

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 15573 - L2 Version 2
Chandra X-Ray Center

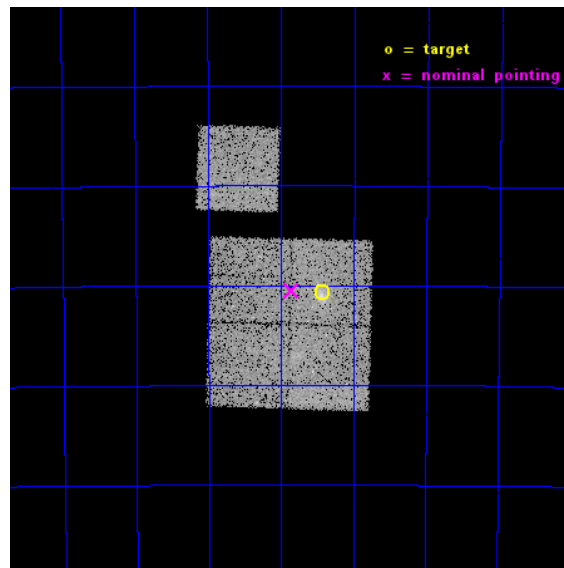
L2 Processing Date : Nov 29 2014

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1 Front

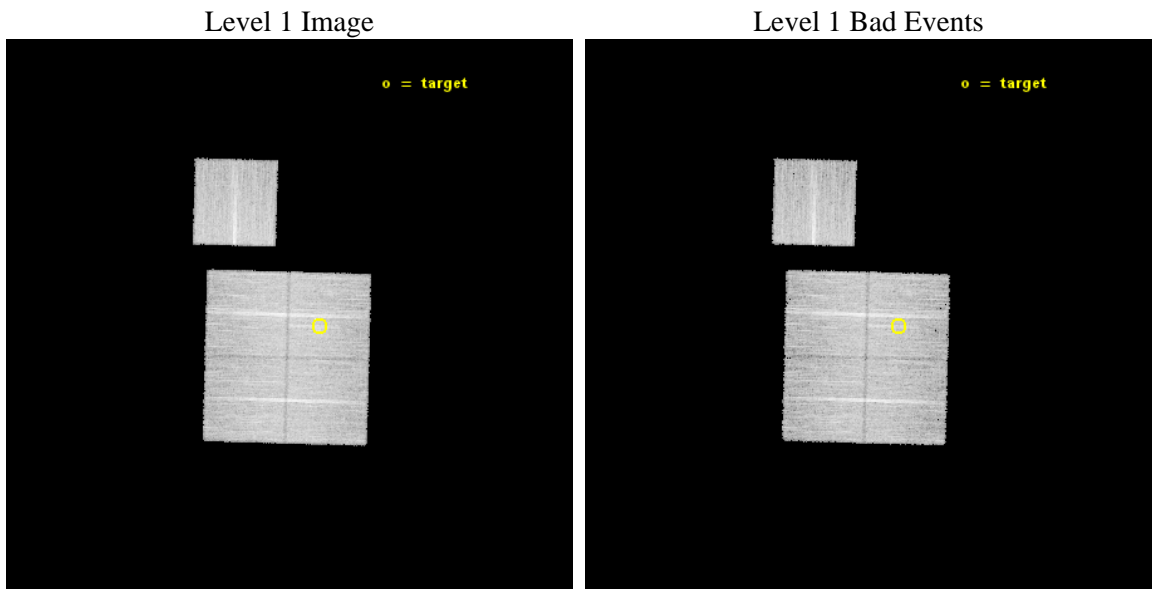
seq_num	801125	Sequence number
obs_id	15573	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg^2 from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ0243-5930	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	40.8575	Observer's specified target RA [deg]
dec_targ	-59.512111	Observer's specified target Dec [deg]
ra_nom	40.9645654992	Nominal RA [deg]
dec_nom	-59.508399186489	Nominal Dec [deg]
roll_nom	1.6009399310862	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19079.545420349	Sum of GTIs [s]
livetime	18830.257113275	Livetime [s]
ontime0	19085.704290986	Sum of GTIs [s]
ontime1	19085.745330989	Sum of GTIs [s]
ontime2	19082.645370603	Sum of GTIs [s]
ontime3	19079.545420349	Sum of GTIs [s]
ontime6	19082.522240758	Sum of GTIs [s]
l2events	51808	Number of level 2 events



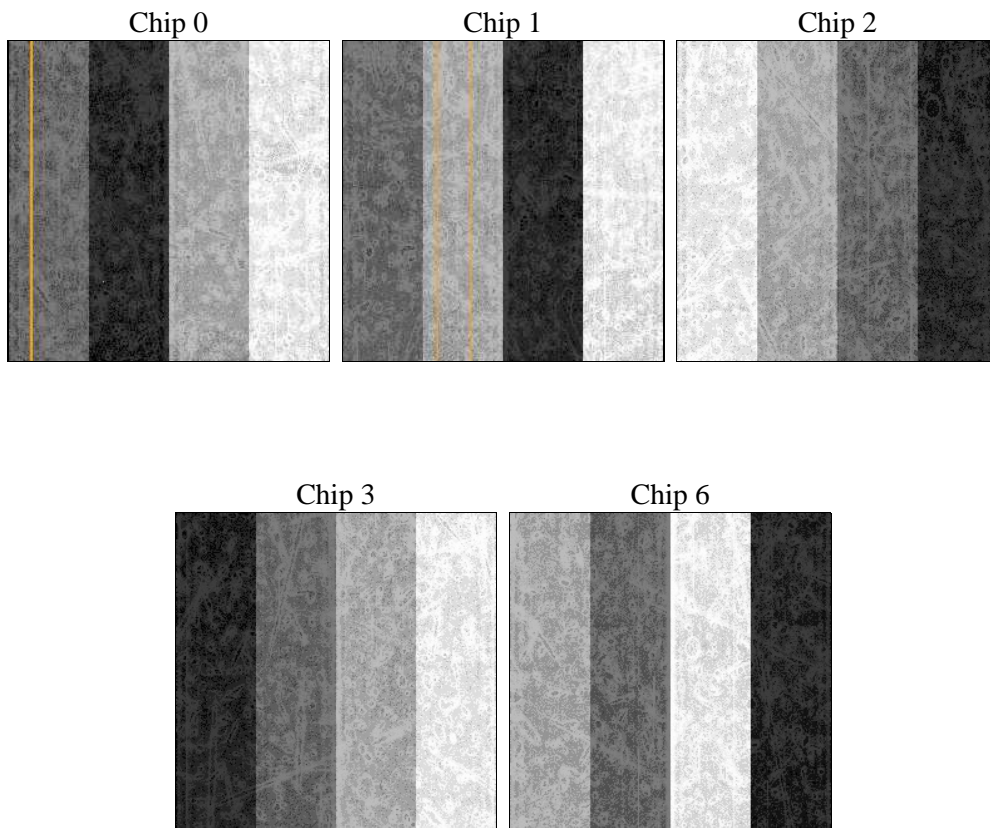
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	19079.545420349	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	19085.704290986	Sum of GTIs [s]
date	2014-11-29T05:00:04	Date and time of file creation	ontime1	19085.745330989	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	19082.645370603	Sum of GTIs [s]
			ontime3	19079.545420349	Sum of GTIs [s]
			ontime6	19082.522240758	Sum of GTIs [s]
			l1events	482774	Number of level 1 events

2.1.4 Events

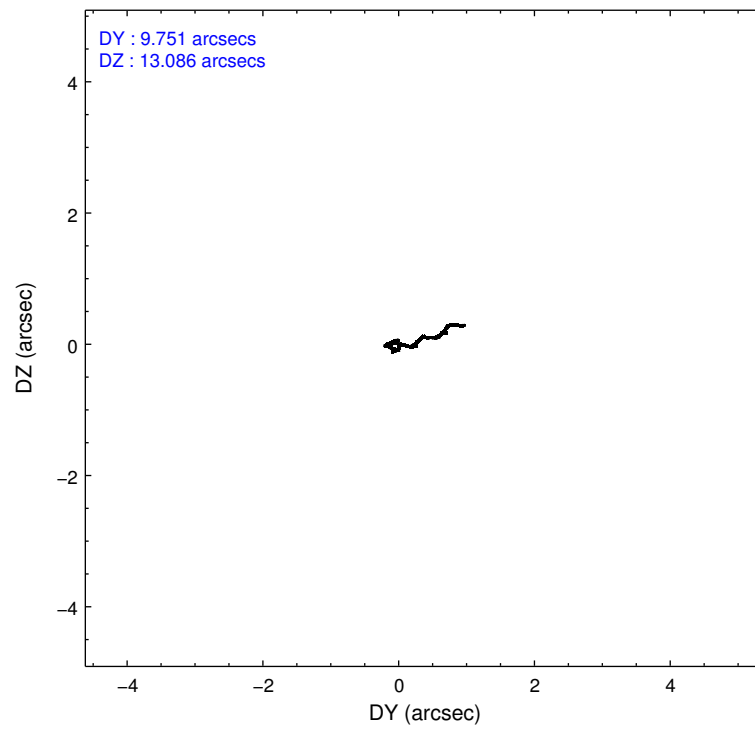
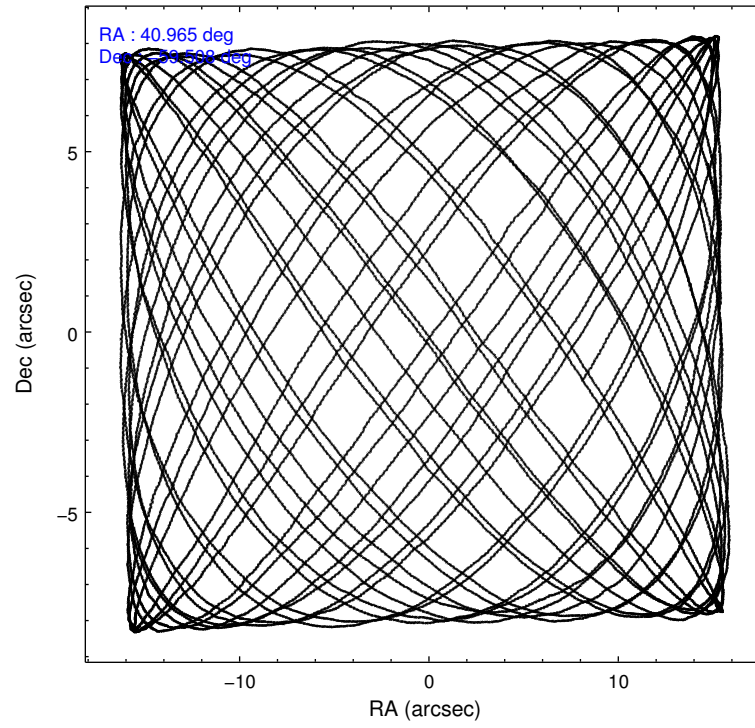
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	90797	93915	99499	99480	99083
rejected events	78867	80416	88077	87164	87141
rejected %	86%	85%	88%	87%	87%

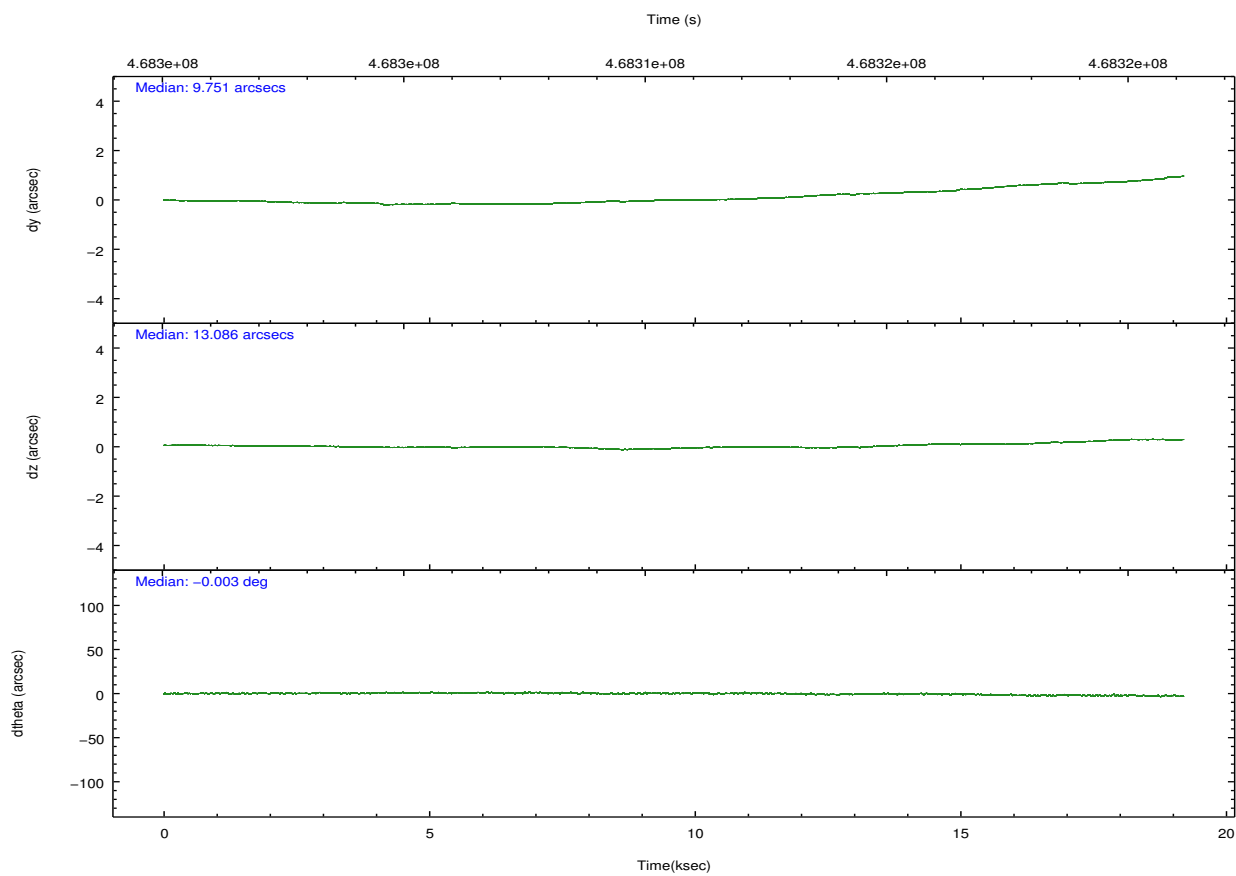
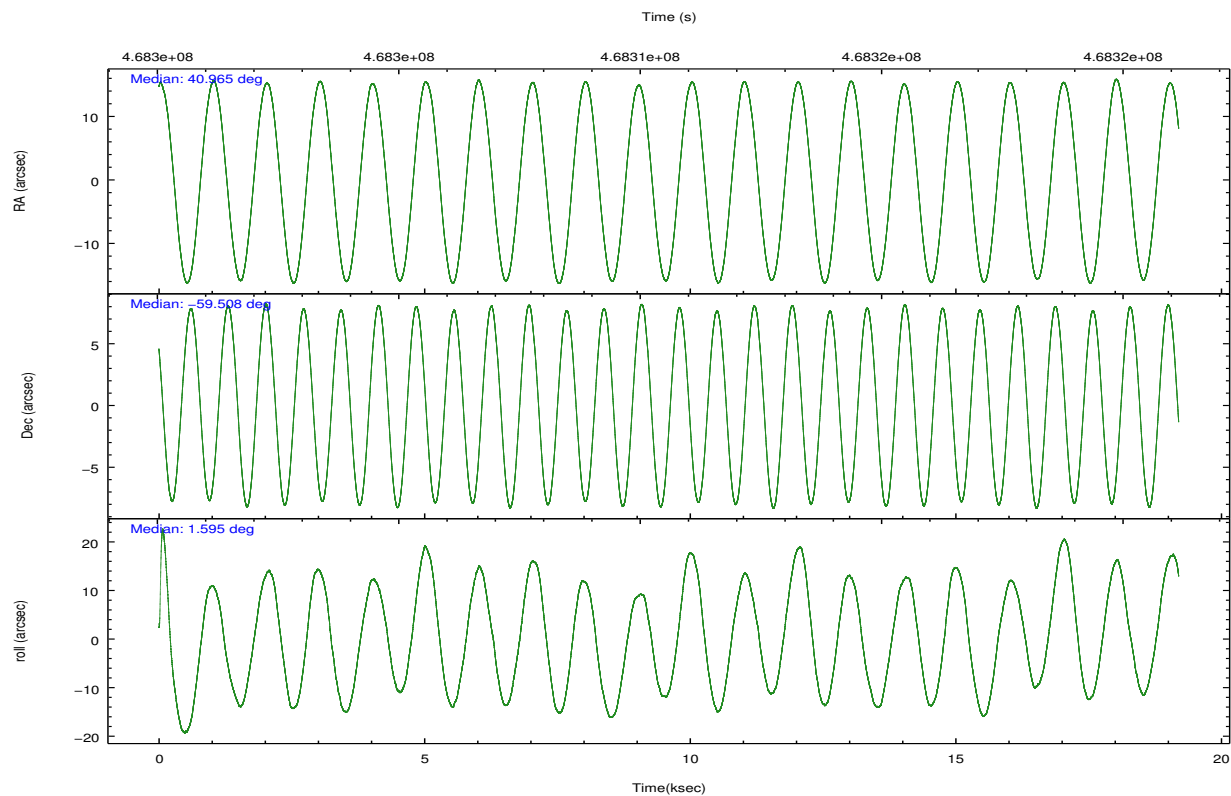
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4075	5014	3962	4870	3960
	4%	5%	3%	4%	3%
grade 1 events	56	47	60	65	48
	0%	0%	0%	0%	0%
grade 2 events	2999	3125	2805	2615	2762
	3%	3%	2%	2%	2%
grade 3 events	1282	1227	1168	1258	1229
	1%	1%	1%	1%	1%
grade 4 events	1150	1279	1180	1178	1258
	1%	1%	1%	1%	1%
grade 5 events	4562	4860	4367	5191	4968
	5%	5%	4%	5%	5%
grade 6 events	2432	2857	2314	2399	2737
	2%	3%	2%	2%	2%
grade 7 events	74241	75506	83643	81904	82121
	81%	80%	84%	82%	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	40.918466	40.96456549920016	CCD I2 on	Y	Y
[deg] Pointing Dec	-59.522902	-59.50839918648921	CCD I3 on	Y	Y
[deg] Pointing Roll	1.352532	1.600939931086205	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	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	468301186.184000	468300237.48014	CCD S5 on	N	N
Observation start date	2012-11-03T03:38:39	2012-11-03T03:23:57	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	468320186.184000	468320899.94375	On-chip summing requested	N	N
Observation end date	2012-11-03T08:55:19	2012-11-03T09:08:19	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



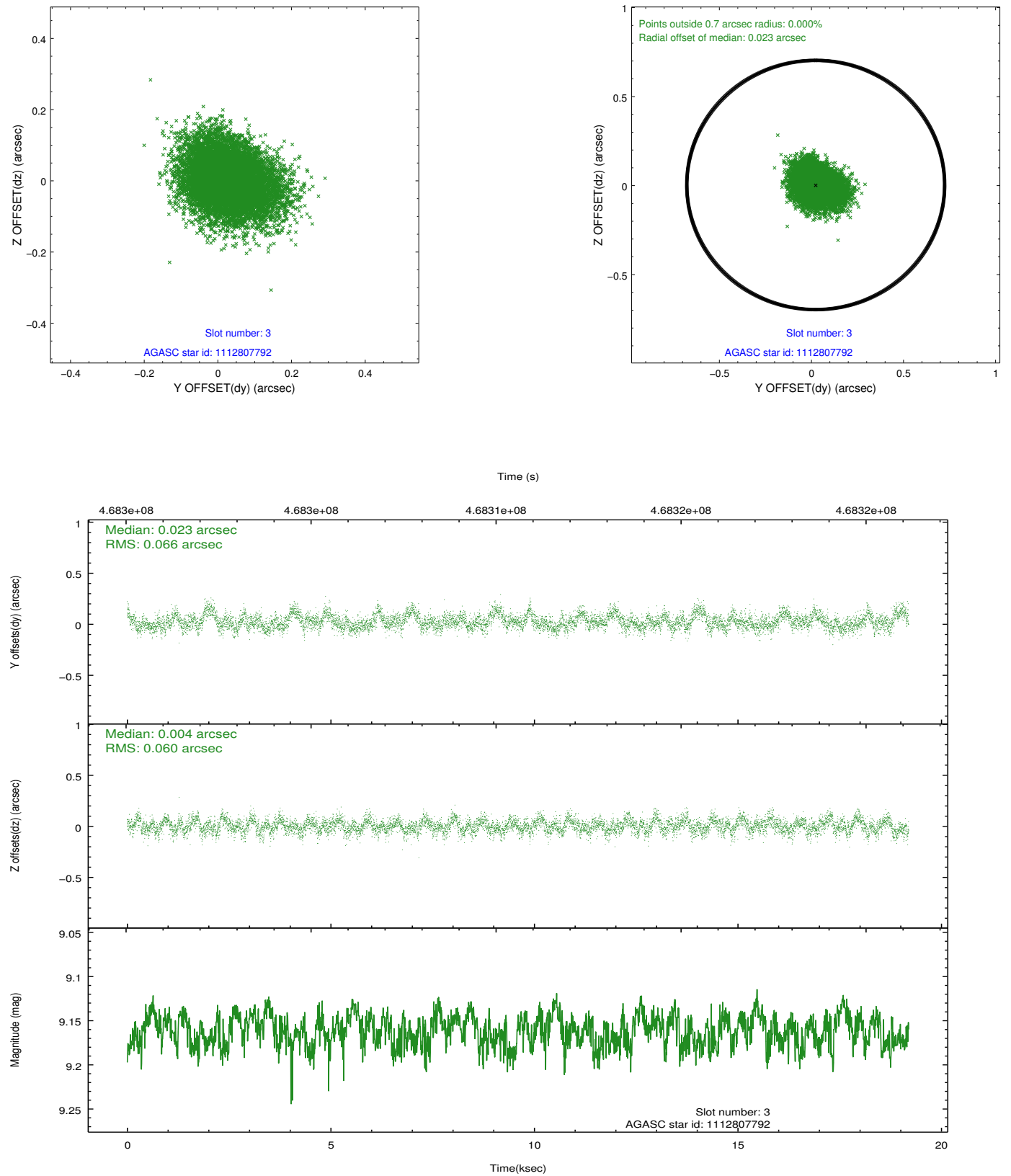


Slot Statistics

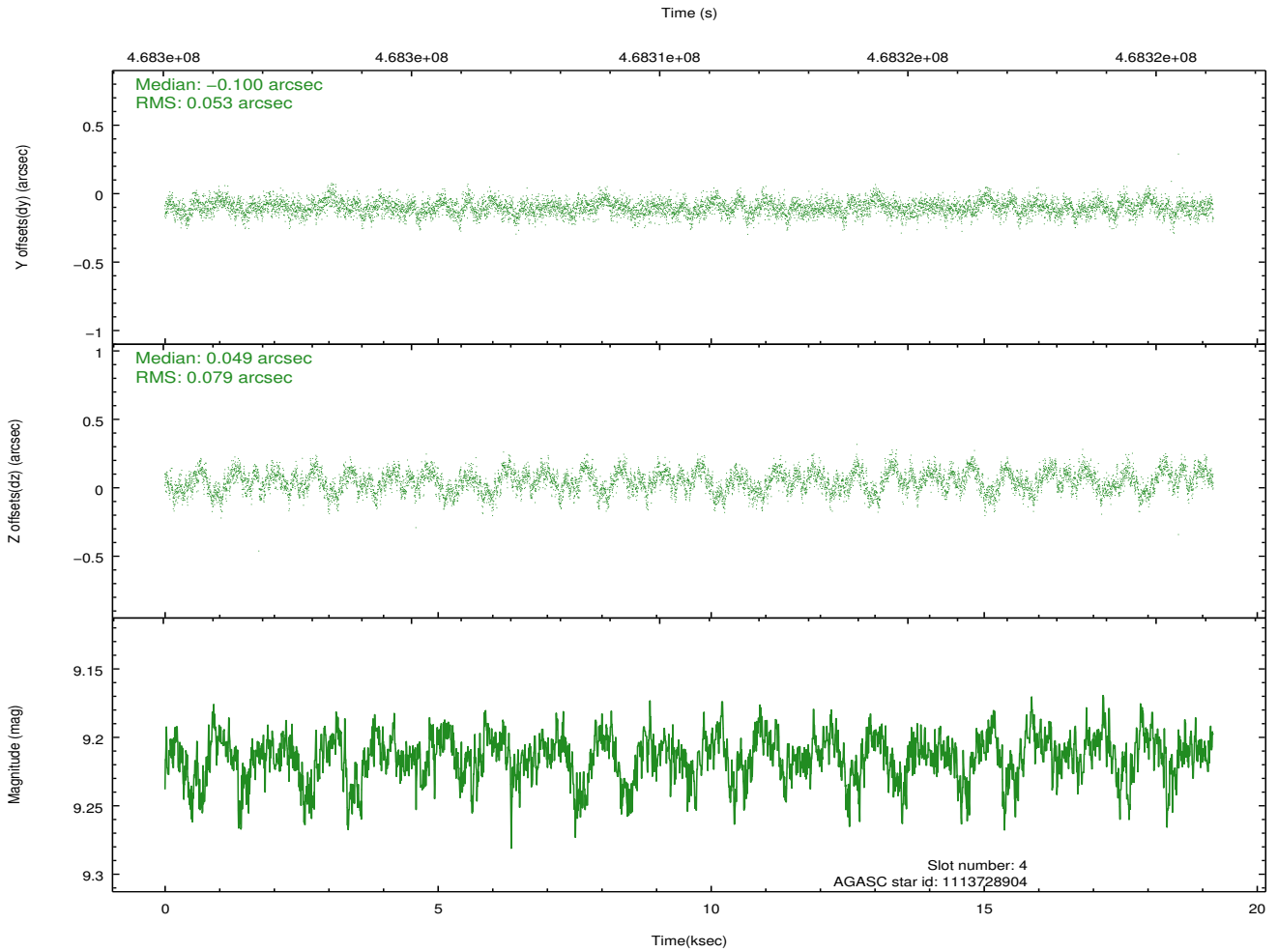
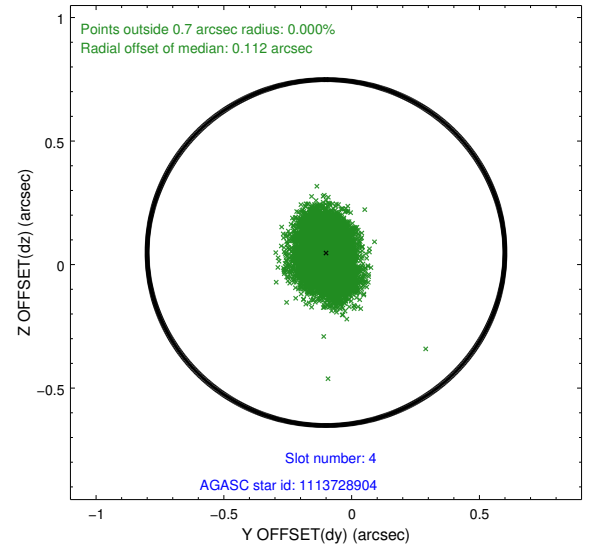
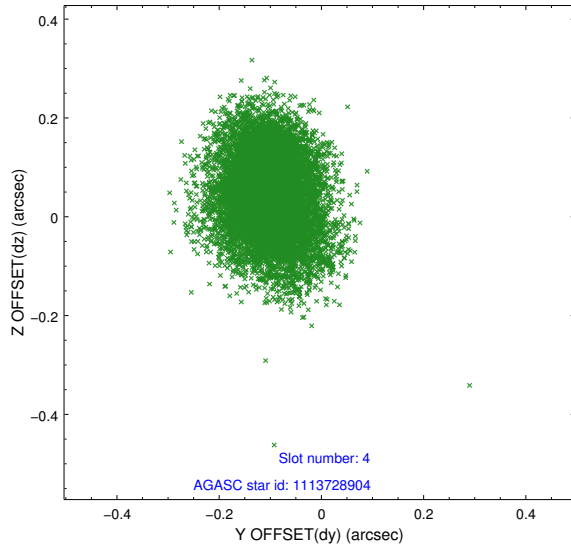
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	4682	0.134	-0.091	0.007	0.012	0.000000	0.000000	929.71	-995.84
1	FID		ACIS-I-5	7.07	4683	-0.277	0.114	0.006	0.011	0.000000	0.000000	-1818.72	901.69
2	FID		ACIS-I-6	7.09	4683	0.052	0.048	0.007	0.010	0.000000	0.000000	394.92	1546.39
3	GUIDE	used	1112807792	9.16	9363	0.023	0.004	0.094	0.155	39.800256	-59.380095	-2038.02	545.17
4	GUIDE	used	1113728904	9.21	9361	-0.100	0.049	0.101	0.167	41.398463	-59.182124	913.91	1202.59
5	GUIDE	used	1113729200	9.41	9360	0.128	0.105	0.149	0.238	40.392030	-59.985347	-986.38	-1645.33
6	GUIDE	used	1113729248	8.24	9365	-0.012	-0.163	0.068	0.108	41.472965	-59.394470	1027.13	433.69
7	GUIDE	used	1161176640	10.24	9215	-0.045	0.013	0.226	0.362	41.416403	-60.165244	837.52	-2335.84

2.4 Star Slots

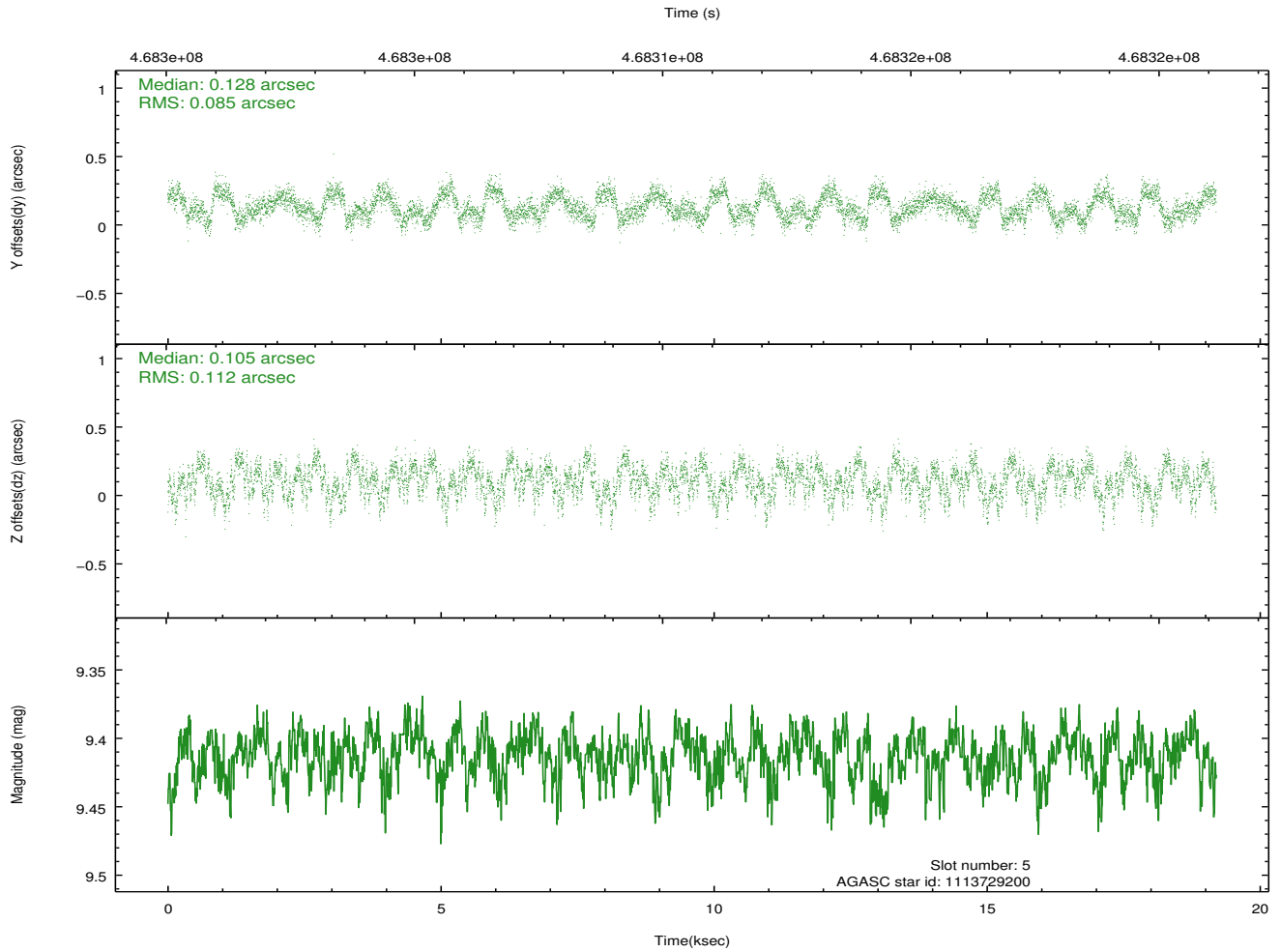
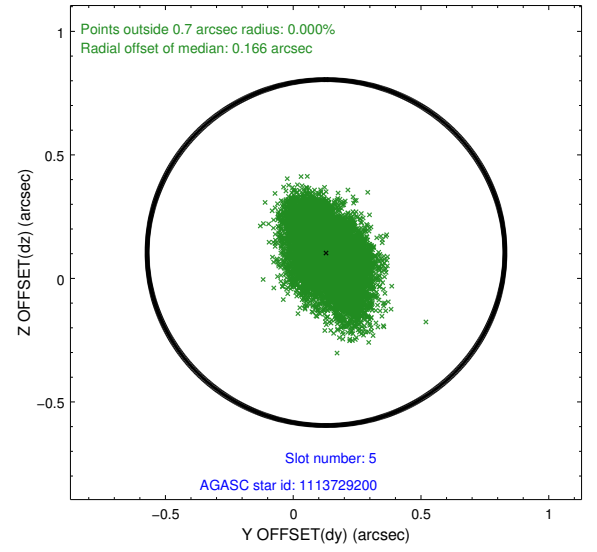
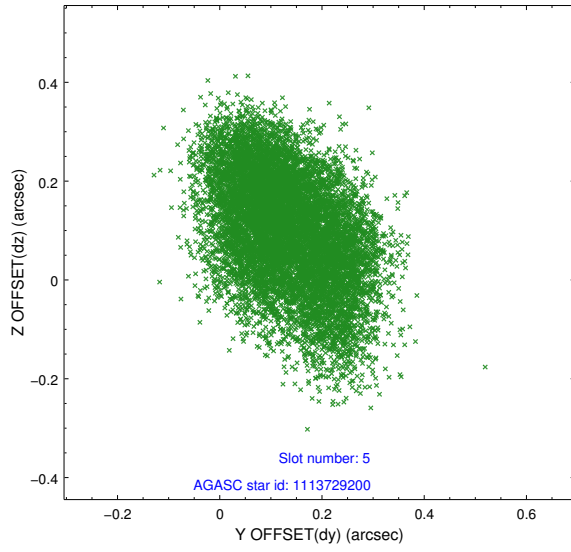
2.4.1 Slot 3



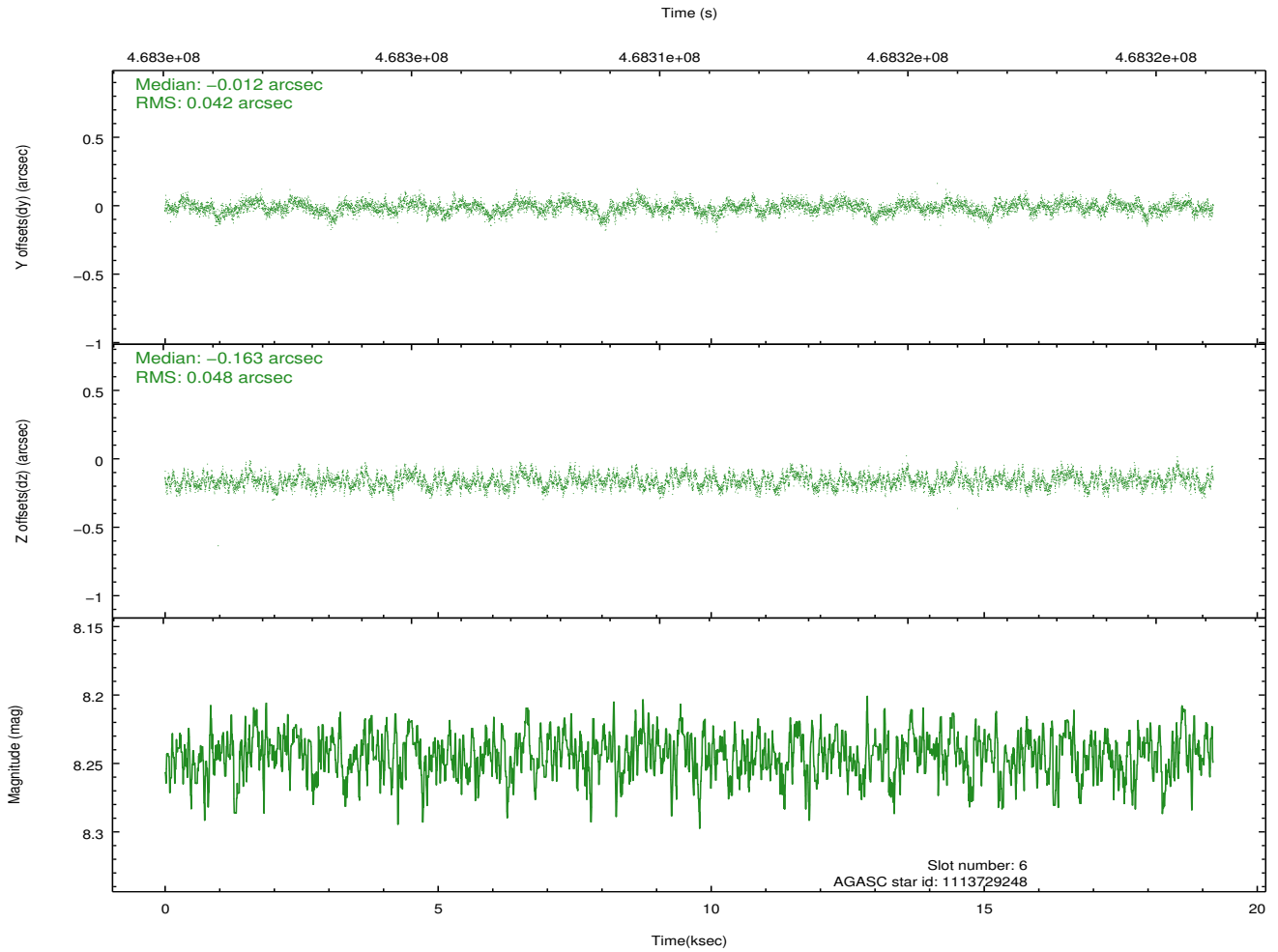
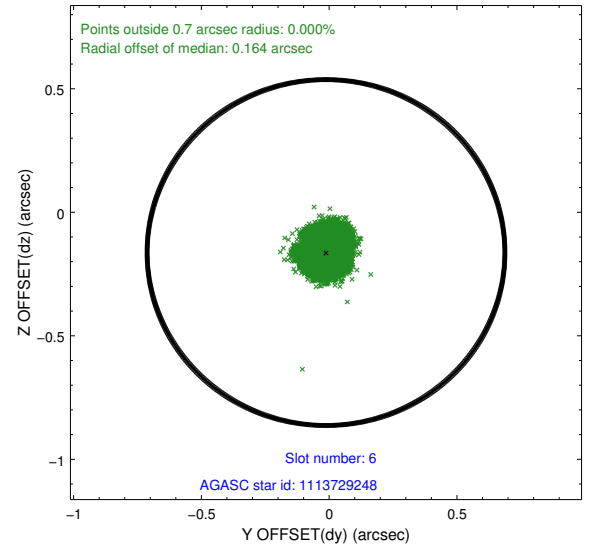
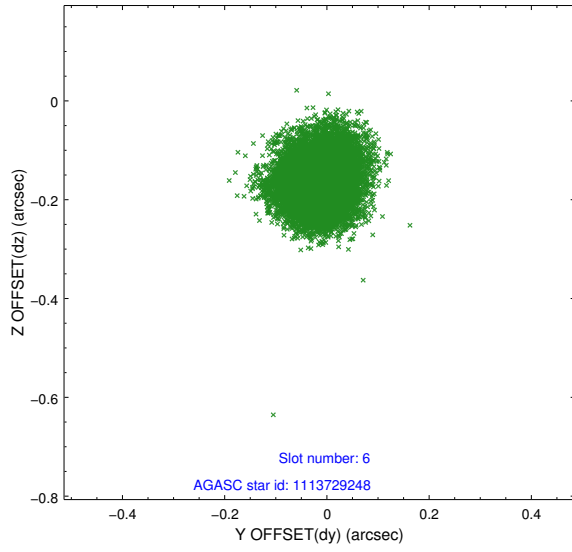
2.4.2 Slot 4



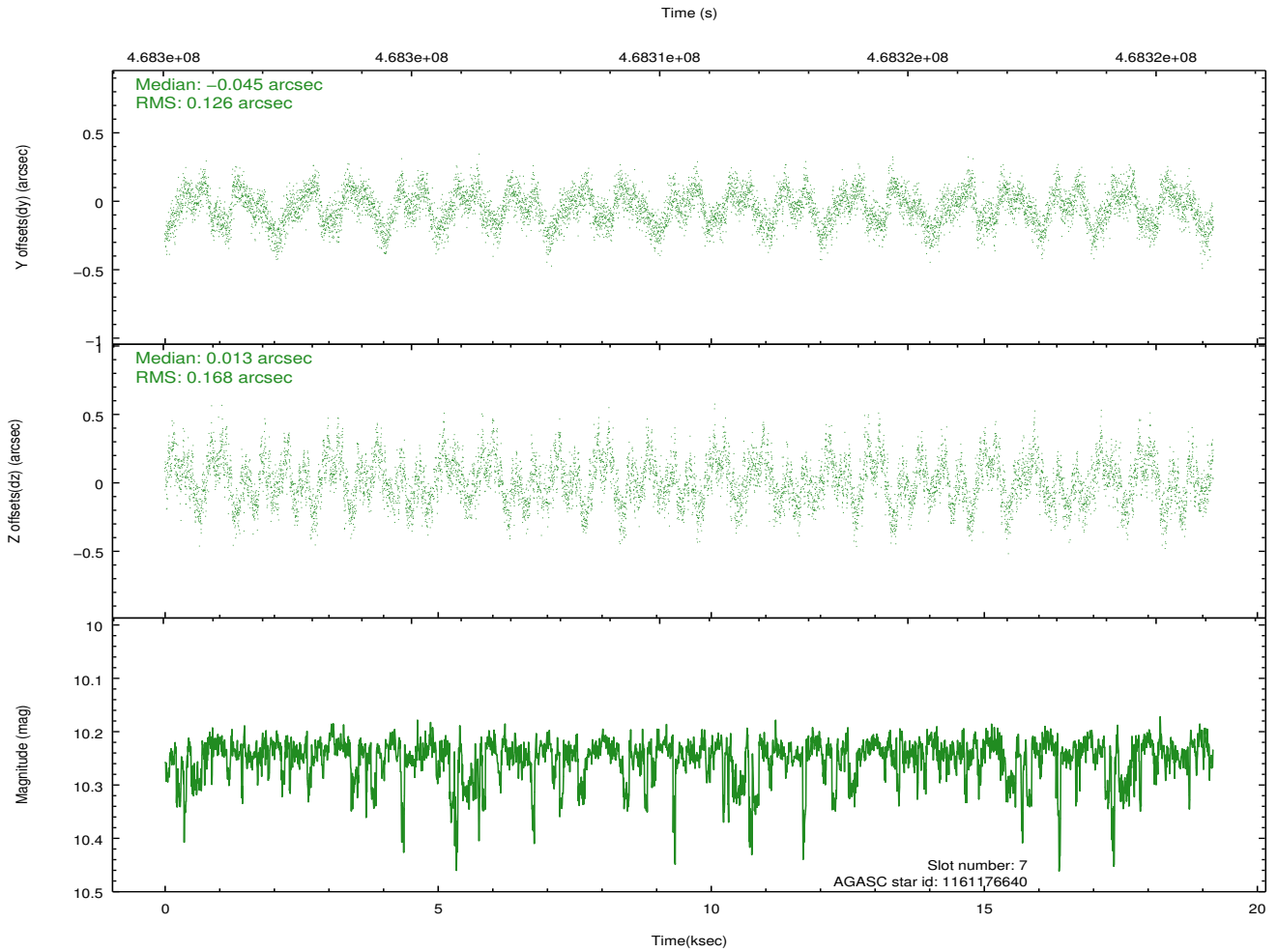
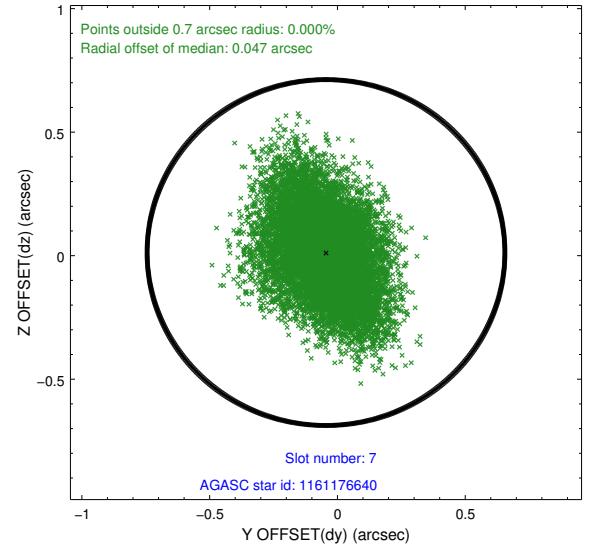
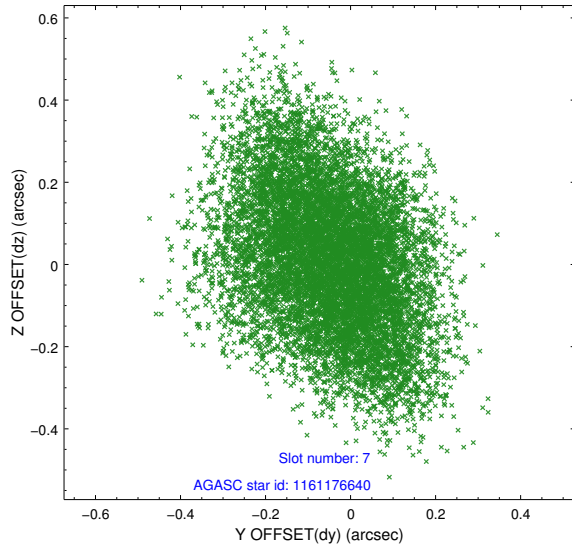
2.4.3 Slot 5



2.4.4 Slot 6

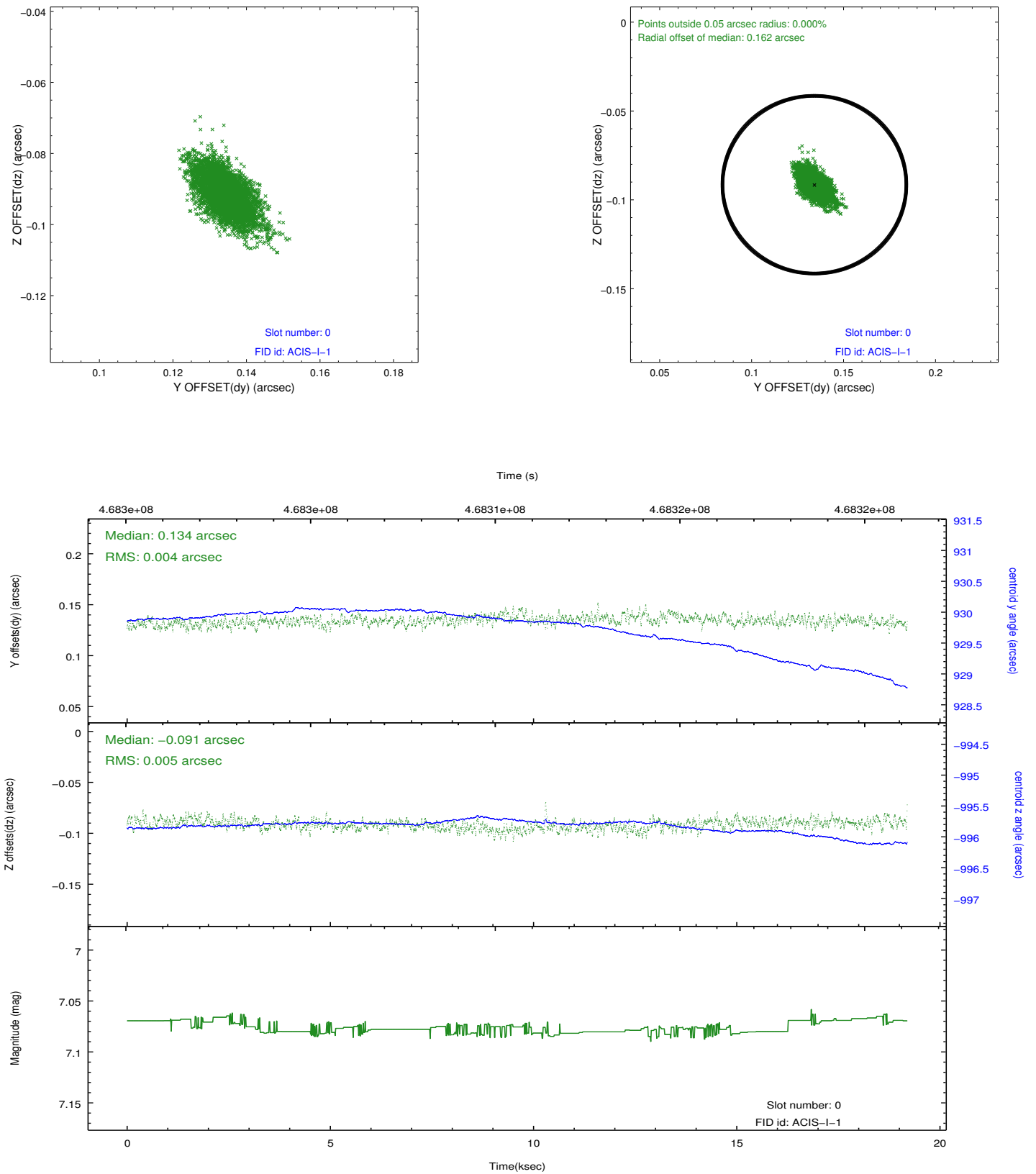


2.4.5 Slot 7

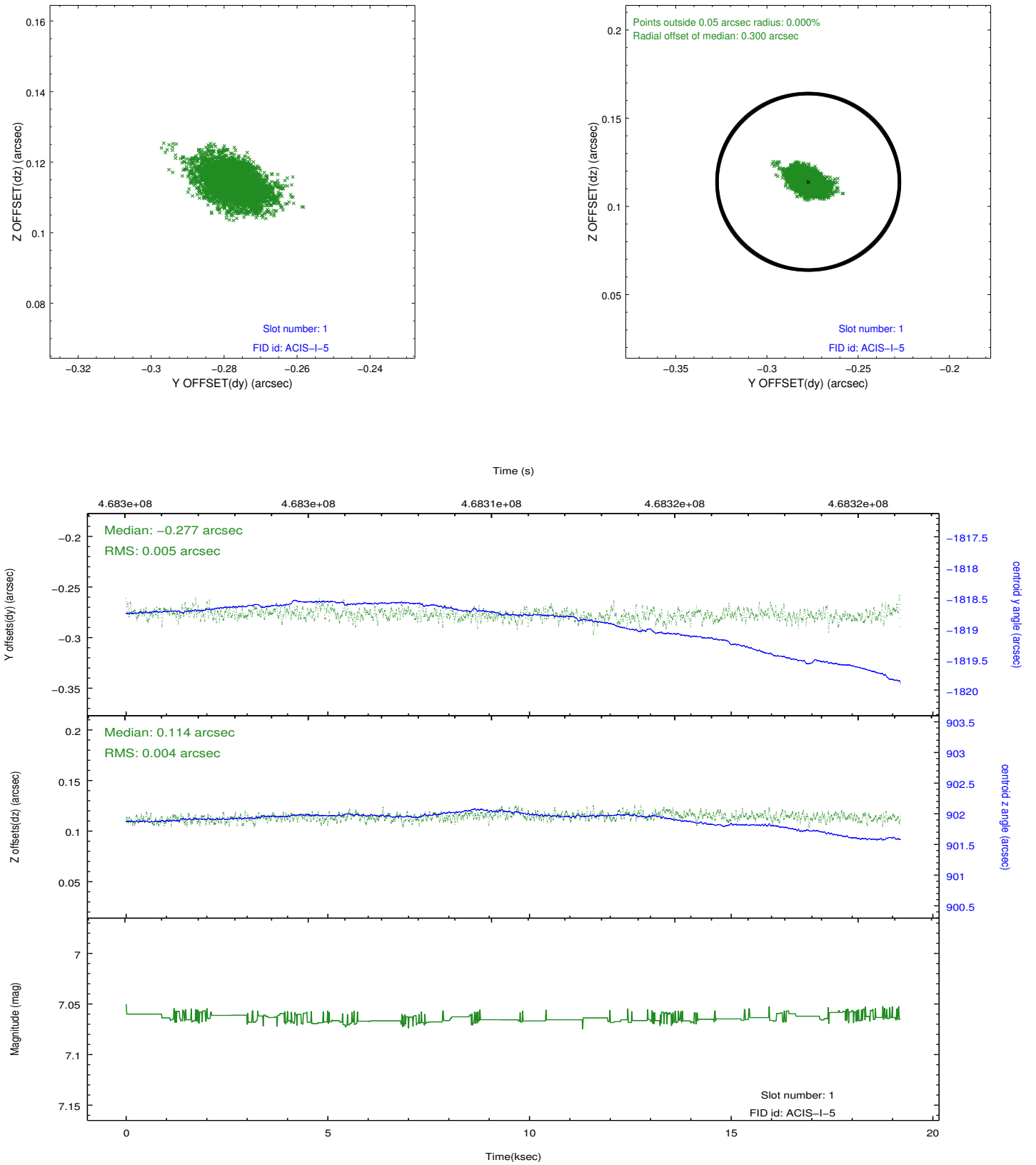


2.5 FID Slots

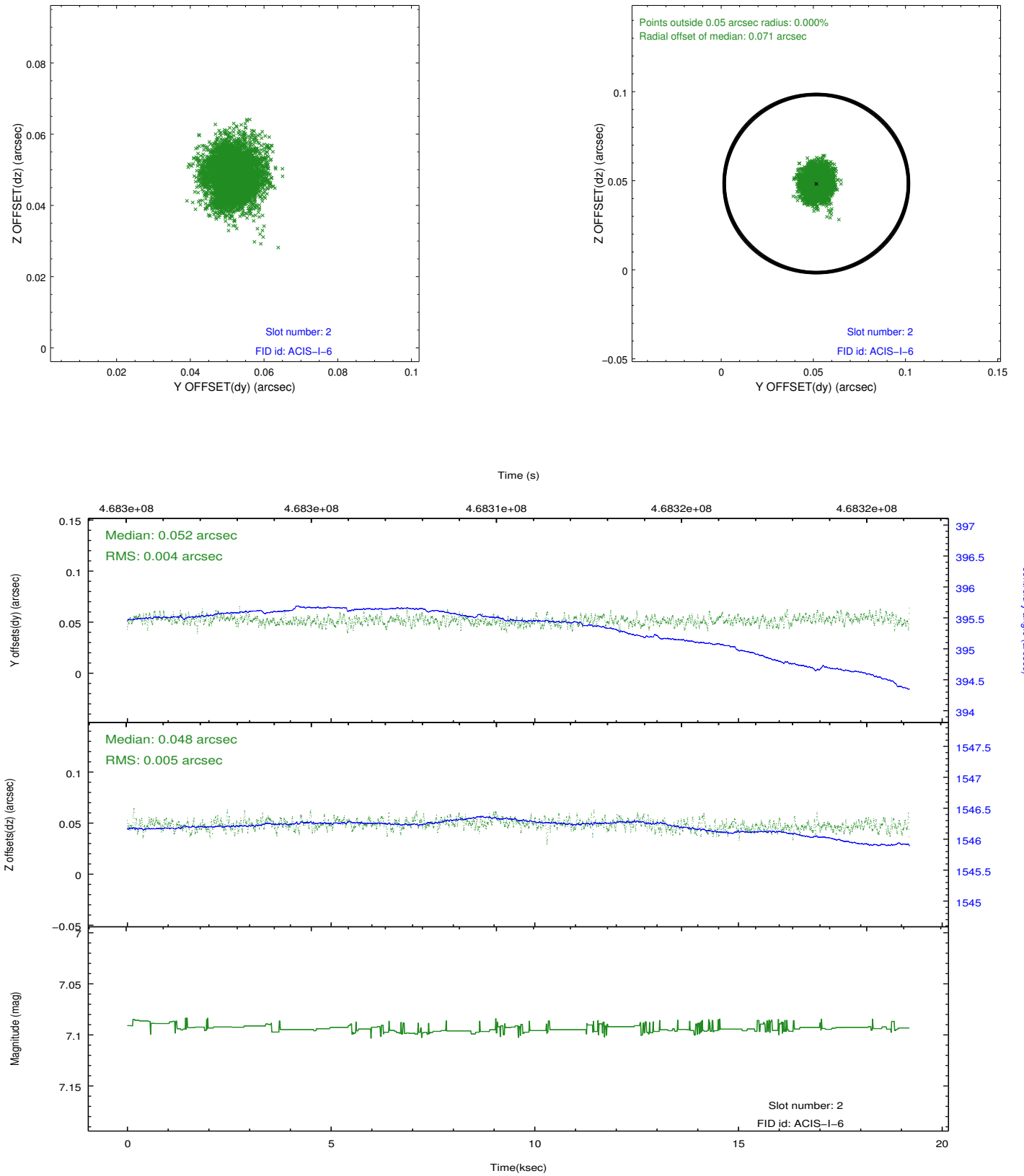
2.5.1 Slot 0



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	19.079545420349

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.