

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 15618 - L2 Version 2
Chandra X-Ray Center

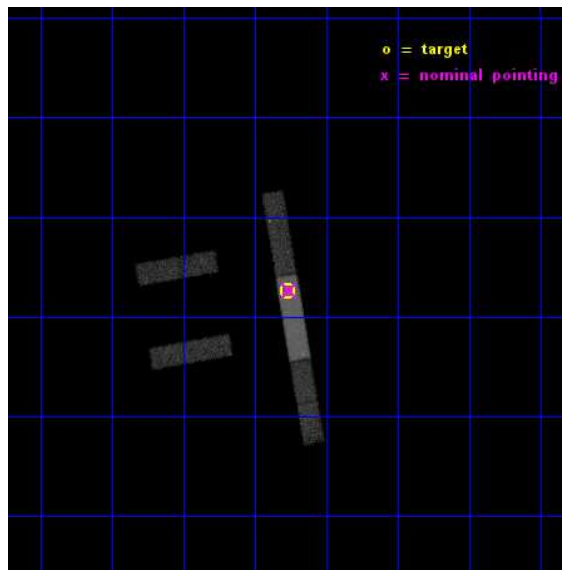
L2 Processing Date : Dec 1 2014

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1 Front

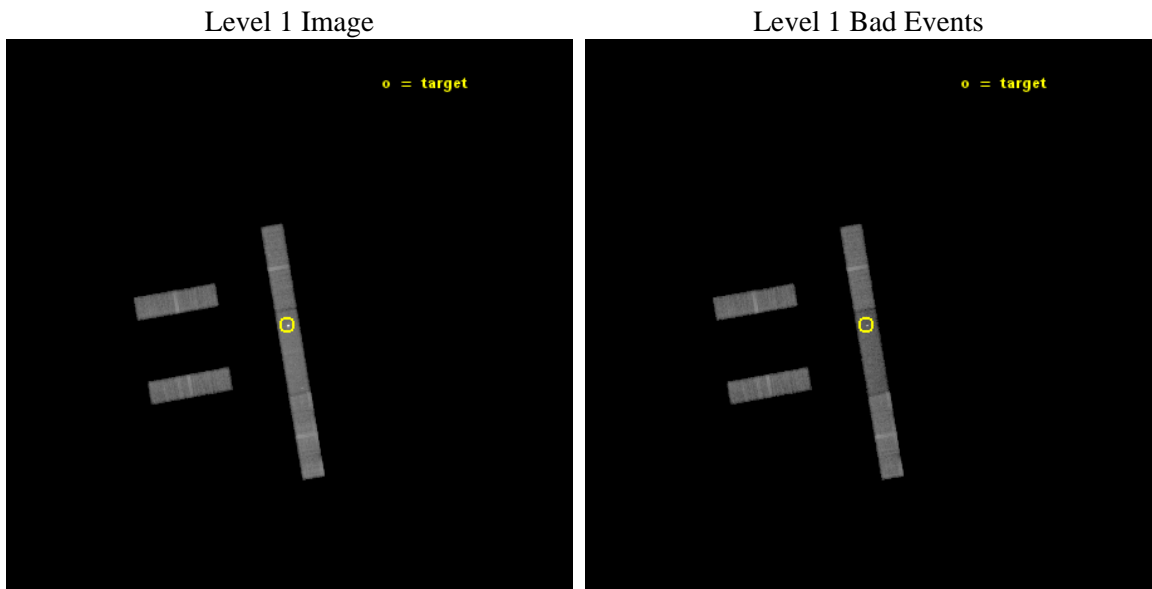
seq_num	702830	Sequence number
obs_id	15618	Observation id
title	The Remarkable Case of NGC 5252: Turning Chandra into a Time Machine	
observer	Dr. Junfeng Wang	Principal investigator
object	NGC 5252	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	204.56625	Observer's specified target RA [deg]
dec_targ	4.542583	Observer's specified target Dec [deg]
ra_nom	204.5640151006	Nominal RA [deg]
dec_nom	4.5446236413988	Nominal Dec [deg]
roll_nom	80.15680728542	Nominal Roll [deg]
revision	2	Processing version of data
ontime	42073.781216443	Sum of GTIs [s]
livetime	40415.143718246	Livetime [s]
ontime2	42073.617056429	Sum of GTIs [s]
ontime3	42073.699136436	Sum of GTIs [s]
ontime6	42072.699136376	Sum of GTIs [s]
ontime7	42073.781216443	Sum of GTIs [s]
ontime8	42072.617076337	Sum of GTIs [s]
l2events	74343	Number of level 2 events



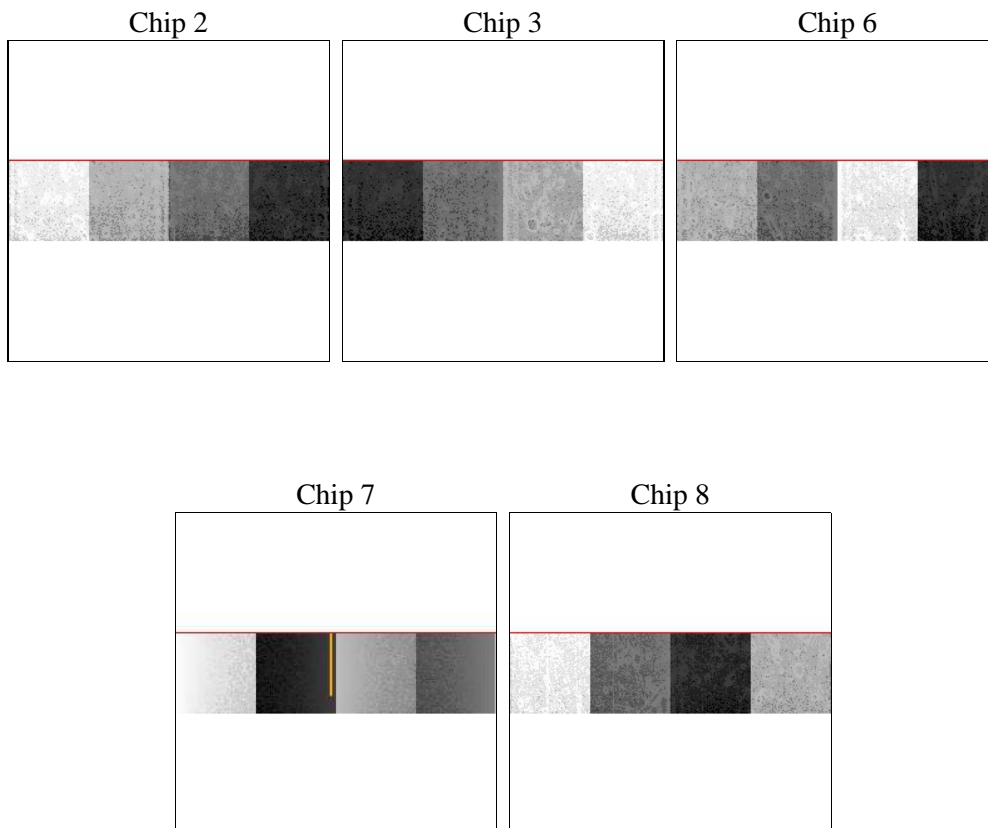
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	42000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	42073.781216443	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	42073.617056429	Sum of GTIs [s]
date	2014-12-01T19:59:48	Date and time of file creation	ontime3	42073.699136436	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	42072.699136376	Sum of GTIs [s]
			ontime7	42073.781216443	Sum of GTIs [s]
			ontime8	42072.617076337	Sum of GTIs [s]
			l1events	367389	Number of level 1 events

2.1.4 Events

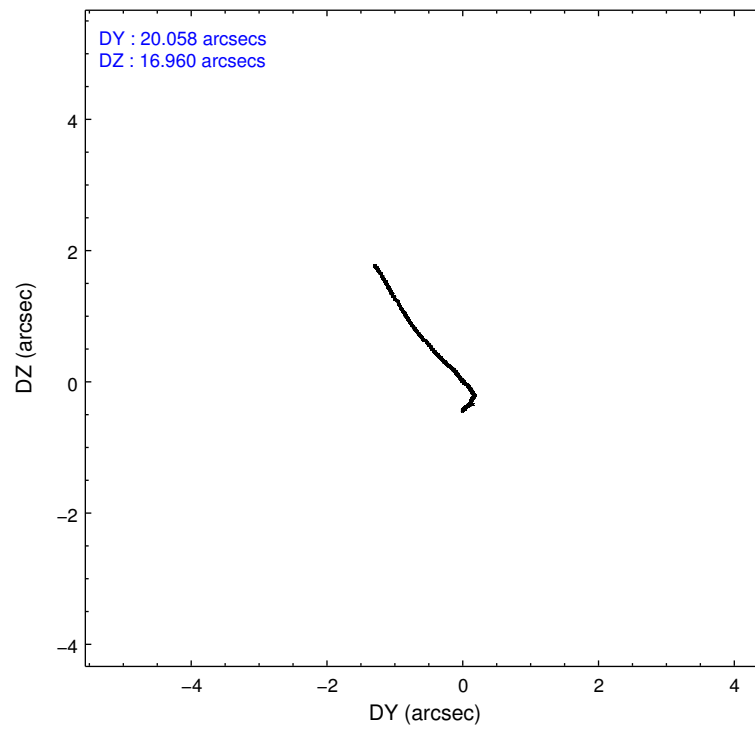
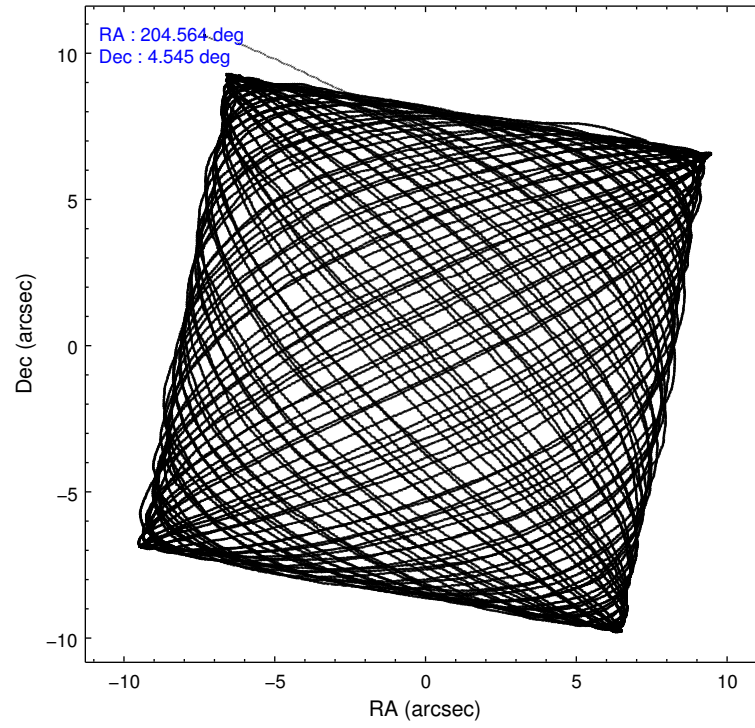
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	62941	61506	66714	86908	89320
rejected events	55778	54650	58635	36021	67190
rejected %	88%	88%	87%	41%	75%

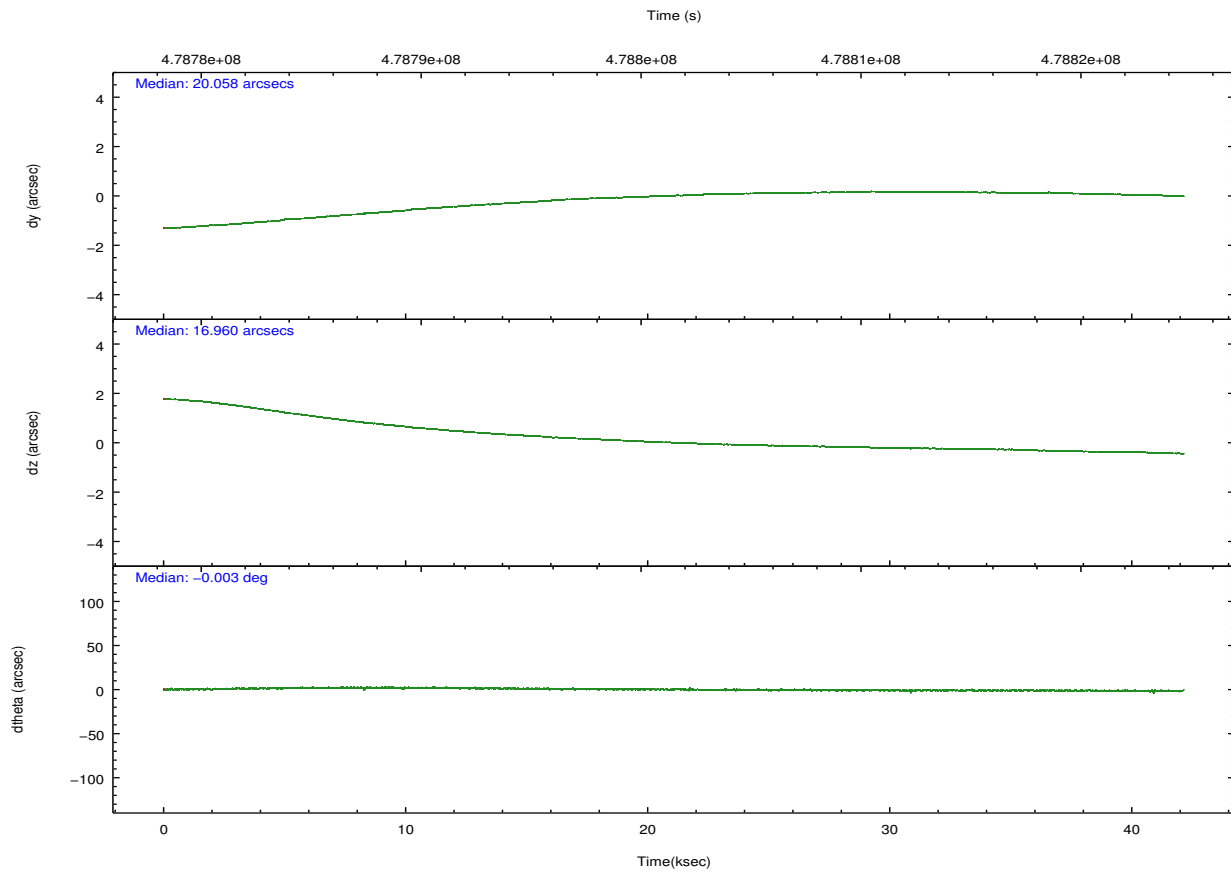
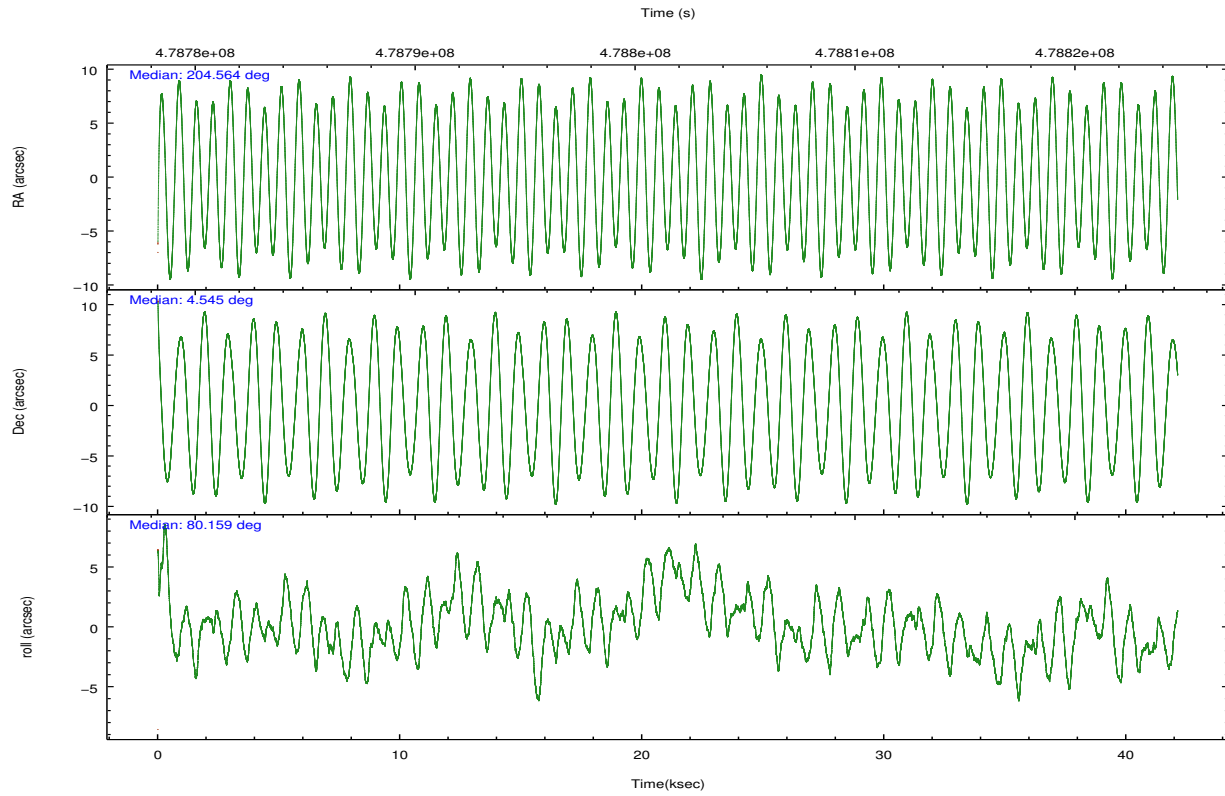
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	2276	2172	2637	7093	5542
	3%	3%	3%	8%	6%
grade 1 events	23	31	28	198	56
	0%	0%	0%	0%	0%
grade 2 events	1535	1441	1649	11335	5077
	2%	2%	2%	13%	5%
grade 3 events	1022	1039	1108	5644	2627
	1%	1%	1%	6%	2%
grade 4 events	1115	950	1131	5491	2350
	1%	1%	1%	6%	2%
grade 5 events	2004	2468	2575	7833	3702
	3%	4%	3%	9%	4%
grade 6 events	1216	1254	1554	21327	6538
	1%	2%	2%	24%	7%
grade 7 events	53750	52151	56032	27987	63428
	85%	84%	83%	32%	71%

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	204.573814	204.5640151006027	CCD I2 on	O1	Y
[deg] Pointing Dec	4.519084	4.544623641398841	CCD I3 on	O2	Y
[deg] Pointing Roll	79.999404	80.1568072854202	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)	478780562.184000	478779490.05748	CCD S5 on	N	N
Observation start date	2013-03-04T10:34:55	2013-03-04T10:18:10	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	478822562.184000	478823669.09737	On-chip summing requested	N	N
Observation end date	2013-03-04T22:14:55	2013-03-04T22:34:29	Subarray requested	CUSTOM	1/4
Read mode	TIMED	TIMED	Subarray start row	385	385
			Subarray row count	256	256
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1

2.3 Aspect





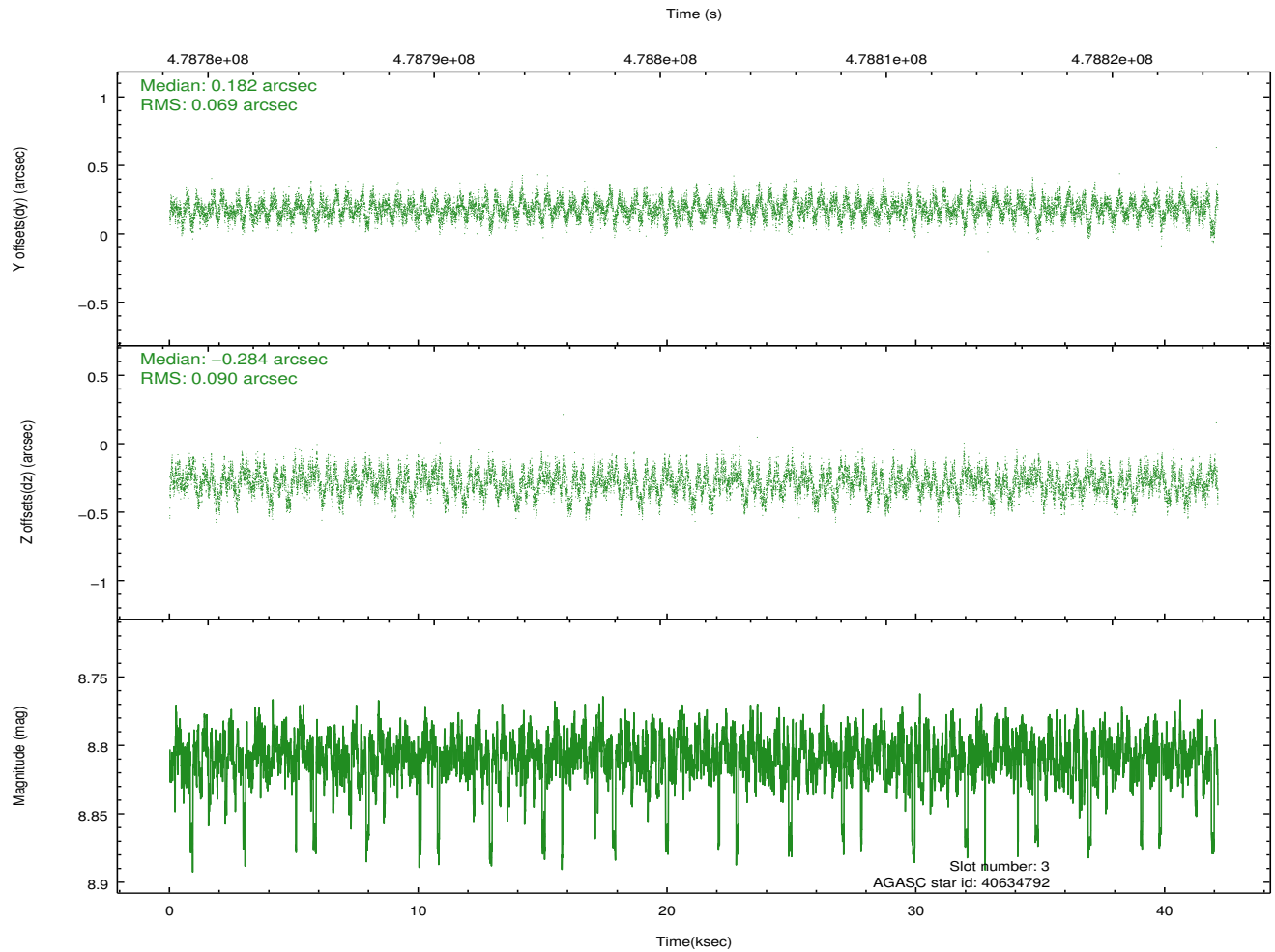
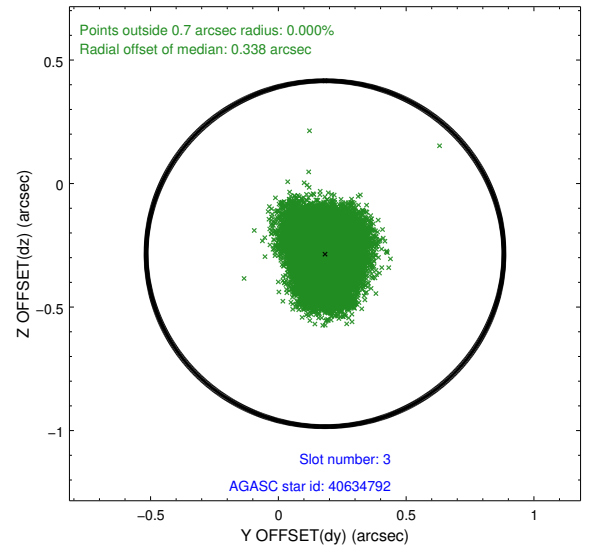
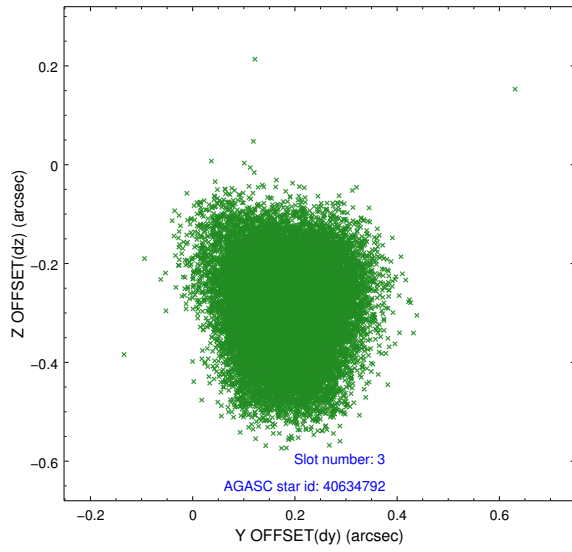
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.99	10276	-0.121	-0.030	0.018	0.037	0.000000	0.000000	-773.08	-1738.61
1	FID		ACIS-S-4	7.07	10277	0.266	0.067	0.009	0.015	0.000000	0.000000	2140.62	169.90
2	FID		ACIS-S-5	7.10	10277	-0.173	-0.028	0.018	0.046	0.000000	0.000000	-1825.93	163.57
3	GUIDE	used	40634792	8.81	20543	0.182	-0.284	0.123	0.194	204.315677	4.417619	-520.00	849.87
4	GUIDE	used	40636360	9.85	20523	0.711	0.390	0.198	0.313	204.732971	3.981163	-1807.07	-898.59
5	GUIDE	used	40637240	9.10	20537	0.247	-0.485	0.148	0.230	204.212040	4.037487	-1932.96	978.39
6	GUIDE	used	40766600	9.26	20429	0.211	0.339	0.132	0.211	205.010233	4.946178	1785.83	-1274.81
7	GUIDE	used	41166488	9.64	20506	-1.342	0.019	0.209	0.318	205.000727	5.060745	2185.45	-1168.98

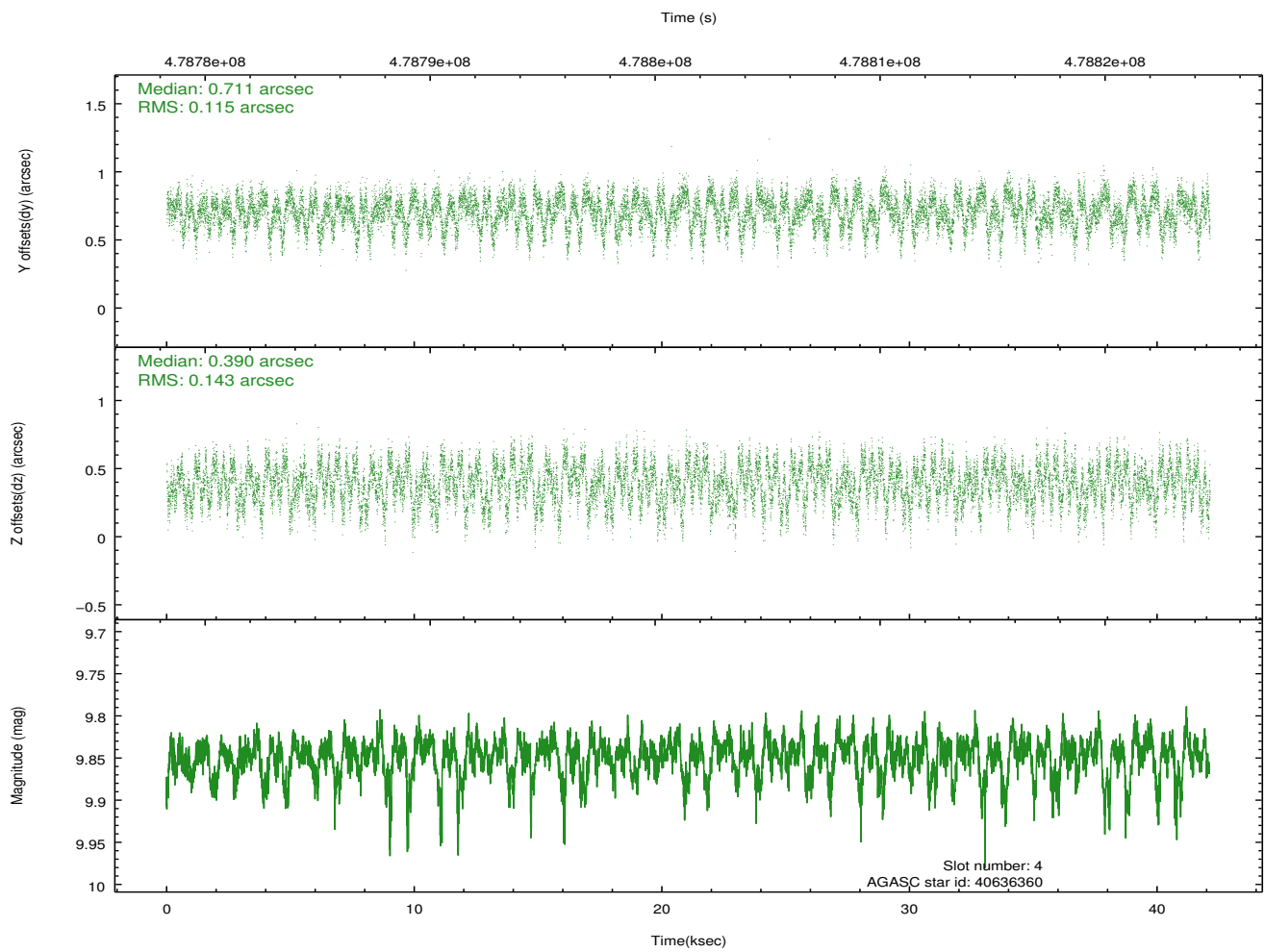
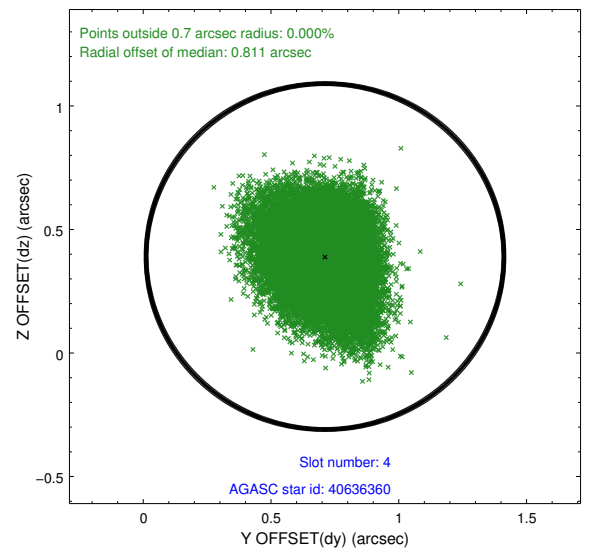
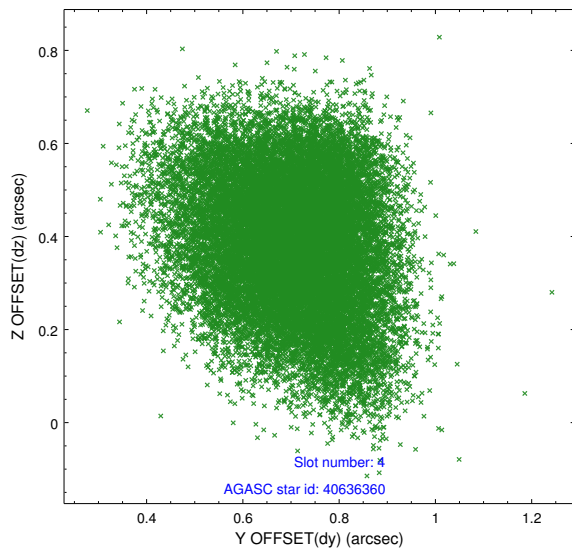
∞

2.4 Star Slots

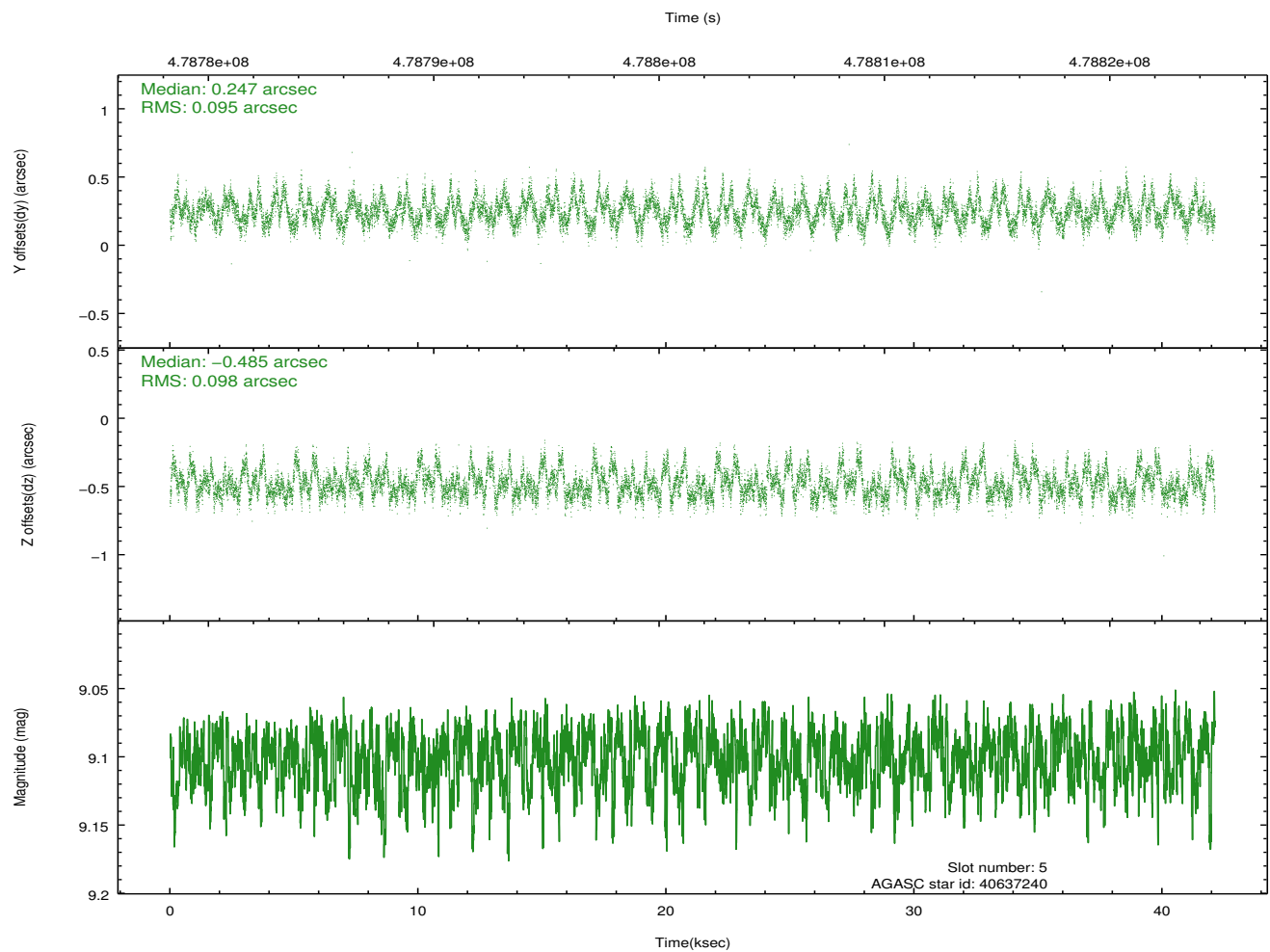
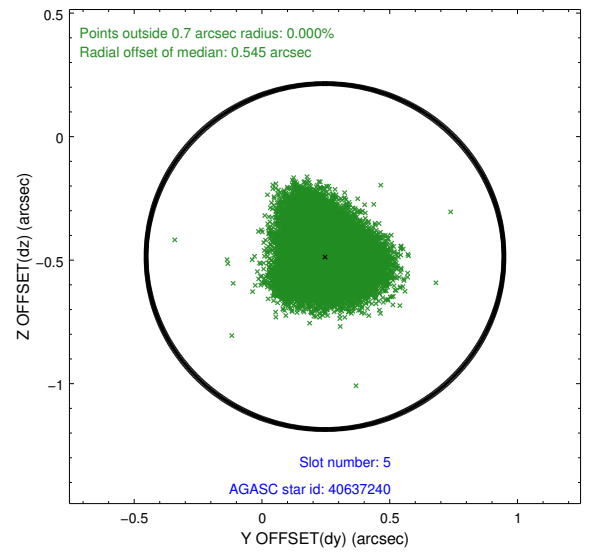
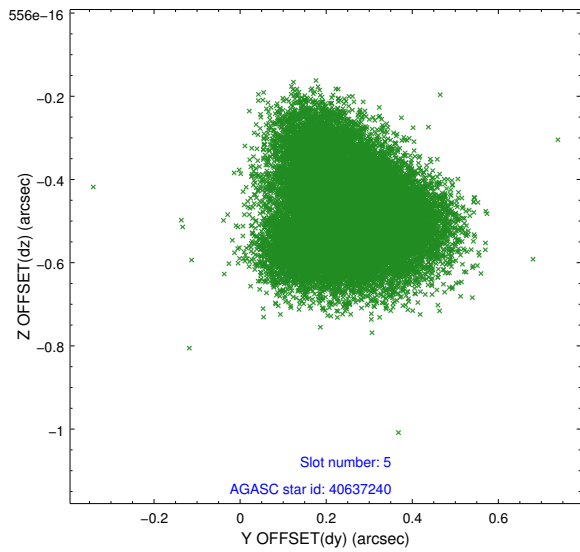
2.4.1 Slot 3



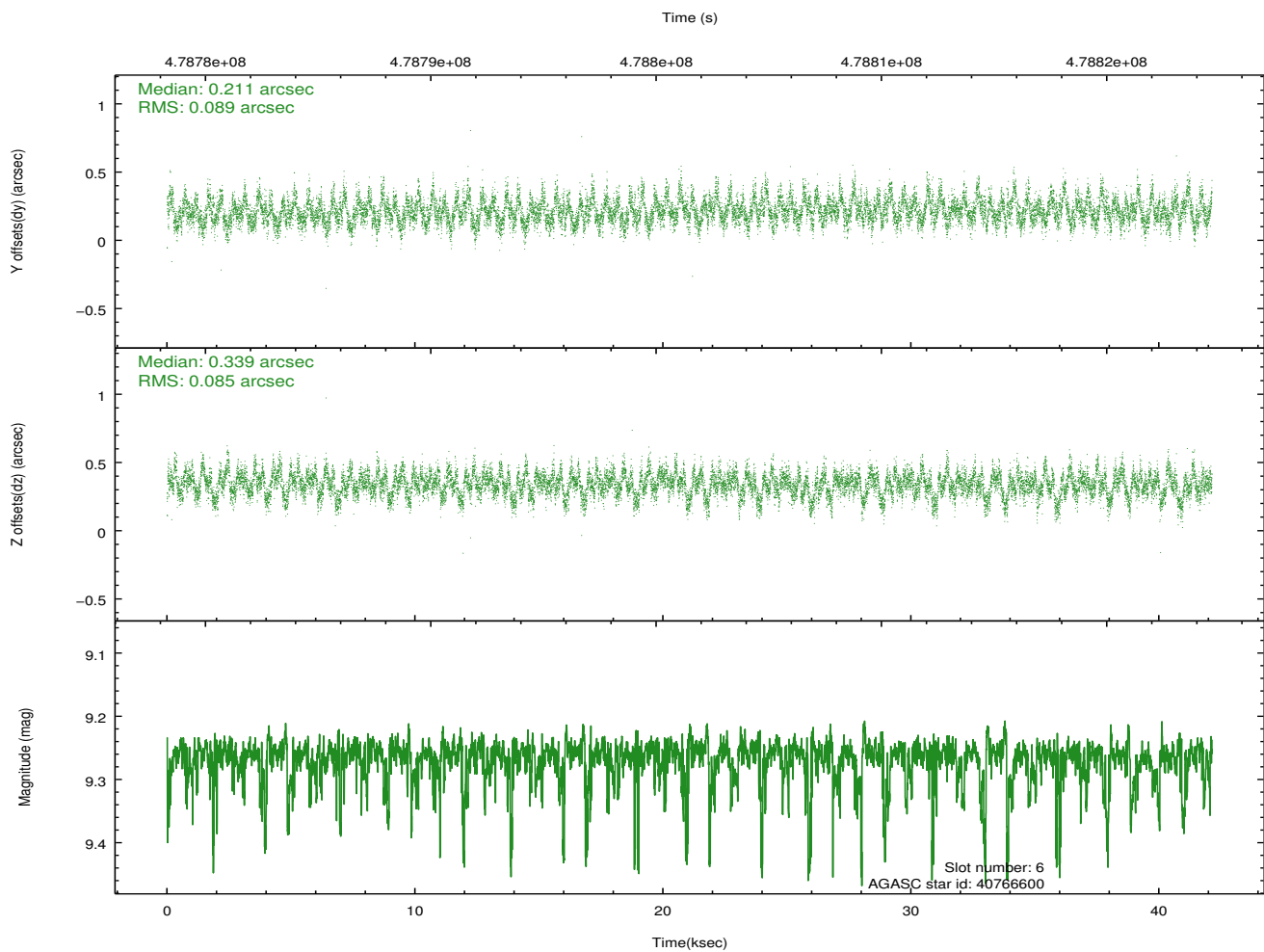
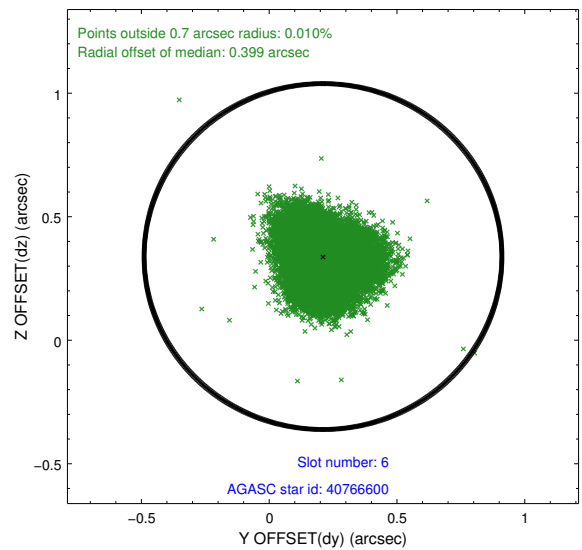
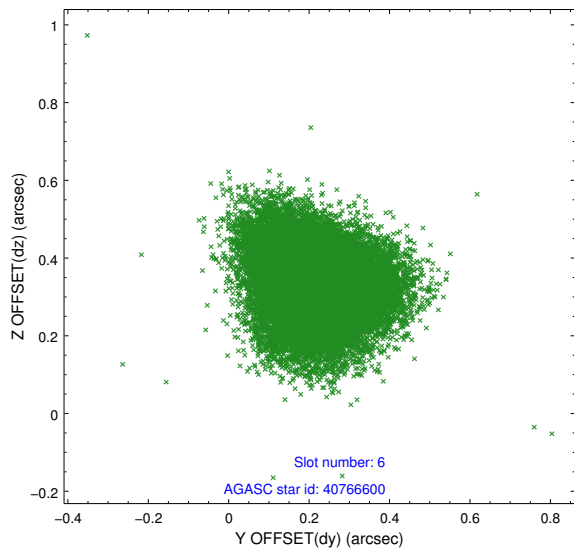
2.4.2 Slot 4



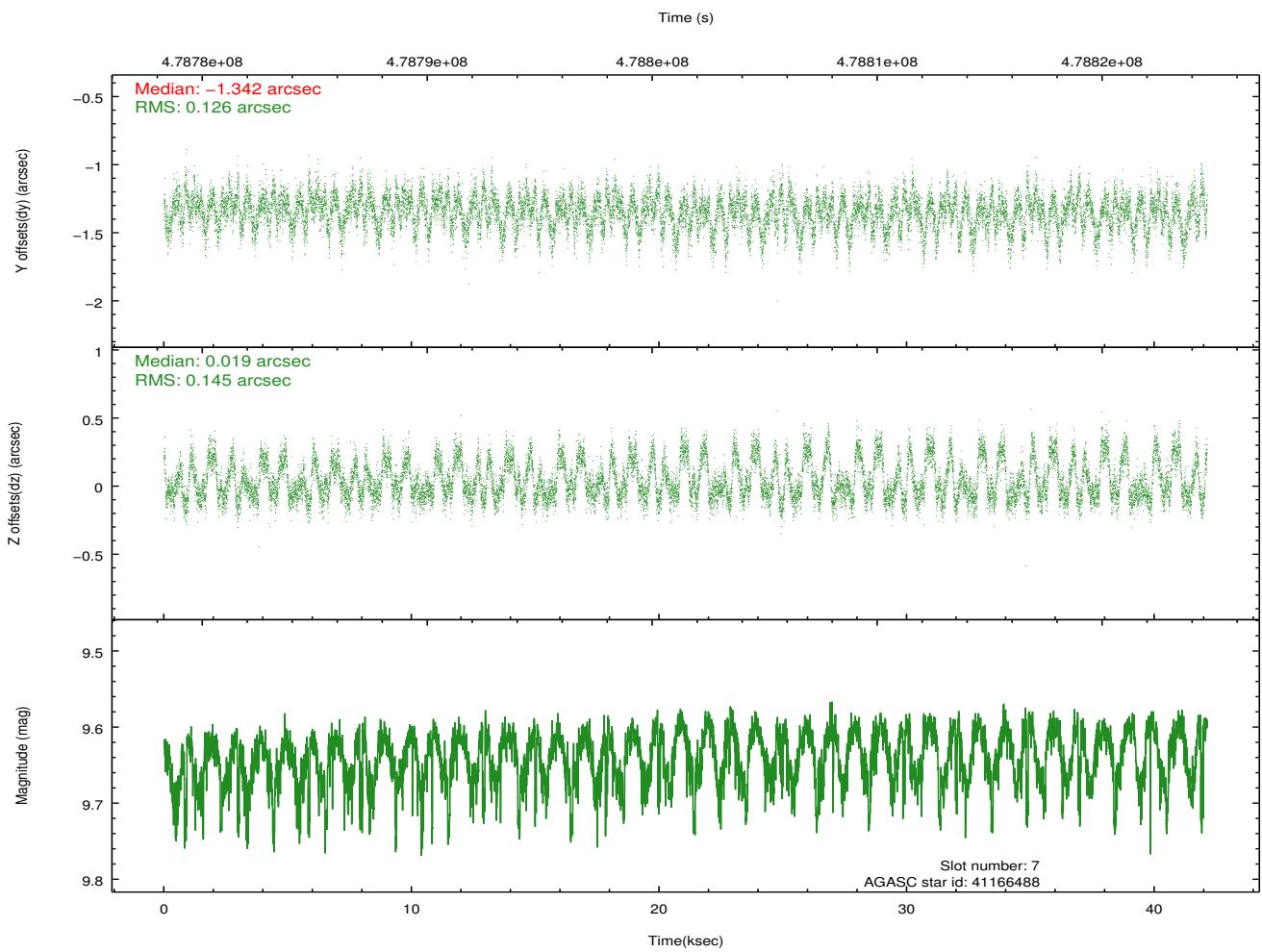
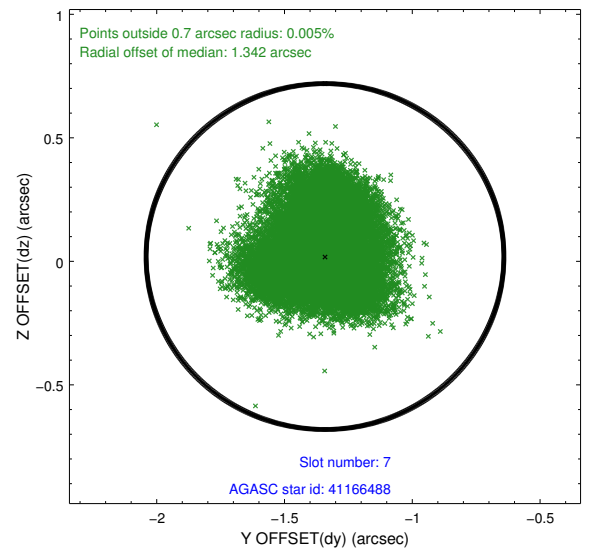
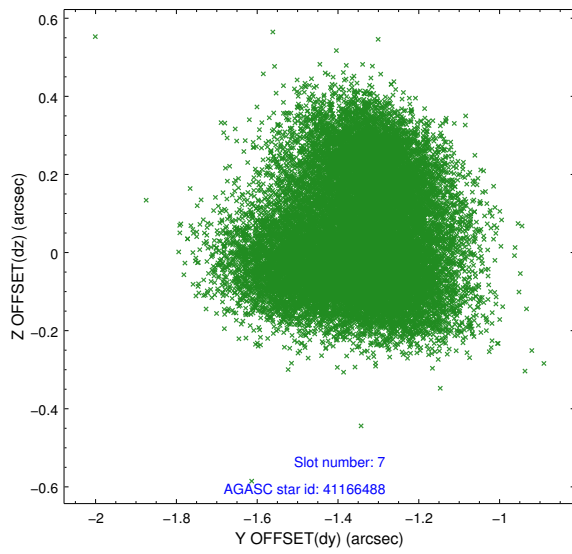
2.4.3 Slot 5



2.4.4 Slot 6

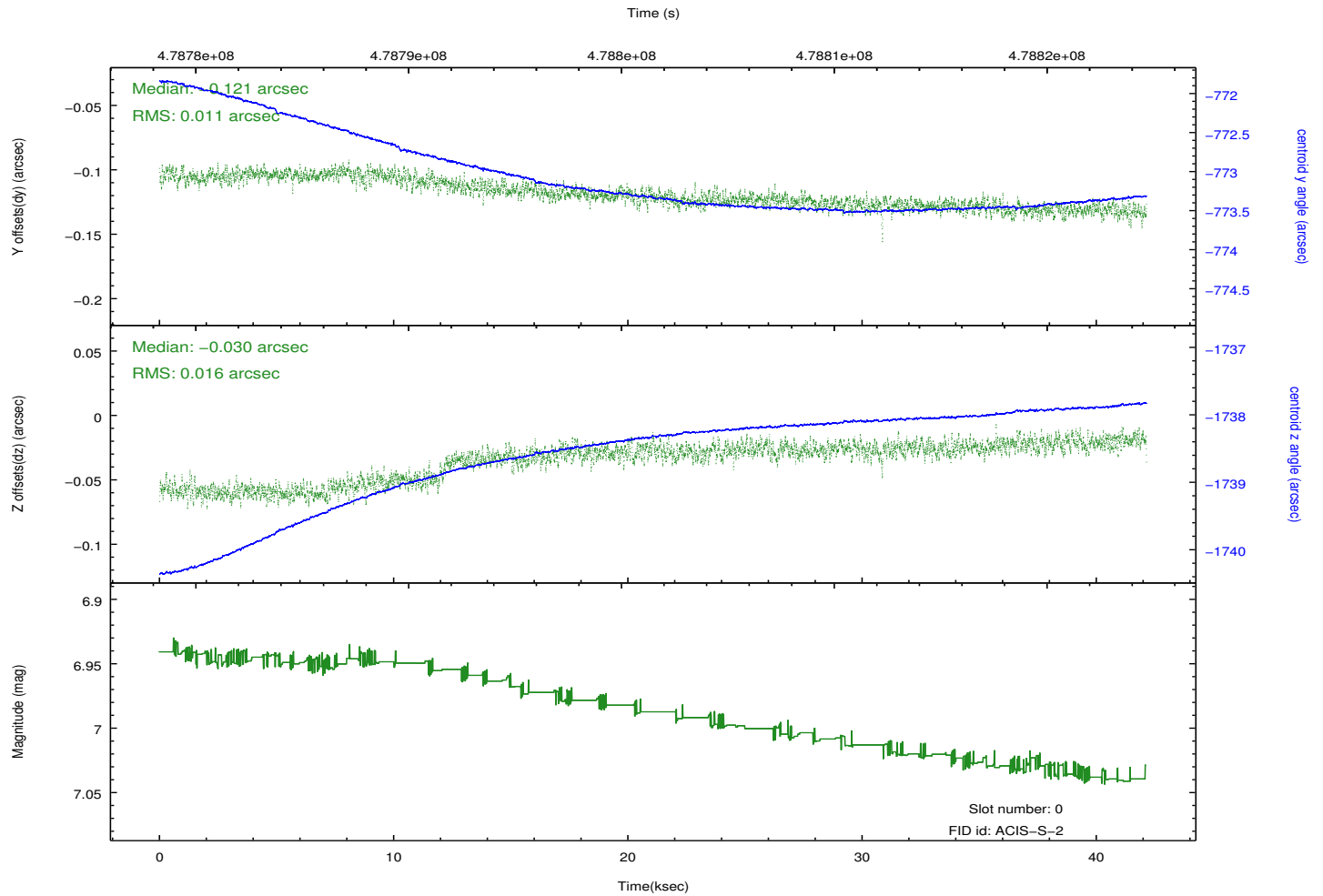
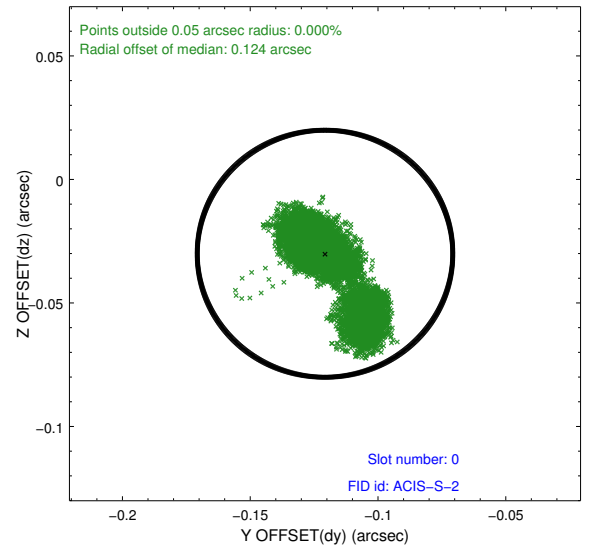
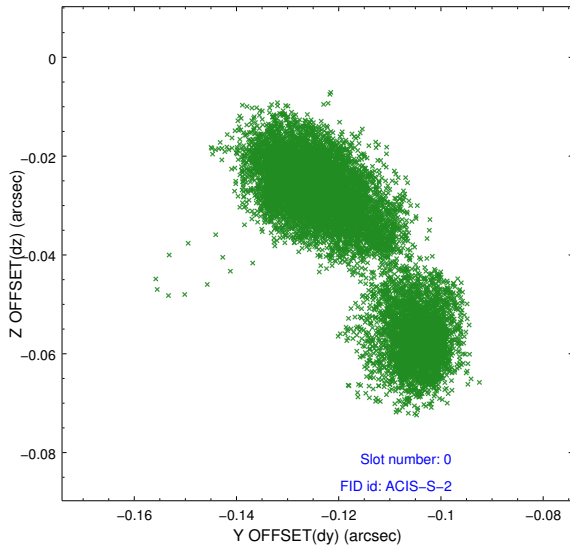


2.4.5 Slot 7

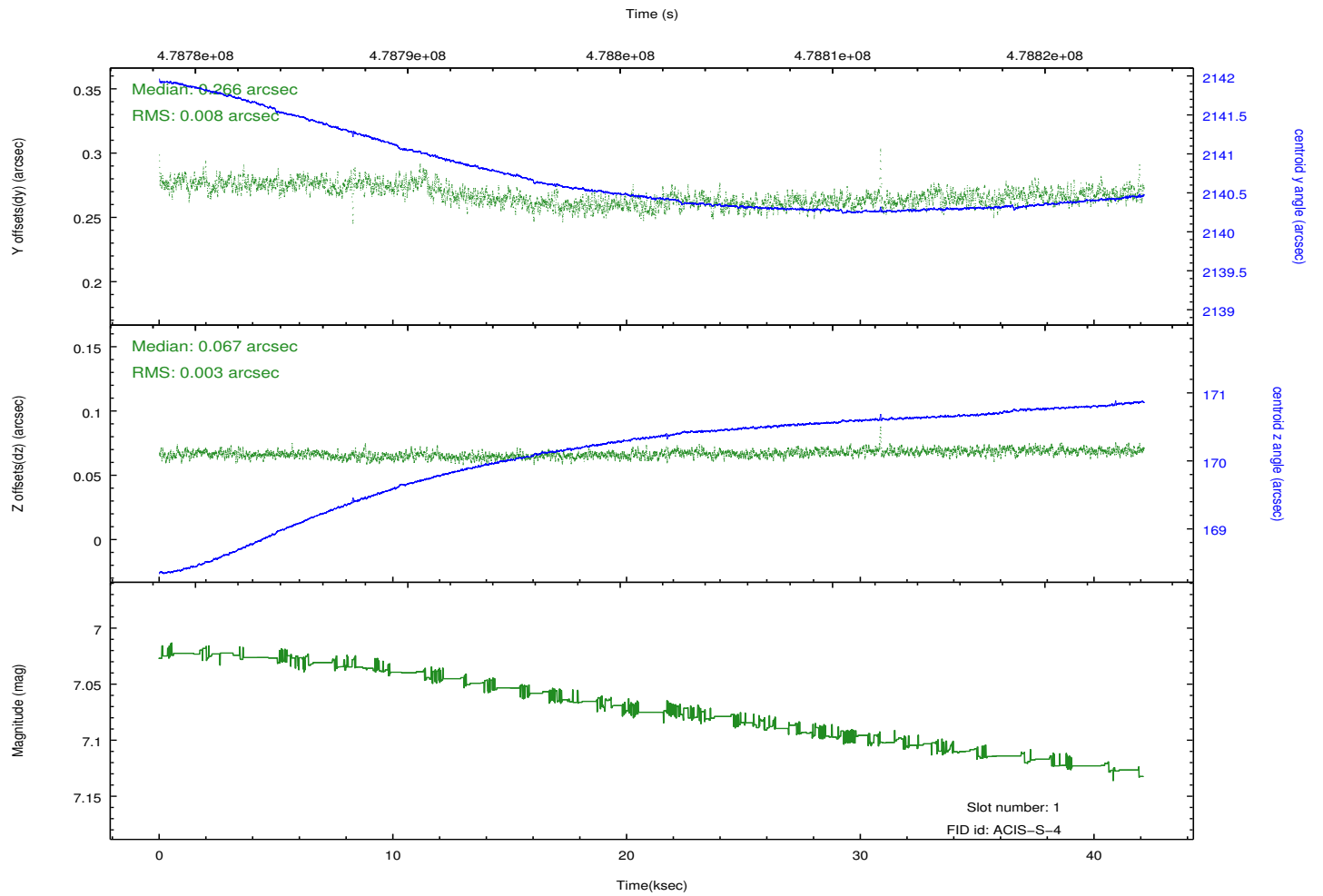
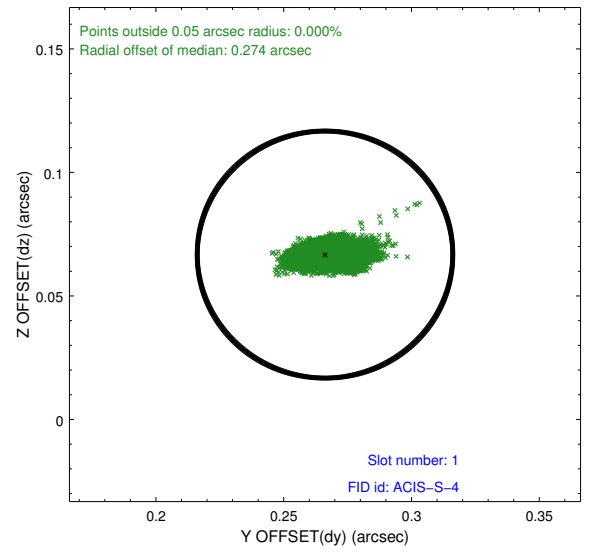
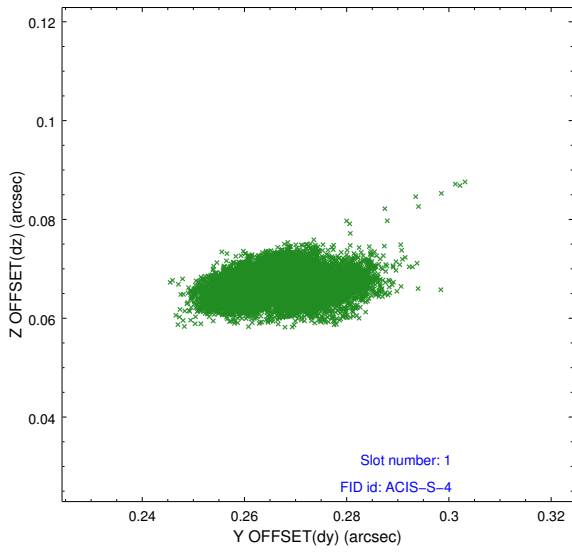


2.5 FID Slots

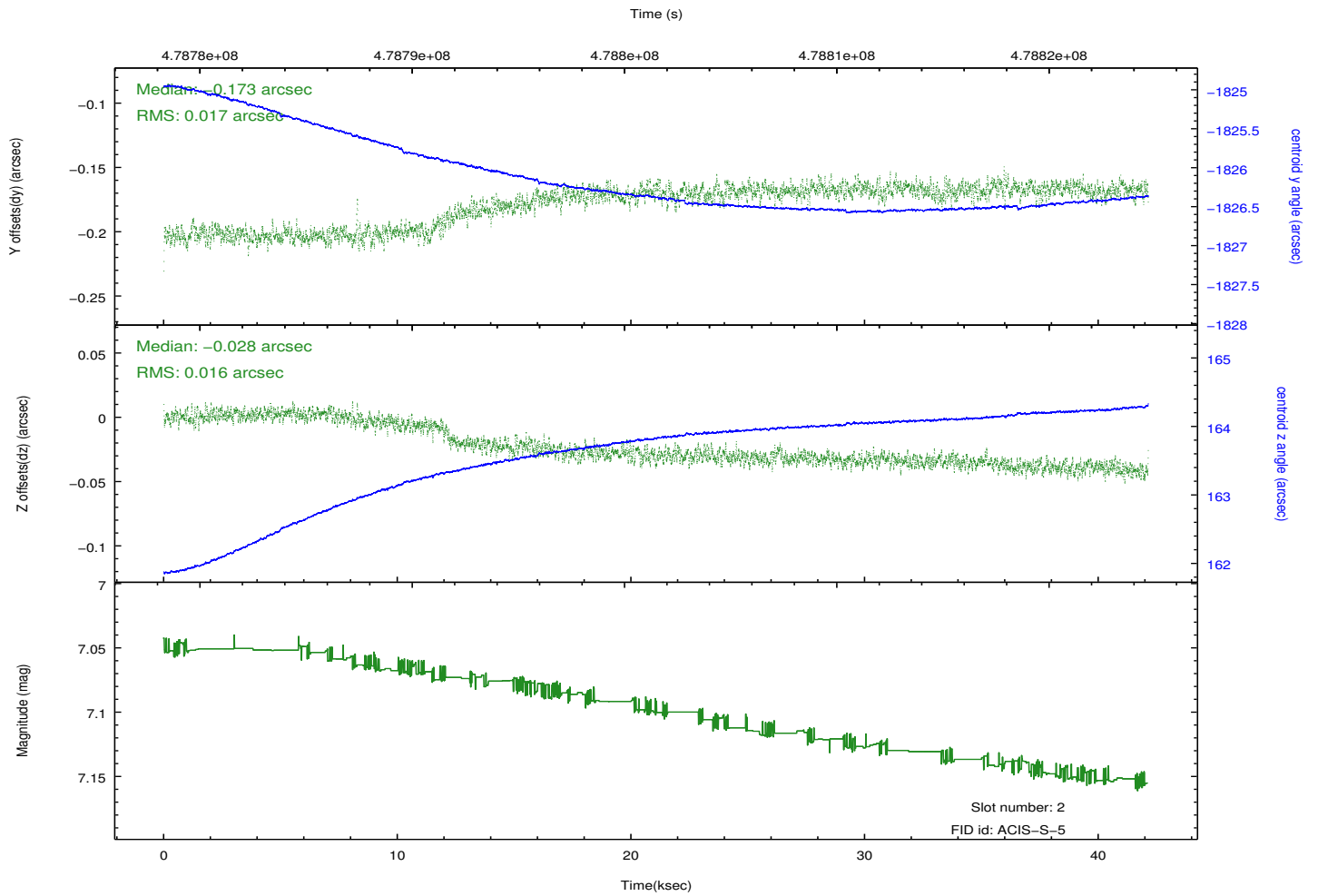
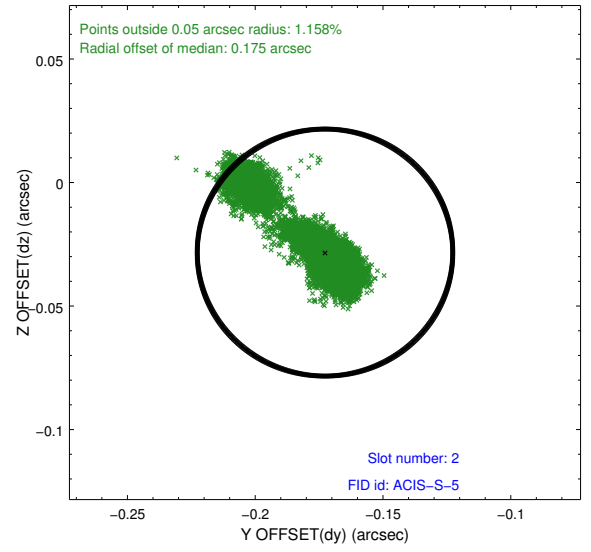
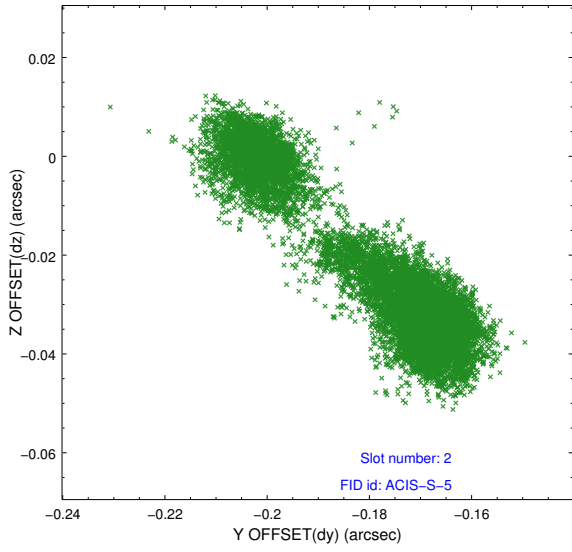
2.5.1 Slot 0



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)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	42.073781216443

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.