

**HERSCHEL
FLIGHT OPERATIONS PLAN**

**VOLUME 4
COP Related Nominal Flight Control Procedures**

Platform FCP's

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

Issue 3.0

13/04/10



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	

CHANGE RECORD SHEET

Change No.	Type of Change	Date of Issue	Section Affected	
1	1.0	06/08/08	All	
			Updated:	
			Added:	H_COP_TTC_T12, H_COP_TTC_T21, H_COP_TCS_CLNR, H_COP_TCS_CLRN
			Deleted:	
2	2.0	02/02/09	All – Complete re-print for Issue 2.0	
			Updated:	H_COP_TTC_T12, H_COP_TTC_T21, H_COP_TCS_CLNR, H_COP_TCS_CLRN
			Added:	H_COP_TTC_TTC0, H_COP_TTC_TTC2, H_COP_TTC_TTC4, H_COP_TTC_TTC5, H_COP_TCS_TCS2, H_COP_TCS_TCS4
			Deleted:	
3	2.1	06/03/09	All – Complete re-print for Issue 2.1	
			Updated:	H_COP_TTC_TTC0, H_COP_TTC_TTC2, H_COP_TTC_TTC4, H_COP_TTC_TTC5
			Added:	H_COP_SYS_DEC2, H_COP_DHS_0110, H_COP_DHS_0310, H_COP_DHS_0410, H_COP_DHS_0510, H_COP_DHS_0610, H_COP_DHS_0710, H_COP_DHS_0910, H_COP_TTC_TTC1, H_COP_TTC_TTC7
			Deleted:	
4	2.2	26/03/09	Front Page, Change Summary, Change Record Sheet and List of Procedures replaced.	
			Updated:	H_COP_SYS_DEC2, H_COP_DHS_0610, H_COP_TTC_T12, H_COP_TTC_T21, H_COP_TTC_TTC0, H_COP_TTC_TTC2, H_COP_TTC_TTC4, H_COP_TTC_TTC5, H_COP_TCS_CLNR, H_COP_TCS_CLRN, H_COP_TCS_TCS2, H_COP_TCS_TCS4
			Added:	H_COP_DHS_0210, H_COP_AOC_7153, H_COP_AOC_7156, H_COP_AOC_9101, H_COP_TCS_TCS0
			Deleted:	
5	2.3	23/04/09	All – Complete re-print for Issue 2.3	
			Updated:	H_COP_SYS_DEC2, H_COP_DHS_0210, H_COP_DHS_0410, H_COP_DHS_0710, H_COP_AOC_7153, H_COP_AOC_7156, H_COP_AOC_9101, H_COP_TTC_T12, H_COP_TTC_T21, H_COP_TTC_TTC0, H_COP_TTC_TTC1, H_COP_TTC_TTC2, H_COP_TTC_TTC4, H_COP_TTC_TTC5, H_COP_TCS_TCS4
			Added:	H_COP_SYS_DEC0, H_COP_OBS_0210, H_COP_AOC_0620, H_COP_AOC_0632, H_COP_AOC_0634, H_COP_AOC_0636, H_COP_AOC_0638, H_COP_AOC_0650, H_COP_AOC_0661, H_COP_AOC_0662, H_COP_AOC_0670, H_COP_AOC_0680, H_COP_AOC_0682, H_COP_AOC_0684, H_COP_AOC_7151, H_COP_AOC_7152, H_COP_AOC_7154, H_COP_AOC_7155, H_COP_AOC_7157, H_COP_AOC_7158,




				H_COP_OBS_9101, H_COP_OBS_9102
			Deleted:	
6	2.4	06/05/09	Front Page, Change Summary, Change Record Sheet and List of Procedures replaced.	
			Updated:	H_COP_SYS_DEC0, H_COP_SYS_DEC2, H_COP_AOC_0620, H_COP_AOC_0650, H_COP_AOC_0680
			Added:	H_COP_SYS_DECD
			Deleted:	
7	2.5	07/10/09	Front Page, Change Summary, Change Record Sheet and List of Procedures replaced.	
			Updated:	H_COP_TTC_T12, H_COP_TTC_T21
			Added:	
			Deleted:	
8 8	3.0	13/04/10	Complete re-print	
			Updated:	H_COP_SYS_DEC2
			Added:	
			Deleted:	












Introduction

Chapter 2 Platform Flight Control Procedures
























2.1 System Flight Control Procedures

	H COP SYS DEC0	Stop Decontamination heating during Telescope cool down	3	27/04/2009
	H COP SYS DEC2	Telescope decontamination during Telescope cool down	10	12/04/2010
	H COP SYS DECD	Decontamination MOT and EAT entries definition	1	27/04/2009



2.2 CDMU Flight Control Procedures







	H COP DHS 0110	CDMS Health checks	1	24/02/2009
	H COP DHS 0210	CDMS OBSM Dumps (MGA) (serv 6)	2	03/04/2009
	H COP DHS 0310	CDMS MOT, EAT, TCT or FCCT Thresholds Adjustment	2	02/03/2009
	H COP DHS 0410	Dump OBCPs code	2	07/04/2009
	H COP DHS 0510	CDMS OBT Stability Measurement	2	24/02/2009
	H COP DHS 0610	Perform dumps from SSMMB	2	25/03/2009
	H COP DHS 0710	Read main registers	2	22/04/2009
	H COP DHS 0910	Perform transition to Nominal	1	26/02/2009
	H COP OBS 0210	Dump of CDMU memories (code and constants)	2	31/03/2009

2.3 ACMS Flight Control Procedures

	H COP AOC 0620	ACMS Initial GYR+CRS Bias Calibration in SCM	2	04/05/2009
	H COP AOC 0632	ACMS Update OBDB GYR Bias	1	22/04/2009
	H COP AOC 0634	ACMS GYR + CRS Cal Slews in SCM (LGA)	1	22/04/2009
	H COP AOC 0636	ACMS Slew to MGA compatible attitude	1	22/04/2009
	H COP AOC 0638	ACMS Update OBDB (Gyr+CRS S.F. + ALN)	1	22/04/2009
	H COP AOC 0650	ACMS SCM Fine Pointing Functional Check (LGA)	2	05/05/2009
	H COP AOC 0661	ACMS SCM Rasters Functional Check pt1	1	22/04/2009
	H COP AOC 0662	ACMS SCM Rasters Functional Check pt2	1	22/04/2009
	H COP AOC 0670	ACMS SCM Line Scans Functional Check	1	22/04/2009
	H COP AOC 0680	ACMS Gyro Bias Drift Calibration #1	2	04/05/2009
	H COP AOC 0682	ACMS Gyro Bias Drift Calibration #2	1	22/04/2009
	H COP AOC 0684	ACMS Update OBDB GYR Bias Drift	1	22/04/2009
	H COP AOC 7151	ACMS Switch ON STR2 (STR1_OP)	1	22/04/2009
	H COP AOC 7152	ACMS STR2 Functional Checks	1	22/04/2009
	H COP AOC 7153	ACMS STR2 Memory Dump	4	08/04/2009
	H COP AOC 7154	ACMS Reconfigure to STR2_OP, STR1_NONOP	1	22/04/2009
	H COP AOC 7155	ACMS STR1 Functional Checks	1	22/04/2009
	H COP AOC 7156	ACMS STR1 Memory Dump	2	08/04/2009
	H COP AOC 7157	ACMS Reconfigure to STR1_OP, STR2_NONOP	1	22/04/2009
	H COP AOC 7158	ACMS Switch ON STR2 (STR1_OP)	1	22/04/2009
	H COP AOC 9101	ACMS ACC Memory Dump (MGA) (serv 6)	4	03/04/2009
	H COP OBS 9101	Dump of ACC memories (code and constants)	1	31/03/2009
	H COP OBS 9102	Dump of ACC registers	1	01/04/2009






2.4 TT&C Flight Control Procedures

	H COP TTC T12	Switchover from chain 1 to 2	8	26/06/2009
	H COP TTC T21	Switchover from chain 2 to 1	7	26/06/2009

	H_COP_TTC_TTC0	TTC commissioning sequence of activities	6	16/04/2009
	H_COP_TTC_TTC1	Switch TTC chain 1 to MGA	3	30/03/2009
	H_COP_TTC_TTC2	RXs Thresholds Check	5	07/04/2009
	H_COP_TTC_TTC4	TC + TM + ranging check	4	07/04/2009
	H_COP_TTC_TTC5	TM Functional Check	5	03/04/2009
	H_COP_TTC_TTC7	MGA Characterisation	1	02/03/2009

2.5 Power Flight Control Procedures

2.6 Thermal Flight Control Procedures

	H_COP_TCS_CLNR	Thermal Control loops Reconfiguration from Nominal to Redundant	4	16/03/2009
	H_COP_TCS_CLRN	Thermal Control loops Reconfiguration from Redundant to Nominal	4	16/03/2009
	H_COP_TCS_TCS0	TCS Commissioning Sequence of Activities	2	24/03/2009
	H_COP_TCS_TCS2	Check redundant heaters	2	19/03/2009
	H_COP_TCS_TCS4	Class B thermal performance verification	6	07/04/2009