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MAMS Installation and
Activation Plan



TITLE: MISSILE ASSEMBLY AND MAINTENANCE SHOP (MAMS) ACTIVATION EXERCISE DEMONSTRATIONS FOR OPERATIONAL BASES T-1 THRU T-5.

SEQUENCE: MAMS Activation Exercise Demonstrations to be completed prior to turnkey.

"Support as Required" function of the MAMS requires during Complex Activation Exercises.

RESPONSIBILITY: The Martin Company as Integrator will act as Test

Conductor.

Associate Contractor Support as required by Test Conductor.

#### INTRODUCTION:

Missile Assembly and Maintenance Shop Activation Exercises as delineated herein will be performed at each Titan I Operational Base MAMS facility unless otherwise indicated. The order of the tests as presented in this document shall not be construed to be the required sequence of testing at the MAMS facilities. The tests referenced herein will be performed in a sequence compatible with one another on a noninterference basis as determined by the Test Conductor. Several of the tests require a missile for use during the performance of the test. An operational SM-68 Missile shall be utilized during these tests to accomplish the objectives of 60-5.

Verification of T.O. Manuals, Checklists, and Sequence Charts, etc. will be accomplished at the MAMS facilities as required. Insofar as is feasible, verification of T.O. Manuals will occur prior to formal demonstration to the Air Force at T-1.

The specific GOE/GSE and missile components to be used for demonstration testing as required in this directive will be identified prior to the subject test by the Test Conductor in conjunction with the TAT representative scheduled to witness the demonstration. Test components will,

INTRODUCTION: (Continued)

in general, be requisitioned from I & C Spares. The choice of components to be tested will be made by taking into consideration availability of the particular component in I & C Spares, T.O. Manuals to cover the subject item, and test objectives and requirements.

It is expected that a nominal number of component malfunctions will occur during Activation Exercises at the Complex areas. Where feasible, these components will be incorporated into the MAMS demonstration and take the place of a scheduled demonstration of a spare component.

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The MAMS Activation Exercise Demonstrations consist of the following phases:

- 1. Missile Assembly and Receiving
- 2. Missile Storage
- 3. Aerojet General Demonstrations
  - 3.1 Stage I Engine Maintenance Stand
  - 3.2 Stage II Engine Maintenance Stand
  - 3.3 Maintenance Platform Demonstration
  - 3.4 Decontamination Unit Demonstration
  - 3.5 Thrust Controller Checkout
  - 3.6 Stage II Engine Controller Checkout
  - 3.7 Leak Tester and Recorder Demonstration
  - 3.8 Stage I Engine Electrical Harness Checkout
  - 3.9 Stage II Engine Electrical Harness Checkout

## 4. Hydraulic Test Stand Demonstration

- 5. Pneumatic Test Stand Demonstration
- 6. Cryogenic Test Stand Demonstration
- 7. Fuel Test Stand Demonstration
- 8. Electronic Equipment Test Stand Demonstration
- 9. MAMS "Support As Required" Function
- 10. WECO Demonstrations
- 11. P, Inspection
- 12. P Inspection

TITLE: MISSILE ASSEMBLY AND RECEIVING (Phase 1)

RESPONSIBILITY: The Martin Company - Test Conductor

DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

(XXX denotes Squadron No.)

M-l-765-CL-5-2 Missile Assembly and Receiving Checklist Deck

M-l-766-SC-5-2 Missile Assembly and Receiving Sequence Chart

LOCATION: A MAMS Facility (Missile Bay Area)

#### OBJECTIVE:

The objective of this Activation Exercise is to demonstrate the capability of accomplishing a Missile Assembly and Receiving Inspection in the MAMS utilizing MAMS equipment, Checklist Deck M-1-765-CL-5-2, Sequence Chart M-1-766-SC-5-2, and supporting T.O. Manuals as referenced in the Checklists.

#### TEST DESCRIPTION:

This demonstration will be performed according to the referenced Checklist Deck which consists of thirty (30) separate checklists. The thirty (30) checklists performed include the following tasks: Prepare for Receiving Inspection: Inspect Stage I and Stage II Transition Compartments, Fuel Tanks, Between Tanks Compartments, Lox Tanks, and Engines; Installation of Missile Guidance Set; and Installation of Handling Equipment.

#### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. SR-59-102
- C. T.O. Manuals as specified in the applicable Checklist Deck and Administrative Procedure

#### RECOMMENDED MANPOWER:

Per Sequence Chart M-1-765-CL-5-2

SPECIAL REQUIREMENTS: PNONE MEHOOVES NET



TITLE: MISSILE STORAGE (Phase 2)

RESPONSIBILITY: The Martin Company - Test Conductor

DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

M-1-765-CL-7-2 Missile Storage Checklist Deck

Note: Because of the simplicity of this Checklist Deck, no Sequence

Chart is required to accompany it.

LOCATION: A. MAMS Facility (Missile Bay Area)

#### **OBJECTIVE:**

The objective of this Activation Exercise is to demonstrate the capability of equipment located in the MAMS to prepare a SM-68 missile for storage utilizing Checklist Deck M-1-765-CL-7-2, and supporting T.O. Manuals as referenced in the Checklists.

#### TEST DESCRIPTION:

The demonstration will be performed according to the referenced Checklist Deck which consists of four (4) separate checklists. These four Checklists provide for performance of the following tasks: Install Stage I Desiccant Units, Install Stage II Desiccant Units, and Block Stage I and Stage II Trailers.

#### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. SR-59-102
- C. T.O. Manuals as specified in the applicable Checklist Deck and Administrative Procedure.

#### RECOMMENDED MANPOWER:

Per Checklist Deck M-1-765-CL-7-2

SPECIAL REQUIREMENTS: NONE

TITLE: ADAPTER, MAINTENANCE STAND ADU-34/E (Phase 3.1)

#### RESPONSIBILITY:

A. The Martin Company - Test Conductor

B. Associate Contractor Support - Aerojet General Corp.

#### DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

T1-1

AGC Sub-system Test Procedure and Detailed Test Plan

LOCATION: A. MAMS Facility

1. Propulsion Shop

2. Missile Bay Area

#### **OBJECTIVE:**

The objective of this Activation Exercise is to demonstrate equipment compatibility, mobility and operational integrity of the adapter maintenance stand when utilized with associated equipment and the Stage I LR 87-AJ-3 Rocket Engine Assembly.

#### TEST DESCRIPTION:

- 1) Mate adapter ADU-34/E with Maintenance Stand ETU-22/E
- 2) Perform an operational removal and reinstallation of the LR 87-AJ-3 Rocket Engine Assembly that is in the mated position with its respective airframe.
- 3) Demonstrate the ability of the Maintenance Stand to function according to its performance requirements.

#### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. SR-59-102
- C. T.O. Manuals as specified in the applicable AGC Test Plan and Test Procedure and in the Administrative Procedure.

#### RECOMMENDED MANPOWER:

Per AGC Test Procedure T1-1

- 1. Test Conductor (1)
- 2. Technician Supervisor (1)
- 3. Technician (3)

SPECIAL REQUIREMENTS: NONE

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TITLE: ADAPTER, MAINTENANCE STAND ADU-35/E (Phase 3.2)

#### RESPONSIBILITY:

A. The Martin Company - Test Conductor

B. Associate Contractor Support - Aerojet General Corp.

#### DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

T1-2

AGC Subsystem Test Procedure and Detailed Test Plan

LOCATION: A. MAMS Facility

1. Propulsion Shop

2. Missile Bay Area

#### OBJECTIVE:

The objective of this Activation Exercise is to demonstrate equipment compatibility, mobility, and operational integrity of Adapter Maintenance Stand ADU-35/E when utilized with associated equipment and the Stage II LR 91-AJ-3 Rocket Engine Assembly.

#### TEST DESCRIPTION:

- 1) Mate adapter ADU-35/E with Maintenance ETU-22/E
- 2) Perform an operational removal and reinstallation of the LR 91-AJ-3 Rocket Engine Assembly that is in the mated position with its respective airframe.
- 3) Demonstrate the ability of the Maintenance Stand to function according to its performance requirements.

#### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. SR-59-102
- C. T.O. Manuals as specified in the applicable AGC Test Plan and Test Procedure and in the Administrative Procedure.

#### RECOMMENDED MANPOWER:

Per AGC Test Procedure T1-2.

- 1. Test Conductor (1)
- 2. Technician Supervisor (1)
- 3. Technicians (2)

SPECIAL REQUIREMENTS: NONE

TITLE: MAINTENANCE PLATFORM ETU-23/E (Phase 3.3)

#### RESPONSIBILITY:

A. The Martin Company - Test Conductor

B. Associate Contractor Support - Aerojet General Corp.

#### DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

m-3

AGC Subsystem Test Procedure and Detailed Test

Plan

LOCATION: A. MAMS Facility (Propulsion Shop)

#### **OBJECTIVE:**

The objective of this Activation Exercise is to demonstrate the compatibility of the Maintenance Platform with associated equipment utilizing the Stage I LR 87-AJ-3 and Stage II LR 91-AJ-3 Rocket Engine Assembly.

#### TEST DESCRIPTION

- 1) Perform an operational test of the Maintenance Platform demonstrating the capability of removing and installing various platform components.
- 2) Demonstrate the ability of the Maintenance Platform to function in an operable manner when used in conjunction with the assembled subsystems as follows:
  - a) First Stage (LR 87-AJ-3) Rocket Engine Assembly Adapter Maintenance Stand ADU-34/E, Stand Maintenance ETU-22/E
  - b) Second Stage (LR 91-AJ-3) Rocket Engine Assembly Adapter Maintenance Stand ADU-35/E. Stand Maintenance ETU-22/E
- 3) Demonstrate the capability of the Maintenance Platform to permit adequate access and support of personnel and tool kits utilized in the performance of Rocket Engine Assembly component installation and removal.



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#### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. SR-59-102
- C. T.O. Manuals as specified in the applicable AGC Test Plan and Test Procedure and in the Administrative Procedure.

#### RECOMMENDED MANPOWER:

Per AGC Test Procedure T1-3

- 1. Test Conductor (1)
- 2. Technician Supervisor (1)
- 3. Technicians (2)

SPECIAL REQUIREMENTS: NONE

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TITLE: DECONTAMINATION UNIT (A/M27-7) AND HOSE REEL UNIT MXU-62/E (Phase 3.4)

#### RESPONSIBILITY:

A. The Martin Company - Test Conductor

B. Associate Contractor Support - Aerojet General Corp.

#### DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

T1-4 (Phase I)

AGC Subsystem Test Procedure and Detailed Test

Plan

LOCATION: A. MAMS Facility (Propulsion Shop)

#### OBJECTIVE:

The objective of this Activation Exercise is to demonstrate the ability to properly connect and use the Decontamination Unit and Tank and Hose Reel Unit in the MAMS.

#### TEST DESCRIPTION:

- 1) Perform an operation test with the Decontaminating Unit at the MAMS to remove any fuel or hydrocarbon deposits from the Liquid Oxygen Injector Manifolds of the Thrust Chamber, Gas Generator, or Auxiliary Pump Drive Assemblies, of the LR 87-AJ-3 and the LR 91-AJ-3 Rocket Engine Assemblies.
- 2) Perform an operational test with the Tank and Hose Reel Unit to collect and deliver solvents and fumes dispersed by the Decontaminating Unit when assembled with the applicable Liquid Rocket Assembly to the facility solvent disposal interface.

#### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. SR-59-102
- C. T.O. Manuals as specified in the applicable AGC Test Plan and Test Procedure and in the Administrative Procedure.

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#### RECOMMENDED MANPOWER:

Per AGC Test Procedure T1-4 (Phase I)

- A. Test Conductor (1)
- B. Technician Supervisor (1)
- C. Technicians (2)

SPECIAL REQUIREMENTS: NONE

TITLE: TEST SET, ROCKET ENGINE, THRUST CONTROL TUU-96/E (Phase 3.5)

#### RESPONSIBILITY:

A. The Martin Company - Test Conductor

B. Associate Contractor Support - Aerojet General Corp.

#### DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

T1-6 (Phase I)

AGC Subsystem Test Procedure and Detailed

Test Plan

LOCATION: A. MAMS Facility (Propulsion Shop)

#### OBJECTIVE:

The objective of Activation Exercise is the verification of the Rocket Engine Thrust Control Test Set compatibility and operational integrity when utilized to check the adjustment of the Thrust Control Transducer - Amplifier and the Gas Generator Valve Assemblies of the LR 87-AJ-3 and LR 91-AJ-3 Rocket Engine Assemblies.

#### TEST DESCRIPTION:

- 1) Measure voltage and DC ripple level of the Transducer Amplifier Power Source
- 2) Measure Transducer Amplifier Set Point
- 3) Measure Servo Bias
- 4) Measure Travel Limiter and Limit Switch (LR 87-AJ-3 Engine only)
- 5) Simulate Thrust Chamber Pressure
- 6) Control Gas Generator Valve Travel during checks.

#### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. . SR-59-102
- C. T.O. Manuals as specified in the applicable AGC Test Plan and Test Procedure and in the Administrative Procedure.

#### RECOMMENDED MANPOWER:

Per AGC Test Procedure T1-6 (Phase I)

- A. Test Conductor (1)
- B. Technician Supervisor (1)
- C. Technician (2)

SPECIAL REQUIREMENTS: NONE

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## MAMS ACTIVATION EXERCISE SUMMARY

TITLE: ELECTRICAL AIRBORNE CONTROLLER CHECKER P/N 1-242600 (Phase 3.6)

#### RESPONSIBILITY:

A. The Martin Company - Test Conductor

B. Associate Contractor Support - Aerojet General Corp.

#### DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

Tl-7 (Phase I)

AGC Subsystem Test Procedure and Detailed

Test Plan

LOCATION: A. MAMS Facility (Propulsion Shop)

#### **OBJECTIVE:**

The objective of this Activation Exercise is to verify the electrical continuity and systems integrity of the Electrical Airborne Controller Checker when used in conjunction with the LR 91-AJ-3 Rocket Engine Assembly in the MAMS Propulsion Shop.

#### TEST DESCRIPTION:

- 1) Connect the Electrical Airborne Checker with the LR 91-AJ-3 Rocket Engine Assembly.
- 2) Perform a complete electrical checkout of the Electrical Airborne Controller.

#### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. SR-59-102
- C. T.O. Manuals as specified in the applicable AGC Test Plan and Test Procedure and in the Administrative Procedure.

#### RECOMMENDED MANPOWER:

Per AGC Test Procedure T1-7 (Phase I)

- A. Test Conductor (1)
- B. Technical Supervisor (1)
  C. Technician (2) JEHOOVES.NET

SPECIAL REQUIREMENTS: NONE

Site Manufacturing

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#### MAMS ACTIVATION EXERCISE SUMMARY

TITLE: TESTER RECORDER, LEAKAGE PROPELLANT SYSTEM A/M46T-1 (Phase 3.7)

#### RESPONSIBILITY:

A. The Martin Company - Test Conductor

B. Associate Contractor Support - Aerojet General Corp.

#### DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

T1-8 (Phase I)

AGC Subsystem Test Procedure and Detailed

Test Plan.

LOCATION: A. MAMS Facility (Propulsion Shop)

#### **OBJECTIVE:**

The objective of this Activation Exercise is to verify the operational capability and systems integrity of the Tester-Recorder when performing leak tests of Rocket Engine Propellant Systems and functional checkouts of Engine Components when Test Item is used in conjunction with the LR 87-AJ-3 and LR 91-AJ-3 Rocket Engine Assemblies and the MAMS Propulsion Shop facilities.

#### TEST DESCRIPTION:

The following tests or checkouts will be performed:

- 1) LR 87-AJ-3 Rocket Engine Leak Check
- 2) LR 91-AJ-3 Rocket Engine Leak Check
- 3) LR 87-AJ-3 Rocket Engine Functional Check
- 4) LR 91-AJ-3 Rocket Engine Functional Check

#### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. SR-59-102
- C. T.O. Manual as specified in the applicable AGC Test Plan and Test Procedure and in the Administrative Procedure.

MANPOWER REQUIREMENTS:

Per AGC Test Procedure T1-8 (Phase I)

- A. Test Conductor (1)
- B. Technician Supervisor (1)
- C. Technicians (4)

SPECIAL REQUIREMENTS: NONE

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### MAMS ACTIVATION EXERCISE SUMMARY

TITLE: ELECTRICAL CHECKER, ENGINE HARNESS LR 87-AJ-3 (Phase 3.8)

#### RESPONSIBILITY:

A. The Martin Company - Test Conductor

B. Associate Contractor Support - Aerojet General Corp.

#### DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

T1-9 (Phase I)

AGC Subsystem Test Procedure and Detailed

Test Plan

LOCATION: A. MAMS Facility (Propulsion Shop)

#### **OBJECTIVE:**

The objective of this Activation Exercise is to verify the operational capability and systems integrity of the Electrical Checker when utilized in conjunction with the LR 87-AJ-3 Rocket Engine Assembly Engine Harness by demonstrating the test items ability to monitor electrical continuity and location of open, shorted, or grounded circuits.

#### TEST DESCRIPTION:

- 1) Connect the Electrical Checker to LR 87-AJ-3 Rocket Engine Assembly Engine Harness and Facility Electrical Interfaces.

  Verify interface compatibility.
- 2) Perform an Electrical Continuity.
- 3) Perform an Electrical Resistance Check Test.

#### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. SR-59-102
- C. T.O. Manual as specified in the applicable AGC Test Plan and Test Procedure and in the Administrative Procedure.

#### MANPOWER REQUIREMENTS:

Per AGC Test Procedure T1-9 (Phase I)

- A. Test Conductor (1)
- B. Technician Supervisor (1)
- C. Technician (2)

SPECIAL REQUIREMENTS: NONE

TITLE: ELECTRICAL CHECKER, ENGINE HARNESS LR 91-AJ-3 (Phase 3.9)

#### RESPONSIBILITY:

A. The Martin Company - Test Conductor

B. Associate Contractor Support - Aerojet General Corp.

#### DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

Tl-10 (Phase I)

AGC Subsystem Test Procedure and Detailed

Test Plan

LOCATION: A. MAMS Facility (Propulsion Shop)

#### OBJECTIVE:

The objective of this Activation Exercise is to verify the operational capability and systems integrity of the Electrical Checker when utilized in conjunction with the LR 91-AJ-3 Rocket Engine Assembly Engine Harness by demonstrating the Test Items ability to monitor electrical continuity and location of open, shorted, or grounded circuits.

#### TEST DESCRIPTION:

- Connect electrical checker with LR 91-AJ-3 Rocket Engine Assembly, Engine Harness, electrical interface and interfaces.
   Verify interface compatibility.
- 2) Perform an electrical continuity check test.
- 3) Perform an electrical resistance check test.

### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. SR-59-102
- C. T.O. Manuals as specified in the applicable AGC Test Plan and Test Procedure and in the Administrative Procedure.

### MANPOWER REQUIREMENTS:

Per AGC Test Procedure T1-10 (Phase I)

- A. Test Conductor (1)
- B. Technicians Supervisor (1)
- C. Technicians (2)

SPECIAL REQUIREMENTS: NONE

TITLE: HYDRAULIC TEST STAND DEMONSTRATION - CP 1510 (Phase 4)

RESPONSIBILITY: The Martin Company - Test Conductor

DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

T.O 33D9-4-9-1

Operation, Service and Repair Instructions-

Test Stand, Hydraulic System Components.

T.O. (No. not avail.)

Field Maintenance Manuals Applicable to the

Hydraulic Components tested.

LOCATION: A. MAMS Facility (Hydraulic Area)

OBJECTIVE:

The objective of this test is to demonstrate the capability of the MAMS installed equipment to perform a Receipt-Inspection and Verification on one (1) ground and two (2) Airborne Hydraulic Components.

#### TEST DESCRIPTION:

The specific hydraulic components to be tested shall be chosen by the Test Conductor in conjunction with the TAT representative witnessing the demonstration. The components shall be obtained from I & C spares or shall be components which incur unscheduled malfunctions during Activation Exercises. The test shall utilize the Hydraulic Test Stand CP 1510 to verify the functional operability of the components. In general, the tests performed will include leak tests, proof pressure tests, and functional tests.

#### REFERENCE DOCUMENTS:

A. AFBM Exhibit 60-5

B. SR-59-102

#### RECOMMENDED MANPOWER:

Test Conductor (1)

Technicains (2)

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TITLE: PNEUMATIC TEST STAND DEMONSTRATION - CP 1520 (Phase 5)

RESPONSIBILITY: The Martin Company - Test Conductor

DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedure

T.O. 33D9-31-10-1

Operation, Service, and Repair Instructions -

Pneumatic System Components Test Stand.

T.O. (No. not avail.)

Field Maintenance Manuals Applicable for

the Pneumatic Components tested.

LOCATION: A. MAMS Facility (Cryogenic and Pneumatic Area)

#### **OBJECTIVE:**

The objective of this test is to demonstrate the capability of the MAMS installed equipment to perform Receipt-Inspection and Verification on one (1) ground and two (2) airborne pneumatic components.

#### TEST DESCRIPTION:

The specific pneumatic components to be tested shall be chosen by the Test Conductor in conjunction with the TAT representative witnessing the demonstration. The components shall be obtained from I & C spares or shall be components which incur unscheduled malfunctions during Activation Exercises.

The tests shall utilize Pneumatic Test Stand CP 1520 - to verify the functional operability of the components. In general, the tests performed shall include proof pressure, operational cycle, response time, and internal and external leakage tests.

#### REFERENCE DOCUMENTS:

- A. AFBM Exhibit 60-5
- B. SR-59-102

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RECOMMENDED MANPOWER:

Test Conductor (1)

Technicians (2)

SPECIAL REQUIREMENTS: NONE

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#### MAMS ACTIVATION EXERCISE SUMMARY

TITLE: CRYOGENIC TEST STAND DEMONSTRATION - CP 1590 (Phase 6)

RESPONSIBILITY: The Martin Company - Test Conductor

DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

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T.O. 33D9-122-2-1

T.O. (No. not avail.)

MAMS Administrative Procedures

Operation, Service, and Repair Instructions

Cryogenic System Test Stand

Field Maintenance Manual applicable to

the Cryogenic Components tested.

LOCATION: A. MAMS Facility (Cryogenic and Pneumatic Area)

#### OBJECTIVE:

The objective of this test is to demonstrate the capability of the MAMS installed equipment to perform Receipt-Inspection and verification on one (1) ground and two (2) airborne cryogenic components.

#### TEST DESCRIPTION:

The specific cryogenic components to be tested shall be chosen by the Test Conductor in conjunction with the TAT representative witnessing the demonstration. The components shall be obtained from I & C spares or shall be components which incur unscheduled malfunctions during activation exercises. The tests shall utilize the Cryogenic Test Stand - CP 1590 - to verify the functional operability of the components. The test performed shall include leakage, proof pressure, functional sensor, vacuum, and minor electrical test.

#### REFERENCE DOCUMENTS:

A. AFBM Exhibit 60-5

B. SR-59-102

RECOMMENDED MANPOWER:

Test Conductor (1)

Technicians (2)

SPECIAL REQUIREMENTS: NONE WEHOOVES NET

TITLE: FUEL TEST STAND DEMONSTRATION - CP 1600 (Phase 7)

RESPONSTBILITY:

The Martin Company - Test Conductor

DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

MAMS Administrative Procedures

T.O. 33D9-2-5-1

Operation, Service, and Repair Instruction Fuel

System Components Test Stand

T.O. (No. not avail.)

Field Maintenance Manual applicable for the Fuel

System Components tested

LOCATION:

A MAMS Facility (Fuel Area)

OBJECTIVE:

The objective of this test is to demonstrate the capability of MAMS installed equipment to perform Receipt-Inspection and Verification on two (2) airborne and one (1) ground fuel system components.

#### TEST DESCRIPTION:

The specific fuel system components to be tested shall be chosen by the Test Conductor in conjunction with the TAT representative witnessing the demonstration. The components shall be obtained from I & C spares or shall be components which incur unscheduled malfunctions during Activation Exercises. In general, the tests performed shall include leakage, proof pressure, and functional tests. The tests shall utilize the Fuel System Components Test Stand - CP 1600 to verify the functional operability of the components.

REFERENCE DOCUMENTS:

AFBM Exhibit 60-5

SR-59-102

RECOMMENDED MANPOWER:

- 1 Test Conductor
- 2 Technicians

SPECIAL REQUIREMENTS:

None

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TITLE: ELECTRONIC TEST STAND DEMONSTRATION - CP 1810 (Phase 8)

RESPONSIBILITY: The Martin Company - Test Conductor

DOCUMENT REQUIREMENTS:

AP-XXX-MAMS

CP 2300

CP 2400

MAMS Administrative Procedure

Launch Sequencer System

T.O. 31X3-10-10-2-3 Field Maintenance Instructions - Launch Control and Checkout Sequence Ground Based Components

Flight Controls System

T.O. 31X3-10-10-2-1 Field Maintenance Instruction - Flight Control System.

Ground Based Components

Propellant Loading and Pressurization System

T.O. 31X3-10-11-2-1 Field Maintenance Instructions - Propellant Syste, Ground

Based Components

CP 2600

Accessory Supply System

T.O. 31X3-10-11-2-2 Field Maintenance Instructions - Electrical System, Ground

Based Components

CP 2800

Engine Control System

T.O. 31X3-10-11-2-2 Field Maintenance Instructions - Rocket Engine System.

Ground Based Components

CP 3200

Re-Entry Vehicle System

T.O. 31X3-10-11-2-2 Field Maintenance Instructions - Re-Entry Vehicle System.

Ground Based Components

CP 1810

Electronic Equipment Test Stand
T.O. 33D9-123-2-2 Operations and Service
Instructions, Electronic Equipment Test
Stand.

LOCATION: A. MAMS Facility (Electronic Shop No. 1)

#### OBJECTIVE:

The objective of this test is to verify the capability of the Electronic Equipment Test Stand - CP 1810 - to perform a Receipt-Inspection and Verification on one (1) chassis of each of the subsystems named below:

CP 2300 Launch Sequencer System

CP 2400 Flight Controls System

CP 2500 Propellant Loading and Pressurization System

CP 2600 Accessory Supply System

CP 2800 Engine Control System FHOOVES NET

CP 3200 Re-Entry Vehicle System

CP 3700 Control Center Circuits

#### TEST DESCRIPTION:

One chassis from each of the above named subsystems will be chosen for demonstration by the Test <sup>C</sup>onductor in conjunction with the TAT representative witnessing the demonstration. The tests shall be performed with chassis requisitioned from I & C spares or with chassis which incur unscheduled malfunction during Activation Exercises. Tests run on I & C spares shall utilize presumed "good" chassis and no unauthorized field modifications or simulation of malfunctions shall be performed.

Any chassis faults detected, whether on a chassis from I & C spares or one which malfunctioned at the complex area, must be verified as legitimate chassis faults and not malfunctions of the 1810 Test Stand. REFERENCE DOCUMENTS:

AFBM Exhibit 60-5

SR-59-102