

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 21702 - L2 Version 2
Chandra X-Ray Center

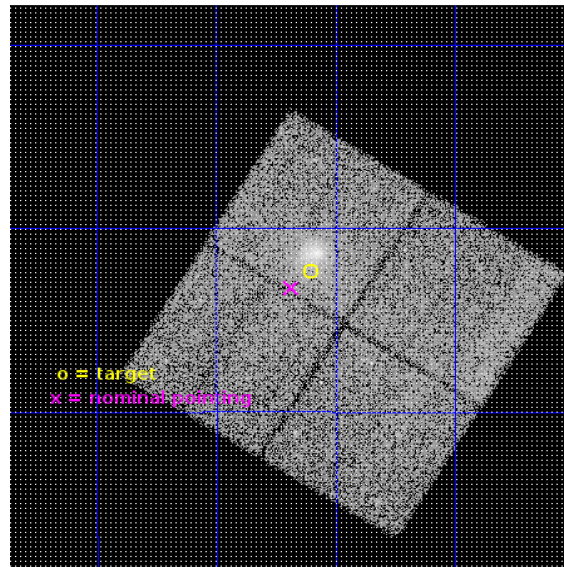
L2 Processing Date : Aug 2 2019

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1 Front

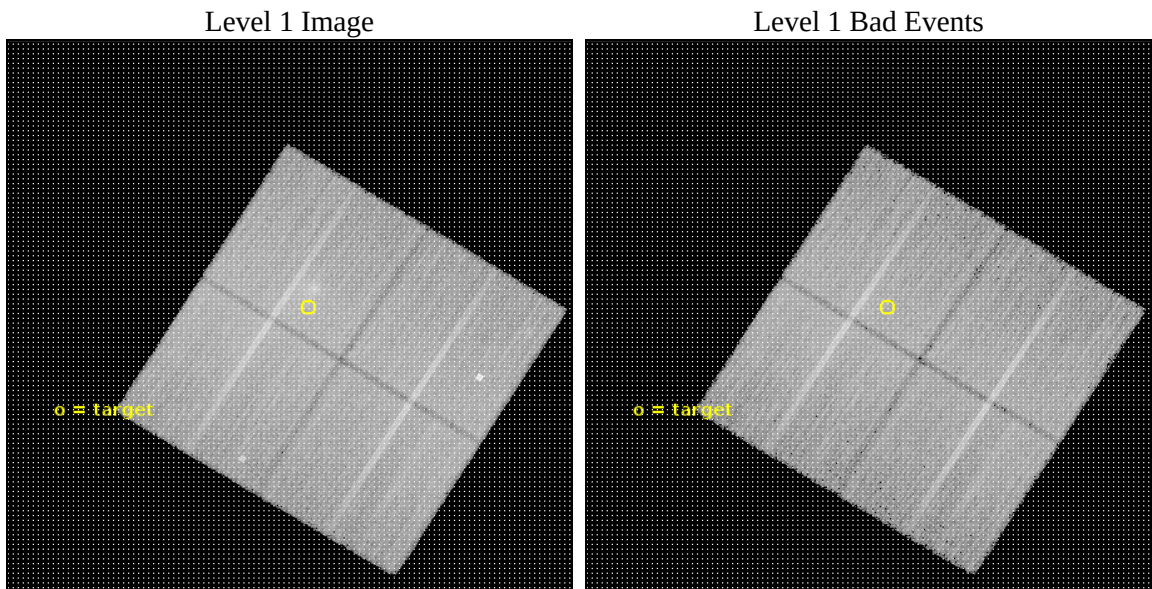
seq_num	703830	Sequence number
obs_id	21702	Observation id
title	X-ray Emission from z=6 galaxies	Proposal title
observer	Ralph Kraft	Principal investigator
object	PLCKG004-19	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	289.275417	Observer's specified target RA [deg]
dec_targ	-33.539278	Observer's specified target Dec [deg]
ra_nom	289.29619011958	Nominal RA [deg]
dec_nom	-33.554089912243	Nominal Dec [deg]
roll_nom	301.72016267368	Nominal Roll [deg]
revision	2	Processing version of data
ontime	36068.238434076	Sum of GTIs [s]
livetime	35596.980345884	Livetime [s]
ontime0	36071.256394625	Sum of GTIs [s]
ontime1	36065.015253425	Sum of GTIs [s]
ontime2	36071.338424563	Sum of GTIs [s]
ontime3	36068.238434076	Sum of GTIs [s]
l2events	110864	Number of level 2 events



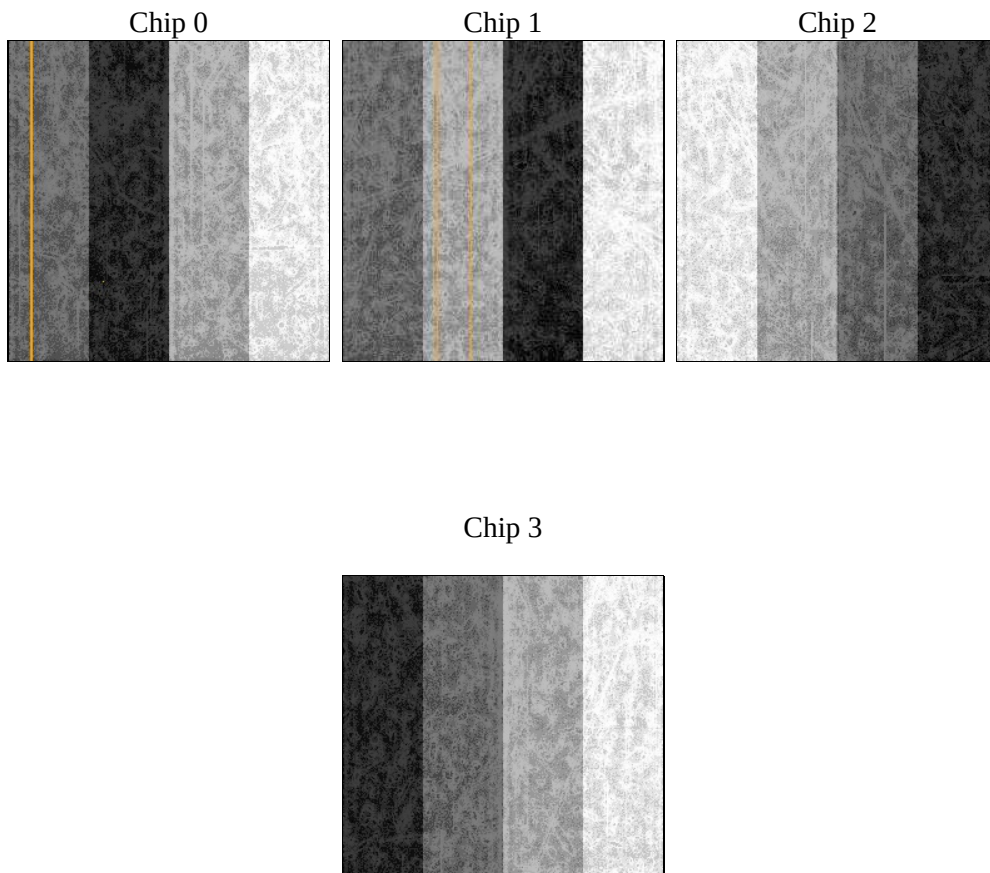
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36000.000000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	36068.238434076	Sum of GTIs [s]
caldsver	4.8.3.1	 	ontime0	36071.256394625	Sum of GTIs [s]
date	2019-08-02T21:35:34	Date and time of file creation	ontime1	36065.015253425	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	36071.338424563	Sum of GTIs [s]
			ontime3	36068.238434076	Sum of GTIs [s]
			l1events	1098105	Number of level 1 events

2.1.4 Events

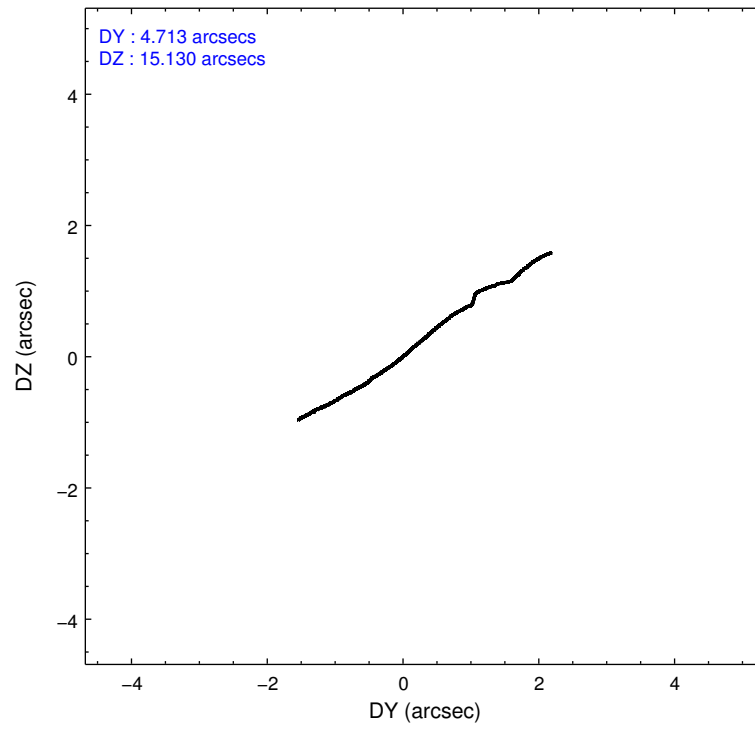
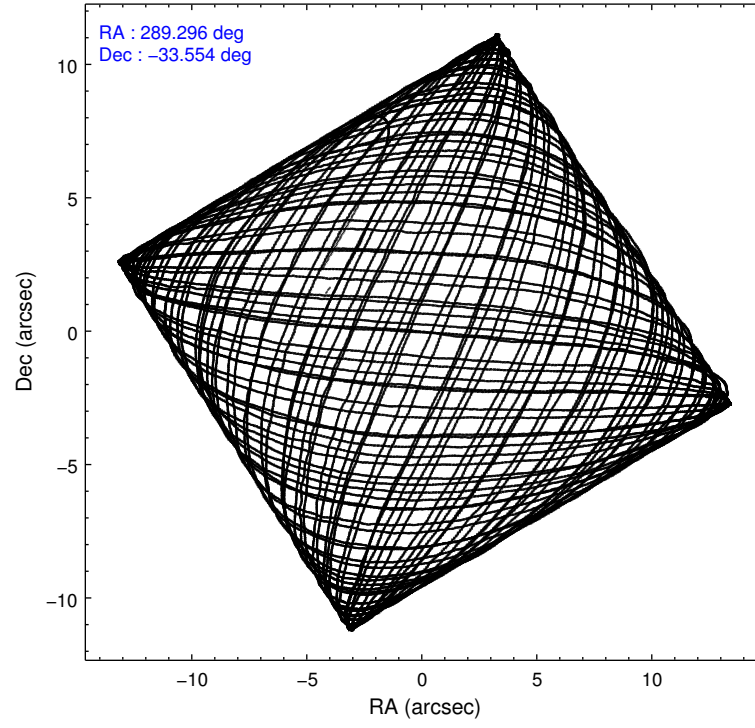
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	254891	271888	286492	284834
rejected events	224441	234805	255723	247967
rejected %	88%	86%	89%	87%

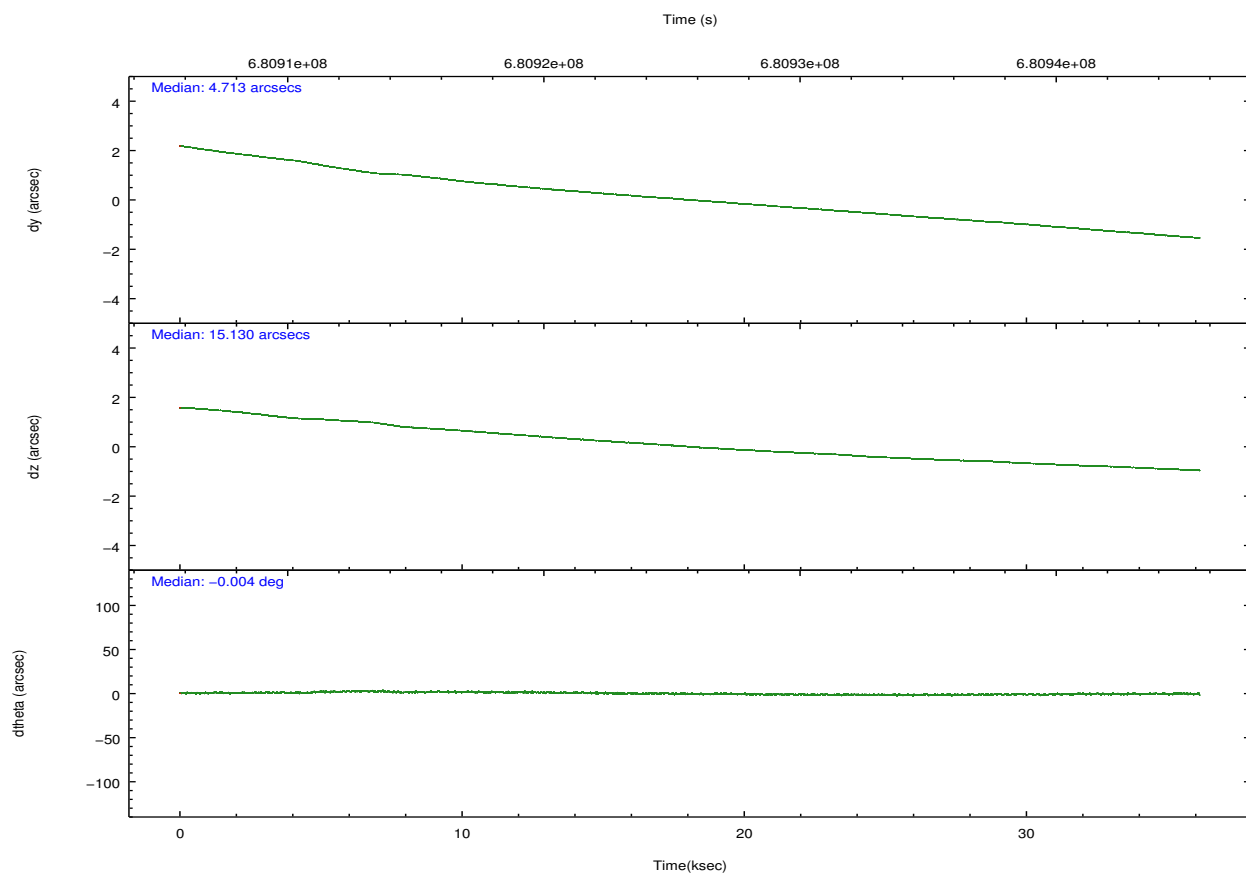
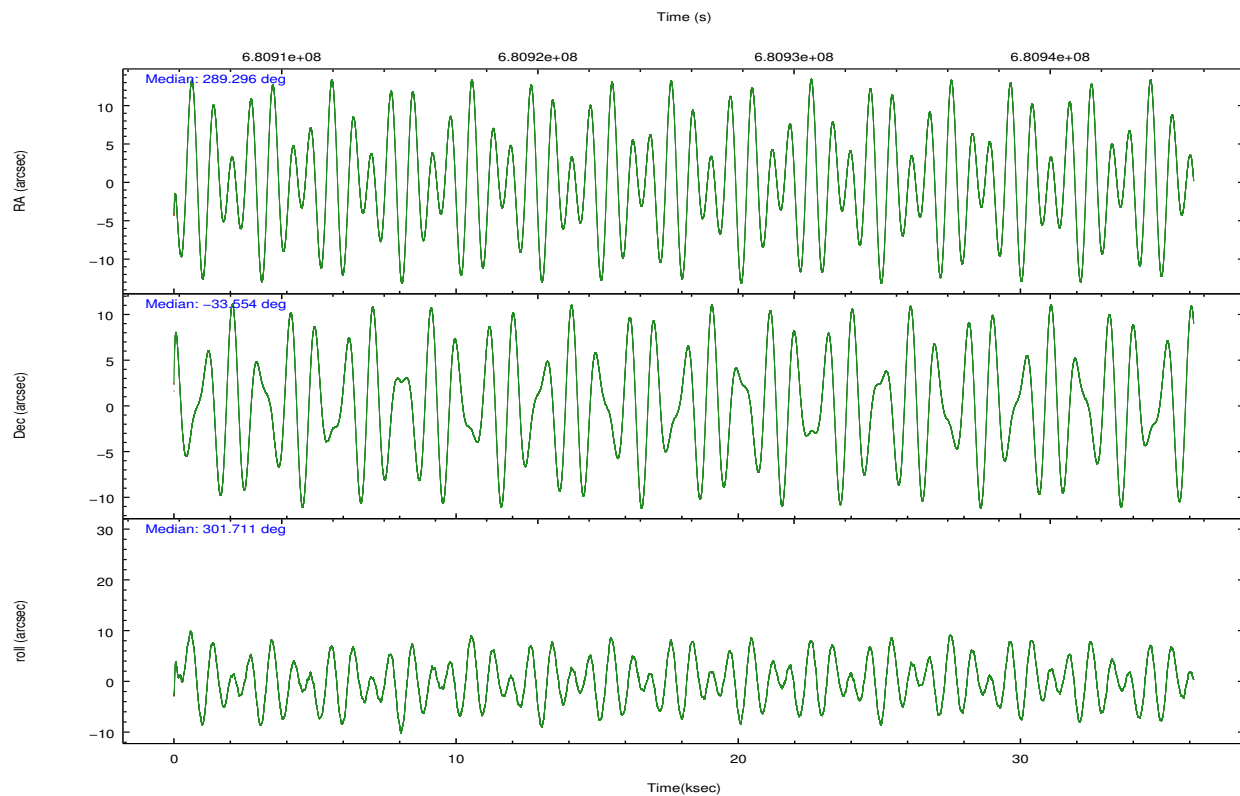
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	10294	14089	11870	16353
	4%	5%	4%	5%
grade 1 events	133	197	179	164
	0%	0%	0%	0%
grade 2 events	7661	8836	7210	7259
	3%	3%	2%	2%
grade 3 events	3021	3028	2970	3334
	1%	1%	1%	1%
grade 4 events	2840	2910	2790	3279
	1%	1%	0%	1%
grade 5 events	11450	11884	10896	13090
	4%	4%	3%	4%
grade 6 events	6635	8223	5934	6645
	2%	3%	2%	2%
grade 7 events	212857	222721	244643	234710
	83%	81%	85%	82%

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	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	289.266982	289.2961901195838	CCD I2 on	Y	Y
[deg] Pointing Dec	-33.541103	-33.55408991224294	CCD I3 on	Y	Y
[deg] Pointing Roll	301.495336	301.7201626736787	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	N
[mm] SIM translation stage pos	-225.842463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	680907768.184000	680906502.2404701	CCD S5 on	N	N
Observation start date	2019-07-30T21:01:39	2019-07-30T20:41:42	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	680943768.184000	680945022.7678	On-chip summing requested	N	N
Observation end date	2019-07-31T07:01:39	2019-07-31T07:23:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



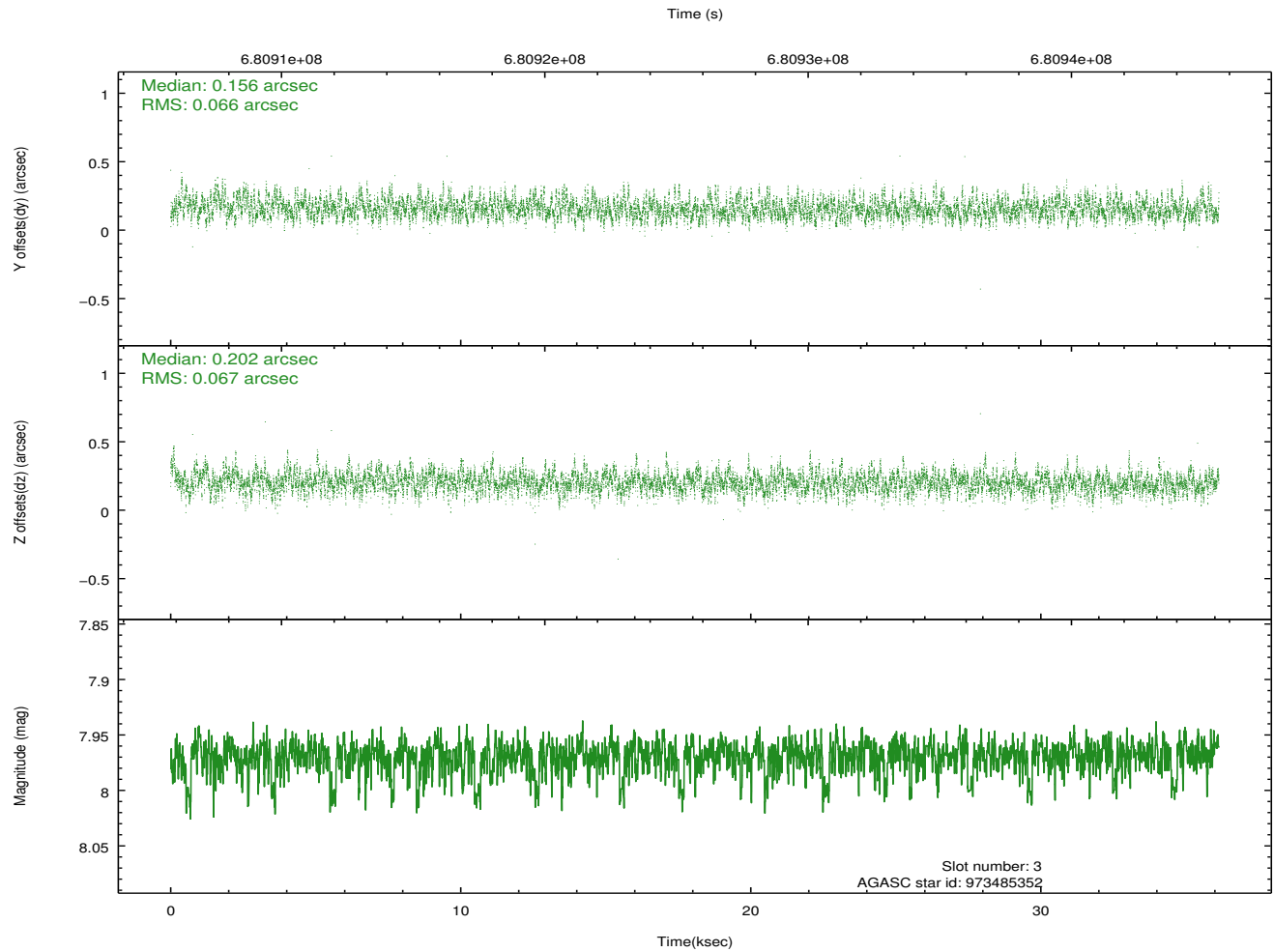
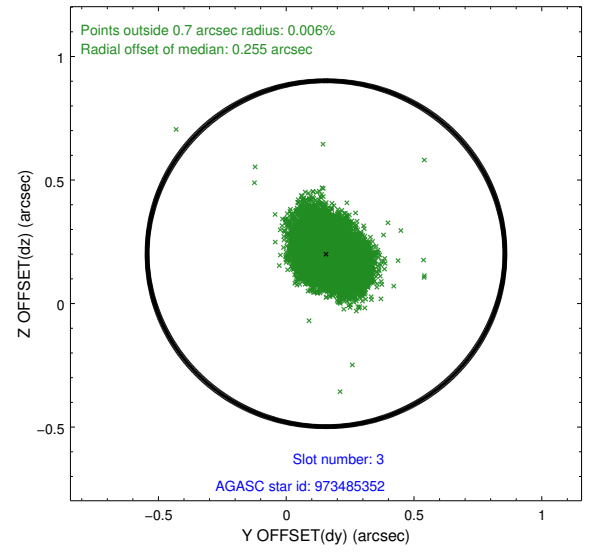
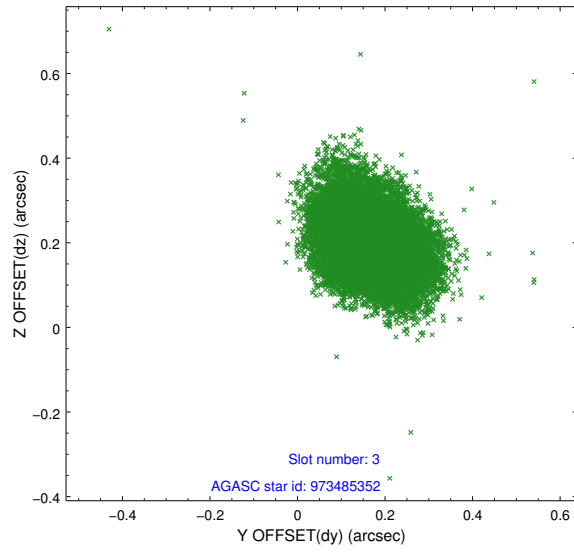


Slot Statistics

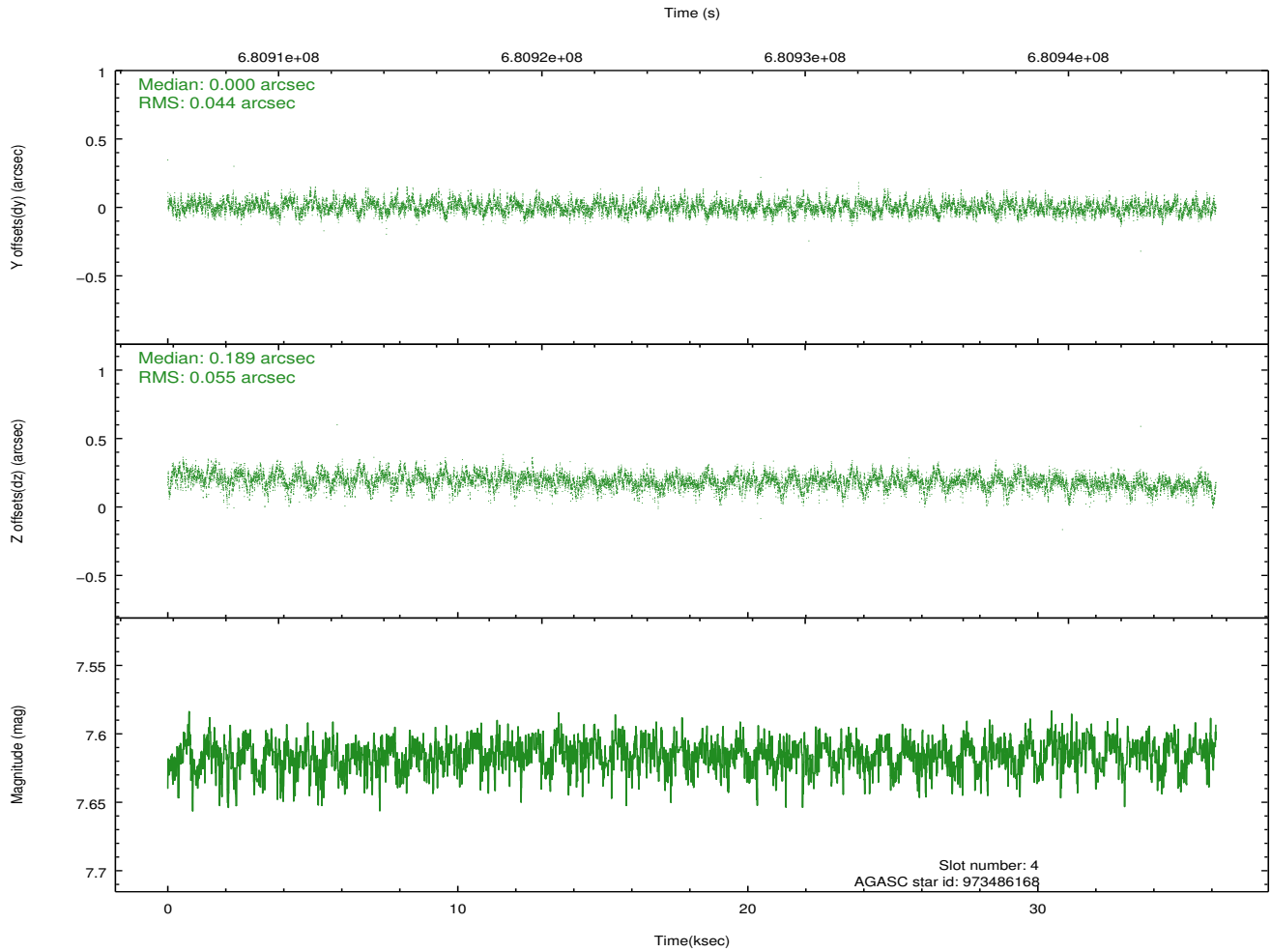
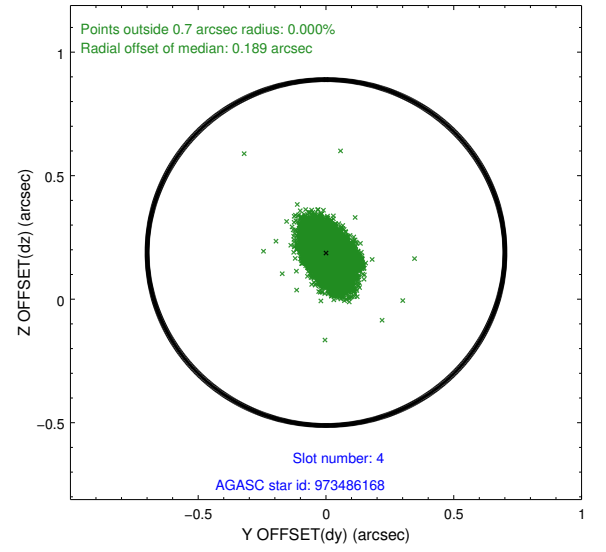
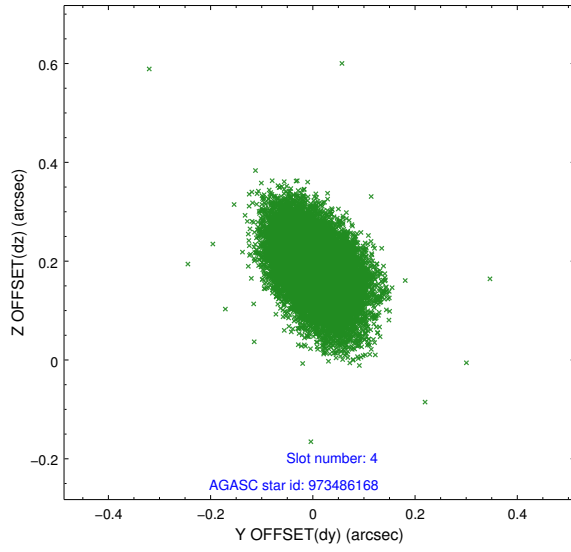
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-3	7.35	8814	1.000	-0.026	0.057	0.036	0.049	0.000000	0.000000	52.21	-1131
1	FID		ACIS-I-5	7.13	8814	1.000	-0.353	-0.071	0.024	0.033	0.000000	0.000000	-1813.79	899
2	FID		ACIS-I-6	7.17	8812	1.000	0.290	0.080	0.020	0.031	0.000000	0.000000	400.52	1544
3	GUIDE	used	973485352	7.97	17622	1.000	0.156	0.202	0.099	0.164	288.944715	-33.530485	-535.63	-805
4	GUIDE	used	973486168	7.62	17625	1.000	0.000	0.189	0.073	0.127	288.631927	-33.717967	-444.69	-1957
5	GUIDE	used	973492144	8.11	17619	1.000	-0.006	-0.002	0.105	0.179	289.589593	-33.152311	-683.93	1559
6	GUIDE	used	973996064	7.93	17609	1.000	0.030	-0.020	0.107	0.170	289.115787	-33.809440	588.11	-890
7	GUIDE	used	973483608	8.15	17617	1.000	-0.184	-0.368	0.098	0.156	290.049195	-33.461535	990.43	2148

2.4 Star Slots

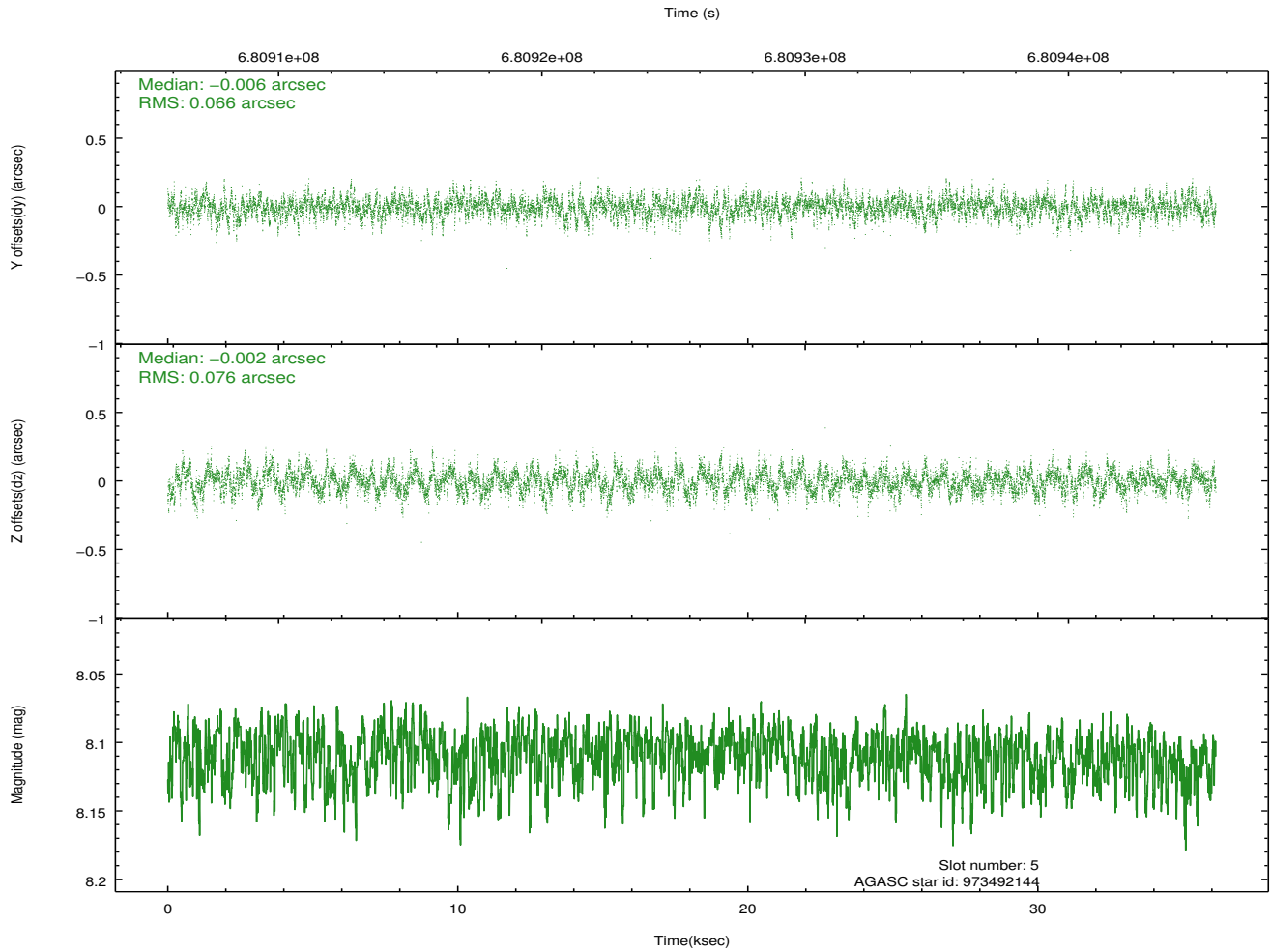
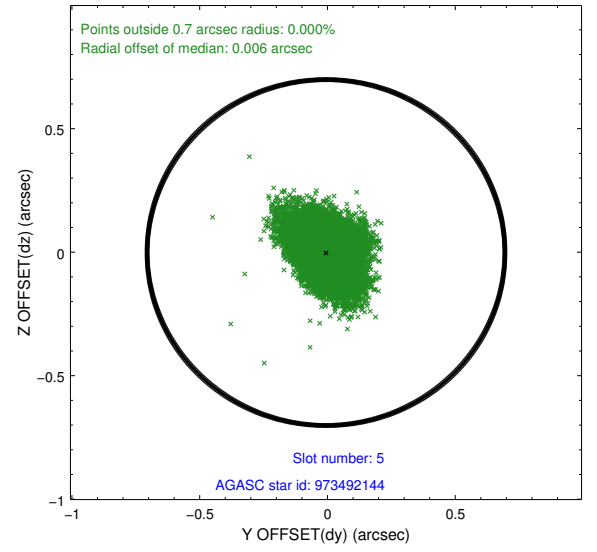
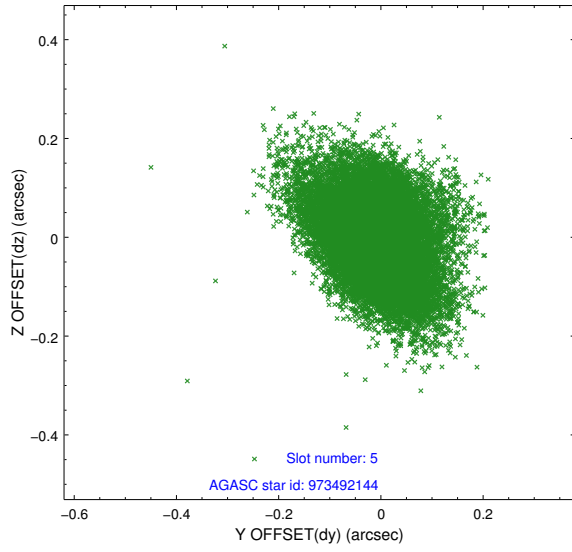
2.4.1 Slot 3



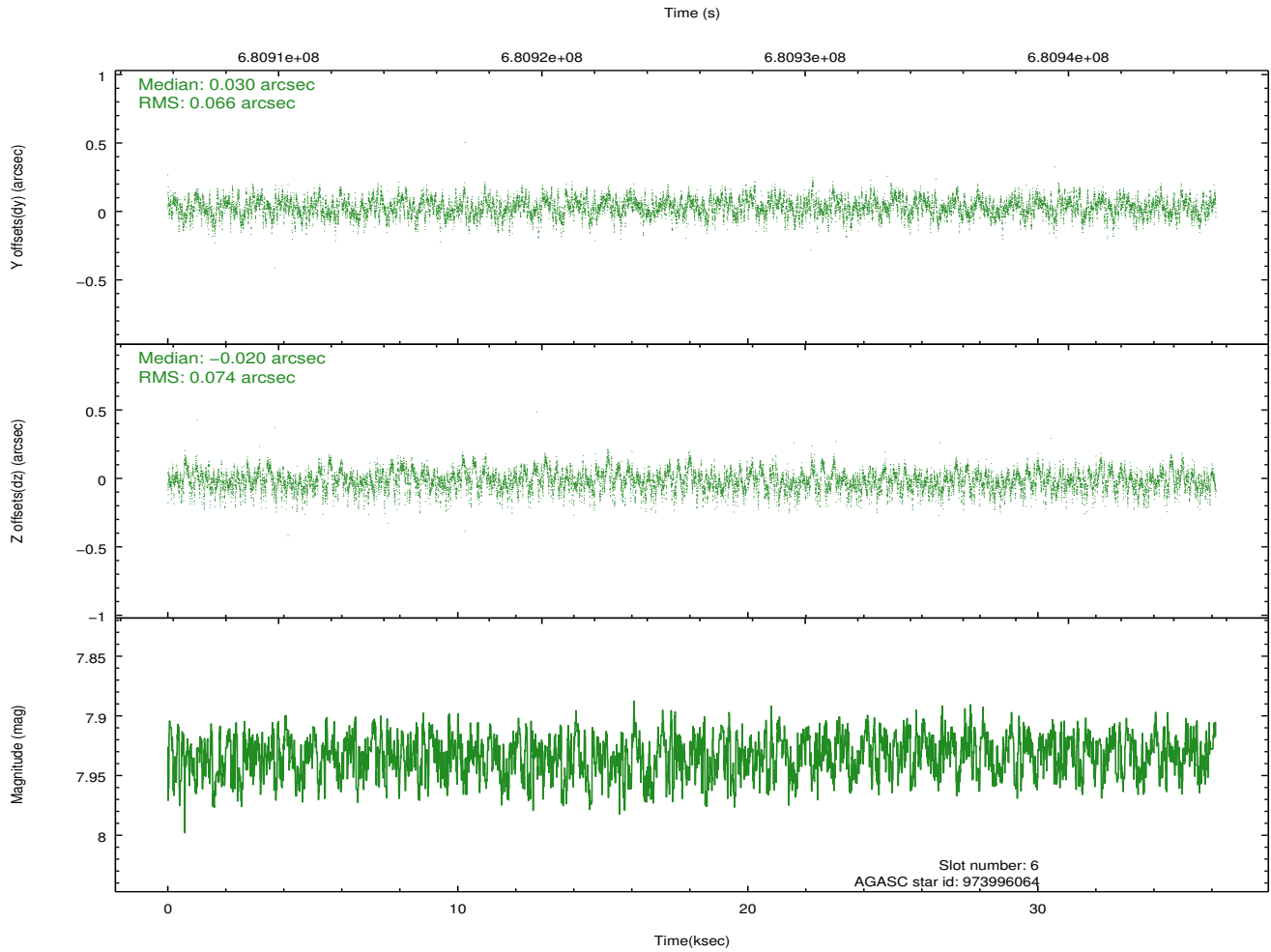
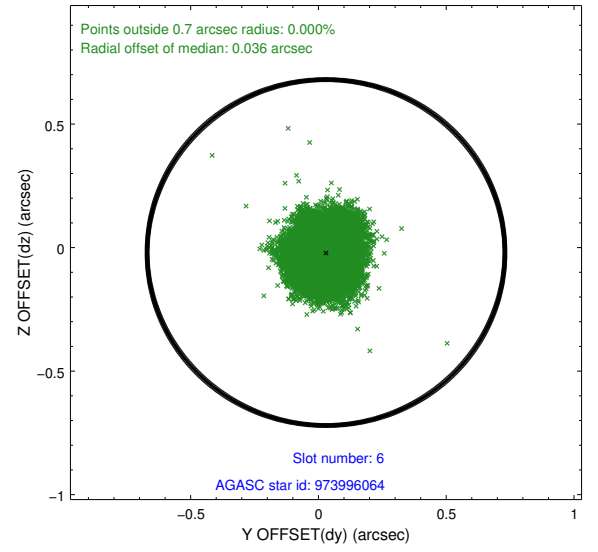
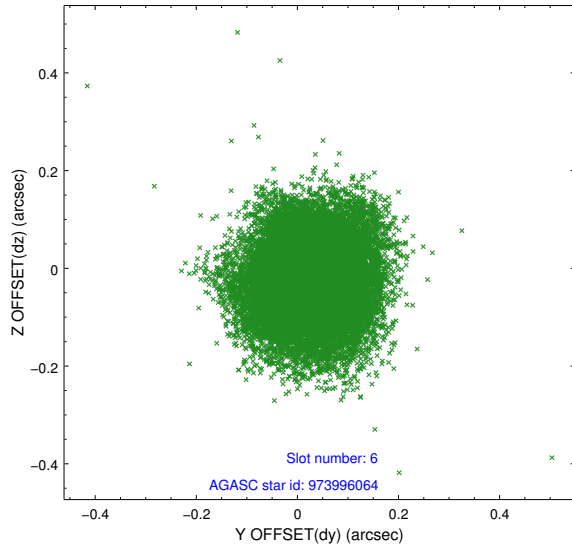
2.4.2 Slot 4



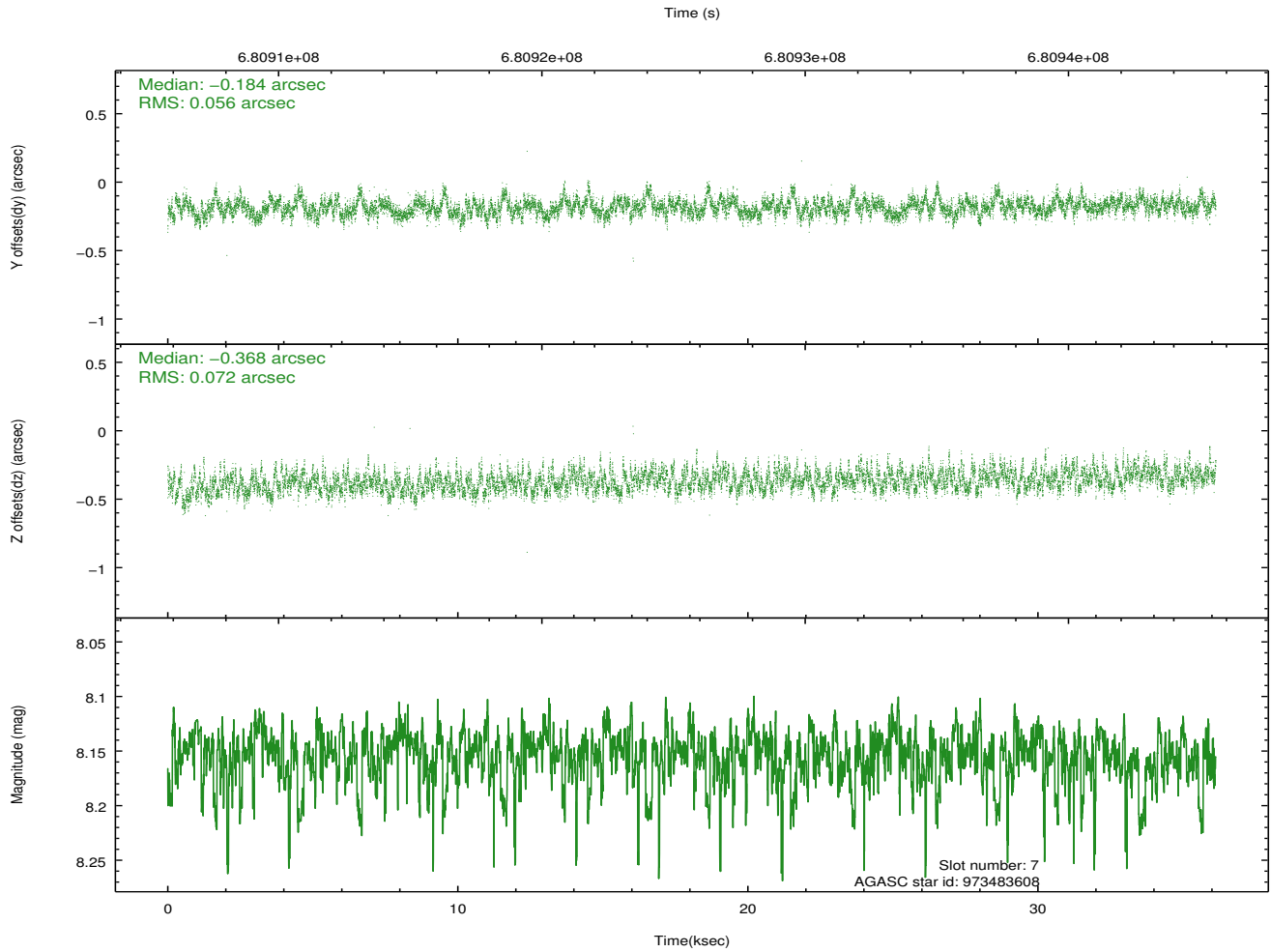
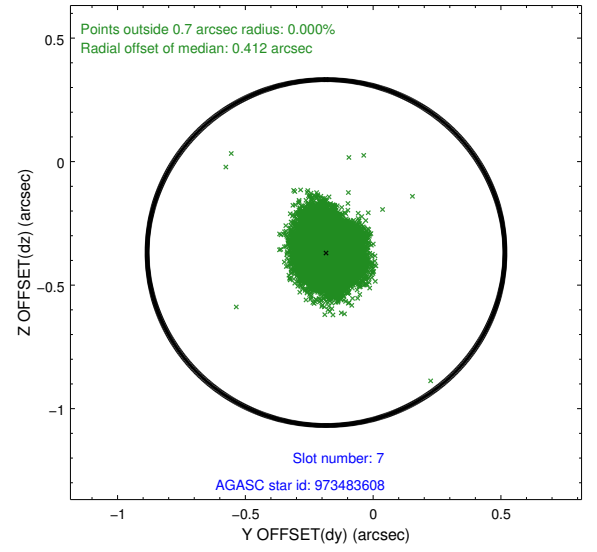
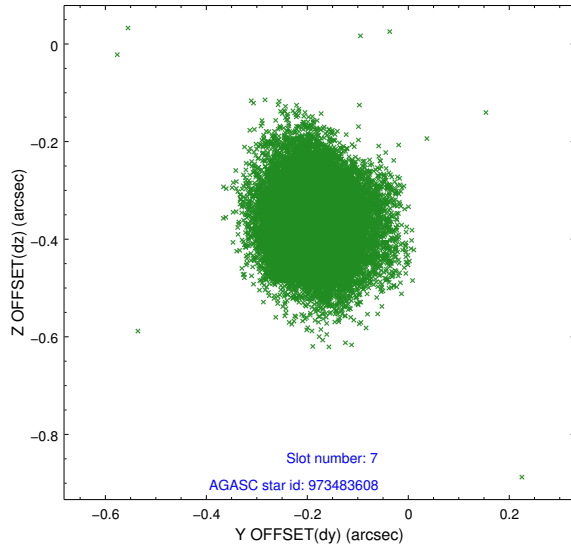
2.4.3 Slot 5



2.4.4 Slot 6

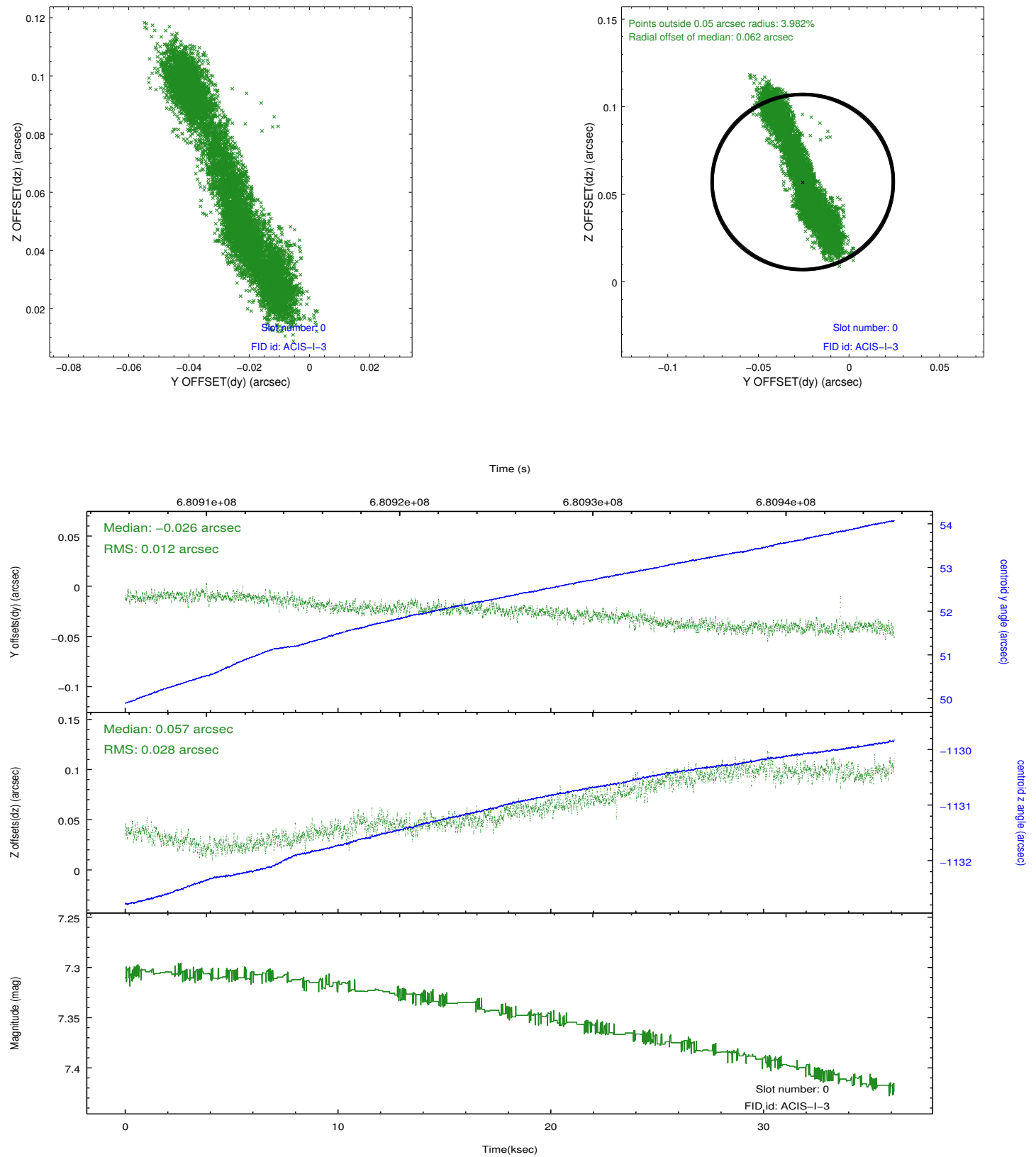


2.4.5 Slot 7

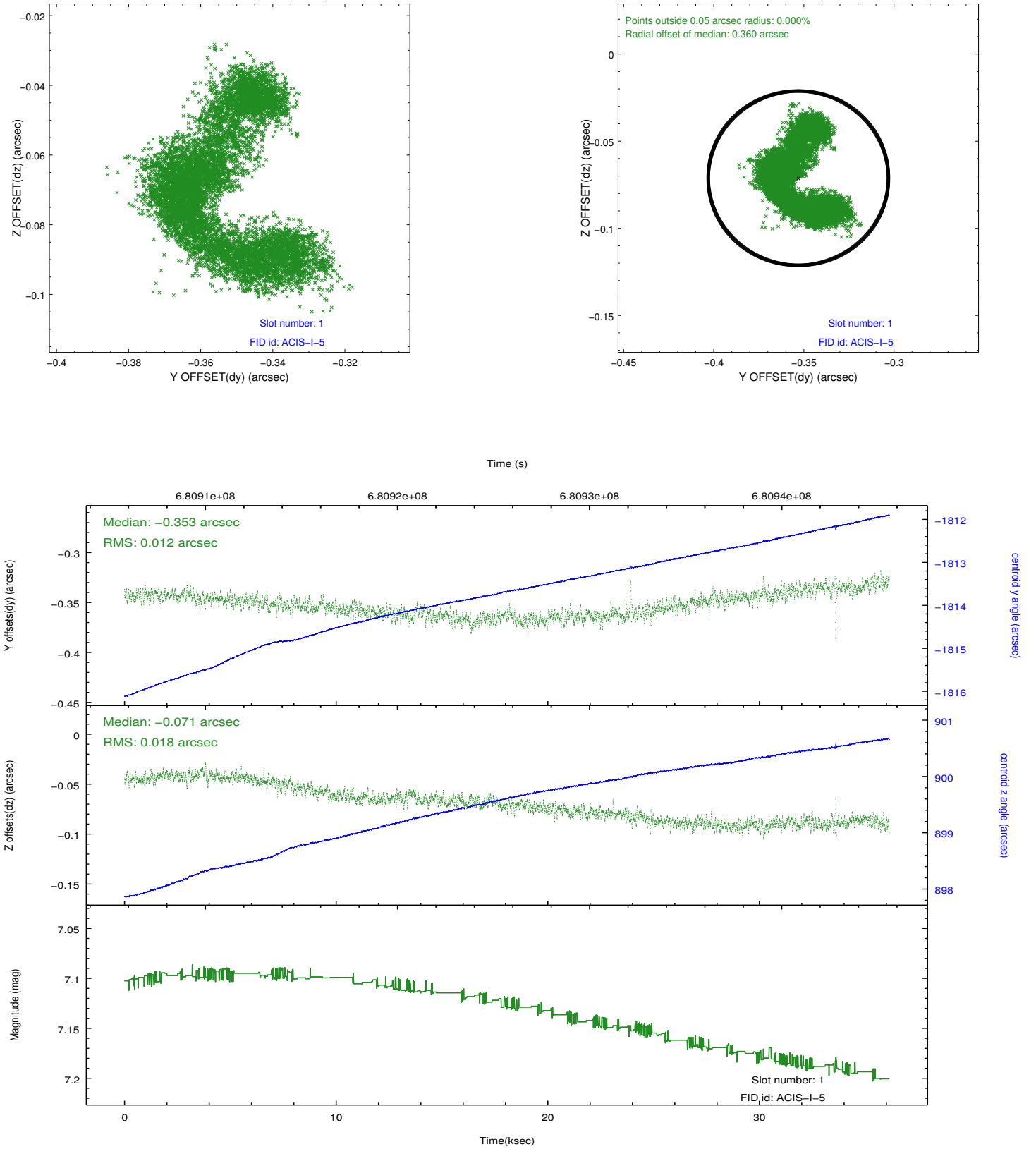


2.5 FID Slots

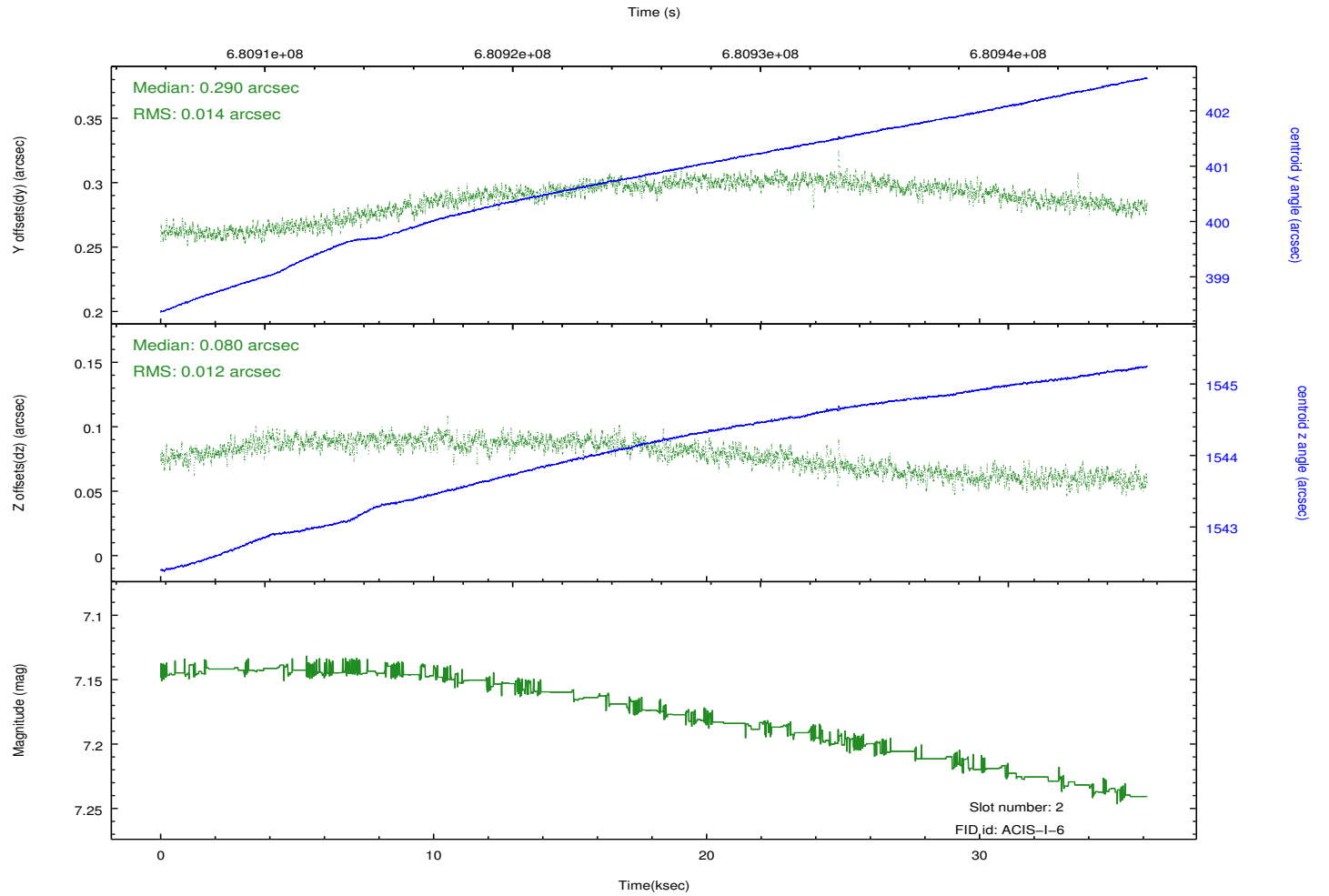
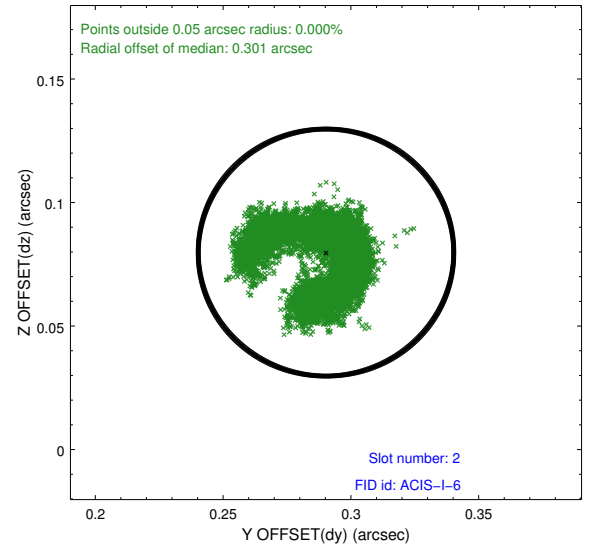
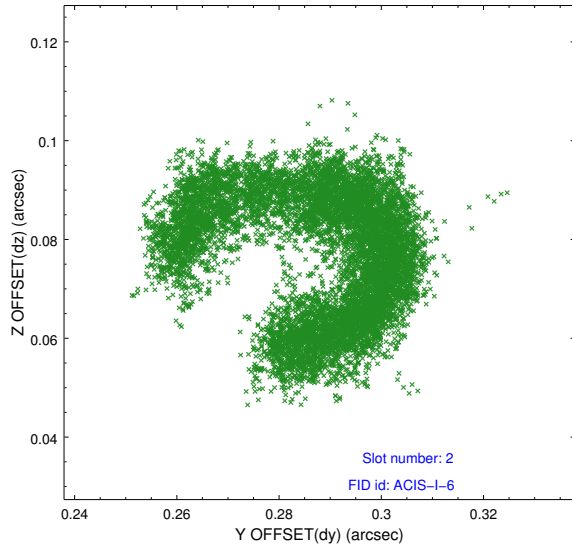
2.5.1 Slot 0



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)	2019.08.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.068238434076

A.2 Comments

One optional chip was dropped.

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A spatial region of the original bias map for CCD = 0 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 = 0 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:

(289.30512,-33.68110), (289.30860,-33.67931), (289.26943,-33.62655),
(289.26594,-33.62833).