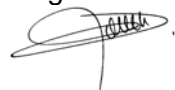
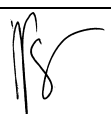
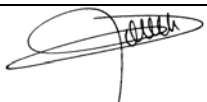


<b>PROJECT : Herschel</b>		<b>NON CONFORMANCE REPORT</b>	
<b>Subsystem : SMECm</b>		Unit : <b>SPIRE</b>	
<b>Model : FM</b>		Identif. Number : <b>SMEC FM</b>	
NCR occurred during : Manufacture [ ] Inspec [ ] Test [ <b>X</b> ] Integ [ ] Other [ ]			
NCR Title : Lost of the electric signal coming from the encoder			
<b>NCR Description:</b> Discrepancy on the electric signal coming from the encoder through preamplifier board of the FM mechanism. See the Full NCR description on page 2.  See also discrepancy ref LAM.SSP.SPI.ANO.060619_01			
Originator Name : G. Rousset		Date 20/06/2006	Signature : 
<b>Cause of the NCR :</b> Water condensation on the whole mechanism + Soldering flux residues		Major [ ]	Minor [ <b>X</b> ]
Disposition/Corrective Action : Modify the soldering procedure and the cleaning procedure.		Corrective action carried out : Name :  Date :	
MRB date :		MRB Minute Ref : No Report	
MRB Conclusion : Replace the Preamplifier board by a new one. Modify the soldering procedure. Modify the cleaning procedure of the PC board after the soldering of the wires			
Responsible for corrective Actions : D. Pouliquen		All Corrective Actions Carried Out : Yes [ <b>X</b> ]      No [ ]	
	Date	Signature	
RAL Project manager :			
RAL PA/QA			
LAM Project manager	20/06/2006		
LAM PA/QA	20/06/2006		

**NCR Description :**

During the verifications done before the thermal test, it is noticed the loss of the signal coming from the encoder:

- On the main channel there is no correct signal
- On the redundant channel : only the 120° signal is correct

The LVDT will be used during the test.

After the test, the preamp PC board is examined and some corrosion marks are identified.

It has to be reminded that the mechanism suffered a water condensation problem before the cold test in CSL (see NCR ref LAM.SSP.SPI.NCR.060410\_01\_10). After evaporation of the water some electrical and functional tests were implemented and did not reveal any discrepancy. Three weeks later some electrical problems have been identified. After discussion with CNES expert, the problem could have two origins: the residues of soldering flux which were identified after the board cleaning and the water condensation that occurred before the cold test. The joint defects are certainly the origin of an acid production that could have damaged the PC board.

**Modification of the soldering procedure:**

In order to make the cleaning easier, the preamplifier board will be soldered out of the mechanism and it will be integrated after the end of the cleaning operation.

**Modification of the cleaning procedure:**

During the soldering activities, the cleaning of the PC board will be carried out twice a day.