

V&V Reference Report

L2 ASCDS Version : 10.3.3

Observation 17496 - L2 Version 2
Chandra X-Ray Center

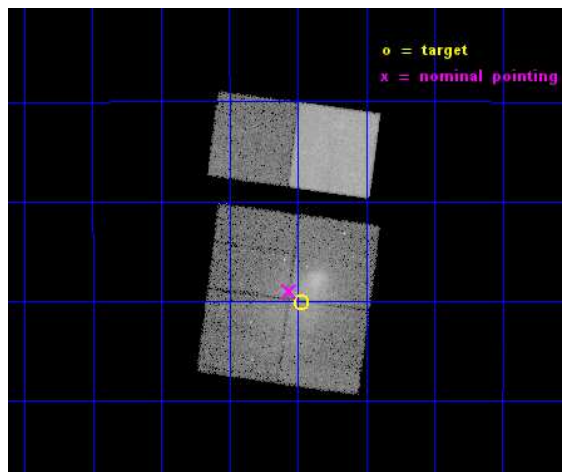
L2 Processing Date : Jan 29 2015

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1 Front

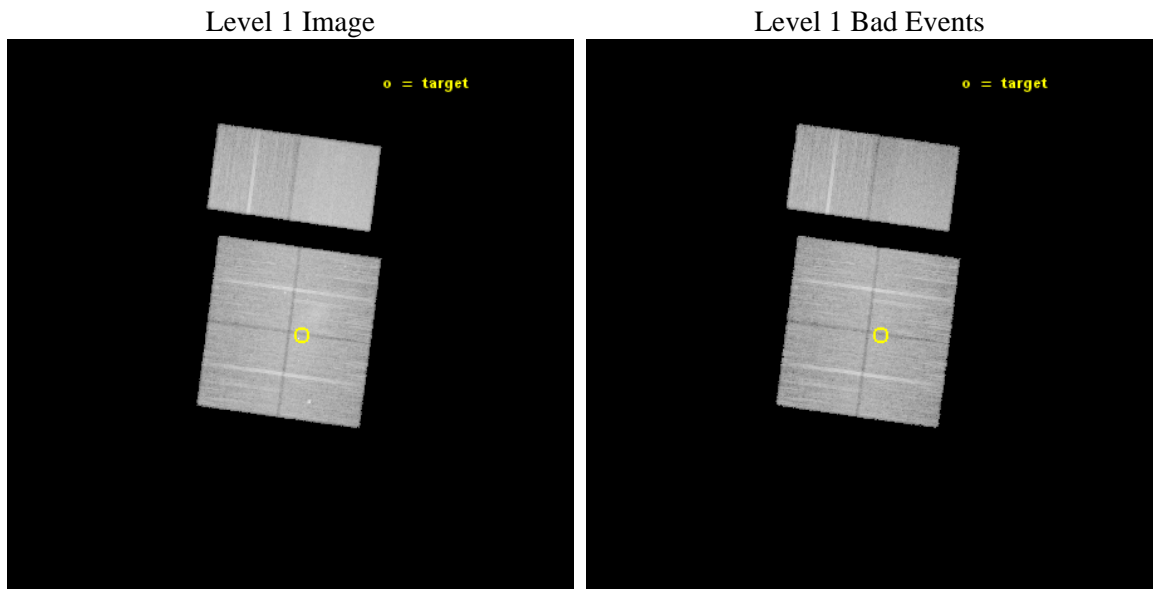
seq_num	801476	Sequence number
obs_id	17496	Observation id
title	Abell 3411: Confronting the Relic Shock Acceleration Mystery	Propo
observer	Dr Reinout van Weeren	Principal investigator
object	Abell 3411	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	130.49375	Observer's specified target RA [deg]
dec_targ	-17.503472	Observer's specified target Dec [deg]
ra_nom	130.51518353612	Nominal RA [deg]
dec_nom	-17.48400515039	Nominal Dec [deg]
roll_nom	7.715128637126	Nominal Roll [deg]
revision	2	Processing version of data
ontime	31966.395583749	Sum of GTIs [s]
livetime	31561.617835015	Livetime [s]
ontime0	31969.595624089	Sum of GTIs [s]
ontime1	31966.395583749	Sum of GTIs [s]
ontime2	31969.677704096	Sum of GTIs [s]
ontime3	31969.71874404	Sum of GTIs [s]
ontime6	31966.559813738	Sum of GTIs [s]
ontime7	31969.759784102	Sum of GTIs [s]
l2events	197347	Number of level 2 events



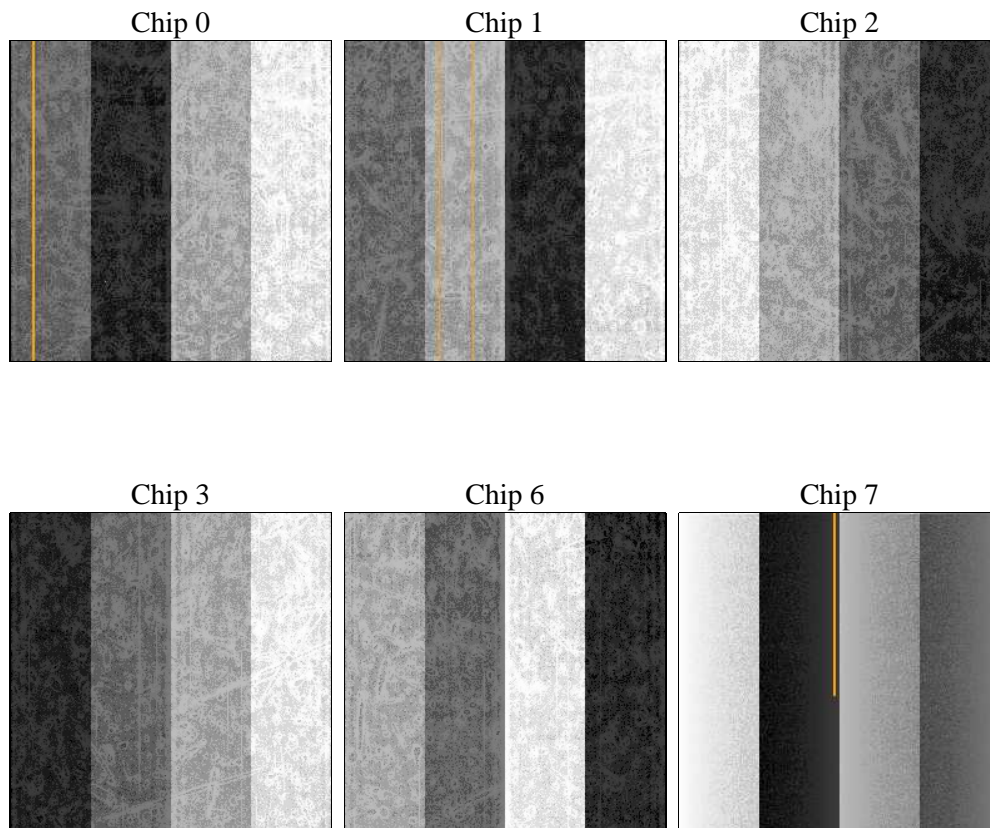
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	32000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	31966.395583749	Sum of GTIs [s]
caldsver	4.6.6	 	ontime0	31969.595624089	Sum of GTIs [s]
date	2015-01-29T22:12:22	Date and time of file creation	ontime1	31966.395583749	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	31969.677704096	Sum of GTIs [s]
			ontime3	31969.71874404	Sum of GTIs [s]
			ontime6	31966.559813738	Sum of GTIs [s]
			ontime7	31969.759784102	Sum of GTIs [s]
			l1events	1013368	Number of level 1 events

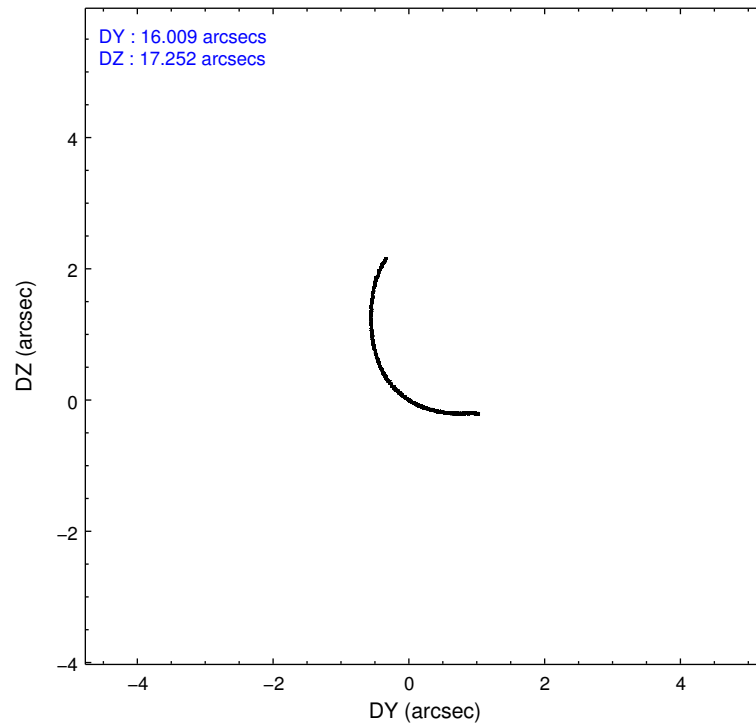
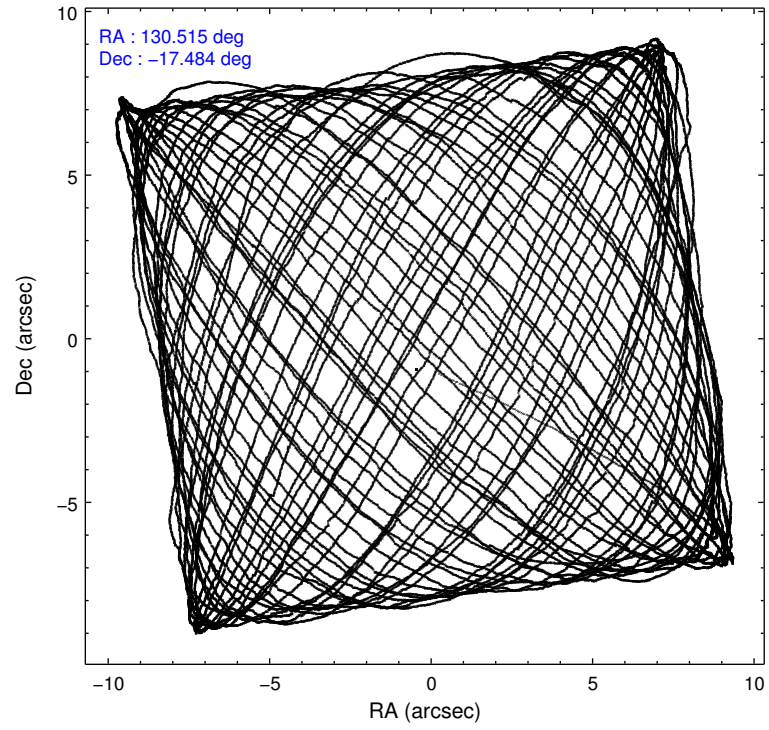
2.1.4 Events

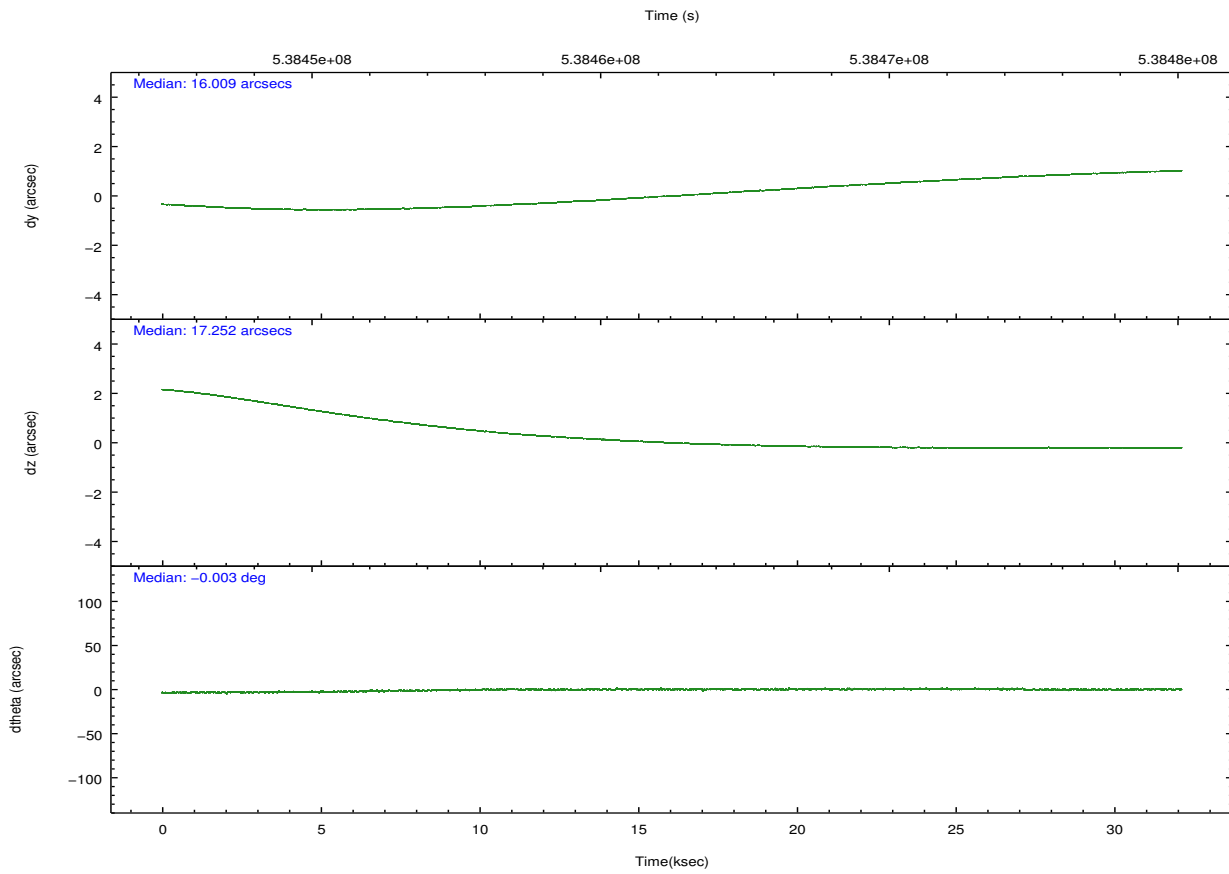
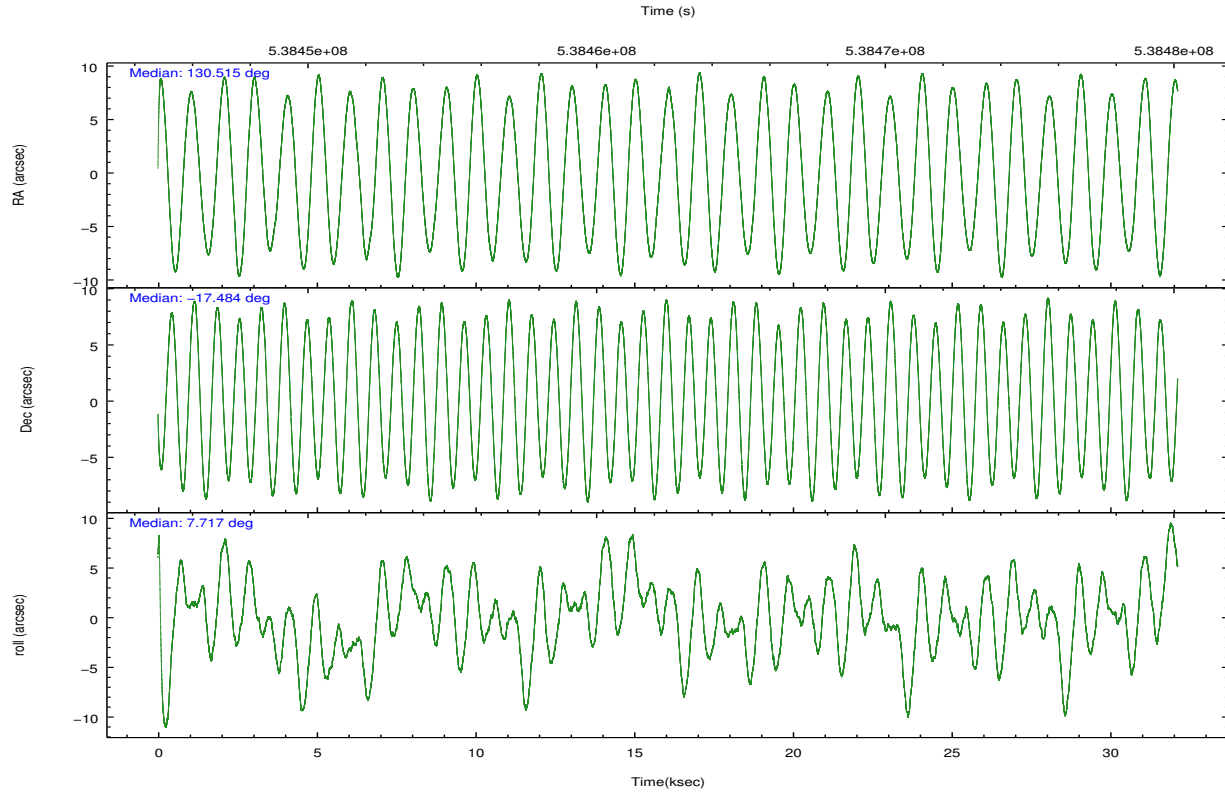
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	146679	155631	158003	173363	164121	215571	grade 0 events	9289	14246	8620	17252	6265	8138
rejected events	124739	126637	137265	141980	145084	121772		6%	9%	5%	9%	3%	3%
rejected %	85%	81%	86%	81%	88%	56%	grade 1 events	104	103	114	135	67	287
								0%	0%	0%	0%	0%	0%
							grade 2 events	4821	5707	4676	5365	4297	19654
								3%	3%	2%	3%	2%	9%
							grade 3 events	2028	2246	1926	2265	1916	7760
								1%	1%	1%	1%	1%	3%
							grade 4 events	1927	2191	1883	2325	1984	7648
								1%	1%	1%	1%	1%	3%
							grade 5 events	7499	7826	6948	8432	8222	21958
								5%	5%	4%	4%	5%	10%
							grade 6 events	3877	4604	3636	4177	4575	50607
								2%	2%	2%	2%	2%	23%
							grade 7 events	117134	118708	130200	133412	136795	99519
								79%	76%	82%	76%	83%	46%

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	130.492352	130.5151835361213	CCD I2 on	Y	Y
[deg] Pointing Dec	-17.500962	-17.48400515039033	CCD I3 on	Y	Y
[deg] Pointing Roll	7.499577	7.715128637125987	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	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	538446505.184000	538445276.85041	CCD S5 on	N	N
Observation start date	2015-01-24T00:27:18	2015-01-24T00:07:56	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	538478505.184000	538479491.35232	On-chip summing requested	N	N
Observation end date	2015-01-24T09:20:38	2015-01-24T09:38:11	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



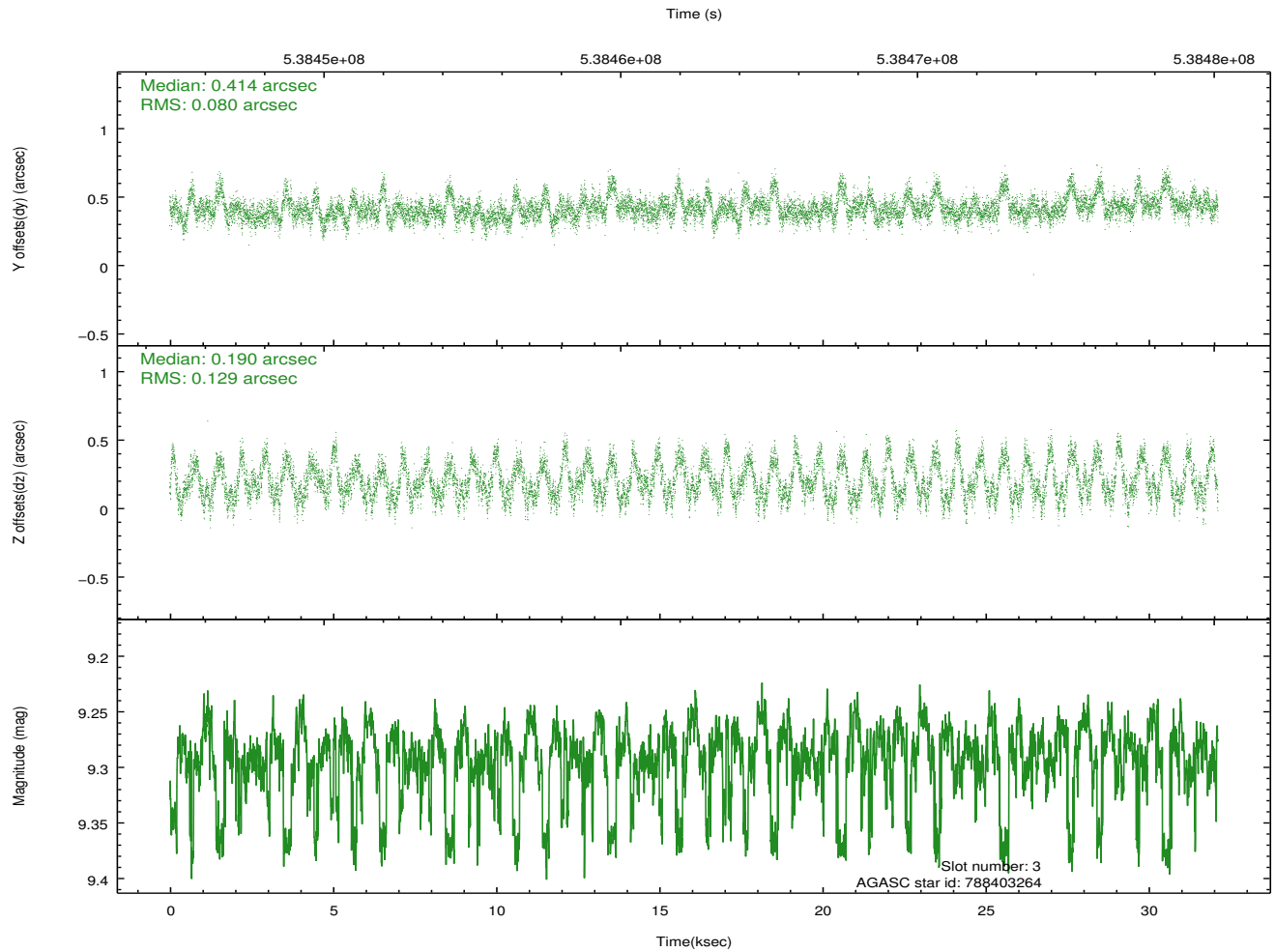
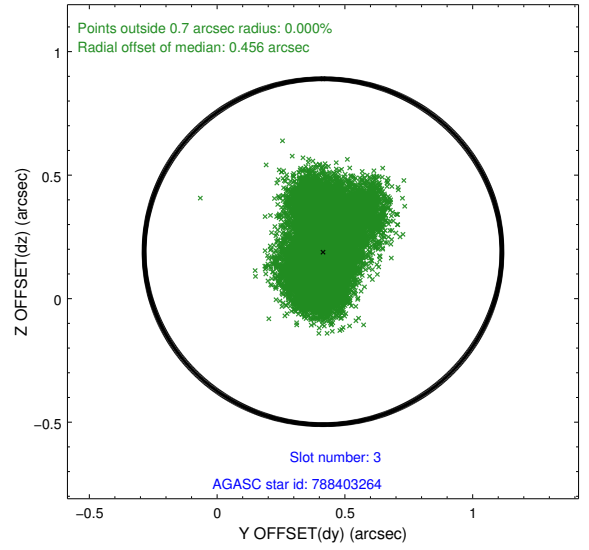
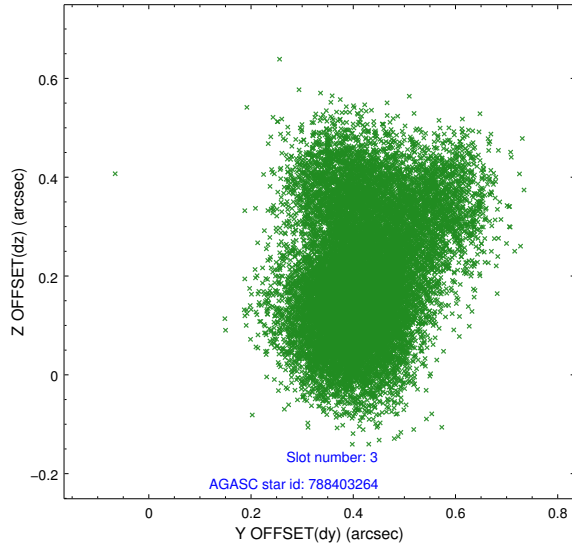


Slot Statistics

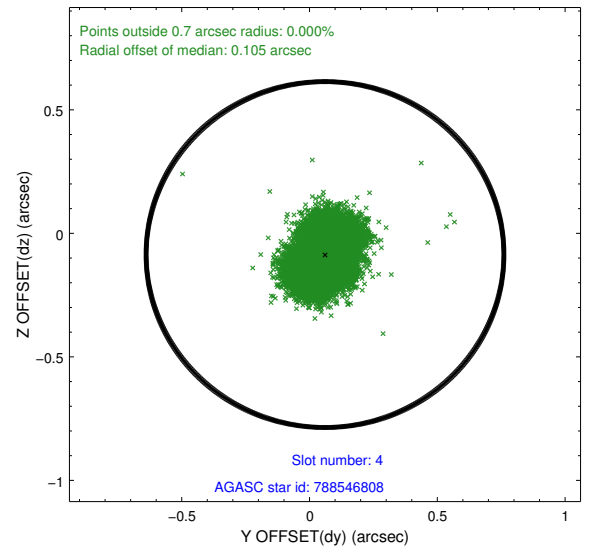
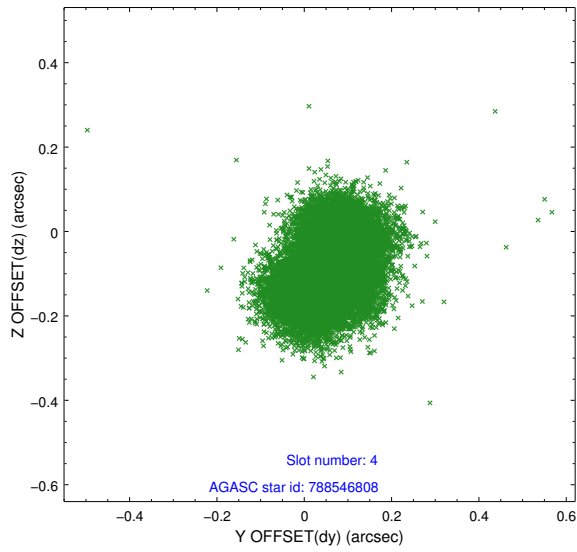
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.14	7837	0.068	-0.003	0.028	0.042	0.000000	0.000000	923.41	-841.27
1	FID		ACIS-I-5	7.15	7837	-0.268	0.060	0.019	0.036	0.000000	0.000000	-1825.04	1056.21
2	FID		ACIS-I-6	7.14	7837	0.116	0.012	0.025	0.033	0.000000	0.000000	388.90	1700.77
3	GUIDE	used	788403264	9.29	15664	0.414	0.190	0.163	0.266	129.988745	-17.706292	-1808.71	-509.05
4	GUIDE	used	788546808	8.86	15664	0.061	-0.086	0.109	0.165	131.022424	-17.370468	1866.75	225.51
5	GUIDE	used	788548808	8.66	15666	-0.237	0.034	0.088	0.141	130.875619	-17.230270	1433.67	792.99
6	GUIDE	used	788552496	8.77	15665	-0.076	-0.034	0.084	0.141	131.035975	-16.946195	2116.84	1733.32
7	GUIDE	used	788552320	8.46	15668	-0.164	-0.120	0.078	0.123	130.958057	-17.020554	1815.58	1501.47

2.4 Star Slots

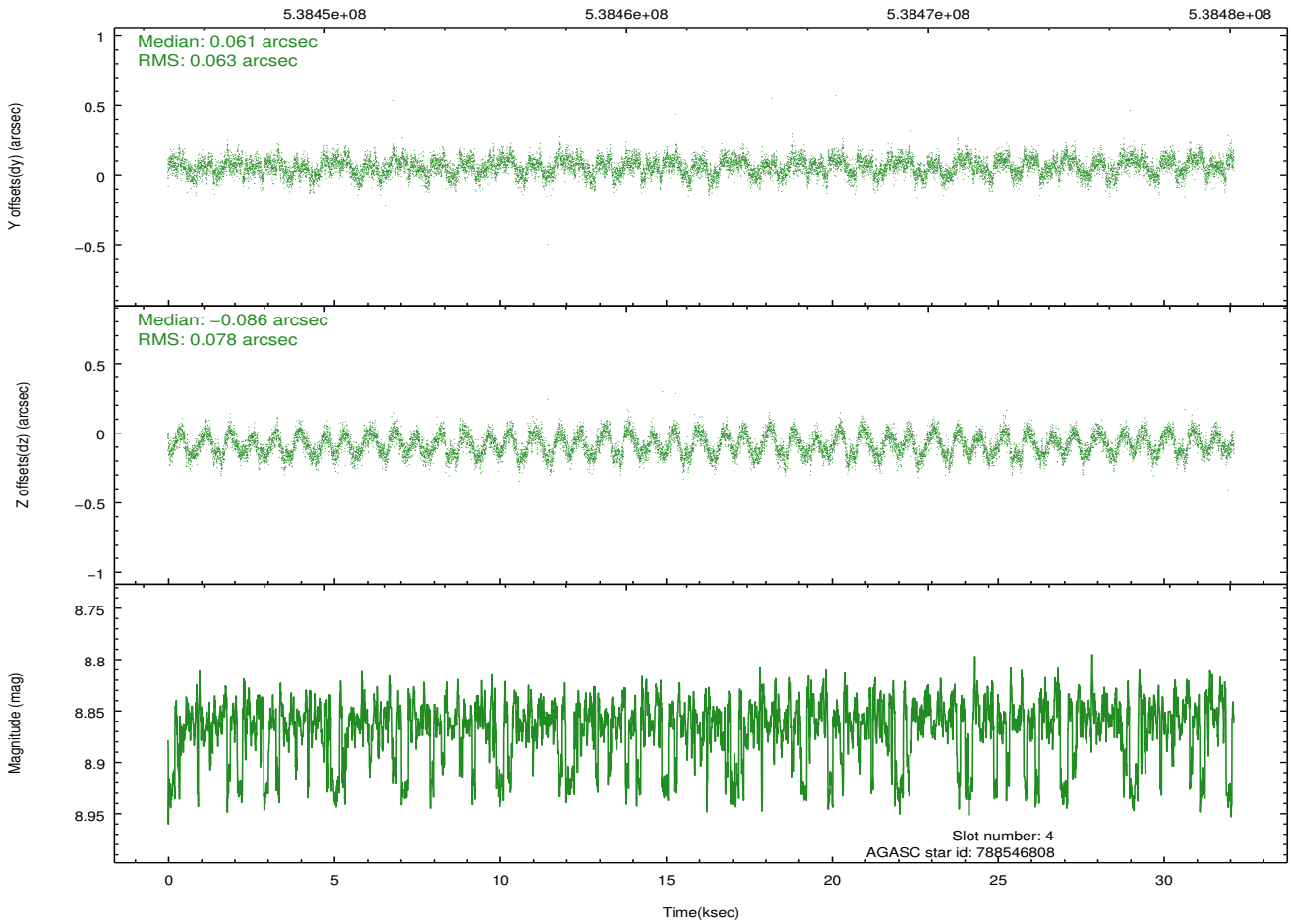
2.4.1 Slot 3



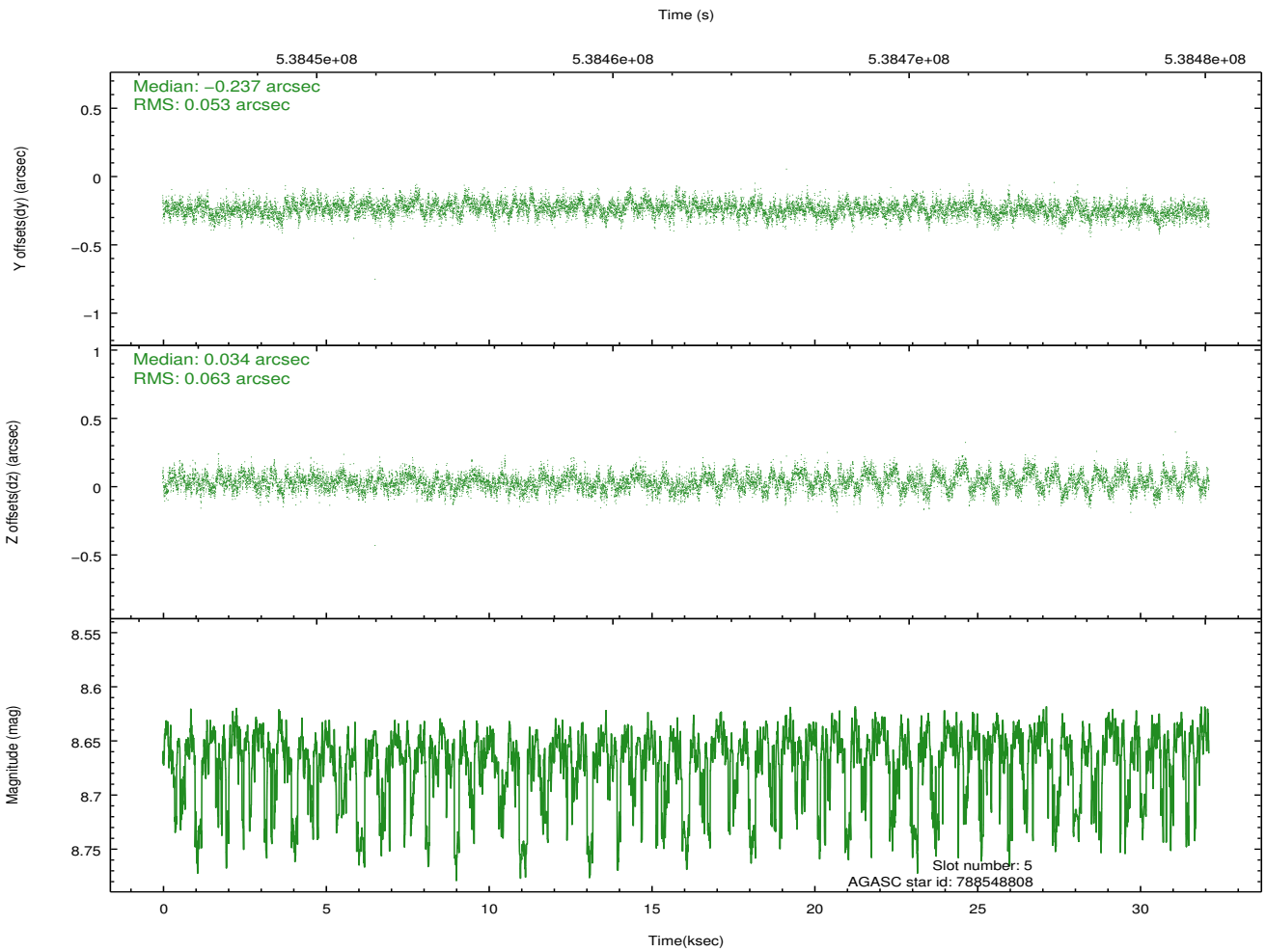
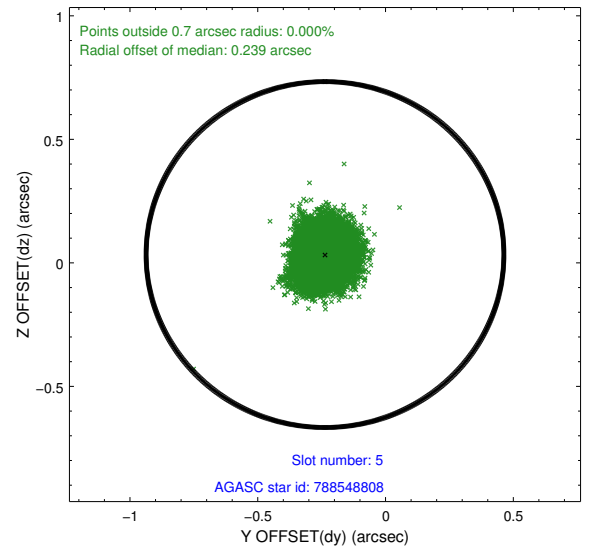
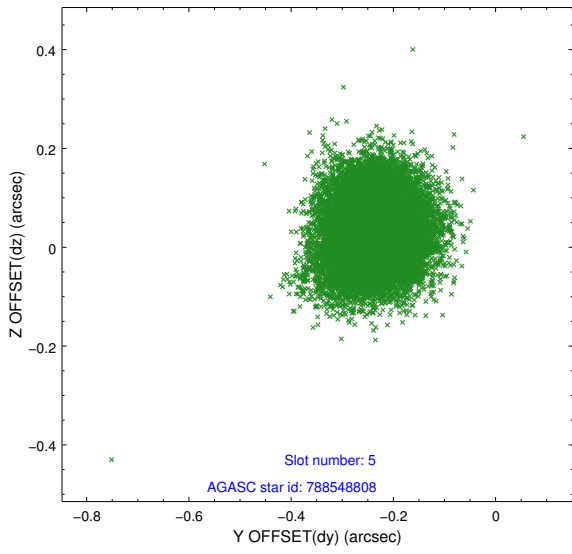
2.4.2 Slot 4



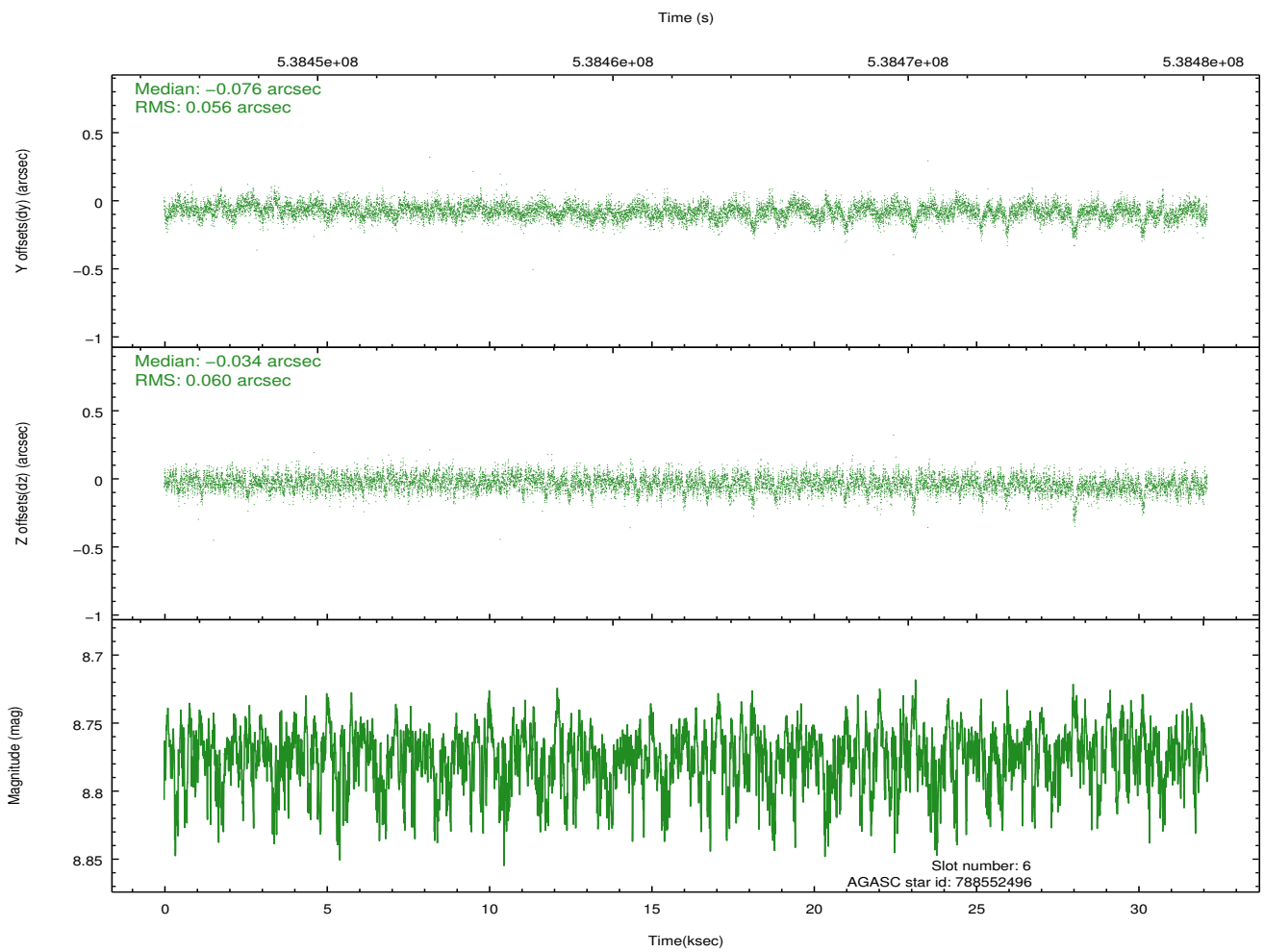
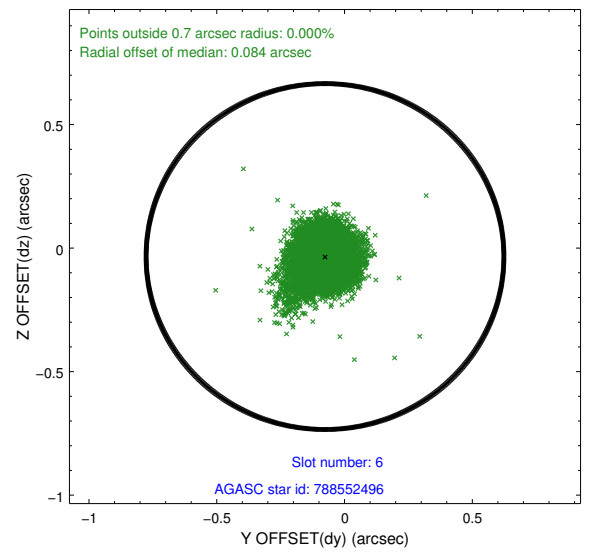
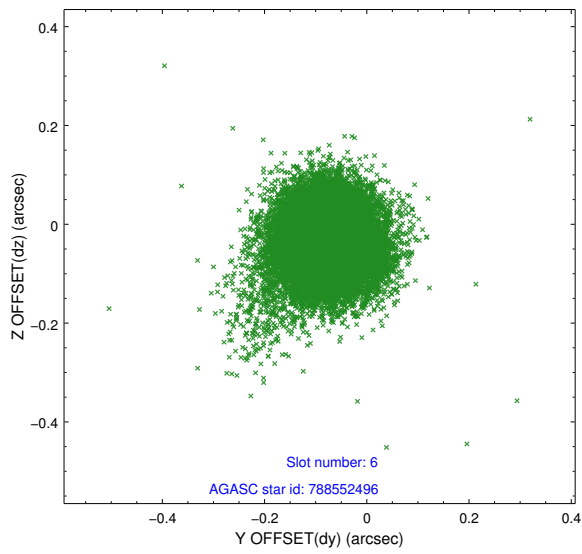
Time (s)



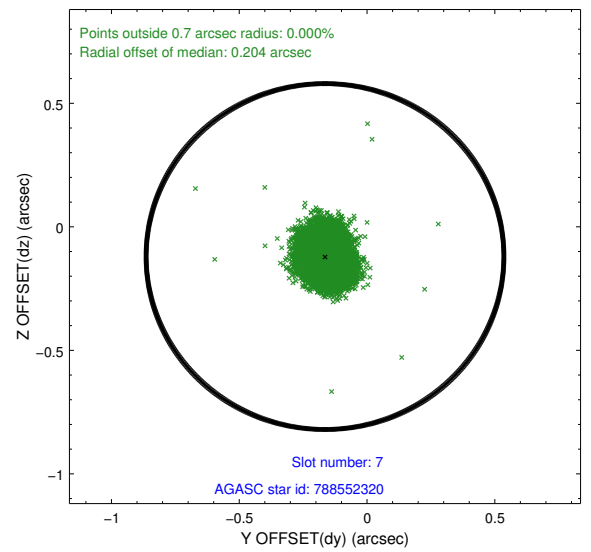
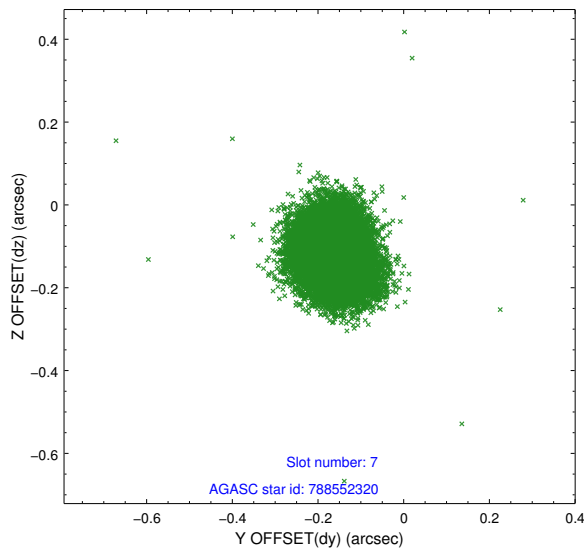
2.4.3 Slot 5



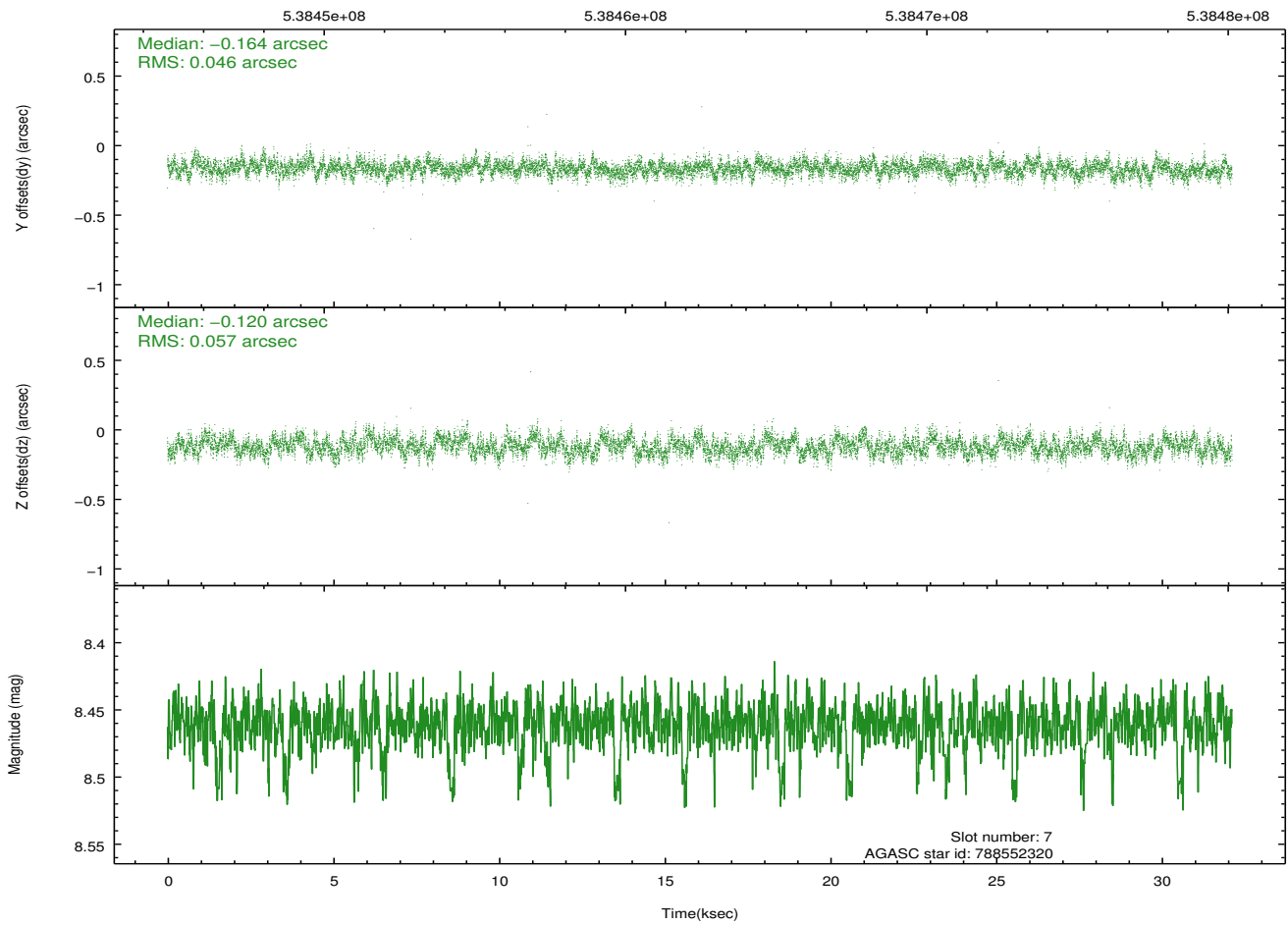
2.4.4 Slot 6



2.4.5 Slot 7

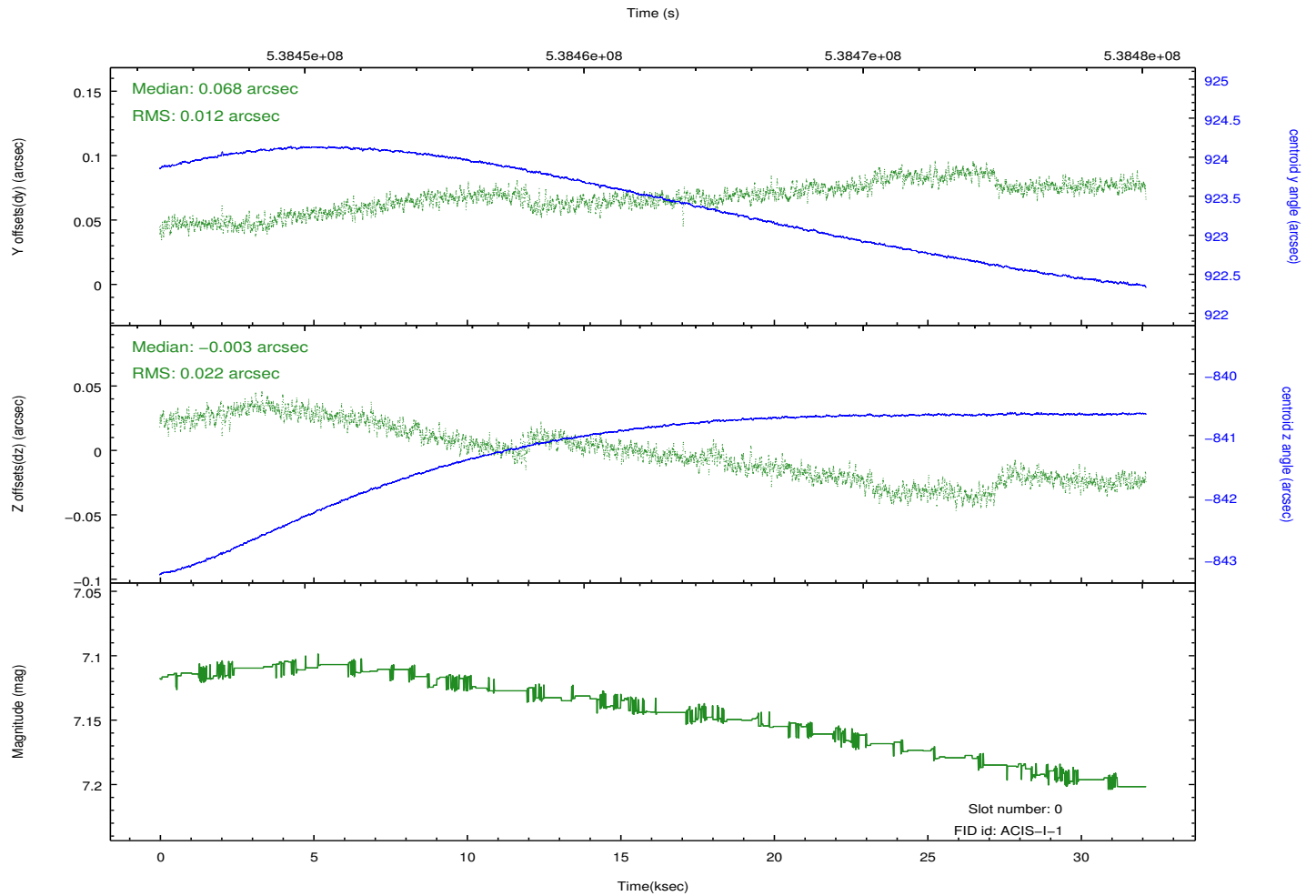
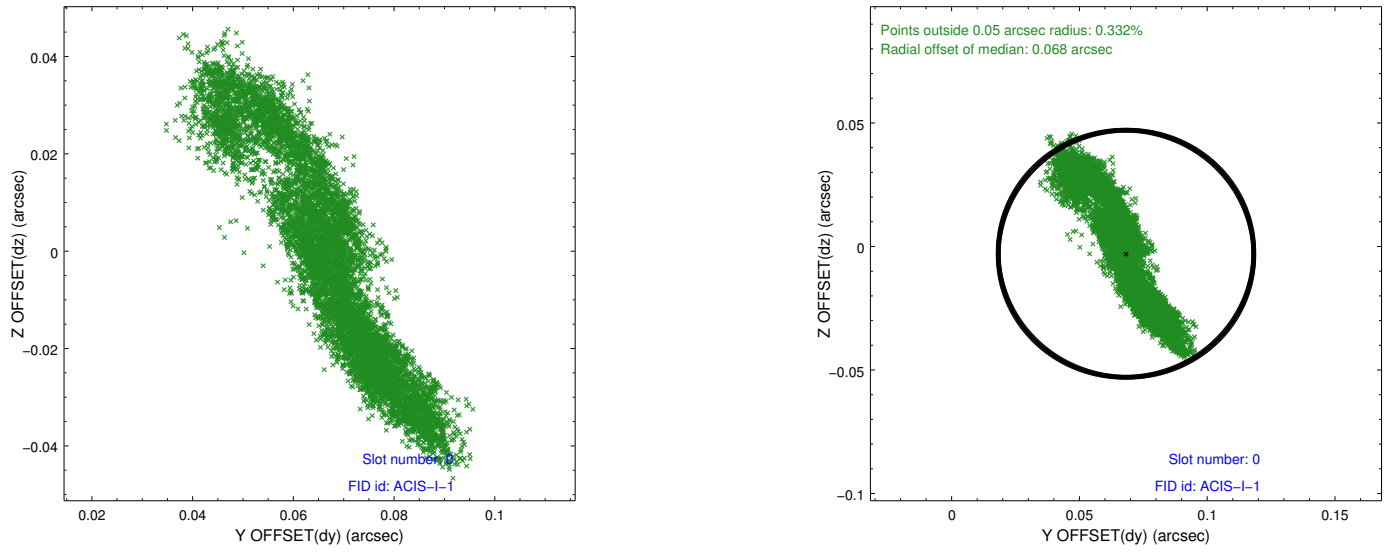


Time (s)

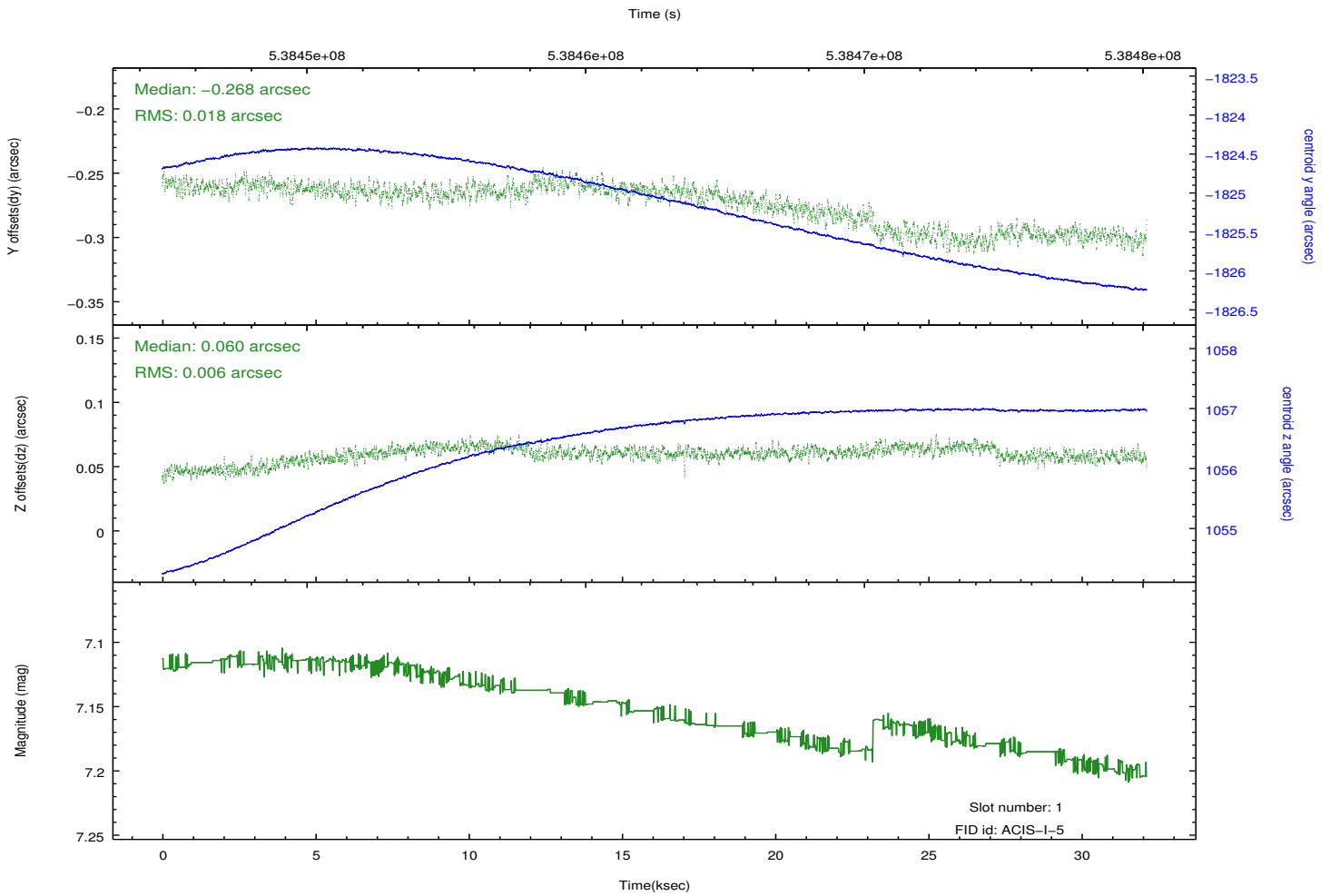
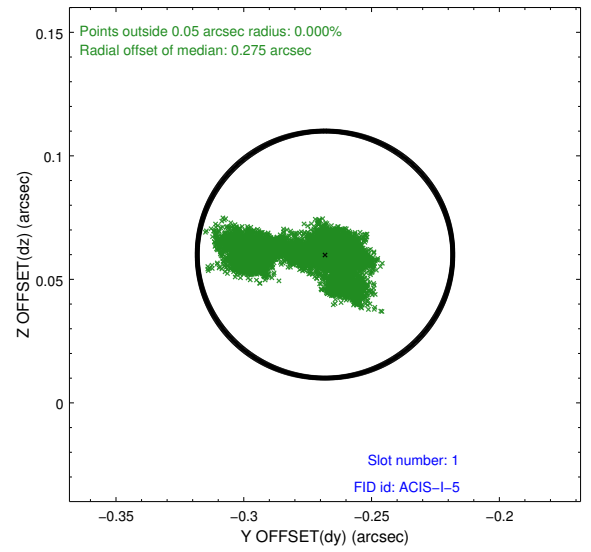
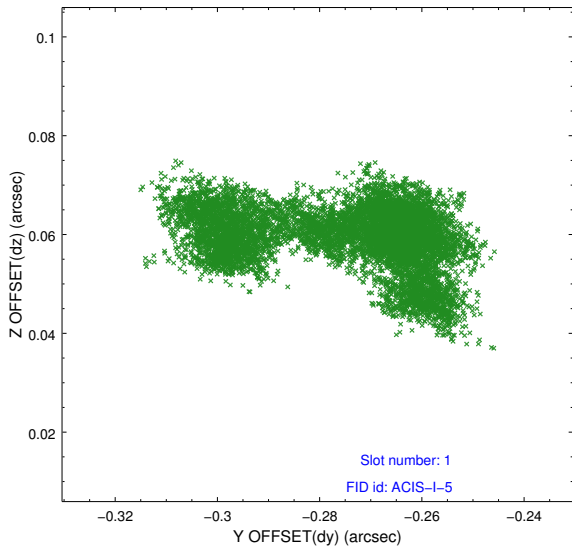


2.5 FID Slots

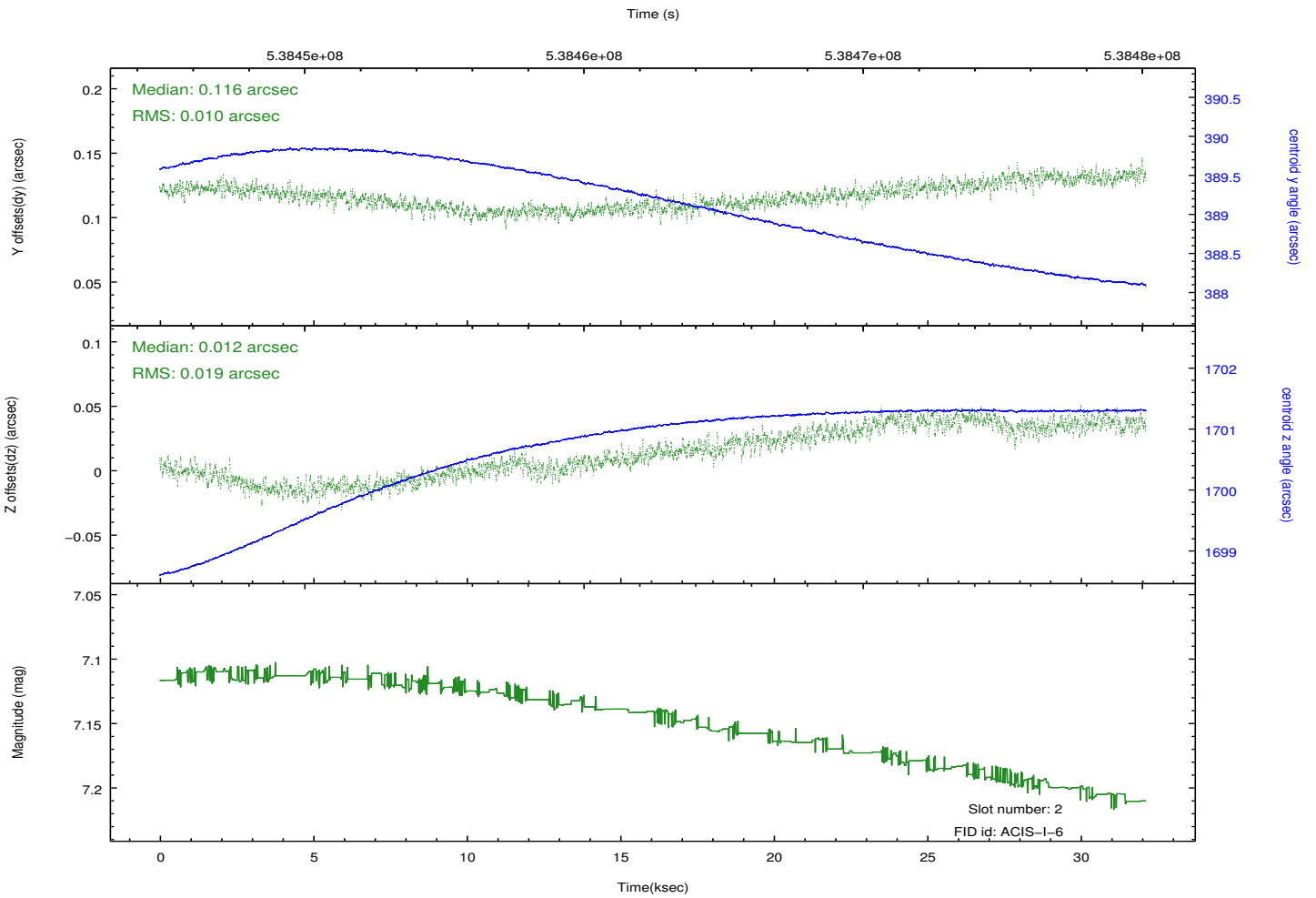
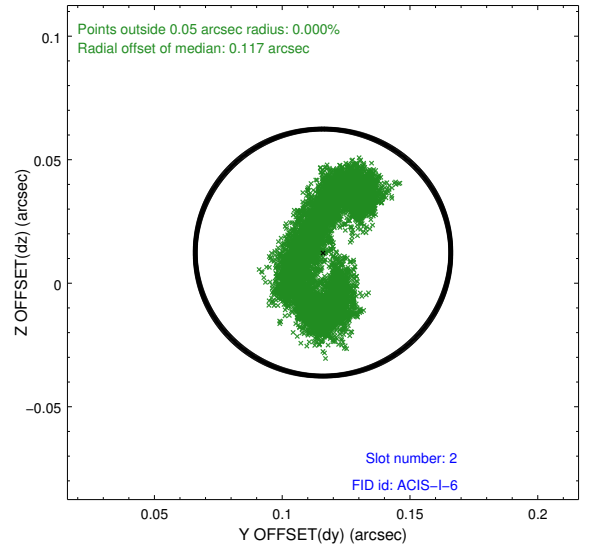
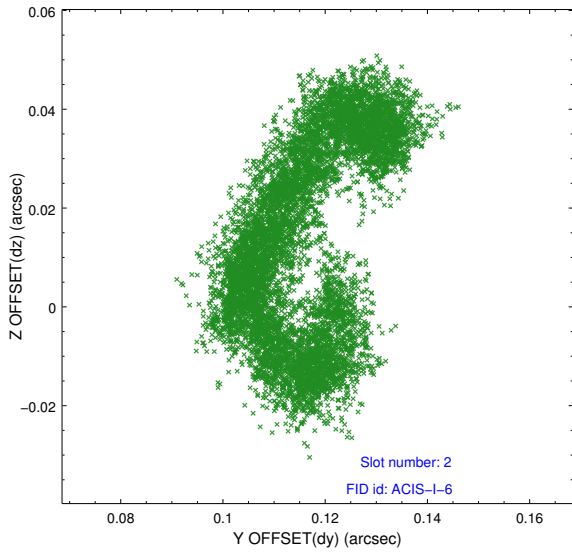
2.5.1 Slot 0



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)	2015.01.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	31.966395583749

A.2 Comments

Joint proposal with NRAO.

A spatial region of the original bias map for CCD = 1 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 = 1 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:

(130.36347,-17.45811), (130.36407,-17.46243), (130.50895,-17.44376),
(130.50835,-17.43944).