

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 22633 - L2 Version 1
Chandra X-Ray Center

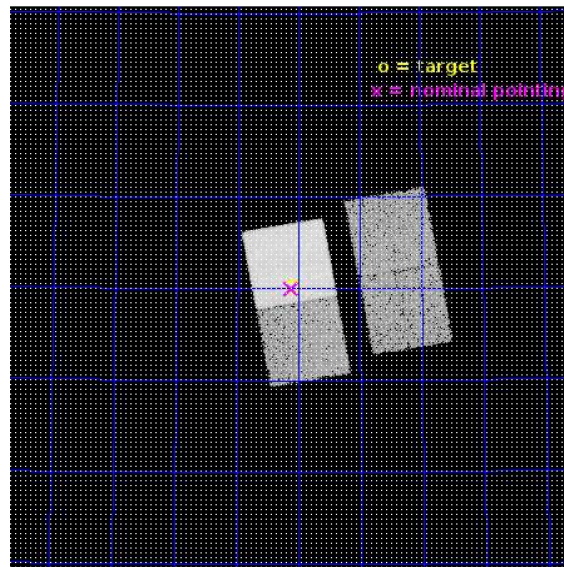
L2 Processing Date : Nov 18 2019

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1 Front

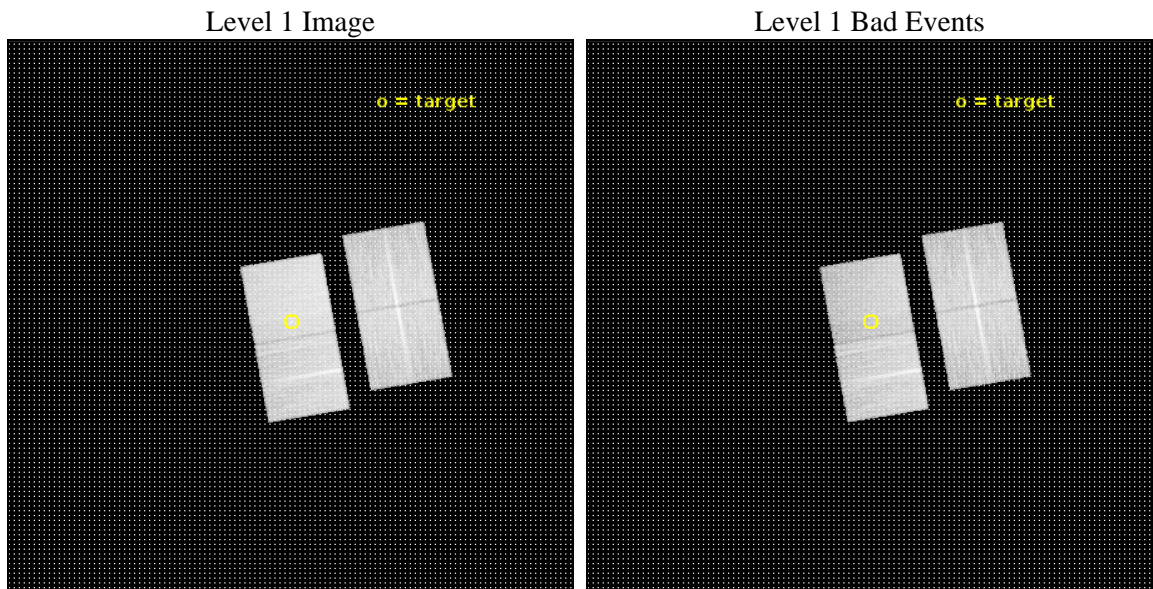
| | | |
|----------|--|---|
| seq_num | 704017 | Sequence number |
| obs_id | 22633 | Observation id |
| title | XRAYING THE UNKNOWN 3CR EXTRAGALACTIC SKY | Proposal title |
| observer | Francesco Massaro | Principal investigator |
| object | 3CR 454.2 | Source name |
| dtycycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 343.021667 | Observer's specified target RA [deg] |
| dec_targ | 64.670306 | Observer's specified target Dec [deg] |
| ra_nom | 343.03007651432 | Nominal RA [deg] |
| dec_nom | 64.666462585708 | Nominal Dec [deg] |
| roll_nom | 259.98258843242 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 20066.300154448 | Sum of GTIs [s] |
| livetime | 19804.119170334 | Livetime [s] |
| ontime2 | 20063.15908432 | Sum of GTIs [s] |
| ontime3 | 20066.300154448 | Sum of GTIs [s] |
| ontime6 | 20066.300154448 | Sum of GTIs [s] |
| ontime7 | 20066.300154448 | Sum of GTIs [s] |
| l2events | 127781 | Number of level 2 events |



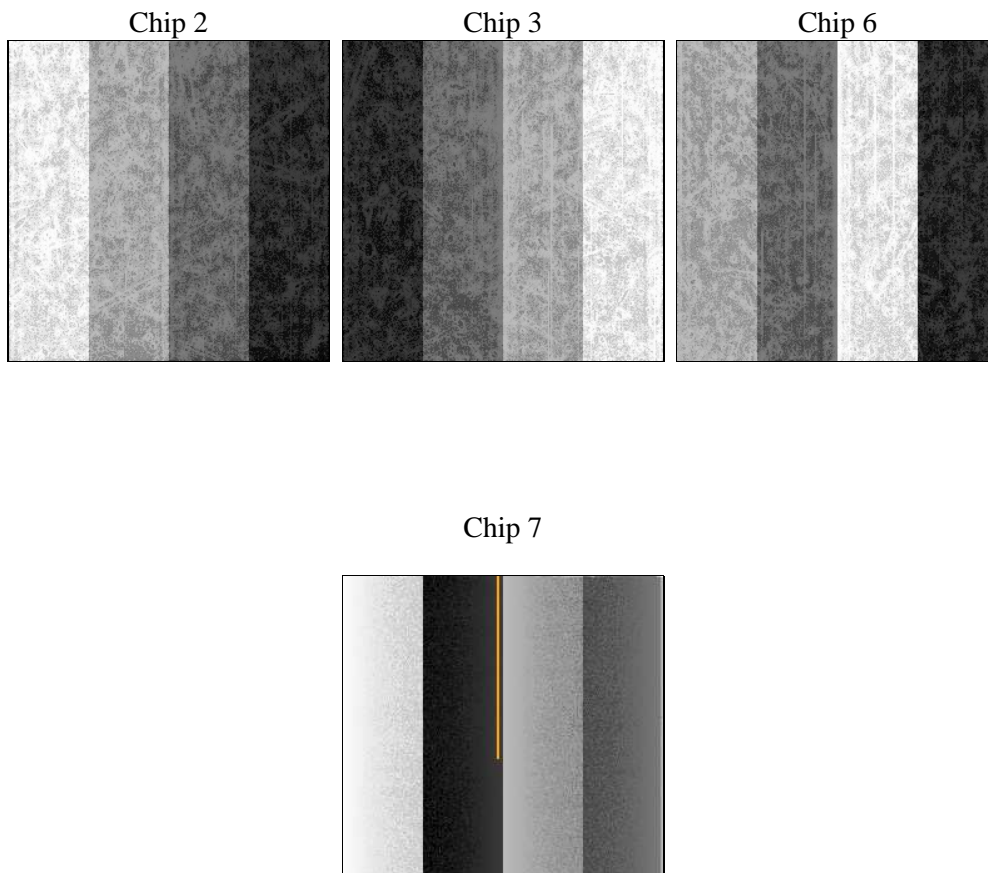
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 20000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.8.1 | Processing system revision | ontime | 20066.300154448 | Sum of GTIs [s] |
| caldbver | 4.8.4.2 | | ontime2 | 20063.15908432 | Sum of GTIs [s] |
| date | 2019-11-18T15:45:13 | Date and time of file creation | ontime3 | 20066.300154448 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime6 | 20066.300154448 | Sum of GTIs [s] |
| | | | ontime7 | 20066.300154448 | Sum of GTIs [s] |
| | | | l1events | 688182 | Number of level 1 events |

2.1.4 Events

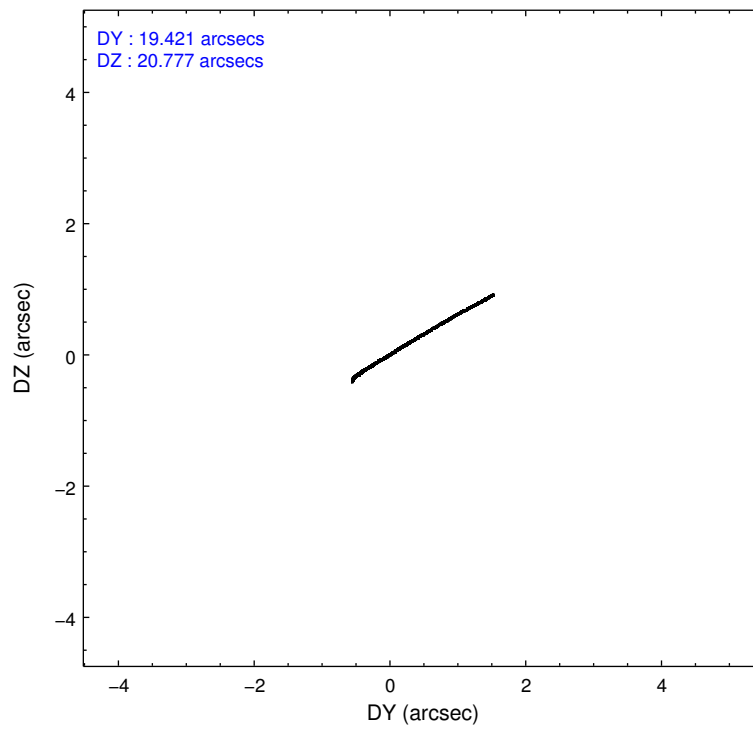
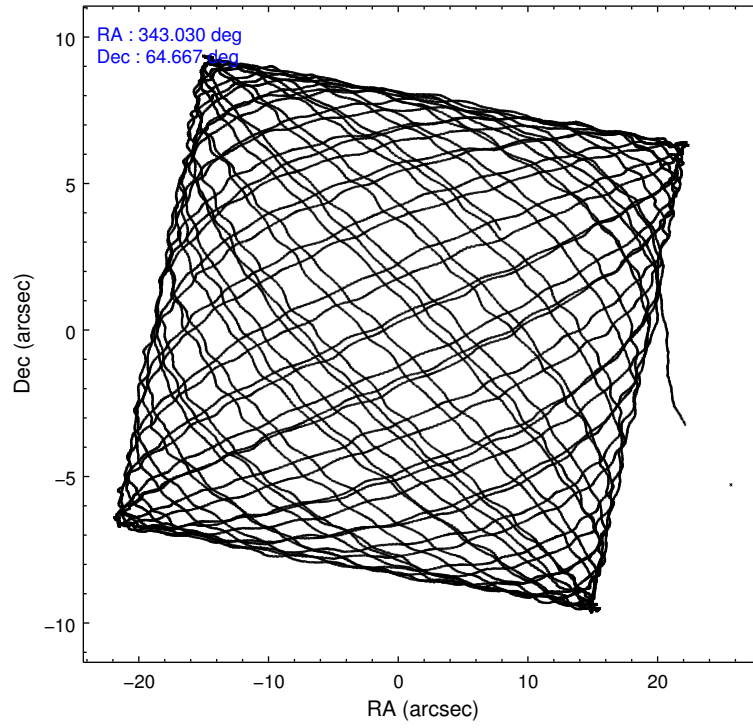
| | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|
| level 1 events | 158568 | 156995 | 169719 | 202900 |
| rejected events | 142754 | 141339 | 152164 | 115684 |
| rejected % | 90% | 90% | 89% | 57% |

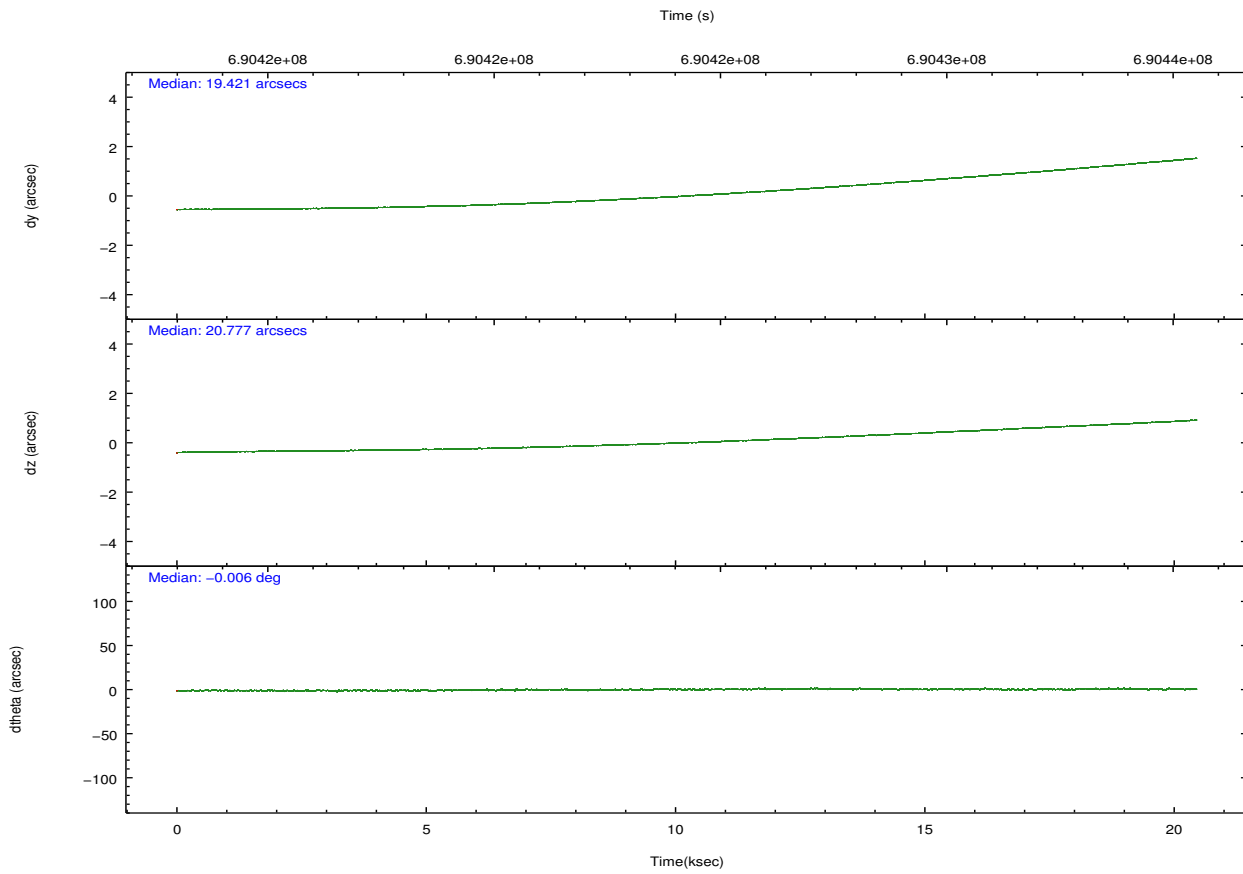
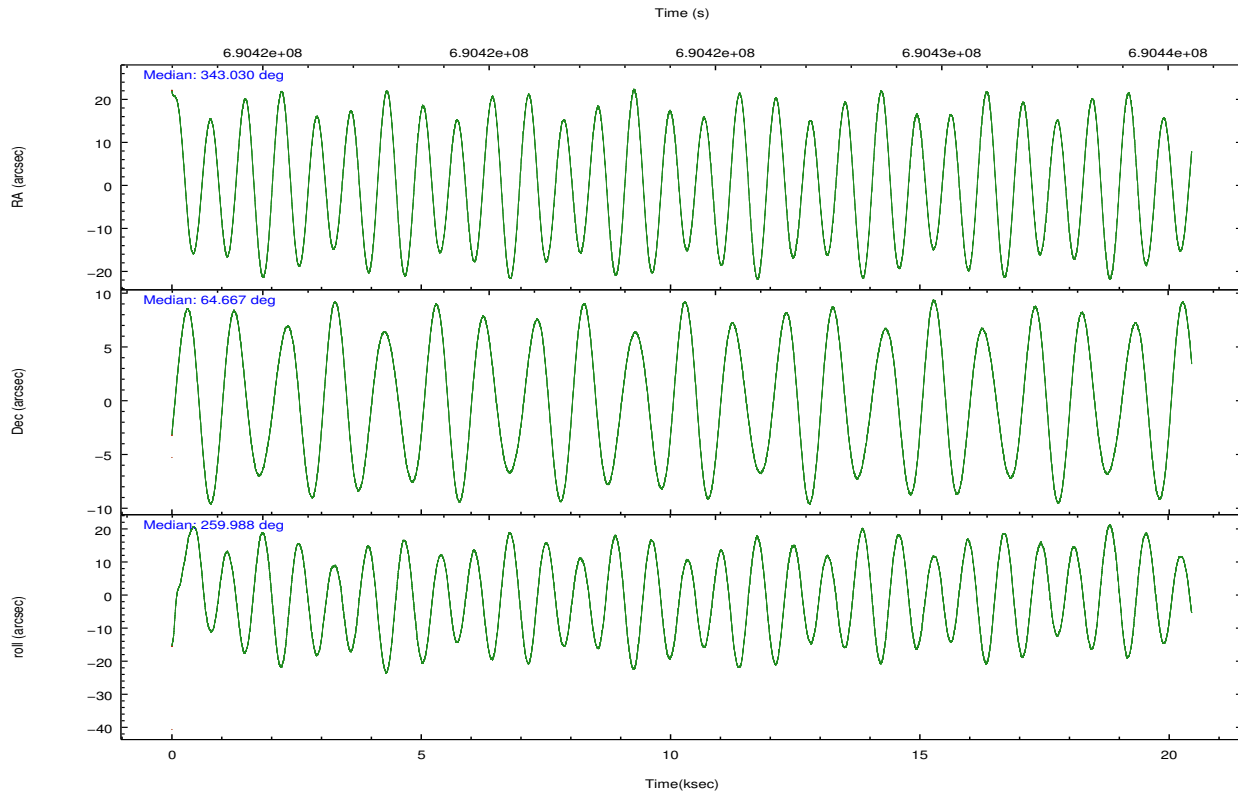
| | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|----------------|--------|--------|--------|-------|
| grade 0 events | 5559 | 5125 | 4481 | 7244 |
| | 3% | 3% | 2% | 3% |
| grade 1 events | 84 | 75 | 63 | 295 |
| | 0% | 0% | 0% | 0% |
| grade 2 events | 3855 | 3625 | 5214 | 18112 |
| | 2% | 2% | 3% | 8% |
| grade 3 events | 1523 | 1618 | 1333 | 6676 |
| | 0% | 1% | 0% | 3% |
| grade 4 events | 1539 | 1551 | 1366 | 6708 |
| | 0% | 0% | 0% | 3% |
| grade 5 events | 5416 | 6862 | 6332 | 18992 |
| | 3% | 4% | 3% | 9% |
| grade 6 events | 3345 | 3744 | 5166 | 48500 |
| | 2% | 2% | 3% | 23% |
| grade 7 events | 137247 | 134395 | 145764 | 96373 |
| | 86% | 85% | 85% | 47% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-2367 | ACIS-2367 | 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 | 343.007324 | 343.0300765143188 | CCD I2 on | O1 | Y |
| [deg] Pointing Dec | 64.692099 | 64.66646258570839 | CCD I3 on | O2 | Y |
| [deg] Pointing Roll | 259.846531 | 259.9825884324158 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | CCD S1 on | N | N |
| [mm] SIM defocus | 0 | 0.001444936568705701 | CCD S2 on | Y | 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 | N | N |
| [s] Observation start time (MET) | 690414466.184000 | 690413451.6129301 | CCD S5 on | N | N |
| Observation start date | 2019-11-17T21:46:37 | 2019-11-17T21:30:51 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 690434466.184000 | 690435096.02674 | On-chip summing requested | N | N |
| Observation end date | 2019-11-18T03:19:57 | 2019-11-18T03:31:36 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect





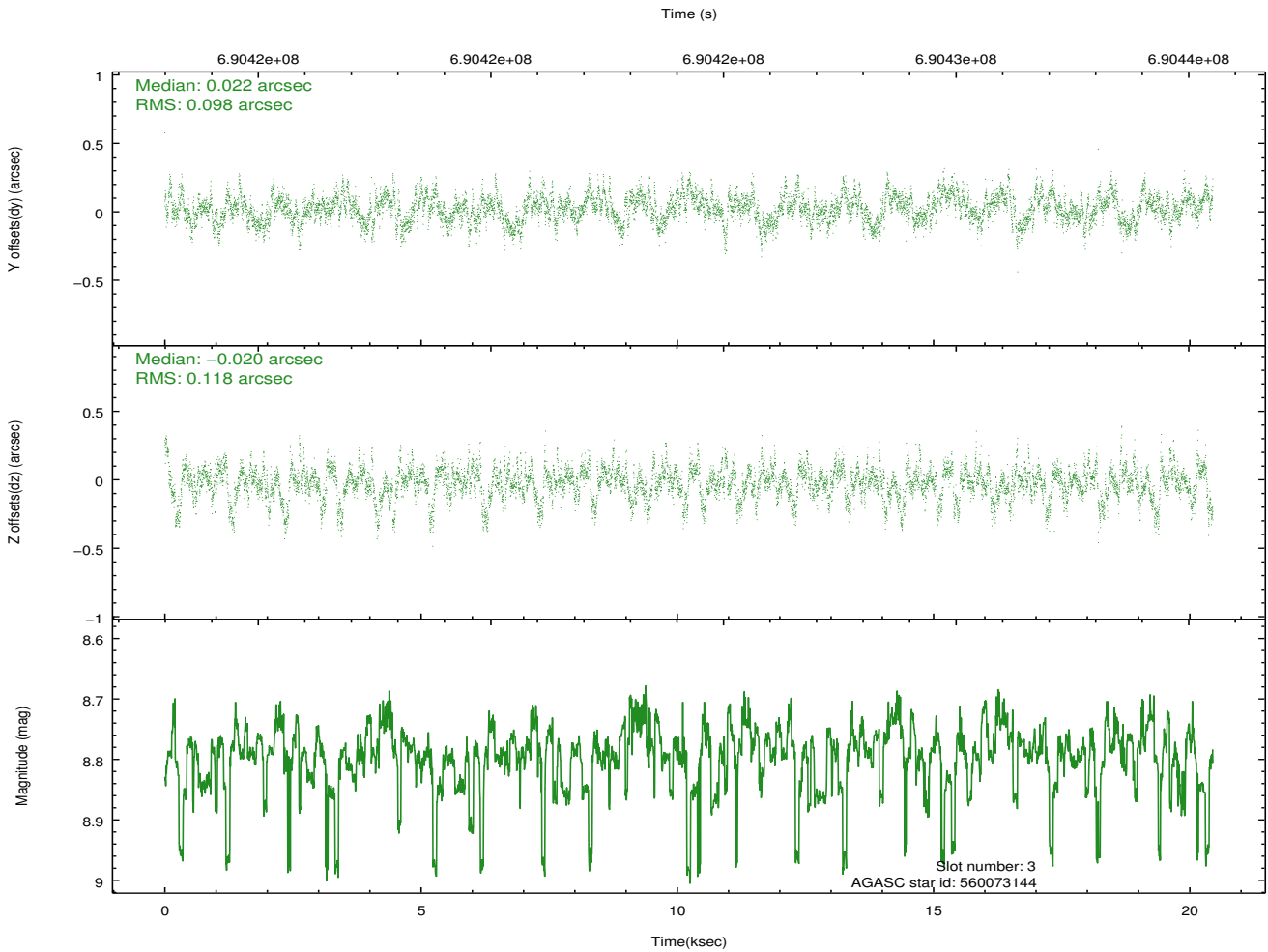
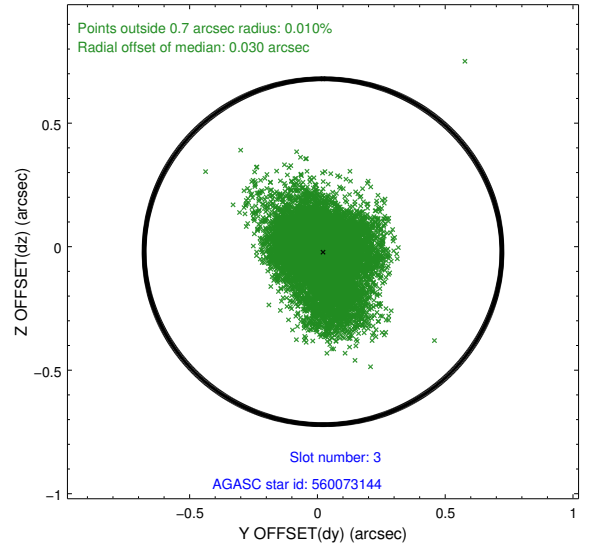
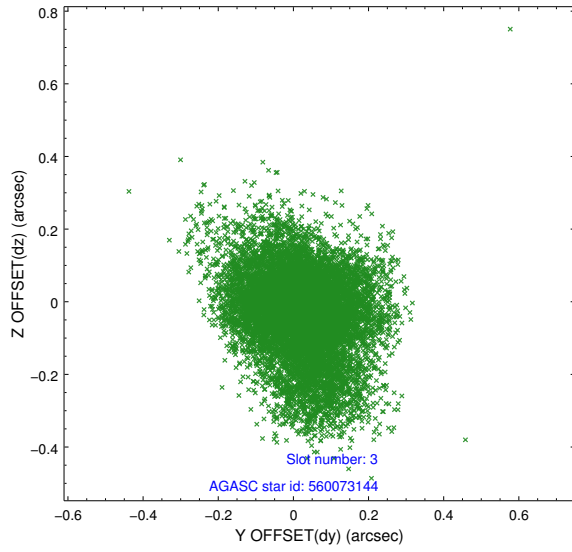
Slot Statistics

| ot | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|----|--------|------|-----------|------|-------|----------|--------|--------|-------|-------|------------|-----------|----------|-------|
| 0 | FID | | ACIS-S-2 | 7.22 | 4988 | 1.000 | -0.377 | -0.316 | 0.015 | 0.027 | 0.000000 | 0.000000 | -773.00 | -1742 |
| 1 | FID | | ACIS-S-4 | 7.31 | 4989 | 1.000 | 0.855 | 0.267 | 0.020 | 0.030 | 0.000000 | 0.000000 | 2141.37 | 166 |
| 2 | FID | | ACIS-S-5 | 7.27 | 4988 | 1.000 | -0.507 | 0.057 | 0.026 | 0.036 | 0.000000 | 0.000000 | -1825.81 | 159 |
| 3 | GUIDE | used | 560073144 | 8.79 | 9962 | 1.000 | 0.022 | -0.020 | 0.159 | 0.276 | 342.720199 | 64.561336 | 541.67 | -354 |
| 4 | GUIDE | used | 560077512 | 7.31 | 9976 | 1.000 | 0.389 | 0.173 | 0.108 | 0.192 | 341.970598 | 65.062162 | -1045.79 | -1785 |
| 5 | GUIDE | used | 560079392 | 7.99 | 9976 | 1.000 | 0.121 | 0.031 | 0.121 | 0.207 | 341.749918 | 64.177620 | 2152.21 | -1617 |
| 6 | GUIDE | used | 561783384 | 8.06 | 9975 | 1.000 | -0.054 | 0.385 | 0.114 | 0.178 | 343.125943 | 65.176298 | -1746.58 | -129 |
| 7 | GUIDE | used | 561785120 | 8.06 | 9972 | 1.000 | -0.487 | -0.537 | 0.118 | 0.190 | 343.435449 | 64.391769 | 944.59 | 845 |

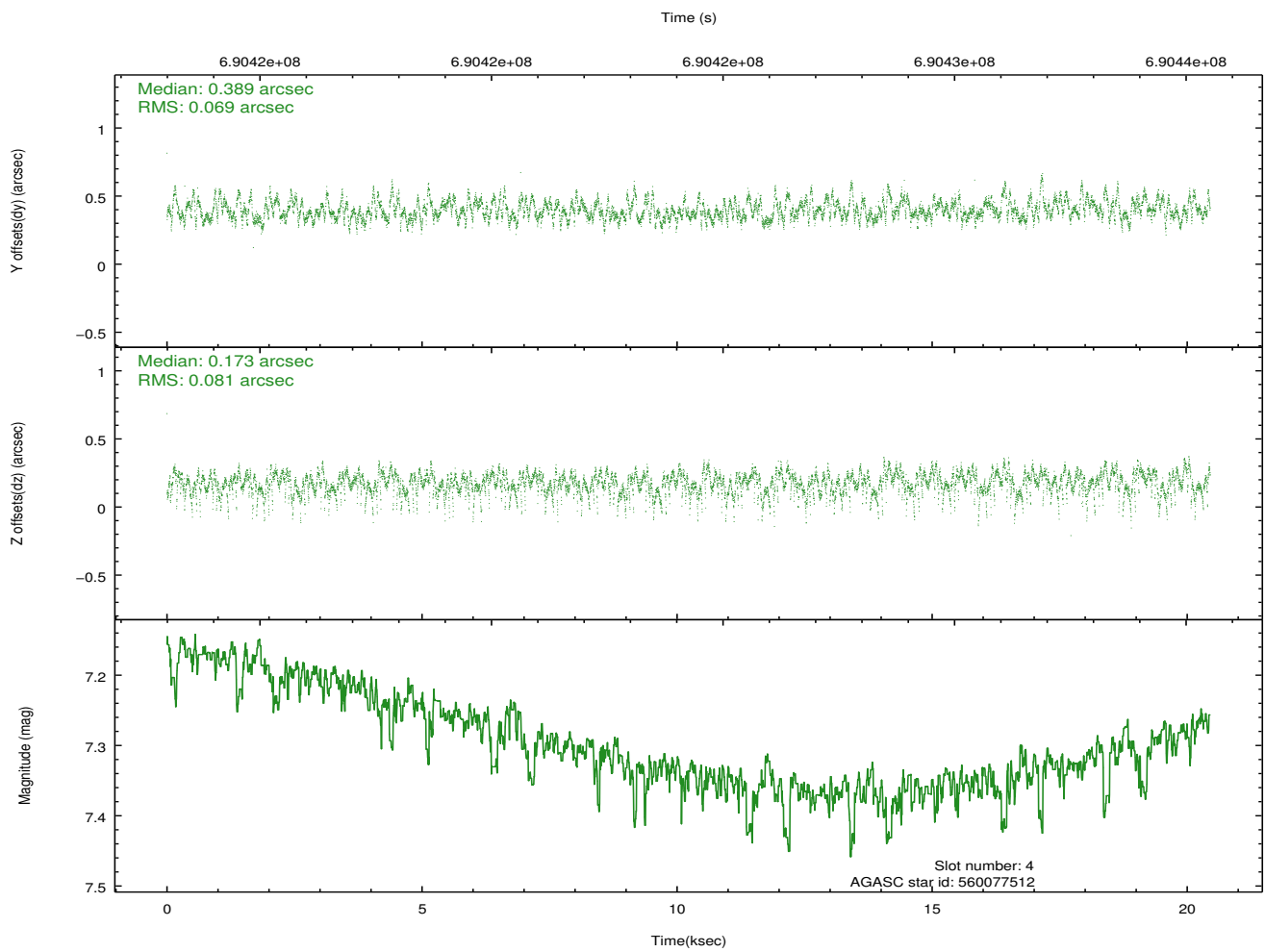
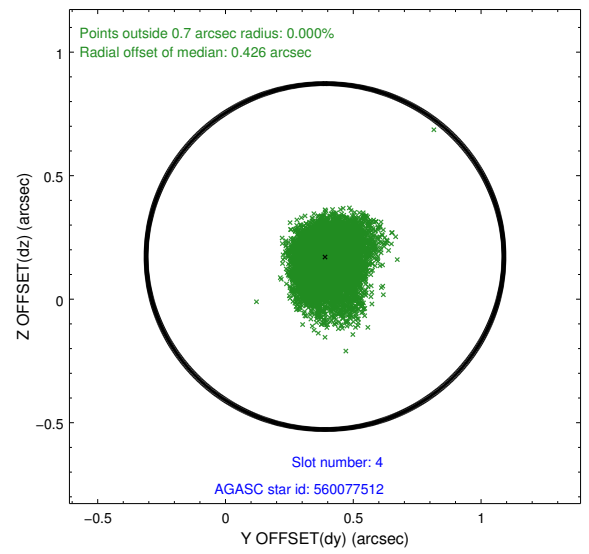
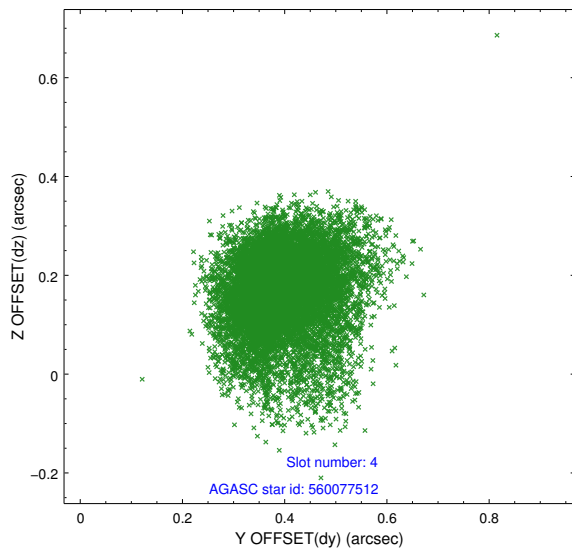
∞

2.4 Star Slots

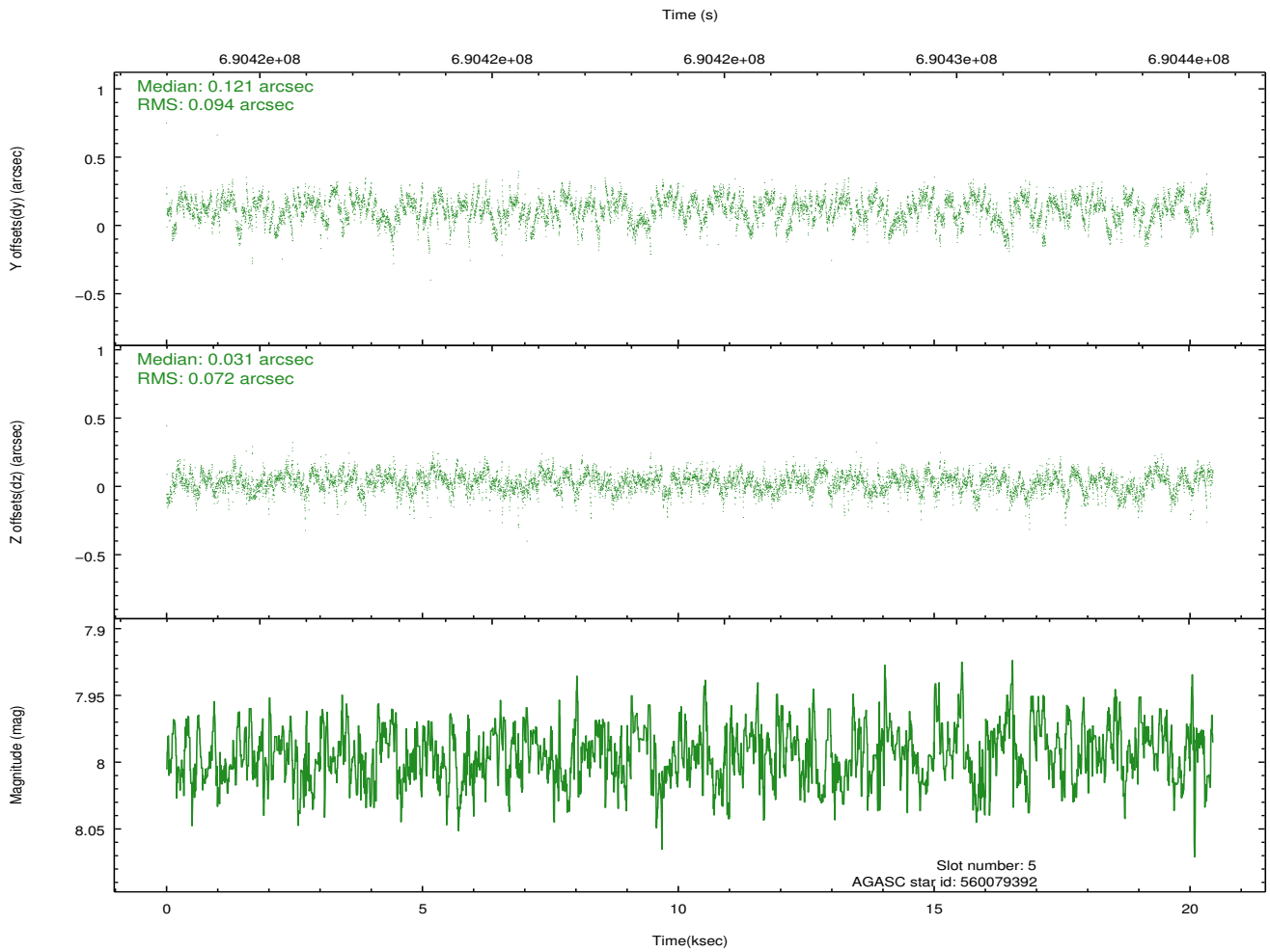
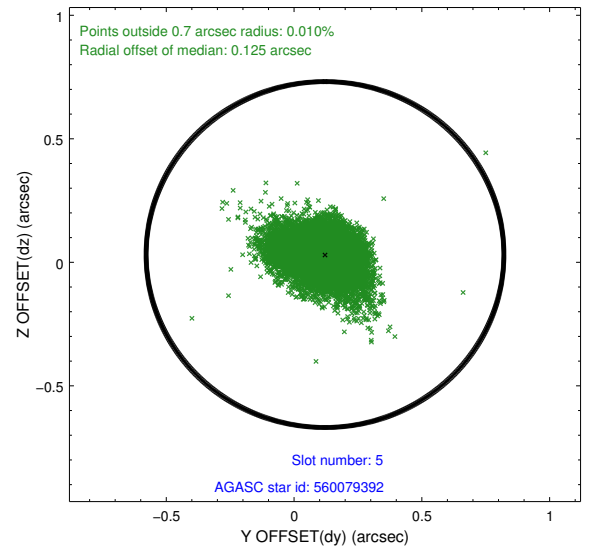
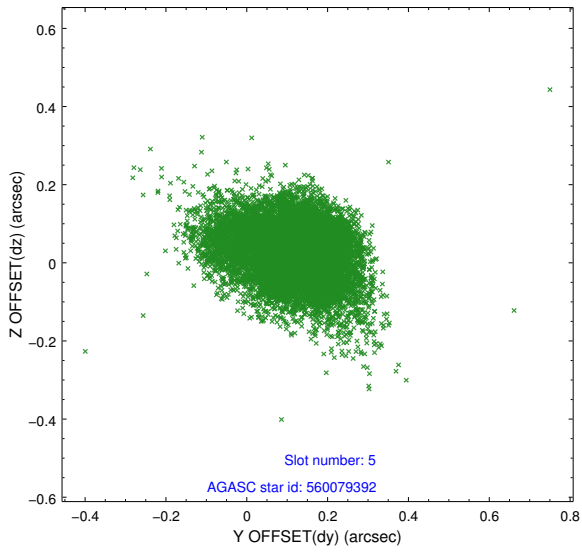
2.4.1 Slot 3



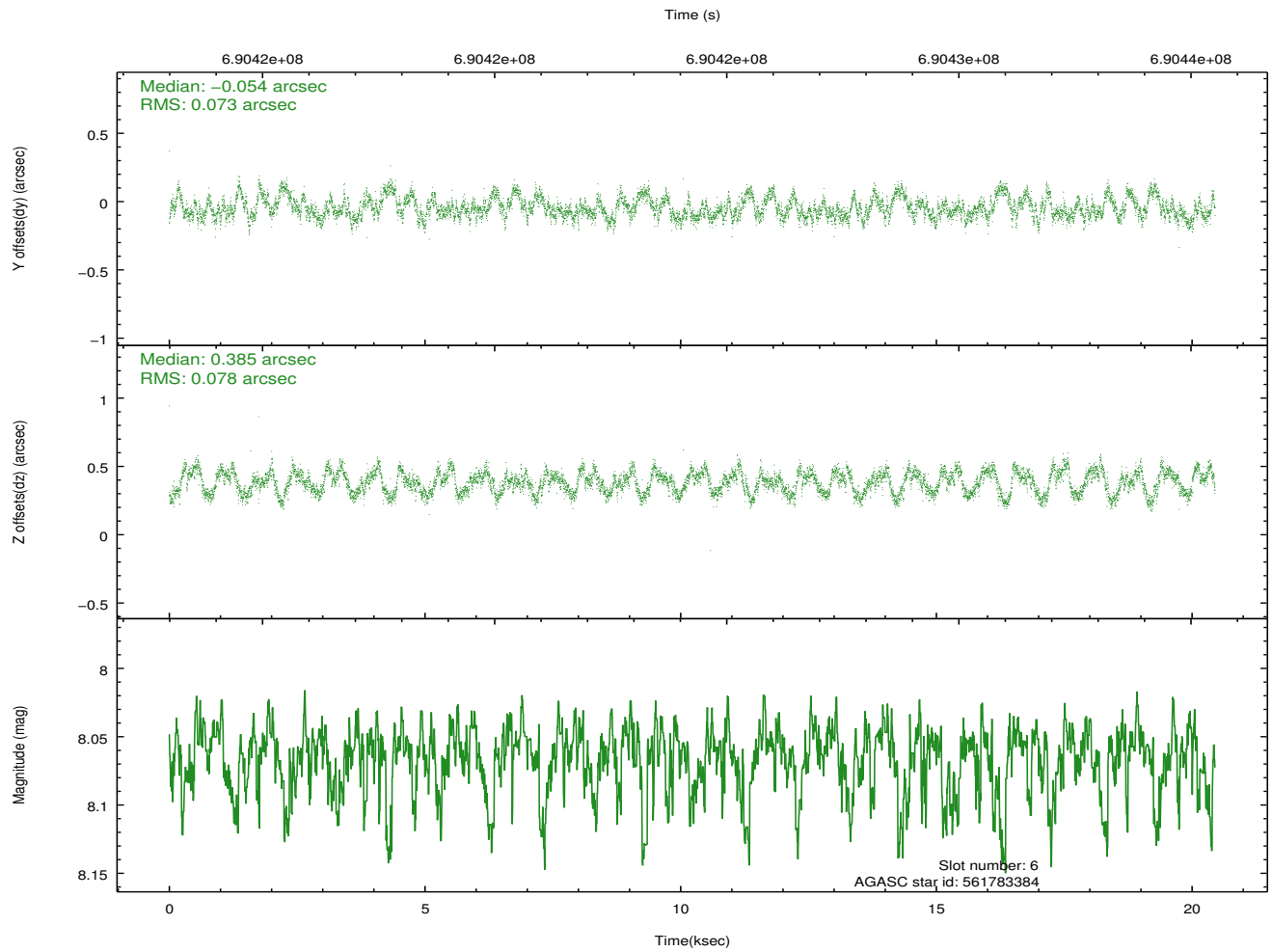
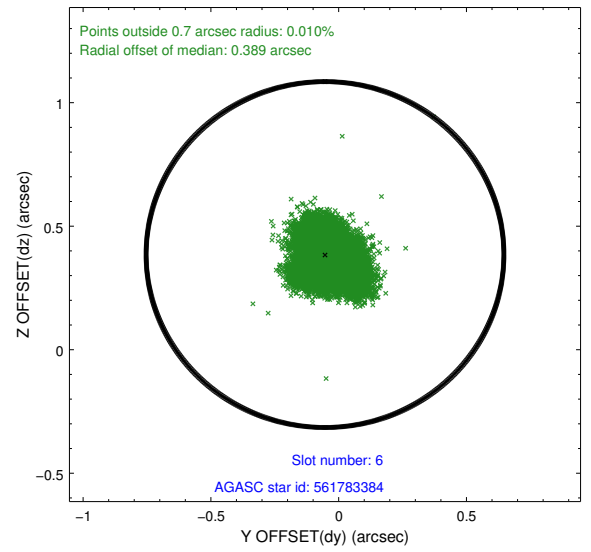
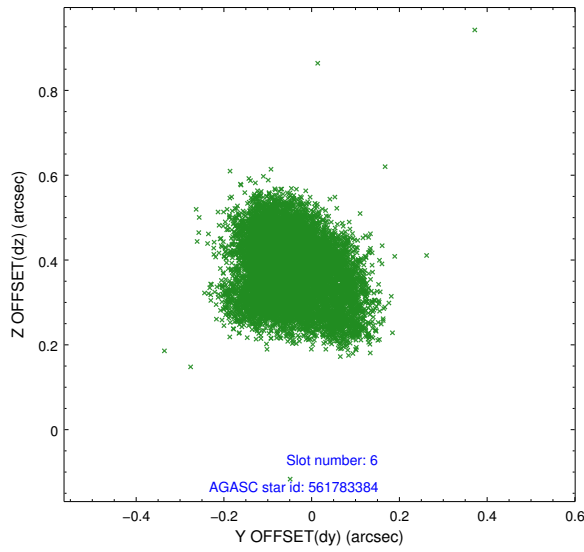
2.4.2 Slot 4



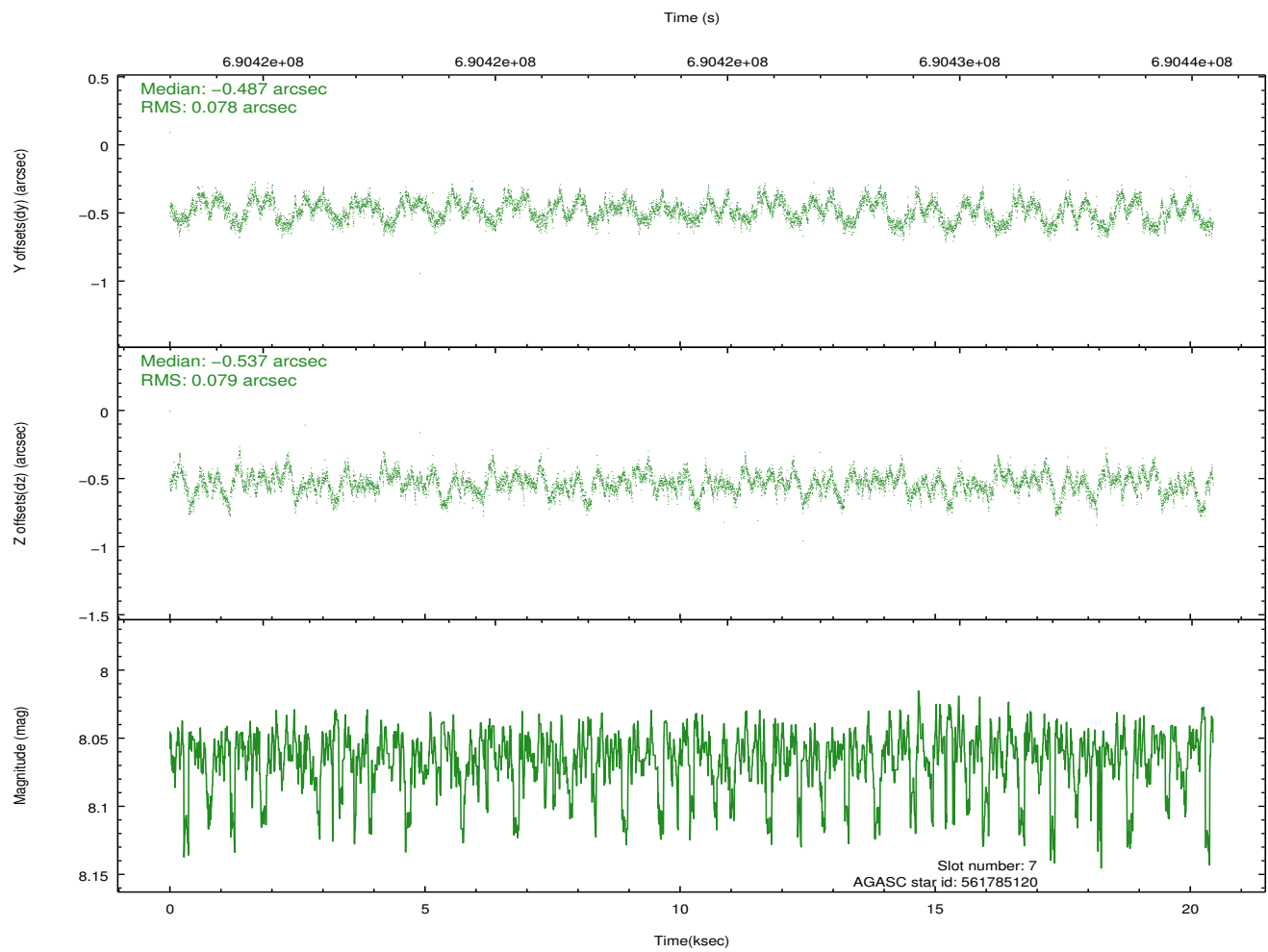
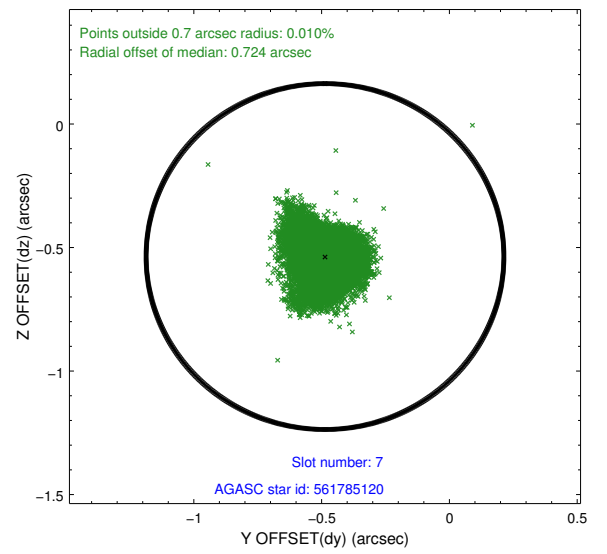
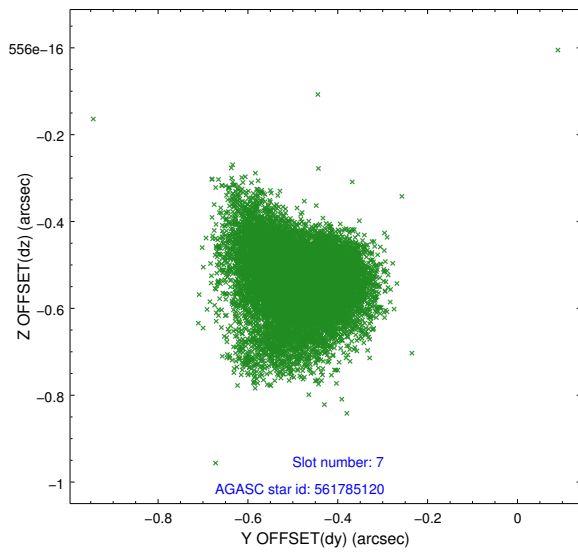
2.4.3 Slot 5



2.4.4 Slot 6

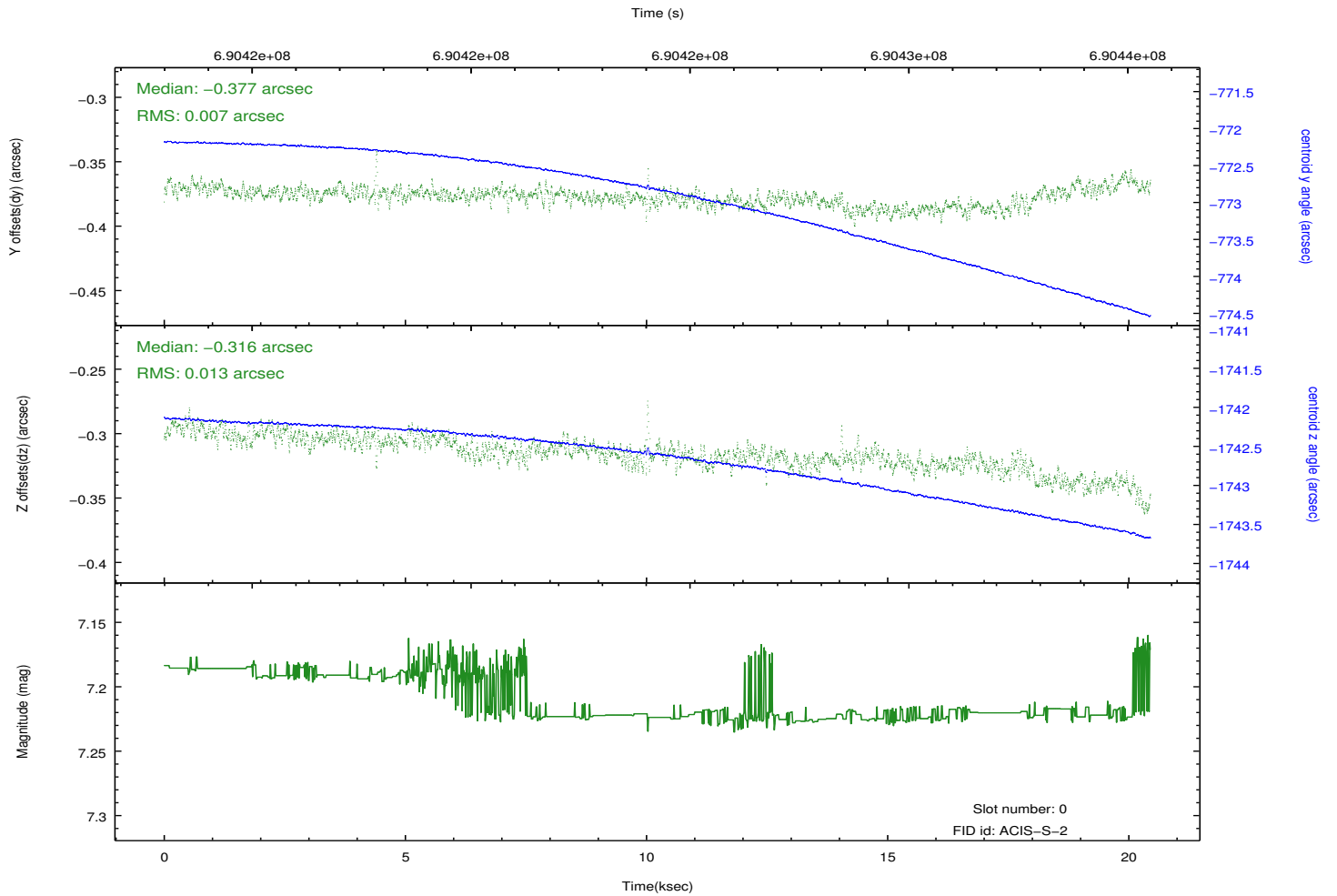
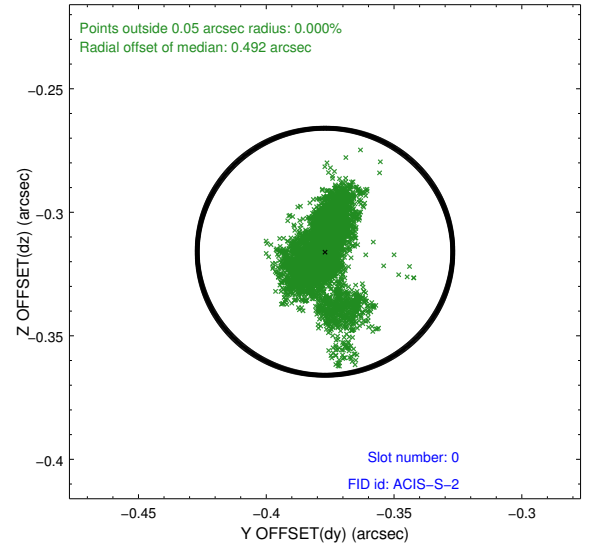
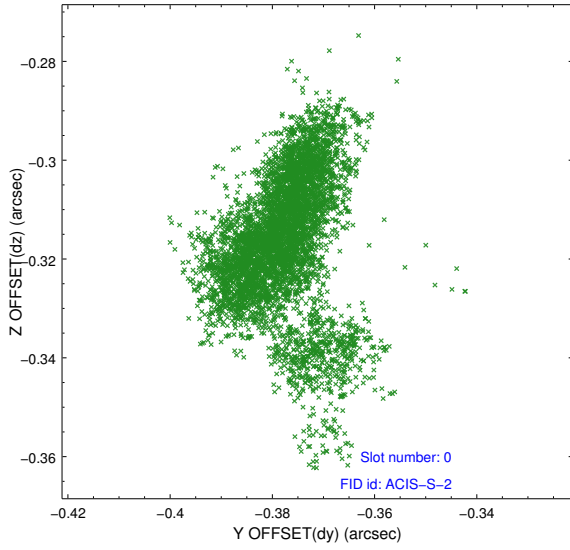


2.4.5 Slot 7

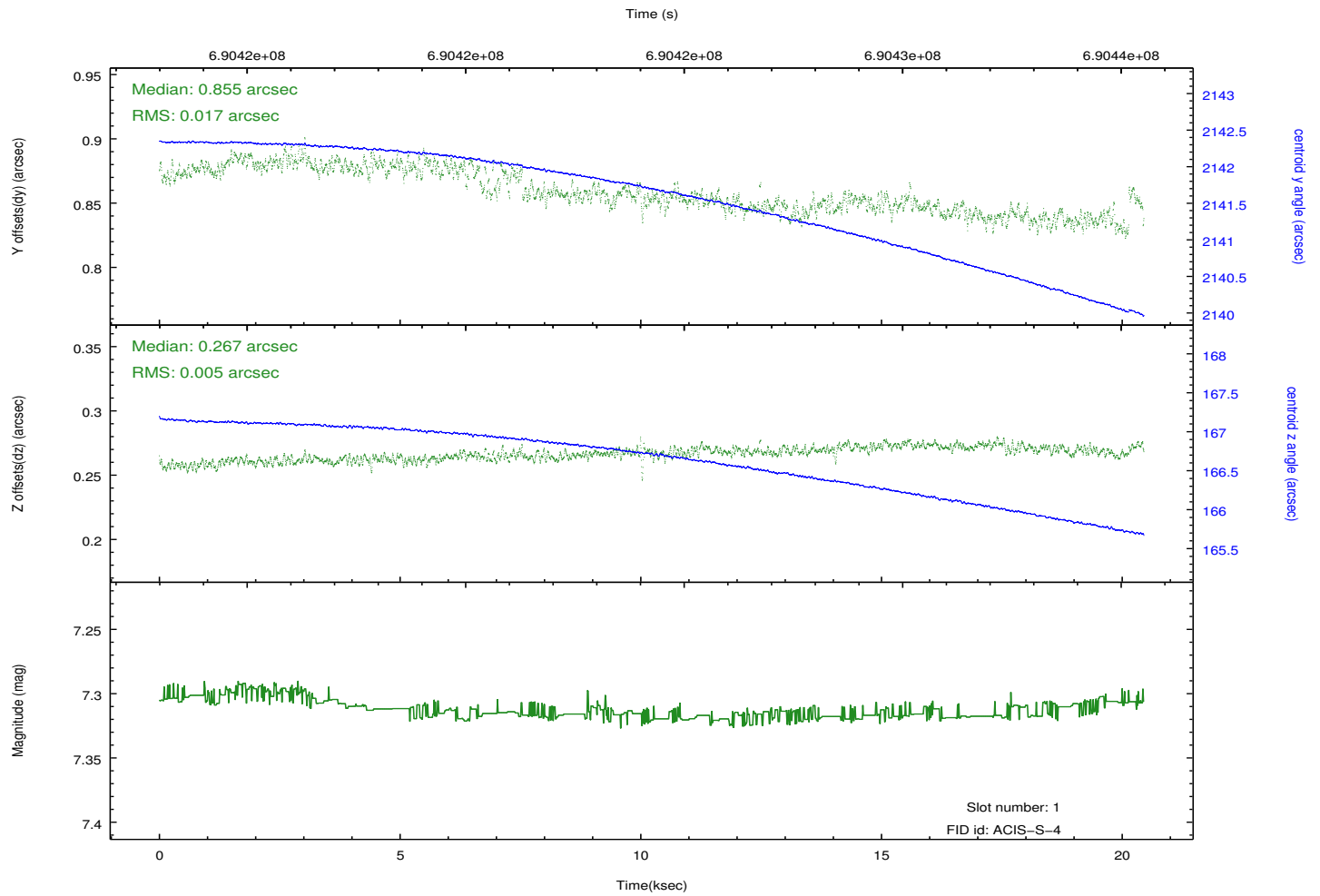
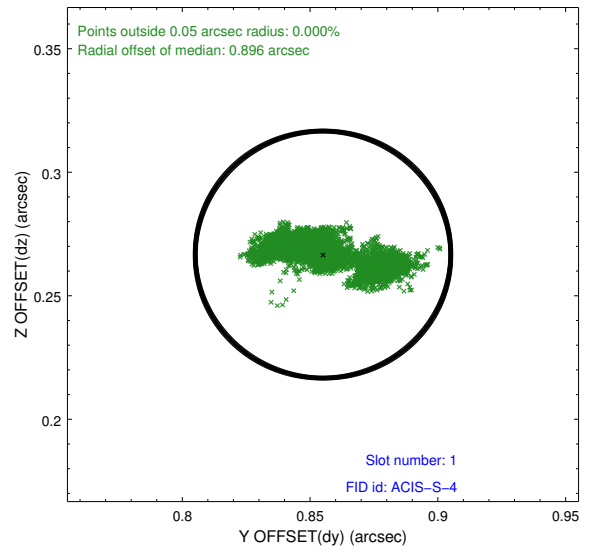
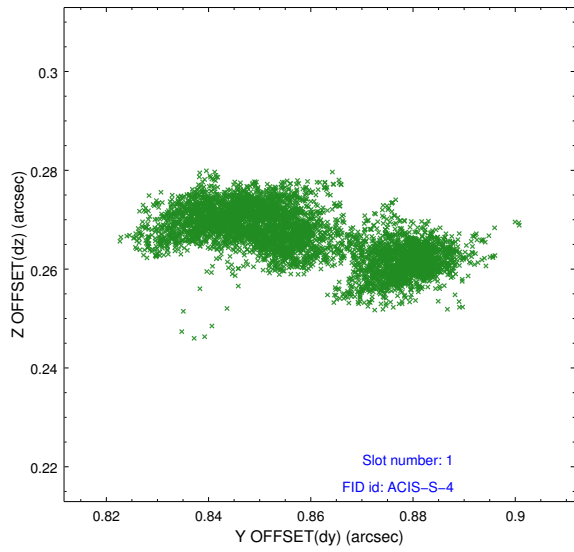


2.5 FID Slots

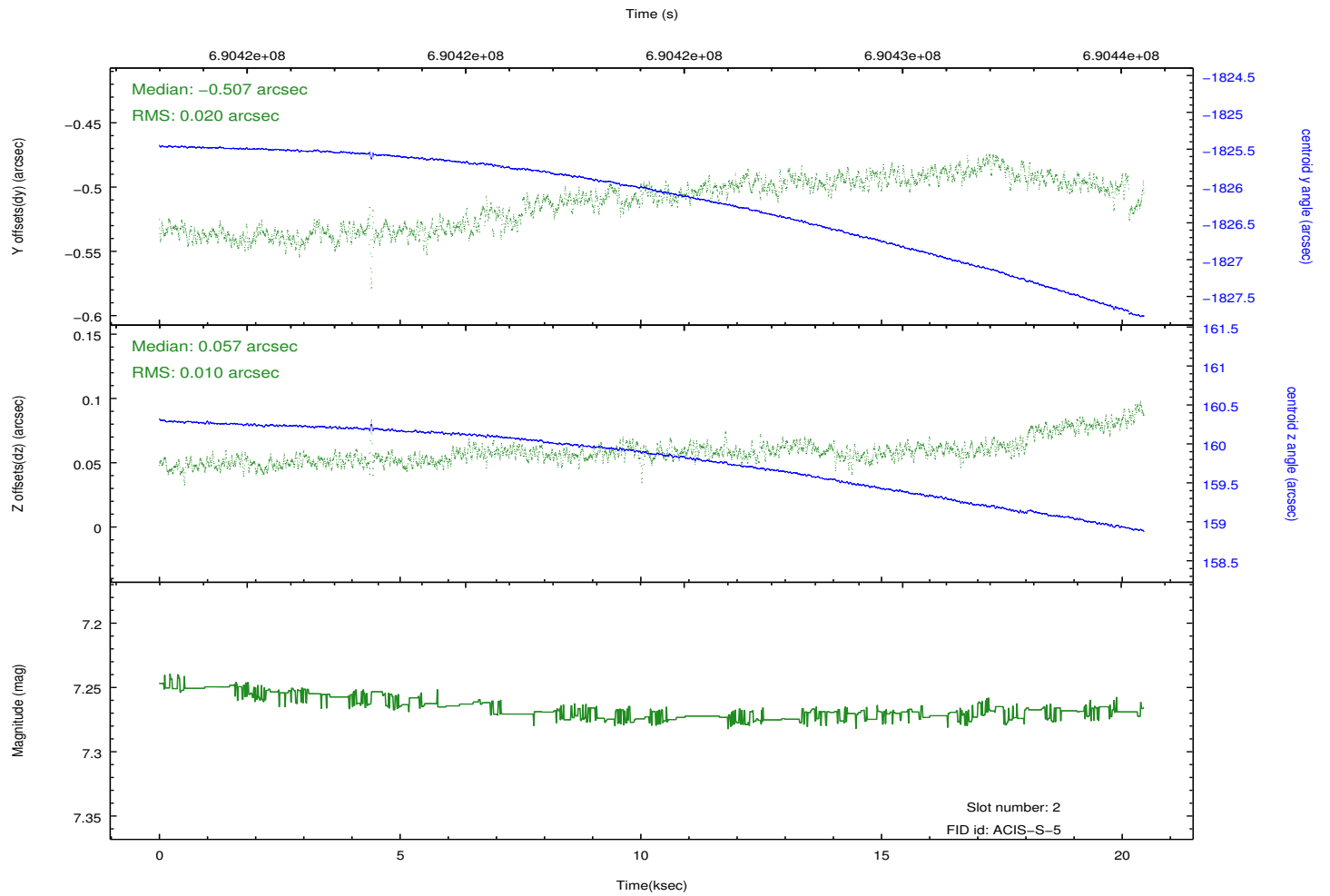
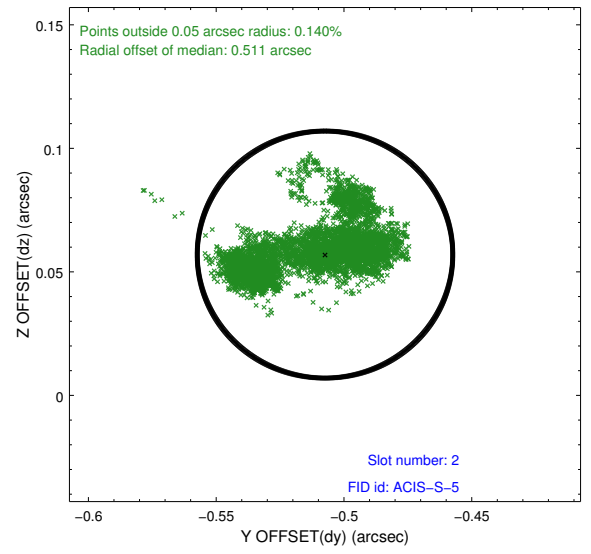
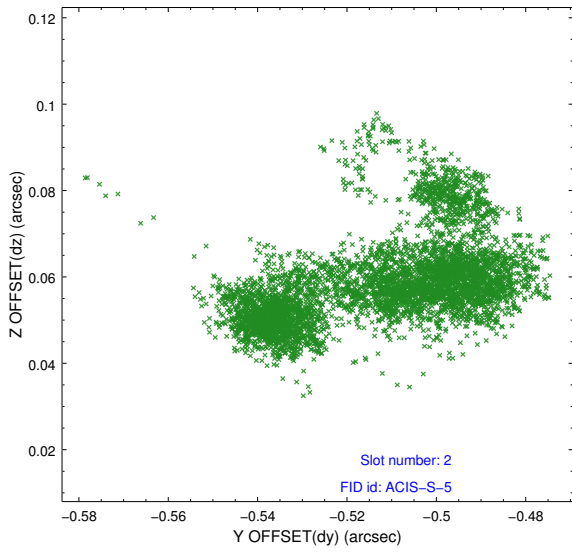
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2019.11.21 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 20.066300154448 |

A.2 Comments