

# XRT Timeline to be uploaded on 2020/01/16

Period: 2020/01/16 11:09:00 - 2020/01/21 11:55:00

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## Normal mode

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| XOB #1C72: HOP79 QS Al/poly short/long (512ms/4096ms) with G-band (1ms, 1ms leak) + Dark (16s) 384x384 FOV 300s cad |                 |                |   |  |  |  |  |  |  |  |  |  |
|---|-----------------|----------------|---|--|--|--|--|--|--|--|--|--|
| Term  | Pointing (x, y) |                | Comment   |  |  |  |  |  |  |  |  |  |
| 01/16 11:28:00 - 01/16 11:57:54   | Fixed (         | -22.0, -984.0) | # OP start + 10min + HOP79 (start@11:28UT) 1/20 |  |  |  |  |  |  |  |  |  |
| 01/16 12:01:00 - 01/16 12:27:54   | Fixed (         | -22.0, -884.0) | 2/20  |  |  |  |  |  |  |  |  |  |
| 01/16 12:31:00 - 01/16 12:57:54   | Fixed (         | -22.0, -784.0) | 3/20  |  |  |  |  |  |  |  |  |  |
| 01/16 13:01:00 - 01/16 13:27:54   | Fixed (         | -22.0, -684.0) | 4/20  |  |  |  |  |  |  |  |  |  |
| 01/16 13:31:00 - 01/16 13:57:54   | Fixed (         | -22.0, -584.0) | 5/20  |  |  |  |  |  |  |  |  |  |
| 01/16 14:01:00 - 01/16 14:27:54   | Fixed (         | -22.0, -484.0) | 6/20  |  |  |  |  |  |  |  |  |  |
| 01/16 14:31:00 - 01/16 15:09:00   | Fixed (         | -22.0, -384.0) | 7/20  |  |  |  |  |  |  |  |  |  |
| 01/16 15:22:00 - 01/16 15:48:54   | Fixed (         | -22.0, -284.0) | 8/20  |  |  |  |  |  |  |  |  |  |
| 01/16 15:52:00 - 01/16 16:42:30   | Fixed (         | -22.0, -184.0) | 9/20  |  |  |  |  |  |  |  |  |  |
| 01/16 17:10:00 - 01/16 17:36:54   | Fixed (         | -22.0, -84.0)  | 10/20   |  |  |  |  |  |  |  |  |  |
| 01/16 17:40:00 - 01/16 18:19:00   | Fixed (         | -22.0, 6.0)    | 11/20   |  |  |  |  |  |  |  |  |  |
| 01/16 18:47:00 - 01/16 19:13:54   | Fixed (         | -22.0, 106.0)  | 12/20   |  |  |  |  |  |  |  |  |  |
| 01/16 19:17:00 - 01/16 19:56:00   | Fixed (         | -22.0, 206.0)  | 13/20   |  |  |  |  |  |  |  |  |  |
| 01/16 20:23:30 - 01/16 20:50:24   | Fixed (         | -22.0, 306.0)  | 14/20   |  |  |  |  |  |  |  |  |  |
| 01/16 20:53:30 - 01/16 21:33:30   | Fixed (         | -22.0, 406.0)  | 15/20   |  |  |  |  |  |  |  |  |  |
| 01/16 22:00:30 - 01/16 22:27:24   | Fixed (         | -22.0, 506.0)  | 16/20   |  |  |  |  |  |  |  |  |  |
| 01/16 22:30:30 - 01/16 23:10:30   | Fixed (         | -22.0, 606.0)  | 17/20   |  |  |  |  |  |  |  |  |  |
| 01/16 23:36:00 - 01/17 00:02:54   | Fixed (         | -22.0, 706.0)  | 18/20   |  |  |  |  |  |  |  |  |  |
| 01/17 00:06:00 - 01/17 00:48:00   | Fixed (         | -22.0, 806.0)  | 19/20   |  |  |  |  |  |  |  |  |  |
| 01/17 01:00:30 - 01/17 01:27:24   | Fixed (         | -22.0, 906.0)  | 20/20   |  |  |  |  |  |  |  |  |  |
| <b>PROG= 14 Inf.-time(s)</b>  |                 |                |   |  |  |  |  |  |  |  |  |  |
| └─ Subr= 1 1-time(s) 2.0sec   |                 |                |   |  |  |  |  |  |  |  |  |  |
| └─ Seqn= 92 1-time(s) 2.0sec  |                 |                |   |  |  |  |  |  |  |  |  |  |
| └─ Open/G-band Open/G-band open Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) DPCM 0 0 2.0sec                          |                 |                |   |  |  |  |  |  |  |  |  |  |
| └─ Open/G-band Open/G-band close Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) DPCM 0 0 2.0sec                         |                 |                |   |  |  |  |  |  |  |  |  |  |
| └─ Open/Ti-poly Open/thick-Al close Safe Dark 16.0s Obs 1x1 384x384 (1064, 1048) Q=98 0 0 2.0sec                    |                 |                |   |  |  |  |  |  |  |  |  |  |
| └─ Subr= 2 6-time(s) 2.0sec   |                 |                |   |  |  |  |  |  |  |  |  |  |
| └─ Seqn= 7 1-time(s) 300.0sec   |                 |                |   |  |  |  |  |  |  |  |  |  |
| └─ Al-poly/Open Al-poly/Open close Safe Norm 4.00s Obs 1x1 384x384 (1064, 1048) Q=90 0 0 2.0sec                     |                 |                |   |  |  |  |  |  |  |  |  |  |
| └─ Al-poly/Open Al-poly/Open close Safe Norm 500ms 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 #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           |  |  |  |  |  |  |  |  |  |
| 01/17 01:42:30 - 01/17 03:44:54   | Fixed (         | 0.0, 930.0) | Coalignment North |  |  |  |  |  |  |  |  |  |
| <b>PROG= 06 1-time(s)</b>   |                 |             |                   |  |  |  |  |  |  |  |  |  |
| └─ 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          |  |  |  |  |  |  |  |  |  |
| 01/17 04:00:00 - 01/17 05:59:54   | Fixed (         | -970.0, 0.0) | Coalignment East |  |  |  |  |  |  |  |  |  |
| <b>PROG= 15 1-time(s)</b>   |                 |              |                  |  |  |  |  |  |  |  |  |  |
| └─ 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                    |                 |              |                  |  |  |  |  |  |  |  |  |  |

| XOB #1C52: Synoptic Q95 2x2 - Al/mesh(16/181/2048) + Dark cal(2x2 4x4 8x8 512 Q98) + Dark cal(1x1 512x2048 - 1x1 2048x512) + Al-poly(24/362/4096) + T |                 |           |                            |  |  |  |  |  |  |  |  |  |
|---|-----------------|-----------|----------------------------|--|--|--|--|--|--|--|--|--|
| Term  | Pointing (x, y) |           | Comment                    |  |  |  |  |  |  |  |  |  |
| 01/17 06:03:00 - 01/17 06:09:54   | Fixed (         | 0.0, 0.0) | synoptic                   |  |  |  |  |  |  |  |  |  |
| 01/17 18:00:30 - 01/17 18:07:24   | Fixed (         | 0.0, 0.0) | synoptic, shifted -2.5 min |  |  |  |  |  |  |  |  |  |
| 01/18 06:32:00 - 01/18 06:38:54   | Fixed (         | 0.0, 0.0) | HOP349 + synoptic shifted  |  |  |  |  |  |  |  |  |  |
| <b>PROG= 01 1-time(s)</b>   |                 |           |                            |  |  |  |  |  |  |  |  |  |
| └─ Subr= 1 1-time(s) 2.0sec   |                 |           |                            |  |  |  |  |  |  |  |  |  |
| └─ Seqn= 5 1-time(s) 2.0sec   |                 |           |                            |  |  |  |  |  |  |  |  |  |
| └─ 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= 75</b> |                  | <b>1-time(s)</b> | <b>2.0sec</b> |       |       |     |     |                        |       |            |          |        |
| Open/Al-mesh    | Open/Al-mesh     | close            | Safe          | Norm  | 16ms  | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |
| Open/Al-mesh    | Open/Al-mesh     | close            | Safe          | Norm  | 177ms | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |
| Open/Al-mesh    | Open/Al-mesh     | close            | Safe          | Norm  | 2.00s | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |
| <b>Seqn= 9</b>  |                  | <b>1-time(s)</b> | <b>2.0sec</b> |       |       |     |     |                        |       |            |          |        |
| Al-poly/Open    | Al-poly/Open     | close            | Safe          | Norm  | 24ms  | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |
| Al-poly/Open    | Al-poly/Open     | close            | Safe          | Norm  | 354ms | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |
| Al-poly/Open    | Al-poly/thick-Al | close            | Safe          | Norm  | 4.00s | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |
| <b>Seqn= 84</b> |                  | <b>1-time(s)</b> | <b>2.0sec</b> |       |       |     |     |                        |       |            |          |        |
| thin-Be/Open    | thin-Be/Open     | close            | Safe          | Norm  | 354ms | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |
| 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 |
| <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 #1BDB: AR (Filter-Ratio with Al/poly and thin-Be) with PFB, 512x512 at 1064 1048, thick-Al context, with G-band (1ms/1ms leak), 120s cad**

| Term                               | Pointing (x, y)                         | Comment  |
|------------------------------------|---|--|
| 01/17 06:13:00 - 01/17 17:57:24    | Track ( -473.8, 432.5) @ 01/17 06:10:00 | Newly emerging AR Tracking   |
| 01/18 06:42:00 - 01/18 10:52:54    | Track ( -284.2, 441.3) @ 01/18 06:39:00 | AR tracking cont.  |
| <b>PROG= 09 Inf.-time(s)</b>       |   |  |
| <b>Subr= 1 1-time(s) 2.0sec</b>    |   |  |
| <b>Seqn= 92 1-time(s) 2.0sec</b>   |   |  |
| Open/G-band                        | Open/G-band open                        | Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) DPCM 0 0 2.0sec               |
| Open/G-band                        | Open/G-band close                       | Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) DPCM 0 0 2.0sec               |
| Open/Ti-poly                       | Open/thick-Al close                     | Safe Dark 16.0s Obs 1x1 384x384 (1064, 1048) Q=98 0 0 2.0sec             |
| <b>Seqn= 71 3-time(s) 2.0sec</b>   |   |  |
| Open/thick-Al                      | Open/thick-Be close                     | Safe Norm 16.0s Obs 1x1 512x512 (1064, 1048) Q=98 3 0 2.0sec             |
| <b>Subr= 2 30-time(s) 120.0sec</b> |   |  |
| <b>Seqn= 15 1-time(s) 40.0sec</b>  |   |  |
| thin-Be/Open                       | med-Be/Open close                       | Safe Norm 1.00s Obs 1x1 512x512 (1064, 1048) Q=95 2 0 2.0sec             |
| Al-poly/Open                       | thin-Be/Open close                      | Safe Norm 500ms Obs 1x1 512x512 (1064, 1048) Q=95 2 0 2.0sec             |
| <b>Seqn= 58 1-time(s) 40.0sec</b>  |   |  |
| Al-poly/Open                       | thin-Be/Open close                      | Safe Norm 500ms Obs 1x1 384x384 (1064, 1048) Q=95 3 1 2.0sec             |
| thin-Be/Open                       | med-Be/Open close                       | Safe Norm 1.00s Obs 1x1 384x384 (1064, 1048) Q=95 3 1 2.0sec             |
| <b>Seqn= 48 1-time(s) 2.0sec</b>   |   |  |
| Al-poly/Open                       | thin-Be/Open close                      | Safe Norm 500ms Obs 1x1 384x384 (1064, 1048) Q=95 3 2 2.0sec             |
| thin-Be/Open                       | med-Be/Open close                       | Safe Norm 1.00s Obs 1x1 384x384 (1064, 1048) Q=95 3 2 2.0sec             |
| Default Filter                     | Thicker Filter                          | VLS mode image Exp. CCD Bin ROI: size (center) Comp. AEC Buffer Interval |

**XOB #1C60: AR (Filter-Ratio with Al/poly and thin-Be) with PFB, 512x512 at 1064 1048, thick-Al context, with G-band (1ms/1ms leak), 60s cad**

| Term                              | Pointing (x, y)                         | Comment  |
|-----------------------------------|---|--|
| 01/17 18:10:30 - 01/17 23:45:30   | Track ( -383.8, 437.2) @ 01/17 18:07:30 | AR tracking cont.  |
| <b>PROG= 02 Inf.-time(s)</b>      |   |  |
| <b>Subr= 1 1-time(s) 2.0sec</b>   |   |  |
| <b>Seqn= 92 1-time(s) 2.0sec</b>  |   |  |
| Open/G-band                       | Open/G-band open                        | Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) DPCM 0 0 2.0sec               |
| Open/G-band                       | Open/G-band close                       | Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) DPCM 0 0 2.0sec               |
| Open/Ti-poly                      | Open/thick-Al close                     | Safe Dark 16.0s Obs 1x1 384x384 (1064, 1048) Q=98 0 0 2.0sec             |
| <b>Seqn= 71 3-time(s) 2.0sec</b>  |   |  |
| Open/thick-Al                     | Open/thick-Be close                     | Safe Norm 16.0s Obs 1x1 512x512 (1064, 1048) Q=98 3 0 2.0sec             |
| <b>Subr= 2 30-time(s) 60.0sec</b> |   |  |
| <b>Seqn= 15 1-time(s) 24.0sec</b> |   |  |
| thin-Be/Open                      | med-Be/Open close                       | Safe Norm 1.00s Obs 1x1 512x512 (1064, 1048) Q=95 2 0 2.0sec             |
| Al-poly/Open                      | thin-Be/Open close                      | Safe Norm 500ms Obs 1x1 512x512 (1064, 1048) Q=95 2 0 2.0sec             |
| <b>Seqn= 58 1-time(s) 24.0sec</b> |   |  |
| Al-poly/Open                      | thin-Be/Open close                      | Safe Norm 500ms Obs 1x1 384x384 (1064, 1048) Q=95 3 1 2.0sec             |
| thin-Be/Open                      | med-Be/Open close                       | Safe Norm 1.00s Obs 1x1 384x384 (1064, 1048) Q=95 3 1 2.0sec             |
| <b>Seqn= 48 1-time(s) 2.0sec</b>  |   |  |
| Al-poly/Open                      | thin-Be/Open close                      | Safe Norm 500ms Obs 1x1 384x384 (1064, 1048) Q=95 3 2 2.0sec             |
| thin-Be/Open                      | med-Be/Open close                       | Safe Norm 1.00s Obs 1x1 384x384 (1064, 1048) Q=95 3 2 2.0sec             |
| Default Filter                    | Thicker Filter                          | VLS mode image Exp. CCD Bin ROI: size (center) Comp. AEC Buffer Interval |

**XOB #1C6E: HOP336 1-filter - Al/poly -384x384, 1024ms and 8192s, 300s-cadence, G-band - 384x384 1ms**

| Term                              | Pointing (x, y)                       | Comment  |
|-----------------------------------|---------------------------------------|--|
| 01/18 00:04:00 - 01/18 03:29:54   | Track ( -36.3, 37.5) @ 01/18 00:00:00 | HOP393   |
| <b>PROG= 18 Inf.-time(s)</b>      |                                       |  |
| <b>Subr= 1 1-time(s) 2.0sec</b>   |                                       |  |
| <b>Seqn= 16 2-time(s) 2.0sec</b>  |                                       |  |
| Open/G-band                       | Open/G-band close                     | Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) DPCM 0 0 2.0sec |
| <b>Subr= 2 1-time(s) 2.0sec</b>   |                                       |  |
| <b>Seqn= 90 1-time(s) 30.0sec</b> |                                       |  |
| Open/G-band                       | Open/G-band open                      | Safe Norm 1ms Obs 1x1 384x384 (1064, 1048) Q=90 0 0 2.0sec |
| <b>Subr= 3 3-time(s) 2.0sec</b>   |                                       |  |

|                |                 |          |      |       |       |     |     |                      |       |            |          |        |  |
|----------------|-----------------|----------|------|-------|-------|-----|-----|----------------------|-------|------------|----------|--------|--|
| Seqn= 72       | 1-time(s)       | 300.0sec |      |       |       |     |     |                      |       |            |          |        |  |
| Al-poly/Open   | Al-poly/Ti-poly | close    | Safe | Norm  | 8.00s | Obs | 1x1 | 384x384 (1064, 1048) | Q=90  | 0          | 0        | 2.0sec |  |
| Al-poly/Open   | Al-poly/Open    | close    | Safe | Norm  | 1.00s | 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 #1C70: HOP349 - 3-filter Synoptics (Al-mesh[24/256/2897], Al-poly[45/512/4096], thin-Be[1024/11571/23142] with 512x512 G-band+Leak - 45min cad) +**

| Term                            | Pointing (x, y)   | Comment                   |
|---------------------------------|-------------------|---------------------------|
| 01/18 03:33:00 - 01/18 06:28:54 | Fixed ( 0.0, 0.0) | HOP349 + synoptic shifted |

**PROG= 19 Inf.-time(s)**

|                |                  |          |      |       |       |     |     |                        |       |            |          |        |  |
|----------------|------------------|----------|------|-------|-------|-----|-----|------------------------|-------|------------|----------|--------|--|
| Subr= 1        | 1-time(s)        | 300.0sec |      |       |       |     |     |                        |       |            |          |        |  |
| Seqn= 1        | 1-time(s)        | 2.0sec   |      |       |       |     |     |                        |       |            |          |        |  |
| Open/Al-mesh   | Open/Al-mesh     | close    | Safe | Norm  | 24ms  | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |
| Open/Al-mesh   | Open/Al-mesh     | close    | Safe | Norm  | 250ms | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |
| Open/Al-mesh   | Open/Al-mesh     | close    | Safe | Norm  | 2.83s | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |
| Seqn= 99       | 1-time(s)        | 2.0sec   |      |       |       |     |     |                        |       |            |          |        |  |
| Al-poly/Open   | Al-poly/Open     | close    | Safe | Norm  | 44ms  | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |
| Al-poly/Open   | Al-poly/Open     | close    | Safe | Norm  | 500ms | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |
| Al-poly/Open   | Al-poly/thick-Al | close    | Safe | Norm  | 4.00s | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |
| Seqn= 33       | 1-time(s)        | 2.0sec   |      |       |       |     |     |                        |       |            |          |        |  |
| thin-Be/Open   | thin-Be/Open     | close    | Safe | Norm  | 1.00s | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |
| thin-Be/Open   | thin-Be/Open     | close    | Safe | Norm  | 11.3s | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |
| thin-Be/Open   | thin-Be/Open     | close    | Safe | Norm  | 22.6s | Obs | 2x2 | 2048x2048 (1024, 1024) | Q=95  | 0          | 0        | 2.0sec |  |
| Seqn= 30       | 1-time(s)        | 2.0sec   |      |       |       |     |     |                        |       |            |          |        |  |
| Open/G-band    | Open/G-band      | open     | Safe | Norm  | 1ms   | Obs | 1x1 | 512x512 (1024, 1024)   | Q=90  | 0          | 0        | 2.0sec |  |
| Open/G-band    | Open/G-band      | close    | Safe | Norm  | 1ms   | Obs | 1x1 | 512x512 (1024, 1024)   | Q=95  | 0          | 0        | 2.0sec |  |
| Subr= 2        | 18-time(s)       | 150.0sec |      |       |       |     |     |                        |       |            |          |        |  |
| Seqn= 8        | 1-time(s)        | 2.0sec   |      |       |       |     |     |                        |       |            |          |        |  |
| 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 |  |
| Seqn= 73       | 1-time(s)        | 2.0sec   |      |       |       |     |     |                        |       |            |          |        |  |
| med-Be/Open    | med-Be/Open      | close    | Safe | Norm  | 500ms | Obs | 4x4 | 2048x2048 (1024, 1024) | Q=98  | 3          | 0        | 2.0sec |  |
| med-Be/Open    | med-Be/Open      | close    | Safe | Norm  | 2.00s | Obs | 4x4 | 2048x2048 (1024, 1024) | Q=98  | 2          | 0        | 2.0sec |  |
| Seqn= 6        | 1-time(s)        | 2.0sec   |      |       |       |     |     |                        |       |            |          |        |  |
| Al-poly/Open   | Al-poly/Open     | close    | Safe | Norm  | 125ms | Obs | 4x4 | 2048x2048 (1024, 1024) | Q=98  | 3          | 0        | 2.0sec |  |
| Al-poly/Open   | Al-poly/Open     | close    | Safe | Norm  | 1.00s | Obs | 4x4 | 2048x2048 (1024, 1024) | DPCM  | 2          | 0        | 2.0sec |  |
| Seqn= 29       | 1-time(s)        | 2.0sec   |      |       |       |     |     |                        |       |            |          |        |  |
| Open/Al-mesh   | Open/Al-mesh     | close    | Safe | Norm  | 125ms | Obs | 4x4 | 2048x2048 (1024, 1024) | Q=98  | 3          | 0        | 2.0sec |  |
| Open/Al-mesh   | Open/Al-mesh     | close    | Safe | Norm  | 250ms | Obs | 4x4 | 2048x2048 (1024, 1024) | Q=98  | 2          | 0        | 2.0sec |  |
| Default Filter | Thicker Filter   | VLS      | mode | image | Exp.  | CCD | Bin | ROI: size (center)     | Comp. | AEC Buffer | Interval |        |  |

\* \* \* \* \*

**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   |
|---------------------------------|---|---|
| 01/16 11:28:00 - 01/16 11:57:54 | Fixed ( -22.0, -984.0)                  | # OP start + 10min + HOP79 (start@11:28UT) 1/20 |
| 01/16 12:01:00 - 01/16 12:27:54 | Fixed ( -22.0, -884.0)                  | 2/20  |
| 01/16 12:31:00 - 01/16 12:57:54 | Fixed ( -22.0, -784.0)                  | 3/20  |
| 01/16 13:01:00 - 01/16 13:27:54 | Fixed ( -22.0, -684.0)                  | 4/20  |
| 01/16 13:31:00 - 01/16 13:57:54 | Fixed ( -22.0, -584.0)                  | 5/20  |
| 01/16 14:01:00 - 01/16 14:27:54 | Fixed ( -22.0, -484.0)                  | 6/20  |
| 01/16 14:31:00 - 01/16 15:09:00 | Fixed ( -22.0, -384.0)                  | 7/20  |
| 01/16 15:22:00 - 01/16 15:48:54 | Fixed ( -22.0, -284.0)                  | 8/20  |
| 01/16 15:52:00 - 01/16 16:42:30 | Fixed ( -22.0, -184.0)                  | 9/20  |
| 01/16 17:10:00 - 01/16 17:36:54 | Fixed ( -22.0, -84.0)                   | 10/20   |
| 01/16 17:40:00 - 01/16 18:19:00 | Fixed ( -22.0, 6.0)                     | 11/20   |
| 01/16 18:47:00 - 01/16 19:13:54 | Fixed ( -22.0, 106.0)                   | 12/20   |
| 01/16 19:17:00 - 01/16 19:56:00 | Fixed ( -22.0, 206.0)                   | 13/20   |
| 01/16 20:23:30 - 01/16 20:50:24 | Fixed ( -22.0, 306.0)                   | 14/20   |
| 01/16 20:53:30 - 01/16 21:33:30 | Fixed ( -22.0, 406.0)                   | 15/20   |
| 01/16 22:00:30 - 01/16 22:27:24 | Fixed ( -22.0, 506.0)                   | 16/20   |
| 01/16 22:30:30 - 01/16 23:10:30 | Fixed ( -22.0, 606.0)                   | 17/20   |
| 01/16 23:36:00 - 01/17 00:02:54 | Fixed ( -22.0, 706.0)                   | 18/20   |
| 01/17 00:06:00 - 01/17 00:48:00 | Fixed ( -22.0, 806.0)                   | 19/20   |
| 01/17 01:00:30 - 01/17 01:27:24 | Fixed ( -22.0, 906.0)                   | 20/20   |
| 01/17 06:13:00 - 01/17 17:57:24 | Track ( -473.8, 432.5) @ 01/17 06:10:00 | Newly emerging AR Tracking                      |
| 01/17 18:10:30 - 01/17 23:45:30 | Track ( -383.8, 437.2) @ 01/17 18:07:30 | AR tracking cont.                               |
| 01/18 00:04:00 - 01/18 03:29:54 | Track ( -36.3, 37.5) @ 01/18 00:00:00   | HOP393  |
| 01/18 03:33:00 - 01/18 06:28:54 | Fixed ( 0.0, 0.0)                       | HOP349 + synoptic shifted                       |
| 01/18 06:42:00 - 01/18 10:52:54 | Track ( -284.2, 441.3) @ 01/18 06:39:00 | AR tracking cont.                               |

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

|               |                  |         |      |      |       |     |     |                      |      |   |   |        |  |
|---------------|------------------|---------|------|------|-------|-----|-----|----------------------|------|---|---|--------|--|
| Subr= 1       | 20-time(s)       | 2.0sec  |      |      |       |     |     |                      |      |   |   |        |  |
| Seqn= 11      | 1-time(s)        | 2.0sec  |      |      |       |     |     |                      |      |   |   |        |  |
| Al-poly/Open  | Al-poly/thick-Al | close   | Safe | Norm | 125ms | Obs | 2x2 | 512x512 (1024, 1024) | Q=95 | 2 | 0 | 2.0sec |  |
| Seqn=100      | 1-time(s)        | 10.0sec |      |      |       |     |     |                      |      |   |   |        |  |
| thin-Be/Open  | med-Be/Open      | close   | Safe | Norm | 125ms | Obs | 1x1 | 384x384 (1024, 1024) | Q=95 | 2 | 0 | 2.0sec |  |
| med-Be/Open   | Open/thick-Al    | close   | Safe | Norm | 250ms | Obs | 1x1 | 384x384 (1024, 1024) | Q=95 | 3 | 0 | 2.0sec |  |
| Open/thick-Al | Open/thick-Be    | close   | Safe | Norm | 1.00s | Obs | 1x1 | 384x384 (1024, 1024) | Q=95 | 3 | 0 | 2.0sec |  |
| Subr= 2       | 1-time(s)        | 2.0sec  |      |      |       |     |     |                      |      |   |   |        |  |

|                 |                  |                  |      |               |       |     |     |                      |      |   |   |        |  |  |  |
|-----------------|------------------|------------------|------|---------------|-------|-----|-----|----------------------|------|---|---|--------|--|--|--|
| <b>Seqn= 10</b> |                  | <b>1-time(s)</b> |      | <b>2.0sec</b> |       |     |     |                      |      |   |   |        |  |  |  |
| med-AI/Open     | med-AI/thick-AI  | 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</b> |                  | <b>1-time(s)</b> |      | <b>2.0sec</b> |       |     |     |                      |      |   |   |        |  |  |  |
| AI-poly/Open    | AI-poly/thick-AI | close            | Safe | Norm          | 125ms | Obs | 2x2 | 512x512 (1024, 1024) | Q=95 | 2 | 0 | 2.0sec |  |  |  |
| <b>Seqn= 87</b> |                  | <b>1-time(s)</b> |      | <b>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-AI   | Open/thick-AI    | close            | Safe | Dark          | 1.00s | Obs | 1x1 | 384x384 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |
| Open/thick-AI   | Open/thick-AI    | close            | Safe | Dark          | 1.00s | Obs | 2x2 | 512x512 (1024, 1024) | Q=98 | 0 | 0 | 2.0sec |  |  |  |

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

\* \* \* \* \*

### Active Region Search

\* \* \* \* \*

NOT USED

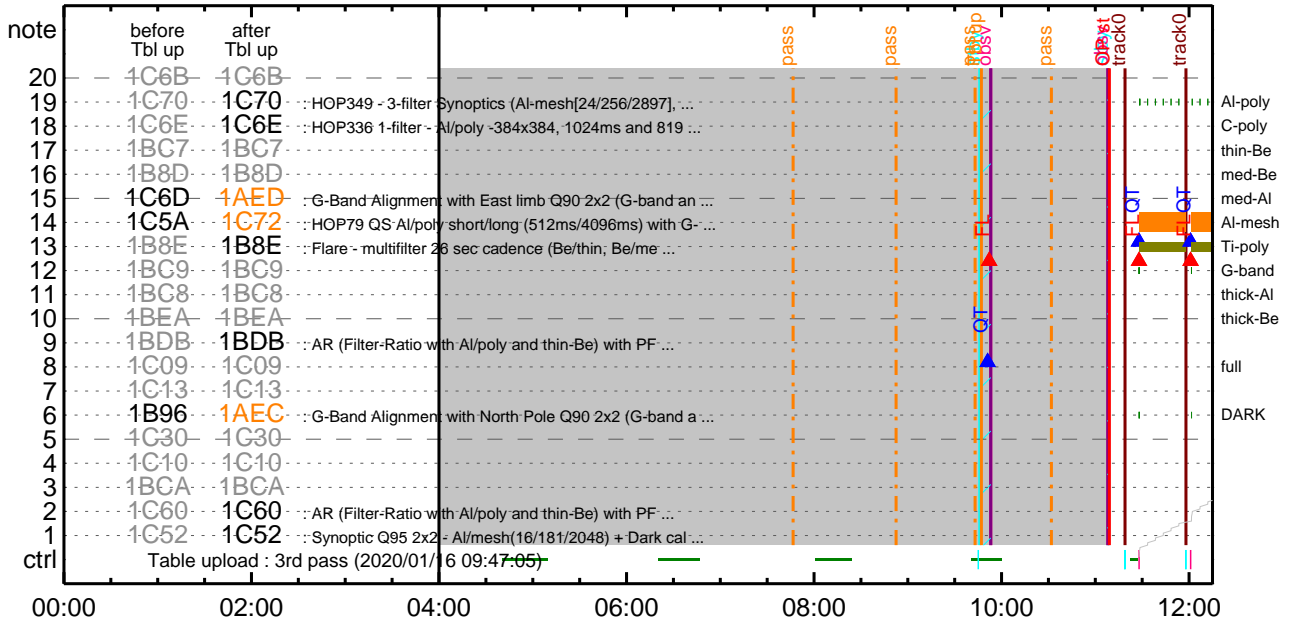
\* \* \* \* \*

### Flare Detection

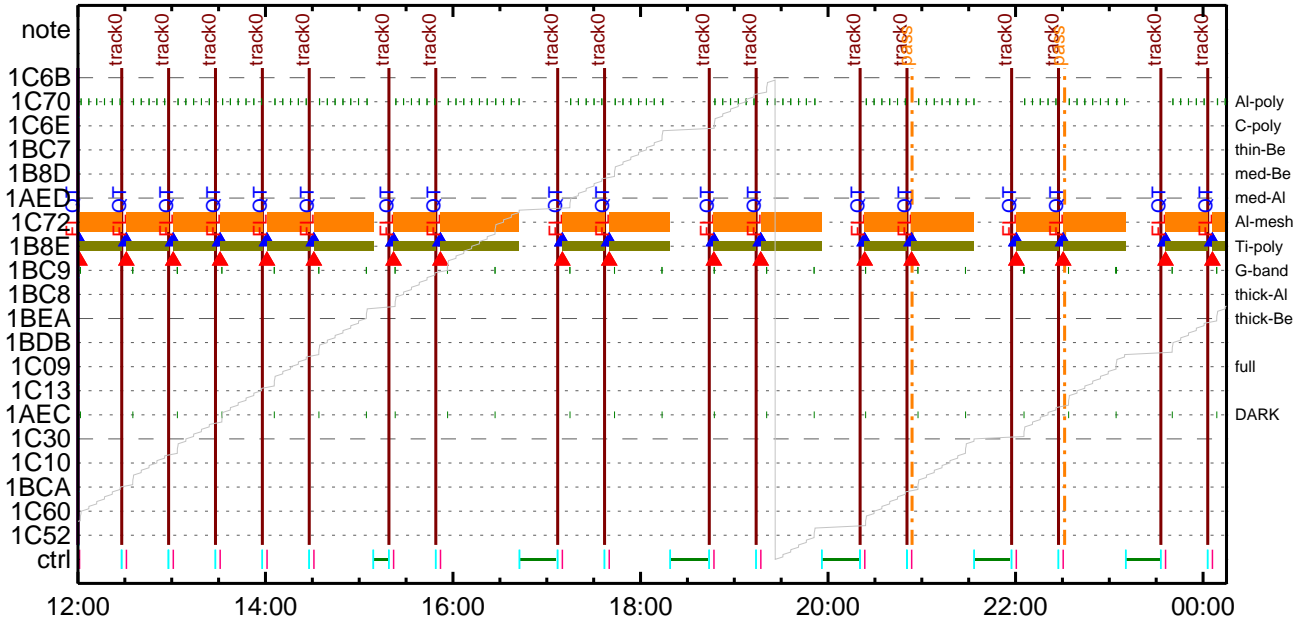
\* \* \* \* \*

| <b>FLD Patrol</b>               |                 |         |        |                             |      |                            |     |                    |       |            |          |
|---------------------------------|-----------------|---------|--------|-----------------------------|------|----------------------------|-----|--------------------|-------|------------|----------|
| Term                            | Pointing (x, y) |         |        |                             |      | Comment                    |     |                    |       |            |          |
| 01/17 06:10:18 - 01/17 17:57:48 | Track (         | -473.8, | 432.5) | <sup>Ⓢ</sup> 01/17 06:10:00 |      | Newly emerging AR Tracking |     |                    |       |            |          |
| 01/17 18:07:48 - 01/18 06:29:18 | Track (         | -383.8, | 437.2) | <sup>Ⓢ</sup> 01/17 18:07:30 |      | AR tracking cont.          |     |                    |       |            |          |
| 01/18 06:39:18 - 01/21 11:55:00 | Track (         | -284.2, | 441.3) | <sup>Ⓢ</sup> 01/18 06:39:00 |      | AR tracking cont.          |     |                    |       |            |          |
| AI-poly/Open                    | AI-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 |

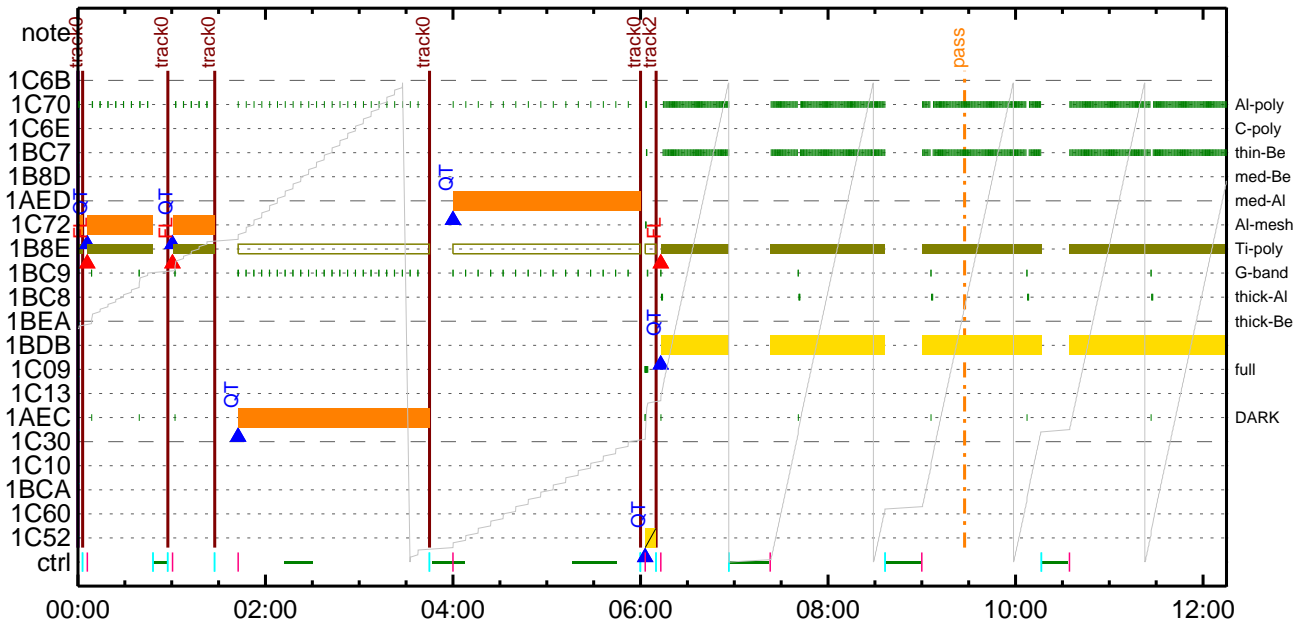
### CMDI #0709 2020/01/16



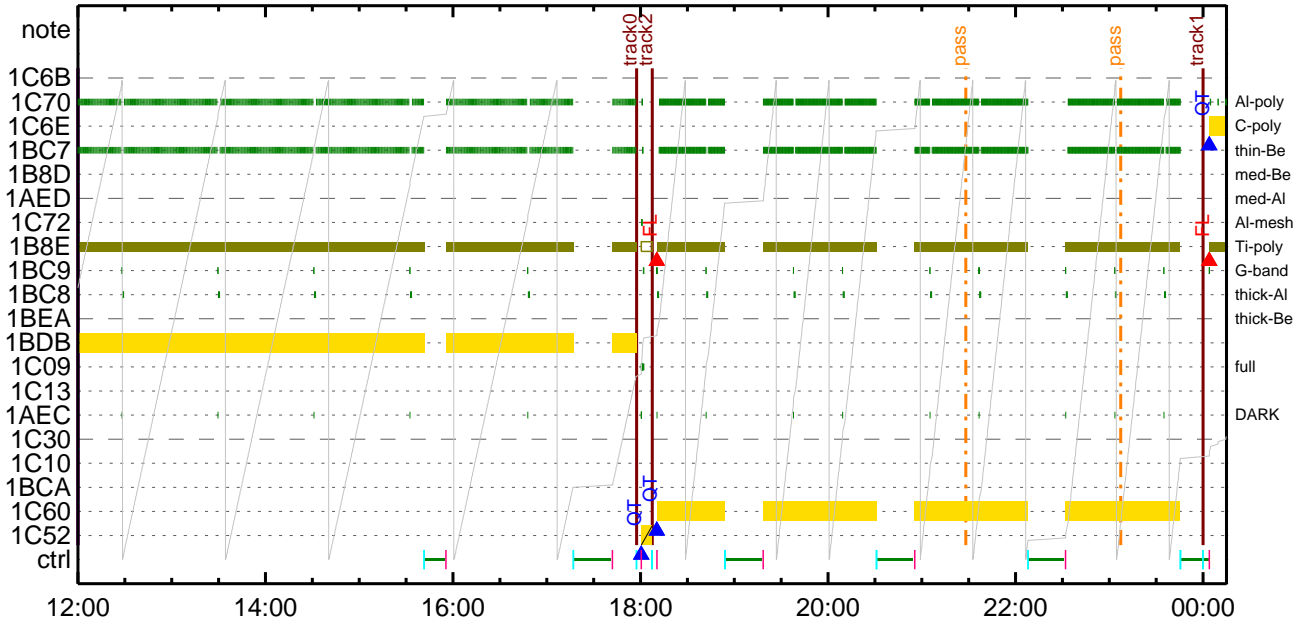
### CMDI #0709 2020/01/16



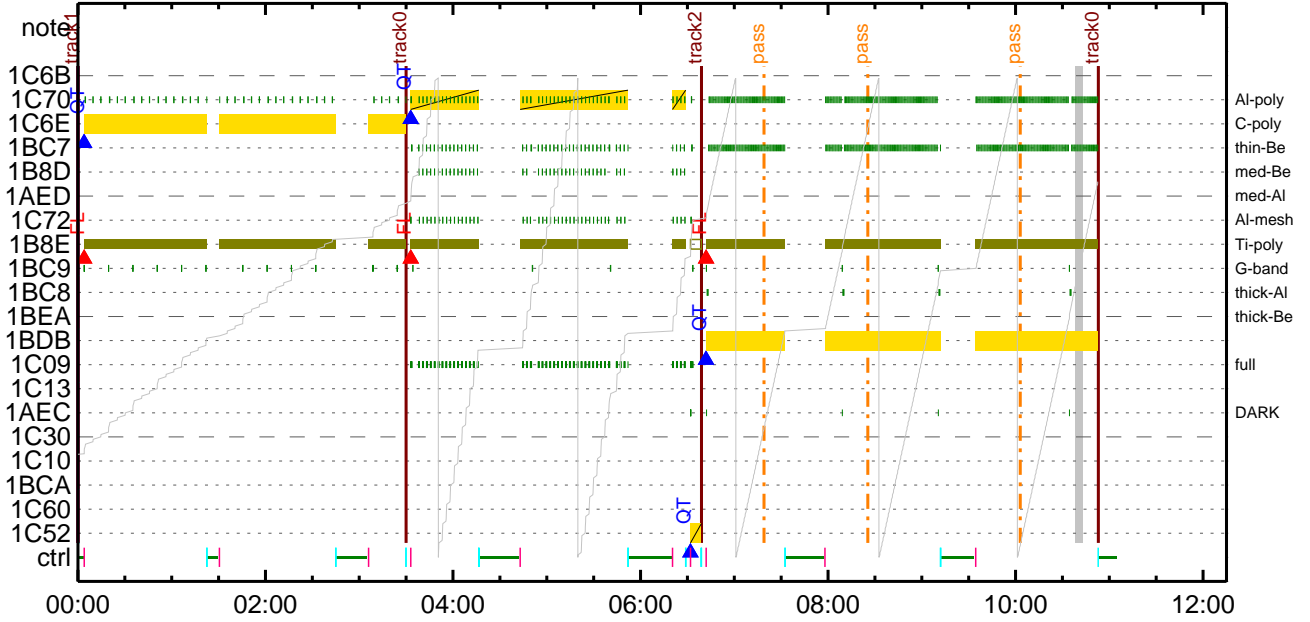
### CMDI #0709 2020/01/17



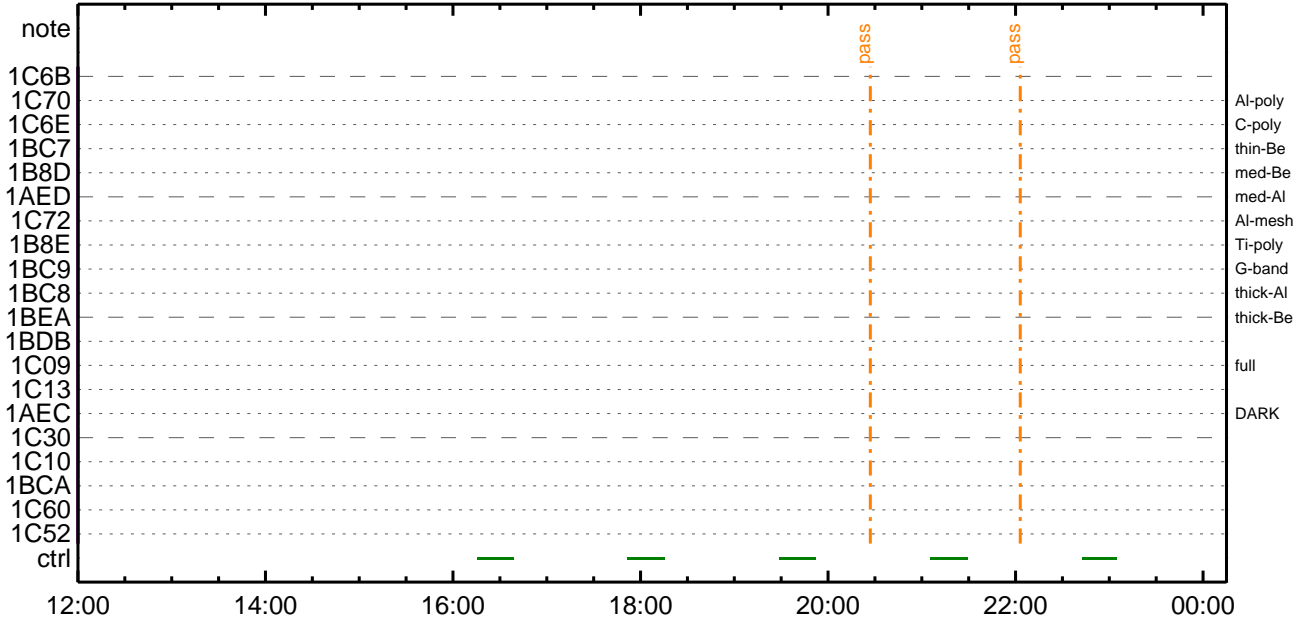
CMDI #0709 2020/01/17



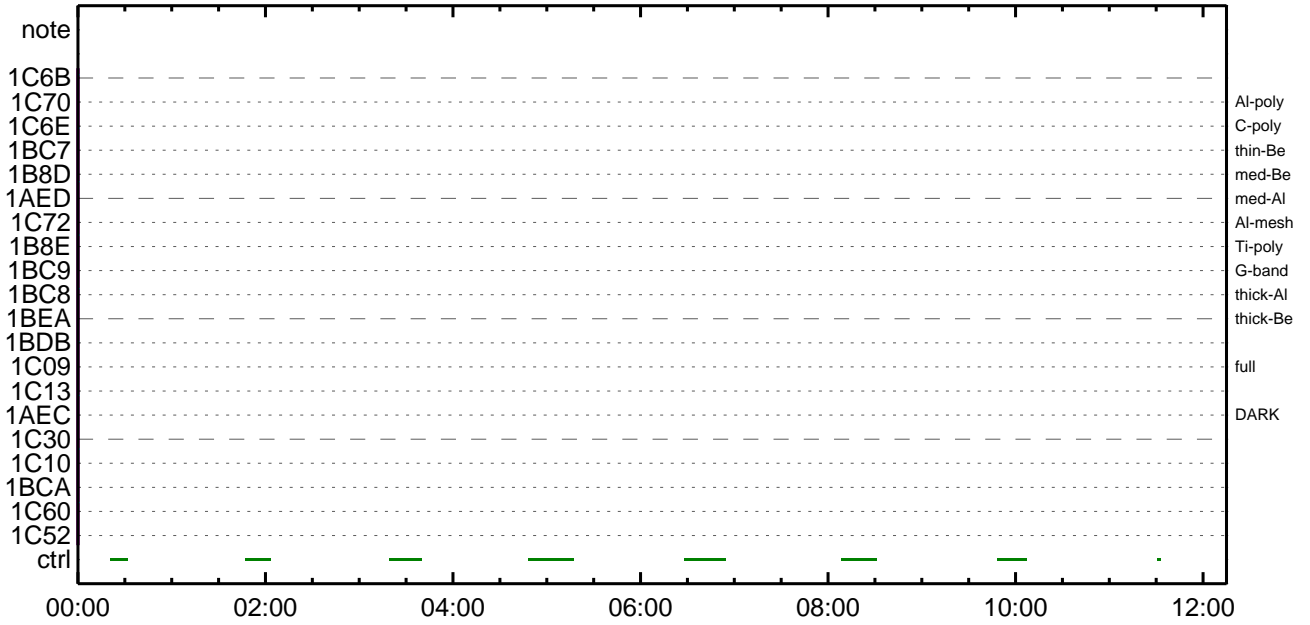
CMDI #0709 2020/01/18



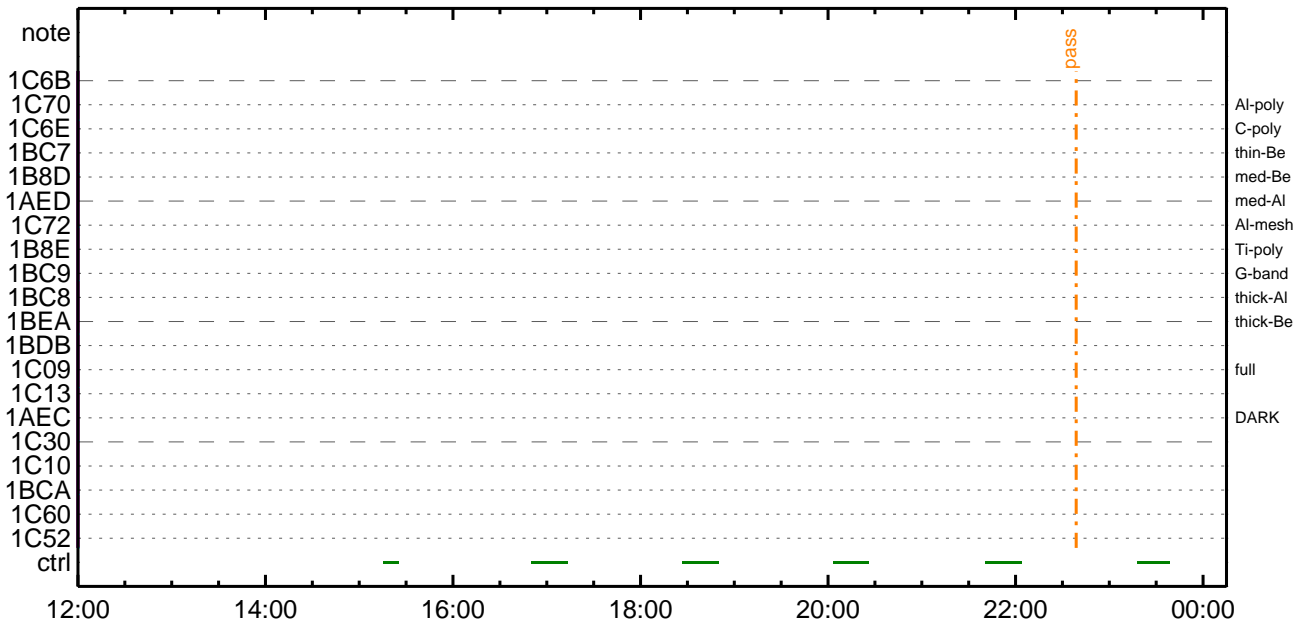
CMDI #0709 2020/01/18



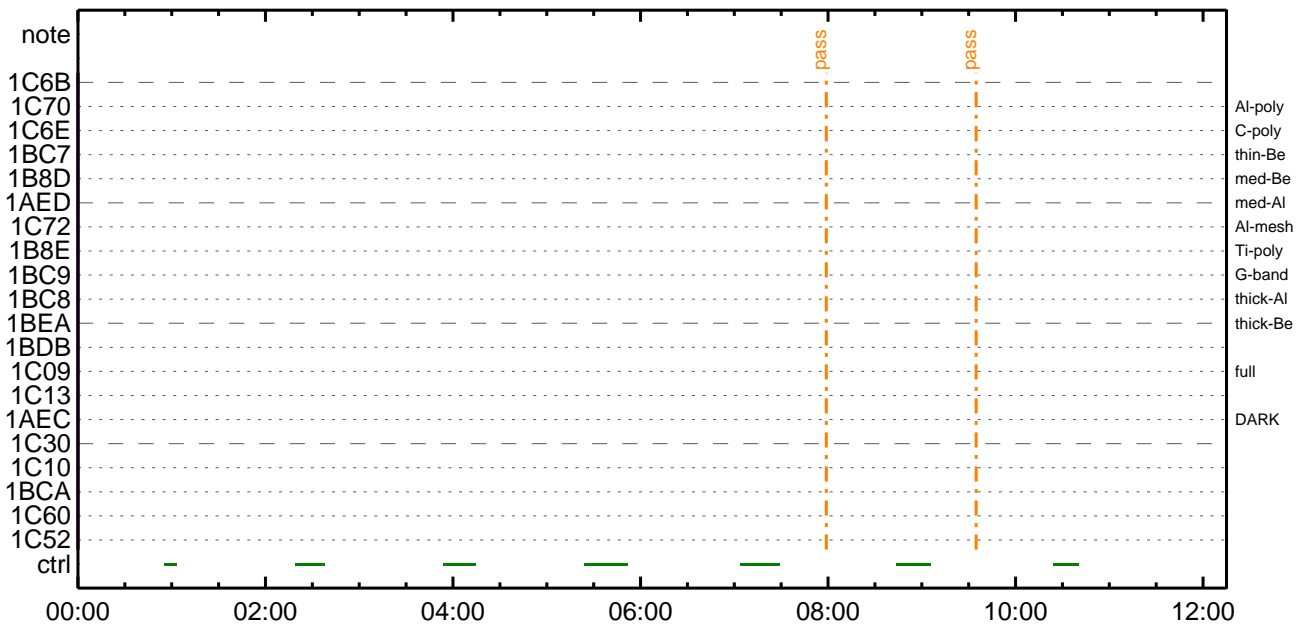
CMDI #0709 2020/01/19



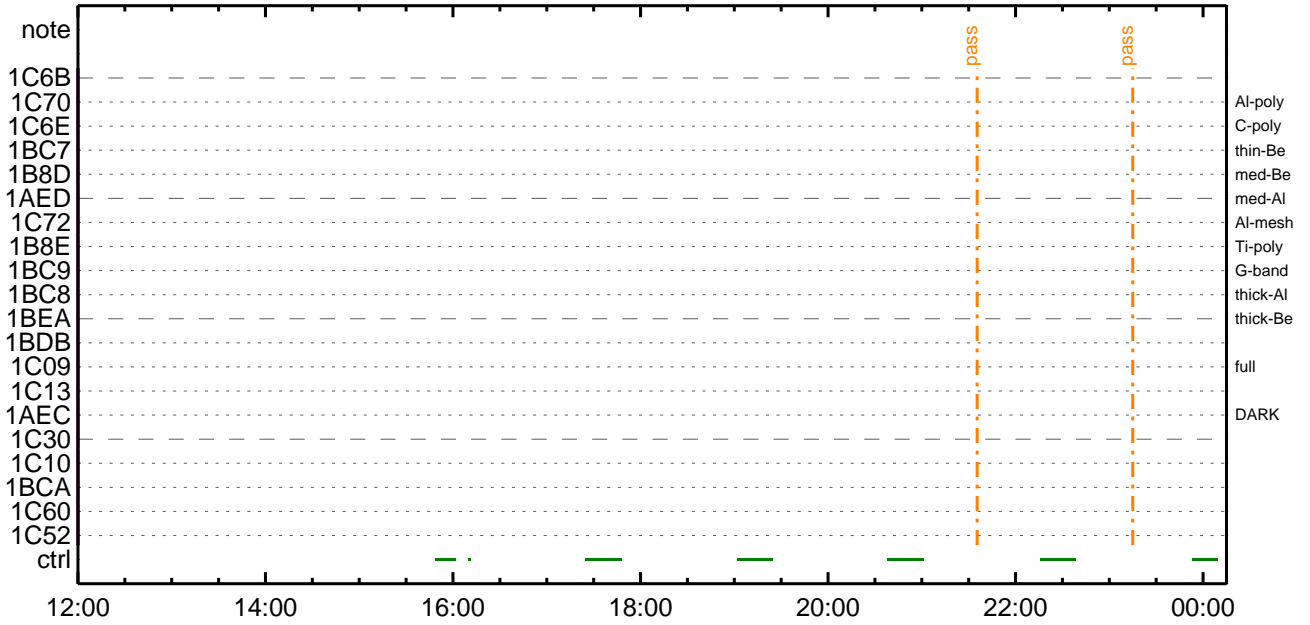
CMDI #0709 2020/01/19



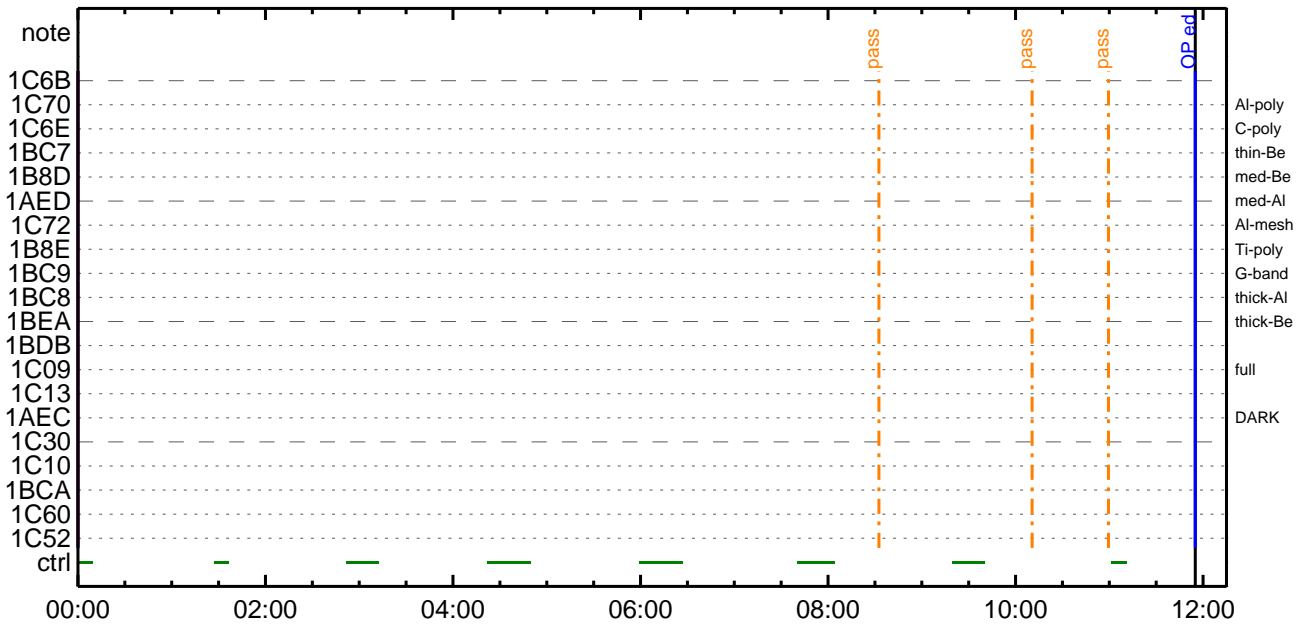
CMDI #0709 2020/01/20



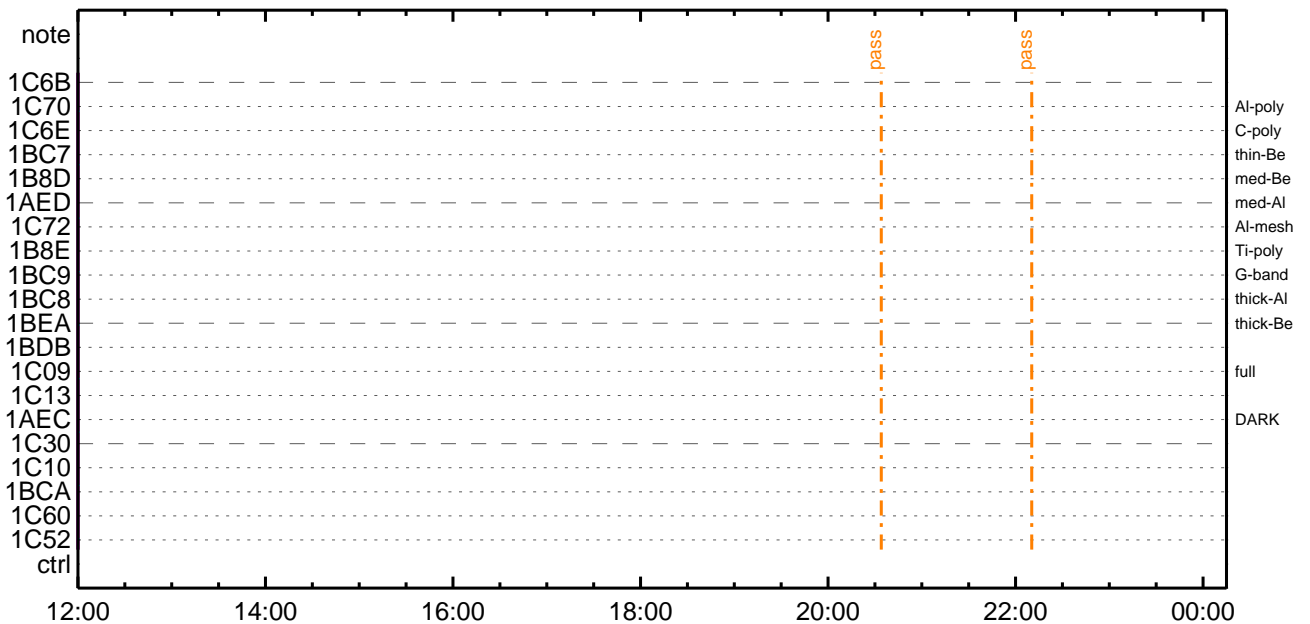
CMDI #0709 2020/01/20



CMDI #0709 2020/01/21



CMDI #0709 2020/01/21







```

0096 C.      01-16 11:04:00.0
0097 C.
0098 C.      TI 2020-01-16 11:04:00.0
0099 +. TI 2020-01-16 11:04:00.0
0100 DC 01-B3 DHU_OP_STOP
0101 C.      EQ 1COUNTUP
0102 C.
0103 +. TI 2020-01-16 11:04:01.0
0104 DC 01-B4 DHU_OP_COPY
0105 C.      EQ 1COUNTUP
0106 C.
0107 +. TI 2020-01-16 11:04:01.0
0108 DC 01-B5 DHU_OPOG_COPY
0109 C.      EQ 1COUNTUP
0110 C.
0111 +. TI 2020-01-16 11:08:59.5
0112 DC 01-B2 DHU_OP_START
0113 C.      EQ 1COUNTUP
0114 C.
0115 C.      ENA
0116 C.      4
0117 C.      DHU
0118 C.      0xB3
0119 C.
0120 C.
0121 C.      *****
0122 C.      TI 01-23 DHU_DMA_DMP_PRM_SET
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.      EQ 07
0129 C.      EQ 2B
0130 C.      EQ 3
0131 C.      EQ 0
0132 C.      EQ DHU
0133 +. DC 01-22 DHU_MODE_CHNG
0134 BC (07 0b f8)
0135 C.      EQ 7
0136 C.      EQ 0.25 s
0137 C.      EQ 32k
0138 C.      EQ 4M
0139 C.      EQ EXEC
0140 C.
0141 C.      EQ NON
0142 C.
0143 C.
0144 C.      RAM ID=TI_TBL(0x03AB00-0x03AEFF; 1024byte)
0145 C.
0146 C.      DHU 01-22 DHU_MODE_CHNG
0147 +. DC 01-22 DHU_MODE_CHNG
0148 BC (02 0a f8)
0149 C.      EQ 2
0150 C.      EQ 0.5S
0151 C.      EQ 32K
0152 C.      EQ 4M
0153 C.
0154 C.      *****
0155 C.      SOT TI command set
0156 C.      *****
0157 C.      Execute, after the success of OP upload.
0158 +. TI 2020-01-16 11:08:16.0
0159 DC 07-F0 MDP_SOT_MODE_STBY
0160 BC (41)
0161 C.
0162 C.      HK1_TI_CMD_NUM = 1 CNTUP [ ]
0163 C.
0164 C.      ***** SOT END *****
0165 C.
0166 C.      ***** XRT START *****
0167 C.      Execute, after the success of OP upload.
0168 +. TI 2020-01-16 11:08:00.0
0169 DC 07-F0 MDP_XRT_MODE_STBY
0170 BC (c3)
0171 C.      [ ] [HK1_TI_CMD_NUM] EQ 1COUNTUP
0172 C.
0173 C.      ***** XRT END *****
0174 C.      Stop EIS observation and temporarily disable EIS mode changes
0175 C.
0176 C.
0177 C.      ***** Start EIS operation (TI set) *****
0178 C.      Execute, after the success of OP upload.
0179 C.      Set EIS TI-commands
0180 +. TI 2020-01-16 11:08:30.0
0181 DC 07-FC EIS_MODE_MANU
0182 BC (21 02)
0183 +. TI 2020-01-16 11:08:40.0
0184 DC 07-FC EIS_MODE_CHG_DIS
0185 BC (22)
0186 C.      [ ] [HK1_TI_CMD_NUM] EQ 2 COUNTUP
0187 C.      ***** End EIS operation (TI set) *****
0188 C.
0189 C.
0190 C.
0191 C.      ***** MDP 01-16 11:08:40.0 *****
0192 C.      (07-FC EIS_MODE_CHG_DIS) *****
0193 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. ;ãLOSŸÁŸSŸÃŸ-¼Â»Û;ã
0203 C.
0204 . C. ***** LOS *****
0205 C.
```





(a) Spacecraft Operation Procedure (real-commands)

```
main-559 2020-01-16 14:12:05 136 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×ÁÇ¿ÍY¿Y×Yí;¼YÉ;ÈÈ%µ•ííÉ;ÈÈ¼°ÇÓã•¿¿¼í¹¿ãÍ;¿Á®, ù¿¹ãÈãÈã¿Á+¿®ã•¿Èãã³ãÈ;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-281: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 2020-01-16 11:08:18.0
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 05 85 83 06 06)
0074 + DC 07-F0 MDP_XRT_ROI_SET
0075 BC (cd 06 85 83 06 06)
0076 + DC 07-F0 MDP_XRT_ROI_SET
0077 BC (cd 07 85 83 08 08)
0078 + DC 07-F0 MDP_XRT_ROI_SET
0079 BC (cd 08 80 60 20 18)
0080 + DC 07-F0 MDP_XRT_ROI_SET
0081 BC (cd 09 a0 80 18 20)
0082 + DC 07-F0 MDP_XRT_ROI_SET
0083 BC (cd 0a 80 80 20 20)
0084 + DC 07-F0 MDP_XRT_ROI_SET
0085 BC (cd 0b 80 80 20 08)
0086 + DC 07-F0 MDP_XRT_ROI_SET
0087 BC (cd 0c 80 80 08 20)
0088 + DC 07-F0 MDP_XRT_ROI_SET
0089 BC (cd 0d 80 80 08 08)
0090 + DC 07-F0 MDP_XRT_ROI_SET
0091 BC (cd 0f 80 80 06 06)
0092 + DC 07-F0 MDP_XRT_ROI_SET
0093 BC (cd 10 80 80 08 08)
0094 + DC 07-F0 MDP_XRT_FLD_ENA
0095 BC (d8)
```

```
0096 + DC 07-F0 MDP_XRT_FLRCTRL_ENA
0097 BC (c8)
0098 + DC 07-F0 MDP_XRT_ARS_DIS
0099 BC (d5)
0100 + DC 07-F0 MDP_XRT_AEC_RESET
0101 BC (d0)
0102 + DC 07-F0 MDP_XRT_FLD_RESET
0103 BC (da)
0104 +. DC 07-F0 MDP_XRT_QT_PROG_SET
0105 BC (c4 09)
0106 +. DC 07-F0 MDP_XRT_FL_PROG_SET
0107 BC (c5 0d)
0108 . C. ----- Success Verify ? OK / NG ____
0109 C.
0110 C.
0111 . C. All OK? Yes--> Please Proceed. / No --> Stop here.
0112 C.
0113 +. DC 07-F0 MDP_XRT_MODE_OBSV
0114 BC (c2)
0115 +. TI 2020-01-16 11:08:02.0
0116 DC 07-F0 MDP_XRT_MODE_OBSV
0117 BC (c2)
0118 . C. ----- Success Verify ? OK / NG ____
0119 C.
0120 C. ***** XRT END *****
0121 C.
0122 . C. ***** MDP 'úÃîñî»ö¼ÝñÊÃðñ¹ñèDCBC•x²è *****
0123 C. (%ã°îÿÓÿÄÿÈÿÞÿËÿÀÿÇÿÈñ¼ññ¼Ã»Ûñ¹ñè)
0124 . S. DC-BC dcbc-402:DCBC
0125 (MDP_known_event)
0126 C.
0127 C.
0128 . C. ***** ÿÐÿ¹•Ï Daily±¿ÎññË´Øñ¹ñèDCBC•x²è *****
0129 . S. DC-BC dcbc-153:DCBC
0130 (SPECIAL-CMD_DAILY_OPERATIN_DCB)
0131 C.
0132 C.
0133 . C. ;ãLOSÿÄÿ§ÿËÿËÿ-¼Ã»Û;ã
0134 C.
0135 . C. ***** LOS *****
0136 C.
```

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

|            |            |                                   |   |       |                |  |  |  |
|------------|------------|-----------------------------------|---|-------|----------------|--|--|--|
| 2020/01/16 | 11:18:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/16 | 11:18:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/16 | 11:18:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |
| 2020/01/16 | 11:19:00.0 | AOCS_Ore-point_Start_1_OG [0x097] |   |       |                |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 57 74 01 f3 |  |  |  |
| 2020/01/16 | 11:19:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |
| 2020/01/16 | 11:19:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |
| 2020/01/16 | 11:19:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |
| 2020/01/16 | 11:19:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |
| 2020/01/16 | 11:19:26.0 | XRT_FLD_RESET_441_OG [0x1b9]      |   |       |                |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |
| 2020/01/16 | 11:27:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    |   |       |                |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 0e          |  |  |  |
| 2020/01/16 | 11:27:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |  |  |
| 2020/01/16 | 11:28:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/16 | 11:57:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/16 | 11:57:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/16 | 11:57:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |
| 2020/01/16 | 11:58:00.0 | AOCS_Ore-point_Start_2_OG [0x098] |   |       |                |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 4e 97 01 f3 |  |  |  |
| 2020/01/16 | 11:58:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |
| 2020/01/16 | 11:58:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |
| 2020/01/16 | 11:58:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |
| 2020/01/16 | 11:58:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |
| 2020/01/16 | 11:58:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      |   |       |                |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |
| 2020/01/16 | 12:00:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    |   |       |                |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 0e          |  |  |  |
| 2020/01/16 | 12:00:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |  |  |
| 2020/01/16 | 12:01:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/16 | 12:27:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/16 | 12:27:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/16 | 12:27:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |
| 2020/01/16 | 12:28:00.0 | AOCS_Ore-point_Start_3_OG [0x099] |   |       |                |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 45 b2 01 f3 |  |  |  |
| 2020/01/16 | 12:28:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |
| 2020/01/16 | 12:28:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |
| 2020/01/16 | 12:28:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |
| 2020/01/16 | 12:28:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |
| 2020/01/16 | 12:28:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      |   |       |                |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |
| 2020/01/16 | 12:30:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    |   |       |                |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 0e          |  |  |  |
| 2020/01/16 | 12:30:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    |   |       |                |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 0d          |  |  |  |
| 2020/01/16 | 12:31:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      |   |       |                |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/16 | 12:57:54.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/16 | 12:57:56.0 | XRT_CTRL_MANU_402_OG [0x192]      |   |       |                |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/16 | 12:57:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] |   |       |                |  |  |  |
|            |            | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 fe 97 00    |  |  |  |
| 2020/01/16 | 12:58:00.0 | AOCS_Ore-point_Start_4_OG [0x09a] |   |       |                |  |  |  |
|            |            | AOCU_NM                           | 5 | 02-76 | 00 3c cc 01 f3 |  |  |  |
| 2020/01/16 | 12:58:18.0 | XRT_FLD_ENA_411_OG [0x19b]        |   |       |                |  |  |  |
|            |            | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8             |  |  |  |
| 2020/01/16 | 12:58:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    |   |       |                |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8             |  |  |  |
| 2020/01/16 | 12:58:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      |   |       |                |  |  |  |
|            |            | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0             |  |  |  |
| 2020/01/16 | 12:58:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        |   |       |                |  |  |  |
|            |            | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5             |  |  |  |
| 2020/01/16 | 12:58:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      |   |       |                |  |  |  |
|            |            | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da             |  |  |  |
| 2020/01/16 | 13:00:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    |   |       |                |  |  |  |



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|            |            |                                   |                     |   |       |    |    |          |
|------------|------------|-----------------------------------|---------------------|---|-------|----|----|----------|
| 2020/01/16 | 13:00:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 0e |          |
|            |            |                                   | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d |          |
| 2020/01/16 | 13:01:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |          |
| 2020/01/16 | 13:27:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |          |
| 2020/01/16 | 13:27:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |          |
| 2020/01/16 | 13:27:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe | 97 00    |
| 2020/01/16 | 13:28:00.0 | AOCS_Ore-point_Start_5_OG [0x09b] | AOCU_NM             | 5 | 02-76 | 00 | 33 | e7 01 f3 |
| 2020/01/16 | 13:28:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8 |    |          |
| 2020/01/16 | 13:28:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8 |    |          |
| 2020/01/16 | 13:28:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |    |          |
| 2020/01/16 | 13:28:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |    |          |
| 2020/01/16 | 13:28:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |          |
| 2020/01/16 | 13:30:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 0e |          |
| 2020/01/16 | 13:30:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d |          |
| 2020/01/16 | 13:31:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |          |
| 2020/01/16 | 13:57:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |          |
| 2020/01/16 | 13:57:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |          |
| 2020/01/16 | 13:57:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe | 97 00    |
| 2020/01/16 | 13:58:00.0 | AOCS_Ore-point_Start_6_OG [0x09c] | AOCU_NM             | 5 | 02-76 | 00 | 2b | 02 01 f3 |
| 2020/01/16 | 13:58:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8 |    |          |
| 2020/01/16 | 13:58:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8 |    |          |
| 2020/01/16 | 13:58:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |    |          |
| 2020/01/16 | 13:58:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |    |          |
| 2020/01/16 | 13:58:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |          |
| 2020/01/16 | 14:00:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 0e |          |
| 2020/01/16 | 14:00:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d |          |
| 2020/01/16 | 14:01:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |          |
| 2020/01/16 | 14:27:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |          |
| 2020/01/16 | 14:27:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |          |
| 2020/01/16 | 14:27:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe | 97 00    |
| 2020/01/16 | 14:28:00.0 | AOCS_Ore-point_Start_7_OG [0x09d] | AOCU_NM             | 5 | 02-76 | 00 | 22 | 24 01 f3 |
| 2020/01/16 | 14:28:18.0 | XRT_FLD_ENA_411_OG [0x19b]        | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8 |    |          |
| 2020/01/16 | 14:28:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8 |    |          |
| 2020/01/16 | 14:28:22.0 | XRT_AEC_RESET_448_OG [0x1c0]      | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |    |          |
| 2020/01/16 | 14:28:24.0 | XRT_ARS_DIS_423_OG [0x1a7]        | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |    |          |
| 2020/01/16 | 14:28:26.0 | XRT_FLD_RESET_434_OG [0x1b2]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |          |
| 2020/01/16 | 14:30:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 0e |          |
| 2020/01/16 | 14:30:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d |          |
| 2020/01/16 | 14:31:00.0 | XRT_CTRL_AUTO_408_OG [0x198]      | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |          |
| 2020/01/16 | 15:09:00.0 | XRT_CTRL_MANU_400_OG [0x190]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |          |
| 2020/01/16 | 15:09:02.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |          |
| 2020/01/16 | 15:09:04.0 | XRT_FLD_RESET_415_OG [0x19f]      | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |          |
| 2020/01/16 | 15:09:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |    |          |
| 2020/01/16 | 15:12:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |    |          |
| 2020/01/16 | 15:18:54.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |          |
| 2020/01/16 | 15:18:56.0 | XRT_CTRL_MANU_402_OG [0x192]      | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |          |
| 2020/01/16 | 15:18:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a] | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe | 97 00    |

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|            |            |                                    |   |       |    |    |    |    |       |
|------------|------------|------------------------------------|---|-------|----|----|----|----|-------|
| 2020/01/16 | 15:19:00.0 | AOCS_OrE-point_Start_8_OG [0x09e]  |   |       |    |    |    |    |       |
|            |            | AOCU_NM                            | 5 | 02-76 | 00 | 19 | 3f | 01 | f3    |
| 2020/01/16 | 15:19:18.0 | XRT_FLD_ENA_411_OG [0x19b]         |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLD_ENA                    | 1 | 07-F0 |    |    |    |    | d8    |
| 2020/01/16 | 15:19:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLRCTRL_ENA                | 1 | 07-F0 |    |    |    |    | c8    |
| 2020/01/16 | 15:19:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_AEC_RESET                  | 1 | 07-F0 |    |    |    |    | d0    |
| 2020/01/16 | 15:19:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         |   |       |    |    |    |    |       |
|            |            | MDP_XRT_ARS_DIS                    | 1 | 07-F0 |    |    |    |    | d5    |
| 2020/01/16 | 15:19:26.0 | XRT_FLD_RESET_434_OG [0x1b2]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLD_RESET                  | 1 | 07-F0 |    |    |    |    | da    |
| 2020/01/16 | 15:21:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_QT_PROG_SET                | 2 | 07-F0 |    |    |    |    | c4 0e |
| 2020/01/16 | 15:21:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FL_PROG_SET                | 2 | 07-F0 |    |    |    |    | c5 0d |
| 2020/01/16 | 15:22:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_CTRL_AUTO                  | 1 | 07-F0 |    |    |    |    | c0    |
| 2020/01/16 | 15:48:54.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 |    |    |    |    | c1    |
| 2020/01/16 | 15:48:56.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 |    |    |    |    | c1    |
| 2020/01/16 | 15:48:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  |   |       |    |    |    |    |       |
|            |            | XRT_FOCUS_POSITION                 | 4 | 07-F8 |    | 22 | fe | 97 | 00    |
| 2020/01/16 | 15:49:00.0 | AOCS_OrE-point_Start_9_OG [0x09f]  |   |       |    |    |    |    |       |
|            |            | AOCU_NM                            | 5 | 02-76 | 00 | 10 | 5a | 01 | f3    |
| 2020/01/16 | 15:49:18.0 | XRT_FLD_ENA_411_OG [0x19b]         |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLD_ENA                    | 1 | 07-F0 |    |    |    |    | d8    |
| 2020/01/16 | 15:49:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLRCTRL_ENA                | 1 | 07-F0 |    |    |    |    | c8    |
| 2020/01/16 | 15:49:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_AEC_RESET                  | 1 | 07-F0 |    |    |    |    | d0    |
| 2020/01/16 | 15:49:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         |   |       |    |    |    |    |       |
|            |            | MDP_XRT_ARS_DIS                    | 1 | 07-F0 |    |    |    |    | d5    |
| 2020/01/16 | 15:49:26.0 | XRT_FLD_RESET_434_OG [0x1b2]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLD_RESET                  | 1 | 07-F0 |    |    |    |    | da    |
| 2020/01/16 | 15:51:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_QT_PROG_SET                | 2 | 07-F0 |    |    |    |    | c4 0e |
| 2020/01/16 | 15:51:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FL_PROG_SET                | 2 | 07-F0 |    |    |    |    | c5 0d |
| 2020/01/16 | 15:52:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_CTRL_AUTO                  | 1 | 07-F0 |    |    |    |    | c0    |
| 2020/01/16 | 16:42:30.0 | XRT_CTRL_MANU_400_OG [0x190]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 |    |    |    |    | c1    |
| 2020/01/16 | 16:42:32.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 |    |    |    |    | c1    |
| 2020/01/16 | 16:42:34.0 | XRT_FLD_RESET_415_OG [0x19f]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLD_RESET                  | 1 | 07-F0 |    |    |    |    | da    |
| 2020/01/16 | 16:42:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_PREFLR_STRT                | 1 | 07-F0 |    |    |    |    | e8    |
| 2020/01/16 | 16:45:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_PREFLR_STOP                | 1 | 07-F0 |    |    |    |    | e9    |
| 2020/01/16 | 17:06:54.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 |    |    |    |    | c1    |
| 2020/01/16 | 17:06:56.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 |    |    |    |    | c1    |
| 2020/01/16 | 17:06:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  |   |       |    |    |    |    |       |
|            |            | XRT_FOCUS_POSITION                 | 4 | 07-F8 |    | 22 | fe | 97 | 00    |
| 2020/01/16 | 17:07:00.0 | AOCS_OrE-point_Start_10_OG [0x0a0] |   |       |    |    |    |    |       |
|            |            | AOCU_NM                            | 5 | 02-76 | 00 | 07 | 74 | 01 | f3    |
| 2020/01/16 | 17:07:18.0 | XRT_FLD_ENA_411_OG [0x19b]         |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLD_ENA                    | 1 | 07-F0 |    |    |    |    | d8    |
| 2020/01/16 | 17:07:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLRCTRL_ENA                | 1 | 07-F0 |    |    |    |    | c8    |
| 2020/01/16 | 17:07:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_AEC_RESET                  | 1 | 07-F0 |    |    |    |    | d0    |
| 2020/01/16 | 17:07:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         |   |       |    |    |    |    |       |
|            |            | MDP_XRT_ARS_DIS                    | 1 | 07-F0 |    |    |    |    | d5    |
| 2020/01/16 | 17:07:26.0 | XRT_FLD_RESET_434_OG [0x1b2]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLD_RESET                  | 1 | 07-F0 |    |    |    |    | da    |
| 2020/01/16 | 17:09:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_QT_PROG_SET                | 2 | 07-F0 |    |    |    |    | c4 0e |
| 2020/01/16 | 17:09:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FL_PROG_SET                | 2 | 07-F0 |    |    |    |    | c5 0d |
| 2020/01/16 | 17:10:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_CTRL_AUTO                  | 1 | 07-F0 |    |    |    |    | c0    |
| 2020/01/16 | 17:36:54.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 |    |    |    |    | c1    |
| 2020/01/16 | 17:36:56.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 |    |    |    |    | c1    |
| 2020/01/16 | 17:36:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  |   |       |    |    |    |    |       |
|            |            | XRT_FOCUS_POSITION                 | 4 | 07-F8 |    | 22 | fe | 97 | 00    |
| 2020/01/16 | 17:37:00.0 | AOCS_OrE-point_Start_11_OG [0x0a1] |   |       |    |    |    |    |       |
|            |            | AOCU_NM                            | 5 | 02-76 | 00 | ff | 75 | 01 | f3    |
| 2020/01/16 | 17:37:18.0 | XRT_FLD_ENA_411_OG [0x19b]         |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLD_ENA                    | 1 | 07-F0 |    |    |    |    | d8    |
| 2020/01/16 | 17:37:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     |   |       |    |    |    |    |       |
|            |            | MDP_XRT_FLRCTRL_ENA                | 1 | 07-F0 |    |    |    |    | c8    |
| 2020/01/16 | 17:37:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       |   |       |    |    |    |    |       |
|            |            | MDP_XRT_AEC_RESET                  | 1 | 07-F0 |    |    |    |    | d0    |
| 2020/01/16 | 17:37:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         |   |       |    |    |    |    |       |
|            |            | MDP_XRT_ARS_DIS                    | 1 | 07-F0 |    |    |    |    | d5    |
| 2020/01/16 | 17:37:26.0 | XRT_FLD_RESET_434_OG [0x1b2]       |   |       |    |    |    |    |       |

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|            |            |                                    |                     |   |       |    |    |    |       |
|------------|------------|------------------------------------|---------------------|---|-------|----|----|----|-------|
| 2020/01/16 | 17:39:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |       |
|            |            |                                    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 0e |    |       |
| 2020/01/16 | 17:39:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d |    |       |
| 2020/01/16 | 17:40:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |    |       |
| 2020/01/16 | 18:19:00.0 | XRT_CTRL_MANU_400_OG [0x190]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |       |
| 2020/01/16 | 18:19:02.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |       |
| 2020/01/16 | 18:19:04.0 | XRT_FLD_RESET_415_OG [0x19f]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |       |
| 2020/01/16 | 18:19:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |    |    |       |
| 2020/01/16 | 18:22:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |    |    |       |
| 2020/01/16 | 18:43:54.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |       |
| 2020/01/16 | 18:43:56.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |       |
| 2020/01/16 | 18:43:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe | 97 | 00    |
| 2020/01/16 | 18:44:00.0 | AOCS_Ore-point_Start_12_OG [0x0a2] | AOCU_NM             | 5 | 02-76 | 00 | f6 | 98 | 01 f3 |
| 2020/01/16 | 18:44:18.0 | XRT_FLD_ENA_411_OG [0x19b]         | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8 |    |    |       |
| 2020/01/16 | 18:44:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8 |    |    |       |
| 2020/01/16 | 18:44:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |    |    |       |
| 2020/01/16 | 18:44:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |    |    |       |
| 2020/01/16 | 18:44:26.0 | XRT_FLD_RESET_434_OG [0x1b2]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |       |
| 2020/01/16 | 18:46:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 0e |    |       |
| 2020/01/16 | 18:46:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d |    |       |
| 2020/01/16 | 18:47:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |    |       |
| 2020/01/16 | 19:13:54.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |       |
| 2020/01/16 | 19:13:56.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |       |
| 2020/01/16 | 19:13:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe | 97 | 00    |
| 2020/01/16 | 19:14:00.0 | AOCS_Ore-point_Start_13_OG [0x0a3] | AOCU_NM             | 5 | 02-76 | 00 | ed | b3 | 01 f3 |
| 2020/01/16 | 19:14:18.0 | XRT_FLD_ENA_411_OG [0x19b]         | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8 |    |    |       |
| 2020/01/16 | 19:14:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8 |    |    |       |
| 2020/01/16 | 19:14:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |    |    |       |
| 2020/01/16 | 19:14:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |    |    |       |
| 2020/01/16 | 19:14:26.0 | XRT_FLD_RESET_434_OG [0x1b2]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |       |
| 2020/01/16 | 19:16:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 0e |    |       |
| 2020/01/16 | 19:16:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d |    |       |
| 2020/01/16 | 19:17:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |    |    |       |
| 2020/01/16 | 19:56:00.0 | XRT_CTRL_MANU_400_OG [0x190]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |       |
| 2020/01/16 | 19:56:02.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |       |
| 2020/01/16 | 19:56:04.0 | XRT_FLD_RESET_415_OG [0x19f]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |       |
| 2020/01/16 | 19:56:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |    |    |       |
| 2020/01/16 | 19:59:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |    |    |       |
| 2020/01/16 | 20:20:24.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |       |
| 2020/01/16 | 20:20:26.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |    |    |       |
| 2020/01/16 | 20:20:28.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe | 97 | 00    |
| 2020/01/16 | 20:20:30.0 | AOCS_Ore-point_Start_14_OG [0x0a4] | AOCU_NM             | 5 | 02-76 | 00 | e4 | cd | 01 f3 |
| 2020/01/16 | 20:20:48.0 | XRT_FLD_ENA_411_OG [0x19b]         | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8 |    |    |       |
| 2020/01/16 | 20:20:50.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8 |    |    |       |
| 2020/01/16 | 20:20:52.0 | XRT_AEC_RESET_448_OG [0x1c0]       | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |    |    |       |
| 2020/01/16 | 20:20:54.0 | XRT_ARS_DIS_423_OG [0x1a7]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |    |    |       |
| 2020/01/16 | 20:20:56.0 | XRT_FLD_RESET_434_OG [0x1b2]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |    |    |       |

|            |            |                                    |                     |   |       |    |             |
|------------|------------|------------------------------------|---------------------|---|-------|----|-------------|
| 2020/01/16 | 20:23:26.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 0e          |
| 2020/01/16 | 20:23:28.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d          |
| 2020/01/16 | 20:23:30.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |             |
| 2020/01/16 | 20:50:24.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |
| 2020/01/16 | 20:50:26.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |
| 2020/01/16 | 20:50:28.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe 97 00    |
| 2020/01/16 | 20:50:30.0 | AOCS_OrE-point_Start_15_OG [0x0a5] | AOCU_NM             | 5 | 02-76 | 00 | db e8 01 f3 |
| 2020/01/16 | 20:50:48.0 | XRT_FLD_ENA_411_OG [0x19b]         | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8 |             |
| 2020/01/16 | 20:50:50.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8 |             |
| 2020/01/16 | 20:50:52.0 | XRT_AEC_RESET_448_OG [0x1c0]       | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |             |
| 2020/01/16 | 20:50:54.0 | XRT_ARS_DIS_423_OG [0x1a7]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |             |
| 2020/01/16 | 20:50:56.0 | XRT_FLD_RESET_434_OG [0x1b2]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |             |
| 2020/01/16 | 20:53:26.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 0e          |
| 2020/01/16 | 20:53:28.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d          |
| 2020/01/16 | 20:53:30.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |             |
| 2020/01/16 | 21:33:30.0 | XRT_CTRL_MANU_400_OG [0x190]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |
| 2020/01/16 | 21:33:32.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |
| 2020/01/16 | 21:33:34.0 | XRT_FLD_RESET_415_OG [0x19f]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |             |
| 2020/01/16 | 21:33:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8 |             |
| 2020/01/16 | 21:36:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9 |             |
| 2020/01/16 | 21:57:24.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |
| 2020/01/16 | 21:57:26.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |
| 2020/01/16 | 21:57:28.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe 97 00    |
| 2020/01/16 | 21:57:30.0 | AOCS_OrE-point_Start_16_OG [0x0a6] | AOCU_NM             | 5 | 02-76 | 00 | d3 03 01 f3 |
| 2020/01/16 | 21:57:48.0 | XRT_FLD_ENA_411_OG [0x19b]         | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8 |             |
| 2020/01/16 | 21:57:50.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8 |             |
| 2020/01/16 | 21:57:52.0 | XRT_AEC_RESET_448_OG [0x1c0]       | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |             |
| 2020/01/16 | 21:57:54.0 | XRT_ARS_DIS_423_OG [0x1a7]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |             |
| 2020/01/16 | 21:57:56.0 | XRT_FLD_RESET_434_OG [0x1b2]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |             |
| 2020/01/16 | 22:00:26.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 0e          |
| 2020/01/16 | 22:00:28.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d          |
| 2020/01/16 | 22:00:30.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |             |
| 2020/01/16 | 22:27:24.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |
| 2020/01/16 | 22:27:26.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |
| 2020/01/16 | 22:27:28.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe 97 00    |
| 2020/01/16 | 22:27:30.0 | AOCS_OrE-point_Start_17_OG [0x0a7] | AOCU_NM             | 5 | 02-76 | 00 | ca 25 01 f3 |
| 2020/01/16 | 22:27:48.0 | XRT_FLD_ENA_411_OG [0x19b]         | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8 |             |
| 2020/01/16 | 22:27:50.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8 |             |
| 2020/01/16 | 22:27:52.0 | XRT_AEC_RESET_448_OG [0x1c0]       | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0 |             |
| 2020/01/16 | 22:27:54.0 | XRT_ARS_DIS_423_OG [0x1a7]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5 |             |
| 2020/01/16 | 22:27:56.0 | XRT_FLD_RESET_434_OG [0x1b2]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da |             |
| 2020/01/16 | 22:30:26.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 | 0e          |
| 2020/01/16 | 22:30:28.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 | 0d          |
| 2020/01/16 | 22:30:30.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0 |             |
| 2020/01/16 | 23:10:30.0 | XRT_CTRL_MANU_400_OG [0x190]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |
| 2020/01/16 | 23:10:32.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1 |             |
| 2020/01/16 | 23:10:34.0 | XRT_FLD_RESET_415_OG [0x19f]       |                     |   |       |    |             |

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|            |            |                                    |                     |   |       |                |  |  |  |
|------------|------------|------------------------------------|---------------------|---|-------|----------------|--|--|--|
| 2020/01/16 | 23:10:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |  |
| 2020/01/16 | 23:13:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |  |
| 2020/01/16 | 23:32:54.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/16 | 23:32:56.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/16 | 23:32:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 fe 97 00    |  |  |  |
| 2020/01/16 | 23:33:00.0 | AOCS_Ore-point_Start_18_OG [0x0a8] | AOCU_NM             | 5 | 02-76 | 00 c1 40 01 f3 |  |  |  |
| 2020/01/16 | 23:33:18.0 | XRT_FLD_ENA_411_OG [0x19b]         | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |  |  |
| 2020/01/16 | 23:33:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |  |  |
| 2020/01/16 | 23:33:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |  |  |
| 2020/01/16 | 23:33:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |  |  |
| 2020/01/16 | 23:33:26.0 | XRT_FLD_RESET_434_OG [0x1b2]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |  |
| 2020/01/16 | 23:35:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 0e          |  |  |  |
| 2020/01/16 | 23:35:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |  |  |  |
| 2020/01/16 | 23:36:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/17 | 00:02:54.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 00:02:56.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 00:02:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 fe 97 00    |  |  |  |
| 2020/01/17 | 00:03:00.0 | AOCS_Ore-point_Start_19_OG [0x0a9] | AOCU_NM             | 5 | 02-76 | 00 b8 5b 01 f3 |  |  |  |
| 2020/01/17 | 00:03:18.0 | XRT_FLD_ENA_411_OG [0x19b]         | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |  |  |
| 2020/01/17 | 00:03:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |  |  |
| 2020/01/17 | 00:03:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |  |  |
| 2020/01/17 | 00:03:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |  |  |
| 2020/01/17 | 00:03:26.0 | XRT_FLD_RESET_434_OG [0x1b2]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |  |
| 2020/01/17 | 00:05:56.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 0e          |  |  |  |
| 2020/01/17 | 00:05:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |  |  |  |
| 2020/01/17 | 00:06:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/17 | 00:48:00.0 | XRT_CTRL_MANU_400_OG [0x190]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 00:48:02.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 00:48:04.0 | XRT_FLD_RESET_415_OG [0x19f]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |  |
| 2020/01/17 | 00:48:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |  |
| 2020/01/17 | 00:51:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |  |
| 2020/01/17 | 00:57:24.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 00:57:26.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 00:57:28.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 fe 97 00    |  |  |  |
| 2020/01/17 | 00:57:30.0 | AOCS_Ore-point_Start_20_OG [0x0aa] | AOCU_NM             | 5 | 02-76 | 00 af 75 01 f3 |  |  |  |
| 2020/01/17 | 00:57:48.0 | XRT_FLD_ENA_411_OG [0x19b]         | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |  |  |
| 2020/01/17 | 00:57:50.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |  |  |
| 2020/01/17 | 00:57:52.0 | XRT_AEC_RESET_448_OG [0x1c0]       | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |  |  |
| 2020/01/17 | 00:57:54.0 | XRT_ARS_DIS_423_OG [0x1a7]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |  |  |
| 2020/01/17 | 00:57:56.0 | XRT_FLD_RESET_434_OG [0x1b2]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |  |
| 2020/01/17 | 01:00:26.0 | XRT_QT_PROG_SET_436_OG [0x1b4]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 0e          |  |  |  |
| 2020/01/17 | 01:00:28.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |  |  |  |
| 2020/01/17 | 01:00:30.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/17 | 01:27:24.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 01:27:26.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 01:27:28.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 fe 97 00    |  |  |  |

|            |            |                                    |                     |   |       |    |    |    |    |    |
|------------|------------|------------------------------------|---------------------|---|-------|----|----|----|----|----|
| 2020/01/17 | 01:27:30.0 | AOCS_OrE-point_Start_21_OG [0x0ab] | AOCU_NM             | 5 | 02-76 | 00 | ad | 59 | 00 | 00 |
| 2020/01/17 | 01:27:48.0 | XRT_FLD_DIS_447_OG [0x1bf]         | MDP_XRT_FLD_DIS     | 1 | 07-F0 |    | d9 |    |    |    |
| 2020/01/17 | 01:42:24.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]     | MDP_XRT_FLRCTRL_DIS | 1 | 07-F0 |    | c9 |    |    |    |
| 2020/01/17 | 01:42:26.0 | XRT_ARS_DIS_444_OG [0x1bc]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 |    | d5 |    |    |    |
| 2020/01/17 | 01:42:28.0 | XRT_QT_PROG_SET_437_OG [0x1b5]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 |    | c4 | 06 |    |    |
| 2020/01/17 | 01:42:30.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 |    | c0 |    |    |    |
| 2020/01/17 | 03:44:54.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 |    | c1 |    |    |    |
| 2020/01/17 | 03:44:56.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 |    | c1 |    |    |    |
| 2020/01/17 | 03:44:58.0 | XRT_FOCUS_POSITION_414_OG [0x19e]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe | 97 | 00 |    |
| 2020/01/17 | 03:45:00.0 | AOCS_OrE-point_Start_22_OG [0x0ac] | AOCU_NM             | 5 | 02-76 | 00 | 00 | 00 | 56 | 35 |
| 2020/01/17 | 03:45:18.0 | XRT_FLD_DIS_447_OG [0x1bf]         | MDP_XRT_FLD_DIS     | 1 | 07-F0 |    | d9 |    |    |    |
| 2020/01/17 | 03:59:54.0 | XRT_ARS_DIS_444_OG [0x1bc]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 |    | d5 |    |    |    |
| 2020/01/17 | 03:59:56.0 | XRT_FLRCTRL_DIS_428_OG [0x1ac]     | MDP_XRT_FLRCTRL_DIS | 1 | 07-F0 |    | c9 |    |    |    |
| 2020/01/17 | 03:59:58.0 | XRT_QT_PROG_SET_401_OG [0x191]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 |    | c4 | 0f |    |    |
| 2020/01/17 | 04:00:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 |    | c0 |    |    |    |
| 2020/01/17 | 05:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 |    | c1 |    |    |    |
| 2020/01/17 | 05:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 |    | c1 |    |    |    |
| 2020/01/17 | 05:59:58.0 | XRT_FOCUS_POSITION_406_OG [0x196]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | ff | aa | 00 |    |
| 2020/01/17 | 06:00:00.0 | AOCS_OrE-point_Start_23_OG [0x0ad] | AOCU_NM             | 5 | 02-76 | 00 | 00 | 00 | 00 | 00 |
| 2020/01/17 | 06:00:18.0 | XRT_FLD_DIS_409_OG [0x199]         | MDP_XRT_FLD_DIS     | 1 | 07-F0 |    | d9 |    |    |    |
| 2020/01/17 | 06:00:20.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]     | MDP_XRT_FLRCTRL_DIS | 1 | 07-F0 |    | c9 |    |    |    |
| 2020/01/17 | 06:00:22.0 | XRT_ARS_DIS_443_OG [0x1bb]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 |    | d5 |    |    |    |
| 2020/01/17 | 06:02:58.0 | XRT_QT_PROG_SET_431_OG [0x1af]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 |    | c4 | 01 |    |    |
| 2020/01/17 | 06:03:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 |    | c0 |    |    |    |
| 2020/01/17 | 06:09:54.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 |    | c1 |    |    |    |
| 2020/01/17 | 06:09:56.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 |    | c1 |    |    |    |
| 2020/01/17 | 06:09:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 | fe | 97 | 00 |    |
| 2020/01/17 | 06:10:00.0 | AOCS_OrE-point_Start_24_OG [0x0ae] | AOCU_NM             | 5 | 02-76 | 02 | 00 | 00 | 00 | 00 |
| 2020/01/17 | 06:10:18.0 | XRT_FLD_ENA_411_OG [0x19b]         | MDP_XRT_FLD_ENA     | 1 | 07-F0 |    | d8 |    |    |    |
| 2020/01/17 | 06:10:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 |    | c8 |    |    |    |
| 2020/01/17 | 06:10:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       | MDP_XRT_AEC_RESET   | 1 | 07-F0 |    | d0 |    |    |    |
| 2020/01/17 | 06:10:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         | MDP_XRT_ARS_DIS     | 1 | 07-F0 |    | d5 |    |    |    |
| 2020/01/17 | 06:10:26.0 | XRT_FLD_RESET_434_OG [0x1b2]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 |    | da |    |    |    |
| 2020/01/17 | 06:12:56.0 | XRT_QT_PROG_SET_449_OG [0x1c1]     | MDP_XRT_QT_PROG_SET | 2 | 07-F0 |    | c4 | 09 |    |    |
| 2020/01/17 | 06:12:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FL_PROG_SET | 2 | 07-F0 |    | c5 | 0d |    |    |
| 2020/01/17 | 06:13:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 |    | c0 |    |    |    |
| 2020/01/17 | 06:56:30.0 | XRT_CTRL_MANU_400_OG [0x190]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 |    | c1 |    |    |    |
| 2020/01/17 | 06:56:32.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 |    | c1 |    |    |    |
| 2020/01/17 | 06:56:34.0 | XRT_FLD_RESET_415_OG [0x19f]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 |    | da |    |    |    |
| 2020/01/17 | 06:56:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     | MDP_XRT_PREFLR_STRT | 1 | 07-F0 |    | e8 |    |    |    |
| 2020/01/17 | 06:59:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     | MDP_XRT_PREFLR_STOP | 1 | 07-F0 |    | e9 |    |    |    |
| 2020/01/17 | 07:22:00.0 | XRT_Custom_430_OG [0x1ae]          |                     |   |       |    |    |    |    |    |
| 2020/01/17 | 07:23:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]       | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 |    | c0 |    |    |    |
| 2020/01/17 | 08:36:30.0 | XRT_CTRL_MANU_400_OG [0x190]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 |    | c1 |    |    |    |
| 2020/01/17 | 08:36:32.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU   | 1 | 07-F0 |    | c1 |    |    |    |
| 2020/01/17 | 08:36:34.0 | XRT_FLD_RESET_415_OG [0x19f]       | MDP_XRT_FLD_RESET   | 1 | 07-F0 |    | da |    |    |    |
| 2020/01/17 | 08:36:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     | MDP_XRT_PREFLR_STRT | 1 | 07-F0 |    | e8 |    |    |    |

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|            |            |                                    |   |       |                |  |  |  |  |
|------------|------------|------------------------------------|---|-------|----------------|--|--|--|--|
| 2020/01/17 | 08:39:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP                | 1 | 07-F0 | e9             |  |  |  |  |
| 2020/01/17 | 08:59:00.0 | XRT_Custom_430_OG [0x1ae]          |   |       |                |  |  |  |  |
| 2020/01/17 | 09:00:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                  | 1 | 07-F0 | c0             |  |  |  |  |
| 2020/01/17 | 10:16:30.0 | XRT_CTRL_MANU_400_OG [0x190]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 10:16:32.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 10:16:34.0 | XRT_FLD_RESET_415_OG [0x19f]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                  | 1 | 07-F0 | da             |  |  |  |  |
| 2020/01/17 | 10:16:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT                | 1 | 07-F0 | e8             |  |  |  |  |
| 2020/01/17 | 10:19:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP                | 1 | 07-F0 | e9             |  |  |  |  |
| 2020/01/17 | 10:33:30.0 | XRT_Custom_430_OG [0x1ae]          |   |       |                |  |  |  |  |
| 2020/01/17 | 10:34:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                  | 1 | 07-F0 | c0             |  |  |  |  |
| 2020/01/17 | 15:41:30.0 | XRT_CTRL_MANU_400_OG [0x190]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 15:41:32.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 15:41:34.0 | XRT_FLD_RESET_415_OG [0x19f]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                  | 1 | 07-F0 | da             |  |  |  |  |
| 2020/01/17 | 15:41:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT                | 1 | 07-F0 | e8             |  |  |  |  |
| 2020/01/17 | 15:44:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP                | 1 | 07-F0 | e9             |  |  |  |  |
| 2020/01/17 | 15:54:30.0 | XRT_Custom_430_OG [0x1ae]          |   |       |                |  |  |  |  |
| 2020/01/17 | 15:55:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                  | 1 | 07-F0 | c0             |  |  |  |  |
| 2020/01/17 | 17:17:00.0 | XRT_CTRL_MANU_400_OG [0x190]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 17:17:02.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 17:17:04.0 | XRT_FLD_RESET_415_OG [0x19f]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                  | 1 | 07-F0 | da             |  |  |  |  |
| 2020/01/17 | 17:17:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT                | 1 | 07-F0 | e8             |  |  |  |  |
| 2020/01/17 | 17:20:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP                | 1 | 07-F0 | e9             |  |  |  |  |
| 2020/01/17 | 17:41:00.0 | XRT_Custom_430_OG [0x1ae]          |   |       |                |  |  |  |  |
| 2020/01/17 | 17:42:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                  | 1 | 07-F0 | c0             |  |  |  |  |
| 2020/01/17 | 17:57:24.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 17:57:26.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 17:57:28.0 | XRT_FOCUS_POSITION_406_OG [0x196]  |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                 | 4 | 07-F8 | 22 ff aa 00    |  |  |  |  |
| 2020/01/17 | 17:57:30.0 | AOCS_Ore-point_Start_23_OG [0x0ad] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                            | 5 | 02-76 | 00 00 00 00 00 |  |  |  |  |
| 2020/01/17 | 17:57:48.0 | XRT_FLD_DIS_409_OG [0x199]         |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_DIS                    | 1 | 07-F0 | d9             |  |  |  |  |
| 2020/01/17 | 17:57:50.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_DIS                | 1 | 07-F0 | c9             |  |  |  |  |
| 2020/01/17 | 17:57:52.0 | XRT_ARS_DIS_443_OG [0x1bb]         |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                    | 1 | 07-F0 | d5             |  |  |  |  |
| 2020/01/17 | 18:00:28.0 | XRT_QT_PROG_SET_431_OG [0x1af]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET                | 2 | 07-F0 | c4 01          |  |  |  |  |
| 2020/01/17 | 18:00:30.0 | XRT_CTRL_AUTO_408_OG [0x198]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                  | 1 | 07-F0 | c0             |  |  |  |  |
| 2020/01/17 | 18:07:24.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 18:07:26.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 18:07:28.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  |   |       |                |  |  |  |  |
|            |            | XRT_FOCUS_POSITION                 | 4 | 07-F8 | 22 fe 97 00    |  |  |  |  |
| 2020/01/17 | 18:07:30.0 | AOCS_Ore-point_Start_24_OG [0x0ae] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                            | 5 | 02-76 | 02 00 00 00 00 |  |  |  |  |
| 2020/01/17 | 18:07:48.0 | XRT_FLD_ENA_411_OG [0x19b]         |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_ENA                    | 1 | 07-F0 | d8             |  |  |  |  |
| 2020/01/17 | 18:07:50.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLRCTRL_ENA                | 1 | 07-F0 | c8             |  |  |  |  |
| 2020/01/17 | 18:07:52.0 | XRT_AEC_RESET_448_OG [0x1c0]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_AEC_RESET                  | 1 | 07-F0 | d0             |  |  |  |  |
| 2020/01/17 | 18:07:54.0 | XRT_ARS_DIS_423_OG [0x1a7]         |   |       |                |  |  |  |  |
|            |            | MDP_XRT_ARS_DIS                    | 1 | 07-F0 | d5             |  |  |  |  |
| 2020/01/17 | 18:07:56.0 | XRT_FLD_RESET_434_OG [0x1b2]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                  | 1 | 07-F0 | da             |  |  |  |  |
| 2020/01/17 | 18:10:26.0 | XRT_QT_PROG_SET_432_OG [0x1b0]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_QT_PROG_SET                | 2 | 07-F0 | c4 02          |  |  |  |  |
| 2020/01/17 | 18:10:28.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FL_PROG_SET                | 2 | 07-F0 | c5 0d          |  |  |  |  |
| 2020/01/17 | 18:10:30.0 | XRT_CTRL_AUTO_408_OG [0x198]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                  | 1 | 07-F0 | c0             |  |  |  |  |
| 2020/01/17 | 18:54:00.0 | XRT_CTRL_MANU_400_OG [0x190]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 18:54:02.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/17 | 18:54:04.0 | XRT_FLD_RESET_415_OG [0x19f]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                  | 1 | 07-F0 | da             |  |  |  |  |
| 2020/01/17 | 18:54:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |   |       |                |  |  |  |  |

|            |            |                                    |                     |   |       |                |  |  |  |
|------------|------------|------------------------------------|---------------------|---|-------|----------------|--|--|--|
| 2020/01/17 | 18:57:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |  |
| 2020/01/17 | 19:17:30.0 | XRT_Custom_430_OG [0x1ae]          |                     |   |       |                |  |  |  |
| 2020/01/17 | 19:18:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/17 | 20:31:00.0 | XRT_CTRL_MANU_400_OG [0x190]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 20:31:02.0 | XRT_CTRL_MANU_402_OG [0x192]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 20:31:04.0 | XRT_FLD_RESET_415_OG [0x19f]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |  |
| 2020/01/17 | 20:31:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |  |
| 2020/01/17 | 20:34:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |  |
| 2020/01/17 | 20:54:30.0 | XRT_Custom_430_OG [0x1ae]          |                     |   |       |                |  |  |  |
| 2020/01/17 | 20:55:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/17 | 22:08:00.0 | XRT_CTRL_MANU_400_OG [0x190]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 22:08:02.0 | XRT_CTRL_MANU_402_OG [0x192]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 22:08:04.0 | XRT_FLD_RESET_415_OG [0x19f]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |  |
| 2020/01/17 | 22:08:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |  |
| 2020/01/17 | 22:11:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |  |
| 2020/01/17 | 22:31:00.0 | XRT_Custom_430_OG [0x1ae]          |                     |   |       |                |  |  |  |
| 2020/01/17 | 22:32:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/17 | 23:45:30.0 | XRT_CTRL_MANU_400_OG [0x190]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 23:45:32.0 | XRT_CTRL_MANU_402_OG [0x192]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 23:45:34.0 | XRT_FLD_RESET_415_OG [0x19f]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |  |
| 2020/01/17 | 23:45:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |  |
| 2020/01/17 | 23:48:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |  |
| 2020/01/17 | 23:59:54.0 | XRT_CTRL_MANU_402_OG [0x192]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 23:59:56.0 | XRT_CTRL_MANU_402_OG [0x192]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/17 | 23:59:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  |                     |   |       |                |  |  |  |
|            |            |                                    | XRT_FOCUS_POSITION  | 4 | 07-F8 | 22 fe 97 00    |  |  |  |
| 2020/01/18 | 00:00:00.0 | AOCS_OrE-point_Start_25_OG [0x0af] |                     |   |       |                |  |  |  |
|            |            |                                    | AOCU_NM             | 5 | 02-76 | 01 00 00 00 00 |  |  |  |
| 2020/01/18 | 00:00:18.0 | XRT_FLD_ENA_411_OG [0x19b]         |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_FLD_ENA     | 1 | 07-F0 | d8             |  |  |  |
| 2020/01/18 | 00:00:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_FLRCTRL_ENA | 1 | 07-F0 | c8             |  |  |  |
| 2020/01/18 | 00:00:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_AEC_RESET   | 1 | 07-F0 | d0             |  |  |  |
| 2020/01/18 | 00:00:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_ARS_DIS     | 1 | 07-F0 | d5             |  |  |  |
| 2020/01/18 | 00:00:26.0 | XRT_FLD_RESET_416_OG [0x1a0]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |  |
| 2020/01/18 | 00:03:56.0 | XRT_QT_PROG_SET_417_OG [0x1a1]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_QT_PROG_SET | 2 | 07-F0 | c4 12          |  |  |  |
| 2020/01/18 | 00:03:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_FL_PROG_SET | 2 | 07-F0 | c5 0d          |  |  |  |
| 2020/01/18 | 00:04:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/18 | 01:22:30.0 | XRT_CTRL_MANU_400_OG [0x190]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/18 | 01:22:32.0 | XRT_CTRL_MANU_402_OG [0x192]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/18 | 01:22:34.0 | XRT_FLD_RESET_415_OG [0x19f]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |  |
| 2020/01/18 | 01:22:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |  |
| 2020/01/18 | 01:25:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |  |
| 2020/01/18 | 01:29:30.5 | XRT_Custom_430_OG [0x1ae]          |                     |   |       |                |  |  |  |
| 2020/01/18 | 01:30:30.5 | XRT_CTRL_AUTO_424_OG [0x1a8]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/18 | 02:45:00.0 | XRT_CTRL_MANU_400_OG [0x190]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/18 | 02:45:02.0 | XRT_CTRL_MANU_402_OG [0x192]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_MANU   | 1 | 07-F0 | c1             |  |  |  |
| 2020/01/18 | 02:45:04.0 | XRT_FLD_RESET_415_OG [0x19f]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_FLD_RESET   | 1 | 07-F0 | da             |  |  |  |
| 2020/01/18 | 02:45:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STRT | 1 | 07-F0 | e8             |  |  |  |
| 2020/01/18 | 02:48:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_PREFLR_STOP | 1 | 07-F0 | e9             |  |  |  |
| 2020/01/18 | 03:05:00.0 | XRT_Custom_430_OG [0x1ae]          |                     |   |       |                |  |  |  |
| 2020/01/18 | 03:06:00.5 | XRT_CTRL_AUTO_424_OG [0x1a8]       |                     |   |       |                |  |  |  |
|            |            |                                    | MDP_XRT_CTRL_AUTO   | 1 | 07-F0 | c0             |  |  |  |
| 2020/01/18 | 03:29:54.0 | XRT_CTRL_MANU_402_OG [0x192]       |                     |   |       |                |  |  |  |



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|            |            |                                    |                                   |   |       |    |    |          |
|------------|------------|------------------------------------|-----------------------------------|---|-------|----|----|----------|
| 2020/01/18 | 03:29:56.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |
| 2020/01/18 | 03:29:58.0 | XRT_FOCUS_POSITION_406_OG [0x196]  | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |
| 2020/01/18 | 03:30:00.0 | AOCS_Ore-point_Start_23_OG [0x0ad] | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 | ff | aa 00    |
| 2020/01/18 | 03:30:18.0 | XRT_FLD_ENA_411_OG [0x19b]         | AOCU_NM                           | 5 | 02-76 | 00 | 00 | 00 00 00 |
| 2020/01/18 | 03:30:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8 |    |          |
| 2020/01/18 | 03:30:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8 |    |          |
| 2020/01/18 | 03:30:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0 |    |          |
| 2020/01/18 | 03:30:26.0 | XRT_FLD_RESET_434_OG [0x1b2]       | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5 |    |          |
| 2020/01/18 | 03:32:56.0 | XRT_QT_PROG_SET_420_OG [0x1a4]     | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da |    |          |
| 2020/01/18 | 03:32:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 | 13 |          |
| 2020/01/18 | 03:33:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 | 0d |          |
| 2020/01/18 | 04:16:30.0 | XRT_CTRL_MANU_400_OG [0x190]       | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0 |    |          |
| 2020/01/18 | 04:16:32.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |
| 2020/01/18 | 04:16:34.0 | XRT_FLD_RESET_415_OG [0x19f]       | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |
| 2020/01/18 | 04:16:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da |    |          |
| 2020/01/18 | 04:19:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8 |    |          |
| 2020/01/18 | 04:42:00.0 | XRT_Custom_430_OG [0x1ae]          | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9 |    |          |
| 2020/01/18 | 04:43:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]       | XRT_Custom_430_OG [0x1ae]         |   |       |    |    |          |
| 2020/01/18 | 05:52:00.0 | XRT_CTRL_MANU_400_OG [0x190]       | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |    |    |          |
| 2020/01/18 | 05:52:02.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0 |    |          |
| 2020/01/18 | 05:52:04.0 | XRT_FLD_RESET_415_OG [0x19f]       | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |
| 2020/01/18 | 05:52:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |
| 2020/01/18 | 05:52:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da |    |          |
| 2020/01/18 | 05:55:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     | MDP_XRT_PREFLR_STRT               | 1 | 07-F0 | e8 |    |          |
| 2020/01/18 | 06:19:30.5 | XRT_Custom_430_OG [0x1ae]          | MDP_XRT_PREFLR_STOP               | 1 | 07-F0 | e9 |    |          |
| 2020/01/18 | 06:20:30.5 | XRT_CTRL_AUTO_424_OG [0x1a8]       | XRT_Custom_430_OG [0x1ae]         |   |       |    |    |          |
| 2020/01/18 | 06:28:54.0 | XRT_CTRL_MANU_402_OG [0x192]       | XRT_CTRL_AUTO_424_OG [0x1a8]      |   |       |    |    |          |
| 2020/01/18 | 06:28:56.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0 |    |          |
| 2020/01/18 | 06:28:58.0 | XRT_FOCUS_POSITION_406_OG [0x196]  | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |
| 2020/01/18 | 06:29:18.0 | XRT_FLD_DIS_409_OG [0x199]         | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |
| 2020/01/18 | 06:29:20.0 | XRT_FLRCTRL_DIS_413_OG [0x19d]     | XRT_FOCUS_POSITION_406_OG [0x196] |   |       |    |    |          |
| 2020/01/18 | 06:29:22.0 | XRT_ARS_DIS_443_OG [0x1bb]         | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 | ff | aa 00    |
| 2020/01/18 | 06:31:58.0 | XRT_QT_PROG_SET_431_OG [0x1af]     | XRT_FLD_DIS_409_OG [0x199]        |   |       |    |    |          |
| 2020/01/18 | 06:32:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_FLRCTRL_DIS               | 1 | 07-F0 | c9 |    |          |
| 2020/01/18 | 06:38:54.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5 |    |          |
| 2020/01/18 | 06:38:56.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 | 01 |          |
| 2020/01/18 | 06:38:58.0 | XRT_FOCUS_POSITION_410_OG [0x19a]  | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0 |    |          |
| 2020/01/18 | 06:39:00.0 | AOCS_Ore-point_Start_24_OG [0x0ae] | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |
| 2020/01/18 | 06:39:18.0 | XRT_FLD_ENA_411_OG [0x19b]         | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |
| 2020/01/18 | 06:39:20.0 | XRT_FLRCTRL_ENA_412_OG [0x19c]     | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 | fe | 97 00    |
| 2020/01/18 | 06:39:22.0 | XRT_AEC_RESET_448_OG [0x1c0]       | XRT_FOCUS_POSITION                | 4 | 07-F8 | 22 | ff | aa 00    |
| 2020/01/18 | 06:39:24.0 | XRT_ARS_DIS_423_OG [0x1a7]         | AOCU_NM                           | 5 | 02-76 | 02 | 00 | 00 00 00 |
| 2020/01/18 | 06:39:26.0 | XRT_FLD_RESET_434_OG [0x1b2]       | XRT_FLD_ENA_411_OG [0x19b]        |   |       |    |    |          |
| 2020/01/18 | 06:41:56.0 | XRT_QT_PROG_SET_449_OG [0x1c1]     | MDP_XRT_FLD_ENA                   | 1 | 07-F0 | d8 |    |          |
| 2020/01/18 | 06:41:58.0 | XRT_FL_PROG_SET_440_OG [0x1b8]     | MDP_XRT_FLRCTRL_ENA               | 1 | 07-F0 | c8 |    |          |
| 2020/01/18 | 06:42:00.0 | XRT_CTRL_AUTO_408_OG [0x198]       | MDP_XRT_AEC_RESET                 | 1 | 07-F0 | d0 |    |          |
| 2020/01/18 | 07:32:30.0 | XRT_CTRL_MANU_400_OG [0x190]       | MDP_XRT_ARS_DIS                   | 1 | 07-F0 | d5 |    |          |
| 2020/01/18 | 07:32:32.0 | XRT_CTRL_MANU_402_OG [0x192]       | MDP_XRT_FLD_RESET                 | 1 | 07-F0 | da |    |          |
| 2020/01/18 |            |                                    | MDP_XRT_QT_PROG_SET               | 2 | 07-F0 | c4 | 09 |          |
| 2020/01/18 |            |                                    | MDP_XRT_FL_PROG_SET               | 2 | 07-F0 | c5 | 0d |          |
| 2020/01/18 |            |                                    | MDP_XRT_CTRL_AUTO                 | 1 | 07-F0 | c0 |    |          |
| 2020/01/18 |            |                                    | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |
| 2020/01/18 |            |                                    | MDP_XRT_CTRL_MANU                 | 1 | 07-F0 | c1 |    |          |

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|------------|------------|------------------------------------|---|-------|----------------|--|--|--|--|
| 2020/01/18 | 07:32:34.0 | XRT_FLD_RESET_415_OG [0x19f]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                  | 1 | 07-F0 | da             |  |  |  |  |
| 2020/01/18 | 07:32:36.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT                | 1 | 07-F0 | e8             |  |  |  |  |
| 2020/01/18 | 07:35:44.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP                | 1 | 07-F0 | e9             |  |  |  |  |
| 2020/01/18 | 07:57:00.0 | XRT_Custom_430_OG [0x1ae]          |   |       |                |  |  |  |  |
| 2020/01/18 | 07:58:00.0 | XRT_CTRL_AUTO_424_OG [0x1a8]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                  | 1 | 07-F0 | c0             |  |  |  |  |
| 2020/01/18 | 09:12:00.0 | XRT_CTRL_MANU_400_OG [0x190]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/18 | 09:12:02.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/18 | 09:12:04.0 | XRT_FLD_RESET_415_OG [0x19f]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_FLD_RESET                  | 1 | 07-F0 | da             |  |  |  |  |
| 2020/01/18 | 09:12:06.0 | XRT_PREFLR_STRT_435_OG [0x1b3]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STRT                | 1 | 07-F0 | e8             |  |  |  |  |
| 2020/01/18 | 09:15:14.0 | XRT_PREFLR_STOP_419_OG [0x1a3]     |   |       |                |  |  |  |  |
|            |            | MDP_XRT_PREFLR_STOP                | 1 | 07-F0 | e9             |  |  |  |  |
| 2020/01/18 | 09:33:30.0 | XRT_Custom_430_OG [0x1ae]          |   |       |                |  |  |  |  |
| 2020/01/18 | 09:34:30.0 | XRT_CTRL_AUTO_424_OG [0x1a8]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_AUTO                  | 1 | 07-F0 | c0             |  |  |  |  |
| 2020/01/18 | 10:52:54.0 | XRT_CTRL_MANU_402_OG [0x192]       |   |       |                |  |  |  |  |
|            |            | MDP_XRT_CTRL_MANU                  | 1 | 07-F0 | c1             |  |  |  |  |
| 2020/01/18 | 10:53:00.0 | AOCS_ORe-point_Start_23_OG [0x0ad] |   |       |                |  |  |  |  |
|            |            | AOCU_NM                            | 5 | 02-76 | 00 00 00 00 00 |  |  |  |  |