

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 13468 - L2 Version 2
Chandra X-Ray Center

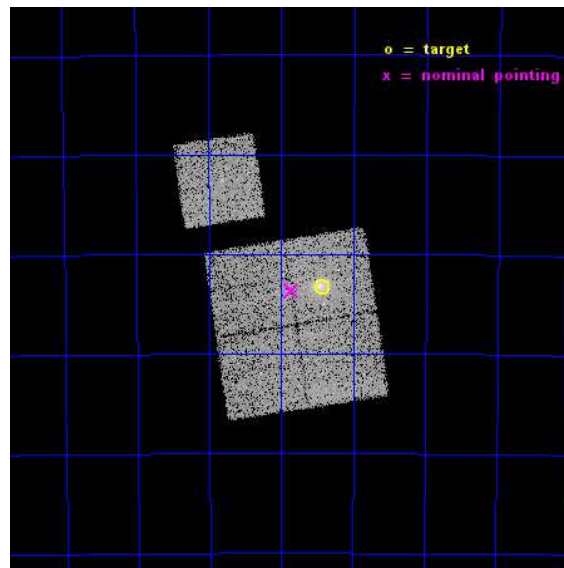
L2 Processing Date : Nov 28 2014

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1 Front

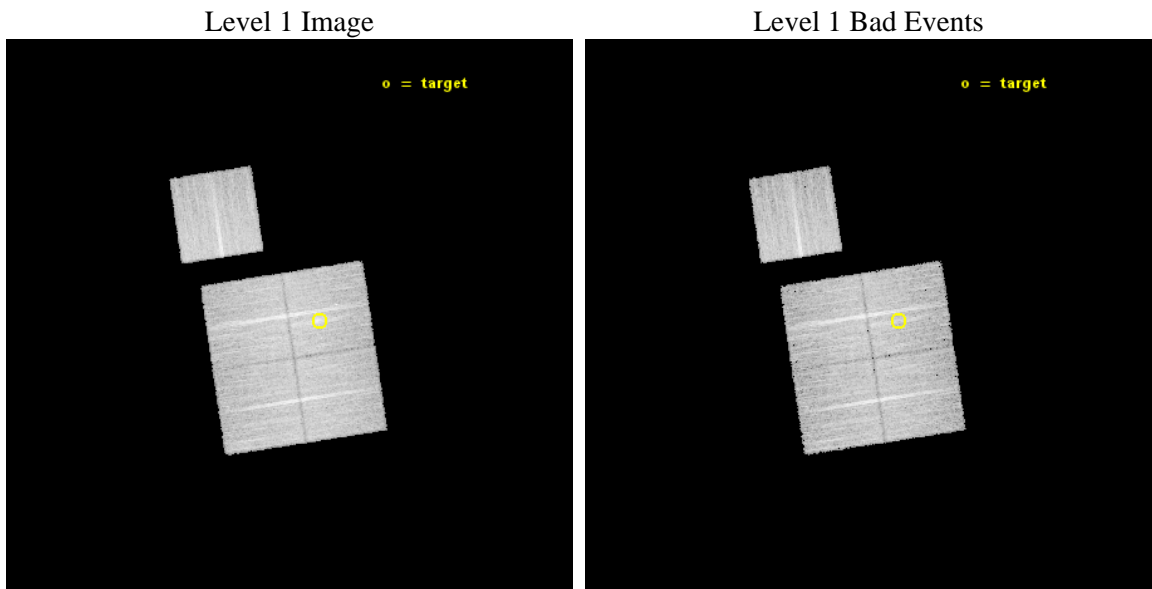
seq_num	801109	Sequence number
obs_id	13468	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg^2 from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ0106-5943	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.6075	Observer's specified target RA [deg]
dec_targ	-59.721389	Observer's specified target Dec [deg]
ra_nom	16.714784729683	Nominal RA [deg]
dec_nom	-59.727398070365	Nominal Dec [deg]
roll_nom	351.33557011623	Nominal Roll [deg]
revision	2	Processing version of data
ontime	17880.759127319	Sum of GTIs [s]
livetime	17647.133845697	Livetime [s]
ontime0	17883.900137544	Sum of GTIs [s]
ontime1	17877.618166804	Sum of GTIs [s]
ontime2	17877.618166804	Sum of GTIs [s]
ontime3	17880.759127319	Sum of GTIs [s]
ontime6	17880.759157181	Sum of GTIs [s]
l2events	48045	Number of level 2 events



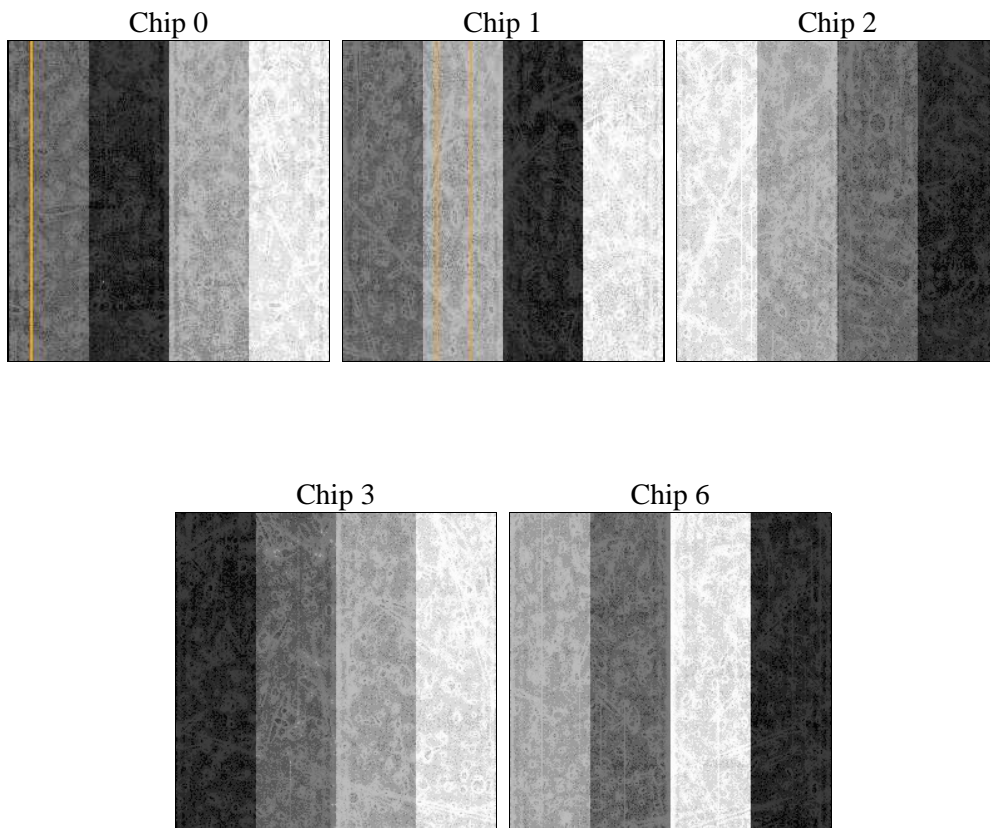
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	17800.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	17880.759127319	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	17883.900137544	Sum of GTIs [s]
date	2014-11-28T18:55:11	Date and time of file creation	ontime1	17877.618166804	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	17877.618166804	Sum of GTIs [s]
			ontime3	17880.759127319	Sum of GTIs [s]
			ontime6	17880.759157181	Sum of GTIs [s]
			l1events	440057	Number of level 1 events

2.1.4 Events

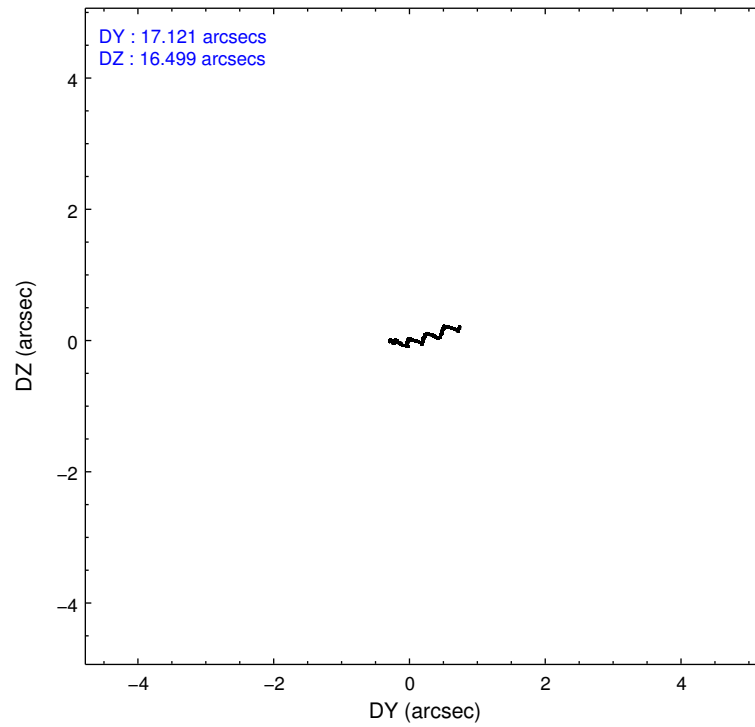
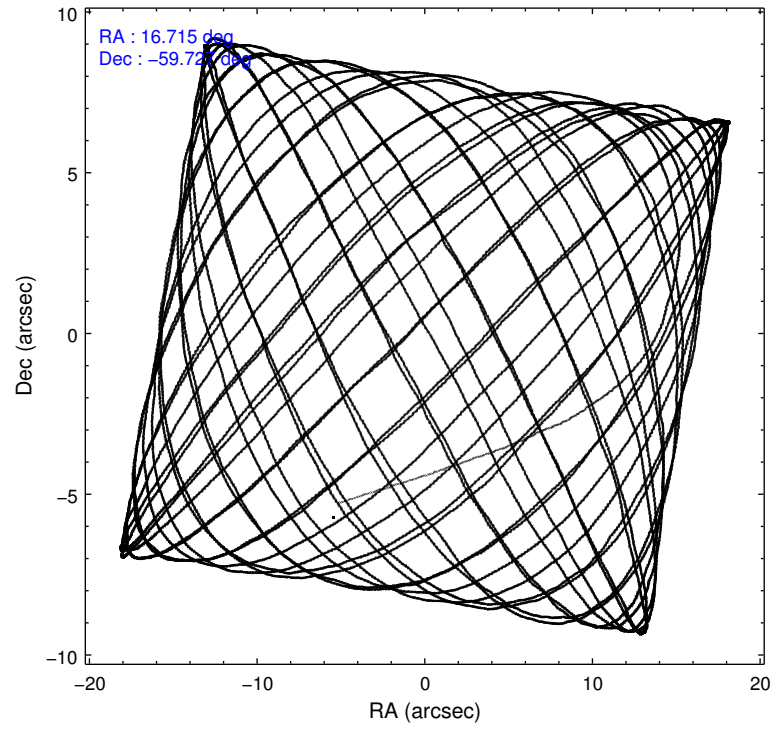
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	85796	86363	88269	88828	90801
rejected events	75066	74472	78012	76070	79885
rejected %	87%	86%	88%	85%	87%

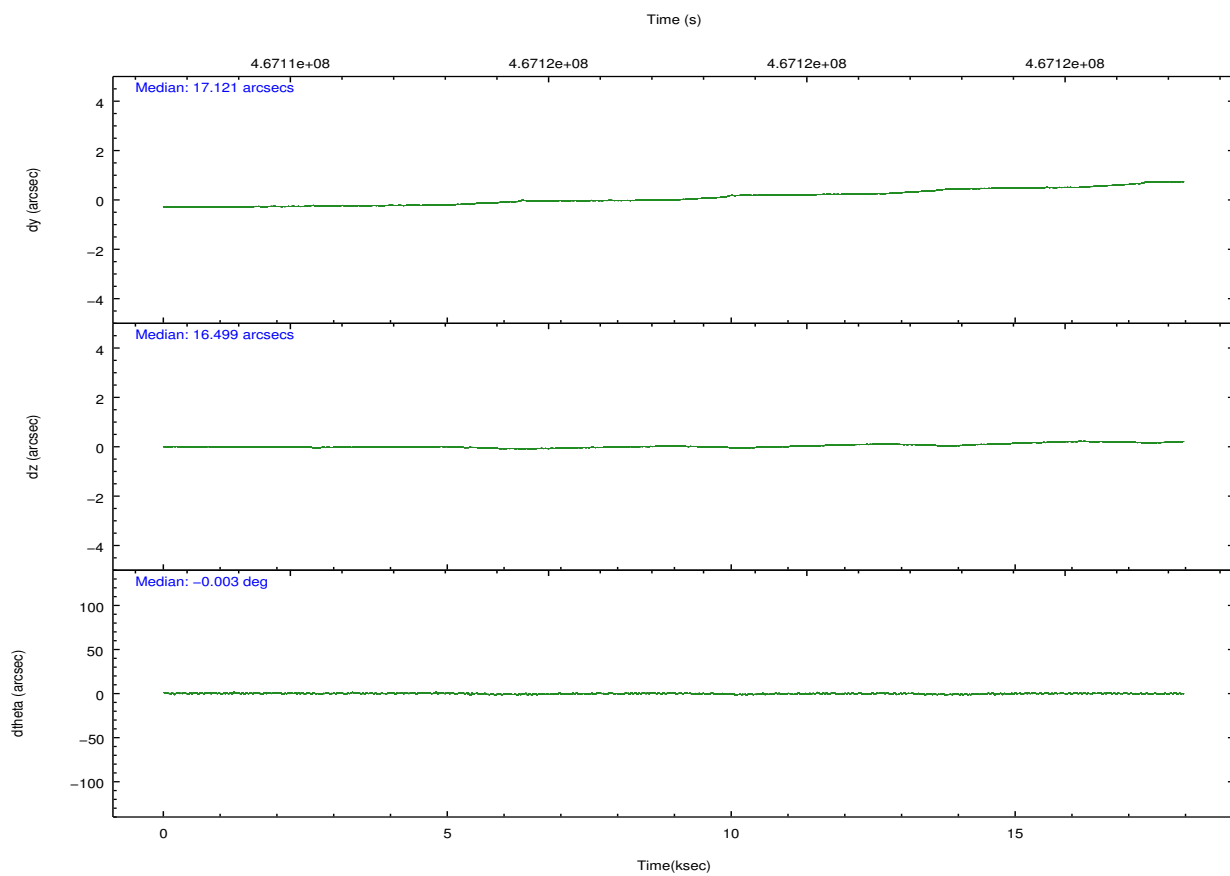
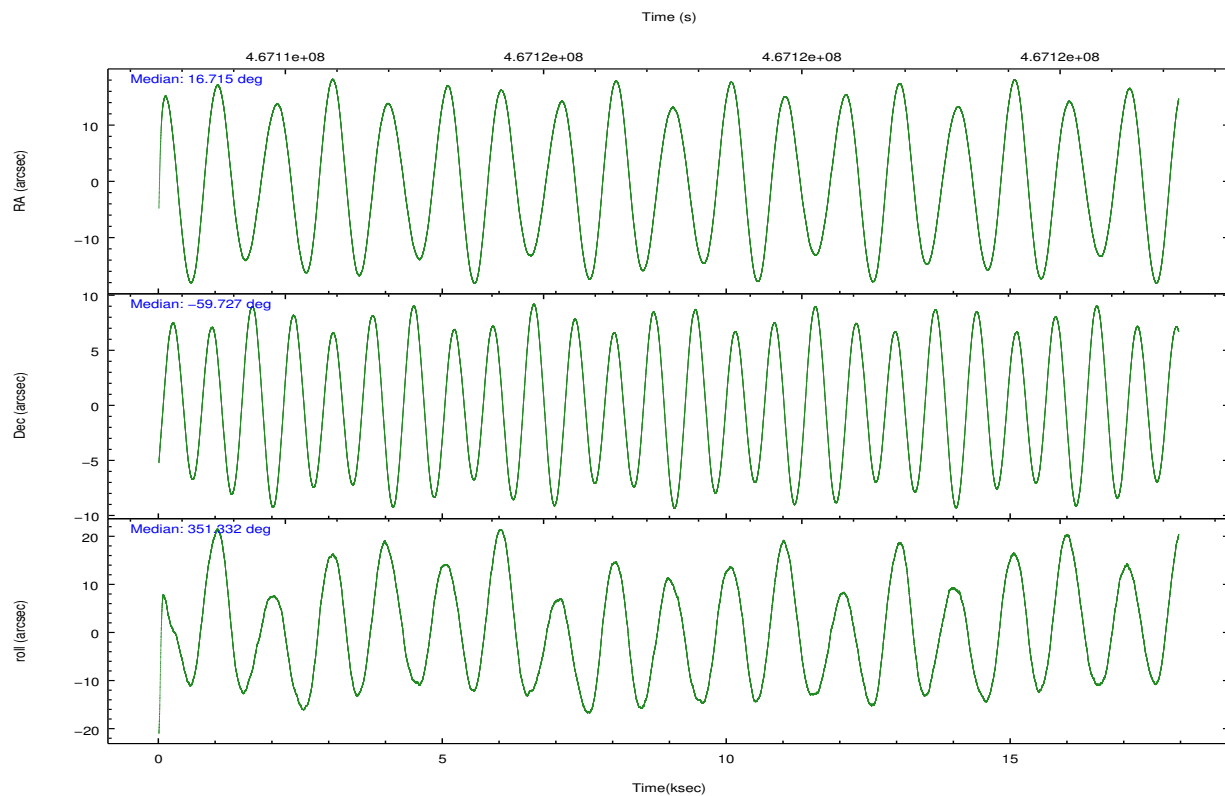
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3464	4085	3663	5659	3718
	4%	4%	4%	6%	4%
grade 1 events	53	40	47	55	58
	0%	0%	0%	0%	0%
grade 2 events	2745	2884	2451	2503	2545
	3%	3%	2%	2%	2%
grade 3 events	1192	1197	1074	1194	1058
	1%	1%	1%	1%	1%
grade 4 events	1078	1170	1049	1159	1127
	1%	1%	1%	1%	1%
grade 5 events	4203	4461	3997	4731	4488
	4%	5%	4%	5%	4%
grade 6 events	2252	2556	2021	2245	2471
	2%	2%	2%	2%	2%
grade 7 events	70809	69970	73967	71282	75336
	82%	81%	83%	80%	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	16.664056	16.71478472968261	CCD I2 on	Y	Y
[deg] Pointing Dec	-59.737513	-59.72739807036504	CCD I3 on	Y	Y
[deg] Pointing Roll	351.083090	351.3355701162256	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	-225.842463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	467108615.184000	467107412.1161	CCD S5 on	N	N
Observation start date	2012-10-20T08:22:28	2012-10-20T08:03:32	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	467126415.184000	467127308.39217	On-chip summing requested	N	N
Observation end date	2012-10-20T13:19:08	2012-10-20T13:35:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



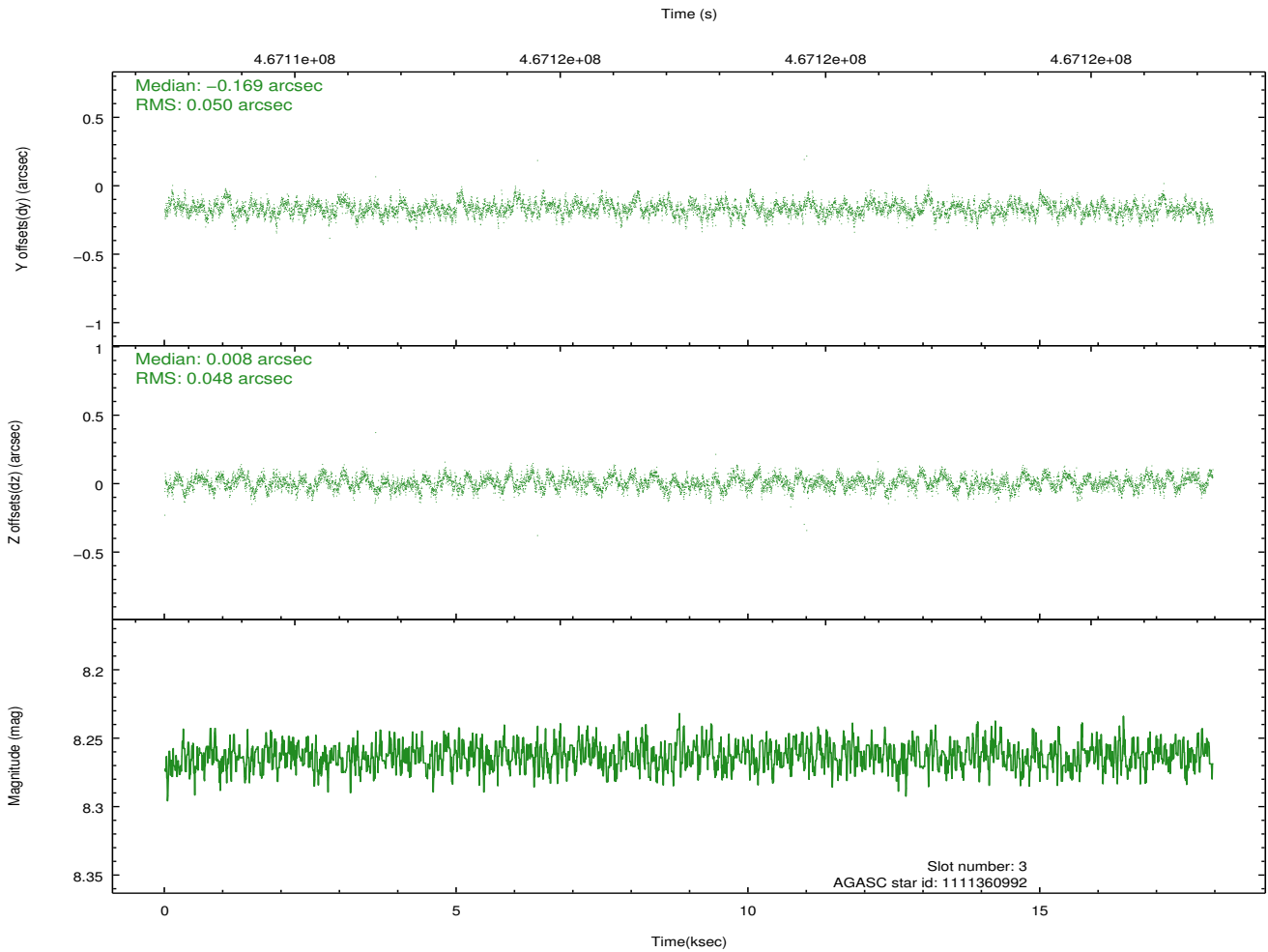
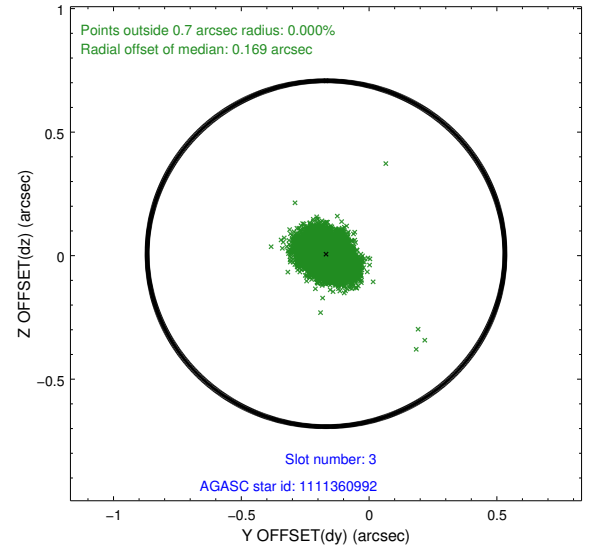
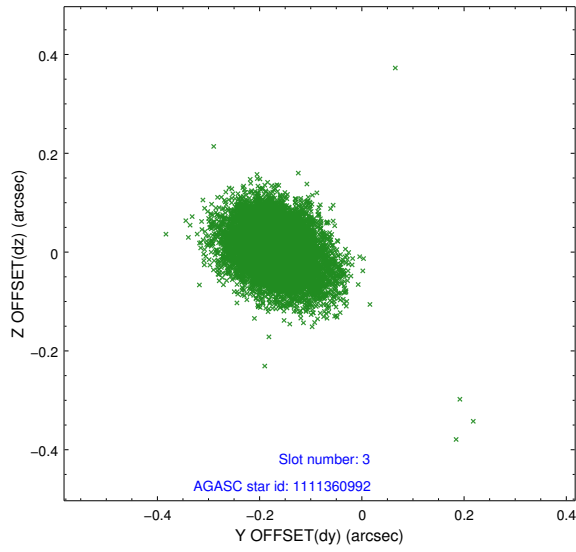


Slot Statistics

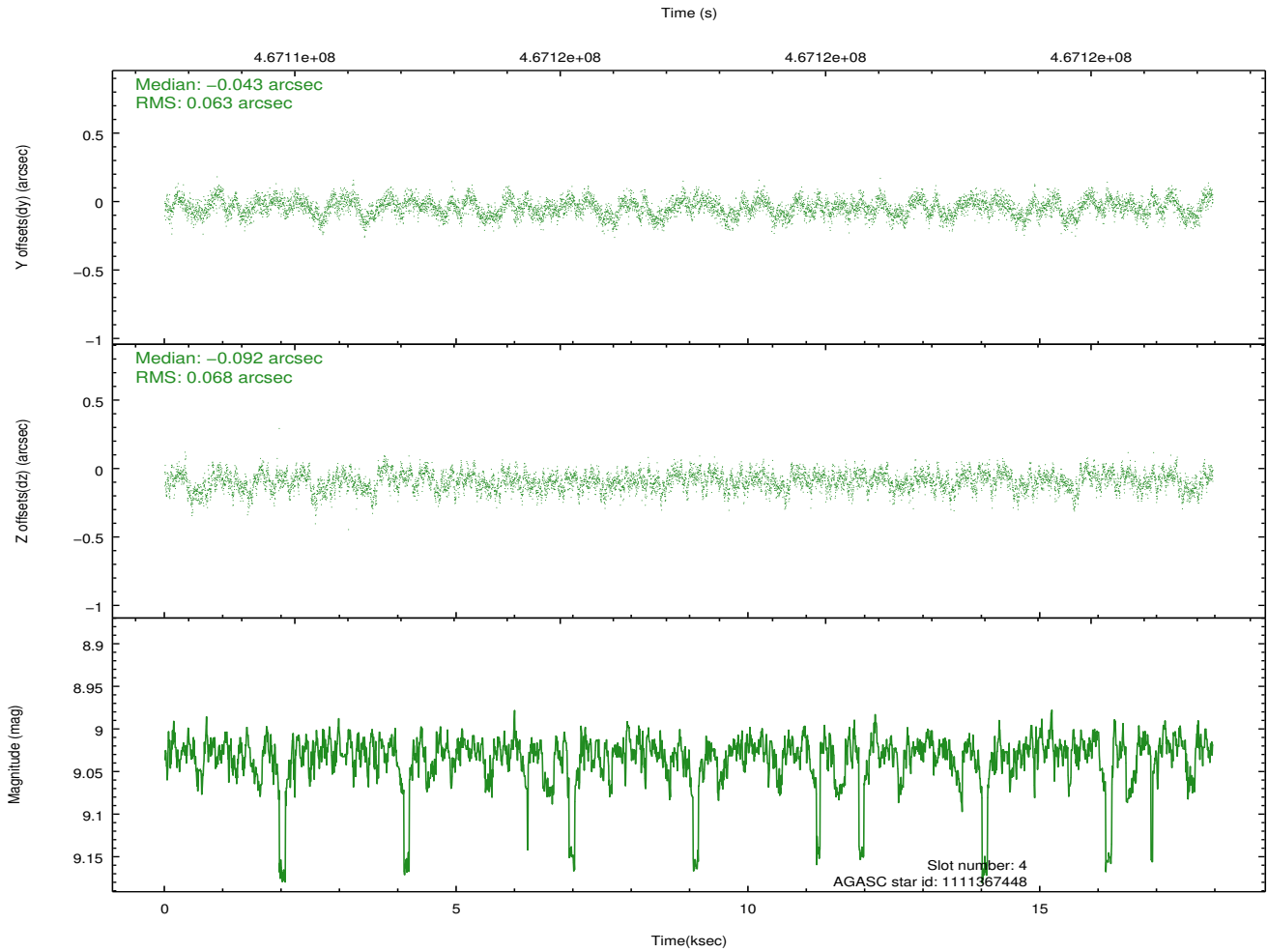
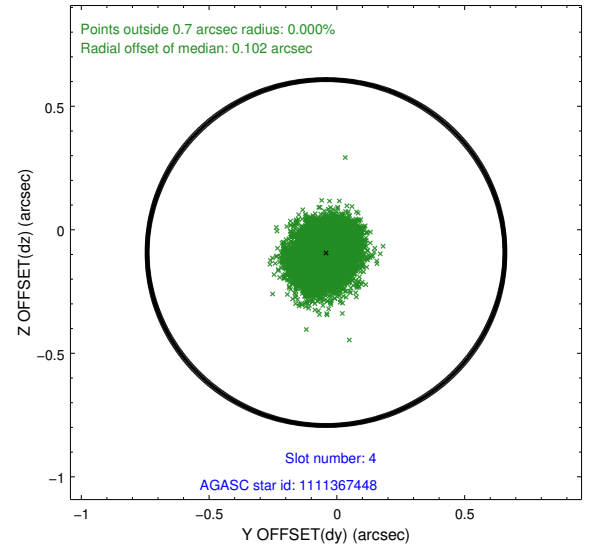
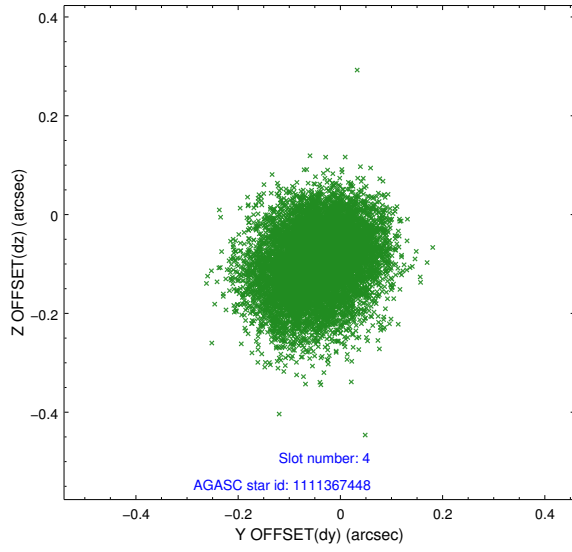
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	4380	0.170	-0.135	0.010	0.016	0.000000	0.000000	922.22	-999.37
1	FID		ACIS-I-5	7.08	4380	-0.308	0.135	0.012	0.022	0.000000	0.000000	-1826.27	898.19
2	FID		ACIS-I-6	7.08	4380	0.047	0.070	0.009	0.016	0.000000	0.000000	387.35	1542.93
3	GUIDE	used	1111360992	8.26	8760	-0.169	0.008	0.073	0.118	15.662305	-59.192743	-2126.21	1637.37
4	GUIDE	used	1111367448	9.03	8712	-0.043	-0.092	0.101	0.157	17.348946	-59.517426	1114.00	970.71
5	GUIDE	used	1111369144	8.75	8753	-0.042	-0.054	0.089	0.141	15.586675	-59.212308	-2251.78	1544.27
6	GUIDE	used	1158939152	9.70	8750	0.132	0.266	0.178	0.273	15.392780	-60.259901	-1948.02	-2230.92
7	GUIDE	used	1111366600	9.58	8749	0.111	-0.127	0.177	0.265	17.282664	-59.641922	1060.46	508.21

2.4 Star Slots

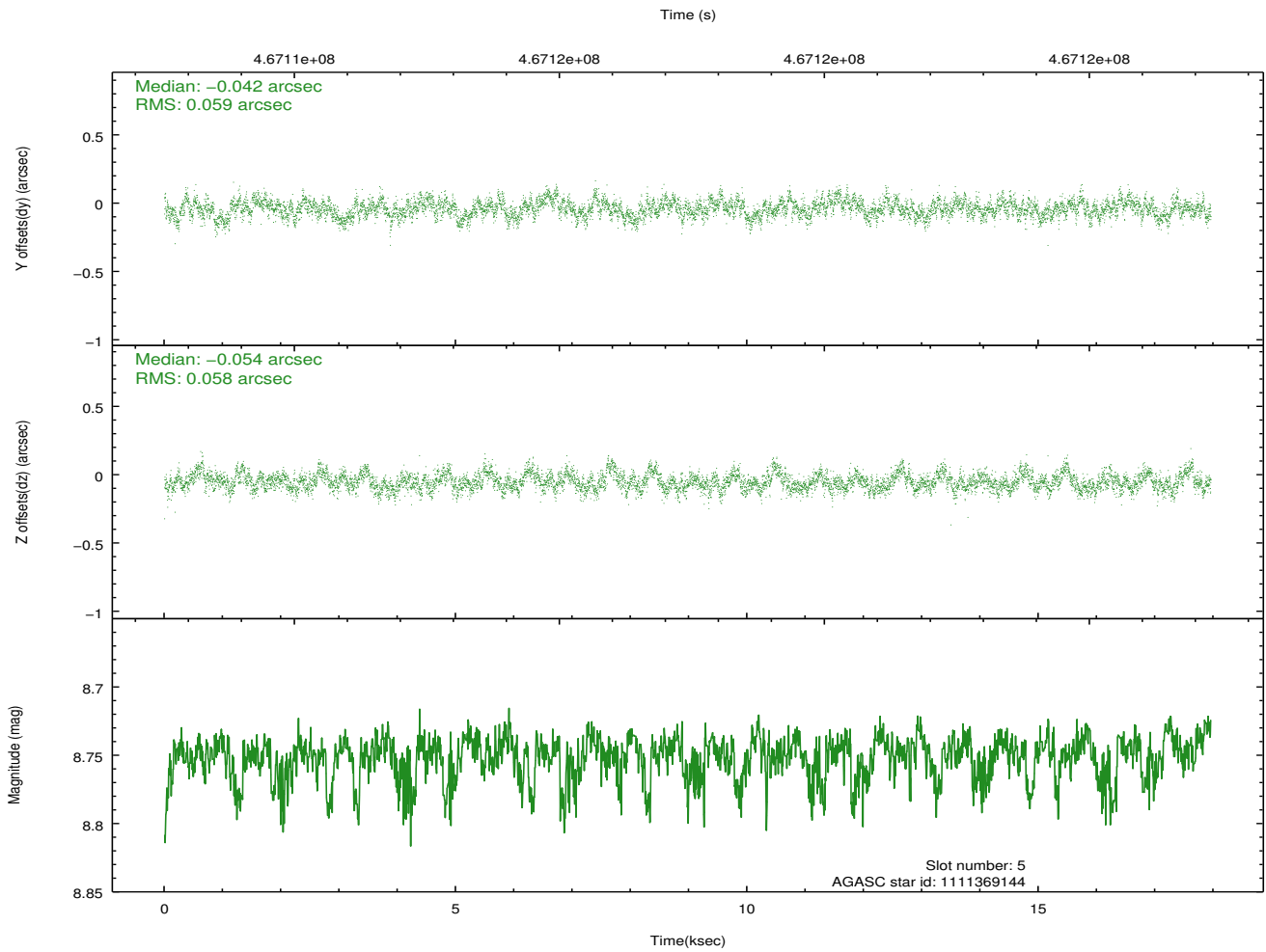
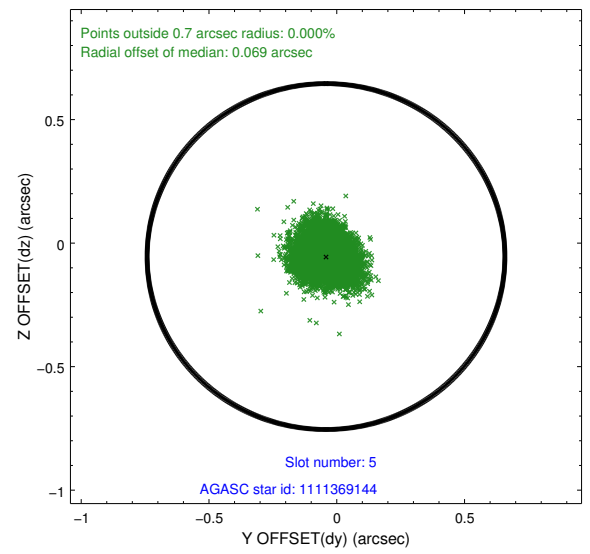
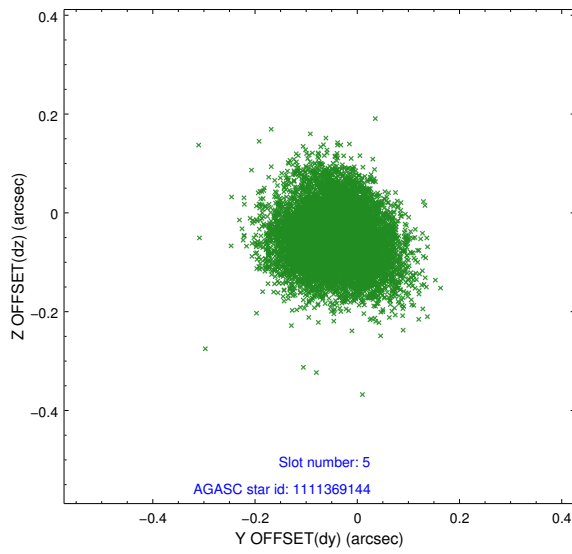
2.4.1 Slot 3



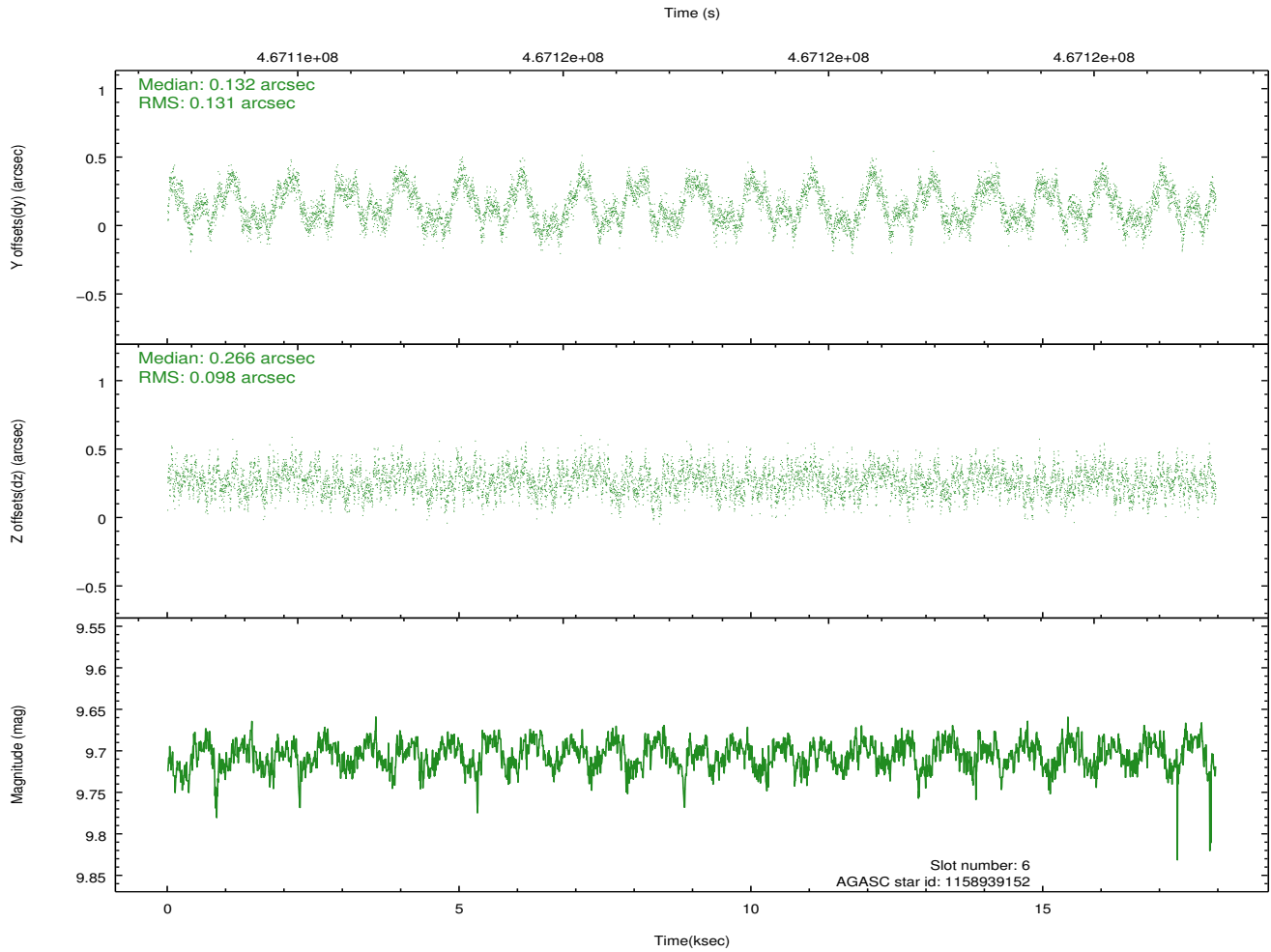
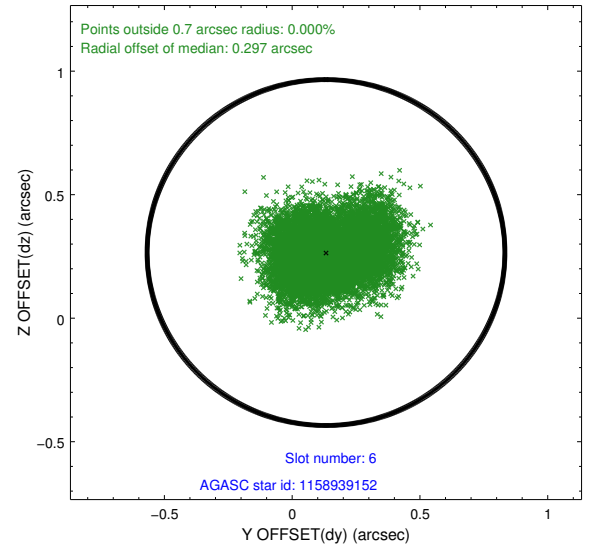
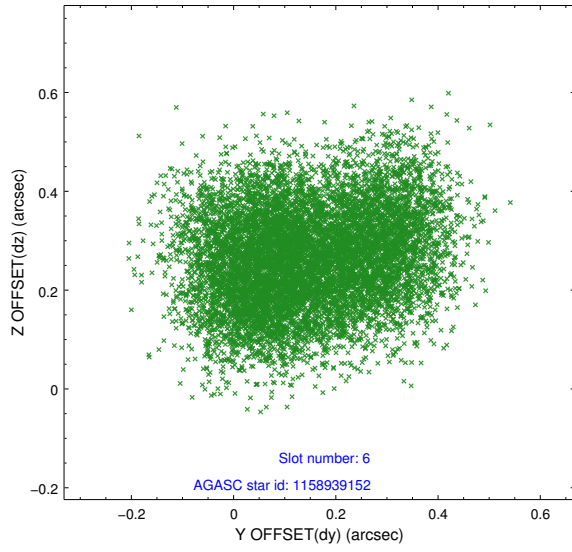
2.4.2 Slot 4



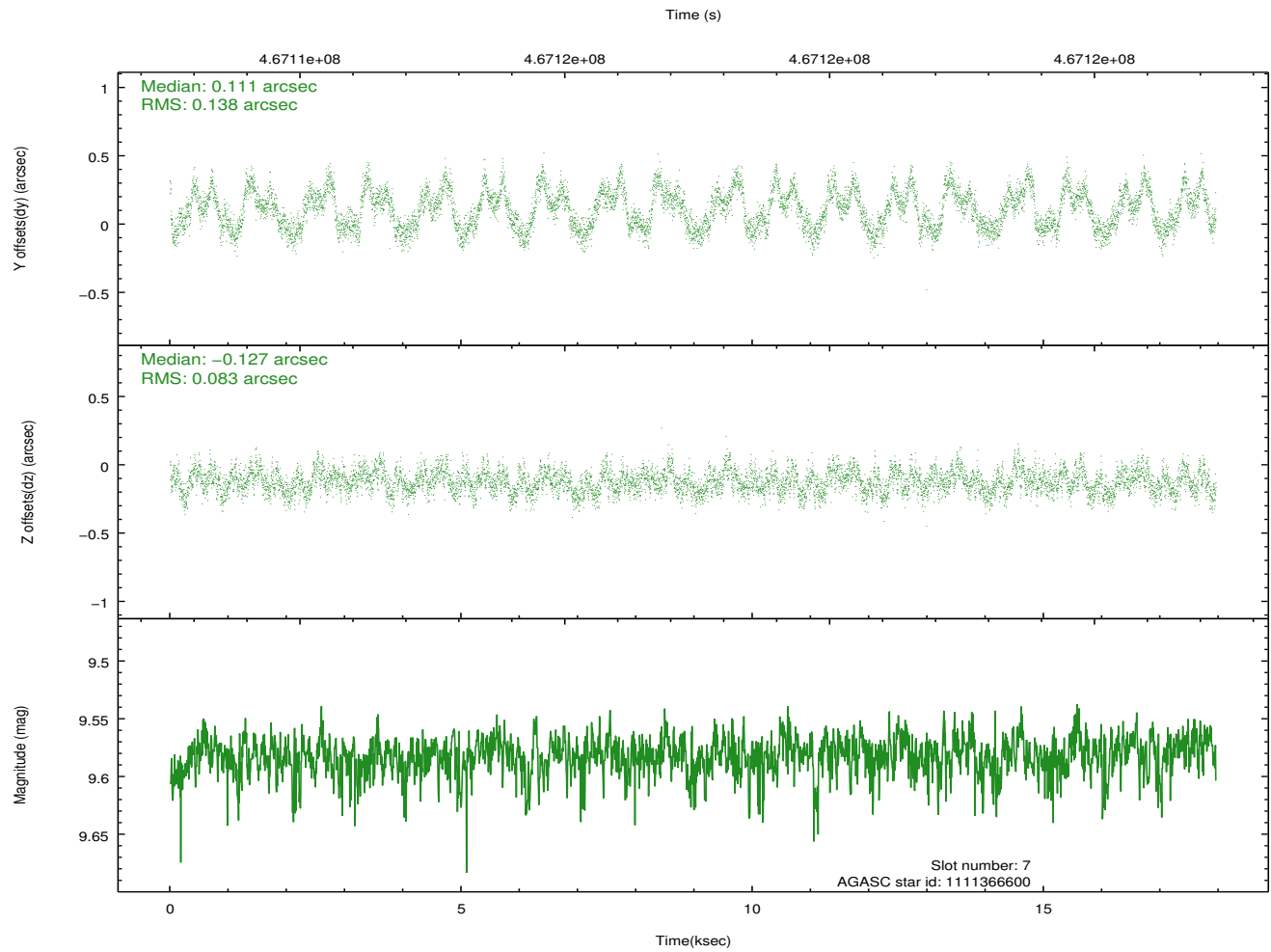
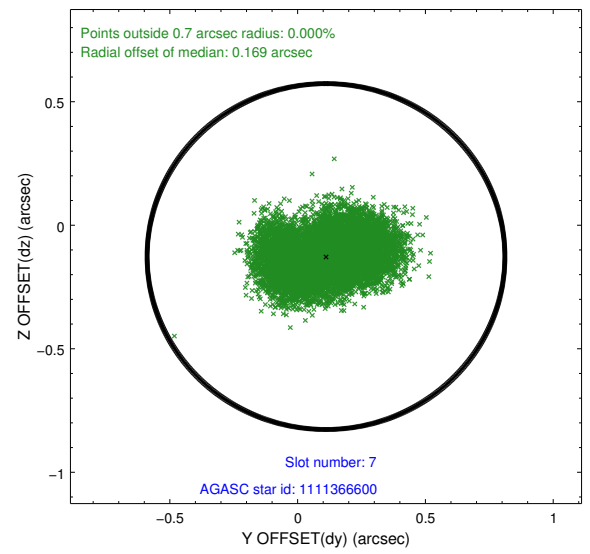
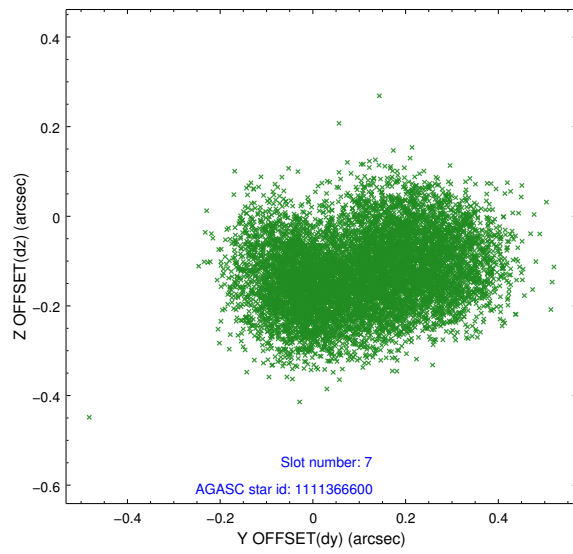
2.4.3 Slot 5



2.4.4 Slot 6

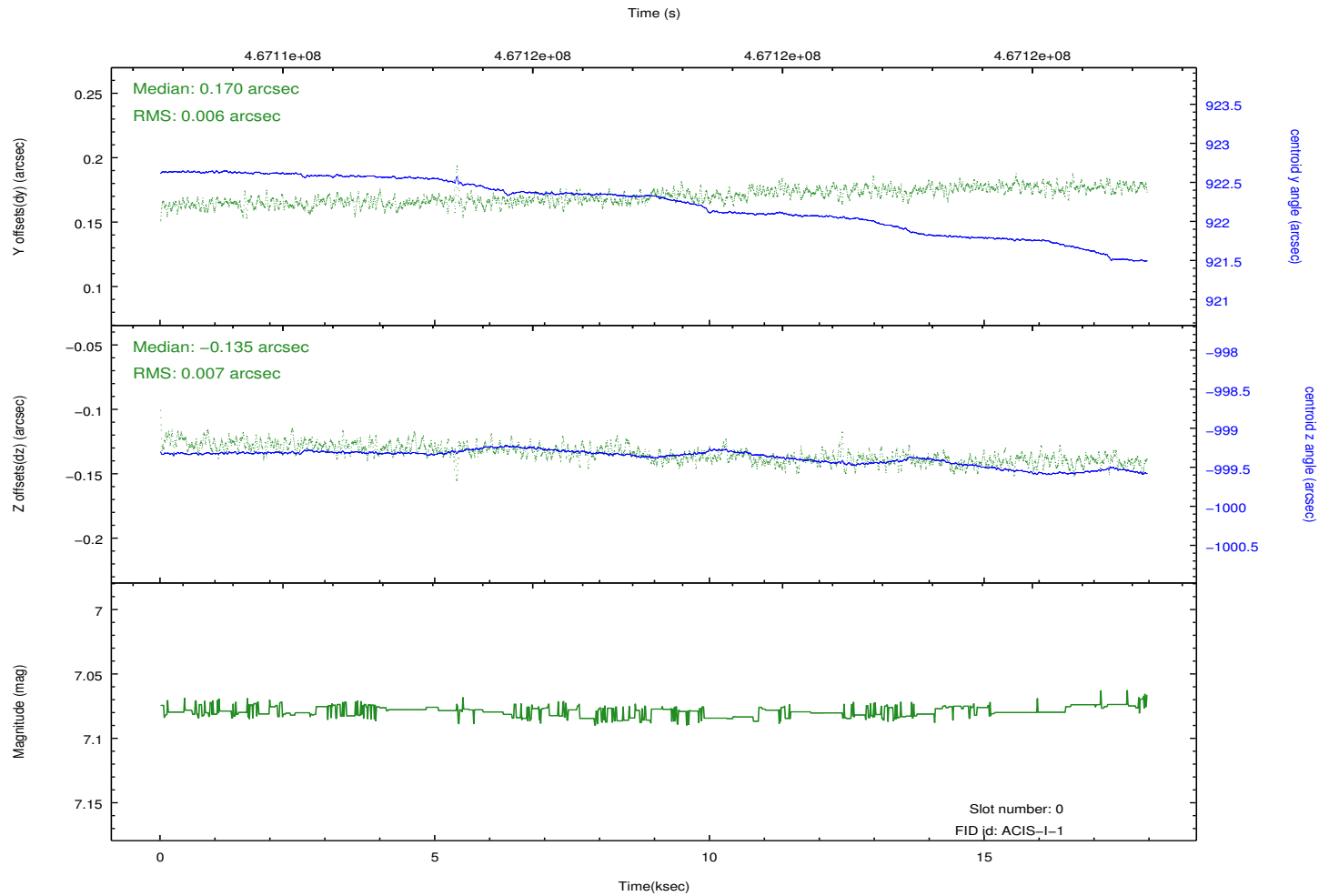
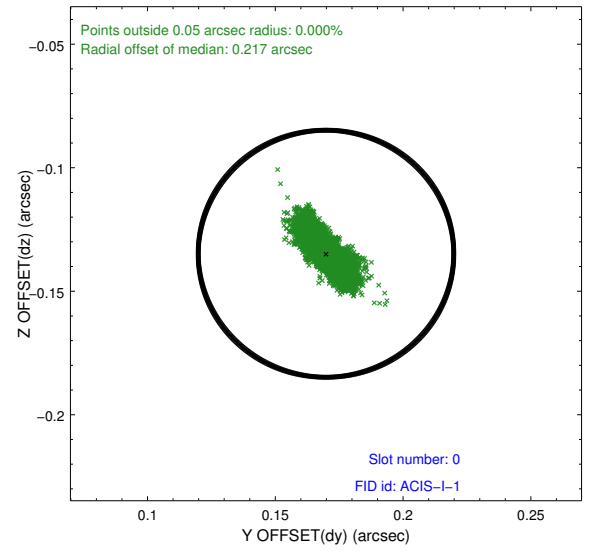
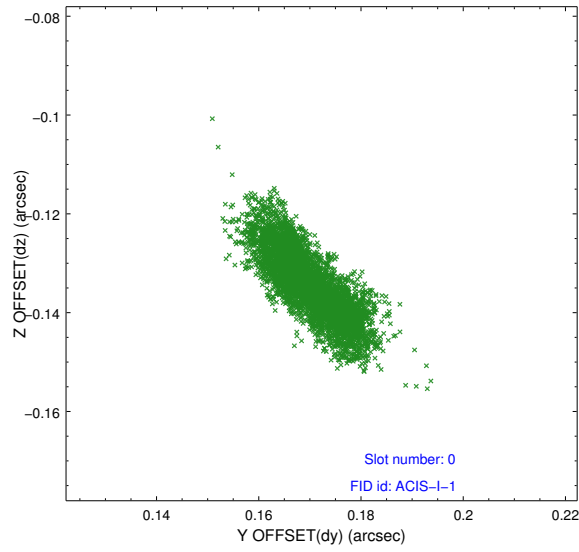


2.4.5 Slot 7

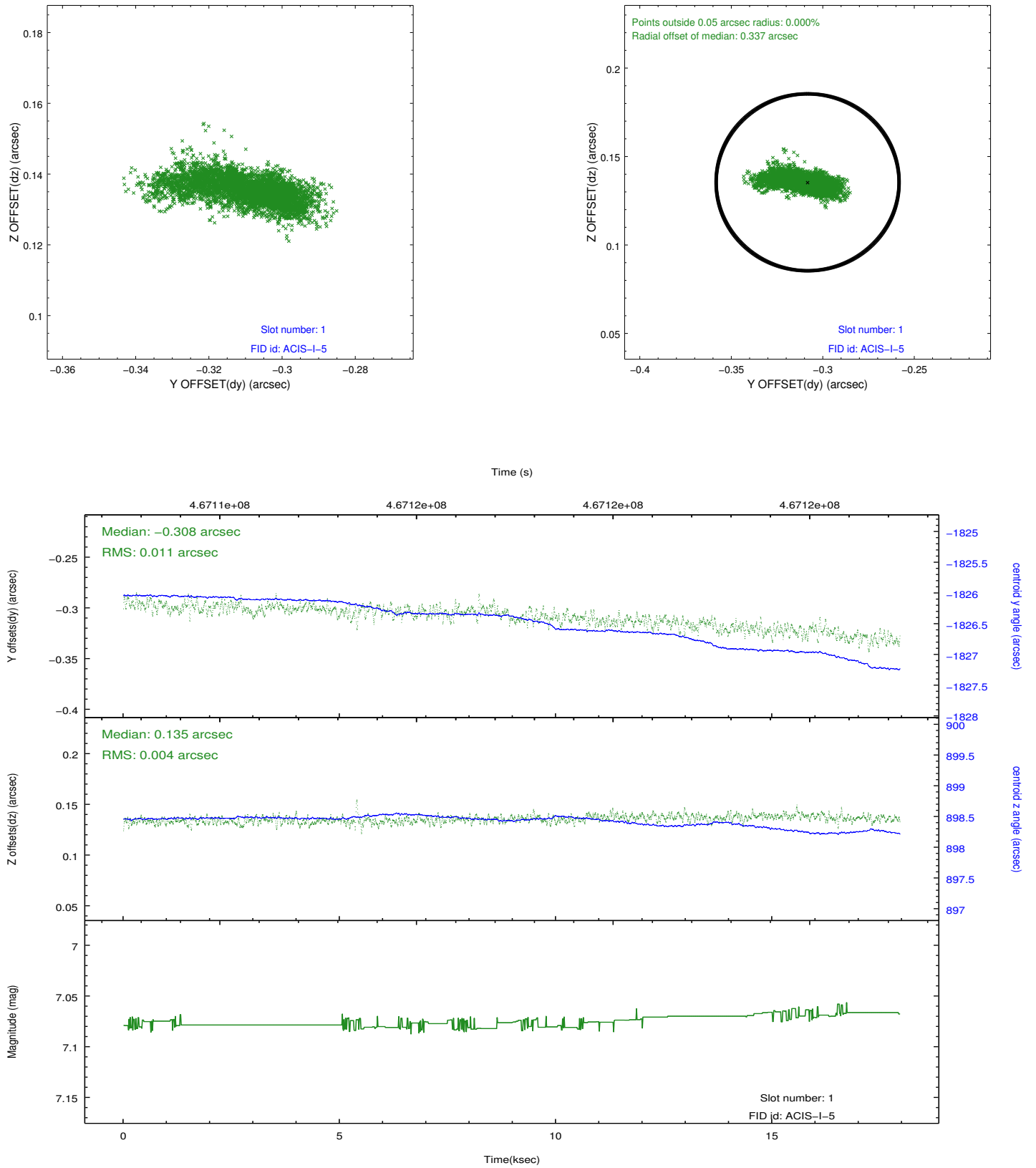


2.5 FID Slots

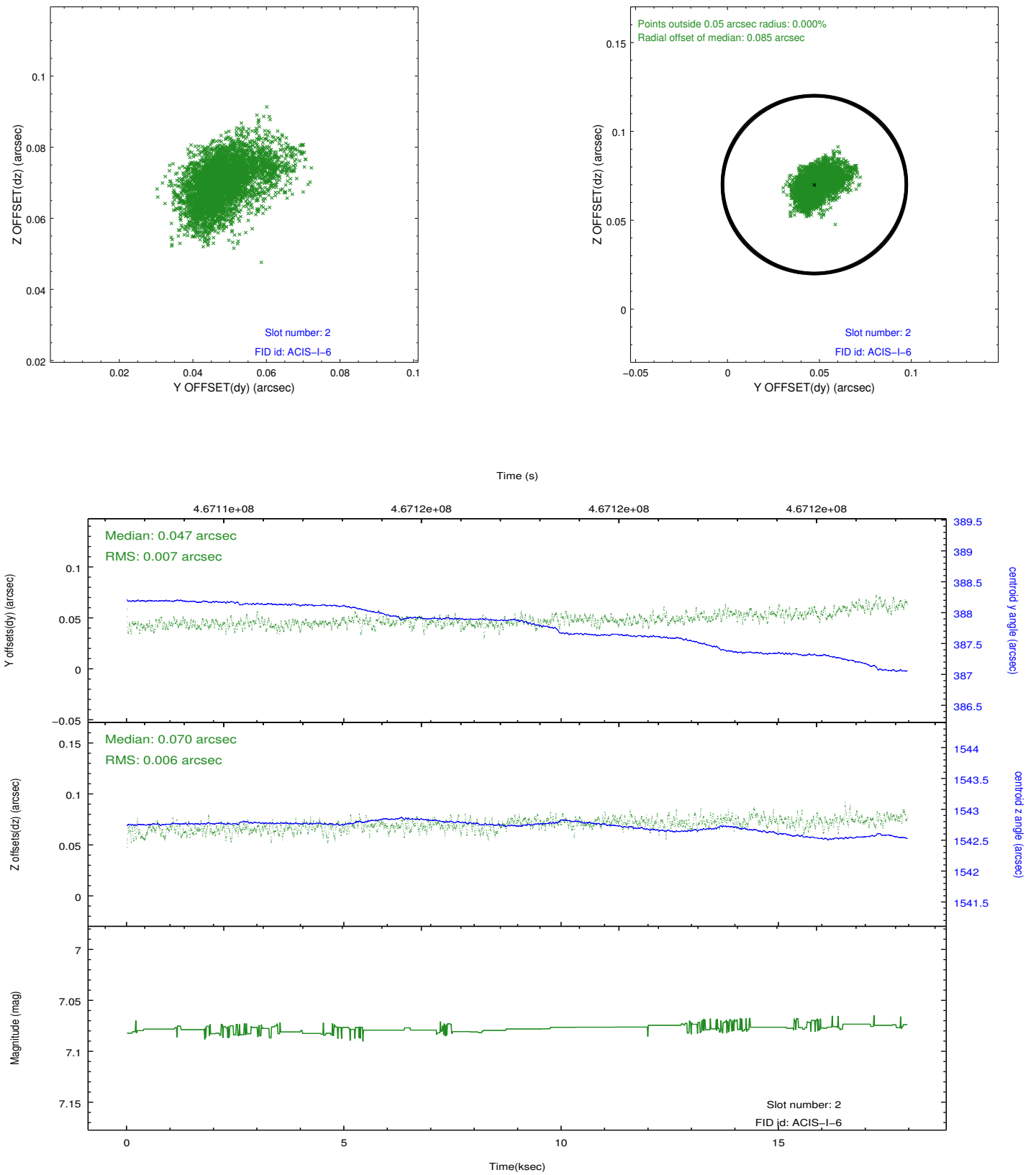
2.5.1 Slot 0



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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.880759127319

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.