

The Merlin team’s approach to Quality Assurance for the SeaPort-e program will be a combination of:

- Use of Quality Assurance Surveillance Plans (QASP)
 - Acceptable Quality Levels (AQL)
 - Methods of Surveillance
 - Frequency of Surveillance
- Change Management and Control (CM) process
- Project Monitoring and Control (PMC) process

Quality Assurance Surveillance Plans

Merlin uses a comprehensive Quality Assurance Surveillance Plan (QASP) to demonstrate our commitment to meeting the objectives and requirements for the work to be performed on a Task Order. The QASP defines how Merlin’s performance will be evaluated. The following table lays out the QASP format:

Objective	Acceptable Quality Level	Surveillance Method	Frequency

Acceptable Quality Levels (AQL)

For each Task Order objective, Merlin will work with the customer to define the right number of quality measures and for each quality measure define an Acceptable Quality Level (AQL). For each inspection event, a report will be generated that documents how well Merlin has performed with respect to each AQL. Merlin has defined a discrete, qualitative set of Performance Ranges that are listed in the following table:

Performance Range	Usage	Comment
“0” Zero Defect	No deviation from standard	Typically required for mission critical products or services. Expensive.
Exceeds AQL	Range of service quality that is better than the AQL but does not exceed the customer needs	Establishes a range above AQL in which incentives are applicable to encourage performance at this level
Acceptable Quality Level	Maximum allowable level of deviation from performance standard	The required level
Degraded Service	Service delivery at less than the AQL (greater number of defects) but still above a level that is deemed unacceptable	Disincentive (negative incentive)
Unacceptable	Rejection of the service	Rejection of the service

Methods of Surveillance

Merlin’s surveillance approach has the following characteristics:

- It is “transparent”, meaning that all elements of the measurement, data collection, metrics determination, and reporting are understood, documented, and auditable
- It will use the measurement techniques, tools and reports the VA requires.
- It will execute surveillance in a straightforward manner and it will not duplicate other VA quality assurance efforts
- Surveillance efforts are scheduled or planned at specific and reasonable time periods
- Results will furnish the VA evidence of the Merlin Team’s contract performance.

Surveillance Methods	Description
Verification	Should be objective in nature. Verification determines whether the work products and overall solution address each requirement as documented. Verification tests the various characteristics of a solution (i.e. capability, security, interoperability, compatibility). Verification methods will include Peer Reviews, functional testing, and stress testing.
Validation	Focuses on confirming use cases and establishing guidelines for User Acceptance Testing (UAT), use case testing and user/customer acceptance testing. Validation is concerned with the overall solution and ensuring that it will meet the objectives that drove its creation. Validation will be more subjective than Verification, so care must be taken to define and document how a solution will be deemed validated. Validation methods will include use case testing and customer acceptance testing.
Peer Reviews	Informal peer reviews will be conducted by team members as needed and findings will be identified, reviewed and corrected if necessary by team members responsible for the work products reviewed.
Customer Reviews	Examples include customer acceptance testing, customer satisfaction surveys, customer complaints, etc. Merlin or VA may survey project team members for ease of use, accuracy and completeness of Merlin Team created documents and or artifacts.

Frequency of Surveillance

The frequency of surveillance will depend on requirements and criteria determined by the customer and shall be clearly defined in applicable test and audit plans approved by the customer. The following table shows examples of surveillance frequencies

Surveillance Frequency	Description
Random Sampling	Statistically based method applicable to recurring tasks. Typically performed for high volume outputs and for process audits.
Periodic Inspection	Planned sampling at specific dates or time intervals – typically defined in test and audit plans.

Surveillance Frequency	Description
100% Inspection	100% inspection of all deliverables – typically performed for mission critical work products or services.

Change Management and Control

Merlin’s PM is responsible for preparing a Change Management Plan to ensure the integrity of configurable items in accordance with the Project Management Plan. Key aspects of the CM Plan will be:

- Identify Configuration Items (requirements, plans, product designs, etc.).
- Implement a CM system for version control, if necessary
- Approve and release baselines
- Establish a Change Control Board (CCB)

Change Control Board

The CCB reviews change requests and provides signed approval of any changes to the project plan before revisions can be released. The members of the CCB will be established in conjunction with the government’s Project Manager, but often membership consists of:

- Customer Program Manager
- Customer COTR
- Merlin Team Project Manager
- Merlin Team Technical Lead

Reporting

Once changes have been reviewed and approved, the Project Plan will be revised with a summary of the changes listed in the Revision History. In addition, the WBS and Project Schedule will be modified, as necessary, to accommodate the approved change. Changes are also tracked under the Change Control section of Merlin’s Project Status Reports:

CHANGE CONTROL LOG					
CR#:	Date Requested:	Description:	Owner:	Status (Open/Closed/Rejected):	Disposition Date:

Project Monitoring and Control

The goal of Merlin’s Project Monitoring and Control (PMC) process is to ensure that processes are performed and work products & services are delivered within project scope, on time and within budget by:

- Monitoring actual performance and progress of the project planning parameters against the project plan.

- Managing Corrective Actions when the project's performance or results deviate significantly from the project plan or revise the plan for remaining deliverables if needed.

PMC is an iterative process which includes continuous monitoring of progress, project reviews, formal process & work product reviews, change management (ie. modification to existing contract), issues, risks & corrective actions.

- 1. Project Controls (PC):** The PC function is responsible for internal reviews monitoring and updating key project metrics such as milestones, time and expenses, preparing internal/external EVMS, custom reports as required, reports and minutes for the Merlin Professional Services Organization (PSO) management reviews.
- 2. Project Management Team (PMT):** The Project Management teams are responsible for tactical Project Management and Customer Reviews according to the projects' communications plans. Tactical PMC processes may be tailored as necessary for each project.
- 3. Strategic Management Reviews:** The Merlin PSO facilitates monthly internal program management reviews with each PM and Executive Management to review project status, resource utilization, financial updates, issues, risks, quality concerns and improvement opportunities.

PMC Documentation

PMC activities are based on the project plan, thus the tailoring for monitoring and control follows the tailoring approach for project planning. The Project Management team and Project Controls shall perform the PMC activities according to the project plan including but not limited to the following components:

1. Project Scope
2. Project Approach
3. Finance/Budget
4. Schedules & Milestones
5. Resource Planning
6. Project Risks
7. Measurements & Analysis

Supporting PMC artifacts shall be controlled and maintained in the respective Project Workbooks on Merlin's document management system.