

AUDIT REPORT NUMBER: 98/35812/S01



THIS REPORT RELATES TO A Surveillance

VISIT ON 05/06-07

1998

Company Name: Marshall Space Flight Center	Other addresses visited:	1. N/A
Address: Building 4201 Huntsville, AL 35812	2. N/A	3. N/A

SCOPE

Procurement, design, development, and on-site production of flight hardware, flight software, and associated ground support equipment interfacing with flight hardware and software.

ISO 9001 :1994

GUIDANCE APPLICABLE: N/A

CURRENT REVISION OF THE SUBJECT COMPANY'S DOCUMENTED QUALITY SYSTEM

POLICY MANUAL	Quality Manual	DATE	2/98, Rev. B
PROCEDURES	Various	DATE	Various
WORK INSTRUCTIONS	Various	DATE	Various

NQA ASSESSMENT TEAM	COMPANY REPRESENTATIVES
LEAD ASSESSOR Judge P. Lunt	Robert Schwinghamer POSITION: ISO-9000 Management Rep.
MEMBER 1	POSITION:
MEMBER 2	POSITION:

The contents of this report are confidential to the company as named above and NQA. As such, distribution to persons not under the employ of both parties must be agreed by both parties prior to circulation.

Any non-compliance's and observations contained within this report are the result of limited sampling and therefore it cannot be assumed that others do not exist.

The signature of the company's representative indicates their agreement and understanding of any non-compliance's and observations contained in this report.

Signed: Robert Schwinghamer
Position: Associate Director Technical

Signature: <u>Judge P. Lunt</u> NQA Representative	Date: 5-8-98	Page 1 of 5
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SYSTEM AUDIT REPORT NUMBER

98/35812/S01

NQA

SYSTEM REVISION STATUS AND AUDIT MATRIX

ISO 9000 REQUIREMENTS		SPECIFIC ISO 9000 REQUIREMENTS FUNCTIONS/PROCESSES AUDITED DURING THIS VISIT											NEXT VISIT PLAN			
		Dir. Astronics	Off. Analysis + Inlog. Lab	Dep. Dir. - Staff + MTS Eng	Audit Manager	Problem Mgmt. Manager	Problem Mgmt.	Eng. Project	Eng. Supply Clerk	Test Eng.	Training Specialist	Training Secretary		QMR		
Mgt. Responsibility	4.1	X	X	X												X
Quality System	4.2															
Contract Review	4.3															
Design Control	4.4															X
Document & Data Control	4.5															
Purchasing	4.6															
Control of Customer Supplied Product	4.7							X	X							
Product Identification & Traceability	4.8															
Process Control	4.9															
Inspection & Testing	4.10															
Control of Inspection, Measuring & Test Equip.	4.11															X
Inspection & Test Status	4.12															
Control of Non-Conforming Product	4.13															X
Corrective & Preventive Action	4.14					X	X									X
Handling, Storage, Packaging, Preservation & Delivery	4.15															
Control of Quality Records	4.16				X	X	X	X	X	X	X					
Internal Quality Audits	4.17				X						X					X
Training	4.18									X	X					
Servicing	4.19															
Statistical Techniques	4.20							X								
Customer Complaints																X
Use of NQA Logo													X			X

Note: Please fill in table including areas/sites/departments/functions visited during each visit.

ISO 9000 CLAUSES	AUDIT RECORDS	Non Compliances Observations	
4.1	Reviewed Management Responsibility element with Director of Astrionics Lab., Deputy Director and Organizational Rep for System Analysis & Integration Lab., and the Deputy Director for Safety and Mission Assurance. Sampled procedure MSFC P01.1 R/A, and the Management Review Meeting Minutes dated April 30, 1998. Interviewed approximately 25 Center employees as to their knowledge of the Center Quality Policy, ISO Management Representative, and understanding of the program.	0	0
4.17	Reviewed Internal Quality Audits element with the Internal Audit Manager, S&MA PAR Coordinator, and Training Secretary. Sampled procedure MSFC P17.1 R/C, 1998 Internal Audit Schedule, Internal Audit Checklist, Internal audit reports for elements 4.13 and 4.14, NCR Log in the computer data base, Training records for Internal Auditors and Lead Auditors, and the auditor Participation Matix in in the computer data base.	1	1
4.14	Reviewed Corrective and Preventive Action element with the Supervisor of Problem Assessment Center, Data Entry person, and Problem Assessment Engineers. Sampled procedure MSFC P14.1 R/A, MSFC P14.1-C02 R/0, S&MA CR10-R-Y-012 R/A, log of CAR's in computer data base, CAR Evaluation Receipt Log (5-5-98), CAR # 35 and 45, and QD # 7, 14, 15, and 17.	1	0
4.7	Reviewed Control of Customer Supplied Product element with Mid-Deck Glove Box Project Manager, Program Manager, and Project Clerk, and Supply Clerk, Lead Supply Tech., engineering Tech., and System Test Engineer. Sampled procedure MSFC P07.1 R/A, MSFC P03.1-C01 R/A, EL61-022 R/B, and associated records for the following projects: A) STS-95MGBX/CDOT/CGEL 05-98 B) STS-95MGBX/IFFD 05-98 C) STS-95MGBX/CDOT/CGEL 01-98 D) STS-95MGBX/IFFD 01-98	0	0
4.18	Reviewed Training element with Team Leader Employee Development Specialist, and Training Secretaries. Sampled procedure MSFC P18.1 R/B, C020-001 R/A, Training records for Internal Auditors, Engineers, and the Admin Star system for the following training courses: A) Plasma Physics B) Pro/Eng Cable Harness Design C) Advanced Hypertext Mark-up D) Magnetics Components Design	0	0
4.16	Reviewed Control of Quality Records element with Internal Audit, Training, Receiving, Test Engineers, and Glove Box project Engineer groups. Sampled procedure MSFC P16.1 R/B, Internal Audits (13 & 14), CAR's (35 & 45), Management Review Meeting Minutes (4/30/98), Customer Supplied Product Records (Mid-Deck Glove Box), Receiving, and Test records Mid-Deck Glove Box).	0	0
Customer Complaints <input checked="" type="checkbox"/>		TOTALS 2 1	
Use of NQA Mark <input checked="" type="checkbox"/>		Page 3 of 5	

Ref. No.	Clause No.	NONCOMPLIANCES AND OBSERVATIONS RAISED	NC O
1	4.17	Internal Audit procedure MSFC P17.1 R/C, para. 3.4 and 3.7, indicates that in order to be an internal Auditor or a Lead Auditor , they should have to "posses <u>sufficient</u> audit experience.	OBS
2	4.17	Completed Internal Audits and any resultant NCR's are entered into the computer data base and write protected. The authority for correcting/updating/revising these documents, after they have Been write protected, is not defined in any procedure.	N/C
3	4.14	The "Corrective Action-Investigation Resolution" section of RCAR's reviewed, was inconsistent When addressing the nine different categories. Some had a written response, some had "NONE", some had "N/A", and some were left blank.	N/C
4	4.4	(This is a re-write from NQA/USA report # 98/35812/A01, Ref No. 18) Traceability missing in ECR's, could not tell what changes were associated with ECR-EB-SXI-97-01 also looked at 4 more ECR's and traceability back to SDR's were not possible Without going back to department where corrected and going through team leader records.	OBS

Signed for Company:

[Signature] 5-8-98

Signed for NQA:

[Signature] 5-8-98

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Audit Summary (See Overleaf)

Clauses Covered	4.1 X	4.2	4.3	4.4	4.5	4.6	4.7 X	4.8	4.9	4.10
	4.11	4.12	4.13	4.14 X	4.15	4.16 X	4.17 X	4.18 X	4.19	4.20

Recommendations/Follow up Action

The following recommendations and follow up actions are brought to the company's attention. Further comments by the assessment team are made below.

PRE-AUDIT (DOCUMENT QUALITY SYSTEM REVIEW)

1. The company's Documented Quality System is **deemed** to be **UN SATISFACTORY**. (see 4 below)
 2. A pre-assessment date has **NOT** been agreed to and an assessment program has **NOT** been drawn up. (see 4 below)
- NOTE: The company is reminded that prior to an assessment visit it must be ensured that the quality system has been implemented, for at least 3 months, understood throughout the organization, completely audited prior to the formal assessment being undertaken, and a formal management review documented.

PRE-ASSESSMENT (INFORMAL ASSESSMENT)

3. The pre-assessment visit has been **UN SATISFACTORY** and the previously agreed assessment dates **CANNOT BE** confirmed
 4. The company is to complete the corrective action plan proforma in their possession detailing how they intend to address all the points raised, the person(s) responsible and the target completion dates. The plan should be **RETURNED WITHIN 20 DAYS**
- NOTE: The company is reminded that prior to an assessment visit it must be ensured that the quality system has been implemented, for at least 3 months, understood throughout the organization, completely audited prior to the formal assessment being undertaken, and a formal management review documented.

ASSESSMENT

5. Registration to ISO 900 is **NOT RECOMMENDED**. The company is to complete the corrective action plan proforma in their possession detailing how they intend to address all the points raised, the persons responsible and the target dates. The plan should be **RETURNED TO NQA WITHIN 20 WORKING DAYS** for review.
6. The corrective action plan will be reviewed against the contents of the report and **REGISTRATION CONFIRMED OR RE-ASSESSMENT CONFIRMED**.

SURVEILLANCE (CONTINUING VISITS)

7. The surveillance visit is **SATISFACTORY**.
8. The company is to complete the corrective action plan proforma in their possession detailing how they intend to address all the points raised, the person(s) responsible and the target completion dates. The plan should be **RETURNED WITHIN 20 DAYS**.

NON-COMPLIANCE'S/OBSERVATIONS

9. Previously raised non-compliance's/observations: have either been closed or re-identified in this report. Reference report No. 98/35812/A01, Item No.(s):18.

Comments or Concerns of the Assessment Team

No adverse trends detected. Obvious efforts of enthusiastic and dedicated staff continue to be observed. The auditor was very pleased With the feedback from employees on ISO awareness. Recommend for continued Registration to ISO-9001: 1994.

DATE OF NEXT VISIT: February, 1999