1 General Comments

Activities scheduled for this week are those planned for the 12th calendar week of 2020:

16 MAR 2020 to 23 MAR 2020 (DOYs 076 to 083).

The following routine activities were planned this week (see Gantt chart on next page and CRF 872).

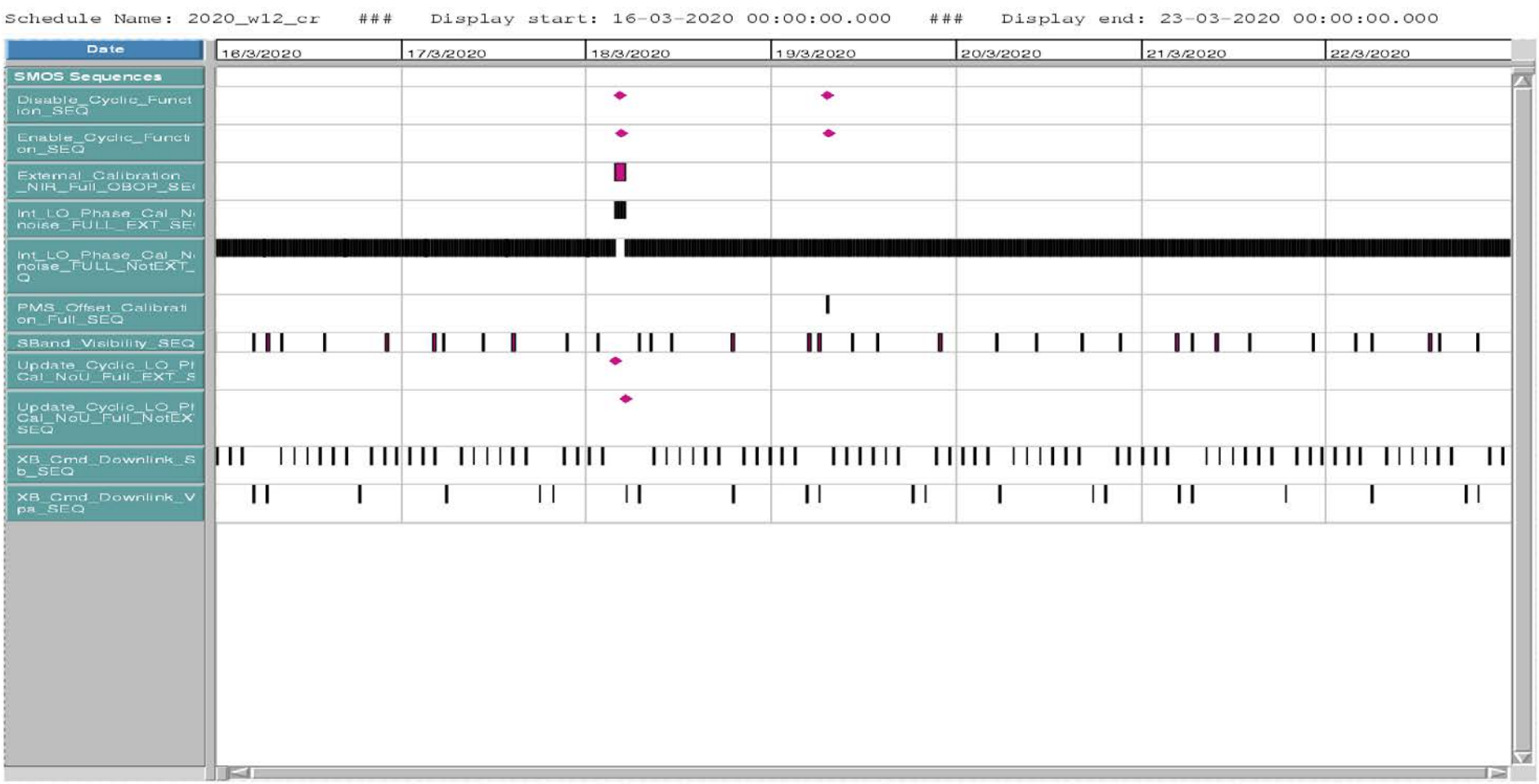
- One Warm NIR Calibration on 18 MAR 2020 (DOY 078) with ETO 04:25:42z (orbit 54522; DESCENDING: thermally UNSTABLE) and with the following expected calibration values:

```
B.T.           =    3.81º
R.M.S.         =    0.42
Sun elevation  =    7.60º
Moon elevation =  -17.77º
R.A.           =   77.89º
DEC.           =  -43.61º
```

- One PMS Offset on 19 MAR 2020 (DOY 079), including three Short Calibrations at 07:17:30.0z, 07:18:04.8z, and 07:18:39.6z (orbit 54538).
- Local Oscillator Calibrations every 10 minutes.
- *X* band Passes over ESAC and Svalbard.

2 Mission Planning Deviations

None.


Schedule Name: 2020_w12_cr ### Display start: 16-03-2020 00:00:00.000 ### Display end: 23-03-2020 00:00:00.000
Date
16/3/2020
17/3/2020
18/3/2020
19/3/2020
20/3/2020
21/3/2020
22/3/2020
SMOS Sequences
Disable_Cyclic_Function_SEQ
Enable_Cyclic_Function_SEQ
External_Calibration_NIR_Full_OBOP_SE
Int_LO_Phase_Cal_Noise_FULL_EXT_SE
Int_LO_Phase_Cal_Noise_FULL_NotEXT_Q
PMS_Offset_Calibration_Full_SEQ
SBand_Visibility_SEQ
Update_Cyclic_LO_PhCal_NoU_Full_EXT_S
Update_Cyclic_LO_PhCal_NoU_Full_NotEXSEQ
XB_Cmd_Downlink_Sb_SEQ
XB_Cmd_Downlink_Vpa_SEQ

3 TC Failures

None.

4 On Board Anomalies

- MIRAS instrument MM, partition P1, latched up 2020-03-21T20:16:51,090z (DOY 081). The following parameters went out of limits in the PLPC system:

  2020.081.20.16.51,090z DMASME11 LU Switch P1
  2020.081.20.16.51,090z DMASME37 SDD LU Detected

  This anomaly was geolocated over the Artic Ocean, just north of the Jan Mayen Island (Norway):

  Latitude = 71.77°
  Longitude= 352.76°

  There were science data losses associated with this anomaly because it affected partition P1, while the Read and Write pointers were both on partition P2 and data had not been downloaded yet. P1 latched up in the middle of an X band Svalbard GS pass. Recovery took place the following Monday, 23 MAR 2020, at 19:20:00z (CRF 875).

  At the time of the anomaly the position of the MM pointers were as follows:

  READ = 1020623 (partition P2)
  WRITE = 1038169 (partition P2)

- MIRAS instrument MM, partition P8, latched up 2020-03-21T18:37:48,620z (DOY 081). The following parameters went out of limits in the PLPC system:

  2020.081.18.37.48,620z DMASME08 LU Switch P8
  2020.081.18.37.48,620z DMASME37 SDD LU Detected

  This anomaly was geolocated just north of the Lofoten Archipelago (Norway):

  Latitude = 68.43°
  Longitude= 12.81°

  There were no science data losses associated with this anomaly because it affected partition P8, while the Read and Write pointers were both on partition P1. Recovery took place on Monday, 23 MAR 2020, at 19:20:00z (CRF 875). At the time of the anomaly the position of the MM pointers were as follows:

  READ = 514809 (partition P1)
  WRITE = 785959 (partition P1)

5 On Board Events Telemetry

The following RAM Single Bit errors befell this week:

Event Description	Packet ID	Severity	Event Time	Parameters
RAM single Bit Error	730	WARN	2020-03-19T22:54:58	22CD40C
RAM single Bit Error	730	WARN	2020-03-18T11:02:12	20E4BAC

6 FOS Systems Status

New version of FlexPlan version 4.5.2 was installed on SPGF-3 machine on 19 of March 2020. This new version was previously tested on the 5 of March on SPGF-3.

7 Data Reception from CNES

All *S* band passes were correctly received from CNES and successfully processed by the FOS PLPC system, with the following exceptions:

- Because an issue with the receiving station, S band GS pass HBX-13 (AOS = 2020-03-20T16:16:07z; LOS = 2020-03-20T16:30:29z) contained one E HKTM gap. The gap went:

  from 2020-03-20T10:22:17z to 2020-03-20T16:18:01z

  MIRAS PUS TM was not affected. All PUS TM came through without gaps. The full E HKTM for this pass was lost.

8 *X* Band Data Reception in PXMF

None, all *S* band passes successfully received and processed.

9 Exceptional Activities

None.

10 AOB

None.

APPENDIX A: OOLs

At the time of the Mass Memory latch up on the 21st of March the following two TM parameters went out of limits on the FOS PLPC system.

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2020-03-21T22:51:15	2020-03-21T20:16:51	DMASME37	SDD LU Detected	FALSE	TRUE
2020-03-21T22:51:15	2020-03-21T20:16:51	DMASME11	LU Switch P1	OFF	ON

and also for the previous latch up of the same day the following parameters went out of limits on the PLPC system

GS_TIME	OB_TIME	PARAMETER	DESCRIPTION	OOL Value	Check Value
2020-03-21T22:46:27	2020-03-21T18:37:48	DMASME37	SDD LU Detected	FALSE	TRUE
2020-03-21T22:46:27	2020-03-21T18:37:48	DMASME04	LU Switch P8	OFF	ON