

V&V Reference Report

L2 ASCDS Version : 10.3

Observation 14506 - L2 Version 2
Chandra X-Ray Center

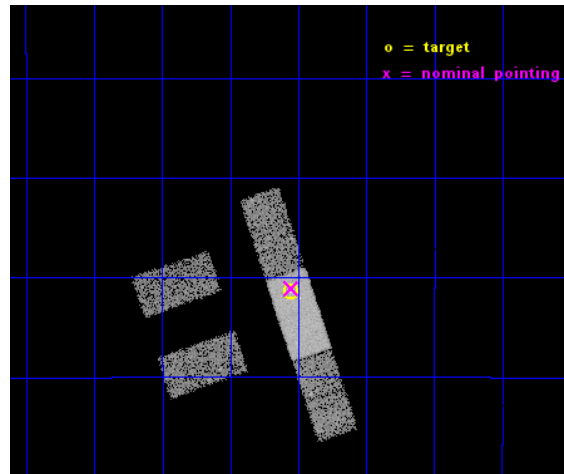
L2 Processing Date : Dec 3 2014

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1 Front

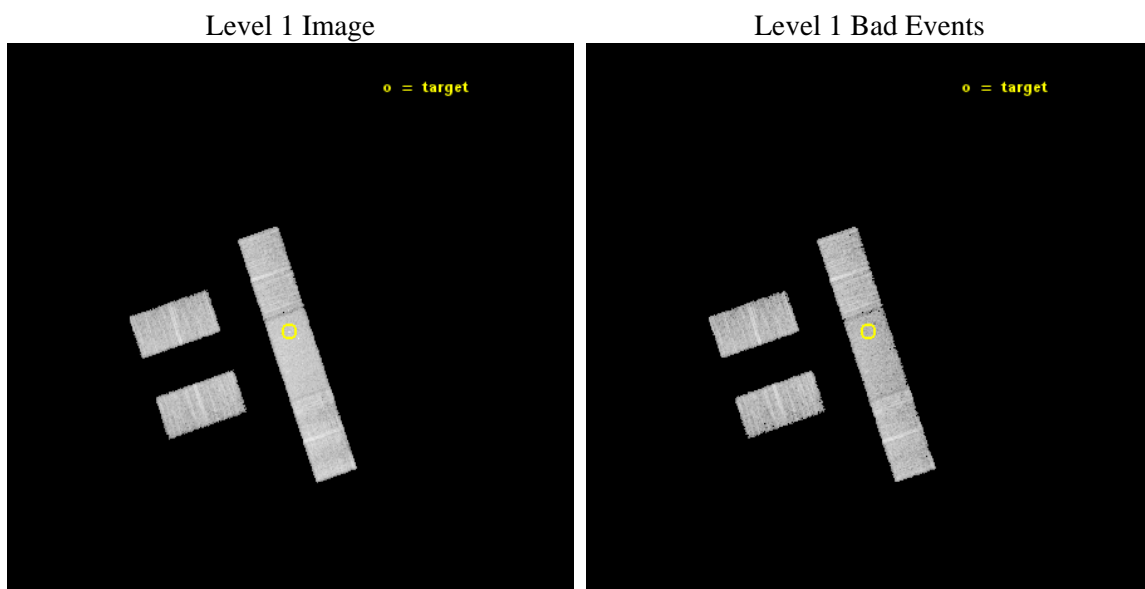
seq_num	702743	Sequence number
obs_id	14506	Observation id
title	ENERGY DEPENDENT X-RAY MICROLENSING AND THE STRUCTURE OF QUASARS	P
observer	Prof. Christopher Kochanek	Principal investigator
object	HE1104-1805	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	166.639583	Observer's specified target RA [deg]
dec_targ	-18.356722	Observer's specified target Dec [deg]
ra_nom	166.63759377781	Nominal RA [deg]
dec_nom	-18.351643132503	Nominal Dec [deg]
roll_nom	71.248513527276	Nominal Roll [deg]
revision	2	Processing version of data
ontime	14062.39990145	Sum of GTIs [s]
livetime	13730.919354216	Livetime [s]
ontime2	14062.39990145	Sum of GTIs [s]
ontime3	14062.39990145	Sum of GTIs [s]
ontime6	14060.658881366	Sum of GTIs [s]
ontime7	14062.39990145	Sum of GTIs [s]
ontime8	14062.39990145	Sum of GTIs [s]
l2events	37377	Number of level 2 events



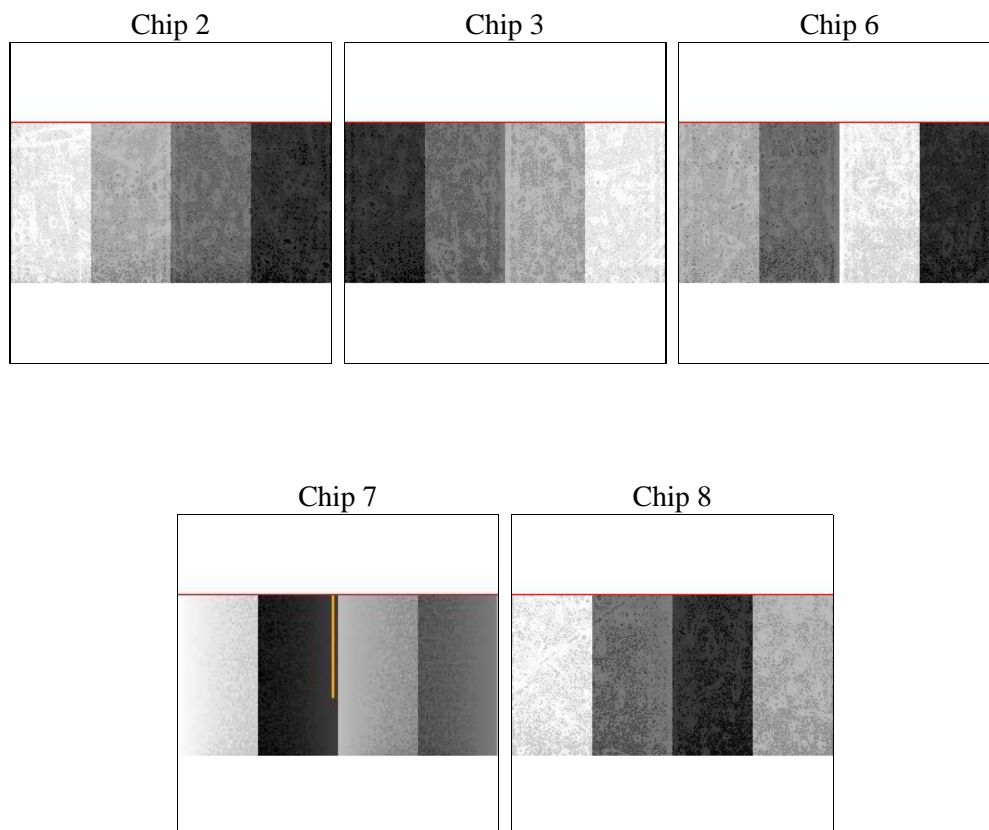
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14000.776000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	14062.39990145	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	14062.39990145	Sum of GTIs [s]
date	2014-12-03T16:55:59	Date and time of file creation	ontime3	14062.39990145	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	14060.658881366	Sum of GTIs [s]
			ontime7	14062.39990145	Sum of GTIs [s]
			ontime8	14062.39990145	Sum of GTIs [s]
			l1events	209668	Number of level 1 events

2.1.4 Events

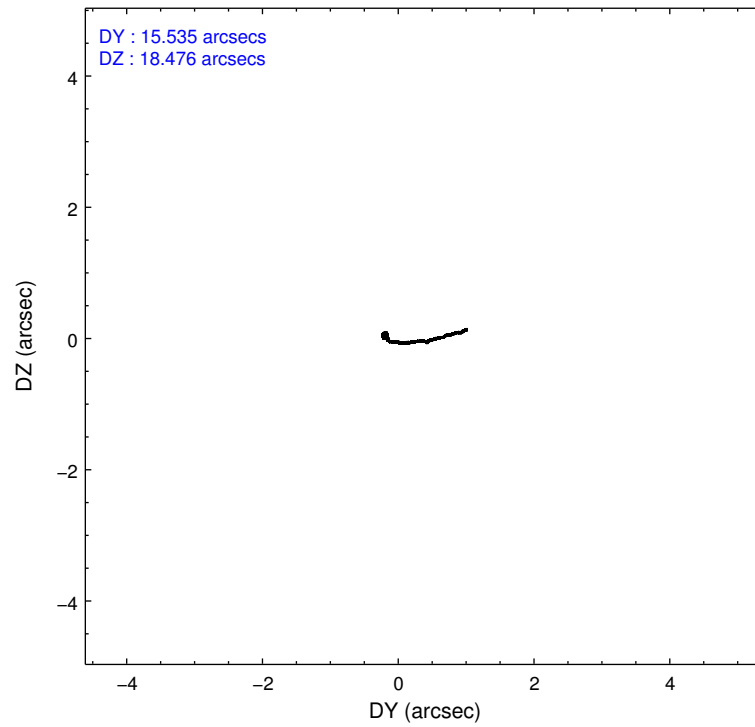
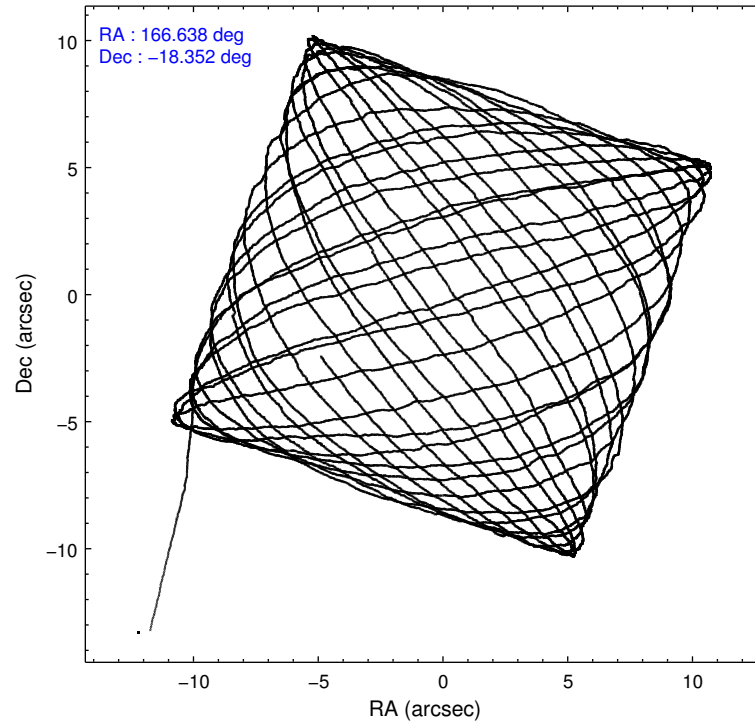
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	35788	35220	38643	48631	51386
rejected events	31584	30977	33907	26569	36873
rejected %	88%	87%	87%	54%	71%

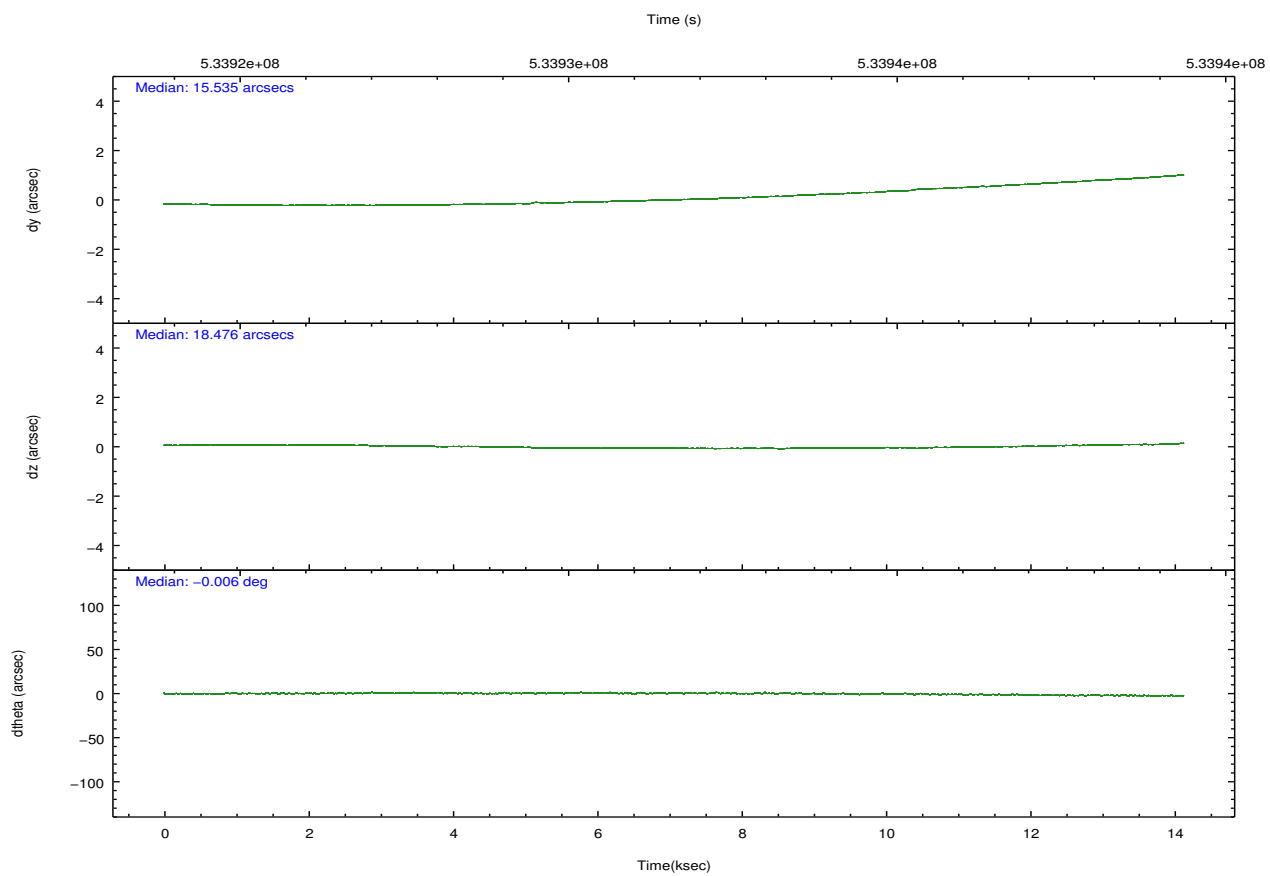
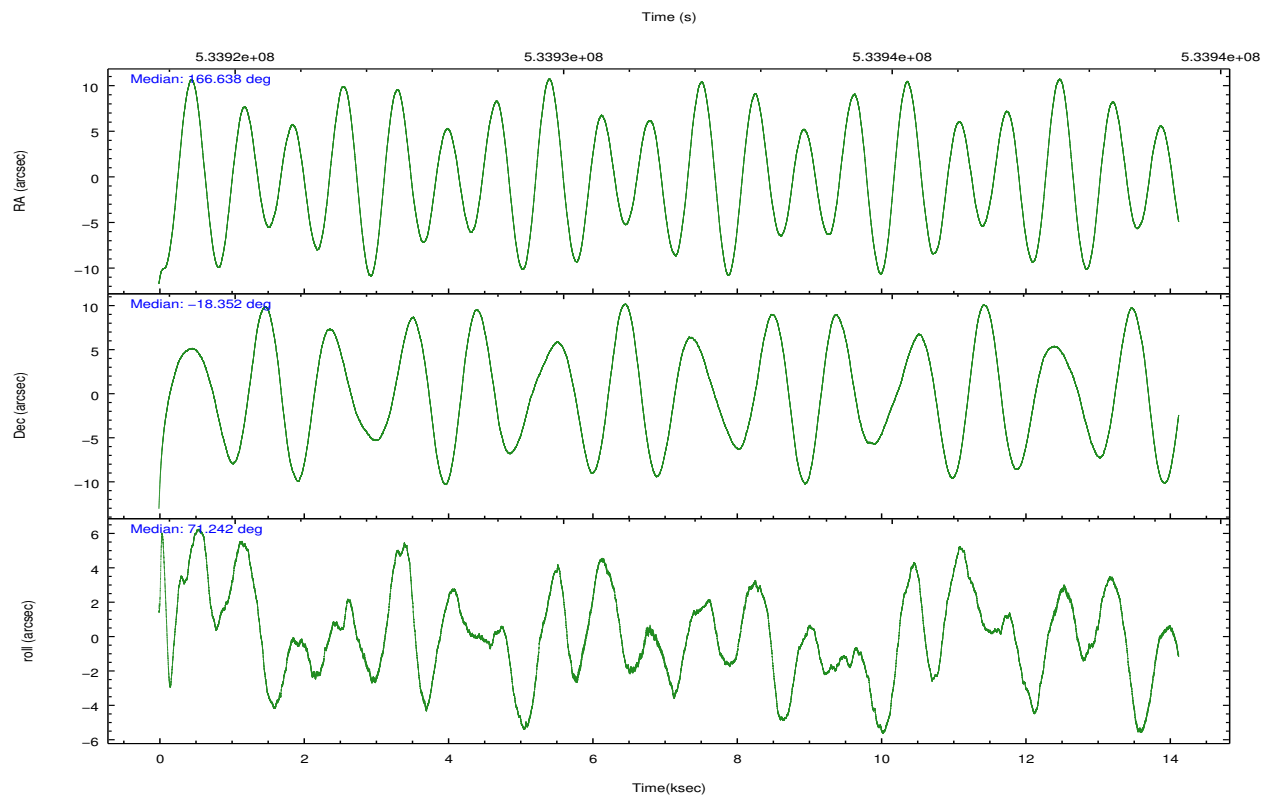
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1479	1538	1583	2261	4346
	4%	4%	4%	4%	8%
grade 1 events	6	8	16	53	31
	0%	0%	0%	0%	0%
grade 2 events	884	914	1013	4599	3236
	2%	2%	2%	9%	6%
grade 3 events	520	482	541	2121	1614
	1%	1%	1%	4%	3%
grade 4 events	545	507	547	2082	1498
	1%	1%	1%	4%	2%
grade 5 events	1509	1863	1823	5053	2718
	4%	5%	4%	10%	5%
grade 6 events	776	803	1053	11005	3820
	2%	2%	2%	22%	7%
grade 7 events	30069	29105	32067	21457	34123
	84%	82%	82%	44%	66%

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	166.643615	166.6375937778125	CCD I2 on	O4	Y
[deg] Pointing Dec	-18.378473	-18.35164313250309	CCD I3 on	O3	Y
[deg] Pointing Roll	71.093790	71.24851352727636	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)	533924660.184000	533923427.5982	CCD S5 on	N	N
Observation start date	2014-12-02T16:23:13	2014-12-02T16:03:47	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	533938661.184000	533938886.64906	On-chip summing requested	N	N
Observation end date	2014-12-02T20:16:34	2014-12-02T20:21:26	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



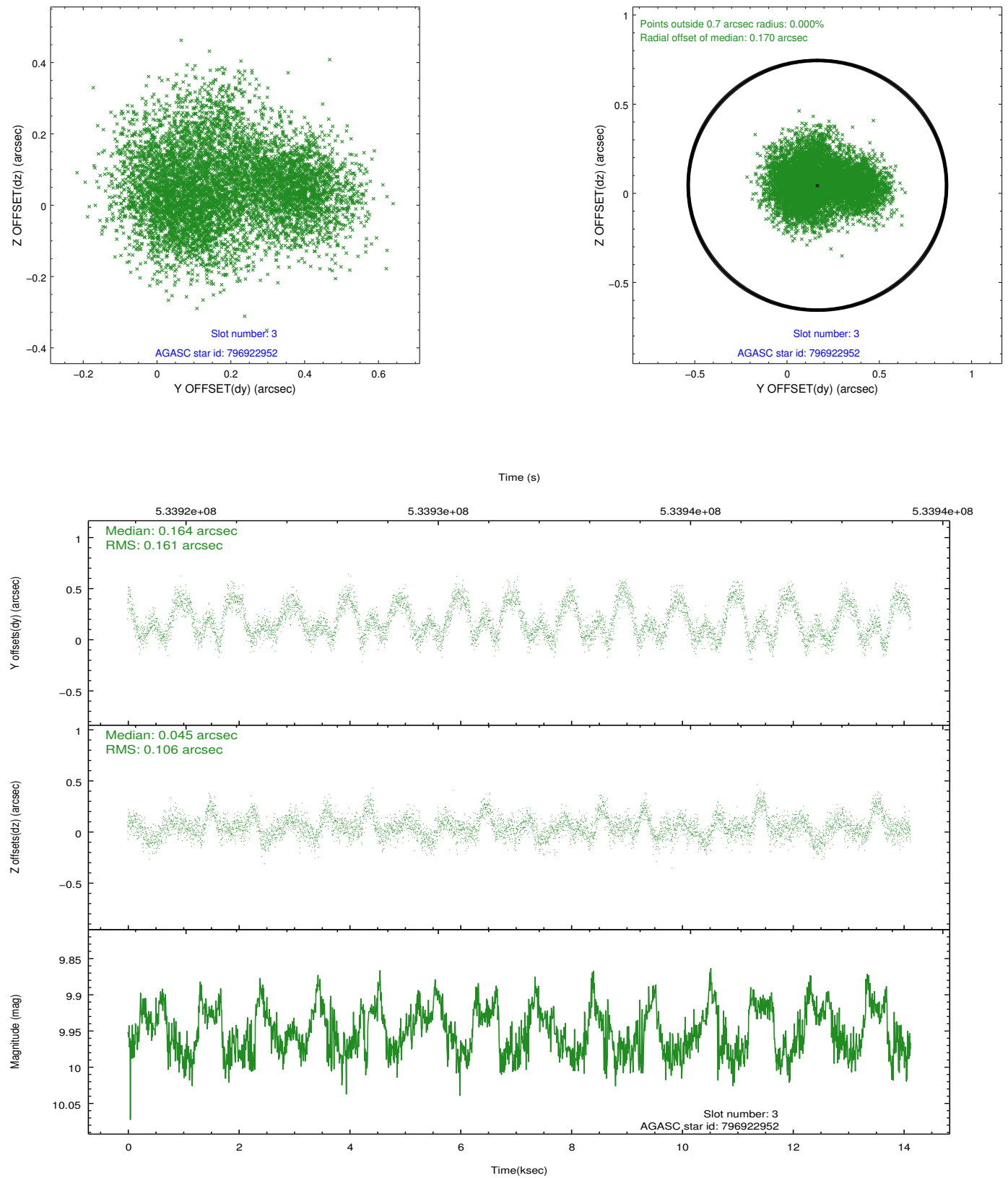


Slot Statistics

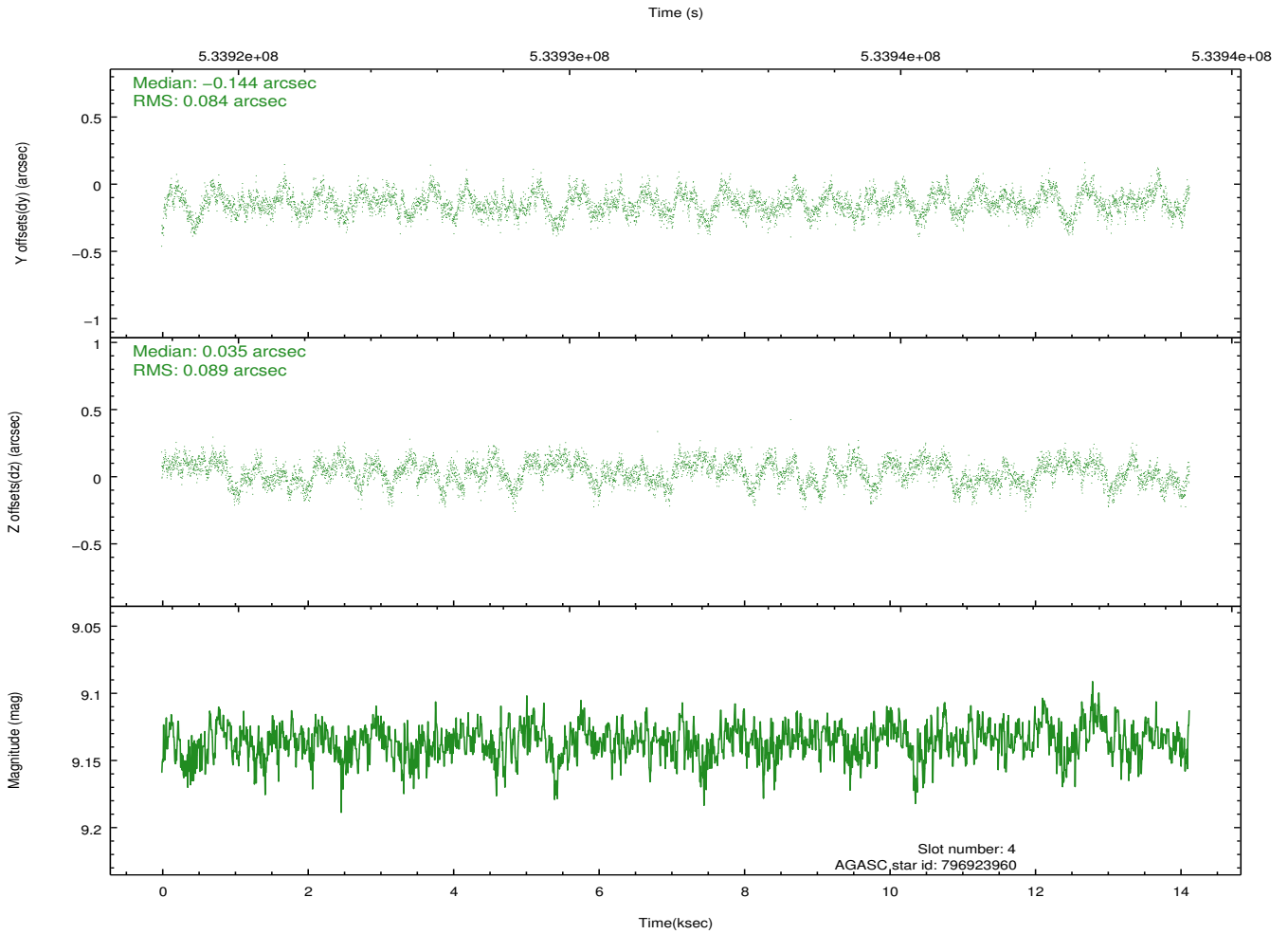
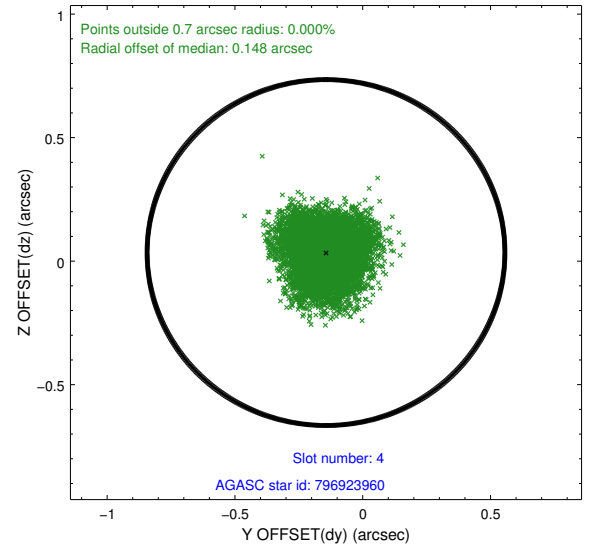
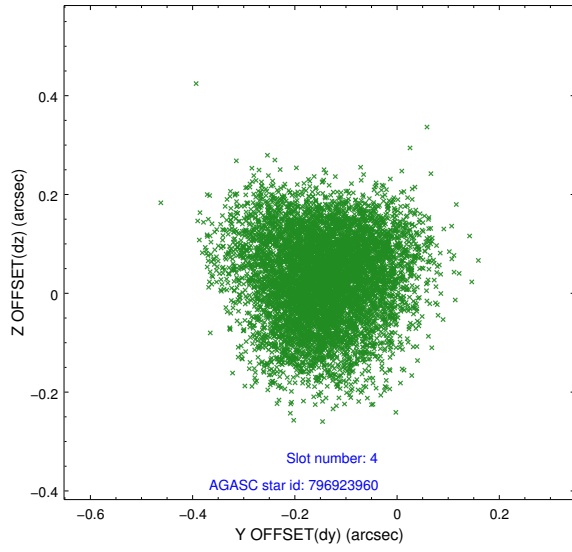
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.01	3447	0.055	0.024	0.011	0.017	0.000000	0.000000	927.44	-1735.55
1	FID		ACIS-S-5	7.04	3447	-0.114	0.049	0.012	0.020	0.000000	0.000000	-1821.56	161.67
2	FID		ACIS-S-6	7.15	3447	0.041	-0.062	0.012	0.020	0.000000	0.000000	392.60	805.90
3	GUIDE	used	796922952	9.95	6884	0.164	0.045	0.212	0.317	166.412795	-18.656501	-1201.89	419.65
4	GUIDE	used	796923960	9.14	6889	-0.144	0.035	0.132	0.207	167.114946	-18.113690	1422.62	-1216.58
5	GUIDE	used	796928880	9.85	6886	0.300	0.310	0.152	0.237	166.621408	-18.801010	-1465.56	-421.74
6	GUIDE	used	796930880	9.89	6886	-0.343	-0.388	0.160	0.261	166.119482	-18.145311	209.97	1967.35
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

2.4 Star Slots

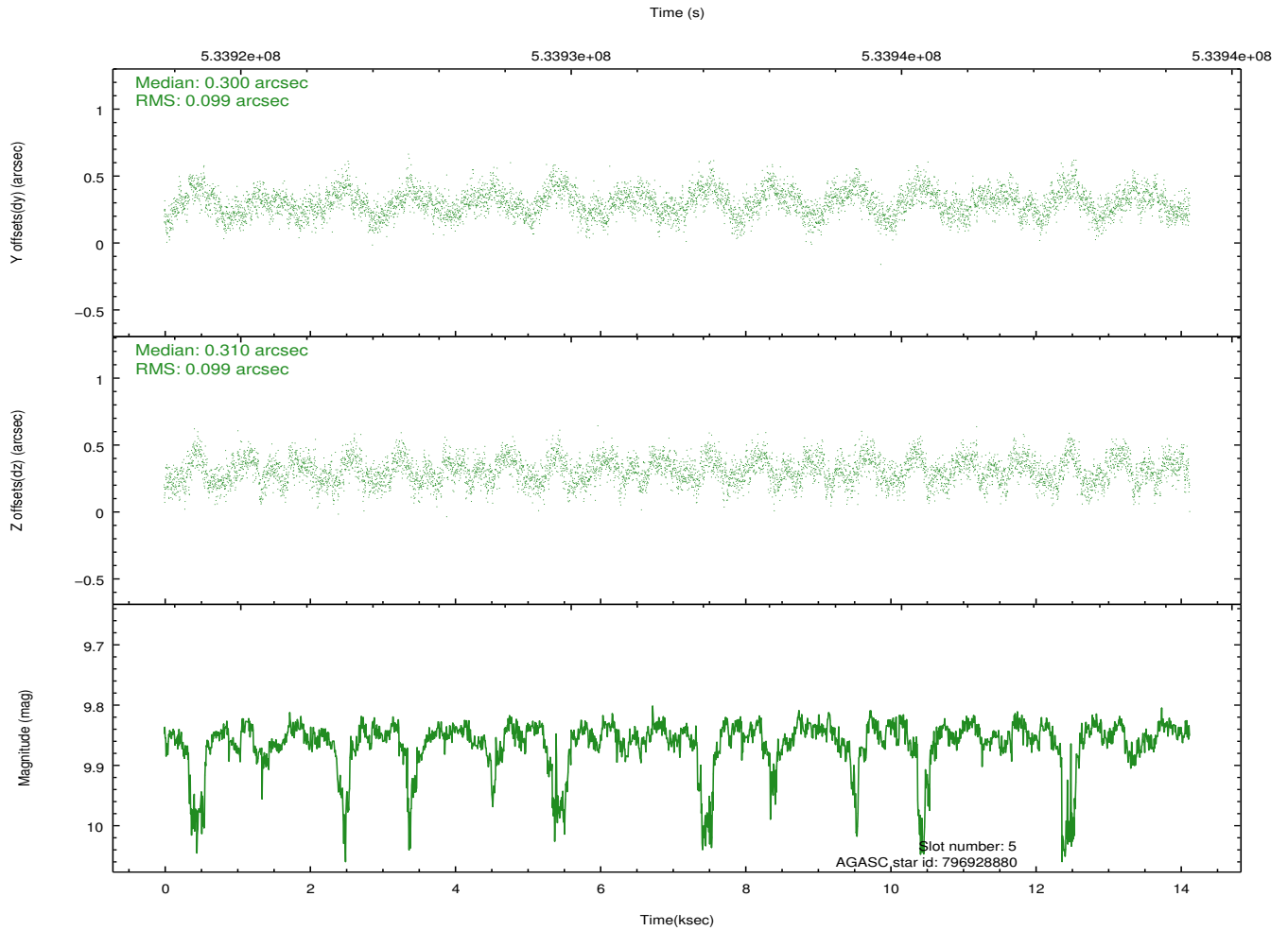
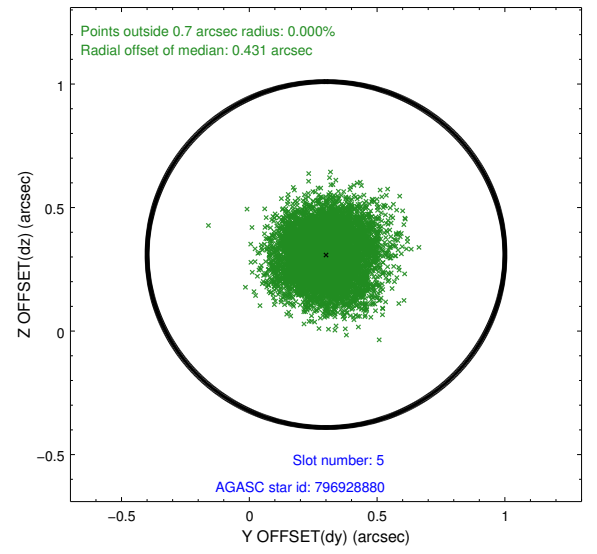
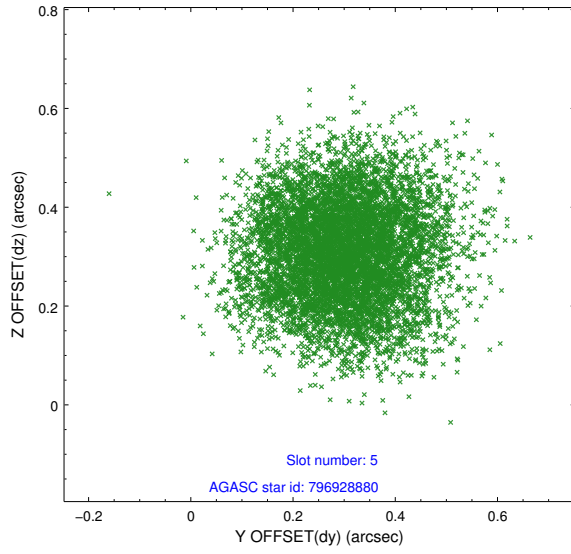
2.4.1 Slot 3



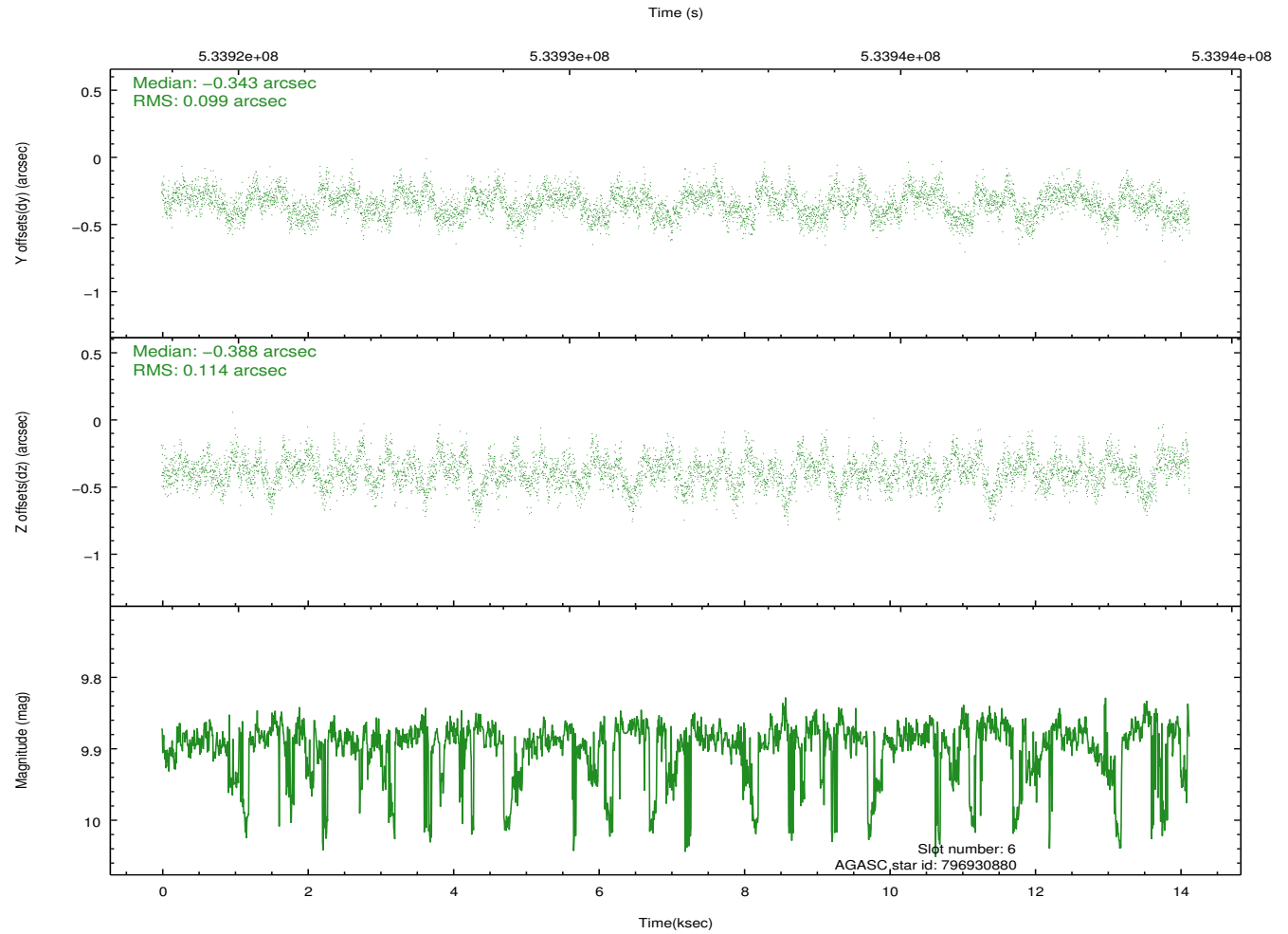
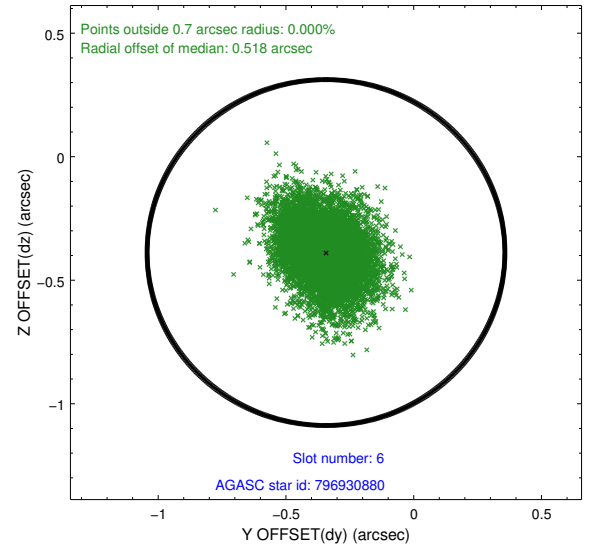
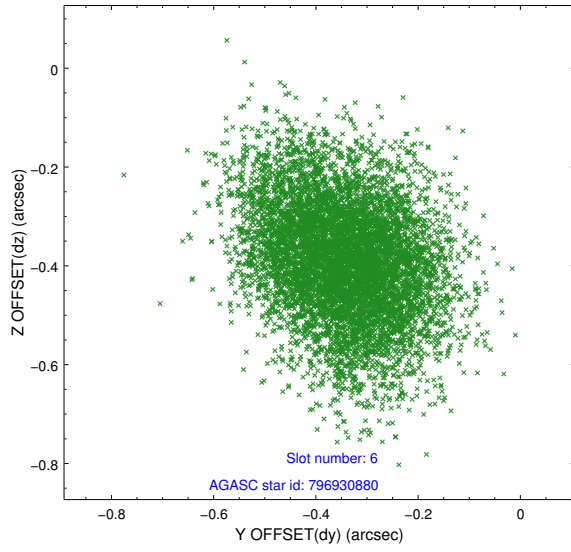
2.4.2 Slot 4



2.4.3 Slot 5

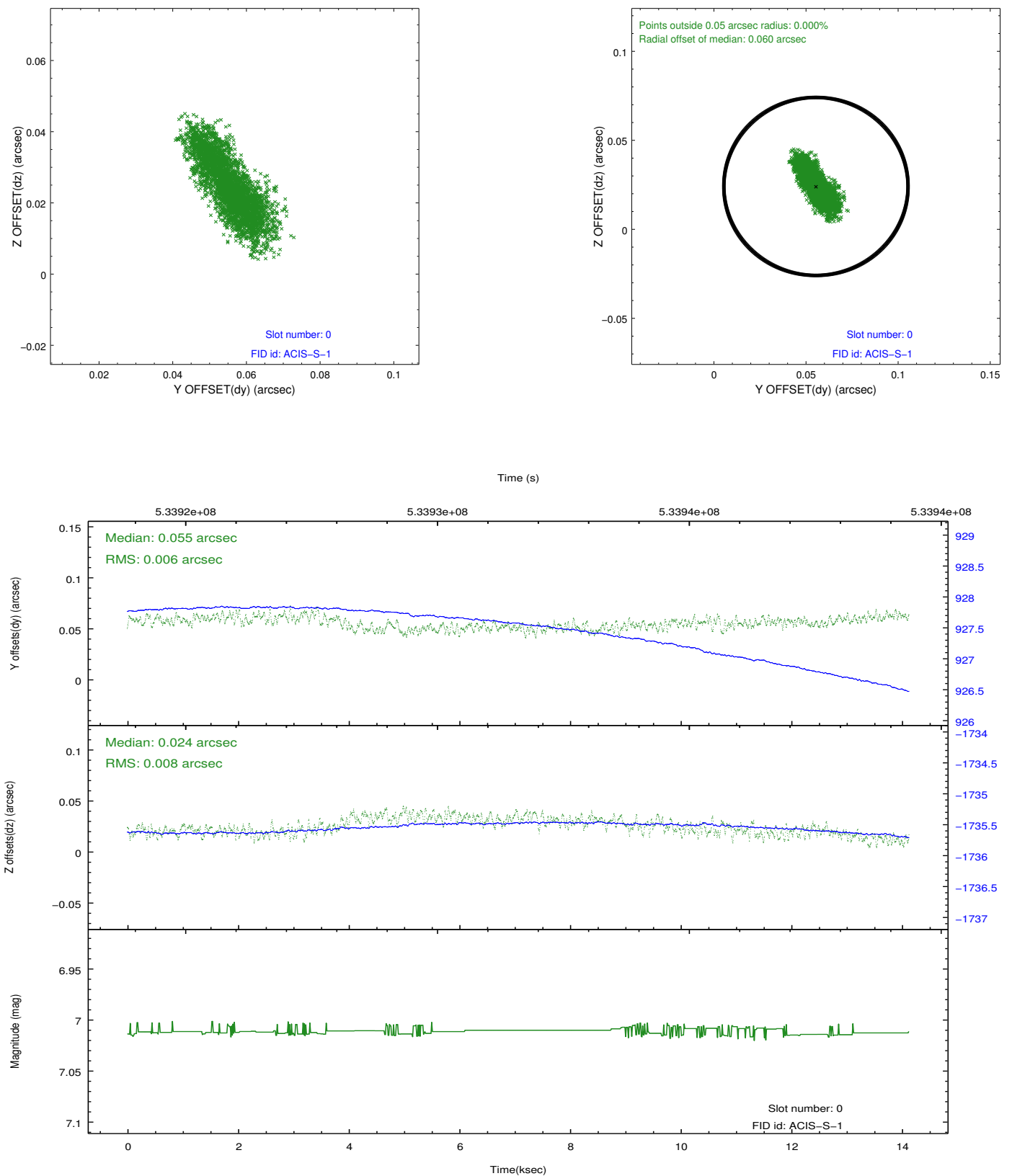


2.4.4 Slot 6

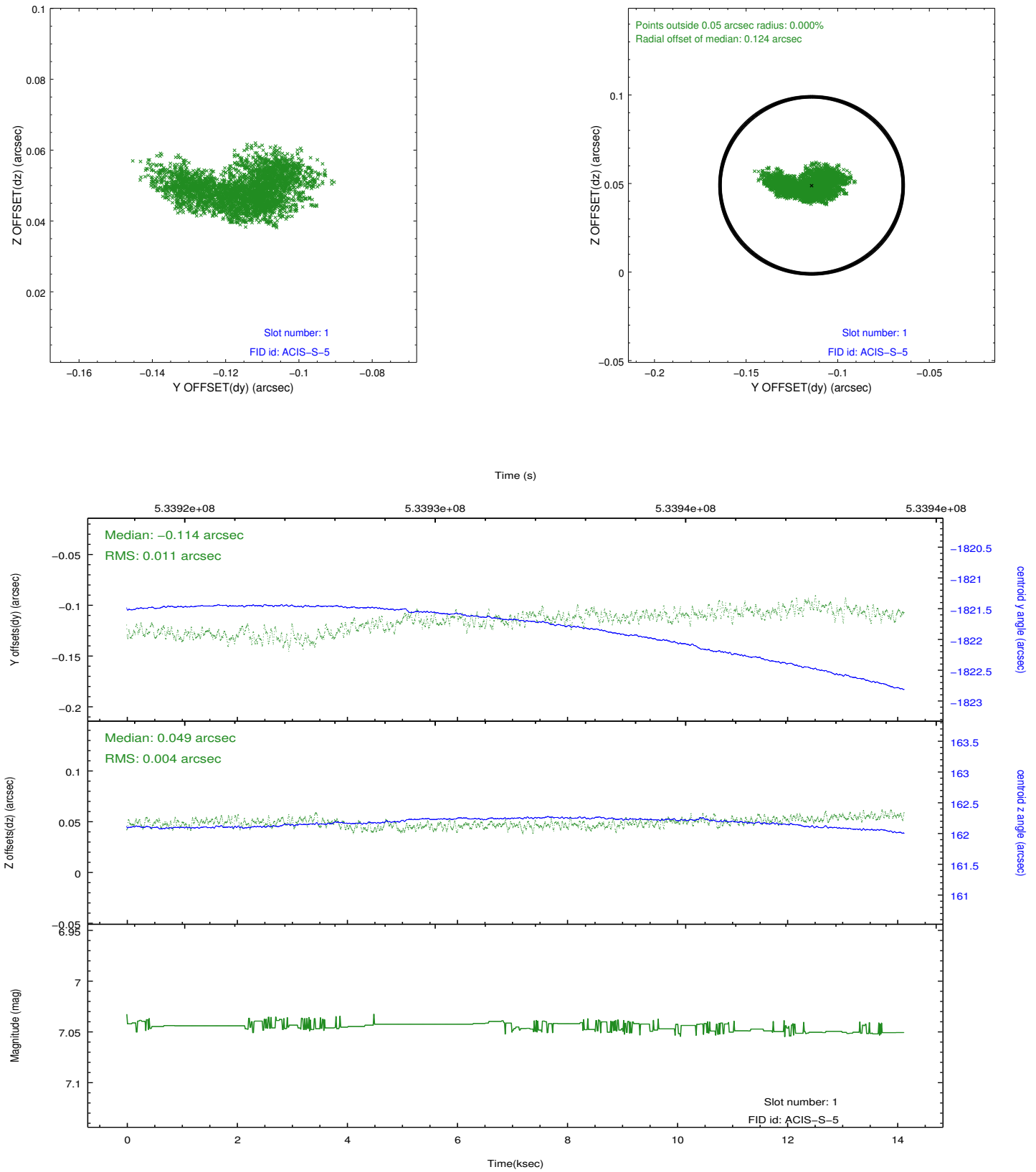


2.5 FID Slots

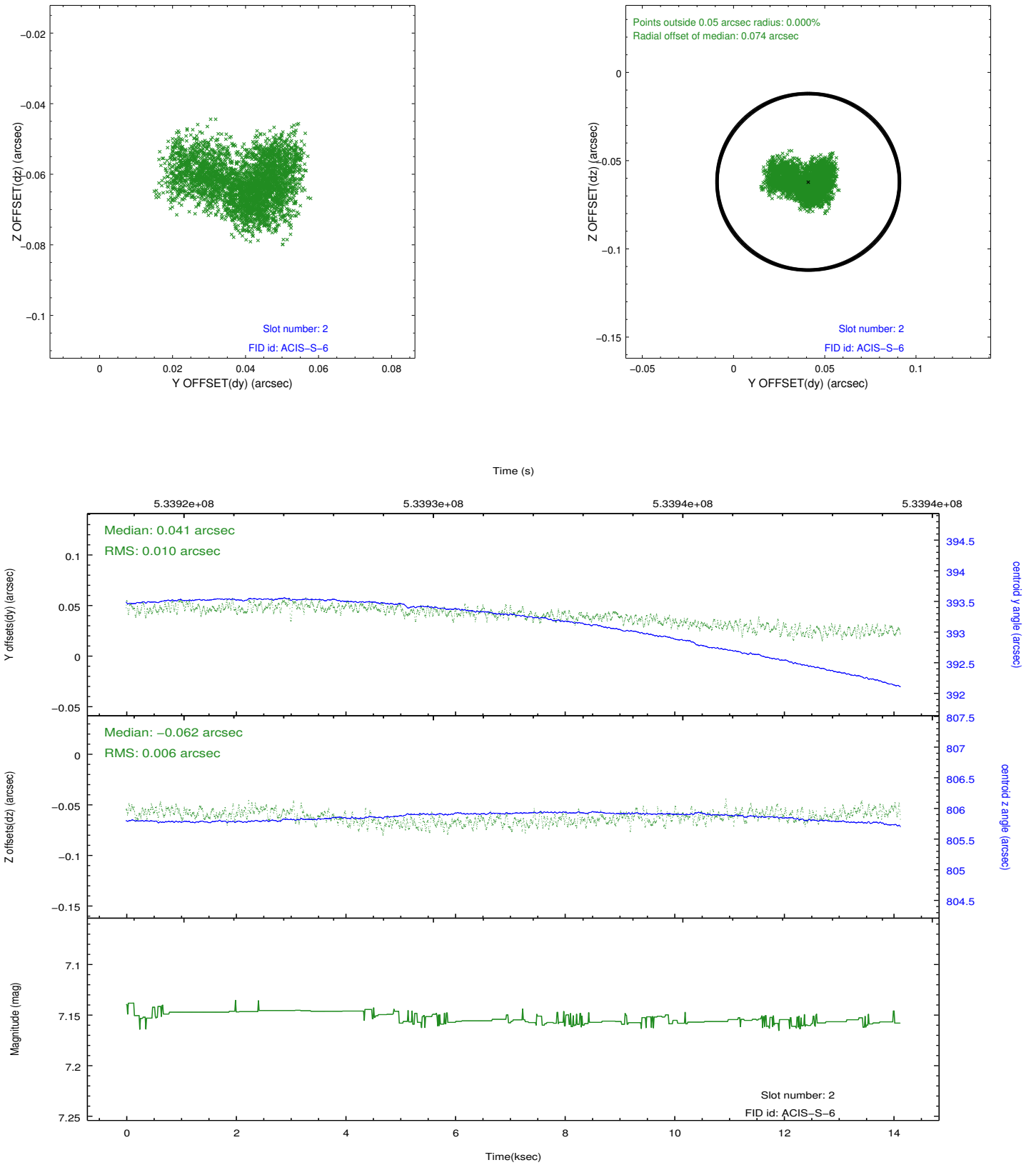
2.5.1 Slot 0



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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.06239990145

A.2 Comments

Joint proposal with HST.

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.