

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 6723 - L2 Version 2
Chandra X-Ray Center

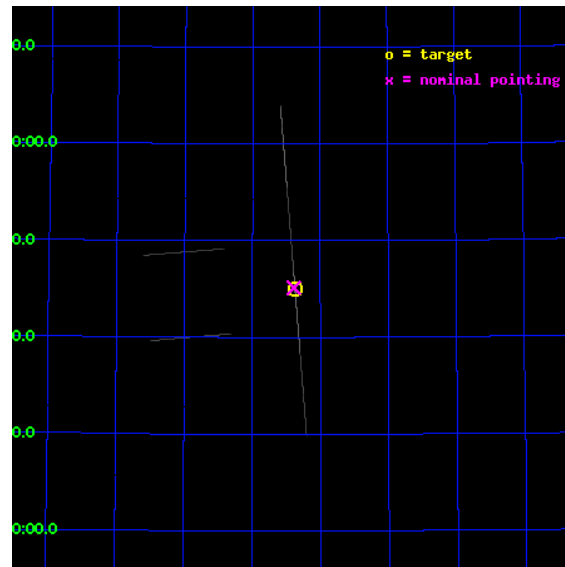
L2 Processing Date : Apr 4 2012

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1 Front

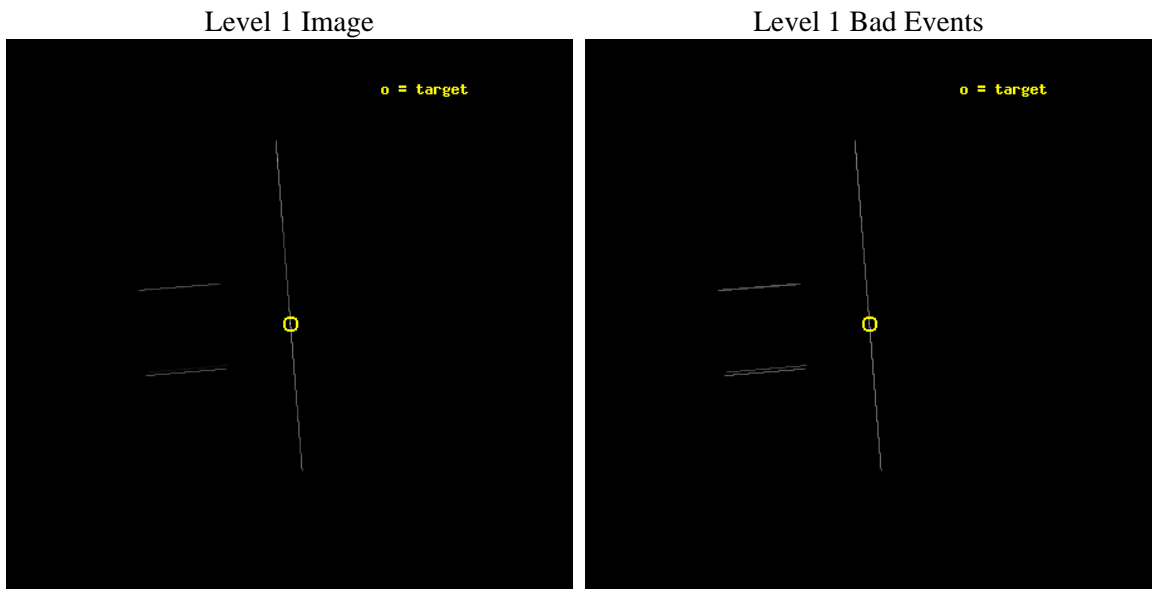
seq_num	500670	Sequence number
obs_id	6723	Observation id
title	TINY HICCUPS TO TITANIC EXPLOSIONS: Tackling Transients in Anomalous X-ray Pulsars	Proposal title
observer	Professor Victoria Kaspi	Principal investigator
object	4U 0142+61	Source name
ra_targ	26.593333	Observer's specified target RA [deg]
dec_targ	61.750917	Observer's specified target Dec [deg]
ra_nom	26.597080479925	Nominal RA [deg]
dec_nom	61.752038311155	Nominal Dec [deg]
roll_nom	85.361631058889	Nominal Roll [deg]
revision	2	Processing version of data
ontime	18685.75	Sum of GTIs [s]
livetime	18612.758789062	Livetime [s]
ontime2	18685.75	Sum of GTIs [s]
ontime3	18685.75	Sum of GTIs [s]
ontime5	18685.75	Sum of GTIs [s]
ontime6	18685.75	Sum of GTIs [s]
ontime7	18685.75	Sum of GTIs [s]
ontime8	18685.75	Sum of GTIs [s]
l2events	748931	Number of level 2 events



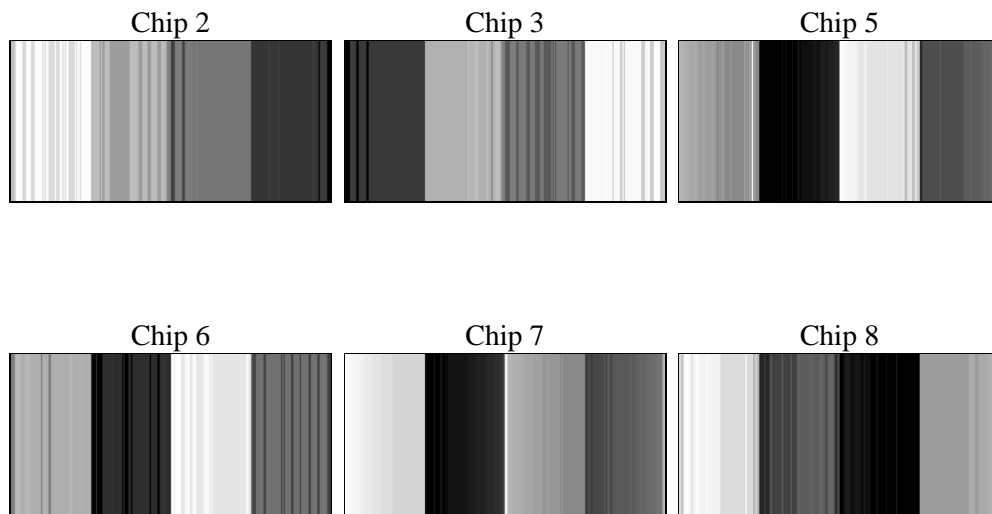
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	18500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3.1	Processing system revision	ontime	18685.75	Sum of GTIs [s]
caldsver	4.4.9	 	ontime2	18685.75	Sum of GTIs [s]
date	2012-04-04T05:36:38	Date and time of file creation	ontime3	18685.75	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	18685.75	Sum of GTIs [s]
			ontime6	18685.75	Sum of GTIs [s]
			ontime7	18685.75	Sum of GTIs [s]
			ontime8	18685.75	Sum of GTIs [s]
			l1events	958486	Number of level 1 events

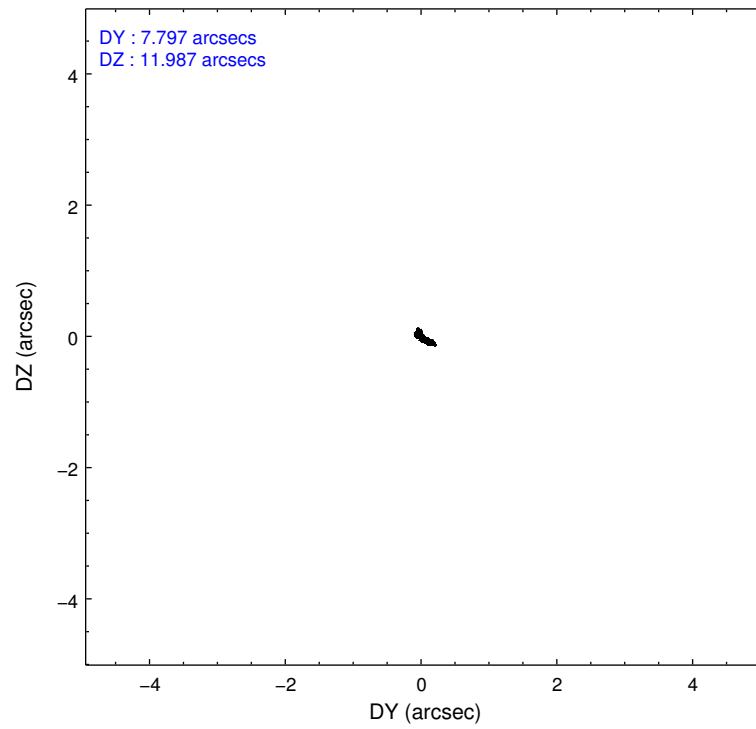
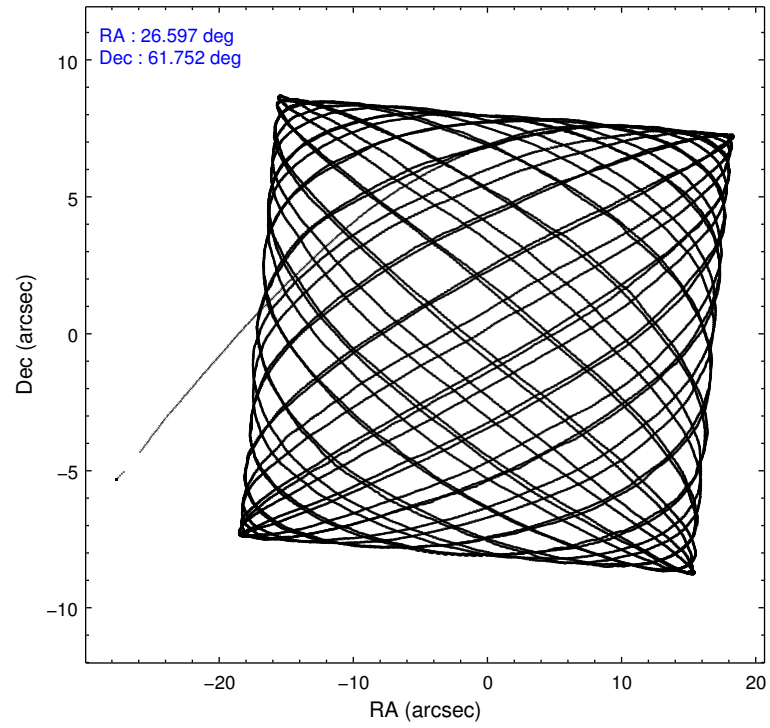
2.1.4 Events

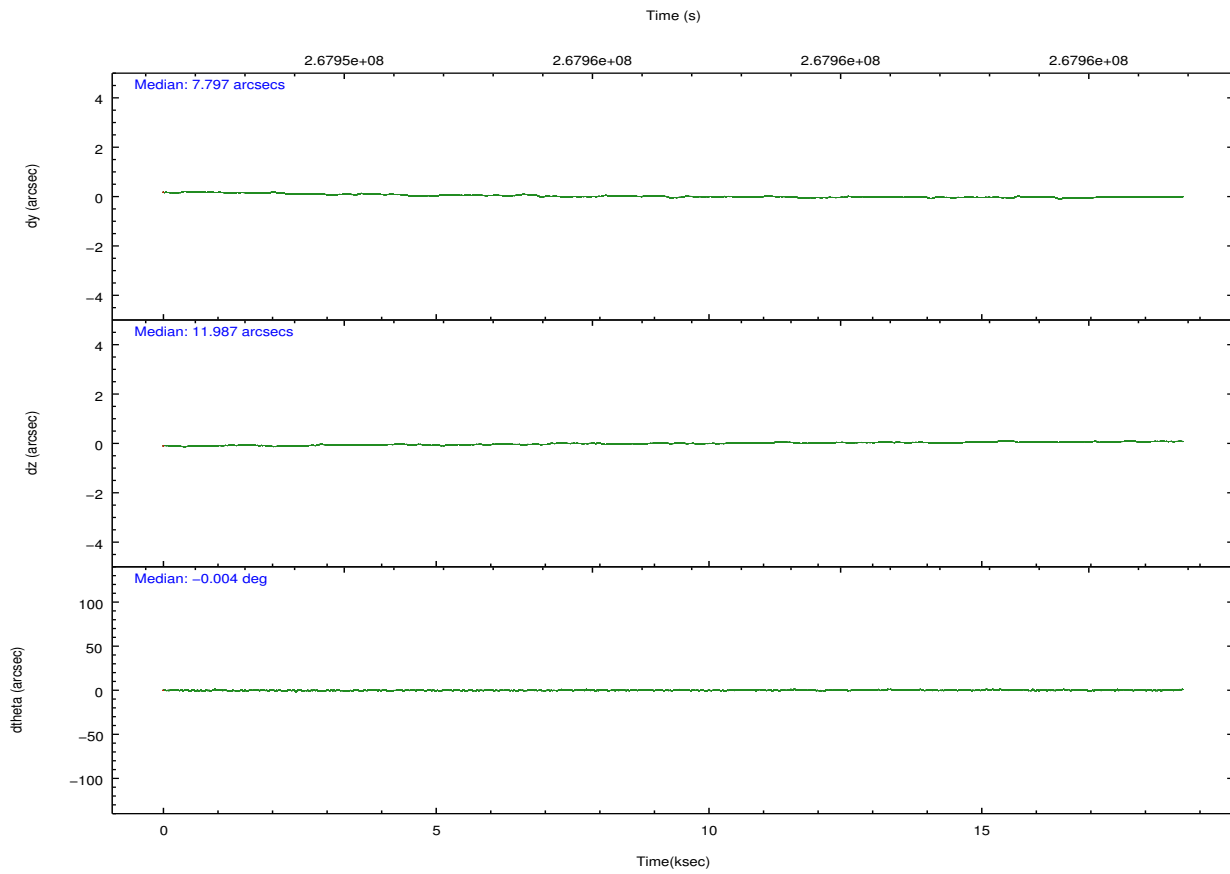
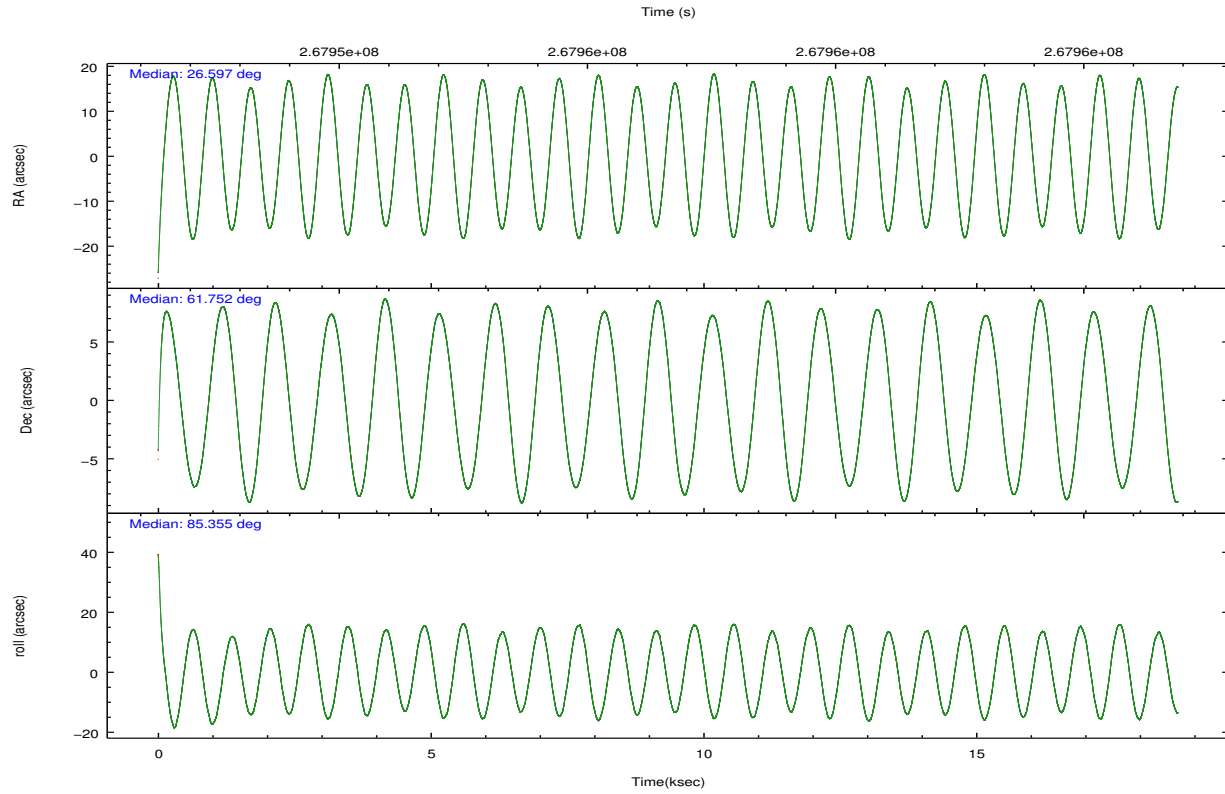
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	37529	40221	178669	46059	572297	83711	grade 0 events	4667	4589	36427	4947	119288	14663
rejected events	8343	9325	26735	9944	45398	15764		12%	11%	20%	10%	20%	17%
rejected %	22%	23%	14%	21%	7%	18%	grade 1 events	159	151	327	136	3861	306
								0%	0%	0%	0%	0%	0%
							grade 2 events	11756	12601	45691	16785	146378	22854
								31%	31%	25%	36%	25%	27%
							grade 3 events	4166	4681	3309	4251	56580	8228
								11%	11%	1%	9%	9%	9%
							grade 4 events	4199	4045	3183	4040	55471	7777
								11%	10%	1%	8%	9%	9%
							grade 5 events	6469	7258	16659	7906	32511	10908
								17%	18%	9%	17%	5%	13%
							grade 6 events	6113	6896	73073	7994	158208	18975
								16%	17%	40%	17%	27%	22%
							grade 7 events	0	0	0	0	0	0
								0%	0%	0%	0%	0%	0%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	CC33_FAINT	CC33_FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	26.622396	26.59708047992541	Subarray requested	NONE	NONE
[deg] Pointing Dec	61.727575	61.75203831115459	Alternating exposures requested	N	N
[deg] Pointing Roll	85.182697	85.36163105888899	[s] Primary exposure time	0.000000	0
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	267947466.184000	267946105.31189			
Observation start date	2006-06-29T05:50:01	2006-06-29T05:28:25			
[s] Observation end time (MET)	267965966.184000	267967173.67537			
Observation end date	2006-06-29T10:58:21	2006-06-29T11:19:33			
Read mode	CONTINUOUS	CONTINUOUS			

2.3 Aspect



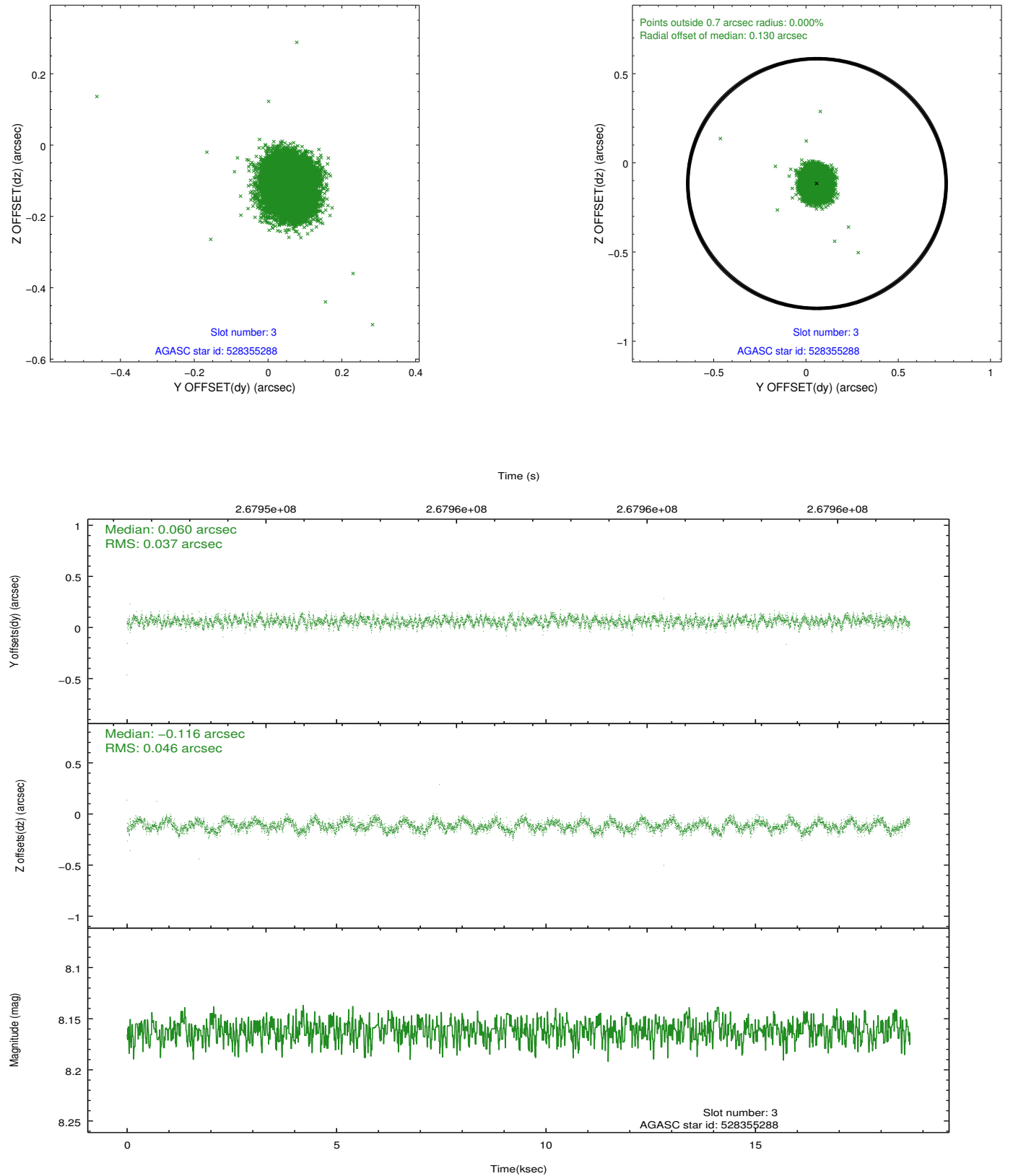


Slot Statistics

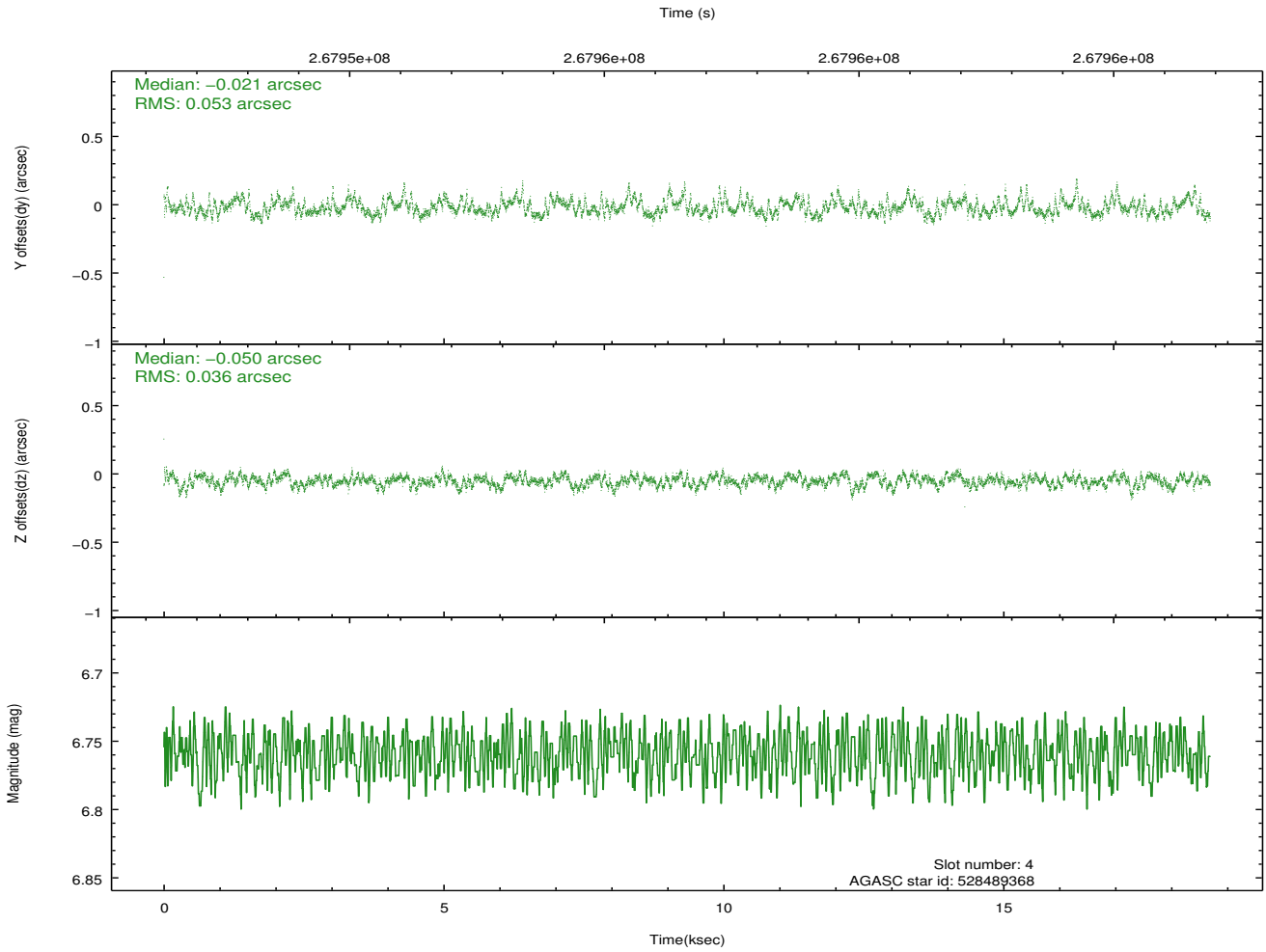
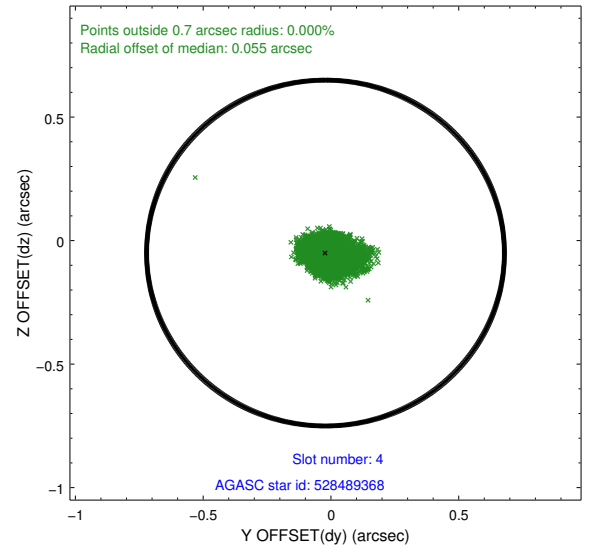
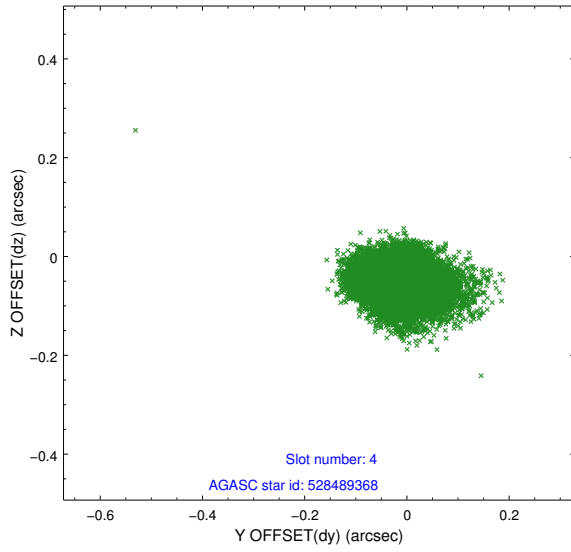
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	4560	-0.018	-0.025	0.007	0.012	0.000000	0.000000	-760.61	-1733.25
1	FID	ACIS-S-4	7.20	4560	0.094	0.016	0.008	0.016	0.000000	0.000000	2152.68	175.06
2	FID	ACIS-S-5	7.23	4560	-0.107	0.018	0.008	0.014	0.000000	0.000000	-1813.27	168.96
3	GUIDE	528355288	8.16	9116	0.060	-0.116	0.063	0.097	25.568806	61.421213	-1236.78	1716.49
4	GUIDE	528489368	6.76	9119	-0.021	-0.050	0.067	0.109	25.743005	61.421072	-1216.70	1417.43
5	GUIDE	528492920	6.82	9118	-0.082	-0.056	0.047	0.078	26.048398	61.849802	360.70	1009.09
6	GUIDE	528497080	8.14	9117	0.063	0.257	0.054	0.087	27.915804	61.349767	-1145.26	-2336.45
7	GUIDE	529024856	8.79	9105	-0.020	-0.029	0.081	0.124	26.625085	62.150671	1518.13	123.50

2.4 Star Slots

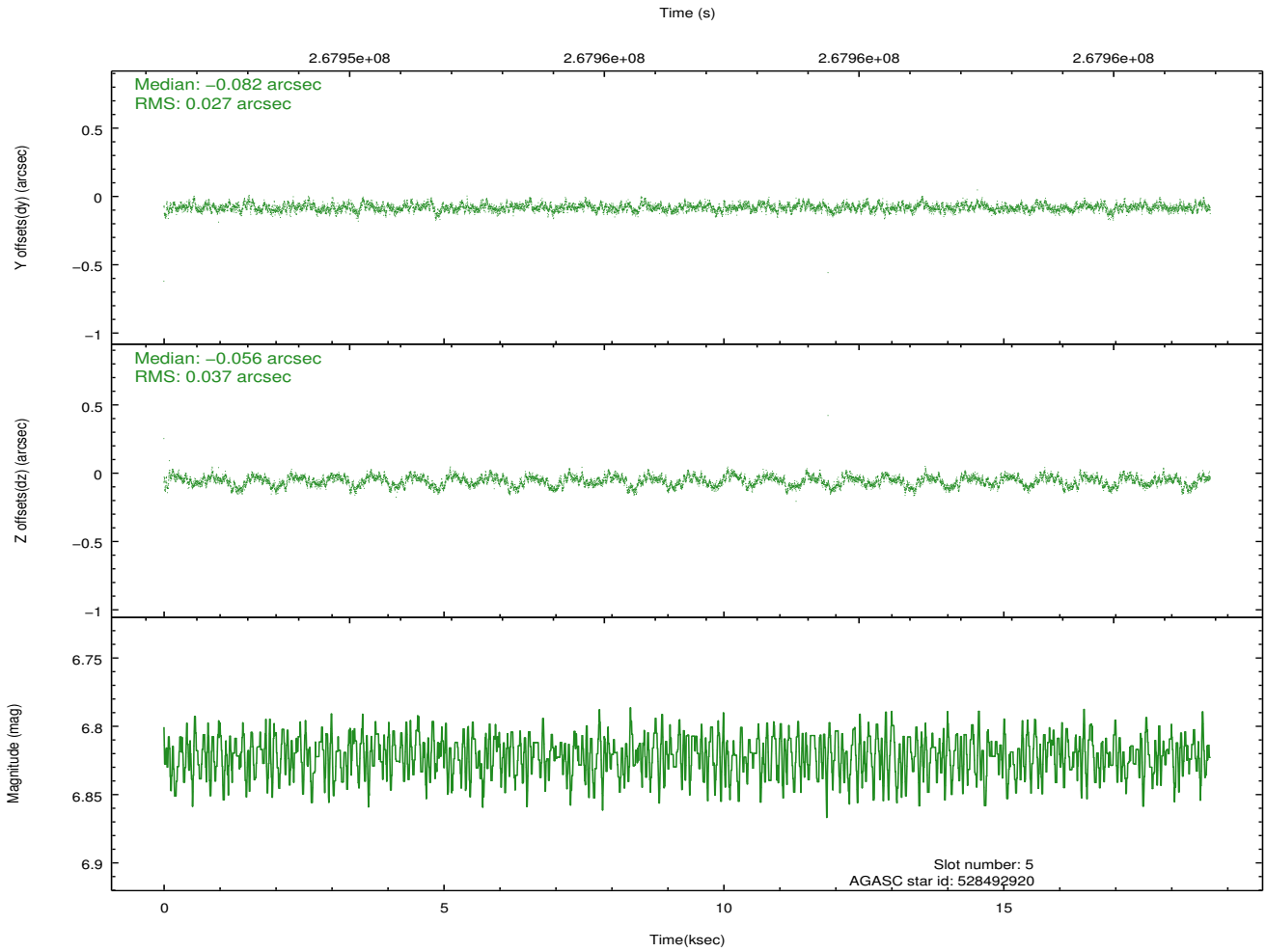
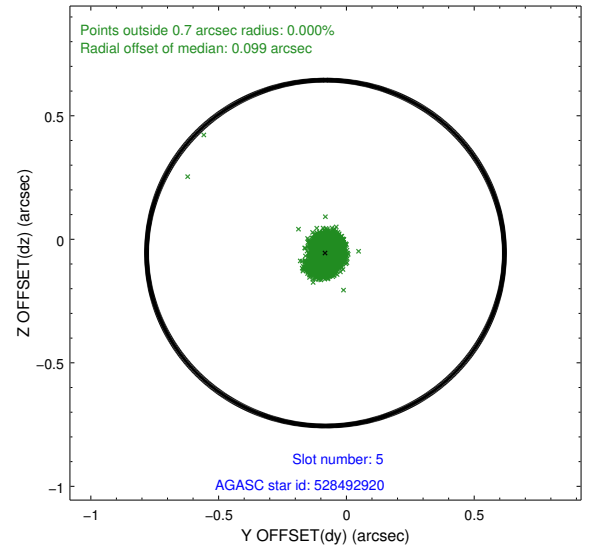
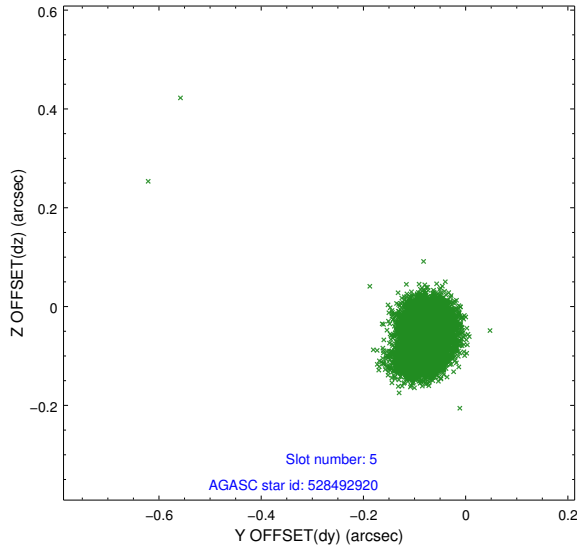
2.4.1 Slot 3



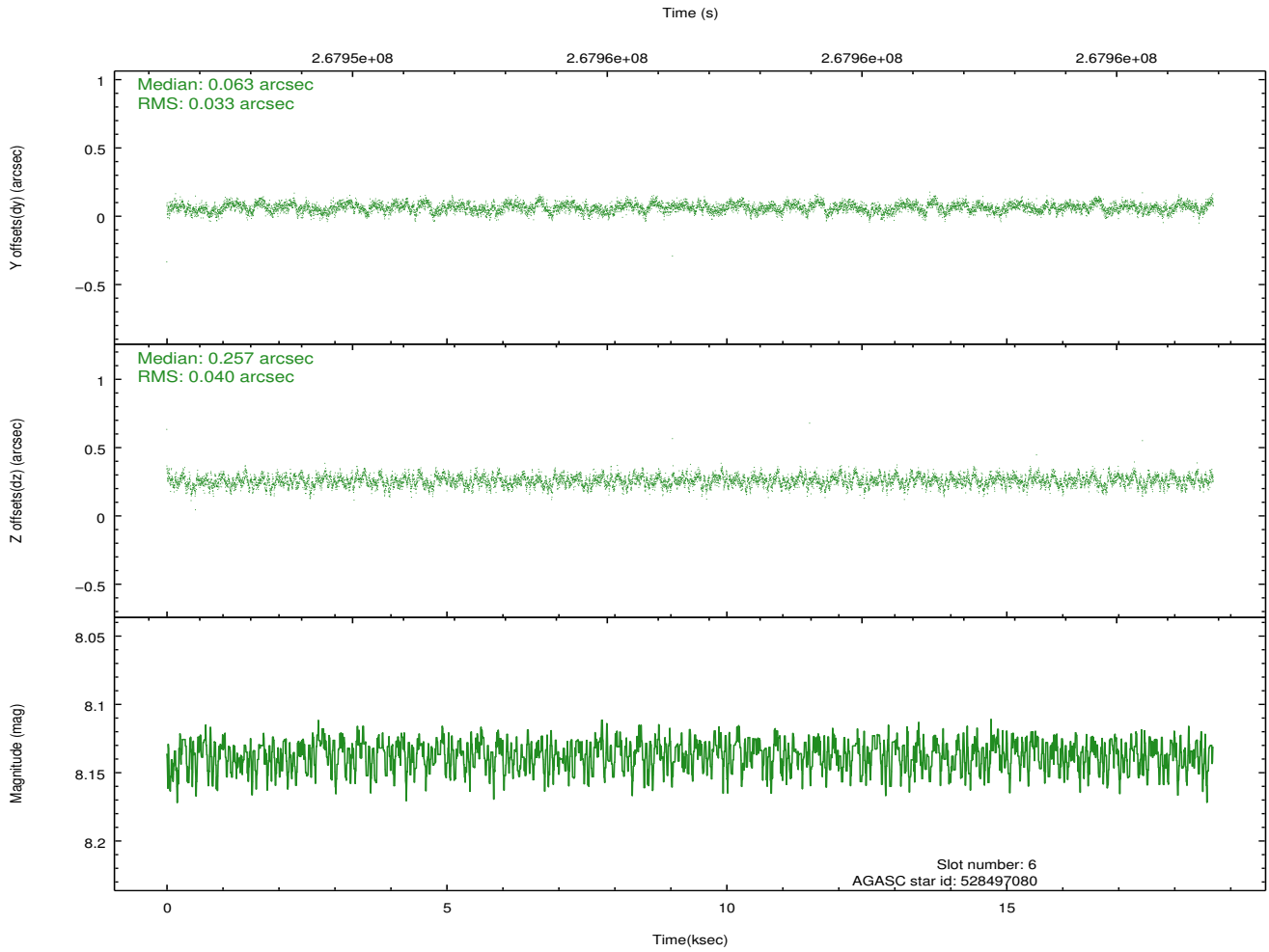
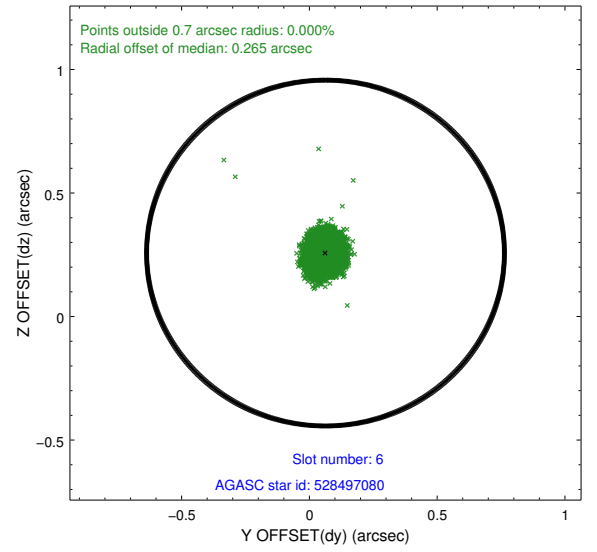
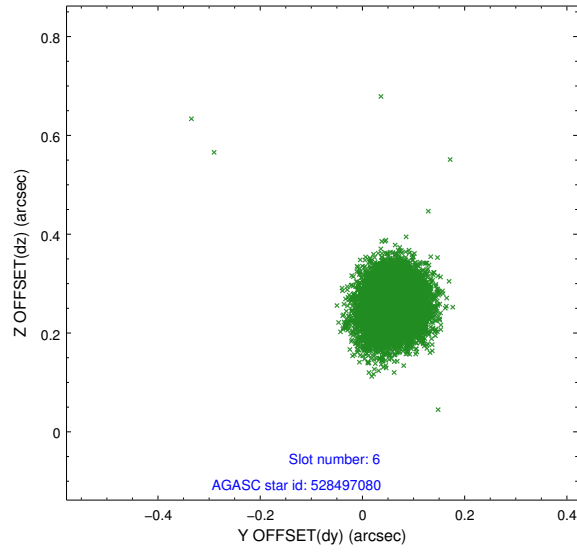
2.4.2 Slot 4



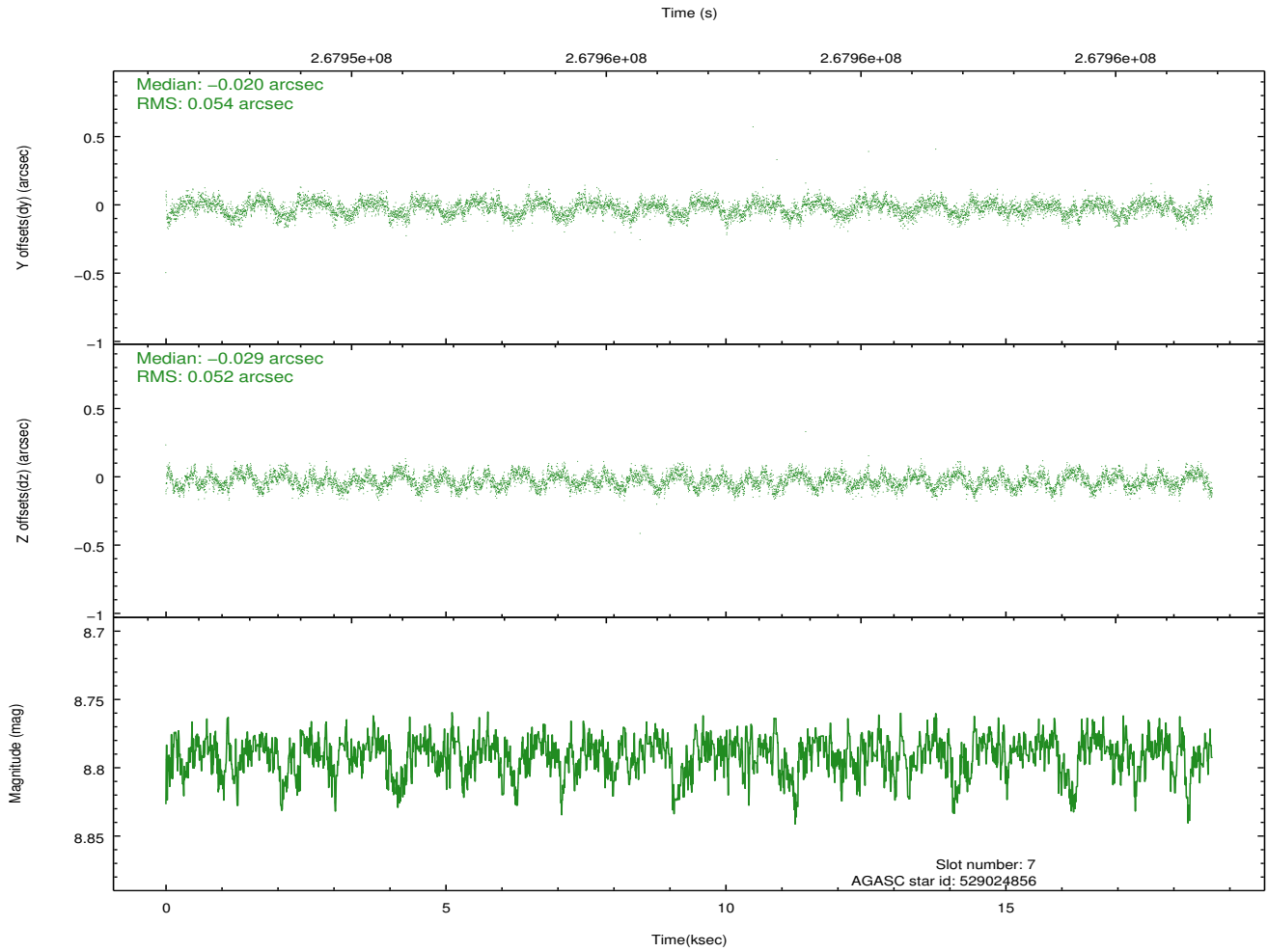
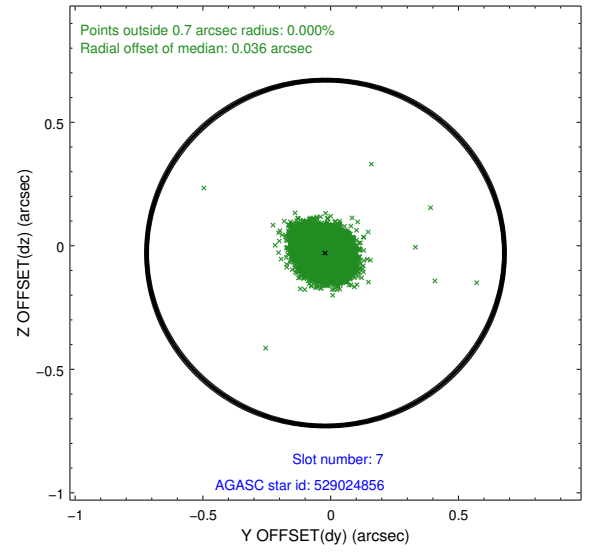
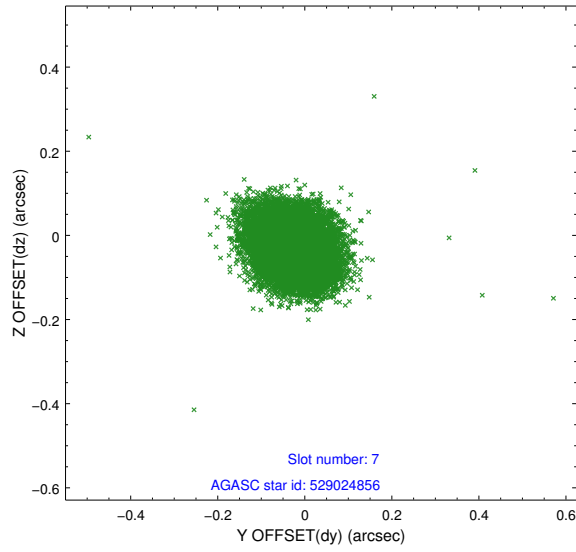
2.4.3 Slot 5



2.4.4 Slot 6

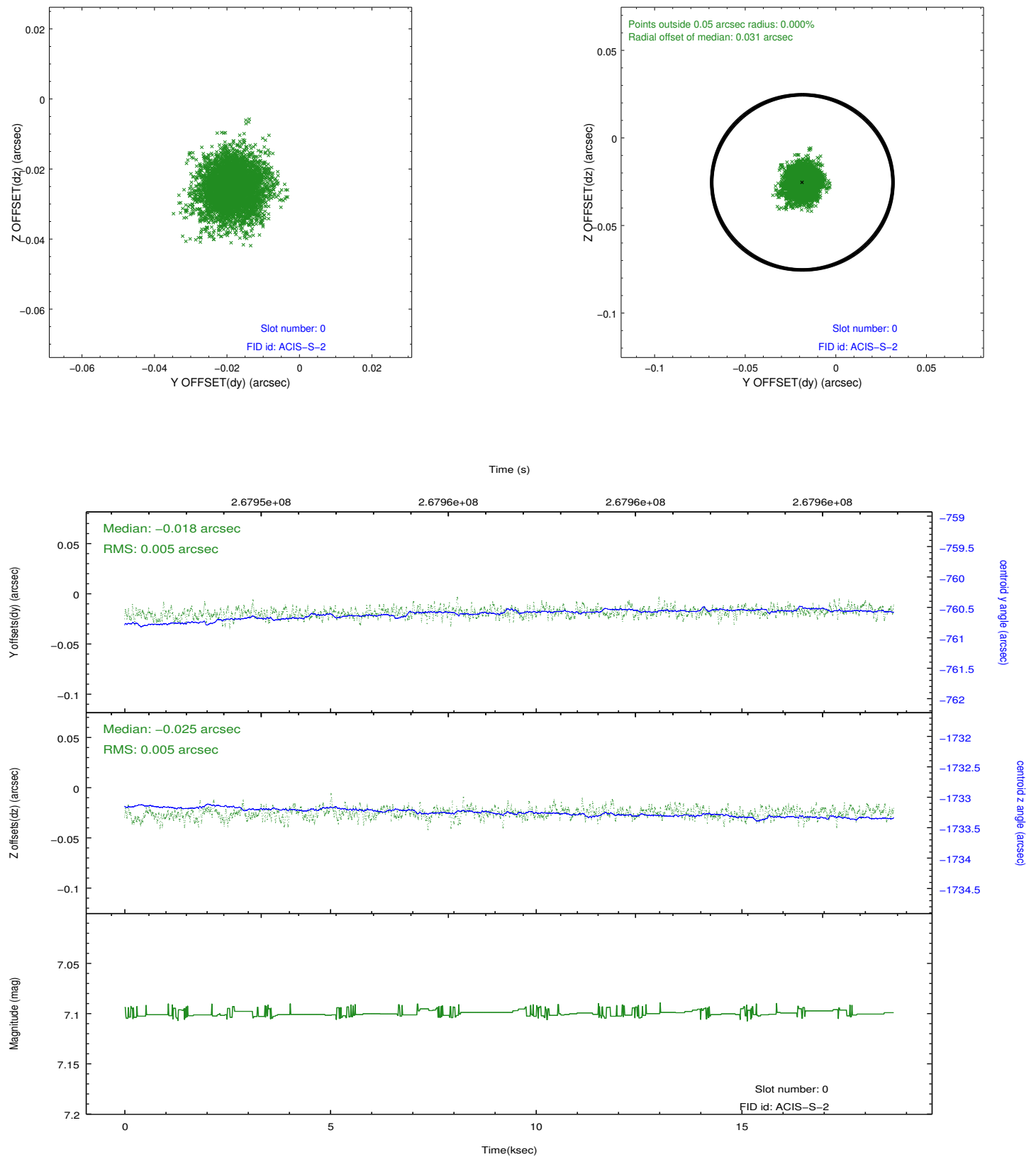


2.4.5 Slot 7

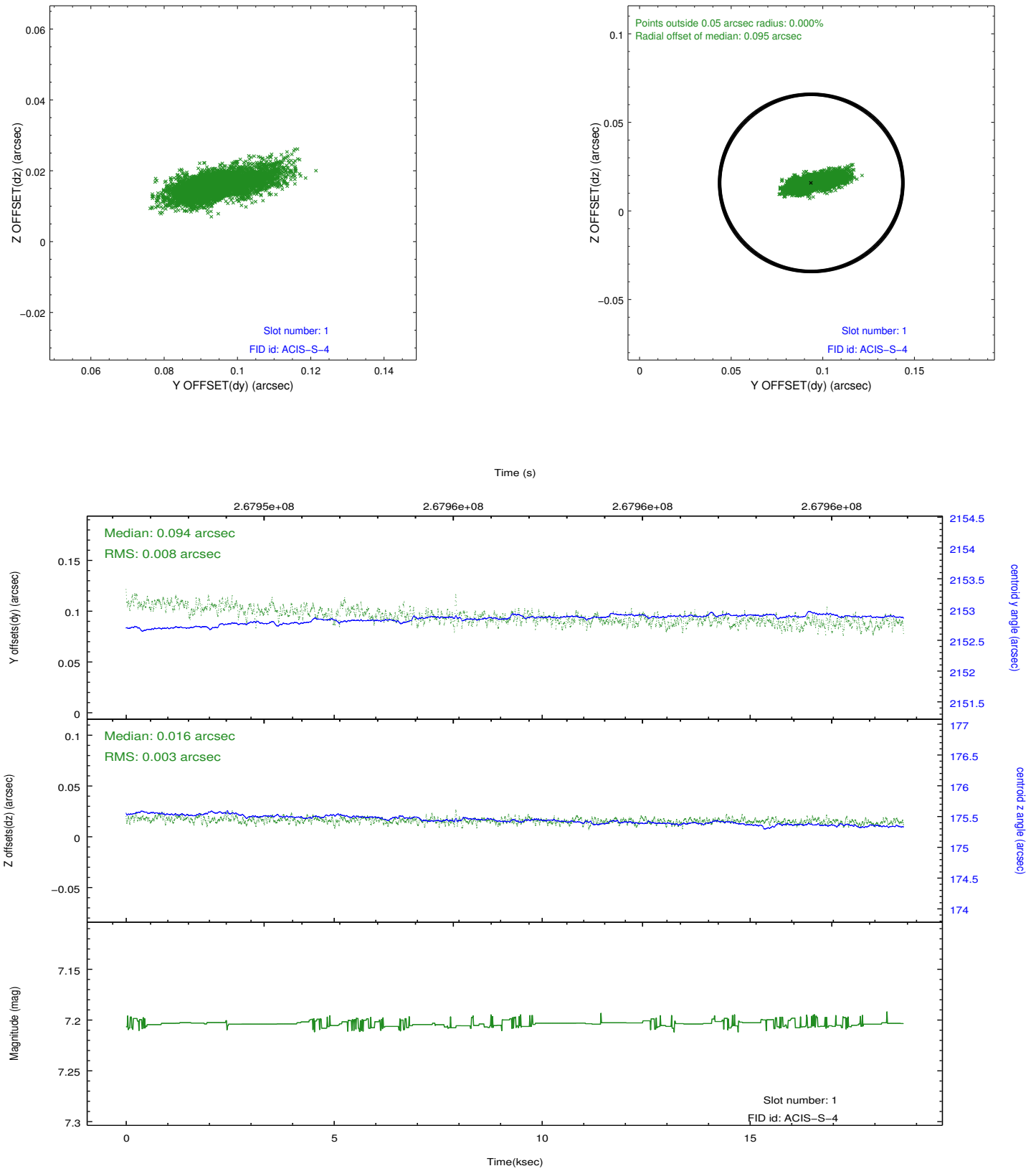


2.5 FID Slots

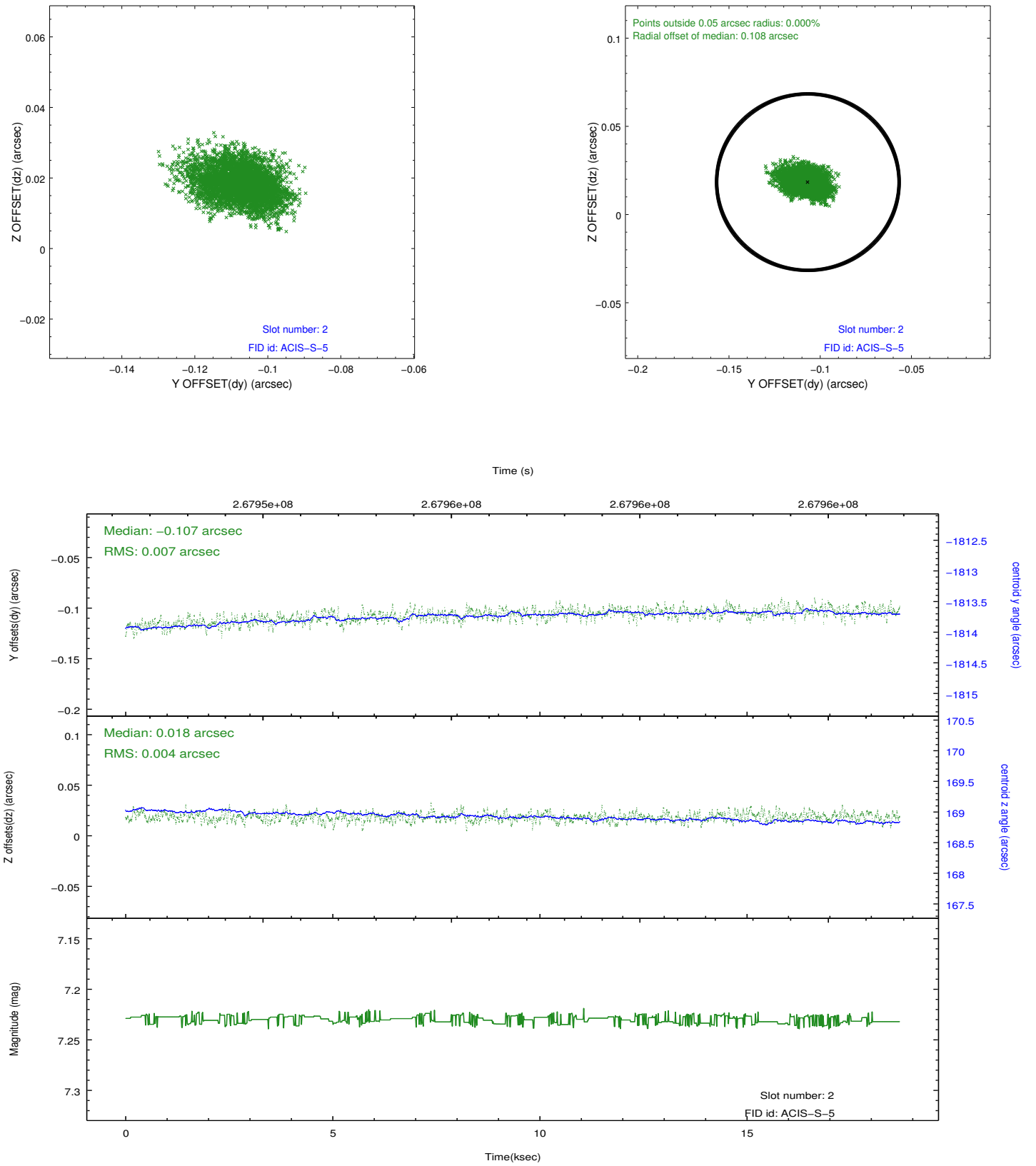
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.04.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.68575

A.2 Comments

There are about 420,000 level 1 events in zero order, in 20ks, and for the CC-mode 'frame' time of 2.85 ms, we have ~0.06 counts/frame.

Considering the 3-row detection cell, we then have about 0.18 counts/frame/cell. This means that the source will have significant pileup, roughly 15%.