

Entry in OCM for first Delta-V
File: H_FCP_AOC_3002.xls
Author: dsalt-hp



Procedure Summary

Objectives

The objective of this Herschel ACMS procedure is to ensure that the ACMS is ready to execute the first delta-V at Launch + 6 hr.

The procedure involves the following activities:

- checks of initial S/C conditions
- make Star Tracker functional (calls H_SVT_AOC_4S11/21)
- update Sun Earth Ephemerides (calls H_SVT_AOC_3M03)
- determine delta-v thrust & expected changes (FD ground procedure)
- perform Delta-V (calls H_SVT_AOC_3001)

Summary of Constraints

The first delta-V being mission critical, Ground contact is required.

The following calculations are required to execute this procedure.

- # If possible determine the inertial attitude of the Spacecraft as an extra sanity check on the STR
 - # Determine the inertial sun vector
 - # Determine the inertial earth quaternion (spacecraft Z-axis to Earth)
 - # Determine S/C velocity vector to feed to the STR
 - # Prepare parameters for OCM TC
- Note: Lower level procedures called from this procedure have their own calculations and are not repeated here.

Spacecraft Configuration

Start of Procedure

ACMS mode SAM Coarse pointing

End of Procedure

ACMS mode OCM
first delta-V performed

Reference File(s)

Input Command Sequences

Output Command Sequences

Referenced Displays

ANDs GRDs SLDs
ZAA01999

Configuration Control Information

Entry in OCM for first Delta-V
File: H_FCP_AOC_3002.xls
Author: dsalt-hp

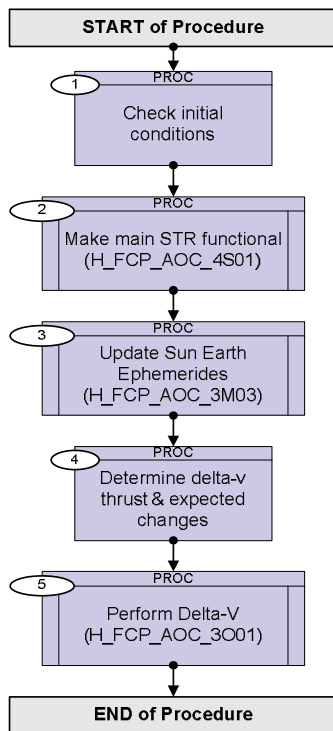


DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
03/08/08	1	1	Created	dsalt-hp	

Entry in OCM for first Delta-V
File: H_FCP_AOC_3002.xls
Author: dsalt-hp



Procedure Flowchart Overview



Entry in OCM for first Delta-V
 File: H_FCP_AOC_3002.xls
 Author: dsalt-hp



Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
Beginning of Procedure				
PROC Procedure Properties				
SSID :				
1		Check initial conditions		Next Step: 2
		Verify Telemetry AcmsMode AESMG002	= SAM	AND=ZAA01999
		Verify Telemetry AcmsSubstate AESMF002	= SAM Sun Point	AND=ZAA01999
2		Make main STR functional (H_FCP_AOC_4S01)		Next Step: 3
		Execute Procedure: H_FCP_AOC_4S01 Declare STR Operational for first Delta-V		
3		Update Sun Earth Ephemerides (H_FCP_AOC_3M03)		Next Step: 4
		Execute Procedure: H_FCP_AOC_3M03 Update Sun Earth Ehpemerides		
4		Determine delta-v thrust & expected changes		Next Step: 5
		Ground procedure performed by Flight Dynamics		
5		Perform Delta-V (H_FCP_AOC_3001)		Next Step: END
		Execute Procedure: H_FCP_AOC_3001 Perform Delta-V		
End of Procedure				