

ALCATEL

SPACE

HERSCHEL/PLANCK

REF.: H-P-ASP-MN- 3419

DATE: 17/7/03

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COMPTE RENDU DE REUNION / MINUTES OF MEETING

LIEU / PLACE: CANNES

OBJET / PURPOSE:

CLASSIFICATION:

PLANCK INSTRUMENTS OPEN AREAS

PARTICIPANTS ATTENDEES	SOCIETE FIRM	SIGNATURE SIGNATURE	PARTICIPANTS ATTENDEES	SOCIETE FIRM	SIGNATURE SIGNATURE
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REDACTEUR / WRITTEN BY:					

CONCLUSION:



DISTRIBUTION :
PARTICIPANTS /
ATTENDEES

POUR ACTION :
FOR FURTHER ACTION

POUR INFORMATION :
FOR INFORMATION

APPROUVE PAR / APPROVED BY

NOM / NAME				
SIGNATURE / SIGNATURE				

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HFI OPEN AREAS

4K Cooler temperature:

SUB panel is at 15°C nominal, 24°C with margin.
RAL stated that this should be OK, but ASP is not convinced at all that the assumptions taken are correct. ASP need some clarification on the thermal model.

4K compressor EOL

HFI will provide availability of REU in September.

HFI is looking at the possibility to shield the compressor



4K compressor qualification

HFI to prepare a qualification and acceptance test on 4K compressor.

ACTION

AI 1 HFI
end July 03

AI 2 HFI
end July 03

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ACTION

LFI Instrument

BEU redesign

Design is in progress at LABEN.

Next week a teleconference will be held

between ASP & LABEN to settle the

interface between BEU & S/C.

ASP to provide out of plane strength of the structure
Mechanical analyses

AI 3 ASP

LABEN will deliver the analyses end of July.

RAA FEM will be delivered end of July also.

Displacement analyses not expected before beginning of September.

LABEN provides draft drawing of the RAA.

LABEN proposed some text on W/G

(see annex).



SCS Instrument:

SCC attachment: work in progress with Alenia

SCC deliveries: listed in redline copy of

IIDB. JPL will also provide a dummy

Cold End.

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ACTION

COLD TARGET FOR CSL FACILITY

The definition provided by LFI, following the request from Alcatel, appears to be far too complex ~~for~~ to implement for the purpose of the functional test.

LFI will provide a rationalised engineering approach to avoid the tall pyramids. In addition, a possible solution could be implemented with an ECCOSORB[®] piece finished ~~with~~ ^{with} a rough surface.

HEAT SWITCH

The heat switch is a priori needed only on ground. It could be developed by L. Durban if ordered beginning of September. Development duration: about 6 months. The ^{cool-down} time gained by this heat switch is still to be computed and balanced against the cost of the HSW.

ASP has to propose an accommodation for the HSW.

ATI 4 ASP



ACTION ITEM LIST

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MEETING TITLE:

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INITIATOR Firm / person	ACTION			DATE
	N°	DESCRIPTION	ACTIONEE Firm / person	DUE
	1	HFI to provide documentation on TDR of GKCCU	HFI	31/7/03
	2	HFI to propose qualification program of GKCCU	HFI	31/7/03
	3	ASP to provide out of plane strength of the elements on the subplatform	ASP	31/7
	4	ASP to propose an accommodation for the head switch	ASP	31/07

HFI INSTRUMENT

4K compressor temperature issue

Previous max temperature at CCU side interface in IID-B 2.1 was 40°C

New requirement from HFI : 15°C (25°C max)

SVM panel is at 15°C nominal ; 24°C with margin for uncertainties

Gradient between panel and CCU feet estimated at 20°C due to very poor thermal interface between the feet and the panel (56 cm²).

Improvement of this interface may solve the problem.

Gradient between CCU feet and head estimated at 25°C

4K compressor EMC issue

ASP proposal to put a mu-metal cover on the compressor seems to be difficult to accommodate. Waiting for a formal answer from HFI

PAU-REU harness accommodation issue

Length expected to be < 5 meters by integration with a half opened SVM panel

Details of accommodation of the loop on REU side still to be defined

Grounding to be defined

JFET box interface : frozen on our side, waiting for a design from O Galileo

LFI INSTRUMENT

BEU redesign

Goal is to reduce the mass to 30.6 kg (IIDB 2.1 allocation)

Interface with the spacecraft will change (based on preliminary design)

3 box instead of 1 (thermal and mechanical behaviour to be analysed)

Waveguide upper structure now directly attached to the subplafrom : new interface

Harness now coming from the space side : degradation of thermal dissipation, difficult/impossible to accommodate the harness in this area

ASP is waiting for a formal proposal

Mechanical analyses still ongoing in LABEN

FEM model of the RAA delivery due date on 13 June

Dynamic analysis delivery due date on 11 June

Displacement analysis between BEU and FPU asked in march 2003, no answer

RAA interfaces

Information needed urgently for both PPLM design and RAA STM design

No answer form LABEN for the last 2 months

SORPTION COOLER

SCC attachment on SVM panel

New proposal from ALS leads to negative margin on pipes within the compressor (because of the offset change from 25 mm to 30 mm)

JPL advise a baseplate under the non bed area

Nevertheless, JPL analysis are based on the old FEM model from ALS with the old attachment pattern

Way forward :

- ASP and ALS to improve the current ALS proposal,

- ALS to issue a new FEM model of the panel

- JPL to perform coupled analysis SCC/panel to check the stress in the pipes

SCC test on a dummy panel

- JPL test definition based on the TN from P Clavel

- Offset of the heat pipes taken as in ALS model : 25 mm

Pipes elementary test on a panel (agreed on last February meeting)

- JPL to sent test prediction this week

- Test postponed to October due to funding problem

SORPTION COOLER

JPL delivery status

JPL will deliver a dedicated PACE for the CQM test

JPL will deliver dummy pre-coolers for the second CQM PACE

JPL will deliver both flight PACE welded to their compressor

JPL will deliver bits and pieces for the PGSE. ASP is currently analysing 2 options : using the hardware from JPL or developing a complete PGSE (subcontract to Air Liquide)

SCS MGSE still unclear