**IBEX Goat Herder 7-12 Apr 18**

The Perigee contacts for Orbit# 402 were nominal for commands/telemetry and the sun maneuver successful

Two RAZORS were opened

* **RAZOR# 638** Star Tracker Reset
  + Star Tracker reset on 6 Apr 18 @1455 UTC
  + Standing CAR# 344 Reset FDC Totals and Response Latch Totals was executed
* **RAZOR# 637** NX Client Failed on MAESTRO01 server 7 Apr 18
  + NX client failed on the MAESTRO01 server just before the science team could remote in to view telemetry and change the star sensor telemetry rates
  + After recovering from the Star Tracker reset, we failed over to CMD3 and MAESTRO03 server to change the star sensor telemetry rates.
  + The switch over was a success.

The Apogee contact for Orbit# 403 was nominal for command/telemetry and the inertial maneuver successful.

***Date*** ***Jday*** ***Time***  ***Station*** ***Razor#*** ***USNPR#*** ***PASS/FAIL***

**Saturday, April 07, 2018** 097 1300 AUWA 637/6 Pass

***Controller*** ***CAR1*** ***CAR2*** ***CAR3*** ***Radius Earth*** ***S-Band Rate*** ***Station PWR***

SWesley 344 968 11 desc 40ksps 155 watts

***EBNO Values*** ***EBNO Values 3*** ***AGC Strength***

***EBNO Values 2*** ***AGC Strength 2***

***VC 0*** ***VC 0 Seq Err*** ***VC 1*** ***VC 1 Seq Err***  ***VC 2*** ***VC 2 Seq Err***

1691 6 1412 30 0 0

***VC 2 Write Pointer Start*** 3406 ***VC 2 Write Pointer End*** 3455

***VC 2 Read Pointer Start*** 38791 ***VC 2 Read Pointer End*** 38791

Orbit# 402 Perigee Tracking Contact

reset\_master\_timer.scr

ops\_set\_sc\_time.scr/@FTG\_DumpBAckorbit (from start,0,0,0)

CAR# 344 Reset FDC Totals and Response Latch Totals

S924-OP31210 Reset ACE FDC Latch Operating Procedure

ACT\_ResetRespReqLatch(AC\_FDC,FDC\_STA,FDC\_STA\_STALETEST

ACT\_ResetRespReqLatch(AC\_FDC,FDC\_STA,FDC\_STA\_NOSOLUTIONTEST)

S924-OP31211 Reset ACS FDC Totals

ACT\_ResetTaskRawFailed (AC\_FDC)

CAR# 968 Change star sensor telemetry rate to nominal rate

%constraint off

%conversion off

%constraint on

%conversion on

@CEU\_SET\_PARAMETER 64, LO\_STAR\_HISTO\_CADENCE

@CEU\_SET\_PARAMETER 123, ROUND\_ROBIN\_START

@CEU\_SET\_PARAMETER 123, ROUND\_ROBIN\_END

@CEU\_SET\_PARAMETER 3, ROUND\_ROBIN\_START

@CEU\_SET\_PARAMETER 3, ROUND\_ROBIN\_END

@CEU\_SET\_PARAMETER 0, ROUND\_ROBIN\_START

@CEU\_SET\_PARAMETER 128, ROUND\_ROBIN\_END

IBEX Orbit# 402 PERIGEE Target Vectors

CSS Angle TLM 0.397129

CSS Sun-Pointing Angle 0.794258

3 Apr 18 @1400

CSS Angle TLM 0.26432

CSS Sun-Pointing Angle 0.52864

7 Apr 18 @1300

Pre-Burn

Thruster 1 2080 3 Apr 18 @1400

Thruster 2 2000

Thruster 3 2384

Thruster 4 2464

Post-Burn

Thruster 1 2224 7 Apr 18 @1300

Thruster 2 2144

Thruster 3 2560

Thruster 4 2640

Number of Pulses

Thruster 1 144

Thruster 2 144

Thruster 3 176

Thruster 4 176

Thruster Pairs

Thruster 1 & 2 288

Thruster 3 & 4 352

***Date*** ***Jday*** ***Time***  ***Station*** ***Razor#*** ***USNPR#*** ***PASS/FAIL***

**Saturday, April 07, 2018** 097 2230 USAK

***Controller*** ***CAR1*** ***CAR2*** ***CAR3*** ***Radius Earth*** ***S-Band Rate*** ***Station PWR***

SWesley 967 12 asc 160ksps 284 watts

***EBNO Values*** ***EBNO Values 3*** ***AGC Strength***

***EBNO Values 2*** ***AGC Strength 2***

***VC 0*** ***VC 0 Seq Err*** ***VC 1*** ***VC 1 Seq Err***  ***VC 2*** ***VC 2 Seq Err***

1627 2 0 0 30562 0

***VC 2 Write Pointer Start*** 3813 ***VC 2 Write Pointer End*** 3865

***VC 2 Read Pointer Start*** 38791 ***VC 2 Read Pointer End*** 3817

Orbit# 402 SSR\_Dump/Tracking Contact

@FMI\_SetDownlink(320ksps)

SSR\_Dump.scr(new) CAR# 967 Upload Orbit# 404 ATS 1.IBEX\_2018\_106\_o0404a\_v002.scr (964-61)

stx,off

***Date*** ***Jday*** ***Time***  ***Station*** ***Razor#*** ***USNPR#*** ***PASS/FAIL***

**Thursday, April 12, 2018** 102 1300 USHI02 Pass

***Controller*** ***CAR1*** ***CAR2*** ***CAR3*** ***Radius Earth*** ***S-Band Rate*** ***Station PWR***

SWesley Apogee 2ksps 205 watts

***EBNO Values*** ***EBNO Values 3*** ***AGC Strength***

***EBNO Values 2*** ***AGC Strength 2***

***VC 0*** ***VC 0 Seq Err*** ***VC 1*** ***VC 1 Seq Err***  ***VC 2*** ***VC 2 Seq Err***

649 4 1435 32 0 0

***VC 2 Write Pointer Start*** 17315 ***VC 2 Write Pointer End*** 17392

***VC 2 Read Pointer Start*** 3817 ***VC 2 Read Pointer End*** 3817

Orbit# 403 Apogee Tracking Contact

@FMI\_SetDownlink(40ksps)

FTG\_DumpBAckorbit (from start,0,0,0,0)

IBEX Orbit# 403 APOGEE Target Vectors

J2000 Spin Axis

ECI X 0.943948

ECI Y 0.301887

ECI Z 0.133520

Precession Maneuver

MPS Diff 0.814 deg

MPS Diff should be < 1.5

Right Ascension - RA 17.735 deg

Declination - DEC 7.673 deg

IBEX Spin Axis vs. Sun Vector

IBEX Sun Angle -3.388 deg

0.14281100 ActNor.EstInrToBdy[0]

0.64253000 ActNor.EstInrToBdy[1]

0.37944000 ActNor.EstInrToBdy[2]

0.65021900 ActNor.EstInrToBdy[3]

1207580000.000 ActNor.EstTime

MPS Generated APOGEE Target Vectors

MPS Cmd Vector X 0.941803000

MPS Cmd Vector Y 0.312384000

MPS Cmd Vector Z 0.124190000

CSS Angle TLM 0.26432

CSS Sun-Pointing Angle 0.52864

7 Apr 18 @1300

CSS Angle TLM 0.731268

CSS Sun-Pointing Angle 1.462536

12 Apr 18 @1300

Pre-Burn

Thruster 1 2224 7 Apr 18 @1300

Thruster 2 2144

Thruster 3 2560

Thruster 4 2640

Post-Burn

Thruster 1 2496 12 Apr 18 @1300

Thruster 2 2416

Thruster 3 2832

Thruster 4 2912

Number of Pulses

Thruster 1 272

Thruster 2 272

Thruster 3 272

Thruster 4 272

Thruster Pairs

Thruster 1 & 2 544

Thruster 3 & 4 544