

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22116 - L2 Version 2
Chandra X-Ray Center

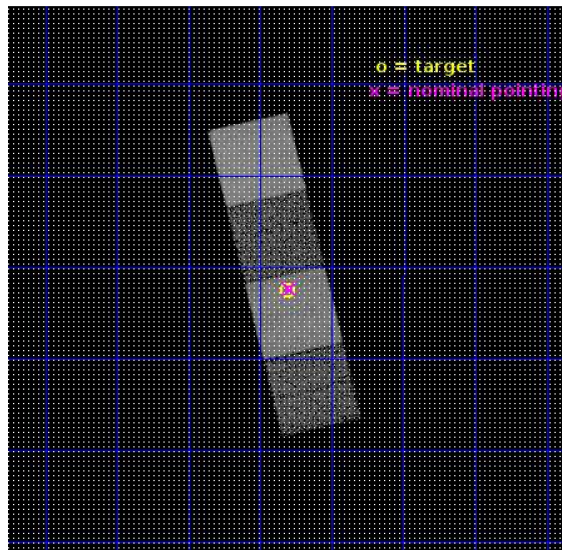
L2 Processing Date : Feb 26 2019

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

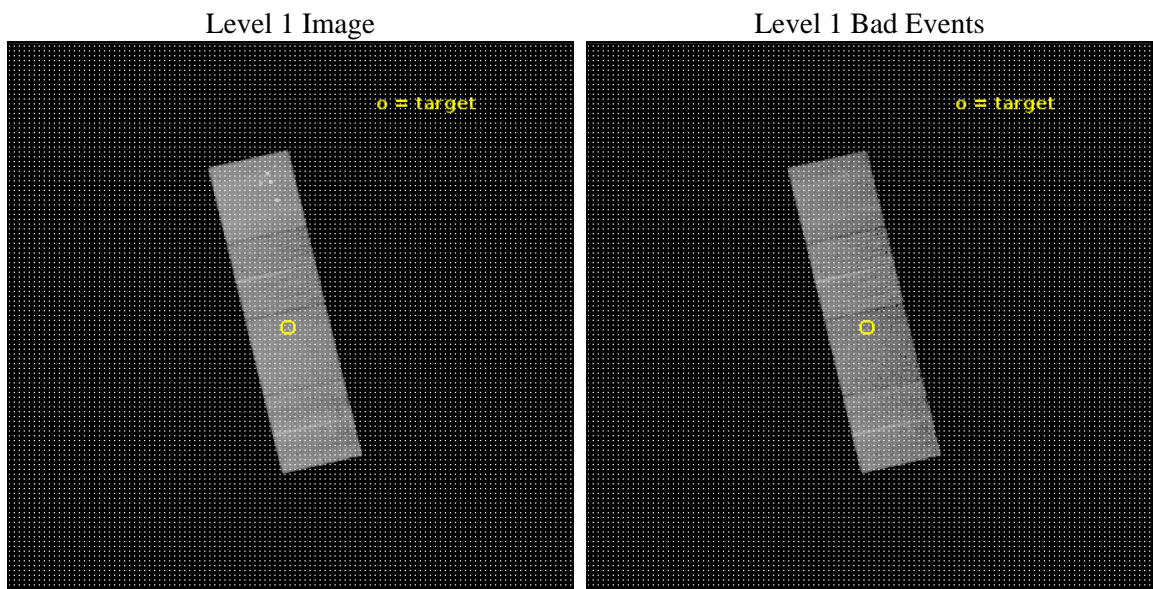
seq_num	703866	Sequence number
obs_id	22116	Observation id
title	C-BASS: A Chandra Legacy Survey of AGN at the Highest Spatial Resolutions	Proposal title
observer	Michael Koss	Principal investigator
object	2XMM J185348.4-010229	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	283.452026	Observer's specified target RA [deg]
dec_targ	-1.041588	Observer's specified target Dec [deg]
ra_nom	283.44901051486	Nominal RA [deg]
dec_nom	-1.0387372081281	Nominal Dec [deg]
roll_nom	76.871097212259	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10058.498854995	Sum of GTIs [s]
livetime	9927.0771624951	Livetime [s]
ontime5	10058.457815051	Sum of GTIs [s]
ontime6	10052.134664893	Sum of GTIs [s]
ontime7	10058.498854995	Sum of GTIs [s]
ontime8	10058.375735044	Sum of GTIs [s]
l2events	120755	Number of level 2 events



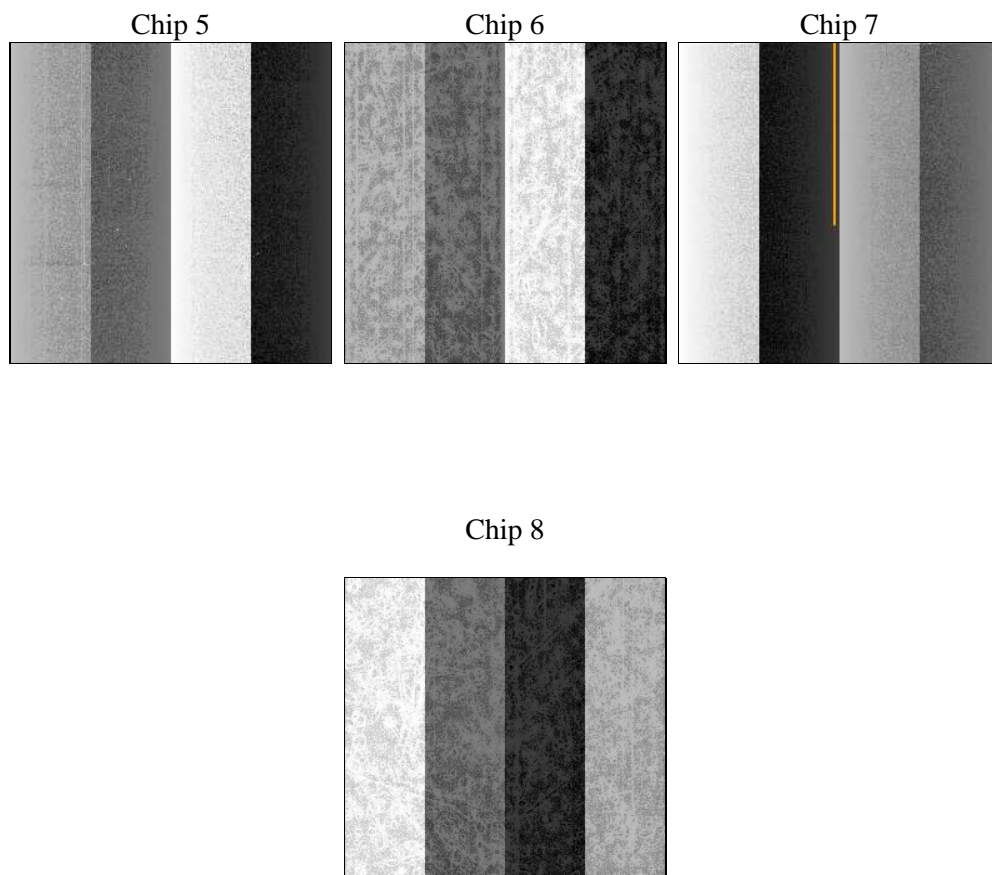
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	10058.498854995	Sum of GTIs [s]
caldsver	4.8.2	 	ontime5	10058.457815051	Sum of GTIs [s]
date	2019-02-26T17:06:57	Date and time of file creation	ontime6	10052.134664893	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	10058.498854995	Sum of GTIs [s]
			ontime8	10058.375735044	Sum of GTIs [s]
			l1events	425278	Number of level 1 events

2.1.4 Events

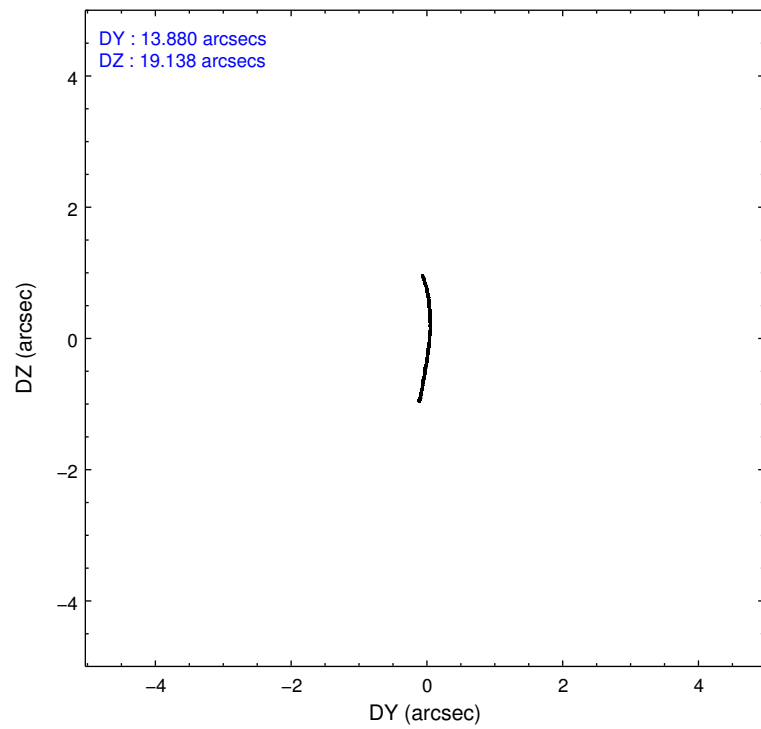
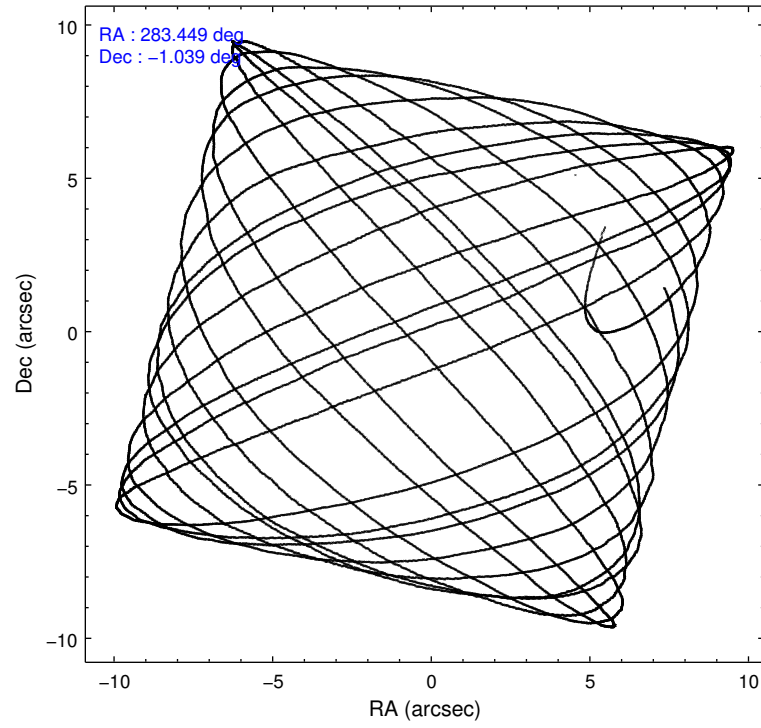
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	131829	85670	104574	103205
rejected events	66318	75709	57824	76837
rejected %	50%	88%	55%	74%

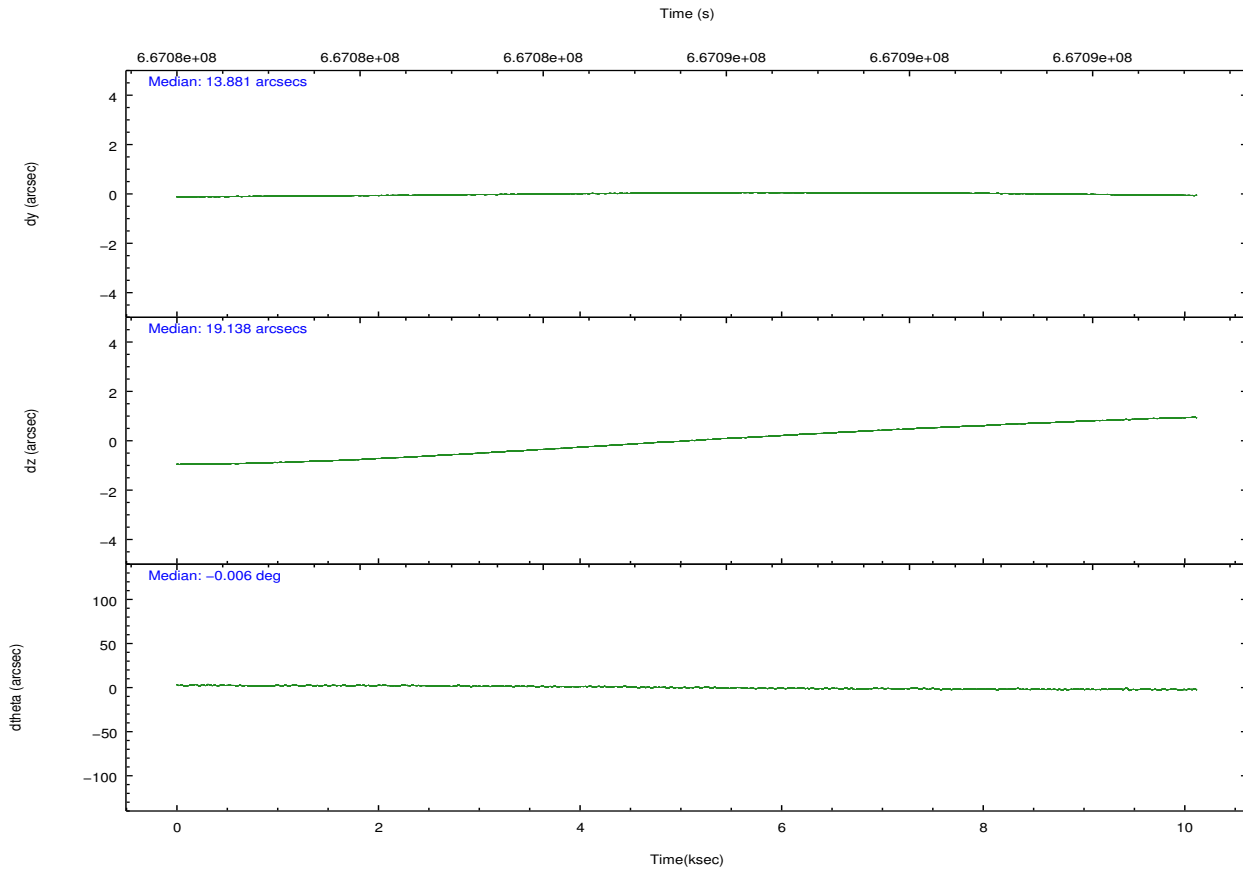
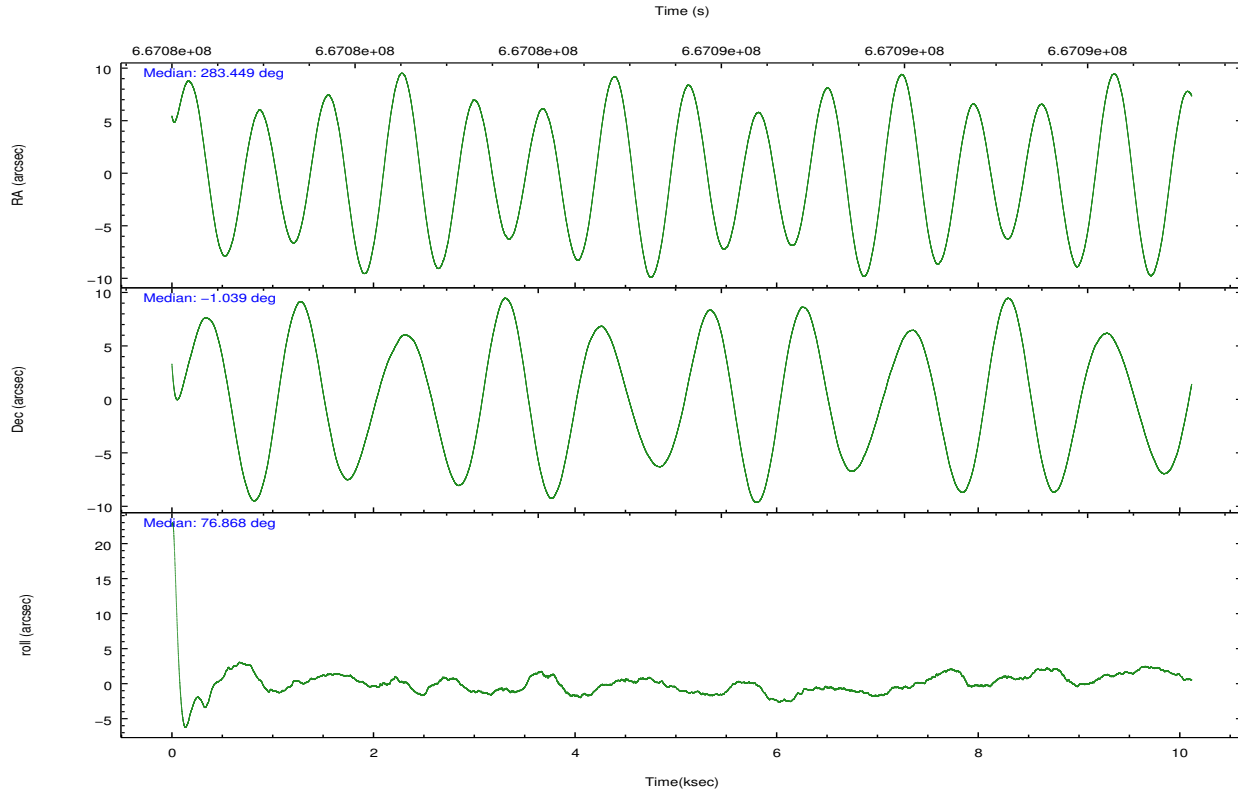
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	9065	3266	4312	7781
	6%	3%	4%	7%
grade 1 events	438	41	176	66
	0%	0%	0%	0%
grade 2 events	18945	2700	9915	6339
	14%	3%	9%	6%
grade 3 events	1800	733	3757	2602
	1%	0%	3%	2%
grade 4 events	1747	718	3749	2361
	1%	0%	3%	2%
grade 5 events	7872	3138	9772	5094
	5%	3%	9%	4%
grade 6 events	33992	2554	25050	7297
	25%	2%	23%	7%
grade 7 events	57970	72520	47843	71665
	43%	84%	45%	69%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	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	283.457287	283.4490105148593	CCD I2 on	N	N
[deg] Pointing Dec	-1.064891	-1.038737208128103	CCD I3 on	N	N
[deg] Pointing Roll	76.714590	76.87109721225917	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	667080656.184000	667079421.56194	CCD S5 on	N	N
Observation start date	2019-02-20T20:09:47	2019-02-20T19:50:21	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	667090656.184000	667090926.67513	On-chip summing requested	N	N
Observation end date	2019-02-20T22:56:27	2019-02-20T23:02:06	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



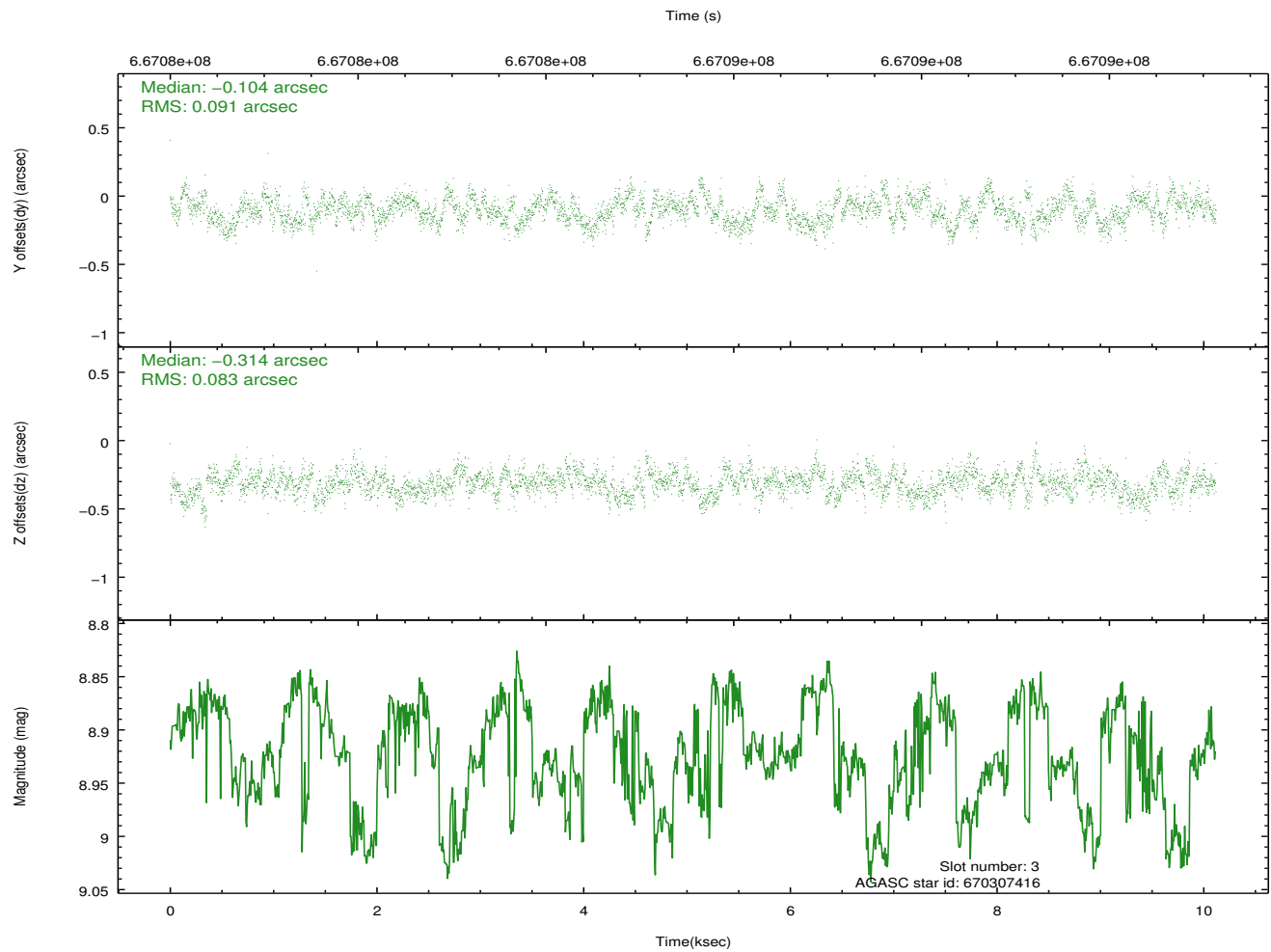
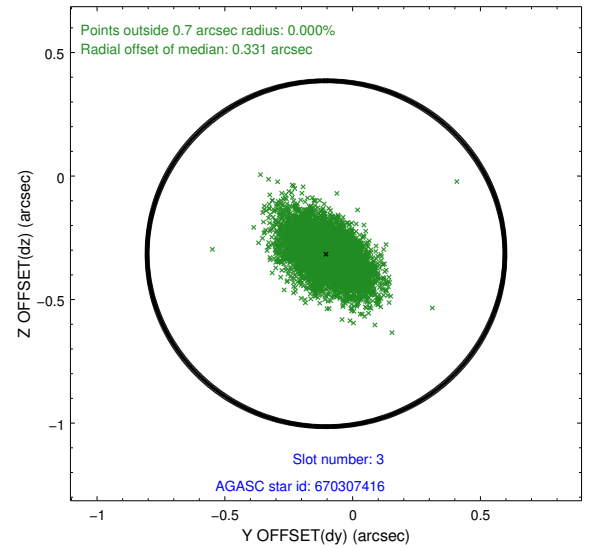
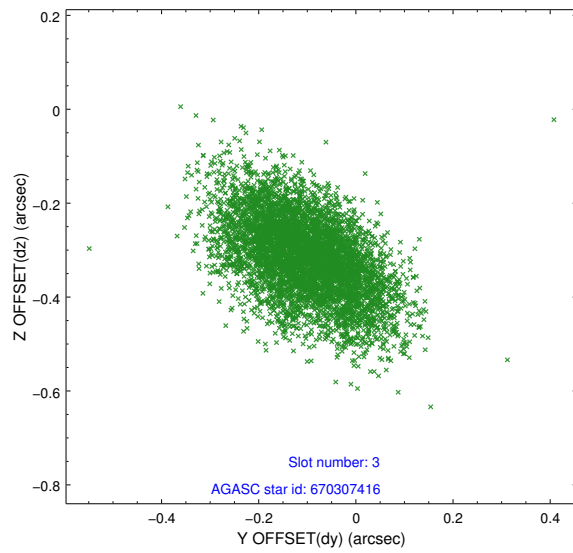


Slot Statistics

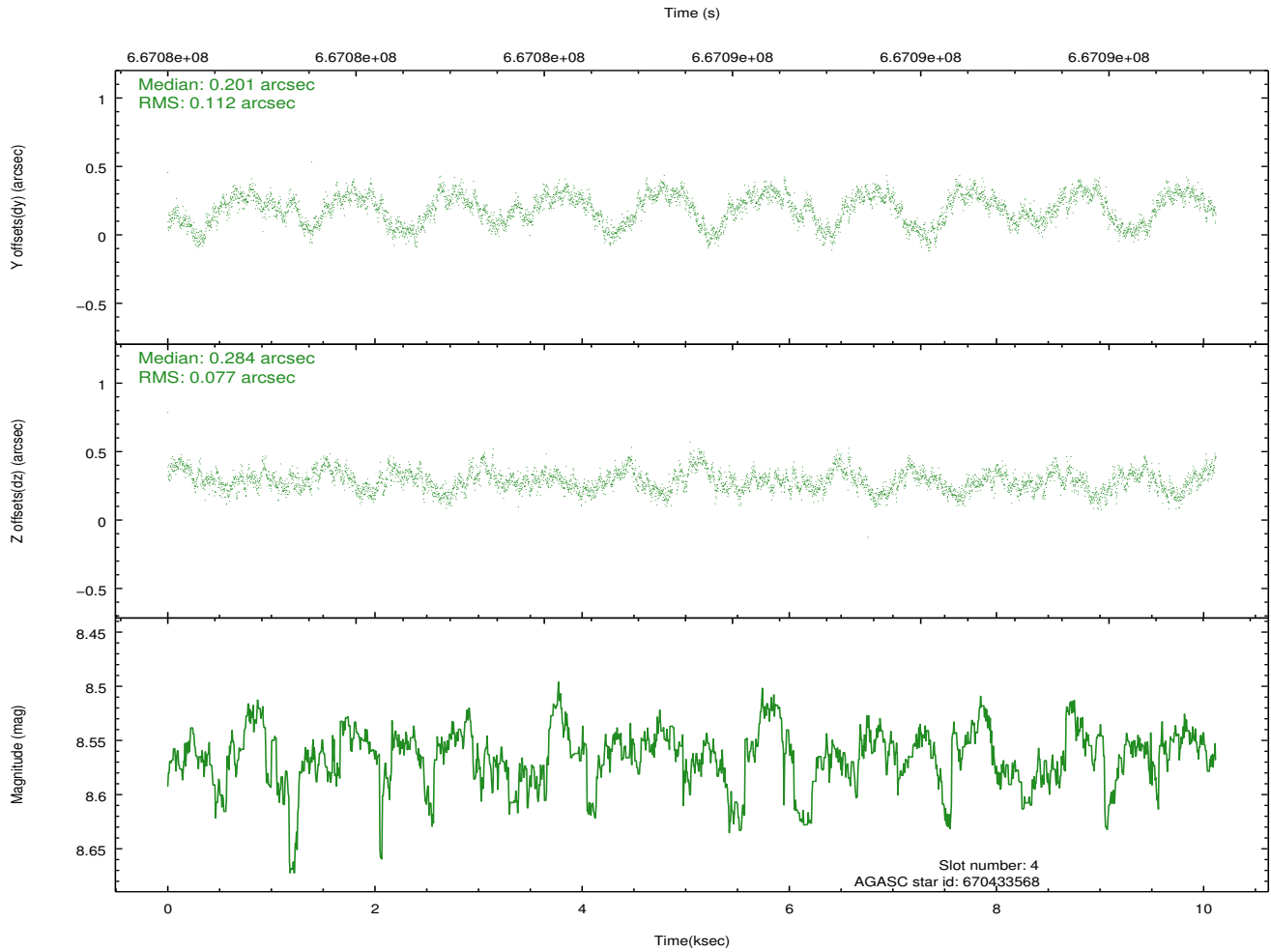
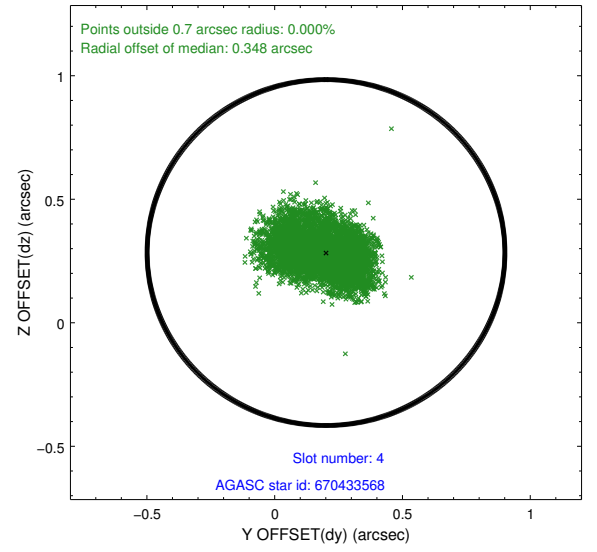
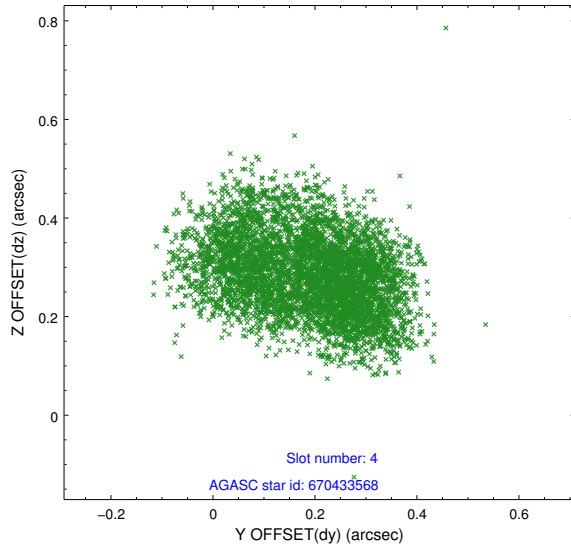
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.16	2468	1.000	-0.311	-0.223	0.033	0.041	0.000000	0.000000	-767.04	-1740
1	FID		ACIS-S-4	7.29	2468	1.000	0.797	0.208	0.009	0.017	0.000000	0.000000	2147.02	167
2	FID		ACIS-S-5	7.27	2468	1.000	-0.520	0.021	0.032	0.041	0.000000	0.000000	-1819.50	161
3	GUIDE	used	670307416	8.93	4931	1.000	-0.104	-0.314	0.130	0.217	282.888823	-1.552742	-2177.61	1589
4	GUIDE	used	670433568	8.56	4934	1.000	0.201	0.284	0.149	0.225	283.557288	-1.546862	-1606.61	-747
5	GUIDE	used	670434448	8.73	4933	1.000	0.151	0.144	0.126	0.195	283.522579	-1.306427	-792.06	-426
6	GUIDE	used	670437376	8.26	4936	1.000	0.078	-0.015	0.147	0.262	284.222455	-0.790910	1592.58	-2452
7	GUIDE	used	670437392	7.18	4935	1.000	-0.299	-0.108	0.101	0.176	283.964370	-0.739474	1558.56	-1507

2.4 Star Slots

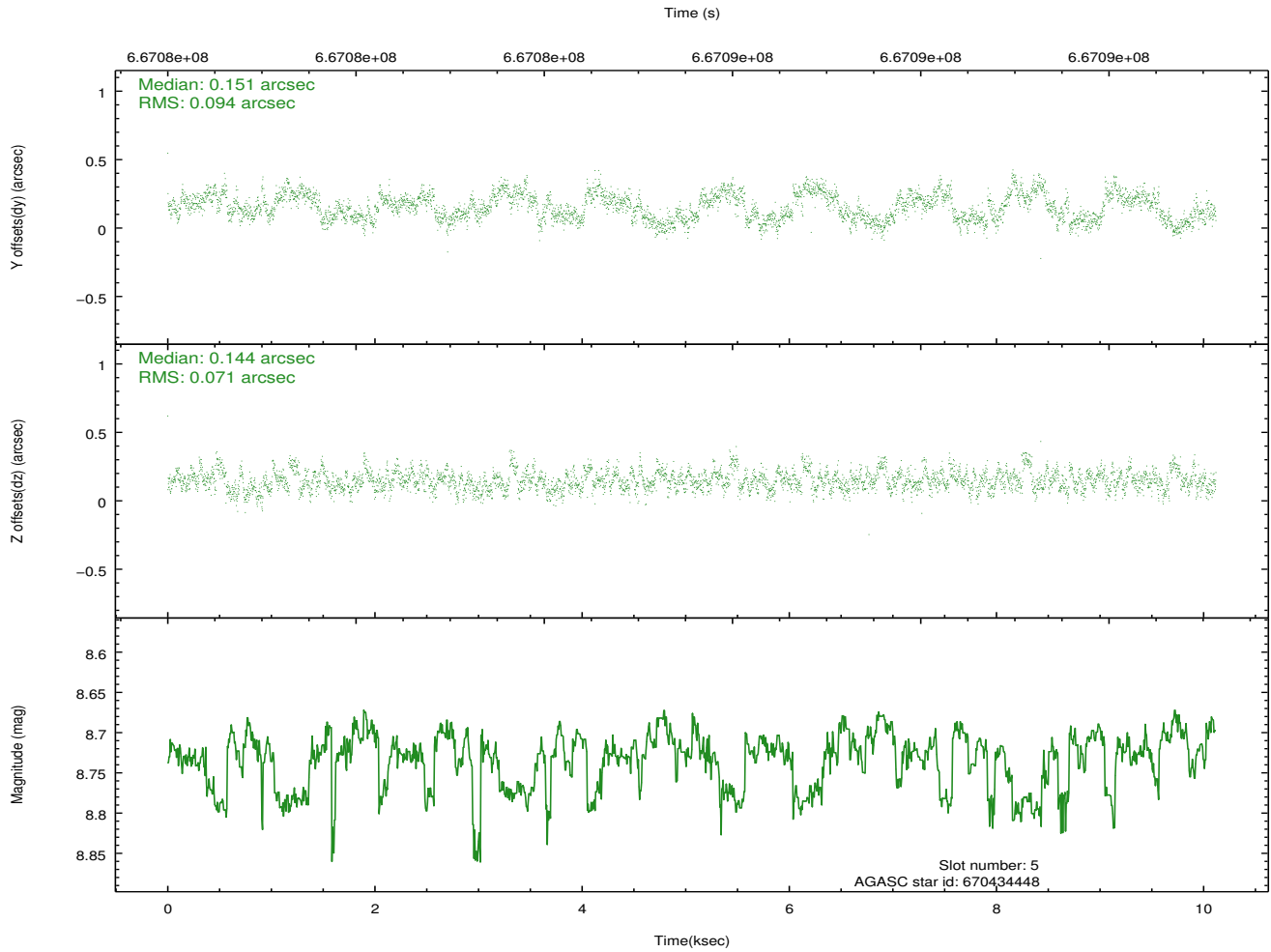
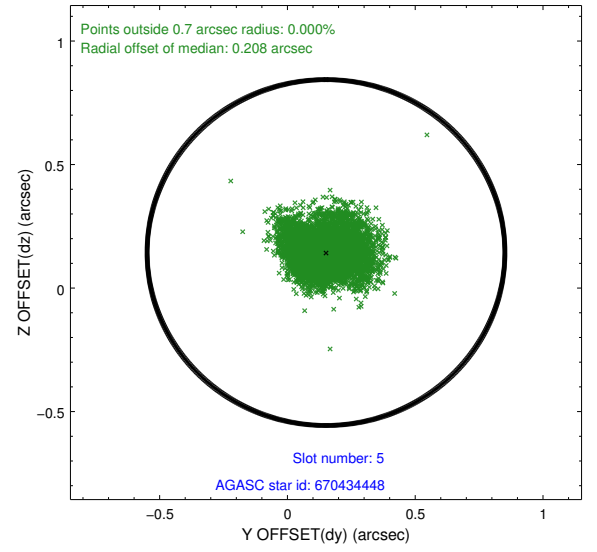
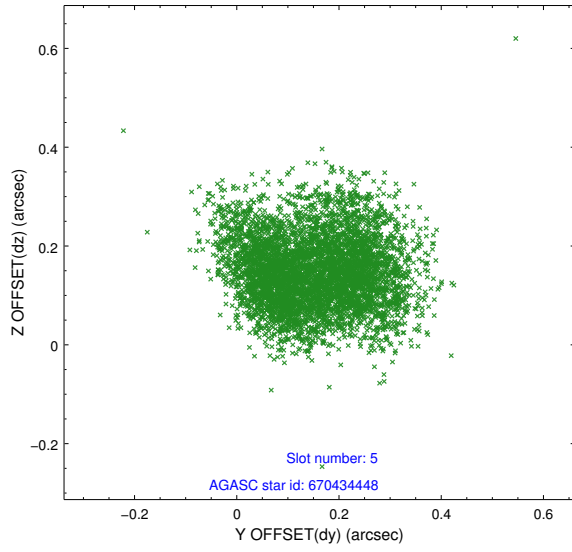
2.4.1 Slot 3



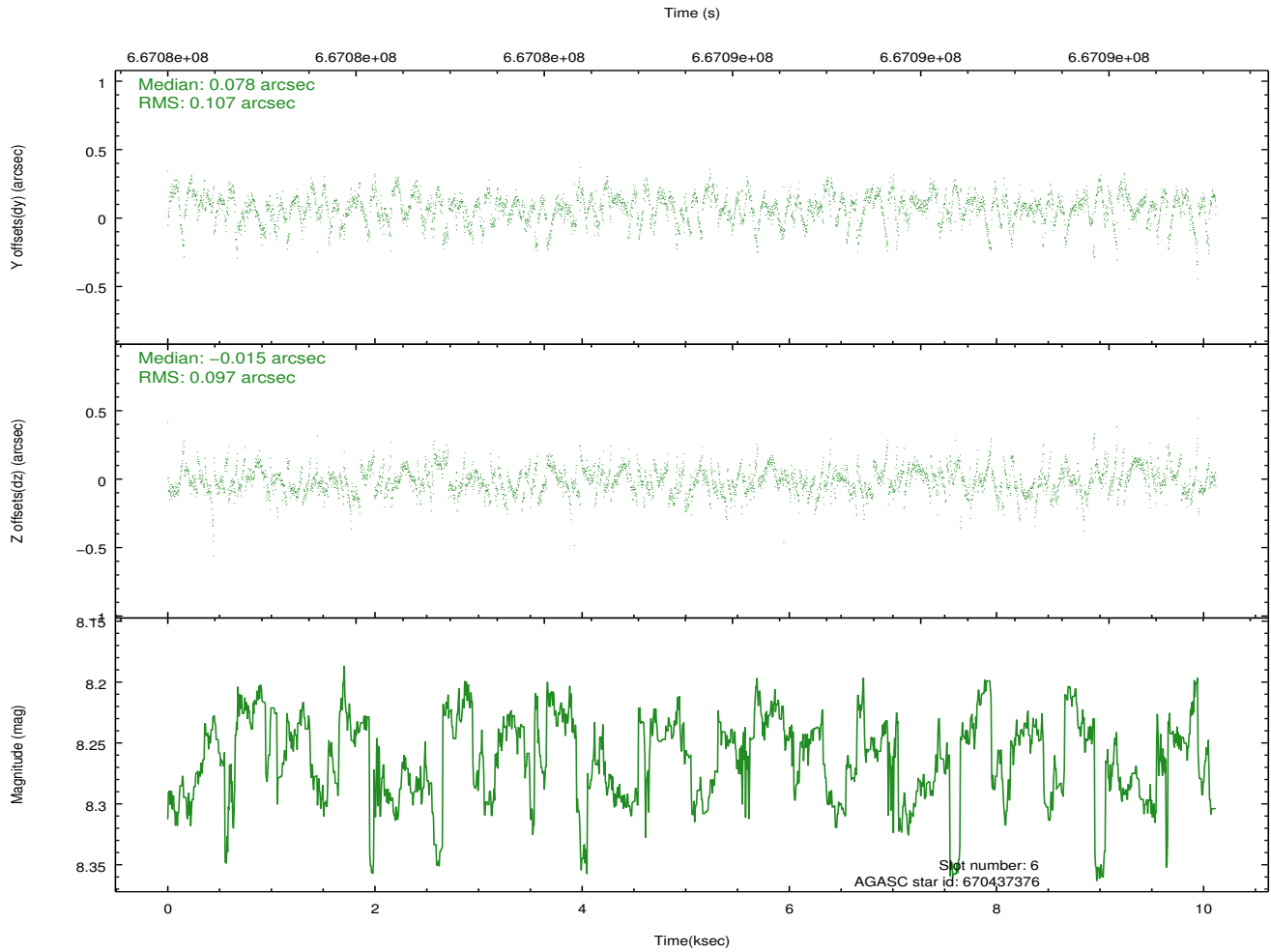
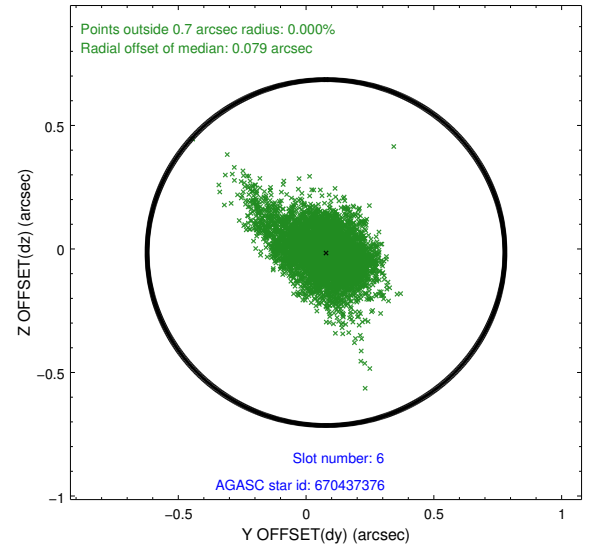
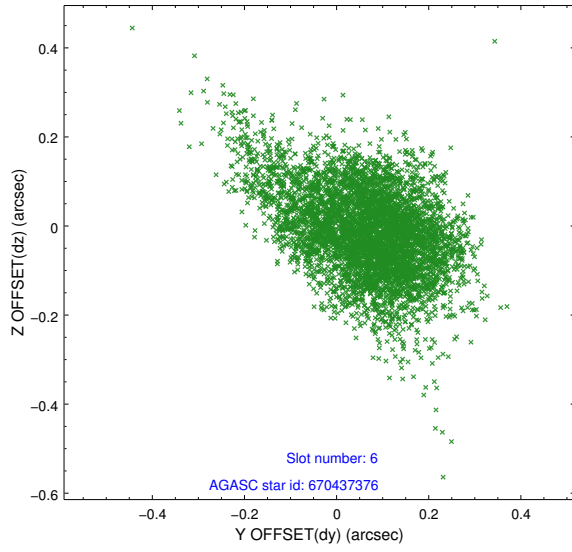
2.4.2 Slot 4



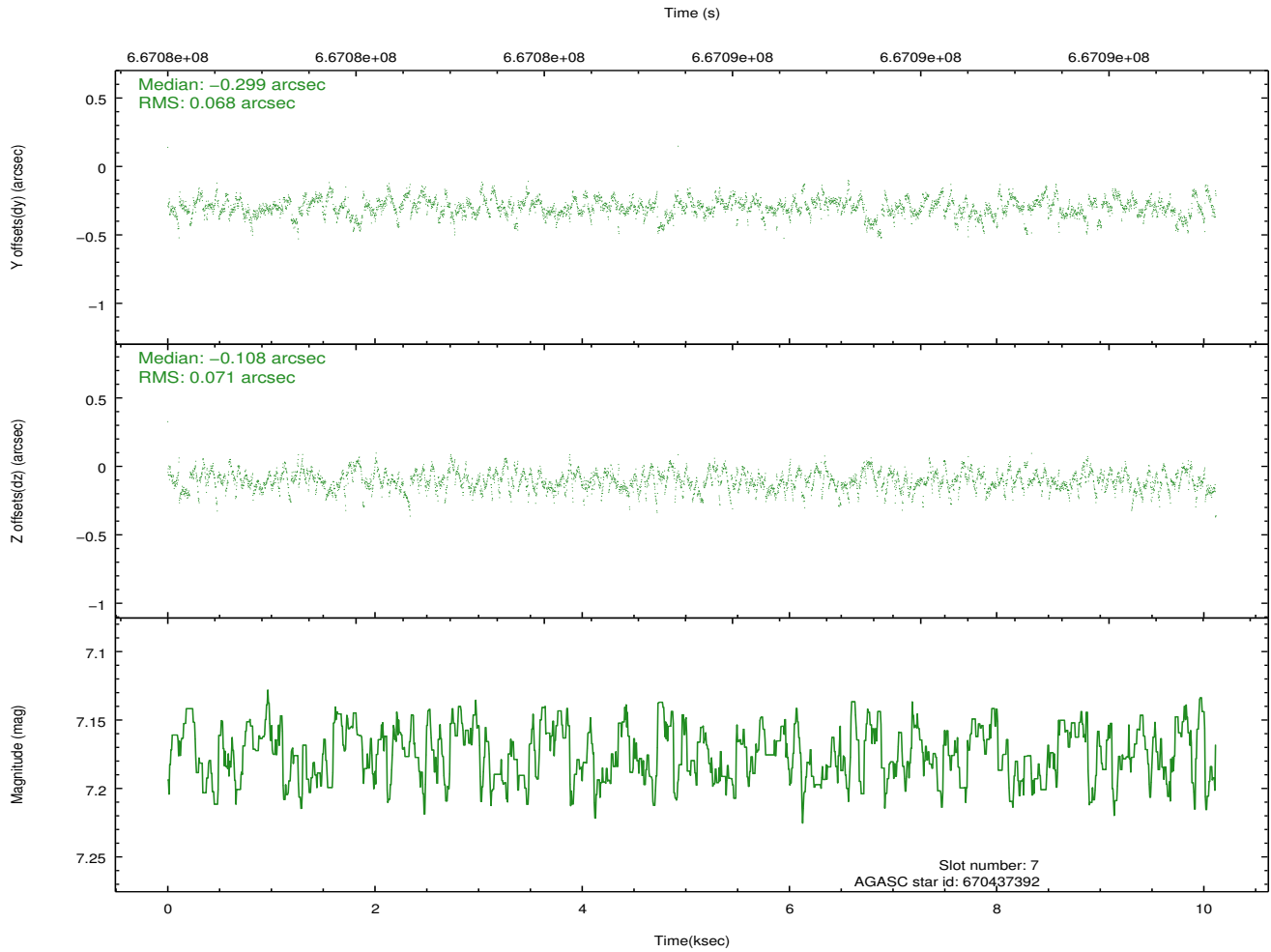
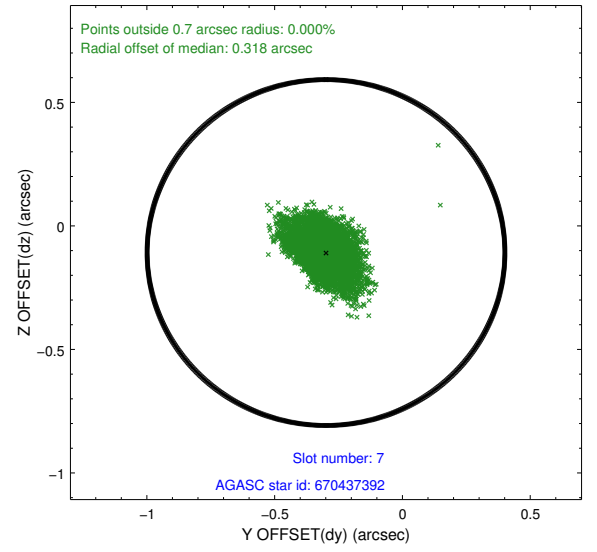
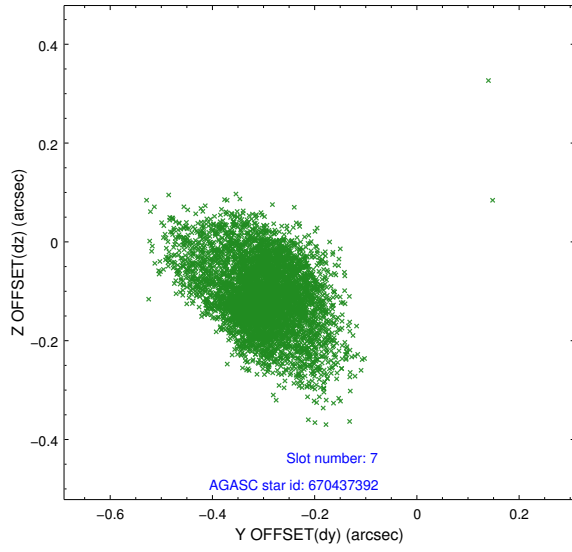
2.4.3 Slot 5



2.4.4 Slot 6

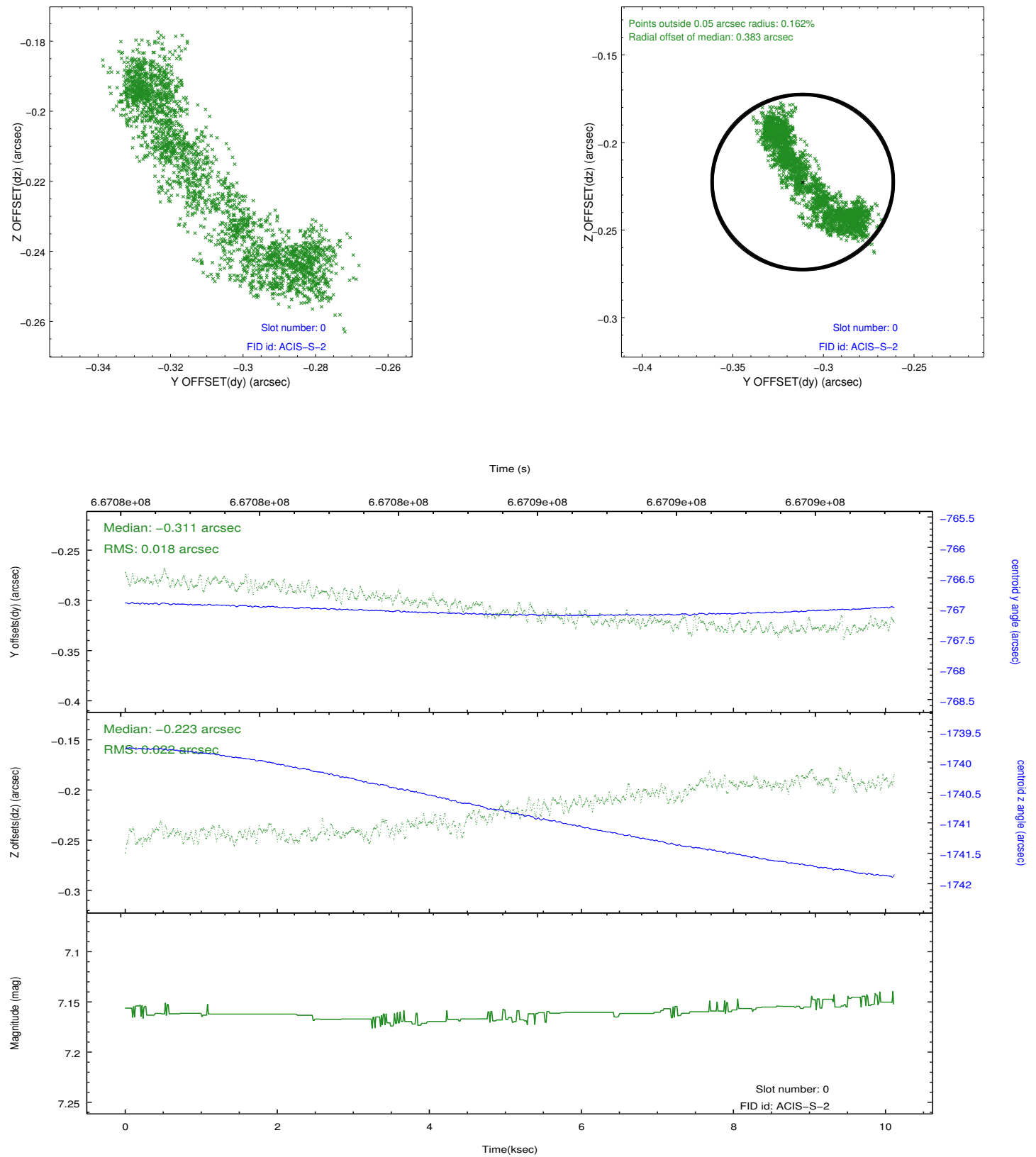


2.4.5 Slot 7

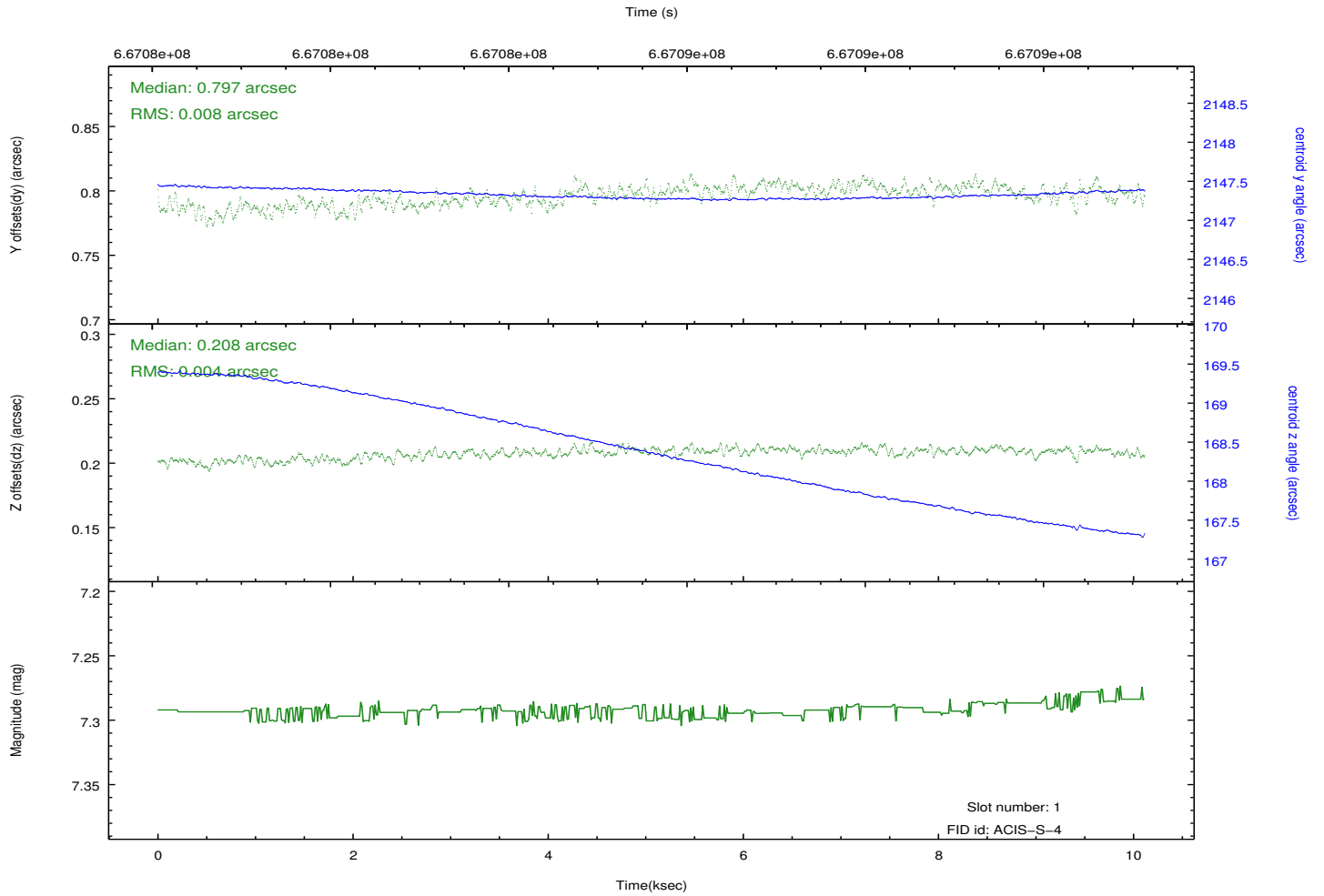
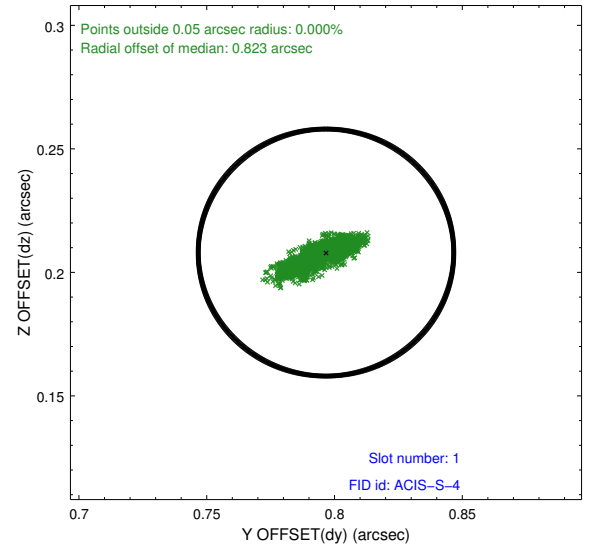
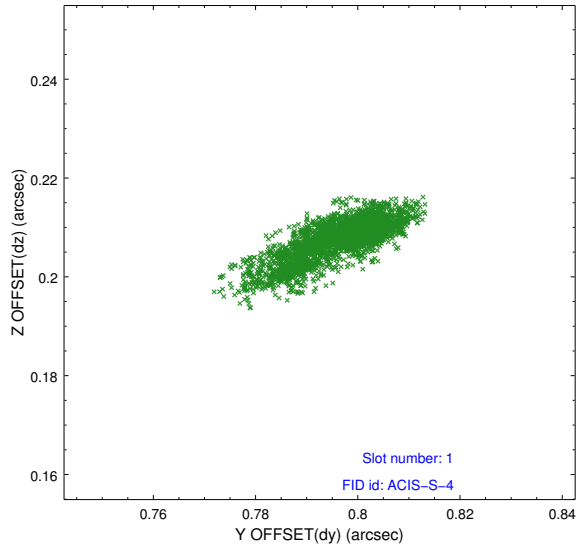


2.5 FID Slots

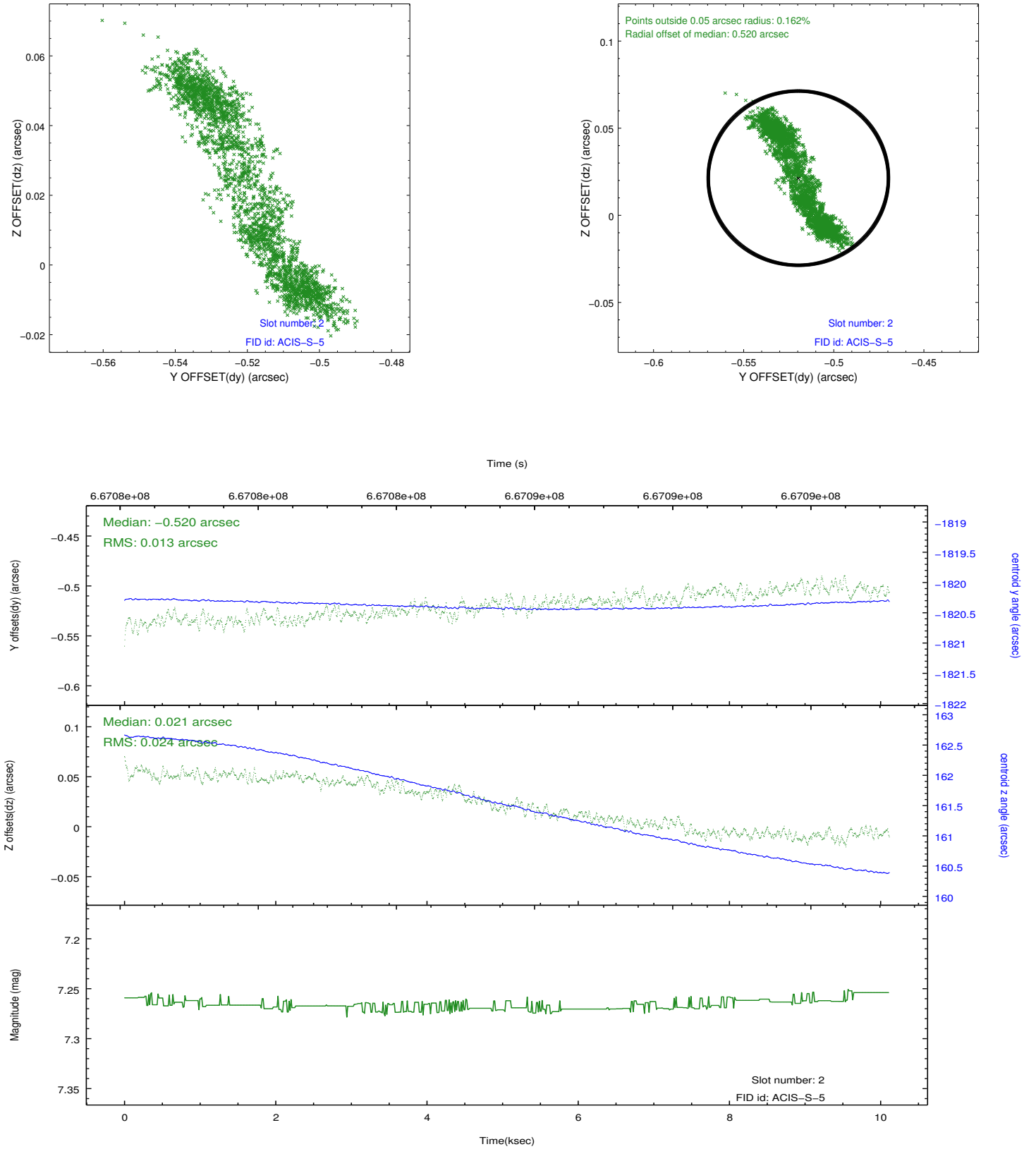
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2019.02.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.058498854995

A.2 Comments

A spatial region of the original bias map for CCD = 6 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 = 6 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:
(283.39575, -0.97169), (283.39378, -0.98020), (283.52980, -1.01178), (283.53177, -1.00327)