

# XRT Timeline to be uploaded on 2019/08/13

Period: 2019/08/13 09:41:00 - 2019/08/17 10:23:00

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## Normal mode

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### XOB #1B97: CME watch - 4x4 - AEC 2/3 - 2-filter (Be-thin, Al-poly) - G-band (1x1,512x512,1ms) - Leak (1x1,512x512,1ms) - 360s cad (G-band/Leak last)

| Term                            | Pointing (x, y)       | Comment  |
|---------------------------------|-----------------------|--|
| 08/13 10:25:06 - 08/13 11:21:00 | Fixed ( -20.0, -34.0) | # OP start + 10min, HOP 382, GREGOR coordination |
| 08/13 18:13:00 - 08/13 21:30:30 | Fixed ( 0.0, 0.0)     | synoptic   |
| 08/14 04:26:36 - 08/14 05:09:54 | Fixed ( 0.0, 0.0)     | DC   |
| 08/14 08:33:00 - 08/14 11:29:54 | Fixed ( -20.0, -34.0) | HOP 382, GREGOR coordination                     |
| 08/15 05:01:36 - 08/15 05:32:54 | Fixed ( 0.0, 0.0)     | DC   |
| 08/15 05:46:00 - 08/15 06:59:54 | Fixed ( 0.0, 0.0)     | synoptic, shifted -27.0 min                      |
| 08/15 07:03:00 - 08/15 10:52:55 | Fixed ( -20.0, -34.0) | HOP 382, GREGOR coordination                     |

**PROG= 15 Inf.-time(s)**

| Subr= 1         | 1-time(s)          | 360.0sec   |
|-----------------|--------------------|--|
| <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>Subr= 2</b>  | <b>1-time(s)</b>   | <b>2.0sec</b>  |
| <b>Seqn= 30</b> | <b>1-time(s)</b>   | <b>2.0sec</b>  |
| 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     |

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

### XOB #1C55: Synoptic Q95 2x2 - Al/mesh(512/2048/5795) + Dark cal(2x2 4x4 8x8 512 Q98) + Dark cal(1x1 512x2048 - 1x1 2048x512) + Al-poly(512/5795/1157)

| Term                            | Pointing (x, y)   | Comment                     |
|---------------------------------|-------------------|-----------------------------|
| 08/13 12:03:06 - 08/13 12:10:00 | Fixed ( 0.0, 0.0) | DC                          |
| 08/13 18:04:26 - 08/13 18:09:54 | Fixed ( 0.0, 0.0) | synoptic                    |
| 08/14 05:13:00 - 08/14 05:23:30 | Fixed ( 0.0, 0.0) | synoptic, shifted 4.0 min   |
| 08/14 11:33:00 - 08/14 11:39:54 | Fixed ( 0.0, 0.0) | DC                          |
| 08/14 18:06:00 - 08/14 18:12:54 | Fixed ( 0.0, 0.0) | synoptic, shifted 3.0 min   |
| 08/15 05:36:00 - 08/15 05:42:54 | Fixed ( 0.0, 0.0) | synoptic, shifted -27.0 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= 78</b> | <b>1-time(s)</b>       | <b>2.0sec</b>  |
| Open/Al-mesh    | Open/Al-mesh close     | Safe Norm 500ms Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec |
| Open/Al-mesh    | Open/Al-mesh close     | Safe Norm 2.00s 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= 91</b> | <b>1-time(s)</b>       | <b>2.0sec</b>  |
| 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 5.66s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec |
| Al-poly/Open    | Al-poly/Open close     | Safe Norm 11.3s 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 #1BB5: CME watch - 4x4 - AEC 2/3 - 2-filter (Be-thin, Al-poly) - G-band (1x1,512x512,1ms) - Leak (1x1,512x512,1ms) - 120s cad (G-band/Leak first)

| Term                            | Pointing (x, y)   | Comment |
|---------------------------------|-------------------|---------|
| 08/13 12:13:06 - 08/13 17:59:54 | Fixed ( 0.0, 0.0) | DC      |
| 08/14 11:43:00 - 08/14 18:02:54 | Fixed ( 0.0, 0.0) | DC      |

**PROG= 06 Inf.-time(s)**

| Subr= 1         | 1-time(s)          | 2.0sec   |
|-----------------|--------------------|--|
| <b>Seqn= 30</b> | <b>1-time(s)</b>   | <b>2.0sec</b>  |
| 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     |
| <b>Subr= 2</b>  | <b>20-time(s)</b>  | <b>120.0sec</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 |

**XOB #1BE9: HOP81/206 2-filter - Al/poly 16s, Al/mesh 12s 30s cadence, G-band - 384x384 1ms**

| Term                            | Pointing (x, y)       | Comment                             |
|---------------------------------|-----------------------|-------------------------------------|
| 08/13 22:04:00 - 08/14 00:47:00 | Fixed ( 630.0, 630.0) | HOP 378, Hida coordination, NW-limb |
| 08/14 01:10:06 - 08/14 03:53:30 | Fixed ( 0.0, 900.0)   | HOP 378, Hida, N-pole               |
| 08/14 22:39:06 - 08/15 01:23:00 | Fixed ( 900.0, 0.0)   | HOP 378, Hida, W-limb               |
| 08/15 01:45:06 - 08/15 04:20:00 | Fixed ( 0.0, -900.0)  | HOP 378, Hida, S-pole               |

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

- Subr= 1 1-time(s) 2.0sec
  - Seqn= 16 2-time(s) 2.0sec
    - Open/G-band Open/G-band close Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) DPCM 0 0 2.0sec
- Subr= 2 1-time(s) 2.0sec
  - Seqn= 90 1-time(s) 30.0sec
    - Open/G-band Open/G-band open Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) Q=90 0 0 2.0sec
- Subr= 3 60-time(s) 2.0sec
  - Seqn= 39 1-time(s) 30.0sec
    - Open/Al-mesh Open/Al-mesh close Safe Norm 11.3s Obs 1x1 384x384 (1064, 1048) Q=90 0 0 2.0sec
    - Al-poly/Open Al-poly/Open close Safe Norm 16.0s Obs 1x1 384x384 (1064, 1048) Q=90 0 0 2.0sec

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

**XOB #1C59: HOP314 Synoptic Loop Q95 2x2 - Al/Poly(512/5795/32768) - Al/mesh(512/2048/16384) - G-Band**

| Term                            | Pointing (x, y)       | Comment                        |
|---------------------------------|-----------------------|--------------------------------|
| 08/14 06:05:06 - 08/14 08:29:54 | Fixed ( -20.0, 896.0) | HOP 314: Akatsuki coordination |

**PROG= 02 Inf.-time(s)**

- Subr= 1 1-time(s) 1800.0sec
  - Seqn= 49 1-time(s) 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 5.66s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec
    - Al-poly/Open Al-poly/Open close Safe Norm 32.0s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec
  - Seqn= 64 1-time(s) 2.0sec
    - Open/Al-mesh Open/Al-mesh close Safe Norm 500ms Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec
    - Open/Al-mesh Open/Al-mesh close Safe Norm 2.00s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec
    - Open/Al-mesh Open/Al-mesh close Safe Norm 16.0s Obs 2x2 2048x2048 (1024, 1024) Q=95 0 0 2.0sec
  - Seqn= 23 1-time(s) 2.0sec
    - 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 #1AEC: G-Band Alignment with North Pole Q90 2x2 (G-band and VLS=CLS) - 1msec (Al/poly) - 4096msec - 5min cadence - Partial Sun-wNGT**

| Term                            | Pointing (x, y)     | Comment                |
|---------------------------------|---------------------|------------------------|
| 08/14 18:28:00 - 08/14 20:12:54 | Fixed ( 0.0, 930.0) | Co-alignment at N-pole |

**PROG= 11 1-time(s)**

- Subr= 1 24-time(s) 300.0sec
  - Seqn= 98 1-time(s) 2.0sec
    - Open/G-band Open/G-band open Safe Norm 1ms Obs 2x2 2048x1536 (1024, 768) Q=90 0 0 2.0sec
  - Seqn= 63 1-time(s) 2.0sec
    - Open/G-band Open/G-band close Safe Norm 1ms Obs 2x2 2048x1536 (1024, 768) Q=90 0 0 2.0sec
  - Seqn= 45 1-time(s) 2.0sec
    - Al-poly/Open med-Be/Open close Safe Norm 4.00s Obs 2x2 2048x1536 (1024, 768) Q=95 0 0 2.0sec

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

**XOB #1AED: G-Band Alignment with East limb Q90 2x2 (G-band and VLS=CLS) - 1msec - (Al/poly) 1443msec - 8 min cadence-wNGT**

| Term                            | Pointing (x, y)      | Comment                |
|---------------------------------|----------------------|------------------------|
| 08/14 20:28:00 - 08/14 22:29:30 | Fixed ( -970.0, 0.0) | Co-alignment at E-limb |

**PROG= 17 1-time(s)**

- Subr= 1 15-time(s) 480.0sec
  - Seqn= 19 1-time(s) 2.0sec
    - Open/G-band Open/G-band open Safe Norm 1ms Obs 2x2 1536x2048 (1280, 1024) Q=90 0 0 2.0sec
  - Seqn= 43 1-time(s) 2.0sec
    - Open/G-band Open/G-band close Safe Norm 1ms Obs 2x2 1536x2048 (1280, 1024) Q=90 0 0 2.0sec
  - Seqn= 70 1-time(s) 2.0sec
    - Al-poly/Open med-Be/Open close Safe Norm 1.41s Obs 2x2 1536x2048 (1280, 1024) Q=95 0 0 2.0sec

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

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**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 512**

| Term                            | Pointing (x, y)       | Comment  |
|---------------------------------|-----------------------|--|
| 08/13 10:25:06 - 08/13 11:21:00 | Fixed ( -20.0, -34.0) | # OP start + 10min, HOP 382, GREGOR coordination |
| 08/13 12:13:06 - 08/13 17:59:54 | Fixed ( 0.0, 0.0)     | DC   |
| 08/13 18:13:00 - 08/13 21:30:30 | Fixed ( 0.0, 0.0)     | synoptic   |
| 08/13 22:04:00 - 08/14 00:47:00 | Fixed ( 630.0, 630.0) | HOP 378, Hida coordination, NW-limb              |
| 08/14 01:10:06 - 08/14 03:53:30 | Fixed ( 0.0, 900.0)   | HOP 378, Hida, N-pole                            |
| 08/14 04:26:36 - 08/14 05:09:54 | Fixed ( 0.0, 0.0)     | DC   |

|                                 |                       |                              |
|---------------------------------|-----------------------|------------------------------|
| 08/14 08:33:00 - 08/14 11:29:54 | Fixed ( -20.0, -34.0) | HOP 382, GREGOR coordination |
| 08/14 11:43:00 - 08/14 18:02:54 | Fixed ( 0.0, 0.0)     | DC                           |
| 08/14 22:39:06 - 08/15 01:23:00 | Fixed ( 900.0, 0.0)   | HOP 378, Hida, W-limb        |
| 08/15 01:45:06 - 08/15 04:20:00 | Fixed ( 0.0, -900.0)  | HOP 378, Hida, S-pole        |
| 08/15 05:01:36 - 08/15 05:32:54 | Fixed ( 0.0, 0.0)     | DC                           |
| 08/15 05:46:00 - 08/15 06:59:54 | Fixed ( 0.0, 0.0)     | synoptic, shifted -27.0 min  |
| 08/15 07:03:00 - 08/15 10:52:55 | Fixed ( -20.0, -34.0) | HOP 382, GREGOR coordination |

**PROG= 13 30-time(s)**

|                                      |   |
|--------------------------------------|---|
| <b>Subr= 1 20-time(s) 2.0sec</b>     |   |
| ├─ <b>Seqn= 11 1-time(s) 2.0sec</b>  |   |
| ├─ Al-poly/Open                      | Al-poly/thick-Al close Safe Norm 125ms Obs 2x2 512x512 (1024, 1024) Q=95 2 0 2.0sec     |
| ├─ <b>Seqn=100 1-time(s) 10.0sec</b> |   |
| ├─ 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        |
| ├─ <b>Subr= 2 1-time(s) 2.0sec</b>   |   |
| ├─ <b>Seqn= 10 1-time(s) 2.0sec</b>  |   |
| ├─ 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        |
| ├─ <b>Seqn= 11 1-time(s) 2.0sec</b>  |   |
| ├─ Al-poly/Open                      | Al-poly/thick-Al close Safe Norm 125ms Obs 2x2 512x512 (1024, 1024) Q=95 2 0 2.0sec     |
| ├─ <b>Seqn= 87 1-time(s) 2.0sec</b>  |   |
| ├─ 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 |

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

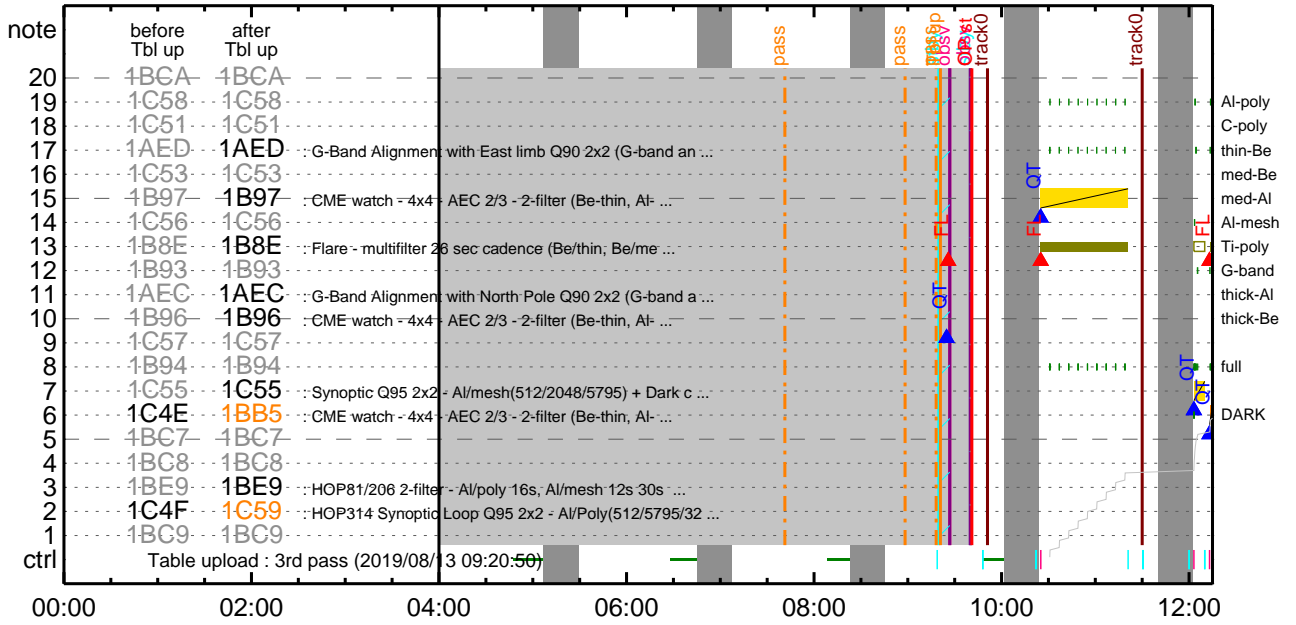
NOT USED

\* \* \* \* \*

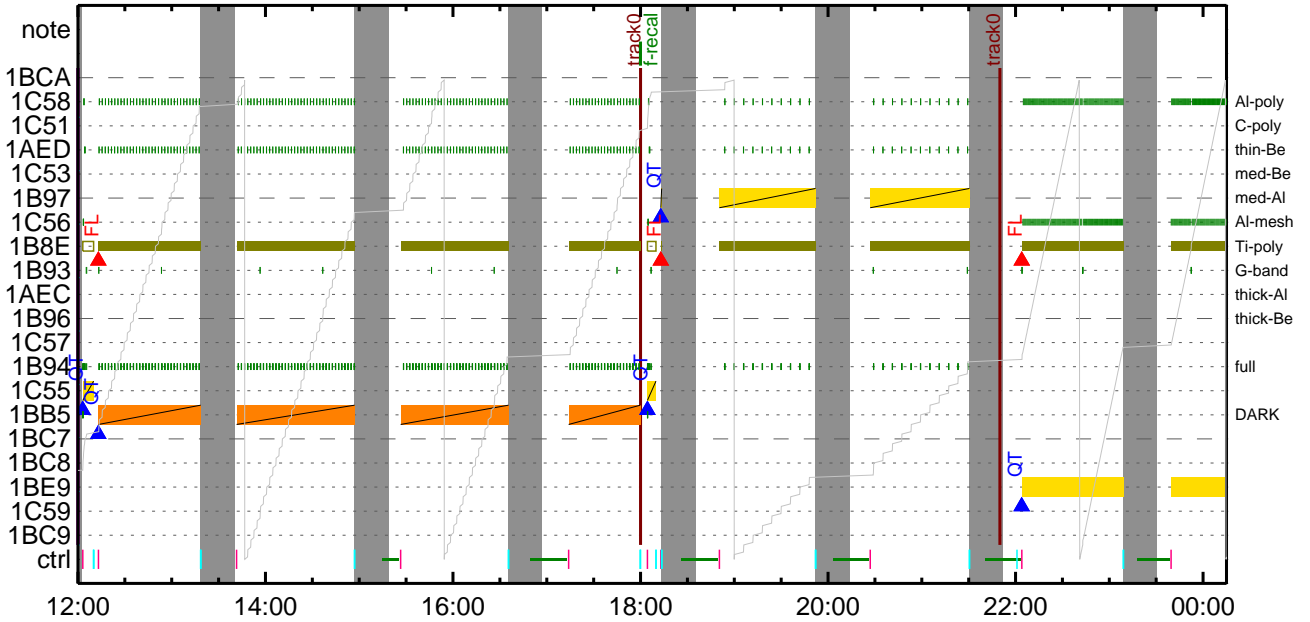
**Flare Detection** \* \* \* \* \*

| <b>FLD Patrol</b>               |                |                       |      |       |      |  |     |                    |       |            |          |
|---------------------------------|----------------|-----------------------|------|-------|------|--|-----|--------------------|-------|------------|----------|
| Term                            |                | Pointing (x, y)       |      |       |      | Comment  |     |                    |       |            |          |
| 08/13 10:22:24 - 08/13 12:00:24 |                | Fixed ( -20.0, -34.0) |      |       |      | # OP start + 10min, HOP 382, GREGOR coordination |     |                    |       |            |          |
| 08/13 12:10:24 - 08/13 18:04:18 |                | Fixed ( 0.0, 0.0)     |      |       |      | DC   |     |                    |       |            |          |
| 08/13 18:10:18 - 08/14 05:10:18 |                | Fixed ( 0.0, 0.0)     |      |       |      | synoptic   |     |                    |       |            |          |
| 08/14 08:30:18 - 08/14 11:30:18 |                | Fixed ( -20.0, -34.0) |      |       |      | HOP 382, GREGOR coordination                     |     |                    |       |            |          |
| 08/14 11:40:18 - 08/14 18:03:18 |                | Fixed ( 0.0, 0.0)     |      |       |      | DC   |     |                    |       |            |          |
| 08/14 22:36:22 - 08/15 05:33:18 |                | Fixed ( 900.0, 0.0)   |      |       |      | HOP 378, Hida, W-limb                            |     |                    |       |            |          |
| 08/15 05:43:18 - 08/17 10:23:00 |                | Fixed ( 0.0, 0.0)     |      |       |      | synoptic, shifted -27.0 min                      |     |                    |       |            |          |
| 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 |

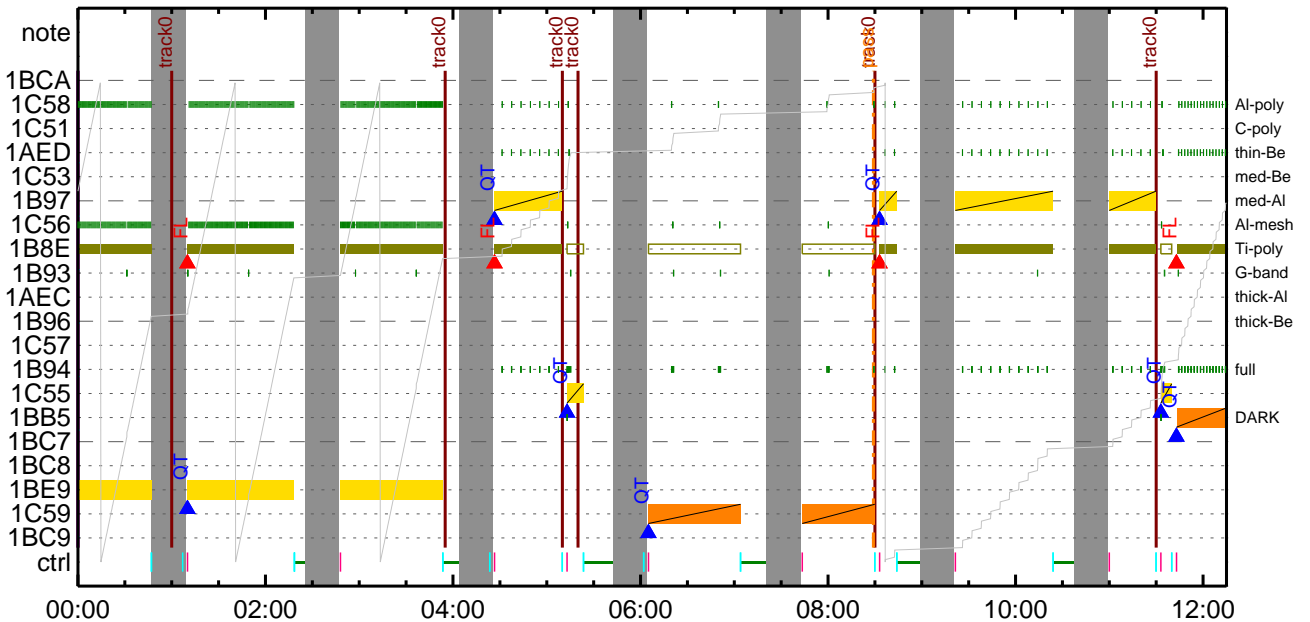
### CMDI #0414 2019/08/13



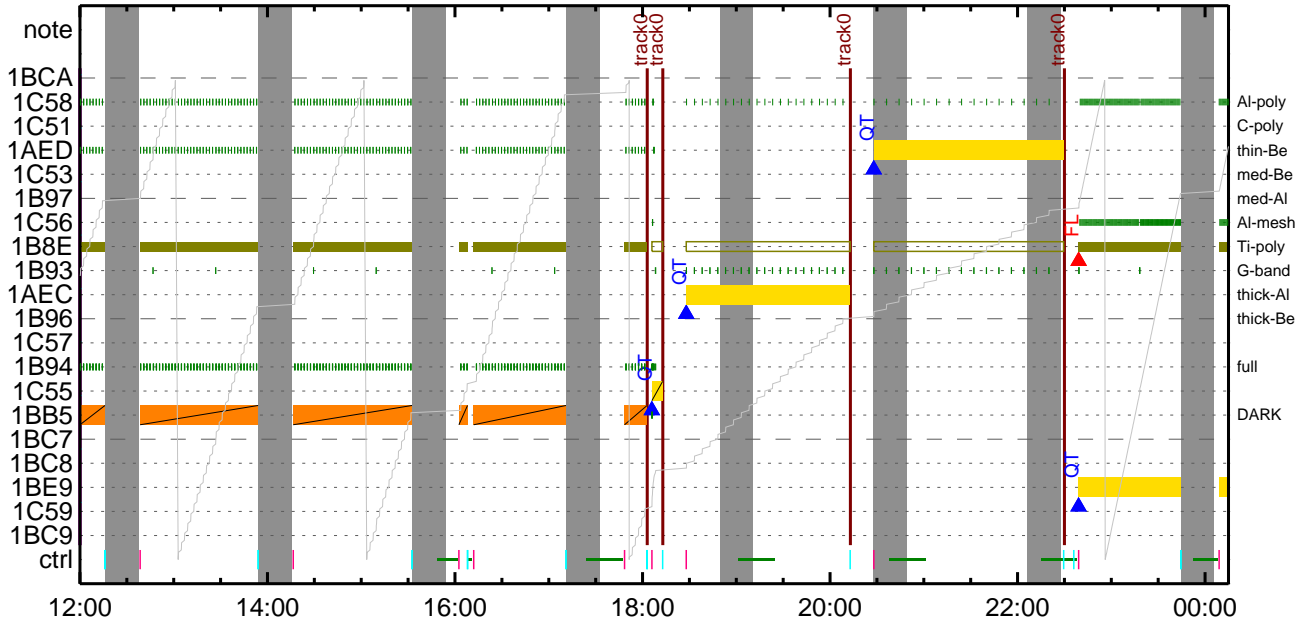
### CMDI #0414 2019/08/13



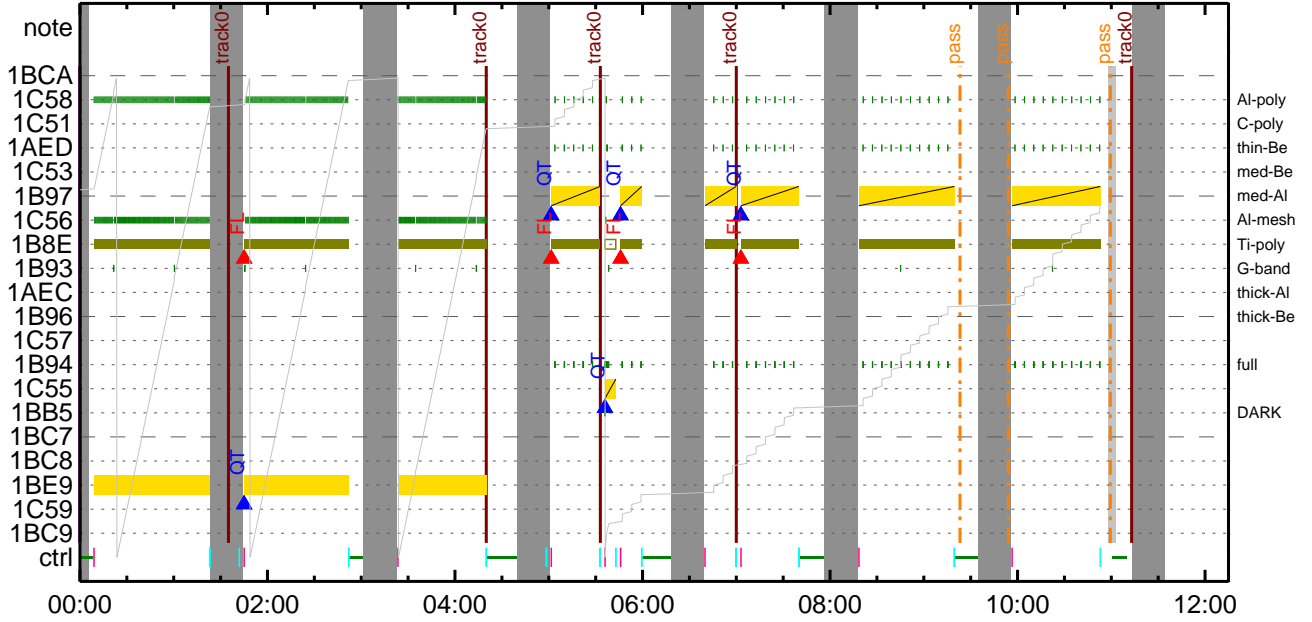
### CMDI #0414 2019/08/14



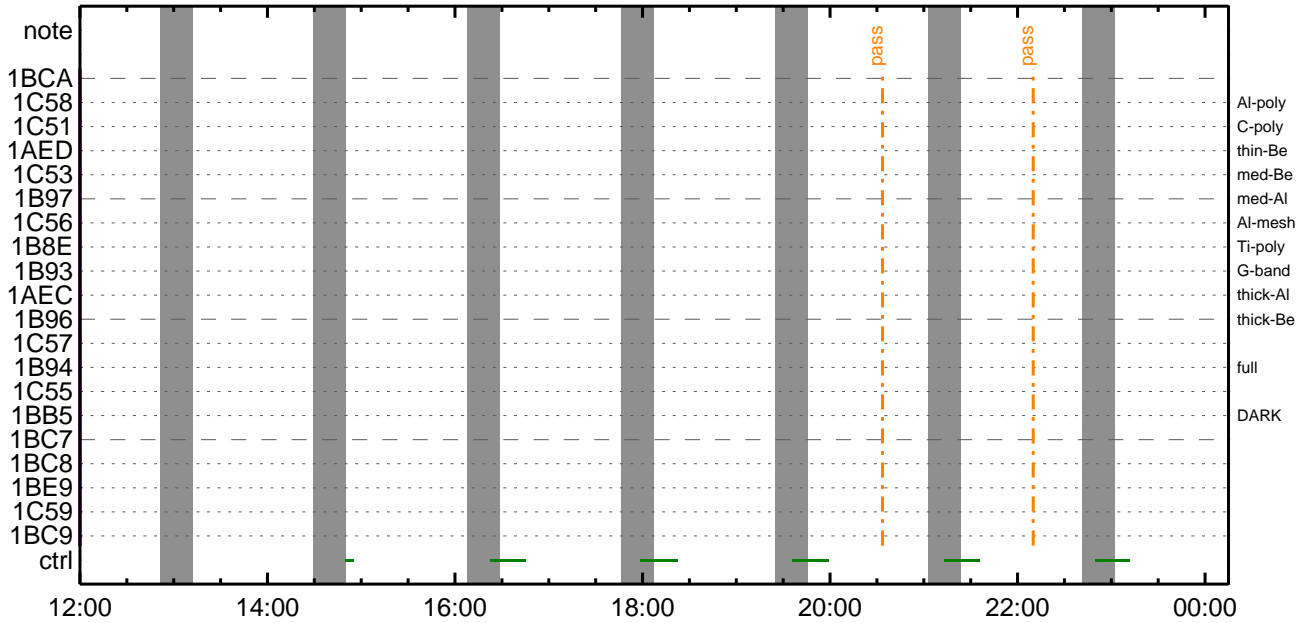
CMDI #0414 2019/08/14



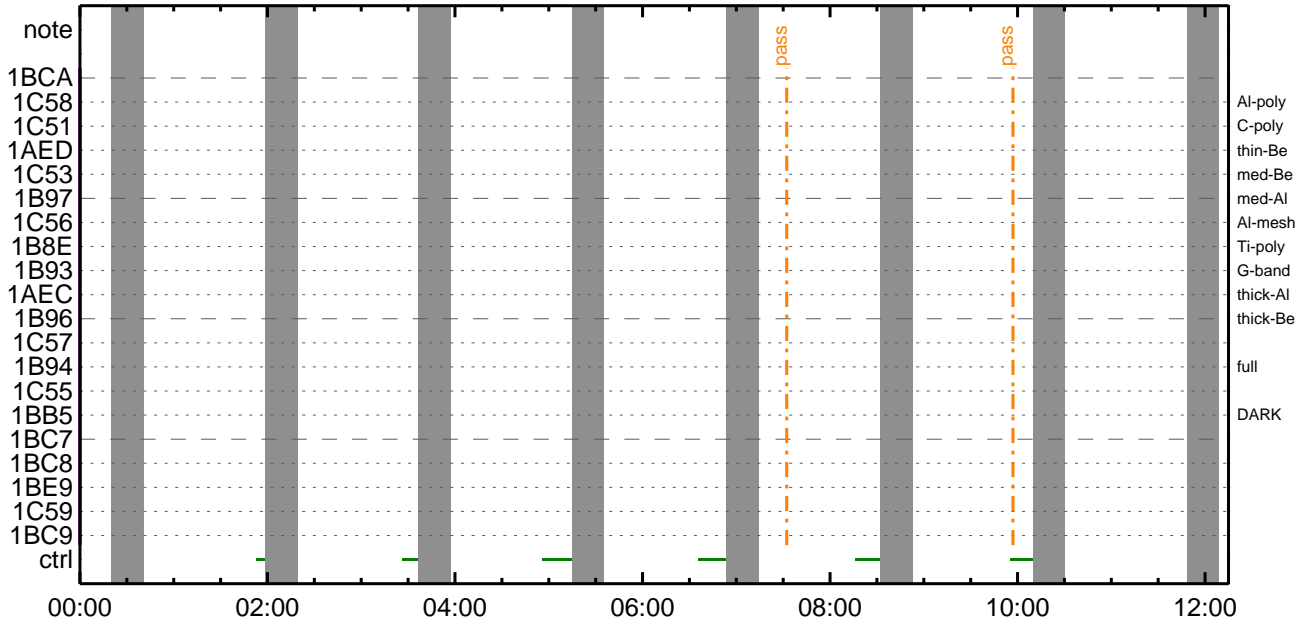
CMDI #0414 2019/08/15



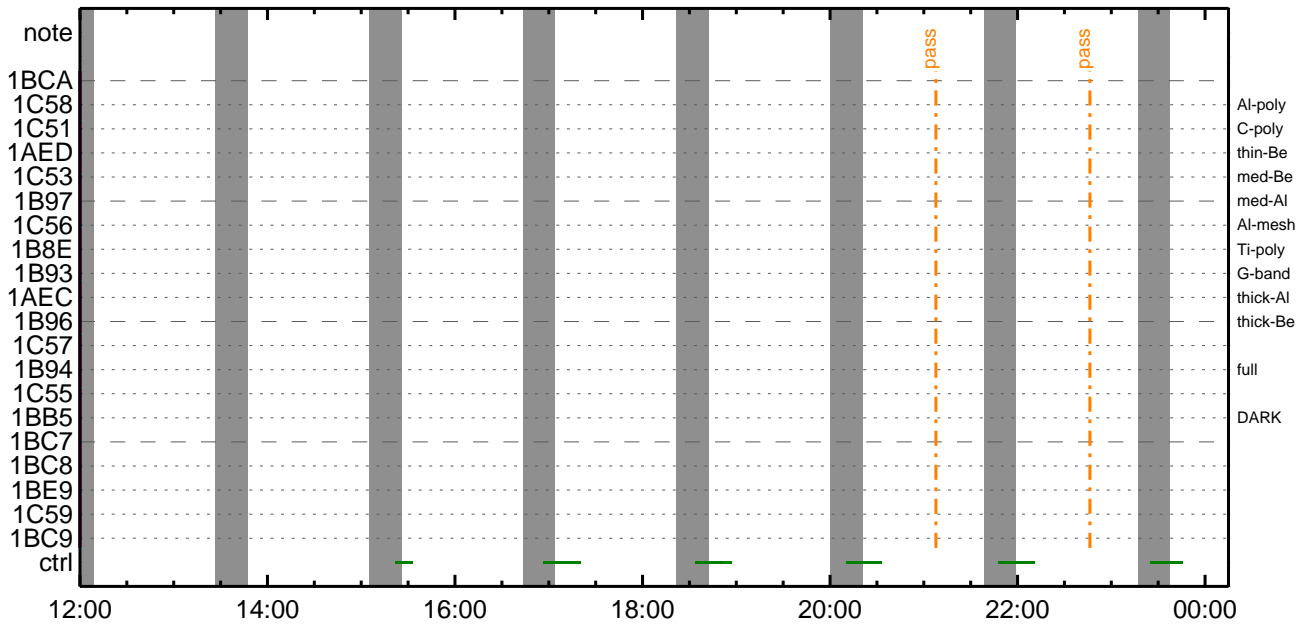
CMDI #0414 2019/08/15



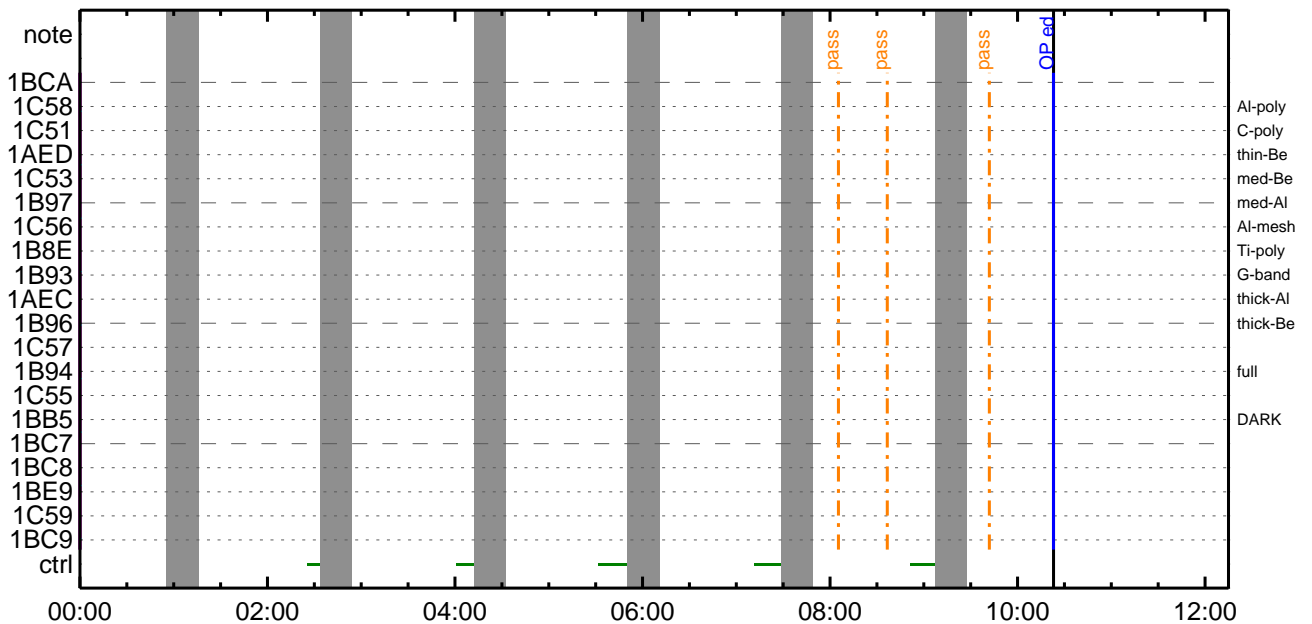
CMDI #0414 2019/08/16



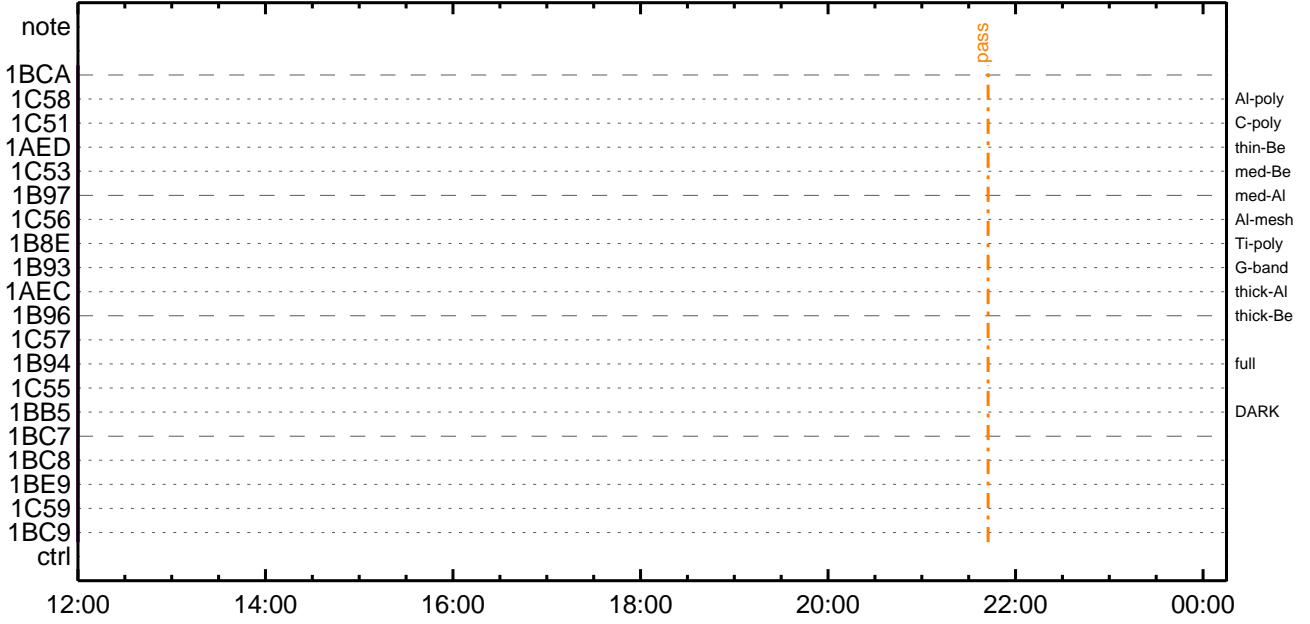
CMDI #0414 2019/08/16



CMDI #0414 2019/08/17



CMDI #0414 2019/08/17



(a) Spacecraft Operation Procedure (real-commands)

```
main-277 2019-08-13 14:27:39 205 33 SOLAR-B MAIN //
0001 C.
0002 . C. ***** AOS *****
0003 C.
0004 . C. ;ãAOSYÁY$YÁY~¼Ä»Û;ä
0005 C.
0006 C. YÀYB;¼Y³YFÝÖYÉÁ+¿®
0007 +. DC 00-00 NULL_DUMMY_CMD
0008 C.
0009 . C. ***** AOCs : Reload orbital element (send every contact) *****
0010 C. Áí;Èα¿αΑα•μ°Ϸ»Í×ÁÇαÍYçYÁY×Yí;¼YÉ;ÈÈè¼μ•ííÉ;ÈαÈ¼°ÇÓα•α¿¼í¹çαí;çÄ®, ùα¹αèαβαÇÁ+¿®α•αÈααα³αÈ; f
0011 +. DC 02-8E AOCU_ORB_UPD
0012 C.
0013 C.
0014 . C. *****
0015 C. OP/OGYí;¼YÉ;|YÁYÖY×
0016 C. *****
0017 C.
0018 . C. ;ãOP/OGYí;¼YÉ;ä
0019 . S. OP op-277:OP
0020 ( )
0021 . S. OG og-277:OG
0022 ( )
0023 C.
0024 . C. ;ãNMOG&OPÍ°èYÁYÖY×;ä
0025 C. NMOG(0x200000-0x207FFF;§ 32 kbyte)
0026 +. DC 01-23 DHU_DMA_DMP_PRM_SET
0027 BC (20 00 7f 01 02)
0028 C. çç[HK1_DMP_TOP_ADRS_1] EQ 40
0029 C. çç[HK1_DMP_TOP_ADRS_0] EQ 0
0030 C. çç[HK1_DMP_BLOCK_NUM] EQ 127
0031 C. çç[HK1_DMP_REPEAT_NUM] EQ 0
0032 C. çç[HK1_DMA_DMP_PIM] EQ DHU
0033 +. DC 01-22 DHU_MODE_CHNG
0034 BC (07 0b f8)
0035 C. çç[HK1_PKT_FORM_NO] EQ 7
0036 C. çç[HK1_PKT_GEN_TIME] EQ 0.25 s
0037 C. çç[HK1_S_TLM_BIT_RATE] EQ 32k
0038 C. çç[HK1_X_TLM_BIT_RATE] EQ 4M
0039 C. çç[HK1_DMP_CHK_FLG] EQ EXEC
0040 . C. YÀYÖY×¼ªª Í»αδ³ ÍÇ§
0041 C. çç[HK1_DMP_CHK_FLG] EQ NON
0042 . C. RAM ID=NMOGαÍ¼È¹ç•è² ÍOKαδ³ ÍÇ§
0043 C.
0044 C. NMOG(0x208000-0x20FFFF;§ 32 kbyte)
0045 +. DC 01-23 DHU_DMA_DMP_PRM_SET
0046 BC (20 80 7f 01 02)
0047 C. çç[HK1_DMP_TOP_ADRS_1] EQ 41
0048 C. çç[HK1_DMP_TOP_ADRS_0] EQ 0
0049 C. çç[HK1_DMP_BLOCK_NUM] EQ 127
0050 C. çç[HK1_DMP_REPEAT_NUM] EQ 0
0051 C. çç[HK1_DMA_DMP_PIM] EQ DHU
0052 +. DC 01-22 DHU_MODE_CHNG
0053 BC (07 0b f8)
0054 C. çç[HK1_PKT_FORM_NO] EQ 7
0055 C. çç[HK1_PKT_GEN_TIME] EQ 0.25 s
0056 C. çç[HK1_S_TLM_BIT_RATE] EQ 32k
0057 C. çç[HK1_X_TLM_BIT_RATE] EQ 4M
0058 C. çç[HK1_DMP_CHK_FLG] EQ EXEC
0059 . C. YÀYÖY×¼ªª Í»αδ³ ÍÇ§
0060 C. çç[HK1_DMP_CHK_FLG] EQ NON
0061 . C. RAM ID=NMOGαÍ¼È¹ç•è² ÍOKαδ³ ÍÇ§
0062 C.
0063 C. NMOG(0x210000-0x2100FF;§ 256byte)+OP(0x210100-0x2141FF: 16.25kbyte)
0064 +. DC 01-23 DHU_DMA_DMP_PRM_SET
0065 BC (21 00 41 01 02)
0066 C. çç[HK1_DMP_TOP_ADRS_1] EQ 42
0067 C. çç[HK1_DMP_TOP_ADRS_0] EQ 0
0068 C. çç[HK1_DMP_BLOCK_NUM] EQ 65
0069 C. çç[HK1_DMP_REPEAT_NUM] EQ 0
0070 C. çç[HK1_DMA_DMP_PIM] EQ DHU
0071 +. DC 01-22 DHU_MODE_CHNG
0072 BC (07 0b f8)
0073 C. çç[HK1_PKT_FORM_NO] EQ 7
0074 C. çç[HK1_PKT_GEN_TIME] EQ 0.25 s
0075 C. çç[HK1_S_TLM_BIT_RATE] EQ 32k
0076 C. çç[HK1_X_TLM_BIT_RATE] EQ 4M
0077 C. çç[HK1_DMP_CHK_FLG] EQ EXEC
0078 . C. YÀYÖY×¼ªª Í»αδ³ ÍÇ§
0079 C. çç[HK1_DMP_CHK_FLG] EQ NON
0080 . C. RAM ID=NMOG, RAM ID=OPαÍ¼È¹ç•è² ÍOKαδ³ ÍÇ§
0081 C.
0082 . C. ***** °È²¼αí¼Ä´ ¶¼°αÈÈ-α°Á+¿® (¼áμ-YÁYÖY×¼½¼çαδÄÖÁæαÇª°α°α¼í¹çαçαâ) *****
0083 C. DHUYã;¼YÉ;È¼Y¼; Yí;¼YÉ;ÈαóÍáα¹
0084 +. DC 01-22 DHU_MODE_CHNG
0085 BC (02 0a f8)
0086 C. çç[HK1_PKT_FORM_NO] EQ 2
0087 C. çç[HK1_PKT_GEN_TIME] EQ 0.5S
0088 C. çç[HK1_S_TLM_BIT_RATE] EQ 32k
0089 C. çç[HK1_X_TLM_BIT_RATE] EQ 4M
0090 C.
0091 . C. *****
0092 C. TI-CMD SET (OPOG STOP/COPY/START)
0093 C. *****
0094 C.
0095 . C. NOTICE |§ OPOG UPLOADα-Á+¿®NGαÍ¼í¹ç; ç°È²¼αí¼TI-CMDÁ+¿®αí¼Á¹Ôα•αÈααα³αÈ; f
```



```

0096 C.                0302; SET0EDUMP01A±0iYNY1aÇ1Ôa|a³aE;f
0097 C.
0098 C. TIY³YFÿÖYÉ0dÁDİ¿(UT)
0099 +. TI 2019-08-13 09:36:00.0
0100 DC 01-B3 DHU_OP_STOP
0101 C.                çç[HK1_TI_CMD_NUM]                EQ        1COUNTUP
0102 C.
0103 +. TI 2019-08-13 09:36:01.0
0104 DC 01-B4 DHU_OP_COPY
0105 C.                çç[HK1_TI_CMD_NUM]                EQ        1COUNTUP
0106 C.
0107 +. TI 2019-08-13 09:36:01.0
0108 DC 01-B5 DHU_OPOG_COPY
0109 C.                çç[HK1_TI_CMD_NUM]                EQ        1COUNTUP
0110 C.
0111 +. TI 2019-08-13 09:40:59.5
0112 DC 01-B2 DHU_OP_START
0113 C.                çç[HK1_TI_CMD_NUM]                EQ        1COUNTUP
0114 C.
0115 C. 0E²¼0İÄê%îİÑ0İYÁY§YÁY-¹àİÛ
0116 C.                çç[HK1_TI_CMD_ENA/DIS]            EQ        ENA
0117 C.                çç[HK1_TI_CMD_NUM]                EQ        4
0118 C.                çç[HK1_NEXT_EXEC_PIM]            EQ        DHU
0119 C.                çç[HK1_NEXT_EXEC_DC]            EQ        0xB3
0120 C.
0121 C. *****
0122 C. TIİİ°èYÁYÖY×
0123 C. *****
0124 C.
0125 C. TI_TBL(0x03AB00-0x03AEFF;§ 1024byte)
0126 +. DC 01-23 DHU_DMA_DMP_PRM_SET
0127 BC (03 ab 03 01 02)
0128 C.                çç[HK1_DMP_TOP_ADRS_1]            EQ        07
0129 C.                çç[HK1_DMP_TOP_ADRS_0]            EQ        2B
0130 C.                çç[HK1_DMP_BLOCK_NUM]            EQ        3
0131 C.                çç[HK1_DMP_REPEAT_NUM]           EQ        0
0132 C.                çç[HK1_DMA_DMP_PIM]             EQ        DHU
0133 +. DC 01-22 DHU_MODE_CHNG
0134 BC (07 0b f8)
0135 C.                çç[HK1_PKT_FORM_NO]              EQ        7
0136 C.                çç[HK1_PKT_GEN_TIME]             EQ        0.25 s
0137 C.                çç[HK1_S_TLM_BIT_RATE]           EQ        32k
0138 C.                çç[HK1_X_TLM_BIT_RATE]          EQ        4M
0139 C.                çç[HK1_DMP_CHK_FLG]             EQ        EXEC
0140 C.
0141 C. YÁYÖY×¼ª¹İ»0d³İÇ§
0142 C.                çç[HK1_DMP_CHK_FLG]             EQ        NON
0143 C.
0144 C. RAM ID=TI_TBL0İ%È¹Ç•è²İOK0d³İÇ§
0145 C.
0146 C. DHUYâ;¼YÉ;È¼Y¼, Yİ;¼YÈ;È0dİá0¹
0147 +. DC 01-22 DHU_MODE_CHNG
0148 BC (02 0a f8)
0149 C.                çç[HK1_PKT_FORM_NO]              EQ        2
0150 C.                çç[HK1_PKT_GEN_TIME]             EQ        0.5S
0151 C.                çç[HK1_S_TLM_BIT_RATE]           EQ        32K
0152 C.                çç[HK1_X_TLM_BIT_RATE]          EQ        4M
0153 C.
0154 C. Stop EIS observation and temporarily disable EIS mode changes
0155 C.
0156 C.
0157 C. ***** Start EIS operation (TI set) *****
0158 C. Execute, after the success of OP upload.
0159 C. Set EIS TI-commands
0160 +. TI 2019-08-13 09:40:30.0
0161 DC 07-FC EIS_MODE_MANU
0162 BC (21 02)
0163 +. TI 2019-08-13 09:40:40.0
0164 DC 07-FC EIS_MODE_CHG_DIS
0165 BC (22)
0166 C.                [ ] [HK1_TI_CMD_NUM]            EQ        2 COUNTUP
0167 C. ***** End EIS operation (TI set) *****
0168 C.
0169 C.
0170 C. *****
0171 C. SOT TI command set
0172 C. *****
0173 C. Execute, after the success of OP upload.
0174 +. TI 2019-08-13 09:40:16.0
0175 DC 07-F0 MDP_SOT_MODE_STBY
0176 BC (41)
0177 C. -----
0178 C. HK1_TI_CMD_NUM = 1 CNTUP [ ]
0179 C. -----
0180 C. ***** SOT END *****
0181 C.
0182 C. ***** XRT START *****
0183 C. Execute, after the success of OP upload.
0184 +. TI 2019-08-13 09:40:00.0
0185 DC 07-F0 MDP_XRT_MODE_STBY
0186 BC (c3)
0187 C.                [ ] [HK1_TI_CMD_NUM]            EQ        1COUNTUP
0188 C.
0189 C. ***** XRT END *****
0190 C.
0191 C. ***** MDP `úÃİ0İ»ö¼Y0ÈÄ0¹0èDCBC•×²è *****
0192 C. (%â°İYÖYÁYÈYÿYÿYáYçYè0E¼00¼Ä»Û0¹0é)
0193 C. S. DC-BC dcbc-402:DCBC

```

```
0194 (MDP_known_event)
0195 C.
0196 C.
0197 . C. ***** ¥ÐŸ!•İ Daily±;İÑøĒ'Øσ¹αēDCBC•x²è *****
0198 . S. DC-BC dcbc-153:DCBC
0199 (SPECIAL-CMD_DAILY_OPERATIN_DCB)
0200 C.
0201 C.
0202 . C. ;ãLOS¥Á¥S¥Ã¥~¼Â»Ü;ã
0203 C.
0204 . C. ***** LOS *****
0205 C.
```

(a) Spacecraft Operation Procedure (real-commands)

```

main-278 2019-08-13 14:27:39 94 33 SOLAR-B MAIN //
0001 C.
0002 . C. ***** AOS *****
0003 C.
0004 . C. ;ãAOSYÁYŞYÁY-¼Å»Û;ã
0005 C.
0006 C. YÀYB;¼Y³YFÝÓYÉÁ+¿®
0007 +. DC 00-00 NULL_DUMMY_CMD
0008 C.
0009 . C. ***** AOCS : Reload orbital element (send every contact) *****
0010 C. Áí;Ëð¿ðÅð•µ°È»Í×ÁÇóÍYçYÁY×Yí;¼YÉ;ËÈè¼µ•íÉ;ËðÈ¼°ÇÔð•¼¿¼i¹çðÍ;çÀ®, ùð¹ðèððçÁ+¿®ð•ðÈððð³ðÈ;f
0011 +. DC 02-8E AOCU_ORB_UPD
0012 C.
0013 C.
0014 . C. ***** AOCS Commands (Tracking Curve Upload) *****
0015 C. Upload the Orbit Element and the Target Attitude
0016 C. RAM-ID:TARGET_ATT
0017 . S. RAM ram-150:TARGET_ATT
0018 ( )
0019 C.
0020 C.
0021 C. Set the dump memory area of TARGET_ATT
0022 +. DC 02-48 AOCU_DUMP_SET
0023 BC (07 00 00 00 18 00)
0024 C.
0025 C. <A_STS1>[MEMORY OPERATE SATUS] ADRS = 070000 [ ]
0026 C.
0027 C.
0028 C. Change the TLMFormatNo for the AOCS Dump Format
0029 +. DC 01-22 DHU_MODE_CHNG
0030 BC (04 0b f8)
0031 C.
0032 C. Wait for AOCS DUMP to end
0033 C.
0034 . C. Check the dump memory
0035 C.
0036 C. Result = OK [ ]
0037 C.
0038 +. DC 01-22 DHU_MODE_CHNG
0039 BC (02 0a f8)
0040 C.
0041 C. <A_***>[TLM STS] FMT = 2 [ ]
0042 C.
0043 +. DC 02-8E AOCU_ORB_UPD
0044 . C.
0045 . C. ***** AOCS Commands (Orbital Element Update) *****
0046 C. Update the orbital element
0047 +. DC 02-50 AOCU_ORB_PRPGT_START
0048 BC (16)
0049 +. DC 02-8E AOCU_ORB_UPD
0050 C.
0051 C. <A_ORB>[ORBIT] EPC = 3707608.2 +- 1.0 (s) [ ]
0052 C.
0053 C.
0054 . C. Load OBSTBL, dump OBSTBL, enable EIS mode changes
0055 +. DC 07-FC EIS_MODE_CHG_ENA
0056 BC (20)
0057 . C. Verify EIS_MODE_CHG_FLG is ENA
0058 +. DC 07-FC EIS_MODE_MANU
0059 BC (21 02)
0060 . C. Verify EIS in MANUAL mode
0061 C. Estimated OBSTBL upload time is 39s
0062 C. *****
0063 C. EIS START OBSTBL LOAD
0064 C. *****
0065 . S. RAM ram-820:EIS_OBSTBL
0066 ( )
0067 +. DC 07-FC EIS_DUMP_OBSTBL
0068 BC (07 07 07 00 00 70 00)
0069 C.
0070 C. Execute, after the success of OBSTBL upload.
0071 C. Set EIS TI-commands
0072 +. TI 2019-08-13 09:40:50.0
0073 DC 07-FC EIS_MODE_CHG_ENA
0074 BC (20)
0075 . C. [ ] [HK1_TI_CMD_NUM] EQ 1 COUNTUP
0076 C. *****
0077 C. EIS END OBSTBL LOAD
0078 C. *****
0079 C.
0080 . C. ***** MDP `ûÃîðî»ò¼YðÈÅðð¹ðÈDCBC•×²è *****
0081 C. (¼å°íYÓYÁYÈYÞYÈYáYçYèðÈ¼¼¼Å»Û¹ðè)
0082 . S. DC-BC dcbc-402:DCBC
0083 (MDP_known_event)
0084 C.
0085 C.
0086 . C. ***** YDÝ!•İ Daily±¿İÑðÈ`Øð¹ðÈDCBC•×²è *****
0087 . S. DC-BC dcbc-153:DCBC
0088 (SPECIAL-CMD_DAILY_OPERATIN_DCB)
0089 C.
0090 C.
0091 C. ;ãLOSÁYŞYÁY-¼Å»Û;ã
0092 C.
0093 . C. ***** LOS *****
0094 C.

```

(a) Spacecraft Operation Procedure (real-commands)

```
main-279 2019-08-13 14:27:39 132 33 SOLAR-B MAIN //
0001 C.
0002 . C. ***** AOS *****
0003 C.
0004 . C. ;ãAOSYÁY$YÁY-¼Á»Û;ã
0005 C.
0006 C. YÁYB;¼Y³YF¥ÓYÉÁ+¿®
0007 +. DC 00-00 NULL_DUMMY_CMD
0008 C.
0009 . C. ***** AOCs : Reload orbital element (send every contact) *****
0010 C. Áí;È¿¿ãÁ•µ°È»Í×ÁÇóÍYçYÁY×Yí;¼YÉ;ÈÈ%µ•ííÉ;ÈÈ¼°ÇÓã•¿¿¼í¹ç¿Í;çÁ®, ù¿¹ãÈãÈãÇÁ+¿®ã•¿Èãã¿ãÈ;f
0011 +. DC 02-8E AOCU_ORB_UPD
0012 C.
0013 C.
0014 . C. *****
0015 C. SOT table upload
0016 C. *****
0017 . C. < Stop SP table >
0018 +. DC 07-F0 MDP_SP_CTRL_MANU
0019 BC (61)
0020 C. -----
0021 C. MDP_SP_CTRL_MODE = MANU [ ]
0022 C. -----
0023 C.
0024 . C. <Upload SP Observation Table>
0025 . S. RAM ram-283:MDP_OBS_S
0026 ( )
0027 C.
0028 . C. < Dump RAMID=MDP_OBS_S >
0029 +. DC 07-F0 MDP_DUMP_SPTBL
0030 BC (83 07 00 00 00 38 b8)
0031 C. -----
0032 C. MDP_OBS_S verify = OK/NG [ ]
0033 C. -----
0034 C.
0035 C. *****
0036 C. SOT TI command set
0037 C. *****
0038 C. Execute, after the success of TBL upload.
0039 +. TI 2019-08-13 09:40:18.0
0040 DC 07-F0 MDP_SOT_MODE_OBSV
0041 BC (40)
0042 C. -----
0043 C. HK1_TI_CMD_NUM = 1 CNTUP [ ]
0044 C. -----
0045 C.
0046 C.
0047 C. ***** XRT START *****
0048 C.
0049 +. DC 07-F0 MDP_XRT_CTRL_MANU
0050 BC (c1)
0051 + DC 07-F0 MDP_XRT_MODE_STBY
0052 BC (c3)
0053 . C. ----- Success Verify ? OK / NG_____
0054 C.
0055 C. XRT Obs. Table Upload
0056 . S. RAM ram-291:MDP_OBS_X
0057 ( )
0058 C.
0059 +. DC 07-F0 MDP_DUMP_XRTTBL
0060 BC (84 07 00 00 00 3a d4)
0061 . C. ----- Comparison Check ? OK / ERR _____
0062 C.
0063 C.
0064 +. DC 07-F0 MDP_XRT_ROI_SET
0065 BC (cd 01 b1 b1 04 04)
0066 + DC 07-F0 MDP_XRT_ROI_SET
0067 BC (cd 02 b1 b1 08 08)
0068 + DC 07-F0 MDP_XRT_ROI_SET
0069 BC (cd 03 b1 b1 08 08)
0070 + DC 07-F0 MDP_XRT_ROI_SET
0071 BC (cd 04 b1 b1 06 06)
0072 + DC 07-F0 MDP_XRT_ROI_SET
0073 BC (cd 06 80 80 08 08)
0074 + DC 07-F0 MDP_XRT_ROI_SET
0075 BC (cd 07 80 80 20 20)
0076 + DC 07-F0 MDP_XRT_ROI_SET
0077 BC (cd 08 80 80 20 08)
0078 + DC 07-F0 MDP_XRT_ROI_SET
0079 BC (cd 09 80 80 08 20)
0080 + DC 07-F0 MDP_XRT_ROI_SET
0081 BC (cd 0a 85 83 06 06)
0082 + DC 07-F0 MDP_XRT_ROI_SET
0083 BC (cd 0b 80 60 20 18)
0084 + DC 07-F0 MDP_XRT_ROI_SET
0085 BC (cd 0c a0 80 18 20)
0086 + DC 07-F0 MDP_XRT_ROI_SET
0087 BC (cd 0f 80 80 06 06)
0088 + DC 07-F0 MDP_XRT_ROI_SET
0089 BC (cd 10 80 80 08 08)
0090 + DC 07-F0 MDP_XRT_FLD_DIS
0091 BC (d9)
0092 + DC 07-F0 MDP_XRT_FLRCTRL_DIS
0093 BC (c9)
0094 + DC 07-F0 MDP_XRT_ARS_DIS
0095 BC (d5)
```

```

0096 + DC 07-F0 MDP_XRT_AEC_RESET
0097   BC (d0)
0098 + DC 07-F0 MDP_XRT_FLD_RESET
0099   BC (da)
0100 +. DC 07-F0 MDP_XRT_QT_PROG_SET
0101   BC (c4 0a)
0102 +. DC 07-F0 MDP_XRT_FL_PROG_SET
0103   BC (c5 0d)
0104 . C. ----- Success Verify ?           OK / NG ____
0105   C.
0106   C.
0107 . C. All OK?   Yes--> Please Proceed. / No --> Stop here.
0108   C.
0109 +. DC 07-F0 MDP_XRT_MODE_OBSV
0110   BC (c2)
0111 +. TI 2019-08-13 09:40:02.0
0112   DC 07-F0 MDP_XRT_MODE_OBSV
0113   BC (c2)
0114 . C. ----- Success Verify ?           OK / NG ____
0115   C.
0116   C. ***** XRT END *****
0117   C.
0118 . C. ***** MDP `ûÃîñî»ö¼ÿñÈÄñ¹ñèDCBC•x²è *****
0119   C. (¼ã°îÿÓÿÃÿÈÿPÿÈÿÃÿçÿèñ¼¼ñ¼Ã»Üñ¹ñè)
0120 . S. DC-BC dcbc-402:DCBC
0121   (MDP_known_event)
0122   C.
0123   C.
0124 . C. ***** ÿDÿ¹•î Daily±;îÑñÈ´Øñ¹ñèDCBC•x²è *****
0125 . S. DC-BC dcbc-153:DCBC
0126   (SPECIAL-CMD_DAILY_OPERATIN_DCB)
0127   C.
0128   C.
0129 . C. ;ãLOSÿÃÿSÿÿÃÿ¬¼Ã»Ü;ã
0130   C.
0131 . C. ***** LOS *****
0132   C.

```

Aug 13, 19 14:27

## XRT\_OGLIST\_0414.chk

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

```

2019/08/13 09:48:00.0 XRT_CTRL_MANU_400_OG [0x190]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 09:48:02.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 09:48:04.0 XRT_FLD_RESET_415_OG [0x19f]
                        MDP_XRT_FLD_RESET 1 07-F0 da
2019/08/13 09:48:06.0 XRT_PREFLR_STRT_435_OG [0x1b3]
                        MDP_XRT_PREFLR_STRT 1 07-F0 e8
2019/08/13 09:51:00.0 AOCS_ORe-point_Start_1_OG [0x097]
                        AOCU_NM 5 02-76 00 03 02 01 ca
2019/08/13 09:51:14.0 XRT_PREFLR_STOP_419_OG [0x1a3]
                        MDP_XRT_PREFLR_STOP 1 07-F0 e9
2019/08/13 10:22:00.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 10:22:02.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 10:22:04.0 XRT_FOCUS_POSITION_406_OG [0x196]
                        XRT_FOCUS_POSITION 4 07-F8 22 ff aa 00
2019/08/13 10:22:24.0 XRT_FLD_ENA_411_OG [0x19b]
                        MDP_XRT_FLD_ENA 1 07-F0 d8
2019/08/13 10:22:26.0 XRT_FLRCTRL_ENA_412_OG [0x19c]
                        MDP_XRT_FLRCTRL_ENA 1 07-F0 c8
2019/08/13 10:22:28.0 XRT_AEC_RESET_448_OG [0x1c0]
                        MDP_XRT_AEC_RESET 1 07-F0 d0
2019/08/13 10:22:30.0 XRT_ARS_DIS_423_OG [0x1a7]
                        MDP_XRT_ARS_DIS 1 07-F0 d5
2019/08/13 10:22:32.0 XRT_FLD_RESET_434_OG [0x1b2]
                        MDP_XRT_FLD_RESET 1 07-F0 da
2019/08/13 10:25:02.0 XRT_QT_PROG_SET_421_OG [0x1a5]
                        MDP_XRT_QT_PROG_SET 2 07-F0 c4 0f
2019/08/13 10:25:04.0 XRT_FL_PROG_SET_440_OG [0x1b8]
                        MDP_XRT_FL_PROG_SET 2 07-F0 c5 0d
2019/08/13 10:25:06.0 XRT_CTRL_AUTO_408_OG [0x198]
                        MDP_XRT_CTRL_AUTO 1 07-F0 c0
2019/08/13 11:21:00.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 11:30:00.0 AOCS_ORe-point_Start_2_OG [0x098]
                        AOCU_NM 5 02-76 00 00 00 00 00
2019/08/13 11:30:30.0 XRT_CTRL_MANU_400_OG [0x190]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 11:30:32.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 11:30:34.0 XRT_FLD_RESET_415_OG [0x19f]
                        MDP_XRT_FLD_RESET 1 07-F0 da
2019/08/13 11:30:36.0 XRT_PREFLR_STRT_435_OG [0x1b3]
                        MDP_XRT_PREFLR_STRT 1 07-F0 e8
2019/08/13 11:33:44.0 XRT_PREFLR_STOP_419_OG [0x1a3]
                        MDP_XRT_PREFLR_STOP 1 07-F0 e9
2019/08/13 12:00:00.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 12:00:02.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 12:00:04.0 XRT_FOCUS_POSITION_406_OG [0x196]
                        XRT_FOCUS_POSITION 4 07-F8 22 ff aa 00
2019/08/13 12:00:24.0 XRT_FLD_DIS_409_OG [0x199]
                        MDP_XRT_FLD_DIS 1 07-F0 d9
2019/08/13 12:00:26.0 XRT_FLRCTRL_DIS_413_OG [0x19d]
                        MDP_XRT_FLRCTRL_DIS 1 07-F0 c9
2019/08/13 12:00:28.0 XRT_ARS_DIS_443_OG [0x1bb]
                        MDP_XRT_ARS_DIS 1 07-F0 d5
2019/08/13 12:03:04.0 XRT_QT_PROG_SET_446_OG [0x1be]
                        MDP_XRT_QT_PROG_SET 2 07-F0 c4 07
2019/08/13 12:03:06.0 XRT_CTRL_AUTO_408_OG [0x198]
                        MDP_XRT_CTRL_AUTO 1 07-F0 c0
2019/08/13 12:10:00.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 12:10:02.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 12:10:04.0 XRT_FOCUS_POSITION_406_OG [0x196]
                        XRT_FOCUS_POSITION 4 07-F8 22 ff aa 00
2019/08/13 12:10:24.0 XRT_FLD_ENA_411_OG [0x19b]
                        MDP_XRT_FLD_ENA 1 07-F0 d8
2019/08/13 12:10:26.0 XRT_FLRCTRL_ENA_412_OG [0x19c]
                        MDP_XRT_FLRCTRL_ENA 1 07-F0 c8
2019/08/13 12:10:28.0 XRT_AEC_RESET_448_OG [0x1c0]
                        MDP_XRT_AEC_RESET 1 07-F0 d0
2019/08/13 12:10:30.0 XRT_ARS_DIS_423_OG [0x1a7]
                        MDP_XRT_ARS_DIS 1 07-F0 d5
2019/08/13 12:10:32.0 XRT_FLD_RESET_434_OG [0x1b2]
                        MDP_XRT_FLD_RESET 1 07-F0 da
2019/08/13 12:13:02.0 XRT_QT_PROG_SET_432_OG [0x1b0]
                        MDP_XRT_QT_PROG_SET 2 07-F0 c4 06
2019/08/13 12:13:04.0 XRT_FL_PROG_SET_440_OG [0x1b8]
                        MDP_XRT_FL_PROG_SET 2 07-F0 c5 0d
2019/08/13 12:13:06.0 XRT_CTRL_AUTO_408_OG [0x198]
                        MDP_XRT_CTRL_AUTO 1 07-F0 c0
2019/08/13 13:18:30.0 XRT_CTRL_MANU_400_OG [0x190]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 13:18:32.0 XRT_CTRL_MANU_402_OG [0x192]
                        MDP_XRT_CTRL_MANU 1 07-F0 c1
2019/08/13 13:18:34.0 XRT_FLD_RESET_415_OG [0x19f]

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|            |            |                                      |                     |   |       |                |  |
|------------|------------|--------------------------------------|---------------------|---|-------|----------------|--|
| 2019/08/13 | 13:18:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/13 | 13:21:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]       | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |
| 2019/08/13 | 13:40:30.0 | XRT_Custom_430_OG [0x1ae]            | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |
| 2019/08/13 | 13:41:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]         | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/13 | 14:57:00.0 | XRT_CTRL_MANU_400_OG [0x190]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 14:57:02.0 | XRT_CTRL_MANU_402_OG [0x192]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 14:57:04.0 | XRT_FLD_RESET_415_OG [0x19f]         | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/13 | 14:57:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]       | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |
| 2019/08/13 | 15:00:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]       | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |
| 2019/08/13 | 15:25:30.0 | XRT_Custom_430_OG [0x1ae]            | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/13 | 15:26:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 16:35:30.0 | XRT_CTRL_MANU_400_OG [0x190]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 16:35:32.0 | XRT_CTRL_MANU_402_OG [0x192]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 16:35:34.0 | XRT_FLD_RESET_415_OG [0x19f]         | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/13 | 16:35:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]       | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |
| 2019/08/13 | 16:38:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]       | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |
| 2019/08/13 | 17:13:00.0 | XRT_Custom_430_OG [0x1ae]            | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/13 | 17:14:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 17:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 17:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 17:59:58.0 | XRT_FOCUS_RECALIBRATE_414_OG [0x19e] | XRT_FOCUS_RECAL     | 2 | 07-F8 | 78 00          |  |
| 2019/08/13 | 18:00:00.0 | AOCS_Or-point_Start_2_OG [0x098]     | AOCU_NM             | 5 | 02-76 | 00 00 00 00 00 |  |
| 2019/08/13 | 18:03:58.0 | XRT_FOCUS_POSITION_406_OG [0x196]    | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |
| 2019/08/13 | 18:04:18.0 | XRT_FLD_DIS_409_OG [0x199]           | MDP_XRT_FLD_DIS     | 1 | 07-F0 | d9             |  |
| 2019/08/13 | 18:04:20.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]       | MDP_XRT_FLRCTRL_DIS | 1 | 07-F0 | c9             |  |
| 2019/08/13 | 18:04:22.0 | XRT_ARS_DIS_439_OG [0x1b7]           | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |
| 2019/08/13 | 18:04:24.0 | XRT_QT_PROG_SET_446_OG [0x1be]       | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 07          |  |
| 2019/08/13 | 18:04:26.0 | XRT_CTRL_AUTO_408_OG [0x198]         | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/13 | 18:09:54.0 | XRT_CTRL_MANU_402_OG [0x192]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 18:09:56.0 | XRT_CTRL_MANU_402_OG [0x192]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 18:09:58.0 | XRT_FOCUS_POSITION_406_OG [0x196]    | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |
| 2019/08/13 | 18:10:18.0 | XRT_FLD_ENA_411_OG [0x19b]           | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |
| 2019/08/13 | 18:10:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]       | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |
| 2019/08/13 | 18:10:22.0 | XRT_AEC_RESET_448_OG [0x1c0]         | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |
| 2019/08/13 | 18:10:24.0 | XRT_ARS_DIS_423_OG [0x1a7]           | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |
| 2019/08/13 | 18:10:26.0 | XRT_FLD_RESET_434_OG [0x1b2]         | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/13 | 18:12:56.0 | XRT_QT_PROG_SET_421_OG [0x1a5]       | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 0f          |  |
| 2019/08/13 | 18:12:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]       | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |  |
| 2019/08/13 | 18:13:00.0 | XRT_CTRL_AUTO_408_OG [0x198]         | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/13 | 18:13:30.0 | XRT_CTRL_MANU_400_OG [0x190]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 18:13:32.0 | XRT_CTRL_MANU_402_OG [0x192]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 18:13:34.0 | XRT_FLD_RESET_415_OG [0x19f]         | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/13 | 18:13:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]       | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |
| 2019/08/13 | 18:16:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]       | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |
| 2019/08/13 | 18:49:30.0 | XRT_Custom_430_OG [0x1ae]            | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/13 | 18:50:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 19:52:00.0 | XRT_CTRL_MANU_400_OG [0x190]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/13 | 19:52:02.0 | XRT_CTRL_MANU_402_OG [0x192]         | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |

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|            |            |                                   |                     |   |       |                |  |  |
|------------|------------|-----------------------------------|---------------------|---|-------|----------------|--|--|
| 2019/08/13 | 19:52:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/08/13 | 19:52:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/08/13 | 19:55:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/08/13 | 20:26:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |  |  |
| 2019/08/13 | 20:27:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/08/13 | 21:30:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/13 | 21:30:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/13 | 21:30:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/08/13 | 21:30:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/08/13 | 21:33:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/08/13 | 21:50:00.0 | AOCS_OrE-point_Start_3_OG [0x099] | AOCU_NM             | 5 | 02-76 | 00 c8 01 c8 01 |  |  |
| 2019/08/13 | 22:00:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/13 | 22:00:56.0 | XRT_FOCUS_POSITION_410_OG [0x19a] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 fe 97 00    |  |  |
| 2019/08/13 | 22:01:16.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |  |
| 2019/08/13 | 22:01:18.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |  |
| 2019/08/13 | 22:01:20.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |  |
| 2019/08/13 | 22:01:22.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |  |
| 2019/08/13 | 22:01:24.0 | XRT_FLD_RESET_404_OG [0x194]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/08/13 | 22:03:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 03          |  |  |
| 2019/08/13 | 22:03:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |  |  |
| 2019/08/13 | 22:04:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/08/13 | 23:09:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/13 | 23:09:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/13 | 23:09:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/08/13 | 23:09:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/08/13 | 23:12:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/08/13 | 23:38:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |  |  |
| 2019/08/13 | 23:39:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/08/14 | 00:47:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/14 | 00:47:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/14 | 00:47:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/08/14 | 00:47:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/08/14 | 00:50:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/08/14 | 01:00:00.0 | AOCS_OrE-point_Start_4_OG [0x09a] | AOCU_NM             | 5 | 02-76 | 00 b0 00 00 00 |  |  |
| 2019/08/14 | 01:07:00.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/14 | 01:07:02.0 | XRT_FOCUS_POSITION_410_OG [0x19a] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 fe 97 00    |  |  |
| 2019/08/14 | 01:07:22.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |  |
| 2019/08/14 | 01:07:24.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |  |
| 2019/08/14 | 01:07:26.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |  |
| 2019/08/14 | 01:07:28.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |  |
| 2019/08/14 | 01:07:30.0 | XRT_FLD_RESET_404_OG [0x194]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/08/14 | 01:10:02.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 03          |  |  |
| 2019/08/14 | 01:10:04.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |  |  |
| 2019/08/14 | 01:10:06.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/08/14 | 02:18:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/14 | 02:18:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/14 | 02:18:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/08/14 | 02:18:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |                     |   |       |                |  |  |



|            |            |                                   |                     |   |       |                |  |
|------------|------------|-----------------------------------|---------------------|---|-------|----------------|--|
| 2019/08/14 | 02:21:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |
|            |            |                                   | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |
| 2019/08/14 | 02:47:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |  |
| 2019/08/14 | 02:48:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/14 | 03:53:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 03:53:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 03:53:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/14 | 03:53:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |
| 2019/08/14 | 03:55:00.0 | AOCS_Orе-point_Start_2_OG [0x098] |                     |   |       |                |  |
|            |            |                                   | AOCU_NM             | 5 | 02-76 | 00 00 00 00 00 |  |
| 2019/08/14 | 03:56:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |
| 2019/08/14 | 04:23:30.0 | XRT_CTRL_MANU_402_OG [0x192]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 04:23:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 04:23:34.0 | XRT_FOCUS_POSITION_406_OG [0x196] |                     |   |       |                |  |
|            |            |                                   | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |
| 2019/08/14 | 04:23:54.0 | XRT_FLD_ENA_411_OG [0x19b]        |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |
| 2019/08/14 | 04:23:56.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |
| 2019/08/14 | 04:23:58.0 | XRT_AEC_RESET_448_OG [0x1c0]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |
| 2019/08/14 | 04:24:00.0 | XRT_ARS_DIS_423_OG [0x1a7]        |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |
| 2019/08/14 | 04:24:02.0 | XRT_FLD_RESET_434_OG [0x1b2]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/14 | 04:26:32.0 | XRT_QT_PROG_SET_421_OG [0x1a5]    |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 0f          |  |
| 2019/08/14 | 04:26:34.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |  |
| 2019/08/14 | 04:26:36.0 | XRT_CTRL_AUTO_408_OG [0x198]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/14 | 05:09:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 05:09:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 05:09:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] |                     |   |       |                |  |
|            |            |                                   | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |
| 2019/08/14 | 05:10:00.0 | AOCS_Orе-point_Start_2_OG [0x098] |                     |   |       |                |  |
|            |            |                                   | AOCU_NM             | 5 | 02-76 | 00 00 00 00 00 |  |
| 2019/08/14 | 05:10:18.0 | XRT_FLD_DIS_409_OG [0x199]        |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_FLD_DIS     | 1 | 07-F0 | d9             |  |
| 2019/08/14 | 05:10:20.5 | XRT_FLRCTRL_DIS_413_OG [0x19d]    |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_FLRCTRL_DIS | 1 | 07-F0 | c9             |  |
| 2019/08/14 | 05:10:22.5 | XRT_ARS_DIS_443_OG [0x1bb]        |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |
| 2019/08/14 | 05:12:58.5 | XRT_QT_PROG_SET_446_OG [0x1be]    |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 07          |  |
| 2019/08/14 | 05:13:00.5 | XRT_CTRL_AUTO_408_OG [0x198]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/14 | 05:20:00.0 | AOCS_Orе-point_Start_5_OG [0x09b] |                     |   |       |                |  |
|            |            |                                   | AOCU_NM             | 5 | 02-76 | 00 b0 5b 01 ca |  |
| 2019/08/14 | 05:23:30.0 | XRT_CTRL_MANU_400_OG [0x190]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 05:23:32.0 | XRT_CTRL_MANU_402_OG [0x192]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 05:23:34.0 | XRT_FLD_RESET_415_OG [0x19f]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/14 | 05:23:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |
| 2019/08/14 | 05:26:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |
| 2019/08/14 | 06:02:00.0 | XRT_CTRL_MANU_402_OG [0x192]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 06:02:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 06:02:04.0 | XRT_FOCUS_POSITION_406_OG [0x196] |                     |   |       |                |  |
|            |            |                                   | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |
| 2019/08/14 | 06:02:24.0 | XRT_FLD_DIS_409_OG [0x199]        |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_FLD_DIS     | 1 | 07-F0 | d9             |  |
| 2019/08/14 | 06:02:26.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_FLRCTRL_DIS | 1 | 07-F0 | c9             |  |
| 2019/08/14 | 06:02:28.0 | XRT_ARS_DIS_443_OG [0x1bb]        |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |
| 2019/08/14 | 06:05:04.0 | XRT_QT_PROG_SET_447_OG [0x1bf]    |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 02          |  |
| 2019/08/14 | 06:05:06.0 | XRT_CTRL_AUTO_408_OG [0x198]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/14 | 07:04:00.0 | XRT_CTRL_MANU_400_OG [0x190]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 07:04:02.0 | XRT_CTRL_MANU_402_OG [0x192]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 07:04:04.0 | XRT_FLD_RESET_415_OG [0x19f]      |                     |   |       |                |  |
|            |            |                                   | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/14 | 07:04:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    |                     |   |       |                |  |

|            |            |                                   |                     |   |       |                |  |
|------------|------------|-----------------------------------|---------------------|---|-------|----------------|--|
| 2019/08/14 | 07:07:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e8             |  |
| 2019/08/14 | 07:42:30.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |
| 2019/08/14 | 07:43:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/14 | 08:29:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 08:29:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 08:29:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |
| 2019/08/14 | 08:30:00.0 | AOCS_Orе-point_Start_1_OG [0x097] | AOCU_NM             | 5 | 02-76 | 00 03 02 01 ca |  |
| 2019/08/14 | 08:30:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |
| 2019/08/14 | 08:30:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |
| 2019/08/14 | 08:30:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |
| 2019/08/14 | 08:30:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |
| 2019/08/14 | 08:30:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/14 | 08:32:56.0 | XRT_QT_PROG_SET_421_OG [0x1a5]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 0f          |  |
| 2019/08/14 | 08:32:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |  |
| 2019/08/14 | 08:33:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/14 | 08:44:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 08:44:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 08:44:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/14 | 08:44:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |
| 2019/08/14 | 08:47:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |
| 2019/08/14 | 09:20:30.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/14 | 09:21:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 10:24:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 10:24:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 10:24:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/14 | 10:24:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |
| 2019/08/14 | 10:27:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |
| 2019/08/14 | 10:59:00.0 | XRT_Custom_430_OG [0x1ae]         | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |
| 2019/08/14 | 11:00:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | AOCU_NM             | 5 | 02-76 | 00 00 00 00 00 |  |
| 2019/08/14 | 11:29:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/14 | 11:29:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 11:29:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 11:30:00.0 | AOCS_Orе-point_Start_2_OG [0x098] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |
| 2019/08/14 | 11:30:18.0 | XRT_FLD_DIS_409_OG [0x199]        | AOCU_NM             | 5 | 02-76 | 00 00 00 00 00 |  |
| 2019/08/14 | 11:30:20.5 | XRT_FLRCTRL_DIS_413_OG [0x19d]    | MDP_XRT_FLD_DIS     | 1 | 07-F0 | d9             |  |
| 2019/08/14 | 11:30:22.5 | XRT_ARS_DIS_443_OG [0x1bb]        | MDP_XRT_FLRCTRL_DIS | 1 | 07-F0 | c9             |  |
| 2019/08/14 | 11:32:58.5 | XRT_QT_PROG_SET_446_OG [0x1be]    | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |
| 2019/08/14 | 11:33:00.5 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 07          |  |
| 2019/08/14 | 11:39:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |
| 2019/08/14 | 11:39:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 11:39:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |
| 2019/08/14 | 11:40:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |
| 2019/08/14 | 11:40:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |
| 2019/08/14 | 11:40:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |
| 2019/08/14 | 11:40:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |
| 2019/08/14 | 11:40:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |
| 2019/08/14 | 11:42:56.0 | XRT_QT_PROG_SET_432_OG [0x1b0]    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |
| 2019/08/14 | 11:42:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 06          |  |

|            |            |                                   |                              |   |       |    |             |
|------------|------------|-----------------------------------|------------------------------|---|-------|----|-------------|
| 2019/08/14 | 11:43:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_FL_PROG_SET          | 2 | 07-F0 | c5 | 0d          |
| 2019/08/14 | 12:16:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_AUTO            | 1 | 07-F0 | c0 |             |
| 2019/08/14 | 12:16:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 12:16:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 12:16:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_FLD_RESET            | 1 | 07-F0 | da |             |
| 2019/08/14 | 12:19:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT          | 1 | 07-F0 | e8 |             |
| 2019/08/14 | 12:37:30.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_PREFLR_STOP          | 1 | 07-F0 | e9 |             |
| 2019/08/14 | 12:38:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | XRT_Custom_430_OG [0x1ae]    |   |       |    |             |
| 2019/08/14 | 13:54:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_AUTO            | 1 | 07-F0 | c0 |             |
| 2019/08/14 | 13:54:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 13:54:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 13:54:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_FLD_RESET            | 1 | 07-F0 | da |             |
| 2019/08/14 | 13:57:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT          | 1 | 07-F0 | e8 |             |
| 2019/08/14 | 14:15:30.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_PREFLR_STOP          | 1 | 07-F0 | e9 |             |
| 2019/08/14 | 14:16:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | XRT_Custom_430_OG [0x1ae]    |   |       |    |             |
| 2019/08/14 | 15:32:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_AUTO            | 1 | 07-F0 | c0 |             |
| 2019/08/14 | 15:32:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 15:32:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 15:32:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_FLD_RESET            | 1 | 07-F0 | da |             |
| 2019/08/14 | 15:35:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT          | 1 | 07-F0 | e8 |             |
| 2019/08/14 | 16:01:30.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_PREFLR_STOP          | 1 | 07-F0 | e9 |             |
| 2019/08/14 | 16:02:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | XRT_Custom_430_OG [0x1ae]    |   |       |    |             |
| 2019/08/14 | 16:08:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_AUTO            | 1 | 07-F0 | c0 |             |
| 2019/08/14 | 16:08:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 16:08:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 16:08:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_FLD_RESET            | 1 | 07-F0 | da |             |
| 2019/08/14 | 16:11:00.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT          | 1 | 07-F0 | e8 |             |
| 2019/08/14 | 16:11:14.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_PREFLR_STOP          | 1 | 07-F0 | e9 |             |
| 2019/08/14 | 16:12:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | XRT_Custom_430_OG [0x1ae]    |   |       |    |             |
| 2019/08/14 | 17:11:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_AUTO            | 1 | 07-F0 | c0 |             |
| 2019/08/14 | 17:11:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 17:11:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 17:11:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_FLD_RESET            | 1 | 07-F0 | da |             |
| 2019/08/14 | 17:14:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT          | 1 | 07-F0 | e8 |             |
| 2019/08/14 | 17:47:30.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_PREFLR_STOP          | 1 | 07-F0 | e9 |             |
| 2019/08/14 | 17:48:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | XRT_Custom_430_OG [0x1ae]    |   |       |    |             |
| 2019/08/14 | 18:02:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_AUTO            | 1 | 07-F0 | c0 |             |
| 2019/08/14 | 18:02:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 18:02:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 18:03:00.0 | AOCS_Ore-point_Start_2_OG [0x098] | XRT_FOCUS_POSITION           | 4 | 07-F8 | 22 | ff aa 00    |
| 2019/08/14 | 18:03:18.0 | XRT_FLD_DIS_409_OG [0x199]        | AOCU_NM                      | 5 | 02-76 | 00 | 00 00 00 00 |
| 2019/08/14 | 18:03:20.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    | MDP_XRT_FLD_DIS              | 1 | 07-F0 | d9 |             |
| 2019/08/14 | 18:03:22.0 | XRT_ARS_DIS_443_OG [0x1bb]        | MDP_XRT_FLRCTRL_DIS          | 1 | 07-F0 | c9 |             |
| 2019/08/14 | 18:05:58.0 | XRT_QT_PROG_SET_446_OG [0x1be]    | MDP_XRT_ARS_DIS              | 1 | 07-F0 | d5 |             |
| 2019/08/14 | 18:06:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_QT_PROG_SET          | 2 | 07-F0 | c4 | 07          |
| 2019/08/14 | 18:12:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | XRT_CTRL_AUTO_408_OG [0x198] |   |       |    |             |
| 2019/08/14 | 18:12:56.0 | XRT_FOCUS_POSITION_442_OG [0x1ba] | MDP_XRT_CTRL_AUTO            | 1 | 07-F0 | c0 |             |
| 2019/08/14 | 18:13:00.0 | AOCS_Ore-point_Start_6_OG [0x09c] | MDP_XRT_CTRL_MANU            | 1 | 07-F0 | c1 |             |
| 2019/08/14 | 18:13:16.0 | XRT_FLD_DIS_403_OG [0x193]        | XRT_FOCUS_POSITION           | 4 | 07-F8 | 22 | fe 97 00    |
|            |            |                                   | AOCU_NM                      | 5 | 02-76 | 00 | ad 59 00 00 |

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| 2019/08/14 | 18:27:54.0 | XRT_FLRCTRL_DIS_438_OG [0x1b6]    | MDP_XRT_FLD_DIS     | 1 | 07-F0 | d9          |          |  |
| 2019/08/14 | 18:27:56.0 | XRT_ARS_DIS_429_OG [0x1ad]        | MDP_XRT_FLRCTRL_DIS | 1 | 07-F0 | c9          |          |  |
| 2019/08/14 | 18:27:58.0 | XRT_QT_PROG_SET_418_OG [0x1a2]    | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5          |          |  |
| 2019/08/14 | 18:28:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4          | 0b       |  |
| 2019/08/14 | 20:12:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0          |          |  |
| 2019/08/14 | 20:12:56.0 | XRT_FOCUS_POSITION_442_OG [0x1ba] | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |          |  |
| 2019/08/14 | 20:13:00.0 | AOCS_ORe-point_Start_7_OG [0x09d] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22          | fe 97 00 |  |
| 2019/08/14 | 20:13:16.0 | XRT_FLD_DIS_403_OG [0x193]        | AOCU_NM             | 5 | 02-76 | 00 00 00    | 56 35    |  |
| 2019/08/14 | 20:27:54.0 | XRT_FLRCTRL_DIS_438_OG [0x1b6]    | MDP_XRT_FLD_DIS     | 1 | 07-F0 | d9          |          |  |
| 2019/08/14 | 20:27:56.0 | XRT_ARS_DIS_429_OG [0x1ad]        | MDP_XRT_FLRCTRL_DIS | 1 | 07-F0 | c9          |          |  |
| 2019/08/14 | 20:27:58.0 | XRT_QT_PROG_SET_417_OG [0x1a1]    | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5          |          |  |
| 2019/08/14 | 20:28:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4          | 11       |  |
| 2019/08/14 | 22:29:30.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0          |          |  |
| 2019/08/14 | 22:30:00.0 | AOCS_ORe-point_Start_8_OG [0x09e] | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |          |  |
| 2019/08/14 | 22:36:00.0 | XRT_CTRL_MANU_402_OG [0x192]      | AOCU_NM             | 5 | 02-76 | 00 00 00    | b0 00    |  |
| 2019/08/14 | 22:36:02.0 | XRT_FOCUS_POSITION_410_OG [0x19a] | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |          |  |
| 2019/08/14 | 22:36:22.0 | XRT_FLD_ENA_411_OG [0x19b]        | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22          | fe 97 00 |  |
| 2019/08/14 | 22:36:24.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8          |          |  |
| 2019/08/14 | 22:36:26.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8          |          |  |
| 2019/08/14 | 22:36:28.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0          |          |  |
| 2019/08/14 | 22:36:30.0 | XRT_FLD_RESET_404_OG [0x194]      | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5          |          |  |
| 2019/08/14 | 22:39:02.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da          |          |  |
| 2019/08/14 | 22:39:04.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4          | 03       |  |
| 2019/08/14 | 22:39:06.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5          | 0d       |  |
| 2019/08/14 | 23:44:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0          |          |  |
| 2019/08/14 | 23:44:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |          |  |
| 2019/08/14 | 23:44:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |          |  |
| 2019/08/14 | 23:44:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da          |          |  |
| 2019/08/14 | 23:47:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8          |          |  |
| 2019/08/14 |            |                                   | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9          |          |  |
| 2019/08/15 | 00:08:00.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |             |          |  |
| 2019/08/15 | 00:09:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      |                     |   |       |             |          |  |
| 2019/08/15 | 01:23:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0          |          |  |
| 2019/08/15 | 01:23:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |          |  |
| 2019/08/15 | 01:23:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |          |  |
| 2019/08/15 | 01:23:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da          |          |  |
| 2019/08/15 | 01:26:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8          |          |  |
| 2019/08/15 | 01:35:00.0 | AOCS_ORe-point_Start_9_OG [0x09f] | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9          |          |  |
| 2019/08/15 | 01:42:00.0 | XRT_CTRL_MANU_402_OG [0x192]      | AOCU_NM             | 5 | 02-76 | 00 50 00 00 | 00 00    |  |
| 2019/08/15 | 01:42:02.0 | XRT_FOCUS_POSITION_410_OG [0x19a] | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1          |          |  |
| 2019/08/15 | 01:42:22.0 | XRT_FLD_ENA_411_OG [0x19b]        | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22          | fe 97 00 |  |
| 2019/08/15 | 01:42:24.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8          |          |  |
| 2019/08/15 | 01:42:26.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8          |          |  |
| 2019/08/15 | 01:42:28.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0          |          |  |
| 2019/08/15 | 01:42:30.0 | XRT_FLD_RESET_404_OG [0x194]      | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5          |          |  |
| 2019/08/15 | 01:45:02.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da          |          |  |
| 2019/08/15 | 01:45:04.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4          | 03       |  |
| 2019/08/15 | 01:45:06.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5          | 0d       |  |

|            |            |                                   |                        |   |       |                |  |  |  |
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| 2019/08/15 | 02:52:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_AUTO      | 1 | 07-F0 | c0             |  |  |  |
| 2019/08/15 | 02:52:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 02:52:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 02:52:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_FLD_RESET      | 1 | 07-F0 | da             |  |  |  |
| 2019/08/15 | 02:55:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT    | 1 | 07-F0 | e8             |  |  |  |
| 2019/08/15 | 03:22:30.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_PREFLR_STOP    | 1 | 07-F0 | e9             |  |  |  |
| 2019/08/15 | 03:23:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO      | 1 | 07-F0 | c0             |  |  |  |
| 2019/08/15 | 04:20:00.0 | AOCs_OrE-point_Start_2_OG [0x098] | AOCU_NM                | 5 | 02-76 | 00 00 00 00 00 |  |  |  |
| 2019/08/15 | 04:20:00.5 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 04:20:02.5 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 04:20:04.5 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 04:20:06.5 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_FLD_RESET      | 1 | 07-F0 | da             |  |  |  |
| 2019/08/15 | 04:23:14.5 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT    | 1 | 07-F0 | e8             |  |  |  |
| 2019/08/15 | 04:58:30.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_PREFLR_STOP    | 1 | 07-F0 | e9             |  |  |  |
| 2019/08/15 | 04:58:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 04:58:34.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 04:58:34.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION     | 4 | 07-F8 | 22 ff aa 00    |  |  |  |
| 2019/08/15 | 04:58:54.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FOCUS_POSITION | 4 | 07-F8 | 22 ff aa 00    |  |  |  |
| 2019/08/15 | 04:58:56.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLD_ENA        | 1 | 07-F0 | d8             |  |  |  |
| 2019/08/15 | 04:58:58.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_FLRCTRL_ENA    | 1 | 07-F0 | c8             |  |  |  |
| 2019/08/15 | 04:59:00.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_AEC_RESET      | 1 | 07-F0 | d0             |  |  |  |
| 2019/08/15 | 04:59:02.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_ARS_DIS        | 1 | 07-F0 | d5             |  |  |  |
| 2019/08/15 | 04:59:02.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_FLD_RESET      | 1 | 07-F0 | da             |  |  |  |
| 2019/08/15 | 05:01:32.0 | XRT_QT_PROG_SET_421_OG [0x1a5]    | MDP_XRT_ARS_DIS        | 1 | 07-F0 | d5             |  |  |  |
| 2019/08/15 | 05:01:34.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_QT_PROG_SET    | 2 | 07-F0 | c4 0f          |  |  |  |
| 2019/08/15 | 05:01:36.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_FL_PROG_SET    | 2 | 07-F0 | c5 0d          |  |  |  |
| 2019/08/15 | 05:32:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_AUTO      | 1 | 07-F0 | c0             |  |  |  |
| 2019/08/15 | 05:32:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 05:32:58.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 05:32:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION     | 4 | 07-F8 | 22 ff aa 00    |  |  |  |
| 2019/08/15 | 05:33:00.0 | AOCs_OrE-point_Start_2_OG [0x098] | AOCU_NM                | 5 | 02-76 | 00 00 00 00 00 |  |  |  |
| 2019/08/15 | 05:33:18.0 | XRT_FLD_DIS_409_OG [0x199]        | MDP_XRT_CTRL_AUTO      | 1 | 07-F0 | c0             |  |  |  |
| 2019/08/15 | 05:33:20.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]    | MDP_XRT_FLD_DIS        | 1 | 07-F0 | d9             |  |  |  |
| 2019/08/15 | 05:33:22.0 | XRT_ARS_DIS_443_OG [0x1bb]        | MDP_XRT_FLRCTRL_DIS    | 1 | 07-F0 | c9             |  |  |  |
| 2019/08/15 | 05:35:58.0 | XRT_QT_PROG_SET_446_OG [0x1be]    | MDP_XRT_ARS_DIS        | 1 | 07-F0 | d5             |  |  |  |
| 2019/08/15 | 05:36:00.5 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_QT_PROG_SET    | 2 | 07-F0 | c4 07          |  |  |  |
| 2019/08/15 | 05:42:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_AUTO      | 1 | 07-F0 | c0             |  |  |  |
| 2019/08/15 | 05:42:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 05:42:58.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 05:42:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION     | 4 | 07-F8 | 22 ff aa 00    |  |  |  |
| 2019/08/15 | 05:43:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FOCUS_POSITION | 4 | 07-F8 | 22 ff aa 00    |  |  |  |
| 2019/08/15 | 05:43:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLD_ENA        | 1 | 07-F0 | d8             |  |  |  |
| 2019/08/15 | 05:43:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_FLRCTRL_ENA    | 1 | 07-F0 | c8             |  |  |  |
| 2019/08/15 | 05:43:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_AEC_RESET      | 1 | 07-F0 | d0             |  |  |  |
| 2019/08/15 | 05:43:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_ARS_DIS        | 1 | 07-F0 | d5             |  |  |  |
| 2019/08/15 | 05:45:56.0 | XRT_QT_PROG_SET_421_OG [0x1a5]    | MDP_XRT_FLD_RESET      | 1 | 07-F0 | da             |  |  |  |
| 2019/08/15 | 05:45:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_QT_PROG_SET    | 2 | 07-F0 | c4 0f          |  |  |  |
| 2019/08/15 | 05:46:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_FL_PROG_SET    | 2 | 07-F0 | c5 0d          |  |  |  |
| 2019/08/15 | 05:59:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_AUTO      | 1 | 07-F0 | c0             |  |  |  |
| 2019/08/15 | 05:59:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |
| 2019/08/15 | 05:59:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_CTRL_MANU      | 1 | 07-F0 | c1             |  |  |  |

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|            |            |                                   |                     |   |       |                |  |  |
|------------|------------|-----------------------------------|---------------------|---|-------|----------------|--|--|
| 2019/08/15 | 05:59:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/08/15 | 06:02:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/08/15 | 06:39:00.0 | XRT_Custom_430_OG [0x1ae]         | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/08/15 | 06:40:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/08/15 | 06:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/15 | 06:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/15 | 06:59:58.0 | XRT_FOCUS_POSITION_406_OG [0x196] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 ff aa 00    |  |  |
| 2019/08/15 | 07:00:00.0 | AOCS_ORe-point_Start_1_OG [0x097] | AOCU_NM             | 5 | 02-76 | 00 03 02 01 ca |  |  |
| 2019/08/15 | 07:00:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |  |
| 2019/08/15 | 07:00:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |  |
| 2019/08/15 | 07:00:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |  |
| 2019/08/15 | 07:00:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |  |
| 2019/08/15 | 07:00:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/08/15 | 07:02:56.0 | XRT_QT_PROG_SET_421_OG [0x1a5]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 0f          |  |  |
| 2019/08/15 | 07:02:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |  |  |
| 2019/08/15 | 07:03:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/08/15 | 07:40:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/15 | 07:40:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/15 | 07:40:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/08/15 | 07:40:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/08/15 | 07:43:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/08/15 | 08:17:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |  |  |
| 2019/08/15 | 08:18:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/08/15 | 09:19:30.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/15 | 09:19:32.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/15 | 09:19:34.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |
| 2019/08/15 | 09:19:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |
| 2019/08/15 | 09:22:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |
| 2019/08/15 | 09:55:30.0 | XRT_Custom_430_OG [0x1ae]         |                     |   |       |                |  |  |
| 2019/08/15 | 09:56:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |
| 2019/08/15 | 10:52:55.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |
| 2019/08/15 | 11:13:00.0 | AOCS_ORe-point_Start_2_OG [0x098] | AOCU_NM             | 5 | 02-76 | 00 00 00 00 00 |  |  |