

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21349 - L2 Version 1
Chandra X-Ray Center

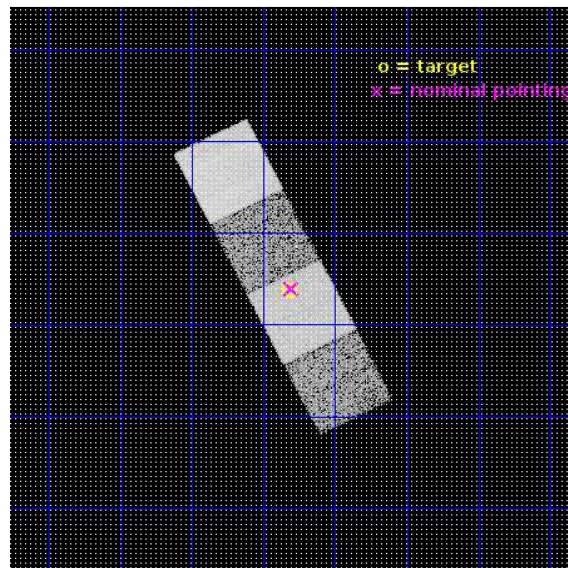
L2 Processing Date : Jan 12 2019

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1 Front

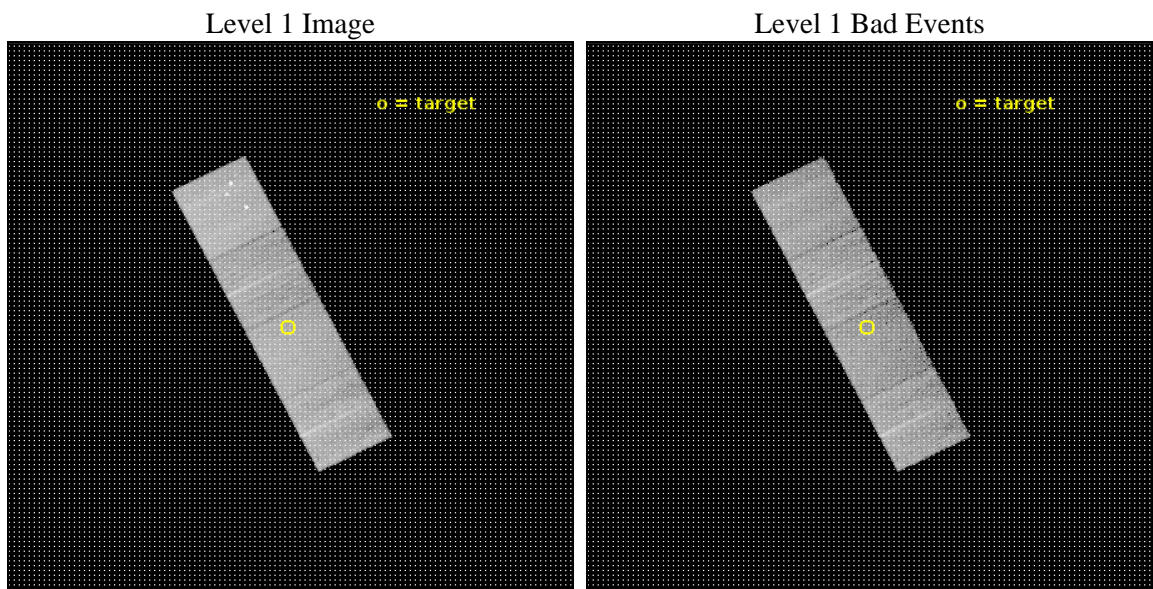
| | | |
|----------|--|---|
| seq_num | 503121 | Sequence number |
| obs_id | 21349 | Observation id |
| title | Chandra Observations of H-alpha emitting Type I Supernovae | Proposa |
| observer | David Pooley | Principal investigator |
| object | SN 2004dk | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 245.45375 | Observer's specified target RA [deg] |
| dec_targ | -2.271472 | Observer's specified target Dec [deg] |
| ra_nom | 245.45150591316 | Nominal RA [deg] |
| dec_nom | -2.2677646823574 | Nominal Dec [deg] |
| roll_nom | 63.278311556656 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 9560.2549748421 | Sum of GTIs [s] |
| livetime | 9435.3432054384 | Livetime [s] |
| ontime5 | 9560.2139348984 | Sum of GTIs [s] |
| ontime6 | 9560.1728948355 | Sum of GTIs [s] |
| ontime7 | 9560.2549748421 | Sum of GTIs [s] |
| ontime8 | 9560.1318548918 | Sum of GTIs [s] |
| l2events | 105409 | Number of level 2 events |



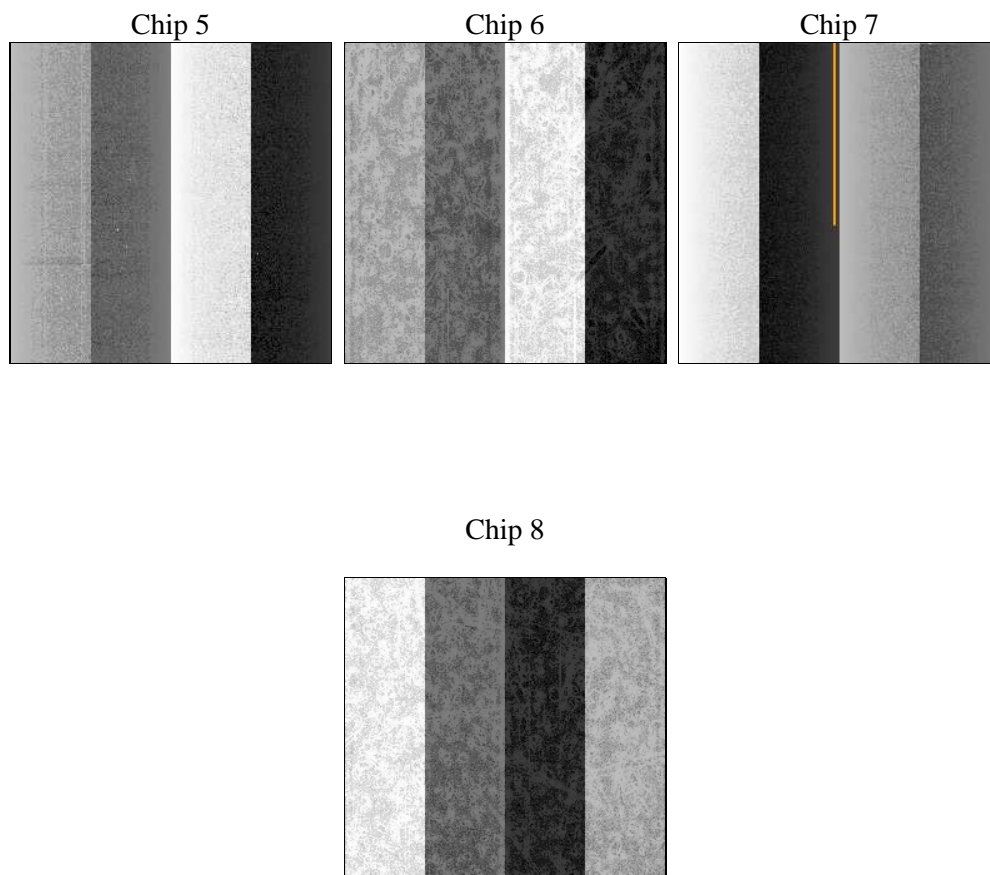
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 9500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.7.1 | Processing system revision | ontime | 9560.2549748421 | Sum of GTIs [s] |
| caldbver | 4.8.2 | | ontime5 | 9560.2139348984 | Sum of GTIs [s] |
| date | 2019-01-12T07:01:14 | Date and time of file creation | ontime6 | 9560.1728948355 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime7 | 9560.2549748421 | Sum of GTIs [s] |
| | | | ontime8 | 9560.1318548918 | Sum of GTIs [s] |
| | | | l1events | 379848 | Number of level 1 events |

2.1.4 Events

| | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|-------|-------|-------|
| level 1 events | 119088 | 75291 | 91809 | 93660 |
| rejected events | 60379 | 67053 | 52179 | 70410 |
| rejected % | 50% | 89% | 56% | 75% |

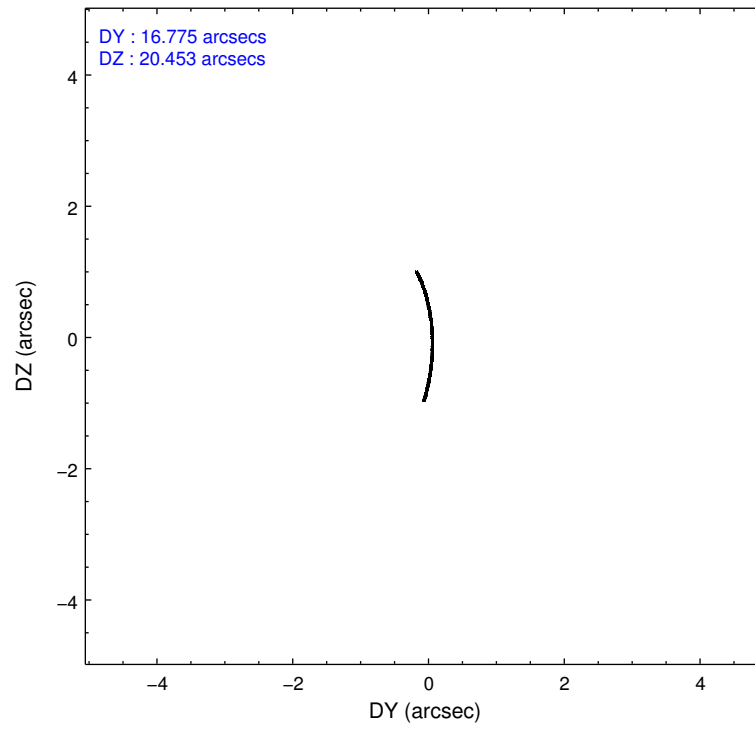
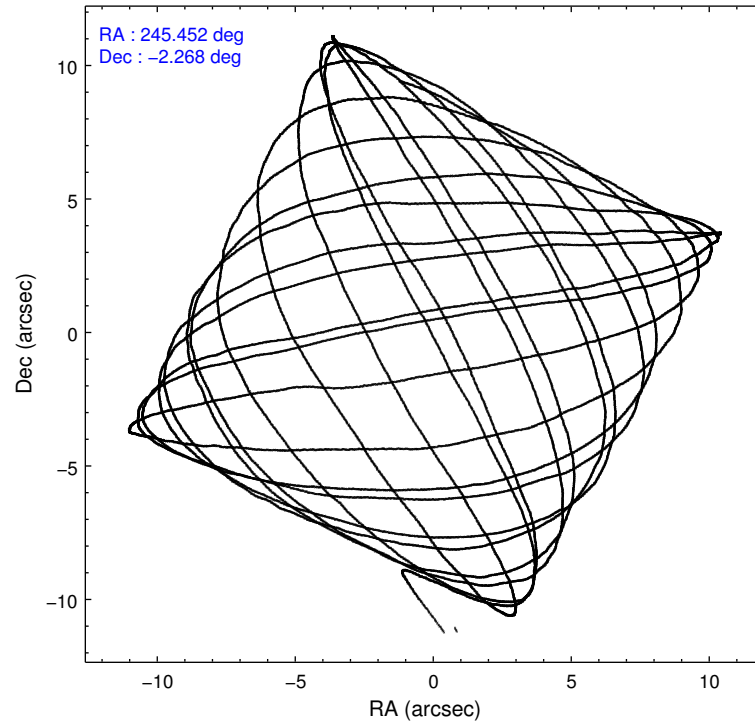
| | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|
| grade 0 events | 7538 | 2488 | 3316 | 6379 |
| | 6% | 3% | 3% | 6% |
| grade 1 events | 409 | 26 | 140 | 67 |
| | 0% | 0% | 0% | 0% |
| grade 2 events | 17261 | 2188 | 8282 | 5733 |
| | 14% | 2% | 9% | 6% |
| grade 3 events | 1630 | 706 | 3019 | 2296 |
| | 1% | 0% | 3% | 2% |
| grade 4 events | 1601 | 693 | 2991 | 2088 |
| | 1% | 0% | 3% | 2% |
| grade 5 events | 7071 | 2949 | 8640 | 4816 |
| | 5% | 3% | 9% | 5% |
| grade 6 events | 30700 | 2167 | 22034 | 6759 |
| | 25% | 2% | 23% | 7% |
| grade 7 events | 52878 | 64074 | 43387 | 65522 |
| | 44% | 85% | 47% | 69% |

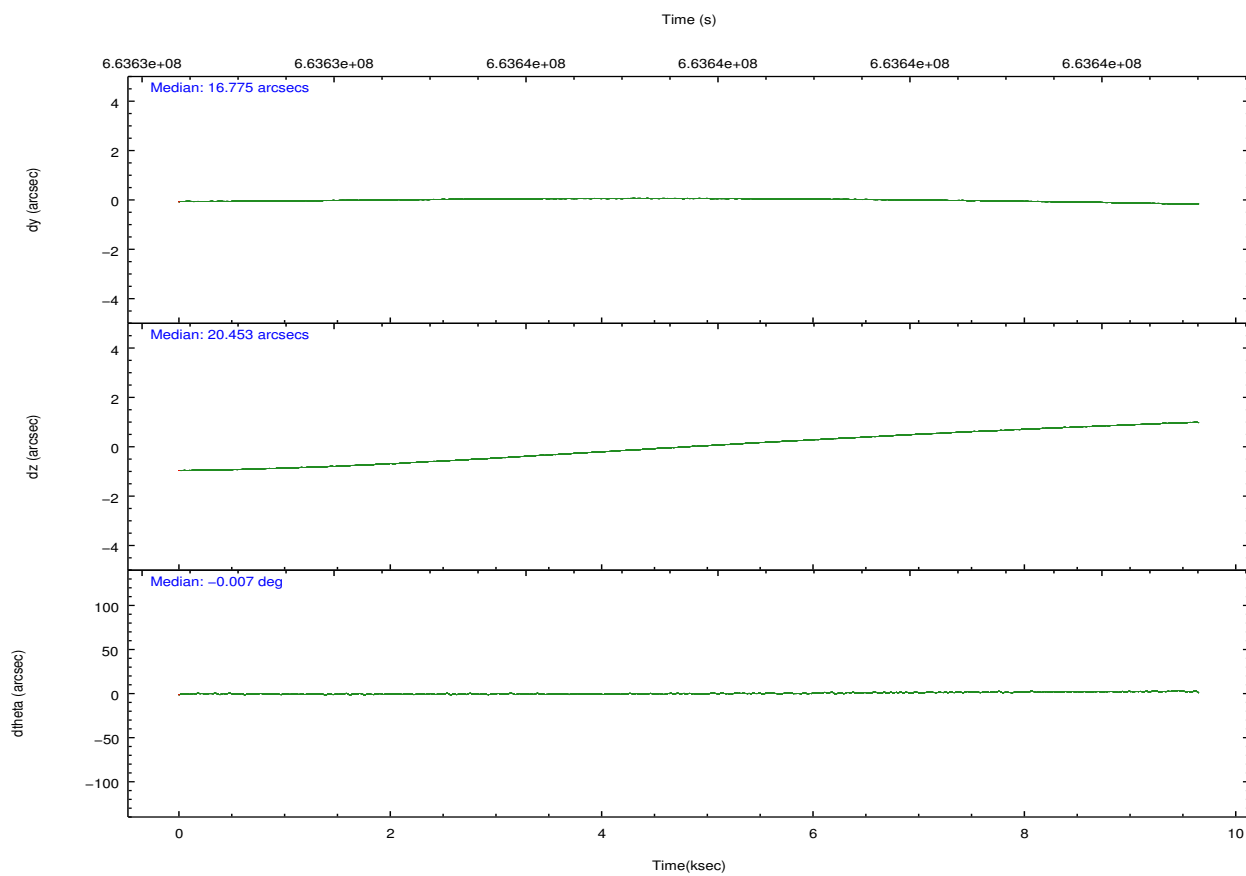
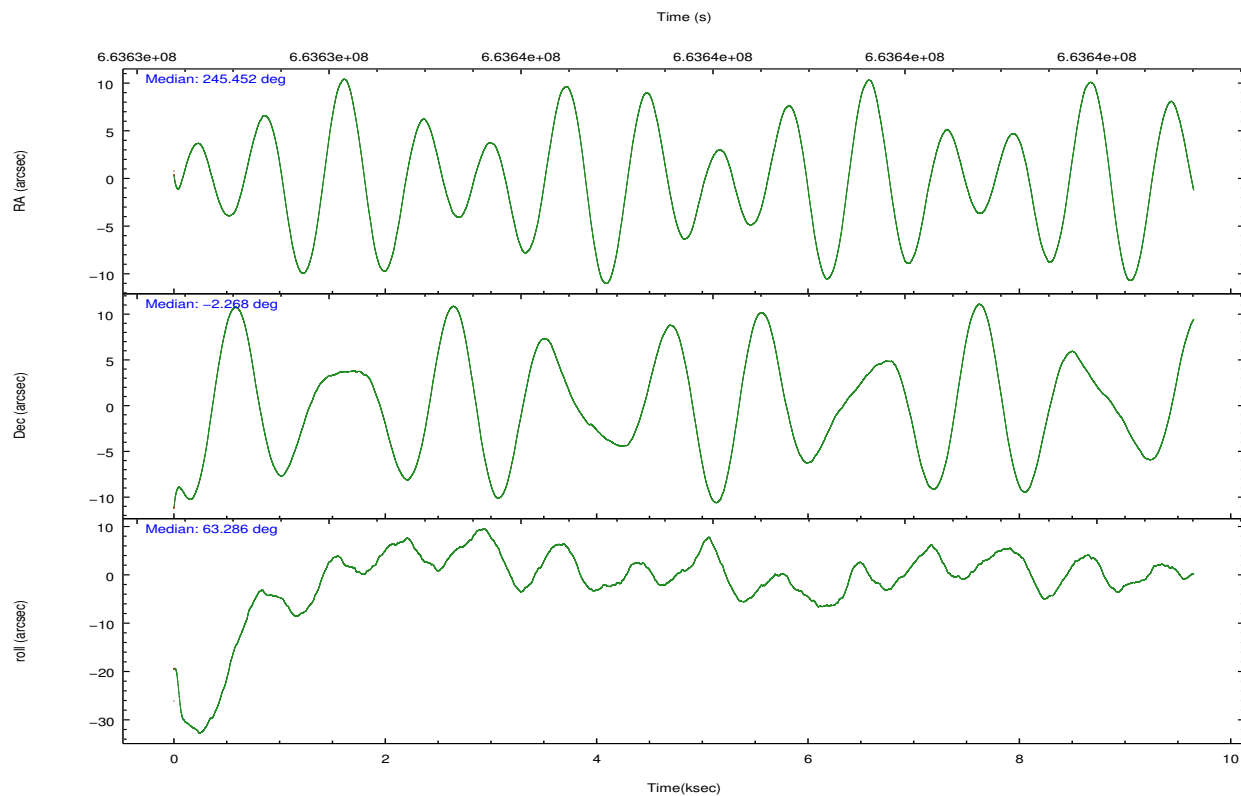
2.2 Compared Parameters

| Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|
| Instrument | ACIS | ACIS |
| Detector | ACIS-5678 | ACIS-5678 |
| Grating | NONE | NONE |
| Data mode | VFAINT | VFAINT |
| Observation mode | POINTING | POINTING |
| [deg] Pointing RA | 245.453406 | 245.4515059131571 |
| [deg] Pointing Dec | -2.295101 | -2.267764682357392 |
| [deg] Pointing Roll | 63.121753 | 63.2783115566555 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 |
| [mm] SIM defocus | 0 | 0.001444936568705701 |
| [mm] SIM translation stage pos | -190.132523 | -190.1425803651734 |
| [mm] SIM translation stage offset | 0 | 0.01005778216563158 |
| [s] Observation start time (MET) | 663633029.184000 | 663631763.13099 |
| Observation start date | 2019-01-11T22:29:20 | 2019-01-11T22:09:23 |
| [s] Observation end time (MET) | 663642529.184000 | 663643397.3941801 |
| Observation end date | 2019-01-12T01:07:40 | 2019-01-12T01:23:17 |
| Read mode | TIMED | TIMED |

| Parameter | Planned | Actual |
|---------------------------------------|-----------|---------|
| Obspar format version number | 7 | 7 |
| Obspar file type | PREDICTED | ACTUAL |
| Obspar update status | NONE | UPDATED |
| CCD I0 on | N | N |
| CCD I1 on | N | N |
| CCD I2 on | N | N |
| CCD I3 on | N | N |
| CCD S0 on | N | N |
| CCD S1 on | O1 | Y |
| CCD S2 on | Y | Y |
| CCD S3 on | Y | Y |
| CCD S4 on | O2 | Y |
| CCD S5 on | N | N |
| Number of optional ACIS chips dropped | 0 | 0 |
| On-chip summing requested | N | N |
| Subarray requested | NONE | NONE |
| Alternating exposures requested | N | N |
| [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect



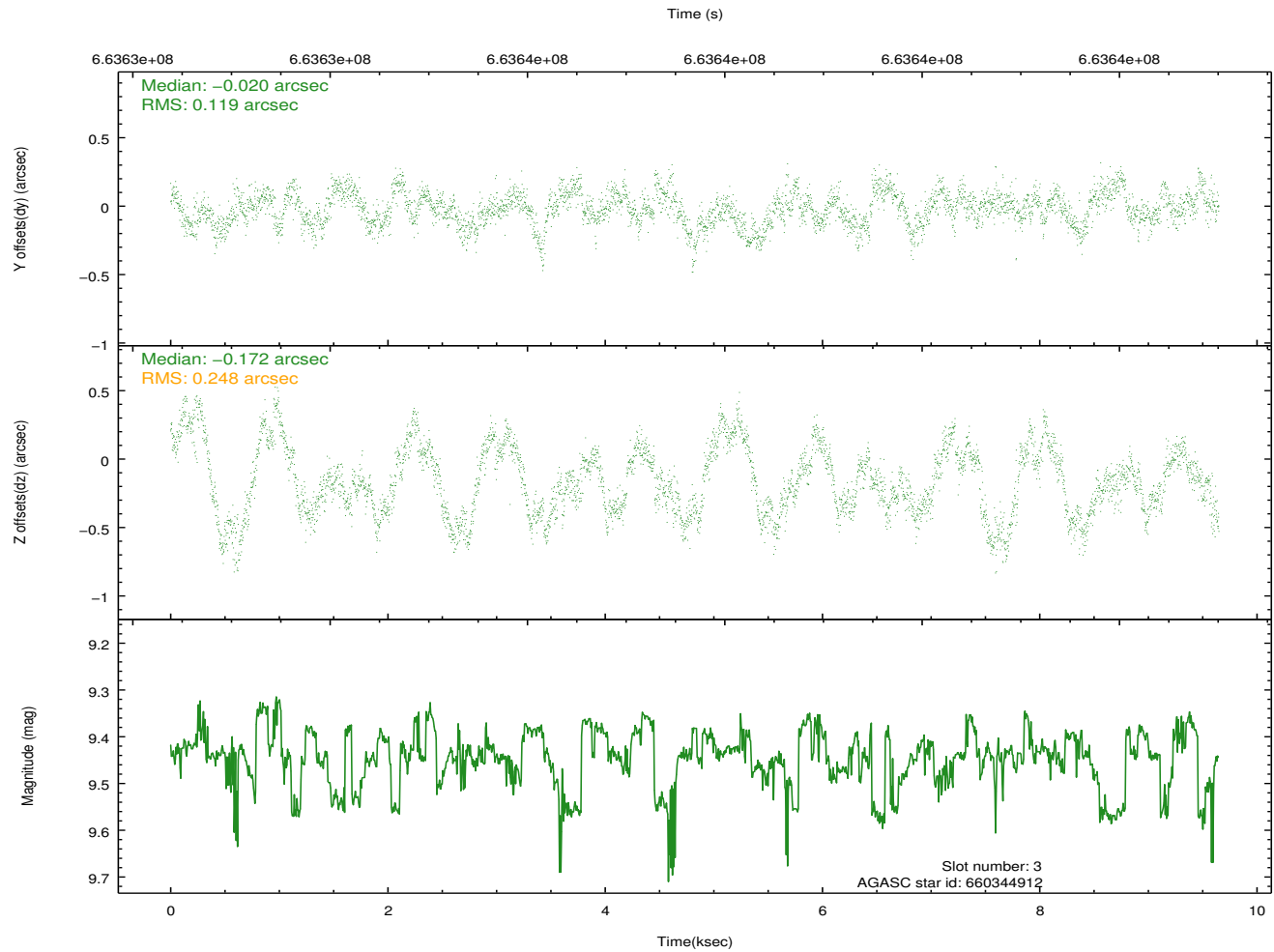
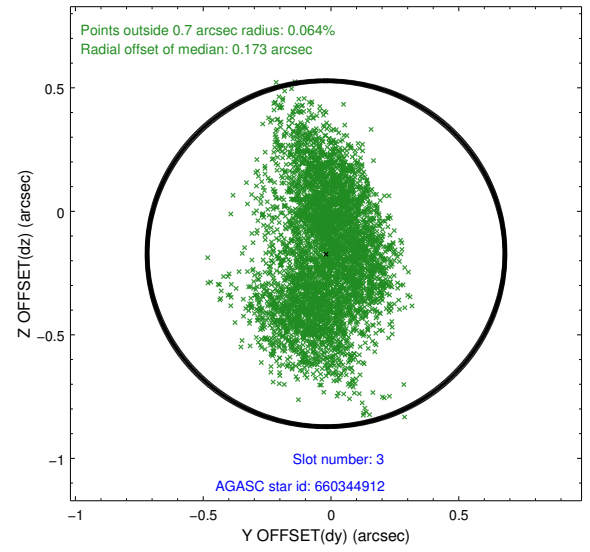
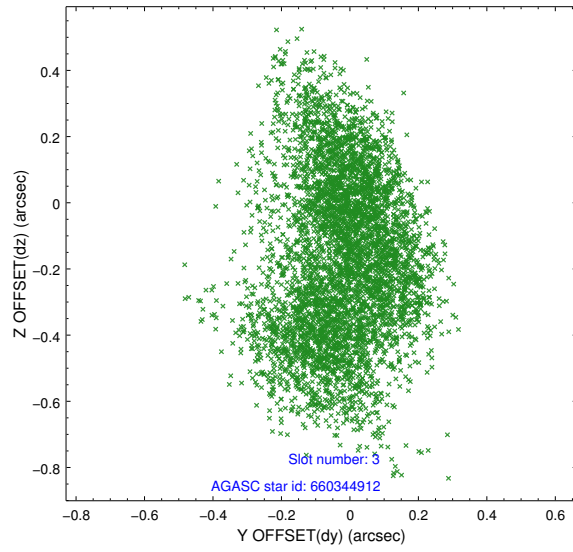


Slot Statistics

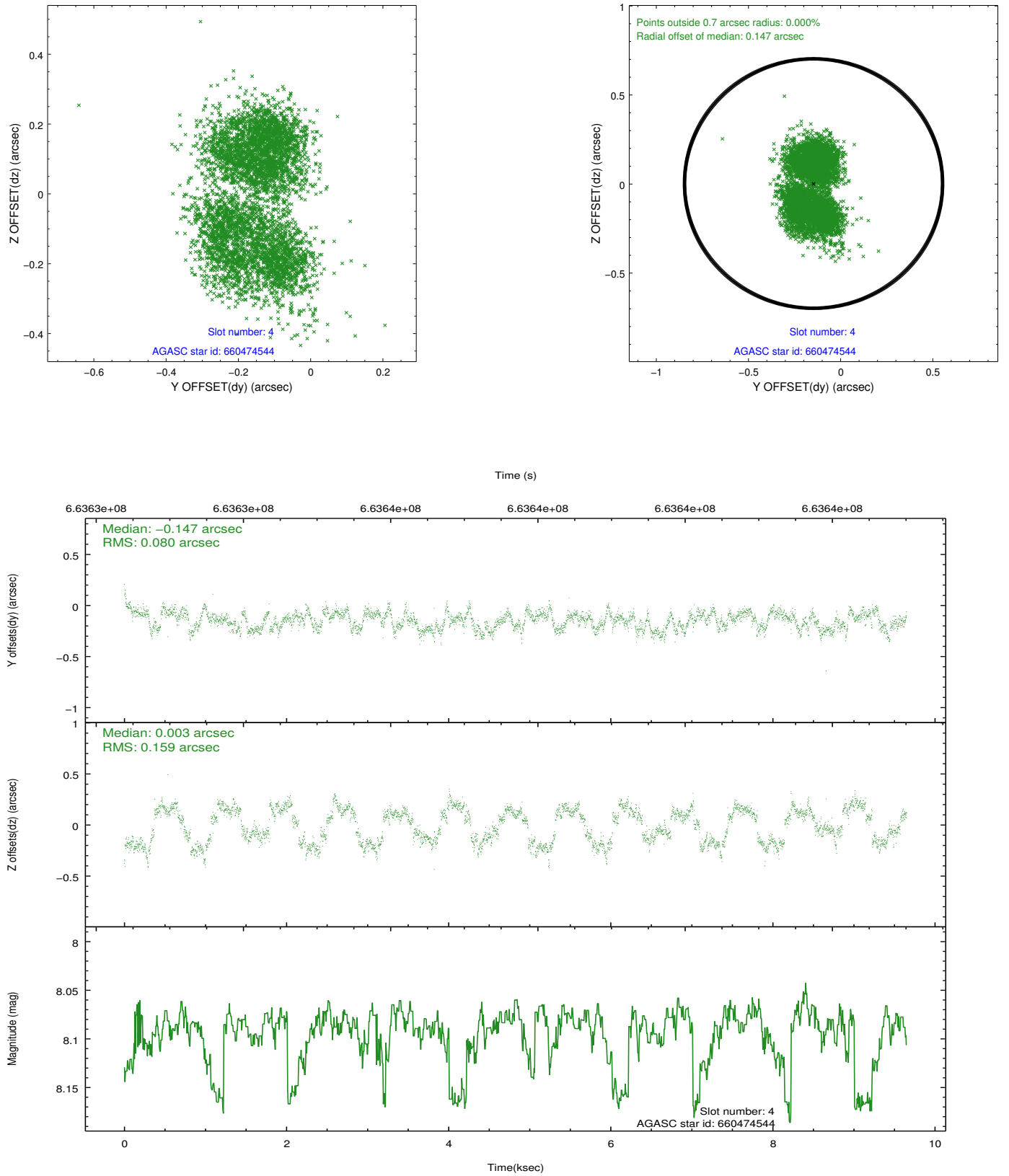
| pt | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|----|--------|------|-----------|------|-------|----------|--------|--------|-------|-------|------------|-----------|----------|-------|
| 0 | FID | | ACIS-S-2 | 7.15 | 2354 | 1.000 | -0.355 | -0.247 | 0.012 | 0.021 | 0.000000 | 0.000000 | -770.05 | -1742 |
| 1 | FID | | ACIS-S-4 | 7.27 | 2354 | 1.000 | 0.833 | 0.237 | 0.014 | 0.021 | 0.000000 | 0.000000 | 2144.06 | 166 |
| 2 | FID | | ACIS-S-5 | 7.23 | 2354 | 1.000 | -0.508 | 0.019 | 0.018 | 0.026 | 0.000000 | 0.000000 | -1822.43 | 160 |
| 3 | GUIDE | used | 660344912 | 9.44 | 4699 | 1.000 | -0.020 | -0.172 | 0.293 | 0.467 | 244.901250 | -2.648582 | -2032.20 | 1196 |
| 4 | GUIDE | used | 660474544 | 8.09 | 4706 | 1.000 | -0.147 | 0.003 | 0.194 | 0.279 | 245.932166 | -2.265085 | 874.84 | -1486 |
| 5 | GUIDE | used | 660475088 | 9.10 | 4701 | 1.000 | -0.361 | -0.082 | 0.184 | 0.307 | 245.887958 | -2.024887 | 1574.83 | -954 |
| 6 | GUIDE | used | 660346072 | 8.98 | 4559 | 1.000 | -0.053 | -0.211 | 0.156 | 0.261 | 244.789843 | -2.687626 | -2338.59 | 1490 |
| 7 | GUIDE | used | 660345832 | 9.52 | 4666 | 1.000 | 0.597 | 0.474 | 0.317 | 0.524 | 245.542644 | -3.055534 | -2296.19 | -1521 |

2.4 Star Slots

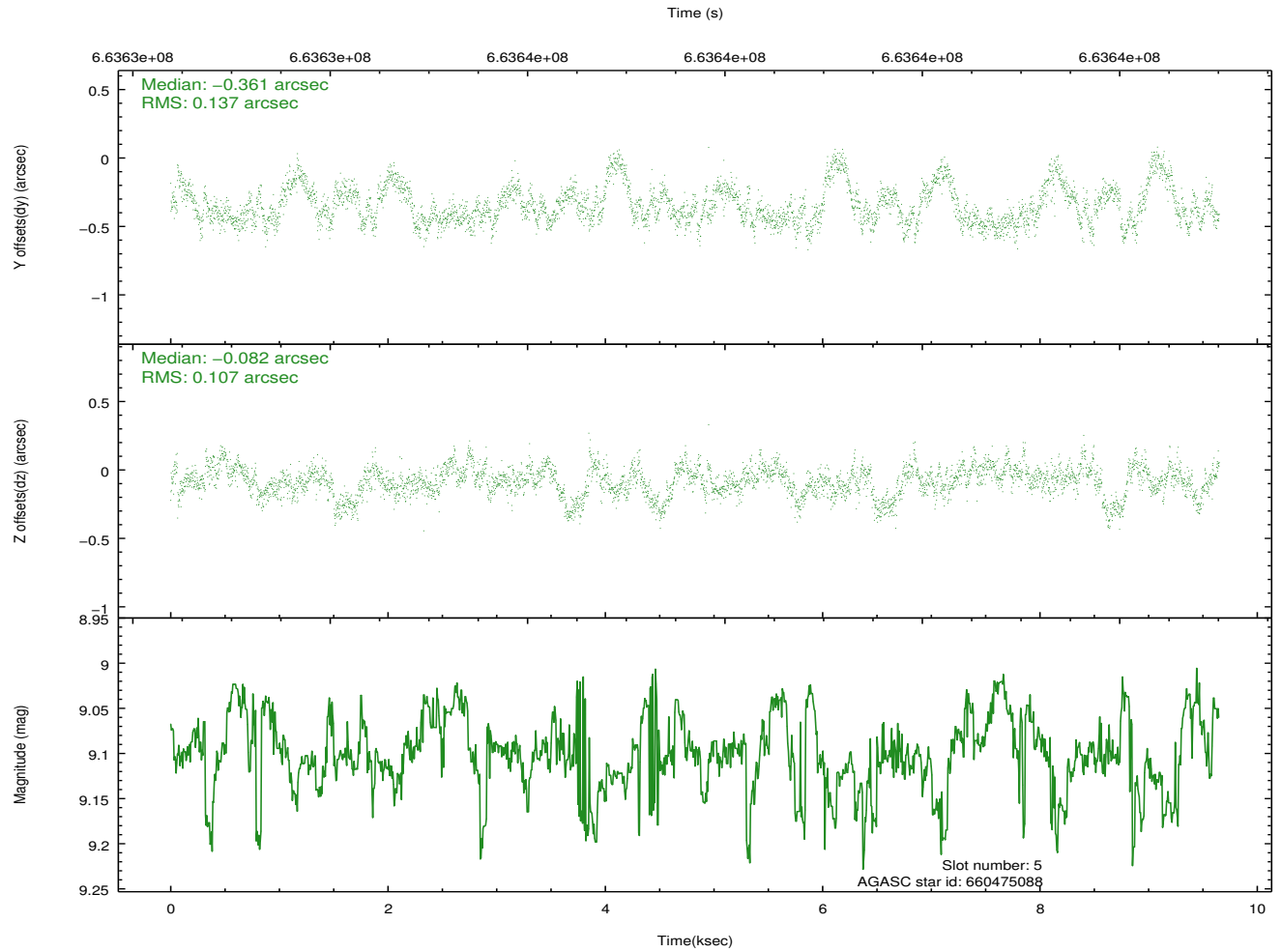
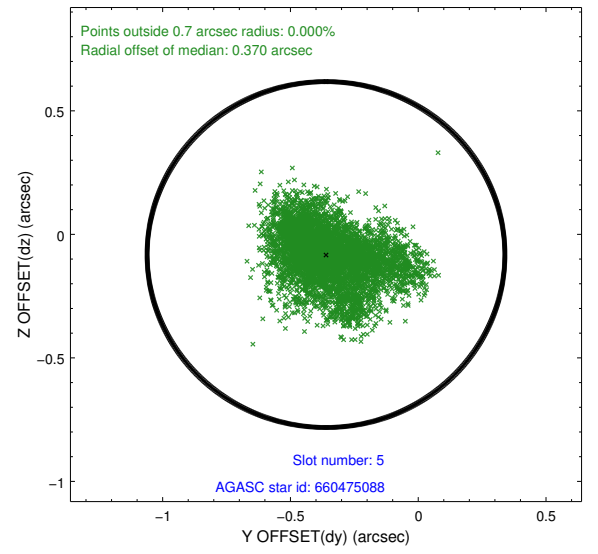
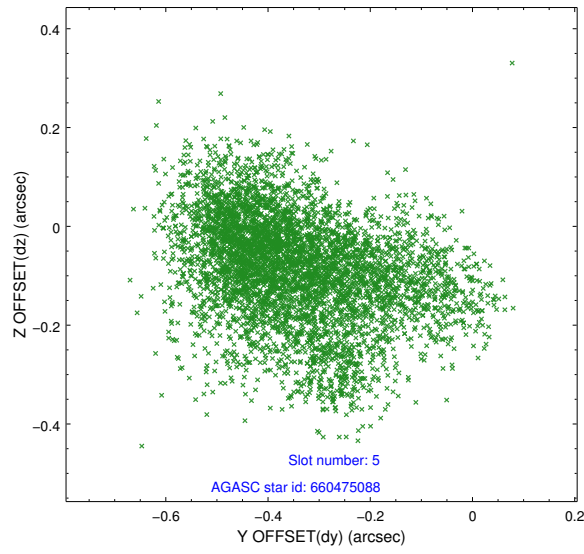
2.4.1 Slot 3



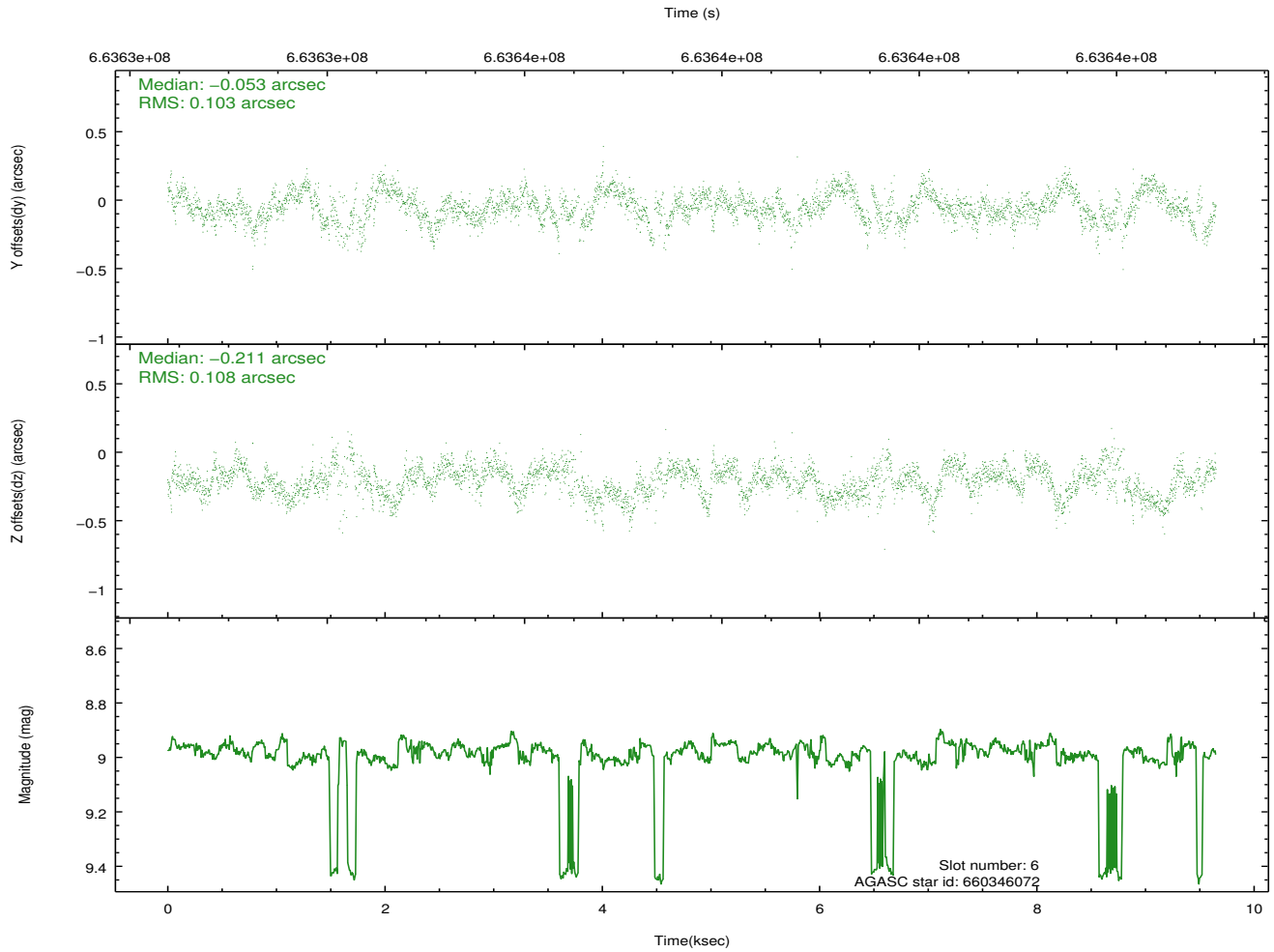
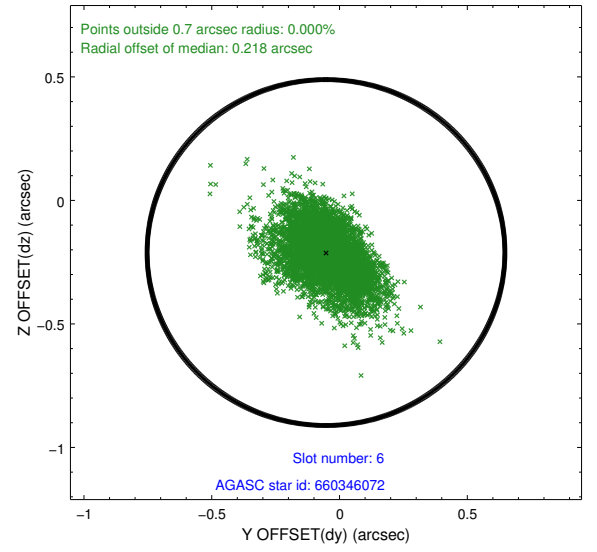
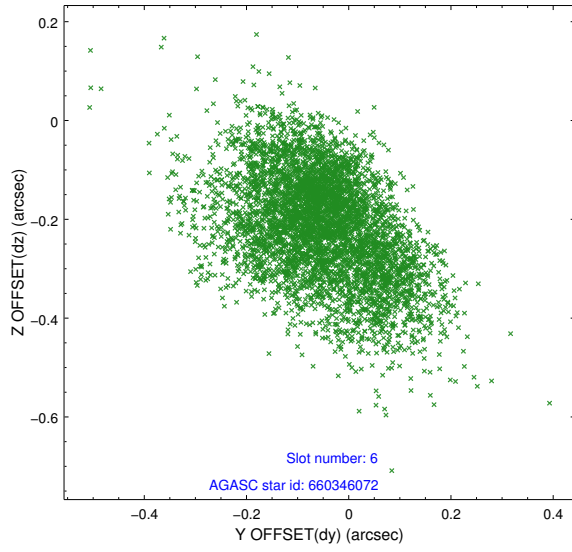
2.4.2 Slot 4



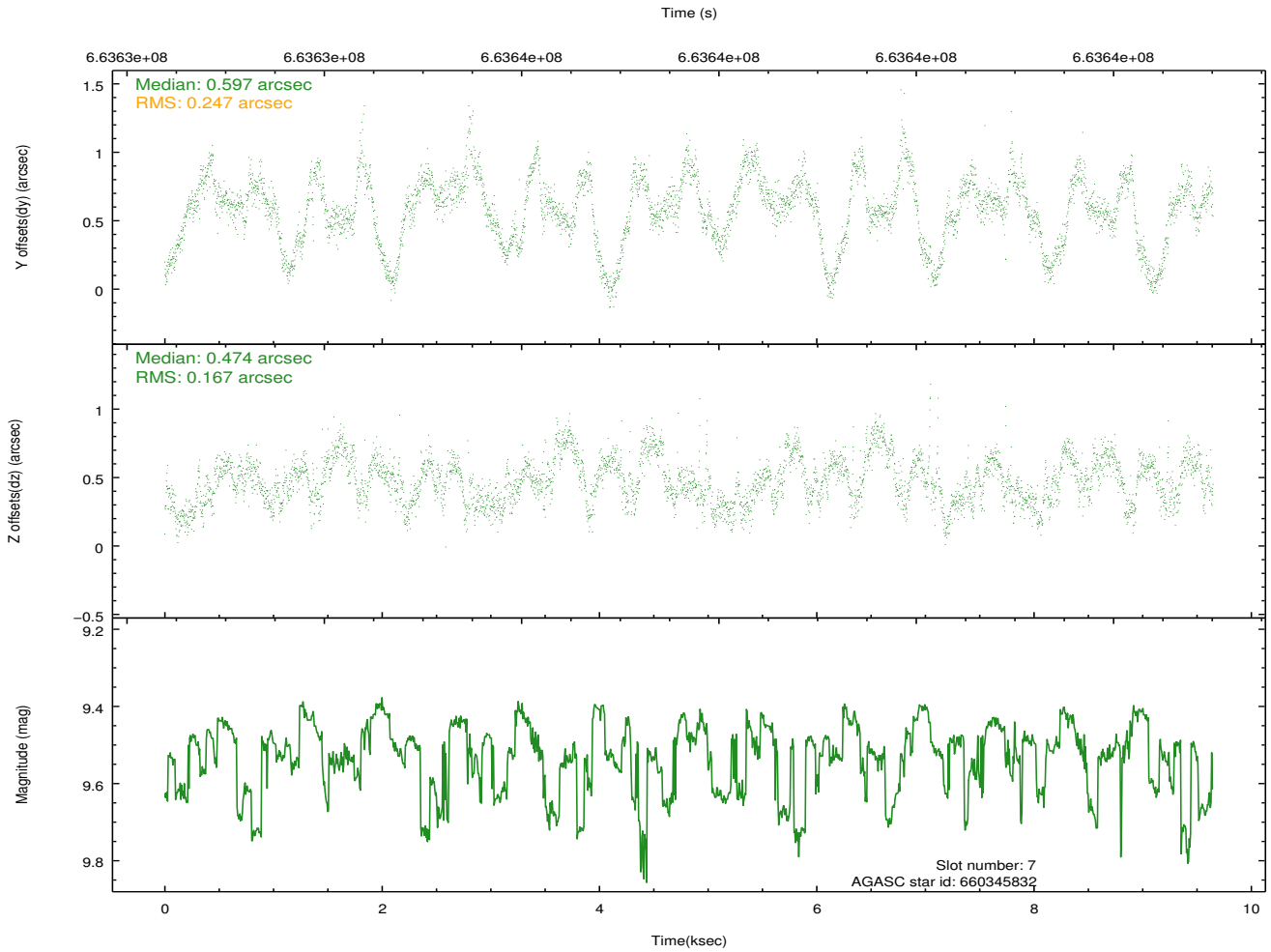
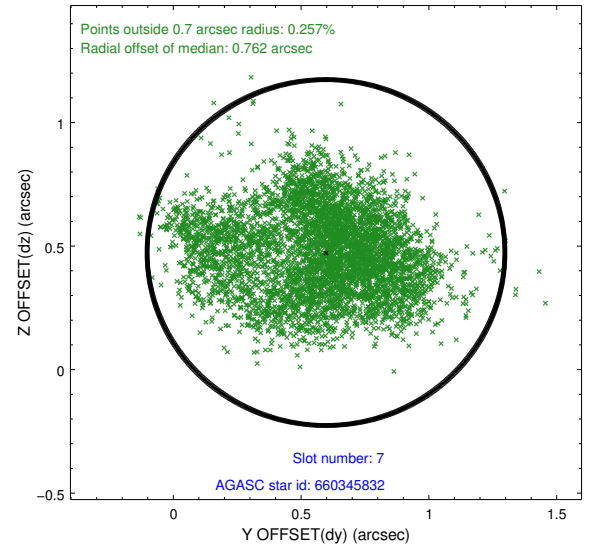
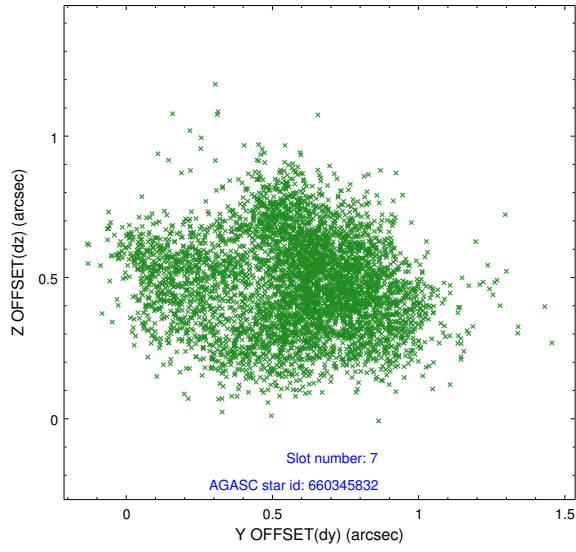
2.4.3 Slot 5



2.4.4 Slot 6

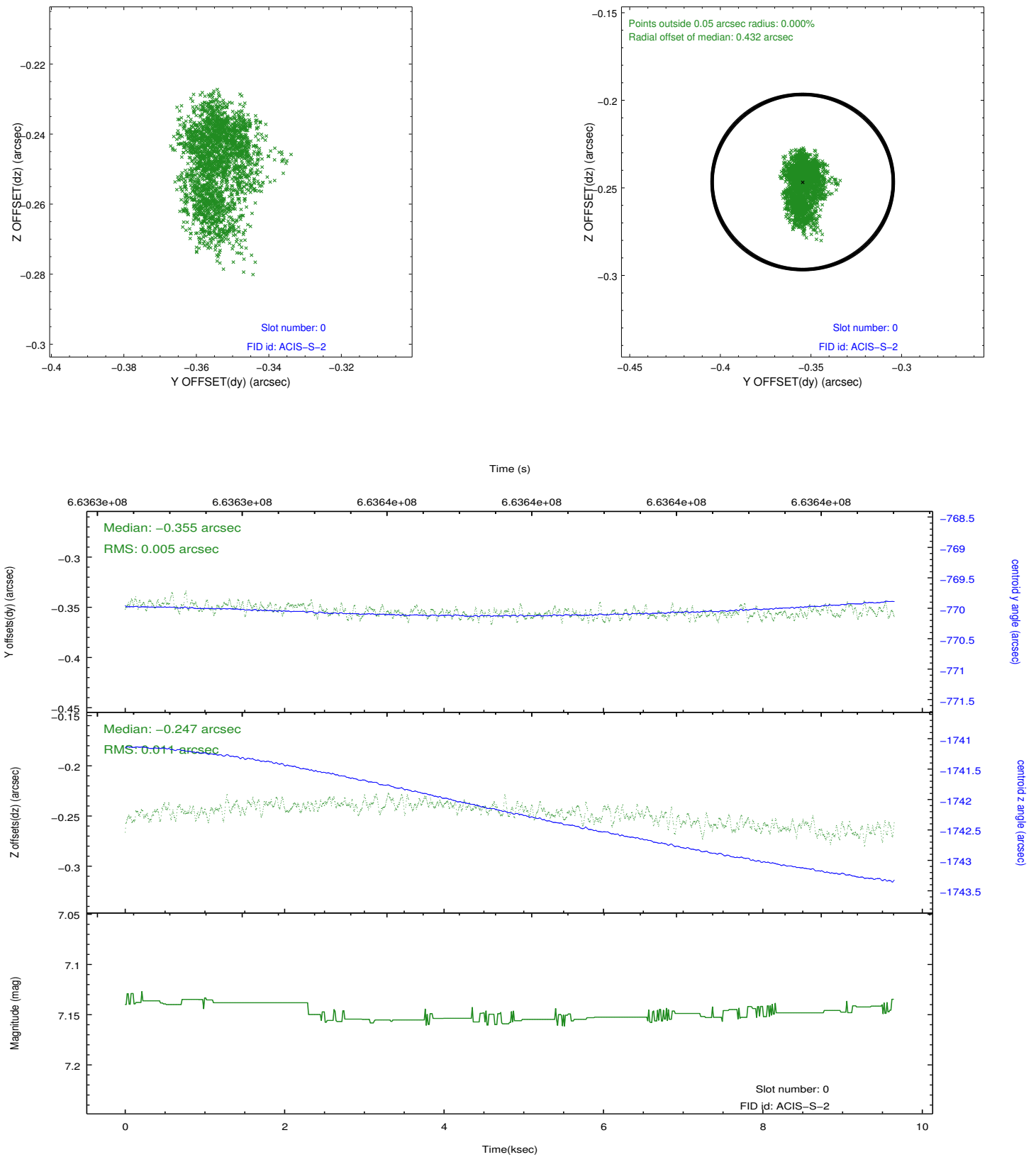


2.4.5 Slot 7

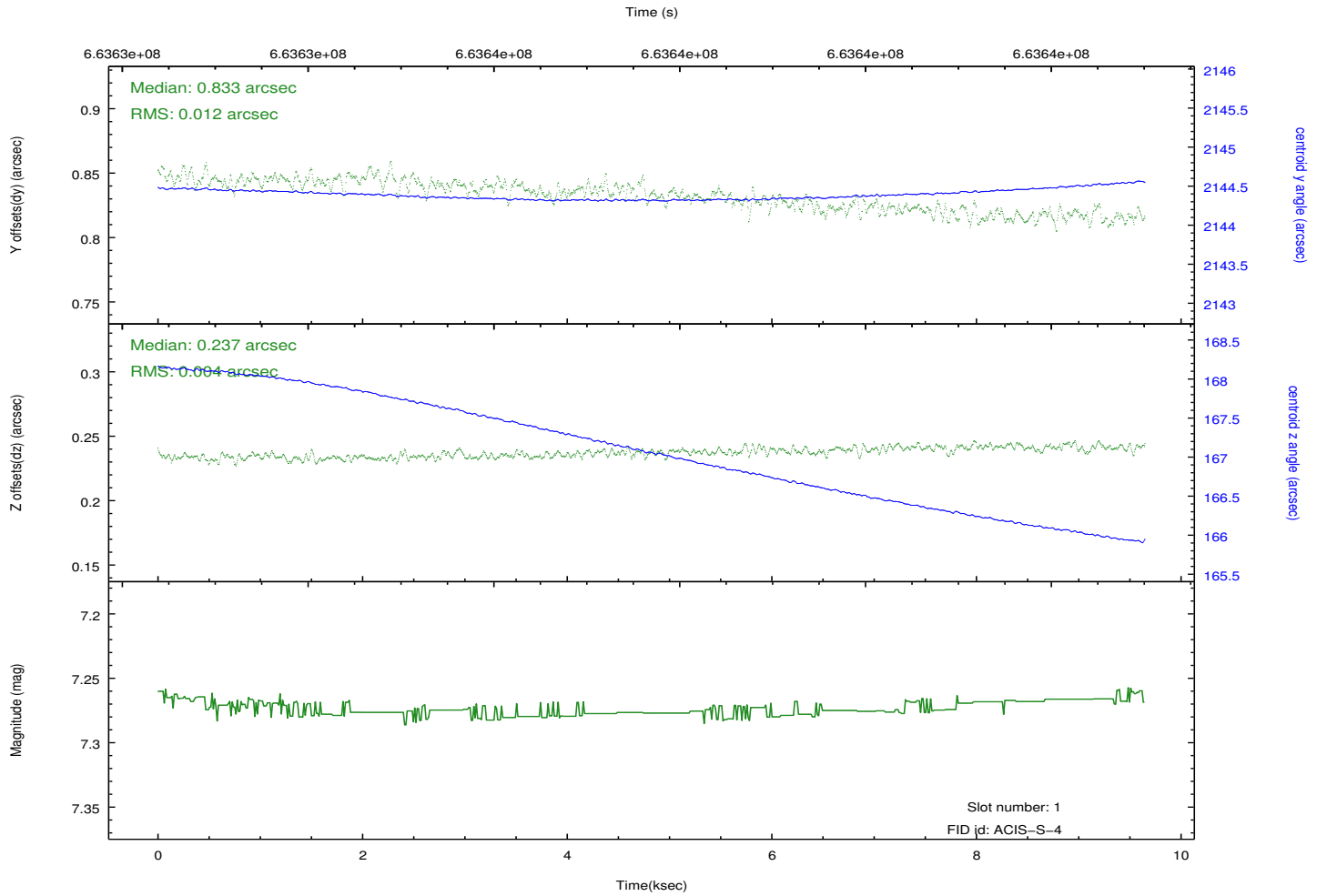
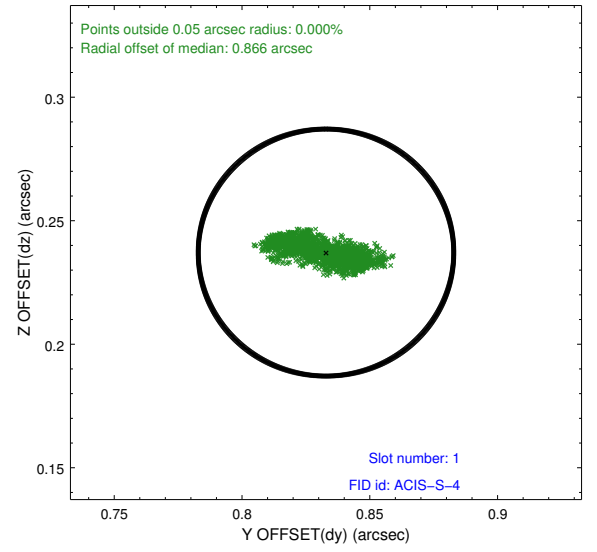
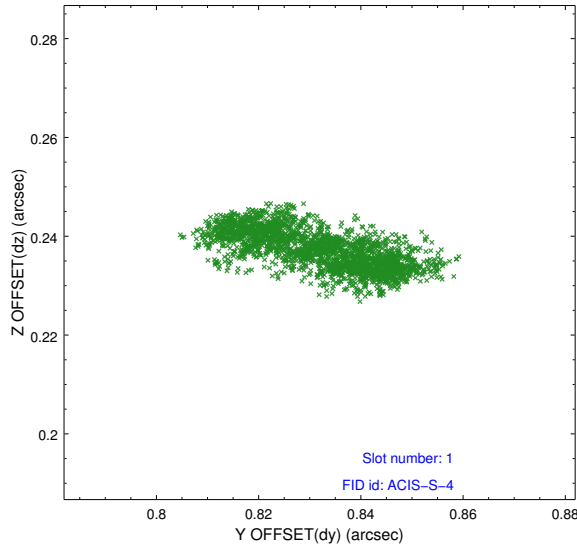


2.5 FID Slots

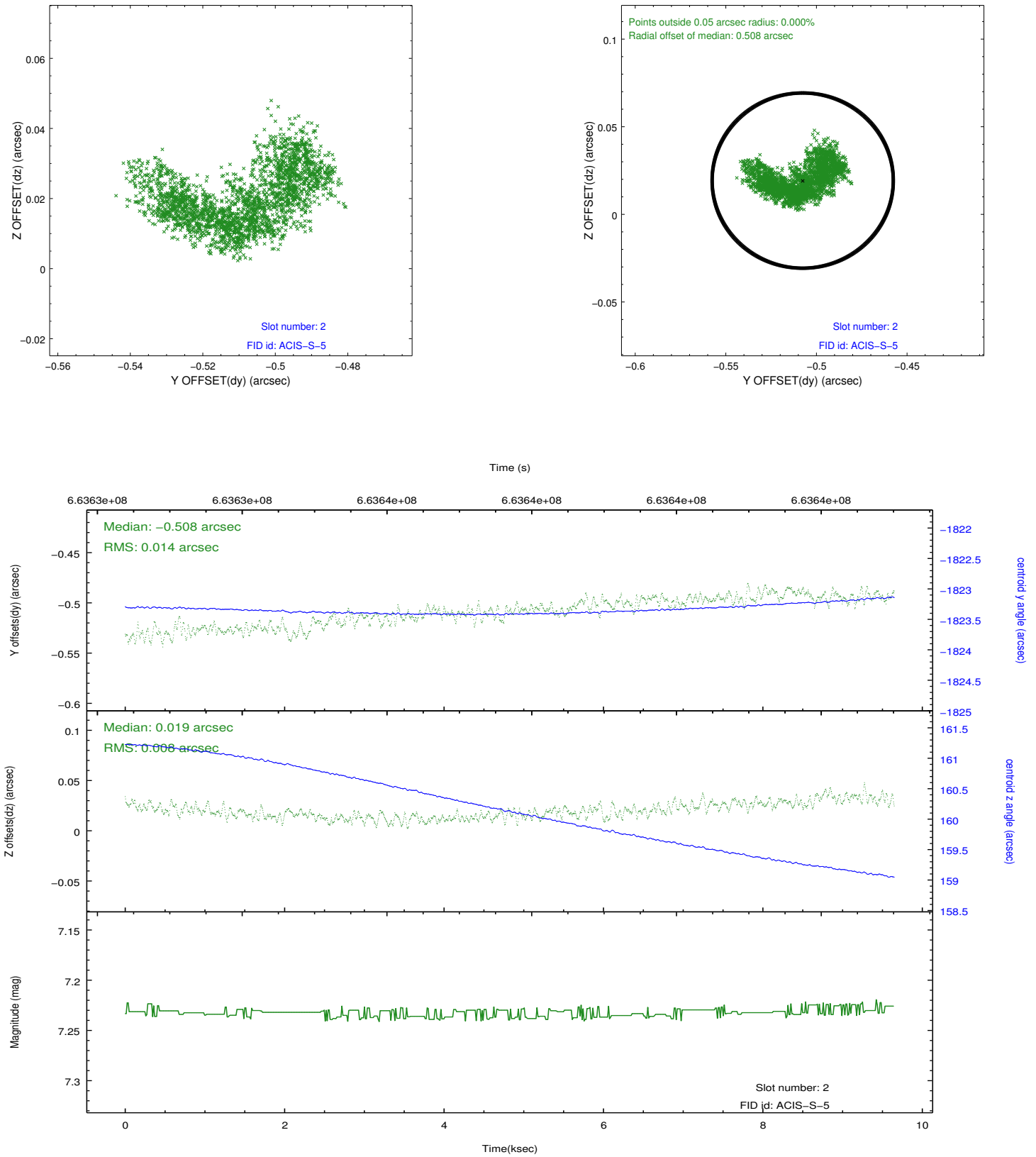
2.5.1 Slot 0



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) | 2019.01.14 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 9.5602549748421 |

A.2 Comments

Joint proposal with NRAO.