May 2, 1994

QUALITY ASSURANCE PLAN FOR LIGHTING IMAGING SENSOR (LIS)

1. PURPOSE

To provide a Quality Assurance Plan for the LIS experiment by adapting the applicable requirements of CQ 5300.36. All paragraphs and subparagraphs of CQ 5300.36 are superseded by this addendum or are applicable to the extent specified herein.

2. SCOPE

This plan applies to the Quality Assurance and Quality Control efforts in support of the LIS experiment.

3. POLICIES

a. LIS Experiment has been designated as a Class C experiment. Performance attributes of the experiment are the responsibility of the Principal Investigator.

b. This document defines the minimum quality control requirements. Quality Engineering may impose additional requirements that are consistent with project guidelines and constraints.

4. REFERENCE DOCUMENTS

See Attachment A of CQ 5300.36 with the following additions:

MMI 8030.2	Policy on MSFC Payloads
CQ 5300.36	MSFC Quality Assurance Plan Flight Hardware during In-House Operations
CQ 5300.37	Quality Assurance Plan for Contracted In-House Manufacturing and Teat Operations

5. DEFINITIONS

See attachment B of CQ 5300.36 with the following additions

. a Attribute

A specific characteristic of an item such as a dimension, material property, or function that has a quality control requirement that is particular only to that characteristic.

. b Class C/D Payload/Experiment

A Payload or flight experiment that has been classified Class C or D per MMI 8030.2. Typically Class C/D payloads/experiments are economically reflyable, do not have any criticality, 1 or 1R failure points to the vehicle or crew, are less costly to develop and build than Class A or B, and national prestige is not a mission success issue.

c. Project Essential

A designation assigned to a component, system, subsystem, or attribute that affects safety compliance, fracture criticality, interface compatibility or certain Project Management

6. MANAGEMENT AND PLANNING

Per CQ 5300.36 paragraph 6b & 6c for Project Essential items only.

7. MILESTONE REVIEWS

Quality Assurance will, when deemed necessary by S&MA management, participate in milestone reviews such as design reviews, readiness reviews, and operational readiness inspections to ensure that quality related concerns are identified, documented and resolved.

8. PROCUREMENT CONTROL

Quality Requirements placed on LIS procured piece parts or assemblies will be established by Science and Applications Assurance Office CR75. Project Essential Item requirements will be called out in table 1 (Project Essential Items Attribute List). In cases where Quality Engineering considers it advisable to establish requirements on items or attributes not designated Project Essential, Project Management concurrence is required prior to establishing that requirement.

9. RECEIVING INSPECTION

Acceptability of items at Receiving Inspection will be based on the following:

a. A certificate of compliance C of C will be required for all materials, parts, components and assemblies.

b. Project Essential Item requirements will be called out in table 1. (Project Essential Items Attribute list).

A parts tag (MSFC Form 312) will be utilized to document quality acceptance. Record copies will be maintained in the QA Records Center.

10. NOTIFICATION TO QA OFFICE

To ensure quality coverage during processing of Project Essential Items Quality Assurance personnel shall, upon submission by Planning and Control Branch/EH53, review the work authorization documents or manufacturing route sheets. The objective of this review will be to insert Mandatory Inspection Points (MIPs) for the Project Essential Attributes. The Planning and Control Branch should notify Product Assurance Office when operations on Project Essential Items are to begin.

11. FABRICATION AND ASSEMBLY OPERATIONS

Will be per CQ 5300.36 paragraph 11 for Project Essential Items only.

12. PROCESS CONTROL

Will be per CQ 5300.36 Paragraph 12 for Project Essential Items only.

13. TESTING

Will be per CQ 5300.36 paragraph 13 for Project Essential Items only.

14. INSPECTION AND TEST RECORDS AND DATA

Will be per CQ 5300.36 paragraph 14.

15. NONCONFORMING MATERIAL AND ARTICLES

Will be per CQ 5300.36 paragraph 15.

16. STAMP CONTROL

Will be per CQ 5300.36 paragraph 16.

17. HANDLING, STORAGE, PRESERVATION, MARKING, LABELING, PACKAGING, PACKING AND SHIPPING

Will be per CQ 5300.36 paragraph 17 for Project Essential Items only.

TABLE 1

PROJECT ESSENTIAL ATTRIBUTES LIST

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1. Fracture critical parts are 96M79052 (Sensor Assembly Foot), 96M79092-1 and -2 (Middle Foot), 96M79093-1 (Box Foot). These parts will require actual chemical and physical test reports for materials conforming to applicable drawings and specifications. The material will have a Certificate of compliance sigmed by the responsible Quality representative back to the original manufacturer. After final machining parts will be dimensionally inspected per drawing and accepted.

2. All Electronic components, PWBs, subassemblies, assemblies and boxes are Project Essential. Procured hardware will require as A minimal A C of C. Fabricated hardware will be inspected to the drawings and specifications per CQ 5300.36B