

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2112 - L2 Version 3
Chandra X-Ray Center

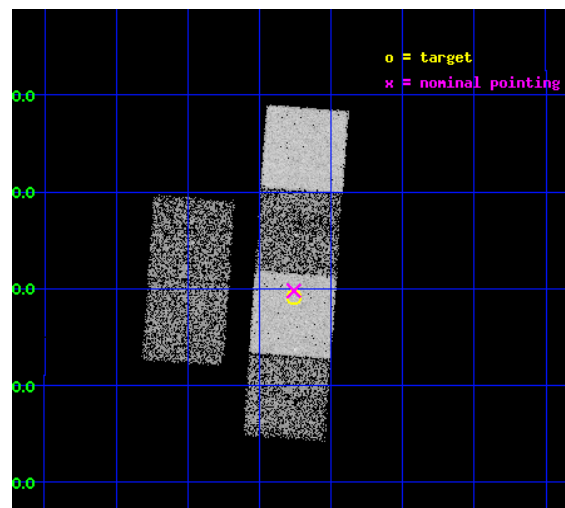
L2 Processing Date : Sep 14 2012

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1 Front

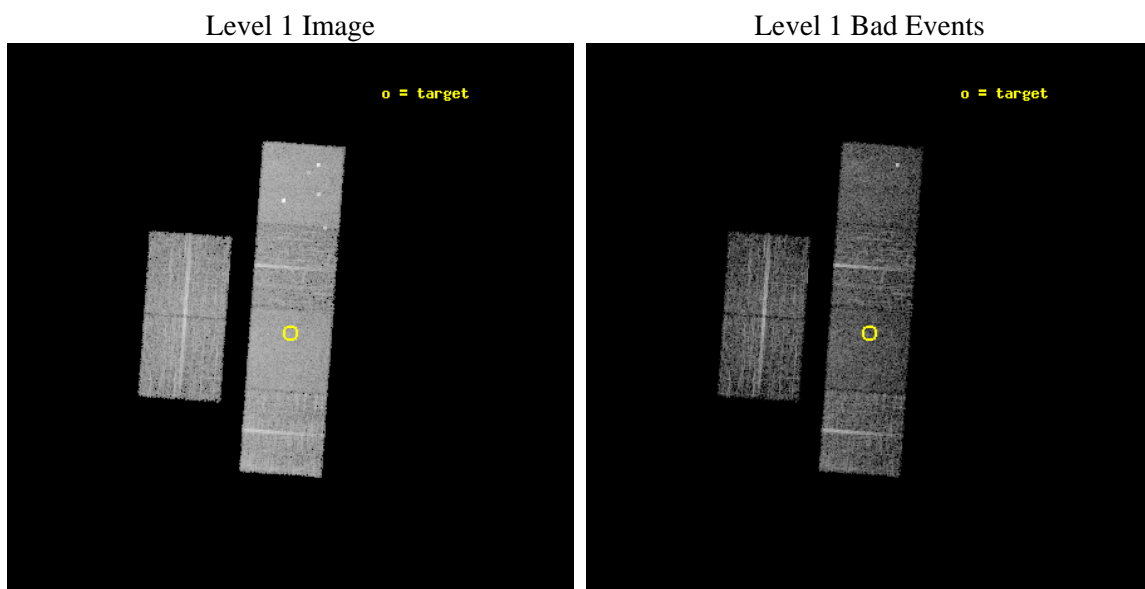
| | | |
|----------|---|---|
| seq_num | 700302 | Sequence number |
| obs_id | 2112 | Observation id |
| title | PUBLIC OBSERVATIONS OF A WELL-DEFINED SAMPLE OF BAL QSOs FROM THE LARGE BRIGHT QUASAR SURVEY: REMOVING THE BARRIERS | Proposal title |
| observer | Prof. William Brandt | Principal investigator |
| object | LBQS 1443+0141 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 221.43875 | Observer's specified target RA [deg] |
| dec_targ | 1.486778 | Observer's specified target Dec [deg] |
| ra_nom | 221.43980538206 | Nominal RA [deg] |
| dec_nom | 1.496478912604 | Nominal Dec [deg] |
| roll_nom | 94.115630960584 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 6011.3075899482 | Sum of GTIs [s] |
| livetime | 5935.1887936694 | Livetime [s] |
| ontime2 | 6011.3486299515 | Sum of GTIs [s] |
| ontime3 | 6011.1844699532 | Sum of GTIs [s] |
| ontime5 | 6011.2665499449 | Sum of GTIs [s] |
| ontime6 | 6011.2255099565 | Sum of GTIs [s] |
| ontime7 | 6011.3075899482 | Sum of GTIs [s] |
| ontime8 | 6011.1434299499 | Sum of GTIs [s] |
| l2events | 59544 | Number of level 2 events |



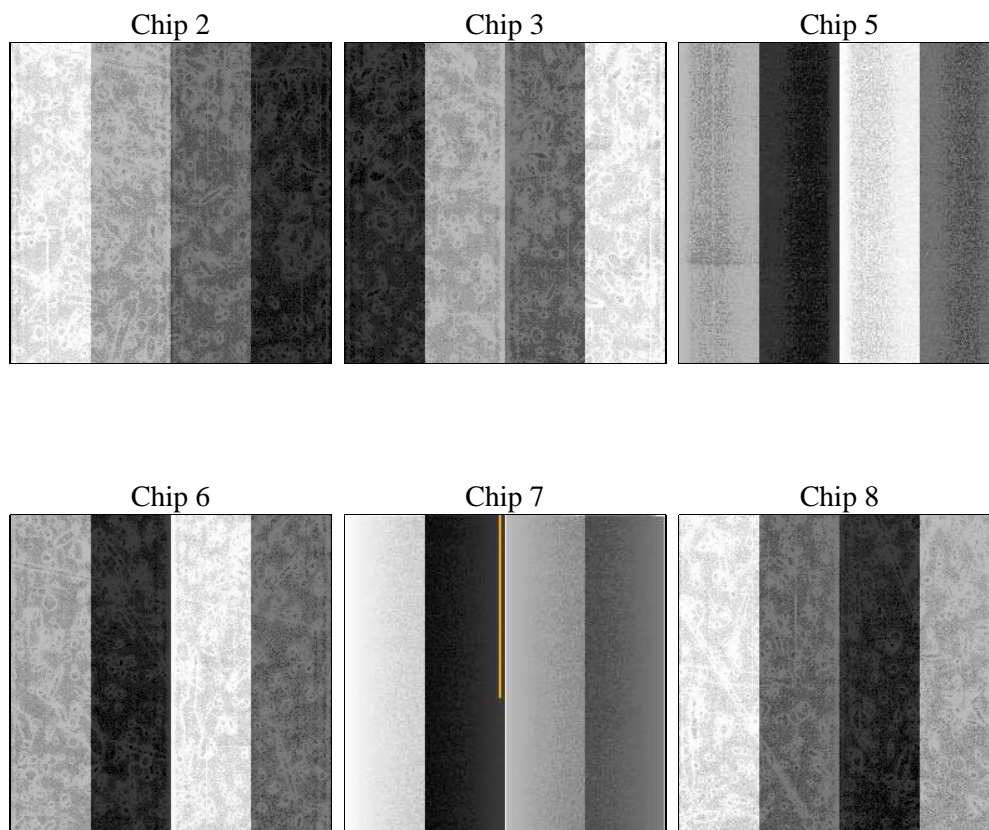
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 6000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 6011.3075899482 | Sum of GTIs [s] |
| caldsver | 4.5.1.1 | | ontime2 | 6011.3486299515 | Sum of GTIs [s] |
| date | 2012-09-14T05:36:33 | Date and time of file creation | ontime3 | 6011.1844699532 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 6011.2665499449 | Sum of GTIs [s] |
| | | | ontime6 | 6011.2255099565 | Sum of GTIs [s] |
| | | | ontime7 | 6011.3075899482 | Sum of GTIs [s] |
| | | | ontime8 | 6011.1434299499 | Sum of GTIs [s] |
| | | | l1events | 277547 | Number of level 1 events |

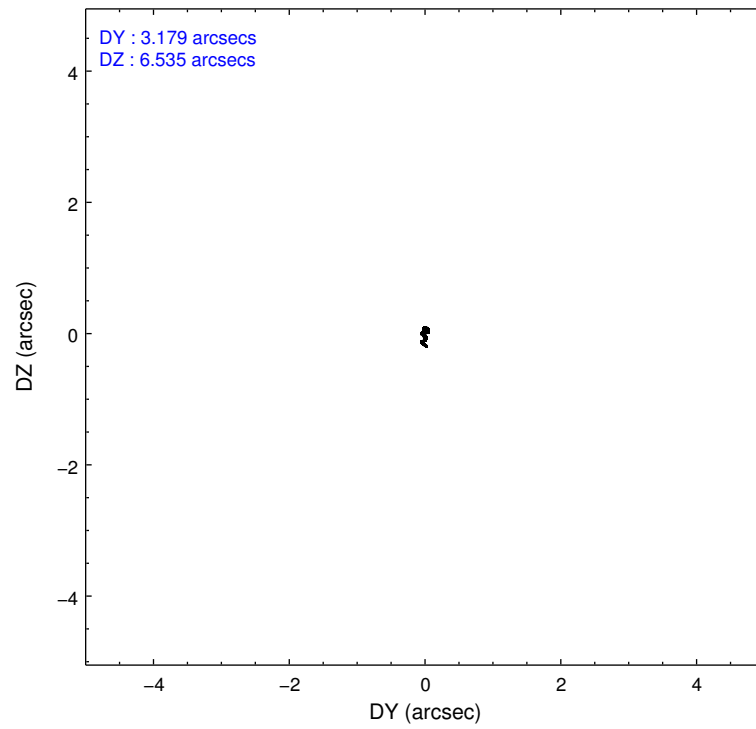
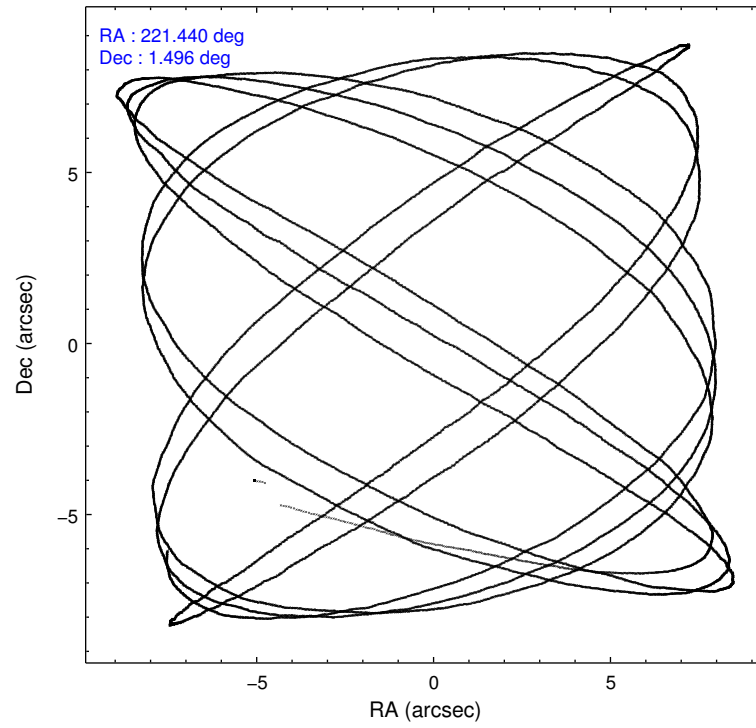
2.1.4 Events

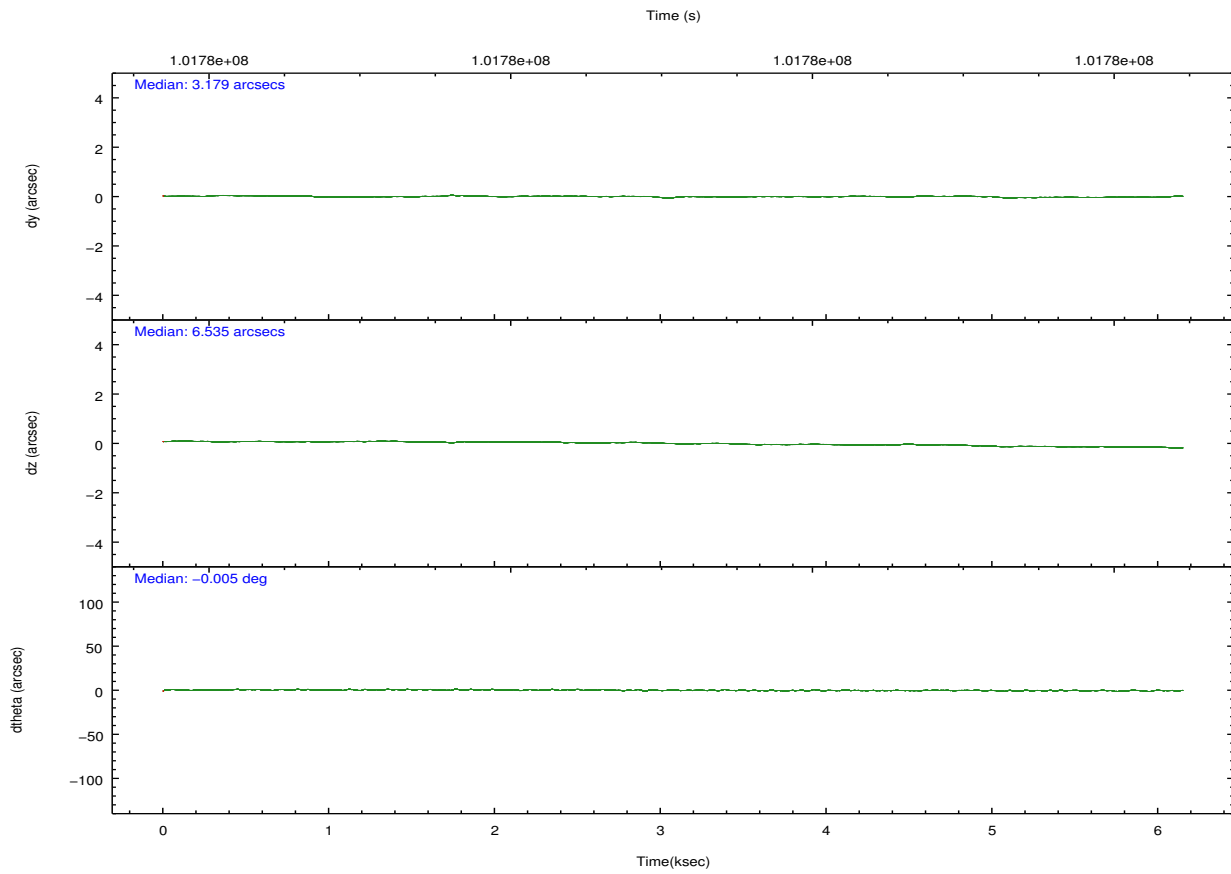
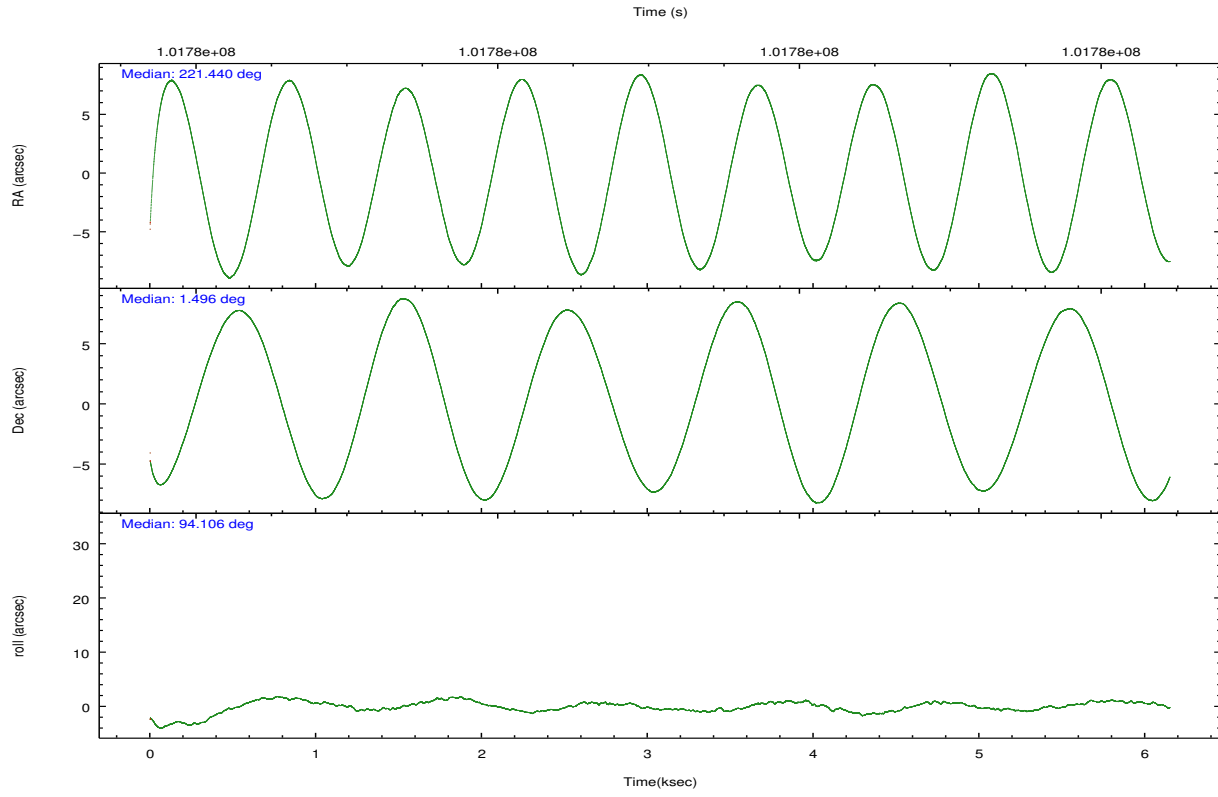
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 39753 | 39013 | 57975 | 40033 | 50324 | 50449 | grade 0 events | 2003 | 1870 | 4317 | 1895 | 2056 | 3120 |
| rejected events | 35264 | 34678 | 30867 | 35484 | 29430 | 40587 | | 5% | 4% | 7% | 4% | 4% | 6% |
| rejected % | 88% | 88% | 53% | 88% | 58% | 80% | grade 1 events | 22 | 13 | 63 | 17 | 43 | 29 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 992 | 823 | 7510 | 899 | 4149 | 2030 |
| | | | | | | | | 2% | 2% | 12% | 2% | 8% | 4% |
| | | | | | | | grade 3 events | 378 | 448 | 1209 | 451 | 1830 | 1051 |
| | | | | | | | | 0% | 1% | 2% | 1% | 3% | 2% |
| | | | | | | | grade 4 events | 397 | 424 | 1029 | 441 | 1852 | 989 |
| | | | | | | | | 0% | 1% | 1% | 1% | 3% | 1% |
| | | | | | | | grade 5 events | 1326 | 1428 | 4511 | 1676 | 4886 | 2068 |
| | | | | | | | | 3% | 3% | 7% | 4% | 9% | 4% |
| | | | | | | | grade 6 events | 723 | 773 | 13068 | 871 | 11023 | 2688 |
| | | | | | | | | 1% | 1% | 22% | 2% | 21% | 5% |
| | | | | | | | grade 7 events | 33912 | 33234 | 26268 | 33783 | 24485 | 38474 |
| | | | | | | | | 85% | 85% | 45% | 84% | 48% | 76% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-235678 | ACIS-235678 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | FAINT | FAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 221.455343 | 221.439805382062 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 1.474060 | 1.496478912603968 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 93.958587 | 94.11563096058391 | [s] Primary exposure time | 0.000000 | 3.2 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | | | |
| [mm] SIM defocus | 0 | 0.001444936568705701 | | | |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | | | |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | | | |
| [s] Observation start time (MET) | 101776154.184000 | 101775125.08658 | | | |
| Observation start date | 2001-03-23T23:08:10 | 2001-03-23T22:52:05 | | | |
| [s] Observation end time (MET) | 101782154.184000 | 101782983.76188 | | | |
| Observation end date | 2001-03-24T00:48:10 | 2001-03-24T01:03:03 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



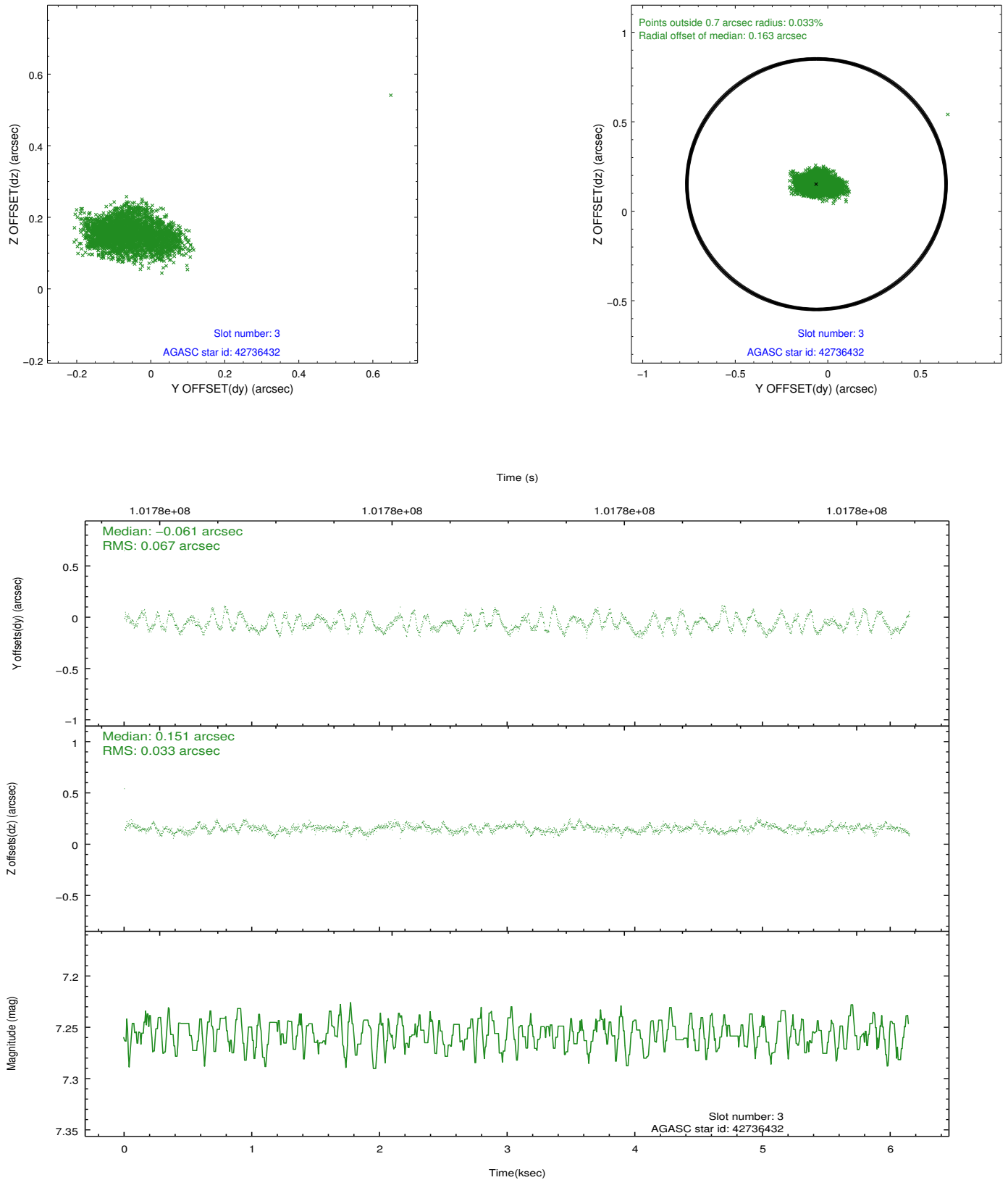


Slot Statistics

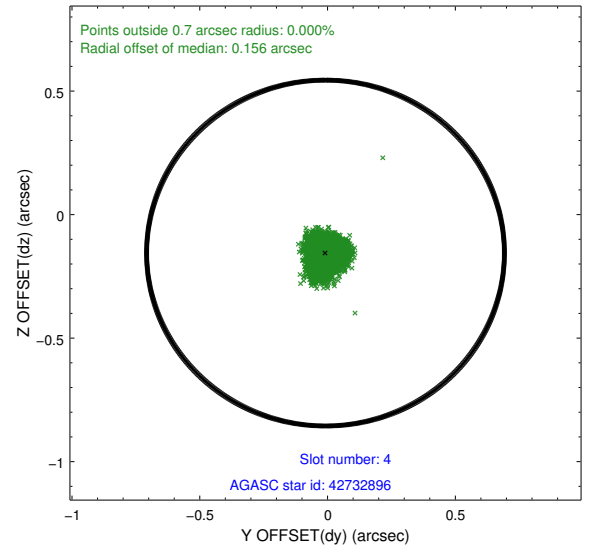
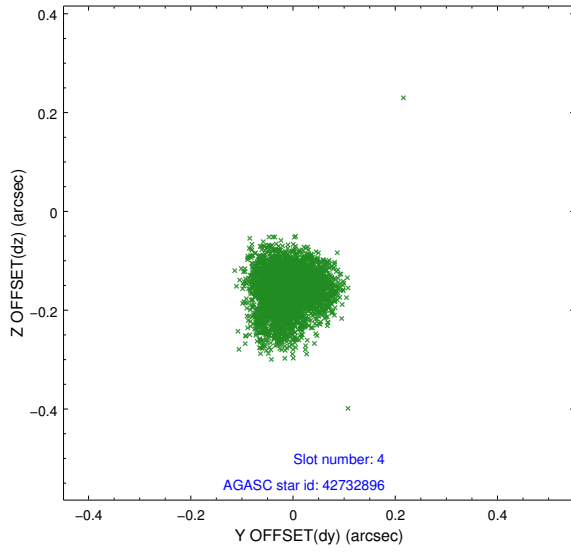
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|----------|------|-------|--------|--------|-------|-------|------------|----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 1499 | -0.015 | 0.010 | 0.007 | 0.012 | 0.000000 | 0.000000 | -755.82 | -1727.67 |
| 1 | FID | ACIS-S-4 | 7.20 | 1500 | -0.040 | 0.005 | 0.006 | 0.011 | 0.000000 | 0.000000 | 2156.98 | 179.85 |
| 2 | FID | ACIS-S-5 | 7.23 | 1500 | 0.024 | -0.005 | 0.007 | 0.012 | 0.000000 | 0.000000 | -1807.41 | 174.55 |
| 3 | GUIDE | 42736432 | 7.26 | 3000 | -0.061 | 0.151 | 0.078 | 0.123 | 221.856795 | 2.035715 | 1918.06 | -1580.84 |
| 4 | GUIDE | 42732896 | 7.78 | 3000 | -0.008 | -0.156 | 0.066 | 0.101 | 220.804479 | 1.824716 | 1421.99 | 2248.00 |
| 5 | GUIDE | 42737888 | 8.09 | 3000 | -0.158 | -0.057 | 0.042 | 0.068 | 221.189651 | 2.024618 | 2043.82 | 817.08 |
| 6 | GUIDE | 42739912 | 9.06 | 3000 | -0.017 | 0.198 | 0.074 | 0.121 | 221.944411 | 1.831113 | 1162.31 | -1844.41 |
| 7 | GUIDE | 42739904 | 9.42 | 2998 | 0.243 | -0.136 | 0.093 | 0.152 | 221.063801 | 1.147543 | -1074.60 | 1485.34 |

2.4 Star Slots

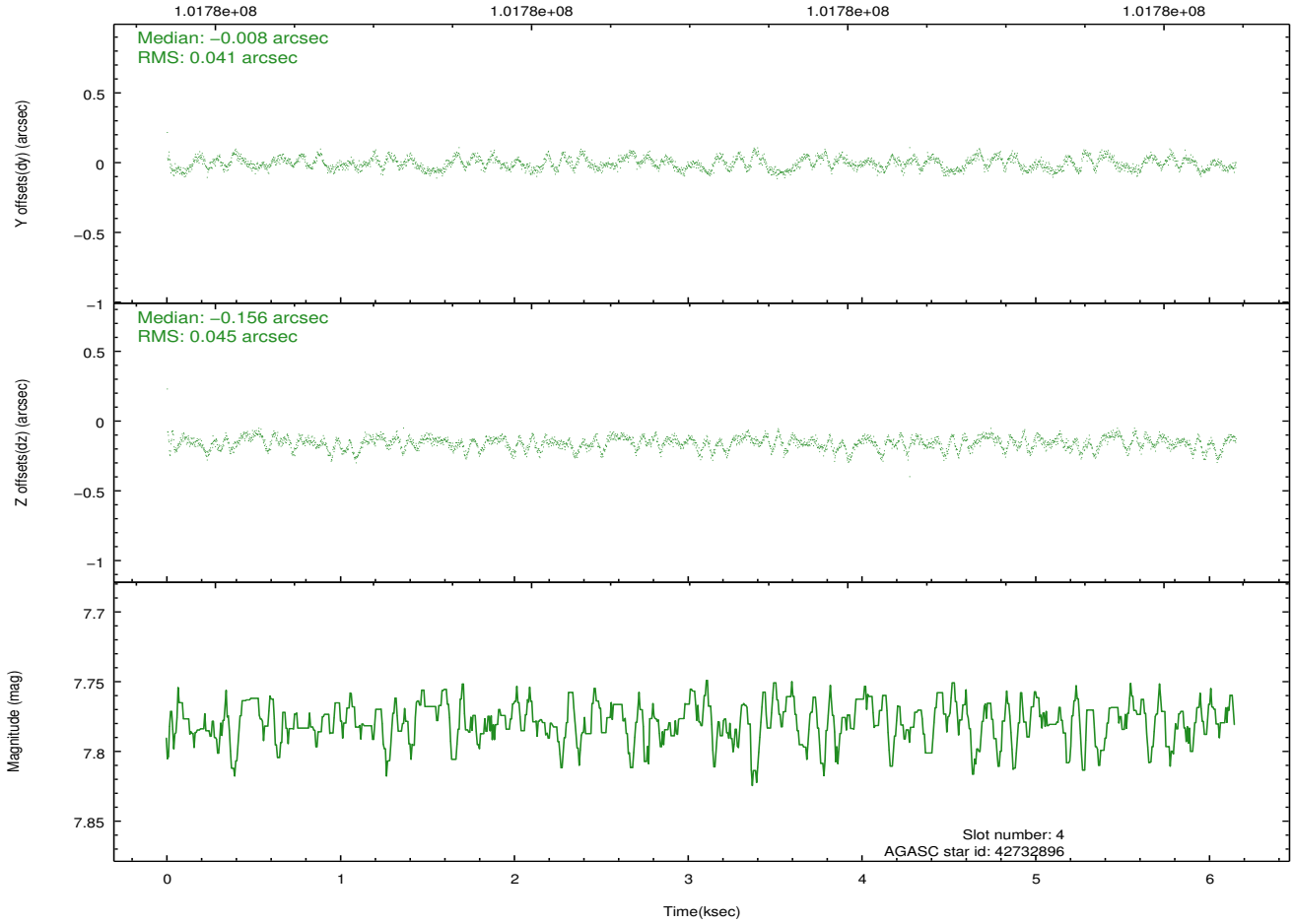
2.4.1 Slot 3



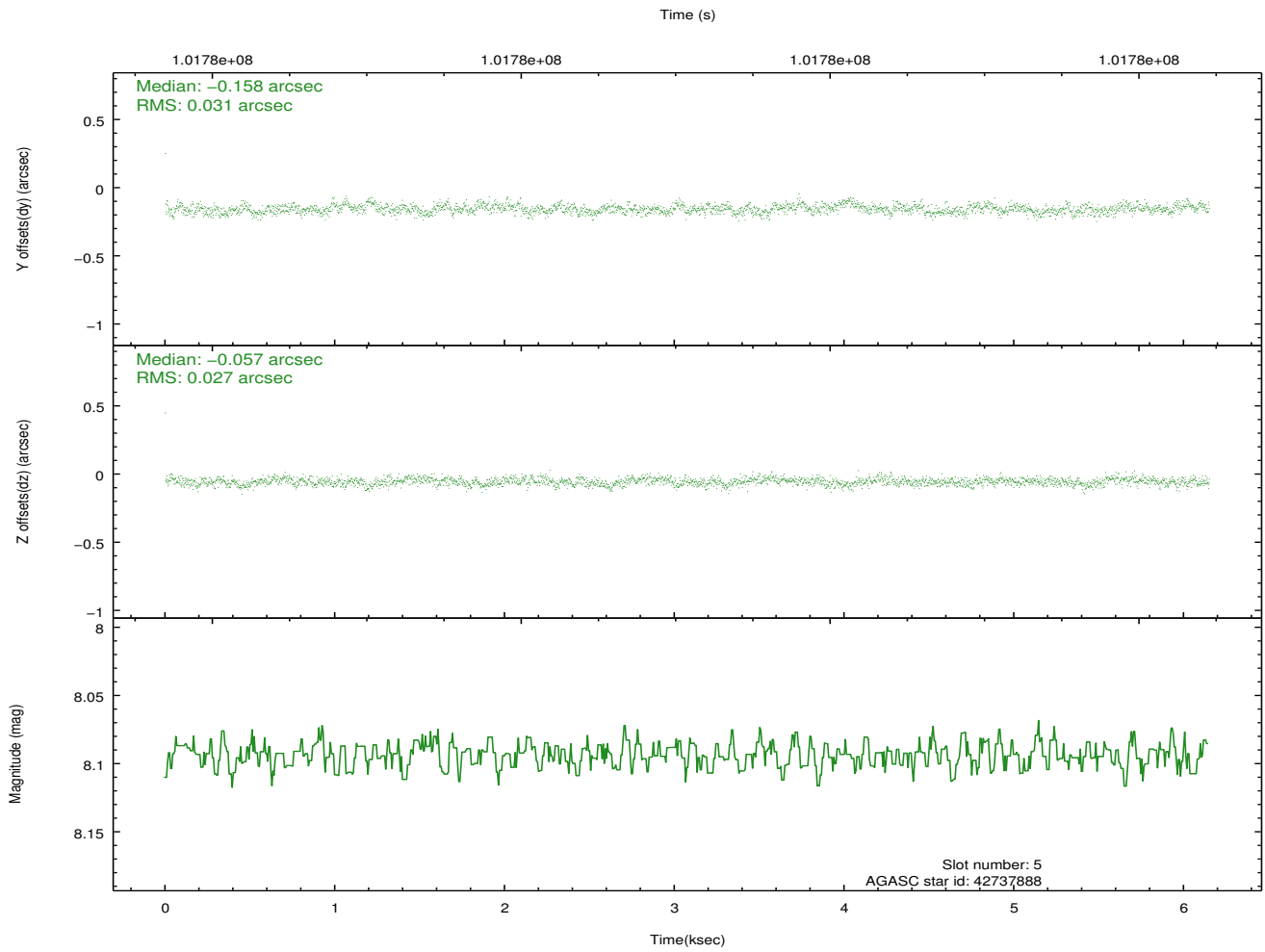
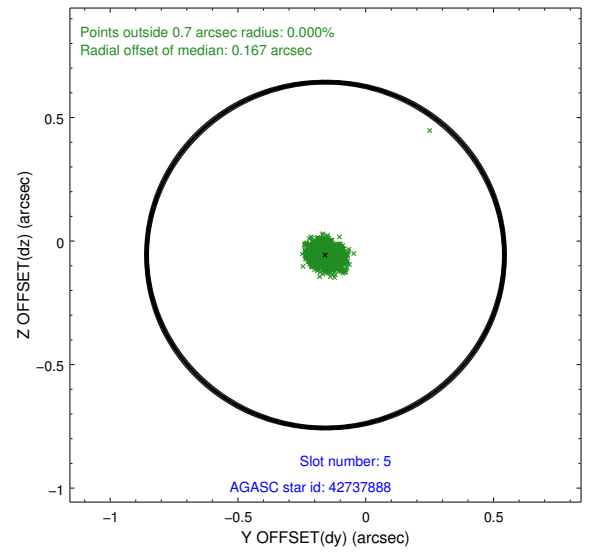
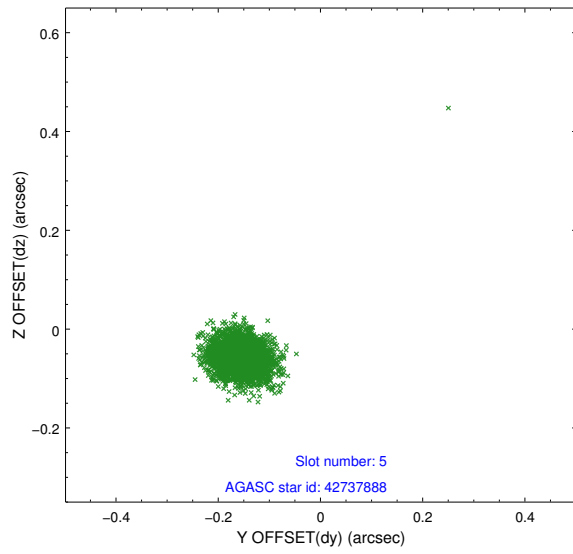
2.4.2 Slot 4



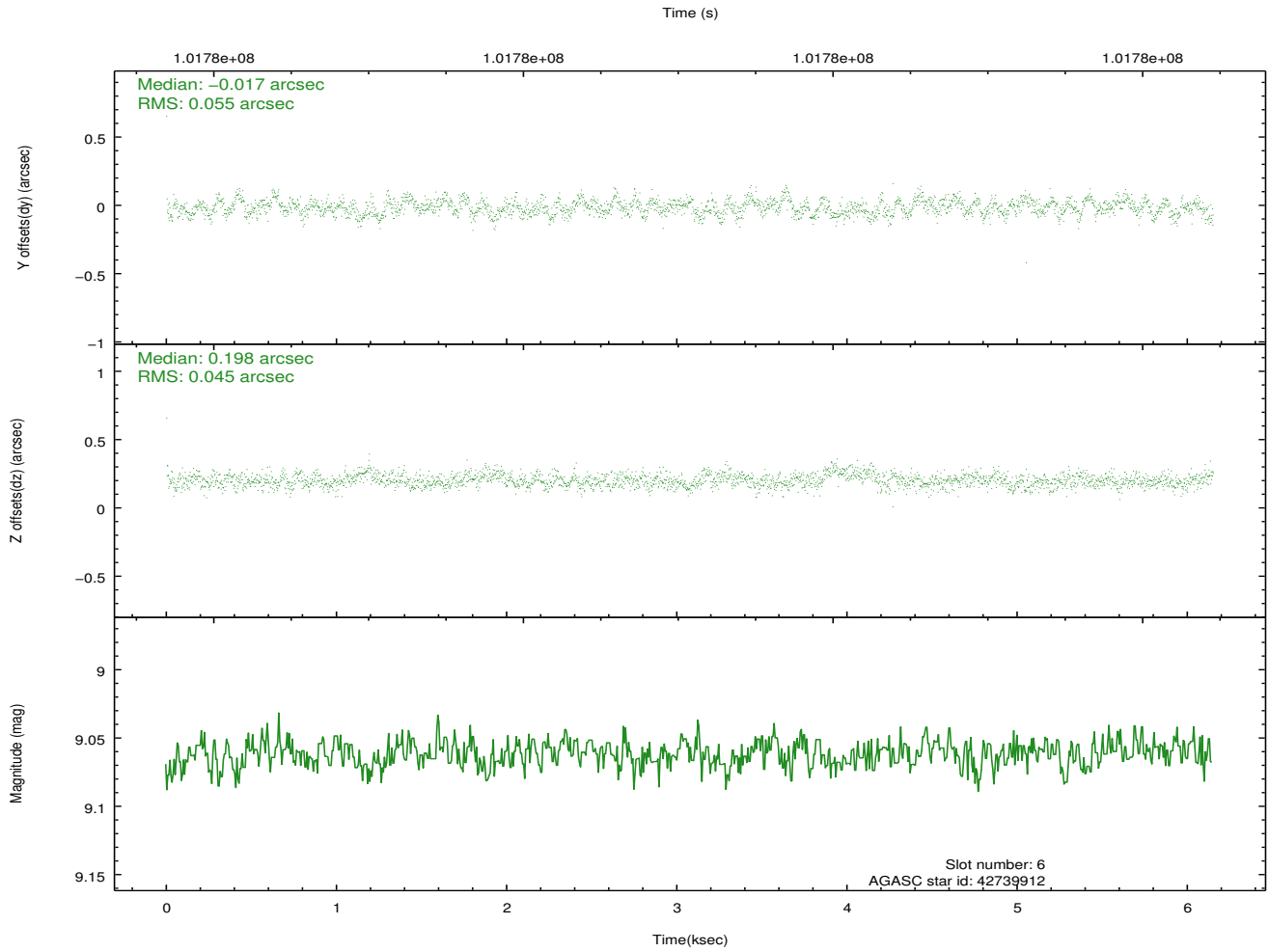
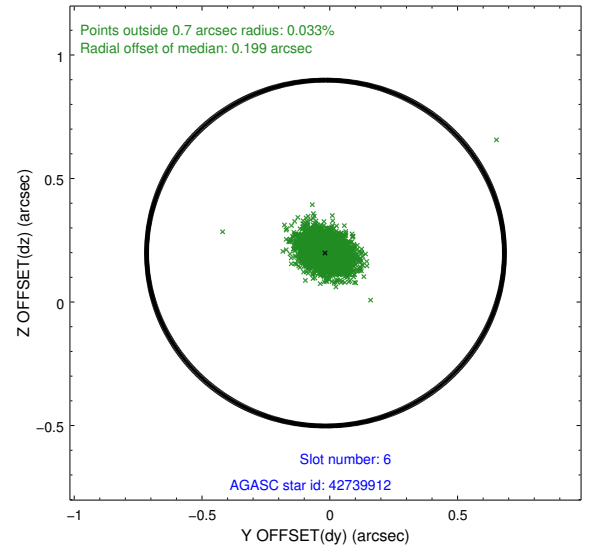
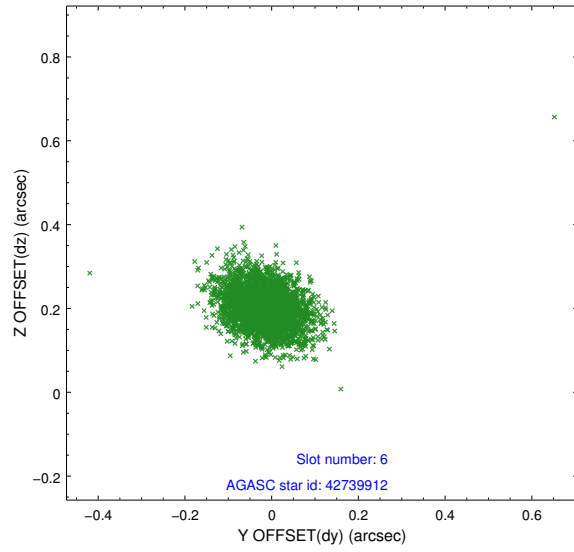
Time (s)



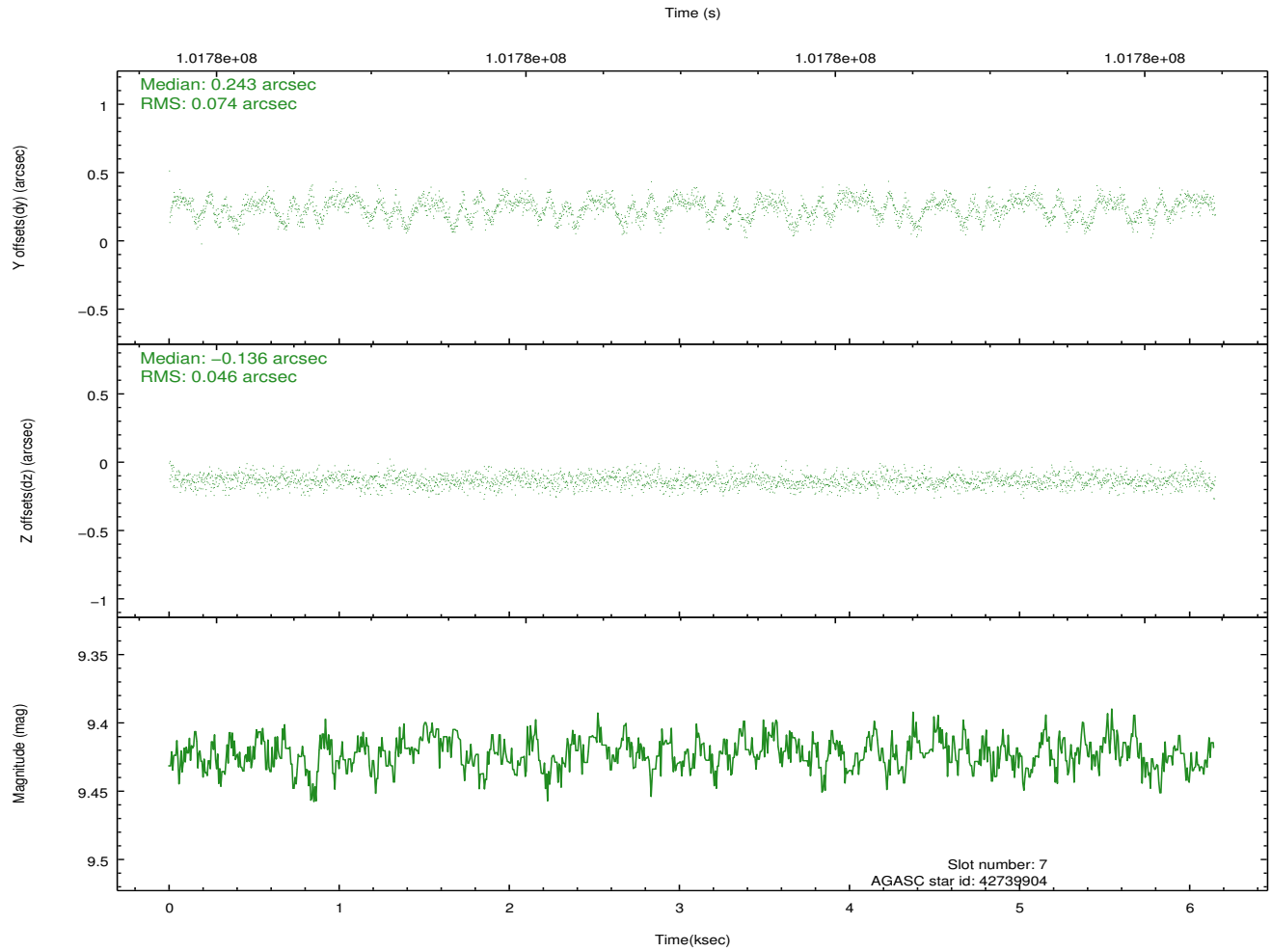
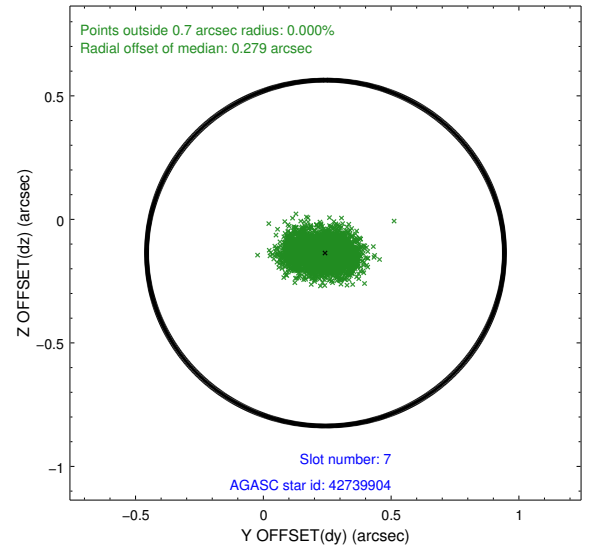
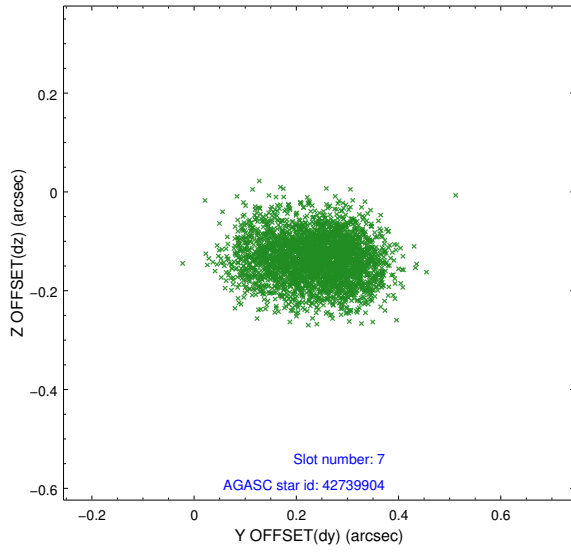
2.4.3 Slot 5



2.4.4 Slot 6

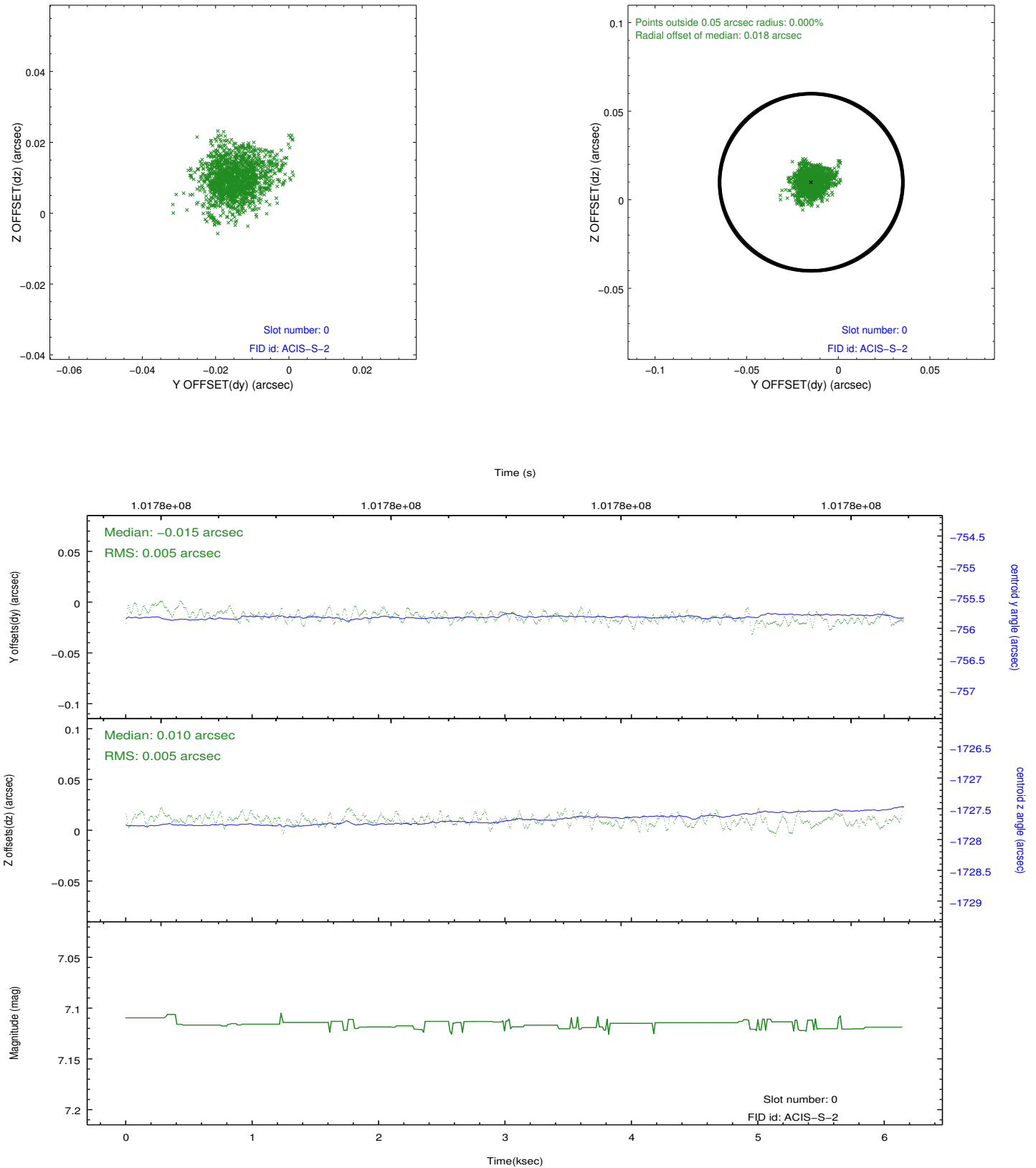


2.4.5 Slot 7

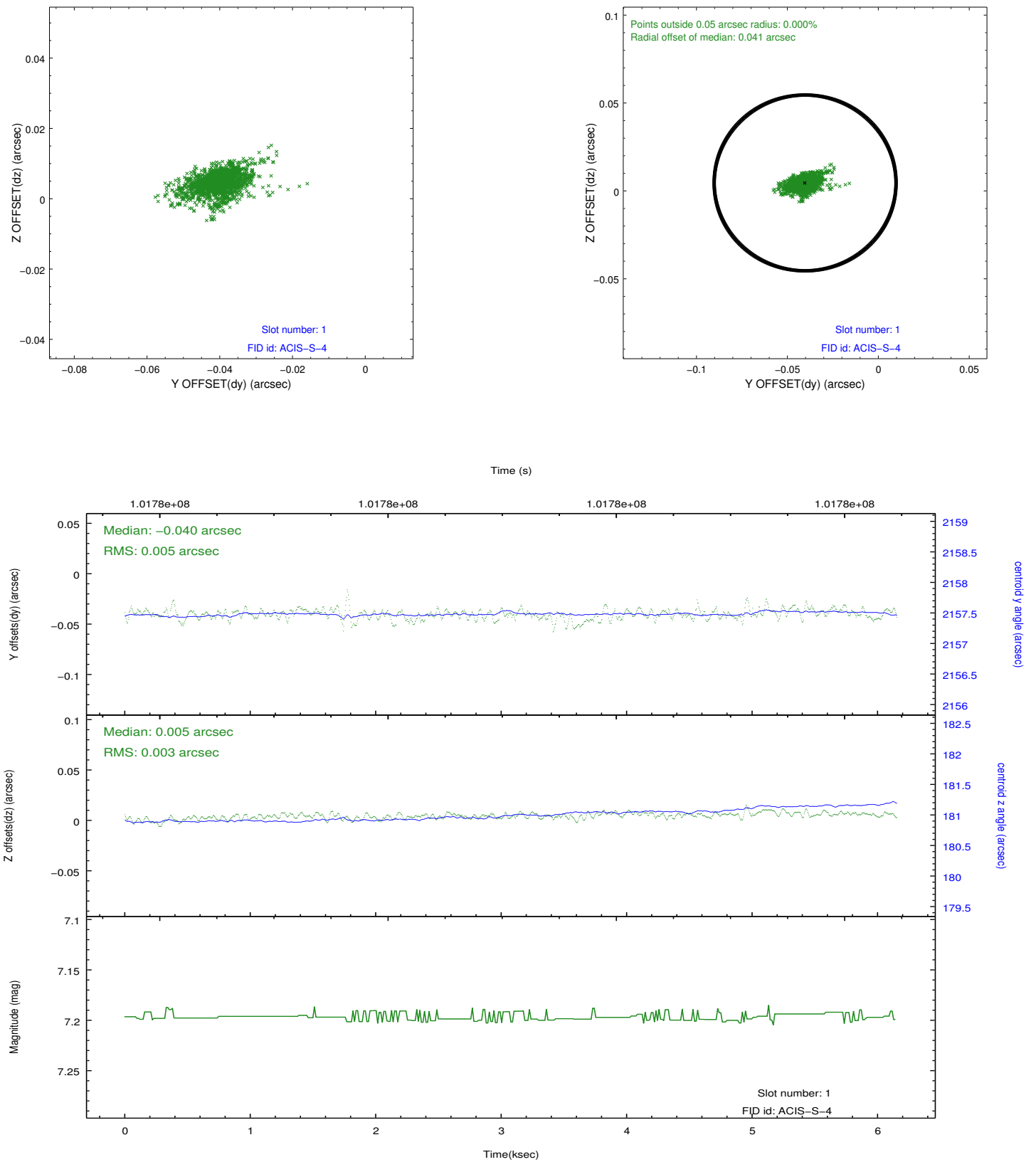


2.5 FID Slots

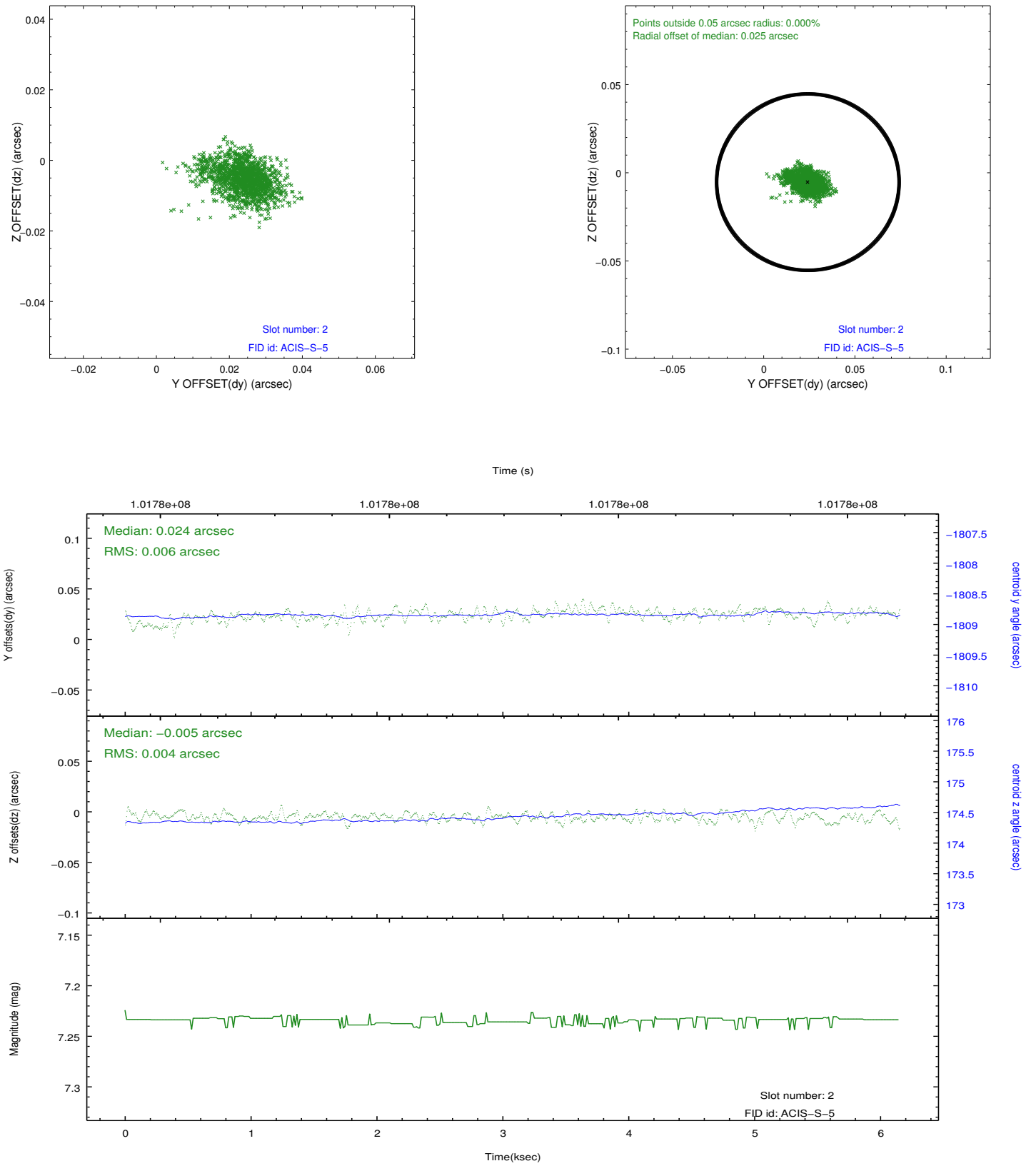
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.09.18 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 6 |

A.2 Comments