



DoD MANUAL 4140.01, VOLUME 12

DoD SUPPLY CHAIN MATERIEL MANAGEMENT PROCEDURES: SALES AND OPERATIONS PLANNING

Originating Component: Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics

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Purpose: This manual is composed of several volumes, each containing its own purpose. In accordance with the authority in DoD Directive 5134.12 and DoD Instruction 4140.01:

- The manual implements policy, assigns responsibilities, and provides procedures for DoD materiel managers and others who work within or with the DoD supply system consistent with DoD Instruction 4140.01, and establishes standard terminology for use in DoD supply chain materiel management.
- This volume implements the policies established in DoD Instruction 4140.01, assigns responsibilities, and prescribes procedures for the DoD supply chain materiel management processes associated with the business management decision framework known as sales and operations planning (S&OP).

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SECTION 1: GENERAL ISSUANCE INFORMATION

1.1. APPLICABILITY. This volume applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this volume as the “DoD Components”).

SECTION 2: RESPONSIBILITIES

2.1. ASSISTANT SECRETARY OF DEFENSE LOGISTICS AND MATERIEL

READINESS. Under the authority, direction, and control of the Under Secretary of Defense for Acquisition, Technology, and Logistics, the Assistant Secretary of Defense for Logistics and Materiel Readiness monitors progress towards attaining strategic objectives by reviewing DoD Component self-assessments annually.

2.2. DOD COMPONENT HEADS.

 The DoD Component heads must:

- a. Implement the procedures prescribed in this volume and ensure that supplemental guidance and procedures are in accordance with this volume.
- b. Establish strategic objectives for the inventory control point (ICP) that align to with overarching strategic objectives of the DoD Component and the DoD, such as those documented annually in the national security strategy, military strategy, and defense planning guidance.
- c. Establish key performance indicators, such as the supply chain enterprise metrics identified in Volume 10 of this manual, to measure progress toward the achievement of strategic objectives.
- d. Implement and use a business management decision framework to produce a balanced and actionable demand and supply plan that aligns with strategic objectives.
- e. Assign responsibilities for producing a balanced demand and supply plan that aligns with strategic objectives. These responsibilities will ensure there is representation from finance, acquisition, supply chain, logistics, programs, and other functional organizations deemed appropriate throughout the entire sales and operations process.
- f. Brief self-assessment results to Office of the Assistant Secretary of Defense for Logistics and Materiel Readiness annually.
- g. Maintain documentation to:
 - (1) Monitor Component progress toward attaining strategic objectives.
 - (2) Ensure the proper use of the business management decision framework to produce a balanced and actionable demand and supply plan that aligns with strategic objectives.
 - (3) Ensure that ICPs conduct self-assessments of the maturity of their business management decision framework.

SECTION 3: PROCEDURES

3.1. S&OP. The DoD Components will use the procedures for the business management decision framework described in this section. This exception based framework, as depicted in Figure 1, is intended to provide the DoD Components with a method to balance demand and supply at the product family level that works toward the achievement of strategic objectives. This framework includes procedures for demand planning for product families, demand validation, supply planning, supply response, preparatory S&OP, executive S&OP, and decision implementation. The outcome of each process step is communicated to all stakeholders, with the focus being on addressing any identified imbalances between demand and supply.

Figure 1. S&OP Overview



a. Demand Planning. Each ICP will:

(1) Conduct demand planning for product families:

(a) On a recurring basis. At least quarterly, review the demands that are expected to occur during the next 24 months. A more frequent cycle, such as monthly, may be implemented.

(b) For the planning time horizon of demands that are expected to occur during the next 4 to 24 months, at minimum, implement a longer planning time horizon to accommodate the demands for product families (e.g., long lead time items, demand sources, and assumptions driving demands). The 0 to 4 month time horizon is execution-focused and not part of this demand planning process.

(2) Produce a single, unconstrained demand plan that combines recurring and non-recurring demand requirements for product families.

(3) Communicate the single, unconstrained demand plan to those responsible for its validation.

b. Demand Validation. The DoD Components will validate the single, unconstrained demand plan on the same recurring basis as demand planning. Each ICP will:

(1) Review key performance indicators relevant to demand plan validation, such as materiel readiness, responsiveness, reliability, cost, and planning and precision identified in Volume 10 of this manual.

(2) Agree on and validate the single, unconstrained demand plan, considering key performance indicators and focusing on the demand for product families, not individual items.

(3) Agree on assumptions about future events and use them to develop a single, unconstrained demand plan that aligns with historical trends and planned changes in operational tempo.

(4) Prioritize the demand for product families after validating product support data, such as the bill of materials, according to the procedures specified in this manual. Use key performance indicators, assumptions about future events, and strategic objectives to prioritize the demand for product families.

(5) Communicate the validated demand plan and the prioritization of demands at the product family level rather than item level.

(6) Communicate the validated demand plan and the prioritization of demands to all stakeholders, while addressing any identified imbalances between demand and supply.

c. Supply Planning. The DoD Components will develop a supply response to support the validated demand plan on the same recurring basis as the other procedural elements of S&OP. Each ICP will:

(1) Ascertain and validate the cost of materiel required by the validated demand plan; available budget and resources, such as labor, equipment, and capacity; and stock requirements.

(2) Identify:

(a) Imbalances in demand and supply at the product family level.

(b) Possible courses of action that could be taken to resolve the identified demand and supply imbalances. These courses of action may, for example, include expediting materials from third party suppliers, adding workbench or labor capacity, procurement, repair, termination, or disposal.

(3) Analyze the cost of each identified course of action and its likely impact on the achievement of strategic objectives.

(4) Communicate to those responsible for preparing a supply response:

(a) The identified demand and supply imbalances at the product family level.

(b) The analysis of the different courses of action that can be implemented to help produce a balanced demand and supply plan that aligns with strategic objectives.

d. Supply Response. The DoD Components will develop a response to the identified demand and supply imbalances on the same recurring basis as other procedural elements of S&OP. Each ICP will:

(1) Review:

(a) Key performance indicators relevant to developing the supply response, such as materiel readiness, responsiveness, reliability, cost, and planning and precision identified in Volume 10 of this manual.

(b) The identified demand and supply imbalances at the product family level.

(c) The analysis of the possible courses of supply planning actions.

(2) Agree on a supply response that satisfies demand requirements that is executable without additional external review and approval.

(3) For the elements of the supply response that require additional review and approval, prioritize the different, possible courses of action for addressing these remaining demand and supply imbalances at the product family level.

(4) Communicate to those involved in preparatory S&OP:

(a) Any remaining demand and supply imbalances at the product family level.

(b) The prioritized courses of action to those involved in preparatory S&OP.

(c) The agreed upon supply response that satisfies demand requirements and is executable without additional review and approval.

e. Preparatory S&OP. The DoD Components will work to resolve remaining demand and supply imbalances on the same recurring basis as other procedural elements of S&OP. Each ICP who have the decision authority to resolve demand and supply imbalances will:

(1) Review:

(a) Key performance indicators that measure the progress towards achieving strategic objectives, such as materiel readiness, responsiveness, reliability, cost, and planning and precision identified in Volume 10 of this manual.

(b) The prioritized courses of action for reconciling remaining demand and supply imbalances at the product family level.

(c) Any ongoing initiatives intended to resolve demand and supply imbalances.

(2) When possible, resolve any remaining demand and supply imbalances by deciding on courses of action that maximize the possibility of achieving strategic objectives.

(3) Recommend courses of action for addressing any remaining demand and supply imbalances at the product family level.

(4) When applicable, propose modifications to ongoing initiatives intended to resolve recurrent demand and supply imbalances.

(5) Reach decisions, recommendations, and proposals through consensus, when possible.

(6) Communicate to those involved in executive S&OP:

(a) Progress towards achieving strategic objectives.

(b) Any remaining demand and supply imbalances at the product family level and recommendations on how they should be addressed.

(c) The progress of any ongoing initiatives intended to reconcile recurrent demand and supply imbalances at the product family level and, when applicable, any proposed modifications to ongoing initiatives.

(d) The agreed upon supply response that satisfies demand requirements and is executable without additional review and approval.

f. Executive S&OP. On the same recurring basis as the other procedural elements of S&OP, the DoD Components will work to finalize a balanced demand and supply plan that aligns with strategic objectives. In each ICP, senior decision-makers from finance, acquisition, supply chain, logistics, programs, and other functional organizations deemed appropriate will convene to:

(1) Review what has been communicated by those involved in preparatory S&OP.

(2) Decide on the recommended courses of action to take in response to any remaining demand and supply imbalances at the product family level.

(3) Decide on any proposed modifications to ongoing initiatives intended to prevent recurrent demand and supply imbalances.

(4) Decide on any changes to future strategic objectives.

(5) Communicate to all relevant stakeholders:

(a) The agreed upon, balanced, and actionable demand and supply plan that aligns with strategic objectives.

(b) Any changes to future strategic objectives.

(c) Any agreed upon modifications to ongoing initiatives intended to resolve recurring demand and supply imbalances at the product family level.

g. Decision Implementation. On the same recurring basis as other procedural elements of S&OP, the DoD Components will:

(1) For the relevant period, implement the agreed upon, balanced and actionable demand and supply plan that aligns with strategic objectives.

(2) Monitor and communicate to all relevant stakeholders the progress toward achieving strategic objectives.

(3) When applicable, implement changes to ongoing initiatives that were decided on in executive S&OP. Monitor and communicate the progress of these initiatives to all relevant stakeholders.

(4) When applicable, document changes to strategic objectives.

3.2. MATURITY SELF-ASSESSMENT. Business management decision frameworks can exist at different stages of maturity.

a. ICPs will:

(1) Assess the maturity of their business management decision framework at least once every 24 months or when changes occur to:

(a) Organizational or supply chain configuration.

(b) Alignment between supply chain output and strategic objectives.

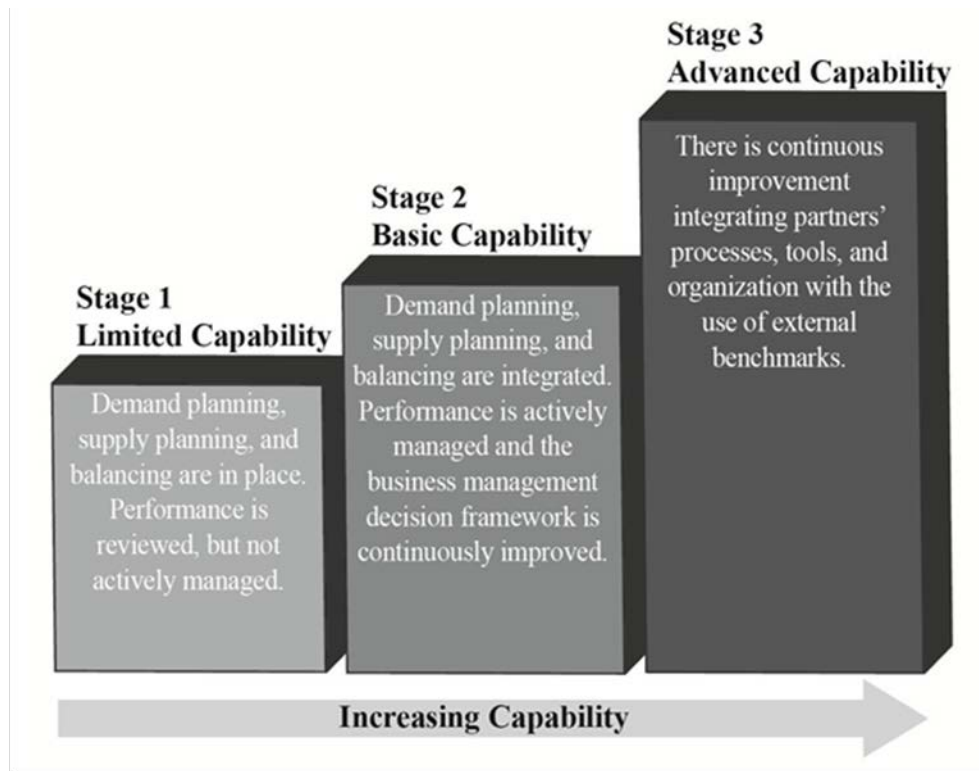
(c) Supply chain performance indicators such as materiel readiness, responsiveness, reliability, cost, and planning and precision identified in Volume 10 of this manual.

(2) Determine whether their business management decision framework is of limited, basic, or advanced capability.

(3) Document the result of their self-assessment.

(4) Use the business management decision framework maturity stages overview in Figure 2 as a guideline for gauging the results of the self-assessments. This issuance does not require ICPs to have a business management decision framework at a particular stage of maturity.

Figure 2. Business Management Decision Framework Maturity Stages Overview



(5) Have a business management decision framework in place that is of a maturity stage that makes most business sense for them.

(6) Implement a significant change or invest resources, when necessary, to move from limited to basic to advanced capability.

(7) Use the results of their maturity self-assessment to help with the identification of improvement opportunities. The results of the maturity self-assessment are not necessarily intended to be used to indicate the health of the business management decision framework. The improvement opportunities identified may be realized when their potential returns outweigh the required investment.

b. ICPs may self-assess their business management decision framework maturity in stage 1, 2, or 3.

(1) Stage 1 with limited capability.

(a) Business management decision framework of a limited capability has all of the procedural elements of S&OP in place. However, the different procedural elements will not be synchronized or integrated.

(b) Supply planning and demand planning exists as discrete planning processes.

(c) Collaboration amongst stakeholders tends to be bilateral, on an as-needed basis.

(d) Management focus tends to address issues of the day, rather than on forward-looking issues. While performance is reviewed, it is not actively managed.

(2) Stage 2 with basic capability.

(a) Business management decision framework of basic capability has all of the procedural elements of sales and operations integrated and synchronized so that senior decision makers can actively manage performance.

(b) Cross-functional stakeholders are actively involved in all procedural elements.

(c) Senior decision makers clearly communicate decisions and actively monitor progress toward the achievement of strategic objectives.

(3) Stage 3 with advanced capability.

(a) Business management decision framework of advanced capability that is continuously improving the integration and synchronization of its constituent processes by making use of external benchmarks, such as other ICPs within the DoD Component or organizations external to the DoD.

(b) Information systems are used to seamlessly integrate demand and supply planning processes and to implement and track the outcome of decisions reached.

(c) Third party suppliers, customers, and, when applicable, other DoD Components are involved in the business management decision framework.

GLOSSARY

G.1. ACRONYMS.

ICP inventory control point

S&OP sales and operations planning

G.2. DEFINITIONS. These terms and their definitions are for the purpose of this issuance.

business management decision framework. A series of processes or guidelines designed to provide the structured flow of information required for informed decision making. The processes and guidelines are documented, repeatable, and consistent across the organization.

demand. An indication of a requirement, a requisition, or similar request for an item of supply or individual item. Demands are categorized as either recurring or non-recurring.

executive S&OP. The process used by cross-functional, senior decision makers to review the progress of the demand and supply plan toward achieving the strategic objectives. They then decide how to address any remaining demand and supply imbalances and agree upon the strategic objectives and ongoing initiatives.

ICP. An organizational unit or activity within the DoD supply system assigned the primary responsibility for the materiel management of a group of items either for a particular Military Department or for the DoD as a whole. In addition to materiel management functions, an ICP may perform other logistics functions in support of a particular Military Department or for a particular end item (e.g., centralized computation of retail requirements levels and engineering tasks associated with weapon system components).

individual item. A single instance of a stock-numbered item, a single assembly, or a single subassembly.

inventory. Materiel, titled to the U.S. Government, held for sale or issue, held for repair, or held pending transfer to disposal. This definition covers the same population of items as the definition for inventory in Chapter 4 of Volume 4 of DoD 7000.14-R. Inventory does not include tangible personal property to be consumed in normal operations, operating materials, and supplies as defined in Chapter 4 of Volume 4 of DoD 7000.14-R.

item of supply. A category of items identified by a national stock number with the same form, fit, and function. The individual items (units) included in this category could be manufactured by multiple sources.

materiel management. The phase of military logistics that includes managing, cataloging, demand and supply planning, requirements determinations, procurement, distribution, overhaul, and disposal of materiel.

preparatory S&OP. The process used by cross-functional stakeholders with the authority to resolve remaining demand and supply imbalances to conduct a review of the supply response progress toward achieving objectives or to recommend actions to resolve imbalances to the executive S&OP level.

product family. A group of items associated with a weapon system, have similar physical characteristics, or share customer segments.

single, unconstrained demand plan. The plan to produce items of supply for all demands anticipated to occur during the next 24 months without any limitations due to restraints such as funding levels.

supply chain strategic objective. An objective to improve the supply chain that relates to and supports the accomplishment of a strategic objective for DoD or for the organization. For example, DoD has a strategic objective to decrease DoD expenditures on unnecessary inventory. The Component supply chain strategic objective is to improve forecasting accuracy as measured by metrics for forecasted versus actual demand.

REFERENCES

- DoD 7000.14-R, “Department of Defense Financial Management Regulations (FMRs),” dates vary by volume
- DoD Directive 5134.12, “Assistant Secretary of Defense for Logistics and Materiel Readiness (ASD(L&MR)),” May 25, 2000, as amended
- DoD Instruction 3000.04, “DoD Munitions Requirements Process (MRP),” September, 24, 2009
- DoD Instruction 4140.01, “DoD Supply Chain Materiel Management Policy,” December 14, 2011