

**HERSCHEL
FLIGHT OPERATIONS PLAN**

**VOLUME 7
FCP Related Contingency Flight Control
Procedures**

CDMU CRP's

PT-HMOC-OPS-FOP-6001-OPS-OAH

Issue 3.1

05/09/11



DOCUMENT APPROVAL

The Approval Page for all Volumes of the FOP can be found in Volume 1.



DISTRIBUTION LIST

The Distribution List for all Volumes of the FOP can be found in Volume 1.

CHANGE SUMMARY

Date	FOP Issue	Version	Modification Description	Author	SPR Ref
01/08/2008		1	Created	mvoegele-hp	
04/08/2008		2	Updated for Issue 1.0	mvoegele-hp	
05/08/2008	1.0	3	Changed title	mvoegele-hp	
02/02/2009	2.0	4	Updated change control history for Issue 2.0	mvoegele-hp	
06/03/2009	2.1	5	Updated change control history for Issue 2.1	mvoegele-hp	
26/03/2009	2.2	6	Updated change control history for Issue 2.2	mvoegele-hp	
23/04/2009	2.3	7	Updated change control history for Issue 2.3	mvoegele-hp	
06/05/2009	2.4	8	Updated change history for Issue 2.4	mvoegele-hp	
08/10/2009	2.5	9	Updated change control history for Issue 2.5	dbleakle-hp	
13/04/2010	3.0	10	Updated change control history for issue 3.0	mvoegele-hp	
05/09/2011	3.1	11	Updated change control history for issue 3.1	mvoegele-hp	

CHANGE RECORD SHEET

Change No.	Type of Change	Date of Issue	Section Affected	
1	1.0	06/08/08	All	
			Updated:	
			Added:	C_CRP_OBS_1100, C_CRP_OBS_1102, H_CRP_DHS_1001, H_CRP_DHS_1002, H_CRP_DHS_3001, H_CRP_DHS_3002, H_CRP_DHS_3003, H_CRP_DHS_3004, H_CRP_DHS_3006, H_CRP_DHS_3007, H_CRP_DHS_3011, H_CRP_DHS_3012, H_CRP_DHS_3014, H_CRP_DHS_3015, H_CRP_DHS_3016, H_CRP_DHS_3017, H_CRP_DHS_3018, H_CRP_DHS_3019, H_CRP_DHS_3020, H_CRP_DHS_3022, H_CRP_DHS_3023, H_CRP_DHS_3025, H_CRP_DHS_3044, H_CRP_DHS_3045
Deleted:				
2	2.0	02/02/09	All – Complete re-print for Issue 2.0	
			Updated:	H_CRP_DHS_1001, H_CRP_DHS_1002, H_CRP_DHS_3001, H_CRP_DHS_3002, H_CRP_DHS_3003, H_CRP_DHS_3004, H_CRP_DHS_3011, H_CRP_DHS_3014, H_CRP_DHS_3015, H_CRP_DHS_3016, H_CRP_DHS_3017, H_CRP_DHS_3018, H_CRP_DHS_3019, H_CRP_DHS_3020, H_CRP_DHS_3022, H_CRP_DHS_3023, H_CRP_DHS_3025, H_CRP_DHS_3044, H_CRP_DHS_3045
			Added:	H_CRP_DHS_3005, H_CRP_DHS_3013, H_CRP_DHS_3021, H_CRP_DHS_3024, H_CRP_DHS_3026, H_CRP_DHS_3027, H_CRP_DHS_3028, H_CRP_DHS_3029, H_CRP_DHS_3035, H_CRP_DHS_3036, H_CRP_DHS_3043, H_CRP_DHS_3046, H_CRP_DHS_3049, H_CRP_DHS_3055, H_CRP_DHS_3056, H_CRP_DHS_3057, H_CRP_DHS_3058, H_CRP_DHS_3059, H_CRP_DHS_3060, H_CRP_DHS_3061, H_CRP_DHS_3062, H_CRP_DHS_3063, H_CRP_DHS_3064, H_CRP_DHS_3065, H_CRP_DHS_3066, H_CRP_DHS_3067, H_CRP_DHS_3068, H_CRP_DHS_3069, H_CRP_DHS_3070, H_CRP_DHS_3071, H_CRP_DHS_3072, H_CRP_DHS_ATT_A, H_CRP_DHS_ATT_B, H_CRP_DHS_FCCT, H_CRP_DHS_HKCY, H_CRP_DHS_OBCP, H_CRP_DHS_PAP_A, H_CRP_DHS_PAP_B, H_CRP_DHS_XEAT
Deleted:	H_CRP_DHS_3006, H_CRP_DHS_3007, H_CRP_DHS_3012			
3	2.1	06/03/09	All – Complete re-print for Issue 2.1	
			Updated:	H_CRP_DHS_3046, H_CRP_DHS_3069, H_CRP_DHS_ATT_A, H_CRP_DHS_ATT_B,














































				H_CRP_DHS_FCCT, H_CRP_DHS_PAP_A, H_CRP_DHS_PAP_B
			Added:	H_CRP_DHS_1003, H_CRP_DHS_1004, H_CRP_DHS_ACDIS, H_CRP_DHS_DODSR, H_CRP_DHS_DODUU, H_CRP_DHS_MTLRJ
			Deleted:	
4	2.2	26/03/09	Front Page, Change Summary, Change Record Sheet and List of Procedures replaced.	
			Updated:	H_CRP_DHS_1004, H_CRP_DHS_3011, H_CRP_DHS_3018, H_CRP_DHS_3019, H_CRP_DHS_3021, H_CRP_DHS_3025, H_CRP_DHS_3029, H_CRP_DHS_3049, H_CRP_DHS_3055, H_CRP_DHS_3056, H_CRP_DHS_3060, H_CRP_DHS_3070, H_CRP_DHS_3071, H_CRP_DHS_3072, H_CRP_DHS_ATT_A, H_CRP_DHS_ATT_B, H_CRP_DHS_FCCT, H_CRP_DHS_HKCY, H_CRP_DHS_OBCP, H_CRP_DHS_PAP_A, H_CRP_DHS_PAP_B, H_CRP_DHS_XEAT
			Added:	H_CRP_DHS_3006, H_CRP_DHS_3007, H_CRP_DHS_WDDL
			Deleted:	
5	2.3	23/04/09	All – Complete re-print for Issue 2.3	
			Updated:	H_CRP_DHS_1004, H_CRP_DHS_3011, H_CRP_DHS_3018, H_CRP_DHS_3019, H_CRP_DHS_3021, H_CRP_DHS_3027, H_CRP_DHS_3028, H_CRP_DHS_3029, H_CRP_DHS_3055, H_CRP_DHS_3062, H_CRP_DHS_3063, H_CRP_DHS_3069, H_CRP_DHS_3071, H_CRP_DHS_FCCT, H_CRP_DHS_PAP_A, H_CRP_DHS_PAP_B
			Added:	H_CRP_DHS_1005
			Deleted:	
6	2.4	06/05/09	Front Page, Change Summary, Change Record Sheet and List of Procedures replaced.	
			Updated:	H_CRP_DHS_1005, H_CRP_DHS_3018, H_CRP_DHS_3057, H_CRP_DHS_3060, H_CRP_DHS_3062, H_CRP_DHS_3063, H_CRP_DHS_3071, H_CRP_DHS_3072, H_CRP_DHS_OBCP, H_CRP_DHS_XEAT
			Added:	
			Deleted:	
7	2.5	07/10/09	Front Page, Change Summary, Change Record Sheet and List of Procedures replaced.	
			Updated:	H_CRP_DHS_1005, H_CRP_DHS_3027, H_CRP_DHS_3028, H_CRP_DHS_3044, H_CRP_DHS_OBCP
			Added:	H_CRP_DHS_1006, H_CRP_DHS_1007, H_CRP_DHS_SW40
			Deleted:	
8	3.0	13/04/10	Complete re-print	
			Updated:	H_CRP_DHS_3015, H_CRP_DHS_3027,
































				H_CRP_DHS_3028, H_CRP_DHS_3056, H_CRP_DHS_3069, H_CRP_DHS_MTLRJ
			Added:	
			Deleted:	
9	3.1	05/09/11		Front Page, Change Summary, Change Record Sheet and List of Procedures replaced.
			Updated:	H_CRP_DHS_MTLRJ
			Added:	H_CRP_DHS_1008, H_CRP_DHS_1009, H_CRP_DHS_1010
			Deleted:	



Introduction

2.2 CDMU Flight Control Procedures

	C CRP OBS 1100	Enable/Disable write to CDMU CPU and COCOS registers or EEPROM	1	30/01/2008
	C CRP OBS 1102	Enable/Disable write to CDMU ASW/BSW code and constants	1	30/01/2008
	H CRP DHS 1001	Disabling transmission for non essential APIDs.	3	02/12/2008
	H CRP DHS 1002	Enable/disable NEss APID downlink	3	11/12/2008
	H CRP DHS 1003	Enable or disable transmission of TM(3,26) for all APIDs	1	15/02/2009
	H CRP DHS 1004	Switch Off Mass Memory Board and Banks	5	13/04/2009
	H CRP DHS 1005	CDMU PM Reboot	3	13/07/2009
	H CRP DHS 1006	Change Status of 1553 Bus	1	14/06/2009
	H CRP DHS 1007	Synchronise SSMMB pointers to SSMA values.	1	07/10/2009
	H CRP DHS 1008	AIR Event Action entry management	1	23/08/2010
	H CRP DHS 1009	TTR switchover for NOTM procedure	1	04/09/2011
	H CRP DHS 1010	Rollback from TTR sw/over as for CRP_DHS_1009	1	04/09/2011
	H CRP DHS 3001	Start or stop the whole ASW internal event filtering function	2	29/11/2008
	H CRP DHS 3002	Starting or stopping the on board monitoring	3	11/12/2008
	H CRP DHS 3003	Start or stop the whole event-action function	4	29/11/2008
	H CRP DHS 3004	Start or stop the whole FDIR function	2	02/12/2008
	H CRP DHS 3005	Start or stop the whole mode management function	1	15/11/2008
	H CRP DHS 3006	Start or stop the whole payload function	1	23/03/2009
	H CRP DHS 3007	Start or stop Lou Baffle management	1	23/03/2009
	H CRP DHS 3011	Enable or disable Reconfiguration Module	8	22/04/2009
	H CRP DHS 3013	Configuration of SIR and CIR relay	1	02/12/2008
	H CRP DHS 3014	SGM maintenance	2	14/11/2008
	H CRP DHS 3015	Configuration of PM relay 0 and 1	4	18/03/2010
	H CRP DHS 3016	Health table maintenance	2	14/11/2008
	H CRP DHS 3017	Unit in Use table maintenance	2	08/12/2008
	H CRP DHS 3018	RM alarm maintenance	13	05/05/2009
	H CRP DHS 3019	RM PAP table maintenance	10	22/04/2009
	H CRP DHS 3020	Enable or disable RM CPDU TC	2	08/12/2008
	H CRP DHS 3021	CROME register maintenance	3	13/04/2009
	H CRP DHS 3022	Dump memory area	3	20/01/2009
	H CRP DHS 3023	Write memory area	2	08/12/2008
	H CRP DHS 3024	Check memory area	1	29/11/2008
	H CRP DHS 3025	Write, dump and check MM addresses	6	19/03/2009
	H CRP DHS 3026	Copying content of a memory area to another	2	11/01/2009
	H CRP DHS 3027	PM switchover from A to B	8	18/03/2010
	H CRP DHS 3028	PM switchover from B to A	8	18/03/2010
	H CRP DHS 3029	MM reset	4	07/04/2009
	H CRP DHS 3035	Perform a standard patch	1	08/12/2008
	H CRP DHS 3036	Perform a severe patch	1	08/12/2008
	H CRP DHS 3043	Loss of TM link	1	14/11/2008
	H CRP DHS 3044	Check Survival mode configuration	4	03/07/2009
	H CRP DHS 3045	S/C Mode transition from Survival to Sun Acquisition	2	14/11/2008
	H CRP DHS 3046	Configuration check after level 3 or 4	6	09/02/2009
	H CRP DHS 3049	Configuration check after TTR board failure	3	21/03/2009
	H CRP DHS 3055	Roll back to TTR B after TTR switchover	5	07/04/2009

	H_CRP_DHS_3056	Roll back to TTR A after TTR switchover	4	25/03/2010
	H_CRP_DHS_3057	Clear SW Alarm in ERC 32	3	03/05/2009
	H_CRP_DHS_3058	S/C Mode transition from Launch to Sun Acquisition	1	12/11/2008
	H_CRP_DHS_3059	S/C Mode transition from Nominal to Sun Acquisition	1	12/11/2008
	H_CRP_DHS_3060	S/C Mode transition from Nominal to Survival	4	04/05/2009
	H_CRP_DHS_3061	S/C Mode transition from Earth Acquisition to Sun Acquisition	1	12/11/2008
	H_CRP_DHS_3062	S/C Mode transition from Earth Acquisition to Survival	5	04/05/2009
	H_CRP_DHS_3063	S/C Mode transition from Sun Acquisition to Survival	4	04/05/2009
	H_CRP_DHS_3064	S/C self transition to Launch	1	12/11/2008
	H_CRP_DHS_3065	S/C self transition to Sun Acquisition	1	12/11/2008
	H_CRP_DHS_3066	S/C self transition to Nominal	1	12/11/2008
	H_CRP_DHS_3067	S/C self transition to Earth Acquisition	1	12/11/2008
	H_CRP_DHS_3068	S/C self transition to Survival	1	12/11/2008
	H_CRP_DHS_3069	RM log clearing	5	18/03/2010
	H_CRP_DHS_3070	Configuration check after MM board failure	4	21/03/2009
	H_CRP_DHS_3071	Recovery after MM A failure	7	04/05/2009
	H_CRP_DHS_3072	Recovery after MM B failure	4	04/05/2009
	H_CRP_DHS_ACDIS	Disable ACC APID in MTL	1	18/02/2009
	H_CRP_DHS_ATT_A	Reset PAP attempt counters on RM A	5	20/03/2009
	H_CRP_DHS_ATT_B	Reset PAP attempt counters on RM B	4	20/03/2009
	H_CRP_DHS_DODSR	Survival register modif after DoD	3	27/02/2009
	H_CRP_DHS_DODUU	Unit in Use modif after DoD	2	27/02/2009
	H_CRP_DHS_FCCT	FCCT parameter update	6	07/04/2009
	H_CRP_DHS_HKCY	Cycle through HK / Periodic / Diag CDMU packets	4	25/03/2009
	H_CRP_DHS_MTLRJ	MTL rejoin	4	23/08/2010
	H_CRP_DHS_OBCP	Load Instrument FDIR OBCPs	4	18/07/2009
	H_CRP_DHS_PAP_A	Choose new PAP set for RM A	5	22/04/2009
	H_CRP_DHS_PAP_B	Choose new PAP set for RM B	5	22/04/2009
	H_CRP_DHS_SW40	MOT EAT HLT cleanup after restart with OBSW 4_0	1	07/10/2009
	H_CRP_DHS_WDDL	Patch of Watchdog Temporisation Delay	2	20/03/2009
	H_CRP_DHS_XEAT	Loading of the EAT entries related to OBCPs	3	05/05/2009