

DATA ITEM DESCRIPTION

Title: MECHANICAL EQUIPMENT AND SUBSYSTEMS INTEGRITY PROGRAM (MECSIP)
MASTER PLAN (MP)

Number: DI-SESS-82329

Approved Date: 20201104

AMSC Number: F10201

Limitation: N/A

DTIC Applicable: No

GIDEP Applicable: No

Preparing Activity: 11 (AFLCMC/EZFA)

Project Number: SESS-2020-039

Applicable Forms: N/A

Use/relationship: The Mechanical Equipment and Subsystems Integrity Program (MECSIP) Master Plan (MP) is essential to document the tasks and elements of MIL-STD-1798, *Mechanical Equipment and Subsystems Integrity Program*, that are planned or accomplished in the development (design, analysis, test, and force management development) and sustainment (force management execution) of the aircraft system. (Copies of this document are available online at <https://quicksearch.dla.mil>.)

This Data Item Description (DID) contains the format, content, and intended use information for the data deliverable resulting from the MECSIP MP development as described in Task I of MIL-STD-1798 subparagraph 5.1.

Requirements:

1. Reference documents. The applicable issue of the documents cited herein, including their approval dates and dates of any applicable amendments, notices, and revisions, shall be as specified in the contract.
2. Format. The contractor's format is acceptable.
3. Content. The MECSIP MP shall depict the MECSIP elements, planned or accomplished, in the development, certification, and sustainment of the aircraft system mechanical equipment and subsystems. The required elements of the MECSIP are defined in MIL-STD-1798. The MECSIP MP shall show how the plan was developed, its unique features, and exceptions to the requirements of MIL-STD-1798. The development of the schedule shall consider all interfaces, the impact of schedule delays (e.g., delays due to test failure), mechanisms for recovery programming, and any other problem areas. Each section of the MECSIP MP shall include the information outlined below and shall include an appendix with more detailed information at the end of the plan, as necessary.
 - 3.1 **TABLE OF CONTENTS.** This section of the MECSIP MP shall include the following items: Table of Contents, Table of Changes, List of Figures, and List of Tables.
 - 3.2 **INTRODUCTION.** This section of the MECSIP MP shall contain an overview of the aircraft program, background of the aircraft development program, background on the sustainment strategy, description of systems included in the MECSIP, and MECSIP system selection methodology. For commercial derivative aircraft programs, this section shall describe the type of certification approach used,

DI-SESS-82329

identifying any components or systems that are certificated for usage outside Federal Aviation Administration (FAA) certification and any differences in planned usage or flight envelope compared to the commercial equivalent system. Detailed information shall be included in Appendix A.

- 3.3 **SUMMARY.** The MECSIP MP shall contain a summary section that briefly presents the important aspects of the MECSIP. This section of the plan shall address the following items: MIL-STD-1798 task elements not programmed; approved deviations from the general MIL-STD-1798 requirements; possible, past, or current problems; schedule slippages; etc. Detailed information shall be included in Appendix B.
- 3.4 **DESCRIPTION OF MECSIP BY TASK.** This section of the MECSIP MP shall include an overview of the five major MECSIP tasks as specified in MIL-STD-1798 subparagraphs 5.1-5.5. The descriptions shall be in summary form for all tasks (I-V) and shall address the information specified in the following subparagraphs, which follow a paragraph-by-paragraph parity with MIL-STD-1798 subparagraphs 5.1-5.5. Rationale for task tailoring and alternate approaches shall be included, where appropriate. Detailed information shall be included in Appendix C.
- a. **TASK I, PRELIMINARY PLANNING.** This section of the plan shall contain individual subparagraphs for each of the subparagraphs in 5.1 of MIL-STD-1798. The information included for each element shall include the scope and application, deviations, problem areas, status (indicating amount completed), and schedule slippage. For programs in sustainment, the Preliminary Planning tasks shall apply to newly developed or modified mechanical equipment and subsystems.
 - b. **TASK II, DESIGN INFORMATION.** This section of the plan shall contain individual subparagraphs for each of the subparagraphs in 5.2 of MIL-STD-1798. The information included for each element shall include the scope and application, deviations, problem areas, status (indicating amount completed), and schedule slippage. For programs in sustainment, the Design Information tasks shall apply to newly developed or modified mechanical equipment and subsystems.
 - c. **TASK III, DESIGN ANALYSIS AND DEVELOPMENT TESTS.** This section of the plan shall contain individual subparagraphs for each of the subparagraphs in 5.3 of MIL-STD-1798. The information included for each element shall include the scope and application, deviations, problem areas, status (indicating amount completed), and schedule slippage. For programs in sustainment, the Design Analysis and Development Test tasks shall apply to newly developed or modified mechanical equipment and subsystems.
 - d. **TASK IV, COMPONENT DEVELOPMENT AND SYSTEM FUNCTIONAL TESTS.** This section of the plan shall contain individual subparagraphs for each of the subparagraphs in 5.4 of MIL-STD-1798. The information included for each element shall include the scope and application, deviations, problem areas, status (indicating amount completed), and schedule slippage. For programs in sustainment, the Component Development and System Functional

DI-SESS-82329

Test tasks shall apply to newly developed or modified mechanical equipment and subsystems.

- e. **TASK V, SUSTAINMENT AND FORCE MANAGEMENT.** This section of the plan shall contain individual subparagraphs for each of the subparagraphs in 5.5 of MIL-STD-1798. The information included for each element shall include the scope and application, deviations, problem areas, status (indicating amount completed), and schedule slippage.
- 3.5 **SCHEDULES, RESPONSIBILITIES, AND STATUS.** The MECSIP MP shall contain specific schedules, responsibilities, status updates, and other information needed to define the scope and execution of the MECSIP. The plan shall depict the time-phased scheduling and integration of all required MECSIP tasks for design, development, and force management of the system aircraft mechanical equipment and subsystems. Detailed information shall be included in Appendix D. The information in this section shall include the following:
- a. Checklist of MECSIP Task I-V Elements indicating Programmed, Not Programmed, Active, and Effort Completed.
 - b. Flow Diagram showing the particular system program status of each Element of the five major tasks.
 - c. MECSIP Master Schedule. See Table A-I through Table A-IV of MIL-STD-1798 Appendix A for recommended time-phase correlation.
 - d. Delineation of MECSIP responsibilities.
 - e. Modification programs resulting from the findings of any aspect of the MECSIP with a description of the requirements and schedule for the modification.
- 3.6 **FUNDING.** The MECSIP MP shall include the costs for the MECSIP. Subparagraph 3.6.1 shall contain cost data supplied by the contractor. Subparagraph 3.6.2 shall contain organic cost data supplied by the internal government activity. These costs shall include initial estimates and updated cost information, and, when possible, shall be provided separately for each element of MECSIP. The costs shall be presented both for actual expenditures and projected requirements as a function of fiscal year for the next five years. Additional cost information shall be included, as necessary and available. Detailed information shall be included in Appendix E.
- 3.7 **APPENDICES.** The appendices of the MECSIP MP shall include the supporting data, rationale, decisions, engineering detail, etc., necessary to complement the summary write-ups presented in subparagraphs 3.2-3.6 of the MECSIP MP. The individual appendices shall include the following detailed information as outlined below.
- a. **Appendix A** – Shall contain supporting data for subparagraph 3.2.
 - b. **Appendix B** – Shall contain supporting data for subparagraph 3.3.
 - c. **Appendix C** – Shall contain supporting data for subparagraph 3.4.
 - d. **Appendix D** – Shall contain supporting data for subparagraph 3.5.

DI-SESS-82329

- e. **Appendix E** – Shall contain supporting data for subparagraph 3.6.
 - f. **Appendix F** – Master Plan Coordination. This appendix shall contain the coordination for the MECSIP MP and each subsequent revision of the MECSIP MP.
 - g. **Appendix G** – MECSIP MP Distribution. This appendix shall contain the Distribution List of the initial MECSIP MP and each subsequent revision of the MECSIP MP.
- 3.8 **BIBLIOGRAPHY.** The MECSIP MP shall contain a master list of all references cited in the MECSIP MP, listed by section and MECSIP task (see Appendix C).
- 3.9 **REFERENCES.** The MECSIP MP shall contain a master list of all government and industry references cited throughout the MECSIP MP.

End of DI-SESS-82329.