

V&V Reference Report

L2 ASCDS Version : 10.4.3.1

Observation 16708 - L2 Version 2
Chandra X-Ray Center

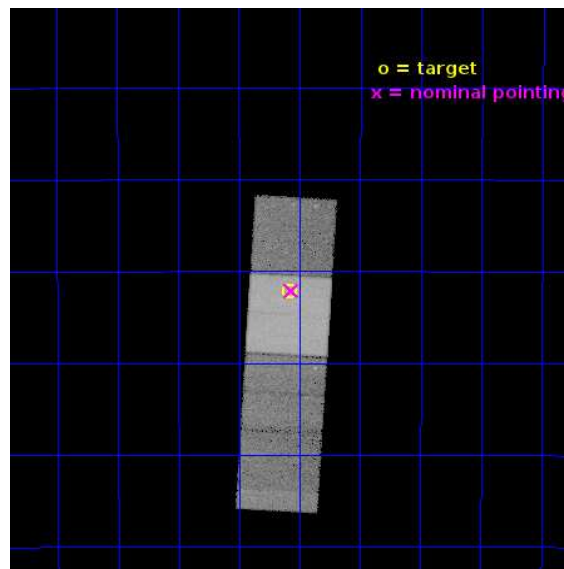
L2 Processing Date : Jan 29 2016

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1 Front

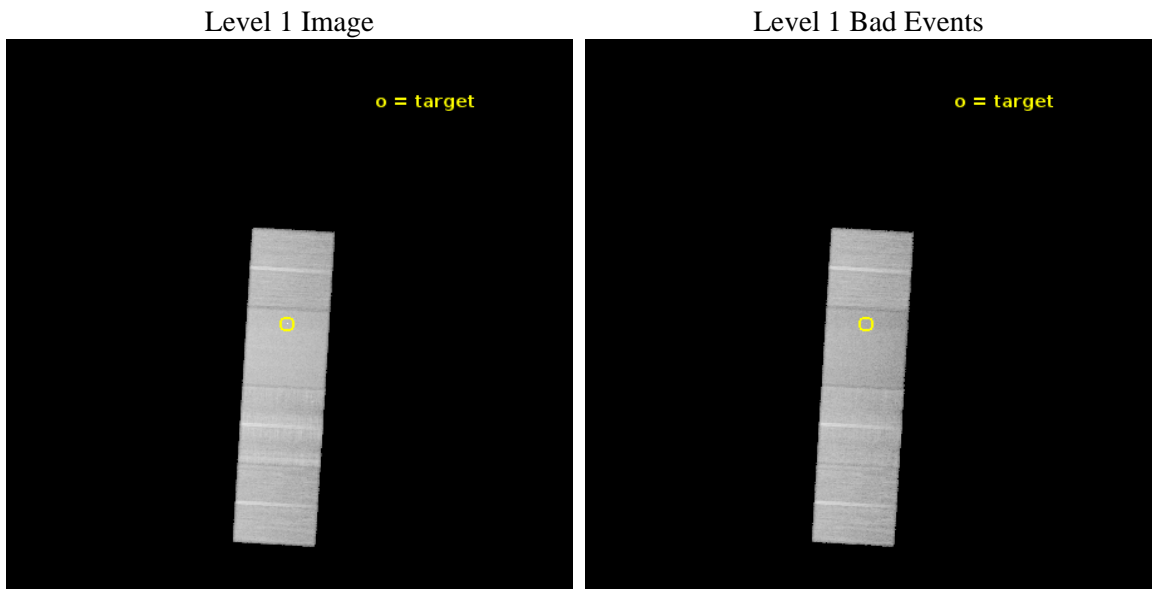
seq_num	401630	Sequence number
obs_id	16708	Observation id
title	Glimpsing a Chandra Population of new X-ray Pulsators	Proposal tit
observer	Dr. Gian Luca Israel	Principal investigator
object	CXOUJ171004.7	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	257.519583	Observer's specified target RA [deg]
dec_targ	-32.201944	Observer's specified target Dec [deg]
ra_nom	257.51674808549	Nominal RA [deg]
dec_nom	-32.201912338586	Nominal Dec [deg]
roll_nom	93.400658499253	Nominal Roll [deg]
revision	2	Processing version of data
ontime	40104.700308561	Sum of GTIs [s]
livetime	39580.702874379	Livetime [s]
ontime6	40104.700308561	Sum of GTIs [s]
ontime7	40104.700308561	Sum of GTIs [s]
ontime8	40104.700308561	Sum of GTIs [s]
ontime9	40104.700308561	Sum of GTIs [s]
l2events	225276	Number of level 2 events



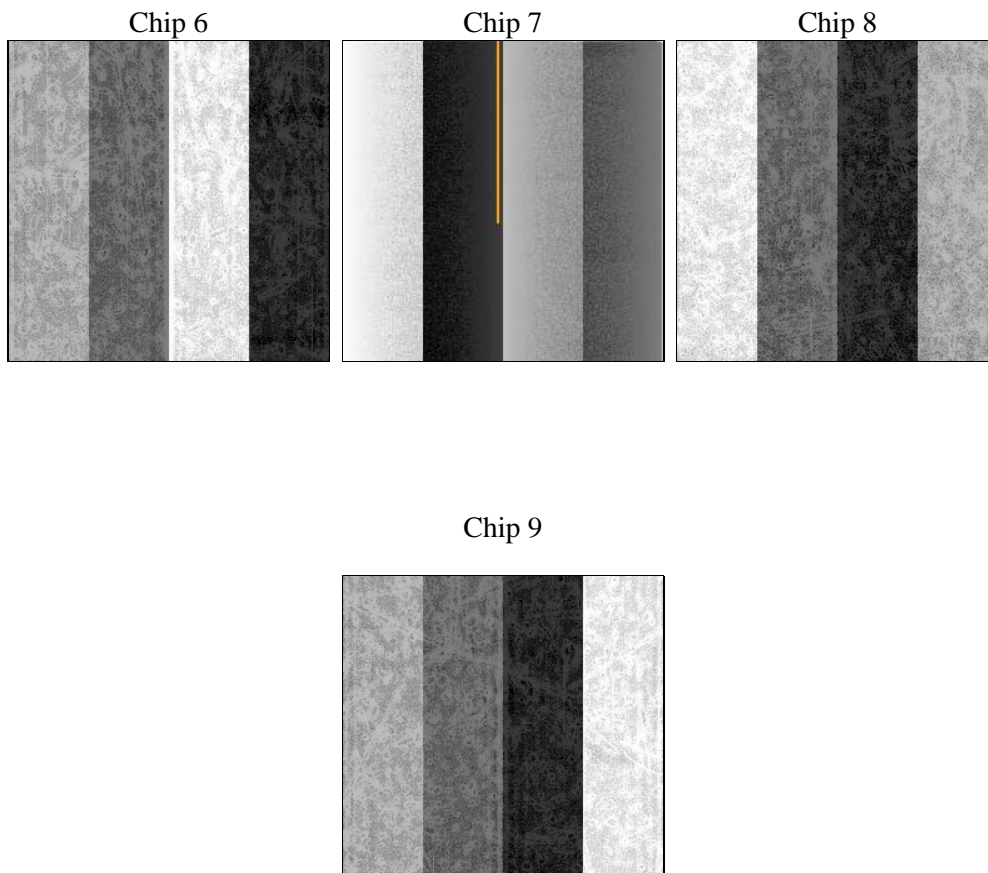
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	40104.700308561	Sum of GTIs [s]
caldsver	4.7.0	 	ontime6	40104.700308561	Sum of GTIs [s]
date	2016-01-29T19:27:08	Date and time of file creation	ontime7	40104.700308561	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	40104.700308561	Sum of GTIs [s]
			ontime9	40104.700308561	Sum of GTIs [s]
			l1events	1171925	Number of level 1 events

2.1.4 Events

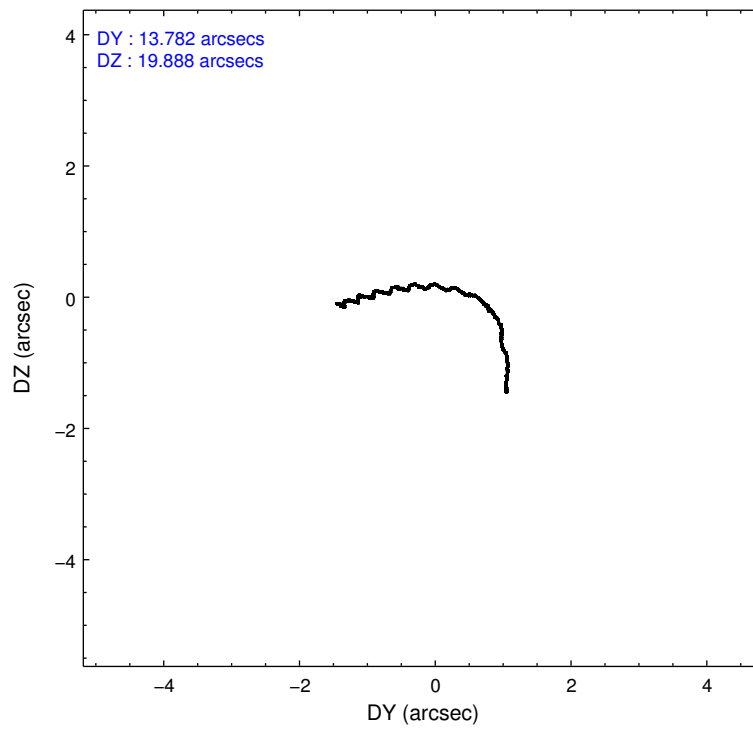
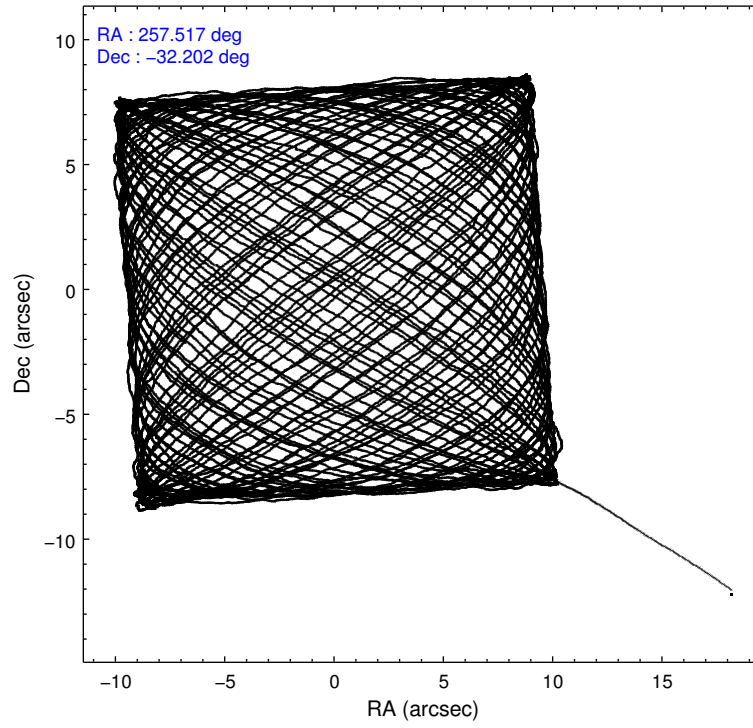
	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	259708	321789	333881	256547
rejected events	229313	179310	242284	224840
rejected %	88%	55%	72%	87%

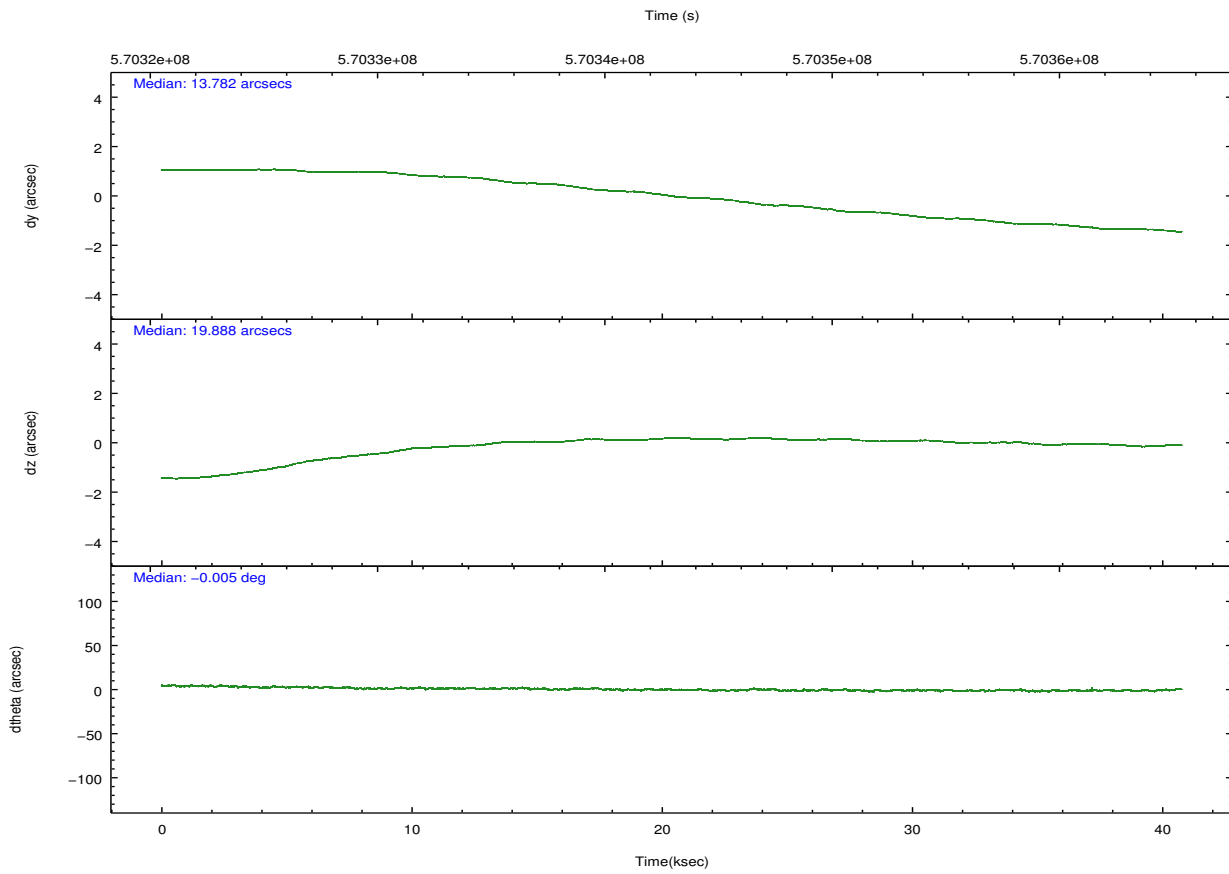
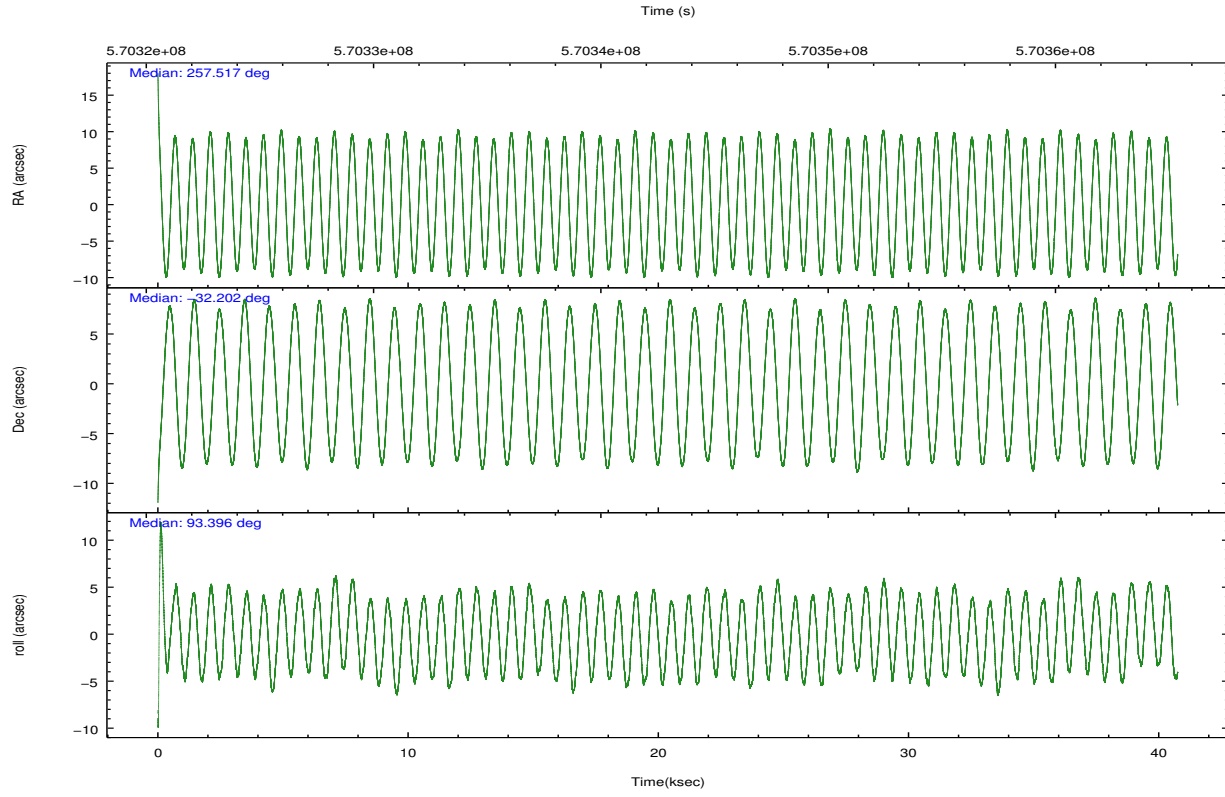
	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	11022	12874	27554	11790
	4%	4%	8%	4%
grade 1 events	105	444	268	138
	0%	0%	0%	0%
grade 2 events	6794	29902	22273	6872
	2%	9%	6%	2%
grade 3 events	2945	11654	8963	3235
	1%	3%	2%	1%
grade 4 events	2820	11407	8459	3159
	1%	3%	2%	1%
grade 5 events	11972	32080	17727	13237
	4%	9%	5%	5%
grade 6 events	6822	76671	24357	6656
	2%	23%	7%	2%
grade 7 events	217228	146757	224280	211460
	83%	45%	67%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-6789	ACIS-6789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	257.534969	257.51674808549	CCD I2 on	N	N
[deg] Pointing Dec	-32.224628	-32.20191233858573	CCD I3 on	N	N
[deg] Pointing Roll	93.253752	93.4006584992528	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O4	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O3	Y
[s] Observation start time (MET)	570323318.184000	570321461.28452	CCD S5 on	O2	Y
Observation start date	2016-01-27T23:07:30	2016-01-27T22:37:41	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	570363318.184000	570364384.69946	On-chip summing requested	N	N
Observation end date	2016-01-28T10:14:10	2016-01-28T10:33:04	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





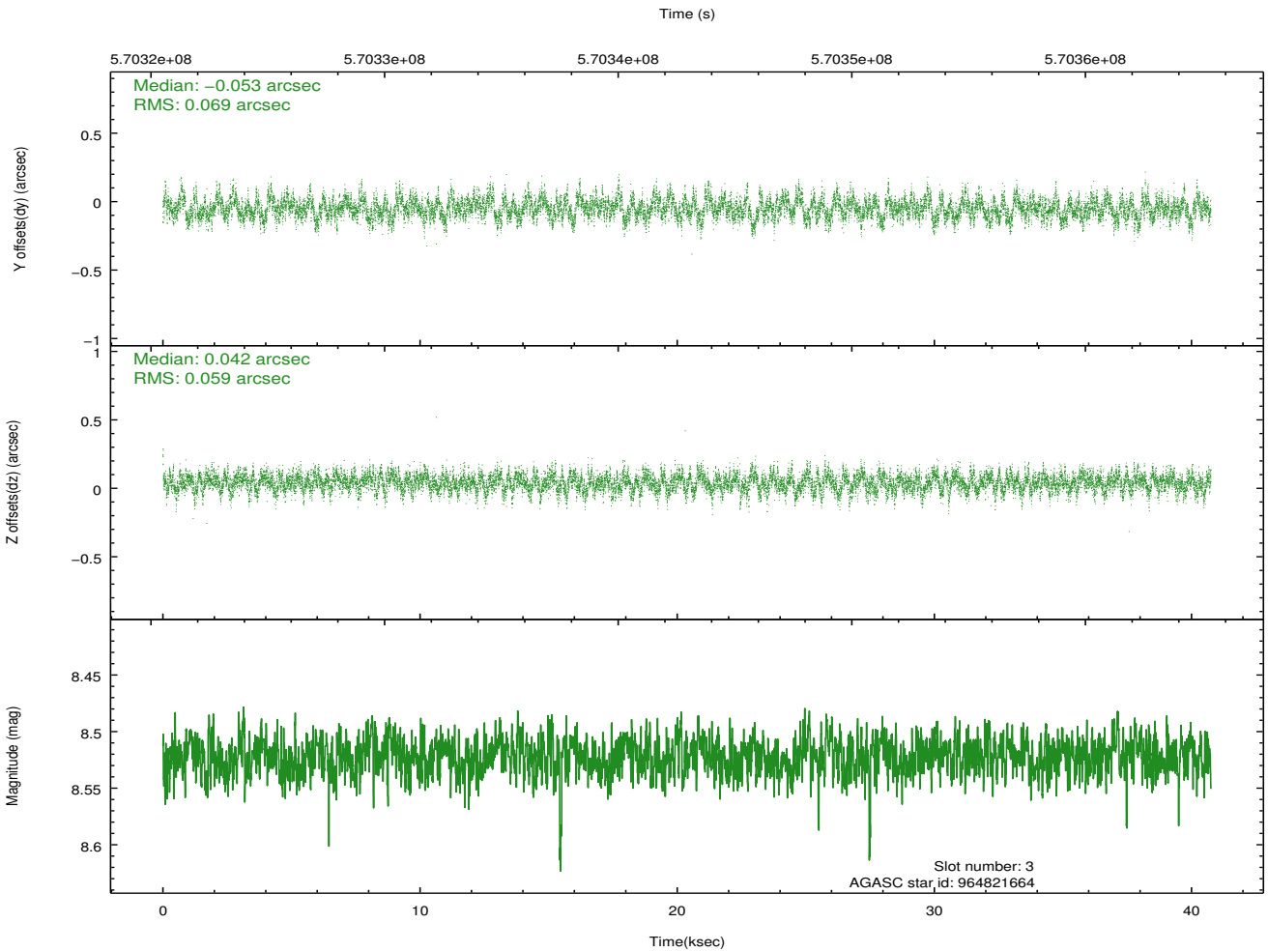
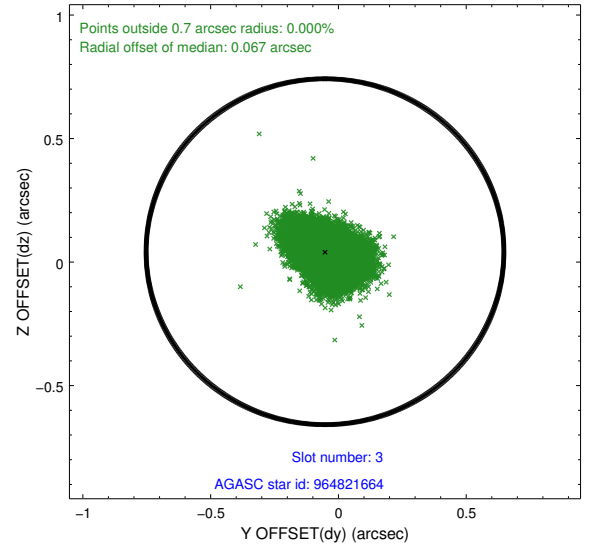
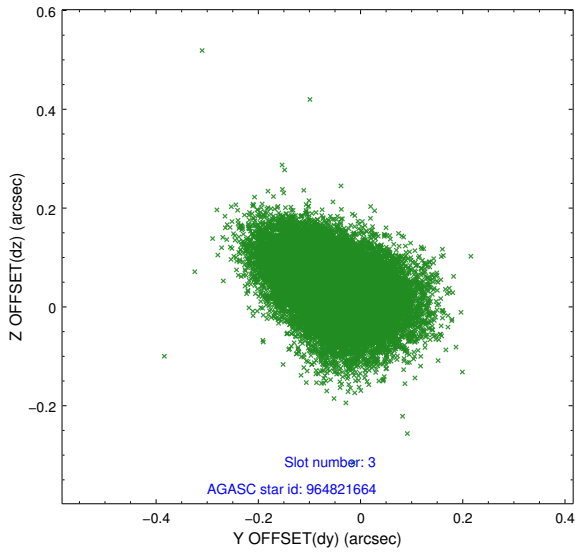
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.10	9941	-0.171	-0.083	0.036	0.049	0.000000	0.000000	-766.82	-1741.29
1	FID		ACIS-S-4	7.21	9939	0.418	0.105	0.035	0.070	0.000000	0.000000	2146.99	167.41
2	FID		ACIS-S-5	7.23	9940	-0.276	-0.010	0.017	0.034	0.000000	0.000000	-1819.79	160.92
3	GUIDE	used	964821664	8.52	19875	-0.053	0.042	0.096	0.161	257.959642	-31.747667	1638.27	-1395.04
4	GUIDE	used	965354216	7.82	19879	0.259	0.495	0.083	0.130	258.293233	-32.622375	-1568.39	-2213.09
5	GUIDE	used	964824976	8.44	19869	-0.149	0.078	0.087	0.138	257.688335	-31.561569	2356.19	-604.92
6	GUIDE	used	965347600	8.80	19862	-0.239	-0.324	0.095	0.155	256.993678	-31.977059	979.05	1600.12
7	GUIDE	used	965353480	7.78	19872	0.178	-0.291	0.072	0.121	257.035456	-32.568610	-1153.56	1583.32

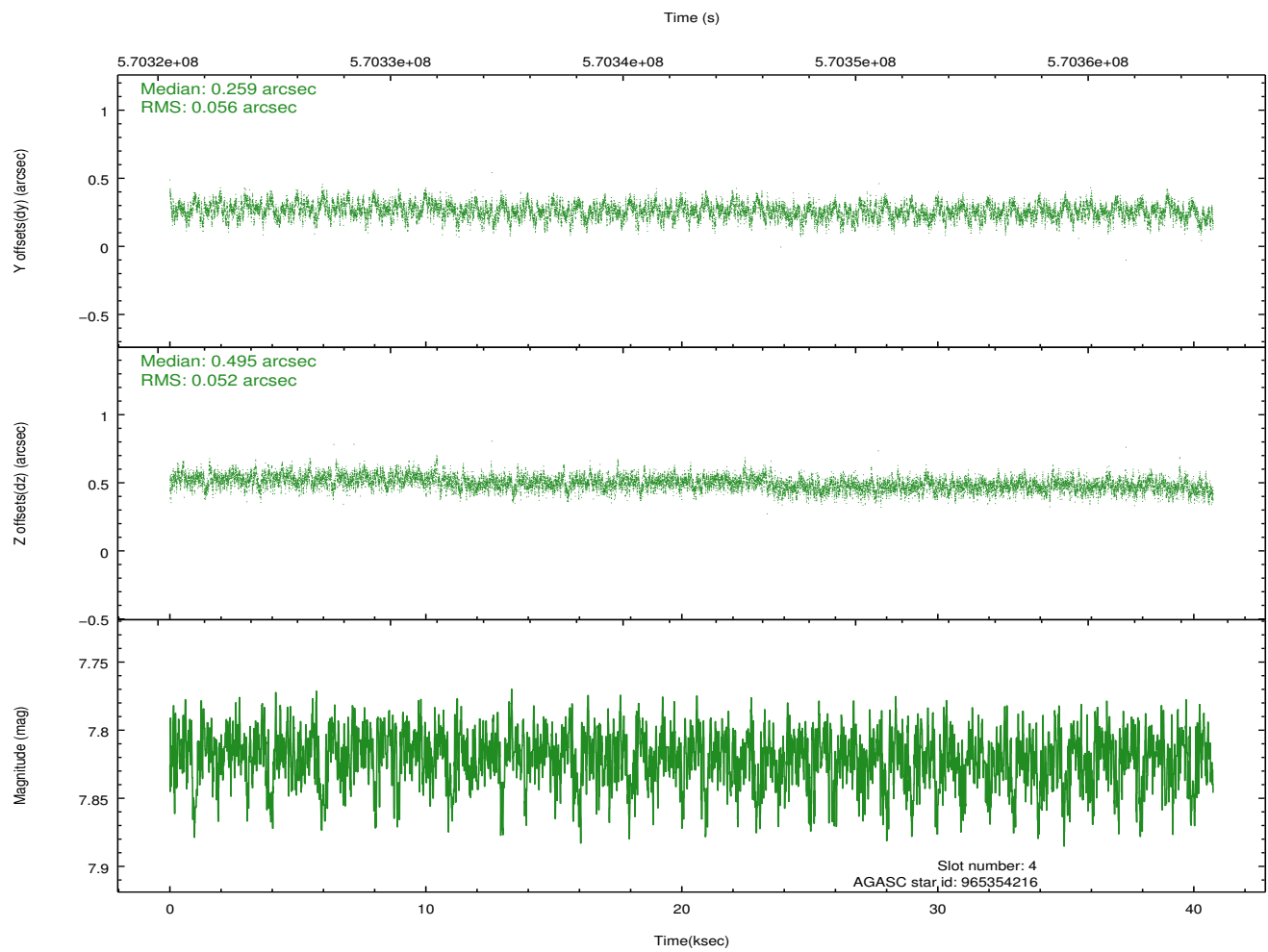
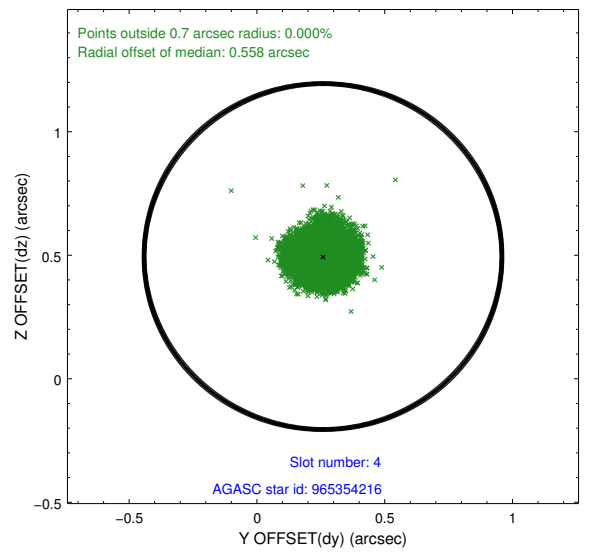
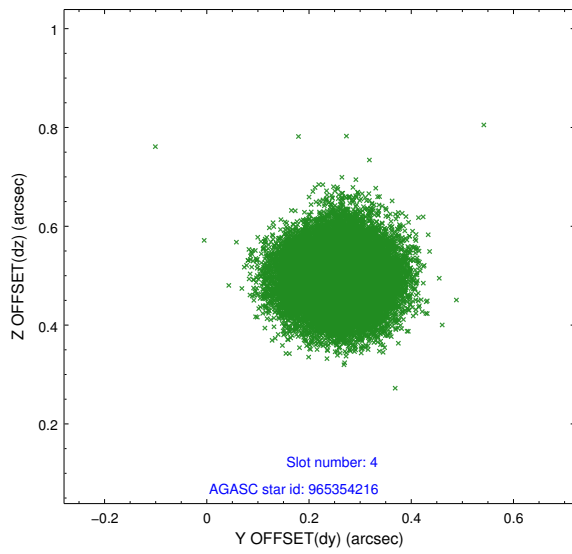
∞

2.4 Star Slots

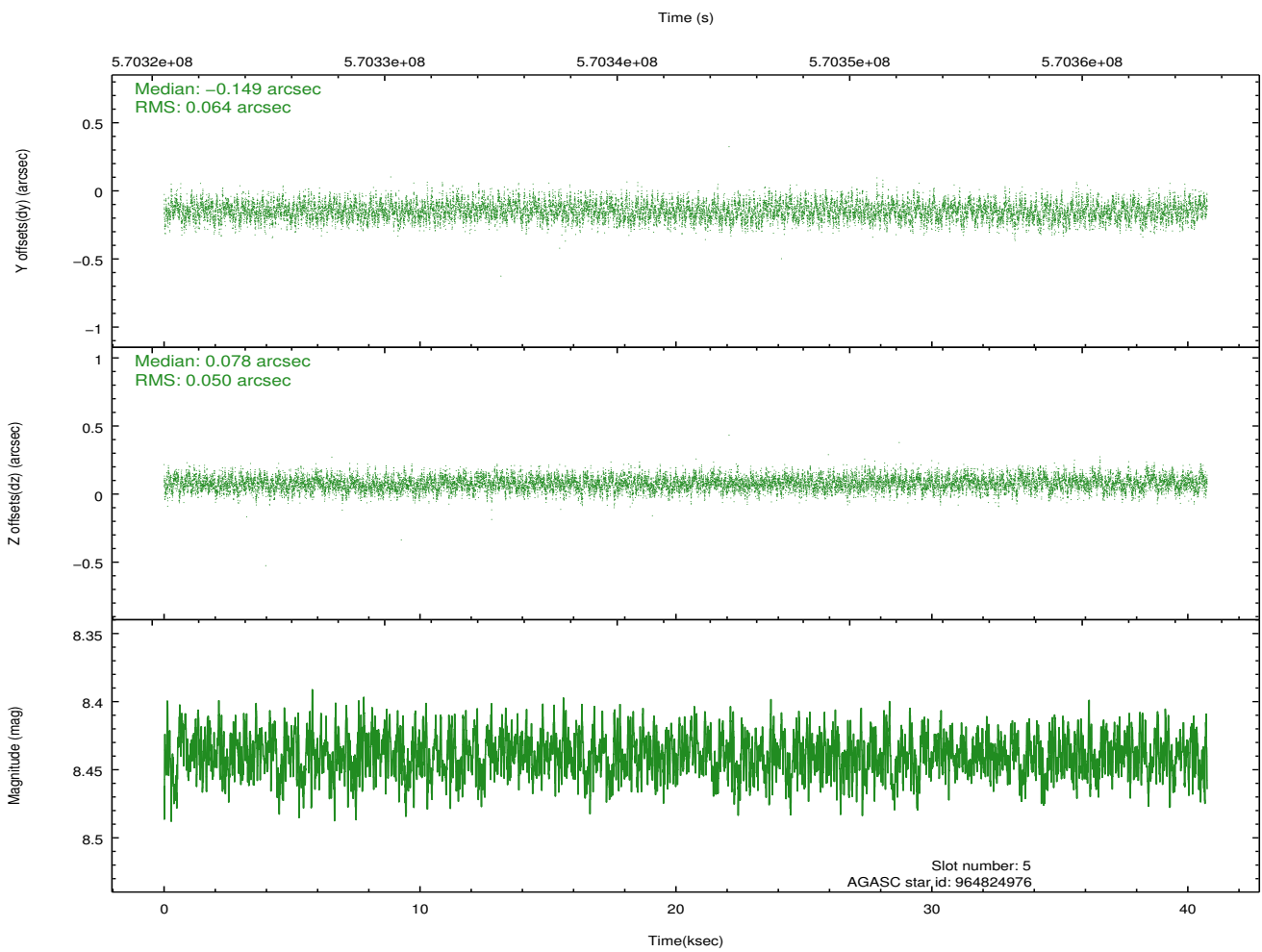
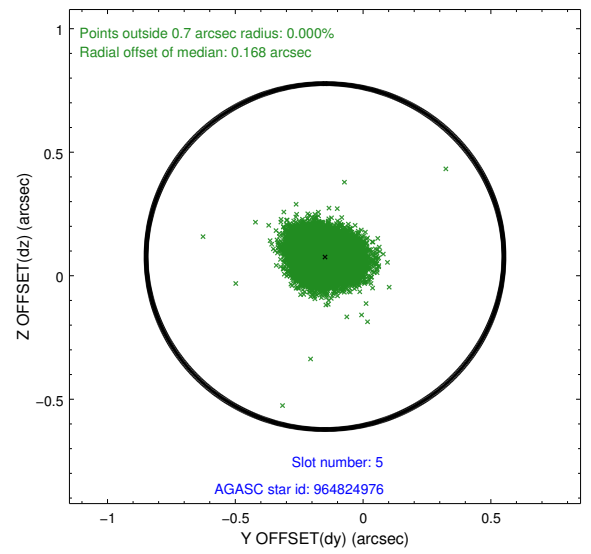
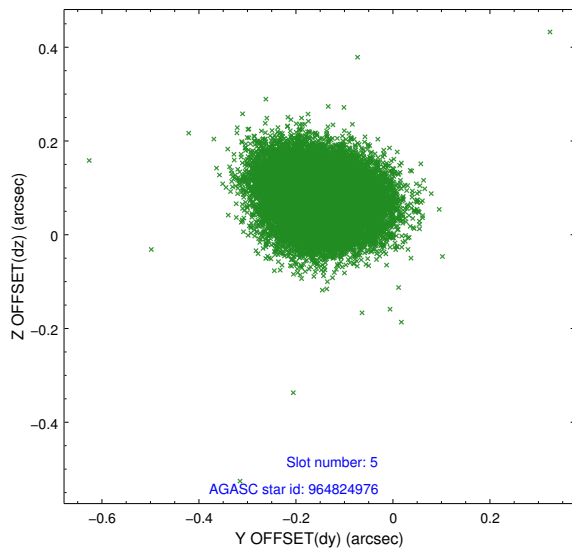
2.4.1 Slot 3



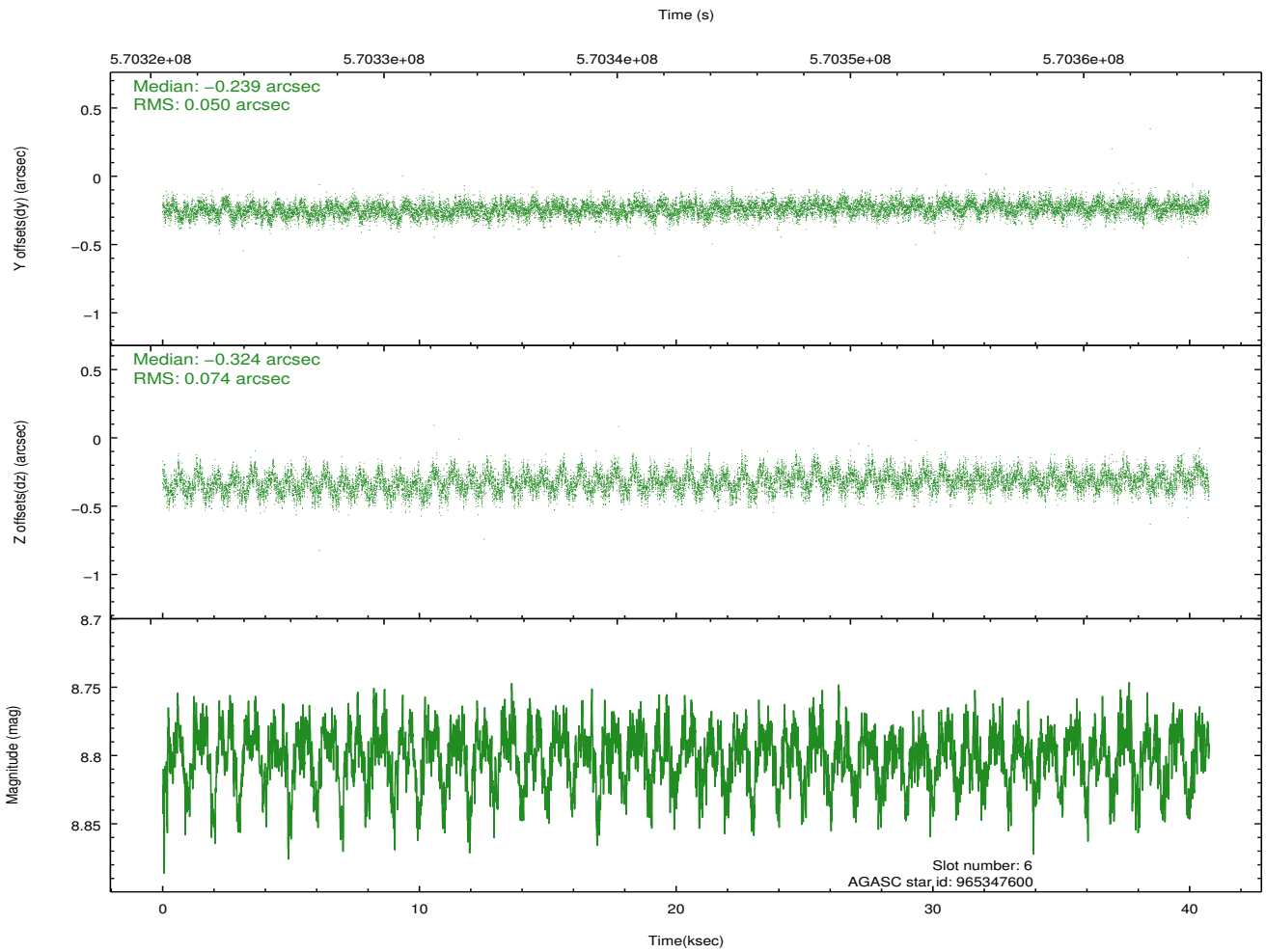
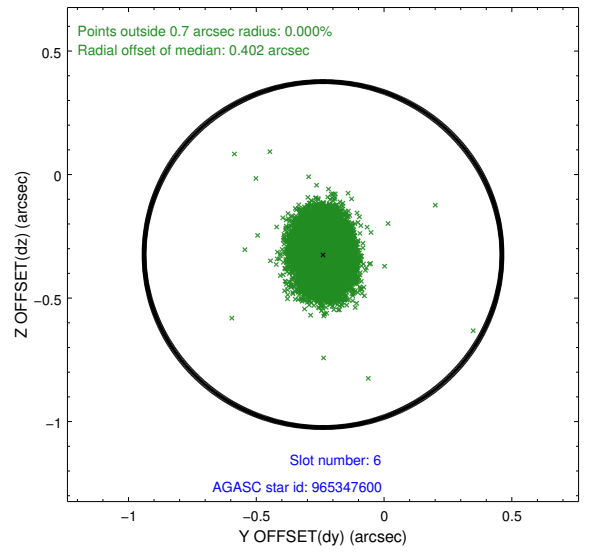
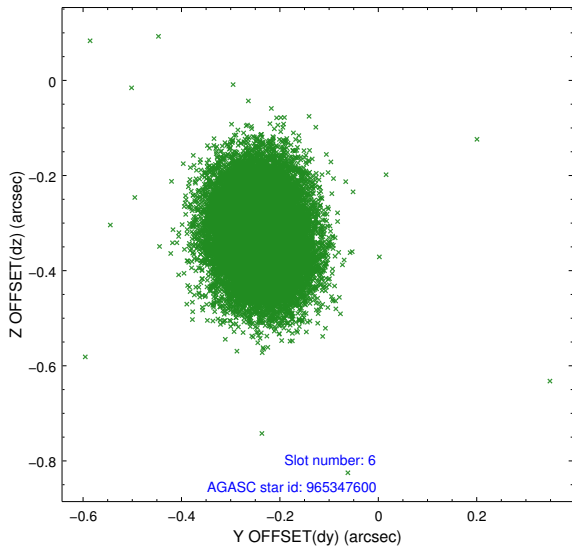
2.4.2 Slot 4



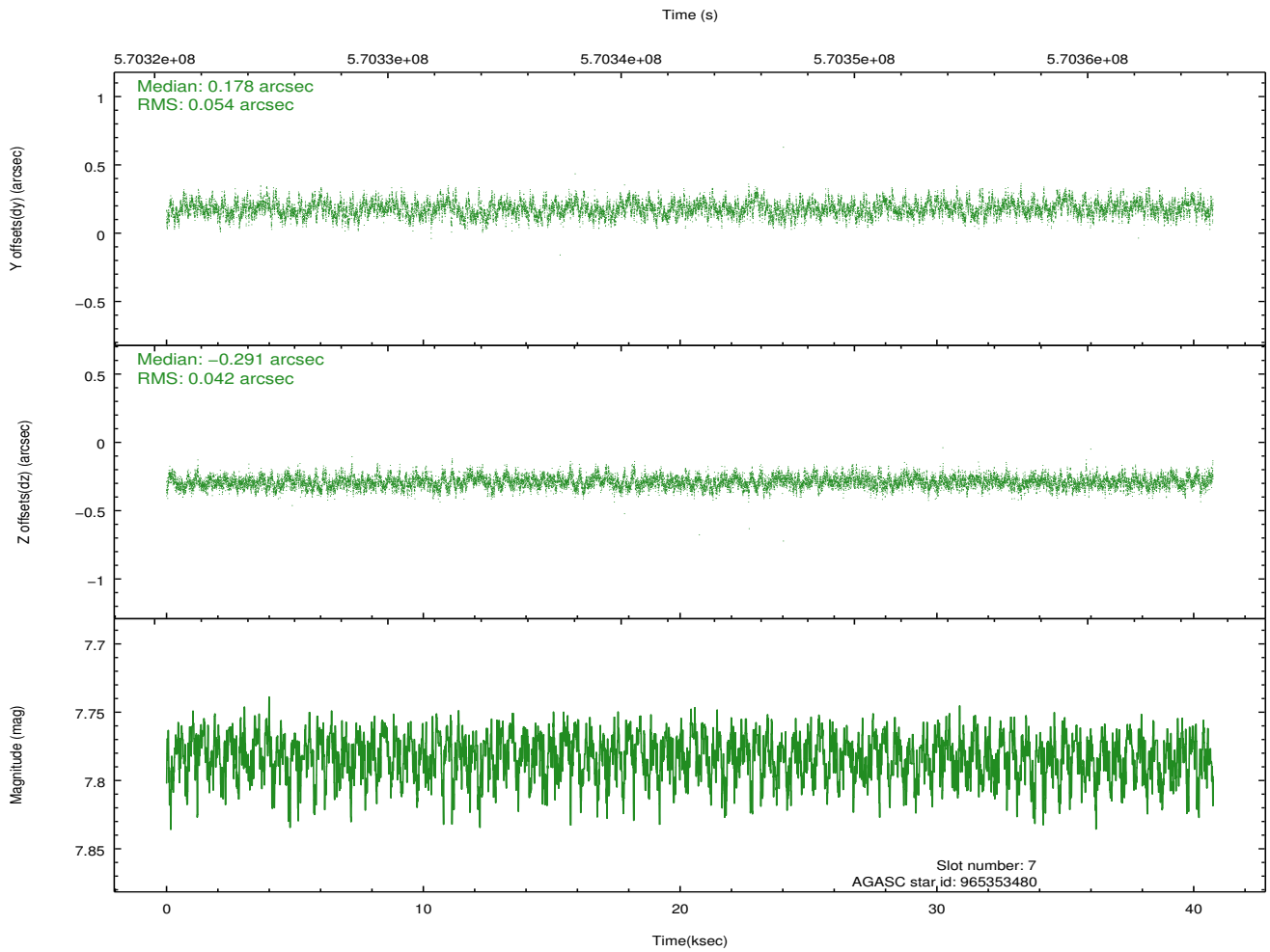
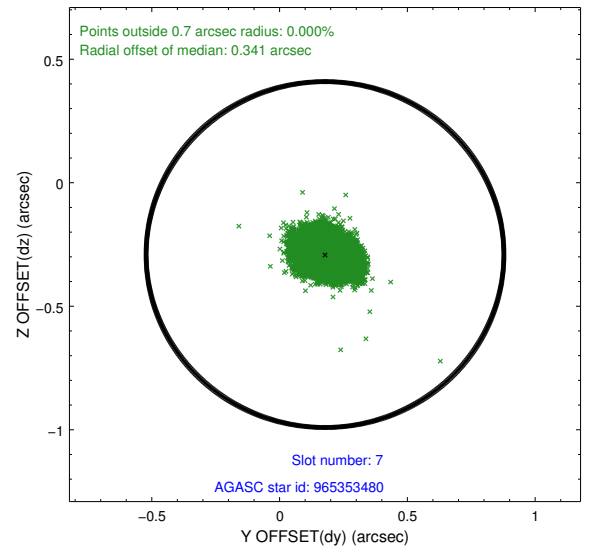
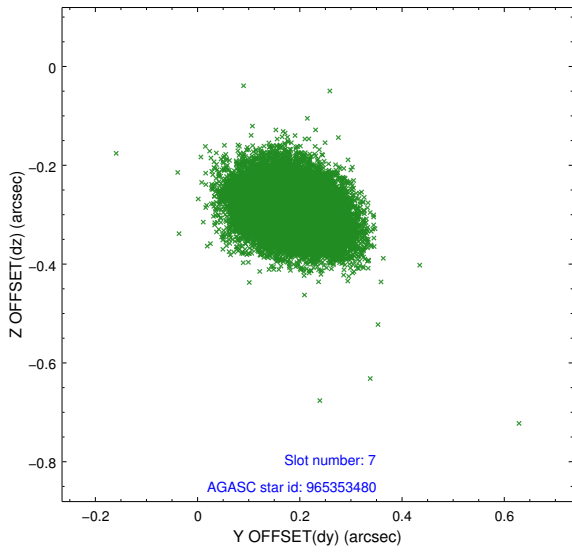
2.4.3 Slot 5



2.4.4 Slot 6

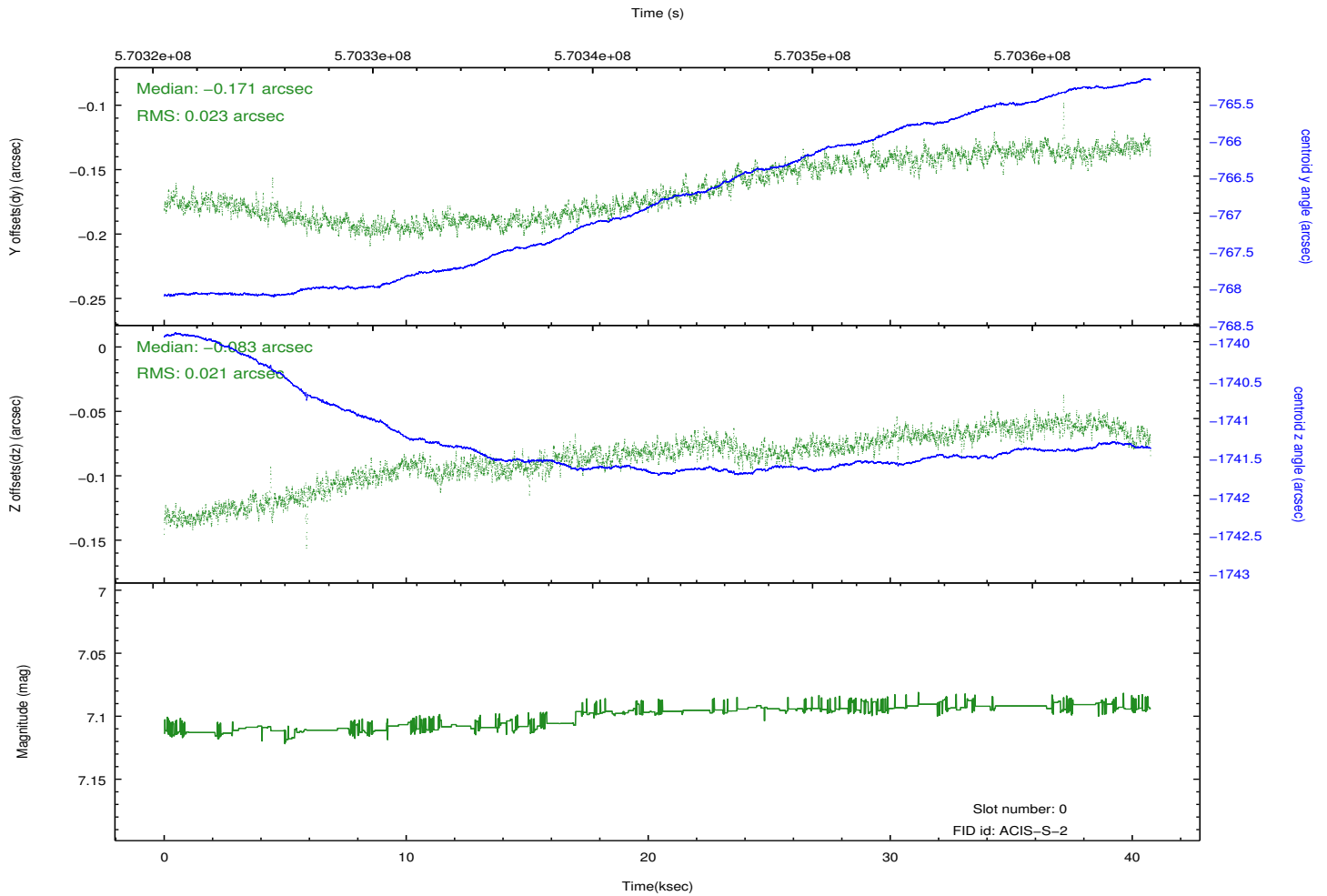
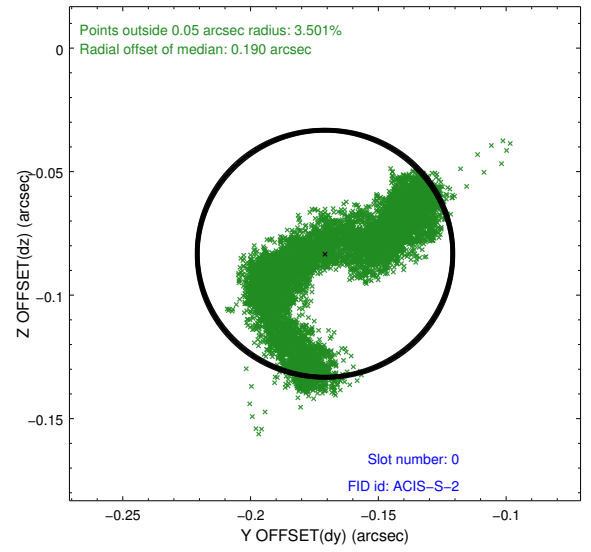
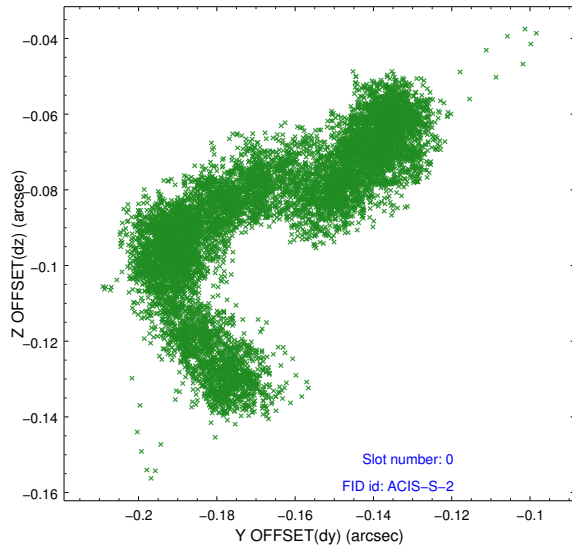


2.4.5 Slot 7

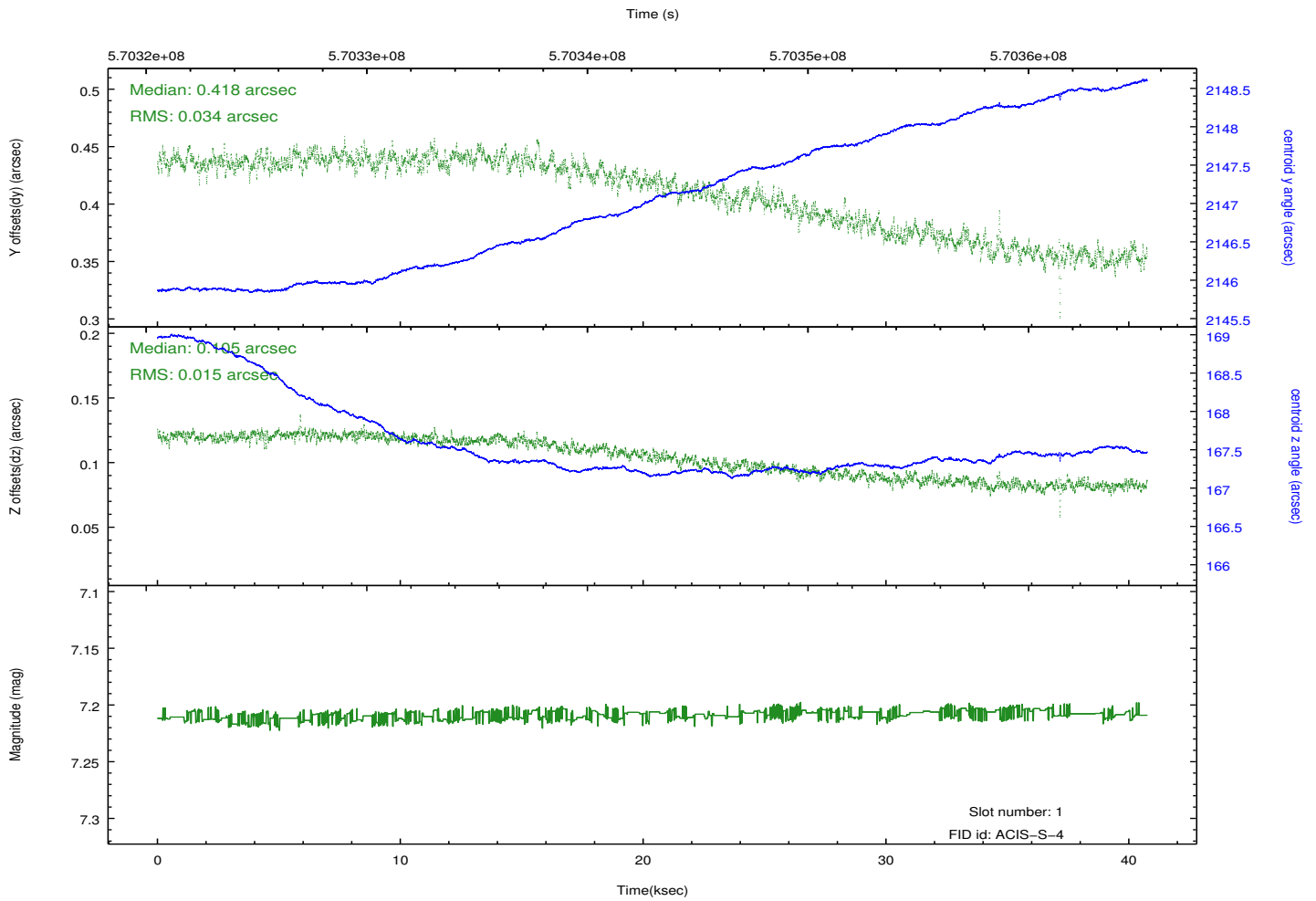
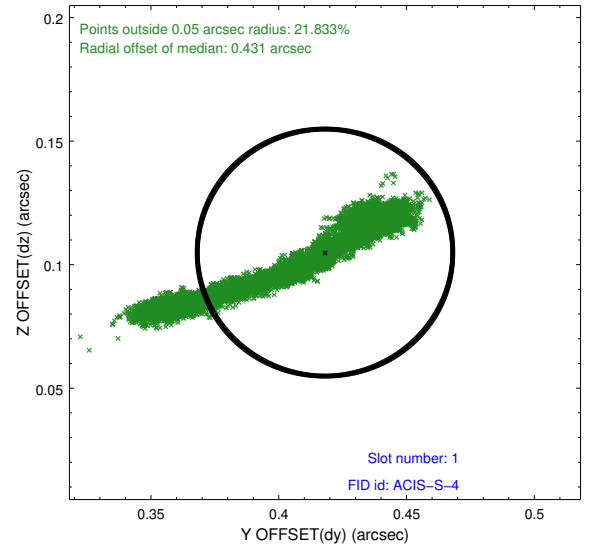
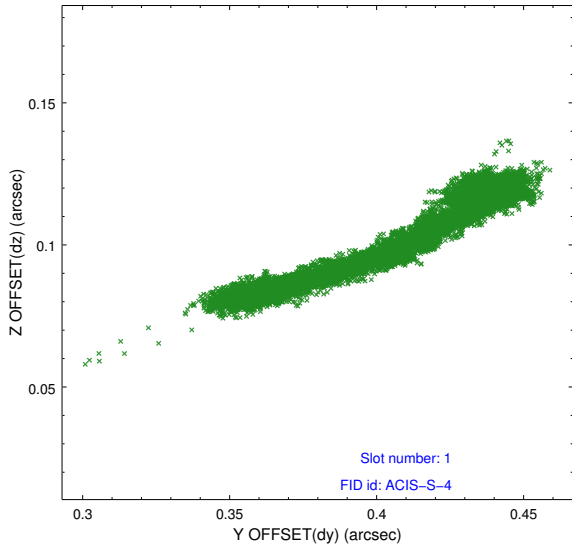


2.5 FID Slots

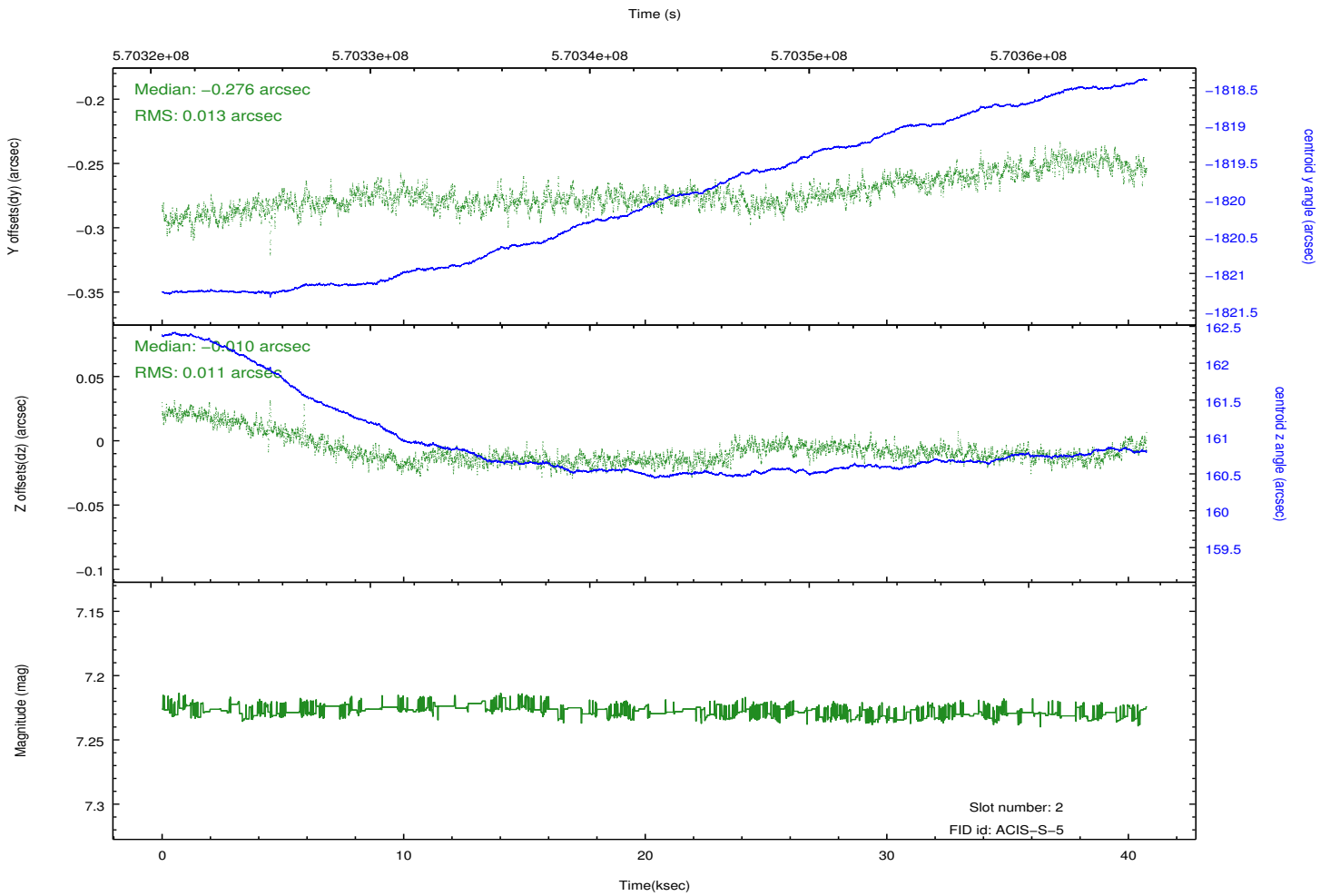
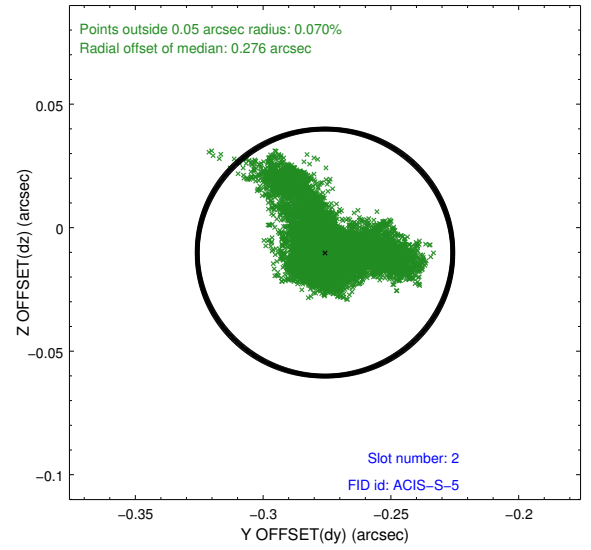
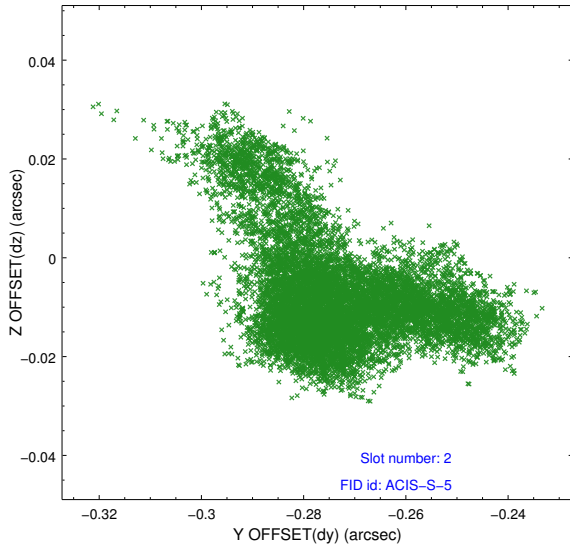
2.5.1 Slot 0



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)	2016.02.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.104700308561

A.2 Comments

Optional chip S1 was dropped.

A spatial region of the original bias map for CCD = 9 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 = 9 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:

(257.54484, -32.57591), (257.54529, -32.58218), (257.63001, -32.57785),
(257.62955, -32.57159).