

PROJECT : Herschel		NON CONFORMANCE REPORT	
Subsystem : SMECm		Unit : SPIRE	
Model : FM		Identif. Roof top S/N 12 Drawing : SPI-MEC-40-DD-01 D1	
NCR occured during : Manufacture [] Inspec [] Test [X] Integ [] Other []			
NCR Title : Scratch on the FM roof top mirror (S/N #12) (This issue supersedes the preceding one for which the NCR was addressed, by mistake, to the S/N 10)			
NCR Description : A scratch was done on the optical surface of the mirror during the vibration handling operations; After investigations, this scratch is out of the useful area.			
Originator Name : G. Rousset		Date 10/03/2006	Signature : 
Cause of the NCR : contact with a tool.		Major [X]	Minor []
Disposition/Corrective Action :		Corrective action carried out : Name : Date :	
MRB date : 10/03/2006		MRB Minute Ref : see the conclusion here after	
MRB Conclusion: The scratch is out of the useful area. Let's assume that it was inside the useful surface, the dimensions of the scratch are roughly 7mm length and 0.15mm width, so a surface of about 1.05mm ² . The impact of the optical beam on the mirror has a diameter of about 25mm (pessimistic assumption since the impact is elliptic and has a larger surface) so a surface of 491mm ² . The ratio between the damaged area and the useful area is 1.05/491=0.002. This means that 2/1000 of the useful light is lost and convert into stray light in the instrument. Even in this assumption the roof top would have been acceptable. (K.Dohlen, A. Origné, G. Rousset)			
Responsible for corrective Actions :		All Corrective Actions Carried Out : Yes [] No []	
	Date	Signature	
RAL Project manager :			
RAL PA/QA			
LAM Project manager	10/03/2005		
LAM PA/QA	10/03/2005		



