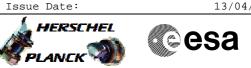Configuration of SIR and CIR relay
File: H_CRP_DHS_3013.xls
Author: S. Manganelli

Procedure Summary

Objectives

This procedure describes the steps needed to manage the SIR
(Satellite In Reconfiguration) and CIR (CDMU In Reconfiguration)
relays.

Summary of Constraints

*** If these relay are set by Ground there will be an ACMS
reconfiguration ***
In fact these relays are set by the CDMU RM (after the detection
of a CDMS level 4 or 3 alarm) and are checked by the CDMU ASW
only during the initialisation phase (when both RM logs cannot be
correctly retrieved and analysed to identify the reason for last
start-up) and then reset after the execution of several
operations.

Their status is reported externally to ACC through the SIR and
the CIR signals and routed towards the CDMU I/O boards

Upon reception of SIR signal, the ACC ASW enters the ACMS into
Sun Acquisition Mode (SAM) or remains in Survival Mode (SM) if
already in SM.

Upon reception of CIR signal, the ACMS ASW:
- put the spacecraft in a programmed Earth pointing attitude
store on-board, if before the failure the S/C is either in
Nominal Mode (NM) or in Earth pointing attitude;
- no actions are performed if ACMS is in SAM or in SM.

Spacecraft Configuration

Start of Procedure

Any

End of Procedure

ACC in SAM or SM (SIR)
Earth Pointing if ACC not in SAM or SM (CIR)
CDMU shall react to AIR from ACC as per MOT / EAT

Reference File(s)

Input Command Sequences
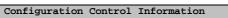
Output Command Sequences

HRD3013C
HRD3013D
HRD3013F
HRD3013G

Referenced Displays

ANDs	GRDs	SLDs
ZAD01999		

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Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
02/12/08	2	1	Created	S. Manganelli	

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Procedure Flowchart Overview

Configuration of SIR and CIR relay
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Beginning of Procedure		
		TC Seq. Name :HRD3013A (Dummy sequence) TimeTag Type: Sub Schedule ID:		
1		Acquire SIR and CIR relay status		Next Step: 2
		Verify Telemetry **SIR_N** **DEK28160**		AND=ZAD01999
		Verify Telemetry **CIR_N** **DEK18160**		AND=ZAD01999
2		Choose if set or reset a relay		Next Step: 3
3		SWITCH		Next Step: SET 4 RESET 10
		TC Seq. Name :HRD3013B (Dummy sequence) TimeTag Type: Sub Schedule ID:		
4		Choose SIR or CIR relay		Next Step: 5
5		SWITCH		Next Step: SIR 6 CIR 8
		TC Seq. Name :HRD3013C (Set SIR relay) TimeTag Type: Sub Schedule ID:		
6		Set SIR relay		Next Step: 7

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch

		Execute Telecommand
		
		                    Set_SIR_Relay
		
		TC Control Flags :
		
		                    GBM IL DSE
		                    --Y -- ---
		Subsch. ID : 10
		Det. descr. : Set SIR Relay - High Priority Standard
			DCA19170	

7		Verify that SIR relay has been set		Next Step: END
		Verify Telemetry SIR_N DEK28160	= In progress	AND=ZAD01999
		TC Seq. Name :HRD3013D (Set CIR relay) TimeTag Type: Sub Schedule ID:		
8		Set CIR relay		Next Step: 9

		Execute Telecommand
		
		                    Set_CIR_Relay
		
		TC Control Flags :
		
		                    GBM IL DSE
		                    --Y -- ---
		Subsch. ID : 10
		Det. descr. : Set CIR Relay - High Priority Standard
			DCA20170	

9		Verify that CIR relay has been set		Next Step: END
		Verify Telemetry CIR_N DEK18160	= In progress	AND=ZAD01999
		TC Seq. Name :HRD3013E (Dummy sequence) TimeTag Type: Sub Schedule ID:		
10		Choose SIR or CIR relay		Next Step: 11
11		SWITCH		Next Step: SIR 12 CIR 14

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		TC Seq. Name :HRD3013F (Reset SIR relay) *TimeTag Type:* *Sub Schedule ID:*		
12		*Reset SIR relay*		Next Step: 13
		Execute Telecommand **Reset_SIR_Relay** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Reset SIR Relay - High Level	**DCH11170**	
13		*Verify that SIR relay has been reset*		Next Step: END
		Verify Telemetry **SIR_N** **DEK28160**	**= No**	AND=ZAD01999
		TC Seq. Name :HRD3013G (Reset CIR relay) *TimeTag Type:* *Sub Schedule ID:*		
14		*Reset CIR relay*		Next Step: 15
		Execute Telecommand **Reset_CIR_Relay** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Reset CIR Relay - High Level	**DCH43170**	
15		*Verify that CIR relay has been reset*		Next Step: END
		Verify Telemetry **CIR_N** **DEK18160**	**= No**	AND=ZAD01999

End of Procedure