

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16198 - L2 Version 2
Chandra X-Ray Center

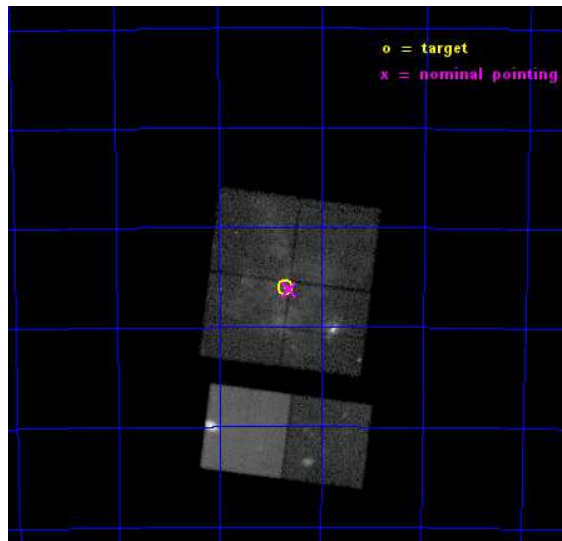
L2 Processing Date : Dec 11 2014

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1 Front

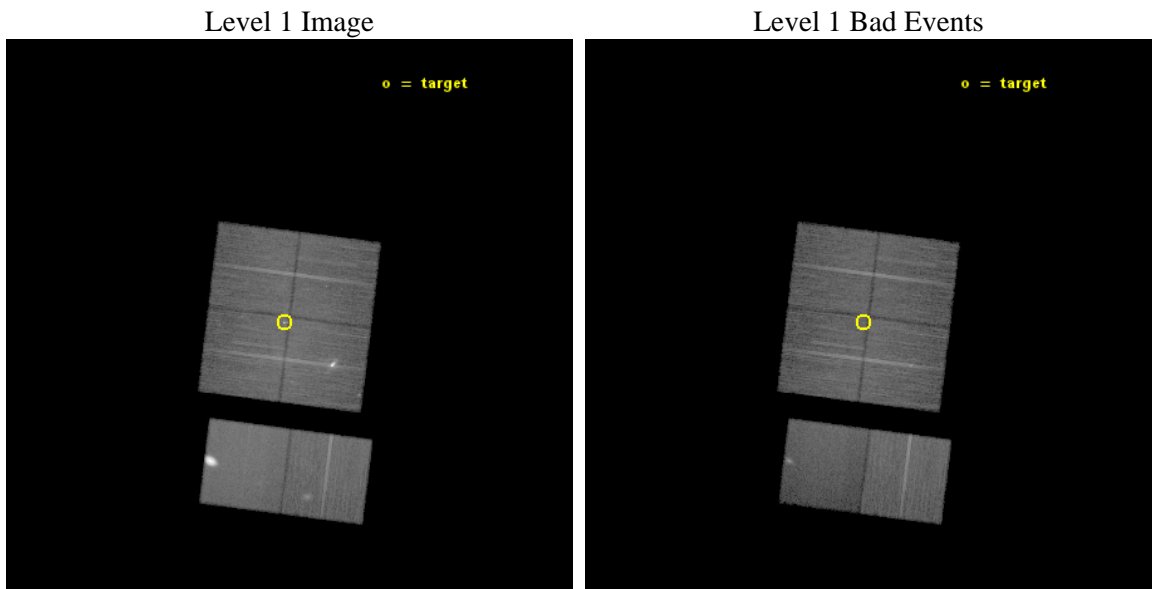
seq_num	901116	Sequence number
obs_id	16198	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.676667	Observer's specified target RA [deg]
dec_targ	-69.100806	Observer's specified target Dec [deg]
ra_nom	84.656062278537	Nominal RA [deg]
dec_nom	-69.104147588322	Nominal Dec [deg]
roll_nom	187.18943048365	Nominal Roll [deg]
revision	2	Processing version of data
ontime	39971.199851155	Sum of GTIs [s]
livetime	39465.060450873	Livetime [s]
ontime0	39971.199851155	Sum of GTIs [s]
ontime1	39971.199851155	Sum of GTIs [s]
ontime2	39971.199851155	Sum of GTIs [s]
ontime3	39971.199851155	Sum of GTIs [s]
ontime6	39967.95885098	Sum of GTIs [s]
ontime7	39971.199851155	Sum of GTIs [s]
l2events	392467	Number of level 2 events



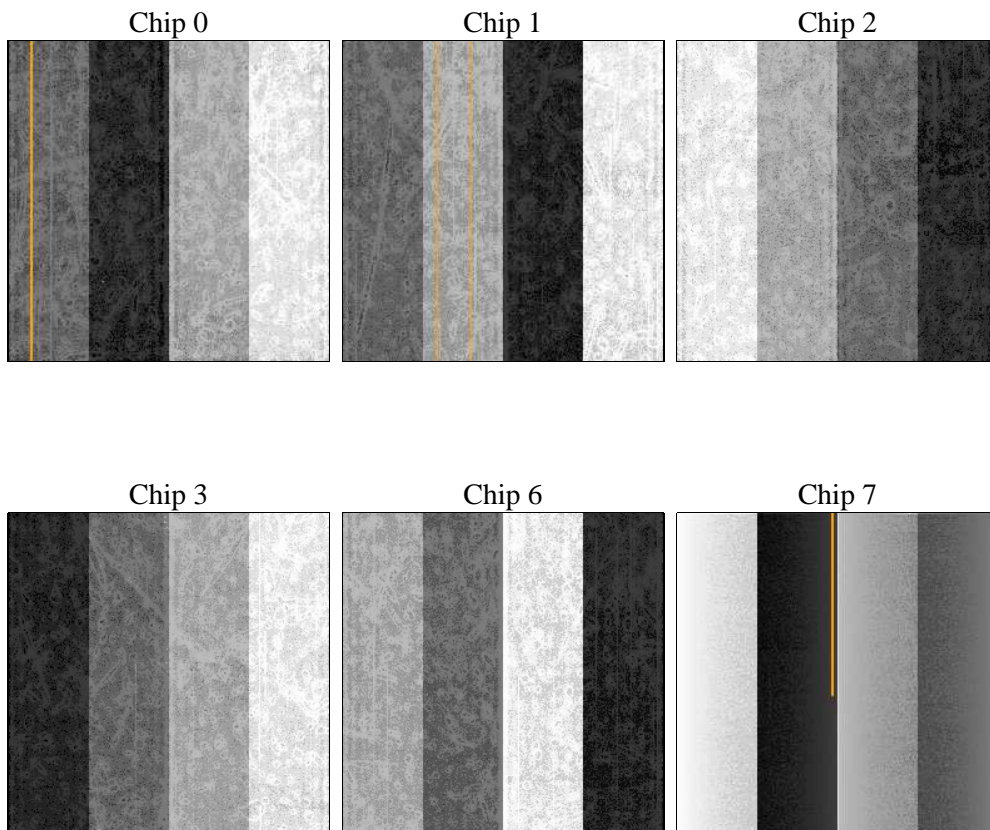
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	39971.199851155	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	39971.199851155	Sum of GTIs [s]
date	2014-12-12T03:33:43	Date and time of file creation	ontime1	39971.199851155	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	39971.199851155	Sum of GTIs [s]
			ontime3	39971.199851155	Sum of GTIs [s]
			ontime6	39967.95885098	Sum of GTIs [s]
			ontime7	39971.199851155	Sum of GTIs [s]
			l1events	1282079	Number of level 1 events

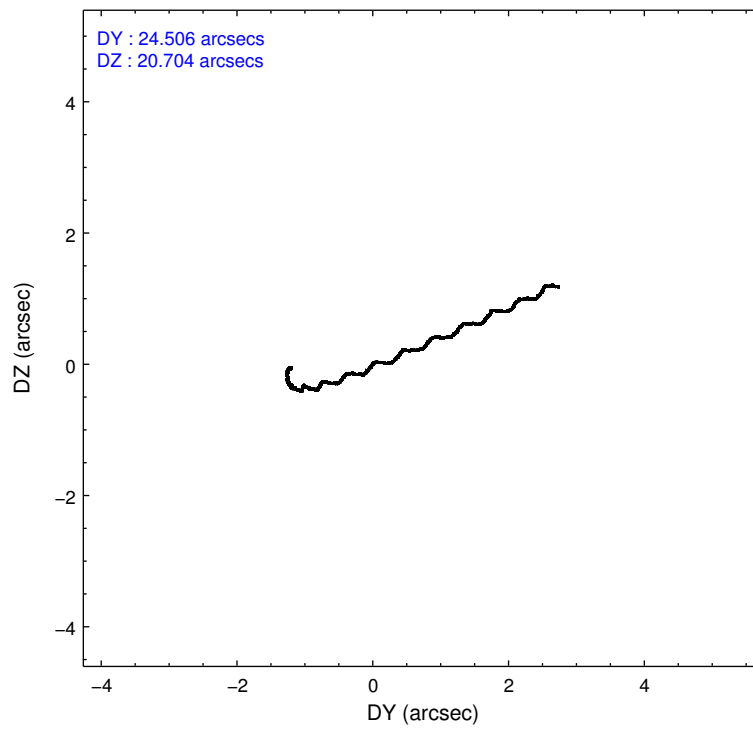
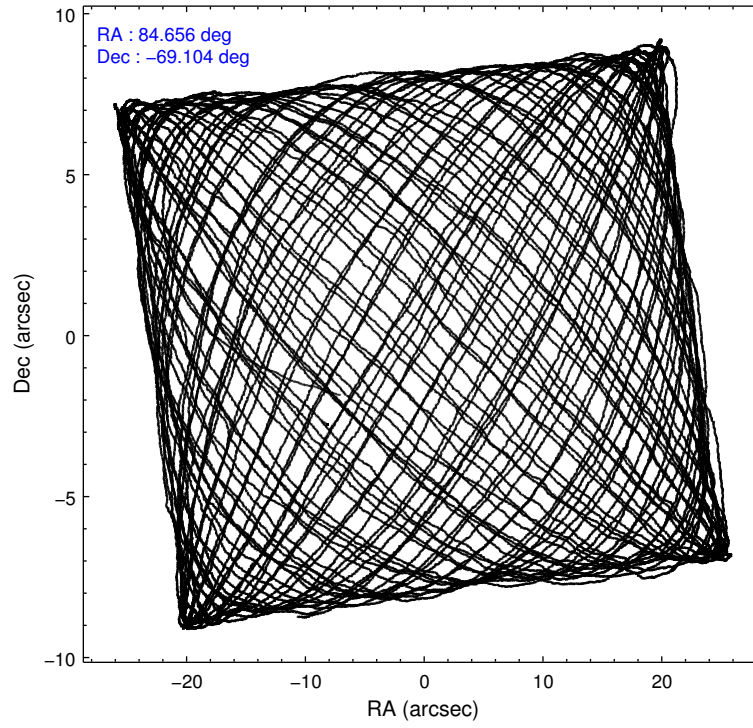
2.1.4 Events

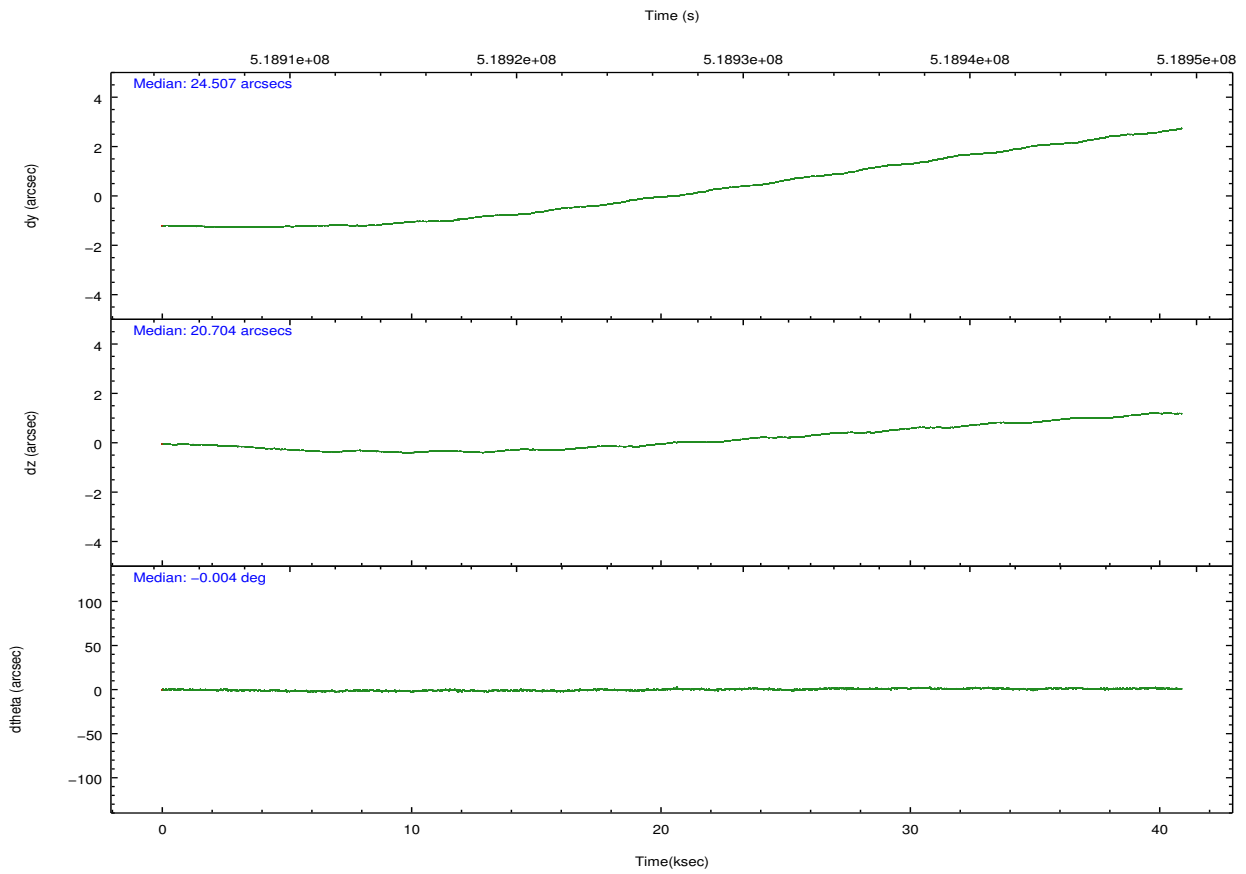
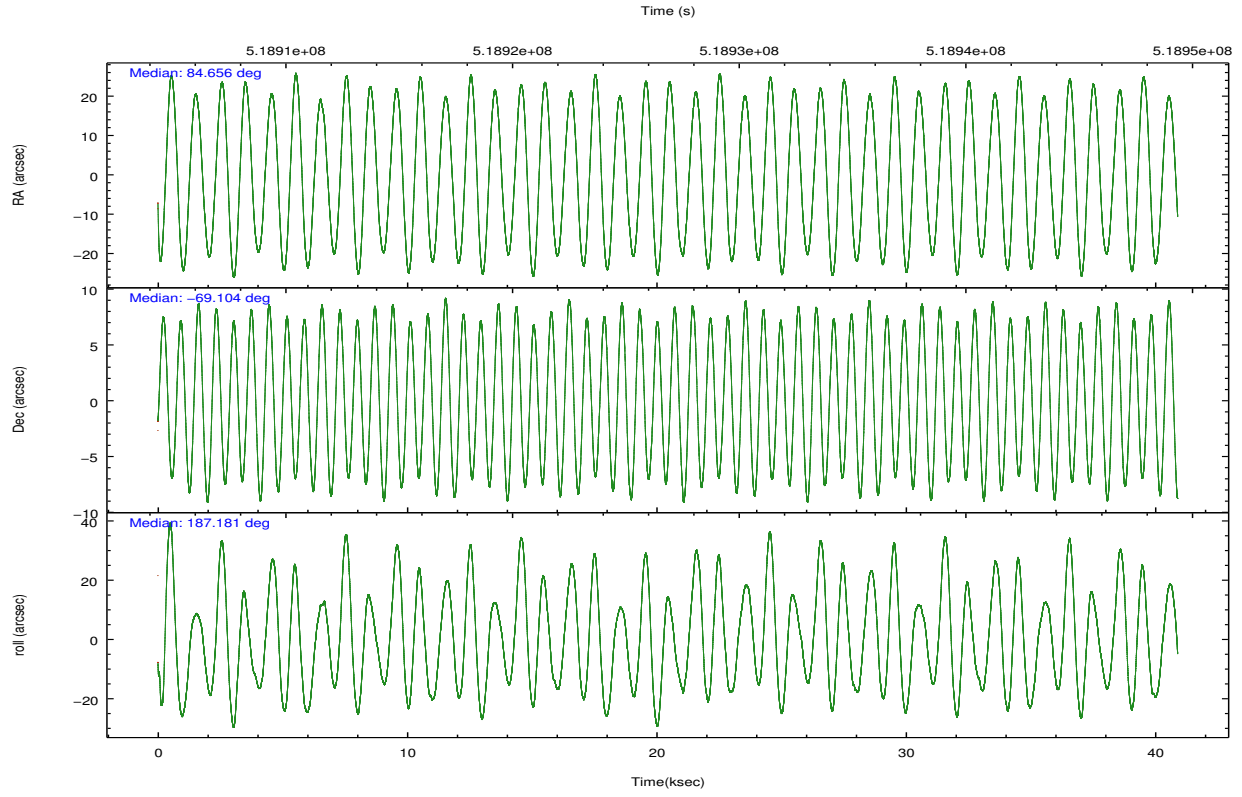
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	166473	174169	216432	184599	193150	347256	grade 0 events	14591	16278	38190	21063	14752	45787
rejected events	137437	142403	159031	148756	163139	113667		8%	9%	17%	11%	7%	13%
rejected %	82%	81%	73%	80%	84%	32%	grade 1 events	145	132	330	171	116	470
								0%	0%	0%	0%	0%	0%
							grade 2 events	5879	5852	8627	5793	5670	57245
								3%	3%	3%	3%	2%	16%
							grade 3 events	2294	2427	2943	2481	2297	23717
								1%	1%	1%	1%	1%	6%
							grade 4 events	2170	2444	3206	2363	2318	23948
								1%	1%	1%	1%	1%	6%
							grade 5 events	7084	7592	6563	8239	8396	23990
								4%	4%	3%	4%	4%	6%
							grade 6 events	4105	4770	4445	4148	4980	82938
								2%	2%	2%	2%	2%	23%
							grade 7 events	130205	134674	152128	140341	154621	89161
								78%	77%	70%	76%	80%	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	84.717223	84.65606227853658	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.087430	-69.10414758832188	CCD I3 on	Y	Y
[deg] Pointing Roll	187.037881	187.18943048365	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)	518907282.184000	518905249.76469	CCD S5 on	N	N
Observation start date	2014-06-11T20:53:35	2014-06-11T20:20:49	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	518947282.184000	518948408.92957	On-chip summing requested	N	N
Observation end date	2014-06-12T08:00:15	2014-06-12T08:20:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





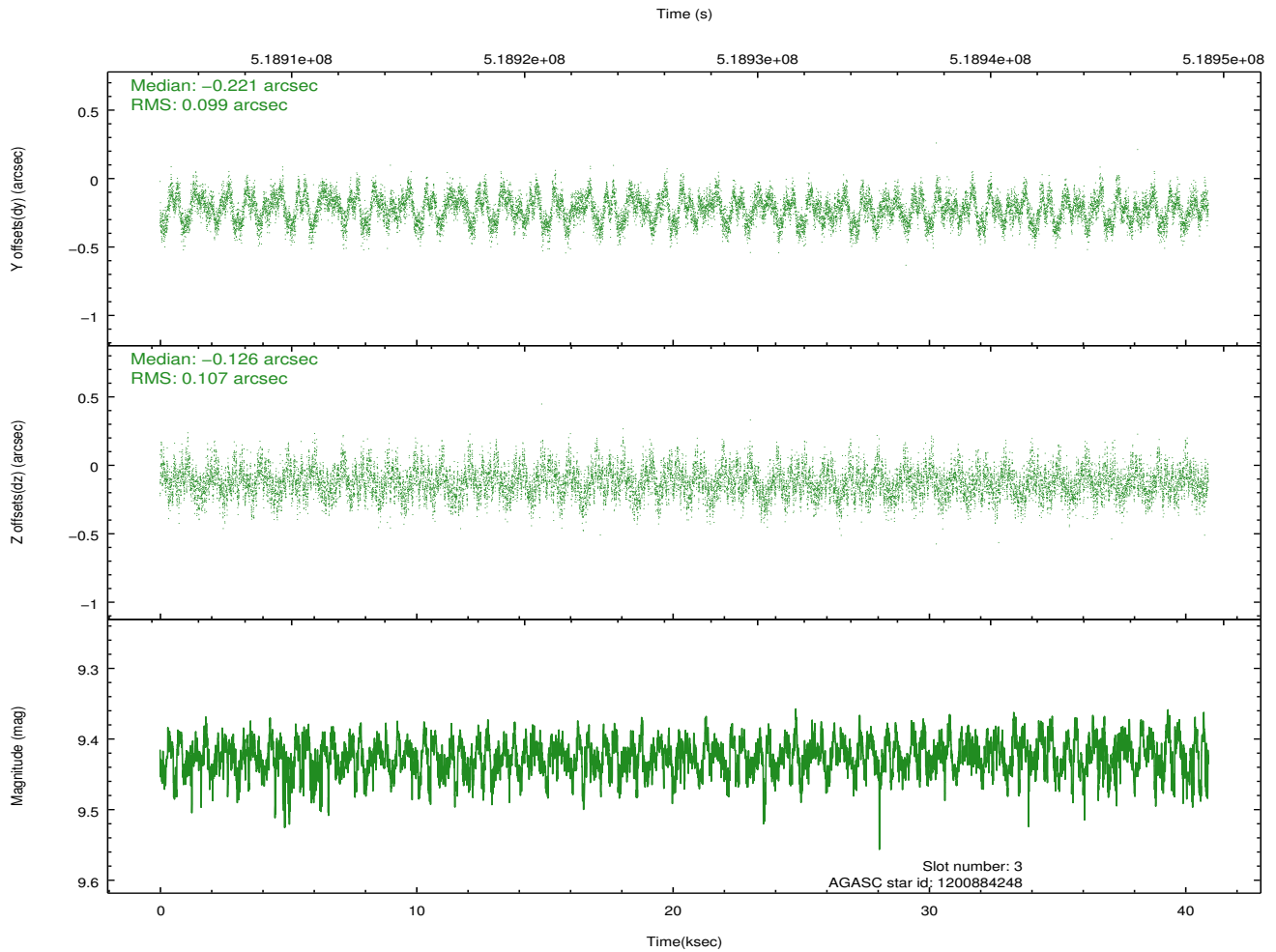
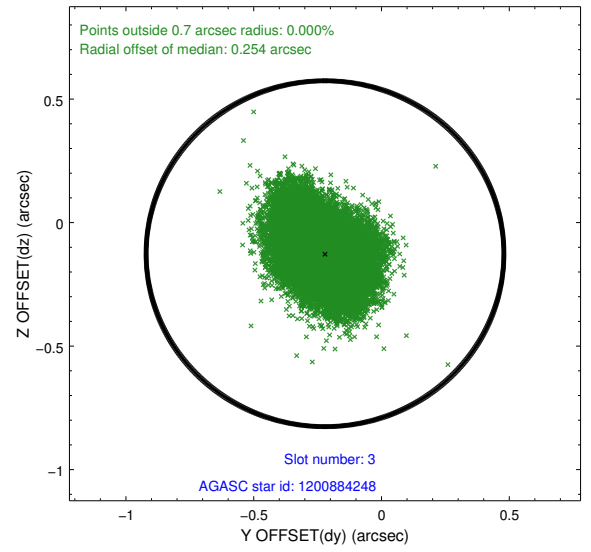
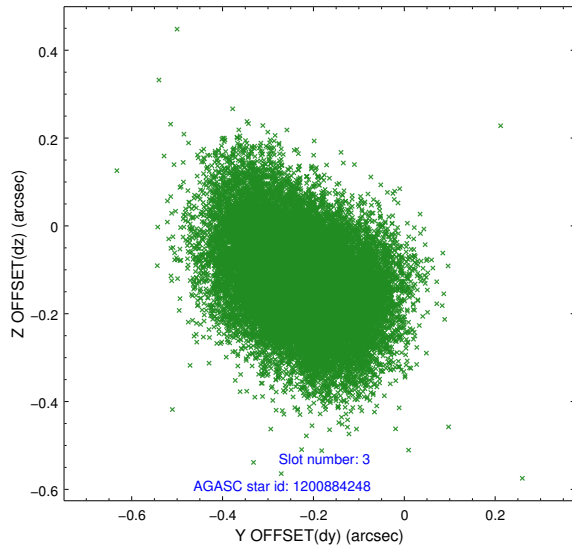
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.02	9975	0.055	-0.015	0.012	0.021	0.000000	0.000000	914.52	-844.61
1	FID		ACIS-I-5	7.02	9975	-0.281	0.040	0.011	0.018	0.000000	0.000000	-1833.98	1052.84
2	FID		ACIS-I-6	7.02	9975	0.136	0.046	0.013	0.022	0.000000	0.000000	380.05	1697.43
3	GUIDE	used	1200884248	9.42	19934	-0.221	-0.126	0.158	0.249	83.880915	-68.565170	862.52	-1993.22
4	GUIDE	used	1201016584	9.43	19815	0.206	0.304	0.165	0.321	85.677603	-68.415933	-1556.28	-2233.19
5	GUIDE	used	1201018312	9.54	19935	-0.001	-0.395	0.175	0.279	86.298231	-69.115627	-1997.58	374.87
6	GUIDE	used	1201018384	9.03	19932	0.081	0.176	0.268	0.372	85.801362	-68.593260	-1630.25	-1578.36
7	GUIDE	used	1201020040	8.57	19947	-0.080	0.013	0.140	0.207	85.379163	-68.879396	-943.07	-633.29

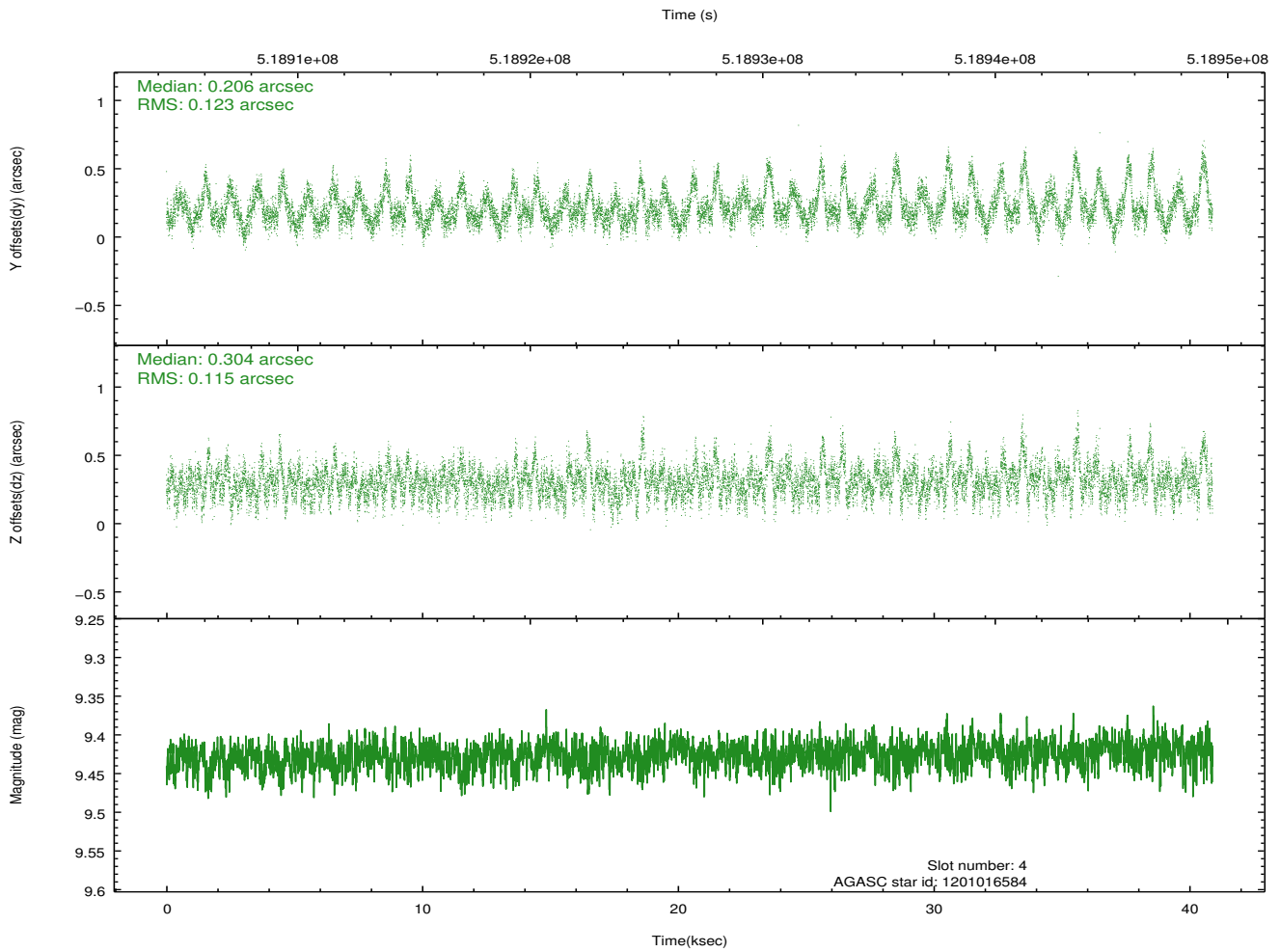
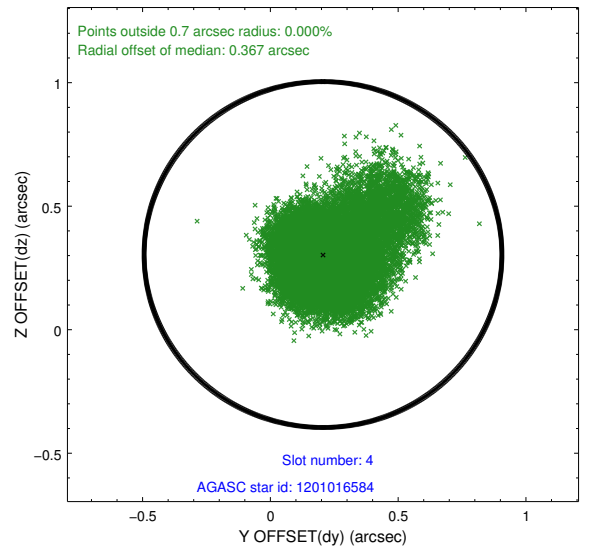
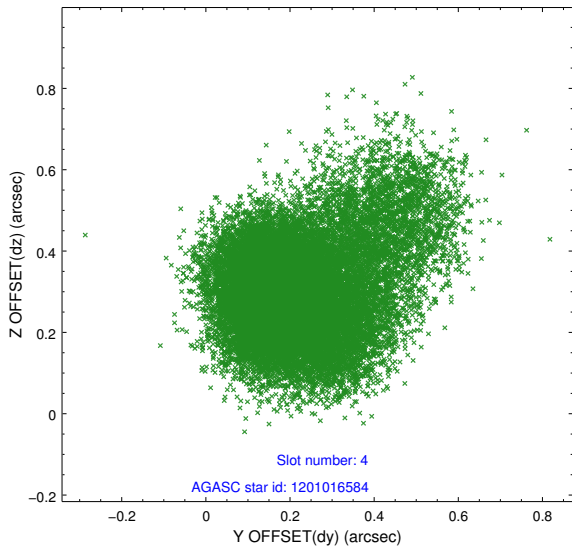
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2.4 Star Slots

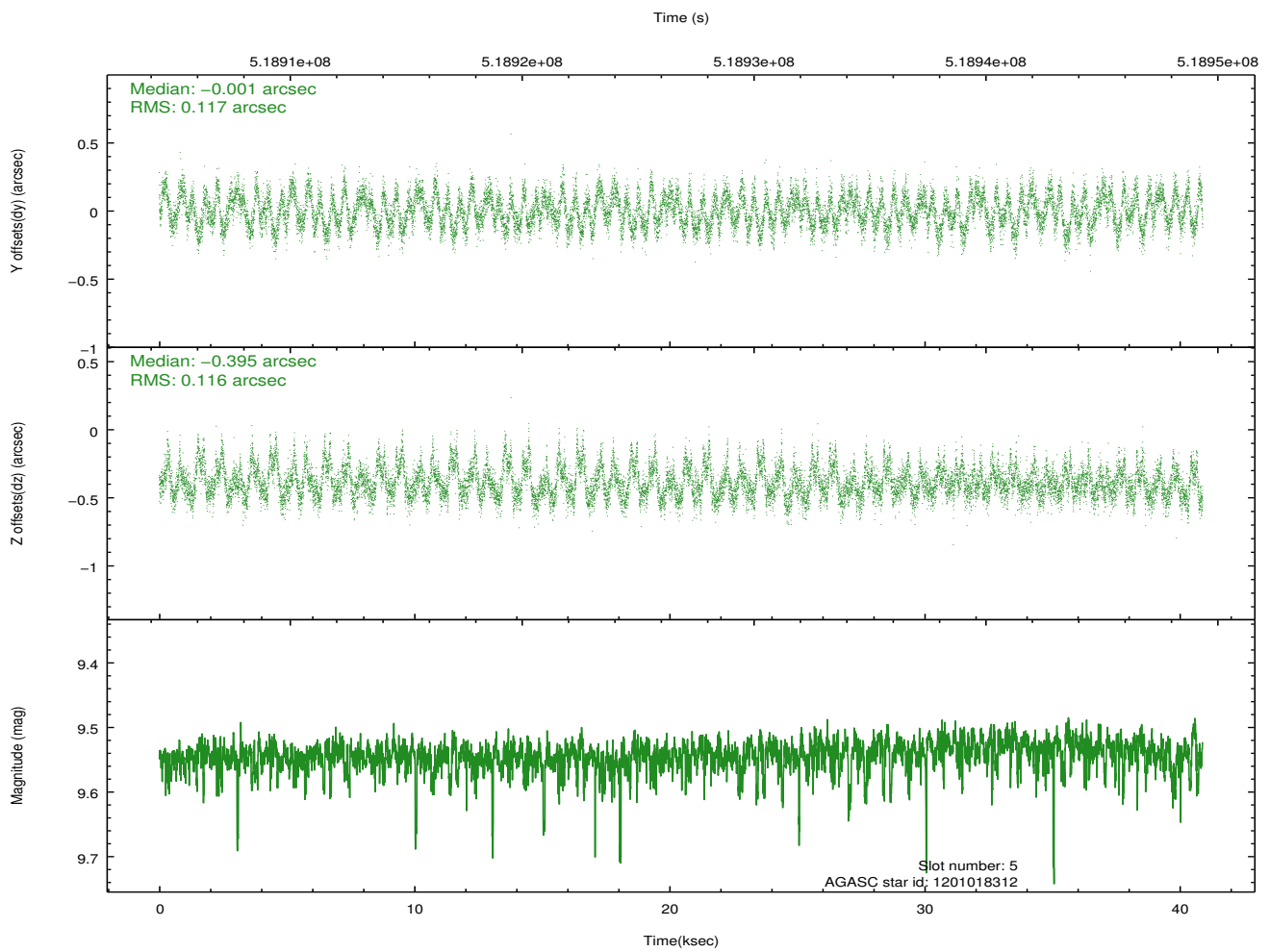
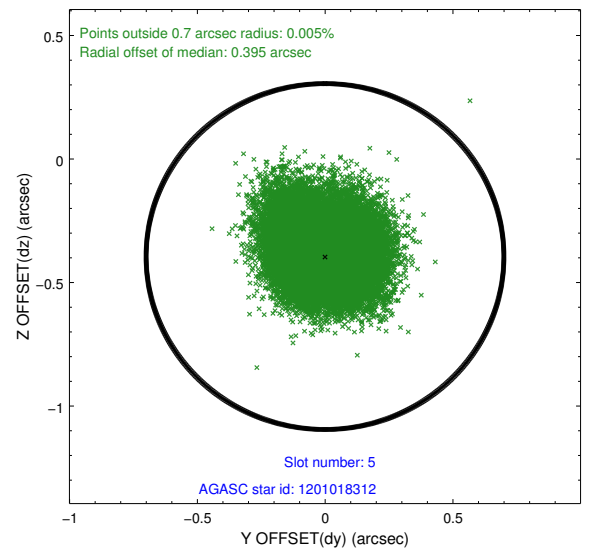
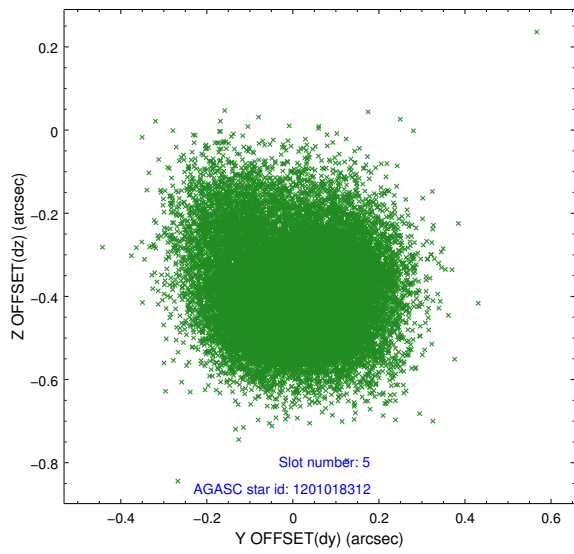
2.4.1 Slot 3



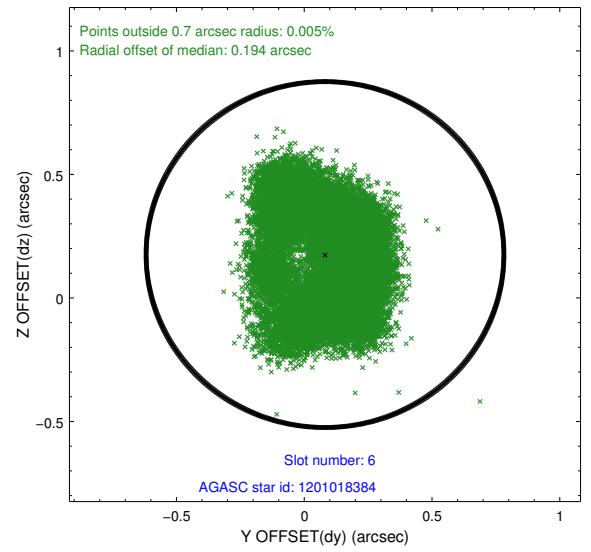
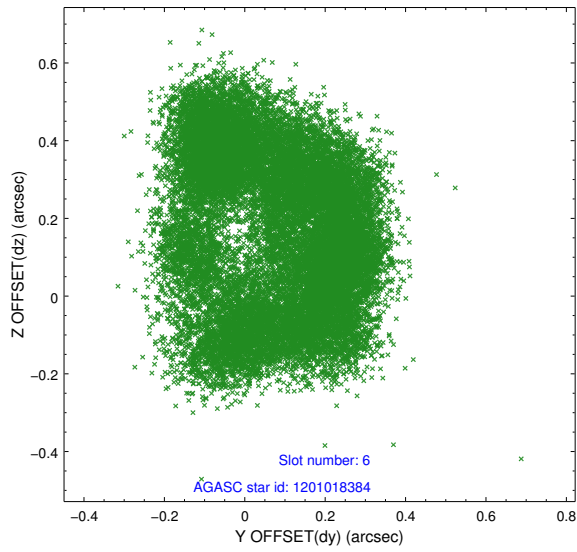
2.4.2 Slot 4



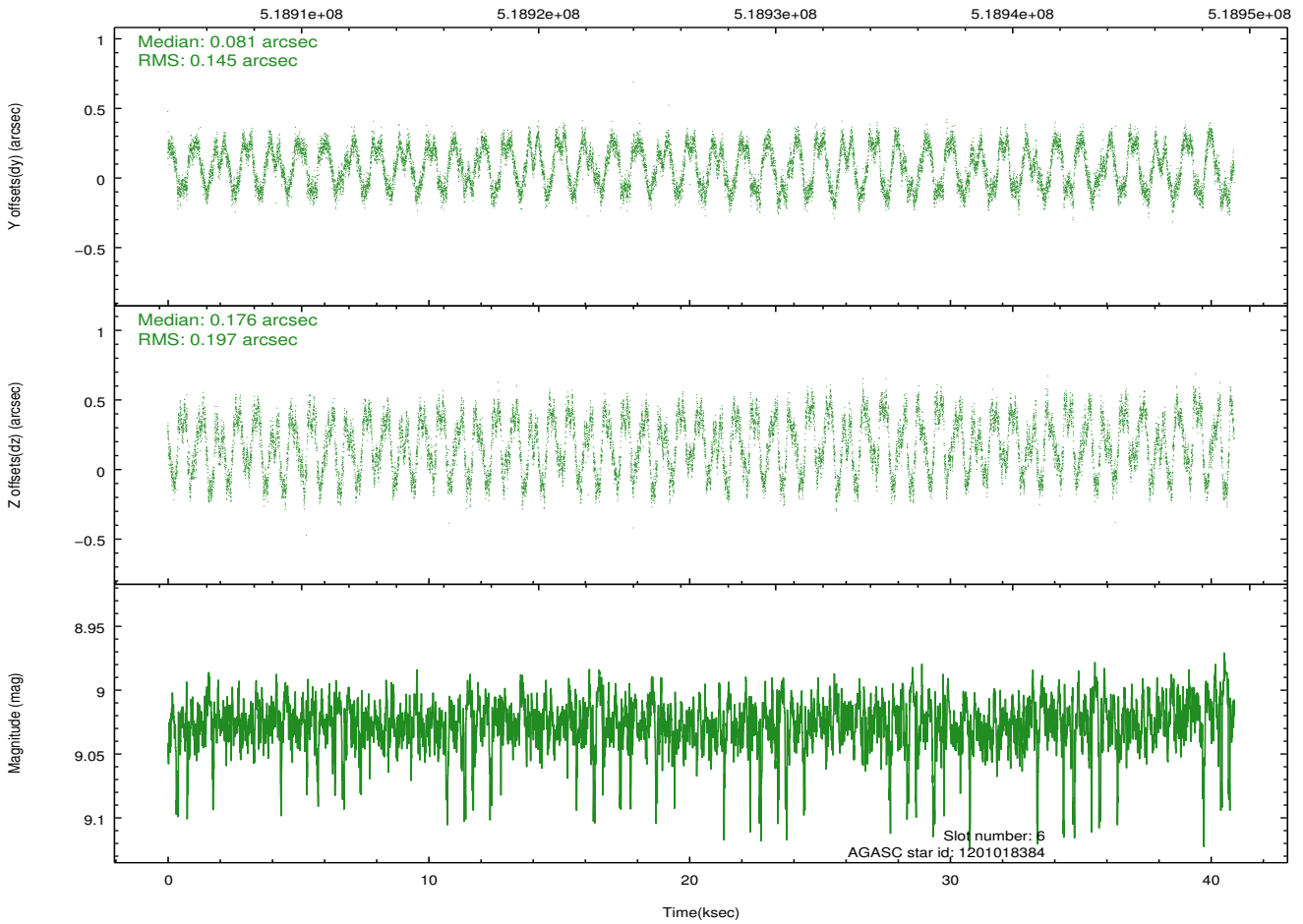
2.4.3 Slot 5



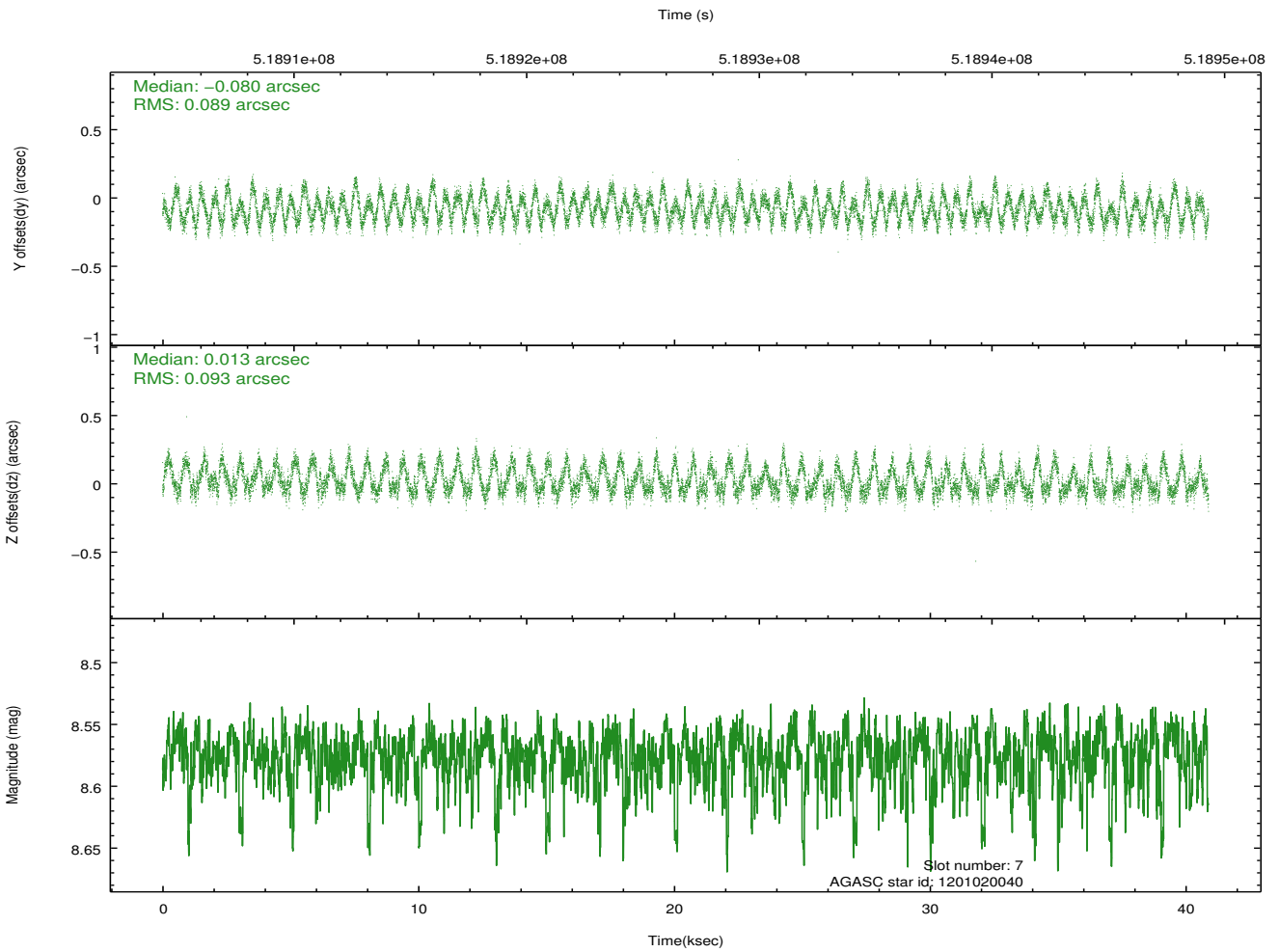
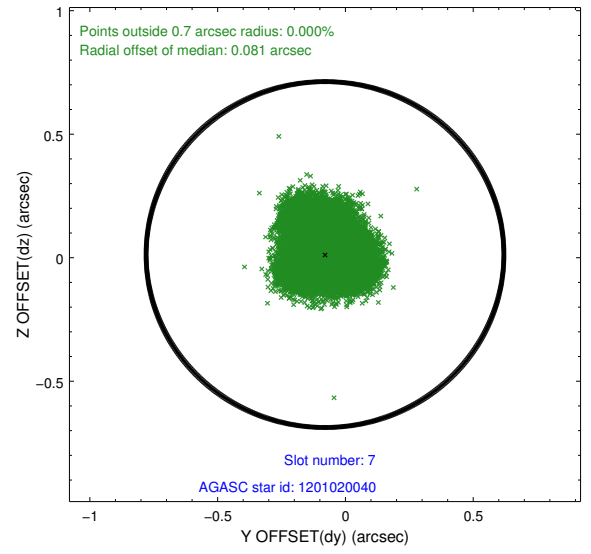
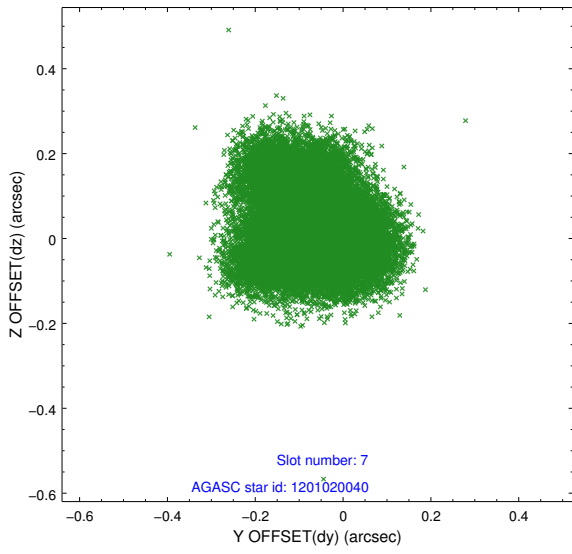
2.4.4 Slot 6



Time (s)

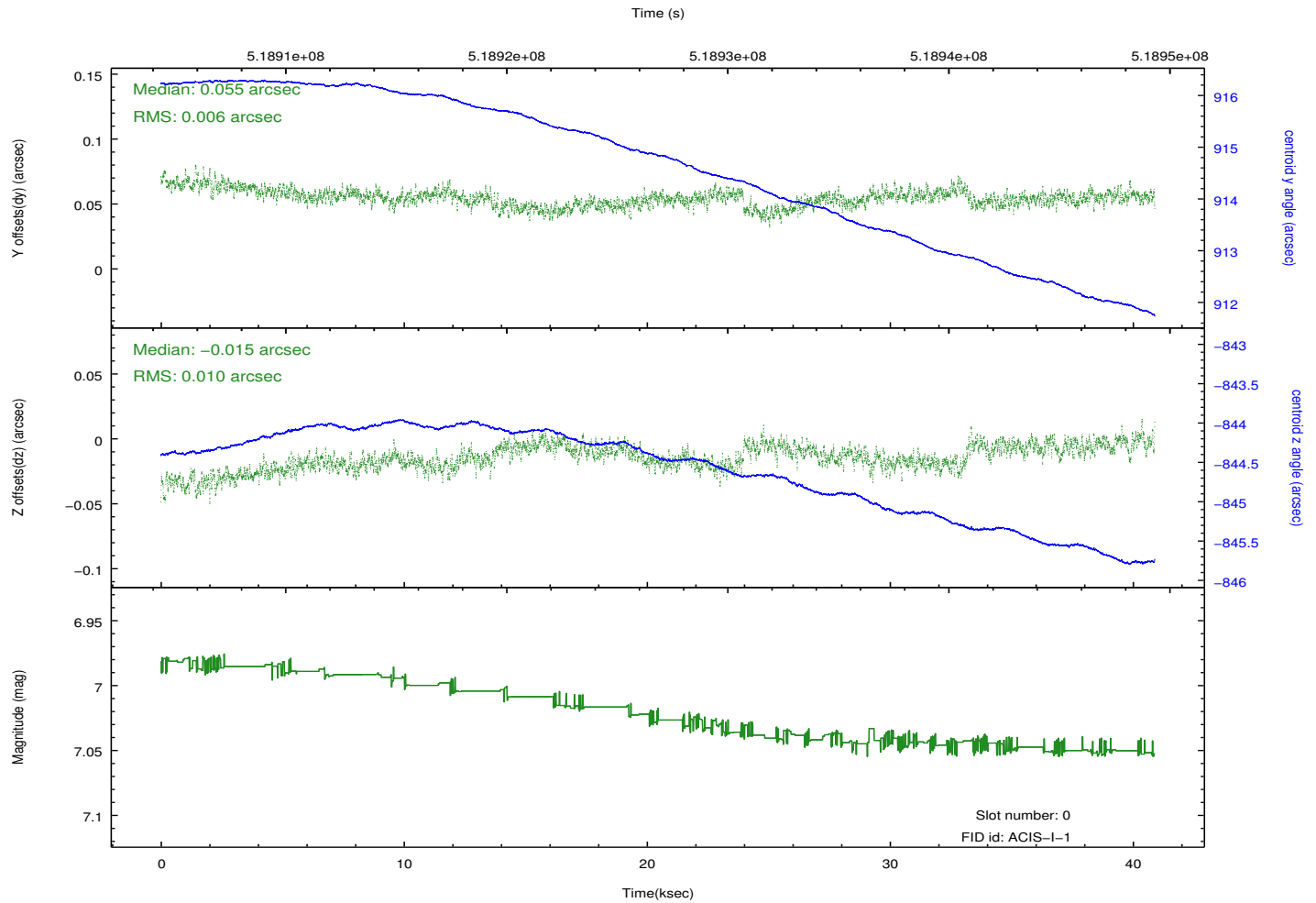
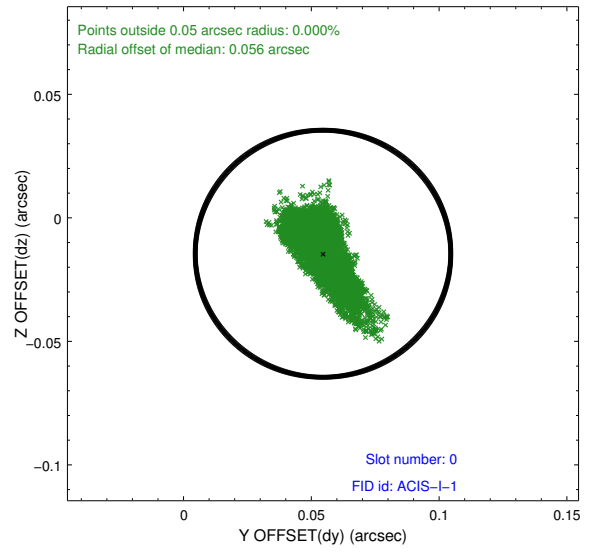
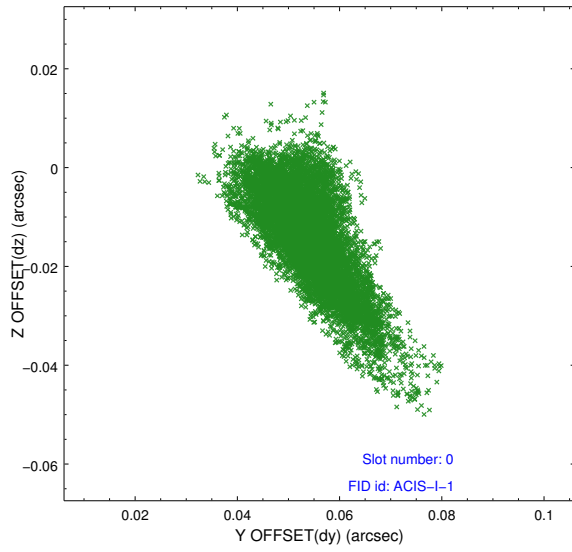


2.4.5 Slot 7

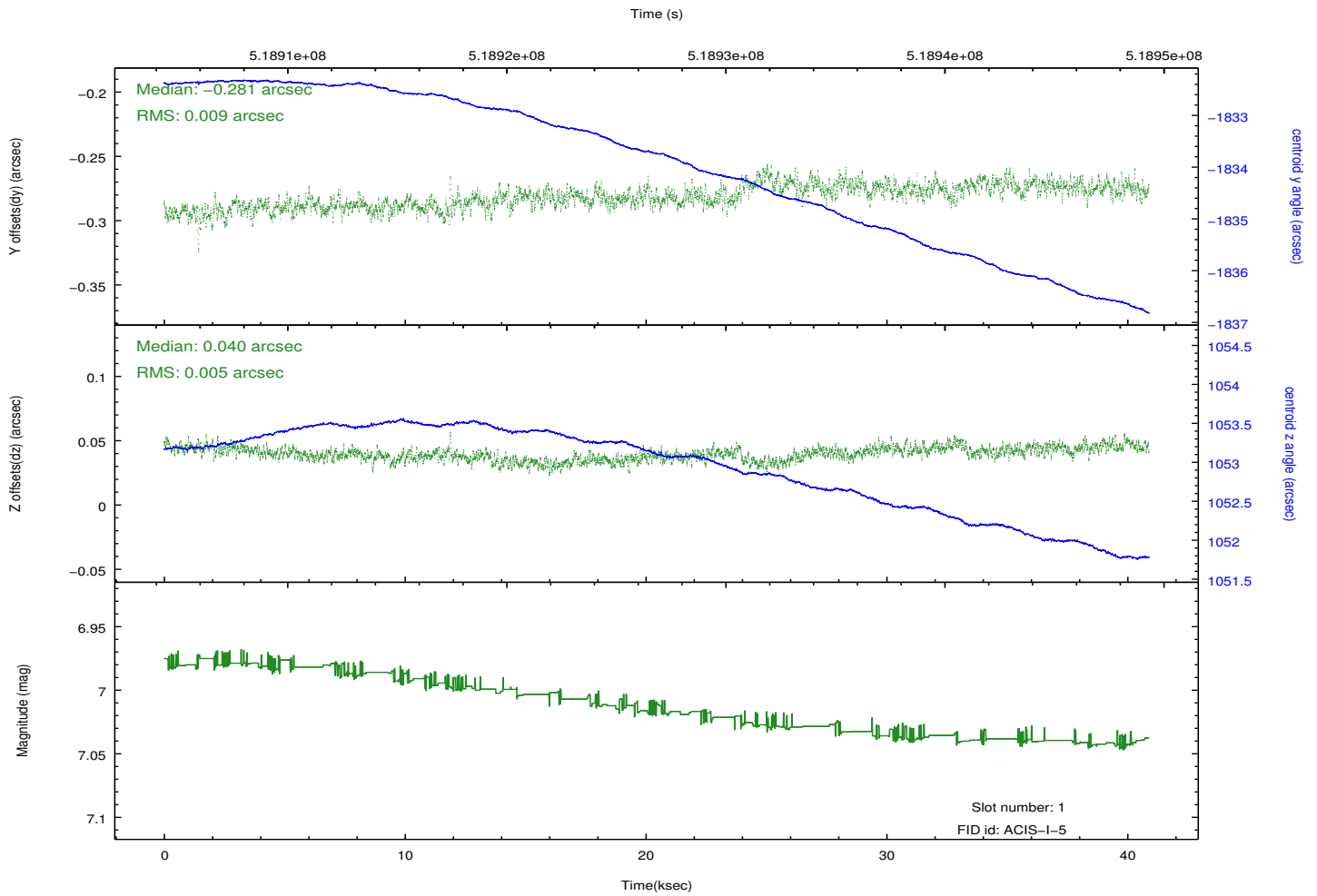
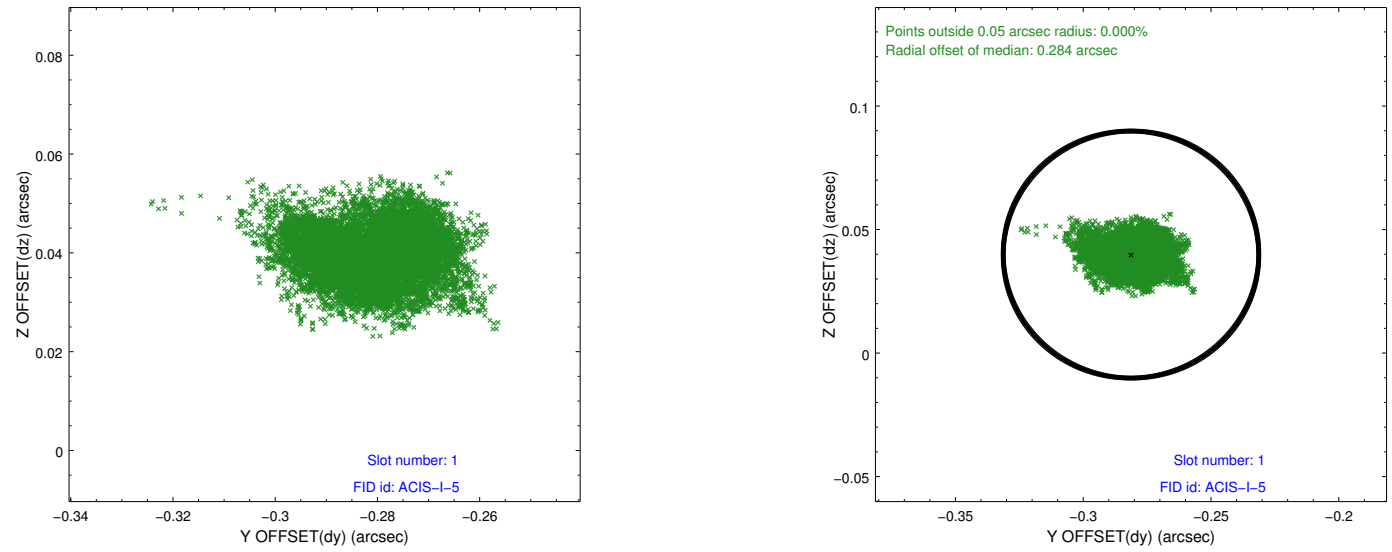


2.5 FID Slots

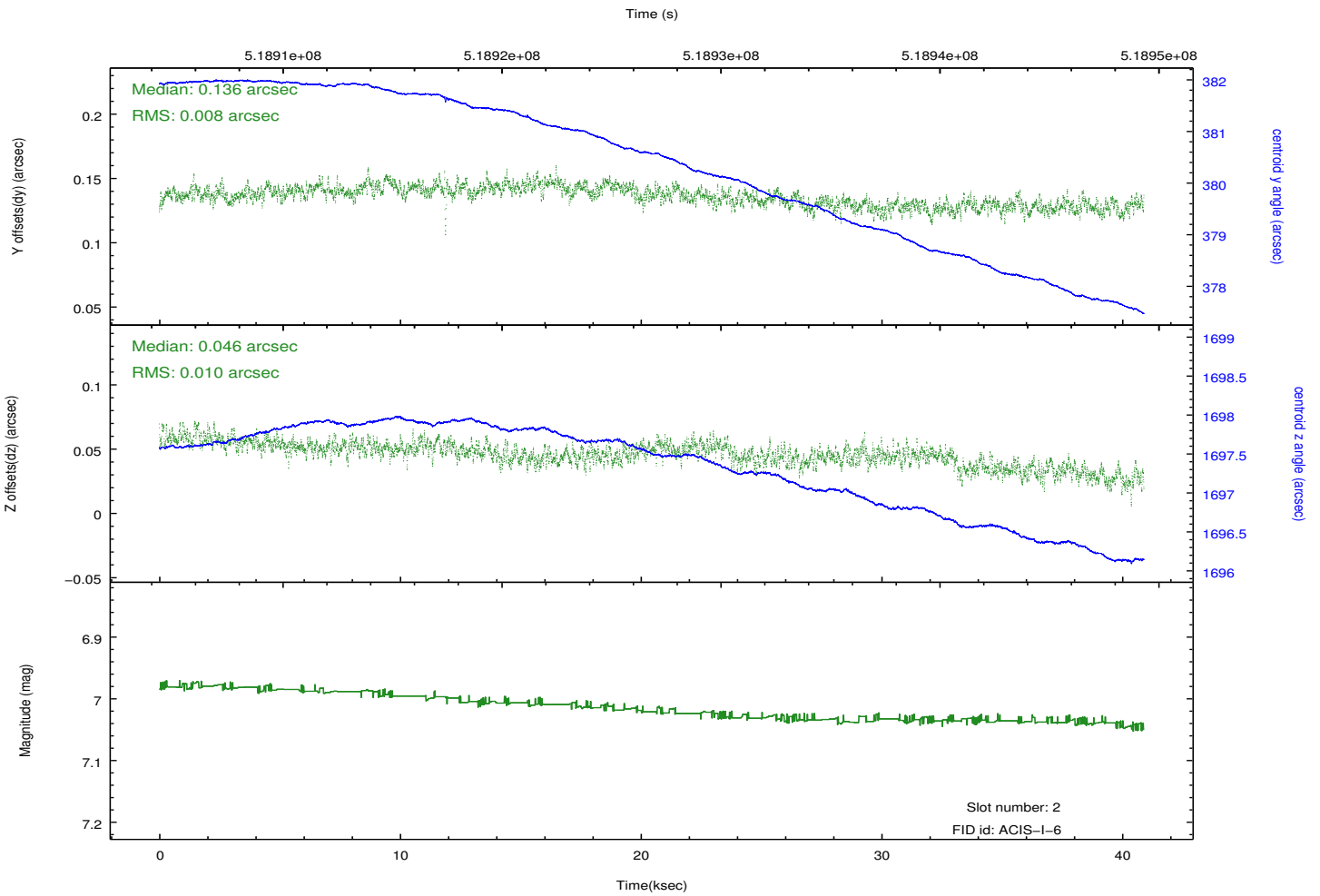
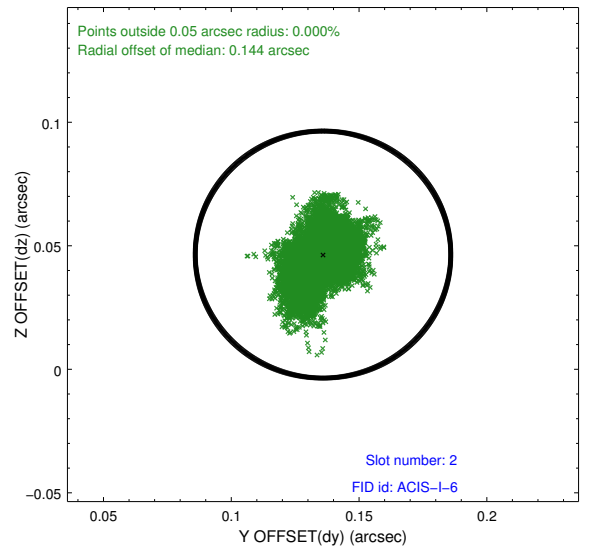
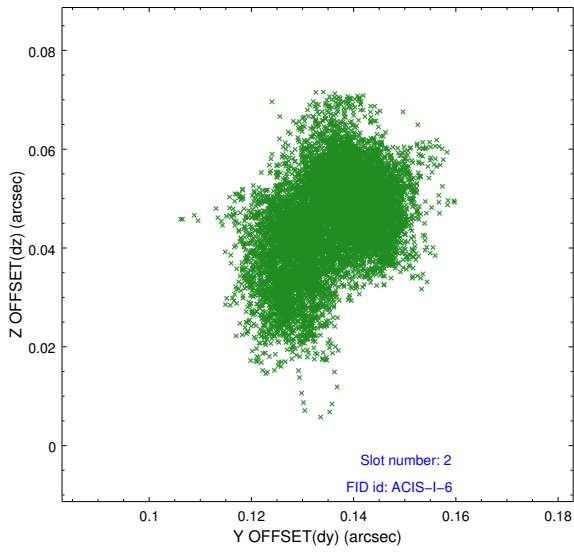
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.971199851155

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.