

V&V Reference Report

L2 ASCDS Version : 10

Observation 16000 - L2 Version 2
Chandra X-Ray Center

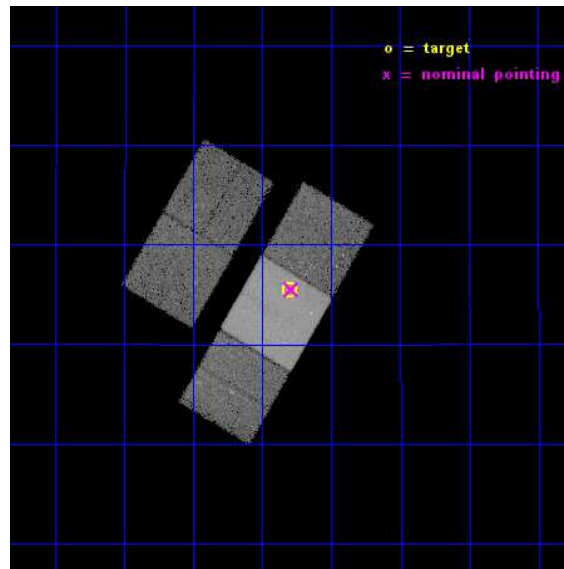
L2 Processing Date : Dec 6 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

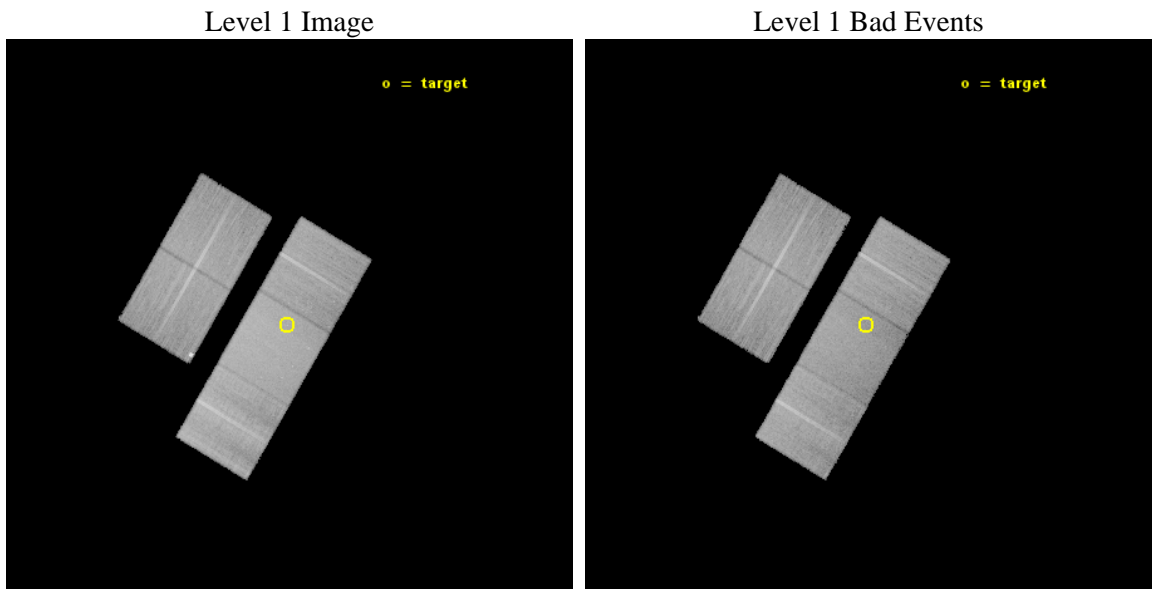
seq_num	502233	Sequence number
obs_id	16000	Observation id
title	State of the shocked plasma: X-ray and radio signatures from type IIP supernovae	Proposal title
observer	Prof. Alak Ray	Principal investigator
object	SN 2013ej	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	24.200667	Observer's specified target RA [deg]
dec_targ	15.758611	Observer's specified target Dec [deg]
ra_nom	24.19751470089	Nominal RA [deg]
dec_nom	15.758712903879	Nominal Dec [deg]
roll_nom	120.52253994876	Nominal Roll [deg]
revision	2	Processing version of data
ontime	40072.66912061	Sum of GTIs [s]
livetime	39549.090197479	Livetime [s]
ontime2	40072.504960597	Sum of GTIs [s]
ontime3	40072.587040603	Sum of GTIs [s]
ontime6	40072.628080606	Sum of GTIs [s]
ontime7	40072.66912061	Sum of GTIs [s]
ontime8	40069.404970288	Sum of GTIs [s]
l2events	194433	Number of level 2 events



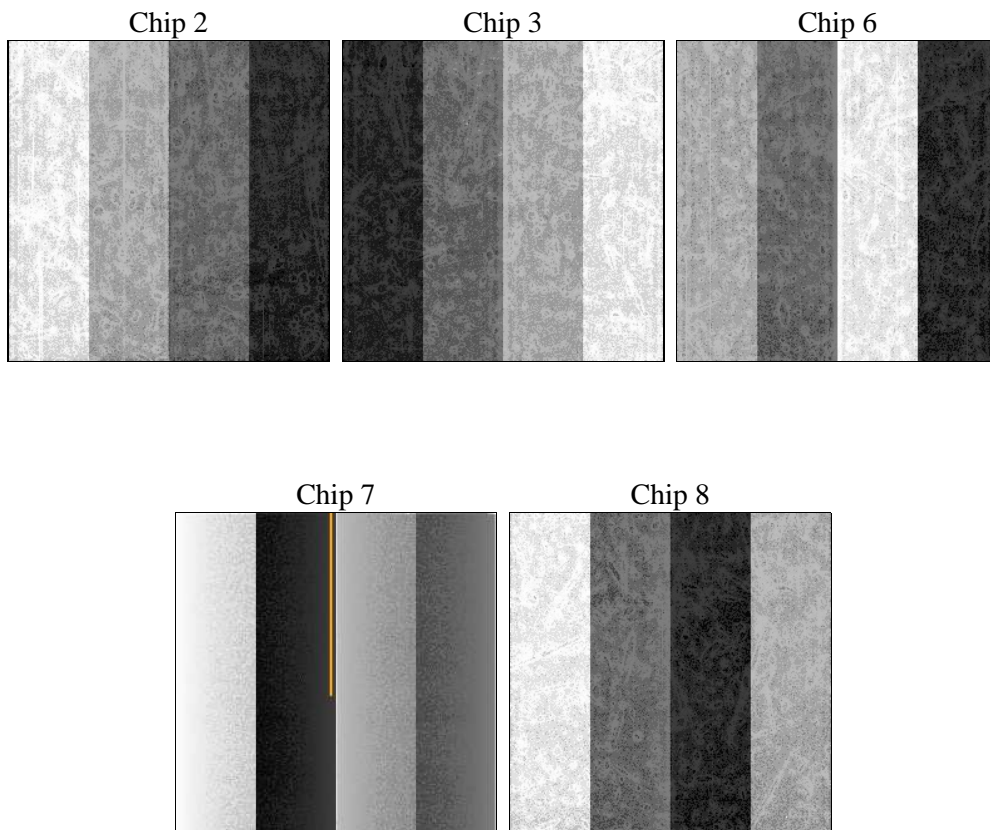
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	40072.66912061	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	40072.504960597	Sum of GTIs [s]
date	2014-12-06T22:53:40	Date and time of file creation	ontime3	40072.587040603	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	40072.628080606	Sum of GTIs [s]
			ontime7	40072.66912061	Sum of GTIs [s]
			ontime8	40069.404970288	Sum of GTIs [s]
			l1events	1087929	Number of level 1 events

2.1.4 Events

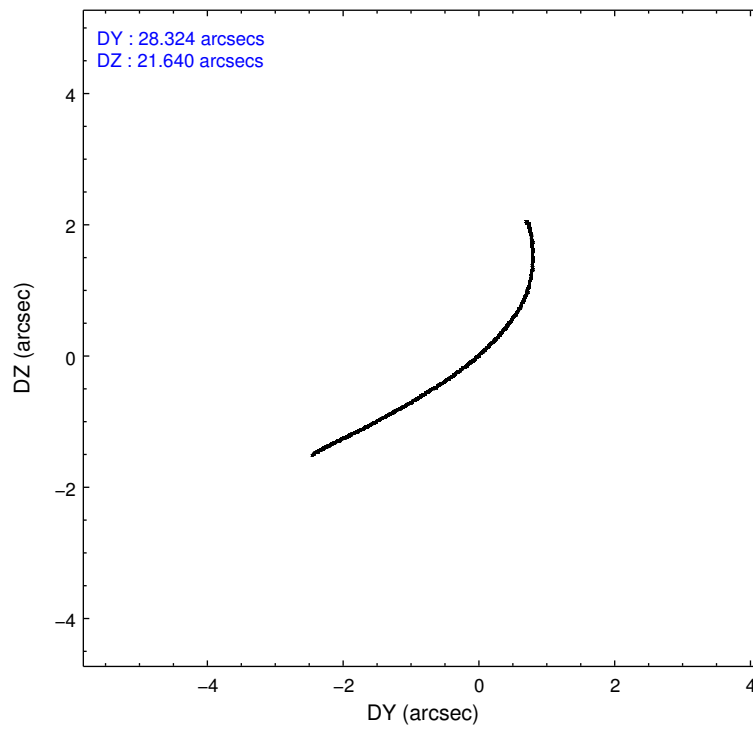
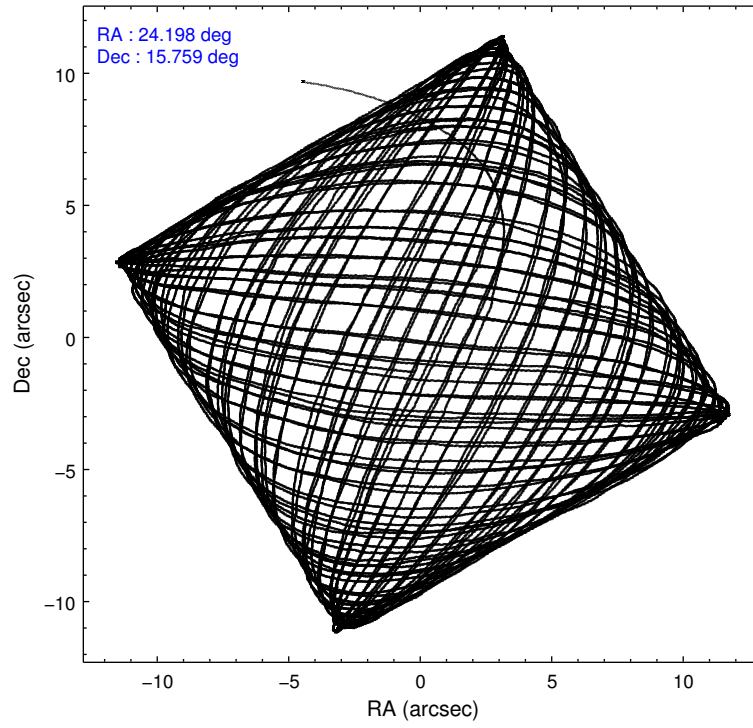
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	186153	187362	196646	266626	251142
rejected events	164923	163080	172757	150525	184364
rejected %	88%	87%	87%	56%	73%

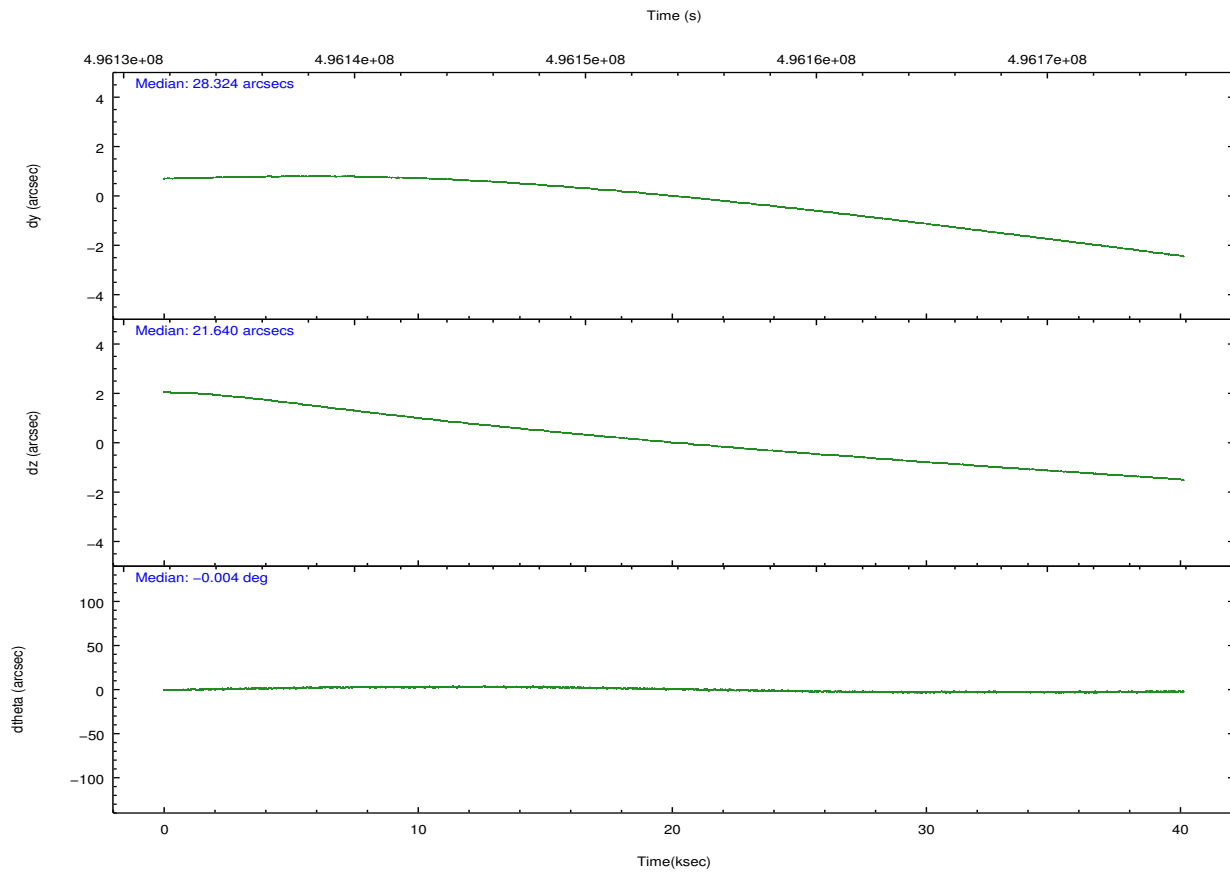
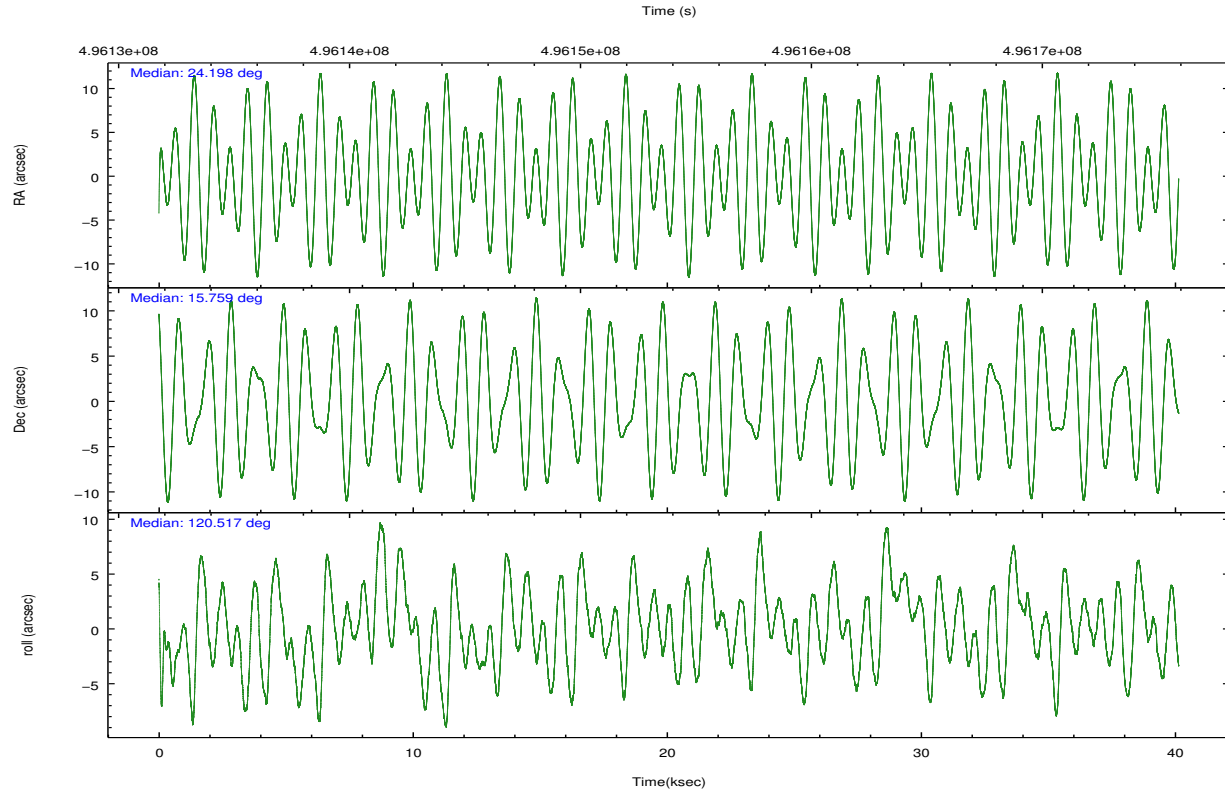
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	7352	10332	8286	10345	18633
	3%	5%	4%	3%	7%
grade 1 events	95	129	111	290	203
	0%	0%	0%	0%	0%
grade 2 events	5247	4739	5329	23793	16177
	2%	2%	2%	8%	6%
grade 3 events	2302	2256	2371	10090	6926
	1%	1%	1%	3%	2%
grade 4 events	2185	2357	2383	9916	6714
	1%	1%	1%	3%	2%
grade 5 events	8299	10347	10258	27633	14619
	4%	5%	5%	10%	5%
grade 6 events	4146	4600	5524	61960	18330
	2%	2%	2%	23%	7%
grade 7 events	156527	152602	162384	122599	169540
	84%	81%	82%	45%	67%

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	24.222450	24.19751470089037	Subarray requested	NONE	NONE
[deg] Pointing Dec	15.745585	15.75871290387947	Alternating exposures requested	N	N
[deg] Pointing Roll	120.359138	120.5225399487611	[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)	496133885.184000	496132827.61253			
Observation start date	2013-09-21T06:56:58	2013-09-21T06:40:27			
[s] Observation end time (MET)	496173885.184000	496174640.43981			
Observation end date	2013-09-21T18:03:38	2013-09-21T18:17:20			
Read mode	TIMED	TIMED			

2.3 Aspect





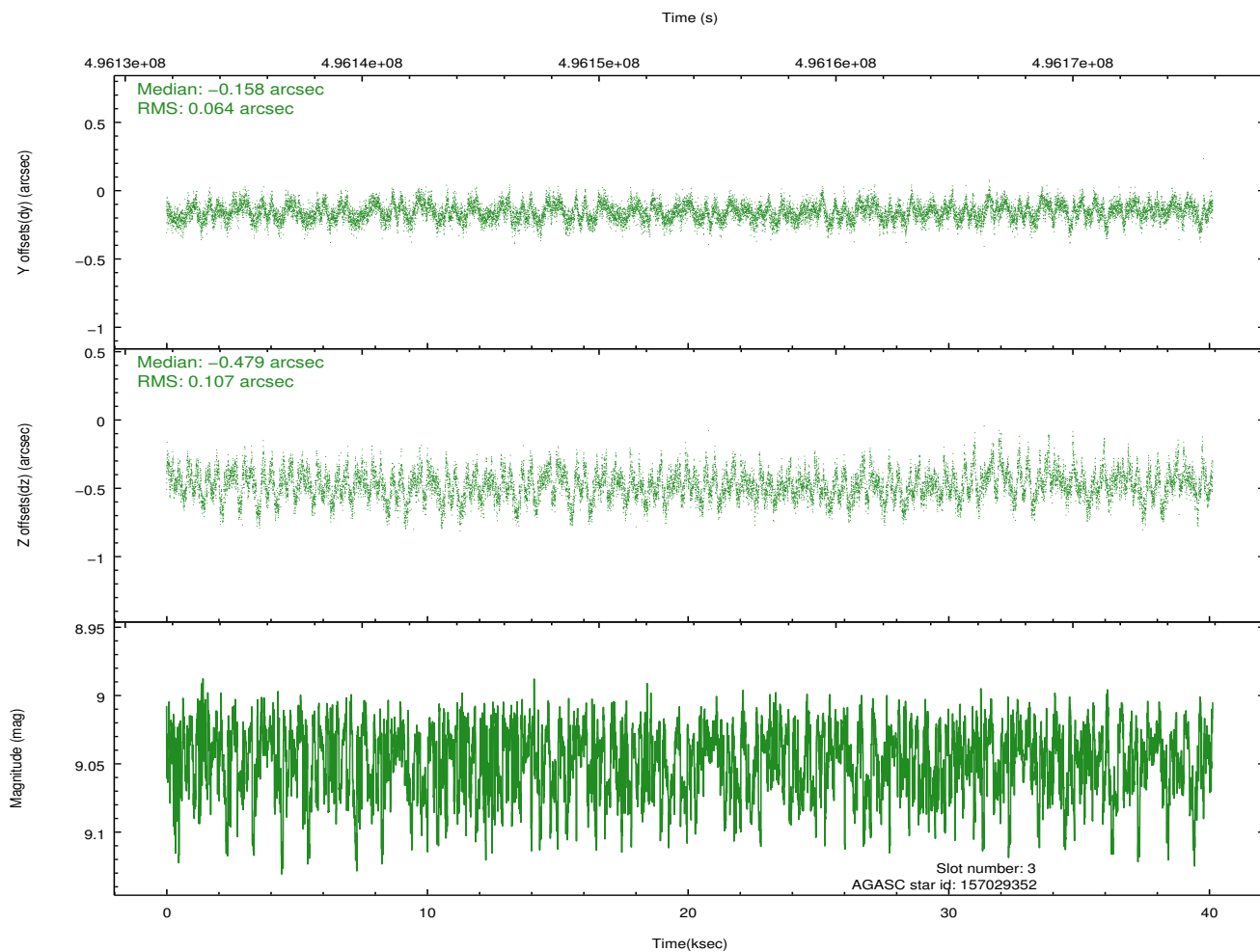
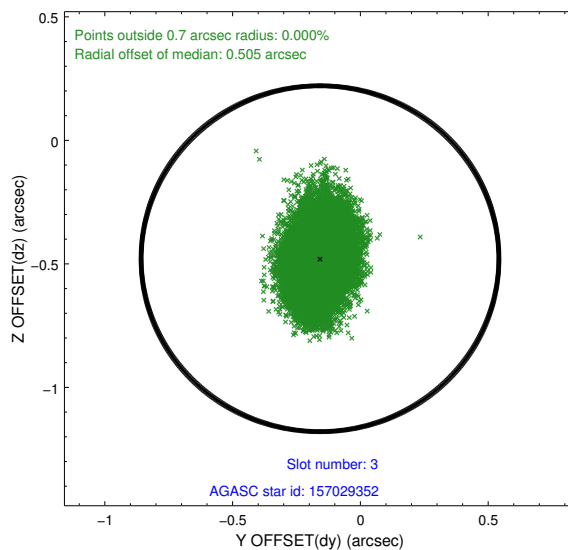
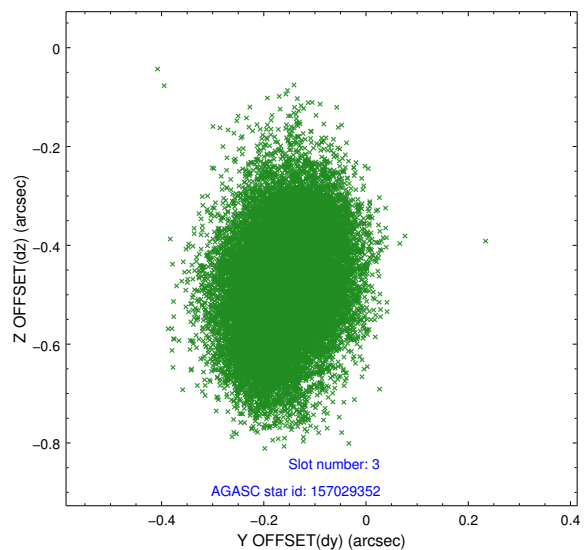
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.98	9790	-0.197	-0.037	0.034	0.041	0.000000	0.000000	-781.56	-1743.31
1	FID		ACIS-S-4	7.07	9789	0.419	0.104	0.029	0.066	0.000000	0.000000	2132.32	165.29
2	FID		ACIS-S-5	7.10	9789	-0.249	-0.058	0.023	0.063	0.000000	0.000000	-1834.42	158.82
3	GUIDE	used	157029352	9.05	19569	-0.158	-0.479	0.132	0.219	23.764744	15.271289	-668.97	2232.91
4	GUIDE	used	157943240	8.95	19544	-0.105	0.245	0.135	0.229	24.500363	16.361777	1429.82	-1949.35
5	GUIDE	used	157945176	9.58	19371	-0.090	-0.090	0.183	0.321	24.448367	16.602965	2270.26	-2232.73
6	GUIDE	used	157953216	9.34	19521	0.069	-0.094	0.150	0.250	24.189817	15.248642	-1486.05	1001.76
7	GUIDE	used	157954272	8.70	19555	0.279	0.413	0.108	0.177	24.932144	15.423798	-2240.53	-1541.08

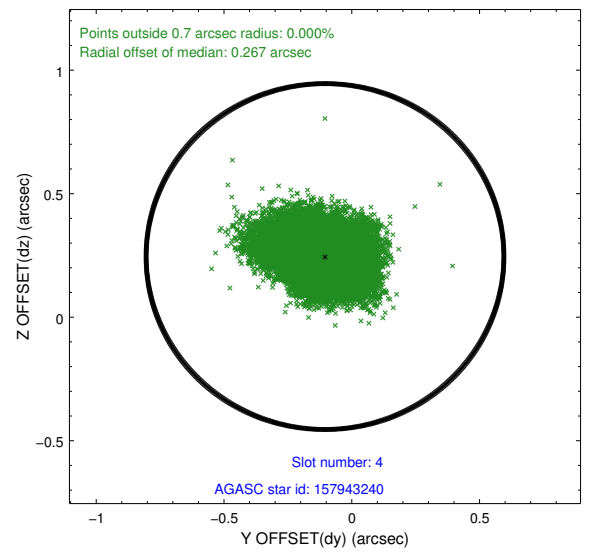
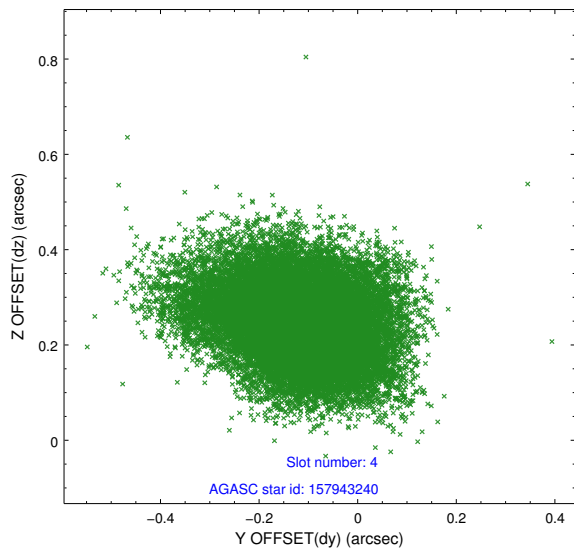
∞

2.4 Star Slots

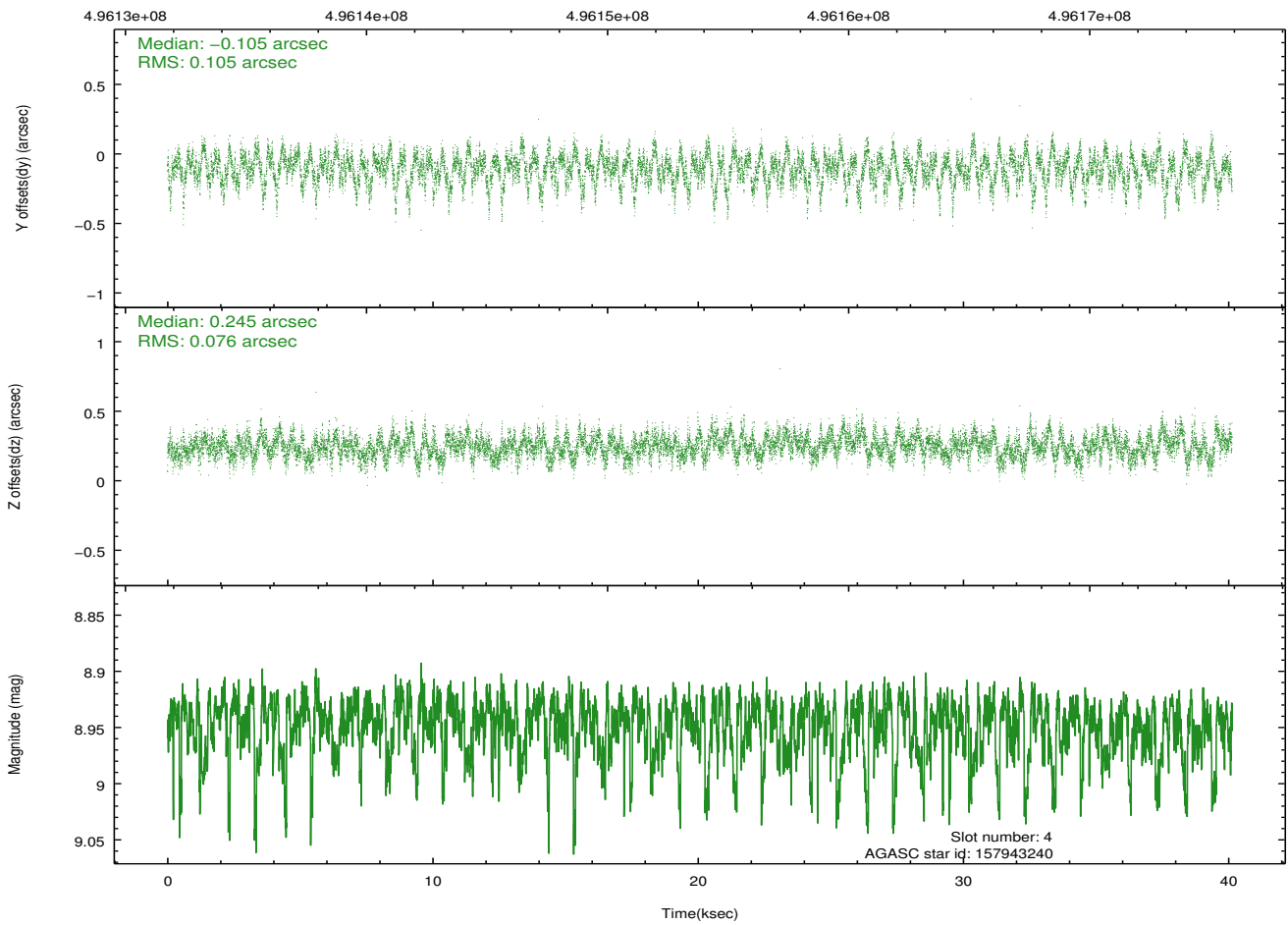
2.4.1 Slot 3



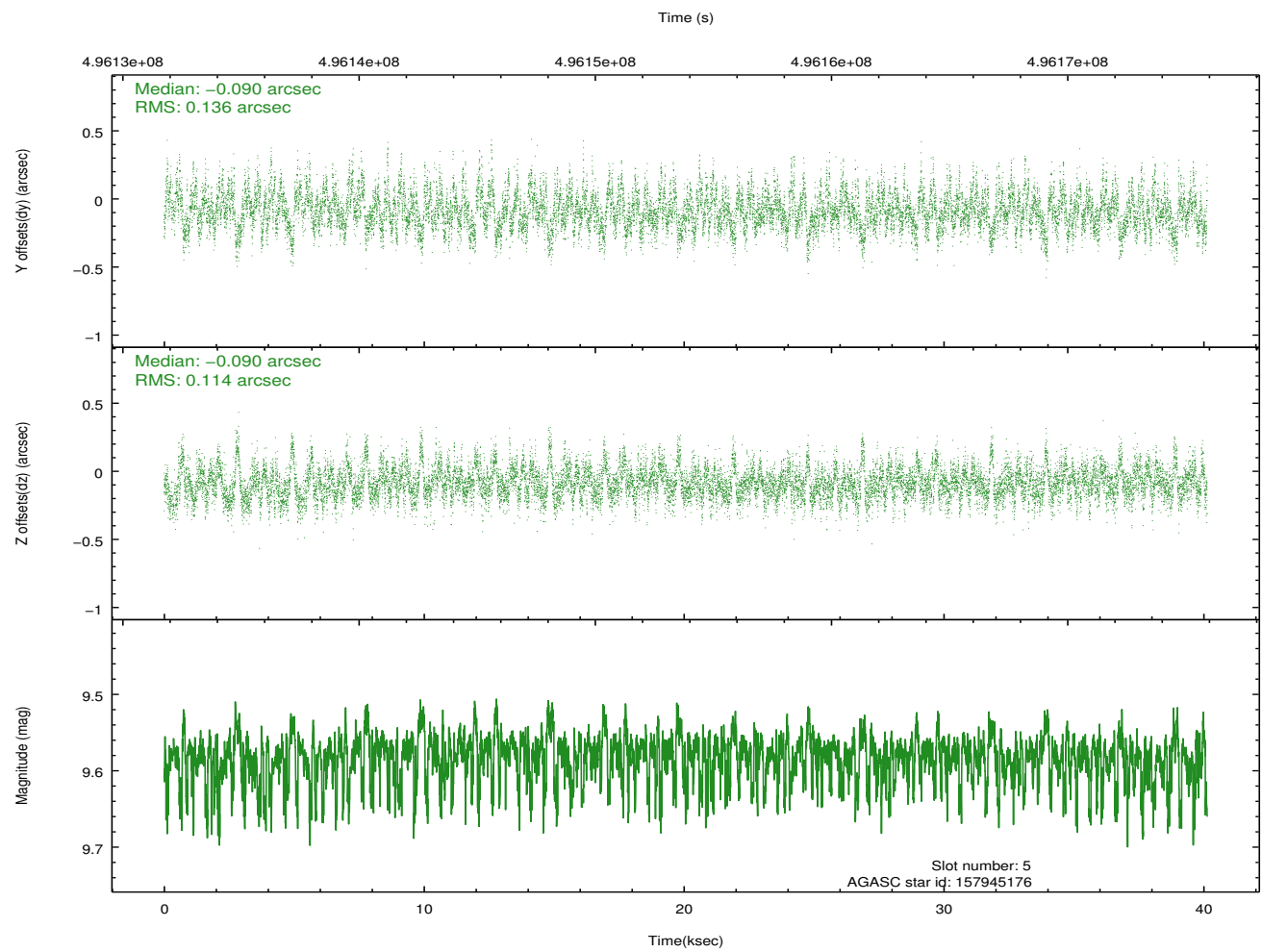
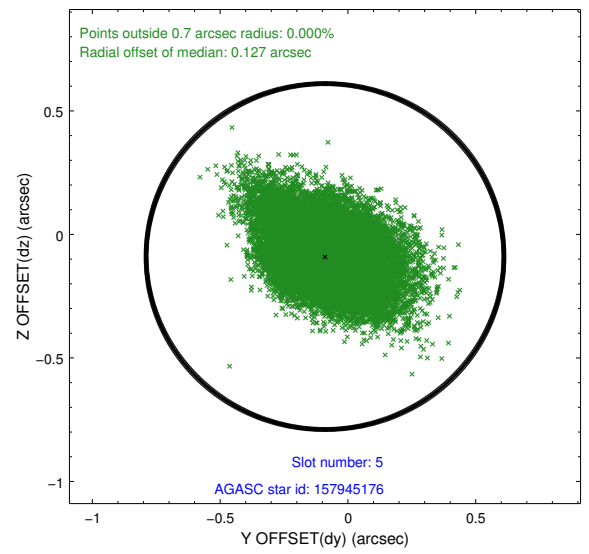
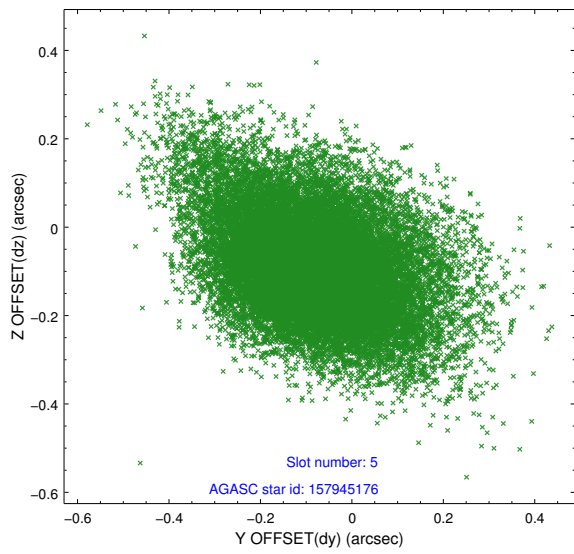
2.4.2 Slot 4



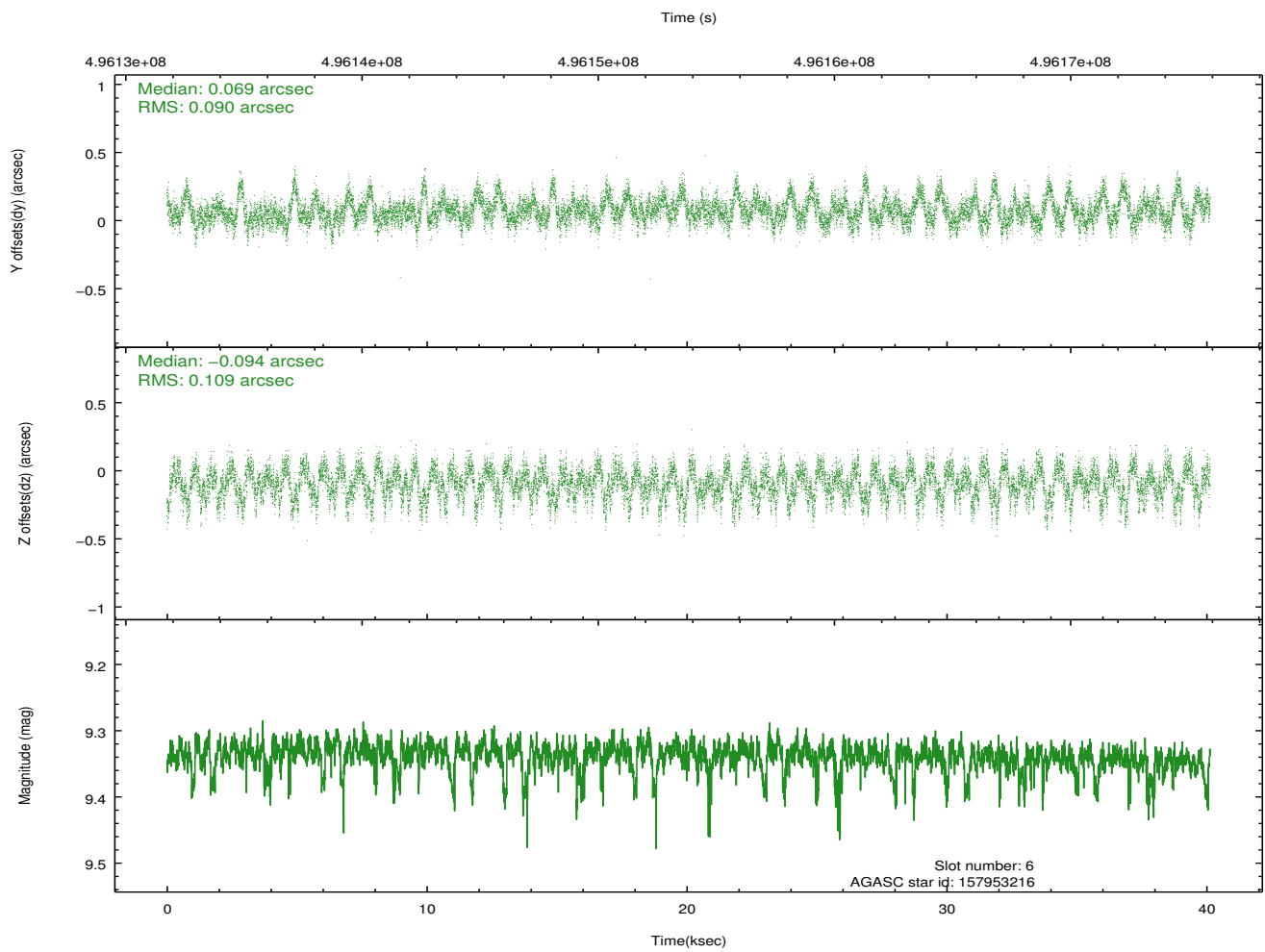
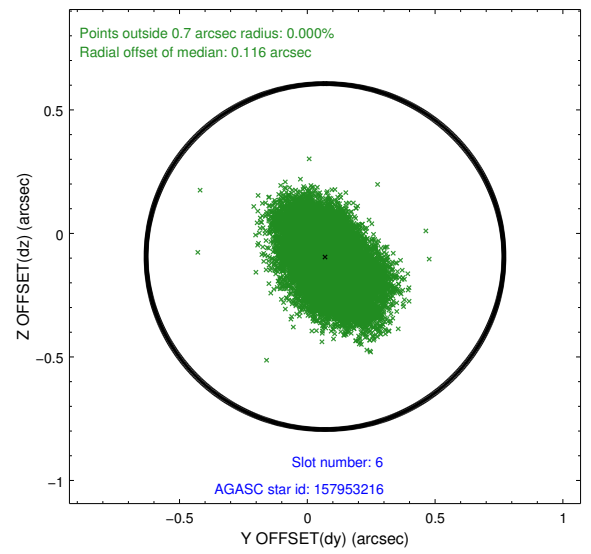
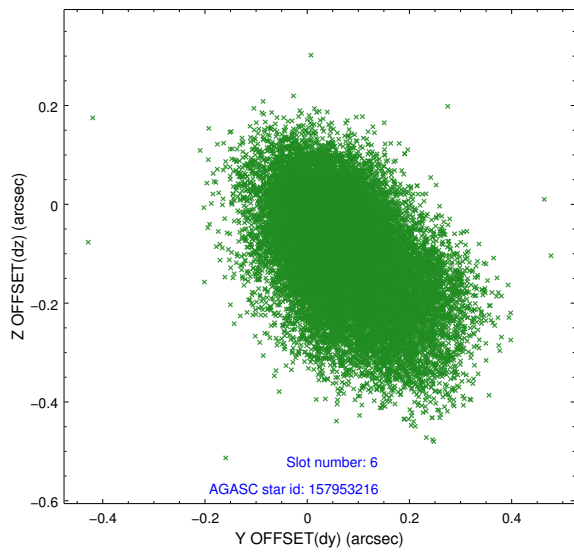
Time (s)



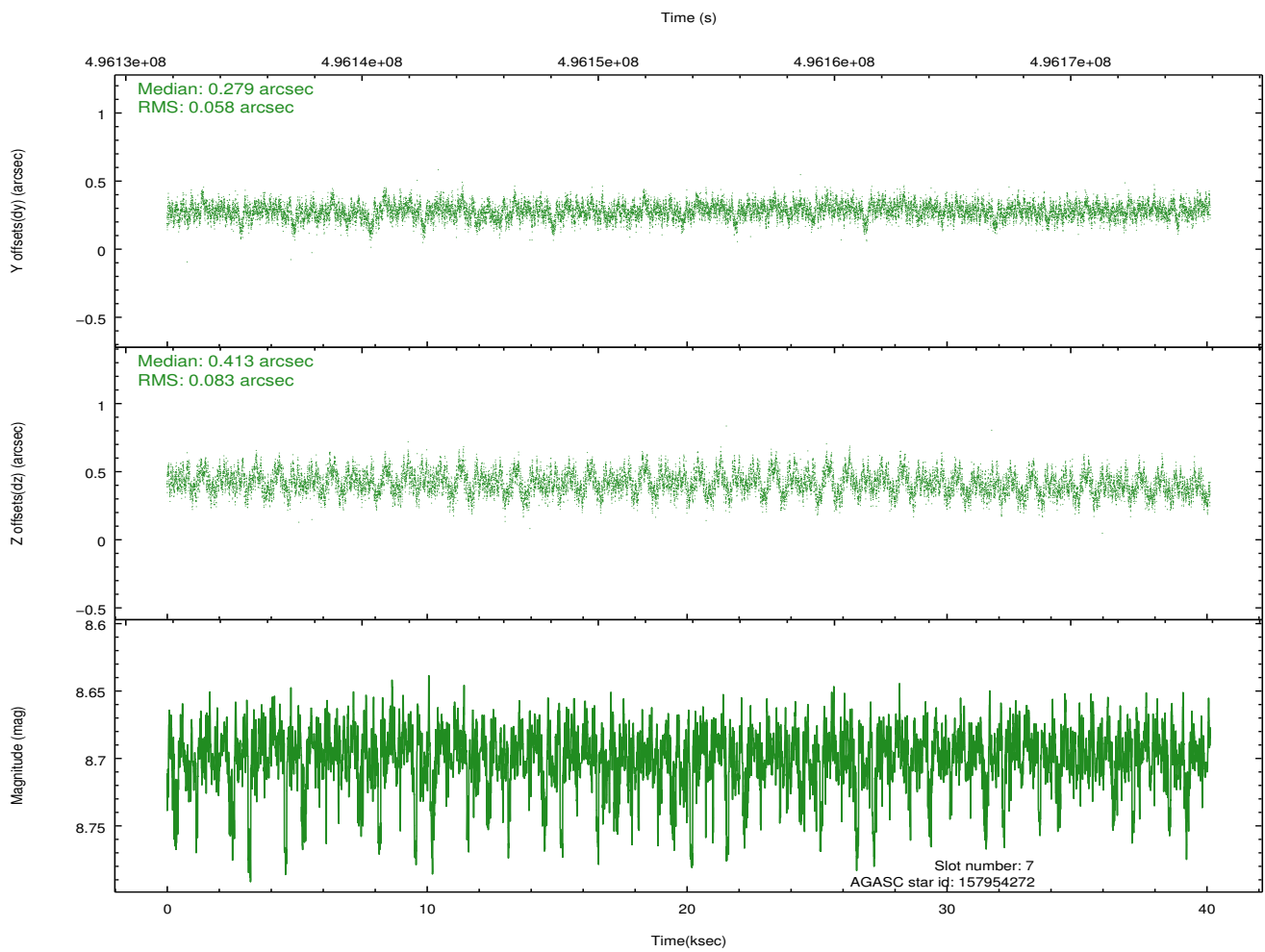
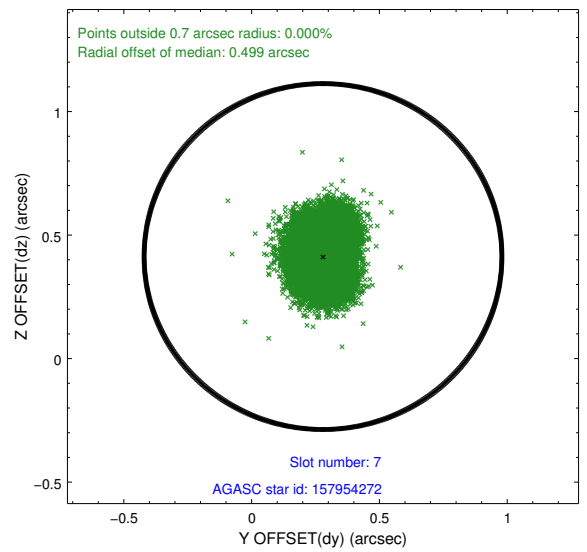
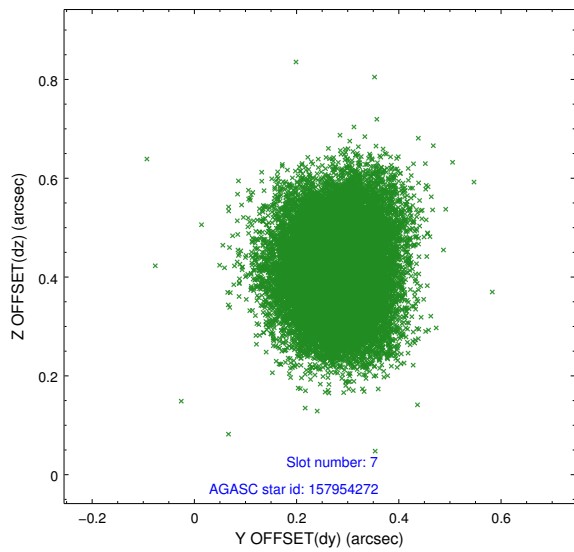
2.4.3 Slot 5



2.4.4 Slot 6

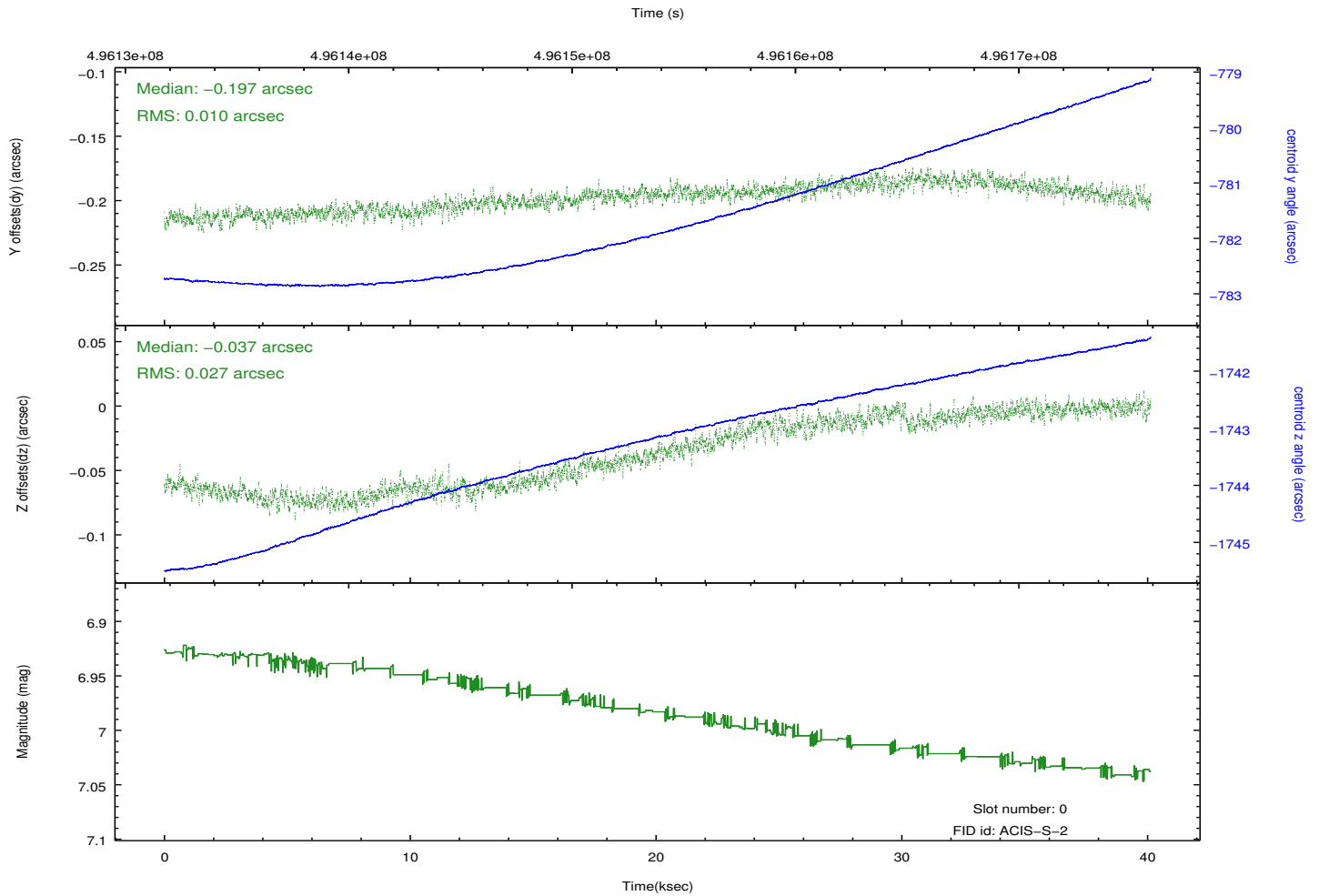
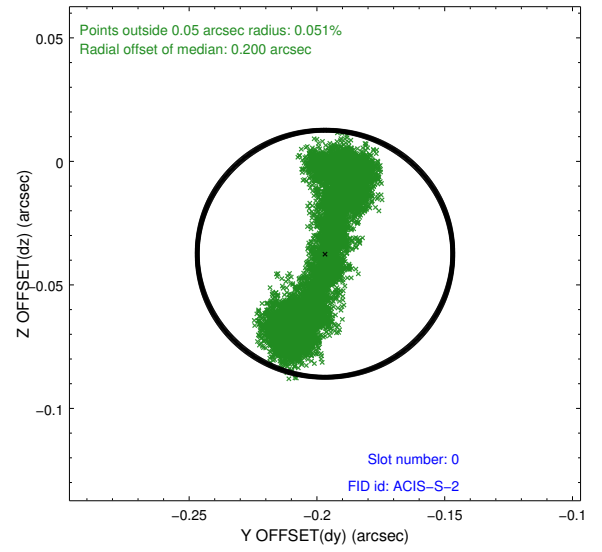
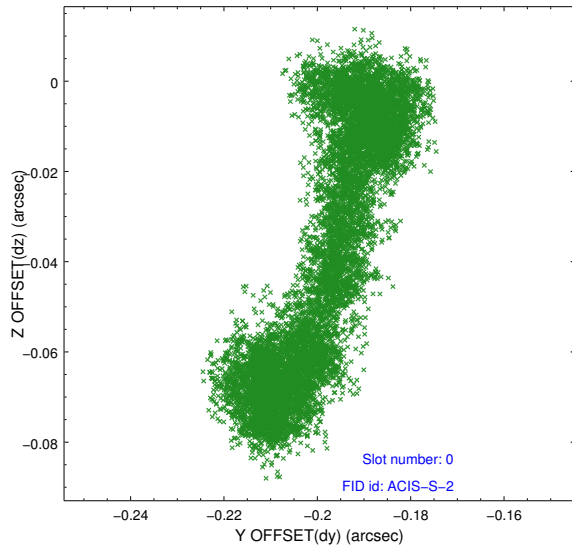


2.4.5 Slot 7

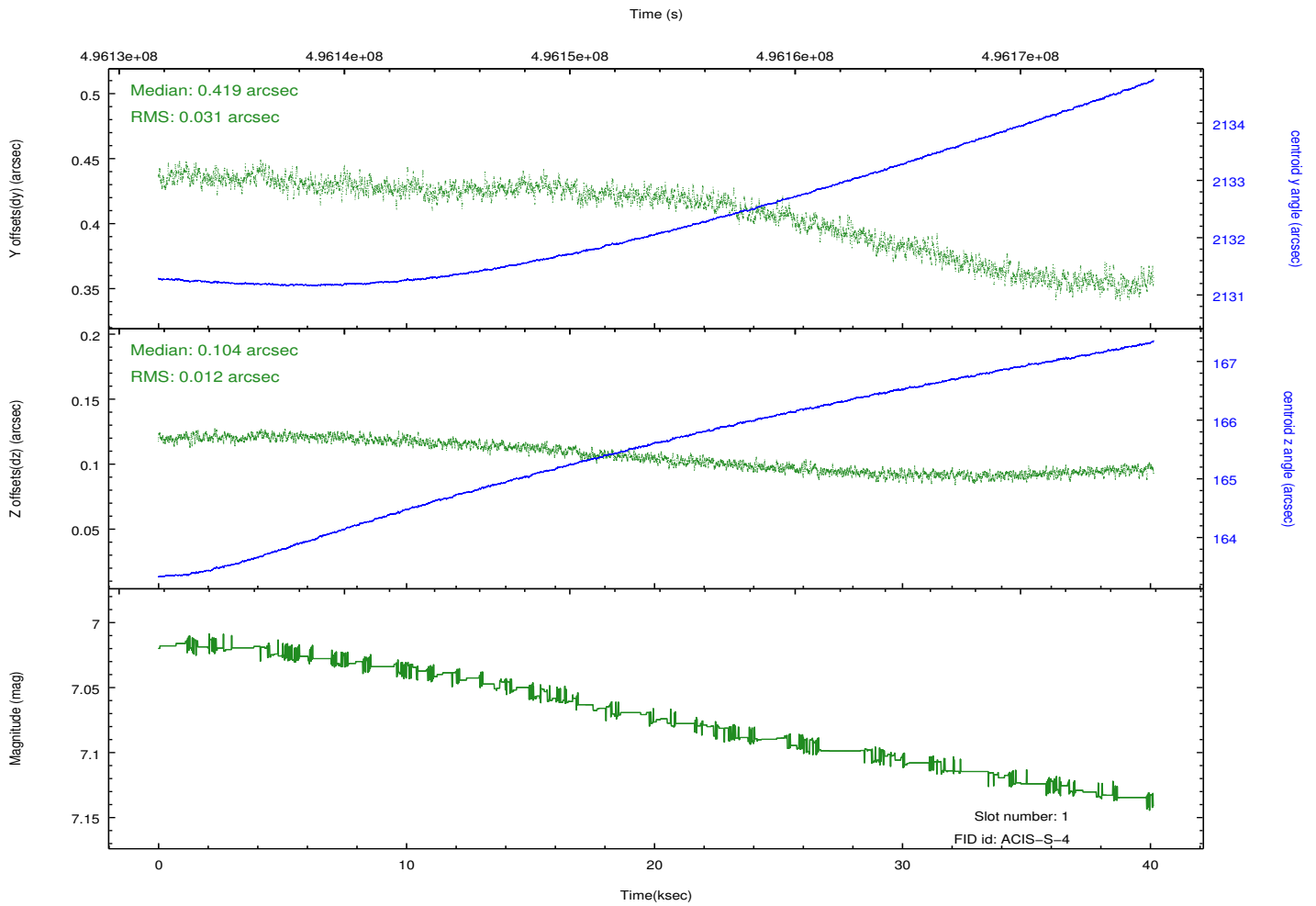
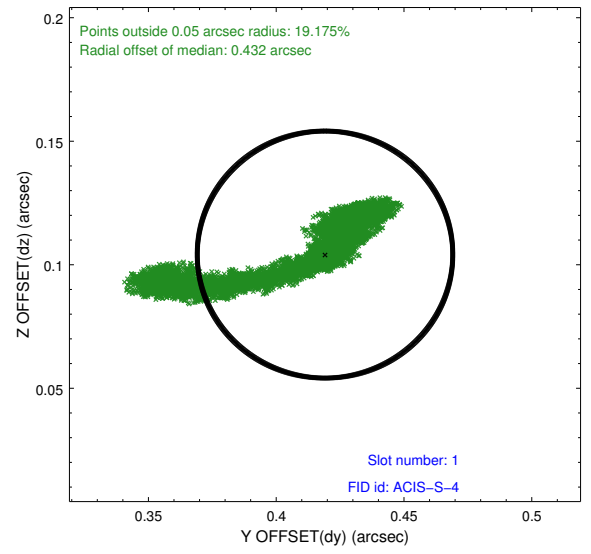
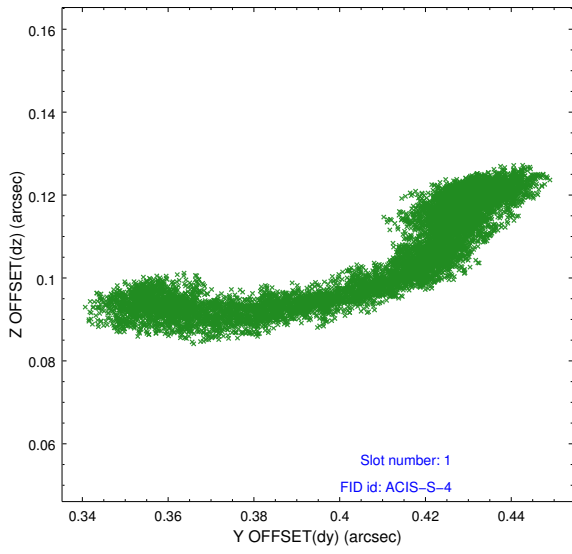


2.5 FID Slots

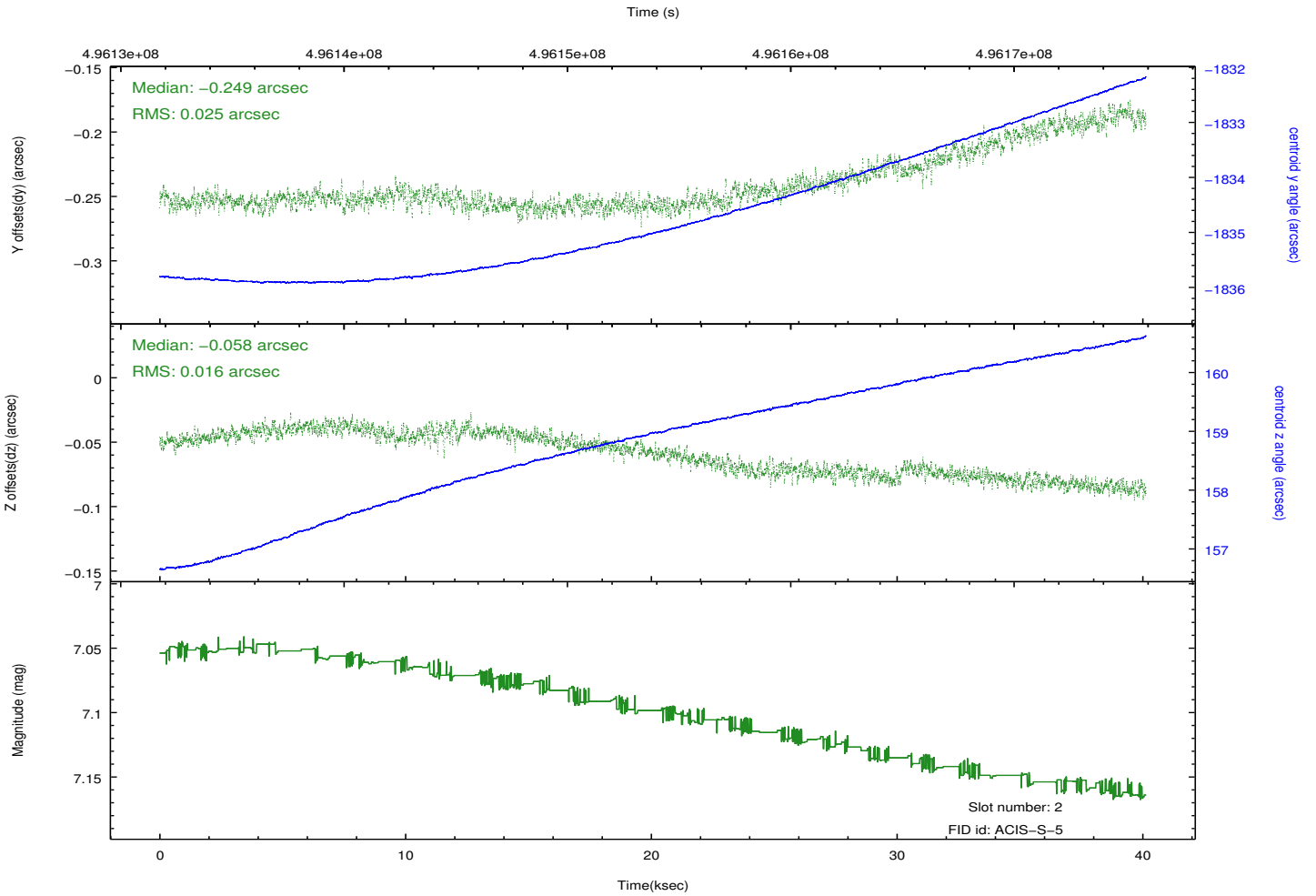
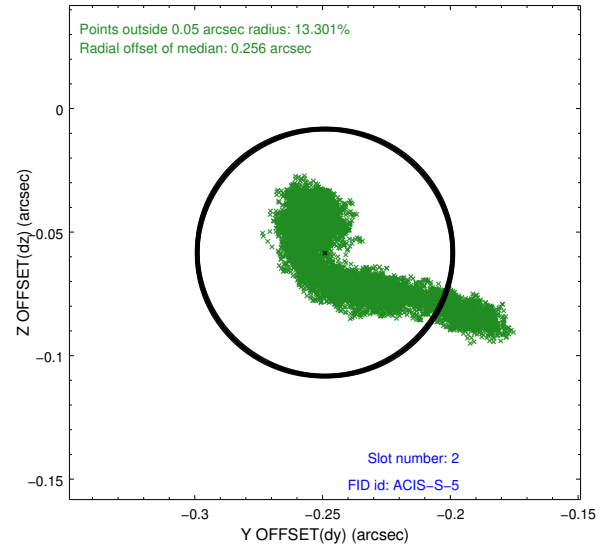
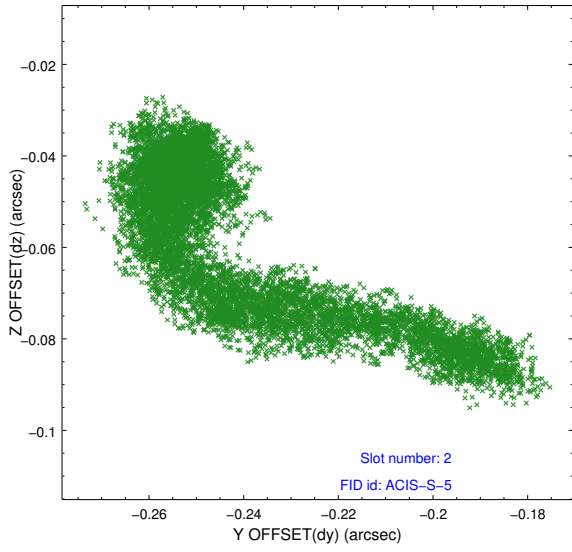
2.5.1 Slot 0



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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.07266912061

A.2 Comments

Joint proposal with NRAO.

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.