

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 20882 - L2 Version 2
Chandra X-Ray Center

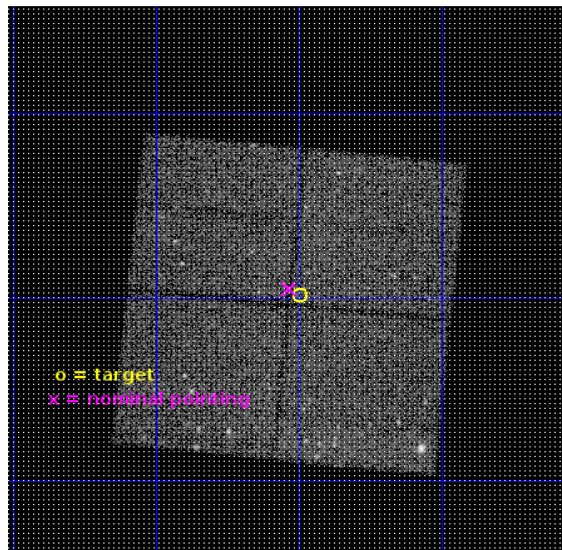
L2 Processing Date : Dec 19 2017

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1 Front

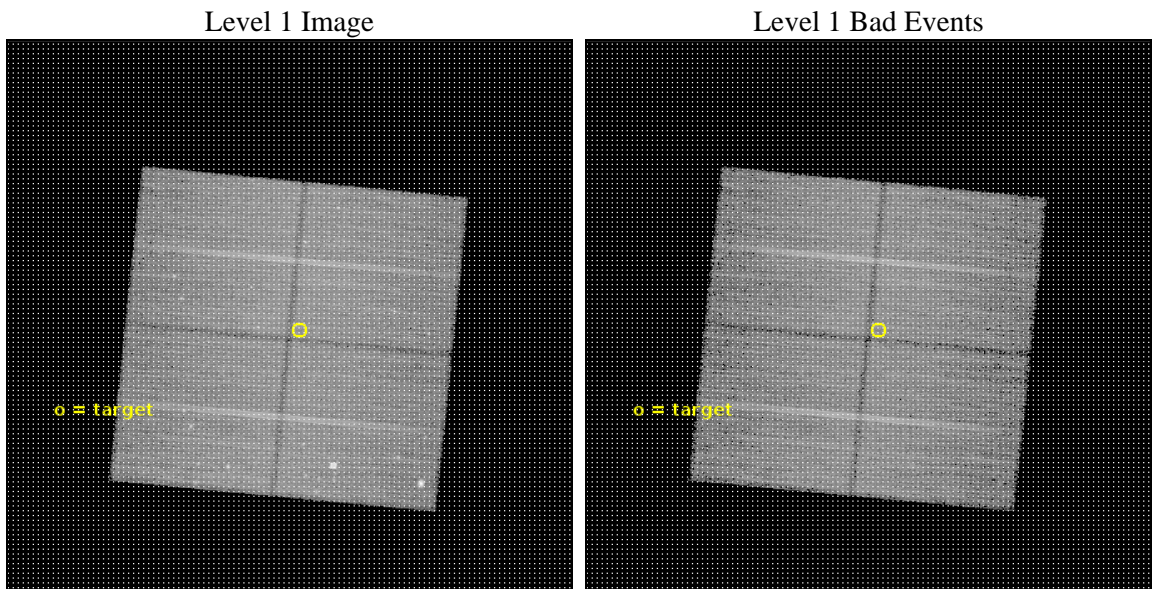
seq_num	201120	Sequence number
obs_id	20882	Observation id
title	Definitive X-Ray Detection of the Class 0 Protostar HOPS 383	Propo
observer	Dr Nicolas Grosso	Principal investigator
object	HOPS 383	Source name
dtycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.874167	Observer's specified target RA [deg]
dec_targ	-4.997778	Observer's specified target Dec [deg]
ra_nom	83.883085273756	Nominal RA [deg]
dec_nom	-4.9921078183377	Nominal Dec [deg]
roll_nom	5.7094559524219	Nominal Roll [deg]
revision	2	Processing version of data
ontime	33083.20025456	Sum of GTIs [s]
livetime	32650.943887736	Livetime [s]
ontime0	33076.918184161	Sum of GTIs [s]
ontime1	33076.918104172	Sum of GTIs [s]
ontime2	33076.918164015	Sum of GTIs [s]
ontime3	33083.20025456	Sum of GTIs [s]
l2events	103995	Number of level 2 events



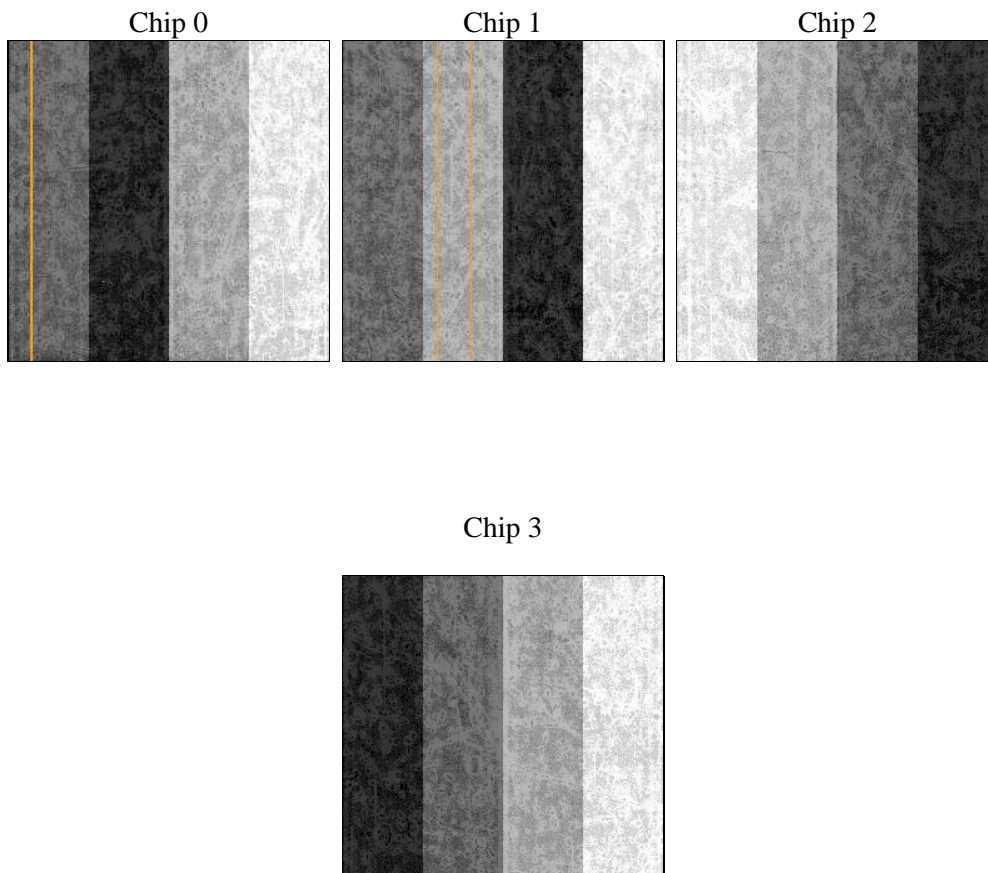
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	33000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	33083.20025456	Sum of GTIs [s]
caldsver	4.7.7	 	ontime0	33076.918184161	Sum of GTIs [s]
date	2017-12-19T15:18:15	Date and time of file creation	ontime1	33076.918104172	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	33076.918164015	Sum of GTIs [s]
			ontime3	33083.20025456	Sum of GTIs [s]
			l1events	923374	Number of level 1 events

2.1.4 Events

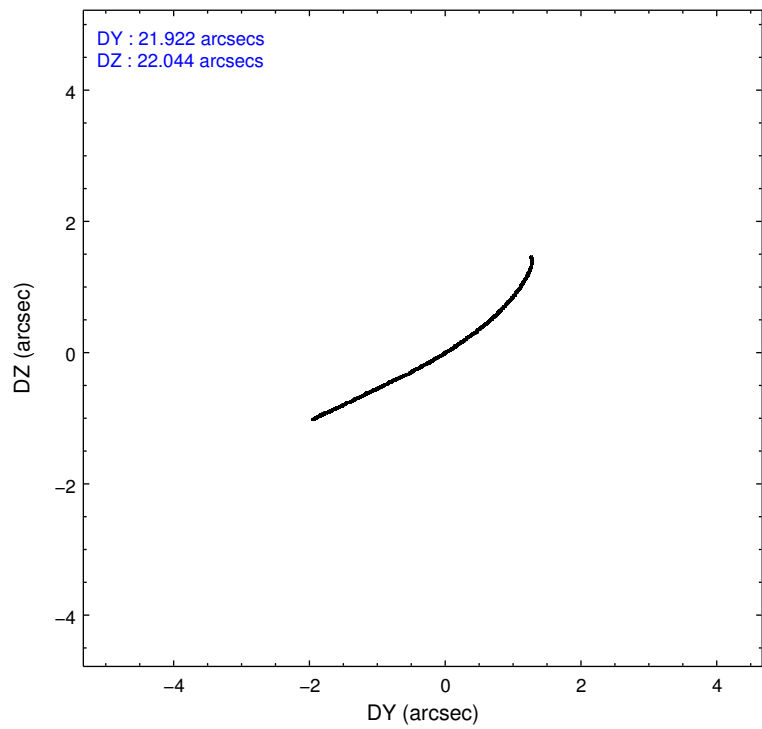
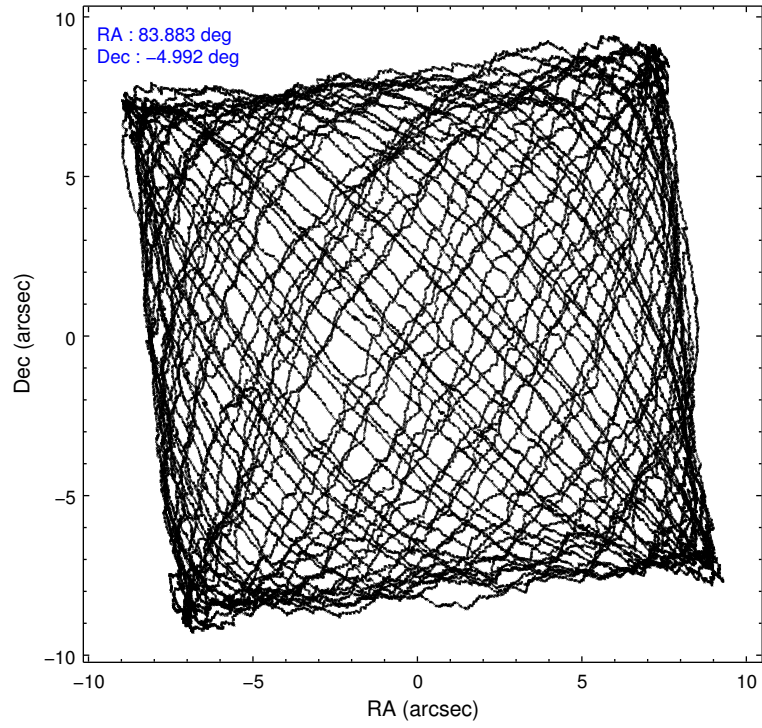
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	223318	235088	234950	230018
rejected events	193680	192946	206583	202422
rejected %	86%	82%	87%	88%

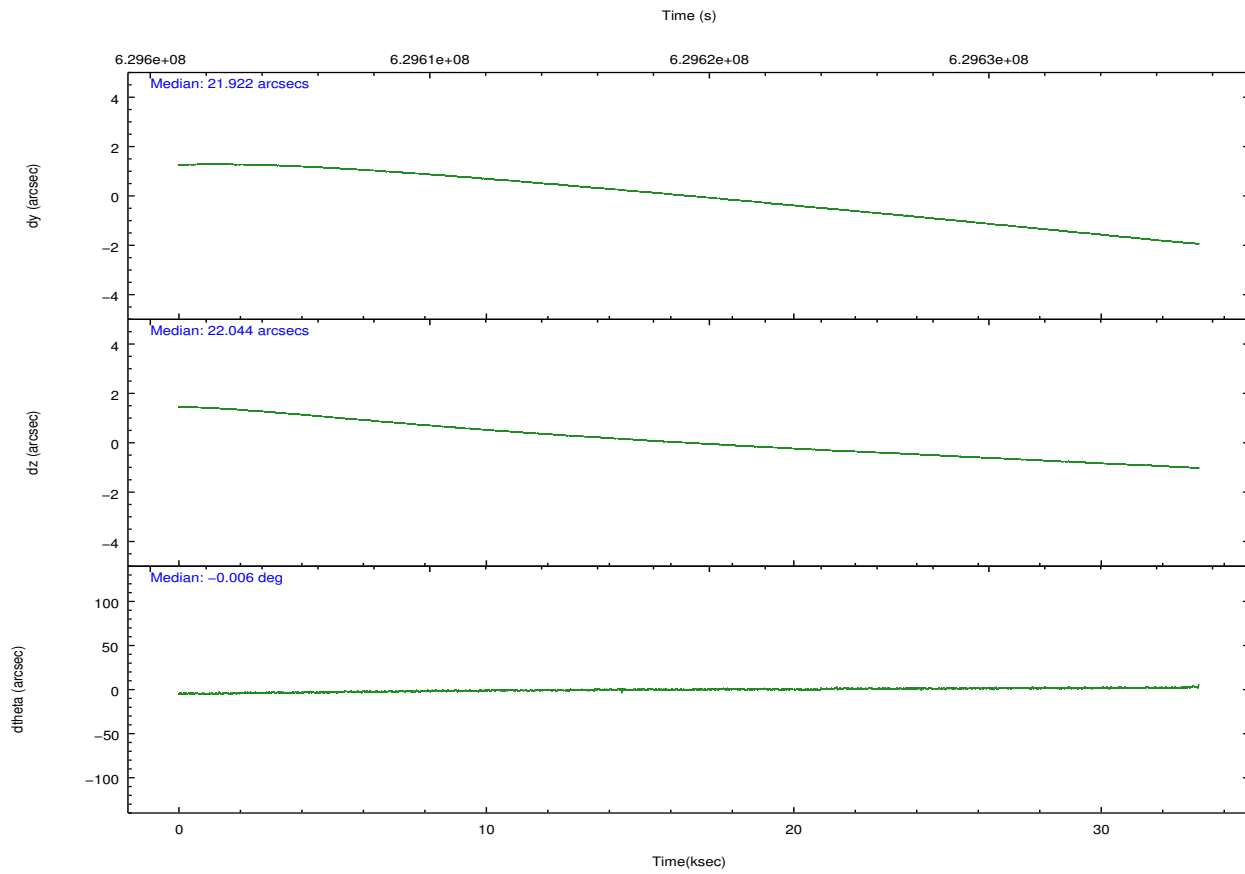
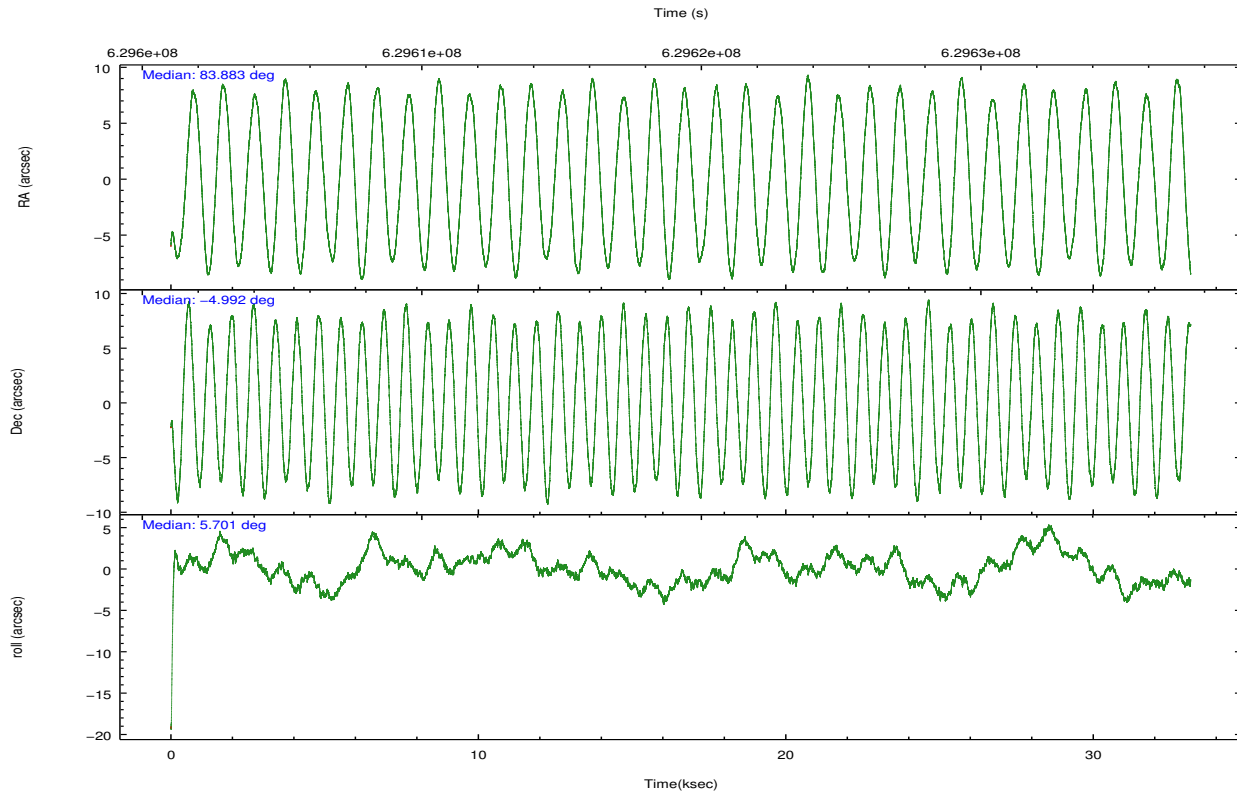
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	11581	21416	11403	11058
	5%	9%	4%	4%
grade 1 events	150	196	157	153
	0%	0%	0%	0%
grade 2 events	6989	8051	6324	5747
	3%	3%	2%	2%
grade 3 events	2814	2939	2669	2681
	1%	1%	1%	1%
grade 4 events	2549	2934	2809	2722
	1%	1%	1%	1%
grade 5 events	10099	10335	9566	11198
	4%	4%	4%	4%
grade 6 events	5708	6807	5165	5390
	2%	2%	2%	2%
grade 7 events	183428	182410	196857	191069
	82%	77%	83%	83%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	83.860660	83.88308527375561	Subarray requested	NONE	NONE
[deg] Pointing Dec	-5.008302	-4.992107818337658	Alternating exposures requested	N	N
[deg] Pointing Roll	5.498821	5.70945595242188	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	629602857.184000	629601844.57342			
Observation start date	2017-12-14T01:39:48	2017-12-14T01:24:04			
[s] Observation end time (MET)	629635857.184000	629636643.32547			
Observation end date	2017-12-14T10:49:48	2017-12-14T11:04:03			
Read mode	TIMED	TIMED			

2.3 Aspect



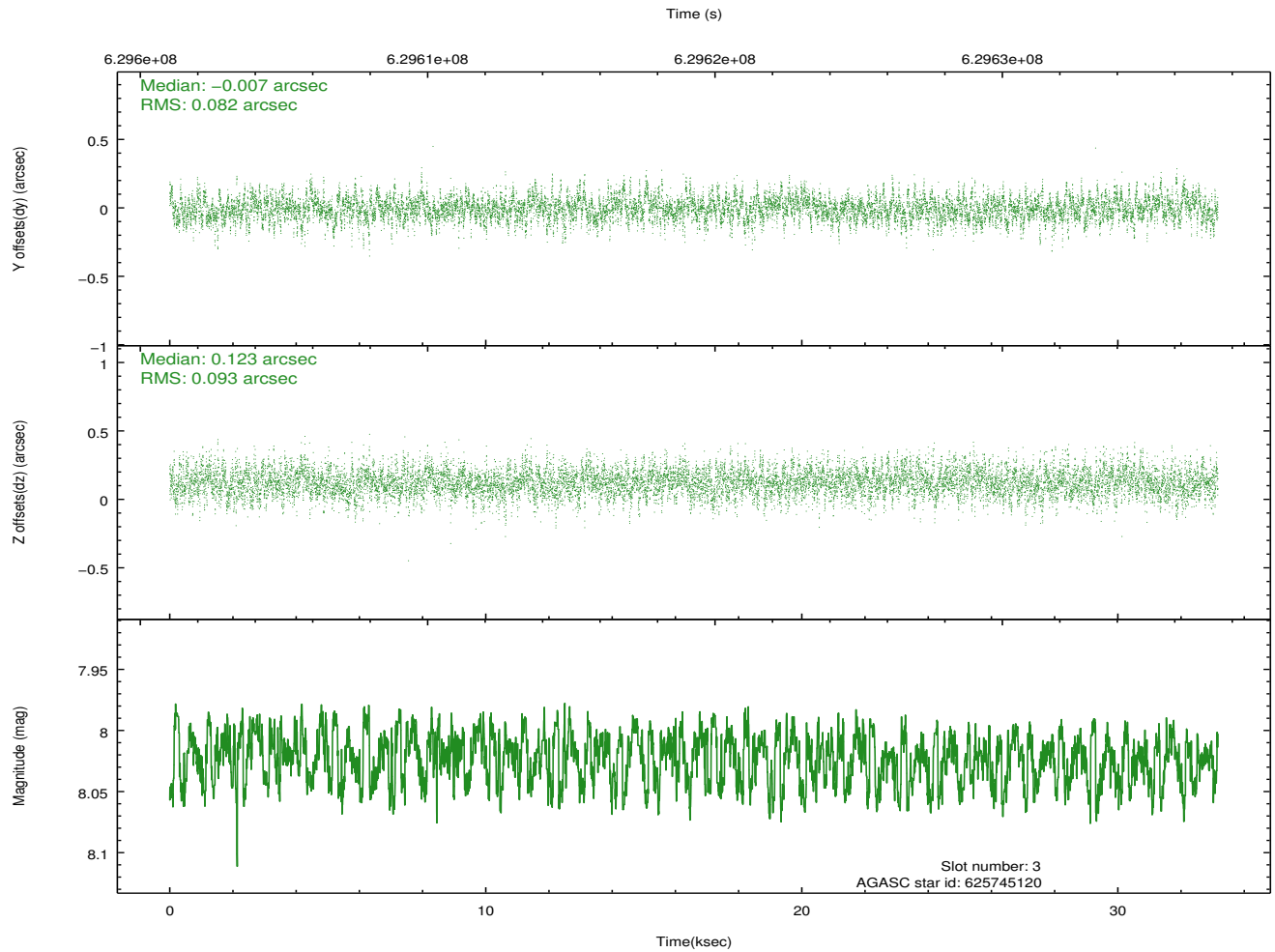
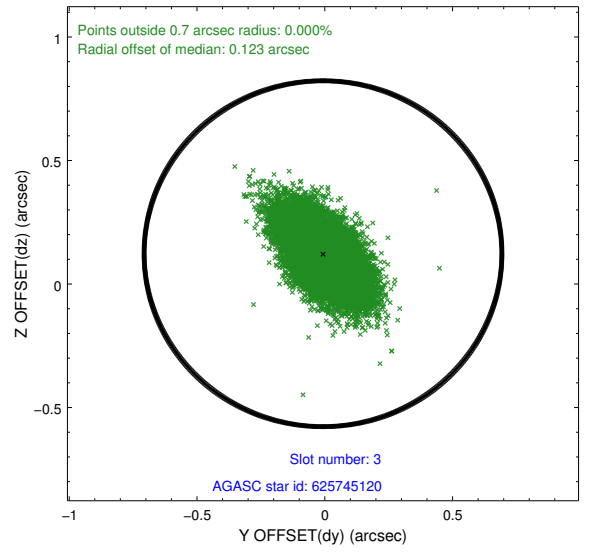
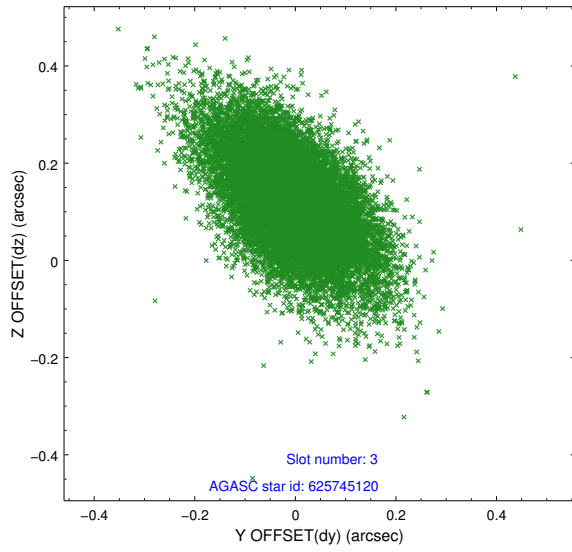


Slot Statistics

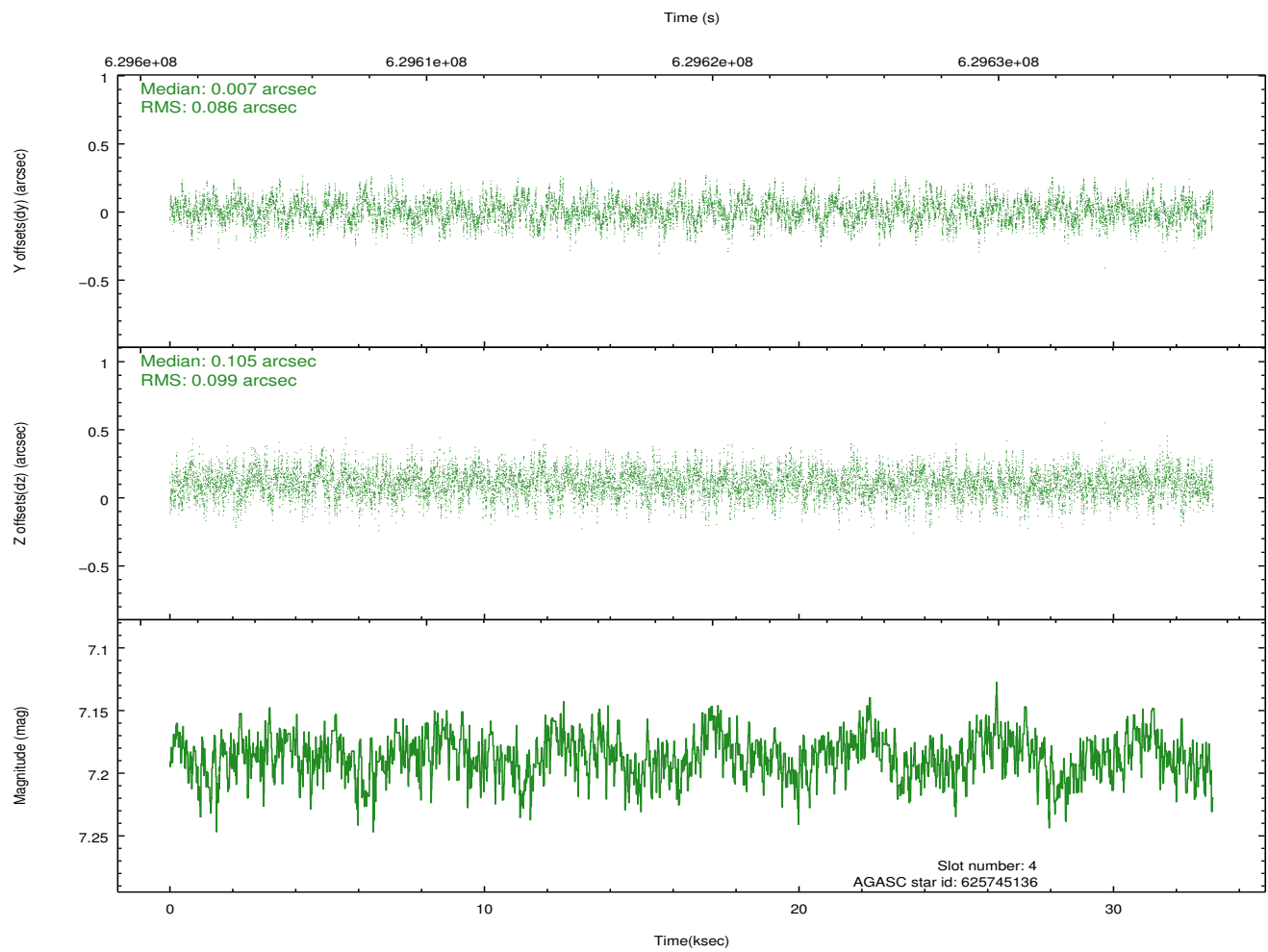
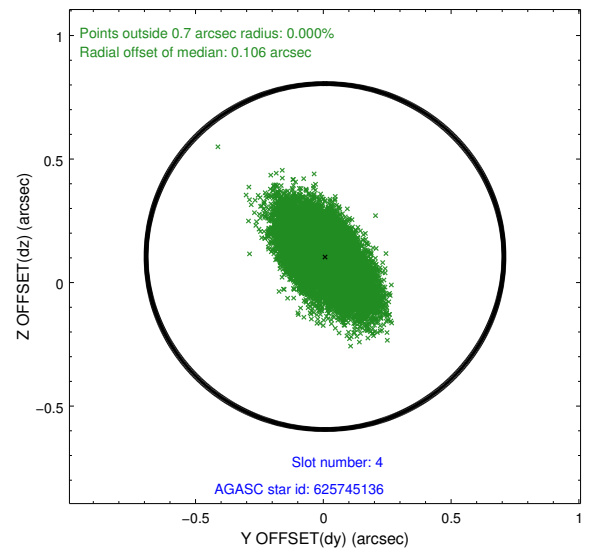
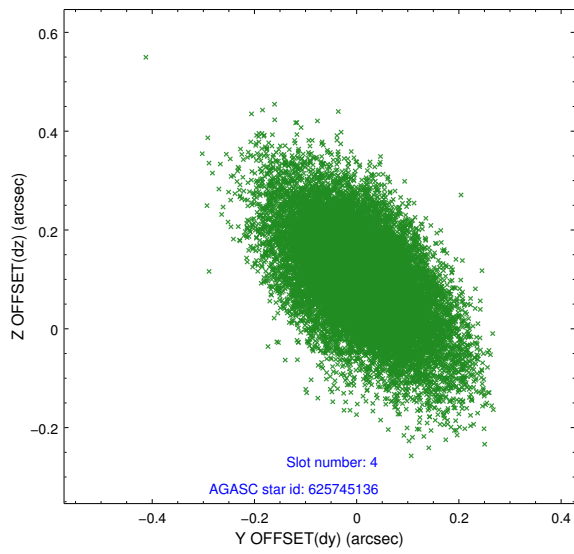
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.19	8089	0.092	-0.064	0.034	0.067	0.000000	0.000000	917.58	-845.92
1	FID		ACIS-I-5	7.16	8090	-0.446	0.024	0.012	0.020	0.000000	0.000000	-1831.17	1051.43
2	FID		ACIS-I-6	7.20	8091	0.264	0.108	0.037	0.051	0.000000	0.000000	383.06	1696.23
3	GUIDE	used	625745120	8.02	16176	-0.007	0.123	0.125	0.226	83.237850	-4.566478	-2072.47	1796.45
4	GUIDE	used	625745136	7.19	16176	0.007	0.105	0.135	0.237	83.600341	-4.804339	-858.95	820.58
5	GUIDE	used	625874664	6.68	16181	-0.251	-0.314	0.112	0.206	84.472438	-4.814037	2251.34	485.06
6	GUIDE	used	625745064	8.06	16174	-0.017	-0.324	0.139	0.242	83.745849	-4.354262	-184.58	2383.02
7	GUIDE	used	626273040	7.10	16178	0.271	0.413	0.141	0.241	84.062610	-5.647920	500.38	-2360.68

2.4 Star Slots

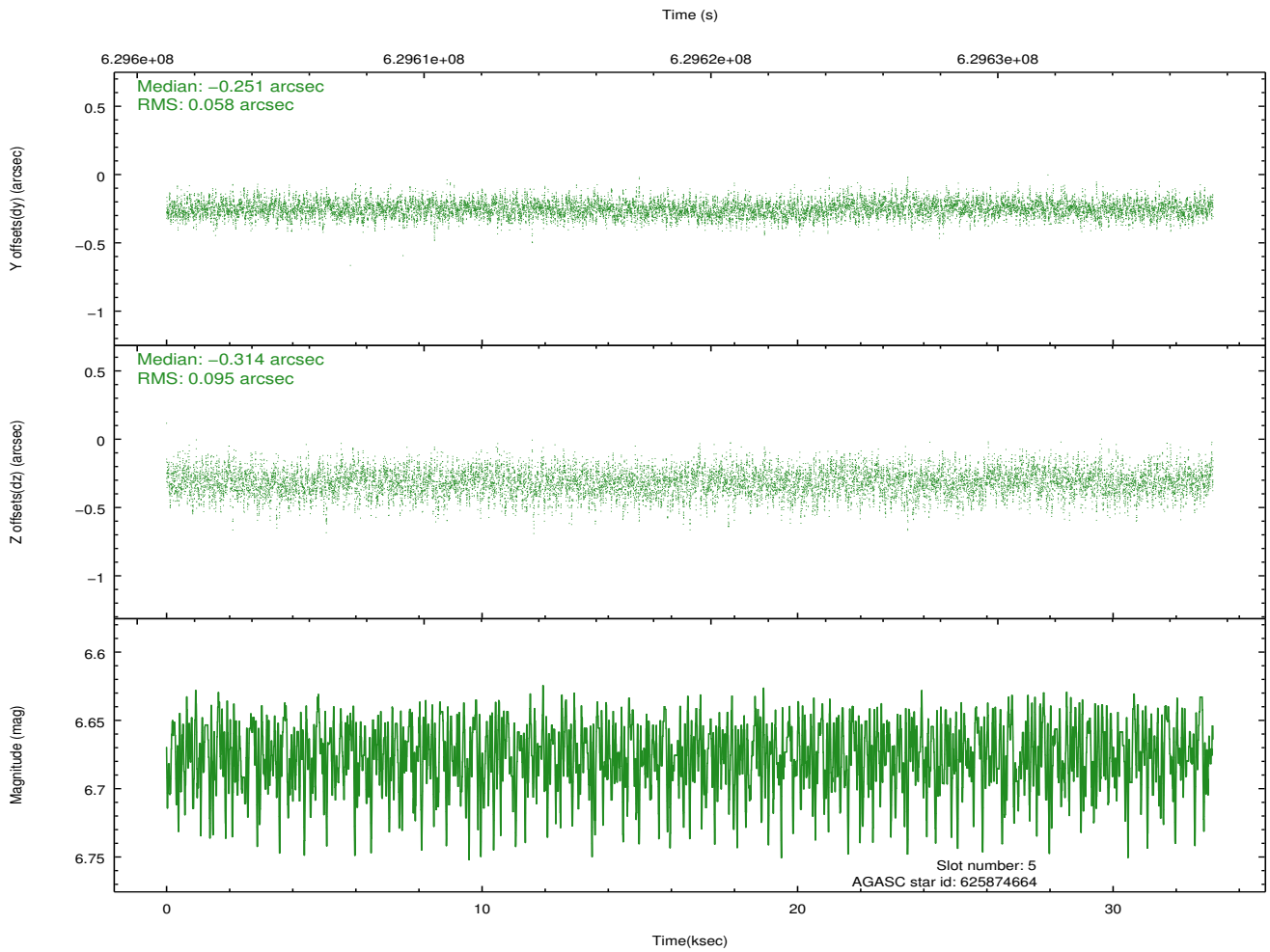
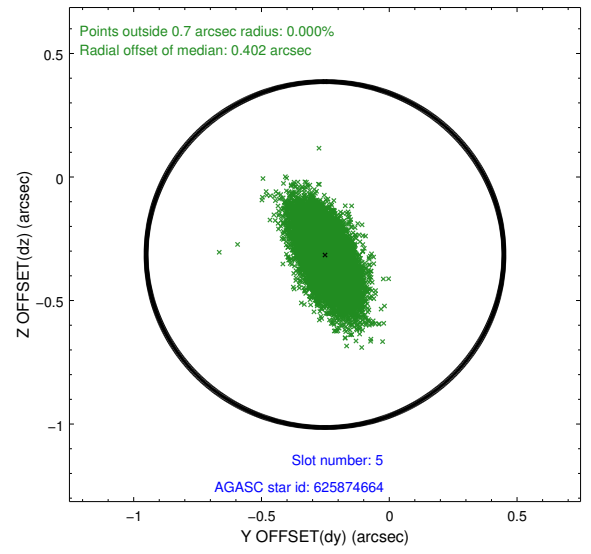
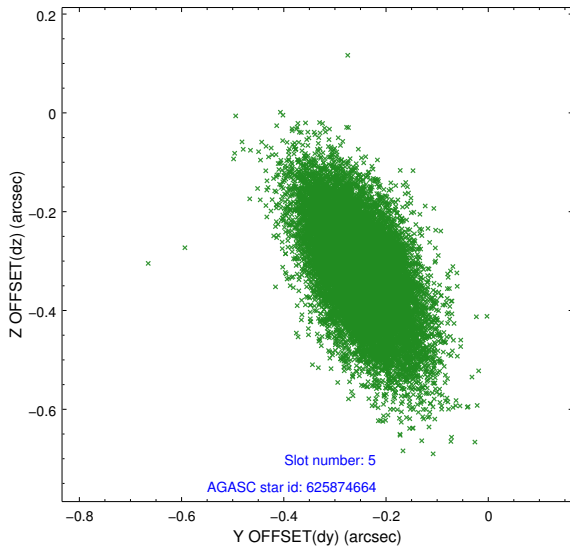
2.4.1 Slot 3



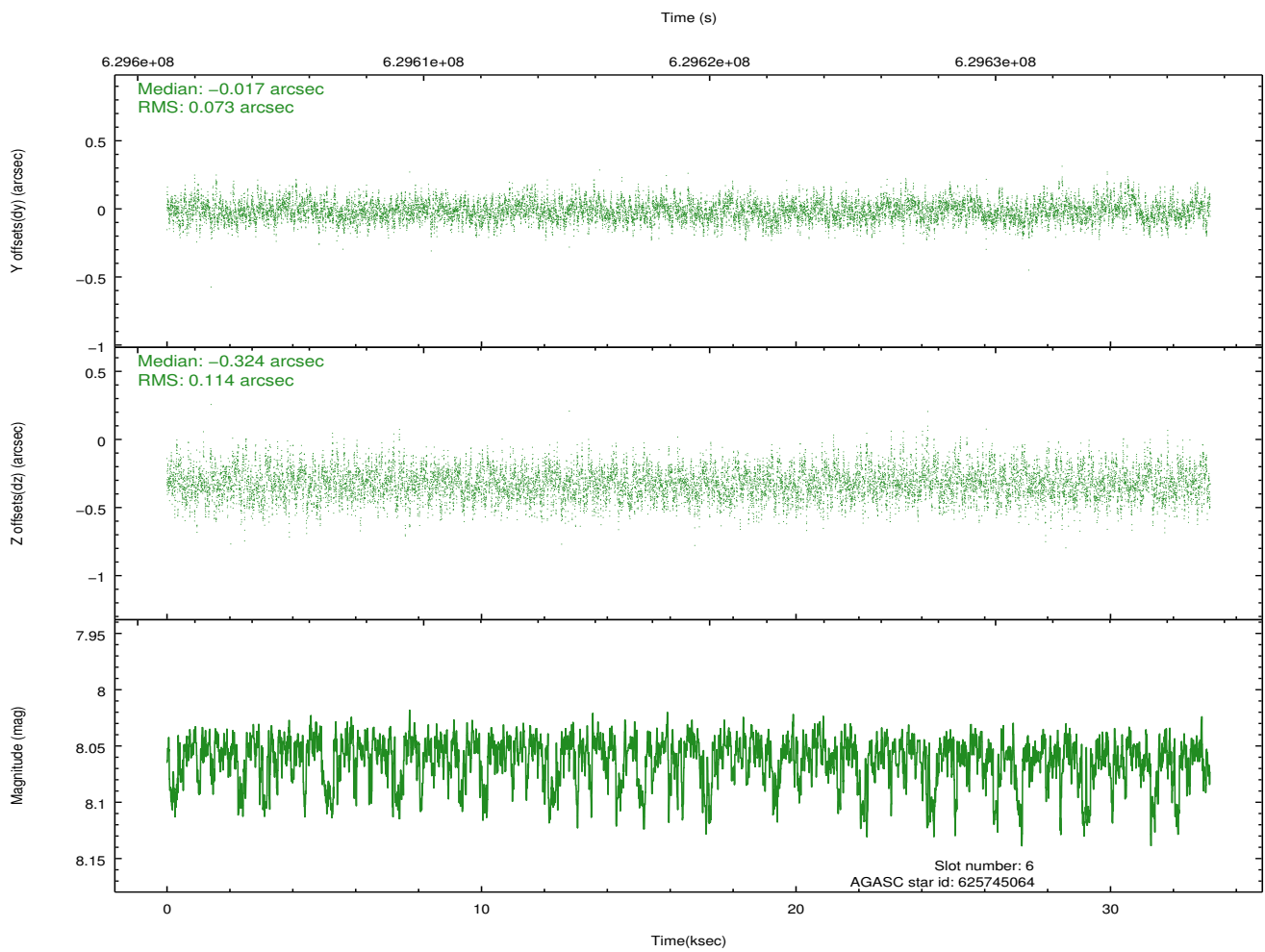
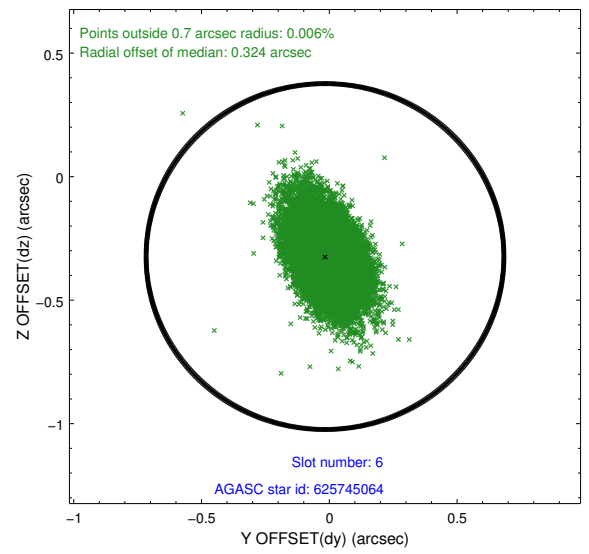
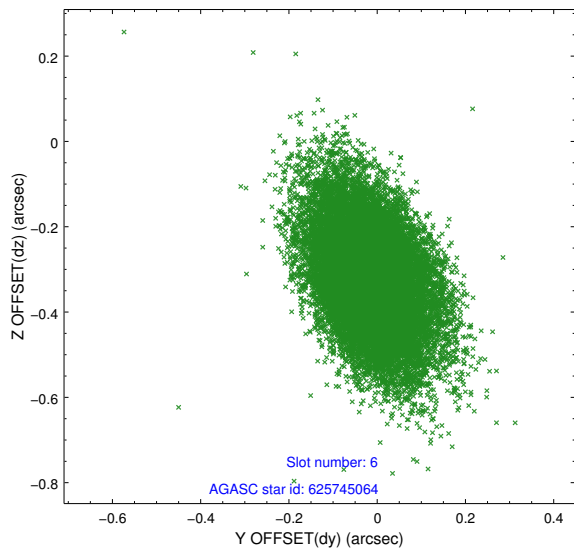
2.4.2 Slot 4



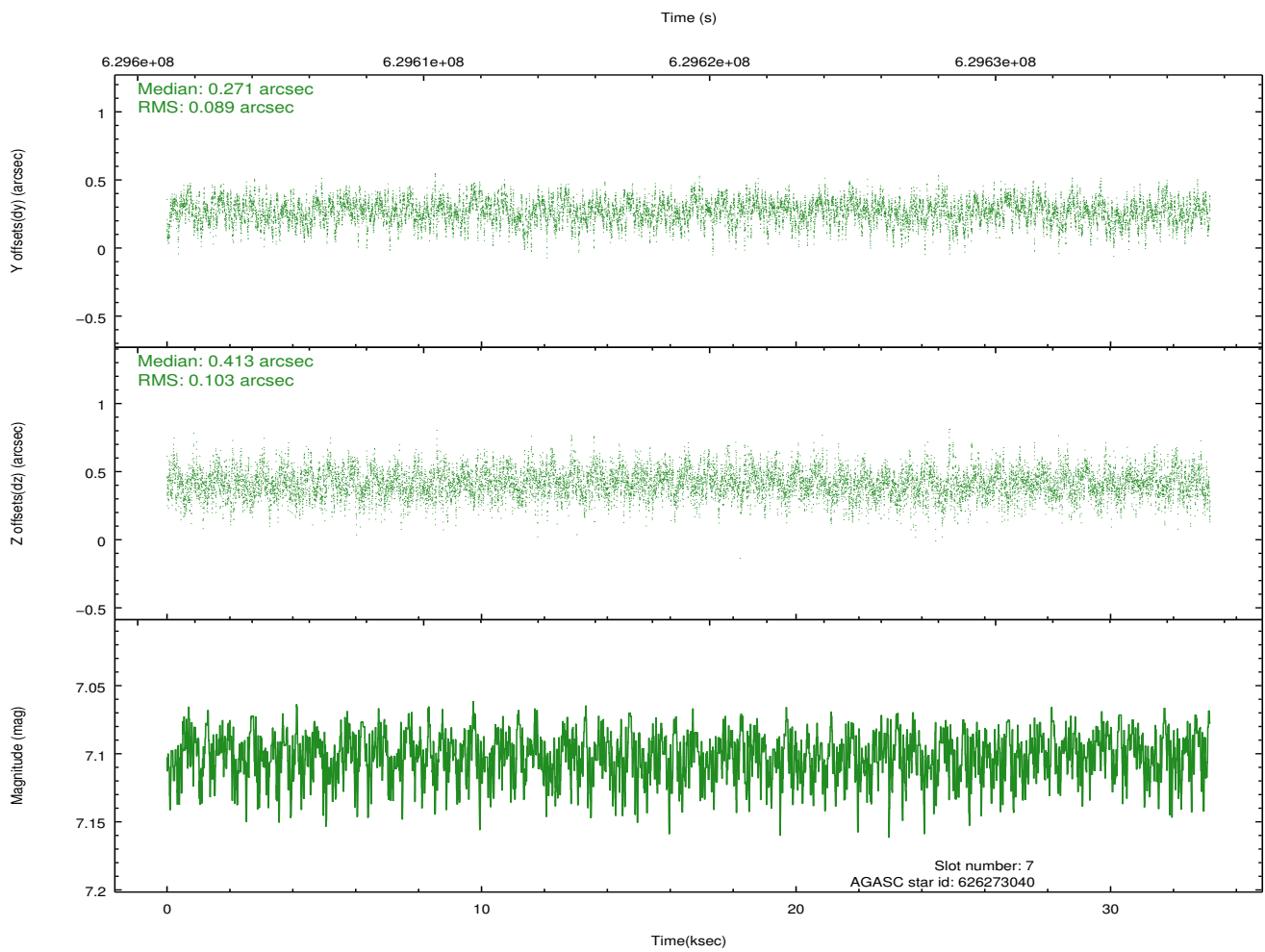
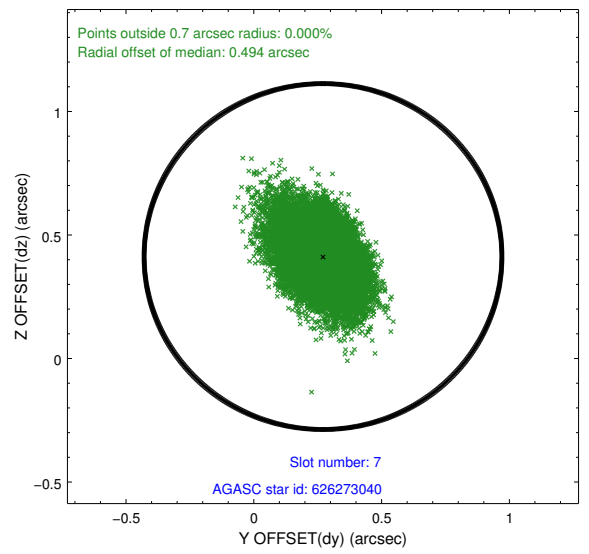
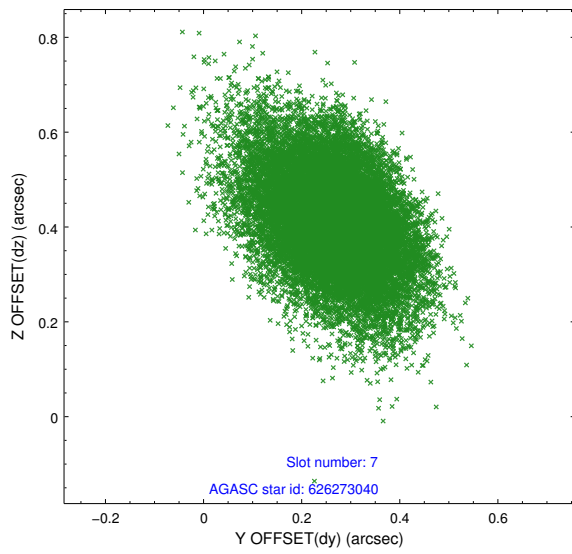
2.4.3 Slot 5



2.4.4 Slot 6

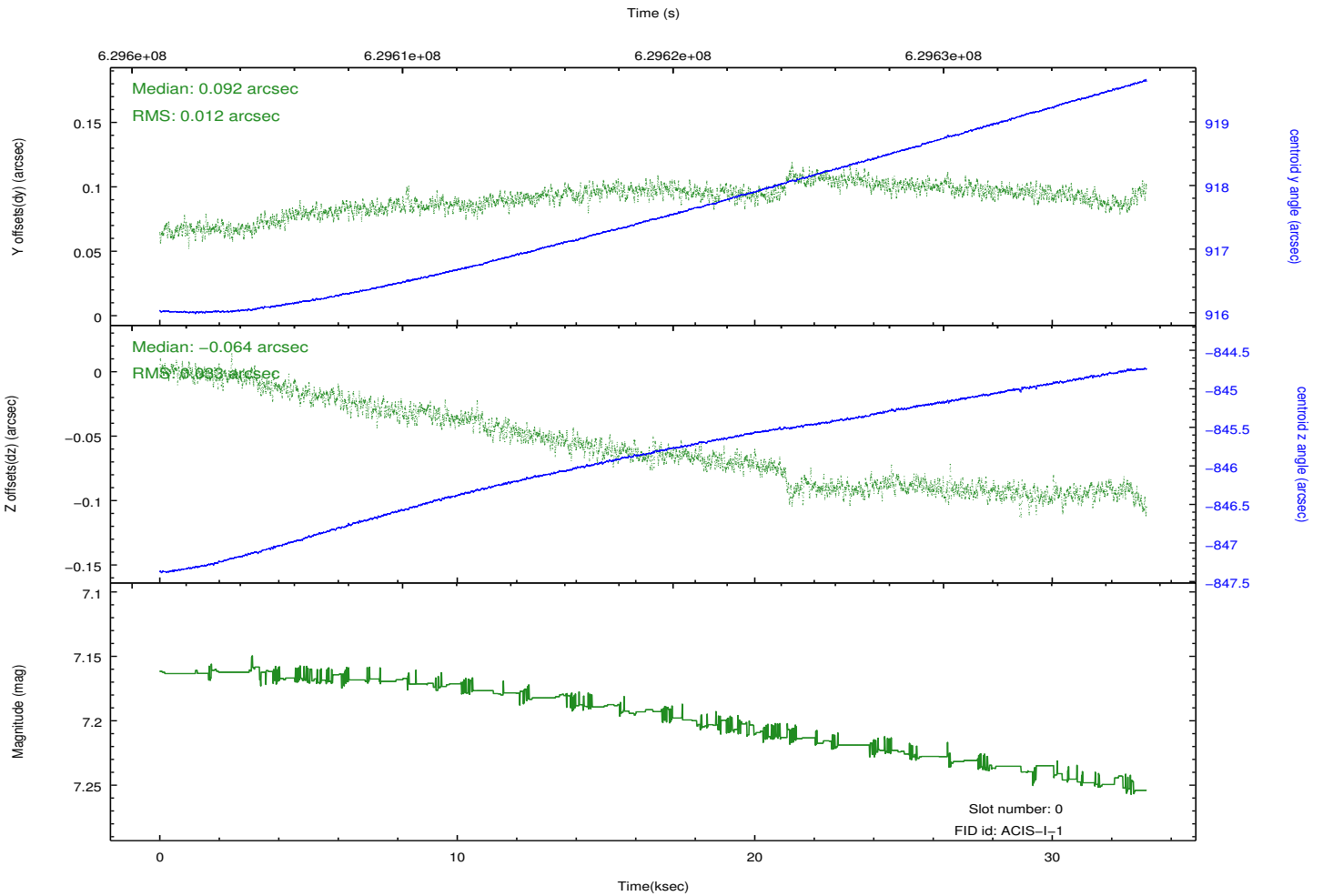
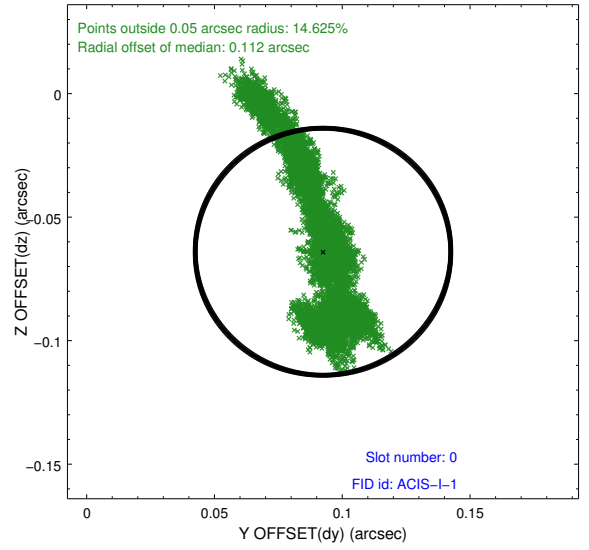
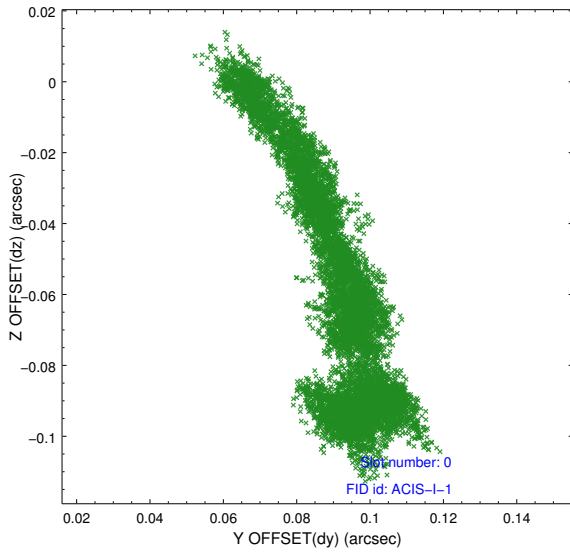


2.4.5 Slot 7

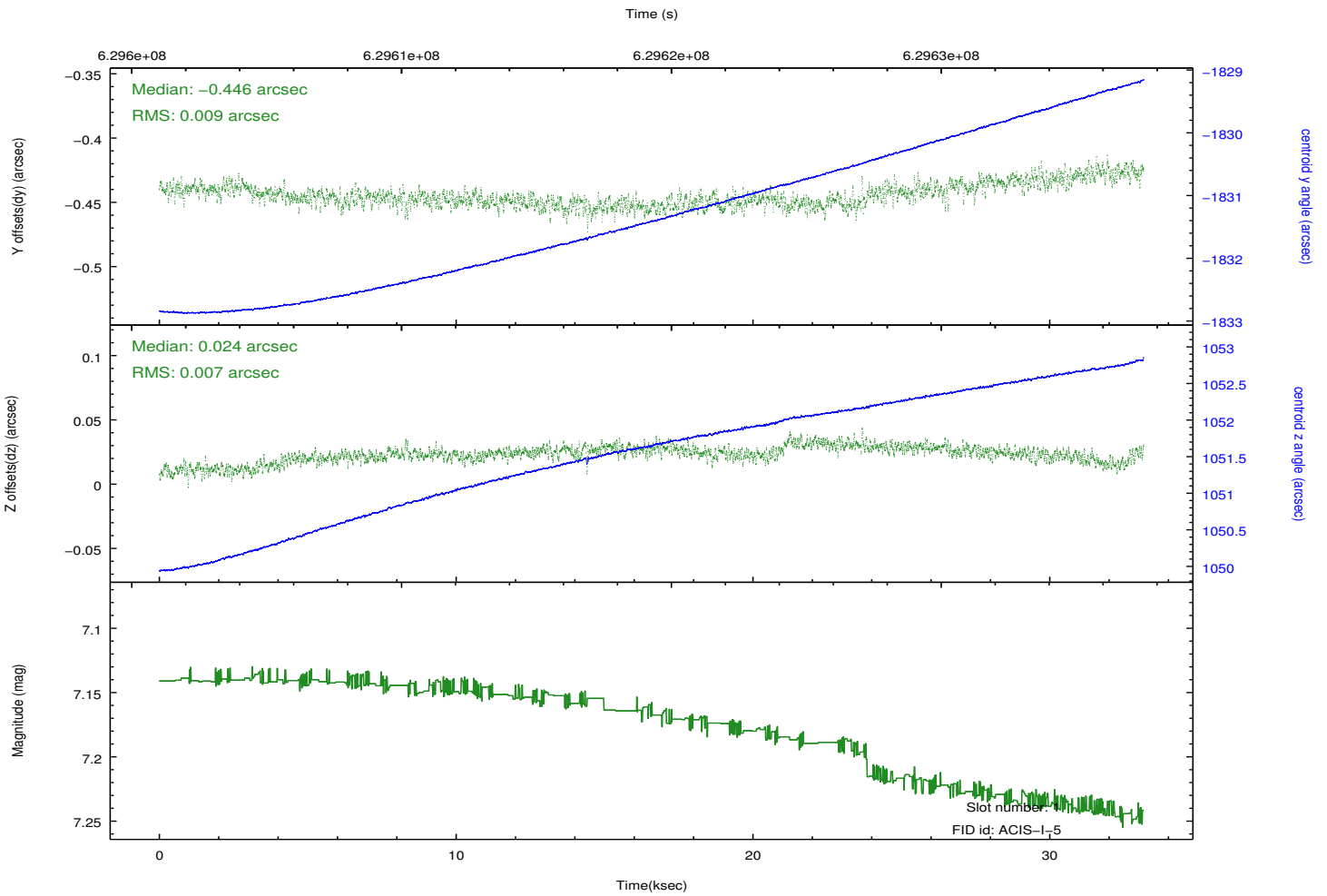
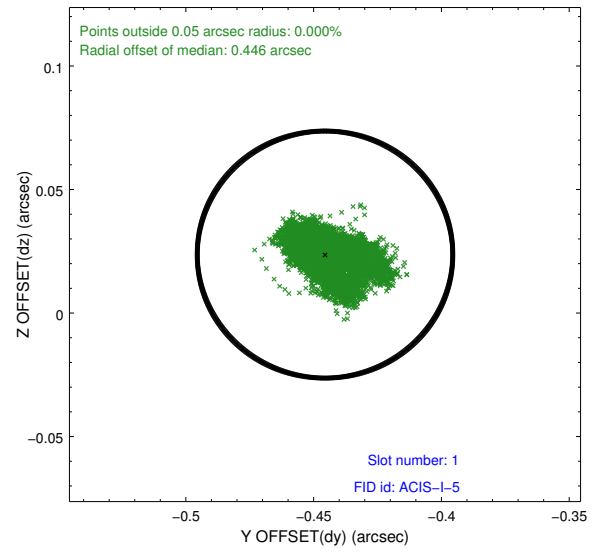
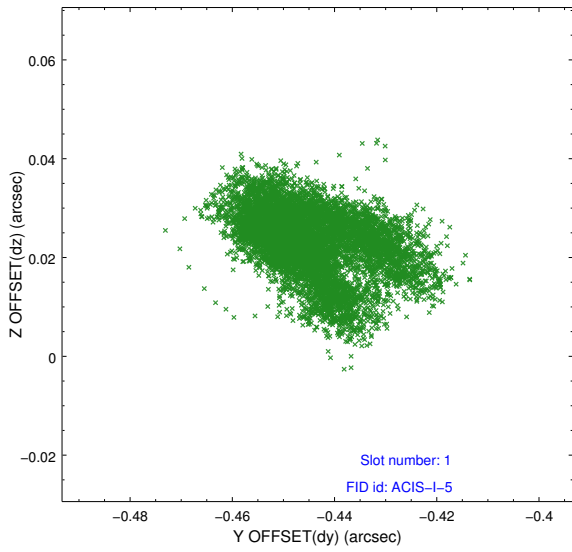


2.5 FID Slots

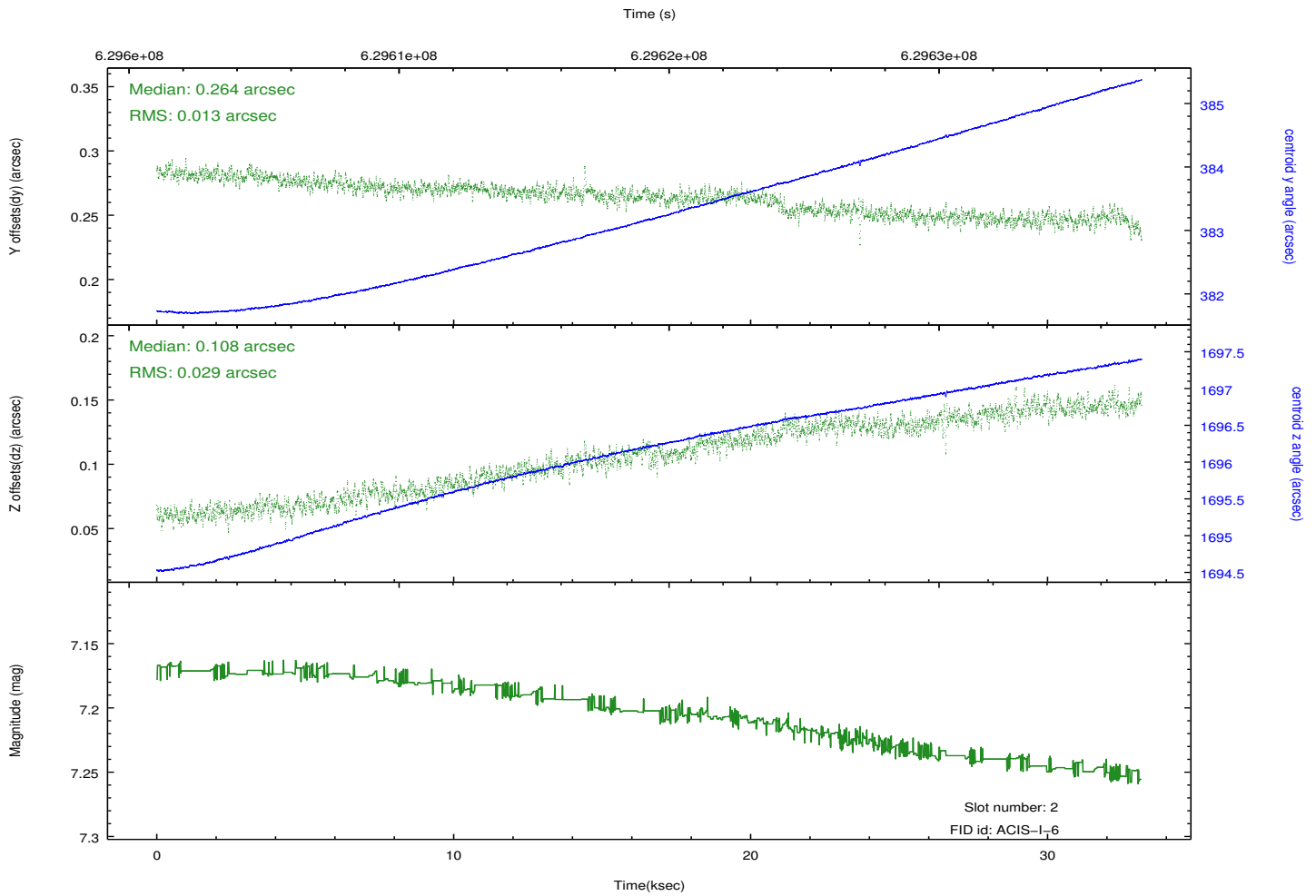
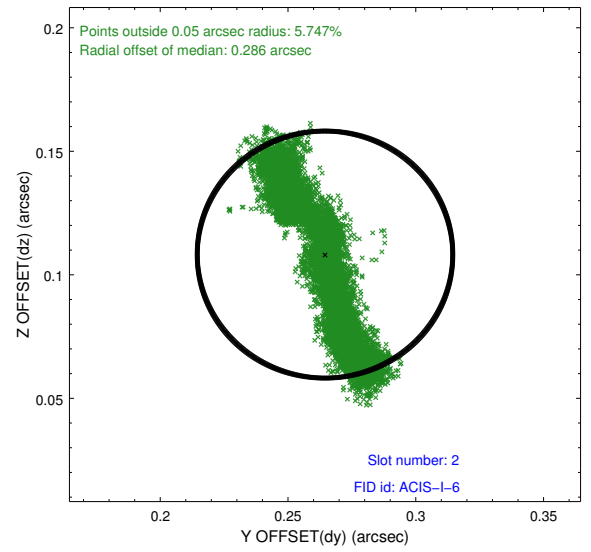
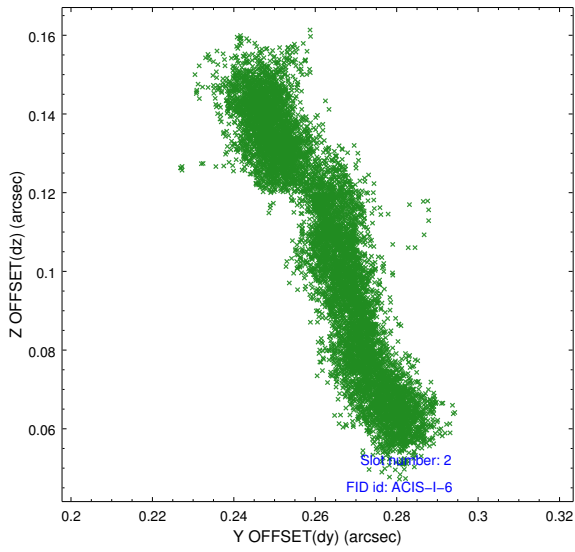
2.5.1 Slot 0



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)	2017.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.08320025456

A.2 Comments

Joint proposal with NOAO.

A spatial region of the original bias map for CCD = 3 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 3 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords: (83.73522,-4.94121), (83.73556,-4.94474), (83.78009,-4.94031), (83.78138,-4.93662).