

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14532 - L2 Version 2
Chandra X-Ray Center

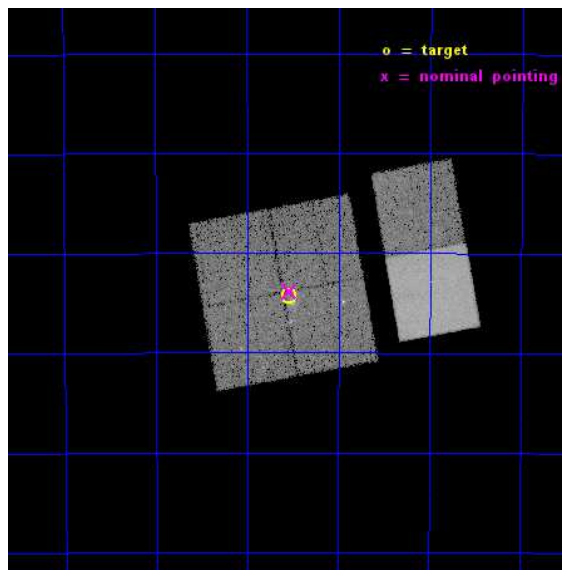
L2 Processing Date : Dec 1 2014

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

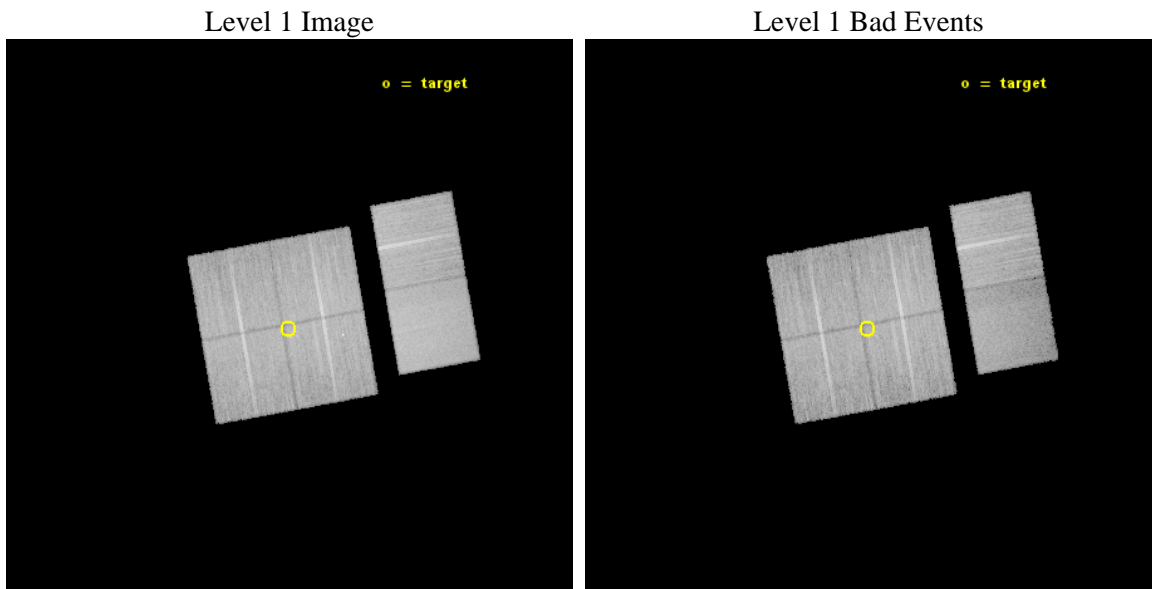
seq_num	200835	Sequence number
obs_id	14532	Observation id
title	An End in Fire: the Demise of a Massive Infrared Dark Cloud	Propos
observer	Dr. Leisa Townsley	Principal investigator
object	G333.3-0.4	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	245.385833	Observer's specified target RA [deg]
dec_targ	-50.405639	Observer's specified target Dec [deg]
ra_nom	245.38423815779	Nominal RA [deg]
dec_nom	-50.397634589656	Nominal Dec [deg]
roll_nom	79.807461005465	Nominal Roll [deg]
revision	2	Processing version of data
ontime	28566.399893641	Sum of GTIs [s]
livetime	28204.674937567	Livetime [s]
ontime0	28566.399893641	Sum of GTIs [s]
ontime1	28566.399893641	Sum of GTIs [s]
ontime2	28566.399893641	Sum of GTIs [s]
ontime3	28566.399893641	Sum of GTIs [s]
ontime6	28563.158923268	Sum of GTIs [s]
ontime7	28566.399893641	Sum of GTIs [s]
l2events	155990	Number of level 2 events



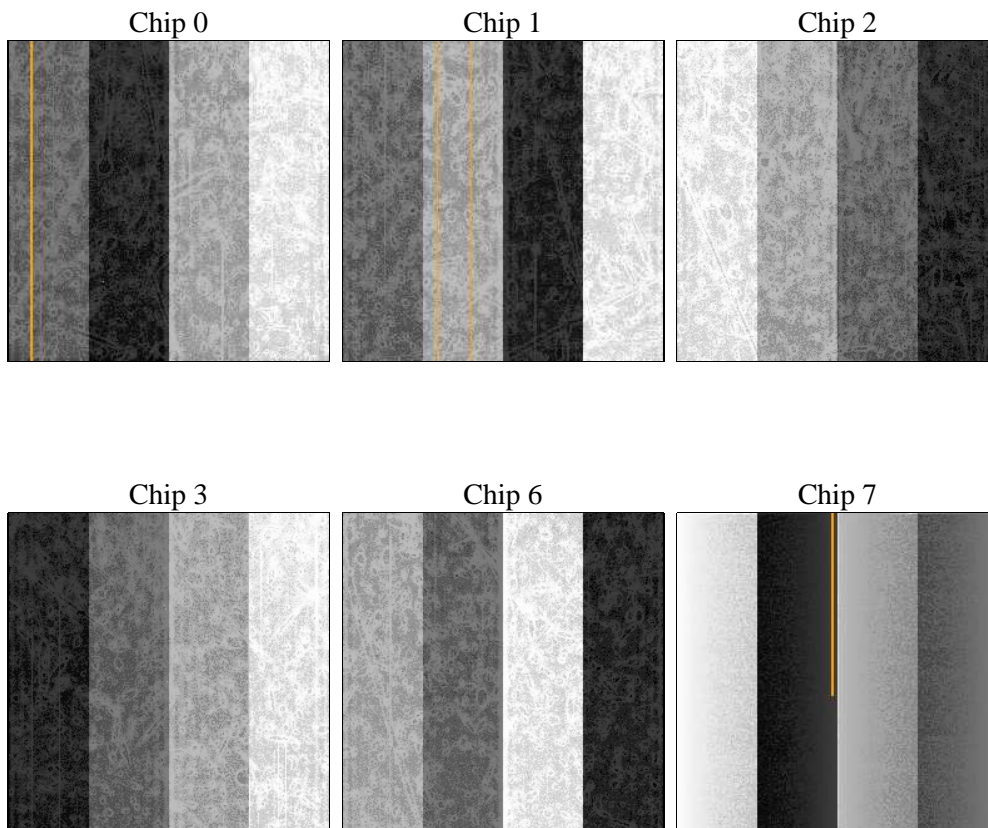
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	28600.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	28566.399893641	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	28566.399893641	Sum of GTIs [s]
date	2014-12-01T17:10:34	Date and time of file creation	ontime1	28566.399893641	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	28566.399893641	Sum of GTIs [s]
			ontime3	28566.399893641	Sum of GTIs [s]
			ontime6	28563.158923268	Sum of GTIs [s]
			ontime7	28566.399893641	Sum of GTIs [s]
			l1events	880319	Number of level 1 events

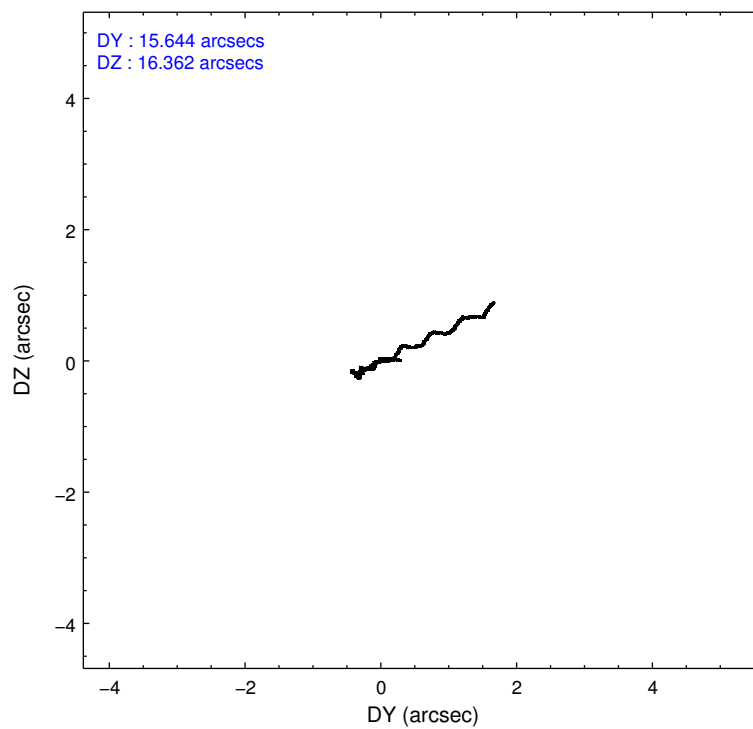
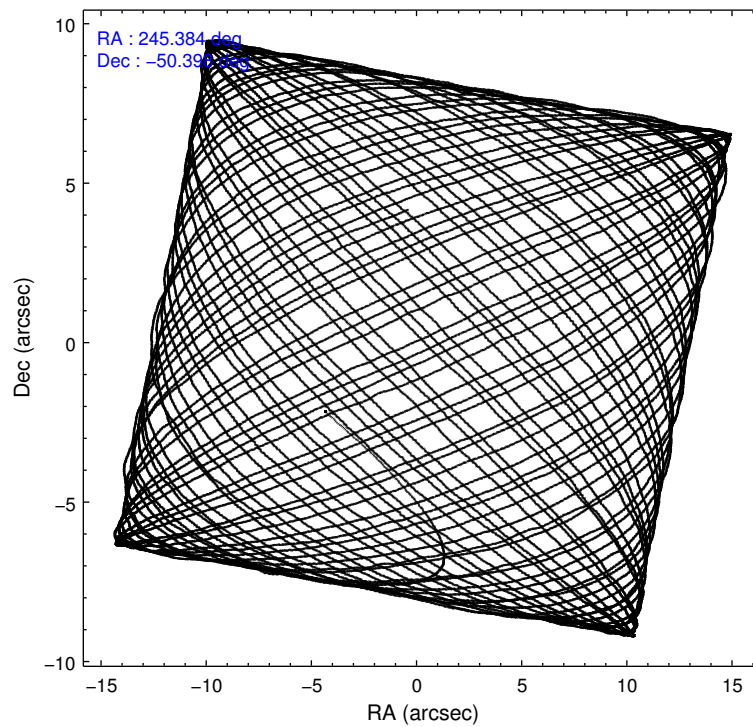
2.1.4 Events

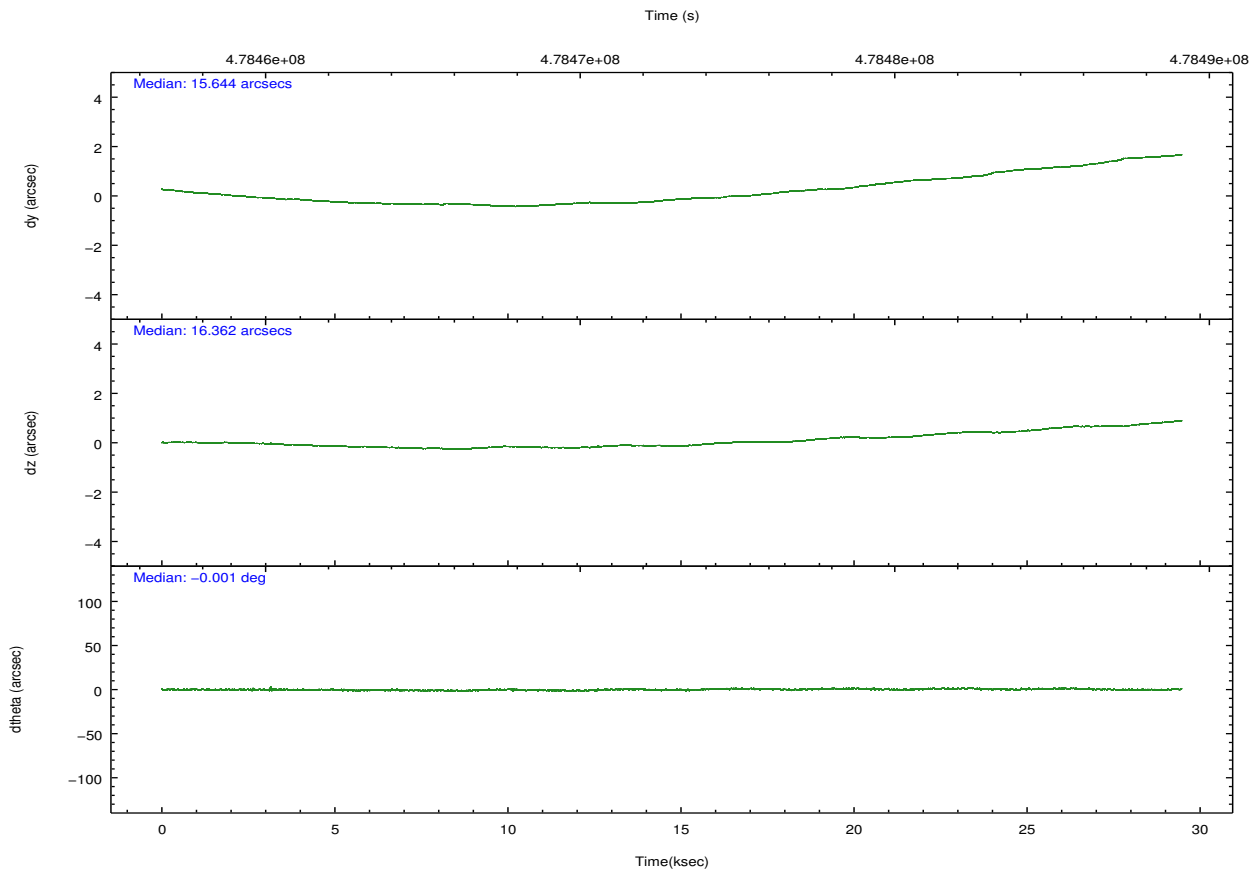
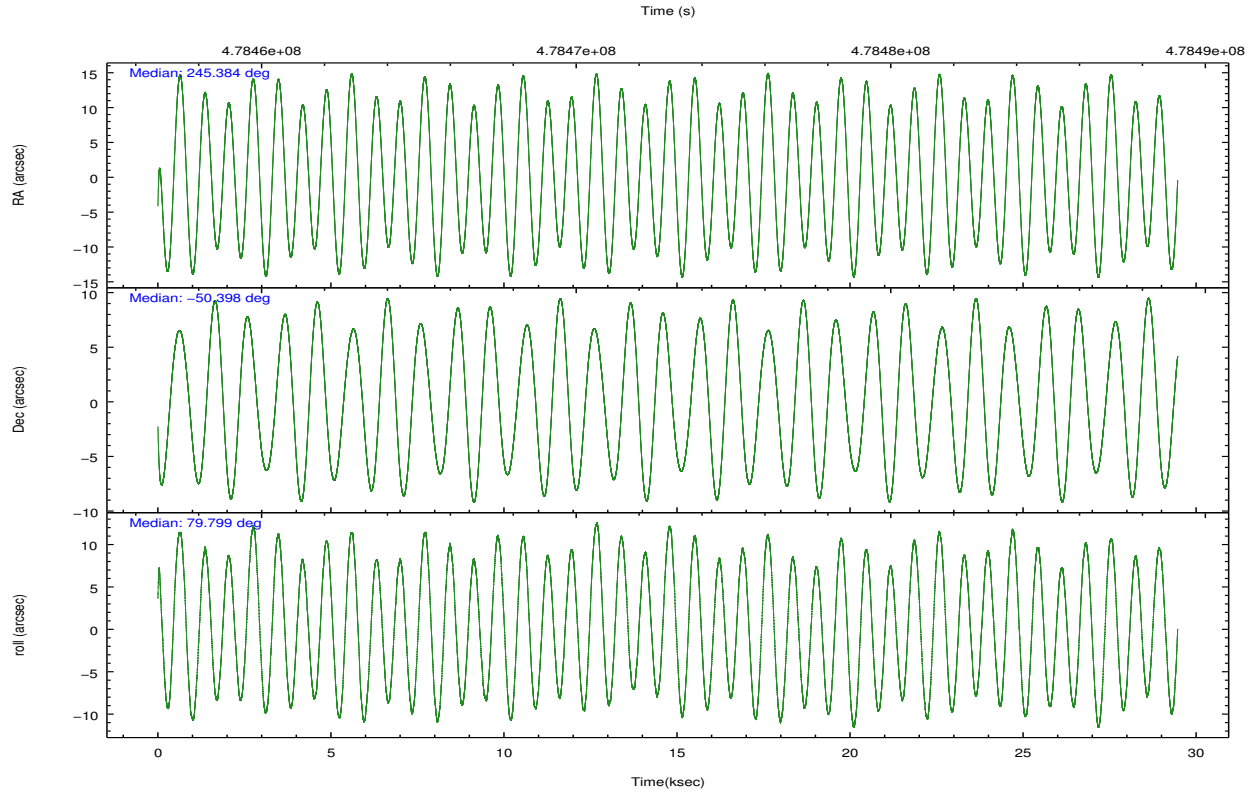
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	132637	133811	149129	142952	153460	168330	grade 0 events	6663	7266	6908	7697	7156	8109
rejected events	114840	114832	131666	124511	134713	86997		5%	5%	4%	5%	4%	4%
rejected %	86%	85%	88%	87%	87%	51%	grade 1 events	81	73	84	81	68	246
								0%	0%	0%	0%	0%	0%
							grade 2 events	4380	4357	4273	3822	4199	17474
								3%	3%	2%	2%	2%	10%
							grade 3 events	1823	1836	1565	1845	1852	7377
								1%	1%	1%	1%	1%	4%
							grade 4 events	1673	1787	1723	1816	1726	7388
								1%	1%	1%	1%	1%	4%
							grade 5 events	5554	6195	5289	6590	6579	18226
								4%	4%	3%	4%	4%	10%
							grade 6 events	3259	3740	3002	3266	3816	41009
								2%	2%	2%	2%	2%	24%
							grade 7 events	109204	108557	126285	117835	128064	68501
								82%	81%	84%	82%	83%	40%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	245.399059	245.3842381577898	CCD I2 on	Y	Y
[deg] Pointing Dec	-50.423457	-50.39763458965628	CCD I3 on	Y	Y
[deg] Pointing Roll	79.610191	79.80746100546509	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	478459044.184000	478457434.52755	CCD S5 on	N	N
Observation start date	2013-02-28T17:16:17	2013-02-28T16:50:34	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	478487644.184000	478488460.25423	On-chip summing requested	N	N
Observation end date	2013-03-01T01:12:57	2013-03-01T01:27:40	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





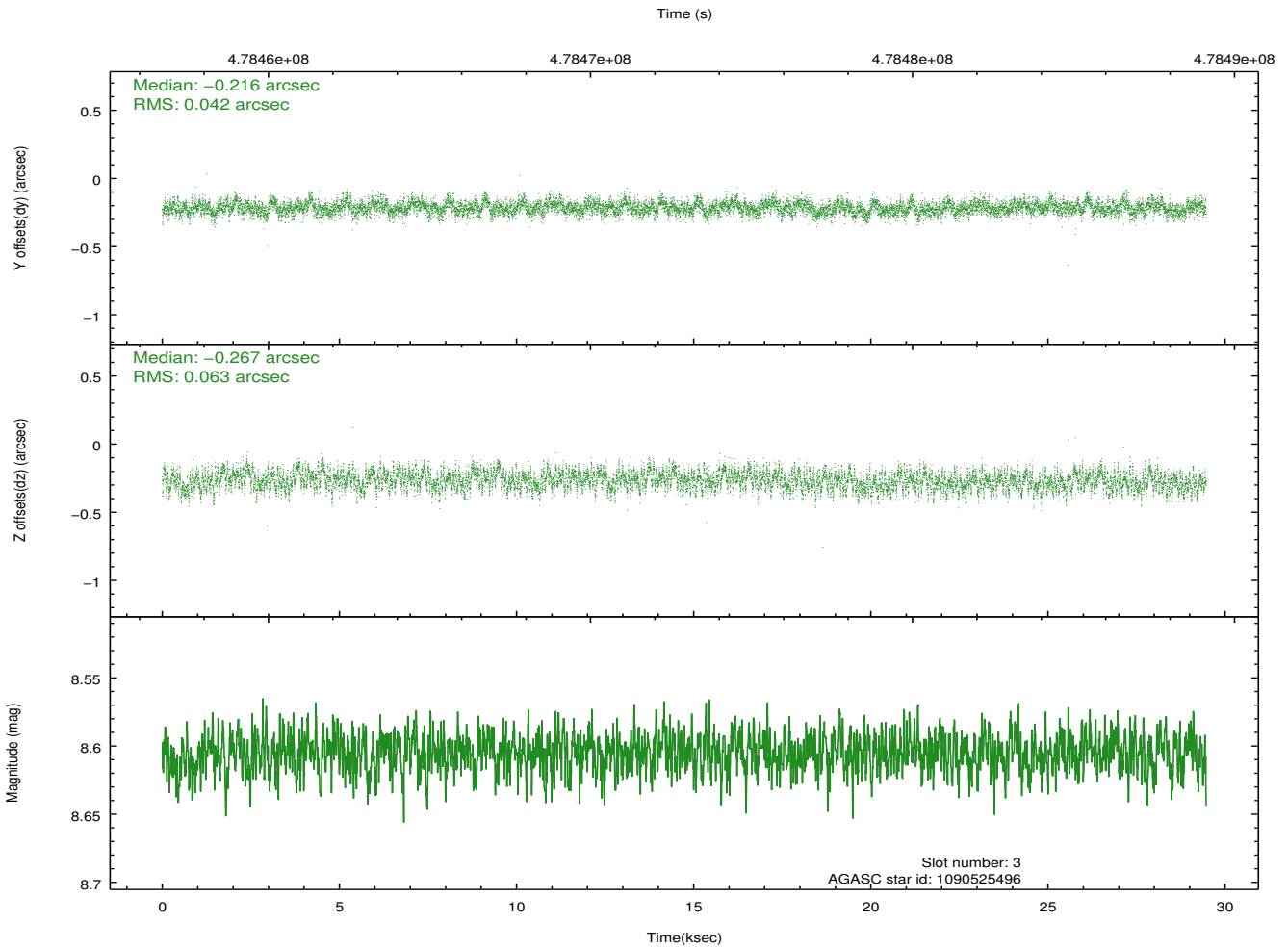
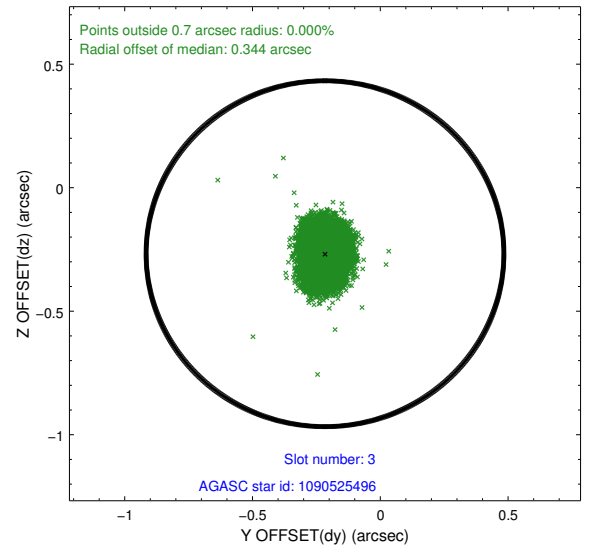
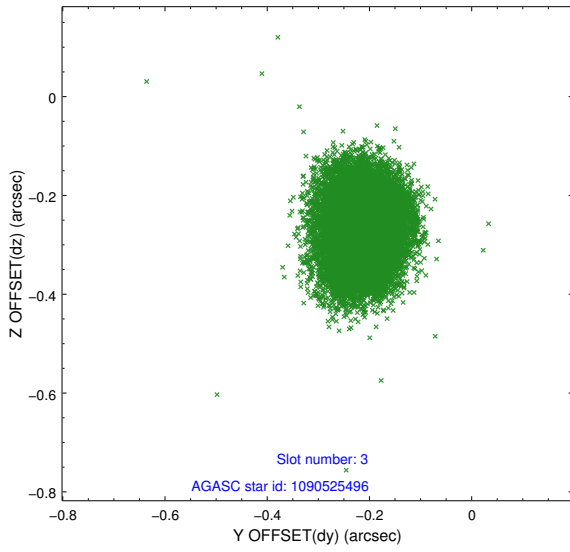
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.06	7187	0.063	-0.037	0.011	0.020	0.000000	0.000000	923.61	-840.14
1	FID		ACIS-I-5	7.05	7187	-0.220	0.062	0.009	0.025	0.000000	0.000000	-1824.72	1057.43
2	FID		ACIS-I-6	7.05	7185	0.066	0.045	0.012	0.025	0.000000	0.000000	389.10	1701.98
3	GUIDE	used	1090525496	8.61	14373	-0.216	-0.267	0.080	0.129	244.777039	-50.152945	693.09	1585.75
4	GUIDE	used	1090525744	8.20	14365	0.043	0.082	0.082	0.132	245.649389	-50.543894	-323.99	-641.30
5	GUIDE	used	1090921280	9.10	14356	0.158	-0.512	0.091	0.155	244.365071	-50.638328	-1202.68	2178.92
6	GUIDE	used	1091065936	8.81	14352	0.071	0.408	0.108	0.173	246.363156	-50.698332	-590.30	-2342.75
7	GUIDE	used	1091064768	8.68	14354	-0.056	0.293	0.108	0.167	246.317691	-50.745822	-776.33	-2269.75

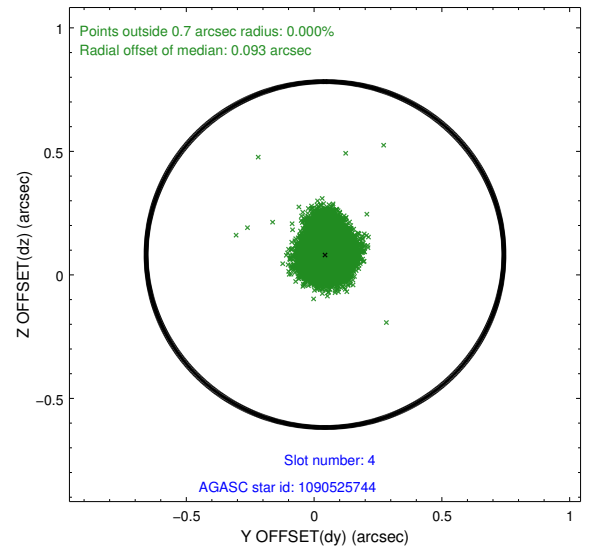
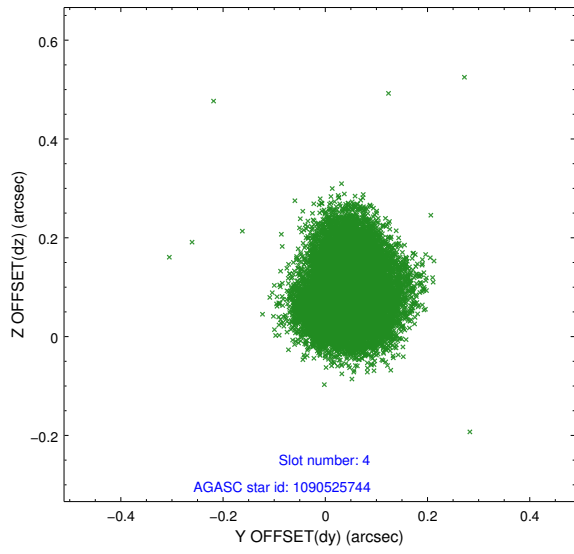
∞

2.4 Star Slots

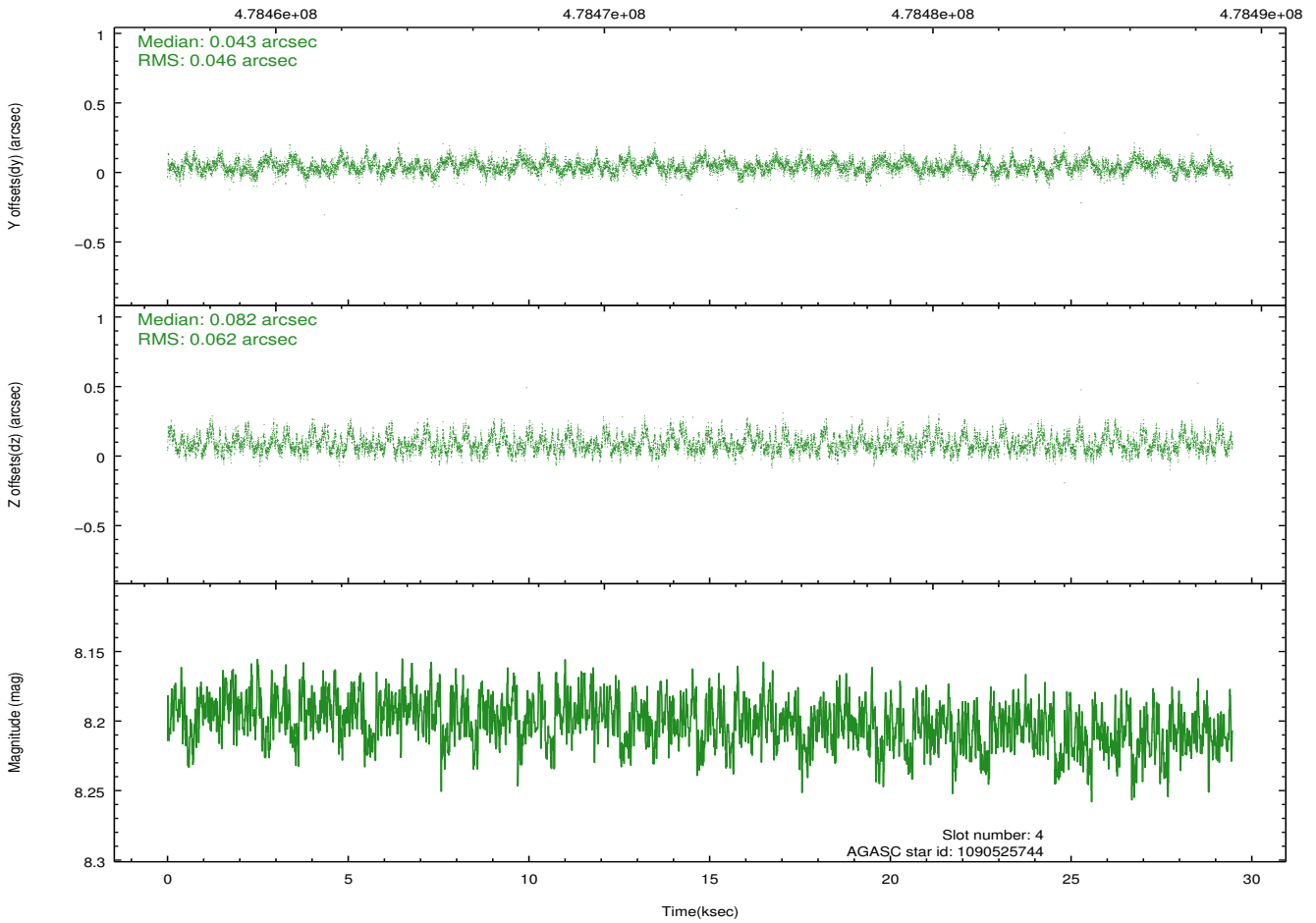
2.4.1 Slot 3



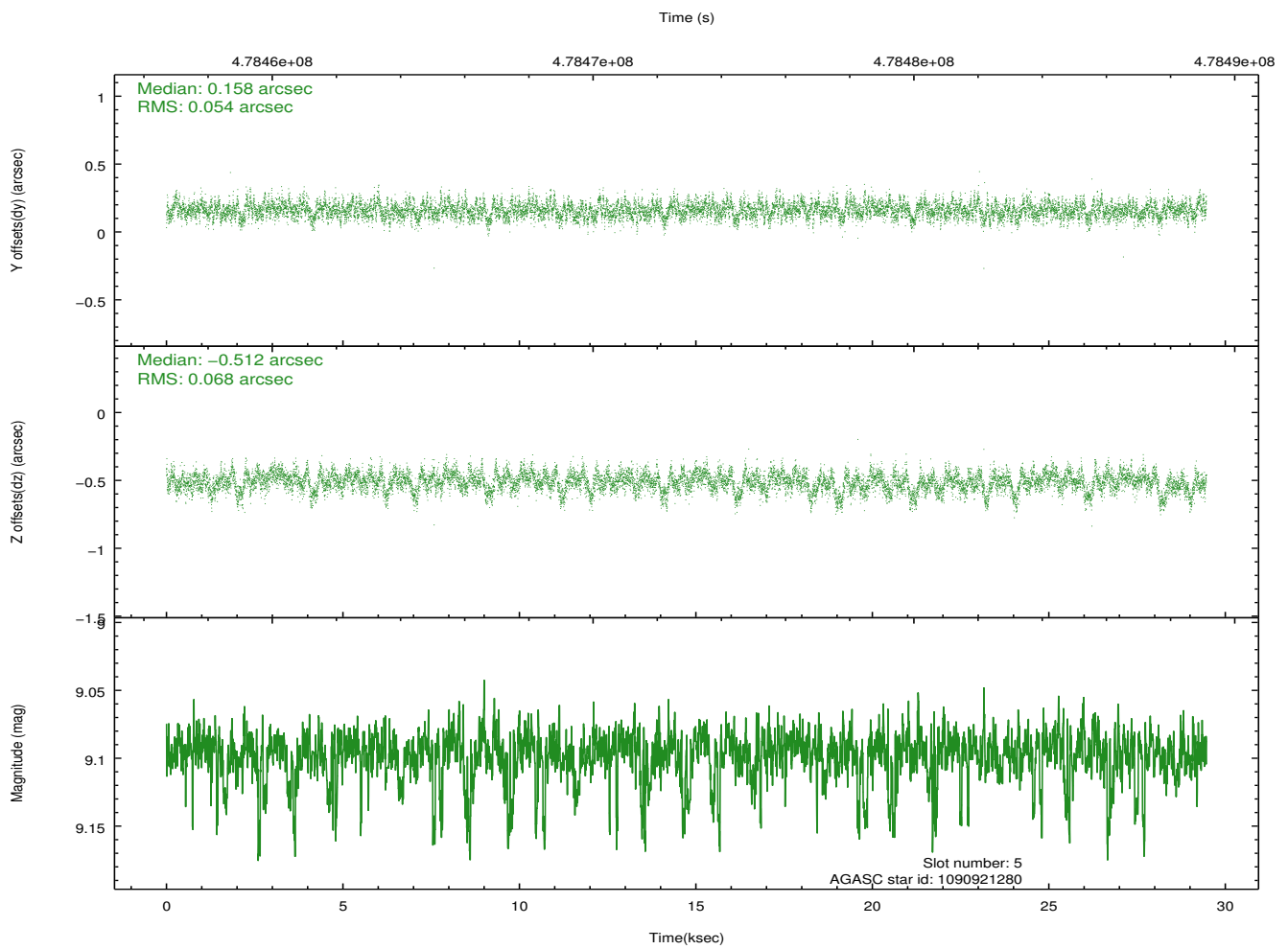
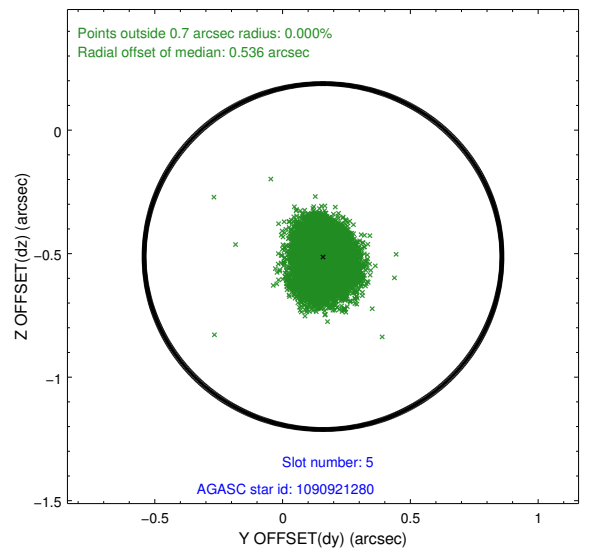
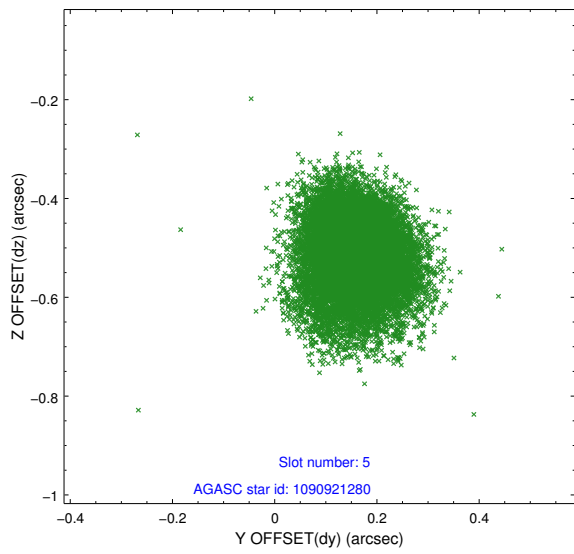
2.4.2 Slot 4



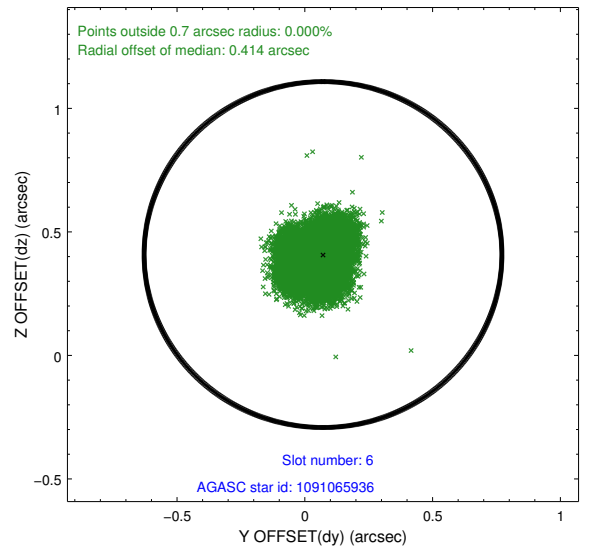
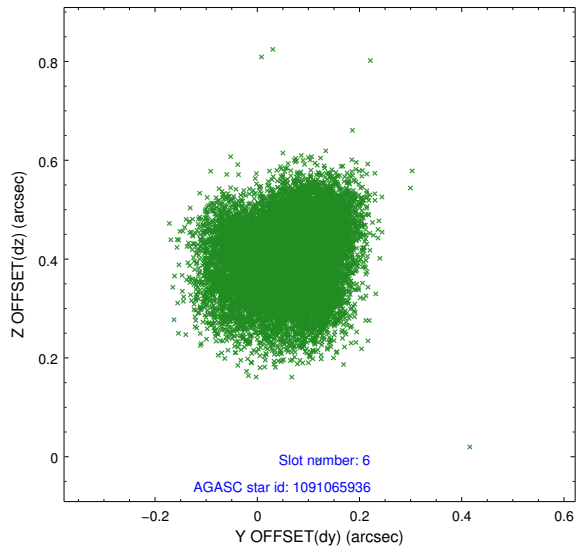
Time (s)



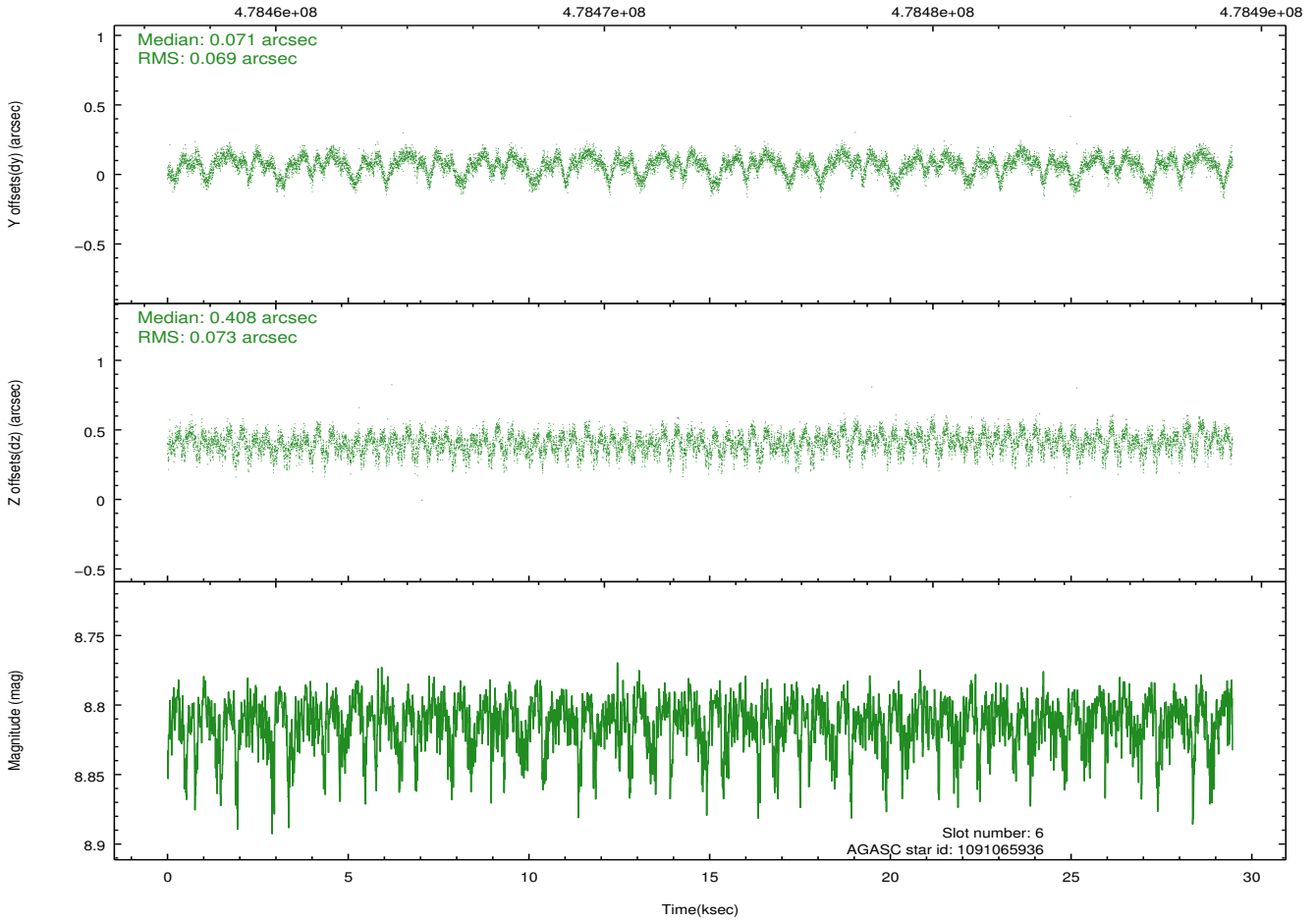
2.4.3 Slot 5



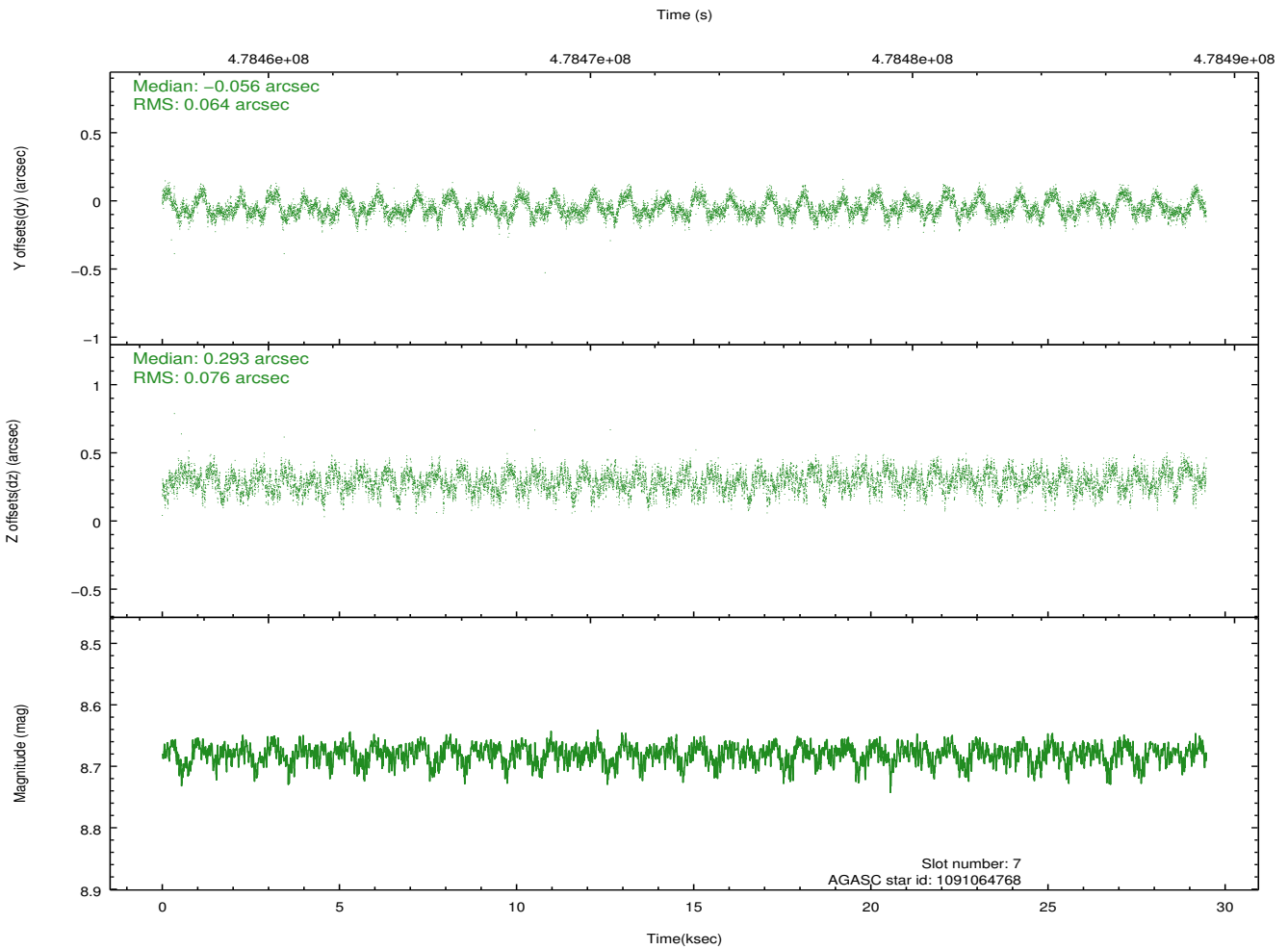
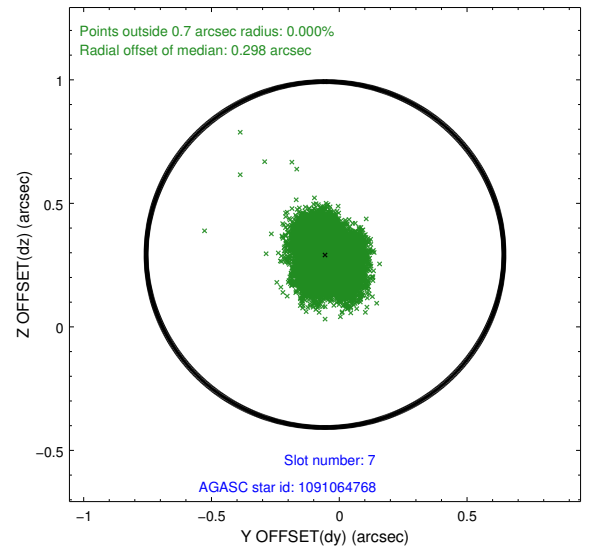
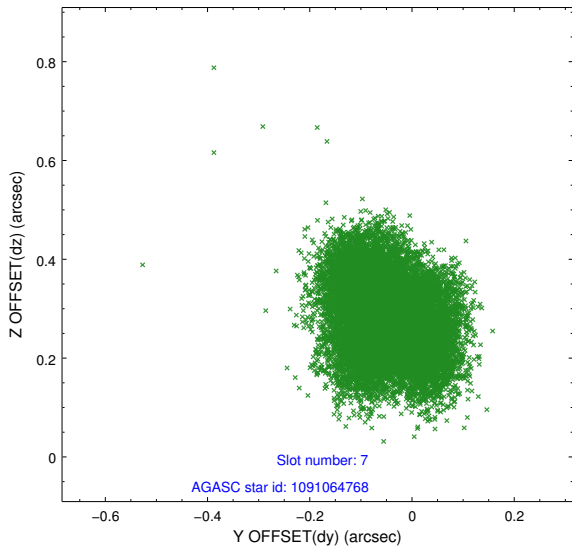
2.4.4 Slot 6



Time (s)

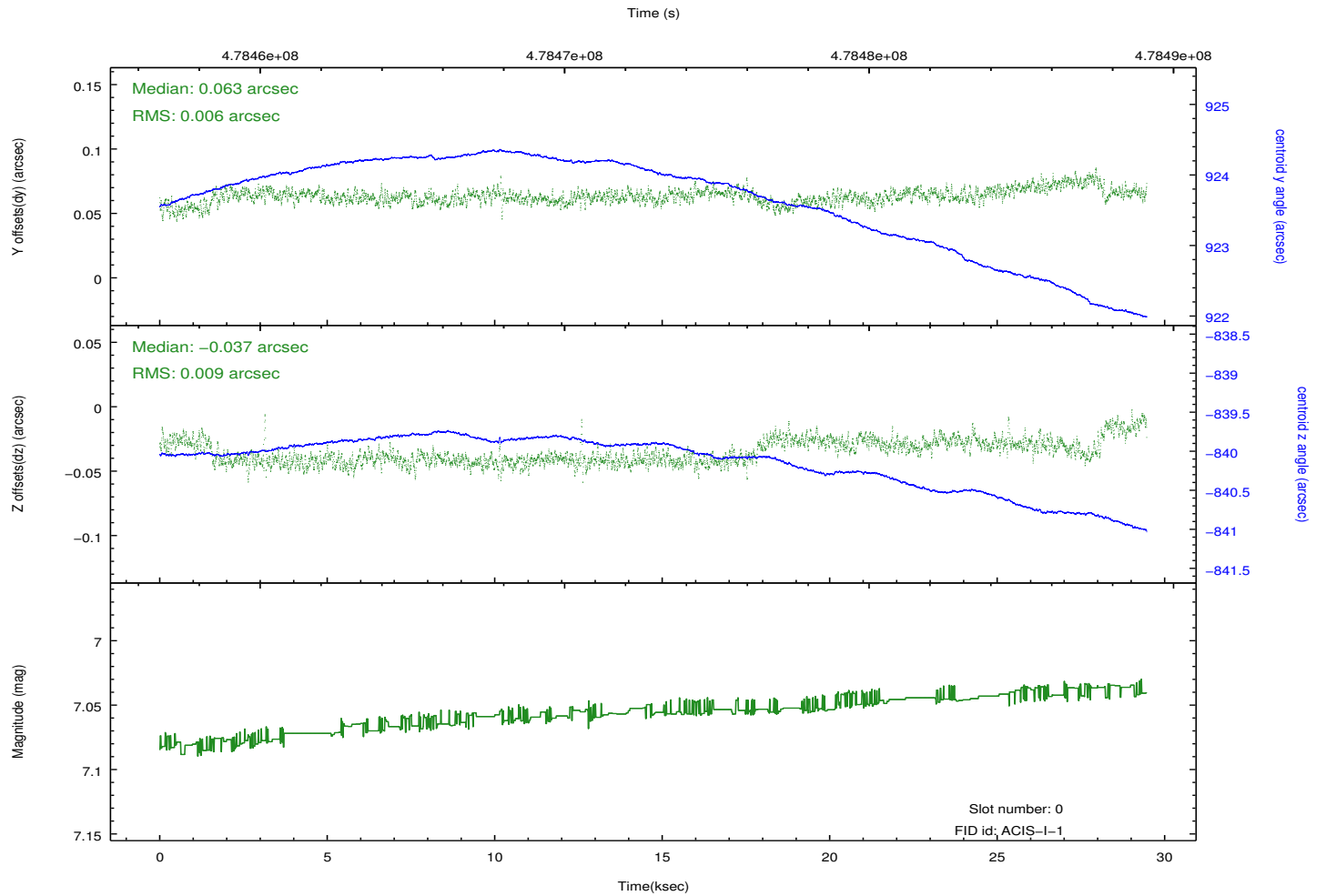
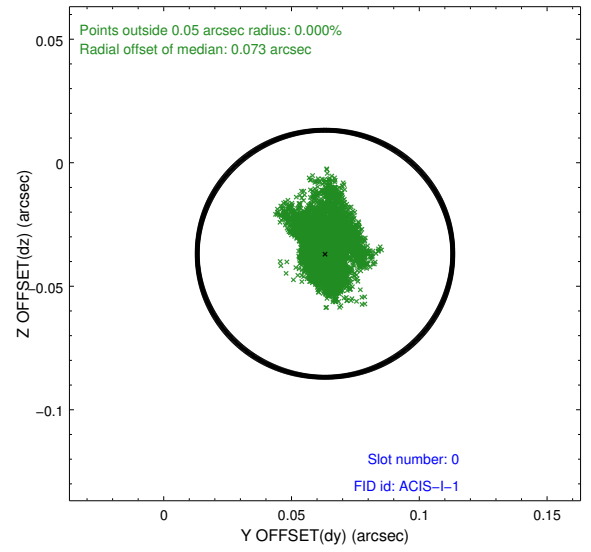
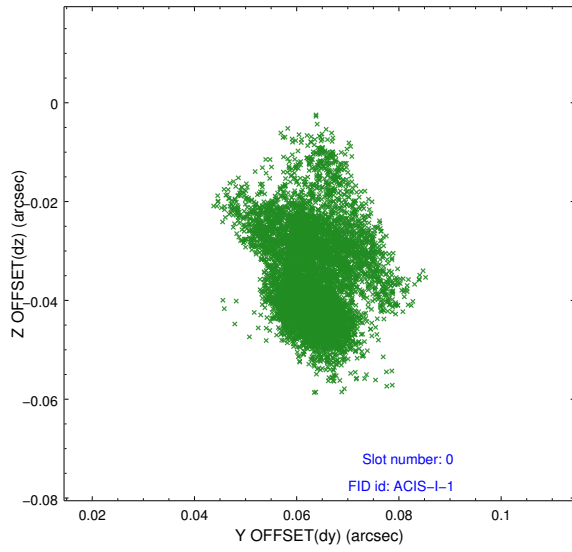


2.4.5 Slot 7

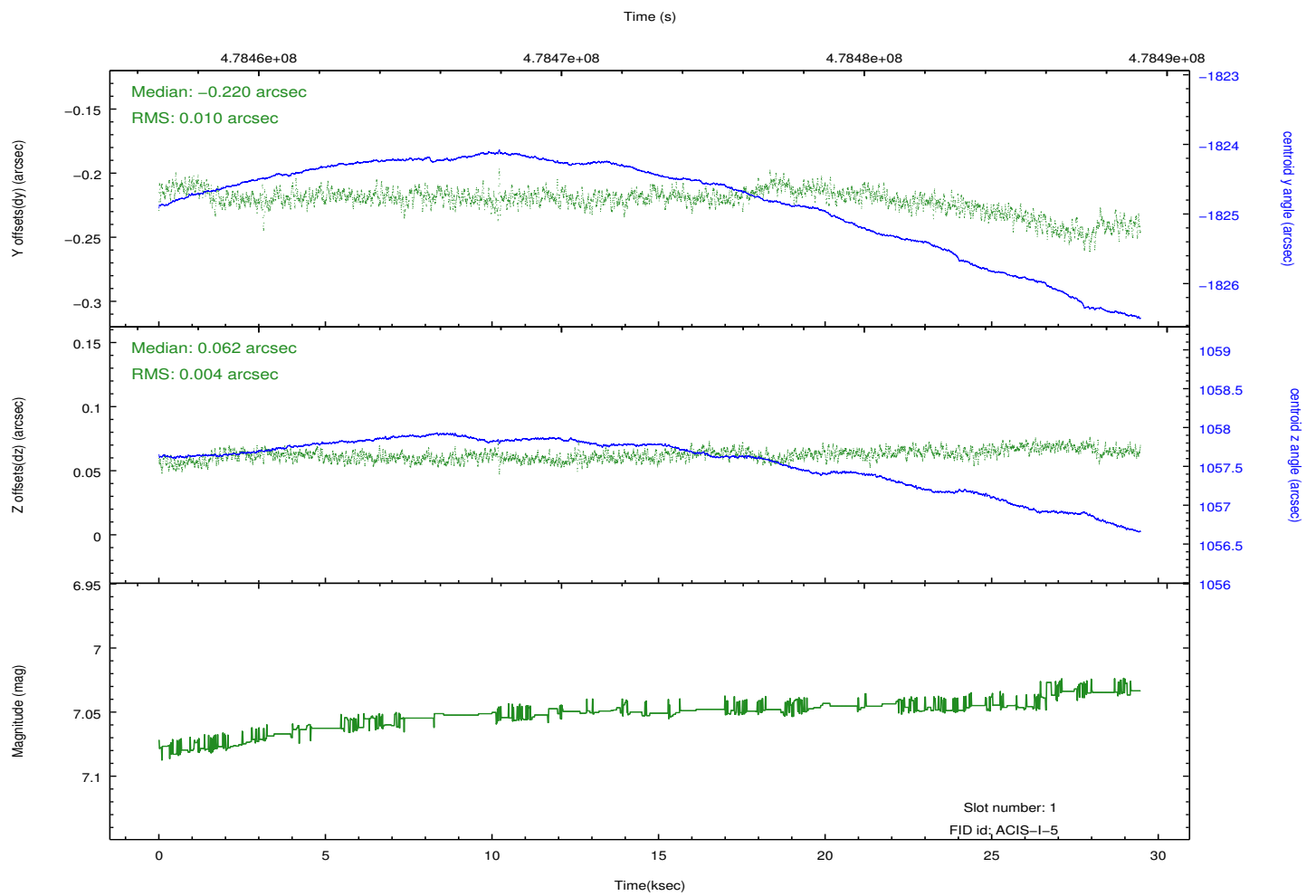
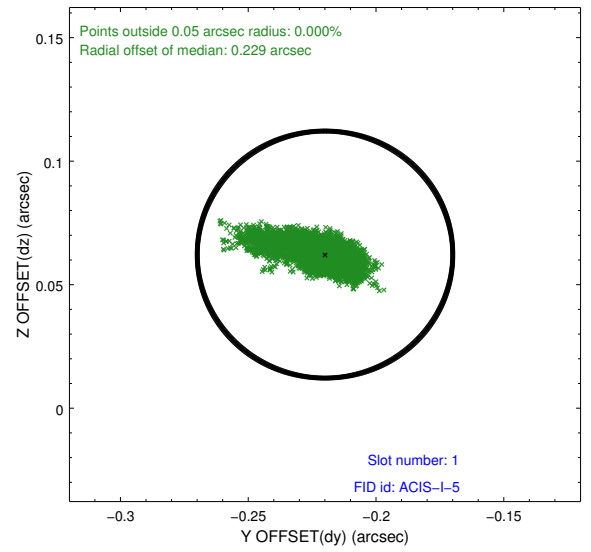
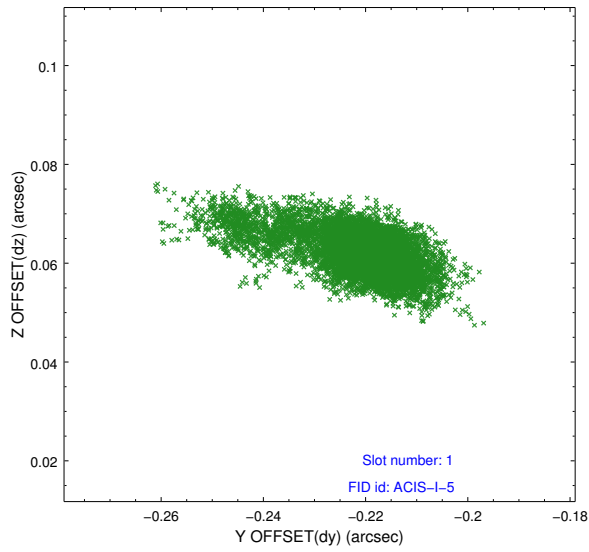


2.5 FID Slots

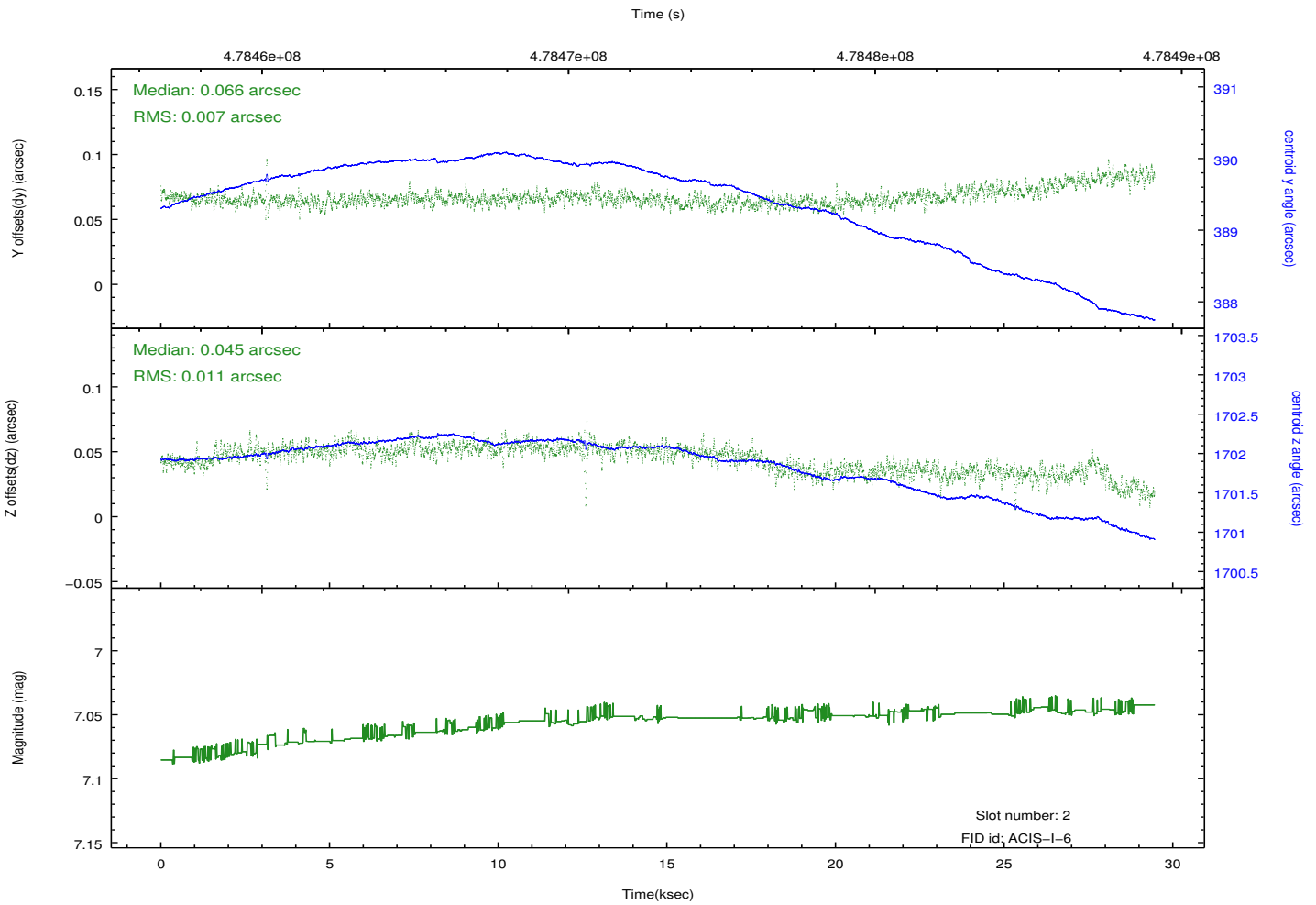
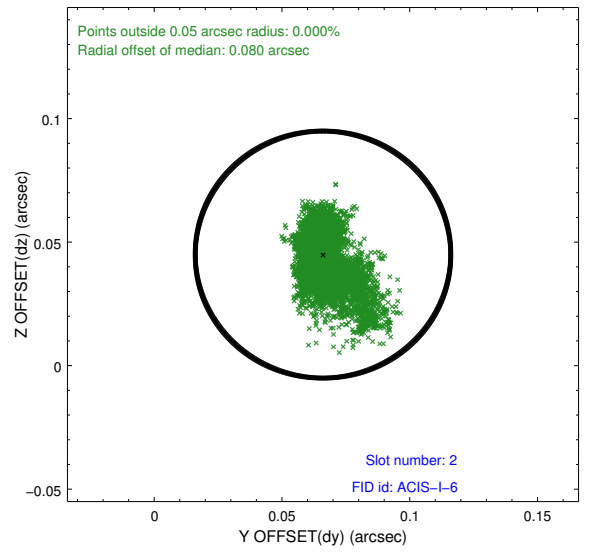
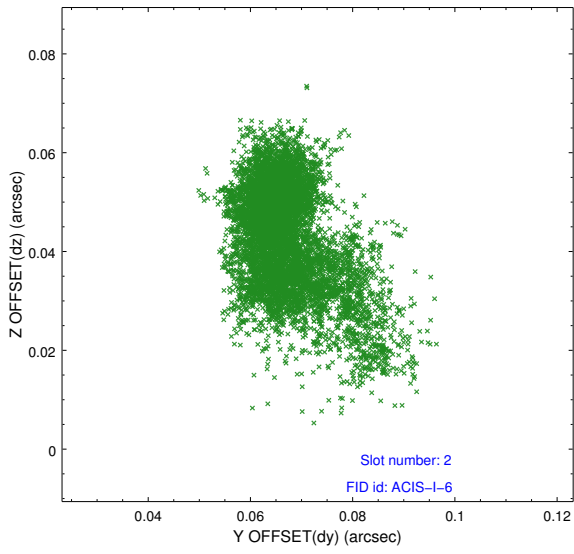
2.5.1 Slot 0



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	28.566399893641

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.