

V&V Reference Report

L2 ASCDS Version : 10.3.3

Observation 10241 - L2 Version 3
Chandra X-Ray Center

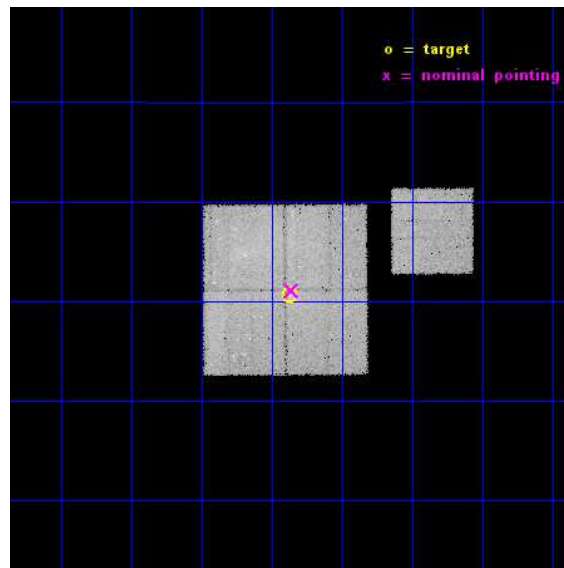
L2 Processing Date : Feb 18 2015

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1 Front

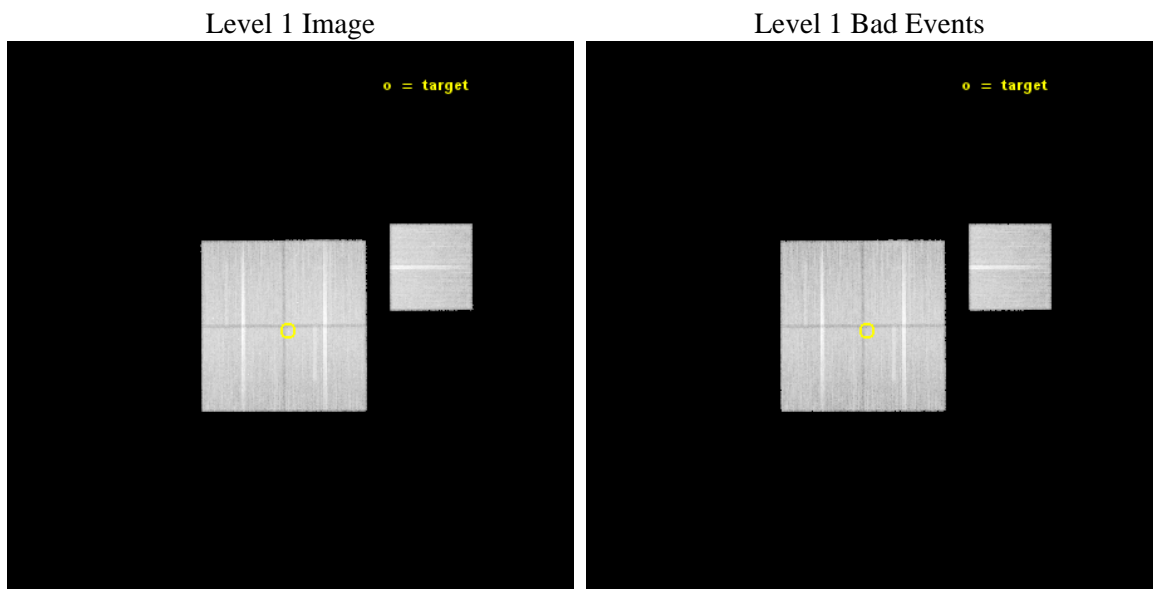
seq_num	701784	Sequence number
obs_id	10241	Observation id
title	The multi-faceted X-ray activity of low-redshift active galaxies	P
observer	Prof Mark Birkinshaw	Principal investigator
object	1227+119	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.467917	Observer's specified target RA [deg]
dec_targ	11.677472	Observer's specified target Dec [deg]
ra_nom	187.46548510463	Nominal RA [deg]
dec_nom	11.685212334736	Nominal Dec [deg]
roll_nom	89.720016398376	Nominal Roll [deg]
revision	3	Processing version of data
ontime	29769.259228766	Sum of GTIs [s]
livetime	29380.301941132	Livetime [s]
ontime0	29772.400228977	Sum of GTIs [s]
ontime1	29762.977218032	Sum of GTIs [s]
ontime2	29769.259228647	Sum of GTIs [s]
ontime3	29769.259228766	Sum of GTIs [s]
ontime6	29772.400228977	Sum of GTIs [s]
l2events	153326	Number of level 2 events



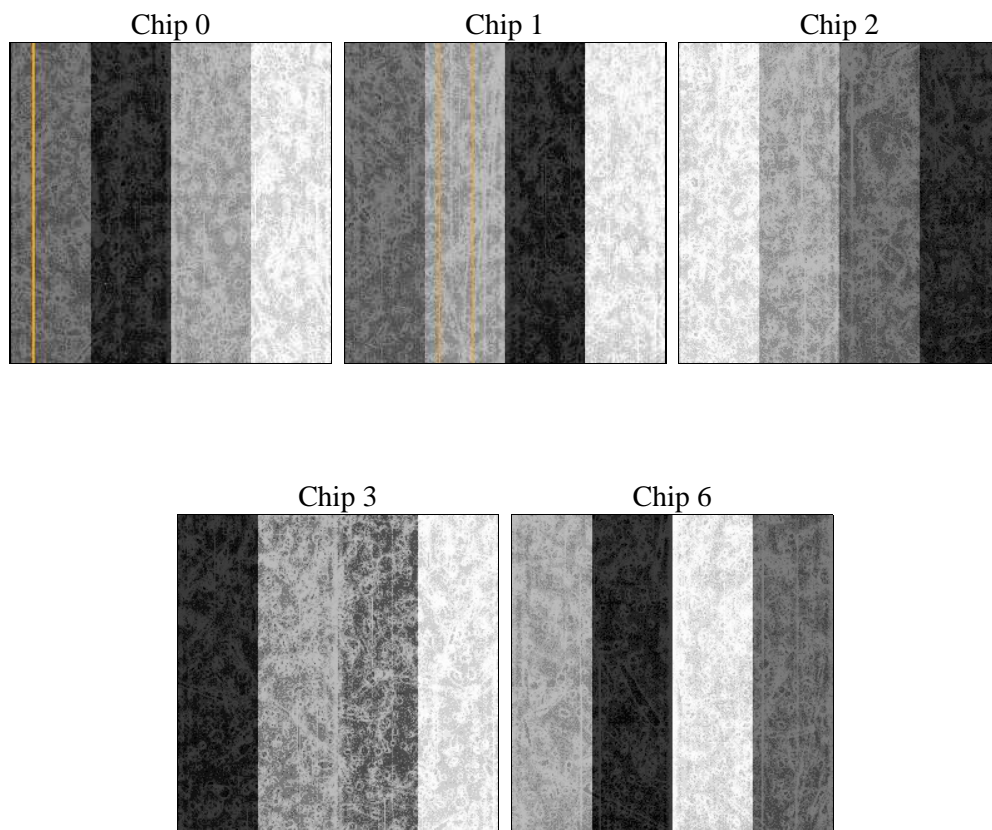
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	29769.259228766	Sum of GTIs [s]
caldbver	4.6.6	 	ontime0	29772.400228977	Sum of GTIs [s]
date	2015-02-18T15:51:32	Date and time of file creation	ontime1	29762.977218032	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	29769.259228647	Sum of GTIs [s]
			ontime3	29769.259228766	Sum of GTIs [s]
			ontime6	29772.400228977	Sum of GTIs [s]
			l1events	1288841	Number of level 1 events

2.1.4 Events

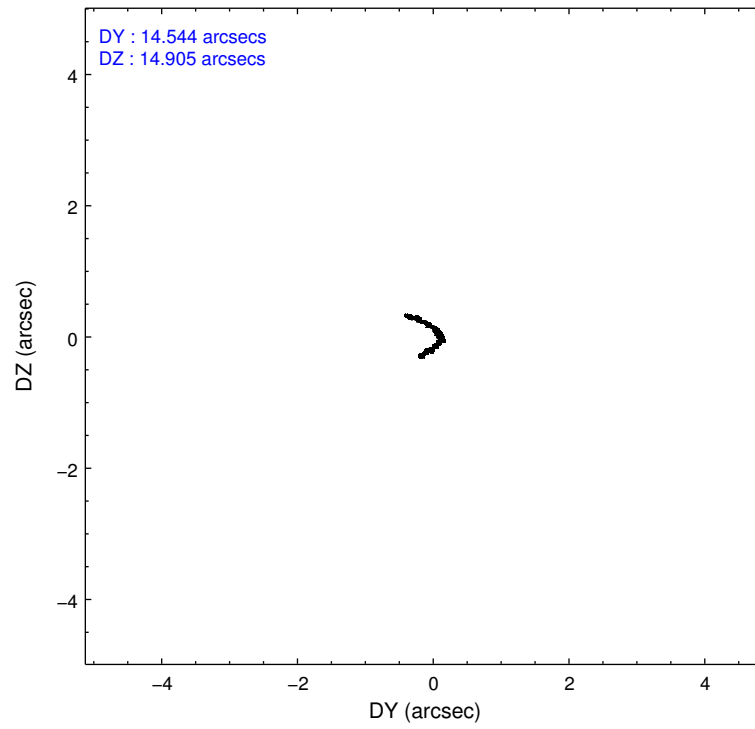
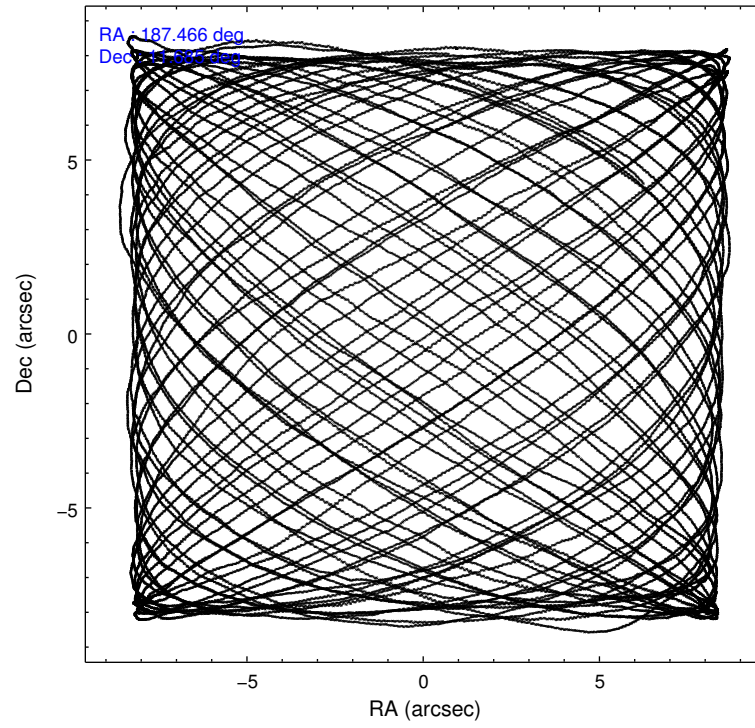
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	253944	250076	275938	252150	256733
rejected events	211301	212950	237850	222132	226261
rejected %	83%	85%	86%	88%	88%

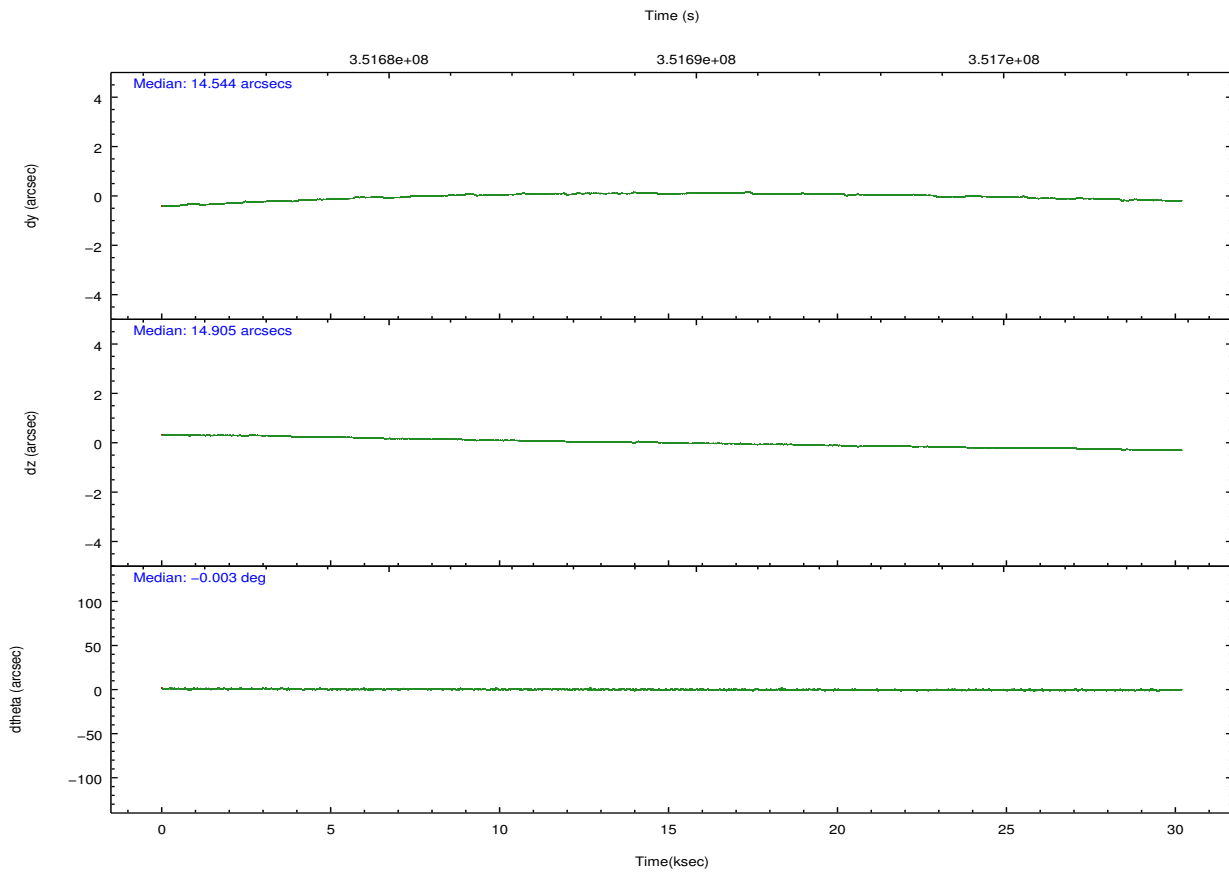
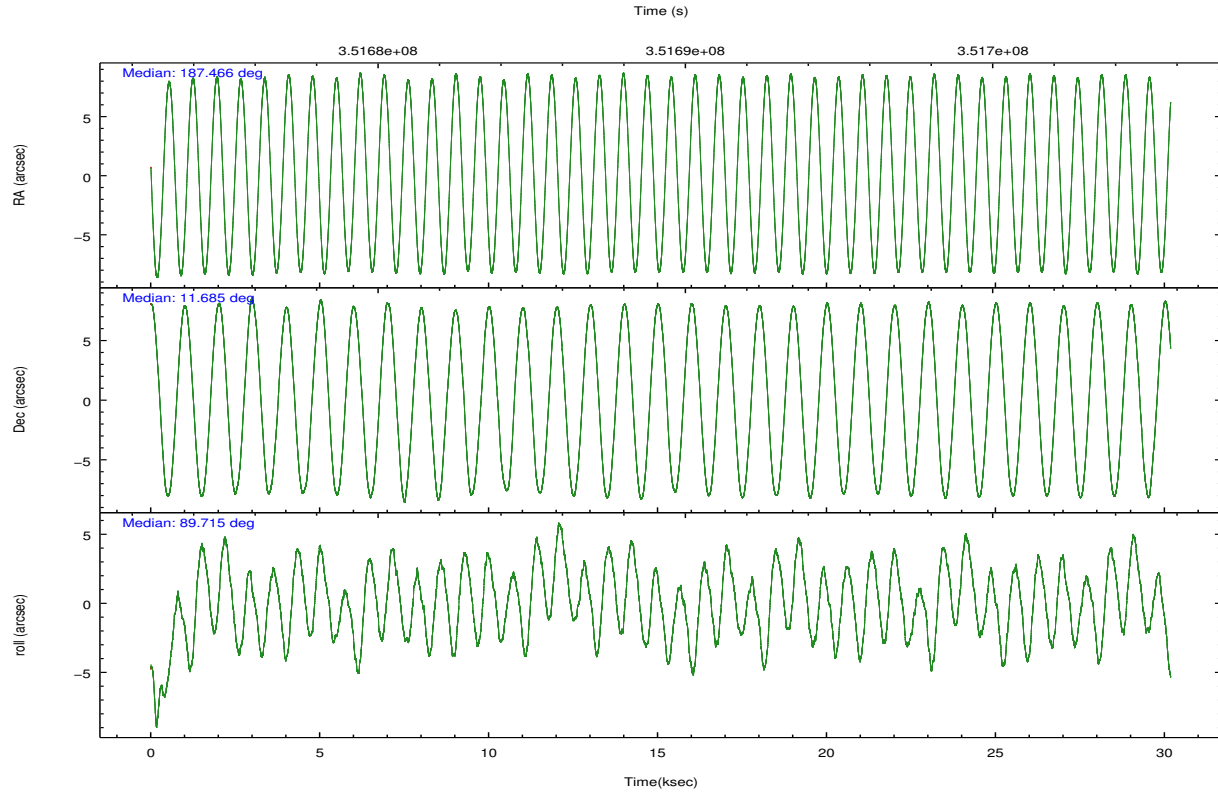
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	23245	17139	19496	13468	12803
	9%	6%	7%	5%	4%
grade 1 events	225	187	231	159	164
	0%	0%	0%	0%	0%
grade 2 events	7686	7406	7459	5818	6186
	3%	2%	2%	2%	2%
grade 3 events	3260	3316	2964	2939	2880
	1%	1%	1%	1%	1%
grade 4 events	3090	3268	3144	2865	2905
	1%	1%	1%	1%	1%
grade 5 events	9454	10075	8739	10243	10380
	3%	4%	3%	4%	4%
grade 6 events	5364	6001	5027	4932	5701
	2%	2%	1%	1%	2%
grade 7 events	201620	202684	228878	211726	215714
	79%	81%	82%	83%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	187.479520	187.4654851046319	CCD I2 on	Y	Y
[deg] Pointing Dec	11.661367	11.68521233473563	CCD I3 on	Y	Y
[deg] Pointing Roll	89.508488	89.72001639837593	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	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	351674298.184000	351673456.03398	CCD S5 on	N	N
Observation start date	2009-02-22T07:17:12	2009-02-22T07:04:16	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	351704298.184000	351705283.31056	On-chip summing requested	N	N
Observation end date	2009-02-22T15:37:12	2009-02-22T15:54:43	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



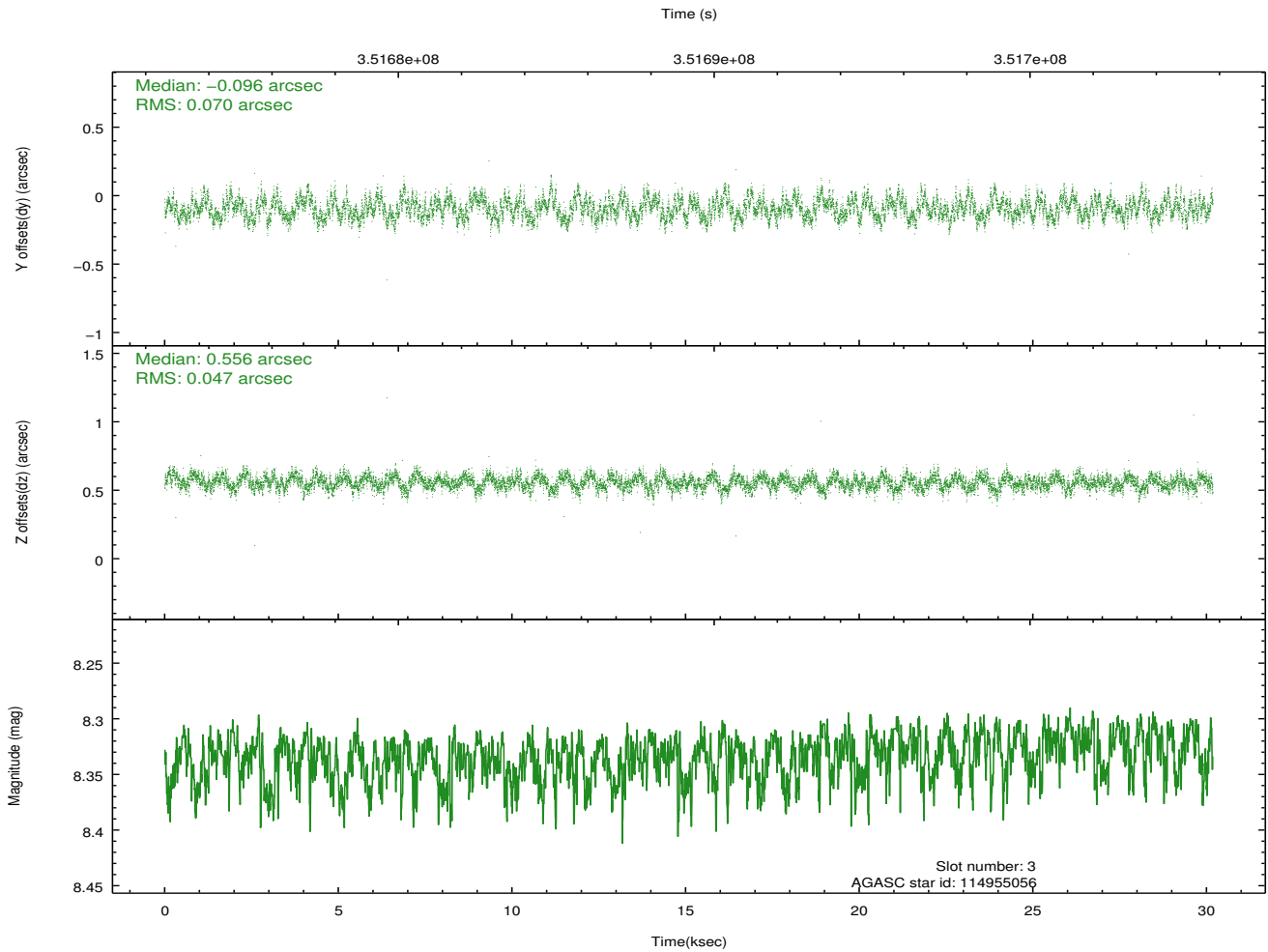
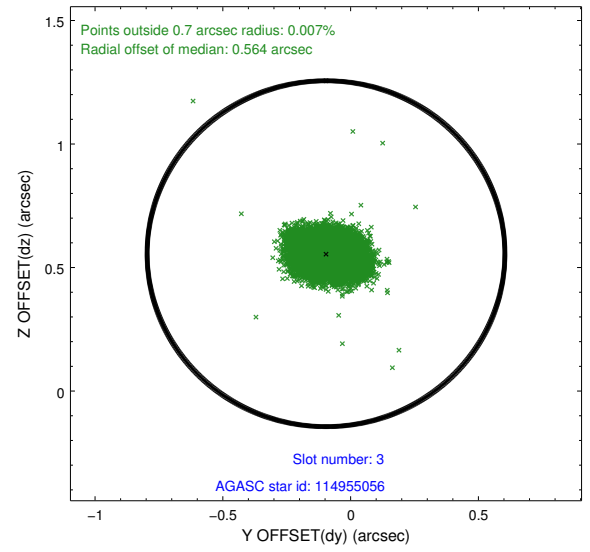
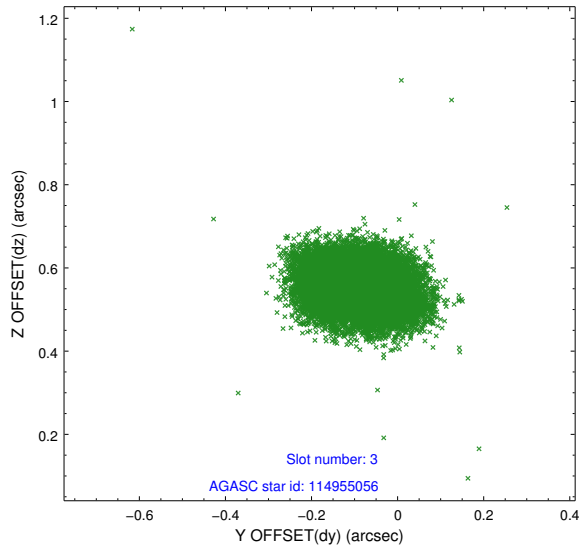


Slot Statistics

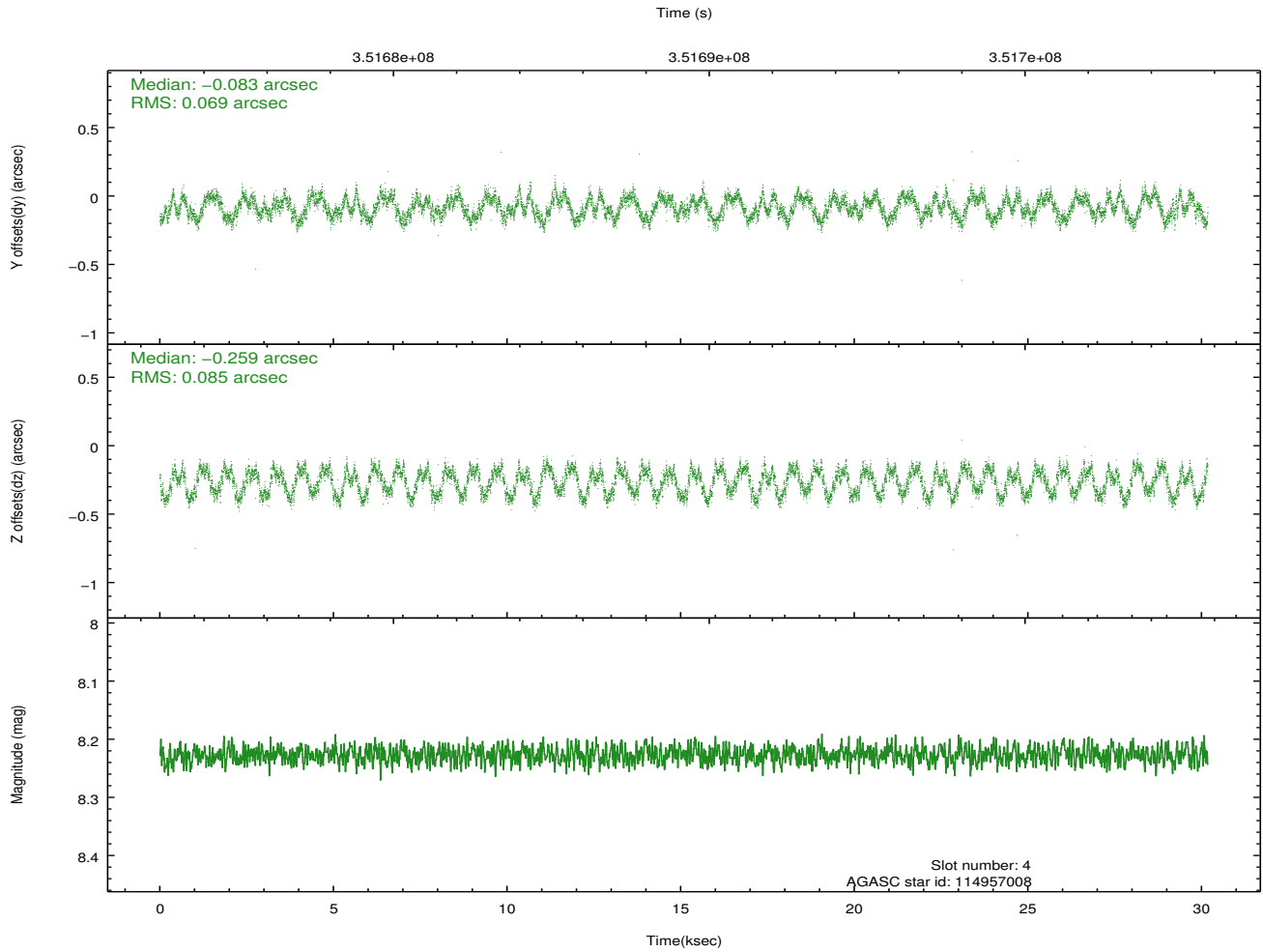
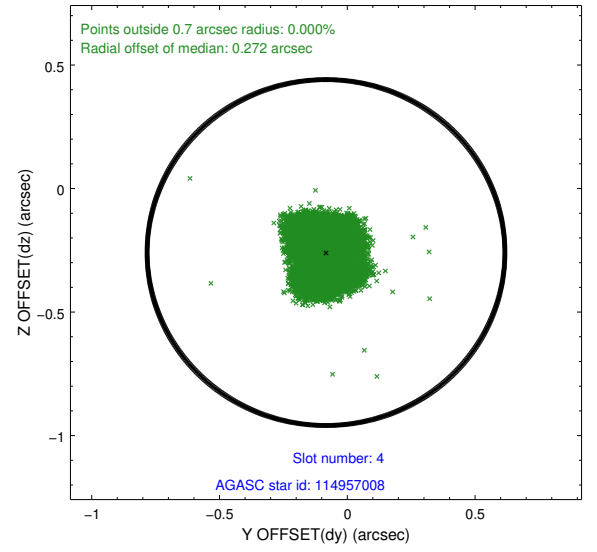
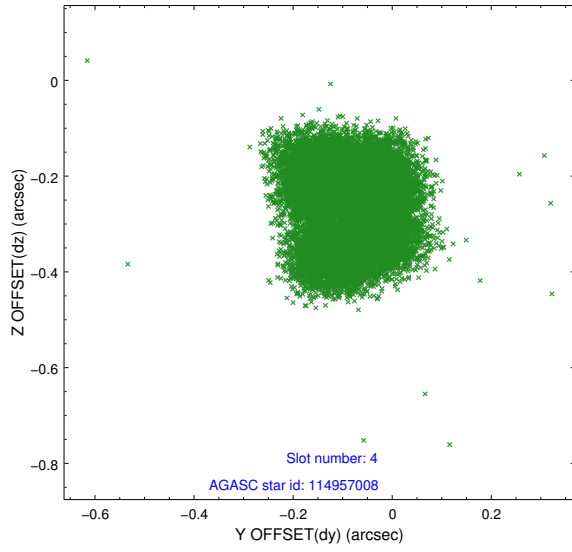
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.03	7362	0.034	0.003	0.013	0.021	0.000000	0.000000	925.01	-838.49
1	FID		ACIS-I-5	7.03	7362	-0.222	0.038	0.007	0.013	0.000000	0.000000	-1823.33	1058.97
2	FID		ACIS-I-6	7.03	7362	0.096	0.030	0.010	0.017	0.000000	0.000000	390.51	1703.57
3	GUIDE	used	114955056	8.33	14717	-0.096	0.556	0.089	0.144	187.914001	12.127854	1693.79	-1513.93
4	GUIDE	used	114957008	8.23	14721	-0.083	-0.259	0.120	0.168	186.894794	12.099160	1560.39	2072.15
5	GUIDE	used	114957272	8.85	14714	0.159	-0.031	0.076	0.124	187.367706	11.138889	-1883.76	379.23
6	GUIDE	used	114955752	9.01	14716	0.205	-0.017	0.094	0.154	186.882211	11.026969	-2299.55	2091.16
7	GUIDE	used	114950168	7.84	14721	-0.185	-0.236	0.062	0.105	187.143398	12.117441	1631.87	1197.22

2.4 Star Slots

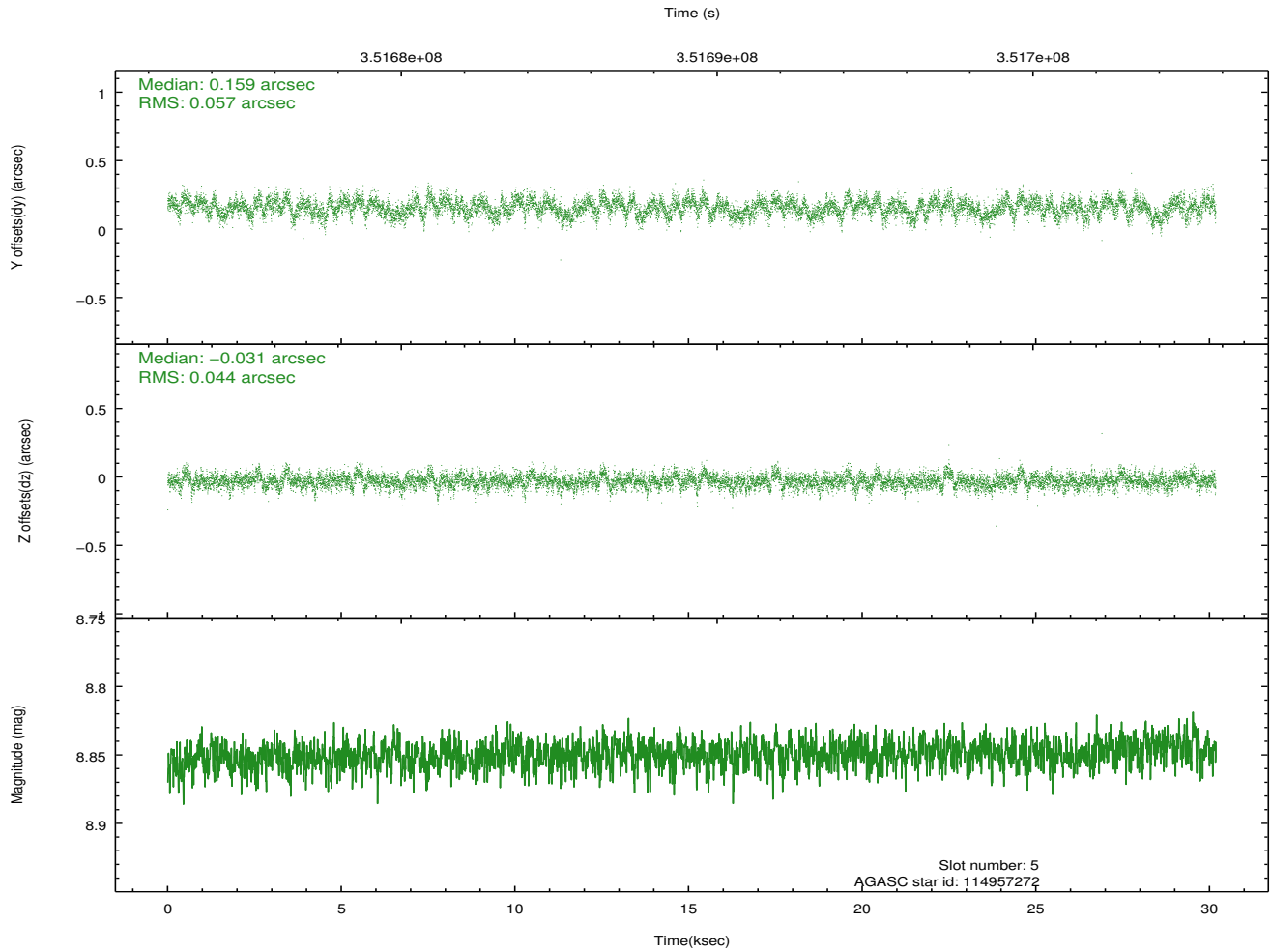
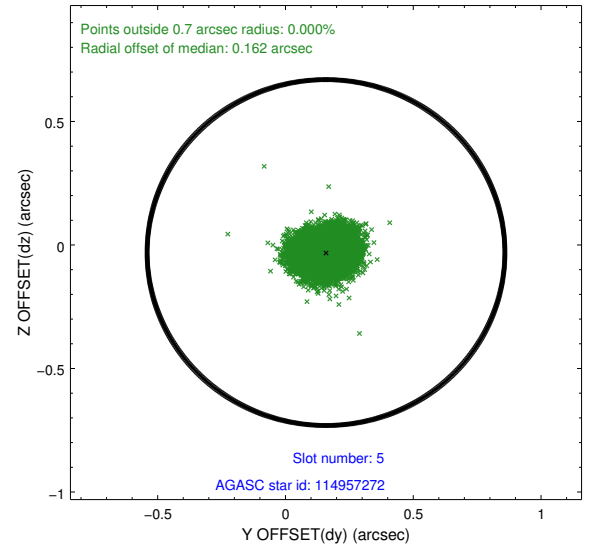
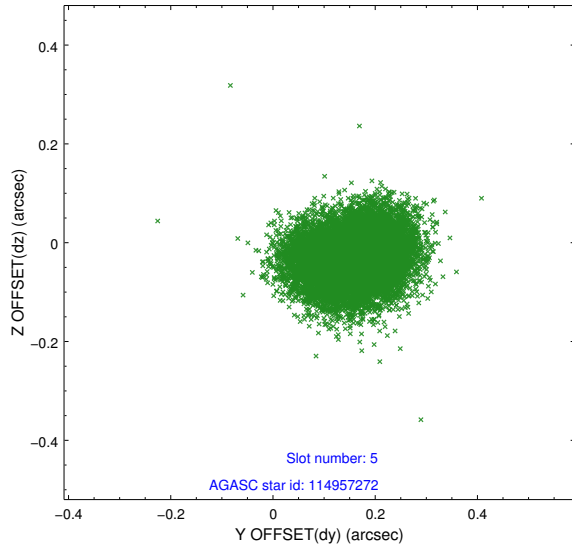
2.4.1 Slot 3



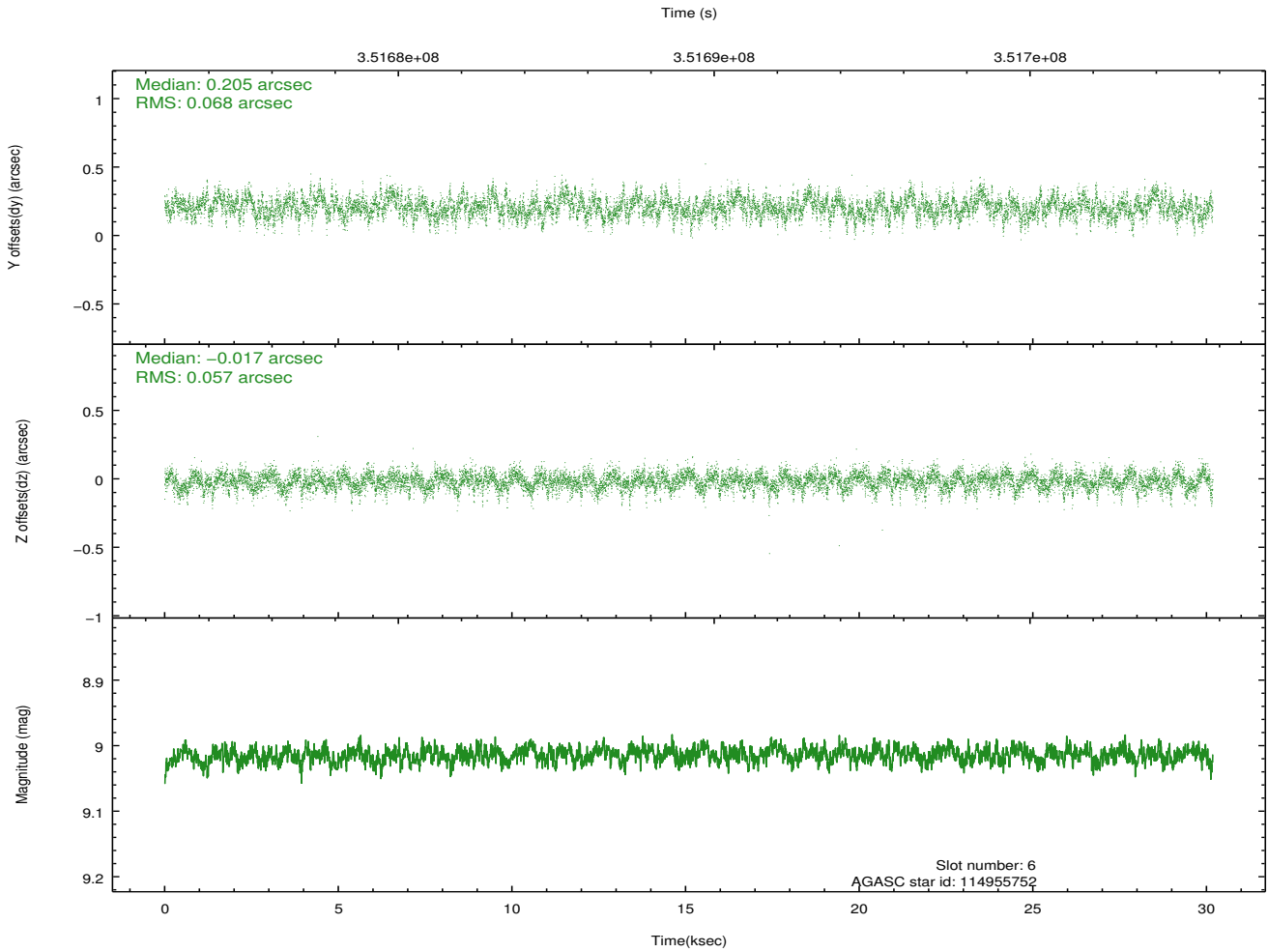
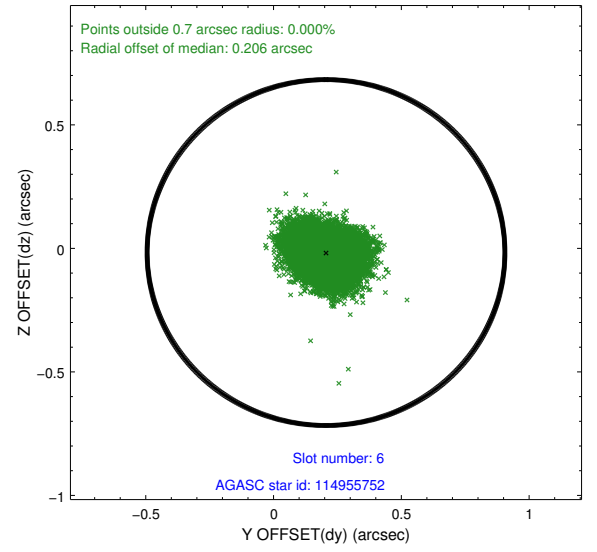
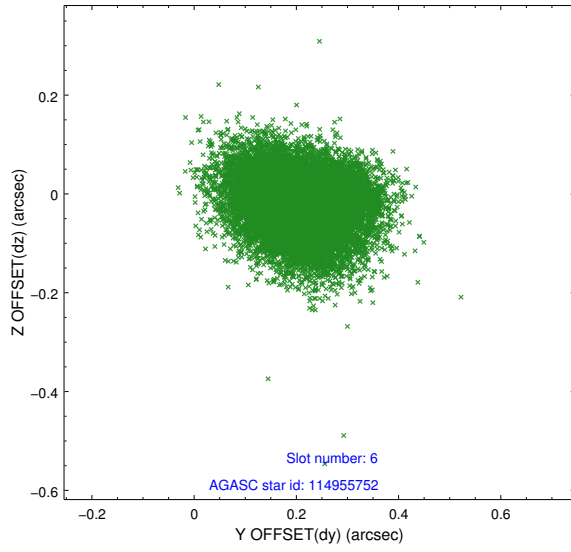
2.4.2 Slot 4



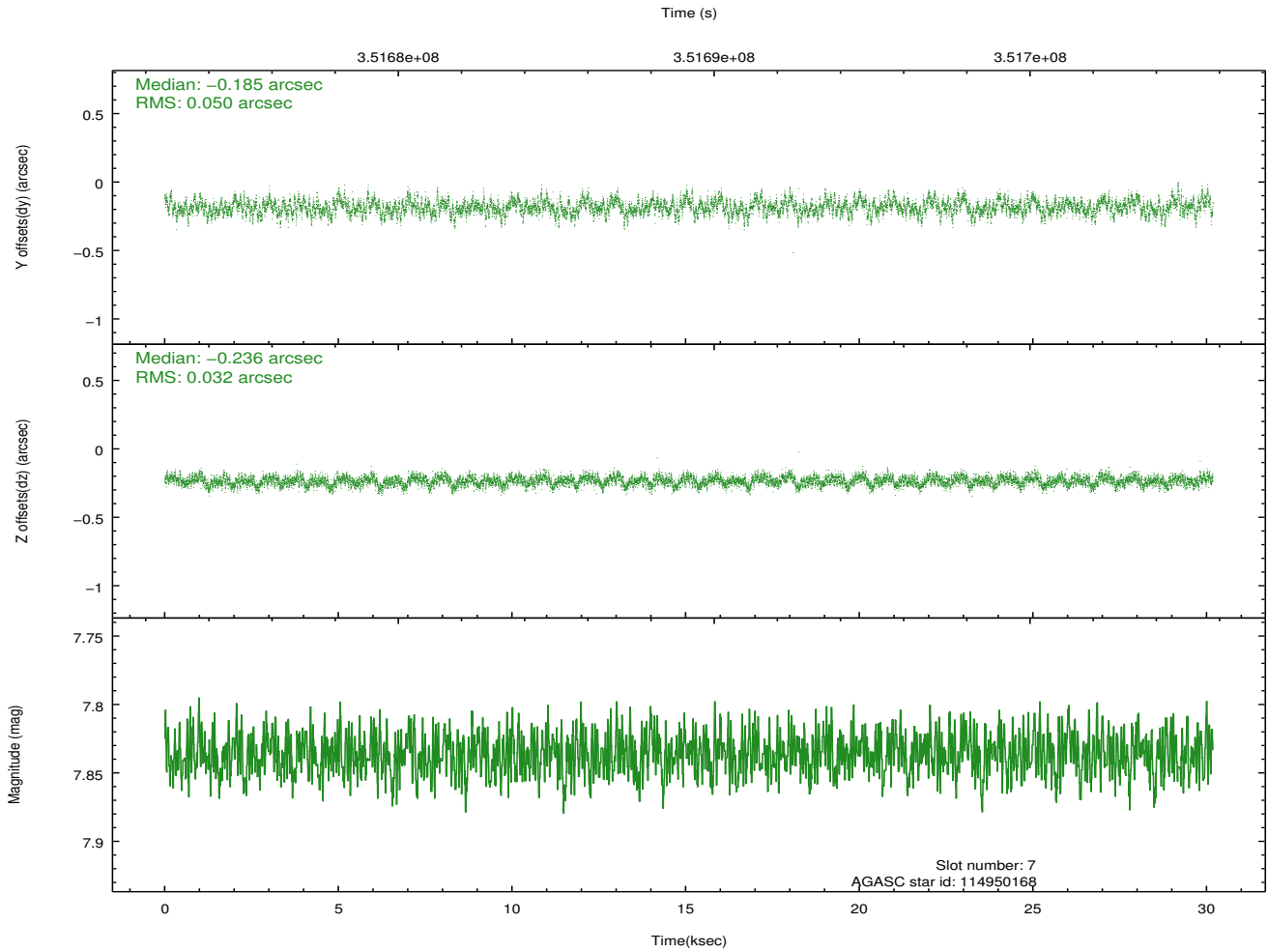
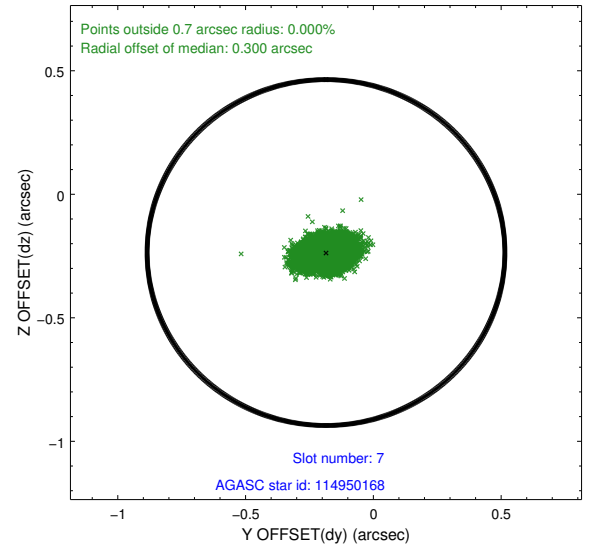
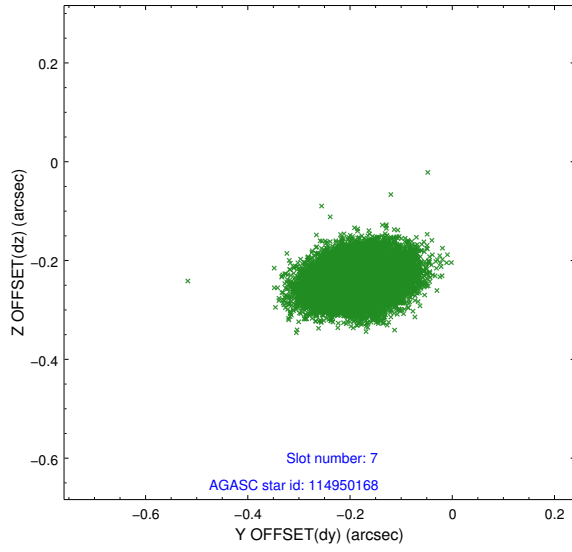
2.4.3 Slot 5



2.4.4 Slot 6

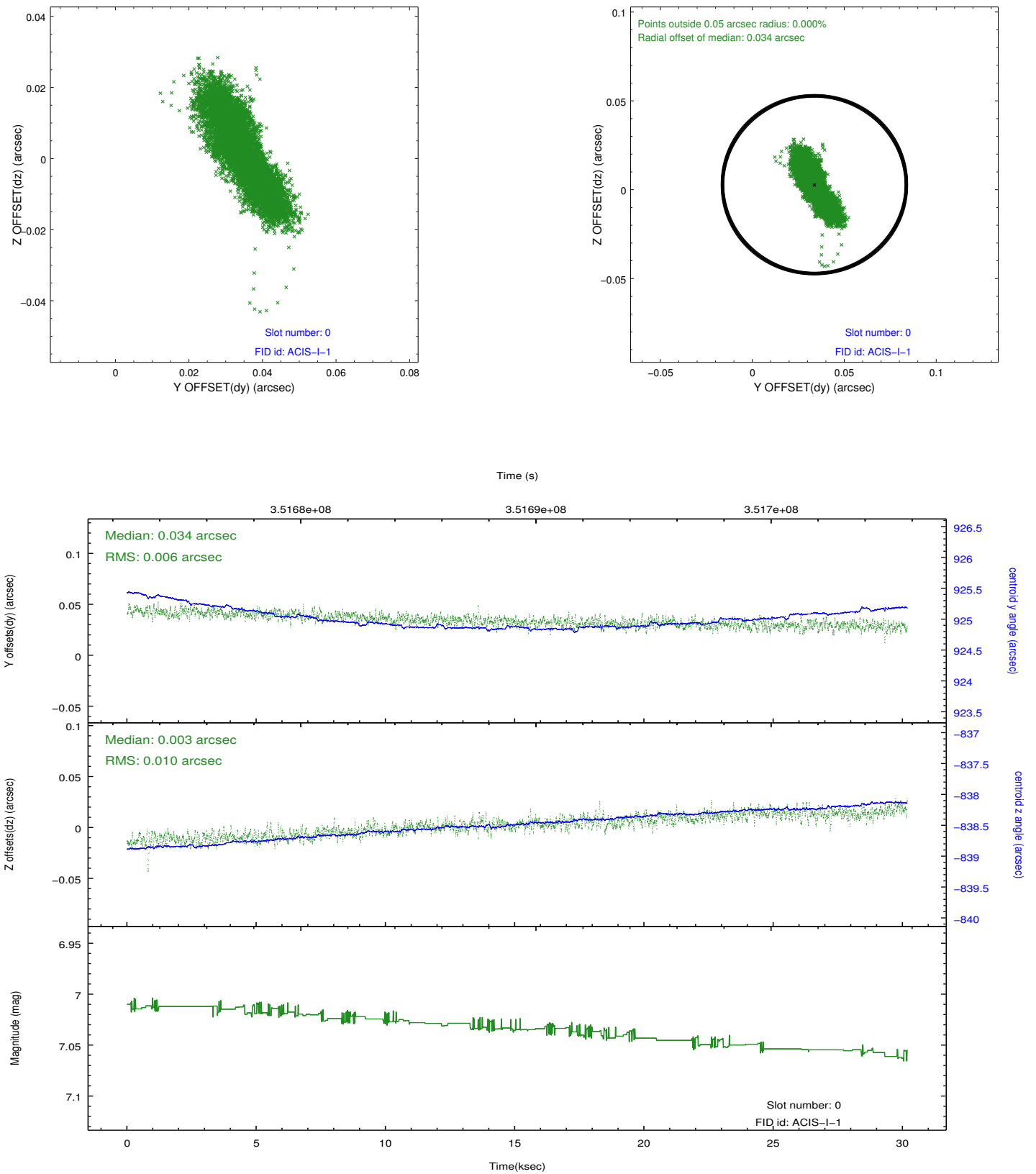


2.4.5 Slot 7

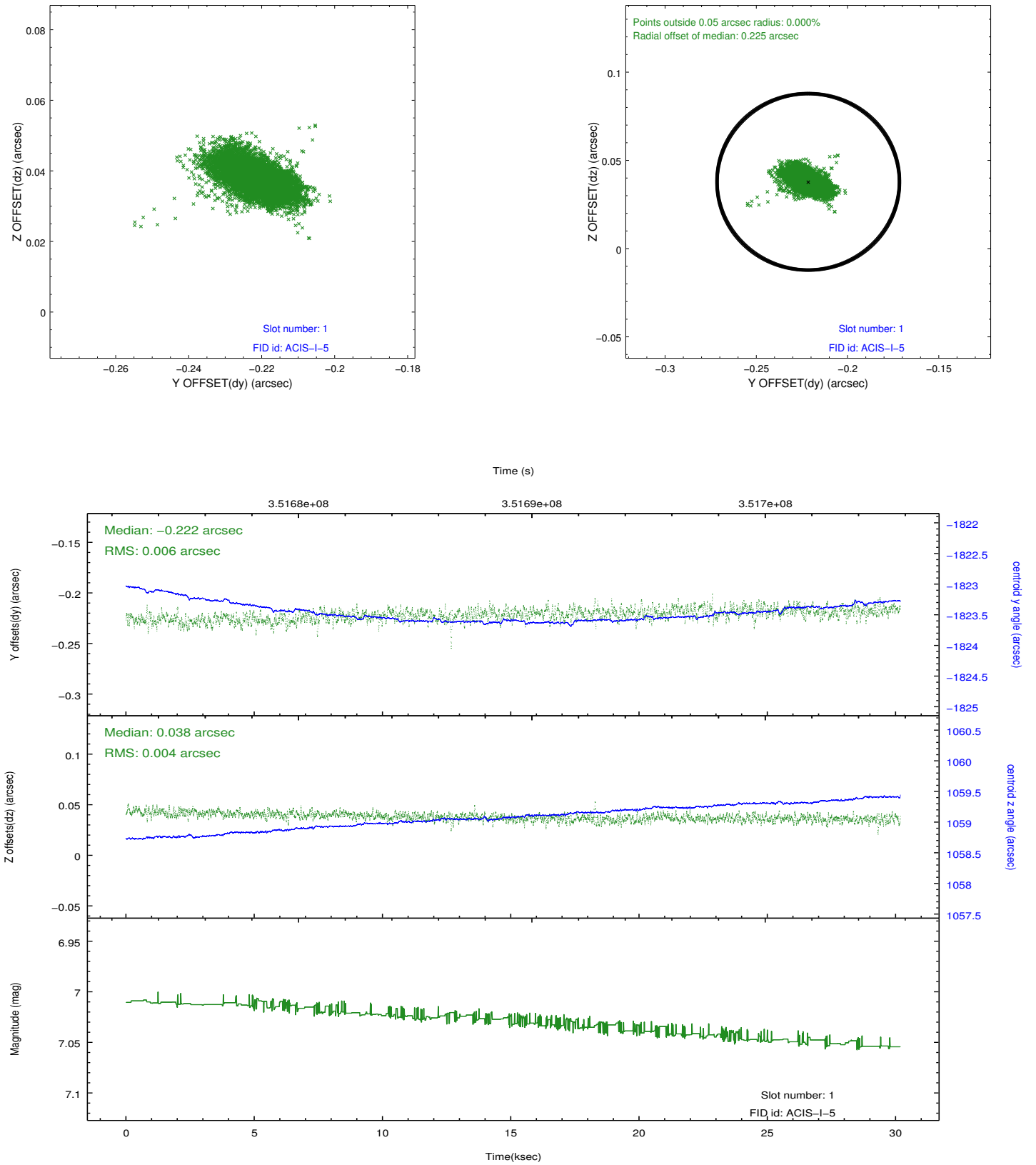


2.5 FID Slots

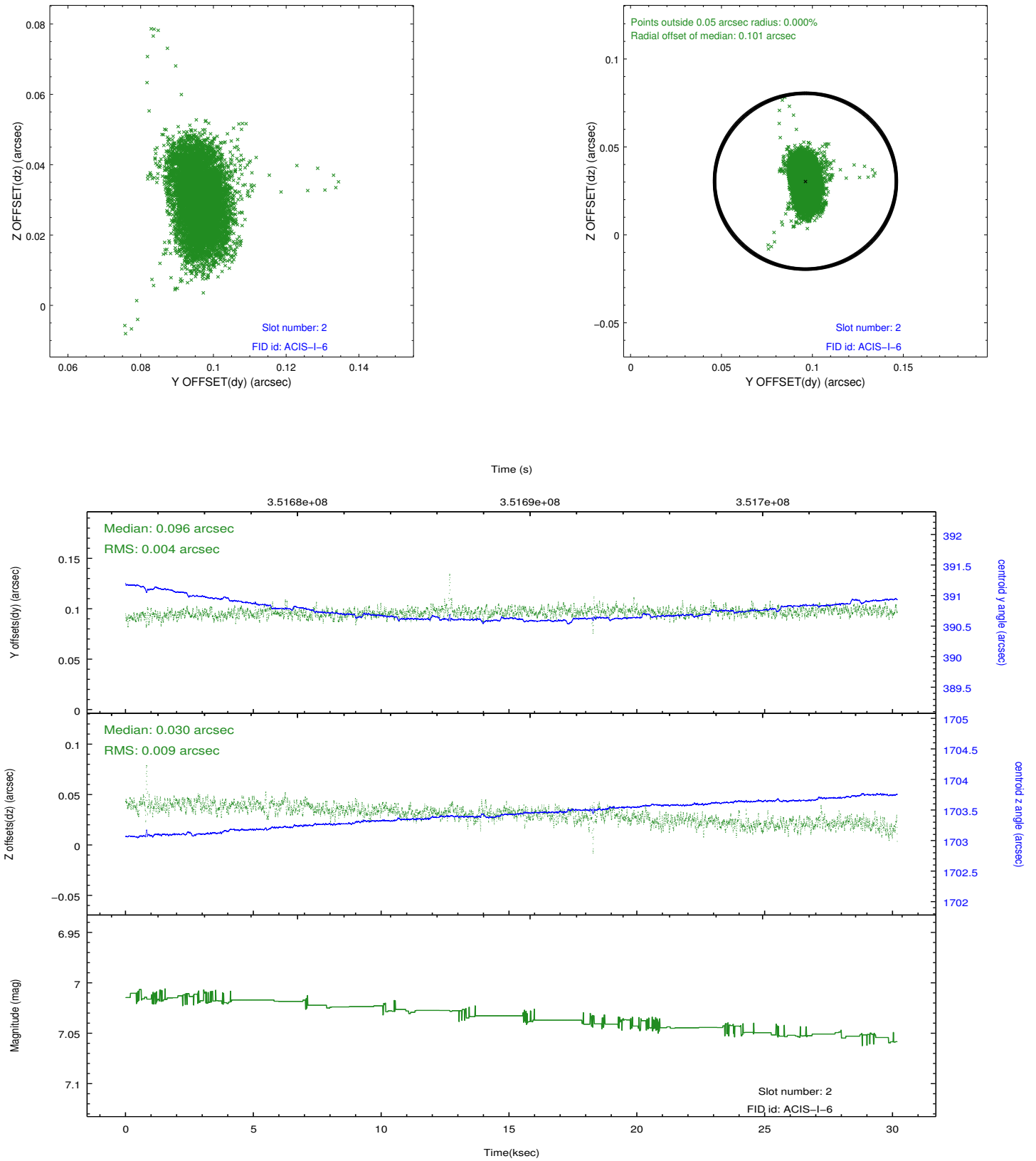
2.5.1 Slot 0



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)	2015.02.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.7692592

A.2 Comments

Joint proposal with HST.

A spatial region of the original bias map for CCD = 2 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 = 2 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:

(187.45898, 11.82782), (187.45354, 11.82783), (187.45286, 11.68837),
(187.45829, 11.68836).