

V&V Reference Report

L2 ASCDS Version : 10.5.4

Observation 20035 - L2 Version 1
Chandra X-Ray Center

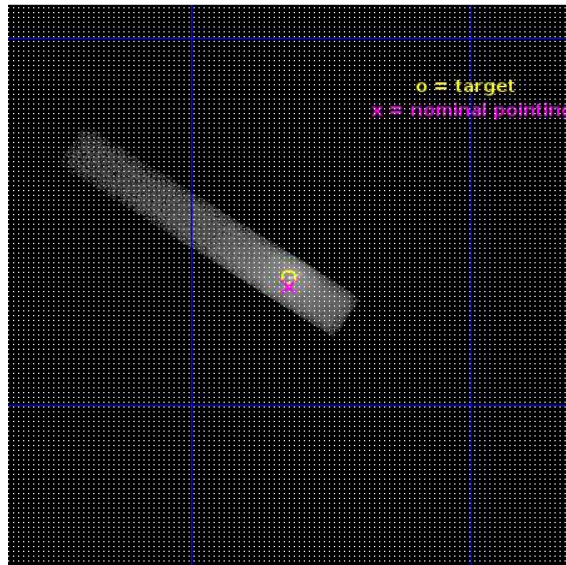
L2 Processing Date : Apr 14 2017

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1 Front

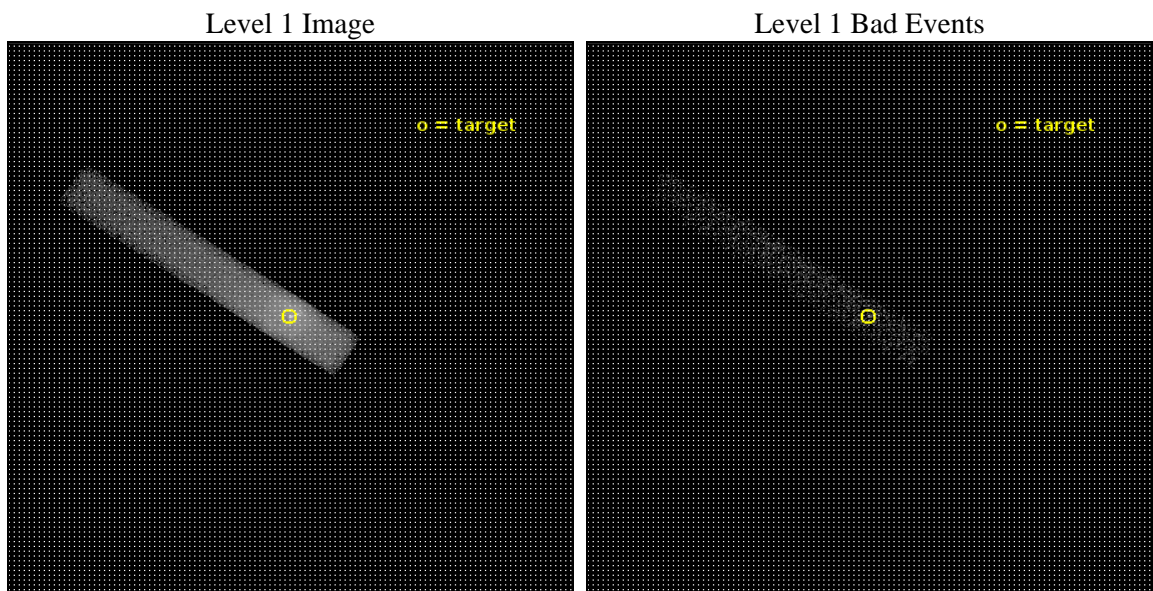
seq_num	703466	Sequence number
obs_id	20035	Observation id
title	M87 with Chandra and the Event Horizon Telescope	Proposal title
observer	Joseph Neilsen	Principal investigator
object	M87	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.705833	Observer's specified target RA [deg]
dec_targ	12.391111	Observer's specified target Dec [deg]
ra_nom	187.70586233081	Nominal RA [deg]
dec_nom	12.386943755724	Nominal Dec [deg]
roll_nom	213.15663989181	Nominal Roll [deg]
revision	1	Processing version of data
ontime	14469.199137449	Sum of GTIs [s]
livetime	13122.799870714	Livetime [s]
ontime7	14469.199137449	Sum of GTIs [s]
l2events	87318	Number of level 2 events



2 OBI

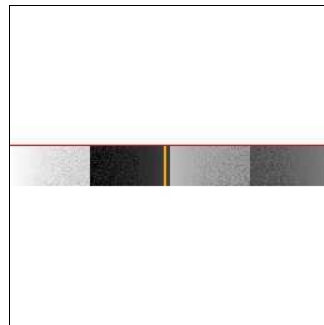
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14400.000000	[s] Scheduled observation exposure time
ascdsver	10.5.4	Processing system revision	ontime	14469.199137449	Sum of GTIs [s]
caldsver	4.7.3	 	ontime7	14469.199137449	Sum of GTIs [s]
date	2017-04-14T13:41:13	Date and time of file creation	l1events	98561	Number of level 1 events
revision	1	Processing version of data			

2.1.4 Events

	ccd 7
level 1 events	98561
rejected events	10143
rejected %	10%

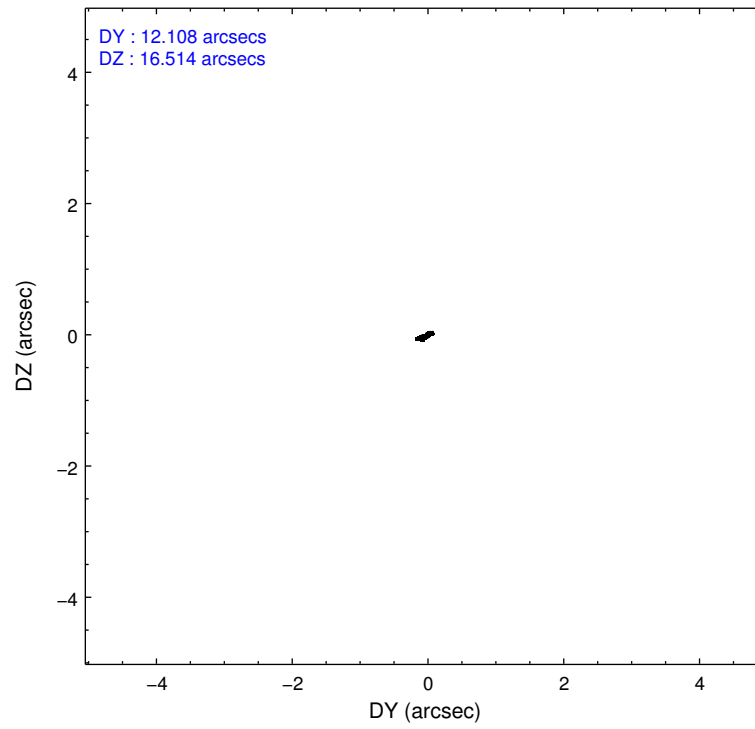
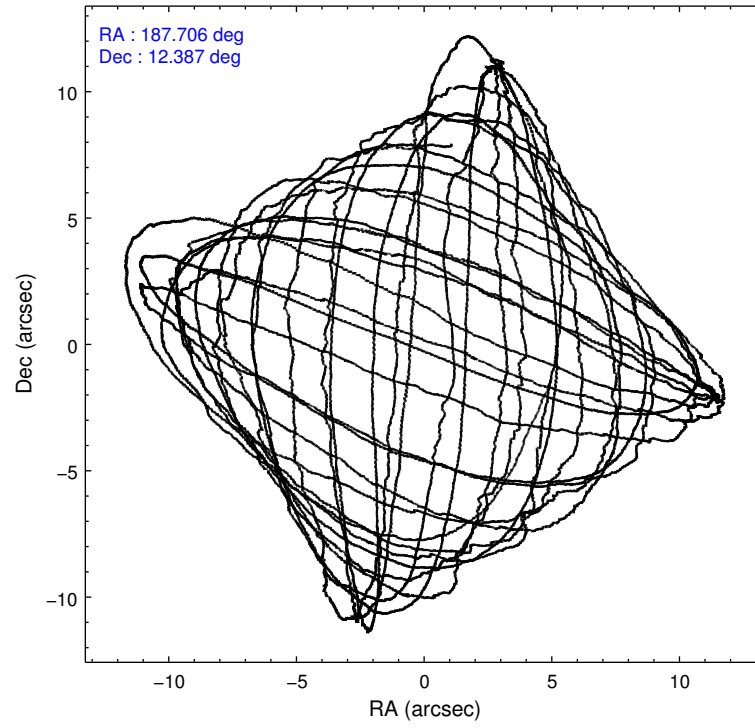
	ccd 7
grade 0 events	24071
	24%
grade 1 events	54
	0%
grade 2 events	23000
	23%
grade 3 events	10420
	10%
grade 4 events	10216
	10%
grade 5 events	2241
	2%
grade 6 events	20715
	21%
grade 7 events	7844
	7%

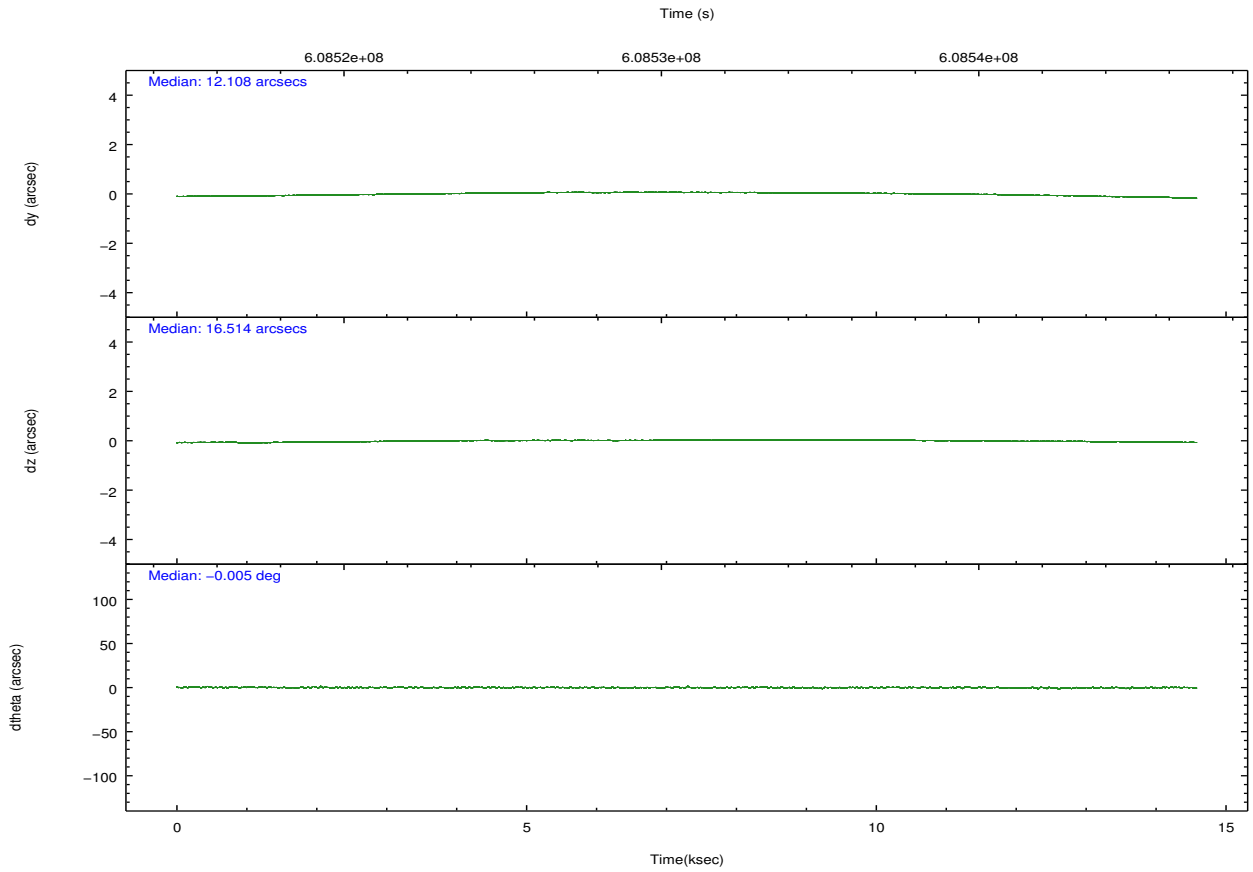
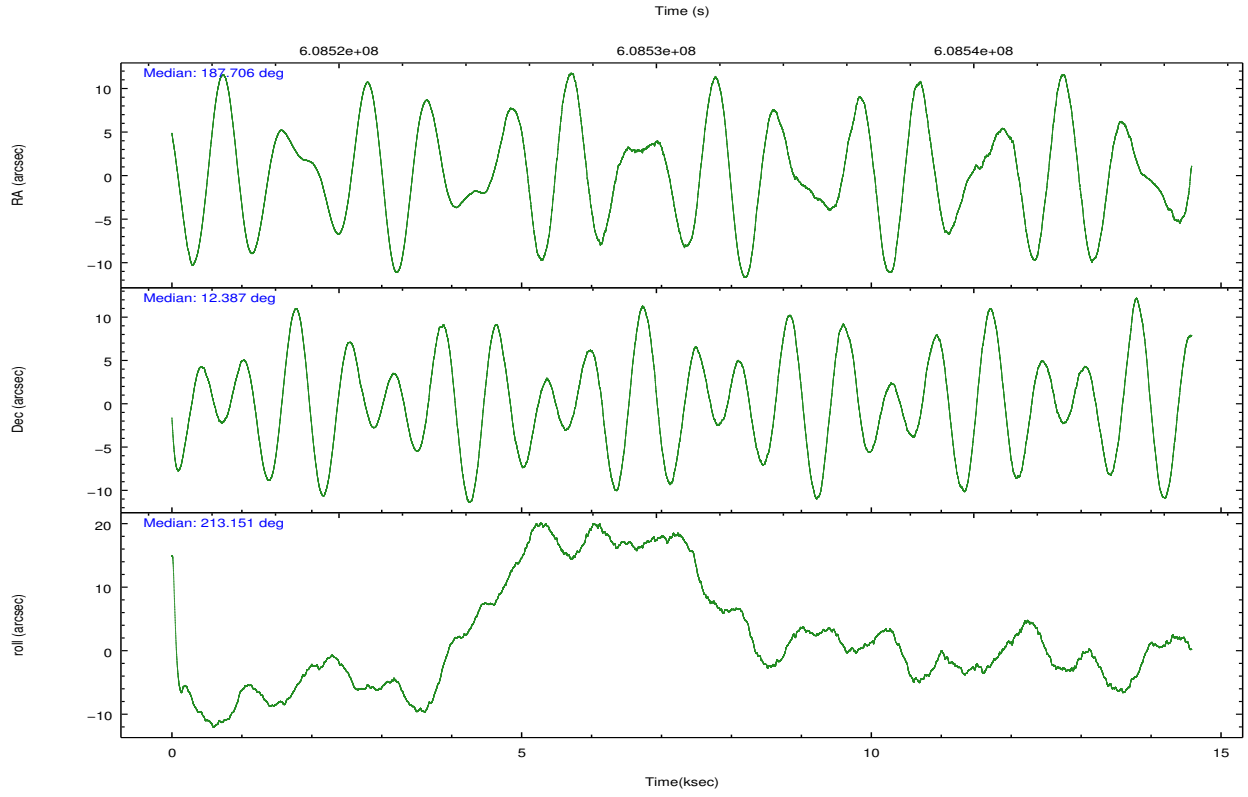
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	187.718261	187.7058623308088
[deg] Pointing Dec	12.411618	12.38694375572371
[deg] Pointing Roll	212.997328	213.1566398918062
[s] Window start time (MET)	608515269.184000	608515269.184000
[s] Window stop time (MET)	608544069.184000	608544069.184000
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	608523279.184000	608522497.4546601
Observation start date	2017-04-14T02:13:30	2017-04-14T02:01:37
[s] Observation end time (MET)	608537679.184000	608538837.4931099
Observation end date	2017-04-14T06:13:30	2017-04-14T06:33:57
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/8
Subarray start row	449	449
Subarray row count	128	128
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.4

2.3 Aspect



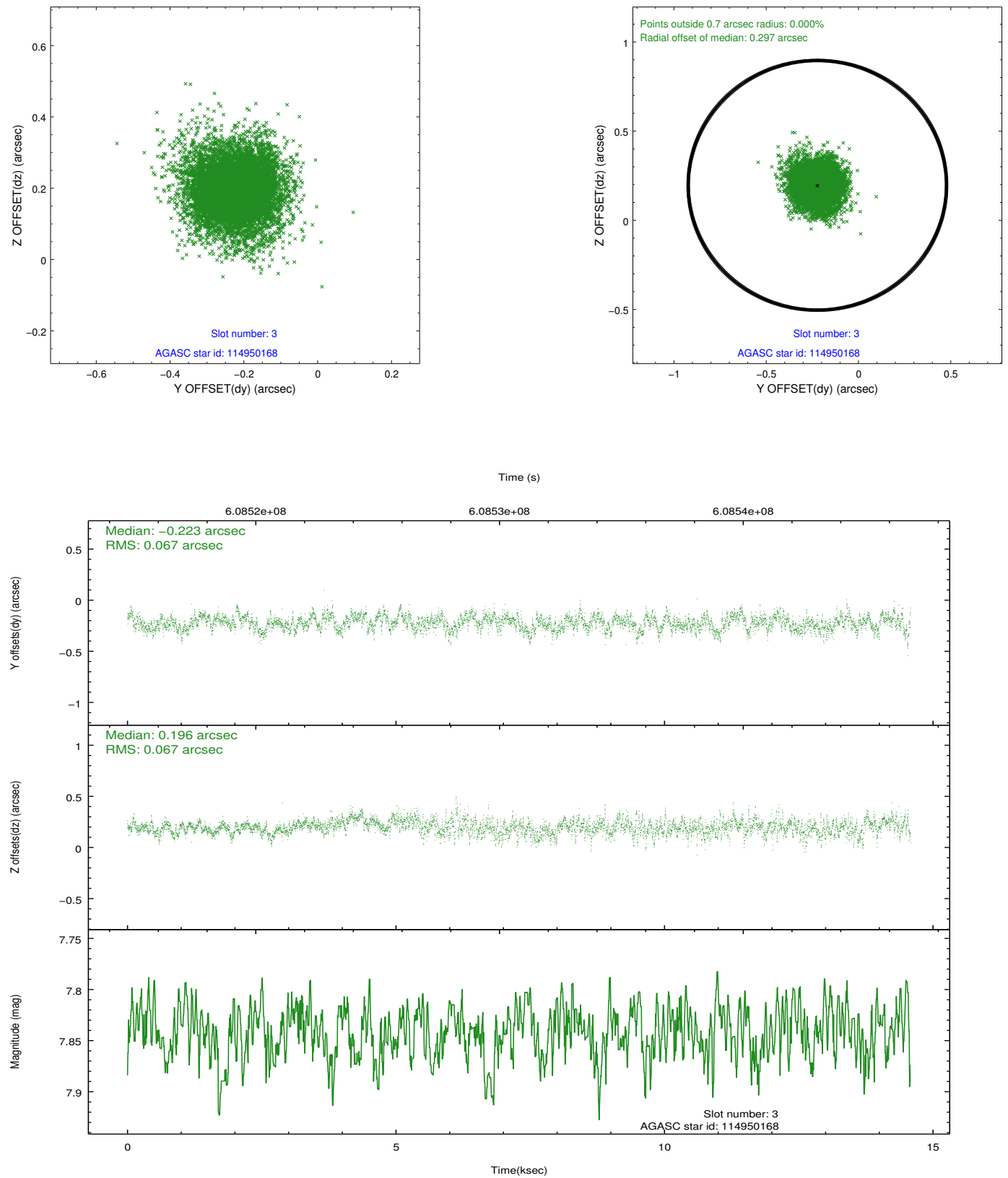


Slot Statistics

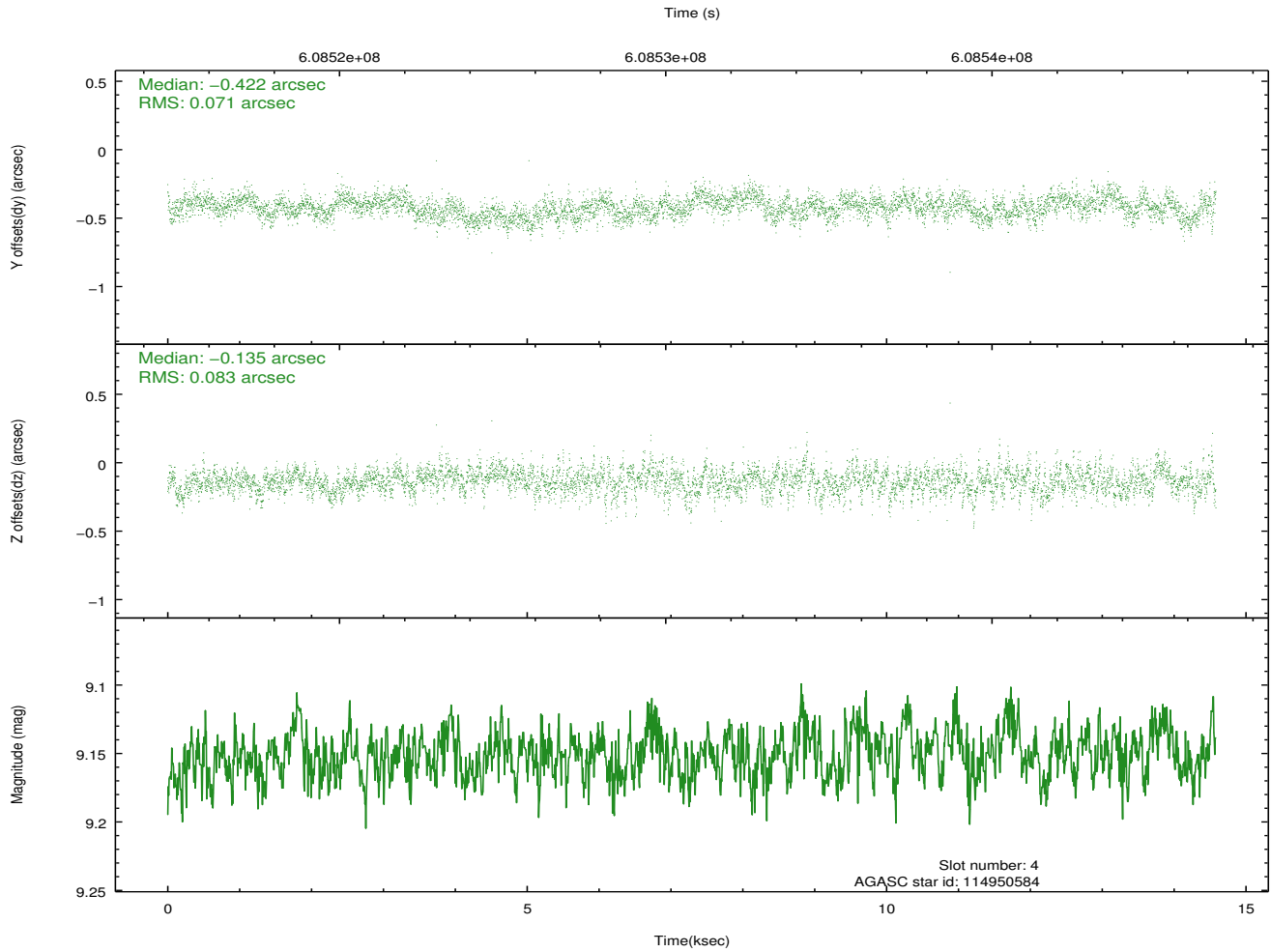
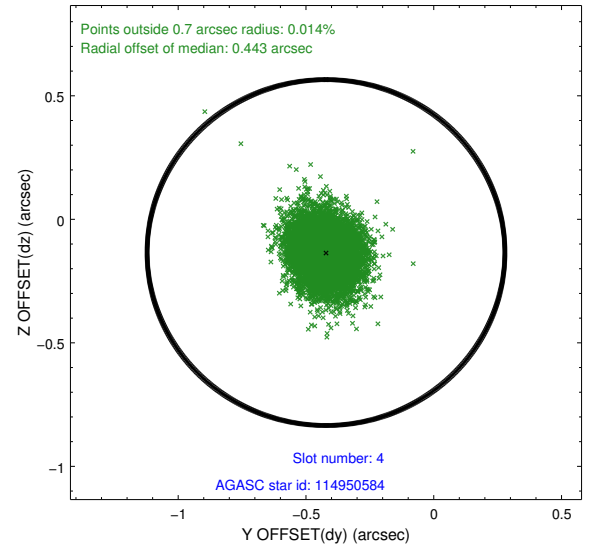
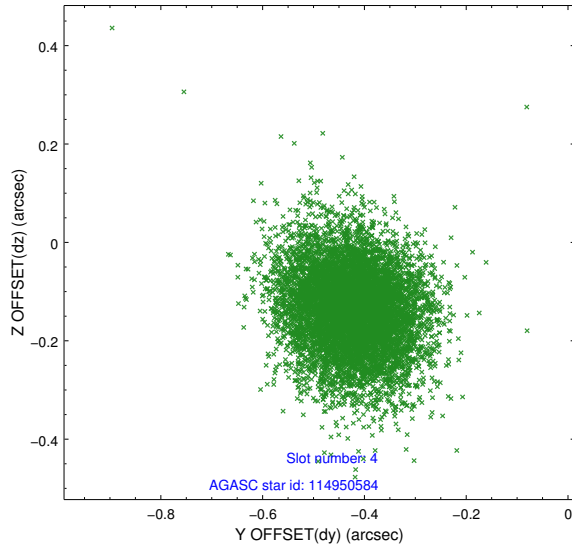
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.07	3557	-0.147	-0.071	0.008	0.013	0.000000	0.000000	-765.10	-1737.95
1	FID		ACIS-S-4	7.19	3557	0.408	0.090	0.006	0.010	0.000000	0.000000	2148.55	170.41
2	FID		ACIS-S-5	7.19	3557	-0.293	-0.011	0.008	0.014	0.000000	0.000000	-1817.72	164.27
3	GUIDE	used	114950168	7.84	7114	-0.223	0.196	0.100	0.166	187.143398	12.117441	2272.68	-214.79
4	GUIDE	used	114950584	9.15	7113	-0.422	-0.135	0.114	0.188	187.487323	11.827248	1828.51	1320.82
5	GUIDE	used	114952792	9.45	7100	-0.082	0.085	0.148	0.241	187.070263	12.344747	2043.05	-1041.23
6	GUIDE	used	114952824	8.56	7110	0.090	0.376	0.125	0.213	187.703904	12.486727	-103.74	-254.26
7	GUIDE	used	114955056	8.31	7108	0.635	-0.516	0.115	0.193	187.914001	12.127854	-20.76	1231.11

2.4 Star Slots

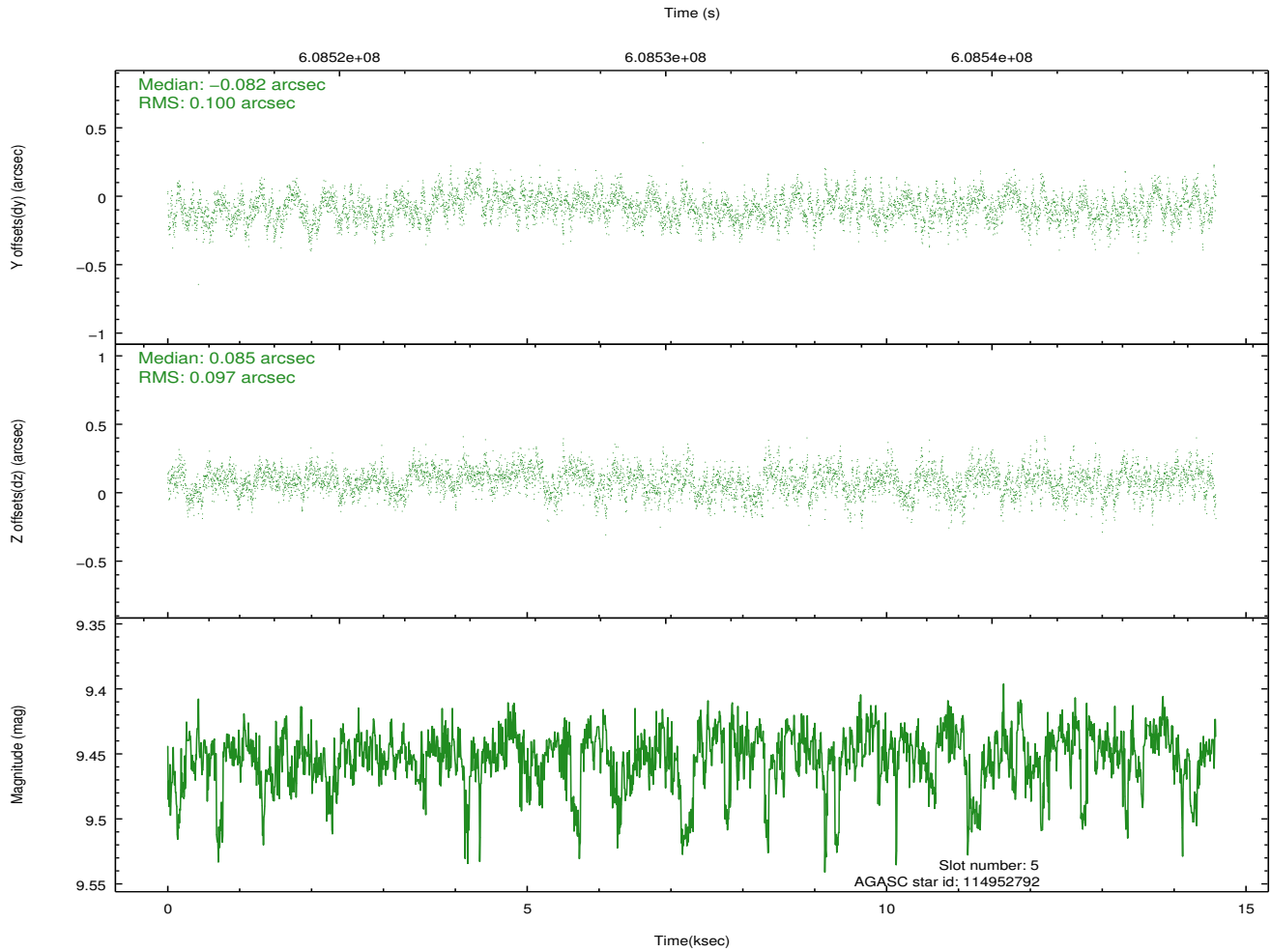
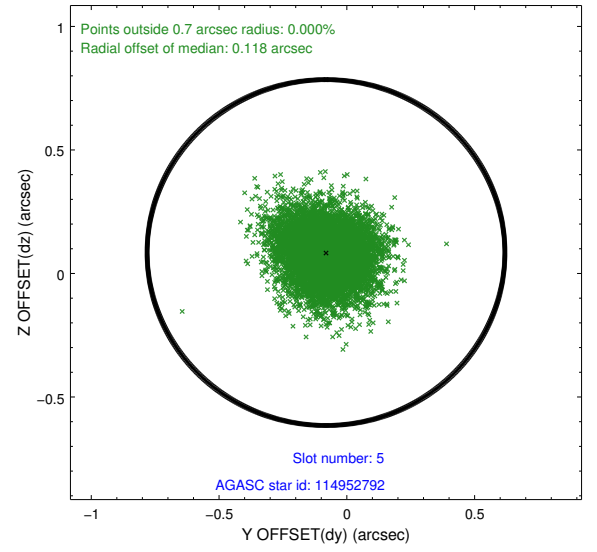
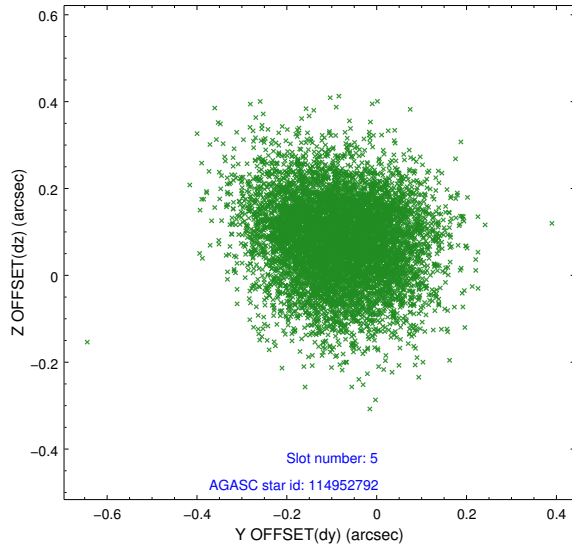
2.4.1 Slot 3



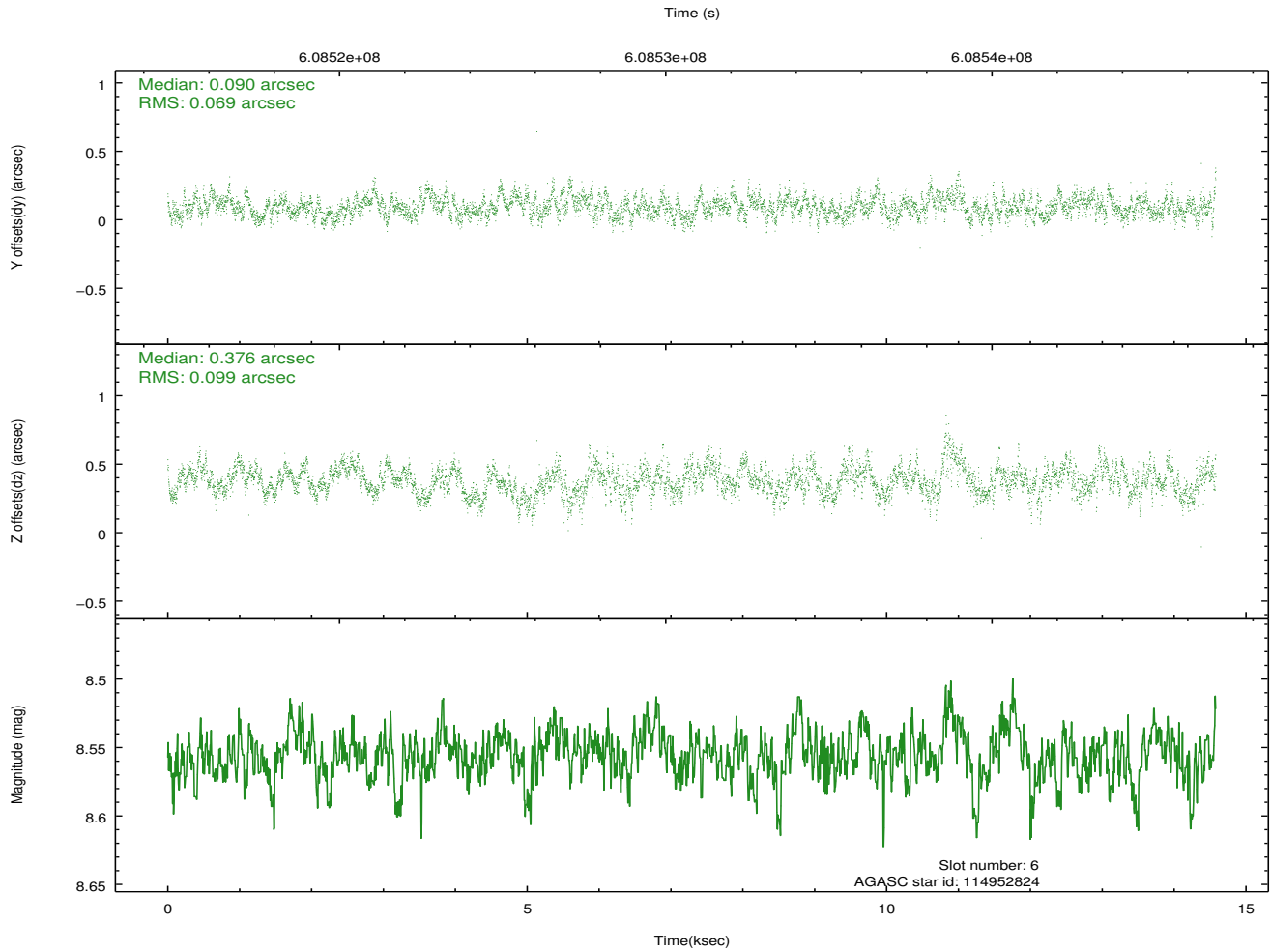
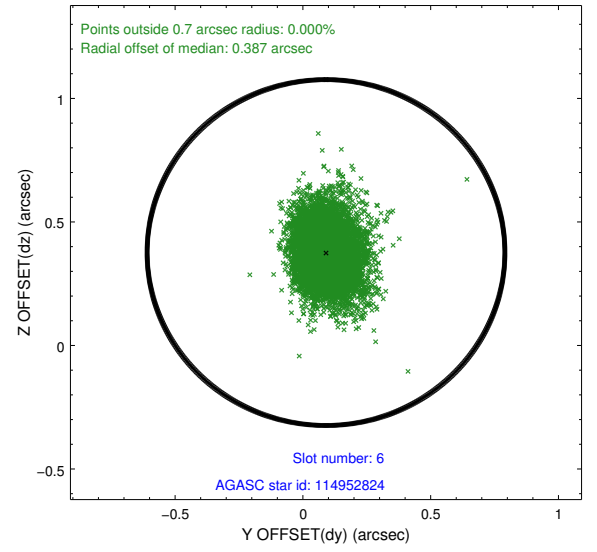
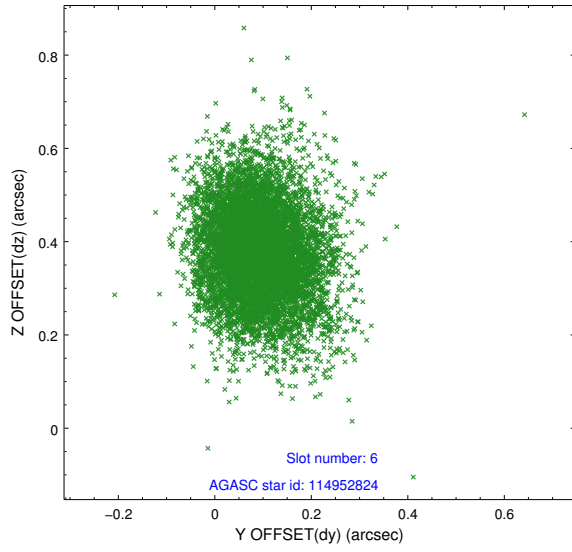
2.4.2 Slot 4



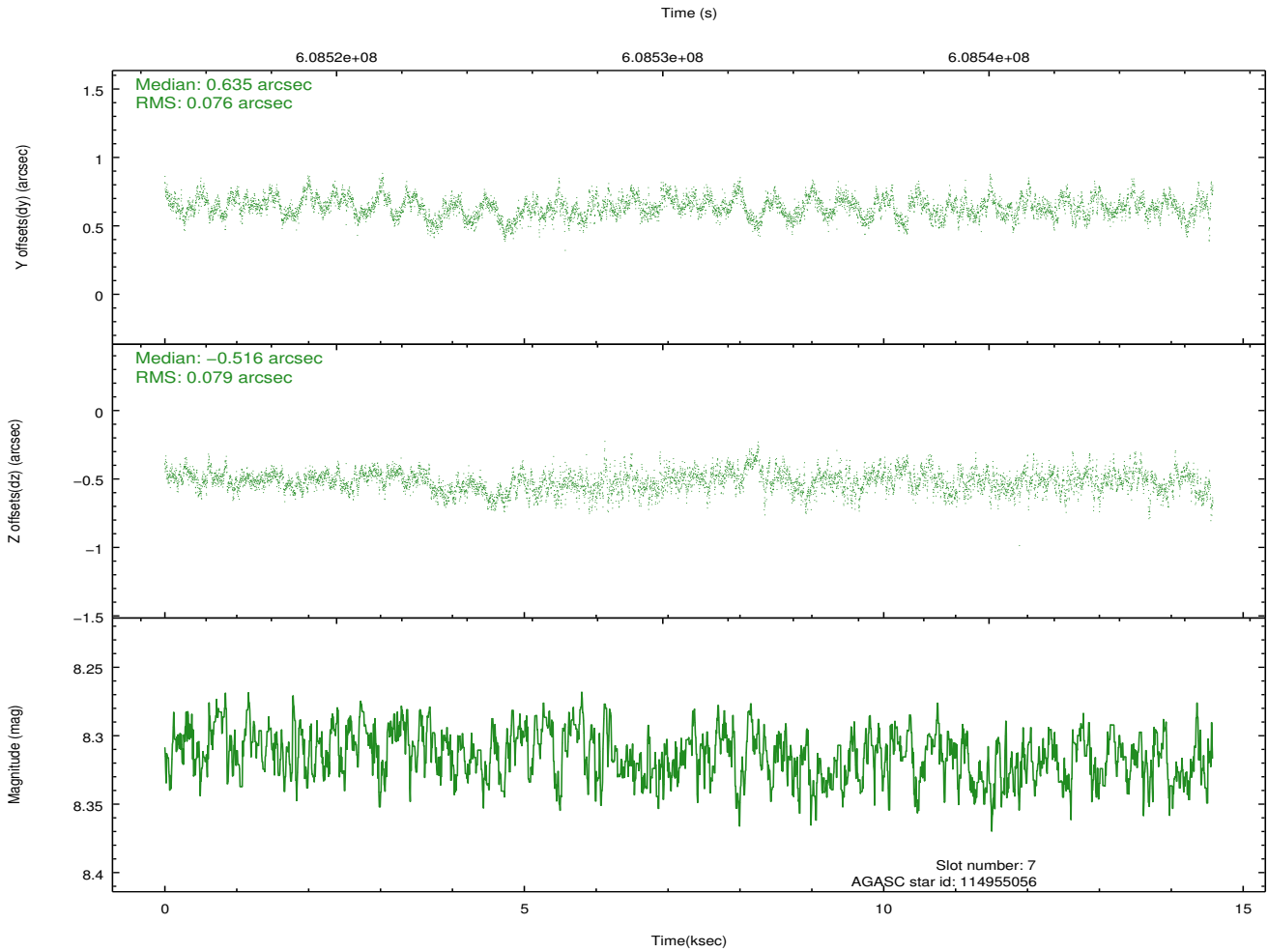
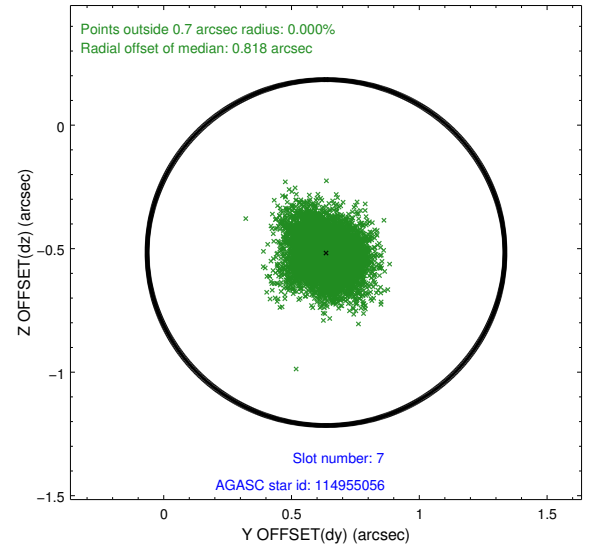
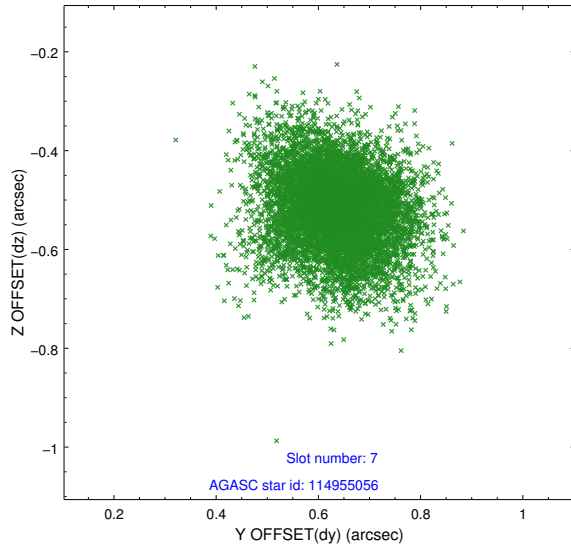
2.4.3 Slot 5



2.4.4 Slot 6

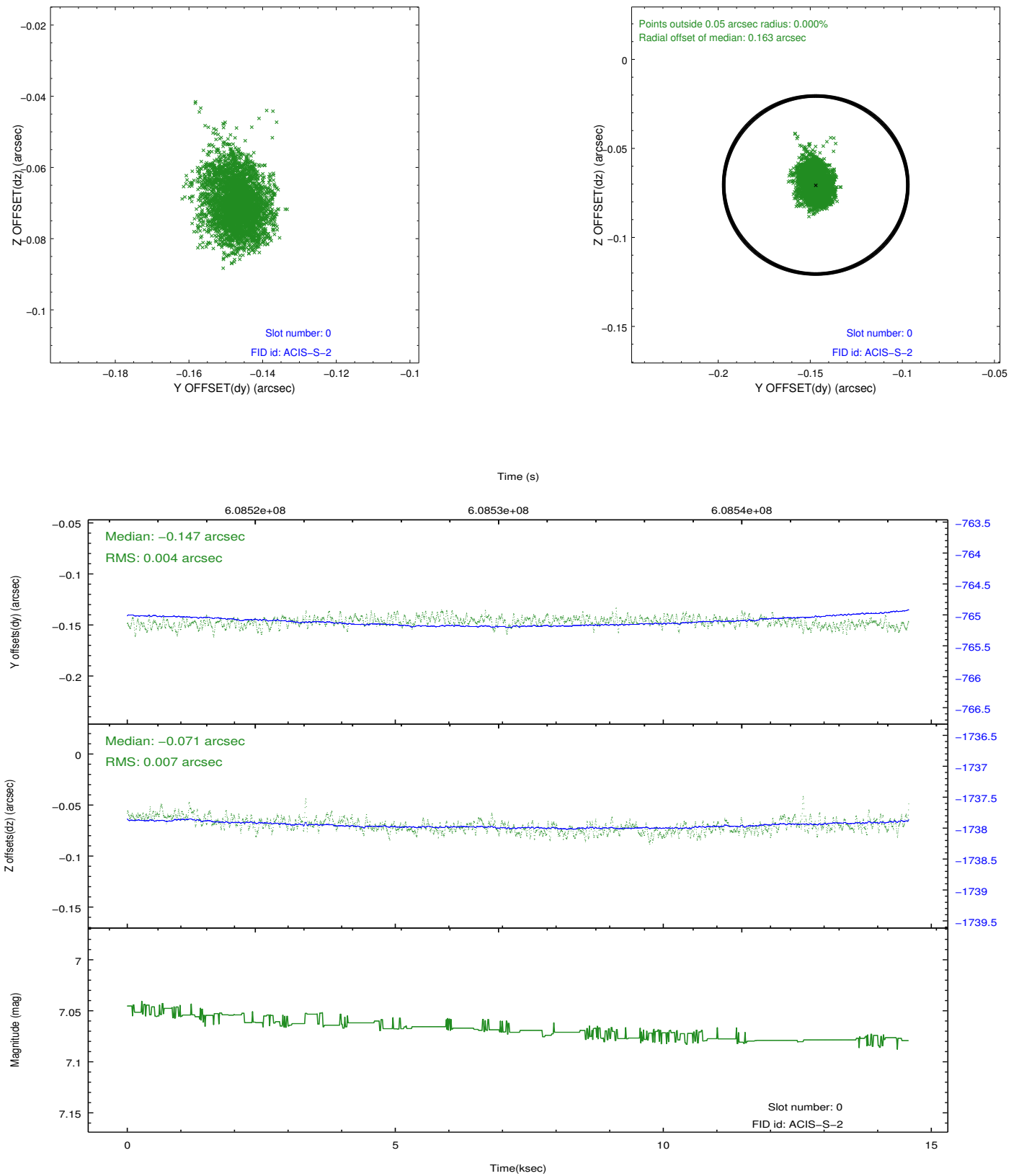


2.4.5 Slot 7

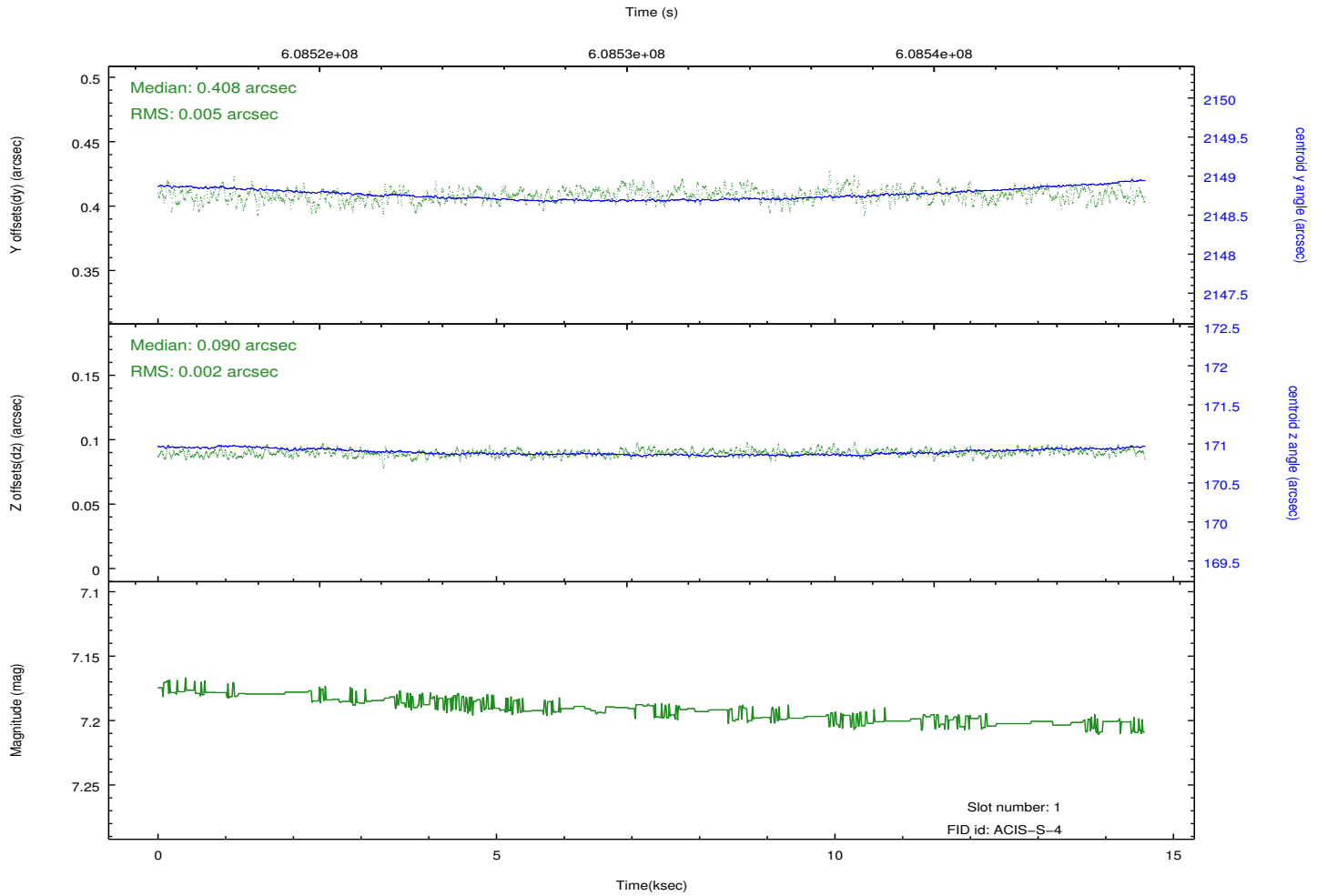
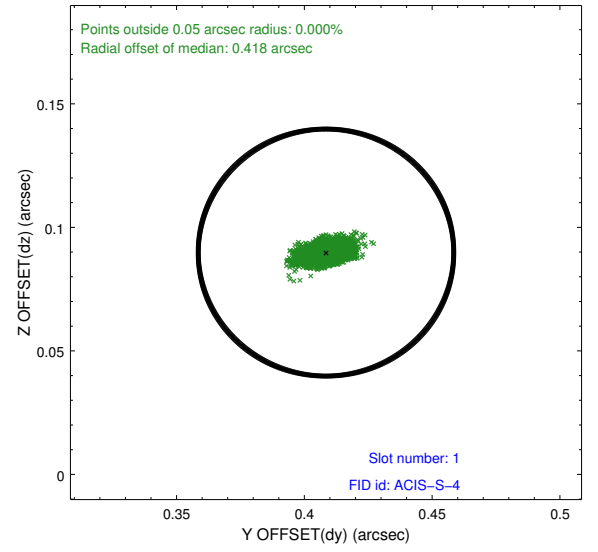
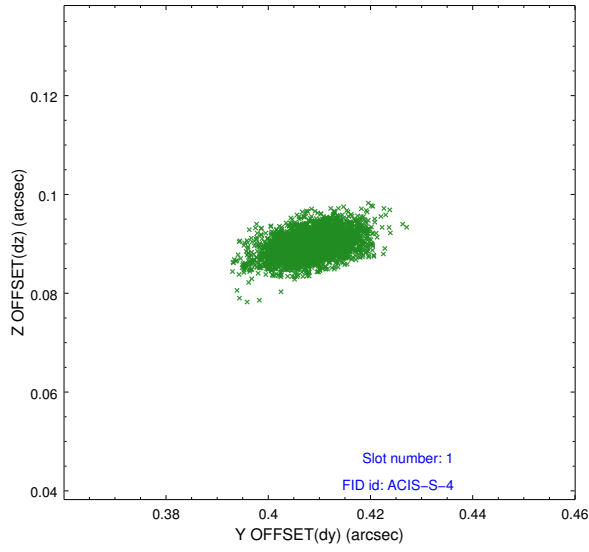


2.5 FID Slots

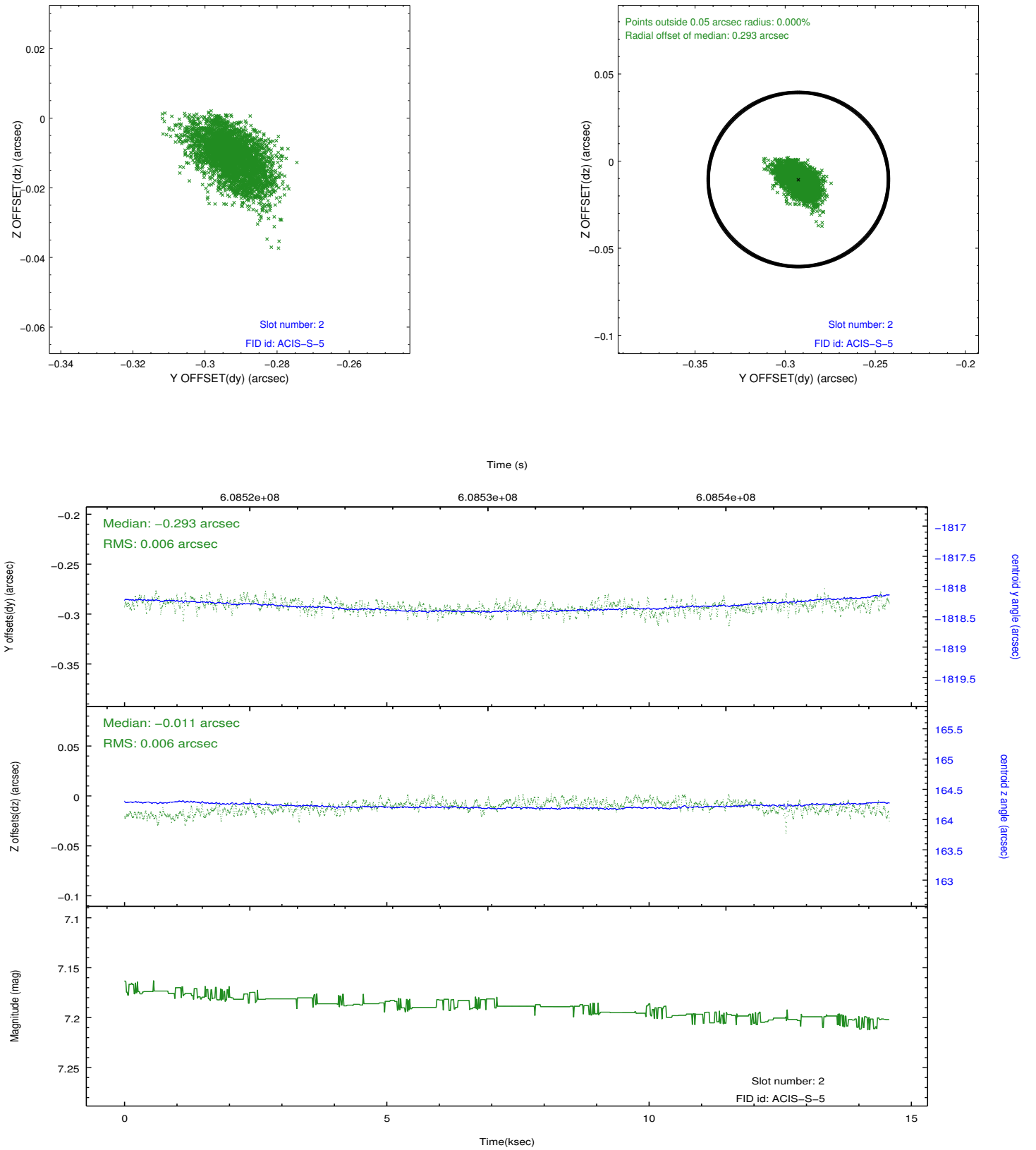
2.5.1 Slot 0



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)	2017.04.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.469199137449

A.2 Comments

Window preference met.

Observation coordinated with EHT, NuSTAR.