Recovery after MM B failure
File: H_CRP_DHS_3072.xls
Author: S. Manganelli

Procedure Summary

Objectives

This procedure describes the steps needed to recovery the MM A after a failure following the BSW event listed below:
- "MM B COCOS SPW Channel stopped prematurely";
- "MM B COCOS Access failure".

Summary of Constraints

To recover from a MM B failure it is necessary to:
- stop the MTL function and perform the S/C transition to Earth Acquisition mode;
- switch OFF and then ON the MM B and its banks setting as "Healthy"/"Enabled" the components previously marked as "Unhealthy"/"Disabled" in the Health table;
- put the MM B in line with the MM A from a packet stores point of view;
- stop the OBCP function;
- mark MM B MTL and OBCP buffer as "Not failed" in Unit In Use (UIU) table;
- restart the MTL and OBCP functions.

After the execution of this procedure, Ground has to reload on both the MMs the OBCPs and the MTL; in fact OBCP and MTL re-init is performed on both the MMs.

It is highlighted that the FDIR recoveries related to OBCPs have to be disabled in the Event Action Table before re-upload the OBCPs (see H-P-1-ASP-TN-1072).

Spacecraft Configuration

Start of Procedure

MM B MTL and OBCP buffers marked as "Failed" in UIU table and relevant components marked as "Unhealthy"/"Disabled" in Health table.

End of Procedure

MM B MTL and OBCP buffers marked as "Not failed" in UIU table and relevant components marked as "Healthy"/"Enabled" in Health table.

Reference File(s)

Input Command Sequences

Output Command Sequences

HRD3072A
HRD3072C
HRD3072G

Referenced Displays

ANDs **GRDs** **SLDs**

ZAZAB999
ZAZAC999
ZAD22999
ZAZAF999
ZAZAD999
ZAZAQ999
ZAZAI999
ZAZAM999
ZAD19999

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
29/11/08		1	Created	S. Manganelli	
12/01/09	2	2	Updated following OBSW 3_8	S. Manganelli	
20/03/09	2.2	3	Procedure updated according to HSVT3 and inputs received from TAS-I on 03/03/2009	S. Manganelli	
04/05/09	2.4	4	Comment on wait time before MM switch on added at step 6	S. Manganelli	

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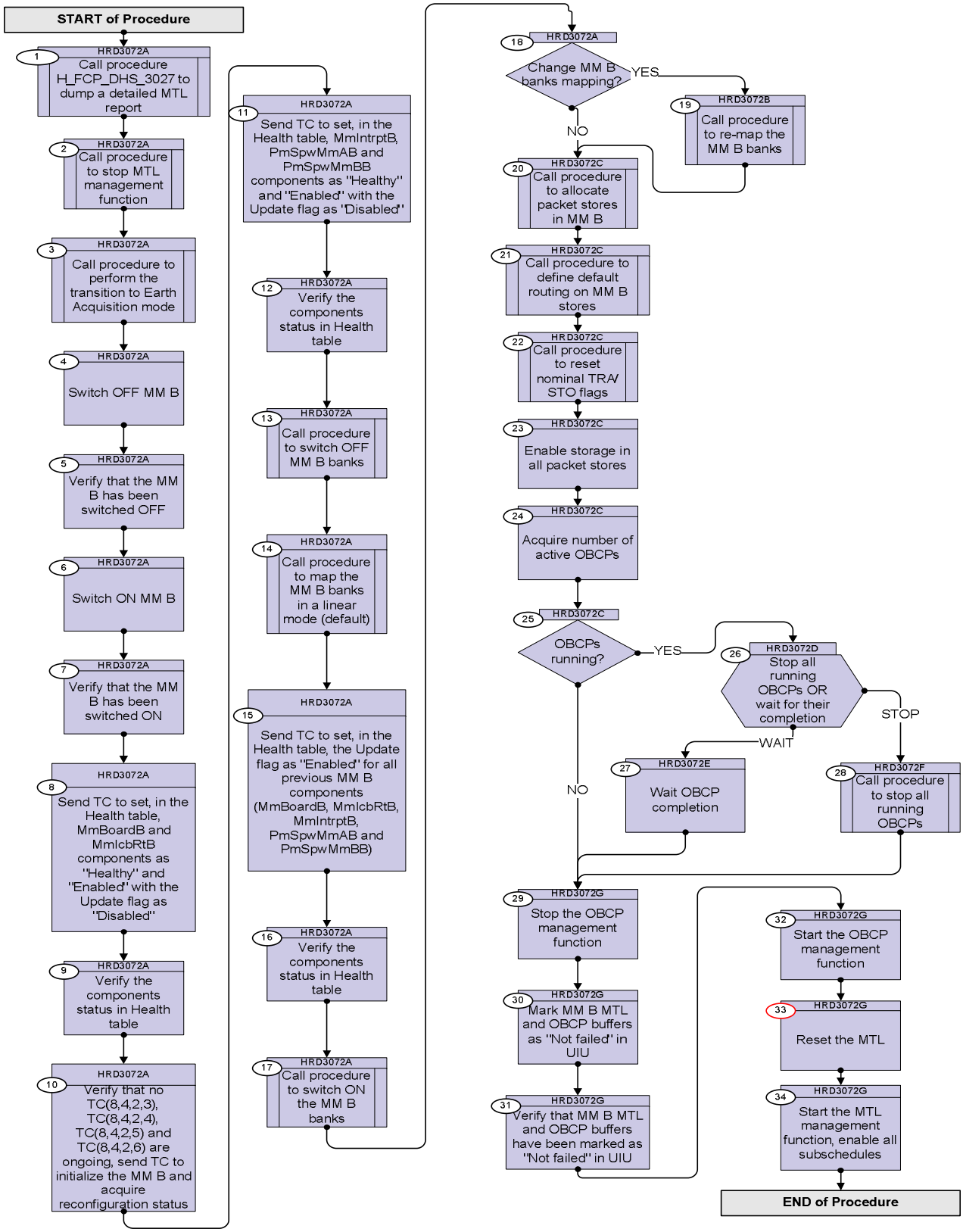
Procedure Flowchart Overview



Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Beginning of Procedure		
		TC Seq. Name :HRD3072A (SSMMB reinitialization) *TimeTag Type:* *Sub Schedule ID:*		
1		*Call procedure H_FCP_DHS_3027 to dump a detailed MTL report*		Next Step: 2
2		*Call procedure to stop MTL management function* Execute Procedure: **H_FCP_DHS_3025** **Starting or stopping the MTL function**		Next Step: 3
3		*Call procedure to perform the transition to Earth Acquisition mode* Execute Procedure: **H_FCP_DHS_4005** **S/C Mode transition from Nominal to Earth Acquisition**		Next Step: 4
4		*Switch OFF MM B*		Next Step: 5
		Execute Telecommand **MM_B_off** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : MM B off - High Priority Standard	**DCA70170**	
5		*Verify that the MM B has been switched OFF*		Next Step: 6
		Verify Telemetry **MMstsB_fromTTRA** **DEEDZ160**	**= OFF**	AND=ZAZAB999
		Verify Telemetry **MMstsB_fromTTRB** **DEEDJ160**	**= OFF**	AND=ZAZAB999
6		*Switch ON MM B*		Next Step: 7

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		WARNING: if a MM ON command is sent earlier than T seconds after the same MM board has been switched OFF, the on-board current limiters may immediately switch off again. No permanent damage will however occur. The time T depends on the MM temperature as follows : Temp (°C) Time (sec.) -30 22260.00 0 2700.00 25 258.00 40 72.00 65 10.98 In the worst case (-30 degrees C) we should wait about 6 hours and a half. Apparently there is no direct reading of such temperature on the MM board so industry will have to give us an indication.		
		Execute Telecommand **MM_B_on-MM_B_Reset** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : MM B on / MM B Reset - High Priority Standard	**DCA69170**	
7		*Verify that the MM B has been switched ON*		Next Step: 8
		Verify Telemetry **MMstsB_fromTTRA** **DEEDZ160**	**= ON**	AND=ZAZAB999
		Verify Telemetry **MMstsB_fromTTRB** **DEEDJ160**	**= ON**	AND=ZAZAB999
8		*Send TC to set, in the Health table, MmBoardB and MmIcbRtB components as "Healthy" and "Enabled" with the Update flag as "Disabled"*		Next Step: 9

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		In the TC(8,4,10,3) it is necessary to set the following parameters: **N: number of components for which the health tables shall be updated.** **In this case it has to be set to 2.** **Parameters repeated N times:** **COMP: component for which the Health table shall be updated.** **In this case the components to be modified are the following:** **- MmBoardB** **- MmIcbRtB** **Notice that the previous order must not be changed.**		
		Mask for "Component Health" flag: **0=Ignore Flag; 1=Update the status.** **Mask for "Component enable/disable status" flag:** **0=Ignore Flag; 1=Update the status.** **Mask for "Health and Status Update" flag:** **0=Ignore Flag; 1=Update the status.** **In this case, these 3 flags have to be set to 1**		
		Component Health: **0=Unhealthy; 1=Healthy.** **In this case, it has to be set to 1** **Component enable/disable status:** **0=Disabled; 1=Enabled.** **In this case, it has to be set to 1** **Health and Status Update:** **0=Disabled; 1=Enabled.** **In this case, it has to be set to 0**		
		Execute Telecommand **UpdateHealthTable** *Command Parameter(s) :* **N DH014160** **COMP DH100160** **M0 DH055160** **M1 DH056160** **M2 DH057160** **F0 DH015160** **F1 DH016160** **F2 DH017160** **COMP DH100160** **M0 DH055160** **M1 DH056160**	**DC822160** **2 <dec>** **MMBoardB** **Update Status** **Update Status** **Update Status** **Healthy** **ENABLED** **DISABLED** **MMIcbRtB** **Update Status** **Update Status**	

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		M2 DH057160 Update Status **F0 DH015160 Healthy** **F1 DH016160 ENABLED** **F2 DH017160 DISABLED** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Update Health Table		
9		*Verify the components status in Health table*		Next Step: 10
		Verify Telemetry **MmBrdB_UpdateEn DEJM4160**	**= DISABLED**	AND=ZAZAC999
		Verify Telemetry **MmBrdB_Enabled DEJM5160**	**= ENABLED**	AND=ZAZAC999
		Verify Telemetry **MmBrdB_Healthy DEJM6160**	**= Healthy**	AND=ZAZAC999
		Verify Telemetry **MmIcbB_UpdateEn DEJN4160**	**= DISABLED**	AND=ZAZAC999
		Verify Telemetry **MmIcbB_Enabled DEJN5160**	**= ENABLED**	AND=ZAZAC999
		Verify Telemetry **MmIcbB_Healthy DEJN6160**	**= Healthy**	AND=ZAZAC999
10		*Verify that no TC(8,4,2,3), TC(8,4,2,4), TC(8,4,2,5) and TC(8,4,2,6) are ongoing, send TC to initialize the MM B and acquire reconfiguration status*		Next Step: 11
		Verify Telemetry **TC_8-4-2-3_x DEE0J161**	**= FALSE**	AND=ZAD22999
		Verify Telemetry **TC_8-4-2-4_x DEE0K161**	**= FALSE**	AND=ZAD22999
		Verify Telemetry **TC_8-4-2-5_x DEE0L161**	**= FALSE**	AND=ZAD22999
		Verify Telemetry **TC_8-4-2-6_x DEE0M161**	**= FALSE**	AND=ZAD22999

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand **InitMassMemory** *Command Parameter(s) :* **EQU DH025160** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Initialize Mass Memory	**DC806160** **MM B**	
		Note that the parameter can have the following values during the reconfiguration: **- 1 = Started** **- 2 = Init COCOS** **- 3 = Remap banks** **- 4 = Power switching** **- 5 = SDRAM init** **- 6 = Clear NUT area** **- 7 = Clear banks** **When the reconfiguration is completed it should be set to 0, ie No Cfg Ongoing**		
		Verify Telemetry **BSW_MM_B_CfgSts DEL30160**	**= NoCfgOngoing**	AND=ZAZAF999
11		*Send TC to set, in the Health table, MmIntrptB, PmSpwMmAB and PmSpwMmBB components as "Healthy" and "Enabled" with the Update flag as "Disabled"*		Next Step: 12
		In the TC(8,4,10,3) it is necessary to set the following parameters: **<u>N:</u> number of components for which the health tables shall be updated.** **In this case it has to be set to 3.** **Parameters repeated N times:** **<u>COMP:</u> component for which the Health table shall be updated.** **In this case the components to be modified are the following:** **- MmIntrptB** **- PmSpwMmAB** **- PmSpwMmBB** **Notice that the previous order must not be changed.**		

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Mask for "Component Health" flag: **0=Ignore Flag; 1=Update the status.** **Mask for "Component enable/disable status" flag:** **0=Ignore Flag; 1=Update the status.** **Mask for "Health and Status Update" flag:** **0=Ignore Flag; 1=Update the status.** **In this case, these 3 flags have to be set to 1**		
		Component Health: **0=Unhealthy; 1=Healthy.** **In this case, it has to be set to 1** **Component enable/disable status:** **0=Disabled; 1=Enabled.** **In this case, it has to be set to 1** **Health and Status Update:** **0=Disabled; 1=Enabled.** **In this case, it has to be set to 0**		
		Execute Telecommand **UpdateHealthTable** *Command Parameter(s) :* **N DH014160** **COMP DH100160** **M0 DH055160** **M1 DH056160** **M2 DH057160** **F0 DH015160** **F1 DH016160** **F2 DH017160** **COMP DH100160** **M0 DH055160** **M1 DH056160**	**DC822160** **3 <dec>** **MMIntrptB** **Update Status** **Update Status** **Update Status** **Healthy** **ENABLED** **DISABLED** **PmSpwMmAB** **Update Status** **Update Status**	
		M2 DH057160 **F0 DH015160** **F1 DH016160** **F2 DH017160** **COMP DH100160** **M0 DH055160** **M1 DH056160** **M2 DH057160** **F0 DH015160** **F1 DH016160** **F2 DH017160** *TC Control Flags :* **GBM IL DSE** **--Y -- ---**	**Update Status** **Healthy** **ENABLED** **DISABLED** **PmSpwMmBB** **Update Status** **Update Status** **Update Status** **Healthy** **ENABLED** **DISABLED**	
		Subsch. ID : 10 Det. descr. : Update Health Table		
12		*Verify the components status in Health table*		Next Step: 13

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry **MmBrdB_UpdateEn DEJM4160**	**= DISABLED**	AND=ZAZAC999
		Verify Telemetry **MmBrdB_Enabled DEJM5160**	**= ENABLED**	AND=ZAZAC999
		Verify Telemetry **MmBrdB_Healthy DEJM6160**	**= Healthy**	AND=ZAZAC999
		Verify Telemetry **MmIcbB_UpdateEn DEJN4160**	**= DISABLED**	AND=ZAZAC999
		Verify Telemetry **MmIcbB_Enabled DEJN5160**	**= ENABLED**	AND=ZAZAC999
		Verify Telemetry **MmIcbB_Healthy DEJN6160**	**= Healthy**	AND=ZAZAC999
		Verify Telemetry **MmIntB_UpdateEn DEJMJ160**	**= DISABLED**	AND=ZAZAC999
		Verify Telemetry **MmIntB_Enabled DEJMK160**	**= ENABLED**	AND=ZAZAC999
		Verify Telemetry **MmIntB_Healthy DEJML160**	**= Healthy**	AND=ZAZAC999
		Verify Telemetry **PmSpwMmAB_UpdE DEJS4160**	**= DISABLED**	AND=ZAZAD999
		Verify Telemetry **PmSpwMmAB_Enab DEJS5160**	**= ENABLED**	AND=ZAZAD999
		Verify Telemetry **PmSpwMmAB_Hlth DEJS6160**	**= Healthy**	AND=ZAZAD999
		Verify Telemetry **PmSpwMmBB_UpdE DEJSJ160**	**= DISABLED**	AND=ZAZAD999
		Verify Telemetry **PmSpwMmBB_Enab DEJSK160**	**= ENABLED**	AND=ZAZAD999
		Verify Telemetry **PmSpwMmBB_Hlth DEJSL160**	**= Healthy**	AND=ZAZAD999
		Verify Packet Reception **CdmuBsw Event 5-1 PM COCOS SPW D Reconnected** **D_EvRp_483** *Packet Details:* **APID: 16** **Type: 5** **Subtype: 1** **PI1: 83** **PI2: 83**		
13		*Call procedure to switch OFF MM B banks*		Next Step: 14
		WARNING: **It is necessary to power OFF all banks, thus the following procedure must be executed 4 times**		

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Procedure: **H_FCP_DHS_3017** **Switching a MM bank ON or OFF**		
14		*Call procedure to map the MM B banks in a linear mode (default)* Execute Procedure: **H_FCP_DHS_3016** **Map a MM ID to a MM bank** *Parameters:* MM EQU 0<dec> POS0 BNK0 0<dec> POS1 BNK1 1<dec> POS2 BNK2 2<dec> POS3 BNK3 3<dec>		Next Step: 15
15		*Send TC to set, in the Health table, the Update flag as "Enabled" for all previous MM B components (MmBoardB, MmIcbRtB, MmIntrptB, PmSpwMmAB and PmSpwMmBB)*		Next Step: 16
		In the TC(8,4,10,3) it is necessary to set the following parameters: **N: number of components for which the health tables shall be updated.** **In this case it has to be set to 5.** **Parameters repeated N times:** **COMP: component for which the Health table shall be updated.** **In this case the components to be modified are the following:** **- MmBoardB** **- MmIcbRtB** **- MmIntrptB** **- PmSpwMmAB** **- PmSpwMmBB** **Notice that the previous order must not be changed.**		
		Mask for "Component Health" flag: **0=Ignore Flag; 1=Update the status.** **In this case, it has to be set to 0** **Mask for "Component enable/disable status" flag:** **0=Ignore Flag; 1=Update the status.** **In this case, it has to be set to 0** **Mask for "Health and Status Update" flag:** **0=Ignore Flag; 1=Update the status.** **In this case, it has to be set to 1**		

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Component Health: **0=Unhealthy; 1=Healthy.** **"Don't care" in this case** **Component enable/disable status:** **0=Disabled; 1=Enabled.** **"Don't care" in this case** **Health and Status Update:** **0=Disabled; 1=Enabled.** **In this case, it has to be set to 1**		
		Execute Telecommand **UpdateHealthTable** *Command Parameter(s) :* **N DH014160 5 <dec>** **COMP DH100160 MMBoardB** **M0 DH055160 Ignore Flag** **M1 DH056160 Ignore Flag** **M2 DH057160 Update Status** **F0 DH015160 Healthy** **F1 DH016160 ENABLED** **F2 DH017160 ENABLED** **COMP DH100160 MMIcbRtB** **M0 DH055160 Ignore Flag** **M1 DH056160 Ignore Flag**	**DC822160**	
		M2 DH057160 Update Status **F0 DH015160 Healthy** **F1 DH016160 ENABLED** **F2 DH017160 ENABLED** **COMP DH100160 MMIntrptB** **M0 DH055160 Ignore Flag** **M1 DH056160 Ignore Flag** **M2 DH057160 Update Status** **F0 DH015160 Healthy** **F1 DH016160 ENABLED** **F2 DH017160 ENABLED** **COMP DH100160 PmSpwMmAB** **M0 DH055160 Ignore Flag** **M1 DH056160 Ignore Flag** **M2 DH057160 Update Status**		
		F0 DH015160 Healthy **F1 DH016160 ENABLED** **F2 DH017160 ENABLED** **COMP DH100160 PmSpwMmBB** **M0 DH055160 Ignore Flag** **M1 DH056160 Ignore Flag** **M2 DH057160 Update Status** **F0 DH015160 Healthy** **F1 DH016160 ENABLED** **F2 DH017160 ENABLED** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10*		
		Det. descr. : Update Health Table		

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
16		*Verify the components status in Health table*		Next Step: 17
		Verify Telemetry **MmBrdB_UpdateEn DEJM4160**	**= ENABLED**	AND=ZAZAC999
		Verify Telemetry **MmBrdB_Enabled DEJM5160**	**= ENABLED**	AND=ZAZAC999
		Verify Telemetry **MmBrdB_Healthy DEJM6160**	**= Healthy**	AND=ZAZAC999
		Verify Telemetry **MmIcbB_UpdateEn DEJN4160**	**= ENABLED**	AND=ZAZAC999
		Verify Telemetry **MmIcbB_Enabled DEJN5160**	**= ENABLED**	AND=ZAZAC999
		Verify Telemetry **MmIcbB_Healthy DEJN6160**	**= Healthy**	AND=ZAZAC999
		Verify Telemetry **MmIntB_UpdateEn DEJMJ160**	**= ENABLED**	AND=ZAZAC999
		Verify Telemetry **MmIntB_Enabled DEJMK160**	**= ENABLED**	AND=ZAZAC999
		Verify Telemetry **MmIntB_Healthy DEJML160**	**= Healthy**	AND=ZAZAC999
		Verify Telemetry **PmSpwMmAB_UpdE DEJS4160**	**= ENABLED**	AND=ZAZAD999
		Verify Telemetry **PmSpwMmAB_Enab DEJS5160**	**= ENABLED**	AND=ZAZAD999
		Verify Telemetry **PmSpwMmAB_Hlth DEJS6160**	**= Healthy**	AND=ZAZAD999
		Verify Telemetry **PmSpwMmBB_UpdE DEJSJ160**	**= ENABLED**	AND=ZAZAD999
		Verify Telemetry **PmSpwMmBB_Enab DEJSK160**	**= ENABLED**	AND=ZAZAD999
		Verify Telemetry **PmSpwMmBB_Hlth DEJSL160**	**= Healthy**	AND=ZAZAD999
17		*Call procedure to switch ON the MM B banks* Execute Procedure: **H_FCP_DHS_1010** **MM Banks 0, 1, 2 and 3 power ON.**		Next Step: 18

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
18		*Change MM B banks mapping?*		Next Step: YES 19 NO 20
		TC Seq. Name :HRD3072B (Re-map MMB banks) *TimeTag Type: N* *Sub Schedule ID:* □		
19		*Call procedure to re-map the MM B banks*		Next Step: 20
		Execute Procedure: **H_FCP_DHS_3016** **Map a MM ID to a MM bank**		
		TC Seq. Name :HRD3072C (Set default properties) *TimeTag Type:* *Sub Schedule ID:* □		
20		*Call procedure to allocate packet stores in MM B*		Next Step: 21
		Execute Procedure: **H_FCP_DHS_1005** **Define the standard packet stores on SSMM A and B (4 banks)**		
21		*Call procedure to define default routing on MM B stores*		Next Step: 22
		Execute Procedure: **H_FCP_DHS_1004** **Nominal TM Pkt to Store Routing**		
22		*Call procedure to reset nominal TRA/STO flags*		Next Step: 23
		Execute Procedure: **H_FCP_DHS_1003** **Nominal TRANSMIT/STORAGE settings**		

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
23		*Enable storage in all packet stores*		Next Step: 24
		Execute Telecommand **EnStorageAllPktStore** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Enable Storage in All Packet Stores	**DC151160**	
24		*Acquire number of active OBCPs*		Next Step: 25
		Verify Telemetry **ObcpActiveCnt** **DE83B170**		AND=ZAZAQ999
25		*OBCPs running?*		Next Step: NO 29 YES 26
		TC Seq. Name :HRD3072D (Dummy sequence) *TimeTag Type:* *Sub Schedule ID:*		
26		*Stop all running OBCPs OR wait for their completion*		Next Step: STOP 28 WAIT 27
		TC Seq. Name :HRD3072E (Dummy sequence) *TimeTag Type:* *Sub Schedule ID:*		
27		*Wait OBCP completion*		Next Step: 29
		WAIT time needed to the completion of the running OBCPs		
		TC Seq. Name :HRD3072F (Stop running OBCPs) *TimeTag Type:* *Sub Schedule ID:*		

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
28		*Call procedure to stop all running OBCPs*		Next Step: 29
		Execute Procedure: **H_FCP_DHS_3042** **Start or stop an OBCP** *Parameters:* OBCP_ID ObcpId as required		
		TC Seq. Name :HRD3072G (Initialize buffers) *TimeTag Type:* *Sub Schedule ID:*		
29		*Stop the OBCP management function*		Next Step: 30
		Execute Telecommand **StopObcpManag** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : Stop Obcp Management TC(8,2,107)	**DCN04170**	
30		*Mark MM B MTL and OBCP buffers as "Not failed" in UIU*		Next Step: 31
		Verify Telemetry **MtlSts** **DEH26170**	**= Stopped**	AND=ZAZAI999
		If the MTL function is not already "Stopped", then stop it using the following (not exported) command		
		Execute Telecommand **StopOnBoardSched** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : StopOnBoardScheduling TC(8,2,105) This Telecommand will not be included in the export	**DC91F170**	

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand **FdirMarkUnitOk_Templ**	**DCT35170**	
		Command Parameter(s) : **FdirUnitAorB** **DH064170**	**MTL_SSMM_B**	
		TC Control Flags : **GBM IL DSE** **--Y -- ---**		
		Subsch. ID : 10 Det. descr. : TEMPLATE Fdir Mark Unit OK TC(8,4,116,22)		
		Execute Telecommand **FdirMarkUnitOk_Templ**	**DCT35170**	
		Command Parameter(s) : **FdirUnitAorB** **DH064170**	**OBCP_SSMM_B**	
		TC Control Flags : **GBM IL DSE** **--Y -- ---**		
		Subsch. ID : 10 Det. descr. : TEMPLATE Fdir Mark Unit OK TC(8,4,116,22)		
31		*Verify that MM B MTL and OBCP buffers have been marked as "Not failed" in UIU*		Next Step: 32
		Verify Telemetry **Mtl2FailSts** **DEH92170**	**= Not_Failed**	AND=ZAZAM999
		Verify Telemetry **Obcp2FailSts** **DEH68170**	**= Not_Failed**	AND=ZAD19999
32		*Start the OBCP management function*		Next Step: 33
		Execute Telecommand **StartObcpManagForce2**	**DCN1D170**	
		TC Control Flags : **GBM IL DSE** **--Y -- ---**		
		Subsch. ID : 10 Det. descr. : Start Obcp Management TC(8,1,107) with ForceRebuild set to 2		
		Verify Packet Reception **CdmuAsw Event 5-4 BSW Problem** **D_EvRp_104**		
		Packet Details: **APID: 16** **Type: 5** **Subtype: 4** **PI1: 30738** **PI2: 0**		
		Verify Packet Telemetry (Pkt = D_EvRp_104)		
		TM5xEventID **DEZSJ170** = **BSW_Problem** (None)		

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Telemetry (Pkt = D_EvRp_104) **Function_ID DE008170 = CommonEvents**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **AswFunct_ID DE248170 = OBCPManag**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **BswSvc DE193170 = Mb_Delete**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **BswRetSts DE180170 = MB_HDL**		(None)
		Verify Packet Reception **CdmuAsw Event 5-4 BSW Problem D_EvRp_104** *Packet Details:* **APID: 16** **Type: 5** **Subtype: 4** **PI1: 30738** **PI2: 0**		
		Verify Packet Telemetry (Pkt = D_EvRp_104) **TM5xEventID DEZSJ170 = BSW_Problem**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **Function_ID DE008170 = CommonEvents**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **AswFunct_ID DE248170 = OBCPManag**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **BswSvc DE193170 = Mb_Delete**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **BswRetSts DE180170 = MB_HDL**		(None)
		Verify Packet Reception **CdmuAsw Event 5-4 BSW Problem D_EvRp_104** *Packet Details:* **APID: 16** **Type: 5** **Subtype: 4** **PI1: 30738** **PI2: 0**		
		Verify Packet Telemetry (Pkt = D_EvRp_104) **TM5xEventID DEZSJ170 = BSW_Problem**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **Function_ID DE008170 = CommonEvents**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **AswFunct_ID DE248170 = OBCPManag**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **BswSvc DE193170 = Mb_Check**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **BswRetSts DE180170 = MB_HDL**		(None)

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Reception **CdmuAsw Event 5-4 BSW Problem** **D_EvRp_104** *Packet Details:* **APID: 16** **Type: 5** **Subtype: 4** **PI1: 30738** **PI2: 0**		
		Verify Packet Telemetry (Pkt = D_EvRp_104) **TM5xEventID DEZSJ170 = BSW_Problem**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **Function_ID DE008170 = CommonEvents**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **AswFunct_ID DE248170 = OBCPManag**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **BswSvc DE193170 = Mb_Check**		(None)
		Verify Packet Telemetry (Pkt = D_EvRp_104) **BswRetSts DE180170 = MB_HDL**		(None)
33		*Reset the MTL*		Next Step: 34
		Execute Telecommand **ResetTcSchedule** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : ResetTcSchedule, TC(11,3), no application data	**DC58F170**	
34		*Start the MTL management function, enable all subschedules*		Next Step: END
		Execute Telecommand **StartOnBoardSched_Rb0Rl1** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : StartOnBoardScheduling TC(8,1,105) + Rebuild = 0 + Release = 1	**DCS0F170**	
		The second TC is uplink interlocked against execution completion of first one		

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Packet Reception **CdmuAsw Event 5-4 MTL Buffer B Deletion Problem** **D_EvRp_377** *Packet Details:* **APID: 16** **Type: 5** **Subtype: 4** **PI1: 26915** **PI2: 0**		
		Execute Telecommand **EnRelOfAllSsIdTcs** **DC75F170** *TC Control Flags :* **GBM IL DSE** **--Y -- ---** *Subsch. ID : 10* Det. descr. : EnableReleaseOfTcs from all subschedules TC(11,1)		
End of Procedure				