

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 15585 - L2 Version 2
Chandra X-Ray Center

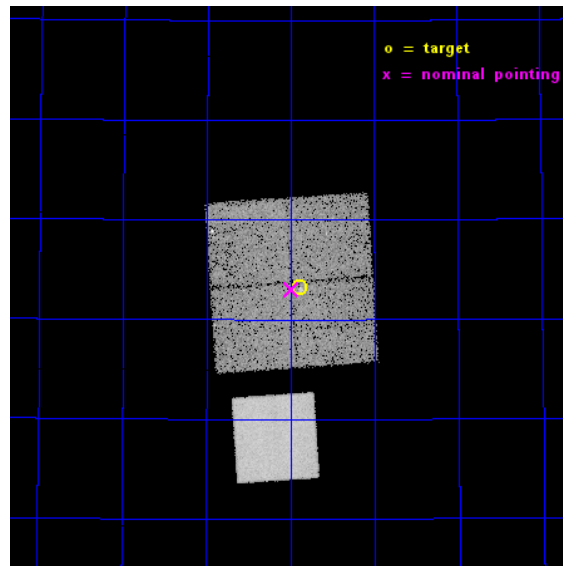
L2 Processing Date : Nov 29 2014

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1 Front

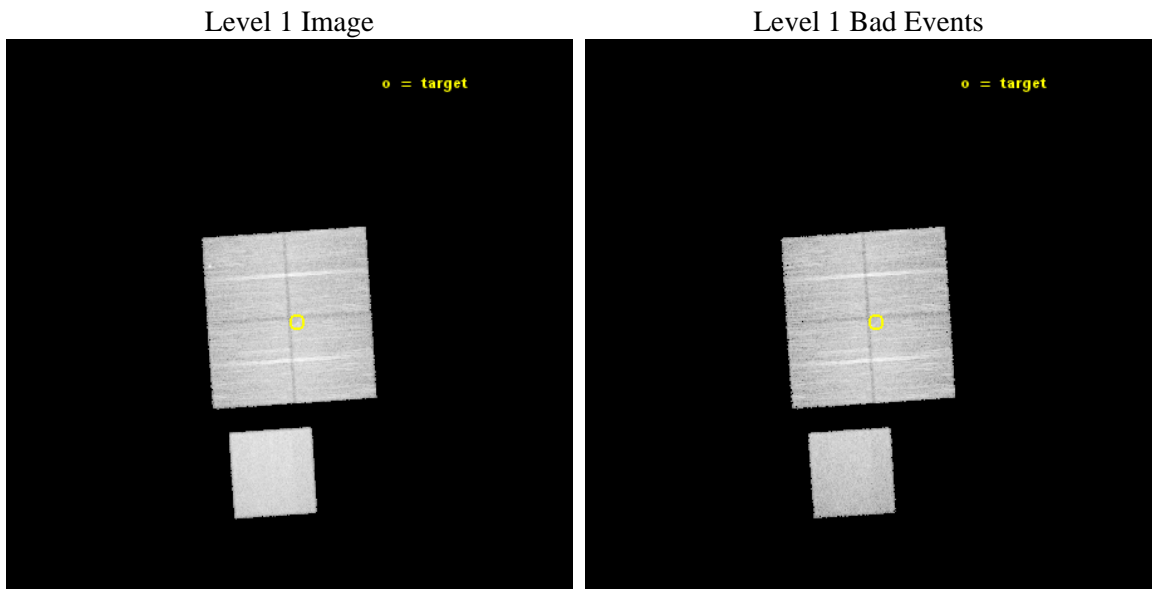
seq_num	501822	Sequence number
obs_id	15585	Observation id
title	A Legacy Study of the Relativistic Shocks of PWNe	Proposal title
observer	Prof. Roger Romani	Principal investigator
object	PSR J0358+5413	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	59.72375	Observer's specified target RA [deg]
dec_targ	54.220472	Observer's specified target Dec [deg]
ra_nom	59.74728344785	Nominal RA [deg]
dec_nom	54.217048606251	Nominal Dec [deg]
roll_nom	176.18961673192	Nominal Roll [deg]
revision	2	Processing version of data
ontime	22065.800169706	Sum of GTIs [s]
livetime	21777.494245883	Livetime [s]
ontime0	22062.659119308	Sum of GTIs [s]
ontime1	22065.800169706	Sum of GTIs [s]
ontime2	22065.800169706	Sum of GTIs [s]
ontime3	22065.800169706	Sum of GTIs [s]
ontime7	22065.800169706	Sum of GTIs [s]
l2events	112632	Number of level 2 events



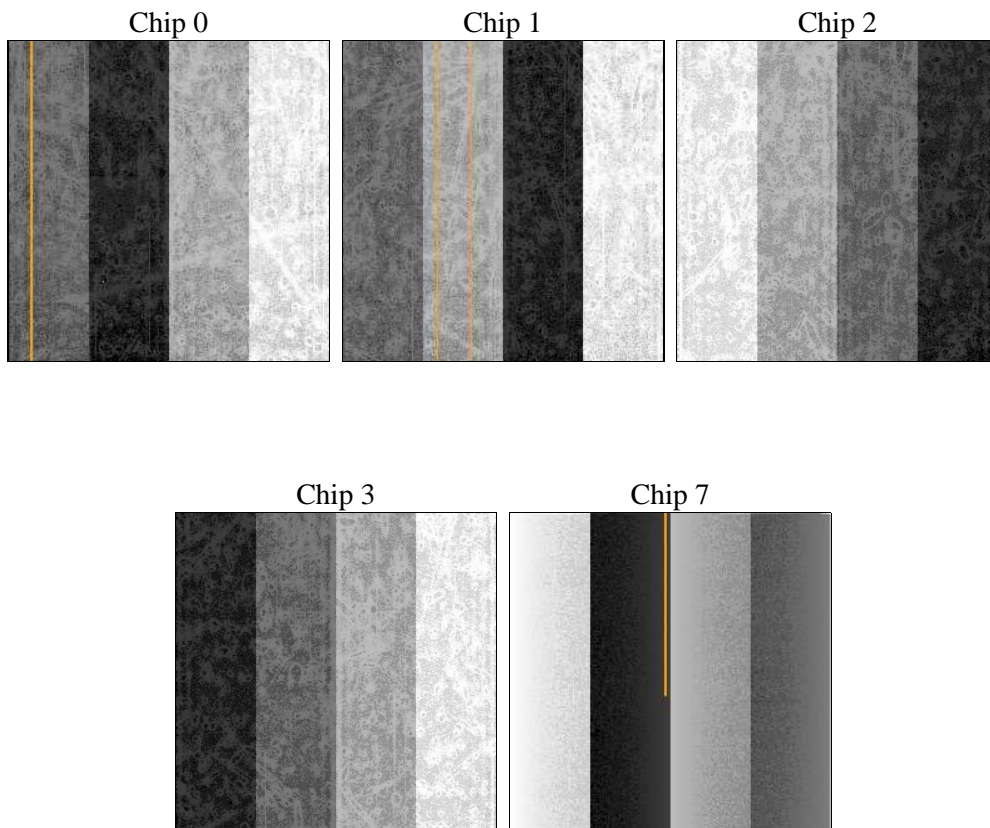
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	22000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	22065.800169706	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	22062.659119308	Sum of GTIs [s]
date	2014-11-29T20:36:24	Date and time of file creation	ontime1	22065.800169706	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	22065.800169706	Sum of GTIs [s]
			ontime3	22065.800169706	Sum of GTIs [s]
			ontime7	22065.800169706	Sum of GTIs [s]
			l1events	592149	Number of level 1 events

2.1.4 Events

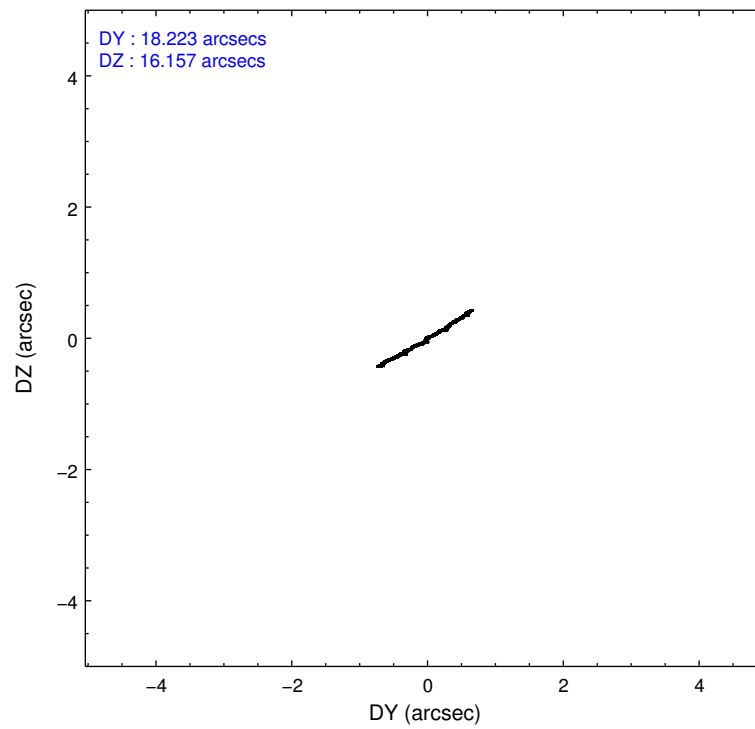
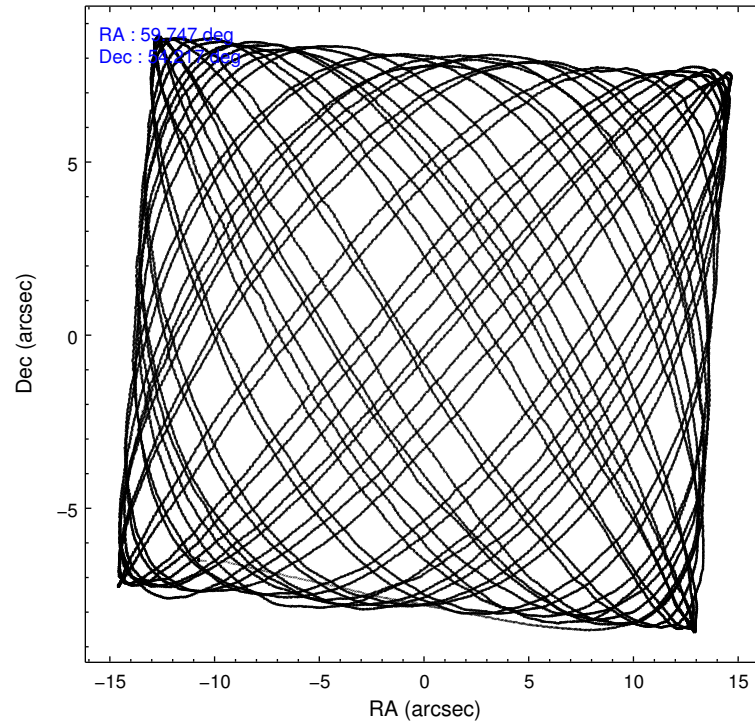
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	105021	106145	112786	111730	156467
rejected events	91142	91189	98639	98550	89429
rejected %	86%	85%	87%	88%	57%

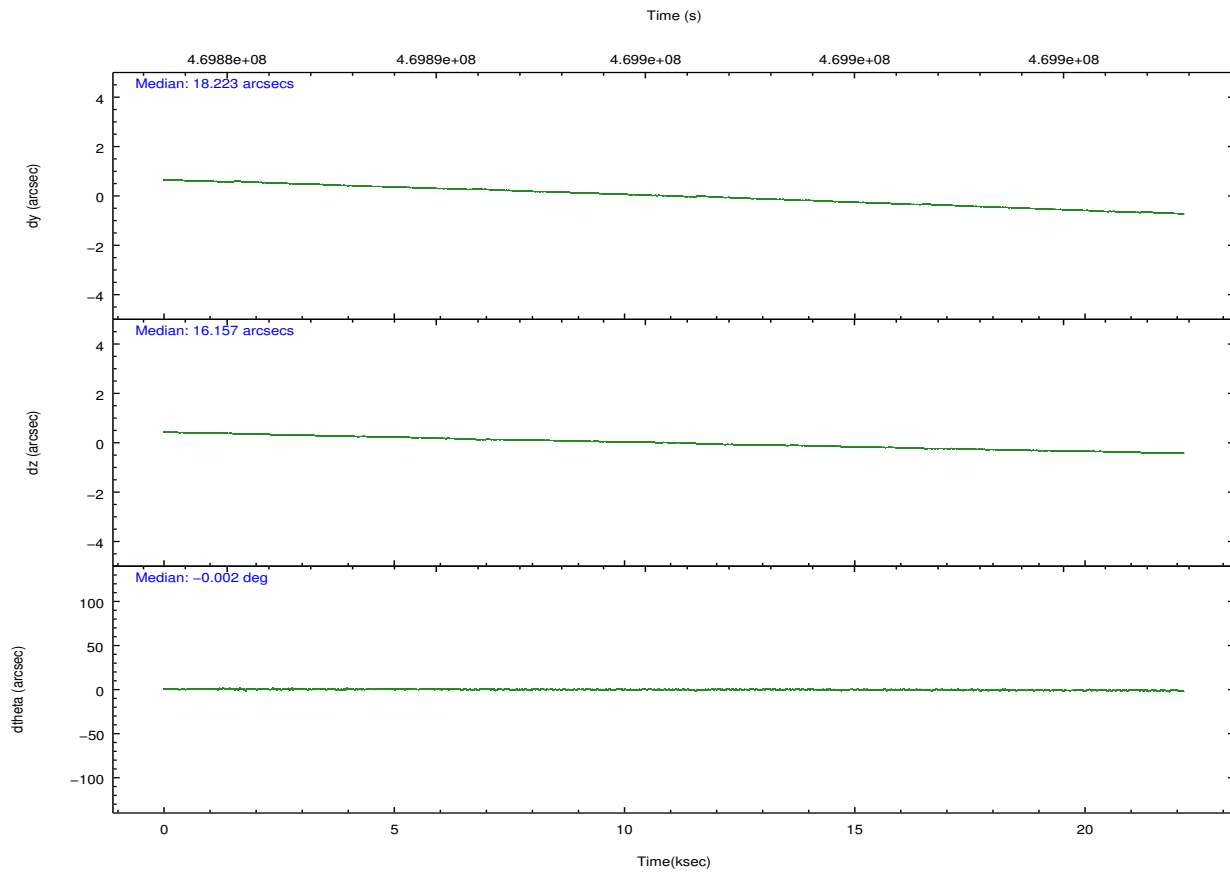
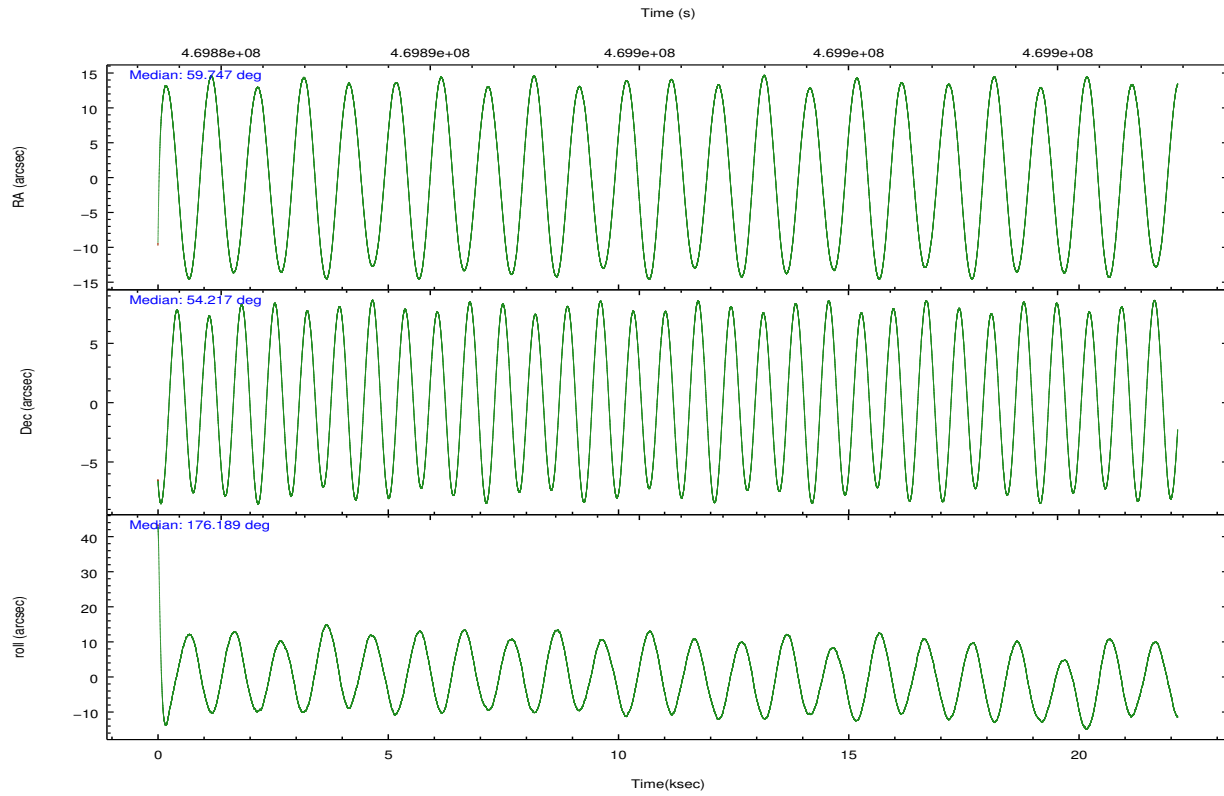
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	4736	5268	5418	4675	5701
	4%	4%	4%	4%	3%
grade 1 events	59	72	67	85	160
	0%	0%	0%	0%	0%
grade 2 events	3352	3454	3358	2948	13669
	3%	3%	2%	2%	8%
grade 3 events	1498	1480	1348	1337	5690
	1%	1%	1%	1%	3%
grade 4 events	1384	1487	1392	1438	5562
	1%	1%	1%	1%	3%
grade 5 events	5303	5722	5135	6305	16245
	5%	5%	4%	5%	10%
grade 6 events	2916	3271	2636	2787	36436
	2%	3%	2%	2%	23%
grade 7 events	85773	85391	93432	92155	73004
	81%	80%	82%	82%	46%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	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	59.789396	59.74728344785014	CCD I2 on	Y	Y
[deg] Pointing Dec	54.229301	54.21704860625098	CCD I3 on	Y	Y
[deg] Pointing Roll	175.946744	176.1896167319216	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	-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)	469884750.184000	469883131.74023	CCD S5 on	N	N
Observation start date	2012-11-21T11:31:23	2012-11-21T11:05:31	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	469906750.184000	469907547.75404	On-chip summing requested	N	N
Observation end date	2012-11-21T17:38:03	2012-11-21T17:52:27	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





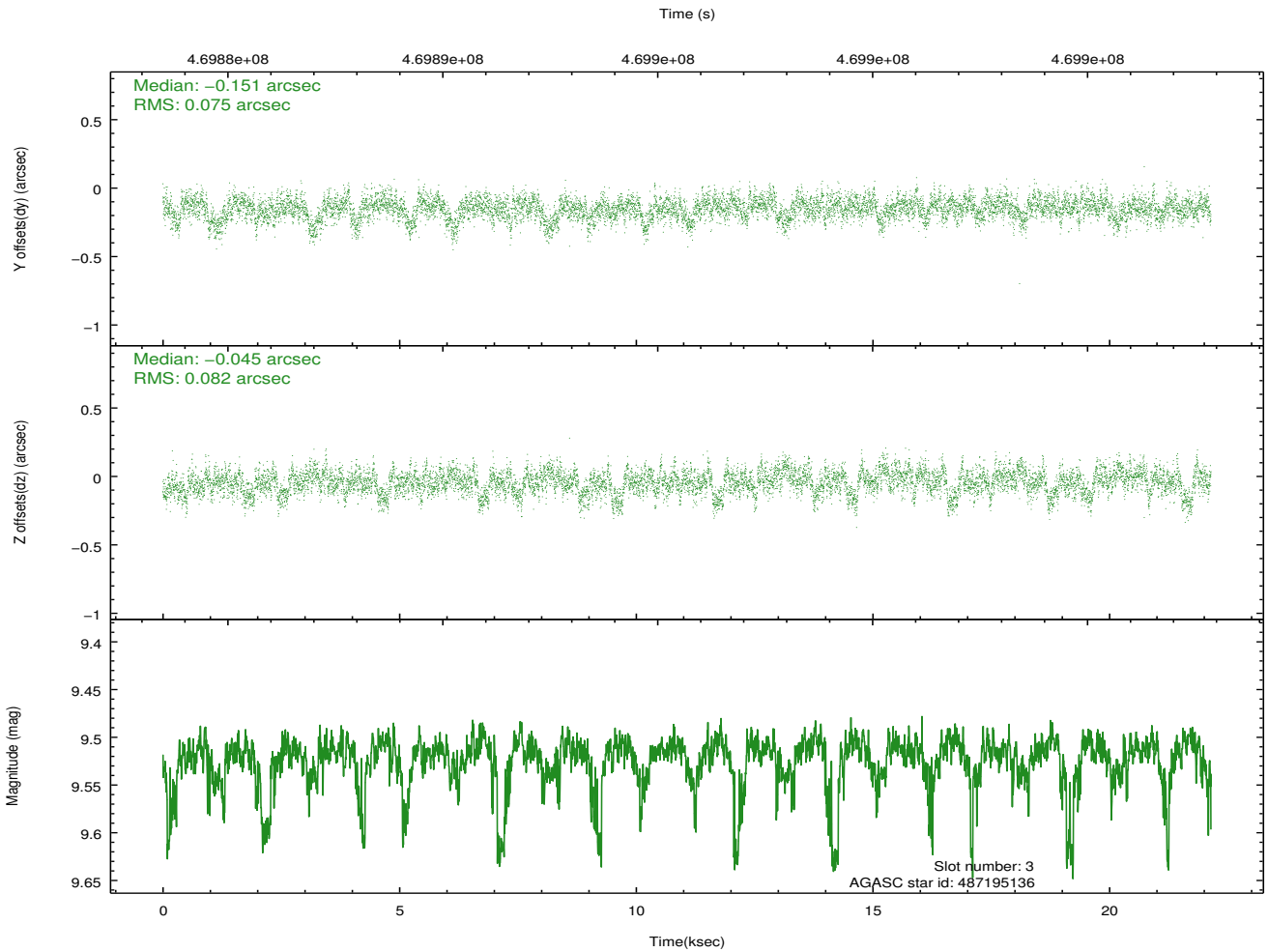
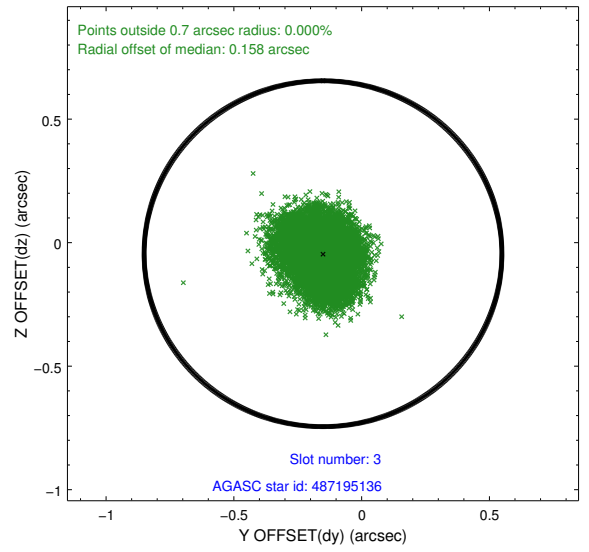
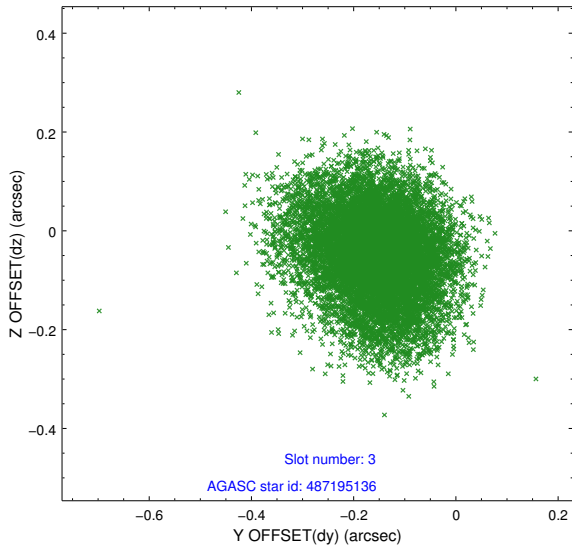
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.15	5402	0.069	-0.039	0.009	0.015	0.000000	0.000000	921.23	-839.81
1	FID		ACIS-I-5	7.14	5402	-0.275	0.052	0.009	0.017	0.000000	0.000000	-1827.14	1057.69
2	FID		ACIS-I-6	7.15	5402	0.115	0.059	0.009	0.015	0.000000	0.000000	386.65	1702.37
3	GUIDE	used	487195136	9.52	10775	-0.151	-0.045	0.118	0.195	58.914846	53.877945	1762.64	1381.98
4	GUIDE	used	487198896	7.41	10801	-0.130	-0.226	0.081	0.136	59.659200	53.988692	214.04	883.52
5	GUIDE	used	487200976	8.59	10800	-0.088	-0.194	0.092	0.143	59.647091	54.074996	260.83	575.28
6	GUIDE	used	487851880	8.11	10800	0.253	0.237	0.066	0.105	60.850967	54.723956	-2074.12	-1948.02
7	GUIDE	used	487858168	8.08	10798	0.113	0.229	0.071	0.111	60.468138	54.475181	-1352.81	-989.95

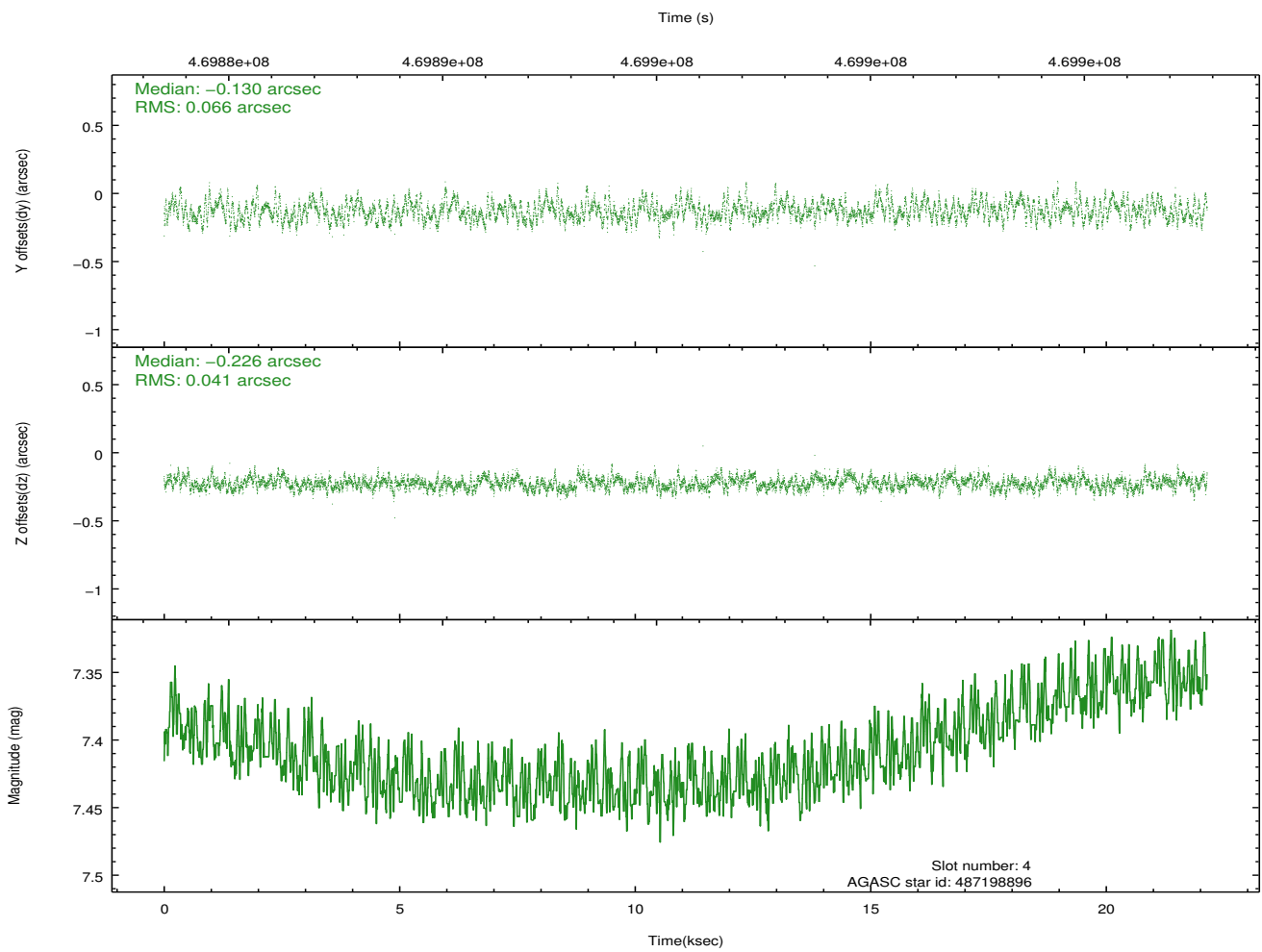
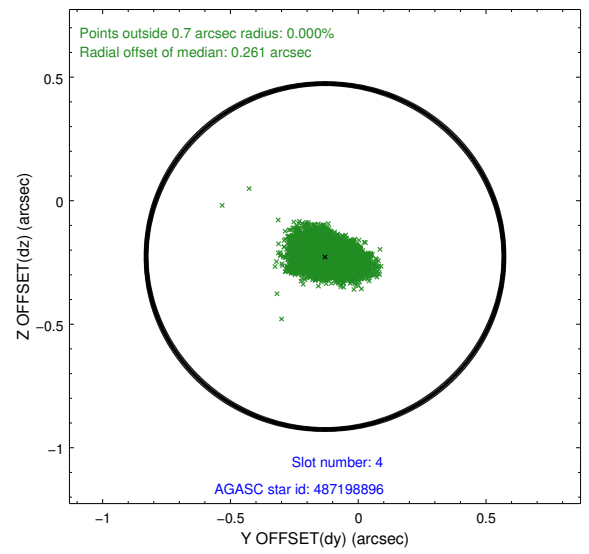
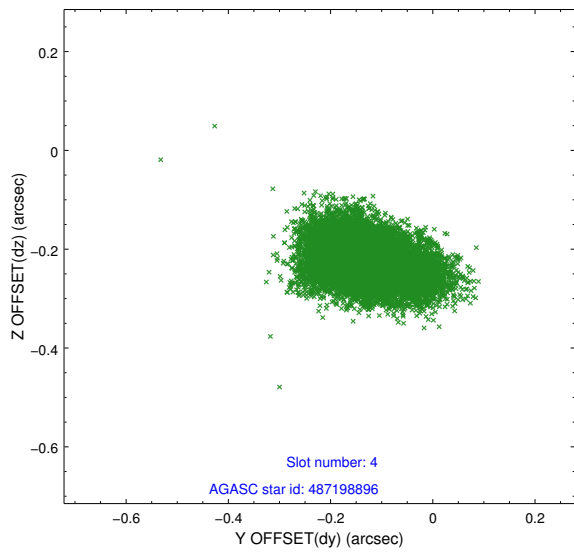
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2.4 Star Slots

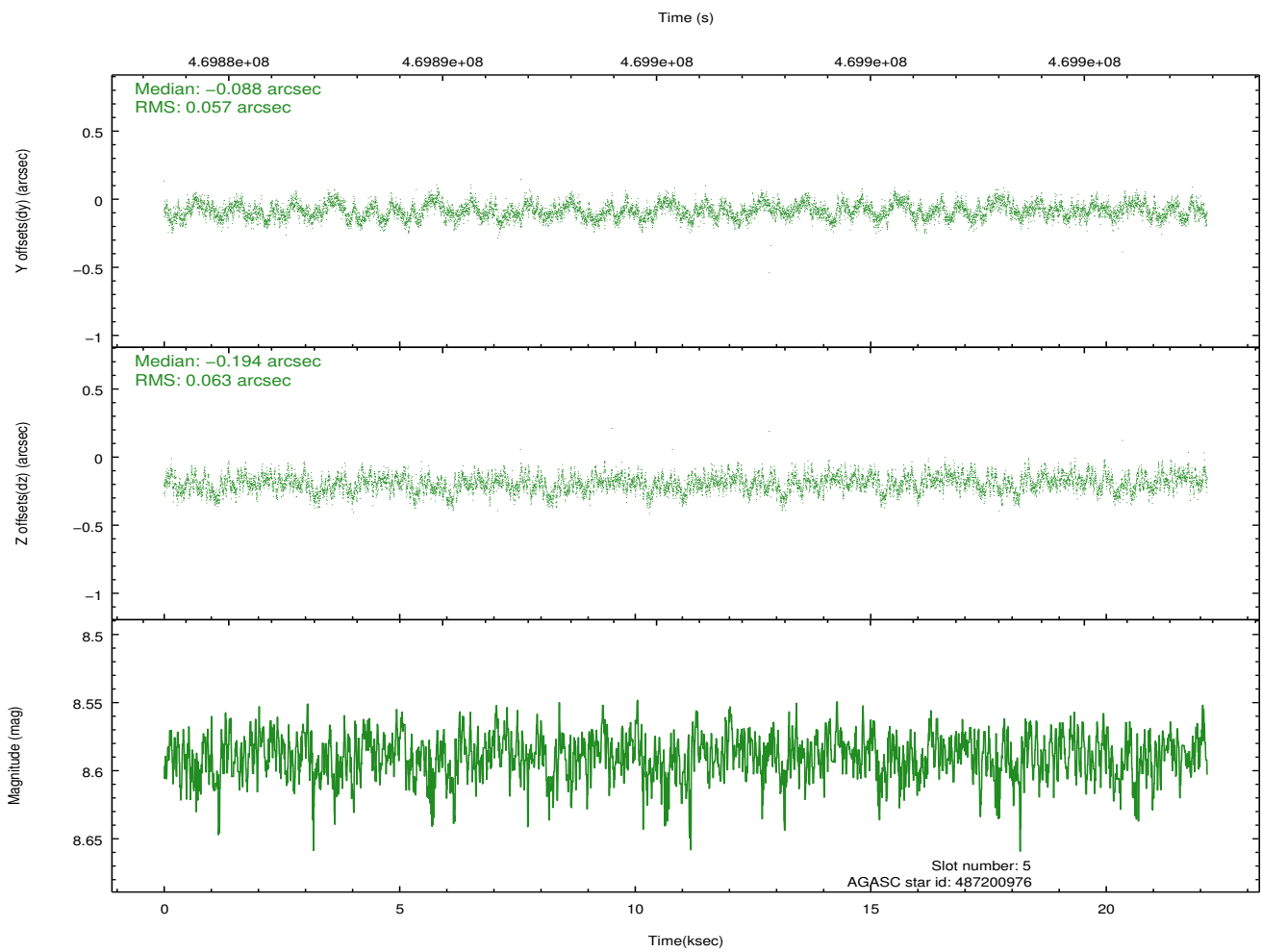
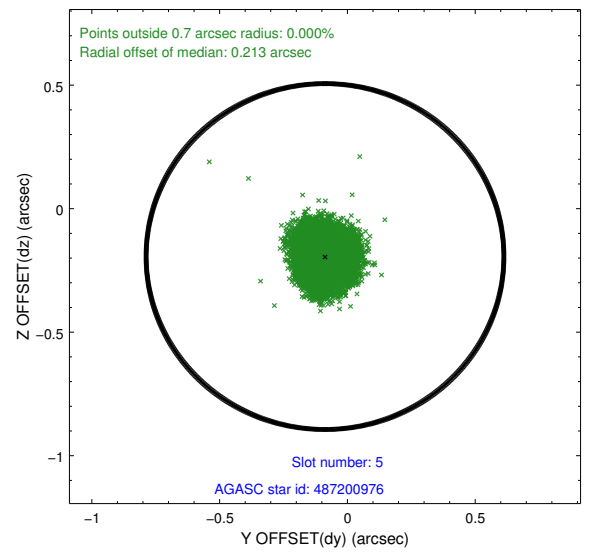
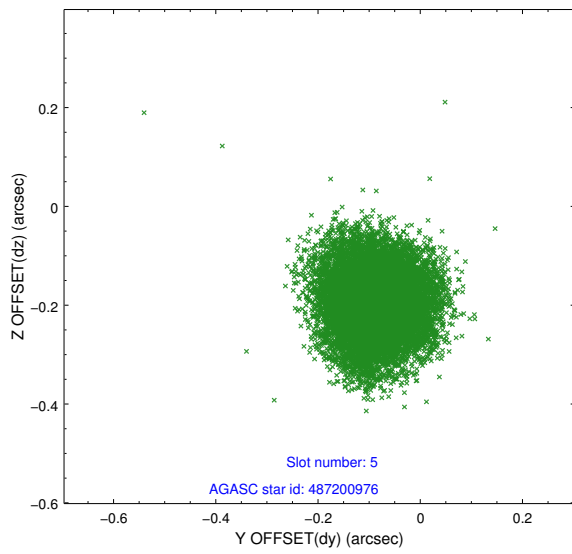
2.4.1 Slot 3



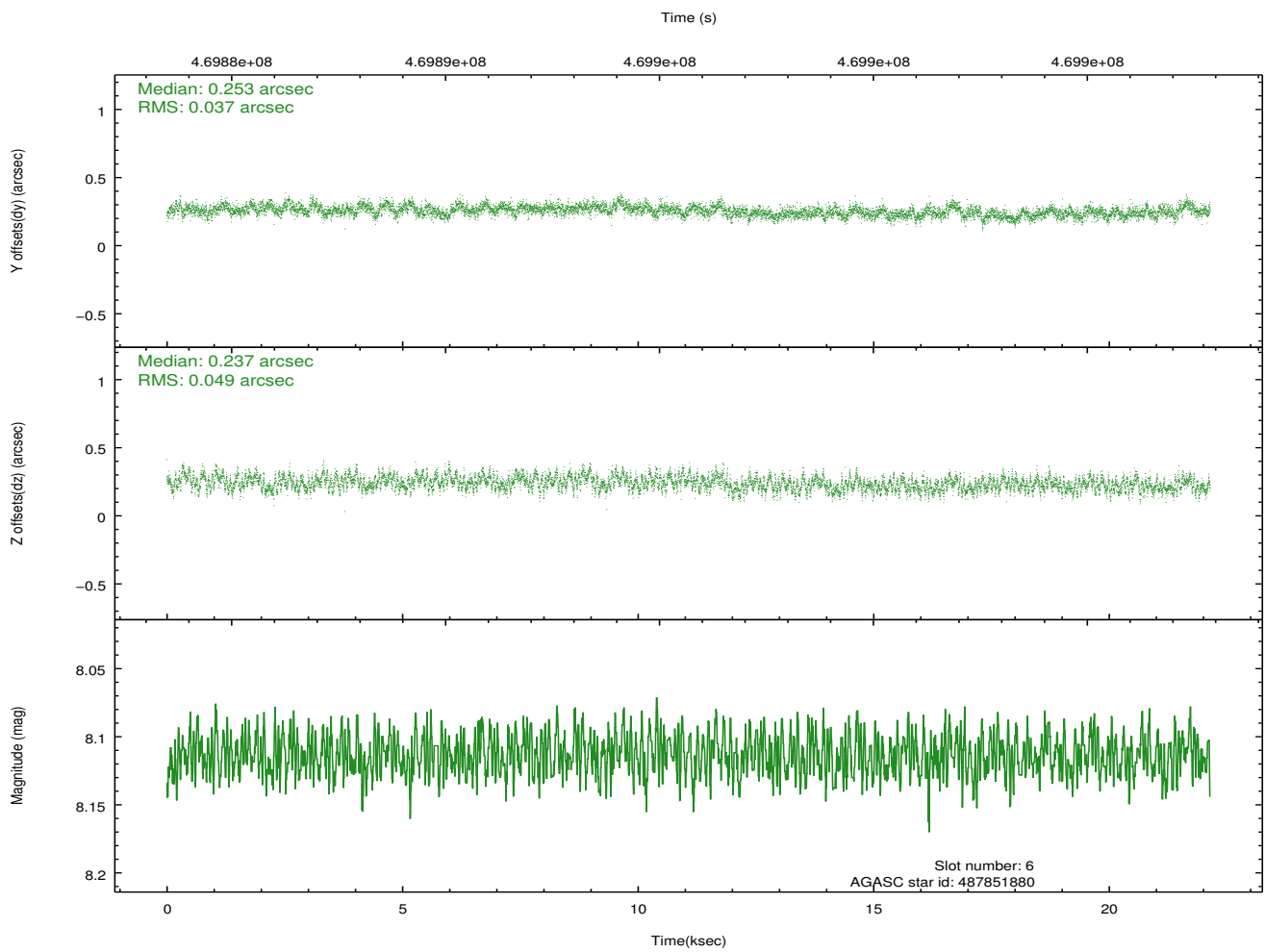
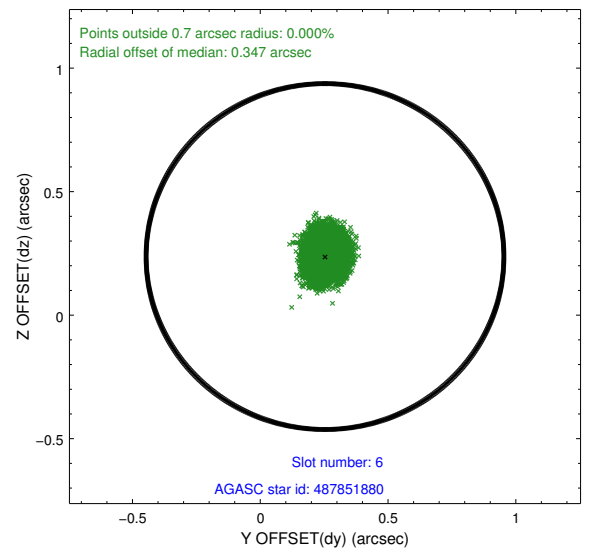
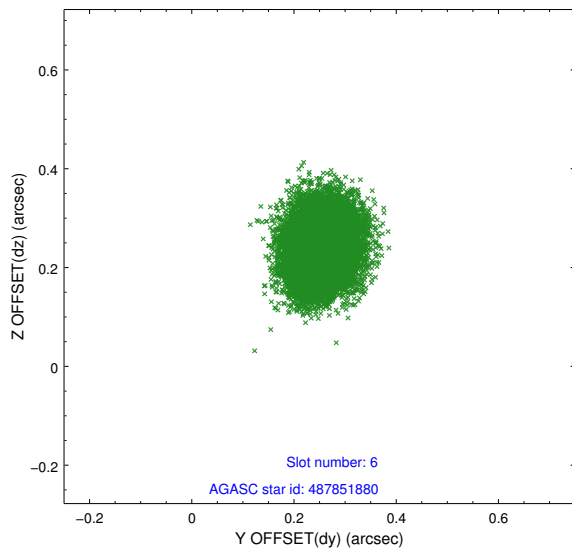
2.4.2 Slot 4



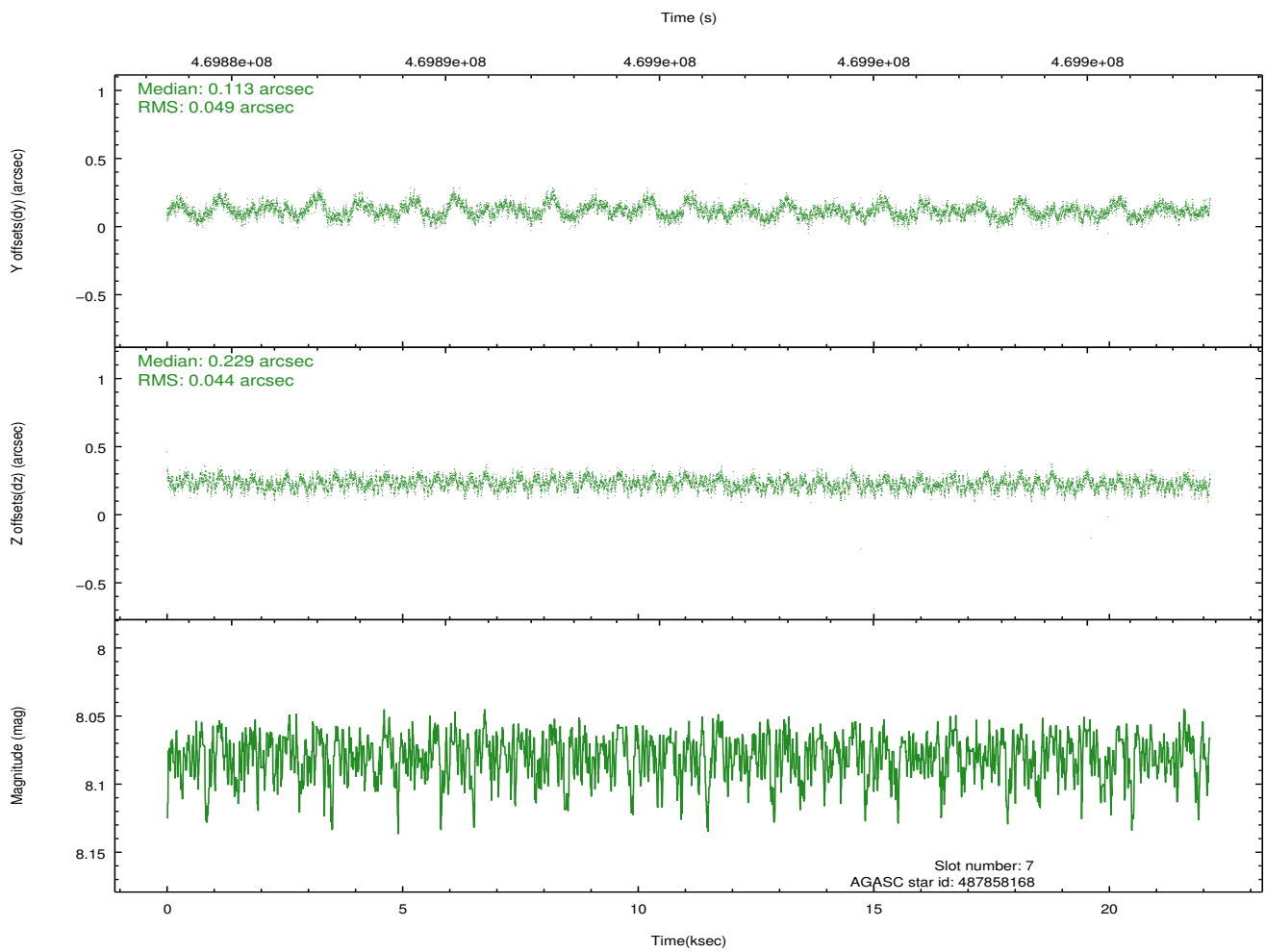
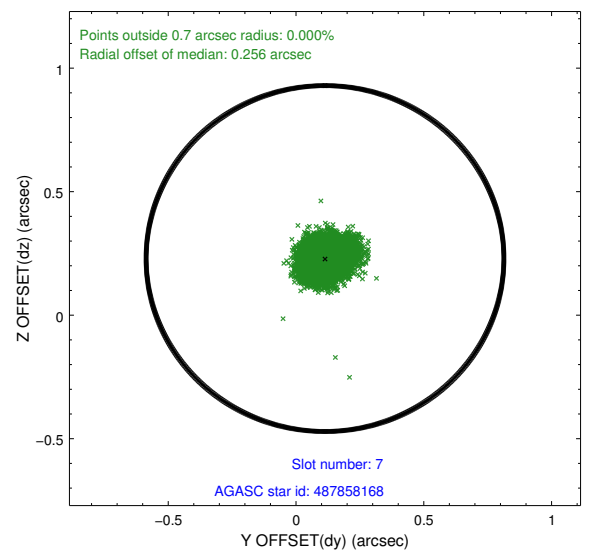
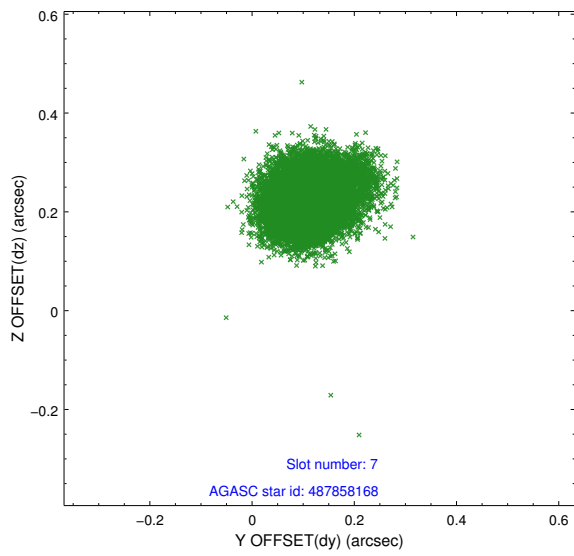
2.4.3 Slot 5



2.4.4 Slot 6

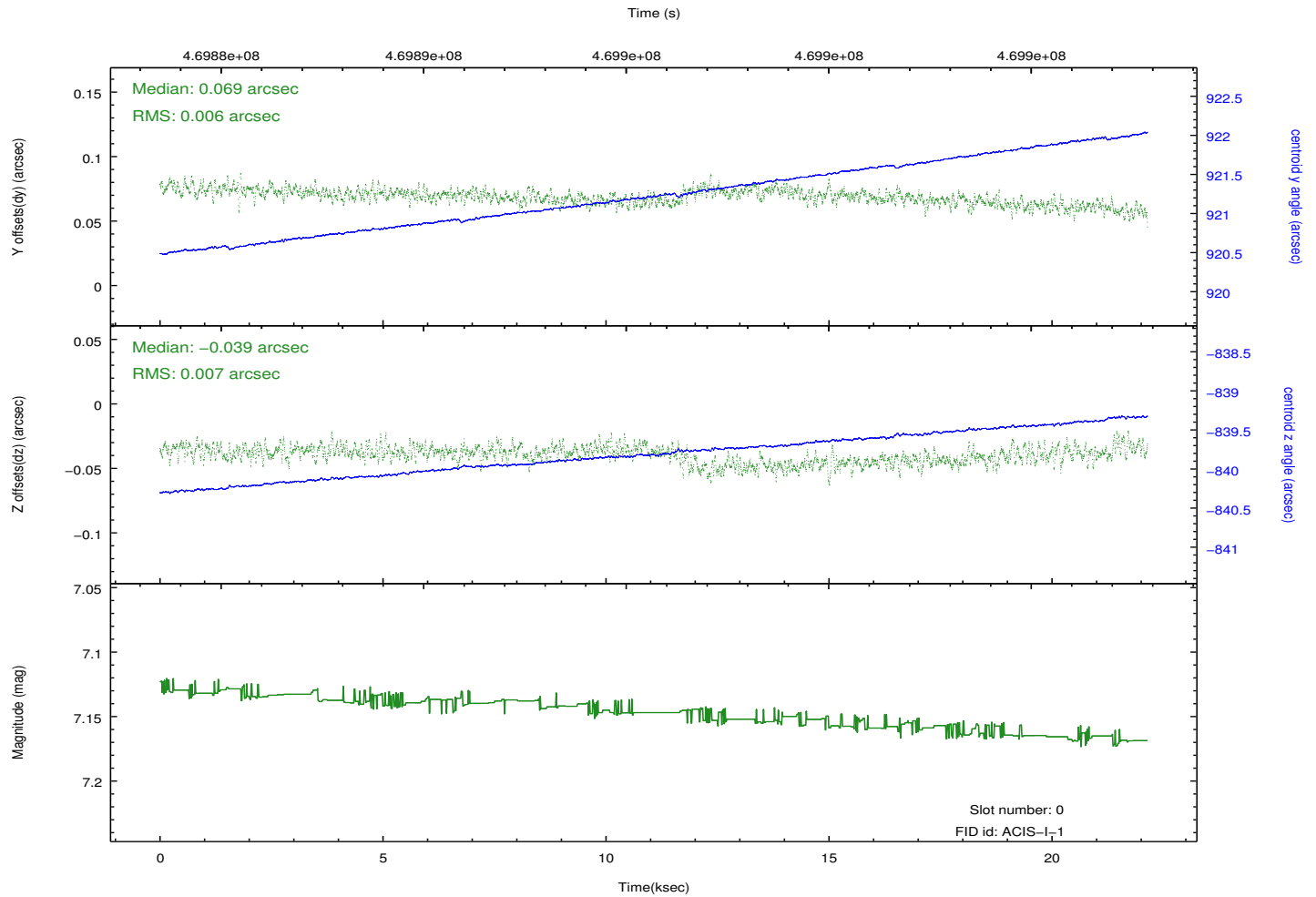
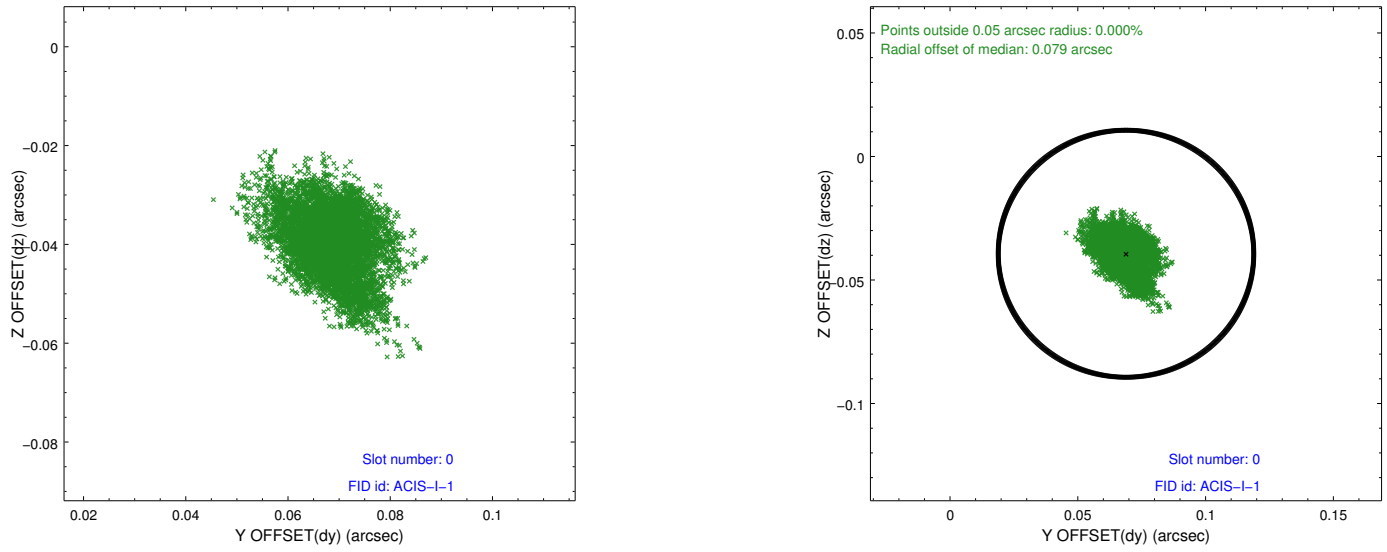


2.4.5 Slot 7

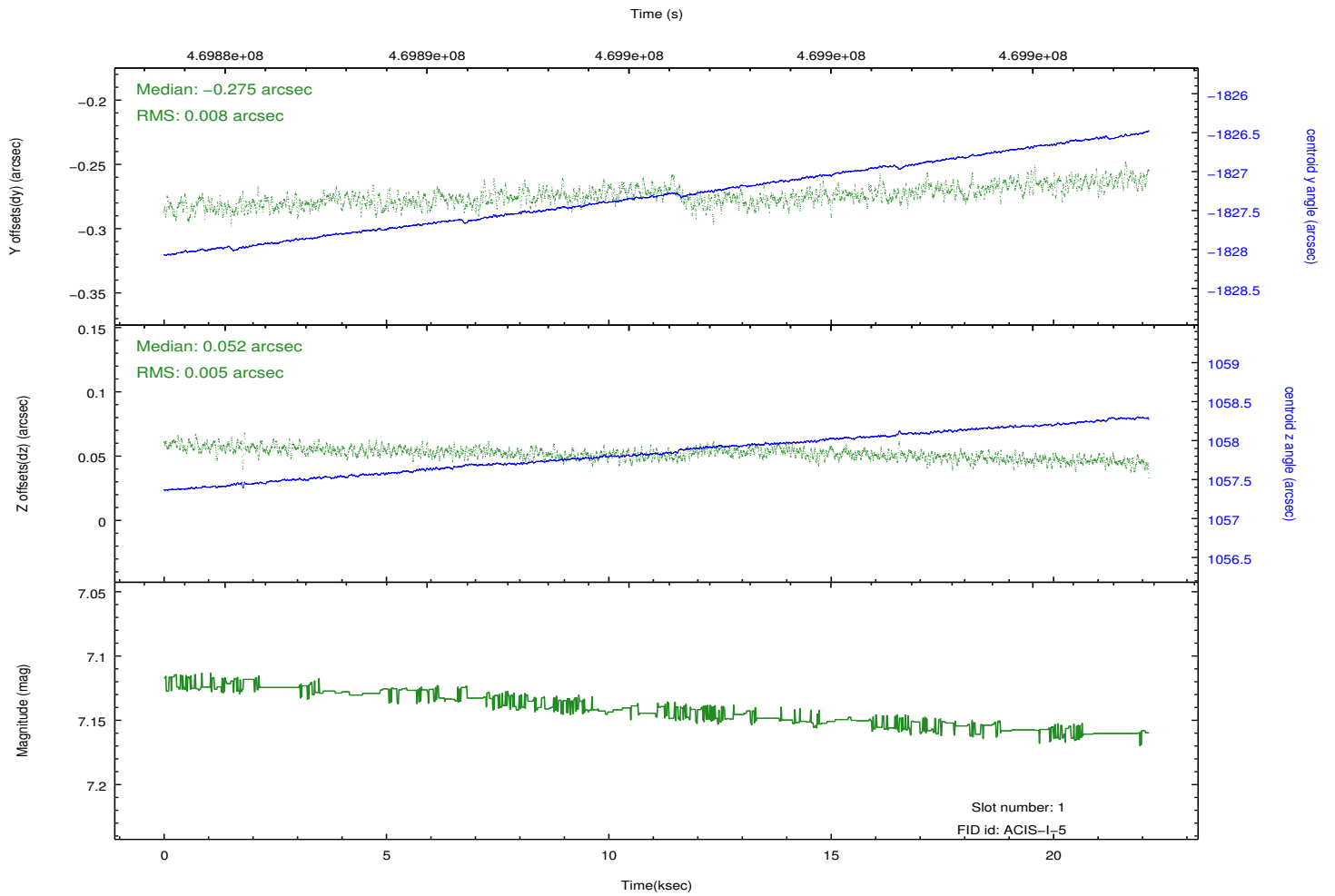
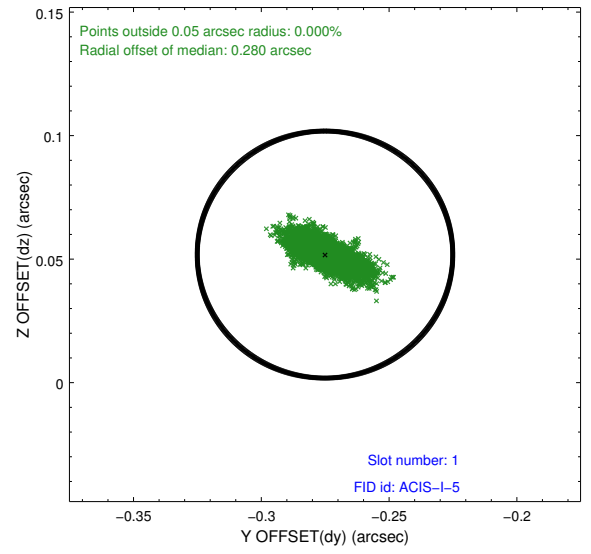
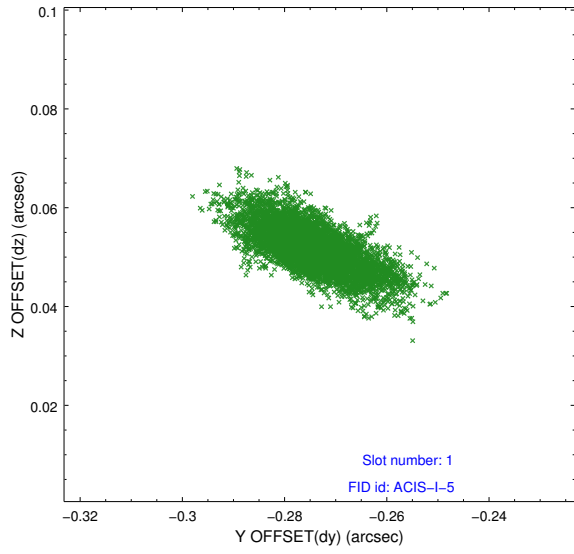


2.5 FID Slots

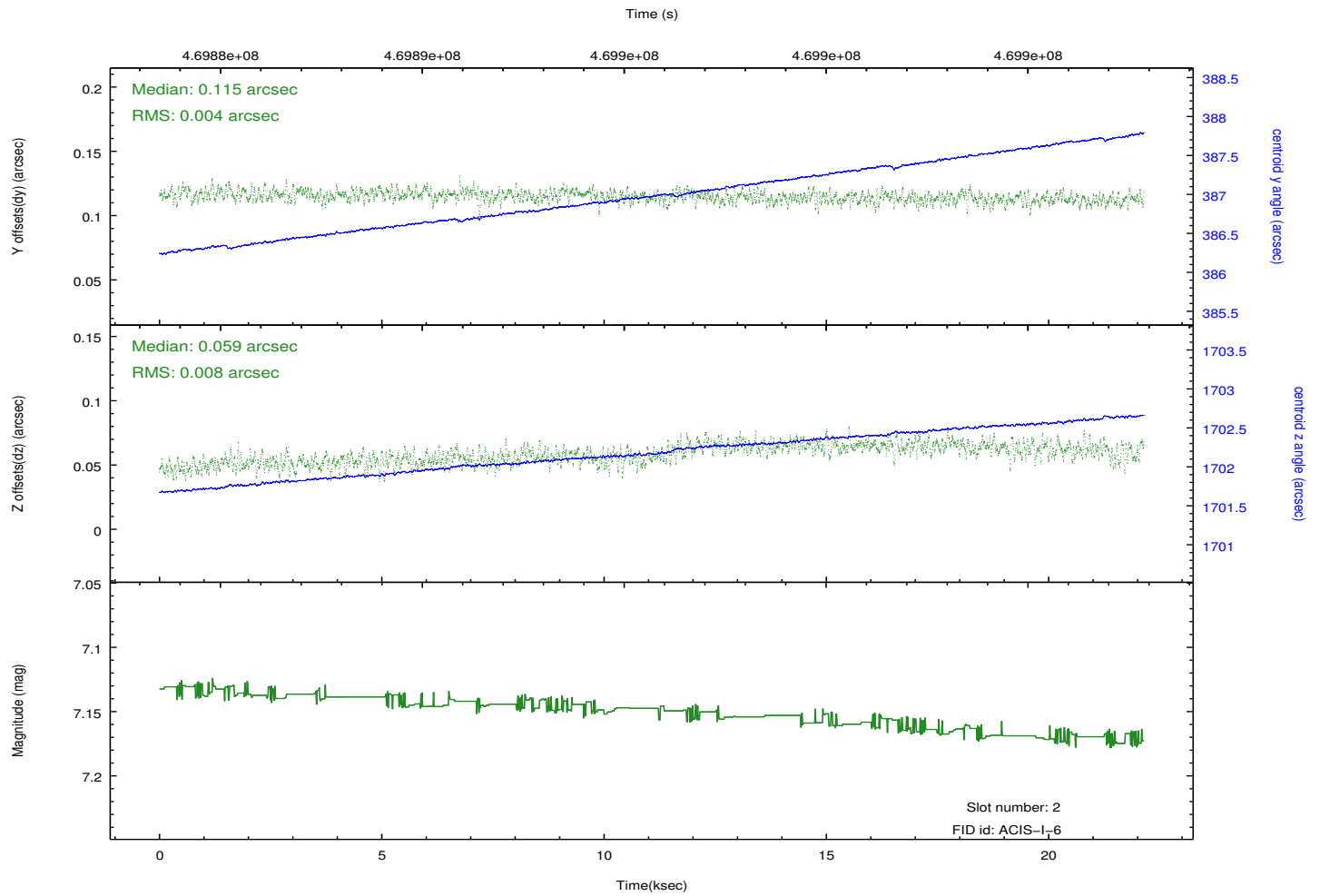
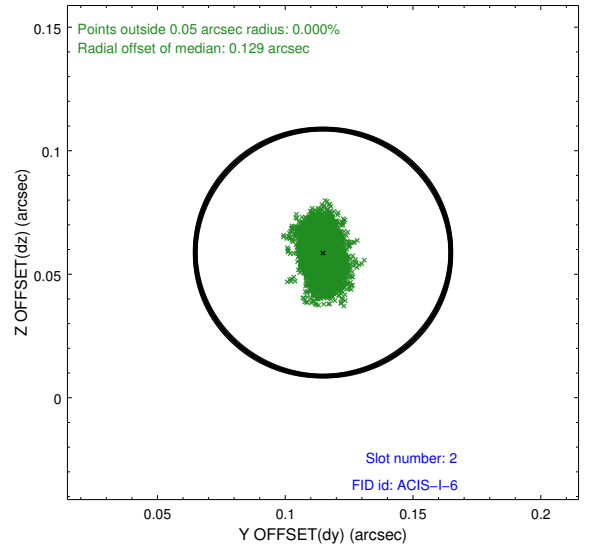
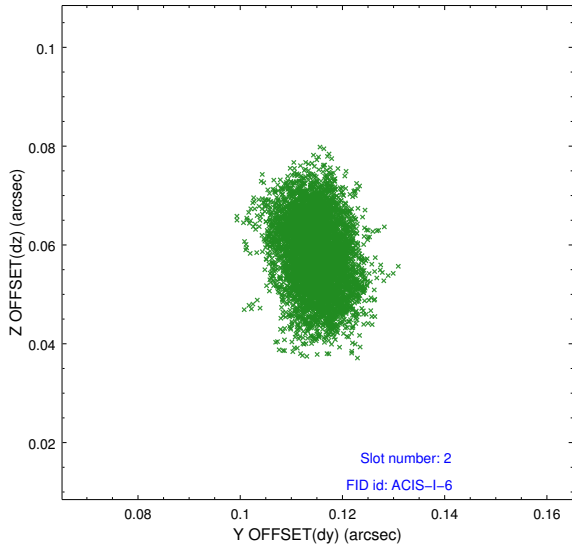
2.5.1 Slot 0



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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.065800169706

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.