

V&V Reference Report

L2 ASCDS Version : 10.3.3

Observation 16361 - L2 Version 1
Chandra X-Ray Center

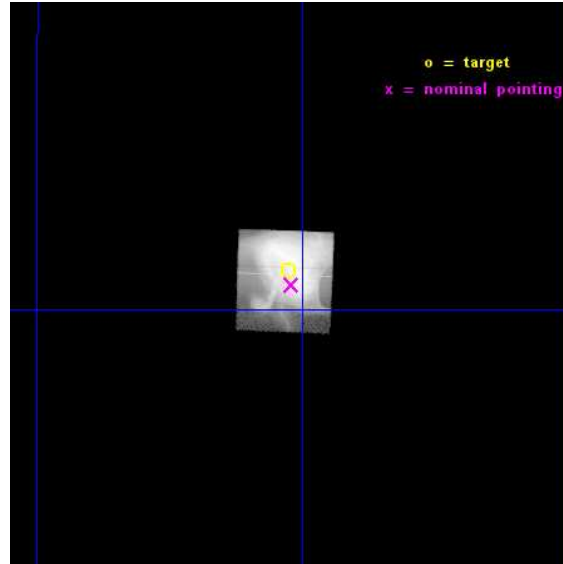
L2 Processing Date : Apr 11 2015

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Parameters	4
2.1.3	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	502259	Sequence number
obs_id	16361	Observation id
title	Joint Chandra and HST Monitoring and Studies of the Crab Nebula	Pr
observer	Dr. Martin Weisskopf	Principal investigator
object	Crab	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.631667	Observer's specified target RA [deg]
dec_targ	22.015667	Observer's specified target Dec [deg]
ra_nom	83.63018672048	Nominal RA [deg]
dec_nom	22.010078023458	Nominal Dec [deg]
roll_nom	272.11225795817	Nominal Roll [deg]
revision	1	Processing version of data
ontime	8259.1858593225	Sum of GTIs [s]
livetime	1421.3998312261	Livetime [s]
ontime7	8259.1858593225	Sum of GTIs [s]
l2events	3497327	Number of level 2 events

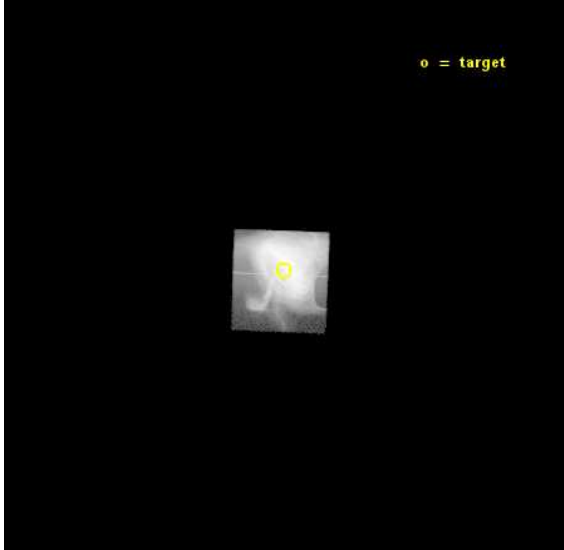


2 OBI

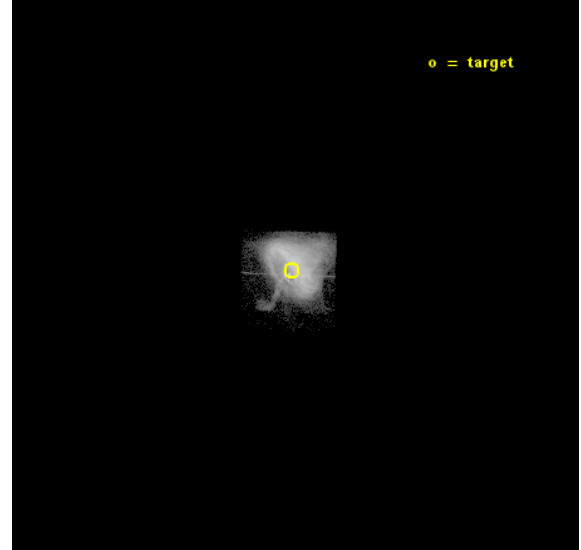
2.1 OBI

2.1.1 Images

Level 1 Image



Level 1 Bad Events



2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	8259.1858593225	Sum of GTIs [s]
caldbver	4.6.7	 	ontime7	8259.1858593225	Sum of GTIs [s]
date	2015-04-11T07:23:14	Date and time of file creation	l1events	3891478	Number of level 1 events
revision	1	Processing version of data			

2.1.3 Events

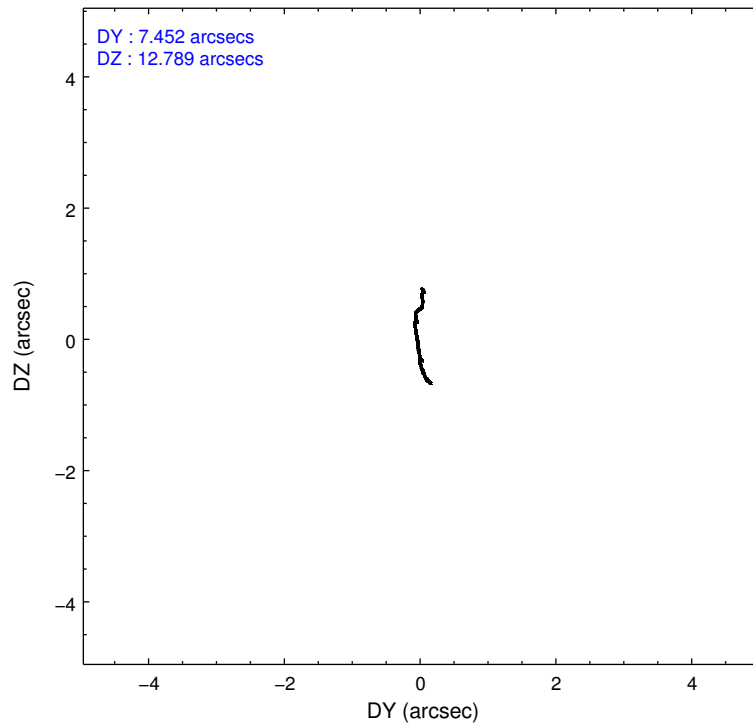
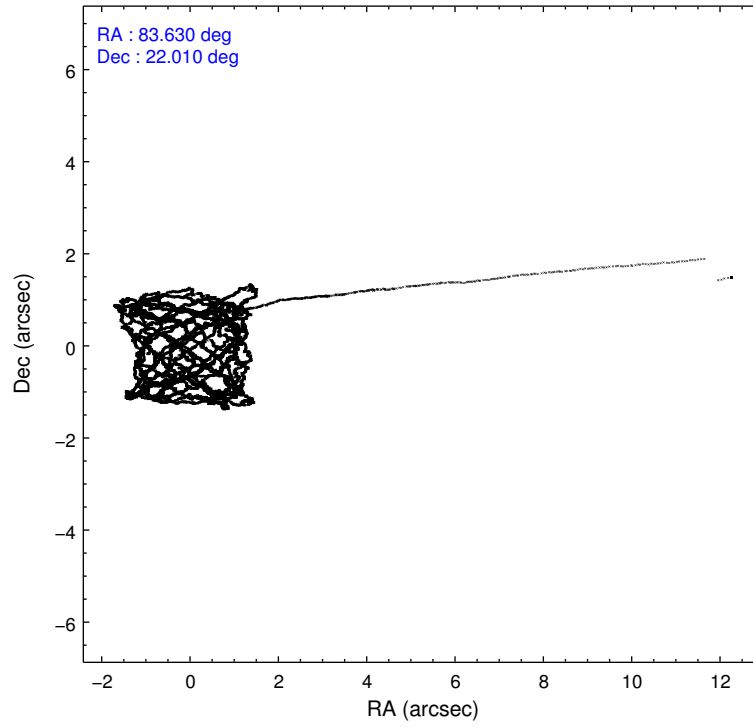
	ccd 7
level 1 events	3891478
rejected events	352036
rejected %	9%

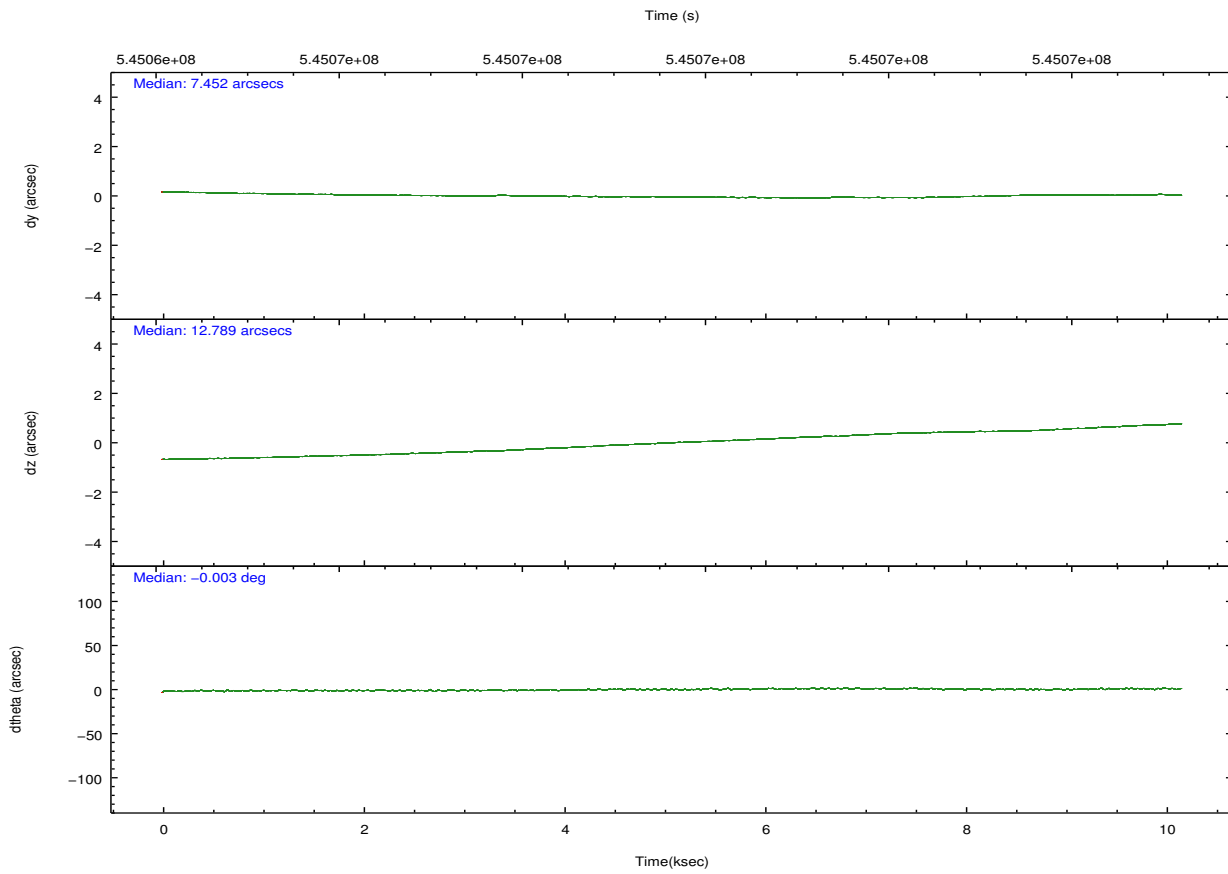
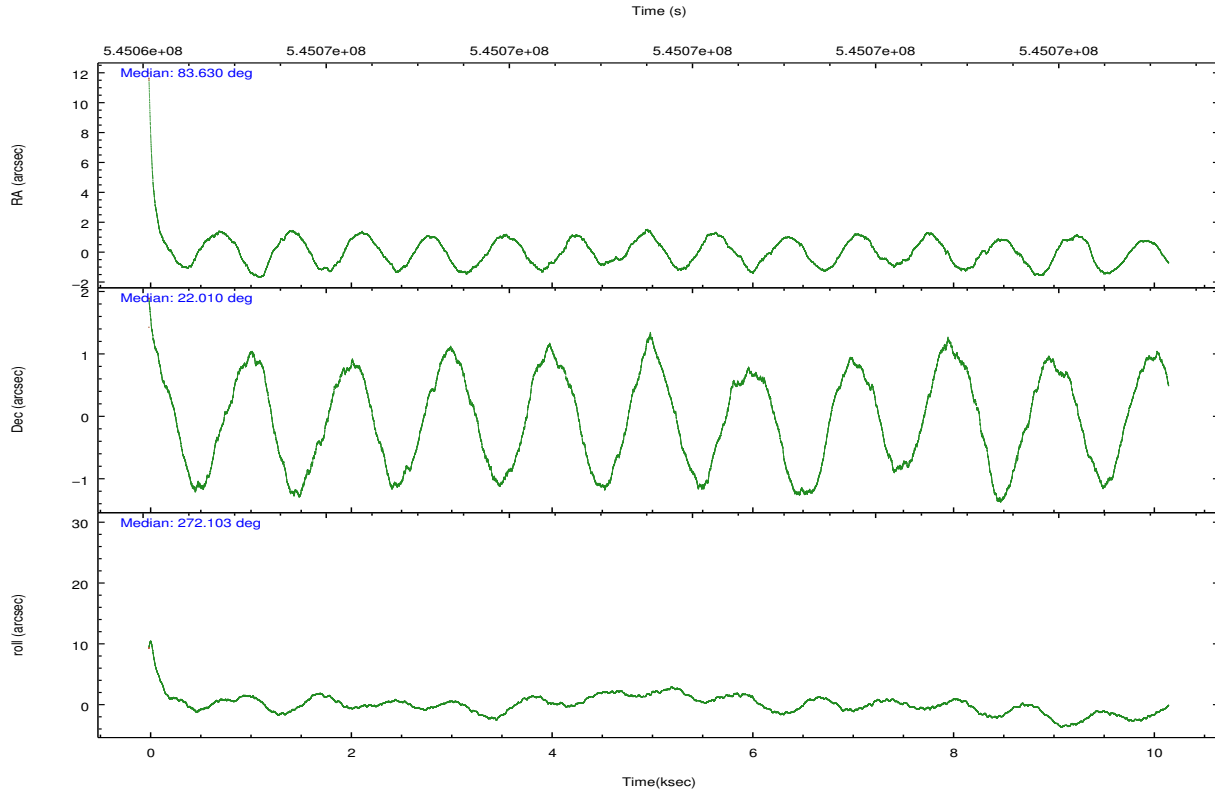
	ccd 7
grade 0 events	801559
	20%
grade 1 events	37398
	0%
grade 2 events	1026601
	26%
grade 3 events	376944
	9%
grade 4 events	359855
	9%
grade 5 events	123416
	3%
grade 6 events	974991
	25%
grade 7 events	190714
	4%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	GRADED	GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	83.614112	83.63018672047957	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	22.033123	22.01007802345804	Subarray start row	495	495
[deg] Pointing Roll	271.961658	272.1122579581685	Subarray row count	300	300
[s] Window start time (MET)	544752067.184000	544752067.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	546480067.184000	546480067.184000	[s] Primary exposure time	0.000000	0.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-194.072523	-194.0623979203055			
[mm] SIM translation stage offset	3.94	3.929875337297688			
[s] Observation start time (MET)	545064719.184000	545063502.34556			
Observation start date	2015-04-10T14:50:52	2015-04-10T14:31:42			
[s] Observation end time (MET)	545074719.184000	545075693.6962399			
Observation end date	2015-04-10T17:37:32	2015-04-10T17:54:53			
Read mode	TIMED	TIMED			

2.3 Aspect



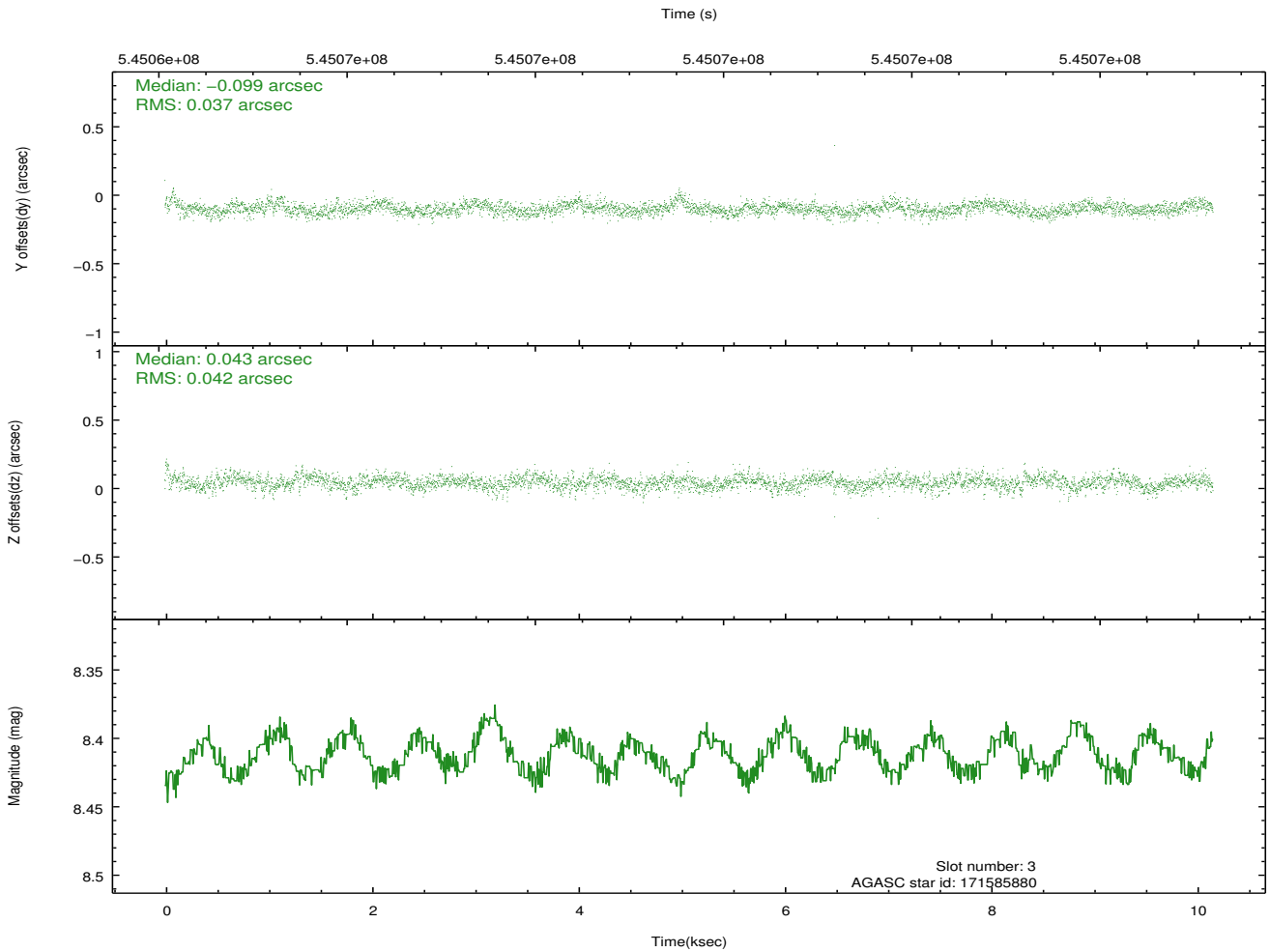
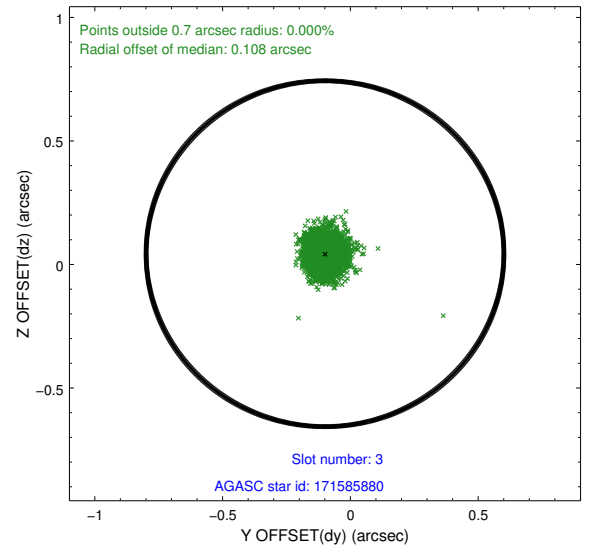
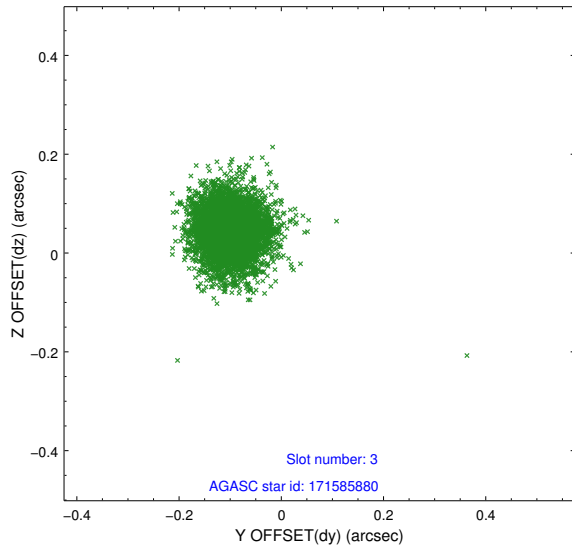


Slot Statistics

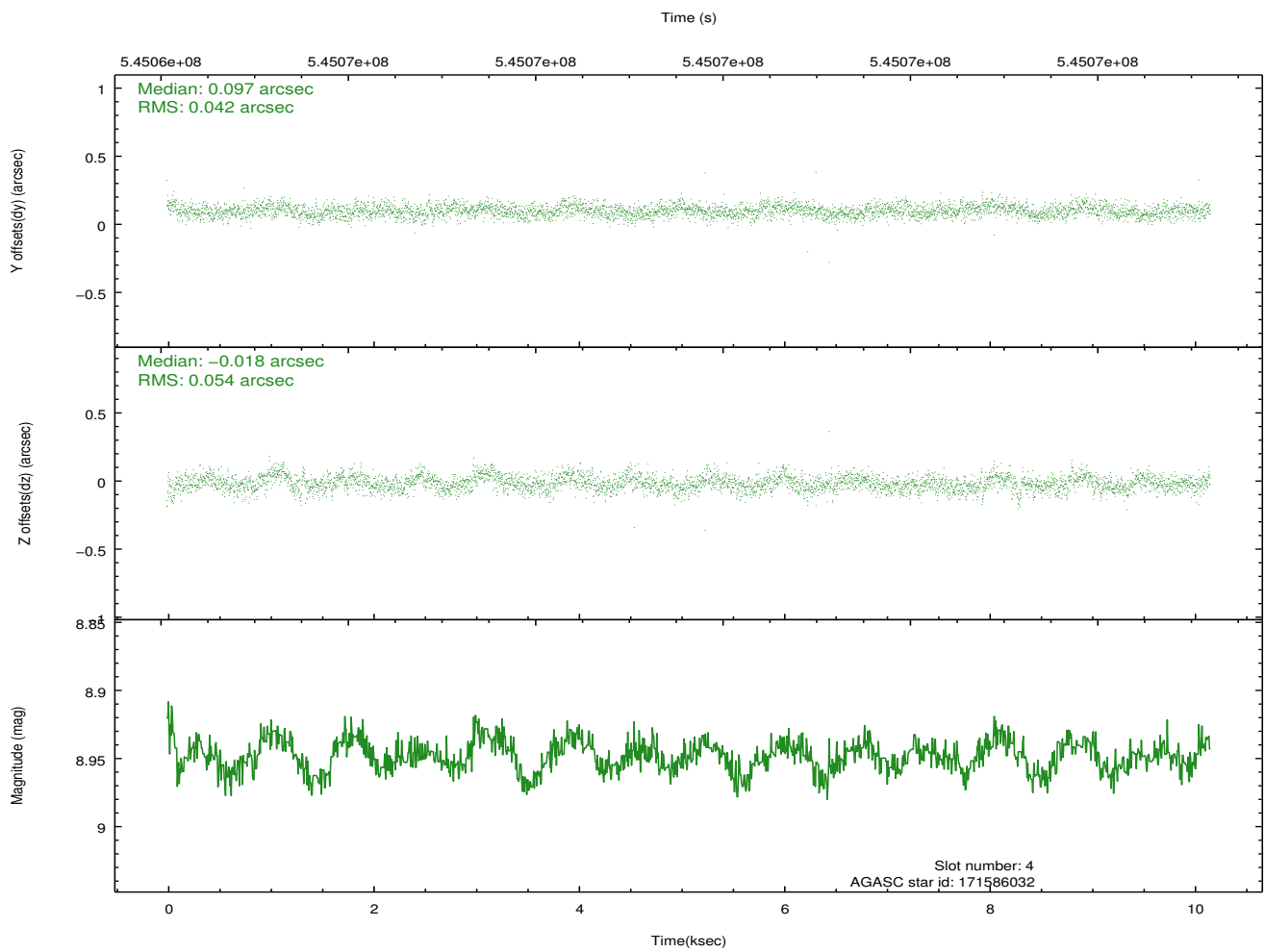
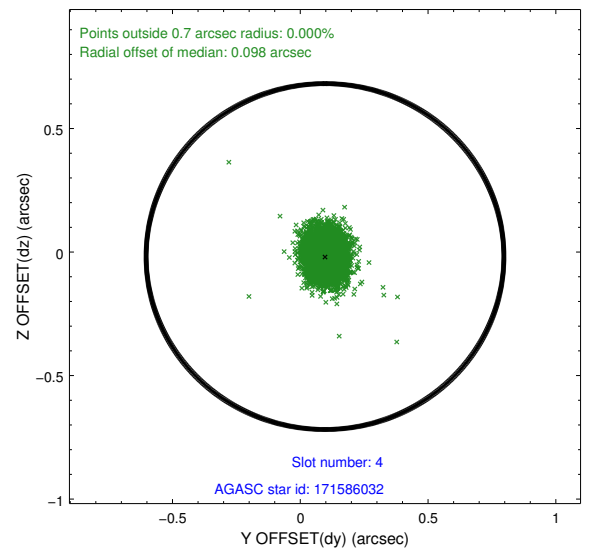
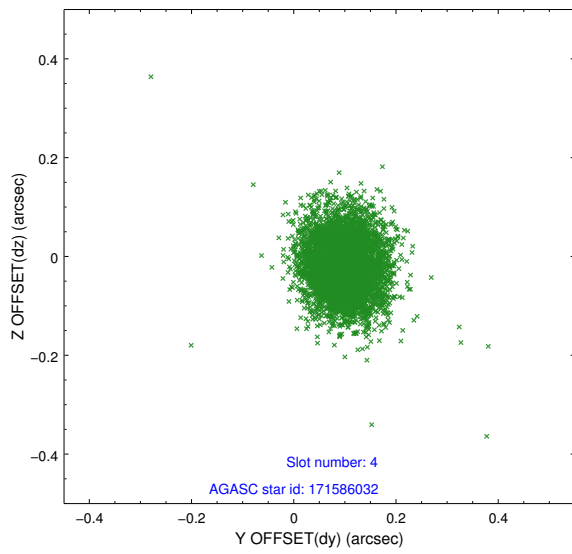
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.16	2479	-0.063	-0.031	0.012	0.019	0.000000	0.000000	-760.58	-1653.26
1	FID		ACIS-S-4	7.25	2479	0.133	0.010	0.010	0.015	0.000000	0.000000	2152.71	254.69
2	FID		ACIS-S-6	7.35	2479	-0.098	0.027	0.009	0.015	0.000000	0.000000	402.10	892.73
3	GUIDE	used	171585880	8.41	4957	-0.099	0.043	0.058	0.098	83.676260	22.176319	-507.74	224.83
4	GUIDE	used	171586032	8.95	4955	0.097	-0.018	0.071	0.118	83.950197	22.083225	-142.76	1126.87
5	GUIDE	used	171721904	9.20	4954	-0.096	0.241	0.076	0.125	84.272676	22.116922	-231.01	2206.17
6	GUIDE	used	243941560	8.30	4956	-0.309	0.044	0.060	0.099	83.733264	22.568598	-1912.81	462.01
7	GUIDE	used	171597832	9.19	4955	0.406	-0.310	0.088	0.147	83.183230	21.366702	2347.11	-1525.52

2.4 Star Slots

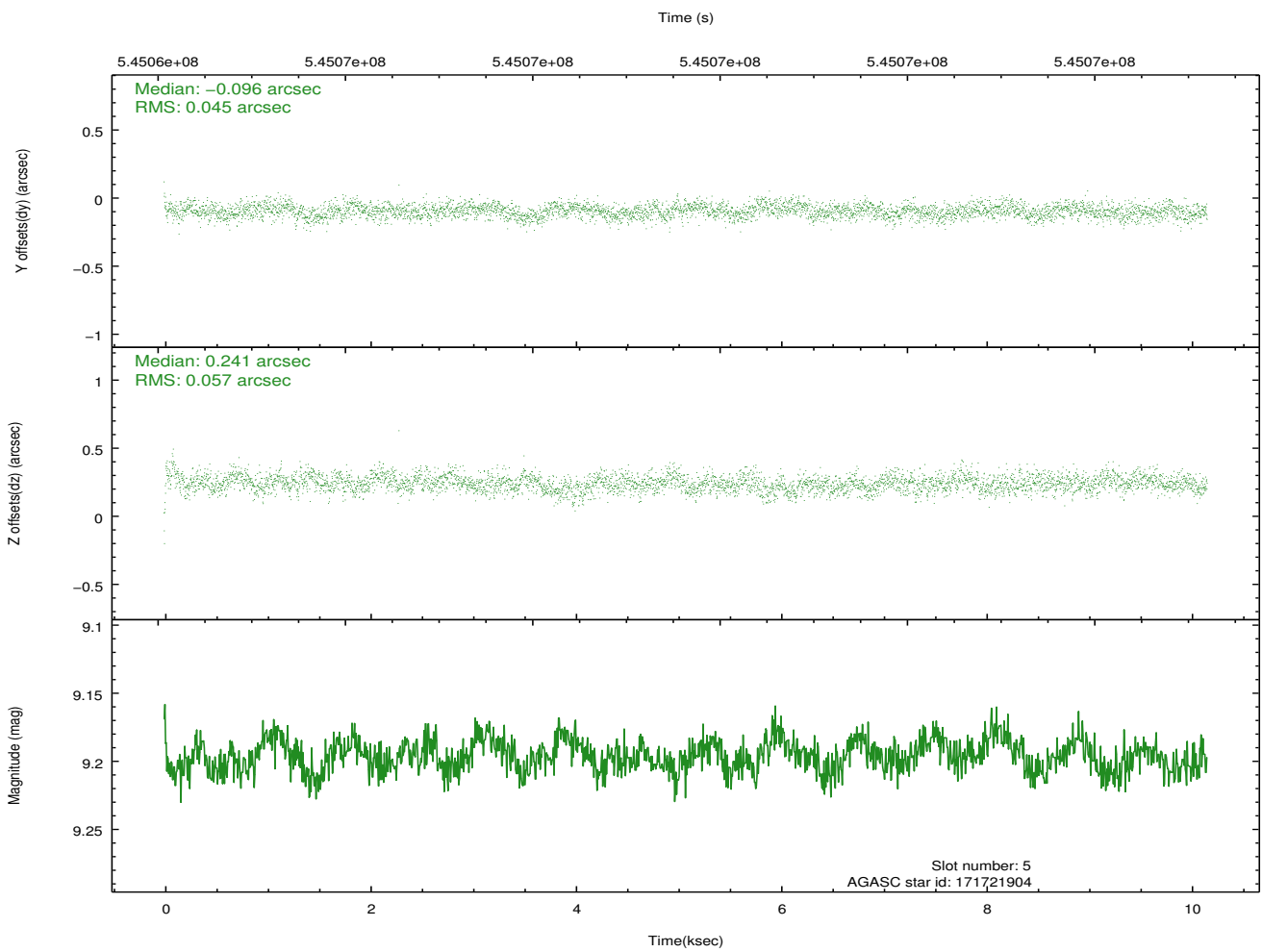
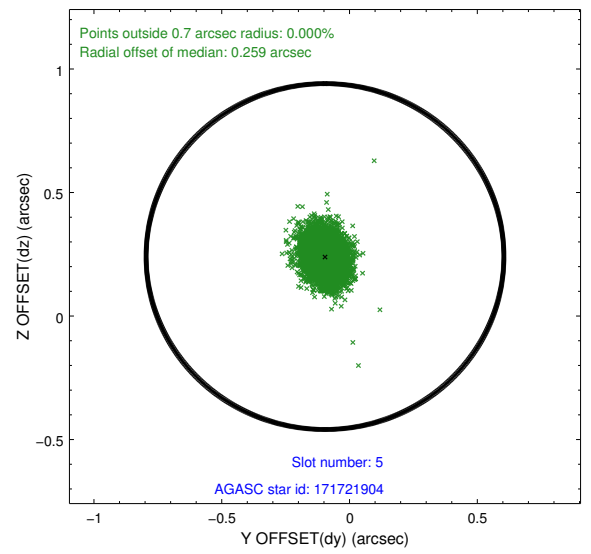
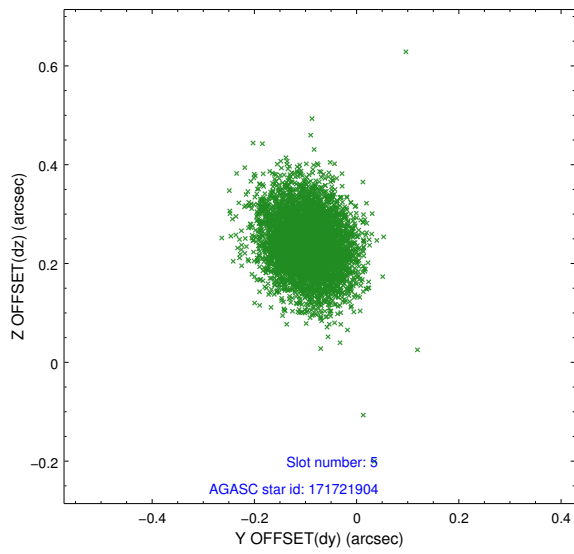
2.4.1 Slot 3



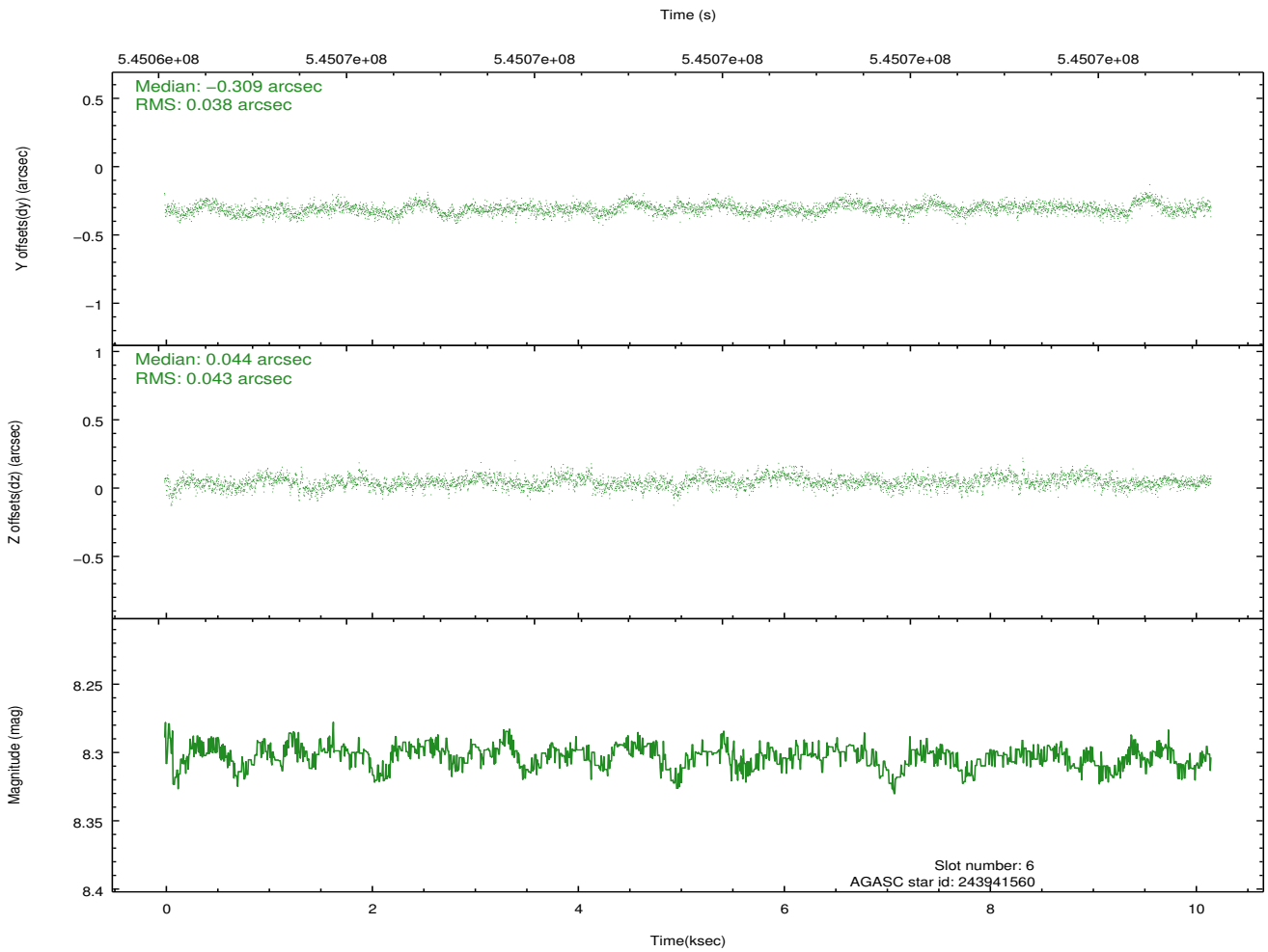
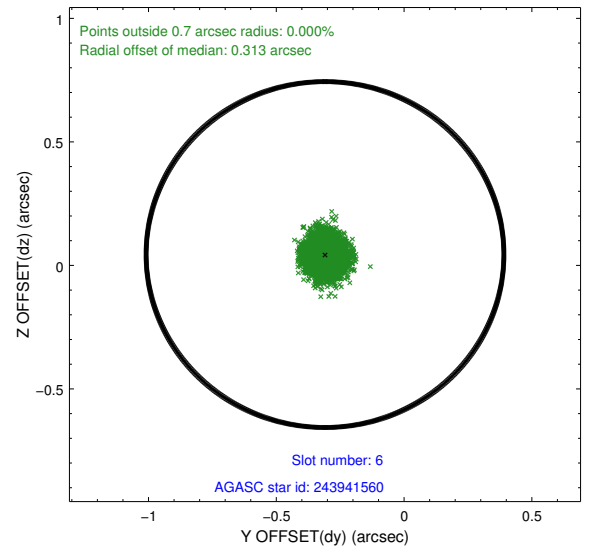
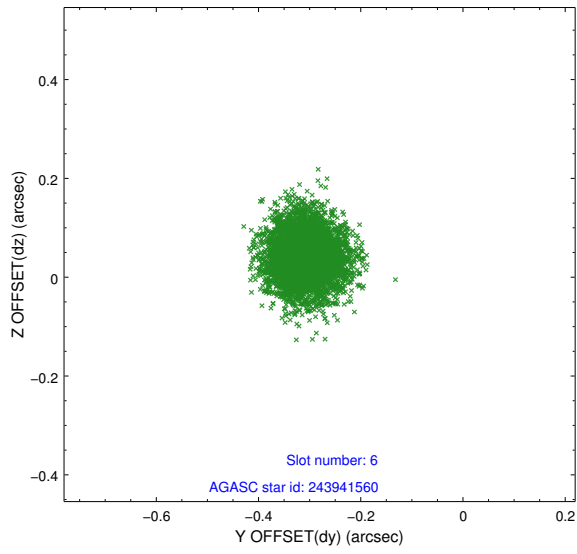
2.4.2 Slot 4



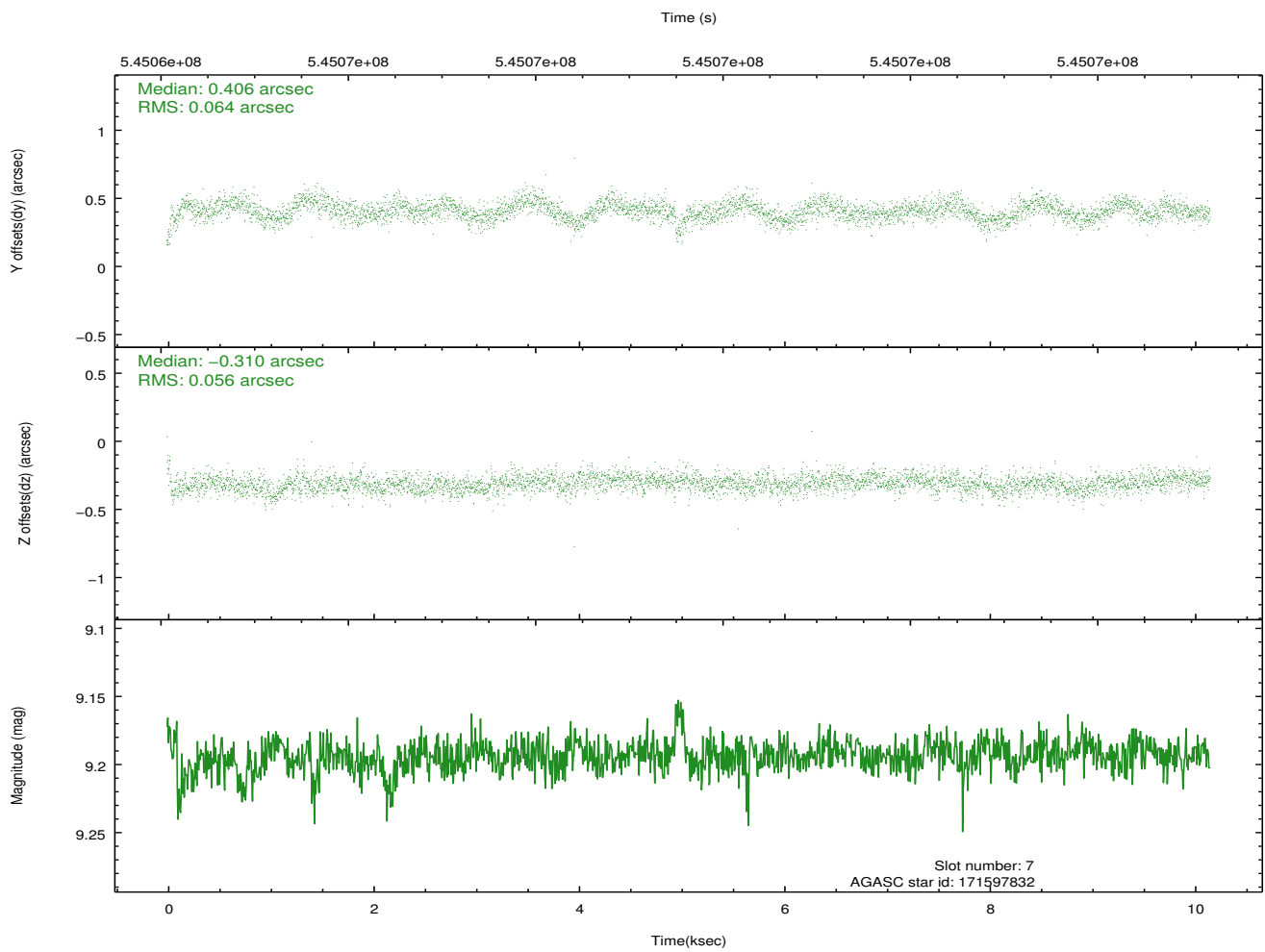
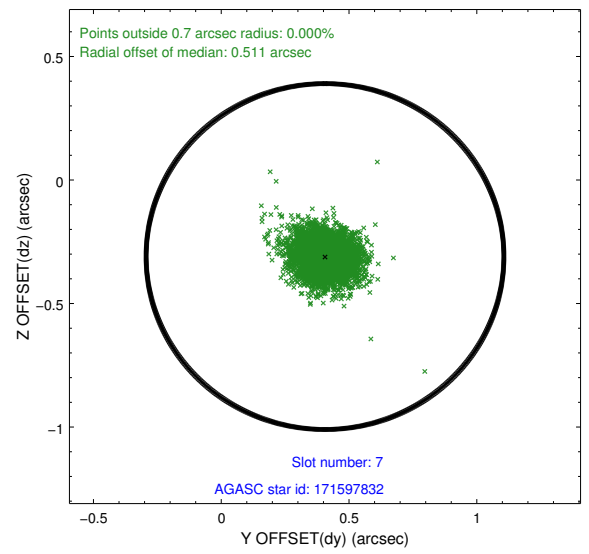
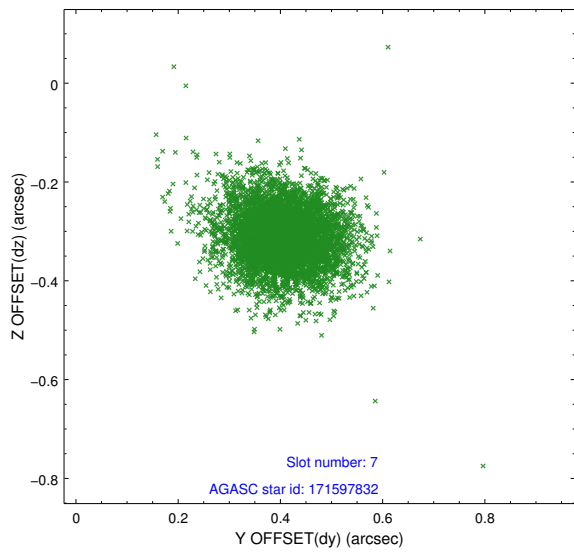
2.4.3 Slot 5



2.4.4 Slot 6

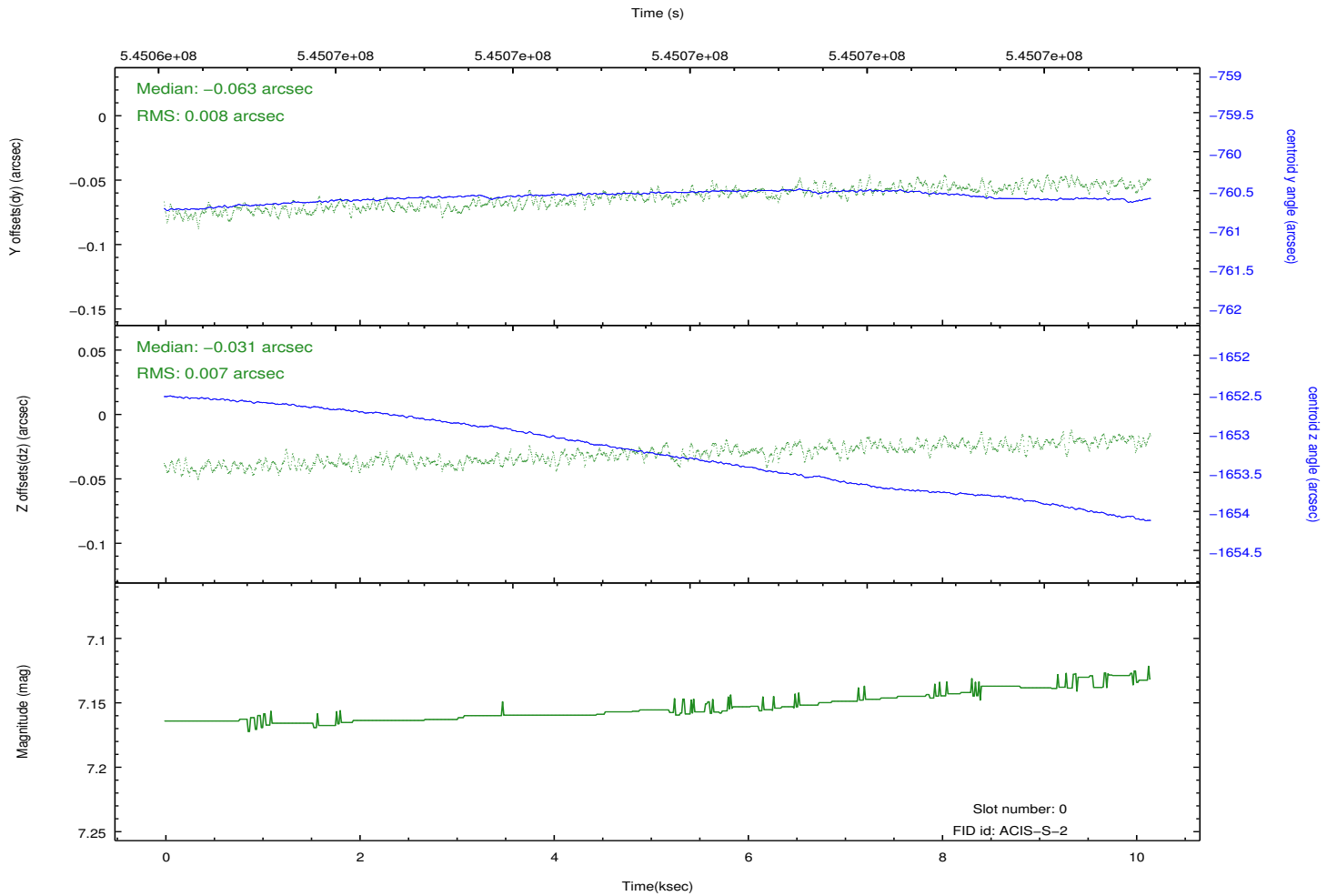
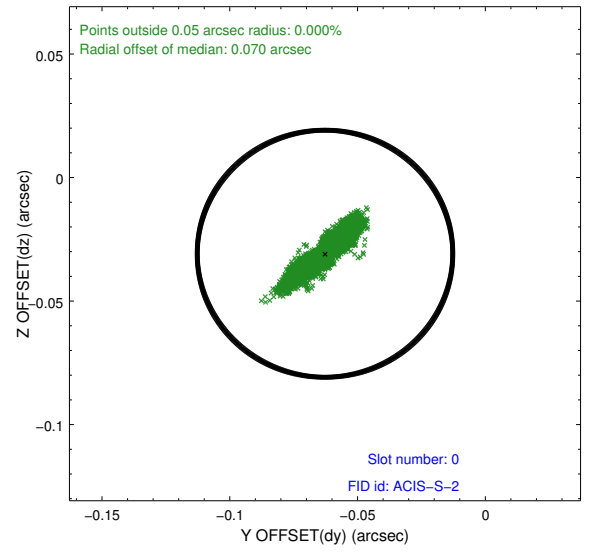
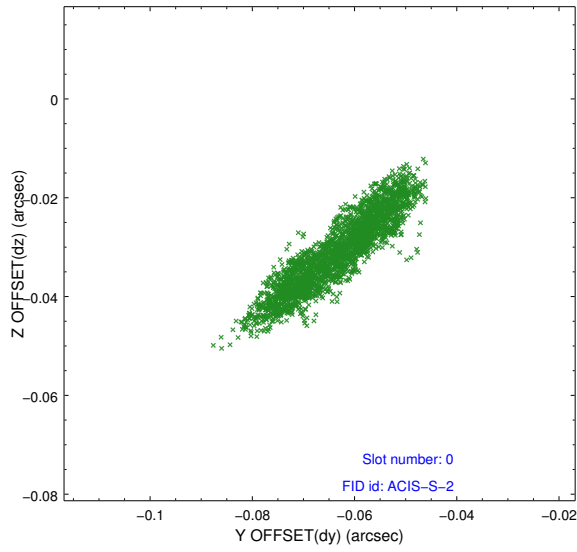


2.4.5 Slot 7

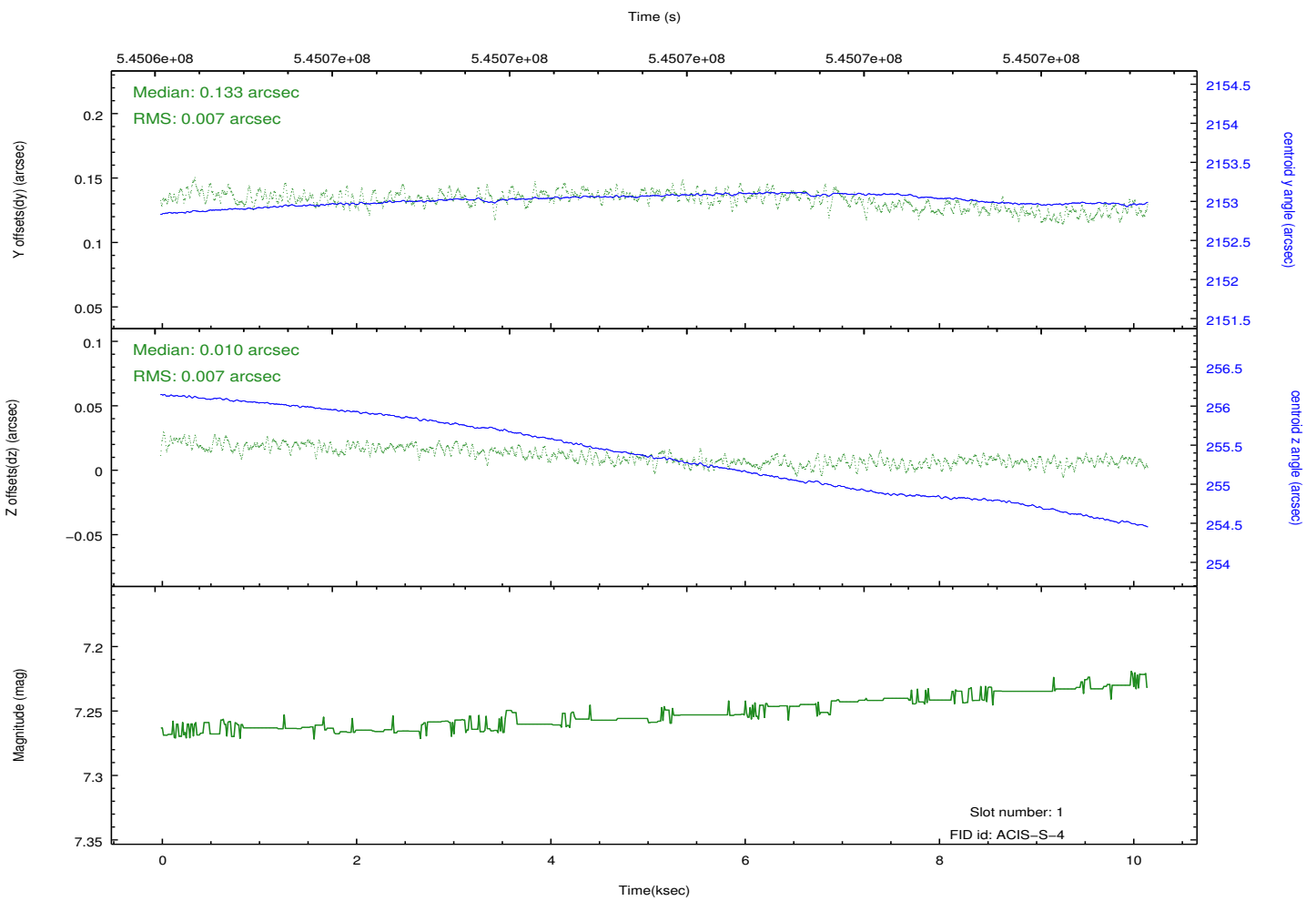
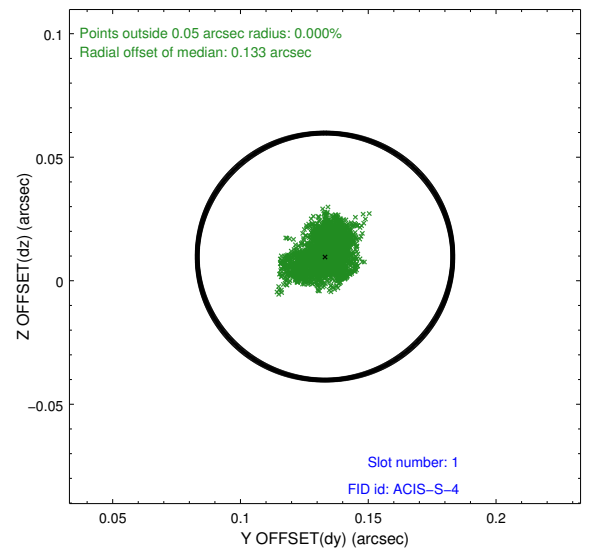
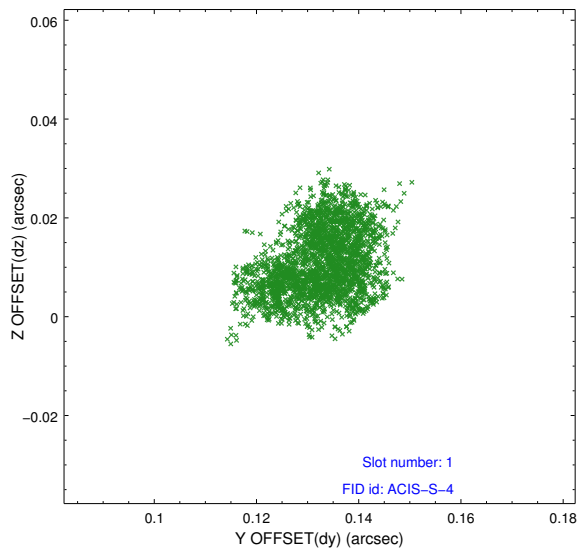


2.5 FID Slots

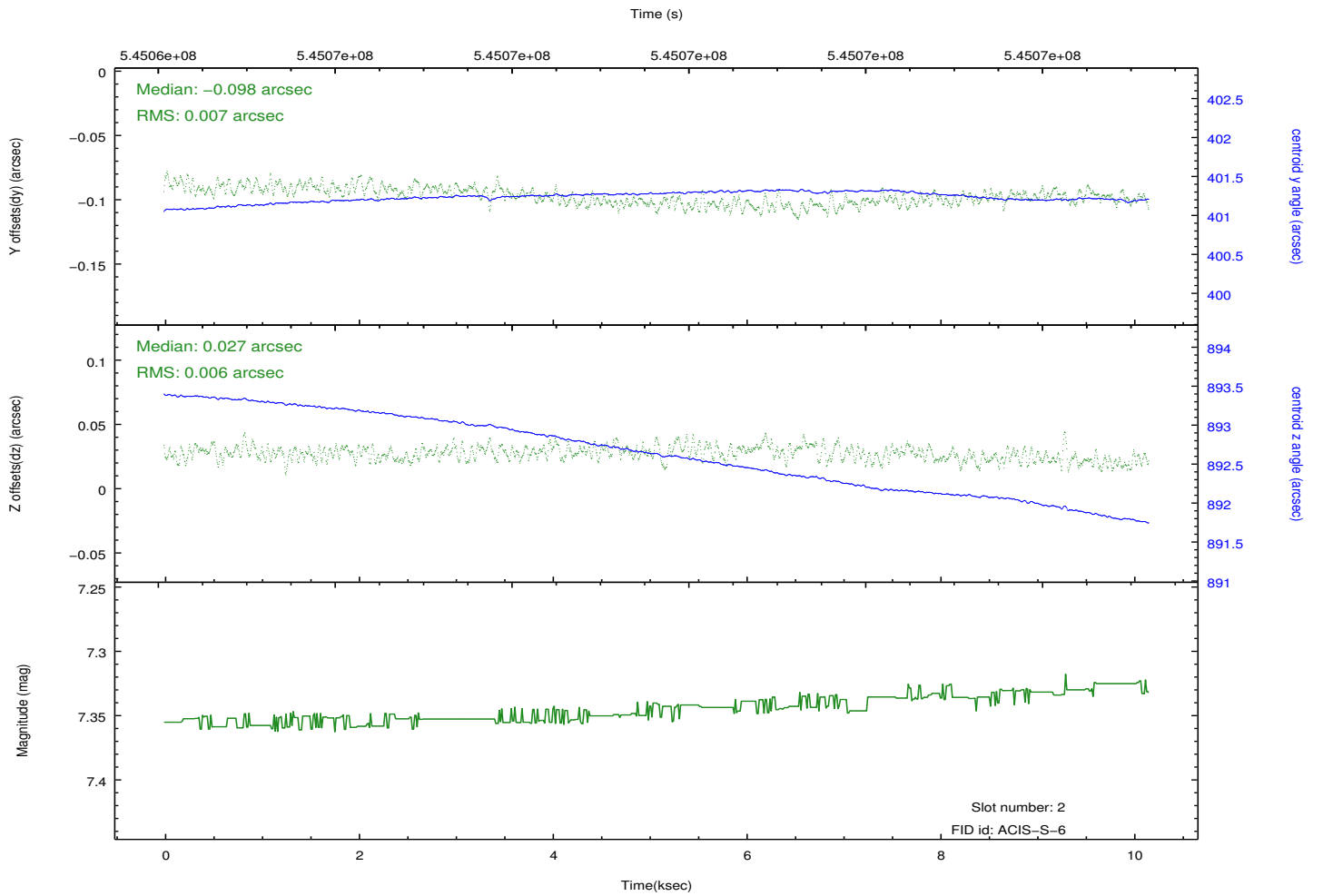
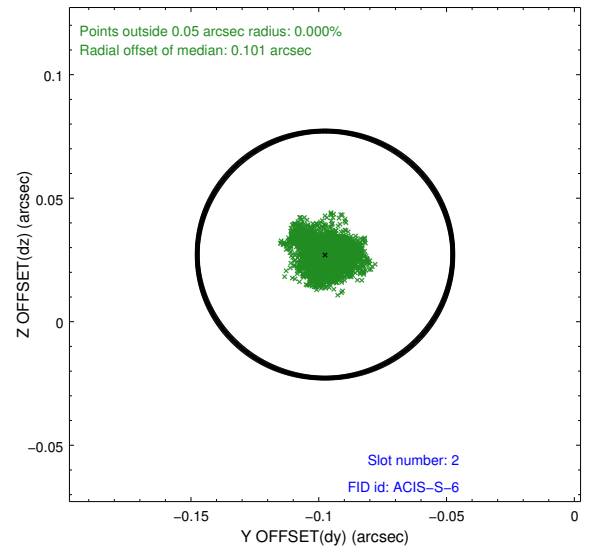
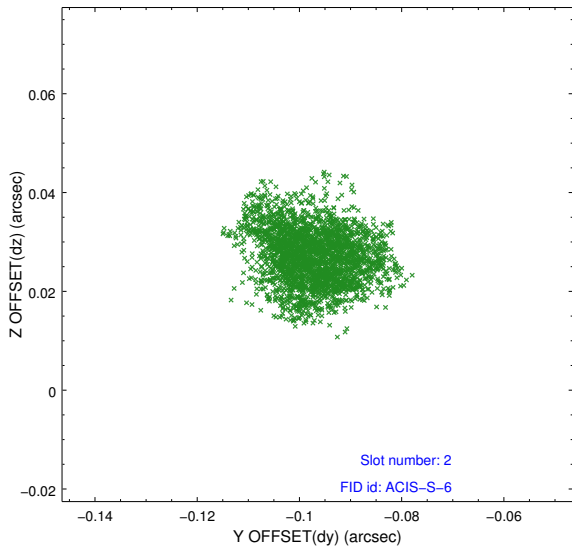
2.5.1 Slot 0



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)	2015.04.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10

A.2 Comments

Joint proposal with HST.

Observation coordinated with HST.

Window preference met.

Charge time is set to the scheduled time for this observation, although the ONTIME is significantly less due to telemetry saturation.