Preface

This QASP provides the approach and practices that [Center] will use for contract management tasks that concern mission hardware product and process quality conformance. This QASP does not include provision for program management (e.g., financial, schedule management) or the work in other technical discipline areas covered by the statement of work (e.g., systems engineering, reliability, safety engineering) except where hardware quality controls have an overlapping interest (e.g., safety reviews, procurement, logistics).

This document is under [Center or Organization] configuration control. Address questions regarding the content of this document to [Contract Officer Representative (COR) or COR’s Organization].

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1. Contract Objectives

This Quality Assurance Surveillance Plan applies for work performed under contract [Contract name or identification number].

Example Text1:
The Universal Stage Adapter (USA) project objectives as stated in the Statement of Work (SOW) are:

- Ensure crew safety within the limitations of meeting system performance requirements and achieving mission objectives.
- Deliver a quality design that ensures simplicity and addresses all aspects of human spacecraft development, qualification, and operations.
- Perform to an established schedule, cost (affordable and sustainable), and technical baseline.
- Implement innovative designs for the USA to achieve efficient and effective operations.

Example Text2:
The Environmental Test Facility Operations contract includes design and execution of test campaigns for hardware intended to be used in NASA missions or that support development of mission hardware. Work includes design and construction of test fixtures, design of test procedures, preparation and control of test facilities and equipment prior and during testing, and acquisition and analysis of test results.

Example Text3:
Project or work lifecycle phases include research and technology developments and demonstrations, design, fabrication, integration, test, shipment, launch, checkout, and operation of mission hardware.

Example Text4:
Contract tasking include microgravity research investigations on ISS; human research projects; advanced power systems; propulsion systems; communications systems; space instrumentation packages.

2. Reference Documents

[Document Number]  [Contract Name] Statement of Work
[Document Number]  [Center] QMS policies…..
[Document Number]  Applicable Technical Standards not in QMS documents
3. QASP Overview

3.1 Purpose

This QASP has been prepared to describe how the Government will use surveillance to support evaluations of contract compliance and product acceptability per the contract’s quality requirements. The QASP is prepared in accordance with FAR 46.604 and NFS 1846.401 and is provided to the contract officer’s representative (COR) for inclusion in the contract surveillance plan. It is not part of the contract, per NFS 1846.401, but is provided to the contractor for planning purposes. This QASP derives from [Center’s] quality surveillance baseline that is documented in [name QMS policy, procedure or guidance document]. The QASP is a "living" document that will be tailored as needed for the contractor selected and their subcontractors, changes to work conditions over the contract duration, and in response to risks precipitating from the tasking and work performed. This plan can be changed at any time as needed to meet mission success objectives.

Example Text:
This plan (1) establishes guidelines for how the assessments and inspections will be conducted; (2) addresses surveillance techniques, roles and responsibilities for surveillance activities; and (3) defines how surveillance monitoring results will be documented.

[Center’s] goal is to follow a risk-based surveillance approach, using insight and oversight, which allows the [Center] to focus resources on the performance areas that pose the greatest potential risk. Surveillance rigor intensity will be commensurate with the level of perceived risk. This risk may be driven by numerous factors including systemic process escapes, non-conformances, or any factor that increases the risk of the contractor not satisfying contractual requirements and obligations.

Example Text:
Monitoring of the [Contract Name] contractor and their suppliers’ performance will be accomplished via insight into the procurement, production/manufacturing, qualification/testing, launch vehicle integration, spacecraft integration to launch vehicle, pre-launch activities, launch operations, and post-launch activities with emphasis on achievements essential to maximize Mission Success. The insight categories described in this document identify the methodologies and insight tools/activities needed by SMA to obtain insight into the [Functional Area Name] operations. The methods described in this plan will provide a risk-based process-oriented approach to assessing the [Functional Area Name] Quality Management System and product quality.

This plan provides effective and systematic surveillance methods for obtaining objective evidence of the prime contractor's program and processes functioning as intended and in accordance with the terms of the contract, as well as for evaluating the quality conformance of the services and products they offer for acceptance. [Center] may evaluate work at any time during the contractor's work performance. Quality subject matter experts (i.e., quality engineers and quality assurance specialists) will be used to direct surveillance activities and to evaluate contractor performance. The quality surveillance team will establish and rely on objective and subjective performance measures to evaluate contractor performance against the requirements in the Statement of Work (SOW).
3.2 QASP Scope

This QASP is provides a part of the [Center’s or Organization’s] integrated supplier surveillance program whose scope is broader than quality assurance (i.e., includes business, software, and systems engineering requirements). The scope of surveillance included herein is limited to processes, work and results that have a significant impact on mission hardware quality conformance, or can drive threats to mission success due to process or hardware quality problems. This plan is applicable to hardware planning processes that impact hardware manufacturability and the ability for the finished item to demonstrate compliance with the contract requirements. This QASP applies to work being performed by the contractor and their supply chain (i.e., sub-tier suppliers).

4. QASP Approach

4.1 General

This plan applies both insight and oversight levels of surveillance (ref. NFS 1846.401) based on the criticality of the process or result to mission success. The level of risk and the impact of nonconformance are major determinants in helping define the type of surveillance to be conducted. If the impact of failure is minor and the level of risk is low, only a small amount of insight-driven surveillance would normally be needed. Conversely, if the impact of failure could be significant and the level of risk is high, more extensive oversight surveillance is warranted. Oversight surveillance activities may be increased on an 'as needed' basis, based upon circumstances and data collected (adverse trends, negative data points, lack of corrective action, etc.). Oversight activities will be communicated and coordinated with the Contractor on a timely basis to avoid accessibility, work volume, and schedule conflicts.

Sample-based inspection of product or process may be performed based on the criticality, complexity, and maturity of the process or product, personnel and safety considerations, and the supplier’s past quality performance related to the product or process. Sampling will not be applied for safety attributes identified in Safety Hazard Analyses and that require verification in order to complete safety data packages.

The quality surveillance personnel will have access to all areas in which the contract is being performed, including at subcontractors’ locations, and will interface directly with their contractor counterparts. The results of the surveillance will be documented including problems, concerns and issues, and take note of contractor accomplishments. The quality surveillance personnel will collect performance metric data, where applicable, and will participate in contractor review meetings, as needed. Information gained from formal and informal exchanges of ideas and collections of data will be compiled and evaluated as a continuous measure of contractor performance. Quality surveillance results will be provided by the team members to the COR [whom?, the SMA Directorate?, the relevant Program/Project Manager]. Contributions to the annual Contractor Performance Assessment Reporting System (CPARS) evaluation will include assessments of contractor compliance based on the quality surveillance described herein (ref. FAR 42.1502).

Surveillance team members will notify the [Program/Project name] Manager and COR whenever it is perceived that the contractor has failed to take prudent or effective corrective or preventive
action, of situations that increase risk, or of findings of continued quality nonconformance or contractual noncompliance. The COR will formally notify the contracts officer (CO) when a response to conditions of nonconformance or risk growth by the [Center or Organization] require directing the contractor to take action.

4.2 Processes That Inform Surveillance Selection and Planning

In addition to the contract statement of work, the following documents will be used to guide the quality surveillance effort:

a. Contract Terms and Conditions/Performance Work Statement (PWS)
b. Contract Data Requirements Documents
c. Contract Task Order Requirements or Specifications
d. Regulatory Requirements
e. Commercial Specifications/Standard Industry Leading Practices (ILP)
f. Contractor’s Safety, Health, and Environmental Management Plan (SHEMP)
g. Contractor’s Quality Control Plan (QCP)

Participation in the following management review processes will be used to guide and direct surveillance activities:

a. Contractor’s status meetings
b. Contractor’s ad-hoc meetings
c. Contractor’s planning meetings
e. Program management status meetings and reviews
f. Technical management status meetings and reviews
g. Audits, Surveys, and Assessments (Contractor-led or Government-Led)
h. Design reviews
i. Production Readiness Reviews
j. Integration Readiness Reviews
k. Test Readiness Reviews
l. Test Consent to Break Reviews
m. Acceptance Reviews

4.3 Surveillance Methods

Surveillance tools and methods will be used to gain real-time insight into contractor performance. The varieties of surveillance tools and methods to be used include, but are not limited to:

a. Management and Technical reviews. Information acquired during management reviews are used to evaluate process and progress, contract deliverables, documentation of problems, issues and concerns, and subcontractor surveillance results. Activities can include independent analysis, detailed review of material received or approaches taken by the contractor.
a. Assessments, surveys, and audits. Audits are used to gather inputs to determine whether the contractor’s quality management system meets contract requirements and is capable of achieving specified quality controls and product conformance outcomes. Sample document reviews, witnessing and product inspections may be used during auditing to acquire objective evidence of requirements compliance.

b. Customer feedback. Customer feedback is sought by the government from contract technical stakeholders to determine the need to increase or decrease government surveillance, or the selection of surveillance tools. Customer feedback will generally not be the only tool used for critical processes and activities.

c. Technical interchange meetings (TIMs), Problem or Material Review Boards (MRBs), and Status Reviews. Formal and informal management and technical reviews are surveilled to evaluate process and progress, contract deliverables, documentation of problems, issues and concerns, and subcontractor surveillance results.

d. Data analytics. Data analytics involves analysis of government and/or contractor data or metrics. In most cases, the contractor’s data or metrics will precipitate from internal process or management controls. The government’s data will precipitate from the surveillance work or non-contract-specific sources such as government information data exchange program (GIDEP) reporting.

e. Document and records review. Document review involves evaluation of procedures, engineering documentation, and plans associated with the development, production and services operations defined in the contract. Selection of documents for review may be based on criticality, complexity, cost, contractor performance history and/or importance of the documented product/work to mission success. Following the initial review, documents may be reviewed whenever document changes occur that affect quality system processes or product attributes. Document reviews may be conducted as a separate process from, or in conjunction with, quality system evaluations and audits.

f. Witnessing and direct product inspection. In-depth observation (i.e., witnessing and product inspection) entails direct observation of the contractor during performance of work. This tool may be prioritized where work involves tasks that present high risk to program assets or mission success. Witnessing processes may be used in concert with document review or audits to confirm sufficient or required process controls are flowing down from contract requirements through execution. Witnessing and inspections performed by the surveillance team (2nd party) will not relieve the contractor of their responsibilities to perform contract-required inspections to verify processes and products are conforming (1st party).

g. Review of contract data deliverables. Review of contract deliverables, generally consisting of reports or data, will be used to acquire evidence of contract requirements conformance.

h. Government mandatory inspection points (GMIPs) provide in-line review and approval of a specific contractor process or product state as a prerequisite for work to continue. The surveillance type used at a mandatory inspection point may be a document review (e.g., a procedure reflects critical technical specification values), a witnessed process...
(e.g., critical lift, environmental test set-up), direct product inspection (e.g., solder inspection), or record review (e.g., results of electrical acceptance tests). The government may choose to use GMIP surveillance actions when contractor or product nonconformance presents a high risk to program assets and mission success. Not all surveillance is assigned GMIP status.

Other Example Text:
The Government intends to use a combination of GMIPs and/or In-Line Assessment (ILA) to verify safety and/or mission critical attributes of the flight hardware and assembly/manufacturing and checkout processes. ILA is intended to be a methodology for the Government to maintain an appropriate level of knowledge and onsite experience with safety and mission critical operations, without imposing mandatory inspection delays to the contractor’s/performing organizations’ processing schedules. Determination of whether Government verification of a safety/mission critical attribute will be performed by either a GMIP or ILA will be based on a Risk-Based Assessment (RBA) and approved by [Role assignee holding the responsibility].

To respond to changes in risk exposure, monitoring of contractor activities for quality assurance will continually be evaluated over the life of the contract. Based on data analysis, contractor performance, subcontractor performance, changing risk factors or mission needs, the surveillance activities and GMIPs selected are subject to change by addition or subtraction.

5. Surveillance Team Roles and Responsibilities

The Contract Officer (CO) and the Contracting Officer’s Representative (COR) and will include quality subject matter expert (SME) personnel in the surveillance team to implement the provisions herein. The following are general duties of the quality surveillance team members:

a. Become familiar with the contract and technical requirements, schedule and deliverables
b. Create a mutual understanding and agreement about what is needed and how requirements should be interpreted
c. Meet regularly to review status, future assignments and discuss issues.
d. Perform review and independent analysis of the contractor’s processes and results/products.
e. Apply the surveillance tools above using a risk-based approach.
f. Identify potential issues to the COR and the SMA Technical Authority. Issues can include misinterpretation of requirements, lack of progress per the contractor’s plan, and risky methodology of performing work.
g. Enable technical direction to be given to the contractor by the Task Monitor or COR only.
h. Facilitate any change in scope affecting cost, schedule, or technical requirements to be evaluated by the COR and the CO to determine if a contract change is necessary.

The quality surveillance team members will participate in review meetings, when applicable. They will provide support, as necessary, with the development and approval of technical requirements; flow-down of requirements; and with design, development, production, and test activities. The quality surveillance team members will, as appropriate by subject matter expertise and role, review the contractor's deliverable items to determine their compliance with contract requirements. Another government Agency (e.g., Defense Contract Management Agency
(DCMA) may be requested to provide quality surveillance services that are in accordance with this plan. Nongovernment personnel may be included in the quality surveillance team as auditors, consultants, or subject matter experts (SMEs) however they will have no role in rating contractor performance. Non-government personnel are not permitted to accept contractor deliverable items on behalf of the government.

Quality subject matter expertise that will be included in the quality surveillance team are:

a. Quality Management Systems
b. Training and Personnel Certification
c. Engineering Documentation Development (Drawings, Procedures, etc.)
d. Configuration Control
e. Design for Manufacturability
f. Electrical, Electronic and Electromechanical Parts
g. Optical and Mechanical Parts
h. Consumed Materials and Supplies
i. Requirements Flow Down
j. Supply Chain Risk Management
k. Incoming Inspection and Acceptance
l. Parts, Materials and Assembly Storage and Handling Controls
m. Fabrication/Manufacturing Process Development and Risk Analysis
n. Processes and Controls for the Preservation of Products (e.g., FOD, ESD Control, Contamination, Tool Controls, Environmental Controls)
o. Metrology and Calibration
p. Manufacturing Quality Standards
q. Test and Inspection including NDE
r. Nonconformance and Corrective Action Processes
s. Traceability Data and Controls
t. Shipping and Receiving
u. Data Deliverables

The quality surveillance team's primary purpose will be to provide direction for contract quality surveillance activities and to serve as the [contract’s] focal point for implementing this plan, evaluating contractor performance under the contract (within the scope defined above), and providing quality risk insight and mitigations to [whom? PM? SMA Director?]. Examples of quality surveillance team tasks are:

a. Providing expert consultation during technical or working group meetings, design/development and specification reviews, review board meetings, and program reviews.
b. Participation in or leading surveys and audits.
c. Performing on-site surveillance of work processes or products.
d. Documenting problems, concerns and issues, and taking note of contractor accomplishments.
e. Collecting, compiling and delivering contract performance assessments and metrics to the COR and other [Center] stakeholders.
5.1 The CO’s Responsibilities for Contract Quality Surveillance Functions

The responsibilities of the [contract name] CO that are unique to executing this surveillance plan for product or service quality assurance are:

a. The CO takes inputs from the Program/Project managers, COR, [Center] Safety and Mission Assurance Office, Performance Evaluation Board, and others to baseline surveillance requirements in the contract.
b. When applicable, delegates surveillance functions to another Federal Agency via a Letter of Delegation.
c. Seeks contractor performance assessment inputs from the quality surveillance team.

5.2 The COR’s Responsibilities for Contract Quality Surveillance Functions

The [contract name] COR's responsibilities are:

a. Represents the [Center’s or Organizational Manager’s] risk-informed strategy balancing the costs and risks of surveillance with the risks of nonconformance when directing the contractor to accommodate the QASP activities.
b. Integrates this plan into the contract surveillance plan.
c. Recommends contract requirements that support quality surveillance functions and plans to the CO. Refers surveillance task changes that the contractor determines may affect the contract value, terms, or conditions, to the CO for action.
d. Serves as the primary interface for the Contractor and the CO for all technical matters including those related to hardware quality.
e. Trains task monitors and the quality surveillance team on evaluation procedures for evaluating contractor performance.
f. Coordinates and rolls up performance assessment inputs from the quality surveillance team.
g. Notifies contractor of surveillance schedules and resolves schedule conflicts to minimize workflow interference.

5.3 [Whom, e.g., PQA Manager, Task Monitor]’s Responsibilities for Contract Quality Surveillance Functions

The [Whom] is responsible for creating and maintaining this QASP and:

a. Ensuring the QASP aligns with the contract requirements.
b. Coordinating the details and implementation of the QASP with the COR.
c. Ensuring the quality surveillance team understands how to apply the QASP.
d. Ensuring the quality surveillance team, the COR and the CO have the active revision of the QASP.
e. With inputs from quality subject matter experts, applies risk-based decision-making to determining the processes and hardware to which surveillance should be applied including the type of surveillance approaches used and the application of GMIPs.
f. Notifies the COR of surveillance activities that may require contract changes.
g. Coordinates and makes changes to the QASP.
h. Coordinates surveillance and reporting requirements with personnel assigned to perform the surveillance work (i.e., the Quality Assurance Engineer or Specialist).
i. Provides detailed technical evaluation of the contractor's performance and report findings to the COR in a timely, complete and impartial fashion.

5.4 The [Contract] Quality Assurance Engineers’ or Specialists’ Responsibilities

The quality engineers or assurance specialists are responsible for:

a. Executing the surveillance plan.

b. Recommending future surveillance activities based on work progress, risk factors, and opportunities to combine surveillance functions (e.g., document review as part of a QMS audit) and other efficiencies.

c. Reporting surveillance results and supporting reviews and analyses of those results.

5.5 The Contractor’s Quality Assurance (QA) Manager

It is expected that the selected [contract name] contractor will maintain a QA manager as part of its QMS. This QA manager will perform QA related activities for the [contract name] efforts. The [contract name] contractor will task its QA manager to serve as a focal point for the Government in several areas including but not limited to provision of and access to all requested data/lifecycle-related assets and artifacts as they pertain to all areas described in this plan, and all QA related activities conducted by this group.

5.6 Resident Management Offices (RMOs)

Defense Contract Management Agency (DCMA) and/or NASA engineering services contractors who will perform surveillance functions may be collocated with the contractor to realize communication and scheduling efficiencies. Quality engineer, assurance specialists or technical consultants will travel to the contractor’s or sub-tier suppliers’ locations to perform surveillance functions when there is no RMO.

6. Communications

Once the surveillance team has been established, this plan will be shared with the contractor and verbal or written descriptions of activities will be provided. Communication is a two-way process and includes both written and oral communication. Examples of written communications that may be used in conducting surveillance include:

a. Exchanges from the [contract name] contractor to the Government of plans, procedures, quality records, reports, etc.

b. Exchanges from the Government to the [contract name] contractor of letters, reports, review results, etc.

Examples of oral communications activities that may be used include:

a. Informal telephone calls, teleconferences.

b. Informal verbal inquiries, discussions, consultations.

c. Working group meetings, technical/status briefings, progress reviews, technical information meetings, and formal and informal reviews.
7. Surveillance Implementation

7.1. Management and Technical Reviews

Information acquired during management reviews will be used to evaluate process and progress, contract deliverables, documentation of problems, issues and concerns, and subcontractor surveillance results. Activities can include independent analysis, and detailed review of material received or approaches taken by the contractor.

Example Text, when using a Control Board model:
Results and recommendations are documented and then presented to the [contract name] Control Board for approval and to recommend [or initiate] contract action, as required.

Example Text, Using Reviews for Surveillance:
The SMA Quality Team participates in multiple hardware reviews that may include Pedigree Reviews, Hardware Acceptance Reviews (HAR), and Mission Success Reviews (MSR). During these reviews, engineers scrutinize the hardware/software build, test data, and nonconformance reports, and perform assessment of the hardware to provide overall health and readiness of the launch vehicle for further processing. Concerns or issues identified during HARs/MSRs will be documented and assessed as an Insight, Evaluation, Watch Item, or Risk dependent on the significance of the concern or issue.

7.2. QMS Auditing

The [Project name] surveillance team will conduct an evaluation of the prime contractor’s quality management system (QMS) or within 6 months of contract award as a single audit or as a combination of discrete audits that collectively cover required quality system elements. Quality system audits will be performed and documented using audit attribute checklists such as those provided in AS9101, Quality System Assessment as well as criteria that will show alignment of the contractor’s policies and practices with the Center’s QMS. The use of other data or information sources may be suitable as an alternative for an onsite audit such as recent (less than three years old) audit findings found in the NASA Supplier Assessment System (SAS) database (https://sas.nasa.gov) and past Government surveillance results. Data found in SAS and third-party certification status will be used in the evaluation if applicable to the relevant work sites.

At any time when the Project has concerns regarding prime contractor or sub-tier supplier performance, surveillance team members may conduct independent audits of the prime contractor's or sub-tier supplier’s activities, processes, products, documentation and data, in order to provide assurance that the program is being implemented according to all requirements and specifications.

All audit, assessment or survey results for contractor-controlled work sites will be entered into the SAS system.

QMS audits will normally be conducted with advance notification and coordination with the contractor. However, [Center] will exercise the Government’s right to conduct unscheduled audits when evidence indicates that contractor or sub-tier supplier’s performance is deficient. After the initial QMS evaluation, repeat quality system evaluations of the prime contractor will be based on assessed risk, but no less than once every [Number] years.
The following quality system elements are subject to review:

a. Alignment of procedures and processes with the Center’s QMS
b. Control of documents
c. Control of records
d. Configuration management
e. Personnel training, qualifications, and competence
f. Design and development control
g. Purchasing: Supplier evaluation/selection; purchasing information and flowdown of technical/quality requirements; verifications of purchased product; and receiving inspection
h. Production control and process control
i. Product identification, traceability, and identification of inspection/test status
j. Preservation of product and foreign object prevention, detection and removal
k. Calibration and control of monitoring, measuring, and test devices
l. Monitoring and measurement: Internal audit; monitoring and measurement of processes; monitoring and measurement of product
m. Control of nonconforming product
n. Quality data analysis/trending
o. Corrective action
p. Control of Government Furnished Property
q. Other quality program elements considered to represent unacceptable risk

Example Text1
To realize resource efficiencies, the contractor will use government quality surveillance team participation to the greatest extent possible in internal audits and audits of sub-tier suppliers. These audit(s) can be internal continual improvement audits (ref ISO 9001 or AS9100) or supplier-based product audits.

Example Text2
The [NASA Organization] provides a current Audit Plan and Schedule for internal and Subcontractor/Supplier audits per the applicable contract data requirements list (CDRL) [Name/ID] entitled QMS and Supplier/Vendor Audit/Assessment Schedules. The quality surveillance team evaluates the audit schedules to determine which supplier audits SMA will participate in as observers. Factors such as Risks, Watch Items, Evaluations, adverse trends, and previous performance issues are considered when the surveillance team is determining which audits to attend. After completion of the audit, the surveillance team will record all findings/assessments in [where]. Concerns or issues identified during audits will be documented and assessed as an Insight, Evaluation, Watch Item, or Risk depending on the significance of the concern or issue.

7.3. Engineering Design Process Surveillance

The following surveillance will be performed to evaluate contractor performance and compliance for product design development activities:

a. Evaluate Task Order Plan negotiation and status reviews
b. Attend key internal Project meetings and Technical Information / Exchange Meetings in order to assess the engineering soundness of plans and approach.

c. Evaluate the configuration management system

d. Evaluate and assess Project design approach, requirements flow down, parts and materials availability, manufacturability, and process qualification.

e. Confirm system in place for identifying critical items.

f. Confirm key characteristics are adequately captured in engineering documentation

g. Verify contractor has and follows procedures for ruggedizing COTS hardware.

h. Evaluate the contractor’s risk management processes.

i. Augment the Project Management Team in regular and continuous review and assessment of contractor’s progress, risks, deliverables, design and verifications.

j. Reviews the contractor's monthly Progress Report for accuracy and completeness. Consult with Technical Monitor(s), as necessary, to assess the fidelity of the reports.

7.4. Document Review

The following Quality Management System (QMS) Procedures will be reviewed [by whom] [when: e.g., prior to assembly of the hardware]:

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<td>Document and Record Control Policy</td>
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<td>Quality Management System Policy</td>
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<td>Training and Certification Policy</td>
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<td>Procurement Policy</td>
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<td>Sub-tier Supplier Quality Controls</td>
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<td>Monitoring, Measurement, and Analysis of Processes and Products</td>
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<td>Incoming Inspection and Receiving of Procurements</td>
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<td>Product Identification and Traceability</td>
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<td>Foreign Object Debris (FOD) Prevention Policy</td>
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<td>Tool Check-out</td>
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<td>Metrology and Calibration Policy</td>
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<td>Practices for Control of Quality Stamps</td>
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<td>Practices for In-Process and End-Item Inspection and Test</td>
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<td>Nonconformance Reviews Policy</td>
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<td>Product Certification Policy</td>
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<td>Internal Quality Management System Assessments and Audits</td>
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Note: The document list above depends on the degree to which the contractor controls the above processes for the work they will do or whether they are to use Center processes. Their QMS should address how they use quality processes such as root cause/corrective action analyses to
address their work execution deficiencies rather than how product NCs are addressed if Center NC processes (e.g., MRB) are required.

Work procedures, build instructions, production procedures (i.e., travelers, work orders, test procedures), and procurement records will be reviewed [100% or on a sample basis] to verify:

a. The correct use of required technical standards or the key attributes therein.
b. GMIPs have been included correctly
c. First and second party quality sign-off is occurring prior to continuing to the next operation. Verification of GMIP completion will be verified and tracked through review of as-built documentation prior to its closeout.

Contractor reporting will be reviewed for completeness and conformance with reporting requirements including:

a. Status reports: general and reports of completed tasks or milestones
b. Problem reporting
c. Technical analyses

Example of contractor records to review and periodicity
Contractor technical data to be review are:

a. Problem Reports/Problem Failure Reports (PR/PFRs)
b. All contract data deliverable items within 30 days of receipt
c. Acceptance Test Data Packages within 30 days of completion.

7.5. Production Surveillance (Materials, Parts, Subassemblies, Components)

The surveillance types described in 5.3 above will be used to evaluate contract requirements compliance in the following areas:

a. Evaluate closure of prior QMS audit findings
b. Evaluate waiver management
c. Evaluate schedules and schedule development process including planning for GMIPs
d. Safety and security protocols and compliance
e. Evaluate contractor personnel training and/or certification credentials as required.
f. Review procurement documentation to ensure requirements flow down and traceability to current engineering documentation revisions.
g. Evaluate control of subcontractors
h. Supply chain risk management including GIDEP participation and Counterfeit part avoidance
i. Work request tracking and data management
j. Work instruction development and control for:
   · Sustaining traceability to design and quality control specifications
   · Key attribute traceability to requirements
   · Inclusion of mandatory inspection points (1st party, Prime contractor, GMIPs)
k. Incoming receiving, acceptance and stocking controls
l. CofC documentation is complete and controlled
m. Verify identification, marking, and traceability
n. Verify positive identification of certified materials (i.e., certified as conforming prior to installation into the next level of assembly)
o. Control of nonconforming materials and items
p. Hazardous material controls
q. Verify contractor uses appropriate inspection criteria, checklists and has build papers or travelers which control:
   • Handling and routing sequence as hardware is assembled;
   • As-built traceability details such as lot codes and serial numbers;
   • Sign-off by the person performing each operation; and inspections performed at key points of the assembly process
r. Verify material and product preservation controls including:
   • Foreign Object Debris (FOD)
   • Tools
   • Materials and product handling
   • Materials and parts storage
   • Controls for limited life items
   • Electro-static Discharge (ESD) control
   • Temperature and humidity control
   • Contamination management
   • Mechanical protections for connectors, cables, harnesses, in-work items, and items staged for testing or in test.
     By
     • Observing practices (i.e., Work Area/Floor checks)
     • Reviewing process quality assurance data
s. Verify that suitable tools are in use and, if required, are in current calibration (torque wrenches, wire strippers, instrumentation, etc.)
t. Verify contractor follows proper work area practices and controls including controlled access, procedures, general cleanliness [also see Floor Checks below]
u. Verify contractor has and follows procedures for conditioning steps including:
v. Bake-out prior to conformal coating of printed wiring assemblies.
w. Verify hardware, parts and materials in process match paperwork with respect to unique part or unit identification number.
x. Work instruction steps, including quality sign-offs, are completed as written
y. Verify dimensional inspection process is in control
z. Verify key attributes of controls and results are achieved:
   • Torque
   • Workmanship: soldering, polymeric applications, cables and harnesses
   • Mechanical bonding quality and configuration
   • Drilling
   • Mechanical dimensions
   • Mechanical assembly installation and seating
   • Connector pins, retention systems and seating
   • Cable installation (e.g., discharging, routing and stress relief bends, electrical check after harness installation)
aa. Verify general quality conditions including:
   • Gross contamination
   • Corrosion and other off-nominal surface conditions
• Mechanical damage
• Marking permanency

bb. Verify subassembly, including cable and harness installation, is consistent with the engineering documentation

cc. Verify contractor has and follows rework and repair procedures and re-inspects after rework.

dd. Verify adequate test and equipment controls for NDE

ee. Verify problem or material review board processes

ff. Corrective action planning and response time

gg. Verify that contractor’s QA activities are in compliance with the contractor’s Product Assurance Plan

hh. Communications across Center functions

ii. Computerized Management Information Systems data entry

jj. Use of quality data analytics

kk. Deliverable data or reporting items are reviewed and found to meet contractual requirements

ll. Records retention

Example Text1

Product and Process Observations are performed by the quality surveillance team at the [Facility Names, e.g., Manufacturing site, Supplier site, and Launch sites]. The data may be acquired from contractor generated data or through direct observation (witnessing). Risk-based selection of surveillance targets factors in items such as Risks, Watch Items, Evaluations, criticality and complexity of the operation/hardware/ software, mission unique items, Assessment Examination Points (AEP), first flight items, out of sequence work, and adverse trends. All quality assessment activities will be recorded in the [Name] database. Concerns or issues identified during product and process insight activities will be documented and assessed as an Insight, Evaluation, Watch Item, or Risk depending on the significance of the concern or issue.

Example Text2

Inspection points will be assigned for all [operations and/or hardware] identified as high risk by the Independent Assessment (IA) Risk Based Assessment (RBA) process. The list of high risk operations are listed [where].

7.6. Integration and Test

The surveillance types described in 4.3 above will be used to evaluate contract requirements compliance in the following areas:

a. Determine that the scope of testing is adequate and objectives are clear and complete

b. Identify that the criteria for entry and exit of a test are clearly identified

c. Review qualification and acceptance plans and documents for traceability of key specification limits/criteria

d. Evaluate plans and approach against project schedule

e. Determine whether the test plan includes verification and validation of test equipment, test software, test databases, and facilities
f. Determine whether sufficient test points have been obtained to adequately characterize the item, function, or performance per the objectives
g. Determine whether potential damage sources and conditions are identified
h. Review test plans to verify incorporation of applicable QA controls
i. Assess whether configuration changes have been clearly identified and adequately described
j. Witness crane lift operations
k. Observe final connector mating and assembly operations (e.g., box closure)
l. Monitor testing to assess whether plans are being effectively implemented
m. Assess whether test results were properly evaluated by inspection or analysis to either prove or disprove that the test produced the intended results, and whether it produced unexpected results
n. Assure that plans are in place to handle test failures or anomalies

7.7. Logistics Operations
The surveillance types described in 4.3 above will be used to evaluate contract requirements compliance in the following areas:

   a. Property and equipment management for Government Furnished Equipment (GFE)
   b. Witness crane lift operations
   c. Fuel storage, transportation and dispensing services
   d. Pressurized gas storage and delivery services
   e. Preservation, packaging, and shipping control
   f. QA for offsite operations and processes

7.8. Operations Plans and Controls
The surveillance types described in 4.3 above will be used to evaluate contract requirements compliance in the following areas:

   a. Evaluate mission operational staffing, roles and responsibilities, and training / certification plans
   b. Assess nominal, malfunction and contingency operations plans and procedures, and timeline
   c. Review Payload Flight Rules, Payload Regulations, Training Plans and Training products
   d. Assess ground system maintenance plans.

7.9. Risk Awareness
The surveillance types described in 4.3 above will be used to evaluate contract requirements compliance in the following areas:

   a. Review subtier supplier quality controls including selection of MIPs
   b. Attend contractor risk management working group meetings to gain government insight into effectiveness of contractor risk management process.
   c. Periodically interview government project management to determine their satisfaction with the contractor’s risk management.
d. Periodically audit the contractor personnel to obtain insight on their inputs into the risk management process.
e. Request periodic updated 'risk list' from contractor for individual projects, to obtain insight into risk identification and mitigation status.
f. Review the contractor’s Risk Management Plan.
g. Government identified non-conformances affecting acceptability of product have been closed unless otherwise authorized by the responsible NASA technical authority.

7.10. Government Mandatory Inspection Points (GMIPs)

As a minimum, the following will be identified as GMIPs:

7.10.1 Inspect

a. Printed wiring assembly soldering prior to polymeric operations
b. Cable and wire harness soldering prior to polymeric operations
c. Conformal coating
d. Pre-closure of electronic assemblies prior to flight acceptance testing
e. Flight acceptance testing set-up

7.10.2 Witness

a. Hazardous procedures
b. Special processes
c. Environmental test set up and execution
d. Acceptance level tests
e. Crain lifts of mission hardware
f. Moves of system-level hardware and electrical harnesses (cart, hand carry, forlift, vehicle, etc)

Example of surveillance schedule or periodicity attached to GMIPs

<table>
<thead>
<tr>
<th>Audits</th>
<th>Frequency</th>
<th>Reference Paragraph (further details)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOD Inspection</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Metrology and Calibration</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Training Program/Recurring Training</td>
<td>1 (Quarterly), 10% of ea.</td>
<td></td>
</tr>
<tr>
<td>Stamp Control</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Document Review

<table>
<thead>
<tr>
<th>Audits</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery maintenance</td>
<td>1 time and when updated</td>
</tr>
<tr>
<td>Engineering Change Notices</td>
<td>100%</td>
</tr>
</tbody>
</table>

Product Inspection

<table>
<thead>
<tr>
<th>Audits</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Condition</td>
<td>3</td>
</tr>
<tr>
<td>Weld quality</td>
<td>100%</td>
</tr>
</tbody>
</table>
### Process Witness

<table>
<thead>
<tr>
<th>Product Fabrication</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Qualification Testing</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Records Review

<table>
<thead>
<tr>
<th>NDI/Corrosion Services</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC/CA Trending</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

---

**Example2 of a minimum audit, inspection or witness schedule, or periodicity**

<table>
<thead>
<tr>
<th>Process to Witness</th>
<th>Schedule (or periodicity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soldering</td>
<td></td>
</tr>
<tr>
<td>Dimensional Inspection</td>
<td></td>
</tr>
<tr>
<td>Calibration</td>
<td></td>
</tr>
<tr>
<td>Control of Subcontractors</td>
<td></td>
</tr>
<tr>
<td>Work Instructions</td>
<td></td>
</tr>
<tr>
<td>ESD Controls</td>
<td></td>
</tr>
<tr>
<td>Cable and Harness Fabrication</td>
<td></td>
</tr>
<tr>
<td>Coating and Plating</td>
<td></td>
</tr>
<tr>
<td>Non-destructive Evaluation</td>
<td></td>
</tr>
<tr>
<td>Control of Drawings</td>
<td></td>
</tr>
<tr>
<td>Configuration Management</td>
<td></td>
</tr>
<tr>
<td>Fastener Lot Sampling and Testing</td>
<td></td>
</tr>
<tr>
<td>Structural Qualification Test</td>
<td></td>
</tr>
<tr>
<td>Structural Acceptance Test</td>
<td></td>
</tr>
<tr>
<td>Mass Properties Test</td>
<td></td>
</tr>
<tr>
<td>Acoustic Qualification Test</td>
<td></td>
</tr>
<tr>
<td>Acoustic Acceptance Test</td>
<td></td>
</tr>
<tr>
<td>Separation System Qualification Test</td>
<td></td>
</tr>
<tr>
<td>Separation System Alignment</td>
<td></td>
</tr>
</tbody>
</table>

---

**Example3 of a performance objective assessment, performance standard and schedule or periodicity**

Supporting Outcome: Performance of QMS Evaluation  
Outcome Metric: Quality Management System Controlled  
Performance Standard: Contractor QMS Evaluation performed no less than every two years and findings from previous evaluations are closed.

Supporting Outcome: Closure of Non-Conformances  
Outcome Metric: Non-Conformances Closed
Performance Standard: Government identified non-conformances affecting acceptability of product have been closed unless otherwise authorized by the responsible NASA technical authority.

*Example 4 of contractor records to review and periodicity*

<table>
<thead>
<tr>
<th>Contractor Records</th>
<th>Periodicity of Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Books</td>
<td>Random</td>
</tr>
<tr>
<td>Contractor Internal Audit Reports</td>
<td>One-for-one</td>
</tr>
<tr>
<td>Manufacturing Process Records and Inspection Reports</td>
<td>One-for-one</td>
</tr>
<tr>
<td>NDE Inspection Reports</td>
<td>One-for-one</td>
</tr>
<tr>
<td>Problem and Anomaly Reports</td>
<td>Continually</td>
</tr>
<tr>
<td>MRBs and NCs</td>
<td>Continually</td>
</tr>
</tbody>
</table>

*Example of an AQL baseline*

Table X provides the AQL baseline used to establish the maximum number of minor discrepancies for each assessment category, that may be observed and still meet an acceptable quality level.

<table>
<thead>
<tr>
<th>Technical Inspection</th>
<th>Minor Discrepancies Allowed Per Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft Maintenance (if performed)</td>
<td>2</td>
</tr>
<tr>
<td>Fabrication</td>
<td>2</td>
</tr>
<tr>
<td>Aircraft Recovery</td>
<td>1</td>
</tr>
<tr>
<td>Ground Movement of Aircraft</td>
<td>5</td>
</tr>
<tr>
<td>Calibration Equipment Inspection</td>
<td>1</td>
</tr>
<tr>
<td>Training Program</td>
<td>2/month</td>
</tr>
<tr>
<td>Stamp Control</td>
<td>2/month</td>
</tr>
<tr>
<td>Mandatory Inspection Points</td>
<td>1</td>
</tr>
<tr>
<td>Equipment Condition</td>
<td>1</td>
</tr>
<tr>
<td>Recurring Training</td>
<td>2/month</td>
</tr>
<tr>
<td>Time Compliant Work Flow/Orders</td>
<td>1</td>
</tr>
<tr>
<td>Tools and Test Equipment</td>
<td>1</td>
</tr>
</tbody>
</table>

7.11. Product Acceptance

The quality surveillance team will verify the following prior to final product acceptance:

a. GMIPs have been accomplished.
b. Corrective actions resulting from Government identified non-conformances affecting acceptability of product have been closed unless otherwise authorized by the responsible NASA technical authority.

c. Waivers/deviations impacting acceptability of product have been dispositioned by the responsible NASA technical authority and closed unless otherwise authorized.

d. No outstanding or unauthorized departures from the approved design (e.g., incomplete Engineering Change Notice (ECN) flow down).

e. All GMIPs have been accomplished.

f. 

g. Contractor data deliverables (e.g., as-built versus as-engineered documentation) have been reviewed and comply with contract delivery requirements (content, format, schedule compliance) as well as technical adequacy.

h. Acceptance data packages are accurate and complete.

i. DD Form 250 forms have been completely prepared

j. Record retention requirements are met and can continue to be met by the contractor.

A final inspection will be conducted to support the verification above. Additionally, continual monitoring will take place of the end item to ensure it is stored in a controlled environment until integration into [higher levels of assembly, the spacecraft] or otherwise used. The results of the validations above will be reported by the surveillance team at the pre-ship review.

8. Nonconformance Management

Per the contract requirements, the contractor will track and report on non-conformances in a closed-loop system. The quality surveillance team will also document all encountered unacceptable performance and will notify [whom: the COR, Program Management and the SMA Technical Authority (TA); the Corrective Action Board]. The minimum information for a Finding Record is:

a. Unique Finding Number

b. Date of finding

c. Name of Auditee(s)

d. Name of Auditor

e. Functional Area / Activity

f. Finding Classification (Nonconformance, Observation or Commendation)

g. Requirement / Reference Information

h. Brief Description of finding

i. Finding Narrative

The quality subject matter experts will recommend to the [whom: COR CAB, SMA TA] whether the quality concerns should be elevated to review boards (e.g., MRB) and whether the contractor should be compelled to investigate root cause (RC) and develop and implement a corrective action (CA) plan. The quality subject matter experts and quality surveillance team will review the contractor’s RC findings, CA plan, and measures of plan effectiveness to determine acceptability.

Example Text1 for vetting and processing of Nonconformances:
The quality surveillance team will gain insight into the Corrective and Preventive Action process through participation in the contractor’s Corrective Action Board (CAB). The CAB consists of Senior Leadership, Managers, Engineers, and other support personnel who meet regularly to evaluate pertinent corrective action information regarding anomalies, nonconformances, escapements, and undesirable process outcomes. The CAB approves closure or directs corrective actions as necessary to remedy these critical problems in a timely manner. During the CAB, each issue is examined for any preventive action opportunities and leadership may also review summary metrics of key processes to keep informed on their respective program’s health.

**Example Text2 for vetting and processing of Nonconformances:**
Non-conformances will be documented in [the contractor’s] electronic non-conformance system, [name]. Upon finding a non-conformance (NC), the contractor will open up a unique [a record, e.g., a Test Anomaly Report (TAR), a Hardware Anomaly Report (HAR)] record for the NC. At the time the non-conformance is determined to be a major non-conformance [the contractor] will begin requiring signature on all dispositions of that anomaly by COR-approved MRB representatives for the government. The individuals names will be placed in the sign off section of the anomaly and the system will send out an automatic notification to the government MRB representative at each status change.

**Example Text3 for vetting and processing of Nonconformances:**
All open major non-conformances (NCs) will be tracked via submission by the contractor and review by the project. These are Approval-required CDRLs and approval is granted through the COR or the CO. All open NCs will also be presented by the contractor during the monthly Program Monthly Review (PMR). Repeat minor non-conformances will evaluated for elevation to Major nonconformances.

**Example Text4 for vetting and processing of Nonconformances:**
Findings from surveillance activities requiring corrective action will be communicated (verbally or in writing) to the contractor in a timely manner to allow for remedial efforts prior to Award Fee evaluation. The Functional Managers and associate Technical Monitors will notify the Technical Management Representative(s) (TMR) of any finding. The TMR(s) will work directly with their respective contractor counterparts to assess and monitor progress toward improvement. The TMRs, Functional Managers and Technical Monitors will determine if implementation of additional surveillance tools or data are required. If the correction actions warrant technical direction, the COR will be engaged to provide that direction.

**Example Text1 for how nonconformances will be categorized based on risk**
When nonconformances have occurred during an assessment period, performance conformance risk will be classified as low-uncertainty or high-uncertainty. The conditions resulting in the risk uncertainty are the following:

Low-Uncertainty: Low-Uncertainty conditions involve one or more of the following:
- An issue that was previously experienced, analyzed, and understood.
- Standard corrective actions can be applied to achieve compliance.

High-Uncertainty: High-Uncertainty conditions involve one or more of the following:
a. Operation or performance outside the expected performance range which has not previously been experienced.
b. Anomalies or nonconformances which affect:
   i. Configuration
   ii. Certification
   iii. Mission success
   iv. Safety critical functions
c. Adverse problem trends.
d. Anomalies or non-conformances that require design element analysis or assistance for resolution.
e. Unexplained anomalies or events.
f. Limit hardware life.
g. Restrict hardware or software use.
h. Affect hazard control.
   i. Affect flight or ground operation procedures that are controlled by the government.
   j. Change software or hardware configuration that are controlled by the government.
k. Allow use of hardware that does not meet performance specifications, exceeds certification limits, or surpasses time, age, or cycle life limits (waivers/exceptions).
l. Affect critical hardware manufacture or repair processes.

**Example Text2 for how nonconformances will be categorized based on risk**
Type I (Major): Non-conformances that adversely affect safety, reliability, durability, performance, interchangeability, weight, or requirements of the contract or is the result of an unexplained anomaly. Specifically, Type I nonconformances affect form, fit, or function, or require changes to flight hardware, software or the concept of operations.

Type II (Minor): Non-conformances other than those specified in Type I.

**Example Text3 for how nonconformances will be categorized based on risk**
Major Discrepancy. A condition that endangers personnel, jeopardizes equipment or system reliability, affects safety of flight, or warrants discontinuing a process or equipment operation.

Examples of major discrepancies are:
- Improper or untimely documentation of a major nonconformance on the mission hardware or for a process.
- A Foreign Object (FO) within 50 feet of an aircraft flight line parking or engine operating area.
- Violation of federal, state, or local laws and/or Department of Defense, or NASA environmental protection policies and directives.
- Not using the correct process or not following a procedure
- Lack of procedure traceability to requirements
- Lack of Engineering Change Notice (ECN) traceability through procedures
- Use of out-of-date application notes or bulletins
- Performance of critical processes without the required training or certification
Minor Discrepancy. An unsatisfactory condition that requires repair or correction but does not endanger personnel, affect safety of flight, jeopardize equipment reliability, or warrant discontinuing a process or equipment operation.

*Example Text4 for how nonconformances will be categorized based on risk*

If concerns or issues are identified during this insight, an Evaluation will be performed and elevated to Watch Item or Risk.

9. **Contractor Data and Quality Data Analytics**

Existing contractor data will be used to the greatest extent possible, and via direct access to the management information systems (MIS) whenever possible, to obtain objective evidence of contract, product and process conformance. These include:

   a. Configuration management systems
   b. Drawings
   c. Project schedules
   d. Workflow results and metrics
   e. Risk management records
   f. Nonconformances, anomalies, quality escapes, and failures
   g. Preventive and Corrective Action (PRACA) files and technical plans
   h. Engineering and programmatic analyses including MRB records
   i. Internal audit results
   j. Reports under development
   k. Sub-tier supplier surveillance
   l. Records from third-party certification bodies
   m. Government Industry Data Exchange Programs (GIDEP) impacts

Only data from the contractor’s MIS that can be validated for accuracy will be used for evaluating the contractor’s performance. Data acquired from Government-led surveillance activities will also be used including:

   a. GIDEP Reports
   b. Quality surveillance results including NC/CA metrics
   c. Post-delivery quality escapes
   d. Certification and accreditation body audit findings
   e. Timeliness and quality of deliverable submissions

The quality surveillance team will review and assess the collection, evaluation, and analysis of contractor and NASA quality data to identify problem areas (e.g., projects, products, processes, operations, and organizations), common deficiency causes, quality trends, defect anomalies, and process variations. This data will be evaluated quarterly for the purpose of:

   - Adjusting the frequency and content of the quality surveillance activities, including the allocation of government personnel.
   - Providing supporting rationale for acceptance/rejection of the contractor’s quality system and/or written procedures.
   - Initiating corrective action based on identification of systemic problems and trends.
Sharing analyses with the contractor to identify quality system trends and areas of weakness.

The surveillance program findings will be communicated and stored [how]. The surveillance findings will:

a. Communicate all surveillance results (e.g., identified process escapes, feedback for process improvements, QA risks).
b. Provide objective evidence for Award Fee input.
c. Provide objective evidence for verification and validation (V&V) decisions.
d. Identify required changes to the QASP.
e. Identify issues affecting the contractor’s ability to comply with QMS requirements.
f. Elevate any issues that were not resolved at a satisfactory level.
g. Provide the required pre-ship quality assurance records.

The following topics will be reported to project management on a monthly basis at each Project Monthly Review (PMR):

a. Status of submission and acceptance of quality assurance data and report deliverables.
b. Failure Review Board (FRB) initiation and compliance.
c. MRB [Or NC/CA] data/trending.
d. Open vs. Closed GIDEP and NASA Alert Responses.

The results of the surveillance conducted in accordance with this plan will include:

a. Data.
b. Reports.
c. Presentations and briefings (documented and verbal).
d. Formal reviews will be documented with a report.

Any report may become a part of the supporting documentation for award fee payments or other actions.

The project will use the following metrics to track program QA performance. These metrics will be compiled by the quality surveillance team and provided to the COR. Positive and negative trending of metric data will be evaluated quarterly to determine if and how project surveillance should be adjusted.

a. Open vs. Closed non-conformance actions at the contractor. If the percentage exceeds 15% open non-conformances, the potential additional surveillance activities and how to bring the number below the 15% threshold will be determined at that time. This metric will be calculated by taking the average from CDRL [ID No] “Problem Reports/Problem Failure Reports”.
b. Inspection results. Inspection rejects will be evaluated on a monthly basis to determine if there is negative trending being seen in any given process throughout the company.
c. Mishaps and Close Calls. The occurrence of a mishap or close call is cause for surveillance program review.
d. I&T Issues. Tracking of open instrument issues prior to, and throughout, integration and test by initiating a closed loop system to ensure that any instrument nonconformances get transferred to the observatory level and tracked throughout integration and test. Any
issues not achieving resolution will be transitioned and tracked in accordance with the program’s risk management plan.

10. How Surveillance Work will be Evaluated

Quality surveillance team-derived metrics and risk assessments will be utilized to evaluate the effectiveness of this QASP and to inform the COR when adjustments are needed to the vector of quality assurance rigor. These Government metrics include, but are not limited to:

a. Risk assessments (qualitative and quantitative)
b. Quality trends (non-conformance, process escapes, etc.)
c. Timely performance of scheduled required Government quality assurance activities

The repository for contract surveillance risk assessments is the [name the system].

The following criteria will be used to evaluate the success of the surveillance program:

a. Performance of all Government Mandatory Inspections (GMIPs). GMIPs that were not performed require documentation and risk assessment by the SMA technical authority.
b. Resolution of Non-Conformances. All Hardware Anomaly Reports (HARs) and Test Anomaly Reports (TARs) must have been dispositioned and closed prior to shipment. Open reports will have Hardware Liens or risks placed against them in accordance with the program’s Risk Management Plan.
c. Quality System Evaluations. All Quality System Procedures listed in the Surveillance Functions section of this document have been reviewed for the prime contractor. QMS evaluation records are complete and up to date for the prime contractor and selected subtier suppliers.