

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 15571 - L2 Version 2
Chandra X-Ray Center

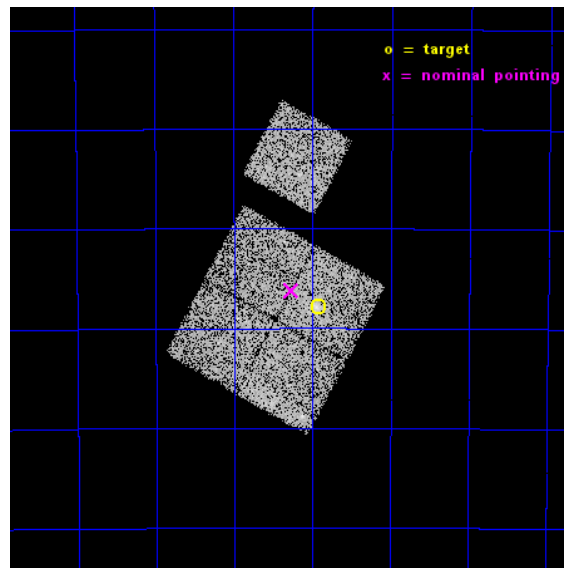
L2 Processing Date : Nov 28 2014

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1 Front

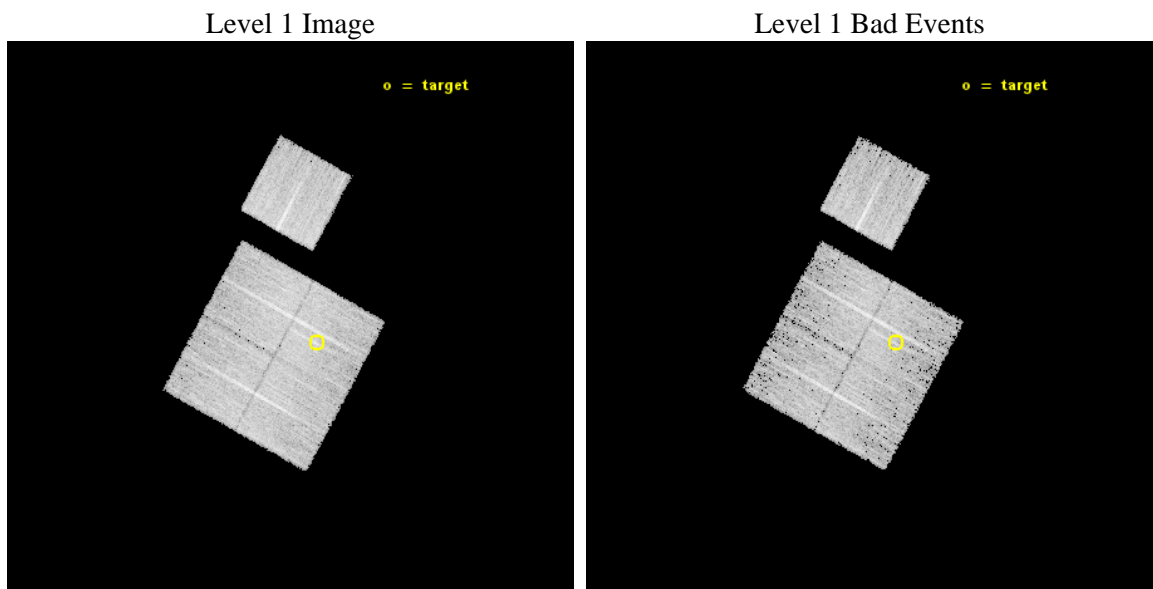
seq_num	801131	Sequence number
obs_id	15571	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg^2 from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ0352-5647	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	58.232083	Observer's specified target RA [deg]
dec_targ	-56.798111	Observer's specified target Dec [deg]
ra_nom	58.317086248795	Nominal RA [deg]
dec_nom	-56.769989486138	Nominal Dec [deg]
roll_nom	28.779802095109	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10080.994767249	Sum of GTIs [s]
livetime	9949.2791490941	Livetime [s]
ontime0	10084.01264745	Sum of GTIs [s]
ontime1	10084.053687453	Sum of GTIs [s]
ontime2	10080.953737199	Sum of GTIs [s]
ontime3	10080.994767249	Sum of GTIs [s]
ontime6	10080.830607176	Sum of GTIs [s]
l2events	29141	Number of level 2 events



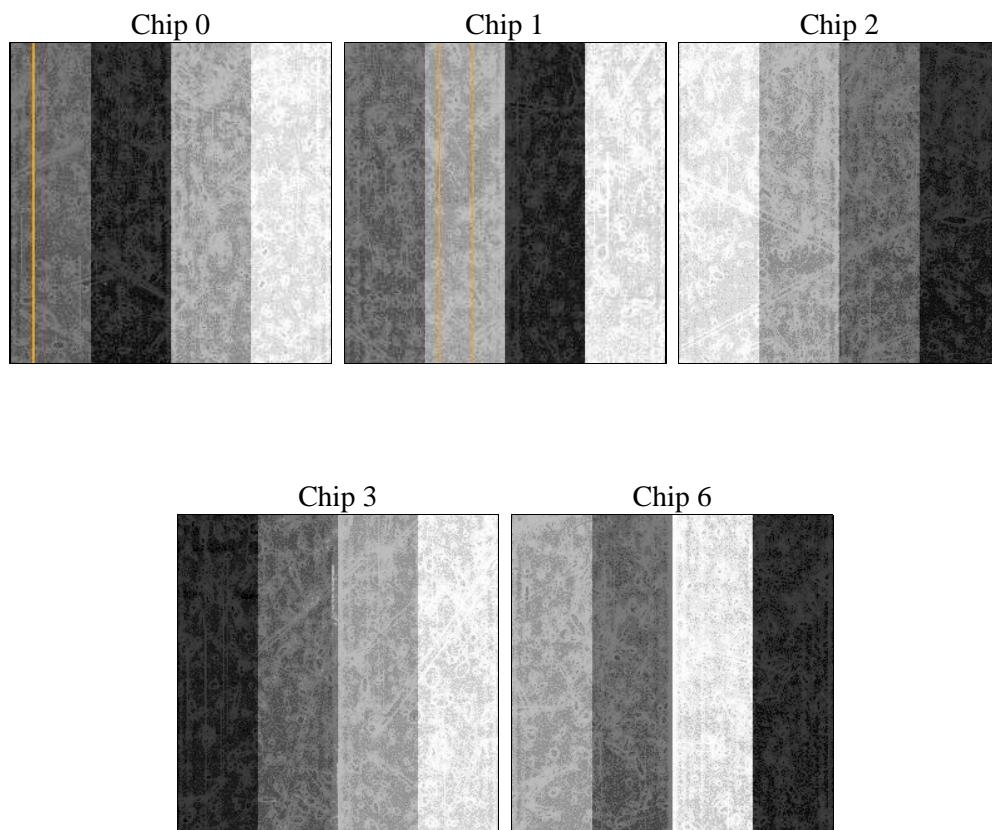
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.635000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	10080.994767249	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	10084.01264745	Sum of GTIs [s]
date	2014-11-28T18:59:16	Date and time of file creation	ontime1	10084.053687453	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	10080.953737199	Sum of GTIs [s]
			ontime3	10080.994767249	Sum of GTIs [s]
			ontime6	10080.830607176	Sum of GTIs [s]
			l1events	253754	Number of level 1 events

2.1.4 Events

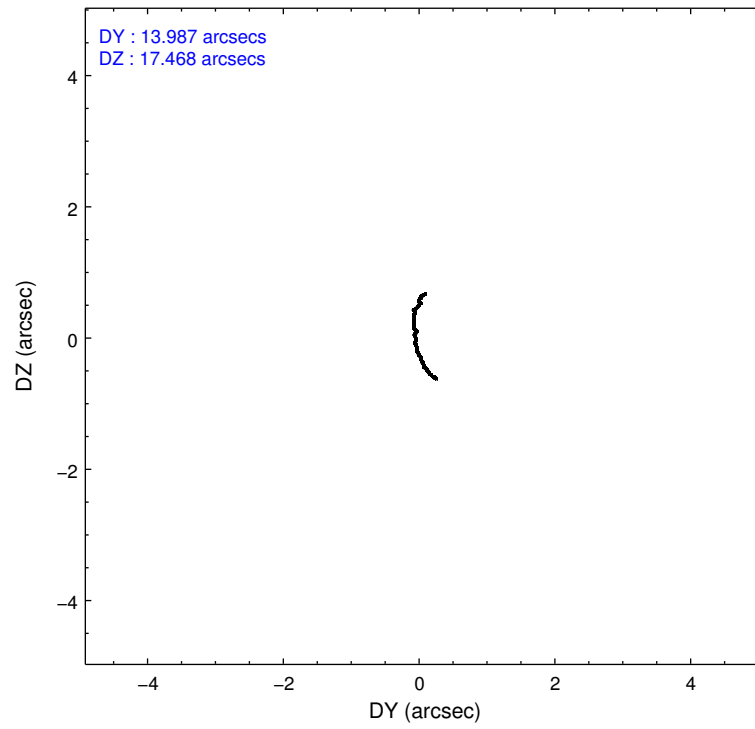
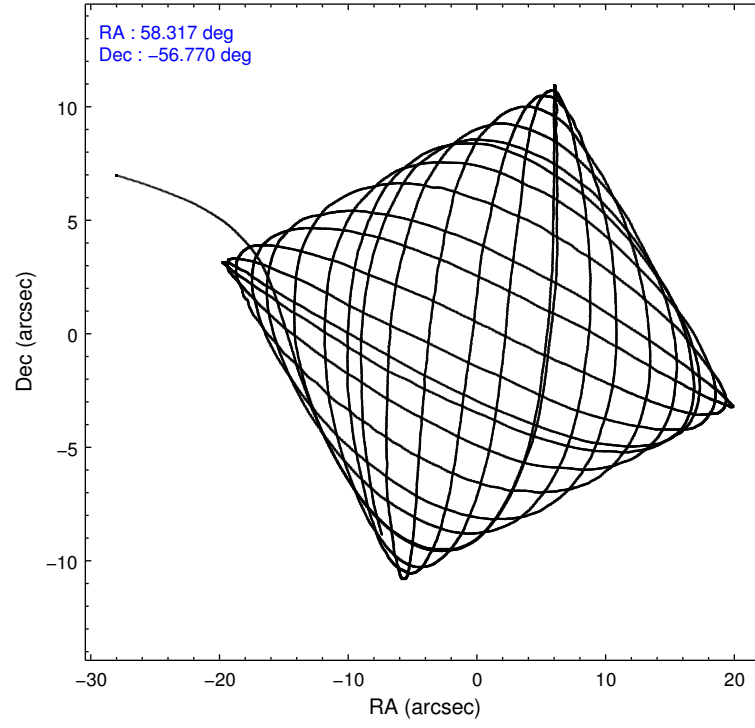
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	47551	50220	50930	50275	54778
rejected events	40941	42783	44399	43656	47823
rejected %	86%	85%	87%	86%	87%

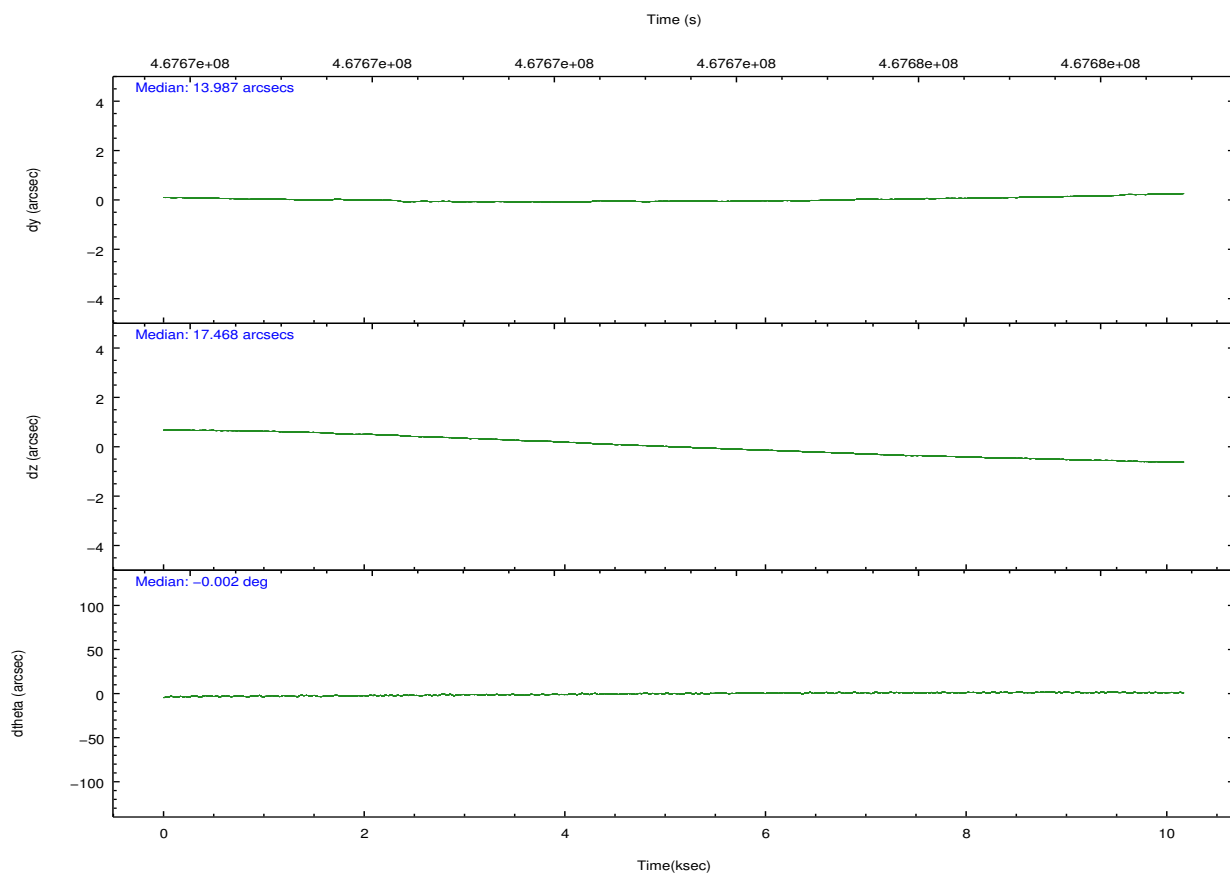
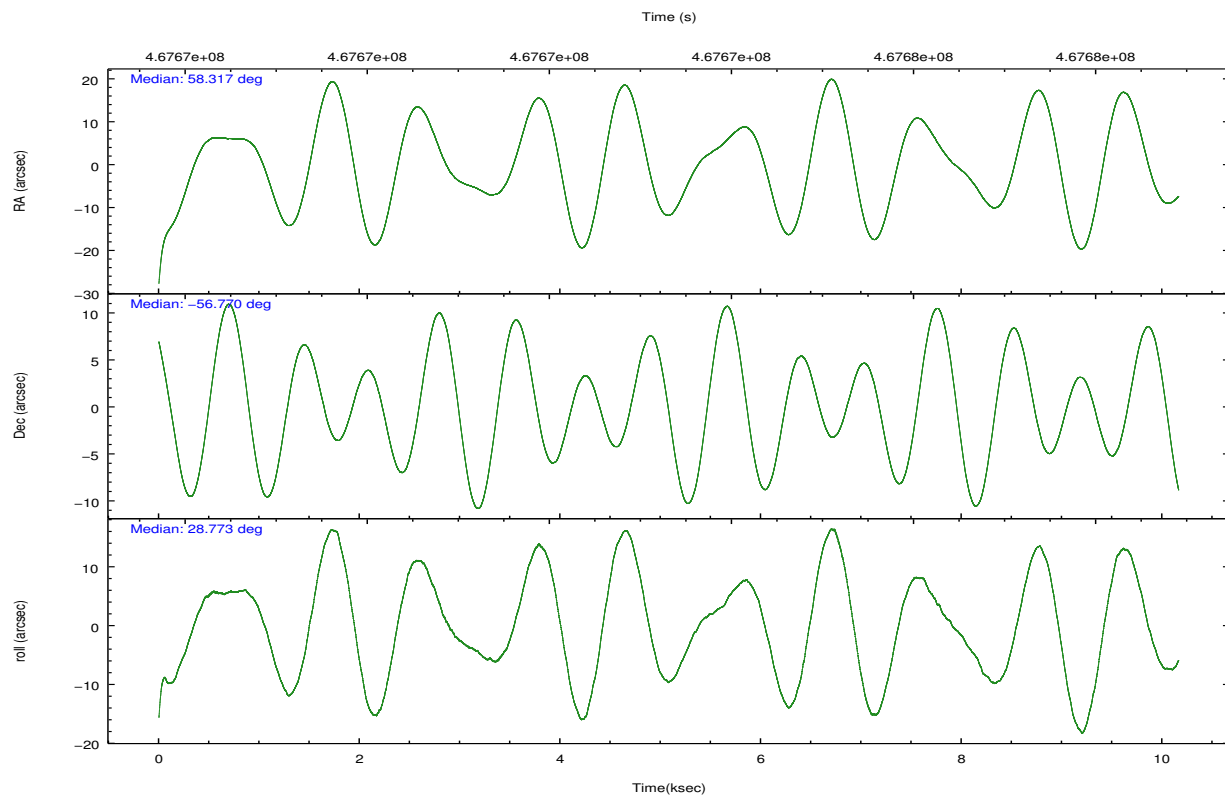
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2407	2738	2471	2614	2657
	5%	5%	4%	5%	4%
grade 1 events	29	33	19	37	32
	0%	0%	0%	0%	0%
grade 2 events	1584	1744	1565	1398	1487
	3%	3%	3%	2%	2%
grade 3 events	696	672	645	642	694
	1%	1%	1%	1%	1%
grade 4 events	612	750	631	613	674
	1%	1%	1%	1%	1%
grade 5 events	2352	2616	2286	2738	2641
	4%	5%	4%	5%	4%
grade 6 events	1314	1537	1227	1363	1447
	2%	3%	2%	2%	2%
grade 7 events	38557	40130	42086	40870	45146
	81%	79%	82%	81%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	58.291309	58.31708624879536	CCD I2 on	Y	Y
[deg] Pointing Dec	-56.793582	-56.76998948613848	CCD I3 on	Y	Y
[deg] Pointing Roll	28.549548	28.77980209510945	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-225.842463	-225.8458576473255	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.746595355604228	CCD S4 on	N	N
[s] Observation start time (MET)	467668391.184000	467667195.90862	CCD S5 on	N	N
Observation start date	2012-10-26T19:52:04	2012-10-26T19:33:15	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	467678392.184000	467678626.70923	On-chip summing requested	N	N
Observation end date	2012-10-26T22:38:45	2012-10-26T22:43:46	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



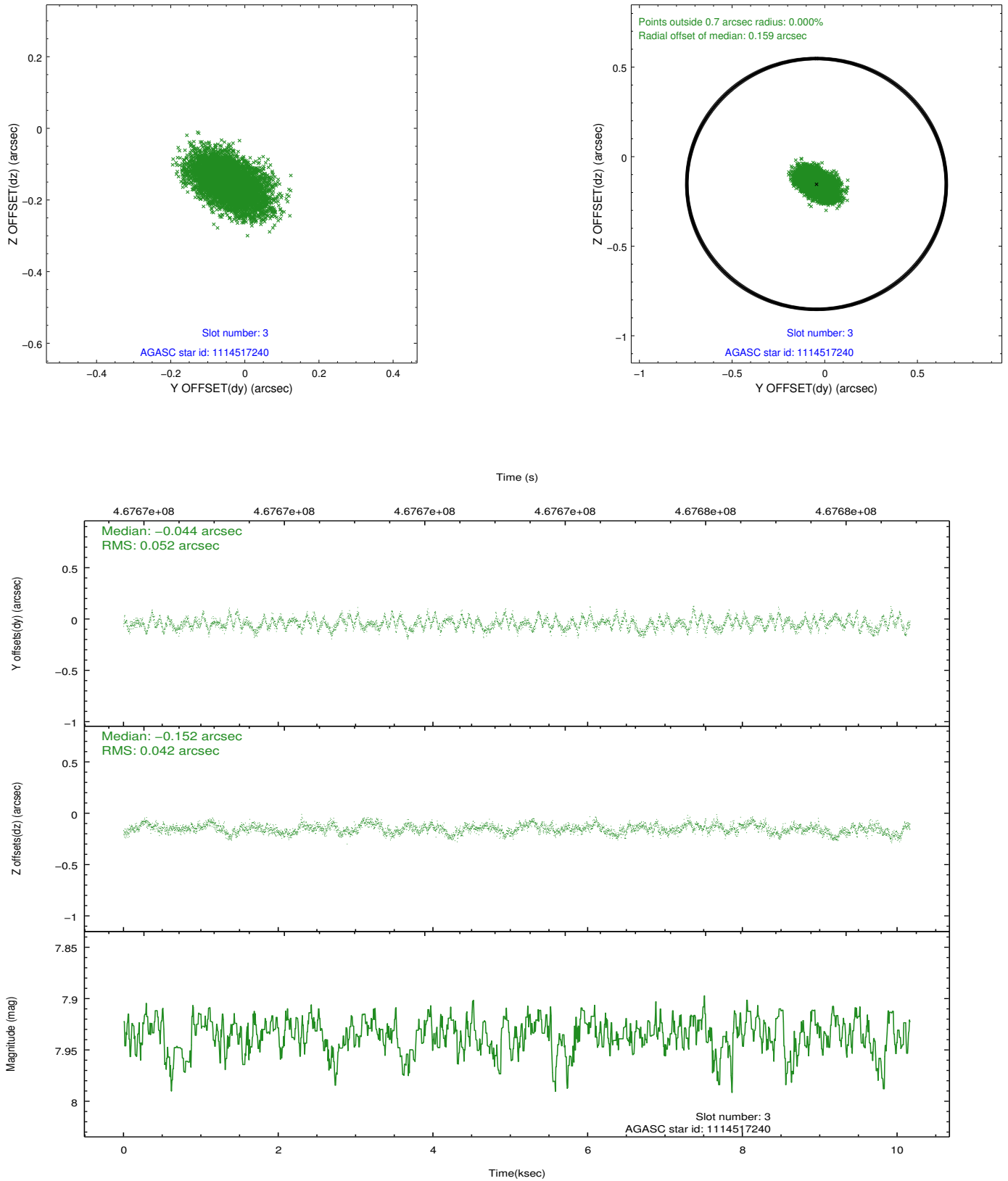


Slot Statistics

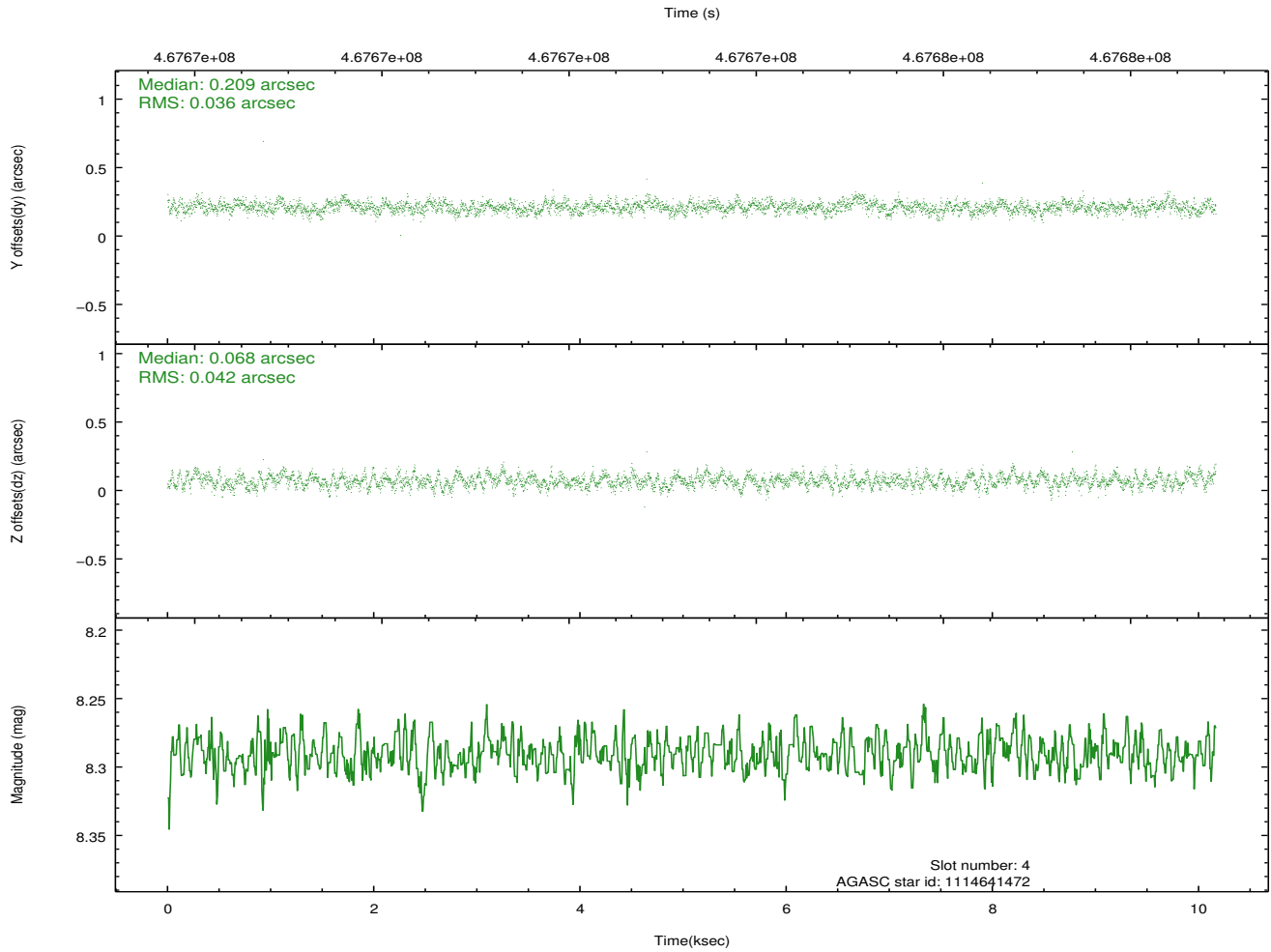
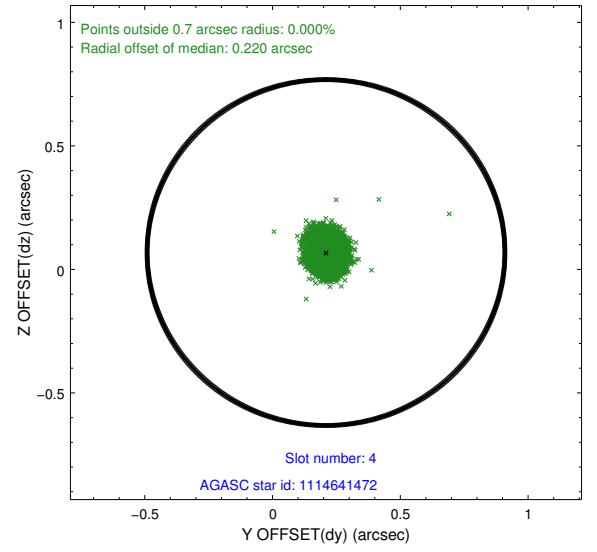
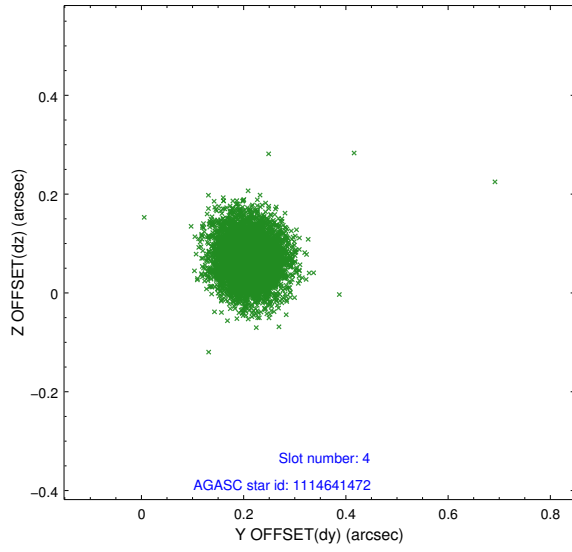
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.05	2480	0.138	-0.078	0.021	0.029	0.000000	0.000000	925.47	-1000.26
1	FID		ACIS-I-5	7.05	2480	-0.283	0.119	0.013	0.019	0.000000	0.000000	-1822.77	897.09
2	FID		ACIS-I-6	7.06	2480	0.055	0.029	0.011	0.018	0.000000	0.000000	390.37	1542.11
3	GUIDE	used	1114517240	7.93	4956	-0.044	-0.152	0.071	0.118	57.034888	-56.464897	-1640.38	2213.10
4	GUIDE	used	1114641472	8.29	4947	0.209	0.068	0.059	0.095	58.453384	-57.084443	-221.20	-1070.91
5	GUIDE	used	1114643392	8.22	4960	-0.004	0.016	0.105	0.161	59.575186	-56.759025	2273.67	-1122.52
6	GUIDE	used	1114646624	7.42	4958	-0.107	-0.249	0.070	0.113	57.885359	-56.293975	146.45	1965.13
7	GUIDE	used	1114512720	7.53	4957	-0.061	0.306	0.070	0.103	57.514099	-57.353811	-2293.47	-1057.42

2.4 Star Slots

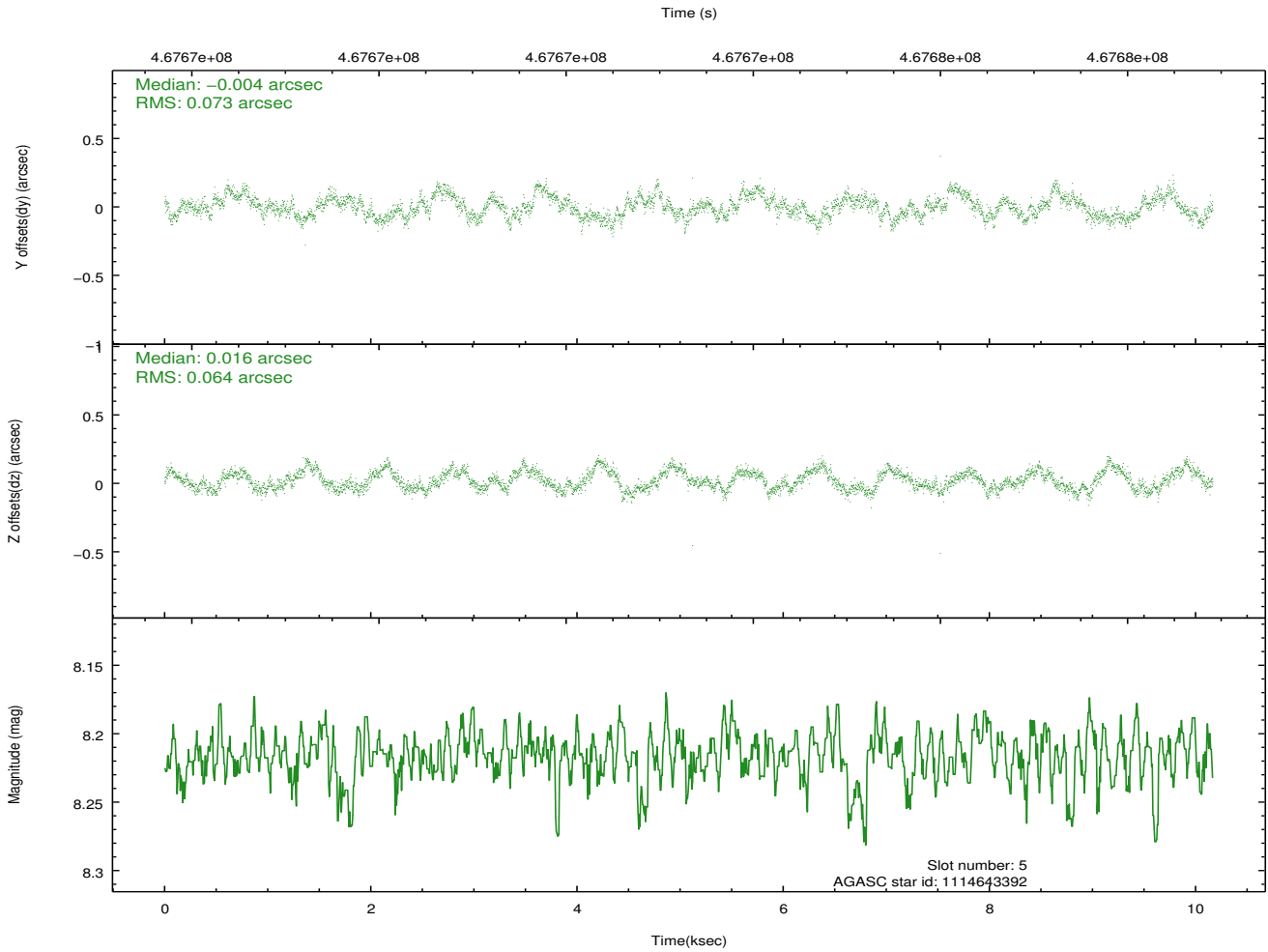
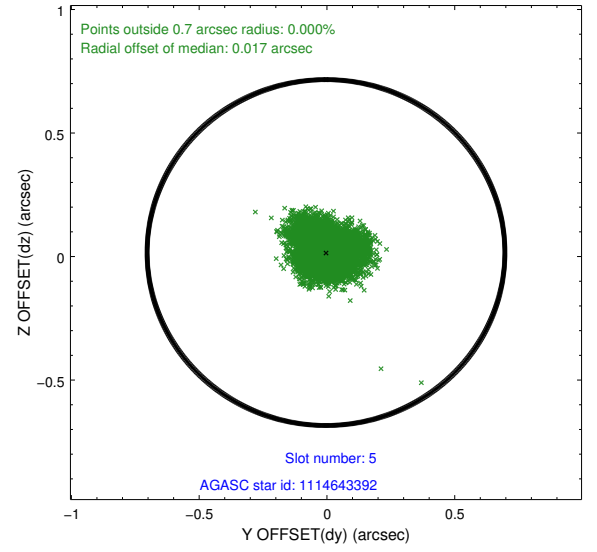
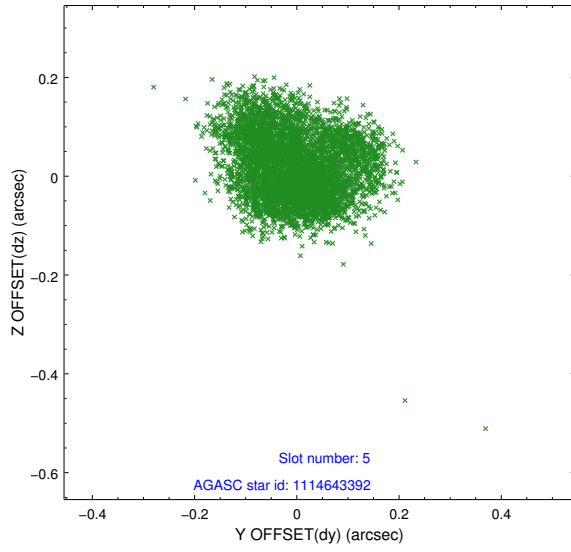
2.4.1 Slot 3



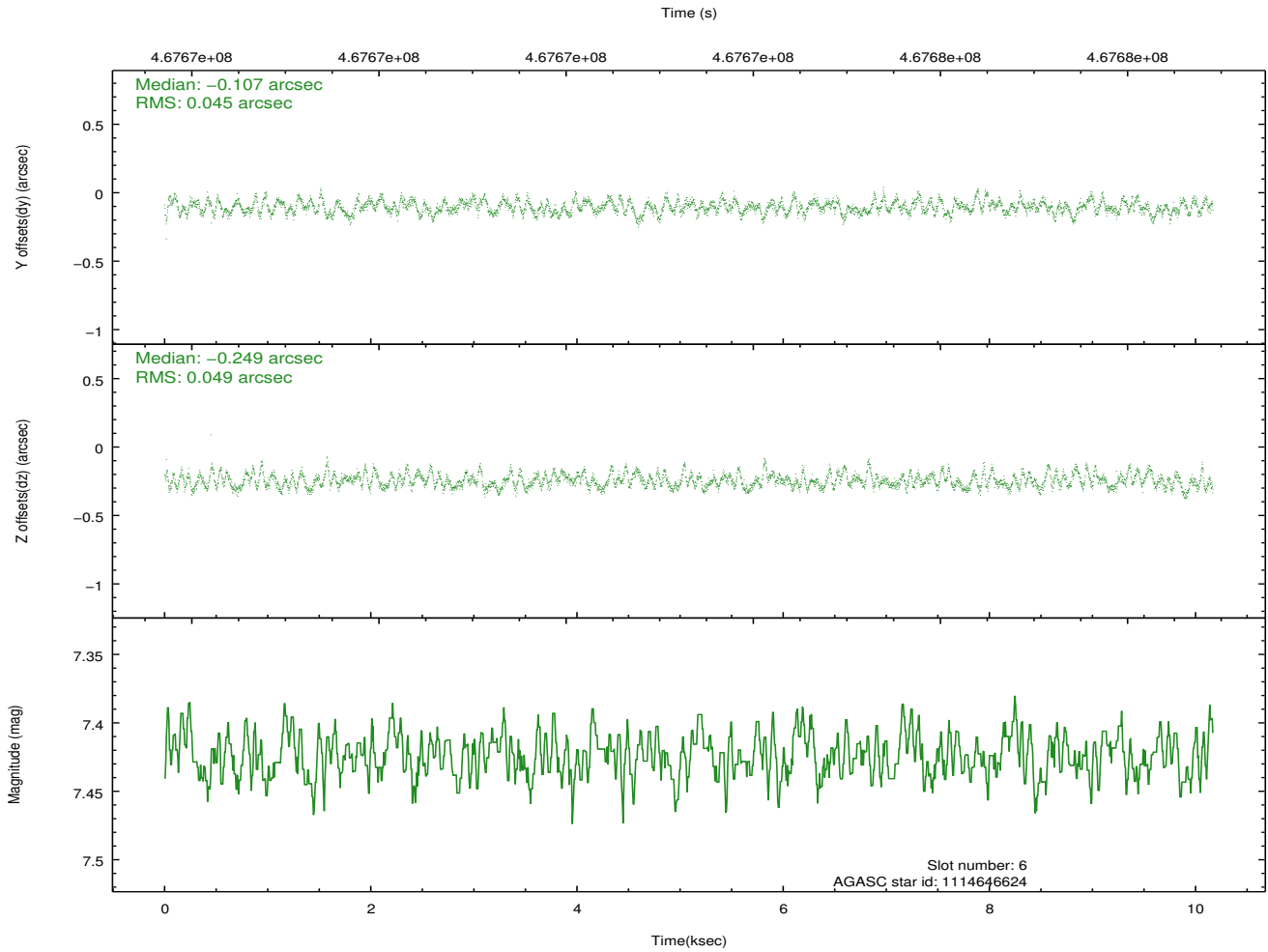
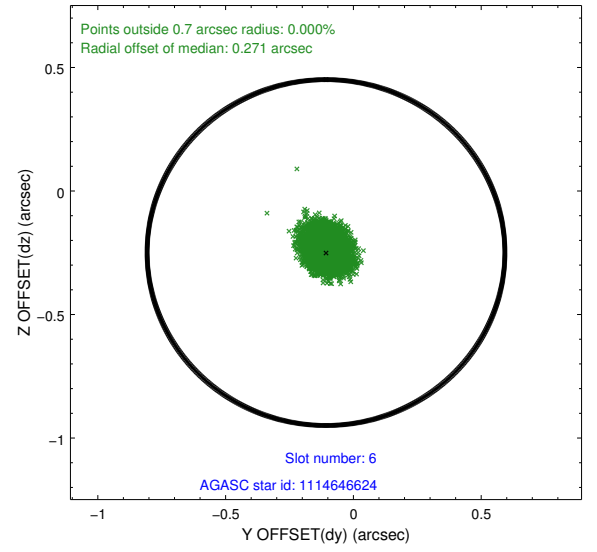
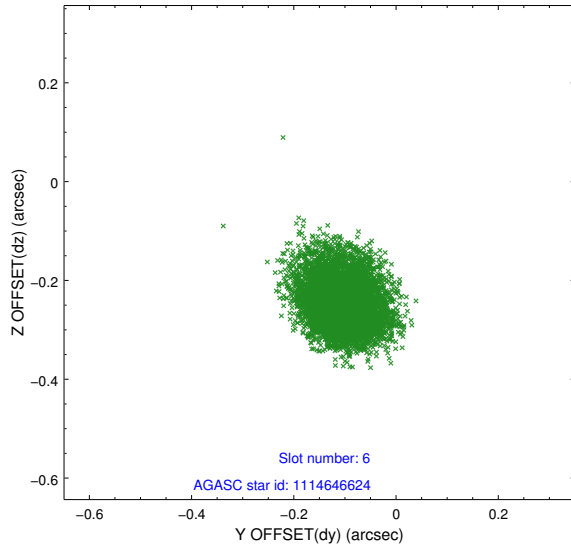
2.4.2 Slot 4



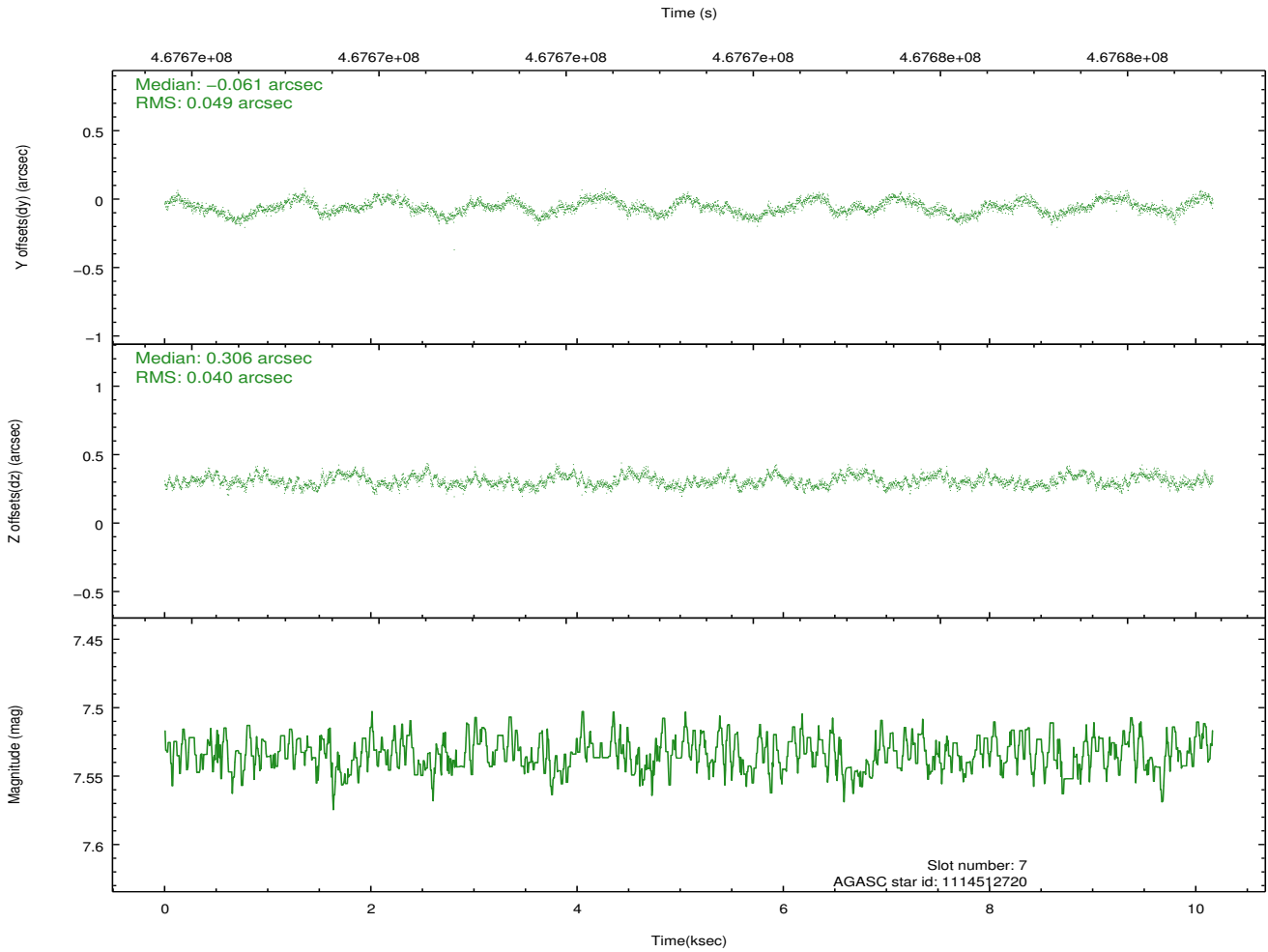
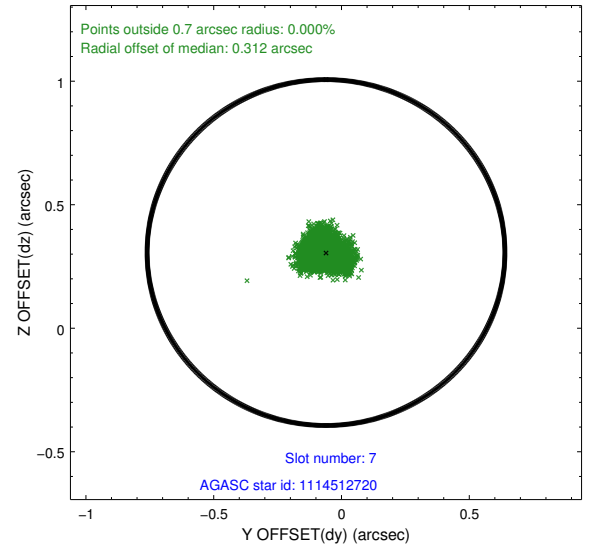
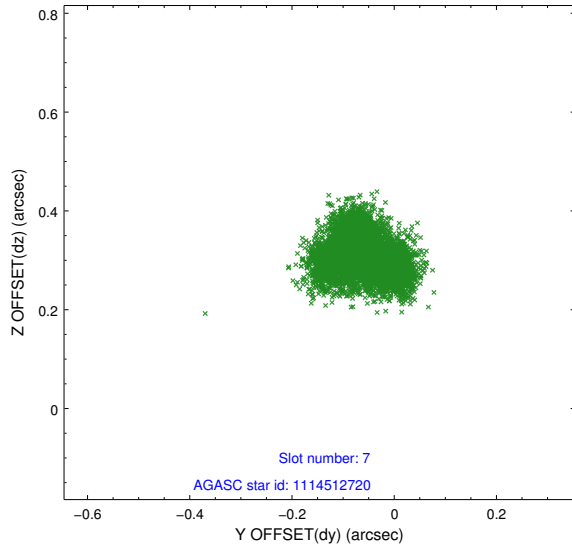
2.4.3 Slot 5



2.4.4 Slot 6

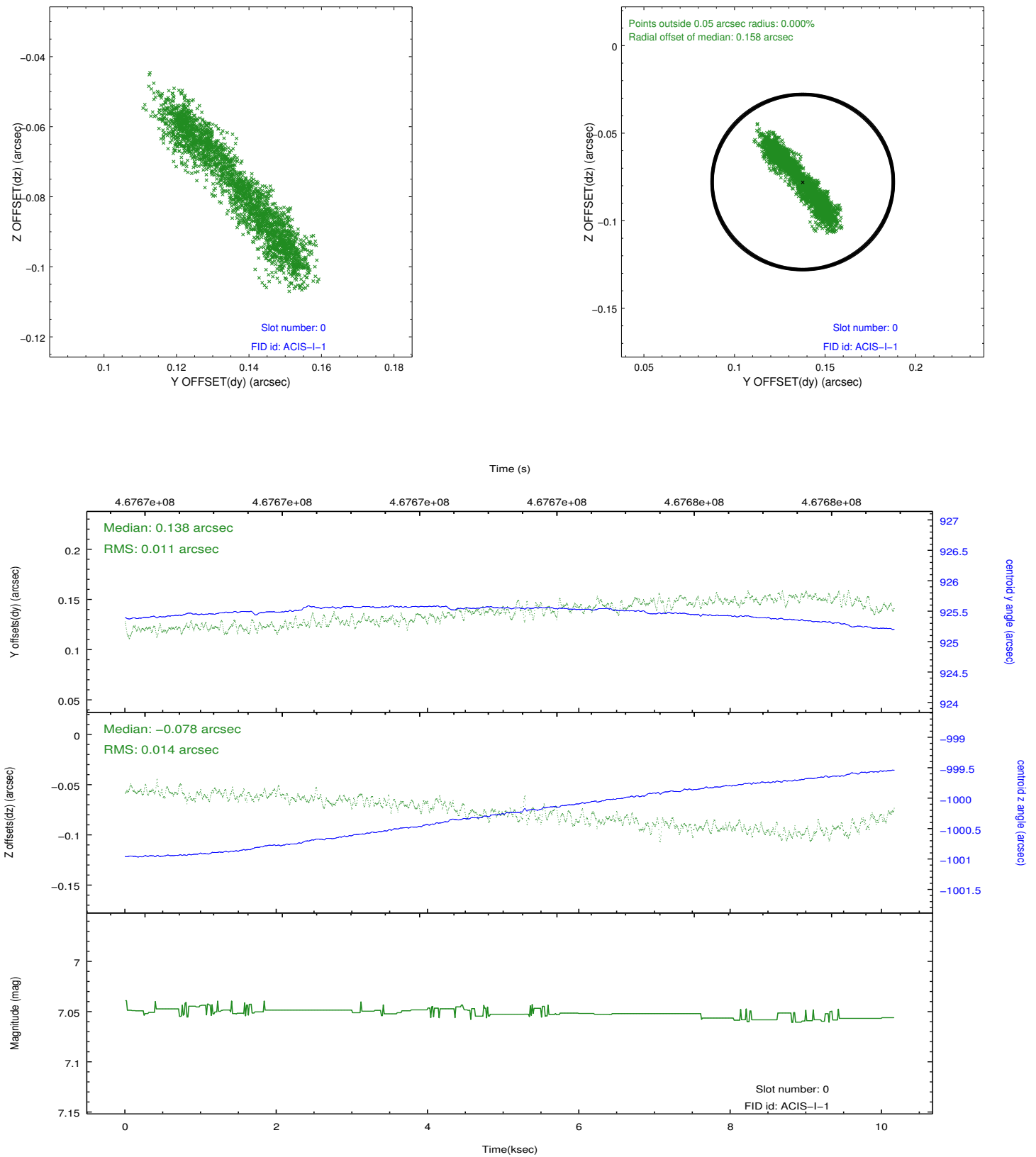


2.4.5 Slot 7

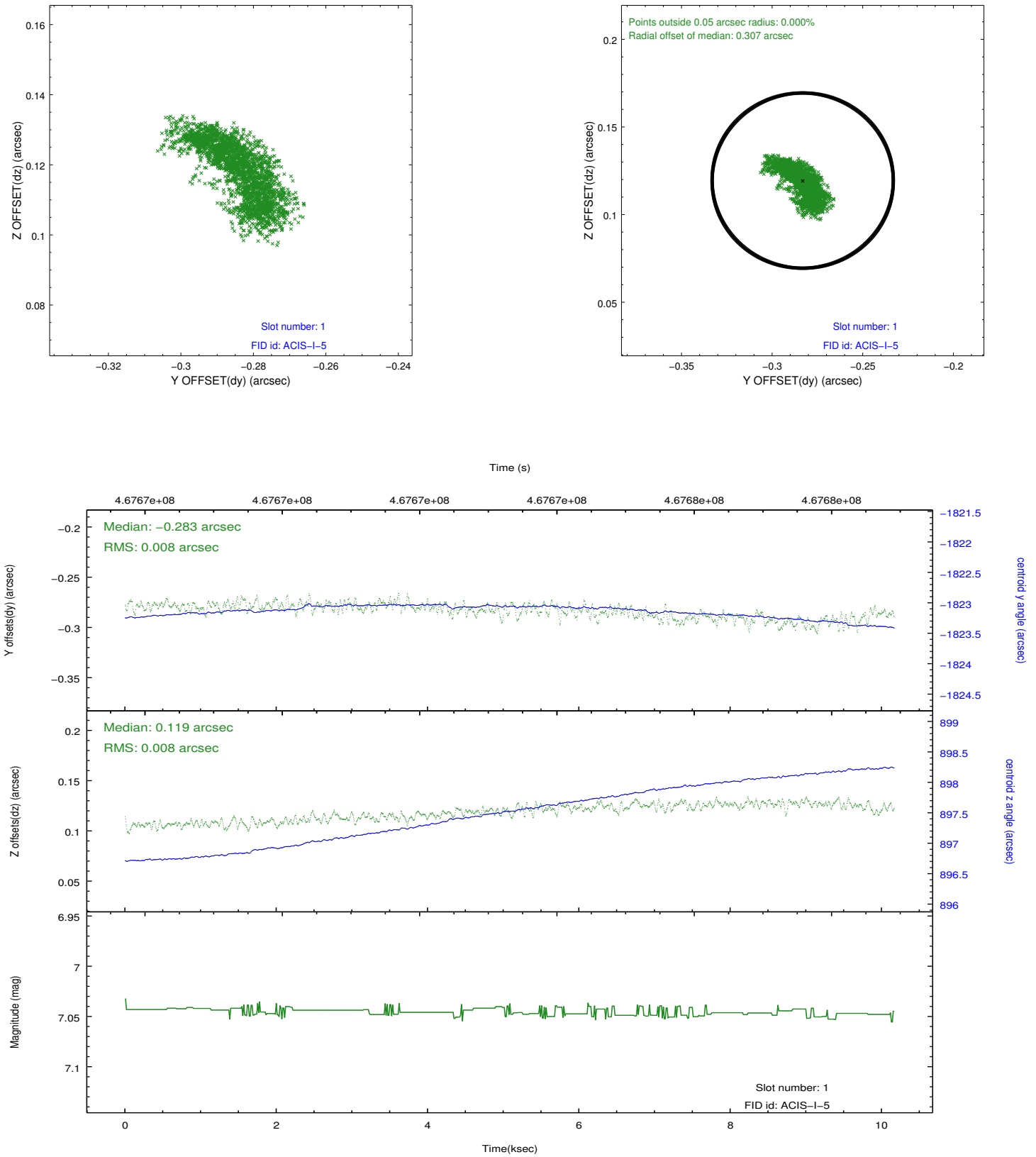


2.5 FID Slots

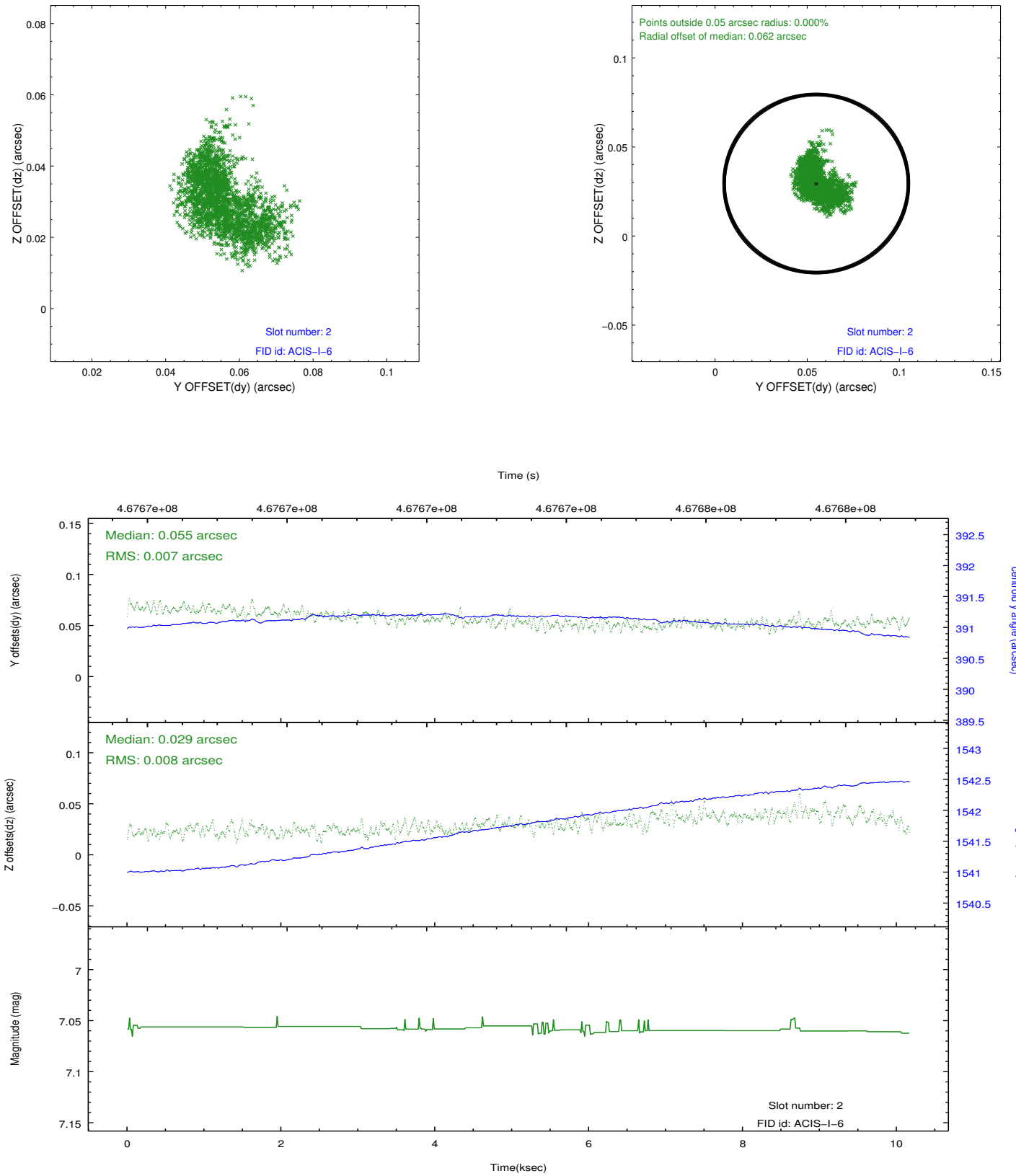
2.5.1 Slot 0



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)	2014.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.080994767249

A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.