**IBEX Goat Herder 19 June - 25 June 18**

Orbit# 410 PERIGEE (19 – 20 June 18)

The perigee contacts were nominal for command/telemetry and the inertial maneuver successful.

We experienced an ACE Reset on 17 June 18 and recovered on 19 June during the SSR\_Dump contact. CAR# 980 was issued to re-enable the FDC responses.

RAZOR# 642 was issued for the ACE Reset.

We successfully loaded the sweep tables for the orbit 411 Hi Background Test, and it will run for one full Orbit. (Orbit# 411). The Hi normal sweep table will be reloaded on June 29 (end of Orbit# 411).

Orbit# 411 APOGEE (25 June 18)

The apogee contact was nominal for command/telemetry and the inertial maneuver successful.

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

**Tuesday, June 19, 2018** 170 2145 USHI02 Pass

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

SWesley 980 979 12 desc 160ksps 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***

1910 2 1307 0 25082 0

***VC 2 Write Pointer Start*** 31579 ***VC 2 Write Pointer End*** 31638

***VC 2 Read Pointer Start*** 6500 ***VC 2 Read Pointer End*** 31582

Orbit#411 SSR\_Dump/Tracking Contact

@FMI\_SetDownlink(320k)

SSR\_Dump.scr (new)

CAR# 979 Upload Orbit# 412 ATS 1.IBEX\_2018\_180\_o0412a\_v001 (812-915)

CAR# 980 ACE Reset Recovery 1.FDC\_Enable\_disable.scr(as whole,enable)

reset\_master\_timer.scr

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

IBEX Orbit# 410 PERIGEE Target Vectors 19 June 18 @2145 UTC

CSS Angle TLM

CSS Sun-Pointing Angle 0

CSS Angle TLM 0.389668

CSS Sun-Pointing Angle 0.779336

19 June18 @2145

Pre-Burn

Thruster 1

Thruster 2

Thruster 3

Thruster 4

Post-Burn

Thruster 1 272 19 June18 @2145

Thruster 2 272

Thruster 3 304

Thruster 4 304

Number of Pulses

Thruster 1 272

Thruster 2 272

Thruster 3 304

Thruster 4 304

Thruster Pairs

Thruster 1 & 2 544

Thruster 3 & 4 608

MPS Generated PERIGEE Target Vectors

MPS Cmd Vector X 0.066062000

MPS Cmd Vector Y 0.919133000

MPS Cmd Vector Z 0.388368000

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

**Wednesday, June 20, 2018** 171 1245 USAK Pass

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

SWesley 978 15 asc 40ksps 195 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***

714 5 1424 29 0 0

***VC 2 Write Pointer Start*** 32384 ***VC 2 Write Pointer End*** 32474

***VC 2 Read Pointer Start*** 31582 ***VC 2 Read Pointer End*** 31582

Orbit# 410 Tracking Contact

CAR# 978 IBEX\_Hi Background Test and Lo Magneto tail season

@CEU\_MODE(HVENG)

@CEU\_MODE(HVSTANDBY)

sweep\_table\_upload\_160922.scr (Table\_hi\_023456\_Background)

@CEU\_MODE(HVENG)

@CEU\_MODE(HVSCI)

@FTG\_Dumpbackorbit(from start,0,0,0,0)

stx,off

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

**Monday, June 25, 2018** 176 1400 USHI02 Pass

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

SWesley 45 desc 2ksps 238 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***

234 4 0 0 0 0

***VC 2 Write Pointer Start*** 45951 ***VC 2 Write Pointer End*** 46011

***VC 2 Read Pointer Start*** 31582 ***VC 2 Read Pointer End*** 31582

Orbit# 411 Apogee Tracking Contact

@FMI\_SetDownlink(40k)

@FMI\_SetDownlink (2k)

IBEX Orbit# 411 APOGEE Target Vectors 25 Jun 18 @1400 UTC

J2000 Spin Axis

ECI X -0.000231

ECI Y 0.916815

ECI Z 0.399313

Precession Maneuver

MPS Diff 0.864 deg

\*MPS Diff should be < 1.5\*

Right Ascension - RA 90.014 deg

Declination - DEC 23.535 deg

IBEX Spin Axis vs. Sun Vector

IBEX Sun Angle -3.977 deg

-0.05090410 ActNor.EstInrToBdy[0]

-0.54566700 ActNor.EstInrToBdy[1]

-0.83281900 ActNor.EstInrToBdy[2]

0.07790320 ActNor.EstInrToBdy[3]

1213971068.000 ActNor.EstTime

MPS Generated APOGEE Target Vectors

MPS Cmd Vector X -0.009425000

MPS Cmd Vector Y 0.921504000

MPS Cmd Vector Z 0.388256000

CSS Angle TLM 0.389668

CSS Sun-Pointing Angle 0.779336

19 June18 @2145

CSS Angle TLM 0.919623

CSS Sun-Pointing Angle 1.839246

25 June18 @1415

Pre-Burn

Thruster 1 272 19 June18 @2145

Thruster 2 272

Thruster 3 304

Thruster 4 304

Post-Burn

Thruster 1 544 25 June18 @1415

Thruster 2 544

Thruster 3 592

Thruster 4 592

Number of Pulses

Thruster 1 272

Thruster 2 272

Thruster 3 288

Thruster 4 288

Thruster Pairs

Thruster 1 & 2 544

Thruster 3 & 4 576