

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16420 - L2 Version 2
Chandra X-Ray Center

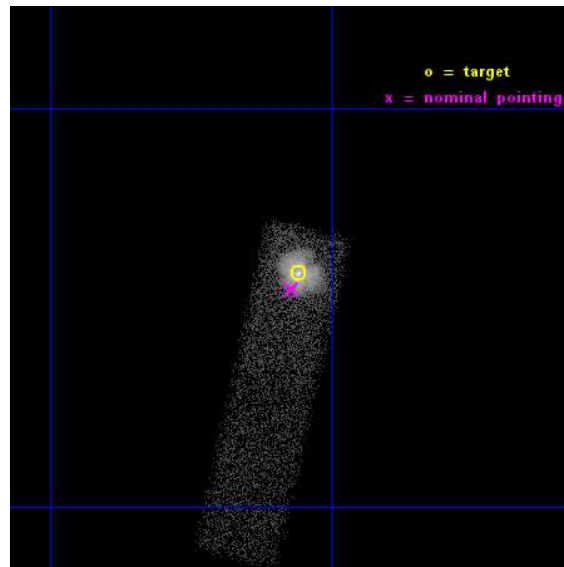
L2 Processing Date : Dec 11 2014

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1 Front

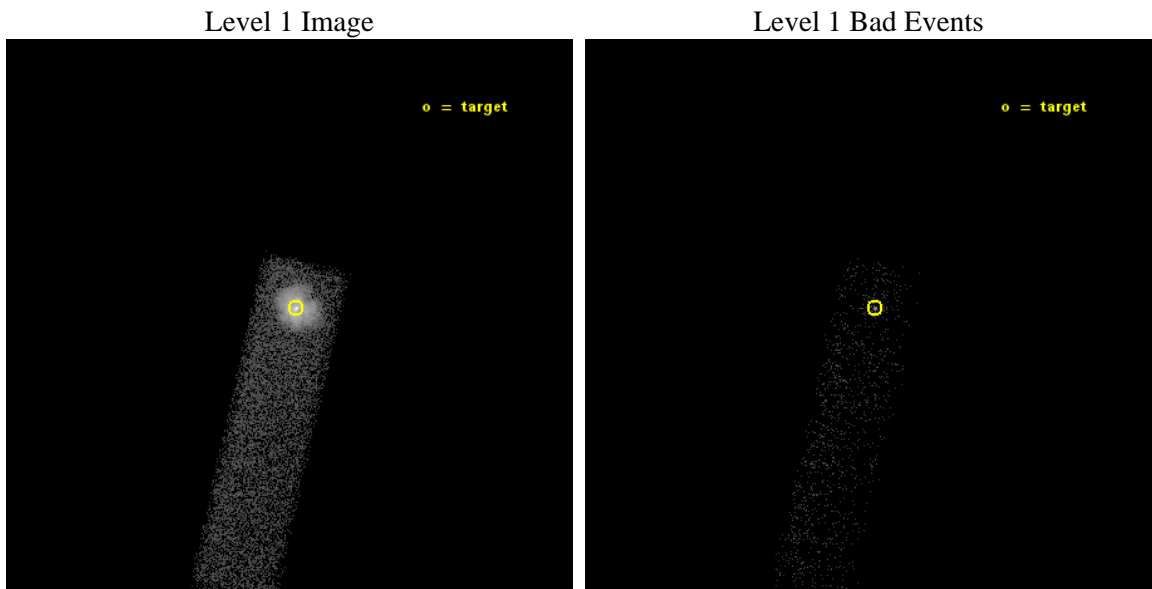
seq_num	590533	Sequence number
obs_id	16420	Observation id
title	AO-15 ACIS Calibration Observations of G21.5-09.	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-09	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.39292395342	Nominal RA [deg]
dec_nom	-10.575503775539	Nominal Dec [deg]
roll_nom	103.08679067947	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10060.71952486	Sum of GTIs [s]
livetime	9569.7893321225	Livetime [s]
ontime7	10060.71952486	Sum of GTIs [s]
l2events	36758	Number of level 2 events



2 OBI

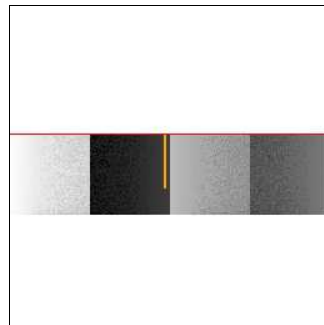
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	10060.71952486	Sum of GTIs [s]
caldbver	4.6.4	 	ontime7	10060.71952486	Sum of GTIs [s]
date	2014-12-11T12:40:21	Date and time of file creation	l1events	43957	Number of level 1 events
revision	2	Processing version of data			

2.1.4 Events

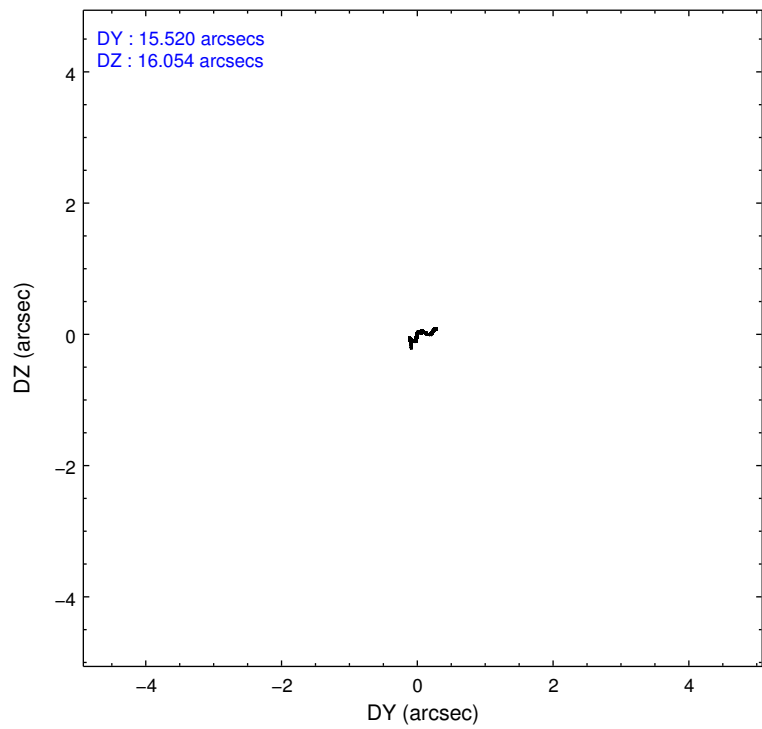
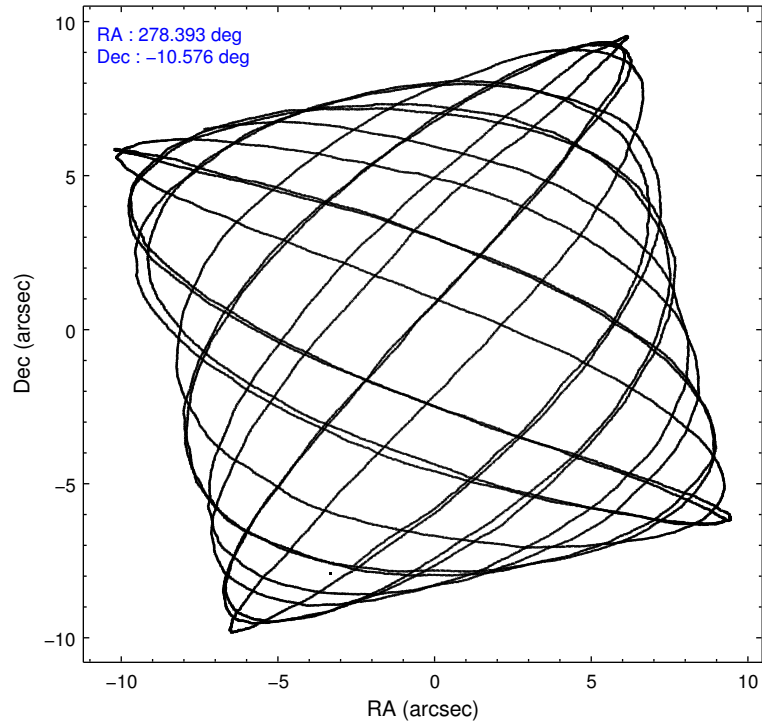
	ccd 7
level 1 events	43957
rejected events	6950
rejected %	15%

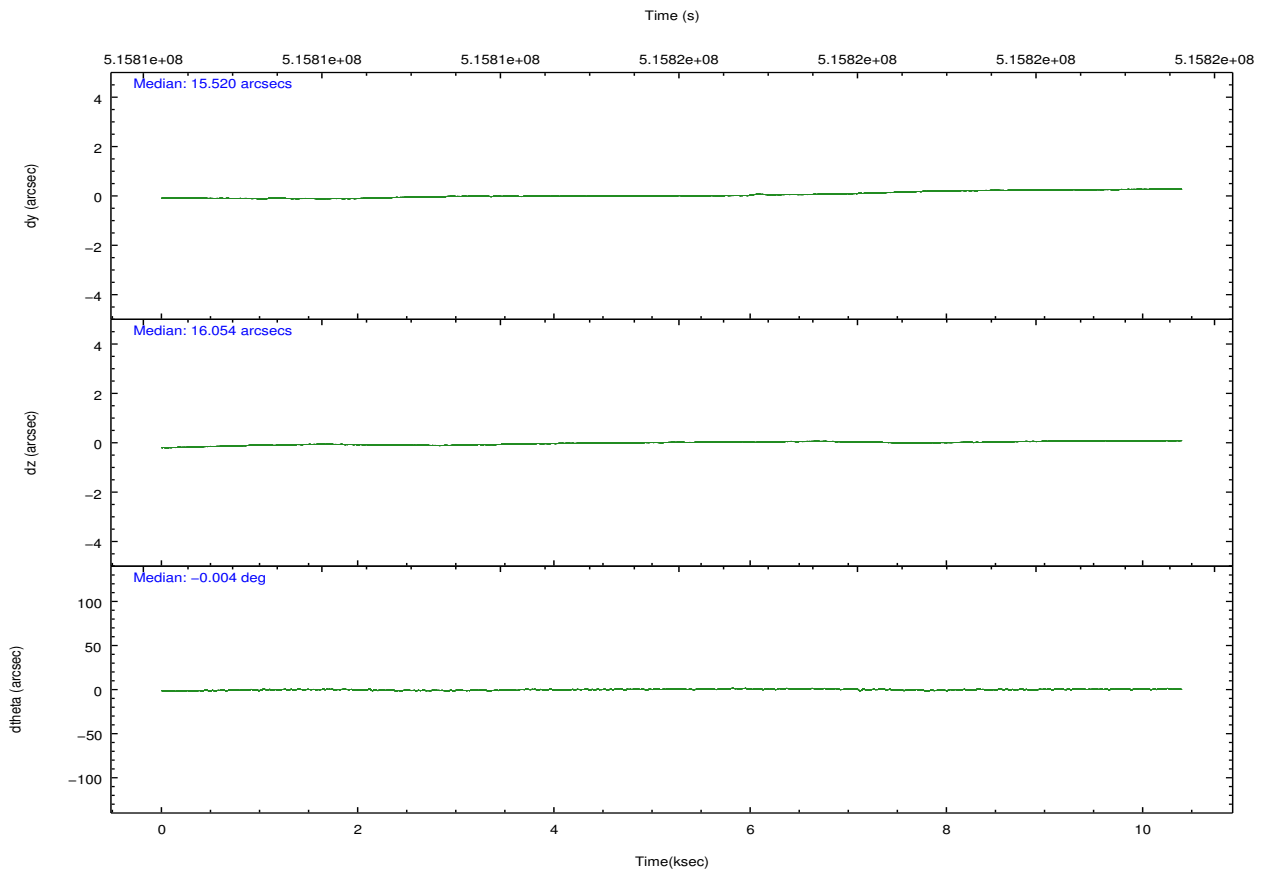
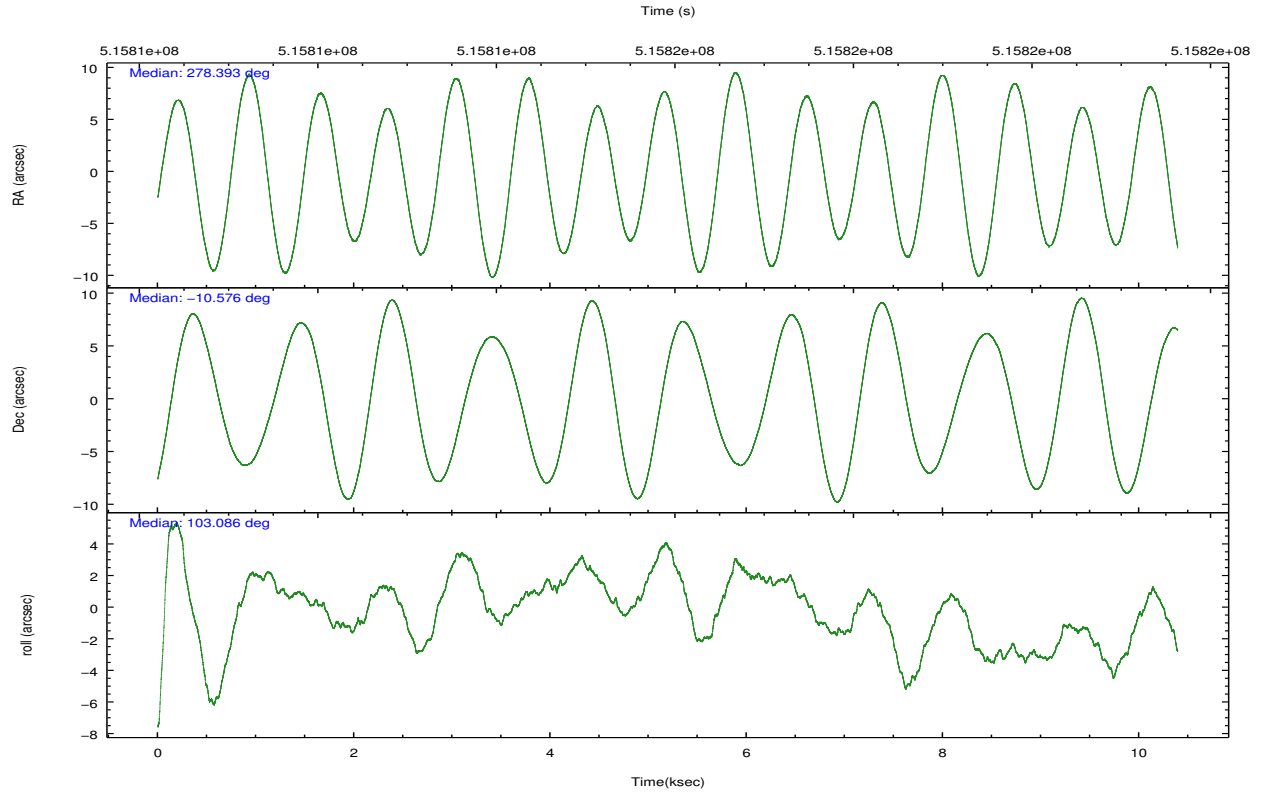
	ccd 7
grade 0 events	6496
	14%
grade 1 events	41
	0%
grade 2 events	8927
	20%
grade 3 events	4118
	9%
grade 4 events	4001
	9%
grade 5 events	1631
	3%
grade 6 events	13466
	30%
grade 7 events	5277
	12%

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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	278.412179	278.3929239534207	Subarray requested	CUSTOM	1/4
[deg] Pointing Dec	-10.595233	-10.57550377553892	Subarray start row	360	360
[deg] Pointing Roll	102.933696	103.0867906794687	Subarray row count	256	256
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.8
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	515811118.184000	515810434.80621			
Observation start date	2014-05-07T00:50:51	2014-05-07T00:40:34			
[s] Observation end time (MET)	515821118.184000	515821980.91935			
Observation end date	2014-05-07T03:37:31	2014-05-07T03:53:00			
Read mode	TIMED	TIMED			

2.3 Aspect





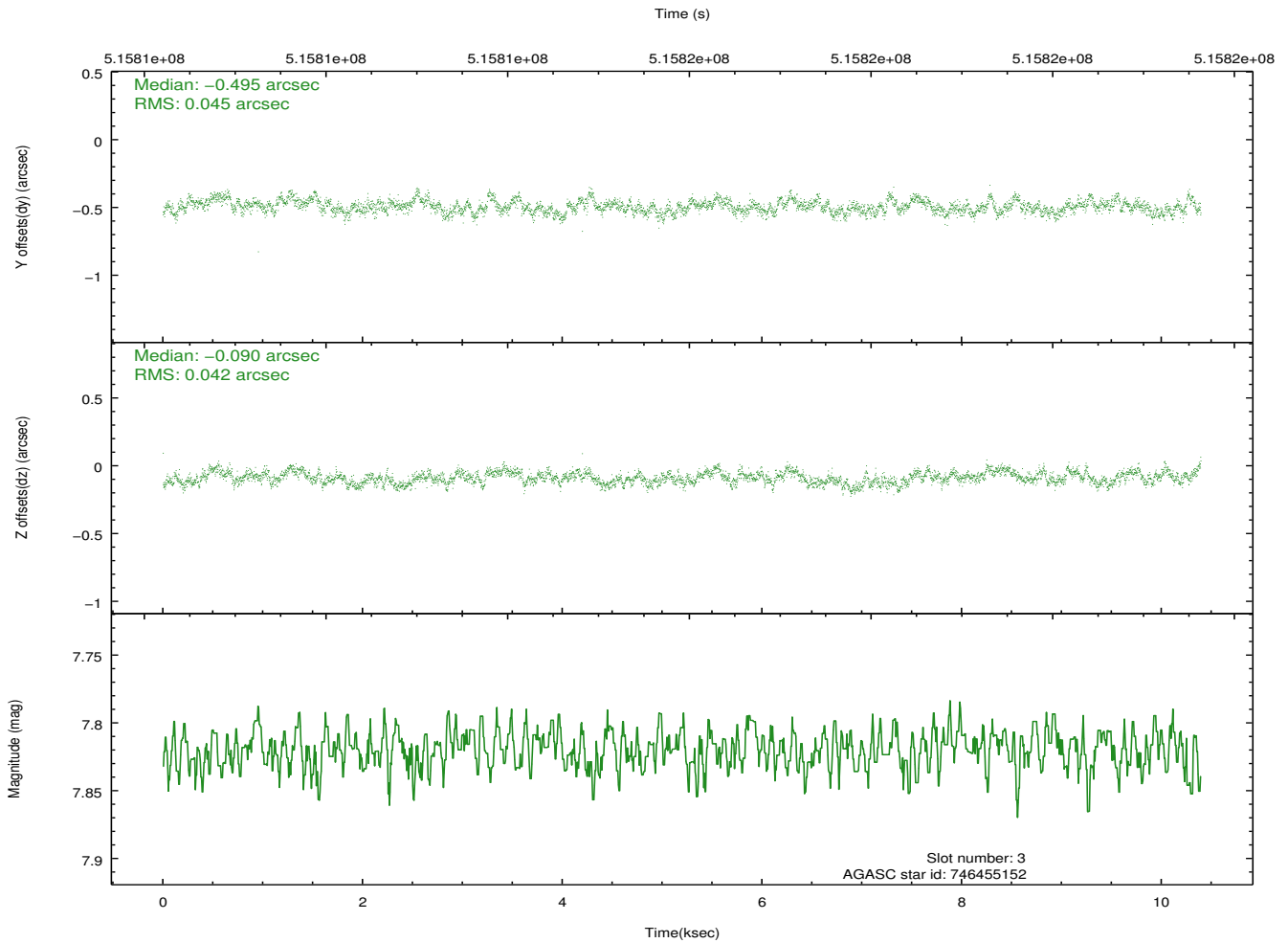
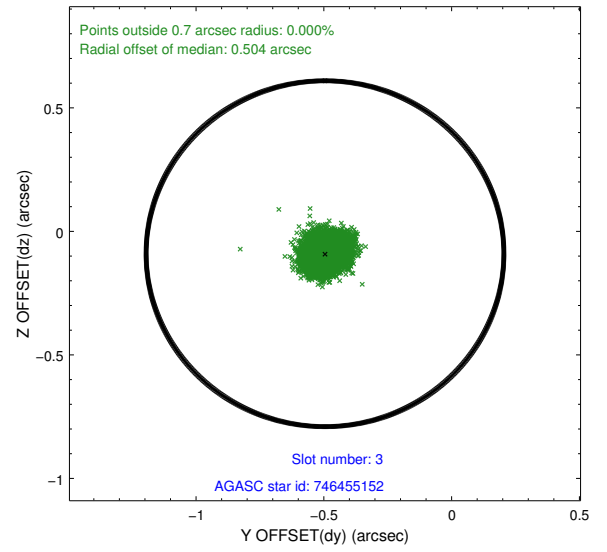
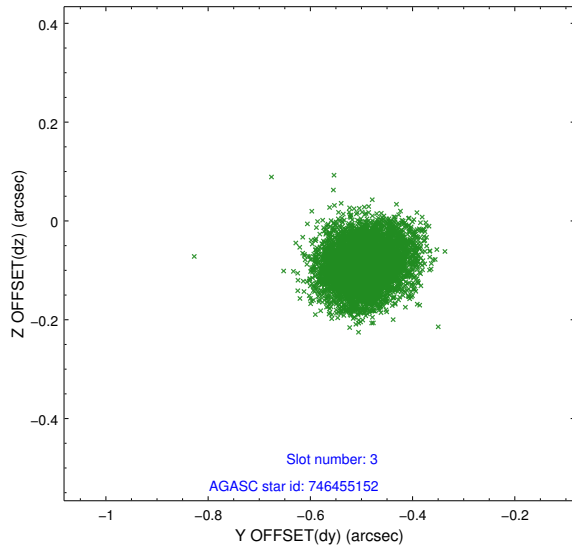
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.04	2535	-0.125	-0.021	0.008	0.013	0.000000	0.000000	-768.68	-1737.46
1	FID		ACIS-S-4	7.13	2535	0.272	0.066	0.009	0.018	0.000000	0.000000	2144.76	170.58
2	FID		ACIS-S-5	7.16	2535	-0.179	-0.036	0.008	0.015	0.000000	0.000000	-1820.93	164.73
3	GUIDE	used	746455152	7.82	5071	-0.495	-0.090	0.067	0.105	278.447893	-9.976732	2141.79	-621.51
4	GUIDE	used	746460272	8.92	5070	-0.074	0.093	0.123	0.189	278.847488	-10.152127	1209.31	-1859.94
5	GUIDE	used	746460328	9.79	5070	-0.053	-0.068	0.145	0.246	278.603974	-9.898096	2293.22	-1224.32
6	GUIDE	used	746462392	8.53	5069	0.359	0.101	0.081	0.126	279.038421	-10.890715	-1536.29	-1920.11
7	GUIDE	used	746462680	9.01	5066	0.264	-0.033	0.091	0.146	278.660755	-10.782756	-854.58	-705.66

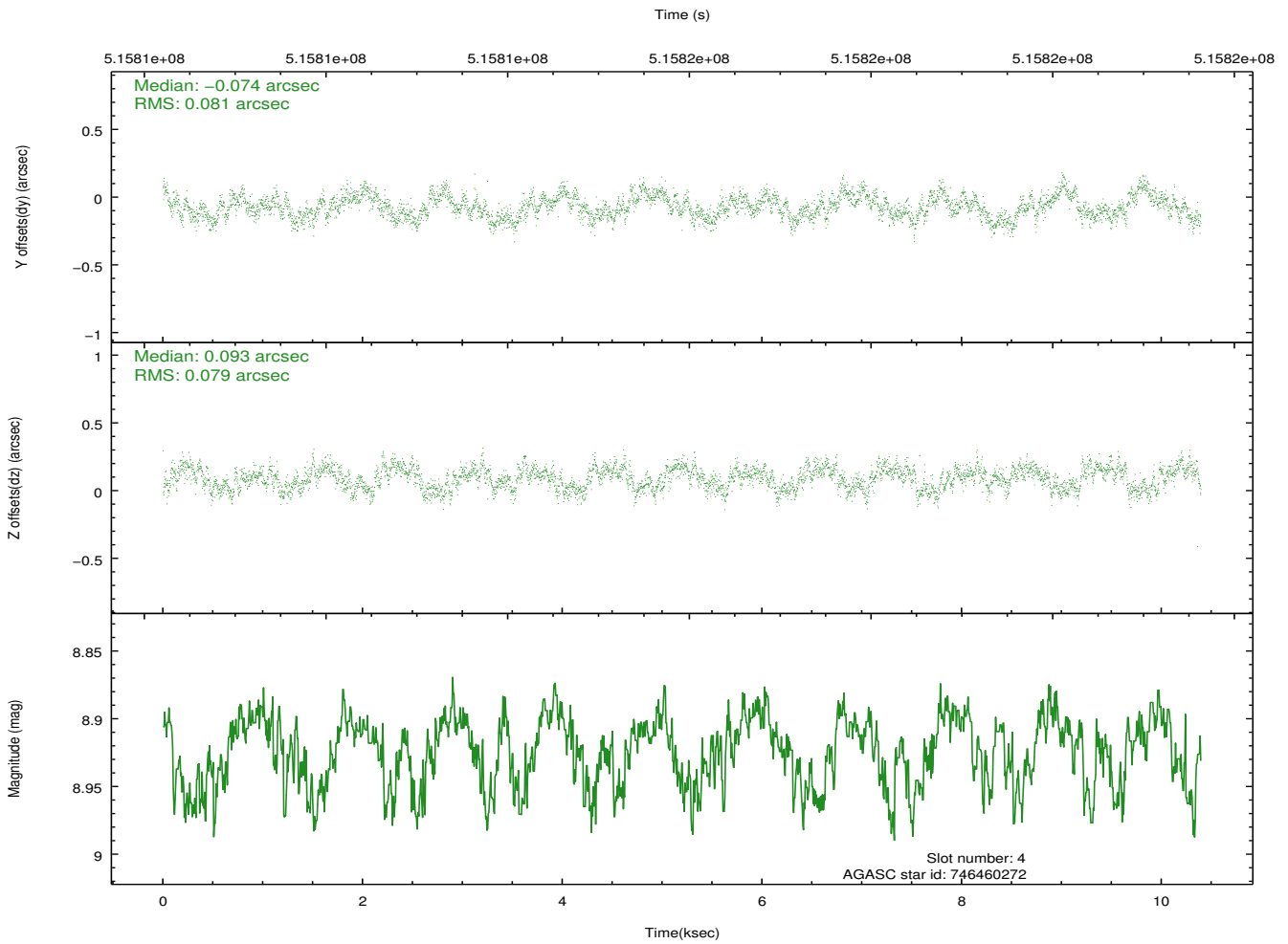
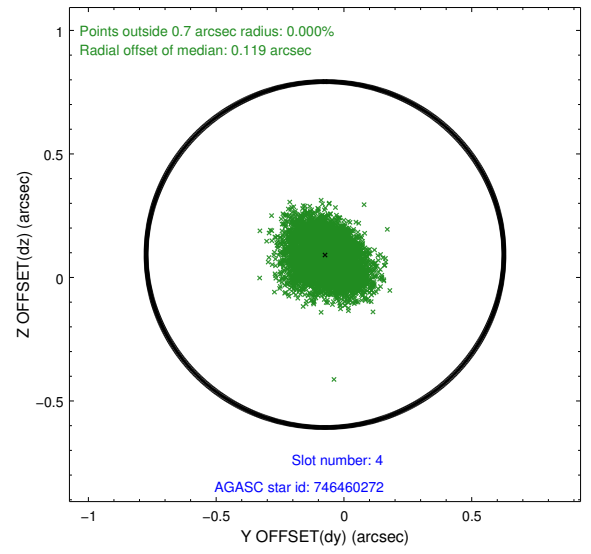
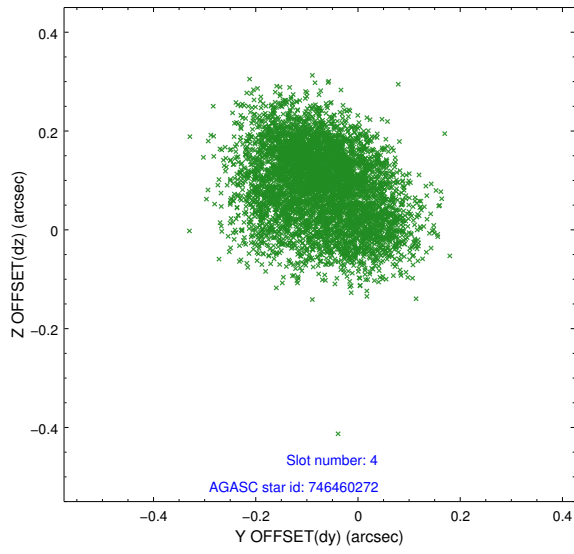
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2.4 Star Slots

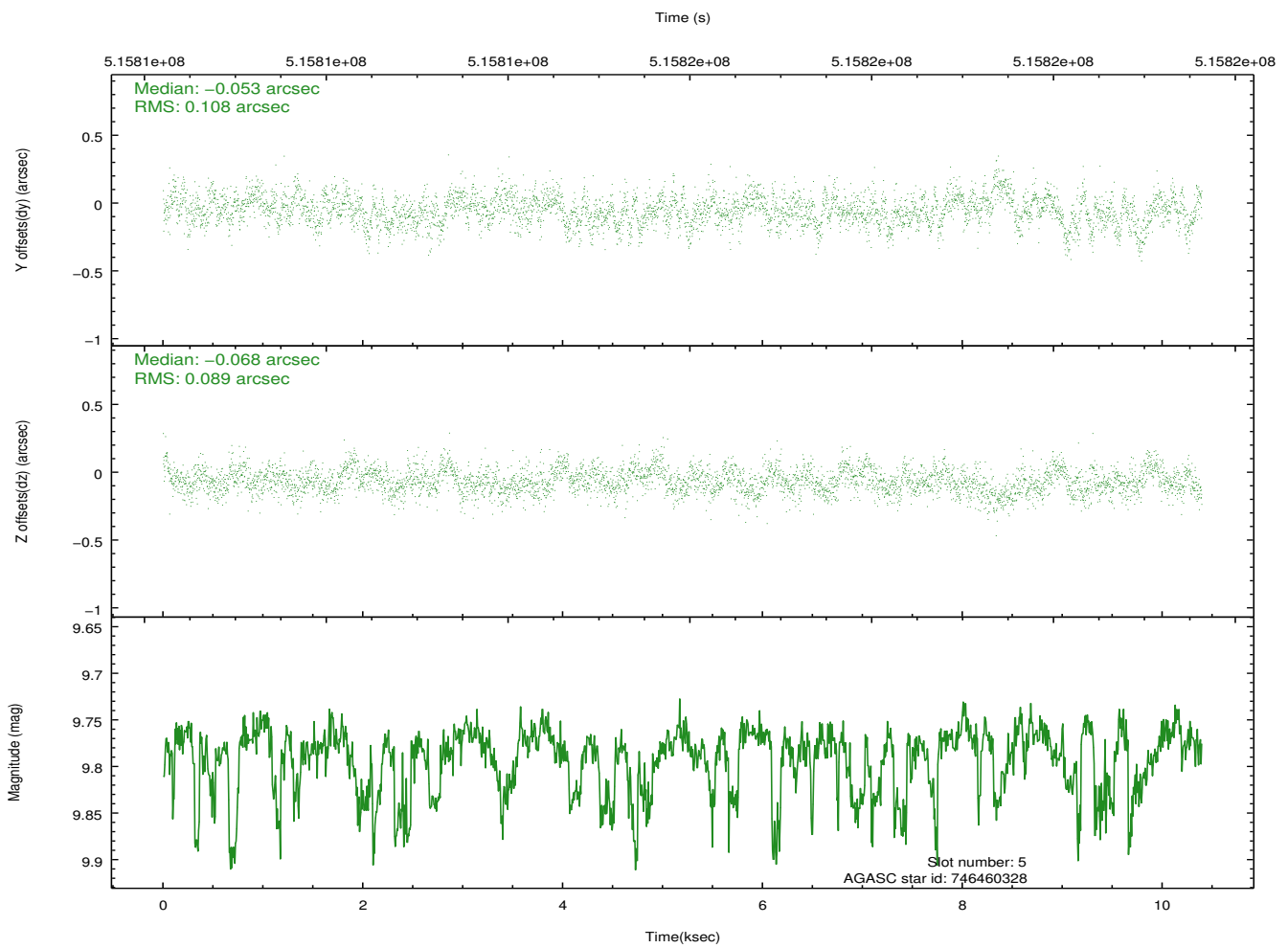
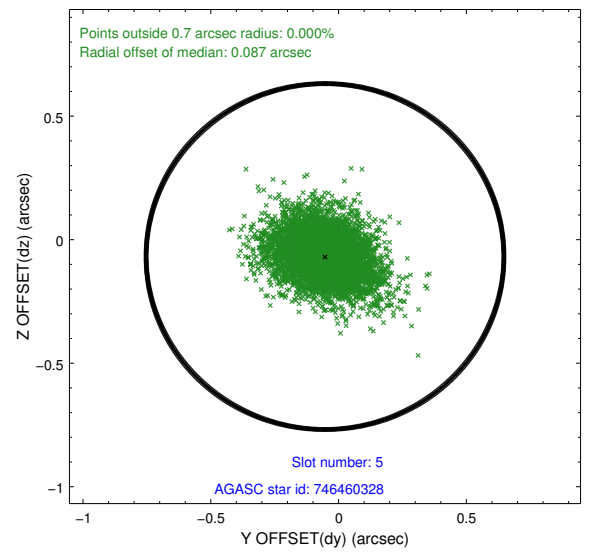
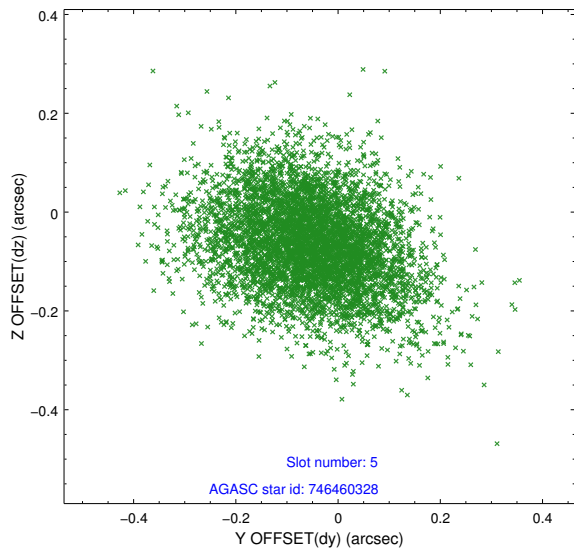
2.4.1 Slot 3



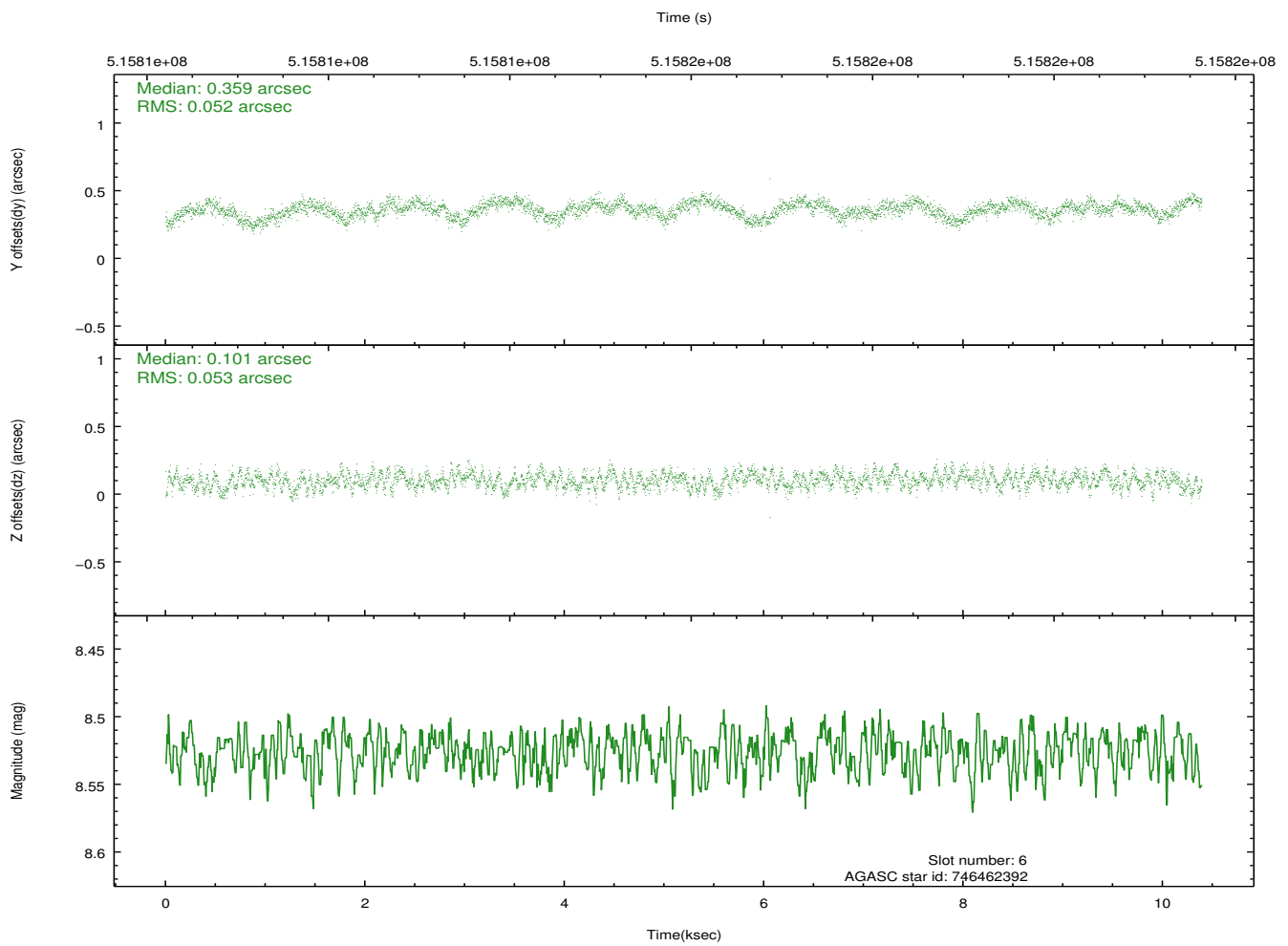
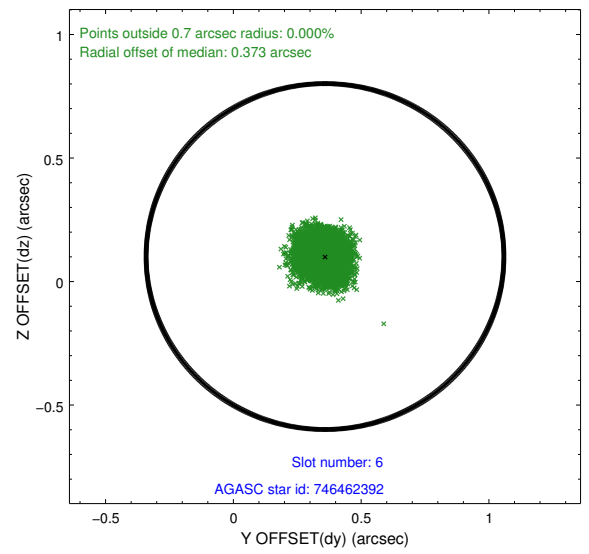
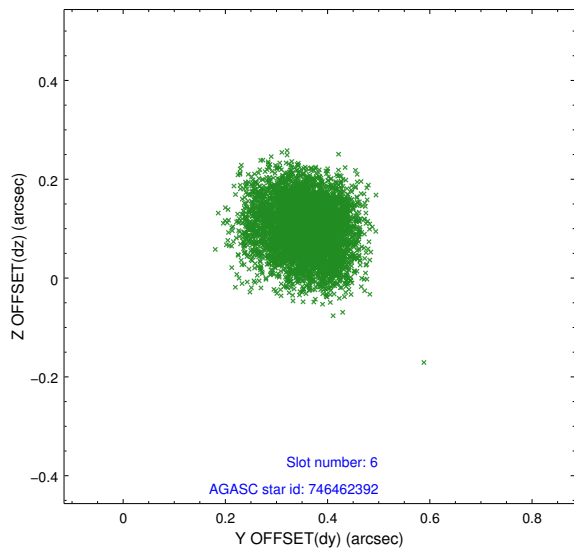
2.4.2 Slot 4



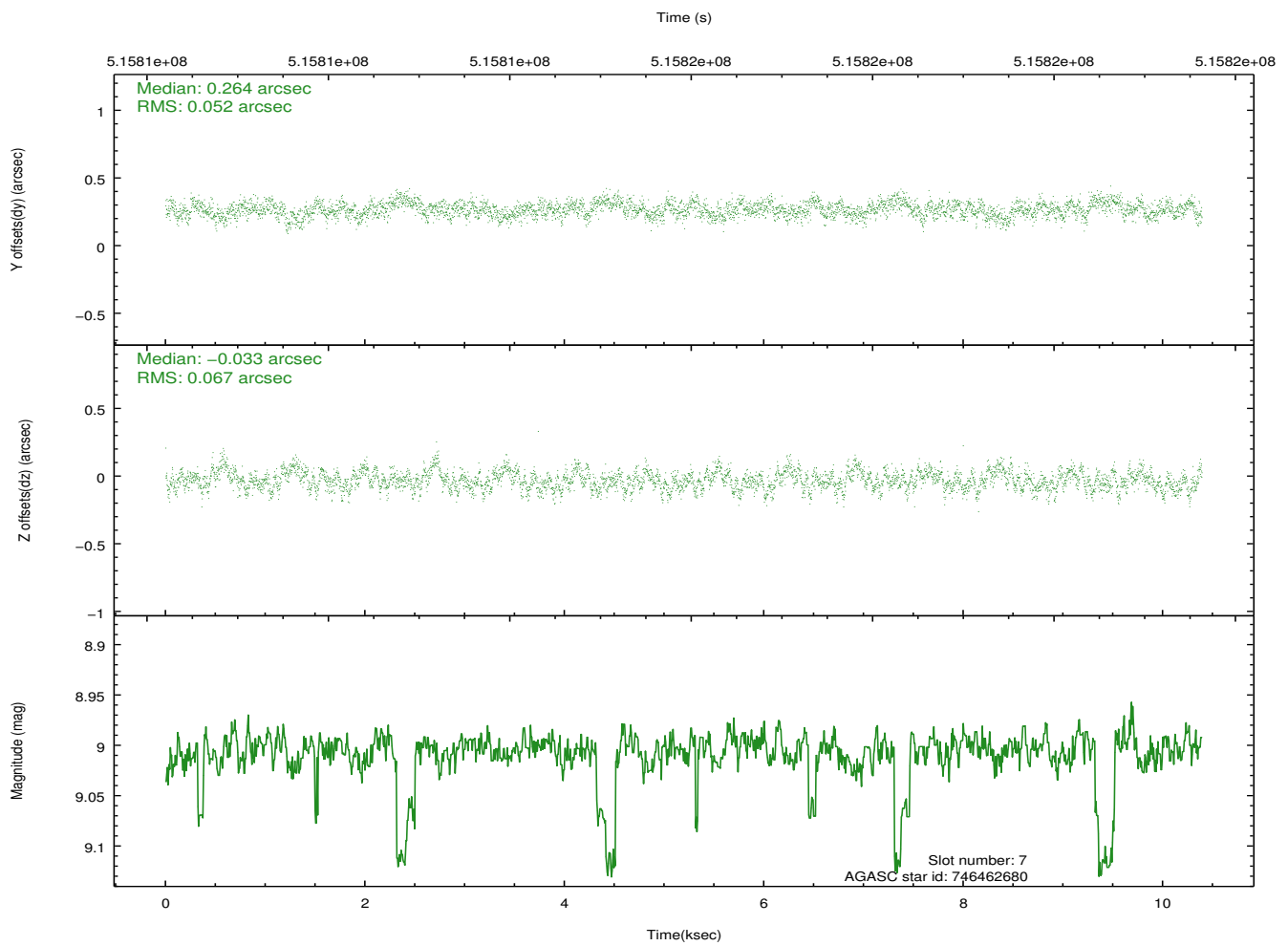
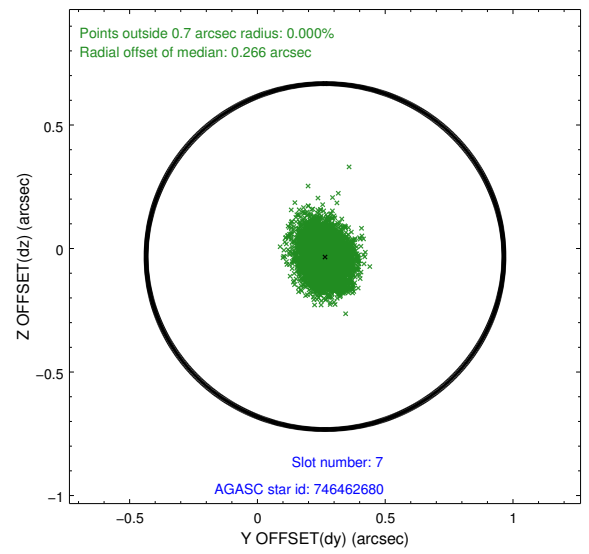
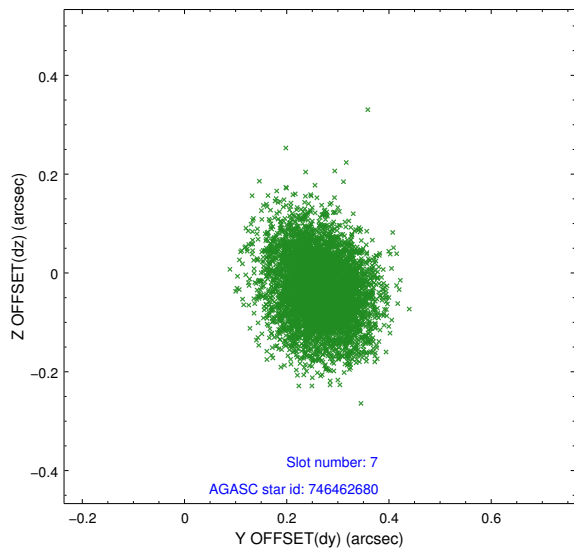
2.4.3 Slot 5



2.4.4 Slot 6

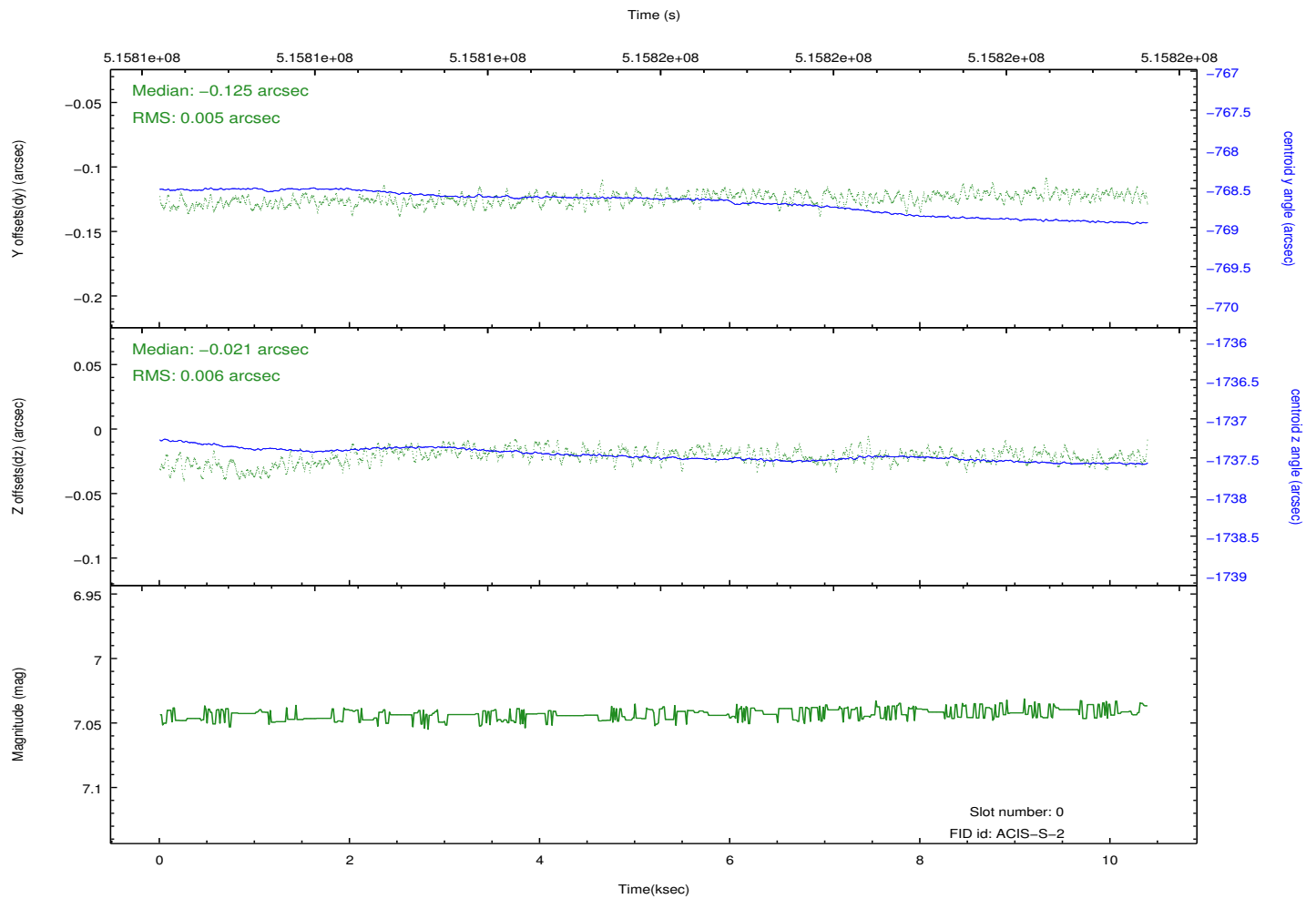
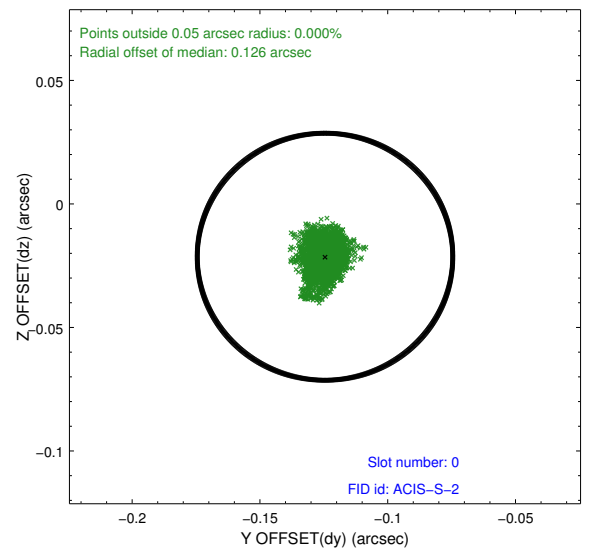
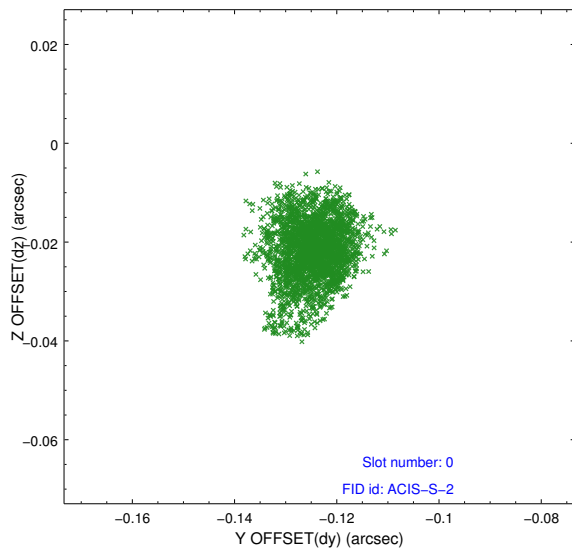


2.4.5 Slot 7

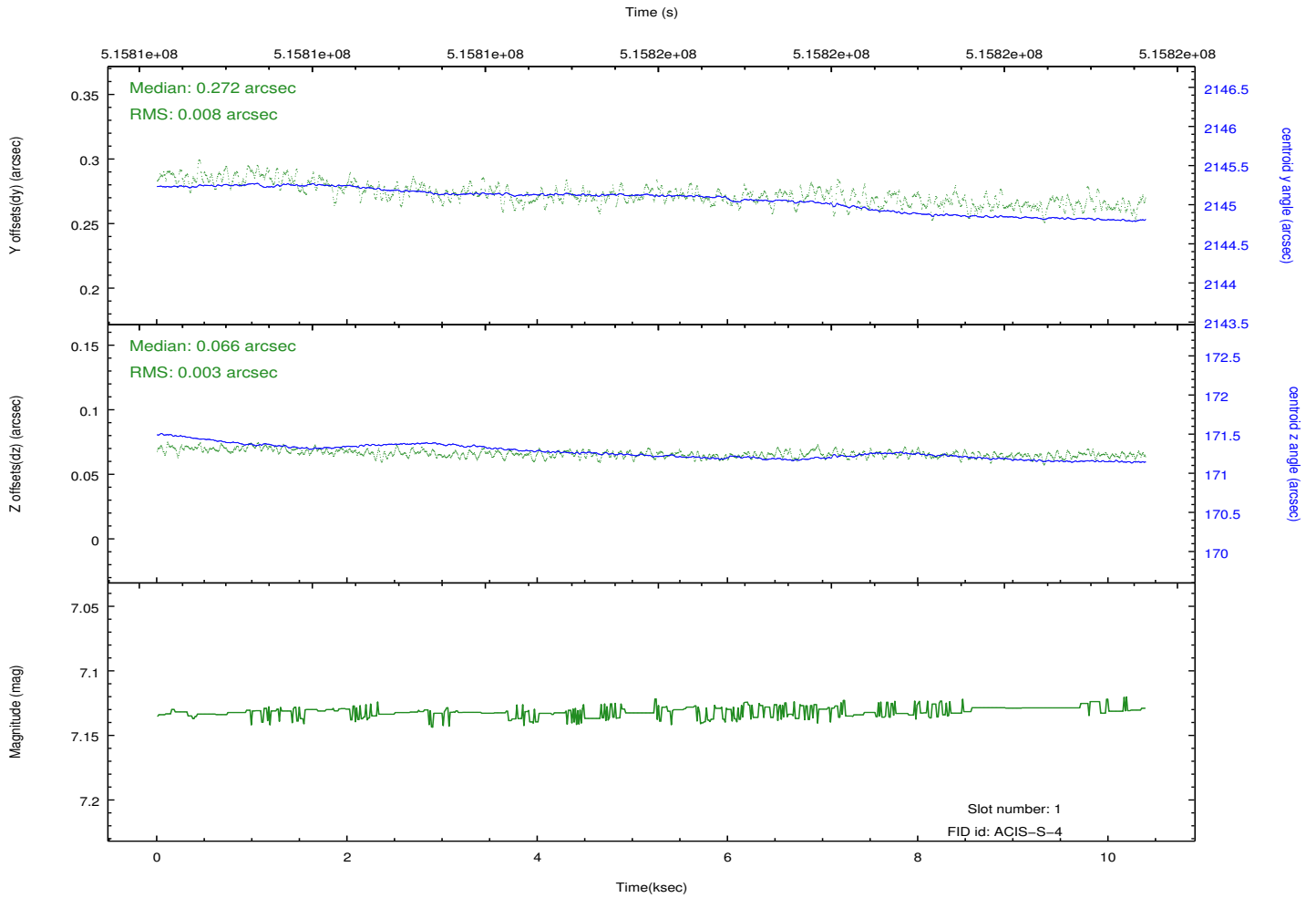
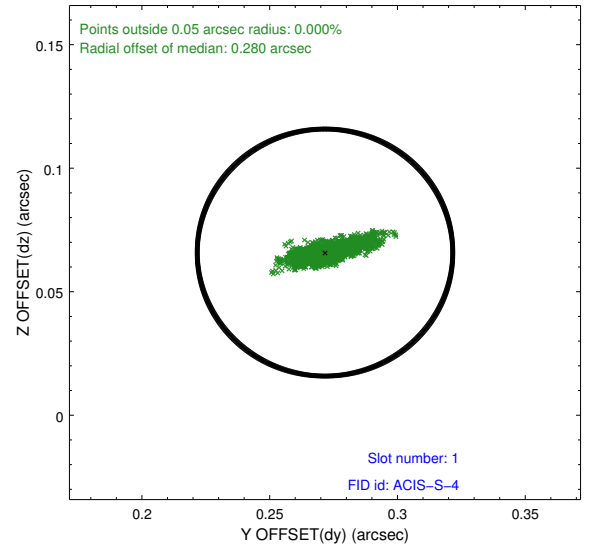
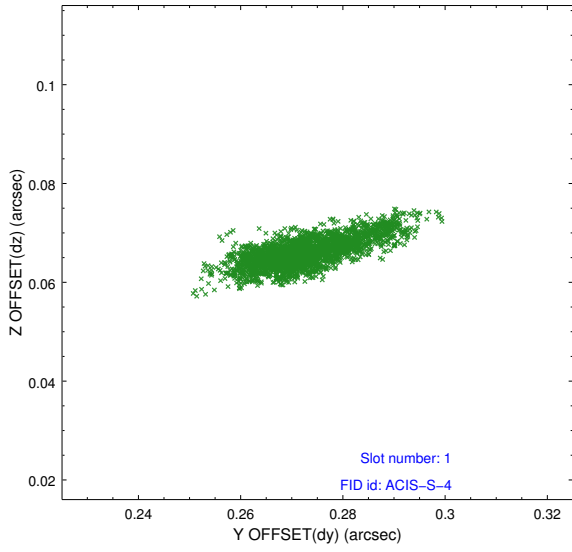


2.5 FID Slots

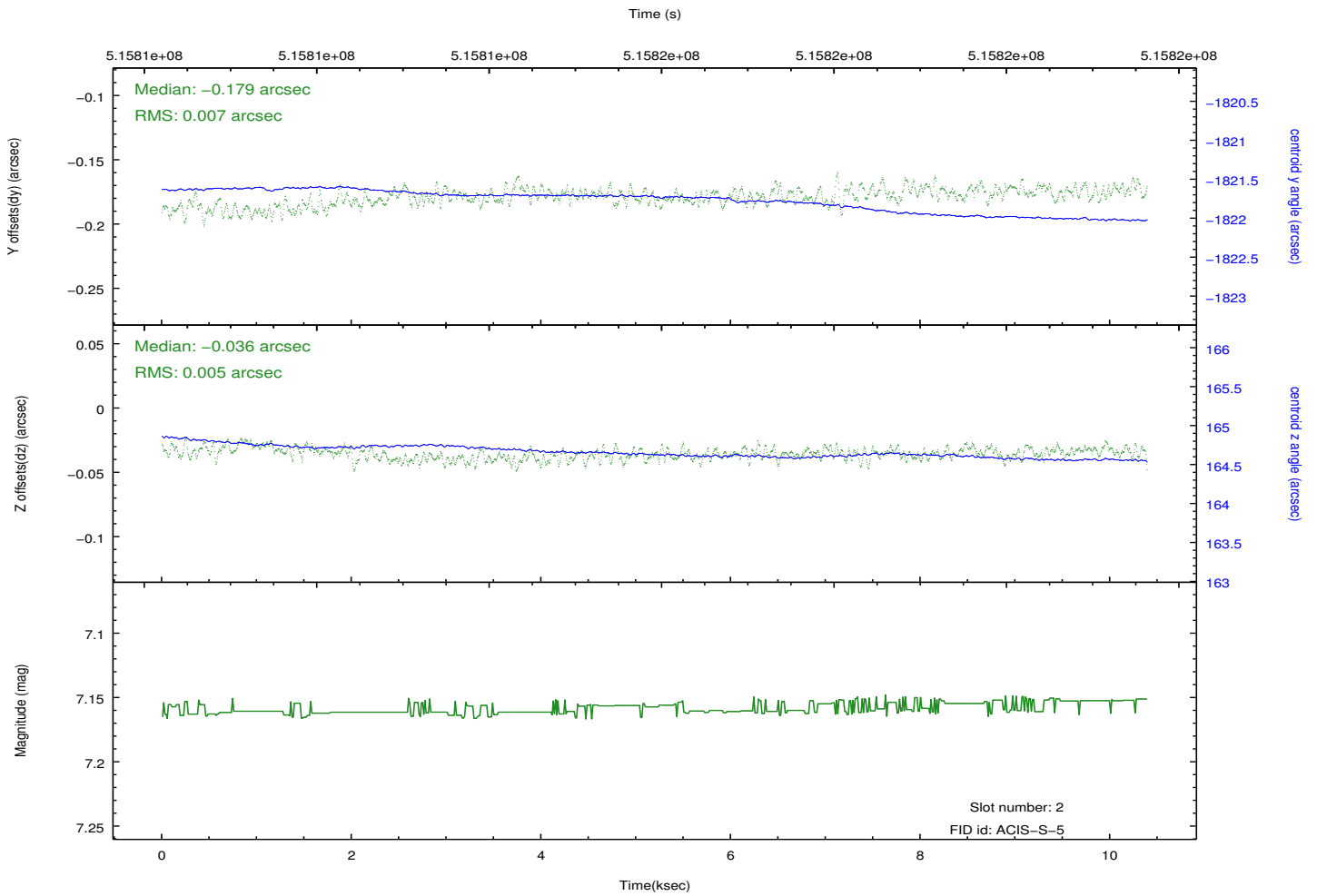
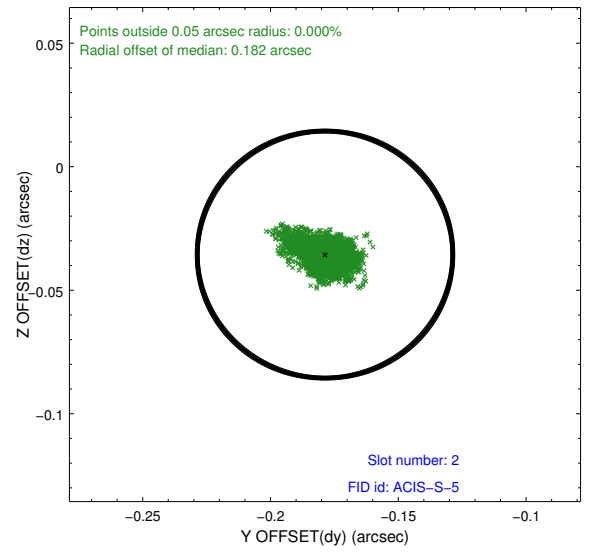
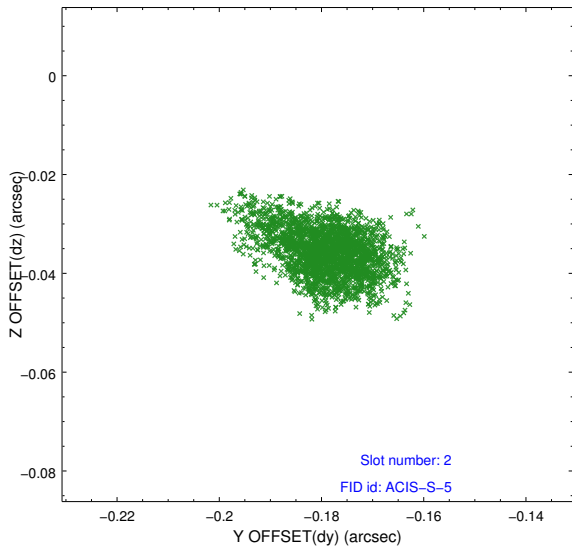
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.06071952486

A.2 Comments

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.