

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16279 - L2 Version 3
Chandra X-Ray Center

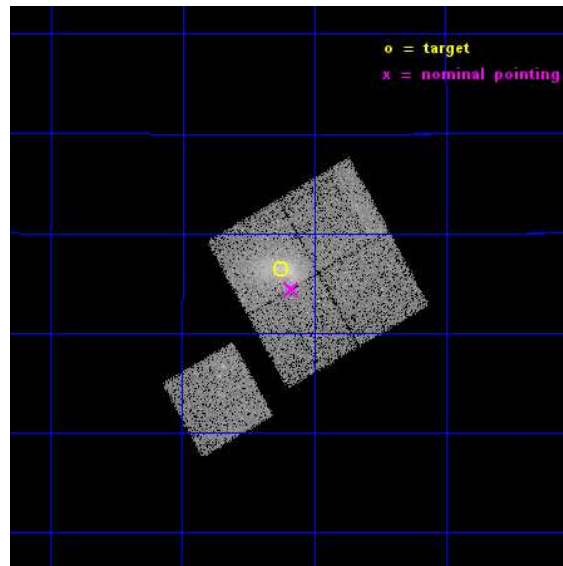
L2 Processing Date : Dec 12 2014

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1 Front

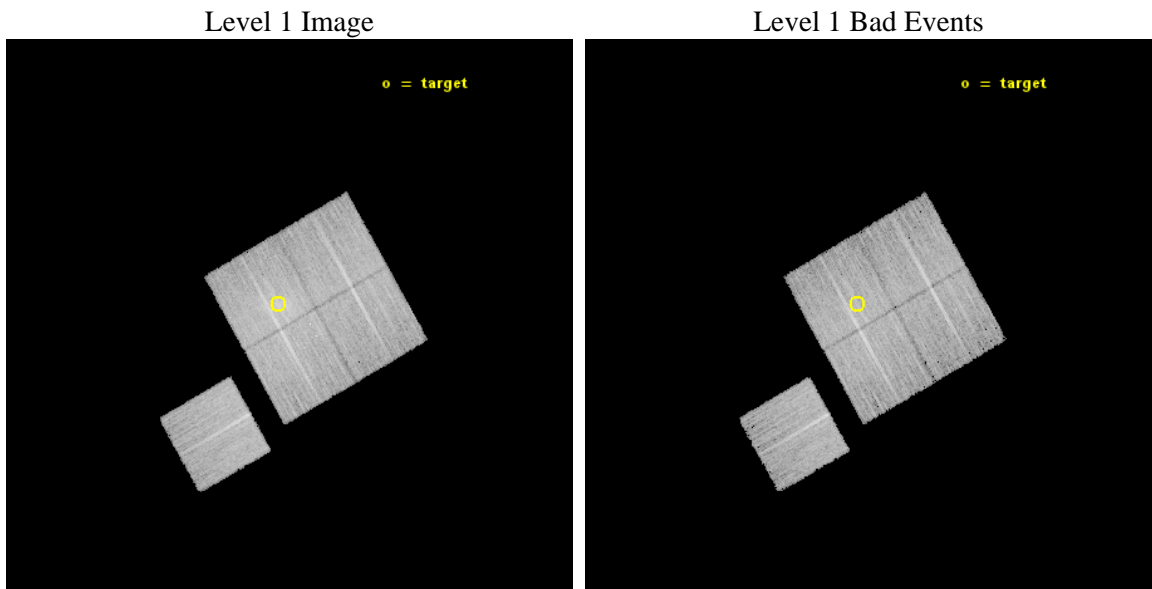
seq_num	801421	Sequence number
obs_id	16279	Observation id
title	Chandra observations of the Planck ESZ Cluster Sample	Proposal tit
observer	Dr. Stephen Murray	Principal investigator
object	G229.64+77.96	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	180.3125	Observer's specified target RA [deg]
dec_targ	23.106611	Observer's specified target Dec [deg]
ra_nom	180.29321970109	Nominal RA [deg]
dec_nom	23.073309480914	Nominal Dec [deg]
roll_nom	240.41626580526	Nominal Roll [deg]
revision	3	Processing version of data
ontime	19083.559186399	Sum of GTIs [s]
livetime	18834.218436517	Livetime [s]
ontime0	19086.675887883	Sum of GTIs [s]
ontime1	19086.700146794	Sum of GTIs [s]
ontime2	19086.700146794	Sum of GTIs [s]
ontime3	19083.559186399	Sum of GTIs [s]
ontime6	19086.634847879	Sum of GTIs [s]
l2events	55146	Number of level 2 events



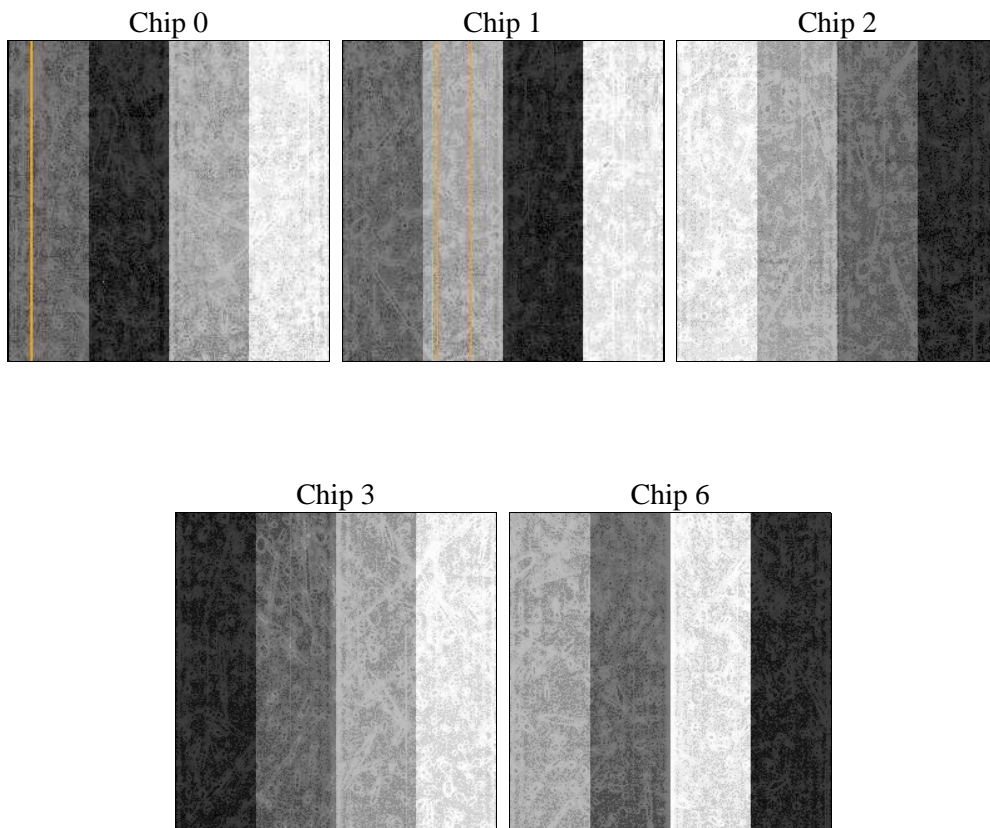
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	19083.559186399	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	19086.675887883	Sum of GTIs [s]
date	2014-12-12T13:11:02	Date and time of file creation	ontime1	19086.700146794	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	19086.700146794	Sum of GTIs [s]
			ontime3	19083.559186399	Sum of GTIs [s]
			ontime6	19086.634847879	Sum of GTIs [s]
			l1events	435462	Number of level 1 events

2.1.4 Events

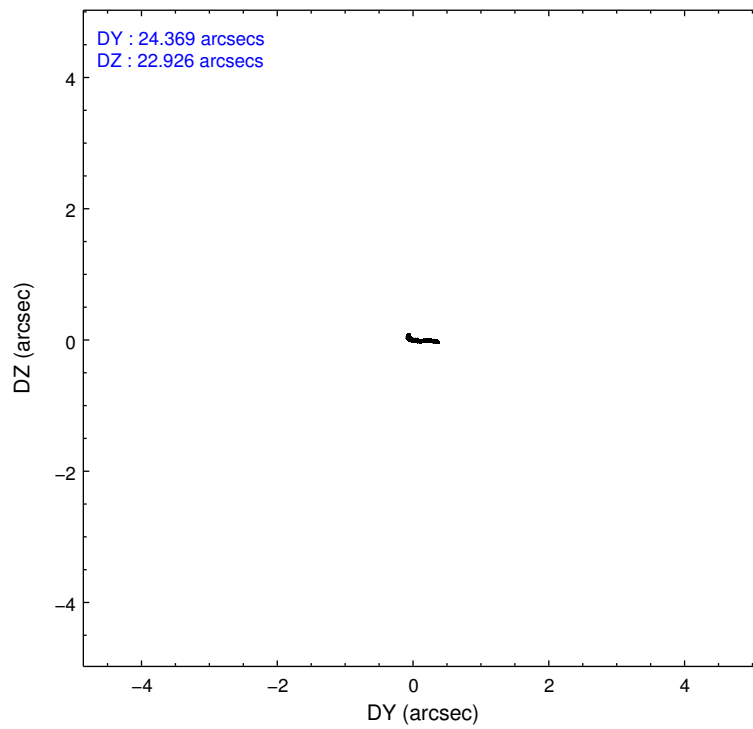
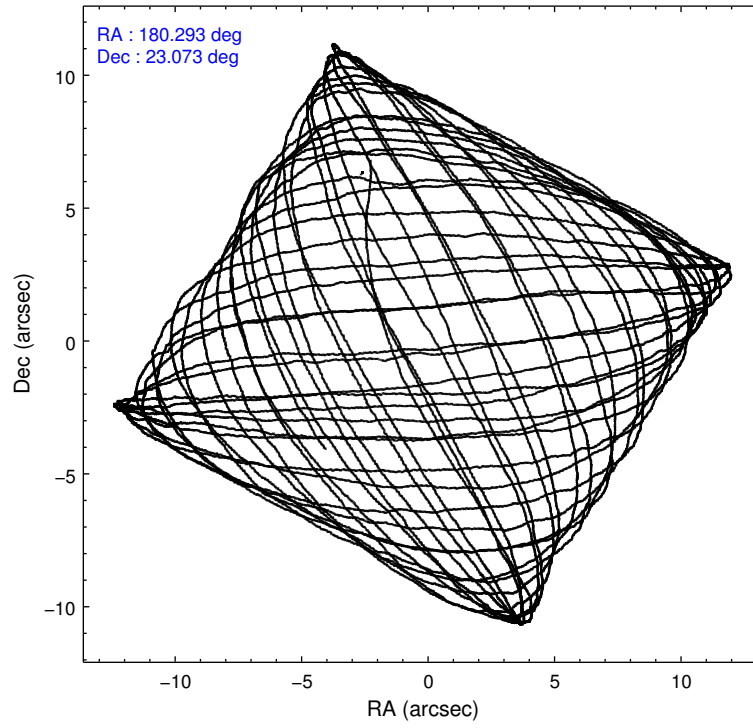
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	79599	82039	89878	97073	86873
rejected events	68941	70036	78434	77841	76113
rejected %	86%	85%	87%	80%	87%

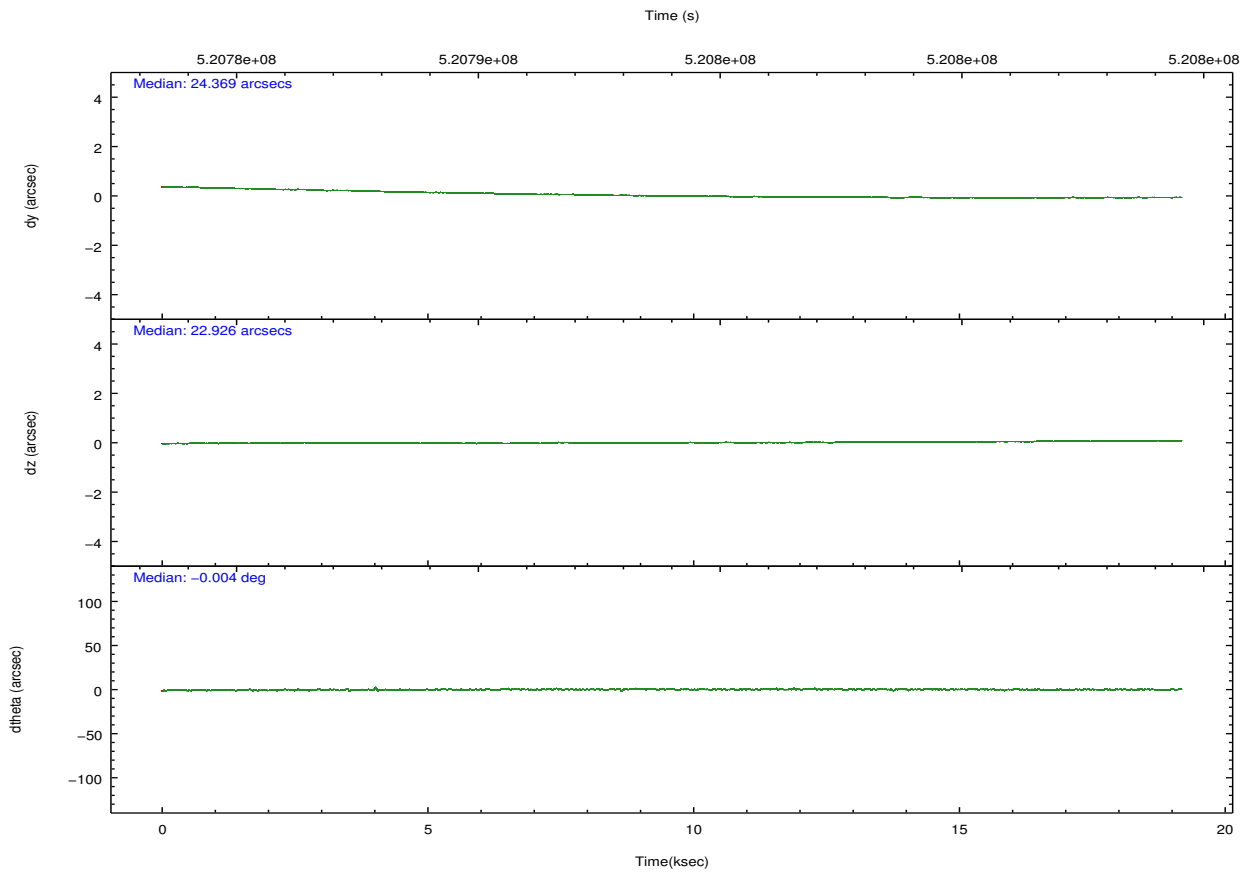
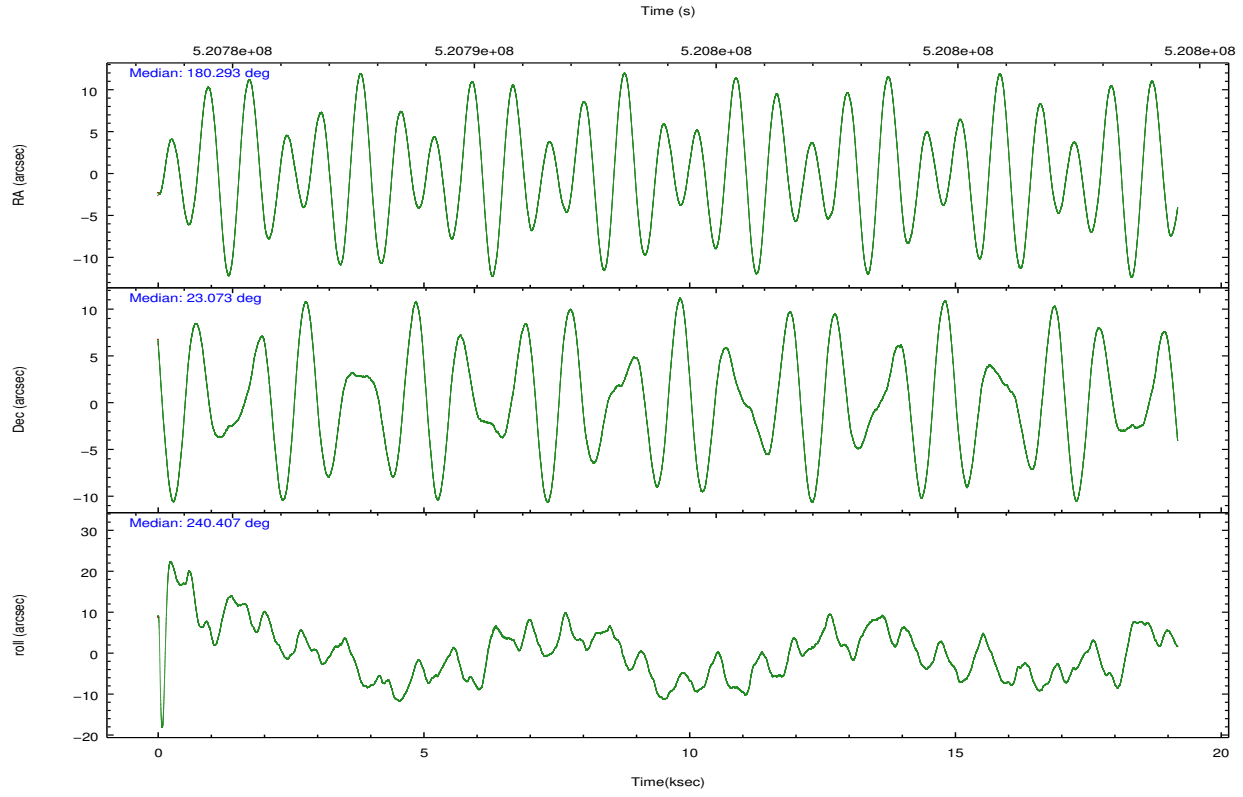
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3613	4281	4427	10860	3721
	4%	5%	4%	11%	4%
grade 1 events	46	67	48	74	33
	0%	0%	0%	0%	0%
grade 2 events	2652	2844	2806	3250	2369
	3%	3%	3%	3%	2%
grade 3 events	1120	1147	1036	1342	1125
	1%	1%	1%	1%	1%
grade 4 events	1022	1170	1108	1323	1021
	1%	1%	1%	1%	1%
grade 5 events	4238	4273	4202	4947	4629
	5%	5%	4%	5%	5%
grade 6 events	2251	2563	2068	2462	2525
	2%	3%	2%	2%	2%
grade 7 events	64657	65694	74183	72815	71450
	81%	80%	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	180.292900	180.2932197010916	CCD I2 on	Y	Y
[deg] Pointing Dec	23.100804	23.07330948091433	CCD I3 on	Y	Y
[deg] Pointing Roll	240.207682	240.4162658052562	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	-226.592463	-226.5875806612856	CCD S3 on	N	N
[mm] SIM translation stage offset	-7	-7.004872341644045	CCD S4 on	N	N
[s] Observation start time (MET)	520784597.184000	520783529.56862	CCD S5 on	N	N
Observation start date	2014-07-03T14:22:10	2014-07-03T14:05:29	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	520803597.184000	520804552.83229	On-chip summing requested	N	N
Observation end date	2014-07-03T19:38:50	2014-07-03T19:55:52	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





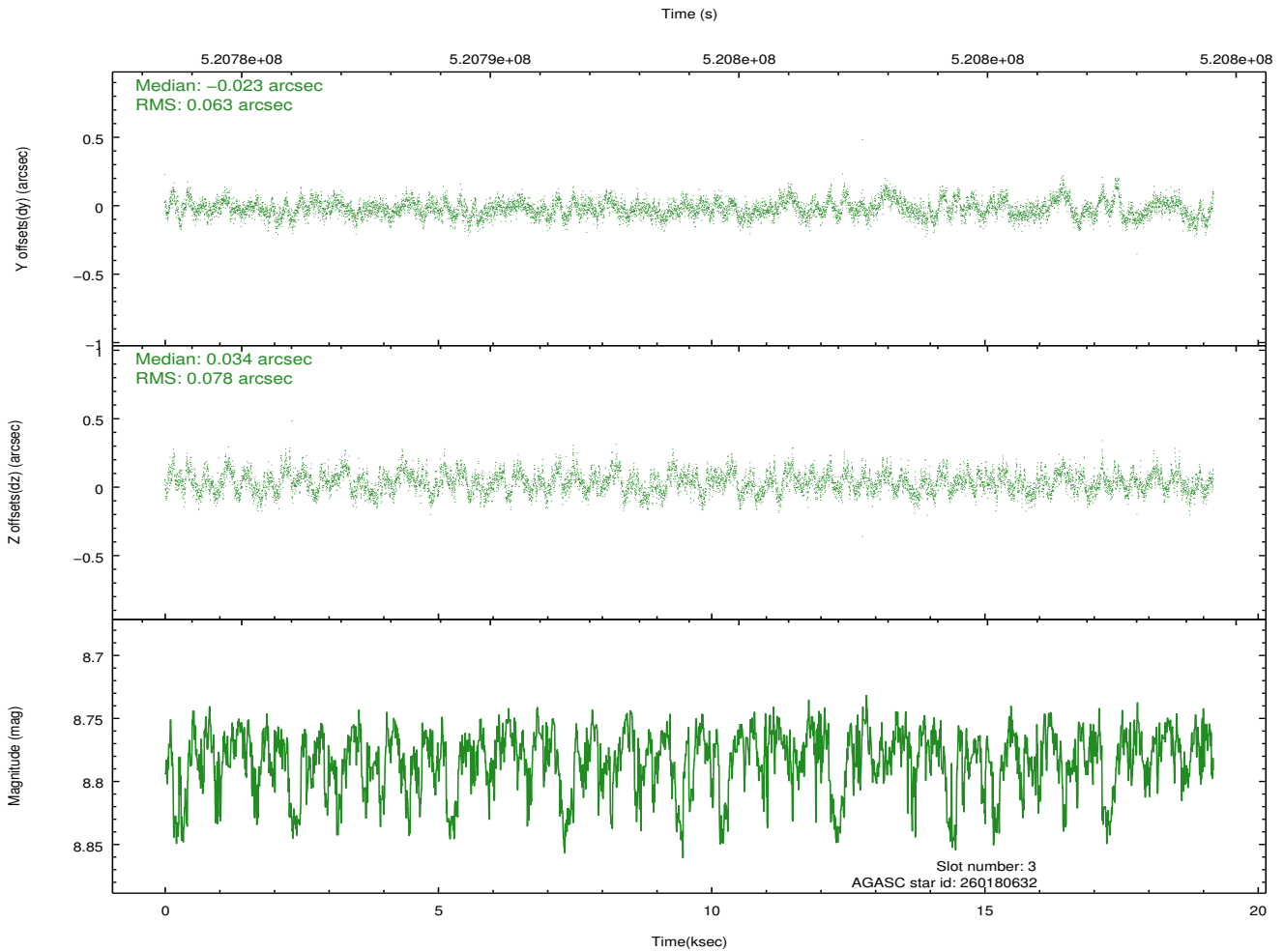
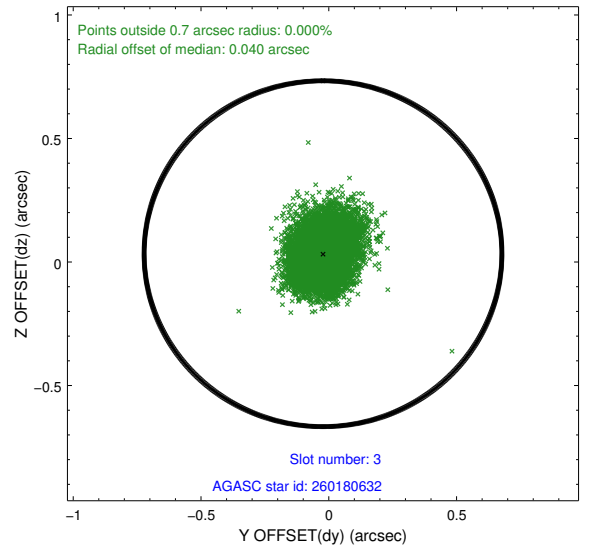
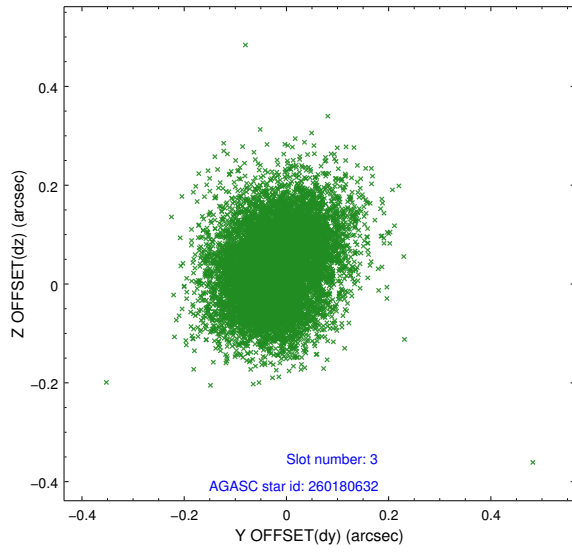
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.04	4680	0.116	-0.040	0.007	0.013	0.000000	0.000000	914.79	-990.54
1	FID		ACIS-I-5	7.02	4680	-0.351	0.084	0.006	0.011	0.000000	0.000000	-1833.74	906.84
2	FID		ACIS-I-6	7.04	4680	0.144	0.026	0.007	0.012	0.000000	0.000000	380.05	1551.60
3	GUIDE	used	260180632	8.78	9356	-0.023	0.034	0.106	0.172	179.568974	23.188670	911.18	-2238.16
4	GUIDE	used	260320616	10.28	9340	0.098	-0.222	0.230	0.361	180.622950	23.624803	-2178.59	6.57
5	GUIDE	used	260184848	9.50	9287	0.053	0.140	0.221	0.344	179.988223	23.944867	-2139.56	-2380.62
6	GUIDE	used	260318760	9.78	9340	-0.142	0.050	0.189	0.298	180.288777	23.834777	-2286.30	-1324.73
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

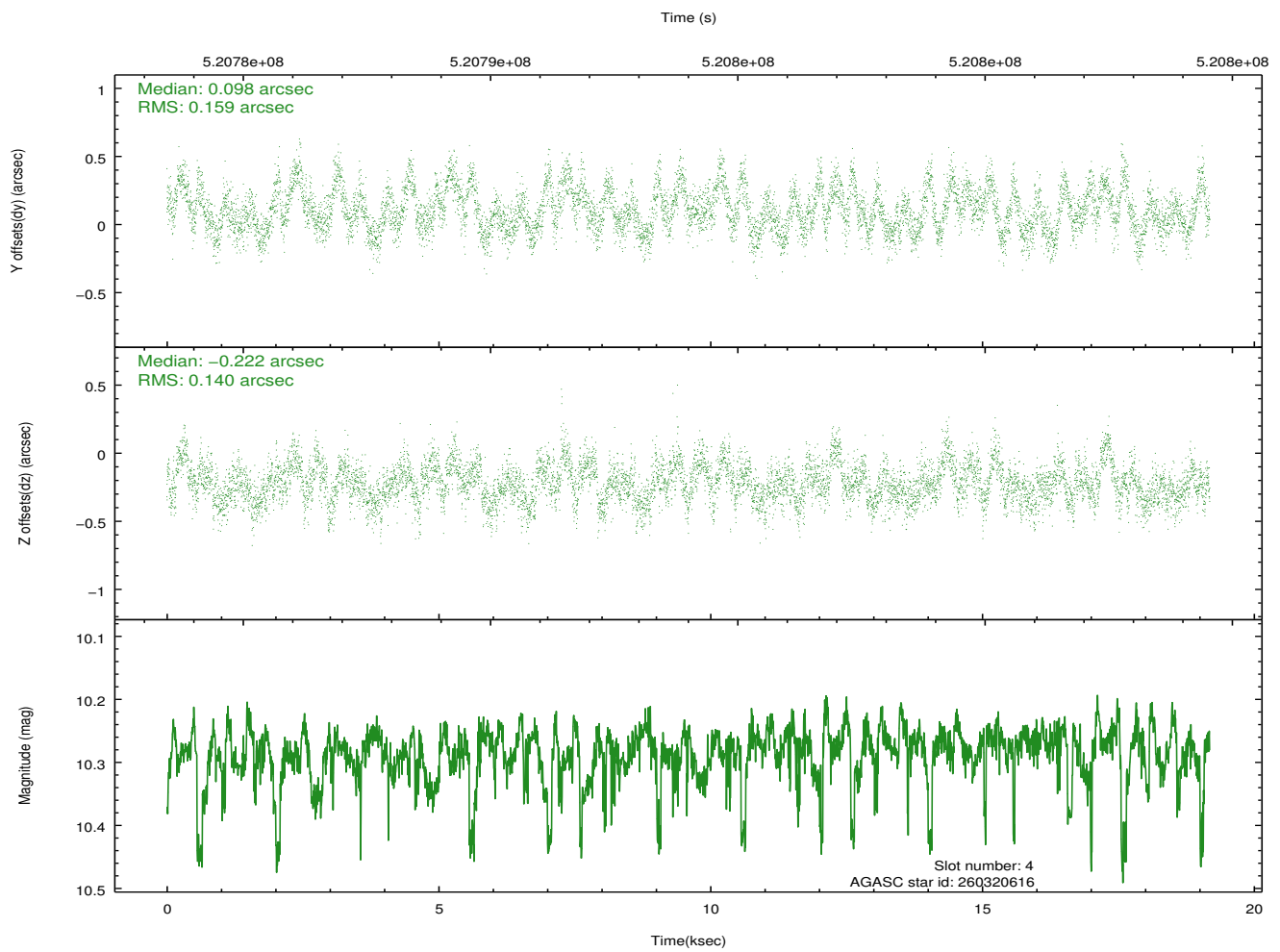
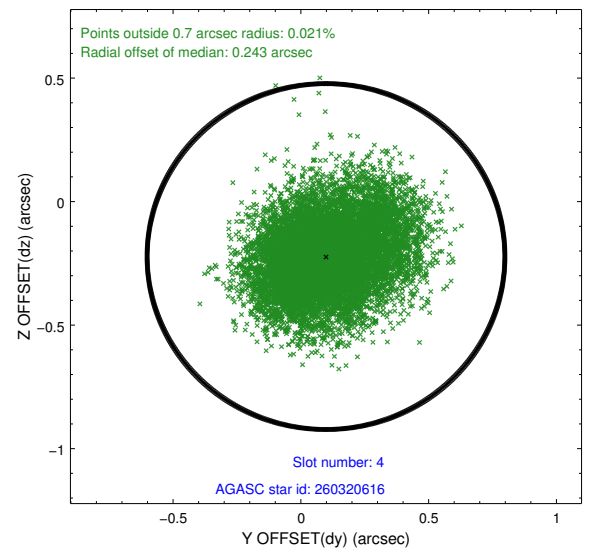
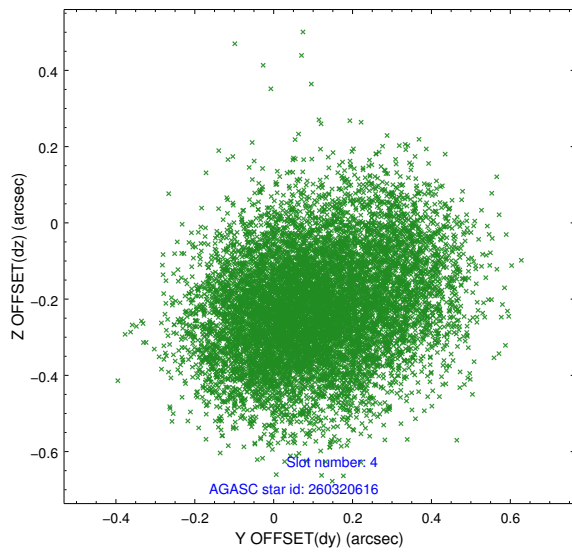
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2.4 Star Slots

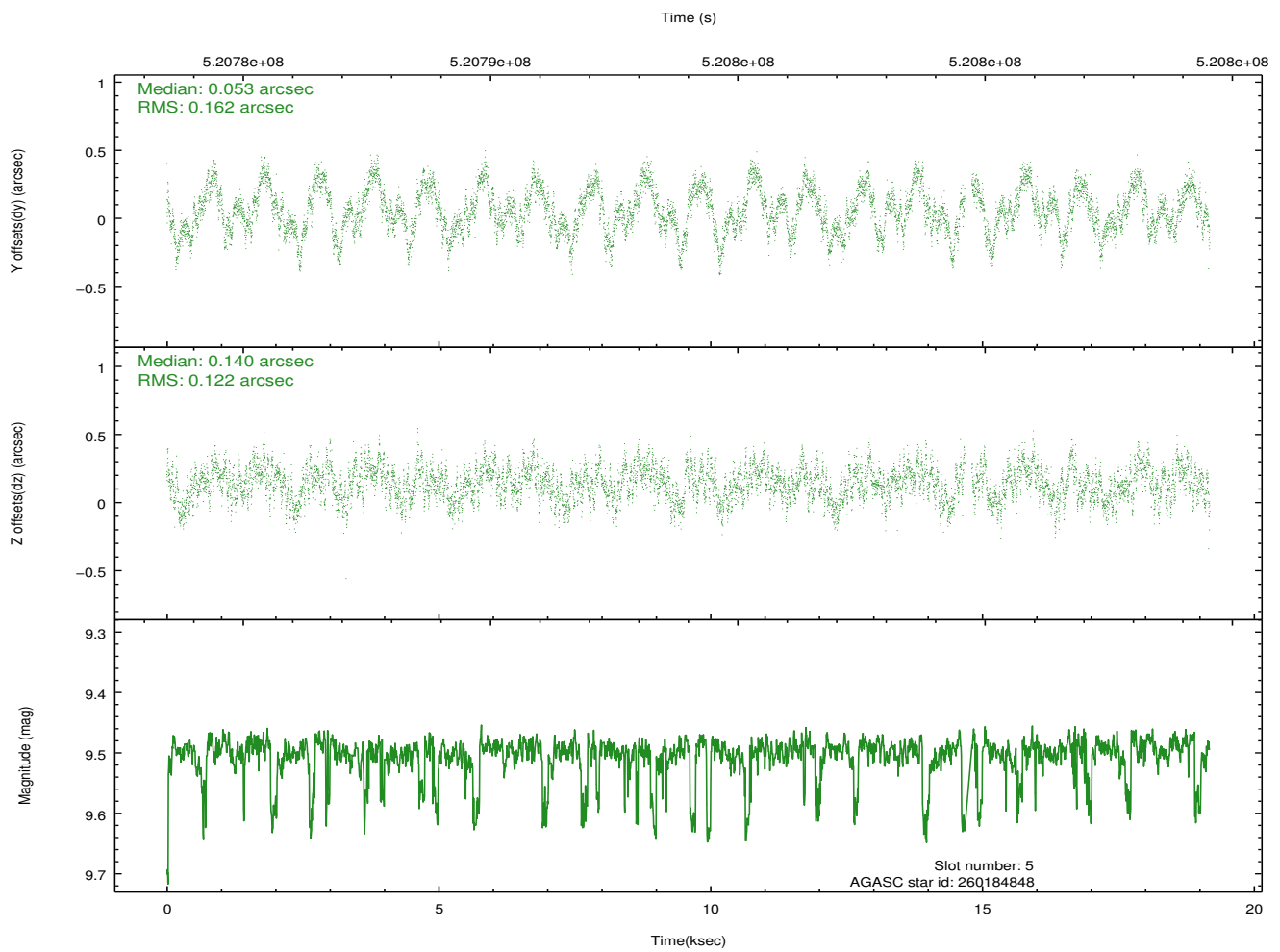
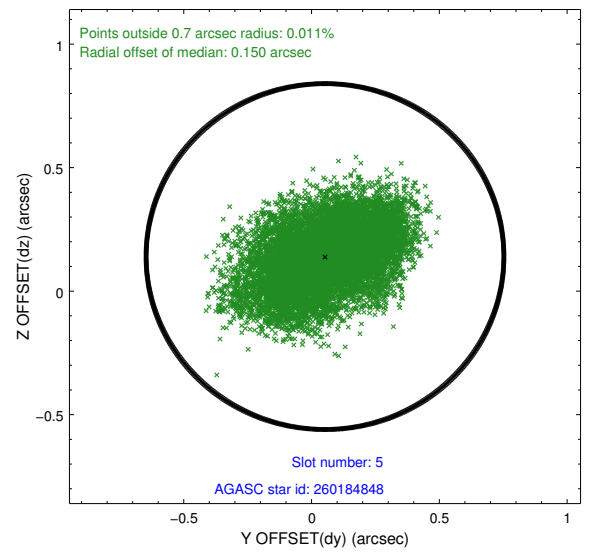
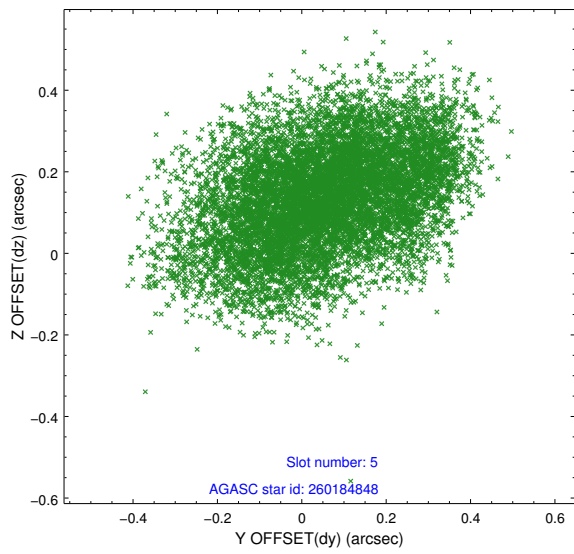
2.4.1 Slot 3



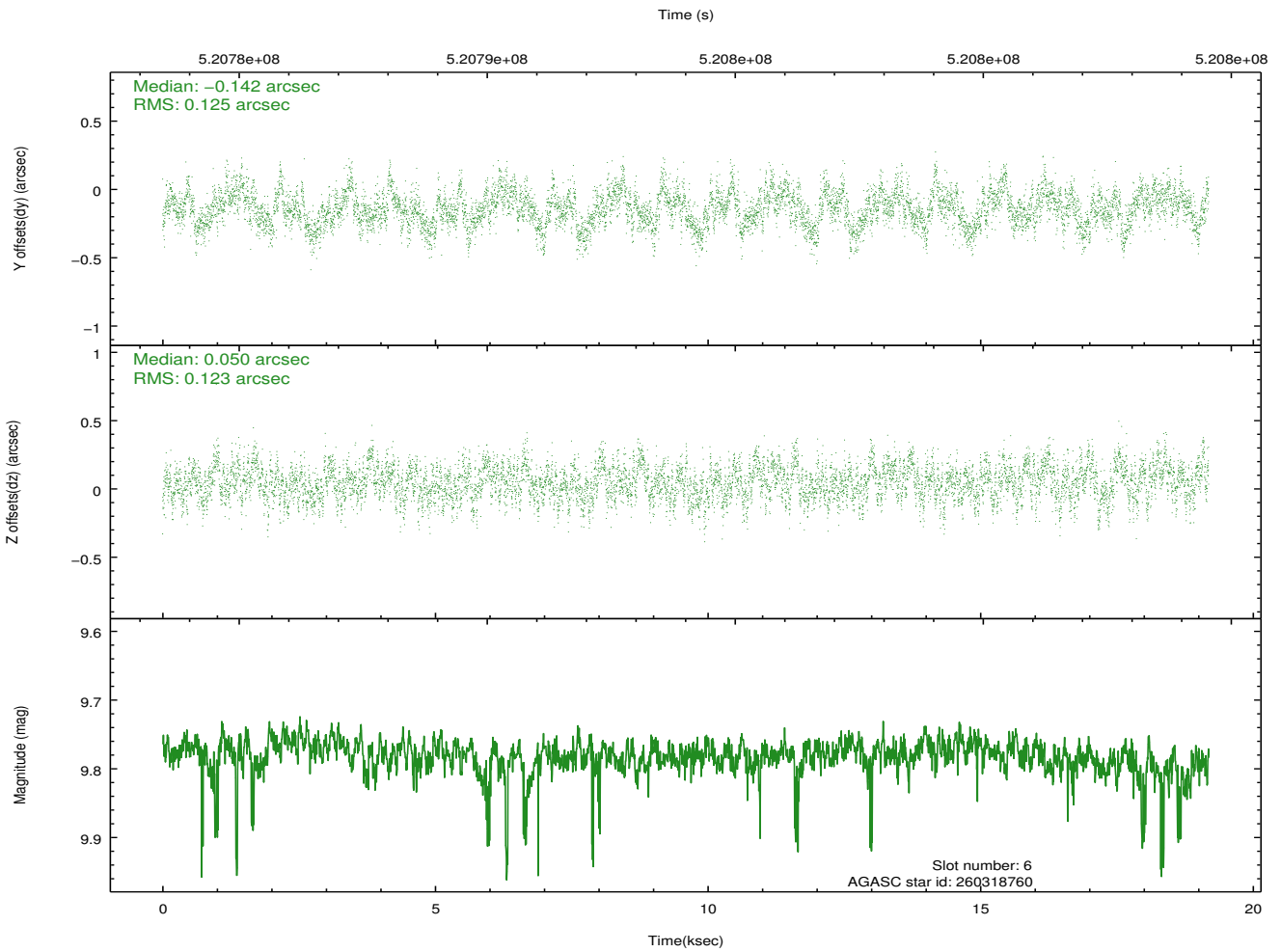
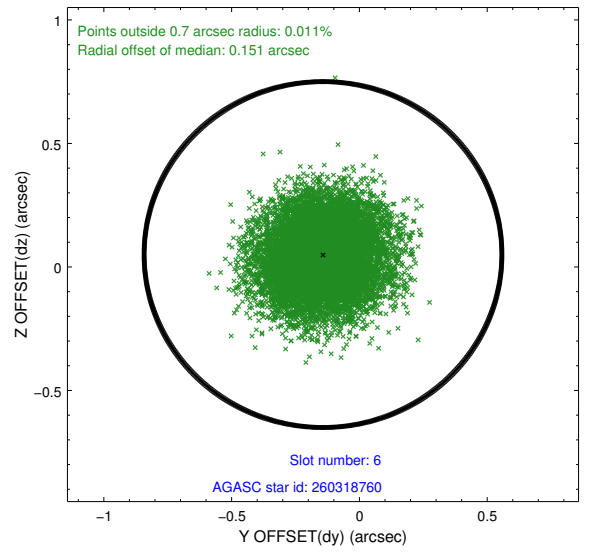
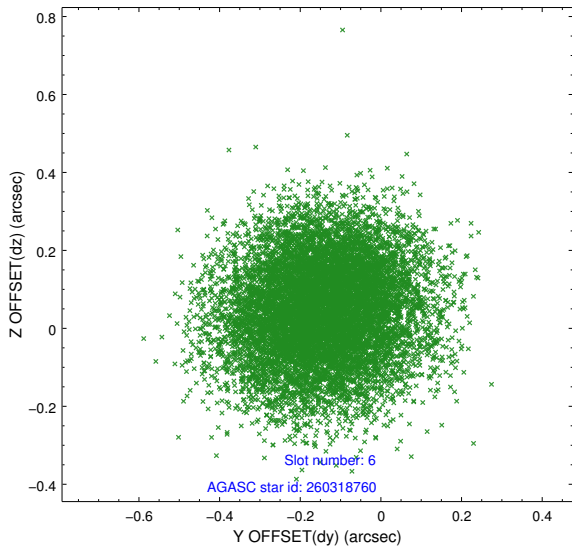
2.4.2 Slot 4



2.4.3 Slot 5

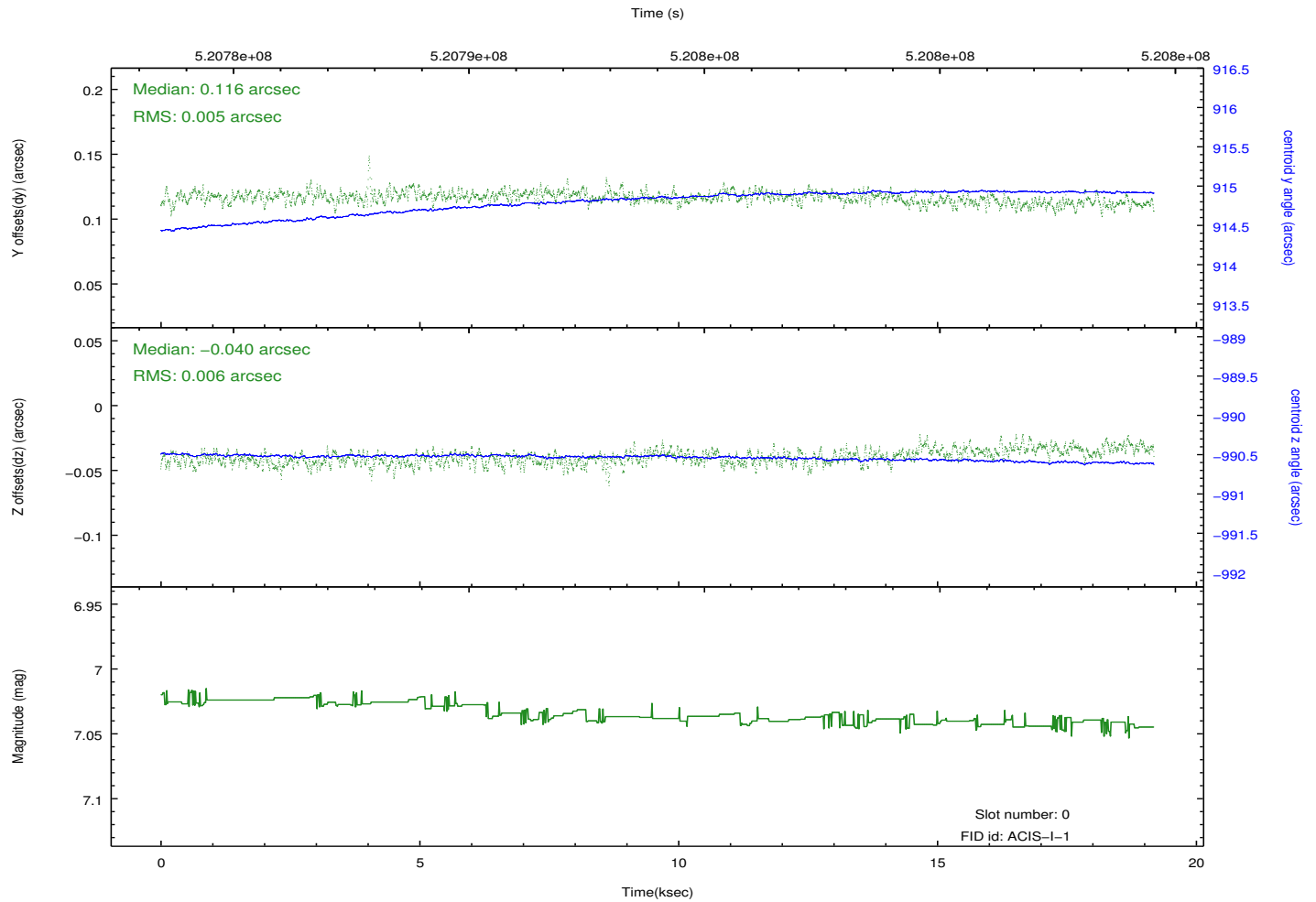
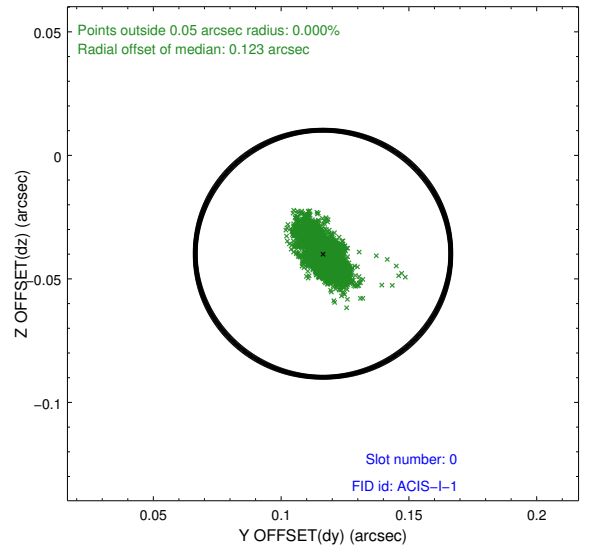
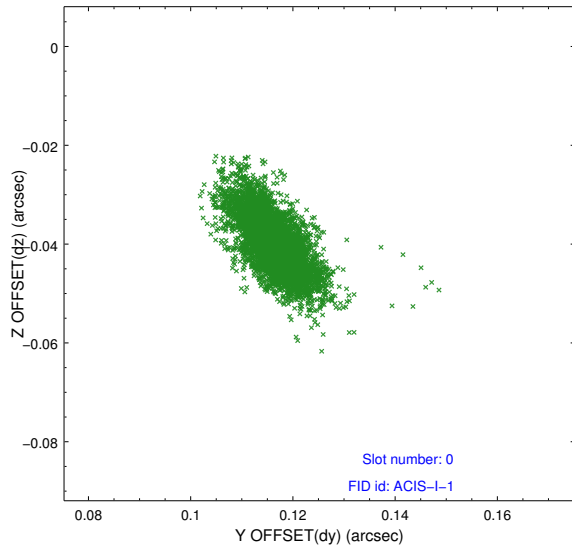


2.4.4 Slot 6

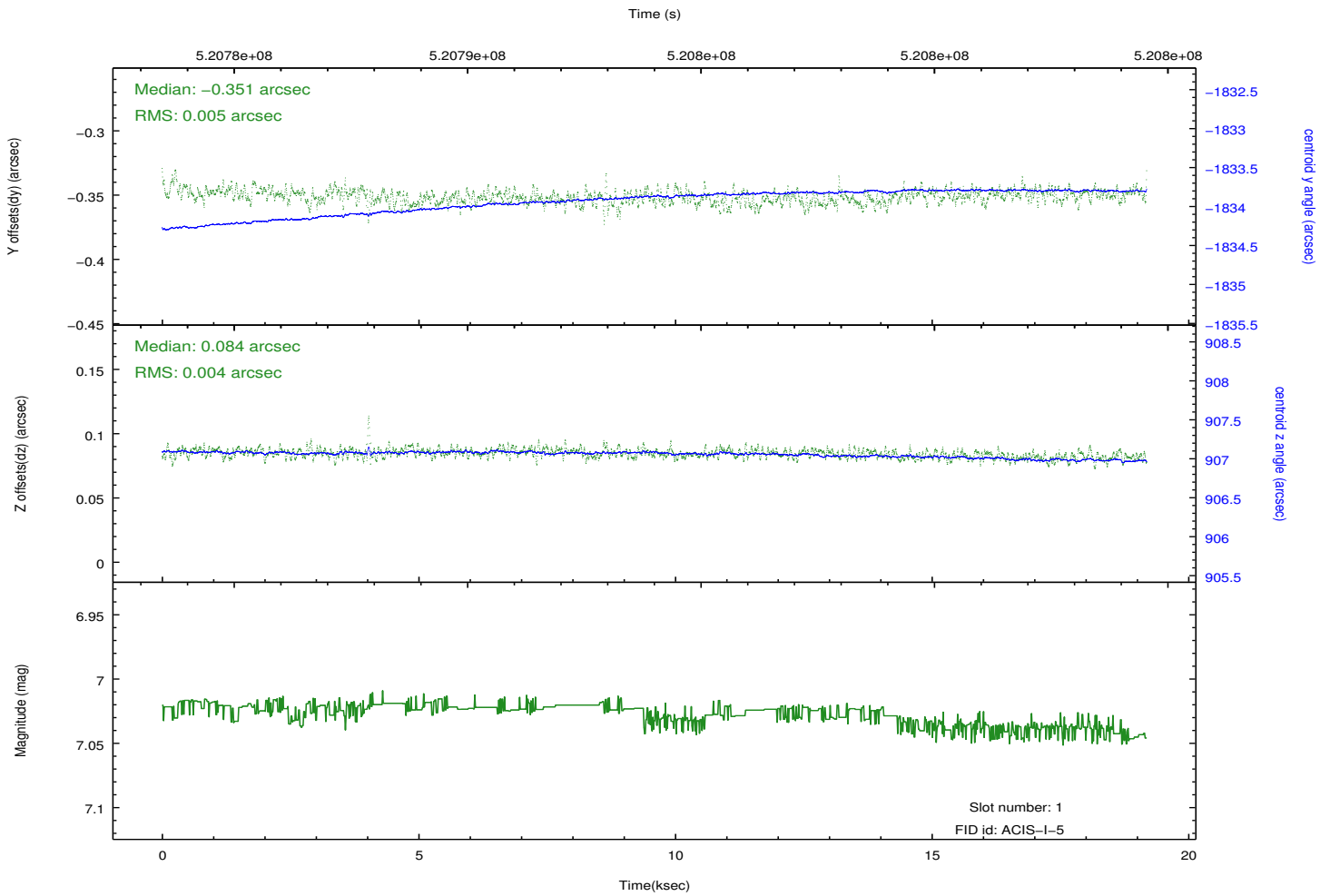
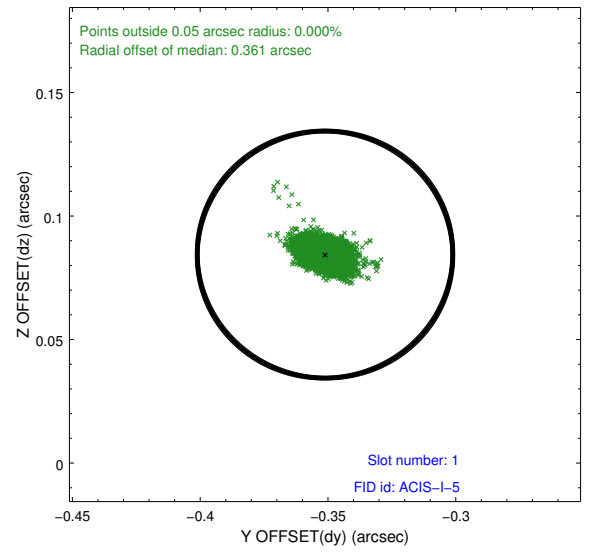
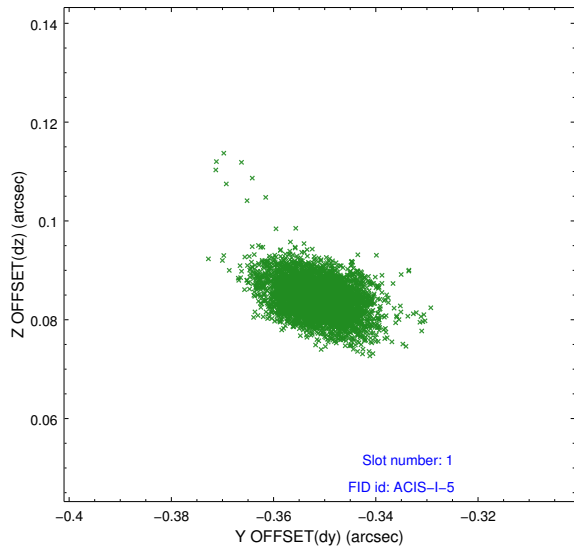


2.5 FID Slots

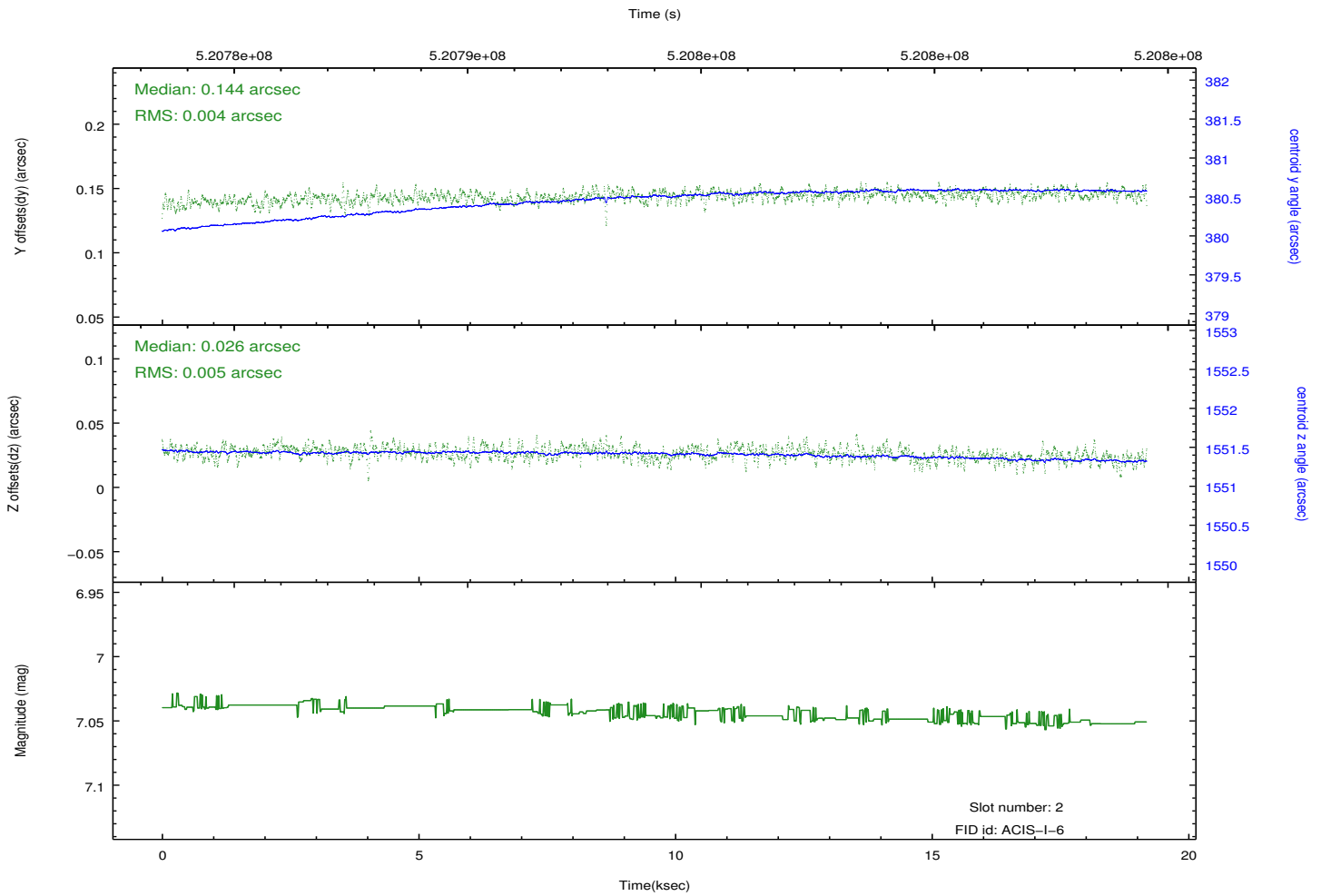
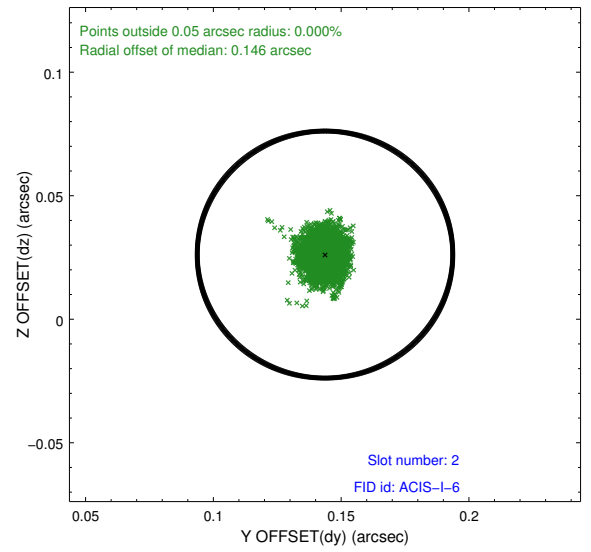
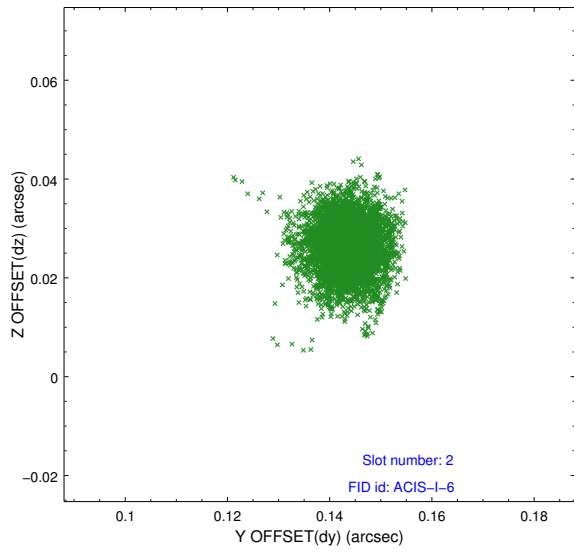
2.5.1 Slot 0



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)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.083559186399

A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.

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.