

# XRT Timeline to be uploaded on 2019/10/03

Period: 2019/10/03 10:42:00 - 2019/10/08 10:53:00

\* \* \* \* \*

Normal mode

\* \* \* \* \*

## XOB #1BDB: AR (Filter-Ratio with Al/poly and thin-Be) with PFB, 512x512 at 1064 1048, thick-Al context, with G-band (1ms/1ms leak), 120s cad

| Term                            | Pointing (x, y)                         | Comment   |
|---------------------------------|---|---|
| 10/03 10:55:00 - 10/03 13:29:54 | Fixed ( 600.0, -731.0)                  | # OP start + 10min / HOP 373 with THEMIS prominence S35 |
| 10/03 13:33:00 - 10/03 17:57:24 | Track ( -413.0, 524.2) @ 10/03 13:30:00 | HOP 373 with THEMIS filament                            |

**PROG= 11 Inf.-time(s)**

| Subr= 1         | 1-time(s)           | 2.0sec          |         |                      |      |   |   |        |  |  |  |  |
|-----------------|---------------------|-----------------|---------|----------------------|------|---|---|--------|--|--|--|--|
| <b>Seqn= 92</b> | <b>1-time(s)</b>    | <b>2.0sec</b>   |         |                      |      |   |   |        |  |  |  |  |
| Open/G-band     | Open/G-band open    | Safe Norm 1ms   | Obs 1x1 | 384x384 (1064, 1048) | DPCM | 0 | 0 | 2.0sec |  |  |  |  |
| Open/G-band     | Open/G-band close   | Safe Norm 1ms   | Obs 1x1 | 384x384 (1064, 1048) | DPCM | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Ti-poly    | Open/thick-Al close | Safe Dark 16.0s | Obs 1x1 | 384x384 (1064, 1048) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| <b>Seqn= 71</b> | <b>3-time(s)</b>    | <b>2.0sec</b>   |         |                      |      |   |   |        |  |  |  |  |
| Open/thick-Al   | Open/thick-Be close | Safe Norm 16.0s | Obs 1x1 | 512x512 (1064, 1048) | Q=98 | 3 | 0 | 2.0sec |  |  |  |  |
| <b>Subr= 2</b>  | <b>30-time(s)</b>   | <b>120.0sec</b> |         |                      |      |   |   |        |  |  |  |  |
| <b>Seqn= 15</b> | <b>1-time(s)</b>    | <b>40.0sec</b>  |         |                      |      |   |   |        |  |  |  |  |
| thin-Be/Open    | med-Be/Open close   | Safe Norm 1.00s | Obs 1x1 | 512x512 (1064, 1048) | Q=95 | 2 | 0 | 2.0sec |  |  |  |  |
| Al-poly/Open    | thin-Be/Open close  | Safe Norm 500ms | Obs 1x1 | 512x512 (1064, 1048) | Q=95 | 2 | 0 | 2.0sec |  |  |  |  |
| <b>Seqn= 58</b> | <b>1-time(s)</b>    | <b>40.0sec</b>  |         |                      |      |   |   |        |  |  |  |  |
| Al-poly/Open    | thin-Be/Open close  | Safe Norm 500ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 3 | 1 | 2.0sec |  |  |  |  |
| thin-Be/Open    | med-Be/Open close   | Safe Norm 1.00s | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 3 | 1 | 2.0sec |  |  |  |  |
| <b>Seqn= 48</b> | <b>1-time(s)</b>    | <b>2.0sec</b>   |         |                      |      |   |   |        |  |  |  |  |
| Al-poly/Open    | thin-Be/Open close  | Safe Norm 500ms | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 3 | 2 | 2.0sec |  |  |  |  |
| thin-Be/Open    | med-Be/Open close   | Safe Norm 1.00s | Obs 1x1 | 384x384 (1064, 1048) | Q=95 | 3 | 2 | 2.0sec |  |  |  |  |

| Default Filter | Thicker Filter | VLS | mode | image | Exp. | CCD | Bin | ROI: size (center) | Comp. | AEC Buffer | Interval |
|----------------|----------------|-----|------|-------|------|-----|-----|--------------------|-------|------------|----------|
|----------------|----------------|-----|------|-------|------|-----|-----|--------------------|-------|------------|----------|

## XOB #1B8D: Synoptic 7 Filter w/ Al-mesh(24/256/2897), Al-poly(45/512/4096), Thin-Be(512/8192/23142) - Thick-Be(65536), Al-poly+Ti-poly(256/5795), Med-A

| Term                            | Pointing (x, y)   | Comment                    |
|---------------------------------|-------------------|----------------------------|
| 10/03 18:00:30 - 10/03 18:07:24 | Fixed ( 0.0, 0.0) | synoptic, shifted -2.5 min |

**PROG= 07 1-time(s)**

| Subr= 1         | 1-time(s)              | 2.0sec          |         |                        |      |   |   |        |  |  |  |  |
|-----------------|------------------------|-----------------|---------|------------------------|------|---|---|--------|--|--|--|--|
| <b>Seqn= 5</b>  | <b>1-time(s)</b>       | <b>2.0sec</b>   |         |                        |      |   |   |        |  |  |  |  |
| Open/Ti-poly    | Open/thick-Al close    | Safe Dark 500ms | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Ti-poly    | Open/thick-Al close    | Safe Dark 500ms | Obs 4x4 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Ti-poly    | Open/thick-Al close    | Safe Dark 500ms | Obs 8x8 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Ti-poly    | Open/thick-Al close    | Safe Dark 500ms | Obs 1x1 | 2048x512 (1024, 1024)  | DPCM | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Ti-poly    | Open/thick-Al close    | Safe Dark 500ms | Obs 1x1 | 512x2048 (1024, 1024)  | DPCM | 0 | 0 | 2.0sec |  |  |  |  |
| <b>Seqn= 1</b>  | <b>1-time(s)</b>       | <b>2.0sec</b>   |         |                        |      |   |   |        |  |  |  |  |
| Open/Al-mesh    | Open/Al-mesh close     | Safe Norm 24ms  | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Al-mesh    | Open/Al-mesh close     | Safe Norm 250ms | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/Al-mesh    | Open/Al-mesh close     | Safe Norm 2.83s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| <b>Seqn= 99</b> | <b>1-time(s)</b>       | <b>2.0sec</b>   |         |                        |      |   |   |        |  |  |  |  |
| Al-poly/Open    | Al-poly/Open close     | Safe Norm 44ms  | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Al-poly/Open    | Al-poly/Open close     | Safe Norm 500ms | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| Al-poly/Open    | Al-poly/thick-Al close | Safe Norm 4.00s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| <b>Seqn= 54</b> | <b>1-time(s)</b>       | <b>2.0sec</b>   |         |                        |      |   |   |        |  |  |  |  |
| thin-Be/Open    | thin-Be/Open close     | Safe Norm 500ms | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| thin-Be/Open    | thin-Be/Open close     | Safe Norm 8.00s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| thin-Be/Open    | thin-Be/Open close     | Safe Norm 22.6s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| <b>Seqn= 23</b> | <b>1-time(s)</b>       | <b>4.0sec</b>   |         |                        |      |   |   |        |  |  |  |  |
| Open/G-band     | Open/G-band open       | Safe Norm 1ms   | Obs 1x1 | 2048x2048 (1024, 1024) | Q=90 | 0 | 0 | 2.0sec |  |  |  |  |
| Open/G-band     | Open/G-band close      | Safe Norm 1ms   | Obs 1x1 | 2048x2048 (1024, 1024) | Q=95 | 0 | 0 | 2.0sec |  |  |  |  |
| <b>Subr= 2</b>  | <b>1-time(s)</b>       | <b>2.0sec</b>   |         |                        |      |   |   |        |  |  |  |  |
| <b>Seqn= 46</b> | <b>1-time(s)</b>       | <b>2.0sec</b>   |         |                        |      |   |   |        |  |  |  |  |
| Open/thick-Be   | Open/thick-Be close    | Safe Norm 64.0s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| <b>Seqn= 55</b> | <b>1-time(s)</b>       | <b>2.0sec</b>   |         |                        |      |   |   |        |  |  |  |  |
| med-Al/Open     | med-Al/Open close      | Safe Norm 4.00s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| med-Al/Open     | med-Al/Open close      | Safe Norm 64.0s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| <b>Seqn= 40</b> | <b>1-time(s)</b>       | <b>2.0sec</b>   |         |                        |      |   |   |        |  |  |  |  |
| Al-poly/Ti-poly | Al-poly/thick-Al close | Safe Norm 250ms | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |
| Al-poly/Ti-poly | Al-poly/thick-Al close | Safe Norm 5.66s | Obs 2x2 | 2048x2048 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |  |

| Default Filter | Thicker Filter | VLS | mode | image | Exp. | CCD | Bin | ROI: size (center) | Comp. | AEC Buffer | Interval |
|----------------|----------------|-----|------|-------|------|-----|-----|--------------------|-------|------------|----------|
|----------------|----------------|-----|------|-------|------|-----|-----|--------------------|-------|------------|----------|

## XOB #1BC4: AR (Filter-Ratio with Al/poly and thin-Be) with PFB, 512x512 at 1064 1048, thick-Al context, with G-band (1ms/1ms leak), 90s cad

| Term                            | Pointing (x, y)                          | Comment  |
|---------------------------------|--|----------|
| 10/03 18:10:30 - 10/04 01:59:54 | Track ( -614.5, -280.0) @ 10/03 18:07:30 | AR 12749 |
| 10/04 06:42:30 - 10/04 10:53:30 | Track ( -520.9, -287.4) @ 10/04 06:39:30 | AR 12749 |
| 10/04 16:40:00 - 10/04 17:52:00 | Track ( -444.0, -292.0) @ 10/04 16:16:00 | AR 12749 |
| 10/04 18:28:30 - 10/05 01:47:00 | Track ( -426.2, -293.0) @ 10/04 18:25:30 | AR 12749 |
| 10/05 06:13:00 - 10/05 09:48:30 | Track ( -326.5, -297.3) @ 10/05 06:10:00 | AR 12749 |

**PROG= 03 Inf.-time(s)**

| Subr= 1         | 1-time(s)        | 2.0sec        |         |                      |      |   |   |        |  |  |  |  |
|-----------------|------------------|---------------|---------|----------------------|------|---|---|--------|--|--|--|--|
| <b>Seqn= 92</b> | <b>1-time(s)</b> | <b>2.0sec</b> |         |                      |      |   |   |        |  |  |  |  |
| Open/G-band     | Open/G-band open | Safe Norm 1ms | Obs 1x1 | 384x384 (1064, 1048) | DPCM | 0 | 0 | 2.0sec |  |  |  |  |

|                 |                |                   |                |       |       |     |     |                      |       |            |          |        |
|-----------------|----------------|-------------------|----------------|-------|-------|-----|-----|----------------------|-------|------------|----------|--------|
| Open/G-band     | Open/G-band    | close             | Safe           | Norm  | 1ms   | Obs | 1x1 | 384x384 (1064, 1048) | DPCM  | 0          | 0        | 2.0sec |
| Open/Ti-poly    | Open/thick-Al  | close             | Safe           | Dark  | 16.0s | Obs | 1x1 | 384x384 (1064, 1048) | Q=98  | 0          | 0        | 2.0sec |
| <b>Seqn= 71</b> |                | <b>3-time(s)</b>  | <b>2.0sec</b>  |       |       |     |     |                      |       |            |          |        |
| Open/thick-Al   | Open/thick-Be  | close             | Safe           | Norm  | 16.0s | Obs | 1x1 | 512x512 (1064, 1048) | Q=98  | 3          | 0        | 2.0sec |
| <b>Subr= 2</b>  |                | <b>30-time(s)</b> | <b>90.0sec</b> |       |       |     |     |                      |       |            |          |        |
| <b>Seqn= 15</b> |                | <b>1-time(s)</b>  | <b>24.0sec</b> |       |       |     |     |                      |       |            |          |        |
| thin-Be/Open    | med-Be/Open    | close             | Safe           | Norm  | 1.00s | Obs | 1x1 | 512x512 (1064, 1048) | Q=95  | 2          | 0        | 2.0sec |
| Al-poly/Open    | thin-Be/Open   | close             | Safe           | Norm  | 500ms | Obs | 1x1 | 512x512 (1064, 1048) | Q=95  | 2          | 0        | 2.0sec |
| <b>Seqn= 58</b> |                | <b>1-time(s)</b>  | <b>24.0sec</b> |       |       |     |     |                      |       |            |          |        |
| Al-poly/Open    | thin-Be/Open   | close             | Safe           | Norm  | 500ms | Obs | 1x1 | 384x384 (1064, 1048) | Q=95  | 3          | 1        | 2.0sec |
| thin-Be/Open    | med-Be/Open    | close             | Safe           | Norm  | 1.00s | Obs | 1x1 | 384x384 (1064, 1048) | Q=95  | 3          | 1        | 2.0sec |
| <b>Seqn= 48</b> |                | <b>1-time(s)</b>  | <b>2.0sec</b>  |       |       |     |     |                      |       |            |          |        |
| Al-poly/Open    | thin-Be/Open   | close             | Safe           | Norm  | 500ms | Obs | 1x1 | 384x384 (1064, 1048) | Q=95  | 3          | 2        | 2.0sec |
| thin-Be/Open    | med-Be/Open    | close             | Safe           | Norm  | 1.00s | Obs | 1x1 | 384x384 (1064, 1048) | Q=95  | 3          | 2        | 2.0sec |
| Default Filter  | Thicker Filter | VLS               | mode           | image | Exp.  | CCD | Bin | ROI: size (center)   | Comp. | AEC Buffer | Interval |        |

**XOB #1C4D: HOP349 - 3-filter Synoptics (Al-mesh[128/1024/5795], Al-poly[256/4096/8192], thin-Be[2048/16384/32768] with 512x512 G-band+Leak(1064,1048)**

| Term                            | Pointing (x, y)   | Comment  |
|---------------------------------|-------------------|--|
| 10/04 02:03:00 - 10/04 06:29:24 | Fixed ( 0.0, 0.0) | HOP 349  |
| 10/05 02:04:30 - 10/05 05:59:54 | Fixed ( 0.0, 0.0) | HOP 349  |
| <b>PROG= 17 Inf-time(s)</b>     |                   |  |
| <b>Subr= 1</b>                  |                   | <b>1-time(s)</b> <b>300.0sec</b>   |
| <b>Seqn= 88</b>                 |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| Open/Al-mesh                    | Open/Al-mesh      | close Safe Norm 177ms Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| Open/Al-mesh                    | Open/Al-mesh      | close Safe Norm 1.00s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| Open/Al-mesh                    | Open/Al-mesh      | close Safe Norm 5.66s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| <b>Seqn= 50</b>                 |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| Al-poly/Open                    | Al-poly/Open      | close Safe Norm 250ms Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| Al-poly/Open                    | Al-poly/thick-Al  | close Safe Norm 4.00s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| Al-poly/Open                    | Al-poly/Open      | close Safe Norm 8.00s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| <b>Seqn= 56</b>                 |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| thin-Be/Open                    | thin-Be/Open      | close Safe Norm 2.00s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| thin-Be/Open                    | thin-Be/Open      | close Safe Norm 16.0s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| thin-Be/Open                    | thin-Be/Open      | close Safe Norm 32.0s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| <b>Seqn= 81</b>                 |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| Open/G-band                     | Open/G-band       | open Safe Norm 1ms Obs 1x1 512x512 (1064, 1048) Q=90 0 0 2.0sec          |
| Open/G-band                     | Open/G-band       | close Safe Norm 1ms Obs 1x1 512x512 (1064, 1048) Q=95 0 0 2.0sec         |
| <b>Subr= 2</b>                  |                   | <b>6-time(s)</b> <b>450.0sec</b>   |
| <b>Seqn= 8</b>                  |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| thin-Be/Open                    | med-Be/Open       | close Safe Norm 1.00s Obs 4x4 2048x2048 (1024, 1024) Q=98 3 0 2.0sec     |
| thin-Be/Open                    | med-Be/Open       | close Safe Norm 1.41s Obs 4x4 2048x2048 (1024, 1024) DPCM 2 0 2.0sec     |
| <b>Seqn= 6</b>                  |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| Al-poly/Open                    | Al-poly/Open      | close Safe Norm 125ms Obs 4x4 2048x2048 (1024, 1024) Q=98 3 0 2.0sec     |
| Al-poly/Open                    | Al-poly/Open      | close Safe Norm 1.00s Obs 4x4 2048x2048 (1024, 1024) DPCM 2 0 2.0sec     |
| <b>Seqn= 29</b>                 |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| Open/Al-mesh                    | Open/Al-mesh      | close Safe Norm 125ms Obs 4x4 2048x2048 (1024, 1024) Q=98 3 0 2.0sec     |
| Open/Al-mesh                    | Open/Al-mesh      | close Safe Norm 250ms Obs 4x4 2048x2048 (1024, 1024) Q=98 2 0 2.0sec     |
| Default Filter                  | Thicker Filter    | VLS mode image Exp. CCD Bin ROI: size (center) Comp. AEC Buffer Interval |

**XOB #1C53: Synoptic Q95 2x2 - Al/mesh(181/1024/5795) + Dark cal(2x2 4x4 8x8 512 Q98) + Dark cal(1x1 512x2048 - 1x1 2048x512) + Al-poly(256/2897/8192)**

| Term                            | Pointing (x, y)   | Comment  |
|---------------------------------|-------------------|--|
| 10/04 06:32:30 - 10/04 06:39:24 | Fixed ( 0.0, 0.0) | synoptic, shifted 29.5 min   |
| 10/04 18:18:30 - 10/04 18:25:24 | Fixed ( 0.0, 0.0) | synoptic, shifted 15.5 min   |
| 10/05 06:03:00 - 10/05 06:09:54 | Fixed ( 0.0, 0.0) | synoptic   |
| <b>PROG= 20 1-time(s)</b>       |                   |  |
| <b>Subr= 1</b>                  |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| <b>Seqn= 5</b>                  |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| Open/Ti-poly                    | Open/thick-Al     | close Safe Dark 500ms Obs 2x2 2048x2048 (1024, 1024) Q=98 0 0 2.0sec     |
| Open/Ti-poly                    | Open/thick-Al     | close Safe Dark 500ms Obs 4x4 2048x2048 (1024, 1024) Q=98 0 0 2.0sec     |
| Open/Ti-poly                    | Open/thick-Al     | close Safe Dark 500ms Obs 8x8 2048x2048 (1024, 1024) Q=98 0 0 2.0sec     |
| Open/Ti-poly                    | Open/thick-Al     | close Safe Dark 500ms Obs 1x1 2048x512 (1024, 1024) DPCM 0 0 2.0sec      |
| Open/Ti-poly                    | Open/thick-Al     | close Safe Dark 500ms Obs 1x1 512x2048 (1024, 1024) DPCM 0 0 2.0sec      |
| <b>Seqn= 88</b>                 |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| Open/Al-mesh                    | Open/Al-mesh      | close Safe Norm 177ms Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| Open/Al-mesh                    | Open/Al-mesh      | close Safe Norm 1.00s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| Open/Al-mesh                    | Open/Al-mesh      | close Safe Norm 5.66s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| <b>Seqn= 44</b>                 |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| Al-poly/Open                    | Al-poly/Open      | close Safe Norm 250ms Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| Al-poly/Open                    | Al-poly/Open      | close Safe Norm 2.83s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| Al-poly/Open                    | Al-poly/Open      | close Safe Norm 8.00s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| <b>Seqn= 52</b>                 |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| thin-Be/Open                    | thin-Be/Open      | close Safe Norm 2.83s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| thin-Be/Open                    | thin-Be/Open      | close Safe Norm 16.0s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| thin-Be/Open                    | thin-Be/Open      | close Safe Norm 32.0s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec     |
| <b>Seqn= 23</b>                 |                   | <b>1-time(s)</b> <b>2.0sec</b>   |
| Open/G-band                     | Open/G-band       | open Safe Norm 1ms Obs 1x1 2048x2048 (1024, 1024) Q=90 0 0 2.0sec        |
| Open/G-band                     | Open/G-band       | close Safe Norm 1ms Obs 1x1 2048x2048 (1024, 1024) Q=95 0 0 2.0sec       |
| Default Filter                  | Thicker Filter    | VLS mode image Exp. CCD Bin ROI: size (center) Comp. AEC Buffer Interval |

**XOB #1C5D: CME watch - 4x4 - AEC 2/3 - Al-poly - AEC2 - Be-thin - G-band (1x1,512x512,1ms) - Leak (1x1,512x512,1ms) - 360s cad (G-band/Leak first)**

| Term                            | Pointing (x, y)   | Comment                    |
|---------------------------------|---|----------------------------|
| 10/04 11:05:30 - 10/04 13:19:54 | Track ( 325.6, -521.3) @ 10/04 11:00:00   | EIS test run 1 for HOP 381 |
| 10/04 13:23:00 - 10/04 16:15:54 | Track ( 65.5, 325.7) @ 10/04 13:20:00   | EIS test run 2 for HOP 381 |
| <b>PROG= 01 Inf.-time(s)</b>    |   |                            |
| Subr= 1                         | 1-time(s) 2.0sec  |                            |
| Seqn= 30                        | 1-time(s) 2.0sec  |                            |
| Open/G-band                     | Open/G-band open Safe Norm 1ms Obs 1x1 512x512 (1024, 1024) Q=90 0 0 2.0sec             |                            |
| Open/G-band                     | Open/G-band close Safe Norm 1ms Obs 1x1 512x512 (1024, 1024) Q=95 0 0 2.0sec            |                            |
| Subr= 2                         | 10-time(s) 360.0sec   |                            |
| Seqn= 6                         | 1-time(s) 2.0sec  |                            |
| Al-poly/Open                    | Al-poly/Open close Safe Norm 125ms Obs 4x4 2048x2048 (1024, 1024) Q=98 3 0 2.0sec       |                            |
| Al-poly/Open                    | Al-poly/Open close Safe Norm 1.00s Obs 4x4 2048x2048 (1024, 1024) DPCM 2 0 2.0sec       |                            |
| Seqn= 83                        | 1-time(s) 2.0sec  |                            |
| thin-Be/Open                    | med-Be/Open close Safe Norm 1.41s Obs 4x4 2048x2048 (1024, 1024) Q=98 2 0 2.0sec        |                            |
| Default Filter                  | Thicker Filter VLS mode image Exp. CCD Bin ROI: size (center) Comp. AEC Buffer Interval |                            |

\* \* \* \* \* **Flare mode** \* \* \* \* \*

**XOB #1B8E: Flare - multifilter 26 sec cadence (Be/thin, Be/med, Al/thick), AEC 3(thin-Be AEC2), 384x384 + context (med-Al,thick-Be -384x384 + Al-poly 512x512)**

| Term                            | Pointing (x, y)                          | Comment   |
|---------------------------------|--|---|
| 10/03 10:55:00 - 10/03 13:29:54 | Fixed ( 600.0, -731.0)                   | # OP start + 10min / HOP 373 with THEMIS prominence S35 |
| 10/03 13:33:00 - 10/03 17:57:24 | Track ( -413.0, 524.2) @ 10/03 13:30:00  | HOP 373 with THEMIS filament                            |
| 10/03 18:10:30 - 10/04 01:59:54 | Track ( -614.5, -280.0) @ 10/03 18:07:30 | AR 12749  |
| 10/04 02:03:00 - 10/04 06:29:24 | Fixed ( 0.0, 0.0)                        | HOP 349   |
| 10/04 06:42:30 - 10/04 10:53:30 | Track ( -520.9, -287.4) @ 10/04 06:39:30 | AR 12749  |
| 10/04 11:05:30 - 10/04 13:19:54 | Track ( 325.6, -521.3) @ 10/04 11:00:00  | EIS test run 1 for HOP 381                              |
| 10/04 13:23:00 - 10/04 16:15:54 | Track ( 65.5, 325.7) @ 10/04 13:20:00    | EIS test run 2 for HOP 381                              |
| 10/04 16:40:00 - 10/04 17:52:00 | Track ( -444.0, -292.0) @ 10/04 16:16:00 | AR 12749  |
| 10/04 18:28:30 - 10/05 01:47:00 | Track ( -426.2, -293.0) @ 10/04 18:25:30 | AR 12749  |
| 10/05 02:04:30 - 10/05 05:59:54 | Fixed ( 0.0, 0.0)                        | HOP 349   |
| 10/05 06:13:00 - 10/05 09:48:30 | Track ( -326.5, -297.3) @ 10/05 06:10:00 | AR 12749  |

|                            |   |  |
|----------------------------|---|--|
| <b>PROG= 13 30-time(s)</b> |   |  |
| Subr= 1                    | 20-time(s) 2.0sec   |  |
| Seqn= 11                   | 1-time(s) 2.0sec  |  |
| Al-poly/Open               | Al-poly/thick-Al close Safe Norm 125ms Obs 2x2 512x512 (1024, 1024) Q=95 2 0 2.0sec     |  |
| Seqn= 100                  | 1-time(s) 10.0sec   |  |
| thin-Be/Open               | med-Be/Open close Safe Norm 125ms Obs 1x1 384x384 (1024, 1024) Q=95 2 0 2.0sec          |  |
| med-Be/Open                | Open/thick-Al close Safe Norm 250ms Obs 1x1 384x384 (1024, 1024) Q=95 3 0 2.0sec        |  |
| Open/thick-Al              | Open/thick-Be close Safe Norm 1.00s Obs 1x1 384x384 (1024, 1024) Q=95 3 0 2.0sec        |  |
| Subr= 2                    | 1-time(s) 2.0sec  |  |
| Seqn= 10                   | 1-time(s) 2.0sec  |  |
| med-Al/Open                | med-Al/thick-Al close Safe Norm 500ms Obs 1x1 384x384 (1024, 1024) Q=95 3 0 2.0sec      |  |
| Open/thick-Be              | Open/thick-Be close Safe Norm 2.00s Obs 1x1 384x384 (1024, 1024) Q=95 3 0 2.0sec        |  |
| Seqn= 11                   | 1-time(s) 2.0sec  |  |
| Al-poly/Open               | Al-poly/thick-Al close Safe Norm 125ms Obs 2x2 512x512 (1024, 1024) Q=95 2 0 2.0sec     |  |
| Seqn= 87                   | 1-time(s) 2.0sec  |  |
| Open/G-band                | Open/G-band open Safe Norm 1ms Obs 1x1 384x384 (1024, 1024) Q=98 0 0 2.0sec             |  |
| Open/G-band                | Open/G-band close Safe Norm 1ms Obs 1x1 384x384 (1024, 1024) Q=98 0 0 2.0sec            |  |
| Open/thick-Al              | Open/thick-Al close Safe Dark 1.00s Obs 1x1 384x384 (1024, 1024) Q=98 0 0 2.0sec        |  |
| Open/thick-Al              | Open/thick-Al close Safe Dark 1.00s Obs 2x2 512x512 (1024, 1024) Q=98 0 0 2.0sec        |  |
| Default Filter             | Thicker Filter VLS mode image Exp. CCD Bin ROI: size (center) Comp. AEC Buffer Interval |  |

\* \* \* \* \* **Active Region Search** \* \* \* \* \*

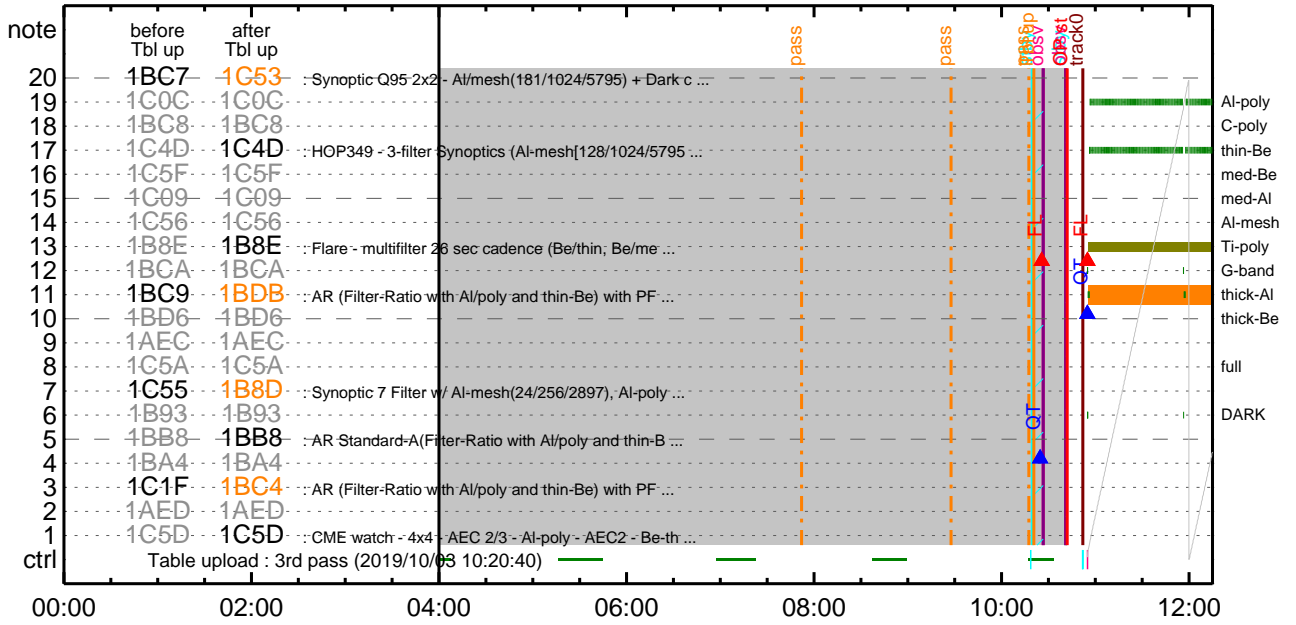
NOT USED

\* \* \* \* \* **Flare Detection** \* \* \* \* \*

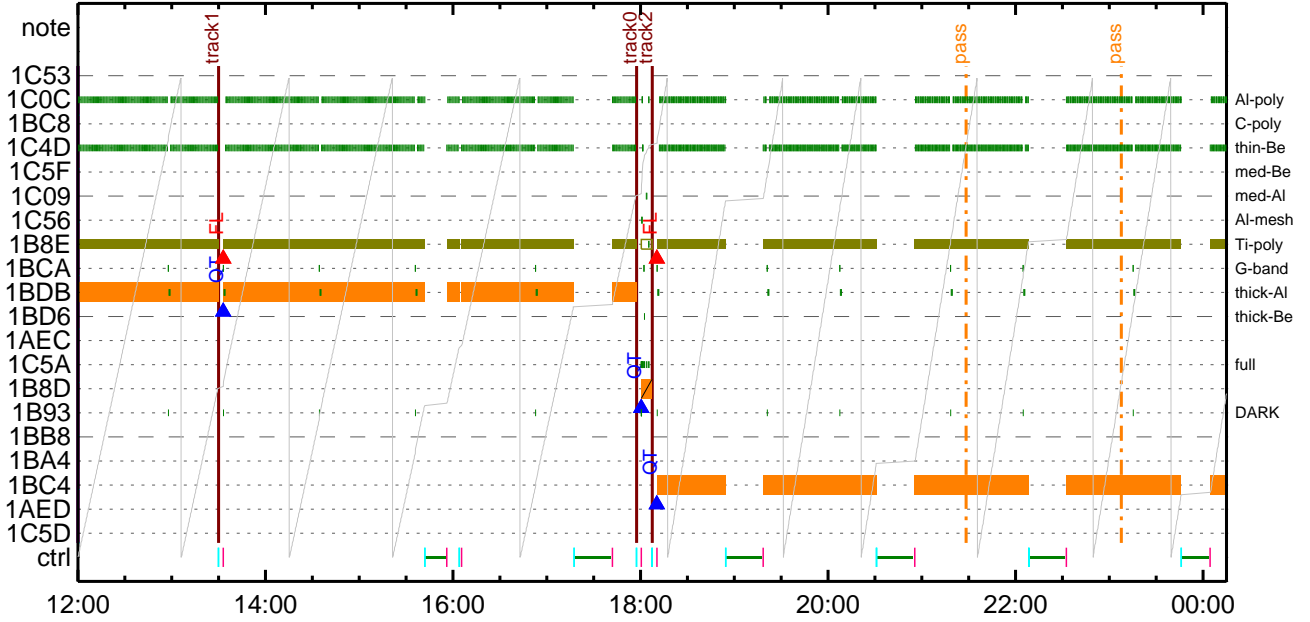
**FLD Patrol**

| Term                            | Pointing (x, y)   | Comment  |
|---------------------------------|---|----------|
| 10/03 18:07:48 - 10/04 06:29:48 | Track ( -614.5, -280.0) @ 10/03 18:07:30  | AR 12749 |
| 10/04 06:39:48 - 10/04 18:15:48 | Track ( -520.9, -287.4) @ 10/04 06:39:30  | AR 12749 |
| 10/04 18:25:48 - 10/05 06:00:18 | Track ( -426.2, -293.0) @ 10/04 18:25:30  | AR 12749 |
| 10/05 06:10:18 - 10/08 10:53:00 | Track ( -326.5, -297.3) @ 10/05 06:10:00  | AR 12749 |
| Al-poly/Open                    | Al-poly/Open close Safe Norm 8ms Obs 8x8 Q=50 30sec                                     |          |
| Default Filter                  | Thicker Filter VLS mode image Exp. CCD Bin ROI: size (center) Comp. AEC Buffer Interval |          |

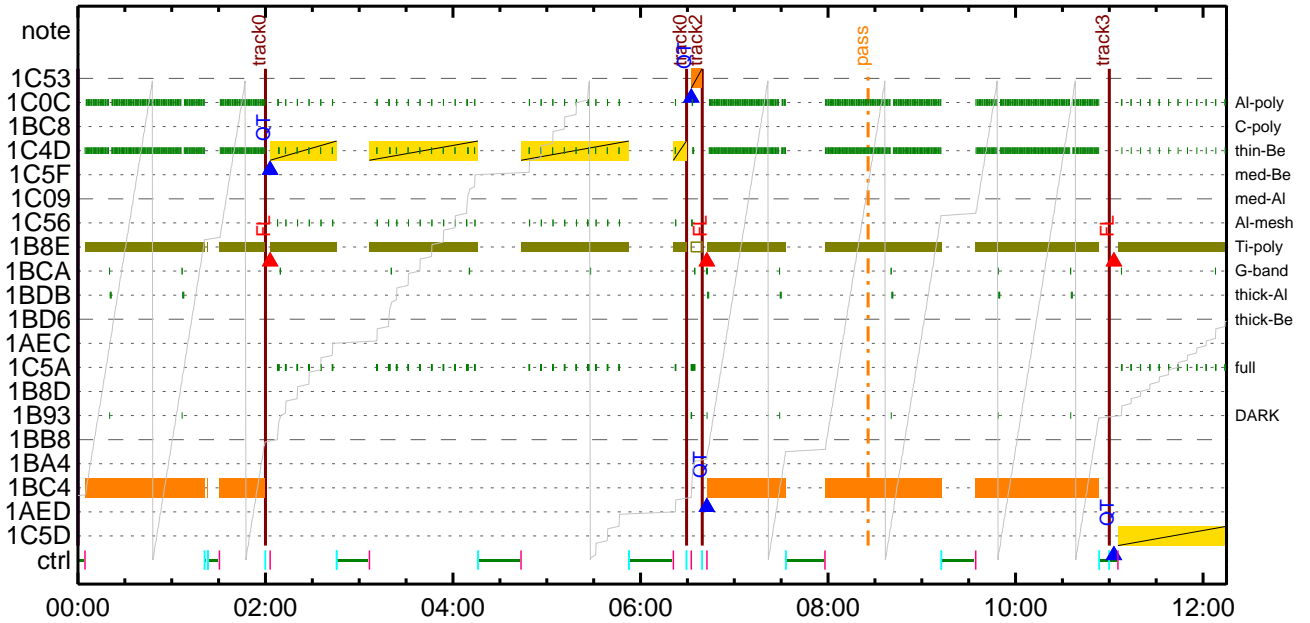
### CMDI #0513 2019/10/03



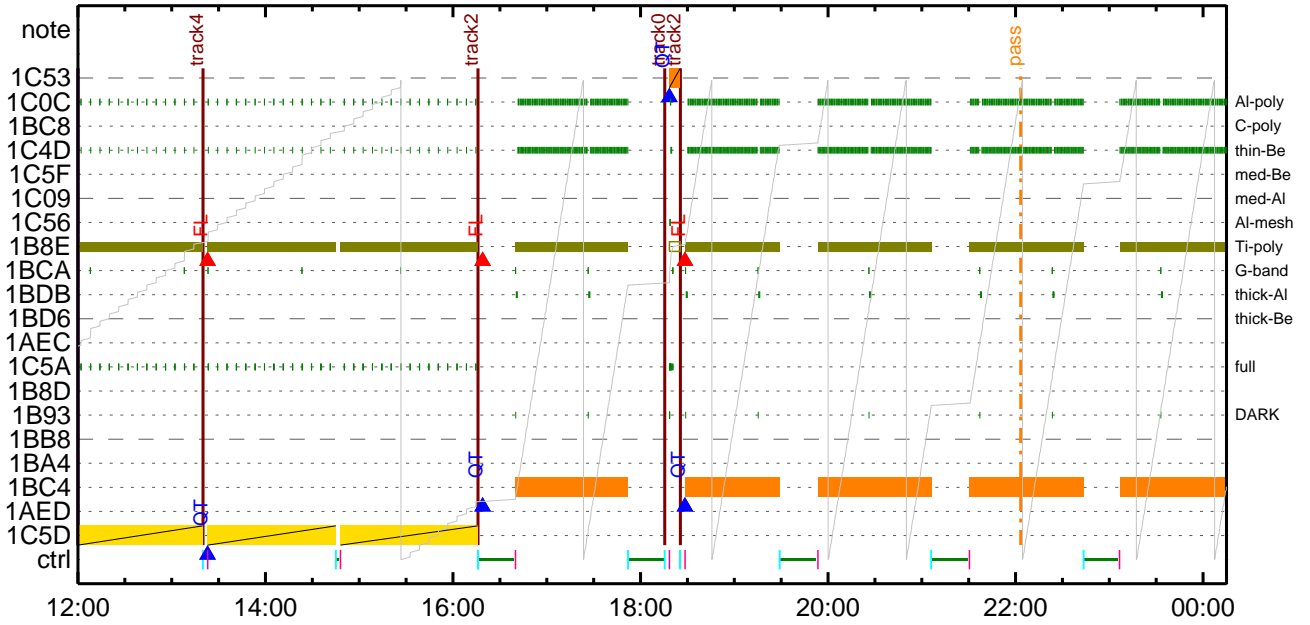
### CMDI #0513 2019/10/03



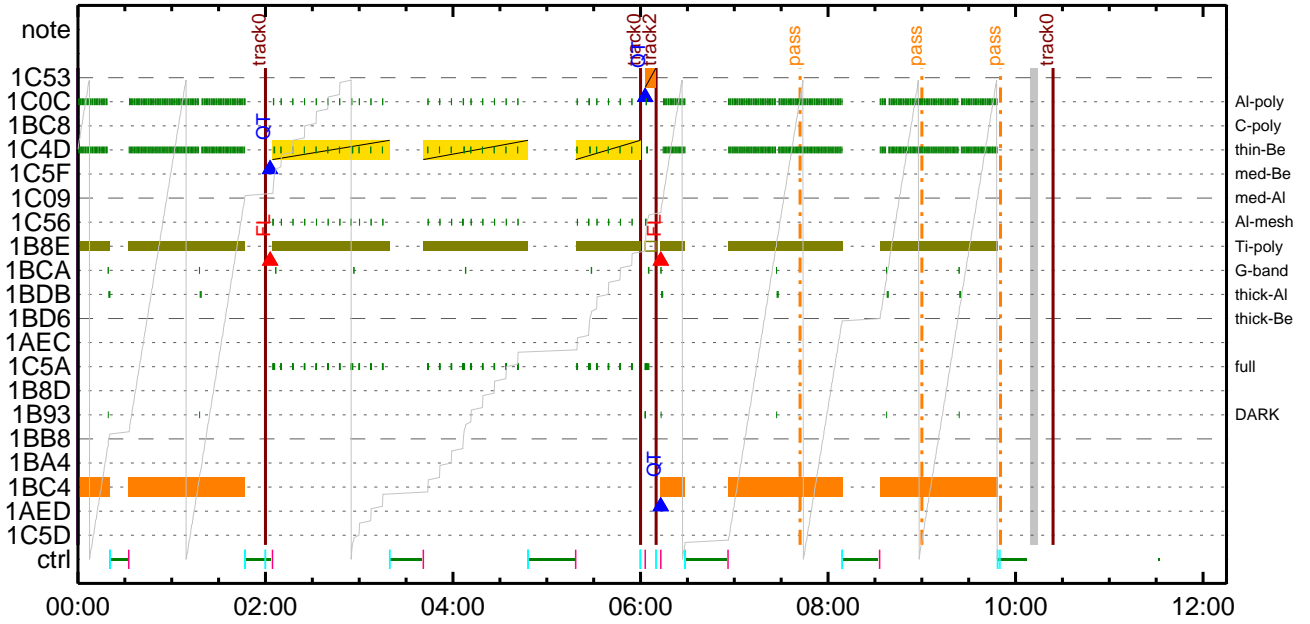
### CMDI #0513 2019/10/04



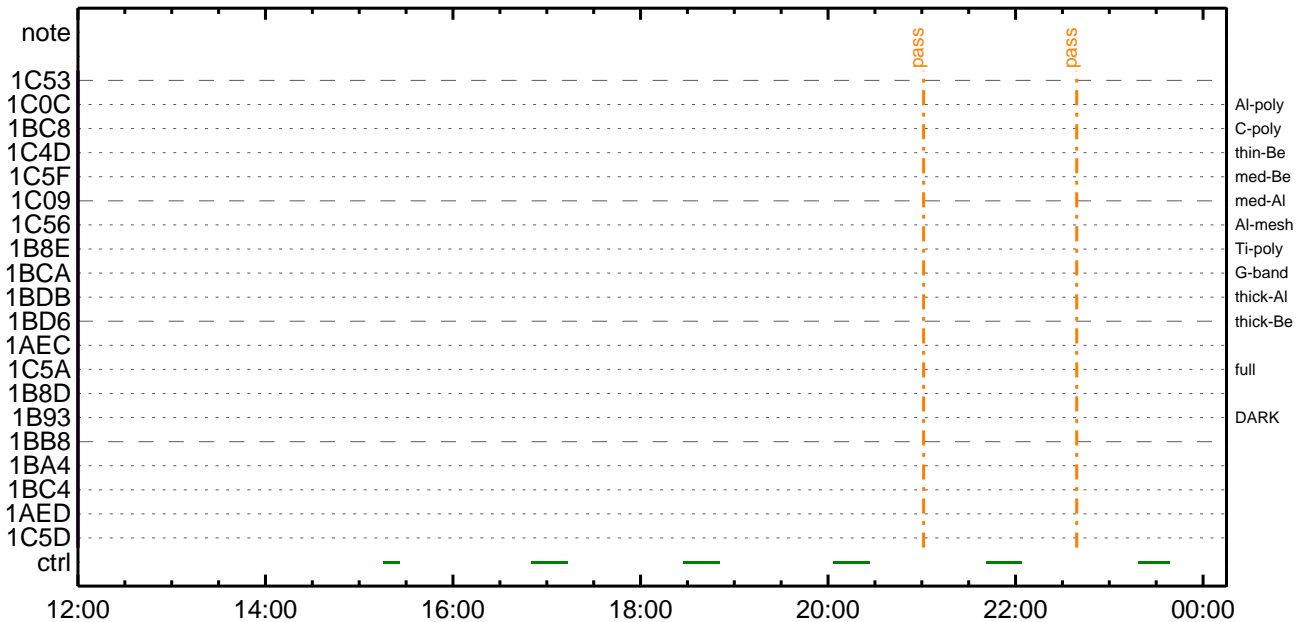
### CMDI #0513 2019/10/04



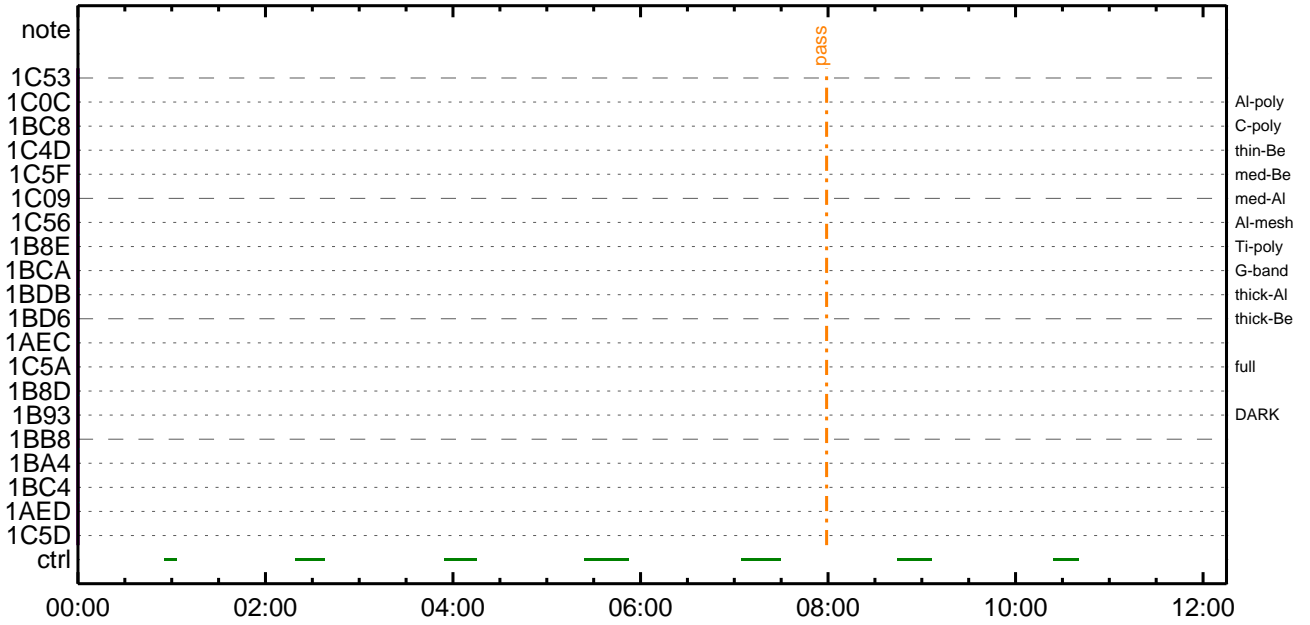
### CMDI #0513 2019/10/05



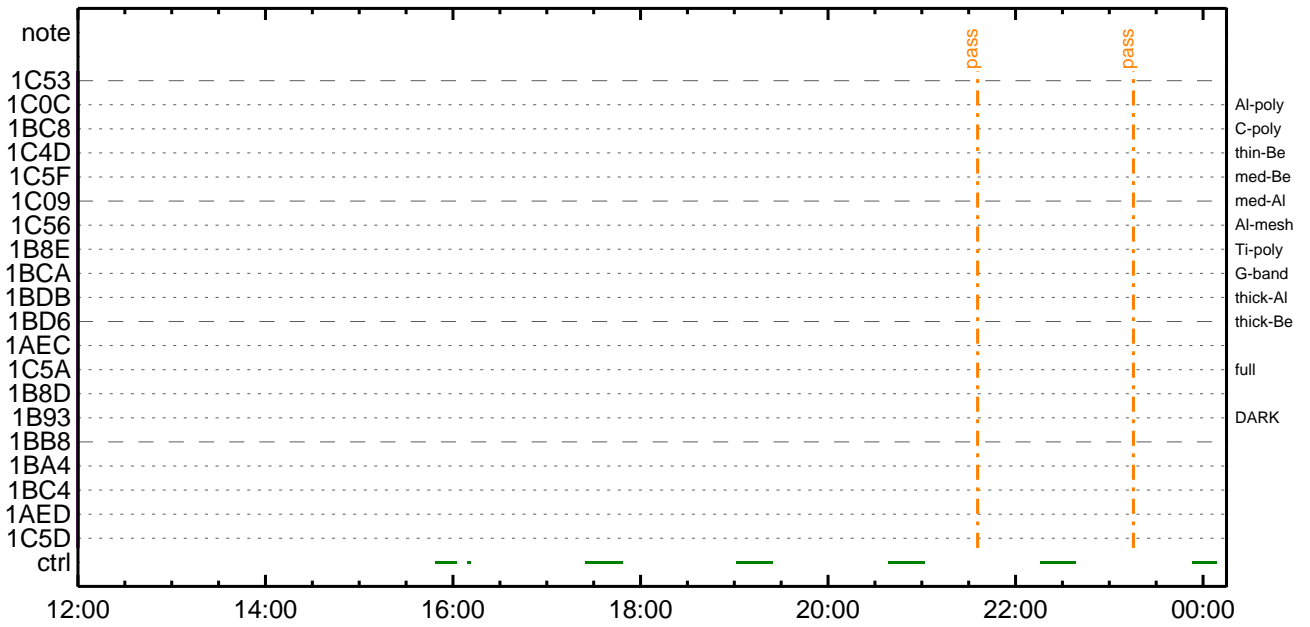
### CMDI #0513 2019/10/05



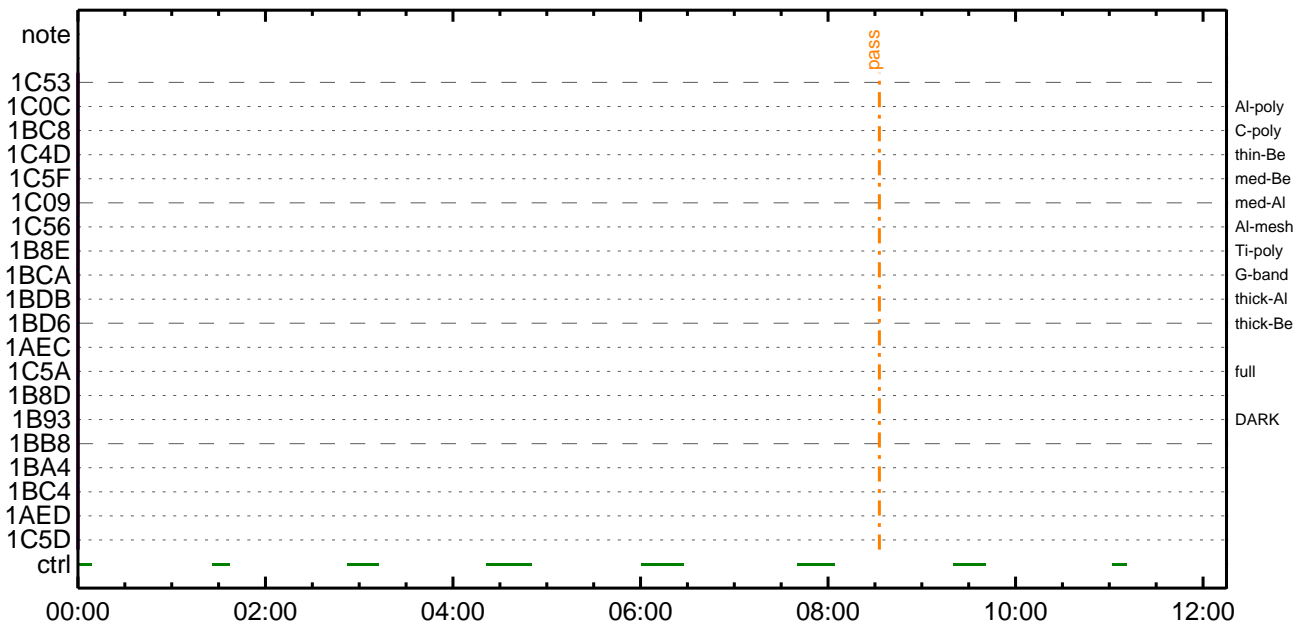
### CMDI #0513 2019/10/06



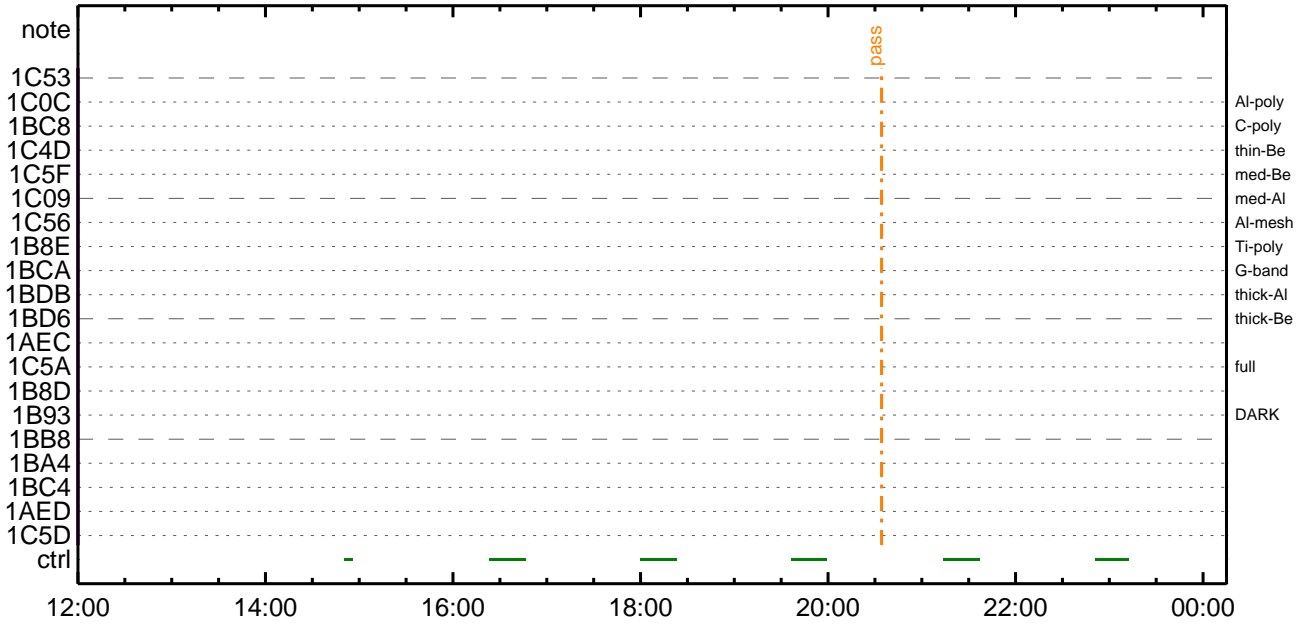
### CMDI #0513 2019/10/06



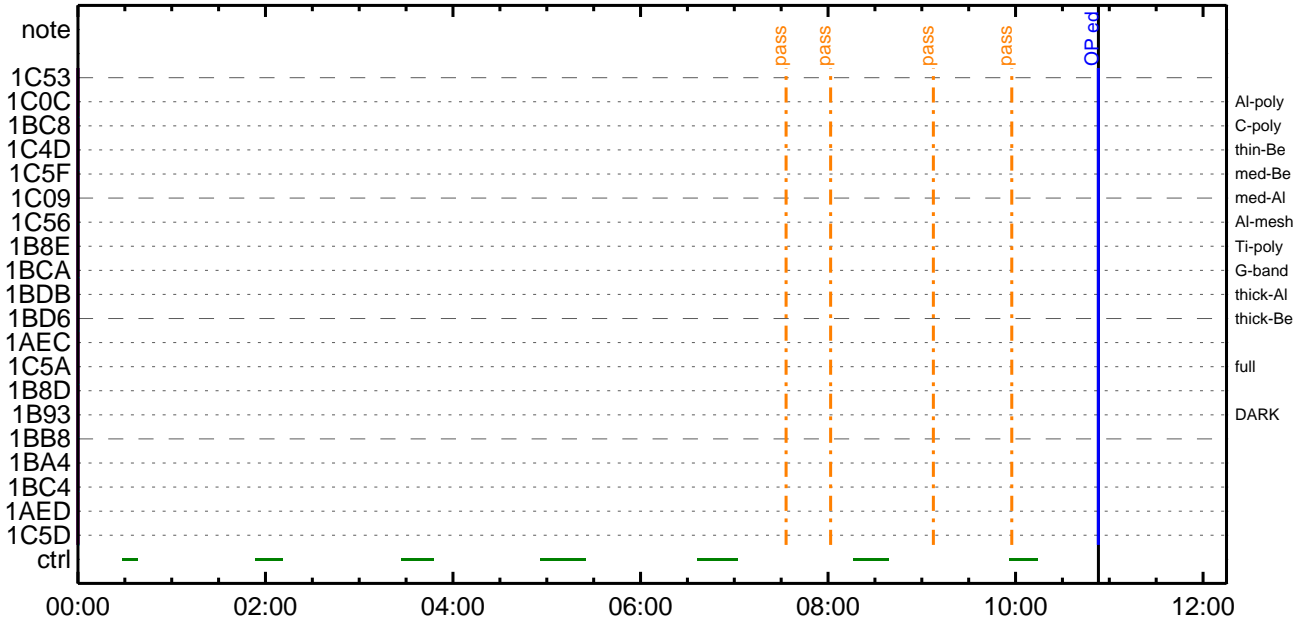
### CMDI #0513 2019/10/07



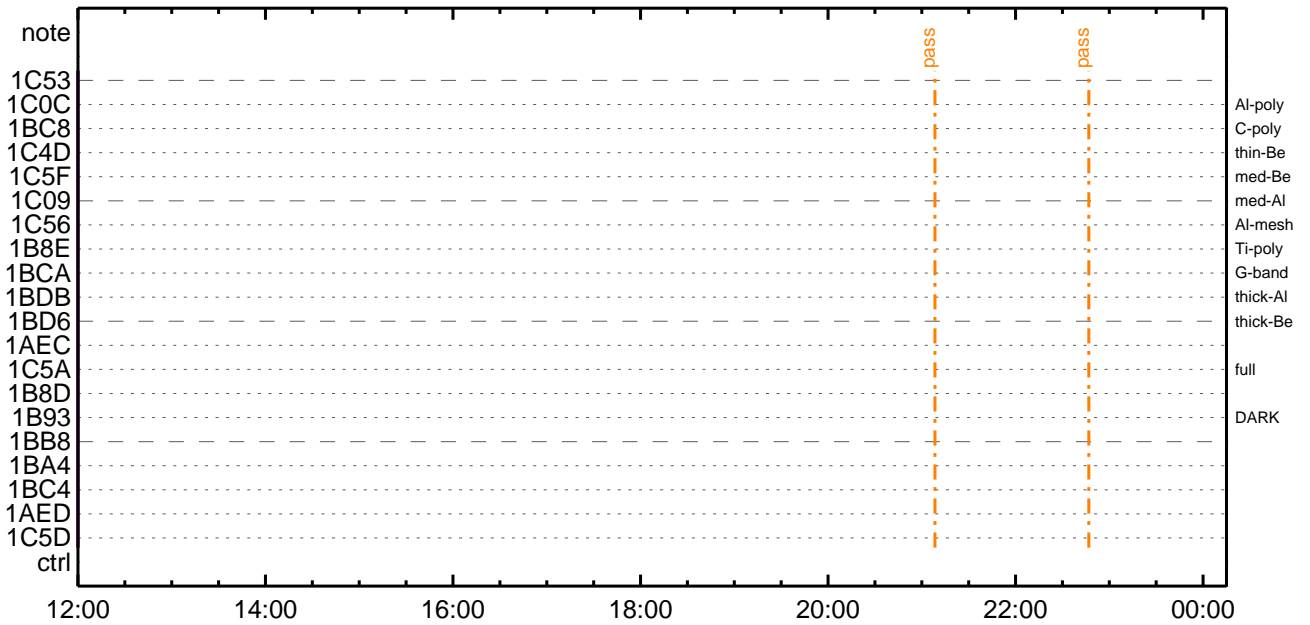
CMDI #0513 2019/10/07



CMDI #0513 2019/10/08



CMDI #0513 2019/10/08







0096 C.  
0097 C.  
0098 C.  
0099 C. OP/OGY1;Y4E;YAY6Yx  
0100 C. \*\*\*\*\*  
0101 C.  
0102 C. ;ãOP/OGY1;Y4E;ã  
0103 S. OP op-372:OP  
0104 (  
0105 S. OG og-372:OG  
0106 (  
0107 C.  
0108 C. ;ãNMOG&OPîî°èYAY6Yx;ã  
0109 C. NMOG(0x200000-0x207FFF;s 32 kbyte)  
0110 +. DC 01-23 DHU\_DMA\_DMP\_PRM\_SET  
0111 BC (20 00 7f 01 02)  
0112 C. çç[HK1\_DMP\_TOP\_ADRS\_1] EQ 40  
0113 C. çç[HK1\_DMP\_TOP\_ADRS\_0] EQ 0  
0114 C. çç[HK1\_DMP\_BLOCK\_NUM] EQ 127  
0115 C. çç[HK1\_DMP\_REPEAT\_NUM] EQ 0  
0116 C. çç[HK1\_DMA\_DMP\_PIM] EQ DHU  
0117 +. DC 01-22 DHU\_MODE\_CHNG  
0118 BC (07 0b f8)  
0119 C. çç[HK1\_PKT\_FORM\_NO] EQ 7  
0120 C. çç[HK1\_PKT\_GEN\_TIME] EQ 0.25 s  
0121 C. çç[HK1\_S\_TLM\_BIT\_RATE] EQ 32k  
0122 C. çç[HK1\_X\_TLM\_BIT\_RATE] EQ 4M  
0123 C. çç[HK1\_DMP\_CHK\_FLG] EQ EXEC  
0124 C. YAY6Yx½ªî»ò³îÇ§  
0125 C. çç[HK1\_DMP\_CHK\_FLG] EQ NON  
0126 C. RAM ID=NMOGðîî½Ë¹ç•è²îOKòð³îÇ§  
0127 C.  
0128 C. NMOG(0x208000-0x20FFFF;s 32 kbyte)  
0129 +. DC 01-23 DHU\_DMA\_DMP\_PRM\_SET  
0130 BC (20 80 7f 01 02)  
0131 C. çç[HK1\_DMP\_TOP\_ADRS\_1] EQ 41  
0132 C. çç[HK1\_DMP\_TOP\_ADRS\_0] EQ 0  
0133 C. çç[HK1\_DMP\_BLOCK\_NUM] EQ 127  
0134 C. çç[HK1\_DMP\_REPEAT\_NUM] EQ 0  
0135 C. çç[HK1\_DMA\_DMP\_PIM] EQ DHU  
0136 +. DC 01-22 DHU\_MODE\_CHNG  
0137 BC (07 0b f8)  
0138 C. çç[HK1\_PKT\_FORM\_NO] EQ 7  
0139 C. çç[HK1\_PKT\_GEN\_TIME] EQ 0.25 s  
0140 C. çç[HK1\_S\_TLM\_BIT\_RATE] EQ 32k  
0141 C. çç[HK1\_X\_TLM\_BIT\_RATE] EQ 4M  
0142 C. çç[HK1\_DMP\_CHK\_FLG] EQ EXEC  
0143 C. YAY6Yx½ªî»ò³îÇ§  
0144 C. çç[HK1\_DMP\_CHK\_FLG] EQ NON  
0145 C. RAM ID=NMOGðîî½Ë¹ç•è²îOKòð³îÇ§  
0146 C.  
0147 C. NMOG(0x210000-0x2100FF;s 256byte)+OP(0x210100-0x2141FF: 16.25kbyte)  
0148 +. DC 01-23 DHU\_DMA\_DMP\_PRM\_SET  
0149 BC (21 00 41 01 02)  
0150 C. çç[HK1\_DMP\_TOP\_ADRS\_1] EQ 42  
0151 C. çç[HK1\_DMP\_TOP\_ADRS\_0] EQ 0  
0152 C. çç[HK1\_DMP\_BLOCK\_NUM] EQ 65  
0153 C. çç[HK1\_DMP\_REPEAT\_NUM] EQ 0  
0154 C. çç[HK1\_DMA\_DMP\_PIM] EQ DHU  
0155 +. DC 01-22 DHU\_MODE\_CHNG  
0156 BC (07 0b f8)  
0157 C. çç[HK1\_PKT\_FORM\_NO] EQ 7  
0158 C. çç[HK1\_PKT\_GEN\_TIME] EQ 0.25 s  
0159 C. çç[HK1\_S\_TLM\_BIT\_RATE] EQ 32k  
0160 C. çç[HK1\_X\_TLM\_BIT\_RATE] EQ 4M  
0161 C. çç[HK1\_DMP\_CHK\_FLG] EQ EXEC  
0162 C. YAY6Yx½ªî»ò³îÇ§  
0163 C. çç[HK1\_DMP\_CHK\_FLG] EQ NON  
0164 C. RAM ID=NMOG,RAM ID=OPðîî½Ë¹ç•è²îOKòð³îÇ§  
0165 C.  
0166 C. \*\*\*\*\* òÈ²¼òîî½Ë¹ç•è²îOKòð³îÇ§ \*\*\*\*\*  
0167 C. DHUYâ;Y4E;E½Y½;Y1;Y4E;Eòðîî½Ë¹ç•è²îOKòð³îÇ§  
0168 +. DC 01-22 DHU\_MODE\_CHNG  
0169 BC (02 0a f8)  
0170 C. çç[HK1\_PKT\_FORM\_NO] EQ 2  
0171 C. çç[HK1\_PKT\_GEN\_TIME] EQ 0.5S  
0172 C. çç[HK1\_S\_TLM\_BIT\_RATE] EQ 32K  
0173 C. çç[HK1\_X\_TLM\_BIT\_RATE] EQ 4M  
0174 C.  
0175 C. \*\*\*\*\*  
0176 C. TI-CMD SET (OPOG STOP/COPY/START)  
0177 C. \*\*\*\*\*  
0178 C.  
0179 C. NOTICE ; § OPOG UPLOADò-Á÷ç@NGUîî½Ë¹ç•è²îOKòð³îÇ§ \*\*\*\*\*  
0180 C. òðòç;çSETòEDUMPAîî½Ë¹ç•è²îOKòð³îÇ§  
0181 C.  
0182 C. TIY³YþY6YÈòðîî½Ë¹ç•è²îOKòð³îÇ§ (UT)  
0183 +. TI 2019-10-03 10:37:00.0  
0184 DC 01-B3 DHU\_OP\_STOP  
0185 C. çç[HK1\_TI\_CMD\_NUM] EQ 1COUNTUP  
0186 C.  
0187 +. TI 2019-10-03 10:37:01.0  
0188 DC 01-B4 DHU\_OP\_COPY  
0189 C. çç[HK1\_TI\_CMD\_NUM] EQ 1COUNTUP  
0190 C.  
0191 +. TI 2019-10-03 10:37:01.0  
0192 DC 01-B5 DHU\_OPOG\_COPY  
0193 C. çç[HK1\_TI\_CMD\_NUM] EQ 1COUNTUP





```

0096 C.
0097 C.
0098 . C. ***** AOCs Commands (Tracking Curve Upload) *****
0099 C. Upload the Orbit Element and the Target Attitude
0100 C. RAM-ID:TARGET_ATT
0101 . S. RAM ram-150:TARGET_ATT
0102 ( )
0103 C.
0104 C.
0105 C. Set the dump memory area of TARGET_ATT
0106 +. DC 02-48 AOCU_DUMP_SET
0107 BC (07 00 00 00 18 00)
0108 C.
0109 C. <A_STS1>[MEMORY OPERATE STATUS] ADRS = 070000 [ ]
0110 C.
0111 C.
0112 C. Change the TLMFormatNo for the AOCs Dump Format
0113 +. DC 01-22 DHU_MODE_CHNG
0114 BC (04 0b f8)
0115 C.
0116 C. Wait for AOCSDUMP to end
0117 C.
0118 . C. Check the dump memory
0119 C.
0120 C. Result = OK [ ]
0121 C.
0122 +. DC 01-22 DHU_MODE_CHNG
0123 BC (02 0a f8)
0124 C.
0125 C. <A_***>[TLM STS] FMT = 2 [ ]
0126 C.
0127 +. DC 02-8E AOCU_ORB_UPD
0128 . C.
0129 . C. Load OBSTBL, dump OBSTBL, enable EIS mode changes
0130 +. DC 07-FC EIS_MODE_CHG_ENA
0131 BC (20)
0132 . C. Verify EIS_MODE_CHG_FLG is ENA
0133 +. DC 07-FC EIS_MODE_MANU
0134 BC (21 02)
0135 . C. Verify EIS in MANUAL mode
0136 . C. Estimated OBSTBL upload time is 26s
0137 C. *****
0138 C. EIS START OBSTBL LOAD
0139 C. *****
0140 . S. RAM ram-820:EIS_OBSTBL
0141 ( )
0142 +. DC 07-FC EIS_DUMP_OBSTBL
0143 BC (07 07 07 00 00 70 00)
0144 C.
0145 C. Execute, after the success of OBSTBL upload.
0146 C. Set EIS TI-commands
0147 +. TI 2019-10-03 10:41:50.0
0148 DC 07-FC EIS_MODE_CHG_ENA
0149 BC (20)
0150 . C. [ ] [HK1_TI_CMD_NUM] EQ 1 COUNTUP
0151 C. *****
0152 C. EIS END OBSTBL LOAD
0153 C. *****
0154 C.
0155 . C. ***** MDP 'ũÃîâî»ö¼ÝðĒĂĐð¹ñēDCBC•x²è *****
0156 C. (¼ã°îÝŎÝÁŶĒÞÞĚŶĚÁŶŶçŶēñĒ¼ã¼Ā»Űñ¹ñē)
0157 . S. DC-BC dcbc-402:DCBC
0158 (MDP_known_event)
0159 C.
0160 C.
0161 . C. ***** ŶĐŶ¹•İ Daily±ĴİŇñĒ'Ŏñ¹ñēDCBC•x²è *****
0162 . S. DC-BC dcbc-153:DCBC
0163 (SPECIAL-CMD_DAILY_OPERATIN_DCB)
0164 C.
0165 C.
0166 . C. ;ãLOSŶÁŶŶŶĀŶ-¼Ā»Ű;ã
0167 C.
0168 . C. ***** LOS *****
0169 C.

```

(a) Spacecraft Operation Procedure (real-commands)

```
main-374 2019-10-03 12:25:13 100 33 SOLAR-B MAIN //
0001 C.
0002 . C. ***** AOS *****
0003 C.
0004 . C. ;ãAOSYÁYŞYÄY-¼Ä»Û;ä
0005 C.
0006 C. YÄYß;¼Y³YFÏÖYÉÄ+¿®
0007 +. DC 00-00 NULL_DUMMY_CMD
0008 C.
0009 . C. ***** AOCs : Reload orbital element (send every contact) *****
0010 C. Áí;È¿ðÀß•µ°È»Í×ÁÇóÍYçYÄY×Yí;¼YÉ;ÈÈÈµ•ííÉ;ÈßÈ¼°ÇÓß•¾¿¼l¹çßÍ;çÀ®, ùß¹ßÈßßßçÁ+¿®ß•ßÈßßßßßÈ;f
0011 +. DC 02-8E AOCU_ORB_UPD
0012 C.
0013 C.
0014 C.
0015 C. ***** XRT START *****
0016 C.
0017 +. DC 07-F0 MDP_XRT_CTRL_MANU
0018 BC (c1)
0019 + DC 07-F0 MDP_XRT_MODE_STBY
0020 BC (c3)
0021 . C. ----- Success Verify ? OK / NG ____
0022 C.
0023 C. XRT Obs. Table Upload
0024 . S. RAM ram-291:MDP_OBS_X
0025 ( )
0026 C.
0027 +. DC 07-F0 MDP_DUMP_XRTTBL
0028 BC (84 07 00 00 00 3a d4)
0029 . C. ----- Comparison Check ? OK / ERR ____
0030 C.
0031 C.
0032 +. DC 07-F0 MDP_XRT_ROI_SET
0033 BC (cd 01 b1 b1 04 04)
0034 + DC 07-F0 MDP_XRT_ROI_SET
0035 BC (cd 02 b1 b1 08 08)
0036 + DC 07-F0 MDP_XRT_ROI_SET
0037 BC (cd 03 b1 b1 08 08)
0038 + DC 07-F0 MDP_XRT_ROI_SET
0039 BC (cd 04 b1 b1 06 06)
0040 + DC 07-F0 MDP_XRT_ROI_SET
0041 BC (cd 05 85 83 06 06)
0042 + DC 07-F0 MDP_XRT_ROI_SET
0043 BC (cd 06 85 83 06 06)
0044 + DC 07-F0 MDP_XRT_ROI_SET
0045 BC (cd 07 85 83 08 08)
0046 + DC 07-F0 MDP_XRT_ROI_SET
0047 BC (cd 08 80 80 20 20)
0048 + DC 07-F0 MDP_XRT_ROI_SET
0049 BC (cd 09 80 80 20 08)
0050 + DC 07-F0 MDP_XRT_ROI_SET
0051 BC (cd 0a 80 80 08 20)
0052 + DC 07-F0 MDP_XRT_ROI_SET
0053 BC (cd 0b 80 80 08 08)
0054 + DC 07-F0 MDP_XRT_ROI_SET
0055 BC (cd 0f 80 80 06 06)
0056 + DC 07-F0 MDP_XRT_ROI_SET
0057 BC (cd 10 80 80 08 08)
0058 + DC 07-F0 MDP_XRT_FLD_ENA
0059 BC (d8)
0060 + DC 07-F0 MDP_XRT_FLRCTRL_ENA
0061 BC (c8)
0062 + DC 07-F0 MDP_XRT_ARS_DIS
0063 BC (d5)
0064 + DC 07-F0 MDP_XRT_AEC_RESET
0065 BC (d0)
0066 + DC 07-F0 MDP_XRT_FLD_RESET
0067 BC (da)
0068 +. DC 07-F0 MDP_XRT_QT_PROG_SET
0069 BC (c4 05)
0070 +. DC 07-F0 MDP_XRT_FL_PROG_SET
0071 BC (c5 0d)
0072 . C. ----- Success Verify ? OK / NG ____
0073 C.
0074 C.
0075 . C. All OK? Yes--> Please Proceed. / No --> Stop here.
0076 C.
0077 +. DC 07-F0 MDP_XRT_MODE_OBSV
0078 BC (c2)
0079 +. TI 2019-10-03 10:41:02.0
0080 DC 07-F0 MDP_XRT_MODE_OBSV
0081 BC (c2)
0082 . C. ----- Success Verify ? OK / NG ____
0083 C.
0084 C. ***** XRT END *****
0085 C.
0086 . C. ***** MDP `ûÄíßí»ò¼YóÈÄßß¹ßÈDCBC•×²è *****
0087 C. (¼á°íYóYÄYÈYßYÉYáYçYÈß¼ß¼ß¼Ä»Ûß¹ßè)
0088 . S. DC-BC dcbc-402:DCBC
0089 (MDP_known_event)
0090 C.
0091 C.
0092 . C. ***** YßY¹!•í Daily±¿íÑßÈ´Øß¹ßèDCBC•×²è *****
0093 . S. DC-BC dcbc-153:DCBC
0094 (SPECIAL-CMD_DAILY_OPERATIN_DCB)
0095 C.
```

0096 C.  
0097 . C. ;ãLOS¥Á¥§¥Ã¥-¼Á»Û;ã  
0098 C.  
0099 . C. \*\*\*\*\* LOS \*\*\*\*\*  
0100 C.

\*\*\* OP Sequence for XRT \*\*\*

```

2019/10/03 10:51:54.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/10/03 10:51:56.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/10/03 10:51:58.0 XRT_FOCUS_POSITION_410_OG [0x19a]
                        XRT_FOCUS_POSITION 4 07-F8 22 fe 97 00
2019/10/03 10:52:00.0 AOCS_Ore-point_Start_1_OG [0x097]
                        AOCU_NM 5 02-76 00 40 fd ca a8
2019/10/03 10:52:18.0 XRT_FLD_ENA_411_OG [0x19b]
                        MDP_XRT_FLD_ENA 1 07-F0 d8
2019/10/03 10:52:20.0 XRT_FLRCTRL_ENA_412_OG [0x19c]
                        MDP_XRT_FLRCTRL_ENA 1 07-F0 c8
2019/10/03 10:52:22.0 XRT_AEC_RESET_448_OG [0x1c0]
                        MDP_XRT_AEC_RESET 1 07-F0 d0
2019/10/03 10:52:24.0 XRT_ARS_DIS_423_OG [0x1a7]
                        MDP_XRT_ARS_DIS 1 07-F0 d5
2019/10/03 10:52:26.0 XRT_FLD_RESET_434_OG [0x1b2]
                        MDP_XRT_FLD_RESET 1 07-F0 da
2019/10/03 10:54:56.0 XRT_QT_PROG_SET_418_OG [0x1a2]
                        MDP_XRT_QT_PROG_SET 2 07-F0 c4 0b
2019/10/03 10:54:58.0 XRT_FL_PROG_SET_440_OG [0x1b8]
                        MDP_XRT_FL_PROG_SET 2 07-F0 c5 0d
2019/10/03 10:55:00.0 XRT_CTRL_AUTO_408_OG [0x198]
                        MDP_XRT_CTRL_AUTO 1 07-F0 c0
2019/10/03 13:29:54.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/10/03 13:29:56.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/10/03 13:29:58.0 XRT_FOCUS_POSITION_410_OG [0x19a]
                        XRT_FOCUS_POSITION 4 07-F8 22 fe 97 00
2019/10/03 13:30:00.0 AOCS_Ore-point_Start_2_OG [0x098]
                        AOCU_NM 5 02-76 01 00 00 00 00
2019/10/03 13:30:18.0 XRT_FLD_ENA_411_OG [0x19b]
                        MDP_XRT_FLD_ENA 1 07-F0 d8
2019/10/03 13:30:20.0 XRT_FLRCTRL_ENA_412_OG [0x19c]
                        MDP_XRT_FLRCTRL_ENA 1 07-F0 c8
2019/10/03 13:30:22.0 XRT_AEC_RESET_448_OG [0x1c0]
                        MDP_XRT_AEC_RESET 1 07-F0 d0
2019/10/03 13:30:24.0 XRT_ARS_DIS_423_OG [0x1a7]
                        MDP_XRT_ARS_DIS 1 07-F0 d5
2019/10/03 13:30:26.0 XRT_FLD_RESET_434_OG [0x1b2]
                        MDP_XRT_FLD_RESET 1 07-F0 da
2019/10/03 13:32:56.0 XRT_QT_PROG_SET_418_OG [0x1a2]
                        MDP_XRT_QT_PROG_SET 2 07-F0 c4 0b
2019/10/03 13:32:58.0 XRT_FL_PROG_SET_440_OG [0x1b8]
                        MDP_XRT_FL_PROG_SET 2 07-F0 c5 0d
2019/10/03 13:33:00.0 XRT_CTRL_AUTO_408_OG [0x198]
                        MDP_XRT_CTRL_AUTO 1 07-F0 c0
2019/10/03 15:42:00.0 XRT_CTRL_MANU_400_OG [0x190]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/10/03 15:42:02.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/10/03 15:42:04.0 XRT_FLD_RESET_415_OG [0x19f]
                        MDP_XRT_FLD_RESET 1 07-F0 da
2019/10/03 15:42:06.0 XRT_PREFLR_STRT_435_OG [0x1b3]
                        MDP_XRT_PREFLR_STRT 1 07-F0 e8
2019/10/03 15:45:14.0 XRT_PREFLR_STOP_419_OG [0x1a3]
                        MDP_XRT_PREFLR_STOP 1 07-F0 e9
2019/10/03 15:55:00.0 XRT_Custom_430_OG [0x1ae]
2019/10/03 15:56:00.0 XRT_CTRL_AUTO_424_OG [0x1a8]
                        MDP_XRT_CTRL_AUTO 1 07-F0 c0
2019/10/03 16:04:00.0 XRT_CTRL_MANU_400_OG [0x190]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/10/03 16:04:02.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/10/03 16:04:04.0 XRT_FLD_RESET_415_OG [0x19f]
                        MDP_XRT_FLD_RESET 1 07-F0 da
2019/10/03 16:04:06.0 XRT_PREFLR_STRT_435_OG [0x1b3]
                        MDP_XRT_PREFLR_STRT 1 07-F0 e8
2019/10/03 16:04:30.0 XRT_Custom_430_OG [0x1ae]
2019/10/03 16:05:30.0 XRT_CTRL_AUTO_424_OG [0x1a8]
                        MDP_XRT_CTRL_AUTO 1 07-F0 c0
2019/10/03 16:07:14.0 XRT_PREFLR_STOP_419_OG [0x1a3]
                        MDP_XRT_PREFLR_STOP 1 07-F0 e9
2019/10/03 17:17:30.0 XRT_CTRL_MANU_400_OG [0x190]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/10/03 17:17:32.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/10/03 17:17:34.0 XRT_FLD_RESET_415_OG [0x19f]
                        MDP_XRT_FLD_RESET 1 07-F0 da
2019/10/03 17:17:36.0 XRT_PREFLR_STRT_435_OG [0x1b3]
                        MDP_XRT_PREFLR_STRT 1 07-F0 e8
2019/10/03 17:20:44.0 XRT_PREFLR_STOP_419_OG [0x1a3]
                        MDP_XRT_PREFLR_STOP 1 07-F0 e9
2019/10/03 17:41:00.0 XRT_Custom_430_OG [0x1ae]
2019/10/03 17:42:00.0 XRT_CTRL_AUTO_424_OG [0x1a8]
                        MDP_XRT_CTRL_AUTO 1 07-F0 c0
2019/10/03 17:57:24.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/10/03 17:57:26.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1

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|            |            |                                   |   |       |    |    |    |    |    |
|------------|------------|-----------------------------------|---|-------|----|----|----|----|----|
| 2019/10/03 | 17:57:28.0 | XRT_FOCUS_POSITION_406_OG [0x196] |   |       |    |    |    |    |    |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 | ff | aa | 00 |    |
| 2019/10/03 | 17:57:30.0 | AOCs_Ore-point_Start_3_OG [0x099] |   |       |    |    |    |    |    |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 | 00 | 00 | 00 | 00 |
| 2019/10/03 | 17:57:48.0 | XRT_FLD_DIS_409_OG [0x199]        |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_DIS                   | 1 | 07-F0 |    |    |    | d9 |    |
| 2019/10/03 | 17:57:50.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLRCTRL_DIS               | 1 | 07-F0 |    |    |    | c9 |    |
| 2019/10/03 | 17:57:52.0 | XRT_ARS_DIS_443_OG [0x1bb]        |   |       |    |    |    |    |    |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 |    |    |    | d5 |    |
| 2019/10/03 | 18:00:28.0 | XRT_QT_PROG_SET_446_OG [0x1be]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 |    |    |    | c4 | 07 |
| 2019/10/03 | 18:00:30.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 |    |    |    | c0 |    |
| 2019/10/03 | 18:07:24.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 |    |    |    | c1 |    |
| 2019/10/03 | 18:07:26.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 |    |    |    | c1 |    |
| 2019/10/03 | 18:07:28.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |    |    |    |    |    |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 | fe | 97 | 00 |    |
| 2019/10/03 | 18:07:30.0 | AOCs_Ore-point_Start_4_OG [0x09a] |   |       |    |    |    |    |    |
|            |            | AOCU_NM                           | 5 | 02-76 | 02 | 03 | 74 | 01 | f3 |
| 2019/10/03 | 18:07:48.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 |    |    |    | d8 |    |
| 2019/10/03 | 18:07:50.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 |    |    |    | c8 |    |
| 2019/10/03 | 18:07:52.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 |    |    |    | d0 |    |
| 2019/10/03 | 18:07:54.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |    |    |    |    |    |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 |    |    |    | d5 |    |
| 2019/10/03 | 18:07:56.0 | XRT_FLD_RESET_434_OG [0x1b2]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 |    |    |    | da |    |
| 2019/10/03 | 18:10:26.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 |    |    |    | c4 | 03 |
| 2019/10/03 | 18:10:28.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 |    |    |    | c5 | 0d |
| 2019/10/03 | 18:10:30.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 |    |    |    | c0 |    |
| 2019/10/03 | 18:54:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 |    |    |    | c1 |    |
| 2019/10/03 | 18:54:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 |    |    |    | c1 |    |
| 2019/10/03 | 18:54:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 |    |    |    | da |    |
| 2019/10/03 | 18:54:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 |    |    |    | e8 |    |
| 2019/10/03 | 18:57:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 |    |    |    | e9 |    |
| 2019/10/03 | 19:17:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |    |    |    |    |    |
| 2019/10/03 | 19:18:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 |    |    |    | c0 |    |
| 2019/10/03 | 20:31:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 |    |    |    | c1 |    |
| 2019/10/03 | 20:31:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 |    |    |    | c1 |    |
| 2019/10/03 | 20:31:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 |    |    |    | da |    |
| 2019/10/03 | 20:31:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 |    |    |    | e8 |    |
| 2019/10/03 | 20:34:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 |    |    |    | e9 |    |
| 2019/10/03 | 20:54:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |    |    |    |    |    |
| 2019/10/03 | 20:55:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 |    |    |    | c0 |    |
| 2019/10/03 | 22:08:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 |    |    |    | c1 |    |
| 2019/10/03 | 22:08:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 |    |    |    | c1 |    |
| 2019/10/03 | 22:08:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 |    |    |    | da |    |
| 2019/10/03 | 22:08:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 |    |    |    | e8 |    |
| 2019/10/03 | 22:11:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 |    |    |    | e9 |    |
| 2019/10/03 | 22:31:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |    |    |    |    |    |
| 2019/10/03 | 22:32:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 |    |    |    | c0 |    |
| 2019/10/03 | 23:46:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 |    |    |    | c1 |    |
| 2019/10/03 | 23:46:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 |    |    |    | c1 |    |
| 2019/10/03 | 23:46:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 |    |    |    | da |    |
| 2019/10/03 | 23:46:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 |    |    |    | e8 |    |
| 2019/10/03 | 23:49:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |    |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 |    |    |    | e9 |    |
| 2019/10/04 | 00:03:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |    |    |    |    |    |
| 2019/10/04 | 00:04:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 |    |    |    | c0 |    |
| 2019/10/04 | 01:21:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |    |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 |    |    |    | c1 |    |
| 2019/10/04 | 01:21:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |    |    |    |    |    |



|            |            |                                   |                     |   |       |                |  |  |
|------------|------------|-----------------------------------|---------------------|---|-------|----------------|--|--|
| 2019/10/04 | 01:21:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
|            |            |                                   | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/10/04 | 01:21:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/10/04 | 01:22:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |  |  |
| 2019/10/04 | 01:23:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/10/04 | 01:23:00.5 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 01:23:02.5 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 01:23:04.5 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/10/04 | 01:23:06.5 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/10/04 | 01:24:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/10/04 | 01:26:14.5 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/10/04 | 01:29:30.5 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |  |  |
| 2019/10/04 | 01:30:30.5 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/10/04 | 01:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 01:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 01:59:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |  |
| 2019/10/04 | 02:00:00.0 | AOCS_Ore-point_Start_3_OG [0x099] | AOCU_NM             | 5 | 02-76 | 00 00 00 00 00 |  |  |
| 2019/10/04 | 02:00:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |  |
| 2019/10/04 | 02:00:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |  |
| 2019/10/04 | 02:00:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |  |
| 2019/10/04 | 02:00:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |  |
| 2019/10/04 | 02:00:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/10/04 | 02:02:56.0 | XRT_QT_PROG_SET_404_OG [0x194]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 11          |  |  |
| 2019/10/04 | 02:02:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |  |  |
| 2019/10/04 | 02:03:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/10/04 | 02:45:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 02:45:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 02:45:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/10/04 | 02:45:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/10/04 | 02:48:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/10/04 | 03:05:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |  |  |
| 2019/10/04 | 03:06:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/10/04 | 04:16:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 04:16:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 04:16:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/10/04 | 04:16:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/10/04 | 04:19:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/10/04 | 04:42:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |  |  |
| 2019/10/04 | 04:43:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/10/04 | 05:52:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 05:52:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 05:52:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/10/04 | 05:52:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/10/04 | 05:55:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/10/04 | 06:20:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |  |  |
| 2019/10/04 | 06:21:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/10/04 | 06:29:24.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 06:29:26.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/10/04 | 06:29:28.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |  |
| 2019/10/04 | 06:29:30.0 | AOCS_ORe-point_Start_3_OG [0x099] |                     |   |       |                |  |  |

|            |            |                                   |         |   |       |    |    |    |    |    |
|------------|------------|-----------------------------------|---------|---|-------|----|----|----|----|----|
| 2019/10/04 | 06:29:48.0 | XRT_FLD_DIS_409_OG [0x199]        | AOCU_NM | 5 | 02-76 | 00 | 00 | 00 | 00 | 00 |
|            |            | MDP_XRT_FLD_DIS                   |         | 1 | 07-F0 | d9 |    |    |    |    |
| 2019/10/04 | 06:29:50.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    |         | 1 | 07-F0 | c9 |    |    |    |    |
|            |            | MDP_XRT_FLRCTRL_DIS               |         | 1 | 07-F0 | c9 |    |    |    |    |
| 2019/10/04 | 06:29:52.0 | XRT_ARS_DIS_443_OG [0x1bb]        |         | 1 | 07-F0 | d5 |    |    |    |    |
|            |            | MDP_XRT_ARS_DIS                   |         | 1 | 07-F0 | d5 |    |    |    |    |
| 2019/10/04 | 06:32:28.0 | XRT_QT_PROG_SET_445_OG [0x1bd]    |         | 2 | 07-F0 | c4 | 14 |    |    |    |
|            |            | MDP_XRT_QT_PROG_SET               |         | 2 | 07-F0 | c4 | 14 |    |    |    |
| 2019/10/04 | 06:32:30.0 | XRT_CTRL_AUTO_408_OG [0x198]      |         | 1 | 07-F0 | c0 |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 |         | 1 | 07-F0 | c0 |    |    |    |    |
| 2019/10/04 | 06:39:24.0 | XRT_CTRL_MANU_402_OG [0x192]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 06:39:26.0 | XRT_CTRL_MANU_402_OG [0x192]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 06:39:28.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |         | 4 | 07-F8 | 22 | fe | 97 | 00 |    |
|            |            | XRT_FOCUS_POSITION                |         | 4 | 07-F8 | 22 | fe | 97 | 00 |    |
| 2019/10/04 | 06:39:30.0 | AOCS_Ore-point_Start_4_OG [0x09a] |         | 5 | 02-76 | 02 | 03 | 74 | 01 | f3 |
|            |            | AOCU_NM                           |         | 5 | 02-76 | 02 | 03 | 74 | 01 | f3 |
| 2019/10/04 | 06:39:48.0 | XRT_FLD_ENA_411_OG [0x19b]        |         | 1 | 07-F0 | d8 |    |    |    |    |
|            |            | MDP_XRT_FLD_ENA                   |         | 1 | 07-F0 | d8 |    |    |    |    |
| 2019/10/04 | 06:39:50.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |         | 1 | 07-F0 | c8 |    |    |    |    |
|            |            | MDP_XRT_FLRCTRL_ENA               |         | 1 | 07-F0 | c8 |    |    |    |    |
| 2019/10/04 | 06:39:52.0 | XRT_AEC_RESET_448_OG [0x1c0]      |         | 1 | 07-F0 | d0 |    |    |    |    |
|            |            | MDP_XRT_AEC_RESET                 |         | 1 | 07-F0 | d0 |    |    |    |    |
| 2019/10/04 | 06:39:54.0 | XRT_ARS_DIS_423_OG [0x1a7]        |         | 1 | 07-F0 | d5 |    |    |    |    |
|            |            | MDP_XRT_ARS_DIS                   |         | 1 | 07-F0 | d5 |    |    |    |    |
| 2019/10/04 | 06:39:56.0 | XRT_FLD_RESET_434_OG [0x1b2]      |         | 1 | 07-F0 | da |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 |         | 1 | 07-F0 | da |    |    |    |    |
| 2019/10/04 | 06:42:26.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    |         | 2 | 07-F0 | c4 | 03 |    |    |    |
|            |            | MDP_XRT_QT_PROG_SET               |         | 2 | 07-F0 | c4 | 03 |    |    |    |
| 2019/10/04 | 06:42:28.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |         | 2 | 07-F0 | c5 | 0d |    |    |    |
|            |            | MDP_XRT_FL_PROG_SET               |         | 2 | 07-F0 | c5 | 0d |    |    |    |
| 2019/10/04 | 06:42:30.0 | XRT_CTRL_AUTO_408_OG [0x198]      |         | 1 | 07-F0 | c0 |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 |         | 1 | 07-F0 | c0 |    |    |    |    |
| 2019/10/04 | 07:33:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 07:33:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 07:33:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |         | 1 | 07-F0 | da |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 |         | 1 | 07-F0 | da |    |    |    |    |
| 2019/10/04 | 07:33:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |         | 1 | 07-F0 | e8 |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STRT               |         | 1 | 07-F0 | e8 |    |    |    |    |
| 2019/10/04 | 07:36:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |         | 1 | 07-F0 | e9 |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STOP               |         | 1 | 07-F0 | e9 |    |    |    |    |
| 2019/10/04 | 07:57:00.0 | XRT_Custom_430_OG [0x1ae]         |         | 1 | 07-F0 | c0 |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 |         | 1 | 07-F0 | c0 |    |    |    |    |
| 2019/10/04 | 07:58:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 09:12:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 09:12:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 09:12:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |         | 1 | 07-F0 | da |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 |         | 1 | 07-F0 | da |    |    |    |    |
| 2019/10/04 | 09:12:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |         | 1 | 07-F0 | e8 |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STRT               |         | 1 | 07-F0 | e8 |    |    |    |    |
| 2019/10/04 | 09:15:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |         | 1 | 07-F0 | e9 |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STOP               |         | 1 | 07-F0 | e9 |    |    |    |    |
| 2019/10/04 | 09:33:30.0 | XRT_Custom_430_OG [0x1ae]         |         | 1 | 07-F0 | c0 |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 |         | 1 | 07-F0 | c0 |    |    |    |    |
| 2019/10/04 | 09:34:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_AUTO                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 10:53:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 10:53:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 10:53:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |         | 1 | 07-F0 | da |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 |         | 1 | 07-F0 | da |    |    |    |    |
| 2019/10/04 | 10:53:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |         | 1 | 07-F0 | e8 |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STRT               |         | 1 | 07-F0 | e8 |    |    |    |    |
| 2019/10/04 | 10:56:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |         | 1 | 07-F0 | e9 |    |    |    |    |
|            |            | MDP_XRT_PREFLR_STOP               |         | 1 | 07-F0 | e9 |    |    |    |    |
| 2019/10/04 | 10:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 10:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |         | 1 | 07-F0 | c1 |    |    |    |    |
|            |            | MDP_XRT_CTRL_MANU                 |         | 1 | 07-F0 | c1 |    |    |    |    |
| 2019/10/04 | 10:59:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] |         | 4 | 07-F8 | 22 | ff | aa | 00 |    |
|            |            | XRT_FOCUS_POSITION                |         | 4 | 07-F8 | 22 | ff | aa | 00 |    |
| 2019/10/04 | 11:00:00.0 | AOCS_Ore-point_Start_5_OG [0x09b] |         | 5 | 02-76 | 03 | 00 | 00 | 00 | 00 |
|            |            | AOCU_NM                           |         | 5 | 02-76 | 03 | 00 | 00 | 00 | 00 |
| 2019/10/04 | 11:00:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |         | 1 | 07-F0 | d8 |    |    |    |    |
|            |            | MDP_XRT_FLD_ENA                   |         | 1 | 07-F0 | d8 |    |    |    |    |
| 2019/10/04 | 11:00:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |         | 1 | 07-F0 | c8 |    |    |    |    |
|            |            | MDP_XRT_FLRCTRL_ENA               |         | 1 | 07-F0 | c8 |    |    |    |    |
| 2019/10/04 | 11:00:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |         | 1 | 07-F0 | d0 |    |    |    |    |
|            |            | MDP_XRT_AEC_RESET                 |         | 1 | 07-F0 | d0 |    |    |    |    |
| 2019/10/04 | 11:00:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |         | 1 | 07-F0 | d5 |    |    |    |    |
|            |            | MDP_XRT_ARS_DIS                   |         | 1 | 07-F0 | d5 |    |    |    |    |
| 2019/10/04 | 11:00:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      |         | 1 | 07-F0 | da |    |    |    |    |
|            |            | MDP_XRT_FLD_RESET                 |         | 1 | 07-F0 | da |    |    |    |    |
| 2019/10/04 | 11:02:56.0 | XRT_QT_PROG_SET_431_OG [0x1af]    |         | 2 | 07-F0 | c4 | 01 |    |    |    |
|            |            | MDP_XRT_QT_PROG_SET               |         | 2 | 07-F0 | c4 | 01 |    |    |    |
| 2019/10/04 | 11:02:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |         | 2 | 07-F0 | c5 | 0d |    |    |    |
|            |            | MDP_XRT_FL_PROG_SET               |         | 2 | 07-F0 | c5 | 0d |    |    |    |

|            |            |                                   |   |       |                |
|------------|------------|-----------------------------------|---|-------|----------------|
| 2019/10/04 | 11:04:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |
| 2019/10/04 | 11:05:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |
| 2019/10/04 | 13:19:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 13:19:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 13:19:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] |   |       |                |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 ff aa 00    |
| 2019/10/04 | 13:20:00.0 | AOCS_ORe-point_Start_6_OG [0x09c] |   |       |                |
|            |            | AOCU_NM                           | 5 | 02-76 | 04 00 00 00 00 |
| 2019/10/04 | 13:20:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |
| 2019/10/04 | 13:20:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |
| 2019/10/04 | 13:20:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |
| 2019/10/04 | 13:20:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |
| 2019/10/04 | 13:20:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      |   |       |                |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |
| 2019/10/04 | 13:22:56.0 | XRT_QT_PROG_SET_431_OG [0x1af]    |   |       |                |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 01          |
| 2019/10/04 | 13:22:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |
| 2019/10/04 | 13:23:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |
| 2019/10/04 | 14:45:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 14:45:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 14:45:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |
| 2019/10/04 | 14:45:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |                |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |
| 2019/10/04 | 14:47:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |
| 2019/10/04 | 14:48:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |
| 2019/10/04 | 14:48:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |
| 2019/10/04 | 16:15:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 16:15:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 16:15:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |
| 2019/10/04 | 16:16:00.0 | AOCS_ORe-point_Start_4_OG [0x09a] |   |       |                |
|            |            | AOCU_NM                           | 5 | 02-76 | 02 03 74 01 f3 |
| 2019/10/04 | 16:16:00.5 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 16:16:02.5 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 16:16:04.5 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |
| 2019/10/04 | 16:16:06.5 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |                |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |
| 2019/10/04 | 16:16:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |
| 2019/10/04 | 16:16:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |
| 2019/10/04 | 16:16:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |
| 2019/10/04 | 16:16:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |
| 2019/10/04 | 16:16:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      |   |       |                |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |
| 2019/10/04 | 16:18:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    |   |       |                |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 03          |
| 2019/10/04 | 16:18:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |
| 2019/10/04 | 16:19:14.5 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |
| 2019/10/04 | 16:39:00.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |
| 2019/10/04 | 16:40:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |
| 2019/10/04 | 17:52:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 17:52:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 17:52:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |
| 2019/10/04 | 17:52:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |                |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |
| 2019/10/04 | 17:55:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |
| 2019/10/04 | 18:15:24.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 18:15:26.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |
| 2019/10/04 | 18:15:28.0 | XRT_FOCUS_POSITION_406_OG [0x196] |   |       |                |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 ff aa 00    |
| 2019/10/04 | 18:15:30.0 | AOCS_ORe-point_Start_3_OG [0x099] |   |       |                |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 00 00 00 00 |

|            |            |                                   |   |       |                |  |  |  |  |
|------------|------------|-----------------------------------|---|-------|----------------|--|--|--|--|
| 2019/10/04 | 18:15:48.0 | XRT_FLD_DIS_409_OG [0x199]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_DIS                   | 1 | 07-F0 | d9             |  |  |  |  |
| 2019/10/04 | 18:15:50.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_DIS               | 1 | 07-F0 | c9             |  |  |  |  |
| 2019/10/04 | 18:15:52.0 | XRT_ARS_DIS_443_OG [0x1bb]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2019/10/04 | 18:18:28.0 | XRT_QT_PROG_SET_445_OG [0x1bd]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 14          |  |  |  |  |
| 2019/10/04 | 18:18:30.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2019/10/04 | 18:25:24.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/04 | 18:25:26.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/04 | 18:25:28.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |  |
| 2019/10/04 | 18:25:30.0 | AOCS_ORe-point_Start_4_OG [0x09a] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 02 03 74 01 f3 |  |  |  |  |
| 2019/10/04 | 18:25:48.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |  |
| 2019/10/04 | 18:25:50.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |  |
| 2019/10/04 | 18:25:52.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |  |
| 2019/10/04 | 18:25:54.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |  |
| 2019/10/04 | 18:25:56.0 | XRT_FLD_RESET_434_OG [0x1b2]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2019/10/04 | 18:28:26.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 03          |  |  |  |  |
| 2019/10/04 | 18:28:28.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |  |  |  |
| 2019/10/04 | 18:28:30.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2019/10/04 | 19:29:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/04 | 19:29:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/04 | 19:29:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2019/10/04 | 19:29:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2019/10/04 | 19:32:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2019/10/04 | 19:52:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2019/10/04 | 19:53:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2019/10/04 | 21:06:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/04 | 21:06:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/04 | 21:06:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2019/10/04 | 21:06:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2019/10/04 | 21:09:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2019/10/04 | 21:29:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2019/10/04 | 21:30:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2019/10/04 | 22:43:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/04 | 22:43:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/04 | 22:43:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2019/10/04 | 22:43:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2019/10/04 | 22:46:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2019/10/04 | 23:05:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2019/10/04 | 23:06:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2019/10/05 | 00:20:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/05 | 00:20:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/05 | 00:20:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2019/10/05 | 00:20:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8             |  |  |  |  |
| 2019/10/05 | 00:23:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9             |  |  |  |  |
| 2019/10/05 | 00:31:30.0 | XRT_Custom_430_OG [0x1ae]         |   |       |                |  |  |  |  |
| 2019/10/05 | 00:32:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |  |
| 2019/10/05 | 01:47:00.5 | XRT_CTRL_MANU_400_OG [0x190]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/05 | 01:47:02.5 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |  |
| 2019/10/05 | 01:47:04.5 | XRT_FLD_RESET_415_OG [0x19f]      |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |  |
| 2019/10/05 | 01:47:06.5 | XRT_PREFLR_STRT_435_OG [0x1b3]    |   |       |                |  |  |  |  |

|            |            |                                   |                     |   |       |                |
|------------|------------|-----------------------------------|---------------------|---|-------|----------------|
| 2019/10/05 | 01:50:14.5 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |
|            |            |                                   | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |
| 2019/10/05 | 01:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2019/10/05 | 01:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2019/10/05 | 01:59:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |
| 2019/10/05 | 02:00:00.0 | AOCS_Ore-point_Start_3_OG [0x099] | AOCU_NM             | 5 | 02-76 | 00 00 00 00 00 |
| 2019/10/05 | 02:00:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |
| 2019/10/05 | 02:00:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |
| 2019/10/05 | 02:00:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |
| 2019/10/05 | 02:00:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |
| 2019/10/05 | 02:00:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |
| 2019/10/05 | 02:02:56.0 | XRT_QT_PROG_SET_404_OG [0x194]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 11          |
| 2019/10/05 | 02:02:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |
| 2019/10/05 | 02:03:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |
| 2019/10/05 | 02:04:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |
| 2019/10/05 | 03:19:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2019/10/05 | 03:19:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2019/10/05 | 03:19:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |
| 2019/10/05 | 03:19:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |
| 2019/10/05 | 03:22:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |
| 2019/10/05 | 03:40:00.5 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |
| 2019/10/05 | 03:41:00.5 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |
| 2019/10/05 | 04:48:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2019/10/05 | 04:48:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2019/10/05 | 04:48:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |
| 2019/10/05 | 04:48:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |
| 2019/10/05 | 04:51:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |
| 2019/10/05 | 05:17:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |
| 2019/10/05 | 05:18:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |
| 2019/10/05 | 05:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2019/10/05 | 05:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2019/10/05 | 05:59:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |
| 2019/10/05 | 06:00:00.0 | AOCS_Ore-point_Start_3_OG [0x099] | AOCU_NM             | 5 | 02-76 | 00 00 00 00 00 |
| 2019/10/05 | 06:00:18.0 | XRT_FLD_DIS_409_OG [0x199]        | MDP_XRT_FLD_DIS     | 1 | 07-F0 | d9             |
| 2019/10/05 | 06:00:20.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    | MDP_XRT_FLRCTRL_DIS | 1 | 07-F0 | c9             |
| 2019/10/05 | 06:00:22.0 | XRT_ARS_DIS_443_OG [0x1bb]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |
| 2019/10/05 | 06:02:58.0 | XRT_QT_PROG_SET_445_OG [0x1bd]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 14          |
| 2019/10/05 | 06:03:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |
| 2019/10/05 | 06:09:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2019/10/05 | 06:09:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |
| 2019/10/05 | 06:09:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 fe 97 00    |
| 2019/10/05 | 06:10:00.0 | AOCS_Ore-point_Start_4_OG [0x09a] | AOCU_NM             | 5 | 02-76 | 02 03 74 01 f3 |
| 2019/10/05 | 06:10:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |
| 2019/10/05 | 06:10:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |
| 2019/10/05 | 06:10:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |
| 2019/10/05 | 06:10:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |
| 2019/10/05 | 06:10:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |
| 2019/10/05 | 06:12:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 03          |
| 2019/10/05 | 06:12:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |                     |   |       |                |

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|            |            |                                   |                     |   |       |    |                |
|------------|------------|-----------------------------------|---------------------|---|-------|----|----------------|
| 2019/10/05 | 06:13:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d             |
|            |            |                                   | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |                |
| 2019/10/05 | 06:28:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |                |
| 2019/10/05 | 06:28:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |                |
| 2019/10/05 | 06:28:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |                |
| 2019/10/05 | 06:28:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |                |
| 2019/10/05 | 06:31:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |                |
| 2019/10/05 | 06:55:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |    |                |
| 2019/10/05 | 06:56:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |                |
| 2019/10/05 | 08:09:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |                |
| 2019/10/05 | 08:09:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |                |
| 2019/10/05 | 08:09:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |                |
| 2019/10/05 | 08:09:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |                |
| 2019/10/05 | 08:12:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |                |
| 2019/10/05 | 08:32:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |    |                |
| 2019/10/05 | 08:33:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |                |
| 2019/10/05 | 09:48:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |                |
| 2019/10/05 | 09:48:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |                |
| 2019/10/05 | 09:48:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |                |
| 2019/10/05 | 09:48:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |                |
| 2019/10/05 | 09:50:00.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |                |
| 2019/10/05 | 09:51:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |                |
| 2019/10/05 | 10:24:00.0 | AOCS_ORe-point_Start_3_OG [0x099] | AOCU_NM             | 5 | 02-76 | 00 | 00 00 00 00 00 |