

V&V Reference Report

L2 ASCDS Version : 10.5

Observation 18032 - L2 Version 1
Chandra X-Ray Center

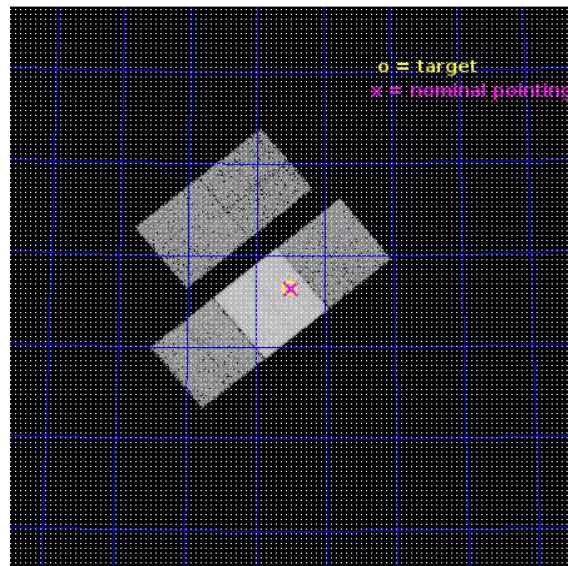
L2 Processing Date : Jun 21 2016

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1 Front

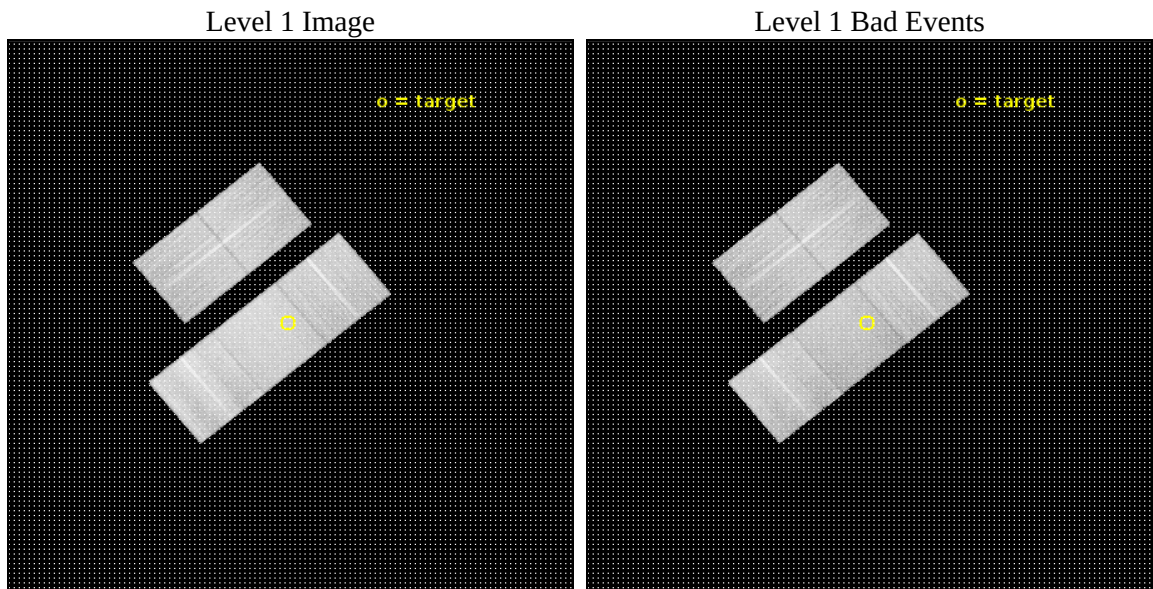
seq_num	502648	Sequence number
obs_id	18032	Observation id
title	The Astrophysics of the Most Energetic Gamma-Ray Bursts	Proposal t
observer	Dr. Fruchter	Principal investigator
object	GRB 160509a	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	311.753875	Observer's specified target RA [deg]
dec_targ	76.108111	Observer's specified target Dec [deg]
ra_nom	311.74429200876	Nominal RA [deg]
dec_nom	76.106757628735	Nominal Dec [deg]
roll_nom	140.68401871041	Nominal Roll [deg]
revision	1	Processing version of data
ontime	25074.885461092	Sum of GTIs [s]
livetime	24747.263622681	Livetime [s]
ontime2	25068.439360619	Sum of GTIs [s]
ontime3	25065.380400538	Sum of GTIs [s]
ontime6	25071.703420997	Sum of GTIs [s]
ontime7	25074.885461092	Sum of GTIs [s]
ontime8	25065.33922112	Sum of GTIs [s]
l2events	144694	Number of level 2 events



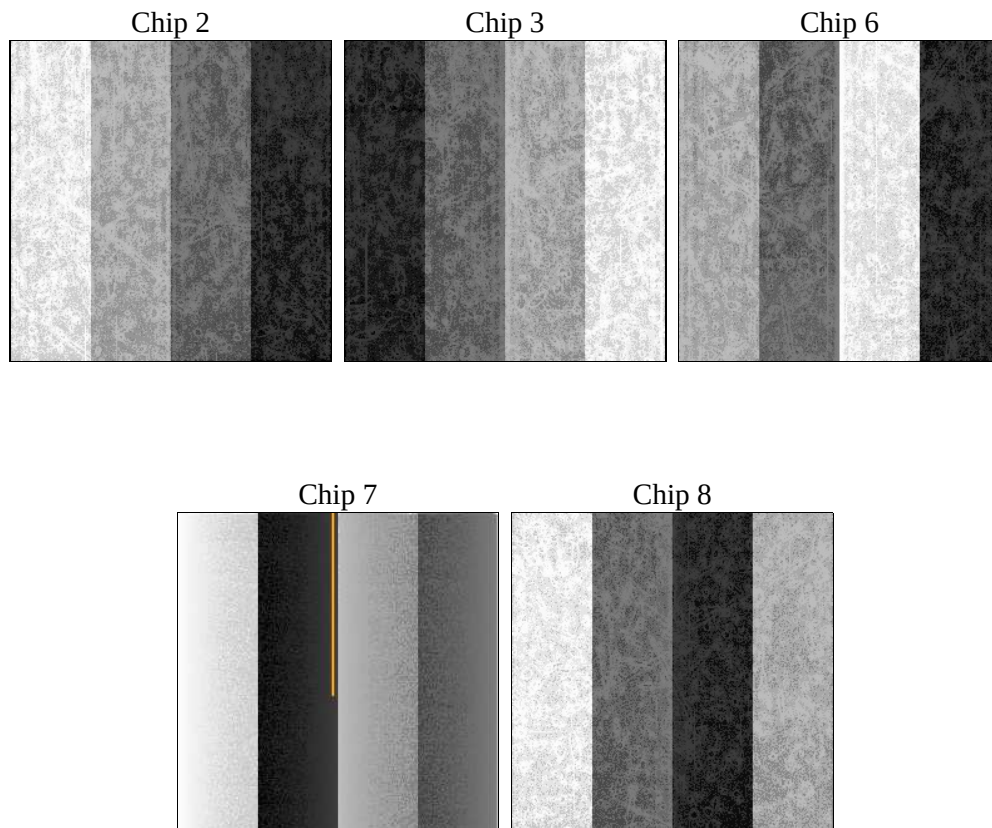
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25305.183000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	25074.885461092	Sum of GTIs [s]
caldsver	4.7.2	 	ontime2	25068.439360619	Sum of GTIs [s]
date	2016-06-21T03:51:15	Date and time of file creation	ontime3	25065.380400538	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	25071.703420997	Sum of GTIs [s]
			ontime7	25074.885461092	Sum of GTIs [s]
			ontime8	25065.33922112	Sum of GTIs [s]
			l1events	884028	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	161100	152106	164212	201281	205329
rejected events	144716	135790	146428	115880	150739
rejected %	89%	89%	89%	57%	73%

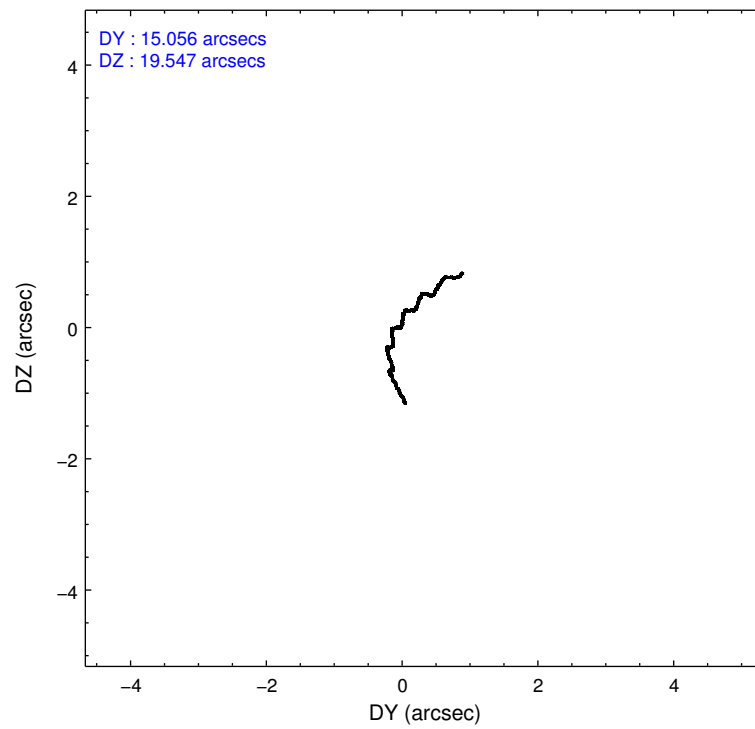
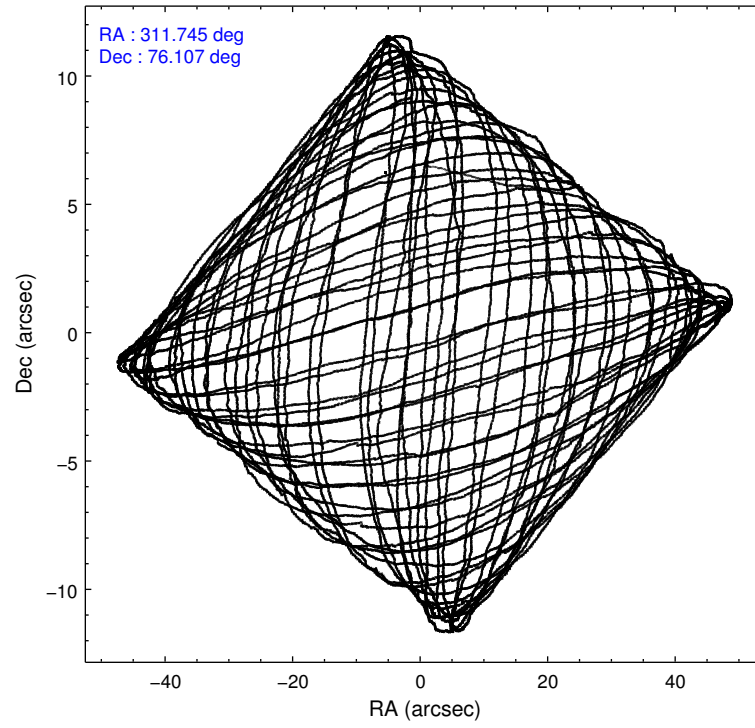
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	5781	5685	5730	7128	15743
	3%	3%	3%	3%	7%
grade 1 events	77	85	81	277	182
	0%	0%	0%	0%	0%
grade 2 events	4062	3563	4223	17927	13092
	2%	2%	2%	8%	6%
grade 3 events	1700	1774	1727	6682	5740
	1%	1%	1%	3%	2%
grade 4 events	1688	1806	1721	6456	5424
	1%	1%	1%	3%	2%
grade 5 events	5822	7601	7408	19697	11081
	3%	4%	4%	9%	5%
grade 6 events	3159	3490	4386	47227	14601
	1%	2%	2%	23%	7%
grade 7 events	138811	128102	138936	95887	139466
	86%	84%	84%	47%	67%

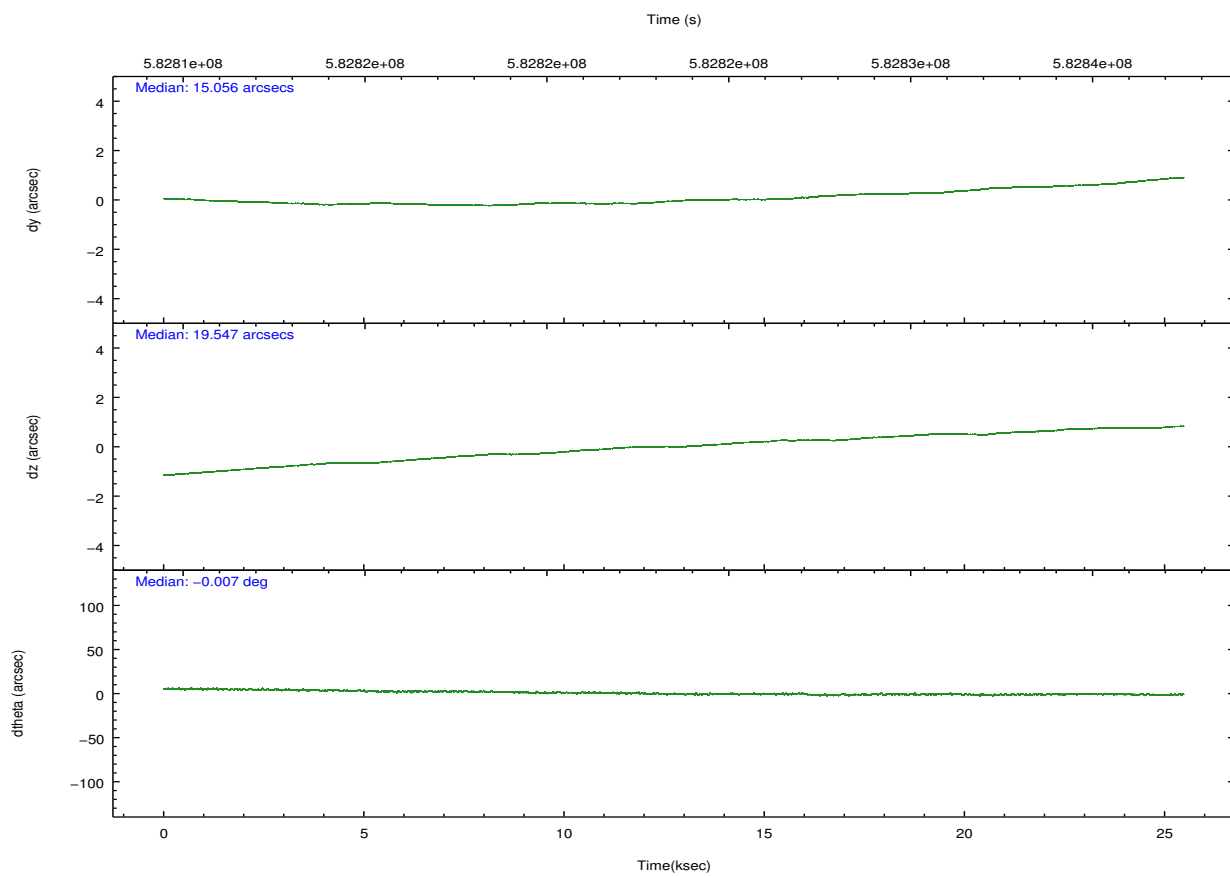
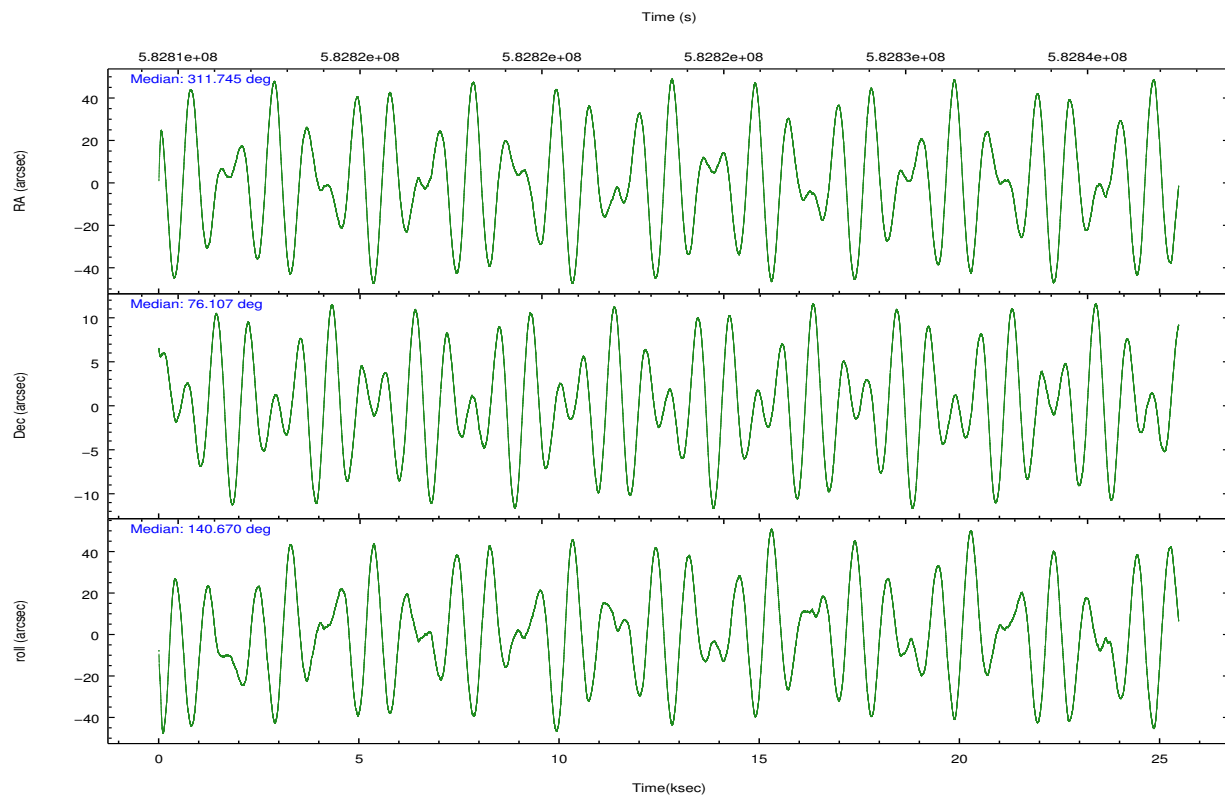
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-23678	ACIS-23678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	311.857357	311.7442920087632
[deg] Pointing Dec	76.102636	76.10675762873507
[deg] Pointing Roll	140.417619	140.6840187104064
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	582810925.184000	582809451.54563
Observation start date	2016-06-20T11:54:17	2016-06-20T11:30:51
[s] Observation end time (MET)	582836230.184000	582836461.8346699
Observation end date	2016-06-20T18:56:02	2016-06-20T19:01:01
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



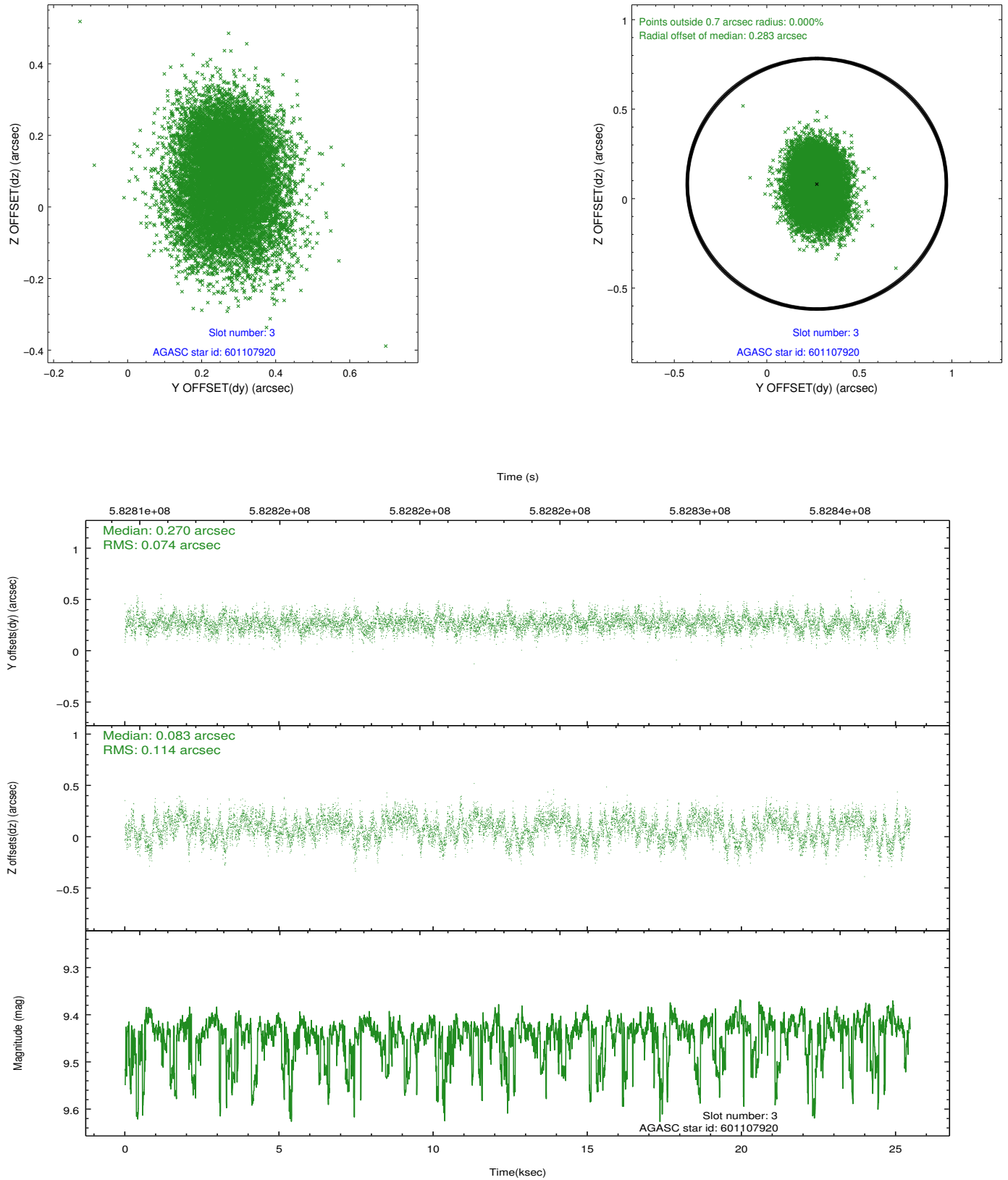


Slot Statistics

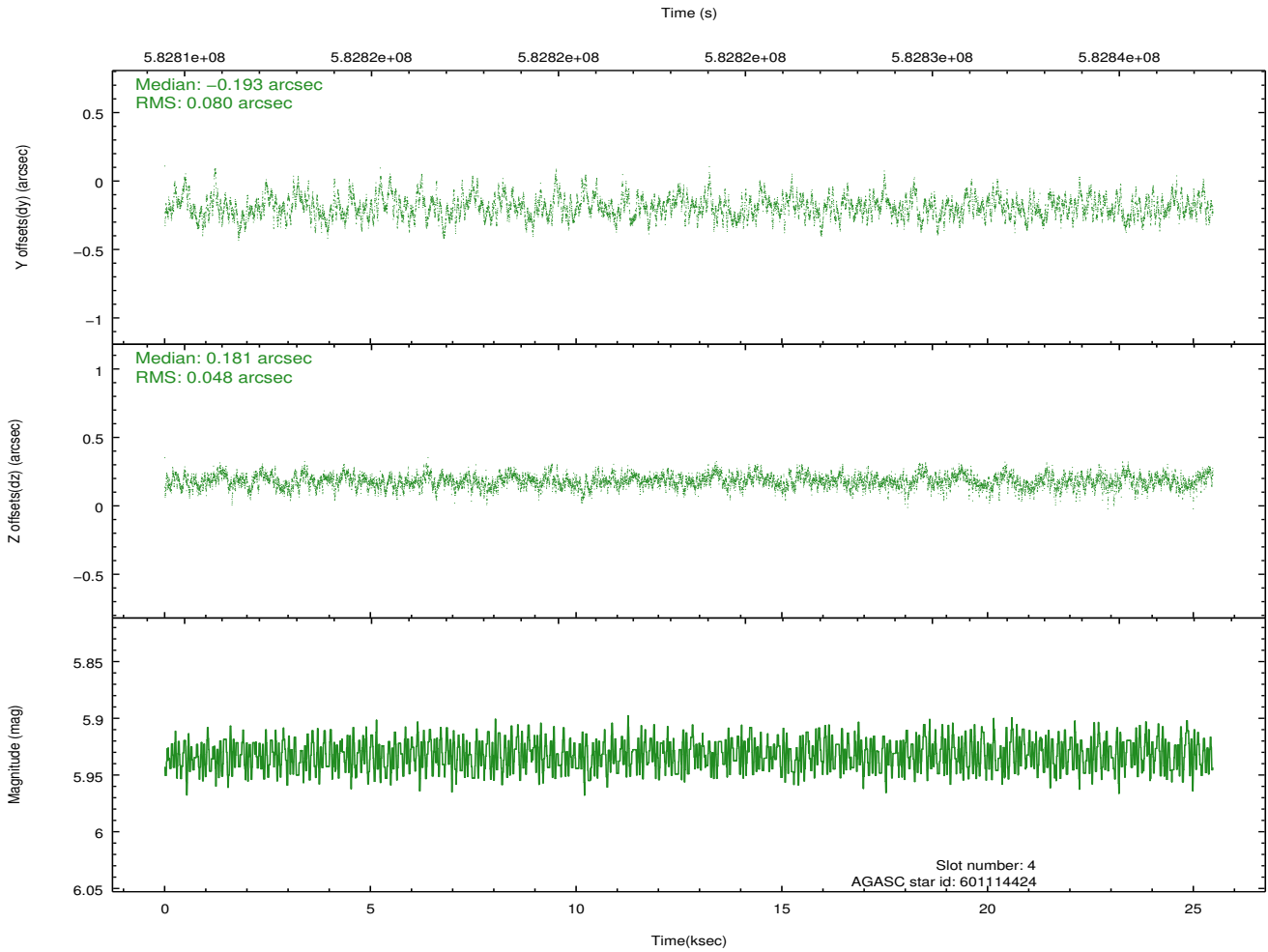
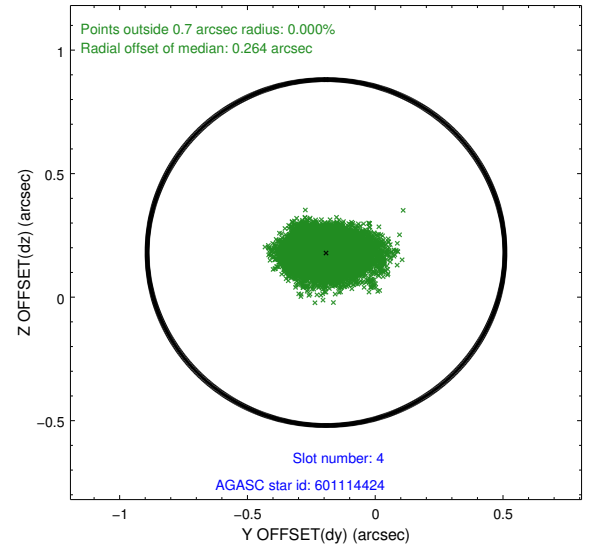
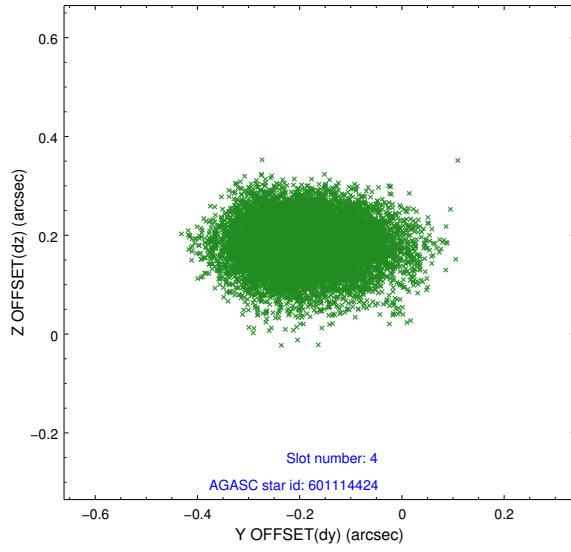
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-4	7.22	6213	0.354	0.012	0.017	0.031	0.000000	0.000000	2145.56	167.78
1	FID		ACIS-S-5	7.23	6212	-0.405	0.001	0.014	0.035	0.000000	0.000000	-1821.24	161.13
2	FID		ACIS-S-6	7.36	6213	0.020	0.001	0.014	0.023	0.000000	0.000000	393.35	804.94
3	GUIDE	used	601107920	9.44	12417	0.270	0.083	0.144	0.235	313.382584	76.433679	-221.60	-1751.29
4	GUIDE	used	601114424	5.93	12426	-0.193	0.181	0.097	0.166	313.684756	75.925571	-1622.82	-547.33
5	GUIDE	used	601098920	9.85	12335	0.128	-0.120	0.191	0.316	312.140939	75.193994	-2285.29	2354.61
6	GUIDE	used	601106104	6.61	12426	-0.014	0.392	0.110	0.181	314.050731	75.719831	-2356.17	-207.13
7	GUIDE	used	601099624	10.16	12354	-0.183	-0.525	0.276	0.467	310.934721	75.465429	-815.71	2294.20

2.4 Star Slots

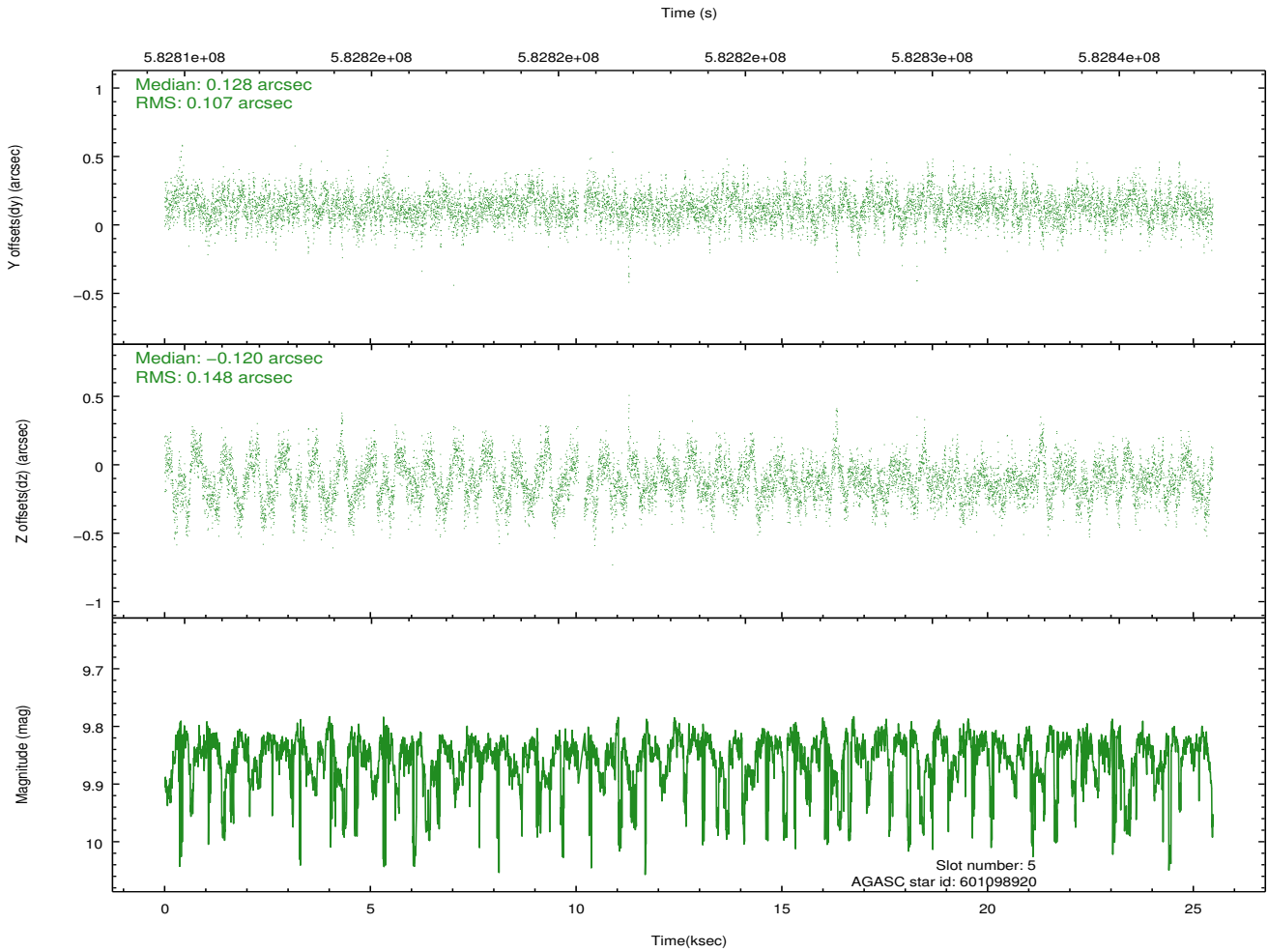
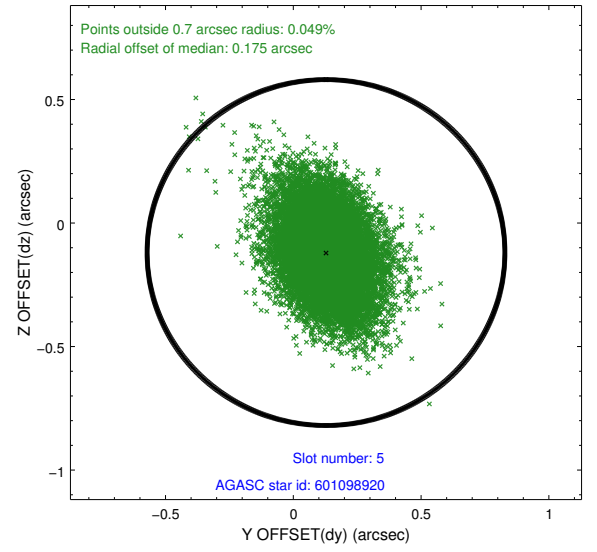
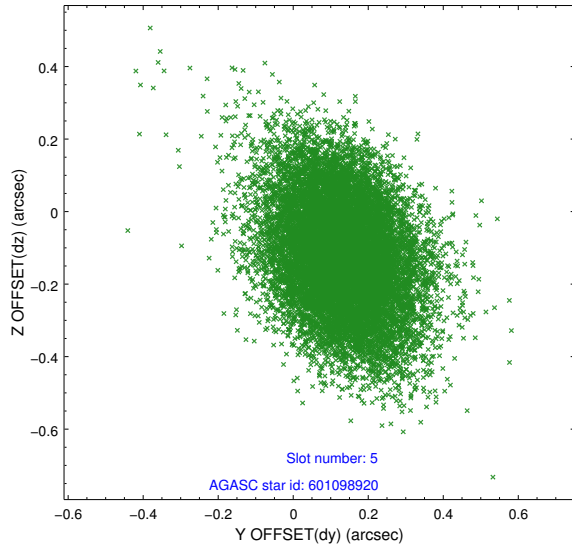
2.4.1 Slot 3



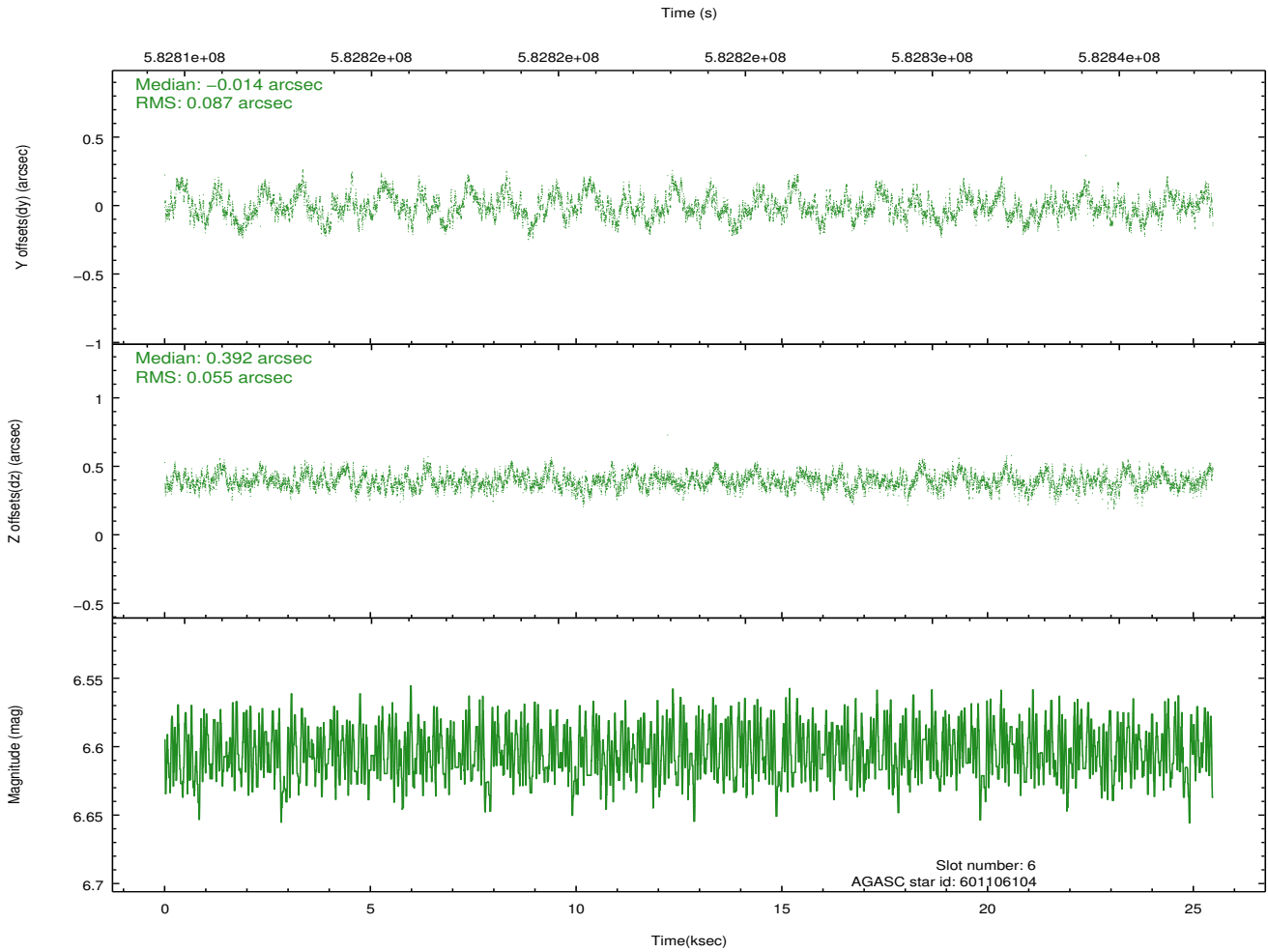
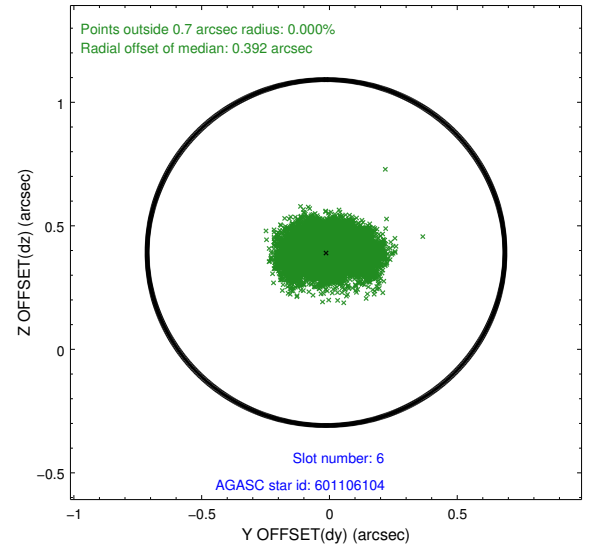
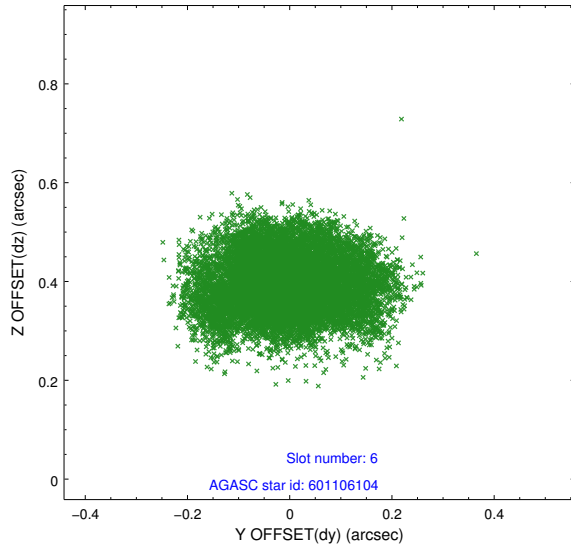
2.4.2 Slot 4



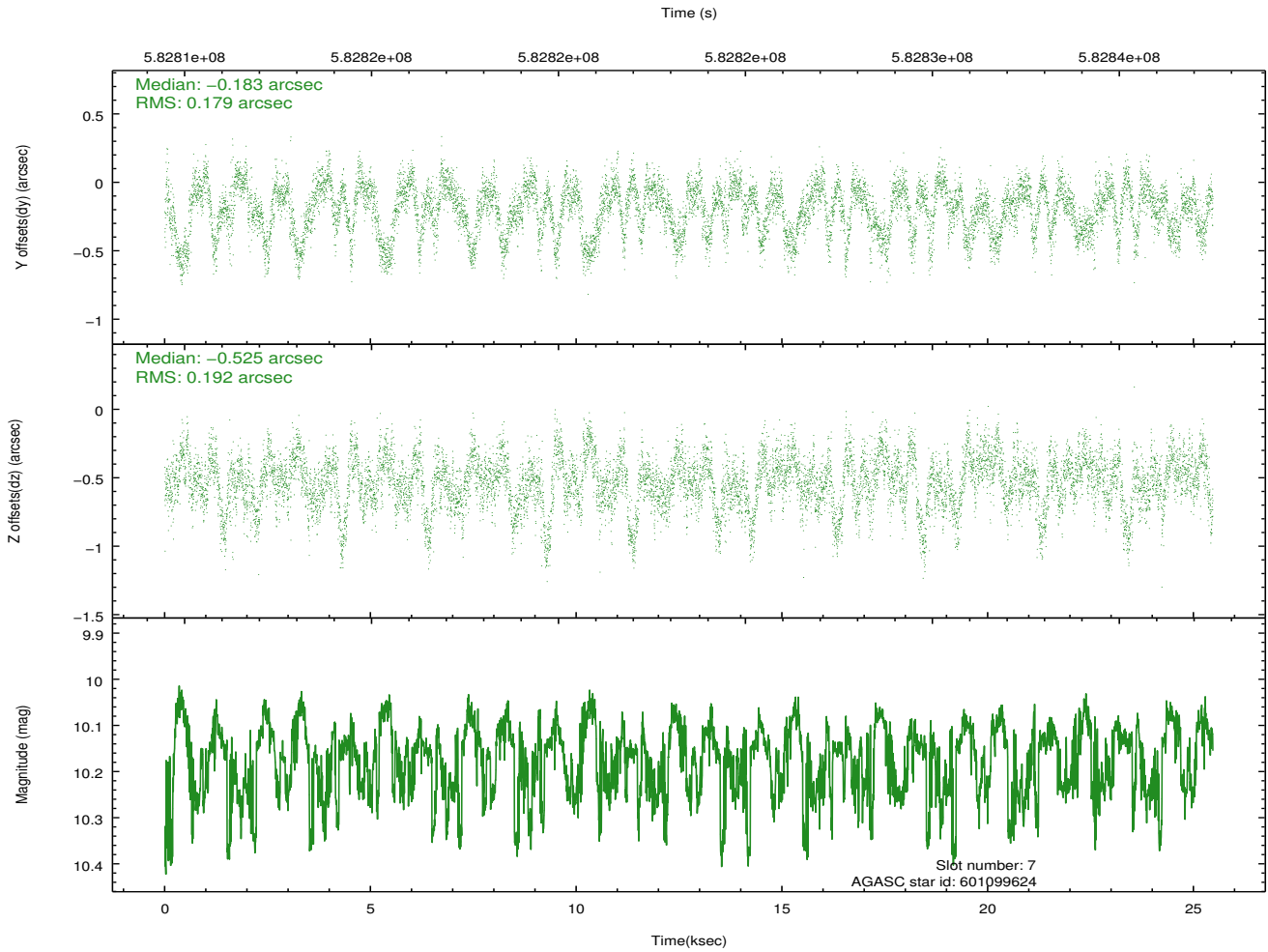
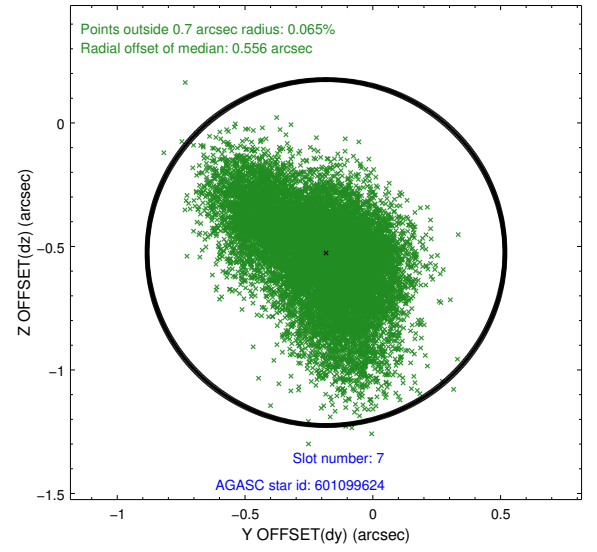
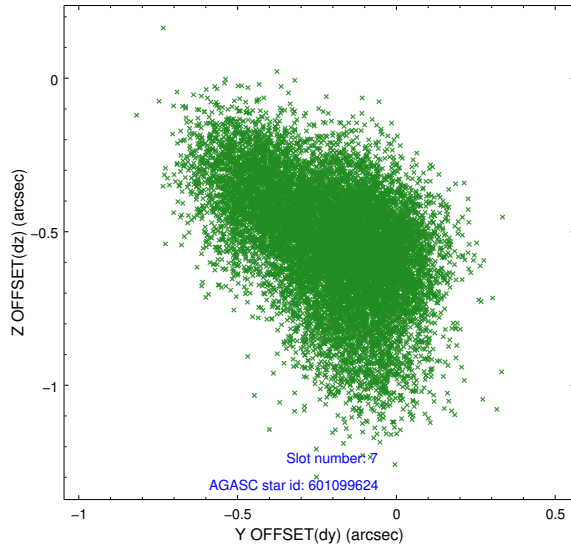
2.4.3 Slot 5



2.4.4 Slot 6

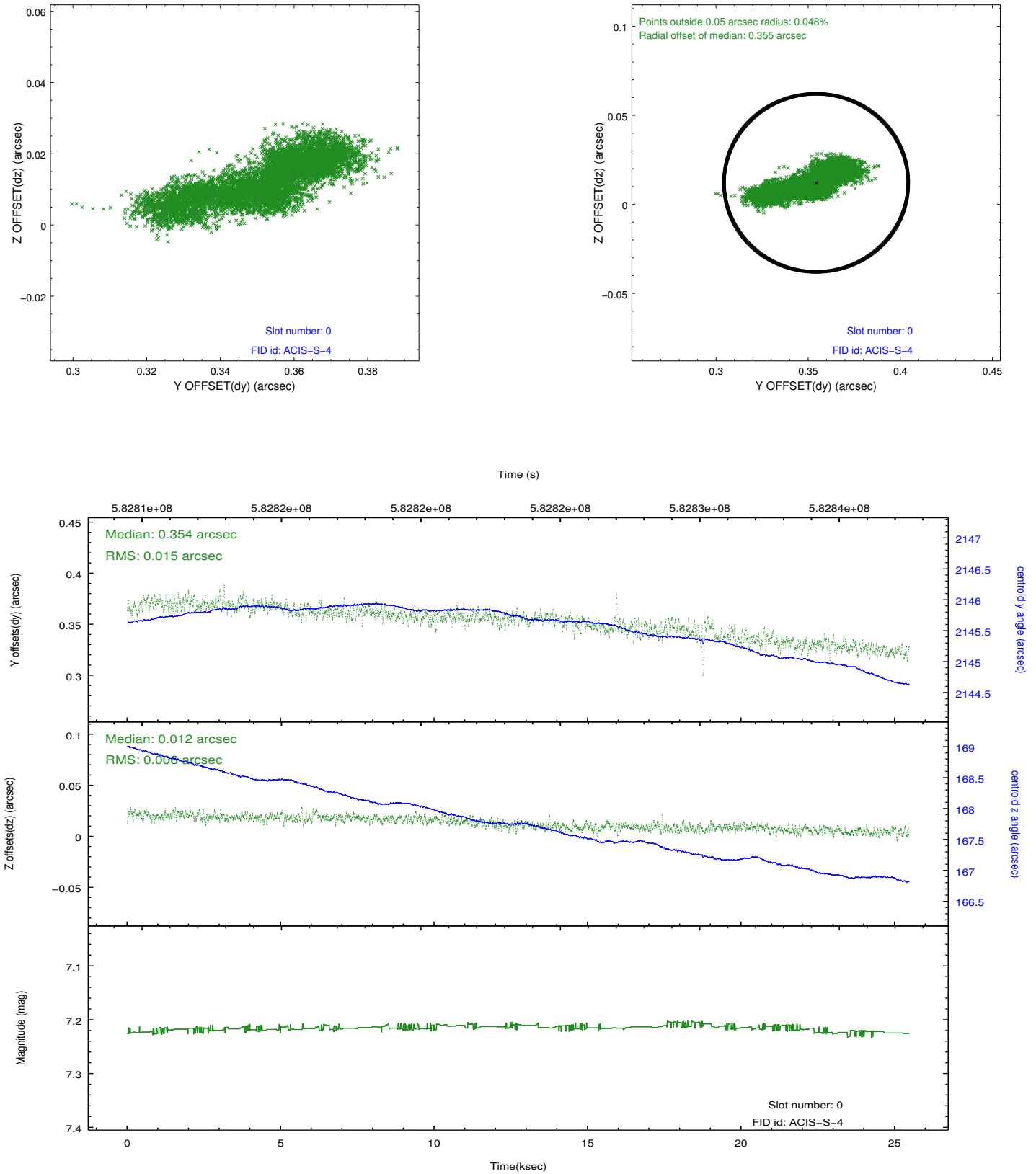


2.4.5 Slot 7

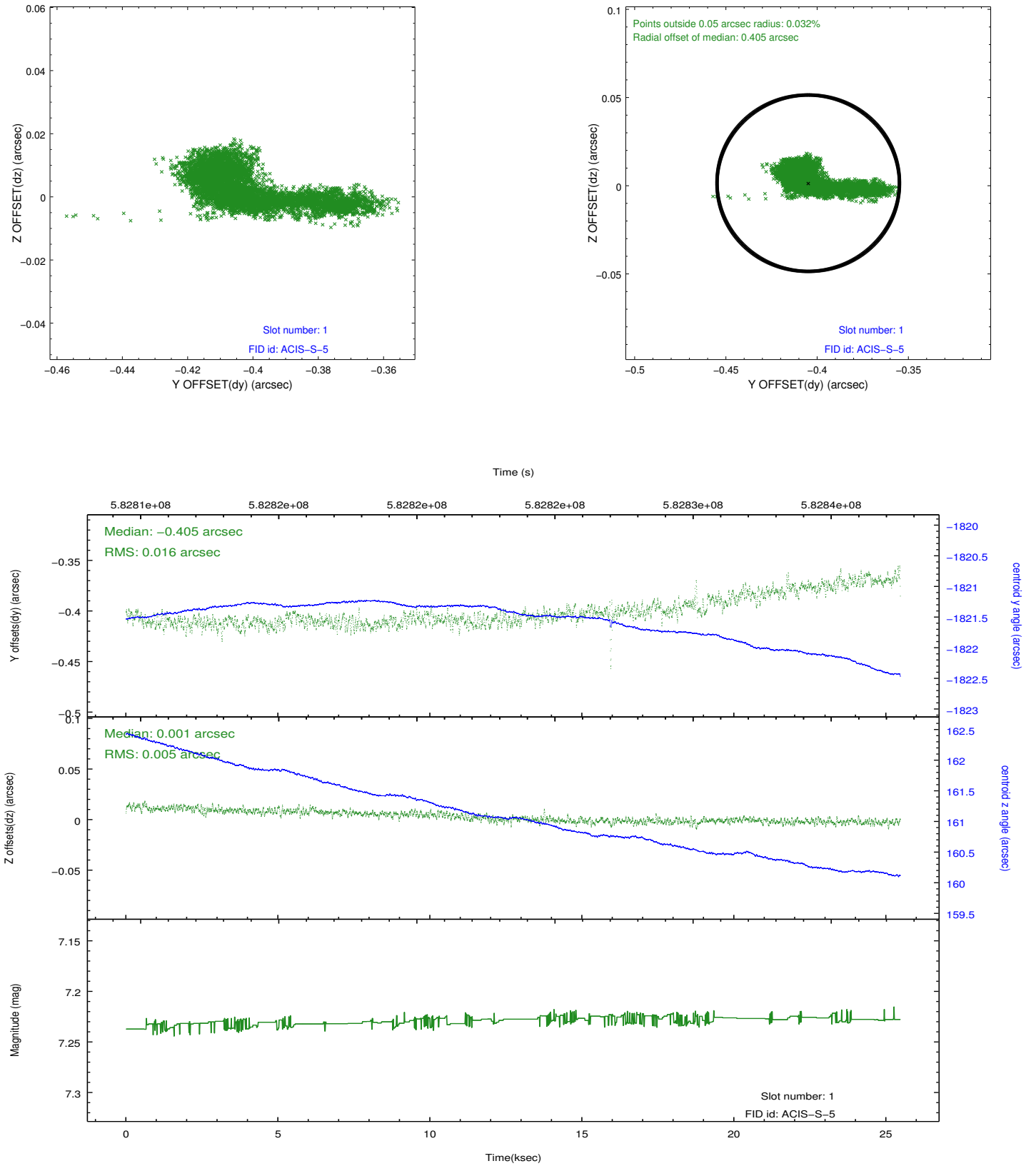


2.5 FID Slots

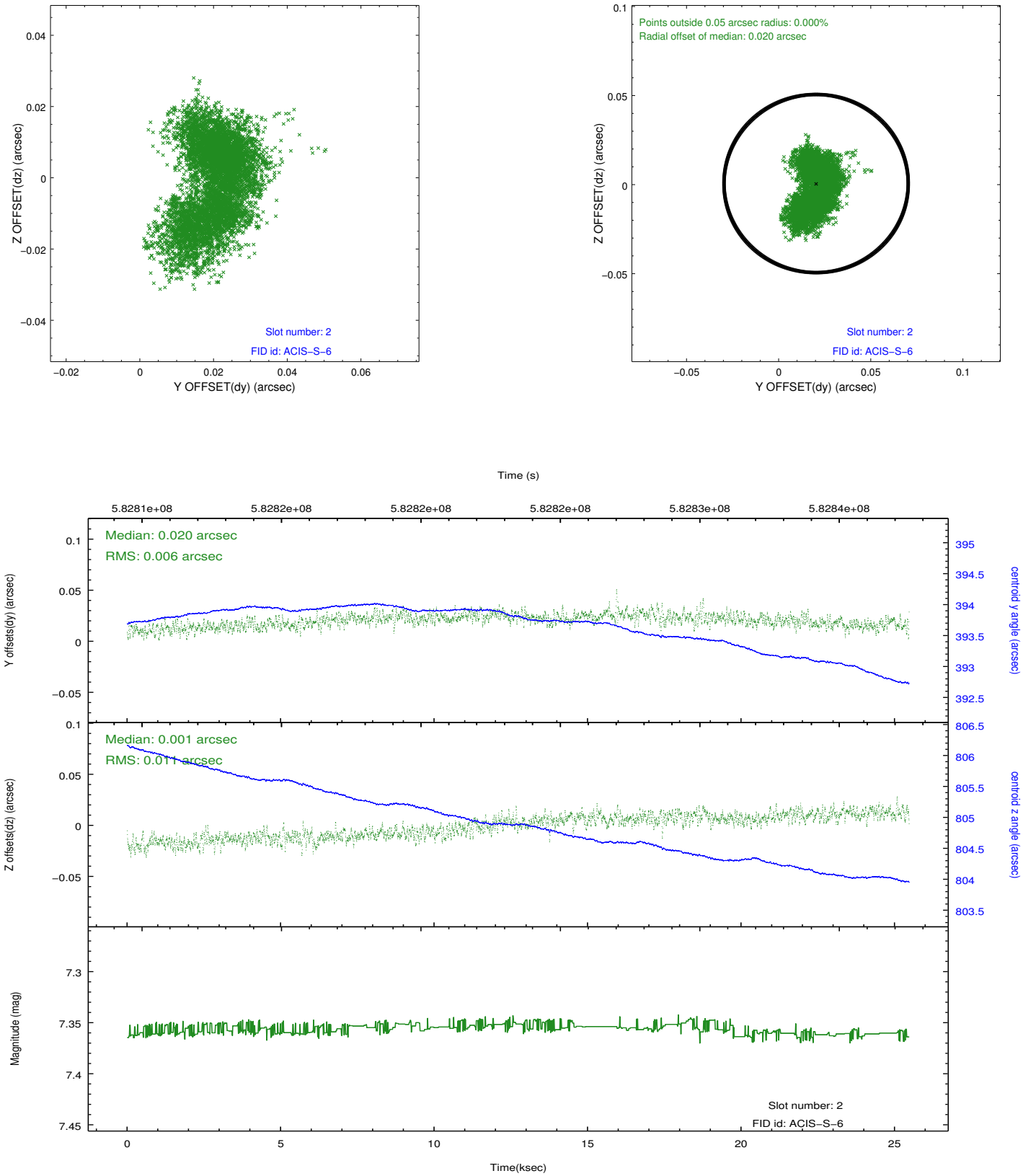
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.06.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.074885461092

A.2 Comments