SPIRE CONFIGURABLE DOCUMENTS' TREE SPIRE-RAL-PRJ-000033 Issue3.3 J.D. 21/6/01

ESA MIRROR / SPACECRAFT INTERFACE
- HERSCHEL/Planck Instrument Interface Document (IID) Part A
  - HERSCHEL/Planck Packet Structure Interface Control Document
  - Instrument I/F Study Final Report
  - HERSCHEL Alignment Plan
  - HERSCHEL Pointing Modes
  - HERSCHEL Telescope Specification
  - Packet Utilisation Standard.
- HERSCHEL/Planck Instrument Interface Document (IID) Part B for Spire

ESA MIRROR / GROUND SEGMENT
- HERSCHEL Science Management Plan (SMP)
  - HERSCHEL Operations Scenario Document
  - HERSCHEL/Planck Ground Segment I/F Doc.(GSID)
- HERSCHEL Science Operations Implementation Requirements(SIRD)
- HERSCHEL Ground Segment Design Desc.
- HERSCHEL Ground Segment Interface Requirements Doc.

ESA MIRROR /PRODUCT ASSURANCE
- PA Requirements for HERSCHEL/PLANCK Scientific Instruments
  - HERSCHEL L-2 Radiation Environment

ESA MIRROR / PROGRESS REPORTS
- SPIRE PROJECT PROGRESS REPORTS

SPIRE/INSTRUMENT INTERFACE
- SPIRE Systems Budgets
- SPIRE Harness Definition
- SPIRE Optics Config. Control
- SPIRE Interface Thermal Mathematical Model (ITMM)

Note: this PA Plan, agreed at proposal, is applicable to all the SPIRE project but some equipments have chosen to evolve their own additional requirements.

SPIRE/PA
- SPIRE PA Plan

SPIRE/MANAGEMENT/MOU
- SPIRE Letters of Agreement, etc.

SPIRE Scientific Requirements (SRD)
- SPIRE Qualification Requirements
- SPIRE Calibration Requirements
- SPIRE Optics Alignment Requirements
- SPIRE Optical Error Budgets

SPIRE/INSTRUMENT REQUIREMENTS
- SPIRE Instrument Requirements (IRD)
  - Operating Modes for SPIRE
  - On-Board Software (URD)
  - TMM Specification
  - Thermal Config. Control Doc.

SPIRE/ICC
- SPIRE Science Implementation Plan (SIP)
- SPIRE ICC Consortium URD

SPIRE/MANAGEMENT/PLANS
- SPIRE Management Plan
- SPIRE Development Plan and Model Phil.
- SPIRE Major Milestone List

SPIRE/MANAGEMENT/PLANS/ MODEL DEFINITIONS
- SPIRE STM Requirements
- SPIRE CQM Requirements
- SPIRE AVM Definition

SPIRE/MANAGEMENT/PLANS/ CONSORTIUM
- SPIRE Work Breakdown Structure
- SPIRE Sub-system/Collaborator Development Plans...multiple

SPIRE/INSTRUMENT REQUIREMENTS/ SUBSYSTEM REQUIREMENTS
- SPIRE SUB-SYSTEM REQUIREMENTS SPECS(incl S/W)
- Digital Processing Unit (DPU)
- Detector Readout and Control Unit (DRCU) [to split FCU and DCU]
- Structure incl. baffles, straps, thermometry & harness routing.
- Mirrors and Optical Stops
- Beam Steering Mirror Ass.
- Spectrometer Mechanisms
- Photometer & Spectrometer Stim.
- Filters and Beam-splitters (x2)
- Helium3 Sorption Cooler
- Detector Subsystems+ JFET modules

SPIRE/ DESIGN DESCRIPTION
- SPIRE Design Description
- SPIRE Block Diagram.
- SPIRE Grounding Phil.
- SPIRE Optical System
  - SPIRE Diffraction Analysis
- Digital Processing Unit (DPU)
- FPU ControlUnit (FCU)
- Detector Control Unit (DCU)
- Structure incl. baffles, straps, thermometry , etc.
- Beam Steering Mirror Ass.
- Spectrometer Mechanisms
- Photometer & Spectrometer Stim.
- Helium3 Sorption Cooler
- Detector Subsystems+ JFET modules
- Design Requ. Compliance Matrix.

SPIRE/GSE
- IGSE Specifications
  - -EGSE URD
  - -EGSE ILT URD
  - -EGSE Router Spec.
  - -Alignment Tools Spec.
  - -MGSE
  - -Analogue FPU Simulator
  - -DRCU Simulator
  - -SPIRE Sim. S/W Module

SPIRE/GSE/BUILD
- SPIRE IGSE Equipment Tree

SPIRE/AIV
- SPIRE AIV Plan
- SPIRE Alignment Sequence
- SPIRE Calibration Plan including COMMISSIONINGand PRODUCTVALIDATIONin mission
- SPIRE Ground Test Facility Specifications

SPIRE/ICC/URDs
- SPIRE ICC URDs
- HERSCHEL Common Science System (FCSS) URD
- PACS/HIFI ICC Interaction URD
- Realtime Aquisition (RLA) Monitoring URD
- On-Board S/W Maintainance(OBSM) URD
- MIB Editor URD
- Astronical. Observ. Prep.URD
- Instrument Simulator URD
- Public Outreach URD

SPIRE/MANAGEMENT/PLANS/ DELIVERABLES
- SPIRE Product Tree
- SPIRE Collaborators' Product Trees

SPIRE/AIT/PLANS & PROCEDURES
- SPIRE Optical Alignment Verification Plan
- SPIRE Structure Integration Plan
- Test Facility Checkout Integration, I/F checks, Vibration, EMC Thermal Balance/cycle. Calibration

SPIRE/ICC/USE-CASES
- SPIRE ICC SummaryLevel Use Cases

SPIRE/MANAGEMENT/DOCUMENTS
- SPIRE PROJECT SCHEDULE
- SPIRE SUBSYSTEM SCHEDULES
- SPIRE SUBSYSTEM REPORTS

SPIRE/INSTRUMENT REQUIREMENTS/ SUBSYSTEM ICDs
- SPIRE SUB-SYSTEM ICDs
- Digital Processing Unit (DPU)
- FPU ControlUnit (FCU)
- Detector Control Unit (DCU)
- Structure incl. baffles, straps, thermometry & harness routing
- Mirrors and optical stops
- Beam Steering Mirror Ass.
- Spectrometer Mechanisms (x2)
- Photometer & Spectrometer Stim. (x2)
- Filters, and Beam splitters
- Helium3 Sorption Cooler
- Detector Subsystems+ JFET modules

SPIRE/INSTRUMENT OPS
- SPIRE Flight Ops. Requirements
- SPIRE Flight Operations' Manual (FOM/P)
- SPIRE Packet Formats for Commands & Telemetry (Hsk, Science, etc.)

SPIRE/AIT/REPORTS
- TEST REPORTS
  - Test/Cal. Requirements Compliance Matrix
- SPIRE Calibration Coefficients

SPIRE/PA/DOCUMENTS
- SPIRE Document and Drawing Management Plan
- SPIRE Configurable Documents' Tree..this doc!
- SPIRE Configurable Drawings' Tree
- DCRs
- NCRs and MRBs
- Cleanliness
- Handling
- Reliability/FMCA

SPIRE /INSTRUMENT BUILD
- SPIRE Flight Equipment Tree
- Config. Status list for each model

Note: The IID and ICDs are listed in priority so that an I/F between two systems is only detailed in the document listed the higher.

Iss 2.: Changed FIRST to HERSCHEL (even if document not yet updated).
Added number for thermal document.
Iss3.: Updated and changed from DMS to LIVELINK structure...as at IIDR.
The coloured zones with red names are LIVELINK FOLDERS in which to find documents.
Iss3.1: Removed Doc. numbers as they are not in Livelink listings and now find items by structure/name.
Updated FCU and DCU acronyms. Update Doc. names. Define more DDs. Put "x2" if split e.g. if software and electrical documents are separate.
Iss3.2: Move IIDB Part-B into ESA Document area....final version are not issued by RAL. Iss 3.3 Add ITMM and Change word for MOU.