

Survival Register maintenance
 File: H_FCP_DHS_3080.xls
 Author: S. Manganelli



Procedure Summary

Objectives

This procedure describes the steps needed to read/write the selected Survival Register.

Summary of Constraints

To write the Survival Register the relevant RM has to be disabled.

The SR is read/written through ASW TC(8,4,109,6/7) thus the status of the ASW function "TTR Management" has to be "running".

Spacecraft Configuration

Start of Procedure

CDMU in default configuration, that is:
 - PM A or B ON (nominally A)
 - TM Encoder/OBT A or B active (nominally A)
 - RM A and B enabled
 - MM A and B ON

End of Procedure

CDMU in default configuration, that is:
 - PM A or B ON (nominally A)
 - TM Encoder/OBT A or B active (nominally A)
 - RM A and B enabled
 - MM A and B ON

Reference File(s)

Input Command Sequences

Output Command Sequences

HFD3080A
 HFD3080B
 HFD3080C

Referenced Displays

ANDs **GRDs** **SLDs**
 ZAZAI999

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
10/01/08		1	Created	cmevi-hp	
24/01/08	1	2	Batch update of TC flags	S. Manganelli	
28/11/08		3	Following Industry inputs 15 oct 08, plus added info sheet	S. Manganelli	
10/01/09	2	4	Updated following OBSW 3_8	S. Manganelli	
15/03/09	2.2	5	Fixed MOIS FP bug	S. Manganelli	

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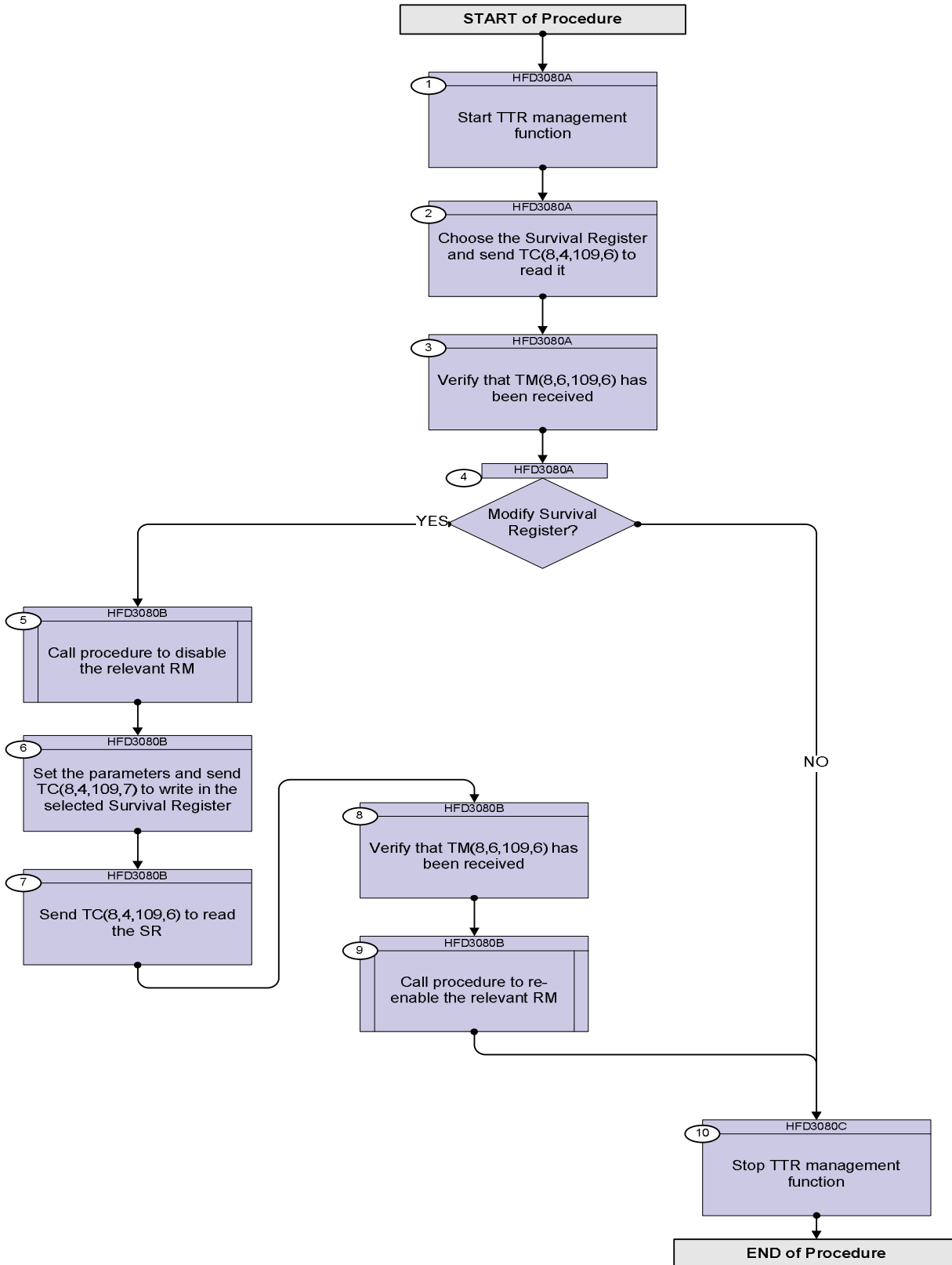


19/04/09	2.3	6	Added steps to enable and disable the TTR function	S. Manganelli	
04/05/09	2.4	7	Made common last step to disable TTR management as per TAS I inputs	S. Manganelli	

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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 :HFD3080A (Read Survival Regist)				
TimeTag Type: N Sub Schedule ID: Formal Parameter List : RmId RM_ID=1 1 <dec>				
1		Start TTR management function		Next Step: 2
		Verify Telemetry TtrSts DEL17170	= Stopped	AND=ZAZAI999
		If the TTR Management function is already running go to next step.		
		Execute Telecommand StartTtrManag TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : Start Ttr Management TC(8,1,109)	DCN06170	
		Verify Telemetry TtrSts DEL17170	= Running	AND=ZAZAI999
2		Choose the Survival Register and send TC(8,4,109,6) to read it		Next Step: 3
		Execute Telecommand ReadSurvContxt Command Parameter(s) : RmId DH093170 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : TEMPLATE Read Survival Context TC(8,4,109,6)	DCT60170 RM_ID	
3		Verify that TM(8,6,109,6) has been received		Next Step: 4
		Verify Packet Reception TM 8-6-109-6 TTR Management - Survival Context Report Packet Details: APID: 16 Type: 8 Subtype: 6 PI1: 27910 PI2: 0	SurvCntxRpt	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Telemetry (Pkt = SurvCntxRpt) Function_ID DE008170	= TTR_Manag	(None)
		Verify Packet Telemetry (Pkt = SurvCntxRpt) TtrManRptActId DE368170	= SurvCntxRpt	(None)
		Verify Packet Telemetry (Pkt = SurvCntxRpt) RmId DE283170	= RM_ID	(None)
		Default value: TTR B, PCDU TM/TC B, RFDN SW4,3,2 B, RFDN SW1 A, ie LGA1 - RX2 and LGA2 – RX1 , TWTA, RX, TX 2 Note: the SC forced separation status is set by Ground as soon as the separation has taken place.		
		Before Separation, verify Packet Telemetry (Pkt = SurvCntxRpt) SurvBits1 DE343170	= 000202F7 <hex>	
		After Separation and Ground update, verify Packet Telemetry (Pkt = SurvCntxRpt) SurvBits1 DE343170	= 000303F7 <hex>	
		Default value: SC bus B		
		Verify Packet Telemetry Initial value (Pkt = SurvCntxRpt) SurvBits2 DE344170	= F70101 <hex>	(None)
4		Modify Survival Register?		Next Step: YES 5 NO 10
<p>TC Seq. Name :HFD3080B (Write Survival Regis)</p> <p>TimeTag Type: N Sub Schedule ID: Formal Parameter List : RmId RM_ID=RM_A RM_A SurvBits1 SURVBIT1= <hex> SurvBits2 SURVBIT2= <hex></p>				
5		Call procedure to disable the relevant RM		Next Step: 6
		In the called procedure, choose "DISABLE" and then the relevant RM.		
		Execute procedure H_CRP_DHS_3011.		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch																
6		Set the parameters and send TC(8,4,109,7) to write in the selected Survival Register		Next Step: 7																
		Execute Telecommand <p style="text-align: right;">WriteSurvContxt</p> Command Parameter(s) : <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">RmId</td> <td>DH093170</td> <td style="padding-right: 20px;">RM_ID</td> <td></td> </tr> <tr> <td>SurvBits1</td> <td>DH100170</td> <td>SURVBIT1</td> <td></td> </tr> <tr> <td>SurvBits2</td> <td>DH101170</td> <td>SURVBIT2</td> <td></td> </tr> </table> TC Control Flags : <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">GBM IL DSE</td> <td></td> </tr> <tr> <td>--Y --</td> <td>---</td> </tr> </table> Subsch. ID : 10 Det. descr. : TEMPLATE Write Survival Context TC(8,4,109,7)	RmId	DH093170	RM_ID		SurvBits1	DH100170	SURVBIT1		SurvBits2	DH101170	SURVBIT2		GBM IL DSE		--Y --	---	DCT61170	
RmId	DH093170	RM_ID																		
SurvBits1	DH100170	SURVBIT1																		
SurvBits2	DH101170	SURVBIT2																		
GBM IL DSE																				
--Y --	---																			
7		Send TC(8,4,109,6) to read the SR		Next Step: 8																
		Execute Telecommand <p style="text-align: right;">ReadSurvContxt</p> Command Parameter(s) : <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">RmId</td> <td>DH093170</td> <td style="padding-right: 20px;">RM_ID</td> <td></td> </tr> </table> TC Control Flags : <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">GBM IL DSE</td> <td></td> </tr> <tr> <td>--Y --</td> <td>---</td> </tr> </table> Subsch. ID : 10 Det. descr. : TEMPLATE Read Survival Context TC(8,4,109,6)	RmId	DH093170	RM_ID		GBM IL DSE		--Y --	---	DCT60170									
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8		Verify that TM(8,6,109,6) has been received		Next Step: 9																
		Verify Packet Reception TM 8-6-109-6 TTR Management - Survival Context Report Packet Details: <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">APID:</td> <td>16</td> </tr> <tr> <td>Type:</td> <td>8</td> </tr> <tr> <td>Subtype:</td> <td>6</td> </tr> <tr> <td>PI1:</td> <td>27910</td> </tr> <tr> <td>PI2:</td> <td>0</td> </tr> </table>	APID:	16	Type:	8	Subtype:	6	PI1:	27910	PI2:	0	SurvCntxRpt							
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		Verify Packet Telemetry (Pkt = SurvCntxRpt) <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">SurvBits1</td> <td>DE343170</td> <td style="padding-right: 20px;">= SURVBIT1</td> <td>(None)</td> </tr> </table>	SurvBits1	DE343170	= SURVBIT1	(None)														
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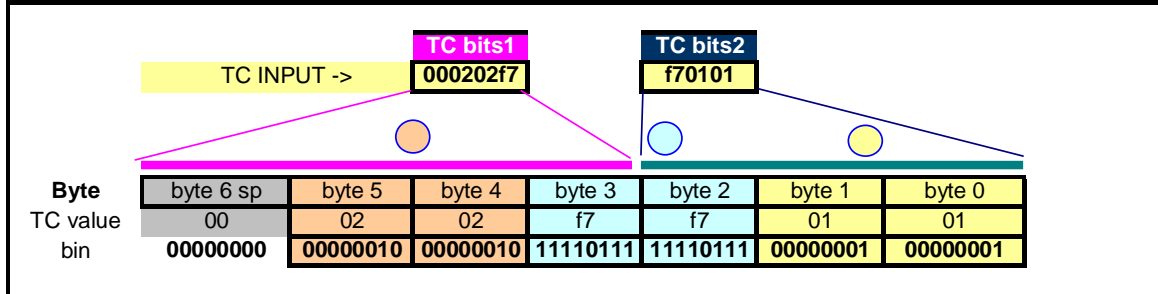
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Telemetry (Pkt = SurvCntxRpt) SurvBits2 DE344170	= SURVBIT2	(None)
9		Call procedure to re-enable the relevant RM		Next Step: 10
		In the called procedure, choose "ENABLE" and then the relevant RM.		
		Execute procedure H_CRP_DHS_3011.		
<p>TC Seq. Name :HFD3080C (Stop TTRman)</p> <p>TimeTag Type: Sub Schedule ID: <input type="checkbox"/></p>				
10		Stop TTR management function		Next Step: END
		Verify Telemetry TtrSts DEL17170	= Running	AND=ZAZAI999
		If the TTR Management function is already stopped go to next step.		
		Execute Telecommand StopTtrManag TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : Stop Ttr Management TC(8,2,109)	DCN07170	
		Verify Telemetry TtrSts DEL17170	= Stopped	AND=ZAZAI999
End of Procedure				

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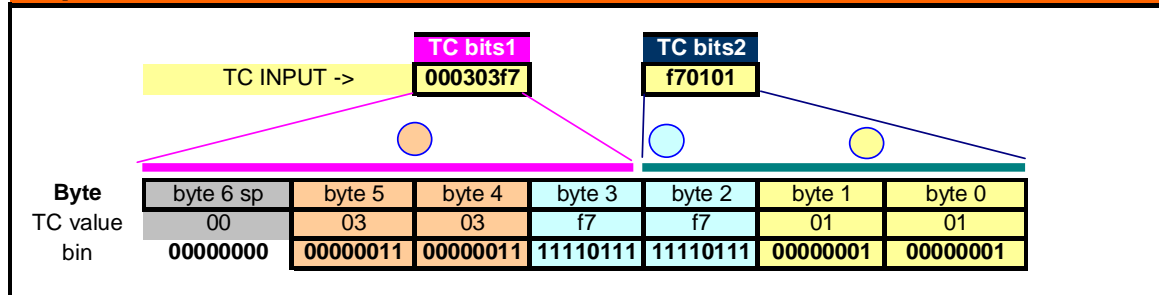
Not Separated



DECODED OUTPUT ->

Act TTR=B	Act TTR=B	PTMTC=B	PTMTC=B	1553bus=B	1553bus=B
Not Sep	Not Sep	SW4=B	SW4=B		
		SW3=B	SW3=B		
		SW2=B	SW2=B		
		SW1=A	SW1=A		
		TWT=2	TWT=2		
		RX=2	RX=2		
		TX=2	TX=2		

Separated



DECODED OUTPUT ->

Act TTR=B	Act TTR=B	PTMTC=B	PTMTC=B	1553bus=B	1553bus=B
Force sep	Force sep	SW4=B	SW4=B		
		SW3=B	SW3=B		
		SW2=B	SW2=B		
		SW1=A	SW1=A		
		TWT=2	TWT=2		
		RX=2	RX=2		
		TX=2	TX=2		