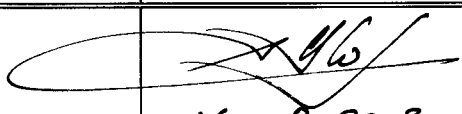
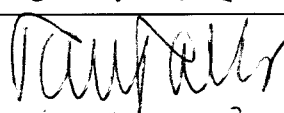
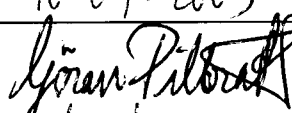
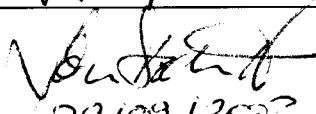
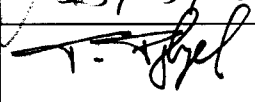


Herschel/Planck Ground Segment Documentation Plan

Herschel / Planck Project

	Name	Signature
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Agreed by	G. Pilbratt Herschel Project Scientist ESA/ESTEC/SI-SA	 23/09/2003
Agreed by	J. Dodsworth Herschel/Planck Ground Segment Manager ESA/ESOC/TOS-OG	 23/09/2003
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C H A N G E L O G

date	issue	revision	pages	reason for change
20 December 2000		1st Draft		Preliminar answer to the recommendation R03-1 of the HCSS PDR/SRR.
30 November 2001		2nd Draft		Simplification of the original Scheme.0
05 November 2002	1	0	4	Issued still as a Memo under reference nbr. SCI-PT/8410.
8 September 2003	2	0	12	<p>General update of the document, now officially issued under new reference number.</p> <p>Diagram detailing the Top Level Documentation and the inter-relation between documents has been added. Configuration Control Board defined.</p> <p>Added definition for “Concurred by”.</p> <p>An additional table has been included to illustrate the actual signature approval scheme of several pre-existing documents.</p> <p>Some comments from H-PS implemented, as per email sent on 03/07/03.</p>

T A B L E O F C O N T E N T S

1	INTRODUCTION	7
2	SCOPE	7
3	DOCUMENT APPROVAL SCHEME	8
3.1	Proposed Approval Scheme	8
Table 3.1 –	Proposed Approval Scheme	9
3.2	Pre-existing Approval Schemes	10
Table 3.2 –	Current Approval Schemes of Pre-existing Documents	10
4	CONFIGURATION CONTROL BOARD	11

ACRONYM LIST

The present list deals primarily with those acronyms used within this document, and in the context of the Planck operations and Ground Segment definitions.

AD	Applicable Document
AIV	Assembly Integration Verification
CaC	Cost at Completion
CC	Configuration Control
CCB	Configuration Control Board
CDR	Critical Design Review
DPC	Data Processing Centre
ESOC	(ESA) Space Operations Centre
HSC	Herschel Science Centre
HCSS	Herschel Common Science System
HFI	High Frequency Instrument
ICC	Instrument Control Centre
ICD	Interface Control Document
ICWG	Instrument Coordination Working Group
IIA	Instrument Implementation Agreement
IID	Instrument Interface Document
IOT	Instrument Operations Team
IW	Instrument Workstation
MCS	Mission Control System
MIRD	Mission Implementation Requirements Document
MIP	Mission Implementation Plan
MOC	Mission Operations Centre
OIRD	Operations Interface Requirements Document
PDR	Preliminary Design Review
PGSAG	Planck Ground Segment Advisory Group
P-GSDD	Planck Ground Segment Design Description
P-GS IRD	Planck Ground Segment Interface Requirements Document
PGSSG	Planck Ground Segment System Group
PI	Principal Investigator
PM	Project Manager
PS	Project Scientist
PSO	Planck Science Office
PST	Planck Science Team
RD	Reference Document
SAG	Science Advisory Group
SCI-S	Scientific Directorate-Space Science Department
SG-ICD	Space-to-Ground ICD
SIRD	Science Implementation Requirements Document
SIP	Science Implementation Plan

SMP	Science Management Plan
SPC	(ESA) Science Programme Committee
SRD	Software Requirements Document
TBC	To Be Confirmed
TBD	To Be Defined

1 INTRODUCTION

At the H/P Project /SCI-SA Management meeting held on the 17.11.00 it was agreed that the H/P Project would propose a scheme for approval of the top-level Operations and Ground Segment documents (**AI 1 /2**)

Furthermore the HCSS PDR/SRR Review Board in its recommendation **R03-1** (Ref. FCSS SRR/PDR v0.1 Board Report, SAI/2000-070/Rp, Issue 1, 18 December 2000) proposes that “The H/P Project should prepare a Documentation Plan for the entire Ground Segment identifying what documents will be produced when, by whom and who will approve them”

The present document, which was originally issued on 20.12.00 as a preliminary answer to the action and recommendation above, has been updated on the 30.11.01 in order to simplify the original scheme which was too complex to implement and would have resulted in a very inefficient and lengthy review/approval process.

The “Ground Segment Documentation Plan” was originally issued as a memo without Issue/Revision number under reference SCI-PT/8410. The present version, still in the form of a memo, and under the same reference, has been, arbitrarily, for the purpose of the review, brought to the level of Issue 1, Revision 0. This version is in line with AD-1 which has been issued on 02.06.02 under reference SCI-PT/012407. As a result of the simplification in the review/approval scheme only the top level documents now require Management’s approval/agreement and the ‘approval’ scheme has been simplified with respect to earlier versions (e.g. “concurred” and “authorised” have been deleted, documents ‘approved’ or ‘agreed’ by a given authority do not need ‘approval’/‘agreement’ by someone reporting to this authority) .

Finally, this new issue of the document under reference number **SCI-PT/016463** is produced in response to the Recommendation **R-25** of the Planck GS Review Board dated **January 14th 2003**: *Project to produce a consolidated list of top-level documents, clearly showing the inter-relations of all documents and including approval/update schemes.*

2 SCOPE

The present document responds in first instance to **AI 1 /2**. It is limited to **top-level** Operations and Ground Segment-related documents as well as documents (e.g. SG-ICD, PS-ICD, etc) which put specific requirements on the ground segment. Specific, lower-level documents, related to one single organisation/centre, e.g. HSC, ICC, PSO and/or DPC are not included.

It is to be noted that this scheme is applicable to both Herschel and Planck. The inter-relation between the different documents can be seen in Annex 1.

The list of documents included here will be updated (i.e. expanded) as required.

3 DOCUMENT APPROVAL SCHEME

3.1 Approval Scheme

The minimal approval scheme required by Project for the top level Ground Segment documents within the scope of this document can be found in Table 3.1.

The following abbreviations have been used in the tables.

H/P PM:	Herschel/Planck Project Manager
PS:	Project Scientist (Herschel or Planck)
PS Team	Project Scientist Team (Herschel)
Prj OPS:	Project's Operations System Engineer
GSM:	(ESOC) Ground Segment Manager
HCSS-Mgr	Herschel Common Science System manager
H-GSSG	Herschel Ground Segment System Engineering Group
P- GSSG	Planck Ground Segment System Engineering Group
PI:	Principal Investigator
ICC-Mgr:	ICC Manager
DPC-Mgr:	DPC Manager
PSO:	Planck Science Office

H-OPS:	Herschel Operations Scenario Document
P-OPS:	Planck Operations Scenario Document
H-SIRD:	Herschel Science Implementation Requirements Document
P-SIRD:	Planck Science Implementation Requirements Document
H/P MIRD:	Herschel/Planck Mission Implementation Requirements Document
HSC-SIP:	HSC Science Implementation Plan
ICC-SIP:	Any of the HIFI-SIP, PACS-SIP, or SPIRE-SIP
PSO-SIP:	Planck Science Office Implementation Plan
DPC-SIP:	Any of the LFI-SIP, or HFI-SIP
H/P MIP:	Herschel/Planck Mission Implementation Plan
SG-ICD:	(Herschel/Planck) Space to Ground ICD
PS-ICD:	(Herschel/Planck) Packet Structure ICD
OIRD:	(Herschel/Planck) Operations Interface Requirements Document
SRS:	(Herschel/Planck) System Requirements Specification
CreMA	Consolidated Report on Mission Analysis
DUA	Demande d'Utilisation Ariane
DCI	Dossier de Controle d'Interface
IID-A:	(Herschel/Planck) Instrument Interface Document part A
IID-B:	Instrument Interface Document part B (one per instrument)

HGS-DD: Herschel Ground Segment (HGS) Design Description
 PGS-DD: Planck Ground Segment (PGS) Design Description
 HGS-IRD: HGS Interface Requirements Document
 PGS-IRD: PGS Interface Requirements Document
 HGS-ICD List: List of Herschel GS-related Interface Control Documents
 PGS-ICD List: List of Planck GS-related Interface Control Documents

Table 3.1 – Approval Scheme

Document	Prepared by	Approved by	Agreed by	Concurred by	Remarks
H-OPS	Herschel PS Team		H-GSSG	H/P PM	See Table 3.2
P-OPS	PSO		P-GSSG	H/P PM	
H-SIRD	Prj OPS	H/P PM	PS or SCI-SD	PIs	'concurrence' obtained via PS or SCI-SD
P-SIRD	Prj OPS	H/P PM	PS or SCI-SD	PIs	'concurrence' obtained via PS or SCI-SD
H/P MIRD	Prj OPS	H/P PM	GSM		
HSC-SIP	Herschel PS Team	PS or SCI-SD; SCI-SA	H/P PM	PIs or ICC Mgrs	
ICC-SIPs	ICC Team	ICC-Mgr or PI	PS or SCI-SD		See Table 3.2
PSO-SIP	PSO	PS or SCI-SD; SCI-SA	H/P PM	PIs or DPC Mgrs	
DPC-SIPs	DPC Team	DPC-Mgr or PI	PS or SCI-SD		See Table 3.2
H/P MIP	ESOC GS Team	GSM	H/P PM		
SRS	H/P Project team	H/P PM			
SG – ICD	H/P Project team	H/P PM	GSM		
PS – ICD	H/P Project team	H/P PM	Alcatel PM; GSM		
H/P OIRD	ESOC	H/P PM; GSM	Alcatel PM; PSs; Pis		
CreMA	ESOC	GSM	H/P PM		See Table 3.2
DUA	Alcatel	H/P PM	Arianespace		
DCI	Arianespace	H/P PM	Alcatel		
IID – A	Alcatel	H/P PM; Alcatel PM	PIs		
IID-Bs	Alcatel	H/P PM; PIs			
HGS-DD	H-GSSE		GSM ; PS; ICC-Mgrs		See Table 3.2
PGS-DD	P-GSSE		GSM ; PS ; DPC-Mgrs		
HGS-IRD	H-GSSE		GSM; PS; ICC-		See Table 3.2

			Mgrs		
PGS-IRD	P-GSSE		GSM; PS; DPC-Mgrs		
HGS-ICD List	H-GSSE		GSM; PS; ICC-Mgrs		See Table 3.2
PGS-ICD List	P-GSSE		GSM; PS; DPC-Mgrs		

Definitions:

“approved by”: The individual who approves a document takes ultimate responsibility for its contents and makes the commitment to provide or procure the resources necessary to fulfil the obligations allocated to his/her organisation in the document.

Note: Some pre-existing documents are using the clause “Authorized by”. This shall be considered equivalent in scope and spirit with the “Approved by” clause described in the above paragraph.

“agreed by”: The individual who agrees to a document takes note of its contents and confirms that the contents is compatible with his/her general obligations and responsibilities within the Herschel/Planck mission.

“concurred by”: The individual who concurs to a document takes note of its contents and agrees it’s a reasonable set of baseline requirements for the Science Ground Segment, in the case of the SIRDs, or a reasonable representation of the way in which Herschel or Planck should be operated, in the case of the Operations Scenarios.

3.2 Pre-existing Approval Schemes

At the time of writing of this document there’s a number of pre-existing documents that are using, in their current release, somewhat different Approval Schemes. These documents are detailed in Table 3.2, and should be signed according to their existing Approval Scheme. However, if the official signature of such document is still pending or an update is required, they should be updated in compliance with the Proposed Approval Scheme of Table 3.1, whenever practical.

Table 3.2 – Current Approval Schemes of Pre-existing Documents

Document	Prepared by	Approved by	Agreed by	Concurred by	Remarks
H-OPS	Herschel PS Team	H/P PM; GSM; PIs; SCI-SD; SCI-SA			Issue 1.2 28-Feb-2003
HGS-IRD	H-GSSE	GSM, PS, ICC Mgrs			Issue 2.0 06-Dec-2001
HGS-DD	H-GSSE	GSM, PS, ICC			Issue 1.1

		Mgrs			10-Dec-2001
HGS-ICD List	H-GSSE	GSM,;ICC Mgrs; Prj OPS; J.R.			Issue 1.1 19-Dec-2001
SPIRE-ICC SIP	ICC Mgr	SPIRE PI			Draft 0.992 20-Mar-2002
HIFI-ICC SIP	ICC Mgr	HIFI PI			Issue 1.1 Draft 2 18-Mar-2002
PACS-ICC SIP	ICC Mgr	PACS PM	PACS-PI	ESOC Rep, HSC; SPIRE PI; HIFI PI	Issue 1.1 14-Jun-2002
HFI-DPC SIP	HFI Team	HFI PI	HFI PM; HFI DPC Mgr		Issue 1.1.1 4-Nov-2002
CrEMA	ESOC	GSM	Sci-PL		Issue 2.0 26-Jun-2002

4 CONFIGURATION CONTROL BOARD

After the top level document have been approved and agreed following the approval scheme detailed above, they are to be properly signed by the different parties and put under Configuration Control.

Once under Configuration Control any changes to these documents will have to be channeled via the formal request to the Configuration Control Board (CCB).

For the purpose of these top level documents it is considered appropriate to add the CCB functions to the already constituted Ground Segment Advisory Groups.

So it is recommended that the corresponding Terms of Reference of the Planck Ground Segment Advisory Group (PGSAG) and the Herschel Ground Segment Advisory Group (HGSAG) be updated to include these functions.

ANNEX 1 Herschel/Planck Top Level Documentation Tree

