36-01520.020

ACIS Verification Summary Report

Specification:	AXAF Observatory to Science Instrument ICD (IF1-20)
Requirement Number/Title:	3.3.1.1.1.1.10 ACIS DA Thermal Interfaces (VRSD 3.3.1.1.1.1.10)

Requirement Statement: For cable hot and cold case analysis the boundry temps and surface IR emittances of the ISIM shall be per Figure 3.3-1.

Verification Method:	Validation of Records

Procedure Number: N.A.

Configuration: ACIS thermal models

Cycle Time: N.A.

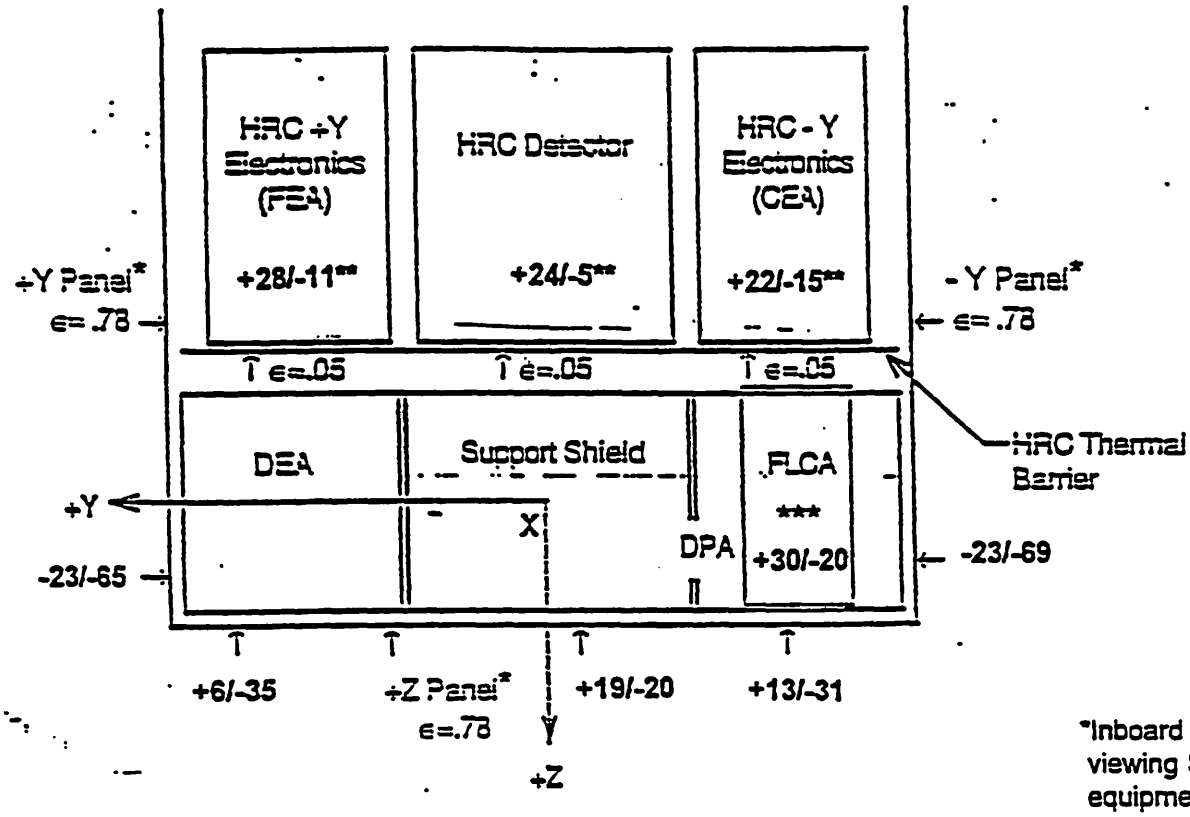
Verification Discussion/Results:

The ACIS thermal models incorporate the boundary temperatures and surface IR emittances of the ISIM per Figure 3.3-1, from PIRN 20-0030 for the thermal ICD (CM07A). See attached Figure 3.3-1.

Ellen M Sen 5/22/97

ACIS Cognizant Engineer Date

12/3/96 TRW ECP E0109



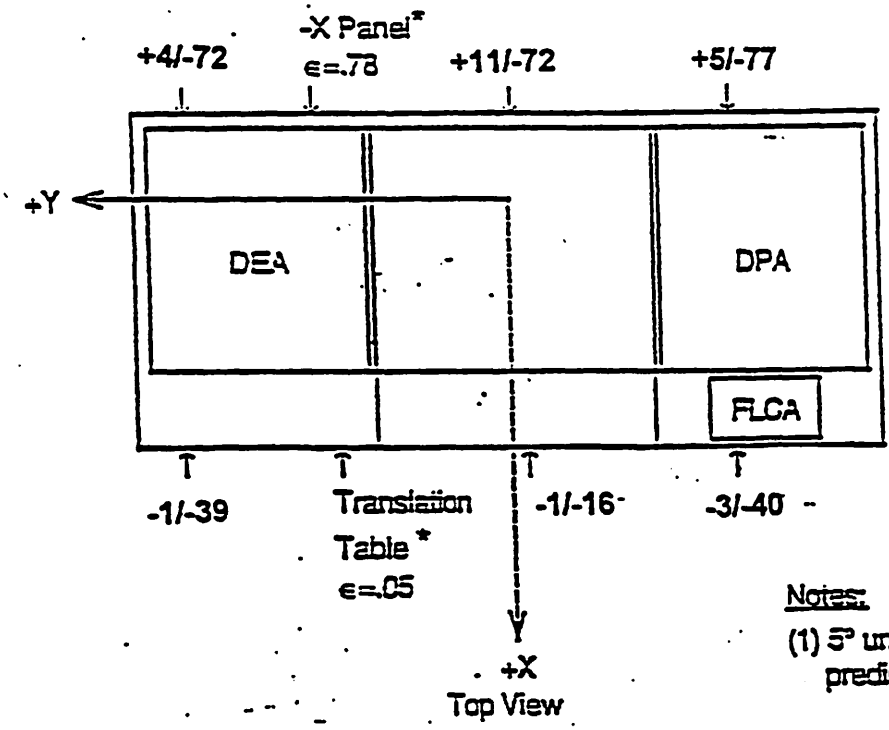
*Inboard surface viewing SI equipment

**HRC thermal barrier temperature

***FLCA emittance = 0.84 on -X face, 0.78 on +Z & +Y faces, and 0.10 on remaining faces

Hot Case (°C) ACIS Viewing, 180° Sun, 6 ACIS CCDs On

Cold Case (°C) HRC Viewing, 45° Sun, 2 ACIS CCDs On



Notes:

(1) 5° uncertainty included in predicted temperatures shown

Figure 3.3-1: ISIM Hot and Cold Operational Case Boundary Temperatures and IR Emittances for ACIS Detector Cables and ACIS Protron Shield/DPA/DEA Thermal Analysis