

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 14885 - L2 Version 2
Chandra X-Ray Center

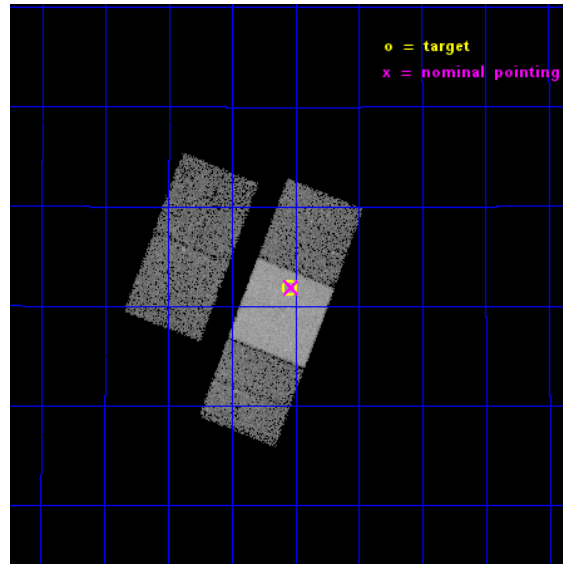
L2 Processing Date : Dec 10 2014

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1 Front

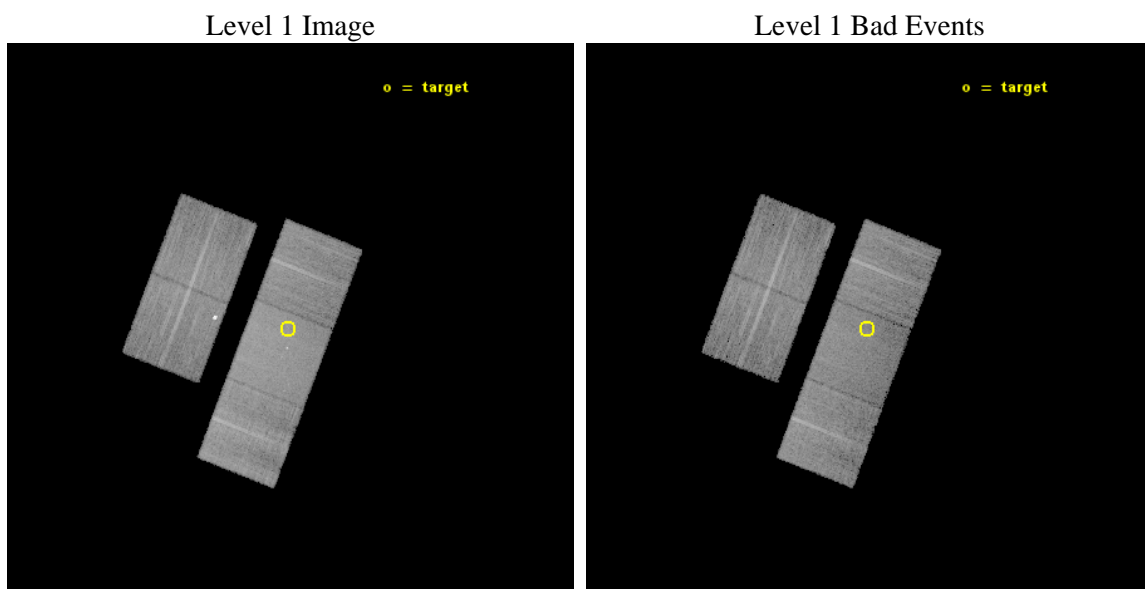
seq_num	502009	Sequence number
obs_id	14885	Observation id
title	The Astrophysics of the Most Energetic Gamma-Ray Bursts	Proposal t
observer	Dr. Andrew Fruchter	Principal investigator
object	GRB 130427A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	173.135958	Observer's specified target RA [deg]
dec_targ	27.697689	Observer's specified target Dec [deg]
ra_nom	173.13262213622	Nominal RA [deg]
dec_nom	27.698300127936	Nominal Dec [deg]
roll_nom	111.16619373403	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20065.400020599	Sum of GTIs [s]
livetime	19803.230797398	Livetime [s]
ontime2	20065.235860586	Sum of GTIs [s]
ontime3	20065.317940593	Sum of GTIs [s]
ontime6	20065.358980596	Sum of GTIs [s]
ontime7	20065.400020599	Sum of GTIs [s]
ontime8	20065.276900589	Sum of GTIs [s]
l2events	93960	Number of level 2 events



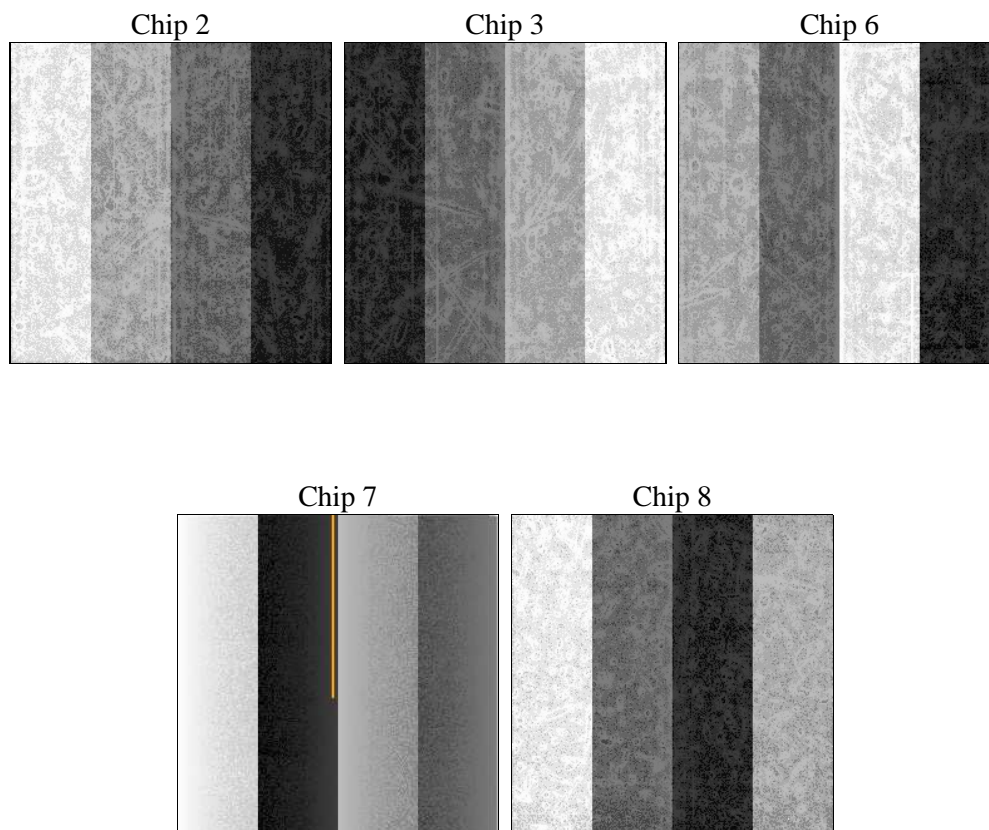
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	20065.400020599	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	20065.235860586	Sum of GTIs [s]
date	2014-12-10T10:33:09	Date and time of file creation	ontime3	20065.317940593	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	20065.358980596	Sum of GTIs [s]
			ontime7	20065.400020599	Sum of GTIs [s]
			ontime8	20065.276900589	Sum of GTIs [s]
			l1events	549959	Number of level 1 events

2.1.4 Events

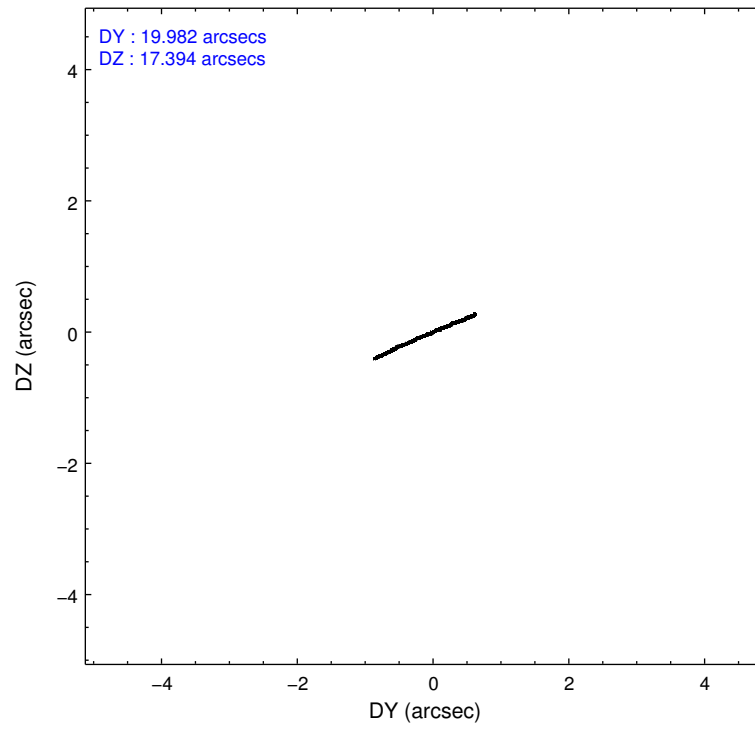
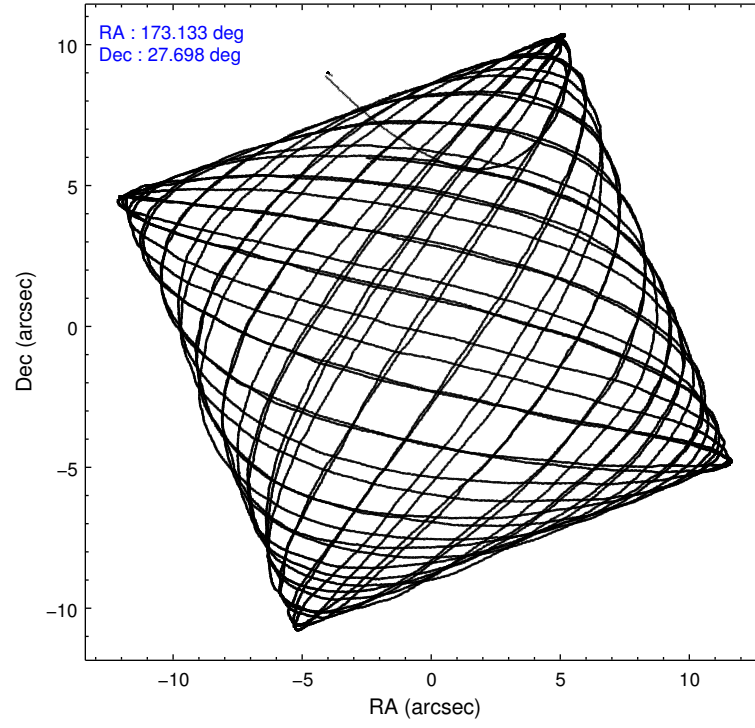
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	95340	99746	98860	132486	123527
rejected events	84848	82833	87327	76717	92078
rejected %	88%	83%	88%	57%	74%

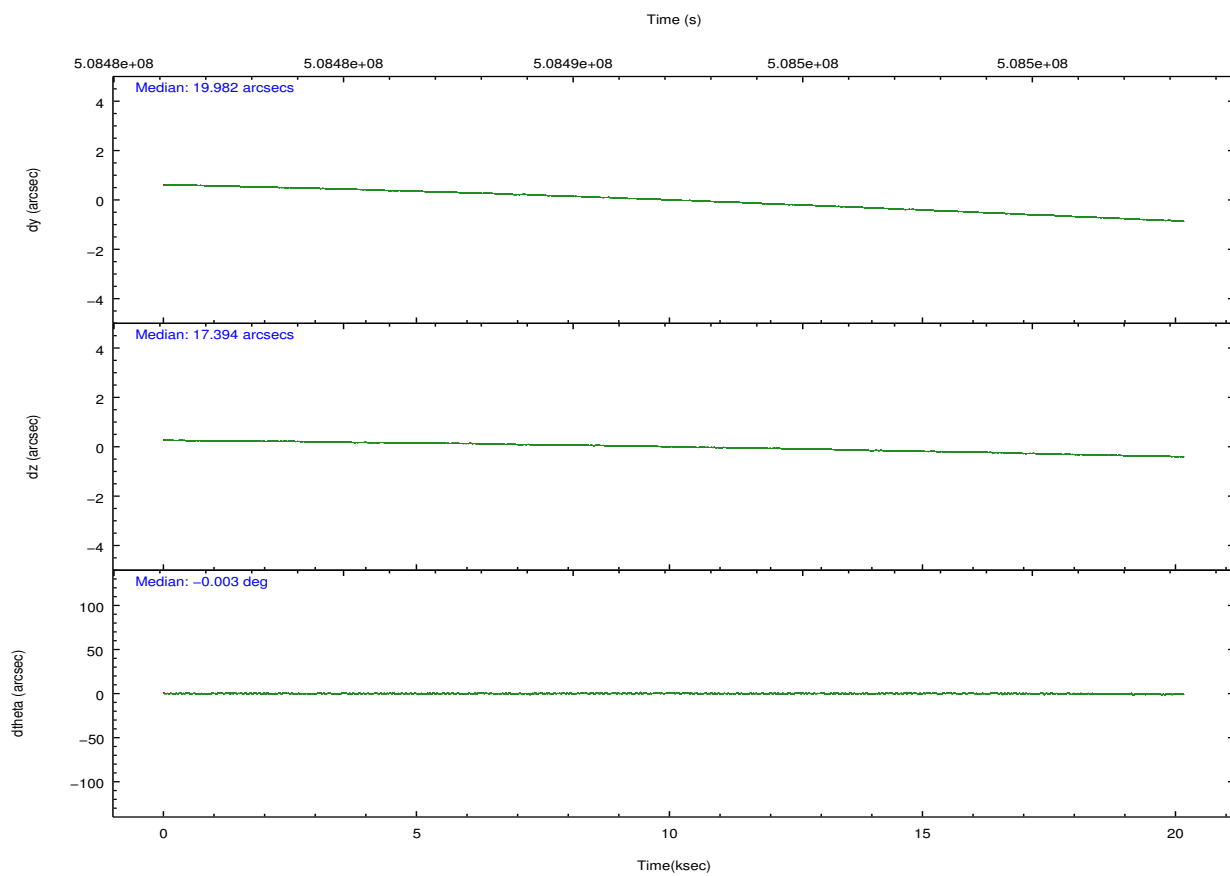
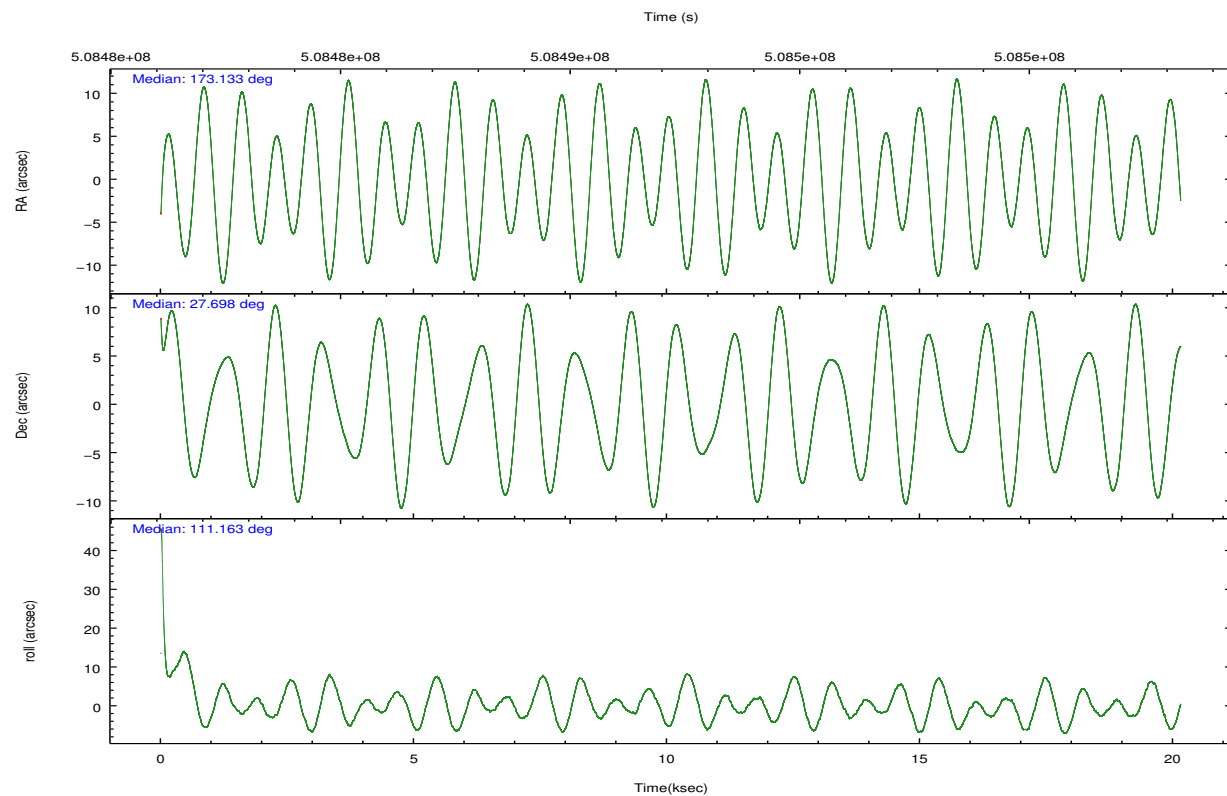
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3577	9944	3742	4720	8591
	3%	9%	3%	3%	6%
grade 1 events	46	81	30	146	92
	0%	0%	0%	0%	0%
grade 2 events	2503	2282	2671	11488	7638
	2%	2%	2%	8%	6%
grade 3 events	1064	1160	1156	4421	3417
	1%	1%	1%	3%	2%
grade 4 events	1136	1178	1116	4156	3115
	1%	1%	1%	3%	2%
grade 5 events	4168	5115	4947	13141	7225
	4%	5%	5%	9%	5%
grade 6 events	2214	2353	2853	30996	8710
	2%	2%	2%	23%	7%
grade 7 events	80632	77633	82345	63418	84739
	84%	77%	83%	47%	68%

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	173.156928	173.1326221362169	Subarray requested	NONE	NONE
[deg] Pointing Dec	27.681428	27.69830012793576	Alternating exposures requested	N	N
[deg] Pointing Roll	110.998244	111.1661937340262	[s] Primary exposure time	0.000000	3.1
[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)	508482274.184000	508480831.60211			
Observation start date	2014-02-11T05:03:27	2014-02-11T04:40:31			
[s] Observation end time (MET)	508502274.184000	508503208.89084			
Observation end date	2014-02-11T10:36:47	2014-02-11T10:53:28			
Read mode	TIMED	TIMED			

2.3 Aspect



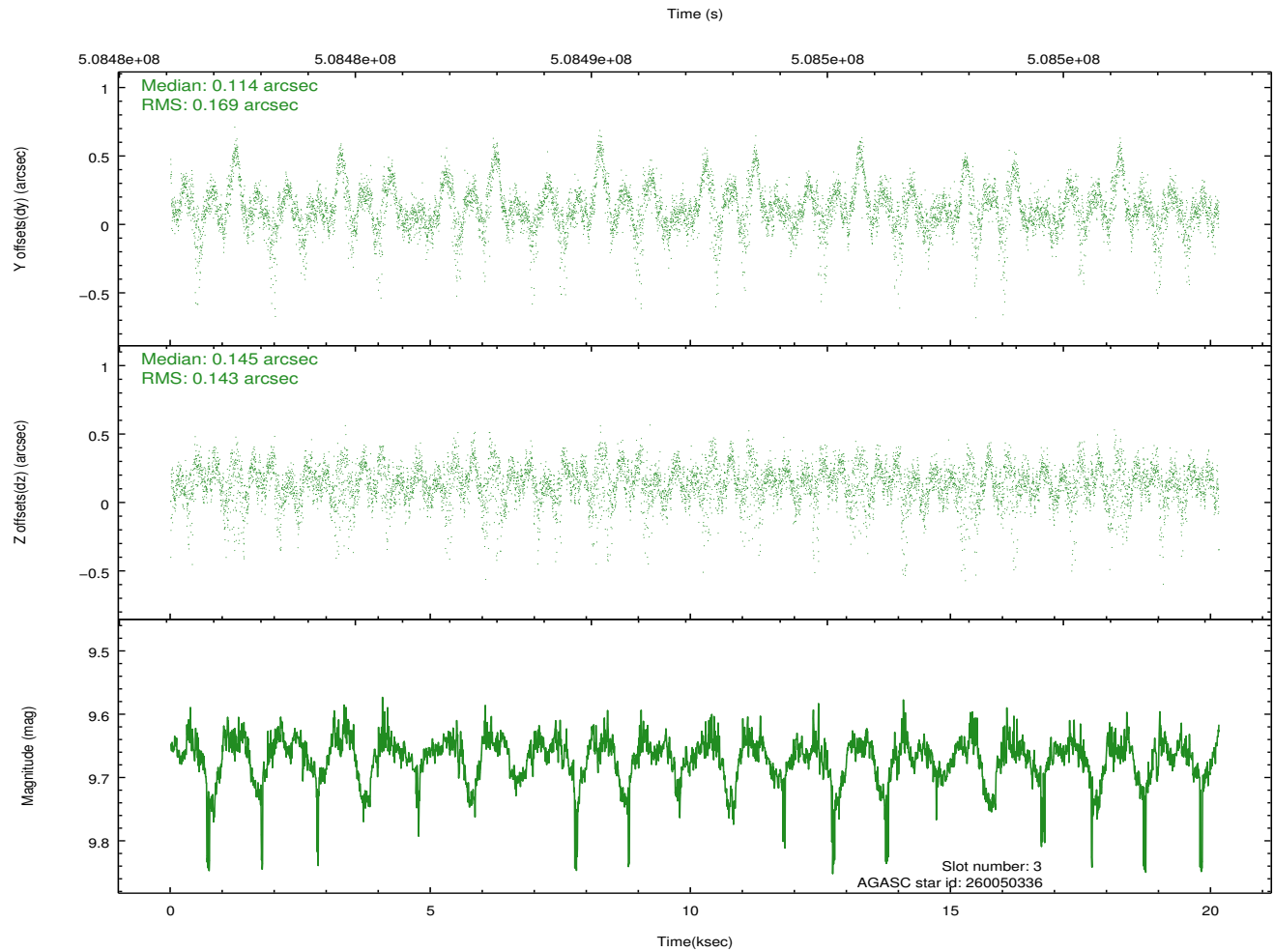
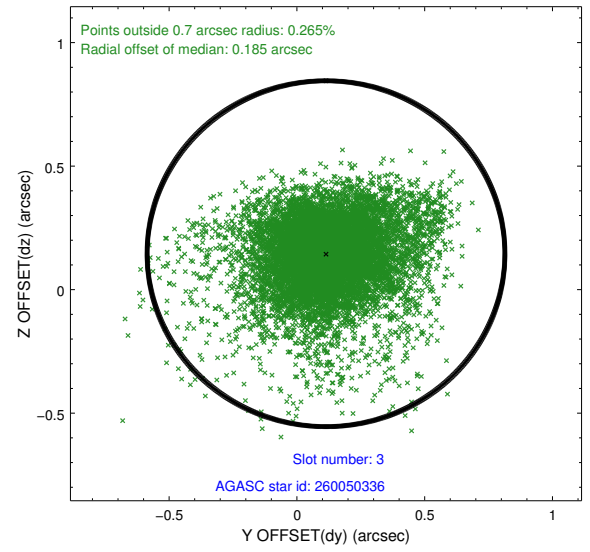
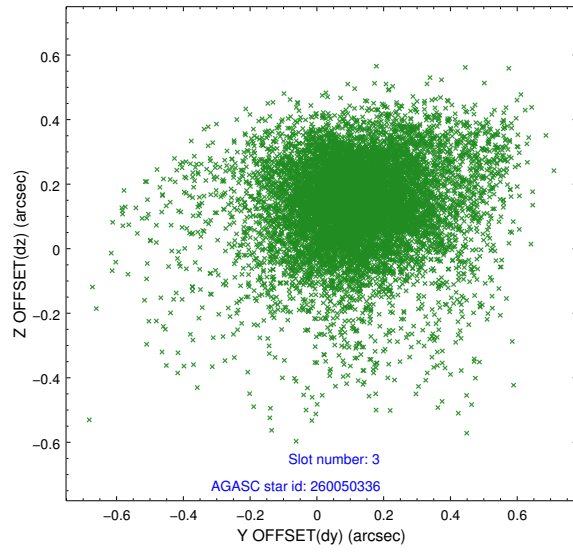


Slot Statistics

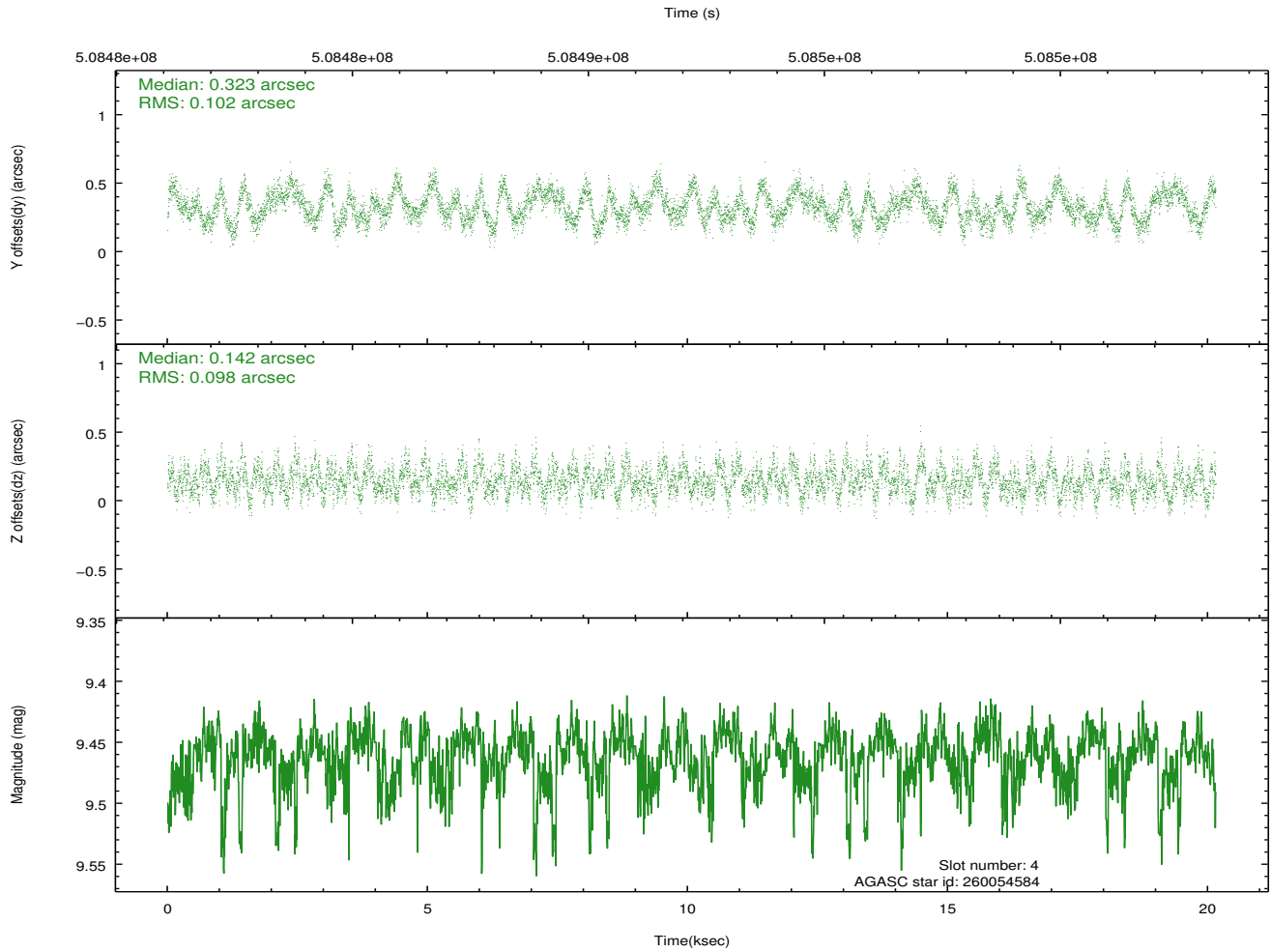
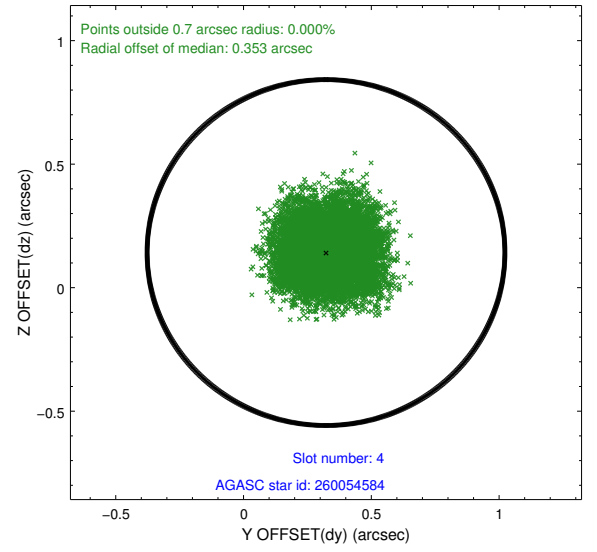
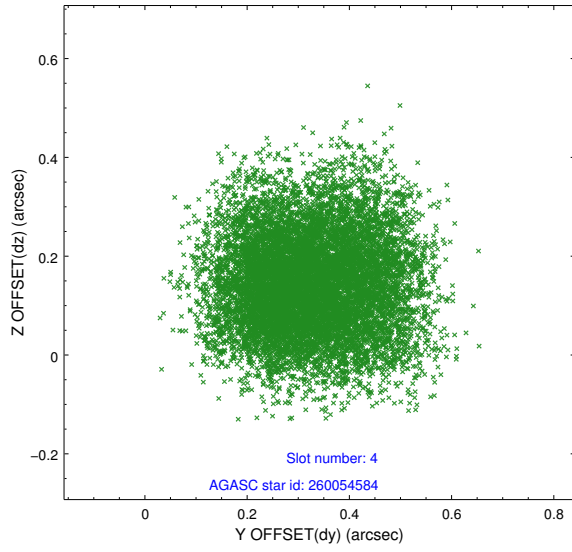
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.09	4916	-0.128	-0.064	0.008	0.014	0.000000	0.000000	-773.20	-1738.81
1	FID		ACIS-S-4	7.18	4916	0.291	0.079	0.011	0.019	0.000000	0.000000	2140.45	169.57
2	FID		ACIS-S-5	7.20	4916	-0.193	-0.006	0.012	0.024	0.000000	0.000000	-1825.84	163.44
3	GUIDE	used	260050336	9.67	9803	0.114	0.145	0.212	0.425	173.719338	27.205891	-2238.95	-1068.40
4	GUIDE	used	260054584	9.46	9821	0.323	0.142	0.154	0.237	173.745505	27.752896	-427.19	-1843.71
5	GUIDE	used	260055088	8.21	9826	0.063	0.128	0.085	0.133	173.495126	27.260186	-1801.94	-467.19
6	GUIDE	used	260055768	9.01	9823	0.015	0.051	0.111	0.175	172.801335	27.536211	-79.75	1246.84
7	GUIDE	used	260060264	7.80	9829	-0.522	-0.465	0.073	0.116	172.398353	28.089889	2242.78	1720.25

2.4 Star Slots

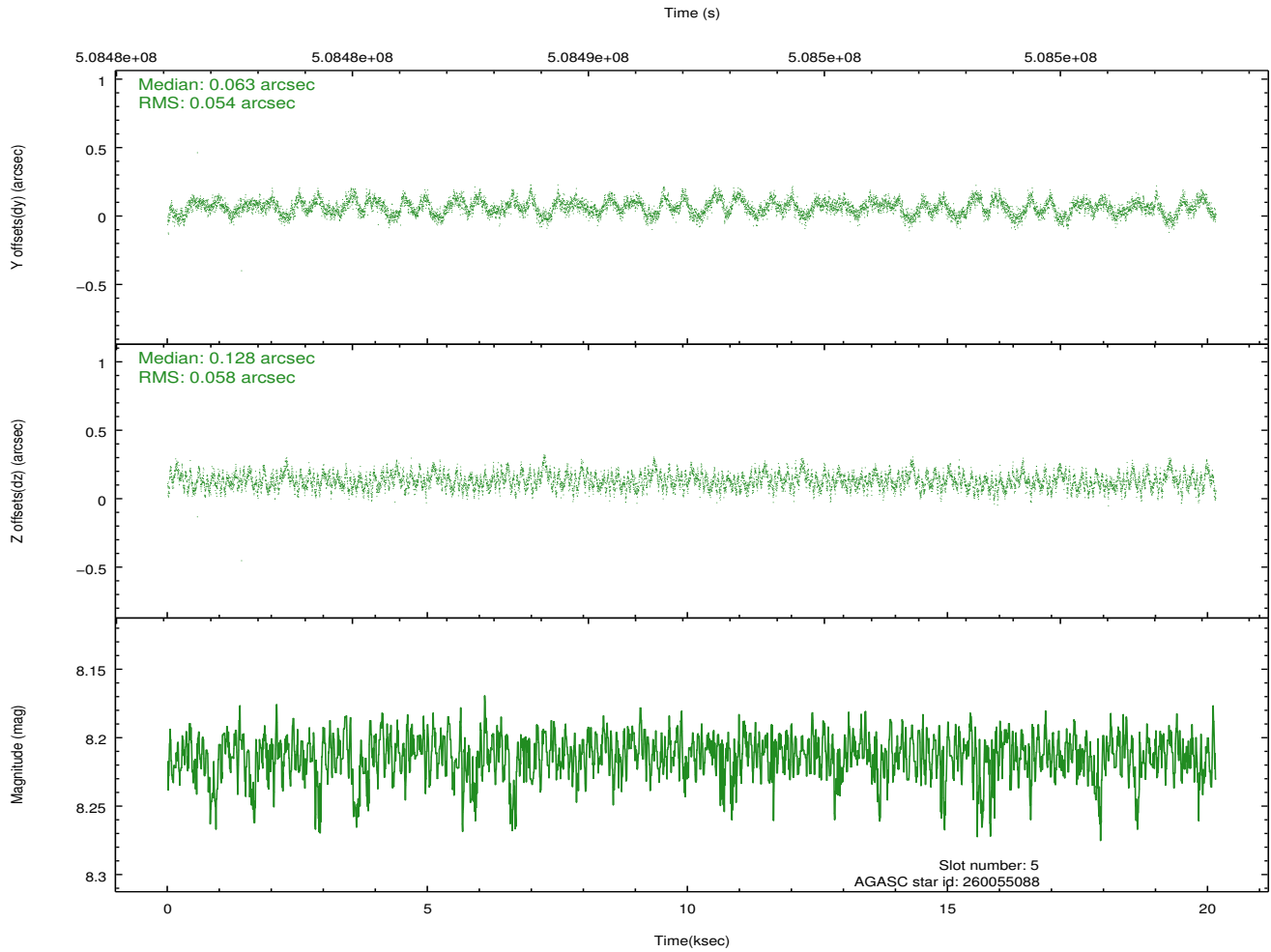
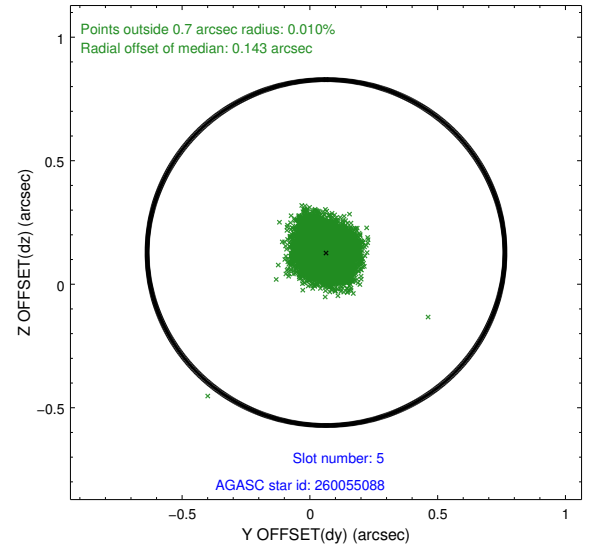
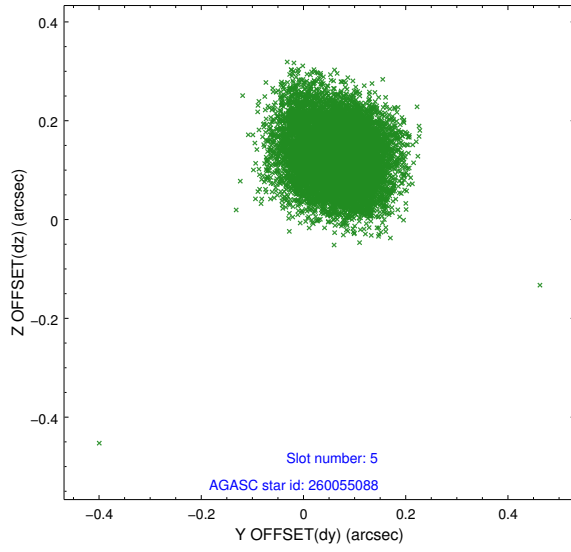
2.4.1 Slot 3



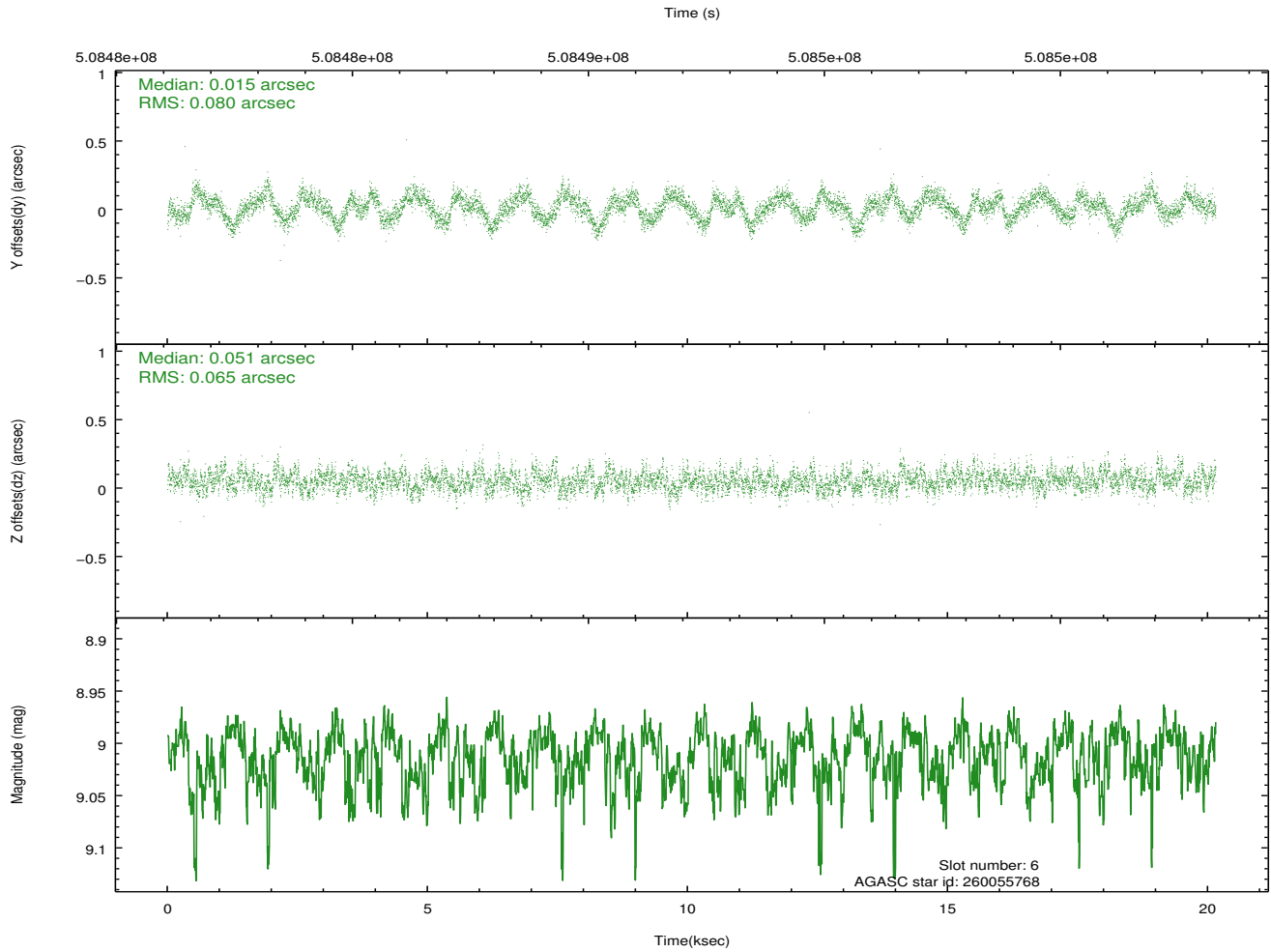
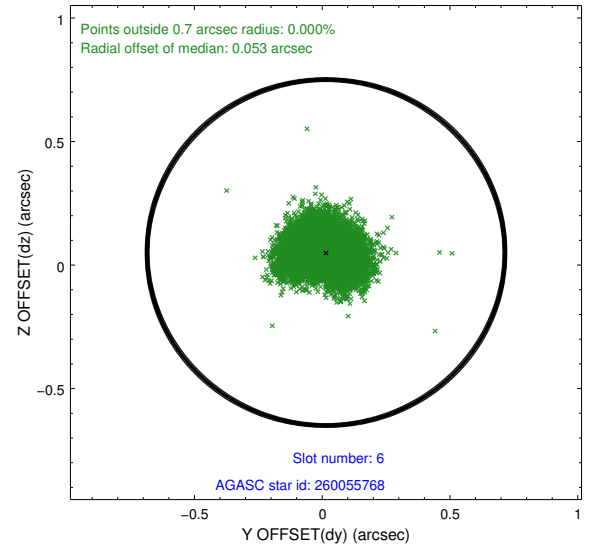
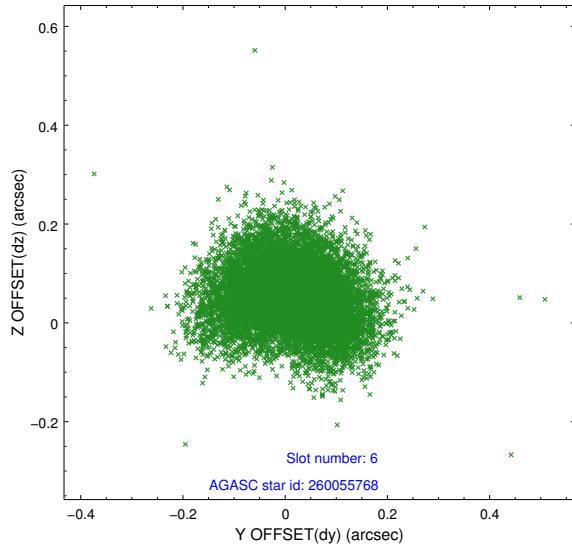
2.4.2 Slot 4



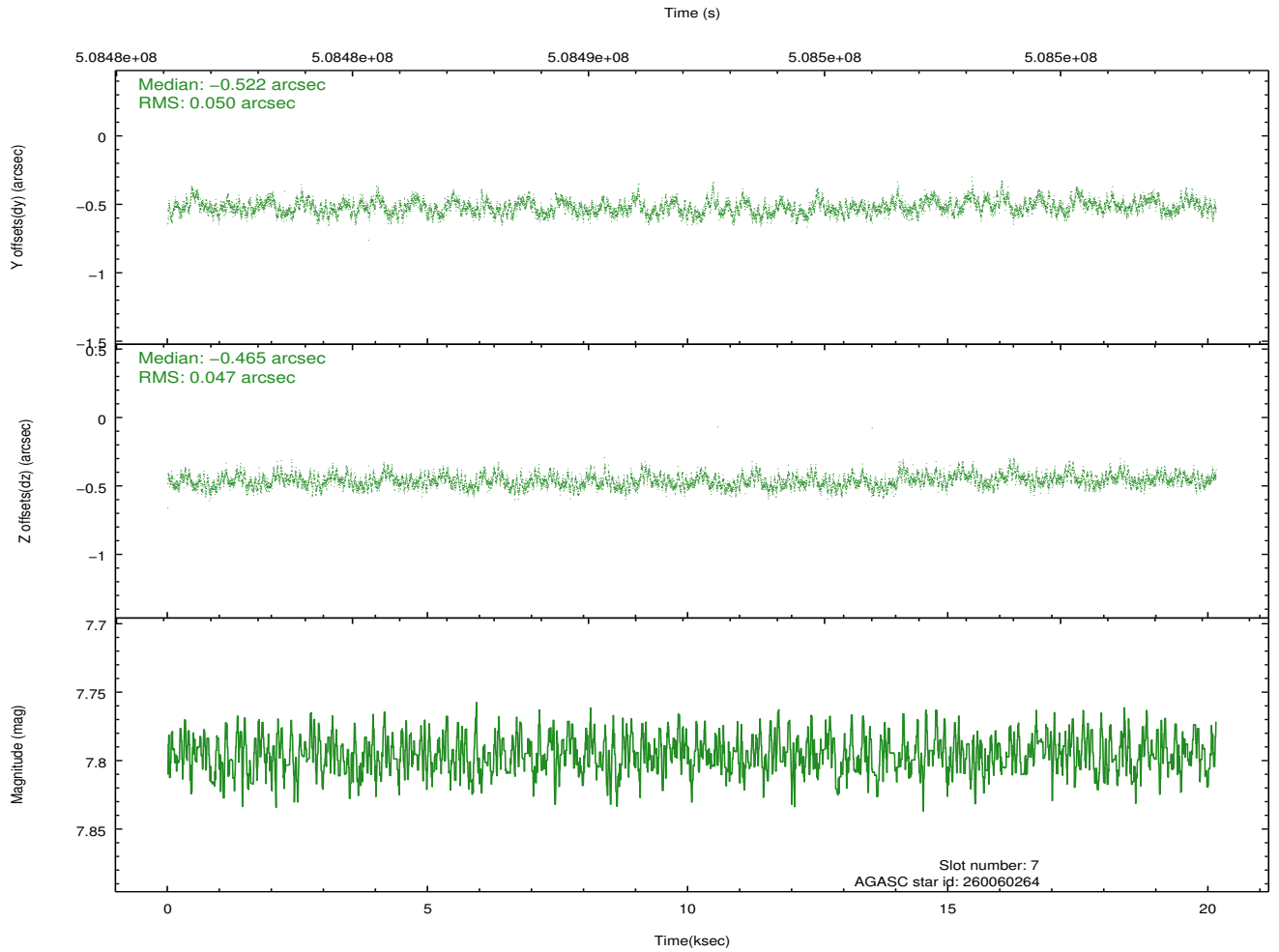
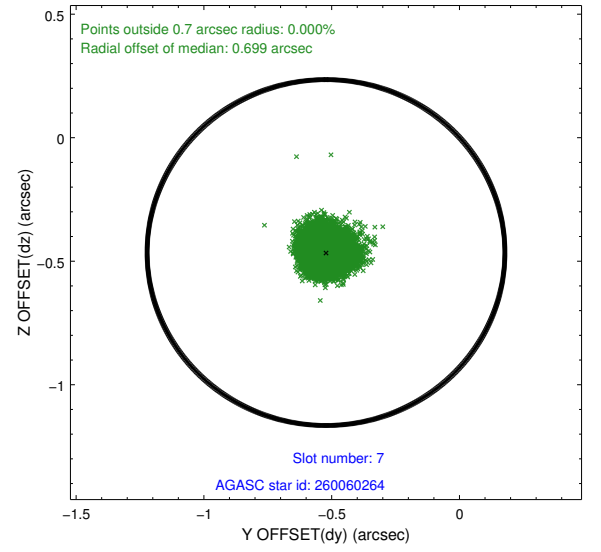
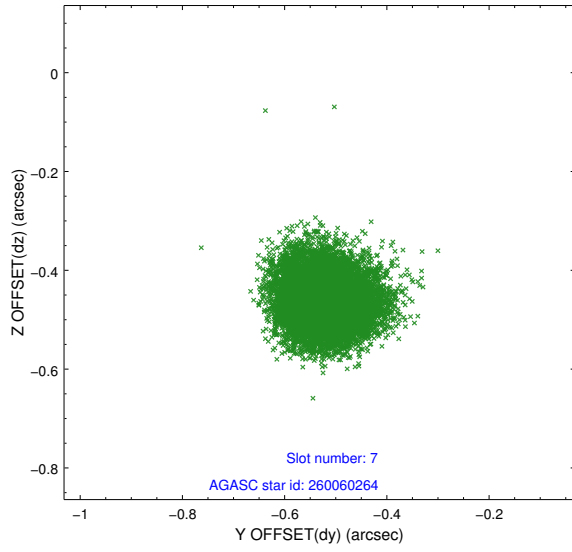
2.4.3 Slot 5



2.4.4 Slot 6

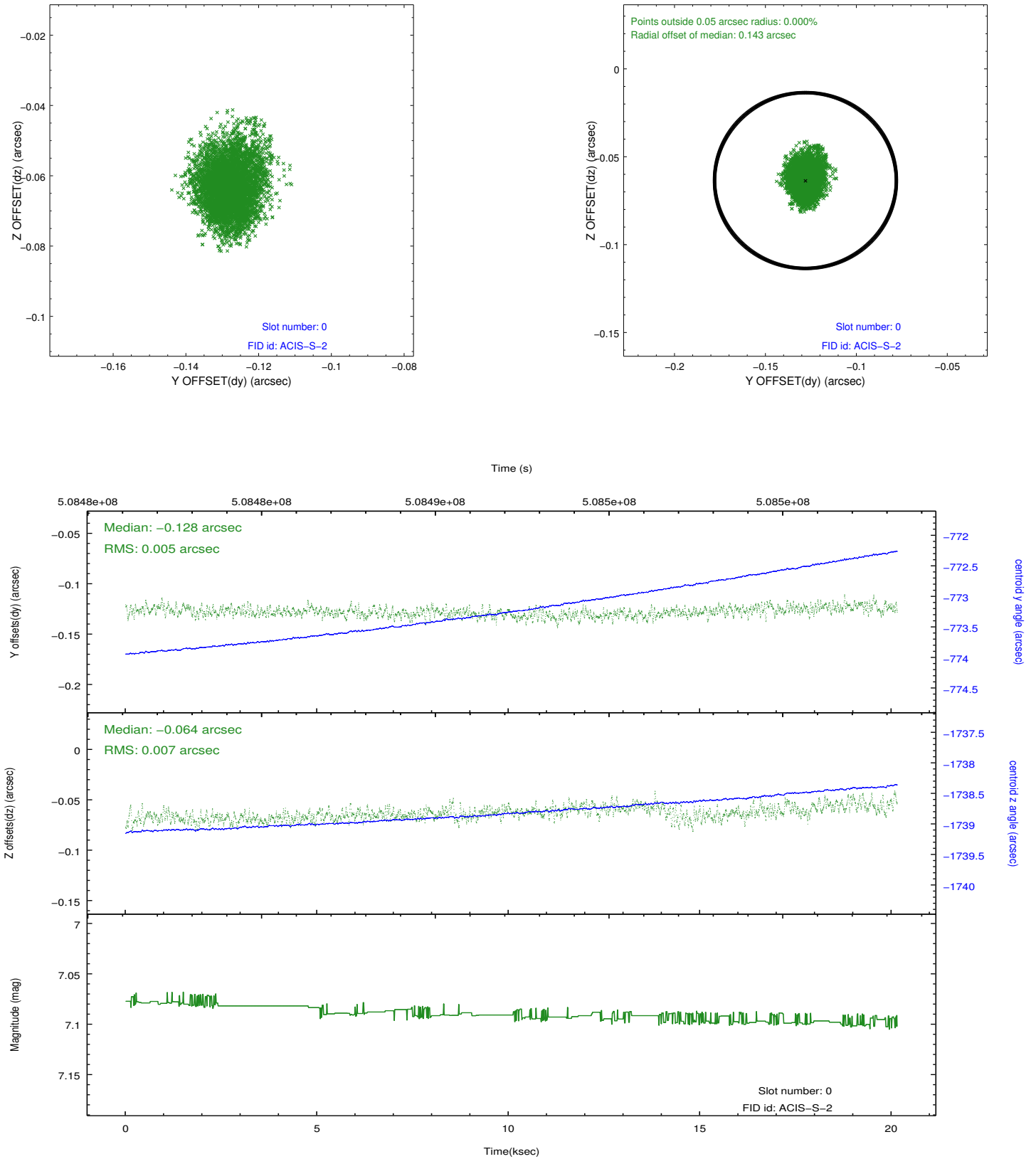


2.4.5 Slot 7

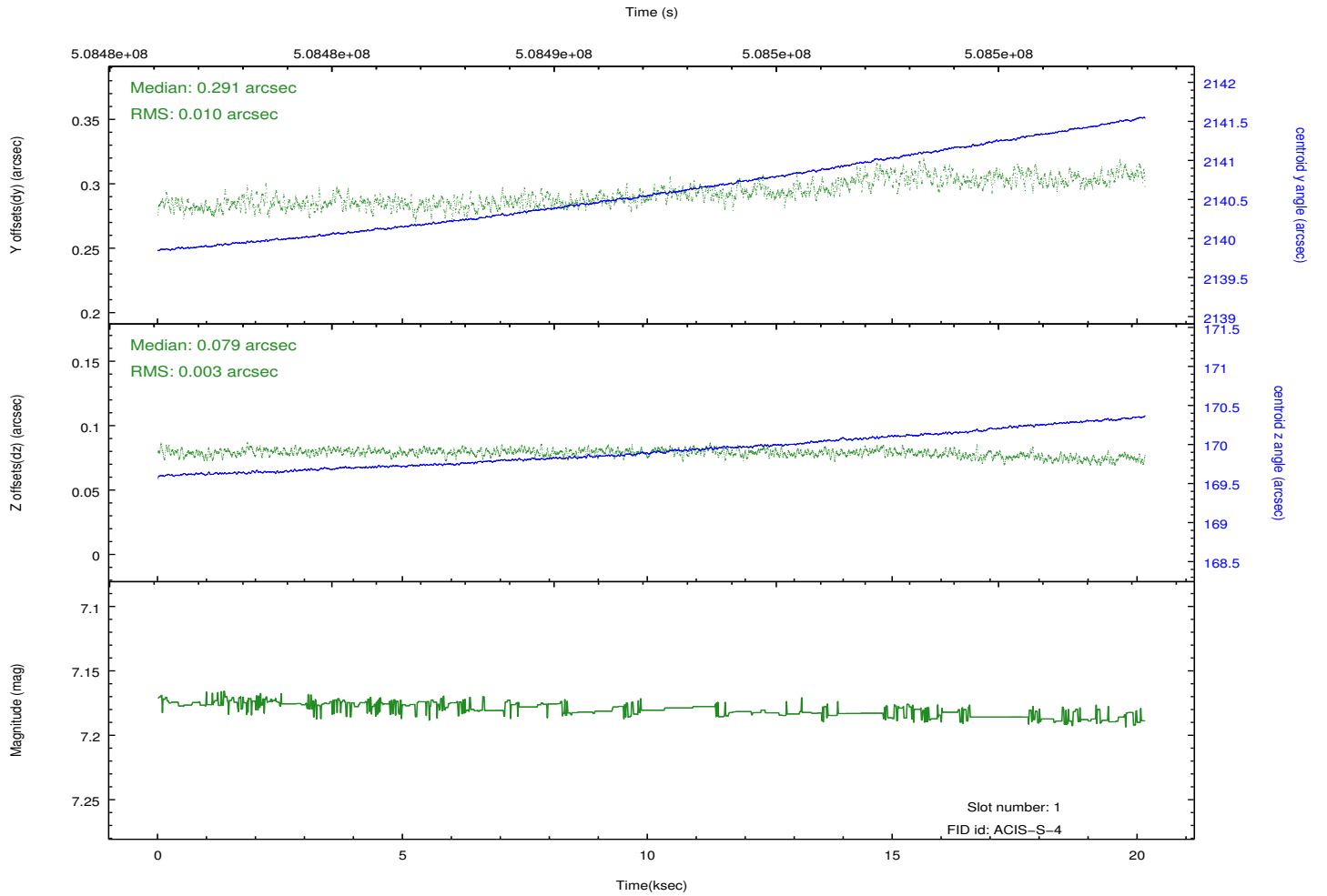
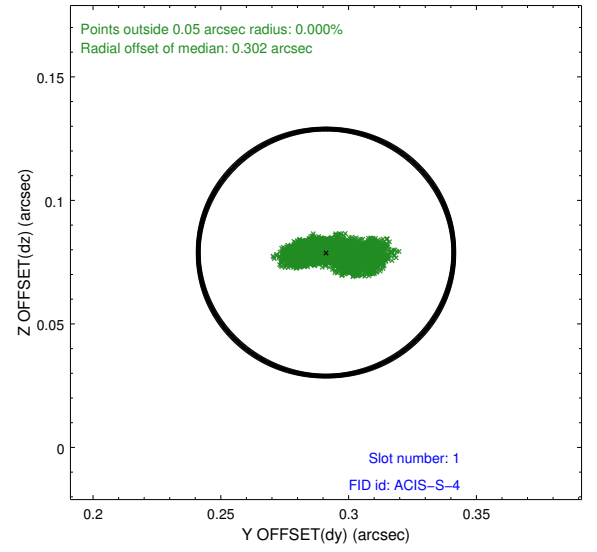
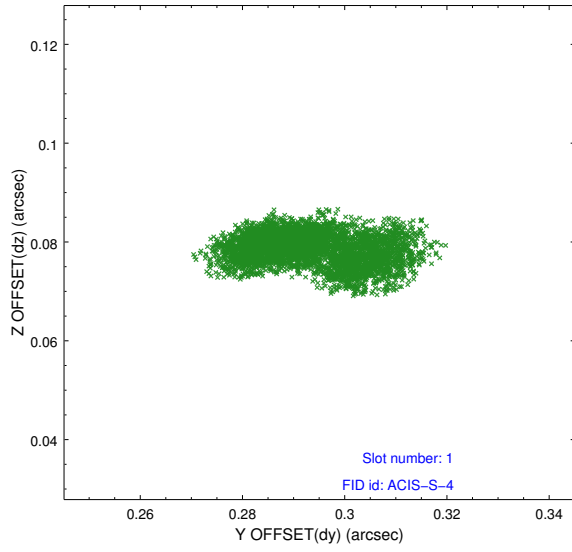


2.5 FID Slots

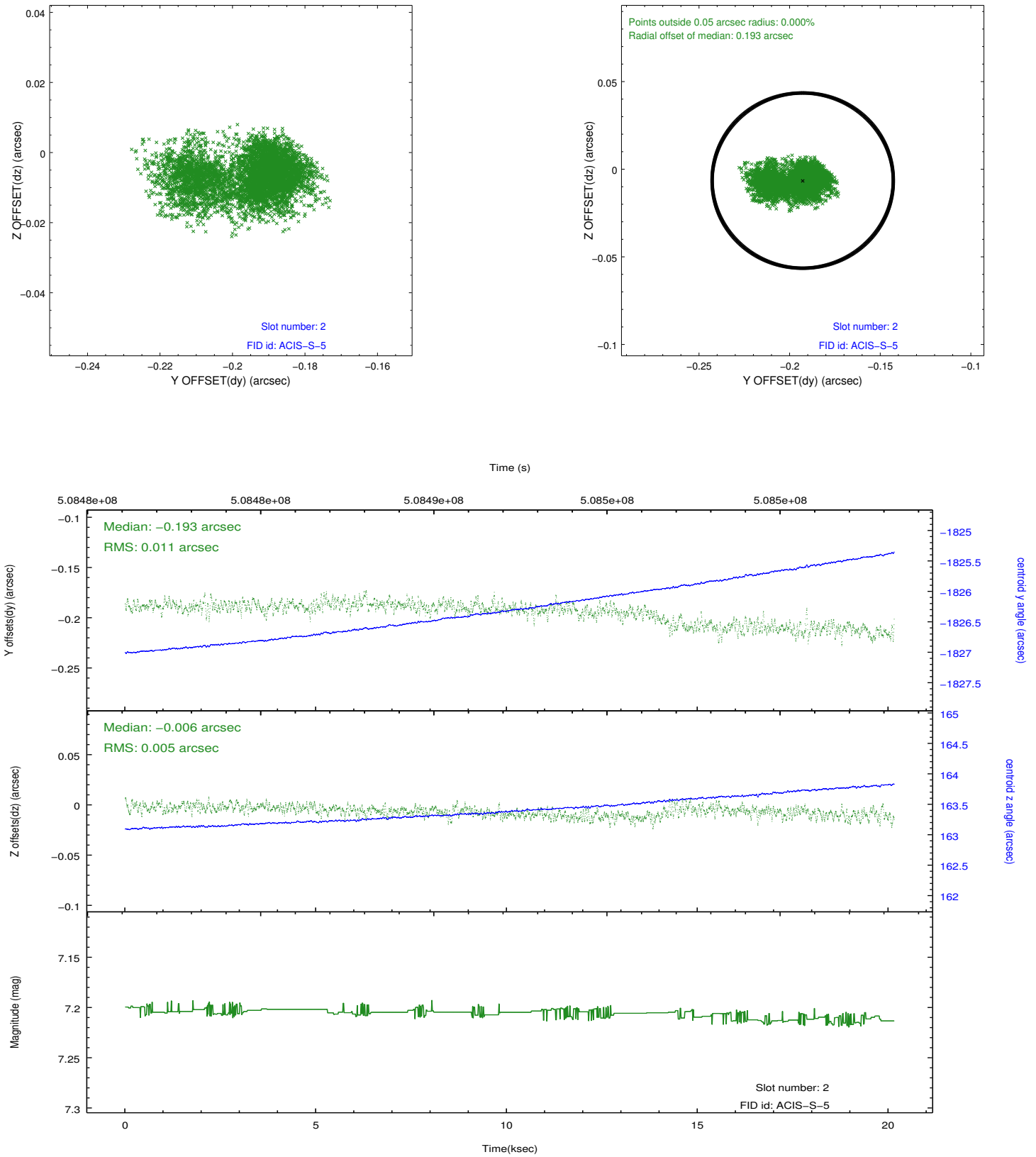
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.065400020599

A.2 Comments

Joint proposal with HST & NRAO.

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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.