

# DEPARTMENT OF DEFENSE

## Report on REQUIREMENT FOR MILITARY DEPARTMENT INTER- SERVICE DEPOT MAINTENANCE



November 2020

### **COST**

The estimated cost of this report for the Department of Defense is approximately \$49,000 for the 2020 Fiscal Year. This includes \$10,000 in expenses and \$39,000 in DoD labor.

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## REPORT REQUIREMENTS

Section 358 of the National Defense Authorization Act for Fiscal Year 2020 reads as follows:

### SEC. 358. REQUIREMENT FOR MILITARY DEPARTMENT INTER-SERVICE DEPOT MAINTENANCE

- (a) **JOINT PROCESS FOR TECHNICAL COMPLIANCE AND QUALITY CONTROL.**—If the Secretary of a military department transfers any maintenance action on a platform to a depot under the jurisdiction of the Secretary of another military department, the two Secretaries shall develop and implement a process to ensure the technical compliance and quality control for the work performed.
- (b) **REQUIREMENTS.** —A process developed under subsection (a) shall include the following requirements—
  - (1) The Secretary of the military department with jurisdiction over the depot to which the maintenance action is transferred shall—
    - (A) ensure that the technical specifications, requirements, and standards for work to be performed are provided to such action or depot; and
    - (B) implement procedures to ensure that completed work complies with such specifications, requirements and standards.
  - (2) The Secretary who transfers the maintenance activity or depot shall ensure that—
    - (A) the technical specifications and requirements are clearly understood; and
    - (B) the work performed is completed to the technical specifications, requirements, and standards prescribed under paragraph (1), and that the Secretary of the military department with jurisdiction over the depot is informed of any shortcoming or discrepancy.
- (c) **REPORTS.**—Not later than 180 days after the date of the enactment of this Act, the Under Secretary of Defense for Acquisition and Sustainment shall submit to the congressional defense committees a report containing a certification that sufficient policy and procedures are in place to ensure quality control when the depot or maintenance activities of one military department support another. The report shall include a description of known shortfalls in existing policies and procedures and actions the Department of Defense is taking to address such shortfalls

This report complies with the direction in section 358(c).

## **THE JOINT DEPOT MAINTENANCE OPERATING ENVIRONMENT:**

Each of the 17 Department of Defense (DoD) major organic (government-owned, government operated) depot maintenance facilities provides specialized capabilities to support specific weapon systems. These activities, often referred to as the Organic Industrial Base (OIB), are also ready and controlled sources of technical competence, resourced with competencies and capacities to surge to meet an array of contingency requirements. The critical capabilities resident within these 17 activities are by and large acquired and activated as integral elements in a weapon system's acquisition and consequently deliver required materiel availability throughout the system's life cycle.

Approximately \$20 billion dollars is spent annually throughout the OIB. These resources are managed carefully such that capabilities across DoD's 17 major maintenance depots are leveraged to get the most out of each appropriated maintenance dollar. DoD and the Military Services routinely target the most promising systemic cost and availability readiness drivers and apply the vast range of maintenance capabilities to achieve weapon system target availability at the lowest possible cost.

Several mechanisms, such as Public-Private Partnerships, Performance Based Logistics, and inter-Service repair strategies, are employed to ensure depot maintenance is performed as effectively and efficiently as possible. Depot Maintenance Inter-Service (DMI) arrangements are established for three percent of DoD's \$20 billion annual organic depot maintenance spend. Inter-Service depot maintenance as a support solution is undertaken in situations where some aspect of required depot maintenance capability does not exist within the Military Service that procured and "owns" a given weapon system, or when a determination has been made to optimize existing capabilities within the DoD before expending funds to establish duplicate capabilities. In these instances when it is determined to be a cost-effective to leverage another Military Service's depot as the source of repair, a DMI arrangement may be established. DMI arrangements are effective because they optimize existing capabilities and potentially lower cost (non-recurring and recurring) to customers' materiel maintenance requirements.

The Military Services make use of a well-established joint depot maintenance construct to provide DMI support for weapons systems, end items, and their components. These DMI arrangements leverage depot maintenance capabilities and resources across the Department and have been responsible for increased effectiveness and reducing redundant capabilities while sustaining essential support needs. Additionally, these DMI arrangements assist the Military Services in maintaining the Core Logistics Requirements as directed by title 10 U.S.Code § 2464.

## **POLICY:**

DoD Directive (DoDD) 4151.18, *Maintenance of Military Materiel*, mandates that maintenance programs for DoD materiel shall be structured and managed to achieve inherent performance, safety, and reliability levels and be designed to meet readiness and sustainability objectives (including mobilization and surge capabilities) of national defense strategic and contingency requirements. In addition, maintenance programs are directed to employ maintenance concepts that optimize process technologies, organizational structures, and

operating concepts to deliver efficient and effective performance to the operating forces. Legislative requirements also necessitate that maintenance outcomes clearly link to strategic and contingency planning and provide organic maintenance for inherently Governmental and core capability requirements. DoD Instruction (DoDI) 4151.24, *Depot Source of Repair (DSOR) Determination Process*, supports the use of inter-Service maintenance by identifying the conditions and criteria for exercising DMI arrangements. Management of DMI arrangements themselves are covered by Military Service-specific policies. There is no overarching DoD-level policy at this time.

The Army, Navy, Marine Corps, and Air Force currently collaborate and adhere to mature processes for assigning and implementing inter-Service depot maintenance workloads. Each Military Service administers joint depot maintenance activities centrally, through a Maintenance Inter-Service Support Management Office (MISMO). The MISMO serves as the primary Military Service point of contact for Depot Source of Repair (DSOR) and for inter-Service depot maintenance coordination.

Further detailed procedures augment the general inter-Service workload policy and regulations described above. The Services develop and execute a Depot Maintenance Inter-Service Support Agreement (DMISA) for each DMI arrangement covering depot maintenance and related support functions for weapon systems, equipment end items, subsystems, components, or commodity groups, including software maintenance. The Military Services implement DMISAs to ensure workload execution meets customer requirements. The DMISA is a formal agreement, like a contract, that documents the DMI arrangement under which one Military Service (the Agent) agrees to provide depot maintenance support for another Military Service (the Principal).

Each Military Service utilizes Maintenance Inter-Service Support Offices (MISOs) that are responsible for developing, negotiating, managing, and terminating DMISAs. MISOs are also responsible for resolving DMISA issues between Military Service commands/centers. When MISOs are unable to reach resolution, the issues are referred to the respective MISMOs. The DMISA Desktop Reference provides guidance along with standardized templates to administer, coordinate, and document all aspects of inter-Service depot work. The DMISA Desktop Reference addresses topics such as the importance of clarity in workload technical specifications, collaborative requirements determination processes, and Principal and Agent responsibilities regarding technical conformance and quality control. It includes a DMISA template with exhibits that are used as management controls certifying workload-specific tailorable aspects of the Principal-Agent relationship. The DMISA Desktop Reference and its DMISA templates are collaboratively maintained by a standing cross-Service working group. Applicable key DoD DMI policy statements are provided at the end of this report.<sup>1</sup>

## REPORT RESPONSE:

Given the contextual depot maintenance inter-Service background provided above, the remainder of the document speaks to the specific elements of the section 358(c) reporting requirements. Based upon the collaborative review and analysis process used to produce this report, **the Department certifies that sufficient policy and procedures are in place to ensure quality control when the depot or maintenance activities of one Military Department support another.** The specific section 358 requirement is below:

*Section 358 (b)(1) and (2)*

*(1) The Secretary of the military department with jurisdiction over the depot to which the maintenance action is transferred shall—*

*(A) ensure that the technical specifications, requirements, and standards for work to be performed are provided to such action or depot; and*

*(B) implement procedures to ensure that completed work complies with such specifications, requirements and standards.*

*(2) The Secretary who transfers the maintenance activity or depot shall ensure that—*

*(A) the technical specifications and requirements are clearly understood; and*

*(B) the work performed is completed to the technical specifications, requirements, and standards prescribed under paragraph (1), and that the Secretary of the military department with jurisdiction over the depot is informed of any shortcoming or discrepancy.*

In order to address the full scope of the requirement, the Office of Deputy Assistant Secretary of Defense for Materiel Readiness assembled a cross-Service integrated product team (IPT). The IPT included subject matter experts from the Army, Navy, Air Force, and Marine Corps specializing in inter-Service depot maintenance and supply as well as Military Service and Office of the Secretary of Defense (OSD) leads for logistics and sustainment policy. The IPT researched applicable policy and processes; conducted a case study to validate current DMI processes and procedures; and developed and vetted a series of specific observations and recommendations.

The IPT found procedures are in place to implement and manage DMI workloads from source of repair selection to workload execution transfer back to the requiring activity. Procedures are also in place to identify and communicate any shortcomings or discrepancies to the activity performing the work. When establishing a DMISA, responsibilities and procedures for both the Principal and Agent are outlined in the DMISA Desktop Reference to ensure all technical specifications are clearly stated and understood. Quality assurance procedures are also clearly articulated and provide ample opportunity for inspection and feedback. Additionally, DMISAs are reviewed annually (if not more frequently) and may be reviewed at any time upon request. DMISAs are used for all multi-year inter-Service depot maintenance workload assignments. As mentioned in the “Policy” section of this report, responsibility to coordinate joint depot maintenance activities is accomplished through a single primary point of contact at each Service for DMI workload assignment and administration.

Through a systematic review of inter-Service policy and procedures, including DoDD 4151.18, the DMISA Desktop Reference, and Service-level protocols, the IPT confirmed structured policies, processes, and procedures are in place to support inter-Service workloads. These documents and the associated DMISA templates provide the framework for documenting the appropriate checks and balances to enable a high degree of coordination between the Principals and Agents to ensure technical compliance and quality control for the work performed. The IPT also developed swim-lane charts as graphic references, in Figures 1 and 2, below. Based on guidance in the DMISA Desktop Reference, the IPT reviewed DMISA for the Navy C-130 depot maintenance workload as a use case to validate that each DMISA can be tailored to the specific workload identified in the DSOR assignment, while still conforming to policy imperatives.

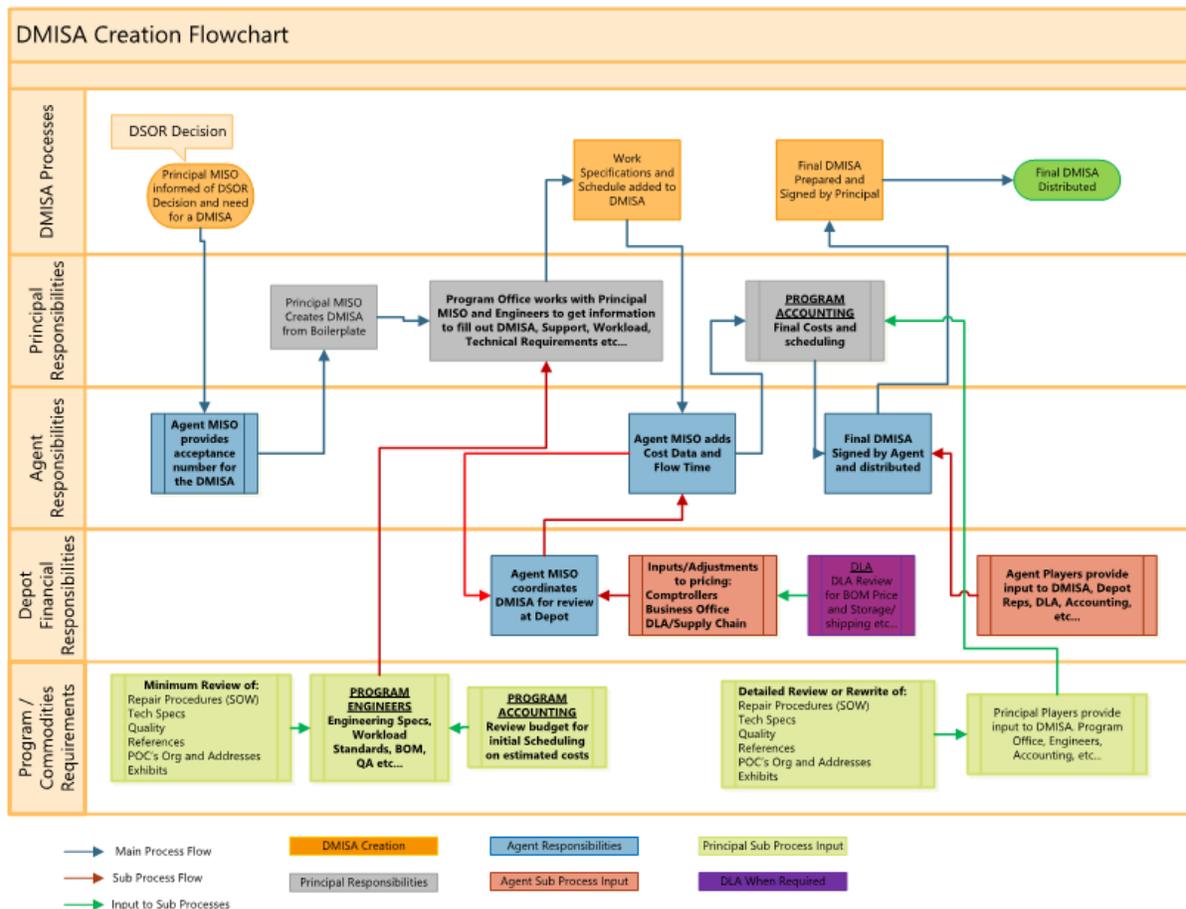
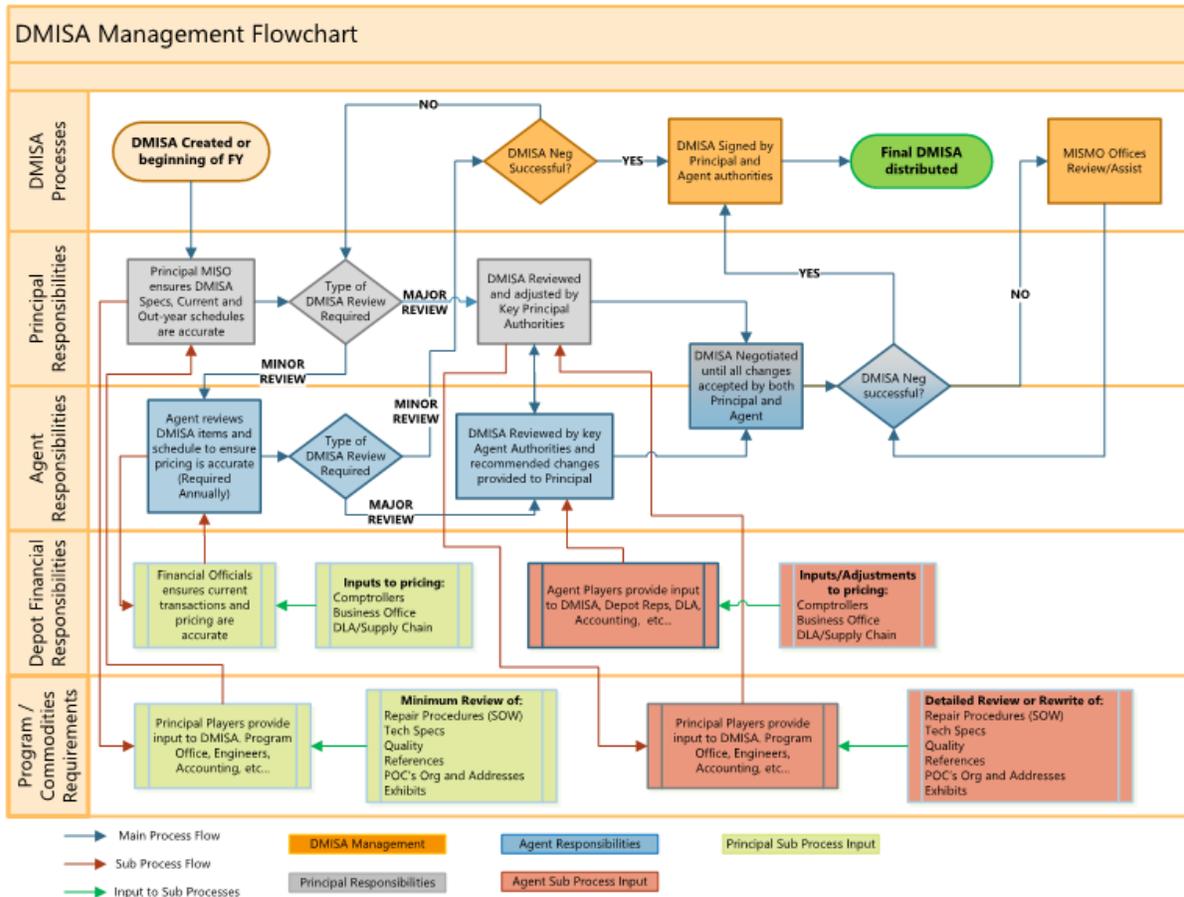


Figure 1

The flowchart in Figure 1 depicts where repair procedures, technical specifications, and quality assurance requirements are coordinated and documented in the DMISA development process. It also identifies when the requirements for Agent and Principal signatures occur. Both are key components ensuring that technical specifications, requirements, and standards for depot maintenance inter-Service work are clearly set forth by the Principal and understood by the Agent performing the work.



**Figure 2**

Figure 2 depicts where in the DMISA review and negotiation process the repair procedures, technical specifications and quality assurance requirements are coordinated and documented in the management of an existing DMISA. It also identifies when the requirements for Agent and Principal signatures occur. Both are key components ensuring that technical specifications, requirements, and standards for depot maintenance inter-Service work are clearly set forth by the Principal and understood by the Agent performing the work

**PROCESS DESCRIPTION:**

Success in depot maintenance inter-Service work is largely based upon the parties' mutual agreement to the technical specifications corresponding to the work to be performed. Procedures described within the DMISA Desktop Reference outline the framework for achieving work specification agreement: The Principal is responsible for determining support, workload, and technical requirements and must coordinate with the Agent to ensure availability of adequate depot maintenance resources. The Principal and Agent then establish mutually agreeable work specifications. The Agent will add cost data and flow time information for the Principal's requirements to the workload, to be reflected in exhibits to the DMISA being established, and then return the completed draft DMISA to the Principal. The Principal will review the Agent's input and, if acceptable, prepare the formal agreement. Once prepared, the

Principal will sign the DMISA and forward it to the Agent for signature. The depot commander or his or her designated representative will sign the DMISA as the Agent when DMISA workload is planned to be accomplished at his or her organic maintenance facility. If desired by either the Principal or Agent, the Agent will request the Defense Logistics Agency (DLA)/Defense Distribution Depot sign the DMISA cover page acknowledging DLA's support commitment. Signatures on the cover page of the DMISA by the Principal, Agent, and other involved parties constitutes approval and acceptance of the DMISA's terms. A formal negotiation meeting may be held to resolve outstanding issues before the DMISA is executed.

### **PROCESS CONTROLS:**

The Principal's and Agent's MISOs annually facilitate a joint review of each DMISA with the Principal's program office and the Agent's depot command. Amendments are incorporated at the annual reviews prior to the next fiscal year, but if either the Agent or Principal determines a required change is significant, amendments can be made at any time and the DMISA will require at a minimum new signatures by the Service Representative authorized to approve the DMISA and the Principal's and Agent's MISO to formally accept the change. The Principal may request a DMISA be terminated if the Agent's product cost, product quality, or schedule does not meet the requirements identified in the DMISA. An Agent may request a DMISA be terminated because of the Principal's inadequate funding, lack of piece part support, or lack of sufficient assets to support the agreed upon workload schedule.

### **OBSERVATIONS:**

1. The IPT found that sufficient existing policies, process, procedures, and controls to enable technical specifications, requirements, and standards for depot maintenance inter-Service work are clearly set forth by the Principal and understood by the Agent performing the work.
2. The C-130 DMISA mapping process confirmed the major DMISA initiation and execution steps are being implemented as described in the DMISA Desktop Reference. Figures 1 and 2 contain these process flows.
3. The IPT identified one policy gap that, if addressed, could improve the effectiveness and efficiency of depot maintenance inter-Service workloads.

### **FINDING:**

The IPT identified a policy gap in the area of DMISA management. The policy to develop and manage the depot maintenance inter-Service program was not addressed in the Department's latest review and update of the current depot source of repair determination process. Service-level policies generally address the processes and procedures to implement DMISAs and execute inter-Service workloads. This policy framework is predominantly based upon legacy Service-specific regulations and is effective; however, it is not documented in OSD-level policy.

Approach to close the policy gap: The Department will issue policy in the form of a DoD Instruction formalizing the DMI program by January 2022.

## **SUMMARY:**

The Department certifies adequate policy and procedures are in place to enable quality control when the depot or maintenance activities of one Military Service supports another. This claim is based upon the structured review process used to develop this report as well as the demonstrated expertise and collaboration demonstrated by the Military Services in the development of this review. The Department identified one policy gap, the lack of overarching OSD-level policy for DMI arrangements, that it close by issuing new policy through an issuance, thus improving the performance of inter-Service depot maintenance. The Military Services will continue to manage and update the DMISA Desk Reference and exhibits in alignment with OSD direction.

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<sup>1</sup> All maintenance programs for DoD Materiel are required to be structured and managed to achieve inherent performance, safety and reliability levels of the materiel. Maintenance tasks restore safety and reliability to their inherent levels when deterioration has occurred. Maintenance programs are structured for meeting readiness and sustainability objectives (including mobilization and surge capabilities) of national defense strategic and contingency requirements. (DoDD 4151.18, para 3.1)

It is the program's responsibility to ensure access to support and support-related technical information is consistent with the planned support concept to cost effectively maintain fielded systems and foster competition for sources of support throughout the life of the fielded systems. (DoDD 4151.18, para 3.1.8)

Whether the workload originates intra-Service or inter-Service, DoD maintenance activities are required to adopt business practices and quality management processes to continuously improve maintenance operations and maintenance production, achieve cost savings and avoidance, and realize process cycle time reduction (DoDD 4151.18, para 3.1.5)

The DMISA Desktop Reference is structured to tailor each DMISA to a specific workload through the application of appropriate exhibits from the 17 exhibits that may accompany the DMISA. The exhibit templates contain boiler plate language to be tailored to the specific workload and its unique requirements. The DMISA is drafted, reviewed, and negotiated prior to obtaining approval signatures from both the Principal and Agent.

Each DMISA is comprised of separate exhibits that contain specific language tailored to each workload, addressing categories including engineering support, bills of material, statements of work, technical data, and quality assurance requirements. There are up to 17 exhibits that may be included with the DMISA depending on the complexity of the workload (e.g., aircraft programmed depot maintenance vs subsystems or components).