

V&V Reference Report

L2 ASCDS Version : 10.4.3.1

Observation 17868 - L2 Version 2
Chandra X-Ray Center

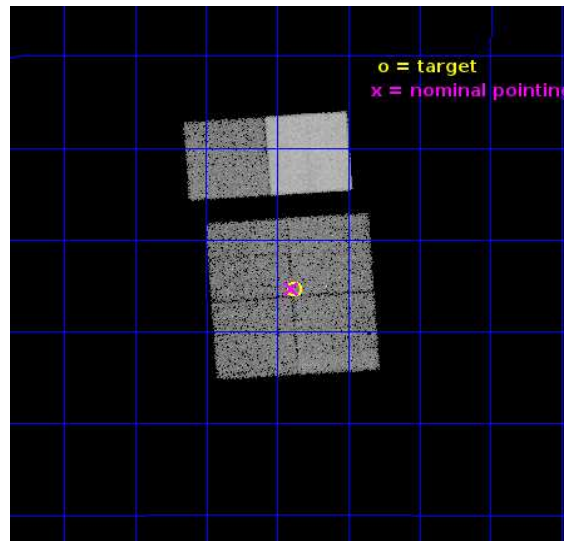
L2 Processing Date : Feb 5 2016

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

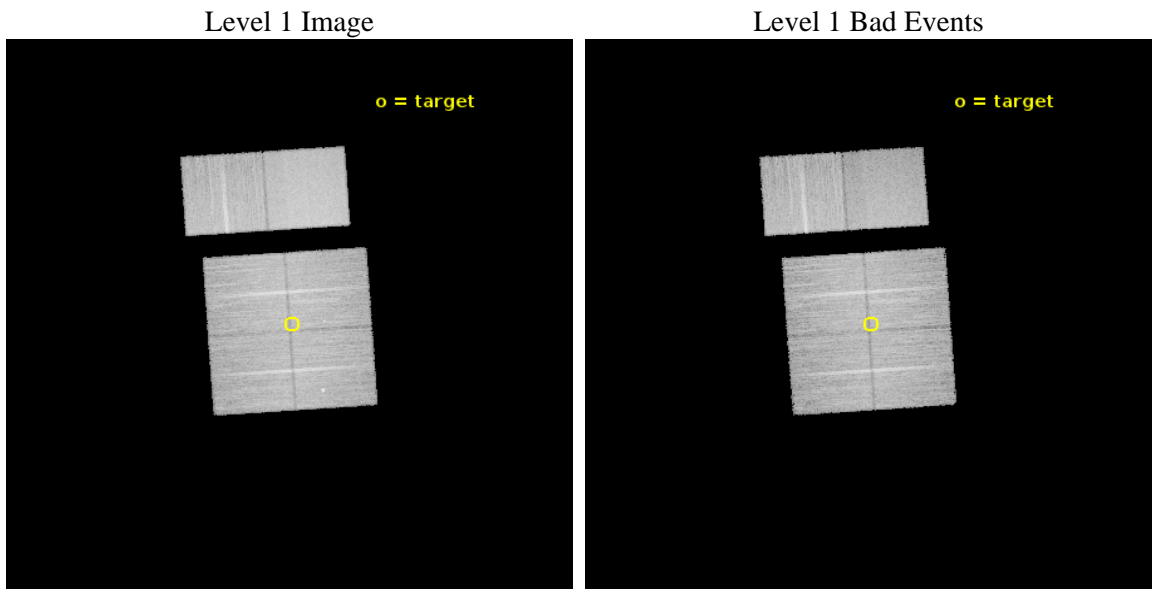
seq_num	401800	Sequence number
obs_id	17868	Observation id
title	X-ray Observations of New Gamma-Ray Bright Galactic Compact Binaries	
observer	Prof. Jay Strader	Principal investigator
object	3FGL J0855.2-0718	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	133.843792	Observer's specified target RA [deg]
dec_targ	-7.257667	Observer's specified target Dec [deg]
ra_nom	133.85011743672	Nominal RA [deg]
dec_nom	-7.2556426877093	Nominal Dec [deg]
roll_nom	356.09120208685	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19961.600297451	Sum of GTIs [s]
livetime	19708.834495052	Livetime [s]
ontime0	19958.359237075	Sum of GTIs [s]
ontime1	19961.600297451	Sum of GTIs [s]
ontime2	19961.600297451	Sum of GTIs [s]
ontime3	19961.600297451	Sum of GTIs [s]
ontime6	19961.600297451	Sum of GTIs [s]
ontime7	19961.600297451	Sum of GTIs [s]
l2events	127244	Number of level 2 events



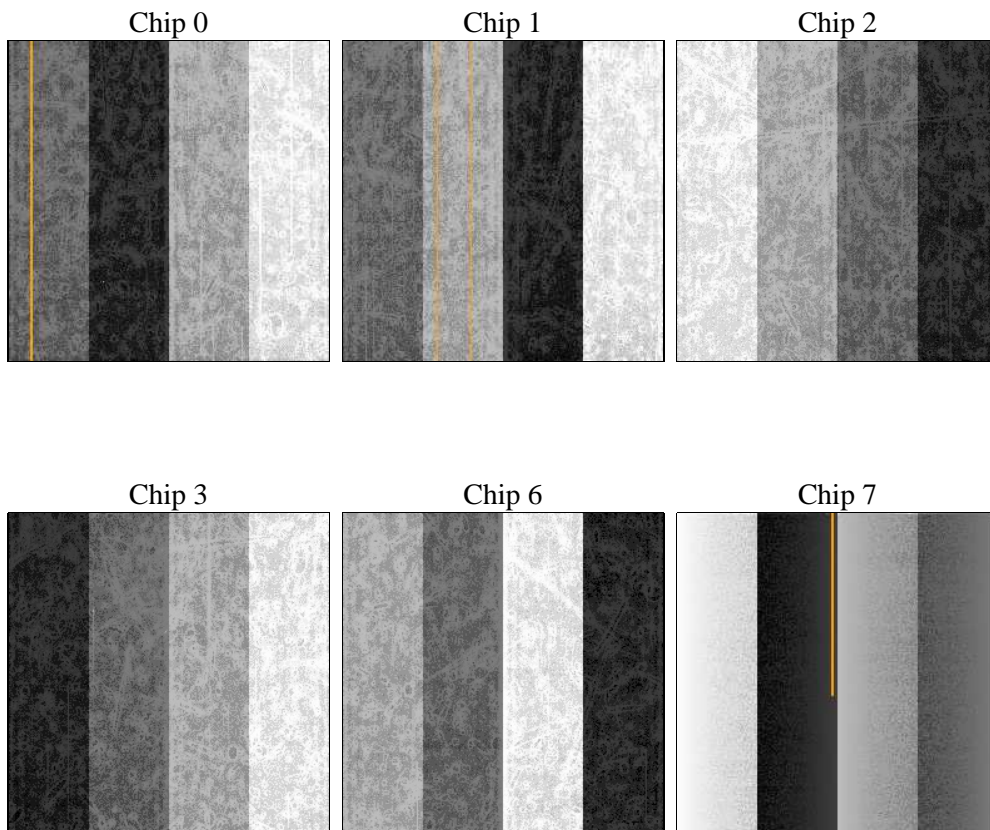
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	19961.600297451	Sum of GTIs [s]
caldsver	4.7.0	 	ontime0	19958.359237075	Sum of GTIs [s]
date	2016-02-06T00:21:13	Date and time of file creation	ontime1	19961.600297451	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	19961.600297451	Sum of GTIs [s]
			ontime3	19961.600297451	Sum of GTIs [s]
			ontime6	19961.600297451	Sum of GTIs [s]
			ontime7	19961.600297451	Sum of GTIs [s]
			l1events	762556	Number of level 1 events

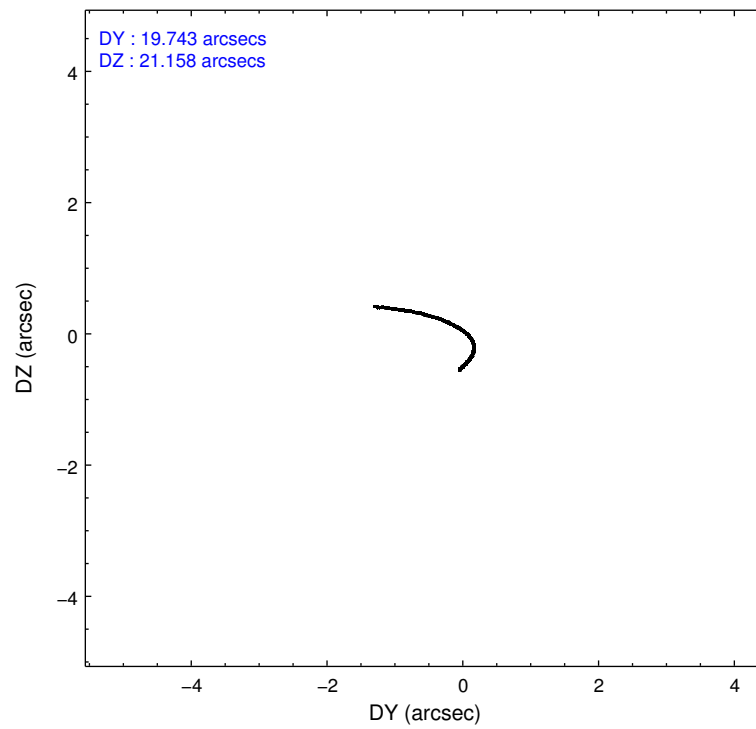
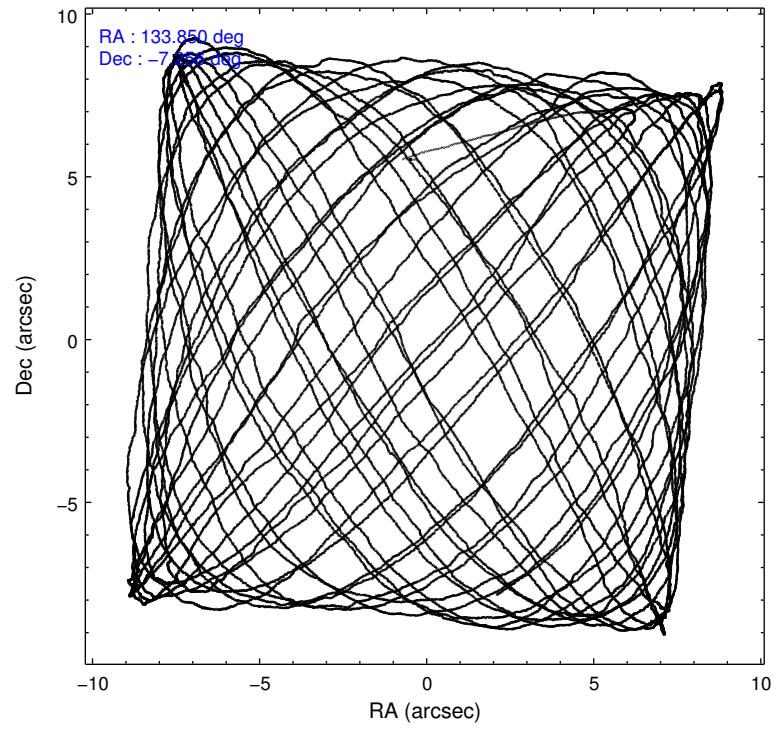
2.1.4 Events

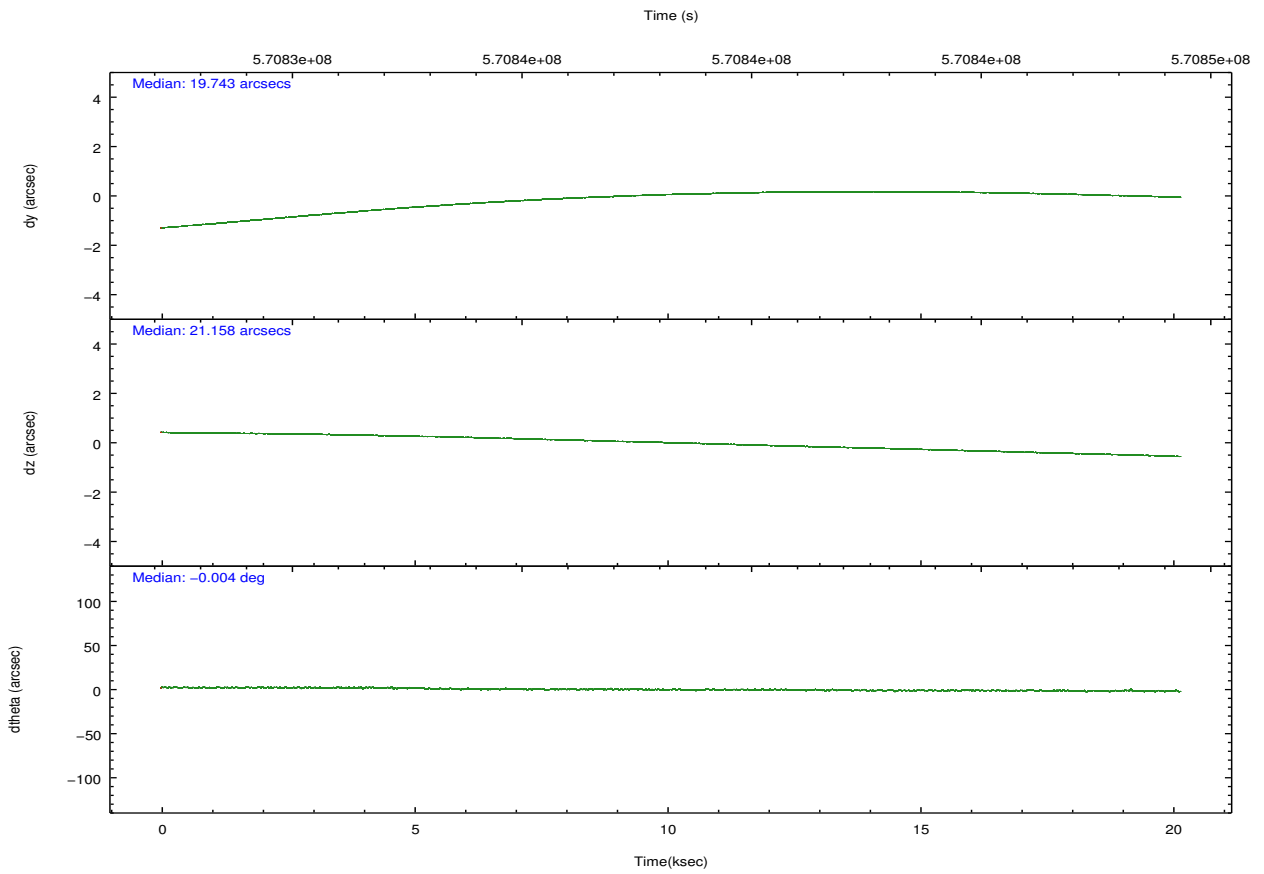
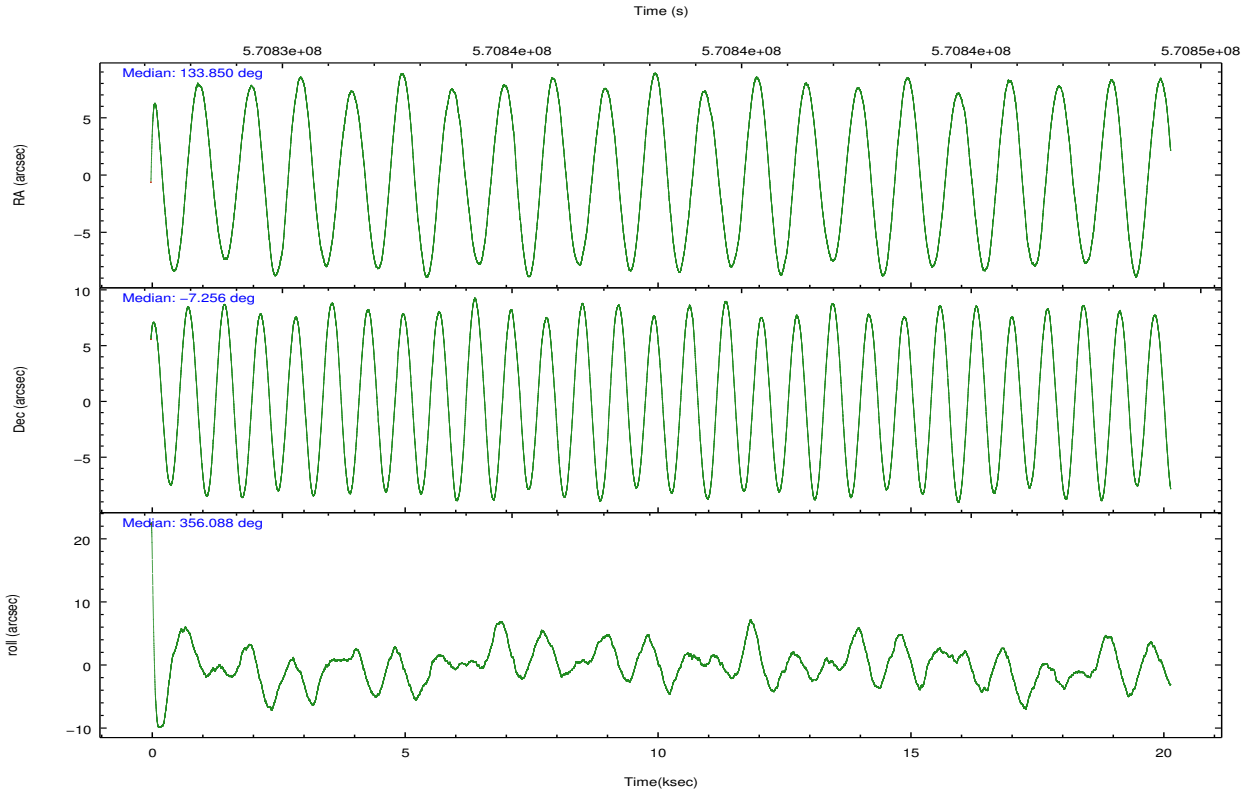
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	109698	116187	124334	120752	129197	162388	grade 0 events	4600	6029	4894	4781	4646	5764
rejected events	96047	100009	110821	107337	114957	92486		4%	5%	3%	3%	3%	3%
rejected %	87%	86%	89%	88%	88%	56%	grade 1 events	56	68	92	86	60	210
								0%	0%	0%	0%	0%	0%
							grade 2 events	3493	3679	3373	2992	3382	14715
								3%	3%	2%	2%	2%	9%
							grade 3 events	1404	1521	1314	1390	1389	5699
								1%	1%	1%	1%	1%	3%
							grade 4 events	1348	1555	1303	1438	1433	5593
								1%	1%	1%	1%	1%	3%
							grade 5 events	5390	5612	5059	6134	6281	16381
								4%	4%	4%	5%	4%	10%
							grade 6 events	2812	3402	2632	2821	3400	38155
								2%	2%	2%	2%	2%	23%
							grade 7 events	90595	94321	105667	101110	108606	75871
								82%	81%	84%	83%	84%	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	133.825164	133.8501174367221	CCD I2 on	Y	Y
[deg] Pointing Dec	-7.267887	-7.255642687709313	CCD I3 on	Y	Y
[deg] Pointing Roll	355.879338	356.091202086855	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)	570828296.184000	570827114.82574	CCD S5 on	N	N
Observation start date	2016-02-02T19:23:48	2016-02-02T19:05:14	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	570848296.184000	570849336.31451	On-chip summing requested	N	N
Observation end date	2016-02-03T00:57:08	2016-02-03T01:15:36	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





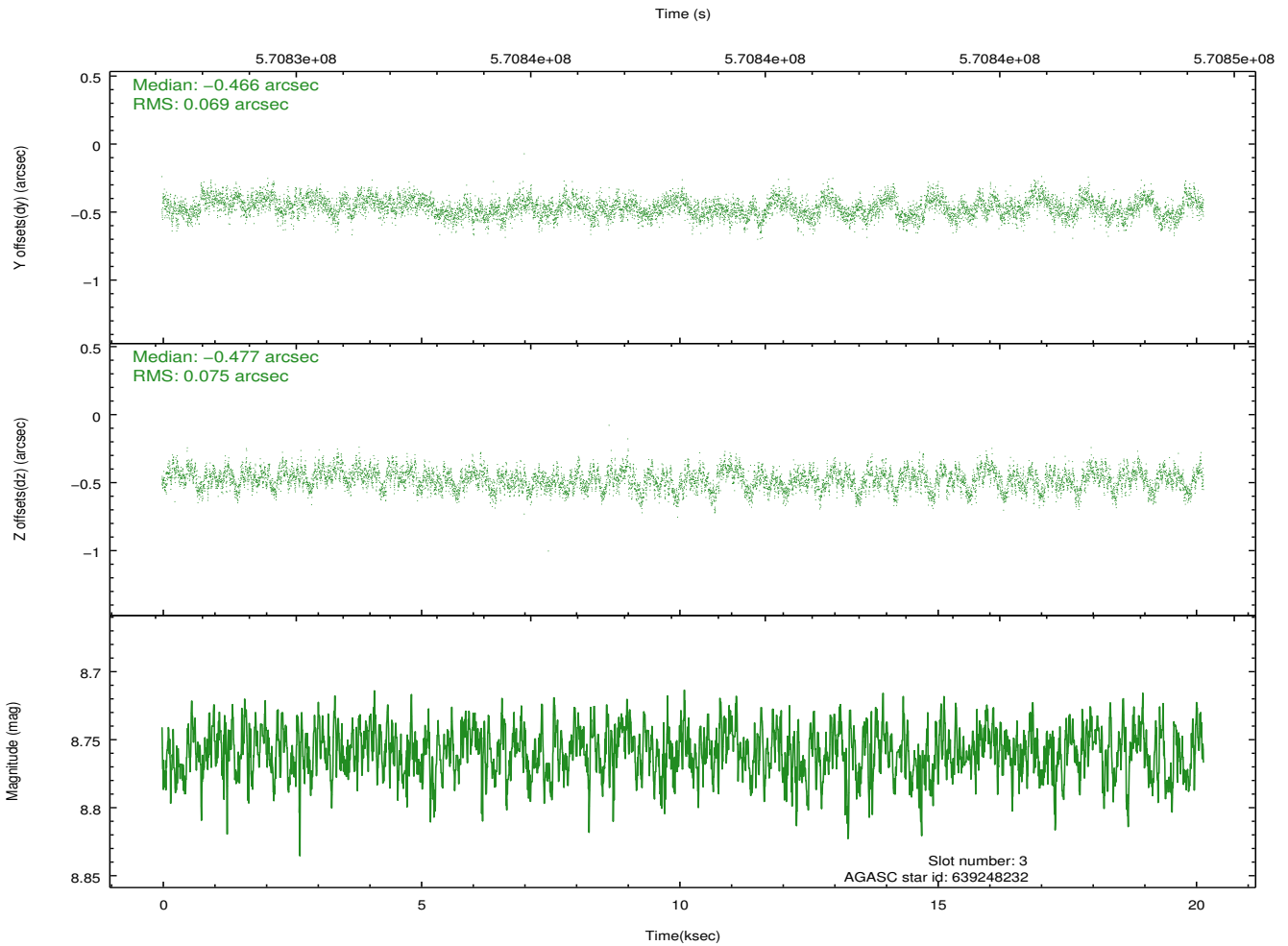
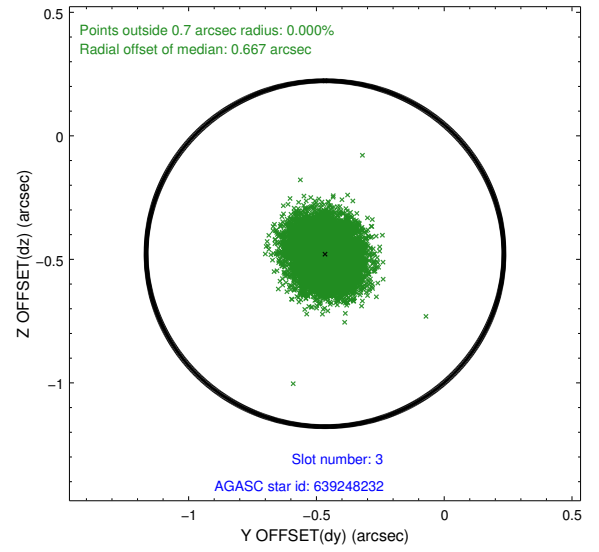
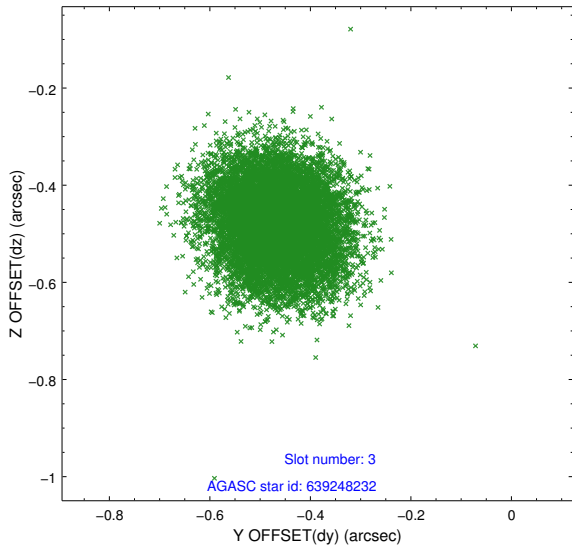
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.25	4918	0.098	-0.074	0.008	0.015	0.000000	0.000000	919.91	-844.95
1	FID		ACIS-I-5	7.25	4918	-0.381	0.046	0.014	0.021	0.000000	0.000000	-1828.62	1052.49
2	FID		ACIS-I-6	7.26	4918	0.191	0.098	0.017	0.024	0.000000	0.000000	385.28	1697.31
3	GUIDE	used	639248232	8.76	9836	-0.466	-0.477	0.109	0.172	134.508146	-6.941594	2350.27	1345.18
4	GUIDE	used	713425256	9.56	9832	0.218	0.277	0.163	0.258	133.292103	-7.858820	-1741.99	-2259.11
5	GUIDE	used	713425792	8.95	9829	-0.007	0.053	0.134	0.214	133.824896	-7.772444	129.95	-1811.59
6	GUIDE	used	713426448	8.89	9829	0.171	0.071	0.126	0.209	133.300363	-7.722551	-1749.17	-1769.01
7	GUIDE	used	713566424	9.09	9822	0.090	0.097	0.146	0.252	134.116627	-7.954163	1215.36	-2389.94

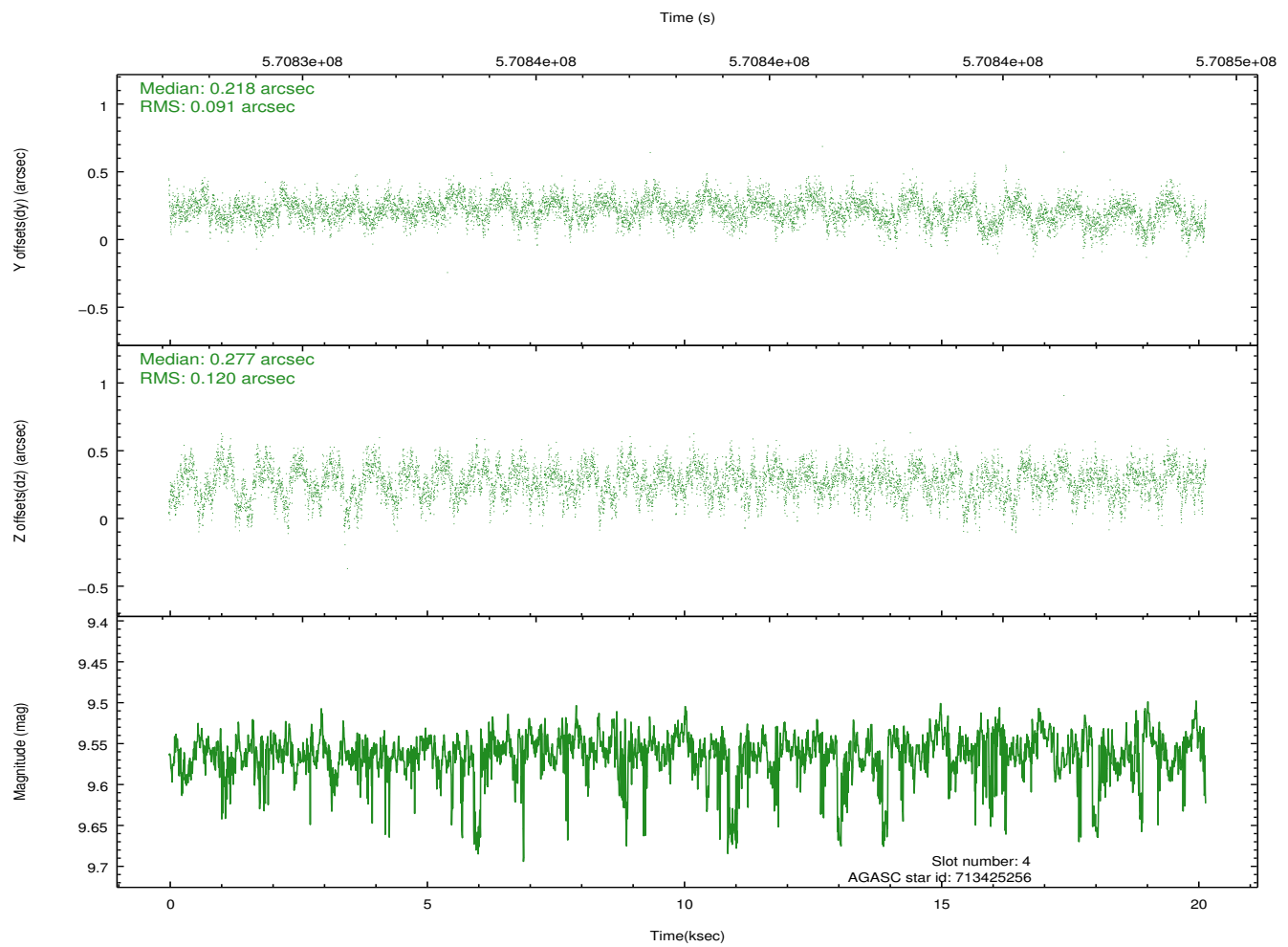
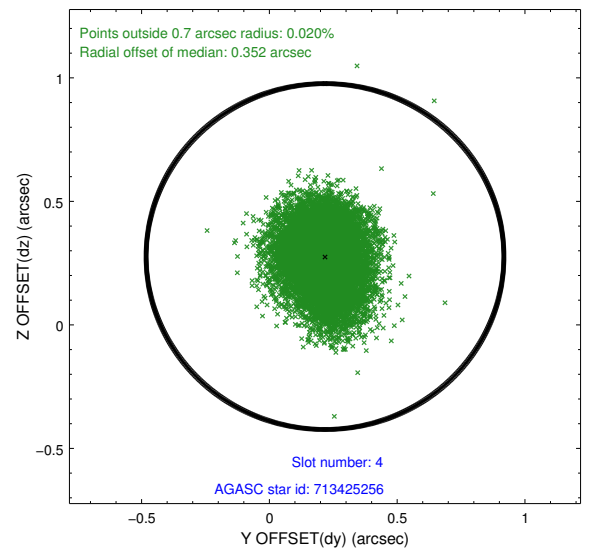
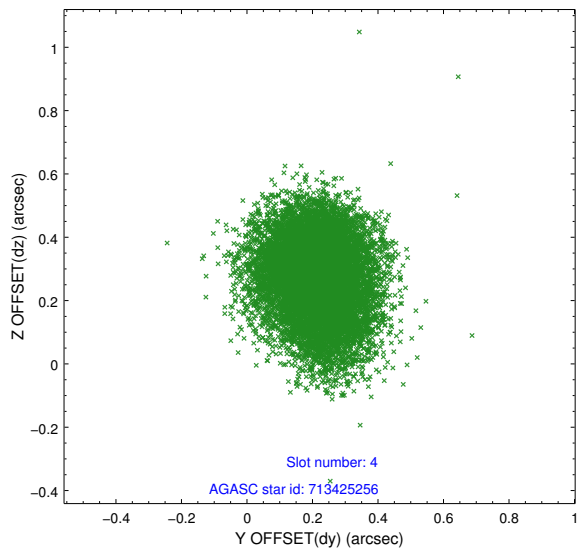
∞

2.4 Star Slots

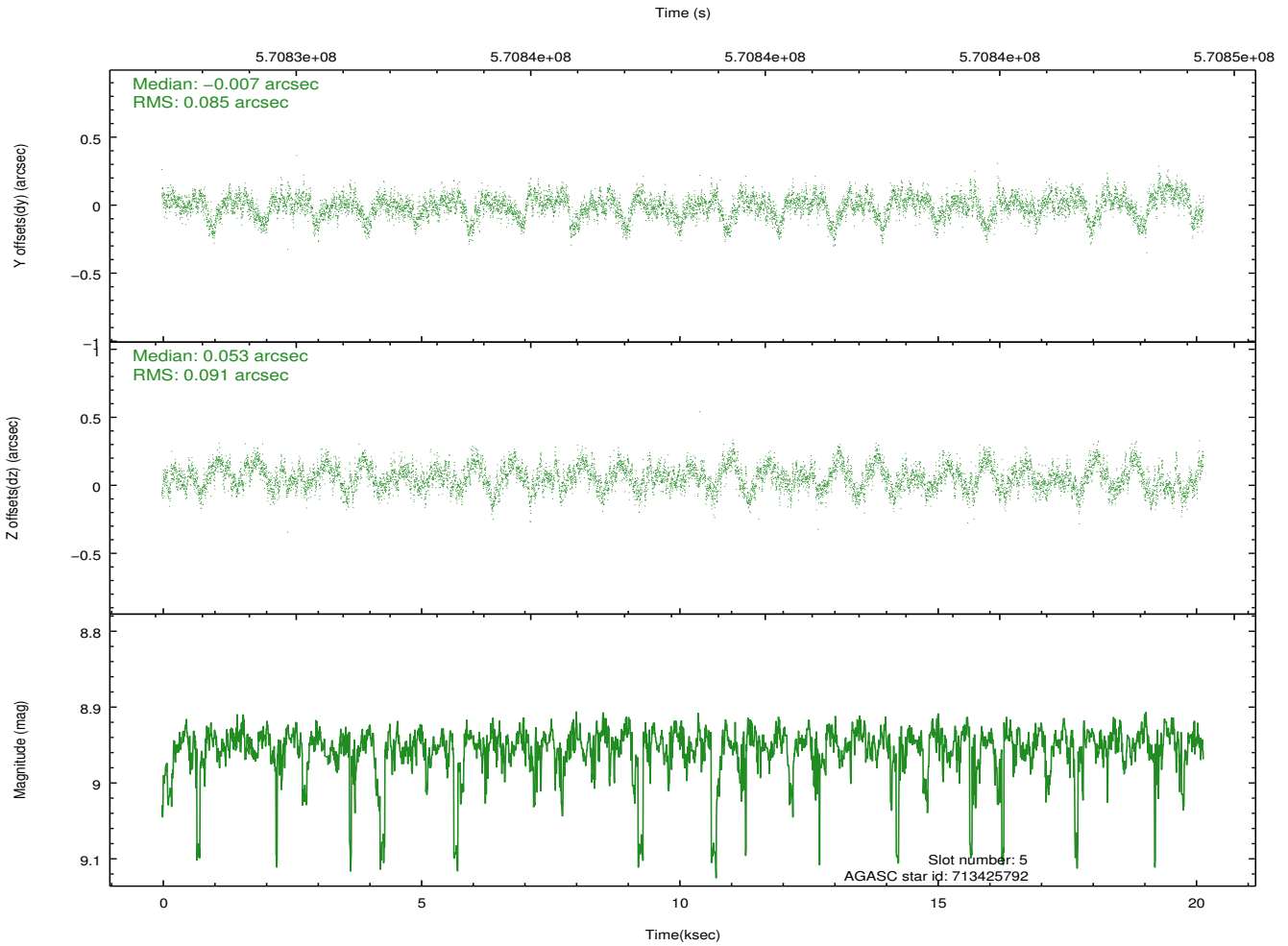
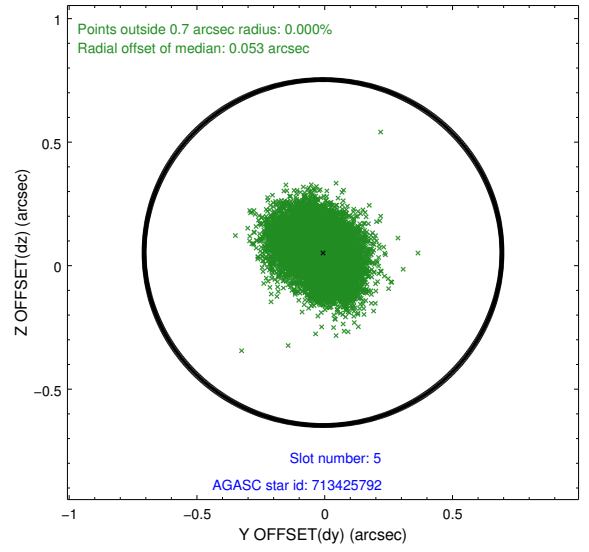
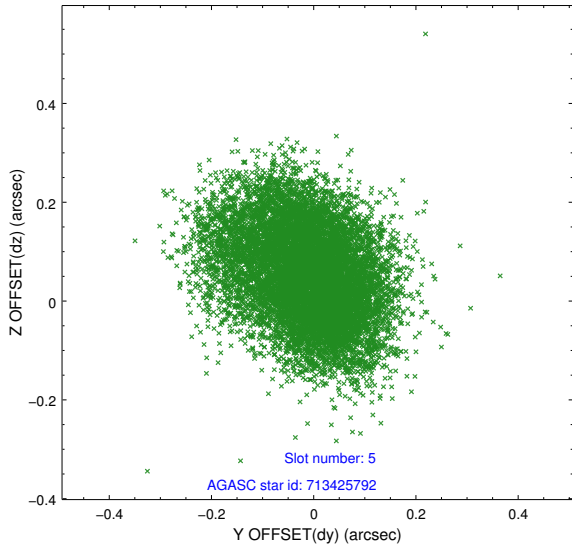
2.4.1 Slot 3



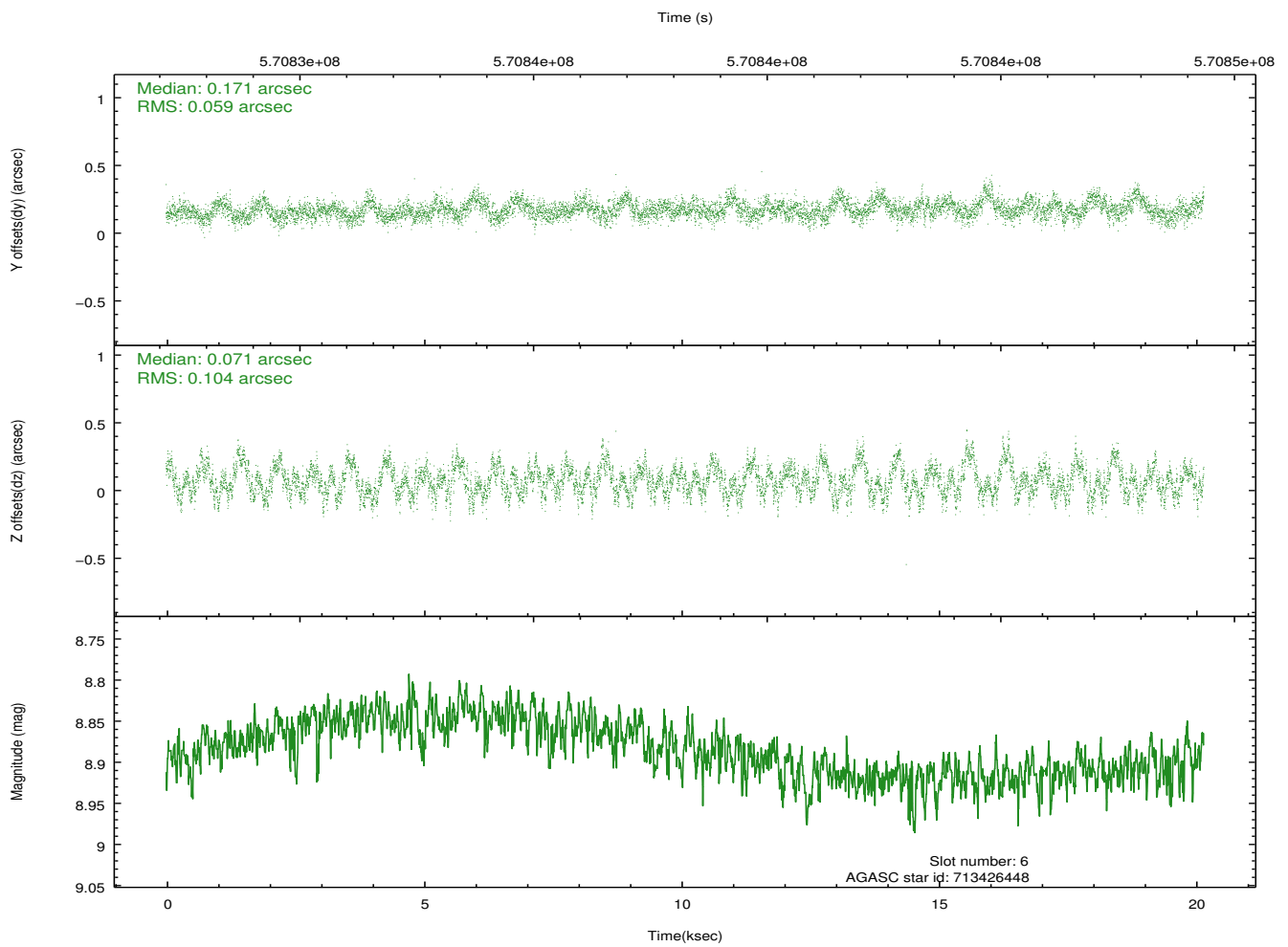
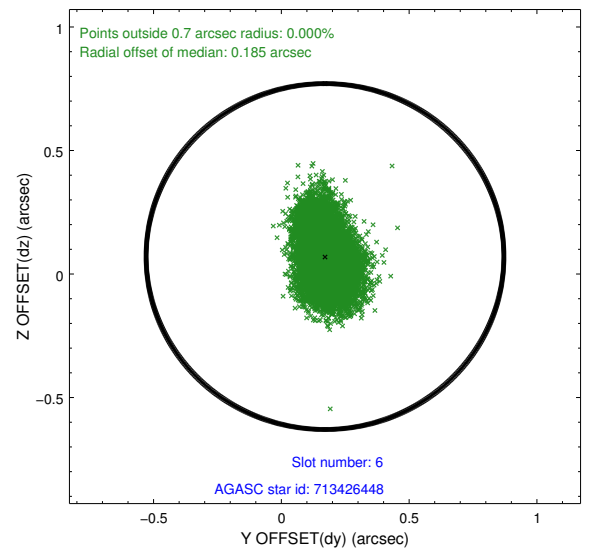
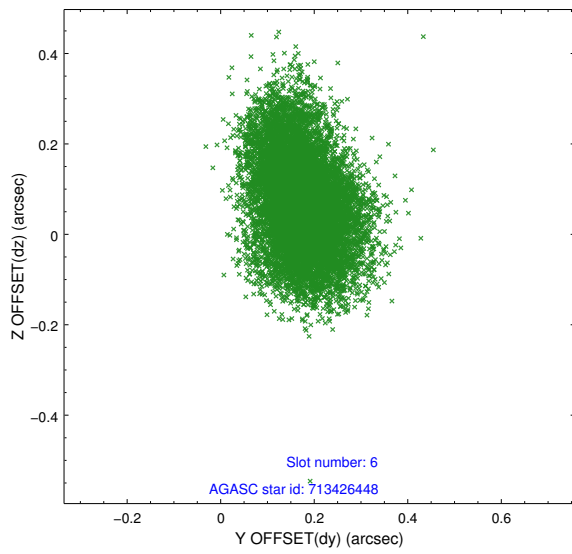
2.4.2 Slot 4



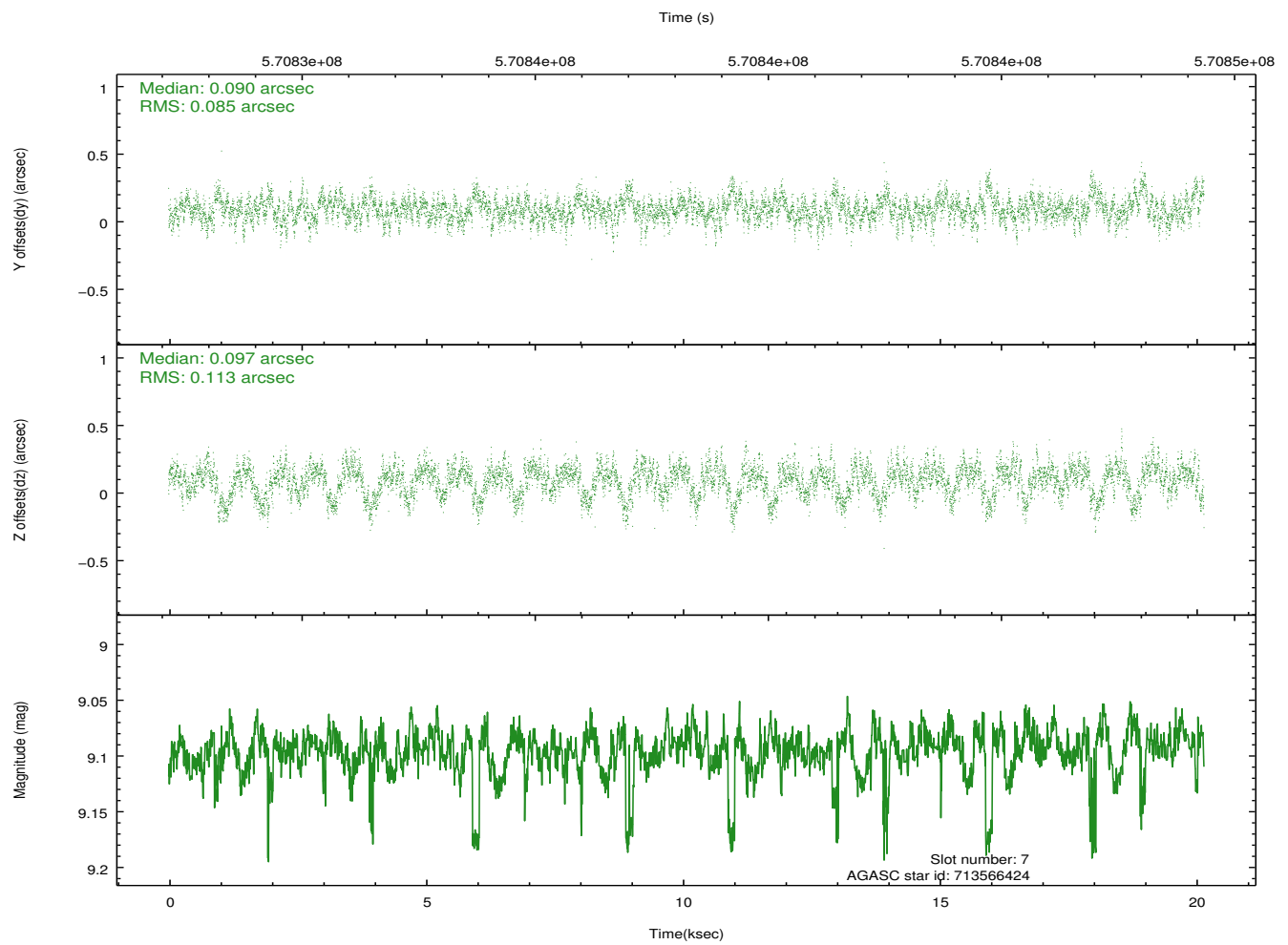
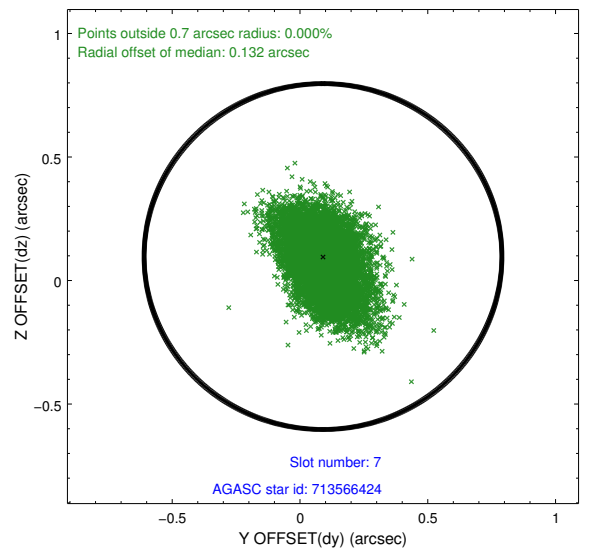
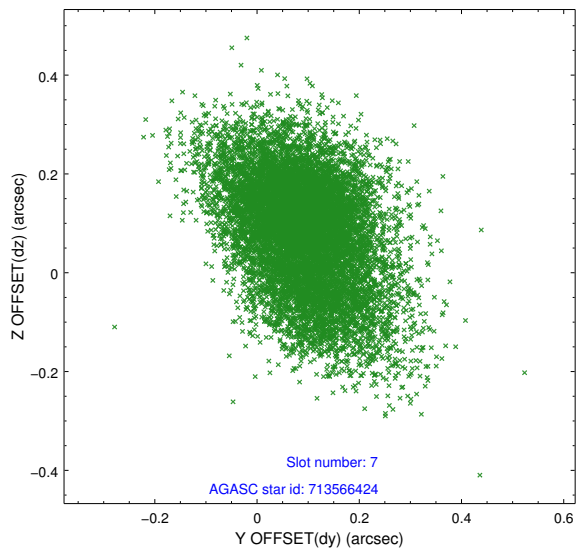
2.4.3 Slot 5



2.4.4 Slot 6

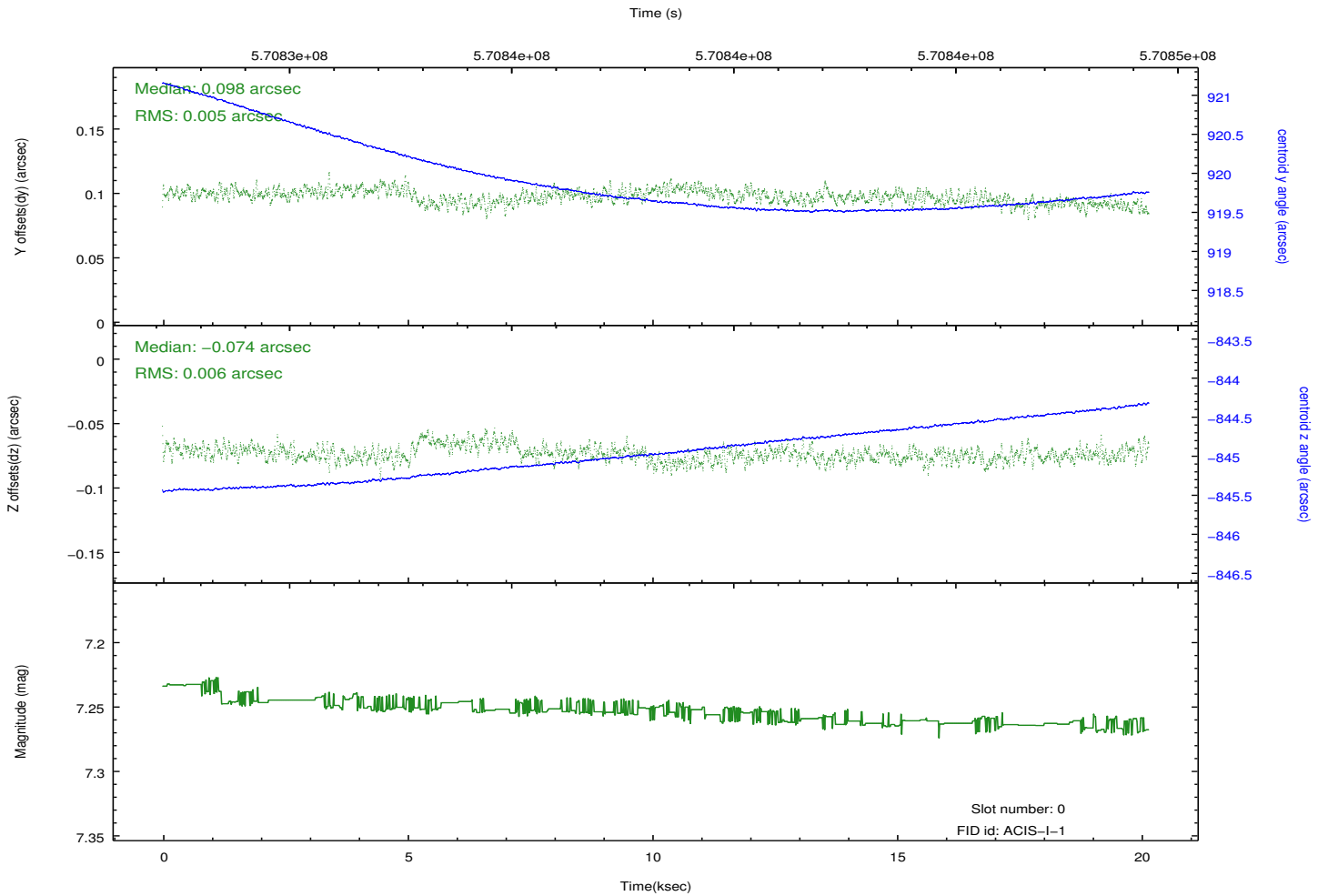
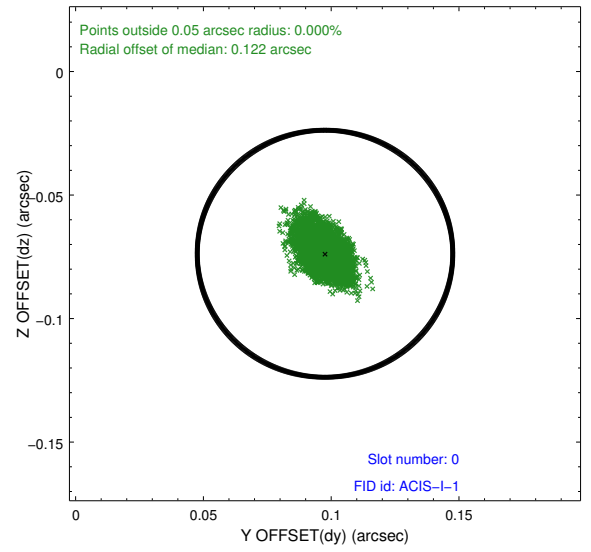
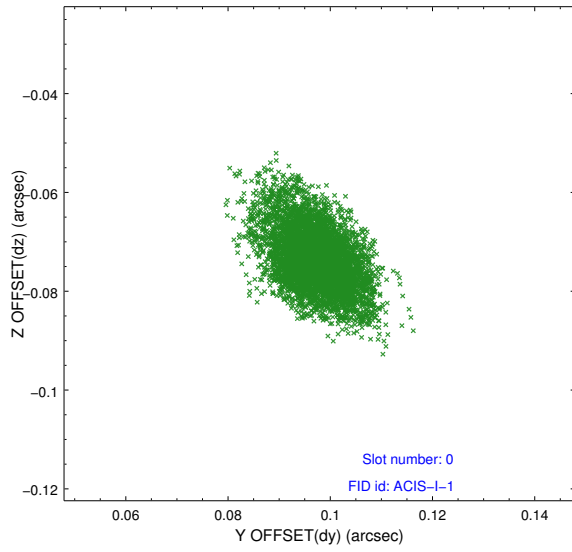


2.4.5 Slot 7

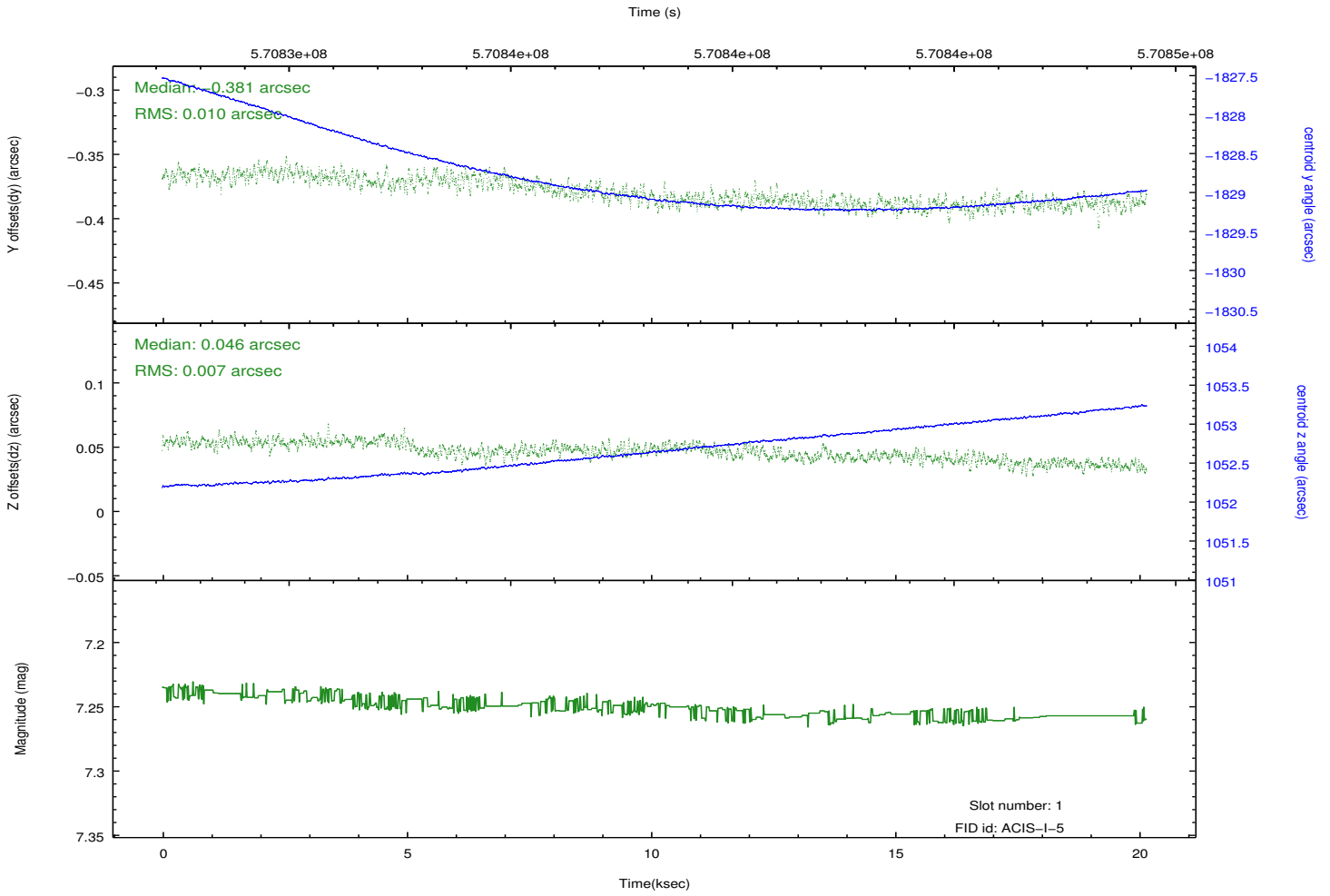
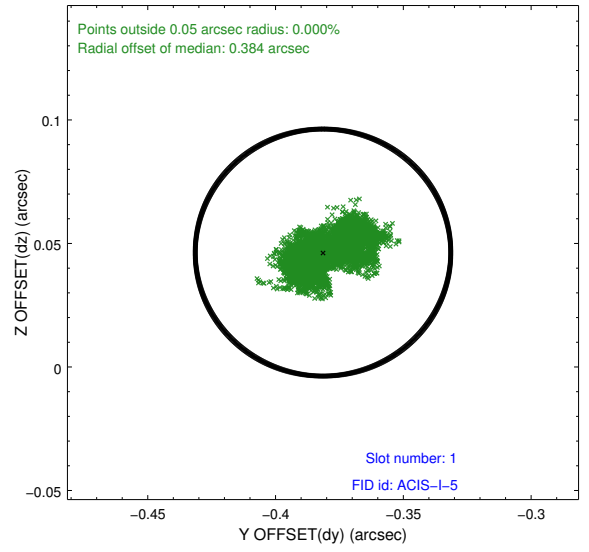
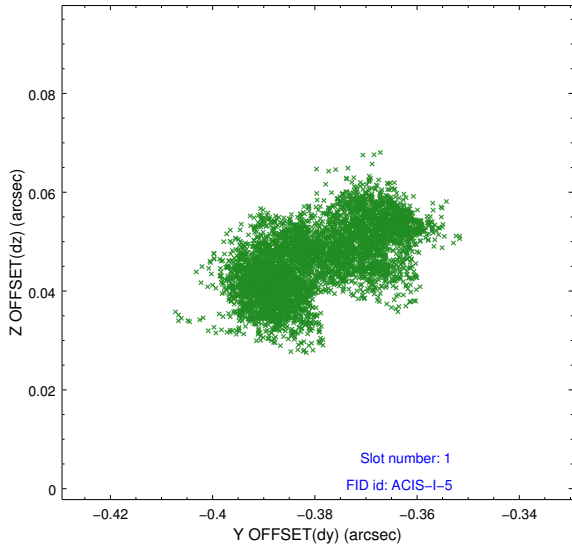


2.5 FID Slots

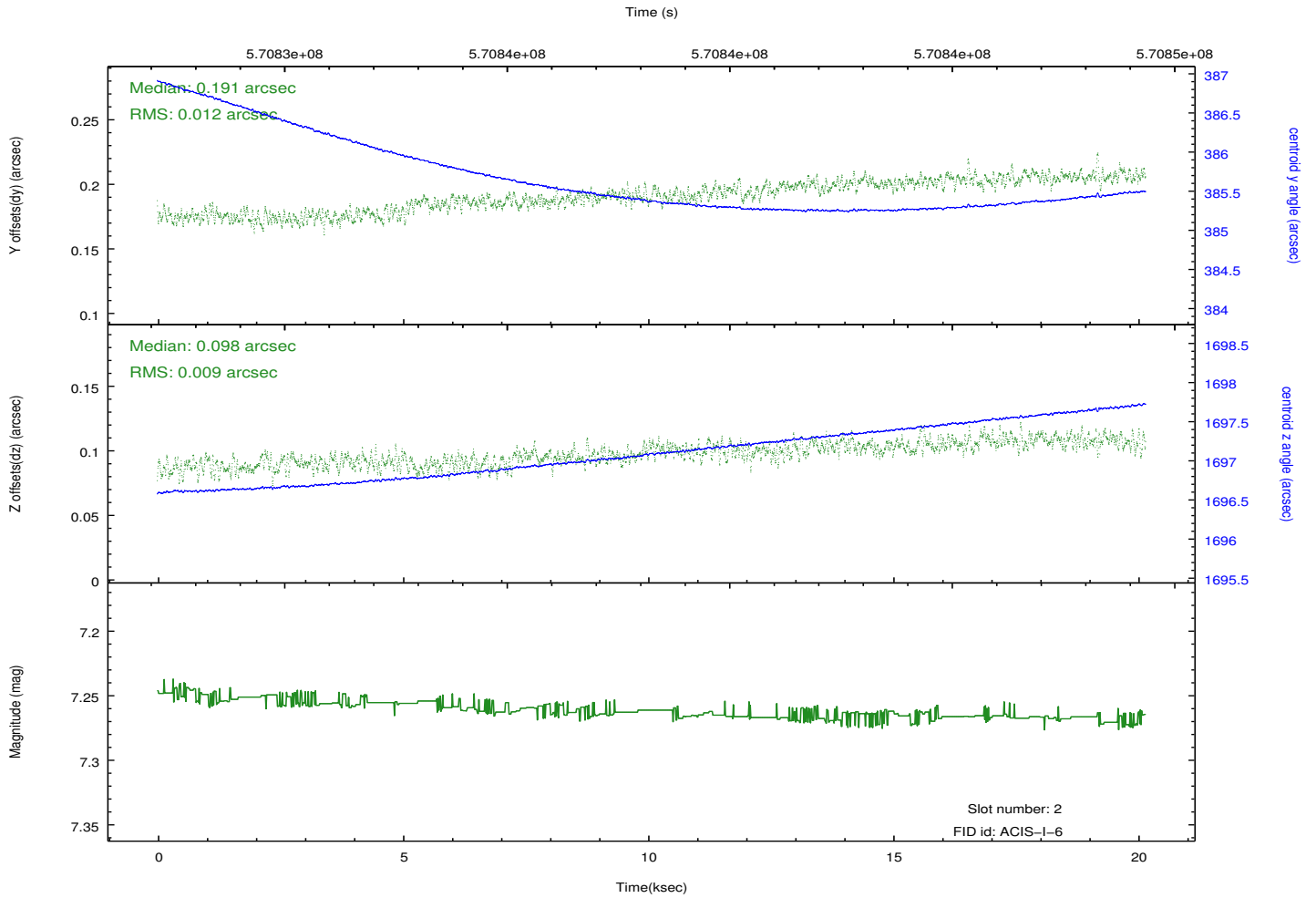
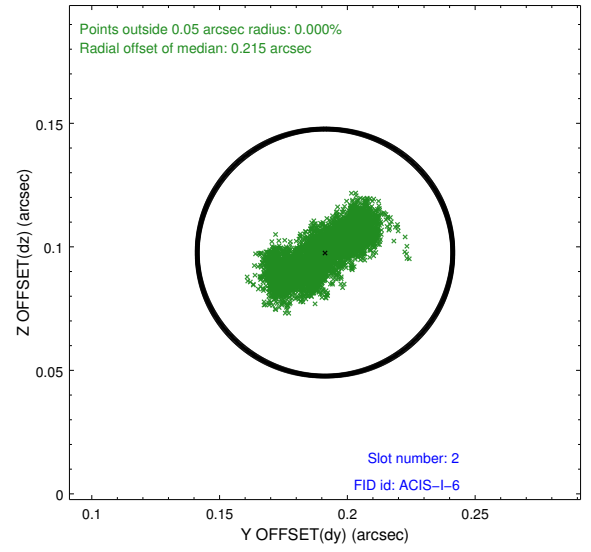
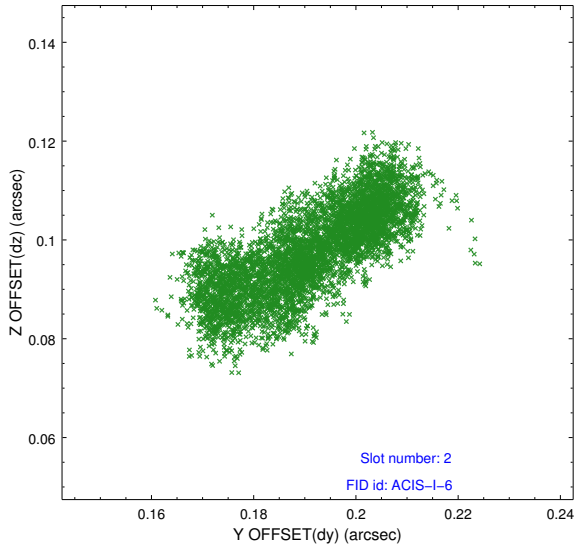
2.5.1 Slot 0



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)	2016.02.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.961600297451

A.2 Comments

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: (133.70434, -7.30382), (133.70416, -7.30641), (133.80797, -7.31345), (133.80814, -7.31087).