

V&V Reference Report

L2 ASCDS Version : 10

Observation 14605 - L2 Version 2
Chandra X-Ray Center

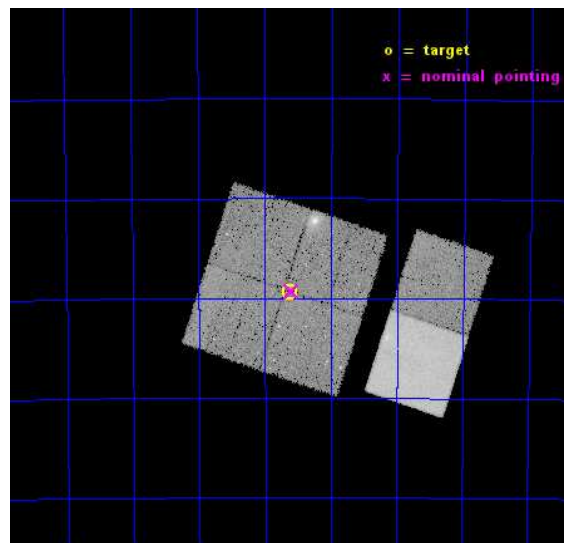
L2 Processing Date : Dec 6 2014

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1 Front

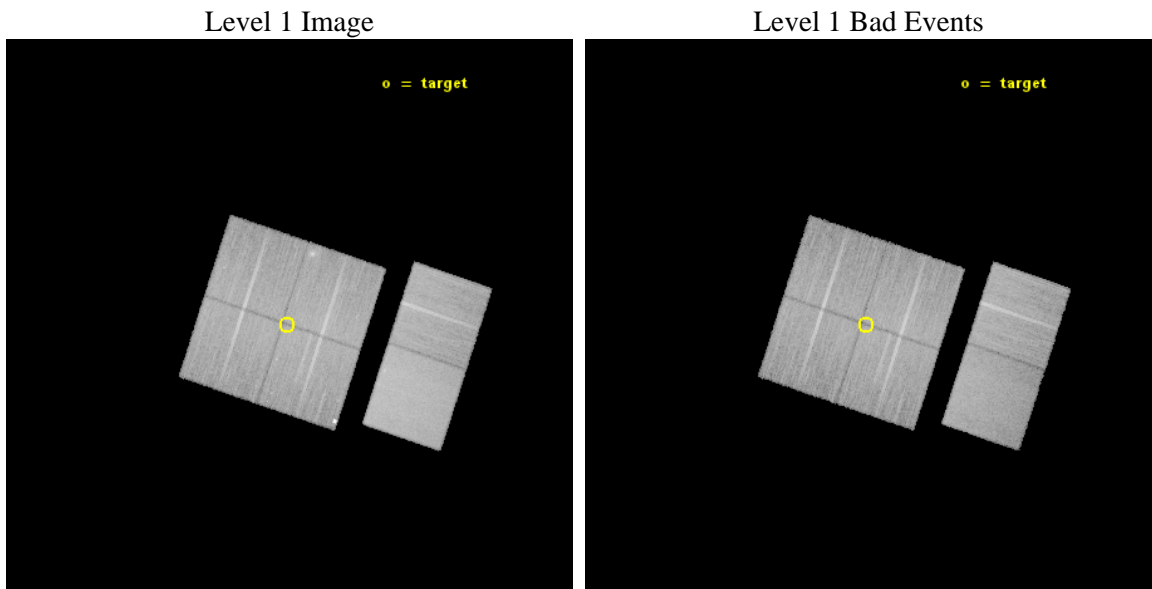
seq_num	200905	Sequence number
obs_id	14605	Observation id
title	X-ray and UV Emissions of Cepheids: A Shockingly Different Picture of Cepheid Atmospheres Emerging	Proposal title
observer	Dr. Edward Guinan	Principal investigator
object	beta Dor	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.40625	Observer's specified target RA [deg]
dec_targ	-62.489806	Observer's specified target Dec [deg]
ra_nom	83.399991949889	Nominal RA [deg]
dec_nom	-62.488800625389	Nominal Dec [deg]
roll_nom	108.37369209867	Nominal Roll [deg]
revision	2	Processing version of data
ontime	36495.308267117	Sum of GTIs [s]
livetime	36033.182699002	Livetime [s]
ontime0	36495.185147107	Sum of GTIs [s]
ontime1	36491.985286295	Sum of GTIs [s]
ontime2	36495.267227113	Sum of GTIs [s]
ontime3	36495.308267117	Sum of GTIs [s]
ontime6	36495.390347123	Sum of GTIs [s]
ontime7	36495.34930712	Sum of GTIs [s]
l2events	194900	Number of level 2 events



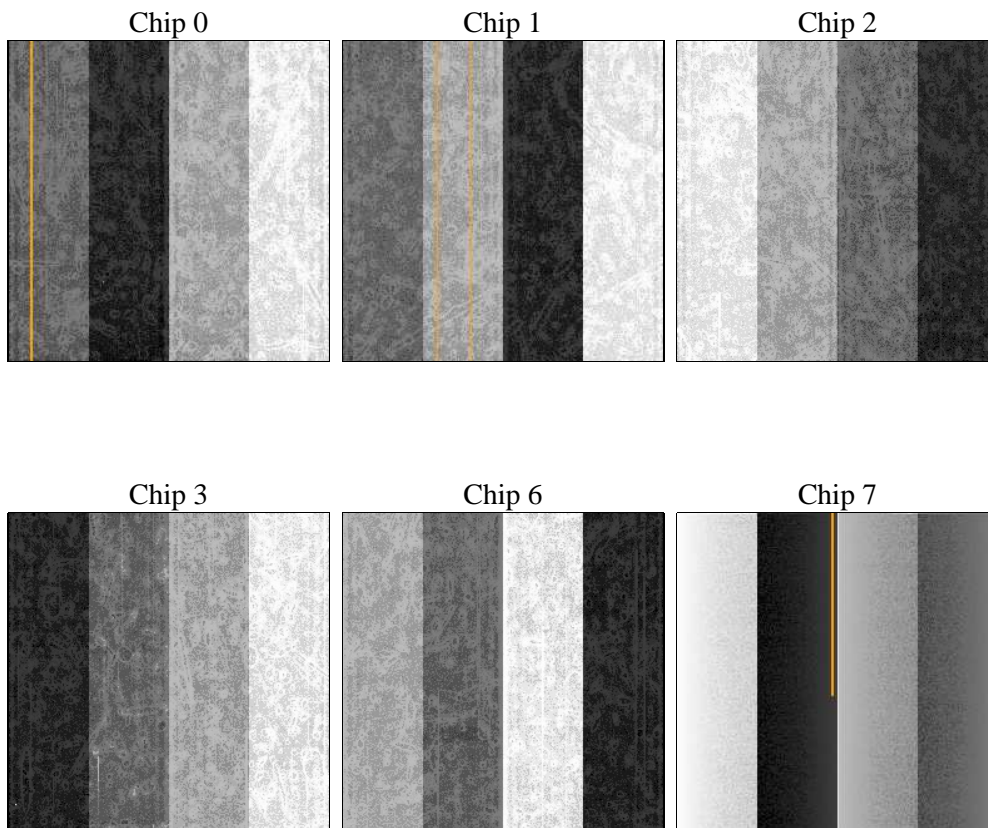
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36521.710000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	36495.308267117	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	36495.185147107	Sum of GTIs [s]
date	2014-12-06T08:31:02	Date and time of file creation	ontime1	36491.985286295	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	36495.267227113	Sum of GTIs [s]
			ontime3	36495.308267117	Sum of GTIs [s]
			ontime6	36495.390347123	Sum of GTIs [s]
			ontime7	36495.34930712	Sum of GTIs [s]
			l1events	1078147	Number of level 1 events

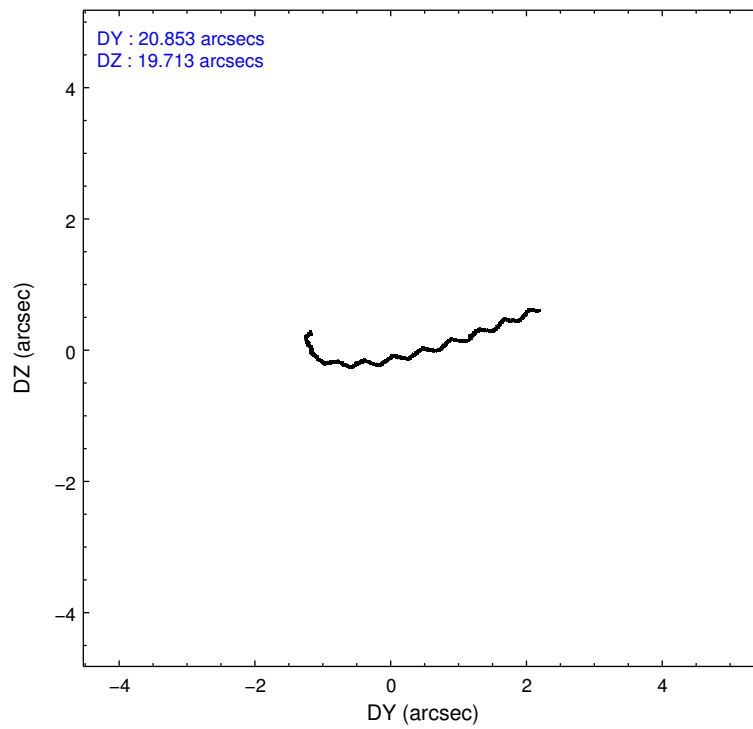
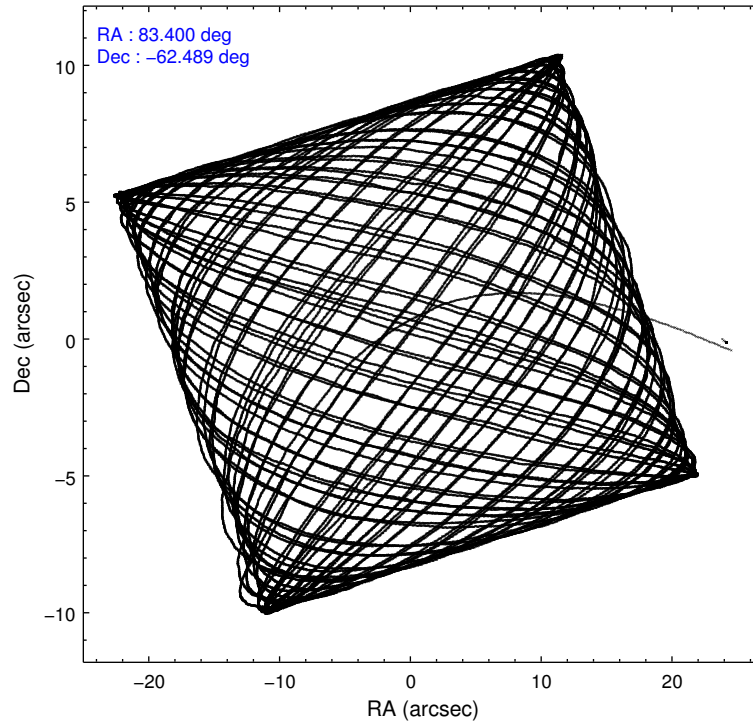
2.1.4 Events

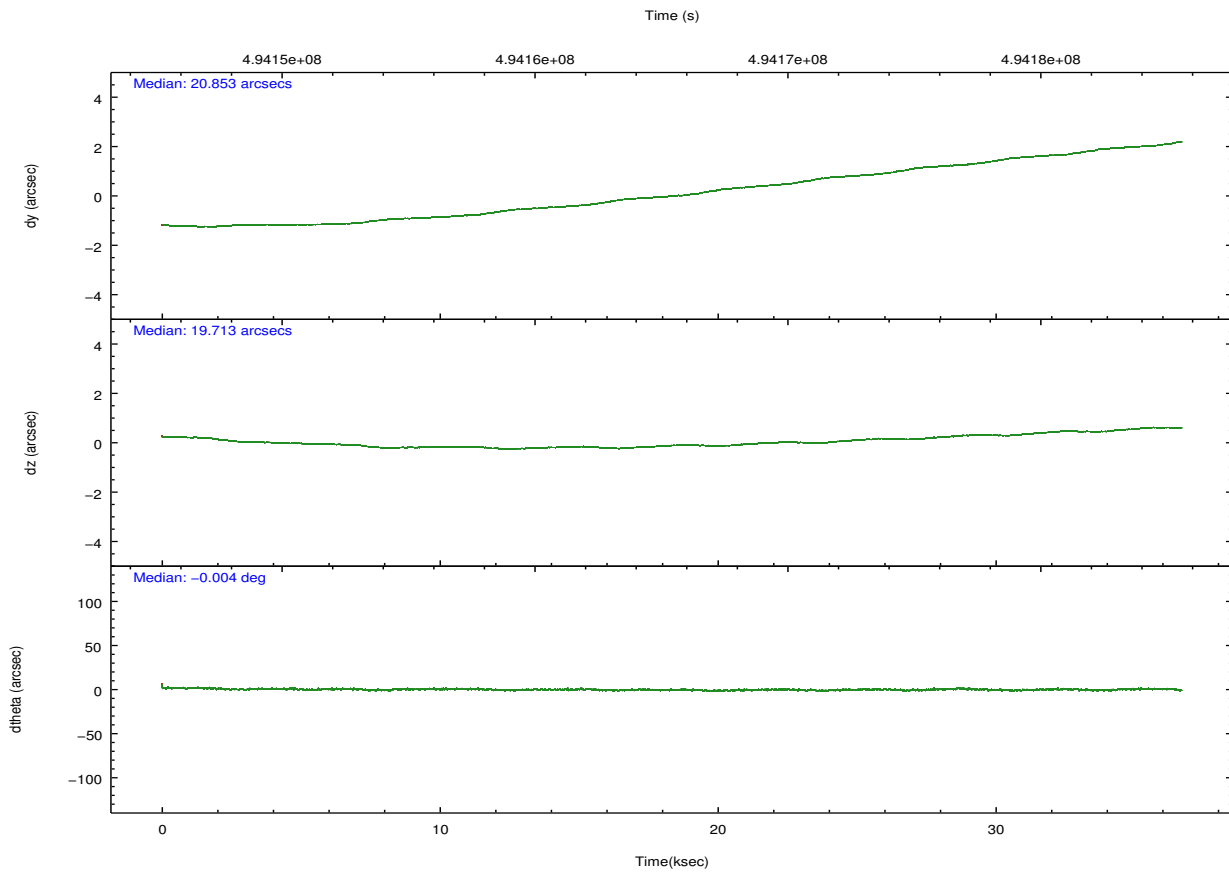
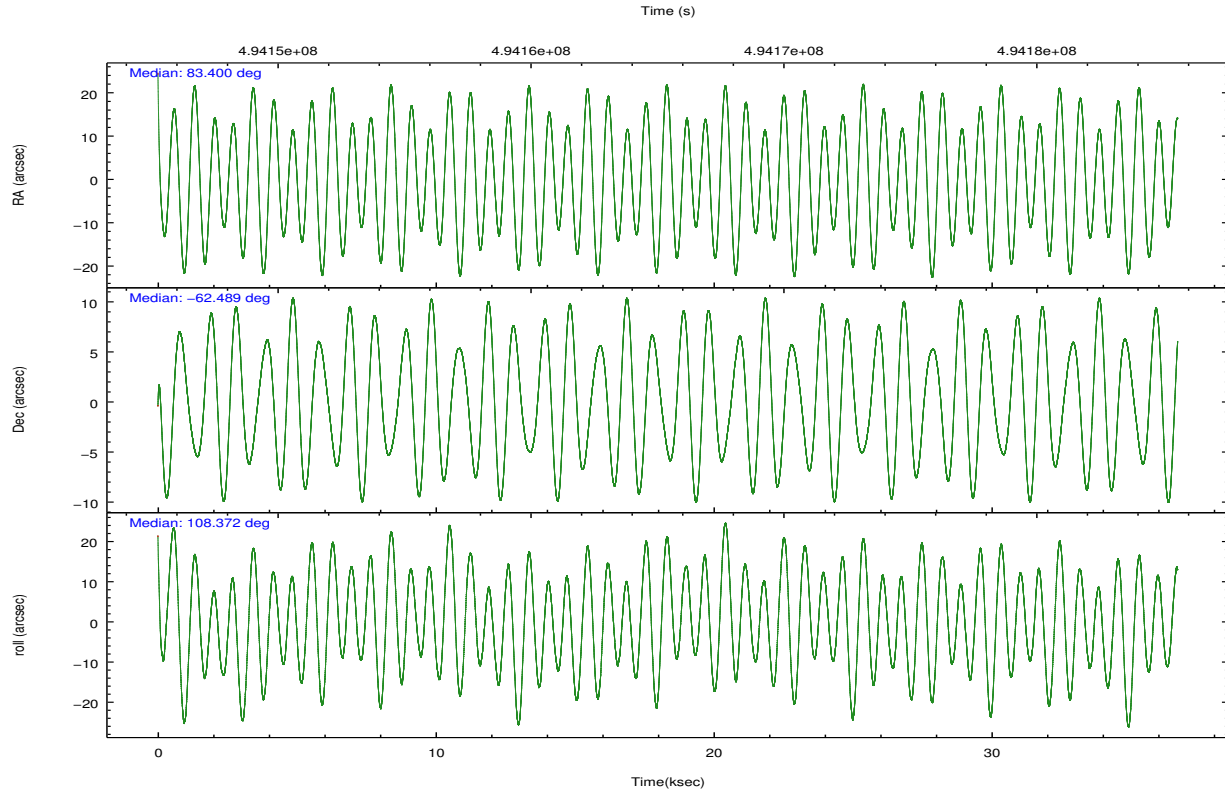
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	158013	160363	177419	169187	176252	236913	grade 0 events	7650	8250	10802	11164	7063	9124
rejected events	136874	137139	152932	145192	155033	133446		4%	5%	6%	6%	4%	3%
rejected %	86%	85%	86%	85%	87%	56%	grade 1 events	104	83	105	123	89	285
								0%	0%	0%	0%	0%	0%
							grade 2 events	5056	5553	5354	4472	4872	21035
								3%	3%	3%	2%	2%	8%
							grade 3 events	2225	2313	2108	2062	2171	8955
								1%	1%	1%	1%	1%	3%
							grade 4 events	2027	2211	2212	2141	2084	8650
								1%	1%	1%	1%	1%	3%
							grade 5 events	8042	8815	7456	9348	9367	24372
								5%	5%	4%	5%	5%	10%
							grade 6 events	4185	4900	4016	4160	5032	55719
								2%	3%	2%	2%	2%	23%
							grade 7 events	128724	128238	145366	135717	145574	108773
								81%	79%	81%	80%	82%	45%

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	83.444660	83.39999194988869	CCD I2 on	Y	Y
[deg] Pointing Dec	-62.506961	-62.48880062538858	CCD I3 on	Y	Y
[deg] Pointing Roll	108.204629	108.3736920986662	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	Y	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
Phase constraints	Y	Y	CCD S5 on	N	N
[d] Phase period	9.842620	9.842620	Number of optional ACIS chips dropped	0	0
[d] Phase epoch (MJD)	55934.922000	55934.922000	On-chip summing requested	N	N
Phase start	0.700000	0.700000	Subarray requested	NONE	NONE
Phase end	1.000000	1.000000	Alternating exposures requested	N	N
Phase start error	0.010000	0.010000	[s] Primary exposure time	0.000000	3.2
Phase end error	0.010000	0.010000			
[s] Observation start time (MET)	494147226.184000	494145664.61656			
Observation start date	2013-08-29T07:05:59	2013-08-29T06:41:04			
[s] Observation end time (MET)	494183747.184000	494183984.75616			
Observation end date	2013-08-29T17:14:40	2013-08-29T17:19:44			
Read mode	TIMED	TIMED			

2.3 Aspect





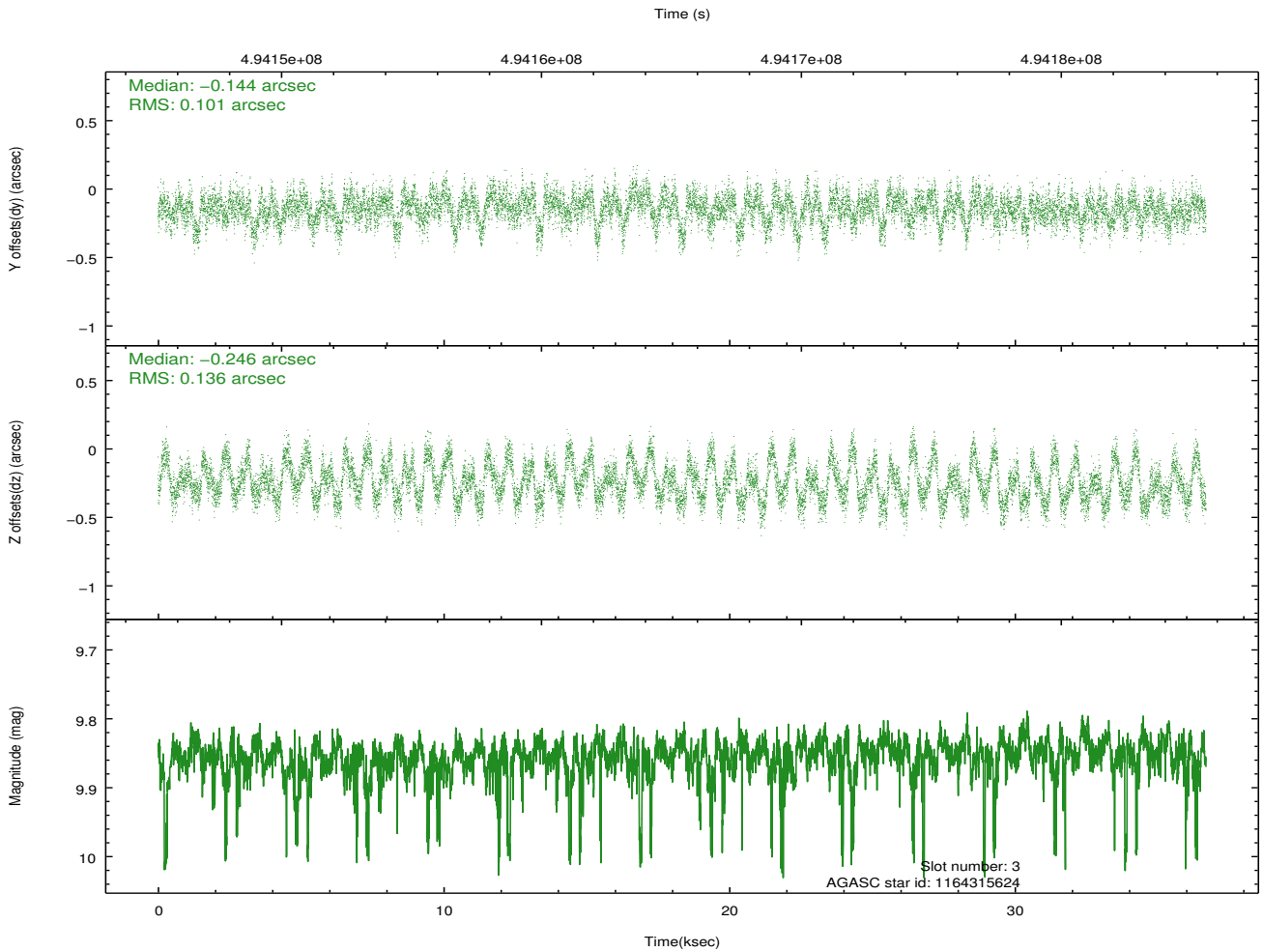
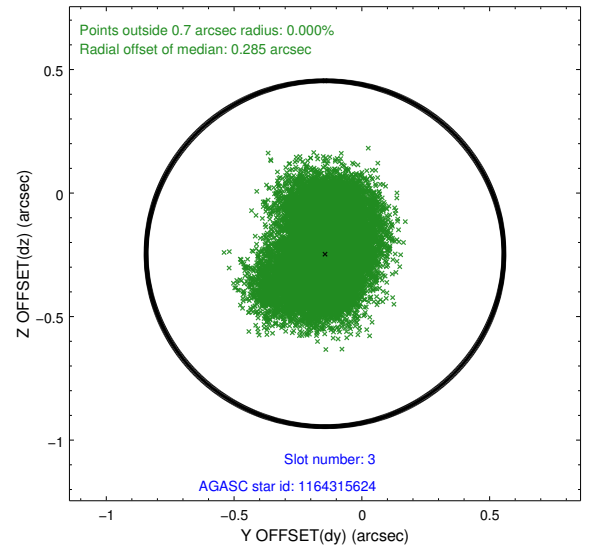
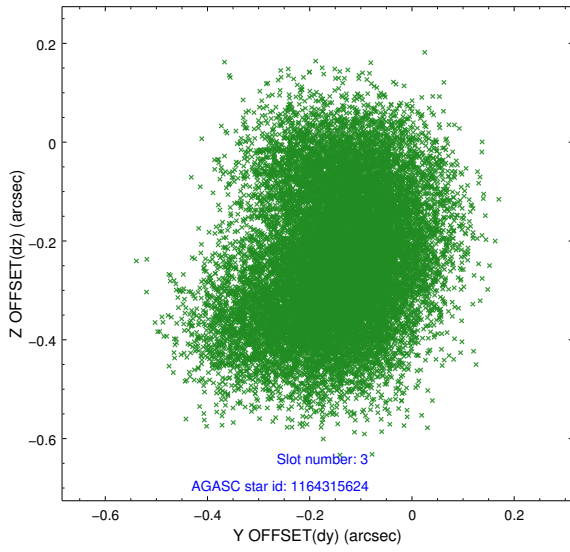
Slot Statistics

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	8947	-0.035	-0.007	0.016	0.029	0.000000	0.000000	918.28	-843.47
1	FID		ACIS-I-4	7.01	8947	0.200	0.046	0.038	0.070	0.000000	0.000000	2138.53	1056.42
2	FID		ACIS-I-5	7.06	8949	-0.266	0.032	0.025	0.063	0.000000	0.000000	-1829.99	1054.15
3	GUIDE	used	1164315624	9.85	17830	-0.144	-0.246	0.184	0.287	82.193235	-62.089076	2068.78	1539.38
4	GUIDE	used	1164316296	9.73	17868	-0.312	-0.214	0.181	0.287	82.512520	-62.448874	672.28	1413.24
5	GUIDE	used	1164320624	9.08	17878	-0.131	0.050	0.132	0.225	84.105569	-62.319861	289.49	-1258.32
6	GUIDE	used	1164321856	9.09	17879	0.361	0.187	0.117	0.184	84.402690	-62.802970	-1515.01	-1160.78
7	GUIDE	used	1164320776	7.57	17890	0.220	0.212	0.098	0.157	85.024616	-62.937430	-2310.46	-1963.90

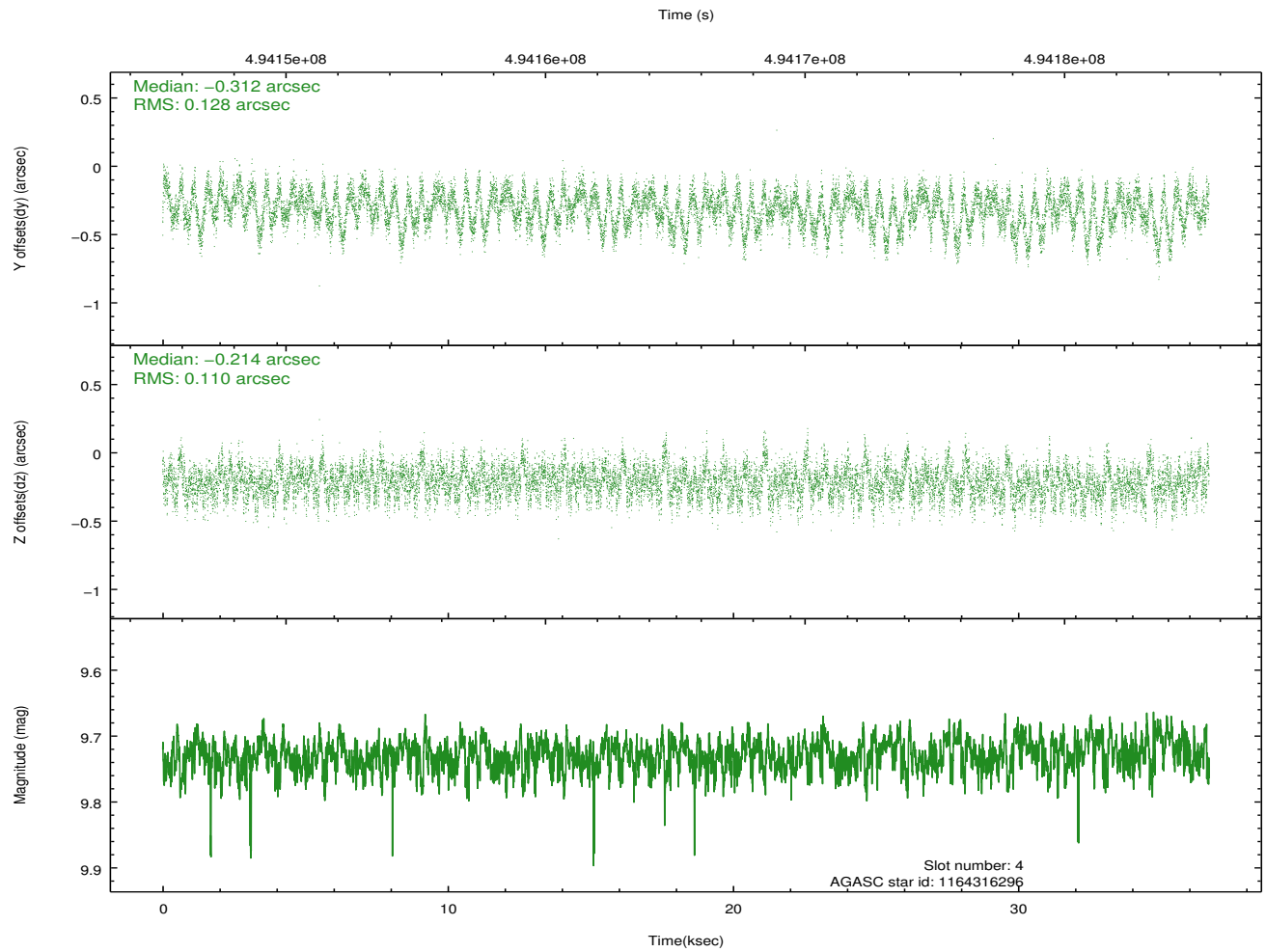
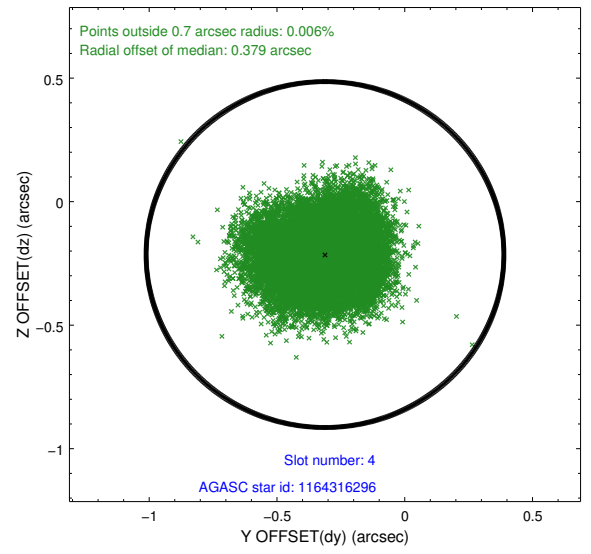
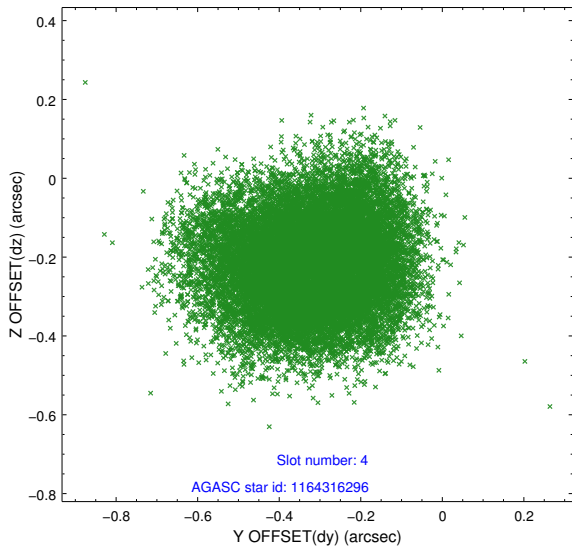
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2.4 Star Slots

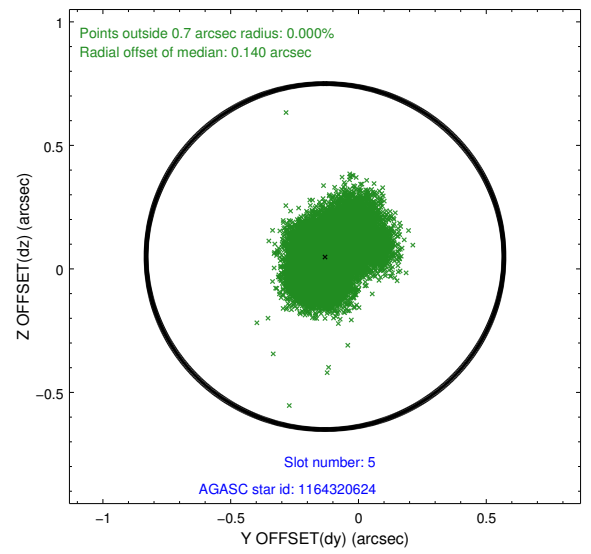
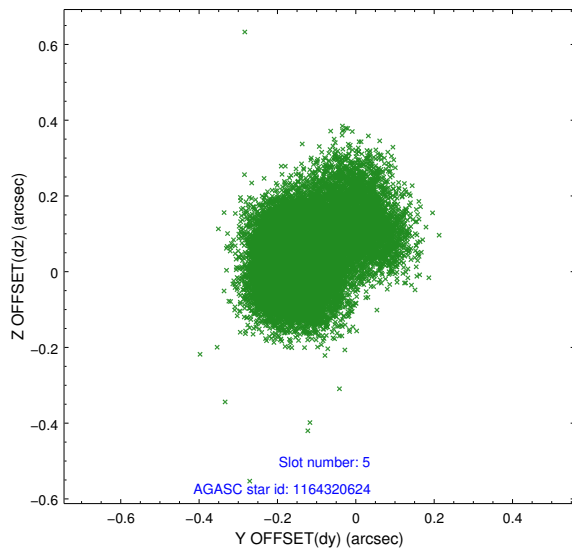
2.4.1 Slot 3



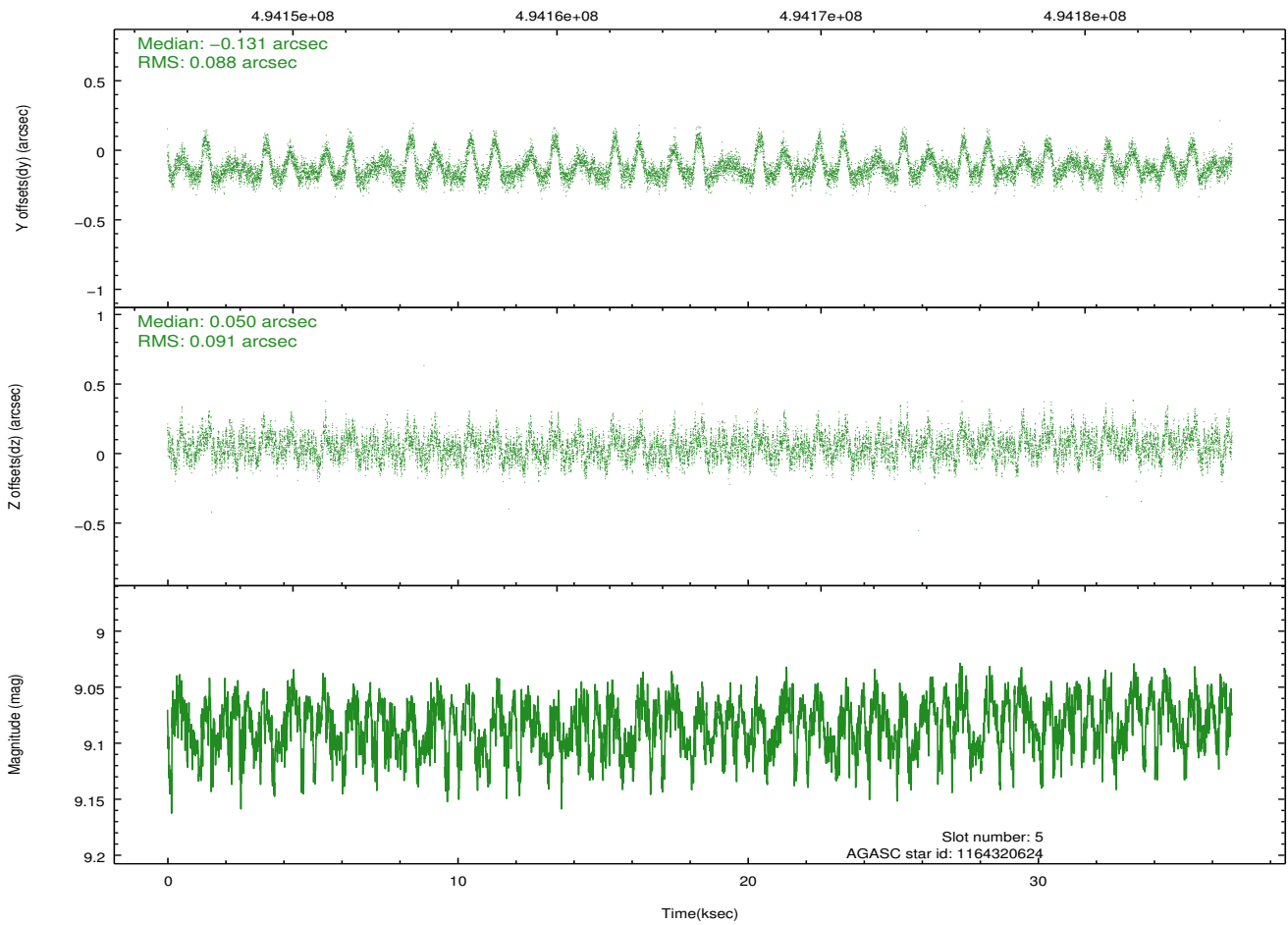
2.4.2 Slot 4



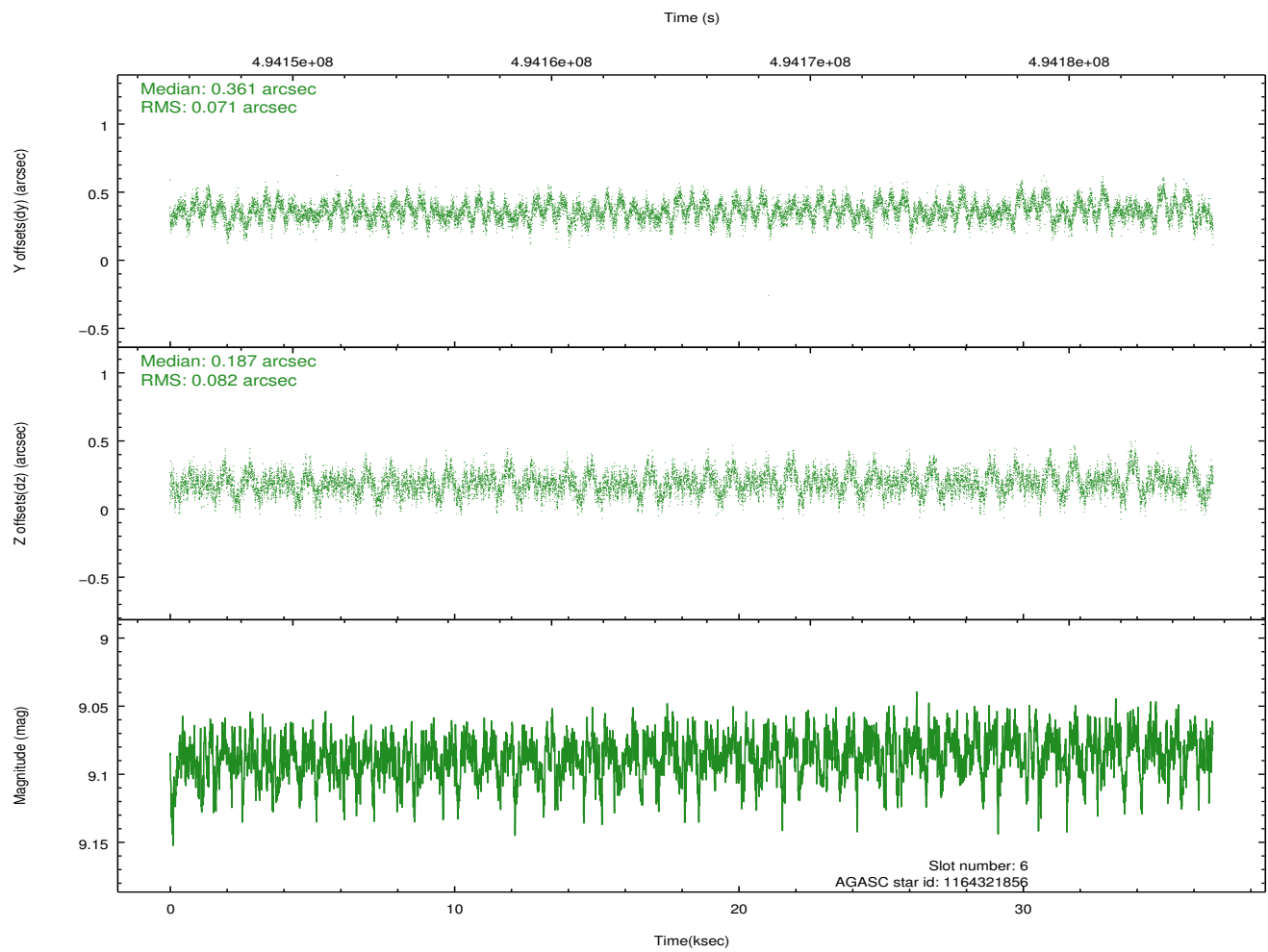
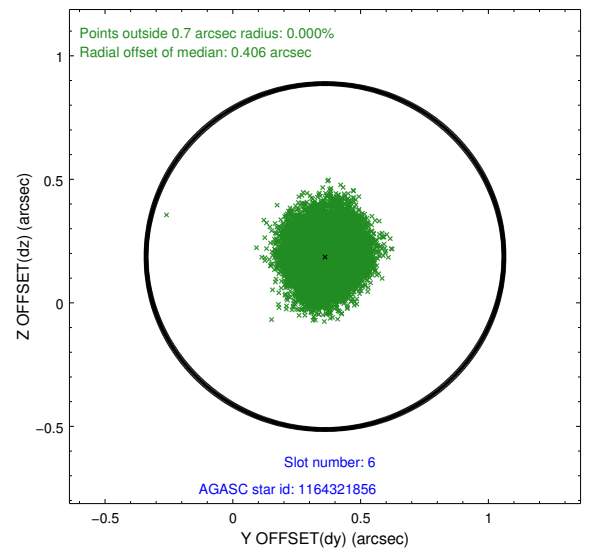
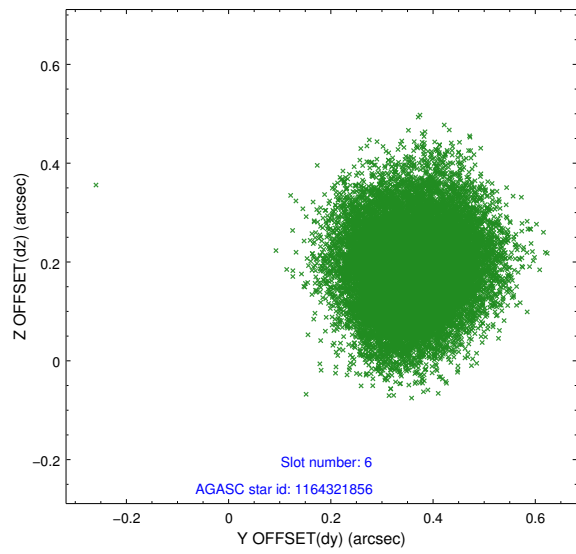
2.4.3 Slot 5



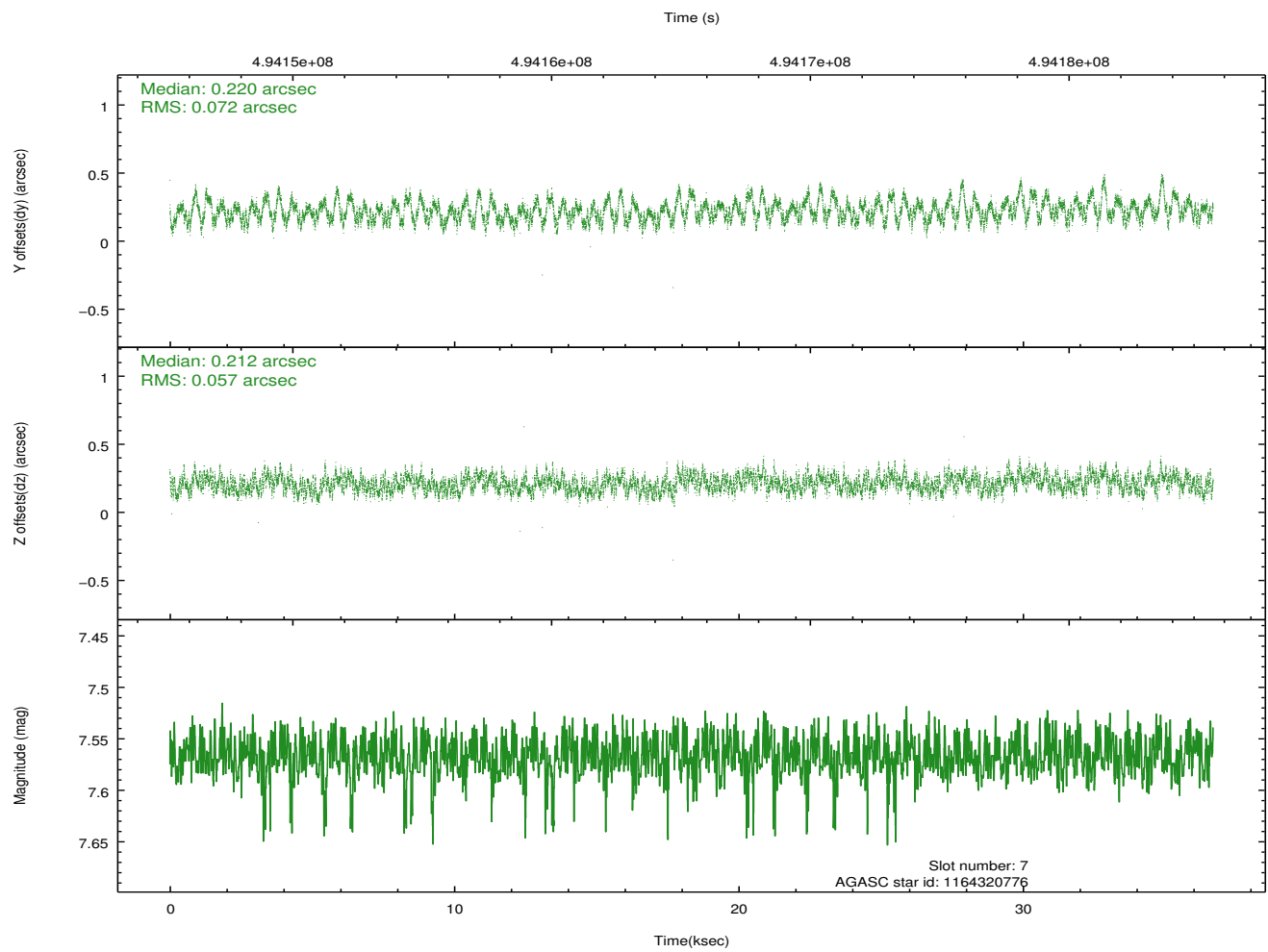
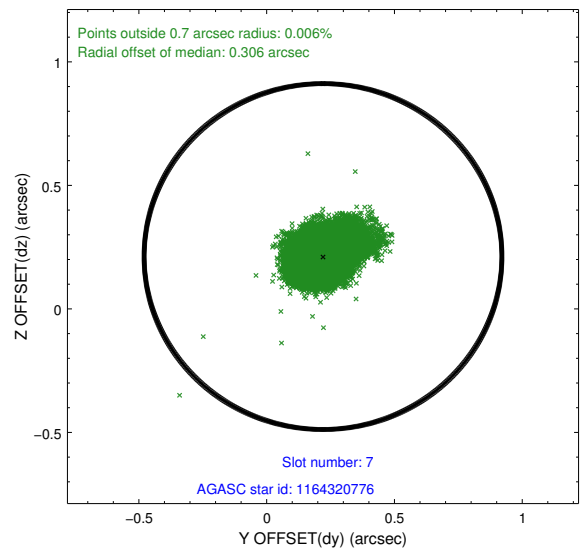
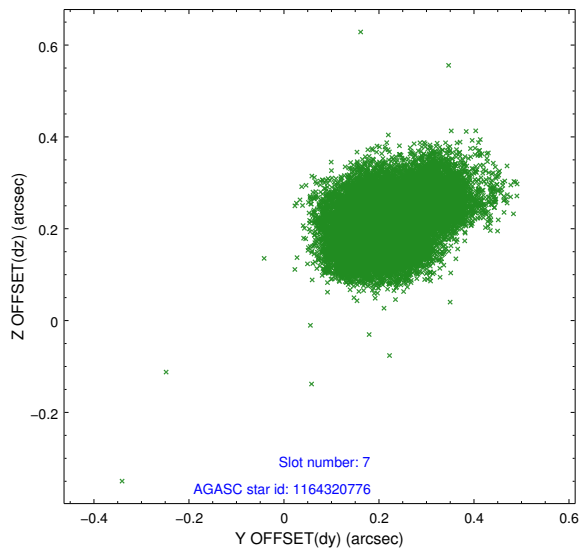
Time (s)



2.4.4 Slot 6

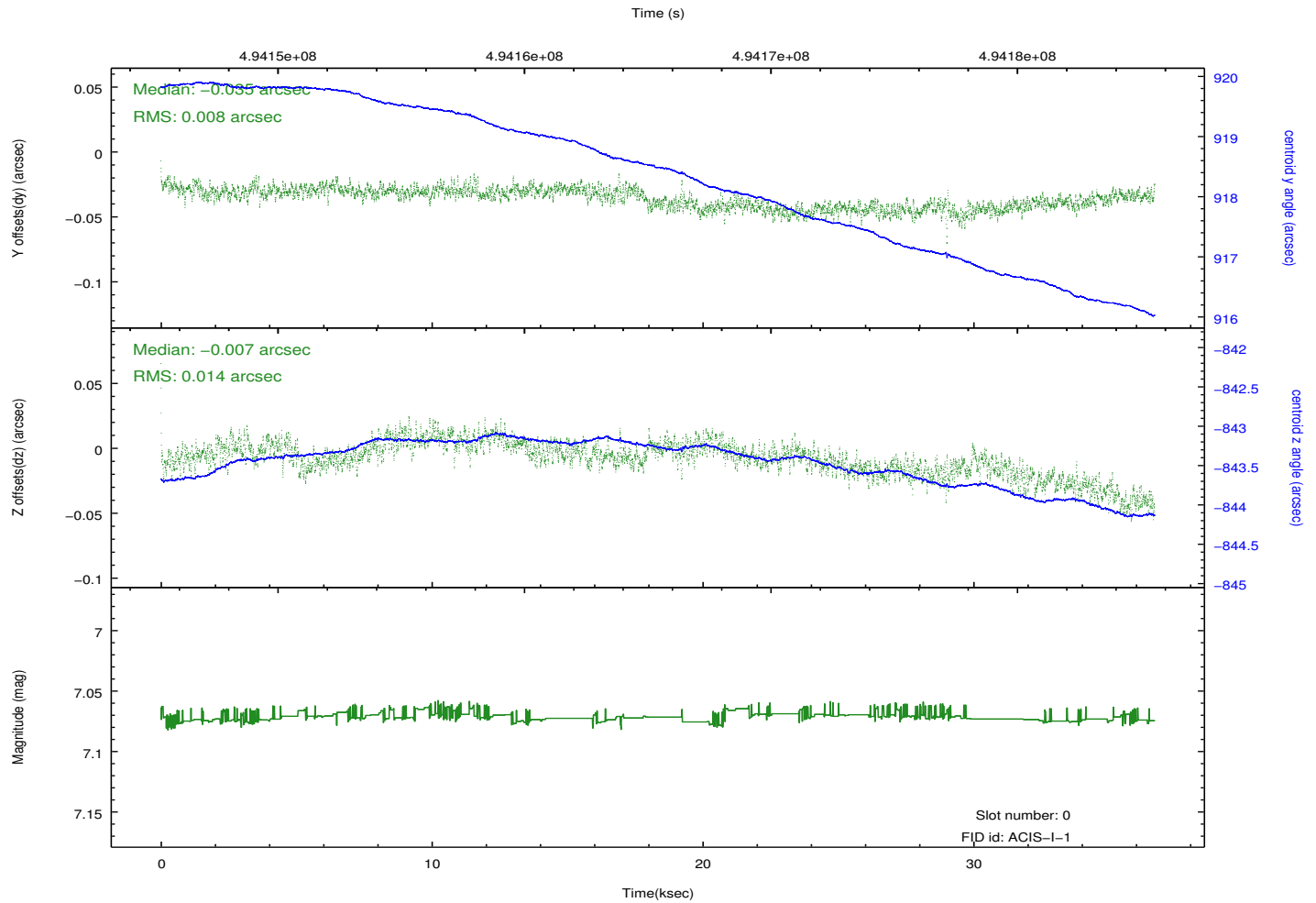
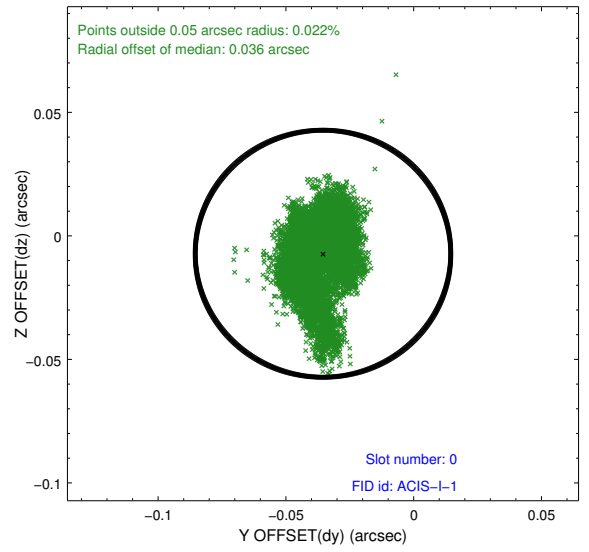
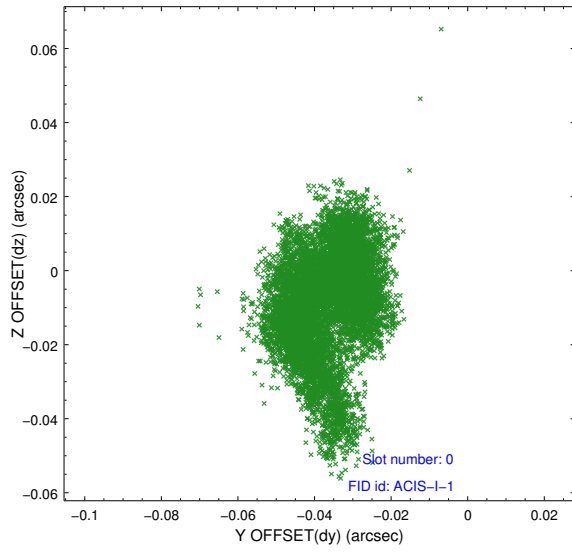


2.4.5 Slot 7

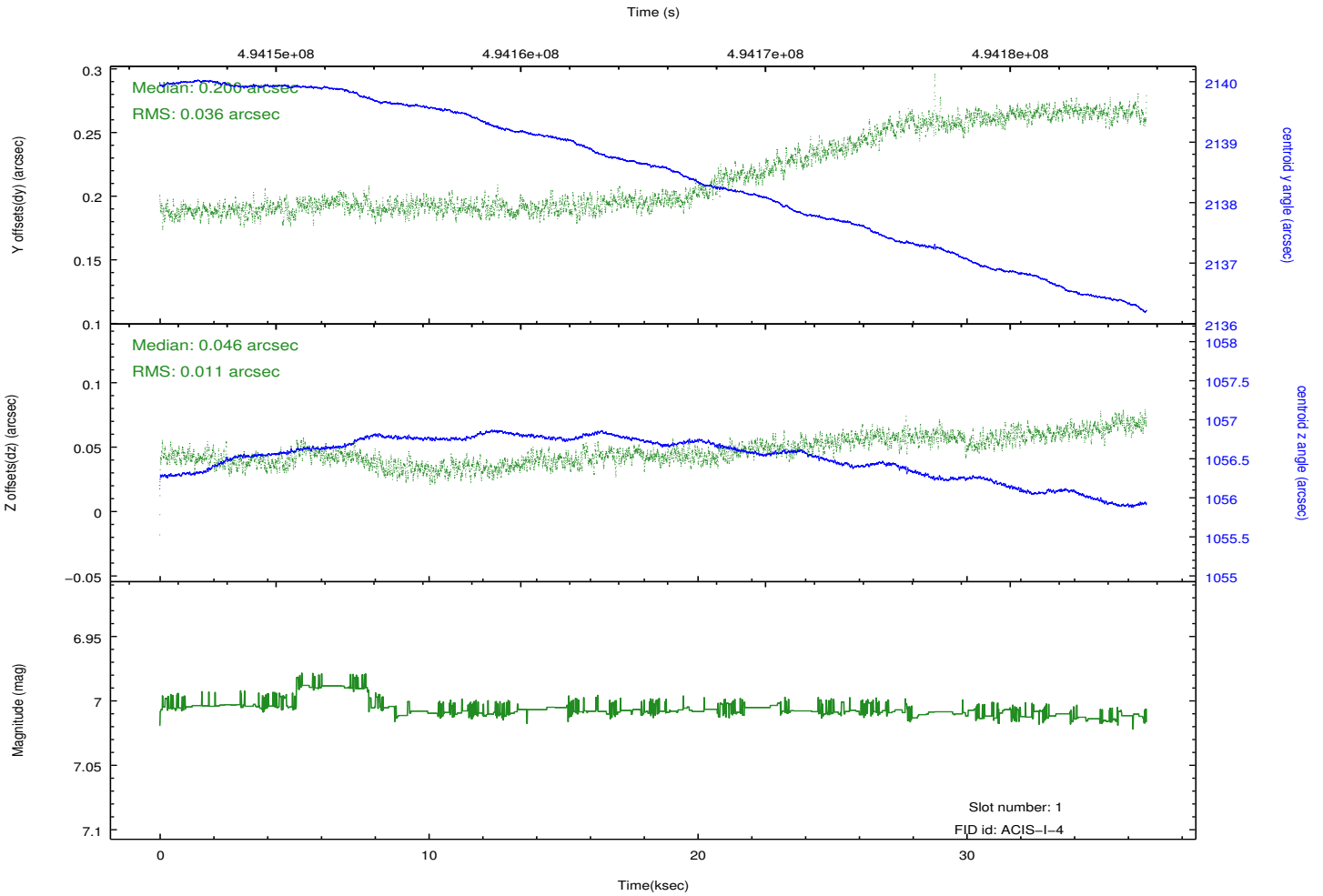
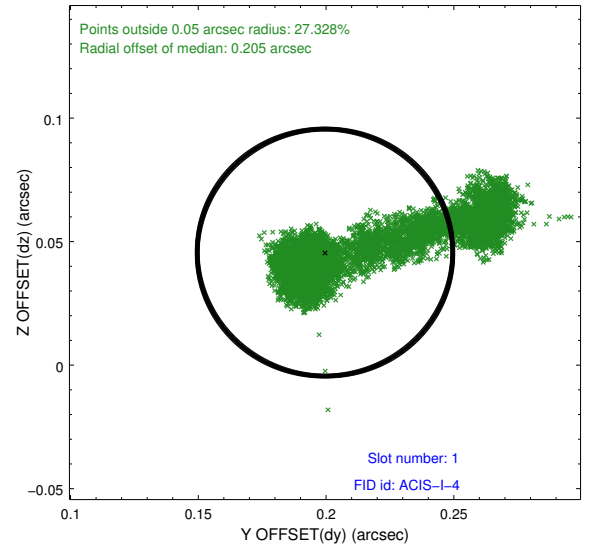
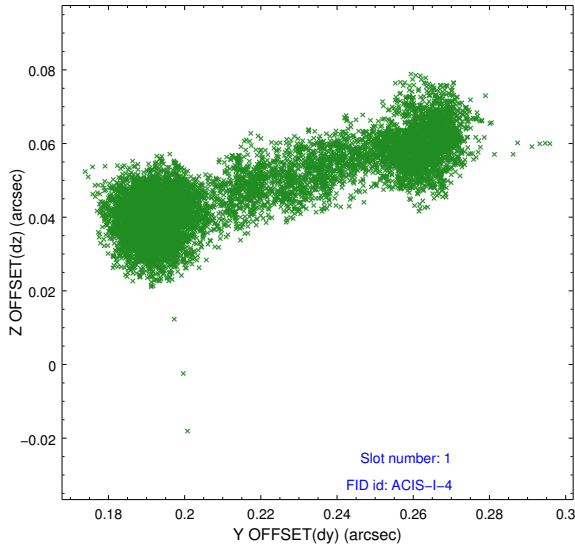


2.5 FID Slots

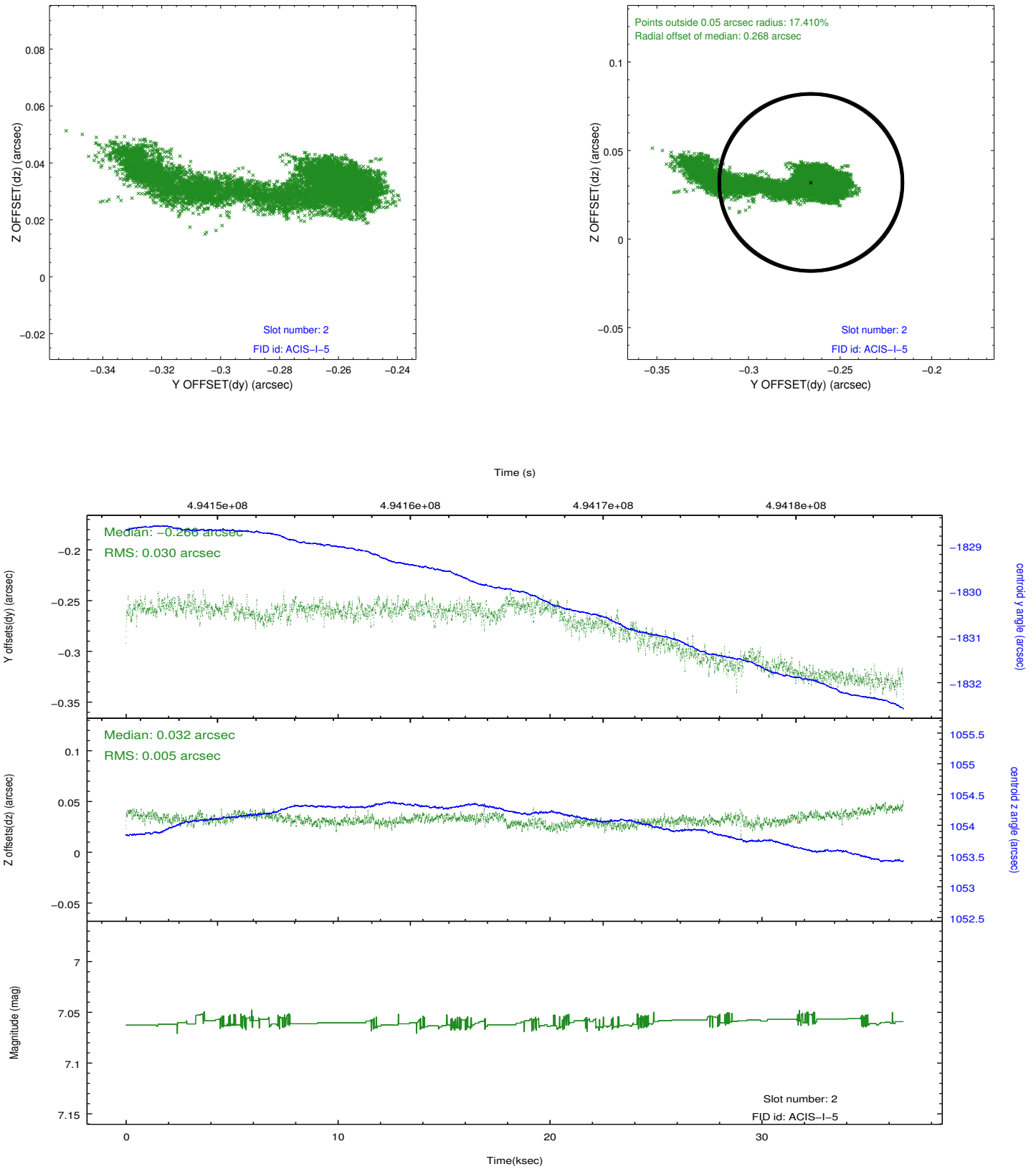
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.495308267117

A.2 Comments

Phase constraint met.

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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.