

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21354 - L2 Version 1
Chandra X-Ray Center

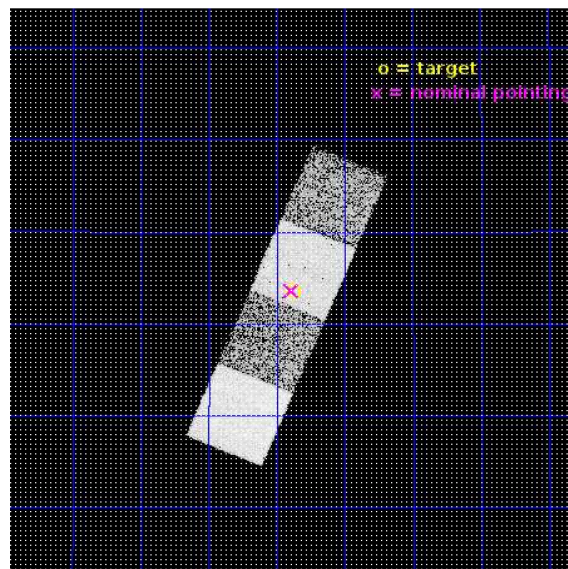
L2 Processing Date : Dec 17 2018

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1 Front

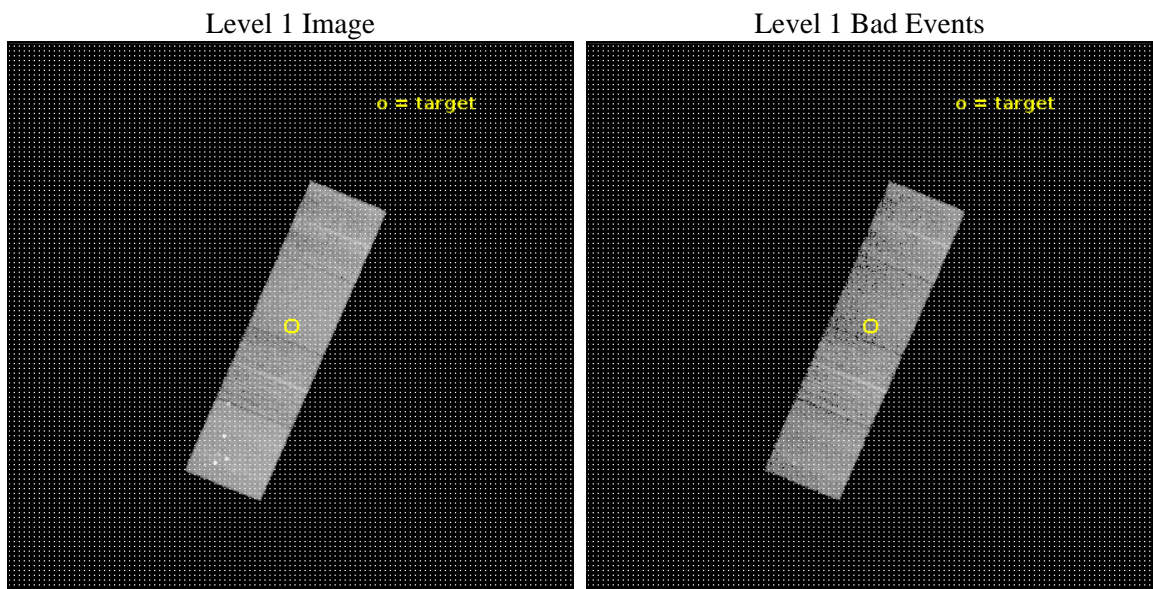
| | | |
|----------|--|---|
| seq_num | 503126 | Sequence number |
| obs_id | 21354 | Observation id |
| title | Chandra Observations of H-alpha emitting Type I Supernovae | Proposa |
| observer | David Pooley | Principal investigator |
| object | SN 2008ha | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 353.719583 | Observer's specified target RA [deg] |
| dec_targ | 18.2265 | Observer's specified target Dec [deg] |
| ra_nom | 353.72318276626 | Nominal RA [deg] |
| dec_nom | 18.226607445746 | Nominal Dec [deg] |
| roll_nom | 292.71714485821 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 6559.6000505686 | Sum of GTIs [s] |
| livetime | 6473.8940468006 | Livetime [s] |
| ontime5 | 6559.6000505686 | Sum of GTIs [s] |
| ontime6 | 6559.6000505686 | Sum of GTIs [s] |
| ontime7 | 6559.6000505686 | Sum of GTIs [s] |
| ontime8 | 6556.4589803219 | Sum of GTIs [s] |
| l2events | 72128 | Number of level 2 events |



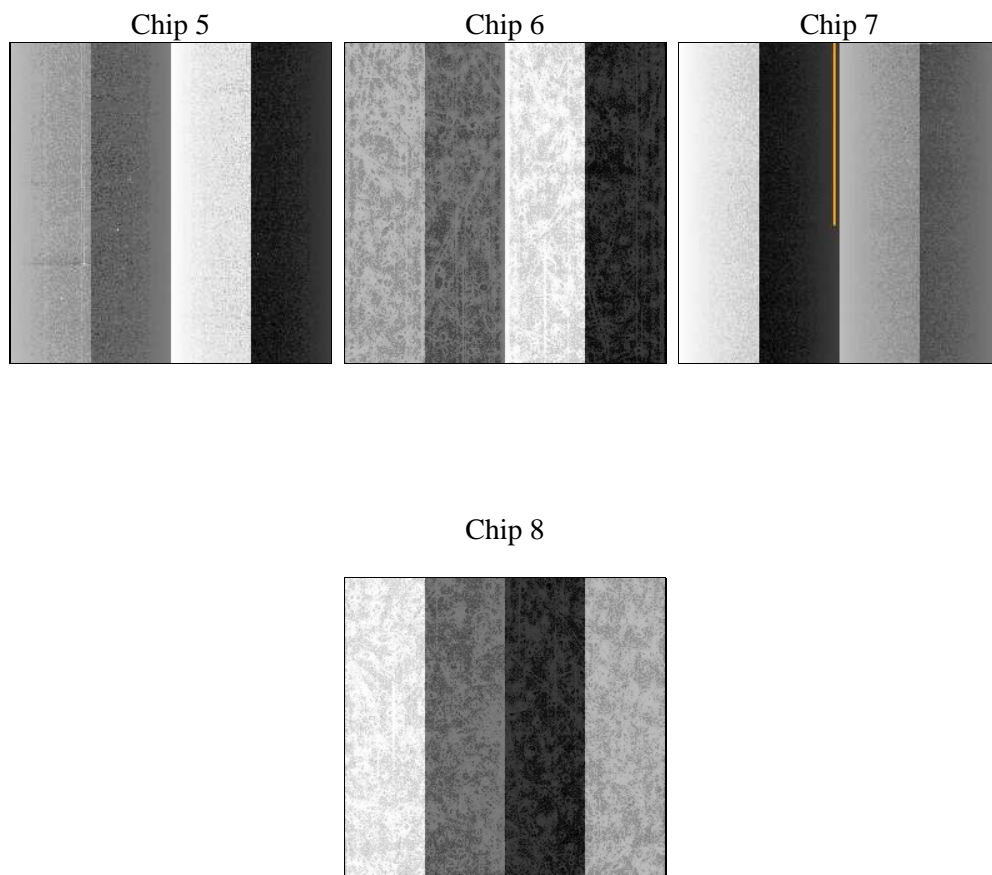
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 6500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.7.1 | Processing system revision | ontime | 6559.6000505686 | Sum of GTIs [s] |
| caldsver | 4.8.2 | | ontime5 | 6559.6000505686 | Sum of GTIs [s] |
| date | 2018-12-17T17:00:50 | Date and time of file creation | ontime6 | 6559.6000505686 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime7 | 6559.6000505686 | Sum of GTIs [s] |
| | | | ontime8 | 6556.4589803219 | Sum of GTIs [s] |
| | | | l1events | 269181 | Number of level 1 events |

2.1.4 Events

| | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|
| level 1 events | 87179 | 55200 | 63753 | 63049 |
| rejected events | 43258 | 49687 | 36640 | 47669 |
| rejected % | 49% | 90% | 57% | 75% |

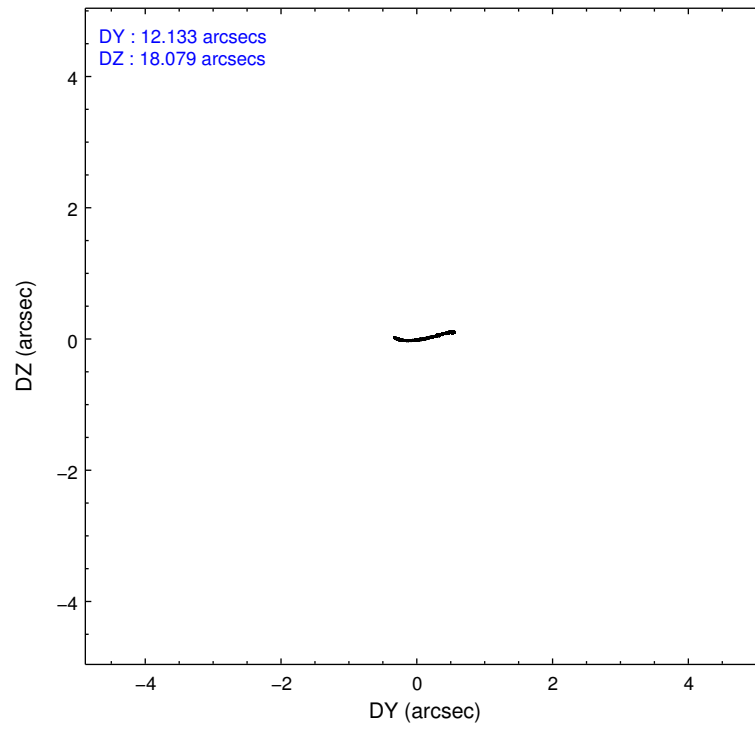
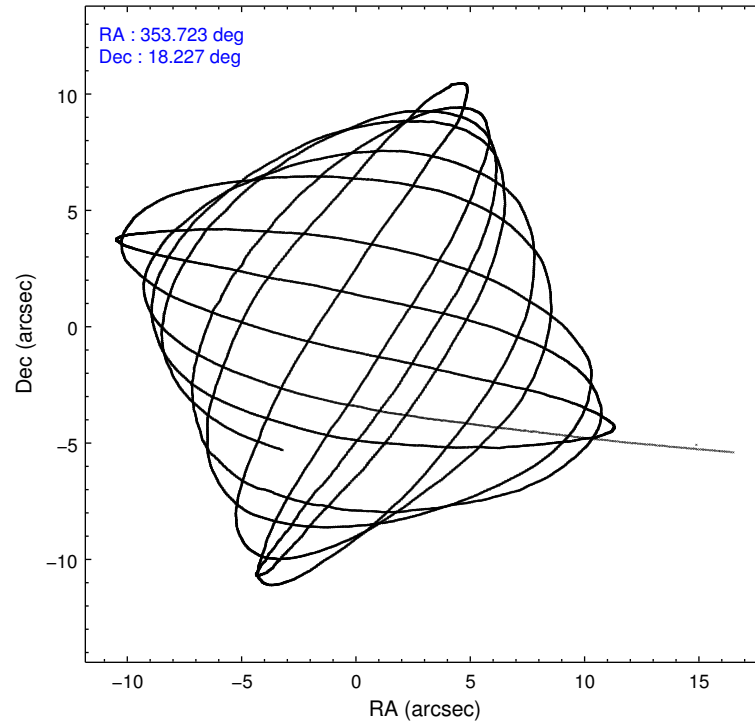
| | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|
| grade 0 events | 7182 | 1480 | 2202 | 4310 |
| | 8% | 2% | 3% | 6% |
| grade 1 events | 421 | 22 | 85 | 48 |
| | 0% | 0% | 0% | 0% |
| grade 2 events | 13018 | 1529 | 5610 | 3785 |
| | 14% | 2% | 8% | 6% |
| grade 3 events | 1176 | 483 | 2145 | 1584 |
| | 1% | 0% | 3% | 2% |
| grade 4 events | 1251 | 451 | 2108 | 1470 |
| | 1% | 0% | 3% | 2% |
| grade 5 events | 5084 | 1992 | 6125 | 3109 |
| | 5% | 3% | 9% | 4% |
| grade 6 events | 21331 | 1575 | 15075 | 4234 |
| | 24% | 2% | 23% | 6% |
| grade 7 events | 37716 | 47668 | 30403 | 44509 |
| | 43% | 86% | 47% | 70% |

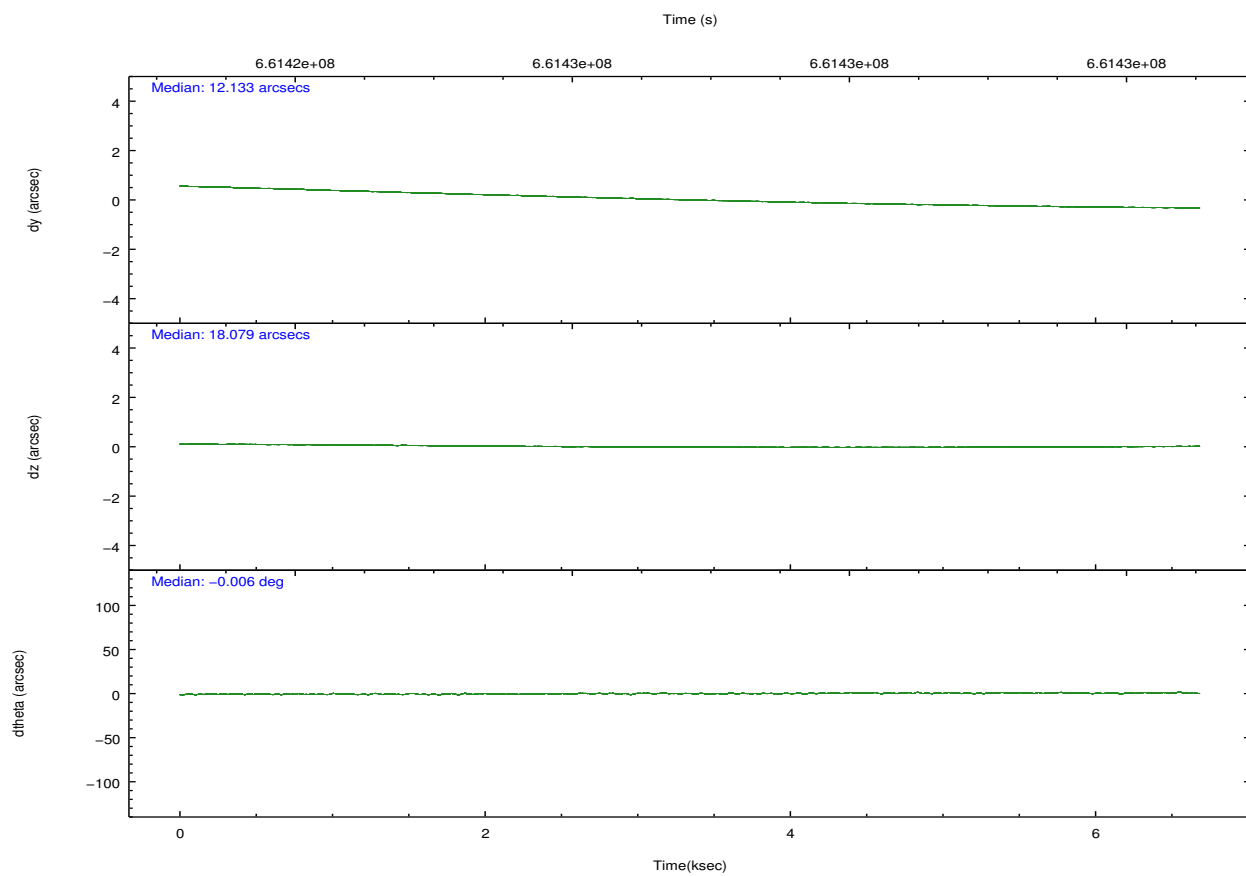
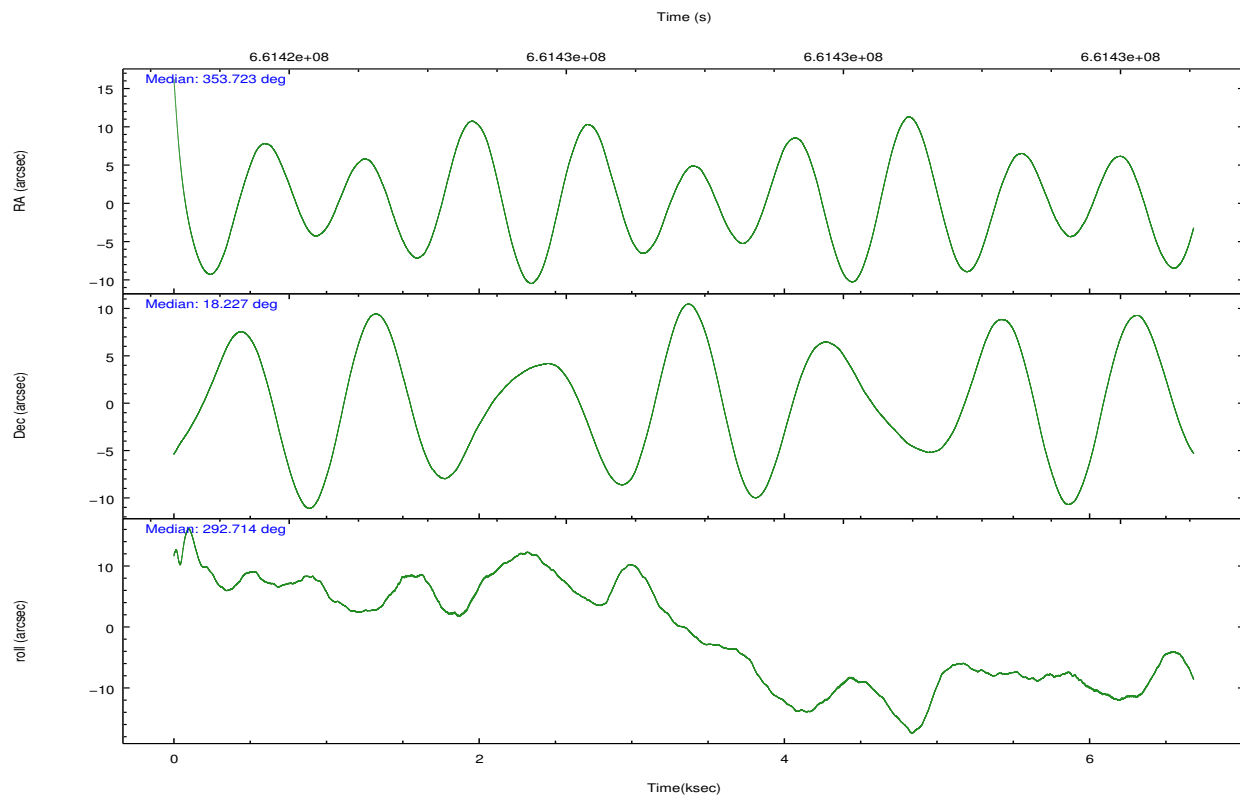
2.2 Compared Parameters

| 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 | 353.700034 | 353.7231827662618 |
| [deg] Pointing Dec | 18.242882 | 18.2266074457461 |
| [deg] Pointing Roll | 292.567763 | 292.7171448582084 |
| [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) | 661423666.184000 | 661422630.21167 |
| Observation start date | 2018-12-17T08:46:37 | 2018-12-17T08:30:30 |
| [s] Observation end time (MET) | 661430166.184000 | 661430824.5746599 |
| Observation end date | 2018-12-17T10:34:57 | 2018-12-17T10:47:04 |
| 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



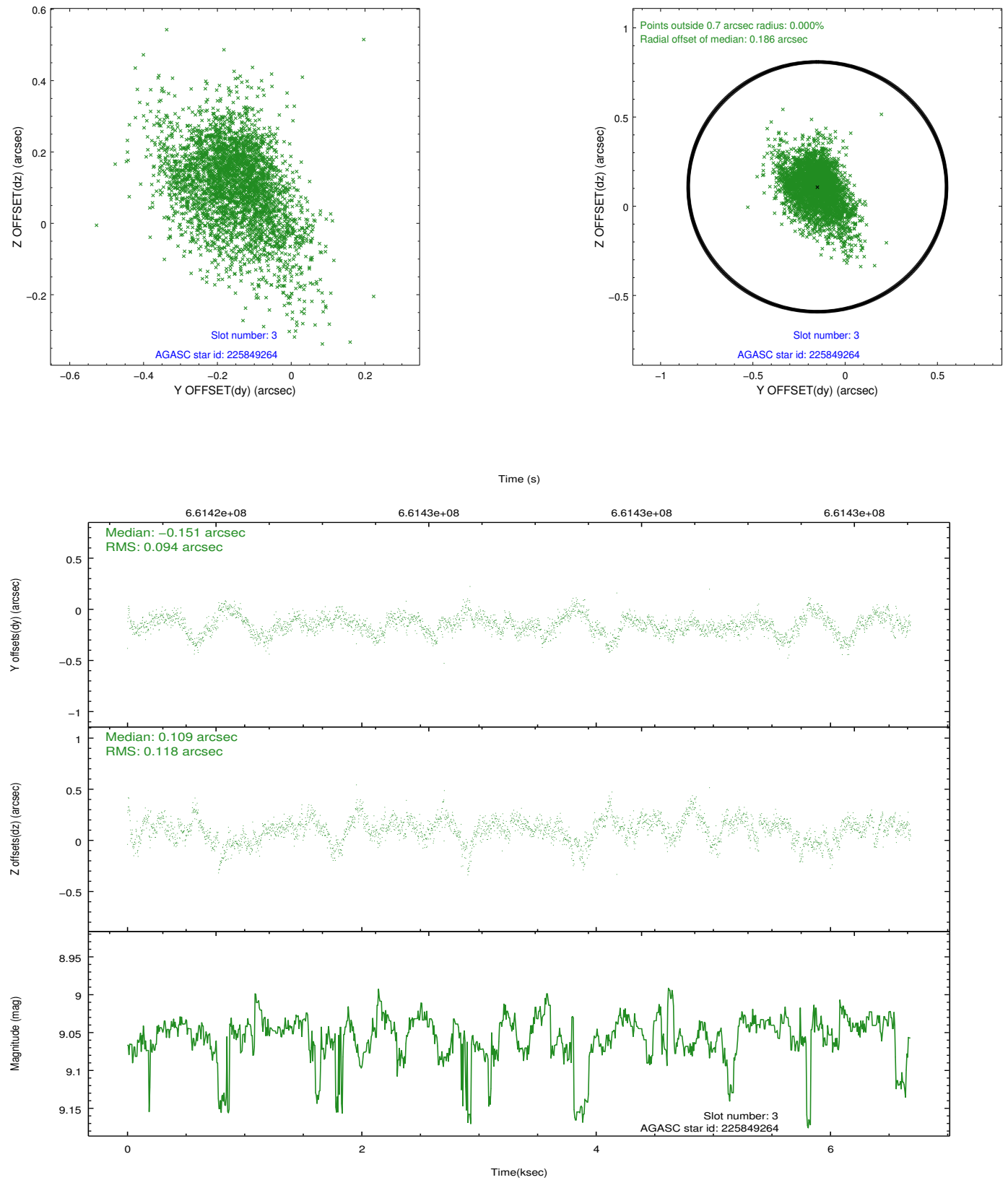


Slot Statistics

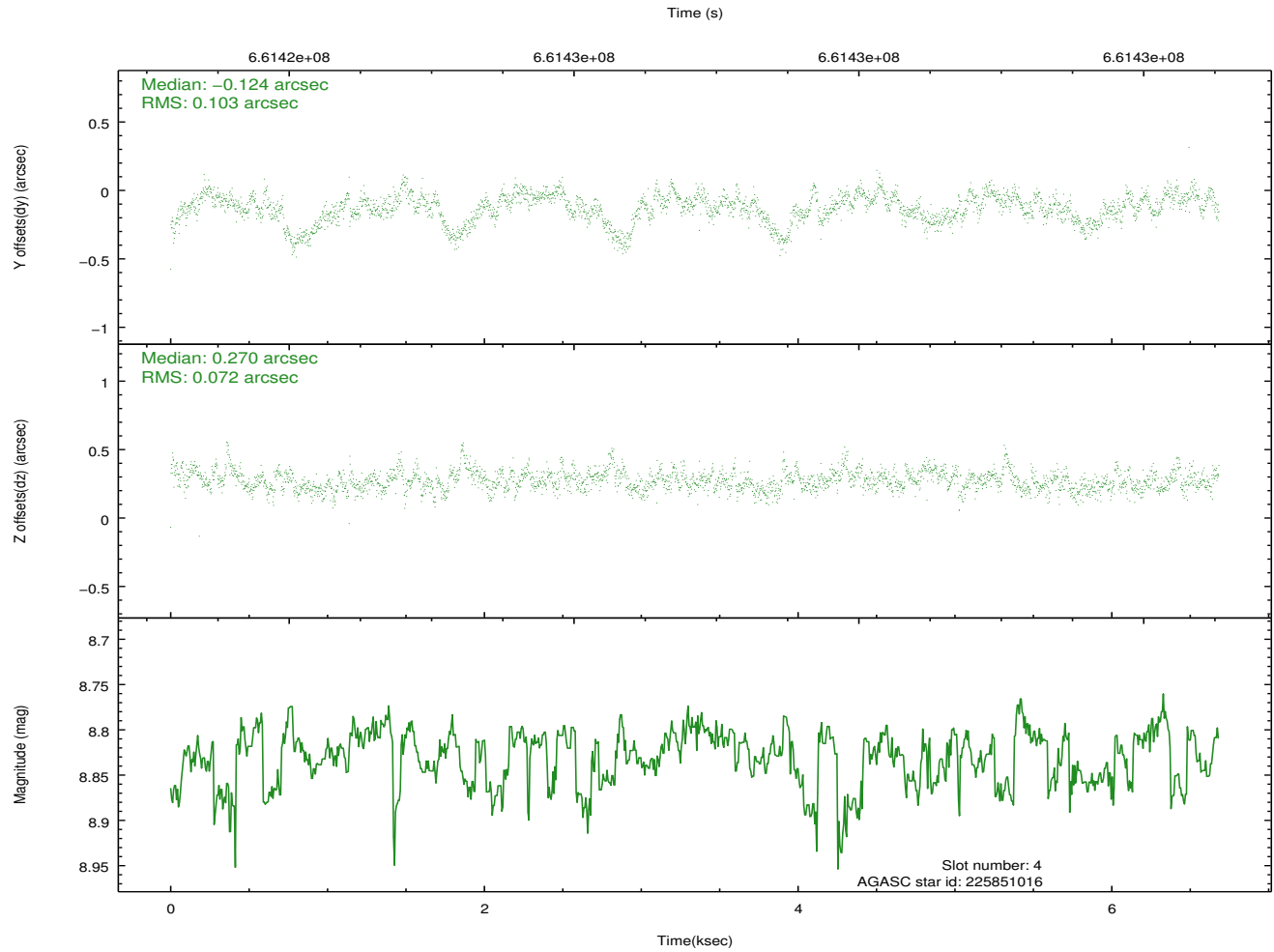
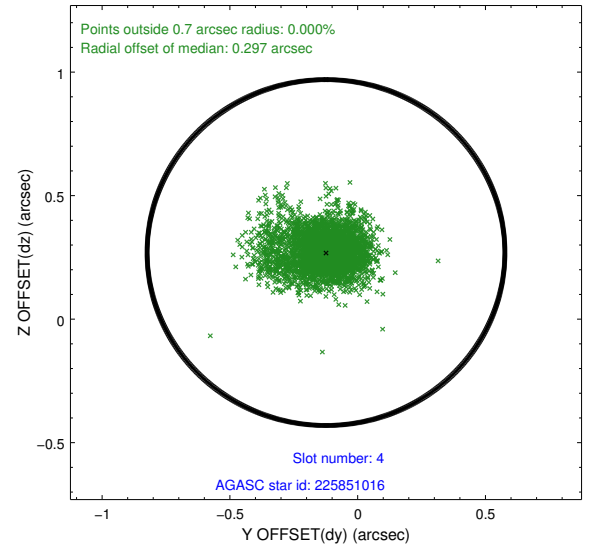
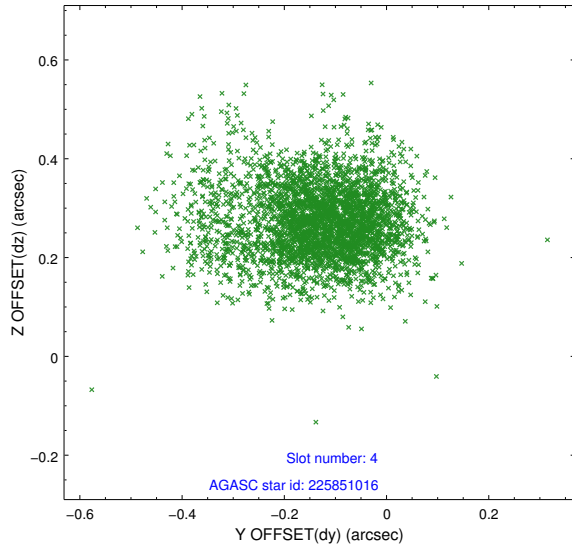
| pt | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|----|--------|------|-----------|------|-------|----------|--------|--------|-------|-------|------------|-----------|----------|-------|
| 0 | FID | | ACIS-S-2 | 7.15 | 1630 | 1.000 | -0.270 | -0.240 | 0.010 | 0.015 | 0.000000 | 0.000000 | -765.29 | -1739 |
| 1 | FID | | ACIS-S-4 | 7.28 | 1629 | 1.000 | 0.763 | 0.195 | 0.008 | 0.018 | 0.000000 | 0.000000 | 2148.57 | 168 |
| 2 | FID | | ACIS-S-5 | 7.27 | 1630 | 1.000 | -0.524 | 0.054 | 0.014 | 0.024 | 0.000000 | 0.000000 | -1817.32 | 162 |
| 3 | GUIDE | used | 225849264 | 9.05 | 3259 | 1.000 | -0.151 | 0.109 | 0.153 | 0.277 | 353.989496 | 18.589662 | -774.11 | 1391 |
| 4 | GUIDE | used | 225851016 | 8.83 | 3258 | 1.000 | -0.124 | 0.270 | 0.126 | 0.237 | 353.602169 | 18.137865 | 220.94 | -453 |
| 5 | GUIDE | used | 225851328 | 8.82 | 3255 | 1.000 | -0.113 | -0.316 | 0.136 | 0.218 | 354.276713 | 17.773479 | 2316.94 | 1177 |
| 6 | GUIDE | used | 225853720 | 8.91 | 3259 | 1.000 | 0.217 | -0.048 | 0.155 | 0.249 | 353.611173 | 17.500521 | 2352.31 | -1306 |
| 7 | GUIDE | used | 225854392 | 6.91 | 3260 | 1.000 | 0.196 | -0.016 | 0.117 | 0.201 | 353.394986 | 17.818829 | 1010.63 | -1546 |

2.4 Star Slots

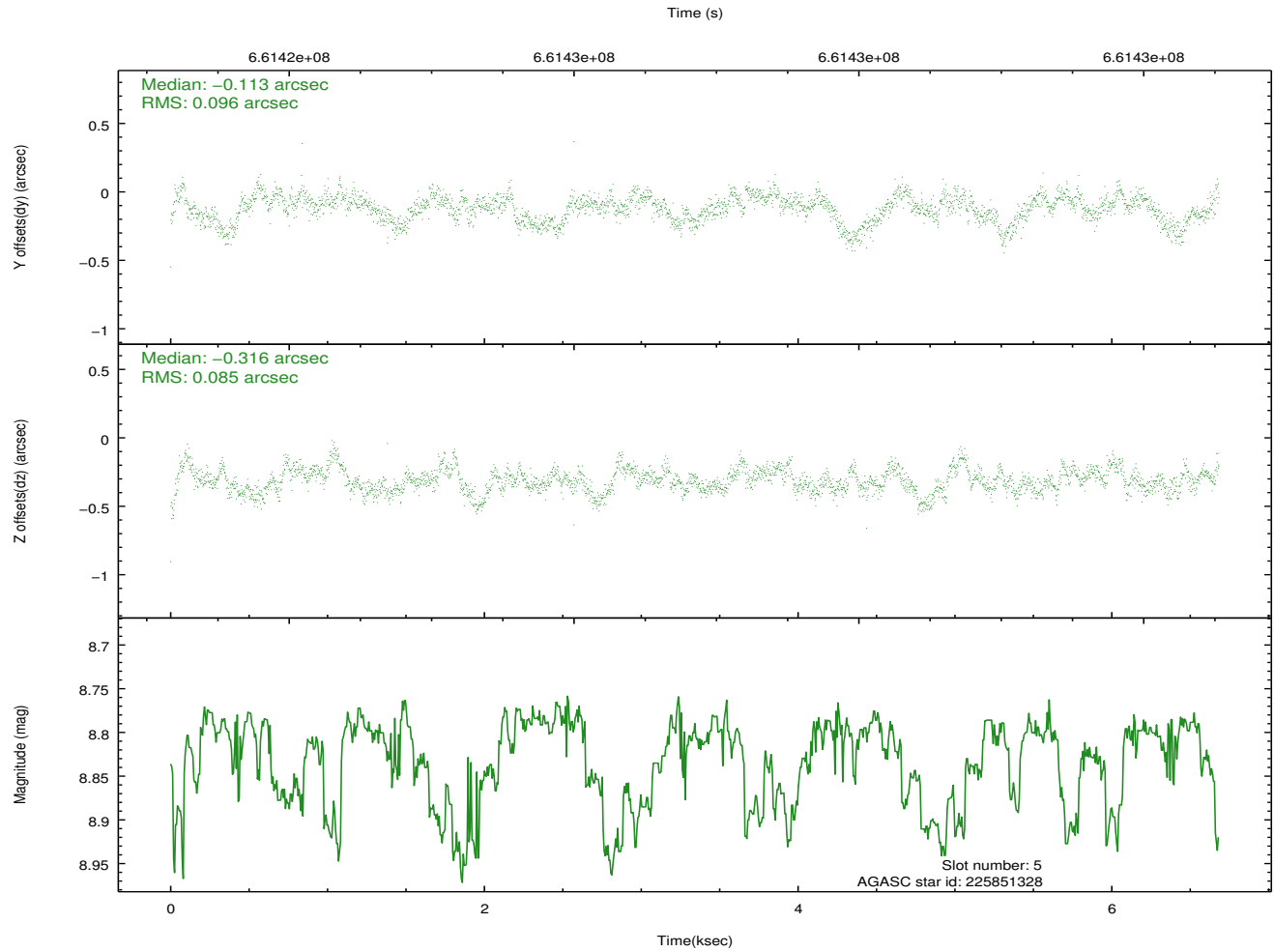
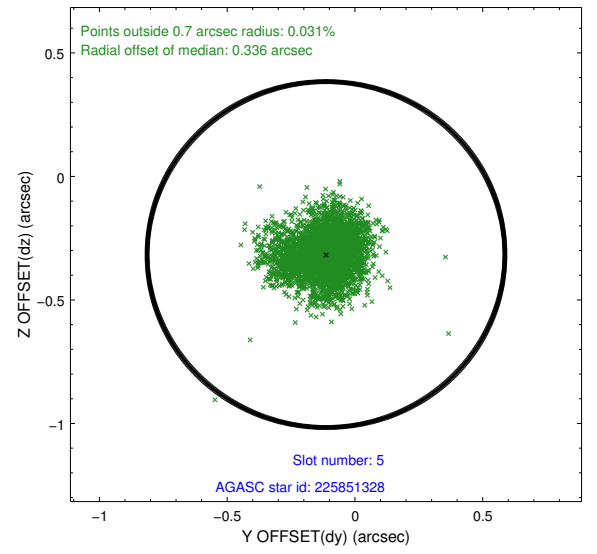
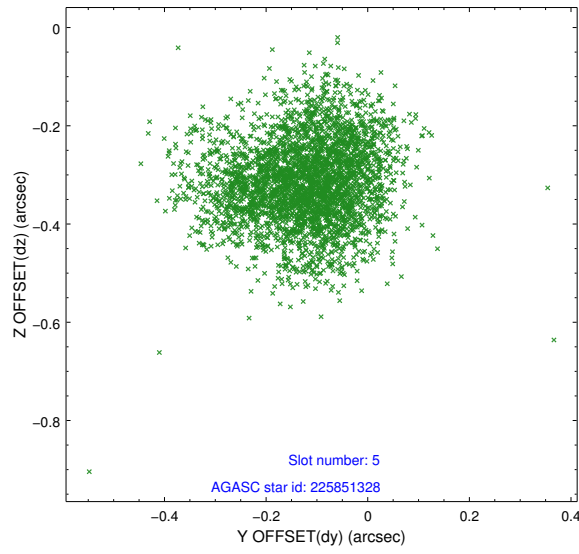
2.4.1 Slot 3



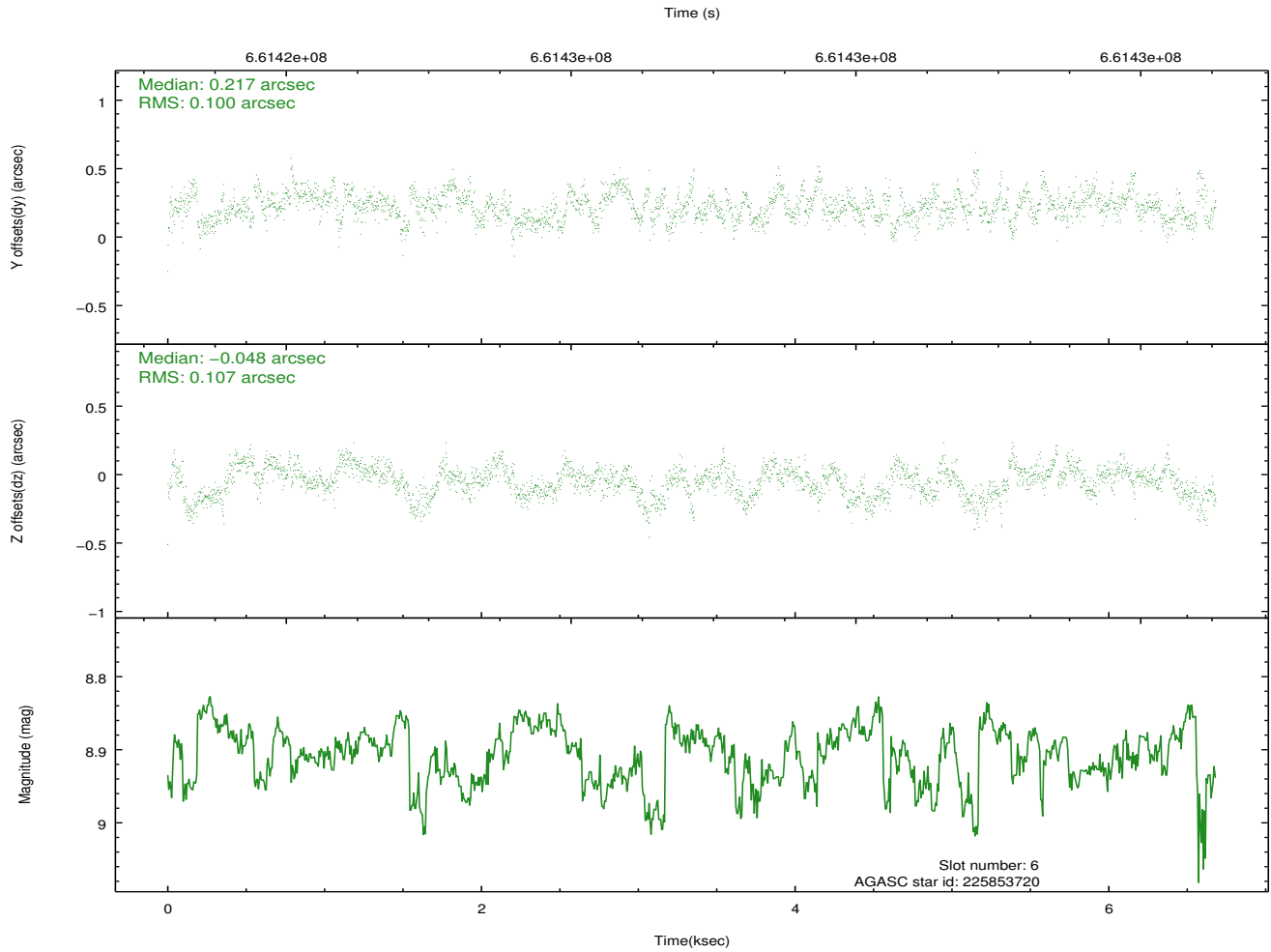
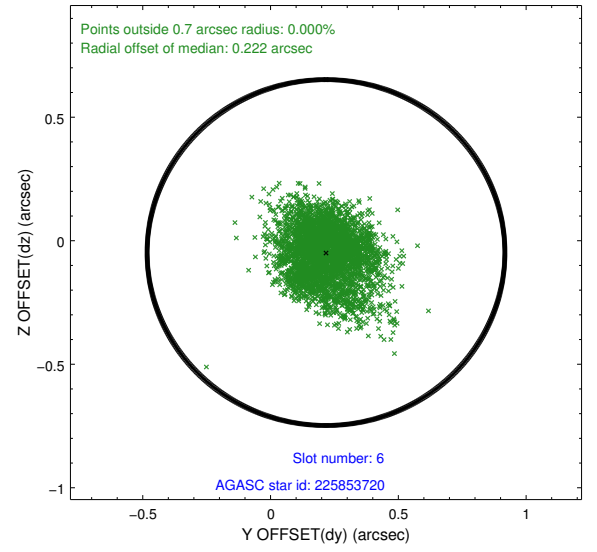
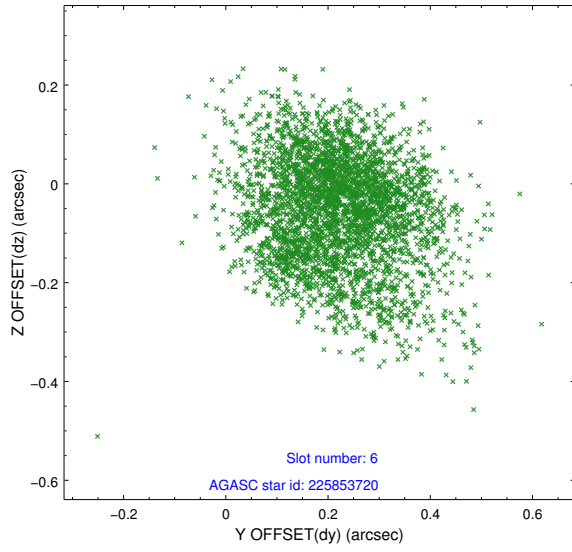
2.4.2 Slot 4



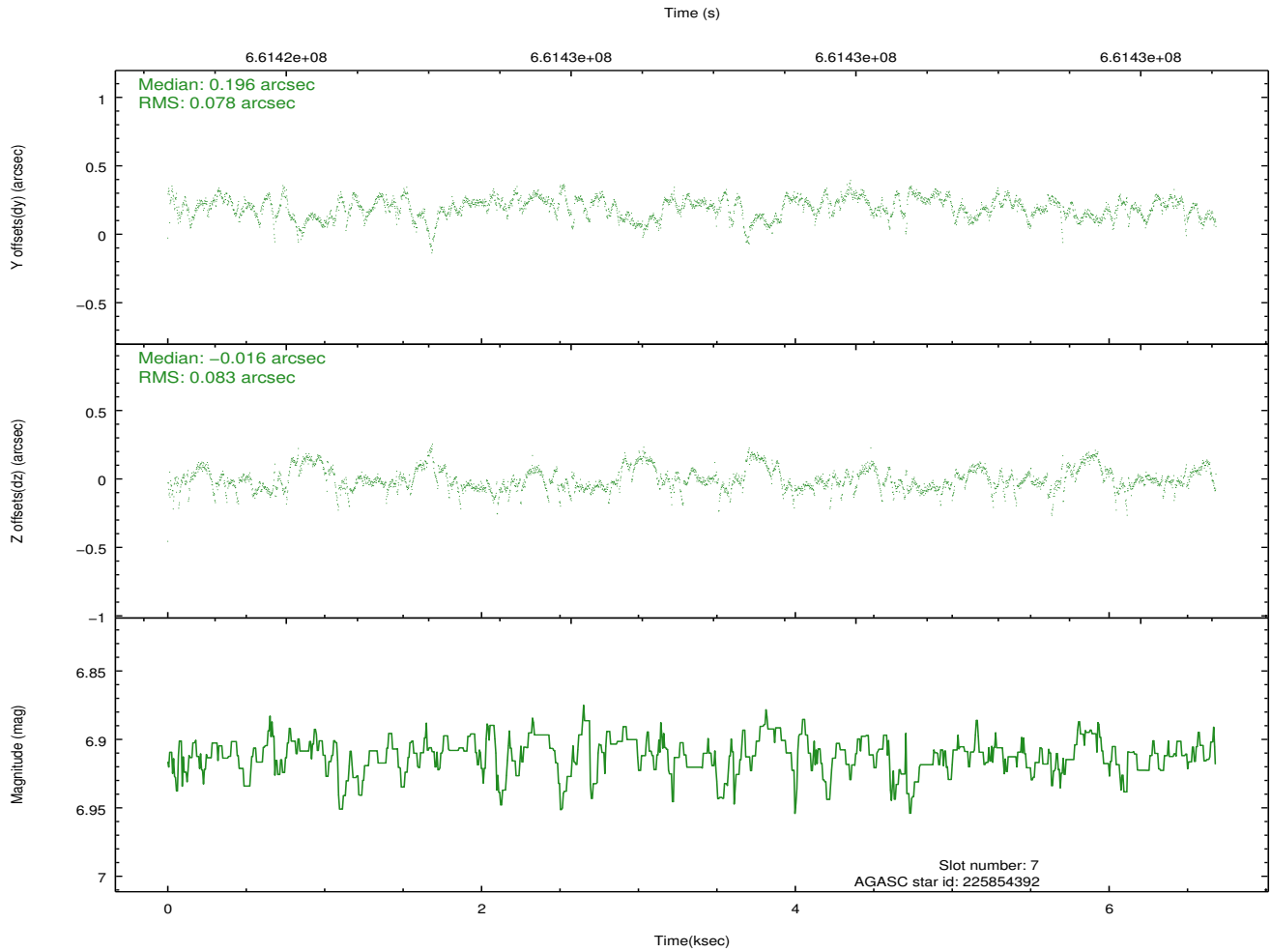
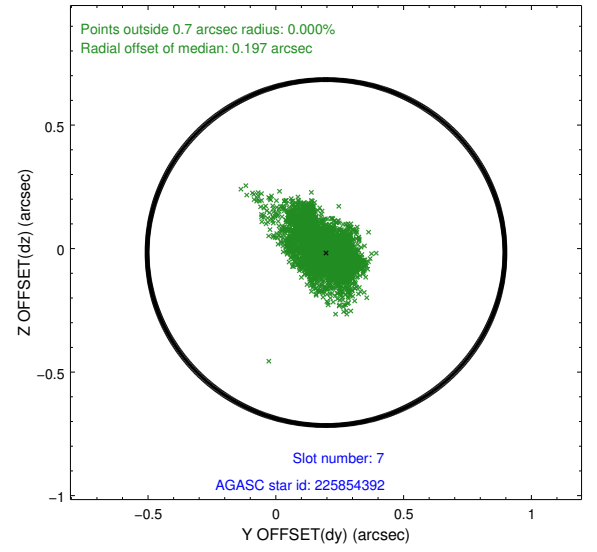
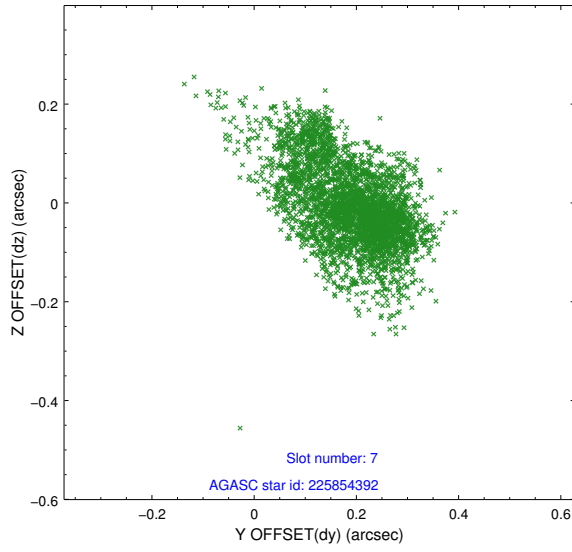
2.4.3 Slot 5



2.4.4 Slot 6

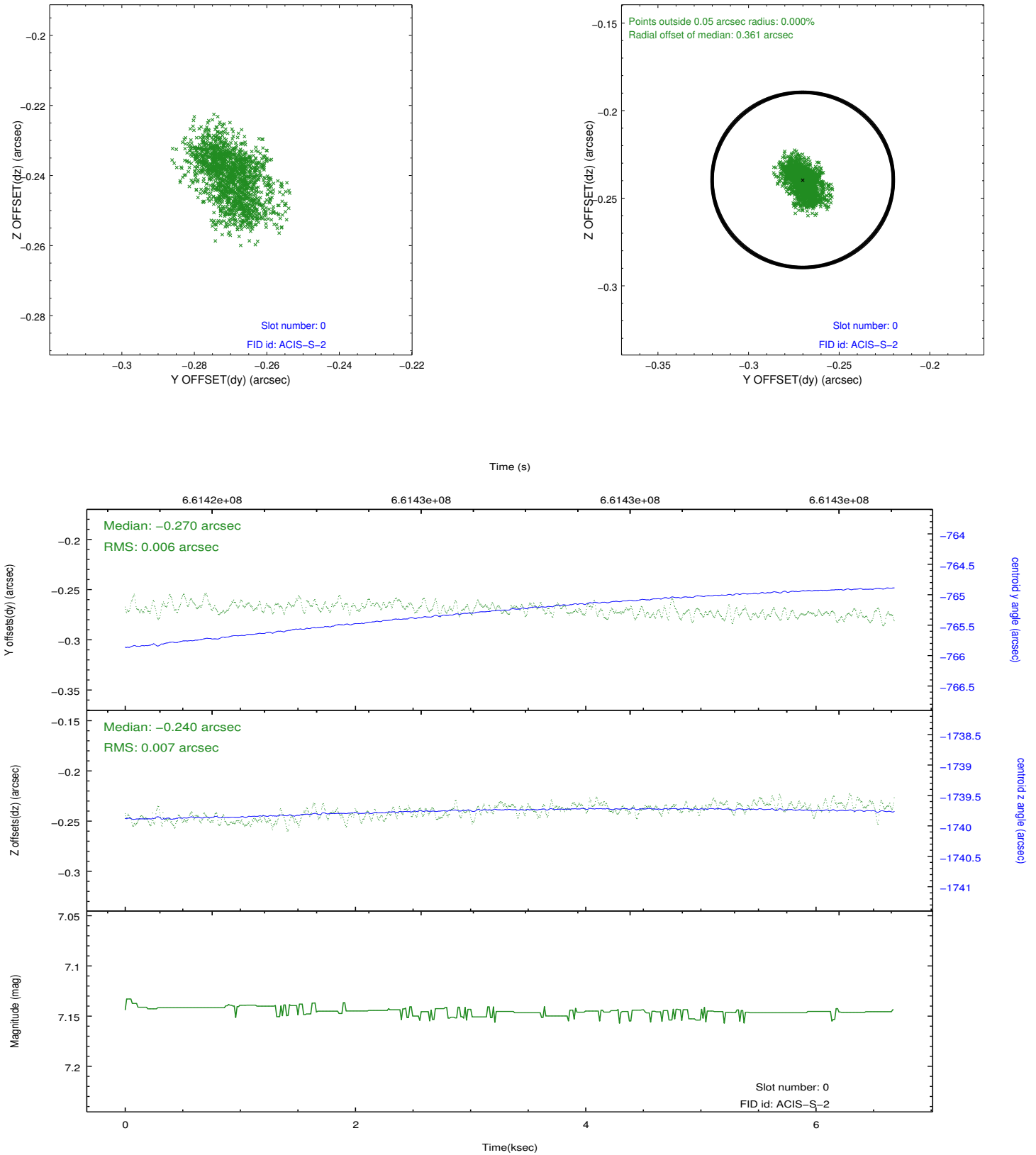


2.4.5 Slot 7

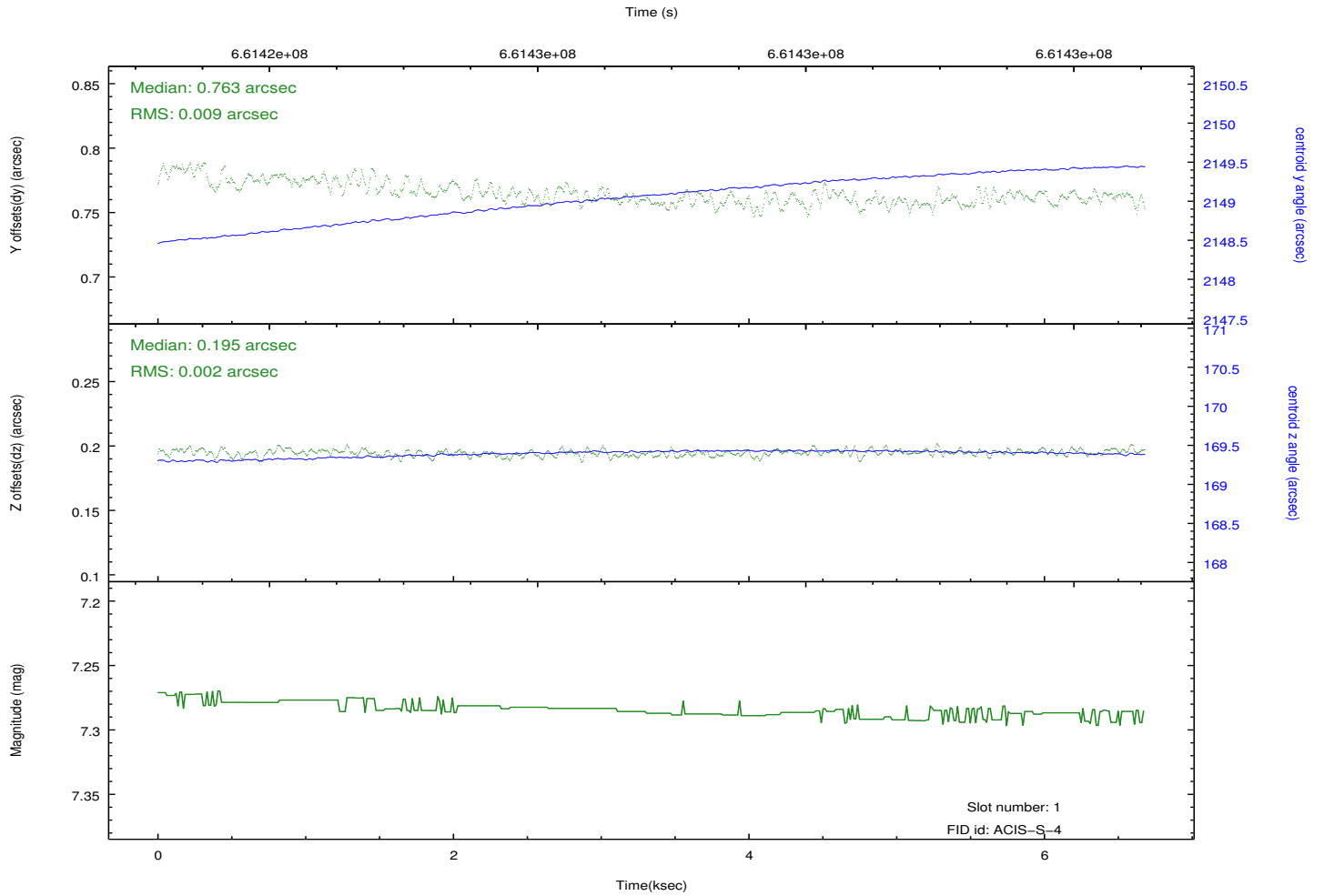
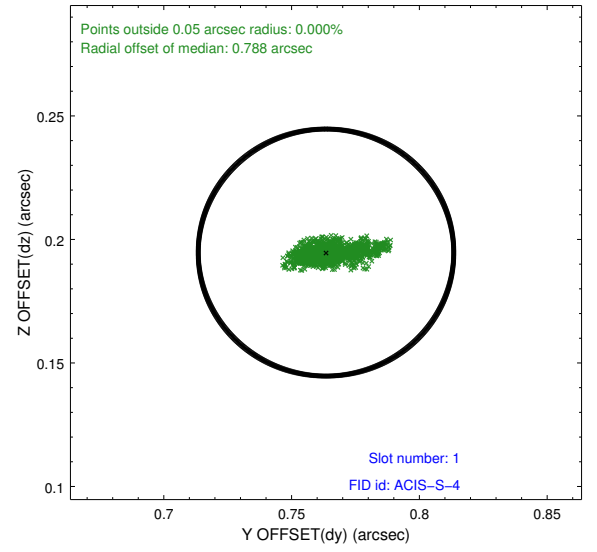
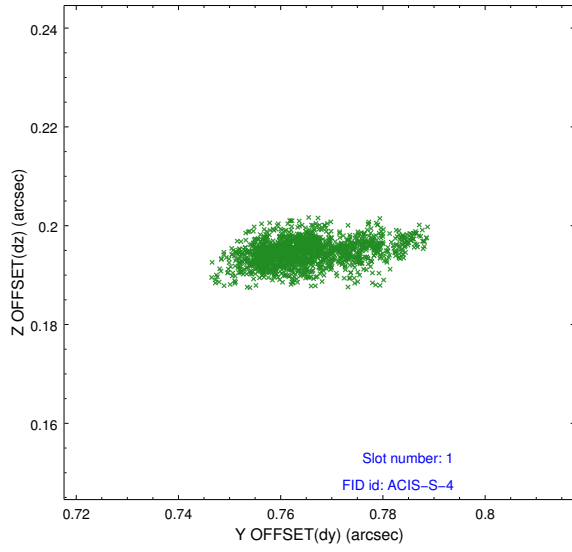


2.5 FID Slots

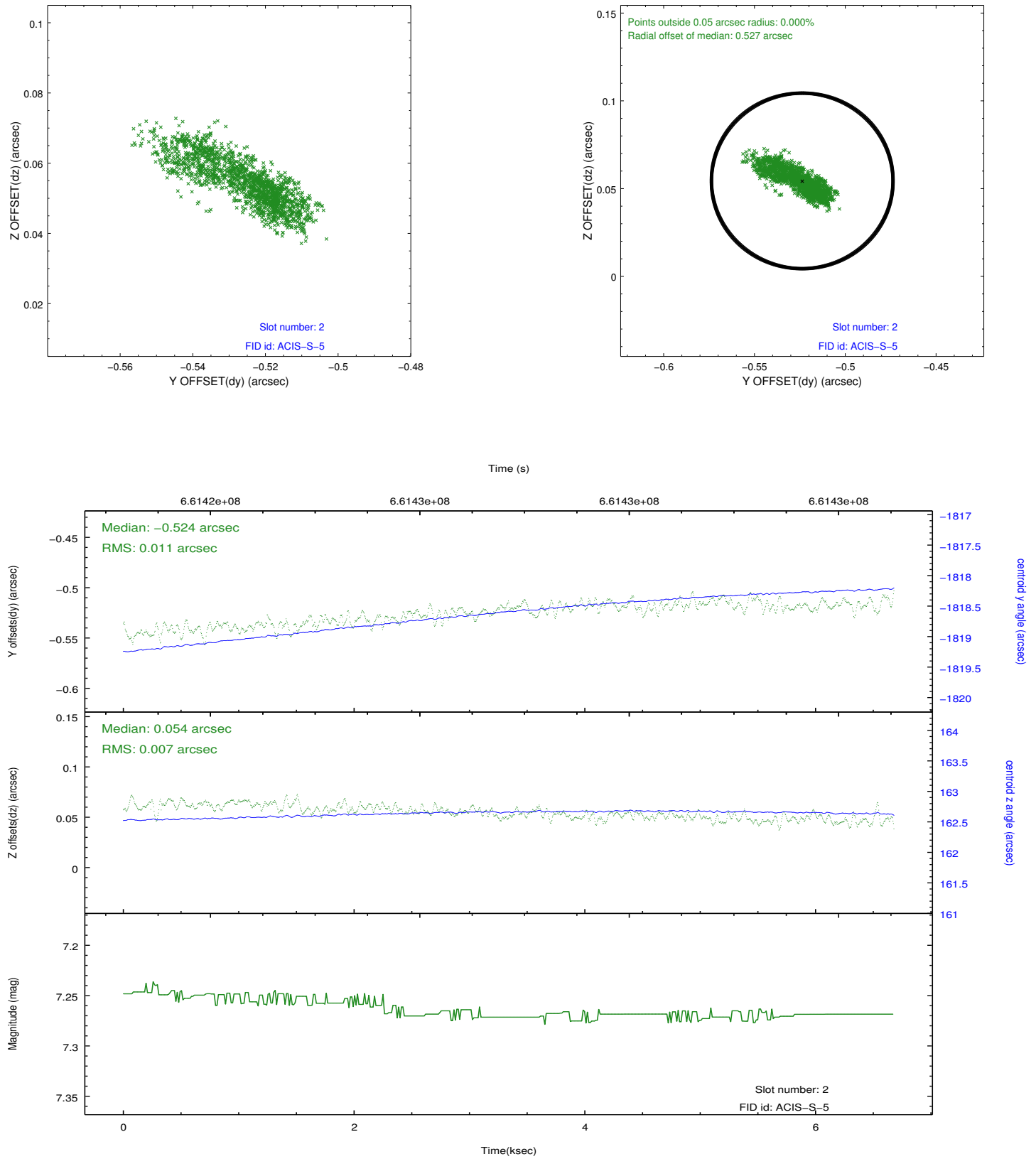
2.5.1 Slot 0



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) | 2018.12.17 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 6.5596000505686 |

A.2 Comments

Joint proposal with NRAO.