

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16612 - L2 Version 2
Chandra X-Ray Center

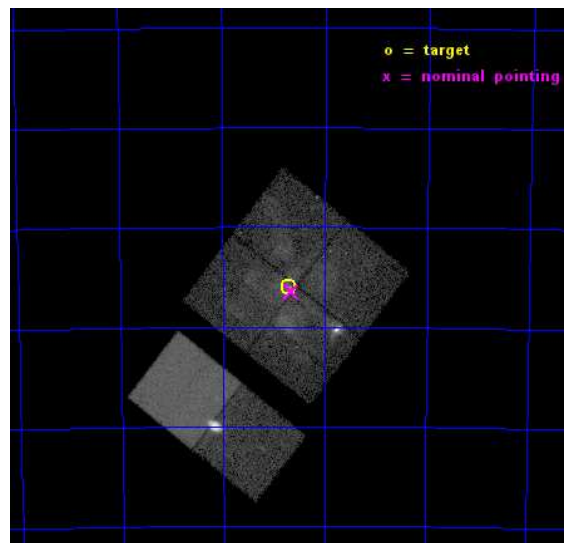
L2 Processing Date : Dec 11 2014

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1 Front

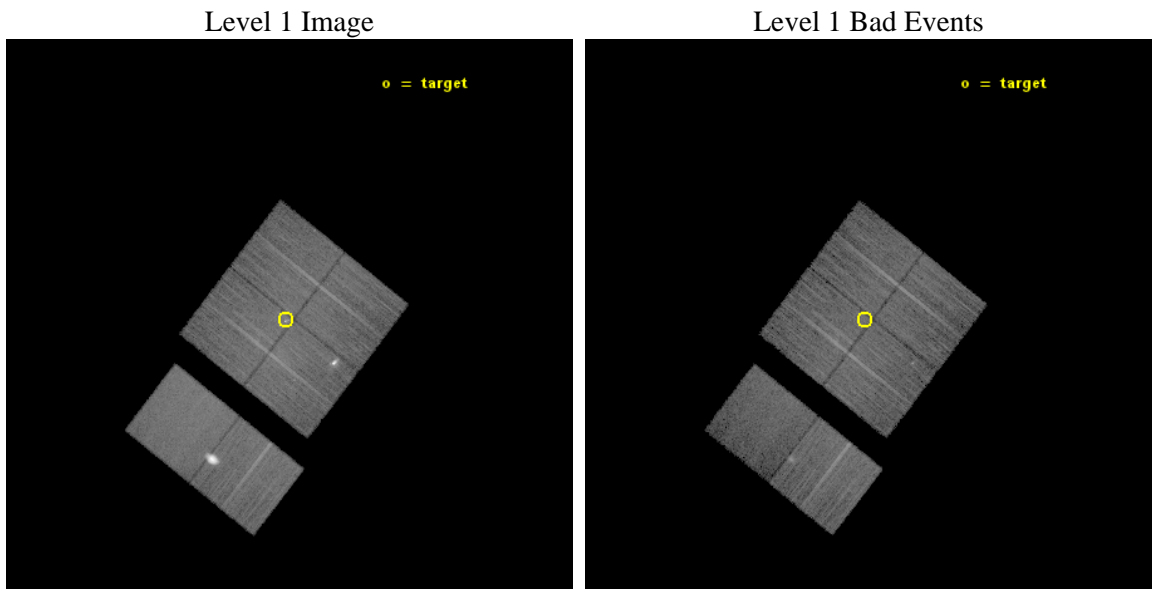
seq_num	901116	Sequence number
obs_id	16612	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.676667	Observer's specified target RA [deg]
dec_targ	-69.100806	Observer's specified target Dec [deg]
ra_nom	84.663821941175	Nominal RA [deg]
dec_nom	-69.107453915395	Nominal Dec [deg]
roll_nom	218.19668046286	Nominal Roll [deg]
revision	2	Processing version of data
ontime	22963.117854357	Sum of GTIs [s]
livetime	22672.345029355	Livetime [s]
ontime0	22966.358914196	Sum of GTIs [s]
ontime1	22963.118013382	Sum of GTIs [s]
ontime2	22969.599914491	Sum of GTIs [s]
ontime3	22963.117854357	Sum of GTIs [s]
ontime6	22969.599914491	Sum of GTIs [s]
ontime7	22969.599914491	Sum of GTIs [s]
l2events	206813	Number of level 2 events



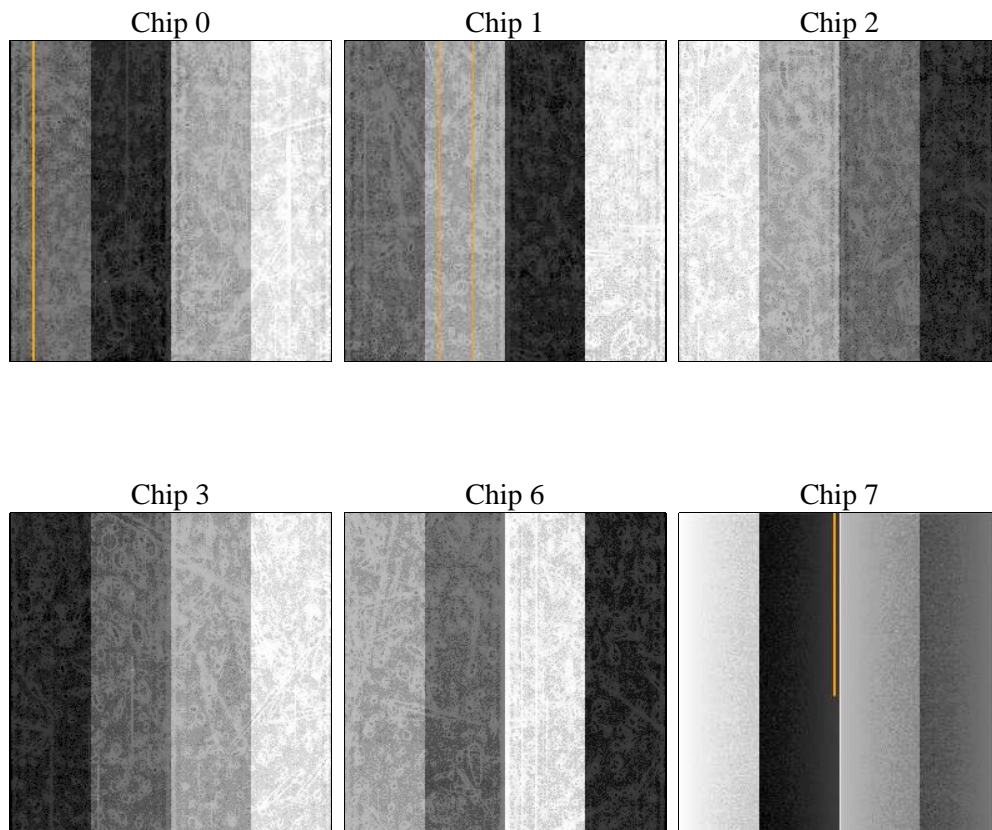
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	22963.117854357	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	22966.358914196	Sum of GTIs [s]
date	2014-12-11T12:41:25	Date and time of file creation	ontime1	22963.118013382	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	22969.599914491	Sum of GTIs [s]
			ontime3	22963.117854357	Sum of GTIs [s]
			ontime6	22969.599914491	Sum of GTIs [s]
			ontime7	22969.599914491	Sum of GTIs [s]
			l1events	717967	Number of level 1 events

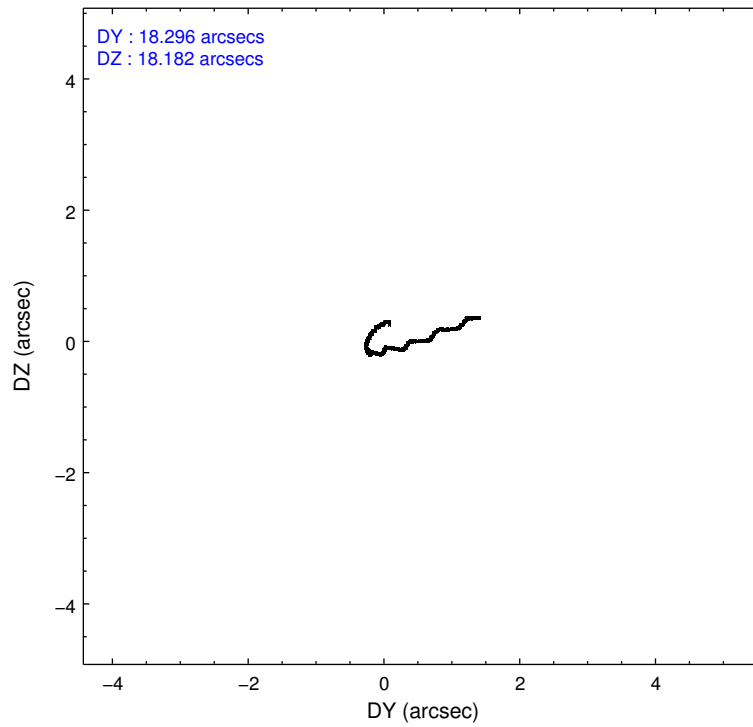
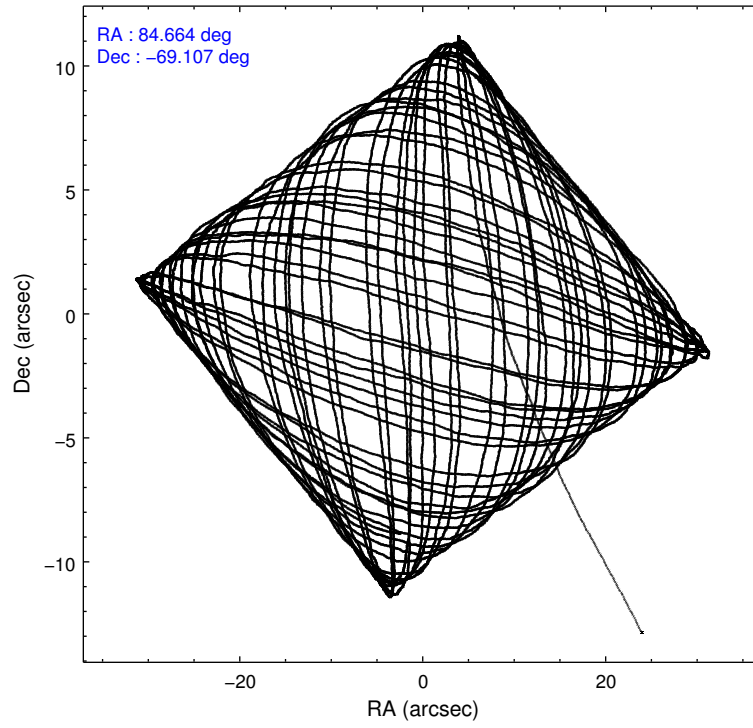
2.1.4 Events

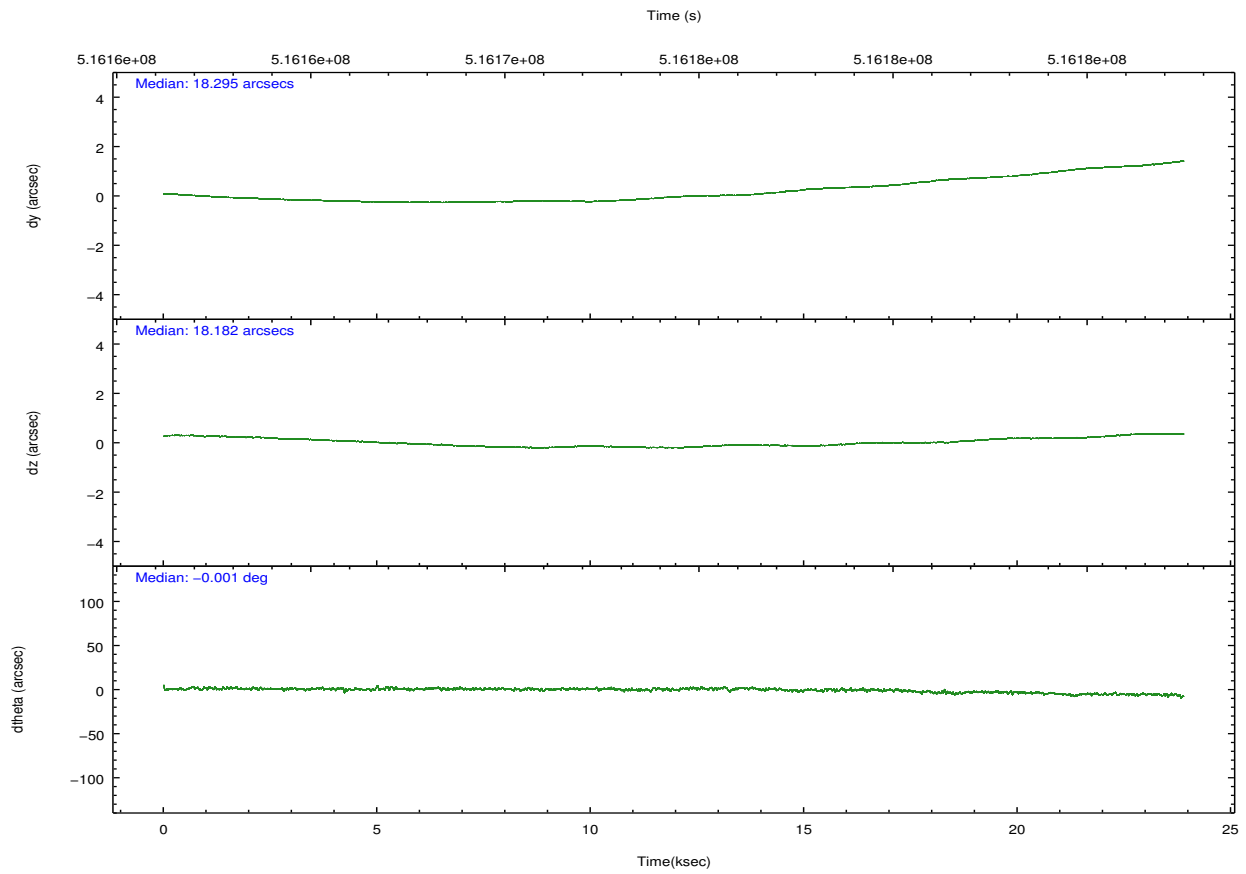
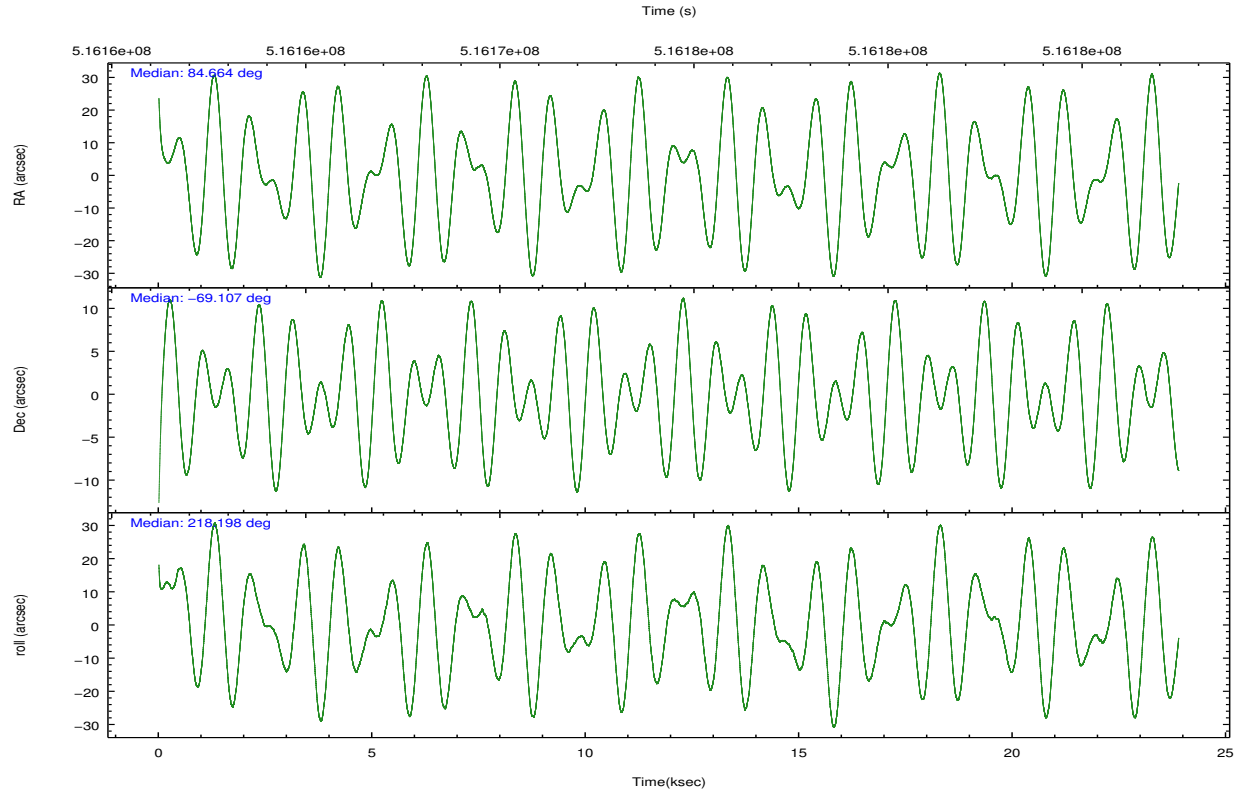
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	98626	99002	121447	106577	164353	127962	grade 0 events	8837	9105	22189	11054	50050	7427
rejected events	81382	80895	88037	87316	94470	63941		8%	9%	18%	10%	30%	5%
rejected %	82%	81%	72%	81%	57%	49%	grade 1 events	64	78	198	95	320	188
								0%	0%	0%	0%	0%	0%
							grade 2 events	3400	3395	5025	3175	9260	14113
								3%	3%	4%	2%	5%	11%
							grade 3 events	1320	1376	1879	1302	3116	5917
								1%	1%	1%	1%	1%	4%
							grade 4 events	1259	1396	1821	1385	3151	5810
								1%	1%	1%	1%	1%	4%
							grade 5 events	4074	4475	3946	4639	5009	12811
								4%	4%	3%	4%	3%	10%
							grade 6 events	2431	2837	2499	2349	4314	30760
								2%	2%	2%	2%	2%	24%
							grade 7 events	77241	76340	83890	82578	89133	50936
								78%	77%	69%	77%	54%	39%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	84.692168	84.66382194117531	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.081899	-69.10745391539533	CCD I3 on	Y	Y
[deg] Pointing Roll	218.014480	218.196680462858	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	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	516163303.184000	516161731.02558	CCD S5 on	N	N
Observation start date	2014-05-11T02:40:36	2014-05-11T02:15:31	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	516186303.184000	516187773.71452	On-chip summing requested	N	N
Observation end date	2014-05-11T09:03:56	2014-05-11T09:29:33	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





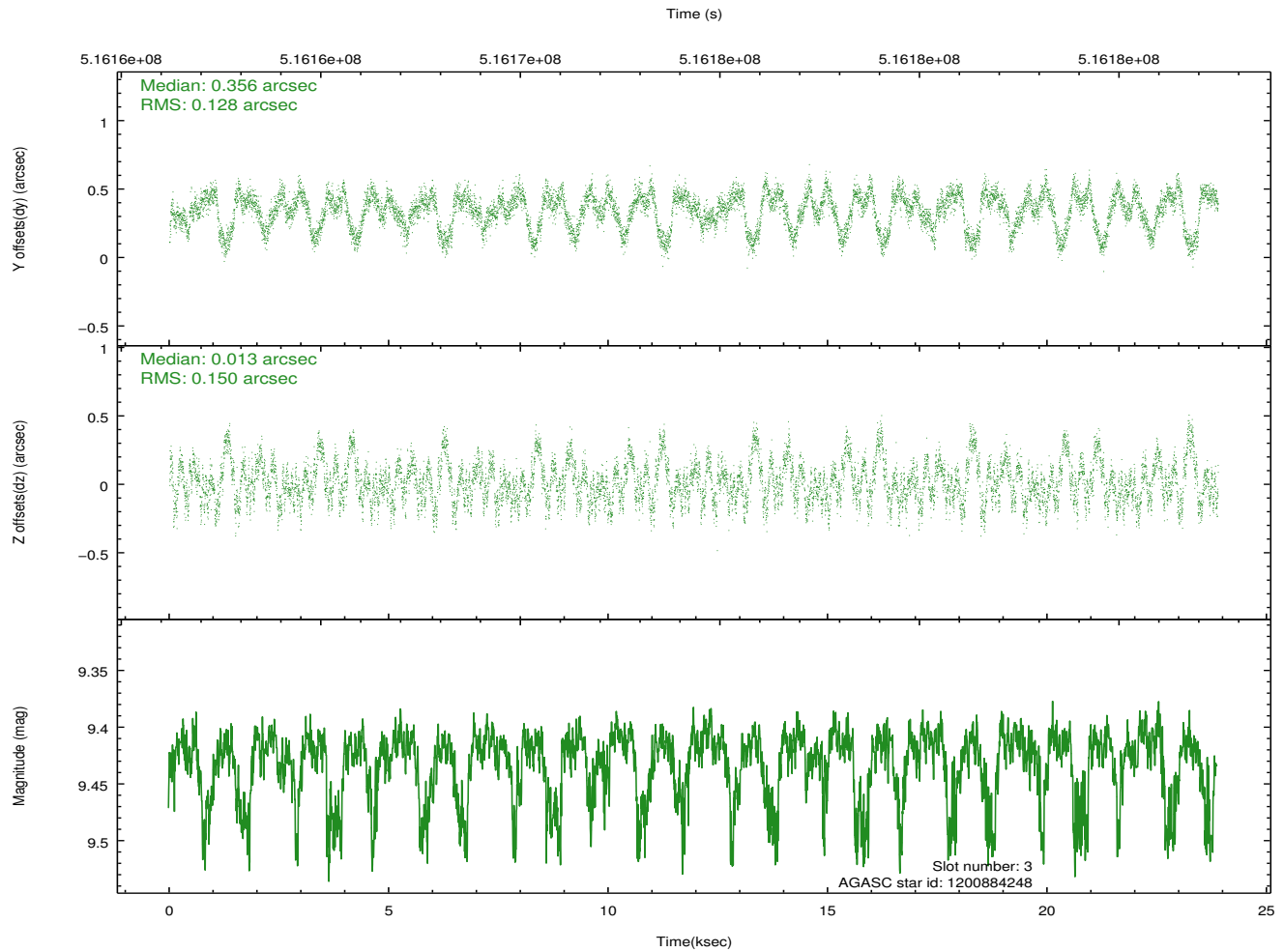
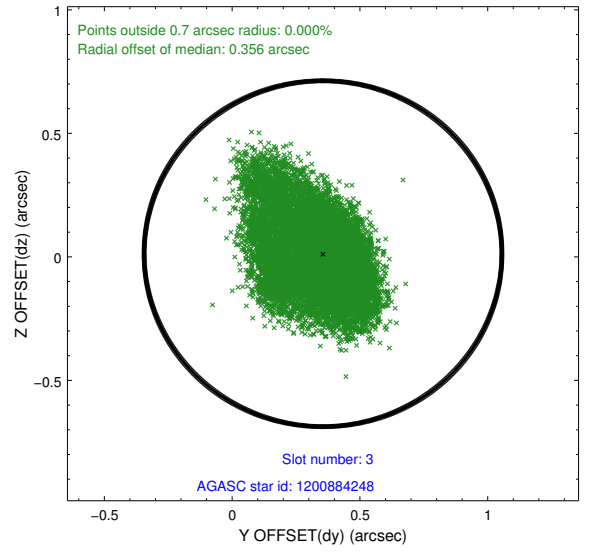
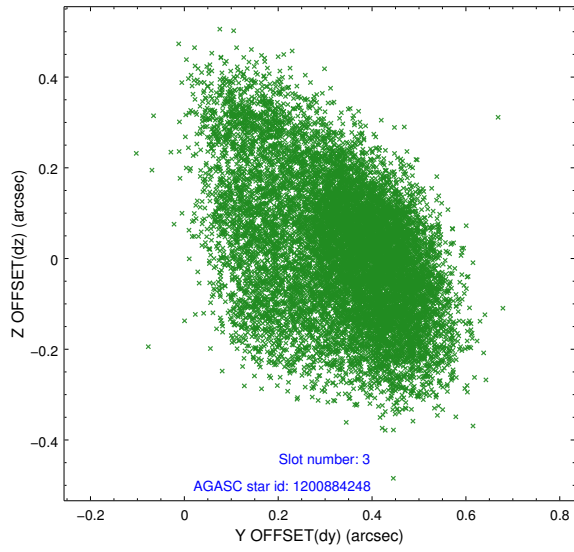
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.04	5827	-0.073	0.048	0.014	0.022	0.000000	0.000000	920.77	-841.85
1	FID		ACIS-I-2	6.94	5826	-0.193	-0.122	0.009	0.016	0.000000	0.000000	-773.37	-848.51
2	FID		ACIS-I-4	6.98	5827	0.166	0.139	0.010	0.018	0.000000	0.000000	2140.85	1057.97
3	GUIDE	used	1200884248	9.43	11642	0.356	0.013	0.208	0.351	83.880915	-68.565170	-300.23	-2117.13
4	GUIDE	used	1201018384	9.06	11643	0.100	0.142	0.119	0.190	85.801362	-68.593260	-2223.54	-477.58
5	GUIDE	used	1201019672	6.83	11654	-0.195	0.031	0.081	0.133	85.312192	-68.770187	-1325.32	-382.94
6	GUIDE	used	1201542672	8.19	11651	-0.331	-0.379	0.102	0.166	84.492488	-69.957531	2133.74	2330.48
7	GUIDE	used	1201019928	9.51	11649	0.088	0.204	0.165	0.256	85.136920	-68.248318	-2313.70	-1996.62

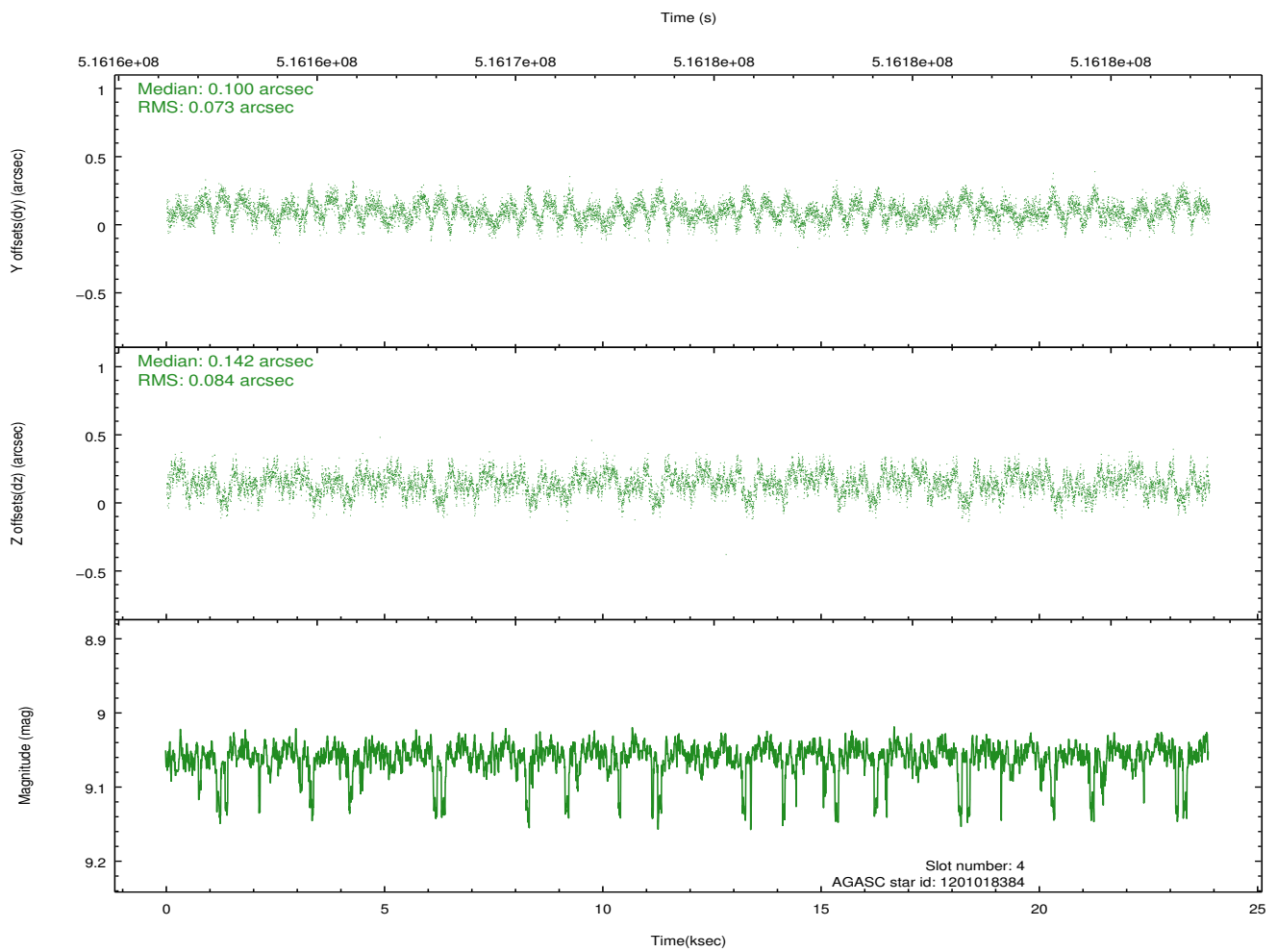
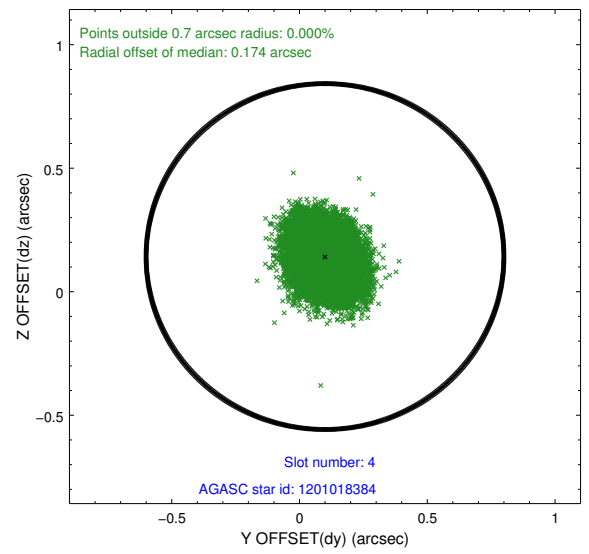
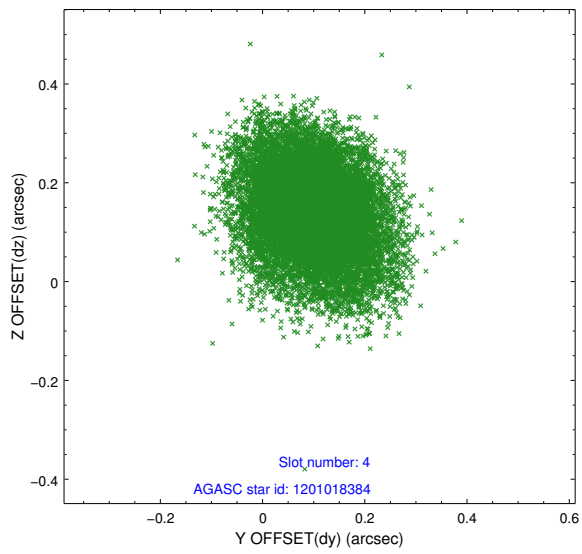
∞

2.4 Star Slots

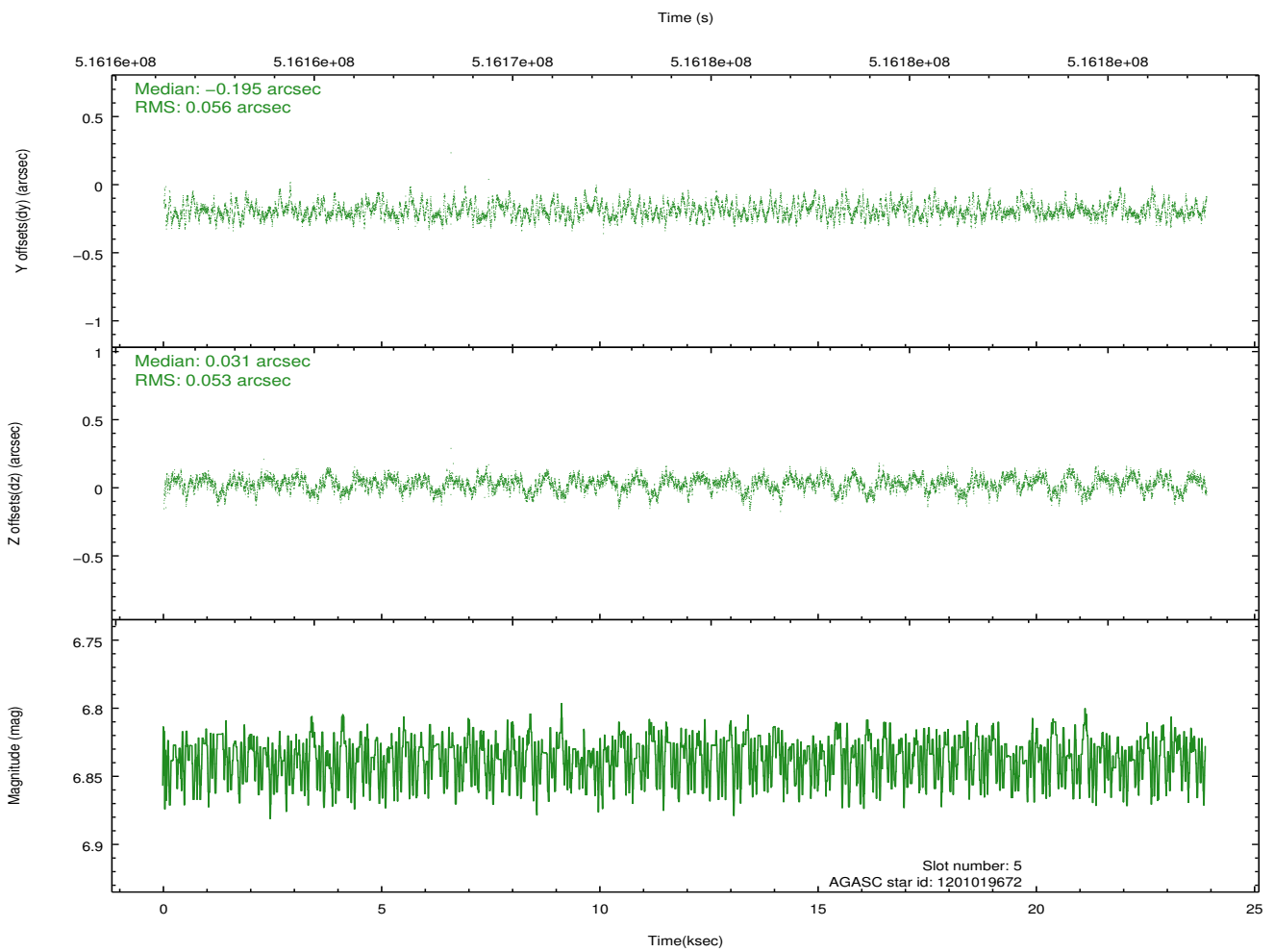
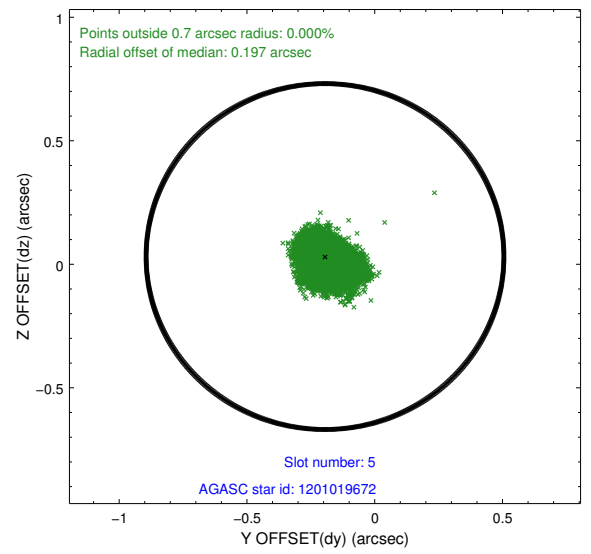
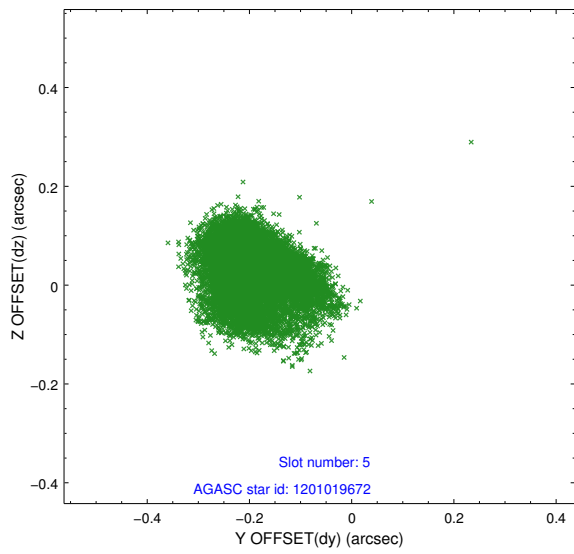
2.4.1 Slot 3



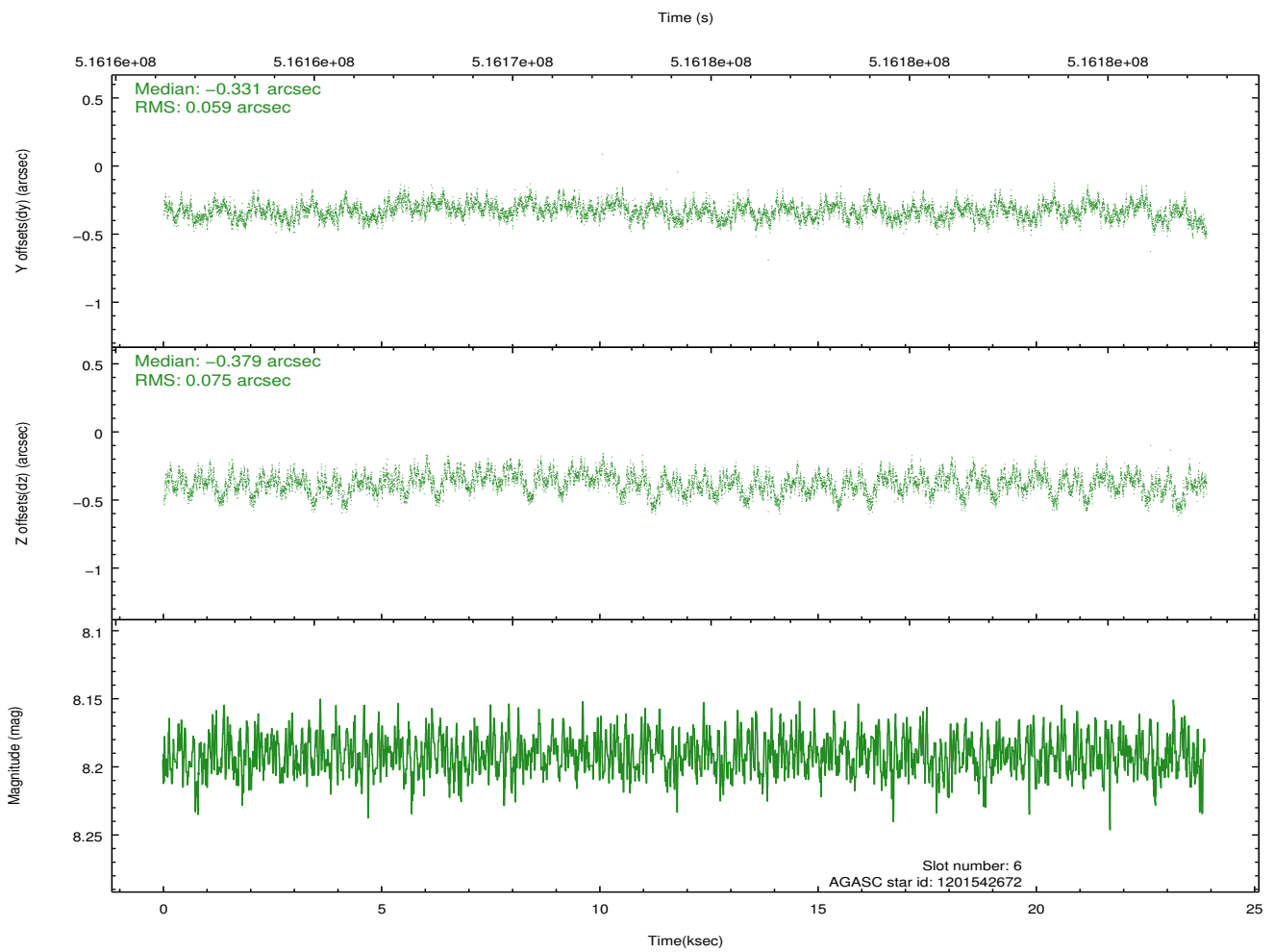
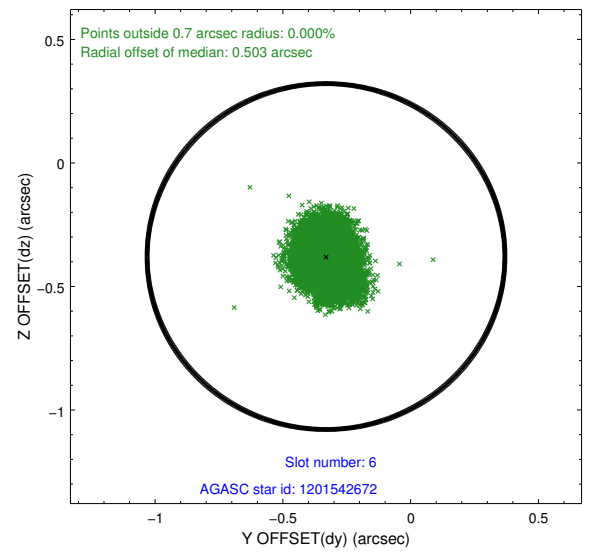
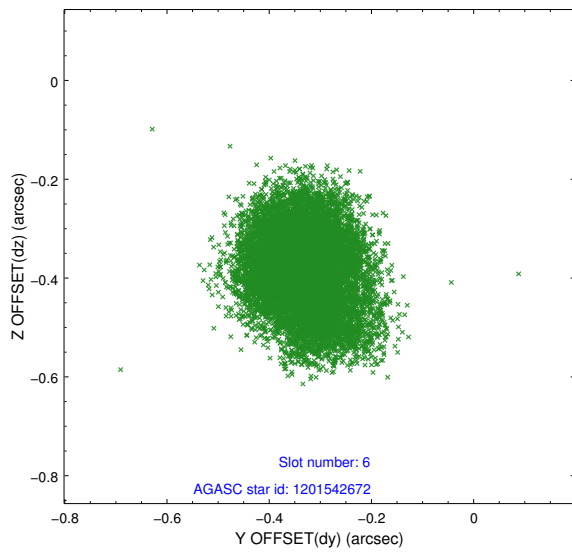
2.4.2 Slot 4



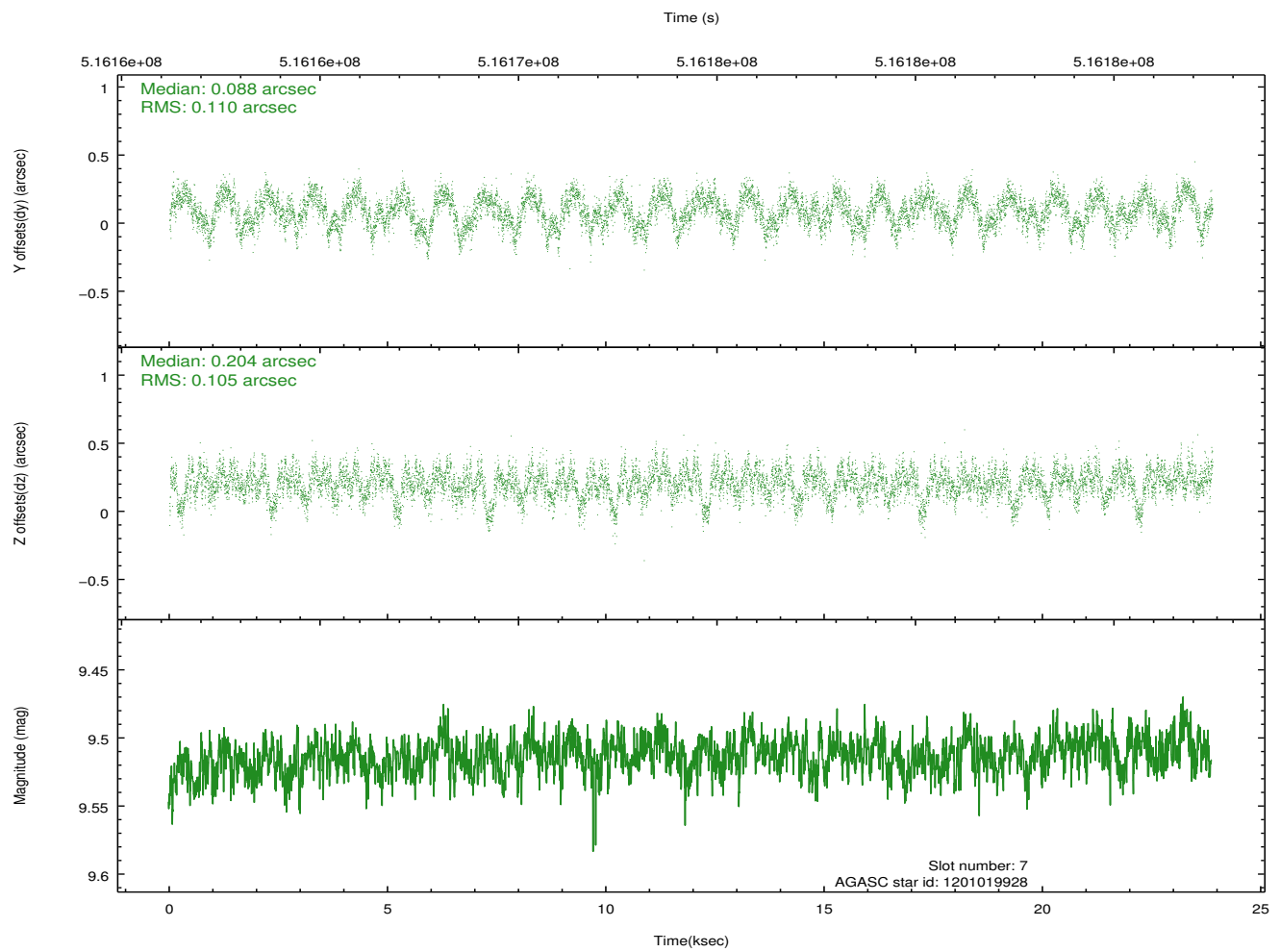
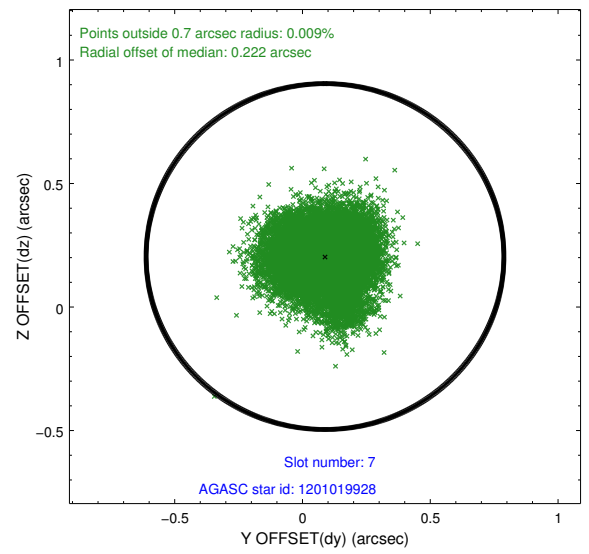
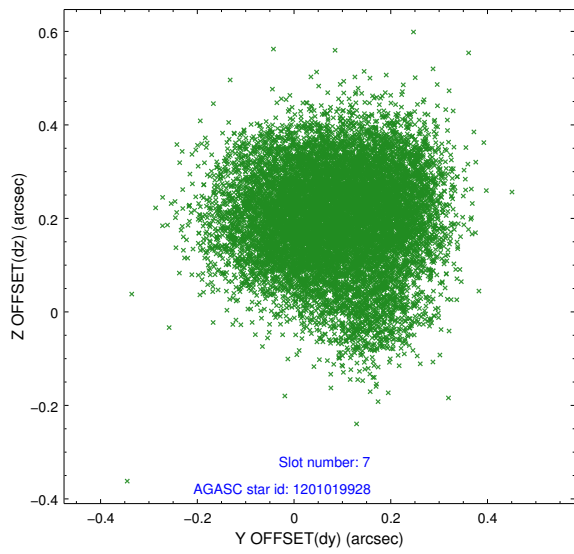
2.4.3 Slot 5



2.4.4 Slot 6

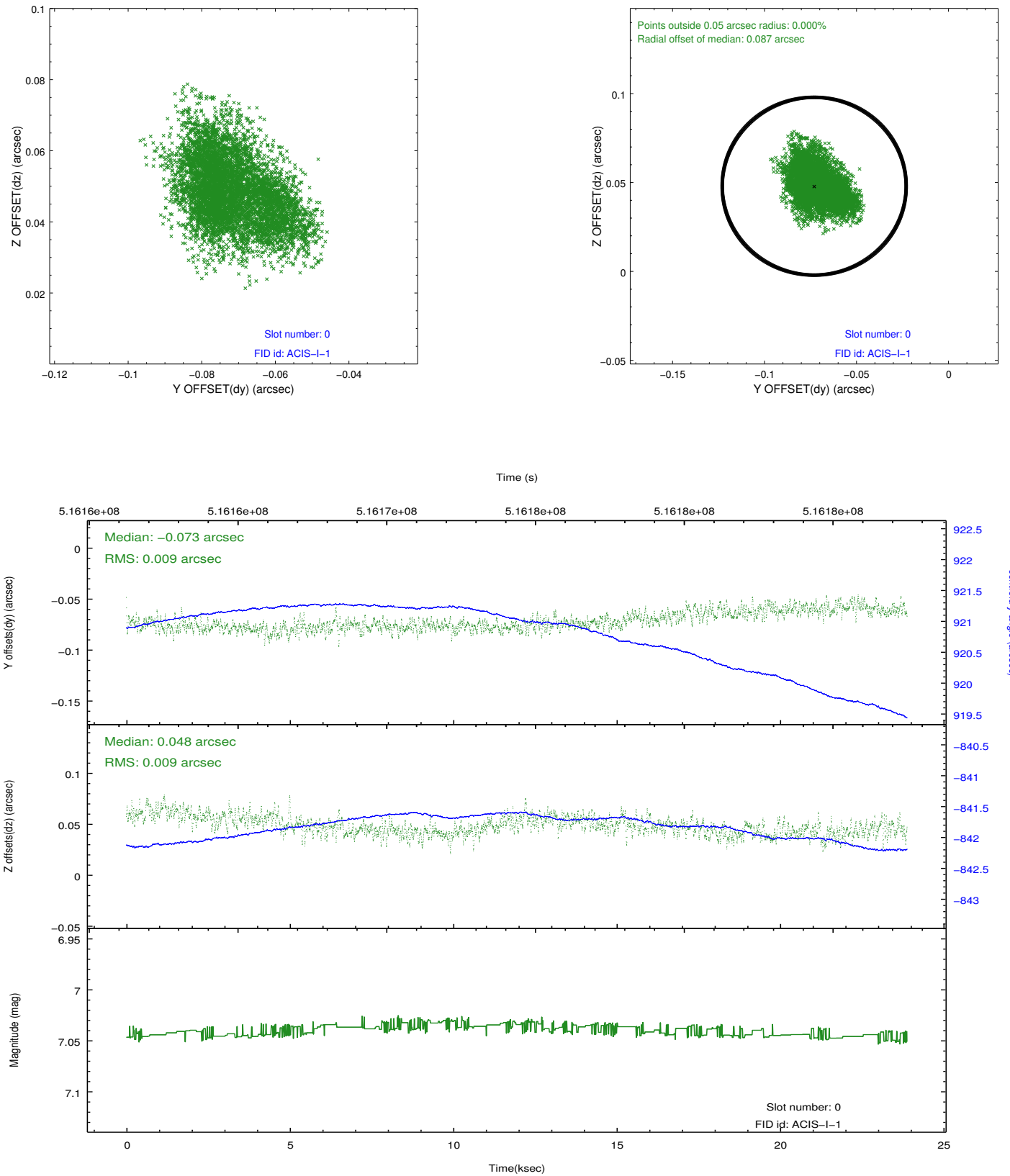


2.4.5 Slot 7

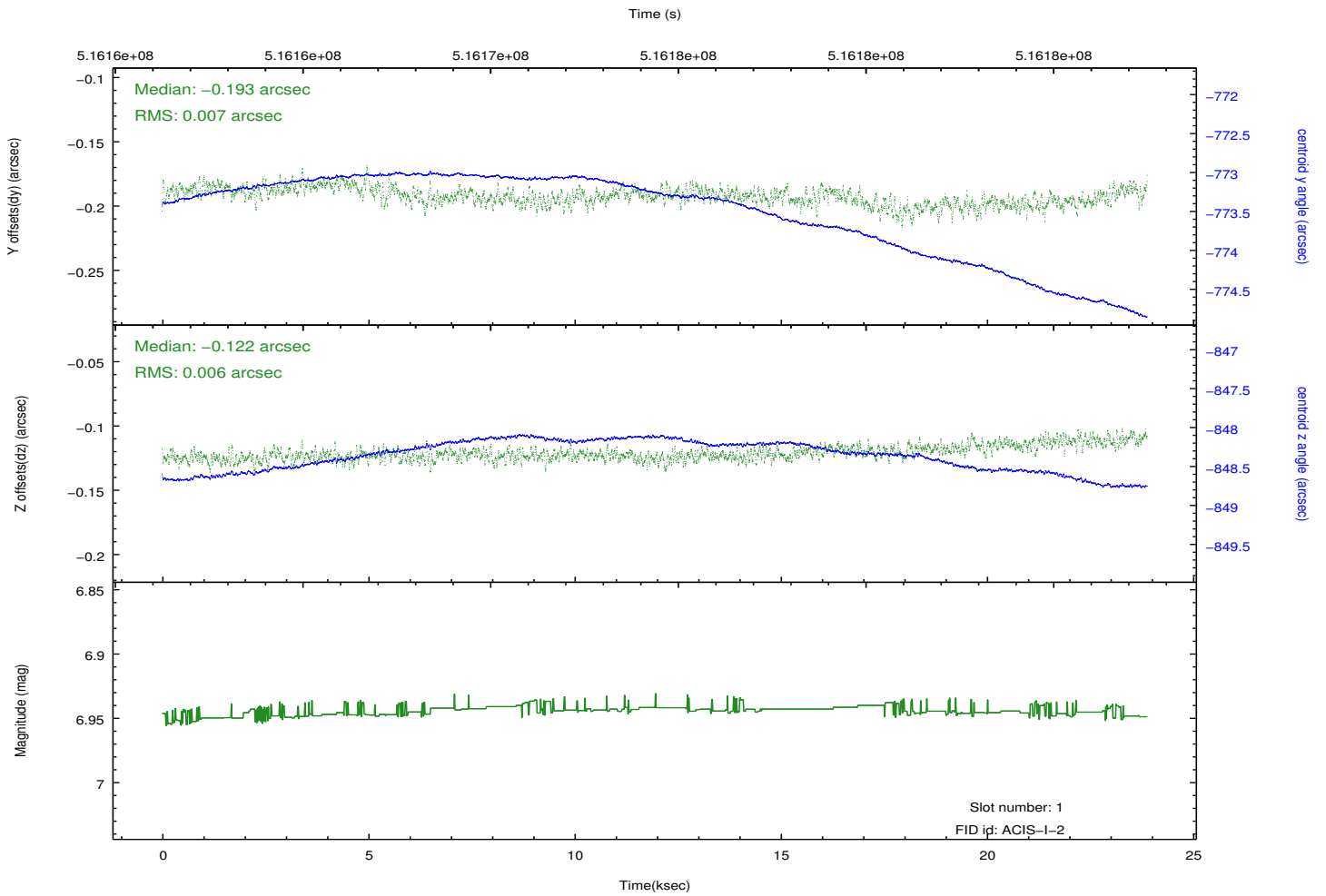
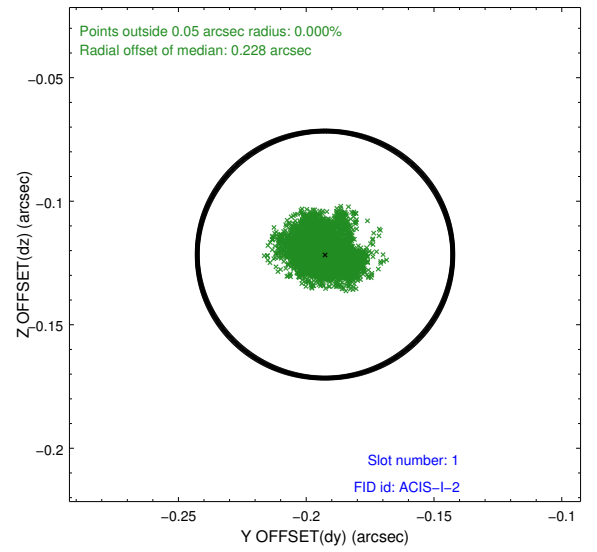
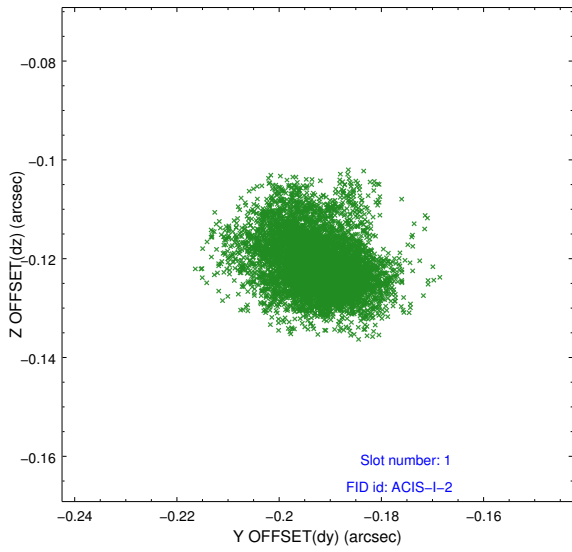


2.5 FID Slots

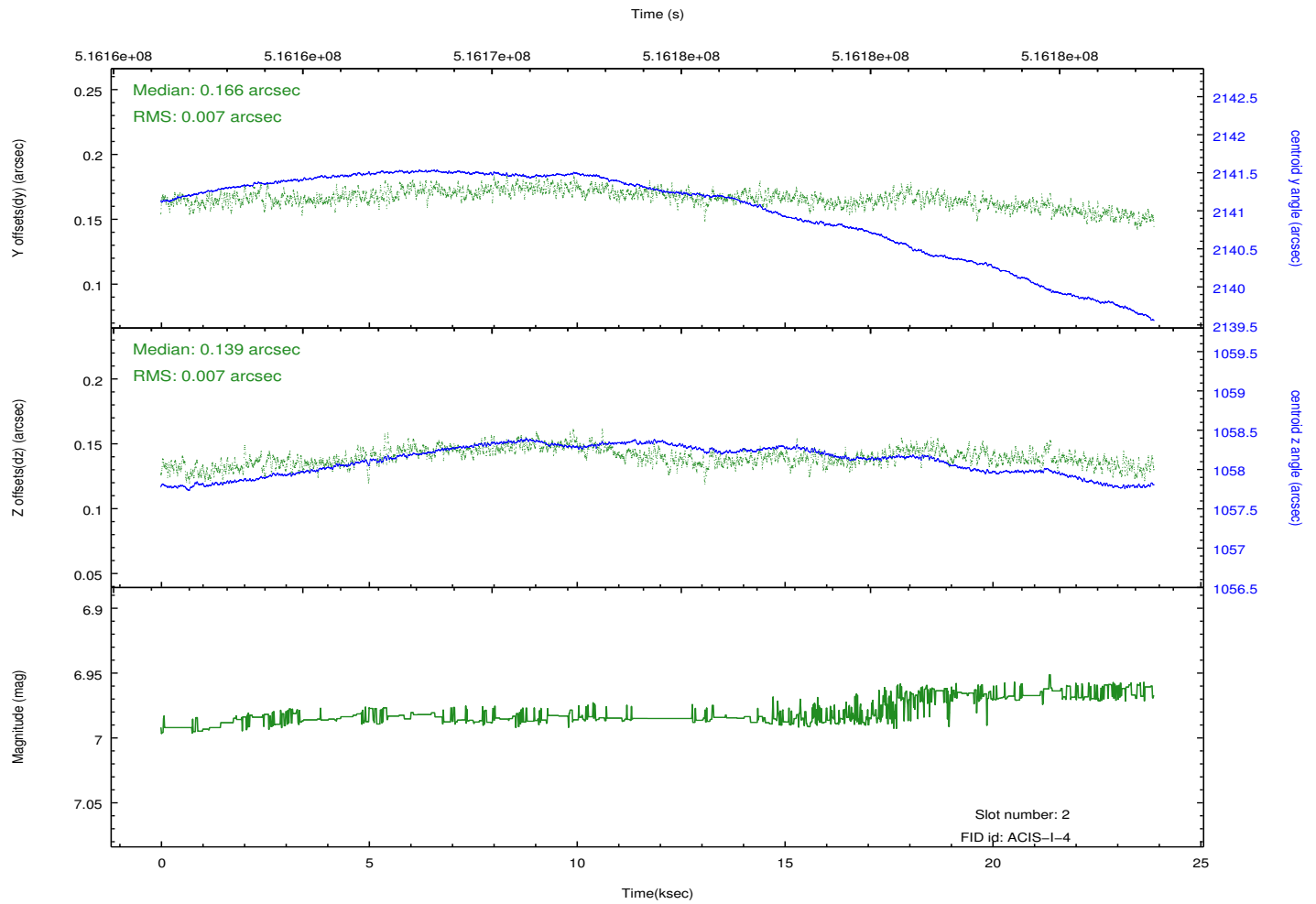
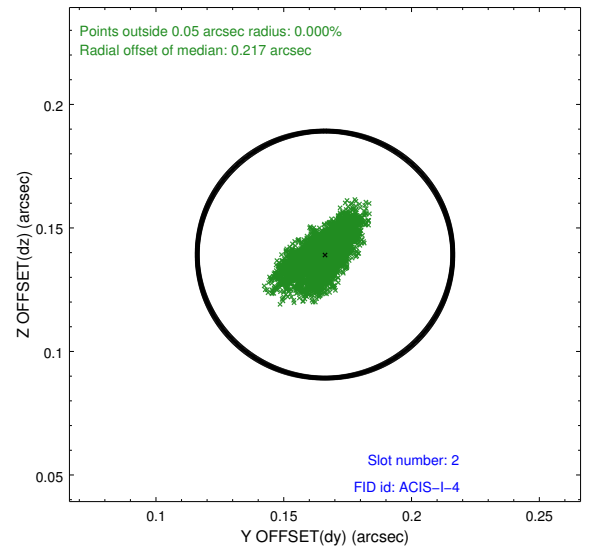
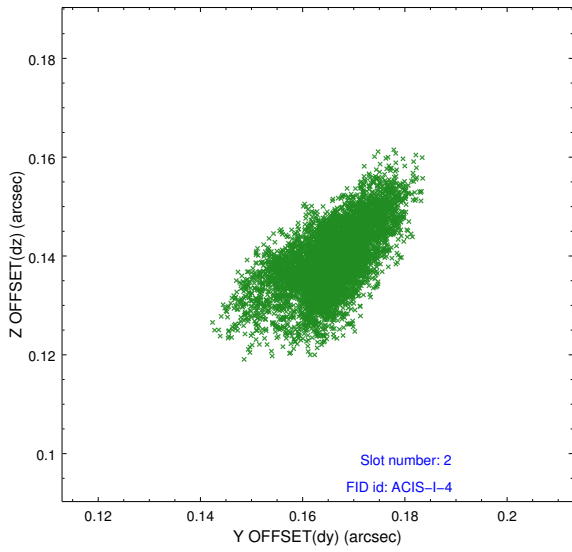
2.5.1 Slot 0



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)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.963117854357

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.