

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 15707 - L2 Version 2
Chandra X-Ray Center

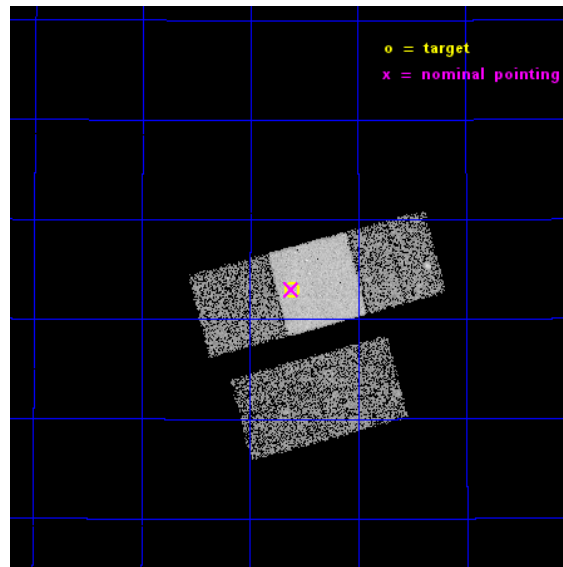
L2 Processing Date : Dec 7 2014

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1 Front

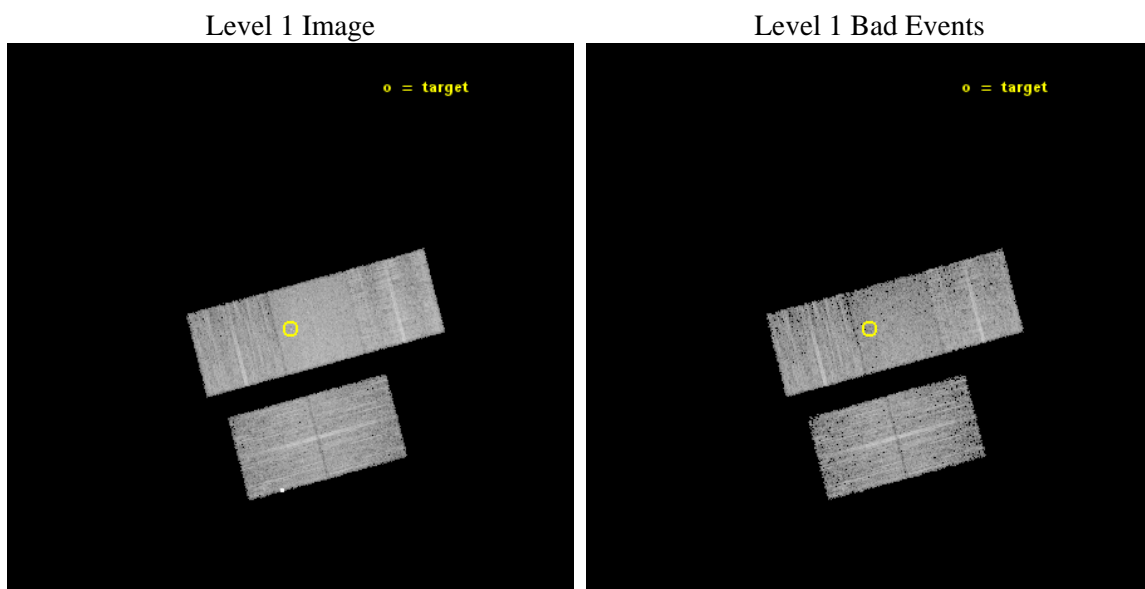
seq_num	200920	Sequence number
obs_id	15707	Observation id
title	X-ray irradiation of planets with atmospheres amenable to comprehensive follow-up	Proposal title
observer	Mr. Michael Salz	Principal investigator
object	HAT-P-2	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	245.15125	Observer's specified target RA [deg]
dec_targ	41.048083	Observer's specified target Dec [deg]
ra_nom	245.15420870089	Nominal RA [deg]
dec_nom	41.050131776264	Nominal Dec [deg]
roll_nom	345.12804028849	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10065.700077415	Sum of GTIs [s]
livetime	9934.1842956425	Livetime [s]
ontime2	10065.622480214	Sum of GTIs [s]
ontime3	10065.700077415	Sum of GTIs [s]
ontime6	10065.700077415	Sum of GTIs [s]
ontime7	10065.700077415	Sum of GTIs [s]
ontime8	10065.663520217	Sum of GTIs [s]
l2events	47831	Number of level 2 events



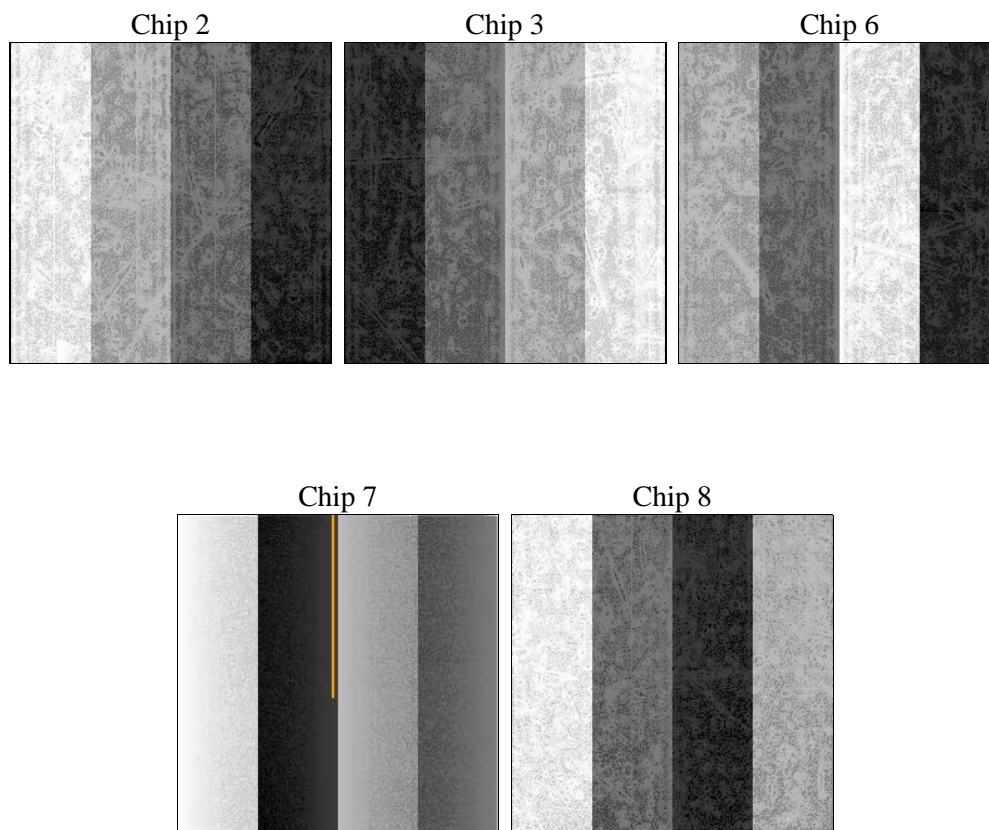
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	10065.700077415	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	10065.622480214	Sum of GTIs [s]
date	2014-12-08T02:54:39	Date and time of file creation	ontime3	10065.700077415	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	10065.700077415	Sum of GTIs [s]
			ontime7	10065.700077415	Sum of GTIs [s]
			ontime8	10065.663520217	Sum of GTIs [s]
			l1events	276967	Number of level 1 events

2.1.4 Events

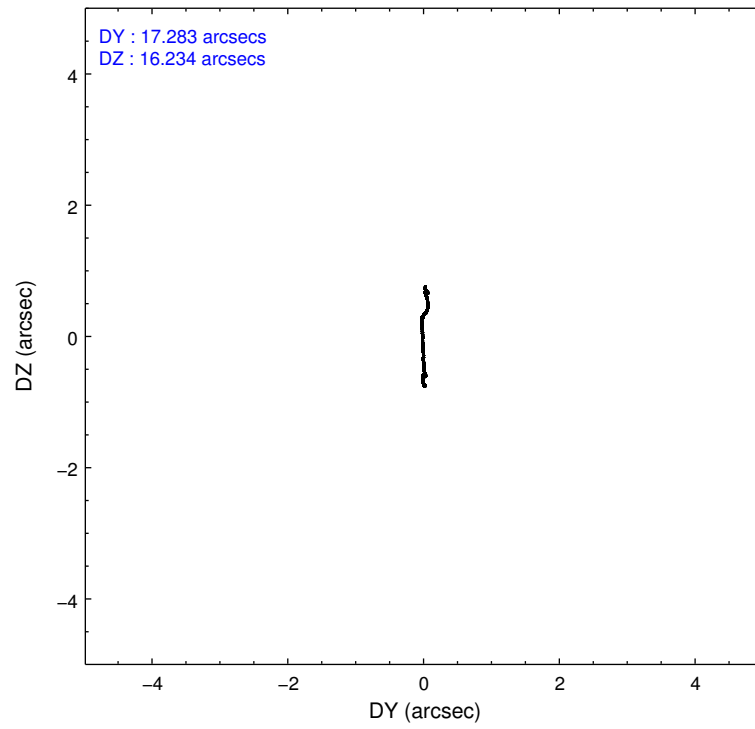
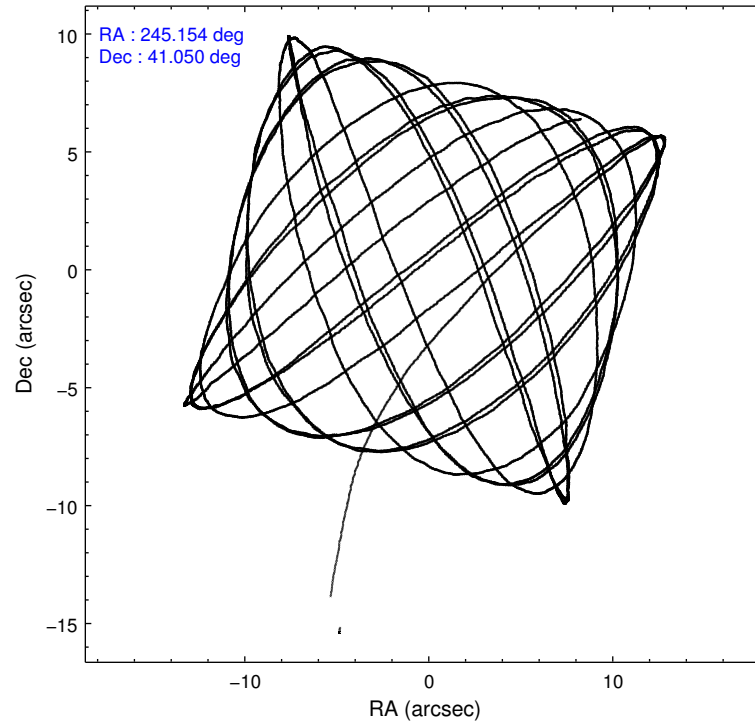
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	49824	44539	49817	66717	66070
rejected events	42429	39305	44043	38185	48471
rejected %	85%	88%	88%	57%	73%

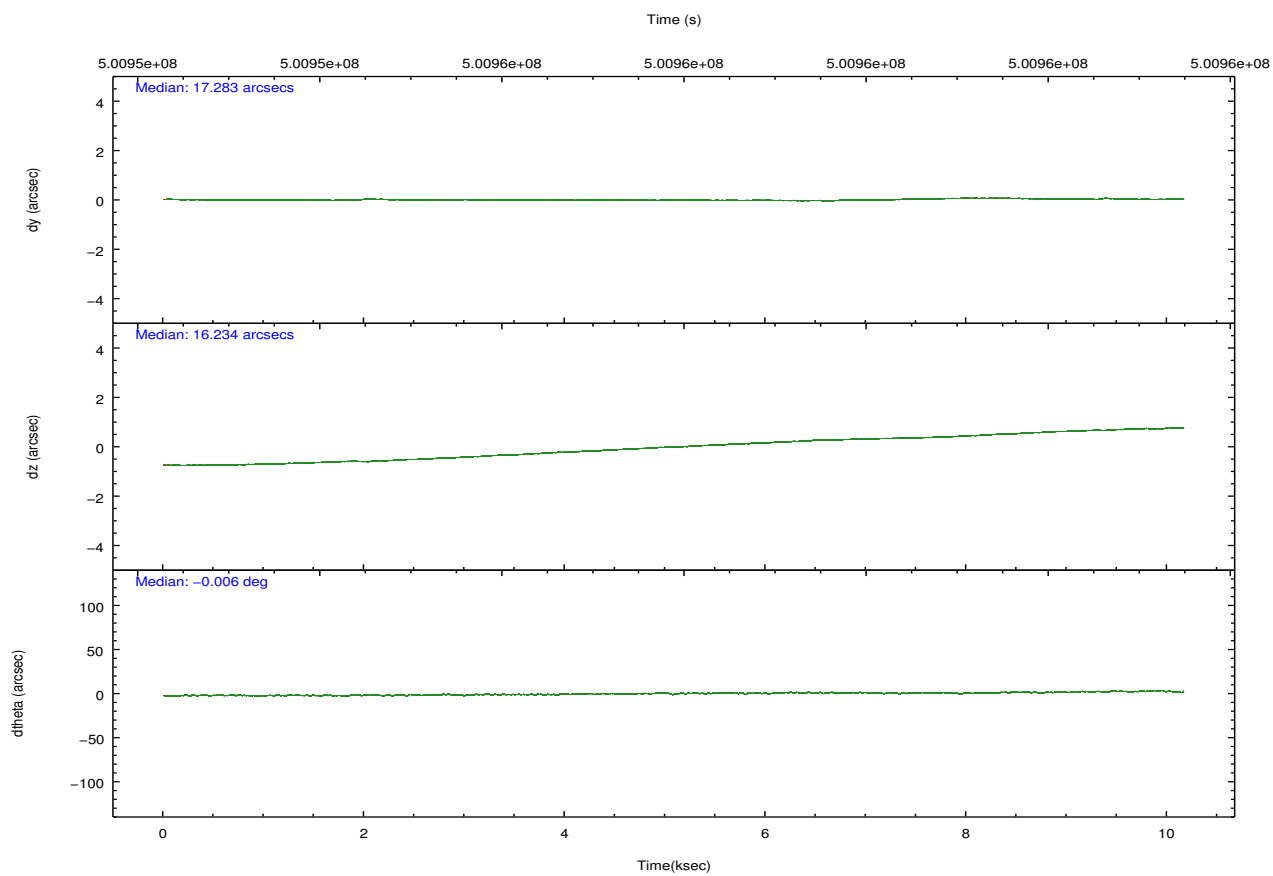
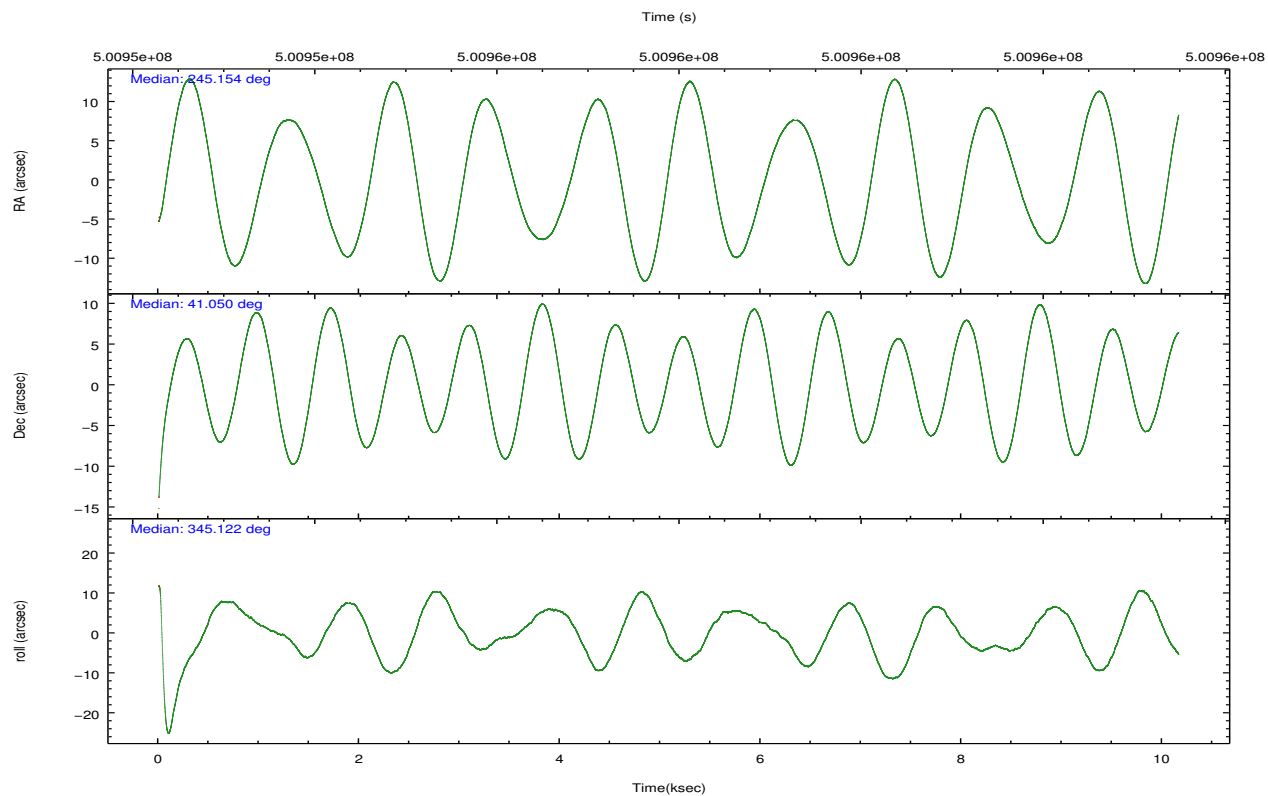
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3936	1844	1887	2407	4989
	7%	4%	3%	3%	7%
grade 1 events	46	29	23	68	51
	0%	0%	0%	0%	0%
grade 2 events	1267	1141	1295	5836	4091
	2%	2%	2%	8%	6%
grade 3 events	578	565	559	2269	1882
	1%	1%	1%	3%	2%
grade 4 events	563	553	555	2358	1754
	1%	1%	1%	3%	2%
grade 5 events	2047	2465	2548	6628	3571
	4%	5%	5%	9%	5%
grade 6 events	1051	1132	1479	15671	4884
	2%	2%	2%	23%	7%
grade 7 events	40336	36810	41471	31480	44848
	80%	82%	83%	47%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	245.119331	245.1542087008903	CCD I2 on	O1	Y
[deg] Pointing Dec	41.042633	41.05013177626416	CCD I3 on	O2	Y
[deg] Pointing Roll	344.994276	345.1280402884944	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	500952972.184000	500951767.48875	CCD S5 on	N	N
Observation start date	2013-11-16T01:35:05	2013-11-16T01:16:07	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	500962972.184000	500963771.26441	On-chip summing requested	N	N
Observation end date	2013-11-16T04:21:45	2013-11-16T04:36:11	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



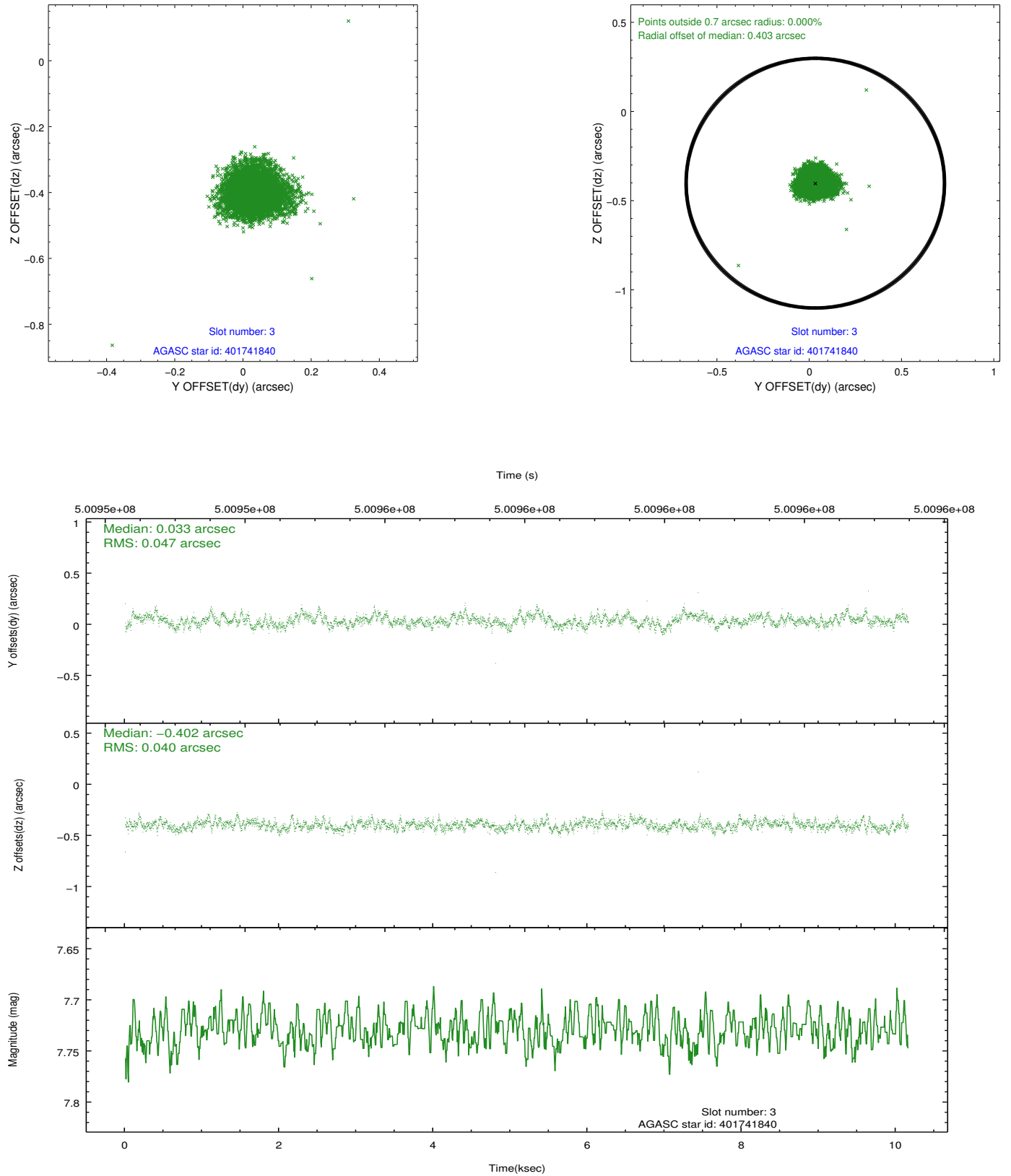


Slot Statistics

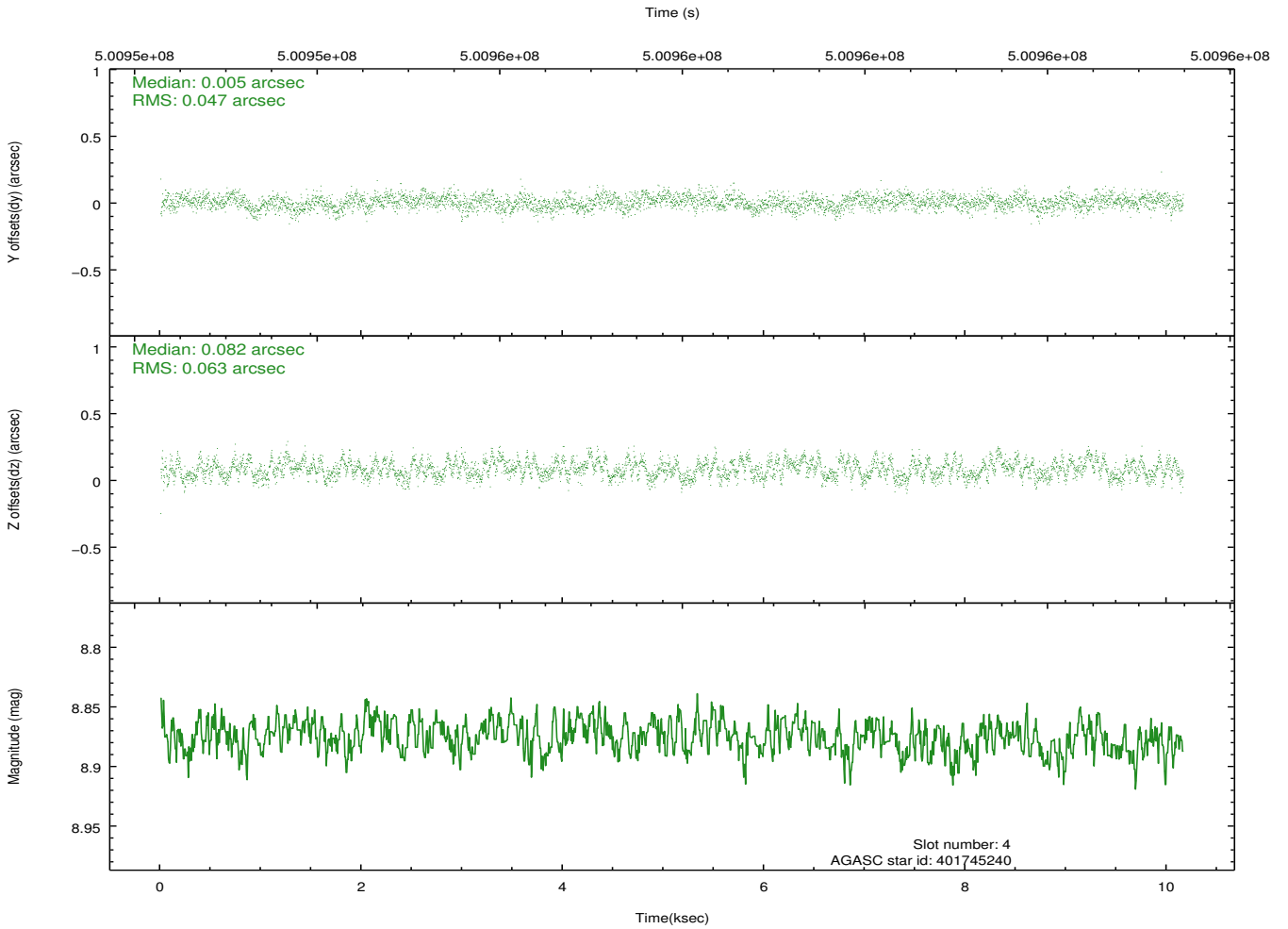
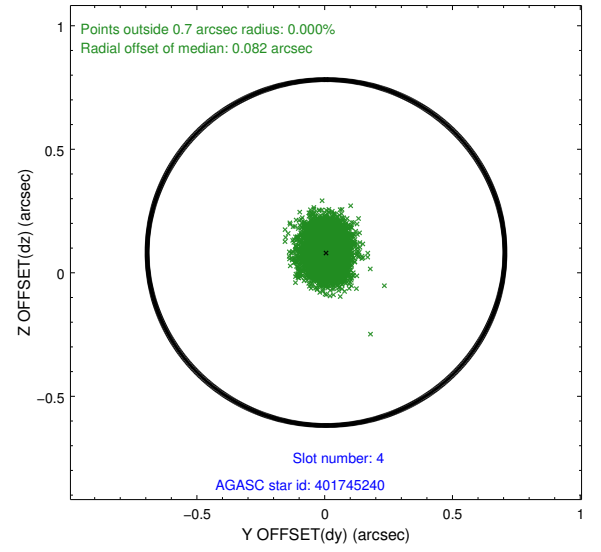
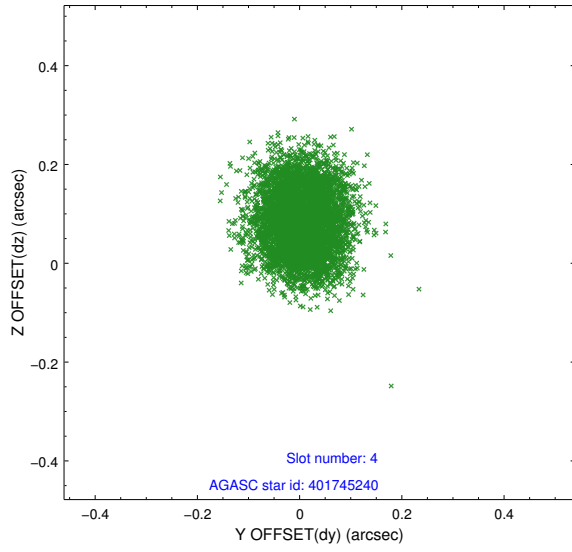
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.18	2479	0.070	-0.096	0.016	0.024	0.000000	0.000000	925.80	-1733.28
1	FID		ACIS-S-4	7.19	2479	0.183	0.037	0.012	0.020	0.000000	0.000000	2143.58	170.49
2	FID		ACIS-S-5	7.21	2478	-0.281	0.072	0.010	0.014	0.000000	0.000000	-1822.78	164.65
3	GUIDE	used	401741840	7.73	4956	0.033	-0.402	0.065	0.105	245.347832	41.435092	229.95	1524.57
4	GUIDE	used	401745240	8.87	4956	0.005	0.082	0.084	0.132	245.151484	41.048080	79.64	41.31
5	GUIDE	used	401754120	7.99	4957	0.020	-0.037	0.066	0.105	245.263801	40.991091	427.61	-77.43
6	GUIDE	used	401746064	8.49	4955	-0.035	0.350	0.064	0.102	245.219743	40.961445	339.22	-209.85
7	GUIDE	used	401746696	9.37	4951	-0.022	0.001	0.128	0.207	246.122337	41.289779	2386.29	1577.23

2.4 Star Slots

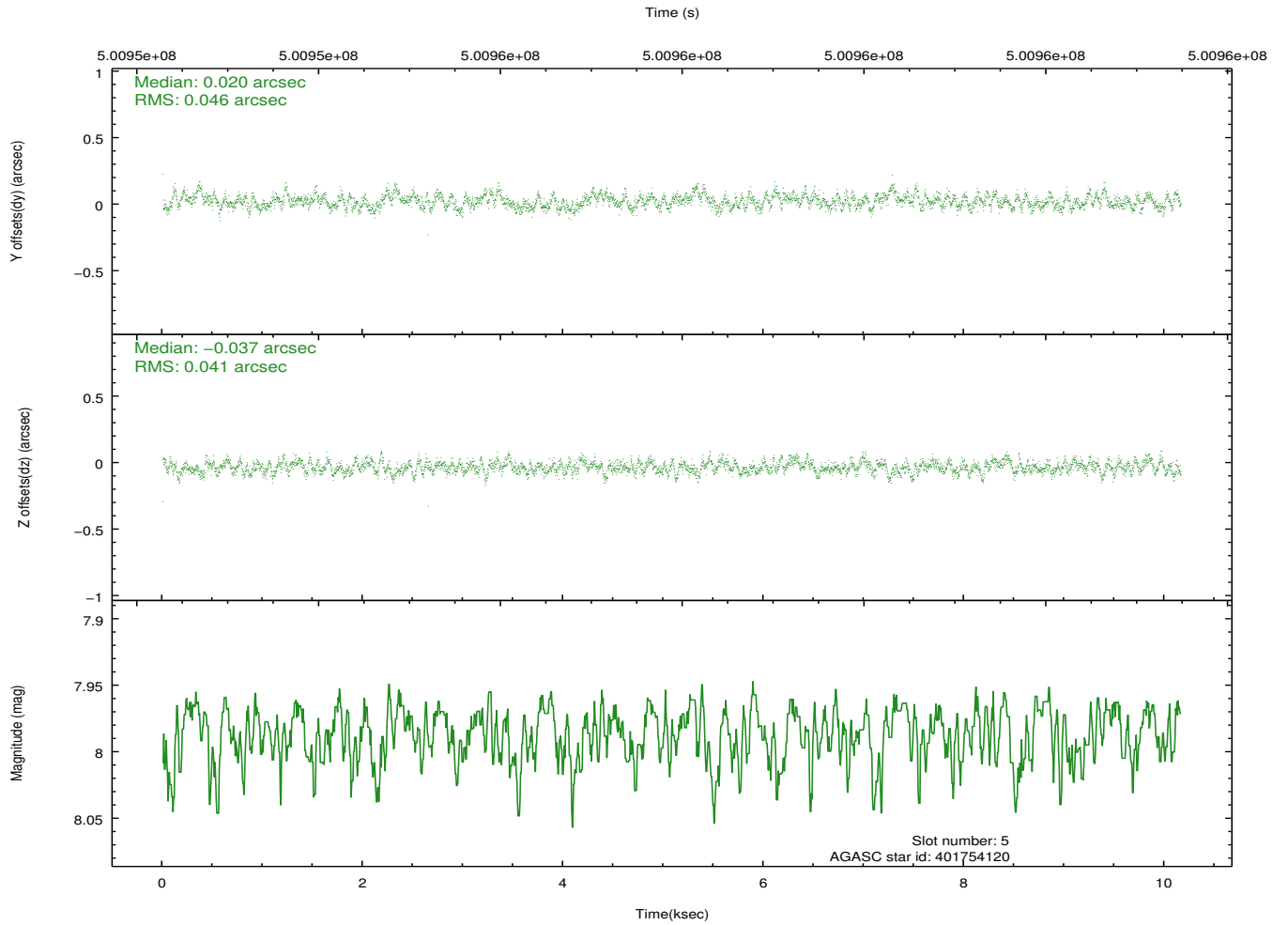
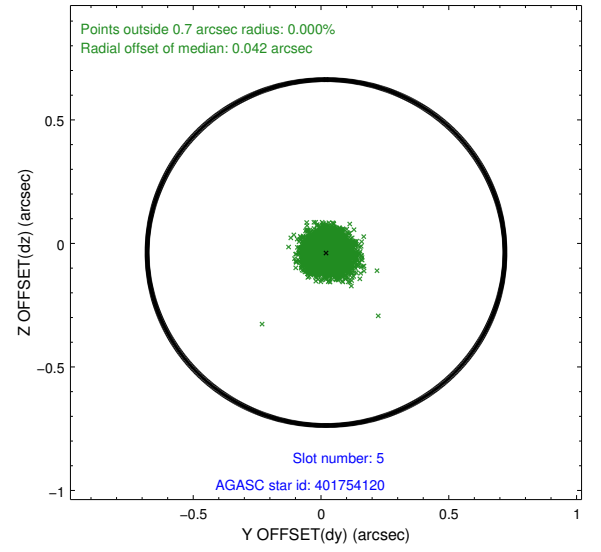
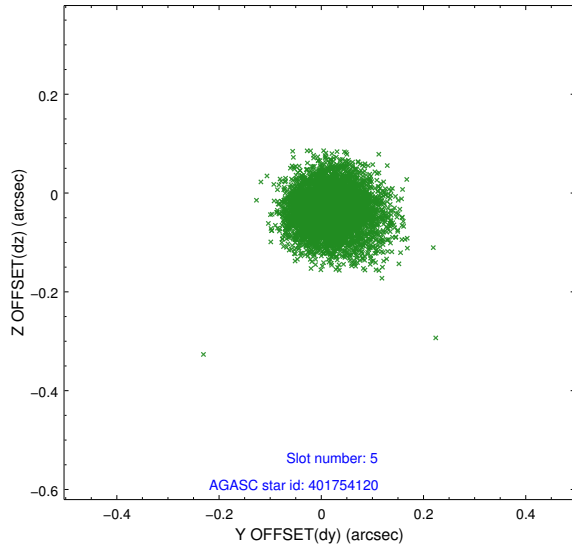
2.4.1 Slot 3



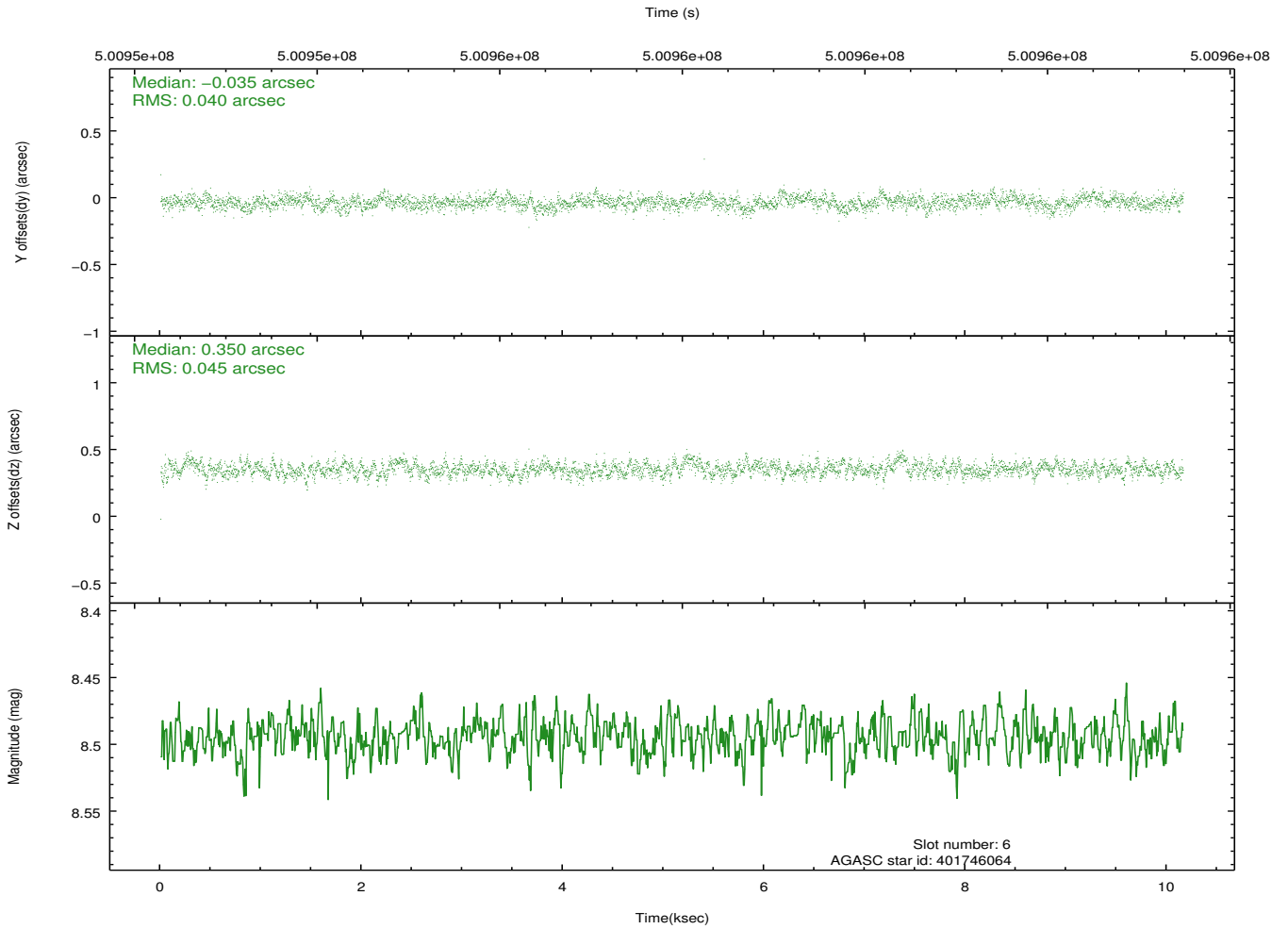
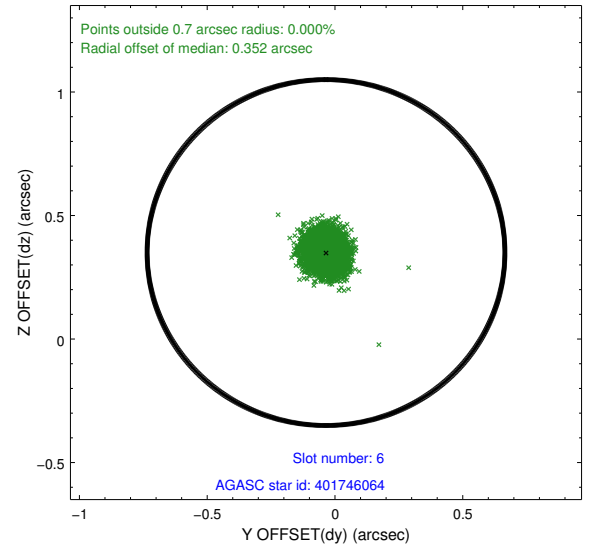
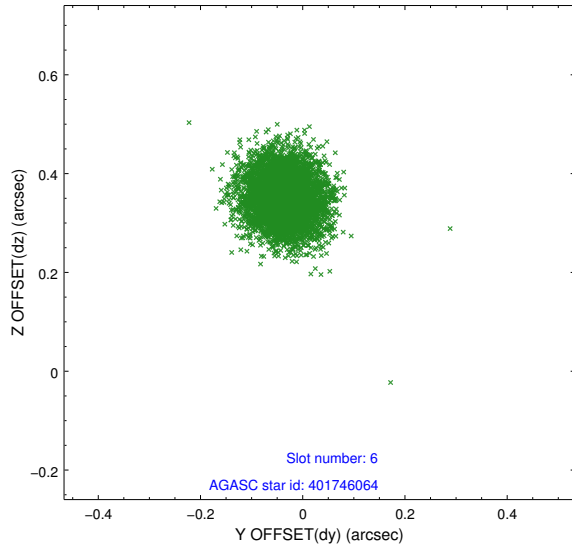
2.4.2 Slot 4



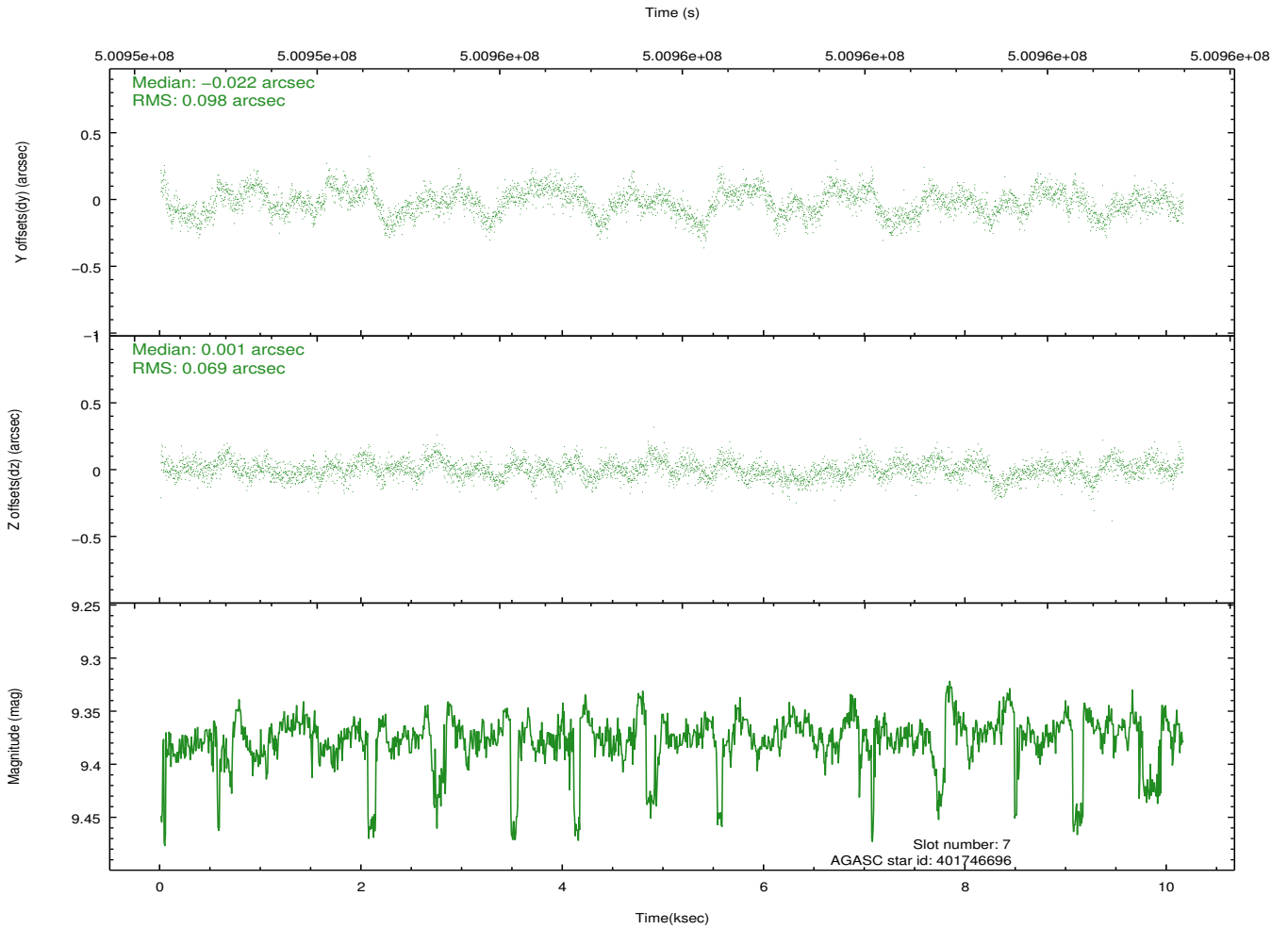
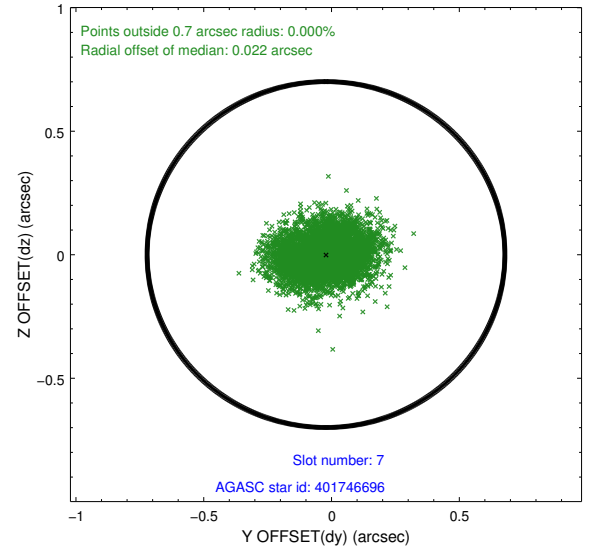
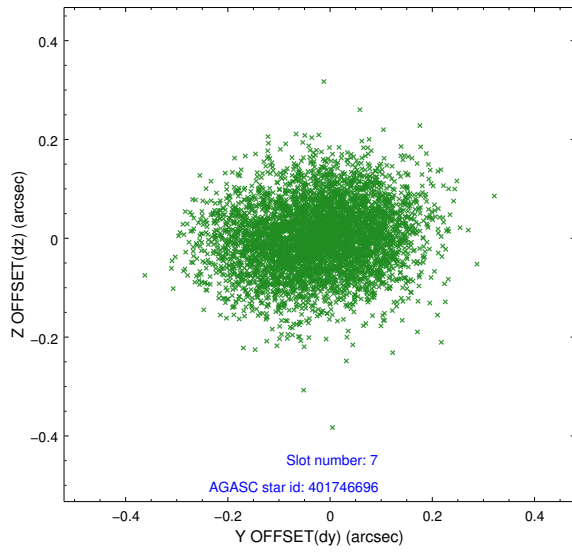
2.4.3 Slot 5



2.4.4 Slot 6

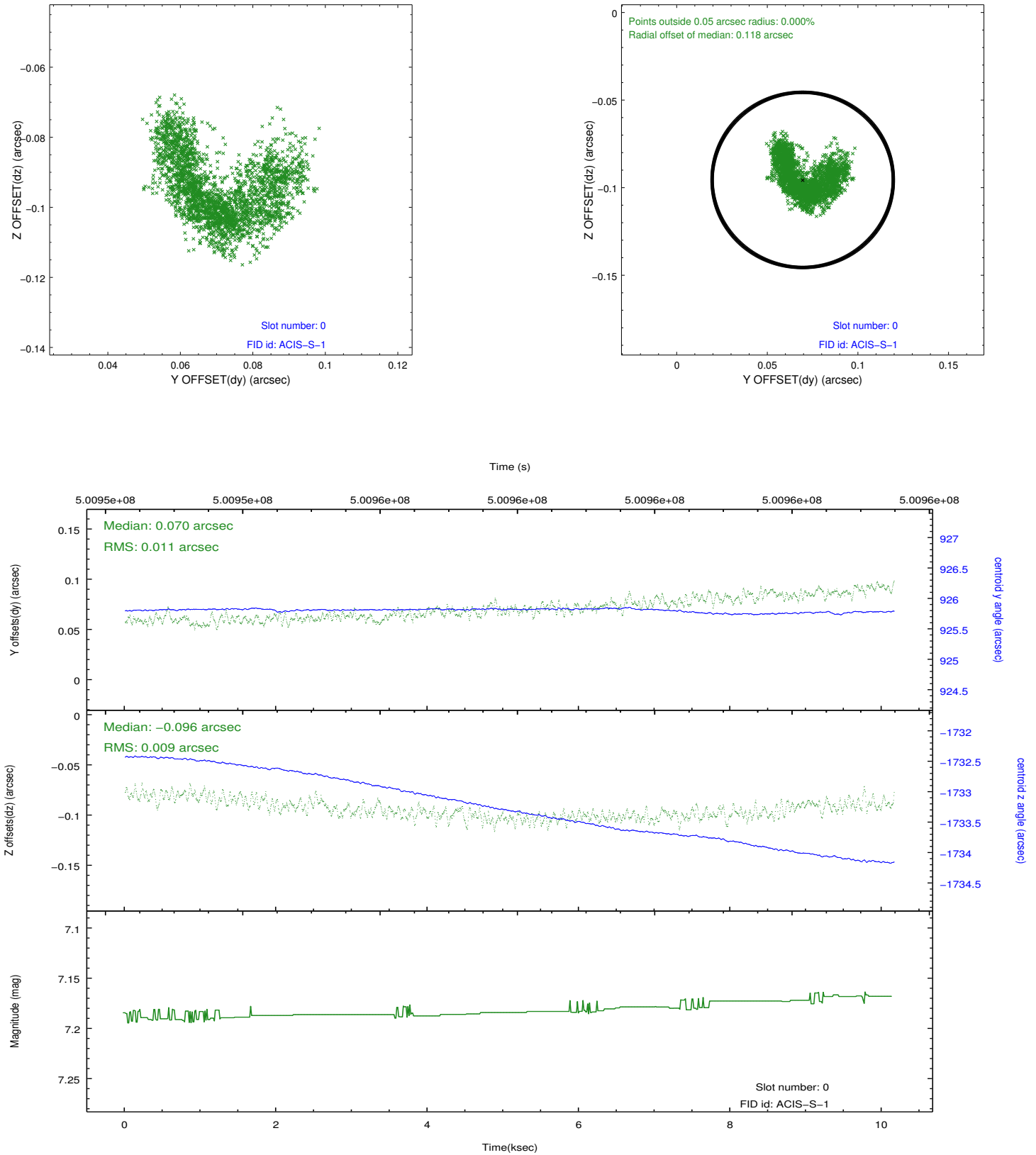


2.4.5 Slot 7

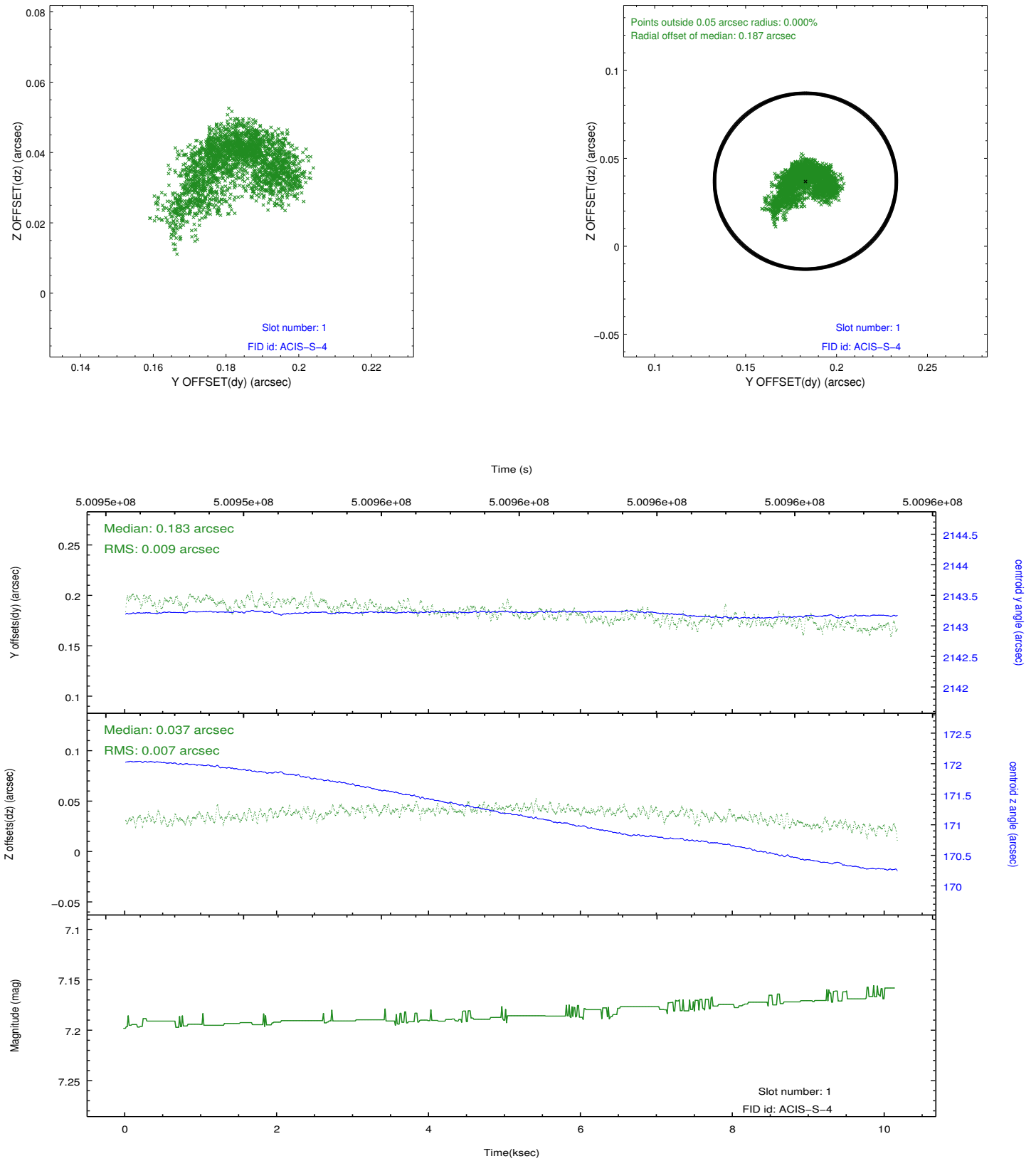


2.5 FID Slots

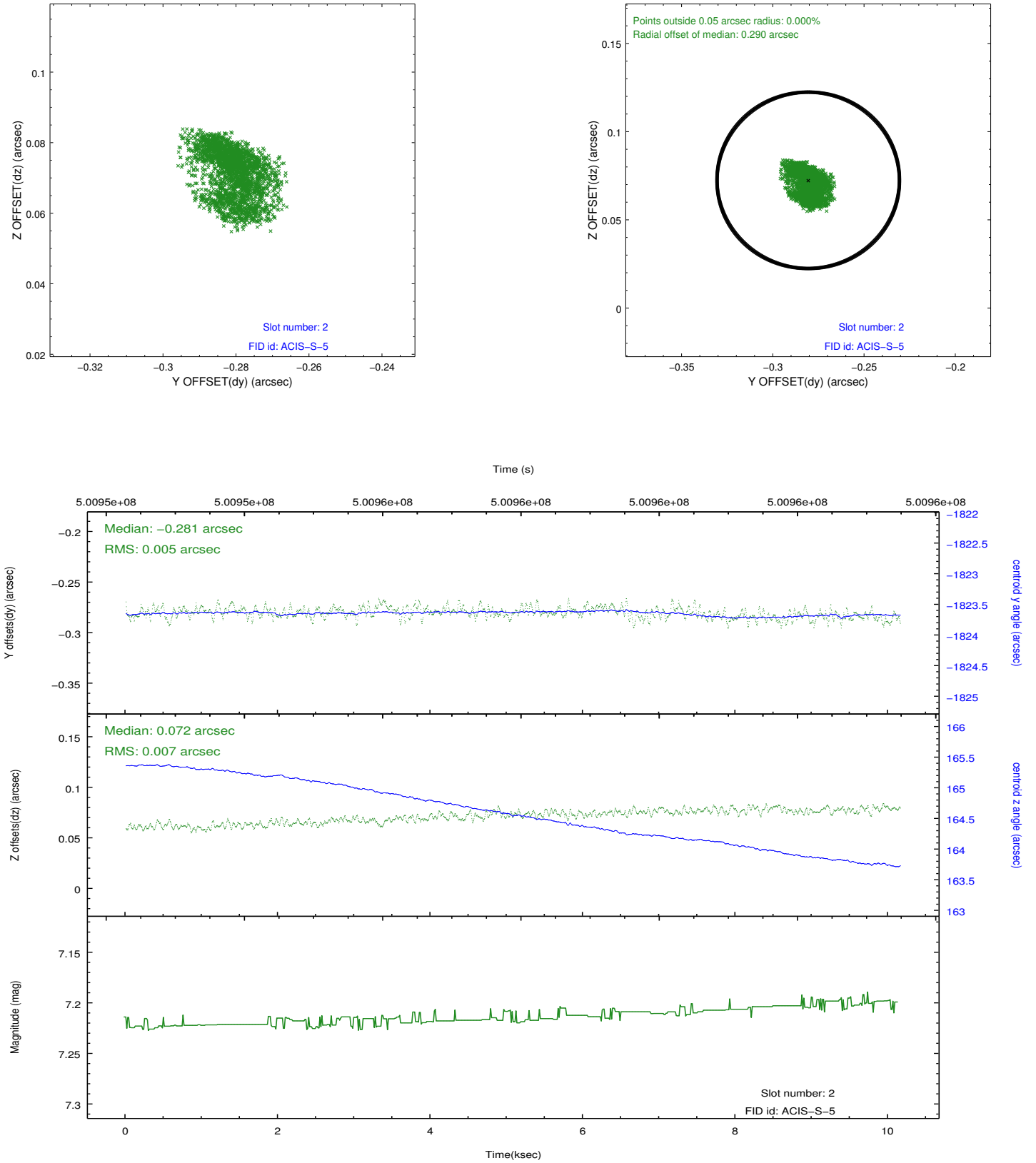
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.065700077415

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.