

Herschel ACMS : Abort Delta-V
 File: H_CRP_AOC_ODVA.xls
 Author: dsalt-hp



Procedure Summary

Objectives

This Herschel contingency procedure places a Delta-V Abort TC on the MTL, as a precaution against an anomalous situation during the first critical delta-v burn.

The activities involved in this procedure are:

- loading the Delta-V Abort TC on the Manual Stack
- wait for SOM authorisation to uplink the TC
- monitor the TCs execution

NOTE:
 The criteria for aborting the Delta-V must be specified by FD and Industry as part of the Mission Rules

Summary of Constraints

SOM authorisation is required before the TC is uplinked

Spacecraft Configuration

Start of Procedure

S/C configuration at start of procedure

- ACMS in OCM
- planned Delta-V execution defined by FD (TPF=DVH)

End of Procedure

S/C configuration at end of procedure

- ACMS in OCM
- Delta-V execution completed or aborted

Reference File(s)

Input Command Sequences

Output Command Sequences

HRA0DVAA

Referenced Displays

ANDs GRDs SLDs
 ZAA01999

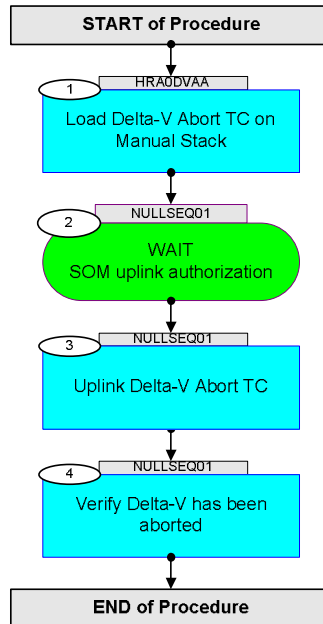
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
03/03/09	2.1	1	Created	dsalt-hp	
25/03/09	2.2	2	Complete revision based upon Industry (M.Oort) comments	dsalt-hp	

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Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch																					
Beginning of Procedure																									
TC Seq. Name : HRA0DVAA (AbortDeltaV) TimeTag Type: Sub Schedule ID: <input type="checkbox"/>																									
1		Load Delta-V Abort TC on Manual Stack		Next Step: 2																					
		<u>Load sequence HRA0DVAA on the Manual Stack</u>																							
		Execute Telecommand <div style="text-align: right;">Abort current dV</div> Command Parameter(s) : <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">ASW Function ID</td> <td style="width: 30%;">AHFUN002</td> <td style="width: 40%;">ACMSMain (Def)</td> </tr> <tr> <td>AcmsH AID Cmd</td> <td>AHHF0002</td> <td>OCM abrt thrst</td> </tr> <tr> <td>AcmsH DF86 Cmd</td> <td>AH8G1002</td> <td>(Def)</td> </tr> <tr> <td>AcmsH DD86 Cmd</td> <td>AH8G2002</td> <td>Enable 86</td> </tr> <tr> <td></td> <td></td> <td>Enable 86</td> </tr> </table> TC Control Flags : <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="width: 30%; text-align: right;">GBM IL DSE</td> <td style="width: 40%;"></td> </tr> <tr> <td></td> <td style="text-align: right;">--Y -- ---</td> <td></td> </tr> </table> Subsch. ID : 20 Det. descr. : TC_ABORT_CURRENT_DELTAV	ASW Function ID	AHFUN002	ACMSMain (Def)	AcmsH AID Cmd	AHHF0002	OCM abrt thrst	AcmsH DF86 Cmd	AH8G1002	(Def)	AcmsH DD86 Cmd	AH8G2002	Enable 86			Enable 86		GBM IL DSE			--Y -- ---		ACAZ1002	
ASW Function ID	AHFUN002	ACMSMain (Def)																							
AcmsH AID Cmd	AHHF0002	OCM abrt thrst																							
AcmsH DF86 Cmd	AH8G1002	(Def)																							
AcmsH DD86 Cmd	AH8G2002	Enable 86																							
		Enable 86																							
	GBM IL DSE																								
	--Y -- ---																								
TC Seq. Name : NULLSEQ01 (Null Sequence 01) TimeTag Type: Sub Schedule ID: <input type="checkbox"/>																									
2		WAIT SOM uplink authorization		Next Step: 3																					
		***** WARNING ***** Authorisation for uplinking this TC will be provided by the SOM over the voice loop. NOTE: Delta-V abort criteria will be determined by Flight Dynamics and Industry.																							
		<u>IF:</u> <u>Authorisation is not given after the Delta-V has completed execution</u> <u>THEN:</u> <u>Remove the TC from the Manual Stack</u>																							

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
3		<i>Uplink Delta-V Abort TC</i>		Next Step: 4
		<i>Uplink the Delta-V Abort TC from the Manual Stack</i>		
4		<i>Verify Delta-V has been aborted</i>		Next Step: END
		Verify Telemetry AcmsMain AID AESM3002	= OCM abrt thrst	AND=ZAA01999
		CHECK that the ACMS returns to a stable pointing mode		
		Verify Telemetry AcmsMain AID AESM3002	= OCM pnt coarse	AND=ZAA01999
		***** WARNING ***** If ACMS returns in "OCM Fine Point", execute procedure H_CRP_AOC_5F2C as soon as possible. NOTE: Any prolonged duration in this mode will result in an unacceptably large use of propellant		
End of Procedure				