

PDR RID Report

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Review FOS
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Section NA **Page** NA **Figure Table** NA

Category Name Design **Actionee** HAIS
Sub Category
Subject Constraint violations

Description of Problem or Suggestion:

When instrument or spacecraft constraints are violated during scheduling, it is unclear who (PIs or FOT/MOM) resolves the violations, or how they do it; also, if "soft" constraint violations are not approved during daily ATC load generation, "the constraint violations are removed". What does this mean? Are the conflicting activities removed? On whose authority? An example included in the PDR indicated that the FOT would resolve constraint violations involving more than 8 commands per second. It seems likely that PIs or IOTs should be included in constraint violation resolution issues and activities when instrument-related commands are involved.

Another example indicated that the FOT is responsible for resolving power constraint violations, but that PIs/ISTs are notified of the violations prior to resolution. What does a PI do about such violations if the FOT is responsible for resolving them?

Originator's Recommendation

Provide realistic scenarios addressing autonomous detection and manual resolution of constraint violations, describe how the system design supports these activities including pre-defined priorities, and describe the roles played by each operational group including (as appropriate) the FOT, MOM, ESDIS management, and/or Project Scientist, PIs, and IOTs. Are there conflict resolution tools provided within the IST?

GSFC Response by:

GSFC Response Date

HAIS Response by: D. Herring

HAIS Schedule 2/3/95

HAIS R. E. B. Moore

HAIS Response Date 1/24/95

The procedure for resolving spacecraft or instrument constraint violations will depend upon the context in which the violation occurs. In general, the FOT/IOT will attempt to resolve the problem in a routine manner by coordinating with appropriate members of the FOT/IOT. If the problem cannot be resolved, the MOM/PI/Project Scientist may become involved. The CDR detailed design effort will include more realistic scenarios to validate the design.

Any "soft constraints" allowed in the ATC will be controlled procedurally by the FOT. When soft constraints are removed, this means that the conflicting conditions are corrected by changing the offending activities, either by moving, changing controlling parameters or deletion. The procedure for accomplishing this will depend upon which activity is causing the constraint condition.

The ISTs and EOC have access to the same tools for identifying and resolving constraints.

Status Closed **Date Closed** 2/1/95 **Sponsor** Johns

***** Attachment if any *****