1 General Comments

The activities scheduled for this week are those planned for calendar week 10 of year 2014, from 03/03/2014 to 10/03/2014 (DOYs 062 to 069).

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

- X-band passes over ESAC and Svalbard.
- One Exceptional NIR External calibration on 05/03/2014 with ETO at 02:51:00z with the following calibration values:
  Brightness Temperature=3.978208
  RMS=0.547497
  Sun Elevation above MIRAS= -8.749002
  RA= 81.687943
  DEC=46.992737

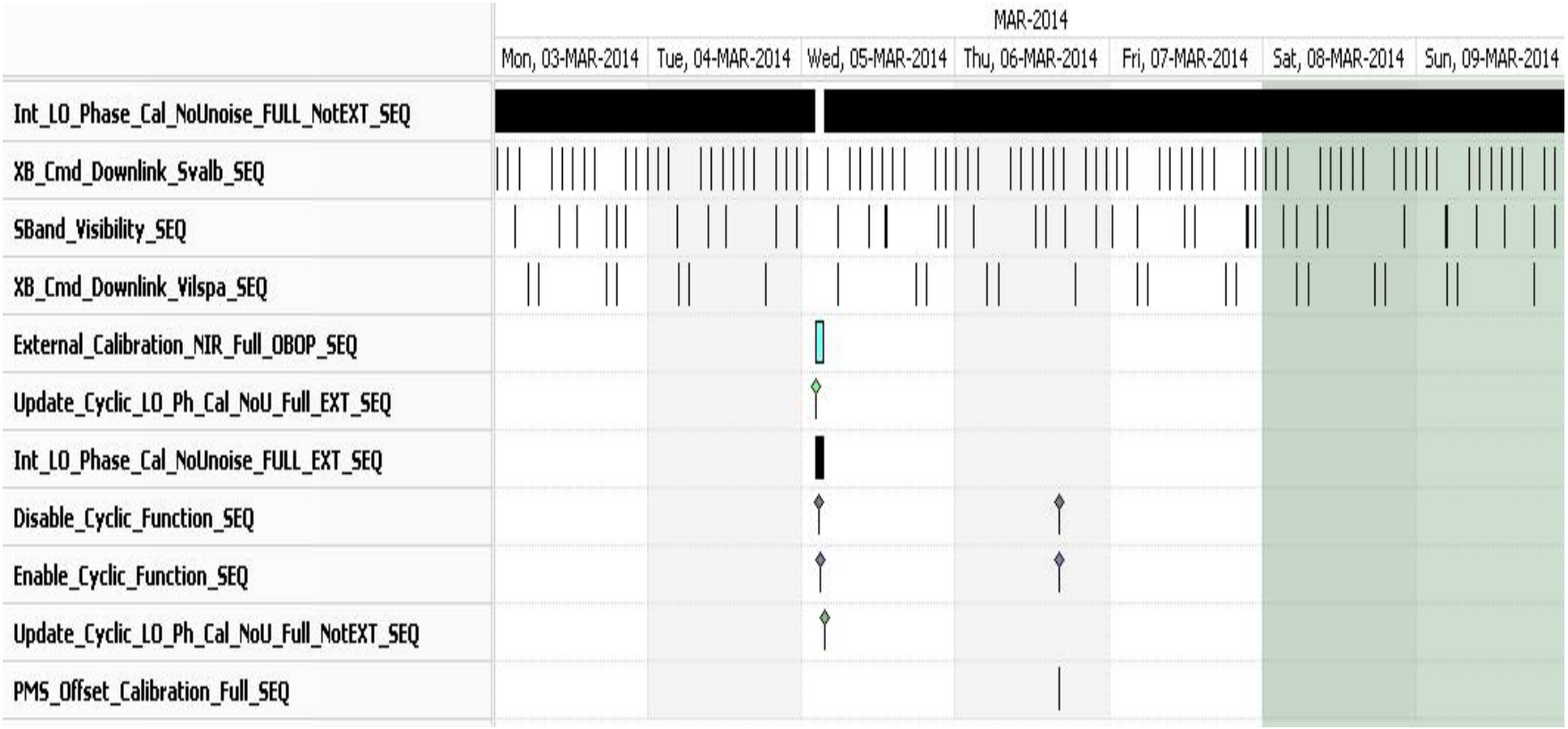
- One PMS offset including three Short Calibrations on day 06/03/2014 (orbit 22815) at 16:10:15.000z, 16:10:49.800z and 16:11:24.600z
- Local oscillator calibration every 10 minutes.

The exceptional NIR calibration was scheduled in order to verify the on-board execution of new versions of OBOPs 30 and 31.

On top of this planned activities, an Orbit Correction Manoeuvre was planned by CNES on the 06/03/2014.

2 Mission Planning Deviation

Due to the fact that Orbit Correction manoeuvre on the 6th of March was conflicting with the scheduled Svalbard pass on 06/03/2014 at 23:40z, that pass was cancelled onboard.


MAR-2014
Mon, 03-MAR-2014
Tue, 04-MAR-2014
Wed, 05-MAR-2014
Thu, 06-MAR-2014
Fri, 07-MAR-2014
Sat, 08-MAR-2014
Sun, 09-MAR-2014
Int_LO_Phase_Cal_NoUnoise_FULL_NotEXT_SEQ
XB_Cmd_Downlink_Svalb_SEQ
SBand_Visibility_SEQ
XB_Cmd_Downlink_Vilspa_SEQ
External_Calibration_NIR_Full_OBOP_SEQ
Update_Cyclic_LO_Ph_Cal_NoU_Full_EXT_SEQ
Int_LO_Phase_Cal_NoUnoise_FULL_EXT_SEQ
Disable_Cyclic_Function_SEQ
Enable_Cyclic_Function_SEQ
Update_Cyclic_LO_Ph_Cal_NoU_Full_NotEXT_SEQ
PMS_Offset_Calibration_Full_SEQ

3 TC Failures

None.

4 Unforeseen Out of Limits (OOLs)

The only relevant Out of Limits this week were the ones related with the MIRAS onboard reconfiguration required for the spacecraft OCM (see Appendix A).
As part of this instrument reconfiguration, the MIRAS internal timeline was disabled during the whole duration of the manoeuvre (parameter NTLHK022) but also the internal GPS time was switch to the PROTEUS internal time (parameter DPC10107).

5 On Board Anomalies

None.

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	2014.063.22.41.14.933	2287A6C
RAM Single Bit Error	WARN	2014.063.23.24.07.754	20009F0
RAM Single Bit Error	WARN	2014.067.21.54.11.387	22AB380

7 FOS System Status

All FOS subsystems behaved nominally during the present reporting period.

8 Data Reception from CNES

- The following list of telemetry data gaps were received on Kerguellen pass number 12 on 06/03/2014 at 12:31.

Onboard Time Starts	Onboard Time Ends	Ground Segment Time	Packets	APID	SSC
2014.065.10:35:10.109	2014.065.10:35:10.709	2014.065.13.22.14.975	16	2	13236
2014.065.10:35:56.509	2014.065.10:37:02.520	2014.065.13.22.16.344	110	2	13427
2014.065.10:37:27.711	2014.065.10:37:32.511	2014.065.13.22.17.093	7	2	13478
2014.065.10:37:42.121	2014.065.10:37:46.921	2014.065.13.22.17.433	7	2	13502
2014.065.10:38:16.911	2014.065.10:38:18.254	2014.065.13.22.18.321	7	2	13560
2014.065.10:38:26.511	2014.065.10:38:31.311	2014.065.13.22.18.459	9	2	13578
2014.065.10:39:25.312	2014.065.10:45:38.527	2014.065.13.22.20.030	709	2	14379
2014.065.10:45:49.328	2014.065.10:46:52.718	2014.065.13.22.20.371	7	2	14405
2014.065.10:46:16.928	2014.065.10:46:21.718	2014.065.13.22.21.054	6	2	14451
2014.065.10:46:36.118	2014.065.10:46:38.528	2014.065.13.22.21.465	4	2	14480
2014.065.10:47:22.919	2014.065.10:47:25.329	2014.065.13.22.22.764	4	2	14560

- For Kerguellen pass number 14 on 07/03/2014 the following Telemetry file was moved to fail PLPC directory indicating that some other files were missing.

GS_TIME	PUS_HKTM/failed
2014.066.12.34.29.550	SMO_PLTM1_P_2014_03_07_11_56_40

9 X-Band Data Reception in PXMF

The PXMF system was used during this week to cover the Sband gaps reported in the paragraph before.

10 Exceptional Activities

- **Validation of OBOPs 30 and 31:**

The following list of events were programmed this week in order to onboard validate the new versions of OBOPS 30 and 31:

1. On 03/03/2014 upload of the RAM memory patch containing the new versions of OBOP 30 and 31. Together with this, memory dumps and checksums for the affected memory areas were also commanded.
2. In the morning of the 04/03/2014 the verification of the above activities were made by FOS followed by a dedicated telecom with CNES to agree the final upload of the manoeuvre commands required for the NIR calibration the following day.
3. On 05/03/2014 at 02:51z (ETO time), execution of the NIR calibration observation to be used as final onboard validation of these two OBOPs.

All these activities were successfully executed and both OBOPs, 30 and 31, can be considered successfully validated (a detail report has already been issued by FOS)). The CEC team also successfully checked the set of Science data products, out of this calibration activity. Based on this validation, FOS already instructed CNES to

put operational the list of affected procedures for this new implementation (Procedures PRO-CRP-100 and PRO-FCP-55).

- **Orbit Correction manoeuvre:**

A new SMOS Orbit Correction Manoeuvre (OCM) was planned by CNES on 06/03/2014 at 23:31z. The affected time for the manoeuvre went from 23:20:27z to 23:50:46z and the data for that period flagged as usual with an external APID. Since an X-band pass on 06/03/2014 at 23:40z over Svalbard was conflicting with that manoeuvre that pass was cancelled onboard.

As part of the operational procedure used to set up MIRAS in the proper mode during that manoeuvre, procedure PRO-CRP-600, the internal onboard timeline, ITL, was temporary stopped during the whole manoeuvre and the internal GPS time switched to PROTEUS time from 06/03/2014 14:16:59z.
As consequence of that, two out of limits appeared on the PLPC system in parameters NTLHK022 and DPC10107 respectively. GPS time parameter went out of limits from 06/03/2014 14:16:59z to 07/03/2014 at 11:57z

11 AOB

None.

APPENDIX A: OOL's

Due to the MIRAS configuration required during the Orbit Calibration Manoeuvre, the following parameters went Out of limits.

OBT	TM ID	OOL VALUE	OOL CHECKED	OOL MESSAGE
2014.065.14.16.59.044	DPC10107	PROTEUS STATE	GPS State	STATUS limit is out of nominal range
2014.065.23.20.28.866	NTLHK022	DISABLE	ENABLE	STATUS limit is out of nominal range