

V&V Reference Report

L2 ASCDS Version : 10

Observation 14502 - L2 Version 2
Chandra X-Ray Center

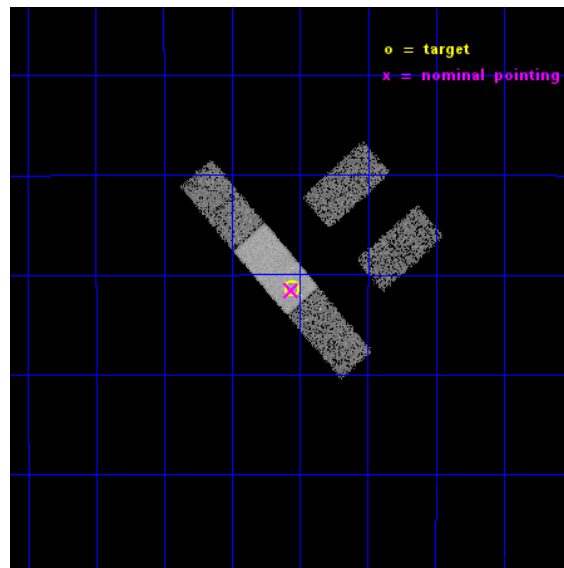
L2 Processing Date : Dec 4 2014

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1 Front

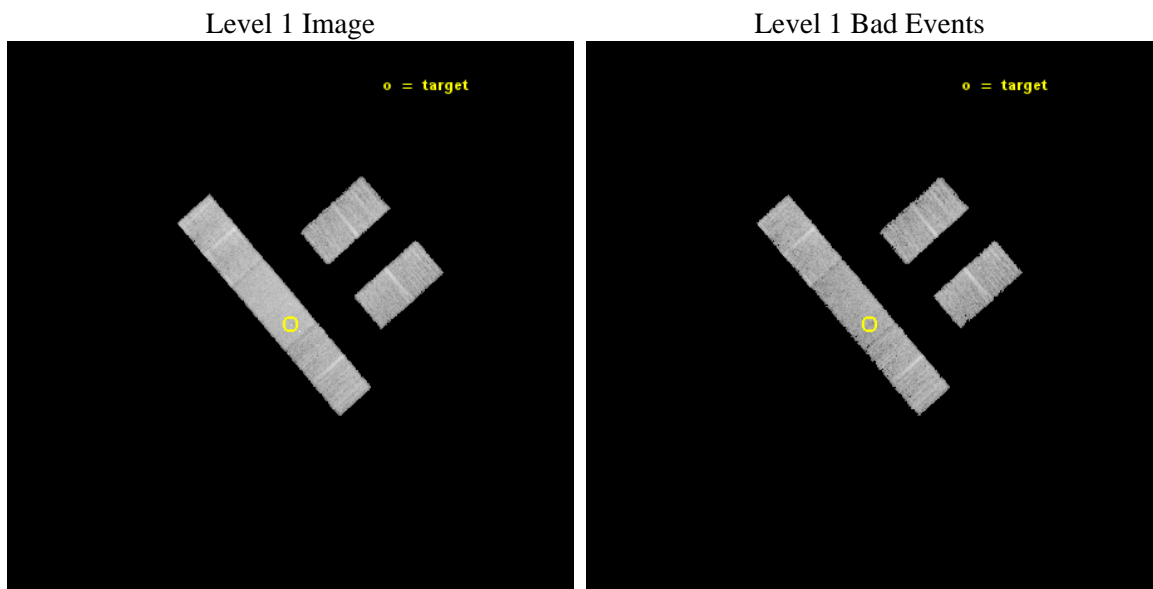
seq_num	702739	Sequence number
obs_id	14502	Observation id
title	ENERGY DEPENDENT X-RAY MICROLENSING AND THE STRUCTURE OF QUASARS	P
observer	Prof. Christopher Kochanek	Principal investigator
object	HE1104-1805	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	166.639583	Observer's specified target RA [deg]
dec_targ	-18.356722	Observer's specified target Dec [deg]
ra_nom	166.64051915152	Nominal RA [deg]
dec_nom	-18.35962513745	Nominal Dec [deg]
roll_nom	228.85099474151	Nominal Roll [deg]
revision	2	Processing version of data
ontime	14064.099901438	Sum of GTIs [s]
livetime	13732.579281604	Livetime [s]
ontime2	14064.099901438	Sum of GTIs [s]
ontime3	14064.099901438	Sum of GTIs [s]
ontime6	14062.358871162	Sum of GTIs [s]
ontime7	14064.099901438	Sum of GTIs [s]
ontime8	14064.099901438	Sum of GTIs [s]
l2events	38169	Number of level 2 events



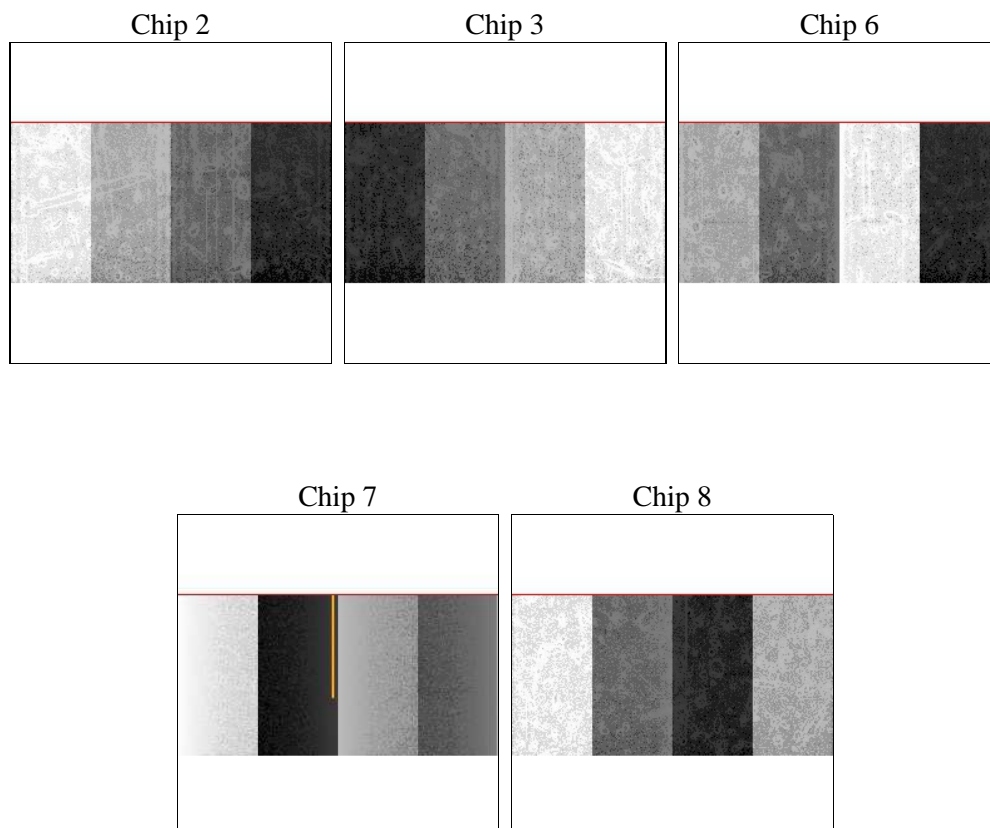
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	14064.099901438	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	14064.099901438	Sum of GTIs [s]
date	2014-12-04T21:59:53	Date and time of file creation	ontime3	14064.099901438	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	14062.358871162	Sum of GTIs [s]
			ontime7	14064.099901438	Sum of GTIs [s]
			ontime8	14064.099901438	Sum of GTIs [s]
			l1events	208579	Number of level 1 events

2.1.4 Events

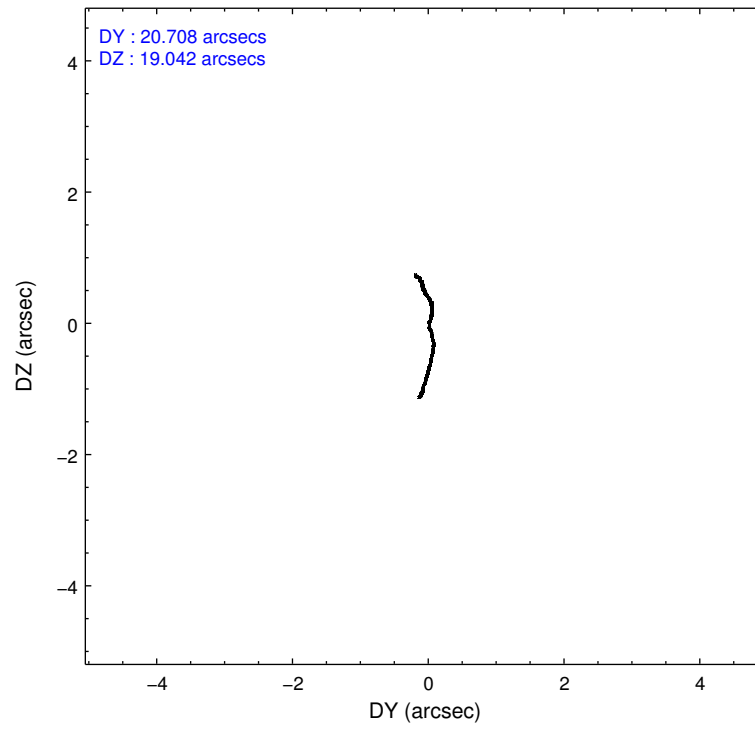
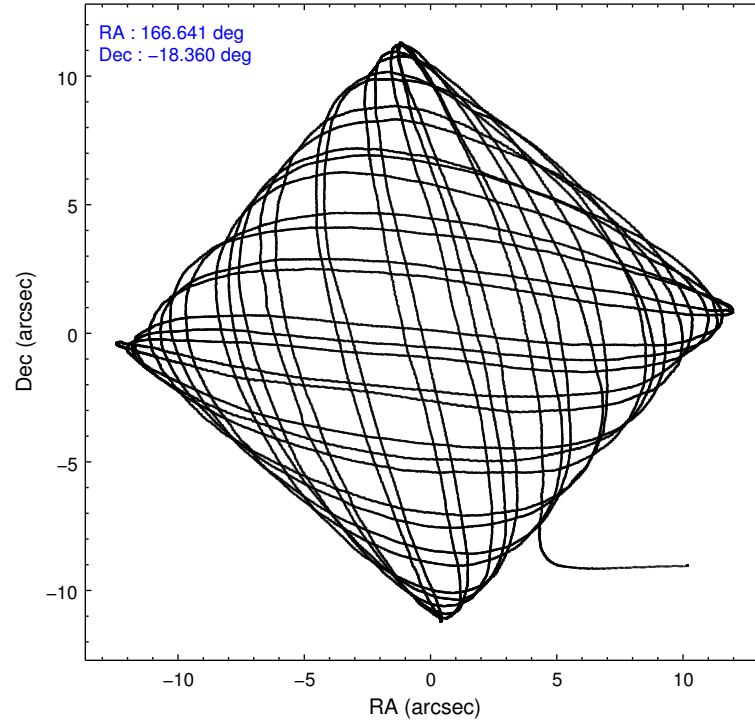
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	34699	35163	38188	50358	50171
rejected events	30527	30979	33430	27321	37691
rejected %	87%	88%	87%	54%	75%

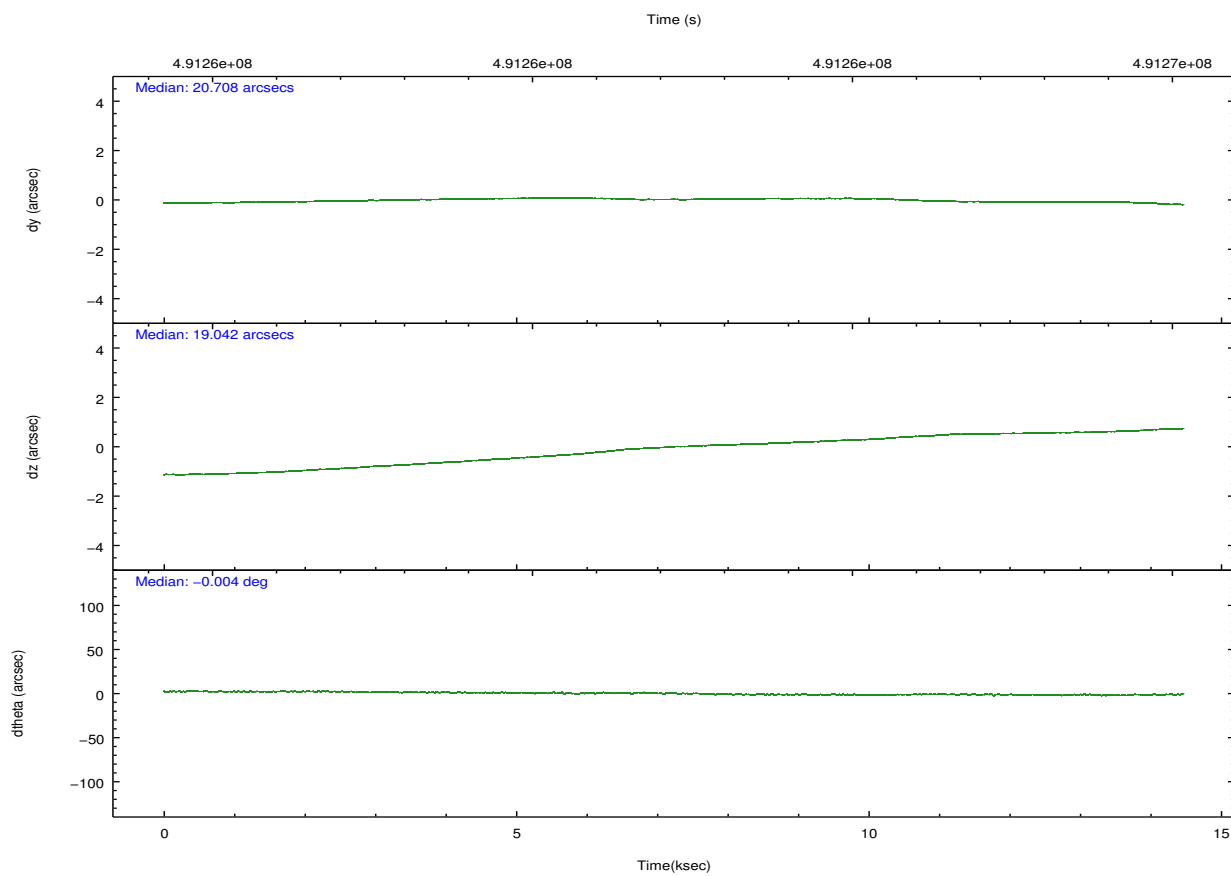
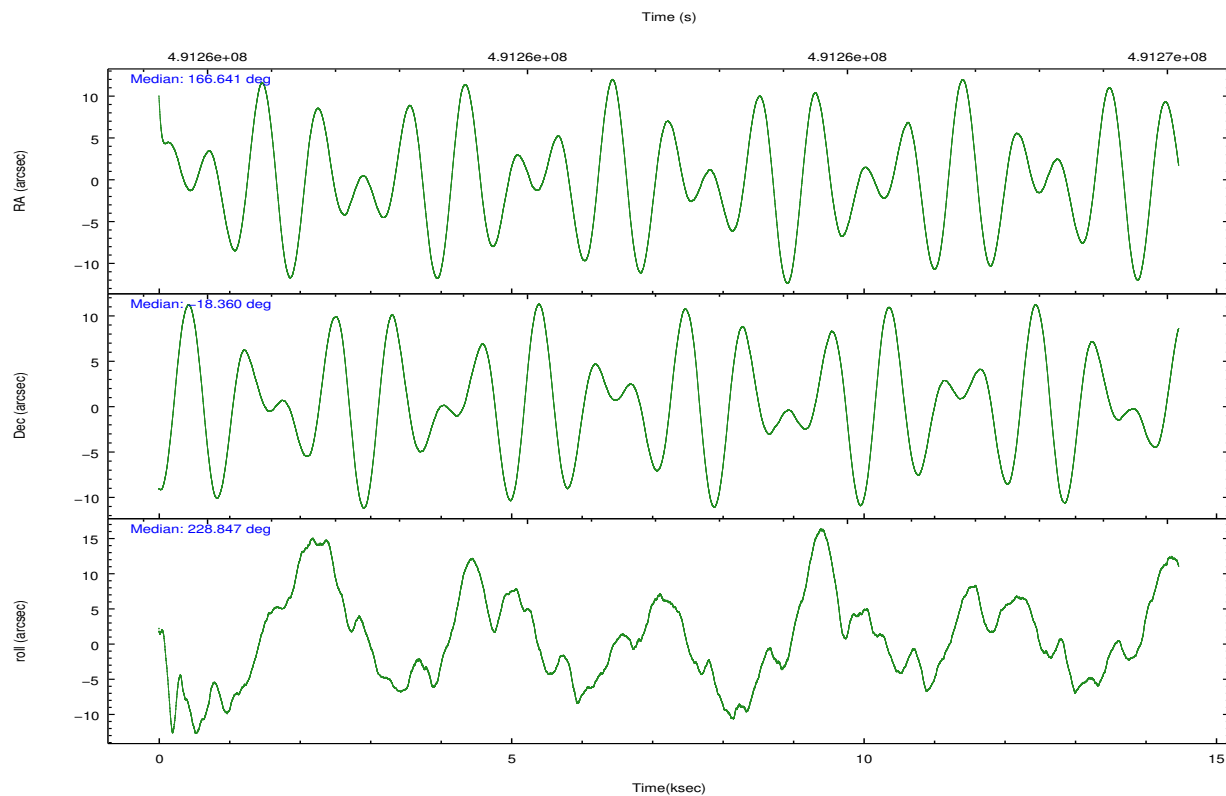
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1386	1363	1623	2246	3800
	3%	3%	4%	4%	7%
grade 1 events	25	13	14	63	19
	0%	0%	0%	0%	0%
grade 2 events	961	939	1002	4830	2786
	2%	2%	2%	9%	5%
grade 3 events	473	505	546	2211	1319
	1%	1%	1%	4%	2%
grade 4 events	557	515	543	2170	1313
	1%	1%	1%	4%	2%
grade 5 events	1498	1793	1916	5210	2715
	4%	5%	5%	10%	5%
grade 6 events	797	863	1045	11587	3263
	2%	2%	2%	23%	6%
grade 7 events	29002	29172	31499	22041	34956
	83%	82%	82%	43%	69%

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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	166.645669	166.6405191515177	CCD I2 on	O4	Y
[deg] Pointing Dec	-18.332733	-18.3596251374498	CCD I3 on	O3	Y
[deg] Pointing Roll	228.695995	228.8509947415063	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	O1	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O2	Y
[s] Observation start time (MET)	491255440.184000	491253993.39646	CCD S5 on	N	N
Observation start date	2013-07-26T19:49:33	2013-07-26T19:26:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	491269440.184000	491270080.25984	On-chip summing requested	N	N
Observation end date	2013-07-26T23:42:53	2013-07-26T23:54:40	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

2.3 Aspect



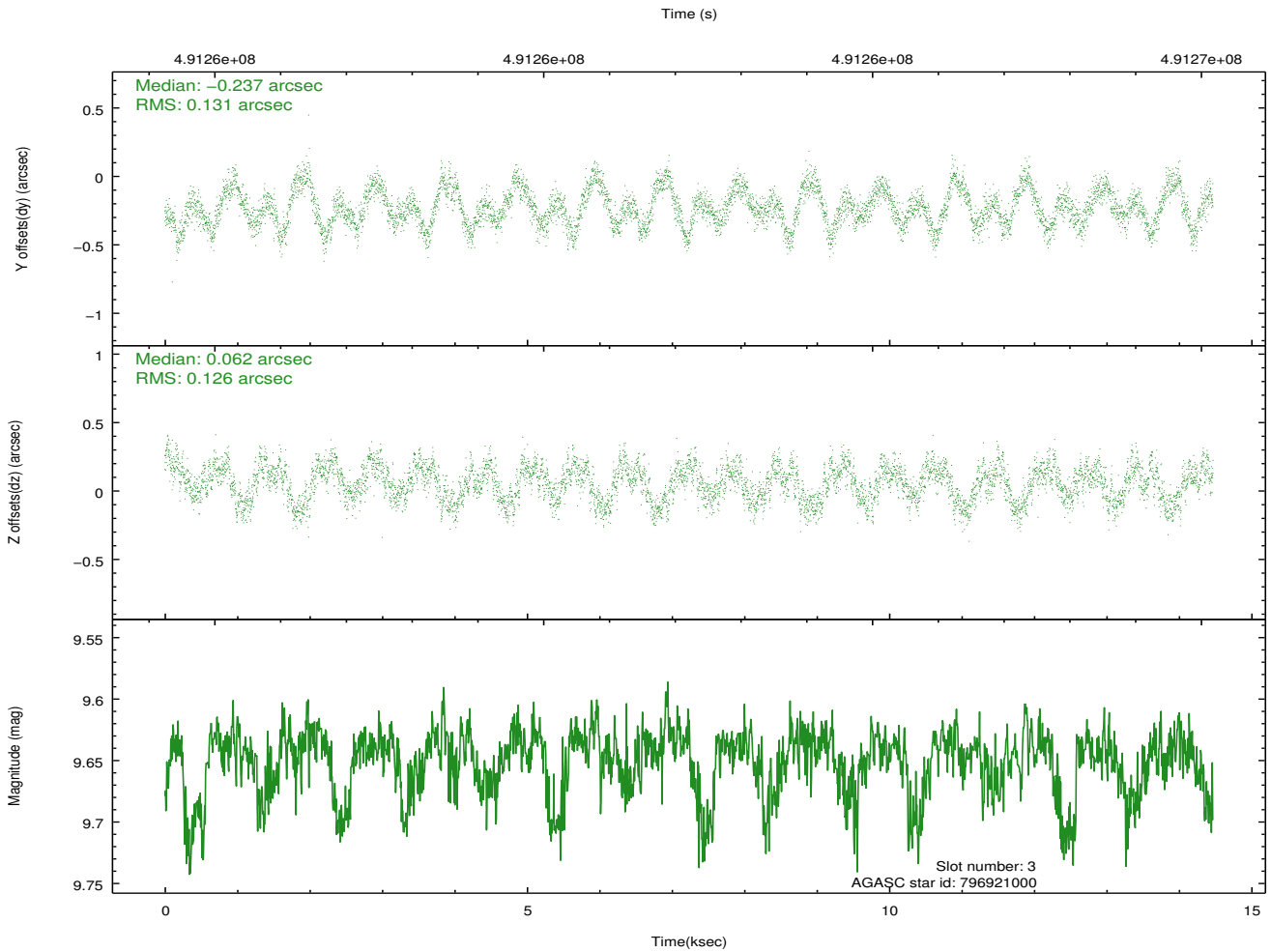
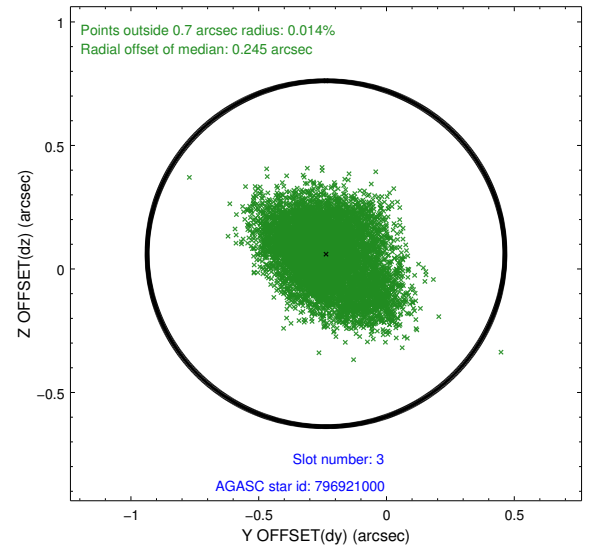
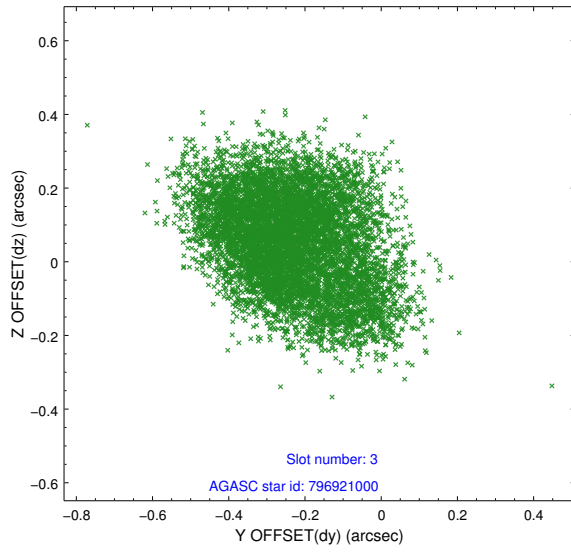


Slot Statistics

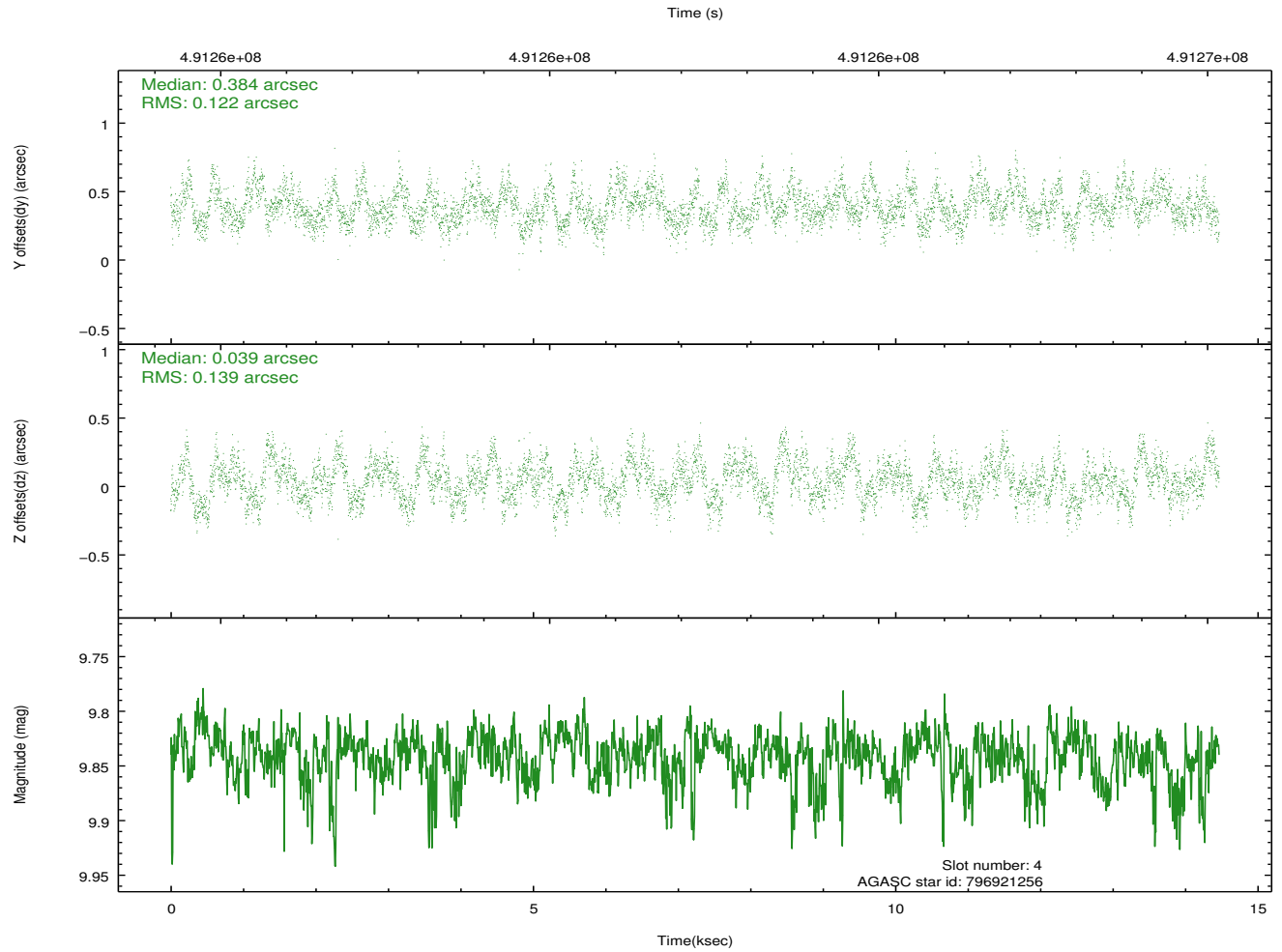
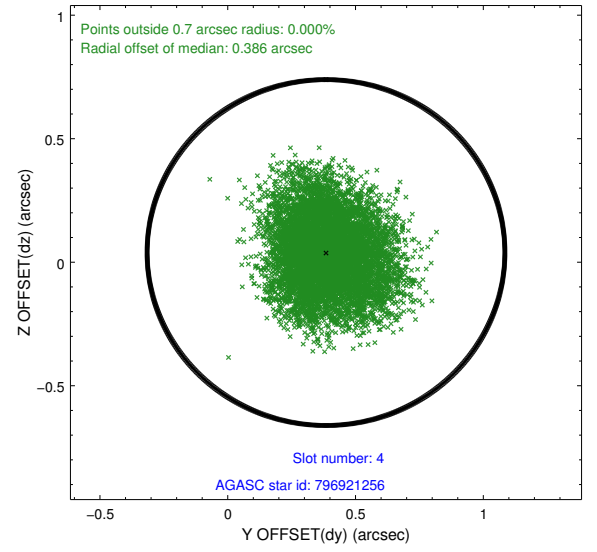
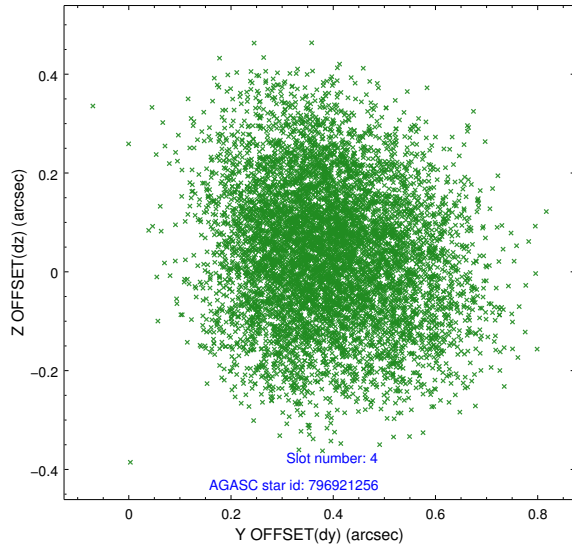
lot	status	used	id	mag	n_pts	med_dy	med_dz	drl	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	6.98	3528	-0.126	-0.053	0.018	0.027	0.000000	0.000000	-773.95	-1740.44
1	FID		ACIS-S-4	7.07	3529	0.255	0.075	0.006	0.011	0.000000	0.000000	2139.57	167.82
2	FID		ACIS-S-5	7.09	3529	-0.159	-0.013	0.017	0.026	0.000000	0.000000	-1826.41	161.75
3	GUIDE	used	796921000	9.65	7048	-0.237	0.062	0.196	0.307	166.658084	-18.401963	159.35	196.57
4	GUIDE	used	796921256	9.84	7038	0.384	0.039	0.201	0.313	165.757289	-18.316611	1966.99	-2313.98
5	GUIDE	used	796923960	9.16	6993	-0.123	0.167	0.105	0.169	167.114946	-18.113690	-1650.08	686.57
6	GUIDE	used	796928784	8.40	7054	0.118	0.134	0.090	0.146	166.853792	-17.800971	-1908.36	-727.25
7	BAD	used	796930872	10.12	6767	-0.169	-0.420	0.277	0.414	166.504684	-19.082395	2344.72	1422.15

2.4 Star Slots

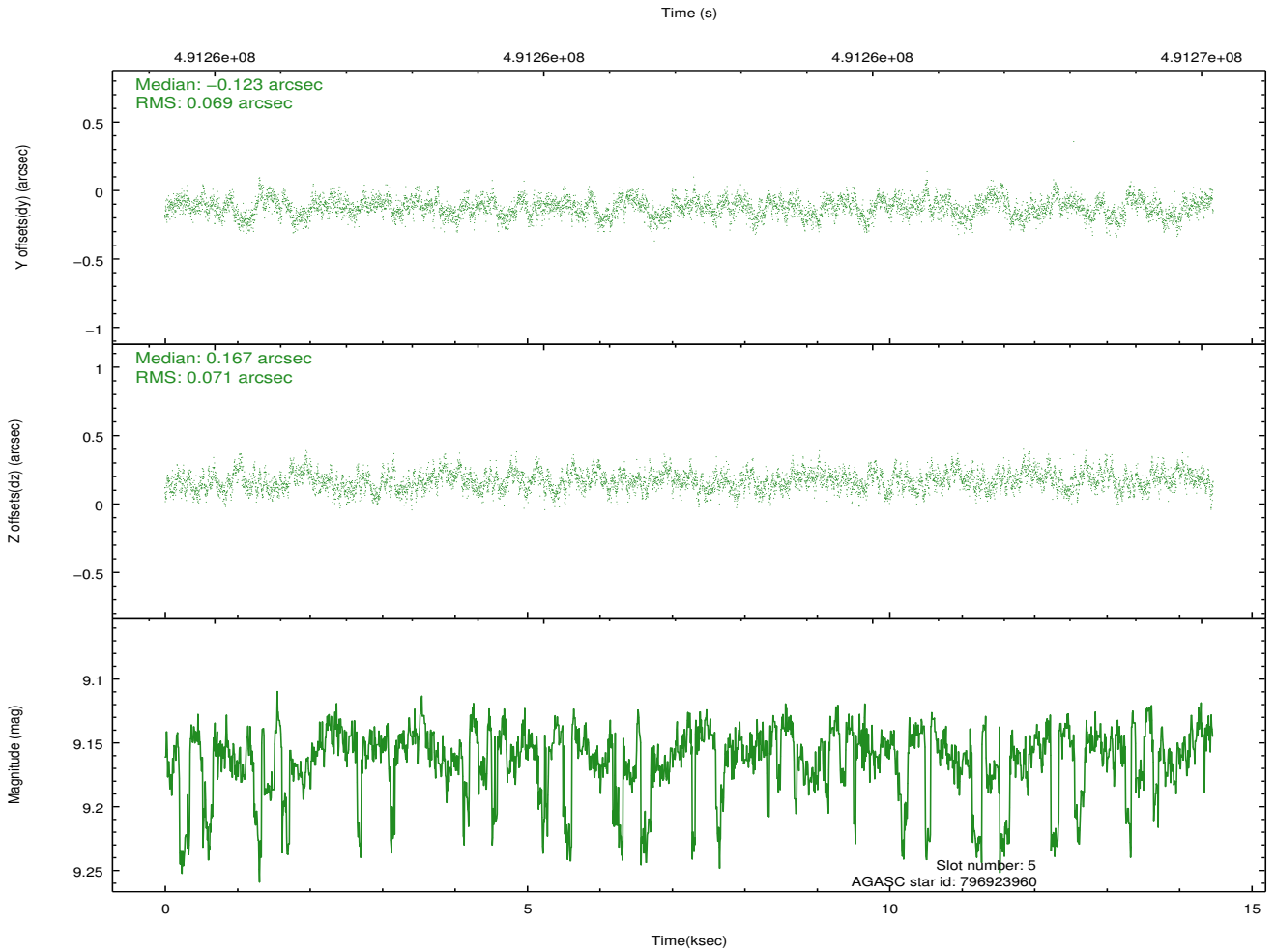
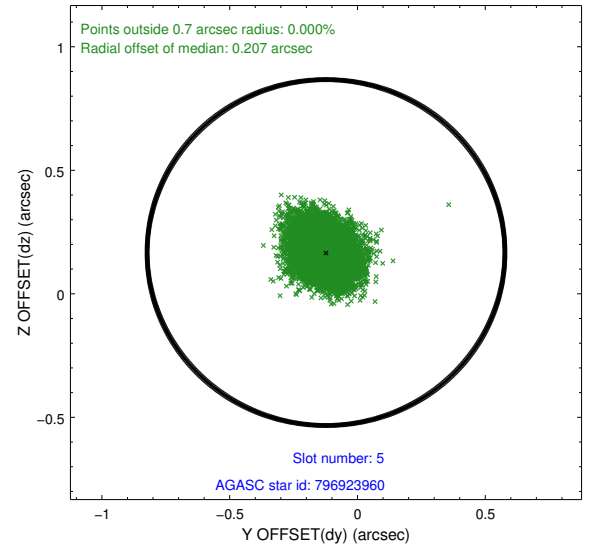
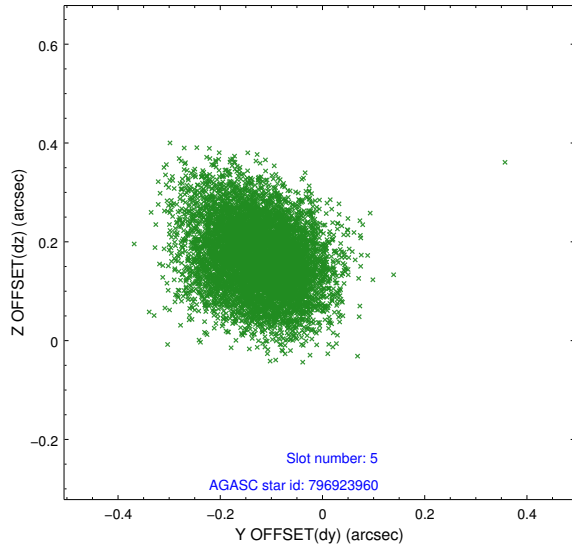
2.4.1 Slot 3



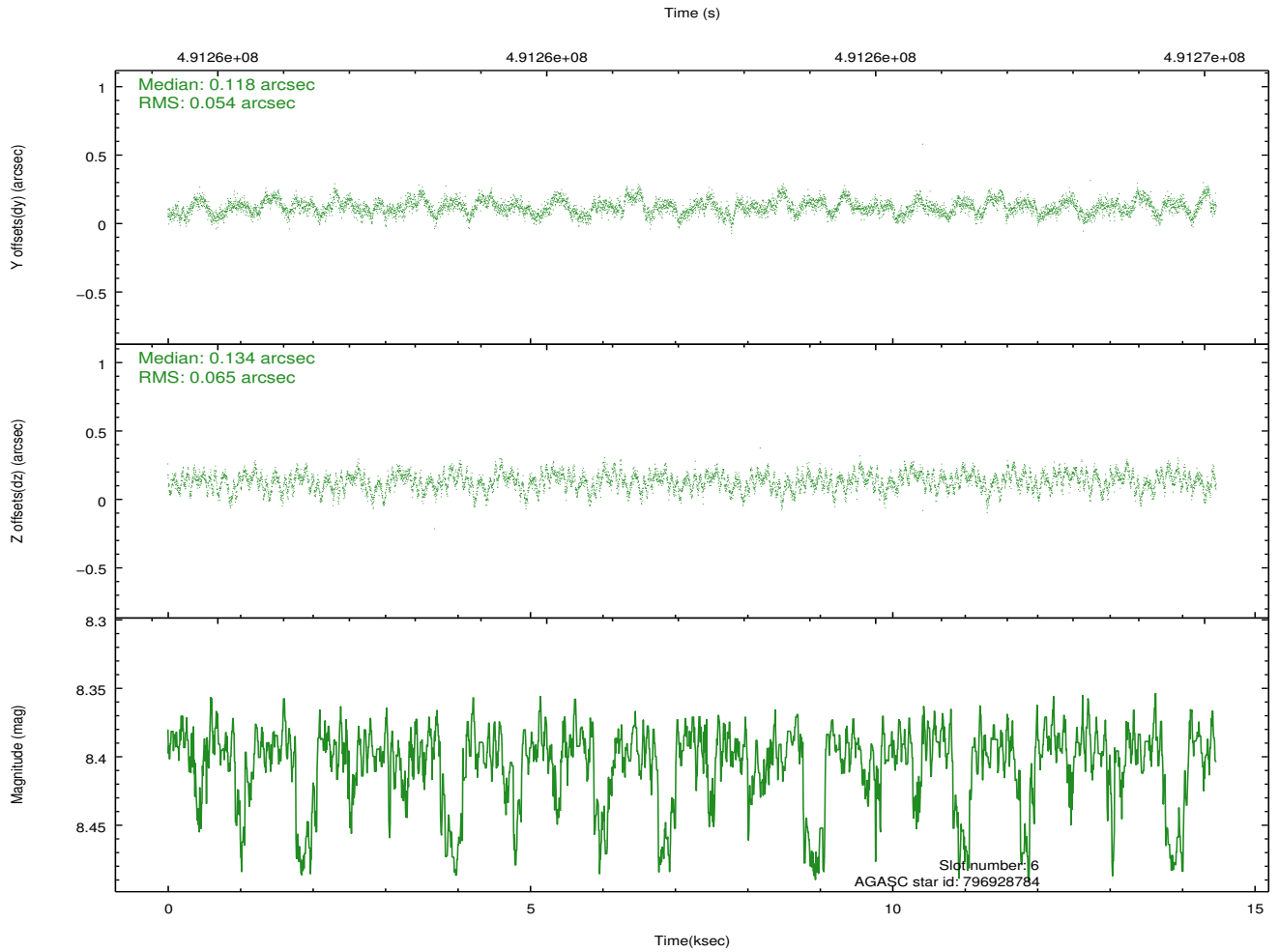
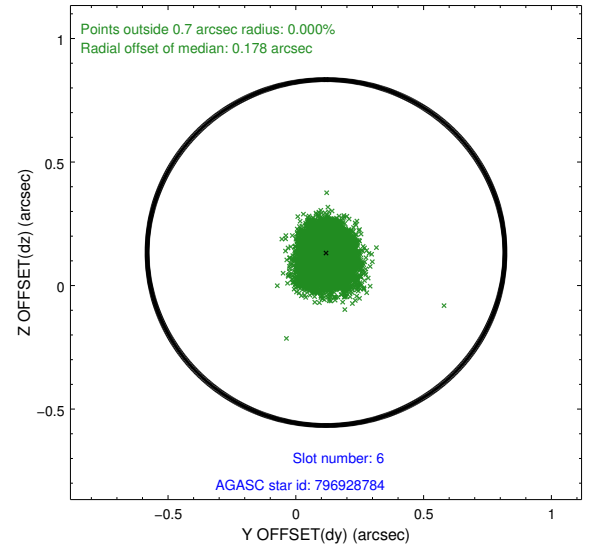
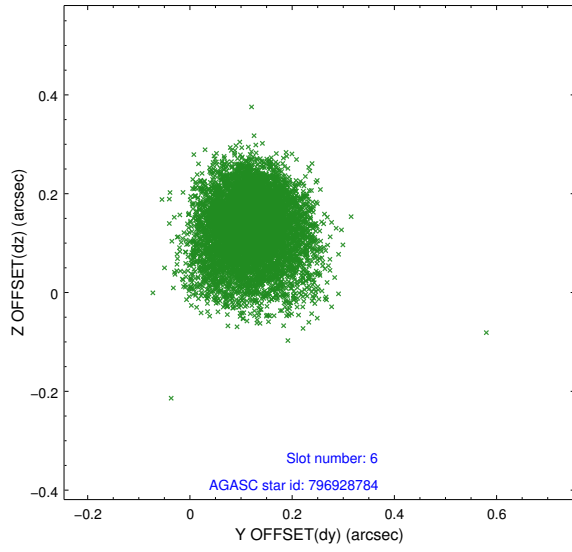
2.4.2 Slot 4



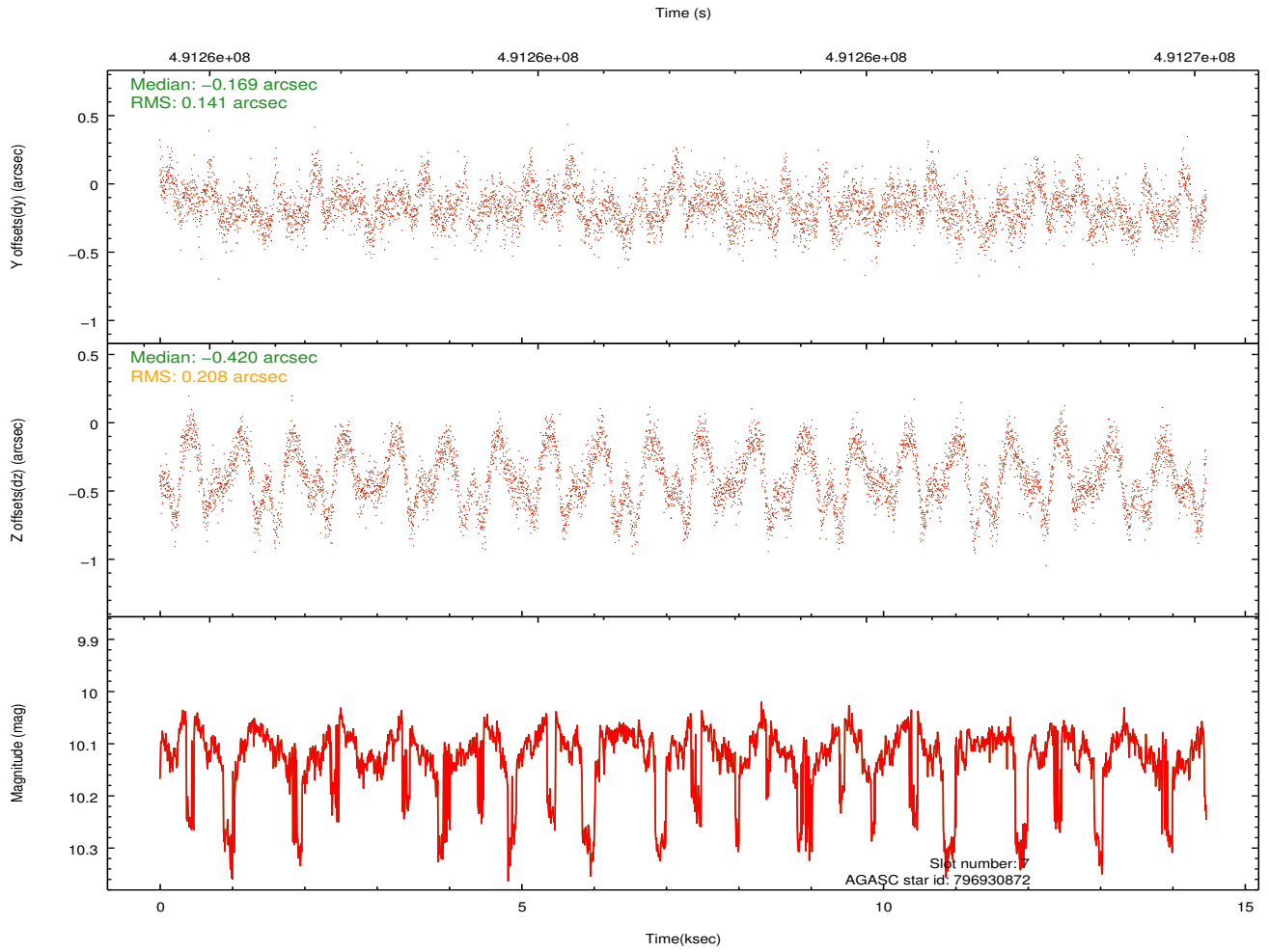
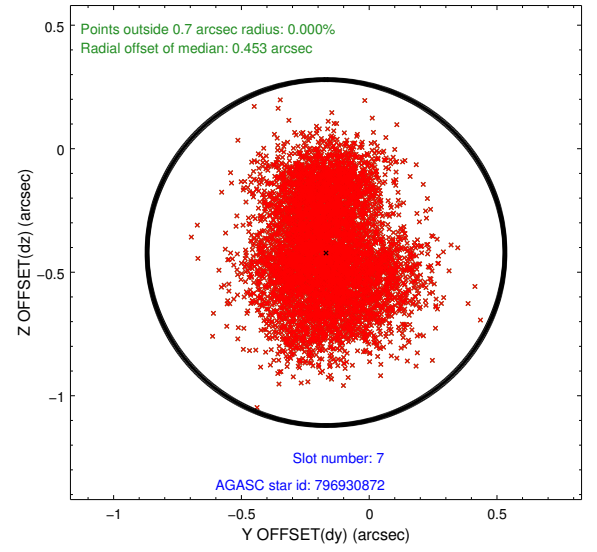
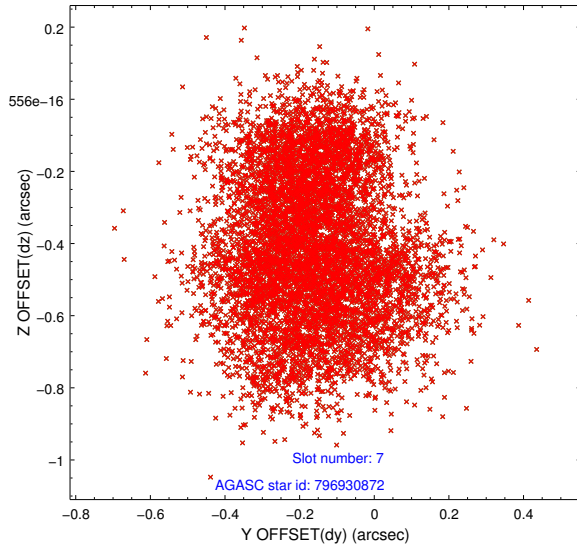
2.4.3 Slot 5



2.4.4 Slot 6

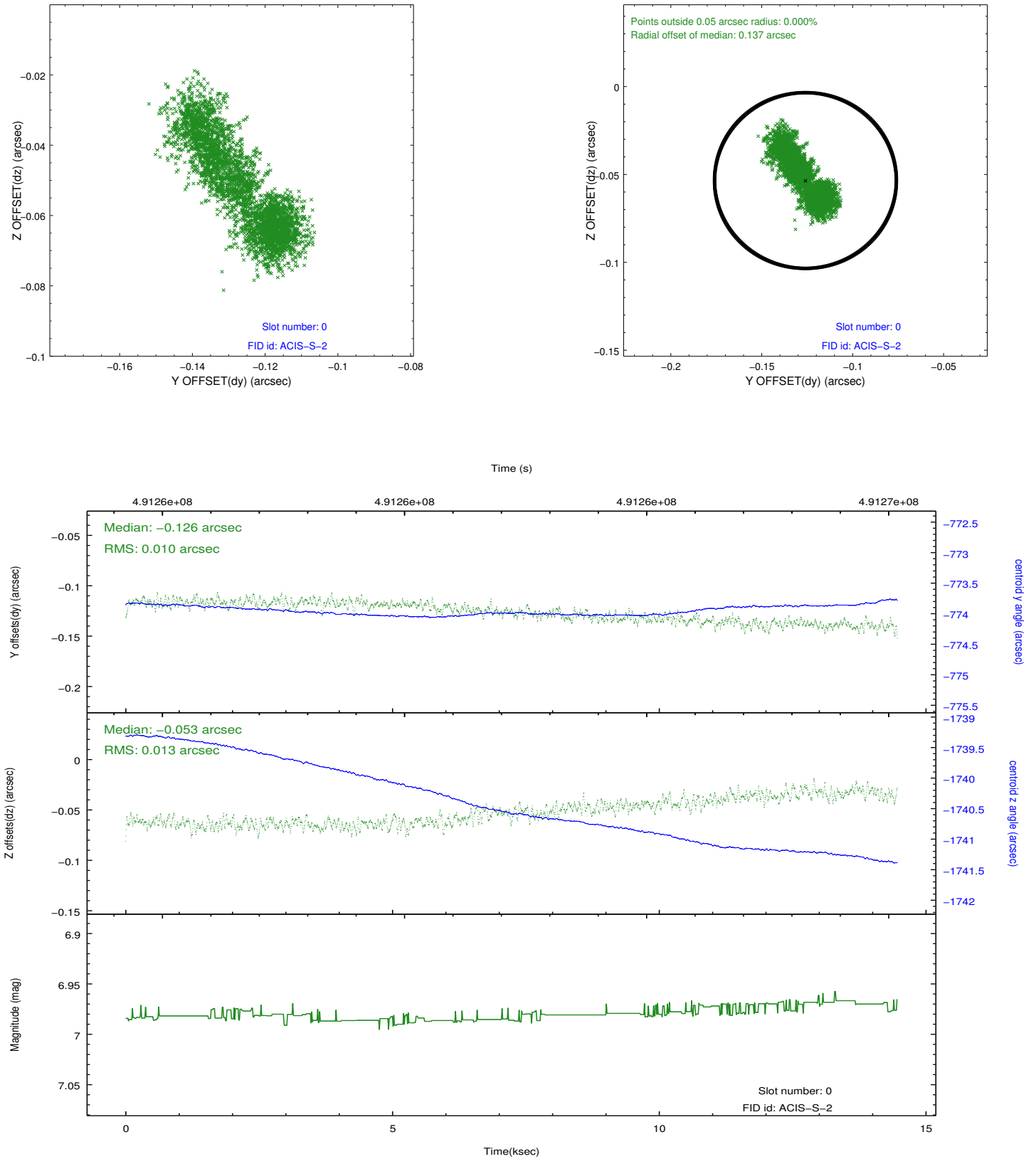


2.4.5 Slot 7

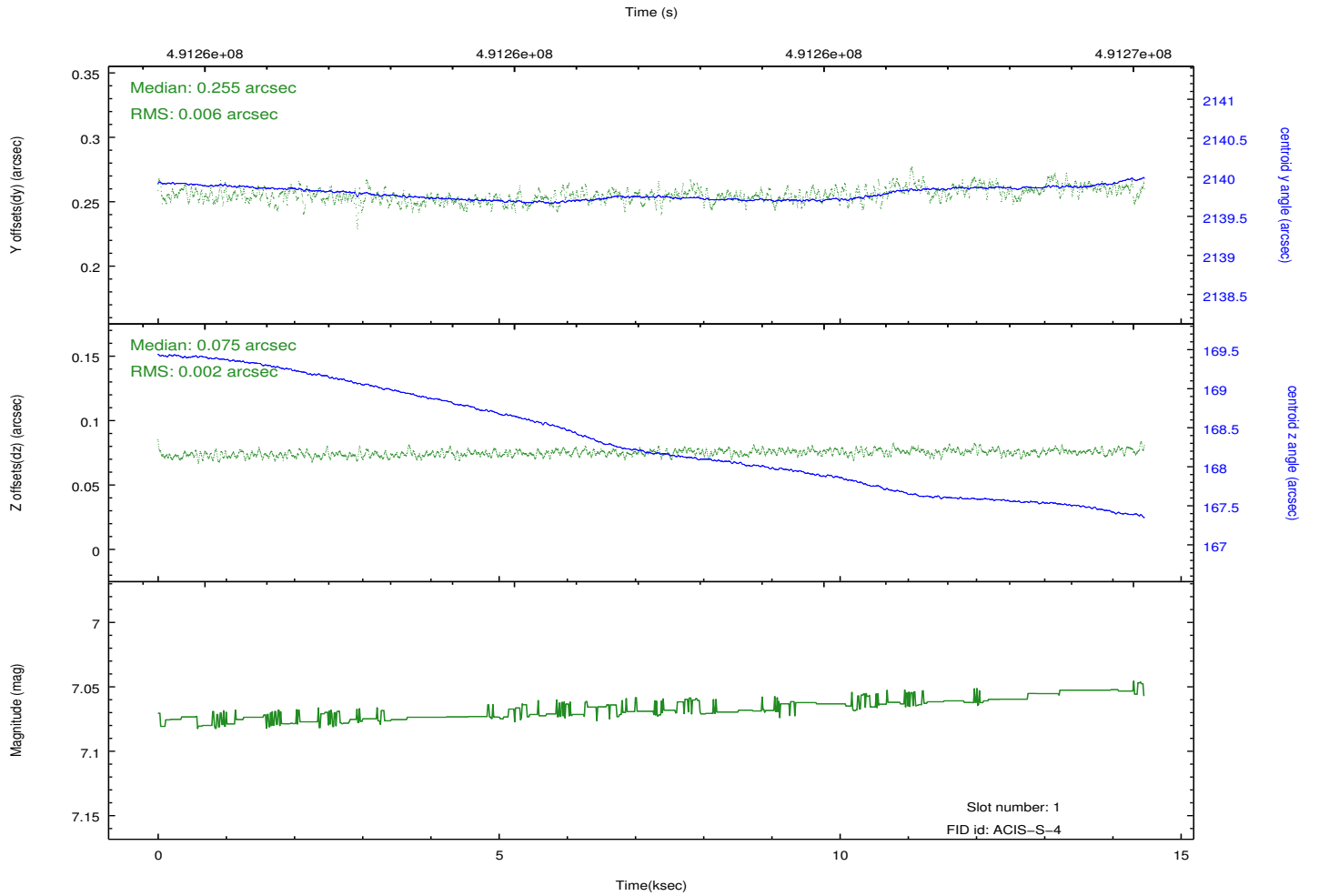
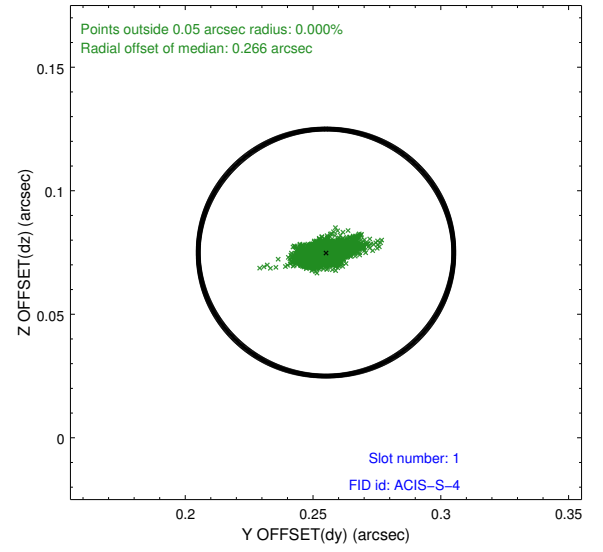
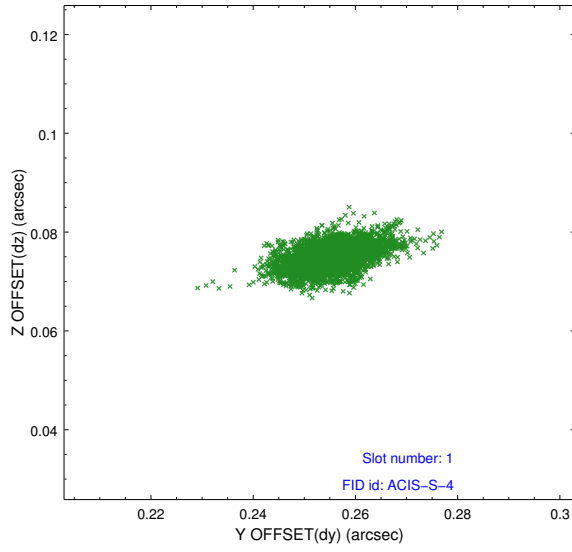


2.5 FID Slots

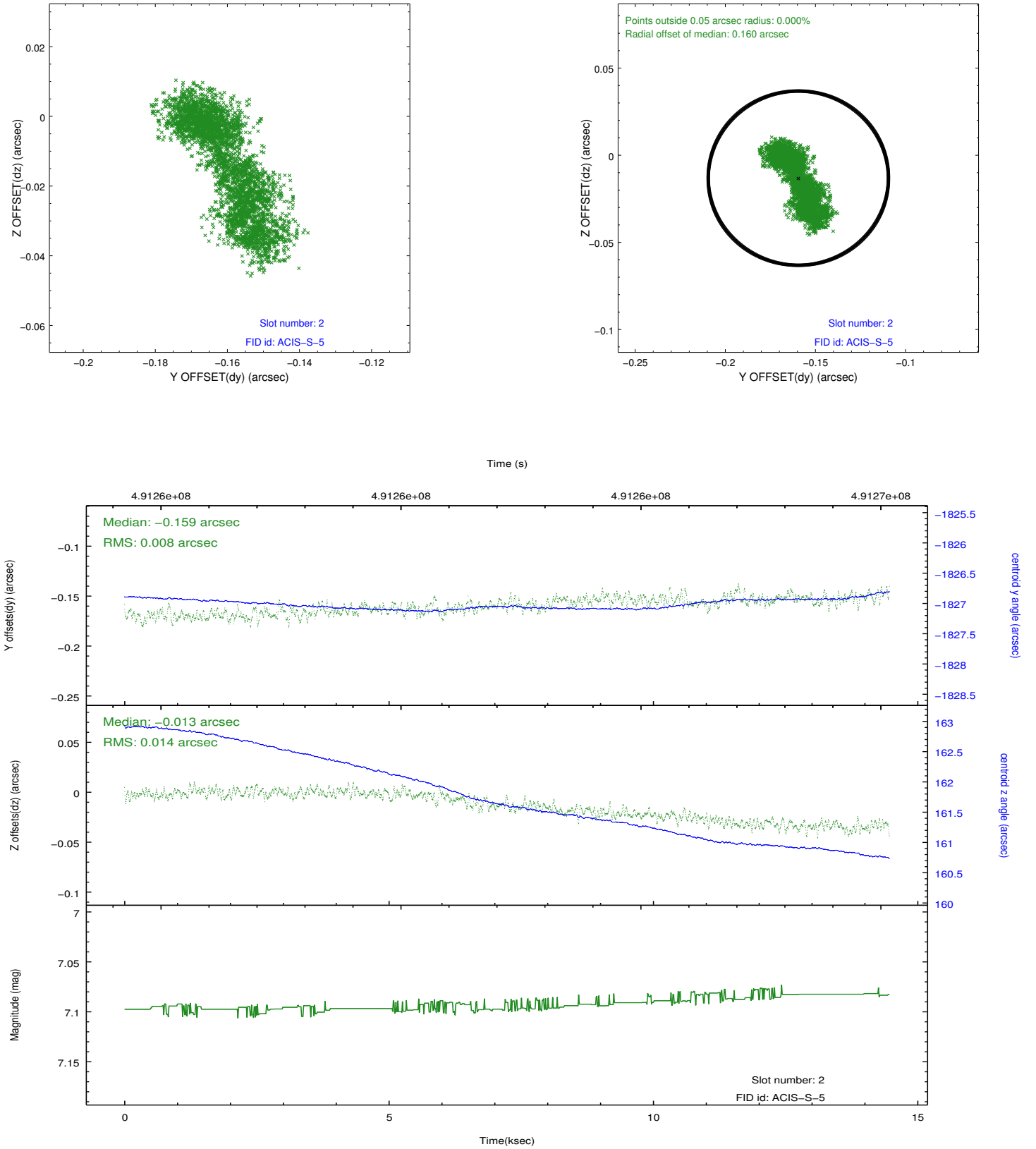
2.5.1 Slot 0



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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.064099901438

A.2 Comments

Joint proposal with HST.

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.