

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 11781 - L2 Version 3
Chandra X-Ray Center

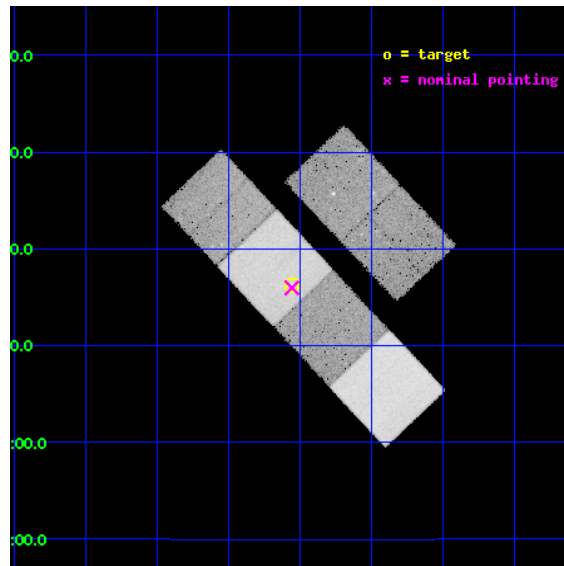
L2 Processing Date : Jul 3 2012

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1 Front

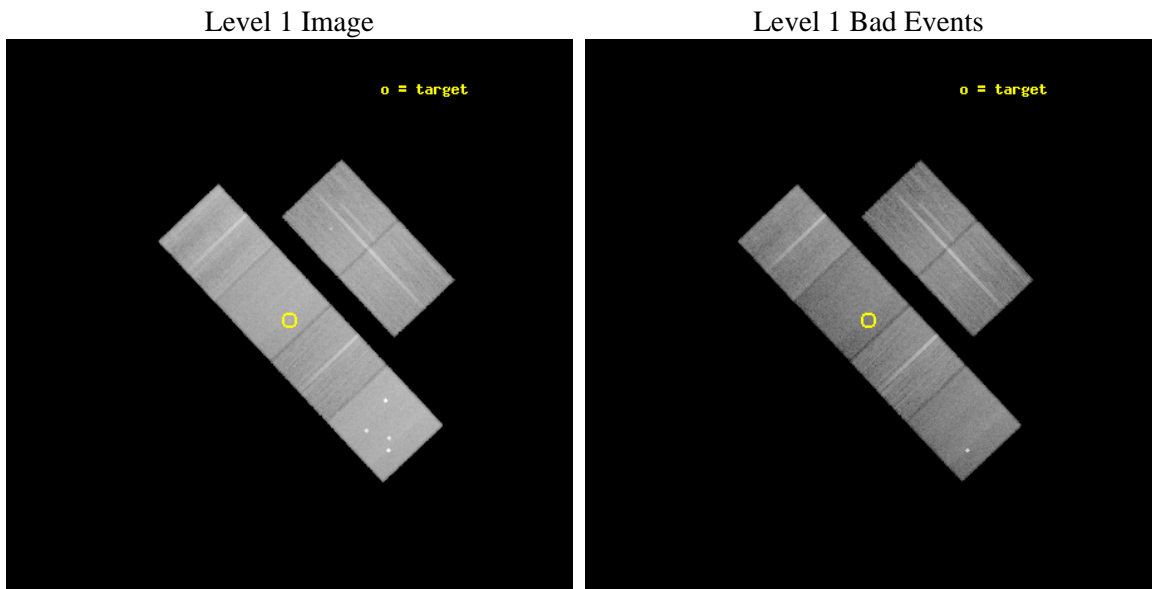
seq_num	900916	Sequence number
obs_id	11781	Observation id
title	COMBH: Chandra Observations of M-sigma Black Holes	Proposal title
observer	Dr. Kayhan Gultekin	Principal investigator
object	NGC5576	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	215.265417	Observer's specified target RA [deg]
dec_targ	3.271	Observer's specified target Dec [deg]
ra_nom	215.2644303425	Nominal RA [deg]
dec_nom	3.2662397873165	Nominal Dec [deg]
roll_nom	226.67413019102	Nominal Roll [deg]
revision	3	Processing version of data
ontime	30050.037544966	Sum of GTIs [s]
livetime	29669.525875611	Livetime [s]
ontime2	30050.078584969	Sum of GTIs [s]
ontime3	30046.673384726	Sum of GTIs [s]
ontime5	30049.996504962	Sum of GTIs [s]
ontime6	30049.955464959	Sum of GTIs [s]
ontime7	30050.037544966	Sum of GTIs [s]
ontime8	30049.873384953	Sum of GTIs [s]
l2events	376856	Number of level 2 events



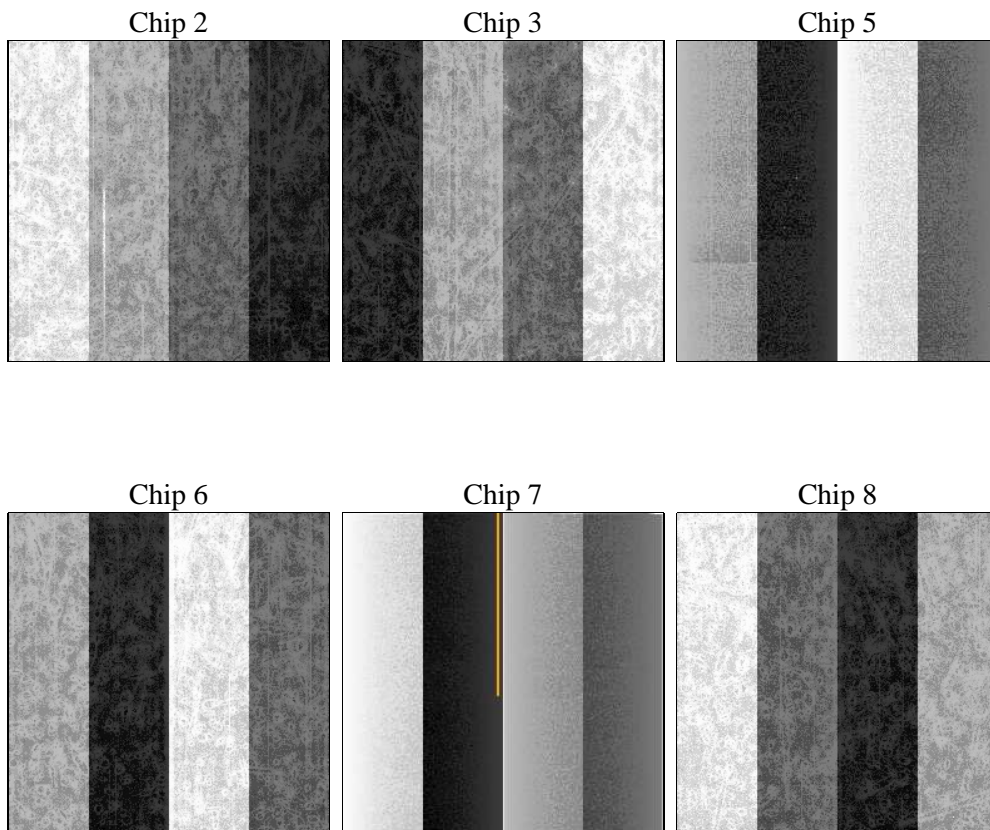
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	30050.037544966	Sum of GTIs [s]
caldbver	4.5.0	 	ontime2	30050.078584969	Sum of GTIs [s]
date	2012-07-03T22:57:33	Date and time of file creation	ontime3	30046.673384726	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	30049.996504962	Sum of GTIs [s]
			ontime6	30049.955464959	Sum of GTIs [s]
			ontime7	30050.037544966	Sum of GTIs [s]
			ontime8	30049.873384953	Sum of GTIs [s]
			l1events	1641370	Number of level 1 events

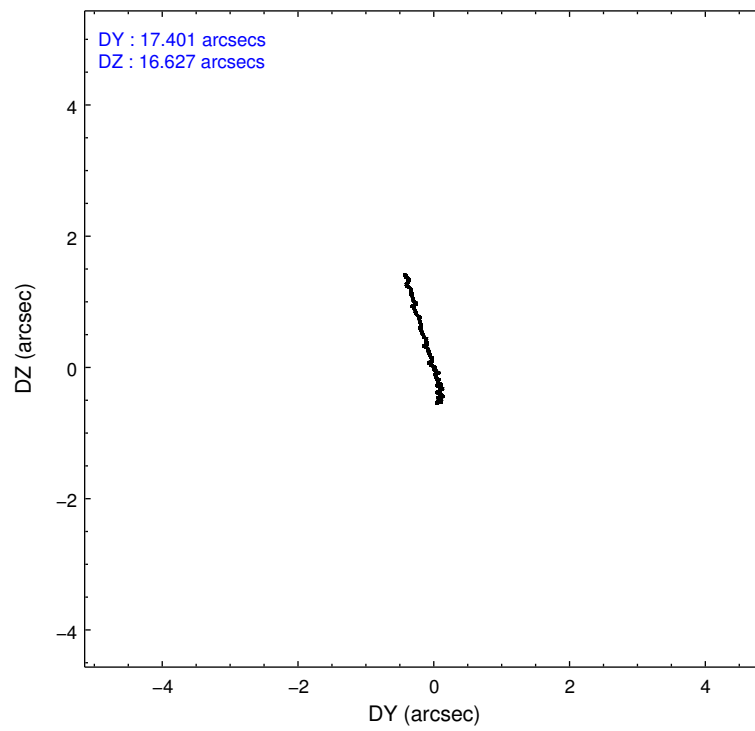
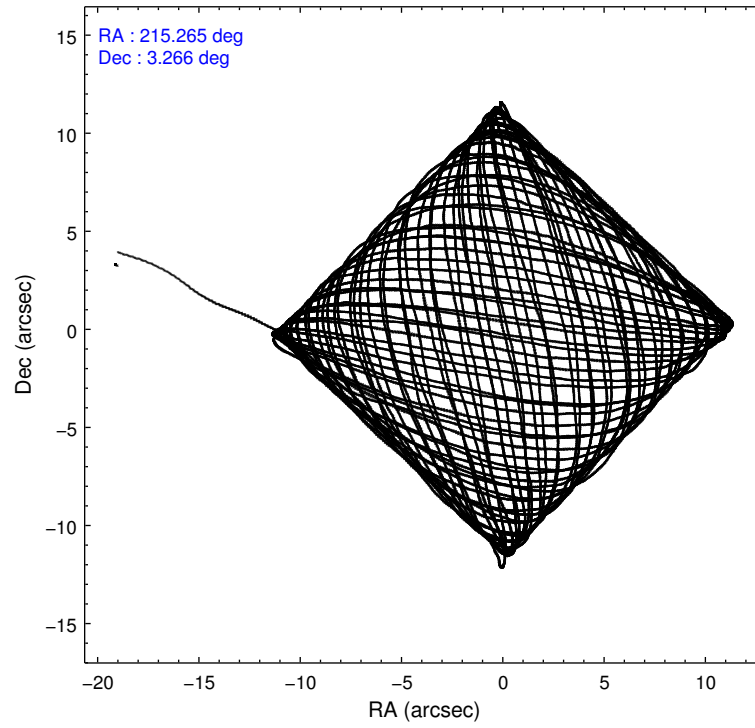
2.1.4 Events

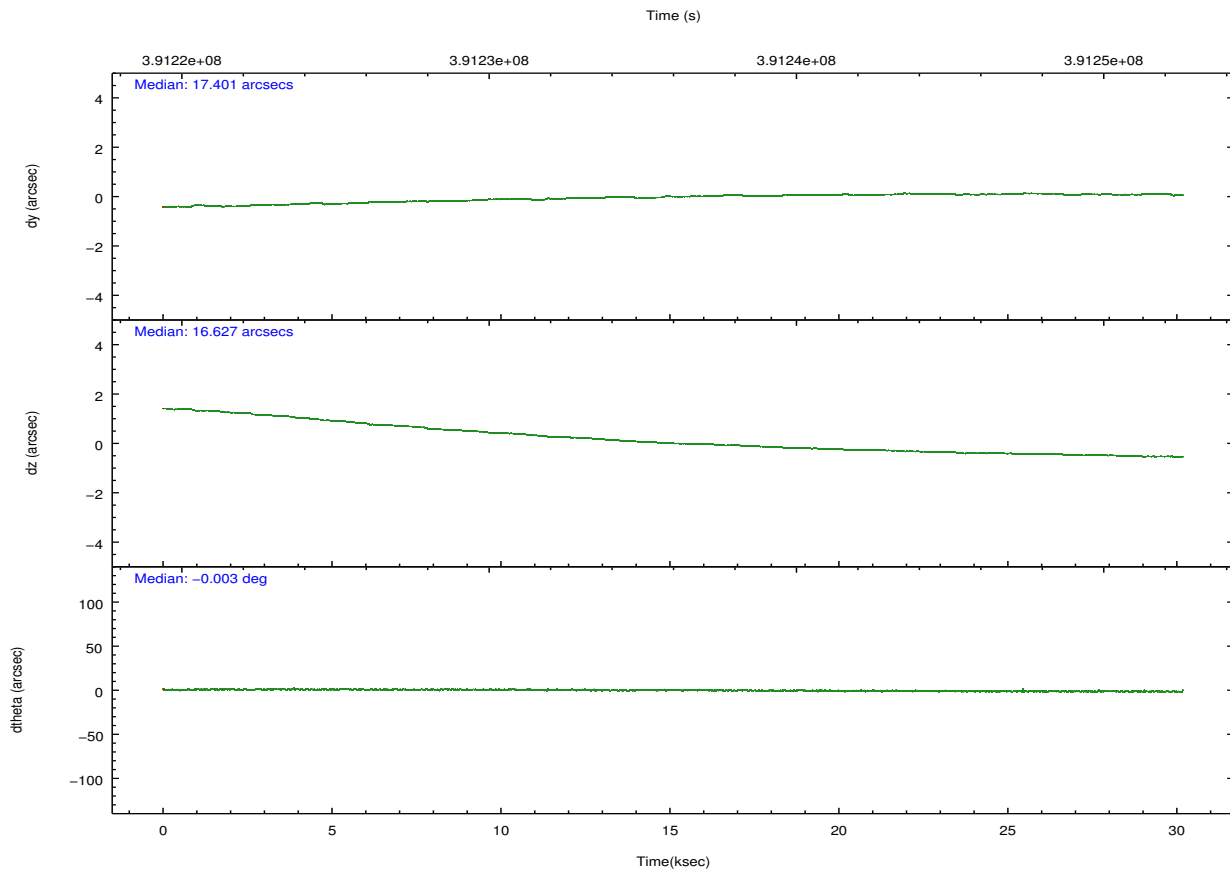
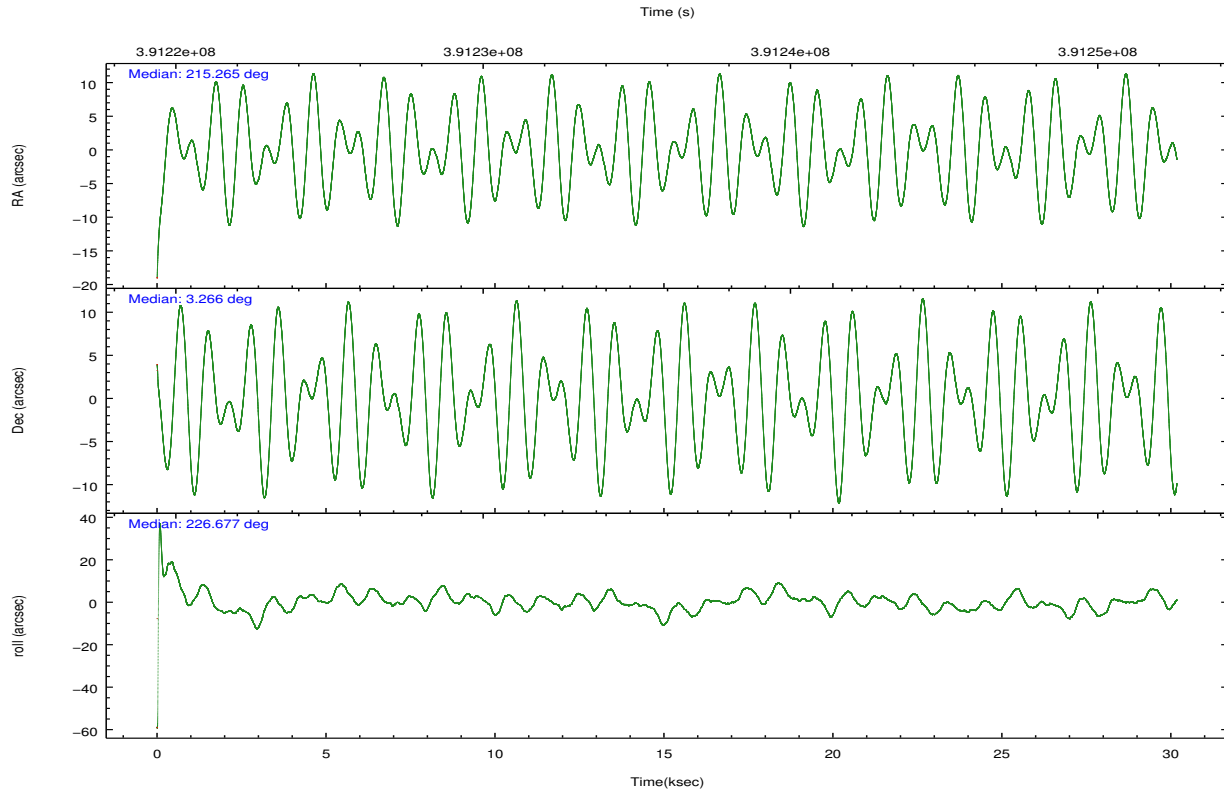
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	241176	222865	362826	232924	281311	300268	grade 0 events	8820	9094	26927	8883	11999	23086
rejected events	216373	198726	178319	207207	153185	222475		3%	4%	7%	3%	4%	7%
rejected %	89%	89%	49%	88%	54%	74%	grade 1 events	159	129	630	133	347	257
								0%	0%	0%	0%	0%	0%
							grade 2 events	6143	5137	53986	5956	26043	18238
								2%	2%	14%	2%	9%	6%
							grade 3 events	2571	2606	6762	2712	11455	8404
								1%	1%	1%	1%	4%	2%
							grade 4 events	2548	2496	6195	2711	11324	7606
								1%	1%	1%	1%	4%	2%
							grade 5 events	9047	10162	27251	10487	29678	15078
								3%	4%	7%	4%	10%	5%
							grade 6 events	4723	4808	90662	5460	67314	20464
								1%	2%	24%	2%	23%	6%
							grade 7 events	207165	188433	150413	196582	123151	207135
								85%	84%	41%	84%	43%	68%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	215.270389	215.2644303425041	CCD I2 on	O1	Y
[deg] Pointing Dec	3.292937	3.266239787316506	CCD I3 on	O2	Y
[deg] Pointing Roll	226.517209	226.6741301910209	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	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	Y	Y
[s] Observation start time (MET)	391221076.184000	391219998.7975	CCD S5 on	N	N
Observation start date	2010-05-26T00:30:10	2010-05-26T00:13:18	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	391251076.184000	391251590.32411	On-chip summing requested	N	N
Observation end date	2010-05-26T08:50:10	2010-05-26T08:59:50	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



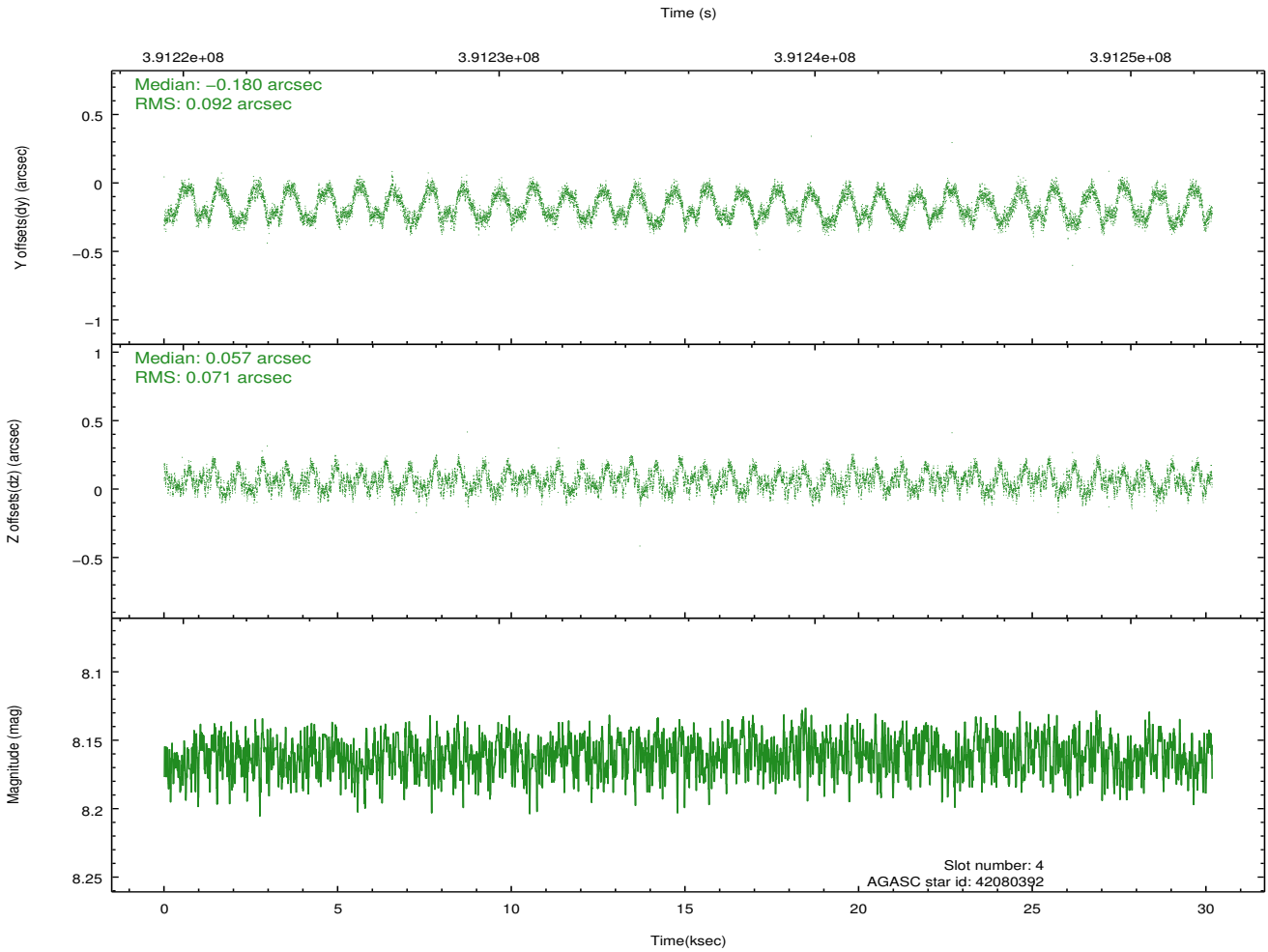
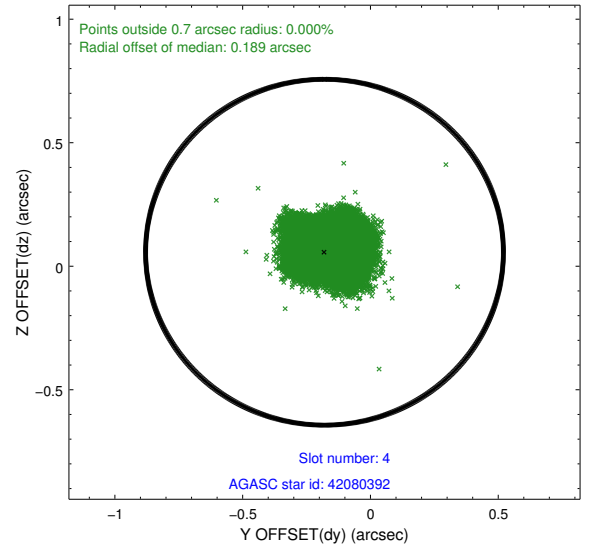
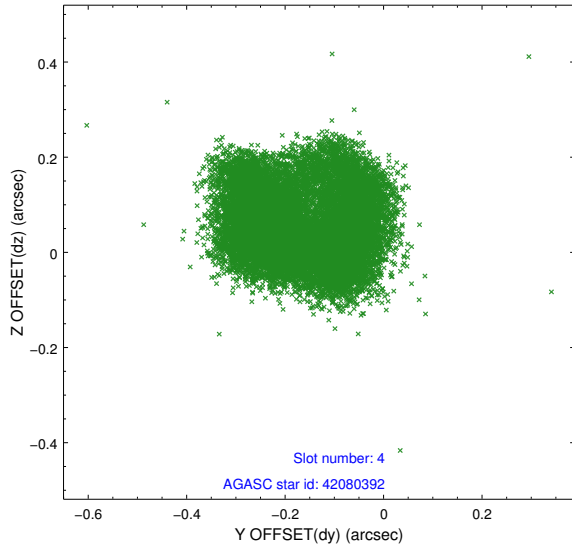


Slot Statistics

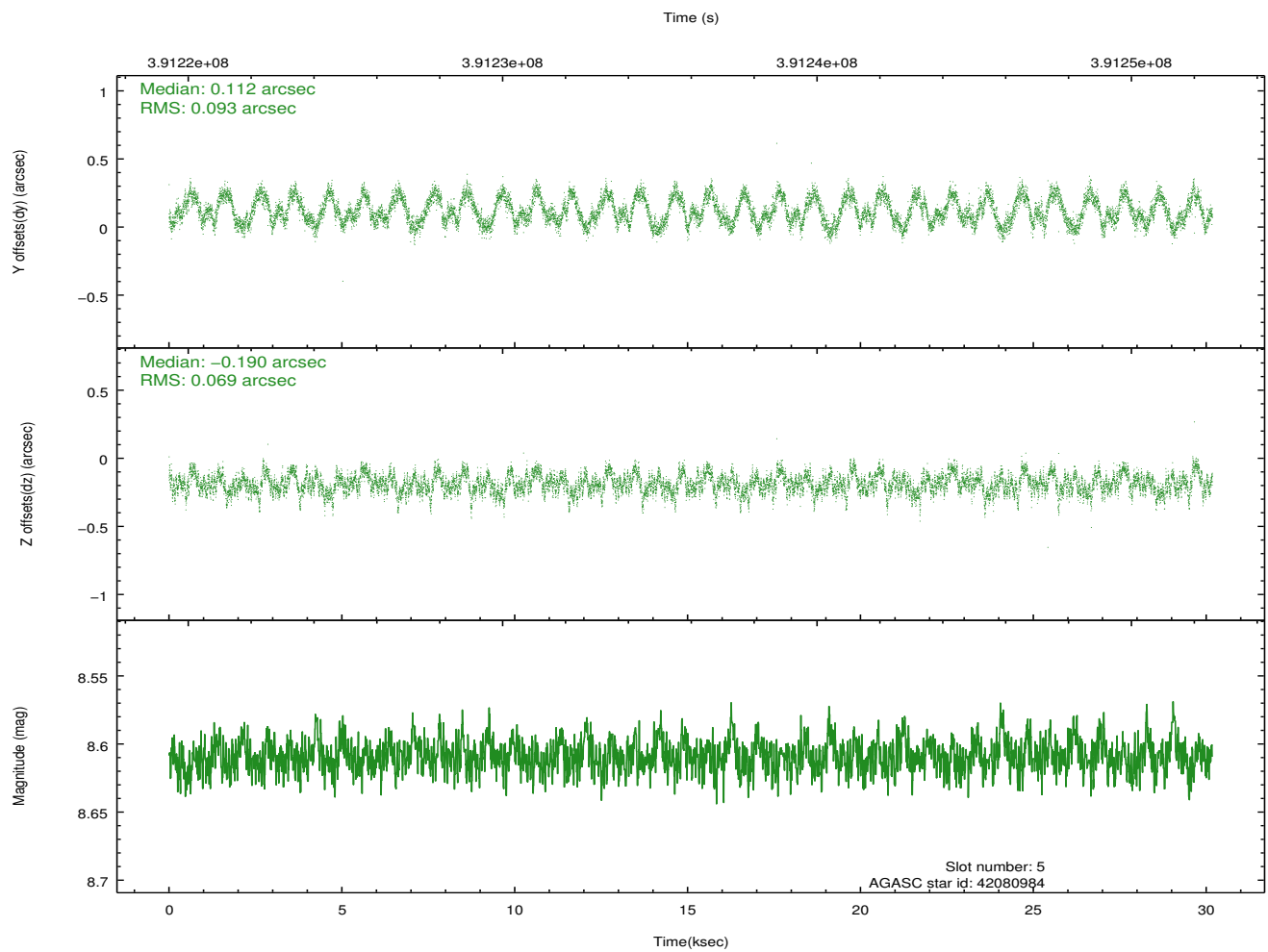
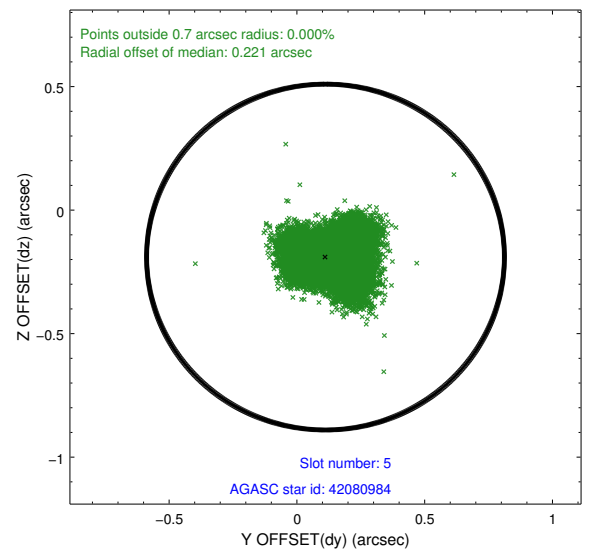
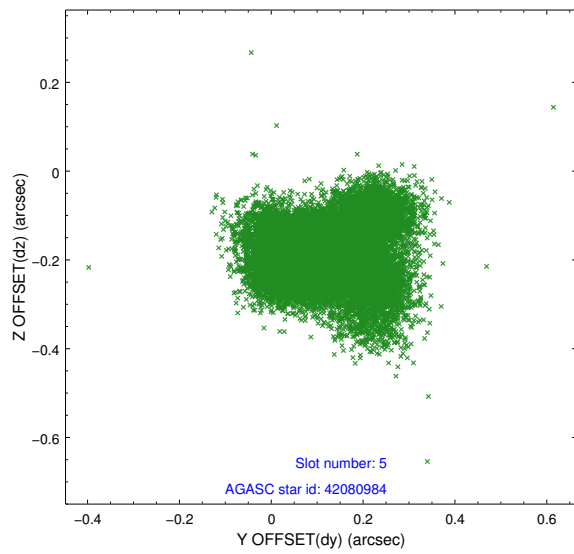
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.90	7361	-0.094	-0.062	0.015	0.024	0.000000	0.000000	-770.49	-1738.28
1	FID	ACIS-S-4	6.98	7360	0.148	0.031	0.010	0.017	0.000000	0.000000	2143.03	170.16
2	FID	ACIS-S-6	7.12	7361	-0.081	0.038	0.012	0.026	0.000000	0.000000	391.64	807.67
3	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
4	GUIDE	42080392	8.16	14717	-0.180	0.057	0.129	0.184	215.662461	3.678842	-1977.17	66.55
5	GUIDE	42080984	8.61	14712	0.112	-0.190	0.127	0.196	215.606086	3.454938	-1252.97	473.78
6	GUIDE	42082416	9.50	14697	0.189	-0.158	0.132	0.210	215.021055	3.213341	825.06	-453.23
7	GUIDE	42084152	10.63	14526	-0.136	0.294	0.348	0.516	215.184128	3.344290	79.87	-351.88

2.4 Star Slots

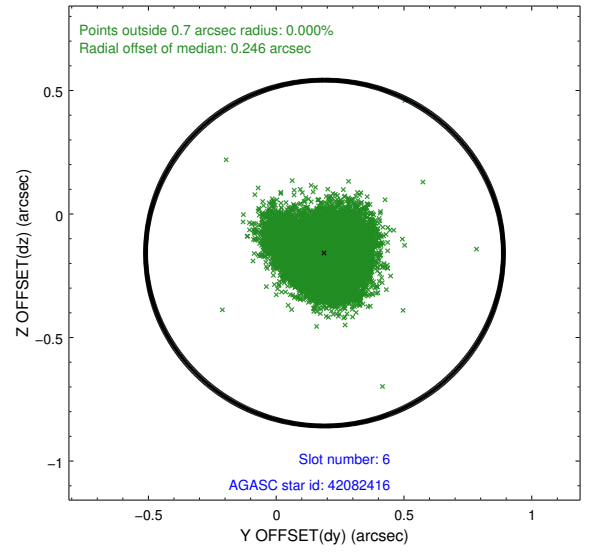
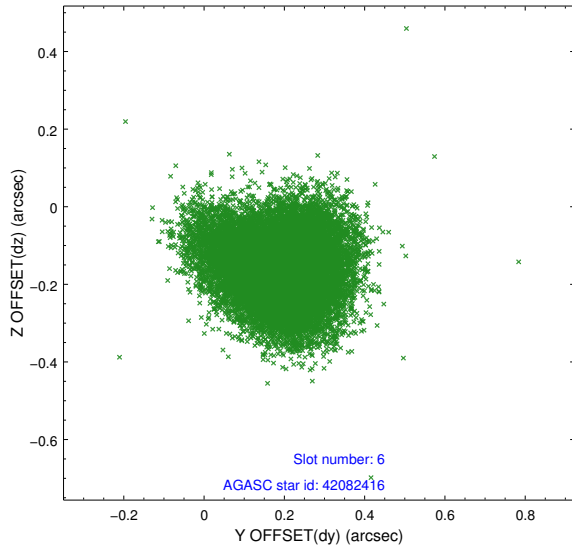
2.4.1 Slot 4



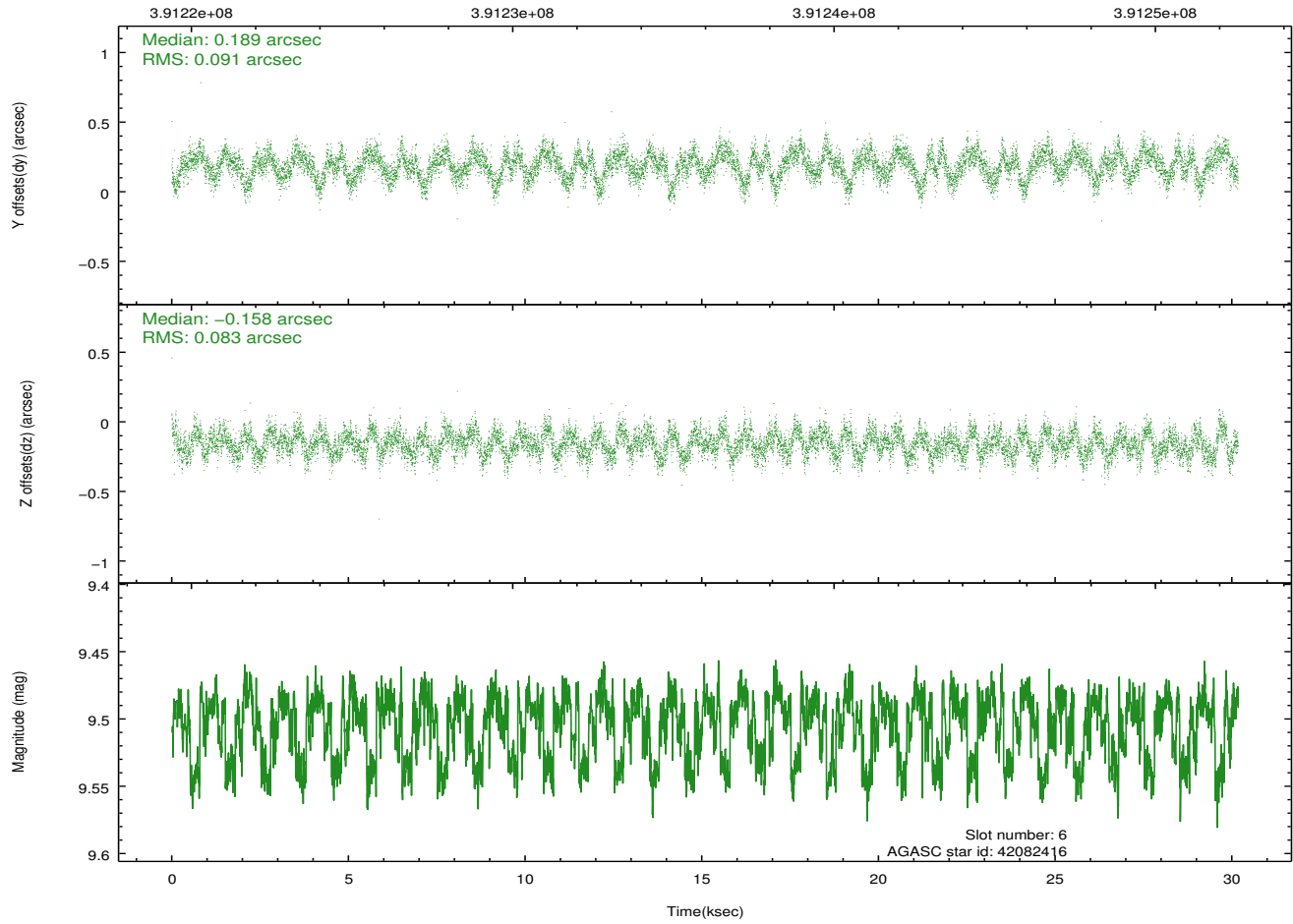
2.4.2 Slot 5



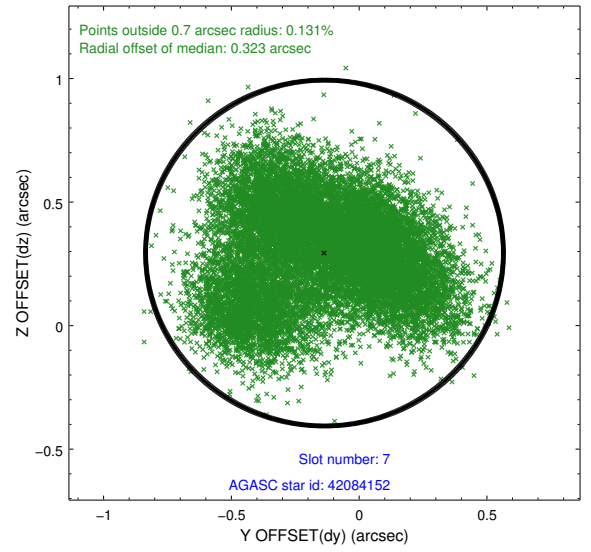
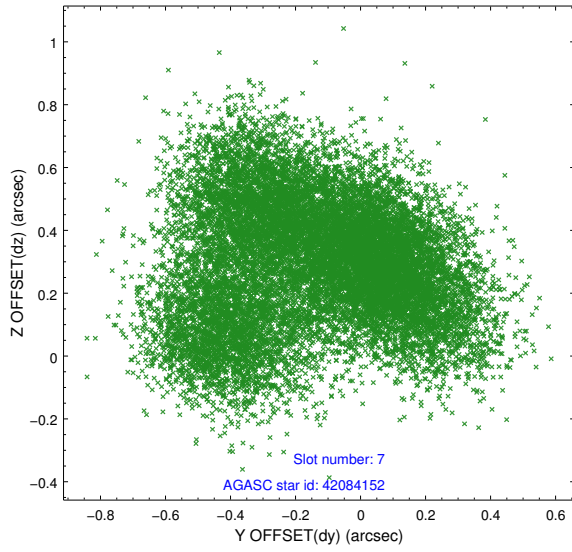
2.4.3 Slot 6



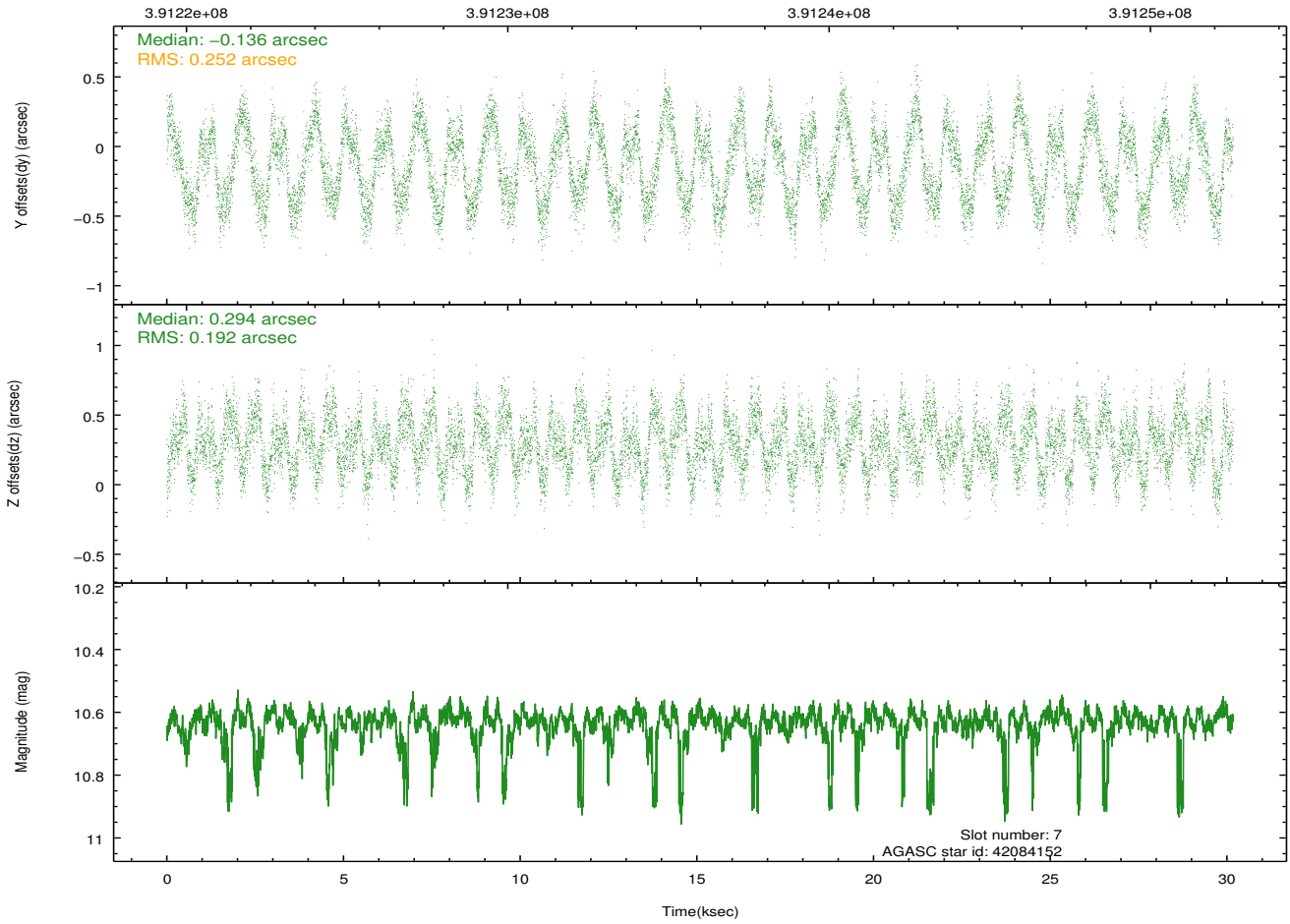
Time (s)



2.4.4 Slot 7

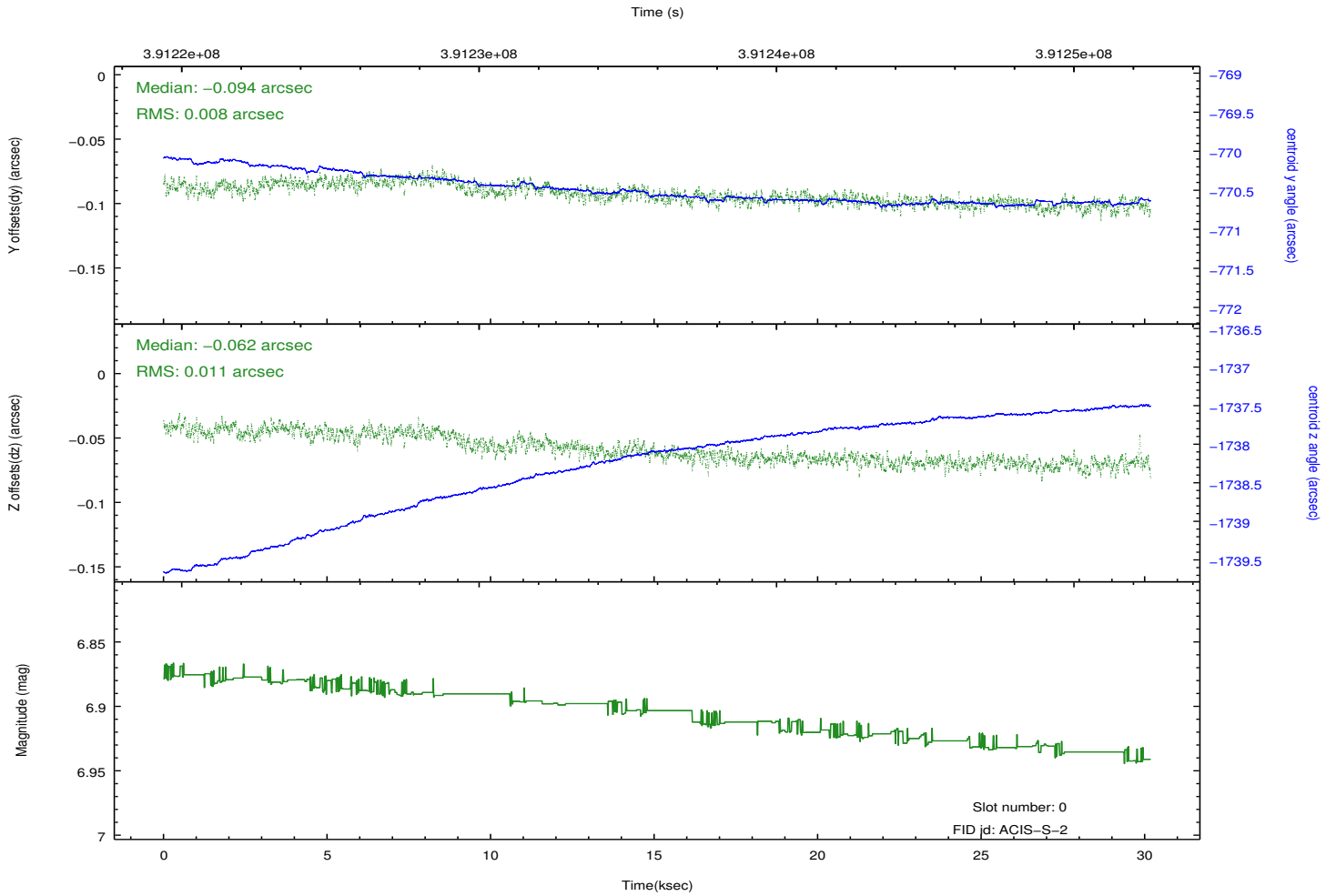
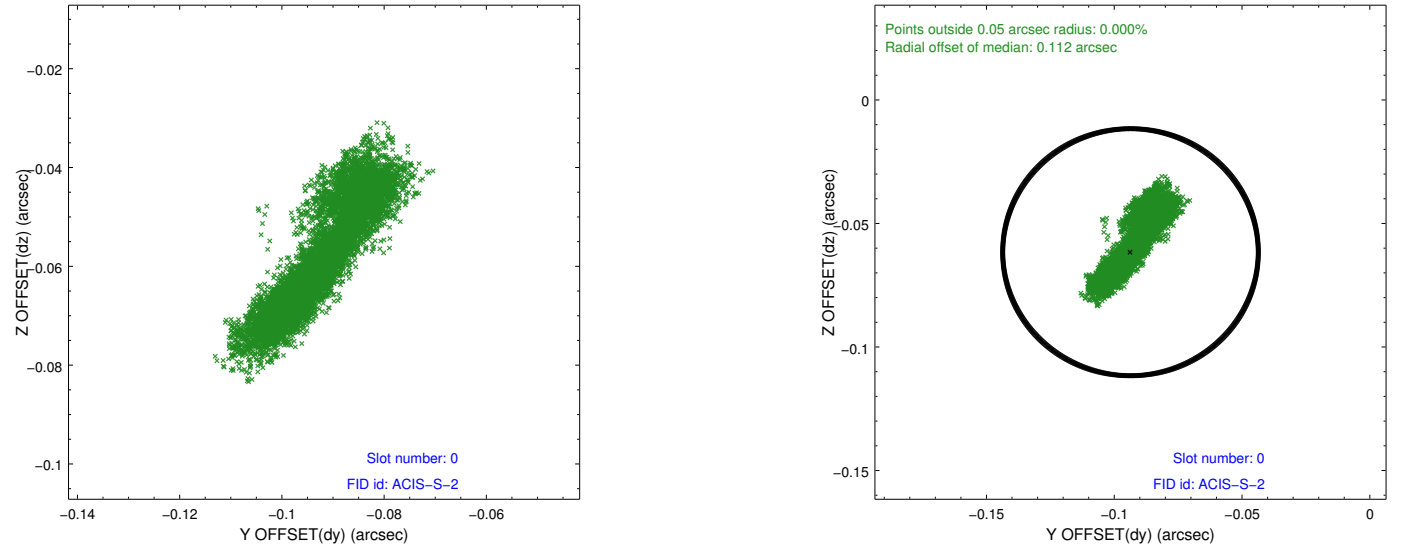


Time (s)

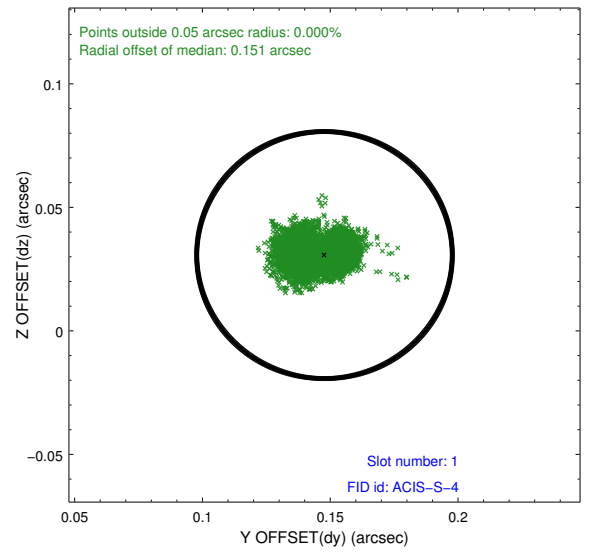
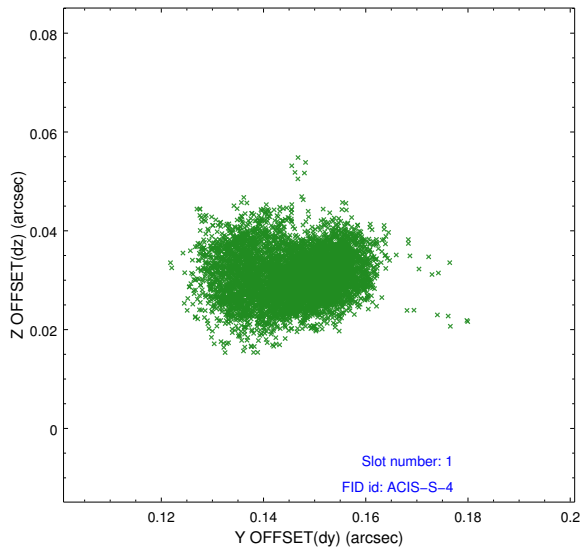


2.5 FID Slots

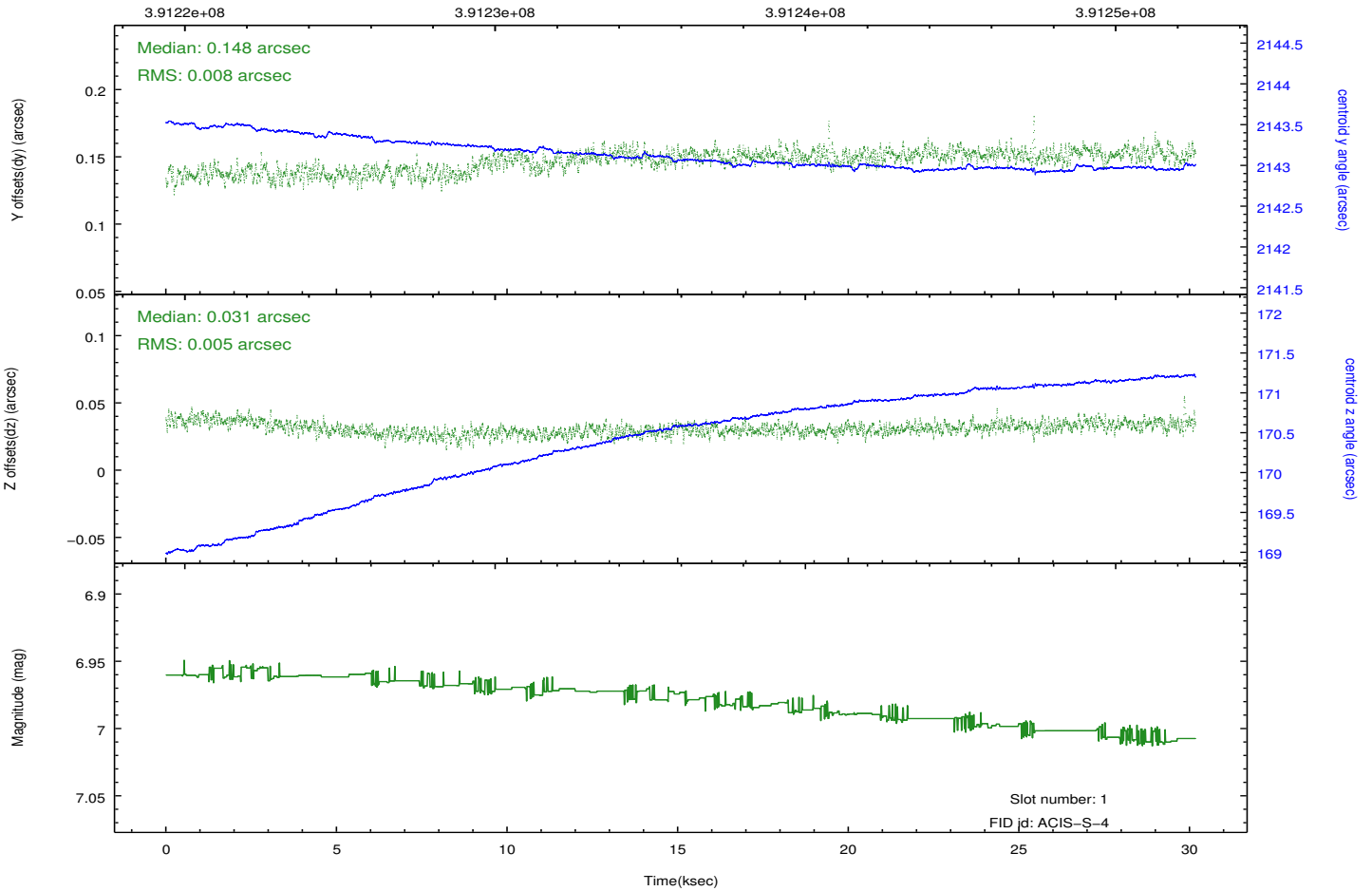
2.5.1 Slot 0



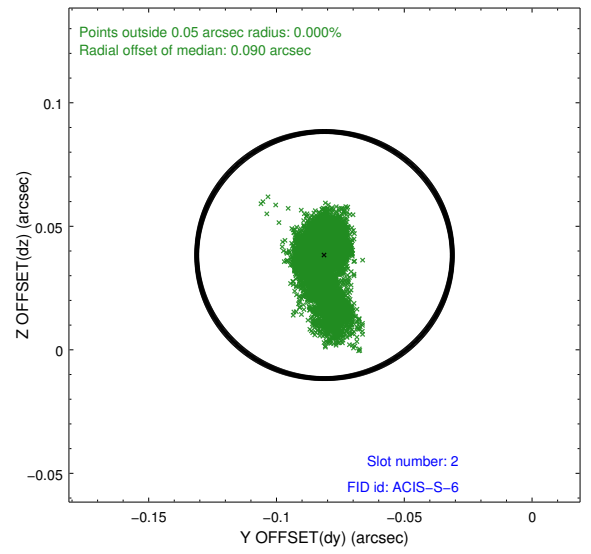
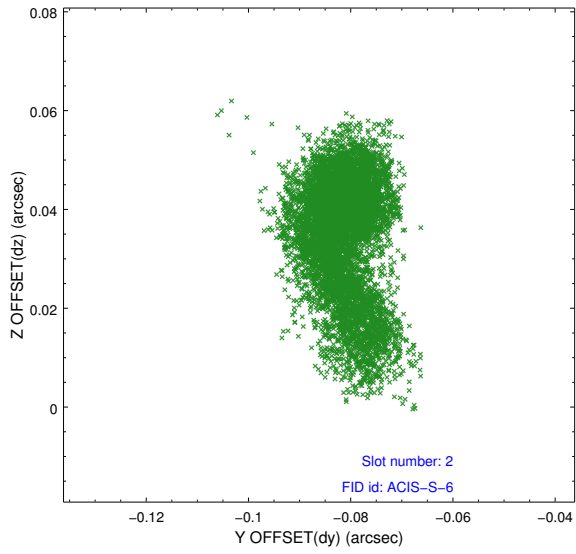
2.5.2 Slot 1



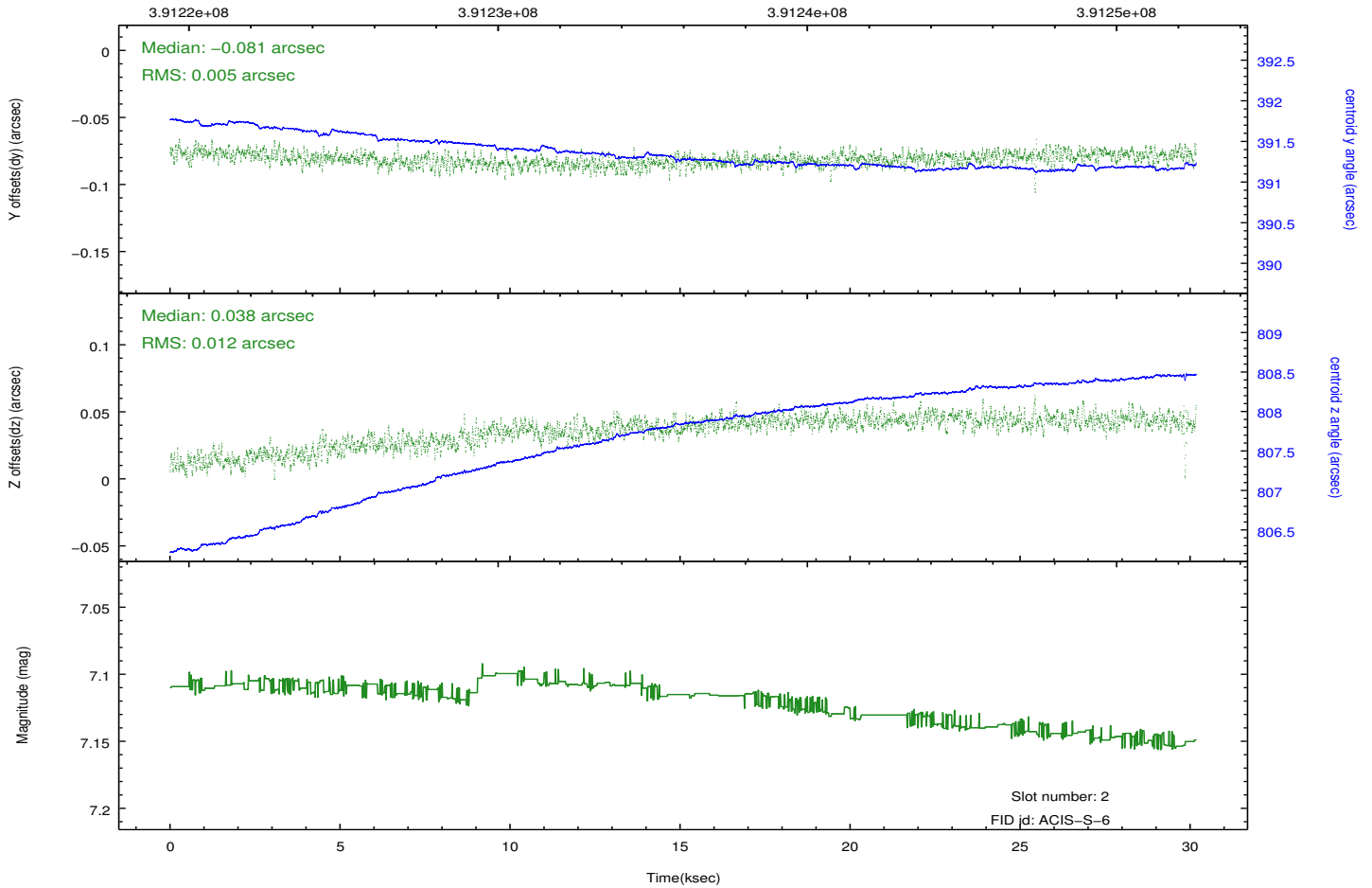
Time (s)



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.07.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.050037542939

A.2 Comments

Joint proposal with NRAO.

The guide star in slot 3 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.