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Title : **IDEAS+ – SMOS Public Monthly Report - August 2015**

Abstract : This document provides a summary of the status and performance of SMOS over the course of the reporting month.

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AMENDMENT POLICY

This document shall be amended by releasing a new edition of the document in its entirety. The Amendment Record Sheet below records the history and issue status of this document.

AMENDMENT RECORD SHEET

ISSUE	DATE	DCI No	REASON
1	15 September 2015	N/A	First release

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1. EXECUTIVE SUMMARY

This is the routine Soil Moisture and Ocean Salinity (**SMOS**) Monthly Public Report containing a summary of the instrument health, product quality status and updates to SMOS processing and AUX files during August 2015.

The instrument health during August was found to be nominal. There were three unavailabilities reported during the reporting period that translate into time intervals with data loss or degraded data. The list of unavailabilities is included in the section 3.2.

The data quality during August was found to be nominal, with the exceptions listed in section 4.5. These degraded periods have been induced either by instrument anomalies or unavailability of dynamic auxiliary files.

2. INTRODUCTION

2.1 Structure of the Document

After this introduction, the document is divided into a number of major sections that are briefly described below:

1 Executive summary

The executive summary covers the main findings from the report.

2 Introduction

A list of referenced documents and definitions of terms are available.

3 Instrument status

This section covers the instrument health and unavailabilities from this reporting period.

4 Data Summary

This section covers reprocessing, updates to processors and aux files as well as a data coverage summary.

5 Long Term Analysis

Long-term analysis of the instrument calibration and data quality are provided in this section.

2.2 Definitions of Terms

The following terms have been used in this report with the meanings shown.

Term	Definition
CMN	Control and Monitoring Node, responsible for commanding the receivers, reading their physical temperatures and telemetry and the generation of the synchronization signal (local oscillator tone) among receivers.
CCU	Correlator and Control unit, instrument computer on-board
DPGS	Data Processing Ground Segment
ESL	Expert Science Laboratory
IC4EC	Internal Calibration for External calibration. Calibration sequences for the instrument monitoring and calibration of science data acquired in external target pointing.
IDEAS+	Instrument Data quality Evaluation and Analysis Service, reporting to the ESA Data Quality and Algorithms

Management Office (EOP-GQ), responsible for quality of data provided to users including the data calibration and validation, the data processing algorithms, and the routine instrument and processing chain performances.

IPF	Instrument Processor Facility
L2SM	Level 2 Soil Moisture
MM	Mass Memory
OCM	Orbit Correction Manoeuvre
PMS	Power Measurement System
RFI	Radio Frequency Interference
N/A	Not applicable

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3. INSTRUMENT STATUS

3.1 Instrument health

The current instrument status is that all the **instrument** subsystems are working correctly. The current configuration of the instrument is that the arm A and the arm B are working in nominal side and arm C is in the redundant side.

Table 3-1 History of instrument problems and mode changes

Start	Stop	Description
11 January 2010 12:07z Orbit 1013	N/A	Arm A changes from redundant to nominal side. That operation is to avoid the malfunction of one of the redundant CMNs of the arm.
12 January 2011 09:15z Orbit 6278	N/A	Arm B changes from redundant to nominal side. That operation is to avoid the malfunction of one of the redundant CMNs of the arm.

3.2 Instrument unavailabilities and anomalies

The unavailabilities and anomalies listed in Table 3-2 occurred during the reporting period. A full list of unavailabilities can be found in the Mission Status section on the SMOS Earthnet website (http://earth.esa.int/object/index.cfm?fobjectid=7060).

During these unavailabilities and anomalies the instrument may have either not collected data or may have collected corrupt data which may not have been processed to higher levels. Table 4-5, Table 4-6 and Table 4-7 provide details of the data which has been affected by gaps and quality degradation respectively.

Table 3-2 SMOS unavailability list

Start		Stop		Unavailability Report Reference	Planned	Description
Time	Orbit	Time	Orbit			
19/08/2015 07:25	30450	19/08/2015 07:29	30450	FOS-0340	No	CCU Reset
22/08/2015 17:28	30500	22/08/2015 17:32	30500	FOS-0341	No	CCU Reset

31/08/2015 14:44	30627	31/08/2015 16:25	30628	FOS-0342	No	CCU Reset

4. DATA SUMMARY

4.1 Reprocessing activities

The information regarding to data reprocessing activities (REPR data type) during the reporting period are:

1) The second SMOS mission reprocessing for L2 was launched on 2015-07-09 at 14:44 UTC and is on-going.

The information regarding to the data regeneration activities (OPER data type) during the reporting period are:

1) Due to an anomaly in the NIR calibration on the 3rd of June 2015, the next data types had to be regenerated from 2015-06-03 06:43z to 2015-06-12 08:14z: MIR_SC_F1A, MIR_SC_F1B, MIR_SCLF1C, MIR_SCSF1C, MIR_BWLF1C and MIR_BWSF1C.

2) The 15th of August 2015 a hardware anomaly caused a TLM_MIRA1A order to fail due to timeout. Therefore, a gap in science and in calibration (CSTD1A) was introduced. The next data types and periods had then to be regenerated: failed TLM_MIRA1A at 20150815T031323, CSTD1A files with times between 20150815T003625 and 20150815T214626, affected science (from L1A onwards) between 20150815T023400 and 20150815T150753.

3) Due to a DPGS database problem system a several days delay (temporal gap) in the processing was introduced from 2015-08-28 15:51:56. The production was normalized the 6th of September 2015 when all the delayed production were recovered.

The information regarding to past version 62x data reprocessing activities (REPR data type) are:

1) The second SMOS mission reprocessing for L1 v62x finished the 25th June 2015. Sensing time of the reprocessed data goes from 12th January 2010 to 05th May 2015. Data set is available for the SMOS user community since 25th June 2015 (see the SMOS news: https://earth.esa.int/web/guest/missions/esa-operational-eo-missions/smos/news/-/article/smos-level-1-algorithm-baseline-v620-reprocessed-dataset-now-available).
   The SMOS data users are strongly encouraged to consult the level 1 read-me-first note before using the SMOS data. The level 1 read-me-first note is available here: https://earth.esa.int/documents/10174/1854503/SMOS_L1OPv620_release_note

The information regarding to the past version V62x data regeneration activities (OPER data type) are:

1) A hardware anomaly in DPGS systems introduced a large delay in the production. As a consequence some CSTD1A orders were dropped due time-out. This introduced bad-consolidated calibration in the system, with some LO gaps, which has impacted the quality of the data severely (no local oscillator calibration). Data from 20150713T194909z until 20150714T032238z is affected. All data was regenerated successfully from L0 up to L1C; L2 is still affected by this anomaly (see section 4.6).

2) Period from 29 May 2015 to 31 May 2015 have been regenerated up to L2 since one of the DPGS processing nodes (PWF-5) induced several science and calibration gaps for the reported period.

The information regarding the past version V5xx data regeneration and reprocessing activities (OPER and REPR data type) are available in the monthly report of April 2015.

4.2 Processing changes

4.2.1 Processor updates

No processor updates have been conducted during the reporting period.

4.2.2 Processor Status

At the end of the reporting period, the Processing Facility is using the following processors:

Table 4-1 Instrument Processors status

Processor	Version
L1OP	620 (L1a/L1c/NIRCAL) 621 (L1b/CAL_1A)
L2OS	622
L2SM	620

Table 4-2 Pre- and Post-processors status

Processor	Version
ECMWFP	318
VTECGN	311
LAI pre-processor	307
OSCOTT	624
L2 Post-processors	510

4.2.3 Schema updates

No schema changes have been conducted during the reporting period.

4.2.4 Schema status

At the end of the reporting period, the schema version of the datablock of the products generated and distributed through SMOS dissemination service is:

Table 4-3 Schema version status

Product type	Version
MIR_SC_F1B	400
MIR_SCSF1C	400
MIR_SCLF1C	400
MIR_BWSF1C	400
MIR_BWLF1C	400
MIR_SMUDP2	400
MIR_OSUDP2	400
AUX_ECMWF_	300

The schema packages are available from the SMOS Global Mapping Tool (GMT) webpage:

https://earth.esa.int/web/guest/software-tools/-/asset_publisher/P2xs/content/gmt-smos-global-mapping-tool

Further information about the product format is available in the level 1 and level 2 Product specification documents available here: https://earth.esa.int/web/guest/-/data-types-levels-formats-7631

4.2.5 Aux file updates

The following quasi-static AUX files were disseminated to the processing stations this reporting period. The status of the quasi-static AUX files at the end of the reporting period is in the section 7.

SM_OPER_AUX_BULL_B_20150602T000000_20150702T235959_120_001_3

Start sensing time at L1 processor: N/A

Justification: Bulletin Update including values from June 2015 and the prediction for July 2015. Its usage is intended for reprocessing.

SM_OPER_AUX_BULL_B_20150602T000000_20500101T000000_120_001_3

Start sensing time at L1 processor: 2015-08-07 09:28:57z

Justification: Bulletin Update including values from June 2015 and the prediction for July 2015. Its usage is intended for the nominal production.

4.3 Calibration Events Summary

The following table summarizes the major calibration activities conducted during the reporting period. The Local Oscillator calibration is not included in the table since occurs periodically every 10 minutes. The short calibrations are acquired weekly since 2011-03-24 and they are currently used in the nominal processing chain.

Table 4-4 Calibration summary

Date	Start Time	Stop Time	Calibration	Comments
05/08/15	04:29:53.80	05:52:07.00	NIR-Warm	Nominal Brightness temperature: 3.802500 K RMS: 0.265100 K Moon Elevation: -40.865700 Sun Elevation: 6.044700 deg Right Ascension: 229.0331 deg Declination: 34.1618 deg
06/08/15	15:04:00.40	15:05:44.80	Short	Nominal
13/08/15	15:33:00.40	15:34:44.80	Short	Nominal
19/08/15	03:41:23.40	05:03:36.60	NIR-Warm	Nominal Brightness temperature: 3.917900 K RMS: 0.287700 K Moon Elevation: 20.642300 Sun Elevation: 3.865100 deg Right Ascension: 246.0555 deg Declination: 46.4899 deg
19/08/15	15:03:00.00	17:36:04.20	Long	Nominal
27/08/15	16:27:30.00	17:29:14.40	Short	Nominal

4.4 Data Coverage Summary

Where instrument unavailabilities or anomalies have occurred during this reporting period, gaps in data coverage may have occurred. A list of the gaps due to a permanent data loss is given in Table 4-5 by product level. On the other hand, a list of gaps due to operational problems is given in Table 4-6. The latter gaps may be recovered when the problem is fixed.

The science data gaps due to the execution of calibration activities are not listed in this section.

Table 4-5 Data loss summary

Start	Finish	Data Level	Comments
19/08/2015 07:25 30450	19/08/2015 07:29 30450	All Products	CCU Reset
22/08/2015 17:28 30500	22/08/2015 17:32 30500	All Products	CCU Reset
31/08/2015 14:44 30627	31/08/2015 16:25 30628	All Products	CCU Reset

Table 4-6 Operational gaps summary

Start	Finish	Data Level	Comments
N/A	N/A	N/A	N/A

4.5 Summary of degraded data

In August 2015, SMOS data was affected by the following instrument and processing anomalies which have had a detrimental effect on the data quality.

Table 4-7 Summary of degraded data

Start	Finish	Affected products	Problem Description
N/A	N/A	N/A	N/A

4.6 Product Quality Disclaimers

The following product disclaimers affects the data generated in the reporting period:

Table 4-8 Summary of product quality disclaimers

Date	Product level	
N/A	L1 L2	Due to a software anomaly in the Level 0 processor, the *Cycle, orbit relative and orbit absolute* fields in all the product headers are incorrectly set. Those values are annotated in the headers of all the higher level products.
3 June 2015 until 12 June 2015	L2	Due to an anomaly in the NIR calibration occurred on 3 June SMOS data from sensing time 2015-06-03 06:43 UTC to sensing time 2015-06-12 08:14 UTC are degraded. The L1C data has been regenerated and disseminated to the users by the nominal SMOS data dissemination service. The L2 degraded data set will be corrected in the next level 2 reprocessing campaign. For more information see the SMOS news here.
20150713T170803z until 20150714T032238z	L2	A hardware anomaly in DPGS systems introduced a large delay in the production. As a consequence some CSTD1A orders were dropped due time-out. This introduced bad-consolidated calibration in the system, with some Local Oscilator gaps, which has impacted the quality of the data severely (no local oscillator calibration). Even though L1 has been reprocessed up to L1C level, the L2 degraded data set will be corrected in the next L2 reprocessing campaign.

5. LONG-TERM ANALYSIS

5.1 Calibration Analysis

The calibration parameters are under monitoring. During the reporting period, there have been two Warm-NIR calibrations events on 5th and 19th of August 2015.

The NIR calibration events have been monitored and the noise injection levels of the NIR diodes are stable and inside the range defined in the routine calibration plan.

The evolution of the noise temperature of the reference noise diodes Tna and Tnr computed with processor baseline V62x since the beginning of the mission is shown from Figure 1 to Figure 4. The evolution of the temperature parameters, which are related to the internal diode stability, are stable in particular for the NIR CA which is the only one used for the level 1 data calibration. The small deviation in the NIR calibration on 3rd June 2015 was due to a Radio Frequency Interference (RFI) that has corrupted the measurement. This calibration should not be used for the scientific processing of the data.

The seasonal evolution of the calibration parameters present in the previous processor baseline V5xx (see the previous monthly report for April 2015) had been largely mitigated by the new calibration algorithm which decouple the variation of the antenna losses and the drift of the reference diode. This approach allows to compensate each drift separately improving the diode stability monitoring and increasing the accuracy of the consequent calibration correction. The impact on the final brightness temperature is a more stable long term measurement.

The leakage and cross-coupling factors of the NIR channels remain small and no problems can be observed apart from a peak in the phase of the NIR-AB cross-coupling term on 11 April 2012. That peak corresponds to an anomaly in the NIR-AB that did not have impact on the data.

Figure 1 Tna evolution of NIR AB (blue), NIR BC (green) and NIR CA (red) in the H-channel since the beginning of the mission. Thresholds in dashed lines

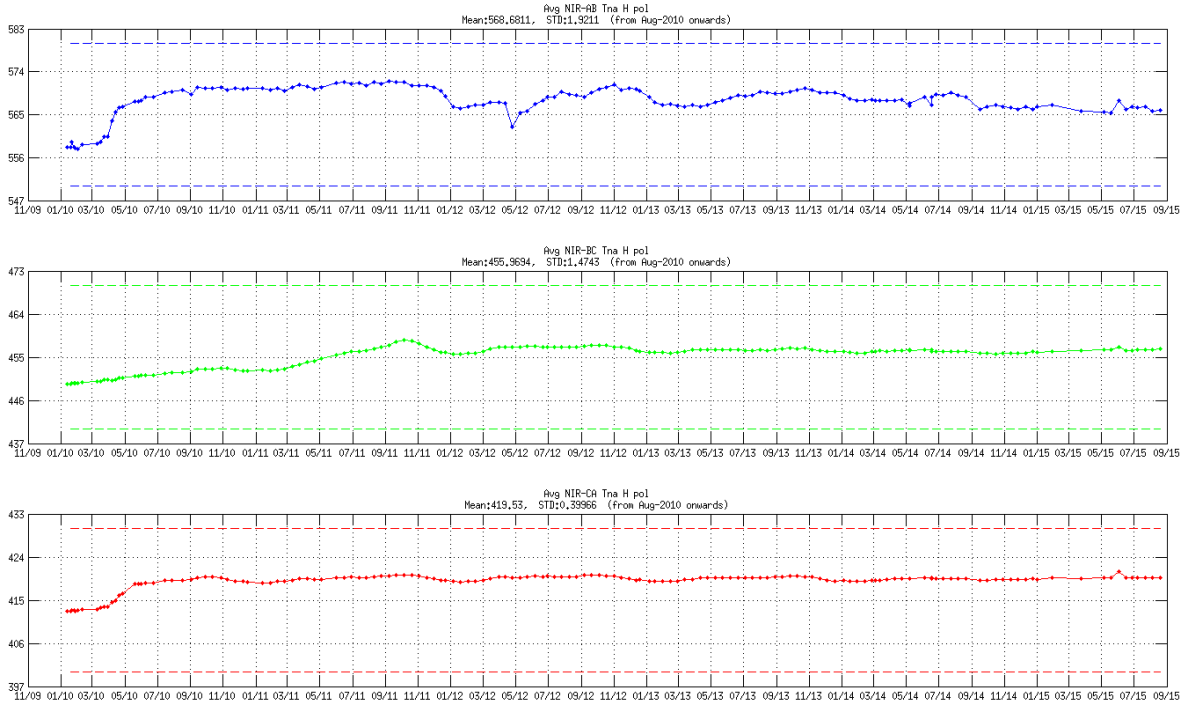


Figure 2 Tna evolution of NIR AB (blue), NIR BC (green) and NIR CA (red) in the V-channel since the beginning of the mission. Thresholds in dashed lines

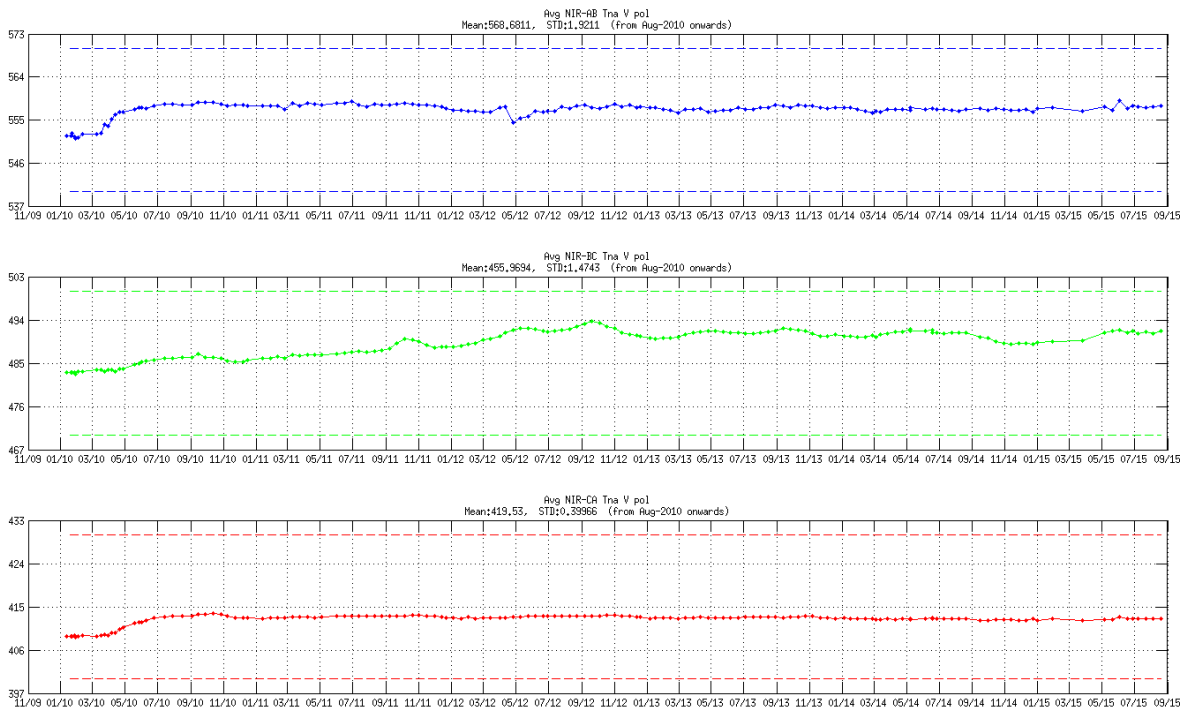


Figure 3 Tnr evolution of NIR AB (blue), NIR BC (green) and NIR CA (red) in the H-channel since the beginning of the mission. Thresholds in dashed lines

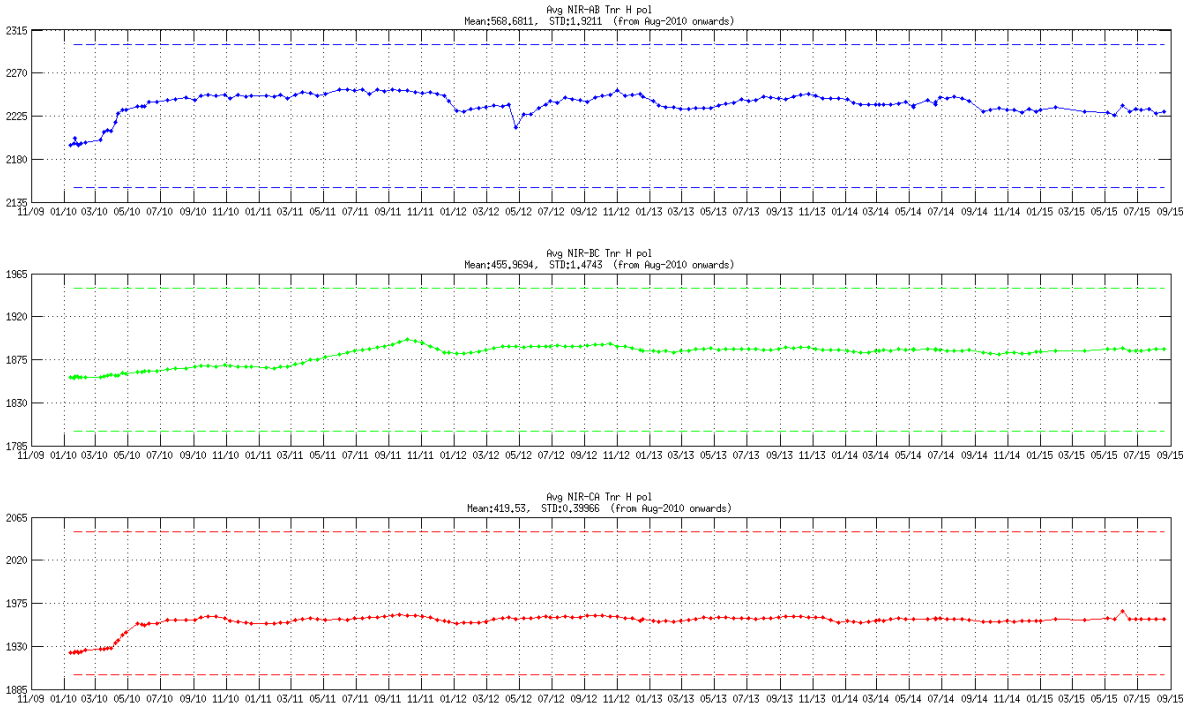


Figure 4 Tnr evolution of NIR AB (blue), NIR BC (green) and NIR CA (red) in the V-channel since the beginning of the mission. Thresholds in dashed lines

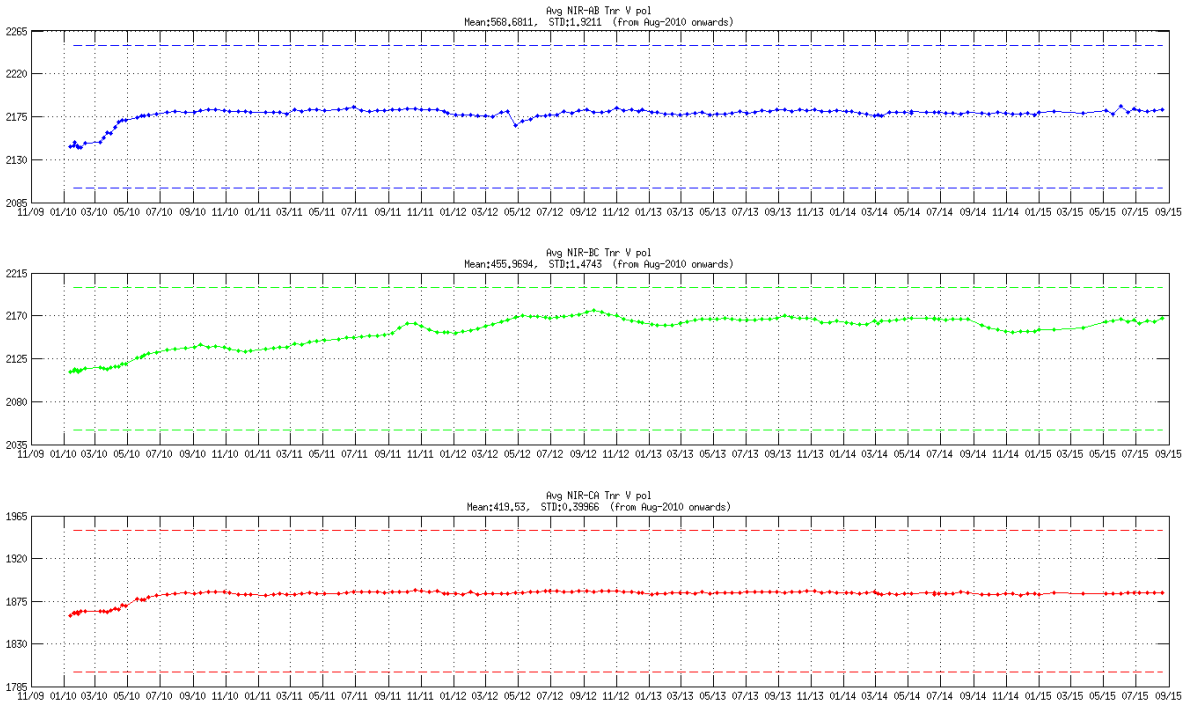


Figure 5 Cross-coupling evolution in amplitude and phase of NIR AB (blue), NIR BC (green) and NIR CA (red) since the beginning of the mission

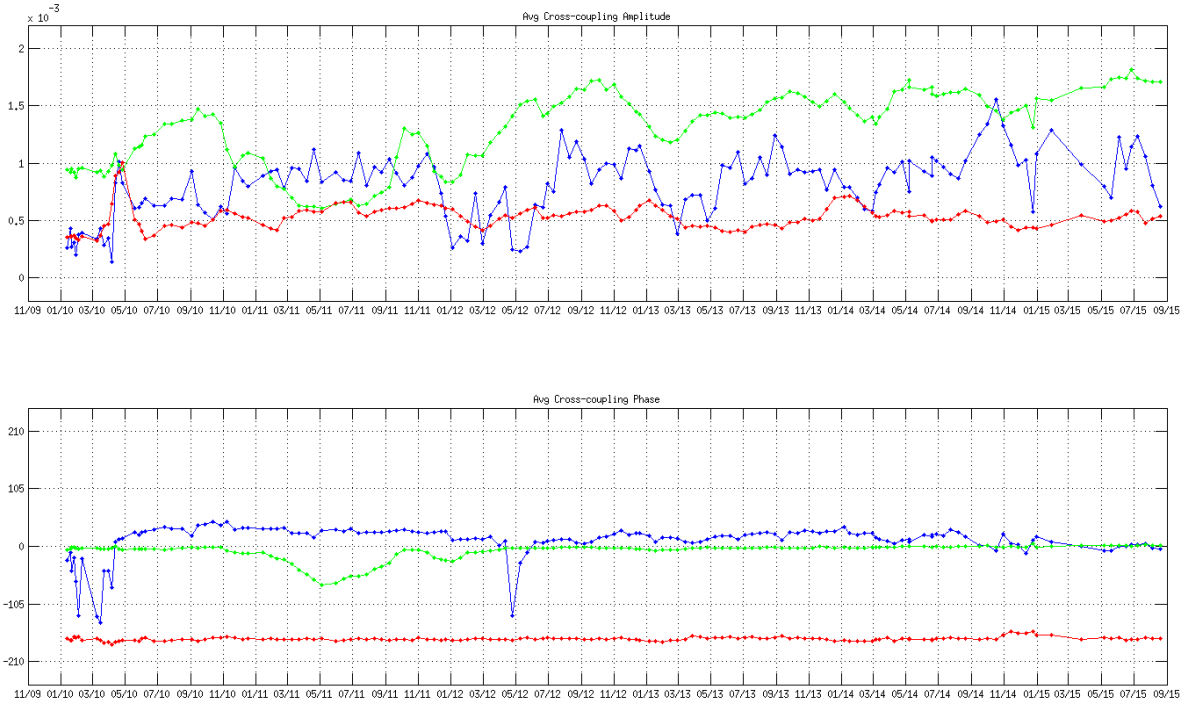
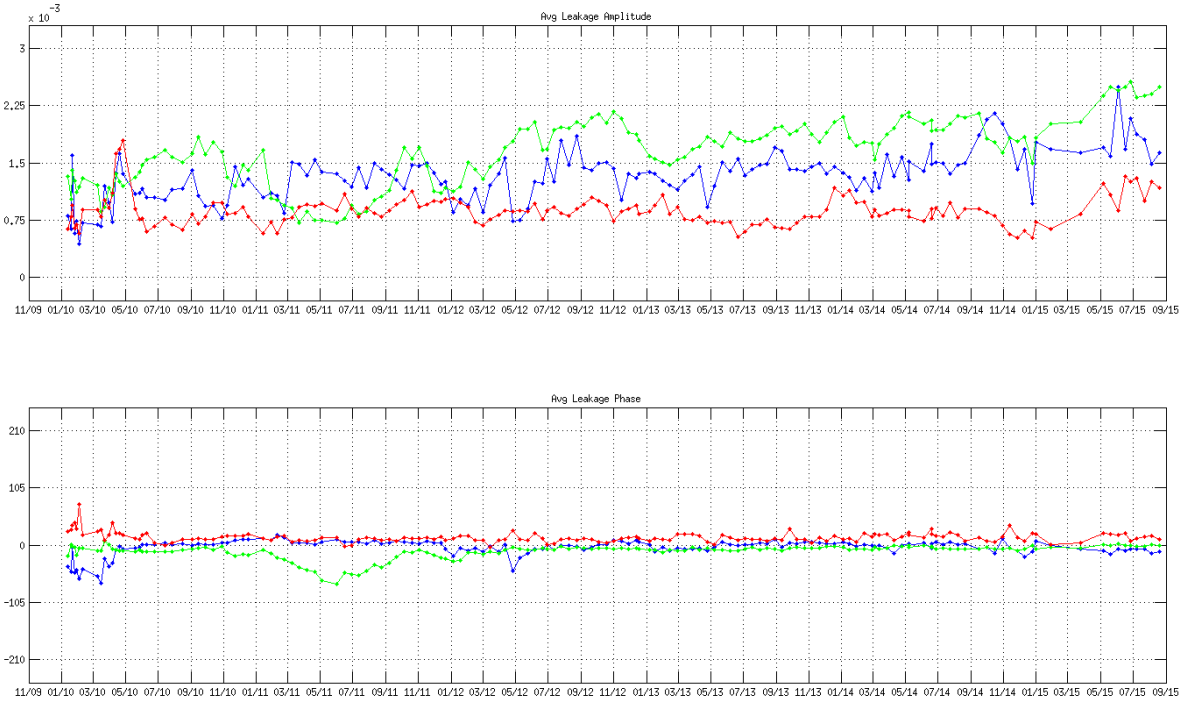


Figure 6 Leakage factor evolution in amplitude and phase of NIR AB (blue), NIR BC (green) and NIR CA (red) since the beginning of the mission



The LICEF calibration status is updated by long (every 8 weeks) and short (weekly) on-board calibration activities. Long calibration has been executed during the reporting period on the 19th of August.

LICEF PMS gain is derived during the long calibration activity and the Figure 7 to Figure 18 show the evolution (V62x algorithm baseline) of the deviations of the PMS gain with respect to its average over time. Apart from antenna LCF_A_18, LCF_C_11, LCF_C_19, which had shown an evolution from the main trend (see Figure 10, 17, 18) the others PMS are stable.

Figure 19 to Figure 30 show the evolution of the PMS offsets (V62x algorithm baseline) derived during the short calibration activity.

Figure 31 shows the evolution of the average over all the baselines of the Fringe Washing Function (FWF) amplitude in the origin derived during the long calibration. The amplitude of the FWF at the origin does not show any drift and their values are inside the ranges defined in the routine calibration plan.

Figure 7 Evolution of the Δ PMS Gain of the LICEFS in CMN H1

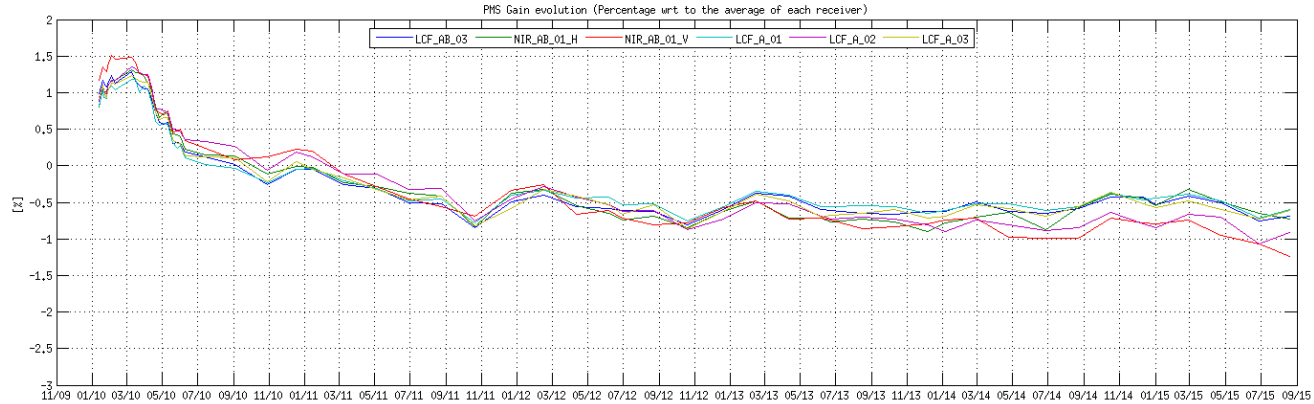


Figure 8 Evolution of the Δ PMS Gain of the LICEFS in CMN A1

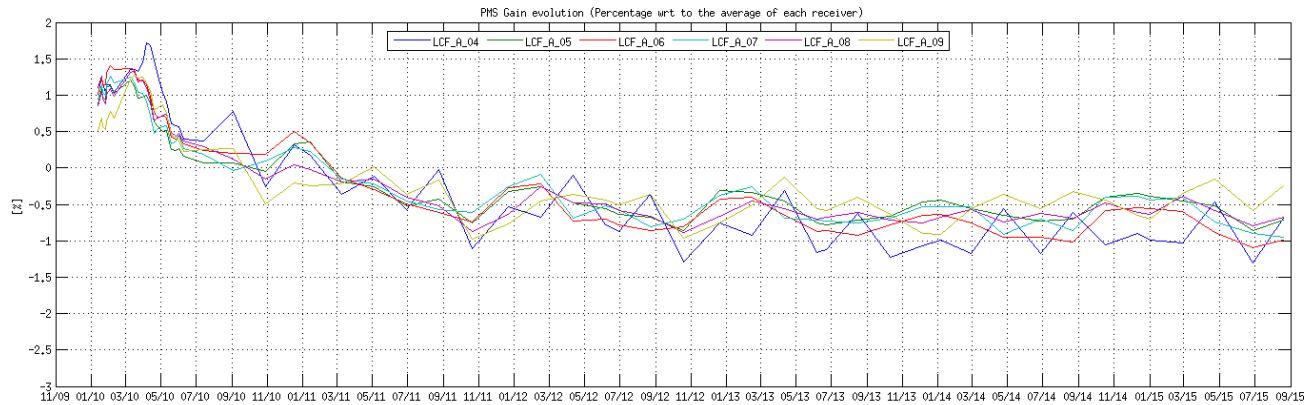


Figure 9 Evolution of the Δ PMS Gain of the LICEFS in CMN A2

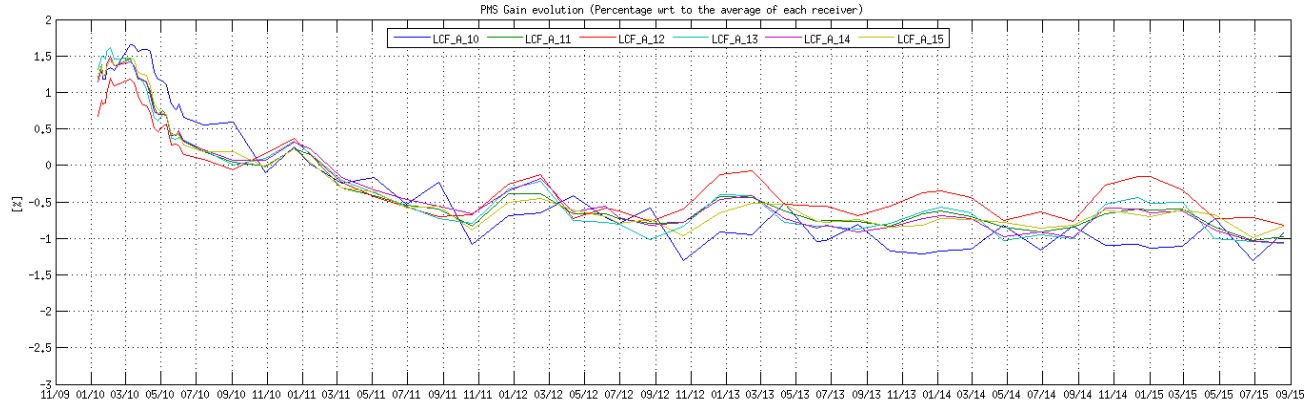


Figure 10 Evolution of the Δ PMS Gain of the LICEFS in CMN A3

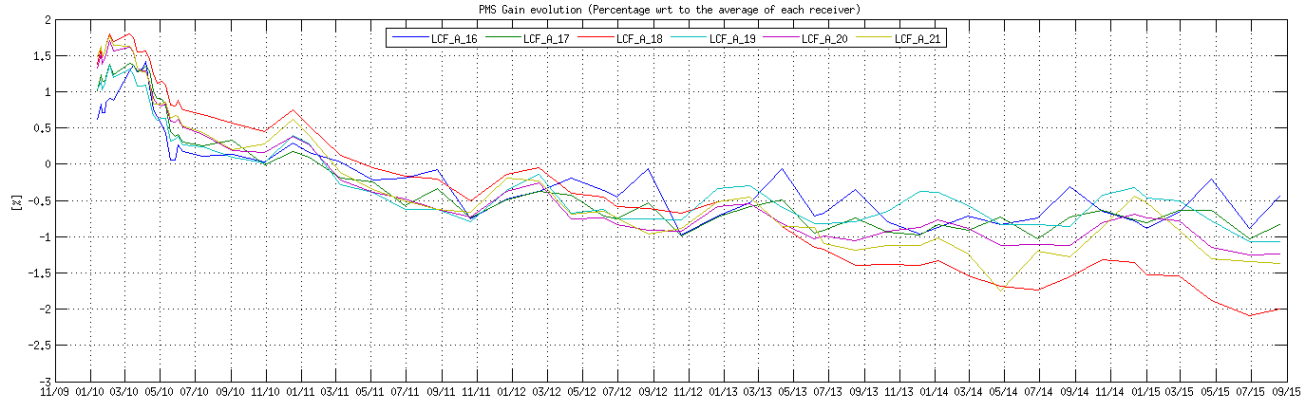


Figure 11 Evolution of the Δ PMS Gain of the LICEFS in CMN H2

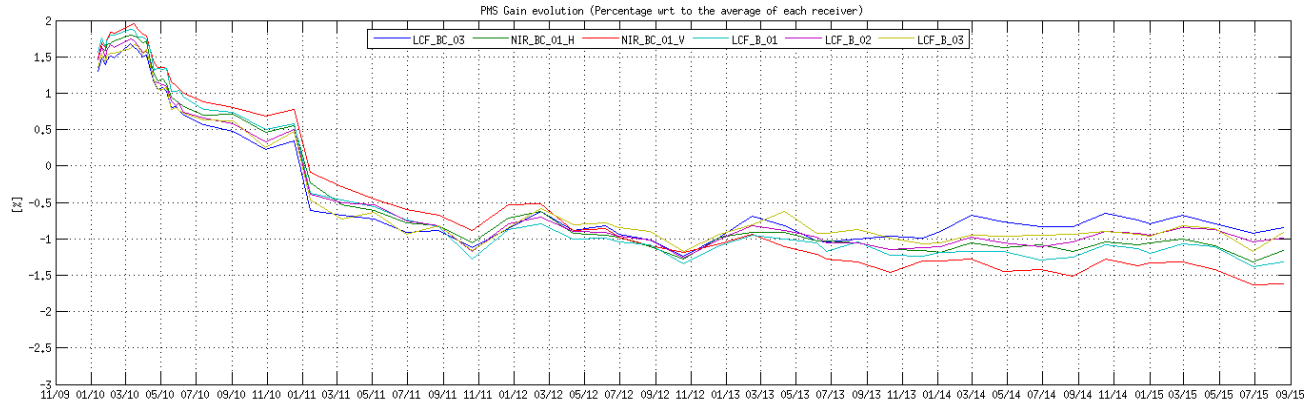


Figure 12 Evolution of the Δ PMS Gain of the LICEFS in CMN B1

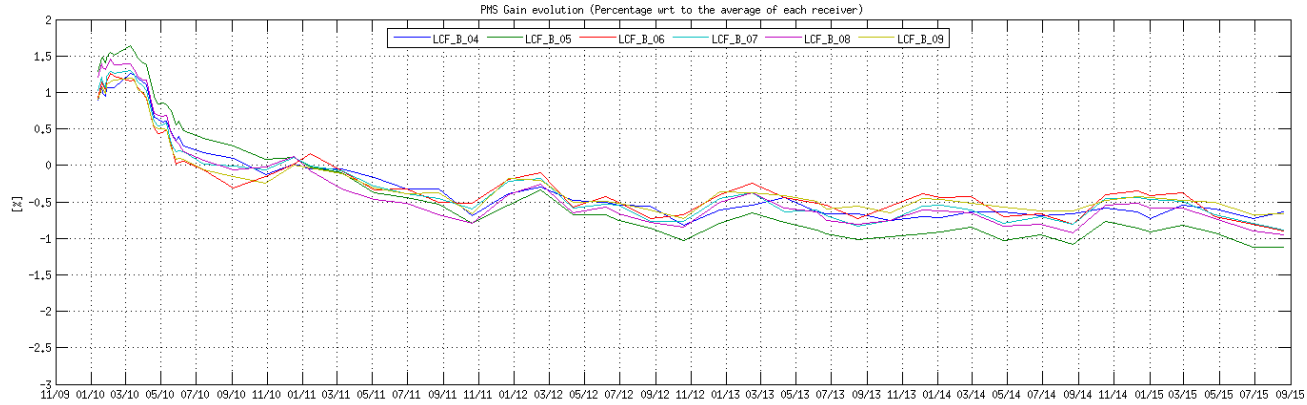


Figure 13 Evolution of the Δ PMS Gain of the LICEFS in CMN B2

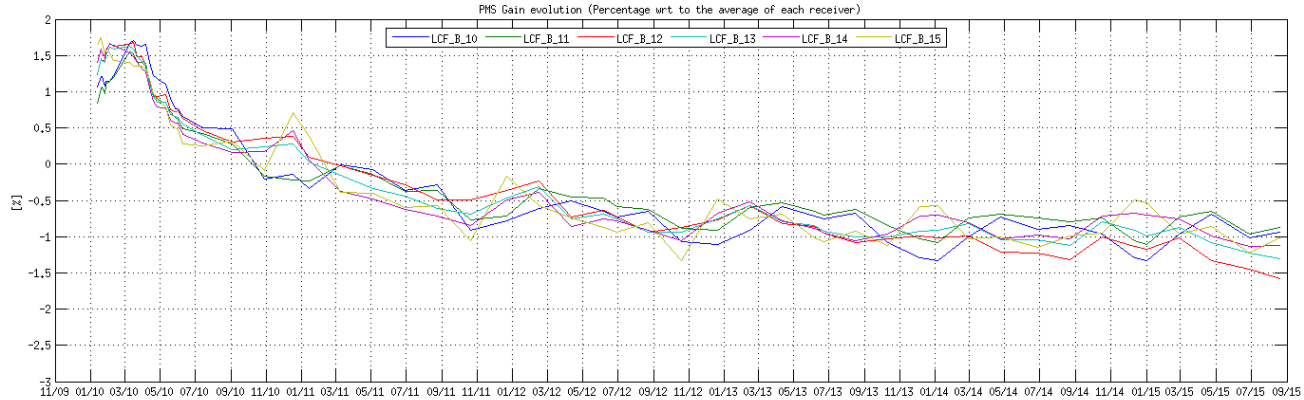


Figure 14 Evolution of the Δ PMS Gain of the LICEFS in CMN B3

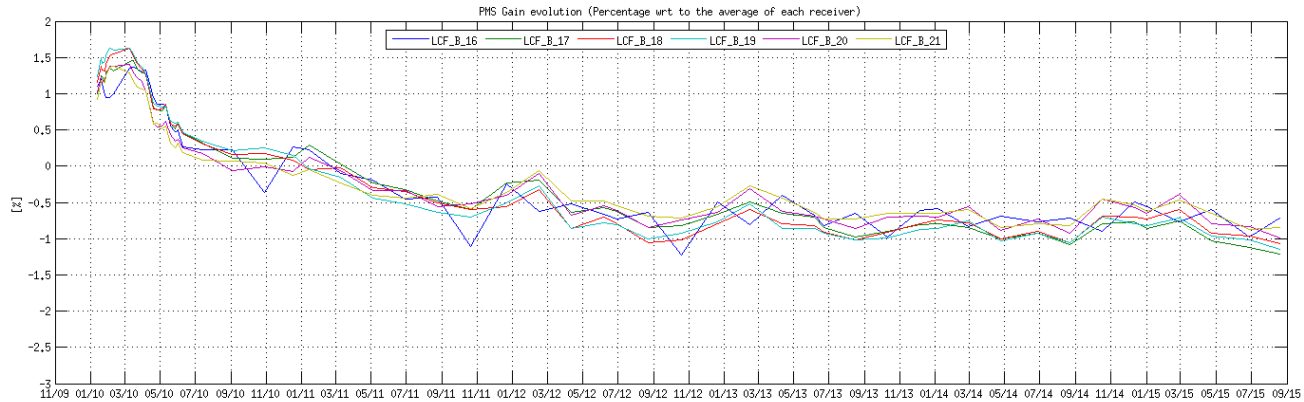


Figure 15 Evolution of the Δ PMS Gain of the LICEFS in CMN H3

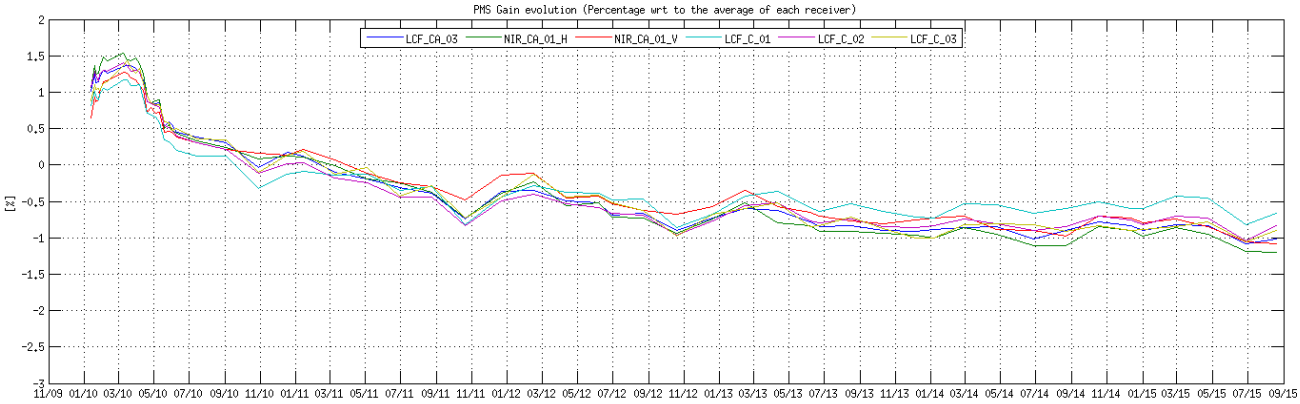


Figure 16 Evolution of the Δ PMS Gain of the LICEFS in CMN C1

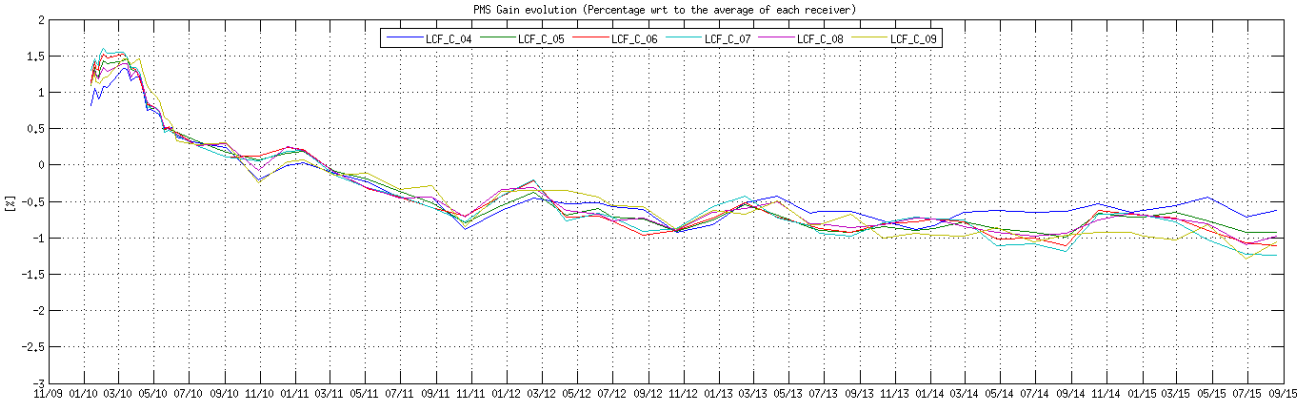


Figure 17 Evolution of the Δ PMS Gain of the LICEFS in CMN C2

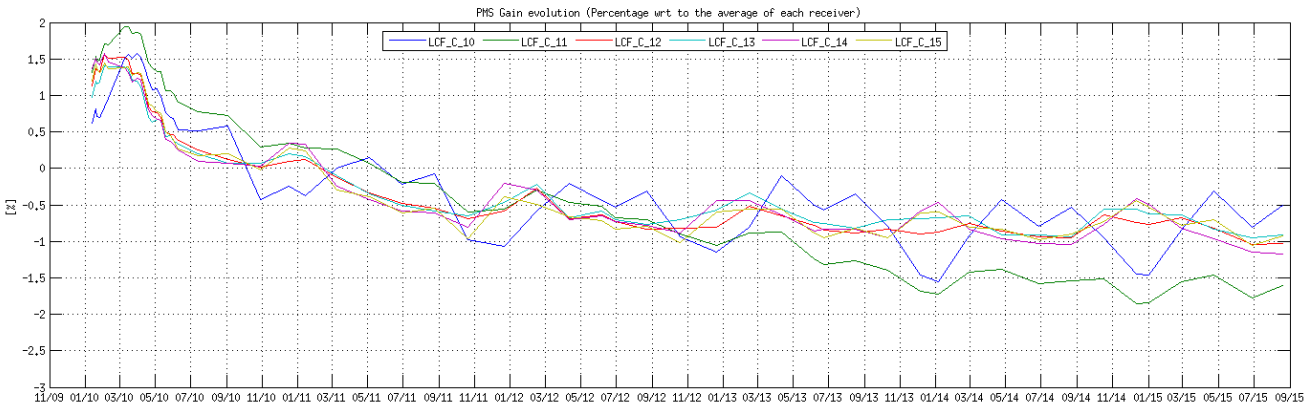


Figure 18 Evolution of the Δ PMS Gain of the LICEFS in CMN C3

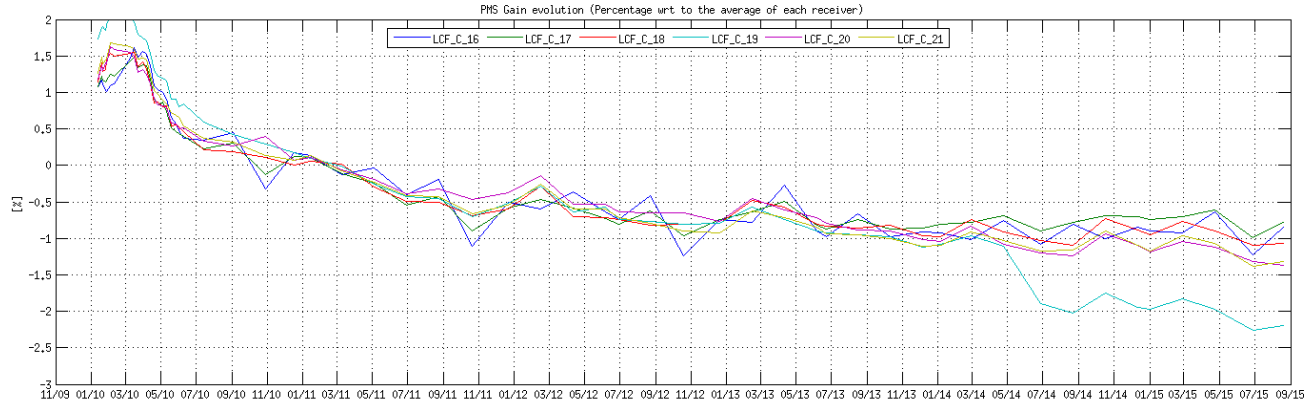


Figure 19 Evolution of the Δ PMS Offset of the LICEFS in CMN H1

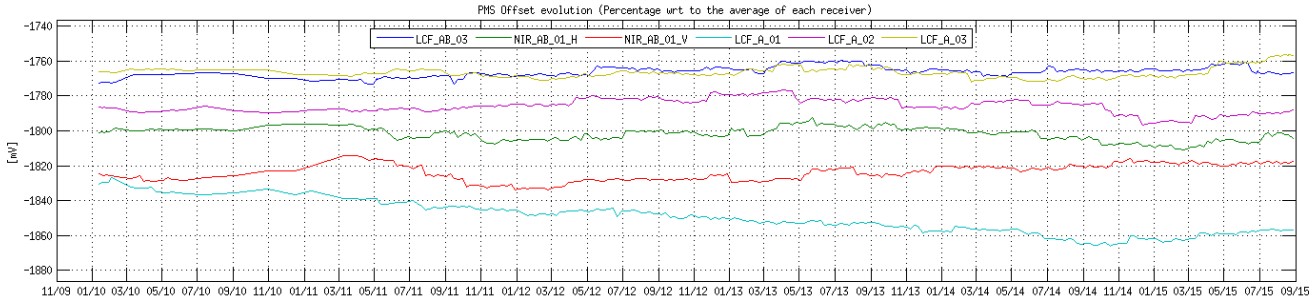


Figure 20 Evolution of the Δ PMS Offset of the LICEFS in CMN A1

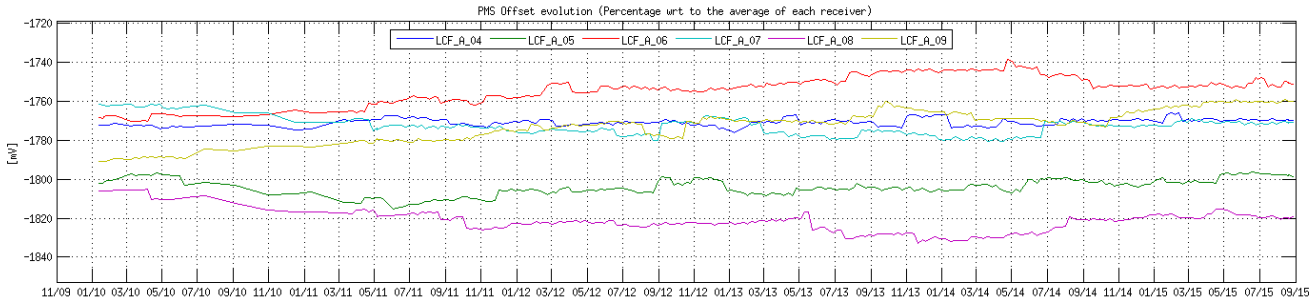


Figure 21 Evolution of the Δ PMS Offset of the LICEFS in CMN A2

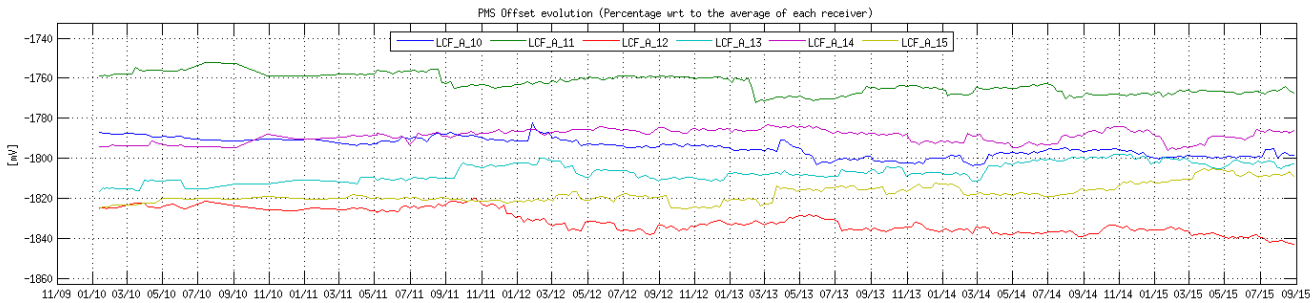


Figure 22 Evolution of the Δ PMS Offset of the LICEFS in CMN A3

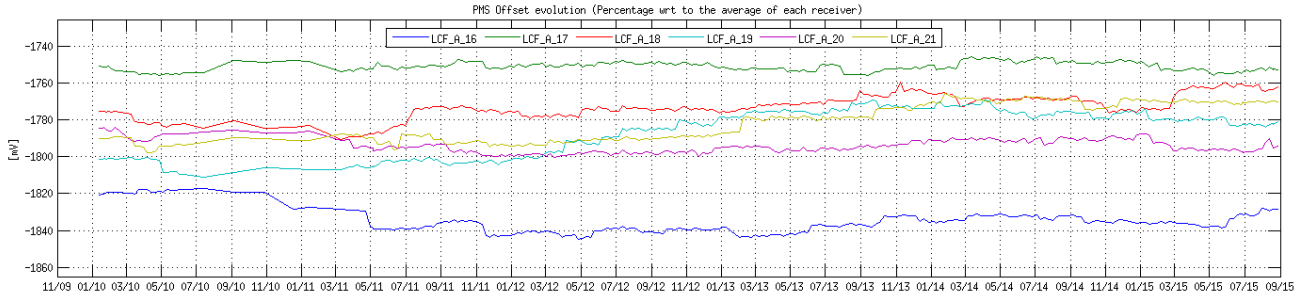


Figure 23 Evolution of the Δ PMS Offset of the LICEFS in CMN H2

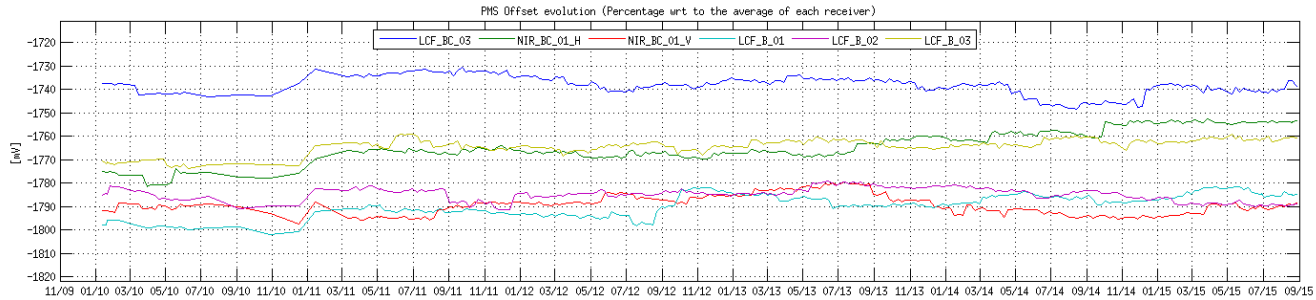


Figure 24 Evolution of the Δ PMS Offset of the LICEFS in CMN B1

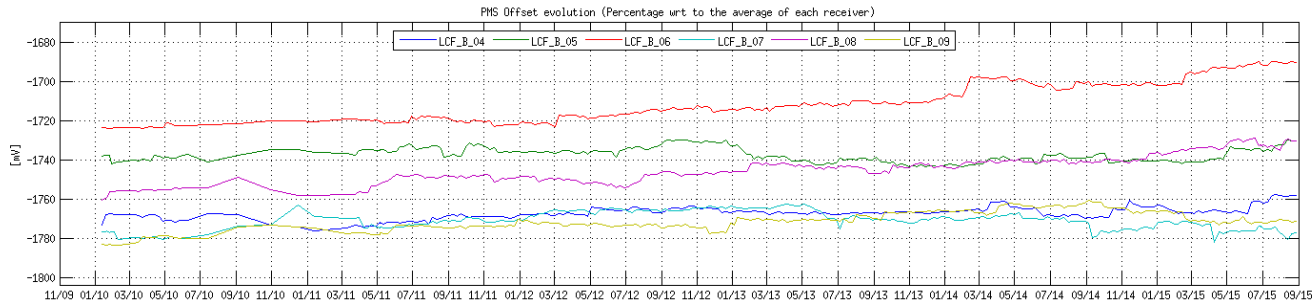


Figure 25 Evolution of the Δ PMS Offset of the LICEFS in CMN B2

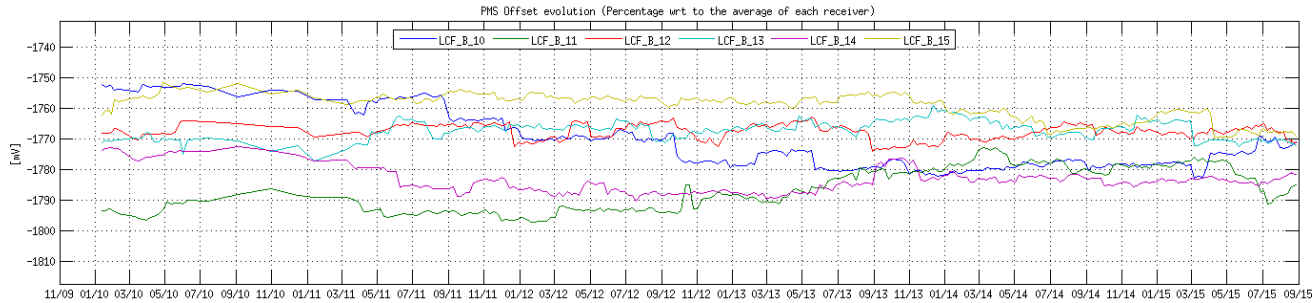


Figure 26 Evolution of the Δ PMS Offset of the LICEFS in CMN B3

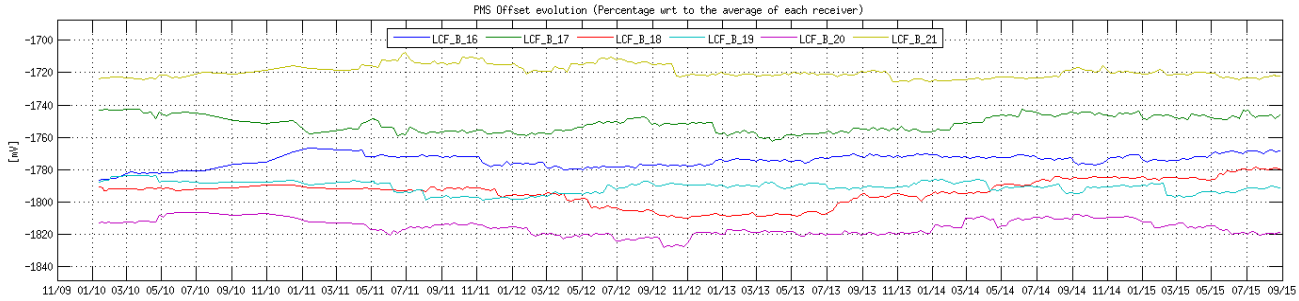


Figure 27 Evolution of the Δ PMS Offset of the LICEFS in CMN H3

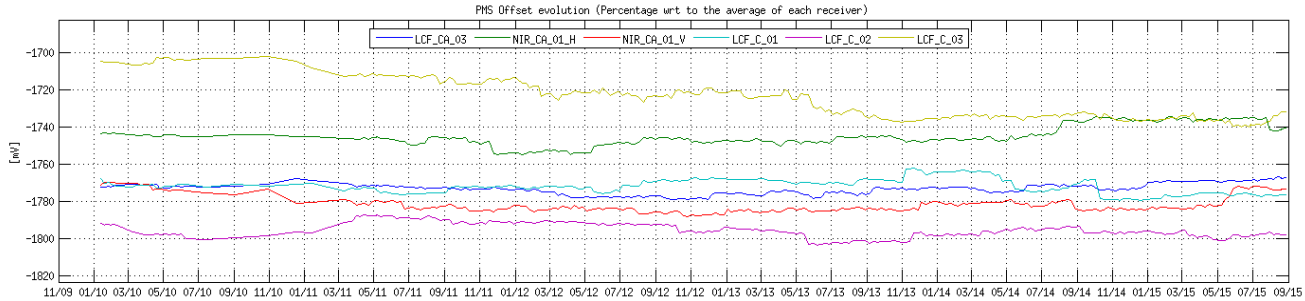


Figure 28 Evolution of the Δ PMS Offset of the LICEFS in CMN C1

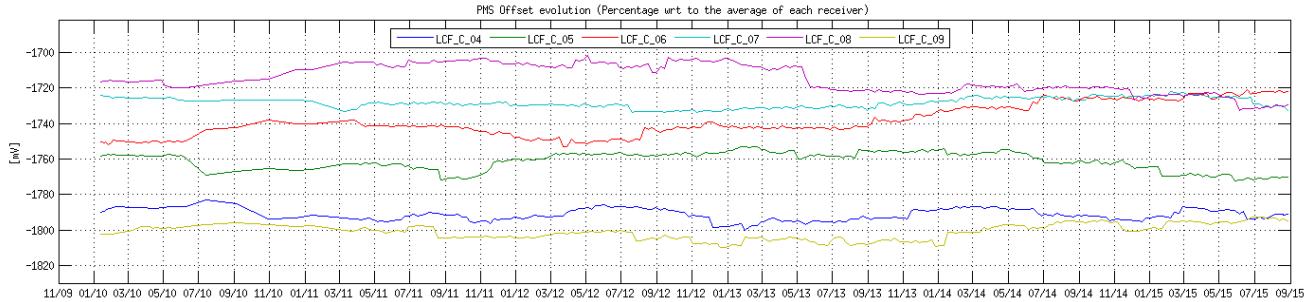


Figure 29 Evolution of the Δ PMS Offset of the LICEFS in CMN C2

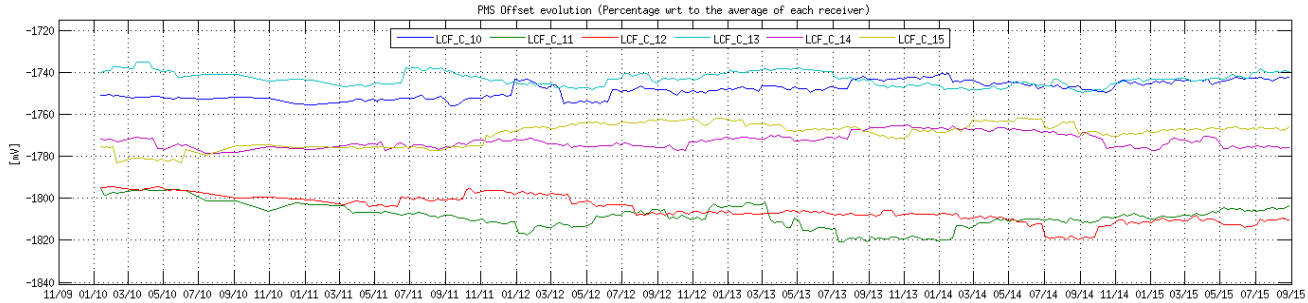


Figure 30 Evolution of the Δ PMS Offset of the LICEFS in CMN C3

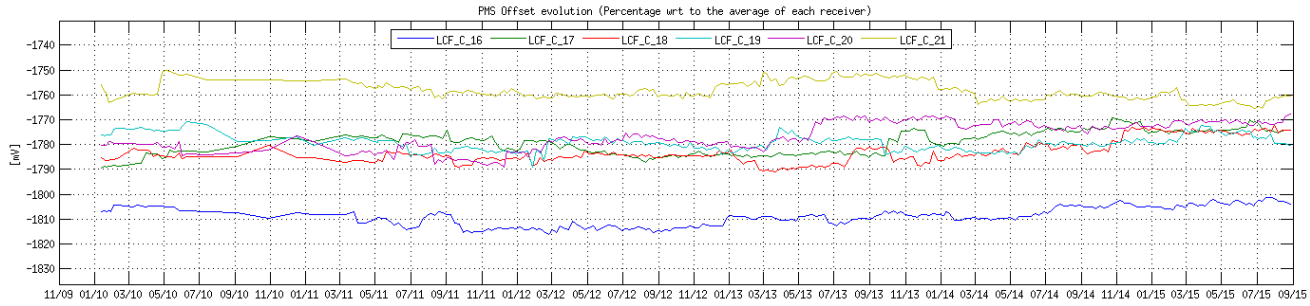
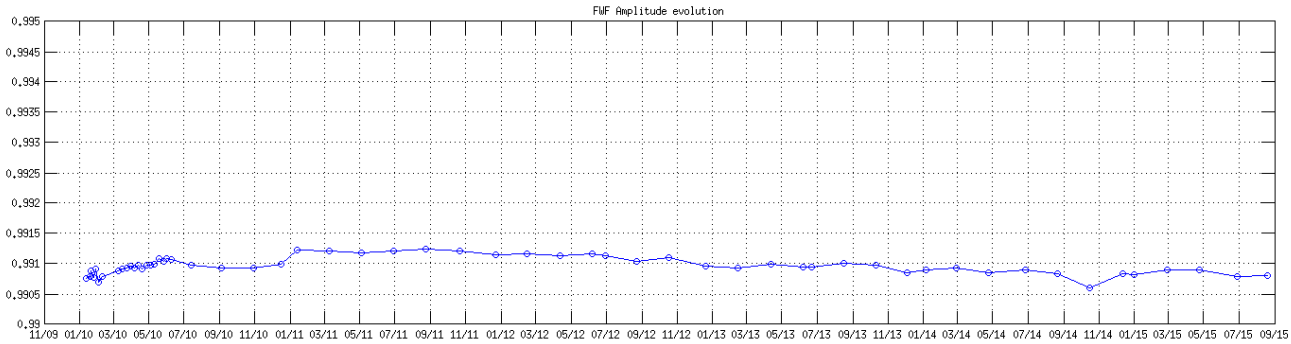


Figure 31 Evolution of the average of the FWF Amplitude at the origin



The evolution of the average of the correlator offsets does not show any significant drift. Also, the correlation offsets between receivers that do not share local oscillator remains much smaller than the correlation offsets between receivers sharing local oscillator. This result is expected since any residual correlated signal arriving to a pair of receivers, arrives through the local oscillator signal.

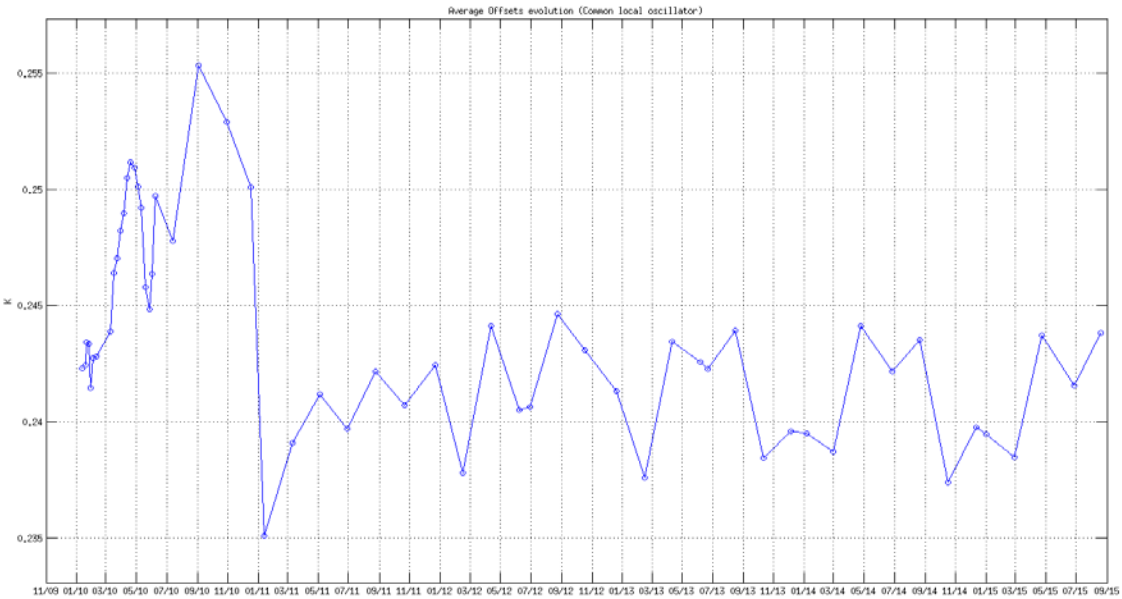


Figure 32 Evolution of the average of the Correlator offsets for the baselines which share local oscillator

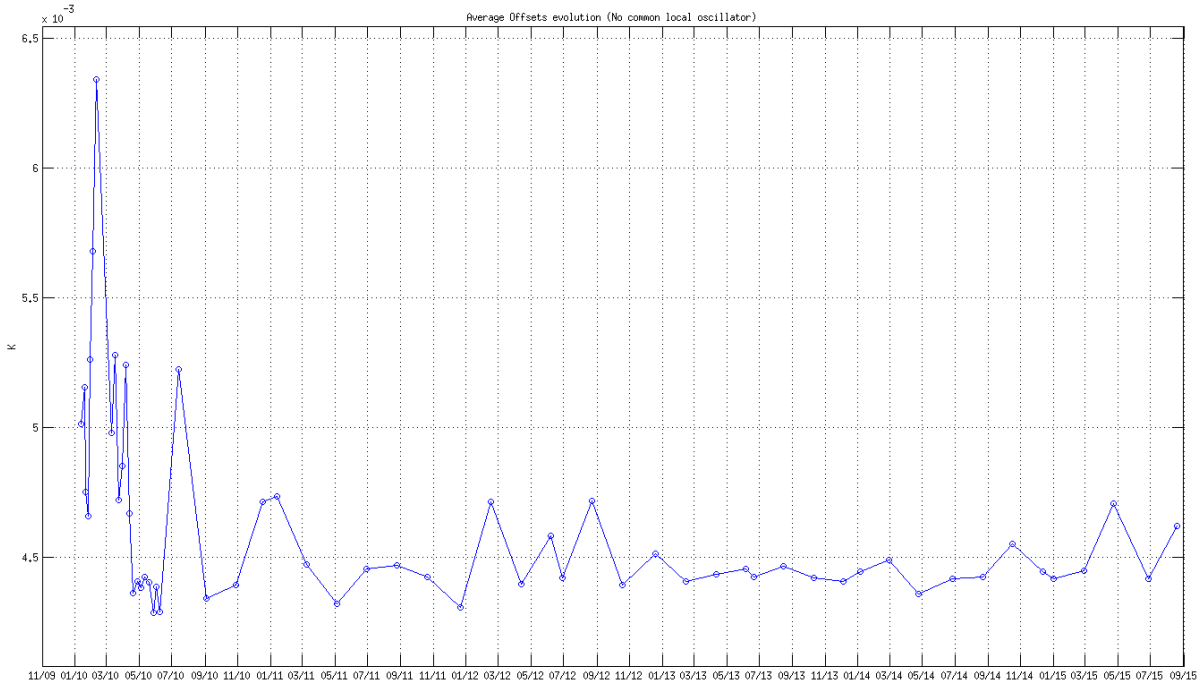


Figure 33 Evolution of the average of the Correlator offsets for the baselines which do not share local oscillator

5.2 Brightness Temperatures Trends over Dome-C Point (Antarctic)

The result of the monitoring of the evolution of the SMOS brightness temperature over Dome-C is shown in the Figure 34 (X and Y polarization at antenna frame for all the incidence angles) and in Figure 35, Figure 36 (H and V polarization at surface level for 42.0 degrees incidence angle for different areas of the Field Of View). The values are averaged every 18 days to reduce the noise and the value for July 2010 is subtracted and used as relative reference.

The evolution of the brightness temperature trend over Dome-C does not show any significant drift except for the beginning of 2015 in H polarization. This drift was due to a change on surface geophysical condition: accumulation of snow since November 2014 and rapidly evolution of snow density on 22 March 2015 when a strong wind has changed the surface condition. This event has impacted the emissivity of the ice that was confirmed by on-site L-band measurement (Dome-x experiment) and from the Aquarius data set.

The H polarization values were back to nominal from April 2015 onwards.

Figure 34: Dome-C X and Y polarization trends (all incidence angles)

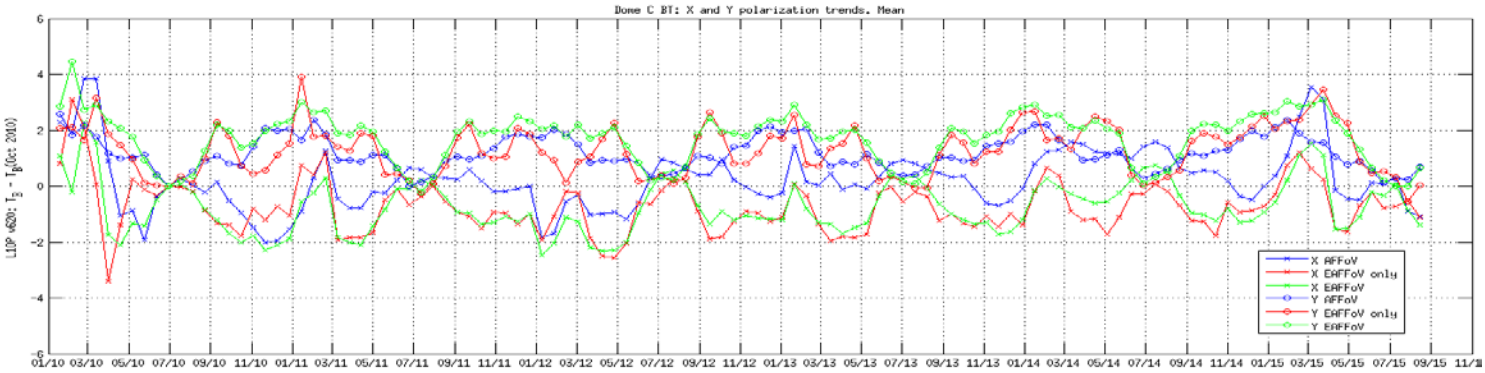


Figure 35: Dome-C H and V polarization trends in Alias Free zone (incidence angle 42°)

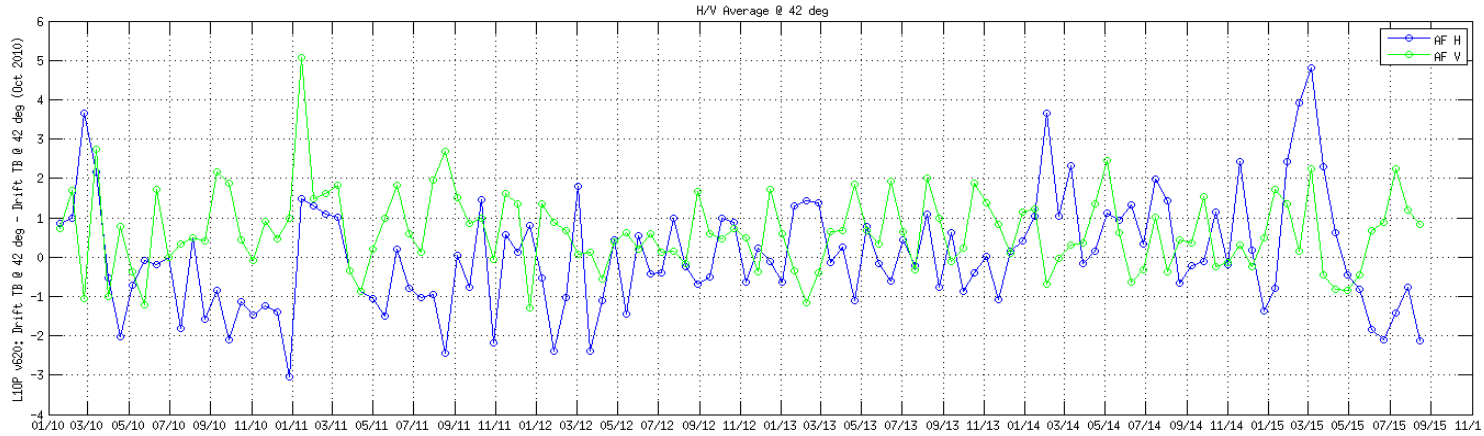
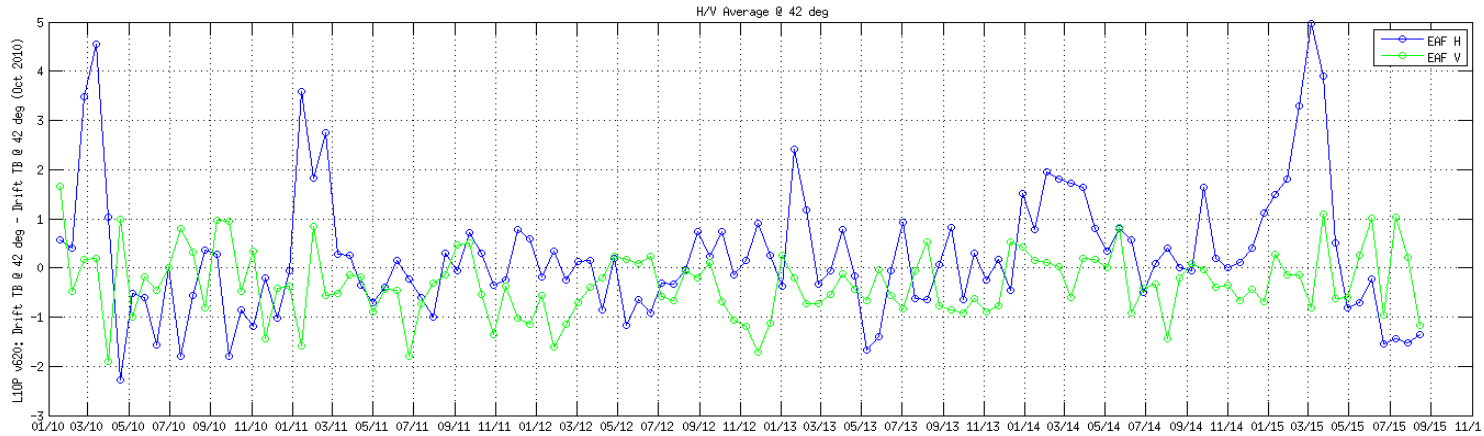


Figure 36: Dome-C H and V polarization trends in Extended Alias Free zone (incidence angle 42°)



6. PRODUCT QUALITY ANALYSIS

Data quality for August has found to be nominal except in the time intervals listed in the section 4.5.

The L1 production is nominal as no artefacts are observed in the first Stokes videos for L1C Browse Products (42.5 deg of incidence angle). All the artificial patterns in the images can be explained by the presence of RFIs. The impact of the RFI in the brightness temperature measurements over land can be observed mainly in Europe and Asia:

First Stokes Videos	
Land Ascending:	https://earth.esa.int/documents/10174/1855020/ST1_ASC_LAND_201501
Land Descending:	https://earth.esa.int/documents/10174/1855020/ST1_DES_LAND_201501
Sea Ascending:	https://earth.esa.int/documents/10174/1855026/ST1_ASC_SEA_201501
Sea Descending:	https://earth.esa.int/documents/10174/1855026/ST1_DES_SEA_201501

The L2 Soil Moisture and Ocean Salinity production is nominal in the reporting period: https://earth.esa.int/web/guest/-/data-quality-7059

For more detail on soil moisture and sea surface salinity retrieval algorithms see the L2 Algorithm Theoretical Baseline Documents available here.

7. ADF CONFIGURATION AT THE END OF THE REPORTING PERIOD

ADF File Type	Operational ADF Version (DPGS Baseline)	Updated
AUX_APDL__	SM_OPER_AUX_APDL___20050101T000000_20500101T000000_300_004_3.EEF	No
AUX_APDNRT	SM_OPER_AUX_APDNRT_20050101T000000_20500101T000000_207_001_6.EEF	No
AUX_APDS__	SM_OPER_AUX_APDS___20050101T000000_20500101T000000_300_004_3.EEF	No
AUX_ATMOS_	SM_OPER_AUX_ATMOS__20050101T000000_20500101T000000_001_010_3.EEF	No
AUX_BFP___	SM_OPER_AUX_BFP____20050101T000000_20500101T000000_340_004_3.EEF	No
AUX_BNDLST	SM_OPER_AUX_BNDLST_20050101T000000_20500101T000000_300_001_3	No
AUX_BSCAT_	SM_OPER_AUX_BSCAT__20050101T000000_20500101T000000_300_003_3	No
AUX_BULL_B	SM_OPER_AUX_BULL_B_20150602T000000_20500101T000000_120_002_3	Yes
AUX_BWGHT_	SM_OPER_AUX_BWGHT__20050101T000000_20500101T000000_340_006_3.EEF	No
AUX_CNFFAR	SM_OPER_AUX_CNFFAR_20050101T000000_20500101T000000_100_002_3.EEF	No
AUX_CNFL0P	SM_OPER_AUX_CNFL0P_20050101T000000_20500101T000000_001_005_3.EEF	No
AUX_CNFL1P	SM_OPER_AUX_CNFL1P_20110206T010100_20500101T000000_620_051_3.EEF	No
AUX_CNFNRT	SM_OPER_AUX_CNFNRT_20050101T000000_20500101T000000_620_010_3.EEF	No
AUX_CNFOSD	SM_OPER_AUX_CNFOSD_20050101T000000_20500101T000000_001_024_3.EEF	No
AUX_CNFOSF	SM_OPER_AUX_CNFOSF_20050101T000000_20500101T000000_001_026_3.EEF	No
AUX_CNFSMD	SM_OPER_AUX_CNFSMD_20050101T000000_20500101T000000_001_014_3.EEF	No
AUX_CNFSMF	SM_OPER_AUX_CNFSMF_20050101T000000_20500101T000000_001_014_3.EEF	No
AUX_DFFFRA	SM_OPER_AUX_DFFFRA_20050101T000000_20500101T000000_001_005_3	No
AUX_DFFLMX	SM_OPER_AUX_DFFLMX_20050101T000000_20500101T000000_001_006_3	No
AUX_DFFSOI	SM_OPER_AUX_DFFSOI_20050101T000000_20500101T000000_001_002_3	No
AUX_DFFXYZ	SM_OPER_AUX_DFFXYZ_20050101T000000_20500101T000000_001_003_3	No
AUX_DGG___	SM_OPER_AUX_DGG____20050101T000000_20500101T000000_300_003_3	No
AUX_DGGXYZ	SM_OPER_AUX_DGGXYZ_20050101T000000_20500101T000000_001_004_3	No
AUX_DISTAN	SM_OPER_AUX_DISTAN_20050101T000000_20500101T000000_001_011_3	No
AUX_DTBCUR	SM_OPER_AUX_DTBCUR__20120504T203936_20500101T000000_624_001_1Initialization file for the deployment of the L2OS V62x processor.	No
AUX_ECOLAI	SM_OPER_AUX_ECOLAI_20050101T000000_20500101T000000_305_006_3	No
AUX_ECMCDF	SM_OPER_AUX_ECMCDF_20101109T000000_20500101T000000_001_001_3.EEF SM_OPER_AUX_ECMCDF_20050101T000000_20101109T000000_001_002_3	No
AUX_FAIL__	SM_OPER_AUX_FAIL___20050101T000000_20500101T000000_300_004_3.EEF	No
AUX_FLTSEA	SM_OPER_AUX_FLTSEA_20050101T000000_20500101T000000_001_010_3.EEF	No
AUX_FOAM__	SM_OPER_AUX_FOAM___20050101T000000_20500101T000000_001_011_3	No
AUX_GAL_OS	SM_OPER_AUX_GAL_OS_20050101T000000_20500101T000000_001_011_3	No
AUX_GAL_SM	SM_OPER_AUX_GAL_SM_20050101T000000_20500101T000000_001_003_3	No
AUX_GAL2OS	SM_OPER_AUX_GAL2OS_20050101T000000_20500101T000000_001_016_3	No
AUX_GALAXY	SM_OPER_AUX_GALAXY_20050101T000000_20500101T000000_300_004_3	No
AUX_GALNIR	SM_OPER_AUX_GALNIR_20050101T000000_20500101T000000_300_003_3	No
AUX_LANDCL	SM_OPER_AUX_LANDCL_20050101T000000_20500101T000000_001_004_3.EEF	No
AUX_LCF___	SM_OPER_AUX_LCF____20050101T000000_20500101T000000_500_016_3.EEF	No
AUX_LSMASK	SM_OPER_AUX_LSMASK_20050101T000000_20500101T000000_300_003_3	No
AUX_MASK__	SM_OPER_AUX_MASK___20050101T000000_20500101T000000_300_002_3	No
AUX_MISP__	SM_OPER_AUX_MISP___20050101T000000_20500101T000000_300_004_3.EEF	No
AUX_MN_WEF	SM_OPER_AUX_MN_WEF_20050101T000000_20500101T000000_001_002_3	No
AUX_MOONT_	SM_OPER_AUX_MOONT__20050101T000000_20500101T000000_300_002_3	No
AUX_N256__	SM_OPER_AUX_N256___20050101T000000_20500101T000000_504_002_3	No
AUX_NIR___	SM_OPER_AUX_NIR____20050101T000000_20500101T000000_500_010_3.EEF	No

AUX_NRTMSK	SM_OPER_AUX_NRTMSK_20050101T000000_20500101T000000_207_001_6	No
AUX_OTT1D_	SM_OPER_AUX_OTT1D__20120504T203936_20500101T000000_624_001_1 Initialization file for the deployment of the L2OS V62x processor. Since level 2 OS processor V62x the new file is generated on routine basis by the level 2 post processor	No
AUX_OTT1F_	SM_OPER_AUX_OTT1F__20120504T203936_20500101T000000_624_001_1 Initialization file for the deployment of the L2OS V62x processor. Since level 2 OS processor V62x the new file is generated on routine basis by the level 2 post processor	No
AUX_OTT2D_	SM_OPER_AUX_OTT2D__20120504T203936_20500101T000000_624_001_1 Initialization file for the deployment of the L2OS V62x processor. Since level 2 OS processor V62x the new file is generated on routine basis by the level 2 post processor	No
AUX_OTT2F_	SM_OPER_AUX_OTT2F__20120504T203936_20500101T000000_624_001_1 Initialization file for the deployment of the L2OS V62x processor. Since level 2 OS processor V62x the new file is generated on routine basis by the level 2 post processor	No
AUX_OTT3D_	SM_OPER_AUX_OTT3D__20120504T203936_20500101T000000_624_001_1 Initialization file for the deployment of the L2OS V62x processor. Since level 2 OS processor V62x the new file is generated on routine basis by the level 2 post processor	No
AUX_OTT3F_	SM_OPER_AUX_OTT3F__20120504T203936_20500101T000000_624_001_1 Initialization file for the deployment of the L2OS V62x processor. Since level 2 OS processor V62x the new file is generated on routine basis by the level 2 post processor	No
AUX_PATT__	SM_OPER_AUX_PATT___20050101T000000_20500101T000000_320_003_3	No
AUX_PLM___	SM_OPER_AUX_PLM____20050101T000000_20500101T000000_600_008_3.EEF	No
AUX_PMS___	SM_OPER_AUX_PMS____20050101T000000_20500101T000000_600_011_3.EEF	No
AUX_RFI___	SM_OPER_AUX_RFI____20050101T000000_20500101T000000_300_003_3	No
AUX_RFILST	Since level 1 processor version V62x the file is generated by CATDS on monthly basis	No
AUX_RGHNS1	SM_OPER_AUX_RGHNS1_20050101T000000_20500101T000000_001_015_3	No
AUX_RGHNS2	SM_OPER_AUX_RGHNS2_20050101T000000_20500101T000000_001_013_3	No
AUX_RGHNS3	SM_OPER_AUX_RGHNS3_20050101T000000_20500101T000000_001_015_3.EEF	No
AUX_SGLINT	SM_OPER_AUX_SGLINT_20050101T000000_20500101T000000_001_011_3	No
AUX_SOIL_P	File discontinued since level 2 SM processor V62x SM_OPER_AUX_SOIL_P_20050101T000000_20500101T000000_001_002_3	No
AUX_SPAR__	SM_OPER_AUX_SPAR___20110112T091500_20500101T000000_340_012_3.EEF SM_OPER_AUX_SPAR___20100111T120700_20110112T091500_340_011_3.EEF SM_OPER_AUX_SPAR___20050101T000000_20100111T120700_340_010_3.EEF	No
AUX_SSS___	SM_OPER_AUX_SSS____20050101T000000_20500101T000000_001_013_3	No
AUX_SUNT__	SM_OPER_AUX_SUNT___20050101T000000_20500101T000000_300_002_3	No
AUX_WEF___	SM_OPER_AUX_WEF____20050101T000000_20500101T000000_001_003_3	No
MPL_ORBSCT	SM_OPER_MPL_ORBSCT_20091102T031142_20500101T000000_360_001_1	No

APPENDIX A. CONFIGURATION DOCUMENT LIST

The list of internal documents used for the generation of this report is:

- Unavailability.xls
- Details_Calibrations.xls
- SMOS-CEC-VEG-IPF-REP-0609_v1.75_SMOS_Auxiliary_Data_File_List.pdf

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