

1. SCIAMACHY Daily Report for level 1 products

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1.1 General Info

This report contains a daily analysis on parameters extracted from SCIAMACHY level 1 data (The SCI_NL__1P product).

1.1.1 Report summary

The table below shows general characteristics of the data that are included into this report.

Item	Value
Report version	1.5 (28-07-2008)
Time of report generation	24JUN2009 02:58:29
Data source version	SCIA/6.03-N
Processing scope for products	21JUN2009 00:00:00 to 22JUN2009 00:00:00
Start time of first product within scope	20JUN2009 22:29:42
Stop time of last product within scope	21JUN2009 00:12:57
Total number of level 1 products	1
Number of level 1 products with errors	0

1.1.2 Summary per product

The following table shows a summary for each product used in this report.

#	Product name	Start time	Stop time	ProdErr	#nadir	#limb	#occ	#mon	#noproc	#cpl_drk	#incpl_drk	Decont
0	SCI_NL__1PNPDE20090620_222942_000061952080_00072_38202_5698.N1	20JUN2009 22:29:42	21JUN2009 00:12:57	0	35	44	1	0	1	20	0	nnnnyynn

1.2 Product Quality Indicators

This section shows information about product quality, in particular the quality of retrieved species.

The following data items are currently included into this section:

1. Polarisation check (if available)
2. Leakage FPN measurements (if available)
3. Dark measurements (if available)
4. New leakage current parameters (if available)
5. New spectral calibration parameters (if available)
6. New sun reference spectrum (if available)
7. New PPG/Etalon parameters (if available)

1.2.1 Polarisation check

The following table summarizes measured polarisation fractions for each of the detectors in nadir and limb mode. Note: this section is currently in a testing phase.

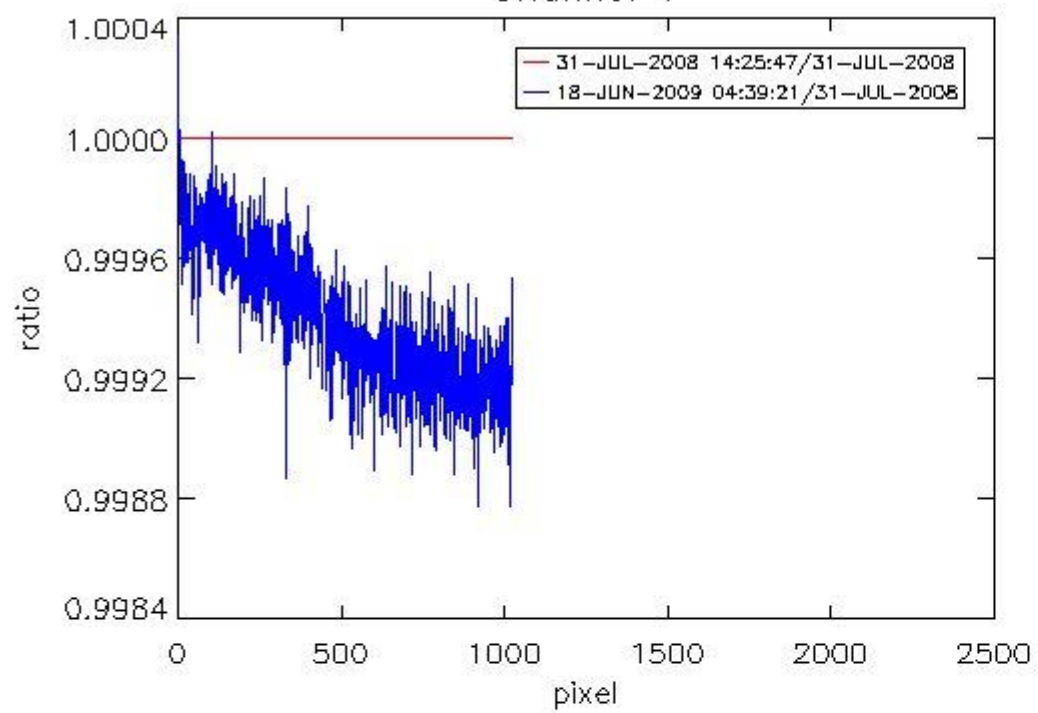
PMD ID	#Q=0	#U=0
NADIR PMD1	<Not available>	<Not available>
NADIR PMD2	<Not available>	<Not available>
NADIR PMD3	<Not available>	<Not available>

NADIR PMD4	<Not available>	<Not available>
NADIR PMD5	<Not available>	<Not available>
NADIR PMD6	<Not available>	<Not available>
NADIR OVERLAP1	<Not available>	<Not available>
NADIR OVERLAP2	<Not available>	<Not available>
NADIR OVERLAP3	<Not available>	<Not available>
NADIR OVERLAP4	<Not available>	<Not available>
NADIR OVERLAP5	<Not available>	<Not available>
NADIR MODEL300NM	<Not available>	<Not available>
LIMB PMD1	0 out of 429 (0.00000 %)	0 out of 429 (0.00000 %)
LIMB PMD2	429 out of 429 (100.000 %)	429 out of 429 (100.000 %)
LIMB PMD3	429 out of 429 (100.000 %)	429 out of 429 (100.000 %)
LIMB PMD4	429 out of 429 (100.000 %)	429 out of 429 (100.000 %)
LIMB PMD5	429 out of 429 (100.000 %)	429 out of 429 (100.000 %)
LIMB PMD6	429 out of 429 (100.000 %)	429 out of 429 (100.000 %)
LIMB OVERLAP1	429 out of 429 (100.000 %)	429 out of 429 (100.000 %)
LIMB OVERLAP2	364 out of 429 (84.8485 %)	376 out of 429 (87.6457 %)
LIMB OVERLAP3	353 out of 429 (82.2844 %)	365 out of 429 (85.0816 %)
LIMB OVERLAP4	429 out of 429 (100.000 %)	429 out of 429 (100.000 %)
LIMB OVERLAP5	429 out of 429 (100.000 %)	429 out of 429 (100.000 %)
LIMB MODEL300NM	429 out of 429 (100.000 %)	429 out of 429 (100.000 %)

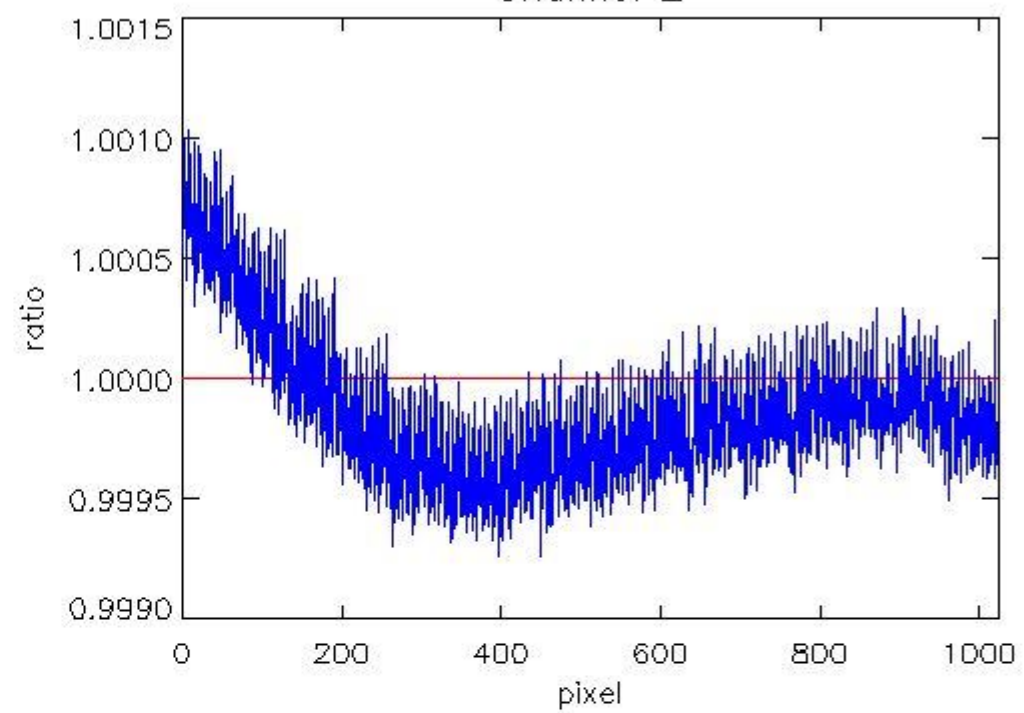
1.2.2 Fixed pattern noise information from SCI_LK1_AX files in product references

The following plots show ratios of fixed pattern noise of SCI_LK1_AX files that are referred to by the products listed in Section 1.1.2. Note: this section is currently in a testing phase.

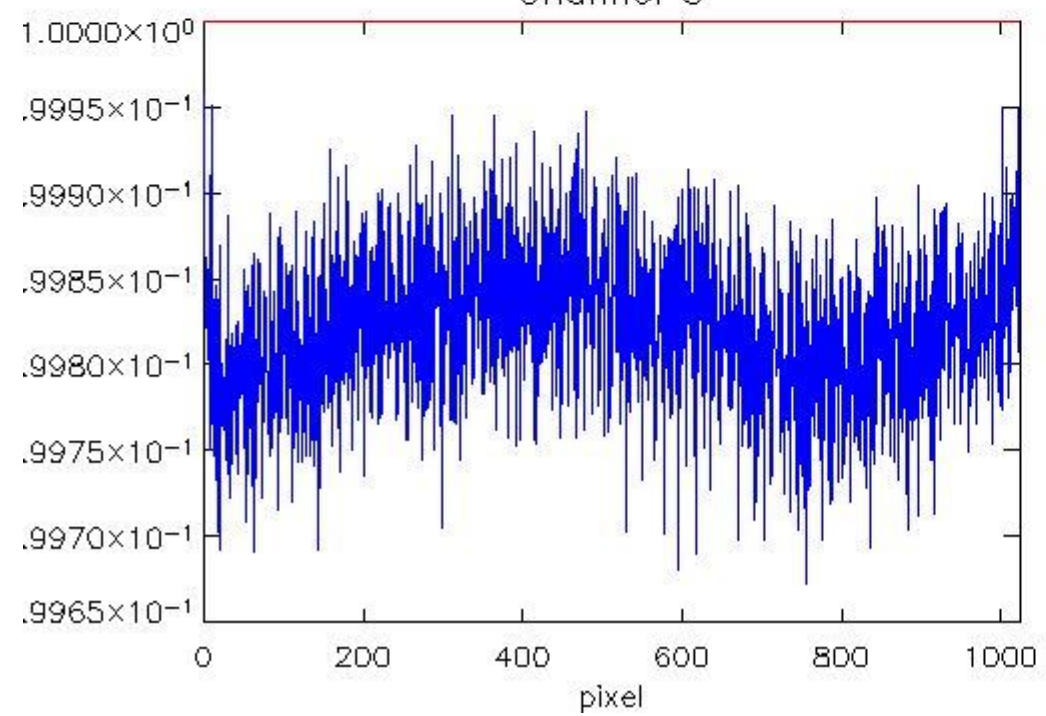
Channel 1



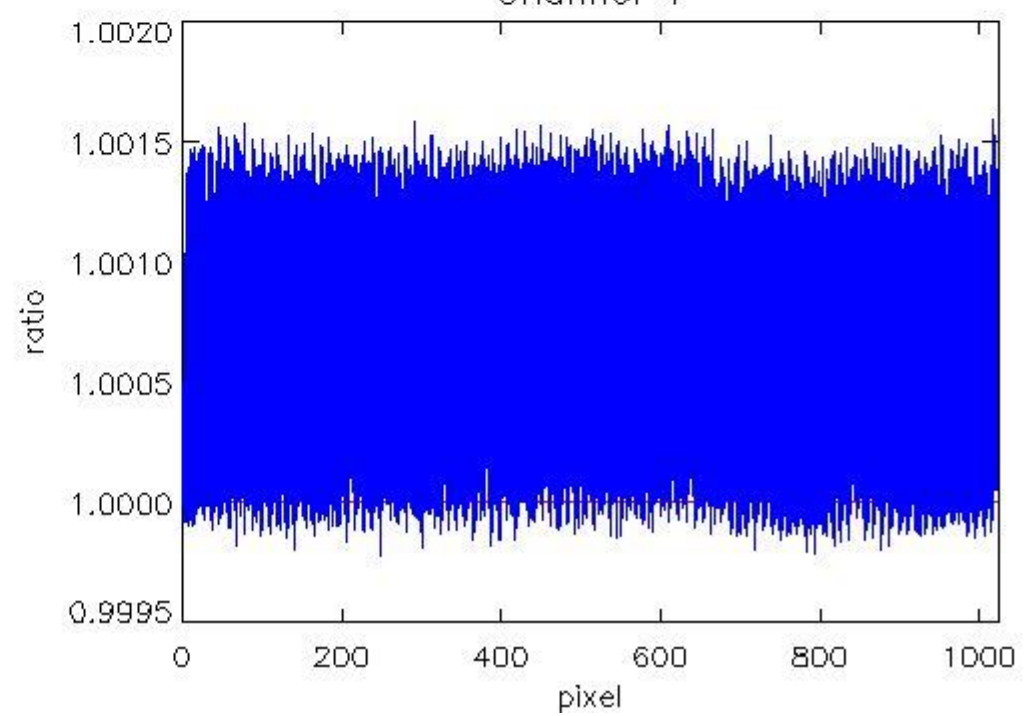
Channel 2

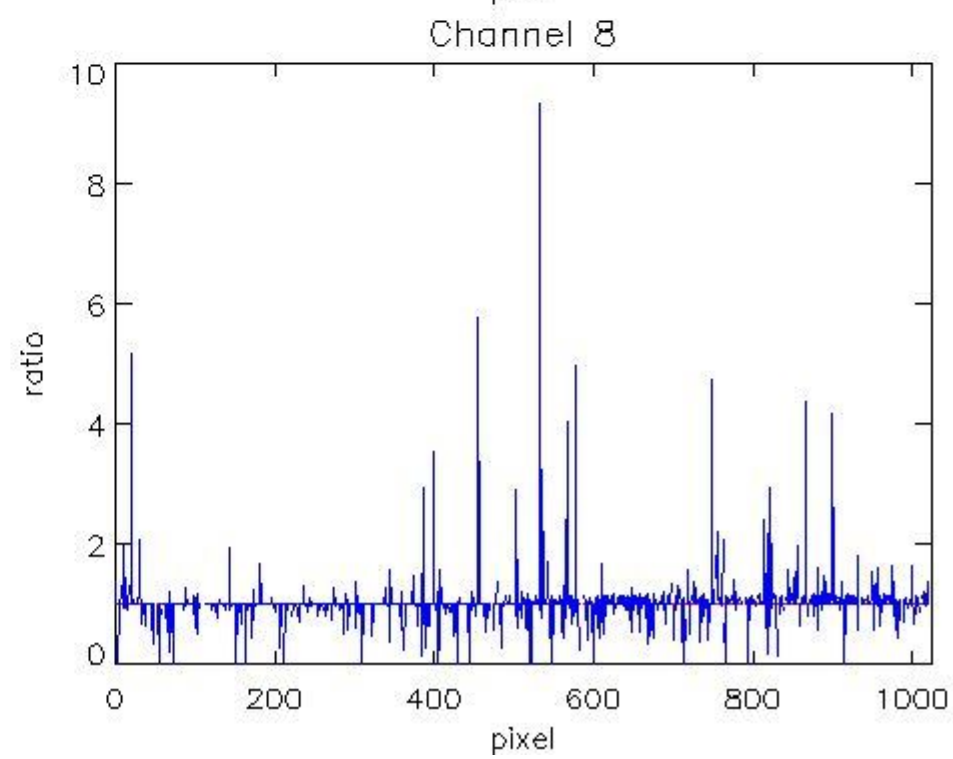
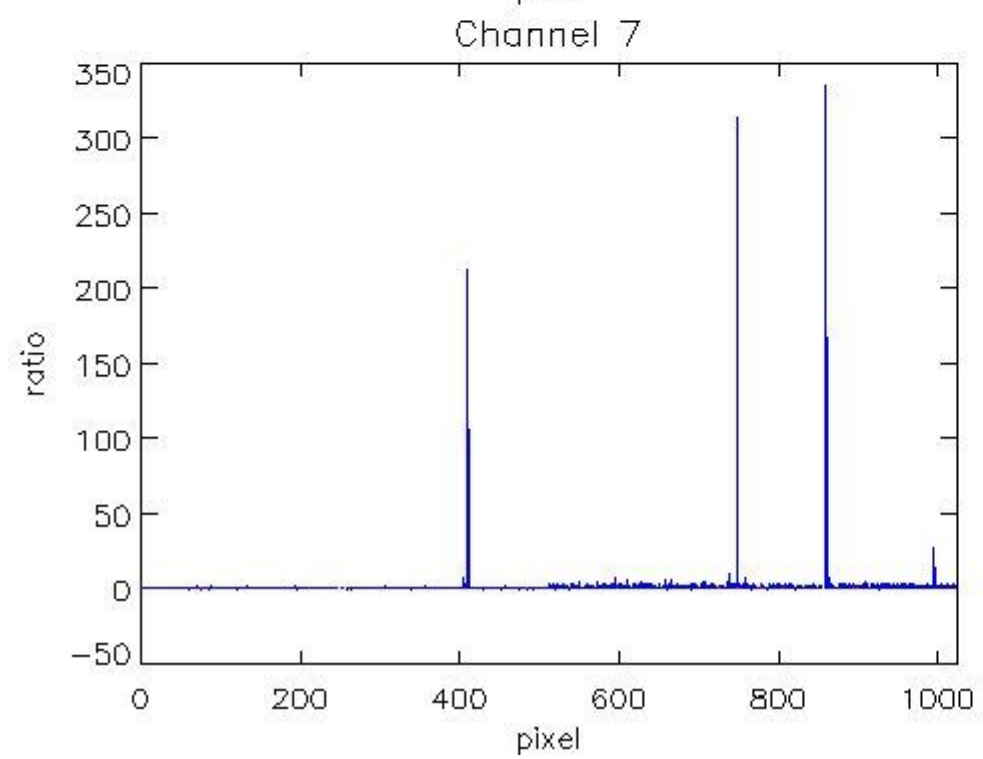
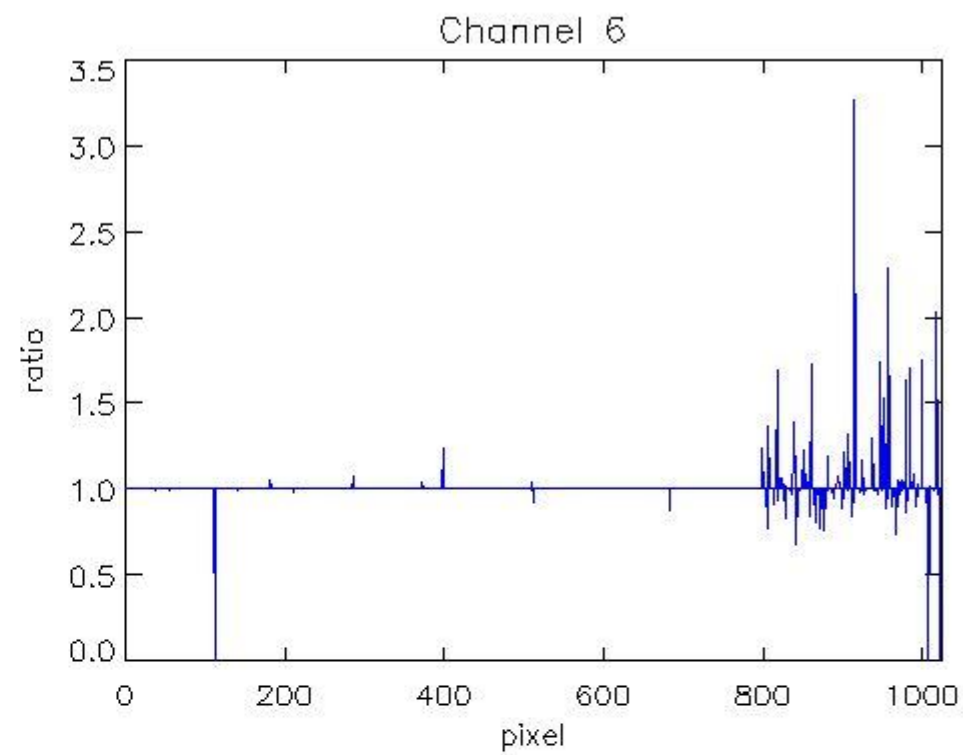
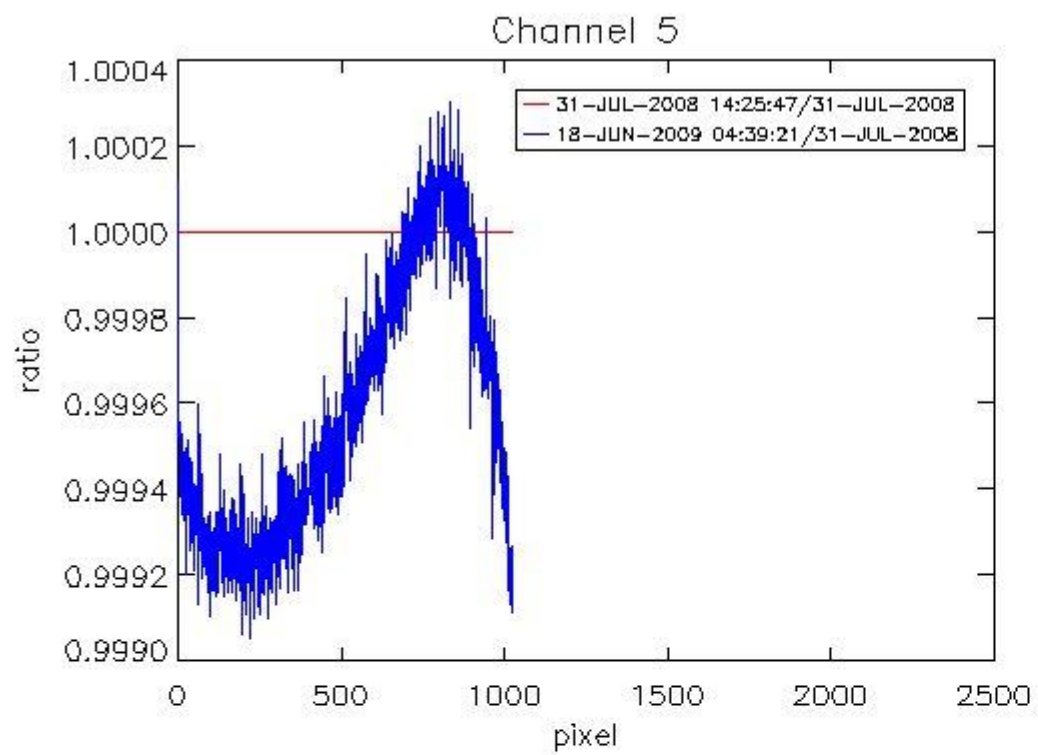


Channel 3



Channel 4

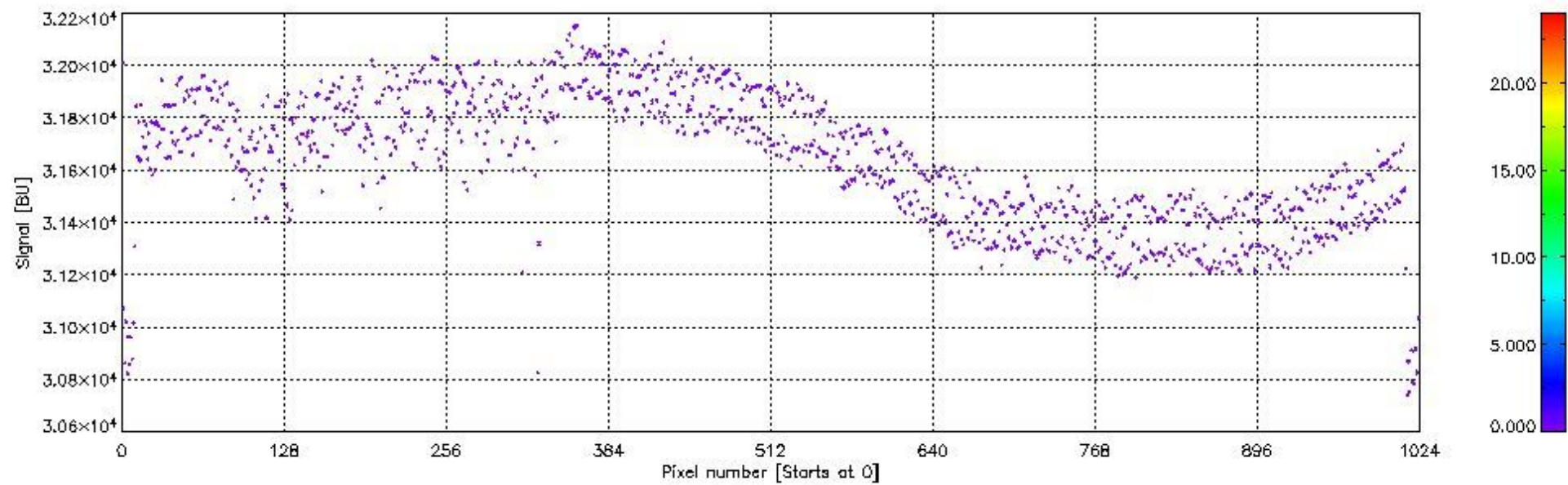
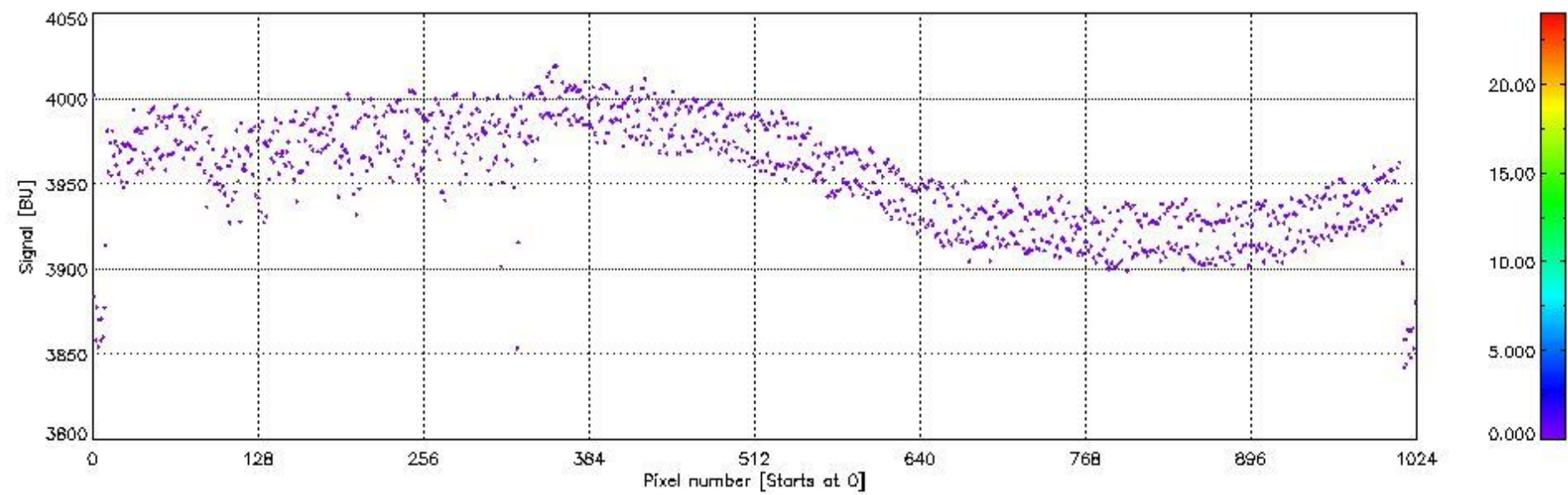
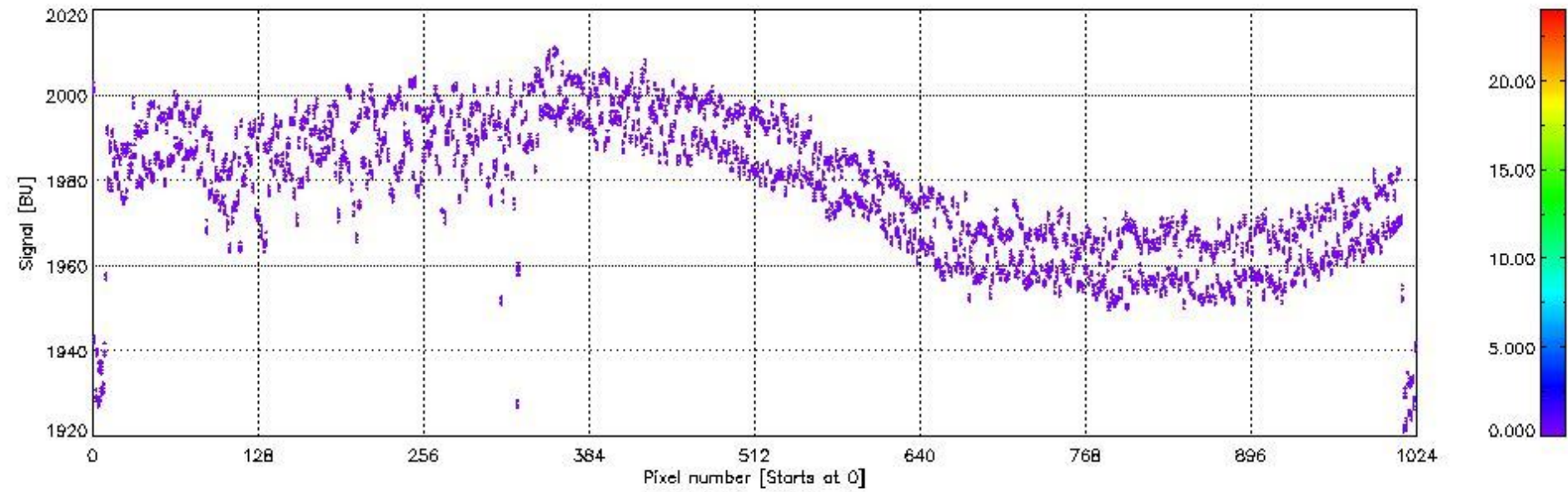




1.2.3 Dark measurements overview

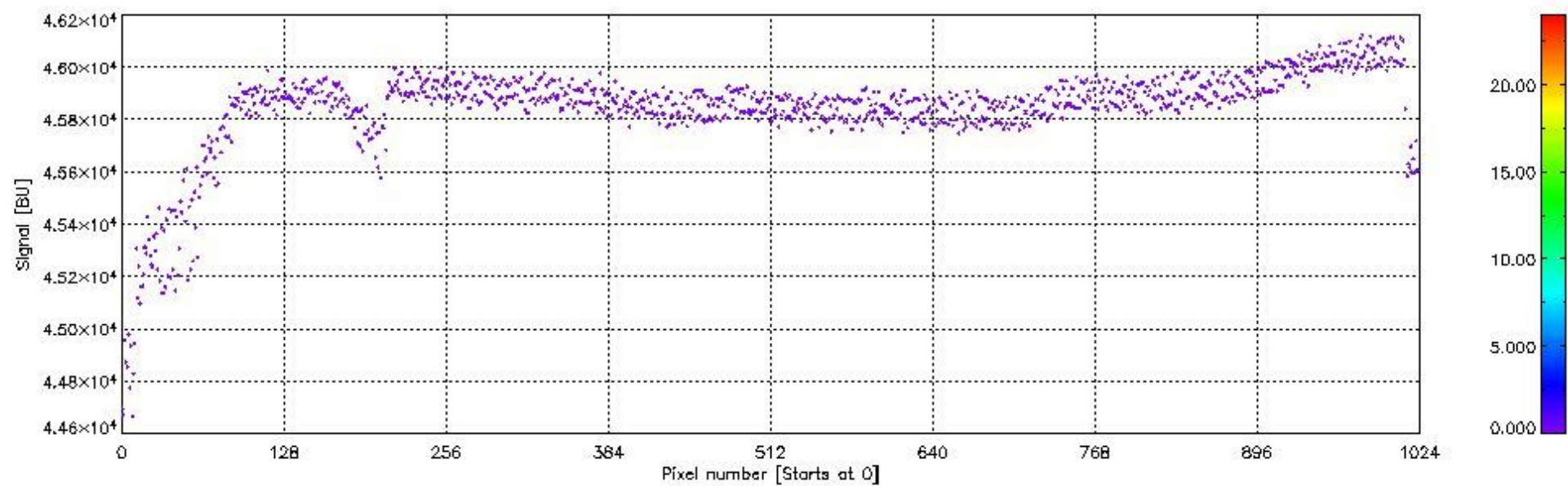
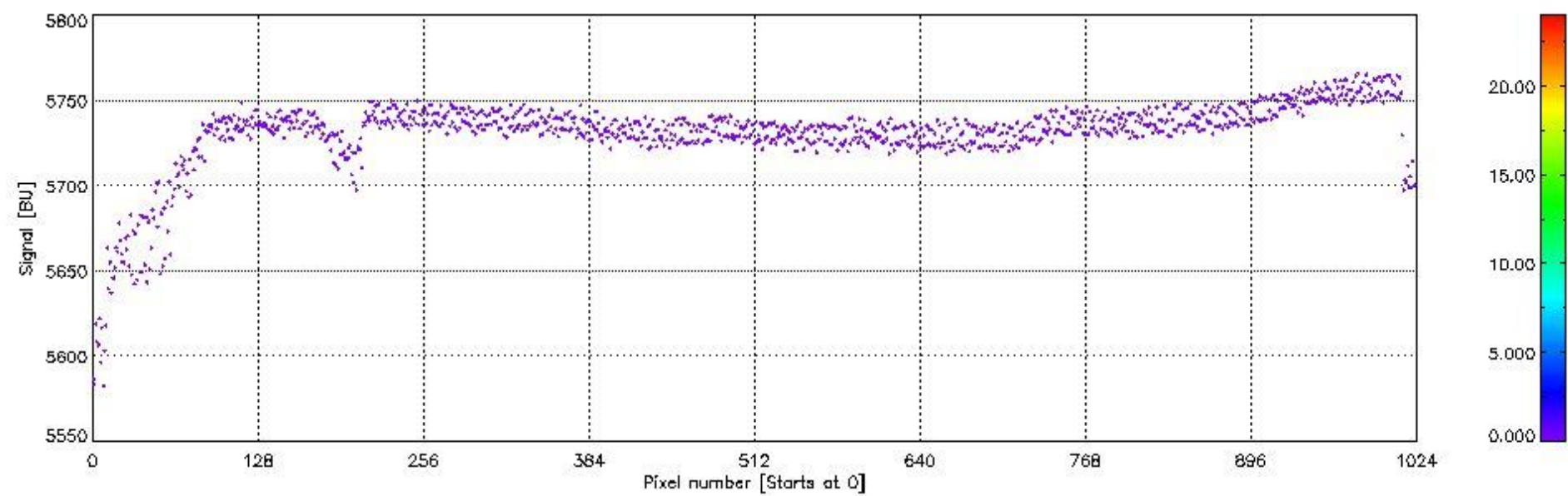
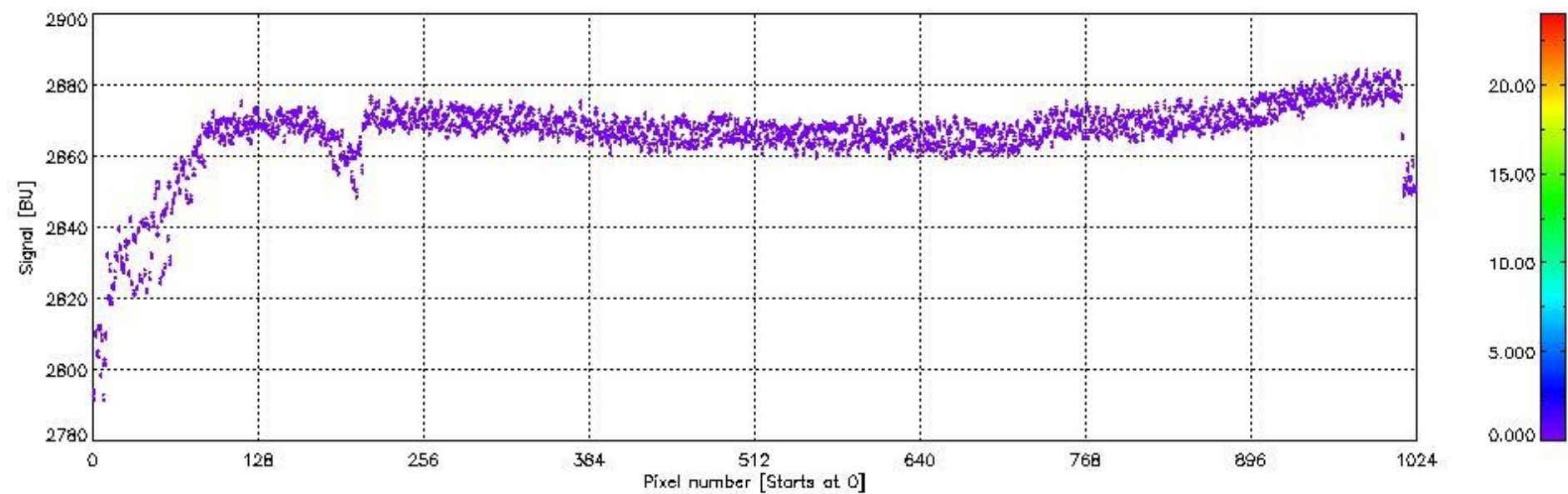
This section lists properties of the dark measurements performed within the processing scope.

Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 1 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



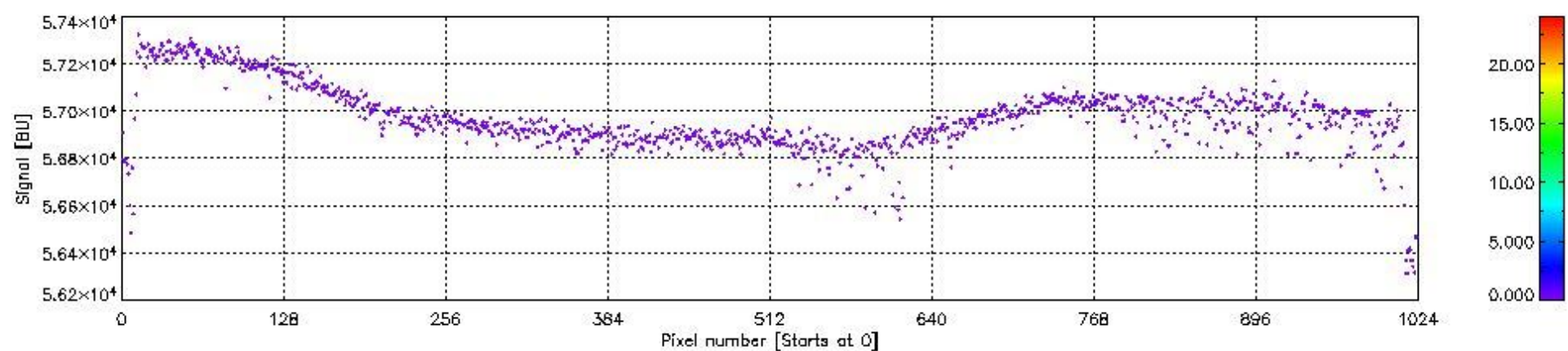
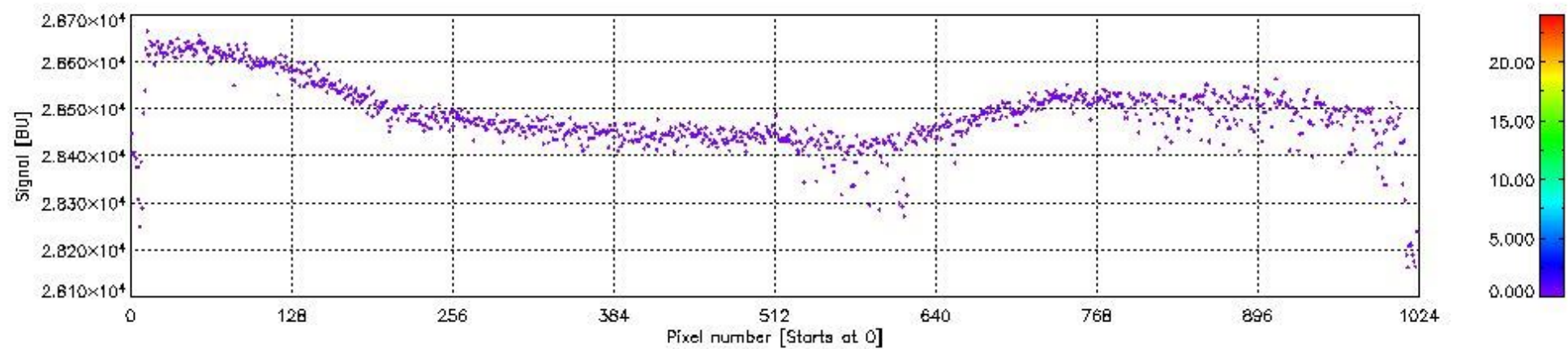
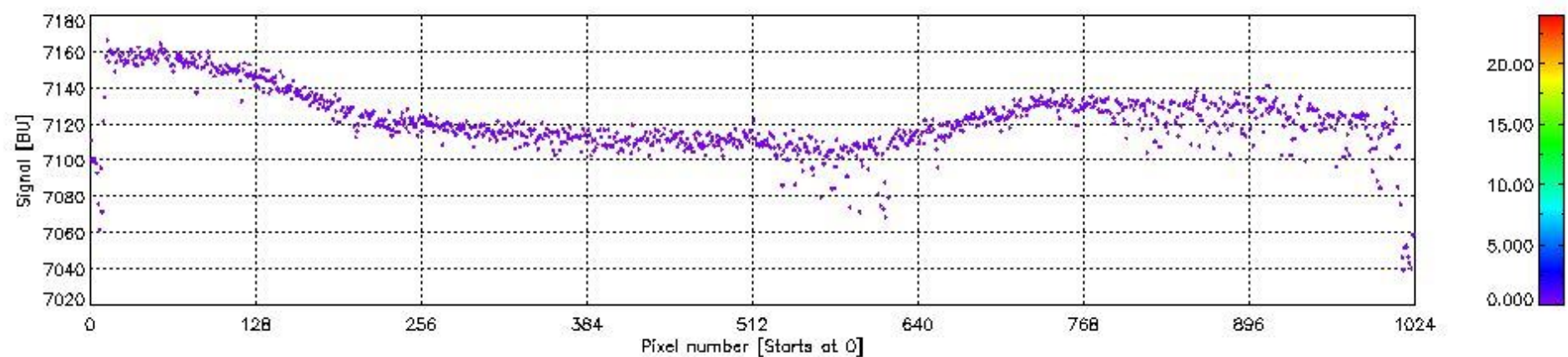
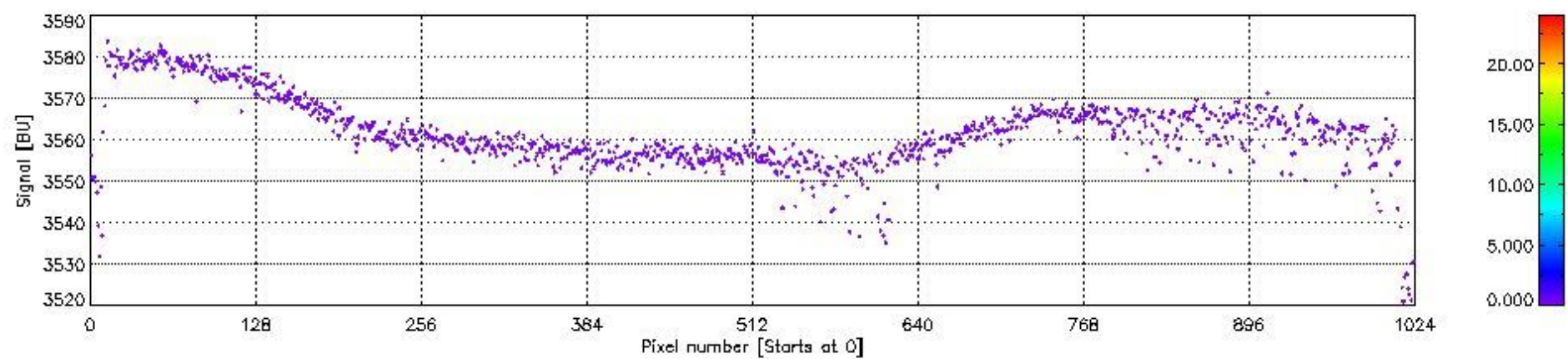
sciamachy_daily_report_level1__SCIA_6_03_N_20090621_2.PNG

Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 2 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



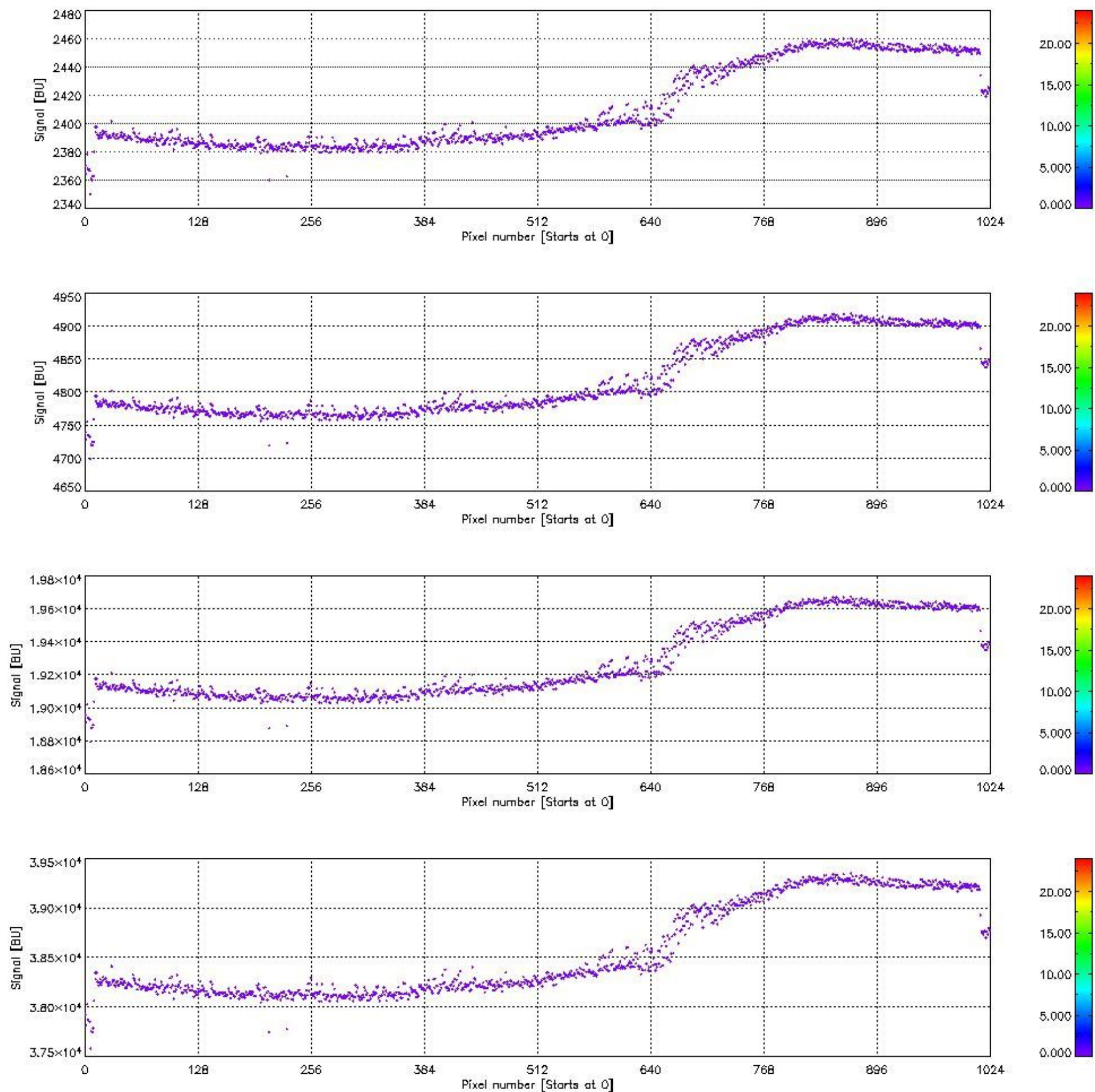
sciamachy_daily_report_level1__SCIA_6_03_N_20090621_3.PNG

Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 3 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



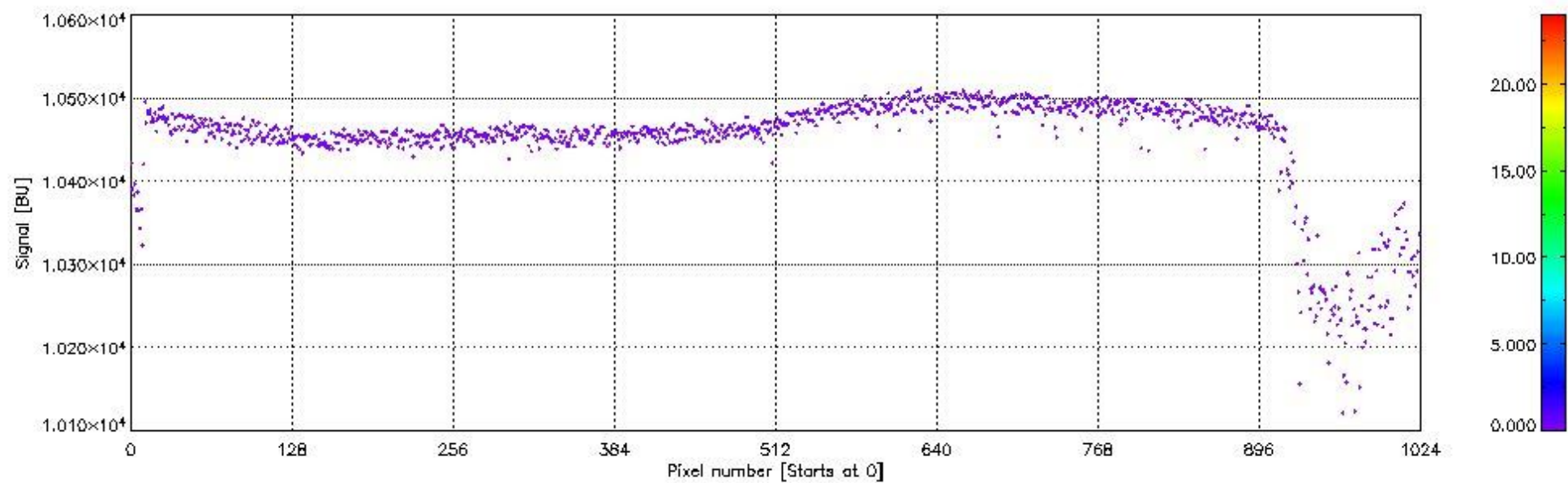
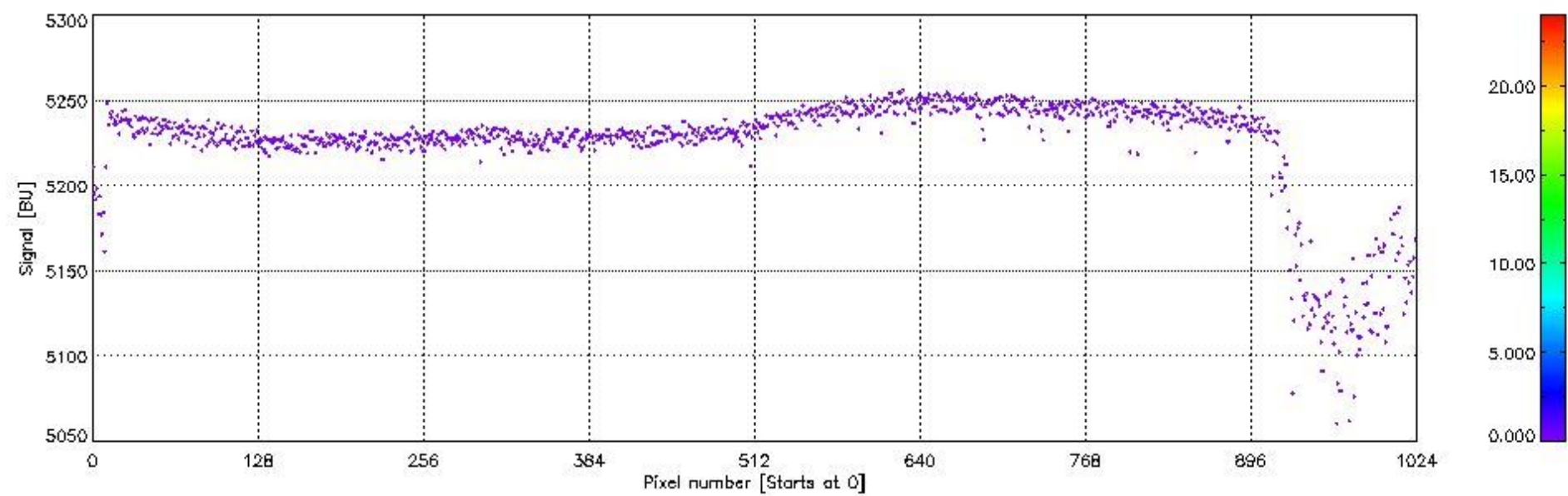
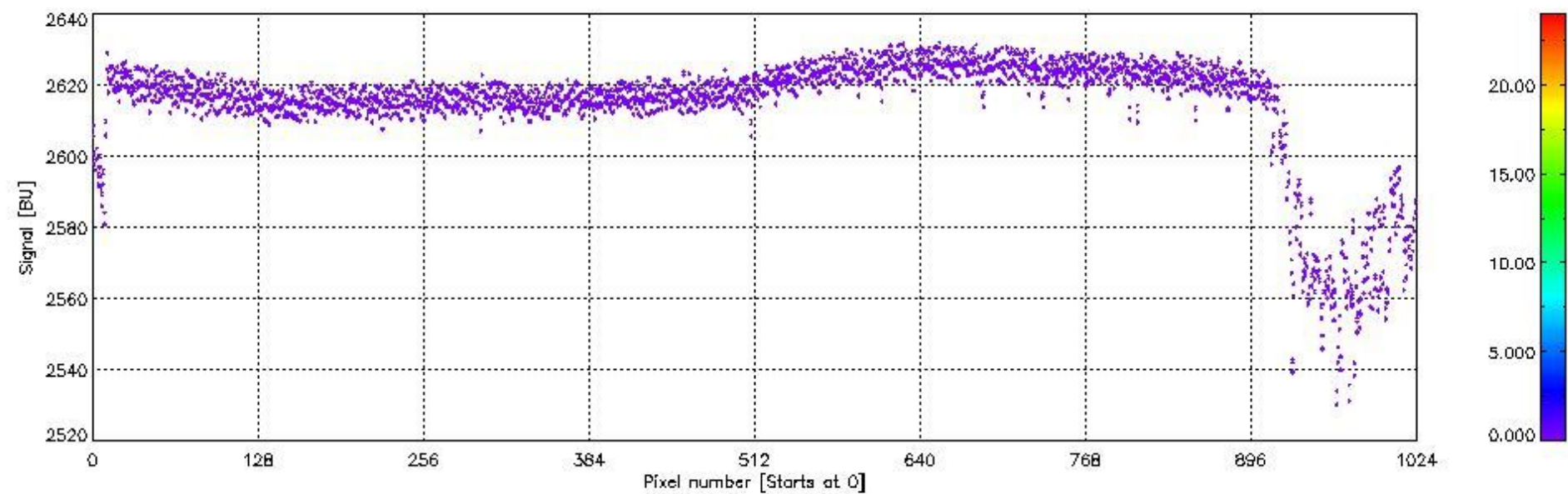
sciamachy_daily_report_level1__SCIA_6_03_N_20090621_4.PNG

Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 4 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



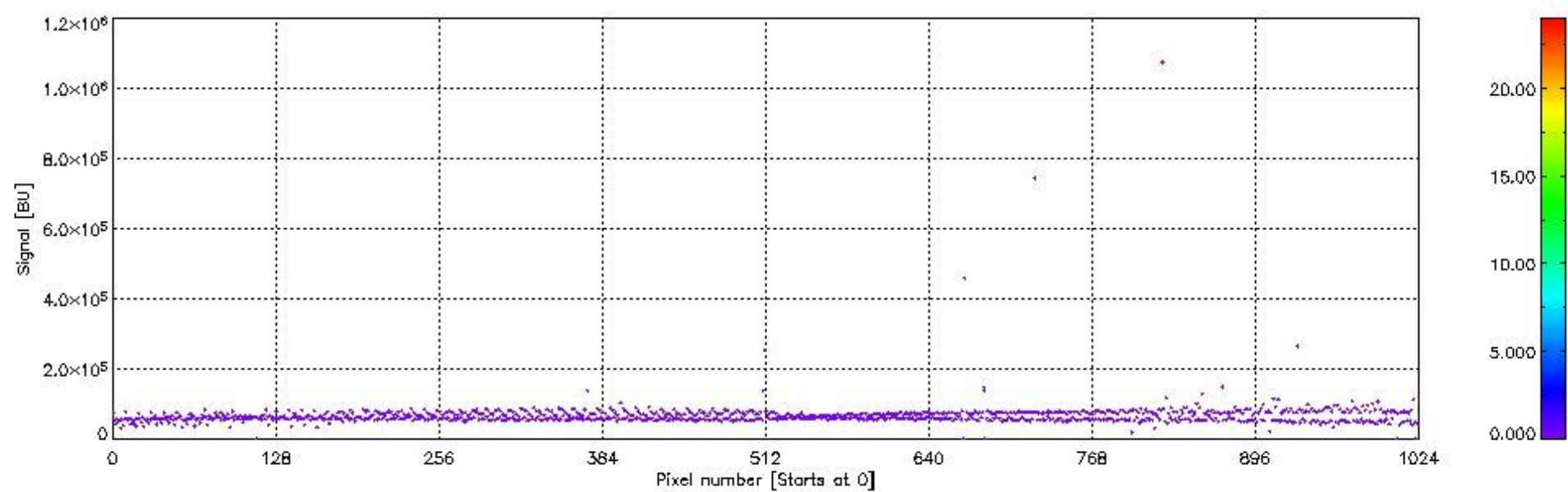
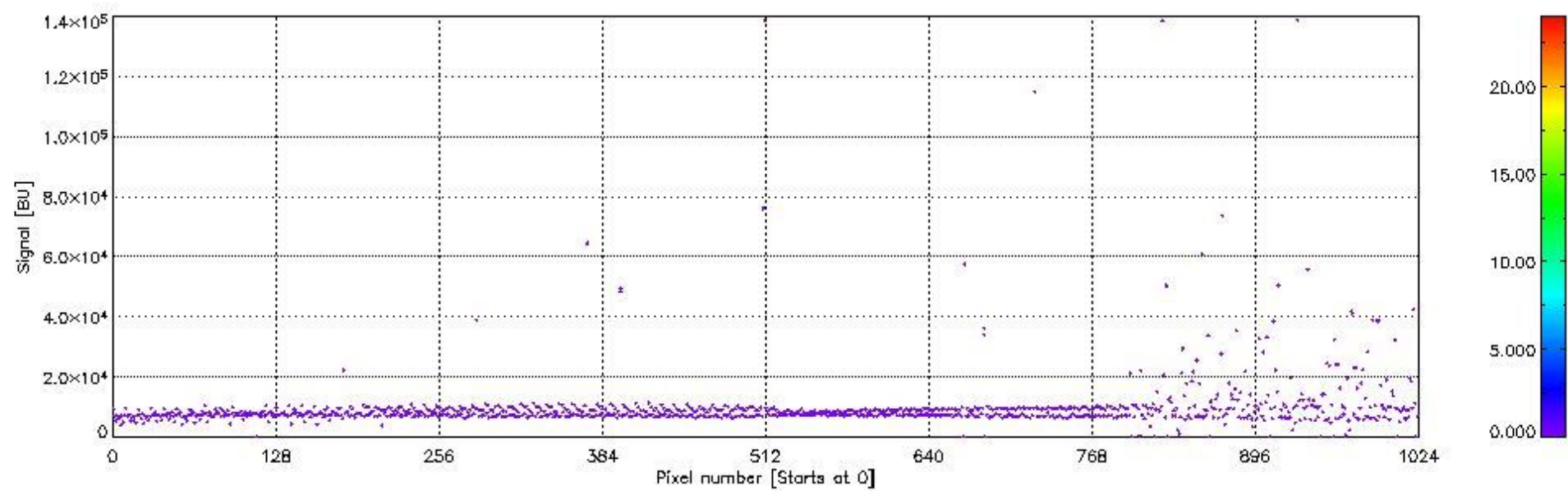
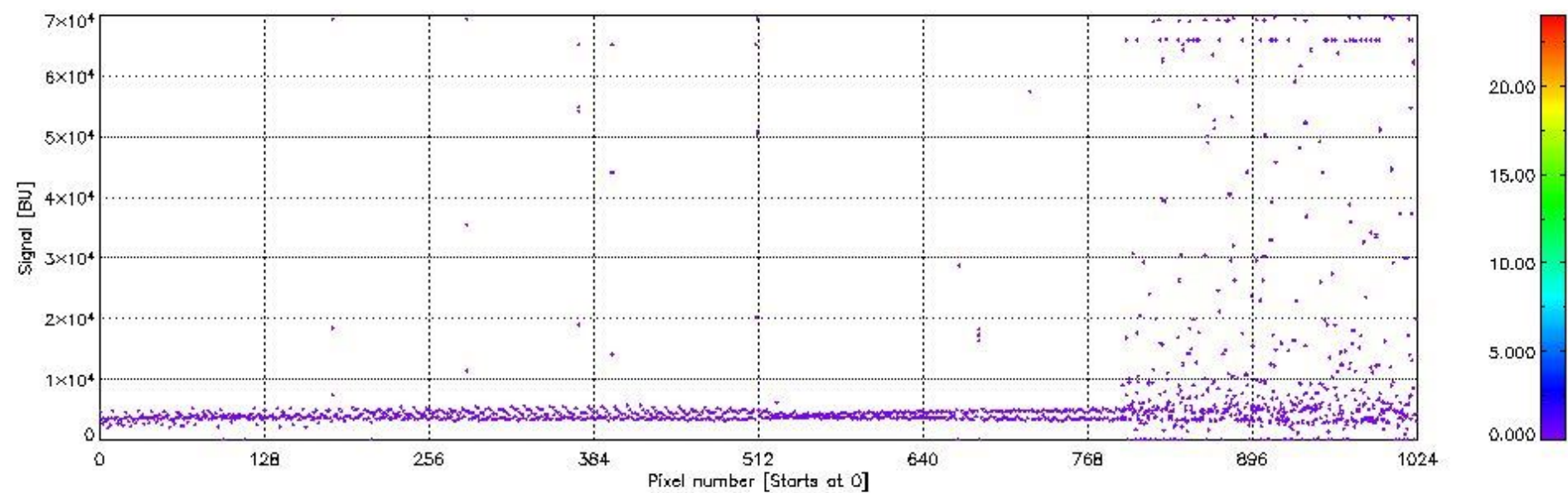
sciamachy_daily_report_level1__SCIA_6_03_N_20090621_5.PNG

Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 5 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



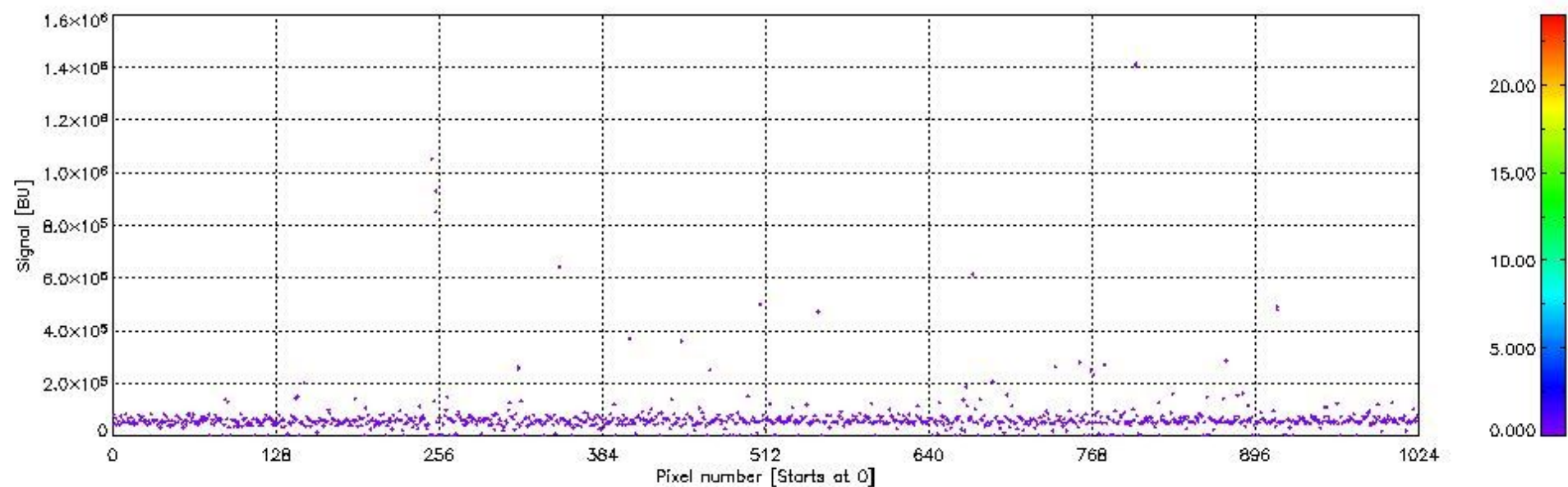
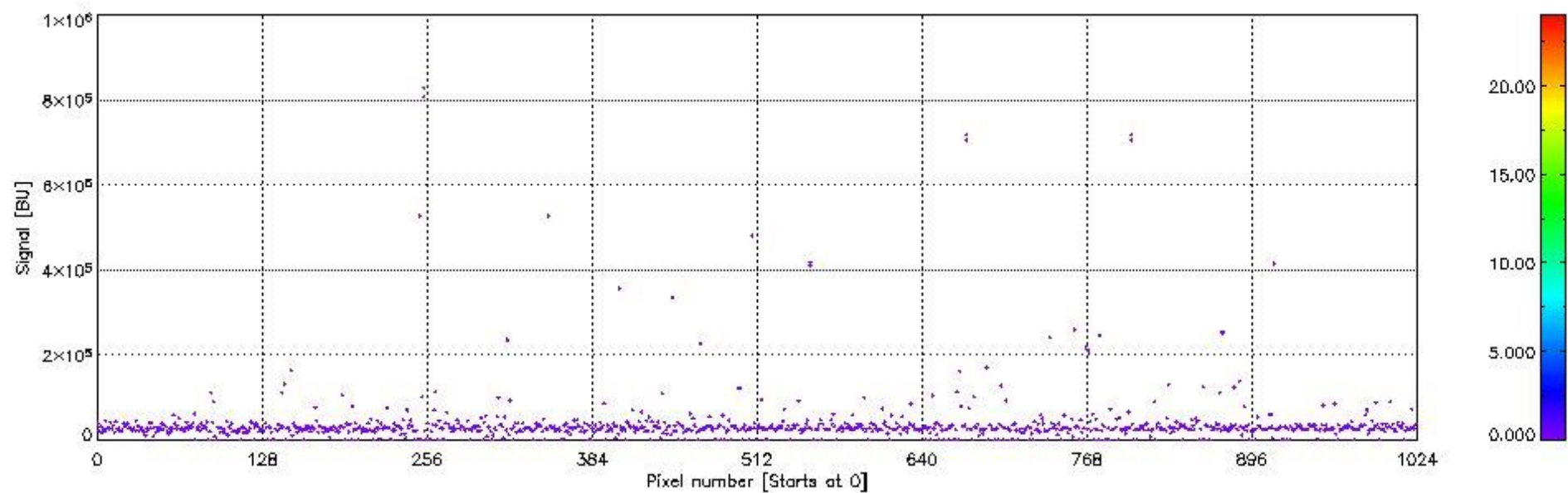
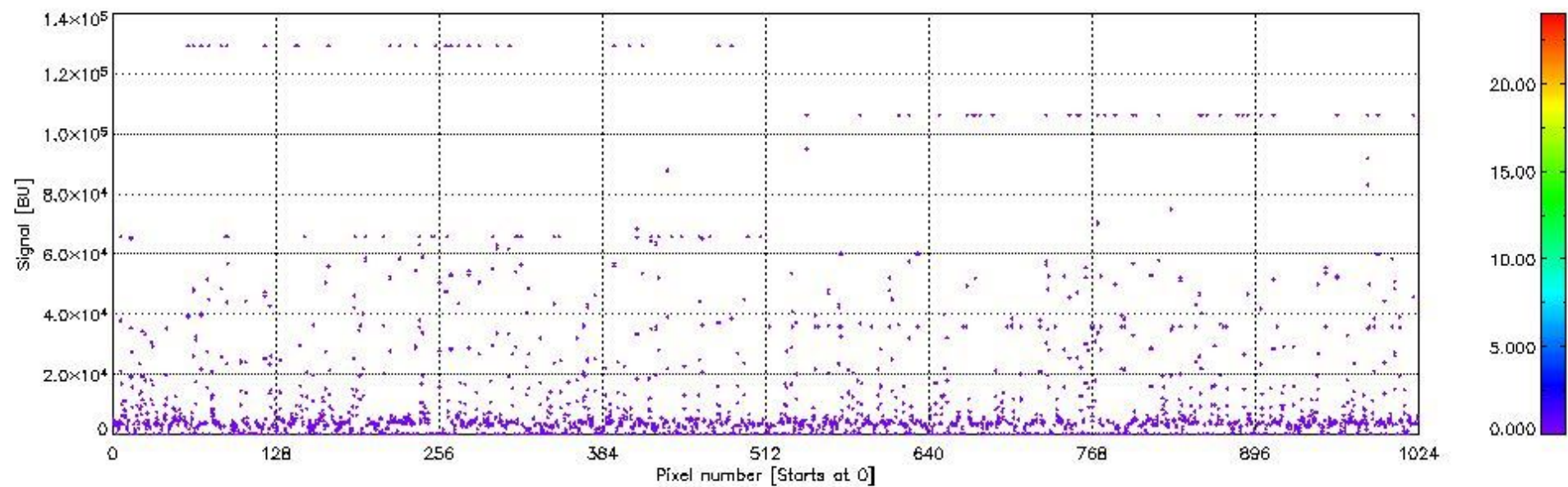
sciamachy_daily_report_level1__SCIA_6_03_N_20090621_6.PNG

Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 6 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



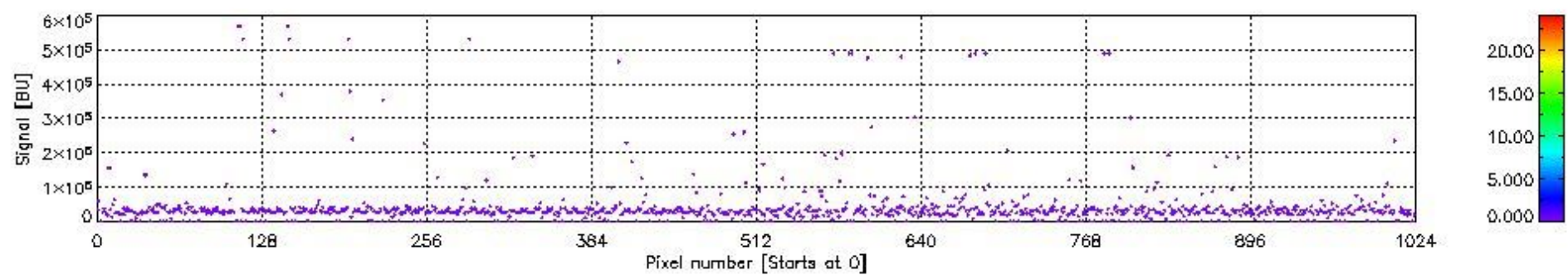
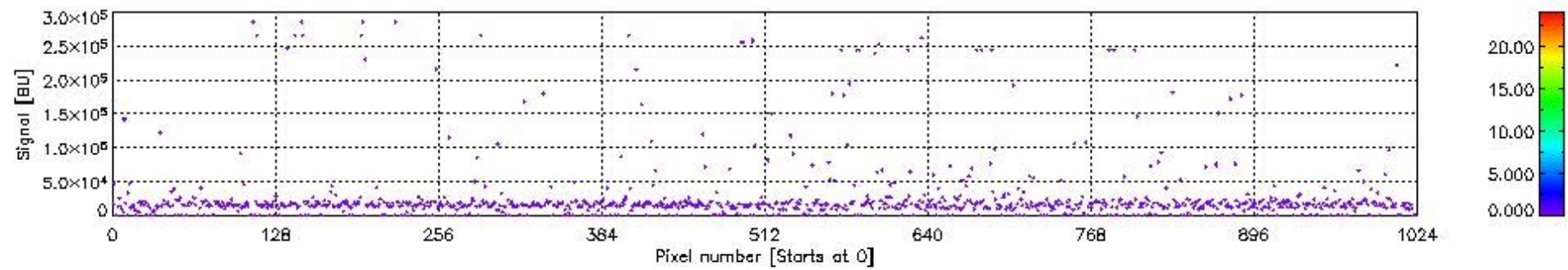
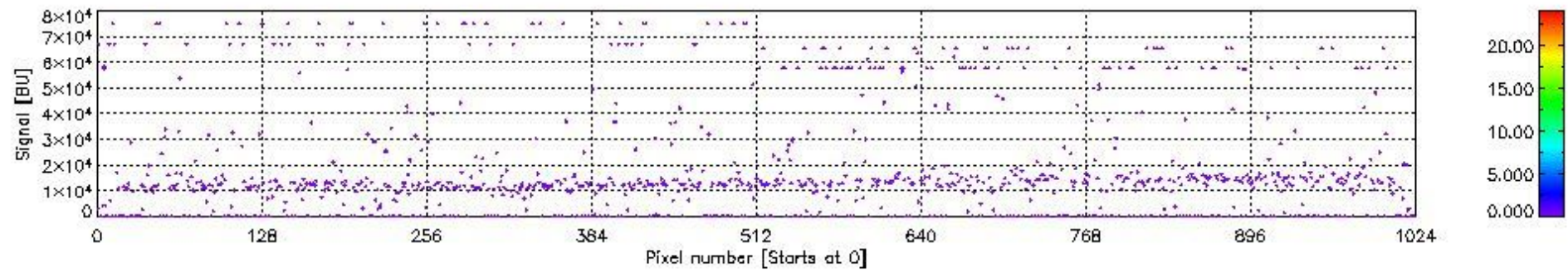
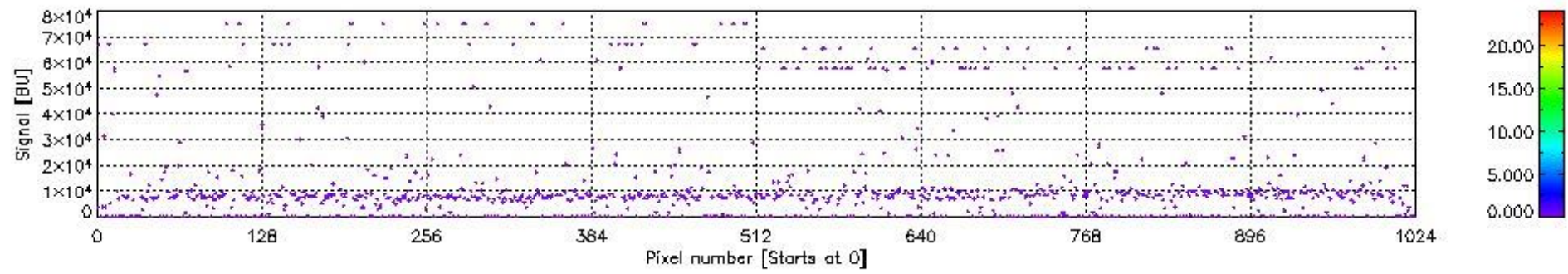
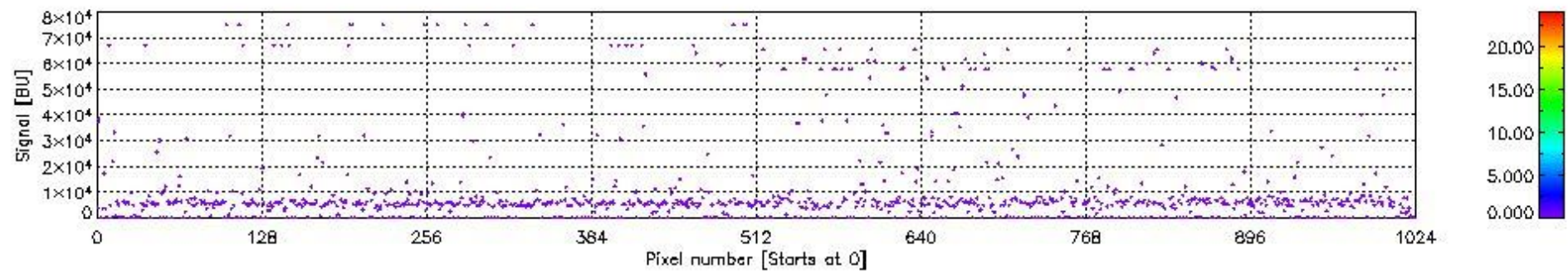
sciamachy_daily_report_level1__SCIA_6_03_N_20090621_7.PNG

Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 7 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



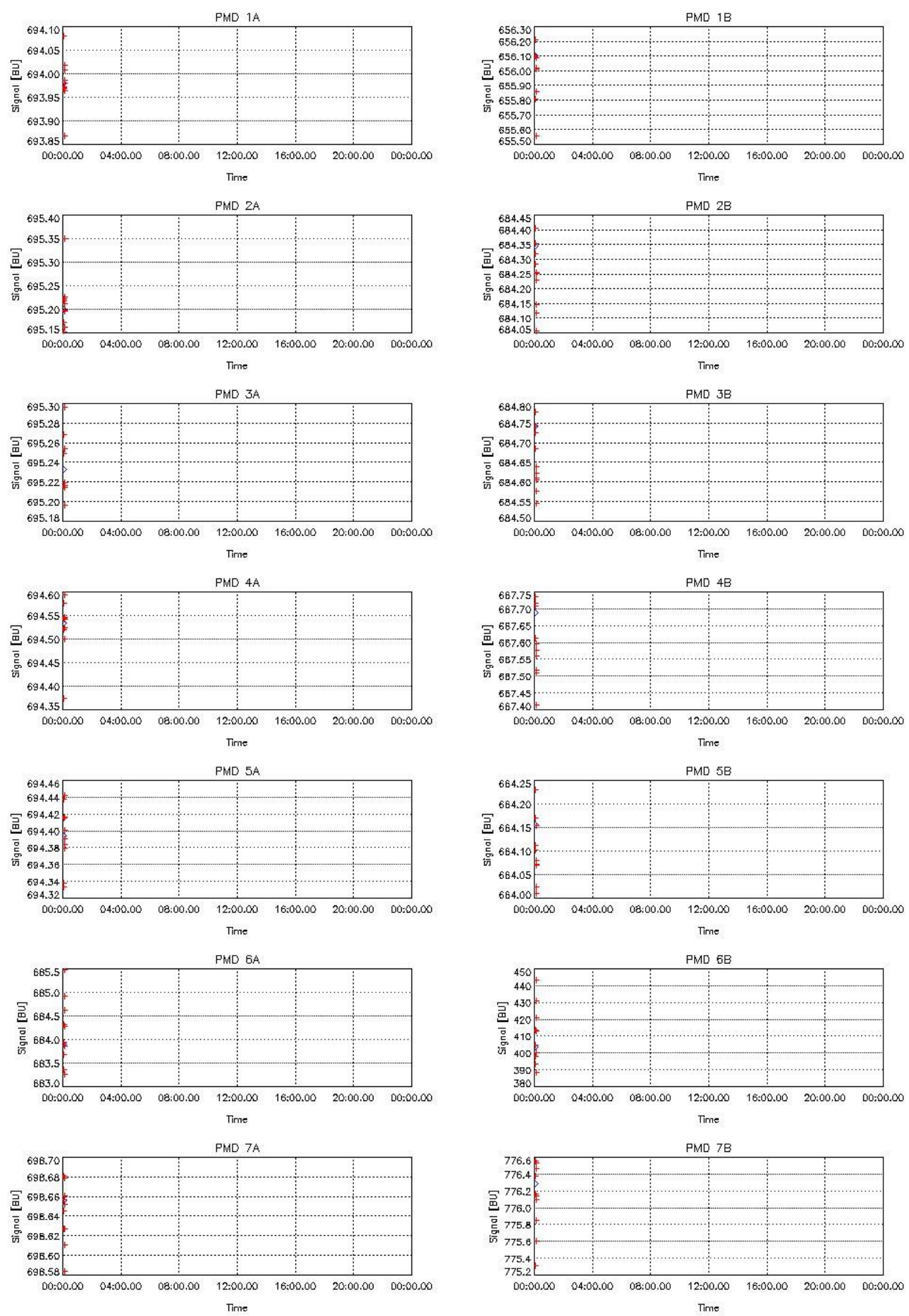
sciamachy_daily_report_level1__SCIA_6_03_N_20090621_8.PNG

Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 8 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00

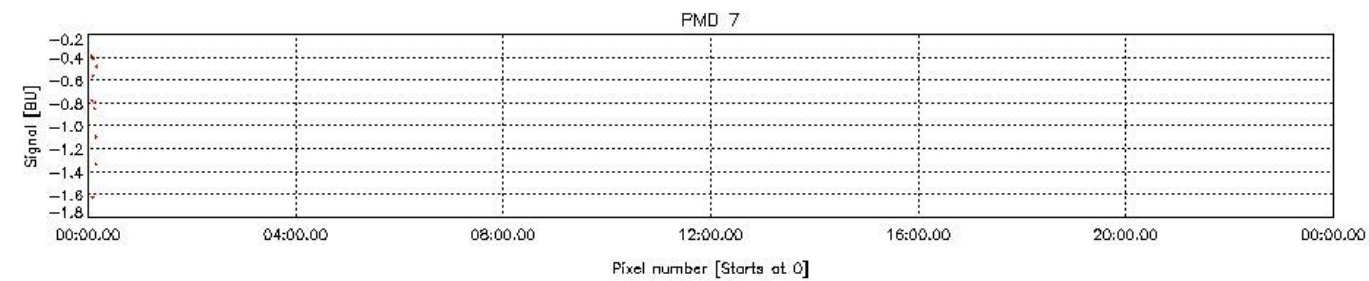
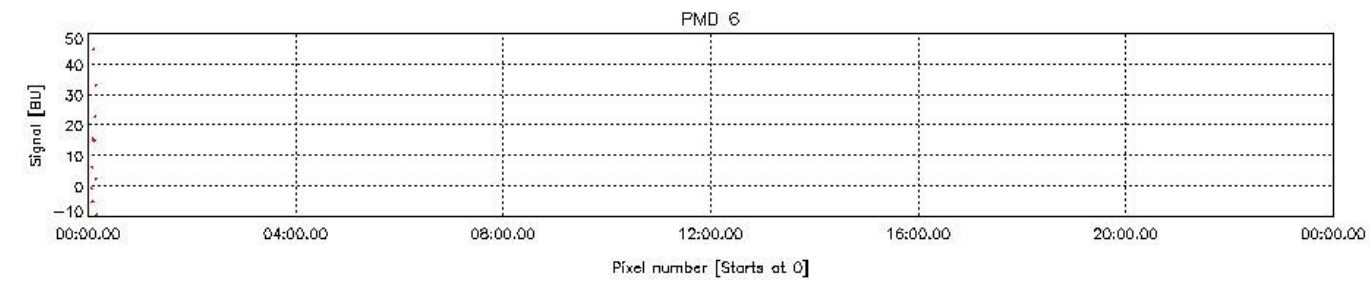
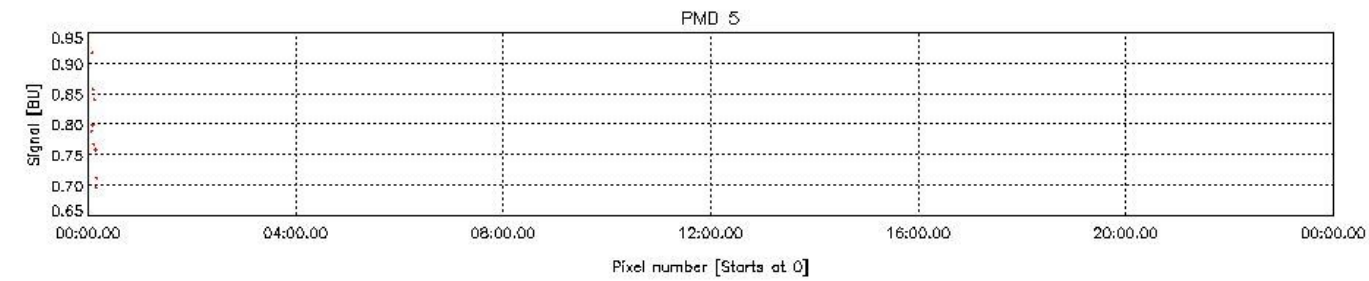
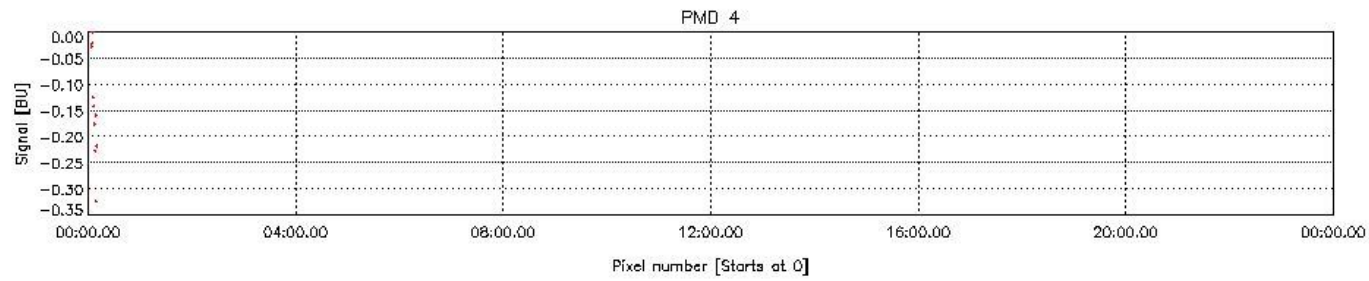
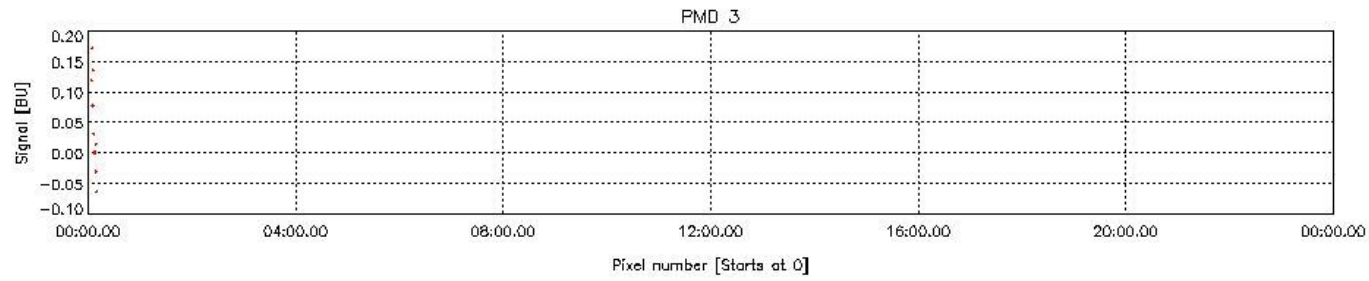
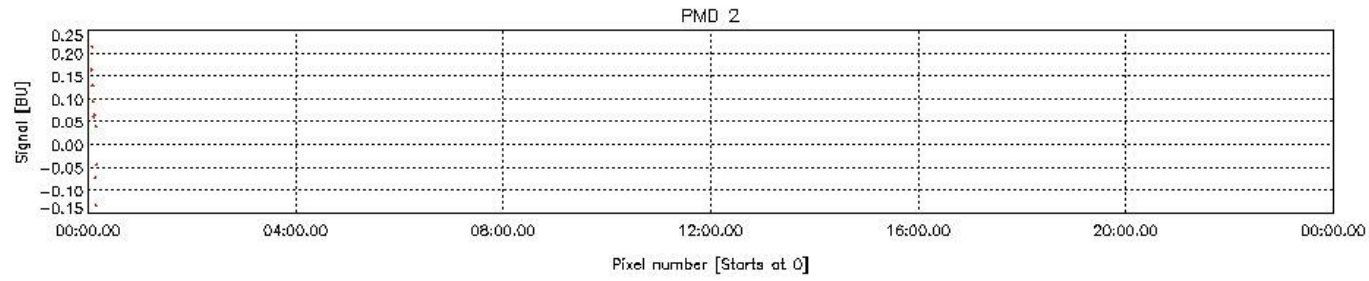
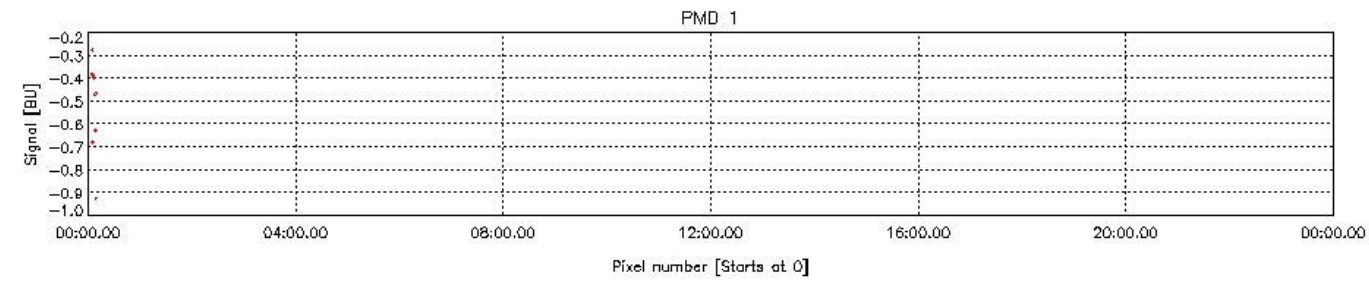


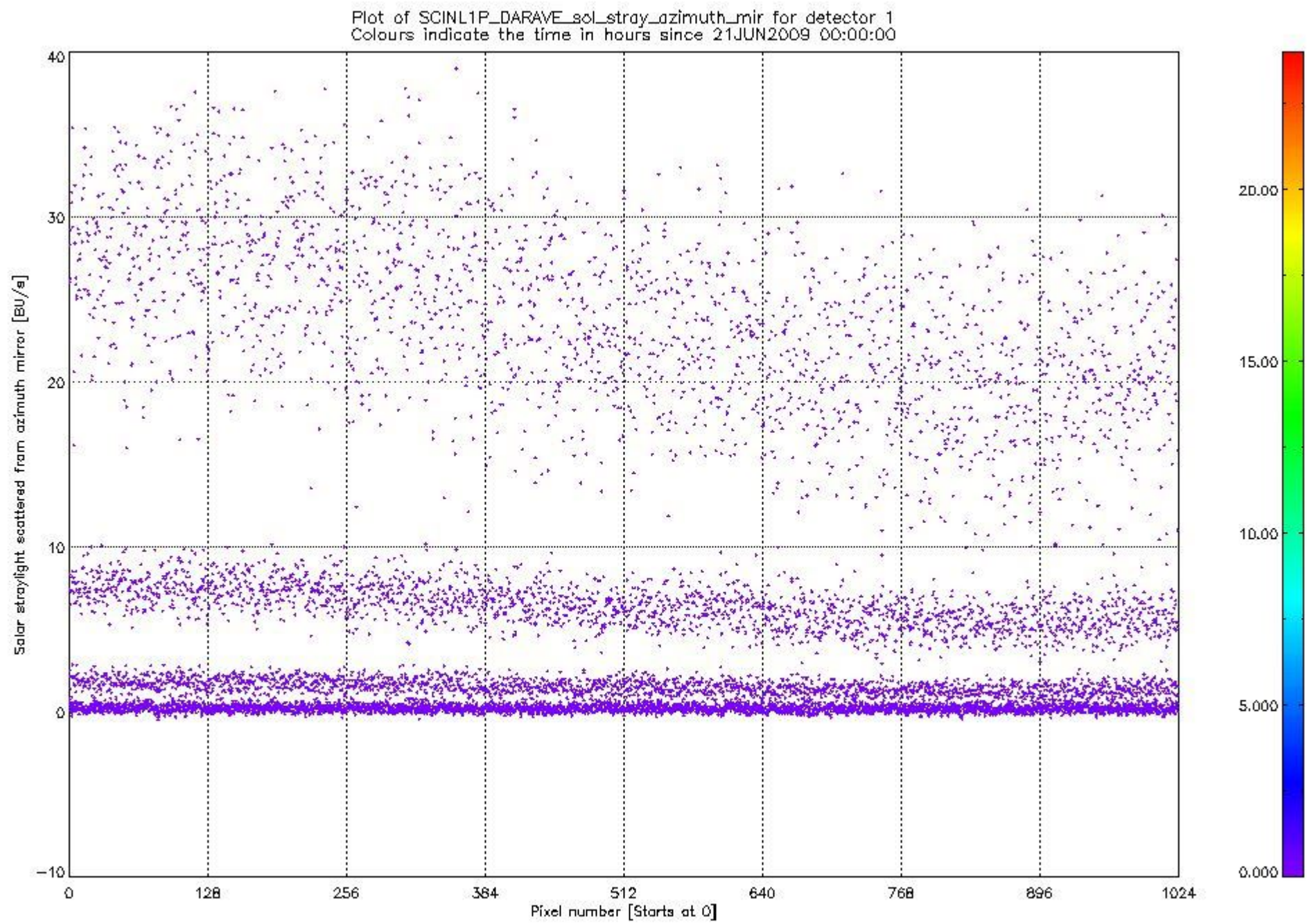
sciamachy_daily_report_level1__SCIA_6_03_N_20090621_9.PNG

Plots of SCINL1P_DRAVE_pmd_dark_offset vs time on 21JUN2009 (red).
 New leakage current offset data is given in blue for comparison.

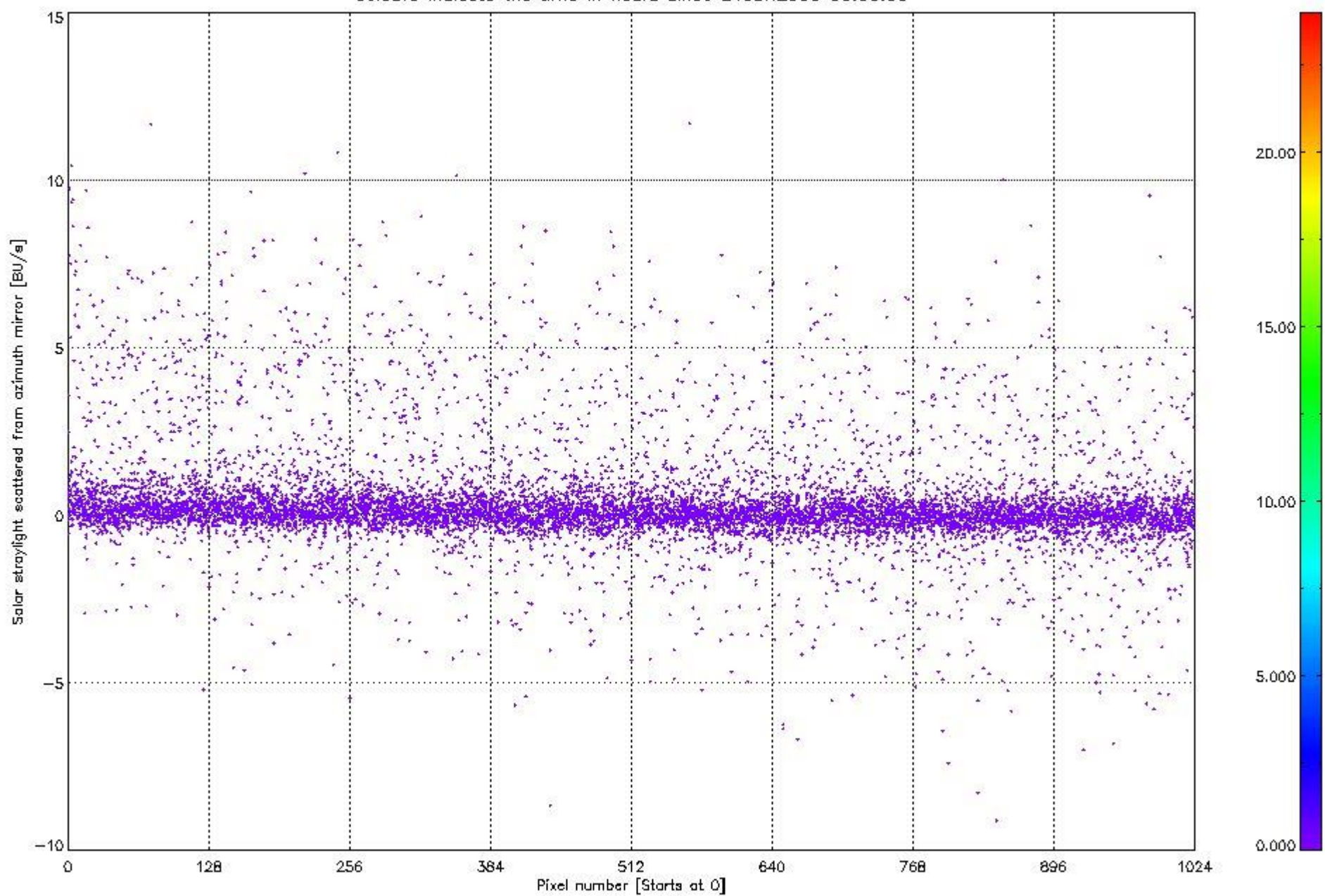


sciamachy_daily_report_level1_SCIA_6_03_N_20090621_10.PNG

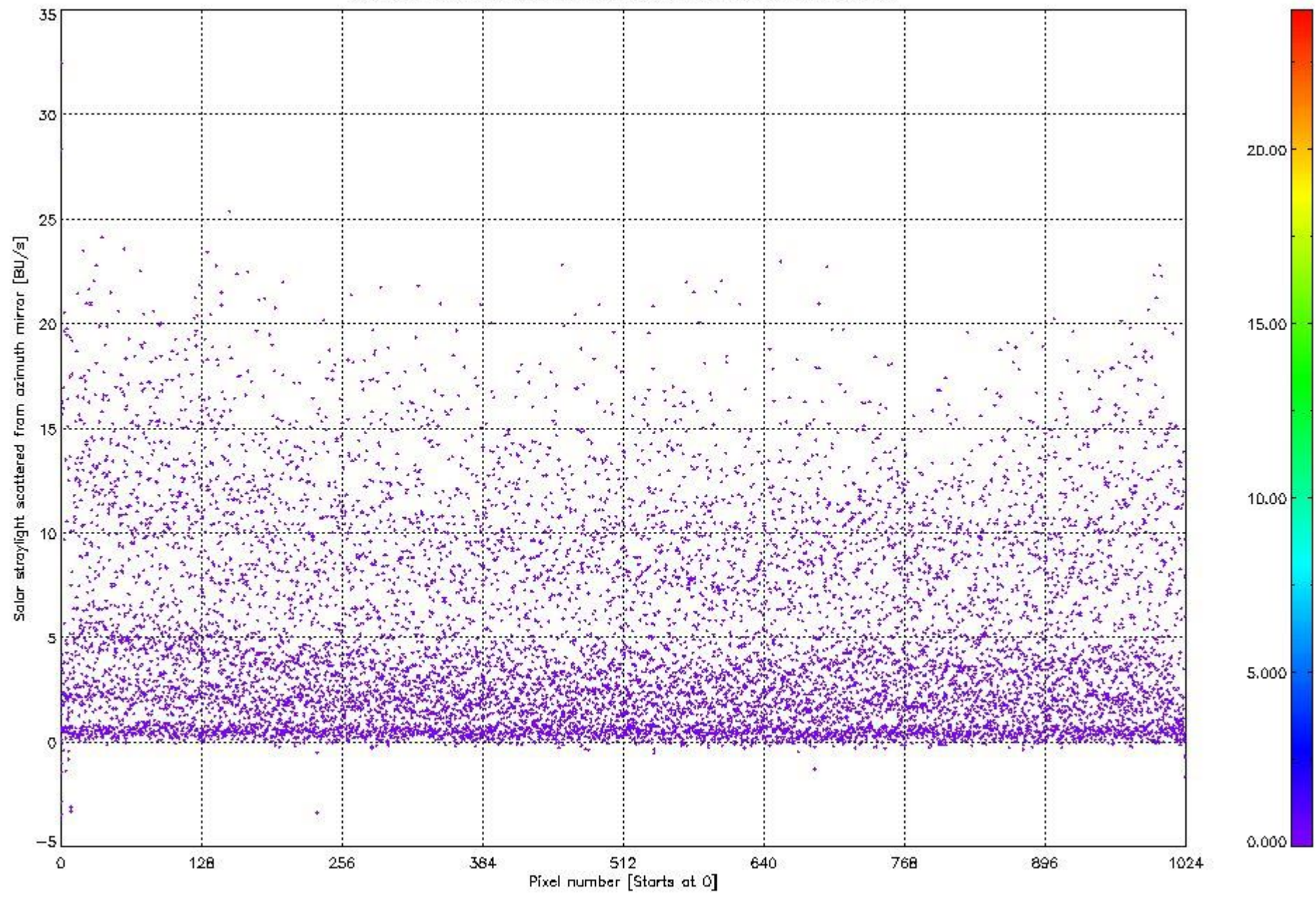




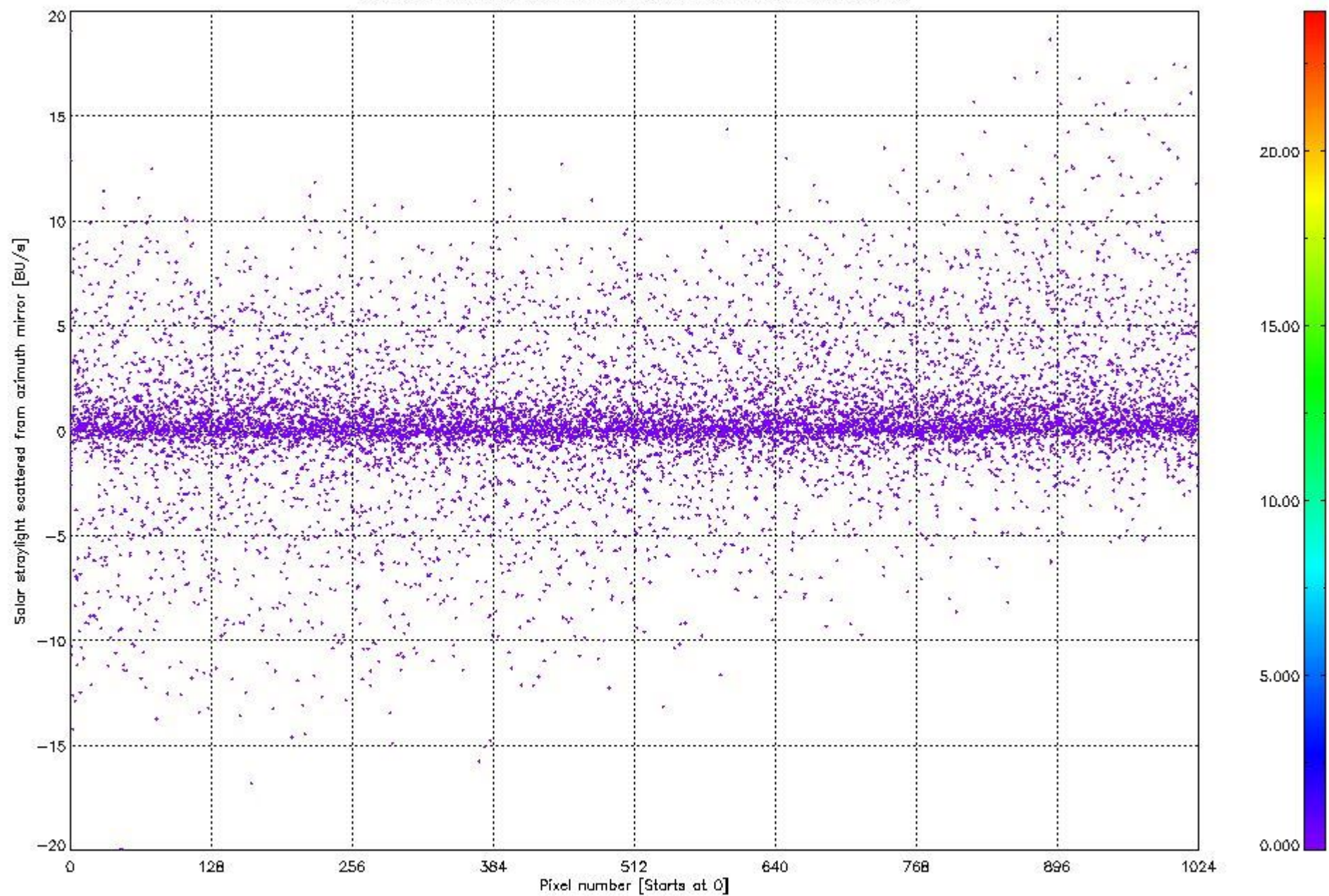
Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 2
Colours indicate the time in hours since 21JUN2009 00:00:00



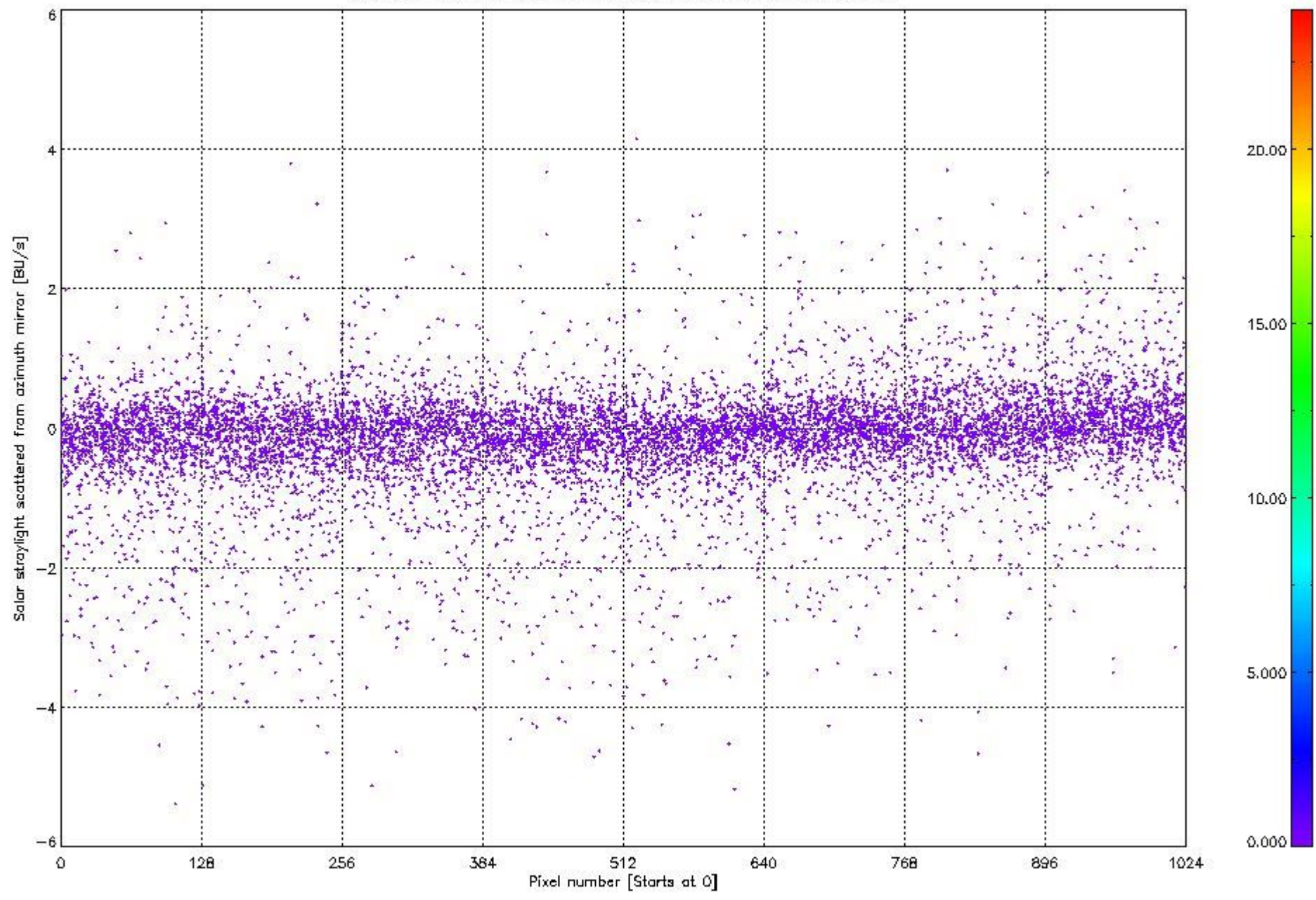
Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 3
Colours indicate the time in hours since 21JUN2009 00:00:00



Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 4
Colours indicate the time in hours since 21JUN2009 00:00:00

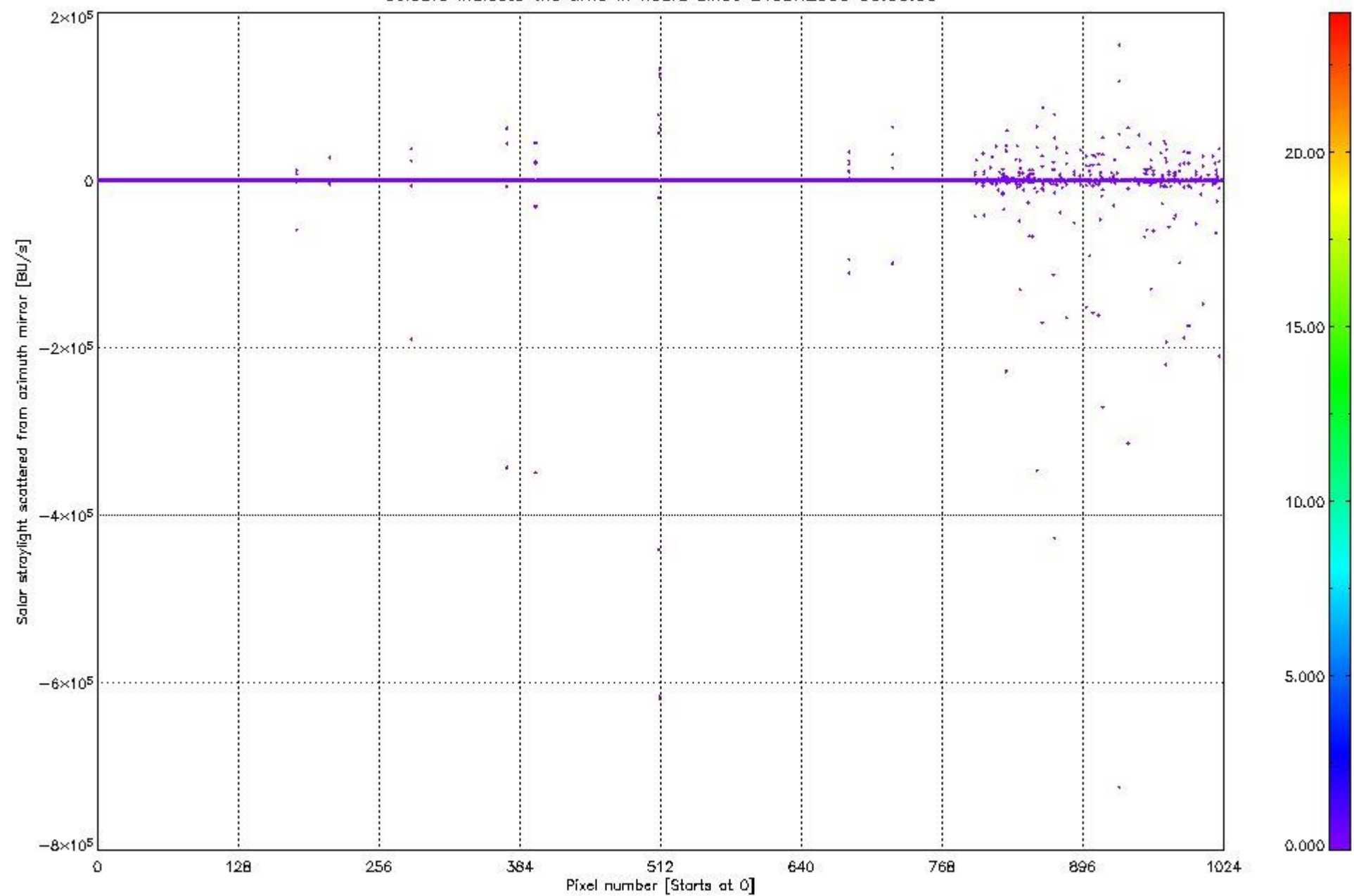


Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 5
Colours indicate the time in hours since 21JUN2009 00:00:00

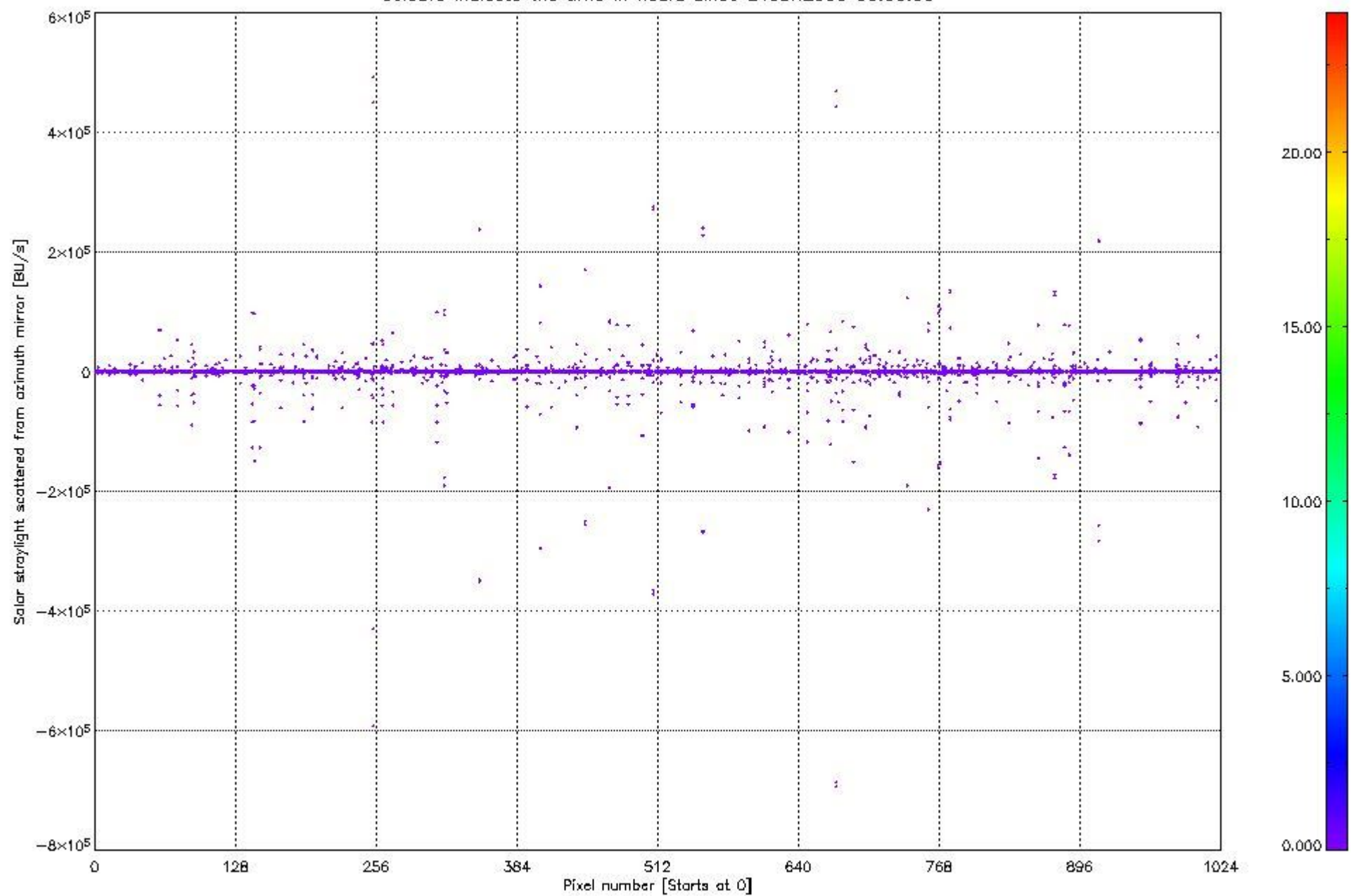


sciamachy_daily_report_level1_SCIA_6_03_N_20090621_16.PNG

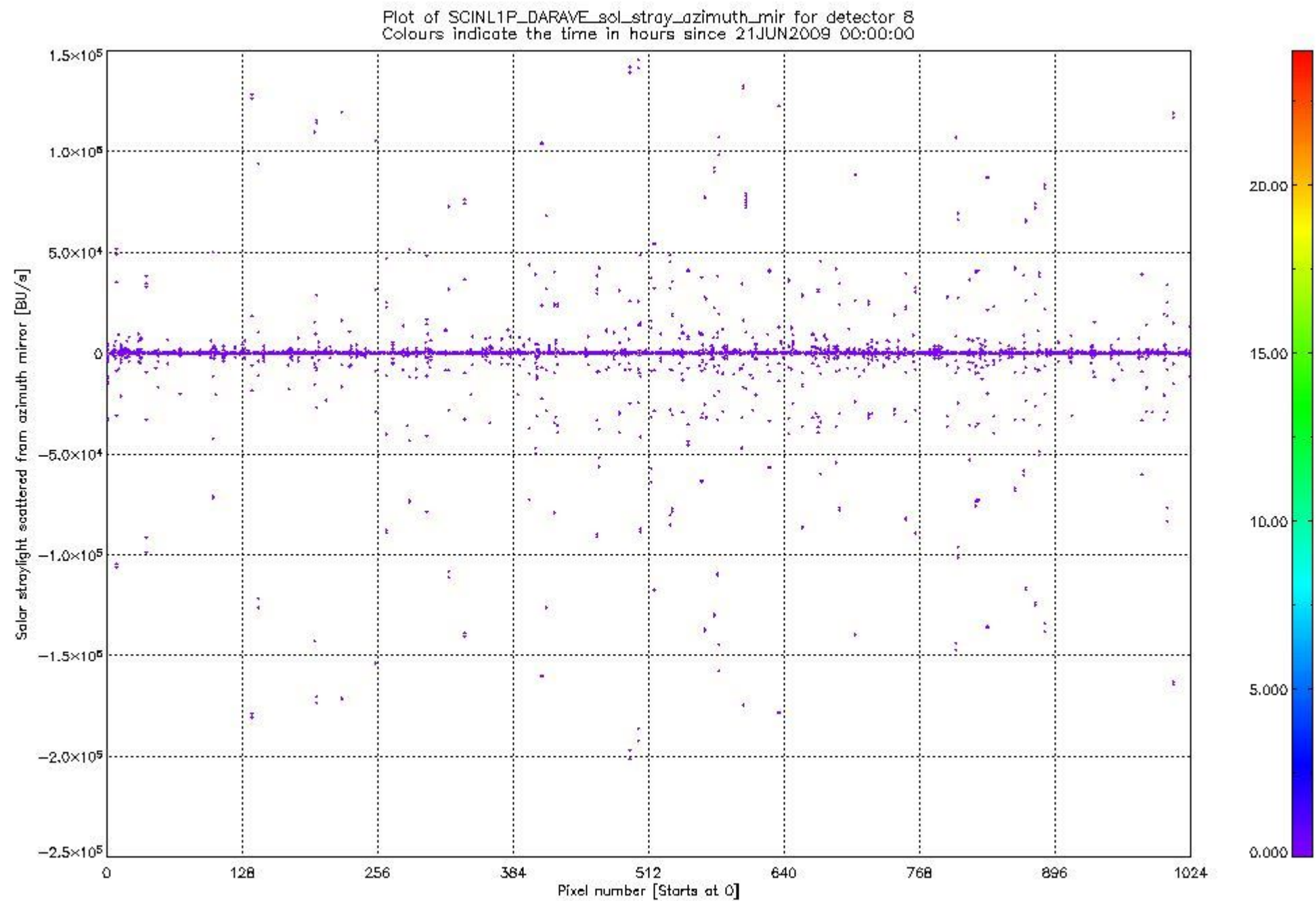
Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 6
 Colours indicate the time in hours since 21JUN2009 00:00:00



Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 7
 Colours indicate the time in hours since 21JUN2009 00:00:00



sciamachy_daily_report_level1_SCIA_6_03_N_20090621_18.PNG



sciamachy_daily_report_level1_SCIA_6_03_N_20090621_19.PNG

1.2.4 New leakage current parameters

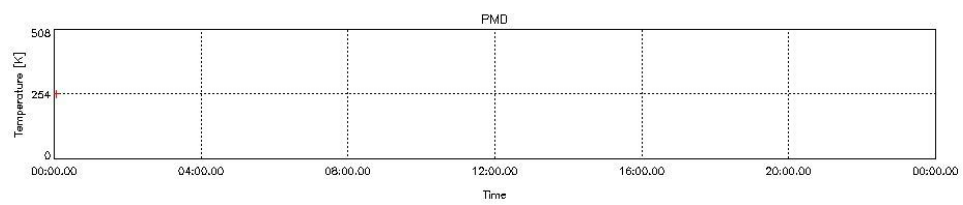
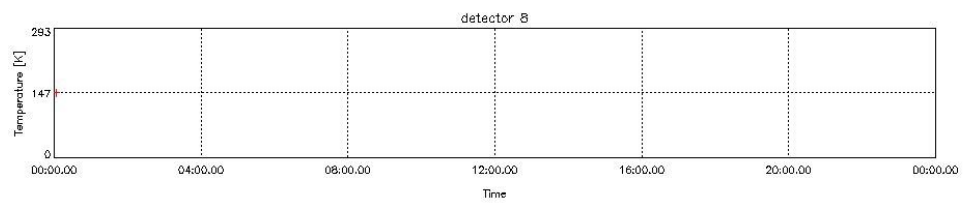
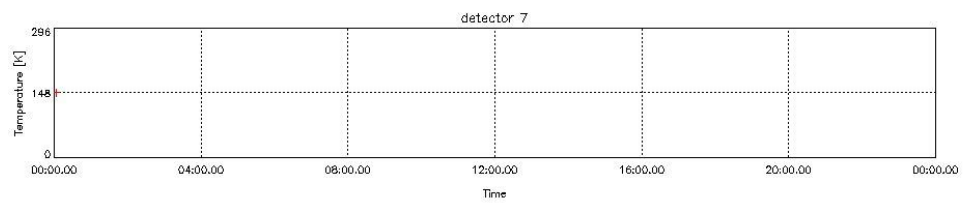
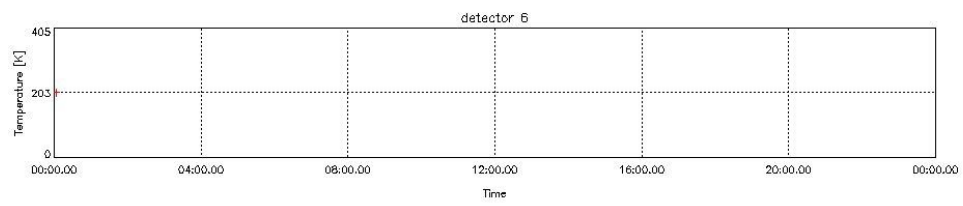
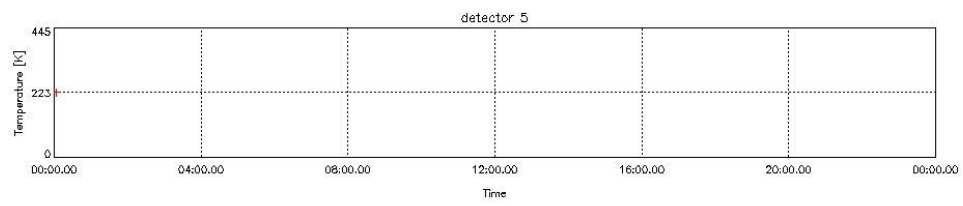
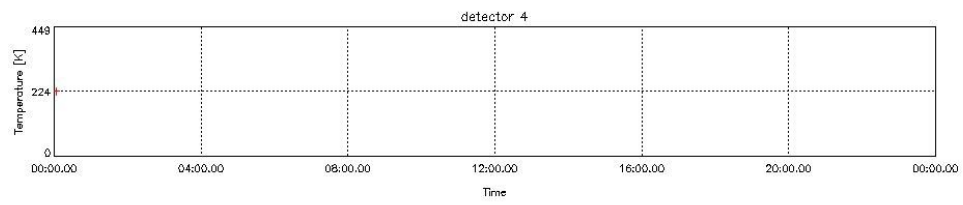
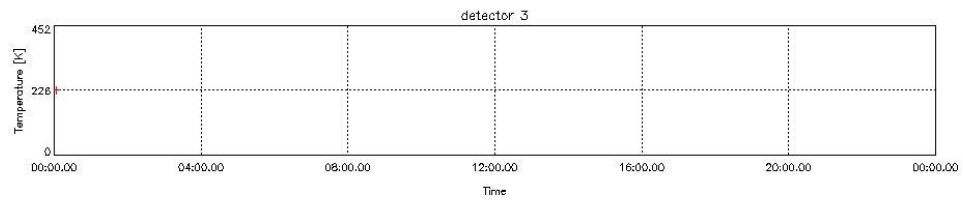
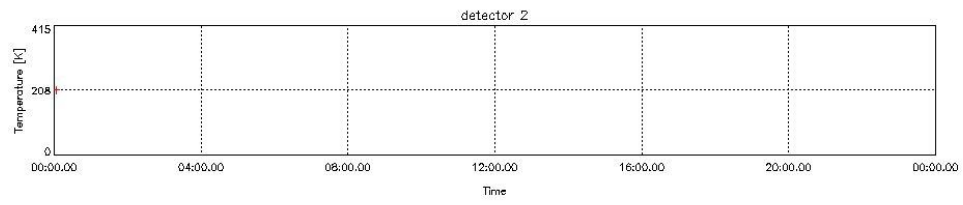
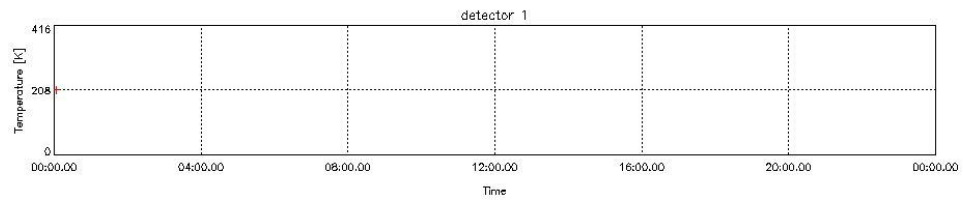
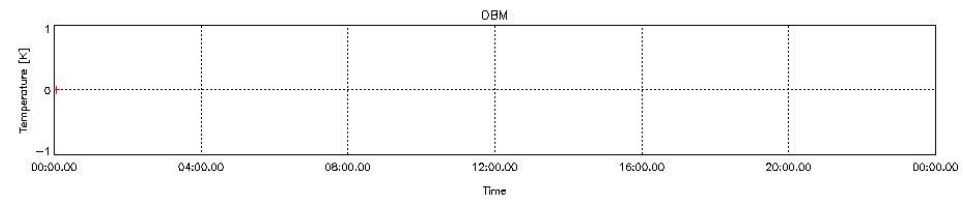
This section lists properties of the new leakage current data within the processing scope.

The following table shows the new leakage measurement data characteristics.

Note: Since the introduction of the SCICAL calibration data processor, the new leakage current dataset is not directly used for Auxiliary Data File generation.

#	dsr_time	attach	orb_phase
0	21JUN2009 00:03:54	1	0.153500

Plots of SCINL1P_NEWLEA_obm_detL_prnd temperatures vs time on 21JUN2009.



sciamachy_daily_report_level1_SCIA_6_03_N_20090621_20.PNG

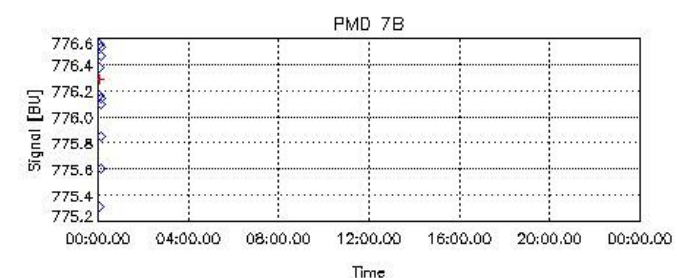
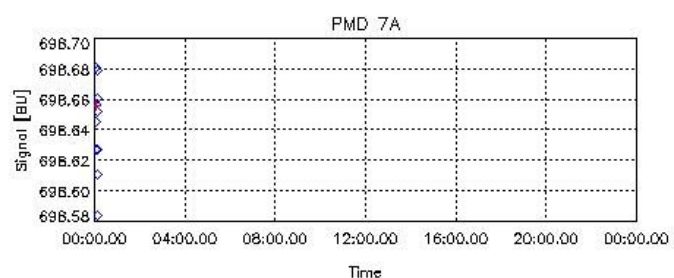
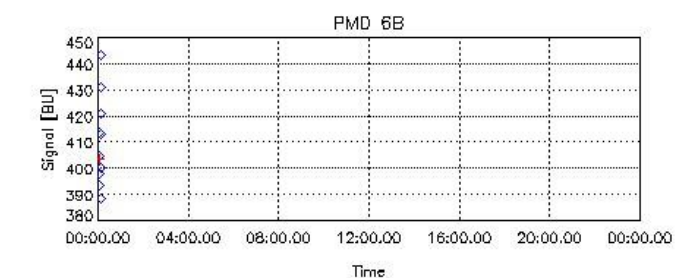
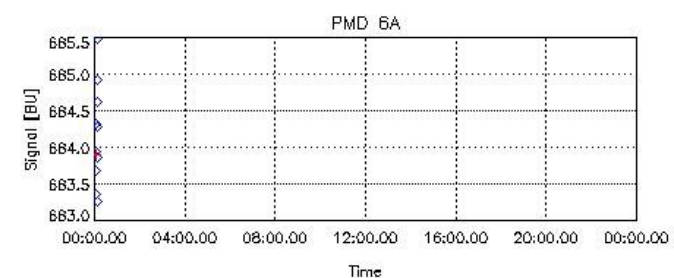
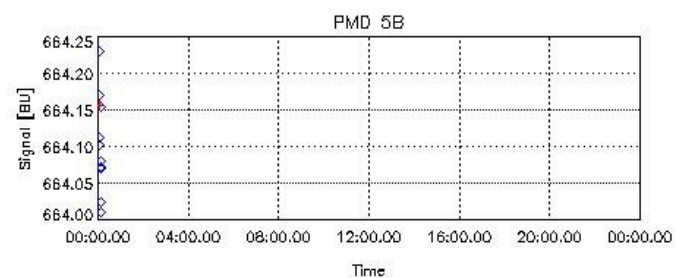
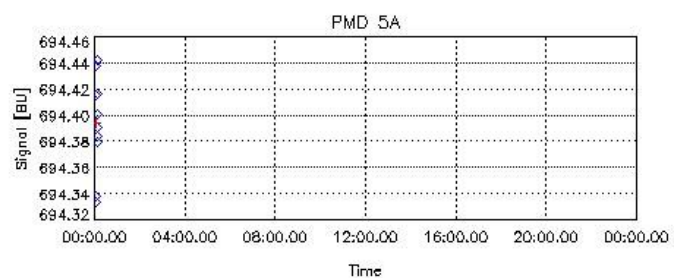
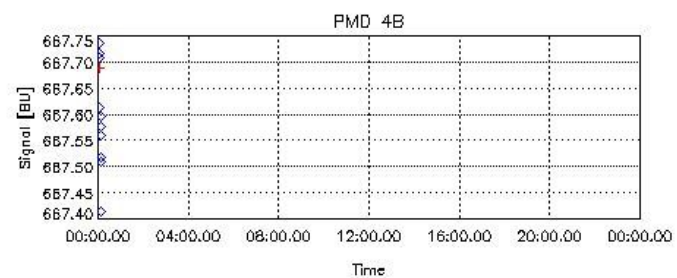
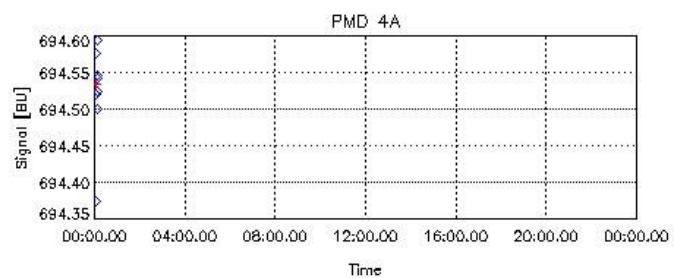
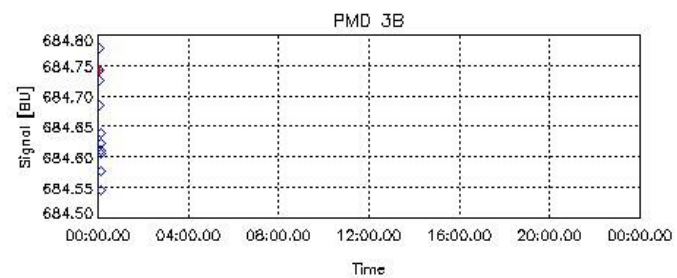
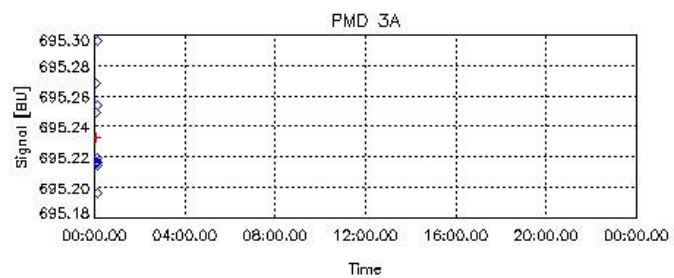
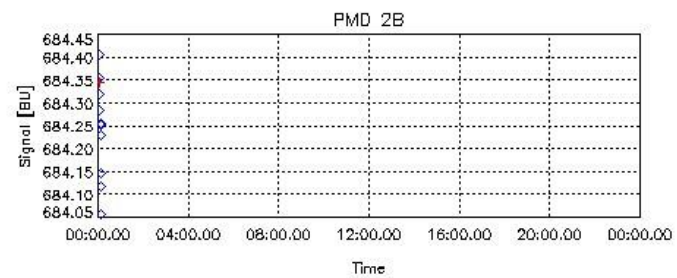
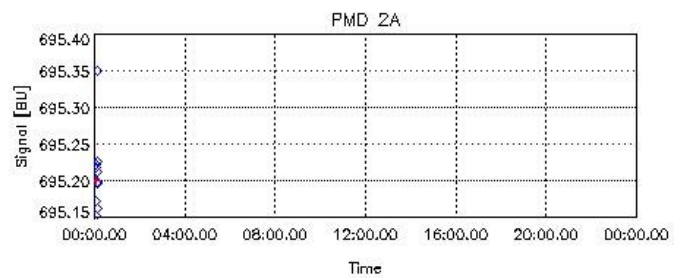
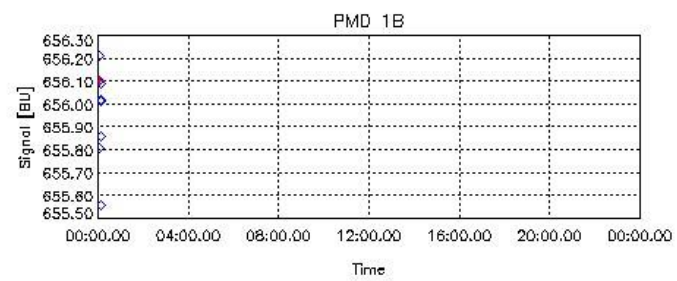
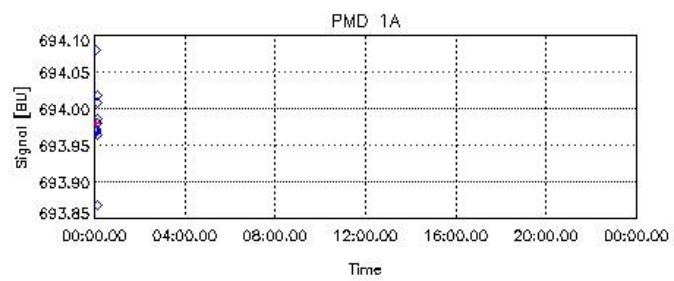
Plots of SCINL1P_NEWLEA_leak_cur for various detectors on 21JUN2009.
Colours indicate the value in BU/s.

sciamachy_daily_report_level1_SCIA_6_03_N_20090621_21.PNG

sciamachy_daily_report_level1_SCIA_6_03_N_20090621_22.PNG

sciamachy_daily_report_level1__SCIA_6_03_N_20090621_23.PNG

Plots of SCINL1P_NEWLEA_pmd_off vs time on 21JUN2009 (red).
 Dark average pmd data is given in blue for comparison.



1.2.5 Spectral calibration parameters

(No new spectral calibration data available for this processing scope)

1.2.6 Sun reference spectrum parameters

(No new sunref data available for this processing scope)

1.2.7 PPG and Etalon parameters

(No PPG and Etalon data available for this processing scope)

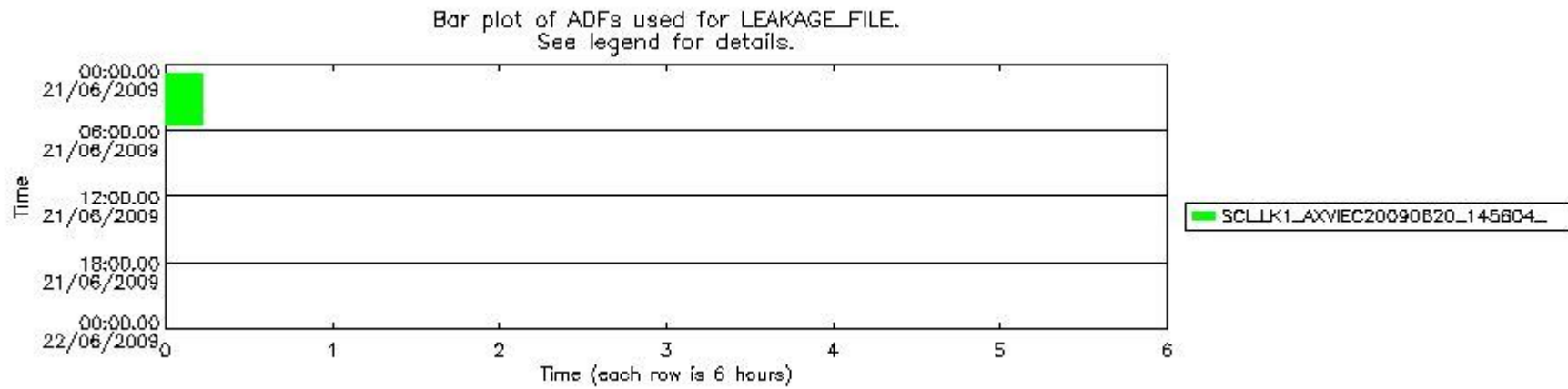
1.3 ADF monitoring

This section shows the (variation in) ADFs used for each of the products. It consists of:

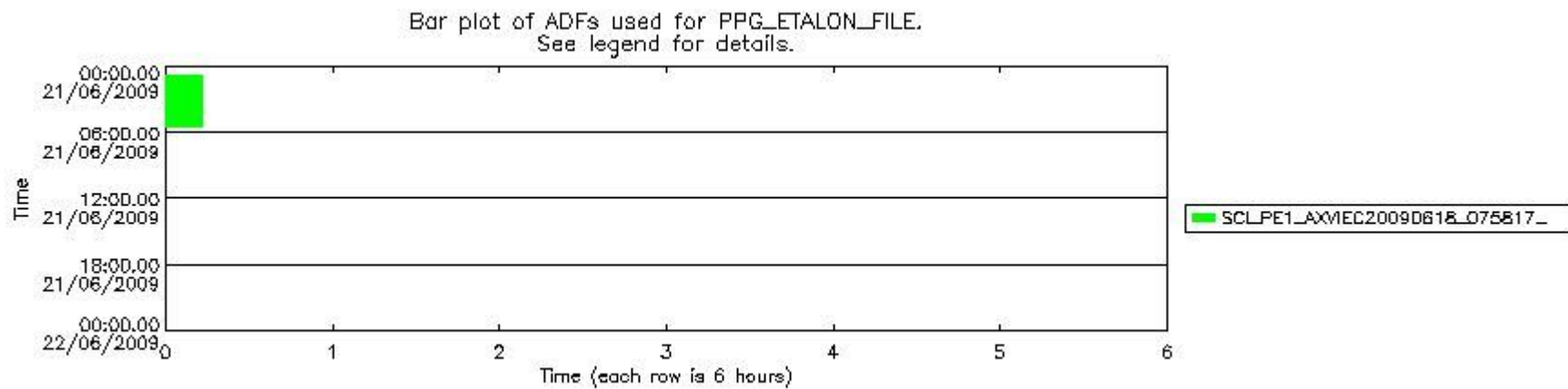
- A table showing which ADFs having a start validity of the current time scope are currently available (if present).
- A table showing which ADFs were used for processing (red values indicate that multiple ADFs of the same type were used)
- Various time line plots, one for each ADF, which show when which ADF was used.

Number	ADF name
0	SCI_LK1_AXVIEC20090623_055343_20090621_001133_20090711_014925
1	SCI_LK1_AXVD-P20090621_025009_20090621_001133_20090711_014925
2	SCI_LK1_AXVD-P20090621_065409_20090621_030223_20090711_044559
3	SCI_LK1_AXVIEC20090623_145409_20090621_030223_20090711_044559
4	SCI_LK1_AXVD-P20090621_195618_20090621_062444_20090711_073400
5	SCI_LK1_AXVIEC20090624_025255_20090621_062444_20090711_073400
6	SCI_LK1_AXVIEC20090624_025610_20090621_073304_20090711_091545
7	SCI_LK1_AXVD-P20090621_201822_20090621_073304_20090711_091545
8	SCI_LK1_AXVD-P20090621_204006_20090621_091449_20090711_105416
9	SCI_LK1_AXVD-P20090621_210145_20090621_105308_20090711_123452
10	SCI_LK1_AXVD-P20090621_212323_20090621_123452_20090711_141323
11	SCI_LK1_AXVD-P20090621_214504_20090621_141323_20090711_154950
12	SCI_LK1_AXVD-P20090622_010150_20090621_154950_20090711_172837

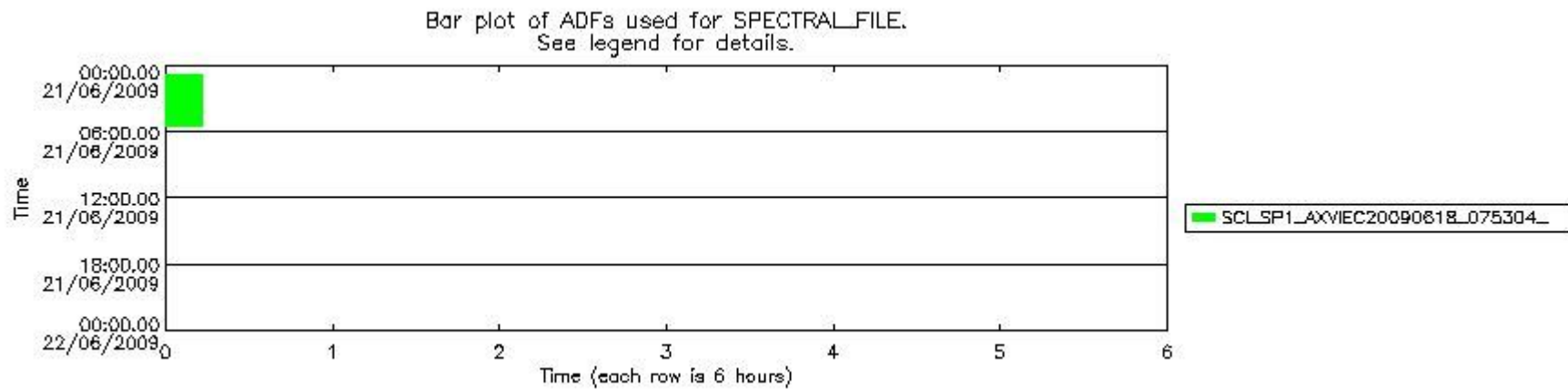
Number	ADF
	LK1 (LEAKAGE_FILE)
0	SCI_LK1_AXVIEC20090620_145604_20090618_043921_20090708_061957
	PE1 (PPG_ETALON_FILE)
1	SCI_PE1_AXVIEC20090618_075817_20090614_174537_20990101_000000
	SP1 (SPECTRAL_FILE)
2	SCI_SP1_AXVIEC20090618_075304_20090614_174537_20090813_192626
	SU1 (SUN_REF_FILE)
3	SCI_SU1_AXVIEC20090619_063336_20090615_171222_20090630_185448
	KD1 (KEY_DATA_FILE)
4	SCI_KD1_AXVIEC20060523_182626_20020301_000000_20991231_235959
	MF1 (M_FACTOR_FILE)
5	SCI_MF1_AXVIEC20020809_094925_20020206_173831_20991231_235959
	LI1 (INIT_FILE)
6	SCI_LI1_AXVIEC20070628_134108_20020701_000000_20991231_235959
	FRO (ORBIT_FILE)
7	DOR_NAV_OPNPDE20090620_204448_000057382080_00071_38201_8192.N1
	ATT (ATTITUDE_FILE)



sciamachy_daily_report_level1_SCIA_6_03_N_20090621_25.PNG

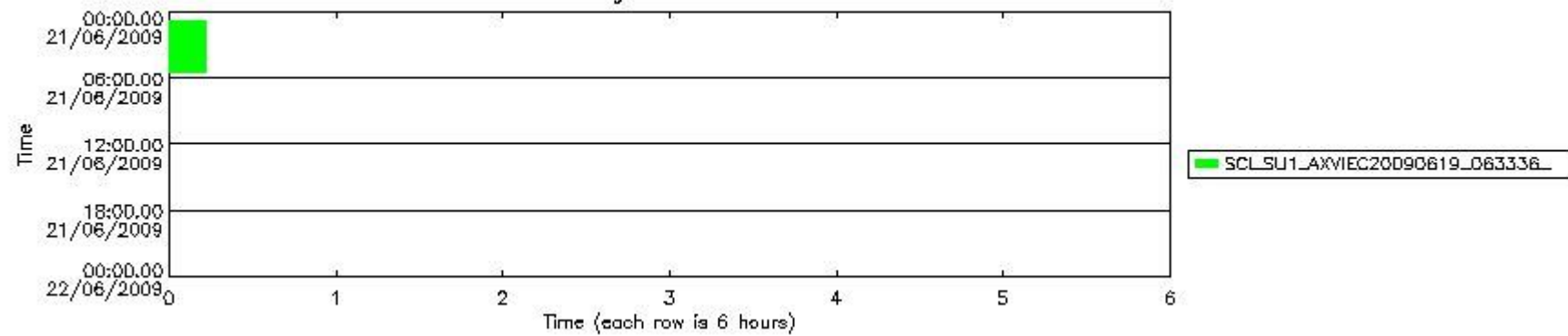


sciamachy_daily_report_level1_SCIA_6_03_N_20090621_26.PNG



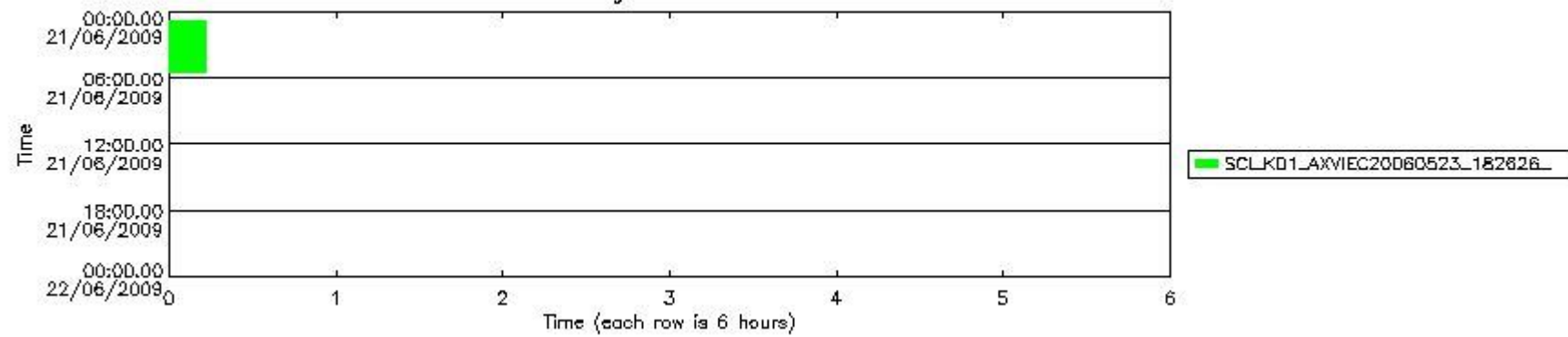
sciamachy_daily_report_level1_SCIA_6_03_N_20090621_27.PNG

Bar plot of ADFs used for SUN_REF_FILE.
See legend for details.



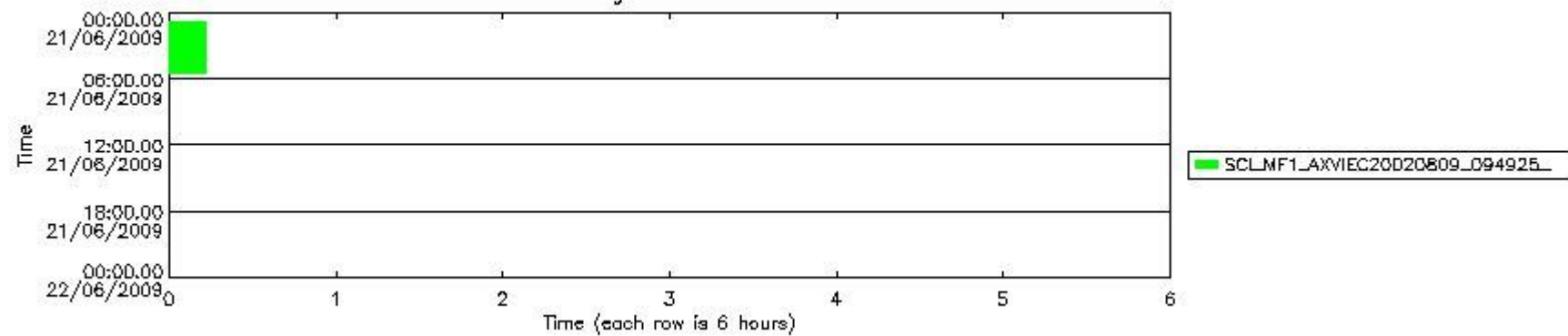
sciamachy_daily_report_level1_SCIA_6_03_N_20090621_28.PNG

Bar plot of ADFs used for KEY_DATA_FILE.
See legend for details.



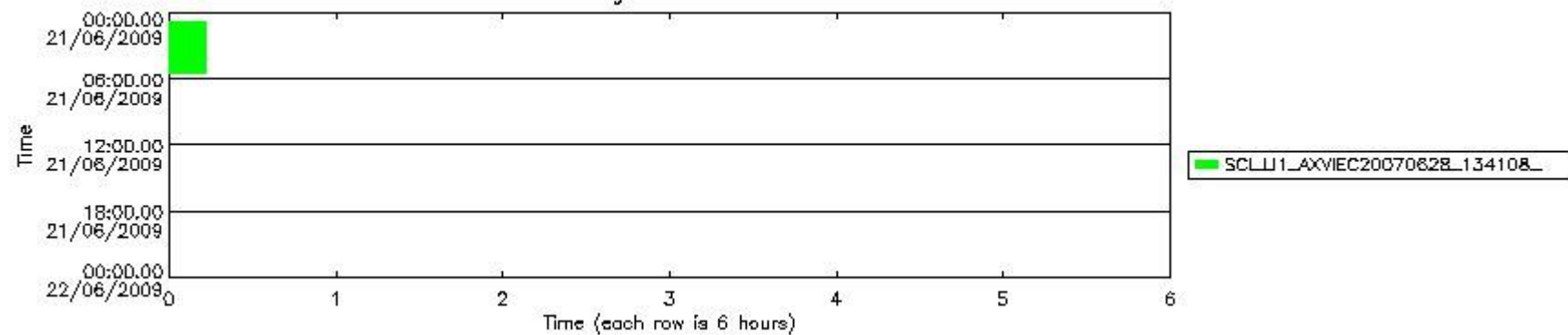
sciamachy_daily_report_level1_SCIA_6_03_N_20090621_29.PNG

Bar plot of ADFs used for M_FACTOR_FILE.
See legend for details.

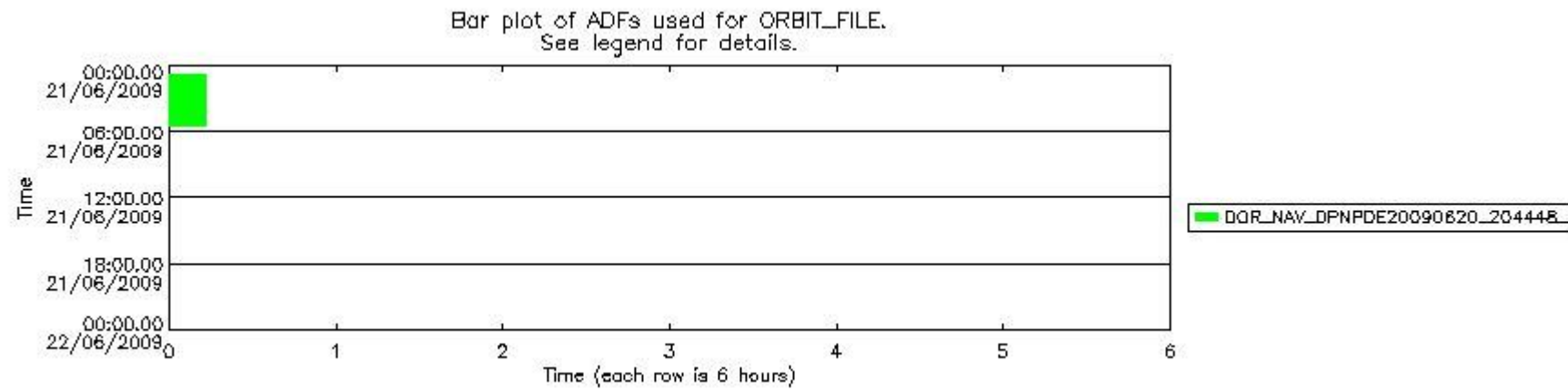


sciamachy_daily_report_level1_SCIA_6_03_N_20090621_30.PNG

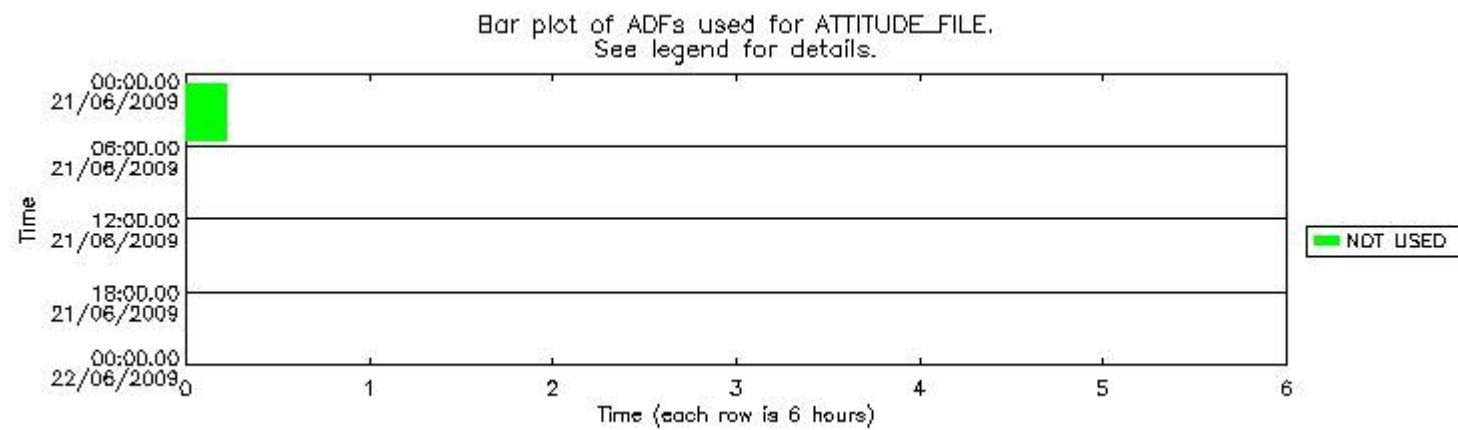
Bar plot of ADFs used for INIT_FILE.
See legend for details.



sciamachy_daily_report_level1_SCIA_6_03_N_20090621_31.PNG



sciamachy_daily_report_level1_SCIA_6_03_N_20090621_32.PNG



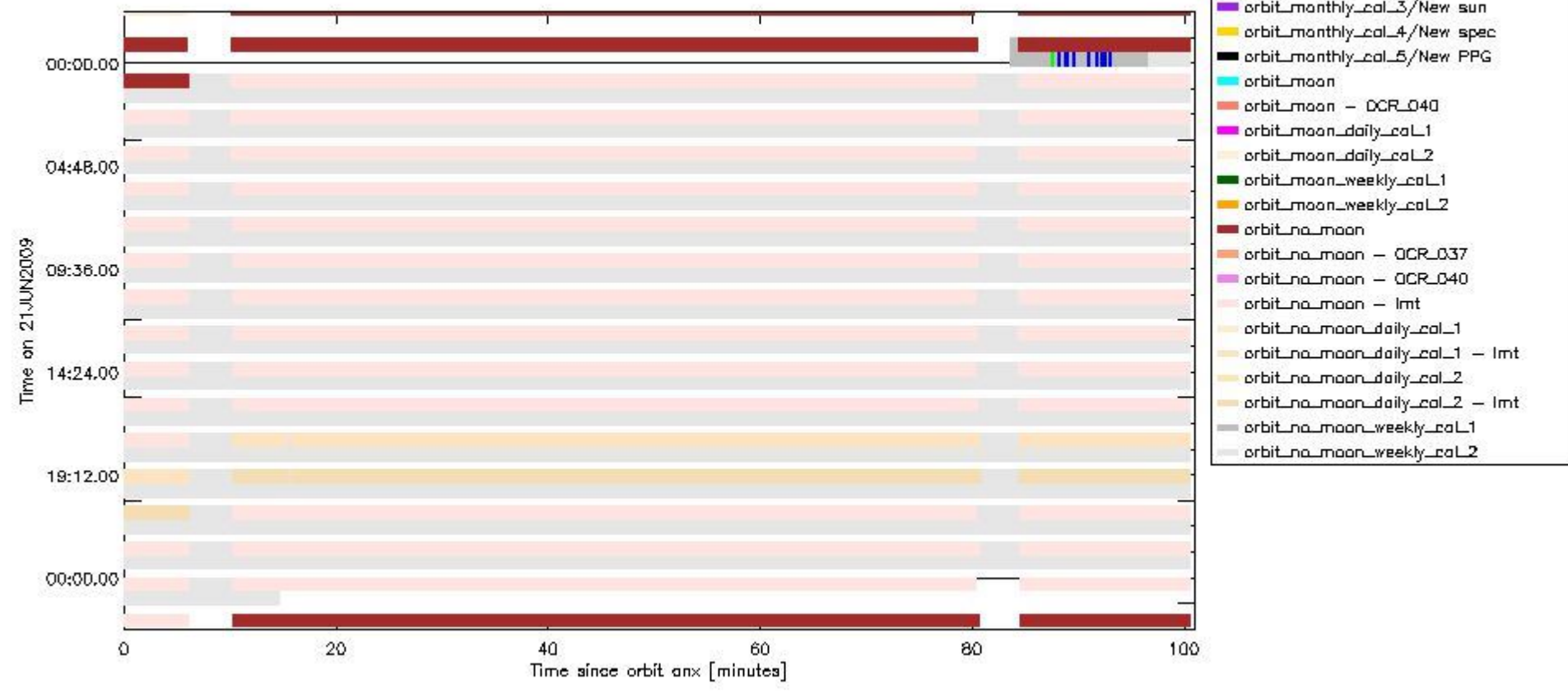
sciamachy_daily_report_level1_SCIA_6_03_N_20090621_33.PNG

1.4 DMOP execution monitoring

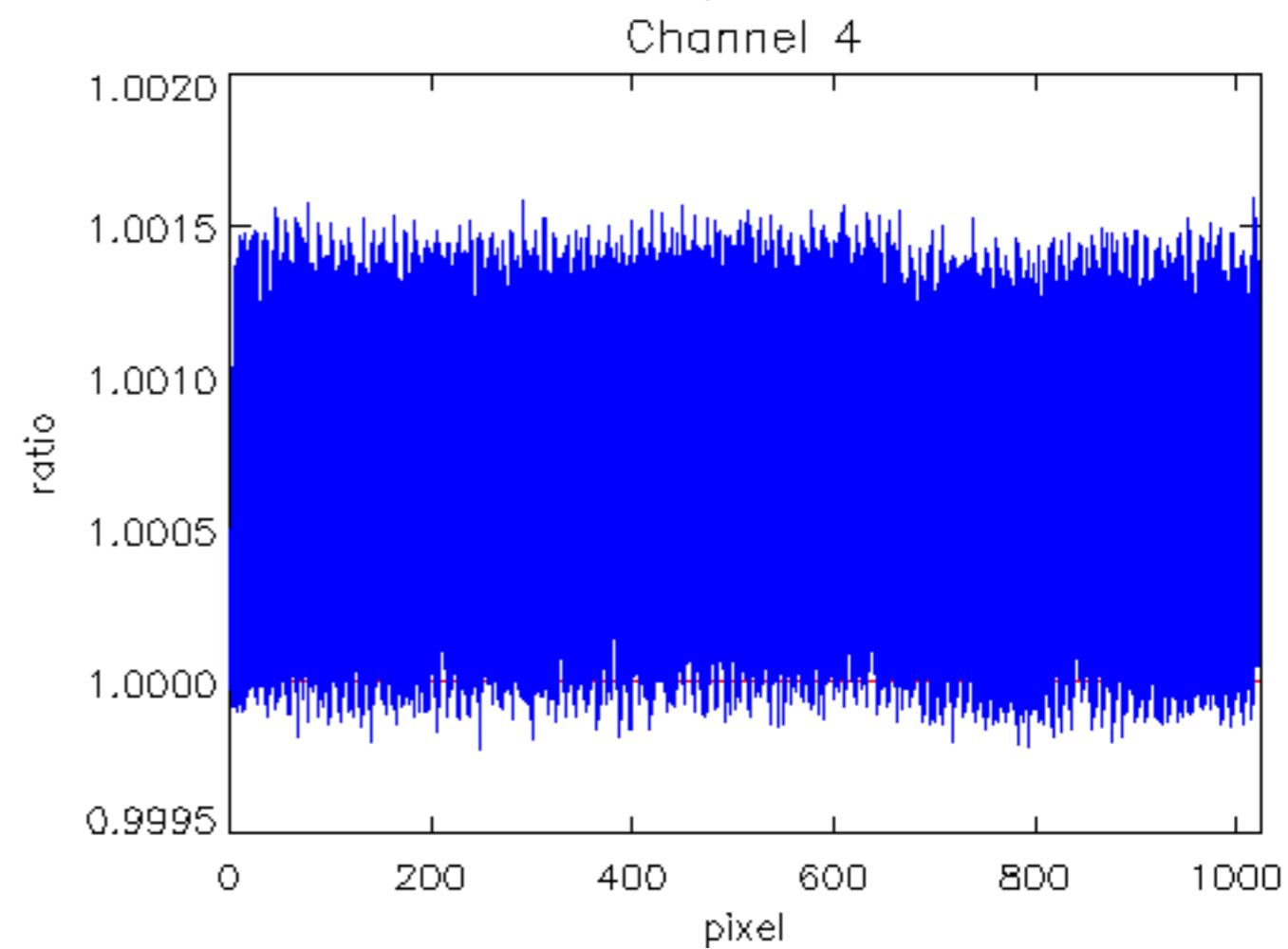
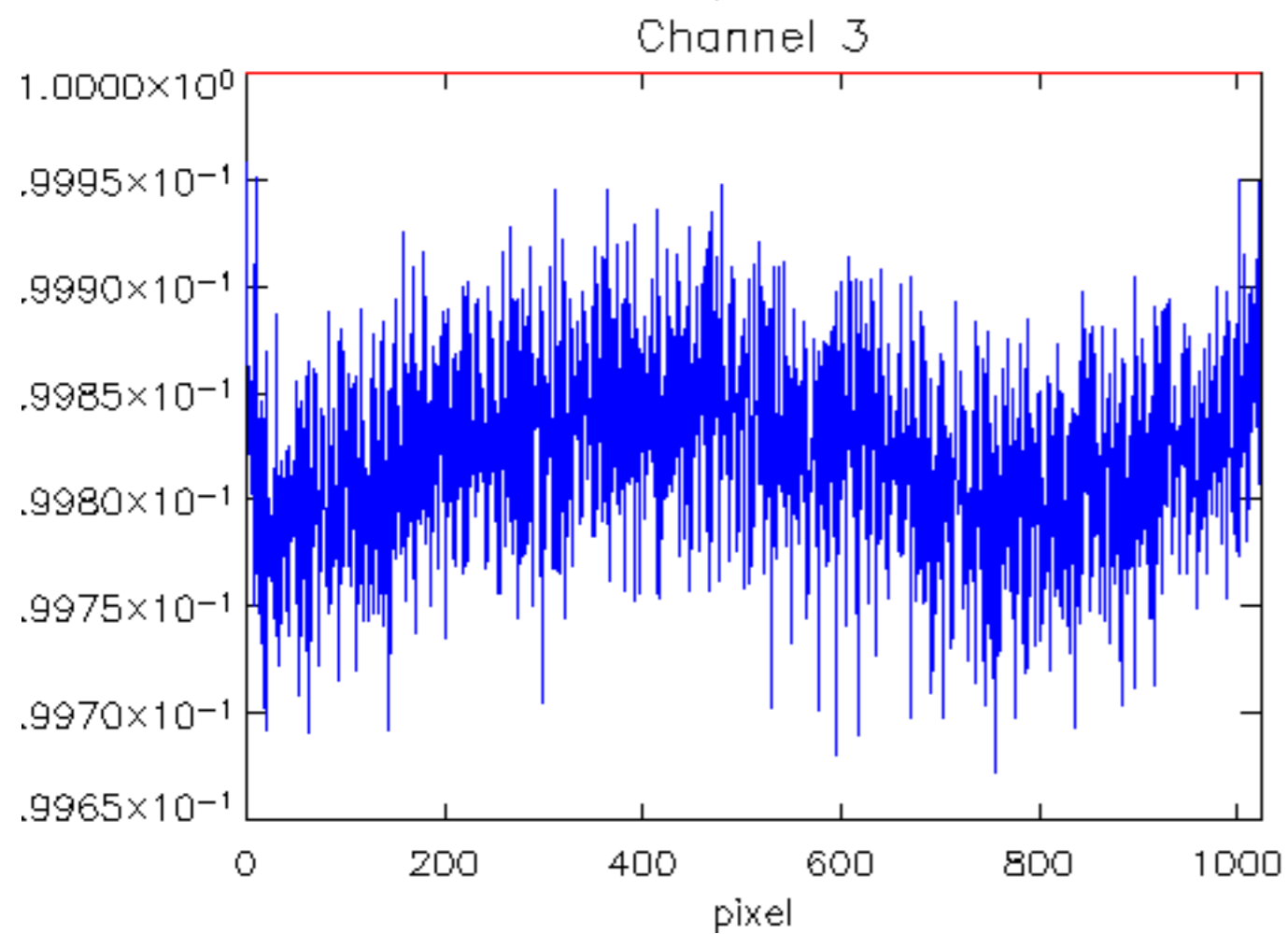
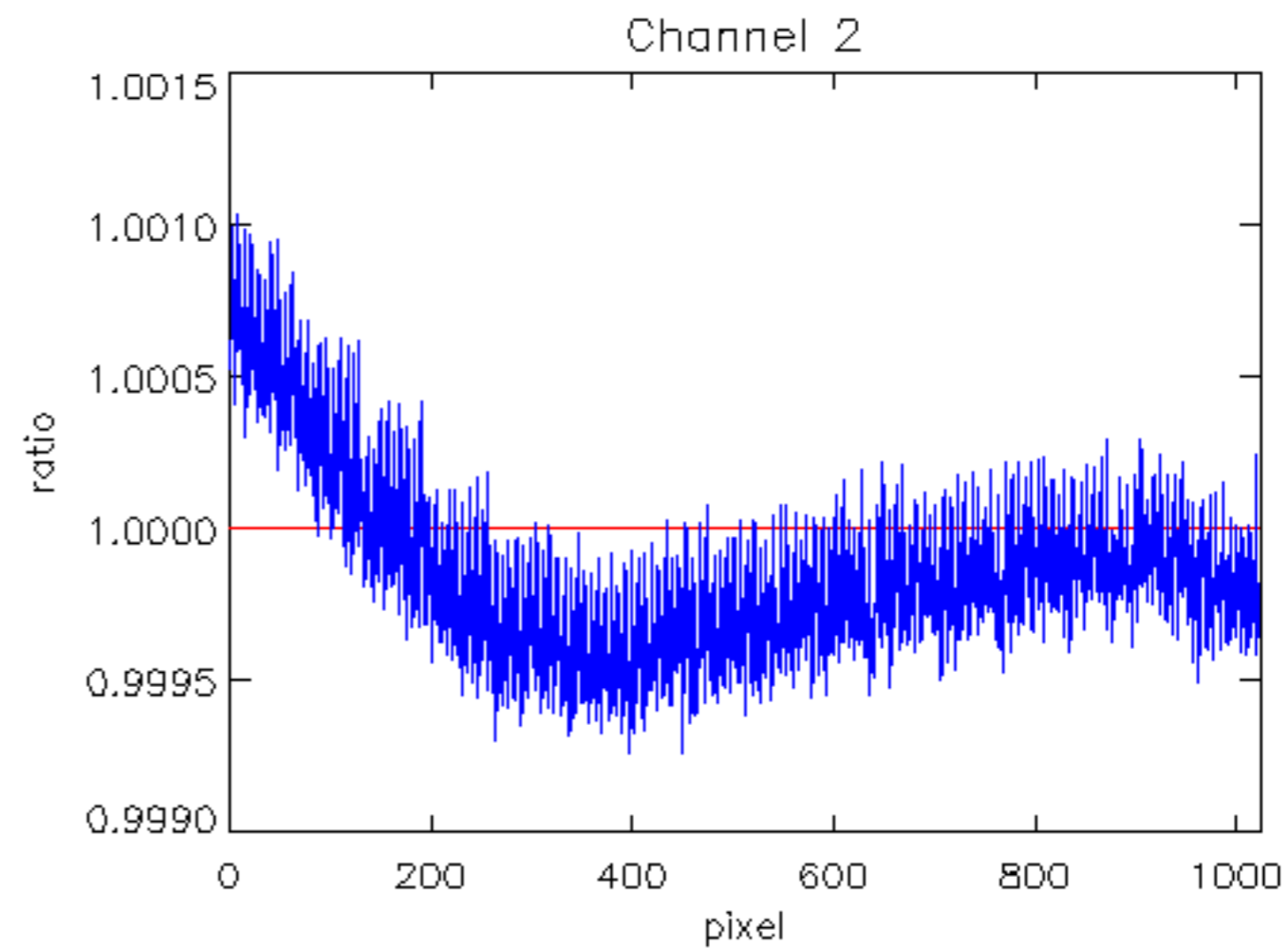
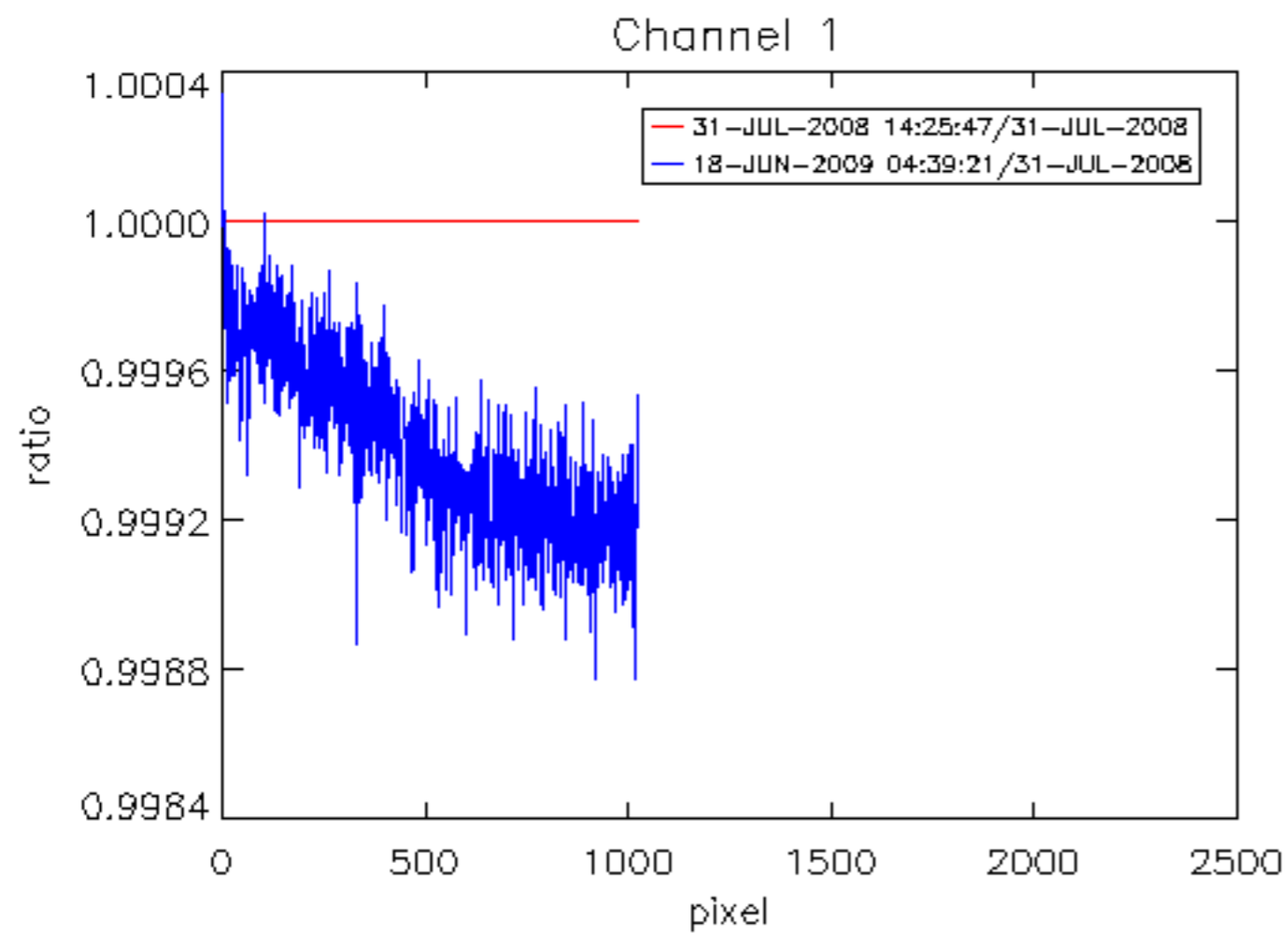
This section gives an analysis of the DMOP execution. The execution is monitored by assigning various activities to timeline sequences found in the DMOP file, and by checking where "NEW" datasets are available in SCI_NL__1P products.

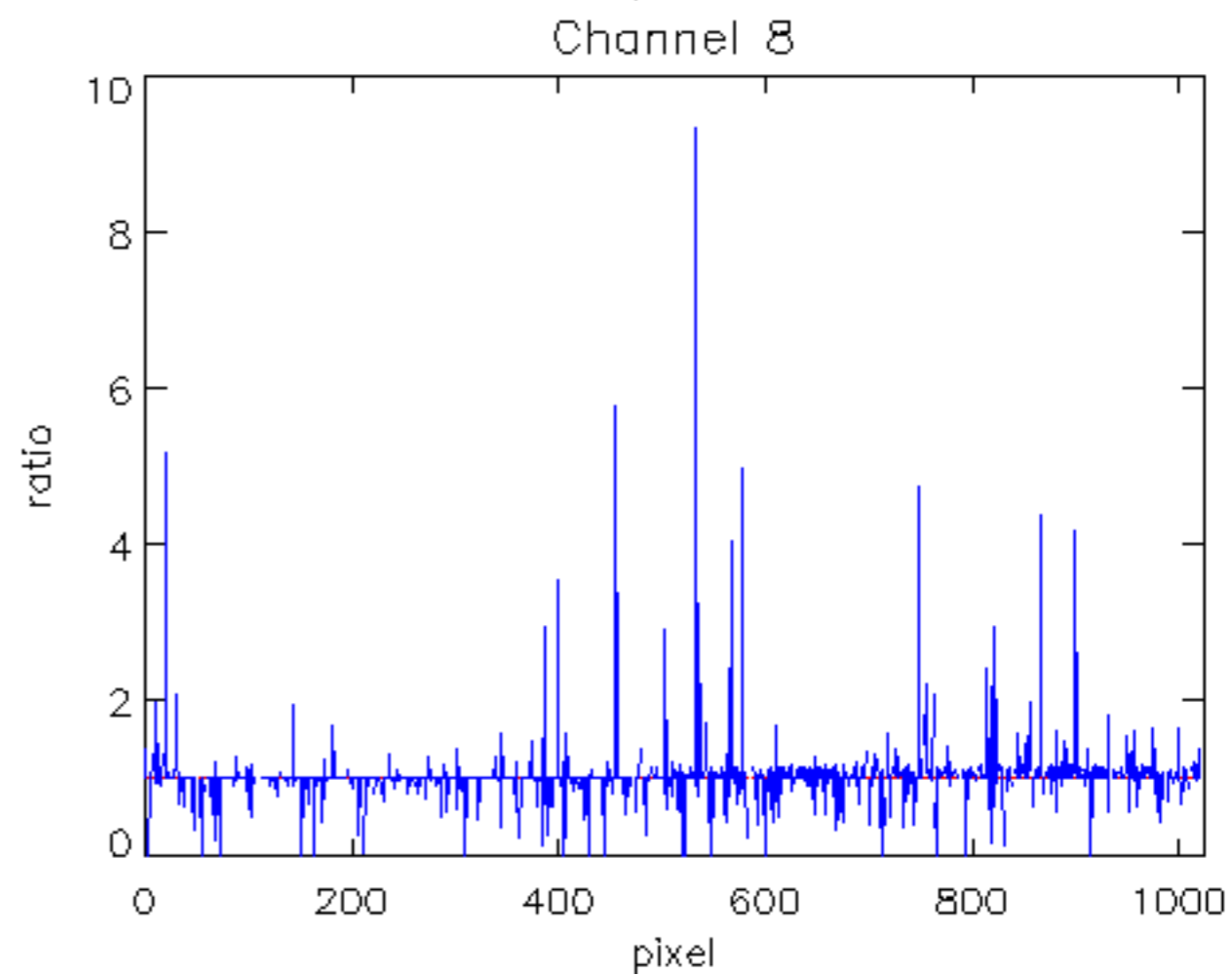
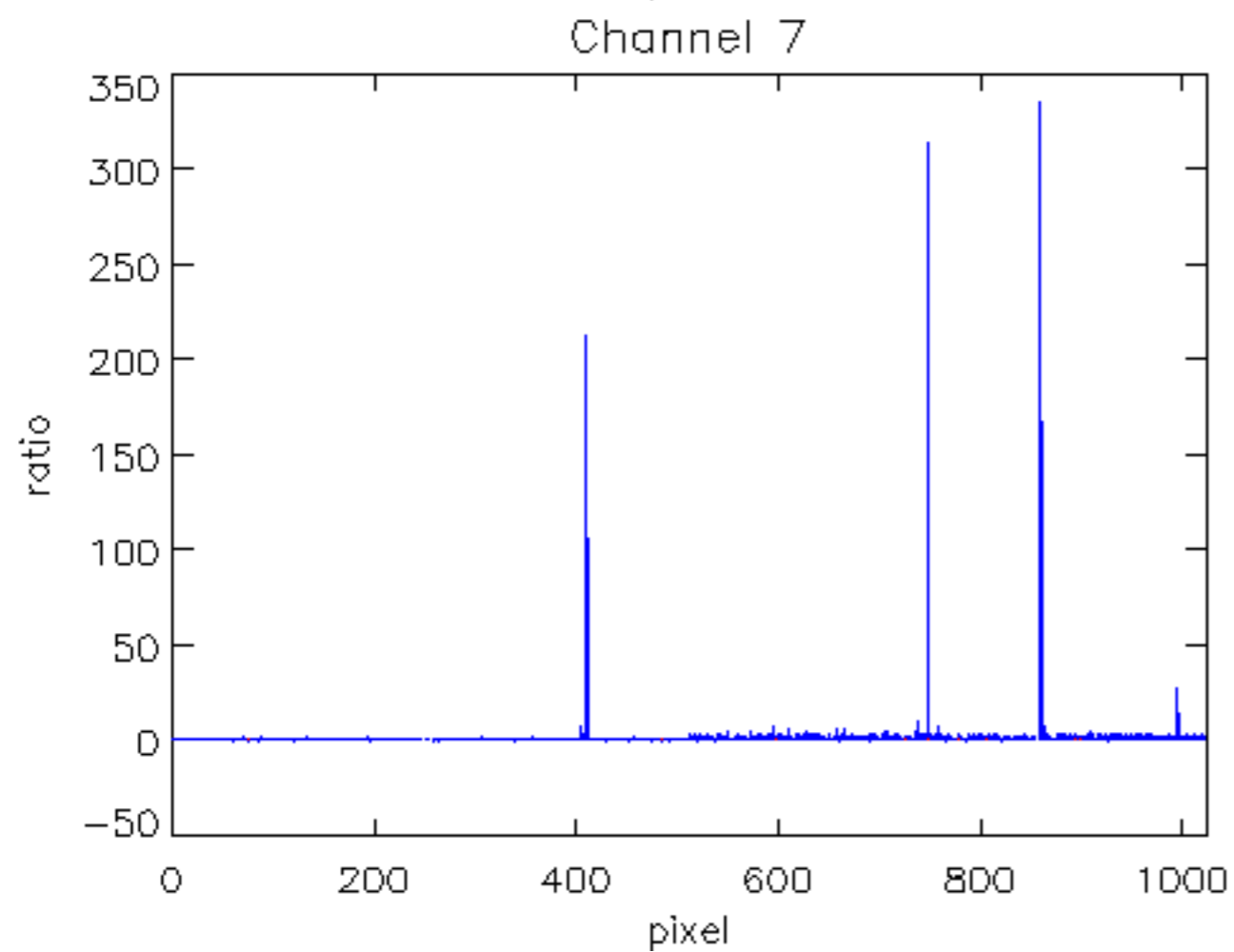
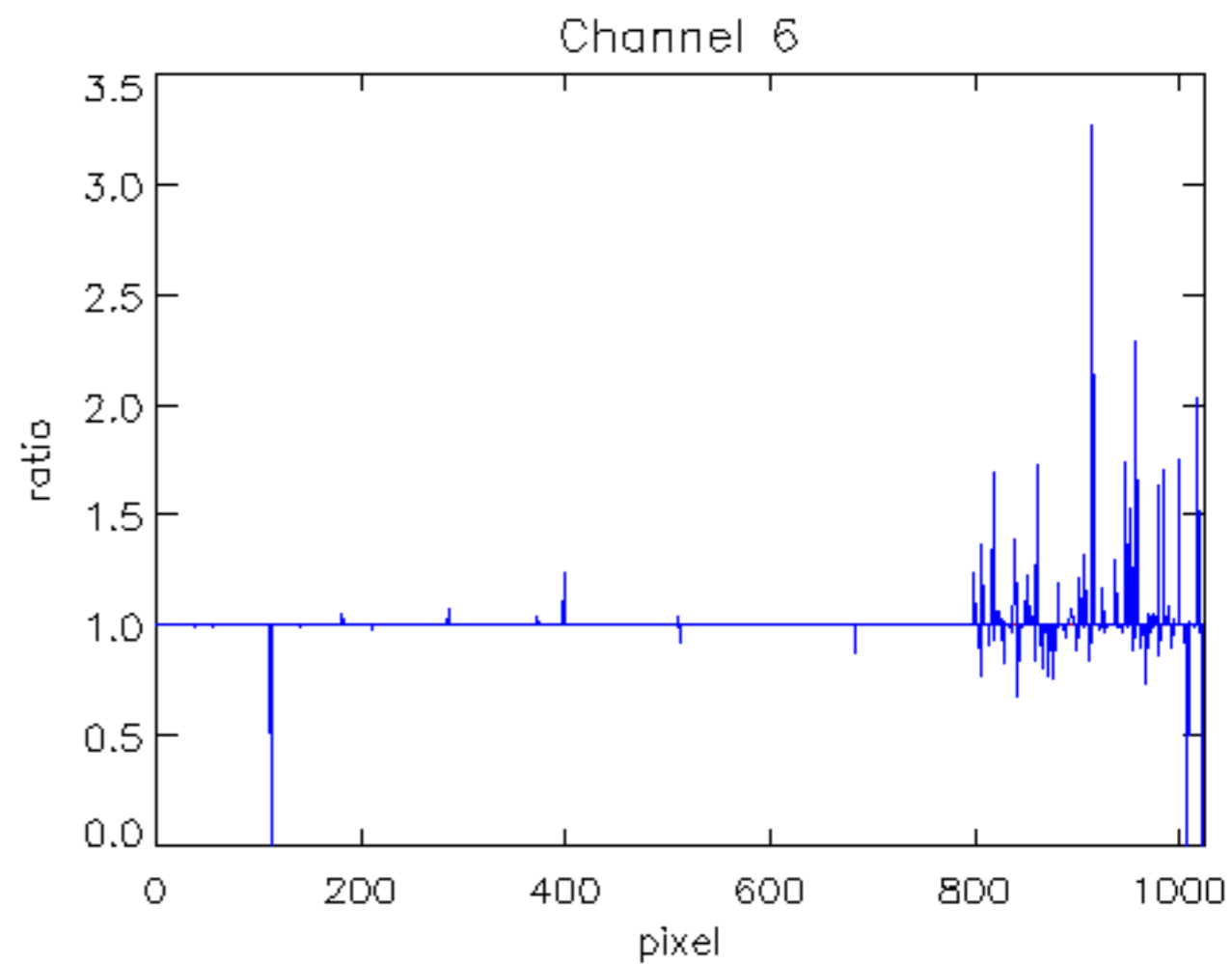
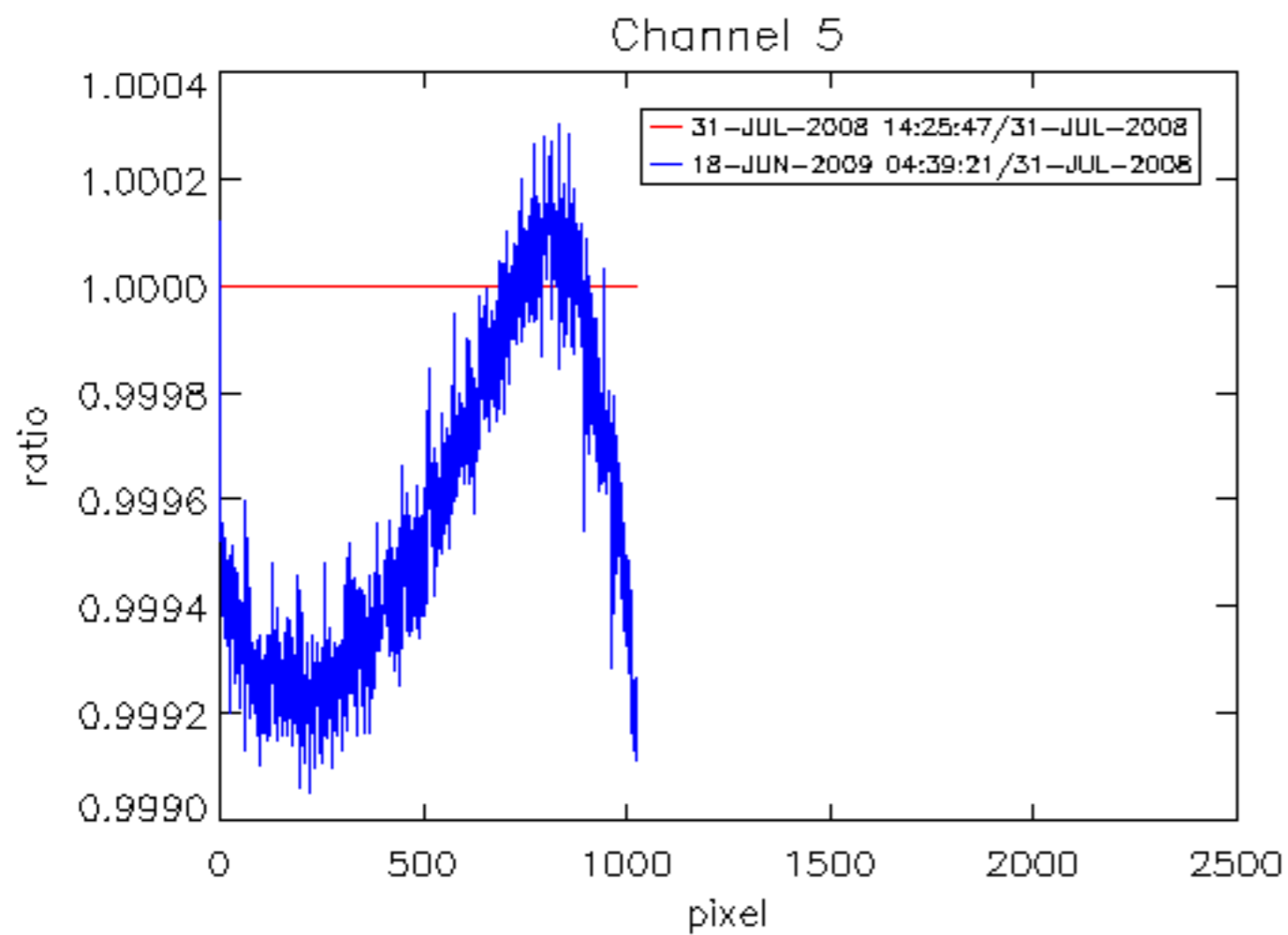
The following plot gives an overview of planned activities and actual special measurements in the Level 1 products. The planning is taken from the DMOP files, and interpreted using information from OSDF files.

Bar plot of planned DMOP activities and new calibration data for SCIAMACHY.
 Each row indicates an orbit. A light gray colour indicates the time span of 21JUN2009.
 A medium gray color indicates the time span of available SCI_NL_1P products for this day.
 The remaining colours indicate planned activities and/or special measurements.
 Planned activities are shown on the top half of each row, special measurements on the bottom half.

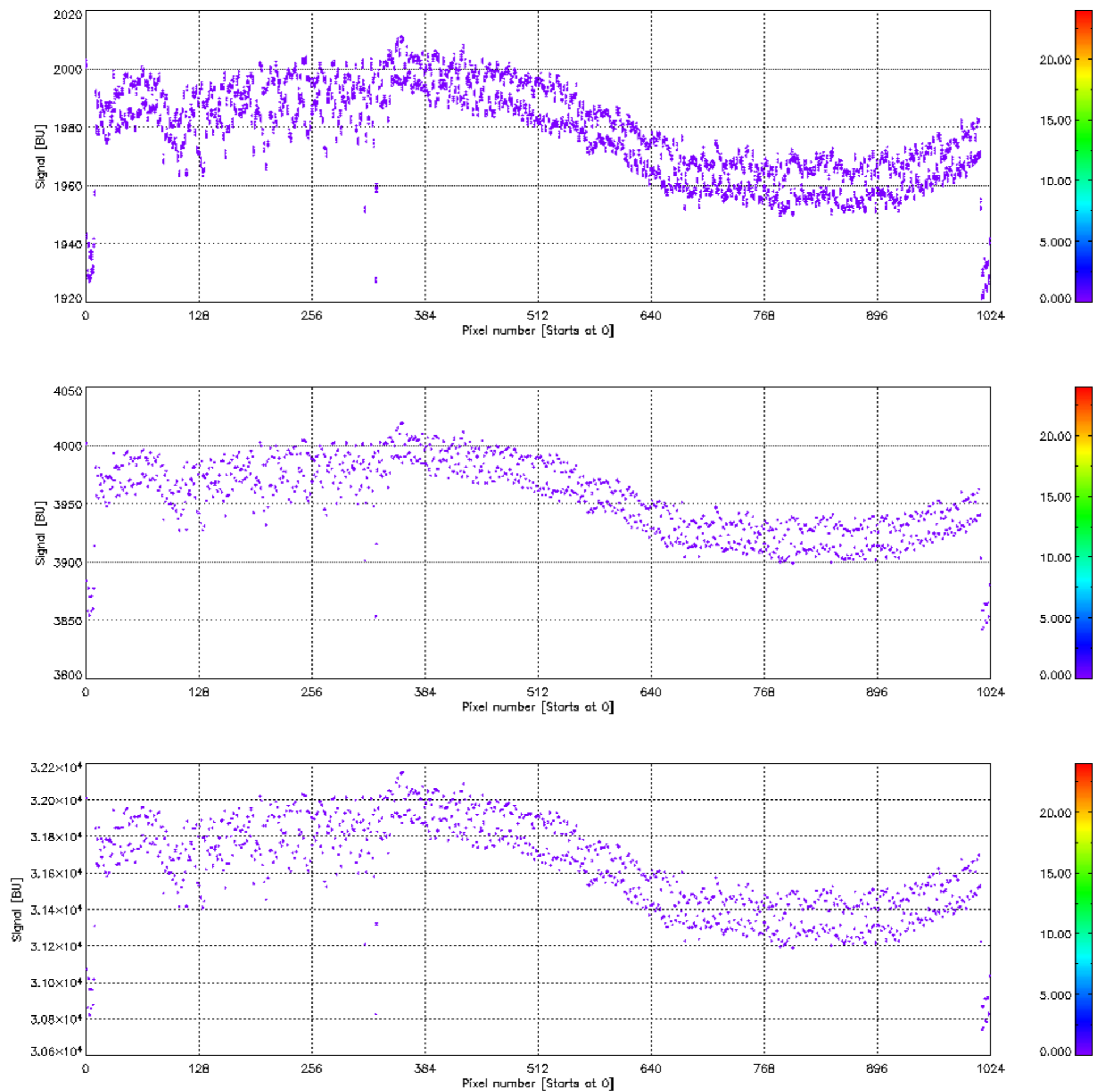


sciamachy_daily_report_level1_SCIA_6_03_N_20090621_34.PNG

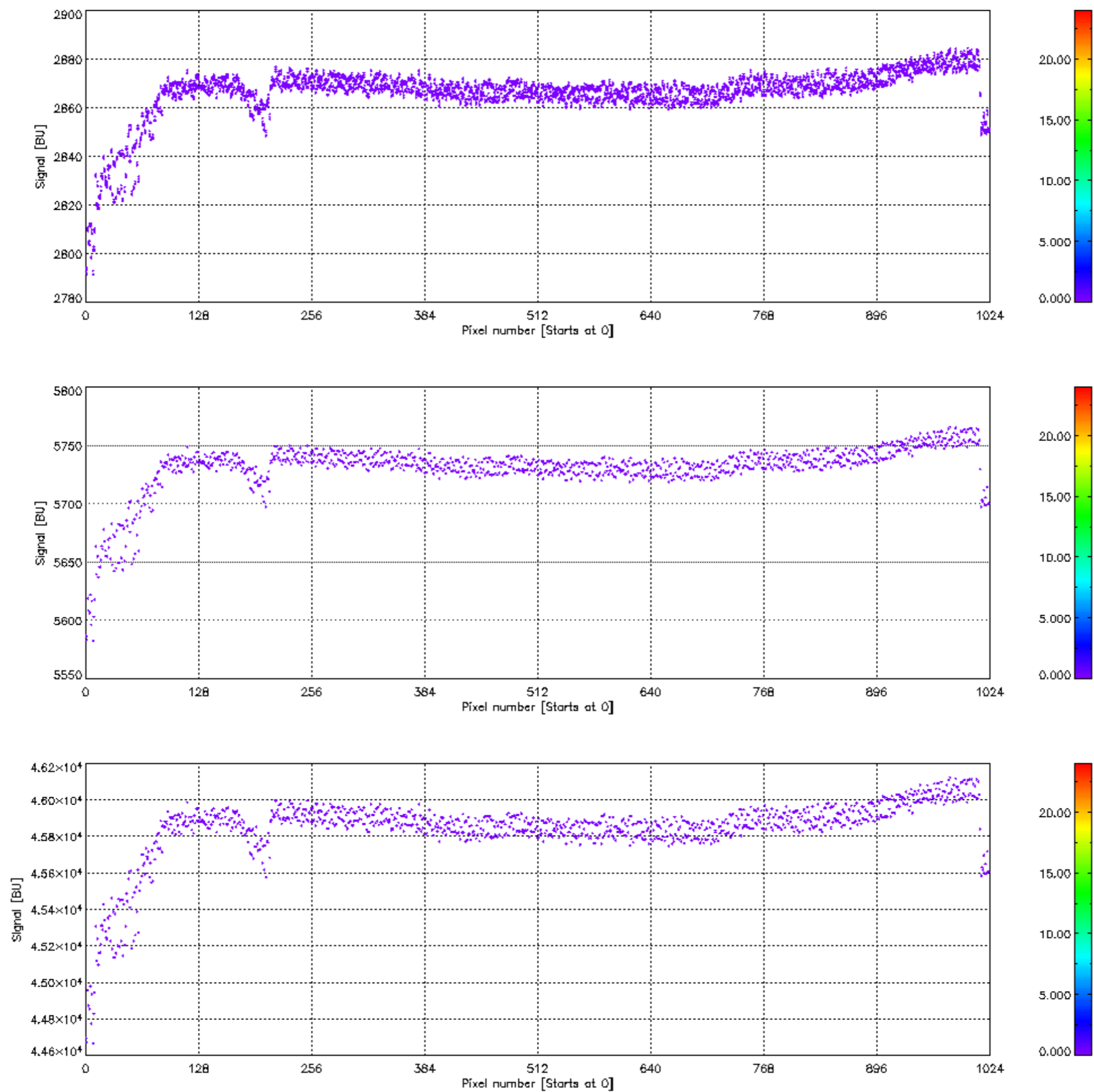




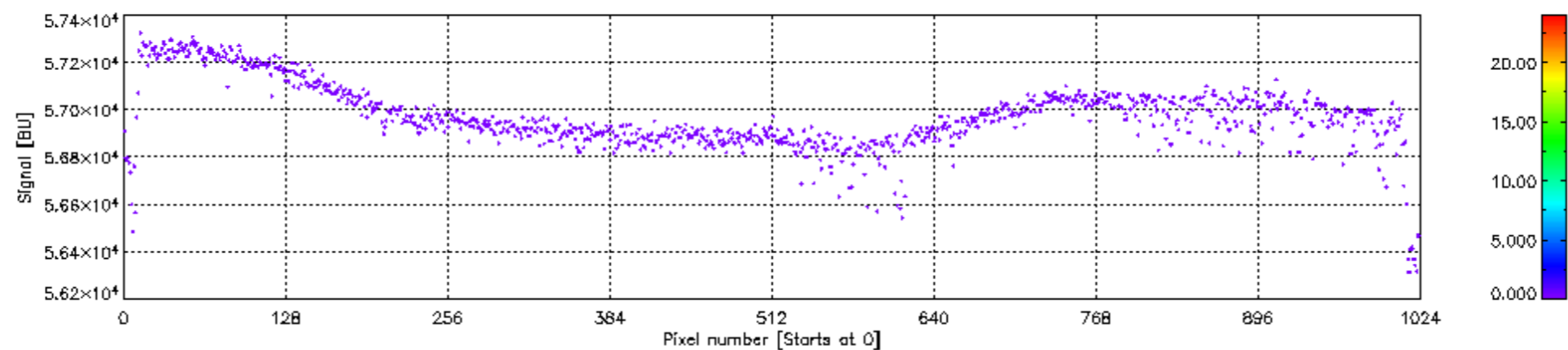
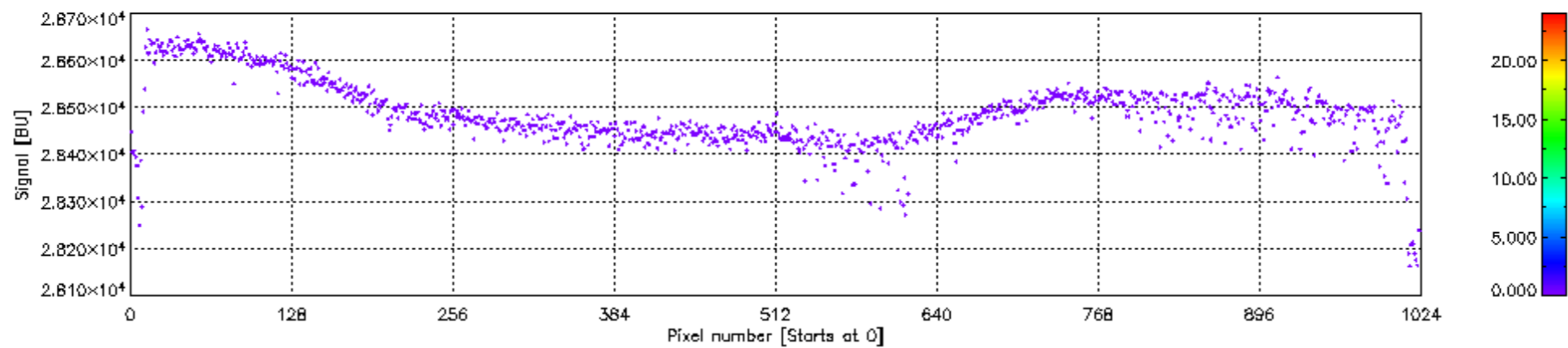
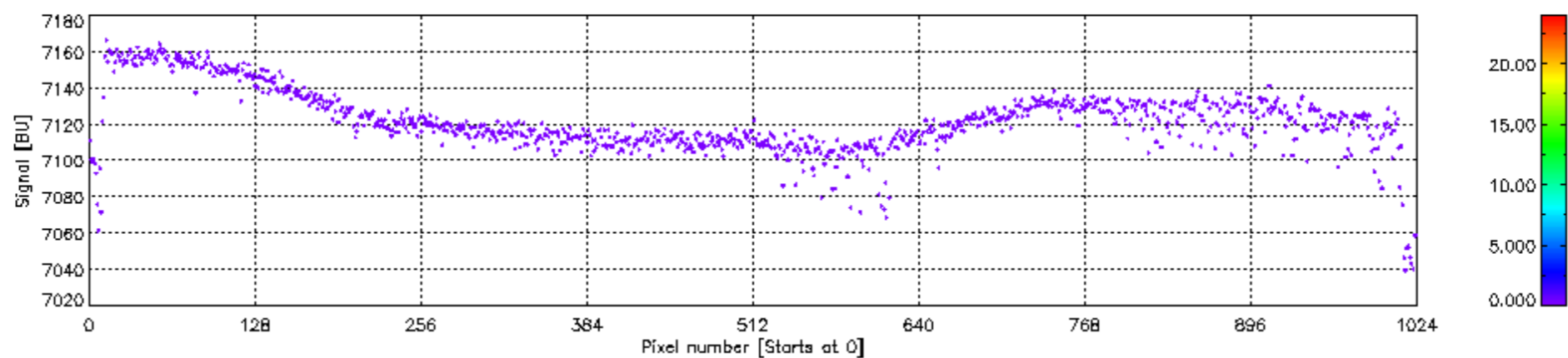
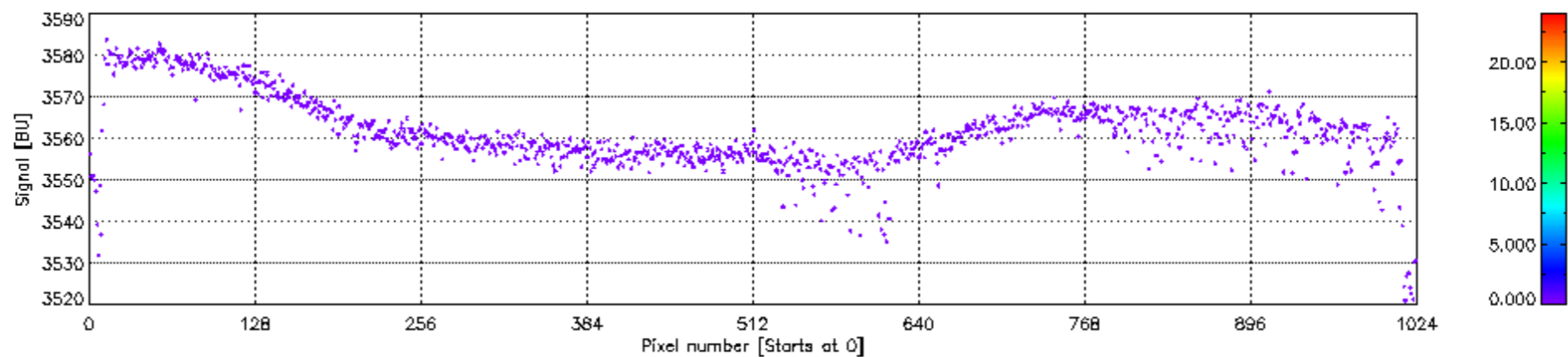
Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 1 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



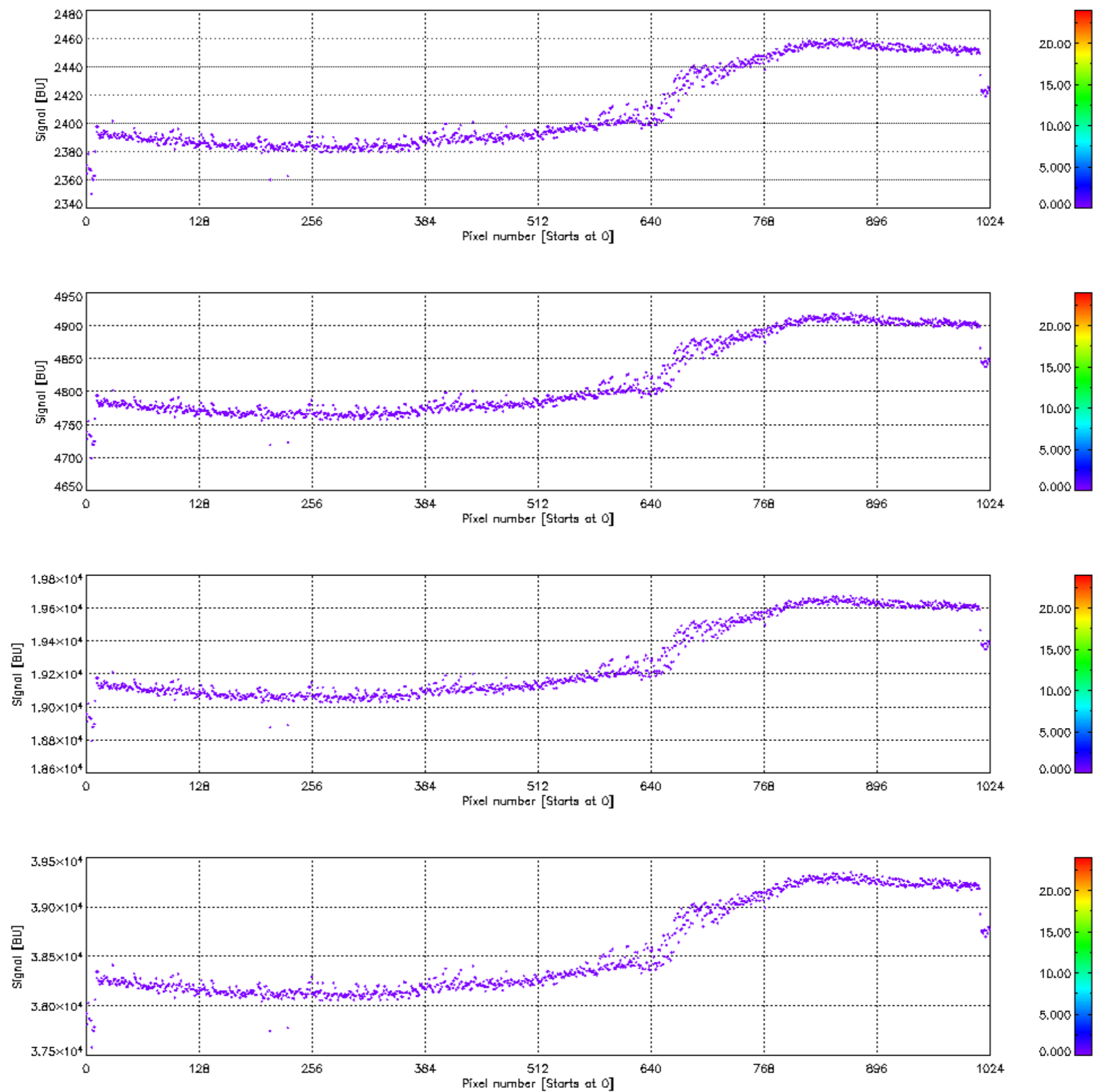
Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 2 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



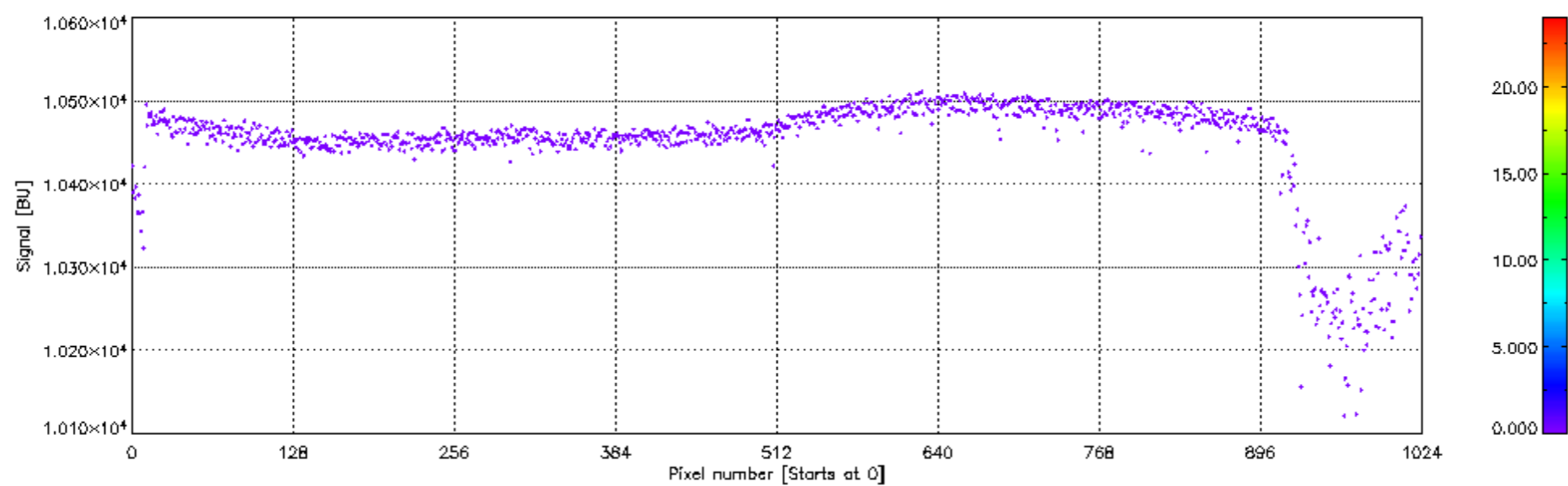
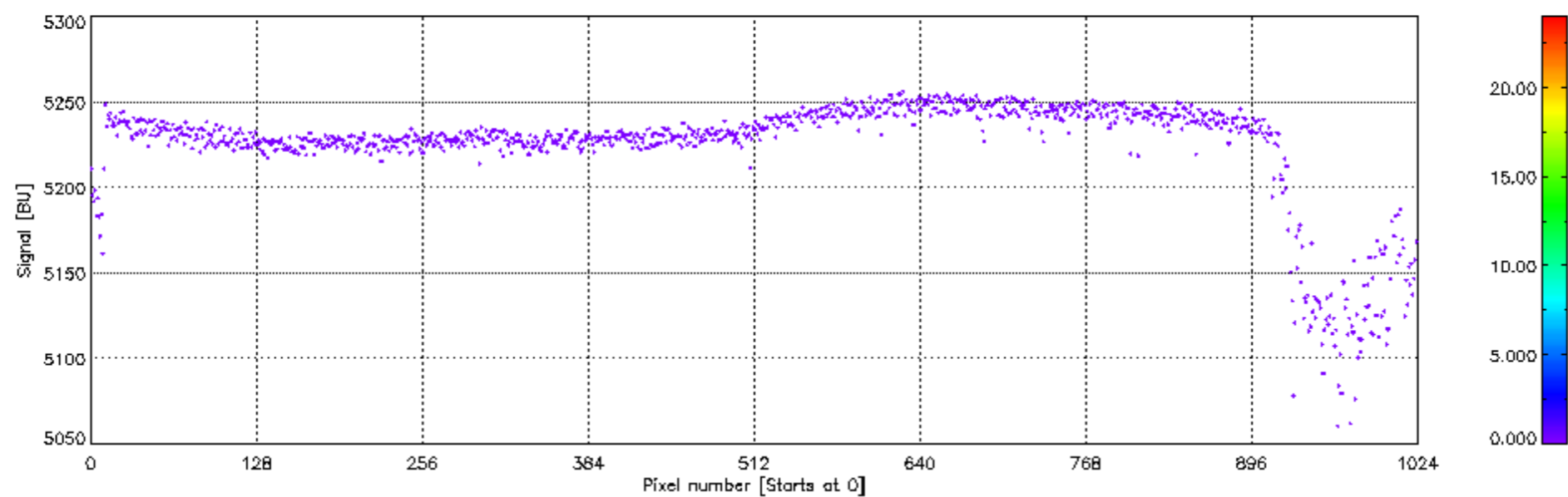
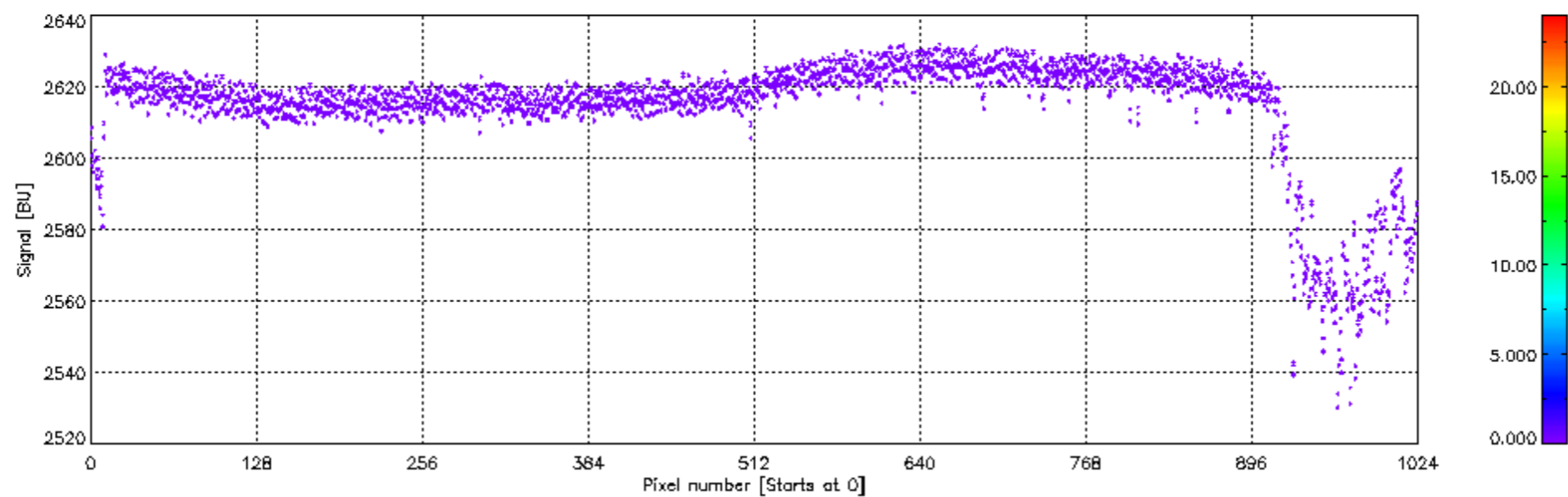
Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 3 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



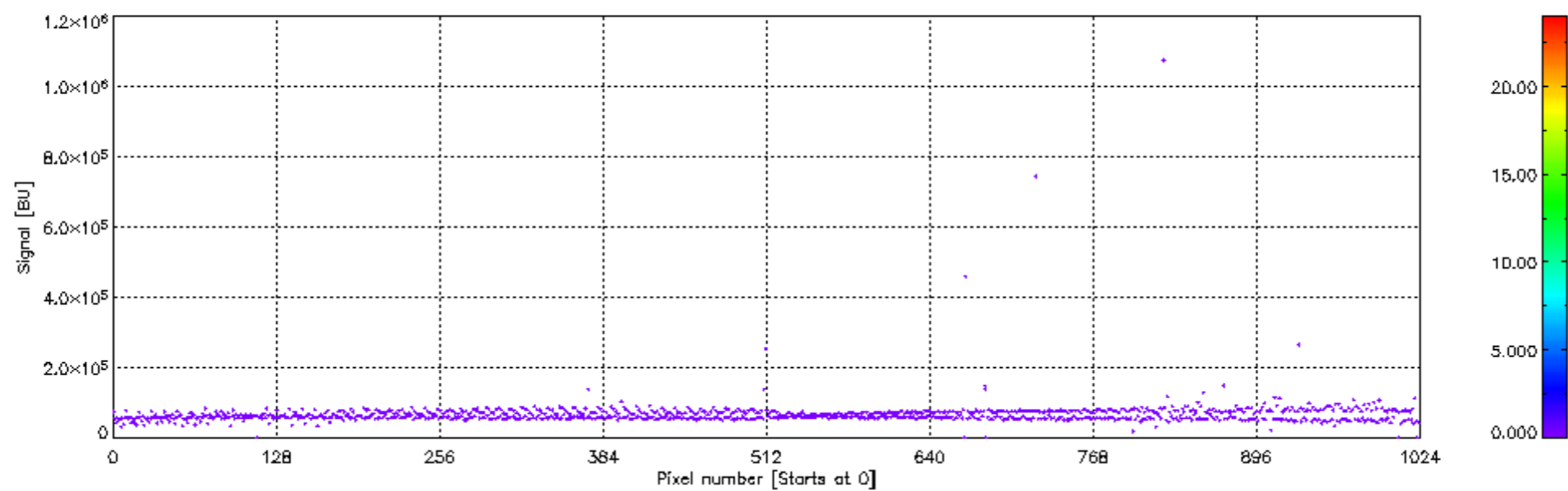
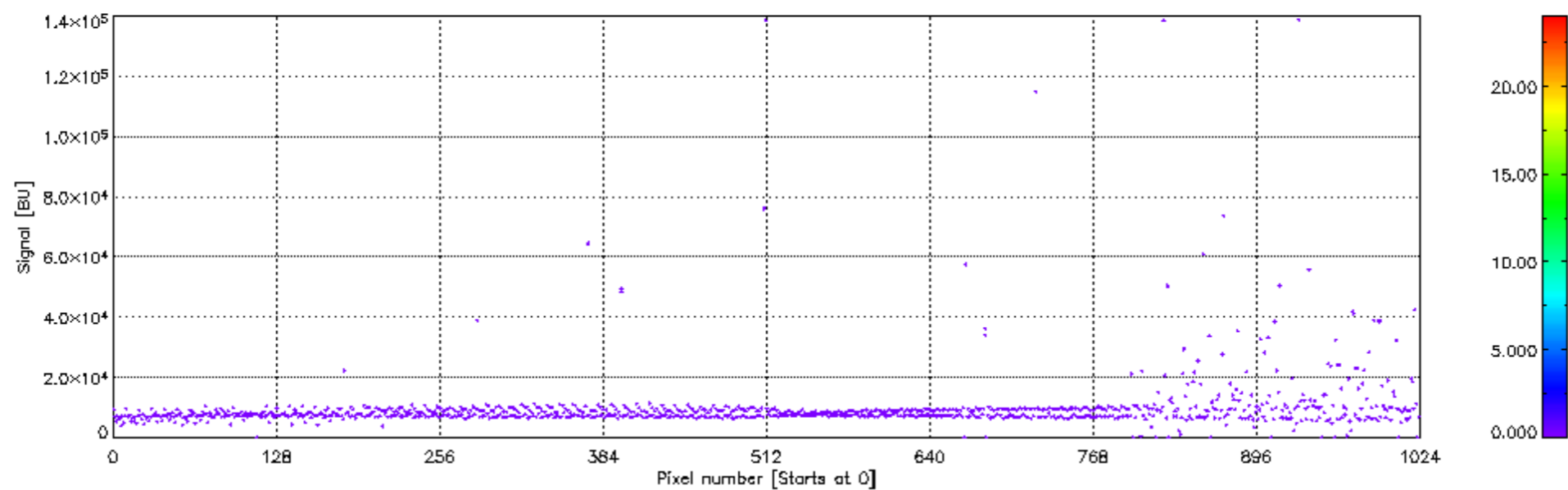
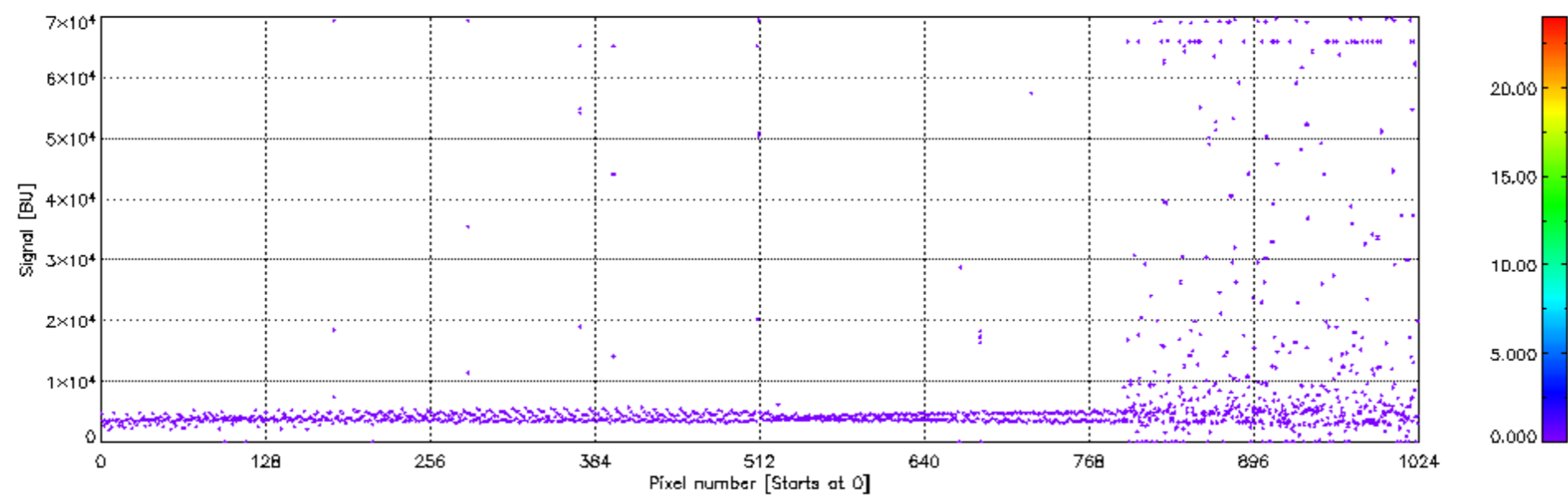
Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 4 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



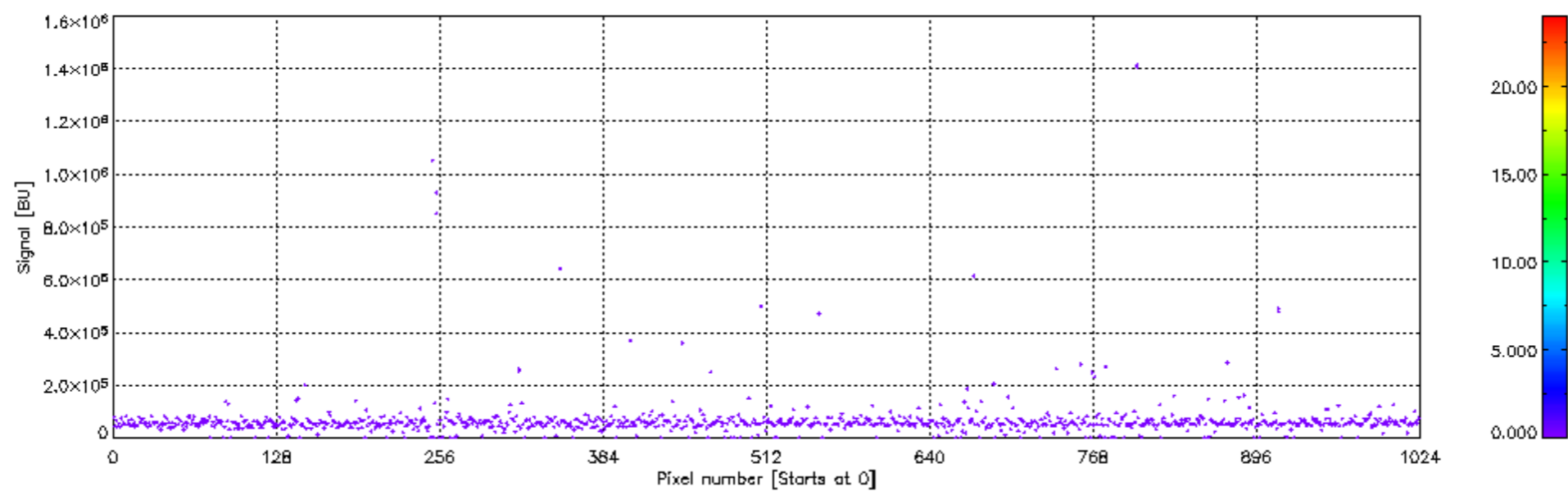
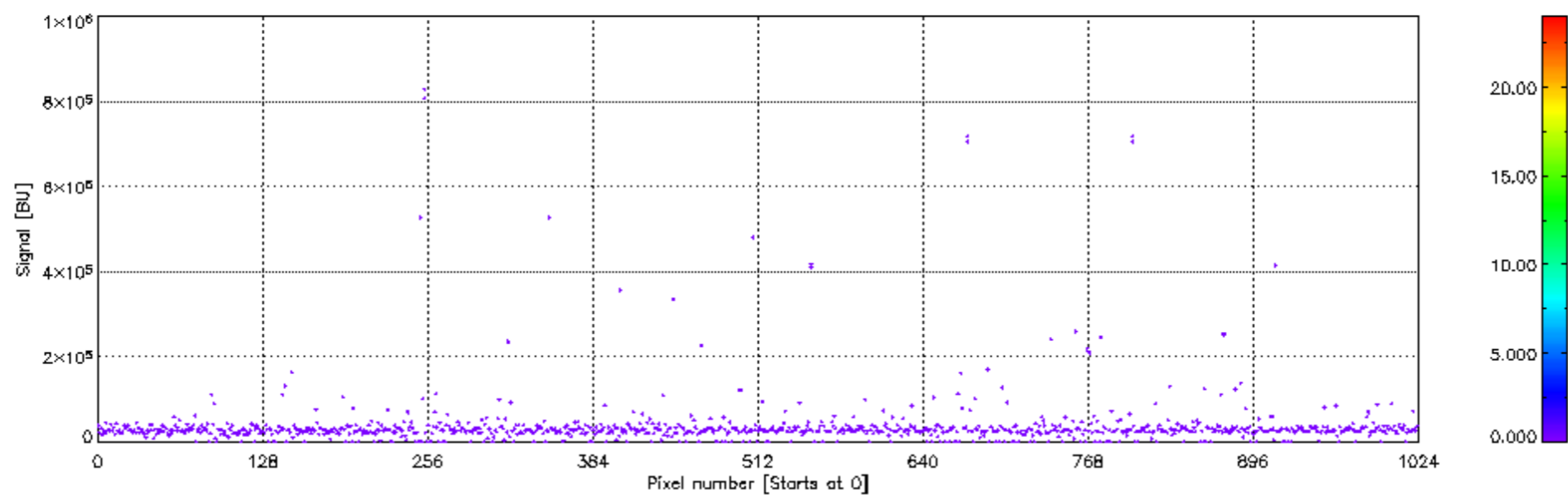
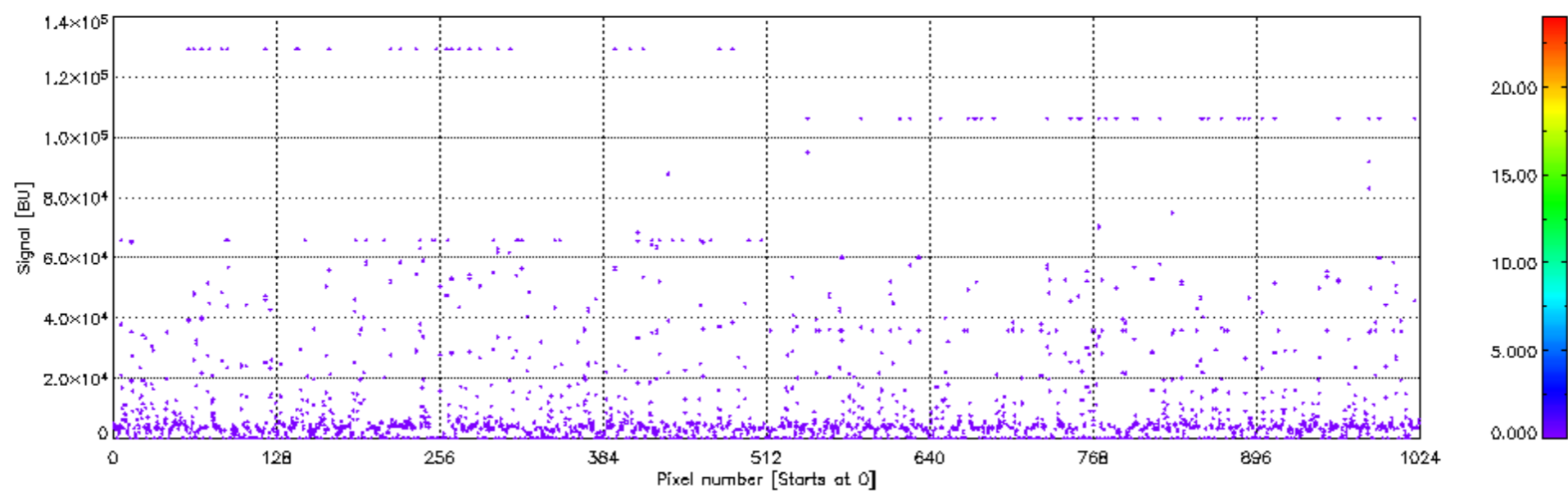
Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 5 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



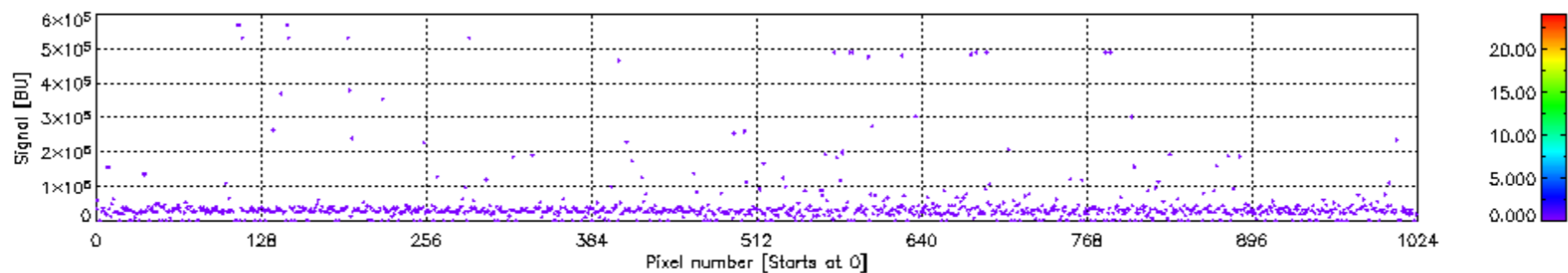
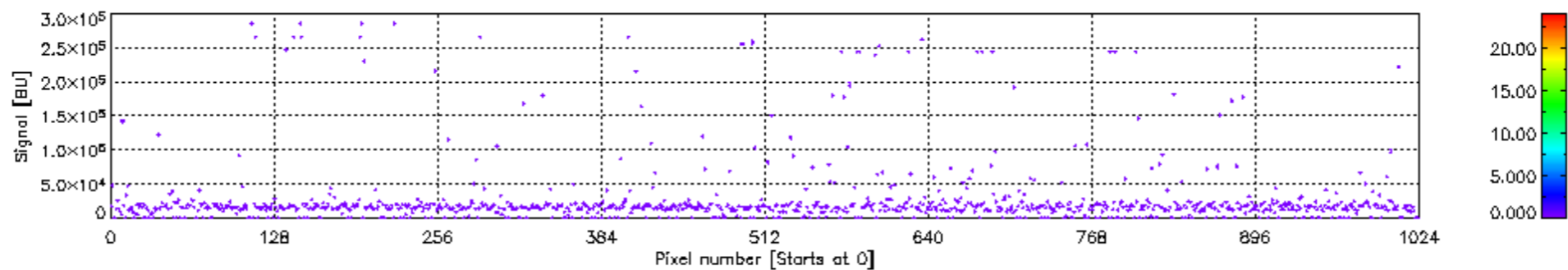
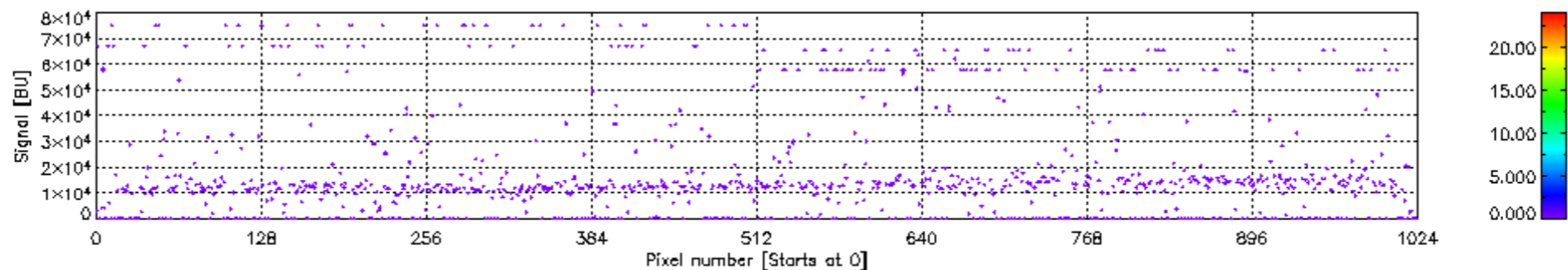
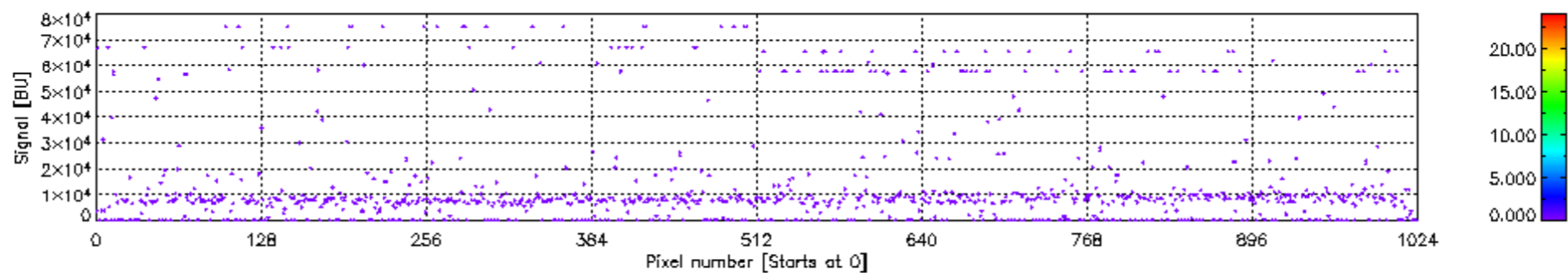
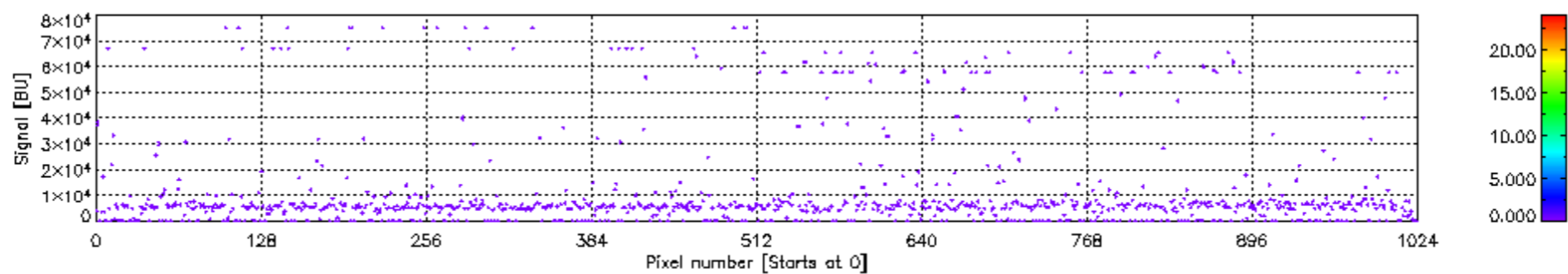
Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 6 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00



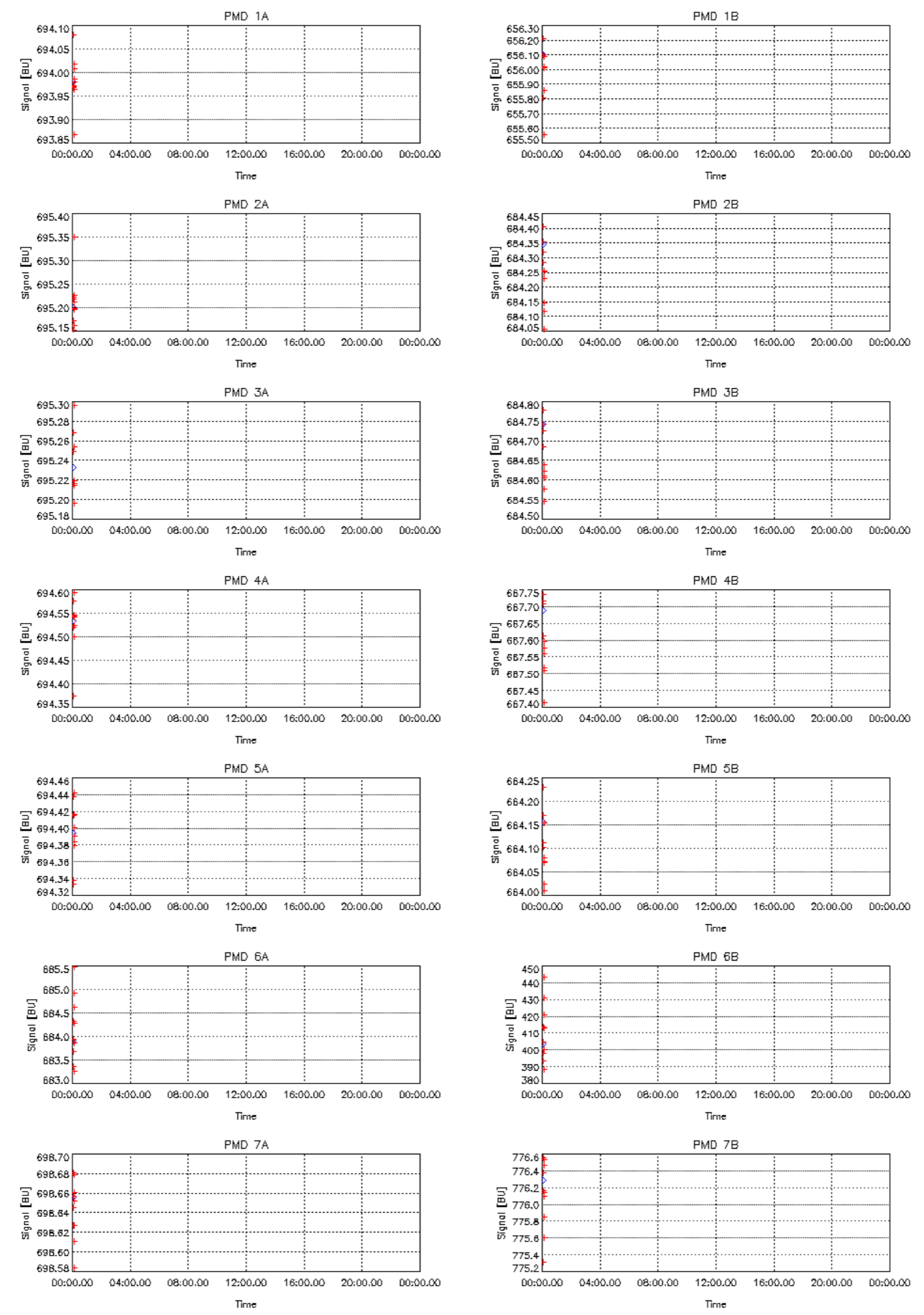
Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 7 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00

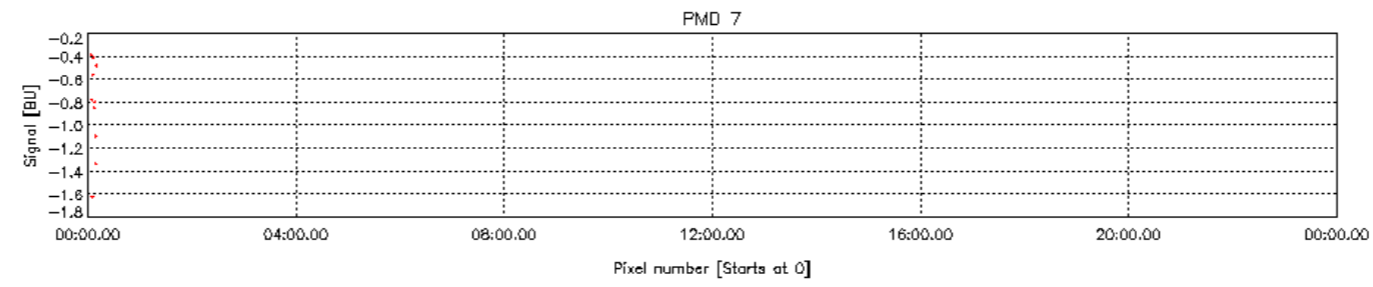
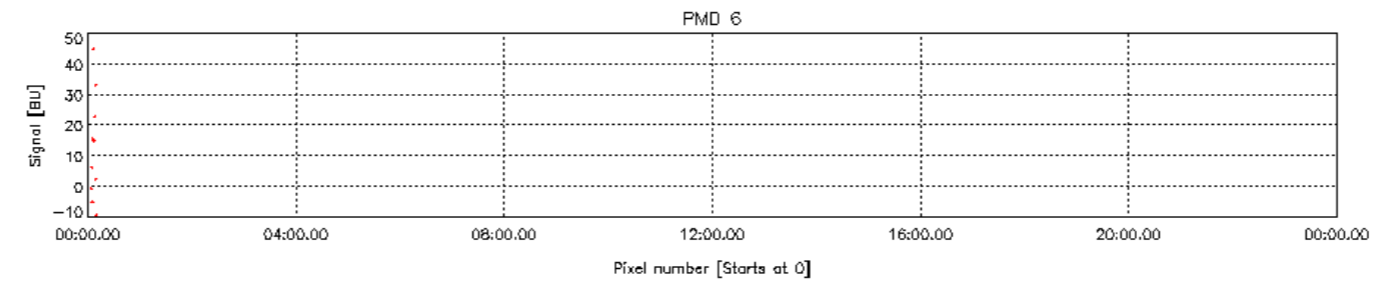
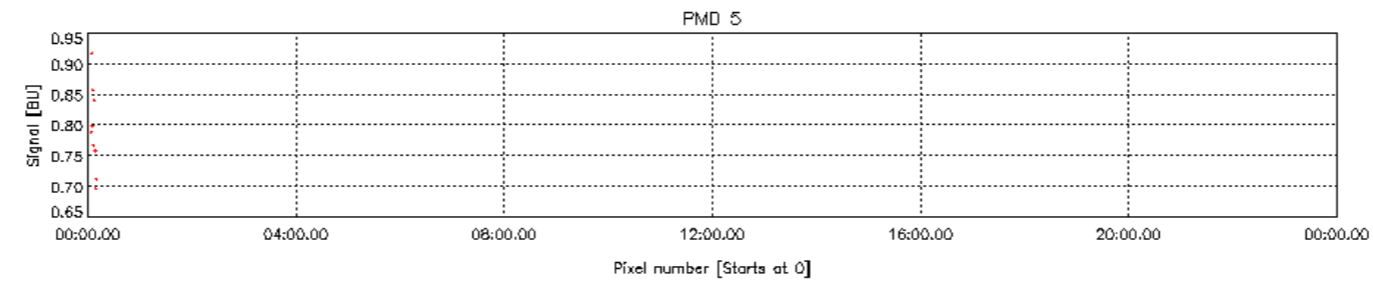
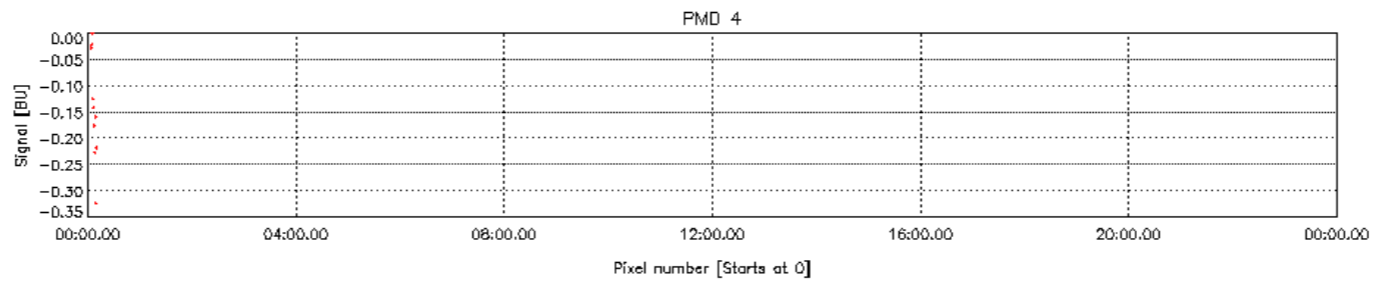
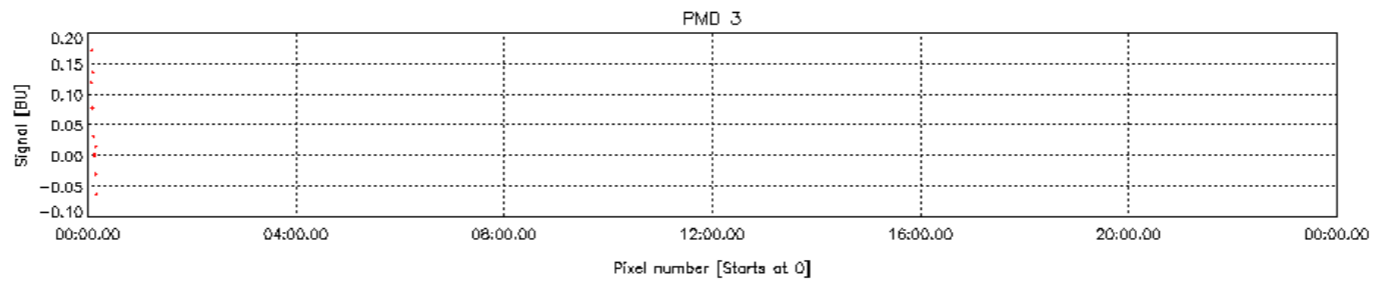
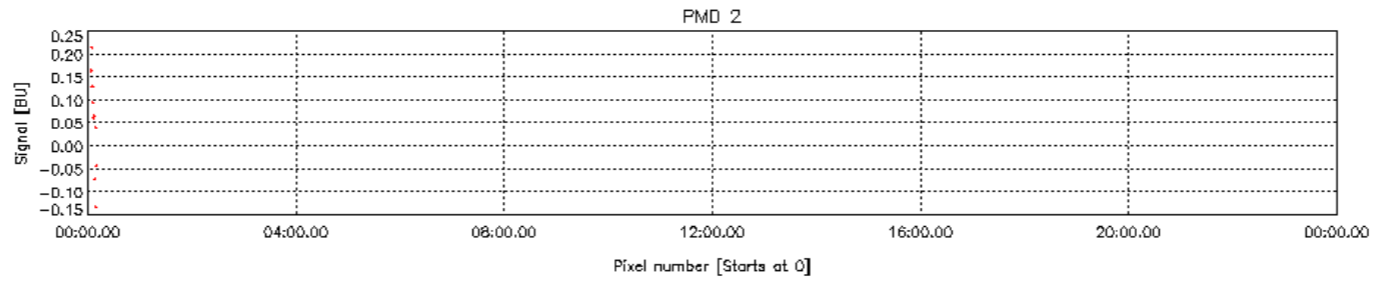
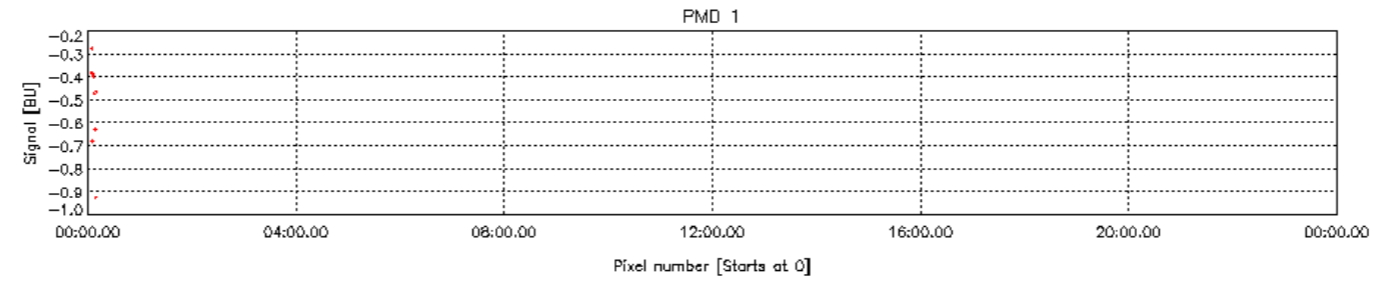


Plots of SCINL1P_DARAVE_avg_dark_meas_spec for detector 8 on 21JUN2009.
 The plots show different value ranges of the dark measurements.
 The colours indicate the time in hours since 21JUN2009 00:00:00

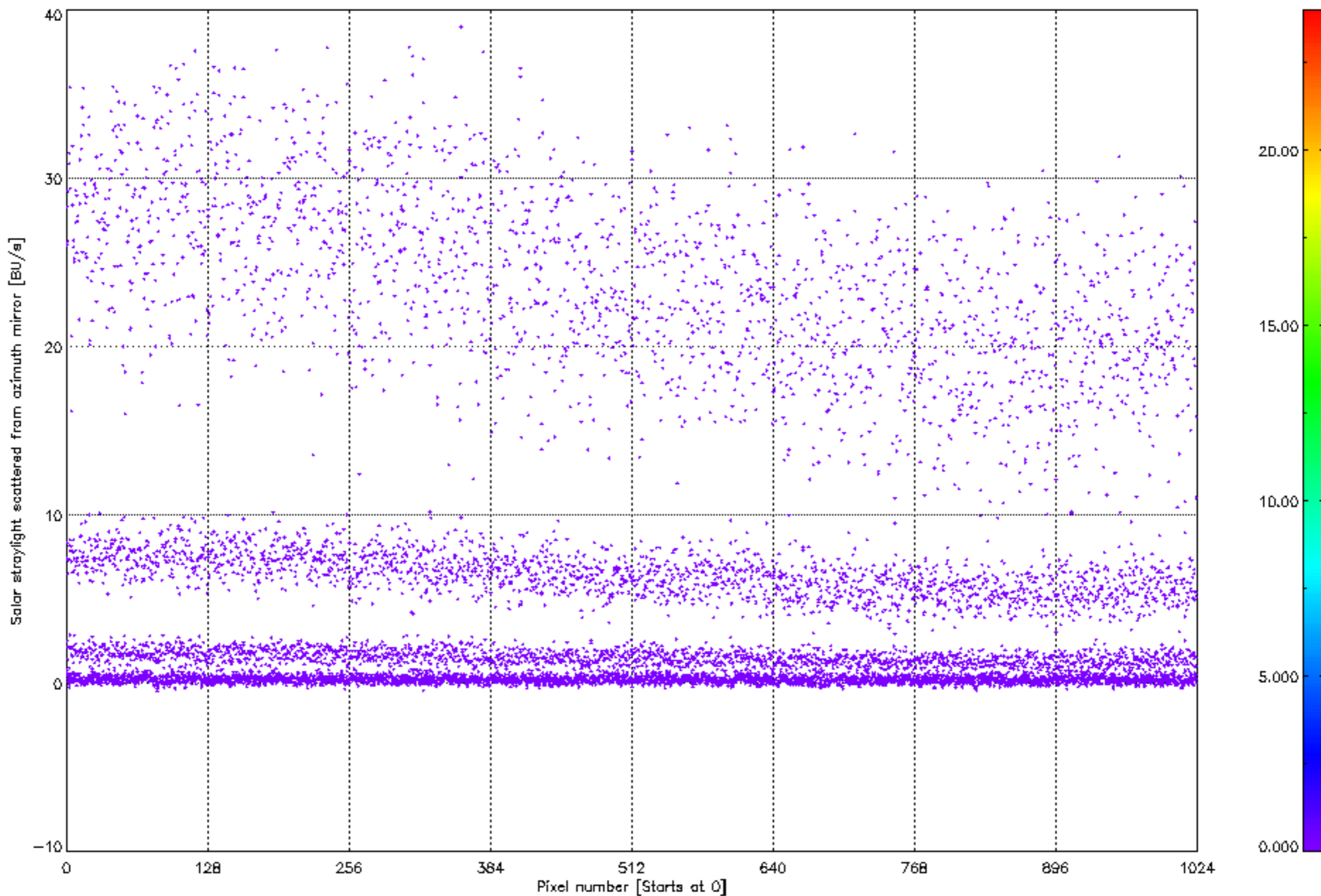


Plots of SCINL1P_DARAVE_pmd_dark_offset vs time on 21JUN2009 (red).
 New leakage current offset data is given in blue for comparison.

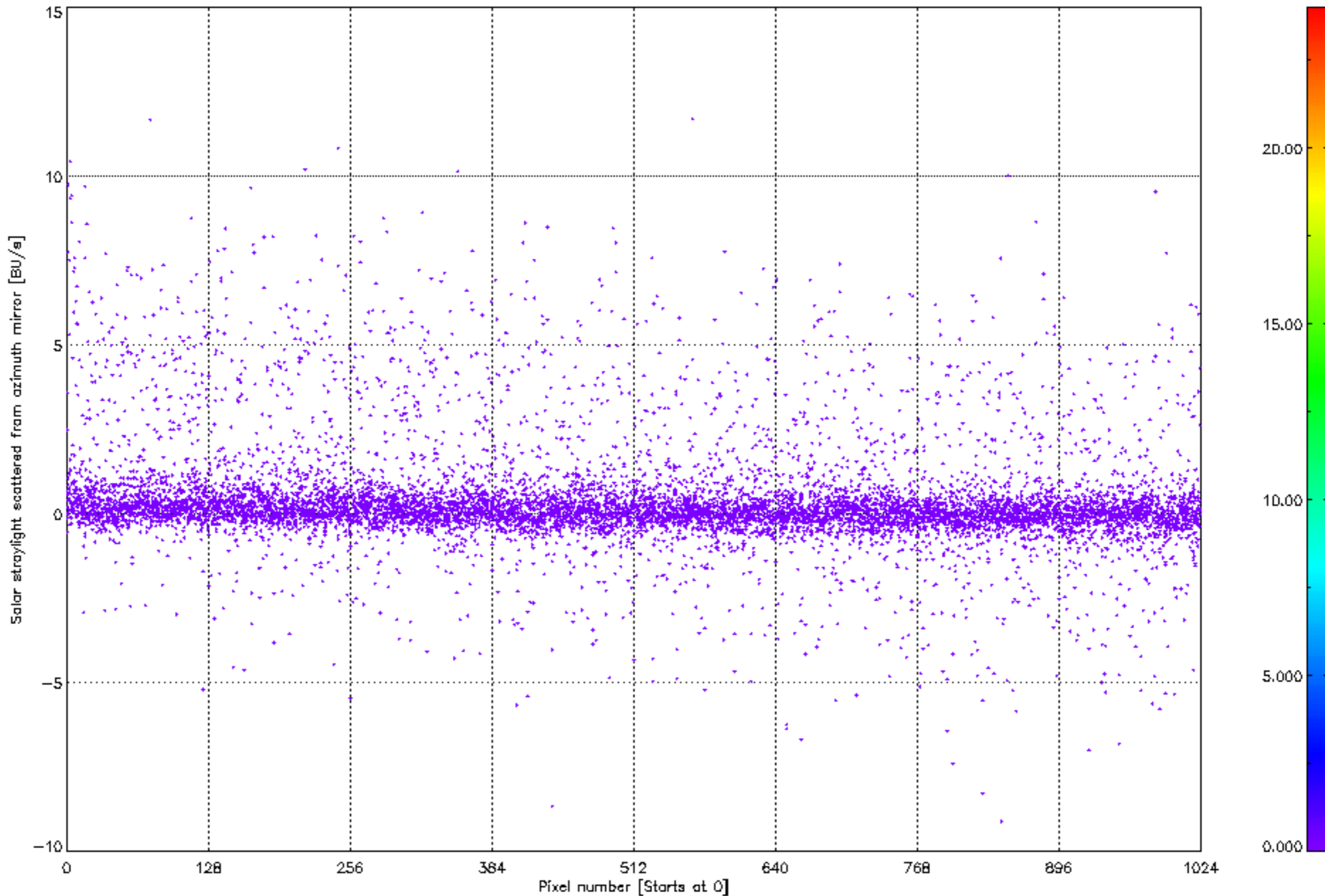




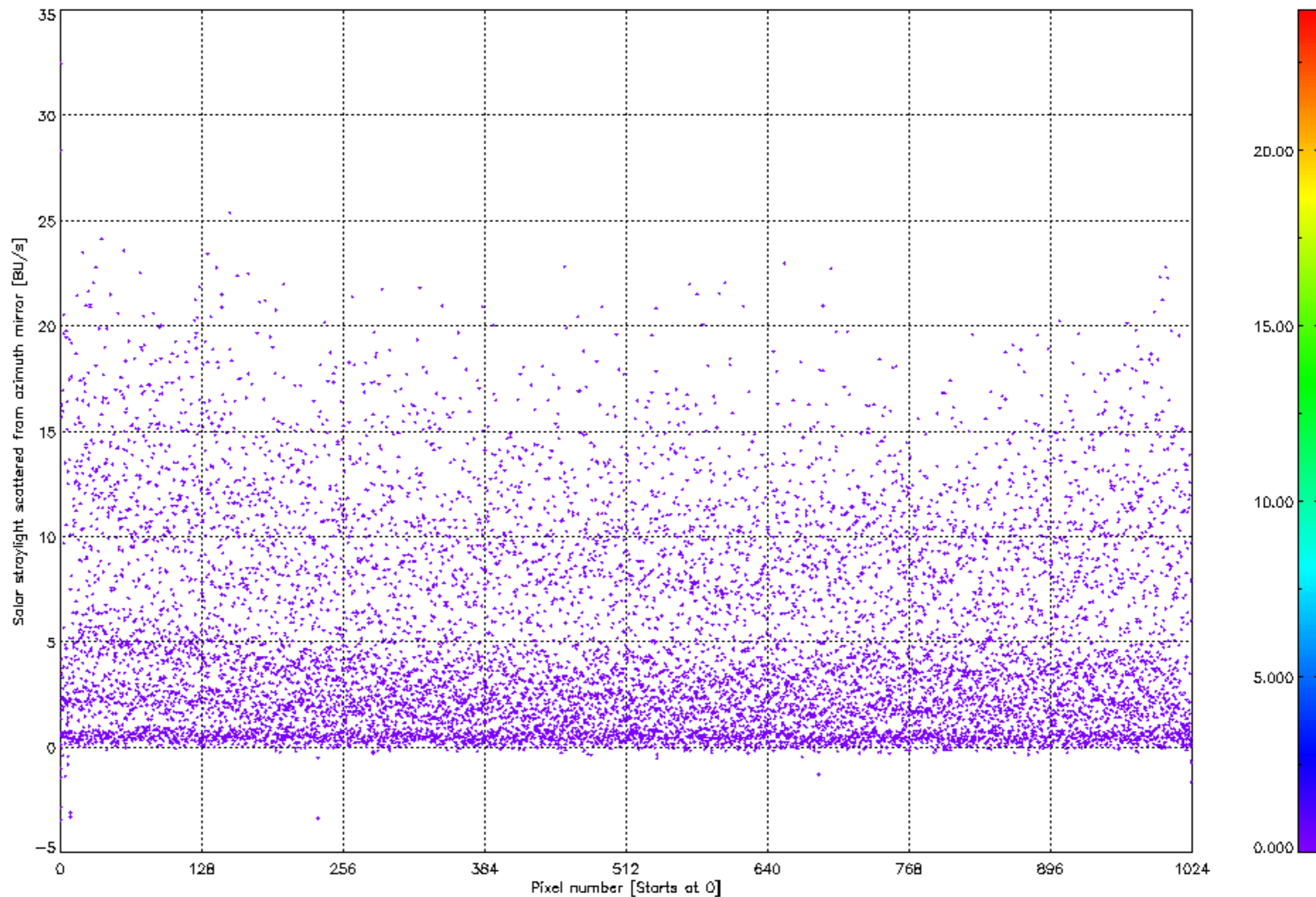
Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 1
 Colours indicate the time in hours since 21JUN2009 00:00:00



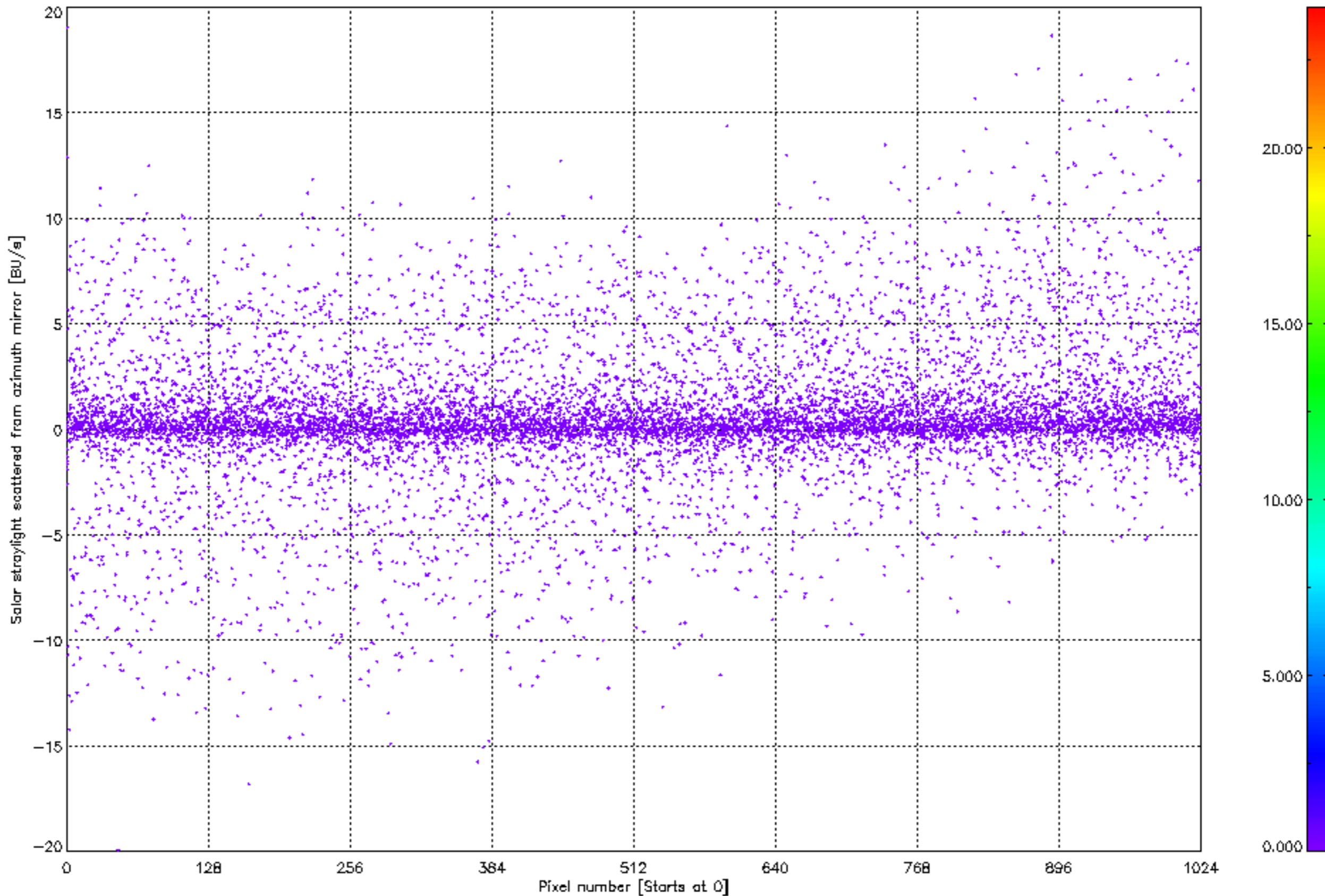
Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 2
 Colours indicate the time in hours since 21JUN2009 00:00:00



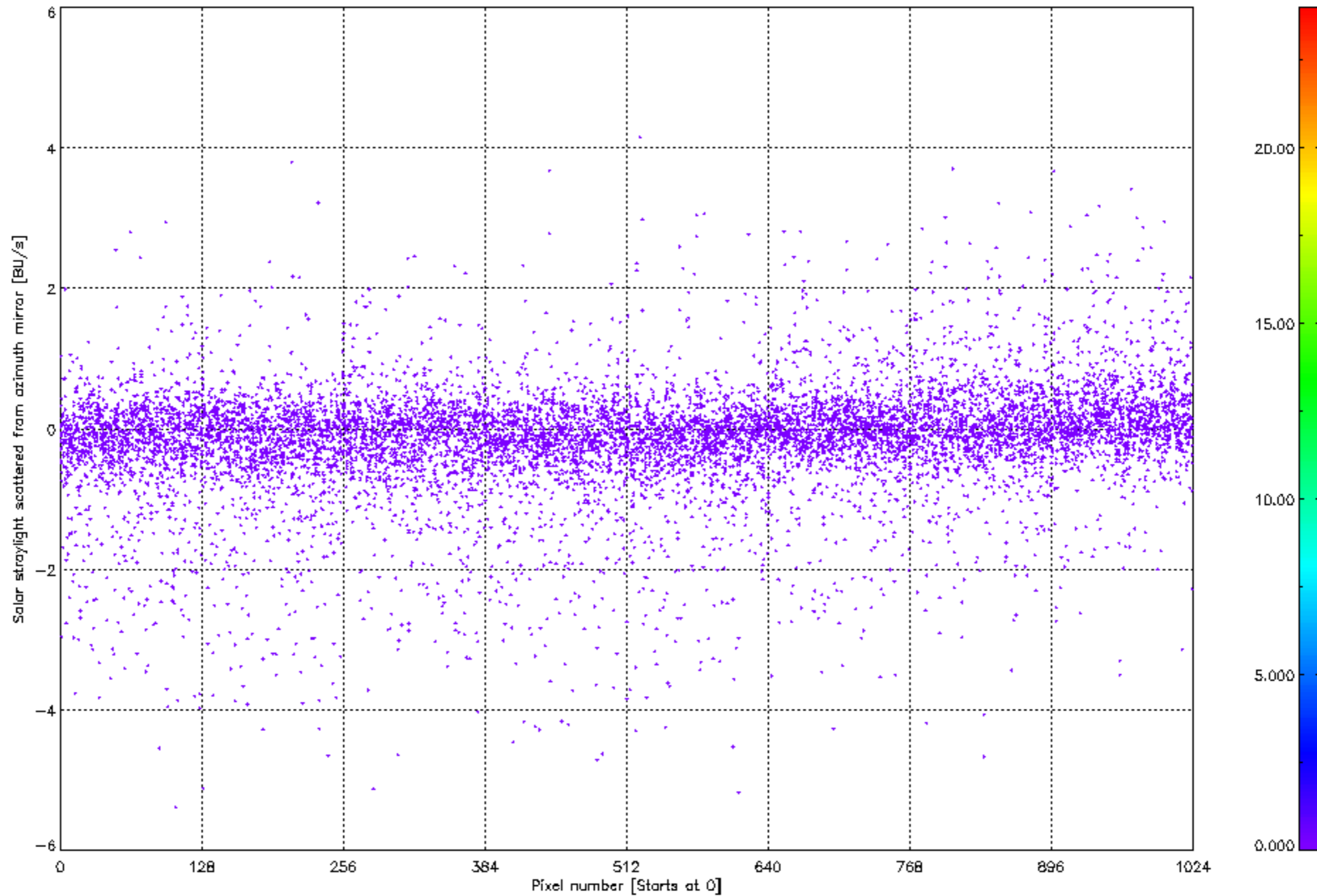
Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 3
 Colours indicate the time in hours since 21JUN2009 00:00:00



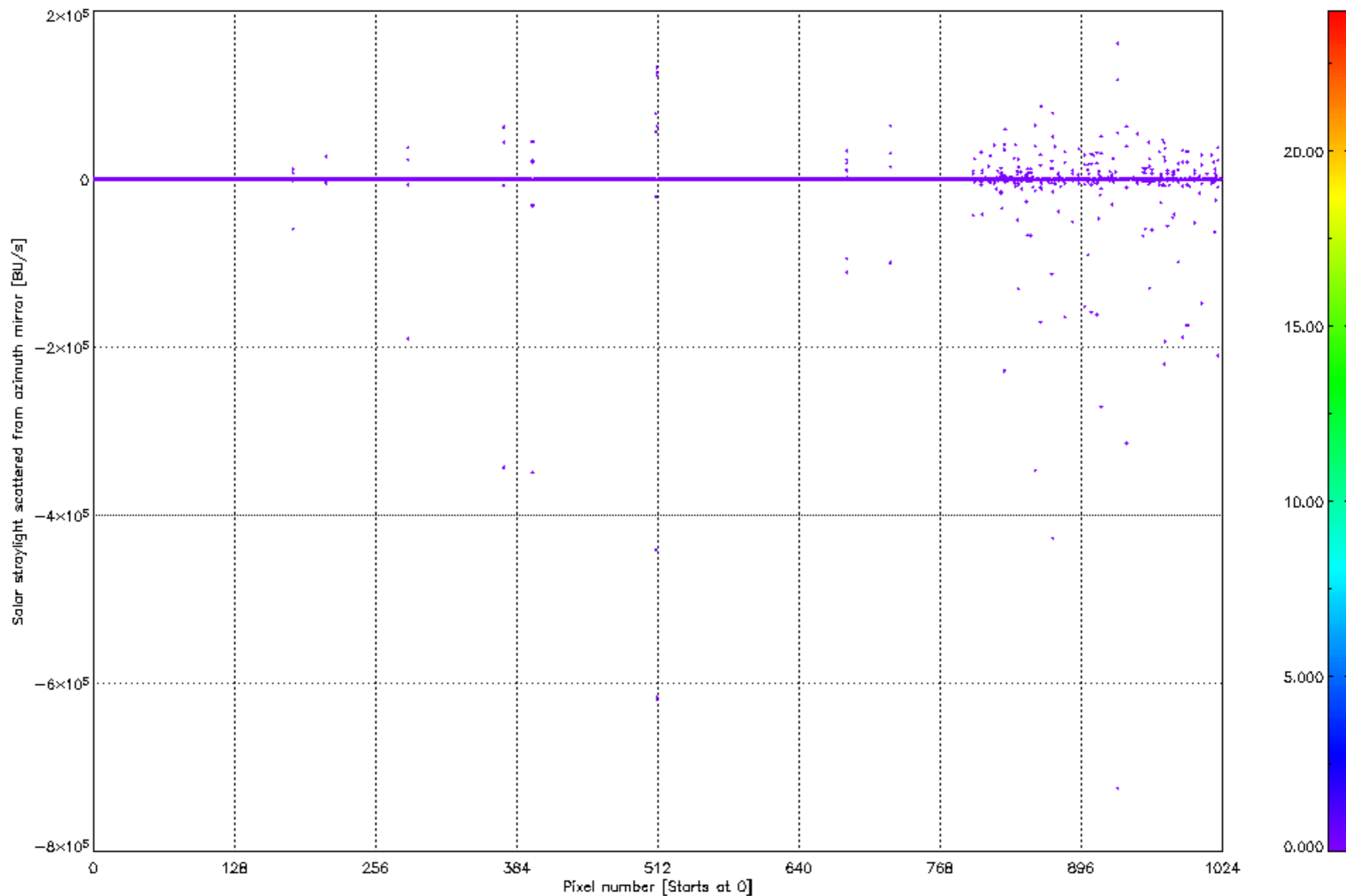
Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 4
 Colours indicate the time in hours since 21JUN2009 00:00:00



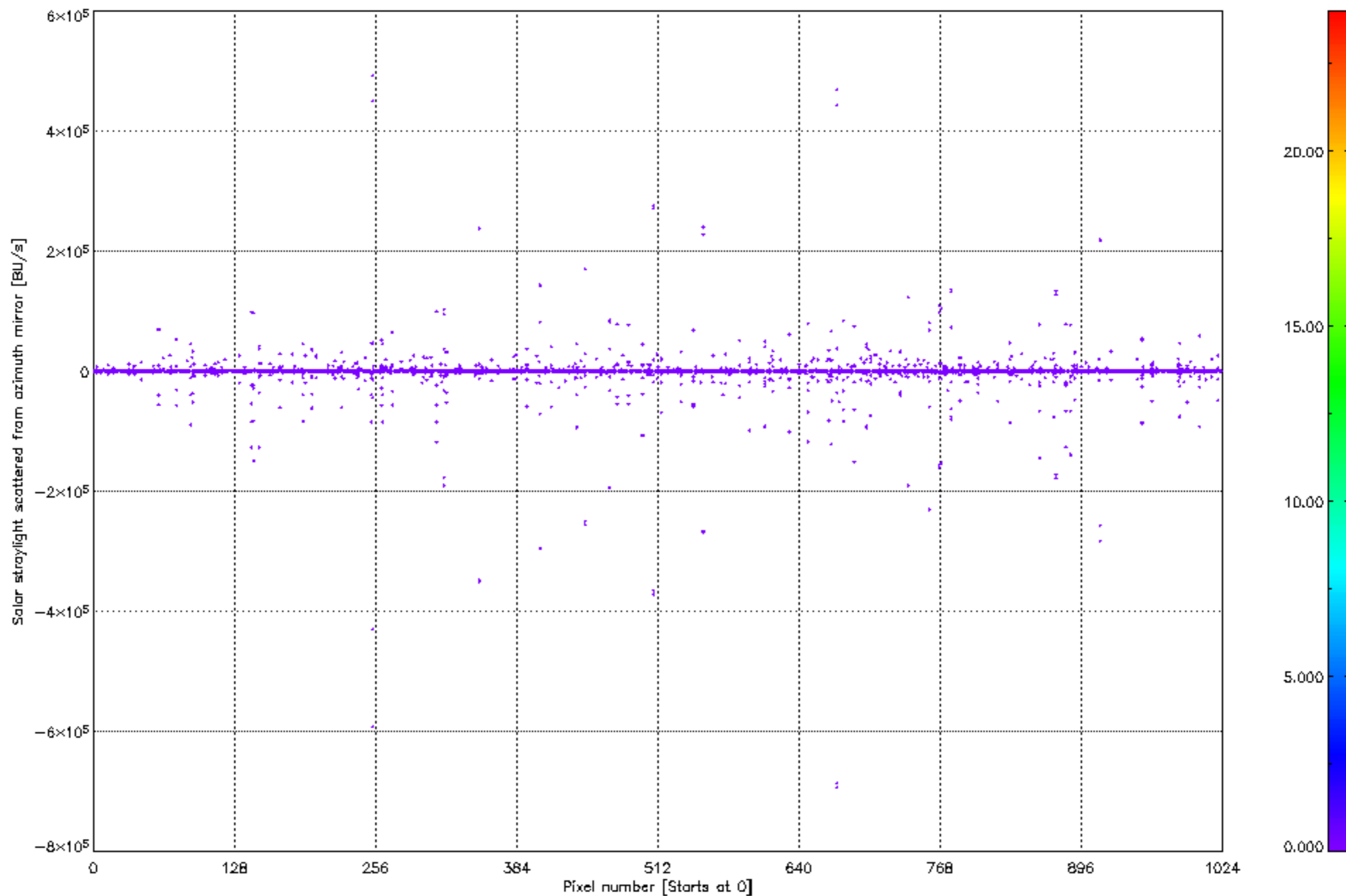
Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 5
 Colours indicate the time in hours since 21JUN2009 00:00:00



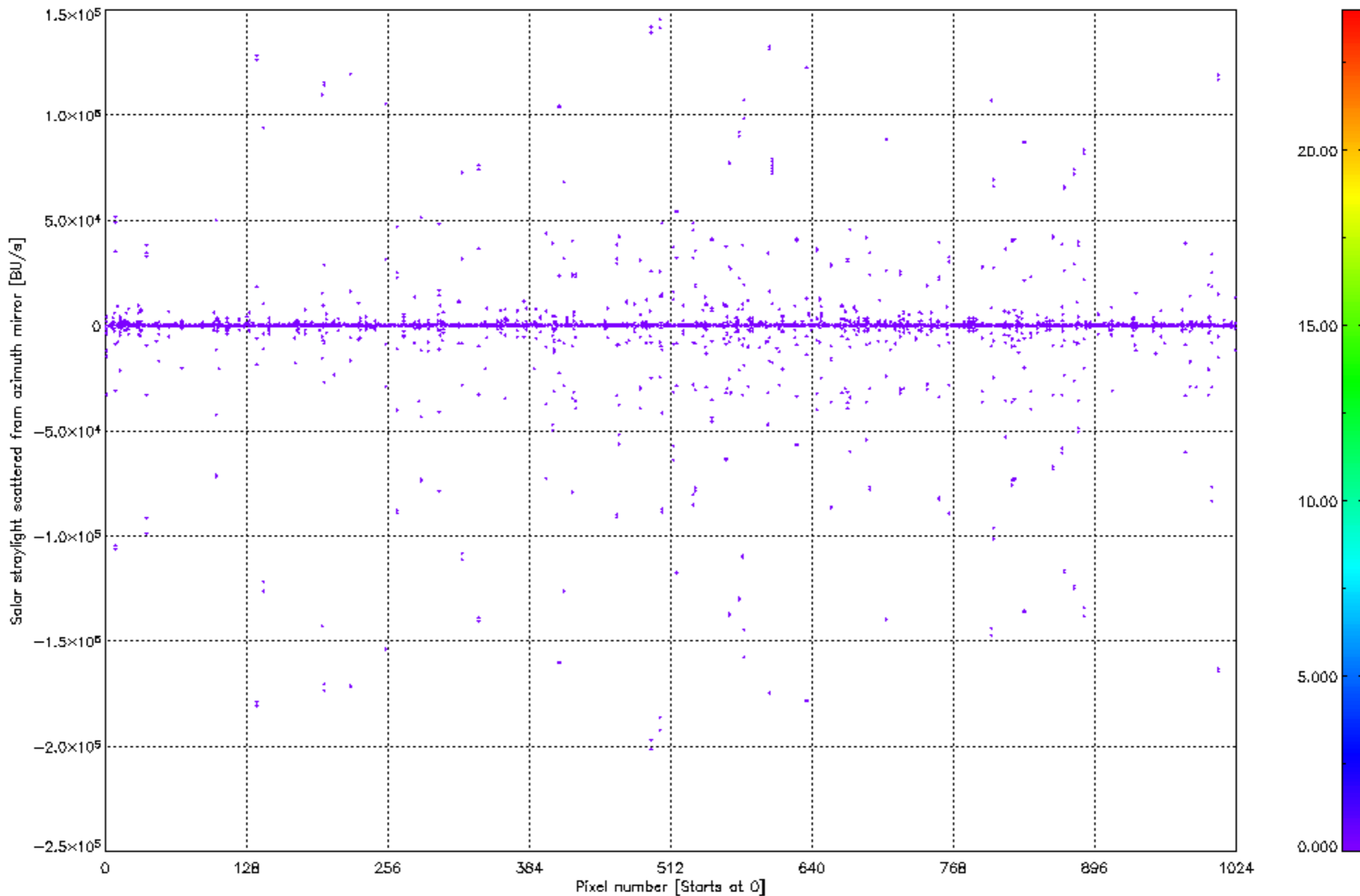
Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 6
 Colours indicate the time in hours since 21JUN2009 00:00:00

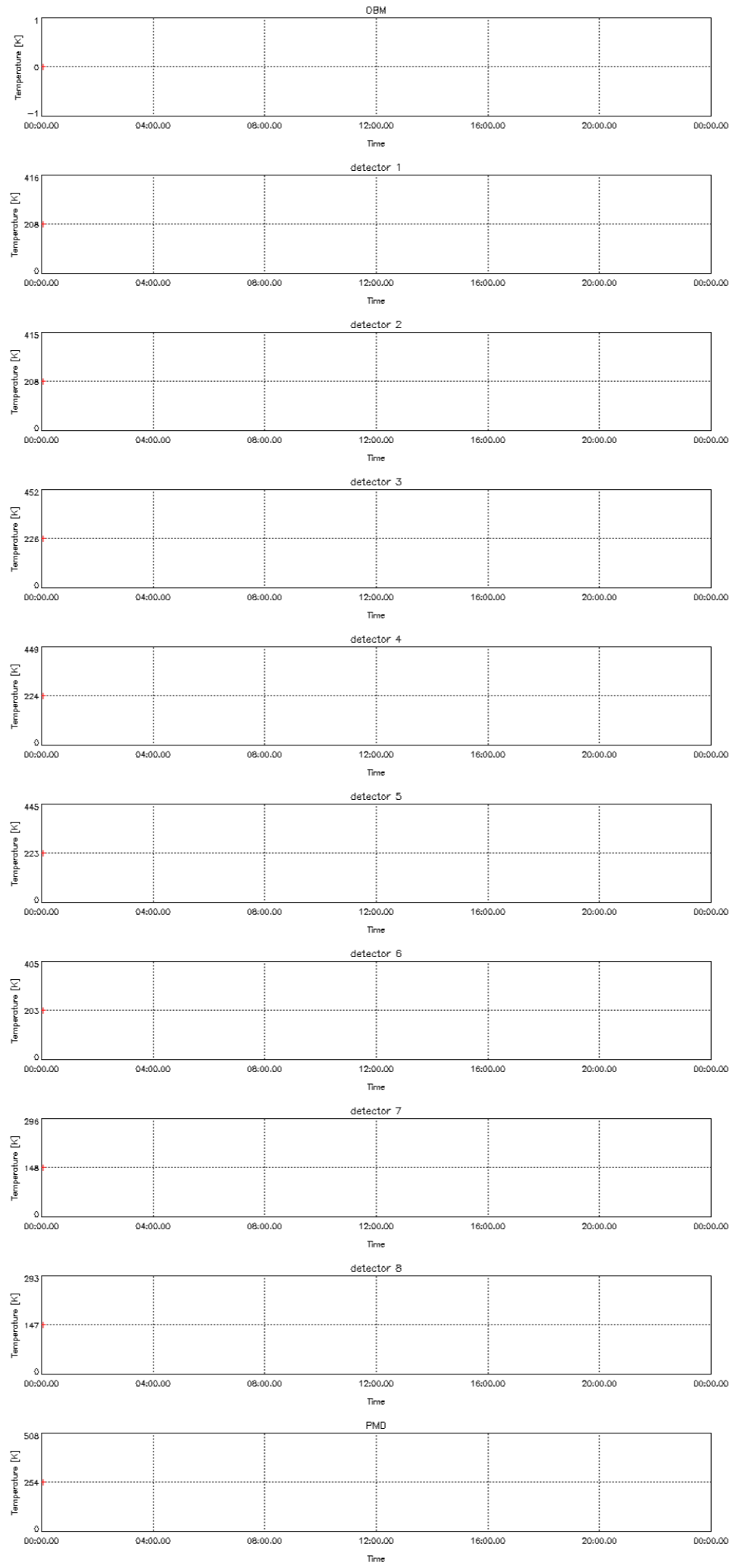


Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 7
 Colours indicate the time in hours since 21JUN2009 00:00:00



Plot of SCINL1P_DARAVE_sol_stray_azimuth_mir for detector 8
 Colours indicate the time in hours since 21JUN2009 00:00:00



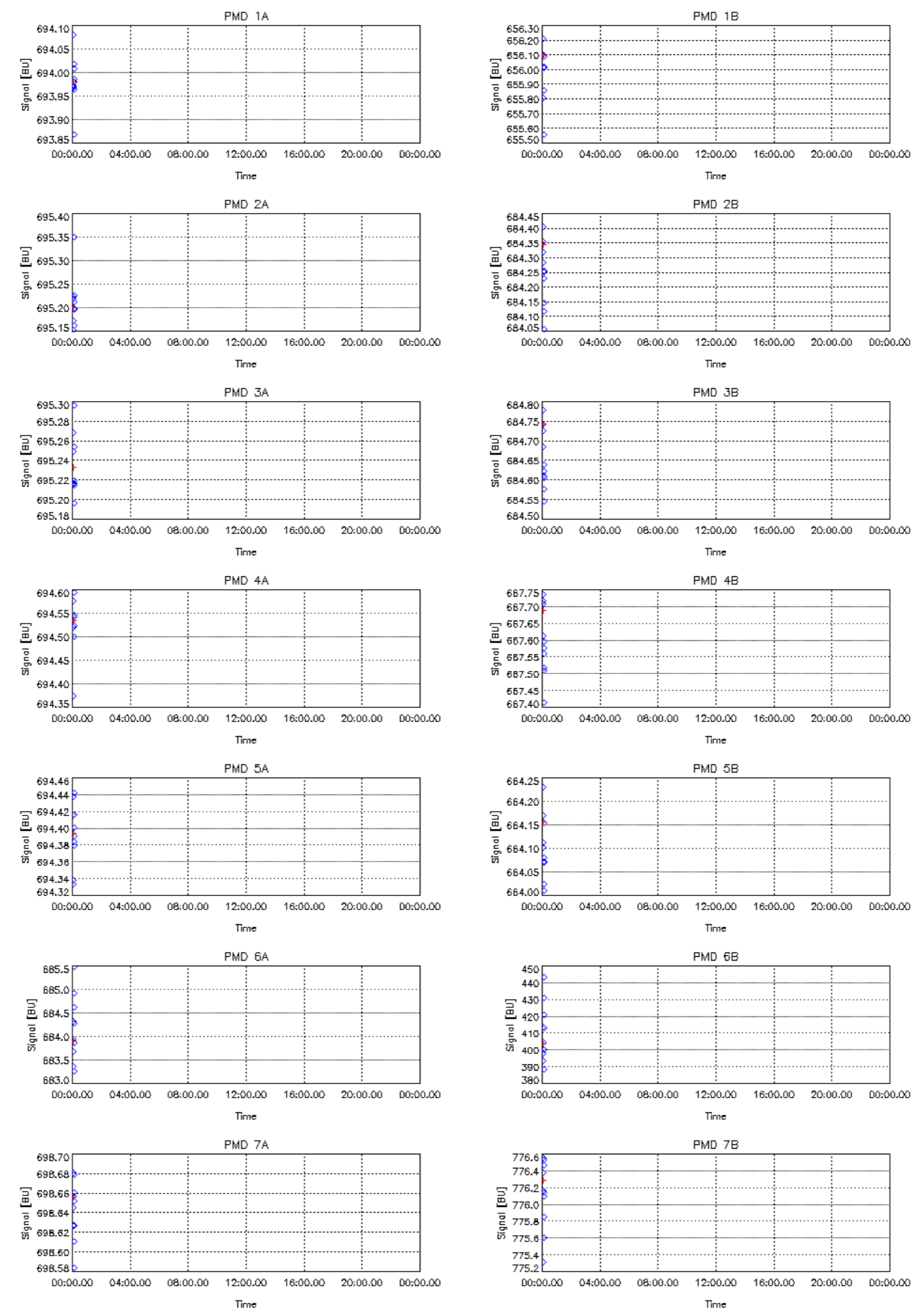


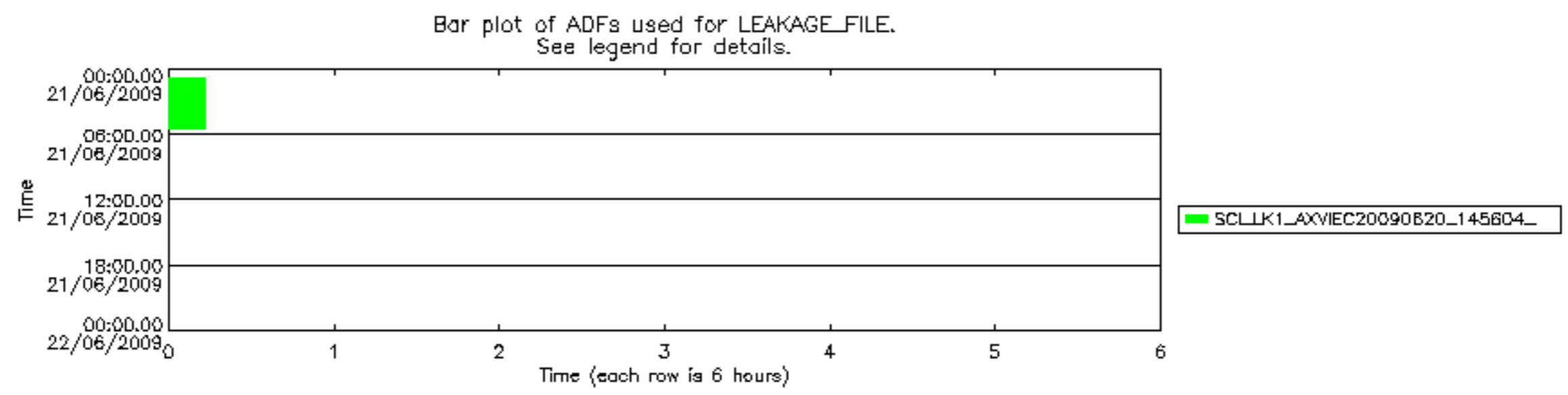
Plots of SCINL1P_NEWLEA_leak_cur for various detectors on 21JUN2009.
Colours indicate the value in BU/s.

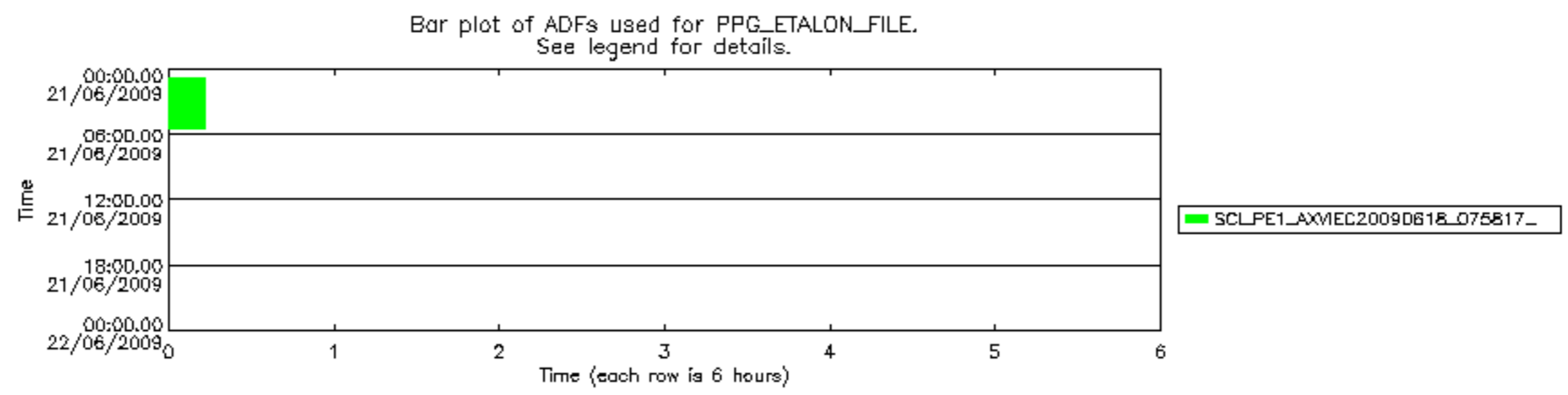
Plots of SCINL1P_NEWLEA_fpn for various detectors on 21JUN2009.
Colours indicate the value in BU.

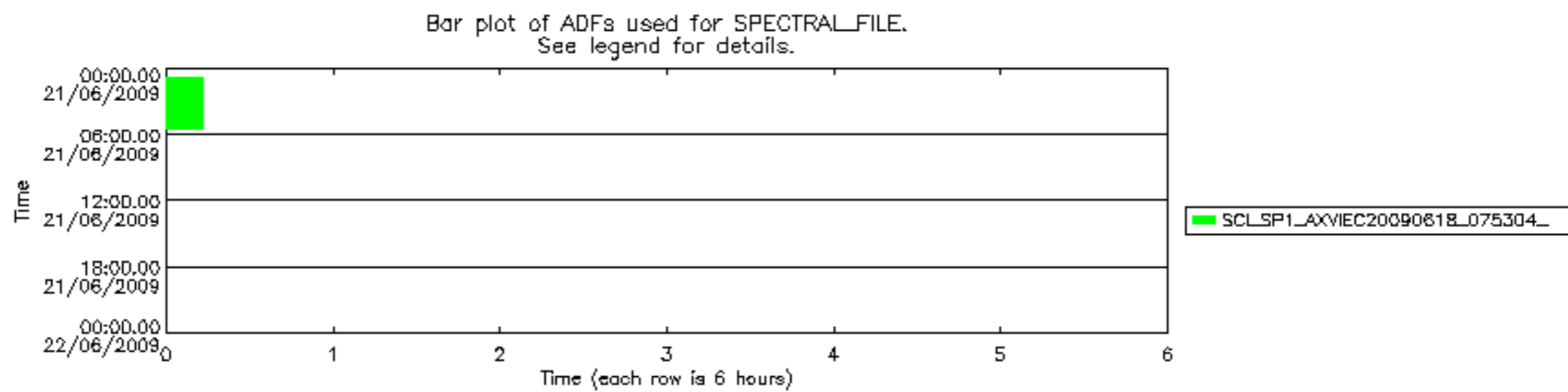
Plots of SCINL1P_NEWLEA_mean_noise for various detectors on 21JUN2009.
Colours indicate the value in BU.

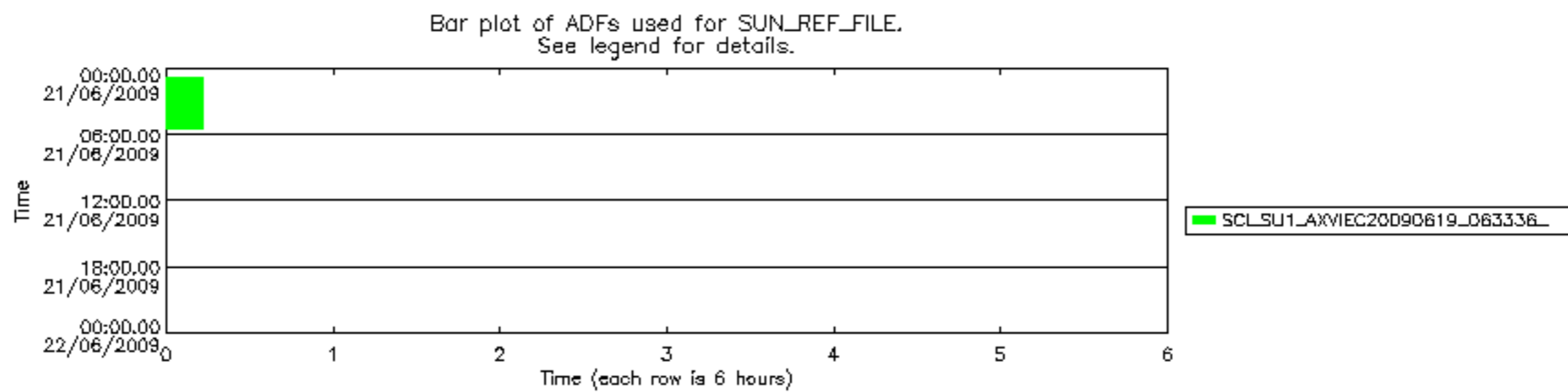
Plots of SCINL1P_NEWLEA_pmd_off vs time on 21JUN2009 (red).
Dark average pmd data is given in blue for comparison.

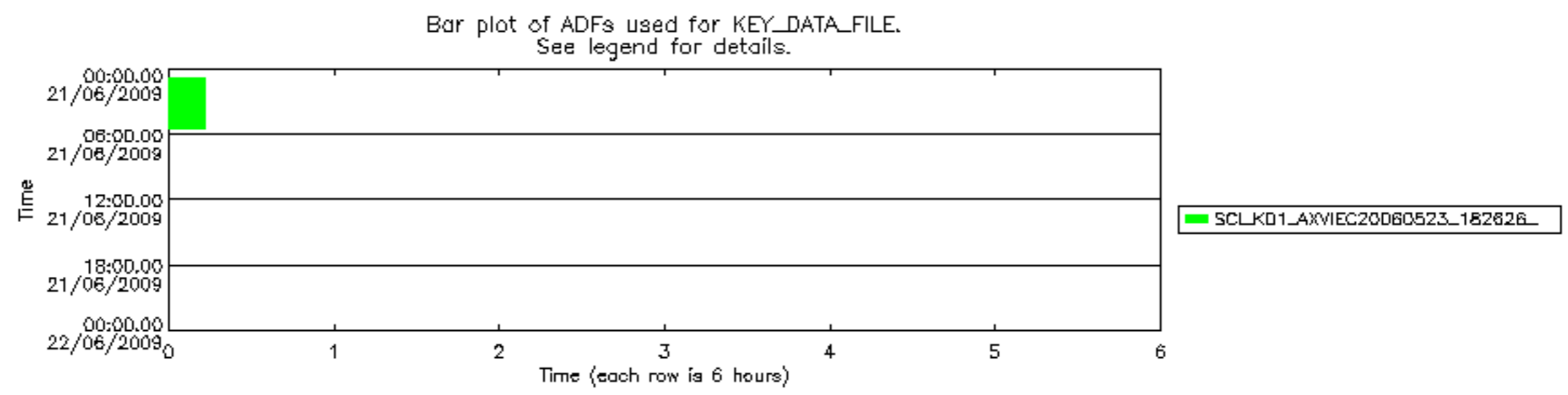


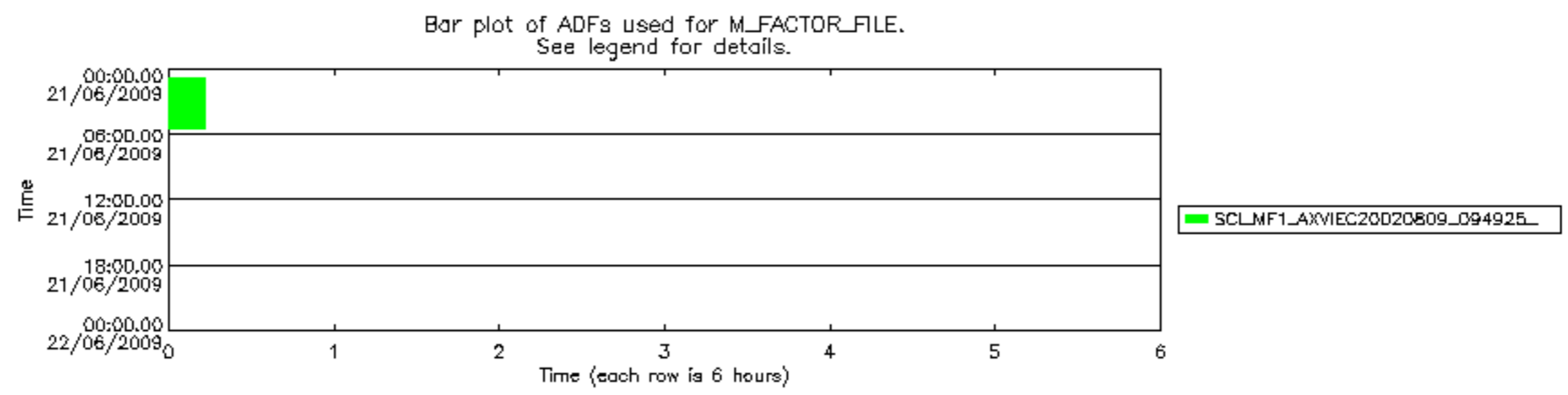


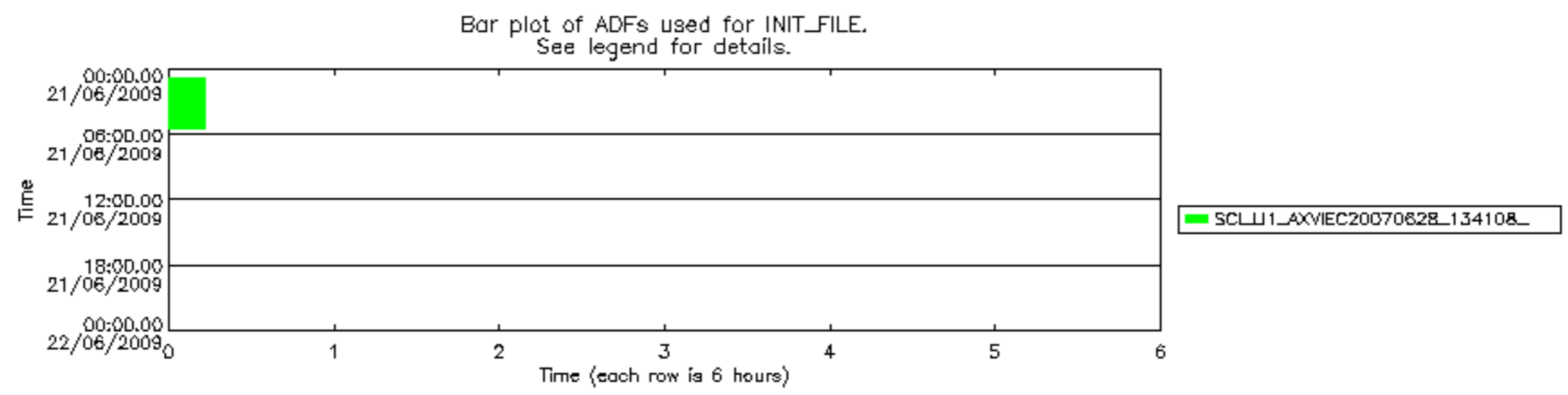


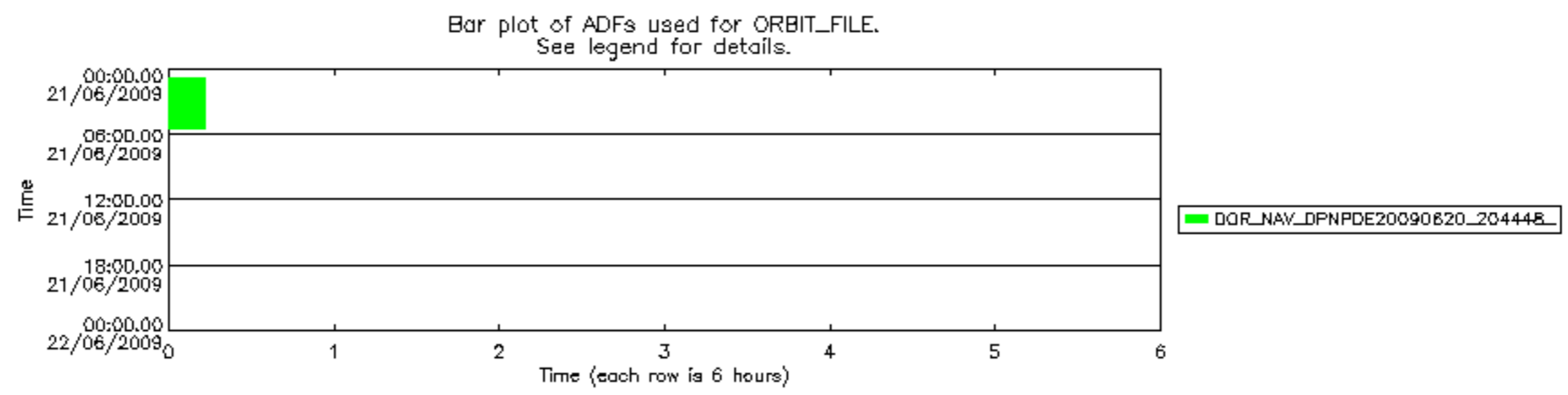


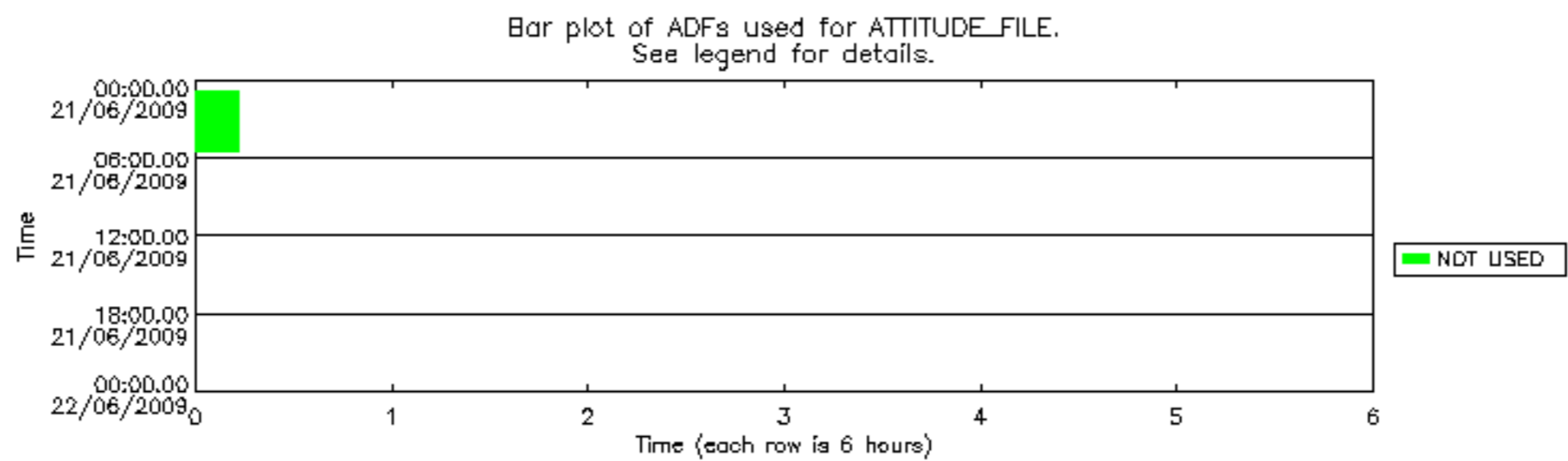












Bar plot of planned DMOP activities and new calibration data for SCIAMACHY.
 Each row indicates an orbit. A light gray colour indicates the time span of 21JUN2009.
 A medium gray color indicates the time span of available SCI_NL_1P products for this day.
 The remaining colours indicate planned activities and/or special measurements.
 Planned activities are shown on the top half of each row, special measurements on the bottom half.

