DCMA Manual 2303-01, Volume 5
Surveillance: Manufacturing

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Purpose: This manual is composed of several volumes, each containing guidance and requirements for surveillance. In accordance with the authority in DoD Directive 5105.64 and DCMA Instruction 2303, "Surveillance," this volume implements policy, assigns responsibilities, and provides procedures for the planning and execution of manufacturing surveillance.

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SECTION 1: GENERAL ISSUANCE INFORMATION

1.1. APPLICABILITY.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA Manual (DCMA-MAN) 2303-01.

1.2. POLICY.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

1.3. SPECIALIZED FORMS AND INFORMATION COLLECTION.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

1.4. SUMMARY OF CHANGES.

This volume is a new issuance and must be reviewed in its entirety.

SECTION 2: RESPONSIBILITIES

2.1. COMPONENT HEADS AND CAPABILITY BOARD MANAGERS.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

2.2. OPERATIONAL UNIT COMMANDERS, DIRECTORS, AND CENTER DIRECTORS.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

2.3. CONTRACT MANAGEMENT OFFICE (CMO) COMMANDERS AND DIRECTORS.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

2.4. FUNCTIONAL DIRECTORS, DEPUTIES, AND GROUP LEADERS.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

2.5. SUPERVISORS.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

2.6. FS.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

2.7. ADMINISTRATIVE CONTRACTING OFFICERS.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

SECTION 3: SURVEILLANCE OVERVIEW

The following requirements, information, and guidance are in addition to the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303.

3.1. SURVEILLANCE OVERVIEW.

a. DCMA determines the extent of production surveillance pursuant to Subpart 42.11, Section 42.1104 of the Federal Acquisition Regulation (FAR), and Subpart 242.11, Section 242.1104 of the Defense Federal Acquisition Regulation Supplement (DFARS). DCMA production surveillance comprises both progress and process evaluations. Progress evaluations include delivery surveillance and process evaluations include the Defense Priorities and Allocation System (DPAS), production planning and control (PP&C), and AS6500 Manufacturing Management Program.

b. Contracts that require a surveillance plan are:

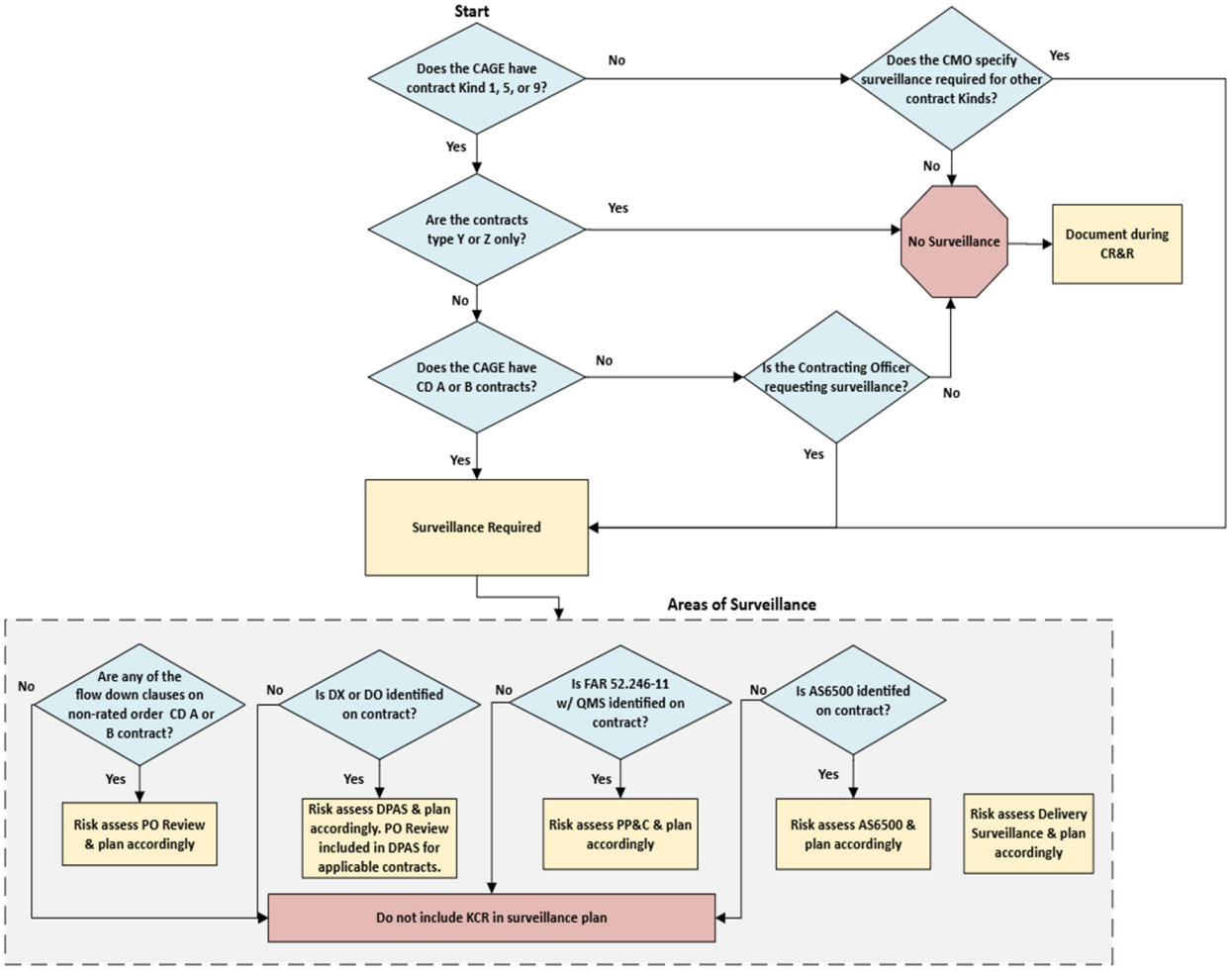
- Kind 1 - supply
- Kind 5 - maintenance
- Kind 9 - unpriced orders against basic ordering agreements that meet the criticality designator (CD) requirements in Paragraph 3.2.a.(1) and 3.2.a.(2).

c. The FS can find contract kind codes in Mechanization of Contract Administration Services (MOCAS). Other contract kinds do not require surveillance or a surveillance plan unless specified by the CMO.

d. In cases where surveillance will not be performed due to a unique situation, the FS may document this in the system of record (SoR) during contract receipt and review (CRR) without creating a surveillance plan in Product Data Reporting and Evaluation Program (PDREP). An example of a unique situation could include a contractor who has one DCMA administered contract with a delivery date within 30 days.

e. When surveillance is required, but will not be performed due to resource constraints only, then a surveillance plan is required to document the resource constraints.

Figure M1. Surveillance Overview



3.2. SURVEILLANCE GUIDANCE.

a. Delivery Surveillance.

Delivery surveillance consists of any FS surveillance actions providing insight to the progress of contract items shipping before, on, or after the scheduled delivery date. Delivery surveillance results will produce an independent analysis of the contractor's ability to meet the contractual delivery or revised schedule date(s).

(1) The FS must conduct delivery surveillance on contractors with CD A or CD B contracts. CD C contracts may be included in a CD A or CD B contractor delivery surveillance if beneficial in determining contractor overall performance and pending resource availability. If resource constraints prevent surveillance on CD C schedules, the FS will request status information of contract schedules that have become greater than 30 days delinquent.

(2) Pursuant to Subpart 242.11, Section 242.1104(a)(ii) of the DFARS "the cognizant contract administration office shall not perform production surveillance on contractors that have only CD C contracts, unless specifically requested by the contracting officer." For contractors

that have only CD C contracts and no request for surveillance from a contracting officer, the FS will request status of those contract schedules that have become greater than 30 days delinquent. The FS will utilize this information to assist with the reduction of contracts greater than 180 days past final delivery date.

(3) In performing delivery surveillance, the FS must avoid any action that may be inconsistent with any contract requirement or result in claims of waivers, changes, or other contract modifications.

b. DPAS Surveillance.

DPAS surveillance ensures timely availability of industrial resources to meet current national defense and emergency preparedness program requirements and to provide a system to support rapid industrial response in a national emergency. The FS will identify actions for performing DPAS surveillance pursuant to Part 700 of Title 15, Code of Federal Regulations (CFR), (15 CFR 700). The contractor will prioritize rated orders in the production plans and manufacturing process pursuant to 15 CFR 700 and Subpart 52.2, Section 52.211-15 of the FAR. The FS will conduct DPAS surveillance to ensure implementation of the placement, acceptance, and performance of priority rated contracts and orders for the allocation of materials, services, and facilities for approved programs. The FS will execute DoD contracting activities pursuant to DoD 4400.1-M.

(1) DPAS surveillance encompasses the actions performed to determine if a contractor has an adequate system in place to adhere to DPAS requirements.

(2) Pursuant to 15 CFR 700, the DPAS Rating System gives a priority rating (e.g., DX or DO) to all prime contracts, subcontracts, or purchase orders in support of authorized programs. A DX rating is assigned to those programs of the highest national priority. A DO rating is assigned to all other rated orders other than those identified as having the highest national priority. All DO rated orders have an equal priority with each other and take precedence over unrated orders. All DX rated orders have an equal priority with each other and take priority over DO rated orders and unrated orders. In addition, a directive issued by the Department of Commerce takes precedence over any DX rated order, DO rated order, or unrated order, as stipulated in the directive. When orders have equal priority, the FS will ensure the contractor utilizes the contractual delivery dates to set the precedence of one contract over another. This applies to both DX and DO rated orders.

(a) The delivery date determines the rated order priority. If there is a conflict in making the delivery date, DPAS prioritization takes precedence. If DX and DO orders can meet the contractual delivery dates, and DO has an earlier delivery date, the contractor may complete the DO first.

(b) Rated programs are given a program identification symbol (e.g., the second two letters assigned to the order; DOA1-Aircraft, DOA2-Missiles, DOA3-Ships).

(3) When applicable, the FS can educate DoD prime contractors on the importance of prioritizing national defense-related production and contracts. This can cover the nuances of

DPAS regulations, including how to properly identify and prioritize contracts and orders that support national defense, emergency preparedness, and energy programs.

(4) The FS will never direct a contractor on how to execute their obligated DPAS requirements; however, contractors would benefit from understanding the specific criteria and procedures for accepting, rejecting, and preference setting on contracts based on DPAS ratings, ensuring compliance with legal and regulatory obligations.

(5) Emphasis may be placed on the ethical considerations and responsibilities that come with managing DPAS-rated orders, including fair and transparent communication with subcontractors and suppliers.

c. PP&C Surveillance.

PP&C is the core of a contractor's manufacturing management system which encompasses processes at the strategic, tactical, and operational levels to ensure production preparation and production operations are organized, managed, controlled, and efficient. The processes facilitate the incorporation of delivery commitments into the production plan and adjust the production plan accordingly to meet contractual requirements. Ultimately, the goal of PP&C is to maximize productivity, minimize costs, and meet customer demands, ensuring efficient utilization of resources throughout the production process.

(1) PP&C evaluations assess if the contractor's management systems are adequately developed to meet contract requirements, if the contractor adheres to the management system requirements, and if the management system is effectively delivering conforming product or effectively providing the required service.

(a) The PP&C processes are driven by the Quality Management System (QMS) pursuant to Subpart 52.2, Section 52.246-11 of the FAR, and usually reference a specific standard(s) that applies (e.g., AS9100, International Organization for Standardization (ISO) 9001). When QMS is imposed on a contract pursuant to Subpart 52.2, Section 52.246-11 of the FAR, the FS will plan for risk-based PP&C process evaluations. If there is no standard specified in the contract pursuant to Subpart 52.2, Section 52.246-11 of the FAR, the FS will submit a contract deficiency report to have the specific standard incorporated.

(b) In the absence of a clear QMS requirement or pursuant to Subpart 52.2, Section 52.246-11 of the FAR, the contractor is not required to establish or demonstrate the manufacturing management processes (i.e., PP&C), but this does not relieve the contractor of being able to demonstrate the ability to deliver a product or service meeting the terms and conditions of the contract (See Paragraph 3.2.a. for information on delivery surveillance).

(2) There are seven key PP&C processes: demand management, resource requirements planning, sales and operations planning, master production scheduling, material requirements planning, capacity requirements planning, and shop floor control. A PP&C process crosswalk to the QMS is located on the resource page of this manual.

(a) Demand Management.

Demand management is the process or method used to oversee, analyze, manage, and forecast customer needs. The process enables the contractor's plan to meet demand for services and products in support of sales and operations and master scheduling. When appropriate actions are taken to continuously improve the forecast accuracy, the contractor can utilize the information to make sound delivery commitments and deliver more efficiently based on a valid master schedule and accurate inventory data.

(b) Resource Requirements Planning.

Resource requirements planning is the process of ensuring sufficient resources (i.e., personnel, facilities, equipment, and tooling) are planned to execute the production plan supporting sales and operations. Continuous resource planning allows the contractor to take appropriate actions to maintain productivity and accommodate demand changes efficiently.

(c) Sales and Operations Planning.

Sales and operations planning is an integrated planning process where management aggressively resolves problems to maintain balance within supply, demand, resources, sales, and finance. This process is designed and executed to support executive decision-making for a feasible plan that will continue to maintain a profitable operation.

(d) Master Production Scheduling.

Master production scheduling is the process of delineating what products to produce, when to produce them, and in what quantities. The master production scheduling is perpetually managed to ensure a balance of stability and responsiveness to change. The master schedule is reconciled periodically with the production plan resulting from the sales and operations planning process.

(e) Material Requirements Planning.

Material requirements planning is the process to plan, maintain, and control inventory that supports production and scheduling to meet customer needs. The process allows the contractor to communicate priorities, manage supply chains, minimize costs, and respond to changes.

(f) Capacity Requirements Planning.

Capacity requirements planning is the process of ensuring, controlling, and managing the current production capacity or throughput to meet production goals and demands. Capacity requirements analysis is a critical tool to determine contractor capacity and aid the contractor to take appropriate action to meet production goals.

(g) Shop Floor Control.

Shop floor control is a process that tracks, measures, optimizes, and reports on manufacturing progress. It is supported by a control process that creates, maintains, and synchronizes detailed production schedules. The process provides real-time visibility, control, and responsiveness to production issues and inefficiencies.

d. AS6500 Surveillance.

AS6500 is a multi-functional manufacturing management standard developed in coordination between DoD and industry. This standard is intended for programs with manufacturing content and involves all areas of a manufacturing facility such as engineering, manufacturing and production, supply chain, and quality. It provides the basis for a more in-depth evaluation of manufacturing processes in all phases of the acquisition lifecycle, to include manufacturability addressed upfront in the technology, design, cost, and material phases. It requires proven manufacturing management practices, with the goal of delivering affordable and capable systems to the extent it is invoked contractually. The contractor is required to document how, when, and by what function, each requirement of this standard is to be accomplished. This document is referred to as the contractor's manufacturing management system.

(1) The objectives of the manufacturing management system include:

(a) Establishing and maintaining a documented manufacturing system which provides efficient and effective production of quality products.

(b) Identifying and reducing manufacturing risk, including risks at key and critical suppliers.

(c) Increasing productivity and reducing production unit cost.

(d) Identifying and reducing the impact of issues related to strategic and critical materials on the program.

(e) Integrating manufacturing and producibility into the design and development process.

(f) Timely and effective transition to production.

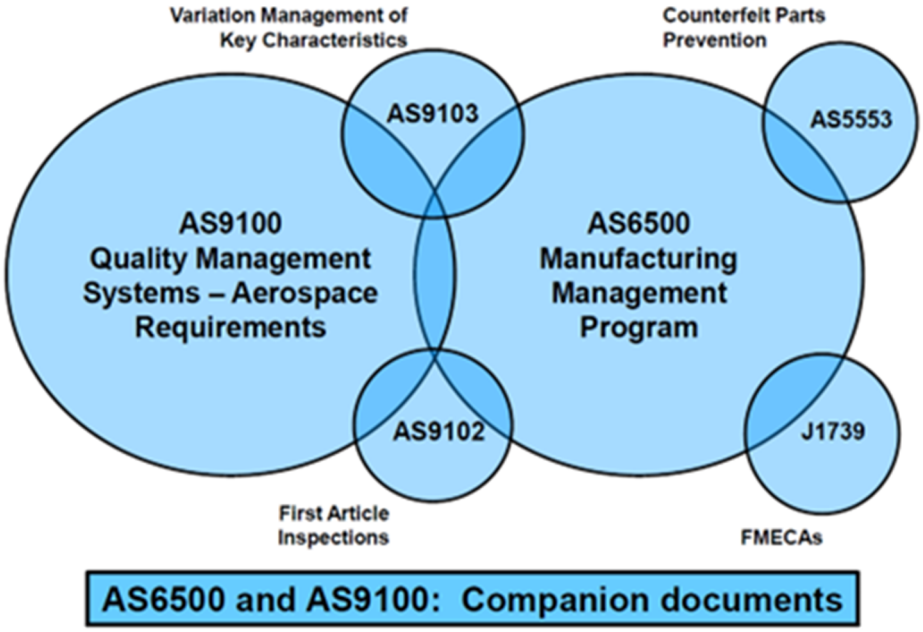
(2) The AS6500 standard is a contract-based requirement that can be met when the customer specifies the contract as either full or tailored conformance. If the contract is tailored, the contractor agreed to these requirements during the tailoring conference. The standard may be in different areas of the contract, and pursuant to Subpart 52.2, Section 52.246-11 of the FAR, within a statement of work (SOW), or in a systems engineering plan.

(3) System evaluation of the AS6500 standard is similar to higher level QMSs (i.e., AS9100, ISO 9001). It is a contract-based requirement, but not a certifiable or compliant

standard, with no third-party audits and certifications. Multifunctional collaboration is essential for achieving a comprehensive evaluation of a contractor's AS6500 conformance.

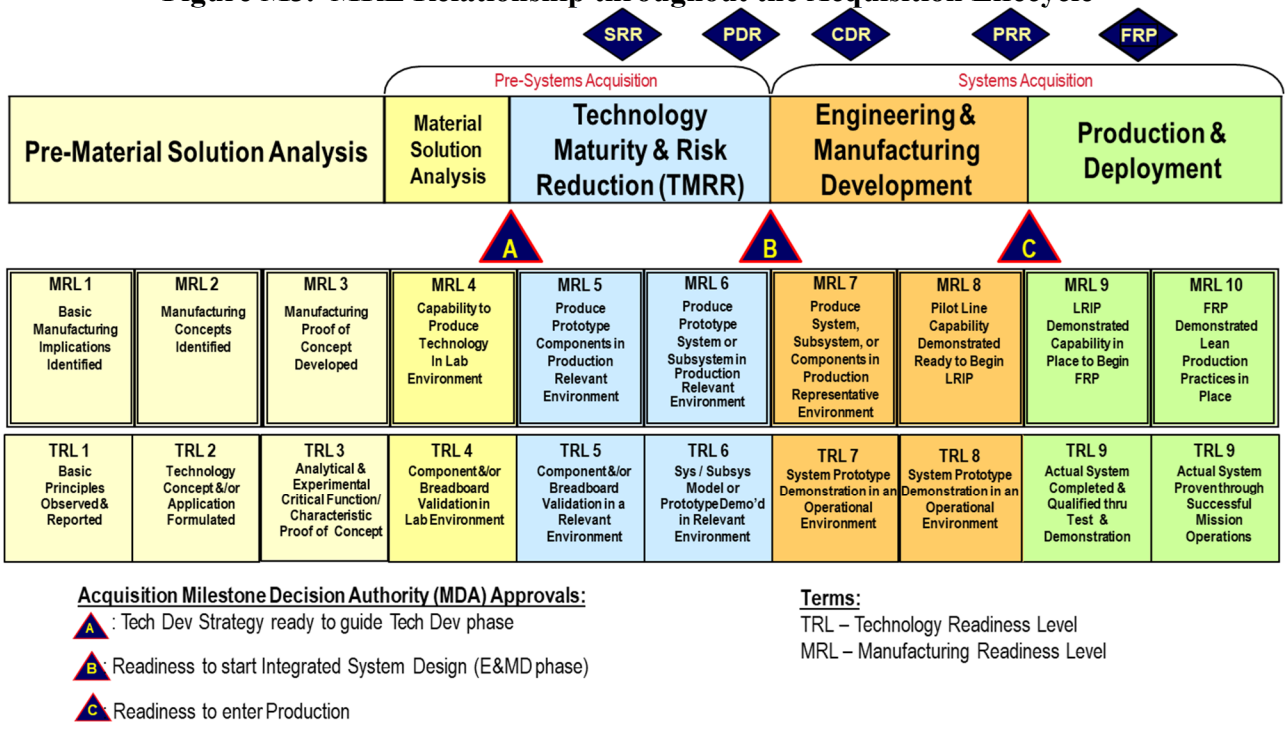
(4) AS6500 is a companion document to AS9100 and integrates with other SAE International standards. The processes providing conformance to the standard will almost certainly be embedded within a contractor's QMS, which covers all aspects of a manufacturing facility and includes PP&C and some material management and accounting system (MMAS) processes. If the FS finds compliance issues during an AS6500, PP&C, or MMAS evaluation with higher-level quality requirements, there may be deficiencies in the contractor's QMS. Figure M2 illustrates the integration of the standards and is located on the SAE website on the resource page of this manual.

Figure M2. AS6500 Standard Integration



(5) Manufacturing readiness levels (MRL) is a requirement within AS6500 that provides criteria for manufacturing maturity to identify maturity shortfalls, operational technology, cybersecurity, and associated costs and risks. MRL targets are based on where the product or process is in the acquisition lifecycle. MRLs are not intended to be an absolute requirement for proceeding into the next phase of acquisition and are not a pass-fail to achieve the next level. Program offices can tailor MRLs for program-specific circumstances with DCMA support. As a clause of AS6500, MRLs are in all phases of the acquisition lifecycle. A program office may attach MRLs to a contract as a standalone requirement without AS6500 being listed on contract. For more detailed information on MRLs, consult the Contract Management System Evaluation (CMSE) resource page and the DoD website dedicated to providing guidance and tools on MRLs found on the resource page of this manual. Figure M3 shows the MRL manufacturing and technology readiness levels engineering relationship throughout the acquisition lifecycle.

Figure M3. MRL Relationship throughout the Acquisition Lifecycle



(6) The FS will use MRL criteria to identify, quantify, and manage the manufacturing maturity and risk of a product or process. As with AS6500, the MRL criteria also aligns in many cases with PP&C and some MMAS criteria. There are 10 levels of MRL criteria across nine major risk categories or threads and 22 minor risk categories or sub-threads that begin with pre-systems acquisition, progress through the Systems Engineering Technical Review process, acquisition decision points or milestones, and culminate in production. Each of these levels is associated with the evolution of system maturity:

- MRL 1 - Basic manufacturing implications identified
- MRL 2 - Manufacturing concepts identified
- MRL 3 - Manufacturing proof of concept developed
- MRL 4 - Capability to produce the technology prototype in a laboratory environment
- MRL 5 - Capability to produce prototype components in a production-relevant environment
- MRL 6 - Capability to produce a prototype system or subsystem in a production-relevant environment
- MRL 7 - Capability to produce systems, subsystems, or components in a production-representative environment
- MRL 8 - Pilot line capability demonstrated; ready to begin Low Rate Initial Production
- MRL 9 - Low Rate Initial Production demonstrated; capability in-place to begin Full Rate Production
- MRL 10 - Full Rate Production demonstrated and lean production practices in-place

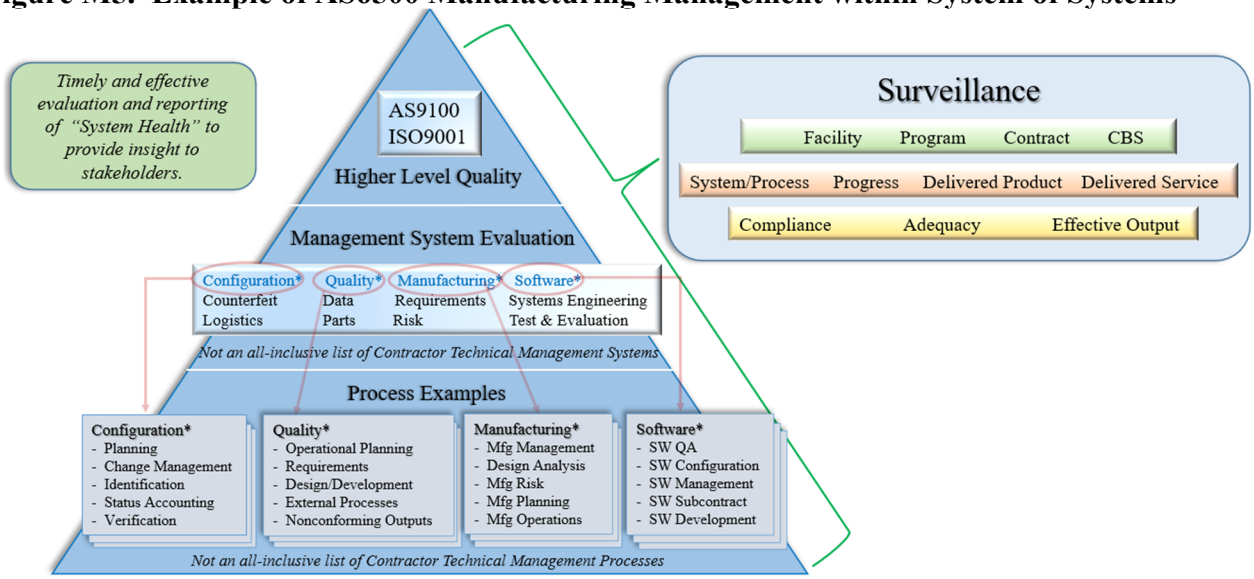
(7) The manufacturing readiness assessment (MRA) is used for the assessment of a product or process using the MRL criteria. The program office coordinates and executes this assessment with DCMA participation. Prior to the MRA, the contractor will perform a self-assessment of their MRLs to define the current level of manufacturing maturity, identify maturity shortfalls with associated costs and risks, and provide the basis for manufacturing maturation and risk management. The output of participating in an MRA would be the surveillance plan and risk documentation in relation to how a contractor's internal processes are complying to the AS6500 standard. The MRA is organized around the key steps in the process as shown in Figure M4. The FS may provide manufacturing surveillance in these steps.

Figure M4. Sample Process Flow for Conducting MRL Assessments

(8) Contractor management systems (CMS) refer to interrelated and interactive processes used by the contractor to define, create, manage, and control product realization from start to finish. CMSE are the risk-based multi-functional evaluation of a contractor's system processes. It enables a more thorough or complete evaluation of an overall QMS down to shop floor level work instructions. CMSE is framed around ISO 19011, an industry standard for performing management system evaluations. Evaluations of a contractor's AS6500 Manufacturing Management System determines its compliance to the standard. It verifies the CMS are adequately developed to meet contract requirements, the contractor is compliant with the management system, and the management system is effectively delivering conforming product or effectively providing the required service. While general guidance for contractor business system (CBS) evaluation(s) is covered in DCMA-MAN 2301-01, "Contractor Business Systems," surveillance of some technical elements of CBS may potentially be addressed as part of an AS6500 CMSE.

(a) CMS can be viewed as a "System of Systems," and CMO personnel can conduct the evaluation either on the entire overarching system or aggregate information from various individual systems, system or process evaluations, and product evaluations. Figure M5 provides an example of a System of Systems for AS9100 or ISO 9001 highlighting the AS6500 Manufacturing Management System. There are other management systems that exist that may differ from AS9100.

Figure M5. Example of AS6500 Manufacturing Management within System of Systems



(b) Both AS9100 and ISO 9001 state the QMS requirements specified within these International Standards are complementary, not alternatives, to customer requirements. AS9100 and ISO 9001 both support the "System of Systems" concept. AS6500 is part of a system or sub-elements within the overarching QMS. It is often beneficial to evaluate the detailed AS6500 requirements prior to evaluating more general requirements of AS9100 and ISO 9001. The results of these sub-system reviews may then be used in the planning and risk determination of overarching (i.e., AS9100) CMSE.

(c) Production surveillance is pursuant to Subpart 42.3, Section 42.302(a) of the FAR, and referenced in Paragraphs 31 and 38 through 49.

(d) Individual contracts may cite Subpart 52.2, Section 52.246-11 of the FAR, referencing the specific standard(s) that apply (e.g., AS9100, ISO 9001).

(e) The FS can use other contractual documentation such as the SOW, contract data requirements list (CDRL), data item descriptions, configuration management plan, data management plan, manufacturing management plan, systems engineering management plan, risk management plan, software management plan, or quality management plan in the planning and risk determination during a management system evaluation.

SECTION 4: RISK ASSESSMENT

4.1. PREPARING FOR RISK ASSESSMENT.

The following requirements, information, and guidance are in addition to the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303. When preparing for risk assessment, the FS will:

a. Assess delivery surveillance risk utilizing the highest contract CD code at the contractor. There is no requirement to have a separate risk assessment for each CD code at a facility.

b. Assess DPAS risk based on DPAS rating.

c. Assess PP&C risk at the facility level for the overall adequacy, compliance, and effectiveness of the processes.

d. Assess identified AS6500 requirements as documented on contract. Prior to contract award, an agreement between customer and contractor will include the manufacturing management requirements, based on the tailoring of AS6500 requirements to address the program situation. The risk-based tailoring of requirements is assessed during a tailoring conference and may occur either pre or post contract award to identify and reduce manufacturing risk.

4.2. RISK ASSESSMENT PROCESS.

a. Delivery Surveillance Risk Assessment Process.

Assessing risk for delivery surveillance focuses on likelihood, since the consequence for the schedule is predetermined by the customer identified CD and the DPAS rating assigned to the contract. The risk assessment will consider all processes needed to produce a final product or service for delivery, as well as meeting the scheduled delivery date.

(1) Delivery Surveillance Consequence.

The FS will rate consequence. The consequence for delivery surveillance will be risk-rated utilizing the highest CD code pursuant to Subpart 42.11, Section 42.1105 of the FAR, and DPAS rating for all contracts.

(a) CD A.

Critical contracts, including DX-rated contracts in accordance with Subpart 11.6 of Title 48, CFR, contracts citing the authority in Subpart 6.302-2 of the FAR for unusual and compelling urgency, and contracts for major systems. The FS will utilize Table M1 when determining the risk for schedule consequence for delivery surveillance.

(b) CD B.

Contracts other than those designated as CD A for items needed to maintain a government or contractor production or repair line, to preclude out-of-stock conditions, or to meet user needs for non-stock items. The FS will utilize Table M1 when determining the risk for schedule consequence for delivery surveillance.

(c) CD C.

All contracts other than those designated as CD A or CD B. The FS may utilize Table M1 when determining the risk for schedule consequence for delivery surveillance. Consequence can be adjusted based on information received from the contracting officer (e.g., customer request).

(d) DPAS Rating.

When determining the consequence from the DPAS rating, DX will have the highest priority, and therefore, the greatest consequence. DX rated orders take precedence over DO rated orders and DO rated orders take precedence over non-rated orders. The FS will utilize Table M1 when determining the risk for schedule consequence for delivery surveillance.

(2) Risk Assessment for Delivery Surveillance Consequence.

The FS will rate delivery surveillance schedule consequence at a minimum. Cost and technical performance consequence may be rated when information is available to make an assessment. The FS will utilize Table M1 when determining the risk for schedule consequence for delivery surveillance. Table M2 provides standard statements for justification of rationale.

Table M1. Delivery Surveillance Risk Consequence Criteria

CD	DPAS	Rating
A	DX	5
A	DO	4
B	DO	3
A or B	NOT RATED	3
C	DO	2
C	NOT RATED	1

Table M2. Delivery Surveillance Risk Consequence Rationale

Rating	Rationale
5	Impacts readiness and availability of DX or CD A assets
4	Impacts readiness and availability of DO or CD A assets
3	Impacts readiness and availability of DO or CD B assets
3	Impacts readiness and availability of unrated orders or CD A or CD B assets
2	Impacts readiness and availability of DO or CD C assets
1	Impacts readiness and availability of unrated order or CD C assets

(3) Delivery Surveillance Likelihood.

The FS will rate likelihood. When assessing risk likelihood, the FS may begin with data collection and analysis (DC&A), utilizing any available past delivery performance information. This information will be a key indicator of the contractor's ability to deliver products on or before the required delivery date. The risk assessment must consider information provided by the contractor and the customer when available. Other factors to consider are:

(a) Preaward surveys and post-award conferences.

The results of a preaward or post-award conference may indicate issues that will affect timely delivery such as a new product line, material unavailability, unique manufacturing processes, issues addressed by other functional teams, and costs compared to contractor's financial capability.

(b) Subcontractors.

Subcontractor past delivery performance when available. The overall risk for timely delivery increases as the percentage of work subcontracted increases.

(c) Contractor Reorganizations.

When contractors restructure their ownership or management, processes and procedures are likely to change, which may affect production times leading to late deliveries.

(d) Government Delays.

First article tests, production lot tests, or late receipt of repair and overhaul assets may lead to government caused delays. The FS, when reviewing any contractor schedule, will verify these times are accounted for.

(e) Repair and Overhaul asset.

Repair and overhaul assets are at risk for not meeting the contractual schedule due to their unknown condition prior to arrival to the facility. This can cause possible schedule delays.

(f) PP&C Process Evaluation Results.

A review of the PP&C process evaluation will identify contractor processes determined to have a high risk. The FS can then determine if high risk processes are utilized for the schedules coming due.

(g) Production Schedule.

The schedule includes all contract requirements and realistically reflects the contractor's capabilities.

(h) QMS Audit Results.

(4) Risk Assessment for Delivery Surveillance Likelihood.

The FS performing the risk assessment for delivery likelihood may utilize Table M3 when determining the risk for schedule likelihood for delivery surveillance. When using Table M3, choose the Performance History or Contractor Experience that is most applicable. The on time delivery (OTD) percentages and timeframes listed in the Performance History column may be adjusted to suit CMO-specific risk likelihood identification approaches.

Table M3. Delivery Surveillance Risk Likelihood Criteria

Performance History	Contractor Experience	Rating
OTD is less than 75% over a period; open systemic process control corrective action requests (CARs)	No process control; newly assigned or untrained personnel; new management; >3-year gap in production; layoffs within last 12 months; no process control mitigation plan	5
OTD is between 75% and 80%; systemic process control CARs in past 2 years	Limited process control; newly assigned or limited trained personnel or management; >3-year gap in production; layoffs within last 24 months; unable to meet process control mitigation plan milestones	4
Lack of historical performance data; OTD is between 80% and 90%; process control findings in past 5 years	New to government contracts; Processes controlled with full staff of trained personnel, consistent management; <1-year gap in production; mitigation plan implemented	3
OTD is greater than 90% over a period; no process control findings in past 5 years	Processes controlled with full staff of trained personnel, experienced management; no production gaps; mitigation plans implemented and effective	1 or 2

b. DPAS Risk Assessment Process.

Assessing risk for DPAS surveillance focuses on the likelihood since the consequence for the schedule is predetermined by the customer identified CD and the DPAS rating assigned to the contract.

(1) DPAS Consequence.

The FS will risk-rate consequence. The consequence for DPAS will be risk-rated utilizing the highest CD code pursuant to Subpart 42.11, Section 42.1105 of the FAR, and DPAS rating for all contracts.

(2) Risk Assessment for DPAS Consequence.

The FS will rate DPAS surveillance schedule consequence at a minimum. Cost and technical performance consequence may be rated when information is available to make an assessment. The FS will utilize Table M4 when determining the risk for schedule consequence for DPAS surveillance. Table M5 provides standard statements for justification of rationale.

Table M4. DPAS Schedule Risk Consequence Criteria

CD	DPAS	Rating
A	DX	5
A	DO	4
B	DO	3
C	DO	2
C	NOT RATED	1

Table M5. DPAS Schedule Risk Consequence Rationale

Rating	Rationale
5	Non-compliance could affect delivery of DX rated orders
4	Non-compliance could affect delivery of DO rated orders with CD A schedules
3	Non-compliance could affect delivery of DO rated orders with CD B schedules
2	Non-compliance could affect delivery of DO rated orders with CD C schedules
1	Non-compliance could affect delivery of unrated orders

(3) DPAS Likelihood.

The FS will rate likelihood. When determining the likelihood, the FS will utilize any available data indicating the contractor's ability to comply with DPAS requirements. Some factors to consider are:

(a) Previous DPAS systems reviews.

(b) History of DPAS CARs.

(c) Lack of delay notification to DCMA or other customer.

(d) Knowledge of contractor accepting contracts without understanding requirements.

(e) History of working on government contracts.

(f) Inexperienced personnel or management on the requirements of DPAS.

(g) History of poor on-time delivery.

(4) Risk Assessment for DPAS Likelihood.

The DPAS likelihood may draw from any of the above factors or other applicable data to assess the likelihood the contractor will not adequately adhere to DPAS requirements. The FS performing risk assessment for DPAS likelihood may utilize Table M6 when determining the risk for schedule likelihood for DPAS. When using Table M6 choose Performance History, Contractor Experience, or a combination of both. The associated risk rationale may be commensurate with the numerical level selected. If the contractor is new to DCMA, or new to

the FS without any prior risk assessment of DPAS, the risk likelihood will be rated at 3, or moderate risk, until the FS completes and documents a DPAS system review.

Table M6. DPAS Risk Likelihood Matrix

Performance History	Contractor Experience	Rating
Open systemic DPAS CARs	No process control; newly assigned or untrained personnel; new management; >3-year gap in production; layoffs within last 12 months; no process control mitigation plan	5
Systemic DPAS CARs in past 2 years	Limited process control; newly assigned or limited trained personnel or management; >3-year gap in production; layoffs within last 24 months; unable to meet process control mitigation plan milestones	4
Unknown history due to lack of information; no systemic DPAS CARs in past 2 years	New to government contracts; Processes controlled with full staff of trained personnel, consistent management; <1-year gap in production; mitigation plan implemented	3
No DPAS findings in past 5 years	Processes controlled with full staff of trained personnel, experienced management; no production gaps; mitigation plans implemented and effective	1 or 2

c. PP&C Risk Assessment Process.

Assessing risk for PP&C focuses on the likelihood, since the consequence for the schedule is predetermined by the customer identified CD and the DPAS rating assigned to the contract.

(1) PP&C Consequence.

The FS will risk-rate PP&C consequence utilizing the highest CD code pursuant to Subpart 42.11, Section 42.1105 of the FAR, and DPAS rating for all contracts.

(2) Risk Assessment for PP&C Consequence.

The FS will rate the PP&C schedule consequence at a minimum and may rate cost and technical performance consequence when information is available to make an assessment. The FS performing the risk assessment for PP&C consequence will utilize Table M7 when determining risk for schedule consequence for PP&C surveillance. Table M8 provides standard consequence rationale statements for justification of rationale.

Table M7. PP&C Schedule Risk Consequence Rating Criteria

CD	DPAS	Rating
A	DX	5
A	DO	4
B	DO	3
A or B	NOT RATED	3
C	DO	2
C	NOT RATED	1

Table M8. PP&C Schedule Risk Consequence Rationale

Rating	Rationale
5	Non-compliance could affect delivery of DX rated orders
4	Non-compliance could affect delivery of DO rated orders with CD A schedules
3	Non-compliance could affect delivery of DO rated orders with CD B schedules
3	Non-compliance could affect delivery of unrated orders with CD A or CD B schedules
2	Non-compliance could affect delivery of DO rated orders with CD C schedules
1	Non-compliance could affect delivery of unrated orders

(3) PP&C Likelihood.

The FS will rate likelihood, which is the probability the contractor will fail the PP&C processes. When determining PP&C likelihood, the FS may consider the following to justify the risk rating:

(a) Review DCMA CARs against the MMAS, Purchasing Systems, AS6500, and QMS.

(b) Third-party certifying body and customer reviews (e.g., Online Aerospace Supplier Information System (OASIS) data, customer specific reviews).

(c) Review any preaward survey reports, if available.

(d) Contractor's history providing the product or service. Contractor's experience with same or similar items with company personnel and the government quality assurance specialist.

(e) Contractor's internal data.

(f) Likelihood will be at moderate (rating of 3) when information is not available for risk assessment. However, the FS may gather insights or information from public sources to perform an initial risk assessment.

(4) Risk Assessment for PP&C Likelihood.

The PP&C likelihood may draw from Paragraph 4.2.c.(3) to assess the likelihood the contractor will not adequately adhere to the PP&C processes. The FS performing the risk assessment for PP&C likelihood may utilize Table M9 when determining the risk for schedule likelihood for PP&C. When using Table M9, choose the Performance History, Contractor Experience, or a combination of both. The associated risk statement rationale may be commensurate with the numerical level selected, such as the example provided in Table M10.

Table M9. PP&C Risk Likelihood Criteria

Performance History	Contractor Experience	Rating
Open process CAR in PP&C, DPAS, AS6500, QMS, MMAS, or purchase system	No process control; newly assigned or untrained personnel; new management; >3-year gap in production; layoffs within last 12 months; no process control mitigation plan	5
Process CAR in the past 2 years in PP&C, DPAS, AS6500, QMS, MMAS, or purchase system	Limited process control; newly assigned or limited trained personnel or management; >3-year gap in production; layoffs within last 24 months; unable to meet process control mitigation plan milestones	4
Unknown history due to lack of information; no process CARs in the past 2 years in PP&C, DPAS, AS6500, QMS, MMAS, or purchase system	New to government contracts; Processes controlled with full staff of trained personnel, consistent management; <1-year gap in production; mitigation plan implemented	3
No process CAR in the past 5 years in PP&C, DPAS, AS6500, QMS, MMAS or purchase system	Processes controlled with full staff of trained personnel, experienced management; no production gaps; mitigation plans implemented and effective	1 or 2

Table M10. Risk Assessment Example

Schedule Consequence Rating	**4**	**Likelihood Rating**	**4**
Schedule Consequence Rationale	Non-compliance could affect delivery of DO rated orders with CD A schedules		
Likelihood Rationale	Likelihood is very likely because contractor has consistently failed in PP&C processes and resulted in 3 CARs in the past 4 reviews. Contractor continues to struggle to address the latest CAR in master scheduling.		

d. AS6500 Risk Assessment Process.

(1) Assessing initial risk for AS6500 focuses on the consequence, since the likelihood of high risk is identified by the AS6500 (full or tailored) clauses assigned to the contract. The FS will rate the initial risk likelihood at 5 until the required AS6500 process(s) evaluation is completed and documented. Subsequent risk assessments will address both likelihood and consequence.

(a) The FS performing the risk assessment for AS6500 may utilize Table M11 when determining the risk for consequence and Table M12 when determining the risk for likelihood.

Table M11. AS6500 Risk Consequence Criteria

Consequence			
Rating	**Cost**	**Schedule**	**Technical Performance**
5 - Severe	Costs that drive production cost increase of 10% or greater over budget (i.e., labor, materials, equipment etc.)	>4.5 months, schedule slip will require a major schedule rebaselining	Degradation prevents System, Critical Manufacturing Process (CMP) or Key Manufacturing Process (KMP) from meeting a Key Characteristic (KC) or Critical Characteristic (CC) for critical parts; will jeopardize program/project success Unable to meet program/project objectives
4 - Significant	Costs that drive production cost increase of 5% - <10% increase over budget (i.e., labor, materials, equipment etc.)	3 to 4.5 months, schedule deviations will slip delivery(s) to within 3 months of schedule due date	Degradation impairs System, Critical Manufacturing Process (CMP) or Key Manufacturing Process (KMP) from meeting a Key Characteristic (KC) or Critical Characteristic (CC) for critical parts; technical Design, producibility or supportability margin exhausted in key areas Significant performance impact affecting System-of System, process(s) interdependencies. Work-arounds required to achieve program/project objectives
3 - Moderate	Costs that drive production cost increase of 1% - <5% increase over budget (i.e., labor, materials, equipment etc.)	1.5 to 3 months, schedule deviations will slip delivery(s) to within 1.5 months of schedule due date	Unable to meet lower tier attributes of Critical Manufacturing Process (CMP) or Key Manufacturing Process (KMP) from meeting a Key Characteristic (KC) or Critical Characteristic (CC) for critical parts; technical design, producibility or supportability margins reduced Minor performance impact affecting System-of System, process(s) interdependencies. Work-arounds required to achieve program/project objectives
2 - Minor	Costs that drive production cost increase of <1% increase over budget (i.e., labor, materials, equipment etc.)	0.5 to 1.5 months, some schedule slip, but can meet schedule due date with increased resource capacity, expedites etc.	Reduced technical performance, producibility or supportability; can be tolerated with little impact on program/project objectives Design, producibility margins reduced
1 - Minimal	Minimal impact. Costs expected to meet approved contract funding levels	0 to 0.5 months, minimal schedule impact	Minimal or no consequence to technical performance

Table M12. AS6500 Risk Likelihood Criteria

Likelihood

Rating	Description
5 - Near Certainty	Assume & Anticipate Occurrence (>90%) Approach and processes cannot mitigate risk Immature technology System very complex
4 - Highly Likely	Very High Chance of Occurrence (65% to 90%) Approach and processes not well documented Technology available but not validated
3 - Likely	Significant Chance of Occurrence (40% to 65%) Approach and processes are partially documented Un-validated technology has been shown to be feasible by analogy, test or analysis
2 - Low Likelihood	Occurrence Possible but Less Than Likely (10% to 40%) Current approach and processes understood and documented Most technology has been validated
1 - Not Likely	Occurrence is Possible but Very Unlikely (0% to 10%) Approach and processes are well understood and documented

(b) The FS can be an active participant in the tailoring conferences, providing surveillance documentation highlighting the likelihood and consequence of high-risk process areas as it pertains to cost, schedule, and technical performance. These requirements may require full or tailored conformance:

1. Full conformance is achieved by demonstrating all requirements of the standard have been satisfied using the outcomes as evidence. AS6500 CMSE verifies that the contractor's systems or processes meet the full conformance requirements as stated on contract using the three-step evaluation process adequacy, compliance, effectiveness (ACE).

2. Tailored conformance is achieved by demonstrating requirements for the processes, as tailored, have been satisfied using the outcomes as evidence. Tailored conformance clauses are selected or modified using the tailoring process agreed to between the customer and contractor. AS6500 CMSE verifies the contractor's systems or processes meet the tailored conformance requirements as stated on contract using ACE.

(2) The FS must determine the potential consequences of system failure in relation to cost, schedule, or technical performance and the likelihood of system failure by evaluating the contractor's past performance of required or similar systems. All three-consequence ratings cost, schedule, or technical performance may not impact the project or program. From the identified clauses, the FS must determine both the consequence and likelihood risk rating with supporting rationale.

(3) The FS will perform risk assessment of the identified AS6500 requirements as shown on contract. Even though risk is identified with the agreed upon clause(s) on contract, a risk

assessment is still required (i.e., large time lapse from initial risk assessment to actual contract award, causing increased or decreased risk during that time). Each clause may have multiple processes and have specific requirements a contractor must have documented within their manufacturing management system.

(4) When assessing specific AS6500 clauses for risk, clauses of the standard may also be covered in other CMSEs as part of AS9100, ISO 9001, as well as PP&C, all of which are essentially integrated within a contractor's QMS. See the CMSE resource page to confirm overall risk and determine evaluation objectives, scope and criteria, and ISO 19011:2018 Paragraphs 5.5.2. and 6.3.2.1. for additional information.

(5) Additional considerations for determining risk of the identified clauses on contract include:

(a) Previous evaluation results.

1. Follow-up evaluation to assess mitigation status of corrective actions identified in previous AS6500 and other CMSEs of a particular management system(s).

2. Surveillance results of related subsystem(s) or process or product evaluations (e.g., adequacy, compliance, progress, effectiveness, risk) indicate positive or negative trends in sub-elements of the contractor's management system, or the entire management system itself, that are impacting contractual cost, schedule, or technical performance.

(b) Information requested by a customer or multifunctional team (e.g., product quality deficiency reports (PQDR)). This could also include further investigation of risk areas identified during third-party audits or CMSEs.

(c) Significant changes to the contractual requirements and standards (e.g., revisions or modifications).

(d) Changes in scope that may affect the management system (e.g., manufacturing process changes, introduction of new subcontractor(s), increase or decrease in production, management or critical personnel turnover).

(e) Duration remaining on the contract. This may result in multiple smaller scoped, risk-based system or process evaluations.

(f) Management system effectiveness concerns due to recurring or large quantity of non-conforming product or services.

(g) The use of OASIS, which contains valuable information about contractor's implementation and health of their QMS processes that are certified to Aerospace Quality Management System standards (e.g., AS91xx). The OASIS Guidebook can be found on the resource page of this manual.

(h) Other sources of data that may offer some visibility of risks associated with various elements of the clauses being reviewed including PDREP reports, PQDR, supplier risk system, surveillance planning, key contract requirements (KCR) risks, PDREP CAR, supplier rating, DCMA supplier reports, or other agency surveillance results.

(6) An example of an AS6500 Materials Management risk rationale is:

(a) Likelihood: Based on contractor past performance and changes in contractual requirements (e.g., new technology like hypersonics, additive manufacturing, artificial intelligence, unmanned aerial vehicles).

(b) Previous evaluation results.

1. Consequence of Failure – Technical Performance.

Reduced part or vehicle reliability (e.g., key and critical parts), maintainability (e.g., strategic and critical materials), and supportability (e.g., diminishing manufacturing sources and material shortages) causing reduced system performance, limited logistics and operational readiness, and reduced interoperability, while increasing the logistics footprint.

2. Consequence of Failure – Cost.

Increased cost per unit during production due to obsolescence, management issues, increase in part count or type. Increased operational cost due to increase in maintenance hours while reducing maintenance intervals and increasing spare part cost. The total ownership costs of weapons systems and equipment will increase.

3. Consequence of Failure – Schedule.

Counterfeit parts prevention program issues will increase production lead times and complicate logistics and reduce part availability over total lifecycle.

4. AS6500 CMSE Resource Page.

See for additional examples.

SECTION 5: SURVEILLANCE PLANNING

The following requirements, information, and guidance are in addition to the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303.

5.1. SURVEILLANCE PLANNING.

a. Delivery Surveillance Planning.

When performing delivery surveillance planning, the FS will utilize input from the assessed risk using the risk level determined during the risk assessment. The FS will further modify the production surveillance plan to incorporate any special surveillance requirements for individual contracts, including any requirements identified by the contracting officer.

(1) Perform delivery surveillance on CD A and CD B contracts by monitoring contract progress and pacing activities, identifying, and reporting potential delinquencies.

(2) Perform delivery surveillance on CD C contracts in contractor facilities with CD A and CD B contracts if resources permit. When surveillance is not conducted on CD C contracts due to resource constraints, the FS will request from the contractor a contract schedule status on those CD C contracts. This action is not required until the contract schedules become 30 days delinquent. The FS will continue to request periodic status updates until those CD C contracts are complete. Reporting of potential or actual delinquencies on CD C contracts is at CMO discretion.

b. DPAS Surveillance Planning.

DPAS surveillance planning is the process of prioritizing DPAS surveillance and will be a direct result of the DPAS risk assessment with a focus on the highest risk process of the DPAS Risk Likelihood Matrix.

c. PP&C Surveillance Planning.

PP&C surveillance planning is the process of taking the contractual requirements and formulating a contractor engagement plan to oversee the contractor's processes or progress to ensure contractual requirements are met. Generally, the contractor's established management processes are applicable to all contracts within a facility, regardless of contractual requirements. However, DCMA ensures compliance to contractual requirements, so surveillance is driven by contract requirements. The FS will establish a baseline by conducting a full PP&C assessment on a contractor with no PP&C risk assessment established.

(1) During PP&C surveillance planning, the FS may consider common risks in related processes or areas. These processes or areas may be aggregated into a higher-level management system evaluation for efficiency. The FS is encouraged to conduct multifunctional assessments with other award management team (AMT) functionals. For example, when conducting PP&C evaluations, the FS may evaluate an AS6500 Production Scheduling and Control System at the

same time as a MMAS, Standard 2 "Material Requirements," or QMS assessments. The management system evaluation can be planned in full but may be more comprehensive if it includes multiple areas encompassing multiple subprocesses, progress, and product evaluations.

(2) Risk-based surveillance planning may result in surveillance of CMS that are also included within the CBS. A clear distinction will be made pursuant to DCMA-MAN 2301-01.

(3) The FS will perform the evaluation of CBS only at the formal request of the ACO or divisional ACO. The FS must report CBS evaluations only to the ACO or divisional ACO. The FS may perform surveillance of technical elements of a CBS when CMS risk areas are determined (e.g., Bill of Material accuracy or master production schedule accuracy risk areas may be included in surveillance of manufacturing management systems, even though these are also elements of the MMAS CBS).

d. AS6500 Surveillance Planning.

When planning AS6500 surveillance, the FS can collaborate with their functional lead or team supervisor to create an evaluation plan of these specific requirements, with awareness that this evaluation may cover other management system(s). Surveillance of the AS6500 standard is similar to higher-level QMS (i.e., AS9100, ISO 9001); it is a contract-based requirement but not a certifiable or compliant standard, with no third-party audits and certifications.

(1) If multiple FSs have surveillance on the same facility, contractor, or program, they must collaborate on CMSE evaluations. When planning AS6500 evaluations, determine if there are assessments external to DCMA, such as MRA that are performed by customers where DCMA is a participant. ISO 19011:2018 Paragraphs 5.5.2 through 5.5.5 and Annex A contain guidance on plan development and selection of the evaluation methods.

(2) Determine if remote or virtual surveillance can be used in lieu of on-site surveillance. See the resource page of this manual for multi-functional guidebook "Guidebook for Virtual and Remote Contract Oversight." The plan and methods are based on risk of the AS6500 assigned contract requirements. The CMSE resource page contains tools and templates for developing, tailoring, and documenting the evaluation plan. An FS or multifunctional team may perform the evaluation. When a multifunctional team is used, the CMO will determine a lead FS. In most cases, the lead FS will coordinate with the other assigned functions to review and develop schedules for the system or process level reviews. For CMSE requiring more extensive coordination, supervisors may assist in this effort.

(3) During AS6500 surveillance planning, consider common risks in related processes or subsystems. These subsystems may be aggregated into a higher-level management system evaluation for efficiency. For example, when conducting an AS6500 Production Scheduling and Control system evaluation, PP&C requirements may be evaluated at the same time. The management system evaluation can be planned in full but may be more comprehensive if it includes multiple process evaluations encompassing multiple subsystem processes, progress, and product evaluations.

(4) When planning surveillance, the FS should consider risks identified by the AMT or program support team (PST) members and risks that exist at lower, more stringent process levels. When evaluating AS6500 on a AS9100 certified contractor QMS, the contractor will likely have embedded AS6500 requirements within their QMS. The FS will review OASIS tier II data and third-party audit results as an input to planning any AS6500 surveillance activities. The FS should address CMSE subcontractor or other facility concerns by considering a delegation pursuant to DCMA-MAN 2101-04, "Delegate Surveillance."

(5) Consult the AS6500 CMSE resource page for existing criteria checklist and ensure the checklist is developed using the current contract requirement(s). If a checklist has not been developed for the specific management system or process, the FS must create a checklist using criteria directly traceable to contract requirements (e.g., ISO 19011:2018 A.13 and A.14). Consider submitting locally developed checklists through the operating unit point of contact to be considered for incorporation into the resource page. Consult the DoD MRL website for MRL evaluations and related resources (i.e., checklists, MRL questionnaires, and MRL desk guides).

(a) Locate AS6500 criteria in the contract (e.g., SOW, FAR, performance work statement, system engineering plan, systems engineering management plan). Most management systems are also supported with a CDRL. For example, the CDRL may require the contractor to develop a management plan and provide periodic updates and reports. Additional detailed requirements can be specified in data item description requirements within the CDRL.

(b) Additional system criteria may be in guidebooks, military standards, military handbooks, and DoD adopted industry standards. These documents often contain model SOW language to be used by the procurement organizations and guidance to describe the expectation of the contractor's system. The DoD MRL site provides tools, guidance, and information on AS6500 MRLs and is located on the resource page of this manual.

(c) The companion guide for AS6500 is Military Handbook 896A, "Manufacturing Management Program Guide," and is approved for use by all DoD departments and agencies. This handbook is intended to be used in conjunction with AS6500. This handbook provides additional explanations of the practices in AS6500, as well as guidance on contractually implementing AS6500 in DoD contracts, and provides insight on performing surveillance.

(6) CMOs may develop local procedures to determine surveillance schedules, objectives, and scope to verify the contractor is in conformance to the standard. A contractor is required to be in full conformance of the full or tailored requirements immediately after acceptance of the contract. An MRA is initiated externally by the customer and evaluated at the prime contractor's facility; DCMA will be a participant in the assessment.

(a) Risk-based schedules:

1. Annual evaluations are recommended for AS6500 requirements identified as high risk.

2. Evaluations every two years are recommended for AS6500 requirements identified as moderate risk.

3. MRA evaluation of MRLs as planned and led by the program office or customer.

4. Risk is not static; areas identified as low risk can be elevated to moderate or high if DC&A requires a change (e.g., increased delays or non-conforming material).

(b) AS6500 CMSE may be initiated by:

1. Quality escapes (i.e., PQDRs), repeat, increase in quantity, and other negative trends.

2. CARs due to repeat or higher-level issues, aging, increase in quantity, and negative trends.

3. Surveillance indicating contractor poor performance.

4. High levels of non-conforming material.

5. Significant change in contractor's processes.

(c) If the evaluation results indicate an increased level of risk for an AS6500 management system, the FS must schedule a tailored follow-up evaluation validating contractor's corrective action within 6 months.

1. As a best practice, CMOs planning surveillance across multiple contractor facilities can consider a pre-planning tool to assist in developing and prioritizing efficient and effective multifunctional AS6500 CMSEs across multiple contractors' facilities. The output of this tool will assist the FS in planning AS6500 CMSE in the SoR. See the CMSE resource page for a CMO CMSE Strategic Plan example.

2. If risk-based surveillance planning results in surveillance of CMS are also included within CBS, a clear distinction must be made. The FS will report CBS evaluations only to the ACO. The FS must perform surveillance of technical elements of a CBS when CMS risk areas are determined and include it in surveillance of manufacturing management systems. This includes areas such as Manufacturing and Production Costs or Bill of Material accuracy that are also elements of the MMAS CBS.

5.2. PRIORITIZE SURVEILLANCE.

The following requirements, information, and guidance are in addition to the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303.

a. Prioritize Surveillance for Delivery Surveillance.

Delivery surveillance is prioritized based on the risk rating identified in Paragraph 4.2. Considerations may be made for any special surveillance requests from the contracting officer.

(1) Contractors with the highest risk of not delivering on time and the largest volume of schedules due should take priority.

(2) Review the results of the PP&C process evaluations, along with the identified risk rating.

(3) FS assigned to geographic CMOs can consider the contractor's volume of contract schedules due.

b. Prioritize Surveillance for DPAS.

DPAS surveillance prioritization may consider the highest level DPAS rating (DO or DX) at a contractor, historical contractor compliance, and the possible repercussions of non-compliance.

c. Prioritize Surveillance for PP&C.

Factors to consider when prioritizing surveillance are current risk assessment, past delivery performance, schedule volume, past surveillance results, QMS audit results, schedule due dates, resources, and any requirements identified by the contracting officer.

d. Prioritize Surveillance for AS6500.

AS6500 surveillance is prioritized based on the risk rating identified in Section 4.2.

5.3. DETERMINE TYPE OF SURVEILLANCE.

The following requirements, information, and guidance are in addition to the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303.

a. Determine Delivery Surveillance Type & Category.

(1) The FS will utilize progress evaluations in executing delivery surveillance to make an independent determination as to whether the contractor's progress and work remaining will impact the product shipping by the required delivery date.

(a) Facility surveillance is the preferred surveillance approach for delivery surveillance, as the FS is gaining insight to all contract schedules at the facility and their ability to deliver on time. The FS may perform facility surveillance on multiple programs within one facility.

(b) The FS may utilize program surveillance when delivery surveillance entails only a single program.

(c) The FS will only utilize contract surveillance when a request from the contracting officer exists that requires information on a specific contract. If the customer requested information can be provided from facility surveillance, there is no need to create a separate surveillance schedule for contract surveillance.

(2) Delivery surveillance planning also includes determining which surveillance category the FS will utilize. When conducting delivery surveillance, the FS will utilize progress evaluations to evaluate the progress of work completed compared to work remaining to determine the likelihood of the contractor meeting the delivery schedules. A progress evaluation includes comparing the following actions to the scheduled delivery dates:

(a) Evaluating work in progress and remaining work to the production schedule.

(b) Reviewing materials required to materials received or ordered.

(c) Reviewing production schedule for inclusion of any testing requirements, subcontractor work, and packaging.

(d) All other requirements for final production of the contractual items.

b. Determine DPAS Surveillance Type & Category.

(1) Surveillance will be at the facility level to ensure DPAS compliance across contracts or programs. When surveillance is not performed, the FS will document whether this is due to risk or resources in the SoR.

(2) DPAS surveillance will use a process evaluation category approach by evaluating the adequacy, compliance, and effectiveness of the contractor's process for complying with the DPAS requirements.

c. Determine PP&C Surveillance Type & Category.

(1) PP&C surveillance is generally at the facility level unless contract or program uniqueness drives otherwise.

(2) The FS will categorize PP&C as system or process evaluation, which provides the government insight and a level of confidence on the contractor's processes to deliver products in a timely manner.

d. Determine AS6500 Surveillance Type & Category.

(1) AS6500 surveillance is generally at the contract level.

(2) The FS will categorize AS6500 as system or process evaluation, which provides the government insight and level of confidence on the contractor's processes to deliver products in a timely manner.

5.4. DEVELOP SCHEDULE.

The following requirements, information, and guidance are in addition to the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303.

a. Develop Delivery Surveillance Schedule.

The FS will use the level of risk to determine the frequency and intensity of surveillance to provide the appropriate level of oversight of the contractor's ability to deliver products or services, unless regulatory or other requirements specify a frequency.

(1) The FS will determine surveillance frequency by assessing risk, special surveillance requests from the contracting officer, or by resource availability. Frequency selection will drive surveillance schedule occurrences and requirements for documentation in the SoR. Unless directed otherwise, either by the contracting officer or the contract, delivery surveillance is typically scheduled monthly but can be completed at other intervals to validate progress toward meeting the contractual delivery date and to provide buying commands timely information regarding potential delays.

(2) Surveillance intensity will focus on the schedules that must be reviewed to ensure the FS can make an independent assessment of contractor progress.

(a) Full intensity refers to delivery surveillance of all past due and future delivery schedules, regardless of the delivery schedule date.

(b) Partial intensity refers to delivery surveillance for a set of schedules due within a specific period, such as a 30-to-90-day range of delivery date. Partial intensity will also include surveillance that only occurs at the request of the contracting officer.

b. Develop DPAS Surveillance Schedule.

(1) Scheduling DPAS surveillance involves considering the risks and available resources to determine the frequency and intensity of the surveillance activities and documenting in the agency SoR.

(2) Frequency selection will be a meaningful timeframe that allows the FS to engage with the contractor to ensure sound processes are in place that supports meeting contract requirements. The FS will determine DPAS surveillance frequency by assessing risk, special surveillance requests from the contracting officer, and resource availability. Frequency selection will drive surveillance schedule occurrences and requirements for documentation in the SoR. It is recommended the FS select semi-annually or annually.

(3) DPAS frequency and determination for surveillance required will be based on risk.

(4) Surveillance intensity will focus on the sections of the DPAS Adequacy Criteria that the FS must review to ensure they can make an independent assessment of contractor performance.

(a) Full intensity refers to evaluating all four sections of the DPAS Adequacy Criteria during one review. This is the recommended intensity for DPAS reviews.

(b) Partial intensity refers to separating the DPAS Adequacy Criteria review into individual occurrences throughout 12 consecutive months. These need to be scheduled as separate actions, each having their own documentation in the agency SoR.

(5) The FS and their supervisor will consider resource availability when scheduling surveillance and properly document it in the agency SoR if lack of resources drives a decision to delay or not conduct DPAS surveillance.

c. Develop PP&C Surveillance Schedule.

(1) Frequency selection will be a meaningful timeframe that allows the FS to engage with the contractor to ensure sound processes are in place that supports meeting contract requirements. It is recommended the FS select monthly, quarterly, semi-annually, annually, or once in the agency SoR. Frequency drives the surveillance schedule occurrence and documentation requirements.

(2) Intensity selection is defined as follows:

(a) Full refers to conducting all PP&C processes per occurrence.

(b) Partial refers to separating the PP&C evaluation into one or more of the seven sub-processes to be conducted per occurrence throughout 12 consecutive months.

d. Develop AS6500 Surveillance Schedule.

Frequency selection will be a meaningful timeframe that allows the FS to engage with the contractor to ensure sound processes are in place that supports meeting contract requirements. It is recommended the FS select monthly, quarterly, semi-annually, annually, or once in the agency SoR. Frequency drives the surveillance schedule occurrence and documentation requirements.

e. Allocated Hours for Developing Surveillance Schedules.

When developing surveillance schedules, allocated hours are the number of hours it takes to prepare, execute, and document the process or progress evaluation. Allocated hours do not include time spent on CRR, writing a report to the supervisor, generating risks, issues and opportunity (RIO), issuing delay notices, or responding to customer requests.

5.5. SURVEILLANCE PLAN MODIFICATIONS.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

5.6. DELEGATE SURVEILLANCE DECISION.

The following requirements, information, and guidance are in addition to the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303.

a. Delegation or place of performance notification decision is risk based.

b. The prime FS and recipient FS must communicate prior to finalizing the surveillance approach to ensure high risk areas are covered within the resource available.

c. When a delegation is involved the FS delegatee will perform the risk assessment associated with the process(es) delegated in their plan. The FS delegatee will determine if the delegated surveillance can be executed under an existing KCR or if a new KCR is required. Entering a KCR multiple times is acceptable.

SECTION 6: EXECUTE SURVEILLANCE

6.1. PREPARE FOR SURVEILLANCE.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

6.2. EXECUTE SURVEILLANCE.

The following requirements, information, and guidance are in addition to the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303.

a. Execute Surveillance for Delivery Surveillance.

The FS should execute delivery surveillance on-site as much as possible; however, if resources limit this ability, then the FS can employ virtual surveillance. Virtual surveillance will be limited to lower-risk contractors to the greatest extent possible. Any results from virtual surveillance will consider the reliability of data provided virtually during validation. Requesting the status of delivery schedules electronically from the contractor is an example of virtual surveillance. The FS can utilize virtual surveillance data and information in preparation for on-site surveillance. While performing virtual surveillance, the FS may request other FSs who are routinely on-site to assist with validating contractor supplied data.

(1) During on-site visits, surveillance actions may vary based on risk assessment, such as those supplied in Table M13. At the lowest level, these actions will focus on contractor data and contractor input to determine the contractor's ability to meet the delivery schedules. This data may be provided from internal metrics, production schedules, workstation schedules, test results, enterprise resource planning, materials requirements planning systems, and interviews.

Table M13. Possible Surveillance Actions based on Risk Likelihood

Risk Likelihood	Surveillance Actions	DC&A Examples
Low	Analyzing contractor data	Schedule, metrics, enterprise resource planning (ERP) data, interview
Moderate	Validating contractor data by observations and verification	Work in progress or completed, material orders, master schedule
High	Validating contractor data by observing and verification with increased intensity	Workstation schedule, machine or personnel availability, material on hand, cycle or throughput times

(2) When executing delivery surveillance, the FS will consider results from the PP&C process evaluations that were determined to be high risk and may impact timely delivery.

(3) The results of delivery surveillance indicating a delay may lead to a PP&C process review to determine what in the process has failed.

(4) When determining the correct surveillance technique to utilize for delivery surveillance of a conclusion, the FS will not utilize test, witness, or inspect. Any of the

remaining surveillance techniques can be utilized when executing delivery surveillance, DPAS, PP&C and AS6500.

b. Execute Surveillance for DPAS.

Executing DPAS surveillance may begin by educating the contractor pursuant to Subpart 42.3, Section 42.302(a)(33) of the FAR. The FS should collaborate with contractors to ensure they understand their responsibilities under the DPAS regulation.

(1) Conducting regular evaluations and compliance checks on contractors to ensure they are prioritizing and fulfilling rated orders in accordance with DPAS regulations. After providing guidance to the contractors, the FS will consider the following execution activities:

(a) Defining objectives, identifying key areas for monitoring based on risk assessments, and establishing clear protocols for inspection and compliance verification. It includes setting up regular check-ins, evaluations, and reviews.

(b) Reviewing documentation, processes, and production schedules to verify compliance.

(c) Reviewing both the contractor's procedures and DPAS regulations.

(d) Engaging in discussions with key personnel to understand their operational challenges and compliance strategies.

(e) Providing timely reports of findings and working collaboratively with contractors to address any issues identified, ensuring corrective actions are implemented to maintain the integrity of the defense supply chain. Incorporate protocols for dealing with non-compliance and resolving any potential problems that may occur throughout the implementation of rated contracts.

(f) Utilizing the integrated DCMA CMSE tool (i.e., CMSE resource page) to execute a DPAS system review.

(g) Resolving DPAS issues at the lowest level possible.

(h) Adjusting surveillance strategies based on evolving risks and priorities. Further detailing a surveillance outline includes integrating continuous improvement processes, where feedback from surveillance activities is used to refine and enhance surveillance strategies over time. This could involve developing more sophisticated risk models or introducing new methods for more efficient monitoring.

(2) The FS must perform surveillance requirements and document process evaluation. Perform reviews of the processes and applicable documents for specific requirements related to DPAS surveillance (e.g., Table M14). The surveillance techniques that can be used for data collection during a DPAS process review include examine, interview, and monitor. The surveillance techniques that can be used for data analysis during a DPAS review include analyze,

validate, and verify. Use data and documentation obtained during the review to ensure compliance with DPAS adequacy criteria (e.g., Table M14).

Table M14. DPAS Adequacy Criteria

Process	Adequacy Criteria
Contract Review & Order Acceptance	DPAS contracts reviewed, and orders properly accepted
Requirements Flow-Down	DPAS requirements flowed down, both internally and externally, throughout contractor's supply chain
Delay Notification	Notification of delays on rated orders with reason for delay provided in advance
Preferential Scheduling	Preferential scheduling used to ensure rated order scheduling over non-rated orders

(3) During the DPAS process review, the FS must verify:

(a) Contract review and order acceptance.

1. Verify there is a process for contract review, as well as for order acceptance of rated orders, and that it is being followed.

2. Acceptance or rejection of a rated order must be transmitted in writing or electronically to the customer placing the order. Verify the contractor has a process for this and it is being implemented.

a. Must occur within 15 working days after receipt of a "DO" rated order.

b. Must occur within 10 working days for a "DX" rated order.

c. If the contractor accepts a rated order and subsequently finds that the shipment or performance will be delayed, the contractor must notify the customer immediately, give the reasons for delay, and advise of new shipment or performance date.

3. Verify the contractor has a CRR checklist and it is being implemented.

4. Verify the contractor is familiar with, and implementing, the proper method of reviewing and accepting DPAS-rated orders.

(b) Requirements flow-down.

1. Verify there is a process for requirements flow-down which identifies rated requirements, and this process is being followed.

2. Review purchase orders and verify for:

a. Priority Rating (e.g., Rating symbol (DX or DO) & Program ID).

b. Required delivery dates.

c. Authorized written or digital signature.

d. Presence of certification statement which should read as "This is a rated order certified for national defense use and you are required to follow all the provisions of the Defense Priorities and Allocations System regulations (15 CFR part 700)."

e. Purchase order sampling for clauses containing flow-down requirements to ensure contractor flow down of mandatory clauses pursuant to Part 52 of the FAR, Part 252 Subpart 252.2, Sections 252.225 and 252.246 of the DFARS. The FS may perform purchase order reviews in conjunction with the DPAS requirement flow down review. Reference DFARS clauses in Table M15. For a complete list of clauses, refer to Part 252 of the DFARS.

f. In most cases, purchase order reviews will fall under the DPAS surveillance KCR. A contractor without DPAS-rated orders that has CD A or CD B contracts containing the clauses in Table M15 may utilize the Purchase Order Reviews KCR to perform surveillance. Purchase order reviews can be performed by any function under the Purchase Order Reviews KCR.

Table M15. DFARS Clauses

DFARS Clause	Title
252.225-7007	Prohibition on Acquisition of Certain Items from Communist Chinese Military Companies
252.225-7009	Restriction on Acquisition of Certain Articles Containing Specialty Metals
252.225-7013	Duty-Free Entry
252.225-7016	Restriction on Acquisition of Ball and Roller Bearings
252.225-7019	Restriction on Acquisition of Anchor and Mooring Chain
252.225-7025	Restriction on Acquisition of Forgings
252.225-7033	Waiver of United Kingdom Levies
252.225-7039	Defense Contractors Performing Private Security Functions Outside the United States
252.225-7040	Contractor Personnel Supporting U.S. Armed Forces Deployed Outside the United States
252.225-7047	Exports by Approved Community Members in Performance of the Contract
252.225-7048	Export-Controlled Items
252.225-7052	Restriction on the Acquisition of Certain Magnets, Tantalum, and Tungsten
252.225-7054	Prohibition on the Use of Certain Energy Sourced from Inside the Russian Federation
252.225-7056	Prohibition Regarding Business Operations with the Maduro Regime
252.225-7058	Post-award Disclosure of Employment of Individuals Who Work in People's Republic of China
252.246-7007	Contractor Counterfeit Electronic Part Detection and Avoidance System
252.246-7008	Sources of Electronic Parts

(c) Delay Notification.

Verify an implemented process is in place for proactive delay notifications which includes not only the notification, but the delay cause, estimated recovery, and other situational acquisition information useful to the buying command.

1. Verify the contractor has a process to notify the government when a delivery will be delayed.

2. Verify the contractor has common processes for tracking contract-specific subcontractor deliverables and is identifying when these are going to be late.

3. Verify the written method used to notify the customer of the reason for delay, to include the anticipated recovery date.

4. Upon recognition of a delay, verify the contractor has a process to contact the procuring contracting officer for a modification to extend the delivery date.

(d) Preferential Scheduling.

1. Verify the contractor identifies rated vs. non-rated orders.

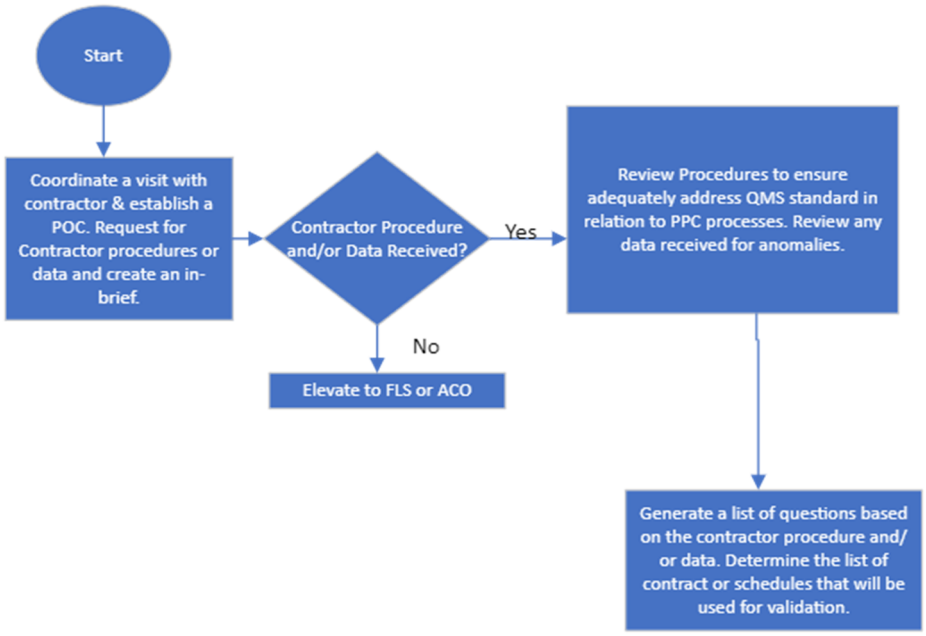
2. Verify the contractor has a process to prioritize rated orders over un-rated orders.

(4) When a contractor requests special priorities assistance on a sub-contractor, the FS may engage the CMO DPAS officer to assist.

c. Execute Surveillance for PP&C.

Executing PP&C surveillance typically involves preparation (e.g., gathering contractor data, policies, and procedures for pre-review), coordination and logistics, in-brief preparation, and evaluation criteria preparation (e.g., questions created from contractor policies, procedures, instruction, data or plan). See Figure M6 for a typical preparation process flow.

Figure M6. PP&C Evaluation Preparation



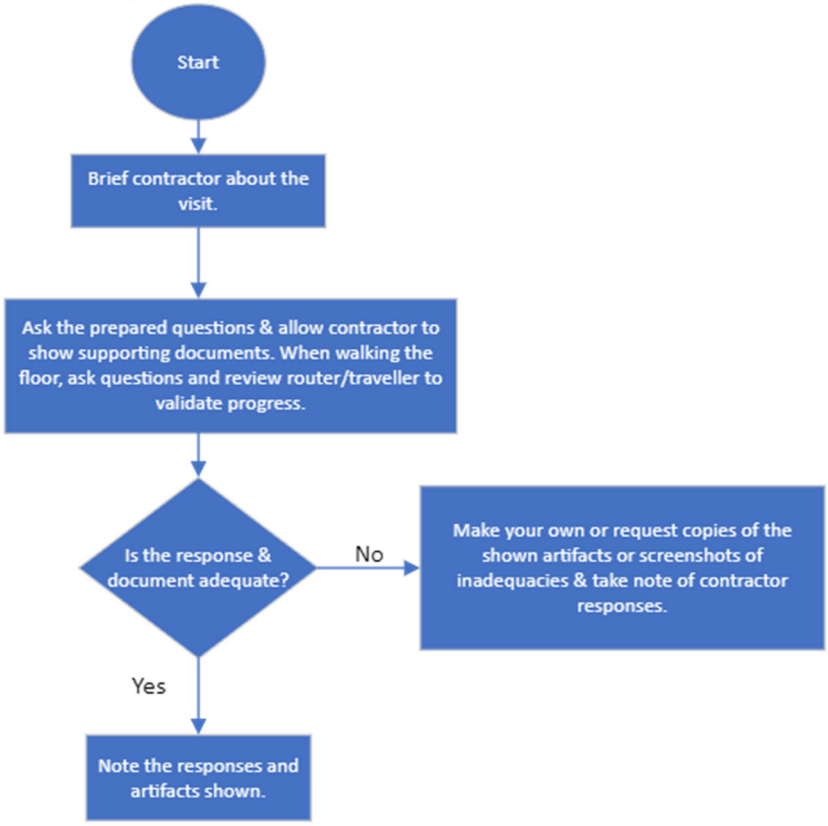
(1) When coordinating a visit with the contractor, ensure the contractor understands the purpose of the visit and the need to engage with certain personnel. The FS may be required to coordinate authorization for government issued electronic devices (e.g., PCs, cell phones, tablets)

to facilitate the capture of their observations. The FS may create an in-brief when preparing for the visit, which may include purpose, scope, timeline, floor walk-throughs, and DCMA process for addressing findings.

(2) Once contractor procedures and data have been received, the FS will review the procedures for adequacy and data received for anomalies. The FS will prepare a set of questions based on the contractor procedures and data anomalies to conduct the process evaluation.

(3) During a contractor engagement or visit, the FS typically provides an in-brief to the contractor. This allows the contractor to show data and respond to the prepared set of questions. The FS may walk the manufacturing floor to gather process understanding as well as verification or validation of contractor responses. The FS will make notes of contractor responses, data verified, and any concerns to the set of questions. The FS may also obtain copies or screenshots of the contractor's documents hand artifacts, if possible. See Figure M7 for a typical contractor visit process flow.

Figure M7. PP&C Evaluation Contractor Visit



d. Execute Surveillance for AS6500.

Executing AS6500 scheduled surveillance is a three-step evaluation process using ACE:

(1) The FS must evaluate the adequacy of the contractor's processes, the contractor's compliance to the processes, and the process effectiveness. These steps provide the verification of conformance to the AS6500 standard using the outcomes as evidence.

(a) Evaluation of process effectiveness could include process outputs and process related products such as Material Review Board reports, Engineering and Manufacturing reports, drawings, delivery performance, engineering change proposals, request for variance documentation, inventory work in progress report, or deliverable product, or service evaluations.

(b) FS will execute evaluations in accordance with ISO 19011:2018, Paragraphs 6.4 through 6.4.10, ISO 19011:2018 Annex A, and refer to the appropriate CMSE tools located on the resource page of this volume. The ISO Guidelines and the tool offer a process and templates for a large formal evaluation; the process and templates may be tailored to meet the objectives, scope, and criteria for smaller management system or process evaluations.

(c) To prepare for surveillance, the FS must collect and review information and data relevant to the evaluation(s) for verification of conformance to the standard. The evaluation criteria for the AS6500 CMSE can include other documents, sources and contractor's processes (e.g., instructions, procedures, and plans). See the AS6500 CMSE resource page for specific system criteria and checklists.

(2) The lead FS must brief the contractor prior to the AS6500 CMSE. The FS determines the scope and necessary resources required from both DCMA and the contractor by documenting a full or tailored AS6500 on the contract. The contractor orientation may involve planning meetings as well as providing the contractor with an orientation package that may include:

- Evaluation agenda
- Expectations of resources, time, etc., required for the evaluation
- Evidence to be provided at site visit (e.g., process maps, delivery performance, proposed manufacturing plan, process capability data, yield data, technology development plans, risk reduction plans, value stream analysis)
- High-interest, high-risk areas where shop floor visits or discussions are required for the understanding and verification or validation of conformance to the AS6500 standard
- MRL definitions and threads
- MRL self-assessment questions
- A plan for retrieval of contractor's document or artifacts

(3) The FS or lead of the CMSE will set the agenda for site visits. Site visits are intended to provide a more detailed understanding than can be gained from briefings and documents. FS must structure evaluations of AS6500 CMSEs in such a way as to take maximum advantage of discussions with contractor experts and firsthand observations of the status of shop floor activities. The FS must balance the time spent in conference rooms and the time spent making observations in the contractor's facility and having discussions with individuals and small groups of the contractor's personnel. A typical agenda for an evaluation may contain the following elements:

- Contractor welcome, review of agenda, assessment schedule, and orientation to the facility
- Introduction of evaluation team and contractor personnel
- Description of objectives and expectations for the site visit
- Shop-floor visits to key areas by individuals or small groups
- One-on-one or small group discussions between evaluation team members and contractor subject matter experts focused on key areas
- Private meeting with evaluation team to record and discuss observations
- Out-briefing by evaluation team to contractor

(4) During the AS6500 CMSE, the FS will verify all prior findings identified during previous management system evaluations have been adequately addressed and applicable CARs are closed.

(5) CMS system-specific criteria are typically more rigorous than higher level standards. AS6500 will have on contract pre-selected manufacturing risk areas that are of the most concern. The standard provides more detail than the higher-level ISO 9001 and AS9100 Configuration Management requirements. A contractor can achieve conformance to the standard by demonstrating that they satisfied the standard requirements using the outcomes as evidence. Risk-based CMSE surveillance, at the more detailed level, results in a more complete and thorough evaluation of the contractor's overall QMS.

(6) When conducting an AS6500 CMSE, there should be a well-defined hierarchy among the processes evaluated. The hierarchy can start at the system level and flow down to the process level. Based upon risk, a FS may be required to evaluate the lower levels of the process (e.g., shop floor standard operating procedures and standard work instructions). To maximize CMSE efficiencies when evaluating MRL criteria while participating in an MRA assessment, the FS may evaluate AS6500 requirements on contract as well as PP&C and suitable MMAS requirements. The objective of the evaluation is the verification of conformance to the AS6500 standard using the outcomes as evidence.

(7) Objective evidence or artifacts provide the outcome details to show if there are deviations to the AS6500 requirements on contract. For example, the clause for supplier management requires that a contractor establish, implement, and maintain a management system to track and report supplier performance. The system must have processes in place to evaluate the capability of suppliers to perform the anticipated design and manufacturing work scope. Examples of applicable evidence or artifacts may include:

- Supplier certification and approval process
- Key suppliers list
- Sub-Tier supplier scorecard
- Corporate and shop floor level metrics
- Traceability of quality escapes back to sub-tier suppliers
- Purchase order flow-down requirements
- Third party sub-tier supplier management software
- Make or buy cost analysis process

- Make or buy cost analysis report
- Supplier counterfeit and materials prevention process

(8) The output of an AS6500 CMSE is a report or record indicating the health of a full or tailored contractor's management system - the contractor's system adequacy, compliance, and effectiveness. These conclusions and determinations, when provided to stakeholders, such as the program office, Cost & Pricing team, ACO, AMT, PST, etc., can provide actionable information to prevent or mitigate any potential impacts to deliverable product or service cost, schedule, and technical performance. See the resource page for this manual for a routine report template for CMS status. The results as documented in the final report may include the following:

(a) A description of the system or process which identifies the elements that were evaluated; the key objectives of the evaluation effort; and a discussion of the current health of the AS6500 CMS.

(b) Dates and locations of the site visits.

(c) Areas of noncompliance:

1. Identify key factors.

2. Identify root cause.

(d) Plans for the contractor to comply with the standard.

(e) Type and significance of risk to cost, schedule, or technical performance.

(9) Typically, as part of the Plan-Do-Check-Act Framework, some DC&A analysis is required by the evaluation team after site visits are complete to clearly define the conformance to the standard and risk status of the key manufacturing processes.

(10) Evaluation job aids, templates, management system criteria, and integrated tools are provided on the AS6500 CMSE resource page that offer guidance and templates to conduct a formal ISO 19011 compliant evaluation. Root cause and corrective action tools and methods that are helpful to use during AS6500 CMSEs are the 6Ms of manufacturing and production (Manpower, Method, Machine, Material, Milieu or Mother nature and Measurement), cause and effect maps, fishbone diagram, and the 5-Whys analysis. Consult the AS6500 CMSE resource page for any existing criteria checklists and confirm it has been developed from the current contract requirement(s). The FS conducts the AS6500 evaluation to accommodate the scope, schedule, available resources, etc., as planned for the CMSE. Legacy or locally developed tools and templates can be modified as necessary and used to meet the requirements.

6.3. RESCHEDULE OR CANCEL SURVEILLANCE.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

SECTION 7: DOCUMENT RESULTS

7.1. DOCUMENT SURVEILLANCE RESULTS.

The following requirements, information, and guidance are in addition to the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303.

a. Document Results of Delivery Surveillance.

The results of the delivery surveillance execution allow the FS to forecast that the contractor is likely or unlikely to meet the contractual delivery dates. If the surveillance results determine a contractor is at risk to not meet CD A or CD B schedule delivery dates, the FS should provide a delay notice with independent analysis of the issues and revised delivery dates.

(1) The FS can use the following to aid in developing the record in the SoR, but this list is not all inclusive:

(a) Evaluation Item.

Contract line item number or schedule to the contractor's production schedule.

(b) Requirement Reference.

Contractual delivery schedule date.

(c) Evaluation Criteria.

Track manufacturing progress to the contractor master schedule and the contractual delivery schedule date. Ensure all schedules due within the next "xx" days are reviewed to verify actual progress to the contractor's production schedule. The FS will review schedules to verify progress and summarized notes supporting the analysis will be documented in the SoR. If an attachment is used to capture the evaluation criteria, the FS will provide a summary of the criteria and upload the attachment to the record.

(2) If a potential delay of CD A or CD B delivery schedule is identified, the FS will communicate a delay notice to provide delay information. Information reported can be gained from observations during surveillance efforts or data analysis. The FS will use the agency's authorized capability for reporting delays.

(a) At a minimum, delay notices will include:

1. Root cause(s) based on independent DCMA surveillance and analysis.

2. Delay code applicable to the conditions causing the delay.

3. Forecasted recovery date.

4. Action proposed by contractor to correct the immediate problem and eliminate the root cause.

5. DCMA analysis of the contractor's corrective action.

6. DCMA recommendations that enable customers to make informed business decisions.

(b) The FS will report delays continuously until contract requirements are satisfied.

(3) FS are not required to update the production surveillance codes in MOCAS as other systems provide the risk rating to determine surveillance requirements.

(a) CMOs may make internal decisions to update and utilize the production surveillance codes in MOCAS.

(b) The FS will update any estimated delivery dates in MOCAS based on surveillance results for entered schedules.

b. Document Results of DPAS Surveillance.

The FS must maintain documentation when executing each occurrence of a DPAS surveillance entered in the agency SoR.

(1) The FS may use the following to aid in developing the record in the SoR, but this list is not all inclusive:

(a) Evaluation Item.

DPAS contract review and order acceptance, DPAS requirements flow down in conjunction with purchase order flow down sampling, DPAS delay notification, or DPAS preferential scheduling for DX or DO orders.

(b) Requirement Reference.

15 CFR 700 and purchase order flow down clauses.

(c) Evaluation Criteria.

The criteria will be derived from the requirement reference. Make notes as each criterion is evaluated. If an attachment is used to capture the evaluation criteria, the FS will then provide a summary of the criteria and upload the attachment to the record.

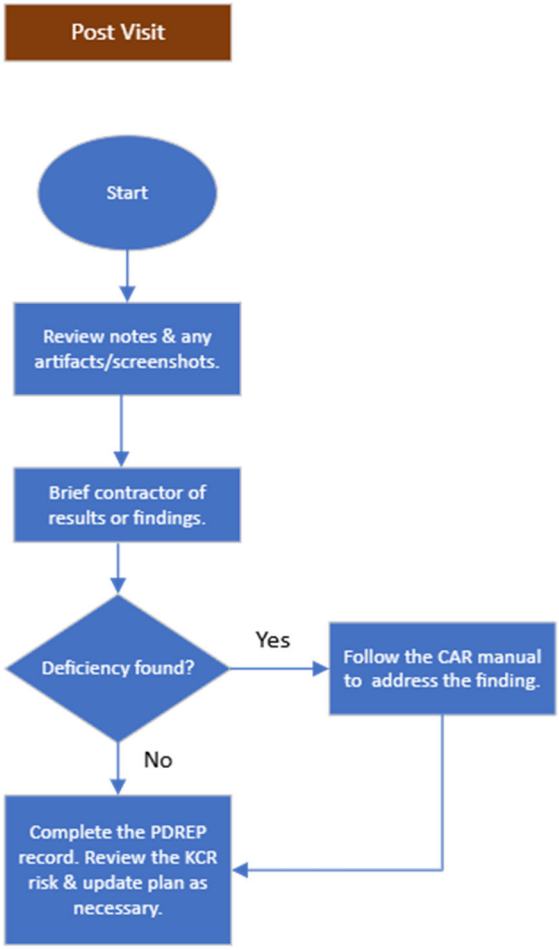
(2) There are no requirements to report DPAS surveillance findings outside of the agency SoR.

(3) If DPAS violations are discovered, the FS will collaborate with the CMO DPAS officer or lead to determine validity. Violations will be reported to the procuring contracting officers and notification provided to AMT members.

c. Document Results of PP&C Surveillance.

FS will document the record of the occurrence in the SoR upon completion of the process evaluation with the contractor. See Figure M8 for a typical post visit process flow.

Figure M8. PP&C Evaluation Post Visit



(1) The FS can use the following to aid in developing the record in the SoR, but this list is not all inclusive:

(a) Evaluation Item.

PP&C, PP&C Demand Management, PP&C Shop Floor Control, or PP&C Sales and Operations Planning, etc.

(b) Requirement Reference.

FAR 52.246-11, QMS (e.g., AS9100D, ISO 9001), and contractor procedures or instructions that address the QMS.

(c) Evaluation Criteria.

The criteria are derived from the requirement reference. Typically, the criteria are established based on contractor's procedures or instructions or plans that meet the QMS standard (e.g., list of questions from the preparation phase). If an attachment is used to capture the evaluation criteria, the FS will provide a summary of the criteria and upload the attachment to the record.

(2) It is important to communicate the results of the process evaluation. Any deficiencies found during the process evaluation will be documented in accordance with DCMA-MAN 2303-05, "Addressing Contractor Noncompliances and Corrective Action Requests."

(3) When identified deficiencies impact contractual deliveries, the FS will report to the customer the impact that the deficiencies have on the contractual deliveries through delivery schedule manager, program support collaboration, or e-mail as applicable.

d. Document Results of AS6500 Surveillance.

The FS will document AS6500 results and record and distribute surveillance information in accordance with ISO 19011: 2018 Paragraph 6.5. The Integrated CMSE Tool on the resource page offers templates and methods for organizing the CMSE results that may be recorded within the SoR. AS6500 is part of this tool which provides a crosswalk with AS9100, ISO 9001, PP&C and DPAS.

(1) The FS may be required to provide routine or ad hoc reports to communicate the results of a AS6500 CMSE to external or internal customers, such as providing input to a RIO or program assessment report for a reporting program. Reports can be submitted individually or consolidated through the ACO pursuant to local guidance. FS may roll up ad hoc reports into routine reports such as detailed "Contractor Management System Status" reports and include the details in risk rationale statements during future surveillance planning.

(2) Determinations or conclusions (e.g., findings, predictions or recommendations) of a AS6500 CMSE may also support other reports such as a RIO or the basis for a CAR. Reporting must include a narrative and analysis addressing all determinations and conclusions. Additionally, FS may use product and progress evaluation results as indicators of the contractor's management system health and non-conformance to the standard.

(a) In accordance with ISO 19011, the AS6500 CMSE team leader will report the observations or conclusions generated during the CMSE to the contractor. The CMSE report must provide a complete, accurate, concise, and clear record of the CMSE. Reports will be reviewed internally by CMO AMT prior to release to the contractor.

(b) CMOs may elect not to provide a CMSE report to the contractor. For example:

1. When the CMSE addresses sensitive elements of a CBS.

2. When the CMSE is part of a larger scale evaluation where a report for the full evaluation will be delivered.

3. When there may be CMO-level concerns related to the CMSE subject (e.g., CAR or root cause and corrective action milestones, ACO withhold release criteria).

4. When there may be customer or other agency special interest areas.

5. When the disclosure is prohibited by law or policy.

(c) The FS can attach the external report to the surveillance record. This report can also be used for communication to internal stakeholders. See Paragraph 7.1.d.(3) for additional specific concerns, observations, or recommendations included as an addendum.

(d) Document, record, and report AS6500 CMSE surveillance results pursuant to Volume 1 of DCMA MAN 2303-01 to include conclusions (e.g., non-conformance, findings, predictions, and recommendations). The FS will provide the CMSE final report to the contractor, may provide it to internal stakeholders, and will upload it to the SoR.

(3) The FS can communicate surveillance results to the PST or AMT to enhance multifunctional surveillance documentation, records, situational awareness, and customer insight. The FS can provide a copy of the report to the ACO, industrial specialist team lead, quality assurance team lead, engineering team lead, technical group lead, program integrator, Cost and Pricing Command personnel, CMO personnel performing technical support to negotiations and technical support to indirect costs, as well as other stakeholders, as necessary.

(4) The FS will maintain surveillance records, analysis and determinations in the agency SoR. These records can be used to support several uses, including future surveillance, AS6500 CMSEs and external or third-party audits, CBS reviews, or DCMA Industrial Analysis Division.

7.2. MULTIFUNCTIONAL COMMUNICATION AND REPORTING.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

SECTION 8: DC&A

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

8.1. DC&A.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

8.2. DATA COLLECTION.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

8.3. DATA ANALYSIS.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

8.4. COMMUNICATION.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

SECTION 9: EVALUATE SURVEILLANCE PLAN

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

9.1. FS EVALUATE SURVEILLANCE PLAN.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

9.2. SUPERVISOR EVALUATE SURVEILLANCE PLAN.

This paragraph requires no additional details beyond the requirements, information, and guidance in accordance with Volume 1 of DCMA-MAN 2303-01.

GLOSSARY

G.1. ABBREVIATIONS AND ACRONYMS.

ACRONYM	MEANING
15 CFR 700	Part 700 of Title 15, Code of Federal Regulations
ACE	adequacy, compliance, effectiveness
ACO	administrative contracting officer
AMT	award management team
CAR	corrective action request
CBS	contractor business system
CD	criticality designator
CDRL	contract data requirements list
CFR	Code of Federal Regulations
CMO	contract management office
CMS	contractor management systems
CMSE	contract management system evaluation
CRR	contract receipt and review
DC&A	data collection and analysis
DCMA-MAN	DCMA Manual
DFARS	Defense Federal Acquisition Regulation Supplement
DPAS	Defense Priorities and Allocation System
FAR	Federal Acquisition Regulation
FS	functional specialist
ISO	International Organization for Standardization
KCR	key contract requirement
MMAS	material management and accounting system
MOCAS	Mechanization of Contract Administration Services
MRA	manufacturing readiness assessment
MRL	manufacturing readiness levels
OASIS	Online Aerospace Supplier Information System
OTD	on time delivery
PDREP	Product Data Reporting and Evaluation Program
PP&C	production planning and control
PQDR	product quality deficiency reports
PST	program support team

QMS	Quality Management System
RIO	risks, issues and opportunity
SoR	system of record
SOW	statement of work

GLOSSARY

G.2. DEFINITIONS.

Unless otherwise noted, these terms and their definitions are for the purpose of this policy issuance.

TERM	MEANING
6M	Refers to six components: manpower, method, machine, material, milieu, and measurement. It is generally used for finding the root-cause of problems in manufacturing industry.
allocated hours	The planned time in hours to start and complete one occurrence of a scheduled item in the surveillance schedule. Allocated hours should include preparation, execution, and documentation. Travel time is not included in allocated hours. If multiple FSs and ACOs plan to execute a joint occurrence of a surveillance event, the hours would be the total hours for the execution, not per FS and ACOs.
AMT	The CMO AMT may consist of two or more functional areas such as an ACO, quality assurance specialist, quality assurance engineer, engineer, industrial specialist, property, contract safety, government flight representative, center personnel etc. When AMT is mentioned in this volume, it may include program support team.
baseline	An initial risk-assessment of a system, process, or sub-process associated with a KCR. Baselines provide a basis for tracking risk trends over time.
CAR	A request for a contractor to take action to eliminate the cause of a detected deficiency or other undesirable condition. CARs are issued to the contractor management level responsible for correcting the cited deficiency.
CMSE	A risk-based, multifunctional approach based on industry standard ISO 19011 to assess the processes contractors use to deliver products and services. This approach evaluates the adequacy, compliance, and effectiveness of the contractor's management system(s), from the high-level management system to detailed subsystem(s) and process(es), to meet contractual requirements.

consequence	An outcome of an event affecting objectives. An event can lead to a range of consequences. A consequence can be certain or uncertain and can have positive or negative effects on objectives. Consequences can be expressed qualitatively or quantitatively. Consequence is sometimes called impact and severity.
contracting officer	Contracting officers are responsible for ensuring performance of all necessary actions for effective contracting, ensuring compliance with the terms of the contract, and safeguarding the interests of the United States in its contractual relationships.
DC&A	All surveillance associated with the collection, evaluation, and use of contractor, government, and external customer data, and other applicable data elements, using appropriate techniques to identify risk and contractor systemic deficiencies, communicate cost and schedule concerns to the external customer, and adjust Surveillance Plans.
deficiency	A noncompliant or nonconforming condition. Deficiency is used throughout this document to represent departures from product requirements as well as procedural requirements.
delinquent schedule	Any unshipped schedule that is past the assigned delivery schedule date.
deliverable product	A line item that is specified in the contract and requires acceptance by the government. These items may include hardware, software, or CDRL(s).
delivery surveillance	For DCMA definition purposes, any surveillance actions performed by the FS that provides insight to the progress of contract items shipping before or after the scheduled delivery date.
deliverable service	An activity to provide time, effort, or expertise that is specified in the contract and requires acceptance by the Government Examples could include janitorial services, programming, repair or refurbishment of equipment, gathering documented information, technical services, etc.
external customer	The external customer is considered a non-DCMA entity and may be from the DoD buying activities, other United States government agencies, or another nation. It may include individuals from those organizations such as the procuring

	contracting officer, program manager, end user of the product, or an international requestor of the work products from a technical effort.
facility	A contractor's building, or area, that is normally associated with a CAGE code. This is the location where contractor performs the requirements of the contract or where the surveillance event or activity is executed.
frequency	The rate at which something occurs or is repeated over a particular period, such as surveillance frequency of a particular system or process will occur monthly, weekly, or daily.
FS	(1) Any DCMA employee executing Contract Administration Services within any career field, excluding the ACO. (2) FS are personnel assigned to perform various tasks in support of the Agency's mission (e.g., cost monitor, engineer, industrial specialist, IT specialist, packaging specialist, quality assurance, contract administrator, or earned value management specialist).
functional area	A group of personnel tasked with a specific organizational function. Typically, functional departments comprise teams of employees with similar skills and expertise. Some examples are Quality, Industrial Specialist, Engineering, Software, and Contracts.
government caused delays	Any schedule delay that is a direct result of a government action or inaction.
guidebooks	Guidebooks are controlled, approved, and maintained by the functional proponent and consist of detailed guidance to maintain consistency across the agency for process execution or data collection of various processes for a given function or functions. Some guidebooks may be enforceable pursuant to DCMA-MAN 4501-01, "Agency Issuance Program."
intensity	The degree or scope to which surveillance will be completed, (e.g., full or partial, Acceptable Quality Level).
internal customer	An internal customer is a DCMA entity.
issuance	A documented instruction, publication, standard or direction intended for use by Agency employees.

KCR	As defined in DCMA-MAN 2501-01, "Contract Receipt and Review."
likelihood	The assessed probability that an event will occur given existing conditions. This is the contractor's ability to be compliant or successful.
manufacturing process	The series of steps, methods, or operations involved in transforming raw materials into finished products.
output	A work product or artifact that is generated based on requirement(s) of a process, policies, procedures, or contract.
OTD	Ratio of schedule shipped before or by the schedule delivery date to the total number of schedules due.
operational unit	As defined in DCMA-MAN 4501-03, "Organization Structure, Mission and Functions."
PDREP	The DCMA SoR for surveillance that serves as a database for recording, collecting, retrieving, and analyzing supplier performance information. The data captured includes Surveillance Plans as well as Letters of Delegation, CARs, Supplier Risk Assessments, Product Quality Deficiency Reports, and Supply Discrepancy Reports.
planning	The act of creating a plan or a detailed formulation of a course of action for how something will be achieved. Planning describes the intention to do something, coupled with a proposal or strategy for getting it done. Planning includes many things outside of scheduling (e.g., deciding where to do work, tools and processes that will be used, skillset needed.
process capability	Whether a process is consistently capable of meeting desired goals.
PP&C	Involves coordinating and scheduling manufacturing (process or system) to ensure products are made efficiently, meet quality standards, and are delivered on time and within budget.
production surveillance	For DCMA definition purposes, any surveillance actions performed by the FS related to a Process Evaluation that provides insight into the contractors' ability to perform.
remote surveillance	Using an alternative surveillance technique for verification of objective evidence via electronic means rather than in person

	and which is at a remote location using a virtual connection. It may entail gaining access to the contractor's internal enterprise systems using our own DCMA issued equipment.
review	Determination of the suitability, adequacy, or effectiveness of an object to achieve established objectives. Example: Management review, design and development review, review of external customer requirements, review of corrective action, and peer review. Review can also include the determination of efficiency.
risk	(1) A measure of future uncertainties in achieving an organization's objectives, requirements and goals within defined cost, schedule, and performance constraints. It has three components: a future root cause, a likelihood assessed at the present time of that future root cause occurring, and the consequence of that future occurrence. (2) Potential future event or condition that may have a negative effect on achieving program objectives for cost, schedule, and performance.
risk assessment	Includes the evaluation of the systems, processes, or sub-processes associated with requirements identified for surveillance, as well as other Agency-accepted workload.
risk rating	The assigned level of risk used to define the severity of a risk event or activity.
scheduling	The act of deciding when something will be done and allocating the time for it on a FS schedule. Scheduling can be considered a subset of planning.
surveillance	Surveillance is the process of assessing risk, planning and executing the evaluation or assessment of contractor systems, processes, or sub-processes associated with executing requirements for product or services intended for government use. Surveillance is performed to analyze and assess the contractor's adequacy, compliance, and effectiveness with respect to contractual terms for cost, schedule, and technical performance. The surveillance process includes the collection of data, analysis of data, and documenting results in the Agency PDREP followed by re-evaluation of risk for planning efforts. Surveillance is done by contract, program, or facility, and utilizes four surveillance categories: S/PE, PE, DPE and DSE.

stability	In the context of measurement system analysis, the total variation in the measurements obtained with a measurement system on the same master or parts when measuring a single characteristic over an extended time.
virtual surveillance	Used for the performance of surveillance. This technique is usually performed in real-time using a contractor's IT system for on-line video surveillance or in-process or end item acceptance when approved for use by all stakeholders.

REFERENCES

Code of Federal Regulations, Title 15, Part 700, current edition
Code of Federal Regulations, Title 48, Part 11, current edition
DCMA "Guidebook for Virtual and Remote Contract Oversight"
DCMA "OASIS Guidebook for Technical Specialists," Revision 1
DCMA Manual 2101-04, "Delegate Surveillance," March 22, 2024
DCMA Manual 2301-01, "Contractor Business Systems," April 28, 2019
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DCMA Manual 2501-01, "Contract Receipt and Review (CRR)"
DCMA Manual 4501-03, "Organization Structure, Mission and Functions," April 3, 2019
Defense Federal Acquisition Regulation Supplement, current edition
DoD 4400.1-M "Department of Defense Priorities and Allocations Manual," February 21, 2022, as amended
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Military Handbook 896A "Manufacturing Management Program Guide"
SAE International "Manufacturing Management Program AS6500"
SAE International "Quality Systems - Aerospace - Model for Quality Assurance in Design, Development, Production, Installation and Servicing AS9100"
United States Code, Title 50, Section 4501 (also known as "The Defense Production Act of 1950"), as amended