

**HERSCHEL
FLIGHT OPERATIONS PLAN**

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

Payload FCP's

SPIRE

H_COP_SPI_3TAB to H_COP_SPI_BT3B

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
06/03/2009	2.1	1	Created	mvoegele-hp	
26/03/2009	2.2	2	Updated change control history for Issue 2.2	mvoegele-hp	
23/04/2009		3	Updated change control history for Issue 2.3	mvoegele-hp	
27/04/2009	2.3	4	Due to large number of procedures SPIRE FCP's have been divided into 4 books.	mvoegele-hp	
06/05/2009	2.4	5	Updated change history for Issue 2.4	mvoegele-hp	
08/10/2009	2.5	6	Updated change history for Issue 2.5	dbleakle-hp	
13/10/2009		7	corrected typo in title	mvoegele-hp	
13/04/2010		8	Updated change control history for issue 3.0	mvoegele-hp	
14/04/2010	3.0	9	Divided into 2 books as follows: H_COP_SPI_APDS to H_COP_SPI_BT3B and H_COP_SPI_CDIS to H_COP_SPI_MSPN	mvoegele-hp	
05/09/2011	3.1	10	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:	H_COP_PAC_A001, H_COP_PAC_A002, H_COP_PAC_G001, H_COP_PAC_G002, H_COP_PAC_G003, H_COP_PAC_X001, H_COP_PAC_X002, H_COP_PAC_X003
			Deleted:	
2	2.0	02/02/09	All – Complete re-print for Issue 2.0	
			Updated:	H_COP_PAC_A001, H_COP_PAC_A002, H_COP_PAC_G001, H_COP_PAC_G002, H_COP_PAC_G003, H_COP_PAC_X001, H_COP_PAC_X002, H_COP_PAC_X003
			Added:	H_COP_HIF_CFHR, H_COP_HIF_CFWB, H_COP_HIF_NCRT, H_COP_HIF_NFF1, H_COP_HIF_NFF2, H_COP_HIF_NFF3, H_COP_HIF_NFF4, H_COP_HIF_NFF5, H_COP_HIF_NFF6, H_COP_HIF_NFF7, H_COP_HIF_NFF8, H_COP_HIF_NFL1, H_COP_HIF_NFL2, H_COP_HIF_NFL3, H_COP_HIF_NFL4, H_COP_HIF_NFL5, H_COP_HIF_NFL6, H_COP_HIF_NFL7, H_COP_HIF_NFL8, H_COP_HIF_NFL9, H_COP_HIF_NFLA, H_COP_HIF_NFLB, H_COP_HIF_NFLC, H_COP_HIF_NFLD, H_COP_HIF_NFLE, H_COP_HIF_NIF1, H_COP_HIF_NIF2, H_COP_HIF_NIF3, H_COP_HIF_NIF4, H_COP_HIF_NIF5, H_COP_HIF_NIF6, H_COP_HIF_NIF7, H_COP_HIF_RCRT, H_COP_HIF_RFL1, H_COP_HIF_RFL2, H_COP_HIF_RFL3, H_COP_HIF_RFL4, H_COP_HIF_RFL5, H_COP_HIF_RFL6, H_COP_HIF_RFL7, H_COP_HIF_RFL8, H_COP_HIF_RFL9, H_COP_HIF_RFLA, H_COP_HIF_RFLB, H_COP_HIF_RFLC, H_COP_HIF_RFLD, H_COP_HIF_RFLE, H_COP_PAC_A003, H_COP_PAC_C101, H_COP_PAC_C102, H_COP_PAC_C103, H_COP_PAC_C201, H_COP_PAC_C202, H_COP_PAC_C203, H_COP_PAC_C204, H_COP_PAC_CX01, H_COP_PAC_CX02, H_COP_PAC_CX03, H_COP_PAC_CX04, H_COP_PAC_CX05, H_COP_PAC_D000, H_COP_PAC_D001, H_COP_PAC_D002, H_COP_PAC_D003, H_COP_PAC_D100, H_COP_PAC_D101, H_COP_PAC_D102, H_COP_PAC_D103, H_COP_PAC_D200, H_COP_PAC_D201, H_COP_PAC_D202, H_COP_PAC_D203, H_COP_PAC_D204, H_COP_PAC_D300, H_COP_PAC_D301, H_COP_PAC_D302, H_COP_PAC_D303, H_COP_PAC_D304, H_COP_PAC_D305, H_COP_PAC_D306, H_COP_PAC_D307, H_COP_PAC_F000,

			<p>H_COP_PAC_F001, H_COP_PAC_F002, H_COP_PAC_F003, H_COP_PAC_F100, H_COP_PAC_F101, H_COP_PAC_F102, H_COP_PAC_F103, H_COP_PAC_F104, H_COP_PAC_FDIR, H_COP_PAC_G000, H_COP_PAC_G101, H_COP_PAC_G201, H_COP_PAC_G202, H_COP_PAC_G203, H_COP_PAC_G204, H_COP_PAC_GX01, H_COP_PAC_GX02, H_COP_PAC_GX03, H_COP_PAC_GX04, H_COP_PAC_GX07, H_COP_PAC_GX08, H_COP_PAC_GX09, H_COP_PAC_GX10, H_COP_PAC_GX11, H_COP_PAC_L001, H_COP_PAC_LLOP, H_COP_PAC_SFTC, H_COP_PAC_SX01, H_COP_PAC_X004, H_COP_PAC_X005, H_COP_PAC_X006, H_COP_PAC_X007, H_COP_PAC_X008, H_COP_PAC_X009, H_COP_PAC_X010, H_COP_PAC_X011, H_COP_PAC_X012, H_COP_SPI_BS03, H_COP_SPI_BS06, H_COP_SPI_BS5A, H_COP_SPI_BS5B, H_COP_SPI_BSMF, H_COP_SPI_BSMI, H_COP_SPI_BSSC, H_COP_SPI_DCPN, H_COP_SPI_DCSC, H_COP_SPI_DCSN, H_COP_SPI_DPIC, H_COP_SPI_DPNC, H_COP_SPI_DPPS, H_COP_SPI_DRCN, H_COP_SPI_DSIC, H_COP_SPI_DSPS, H_COP_SPI_MCSC, H_COP_SPI_MCUF, H_COP_SPI_MCUN, H_COP_SPI_PCAC, H_COP_SPI_PHOF, H_COP_SPI_PHVT, H_COP_SPI_REDY, H_COP_SPI_SC2P, H_COP_SPI_SC4P, H_COP_SPI_SCAC, H_COP_SPI_SCAT, H_COP_SPI_SCDT, H_COP_SPI_SCSC, H_COP_SPI_SMCP, H_COP_SPI_SMCS, H_COP_SPI_SMEP, H_COP_SPI_SMER, H_COP_SPI_SMFP, H_COP_SPI_SMFR, H_COP_SPI_SMIP, H_COP_SPI_SMIR, H_COP_SPI_SMLP, H_COP_SPI_SMLR, H_COP_SPI_SMOF, H_COP_SPI_SMOL, H_COP_SPI_SMOS, H_COP_SPI_SMPP, H_COP_SPI_SMPR, H_COP_SPI_SOHC, H_COP_SPI_SPNO, H_COP_SPI_SPOF, H_COP_SPI_SPVT</p>
			Deleted:
3	2.1	06/03/09	<p>All – Complete re-print for Issue 2.1. Payload FCP's divided into 4 books. New book added SPIRE FCP's</p>
			<p>Updated: H_COP_SPI_REDY, H_COP_SPI_SC2P, H_COP_SPI_SC4P</p>
			<p>Added: H_COP_SPI_CFT1, H_COP_SPI_CFT2, H_COP_SPI_CFT3, H_COP_SPI_CFT4, H_COP_SPI_CFT5, H_COP_SPI_CFT6, H_COP_SPI_CFT7, H_COP_SPI_MREC, H_COP_SPI_NSON, H_COP_SPI_RSON, H_COP_SPI_SC2R, H_COP_SPI_SC4R, H_COP_SPI_SMLV, H_COP_SPI_SPPD, H_COP_SPI_SWON</p>
			Deleted:

4	2.2	26/03/09	Front Page, Change Summary, Change Record Sheet and List of Procedures replaced.	
			Updated:	H_COP_SPI_BS03, H_COP_SPI_BS06, H_COP_SPI_BS5A, H_COP_SPI_BS5B, H_COP_SPI_BSSC, H_COP_SPI_DCPN, H_COP_SPI_DCSC, H_COP_SPI_DCSN, H_COP_SPI_DPIC, H_COP_SPI_DPNC, H_COP_SPI_DRCN, H_COP_SPI_DSIC, H_COP_SPI_MCSC, H_COP_SPI_PCAC, H_COP_SPI_PHVT, H_COP_SPI_SC2P, H_COP_SPI_SC2R, H_COP_SPI_SC4P, H_COP_SPI_SC4R, H_COP_SPI_SCAC, H_COP_SPI_SCAT, H_COP_SPI_SCDT, H_COP_SPI_SCSC, H_COP_SPI_SMCP, H_COP_SPI_SMCS, H_COP_SPI_SMEP, H_COP_SPI_SMER, H_COP_SPI_SMFP, H_COP_SPI_SMFR, H_COP_SPI_SMLP, H_COP_SPI_SMLR, H_COP_SPI_SMOF, H_COP_SPI_SMOL, H_COP_SPI_SMOS, H_COP_SPI_SMPP, H_COP_SPI_SMPR, H_COP_SPI_SOHC, H_COP_SPI_SPNO, H_COP_SPI_SPOF, H_COP_SPI_SPVT
			Added:	H_COP_SPI_DRCR
			Deleted:	
5	2.3	23/04/09	All – Complete re-print for Issue 2.3 Vol4 Payload SPIRE FCPs divided into 4 books as follows: H_COP_SPI_APDS to H_COP_SPI_MSPN H_COP_SPI_NSON to H_COP_SPI_SC4R H_COP_SPI_SCAC to H_COP_SPI_SPSH H_COP_SPI_SPU1 to H_COP_SPI_SWON	
			Updated:	H_COP_SPI_BSMF, H_COP_SPI_CFT1, H_COP_SPI_CFT2, H_COP_SPI_CFT3, H_COP_SPI_CFT4, H_COP_SPI_CFT5, H_COP_SPI_CFT6, H_COP_SPI_CFT7, H_COP_SPI_DCPN, H_COP_SPI_DCSN, H_COP_SPI_DRCN
			Added:	H_COP_SPI_APDS, H_COP_SPI_ASDS, H_COP_SPI_CF10, H_COP_SPI_CF11, H_COP_SPI_CFT8, H_COP_SPI_CFT9, H_COP_SPI_CRSC, H_COP_SPI_CT10, H_COP_SPI_CT11, H_COP_SPI_LBMP, H_COP_SPI_LBMR, H_COP_SPI_LCLS, H_COP_SPI_LINP, H_COP_SPI_LINR, H_COP_SPI_LSCP, H_COP_SPI_LSCR, H_COP_SPI_MACR, H_COP_SPI_MBSF, H_COP_SPI_MBSI, H_COP_SPI_MBSN, H_COP_SPI_MDRF, H_COP_SPI_MDRN, H_COP_SPI_MMCB, H_COP_SPI_MMCF, H_COP_SPI_MPHF, H_COP_SPI_MPHN, H_COP_SPI_MSCF, H_COP_SPI_MSCN, H_COP_SPI_MSIP, H_COP_SPI_MSIR, H_COP_SPI_MSMF, H_COP_SPI_MSNP, H_COP_SPI_MSNR, H_COP_SPI_MSPF, H_COP_SPI_MSPN
			Deleted:	H_COP_SPI_DPPS, H_COP_SPI_DSPS
6	2.4	06/05/09	Front Page, Change Summary, Change Record Sheet and List of Procedures replaced.	














			Updated:	H_COP_SPI_APDS, H_COP_SPI_ASDS, H_COP_SPI_CF10, H_COP_SPI_CFT9, H_COP_SPI_CRSC, H_COP_SPI_CT10, H_COP_SPI_DCPN, H_COP_SPI_DCSN, H_COP_SPI_DRCN, H_COP_SPI_LBMP, H_COP_SPI_LBMR, H_COP_SPI_LCLS, H_COP_SPI_LINP, H_COP_SPI_LINR, H_COP_SPI_LSCP, H_COP_SPI_LSCR, H_COP_SPI_MACR, H_COP_SPI_MBSF, H_COP_SPI_MBSI, H_COP_SPI_MBSN, H_COP_SPI_MDRN, H_COP_SPI_MSIP, H_COP_SPI_MSIR, H_COP_SPI_MSMF, H_COP_SPI_MSNP, H_COP_SPI_MSNR, H_COP_SPI_MSPF, H_COP_SPI_MSPN
			Added:	
			Deleted:	
7	2.5	07/10/09	Front Page, Change Summary, Change Record Sheet and List of Procedures replaced.	
			Updated:	H_COP_SPI_ASDS, H_COP_SPI_BS5B, H_COP_SPI_CRSC, H_COP_SPI_DCSN, H_COP_SPI_LINP, H_COP_SPI_MPHN
			Added:	H_COP_SPI_CDIS
			Deleted:	
8	3.0	13/04/10	Complete re-print Divided into 2 books as follows: H_COP_SPI_APDS to H_COP_SPI_BT3B and H_COP_SPI_CDIS to H_COP_SPI_MSPN	
			Updated:	
			Added:	H_COP_SPI_BT2A, H_COP_SPI_BT3A, H_COP_SPI_BT3B
			Deleted:	
9	3.1	05/09/11	Front Page, Change Summary, Change Record Sheet and List of Procedures replaced.	
			Updated:	
			Added:	H_COP_SPI_3TAB
			Deleted:	



Introduction

Chapter 3 Payload Flight Control Procedures

3.6 SPIRE Flight Control Procedures

	H_COP_SPI_3TAB	SpireEngPatchTables	2	17/08/2010
	H_COP_SPI_APDS	SPIRE_IST_DNS_PHOT Apply nominal Photometer detector settings	2	04/05/2009
	H_COP_SPI_ASDS	SPIRE_IST_DNS_SPEC Apply nominal Spectrometer detector settings	3	06/06/2009
	H_COP_SPI_BS03	Mode_BSMFunc03 Open Loop Dyn Check	2	23/03/2009
	H_COP_SPI_BS06	Mode_BSMFunc06 Closed Loop Op Chop Test	3	23/03/2009
	H_COP_SPI_BS5A	Mode_BSMFunc05a Open Loop Chop Test	3	23/03/2009
	H_COP_SPI_BS5B	Mode_BSMFunc05b Closed Loop Chop Test	4	18/05/2009
	H_COP_SPI_BSMF	BSM_OFF	2	21/04/2009
	H_COP_SPI_BSMI	BSM_INIT	2	27/01/2009
	H_COP_SPI_BSSC	Mode_BSMFunc01 Chop Jiggle Sensors Check	2	23/03/2009
	H_COP_SPI_BT2A	SpireEngBsmTuneFf BSM Tuning Feb A 2010	1	05/02/2010
	H_COP_SPI_BT3A	SpireEngBsmTuneFf BSM Tuning Mar A 2010	1	06/03/2010
	H_COP_SPI_BT3B	SpireEngBsmTuneFf BSM Tuning Mar B 2010	1	18/03/2010