

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20141 - L2 Version 2
Chandra X-Ray Center

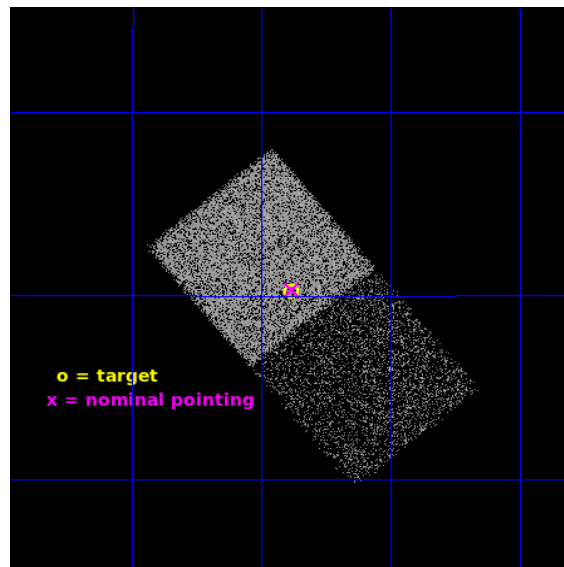
L2 Processing Date : Oct 25 2020

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1 Front

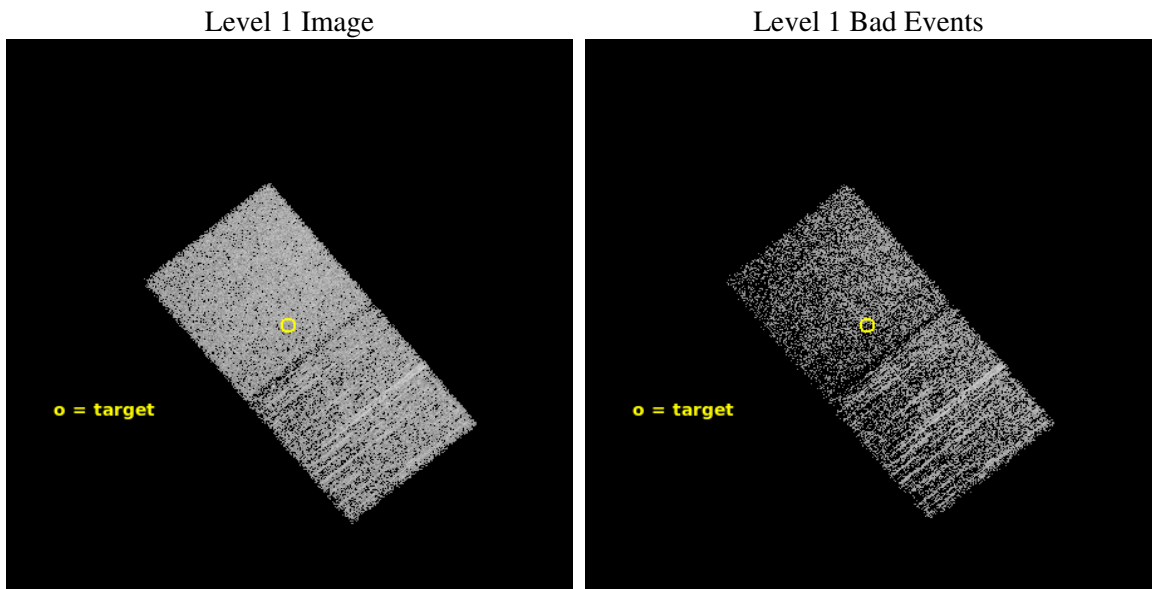
| | | |
|----------|---|---|
| seq_num | 201163 | Sequence number |
| obs_id | 20141 | Observation id |
| title | A Comprehensive Search for X-ray Emission from the Coolest Magnetically Active Brown Dwarfs | Proposal title |
| observer | Peter Williams | Principal investigator |
| object | EQ J1122+2550 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 170.720833 | Observer's specified target RA [deg] |
| dec_targ | 25.837778 | Observer's specified target Dec [deg] |
| ra_nom | 170.72045961935 | Nominal RA [deg] |
| dec_nom | 25.838849215816 | Nominal Dec [deg] |
| roll_nom | 230.37772751041 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 5679.0 | Sum of GTIs [s] |
| livetime | 5602.3597190435 | Livetime [s] |
| ontime6 | 5679.0 | Sum of GTIs [s] |
| ontime7 | 5679.0 | Sum of GTIs [s] |
| l2events | 26486 | Number of level 2 events |



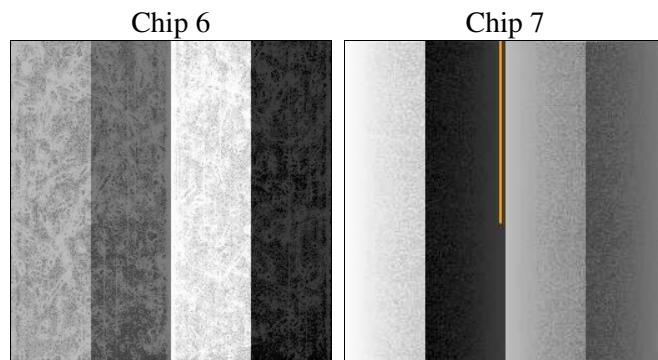
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 5600.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.2 | Processing system revision | ontime | 5679.0 | Sum of GTIs [s] |
| caldsver | 4.9.3 | | ontime6 | 5679.0 | Sum of GTIs [s] |
| date | 2020-10-25T14:41:17 | Date and time of file creation | ontime7 | 5679.0 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | l1events | 96789 | Number of level 1 events |

2.1.4 Events

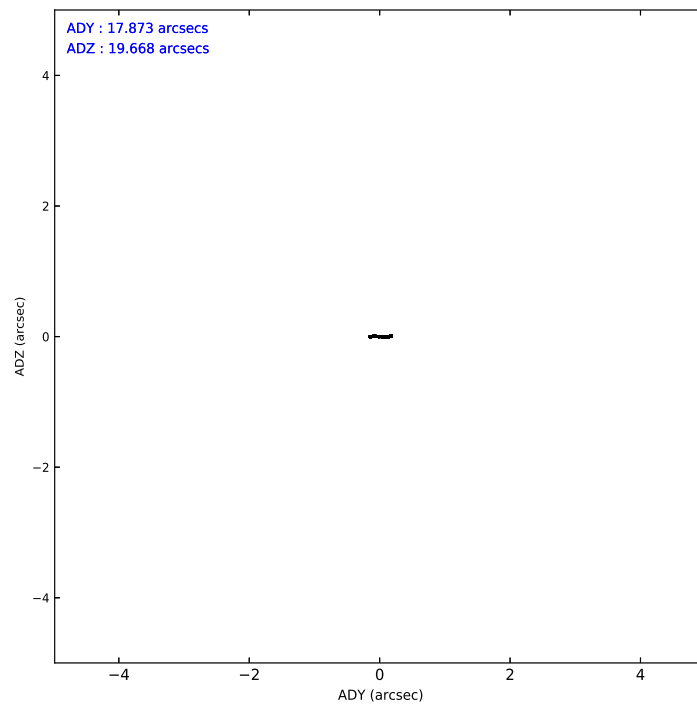
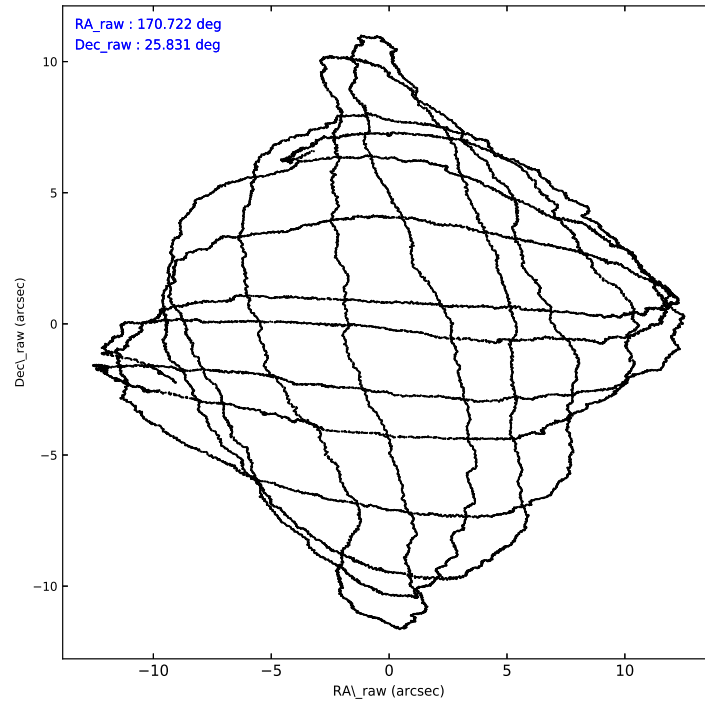
| | ccd 6 | ccd 7 |
|-----------------|--------------|--------------|
| level 1 events | 44236 | 52553 |
| rejected events | 39318 | 29639 |
| rejected % | 88% | 56% |

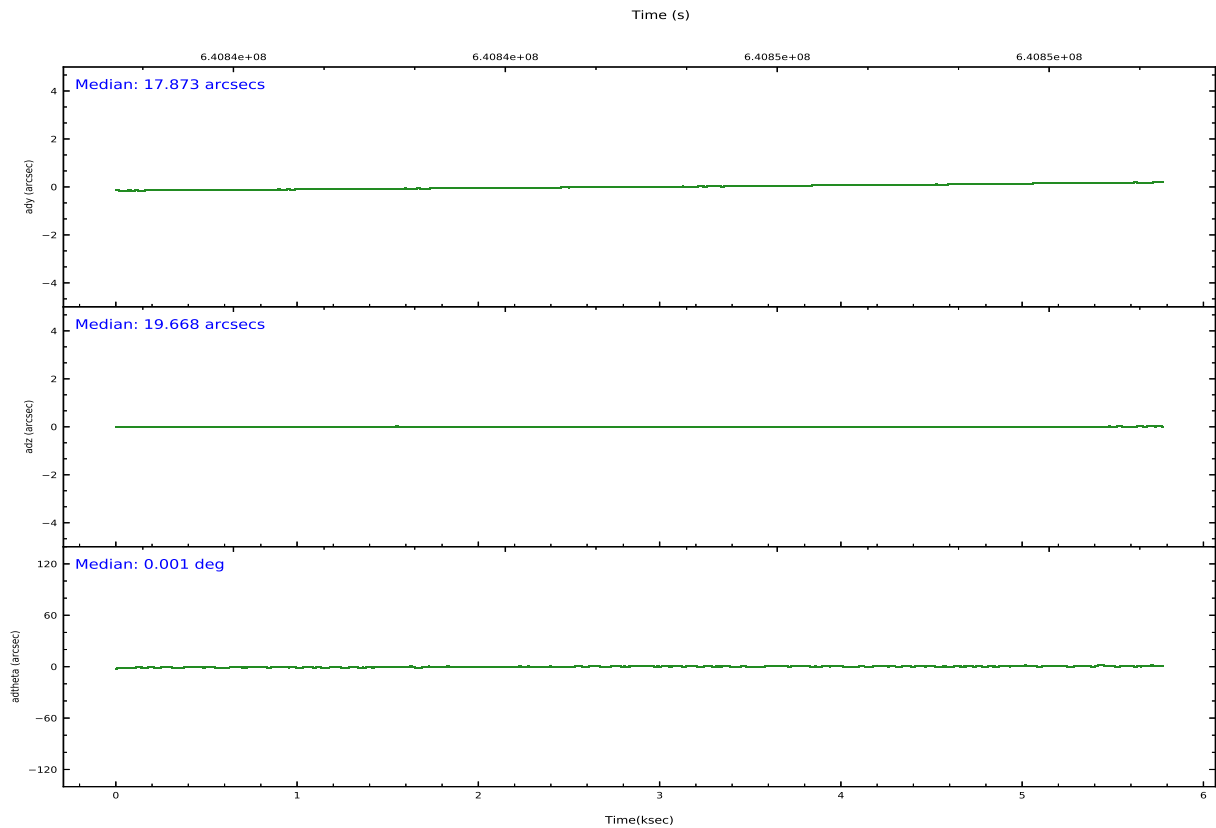
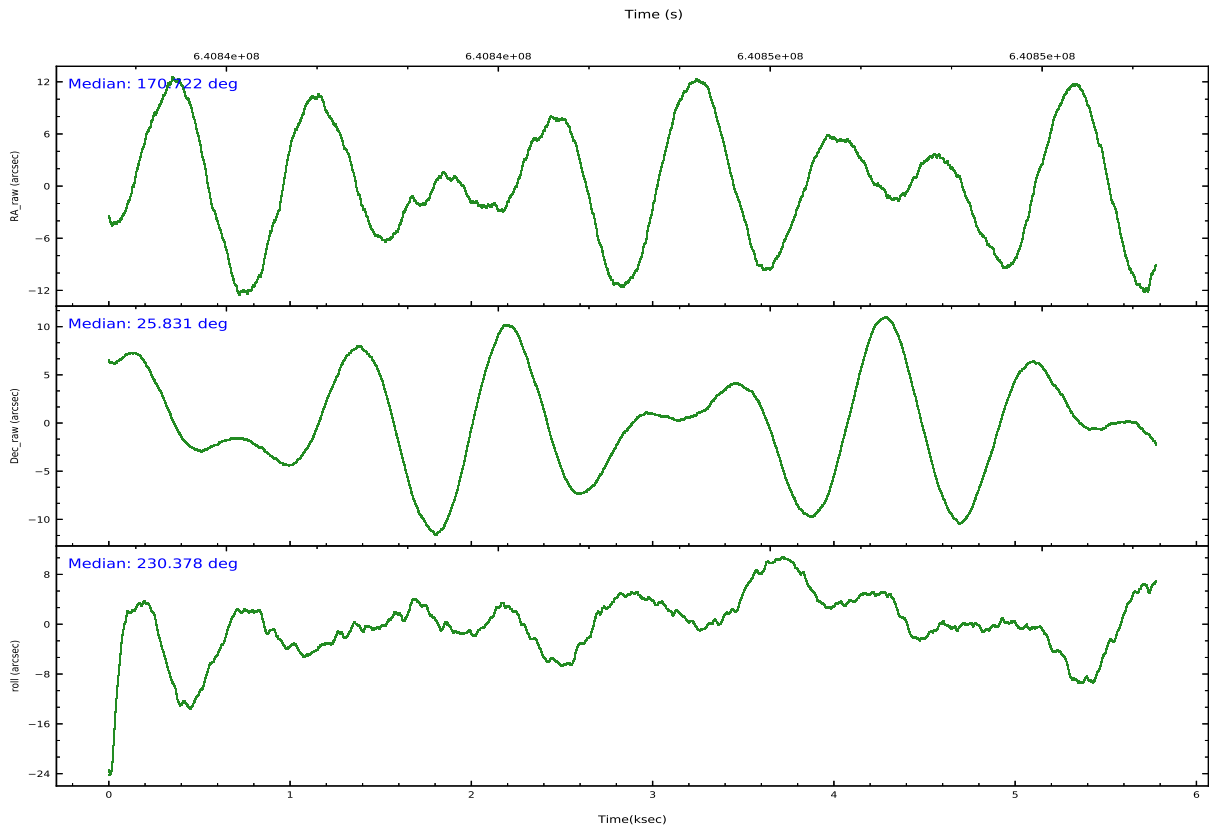
| | ccd 6 | ccd 7 |
|----------------|--------------|--------------|
| grade 0 events | 1627 | 1890 |
| | 3% | 3% |
| grade 1 events | 22 | 73 |
| | 0% | 0% |
| grade 2 events | 1211 | 4766 |
| | 2% | 9% |
| grade 3 events | 470 | 1874 |
| | 1% | 3% |
| grade 4 events | 434 | 1835 |
| | 0% | 3% |
| grade 5 events | 1829 | 5122 |
| | 4% | 9% |
| grade 6 events | 1178 | 12560 |
| | 2% | 23% |
| grade 7 events | 37465 | 24433 |
| | 84% | 46% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar version number | 8 | 8 |
| Detector | ACIS-67 | ACIS-67 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | CCD I0 on | N | N |
| Observation mode | POINTING | POINTING | CCD I1 on | N | N |
| [deg] Pointing RA | 170.726323 | 170.72045961935 | CCD I2 on | O1 | N |
| [deg] Pointing Dec | 25.858298 | 25.838849215816 | CCD I3 on | N | N |
| [deg] Pointing Roll | 230.221399 | 230.37772751041 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | CCD S1 on | O3 | N |
| [mm] SIM defocus | 0 | 0.001444936568705701 | CCD S2 on | O5 | Y |
| [mm] SIM translation stage pos | -190.132523 | -190.1425803651734 | CCD S3 on | Y | Y |
| [mm] SIM translation stage offset | 0 | 0.01005778216563158 | CCD S4 on | O4 | N |
| [s] Observation start time (MET) | 640842530.184000 | 640841654.93558 | CCD S5 on | O2 | N |
| Observation start date | 2018-04-23T03:47:41 | 2018-04-23T03:34:14 | Number of optional ACIS chips dropped | 4 | 4 |
| [s] Observation end time (MET) | 640848130.184000 | 640848761.261 | On-chip summing requested | N | N |
| Observation end date | 2018-04-23T05:21:01 | 2018-04-23T05:32:41 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3 |

2.3 Aspect





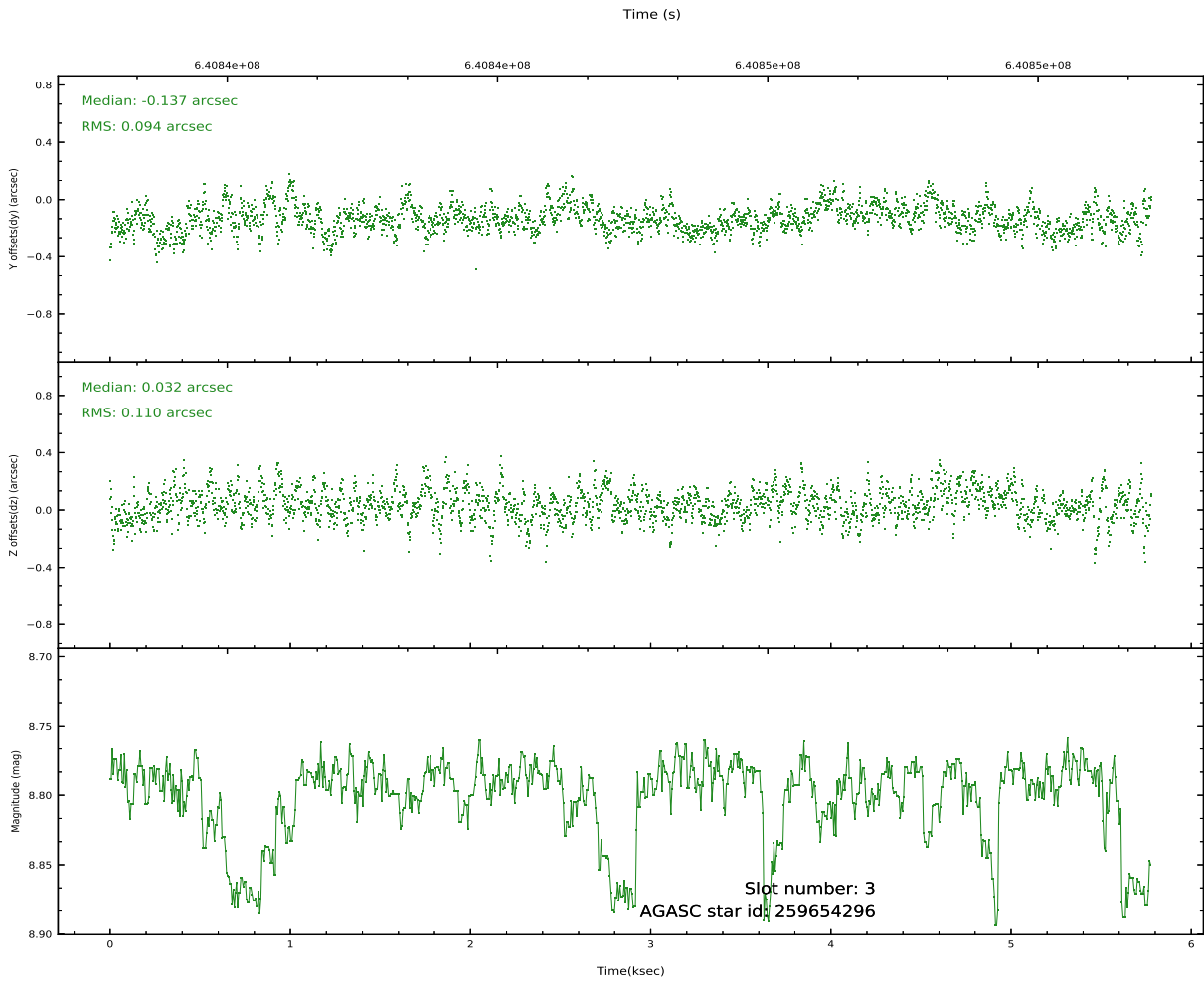
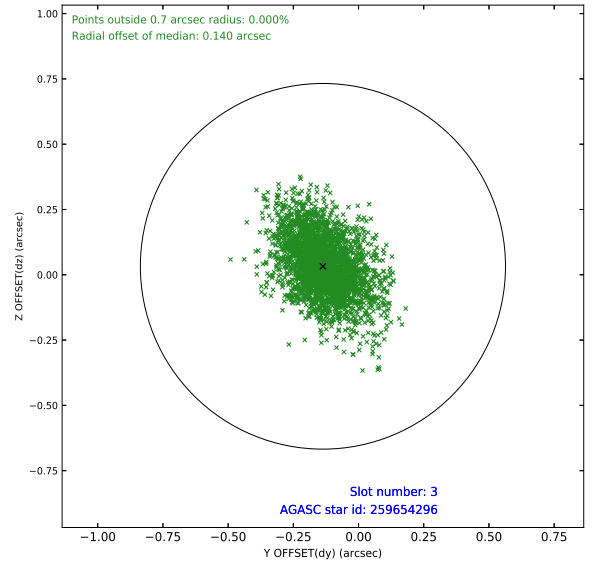
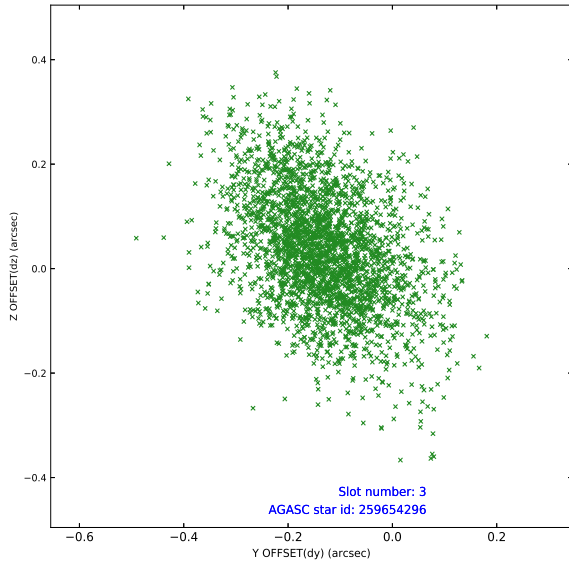
Slot Statistics

| slot | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|------|--------|------|-----------|------|-------|----------|--------|--------|-------|-------|------------|-----------|----------|-------|
| 0 | FID | | ACIS-S-1 | 7.18 | 1409 | 1.000 | 0.294 | -0.116 | 0.007 | 0.012 | 0.000000 | 0.000000 | 925.19 | -1736 |
| 1 | FID | | ACIS-S-4 | 7.20 | 1410 | 1.000 | 0.056 | -0.056 | 0.007 | 0.012 | 0.000000 | 0.000000 | 2143.14 | 166 |
| 2 | FID | | ACIS-S-5 | 7.19 | 1410 | 1.000 | -0.377 | 0.185 | 0.006 | 0.012 | 0.000000 | 0.000000 | -1822.82 | 161 |
| 3 | GUIDE | used | 259654296 | 8.79 | 2817 | 1.000 | -0.137 | 0.032 | 0.152 | 0.261 | 171.271038 | 26.148333 | -1930.44 | 682 |
| 4 | GUIDE | used | 259655672 | 9.41 | 2816 | 1.000 | -0.009 | -0.150 | 0.214 | 0.352 | 170.496212 | 25.483880 | 1514.14 | 288 |
| 5 | GUIDE | used | 259656656 | 9.77 | 2677 | 1.000 | -0.100 | -0.071 | 0.275 | 0.442 | 171.093905 | 25.365755 | 597.10 | 2052 |
| 6 | GUIDE | used | 259928008 | 9.24 | 2813 | 1.000 | 0.016 | 0.143 | 0.249 | 0.388 | 170.704464 | 26.677960 | -2222.01 | -1940 |
| 7 | GUIDE | used | 259654616 | 9.21 | 2812 | 1.000 | 0.233 | 0.057 | 0.198 | 0.331 | 170.040640 | 25.494737 | 2427.17 | -878 |

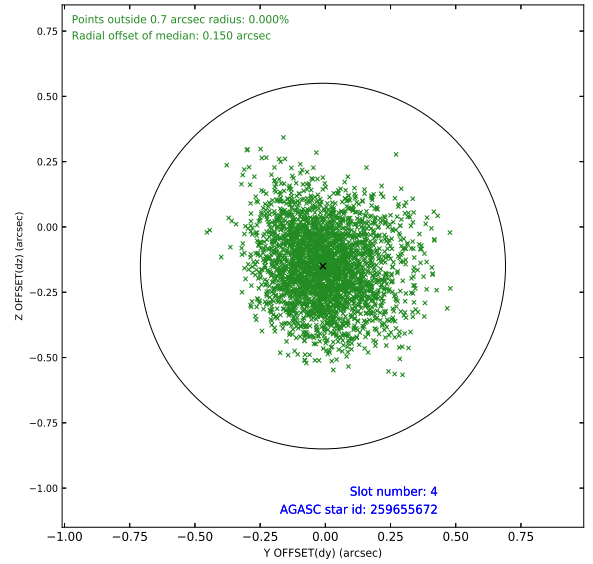
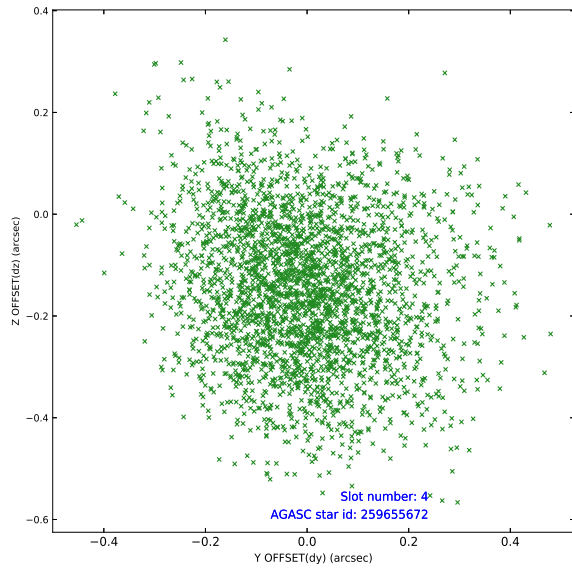
∞

2.4 Star Slots

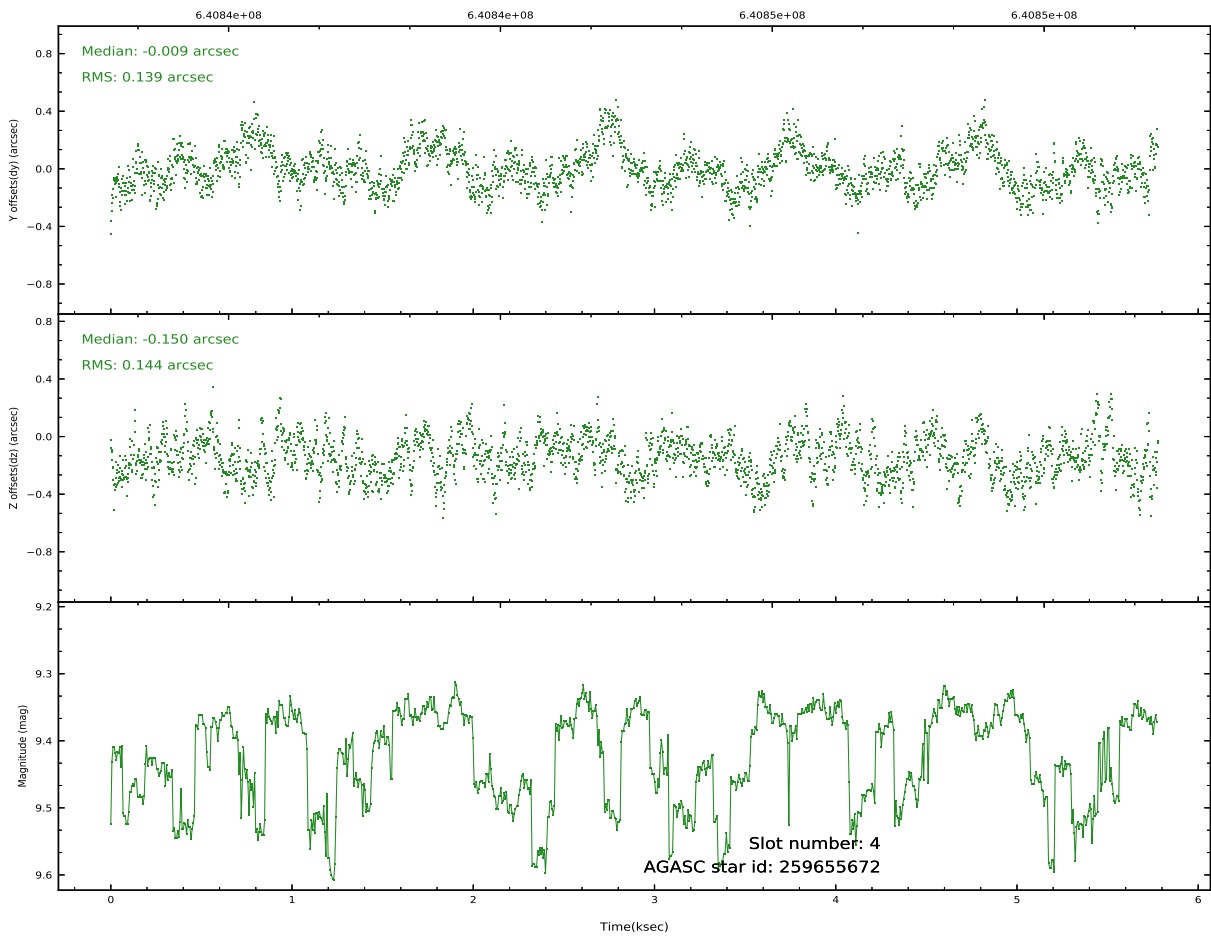
2.4.1 Slot 3



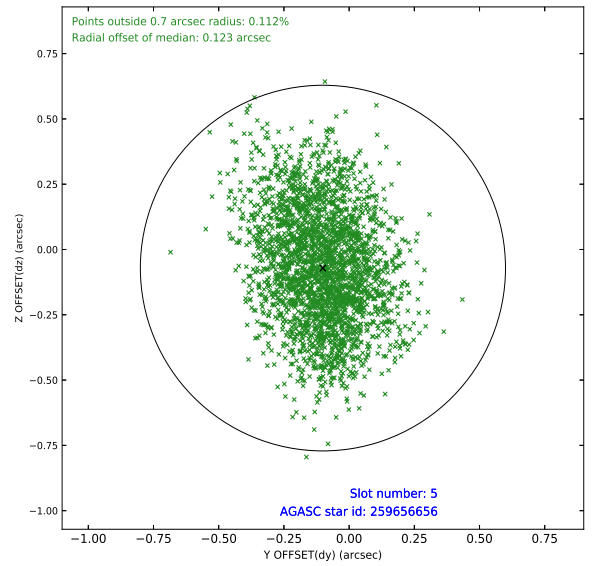
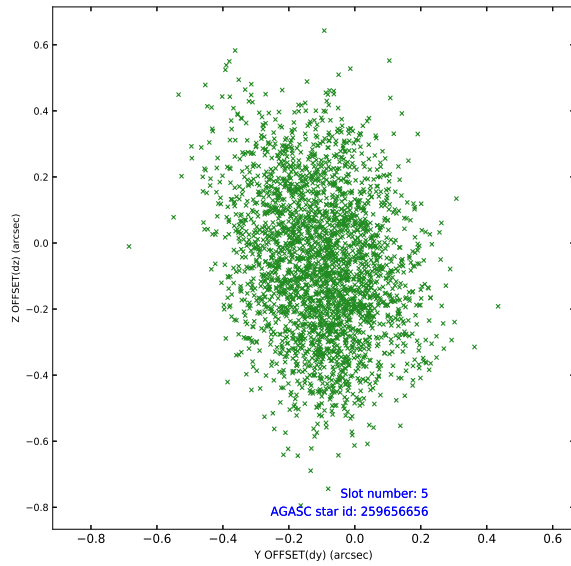
2.4.2 Slot 4



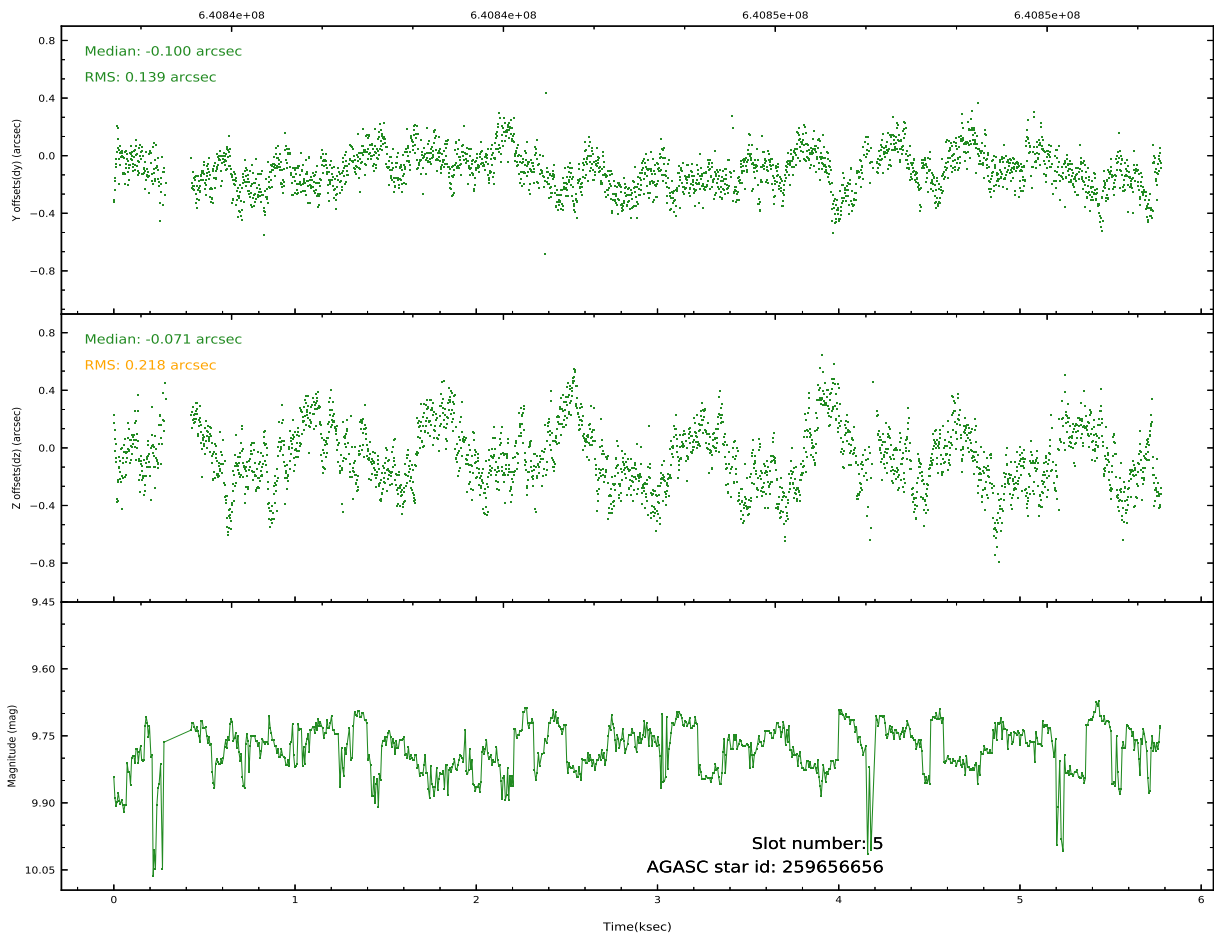
Time (s)



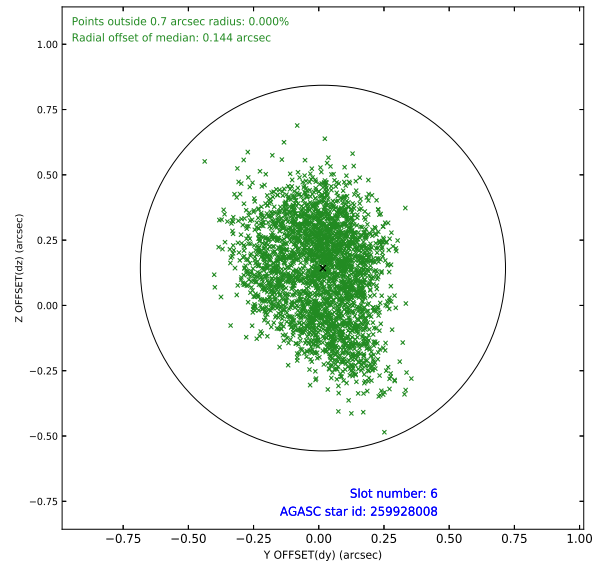
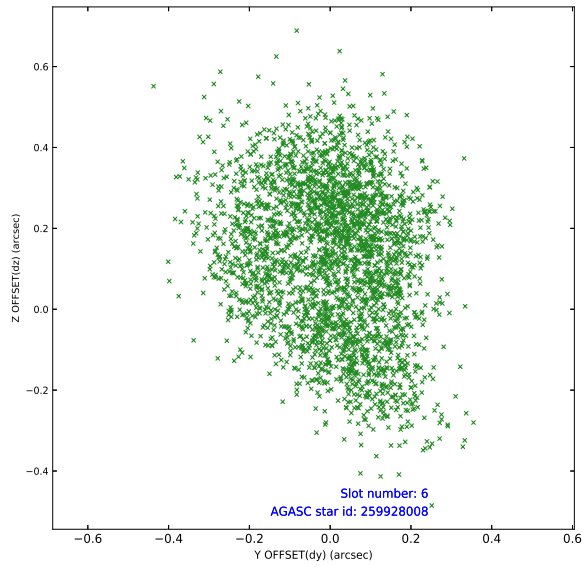
2.4.3 Slot 5



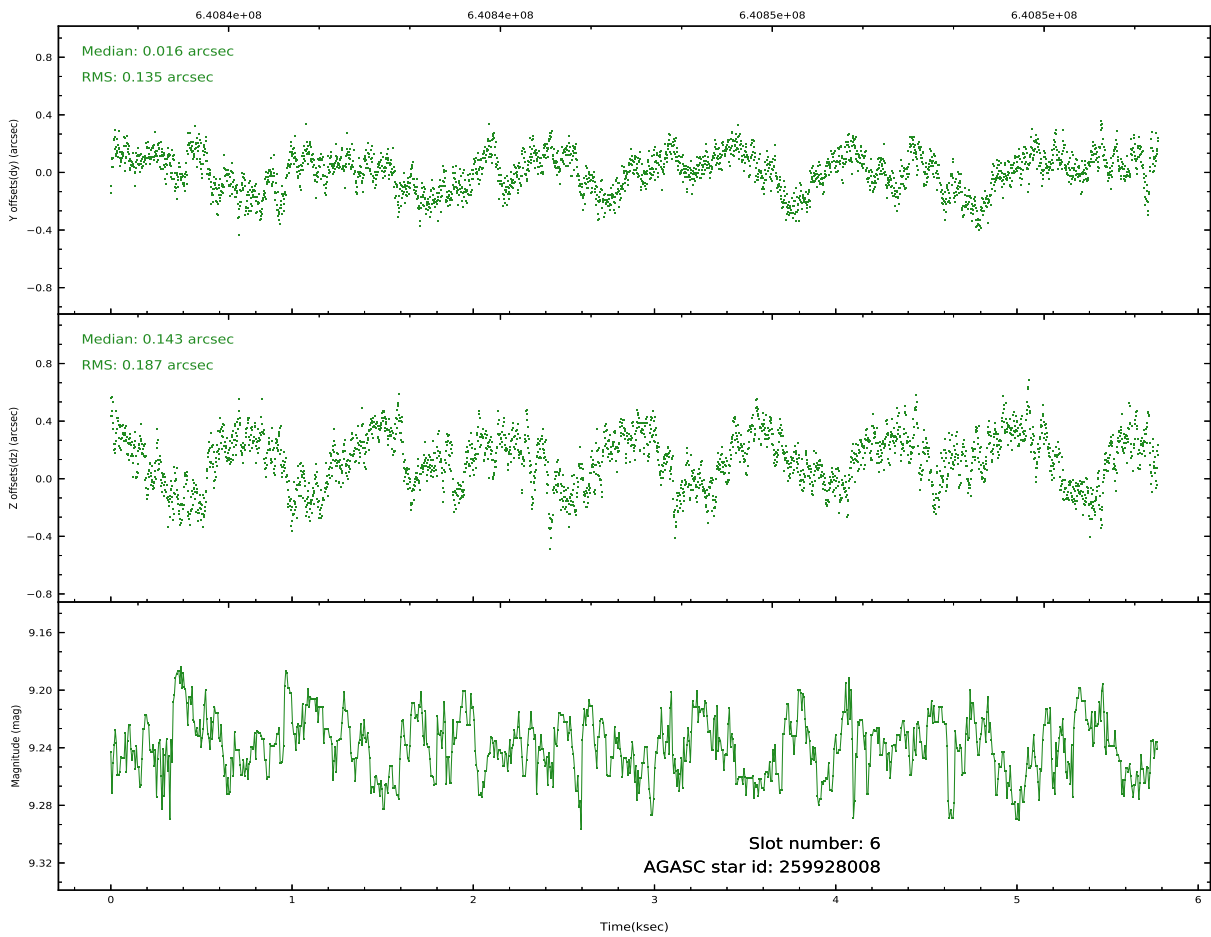
Time (s)



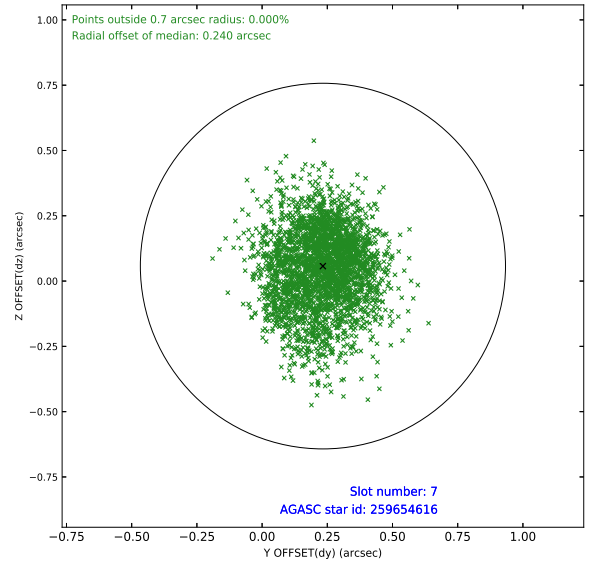
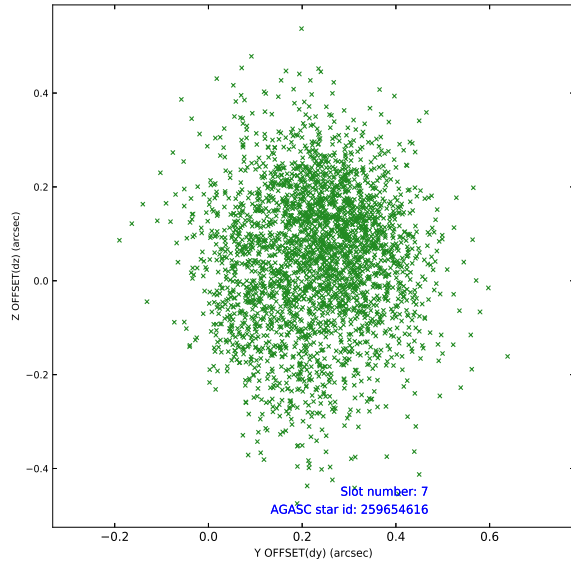
2.4.4 Slot 6



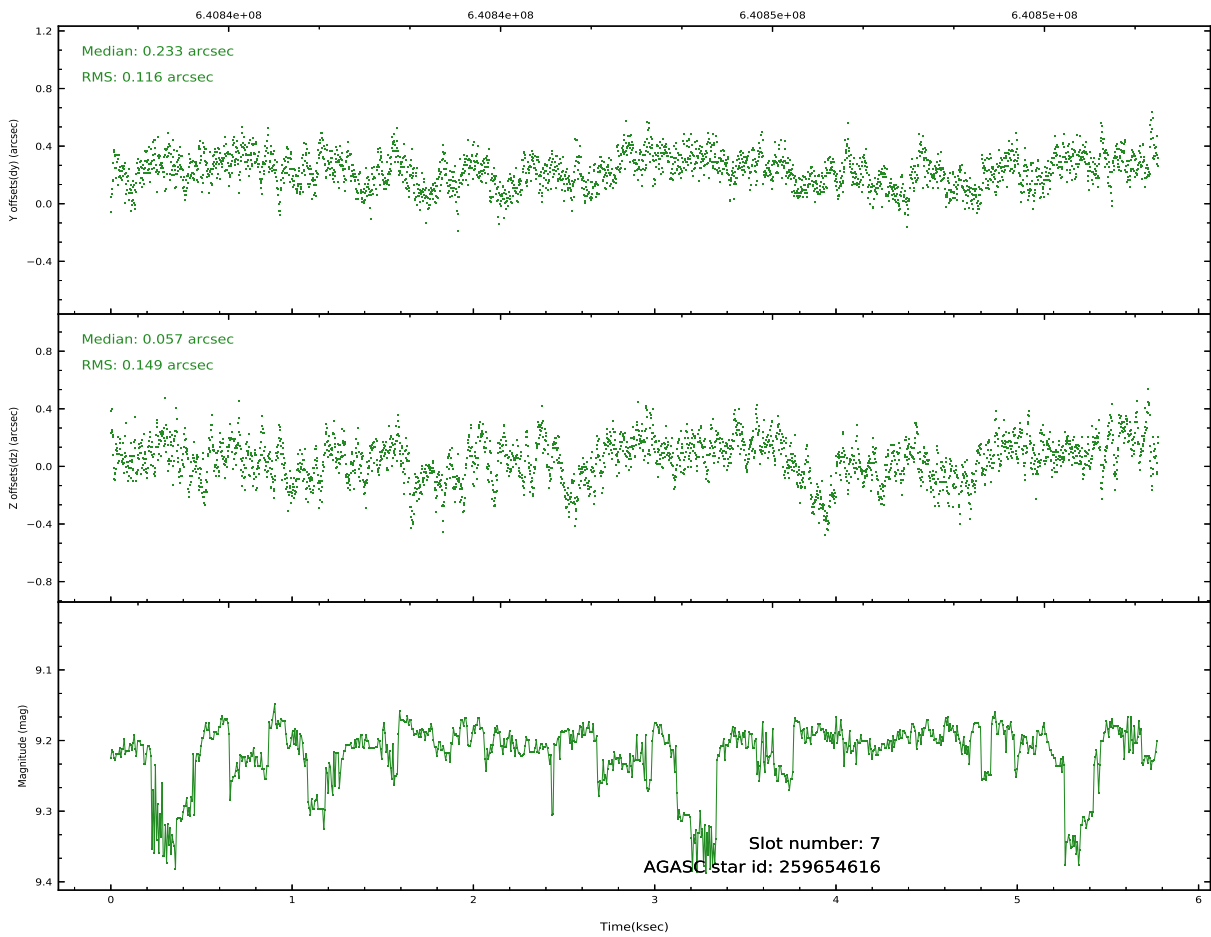
Time (s)



2.4.5 Slot 7

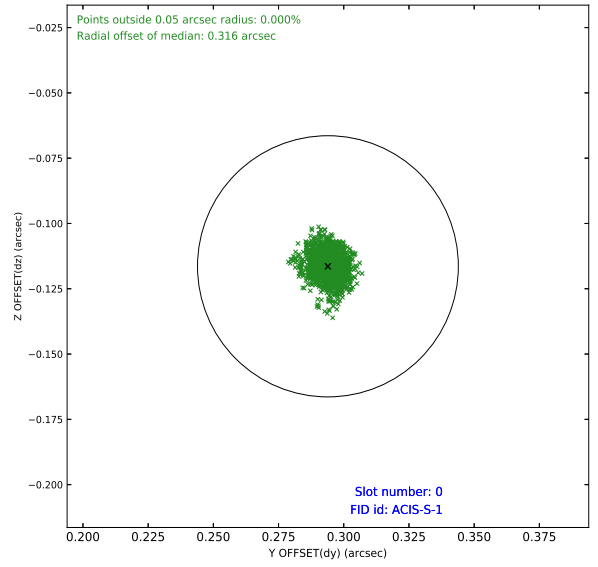
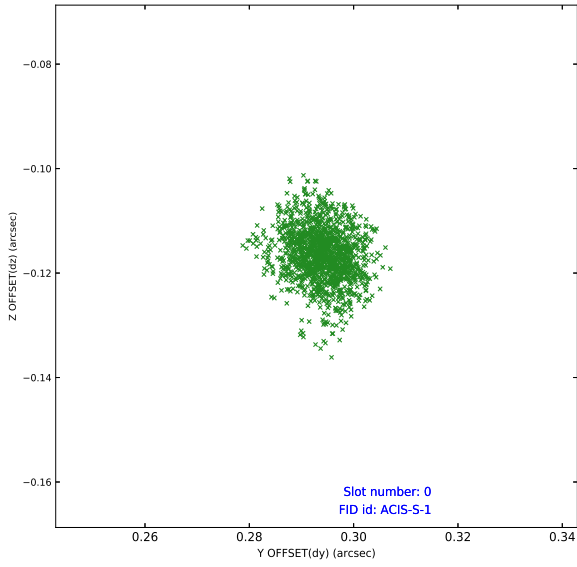


Time (s)

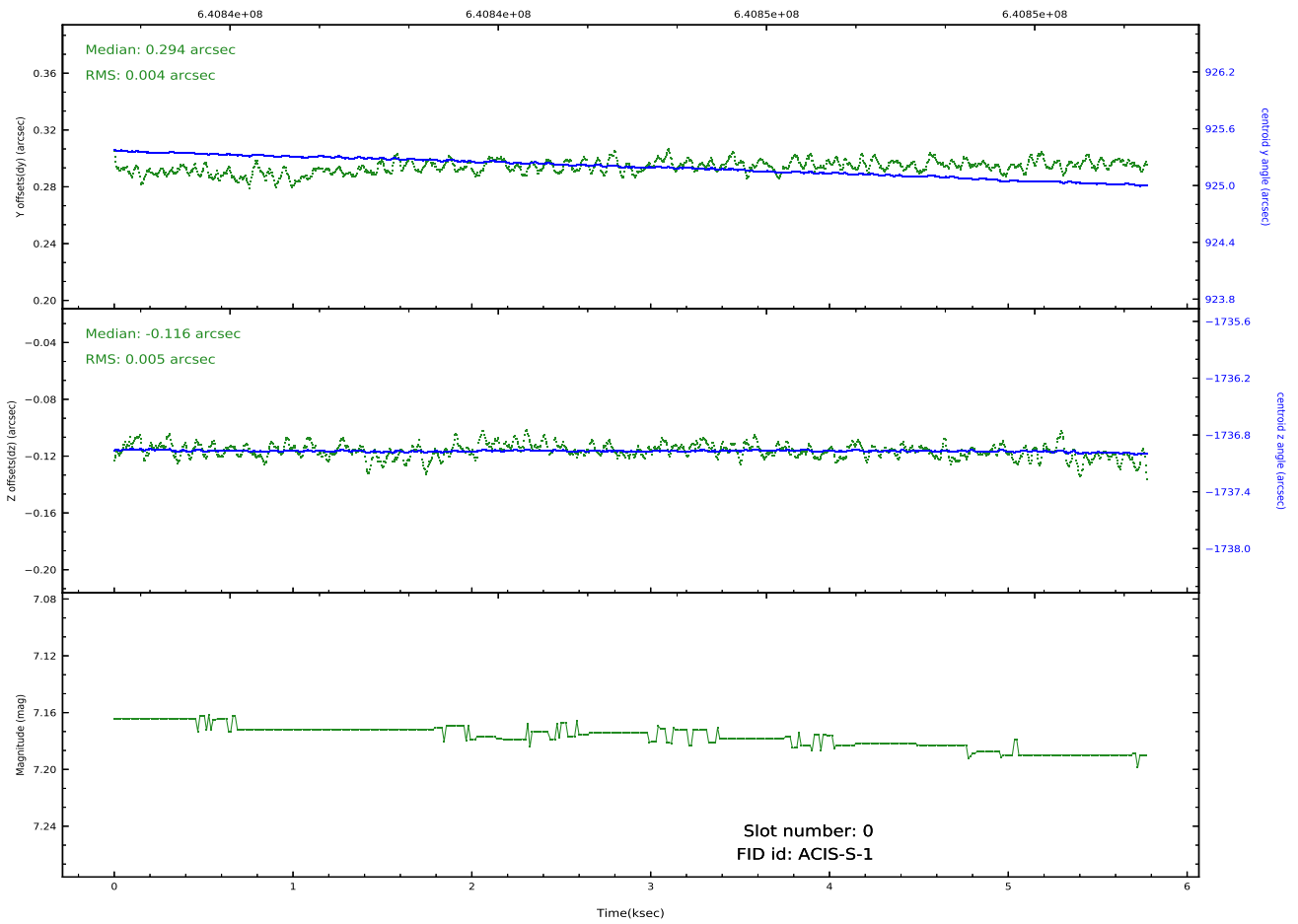


2.5 FID Slots

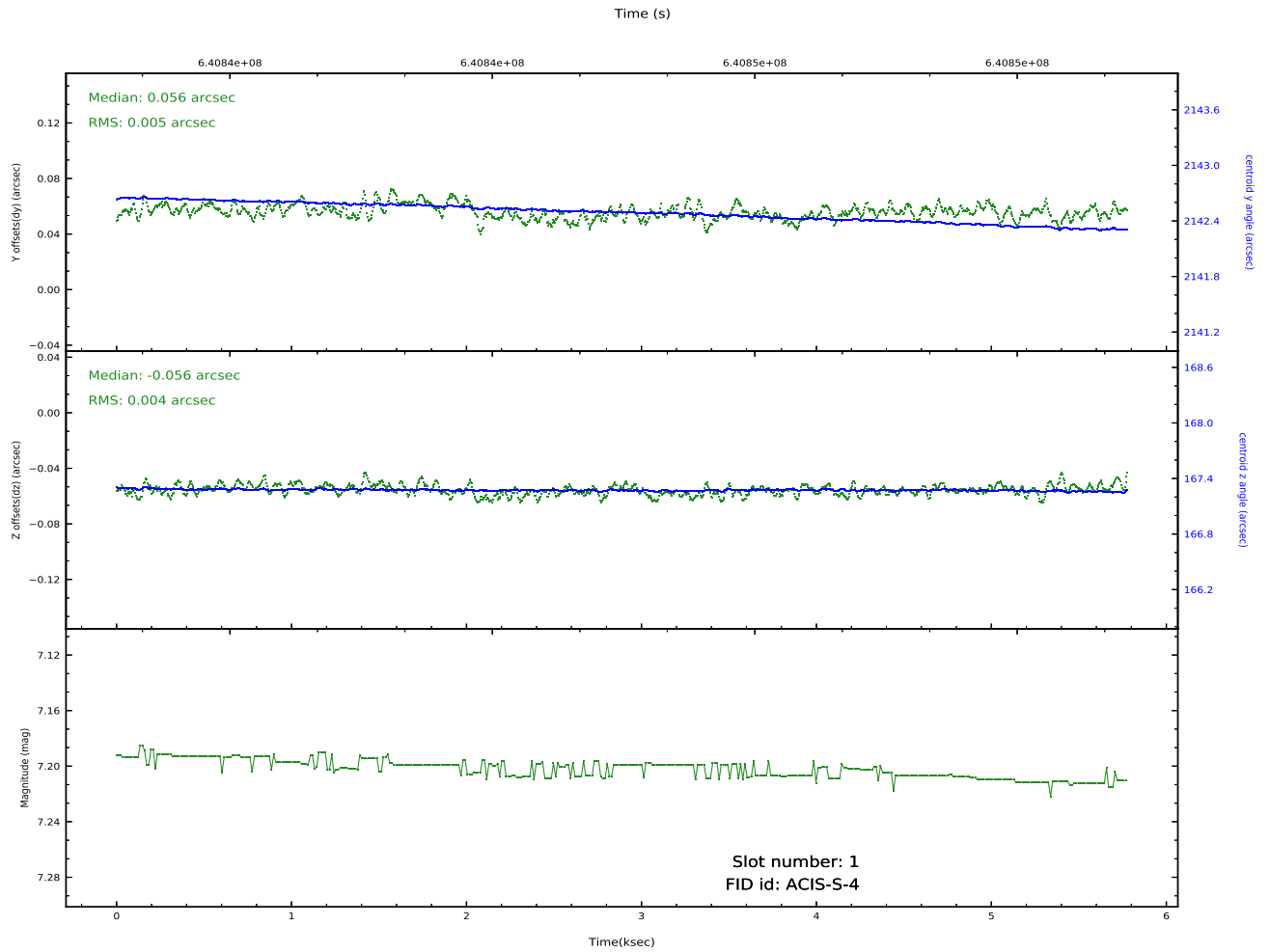
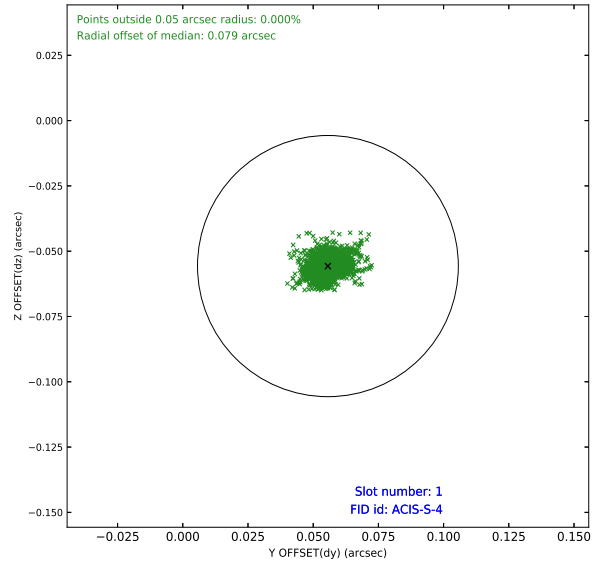
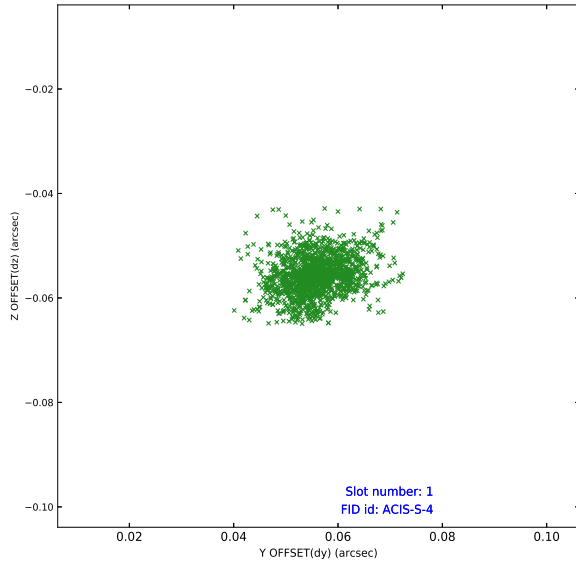
2.5.1 Slot 0



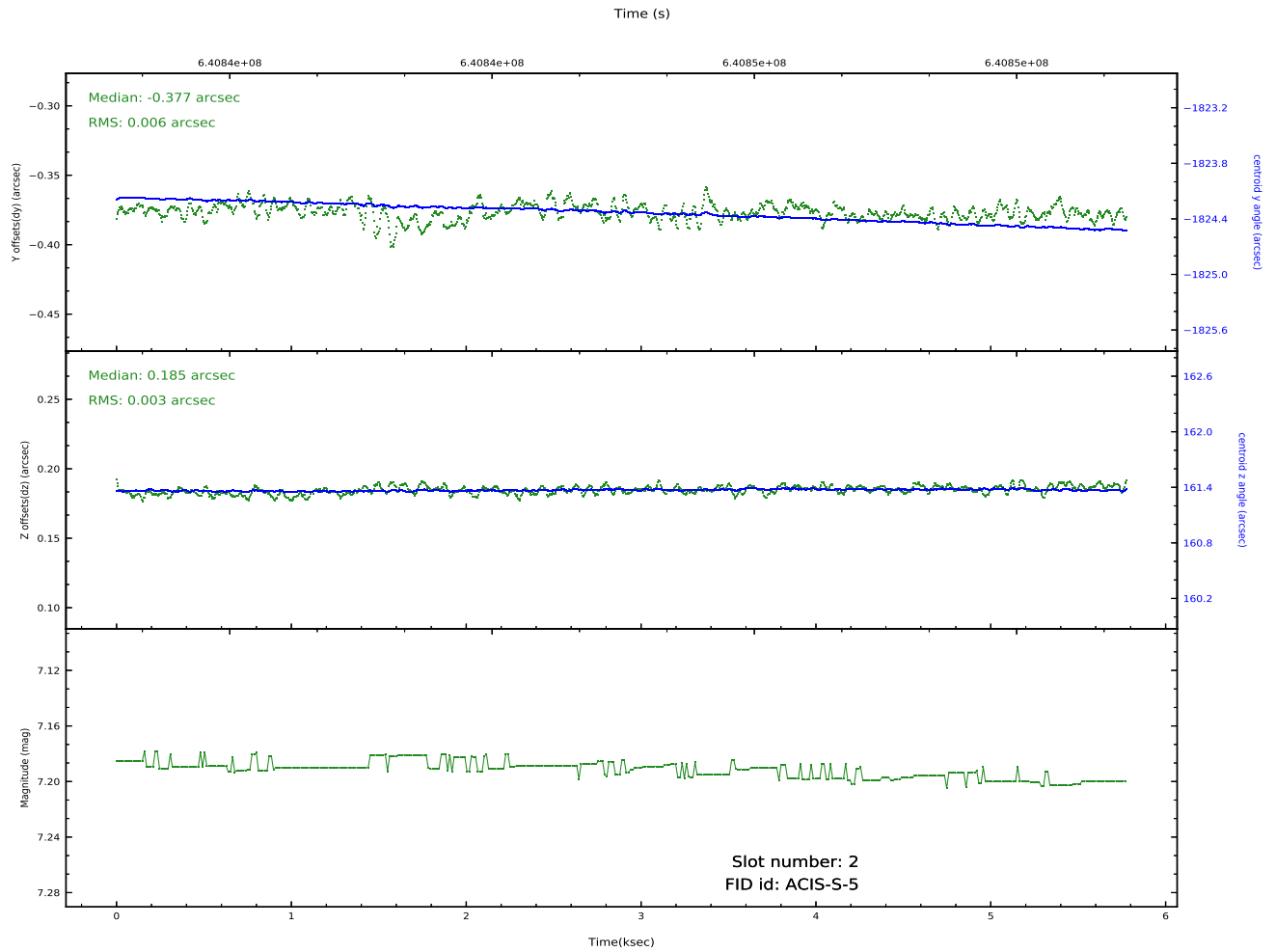
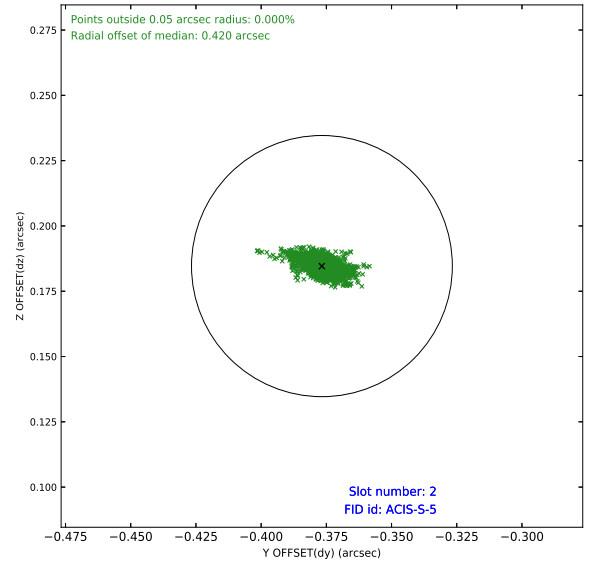
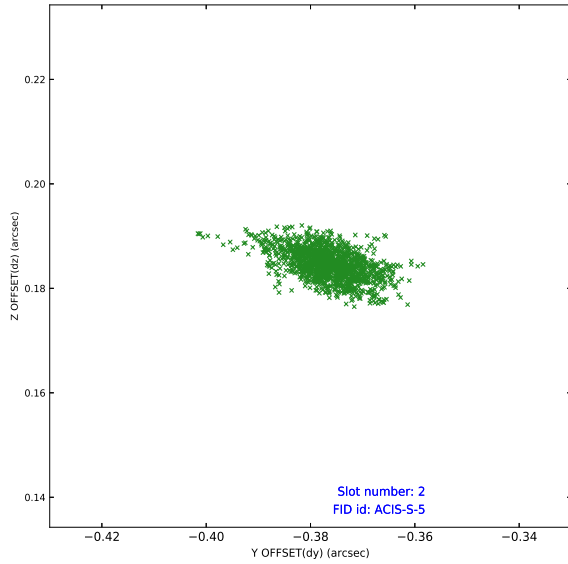
Time (s)



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|---------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2020.10.27 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 5.679 |

A.2 Comments

Four optional chips were dropped.