not meet T.O. requirements.

EWO Configured Missile—An alert missile and war reserve reentry system at an operational LF.

Launch Analysis Group (LAG)—An interdisciplinary, ad hoc group convened to investigate and determine the cause of AFGSC OTL anomalies which do not fall under the missile mishap criteria IAW AFI 91-204, *Safety Investigations and Reports* and AFI 91-204_AFGSCSUP.

OTL Alert Readiness—Period after which the weapon system, except for VSFB-unique items such as range safety systems, have been checked and determined ready for launch. Alert readiness begins at the completion of startup testing (Missile Test and Enable Test) and required Remote Data Change.

OTL Configured Missile—An operational missile with an OTL RS and the required range instrumentation and safety equipment.

OTL Identifier—AFGSC will use the unclassified nickname "GLORY TRIP" combined with a sequential flight test number and weapon system identifier (for example "GLORY TRIP XXX") to identify a specified OTL mission. OTL Weapon System Identifiers: Minuteman III GM (WS-133A-M/LGM30G).

OTL Launch Director (LD)—Directs range user, instrumentation checkout, countdowns and integrates receipt-through-launch operations and maintenance tasks; serves as the primary point for coordination between the TMs, TF/CC and all VSFB agencies.

OTL Reentry Vehicle/Reentry System (RS/RV)—RS/RV components assembled with non-nuclear devices as designated in the TEI. The RS includes the shroud, deployment module and non-nuclear MK12A and MK21 reentry vehicles.

OTL Test Manager (TM)—Manages and controls test activities at VSFB and serves as the focal point for coordination between outside agencies; during launch countdown, controls the overall test and ensures adequate sensor coverage to meet test objectives; the TM submits the final Performance Report.

Reliability—Weapon system reliability (WSR) for ICBMs is a product of launch reliability, powered flight reliability, missile guidance set reliability, reentry vehicle reliability, and warhead (including impact) reliability. For a given ICBM weapon system, the established goal for WSR is found in the applicable Operations Requirement Document. This report is published by AFGSC/A5I and is classified SECRET. The WSR estimate is cumulative and AFGSC/A3TT maintains the database.

SELM Test Manager (TM)—Advises and assists the SELM TSM for the following: preparation of the TSD; approval of all unit SELM lesson plans; directing SELM isolation verification and countdown activities. Submits the final Performance Report.

Software Operational Test (SOT) Test Director (TD)—Produces the TSD for SOT activities; responsible for programming of the Message Generator to support testing; senior member and single point of contact for the test team.; manages and controls test execution; assists the VIGILANT VANGUARD Test Manager in writing the preliminary and final test reports.

Software Operational Test (SOT) Test Manager—Manages and controls SOT test activities at VSFB and serves as the single point of contact for coordination between involved parties; interprets test results and writes preliminary and final test reports.

Squadron Data Simulator (SDS)—The SDS is an electronic duplication of an entire missile squadron. It allows for maximum simulation of equipment and environment found in an operational missile squadron.

Strategic Missile Integration Complex (SMIC)—The SMIC uses operationally configured LFs that are connected to operationally configured LCCs and squadron data simulators. Testing can be accomplished under operationally realistic conditions without disruption of alert forces or the risk of nuclear surety issues.

Test Conductor-Airborne—A technical advisor provided by 625 STOS/DOX, aboard the test aircraft, to coordinate ALCS activities.

Test Coordination Document—A formal tasking document issued by AFGSC/A3T requesting support of a system, software and/or component requiring operational testing prior to fielding. This is not used for OTL, SELM and SOT requirements.

Test Execution Instruction (TEI)—Test specific tasking notification issued by 377 TEG. Each TEI contains mission specific requirements and responsibilities, which must be accomplished to ensure mission success.

Test Plan (TP)—A formal document produced by the OTO providing the complete detailed, coordinated, and integrated plan for conducting a test to obtain answers to critical operational issues. Supplementing information may be documented in a TP Annex, when applicable.

Test Support Manager (TSM)—An FGO designated by the MW/CC to manage the unit SELM activities.

Test Team—For an OTL, consists of LD, TC, Countdown Control Officer (CCO), Launcher environmental protective system Control Monitor Officer (LCMO), Assistant LCMO (ALCMO) (if required), Monitor Control Operator (MCO) and Assistant MCO (AMCO). For SOT, consists of TD, Senior TC (STC), TC. For SELM, consists of TM and TC.

Test Unique Tasks—Those tasks which are not required at the Missile Wing or which are performed in a significantly different sequence and are unique to the operational test environment.

Weapon System Reliability (WSR)—ICBM WSR is the probability that an available sortie will successfully launch, deliver and detonate a warhead on target. System reliability is measured as the product of the subsystem reliability.

Attachment 2

SAMPLE OTL SORTIE STATUS REPORT

Table A2.1. Sample OTL Sortie Status Report.

FROM: (Reporting unit TF/CC)

TO: HQ AFGSC BARKSDALE AFB LA//A3TT/A4B/A5II/SEW//

20 AF F E WARREN AFB WY//A3/A3TT/A4/SE//

377 TEG VANDENBERG SFB CA//CC/CD/CCJ//

377 FTMMXS VANDENBERG SFB CA//CC/DO/TMO/TMW//

576 FLTS VANDENBERG SFB CA//CC/DO/DOO/TEST MANAGER//

AFNWC/NM HILL AFB UT//NMS/NMSF//

AFNWC/EZ KIRTLAND AFB NM//EZT//

625 STOS OFFUTT AFB NE//OSK/DOX//

USSTRATCOM OFFUTT AFB NE//J37/J85/J872//

UNCLASSIFIED

SUBJ: GLORY TRIP (NUMBER) STATUS REPORT FORMAT

1. This message consists of two parts corresponding to Parts I and II of the OTL process. Updates after each part are as follows:

2. Part I. (Alert Readiness Test results and completion time)

3. Part II. (Missile Removal & Transfer results and completion time)

(Include the following for Part II: Stages I, II and III

PSRE serial numbers.

Primary and alternate guidance set serial numbers.

Primary MGS battery serial numbers.

Gyro data.

MK12A/21 RS serial numbers.

Components serial numbers by position.

Deployment module part number.

Shroud part number.

Tractor motor part number.

Deployment module electronics part number)

4. Remarks. (Schedule deviations, explanation and impact on remaining schedule.)

5. POC: (Rank, Name, Phone Number)

SIGNATURE BLOCK

Attachment 3

SAMPLE OTL RS COMPONENTS AND ORDNANCE MOVEMENT REPORT

Table A3.1. Sample OTL Rs Components and Ordnance Movement Report.

FROM: (Reporting unit TF/CC)

TO: HQ AFGSC BARKSDALE AFB LA//A3TT/A4B/A4WN/A5II//

INFO: USSTRATCOM OFFUTT AFB NE//J37/J85/J872//

20 AF F E WARREN AFB WY//CC/A3/A3TT/A4//

SLD 30 VANDENBERG SFB CA//CC/OG//

377 TEG VANDENBERG SFB CA//CC/CD/CCJ///

377 FTMMXS VANDENBERG SFB CA//CC/DO/TMO/TMW//

576 FLTS VANDENBERG SFB CA//CC/DO/DOO/TEST MANAGER//

AFNWC/NM HILL AFB UT//NME/NMES//

AFNWC/EZ KIRTLAND AFB NM//EZT//

UNCLAS

SUBJ: GLORY TRIP (Number) RS COMPONENTS AND ORDNANCE MOVEMENT REPORT

1. The following Glory Trip (number) RS components and ordnance were shipped to Vandenberg AFB CA.

A. Ordnance. The following ordnance were shipped on (date), by (mode of shipment). ETA to Vandenberg AFB is (date). Shipping document number(s) (Number).

(1) through (?) (Include the nomenclature, item line number, quantity, part and serial numbers for each component.)

B. Reentry systems. The following RS components were shipped on (date), by (mode of shipment). ETA to Vandenberg AFB is (date). Shipping document numbers(s) (Number).

(1) RS serial number: (Number).

C. Reentry vehicles. The following RV components were shipped on (date), by (Mode of shipment). ETA to Vandenberg AFB is (Date). Shipping document number(s) (Number).

(1) through (?) (Include the nomenclature, part and serial numbers, and position for each RV component.)

(MK12A): Include these components by position A, B and C.

D. (MK12A): Payload bulkhead (Serial number)

E. Shroud assembly. The following shroud assembly components were shipped on (date), by (mode of shipment). ETA to Vandenberg AFB is (date). Shipping document number(s) (Number).

(1) through (?) (Include the nomenclature, part and serial numbers, and position for each RV component.)

F. Penetration aids. The following penetration aids components were shipped on (date), by (Mode of shipment). ETA to Vandenberg AFB is (Date). Shipping document number(s) (Number).

(1) through (?) (Include the nomenclature, part and serial numbers for each penetration aids component.)

2. Additional information.

A. Unaccomplished TCTOs: (If any)

B. Last RS installation date: (Date)

C. Ablative repairs accomplished since missile selection: (If any)

D. Repairs or components to be replaced at Vandenberg AFB: (If any)

E. All ordnance items have received electrical check/visual inspection before shipment: (Yes or No)

3. POC: (Rank, name, and phone number)

SIGNATURE BLOCK

Attachment 4

SAMPLE OTL COMPONENT DAMAGE REPORT

Table A4.1. Sample OTL Component Damage Report.

FROM: (Reporting unit TF/CC)
TO: HQ AFGSC BARKSDALE AFB LA//A3TT/A4B/A4WN/A5II/SEW//
INFO: 20 AF F E WARREN AFB WY//CC/A3/A3TT/A4/SE//
377 TEG VANDENBERG SFB CA//CC/CD/CCJ//
377 FTMMXS VANDENBERG SFB CA//CC/DO/TMO/TMW//
576 FLTS VANDENBERG SFB CA//CC/DO/DOO/TEST MANAGER//
AFNWC/NM HILL AFB UT//NME/NMES//
AFNWC/EZ KIRTLAND AFB NM//ET//
USSTRATCOM OFFUTT AFB NE// J37/J85/J872//
UNCLAS
SUBJ: GLORY TRIP (NUMBER), COMPONENT DAMAGE REPORT
1. OTL identifier: (GT XX, Report no. #)
2. Component damaged: (Include part and serial number)
3. Technical order: (Include the page, paragraph, and step number when damaged was discovered)
4. Damage description: (Self-explanatory)
5. When discovered: (Self Explanatory)
6. Probable cause: (Self-explanatory)
7. Remarks: (Include action taken to correct problem)
8. POC: (Rank, name, and phone number)
SIGNATURE BLOCK

Attachment 5

SAMPLE OTL MISSION AND PRELIMINARY SCORING REPORT

Table A5.1. Sample OTL Mission And Preliminary Scoring Report.

FROM: 377 TEG VANDENBERG SFB CA//CC//

TO: HQ USAF WASHINGTON DC//A10O//

HQ AFGSC BARKSDALE AFB LA//CCE/A3/A3T/A3TT/A4/A4B/A5II/SEW//

HQ AFMC/AFNWC KIRTLAND AFB NM//CCE/CTA//

USSTRATCOM OFFUTT AFB NE//J37/J85/J872//

8 AF J-NOC BARKSDALE AFB LA//CC/NID//

20 AF FE WARREN AFB WY//CCE/CV/A3/A3TT/A4/SE//

(UNIT)//CCE/OG/OSK//

625 STOS OFFUTT AFB NE//OSK/DOX//

AFNWC/NM HILL AFB UT//NMS/NMSF//

AFNWC/EZ KIRTLAND AFB NM//EZT//

AFOTEC KIRTLAND AFB NM//CCE//

MIT-LL LEXINGTON MA//ANITA RUPICH//

LLNL LIVERMORE CA//STEVE JENSEN// (LIDSS MISSIONS ONLY)

NNSA SANDIA ALBUQUERQUE NM//WILLIAM ALLEY//

SECRET//FORMERLY RESTRICTED DATA

SUBJ: GLORY TRIP (NUMBER) MISSION AND PRELIMINARY SCORING REPORT (U)

1. This message is in three parts.

Part I: (U) This is the initial mission and scoring report for Glory Trip (number), SLD 30 OP (W NUMBER), LGM 30G missile, using KMISS or LIDSS for scoring.

Part II: (U) Mission events:

A. (U) Count pickup: (Zulu DTG)

B. (U) ALCS events: (If applicable)

C. (U) Abnormal countdown events: (Holds, recycles, etc.)

D. (U) Time of liftoff (or abort): (Zulu DTG)

E. (U) Subsystem performance: (Nominal or non-nominal to include special objectives; don't define failure modes)

F. (U) Sensor coverage: **Exception:** If lack of coverage degrades mission objectives.

G. (U) Remarks: (Include any significant events or discrepancies not reported above. Base all in-flight times on liftoff. For anomalies, don't include failure modes but report the fact there was a failure and if destruct commands were/were not issued.)

Part III: (U) scoring results.

A. ( ) RV-1: Time of impact: (zulu DTG), impact location in dod wgs coordinates: (lat, long), radial miss distance: (in feet), downrange miss distance: (in feet), crossrange miss distance: (left or right in feet).

2. POC IS (Rank, name, and phone number)

SIGNATURE BLOCK

DERV:

Note: SAMPLE REPORT IS UNCLASSIFIED; PORTION MARKINGS ARE FOR EXAMPLE PURPOSES ONLY

Attachment 6

SAMPLE UNCLASSIFIED OTL FINAL SCORING REPORT

Table A6.1. Sample Unclassified OTL Final Scoring Report.

FROM: 377 TEG VANDENBERG SFB CA//CC//

TO: HQ USAF WASHINGTON DC//A10O//

HQ AFGSC BARKSDALE AFB LA//CCE/A3/A3T/A3TT/A4/A4B/A5II/SEW//

HQ AFMC/AFNWC KIRTLAND AFB NM//CCE/CTA//

USSTRATCOM OFFUTT AFB NE//J37/J85/J872//

8 AF J-NOC BARKSDALE AFB LA//CC/NID//

20 AF FE WARREN AFB WY//CCE/CV/A3/A3TT/A4/SE//

(UNIT)//CCE/OG/OSK//

625 STOS OFFUTT AFB NE//OSK/DOX//

AFNWC/NM HILL AFB UT//NMS/NMSF//

AFNWC/EZ KIRTLAND AFB NM//EZT//

AFOTEC KIRTLAND AFB NM//CCE//

MIT-LL LEXINGTON MA//LEROY SIEVERS//

LLNL LIVERMORE CA//STEVE JENSEN// (LIDSS MISSIONS ONLY)

NNSA SANDIA ALBUQUERQUE NM//WILLIAM ALLEY//

UNCLAS OR SECRET//FORMERLY RESTRICTED DATA

SUBJ: GLORY TRIP (NUMBER) FINAL SCORING REPORT (U)

1. (U) Updated scoring results.

A. (S//FRD) RV-1: Time of impact: (Zulu DTG), impact location in DoD WGS coordinates: (lat, long), radial miss distance: (in feet), downrange miss distance: (in feet), crossrange miss distance: (left or right in feet).

OR

1. (U) No updates required from the preliminary scoring report.

2. POC is (Rank, name, and phone number)

SIGNATURE BLOCK

DERV:

Note: SAMPLE REPORT IS UNCLASSIFIED; PORTION MARKINGS ARE FOR EXAMPLE PURPOSES ONLY

Attachment 7

OTL KEY EVENT FLOW

Table A7.1. OTL Key Event Flow.

ACTIVITY KEY EVENT FLOW
Sortie Select (AFGSC/A3/6) T-215
Publish TEI (377 TEG) T-180
Missile Wing provides NCOIC name to AFGSC/A4R/A4B and 377 TEG TM T-125
Booster Arrival at VSFB (MW or AFNWC/NM) T-92
MGS Arrival at VSFB (MW or AFNWC/NM) T-92
Instrumentation System arrival at VSFB (AFNWC/NM) T-92
RS Arrival at VSFB (MW or AFNWC/NM) T-85
MGS Batteries Arrival at VSFB (MW or AFNWC/NM) T-85
PSRE Arrival at VSFB (MW or AFNWC/NM) T-85
TF Arrival at VSFB (MW) T-28
Alert Ready Date T-21
TRRB T-14 to T-5
LRR T-1
OTL Mission and Preliminary Scoring Report NLT Receipt+4 Hours
377 TEG submit Performance Report to AFGSC/A3TT NLT last data item +60 days
HQ AFGSC/A3/6 Approve Performance Report NLT 30 days after receipt from 377 TEG
Note 1: Dates are notional and can change by mission.
Note 2: JTA and RV delivery dates are mission specific.

Attachment 8

SAMPLE GIANT PACE KEY PERSONNEL MESSAGE

Table A8.1. Sample Giant Pace Key Personnel Message.

FROM: (UNIT)
TO: HQ AFGSC BARKSDALE AFB LA//CCE/A3/A3T/A3TT/A4/A4B/A5I/SEW//
20 AF F E WARREN AFB WY//A3/A3TT/A4/SE//
377 TEG VANDENBERG SFB CA//CC/CD//
576 FLTS VANDENBERG SFB CA//CC/DO//
INFO: AFNWC/NM HILL AFB UT//NMS/NMSF//
AFNWC/EZ KIRTLAND AFB UT//EZT//
UNCLAS
SUBJ: GIANT PACE (NUMBER) KEY PERSONNEL
1. Test support manager: (Rank, Name, Org/Office Symbol, Duty Phone)
2. Operations officer: (Rank, Name, Org/Office Symbol, Duty Phone)
3. Maintenance officer: (Rank, Name, Org/Office Symbol, Duty Phone)
4. Maintenance NCOIC: (Rank, Name, Org/Office Symbol, Duty Phone)
5. Security OIC/NCOIC: (Rank, Name, Org/Office Symbol, Duty Phone)
6. POC: (Rank, Name, Phone Number)

Attachment 9

SELM KEY EVENT FLOW

Table A9.1. SELM Key Event Flow.

Publish TEI - T-180 days
Appoint SELM TSM and other Key Personnel - NLT 5 days after TEI receipt
Start OPLAN Coordination NLT 5 days after TEI receipt
Review T.O.s and submit changes - T-13 weeks
Coordinate test activities and support with AFNWC/NM, 85 EIS and any additional support agencies - T-12 weeks
Coordinate with AFNWC/NM, and any additional support agencies' support and access requirements with TSM - T-12 weeks
Publish SELM OPLAN - T-90 days
AFNWC/NM MTU on station -T-12 weeks
Pretest Briefing - T-8 weeks
Lesson plans from 377 TEG to MW - T-8 weeks
Accomplish SELM dry run T-8 weeks
TM/TSM Submit SELM Posture and OPLAN 801X EWO Posture Schedules to 377 TEG MW - T-6 weeks
Approved TP supplement - T-30 days prior to TRRB
TM/TC on station - T-4 weeks
Conduct ART - T-4 weeks
Begin SELM Configuration - No earlier than T-19 days
Distribute Final TSD - T-2 weeks
AMT on station - T-1 week
SELM Alert - Friday before Test Week
Last Line Isolation **(T-0)** - Friday before Test Week
AFNWC/NM UHF monitor equipment Arrives at MW -1 Day Prior to Test Start
Test Readiness Review Board (TRRB) - 1 Day Prior to Test Start
Airborne Test Day - Tuesday of Test Week
Ground Test Day - Wednesday of Test Week
Backup Test Day - Thursday of Test Week
Squadron Restoration - Immediately following test completion
OPLAN 801X Alert - Typically 19 days after Squadron Restoration
T.O. review and submit changes - NLT 5 weeks after Squadron Restoration
Submit Performance Report - NLT 60 days from receipt of last data item
Submit SELM Expense Report - NLT 90 days from OPLAN 801X Alert

Attachment 10

SAMPLE SELM STATUS REPORT

Table A10.1. SAMPLE SELM Status Report.

FROM: (REPORTING UNIT)

TO: HQ AFGSC BARKSDALE AFB LA//CCE/A3/A3T/A3TT/A4/A4B/A5I/SEW//

INFO: HQ USAF WASHINGTON DC//A10O//

USSTRATCOM OFFUTT AFB NE//J37/J85/J872//

8 AF J-NOC BARKSDALE AFB LA//CC/NID//

20 AF F E WARREN AFB WY//A3/A3TT/A4/SE//

625 STOS OFFUTT AFB NE//OSK/DOX//

377 TEG VANDENBERG SFB CA//CC/CD//

576 FLTS VANDENBERG SFB CA//CC/DO//

AFNWC/NM HILL AFB UT//NMS/NMSF//

AFNWC/EZ KIRTLAND AFB NM//EZT//

MW/CC

UNCLAS

SUBJ: GIANT PACE (NUMBER) STATUS REPORT # ___

1. This message consists of three parts corresponding to Part I, II, and IV of the Simulated Electronic Launch (SELM) process. Updates after each part are as follows:

2. Part I. Alert readiness test (SCNT, ENABLE TEST, MISSILE TEST, INHIBIT TEST, CMVC):

Site Date Results

(LF #) (Date of Test) (S, SA, F, or NT)

3. Part II. SELM posture

Site DTG

(LCC/LF #) (Zulu)

4. Part IV. OPLAN 8010 Reposture

Site DTG

(LCC/LF #) (Zulu)

5. POC: (Name, rank, phone number)

SIGNATURE BLOCK

Note: This report should be unclassified and must not contain data on causes of failures or failed components. A description of abnormal indications, hardware/software anomalies or test failures must be provided in a classified follow-up SELM Problem Report.

Attachment 11

SAMPLE SELM TEST READINESS REVIEW BOARD AGENDA

Table A11.1. Sample SELM Test Readiness Review Board Agenda.

1. Introduction – MW/CC
2. Briefing and Verifying Personnel - TSM
3. Implementing Directives - TSM
4. Test Overview - TSM/TM
- Test Objectives
- Ground and Airborne Test Day Test Increment Activities
- Anomaly Analysis Procedures
- Key personnel Locations for Part II and III
- Operational Risk Assessment
Readiness certifications
5. OSB
6. Enable and Launch Control Panel Verifications and Locations - OSB
7. LF/MAF Isolation Verification - Maintenance OIC
8. LF Configuration Verification - Maintenance OIC
9. Open TCTOs on Test LFs - Maintenance OIC
10. Safety Plan and Training - SE
11. MCC Manning in Test Squadron - OSOT
12. MCC Test Sequence Training - OSOT
13. MCC Exercise Initiation Training - OSK
14. Field Training Detachment – AETC/FTD
15. ALCS Code Verification - 625 STOS/DOX
16. ALCS Communications and Launch Procedures - 625 STOS/DOX
17. ALCS Training
18. Operations Certification Summary - OG/OTO/CC
19. Maintenance Certification Summary - Maintenance OIC
20. TSM and Wing Commander's Verification Certification - TSM & CC
SIGNATURE BLOCK

Attachment 12

SAMPLE SELM TERMINAL COUNTDOWN REPORT

Table A12.1. Sample SELM Terminal Countdown Report.

FROM: (Reporting unit)
TO: HQ AFGSC BARKSDALE AFB LA//CCE/A3/A3T/A3TT/A4/A4B/A5I/SEW//
INFO: HQ USAF WASHINGTON DC//A10O//
USSTRATCOM OFFUTT AFB NE//J37/J85/J872//
8 AF J-NOC BARKSDALE AFB LA//CC/NID//
20 AF F E WARREN AFB WY//CC/A3/A3TT/A4/SE//
625 STOS OFFUTT AFB NE//OSK/DOX//
377 TEG VANDENBERG SFB CA//CC/CD//
576 FLTS VANDENBERG SFB CA//CC/DO//
AFNWC/NM HILL AFB UT//NMS/NMSF//
AFNWC/EZ KIRTLAND AFB NM//EZT//
MW/CC
UNCLAS
SUBJ: GIANT PACE (NUMBER) TERMINAL COUNTDOWN REPORT # ____
1. Test day start time (Zulu DTG)
2. Test increment: (Increment number)
(A) Commit time: (Zulu DTG)
(B) Method of commit: (Ground or Airborne)
(C) Sortie TCD Result
(LF number) Zulu DTG) (Successful, Successful with anomaly, or Failure)
3. Test increment: (Increment number)
(A) Commit time: (Zulu DTG)
(B) Method of commit: (Ground or Airborne)
(C) Sortie TCD Result
(LF number) (Zulu DTG) (Successful, Successful with anomaly, or Failure)
4. Test increment: (Increment number)
(A) Commit time: (Zulu DTG)
(B) Method of commit: (Ground or Airborne)
(C) Sortie TCD Result
(LF number) (Zulu DTG) (Successful, Successful with anomaly, or Failure)
5. Test day end time (Zulu DTG)
6. POC: (Name, rank and phone number)

SIGNATURE BLOCK

Attachment 13

SAMPLE SELM ANOMALY ANALYSIS REPORT

Table A13.1. Sample SELM Anomaly Analysis Report.

FROM: (Reporting unit)

TO: HQ AFGSC BARKSDALE AFB LA//CCE/A3/A3T/A3TT/A4/A4B/A5I/SEW//

INFO: HQ USAF WASHINGTON DC//A10O//

USSTRATCOM OFFUTT AFB NE//J37/J85/J872//

8 AF J-NOC BARKSDALE AFB LA//CC/NID//

20 AF F E WARREN AFB WY//CC/A3/A3TT/A4/SE//

625 STOS OFFUTT AFB NE//OSK/DOX//

377 TEG VANDENBERG SFB CA//CC/CD//

576 FLTS VANDENBERG SFB CA//CC/DO//

AFNWC/NM HILL AFB UT//NMS/NMSF//

AFNWC/EZ KIRTLAND AFB NM//EZT//

MW/CC

(CLASSIFICATION)

SUBJ: GIANT PACE (NUMBER) ANOMALY ANALYSIS REPORT # ____ (U)

1. (U) Test: Giant Pace (Number)

2. (U) Unit: (Missile Wing, Squadron)

3. (U) Anomaly site: (LF/LCC number)

4. (U) Classification of anomaly: (Classification)

5. (U) Date/time of anomaly: (Zulu DTG)

6. (U) Test increment: (Number)

7. ( ) Anomaly: (Detailed explanation of anomaly)

8. (U) Test synopsis: (Brief description of test actions being accomplished.)

9. ( ) Anomaly analysis: (Probable cause to include part number, serial numbers and nomenclature of possible failed component.)

10. ( ) Action taken: (Detailed explanation)

11. ( ) Impact of anomaly: (Detailed explanation of effect on launch capability)

12. ( ) Recommendations: (Self-explanatory)

13. ( ) Conclusion: (Summarize anomaly to include recommended scoring of site)

14. (U) POC: (Name, rank, and phone number)

SIGNATURE BLOCK

Note: Fill in classification ( ) of each paragraph as appropriate.

Attachment 14

SAMPLE SELM EXPENSE REPORT

Table A14.1. Sample SELM Expense Report.

MEMORANDUM FOR HQ AFGSC/A4P

FROM: Test Support Manager, Giant Pace XX-XM

ADDRESS

SUBJECT: Simulated Electronic Launch-Minuteman (SELM) XX-XM Expense Report

1. The XXXst Missile Wing conducted a Simulated Electronic Launch from DD MMM YY to DD MMM YY with Reposture of sorties complete on DD MMM YY. IAW AFGSCI 99-102, *Intercontinental Ballistic Missile (ICBM) Operational Test And Evaluation (OT&E)* **paragraph 4.11.7.,** I am submitting a SELM expense report that details unit costs incurred by the XXXst Missile Wing. Expenses are listed on attached SELM Cost Detail Sheet.

2. I respectfully request reimbursement for total cost noted on attached SELM Cost Detail Sheet.

3. POC: (Name, rank and phone number)

SIGNATURE BLOCK

Attachment:

SELM Cost Detail Sheet

SELM Cost Detail Sheet

Parts Quantity Cost ($) EEIC

Arresting Plate 1 63.93 609

Load Strap 3 500.61 609

Machine Screw 54 858.60 609

Arresting Pad 1 10,085.20 609

Bolt, Tension Failure 16 74.56 609

Nut 16 99.52 609

O-Ring, Packaging 16 5.44 609

Ordnance Quantity Cost ($) EEIC

Generator Assembly 4 7,573.04 645

Actuator Assembly 1 37,350.72 645

Retractor, G&C 2 19,438.68 645

Miscellaneous Expenses Quantity Cost ($)

Fuel 630 gal 2,069.56

Document Reproduction 903.26

Total Expenses $156,789.01

Attachment 15

SOT KEY EVENT FLOW

Table A15.1. SOT Key Event Flow.

ACTIVITY KEY EVENT FLOW
AF Forms 1067s/OSCRs to 377 TEG T-1Published T-150
Final TEP Complete T-14
TRRB T-14 to T-5
TF Arrival at Test Location T-1
TF Site Familiarization and Training T-0
Quick Look Report Published Last Test Event+12 Hours
377 TEG submit Performance Report to AFGSC/A3TT IAW **paragraph 1.3.4.2**
HQ AFGSC/A3/6 Approve Performance Report NLT 30 calendar days after receipt from the 377 TEG
Note: Dates are notional and can change by mission.

Attachment 16

SAMPLE SOFTWARE OPERATIONAL TEST ACTIVITY REPORT (QUICK LOOK)

Table A16.1. Sample Software Operational Test Activity Report (Quick Look).

FROM: 377 TEG VANDENBERG SFB CA//CC//
TO: [HAC/RMPE & MMP] HQ AFGSC BARKSDALE AFB LA//CCE/SE/A3/ A3T/A3TT/A3O/A3ON//
[COP] HQ AFGSC BARKSDALE AFB LA//CCE/SE/A3/A3T/A3TT//
INFO: HQ USAF WASHINGTON DC//A10C//
USSTRATCOM OFFUTT AFB NE//J372//J376//
8 AF J-NOC BARKSDALE AFB LA//CC/NID//
20 AF FE WARREN AFB WY//A3N//A3NK//A3TT//A4M//SE//
AFNWC/NM HILL AFB UT//NMEI/NMAD//
AFNWC ICBM GROUND SYSTEMS BRANCH HILL AFB UT//NIA//
AFNWC ICBM FLIGHT SYSTEMS BRANCH HILL AFB UT//NIB//
AFNWC ICBM FUTURE SYSTEMS BRANCH HILL AFB UT//NIC//
AFNWC KIRTLAND AFB NM//EZT//
[HAC/RMPE] 520 SMXS/MXDEB ICBMSG OFFUTT AFB NE//EN//
UNCLAS
SUBJ: [TEST TITLE] SOFTWARE OPERATIONAL TEST QUICK LOOK REPORT.
1. Software version:
2. Test dates:
3. Test facility:
4. Test location:
5. Software changes:
6. Test results:
7. Significant findings:
8. Remarks:
9. POC: (Name, rank and phone number)
SIGNATURE BLOCK

Attachment 17

OLYMPIC PLAY TEST REQUIREMENTS

Table A17.1. Olympic Play Test Requirements.

TEST/COMMAND
Enable Test (Note 1)
Missile Test (Note 1)
SCNT (Note 1)
Computer Memory Verification Check (Note 1)
Target Verification Interrogation (All-Call Day-to-Day)
WS BS/L Computer Memory Security Check
Case Input Library Checksum

Note: 1. Command test to each on-alert sortie within primary responsibility.

Attachment 18

SAMPLE OLYMPIC PLAY RESULTS REPORT

Table A18.1. Sample Olympic Play Results Report.

FROM: (REPORTING UNIT)
TO: 377 TEG VANDENBERG SFB CA// //576 FLTS OLYMPIC PLAY MONITOR//
INFO: HQ AFGSC BARKSDALE AFB LA//A3TT//A4B//
20 AF F E WARREN AFB WY//A3TT//A4M//
377 TEG VANDENBERG SFB CA//CC//
AFNWC/EZ KIRTLAND AFB NM//EZT//
SECRET
SUBJ: (UNIT) OLYMPIC PLAY REPORT
1. (U) Squadron: (Self-explanatory)
2. (U) Test DTG: (Zulu DTG test started)
3. (U) Type of test: (Scheduled, HQ AFGSC, 20 AF or Local Exercise)
4. (U) Number of LFs tested: (Number of LFs tested and scored)
5. (U) Number of successful LFs: (Number of LFs scored as successful)
6. (U) Number of successful with anomaly LFs: (Number of LFs scored as successful with anomaly)
7. (U) Total number of successful LFs: (Number of LFs scored successful and successful with anomaly.)
8. (U) Number of failed LFs: (Number of LFs scored as failures)
9. (U) Number of no-test LFs: (Number of LFs scored as no-test)
10. (U) LF failures: (Identify LF, reason for failure and corrective action. e.g. L-10 GMR 18, MOSR 19. SBNG during Missile Test Seg 1. Corrective action: R&R 403A1A (CSD(G)) drawer.)
11. (U) Successful with anomaly LFs: (Identify LF, anomaly, and corrective action. e.g. G-02, no RADDT during SCNT, corrective action: R&R UHF drawer.)
12. (U) No-test LFs: (Identify LF and reason for scoring as no-test. e.g. A-04 training LF.)
13. (U) POC: (Name, rank, and phone number)
Note: SAMPLE REPORT IS UNCLASSIFIED; PORTION MARKINGS ARE FOR EXAMPLE PURPOSES ONLY

Attachment 19

SAMPLE OLYMPIC PLAY SORTIE EFFECTIVENESS REPORT

Table A19.1. Sample Olympic Play Sortie Effectiveness Report.

MEMORANDUM FOR 576 FLTS OLYMPIC PLAY MONITOR

FROM: (Unit)

(Unit Address)

SUBJECT: (Unit) Olympic Play Sortie Effectiveness Report for (LF number)

1. The following information is provided IAW **paragraph 6.2.5.2**.

a. Fault description: (Description of fault to include Zulu DTG fault occurred, fault indications and command being accomplished when fault occurred.)

b. Corrective action: (Actions taken to correct fault to include T.O.s used, specific steps, and Zulu DTG sortie was returned to alert.)

c. LF history: (Include any recent LF history which may be pertinent to this fault.)

d. Recommended scoring: (IAW scoring criteria in **paragraph 6.2.5.1**.)

2. If there are any questions concerning this report, please contact (name and rank) at DSN (phone).

Signature Block

cc:

HQ AFGSC/A3TT/A4B/SEW

20 AF/A3TT/A4M/SE

377 TEG/CC/CD

576 FLTS/CC/DO

AFNWC/NM

Note: Report will be mailed to the following addresses:

HQ AFGSC/A3TT/A4B/SEW 20 AF/A3TT/A4M/SE

245 Davis Ave E., Ste 200 6610 Hap Arnold Dr, Ste 3383

Barksdale AFB LA 71110-2278 F.E. Warren AFB WY 82005-3943

AFNWC/NM 377 TEG/CC/DO

6054 Dogwood Ave 1785 Utah Ave, Ste 1

Hill AFB UT 84056-5816 Vandenberg AFB CA 93437-5238

Attachment 20

SAMPLE OLYMPIC PLAY QUARTERLY REPORT

Table A20.1. Sample Olympic Play Quarterly Report Part 1 of 2.

FROM: 377 TEG VANDENBERG SFB CA//CC//
TO: HQ AFGSC BARKSDALE AFB LA//A3TT//A4B//SEW//
INFO: USSTRATCOM OFFUTT AFB NE//J376//
20 AF FE WARREN AFB WY//A3N//A3TT//A4M//
AFNWC/NM HILL AFB UT//NMSF//
AFNWC ICBM GROUND SYSTEMS BRANCH HILL AFB UT//NIA//
AFNWC ICBM FLIGHT SYSTEMS BRANCH HILL AFB UT//NIB//
AFNWC KIRTLAND AFB NM//EZT//
90 MW//CCE/OG/OSK/OLYPLAY MONITOR//
91 MW//CCE/OG/OSK/OLYPLAY MONITOR//
341 MW//CCE/OG/OSK/OLYPLAY MONITOR//
(CLASSIFICATION)
SUBJ: QUARTERLY OLYMPIC PLAY REPORT

Table A20.2. Part 1 of 2

CLASSIFICATION

OLYMPIC PLAY TEST RESULTS (U)

1 JAN - 31 MAR 10

CHART I - UNIT SUMMARY (U)

Unit	Evaluated	Successful	Successful w/Anomaly	Total Successful	Failure	Success/Eval Ratio
90 MW	**435**	**434**	**1**	**435**	**0**	**1.0000**
91 MW	**445**	**445**	**0**	**445**	**0**	**1.0000**

CLASSIFICATION

OLYMPIC PLAY TEST RESULTS (U)

1 JAN - 31 MAR 10

CHART I - UNIT SUMMARY (U)

Unit	Evaluated	Successful	Successful w/Anomaly	Total Successful	Failure	Success/Eval Ratio
341 MW	**441**	**398**	**2**	**400**	**41**	**0.9070**

CLASSIFICATION

Table A20.3. Sample Olympic Play Quarterly Report Part 2 of 2.

FROM: 377 TEG VANDENBERG SFB CA//CC//

TO: HQ AFGSC BARKSDALE AFB LA//A3TT//A4B//SEW//

INFO: USSTRATCOM OFFUTT AFB NE//J376//

20 AF FE WARREN AFB WY//A3N//A3TT//A4M//

AFNWC/NM HILL AFB UT//NMSF//

AFNWC ICBM GROUND SYSTEMS BRANCH HILL AFB UT//NIA//

AFNWC ICBM FLIGHT SYSTEMS BRANCH HILL AFB UT//NIB//

AFNWC KIRTLAND AFB NM//EZT//

90 MW//CCE/OG/OSK/OLYPLAY MONITOR//

91 MW//CCE/OG/OSK/OLYPLAY MONITOR//

341 MW//CCE/OG/OSK/OLYPLAY MONITOR//

Table A20.4. Part 2 of 2.

CLASSIFICATION

CHART II - WEAPON SYSTEM SUMMARY (U)

	Total Evaluated	**Successful**	**Successful w/Anomaly**	**Total Successful**	**Failure**	**Success/Eval Ratio**
Total ICBM	1,321	1,277	3	1,280	41	0.969

CLASSIFICATION

OPR: 576 FLTS/DOA CLASSIFIED BY: ICBM SCDG, 23 Oct 08

DATE: 15 APR 10 DECLASSIFY ON: OADR

CLASSIFICATION

(UNCLASSIFIED EXAMPLE)

Atch 1 (1 of 1)

Table A20.5. Sample of Attachment 2 to Quarterly Report.

UNCLASSIFIED

SORTIE FAILURE DATA

1 JAN - 31 MAR 10

90 MW F E WARREN AFB

SORTIE: (Self-explanatory) **DTG:** (Zulu DTG test started)

FAULT: (Brief description of failure to include fault indications and test being accomplished.)

CORRECTIVE ACTION: (Corrective action taken.)

SORTIE: B-05 **DTG:** 05/1800Z MAR 10

FAULT: MOSR 19 DURING MISSILE TEST.

CORRECTIVE ACTION: R&R 403A1A DRAWER (COMMAND SIGNAL DECODER-GROUND).

91 MW MINOT AFB

NO FAILURES

341 MW MALMSTROM AFB

NO FAILURES

Atch 2 (1 of 1)

UNCLASSIFIED

Table A20.6. Sample of Attachment 3 to Quarterly Report.

UNCLASSIFIED

SORTIE ANOMALY DATA

1 JAN - 31 MAR 10

90 MW F E WARREN AFB

SORTIE: (Self-explanatory) **DTG**: (Zulu DTG test started)

FAULT: (Brief description of failure to include anomaly indications and test being accomplished.)

CORRECTIVE ACTION: (Corrective action taken.)

SORTIE: A-05 **DTG**: 05/1800Z MAR 10

FAULT: NO GMR 18 DURING MISSILE TEST.

CORRECTIVE ACTION: R&R 403A4 (MESSAGE PROCESSOR DRAWER).

91 MW MINOT AFB

NO FAILURES

341 MW MALMSTROM AFB

NO FAILURES

Atch 3 (1 of 1)

UNCLASSIFIED

Attachment 21

SAMPLE ANOMALY ANALYSIS REPORT (NON-OTL OR SELM)

Table A21.1. Sample Anomaly Analysis Report (NON-OTL or SELM).

FROM: 377 TEG VANDENBERG SFB CA//CC//
TO: HQ AFGSC BARKSDALE AFB LA//CCE/SE/A3/A3T/A3TT/A3O/A3ON//
INFO: HQ USAF WASHINGTON DC//A10O//
USSTRATCOM OFFUTT AFB NE//J37//
8 AF J-NOC BARKSDALE AFB LA//CC/NID//
20 AF FE WARREN AFB WY//A3N/A3NK/A3T/A3TT//
AFNWC/NM HILL AFB UT//NMS/NMSF//
AFNWC ICBM GROUND SYSTEMS BRANCH HILL AFB UT//NIA//
AFNWC ICBM FLIGHT SYSTEMS BRANCH HILL AFB UT//NIB//
AFNWC ICBM FUTURE SYSTEMS BRANCH HILL AFB UT//NIC//
AFNWC/EZ KIRTLAND AFB NM//EZT//
520 SMXS/MXDEB ICBMSG OFFUTT AFB NE//EN//
(CLASSIFICATION)
SUBJ: HIGHER AUTHORITY COMMUNICATIONS/RAPID MESSAGE PROCESSING ELEMENT BASELINE UPDATE 10-1 SOFTWARE OPERATIONAL TEST ANOMALY ANALYSIS REPORT (U)
1. (U) Test: HAC/RMPE BU 10-1
2. (U) Unit: 377 TEG
3. (U) Anomaly site: (LCC/SMIC Name)
4. (U) Classification of anomaly: (Classification)
5. (U) Date/time of anomaly: (Zulu DTG)
6. (U) Test increment: (Number)
7. ( ) AF Form 1067/OSCR: (Change Request Under Test)
8. ( ) Anomaly: (Detailed explanation of anomaly)
9. (U) Test synopsis: (Brief description of test actions being accomplished.)
10. ( ) Action taken: (Detailed explanation)
11. ( ) Guidance: (Detailed explanation of any applicable guidance)
12. ( ) Recommendations: (Self-explanatory)
13. ( ) Conclusion: (Summarize anomaly to include recommended scoring of site)
14. (U) POC: (Name, rank, and phone number)
SIGNATURE BLOCK
Note: 1. Use/adjust addresses as needed

2. Fill in classification ( ) of each paragraph as appropriate.

Attachment 22

SAMPLE SOTR REPORT

Table A22.1. Sample SOTR Report.

MEMORANDUM FOR HQ AFGSC/A3/6
FROM: (Unit)
(Unit Address)
SUBJECT: (Program) Sufficiency of Operational Test Review (SOTR) Report
1. PURPOSE. Provide Headquarters (HQ) Air Force Global Strike Command (AFGSC) Director of Operations (A3) the SOTR report for the (program).
2. BACKGROUND.
3. ACTION.
4. RESULTS.
5. FINDINGS.
6. SPECIAL INTEREST ITEMS.
7. CONCLUSION. The 377 TEG recommends (fielding/dedicated operational testing is warranted) based on the SOTR results.
Signature Block

Attachment 23

TEST REQUEST MEMORANDUM

Table A23.1. Test Request Memorandum.

PROPOSED TEST NAME:

a. DESCRIPTION: Provide brief summary, yet sufficient information for AFGSC/A3TT representatives to understand, what the proposed item under test (i.e., SW / HW, etc.) brings to the table over and above the current system's capabilities; or, for brand new capability, what it offers the warfighter. Include who the primary operator(s) of the system is/will be. Include who will be maintaining the system. Include Fielding Decision Authority (if test will be in support of fielding decision).

b. DELIVERABLES: Provide what you expect to be the end result of the effort. Select all that apply, and delete those that do not apply.

- Test report - Monitoring and reporting

- Test report with fielding recommendation - Data collection for demonstrations

- Tactics, techniques and procedures - Developmental test support

- Sufficiency of test review - AFOTEC support

- Utility assessments - Other MAJCOM / Service support

- Capability Risk Assessment

c. IMPACT ASSESSMENT: Offer your assessment of which criteria pertains to the item under test and what it brings to the warfighter. Review the following impacts to war fighter capabilities. Select the specific impact under one of the following categories that applies. (NOTE: If you select 'Critical', you must expand with the relative information as indicated under the REMARKS below.)

1) Critical

- Change in current CONOPS

- Change in force employment (i.e., multi-MDS, platform, system integration, or capabilities package)

- N/A

REMARKS: If one of the above critical options is selected, provide a short narrative of the CONOPS and/or force employment change.

2) Major

- Significant changes to current training

- Significant changes to weapons employment.

- N/A

3) Minor

- Minimal changes in current training

- Minimal changes in tactics

- Minimal changes in employment.

- N/A

4) No Impact

- Demonstrations

- Data collection

- N/A

d. TIME SENSITIVITY: Offer your assessment of the time sensitivity behind the acquisition or fielding process with regards to the item under test: Select the single impact under each category that applies. **Note:** If you select 'Immediate', you must expand with the relative information as indicated under the REMARKS below. Expanded information may be provided for other categories as well.

1) Immediate

- Validated Urgent Operational Need (UON)

- Weapon Safety

- Occupational Safety

- Cease Operations

- N/A

REMARKS: If one of the above immediate need options is selected, provide supporting documentation or reference source documents you used as determinant.

2) Priority

- Acquisition / production milestone factor

- Contract impacts

- Fielding decision

- N/A

3) Routine

- Normal day-to-day, specific test mission(s) required

- N/A

4) None

- Piggyback, non-interference

- N/A

f. REQUESTING ORGANIZATION'S POC INFORMATION: Provide requestor's name, rank (i.e., military, GS, contractor), office symbol, phone number (i.e., DSN and commercial), and e-mail address.

g. FUNDING INFORMATION: Provide short narrative identifying source of funding, and fund-cite and/or PE number. If support is for another MAJCOM, Service or Agency, their respective fund cite (from which AFGSC support will be paid) must be provided.

h. ADDITIONAL COMMENTS: Provide any additional relevant information that will assist IPT members to prioritize the proposed test effort.

i. DEVELOPMENTAL TEST AND EVALUATION (DT&E) CONSIDERATIONS: Unless system under test (SUT) has undergone DT&E, or there is a lead developmental test and evaluation organization (LDTO) assigned, requesting agency is required to provide assurance that all safety considerations (technical and test) normally associated with developmental testing have been addressed, and the system is ready for operational testing. Absent this, the test request will be rejected.

Note:

a. Address all questions to A3TT, DSN 781-1910, -7871, -0951.

b. Provide related documentation (e.g. TEMP, ITT charter, draft or latest version) as attachments to the request.

c. Test must be scheduled to allow at least 90 days from completion of LTEE or receipt of last data item (whichever is later) and required fielding decision unless alternate timeline is agreed to by 377 TEG and AFGSC/A3TT. Fielding decisions based on Quick look will require a written waiver from the Fielding Decision Authority.

Attachment 24

TACTICS INVESTIGATION QUICK LOOK

Table A24.1. Tactics Investigation Quick Look.

FROM: 377 TEG VANDENBERG SFB CA//CC//

TO: HQ AFGSC BARKSDALE AFB LA//A3/6/A3T/A3TT/A3TW

INFO: USSTRATCOM OFFUTT AFB NE//J37//

20 AF FE WARREN AFB WY//A3T//A3TT//A3TV//A3TW//

315 WPS NELLIS AFB NV//CC//

532 TRS VANDENBERG AFB CA//DOW//

319 MS FE WARREN AFB WY//DOW//

320 MS FE WARREN AFB WY//DOW//

321 MS FE WARREN AFB WY//DOW//

90 OSS FE WARREN AFB WY//OSK//

10 MS MALMSTROM AFB MT//DOW//

12 MS MALMSTROM AFB MT//DOW//

490 MS MALMSTROM AFB MT//DOW//

341 OSS MALMSTROM AFB MT//OSK//

740 MS MINOT AFB ND//DOW//

741 MS MINOT AFB ND//DOW//

742 MS MINOT AFB ND//DOW//

91 OSS MINOT AFB ND//OSK//

UNCLAS

SUBJ: Tactics Investigation (TI) 18-1 Cascade Targeting (CT) Quick Look Report

1. SOFTWARE VERSION: COP 3.1

2. TEST DATES: 25 - 26 Oct 18

3. TEST FACILITY: Strategic Missile Integration Complex (SMIC)

4. TEST LOCATION: Hill AFB, UT

5. TACTICS DESCRIPTION: TI 18-1 tested the applicability of the CT tactic with COP 3.1 software variable Remote Data Word (RDW) capability. The test demonstrated Launch Control Center (LCC) configuration changes, commands, and faults while a squadron was undergoing CT to determine applicability in either day-to-day or contested degraded environments (CDO).

6. INITIAL TEST RESULTS:

6.1. Objective #1: SATISFACTORY

6.1.1. Is the CT tactic effective while utilizing COP Version 3.1 software?

6.2. Objective #2: SATISFACTORY

6.2.1. Is the CT tactic effective under various LCC configurations?

6.2.2. Does the CT tactic provide expedited targeting capabilities compared to traditional targeting while under various LCC configurations?

6.3. Objective #3: SATISFACTORY

6.3.1. Is the CT tactic effective while one or more LCCs are transmitting commands?

6.3.2. Does the CT tactic provide expedited targeting capabilities compared to traditional targeting while one or more LCCs are transmitting commands?

6.4. Objective #4: SATISFACTORY

6.4.1. Is the CT tactic effective while one or more Launch Facilities (LFs) are experiencing faults?

6.4.2. Does the CT tactic provide expedited targeting capabilities compared to traditional targeting while one or more LFs are experiencing faults?

7. SIGNIFICANT FINDING: N/A

8. REMARKS: The 377 TEG finds that the CT tactic is effective. Based on these results, the 377 TEG recommends CT for operational use. 377 TEG will report detailed test observations and make additional recommendations in the test performance report in accordance with the COP 3.1 Test Plan and AFGSCI 99-102.

9. POCs: Maj Jeffrey Cumber DSN: 276-0187; Capt Margaret Schuetz DSN: 275-6308

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