

# **Launch Support Services For 576<sup>th</sup> FLTS**

## **Quality Management Plan**

Contract:	FA4610-06-C-0001
Document Number:	VAFB-0001-2000 (CDRL A016)
Date:	18 January 2007
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### 1.0 POLICY/PURPOSE

#### SBAR Quality Policy

(As found in the *SBAR Quality Manual*)

"Santa Barbara Applied research, Inc. (SBAR), is absolutely committed to ensuring that the products and services we provide are consistent with the quality standards established for our company and that all products and services meet or exceed the highest expectations of our customers."

The purpose of this Quality Management Plan (QMP) is to fully implement the SBAR Quality Policy for the 576<sup>th</sup> Launch Support Services Contract (LSS), Vandenberg AFB, CA. This QMP fully integrates the requirements of the *SBAR Quality Manual* and the various SBAR ISO procedures that implement ISO 9001 elements.

### 2.0 SCOPE

This Quality Management Plan (QMP) defines the LSS Quality Management System (QMS). It is applicable to all LSS functional areas including work performed by subcontractors.

### 3.0 REFERENCES AND DEFINITIONS

#### 3.1 References

American National Standard, ANSI/ISO/ASQC Q9001-1994: Quality Systems – Model for Quality Assurance in Design, Development, Production, Installation and Servicing  
Guideline for Auditing Quality Systems, ANSI/ASQC Q10011-1-1994, Q10011-2-1994, and Q10011-3-1994

SBAR, Inc. Documentation

- SBAR Quality Manual
- SBAR ISO procedures implementing ISO 9001 elements

Statement of Work for Launch Support Services Contract (LSS) (FA4610-06-C-0001)

#### 3.2 Definitions

**Customer:** Recipient of a product provided by the supplier. A customer may be a commercial firm, an individual, or a government agency. SBAR is the supplier.

**Data Management Central Library (DMCL):** The focal point for all quality records associated with the LSS contract. The DMCL is located in Bldg. 6601.



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**Functional Area Manager (FAM):** A senior supervisory individual who is responsible for the leadership, direction, and overall success of an area of SBAR, such as O&M, contracts, logistics, quality, safety, engineering, financial, task orders, etc.

**Metrics:** Meaningful measures. For a measure to be meaningful, it must present data that encompasses the right action. In the context of the Statement of Work, metrics refers to management and performance measures.

**Nonconformance/Corrective Action Report (N/CAR):** A form used to report nonconformances and their corrective and preventive actions.

**Preventive Action Report (PAR):** A form used to report potential problems, nonconformances and their preventive actions.

**Procedure:** Corporate level, written direction that defines the specific strategy that SBAR employs in performing a task, e.g., quality, and human resources, financial. Procedures give general guidance, and, where applicable, apply throughout all levels of the corporation.

**Quality:** Totality of characteristics that bear on the ability to satisfy stated and implied needs.

**Quality Assurance Officer (QAO):** The LSS person that is responsible for the overall management of the LSS quality program. For the purposes of this QMP, the LSS Quality/Safety/Scheduling (QSS) Office is the QAO.

**Quality Hold:** An order issued to cease operations because the desired level of quality is either not being achieved or the quality of the product or service is in question.

**Quality Management:** All activities of the overall management function that determine the quality policy objectives and responsibilities and implement them through quality planning, quality control, quality assurance, and quality improvement within the quality system. Quality management is the responsibility of all levels of management in all functions within an organization. Its implementation involves all members of the organization.

**Quality Management System (QMS):** The LSS program to achieve quality management.

**Quality Steering Committee (QSC):** Organization of LSS senior managers who, on at least a quarterly basis, review the LSS QMS to ensure its continuing suitability and effectiveness in satisfying the ISO 9001 requirements, fulfilling SBAR's quality policy, and meeting the needs of our customers.



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**Quality System Plan (QSP):** Written direction/guidance for SBAR to establish and maintain an ISO 9001 compliant and/or equivalent quality system IAW the LSS Statement of Work. The QMP implements the Quality Management System.

**Performance Work Statement (PWS):** Contract number FO6484-98-C-0014 that is the written agreement between SBAR Engineers, Inc. and the Government for the administration of the Launch Support Services Contract at Vandenberg AFB, CA.

**Work Control Center (WCC):** The LSS agency or functional area that is the customer service functions for the contract. The WCC receives, processes, schedules, tracks, and provides status on all work requirements within the contract and SOW.

**Work Instruction (WI):** Written details that, when appropriate, state what shall be done and by whom; when, where and how it shall be done; what materials, equipment and documents shall be used; and how it shall be controlled and recorded. WIs will normally be used to implement corporate procedures and/or specific contractual requirements.

## 4.0 RESPONSIBILITIES

### 4.1 Quality/Safety/Scheduling (QSS) Manager

The QSS Manager is responsible for the Quality Management Plan.

### 4.2 Quality System Responsibilities

Who	Responsibility and Authority
Program Manager	Executive responsibility for the QMS (ISO 9001, 4.1.1) Communicate and ensure the visibility and understanding of SBAR's quality policy throughout the LSS Chair/attend QSC meetings (minimum quarterly)
Quality, Safety, Scheduling (QSS) Manager	Responsibility/authority to establish, implement, and maintain QMS (ISO 9001, 4.1.2.3) Coordinate and assign responsibilities for development and implementation of the QMS Report quality system performance to the QSC
Functional Area Managers (FAMs) and supervisory personnel (Including Subcontractors)	Obtain and communicate customer requirements to the appropriate management level Ensure that qualified, skilled, and trained personnel, as well as other resources, are used to implement the QMS Fully implement QMS requirements in their area Initiate action to ensure contract compliance, prevent nonconformance, identify performance deficiencies, initiate



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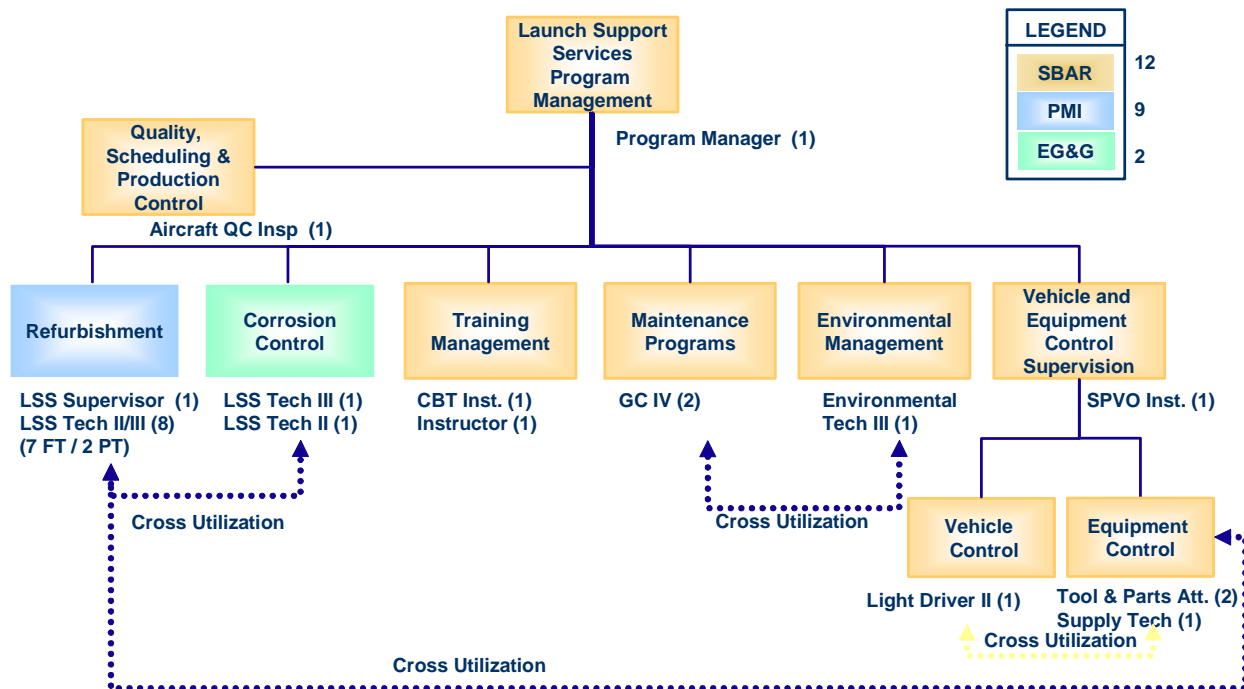
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Who	Responsibility and Authority
	corrective actions, verify solutions, and if necessary, stop processes until such time as they fully comply with all requirements.
Lead Technicians/Foremen	Maintain quality task performance through effective planning, training, and deployment of contract resources.
All Employees	<p>Ensure that products and services satisfy customer requirements, including quality, safety, cost, timeliness, performance, reliability, durability, accuracy, and maintainability</p> <ul style="list-style-type: none"><li>• Comply with applicable standards, specifications, and documented procedures/work instructions</li><li>• Demonstrate understanding of the quality process</li><li>• Perform quality work</li><li>• Comply with this Quality Management Plan</li></ul> <p>Stop work in-progress and notify the FAM/supervisor/QSS when quality is in doubt or compromised</p>

## 5.0 REQUIREMENTS/PROCEDURES

Figure 1– Responsibilities for LSS SOW Requirements





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**Figure 2 -- Structure of Quality Management System Documentation**



### 5.1 General

The Launch Support Services (LSS) Contract No. FA4610-06-C-0001 provides mission essential support for functional areas associated with launch operations and ensures continuing timely, responsive, and technical excellence in mission and test support for the 576<sup>th</sup> Flight Test Squadron (FLTS) operating at Vandenberg AFB, CA. SBAR is teamed with Phoenix Management Inc. (PMI), and EG&G and are the nucleus of the LSS. As the LSS team, we are responsible for providing and managing a skilled work-force capable of providing services in the following areas:

- Planning, Programming, and Cost Estimating
- Studies and Analysis
- Installation
- Project Coordination/Scheduling
- Repairs, Modification, and Refurbishment
- Quality Control, Testing, and Inspection
- Drafting (As Built Drawing) and Documentation





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- Documentation Updating and Maintenance
- Surveillance
- Operations and Maintenance
- Corrosion Control

### 5.2 Quality Management System (QMS)

LSS has established and documented a QMS specifically designed for LSS that ensures compliance with contract PWS requirements, applicable elements of ANSI/ASQC 9001-2000 (ISO 9001), the SBAR *Quality Manual*, and SBAR procedures. This QMP establishes quality policy, plans, and procedures for implementing the QMS. Detailed work process instructions and procedures implement our quality system at all levels of the organization. Appendix A identifies the SBAR approach to meeting SDS requirements.

### 5.3 Organization and Management

Figure 1 is the assignment of PWS responsibilities to specific LSS functional areas/FAMs. The responsibility for quality begins with the LSS Program Manager, assisted by the Quality/Safety/Scheduling Manager (QSS Manager), and flows through FAMs, lead technicians/foremen, and onto technicians. This is intended to be a dynamic process with the flow of information going up, down, and across the organization.

### 5.4 Continuous Quality Improvement

LSS utilizes a process-oriented quality management system designed in consonance with ISO 9001 series standards, with built-in mechanisms to ensure continuous quality improvement. Through employee involvement, we strive to build quality into our work processes and procedures and reduce the need for quality control inspections after the work has been completed. This results in reduced costs associated with re-work and the correction of non-conforming work. Elements of our QMS that emphasize and facilitate continuous quality improvement include:

**Work Instruction (WI) Development and Updates:** User input collected during simulated or “first runs” of WIs provides valuable information and data for improving detailed processes.

**Corrective and Preventive Actions:** Eliminating causes of actual and potential defects in product or performance and verifying the effectiveness of actions taken promotes continuous improvement.

**Internal Quality Audits:** Trained auditors provide an independent annual assessment of QMS elements and results of processes to discover defects and opportunities for improvement.



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**Management Review:** Program management reviews of QMS elements provide an overview of performance that identifies trends, weaknesses, and opportunities for improvement. These are conducted during regularly scheduled QSC meetings.

**Nonconformance Reporting:** Disposition and closure for nonconformances include consideration for corrective actions.

**Employee Suggestions/Involvement:** Every employee is encouraged to share ideas for improvement and every suggestion is thoroughly evaluated. This is one of our most valuable sources of innovation and improvement ideas.

**Customer Feedback:** Increased customer satisfaction results when customer concerns are promptly addressed and positive steps taken to remedy concerns. In addition to frequent face-to-face meetings with customers, the *LSS Customer Survey Form* is used to identify potential problem areas.

**Self-Assessment:** Procedures are developed to identify opportunities for improvement.

When warranted, LSS personnel and subcontractors are authorized to impose an immediate "Quality Hold" on work in-process, impounding nonconforming products, withholding acceptance until quality is assured, etc. Quality Holds are promptly reported to the appropriate FAM/supervisor, QSS, or LSS Program Manager for action as required.

### 5.5 Quality System Required Elements

### 5.6 Management Responsibility

The LSS Program Manager has executive responsibility for the QMS and the QSS Manager has the authority to establish, implement, and maintain the QMS IAW ISO 9001, 4.1.2.3. Further, the QSS Manager reports the status of the QMS to the LSS Program Manager on a recurring basis.

### 5.7 Quality System

The LSS Program Manager chairs a periodic staff meeting with Lead Technicians/supervisors that oversee the successful implementation and continuation of the company's quality program. Portions of this staff meeting are dedicated to quality issues in the form of a Quality Steering Committee (QSC) Meeting. These meetings address the status of open N/CARs and PARs, and when appropriate, the LSS Program Manager appoints Action Teams to resolve problem areas, prevent problems from occurring, and implement specific quality improvement programs. In addition to addressing the status of N/CARs and PARs, these meetings are used to address specific quality issues that require additional support from the LSS staff. In addition to the LSS Program Manager, the QSC is composed of the following and will be represented as required: QSS Manager, SBAR Support Services Manager, SBAR



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Technical Services Manager, and may include the SBAR Operations and Maintenance Manager, Corrosion Control Manager, Subcontracts Manager, SBAR Financial Analyst, Contract Officer/Administrator, Air Force Leadership or Quality Assurance Personnel (QAP), SBAR Senior Leadership, and SBAR Logistics Manager.

### 5.8 Contract Review

SBAR Support Services maintains documentation for review of contract requirements and Performance Work Statement (PWS) changes, proposal processing, and contract amendments. Affected FAMs review contract scope changes to ensure requirements are adequately defined and the capabilities exist to meet those requirements.

### 5.9 Design Control

SBAR controls and verifies the design of LSS services to ensure that the specified requirements are met. LSS designs are planned, controlled, verified, and validated; requirements for designs are documented; design reviews are held, as appropriate; and design changes are made in accordance with documented procedures/WIs.

### 5.10 Document and Data Control

The SBAR structure for documenting the Quality Management System is depicted in Figure 2. To the maximum extent practical, corporate and division procedures are written with sufficient detail so they can be used at the contract level. When more details are needed, the LSS has written contract specific WIs (Appendix A) to further ensure the quality of our products and services.

SBAR and the LSS have established and maintain procedures and WIs to control all documents and data that relate to the requirements of the LSS. Requirements are established for review and approval of WIs prior to use; maintenance of a master listing of controlled documents identifying the current revision status; and controls to prevent the use of obsolete or invalid documents and data. Changes to internal documents and data are reviewed and approved by the same organizations or functions that performed the original review or approval. Table A is the Quality System Plan Relational Matrix that defines the procedures, WIs, and miscellaneous items that are required per this Quality System Plan.



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**Table A – Quality System Relational Matrix**

DOCUMENT NAME	OPR	ISO ELEMENT	SUSPENSE	COMPLETED
<b>SBAR PROCEDURES (Located SBAR Web Site &amp; LSS Server)</b>				
SBAR <i>Quality Manual (REV A)</i>	SBAR QA	4.1 to 4.20	N/A	16 Nov 00
SBAR <i>Contract Review</i>	SBAR QA	4.3	N/A	15 Apr 00
SBAR <i>Design Control</i>	SBAR QA	4.4	N/A	28 Sep 00
SBAR <i>Document &amp; Data Control</i>	SBAR QA	4.5	N/A	1 Jun 00
SBAR <i>Purchasing</i>	SBAR QA	4.6	N/A	15 Feb 00
SBAR <i>Control of Customer-Supplied Product or Service</i>	SBAR QA	4.7	N/A	1 Mar 00
SBAR <i>Product ID and Traceability</i>	SBAR QA	4.8	N/A	15 May 00
SBAR <i>Process Control</i>	SBAR QA	4.9	N/A	1 Oct 99
SBAR <i>Inspection and Testing</i>	SBAR QA	4.10	N/A	2 Aug 00
SBAR <i>Control of IMTE</i>	SBAR QA	4.11	N/A	9 Dec 99
SBAR <i>Inspection and Test Status</i>	SBAR QA	4.12	N/A	
SBAR <i>Control of Nonconforming Service/Corrective and Preventive Action</i>	SBAR QA	4.13/4.14	N/A	1 Oct 99
SBAR <i>Handling, Storage, Packaging, Preservation, and Delivery</i>	SBAR QA	4.15	N/A	1 Jun 00
SBAR <i>Control of Quality Records</i>	SBAR QA	4.16	N/A	30 May 00
SBAR <i>Internal Audits</i>	SBAR QA	4.17	N/A	1 Oct 99
SBAR <i>Training</i>	SBAR QA	4.18	N/A	1 Jun 00
SBAR <i>Servicing</i>	SBAR QA	4.19	N/A	1 Mar 00
SBAR <i>Statistical Techniques</i>	SBAR QA	4.20	N/A	1 Oct 99
<b>LSS WIs (Located LSS Server)</b>				
<i>Quality Management Plan (REV New)</i>	QSS	4.1 to 4.20	N/A	23 Oct 06
<i>LSS Design Control</i>	QSS	4.4	N/A	23 Oct 06
<i>Control of Government Property</i>	LSS PM	4.7	N/A	23 Oct 06
<i>Work Control</i>	Tech Services	4.9	N/A	Various
<i>Environmental Plan</i>	Environ Manager	4.9	N/A	Various
EPA Specific Environmental Programs	Environ Manager	4.9	N/A	Various
OSHA Specific Safety Programs	QSS	4.9	N/A	Various
Preventive Maintenance WIs	QSS & LSS PM	4.9	N/A	Various
<i>LSS Metrics, CDRLs, and Reports</i>	QSS & LSS PM	4.20	N/A	23 Oct 06
Appendix A (SDS Requirements)	QSS/PM		N/A	31 Jan 07
<b>Support Services (Located SBAR Web Site)</b>				
Facility Inspection Schedule	Operations	4.9	Annual	Annual Update
Facility Paint Color Plan	Corrosion	4.9	Annual	Annual Update
Contract Funds Status Report (JOCAS)	Financial	4.9	Monthly	Monthly Update
Contractor's Upload Format	Financial	4.9	Monthly	Monthly Update



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### 5.11 Purchasing

LSS maintains documented procedures to ensure products and services are obtained from approved suppliers and meet defined requirements for quality, cost, and schedule. Procedures include methods for evaluating and selecting qualified vendors and subcontractors; preparing purchasing documents that clearly define requirements; verifying products and services meet requirements; and provisions for source acceptance of supplier's product. Purchase decisions are based on obtaining the best quality products, at the best cost, in time to support customer schedule requirements.

Receiving inspection is performed to ensure incoming materials have undergone a review for conformity. When a source inspection or independent testing is indicated, the requirement is specified in the purchase document and acceptance records included with shipping documents. Nonconforming products are rejected.

### 5.12 Control of Customer-Supplied Product

Accountability for Government Furnished Property is assigned to the LSS user and verified by routine daily operator inspections and periodic property audits as appropriate. Methods for controlling and managing materials and equipment are incorporated into our control of government property plan. The Work Control Center or LSS functional area maintains property records and an electronic inventory listing of all equipment and property. Warranties are maintained in our Data Management Central Library (DMCL).

### 5.13 Product Identification and Traceability

The scope of ISO 9001 element 4.8 is limited to identification of operators and workers who perform detail processes for LSS. Our DMCL and process work instructions provide this element.

### 5.14 Process Control

The LSS QMS ensures all work is prescribed in clear and complete work process instructions that provide criteria for performing operations and acceptance of completed work.

Each functional area contributes to the development and maintenance of work processes. LSS process control includes:

- Documented SBAR procedures and LSS specific Work Instructions.
- Control, use, and operation of equipment.
- Suitable working environment.
- Compliance with standards, codes, and regulations.



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- Approval of process, procedures, and equipment.
- Criteria for workmanship.
- Maintenance of equipment to ensure continued capability and operation.

FAMs are assigned for each process and this assignment is documented in the applicable WI.

### 5.15 Inspection and Testing

Required inspection and testing, performed by designated individuals, and the records to be established, are detailed in various WIs needed to perform LSS tasks. Inspection mechanisms involve a combination of checkpoints utilizing self-observations and technical verification by designated personnel at identified quality inspection points.

### 5.16 Inspection, Measuring, and Test Equipment (IMTE)

The QAO has established procedures for handling, calibrating, and controlling any inspection, measurement, and test equipment used to verify conformance to established quality requirements and specifications. Calibration and periodic maintenance of inspection, measurement, and test equipment are controlled and documented by the LSS FAMS who manage this type equipment. All measurement and test equipment will be available for use by the Government when needed to verify conformance with contract requirements. The Vandenberg AFB Precision Measurement Equipment Laboratory (PMEL) calibrates IMTE.

### 5.17 Inspection and Test Status

Inspections are conducted by designated individuals who indicate acceptance by signature or stamp and date or by electronic means on the appropriate documentation. A serviceable (yellow), unserviceable (red), repairable (green), or reparable item processing (tan) tag is used to indicate material or equipment status.

### 5.18 Control of Nonconforming Product, Corrective and Preventive Action

Each functional area initiates and maintains procedures with appropriate records to ensure nonconforming products or services are not used or delivered to the customer. These procedures ensure proper identification, documentation, evaluation, segregation, corrective actions, preventive actions, disposition, and notification of nonconforming products or services. The documentation system is available to the customer for use in reporting defects as well as for determining status of reported nonconformances. When nonconformity is detected, a Nonconformance/Correct Action Report (N/CAR) documents recovery and corrective actions.

The QAO is responsible for monitoring N/CARs and PARS to ensure proper identification, control, isolation, and disposition of nonconformances. FAMs ensure that





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cost-effective and positive corrective actions are taken to preclude or reduce the rate of nonconformances. See SBAR *N/CAR procedures* for details.

Nonconformances are identified by LSS employees as part of their daily work. It is their responsibility to document the nonconformance, and report it to their supervisor and the QAO. The QAO ensures nonconformances are properly documented, tracked, and that the proper LSS and Government personnel have been notified. Nonconforming product and/or material is controlled until the nonconformance is resolved. Recovery actions; including system restoration, retest, and corrective actions, are documented in the N/CAR system.

Sustaining Engineering provides N/CAR dispositions when an engineering solution is needed; the nonconformance affects form, fit, or function; a change is required to the system configuration; or the N/CAR is against a critical system. Otherwise, lead technicians/foremen provide dispositions. LSS technicians implement all approved recovery instructions. When appropriate, Government concurrence is obtained for N/CAR dispositions.

Preventive Action Reports (PAR) are generated when there is a problem or the possibility of a nonconformance. The QAO ensures preventive actions are properly documented, tracked, and that the proper LSS and Government personnel have been notified. These reports remain open until the problem is solved or sufficient preventive actions are implemented to prevent a nonconformance.

N/CARs, other than those identified during an internal quality audit, are identified with a prefix that is the same as the building number the nonconformance was found followed by a three digit, sequential number, followed by the letter "N." For example, "7000-011N," would be the eleventh N/CAR identified against Building 7000.

PARs, other than those identified during an internal quality audit, are identified with a prefix that is the same as the building number the nonconformance was found, followed by a three digit sequential number, followed by the letter "P." For example, "7000-011P," would be the eleventh PAR identified against Building 7000.

The QAO is responsible for monitoring N/CARs and PARs to ensure proper identification, control, isolation, and disposition of nonconformances and preventive actions. FAMs ensure that cost-effective and positive corrective and preventive actions are taken to preclude or reduce the rate of nonconformances. See SBAR *N/CAR Procedure* for details.

### 5.19 Handling, Storage, Packing, Preservation, and Delivery

This ISO 9001 element does not specifically pertain to the LSS; however, *Control of Government Property (Standard Operating Procedure)* (SOP) contains applicable provisions.



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### 5.20 Control of Quality Records

All LSS quality records including supplier, subcontractor, and installation and servicing records are maintained by the QAO in the Data Management Central Library. The Quality Manager has overall responsibility for the retention and maintenance of LSS quality records. The Quality Steering Committee is responsible for specifying what records are needed to document conformance to the quality system. Functional Area Managers ensure that quality records are available and maintained IAW SBAR *Control of Quality Records Procedure*.

### 5.21 Internal Quality Audits

The QAO establishes and maintains documented procedures for planning and implementing internal quality audits of LSS operations. The audits compare actual practices to the documented procedures and instructions maintained by the organizations. All functional areas are audited to assess the degree of compliance and effectiveness of the quality program. These audits are conducted according to an audit plan based on the importance of the operations to the quality program and are performed by individuals independent of those operations being audited.

Trained auditors conduct internal audits with each ISO Element audited at least every 12 months. Audit results are recorded and nonconformances and preventive actions result in the generation of N/CARs and PARs, as appropriate. FAMS, supervisors, lead technicians, foremen, as appropriate, take timely action to remedy the audit finding.

Audit N/CARs and PARs are labeled as follows:

- N/CARs: "LSS-0XXN," where 0XX is a sequential number.
- PARs: "LSS-0XXP," again where 0XX is a sequential number.

### 5.22 Training

LSS employees receive the necessary training to attain and retain task proficiency and remain current with changes in techniques, equipment, facilities, and procedures that affect their work. All personnel who successfully complete required training receive a certificate of completion and a copy is maintained in their personnel file. Training and skill requirements are defined in job descriptions and skill/development plans are developed for every employee annually.

### 5.23 Servicing

The WCC is the focal point for the LSS customer service function. The center receives, processes, schedules, tracks, provides status, and closes all LSS work requirements. All LSS customer service requirements are centralized within the WCC to





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ensure fast and effective support. Additionally, FAMs maintain a dialogue with their Government counterparts to further ensure the Government's needs are met.

### 5.24 Statistical Techniques

The *LSS Metrics, CDRLs, and Reports WI* defines the "who, when, where, what, and how" metrics are collected and used by the LSS. This information is provided to the Government for analysis during regularly scheduled, Program Management Reviews to assess LSS performance. Additionally, FAMs, supervisors, lead technicians, foremen, and employees use metrics for continuous improvement efforts through open review and discussion at staff and crew meetings.



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A handwritten signature in black ink, appearing to read 'M. J. Schmoll', is written over the 'Approved:' label.

Date:

18 January 2007

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# **APPENDIX A SERVICE DELIVERY SUMMARY OBSERVATIONS COMMENTS:/INSPECTIONS**

**For**

**LAUNCH SUPPORT SERVICES**

**Vandenberg AFB, California  
Contract FA4610-06-C-0001**



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