

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16194 - L2 Version 2
Chandra X-Ray Center

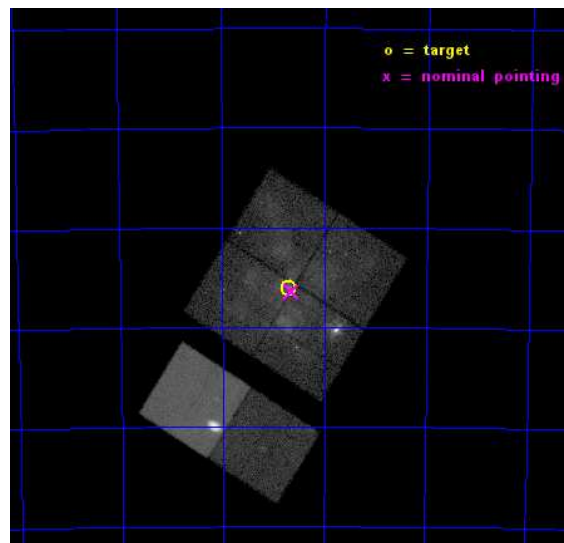
L2 Processing Date : Dec 11 2014

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1 Front

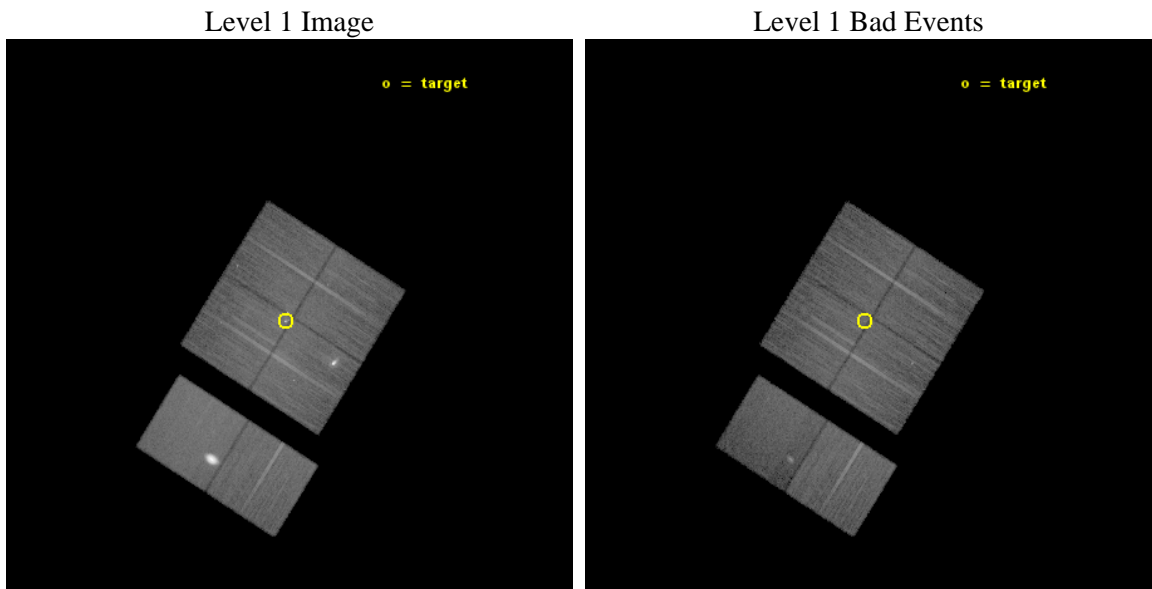
seq_num	901116	Sequence number
obs_id	16194	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.676667	Observer's specified target RA [deg]
dec_targ	-69.100806	Observer's specified target Dec [deg]
ra_nom	84.661991976738	Nominal RA [deg]
dec_nom	-69.106939425986	Nominal Dec [deg]
roll_nom	212.19497571117	Nominal Roll [deg]
revision	2	Processing version of data
ontime	31734.359020889	Sum of GTIs [s]
livetime	31332.519458829	Livetime [s]
ontime0	31734.358881593	Sum of GTIs [s]
ontime1	31737.599881828	Sum of GTIs [s]
ontime2	31737.599881828	Sum of GTIs [s]
ontime3	31734.359020889	Sum of GTIs [s]
ontime6	31737.599881828	Sum of GTIs [s]
ontime7	31737.599881828	Sum of GTIs [s]
l2events	315296	Number of level 2 events



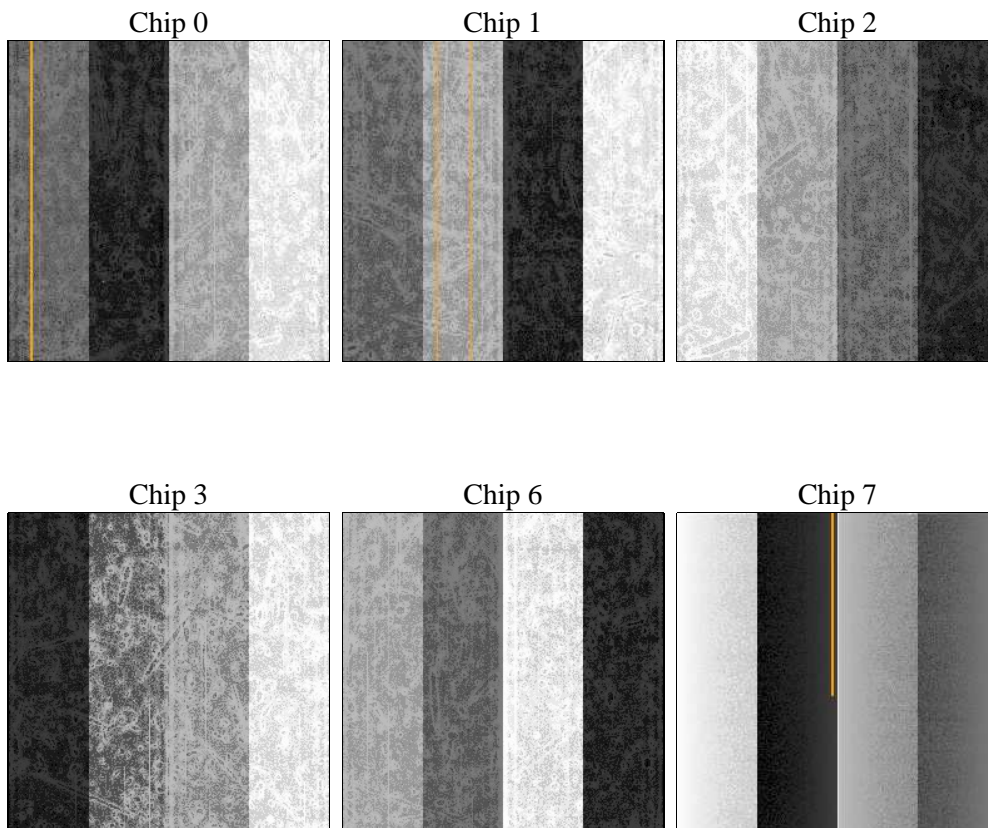
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	31768.737000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	31734.359020889	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	31734.358881593	Sum of GTIs [s]
date	2014-12-11T19:10:49	Date and time of file creation	ontime1	31737.599881828	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	31737.599881828	Sum of GTIs [s]
			ontime3	31734.359020889	Sum of GTIs [s]
			ontime6	31737.599881828	Sum of GTIs [s]
			ontime7	31737.599881828	Sum of GTIs [s]
			l1events	1018477	Number of level 1 events

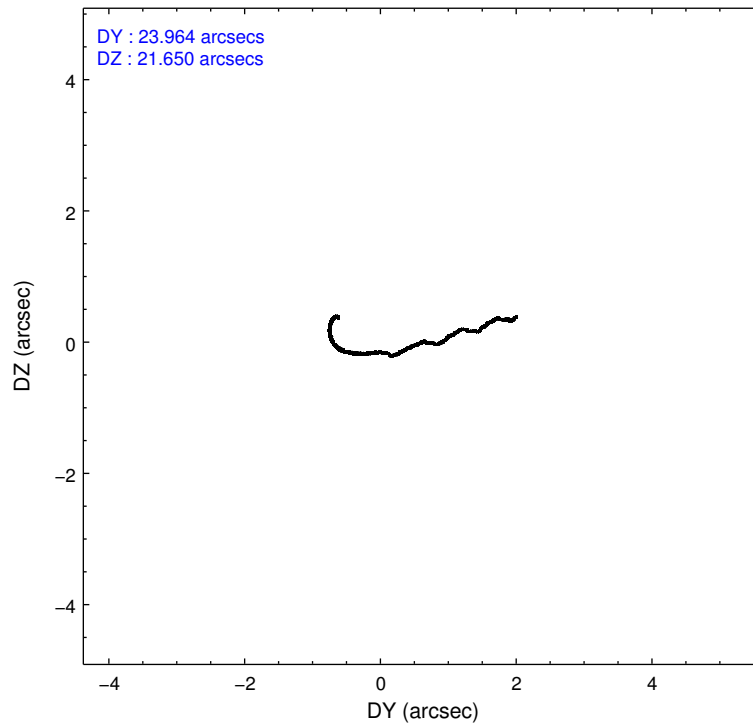
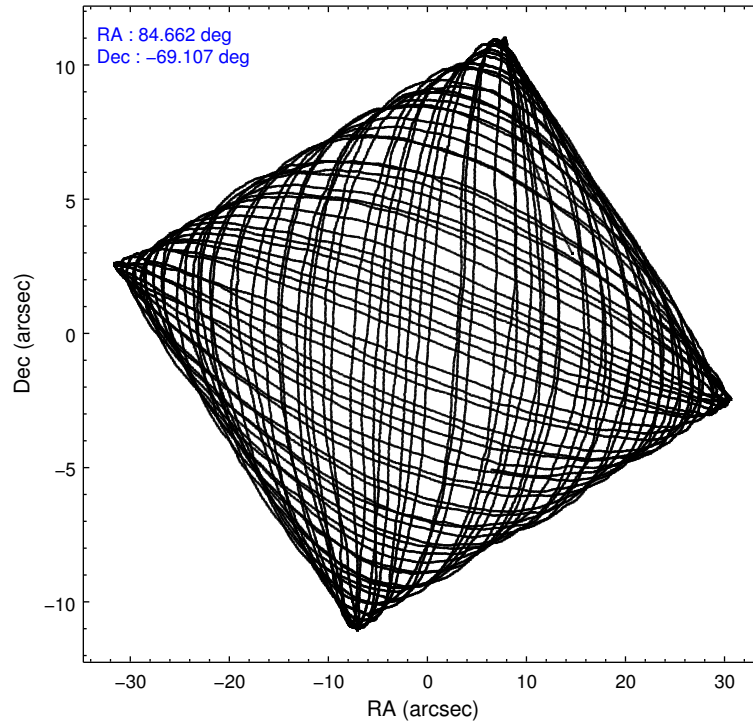
2.1.4 Events

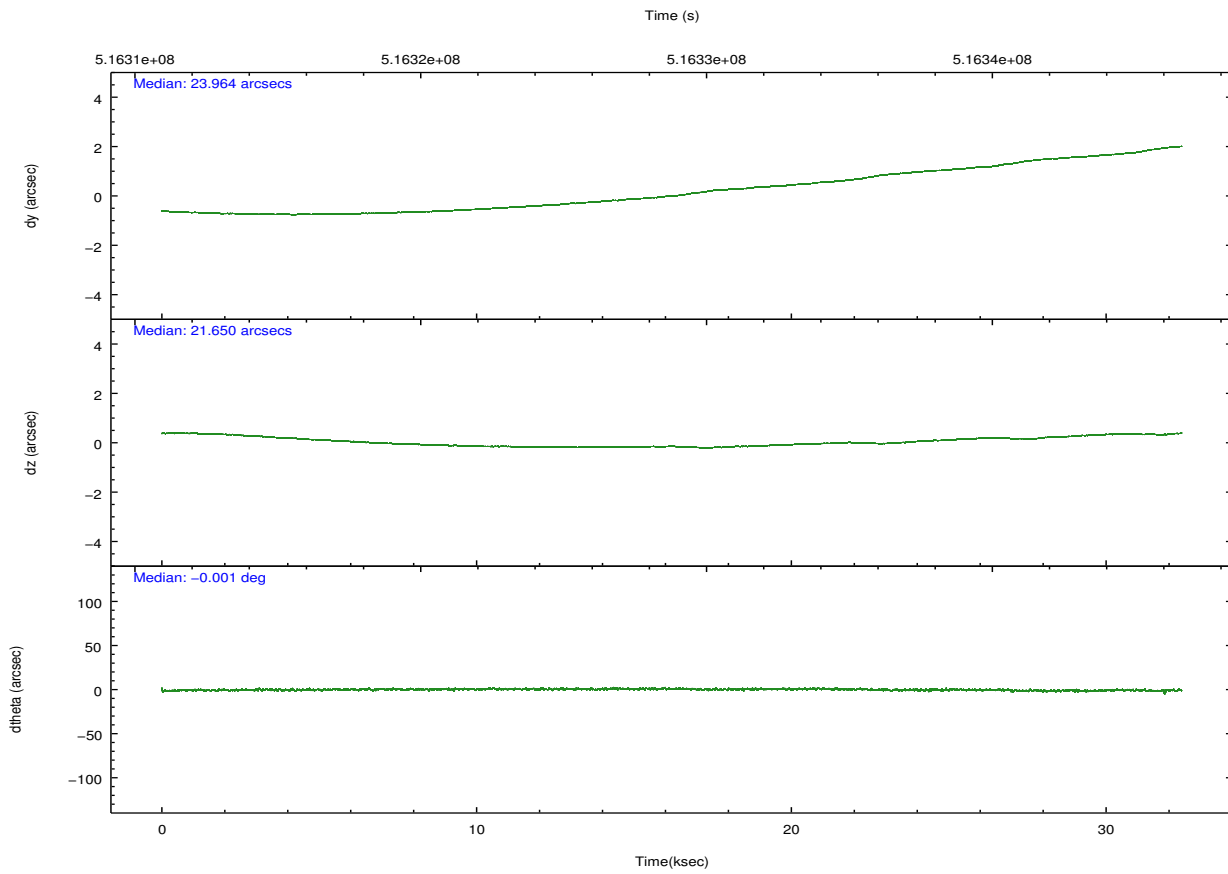
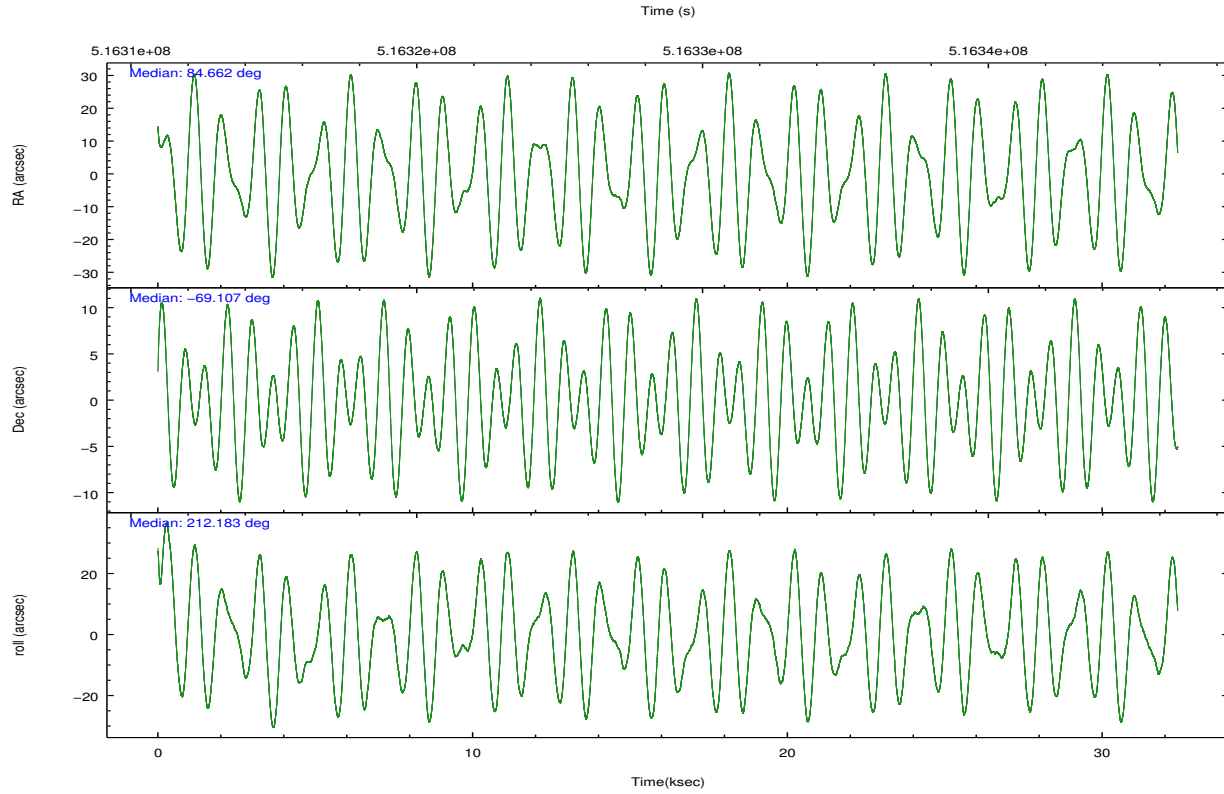
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	135653	132359	174697	144926	150939	279903	grade 0 events	12245	12737	31454	15270	11291	32025
rejected events	111743	107409	127608	117969	127383	91655		9%	9%	18%	10%	7%	11%
rejected %	82%	81%	73%	81%	84%	32%	grade 1 events	94	98	246	131	82	338
								0%	0%	0%	0%	0%	0%
							grade 2 events	4665	4729	6845	4503	4599	45859
								3%	3%	3%	3%	3%	16%
							grade 3 events	1881	1904	2505	1955	1860	19616
								1%	1%	1%	1%	1%	7%
							grade 4 events	1778	1902	2597	1915	1829	19239
								1%	1%	1%	1%	1%	6%
							grade 5 events	5826	6319	5470	6681	6862	19063
								4%	4%	3%	4%	4%	6%
							grade 6 events	3342	3681	3692	3317	3981	71524
								2%	2%	2%	2%	2%	25%
							grade 7 events	105822	100989	121888	111154	120435	72239
								78%	76%	69%	76%	79%	25%

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	84.697598	84.66199197673818	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.082566	-69.10693942598586	CCD I3 on	Y	Y
[deg] Pointing Roll	212.019549	212.1949757111656	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)	516313209.184000	516312024.22137	CCD S5 on	N	N
Observation start date	2014-05-12T20:19:02	2014-05-12T20:00:24	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	516344978.184000	516345214.7482	On-chip summing requested	N	N
Observation end date	2014-05-13T05:08:31	2014-05-13T05:13:34	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





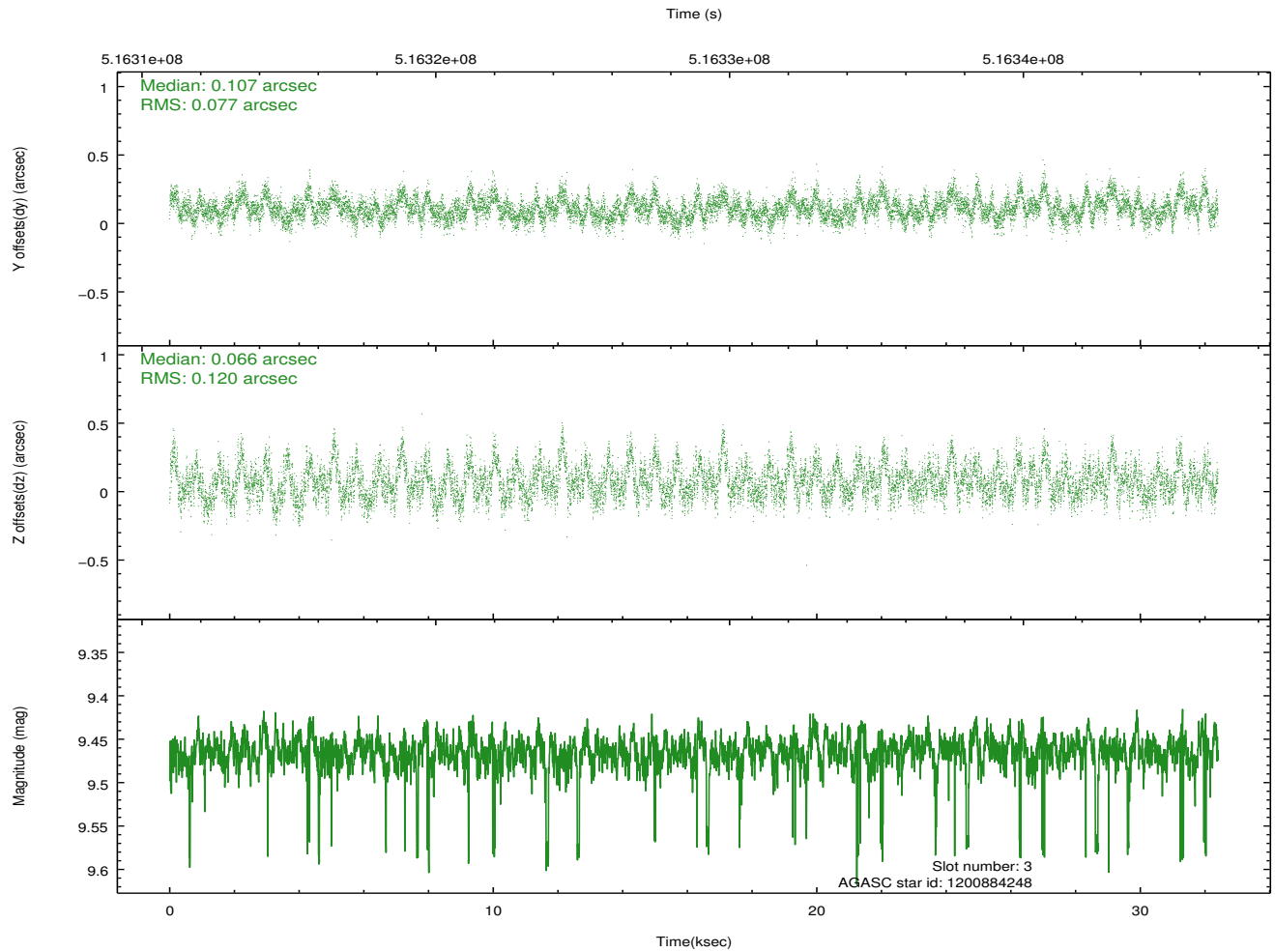
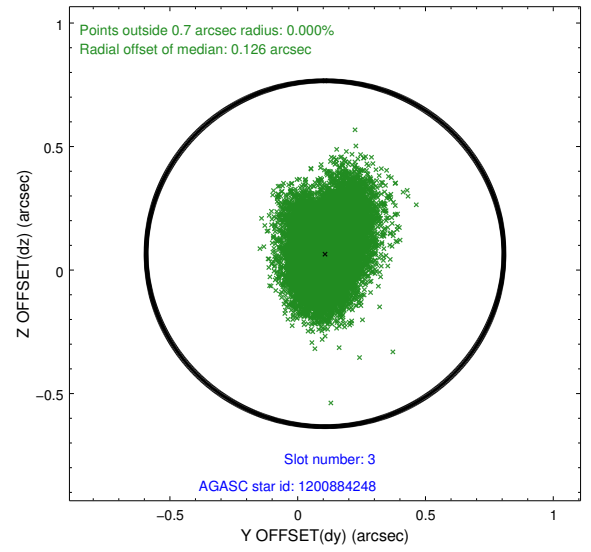
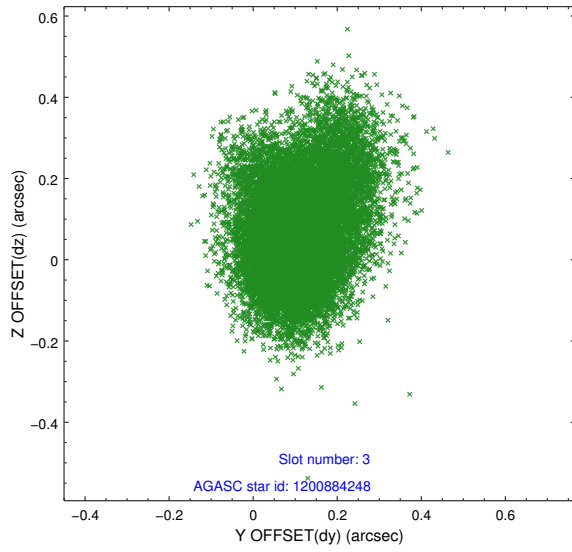
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.07	7902	0.050	0.053	0.022	0.036	0.000000	0.000000	915.05	-845.43
1	FID		ACIS-I-2	6.98	7902	-0.164	-0.074	0.022	0.030	0.000000	0.000000	-779.22	-852.00
2	FID		ACIS-I-6	7.07	7902	0.019	0.082	0.016	0.023	0.000000	0.000000	380.68	1696.39
3	GUIDE	used	1200884248	9.46	15790	0.107	0.066	0.148	0.256	83.880915	-68.565170	-72.39	-2142.58
4	GUIDE	used	1200885760	9.45	15779	-0.256	0.004	0.181	0.279	83.723637	-68.777667	499.91	-1594.58
5	GUIDE	used	1201018312	9.54	15790	-0.011	-0.403	0.187	0.321	86.298231	-69.115627	-1664.00	1212.09
6	GUIDE	used	1201018384	9.04	15800	0.139	0.235	0.119	0.192	85.801362	-68.593260	-2156.70	-713.20
7	GUIDE	used	1201020040	8.59	15795	0.034	0.102	0.106	0.165	85.379163	-68.879396	-1134.49	-147.12

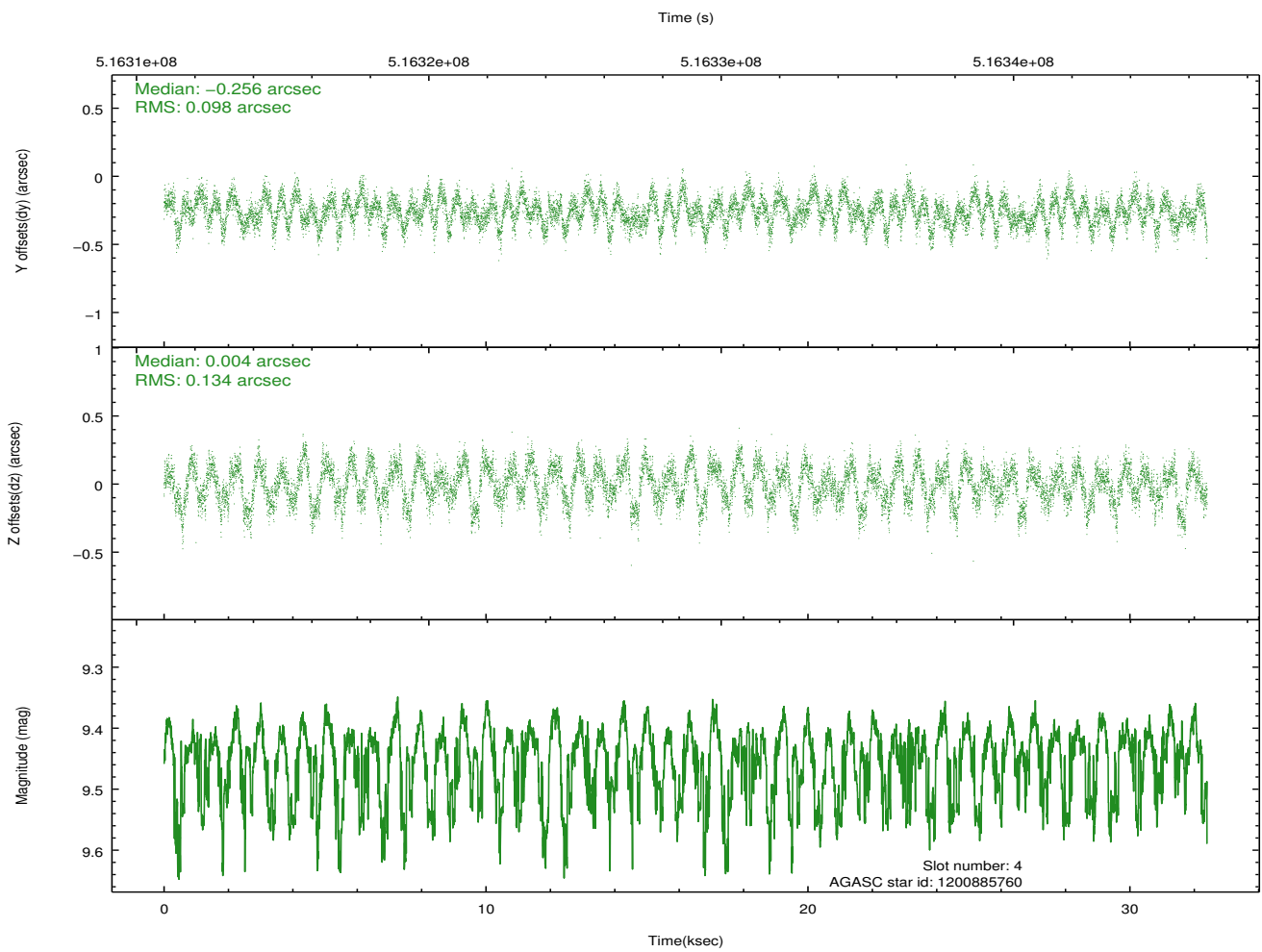
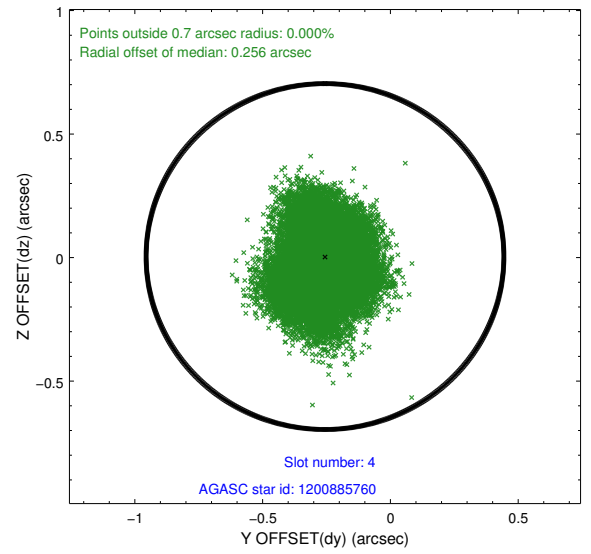
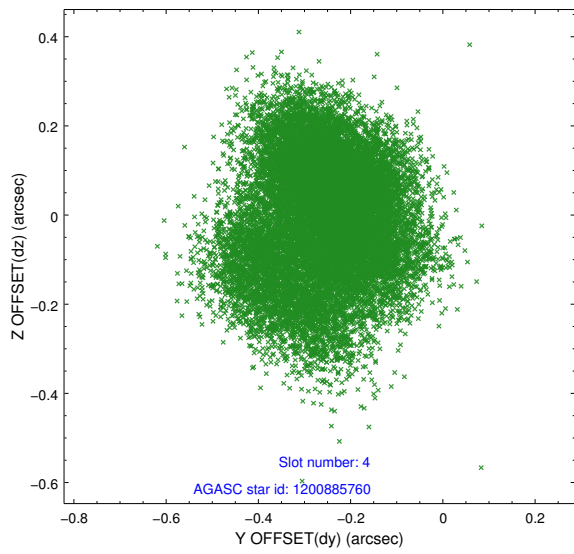
∞

2.4 Star Slots

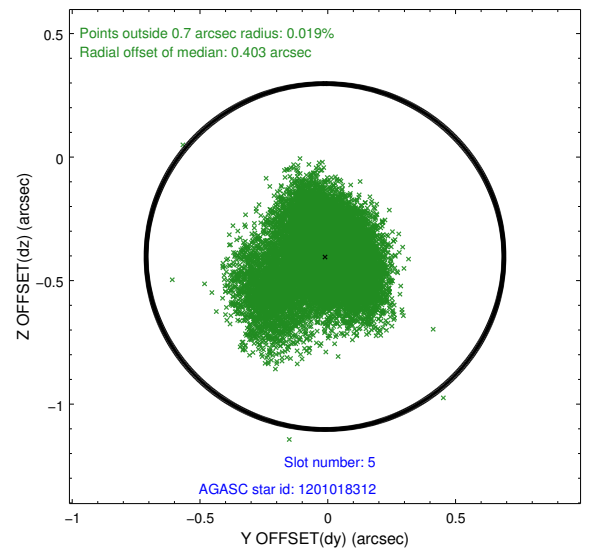
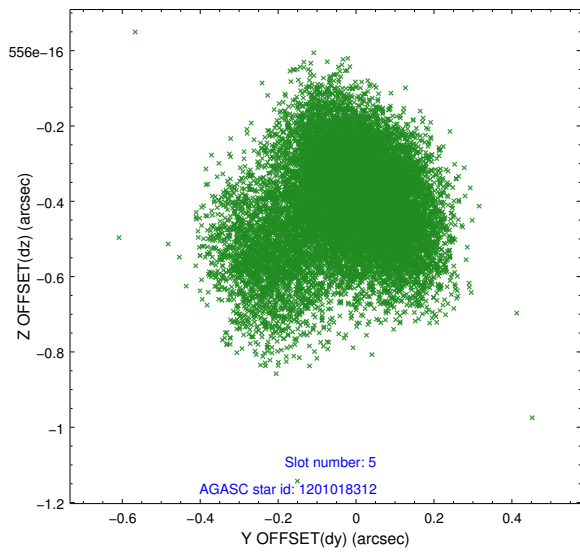
2.4.1 Slot 3



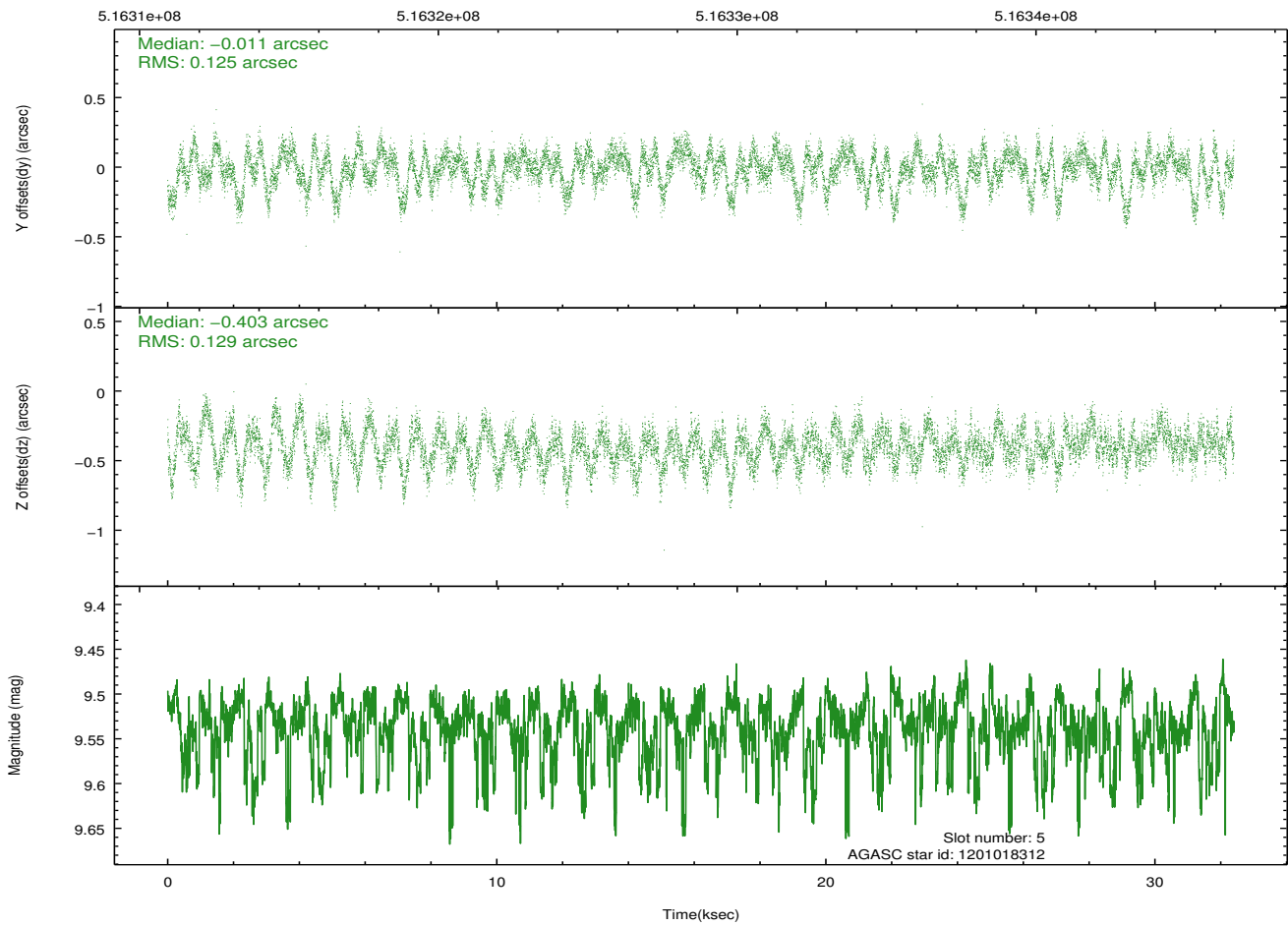
2.4.2 Slot 4



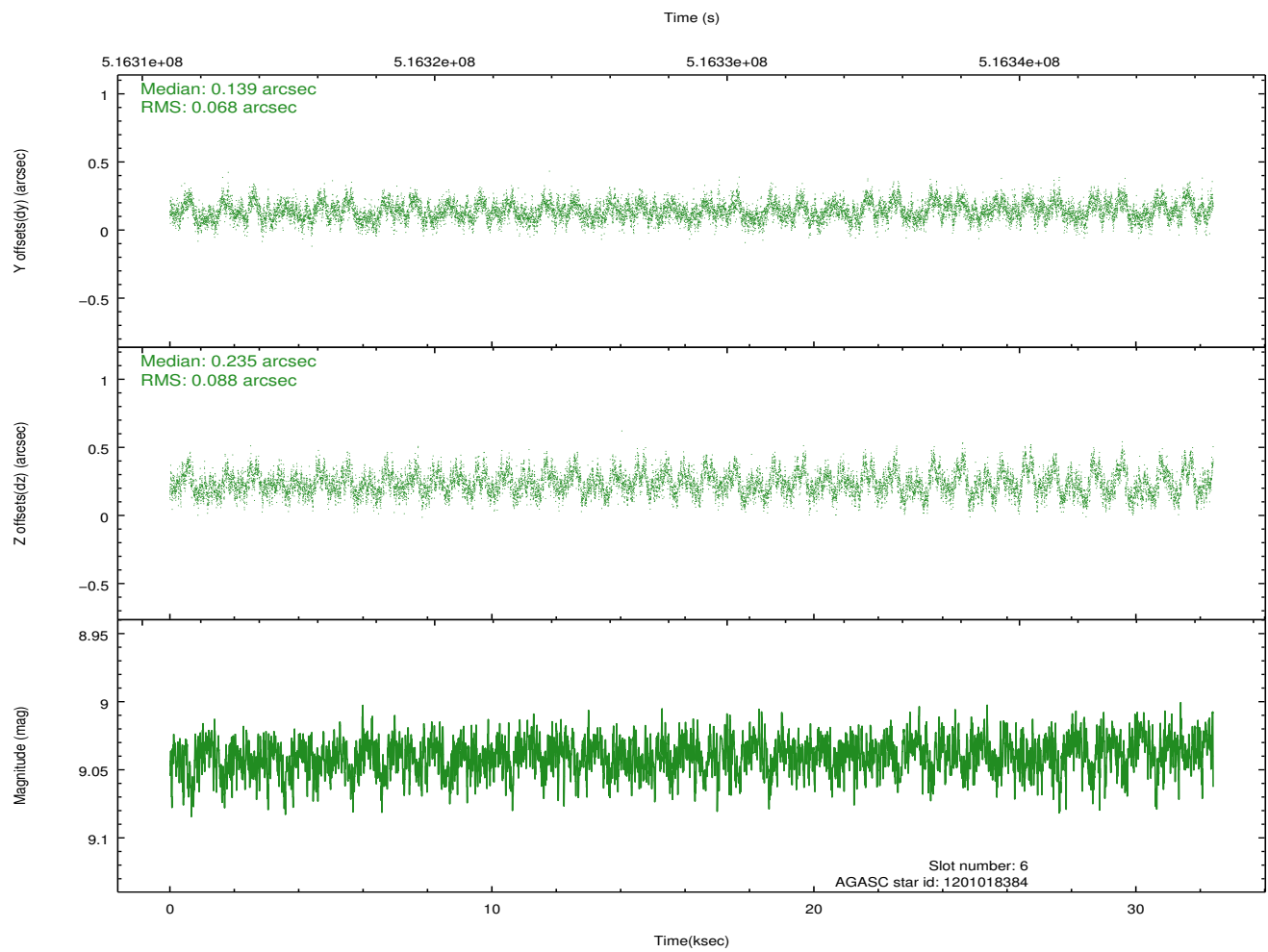
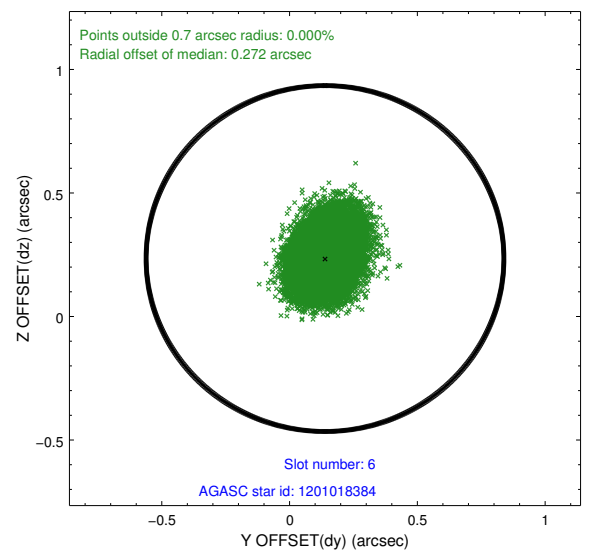
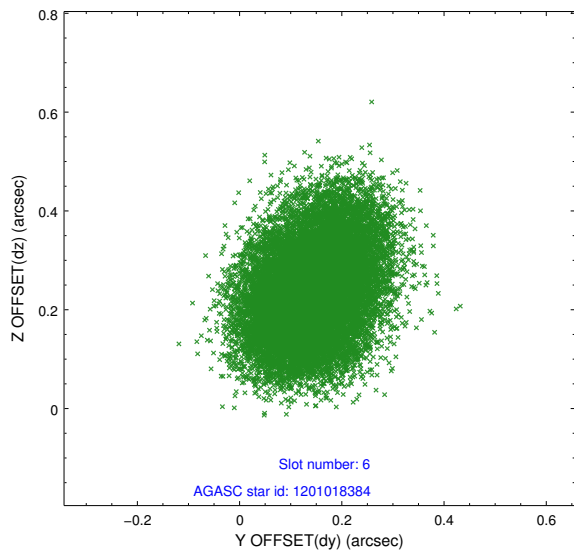
2.4.3 Slot 5



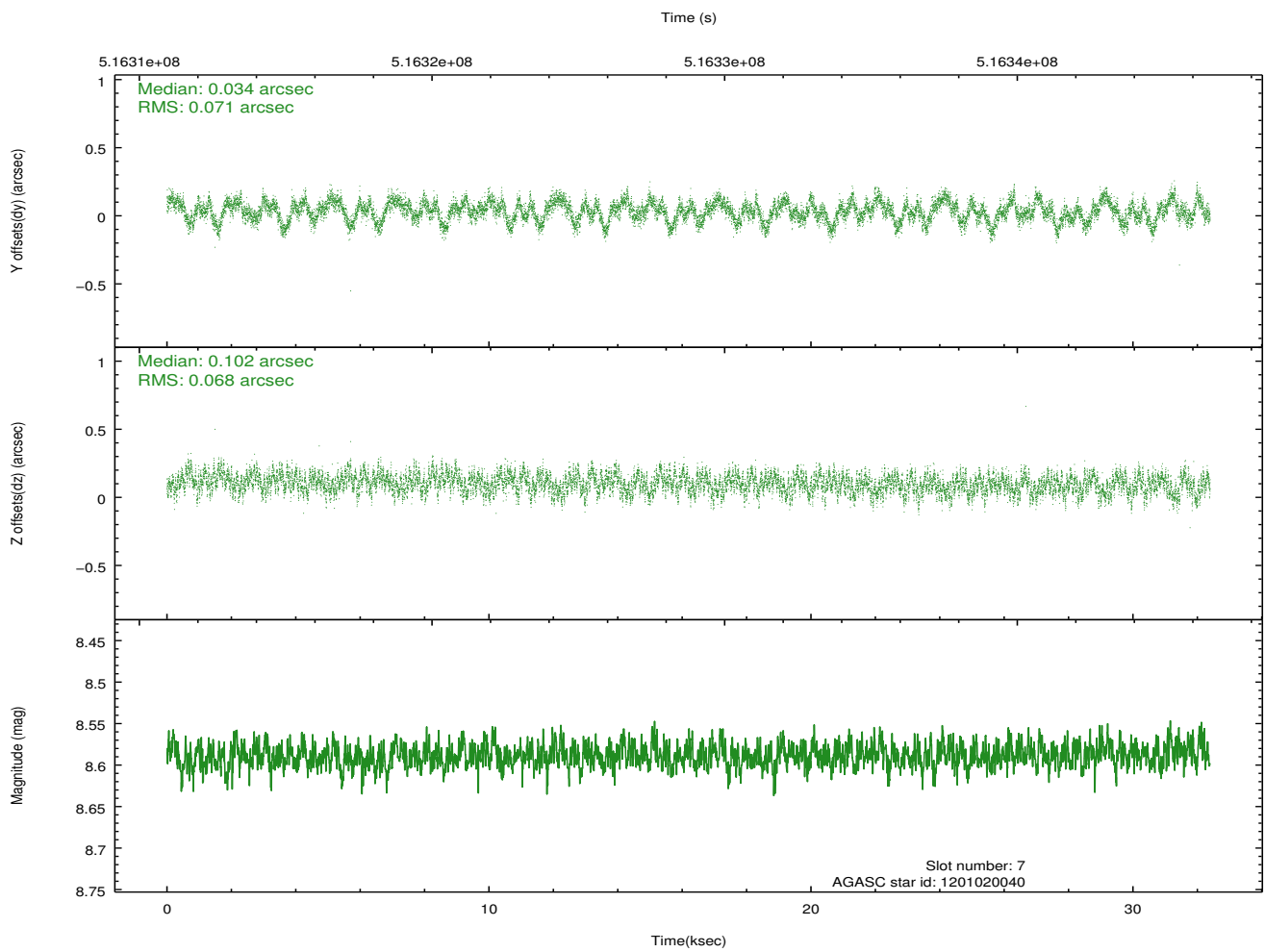
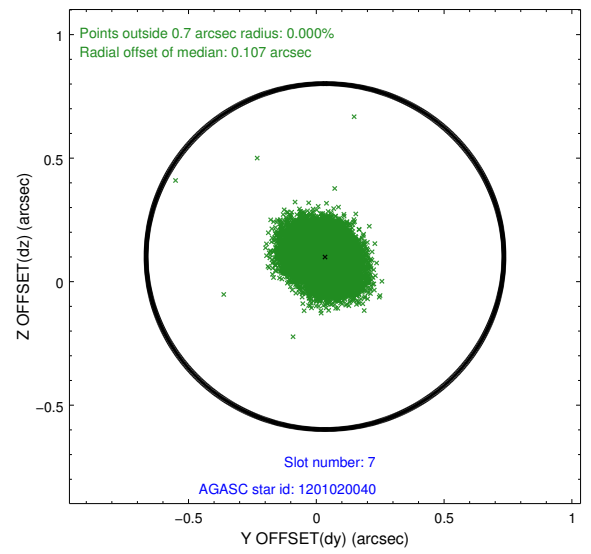
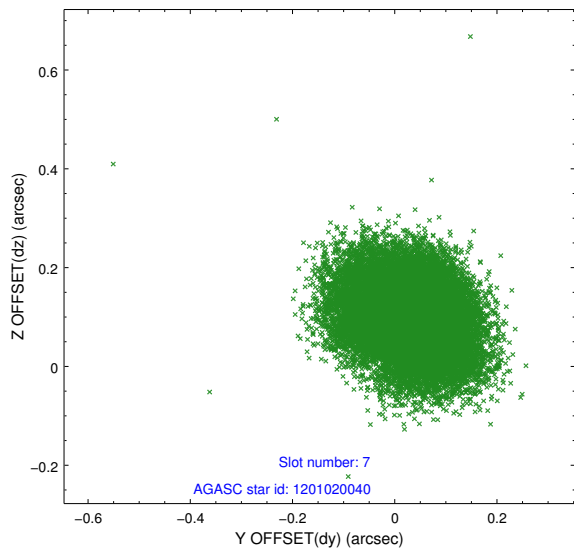
Time (s)



2.4.4 Slot 6

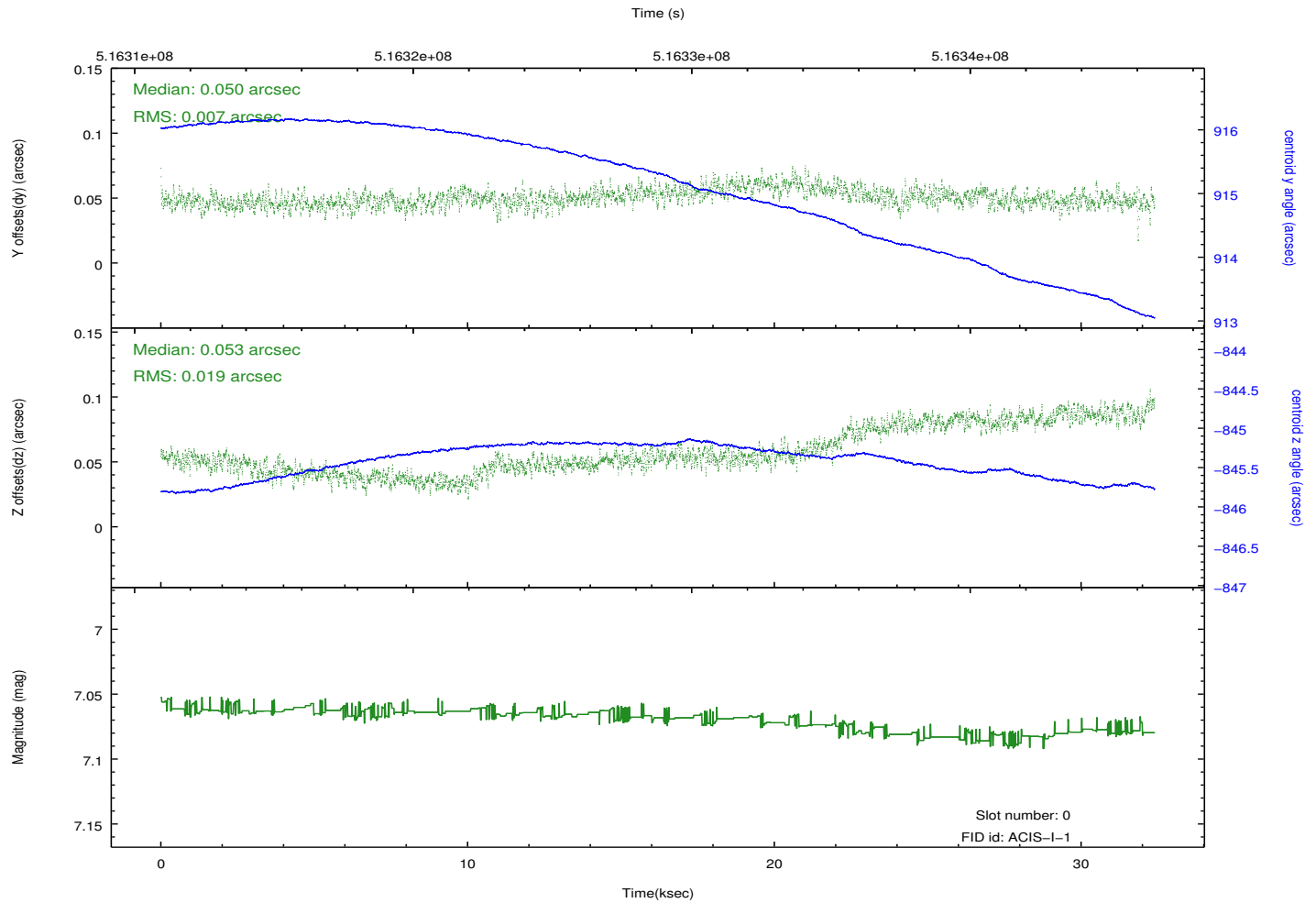
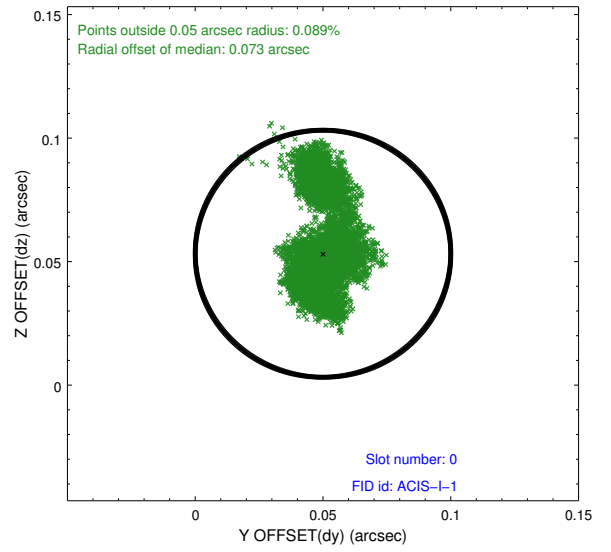
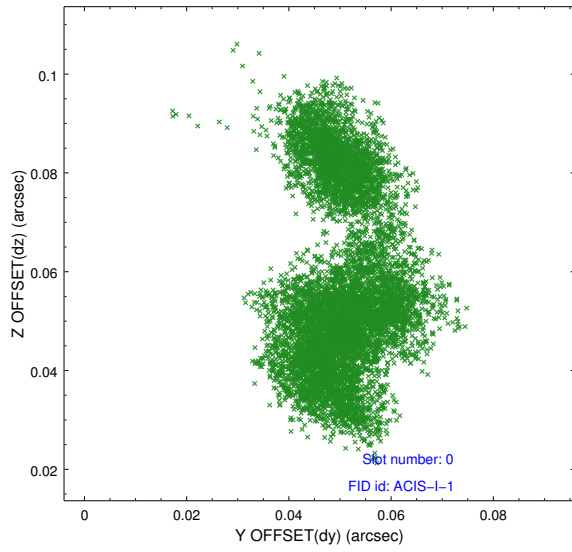


2.4.5 Slot 7

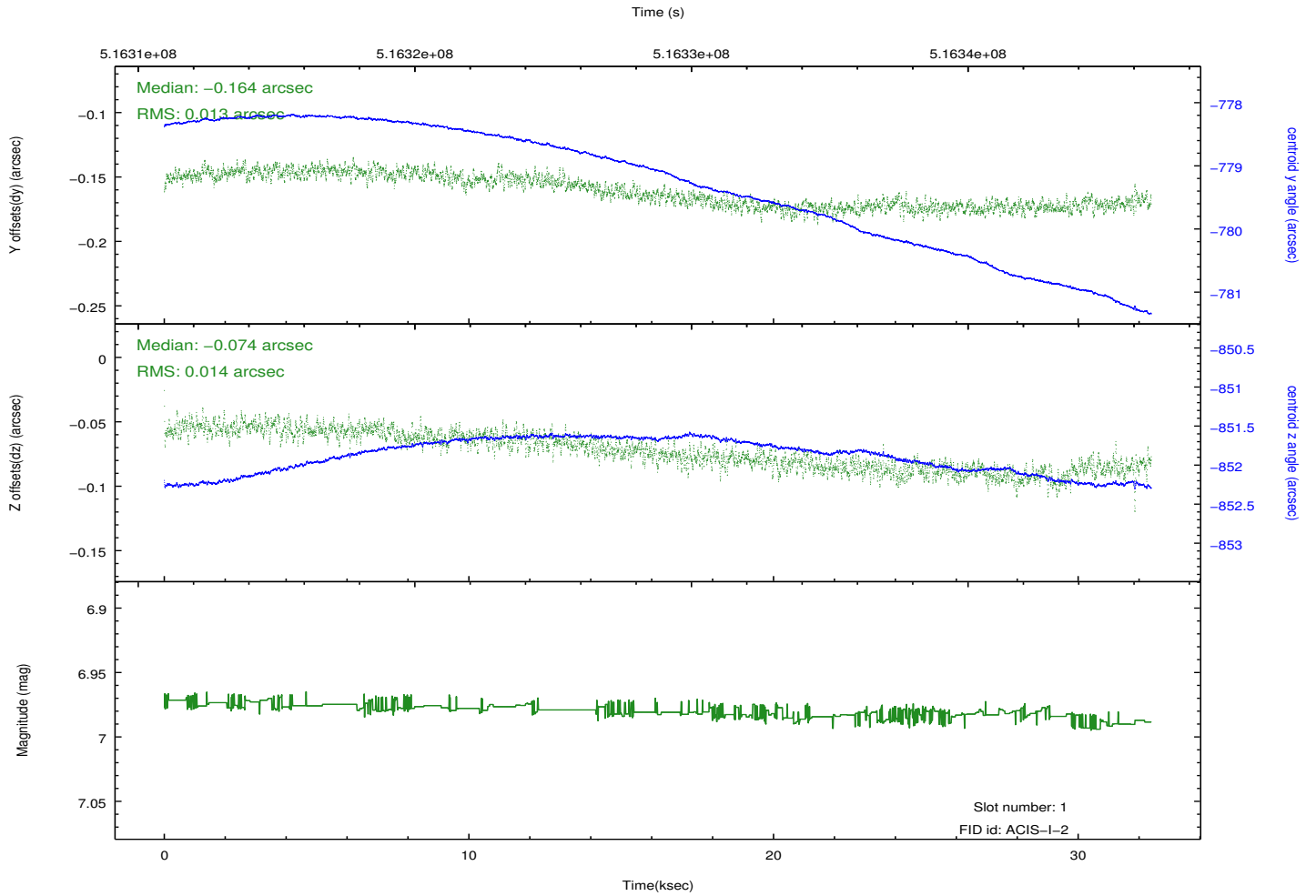
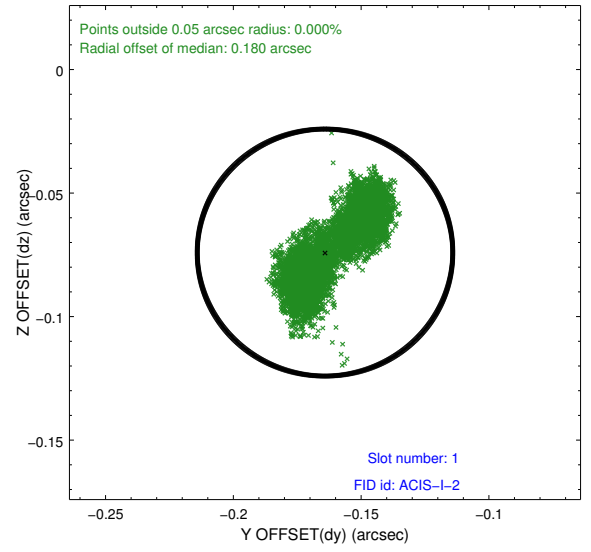
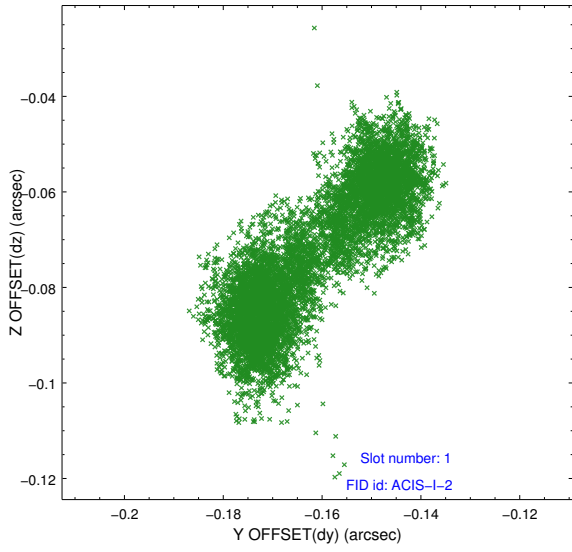


2.5 FID Slots

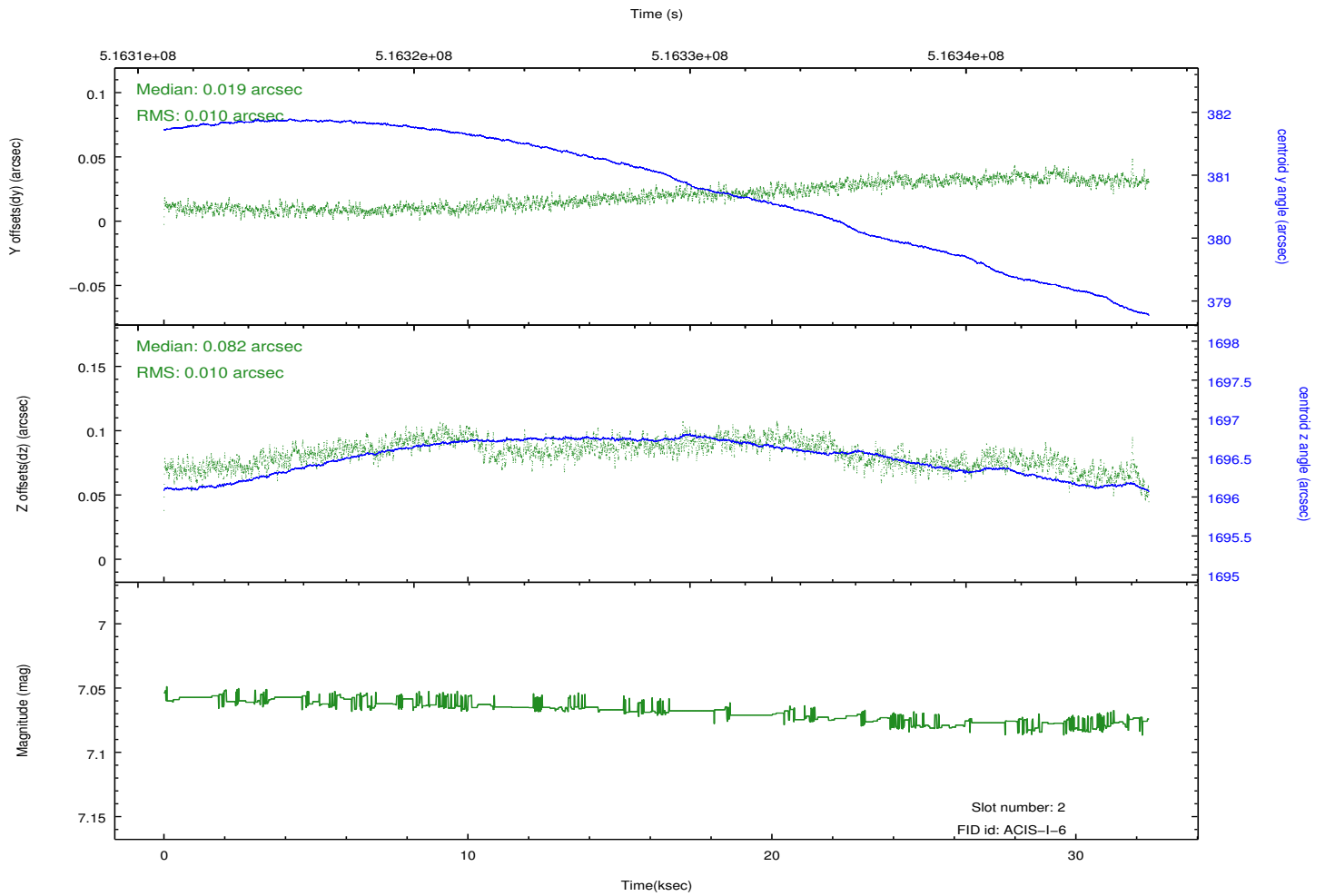
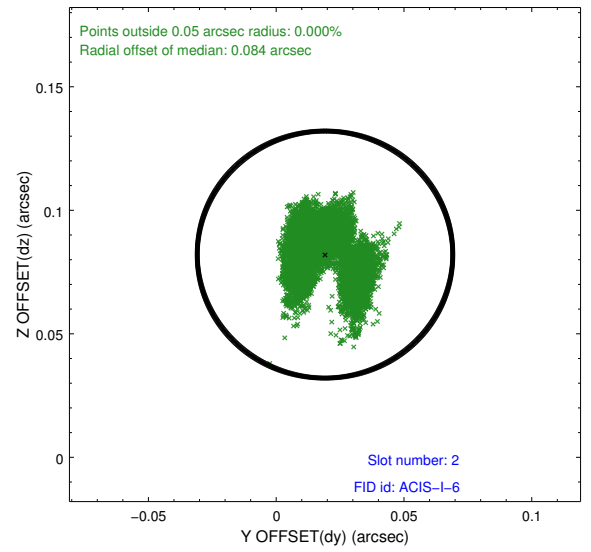
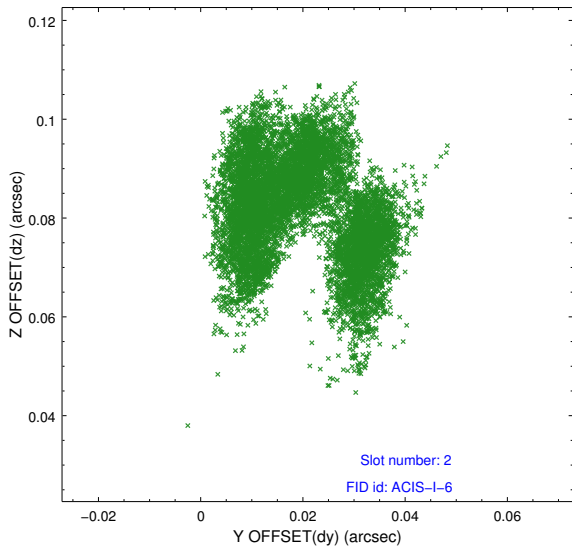
2.5.1 Slot 0



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	31.734359020889

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.