

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 15576 - L2 Version 2
Chandra X-Ray Center

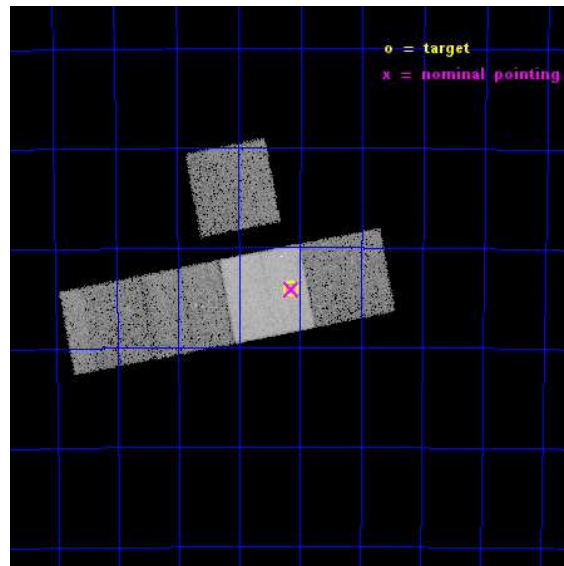
L2 Processing Date : Nov 29 2014

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1 Front

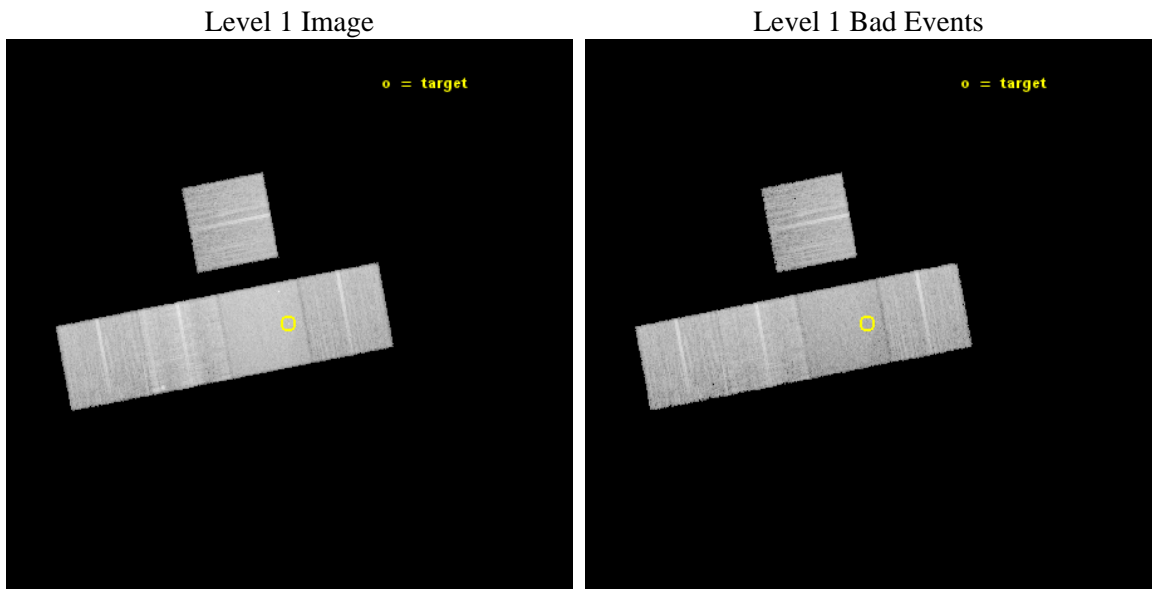
seq_num	401406	Sequence number
obs_id	15576	Observation id
title	The Luminosity of Quiescent Stellar Mass Black Holes	Proposal titl
observer	Dr. Mark Reynolds	Principal investigator
object	GS 1354-64	Source name
dtycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	209.540417	Observer's specified target RA [deg]
dec_targ	-64.734778	Observer's specified target Dec [deg]
ra_nom	209.53556348596	Nominal RA [deg]
dec_nom	-64.736961917777	Nominal Dec [deg]
roll_nom	169.15222167248	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20065.734057128	Sum of GTIs [s]
livetime	19803.560469494	Livetime [s]
ontime3	20062.511016726	Sum of GTIs [s]
ontime6	20065.693017125	Sum of GTIs [s]
ontime7	20065.734057128	Sum of GTIs [s]
ontime8	20062.469946861	Sum of GTIs [s]
ontime9	20065.569897115	Sum of GTIs [s]
l2events	115843	Number of level 2 events



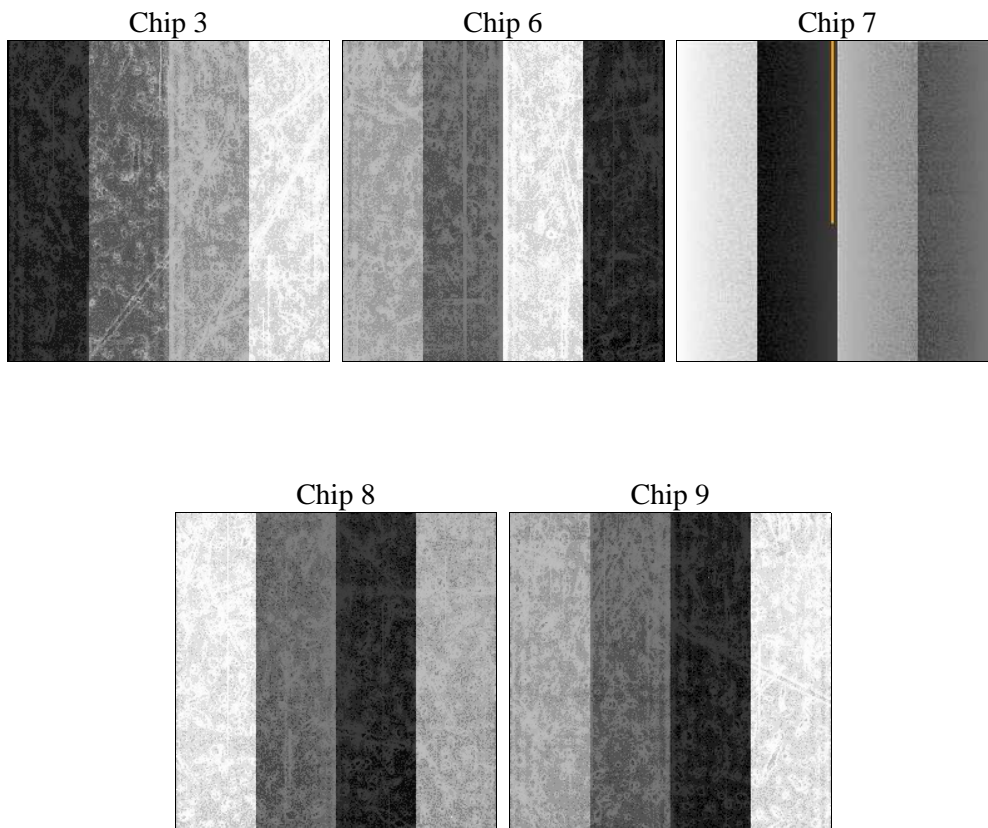
2 OBI

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	10.3	Processing system revision	ontime	20065.734057128	Sum of GTIs [s]
caldbver	4.6.4	 	ontime3	20062.511016726	Sum of GTIs [s]
date	2014-11-29T08:53:36	Date and time of file creation	ontime6	20065.693017125	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	20065.734057128	Sum of GTIs [s]
			ontime8	20062.469946861	Sum of GTIs [s]
			ontime9	20065.569897115	Sum of GTIs [s]
			l1events	617447	Number of level 1 events

2.1.4 Events

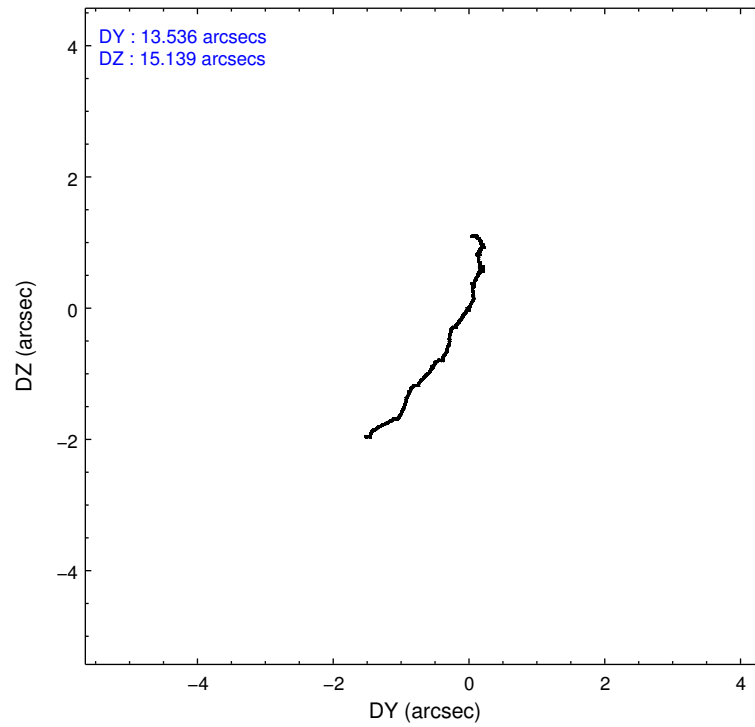
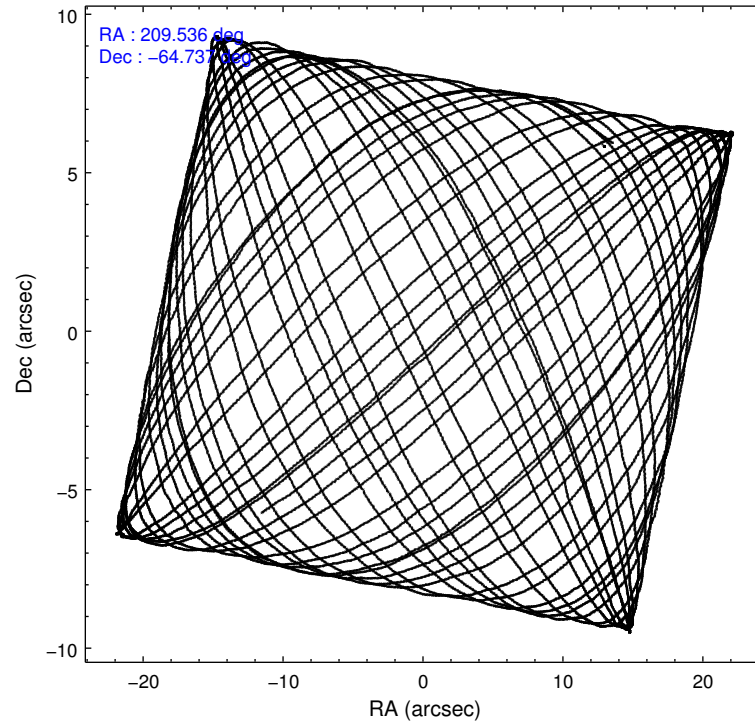
	ccd 3	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	104259	111323	144954	149105	107806
rejected events	91272	96654	80252	108943	93459
rejected %	87%	86%	55%	73%	86%

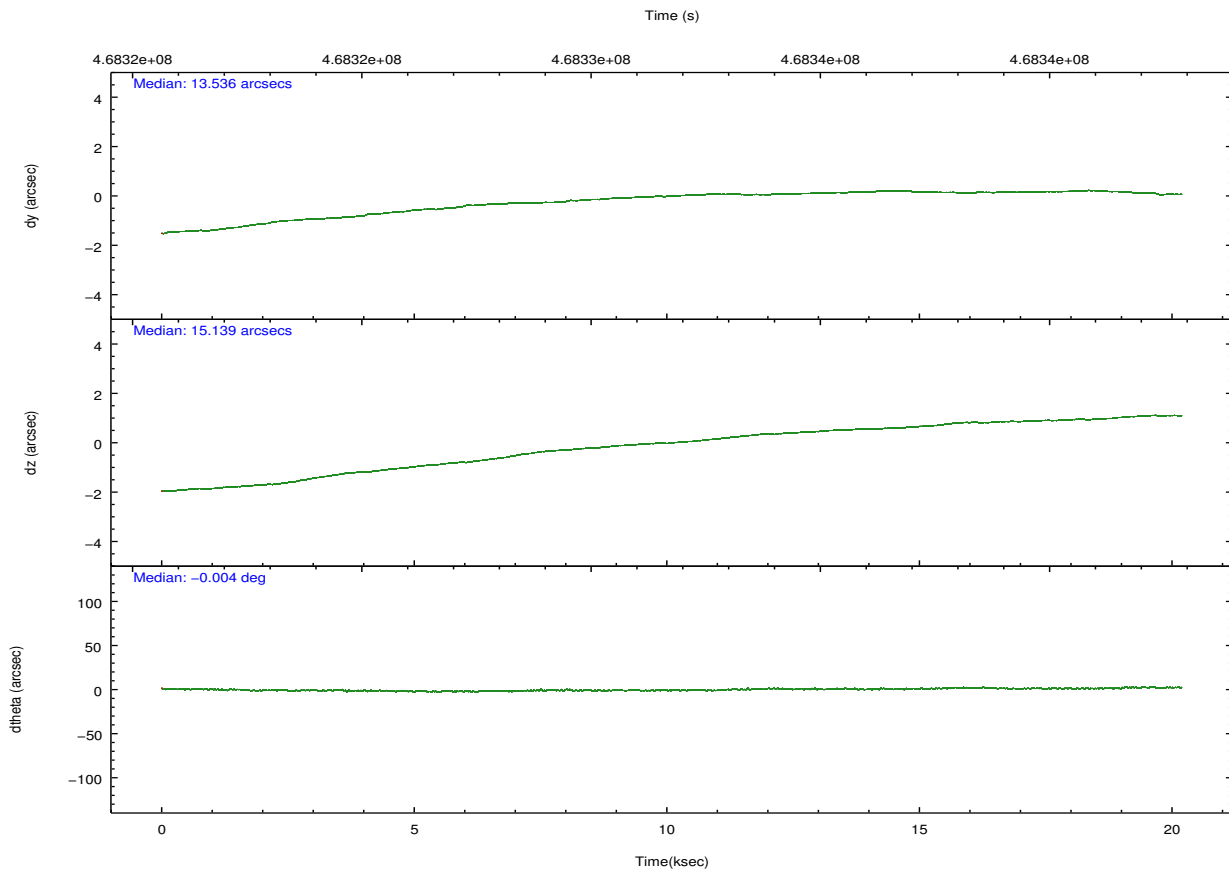
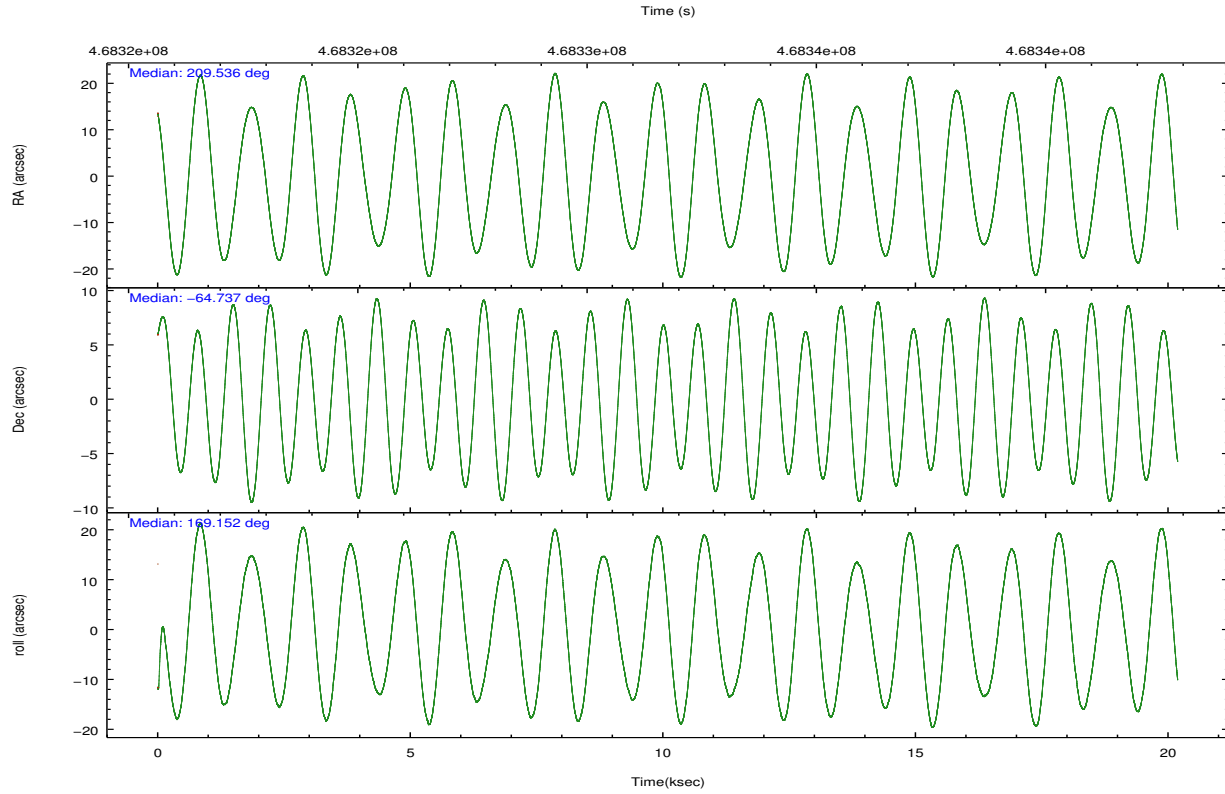
	ccd 3	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	5071	5786	6139	12500	5418
	4%	5%	4%	8%	5%
grade 1 events	62	61	177	109	75
	0%	0%	0%	0%	0%
grade 2 events	2788	3142	13218	9107	3077
	2%	2%	9%	6%	2%
grade 3 events	1311	1361	5621	4119	1429
	1%	1%	3%	2%	1%
grade 4 events	1280	1378	5551	3906	1408
	1%	1%	3%	2%	1%
grade 5 events	5476	5452	14729	7985	6124
	5%	4%	10%	5%	5%
grade 6 events	2543	3007	34191	10536	3022
	2%	2%	23%	7%	2%
grade 7 events	85728	91136	65328	100843	87253
	82%	81%	45%	67%	80%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-36789	ACIS-36789	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	209.595756	209.5355634859625	CCD I2 on	O1	N
[deg] Pointing Dec	-64.727655	-64.73696191777675	CCD I3 on	Y	Y
[deg] Pointing Roll	169.050045	169.1522216724753	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[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)	468321855.184000	468320899.94375	CCD S5 on	O2	Y
Observation start date	2012-11-03T09:23:08	2012-11-03T09:08:19	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	468341855.184000	468342524.36991	On-chip summing requested	N	N
Observation end date	2012-11-03T14:56:28	2012-11-03T15:08:44	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





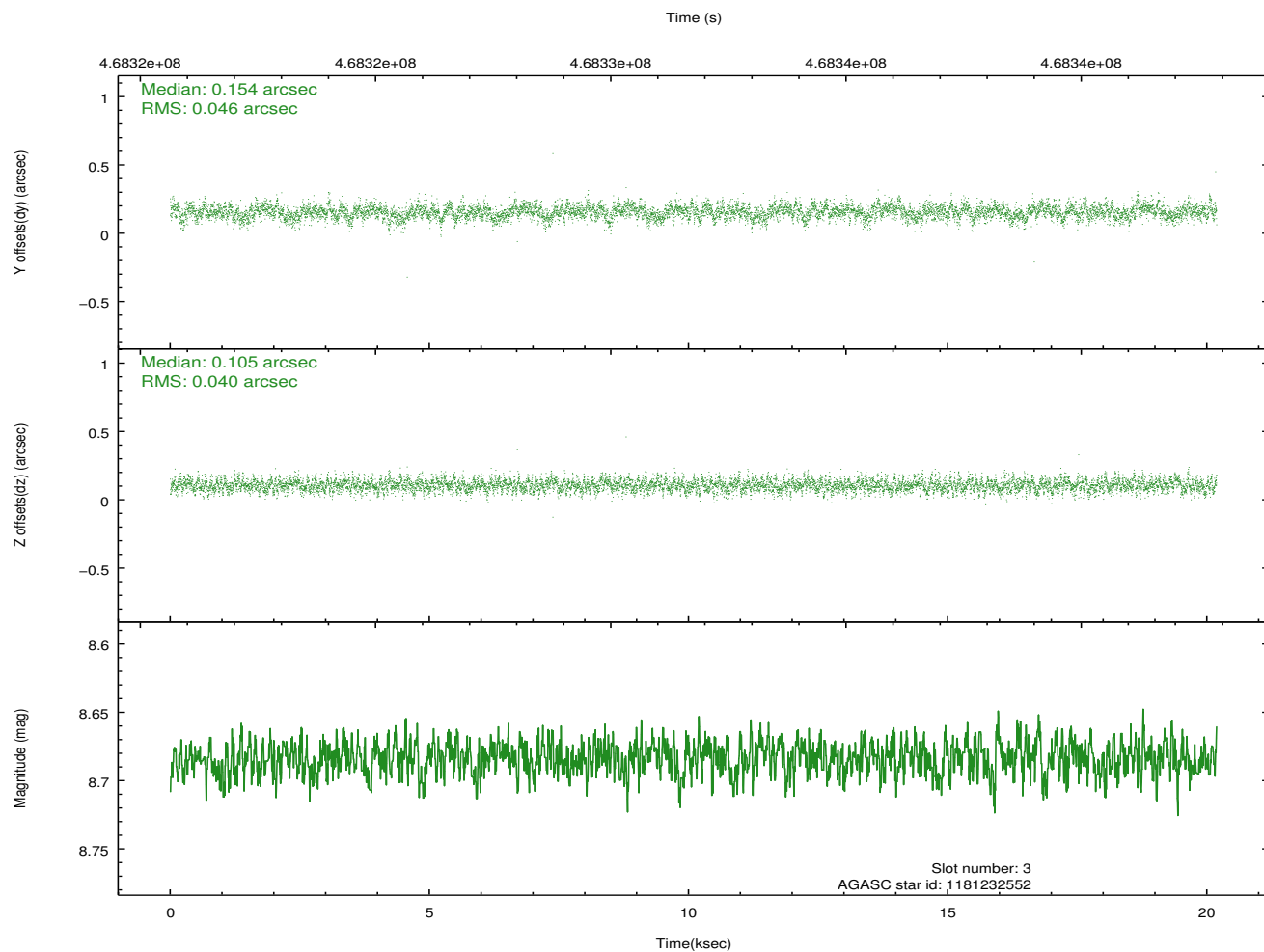
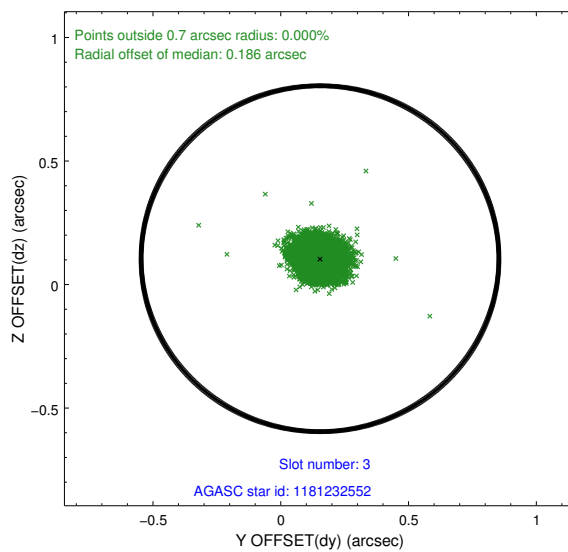
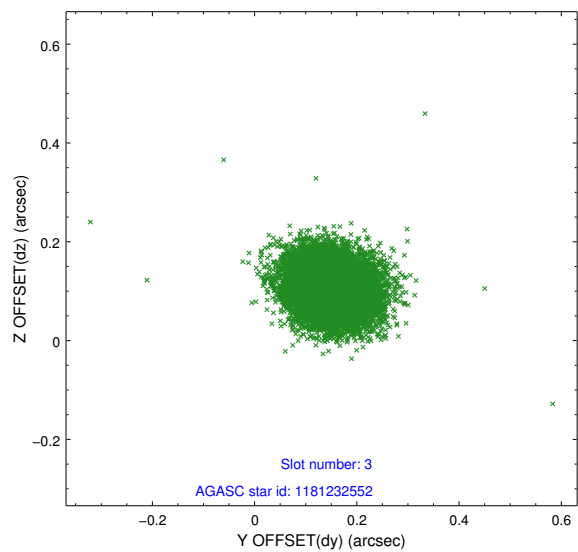
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.94	4924	-0.097	-0.056	0.018	0.061	0.000000	0.000000	-766.29	-1736.35
1	FID		ACIS-S-4	7.03	4924	0.137	0.041	0.013	0.038	0.000000	0.000000	2147.13	172.01
2	FID		ACIS-S-6	7.15	4924	-0.069	0.017	0.015	0.023	0.000000	0.000000	395.96	809.61
3	GUIDE	used	1181232552	8.68	9846	0.154	0.105	0.063	0.103	208.565497	-64.494630	1725.32	-507.21
4	GUIDE	used	1181238104	8.90	9843	-0.057	-0.104	0.065	0.106	208.215848	-64.823325	2005.35	762.23
5	GUIDE	used	1181358584	7.95	9847	-0.130	-0.103	0.069	0.108	210.584509	-64.925285	-1617.95	423.72
6	GUIDE	used	1181231456	8.22	9847	-0.097	-0.115	0.078	0.119	208.536615	-64.944484	1434.55	1086.52
7	GUIDE	used	1181359360	8.31	9847	0.131	0.211	0.066	0.105	211.217976	-64.384352	-2249.36	-1660.78

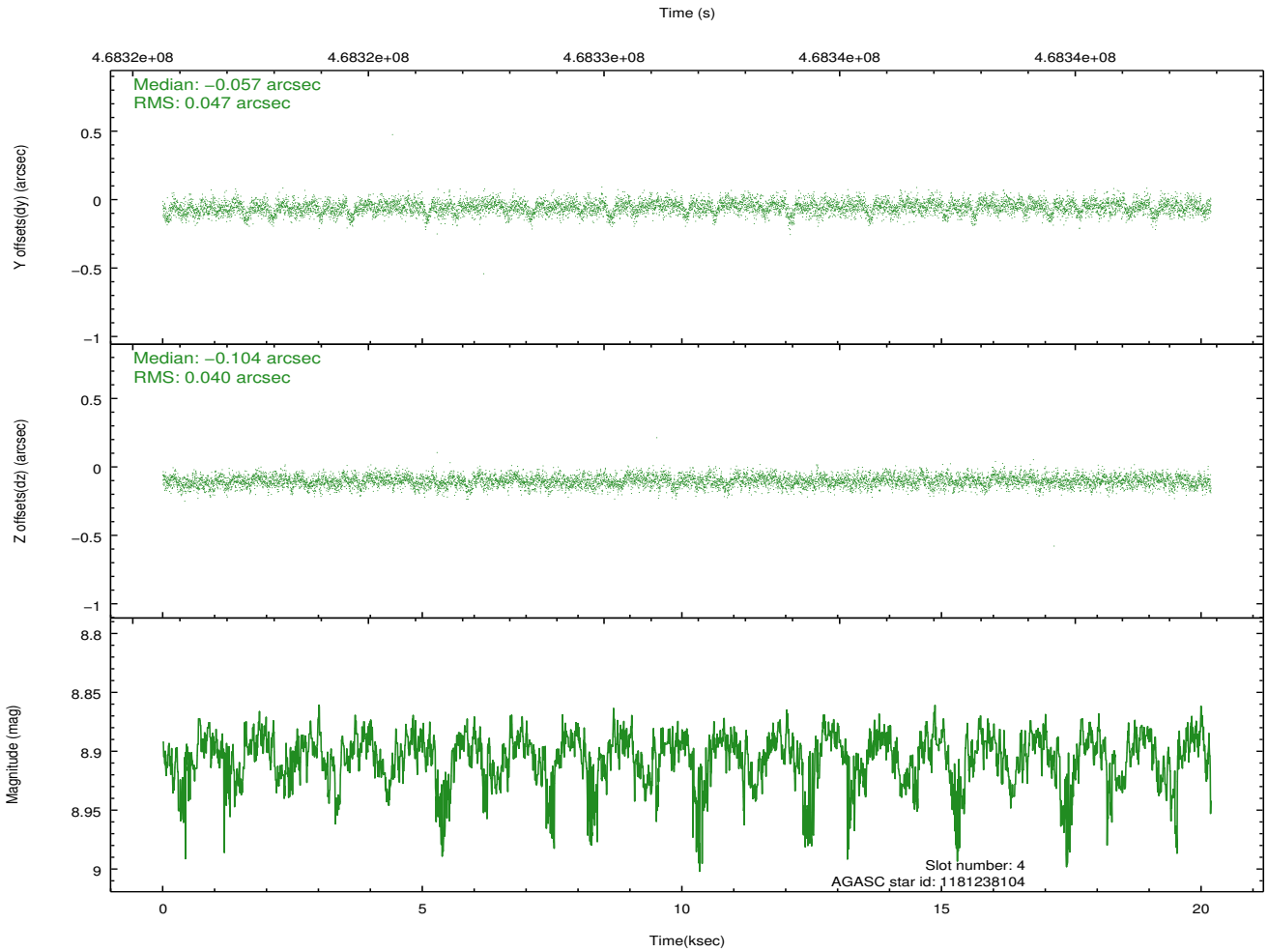
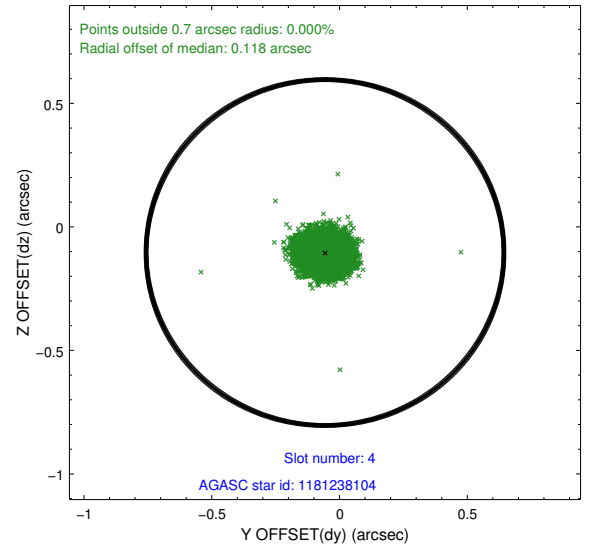
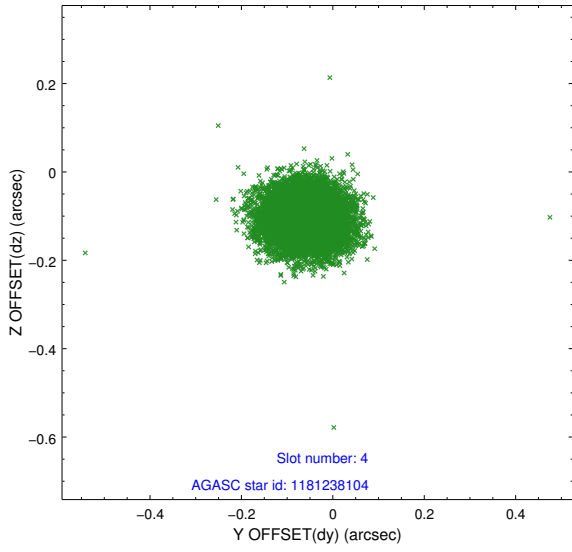
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2.4 Star Slots

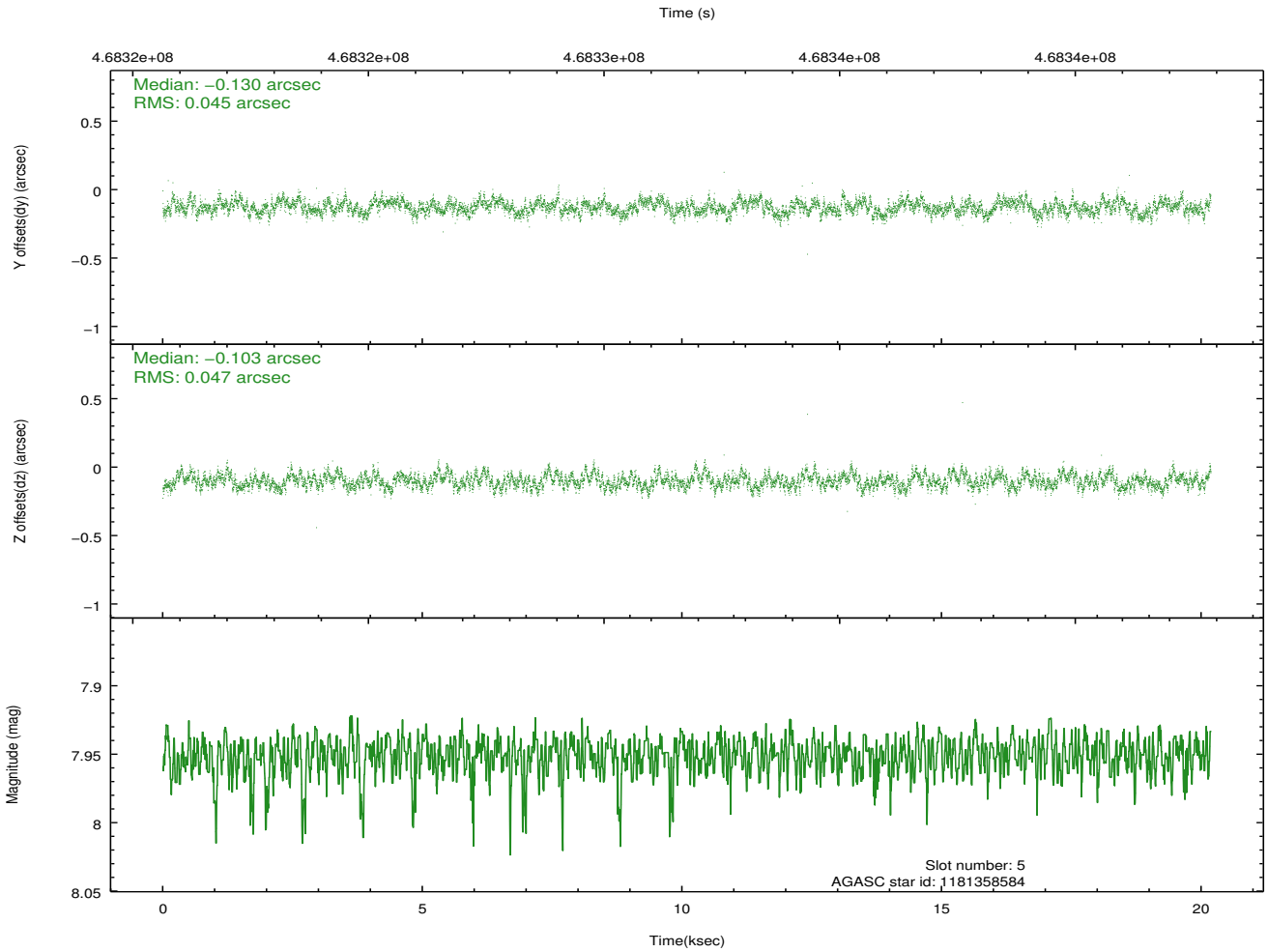
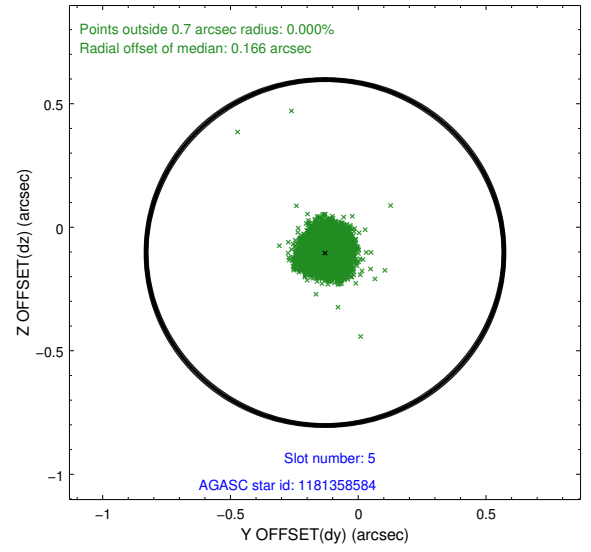
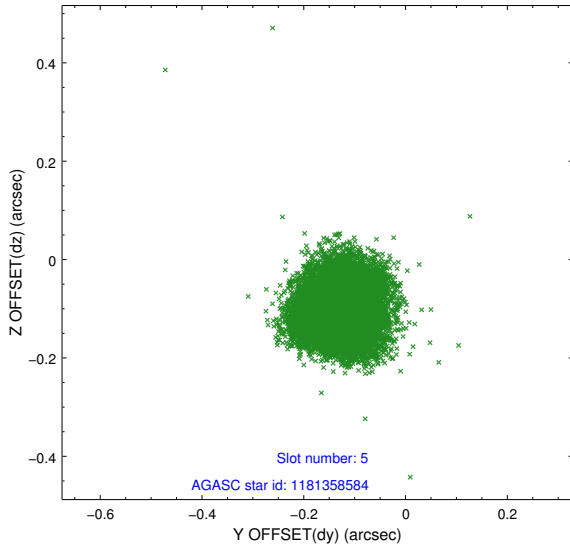
2.4.1 Slot 3



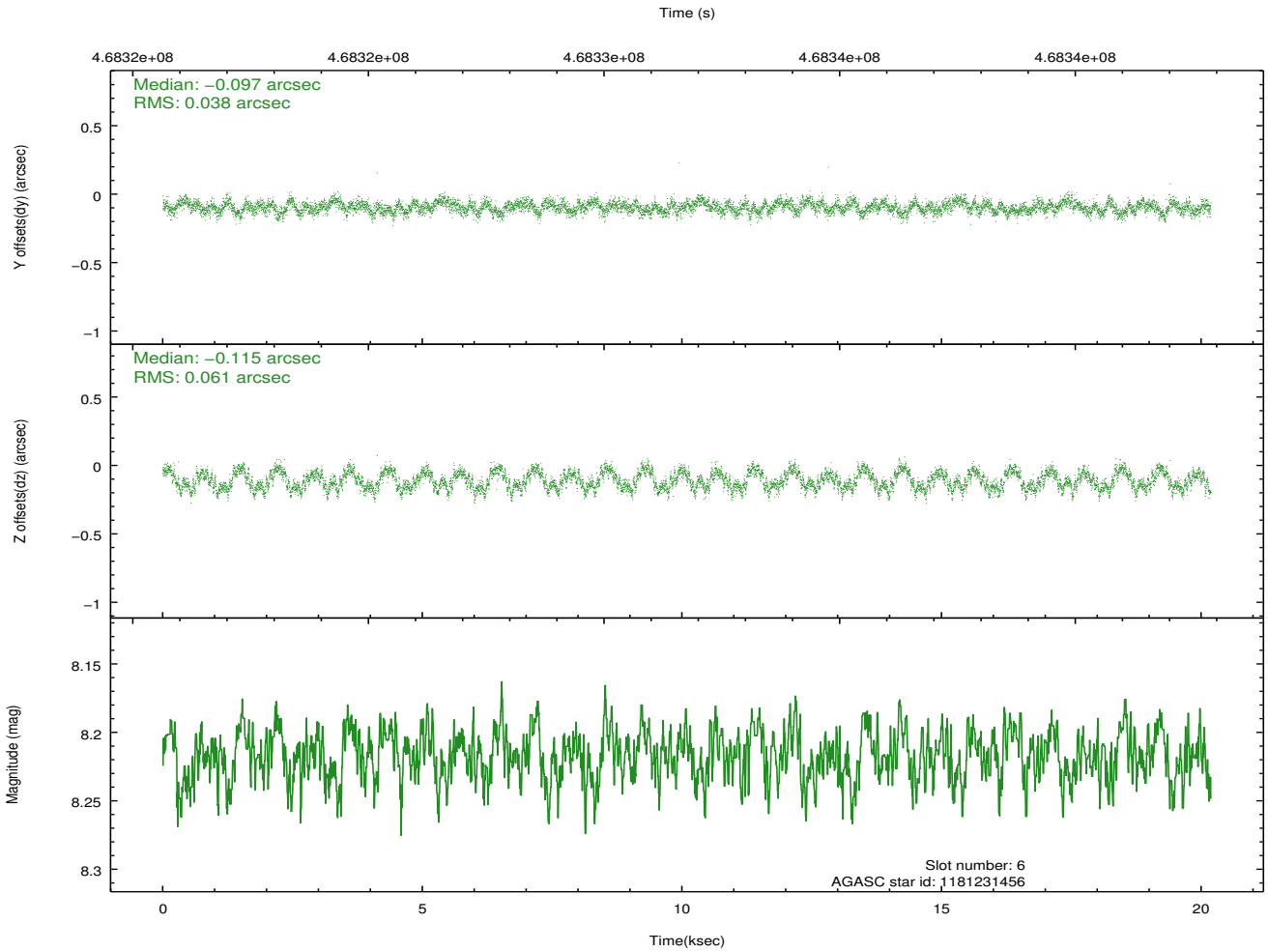
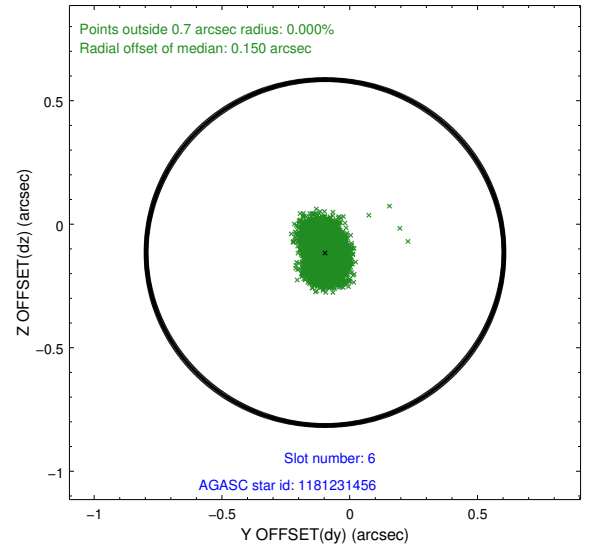
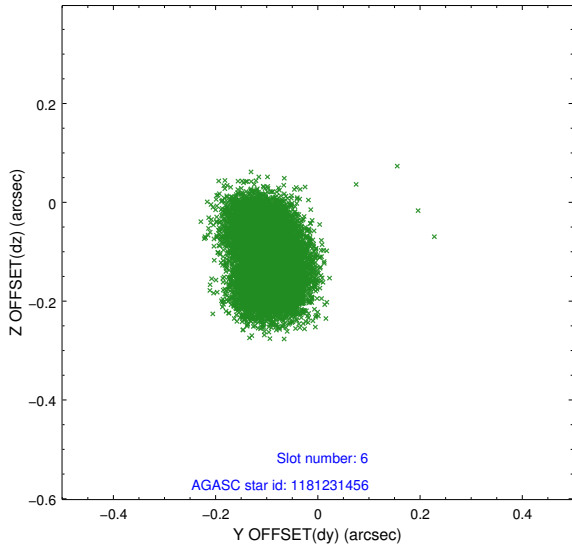
2.4.2 Slot 4



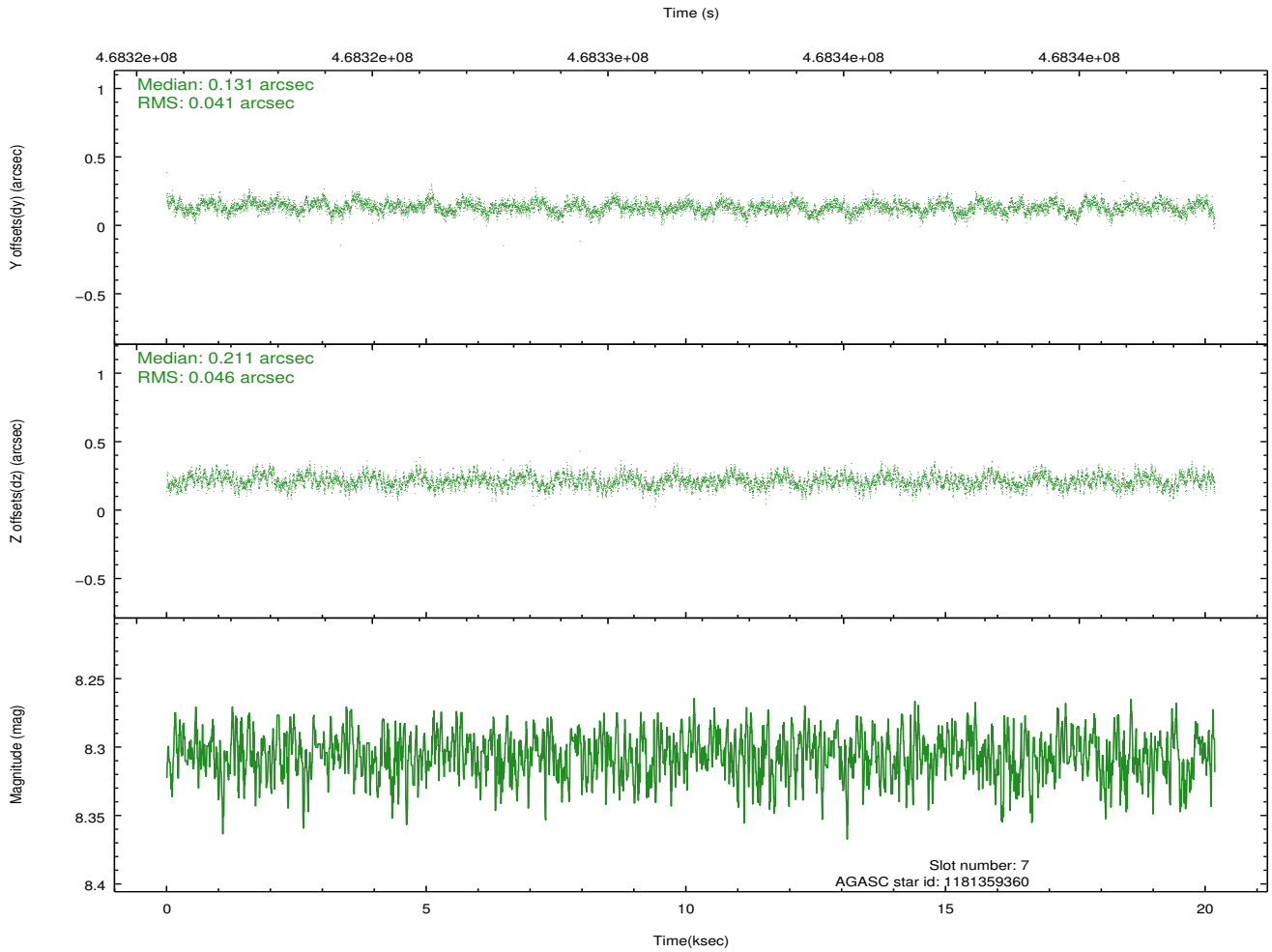
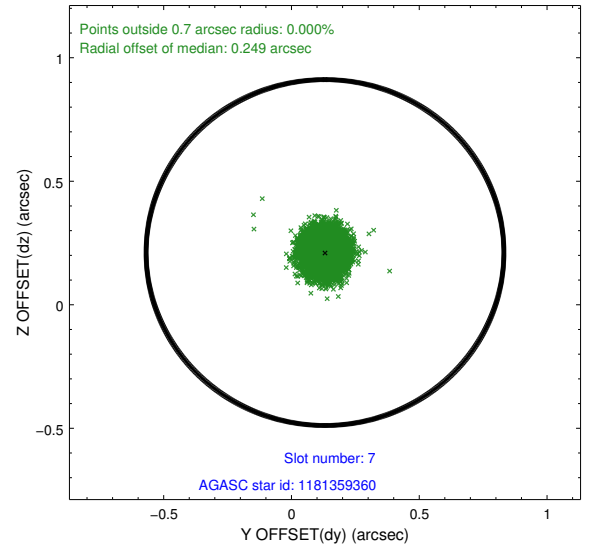
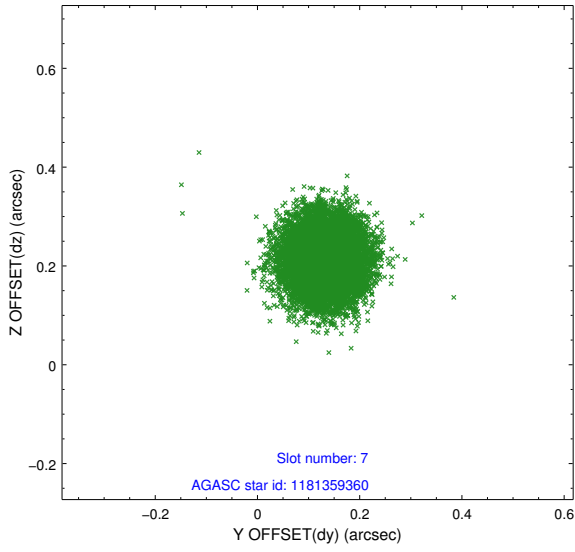
2.4.3 Slot 5



2.4.4 Slot 6

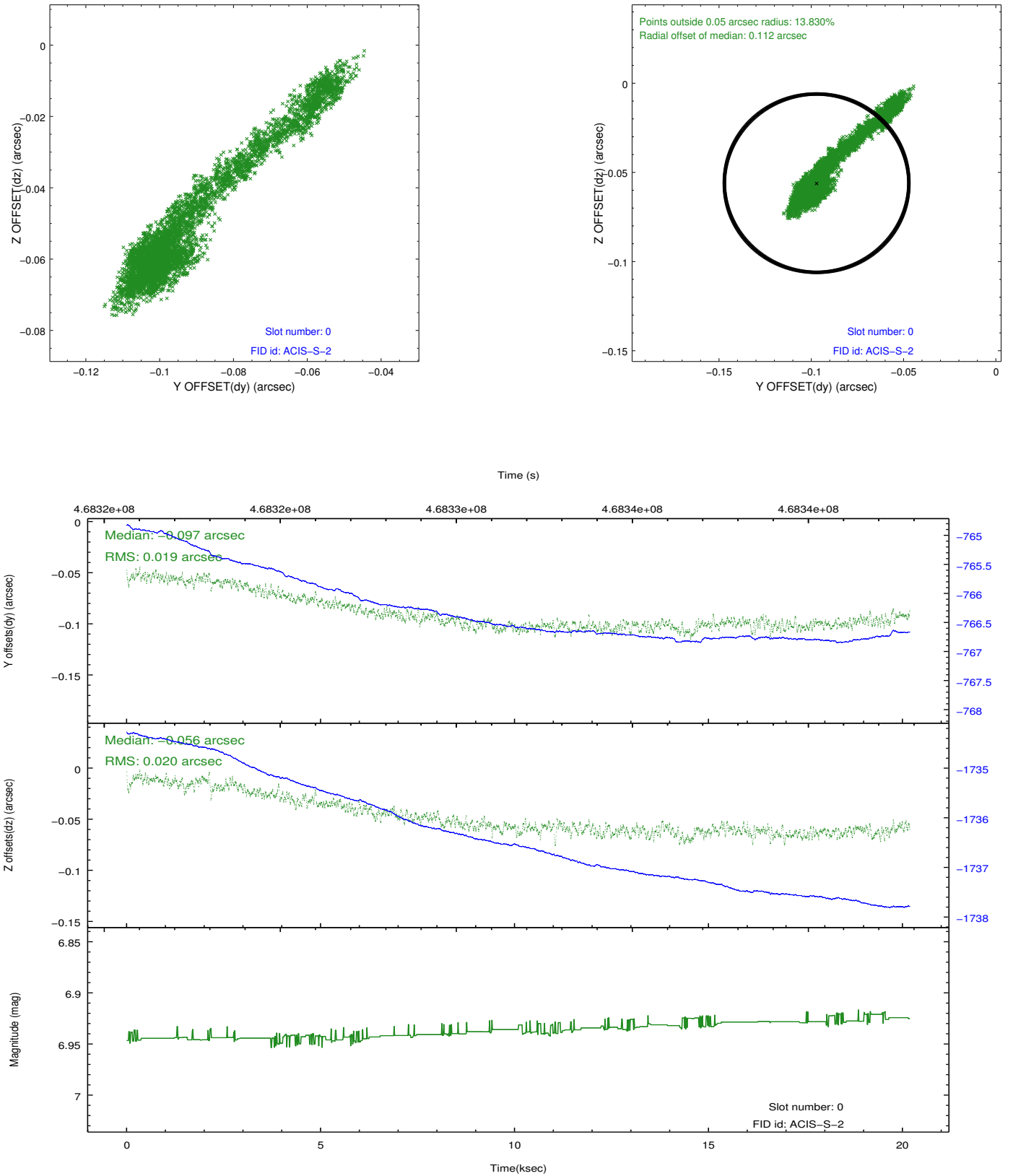


2.4.5 Slot 7

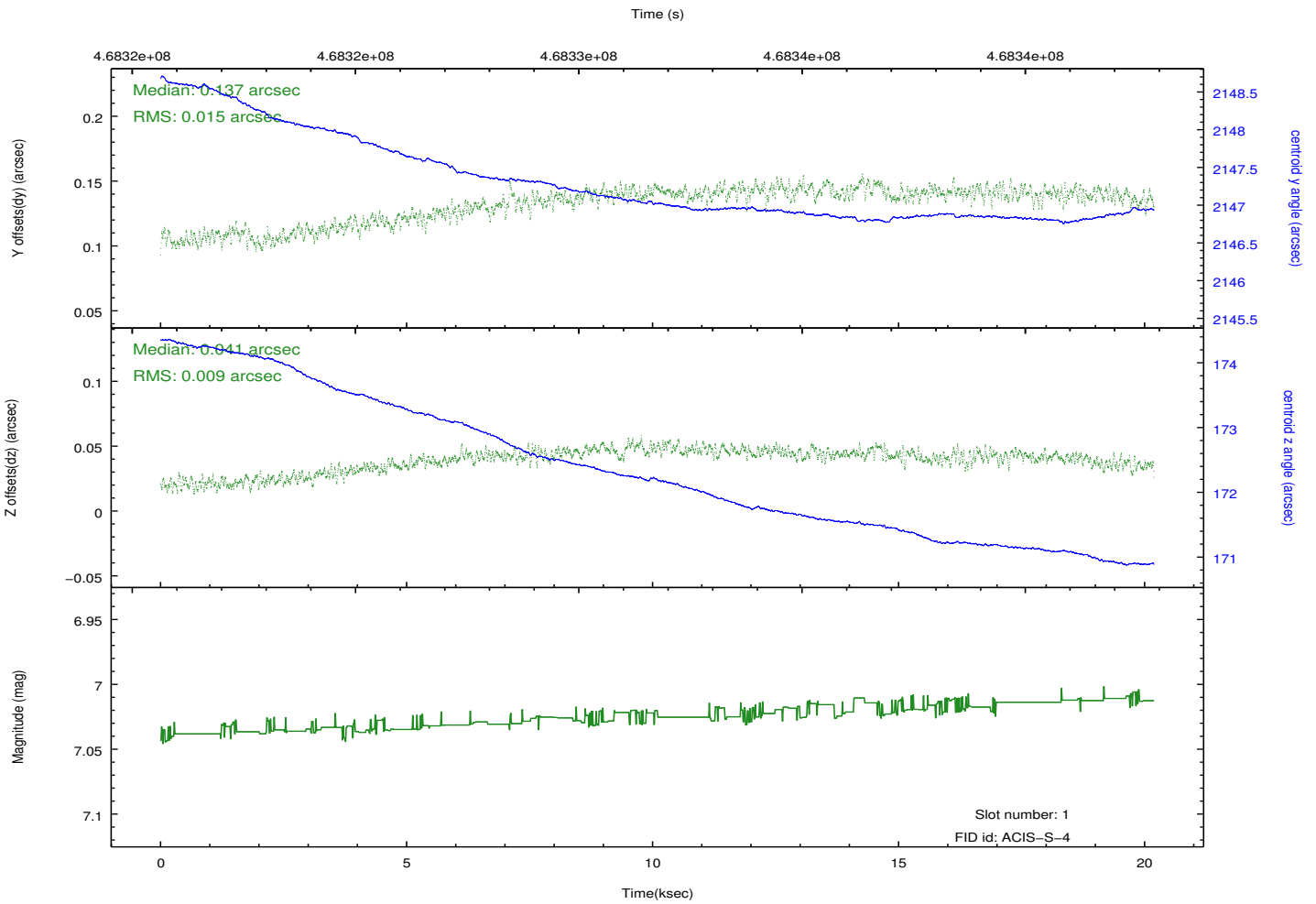
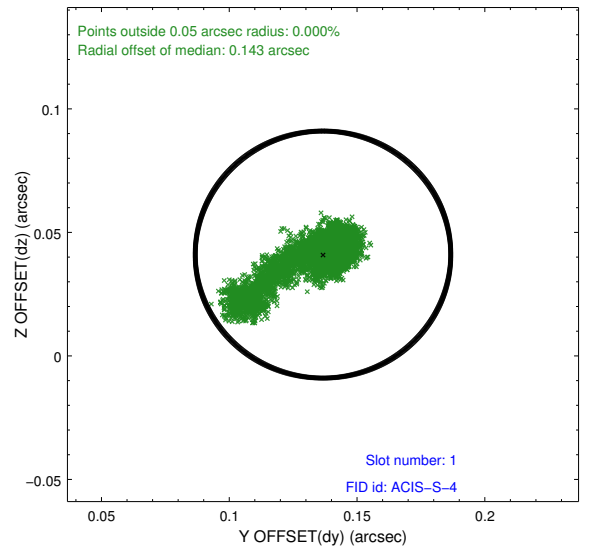
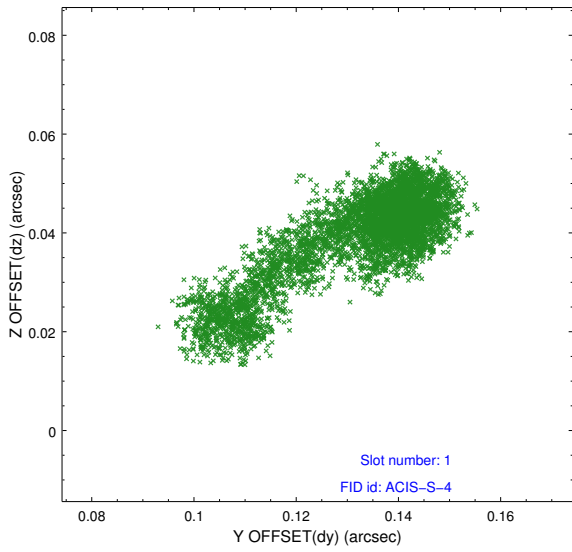


2.5 FID Slots

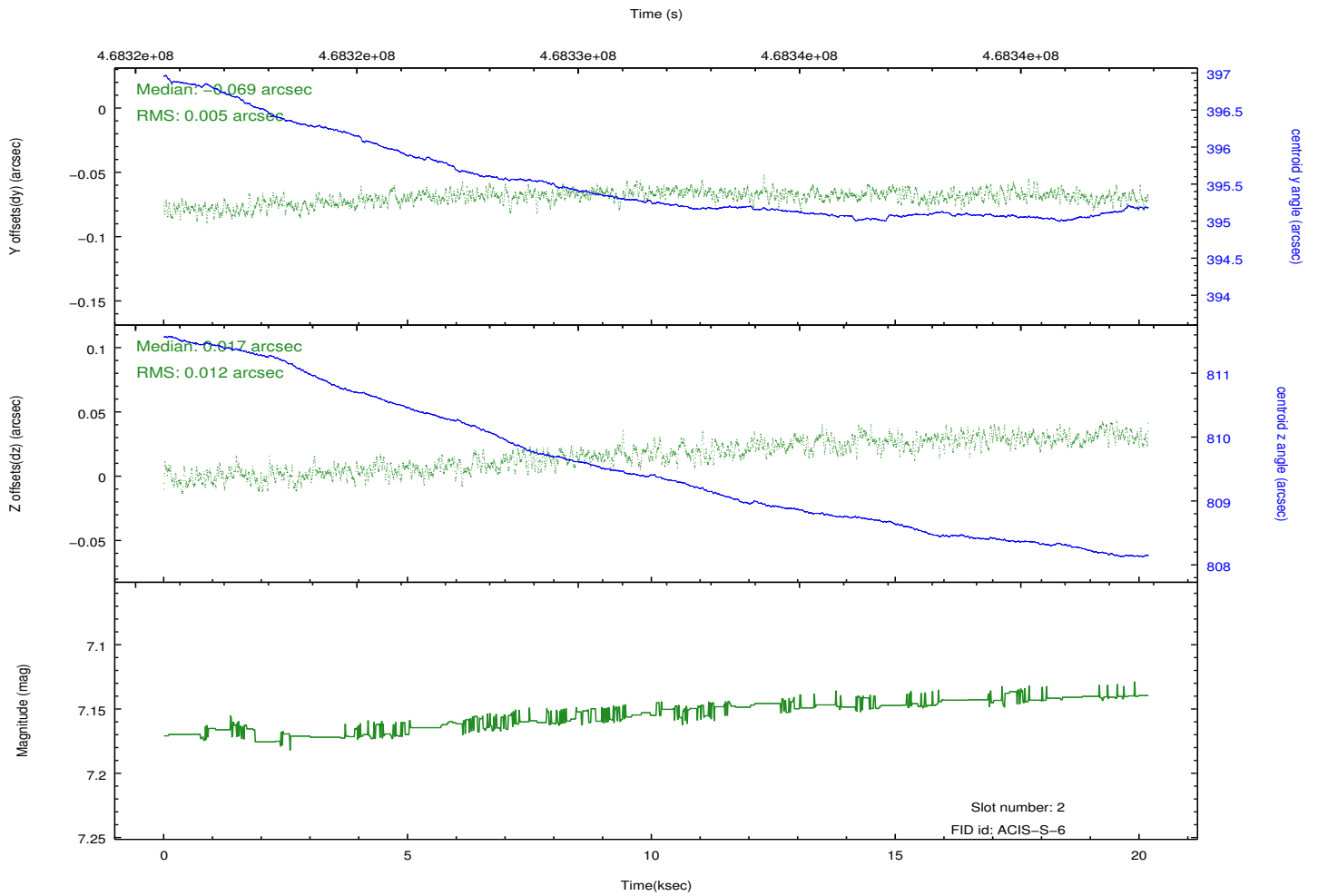
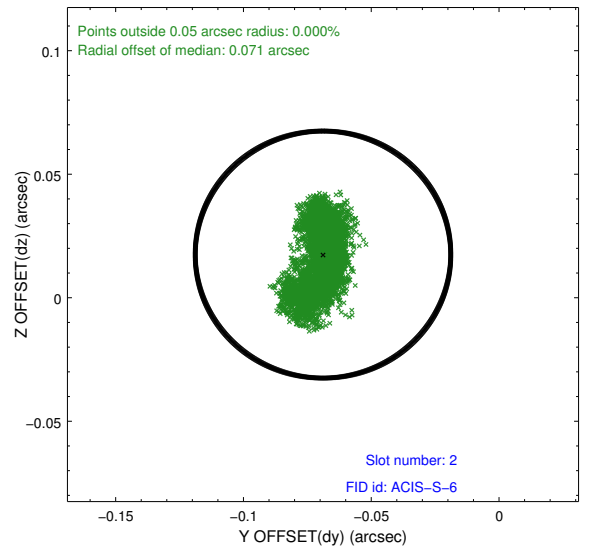
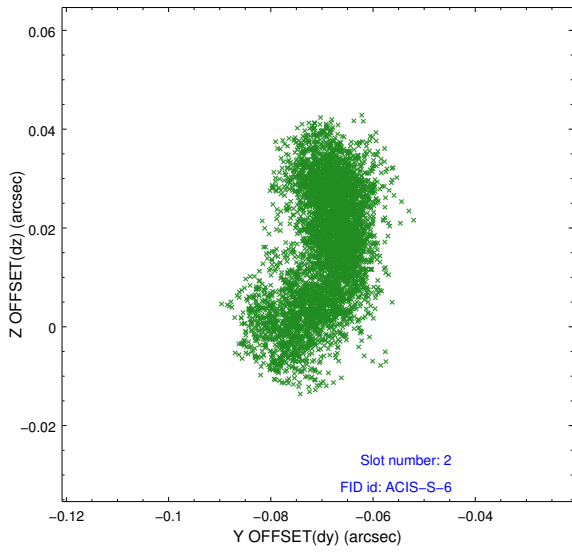
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.065734057128

A.2 Comments

Optional chip ACIS I2 not used.

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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.