

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16565 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Dec 9 2014

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1 Front

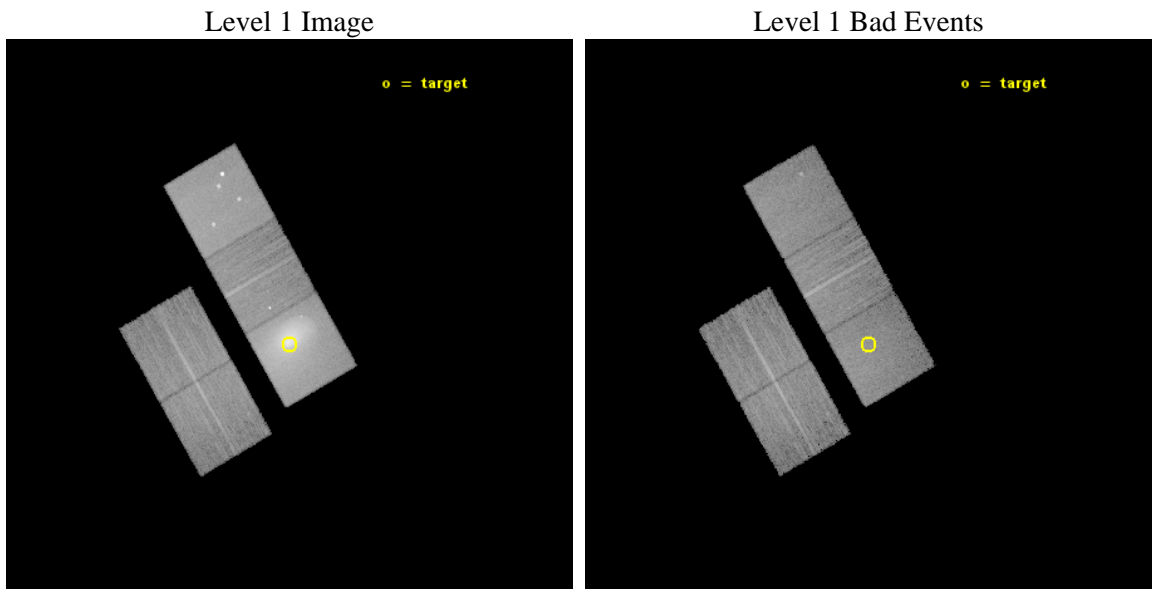
seq_num	801311	Sequence number
obs_id	16565	Observation id
title	RESOLVING KELVIN-HELMHOLTZ INSTABILITIES IN CLUSTER COLD FRONTS	Pr
observer	Dr Maxim Markevitch	Principal investigator
object	A2142	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.581667	Observer's specified target RA [deg]
dec_targ	27.226111	Observer's specified target Dec [deg]
ra_nom	239.58337568866	Nominal RA [deg]
dec_nom	27.258863732738	Nominal Dec [deg]
roll_nom	60.155838991467	Nominal Roll [deg]
revision	2	Processing version of data
ontime	21067.600162029	Sum of GTIs [s]
livetime	20792.336456171	Livetime [s]
ontime2	21067.600162029	Sum of GTIs [s]
ontime3	21064.45919168	Sum of GTIs [s]
ontime5	21067.600162029	Sum of GTIs [s]
ontime6	21061.318221331	Sum of GTIs [s]
ontime7	21067.600162029	Sum of GTIs [s]
l2events	346701	Number of level 2 events



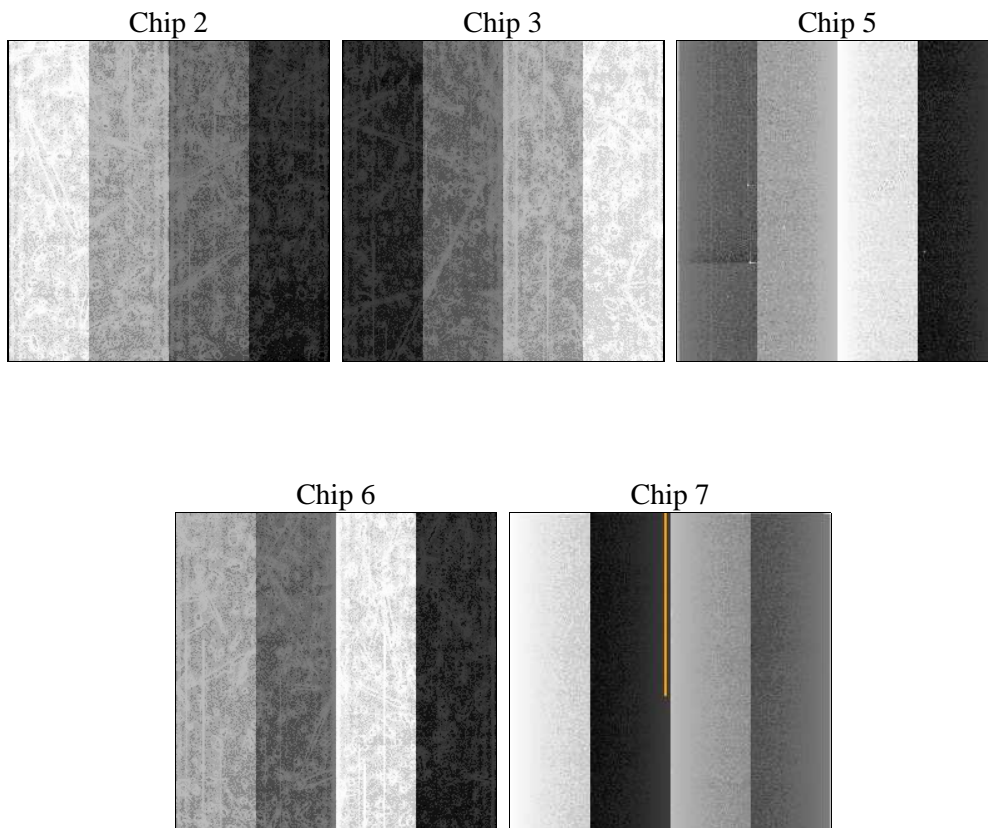
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	21000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	21067.600162029	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	21067.600162029	Sum of GTIs [s]
date	2014-12-10T02:40:12	Date and time of file creation	ontime3	21064.45919168	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	21067.600162029	Sum of GTIs [s]
			ontime6	21061.318221331	Sum of GTIs [s]
			ontime7	21067.600162029	Sum of GTIs [s]
			l1events	796993	Number of level 1 events

2.1.4 Events

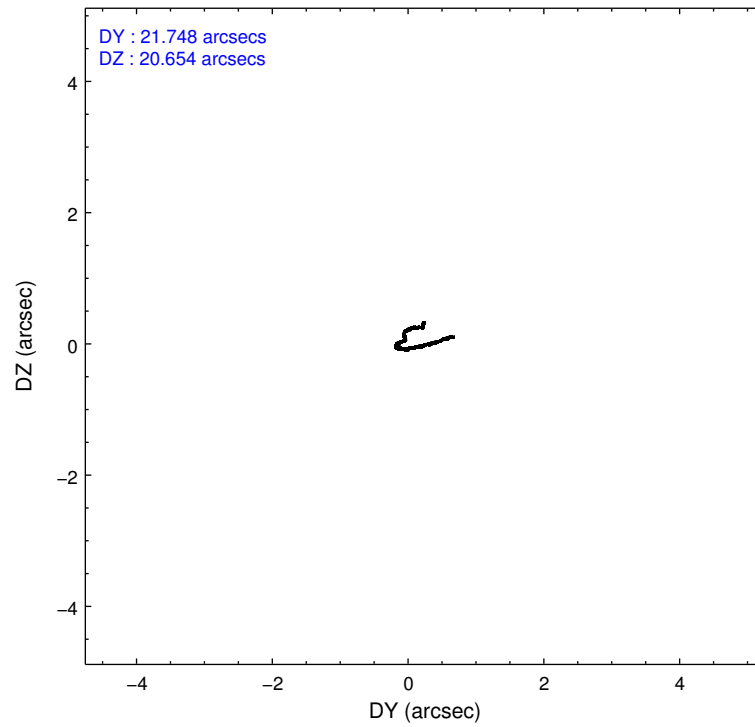
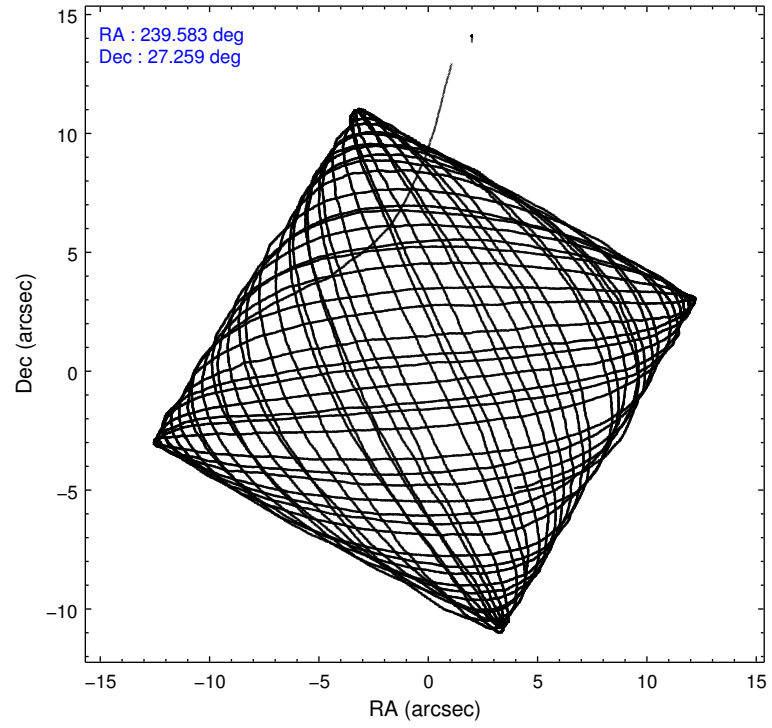
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	100338	100557	177722	115014	303362
rejected events	86948	84571	87263	90894	80006
rejected %	86%	84%	49%	79%	26%

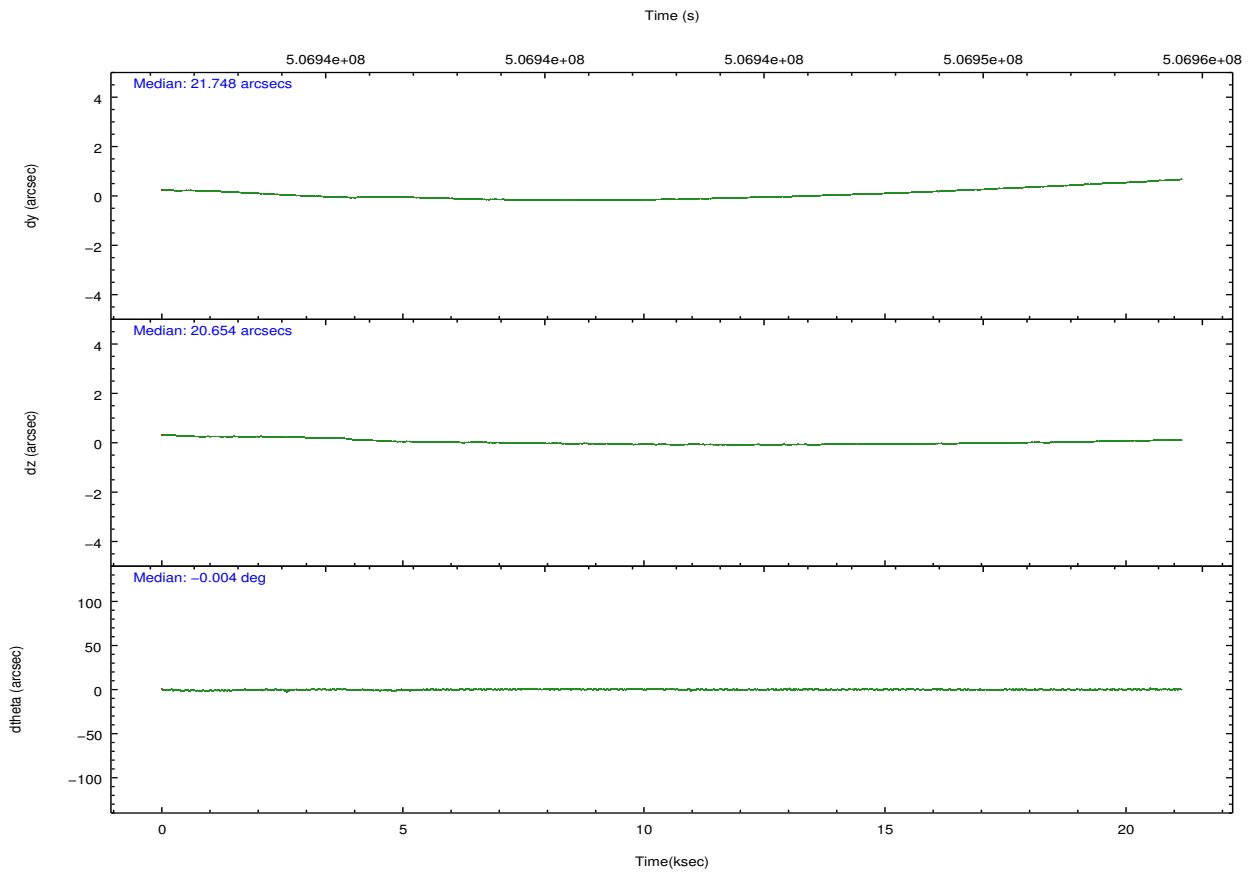
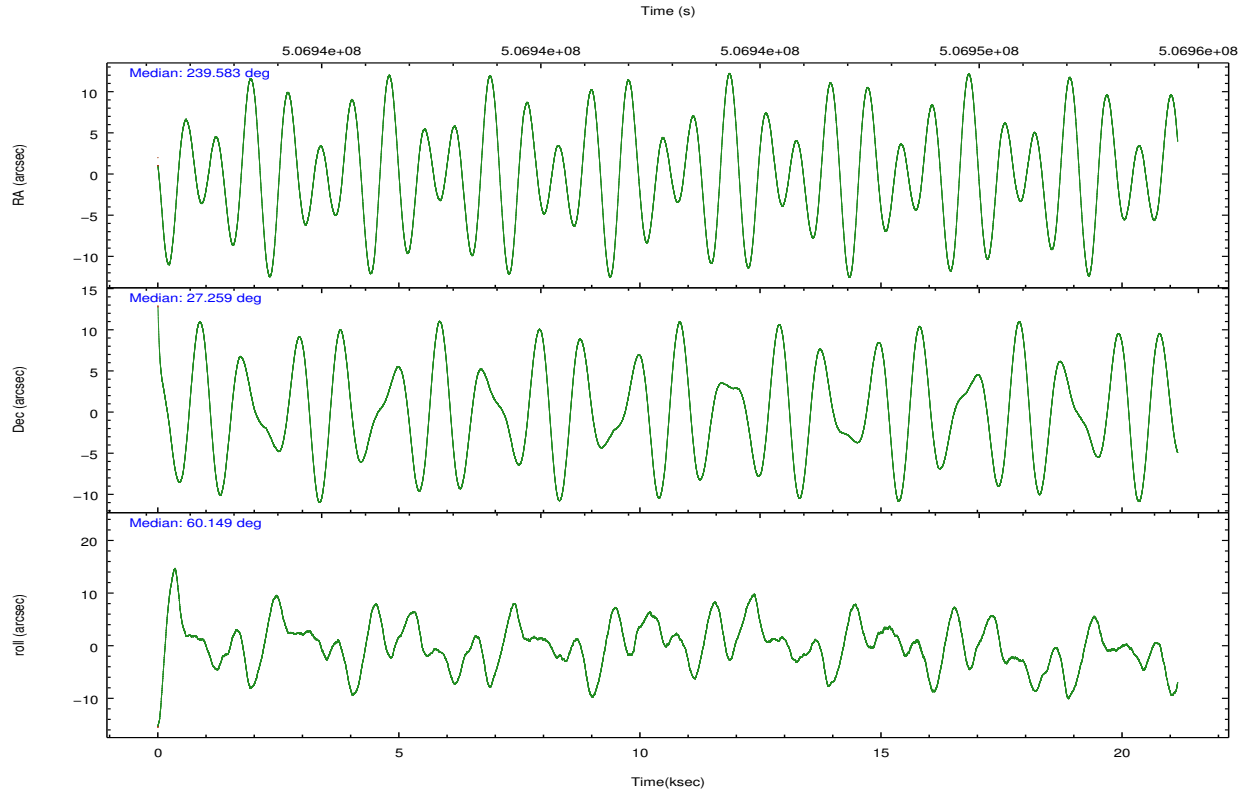
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	5640	7754	12514	13577	51283
	5%	7%	7%	11%	16%
grade 1 events	46	65	644	89	198
	0%	0%	0%	0%	0%
grade 2 events	3037	3044	28135	4125	55614
	3%	3%	15%	3%	18%
grade 3 events	1234	1344	3117	1665	23875
	1%	1%	1%	1%	7%
grade 4 events	1295	1375	2978	1592	23259
	1%	1%	1%	1%	7%
grade 5 events	4325	5443	12972	5448	15375
	4%	5%	7%	4%	5%
grade 6 events	2185	2469	43731	3167	69356
	2%	2%	24%	2%	22%
grade 7 events	82576	79063	73631	85351	64402
	82%	78%	41%	74%	21%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	239.583879	239.583375688664	Subarray requested	NONE	NONE
[deg] Pointing Dec	27.231515	27.25886373273794	Alternating exposures requested	N	N
[deg] Pointing Roll	59.998984	60.15583899146695	[s] Primary exposure time	0.000000	3.1
[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)	506932475.184000	506931428.19198			
Observation start date	2014-01-24T06:33:28	2014-01-24T06:17:08			
[s] Observation end time (MET)	506953475.184000	506954714.65576			
Observation end date	2014-01-24T12:23:28	2014-01-24T12:45:14			
Read mode	TIMED	TIMED			

2.3 Aspect



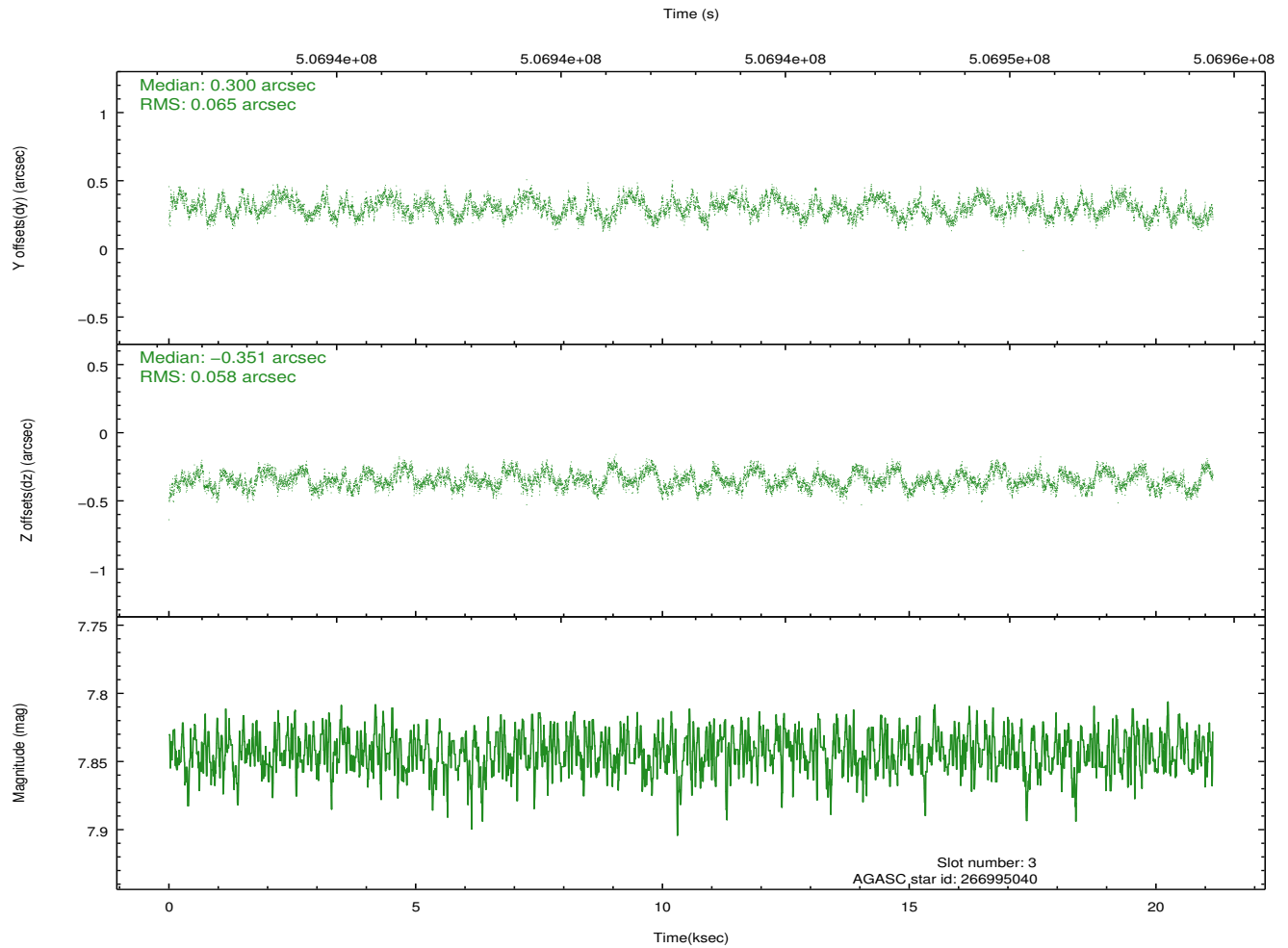
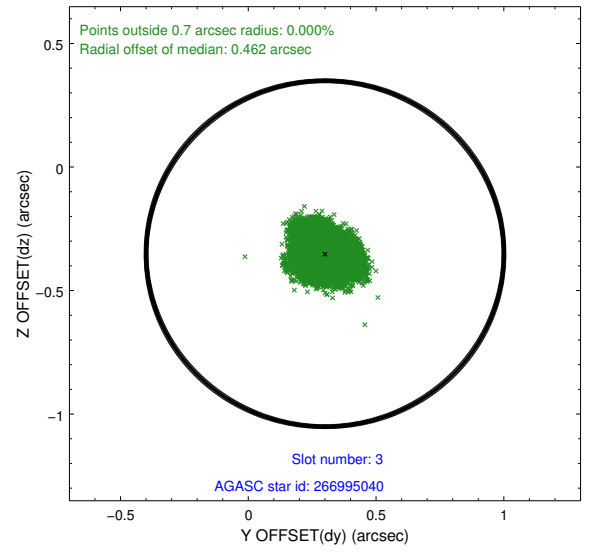
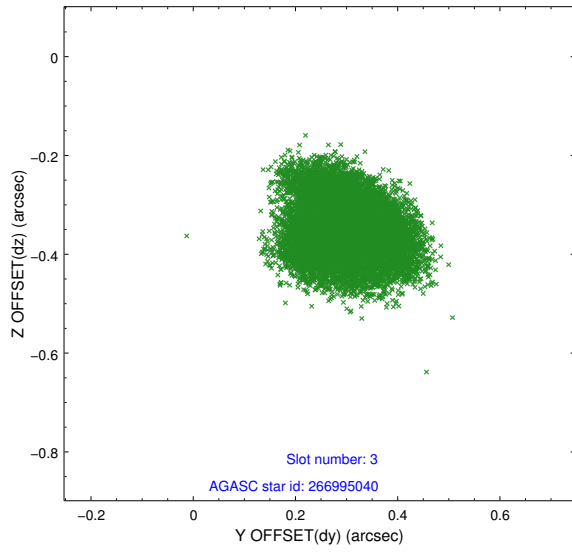


Slot Statistics

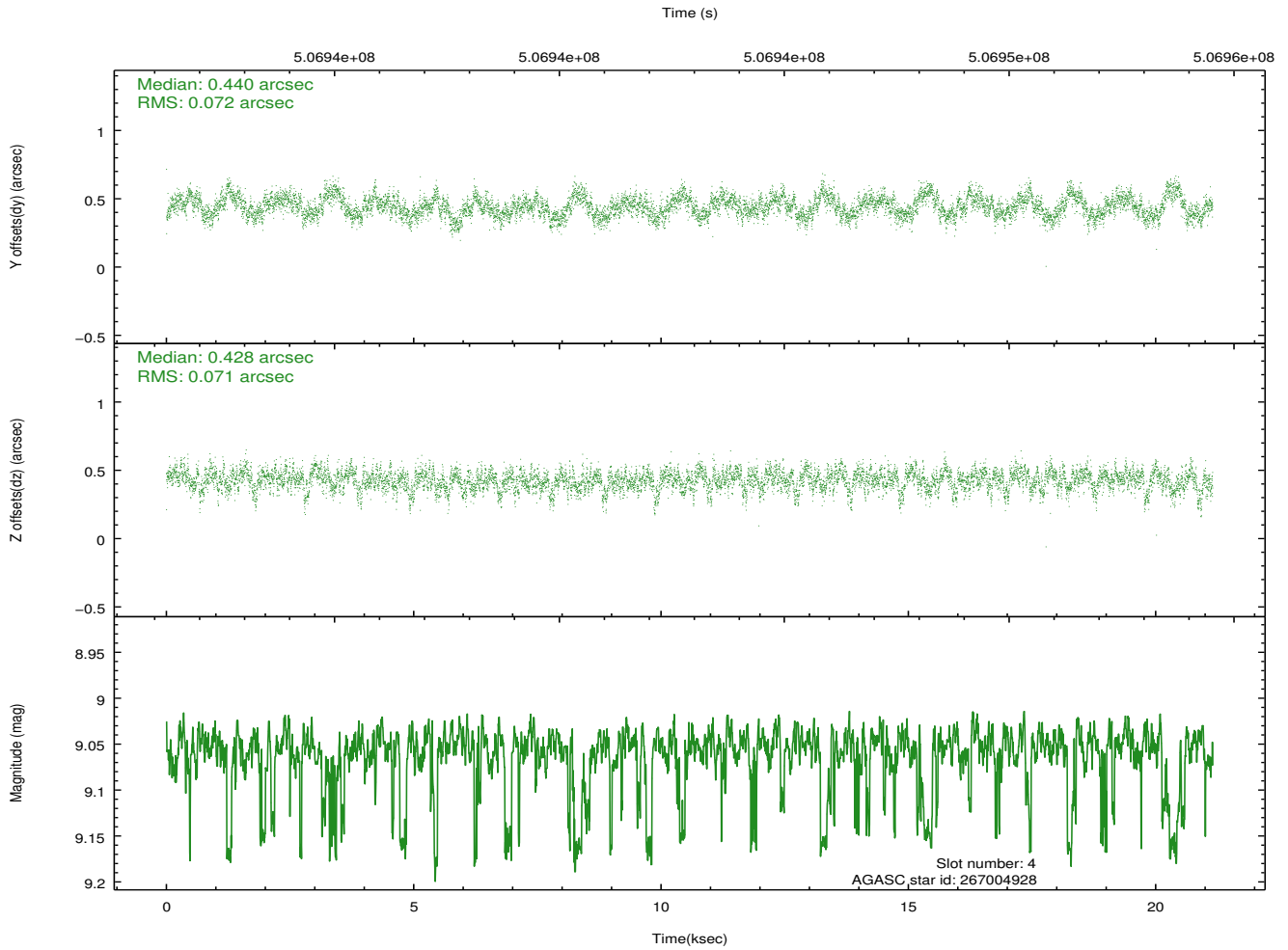
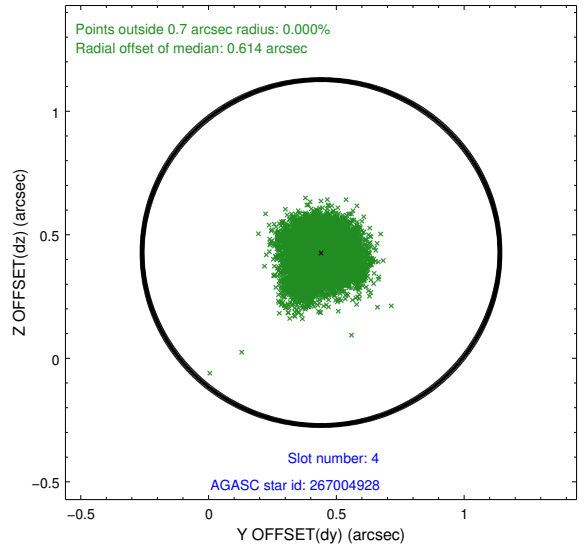
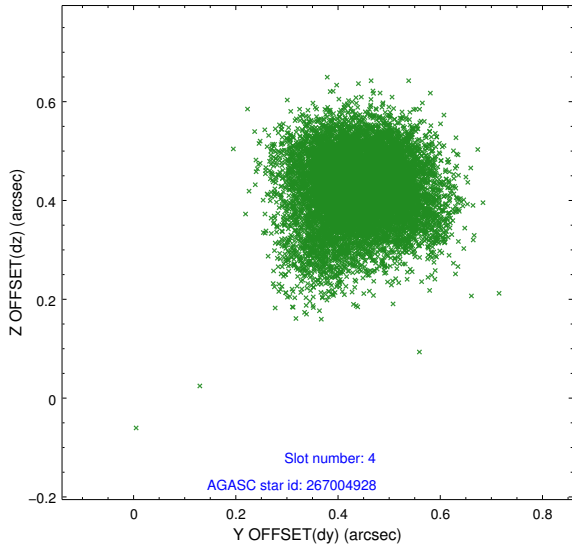
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.96	5160	-0.120	-0.006	0.008	0.014	0.000000	0.000000	-775.09	-1742.18
1	FID		ACIS-S-4	7.04	5160	0.245	0.060	0.009	0.025	0.000000	0.000000	2138.46	166.20
2	FID		ACIS-S-5	7.07	5159	-0.157	-0.045	0.011	0.026	0.000000	0.000000	-1827.77	159.95
3	GUIDE	used	266995040	7.84	10315	0.300	-0.351	0.095	0.141	239.014769	27.051479	-1469.62	1257.67
4	GUIDE	used	267004928	9.06	10308	0.440	0.428	0.107	0.175	239.711277	26.663193	-1565.95	-1377.53
5	GUIDE	used	267137048	7.88	10317	-0.139	0.437	0.110	0.164	240.280451	27.143889	848.31	-2086.49
6	GUIDE	used	267139016	9.14	10310	-0.197	0.025	0.214	0.300	240.326918	27.469213	1934.32	-1623.96
7	GUIDE	used	267398208	10.24	10302	-0.416	-0.533	0.290	0.425	239.207175	27.898400	1481.28	2239.36

2.4 Star Slots

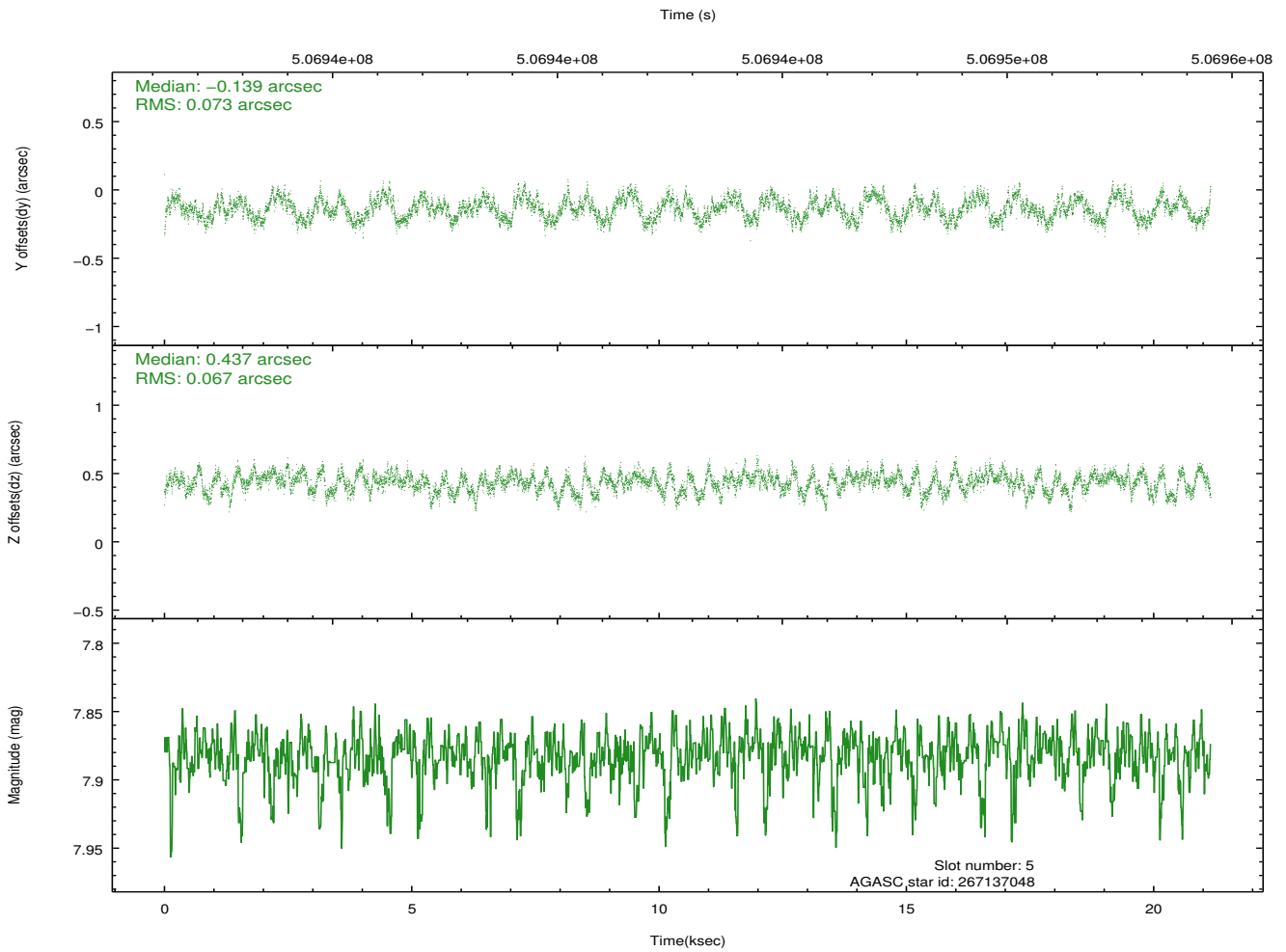
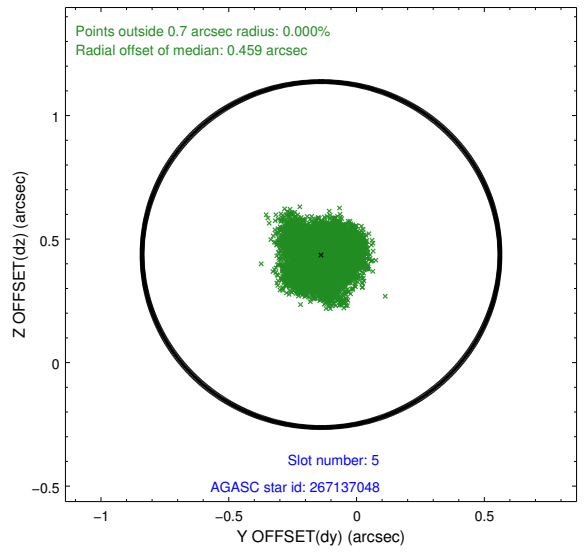
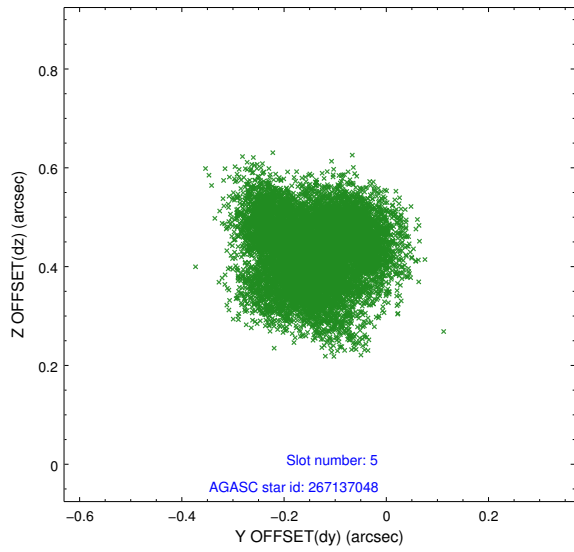
2.4.1 Slot 3



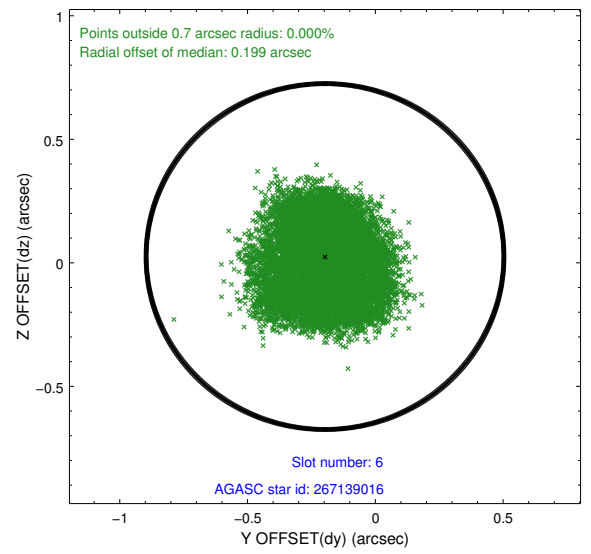
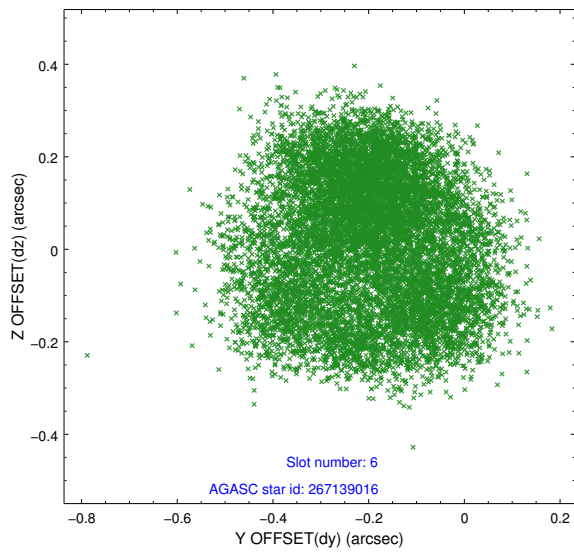
2.4.2 Slot 4



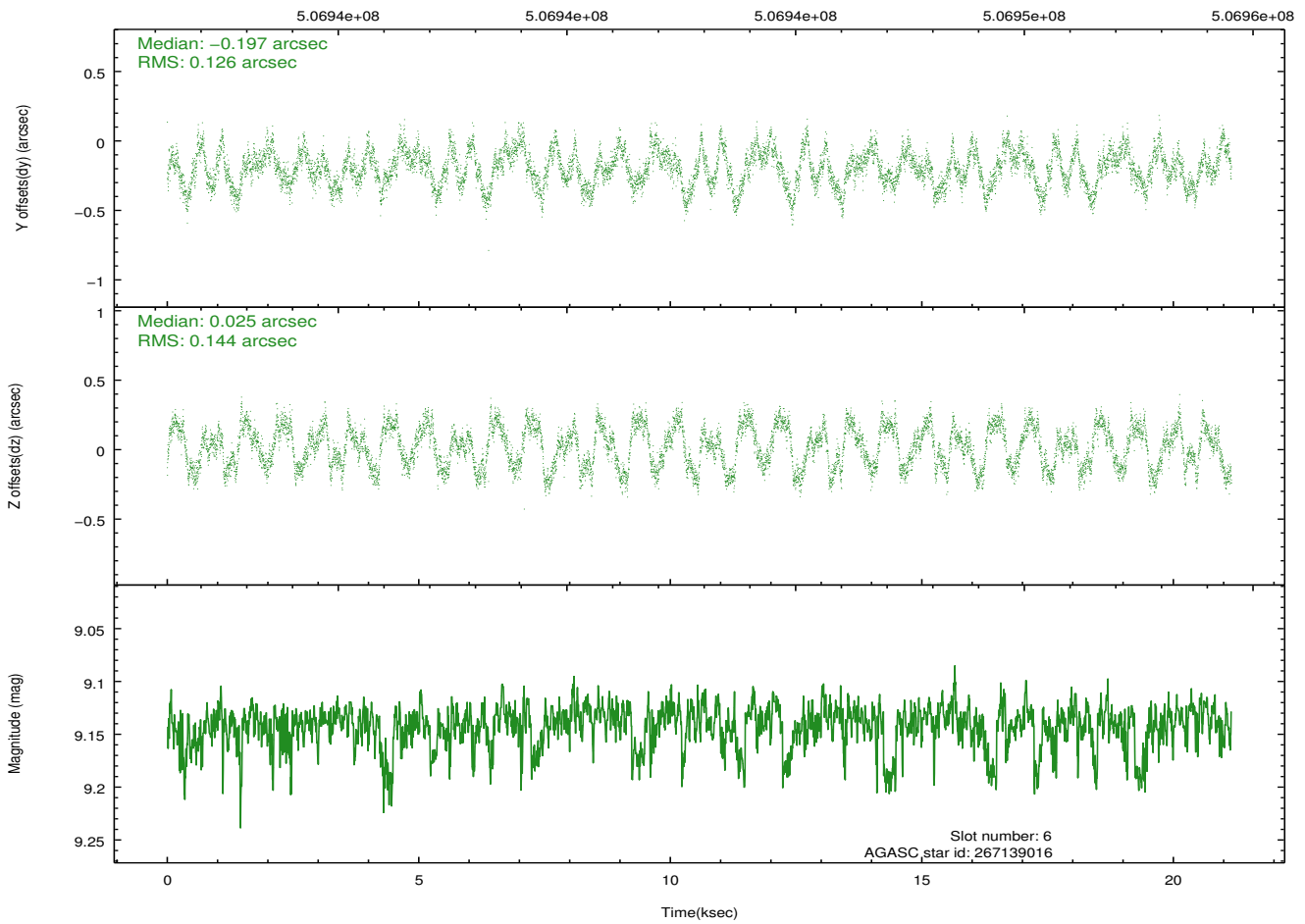
2.4.3 Slot 5



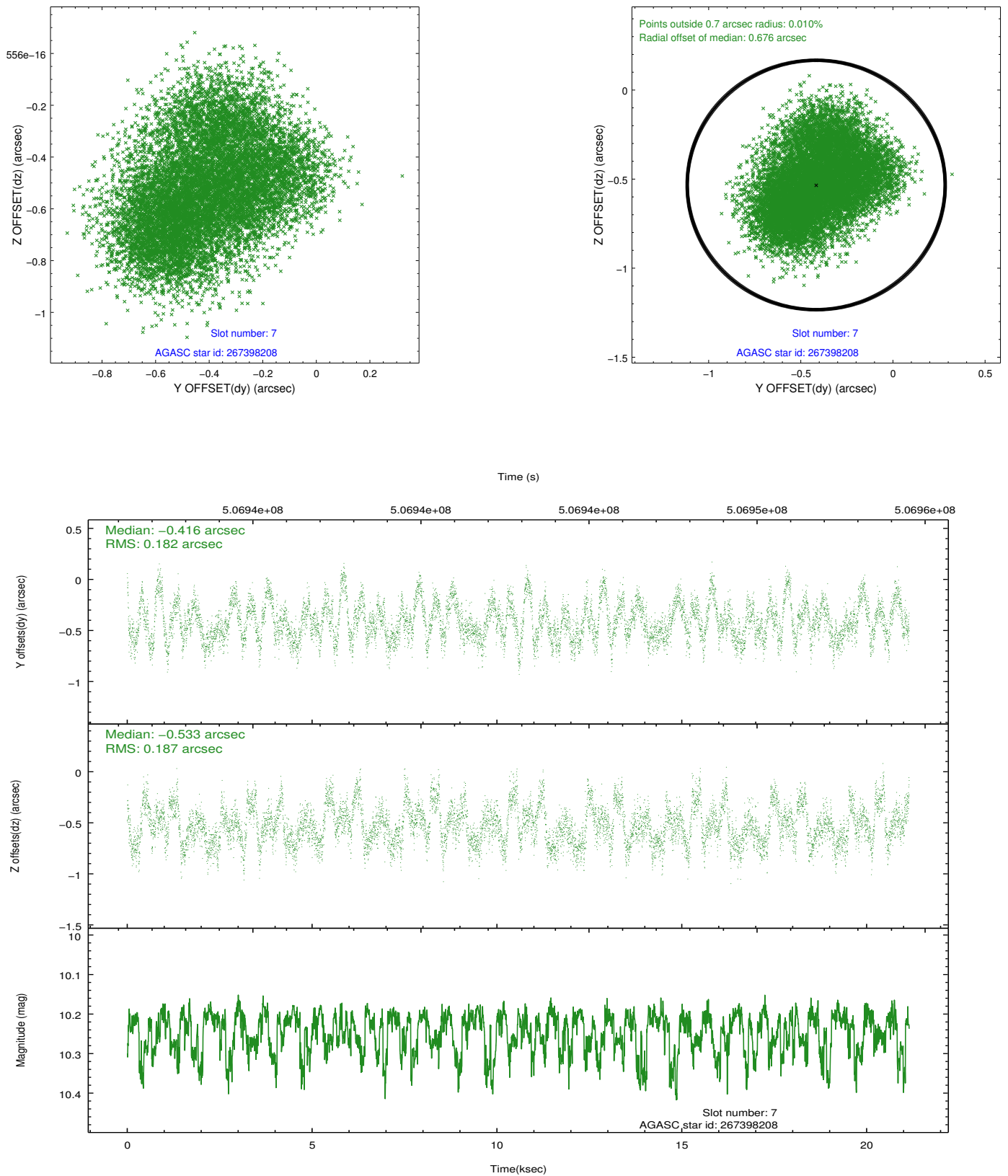
2.4.4 Slot 6



Time (s)

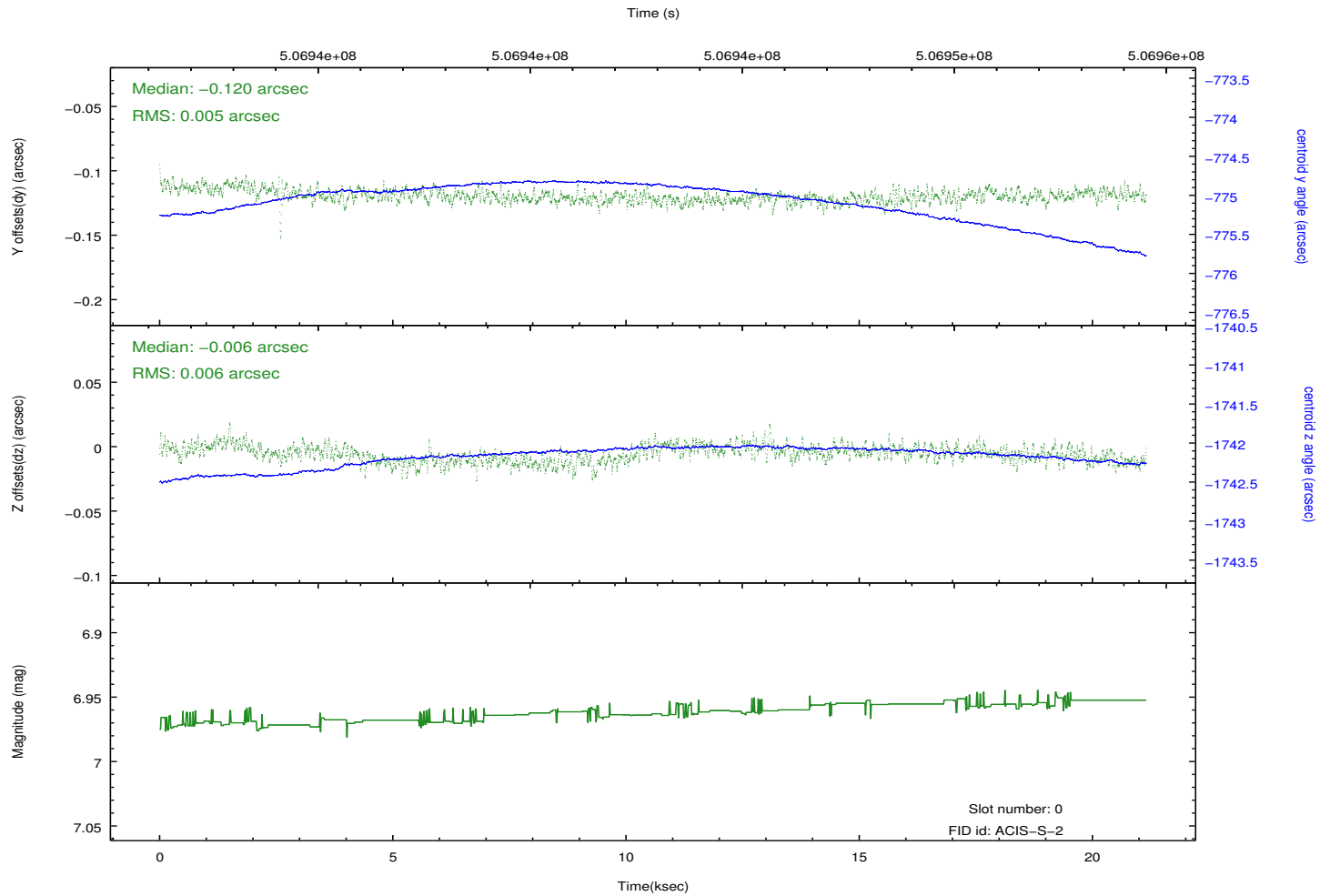
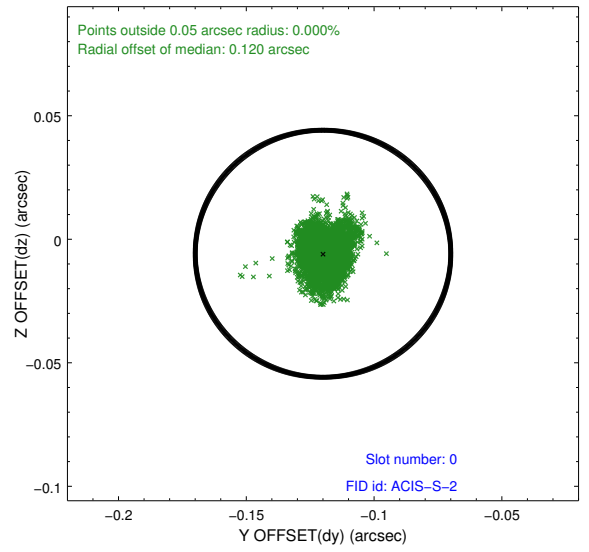
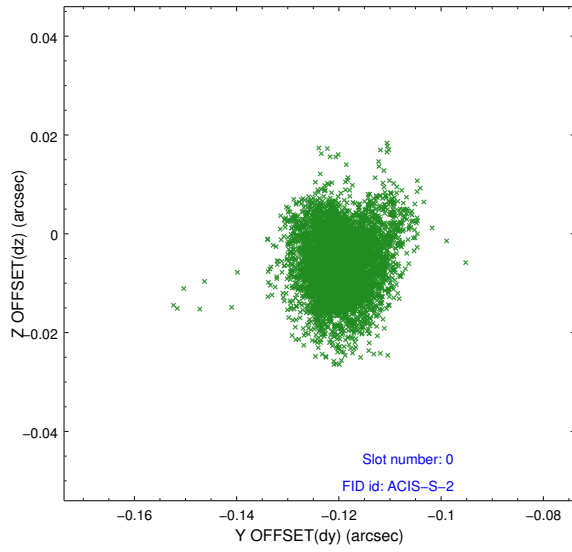


2.4.5 Slot 7

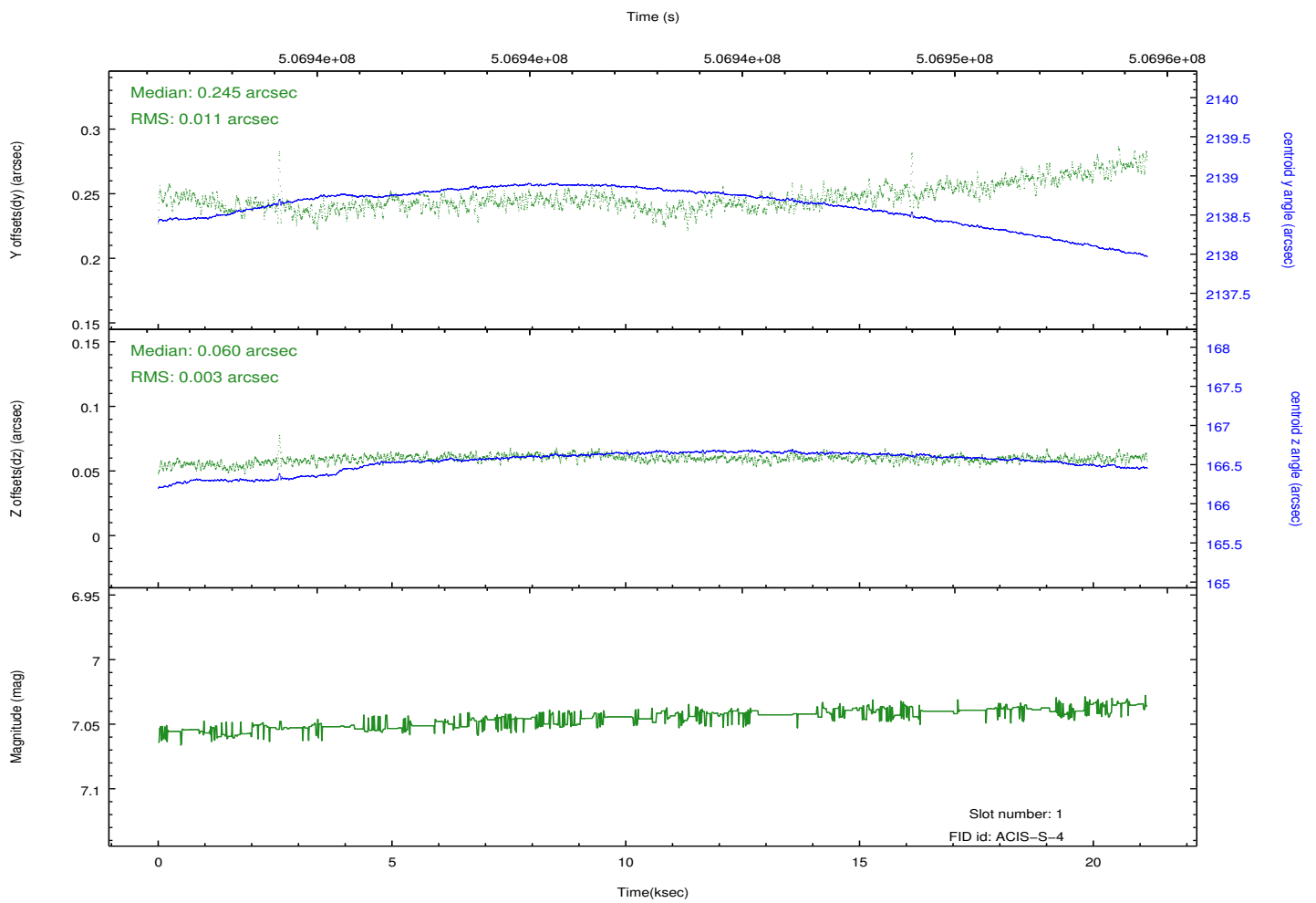
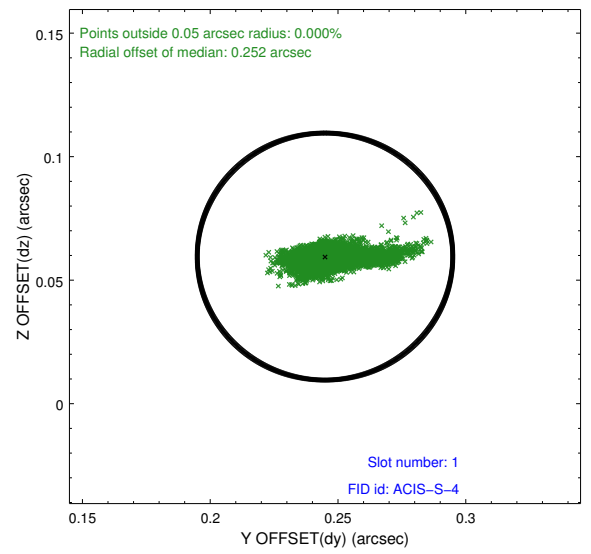
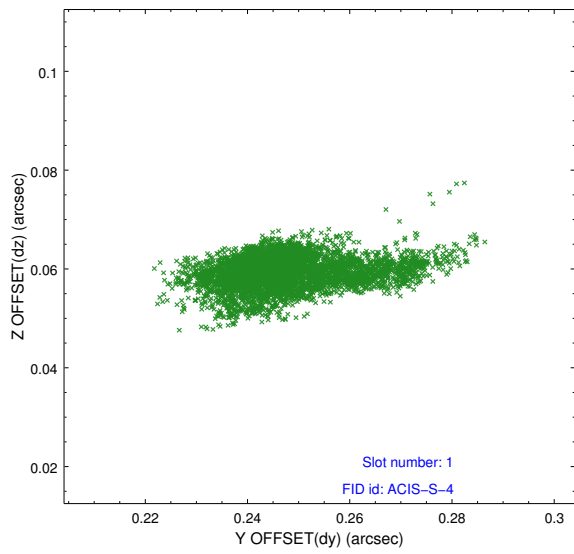


2.5 FID Slots

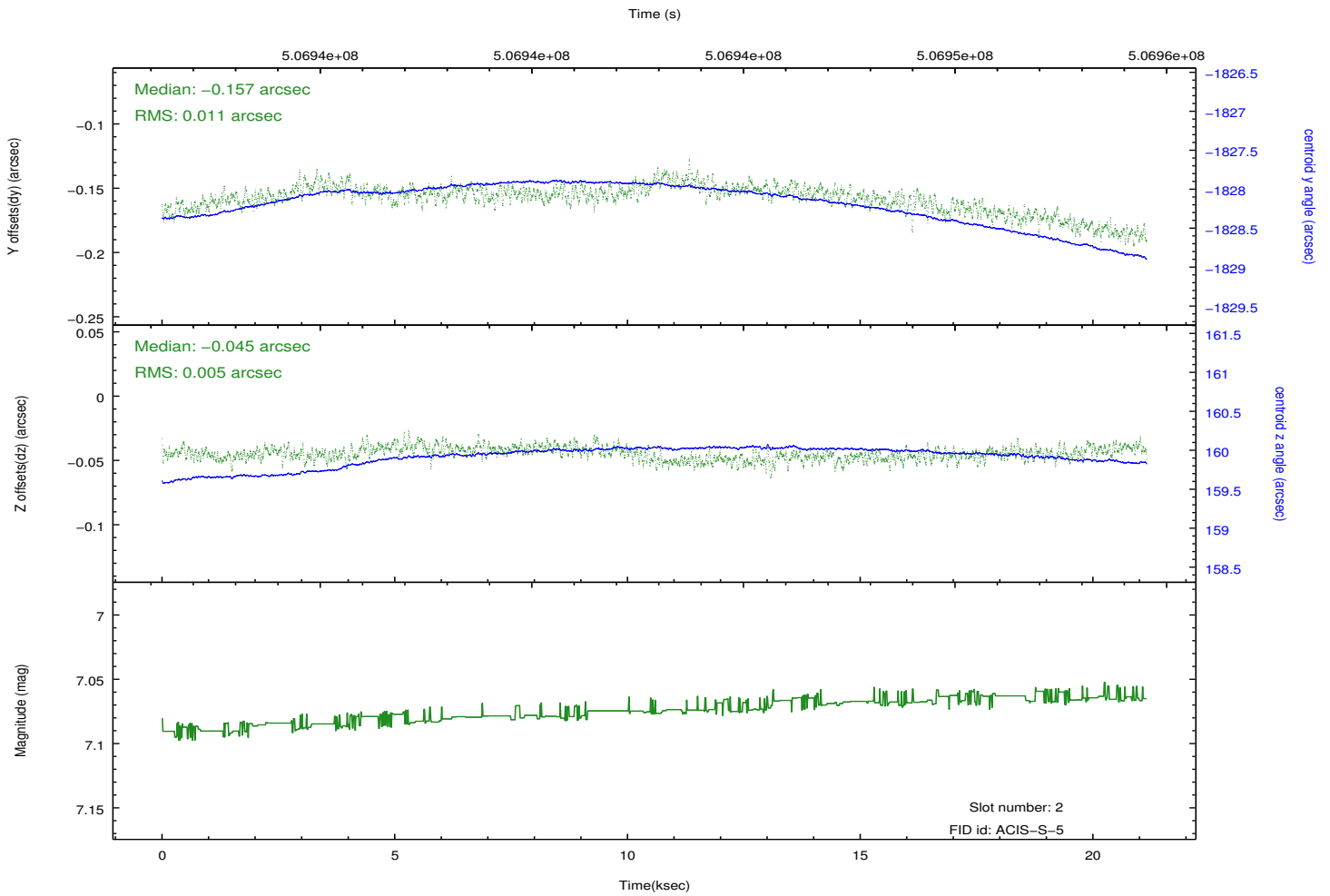
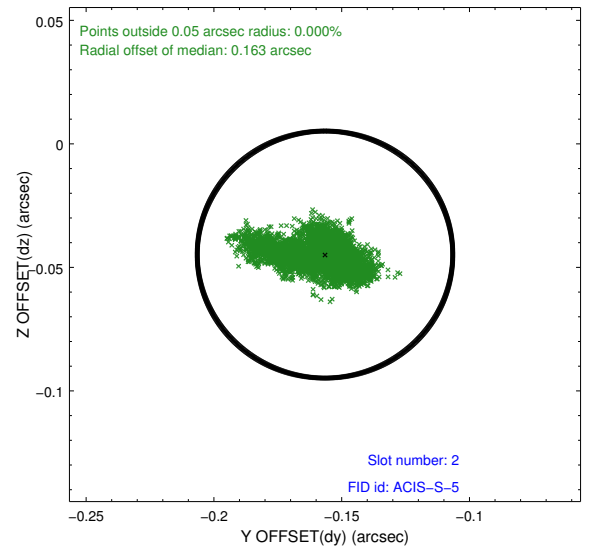
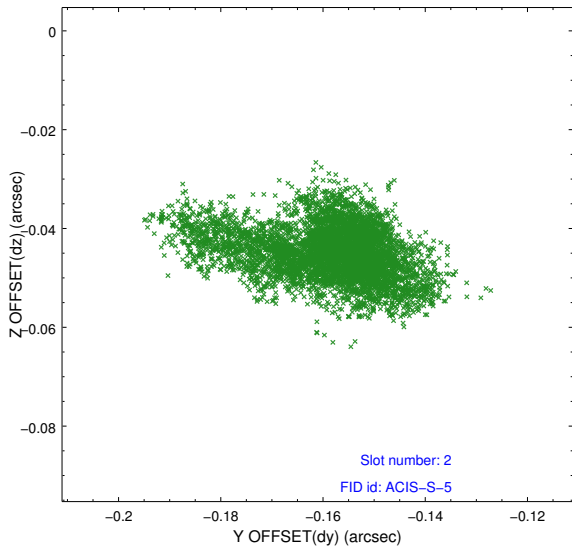
2.5.1 Slot 0



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)	2014.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	21.067600162029

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.