



## 1 General Comments

The activities scheduled for this week are those planned for calendar week 08 of year 2014, from 17/02/2014 to 24/02/2014 (DOYs 048 to 055).

The following routine activities were planned during this week (see Gantt chart on next page):

- X-band passes over ESAC and Svalbard.
- One PMS offset including three Short Calibrations on day 20/02/2014 (orbit 22613) at 15:16:00.000z, 15:16:34.800z and 15:17:09.600z
- Local oscillator calibration every 10 minutes.

## 2 Mission Planning Deviation

A MIRAS onboard CCU reset happened on 19/02/2014 at 03:20:55.401z. Due to that, a replanning of the whole week was again sent to CNES on that day. The following X-band passes over Svalbard on day 19/02/2014 at 08:19:13z, 10:01:43z, 11:43:25z, 13:23:52z, 15:03:45z and 16:43:32z were not commanded and therefore data not acquired from ground (further details can be found in section 5 of this report)



# Operations Notes

FOS Team @ ESAC

Topic:  
Date:  
Issue:

**FOS Report for week 08**  
from the 17/02/14 to the 24/02/14  
**1.0**

	FEB-2014						
	Mon, 17-FEB-2014	Tue, 18-FEB-2014	Wed, 19-FEB-2014	Thu, 20-FEB-2014	Fri, 21-FEB-2014	Sat, 22-FEB-2014	Sun, 23-FEB-2014
Int_LO_Phase_Cal_NoUnoise_FULL_NotEXT_SEQ	[Solid black bar]						
XB_Cmd_Downlink_Svalb_SEQ	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]
SBand_Visibility_SEQ	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]
XB_Cmd_Downlink_Vilspa_SEQ	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]	[Vertical bars]
Disable_Cyclic_Function_SEQ				[Diamond]			
PMS_Offset_Calibration_Full_SEQ				[Vertical bar]			
Enable_Cyclic_Function_SEQ				[Diamond]			



### 3 TC Failures

None.

### 4 Unforeseen Out Of Limits (OOLs)

CCU Reset on day 19/02/2014 (see Appendix-A for further details)

Mass Memory latch on partition P4 on day 21/02/2014 (see Appendix-A for further details)

### 5 On Board Anomalies

- A new MIRAS CCU reset happened on day 19/02/2014 at 03:20:55.401z. Last CCU reset occurred exactly six months ago on the 19/08/2013. This last reset, as in previous occasions happened at the end of the Svalbard pass programmed from 03:16:01z to 03:26:23z on that day. A first suspicion of the problem was raised by DPGS team at ESAC since the first ESAC pass of that morning was not properly acquired by the station. The following XBand ESAC pass was successfully acquired but the following Svalbard pass programmed at 08:19:13z did fail. Around 09:00z the FOS Payload Engineer contact KSAT team in order to cross check the data acquisition failure on the station. Few minutes later and after KSAT confirmation on that anomaly, the CNES Operations Manager was contacted by the FOS Payload Operations Engineer informing on the high probability of the CCU reset event happening during the past night. Final confirmation of the anomaly was received during the first morning SBand GS pass at 09:33:41z (real data reception on the ESAC side around 10:10:00z).

In order to allow a quick recovery process during the day, CNES scheduled an extra SBand pass in the afternoon with Aussaguel station at 16:52:00z. A new CRF number 403 containing the recovery instructions for the CCU reset and the upload of a new planning timeline was sent by FOS around 11:02z. CNES confirmed the successful uplink of this CRF during the first available pass in that morning KER-34 at 13:57:14z. The start of the CCU recovery was confirmed on Telemetry at 13:59:40z.

- A new Mass Memory latch up happened in partition P4 on day 21/02/2014 at 22:41:13z. At the time of the anomaly, the Write pointer was located on P4 partition while the Read pointer was on partition P5.

The geolocation of this event was:

Longitude= 284.35, Latitude -32.21



## 6 Telemetry On Board Events in the period.

The following RAM Single bit errors were detected during the present reporting period.

Event Description	Severity	Event Time	Parameters
RAM Single Bit Error	Warn	2014.054.20.29.14.355	2213860

## 7 FOS System Status

- On 18/02/2014 the MUSTPC2 system was out of service due to a system hardware maintenance (installation of a new hardware disk). The system went back to nominal late in the afternoon on that day.
- The installation of a new SW tool to ingest XBand data into the MUST system has been tested by GMV on 18/02/2014. The tool will be further tested and checked by the FOS team and GMV before to put it operational. The idea of this new tool is to fill telemetry gaps produced by the lack of telemetry data on the SBand side.
- The virtualization of the PLPCDEV system, PLPC validation chain system, started on the 18/02/2014. The work will continue for about few weeks.

## 8 Data Reception from CNES

All SBand passes have been nominally acquired and processed by FOS.

## 9 X-Band Data Reception in PXMF

Not used during the present reporting period since no S-Band passes were lost during this week

## 10 Exceptional Activities

An exceptional CRF number 402, was issued by the FOS on day 19/02/2014 in order to recover the CCU reset anomaly on that day.

## 11 AOB

Preparation tasks for the onboard upload of the two new versions of OBOP 30 and 31 have been performed during this week. Final upload of the RAM memory patch containing the code for those two OBOPs will take place in two weeks from now on the 03/03/2014 and the execution of a test NIR calibration on the 05/03/2013.



### APPENDIX A: OOL's

The following set of parameters went out of limits as consequence of the CCU reset and the Mass Memory latch up error above reported.

OBT	Severity	TM parameter	Alarm value	Check value	Message
2014.050.10.10.04.527	ERROR	SPM22167	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.529	ERROR	SPM21167	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.531	ERROR	SPM20167	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.533	ERROR	SPM19167	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.535	ERROR	SPM18167	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.538	ERROR	SPM17167	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.540	ERROR	SPM16167	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.544	ERROR	SPM15167	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.551	ERROR	SPM14167	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.553	ERROR	SPM13167	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.554	ERROR	SPM12172	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.557	ERROR	SPM11167	UNLOCK	LOCK	STATUS limit is out of nominal range
2014.050.10.10.04.559	ERROR	SPC02106	Init Init	Dual Pol, Full Pol, Calibration, Test	STATUS limit is out of nominal range
2014.050.10.10.04.566	ERROR	XNIRABST	NOT-OK	OK	STATUS limit is out of nominal range
2014.050.10.10.04.568	ERROR	XNIRBCST	NOT-OK	OK	STATUS limit is out of nominal range
2014.050.10.10.04.569	ERROR	XNIRCAST	NOT-OK	OK	STATUS limit is out of nominal range
2014.050.14.33.05.984	ERROR	NTLHK022	Disabled	Enabled	STATUS limit is out of nominal range



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2014.053.00.11.12.203	ERROR	DMASME37	FALSE	True	STATUS limit is out of nominal range
2014.053.00.11.12.208	ERROR	DMASME08	OFF	ON	STATUS limit is out of nominal range