

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 13499 - L2 Version 2
Chandra X-Ray Center

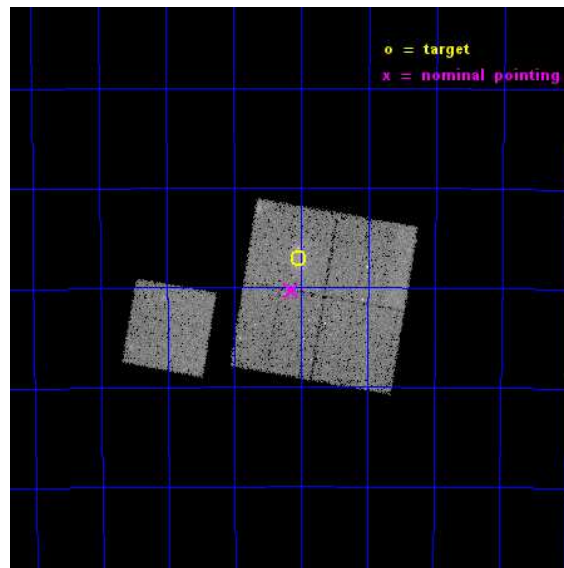
L2 Processing Date : Nov 29 2014

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1 Front

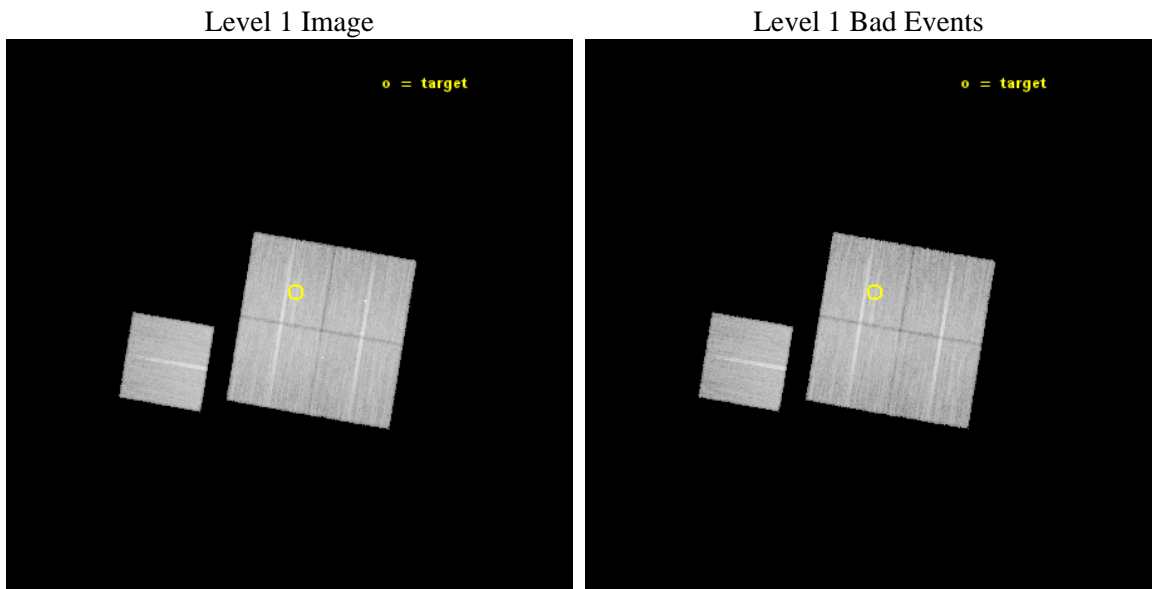
seq_num	801140	Sequence number
obs_id	13499	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg^2 from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ2245-6207	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	341.262	Observer's specified target RA [deg]
dec_targ	-62.1188	Observer's specified target Dec [deg]
ra_nom	341.28631495349	Nominal RA [deg]
dec_nom	-62.172028847659	Nominal Dec [deg]
roll_nom	279.71045207339	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29685.441742003	Sum of GTIs [s]
livetime	29297.579591539	Livetime [s]
ontime0	29679.036641359	Sum of GTIs [s]
ontime1	29685.359661996	Sum of GTIs [s]
ontime2	29679.118761301	Sum of GTIs [s]
ontime3	29685.441742003	Sum of GTIs [s]
ontime6	29685.27758199	Sum of GTIs [s]
l2events	80011	Number of level 2 events



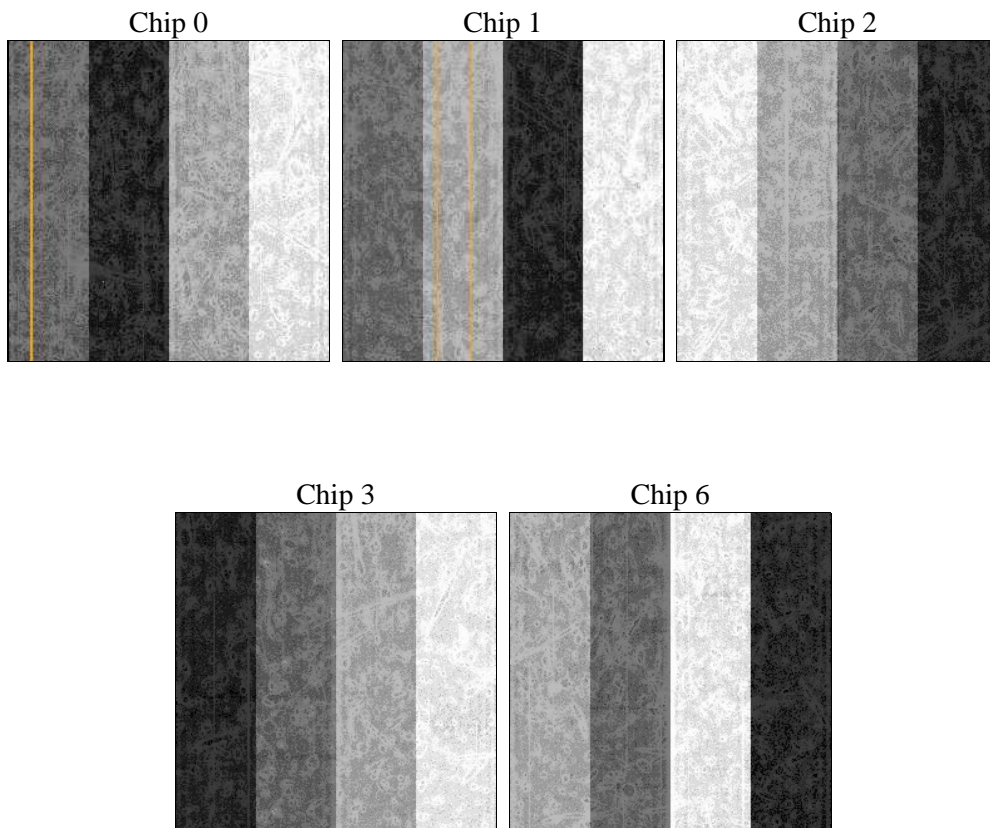
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29600.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	29685.441742003	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	29679.036641359	Sum of GTIs [s]
date	2014-11-30T07:51:21	Date and time of file creation	ontime1	29685.359661996	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	29679.118761301	Sum of GTIs [s]
			ontime3	29685.441742003	Sum of GTIs [s]
			ontime6	29685.27758199	Sum of GTIs [s]
			l1events	749100	Number of level 1 events

2.1.4 Events

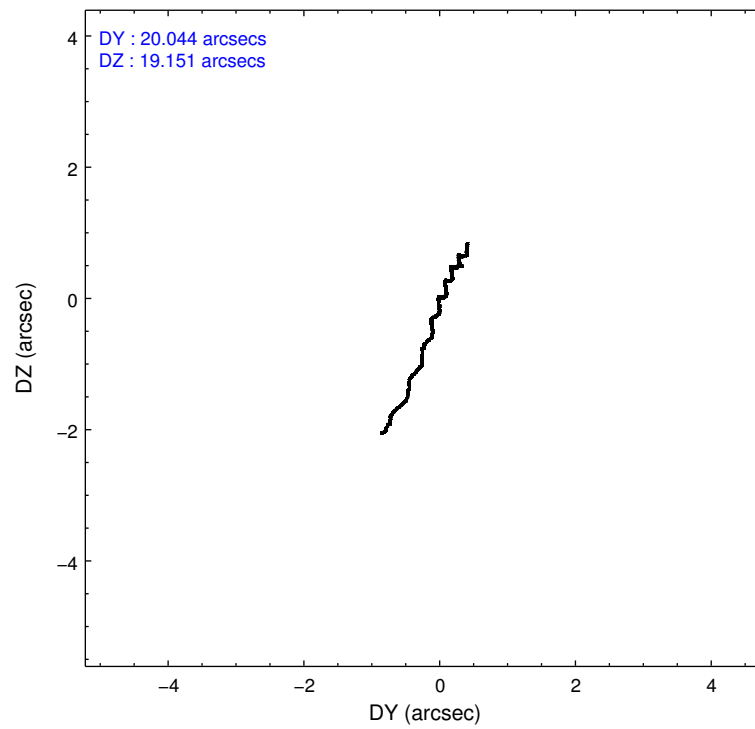
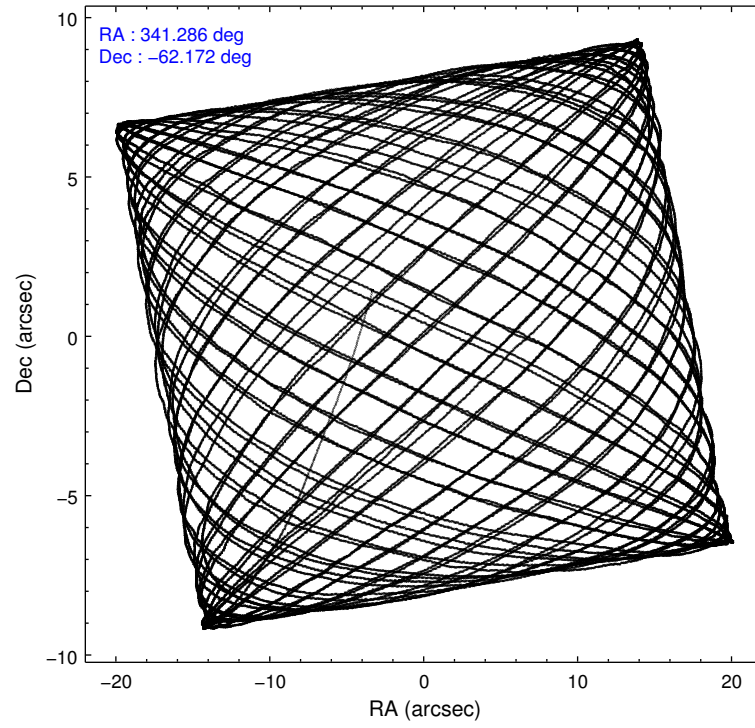
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	140381	144318	158793	153628	151980
rejected events	122227	123517	140872	134356	133704
rejected %	87%	85%	88%	87%	87%

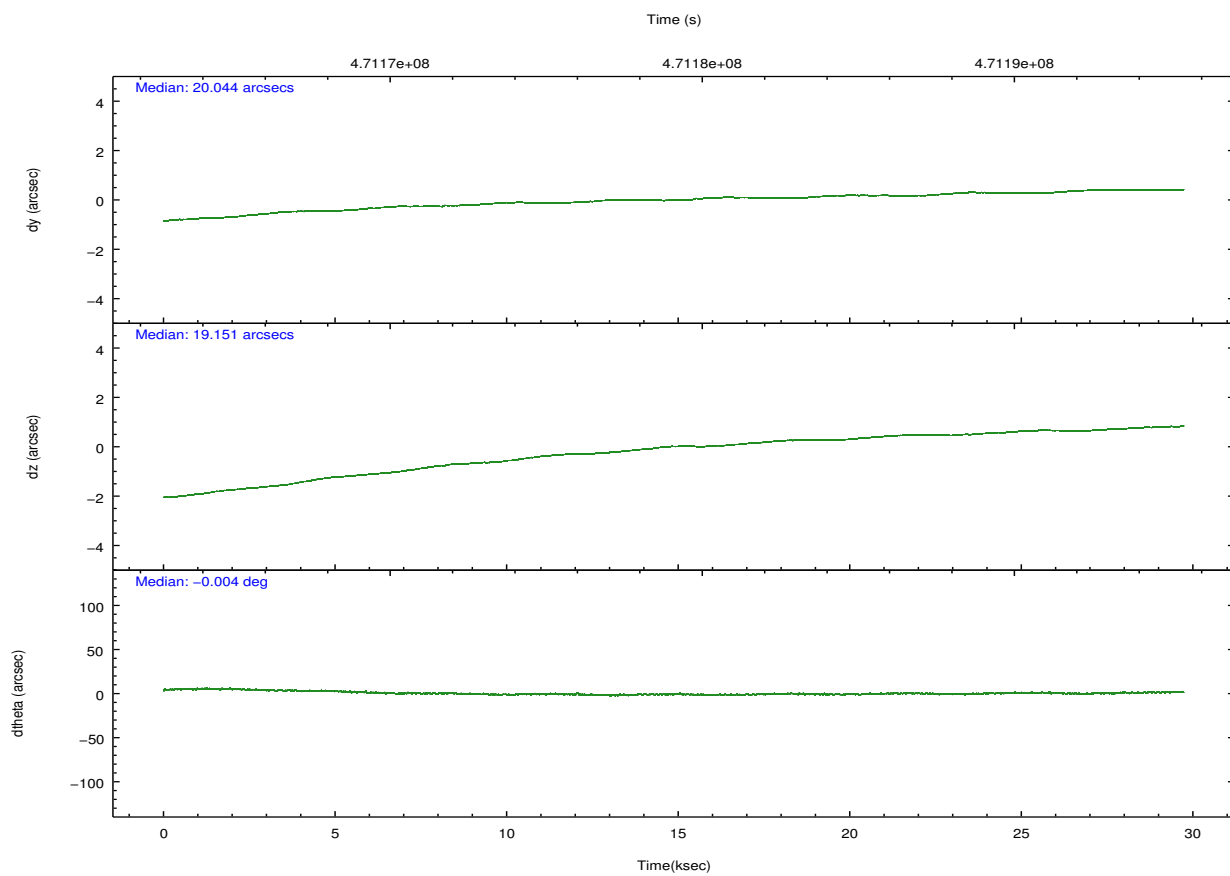
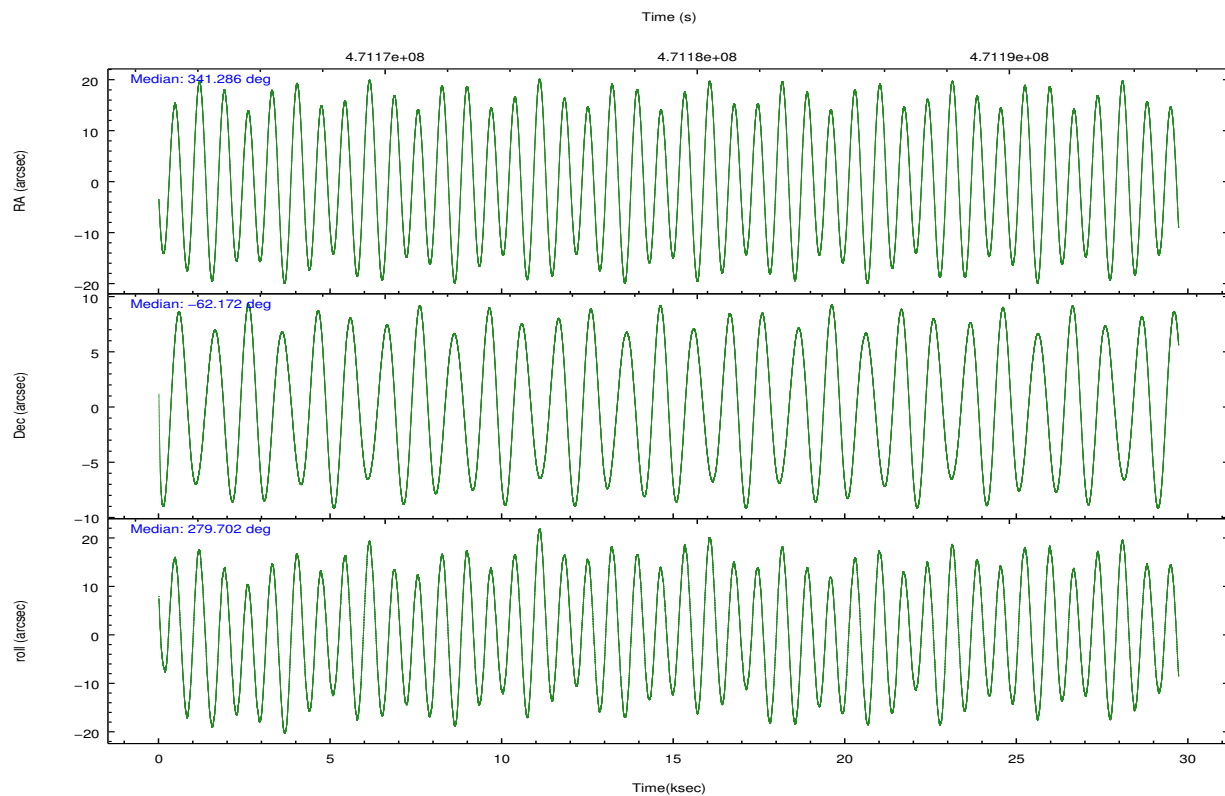
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6477	7641	6520	7941	6329
	4%	5%	4%	5%	4%
grade 1 events	69	70	96	94	81
	0%	0%	0%	0%	0%
grade 2 events	4558	4968	4357	4112	4067
	3%	3%	2%	2%	2%
grade 3 events	1838	1918	1820	1857	1833
	1%	1%	1%	1%	1%
grade 4 events	1717	1926	1831	1747	1896
	1%	1%	1%	1%	1%
grade 5 events	7148	7641	6606	8194	7614
	5%	5%	4%	5%	5%
grade 6 events	3566	4351	3393	3618	4154
	2%	3%	2%	2%	2%
grade 7 events	115008	115803	134170	126065	126006
	81%	80%	84%	82%	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	341.248537	341.2863149534891	CCD I2 on	Y	Y
[deg] Pointing Dec	-62.150943	-62.17202884765936	CCD I3 on	Y	Y
[deg] Pointing Roll	279.468363	279.7104520733875	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	-225.8458576473255	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.746595355604228	CCD S4 on	N	N
[s] Observation start time (MET)	471164356.184000	471162968.33406	CCD S5 on	N	N
Observation start date	2012-12-06T06:58:09	2012-12-06T06:36:08	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	471193956.184000	471195060.57328	On-chip summing requested	N	N
Observation end date	2012-12-06T15:11:29	2012-12-06T15:31:00	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



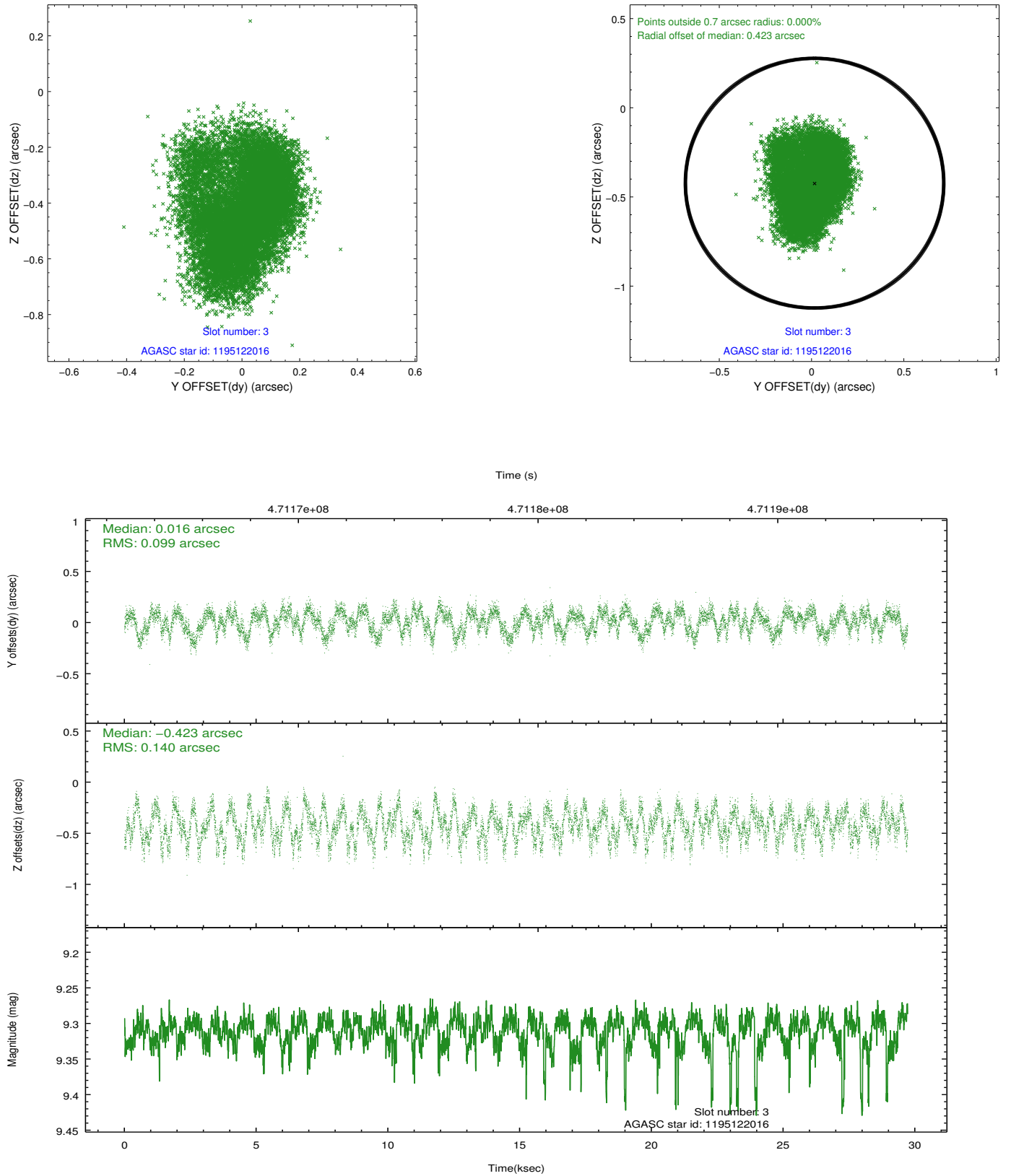


Slot Statistics

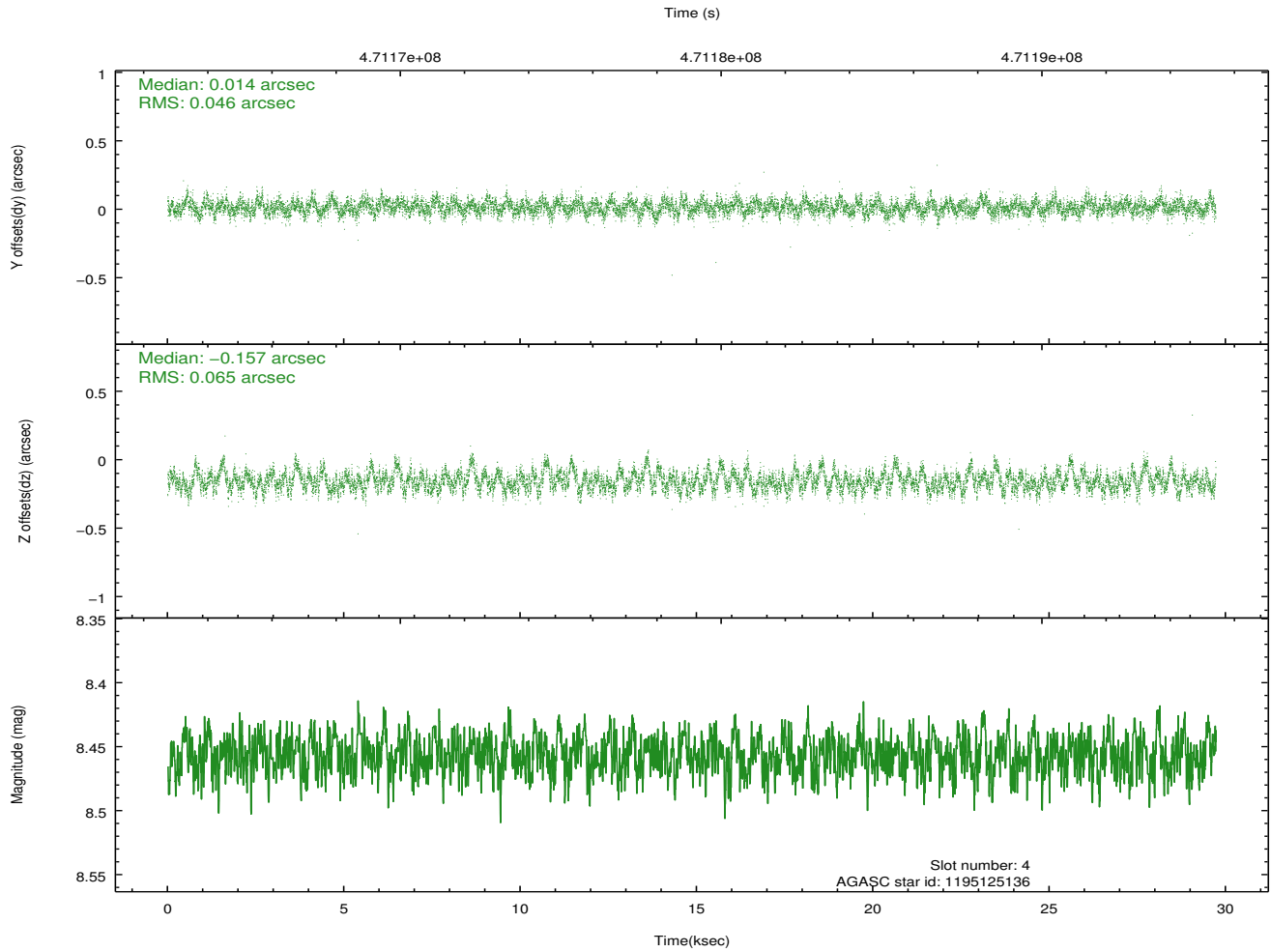
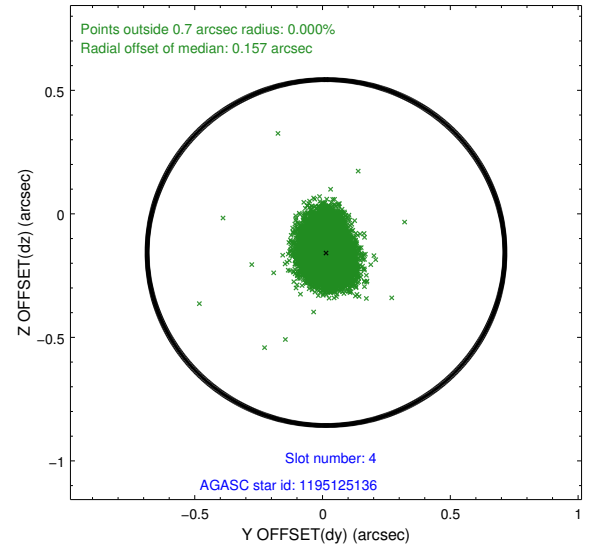
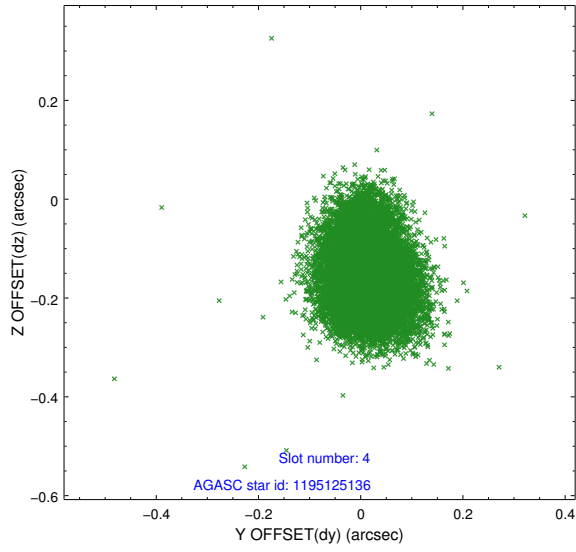
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.06	7249	0.120	-0.073	0.019	0.057	0.000000	0.000000	919.34	-1001.67
1	FID		ACIS-I-5	7.05	7249	-0.313	0.092	0.011	0.043	0.000000	0.000000	-1829.23	895.84
2	FID		ACIS-I-6	7.06	7249	0.100	0.050	0.020	0.028	0.000000	0.000000	384.68	1540.46
3	GUIDE	used	1195122016	9.31	14472	0.016	-0.423	0.188	0.287	340.366566	-61.880110	-1197.23	-1317.66
4	GUIDE	used	1195125136	8.46	14498	0.014	-0.157	0.084	0.140	340.750228	-62.065854	-436.37	-778.67
5	GUIDE	used	1195510232	9.35	14435	0.029	-0.138	0.168	0.260	340.085152	-62.504525	955.79	-2118.87
6	GUIDE	used	1195510520	9.10	14487	0.036	0.117	0.105	0.169	341.321798	-62.562448	1481.87	-123.40
7	GUIDE	used	1195120696	6.25	14498	-0.085	0.595	0.085	0.137	342.089100	-61.684361	-1411.33	1691.23

2.4 Star Slots

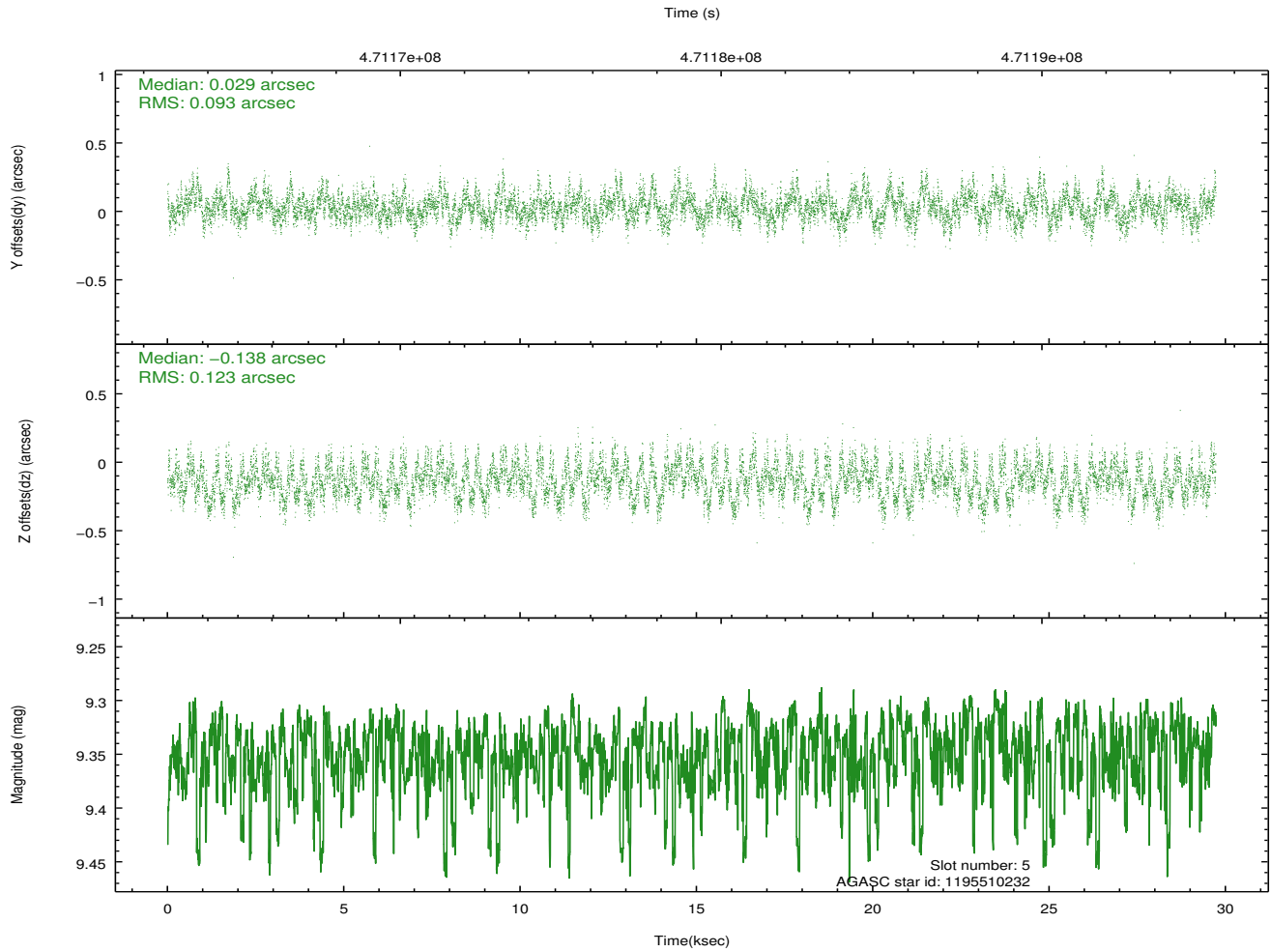
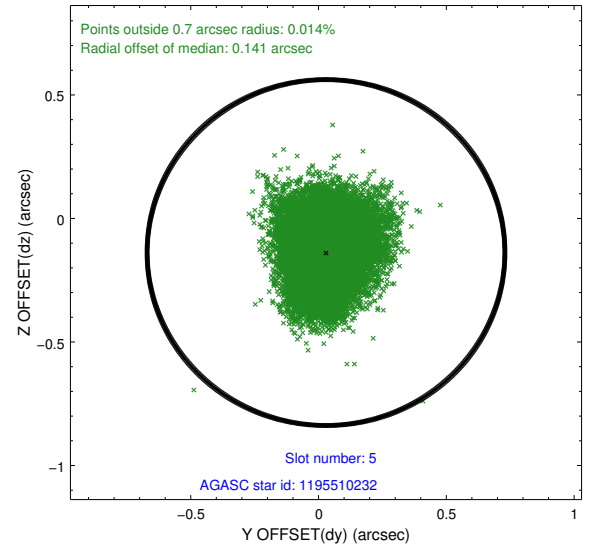
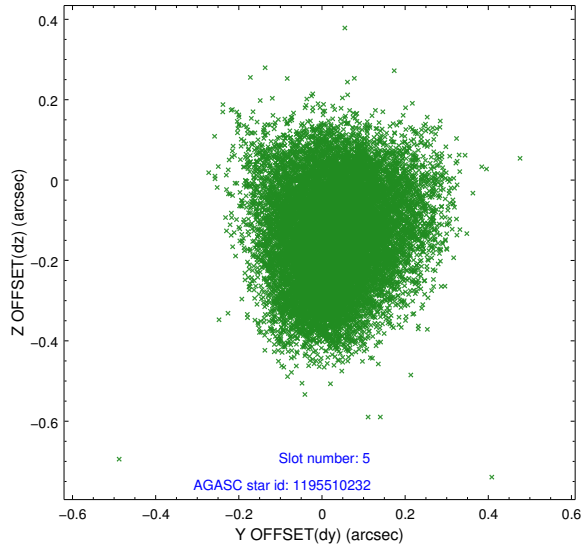
2.4.1 Slot 3



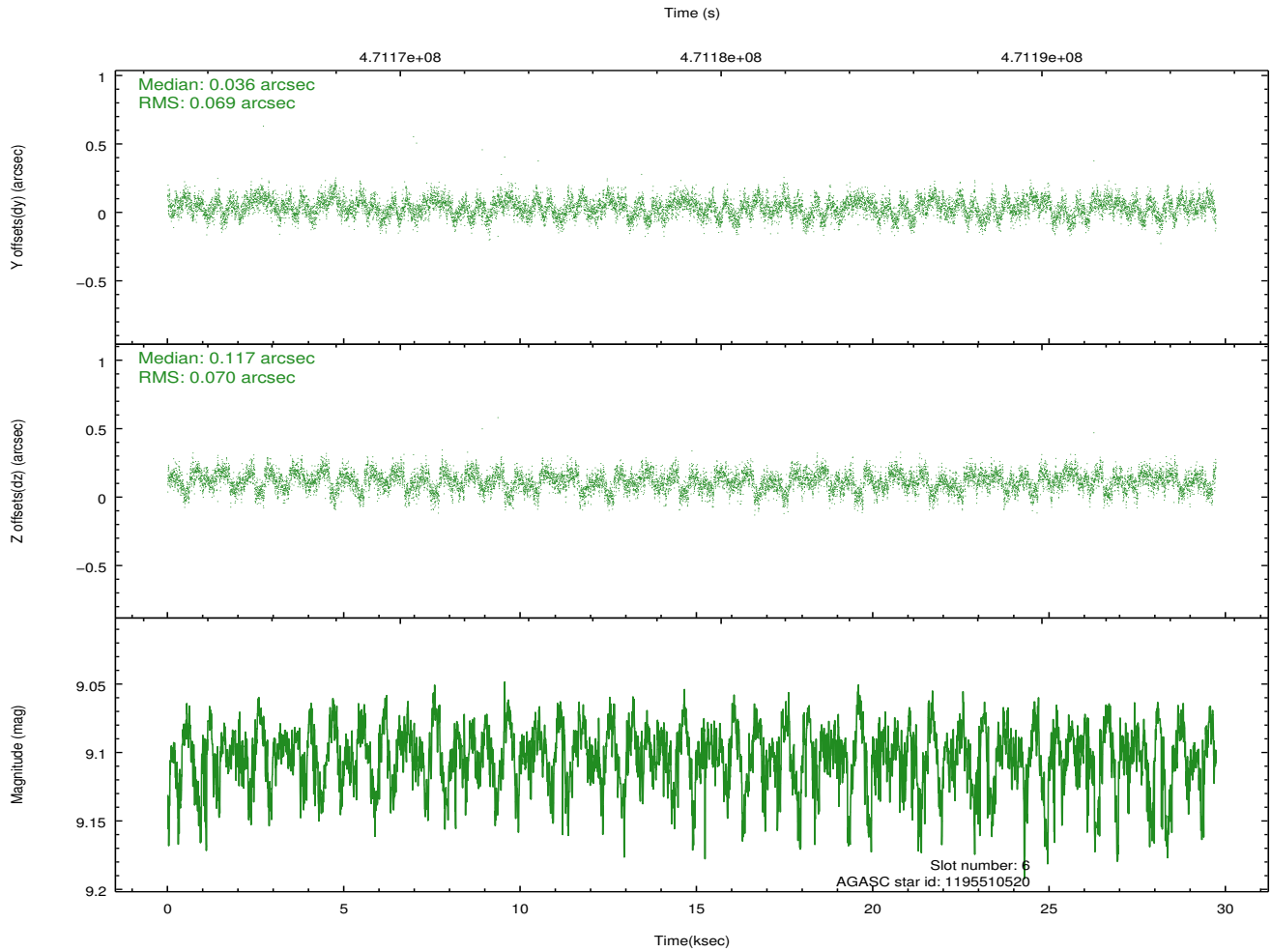
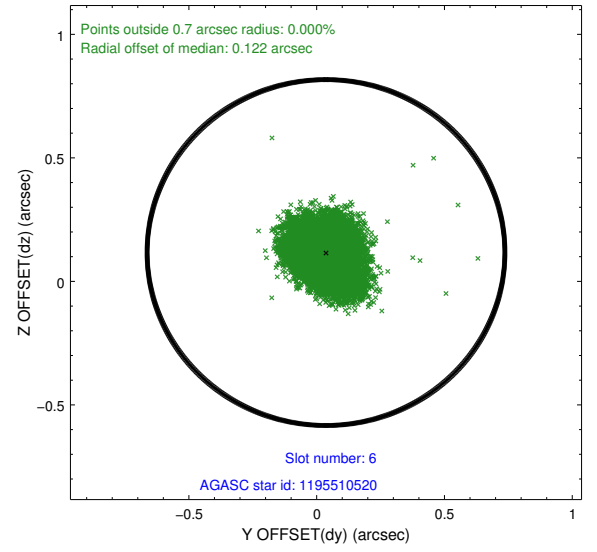
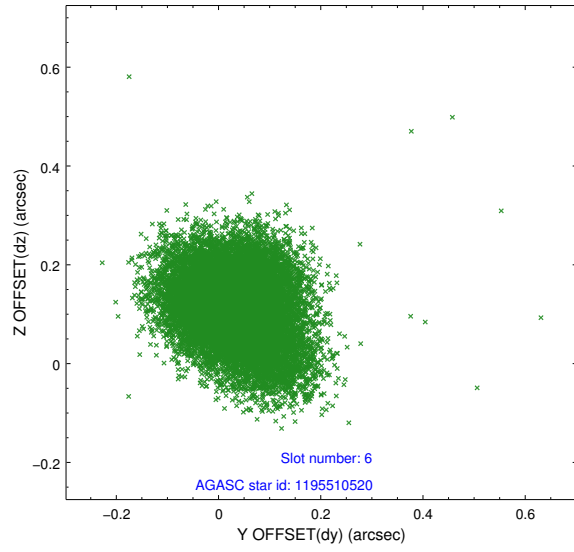
2.4.2 Slot 4



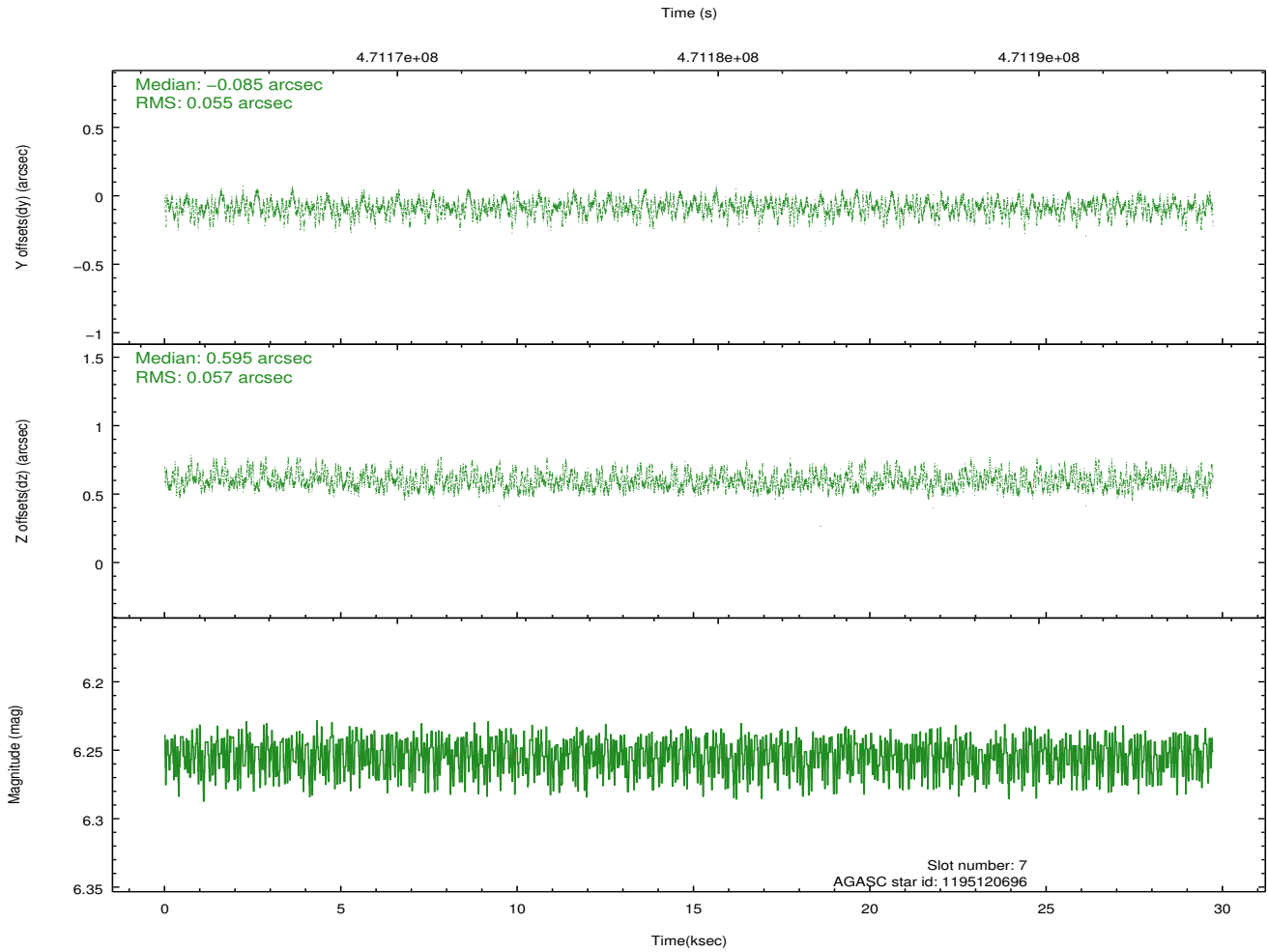
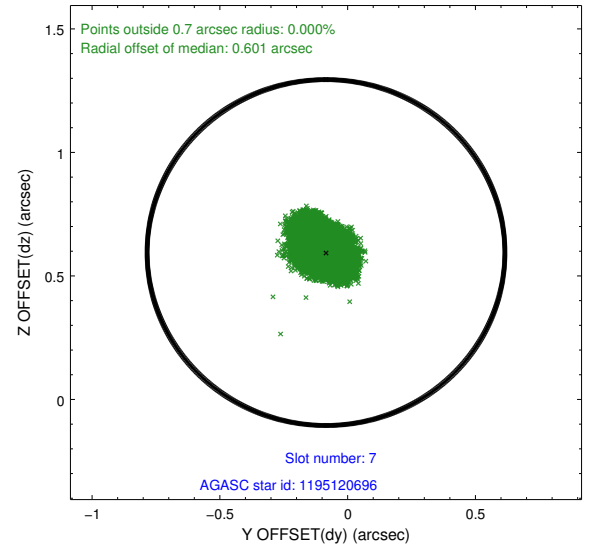
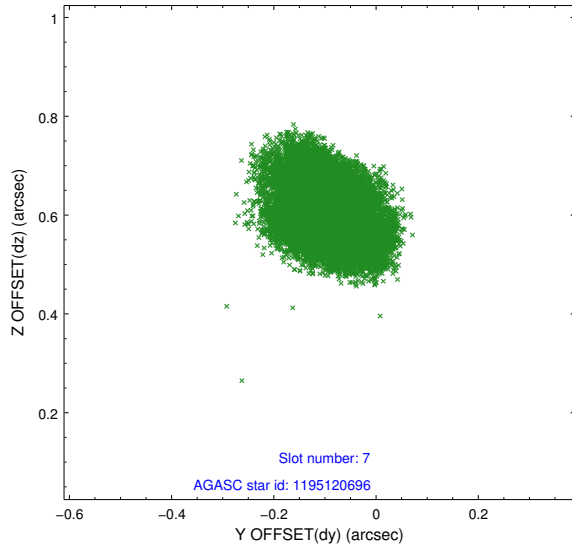
2.4.3 Slot 5



2.4.4 Slot 6

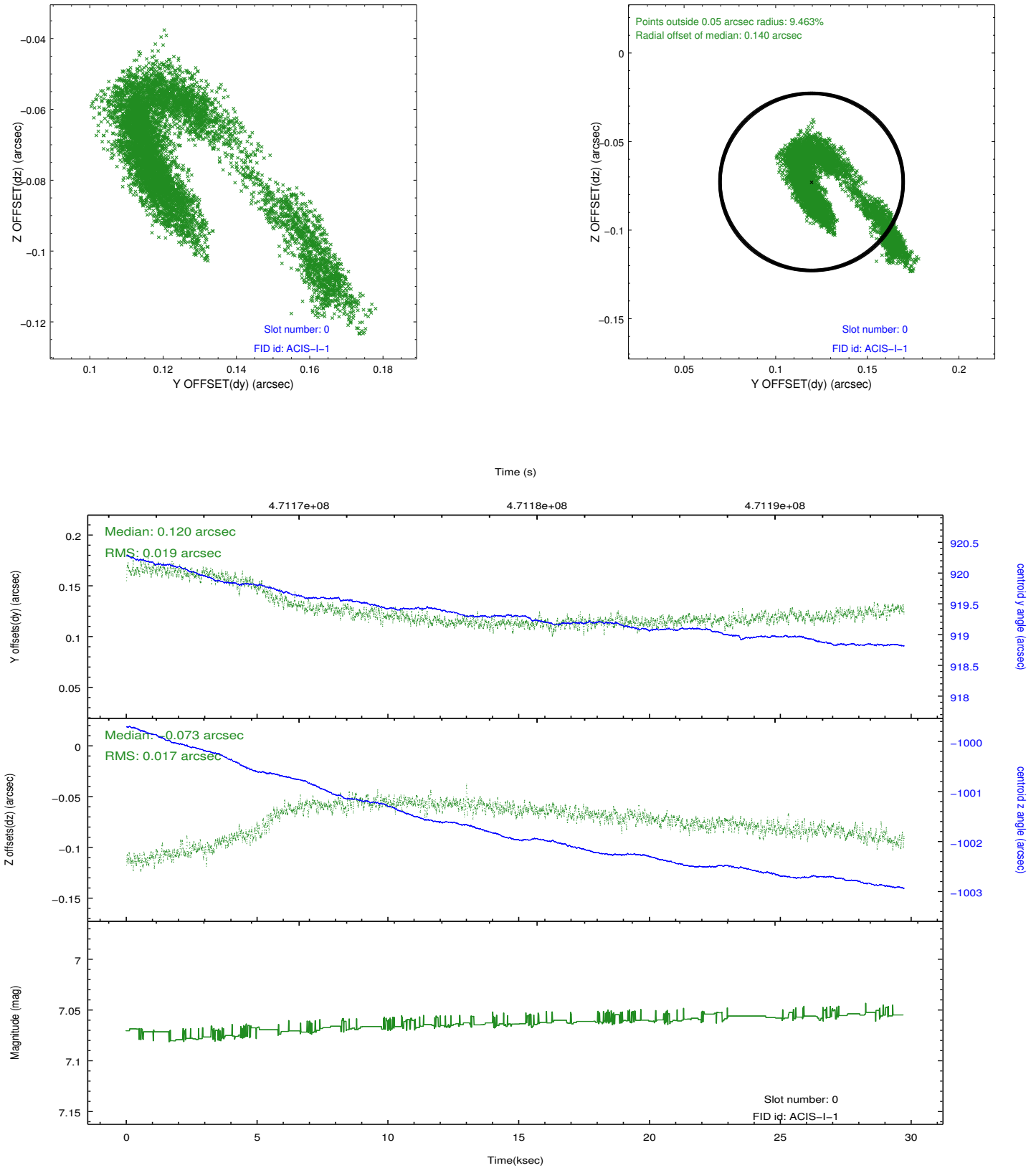


2.4.5 Slot 7

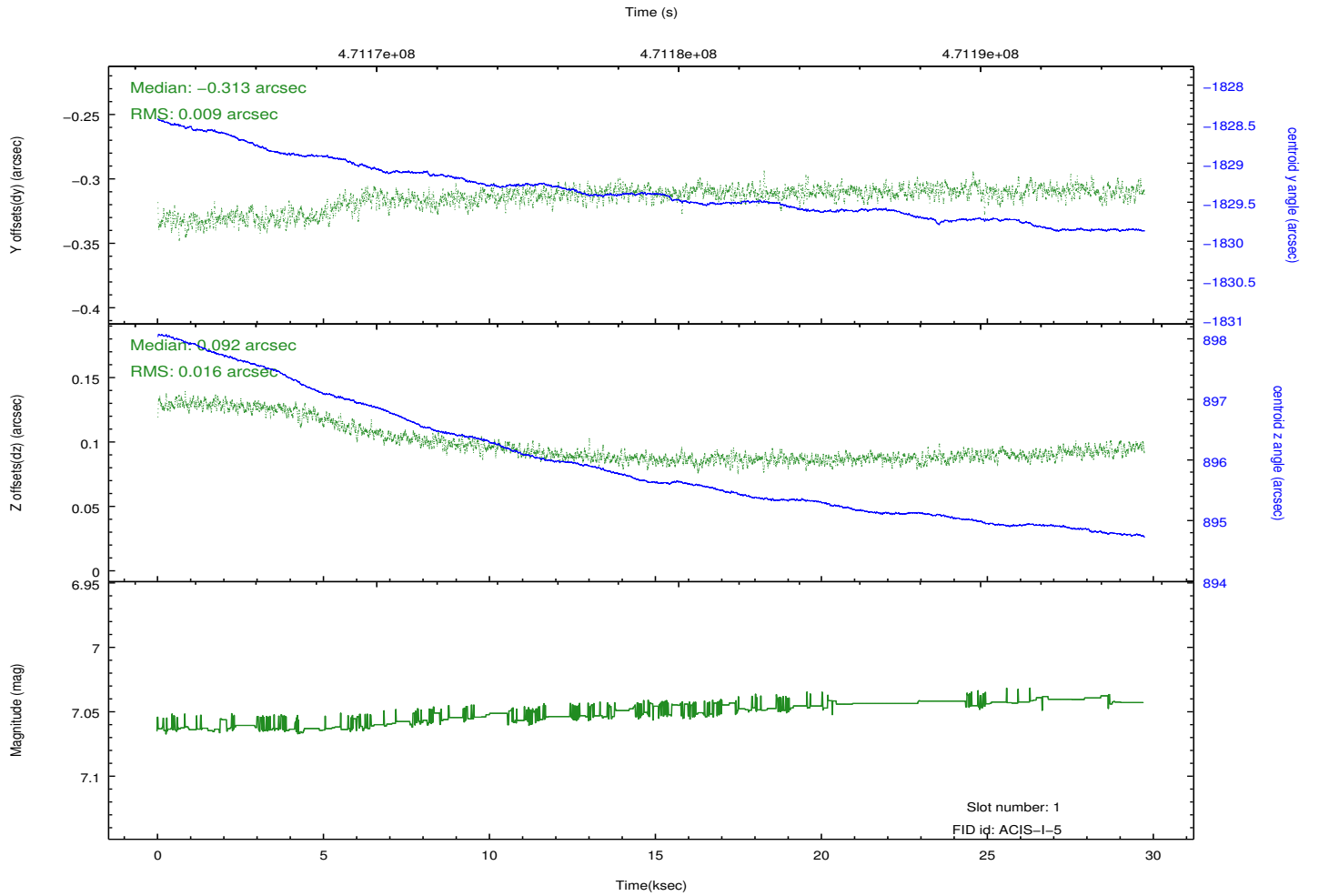
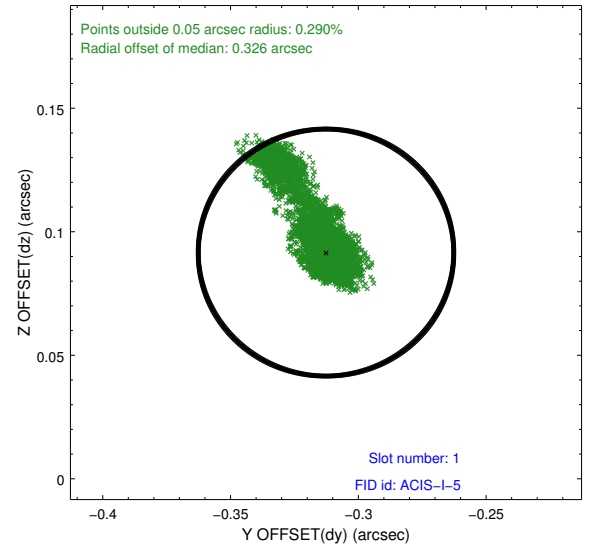
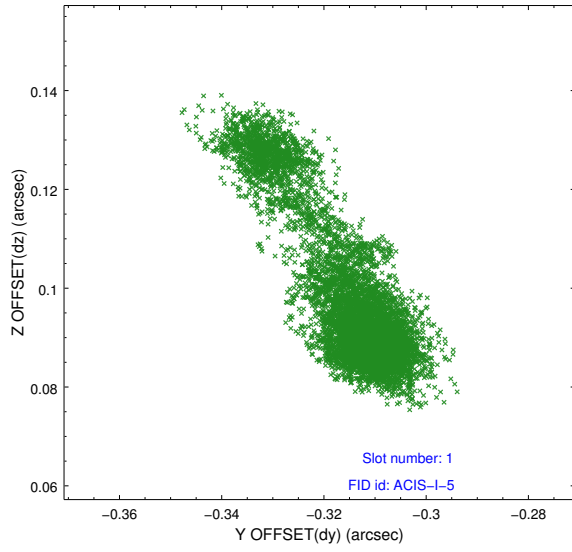


2.5 FID Slots

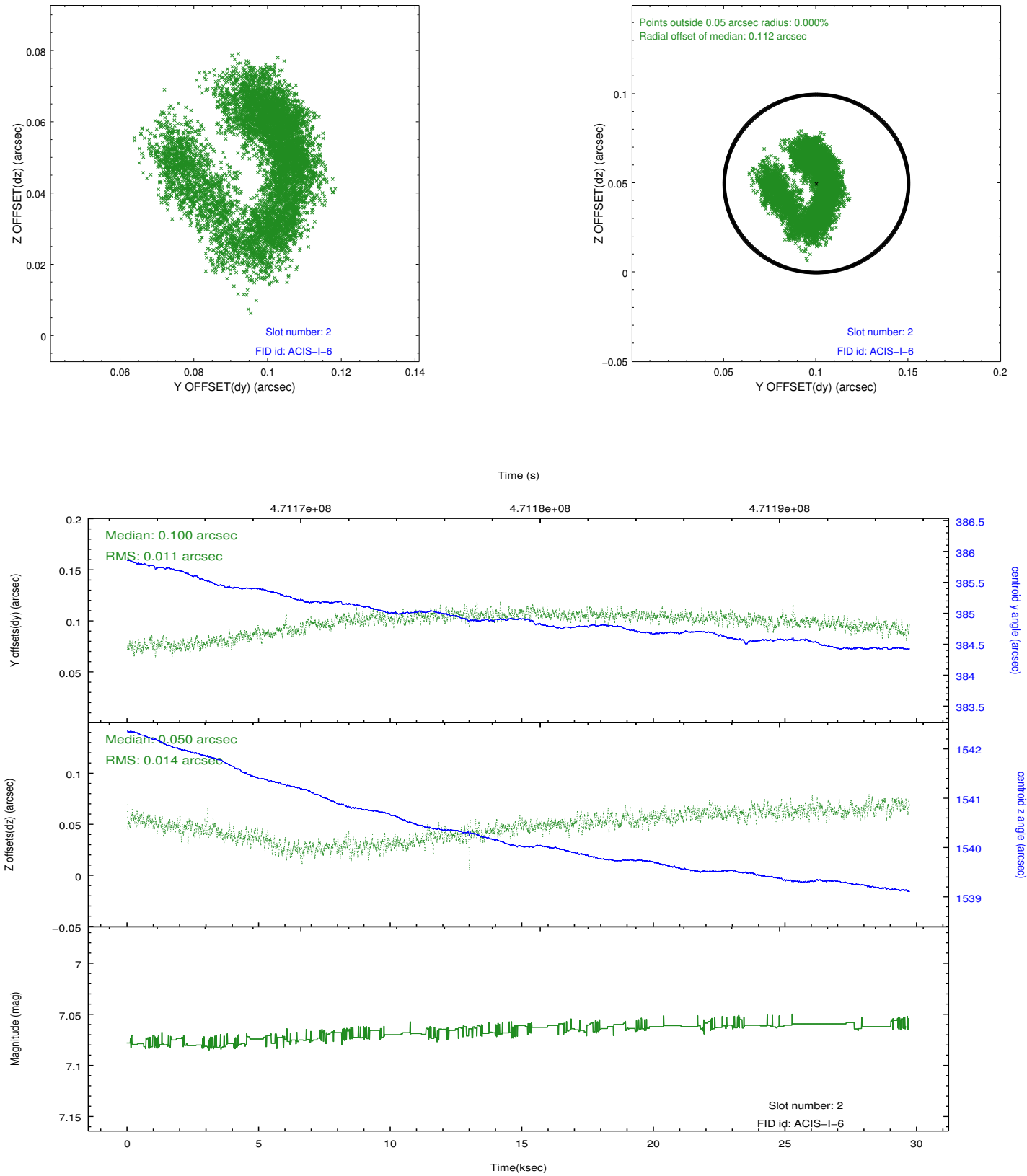
2.5.1 Slot 0



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	29.685441742003

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.