

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 13497 - L2 Version 2
Chandra X-Ray Center

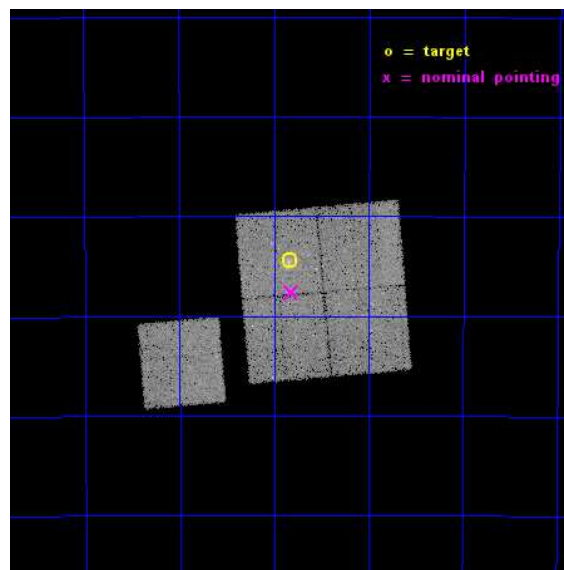
L2 Processing Date : Nov 30 2014

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1 Front

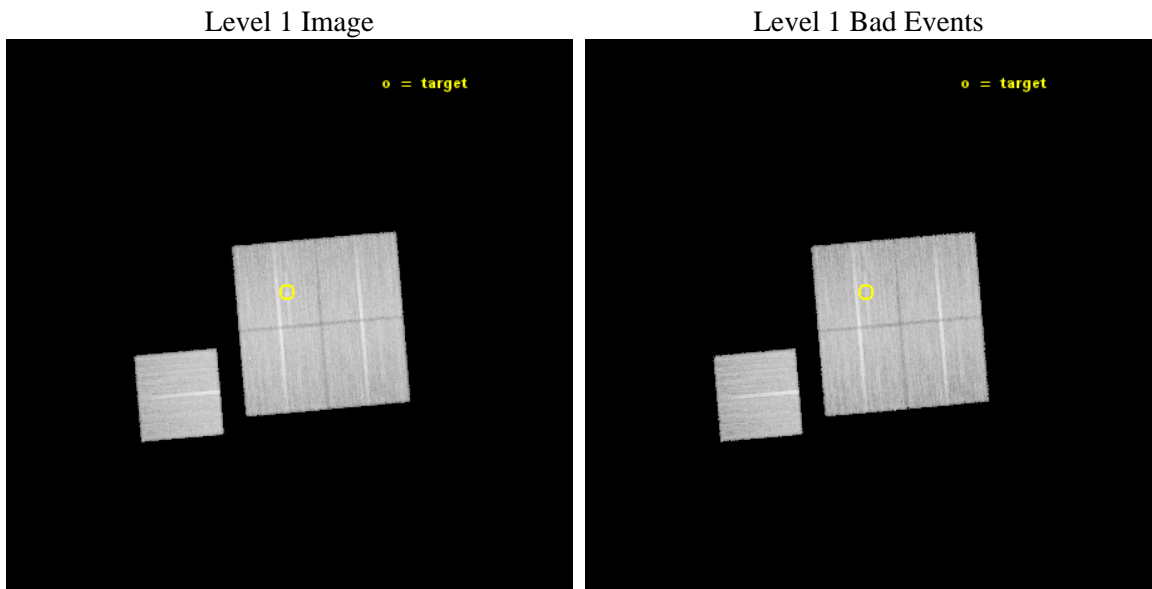
seq_num	801138	Sequence number
obs_id	13497	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg ² from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ2222-4834	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	335.708	Observer's specified target RA [deg]
dec_targ	-48.5729	Observer's specified target Dec [deg]
ra_nom	335.70426285719	Nominal RA [deg]
dec_nom	-48.62727272154	Nominal Dec [deg]
roll_nom	265.03174763769	Nominal Roll [deg]
revision	2	Processing version of data
ontime	32881.700252891	Sum of GTIs [s]
livetime	32452.076631931	Livetime [s]
ontime0	32878.559292495	Sum of GTIs [s]
ontime1	32869.136261582	Sum of GTIs [s]
ontime2	32878.559292555	Sum of GTIs [s]
ontime3	32881.700252891	Sum of GTIs [s]
ontime6	32881.700252891	Sum of GTIs [s]
l2events	90087	Number of level 2 events



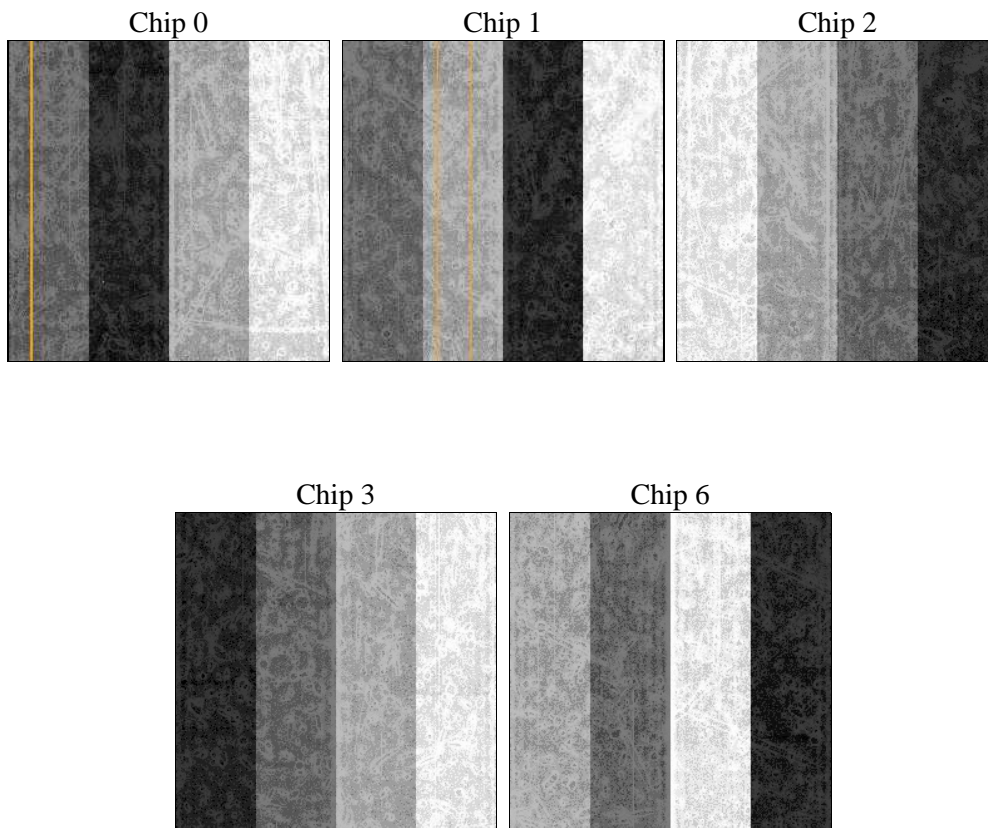
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	32800.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	32881.700252891	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	32878.559292495	Sum of GTIs [s]
date	2014-11-30T19:55:52	Date and time of file creation	ontime1	32869.136261582	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	32878.559292555	Sum of GTIs [s]
			ontime3	32881.700252891	Sum of GTIs [s]
			ontime6	32881.700252891	Sum of GTIs [s]
			l1events	868085	Number of level 1 events

2.1.4 Events

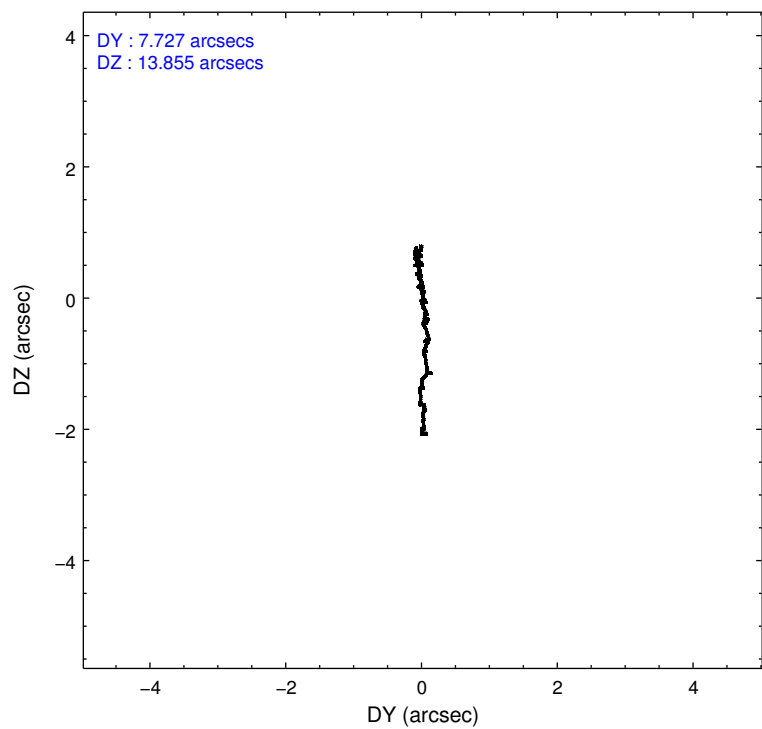
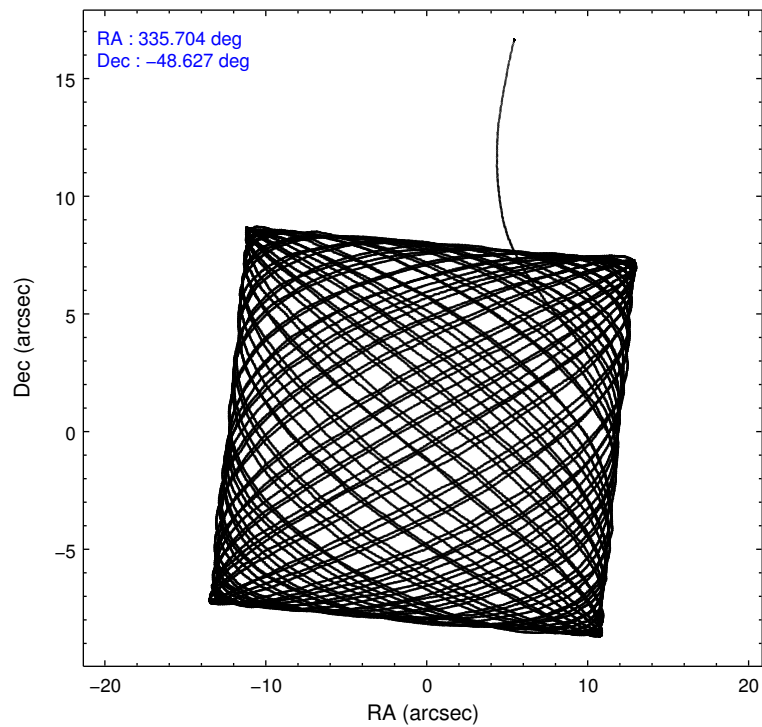
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	164500	169734	177680	177646	178525
rejected events	143720	147111	157219	156387	157565
rejected %	87%	86%	88%	88%	88%

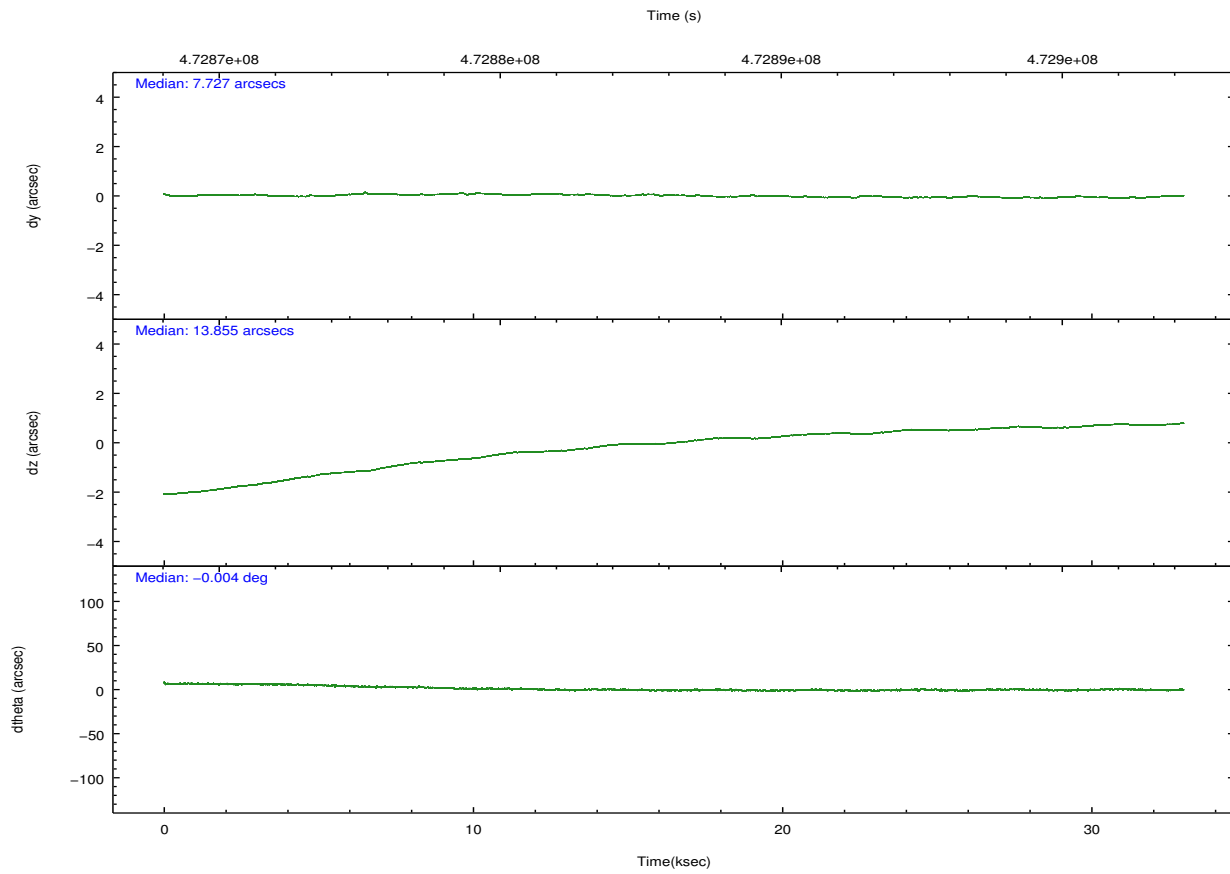
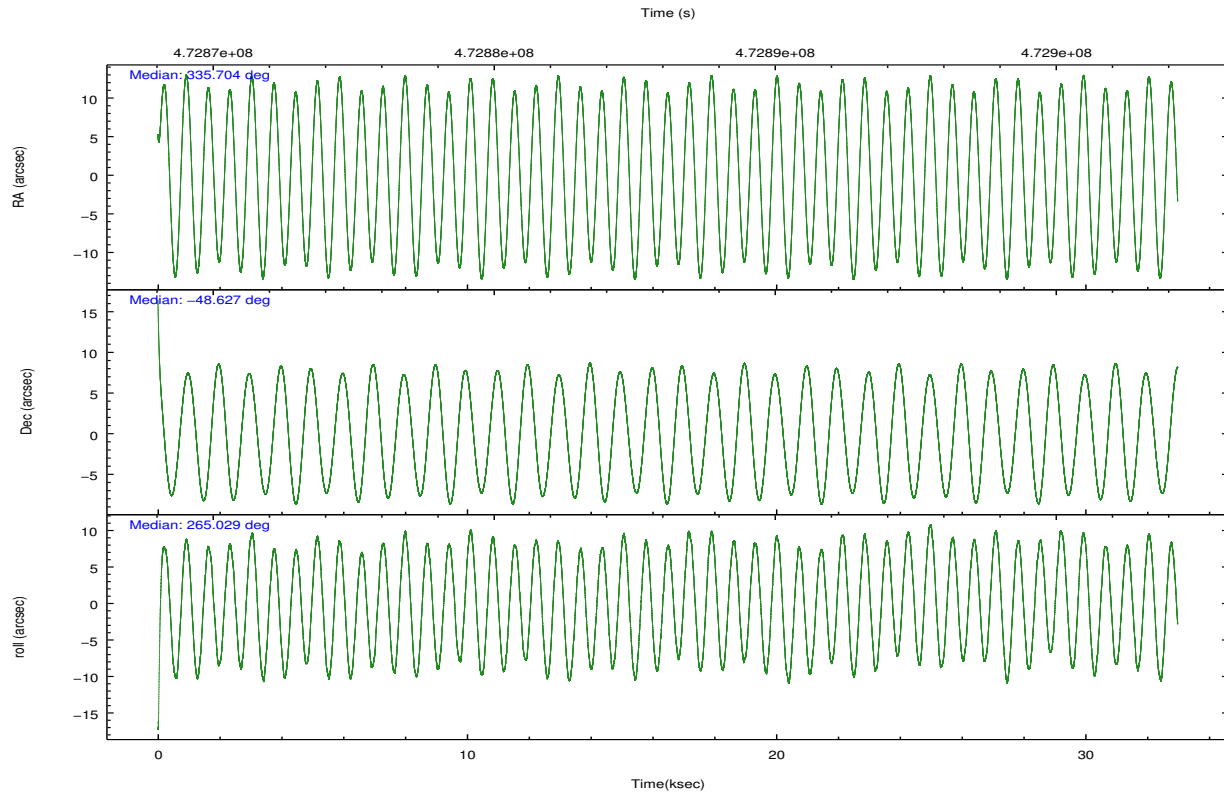
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	7283	7706	7459	8147	7072
	4%	4%	4%	4%	3%
grade 1 events	95	98	122	121	85
	0%	0%	0%	0%	0%
grade 2 events	5117	5615	4881	4474	4727
	3%	3%	2%	2%	2%
grade 3 events	2195	2169	2160	2170	2150
	1%	1%	1%	1%	1%
grade 4 events	1987	2163	2027	2233	2137
	1%	1%	1%	1%	1%
grade 5 events	8072	8462	7786	9052	8858
	4%	4%	4%	5%	4%
grade 6 events	4200	4972	3935	4236	4877
	2%	2%	2%	2%	2%
grade 7 events	135551	138549	149310	147213	148619
	82%	81%	84%	82%	83%

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	335.686500	335.7042628571932	CCD I2 on	Y	Y
[deg] Pointing Dec	-48.602401	-48.62727272154013	CCD I3 on	Y	Y
[deg] Pointing Roll	264.809742	265.0317476376856	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)	472869864.184000	472868601.73845	CCD S5 on	N	N
Observation start date	2012-12-26T00:43:17	2012-12-26T00:23:21	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	472902664.184000	472903405.61532	On-chip summing requested	N	N
Observation end date	2012-12-26T09:49:57	2012-12-26T10:03:25	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





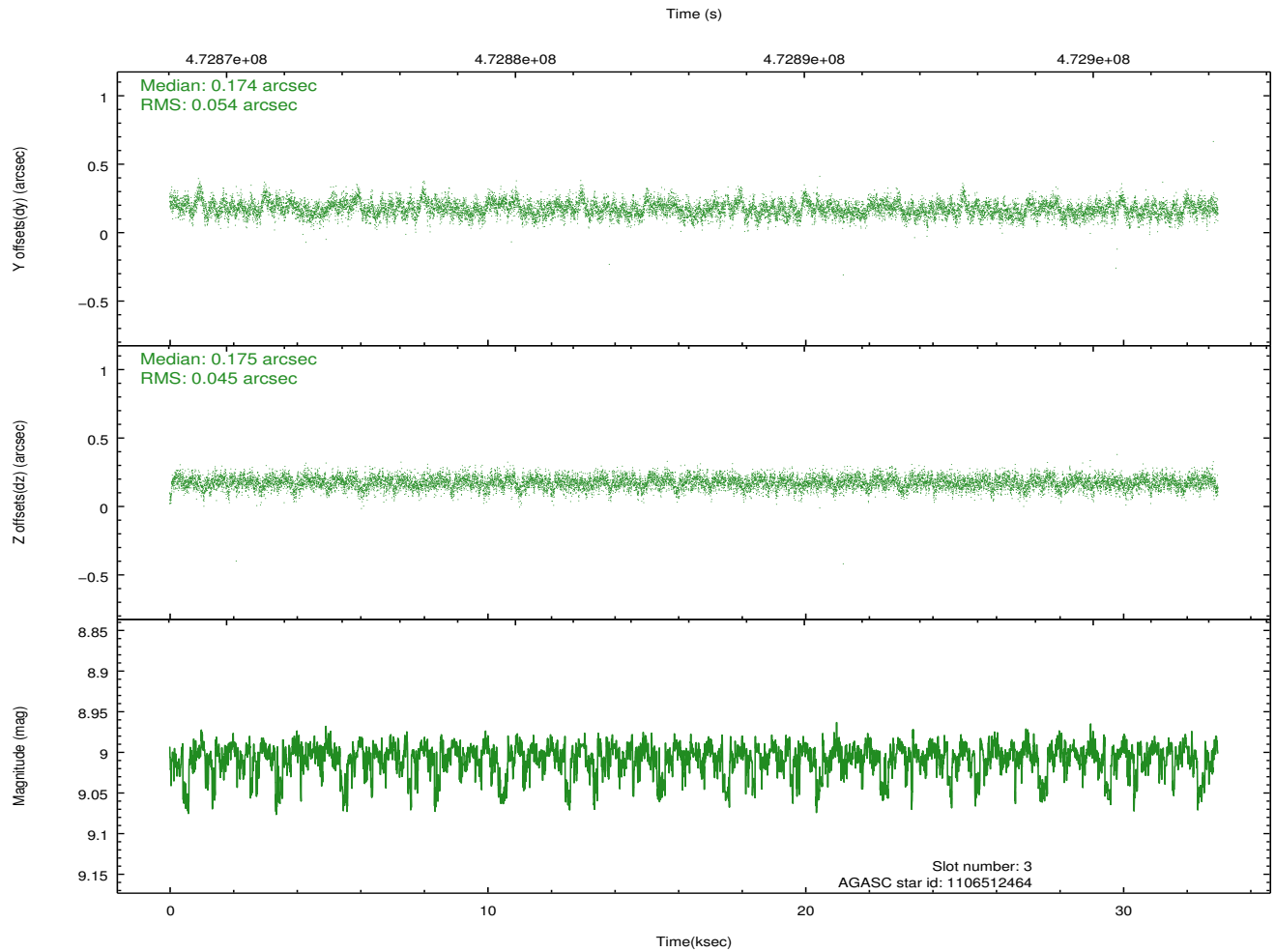
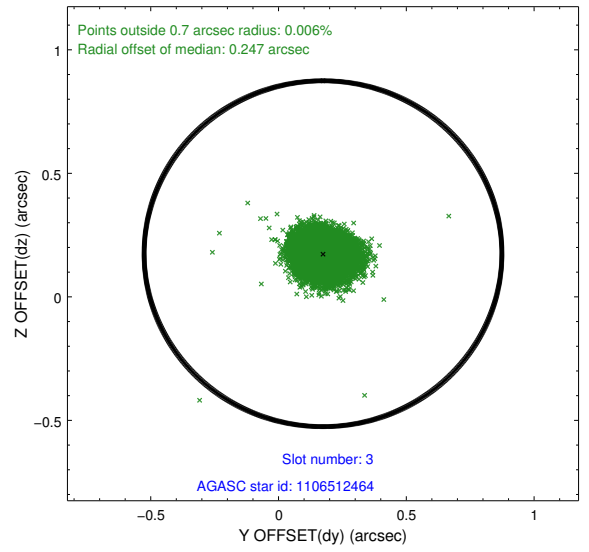
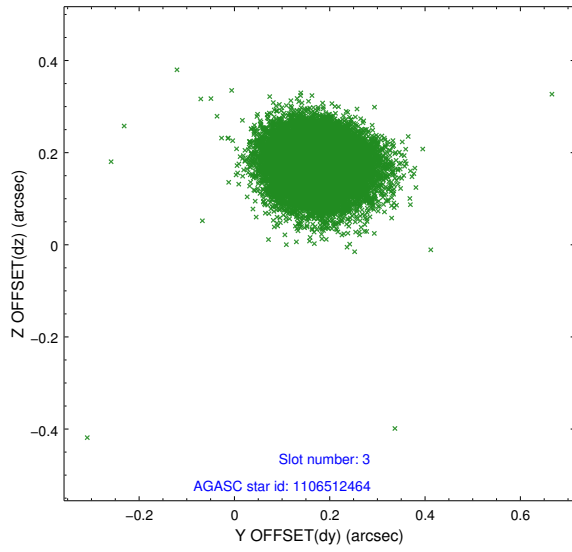
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.15	8044	0.109	-0.100	0.015	0.067	0.000000	0.000000	931.93	-996.36
1	FID		ACIS-I-5	7.14	8045	-0.225	0.099	0.017	0.045	0.000000	0.000000	-1816.54	901.23
2	FID		ACIS-I-6	7.17	8044	0.021	0.071	0.013	0.023	0.000000	0.000000	397.26	1545.81
3	GUIDE	used	1106512464	9.00	16056	0.174	0.175	0.074	0.121	335.509284	-49.050535	1645.58	-269.99
4	GUIDE	used	1106513248	8.42	16083	-0.027	-0.043	0.078	0.126	334.960775	-47.992982	-2018.02	-1938.36
5	GUIDE	used	1106516936	7.20	16087	-0.038	-0.103	0.064	0.101	336.092509	-48.859805	838.66	1041.83
6	GUIDE	used	1106512104	7.13	16020	-0.130	-0.007	0.051	0.081	334.786860	-48.034991	-1825.07	-2340.60
7	GUIDE	used	1106521656	7.38	16087	0.014	-0.016	0.058	0.095	336.114551	-48.815646	675.82	1080.27

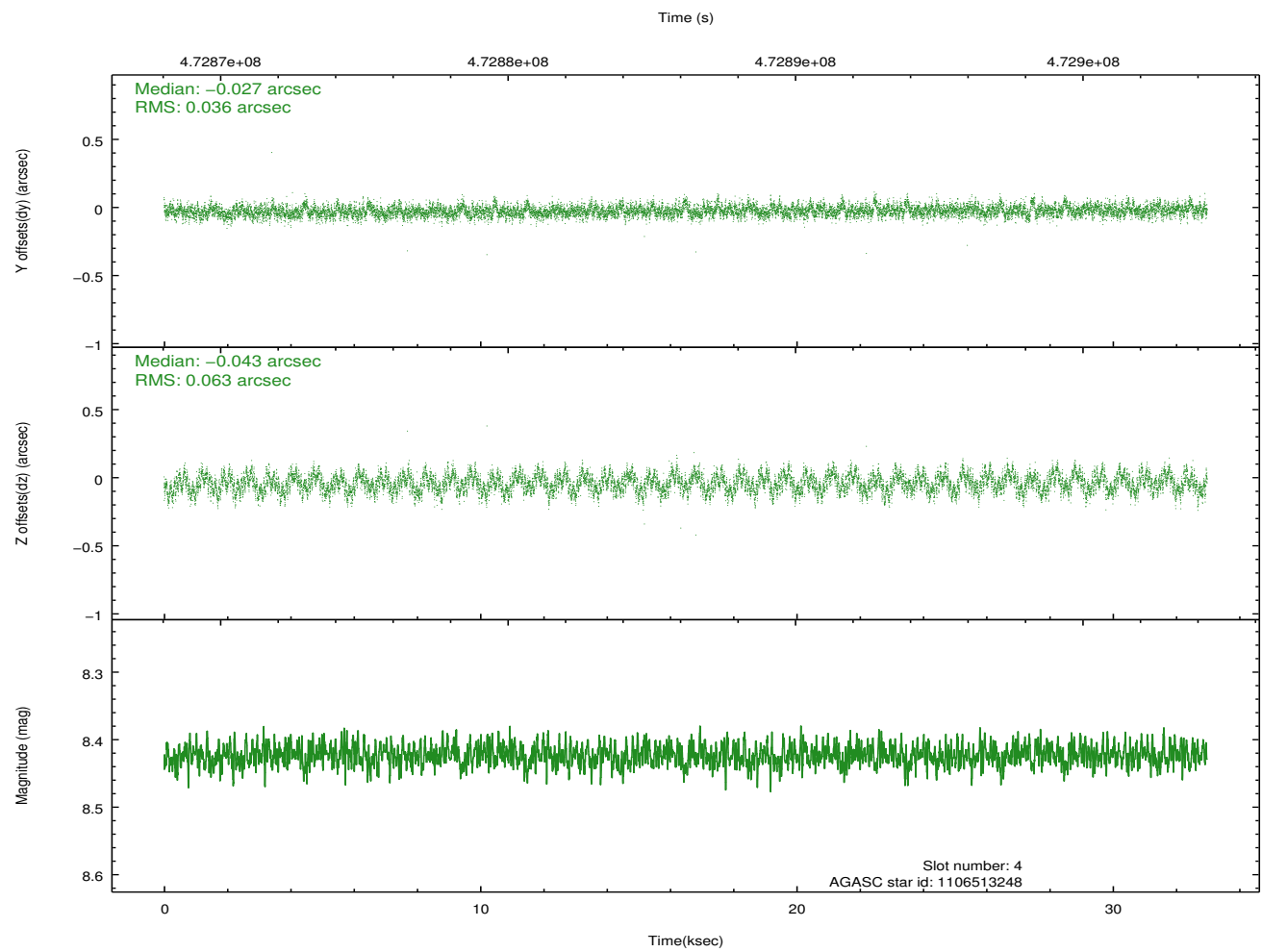
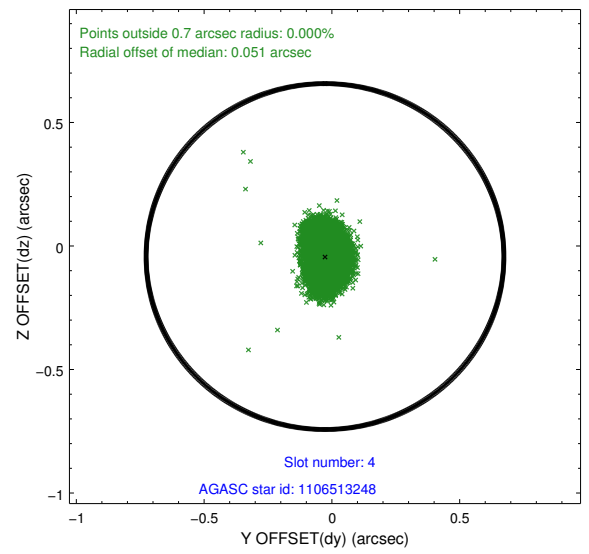
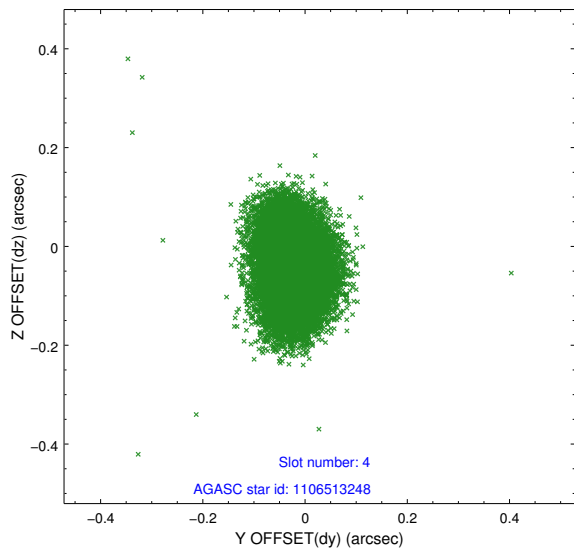
∞

2.4 Star Slots

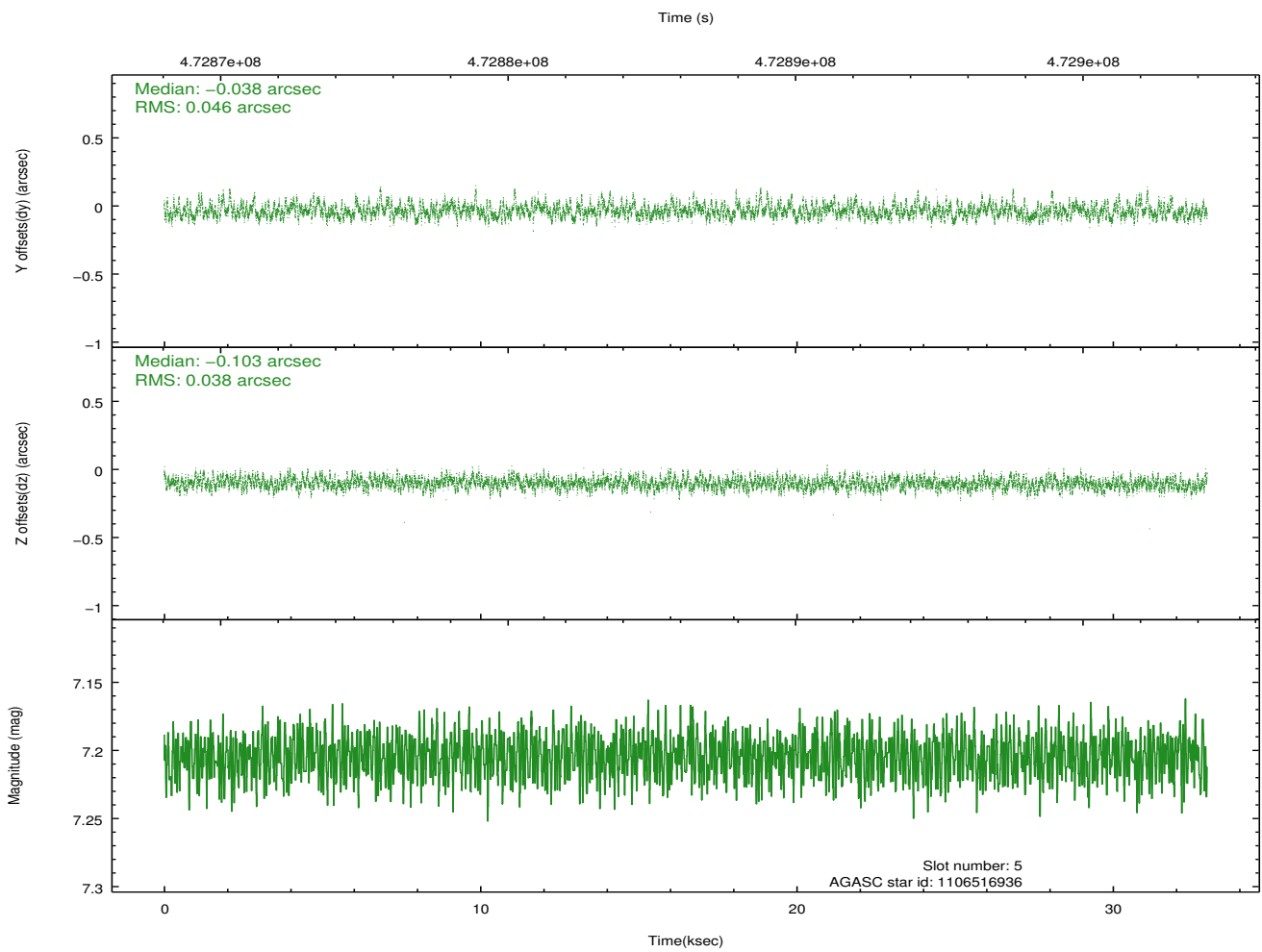
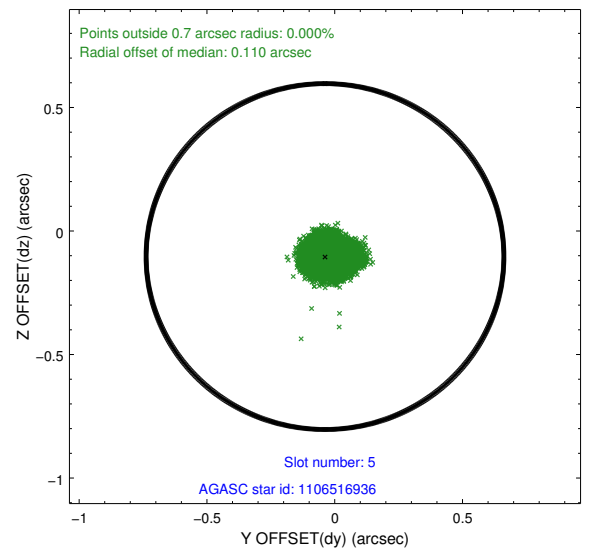
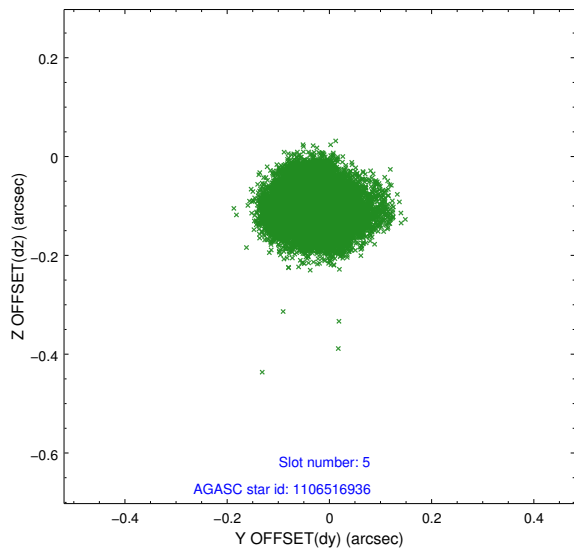
2.4.1 Slot 3



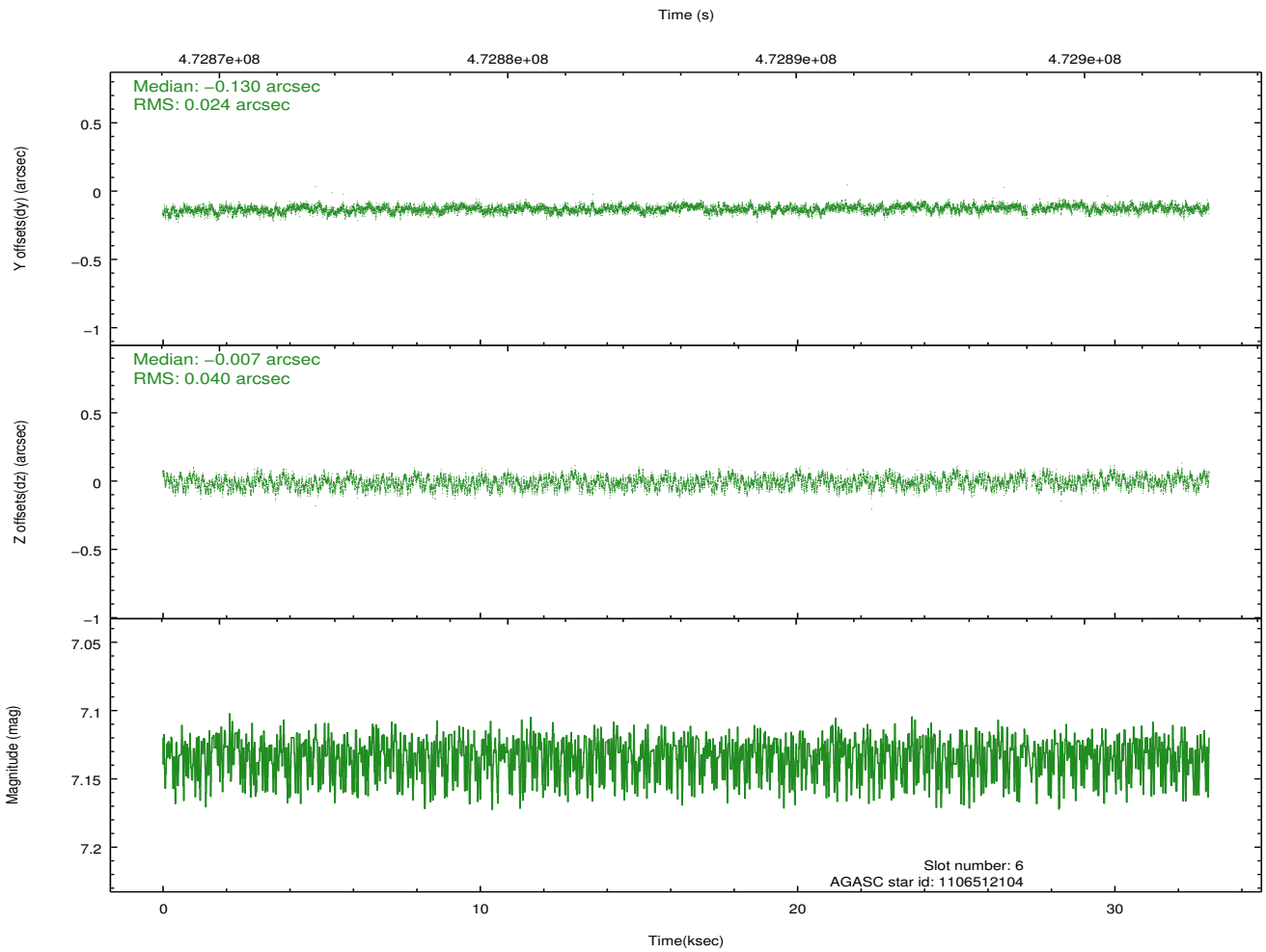
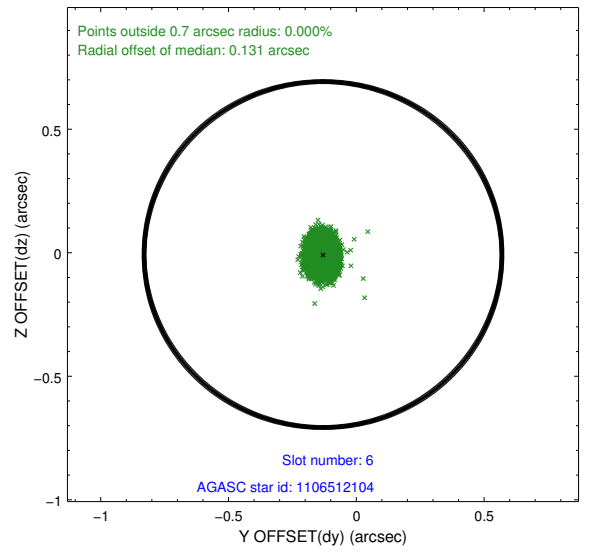
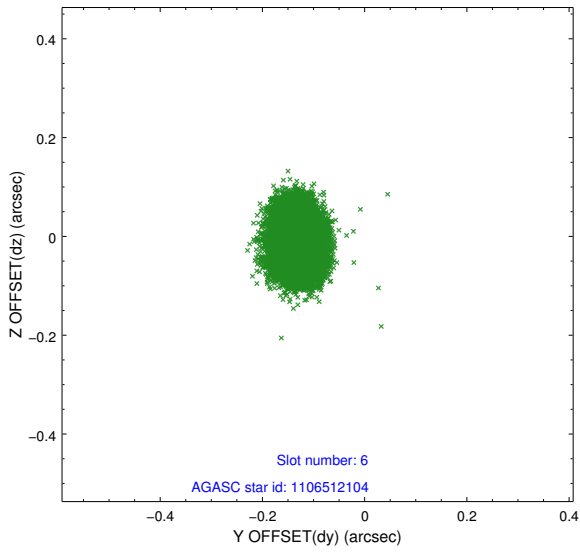
2.4.2 Slot 4



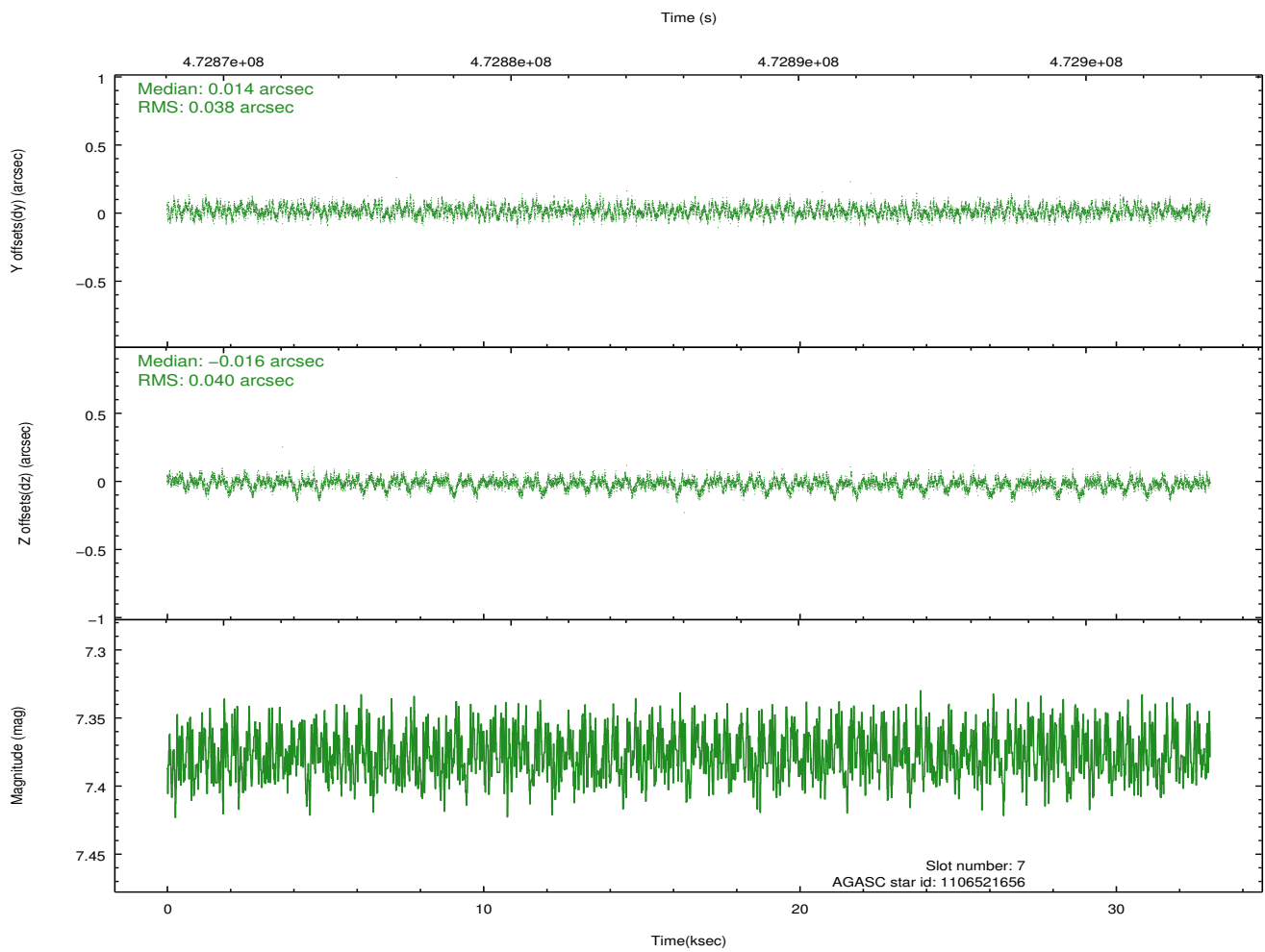
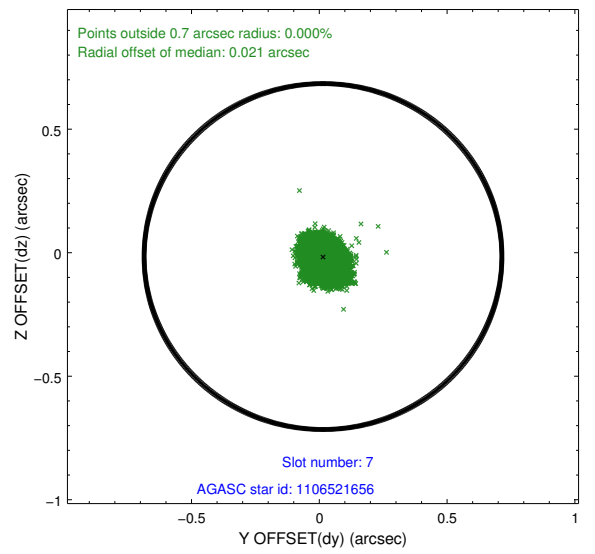
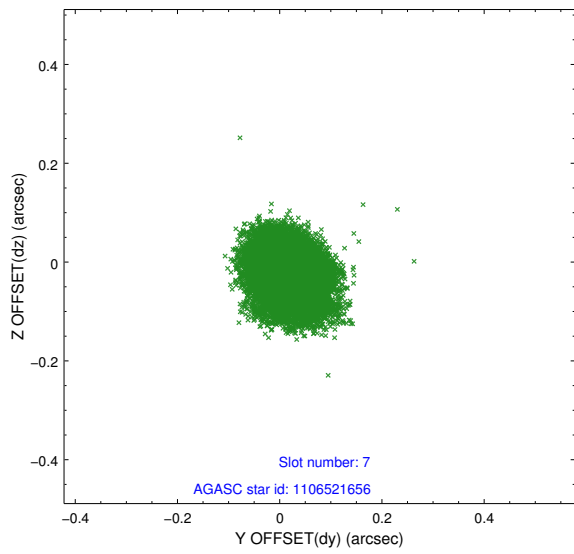
2.4.3 Slot 5



2.4.4 Slot 6

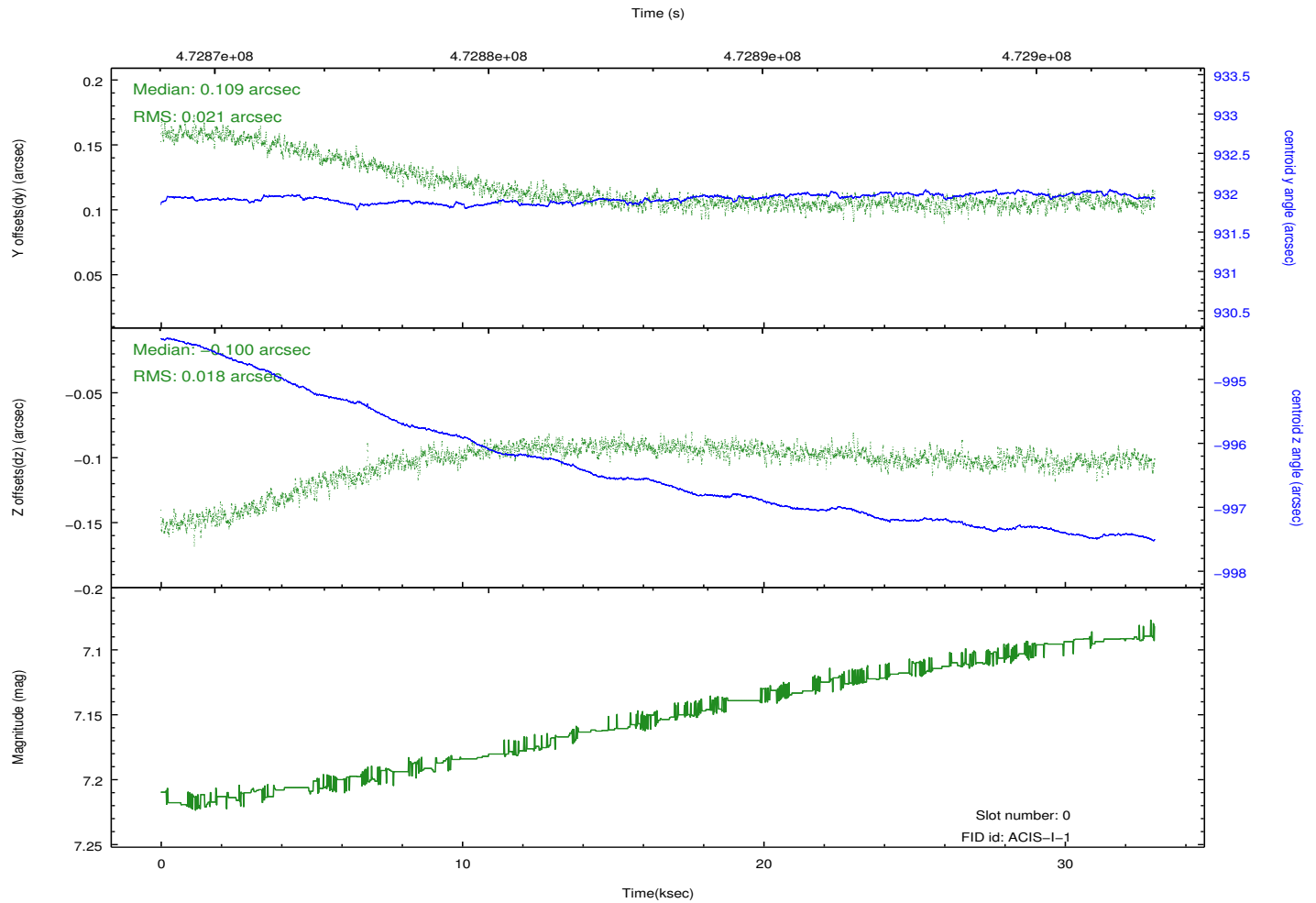
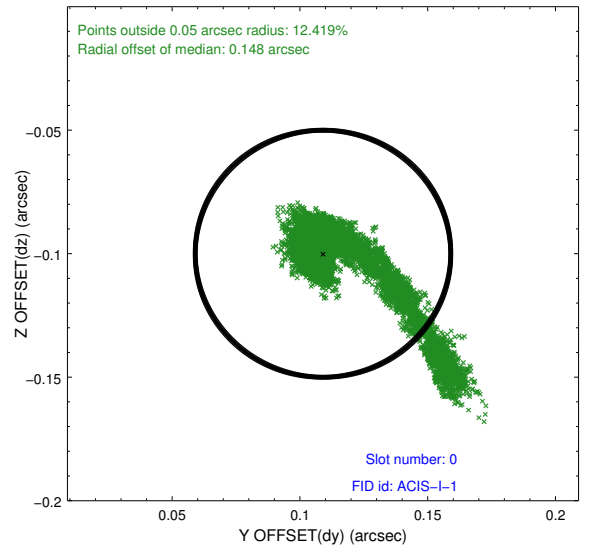
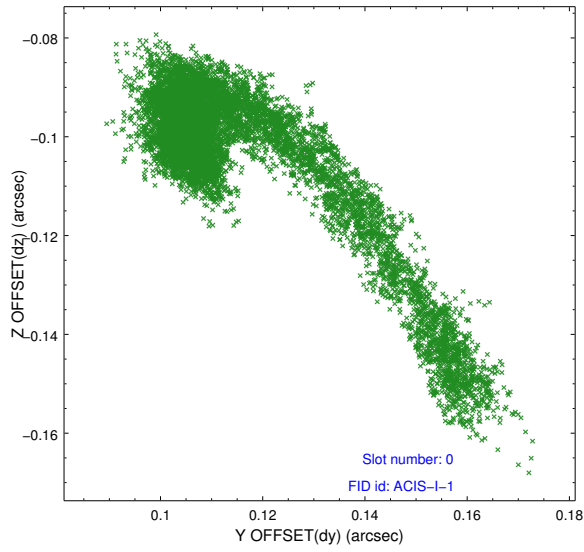


2.4.5 Slot 7

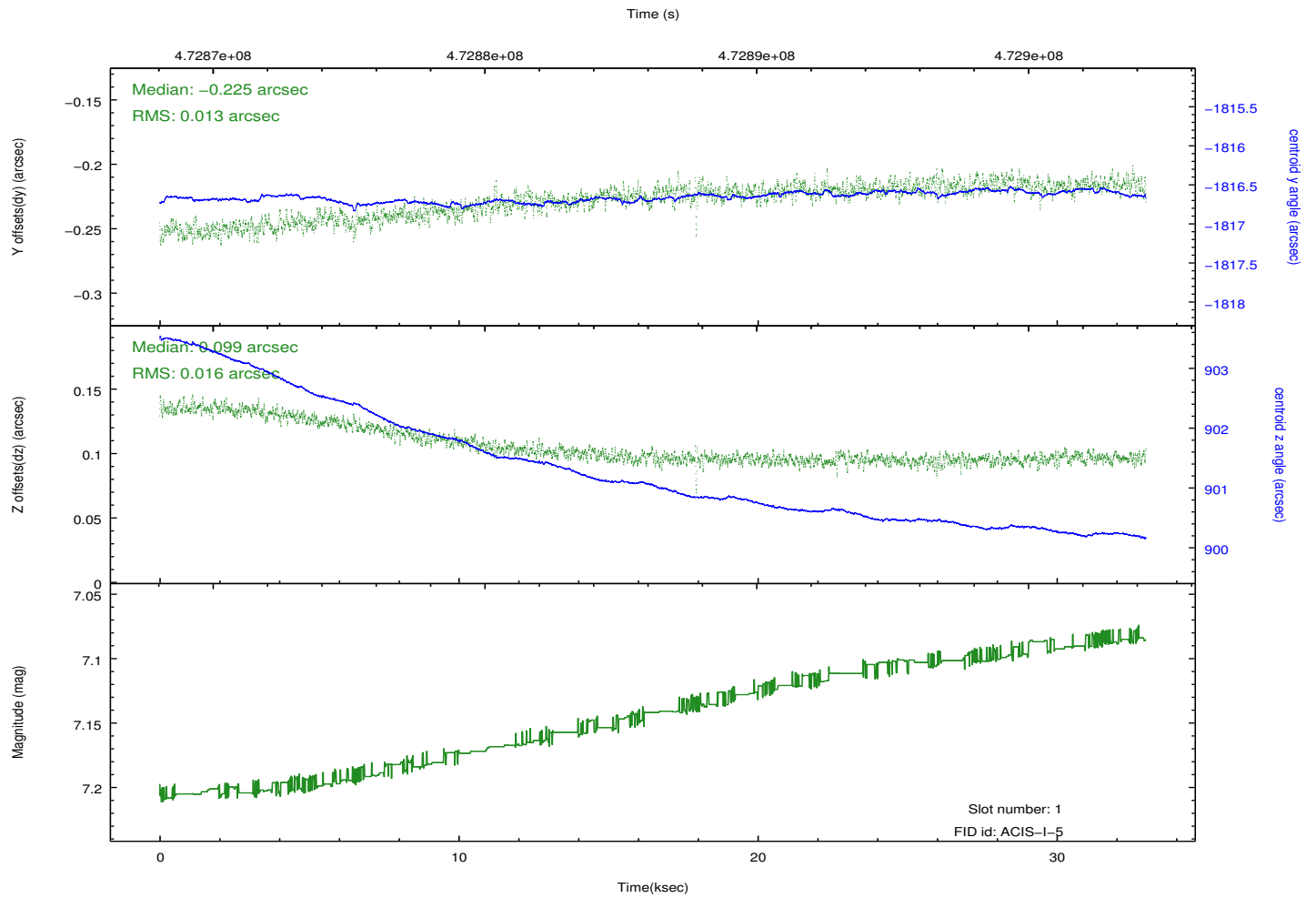
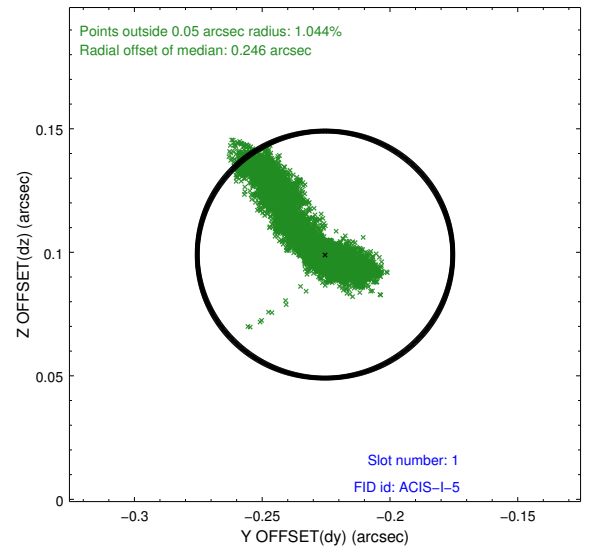
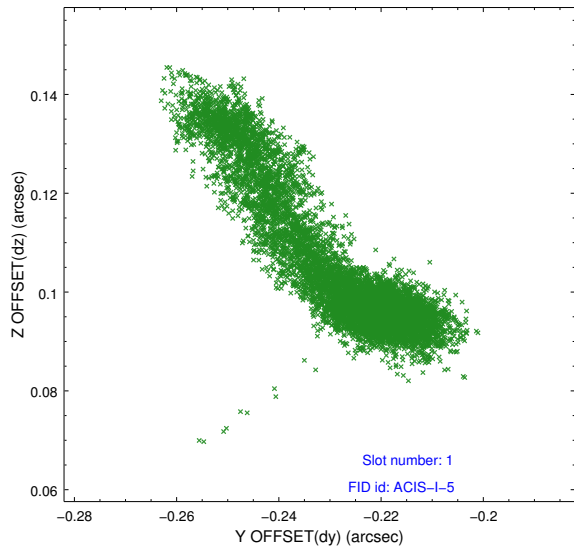


2.5 FID Slots

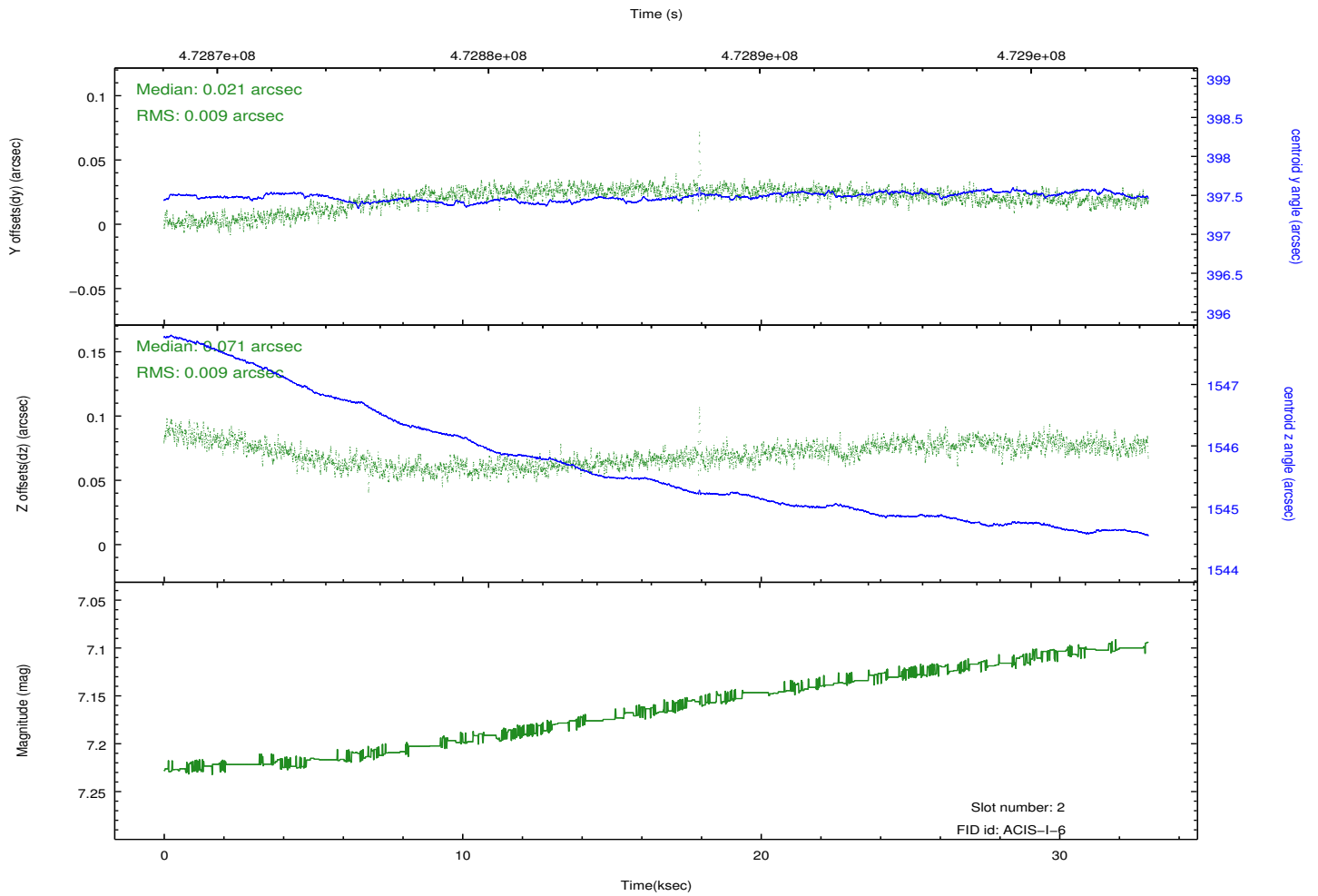
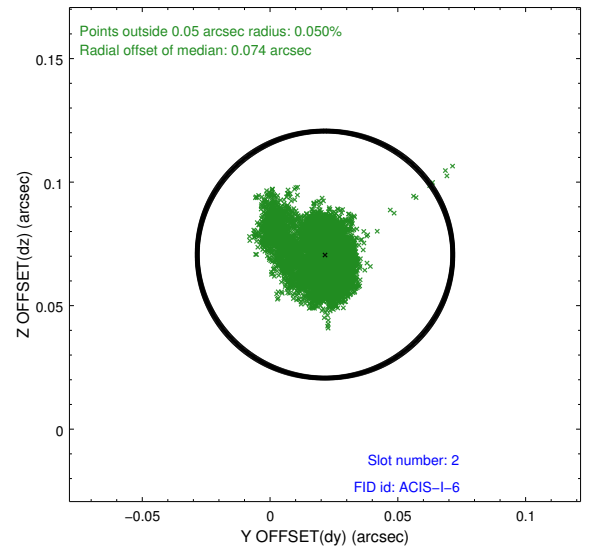
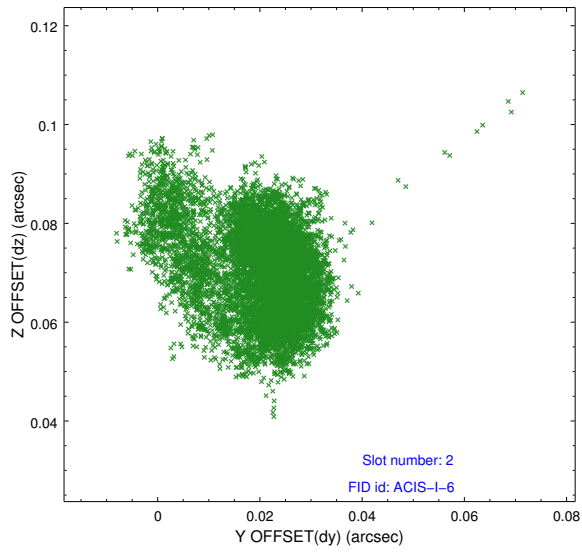
2.5.1 Slot 0



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)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	32.881700252891

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.