

ACIS Verification Summary Report

Specification:	ACIS Contract End Item Specification
Requirement Number/Title:	3.2.6.2.5 SI Monitoring (VRSD 3.2.6.2.5-2)
Requirement Statement: Unique Instrument monitoring and maintenance equipment shall be provided by the instrument supplier for integration into the AXAF-I transportation system.	
Verification Method:	Validation of Records
Procedure Number:	
Configuration:	
Cycle Time:	
Verification Discussion/Results:	
<p>The ACIS Flight Instrument does not require maintenance during transportation. A custom made, environmentally sealed, shipping container is provided for transportation of the ACIS. The following instrumentation is installed on/in the shipping container:</p> <ul style="list-style-type: none"> • A recording 25G shock watch is mounted on the outside of the shipping container and a recording 25G shock watch is mounted on the shock mounted base inside the shipping container. • A recording 50G shockwatch is mounted on the shock mounted base inside the shipping container. • Two (2) recording 20G shock watches are mounted orthogonal on the shock mounted base inside the shipping container. • A recording <u>Coldmark</u> temperature device is installed inside the shipping container. • A recording <u>Warmark</u> temperature device is installed inside the shipping container. • A recording total temperature range device is installed inside the shipping container. • A recording high/low humidity indicator is installed inside the shipping container. <ul style="list-style-type: none"> • A non-recording humidity indicator is installed inside the shipping container. 	


ACIS Cognizant Engineer

6/4/97
Date

**AXAF-I CCD Imaging Spectrometer
(ACIS)**

**Verification Assessment Report
-Power and Thermal-Control Structure-
Mechanical Ground Support Equipment-
-Shipping Inspection Report-**

Document No. ACIS-710-I-07VR

DPD 727 DR SVR04

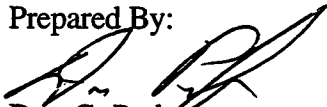
Contract # NAS8-37716

June 6, 1997

Submitted to:
Massachusetts Institute of Technology
Center for Space Research
77 Massachusetts Avenue
Cambridge, MA 02139

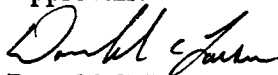
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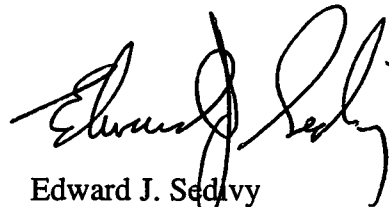


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CHANGE/REVISION RECORD

Number	Date	Description	Page	
			Rev.	Added
New	6 June 1997	Initial Release	All	

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1. INTRODUCTION

1.1 Scope

This document provides a collection of information which results from the implementation of the ACIS Verification Plan, 36-01203. It is intended to show that the delivered instrument meets a specific set of requirements from the ACIS Power and Thermal-Control Structure (PTS) Specification, ACIS-36-02101.

In particular, this report provides the inspection data to support the verification of specific PTS Specification requirements. These requirements were assessed to be best verified by an inspection. The method selected in the verification of each specific requirement is the method which provides the assurance to the program that the requirements have been verified.

The Verification Cross Reference Matrix contained in the ACIS PTS Specification shows how each contractual requirement will be verified. The requirements documented herein have been designated to be verified by analysis and/or a combination of other verification methods.

1.2 Applicable Documents

ACIS Project Documents

36-02101	ACIS Power and Thermal-Control Structure (PTS) Specification
36-01203	ACIS Verification and Calibration Plan

2. METHODOLOGY

2.1 Requirements & Specifications

Verification methods to be used are defined in the verification matrix, compiled as an appendix to the ACIS Power and Thermal-Control Structure Specification, 36-02101.

2.2 Verification Descriptions

Summary level descriptions of each verification activity are located in the ACIS Verification Plan, 36-01203 and the ACIS Power and Thermal-Control Structure Specification, 36-02101. The specific definitions for this report are as follows:

2.2.1 Inspection Definition

Inspection is an element of verification consisting of investigation, without the use of special laboratory appliances or procedures, to determine compliance with requirements. Examination is nondestructive and includes (but is not limited to) visual inspection, simple physical manipulation, gauging and measurement. Assessment by inspection is used for verification of such requirements as construction feature, visible workmanship, alignments and physical condition.

3. INSPECTION

3.1 Applicable Requirements

- | Requirement Reference | Requirement |
|-----------------------|---|
| 1. 3.2.1.6.1o | Vacuum Ground Support Equipment
The Vacuum Ground Support Equipment shall: Be packaged in its own shipping container with provisions for storage of hoses, power cords, and interconnecting cables. |
| 3. 3.2.8j | Handling and Transportation
Unique Power and Thermal-Control Structure monitoring and maintenance equipment shall be provided by the instrument supplier for integration into the AXAF-I transportation system. |

3.2 Inspection Discussion

- | Requirement Reference | Requirement |
|-----------------------|---|
| 1. 3.2.1.6.1o | Vacuum Ground Support Equipment
The Vacuum Ground Support Equipment Vacuum Control Unit shall: Be packaged in its own shipping container with provisions for storage of hoses, power cords, and interconnecting cables. |

DISCUSSION

The Power and Thermal-Control Structure Vacuum Ground Support Equipment Vacuum Control Unit can be packaged in its own shipping container with provisions for storage of hoses, power cords, and interconnecting cables. The ability to be packaged as its own shipping container is detailed in the Vacuum Ground Support Equipment engineering, reference 849AC711000, provided in compliance with CDRL data deliverable SE05. As part of the review of Vacuum Ground Support Equipment build documentation, it was confirmed that the self packaging capability was in compliance with the above referenced engineering. This discussion verifies compliance with paragraph 3.2.1.6.1o of the PTS Specification, no further action is required.

- | | |
|-----------|---|
| 3. 3.2.8j | Handling and Transportation
Unique Power and Thermal-Control Structure monitoring and maintenance equipment shall be provided by the instrument supplier for integration into the AXAF-I transportation system. |
|-----------|---|

DISCUSSION

The Power and Thermal-Control Mechanical Ground Support Equipment design does not utilize any monitoring and maintenance equipment that would require integration into the AXAF-I transportation system. The Power and Thermal-Control Structure hardware does not require specific unique GSE monitoring and maintenance equipment at the AXAF-I level, therefore this requirement by not being applied is inherently verified. This discussion verifies compliance with paragraph 3.2.8j of the PTS Specification, no further action is required.