ALSO SEE: http://www.oso.noaa.gov/poesstatus/ **EMOSS-2**

POLAR Spacecraft Status As of: Tues 15 May 08, 12:00 EST

(Changes from last week in bold border)

Subsystem/ Component	NOAA-12D AM 16:59=AN STIP data only No IPD processing	NOAA-14J AM: 21:10=AN STIP data only No IPD processing	NOAA-15K AM: 17:49=AN GAC data only	NOAA-16L PM: 15:04=AN GAC&LAC data	NOAA-17M AM: 22:23=AN GAC&LAC data	NOAA-18N PM 13:49=AN GAC & LAC data
LAUNCHED	05/14/91	12/30/94	05/13/98	09/21/00	6/24/02	5/20/05
CNTL OBP	OBP2 Recursive SCT	OBP2 OBP1 inoperative Recursive SCT	OBP2	OBP2	OBP2	OBP2
BUS	B-BUS XSU-1	B-BUS XSU2 (XSU1 inop)	B-BUS XSU-1	B-BUS XSU-1: TOAR444	B-BUS XSU-1	B-BUS XSU-1
BUS VETO	NO	NO	NO	NO	NO	NO
ADACS	Nominal Mode Autonomous swap to YGC 30 Aug, commanded back to nominal 31 Aug RGmode=Monitor Gyro chans=XYZ	YGC Mode Autonomous swap 1 Dec Return to nominal TDB Very low N2 gas RYC switch 26 Feb 07, switched back on next pass	Nominal Mode Rgmode=Monitor Gyro-3 Off 6/26/00 Gyro chans=AAB N2 Low PSI invalid	RGYRO Mode Estimate Y-ROLL Rgmode=PASSIVE Gyros-1 & 3 Inop/Off Gyro chans XA-ZB Pitch wheel bias 2400 Gyro2 safe macro	Nominal Mode Rgmode=Monitor Gyro-3 Off 6/10/04 Gyro chans=AAB GAS Enabled Dec 05	Nominal Mode Gyro-A MIMU-2 Z-wheel -Pitch TOAR 447 Z-momentum transition complete Pitch Torquer again active
RXO	PRI BU random enables daily bias+6.5 mS	PRI BU random enables daily bias–7.0 mS	PRI daily bias -8 mS -500 mS 12/31/05	PRI Daily Bias –5.5 mS -1500 mS 31Dec05	PRI Daily Bias –3 mS -1500 mS 31Dec05	PRI No daily bias -1500 mS 31Dec05
CLOCK DIV	2	2	2	2	2	2
MIRP	External Synch Rephase Enabled	External Synch Macro rephased once per orbit	External Synch Rephase 0730 daily	External Sync Rephase each orbit	External Sync Rephase Enabled	External Synch Rephase Enabled
TIP SIDE	1	1 Since 17 Apr 07	2 (since 4/3/03) 3 channels inop	2 since 4/18/05 (analog drifting?)	2 Swapped 9/20/06	1 Analog telem drifting
Recorders (DTR, SSR)	DTRs 3A, 4, 5B Safestate 5B 4b low pressure	DTRs 1, 2B, 5B Safestate- 1B DTR 5A -INOP	DTRs 1, 2, 3, 4 Safestate 1B EOT	DTRs 1, 2, 3, 4A Safestate 3A 4B STIP only	DTR 1,3,4 / SSR 2 Safestate=SSR 2B 4A Pressure leak	SSRs 1,2,3,4,5 Safestate=5B Current spikes
VTX (APT data)	#1 ON 137.50 MHZ	OFF (nominal) Since 8/2/05	#1 ON As of 27 Feb	OFF / INOP since 11/15/00	#2 ON 137.62 MHZ	#2 ON 137.9125 MHZ
BTX	#1 136.77 MHZ	#2 137.77 MHZ	#1 137.35 MHZ	#2 137.77 MHZ	#2 137.77 MHZ	#1 137.35 MHZ
STX 1 = rcp 1698.0 mhz 2 = lcp 1702.5 mhz 3= rcp 1707.0 mhz 4= rcp 2247.5 mhz	1 – HRPT; 2,3 - Playback	3 – HRPT 2, 1 – Playback	2-Omni HRPT 2 Omni=rcp Power TOAR 446 4-Playback 1,2,3-Degraded	2 – HRPT 1– Playback 4 – Playback & MCM usage 3 low power unused	3 – HRPT TOAR424 low power 2 & 4 Playback 1-Standby STX-1 Power drop	1 - HRPT 3 - Playback 2-Playback 4-Test & Standby
POWER (Array offset and CANT angle, eclipse states and sun angle)	ArrayOff +60 since 8/31/06 Eclipse Season Sun Angle 16 uptrend to 20 in early Jan 07 Shunt degraded SA CANT=37 degs PSSS trigger =18.5	Array Off -50 Since 22Nov05 Eclipse all year Sun angle 55 steady Batts 1-3 LRC Degraded shunts SA CANT=22 degs PSS macro to safe SAD Motor switching enabled SAD side =A	Array Off -45 Since 1/25/01 Eclipse Season Sun Angle 13 Uptrend to 18 early Jan 07 SA CANT=37 degs	Array Off -40 Since 7/16/02 Eclipse all year Sun Angle 34 Steady trend SA CANT=22 degs Transitioning to full sun S/C in Sept 07	Array Off. –40 Since 1/29/04 Eclipse all year Sun Angle at 66 Steady trend SA CANT=37 degs	Array Off. -40 Since 6/6/05 Eclipse all year Sun Angle 63 uptrend to 65 on 1 Jan 07 SA CANT=22 BVR Phase Control auton swap 3/29/06 & 1/4/07
AVHRR	Nominal HRPT and APT data only	Nominal HRPT data only Autonomous T/off 9/28 back on 9/30 Occasional SM current spikes.	Nominal Channel 3B only Occasional minor scan motor instabilities	Nominal Recent SM current increases TCE24 OFF 4/14/04 Channel 3B only	Nominal 3A-B switch enabled Previous scan motor current mini surges	Nominal Channel 3B only Scan motor current drop 29 Aug 06
AMSU-A1			Operational Ch14 inoperative Ch11 inoperative	Operational Primary PLLO chans 9-14 bias shift. Backup PLLO inop. Channel 9-14 noise	OFF/INOP Since 10/30/03 Survival heat on.	Nominal Full Scan mode
`AMSU-A2			Nominal	Nominal	Nominal	Nominal
AMSU-B			Operational Bias in All Chans. Degraded Chan-3	Operational Space Position-3 Chan-8 degradation	Nominal	***Replaced by MHS***

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HIRS	ON/Inop Turned On 4/30/05 for power balance Filter Wheel OFF	NOMINAL IPD no longer processing data Outgas heater turned ON 13 Nov 14:00z turned OFF 14 Nov 14:00z	NOMINAL FW Abrupt return to nominal 7/12/05 After years of minor and major current surges FW mode=Hi Powr	NOMINAL New all time high filter motor current reached 9/17/06. Imagery occasionally exhibits high levels of radiometric noise	NOMINAL 1 Pixel cross-track misalignment.	Operational Filter Heat OFF. LW channel 1-12 noise TOAR 448 Loose LWIR lens. LW imagery erratic.
MHS/MIU						Nominal Fly Wheel Motor Current Spiking but not alarming since 27 Dec 06 Entered Motor Spin State on 27 March 07
MSU	ON/Inop Turn on 12/7/06 16:53 for power balance	Operational Data not processed Scan Motor Anomaly 7 May 07				
SSU		OFF/Nominal Turned off 5 May for power balance				
DCS RFI investigation	Nominal	Nominal Autonomous turnoff 28 Sept Autonomous turnon on 30 Sept	Nominal	Nominal Pseudo message turned on 1/5/06	Nominal	Nominal DRU's 1-7 On DRU8 inop/off
SARR		Nominal Autonomous turnoff 28 Sept Commanded back on 29 Sept	Operational A-Side, AGC Mode Intermittent failures for 243MHz A&B	Operational Mode =AA A-side, AGC Mode (B-side in FG mode) 243 MHz = INOP.	Nominal A-side All AGC Mode	Nominal A-Side All AGC Mode Since 15 Aug 05
SARP		OFF Power Failure	Nominal RCVR B/W = 2	Nominal RCVR B/W = 2	Nominal	Nominal A-side 23 May05
SEM	ON/Nominal Autonomous reset 8 Jun, back to nominal 10 June Turned on 8/30/04 Elec-CH-HVPS=4 Prot-CH-HVPS=0 TED level=3	Operational Elec-CH-HVPS=0 Prot-CH-HVPS=0 1 of 4 Tscopes inop Autonomous Recursive SCT=no IFC capability	Nominal E-CDEM-HVPS=2 P-CDEM-HVPS=0	Nominal E-CDEM-HVPS=6 P-CDEM-HVPS=5 27 Jun 15:30z	Nominal E-CDEM-HVPS=2 P-CDEM-HVPS=4 27 June 16:00z	Nominal Elec-CH-HVPS=1 27 June 17:00z Prot-CH-HVPS=0
SBUV		ON No longer operational. Used for power balance only since AMDAHL Process shutdown 10 Oct 06		Operational Degraded Ozone data Backup Diffuser inop Primary Diffuser deployment problem TOAR 426 AMSU EMI causing erratic Behavior in PMT cathod, range 3	Nominal Anode Mode Plan sweep mode Standard Ops TOAR 463 sun glint IBSL test performed 12 Sept Grating motor investigation	Nominal Anode mode since 6 July 13:30z Electronics turnoff taken out of STESM safestate table TOAR 462 sun glint
SADPOS				ON Enabled MFactor50% Timer = 12 mins	ON ENABLED Timer = 12mins	ON Enabled Timer =12 mins
THERMAL Heaters, louvers TCE's	Nominal TCE's back to nominal configuration following 7/25/04 UVtrip.	Nominal Power survival safestate macro Implemented 28 Sept. Most TCE's off. All TCE's re-enabled 30 Sept 15:30z HIRS outgas heater turned on 13Nov, off 14Nov	TCE26 & 15H Telem invalid TOAR 432 TCE24L&25L (HIRS & AVHRR) failed 5/13/98 RCE thermostat failed 5/13/98 Spacecraft in thermal uptrend	Nominal TCE24 OFF 4/14/05 (AVHRR H&L) HIRS Filter heater turned OFF 1/18/05	TCE3H Batt 2A heater failed ON, turned off 8/26/03 AMSU-A1 survival heaters on 10/29/03	All TCE's active HIRS filter heater turned OFF 9/28/06

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COMMENTS/CHANGES:

MISC: The Svalbard load test was executed on 8 May 2007. The load was not accepted by the spacecraft. It was later found that the load was not being encrypted. Software is correcting the problem and it will be tested again at a later date.

New NOAA-14 ESA biases will be loaded and tested against a simulated sun-moon warning on 5/16/07 as an end-of-life test.

There is a NOAA-12/15 conflict period from 5 May-30 June 2007. On 15 May 2007 the NOAA-15 APT (VTX1) will be turned off.

NOAA-12: NOAA-12 entered summer eclipse season on 5/10/07 at 07:25z. The eclipse is now about 10 minutes and will grow to about 30 minutes. Battery voltage, charging, and discharging are nominal. NOAA-12 has a positive array offset of 60 degrees for last falls low sun angle. NBAT1AT, as in the past has started to rise. If the temperature goes to high the array offset will need to be changed from a positive offset to a negative offset for battery solar array shading.

NOAA-14: The AVHRR Motor continues to issue a large number of high current spikes this week. A 90-day orbit-data plot is attached (Figure 1). NOAA14 continues to be in YGC mode. A safety macro for the ESA bias test was loaded on 5/15/07 at 14:47z.

The approval for the NOAA-14 Decommissioning has been received. It is scheduled for 5/23/07 at 14:44z.

NOAA-15: The AVHRR Motor Current orbital average began declining from the increase over the previous two weeks. However, the motor is still issuing high current spikes that surpass those as of late. A 90-day orbit-data plot is attached (Figure 2).

NOAA-15 summer eclipse began on 5/11/07 at 11:44z. The eclipse is now about 10 minutes and will grow to about 30 minutes. Battery voltage, charging, and discharging are nominal.

NOAA-16: There was relatively no change in the performance of the NOAA-16 payload subsystems during the past week and the rest of the spacecraft subsystems were also nominal during this time.

NOAA-17: There was relatively no change in the performance of the NOAA-17 payload subsystems during the past week and the rest of the spacecraft subsystems were also nominal during this time.

NOAA-18: HIRS - On JDay 130, at ~1200z, the scan motor showed both a high and low spike of current. During this same time period, the scan mirror temperature increased (Figure 3). This episode was similar to an occurrence in March 2006.

The proposed NOAA-18 HIRS test for interference from the VHF Transmitters (VTX and BTX) was conducted on 5/10/2007 during the spacecraft contacts at 13:07z and 14:48z. The test ran successfully, but the noise levels on the HIRS were high at the time. The test may need to be redone.

MetOp A: No changes reported on the NOAA instruments on MetOp. MetOp will be declared operational on 22 May 2007.

Figure 1: NOAA-14 AVHRR Motor Current

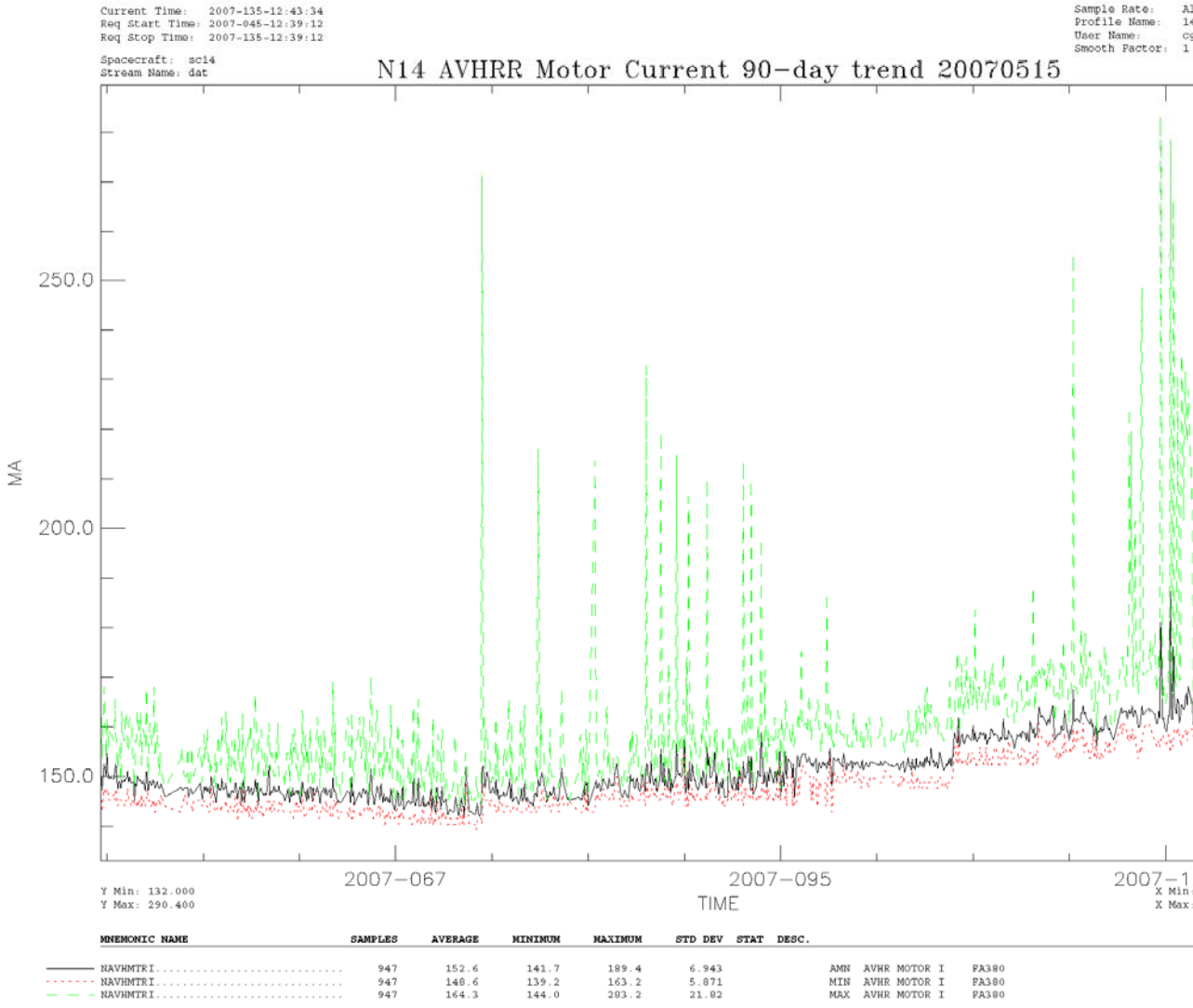

Figure 2: NOAA-15 AVHRR Scan Motor Current

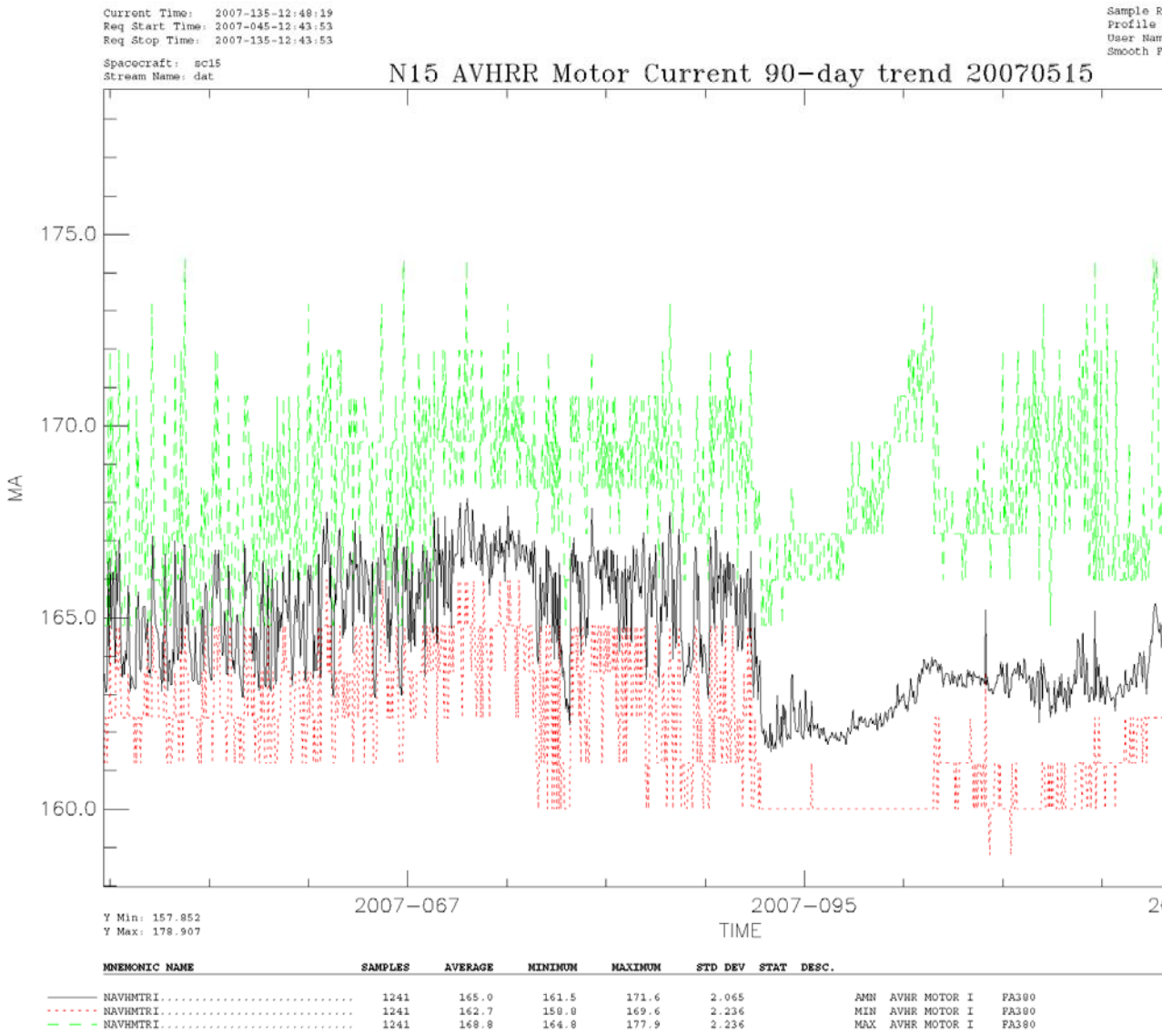

Figure 3: NOAA-18 HIRS Scan Mirror Temperature and Scan Motor Current