

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16280 - L2 Version 2
Chandra X-Ray Center

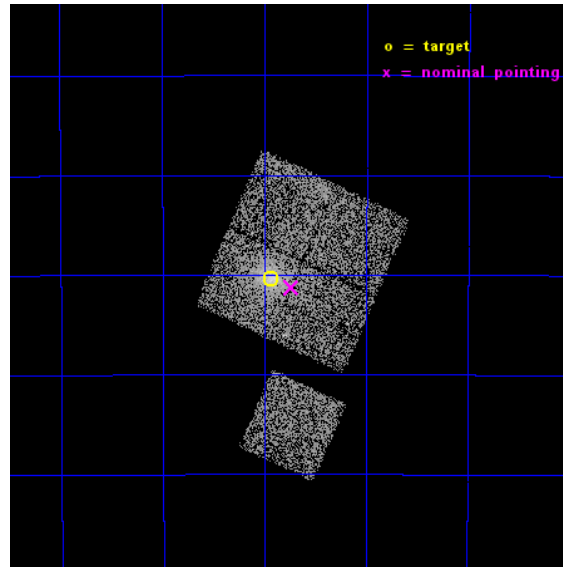
L2 Processing Date : Dec 11 2014

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1 Front

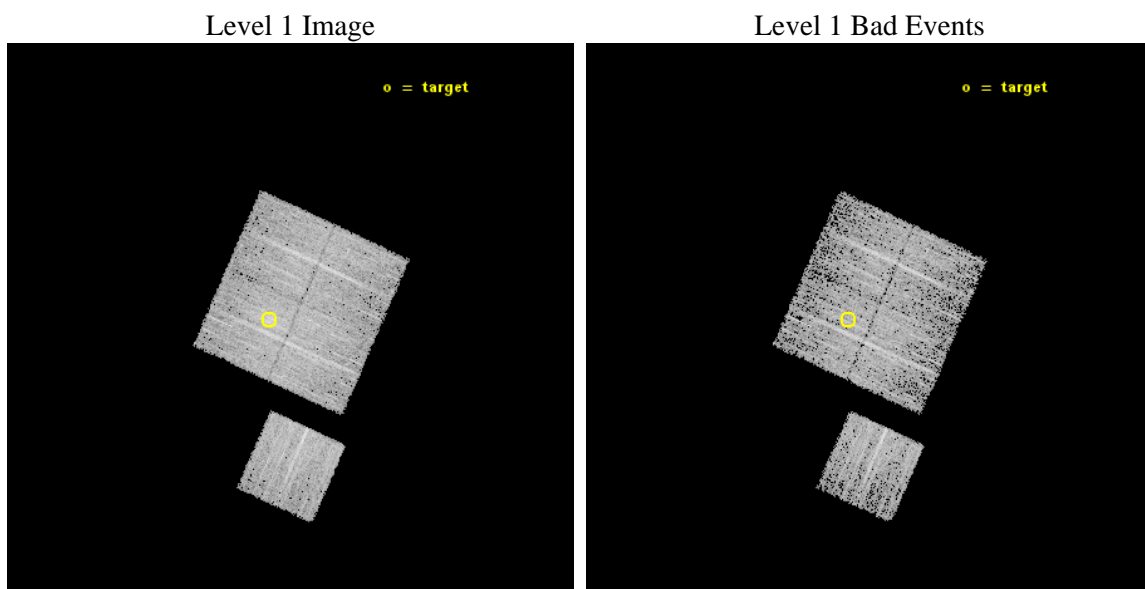
seq_num	801422	Sequence number
obs_id	16280	Observation id
title	Chandra observations of the Planck ESZ Cluster Sample	Proposal tit
observer	Dr. Stephen Murray	Principal investigator
object	G249.87-39.86	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	72.483333	Observer's specified target RA [deg]
dec_targ	-44.673889	Observer's specified target Dec [deg]
ra_nom	72.433954745906	Nominal RA [deg]
dec_nom	-44.687721552274	Nominal Dec [deg]
roll_nom	204.32702644578	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7083.5000544786	Sum of GTIs [s]
livetime	6990.94891147	Livetime [s]
ontime0	7083.5000544786	Sum of GTIs [s]
ontime1	7077.2182432413	Sum of GTIs [s]
ontime2	7083.5000544786	Sum of GTIs [s]
ontime3	7083.5000544786	Sum of GTIs [s]
ontime6	7083.5000544786	Sum of GTIs [s]
l2events	21118	Number of level 2 events



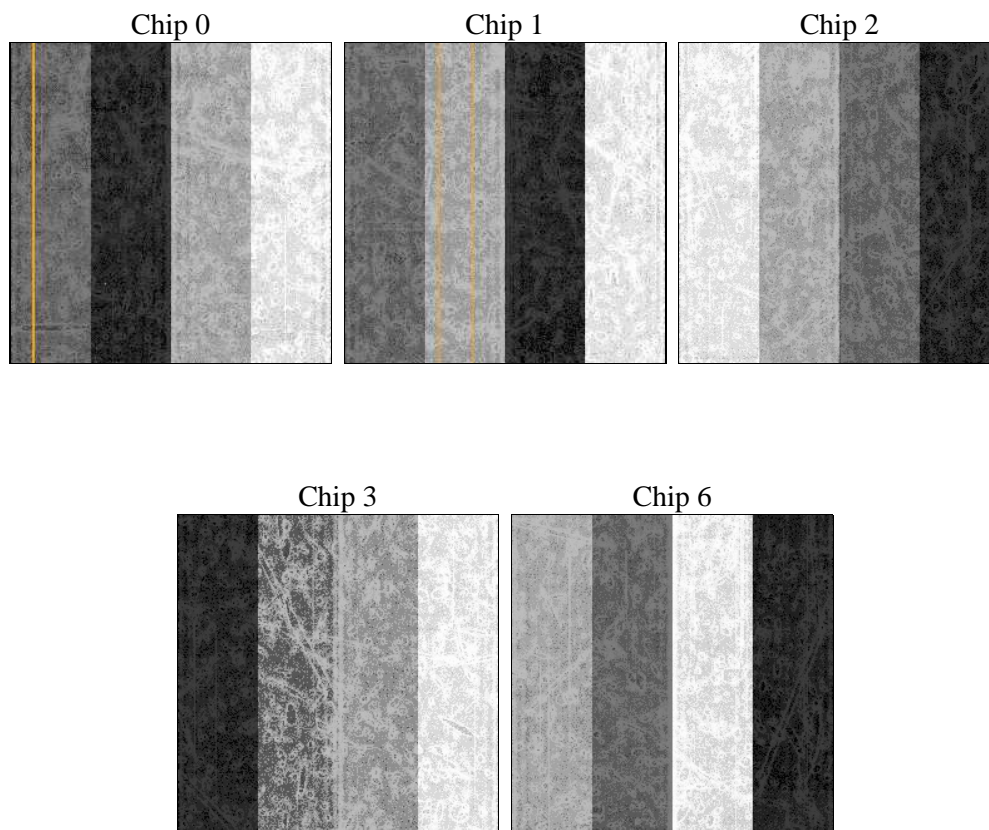
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	7083.5000544786	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	7083.5000544786	Sum of GTIs [s]
date	2014-12-11T19:08:22	Date and time of file creation	ontime1	7077.2182432413	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	7083.5000544786	Sum of GTIs [s]
			ontime3	7083.5000544786	Sum of GTIs [s]
			ontime6	7083.5000544786	Sum of GTIs [s]
			l1events	167671	Number of level 1 events

2.1.4 Events

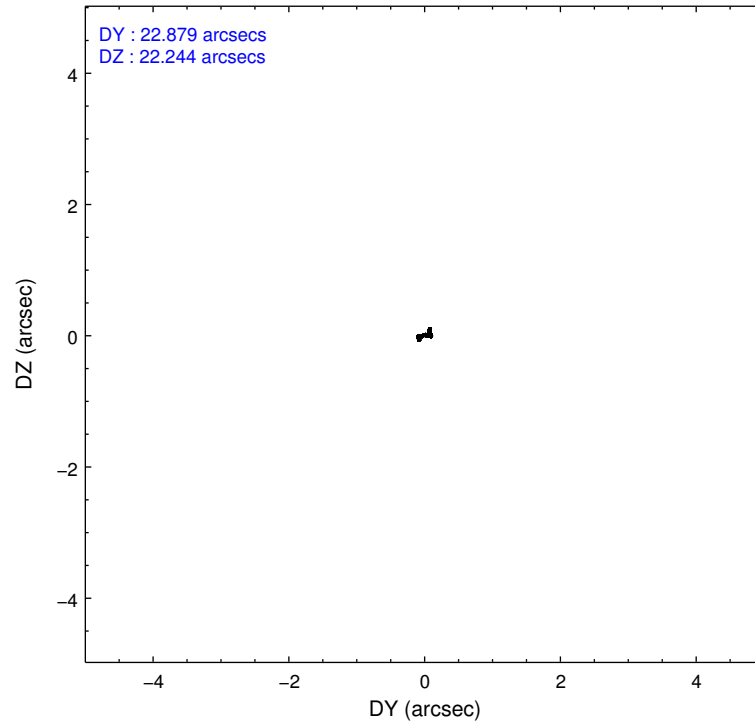
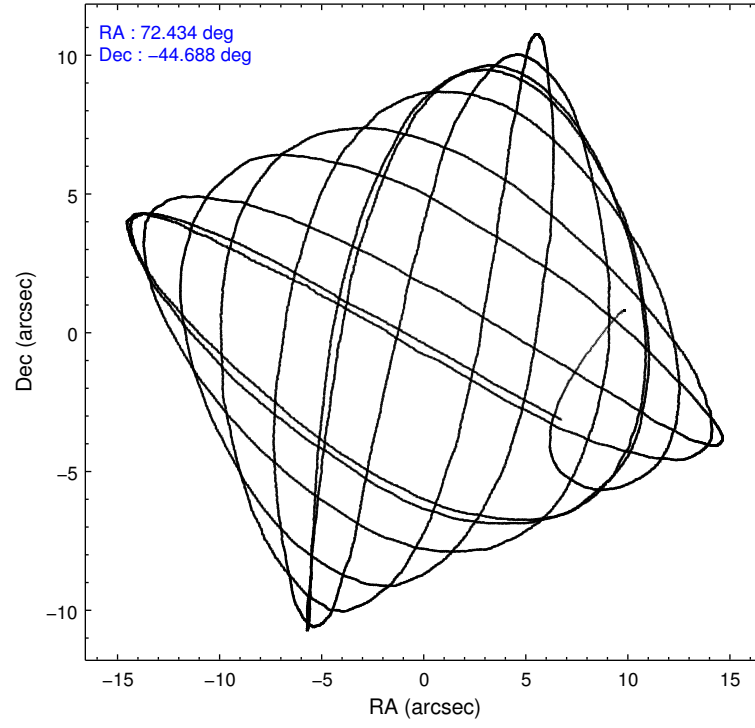
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	30722	31641	35800	35285	34223
rejected events	26480	26969	31228	28569	30005
rejected %	86%	85%	87%	80%	87%

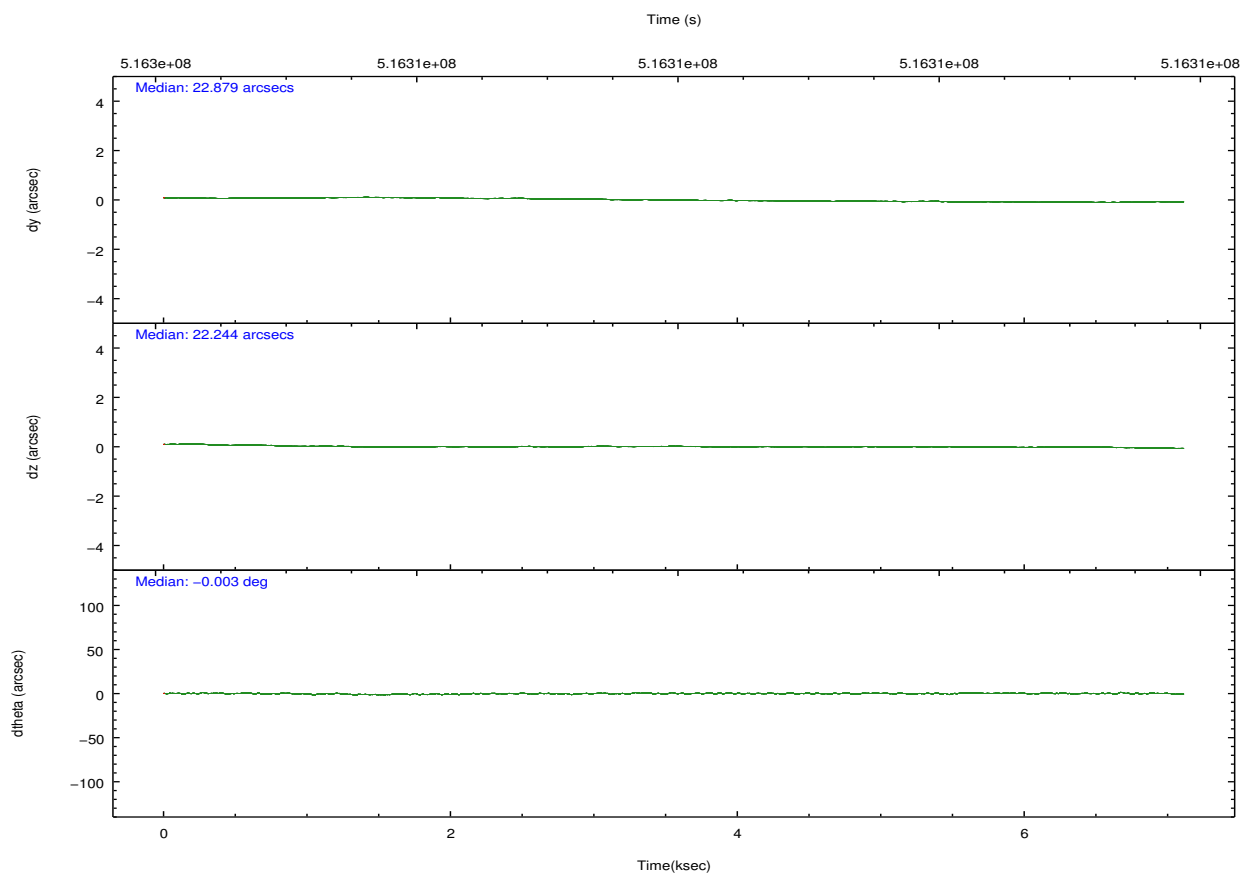
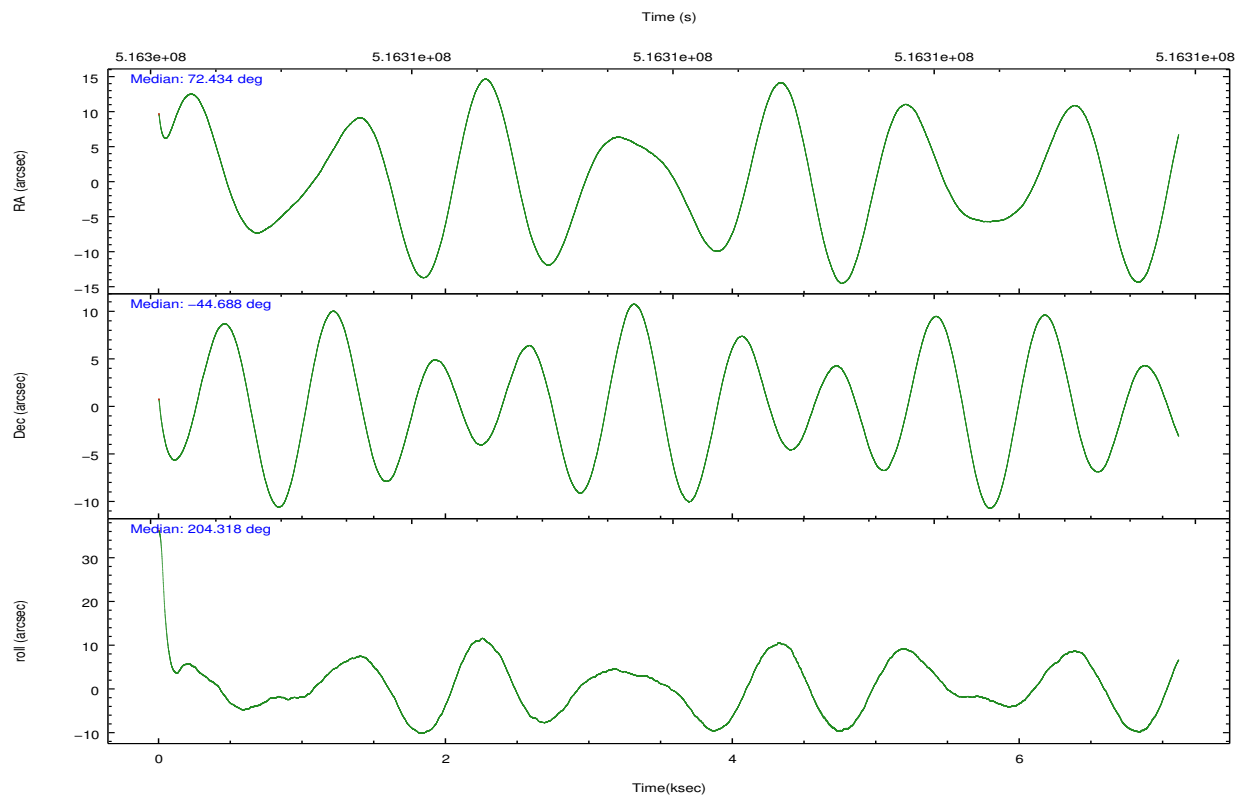
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1485	1637	1875	3705	1371
	4%	5%	5%	10%	4%
grade 1 events	20	14	25	17	17
	0%	0%	0%	0%	0%
grade 2 events	1041	1157	1066	1145	953
	3%	3%	2%	3%	2%
grade 3 events	445	503	413	496	459
	1%	1%	1%	1%	1%
grade 4 events	410	417	417	488	454
	1%	1%	1%	1%	1%
grade 5 events	1614	1788	1534	1841	1751
	5%	5%	4%	5%	5%
grade 6 events	862	963	810	888	984
	2%	3%	2%	2%	2%
grade 7 events	24845	25162	29660	26705	28234
	80%	79%	82%	75%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	72.456367	72.43395474590562	CCD I2 on	Y	Y
[deg] Pointing Dec	-44.665317	-44.68772155227398	CCD I3 on	Y	Y
[deg] Pointing Roll	204.134048	204.3270264457751	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	-227.592463	-227.5933067819097	CCD S3 on	N	N
[mm] SIM translation stage offset	-6	-5.999146221020027	CCD S4 on	N	N
[s] Observation start time (MET)	516304529.184000	516302842.27086	CCD S5 on	N	N
Observation start date	2014-05-12T17:54:22	2014-05-12T17:27:22	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	516311529.184000	516312024.22137	On-chip summing requested	N	N
Observation end date	2014-05-12T19:51:02	2014-05-12T20:00:24	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



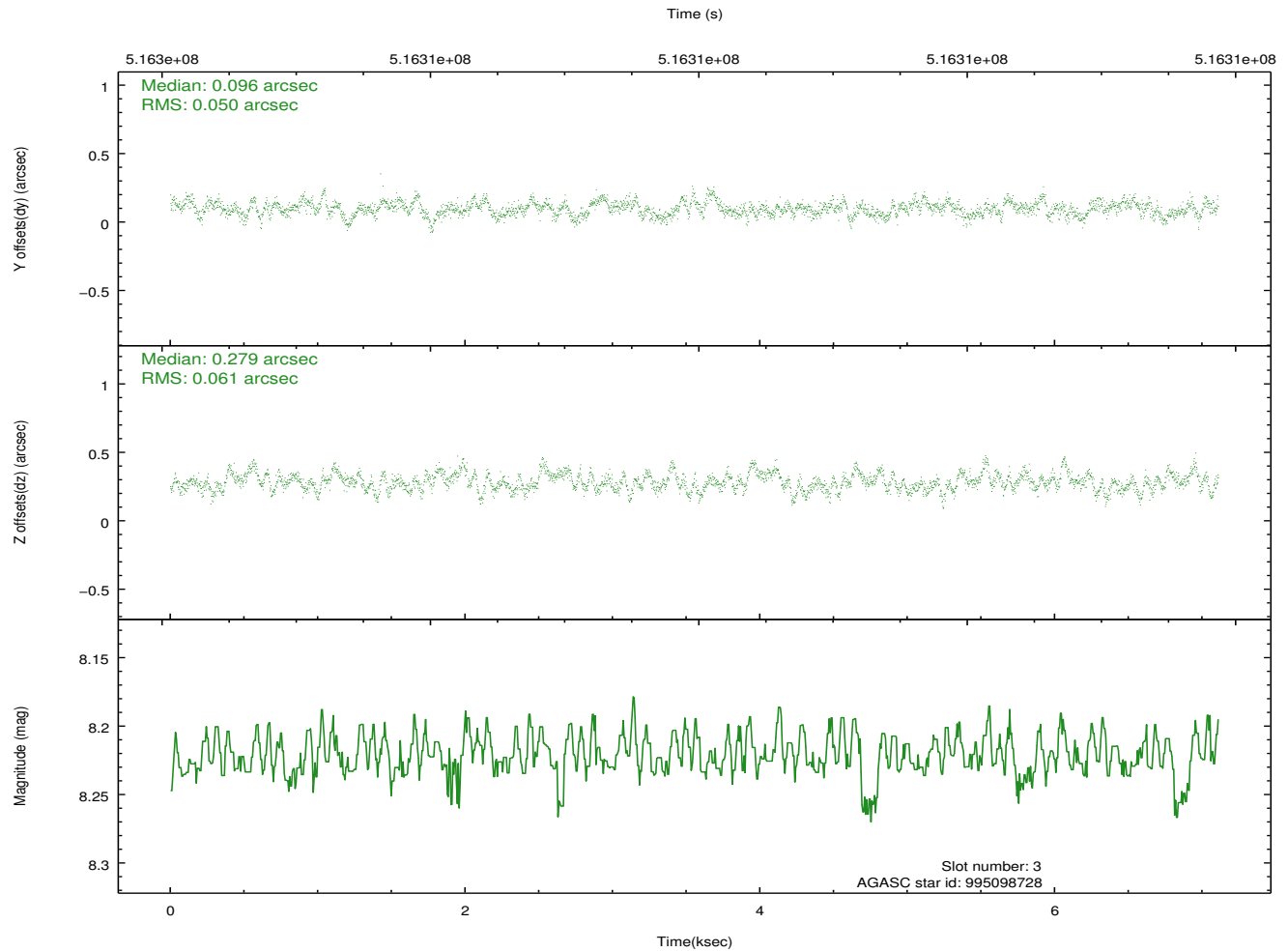
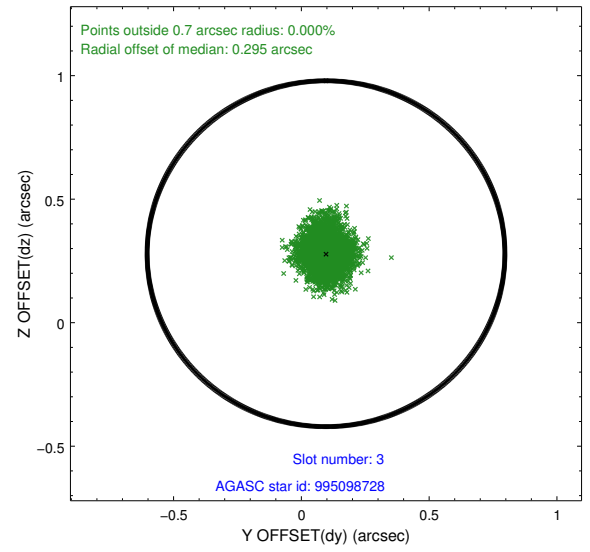
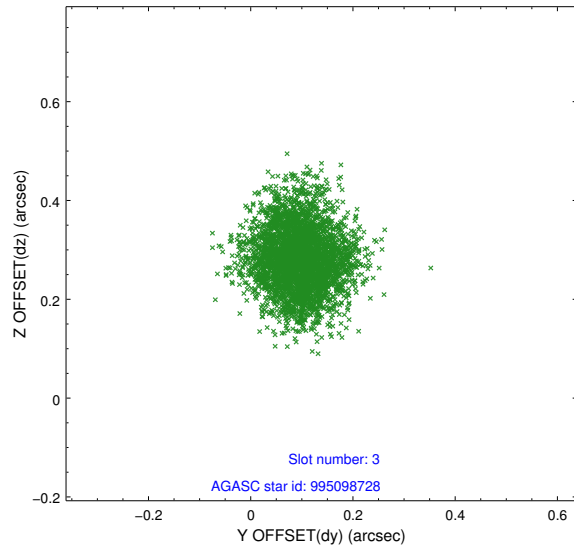


Slot Statistics

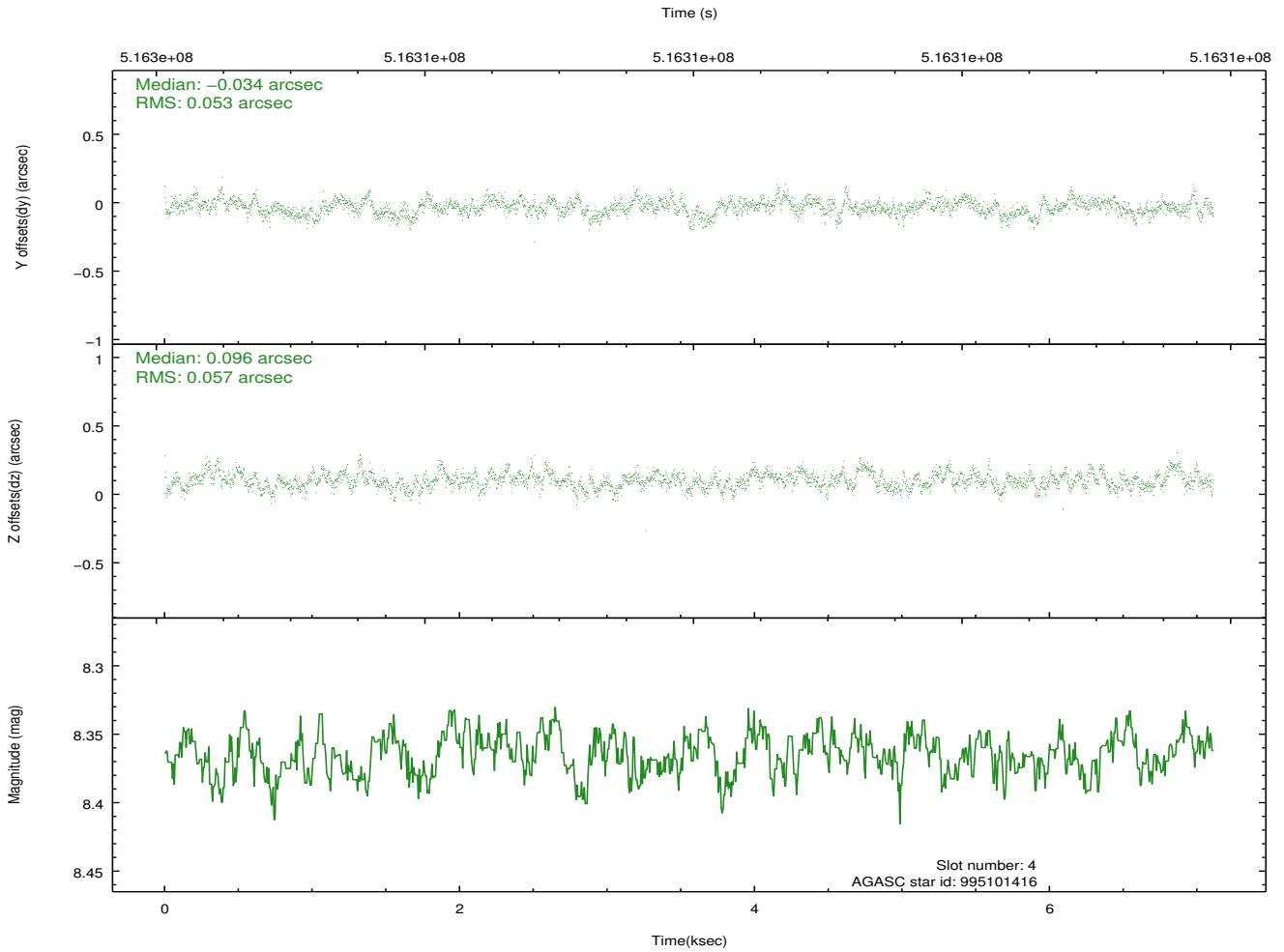
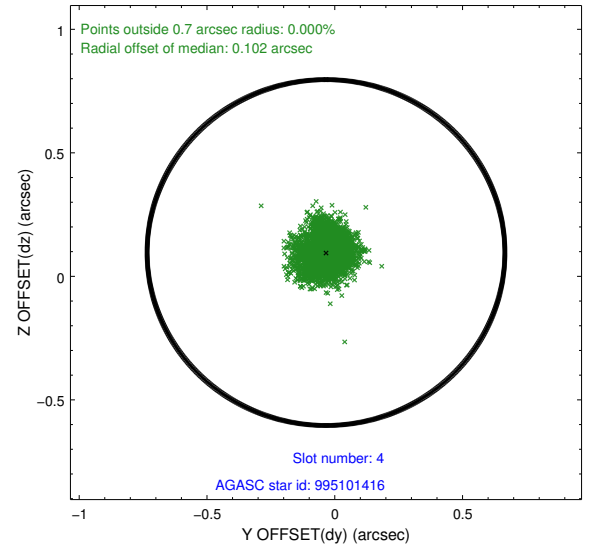
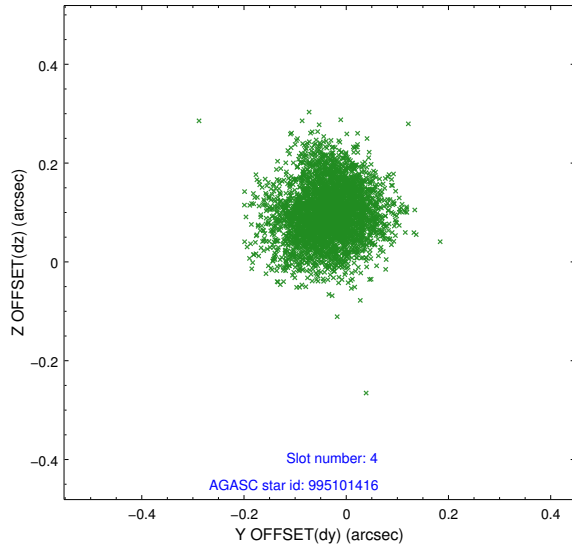
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.06	1735	0.102	-0.074	0.006	0.010	0.000000	0.000000	916.38	-969.22
1	FID		ACIS-I-5	7.05	1735	-0.301	0.075	0.006	0.010	0.000000	0.000000	-1831.74	927.87
2	FID		ACIS-I-6	7.06	1735	0.107	0.071	0.006	0.011	0.000000	0.000000	380.97	1573.35
3	GUIDE	used	995098728	8.22	3468	0.096	0.279	0.084	0.136	72.789347	-44.280190	-1349.28	-912.93
4	GUIDE	used	995101416	8.37	3469	-0.034	0.096	0.083	0.135	71.916731	-44.268583	688.09	-1867.47
5	GUIDE	used	995105136	8.44	3467	0.065	-0.104	0.070	0.111	73.265135	-44.564168	-2037.27	524.59
6	GUIDE	used	1058675984	8.97	3465	-0.024	-0.144	0.110	0.182	72.809427	-45.046360	-258.45	1621.07
7	GUIDE	used	1058676568	8.28	3468	-0.101	-0.131	0.068	0.111	72.416789	-45.005807	593.06	1078.18

2.4 Star Slots

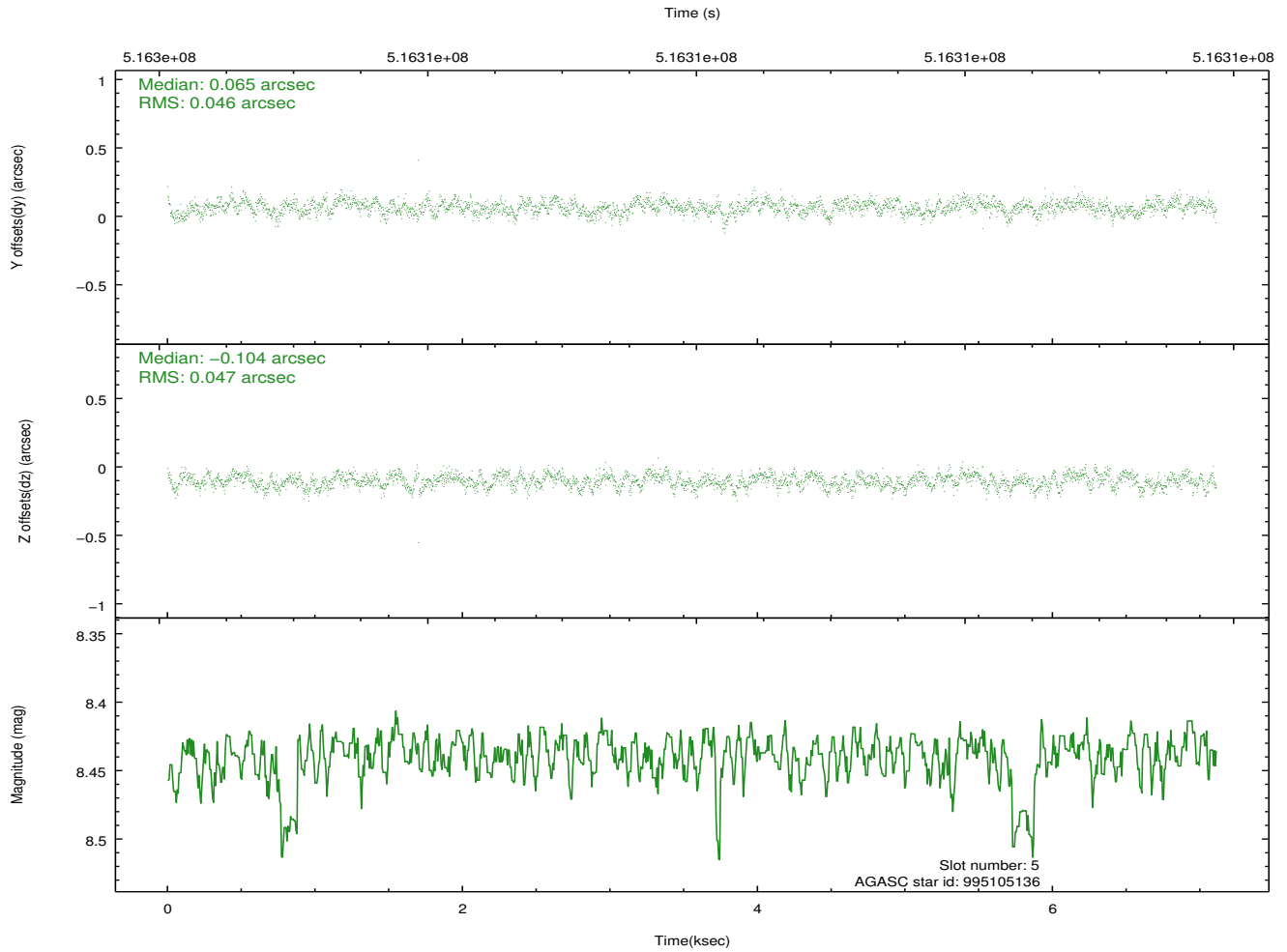
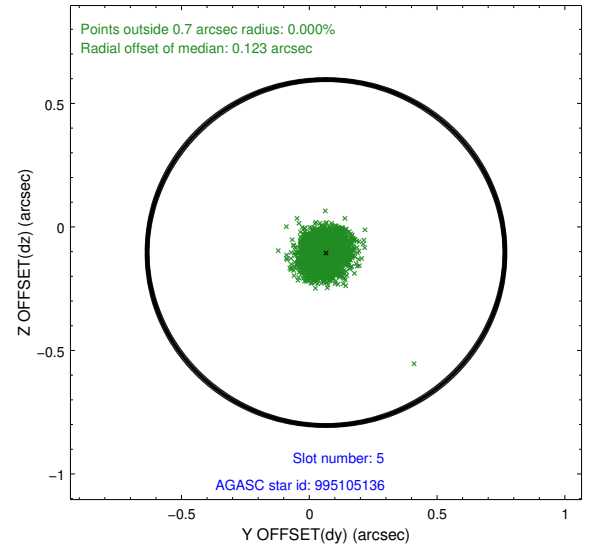
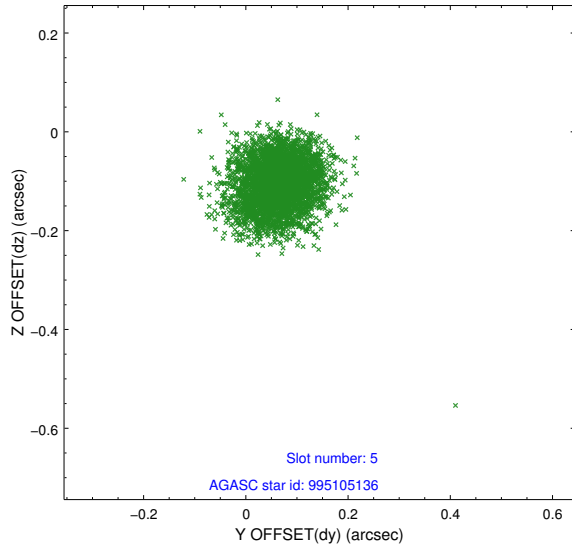
2.4.1 Slot 3



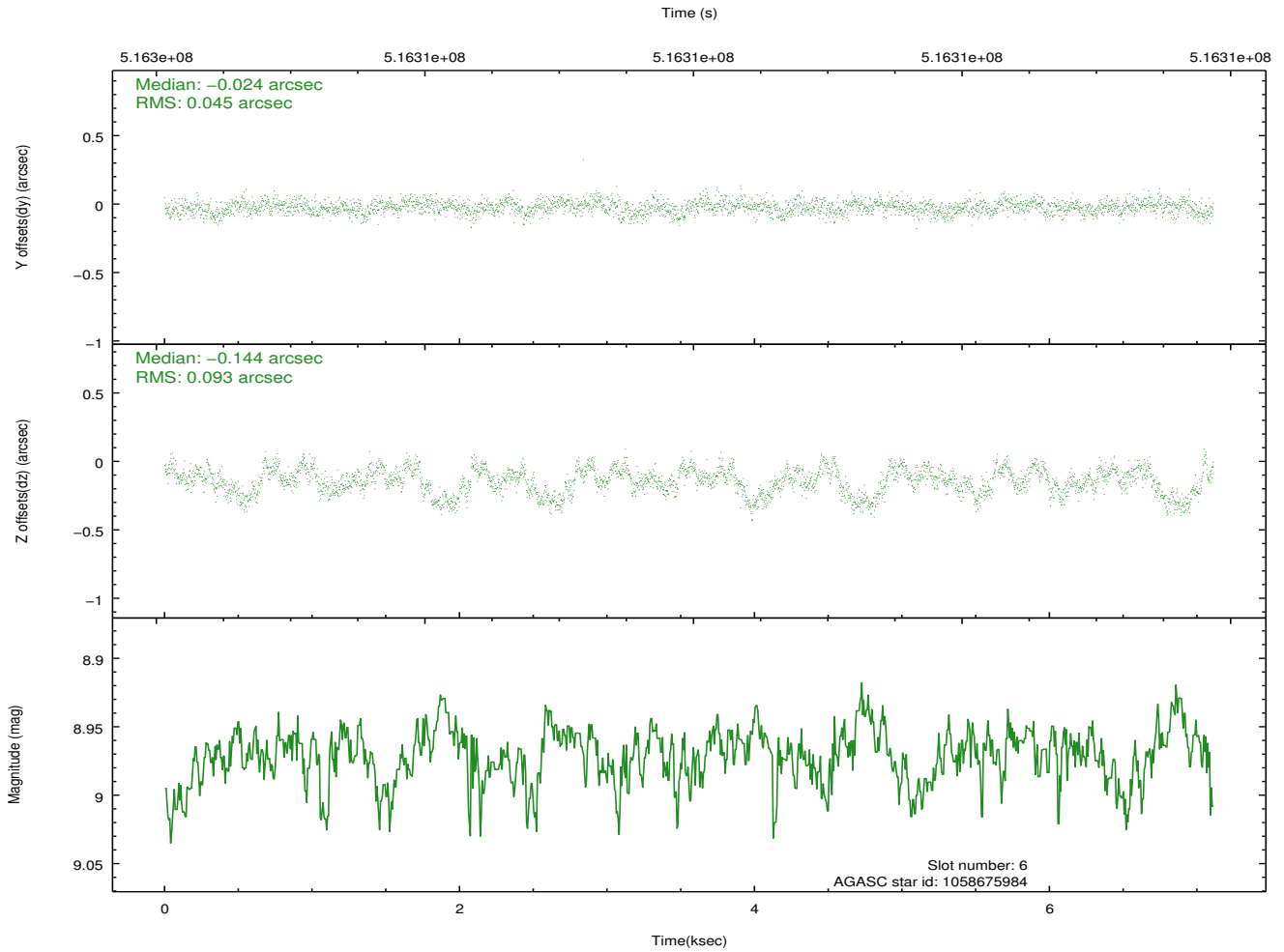
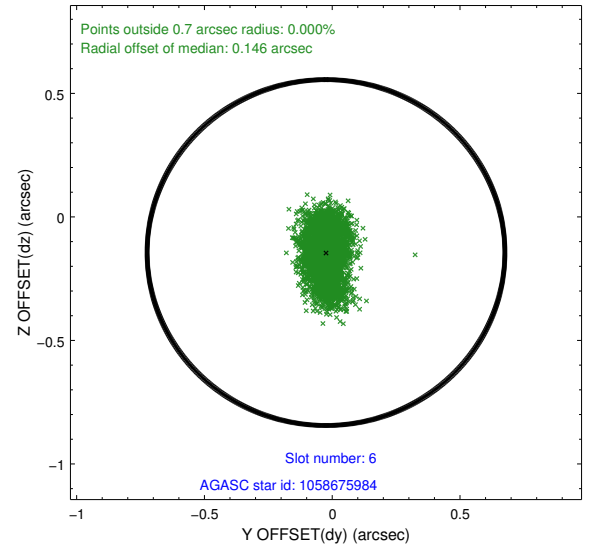
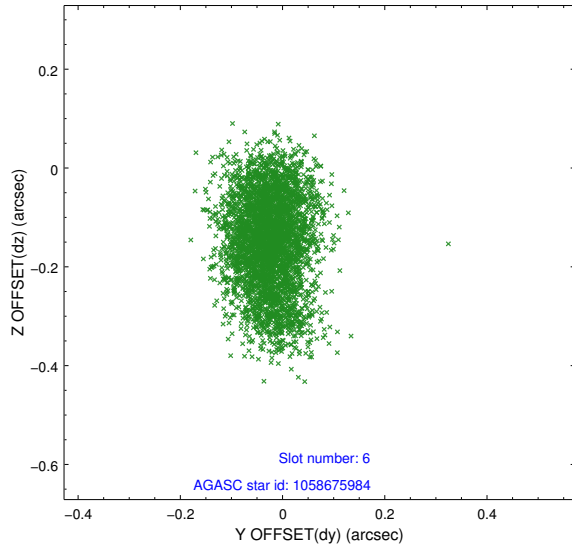
2.4.2 Slot 4



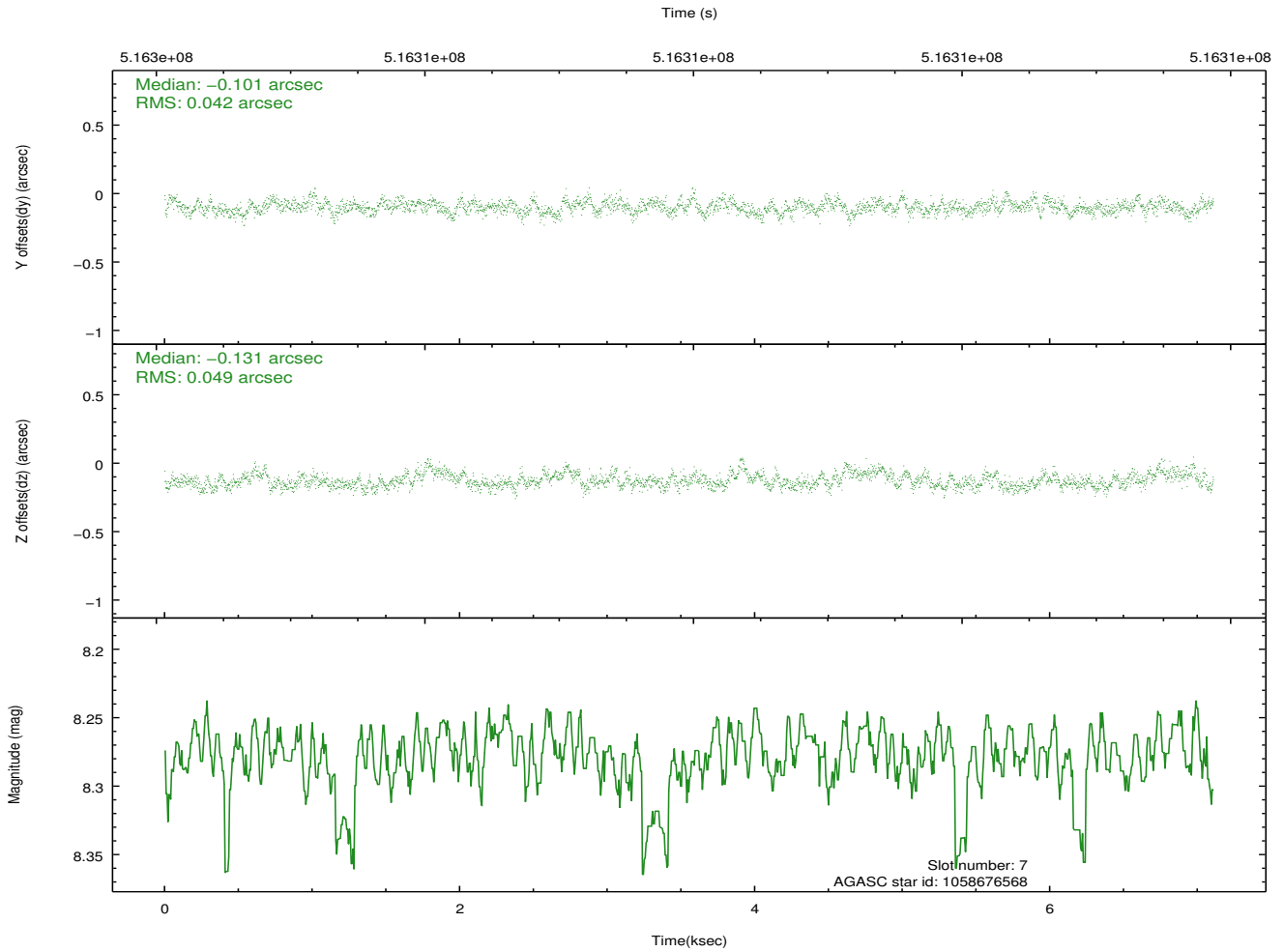
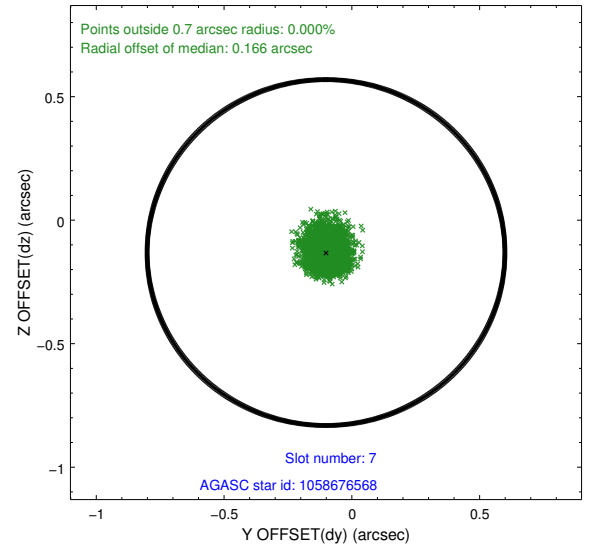
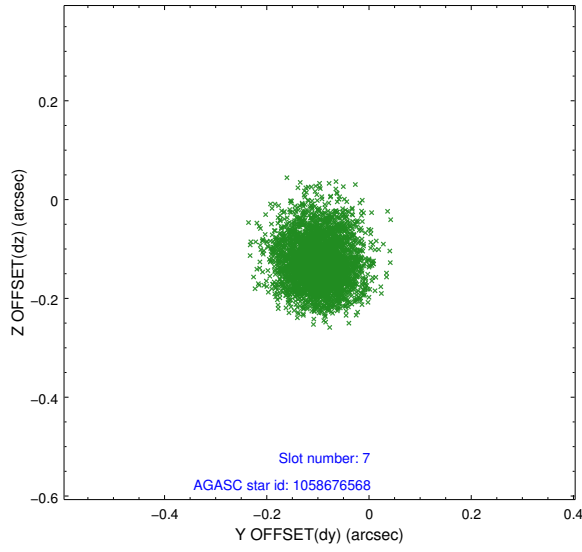
2.4.3 Slot 5



2.4.4 Slot 6

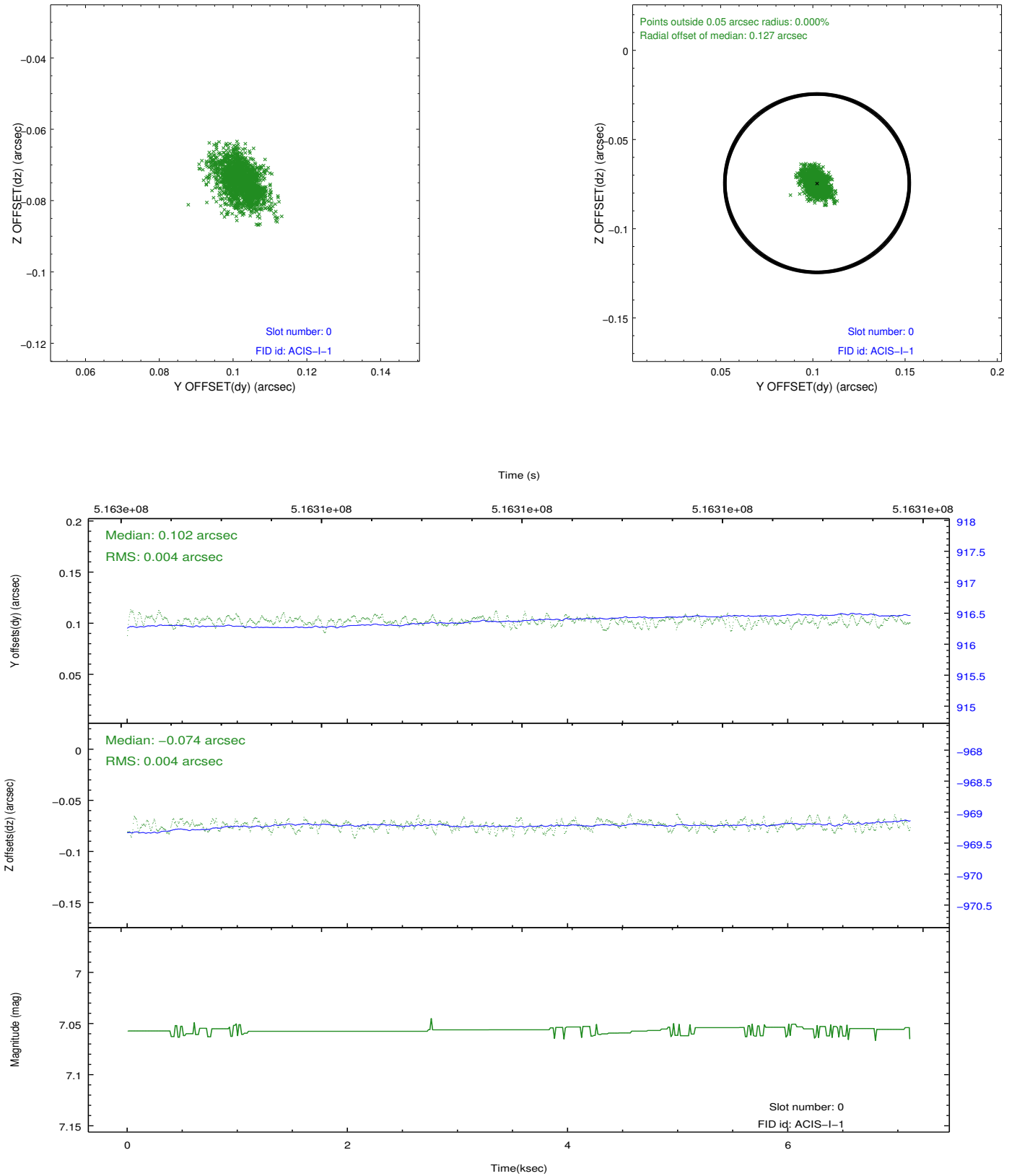


2.4.5 Slot 7

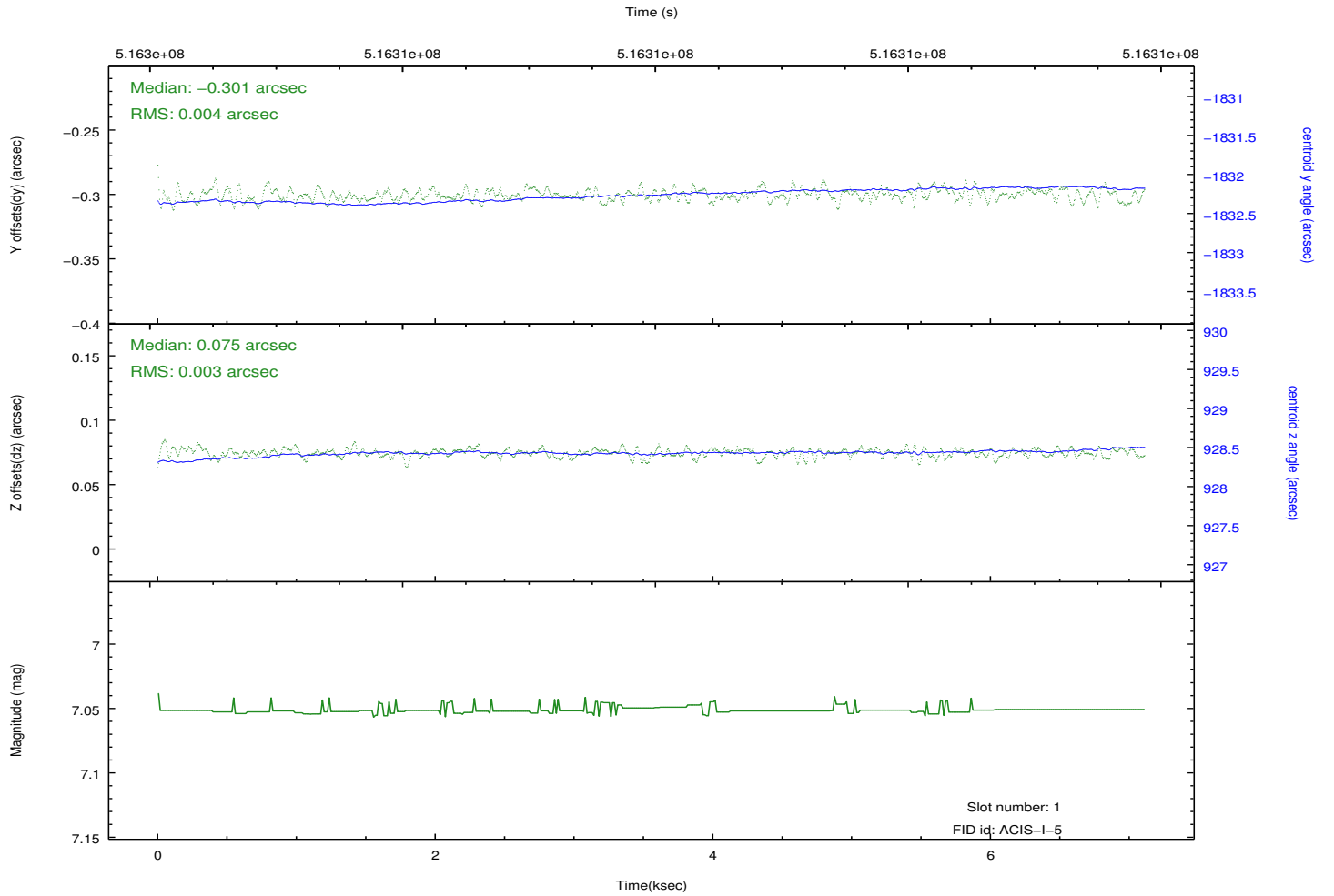
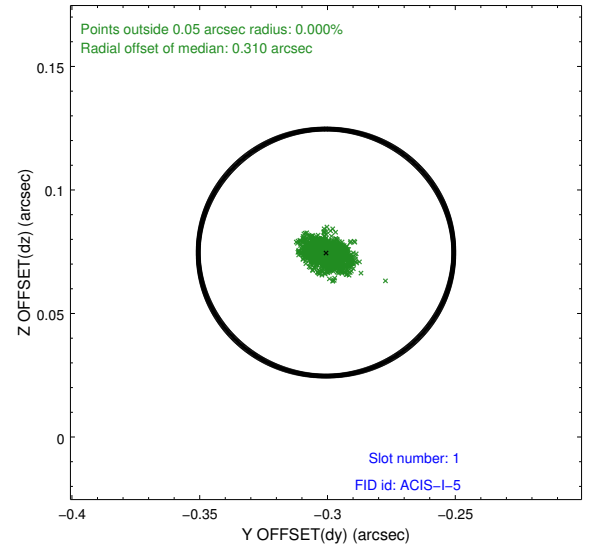
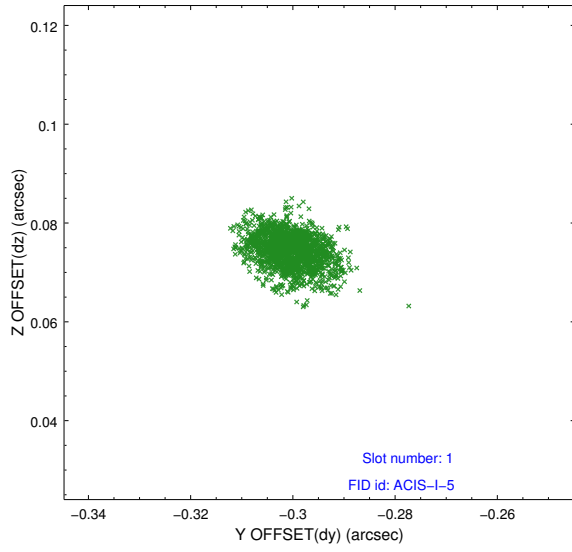


2.5 FID Slots

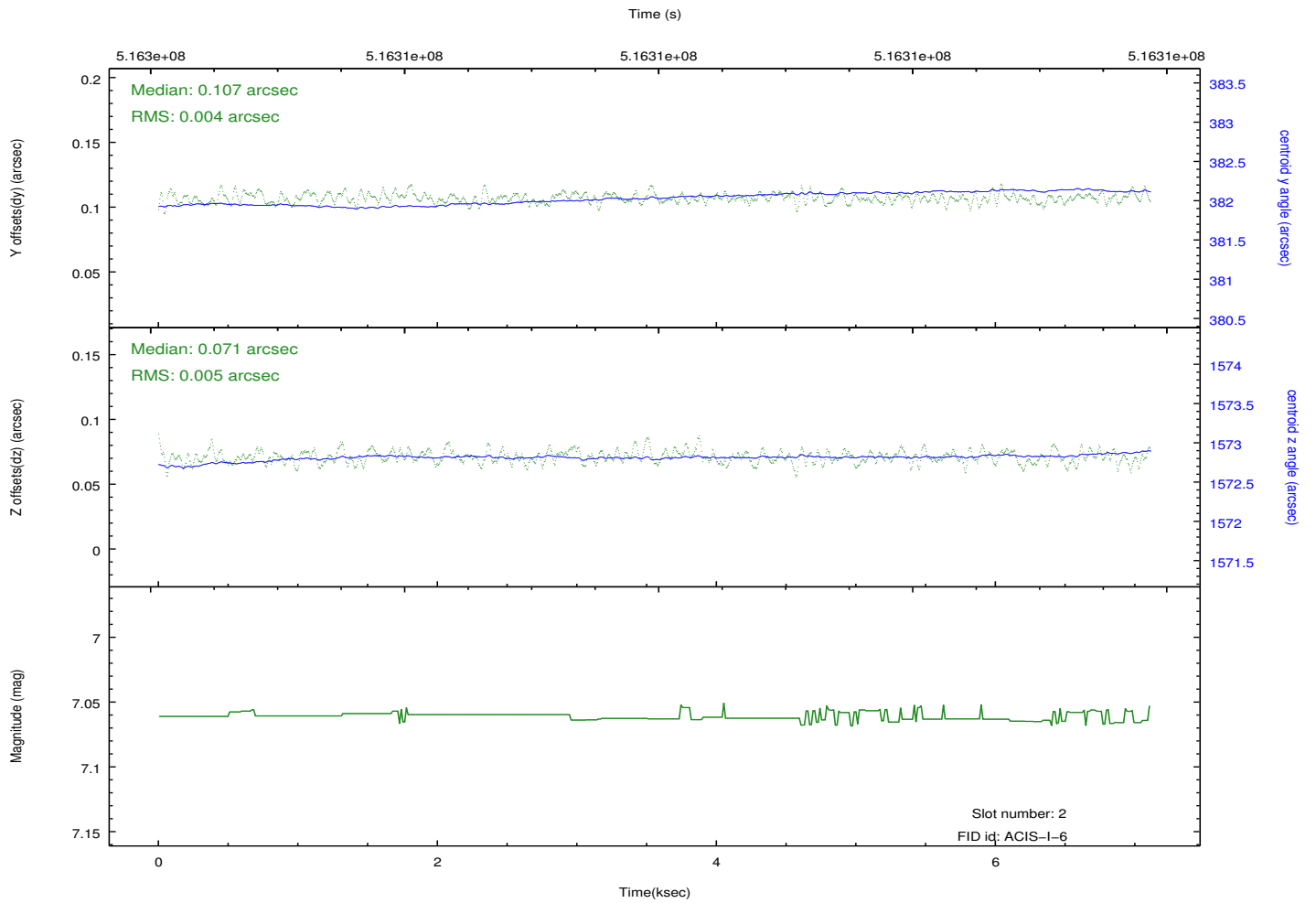
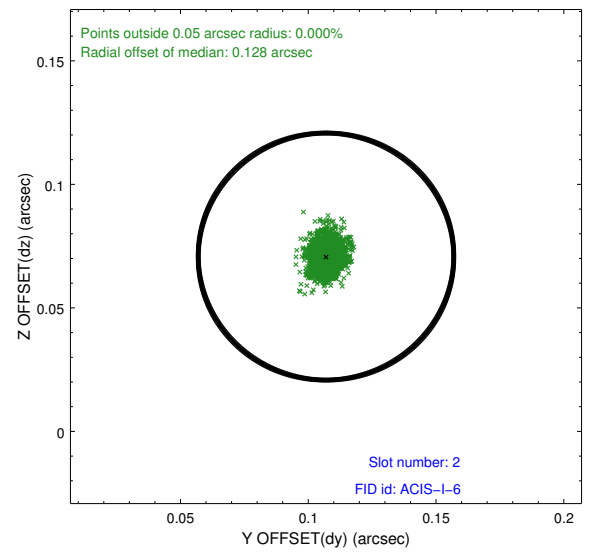
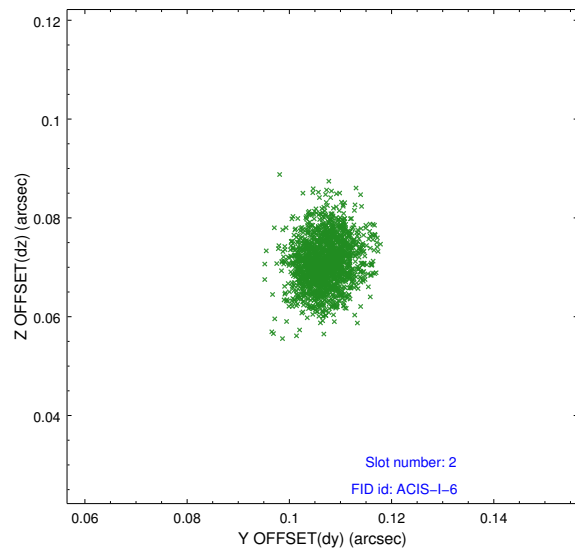
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.0835000544786

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.