

V&V Reference Report

L2 ASCDS Version : 10.7

Observation 21977 - L2 Version 1
Chandra X-Ray Center

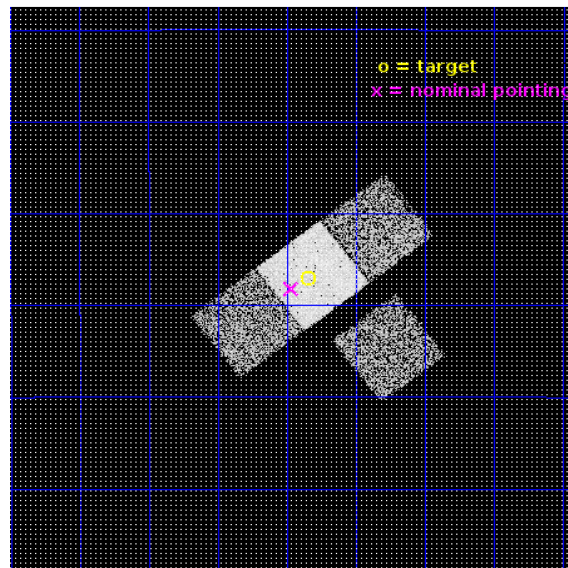
L2 Processing Date : Dec 6 2018

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1 Front

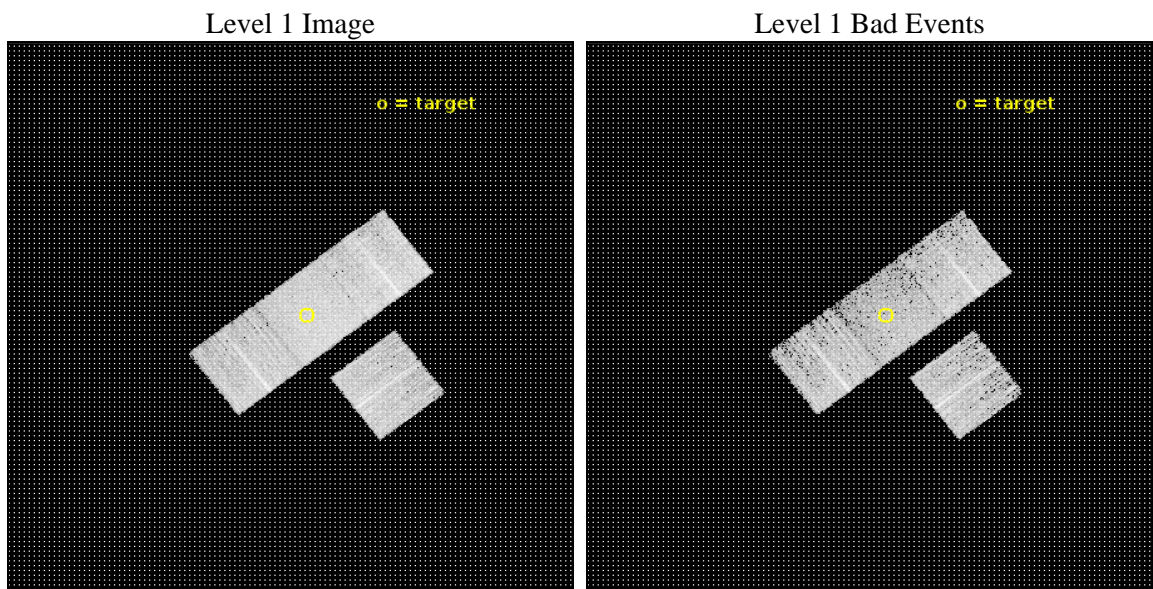
seq_num	100169	Sequence number
obs_id	21977	Observation id
title	Close encounter with comet 46P/Wirtanen: X-ray tomography of the coma	Proposal title
observer	Dennis Bodewits	Principal investigator
object	46P/Wirtanen	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	40.960249	Observer's specified target RA [deg]
dec_targ	-15.451591	Observer's specified target Dec [deg]
ra_nom	40.991566507555	Nominal RA [deg]
dec_nom	-15.470260692203	Nominal Dec [deg]
roll_nom	322.53909676126	Nominal Roll [deg]
revision	1	Processing version of data
ontime	5177.0000399351	Sum of GTIs [s]
livetime	5109.3587231614	Livetime [s]
ontime3	5177.0000399351	Sum of GTIs [s]
ontime6	5177.0000399351	Sum of GTIs [s]
ontime7	5177.0000399351	Sum of GTIs [s]
ontime8	5177.0000399351	Sum of GTIs [s]
l2events	32752	Number of level 2 events



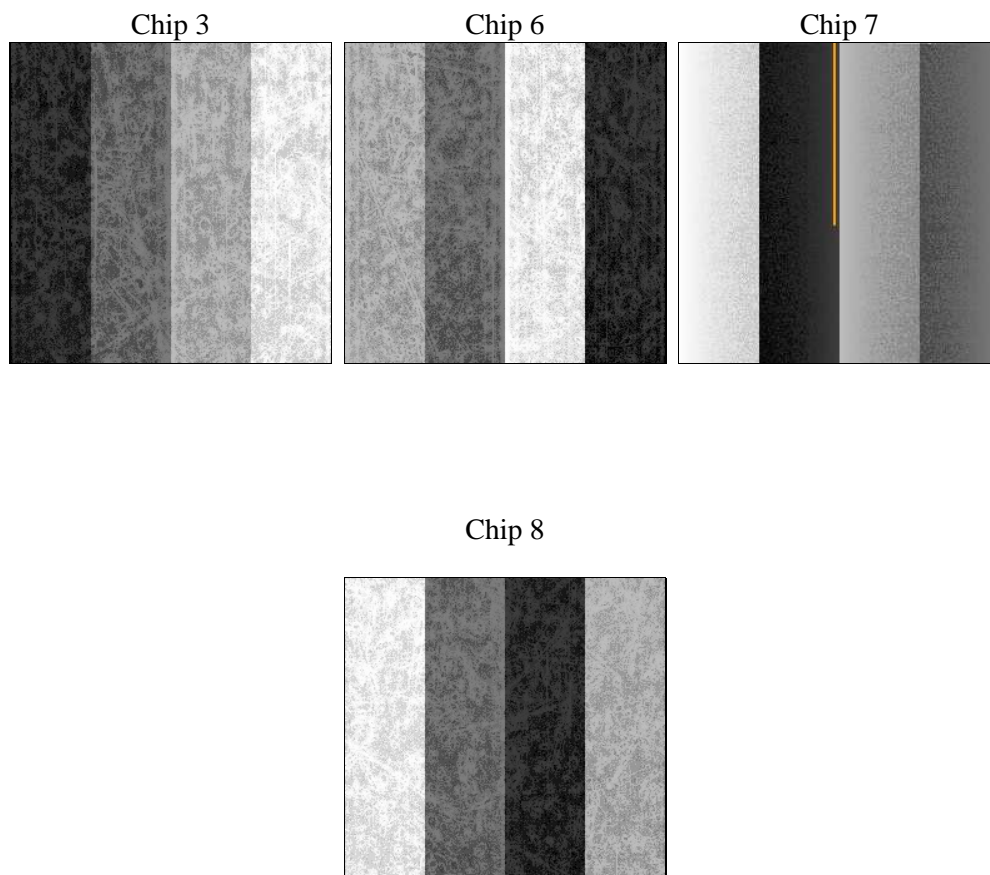
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.7	Processing system revision	ontime	5177.0000399351	Sum of GTIs [s]
caldsver	4.8.0.1	 	ontime3	5177.0000399351	Sum of GTIs [s]
date	2018-12-07T03:21:27	Date and time of file creation	ontime6	5177.0000399351	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	5177.0000399351	Sum of GTIs [s]
			ontime8	5177.0000399351	Sum of GTIs [s]
			l1events	197088	Number of level 1 events

2.1.4 Events

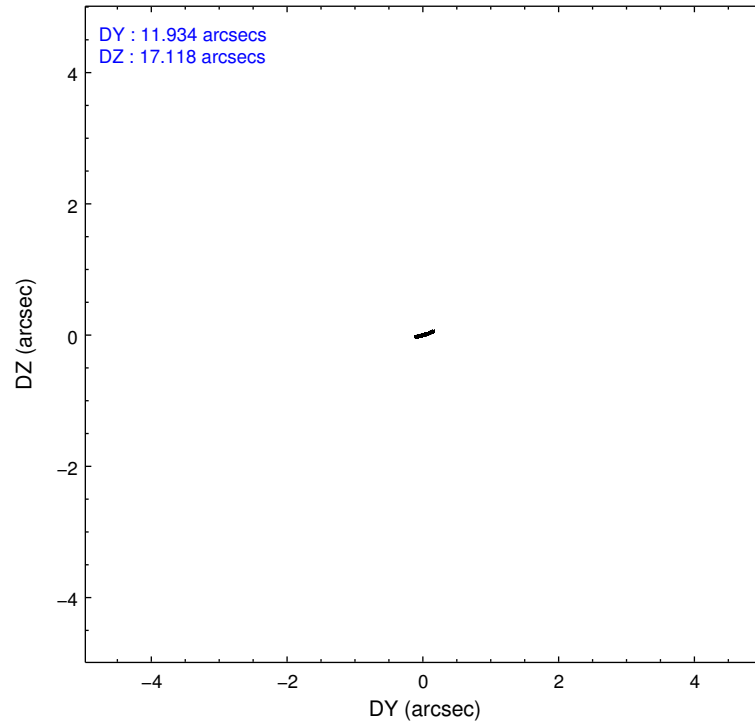
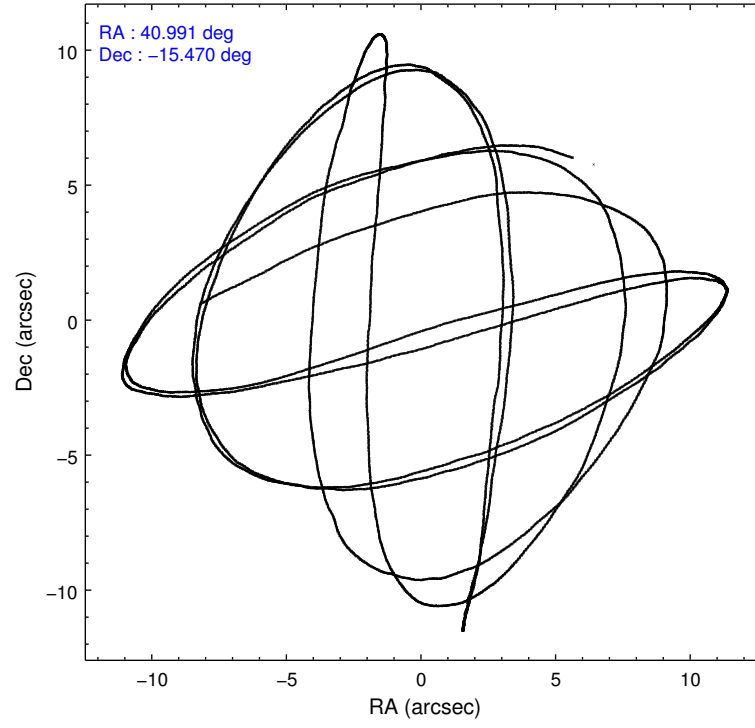
	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	43803	43469	53719	56097
rejected events	39874	39072	32037	43577
rejected %	91%	89%	59%	77%

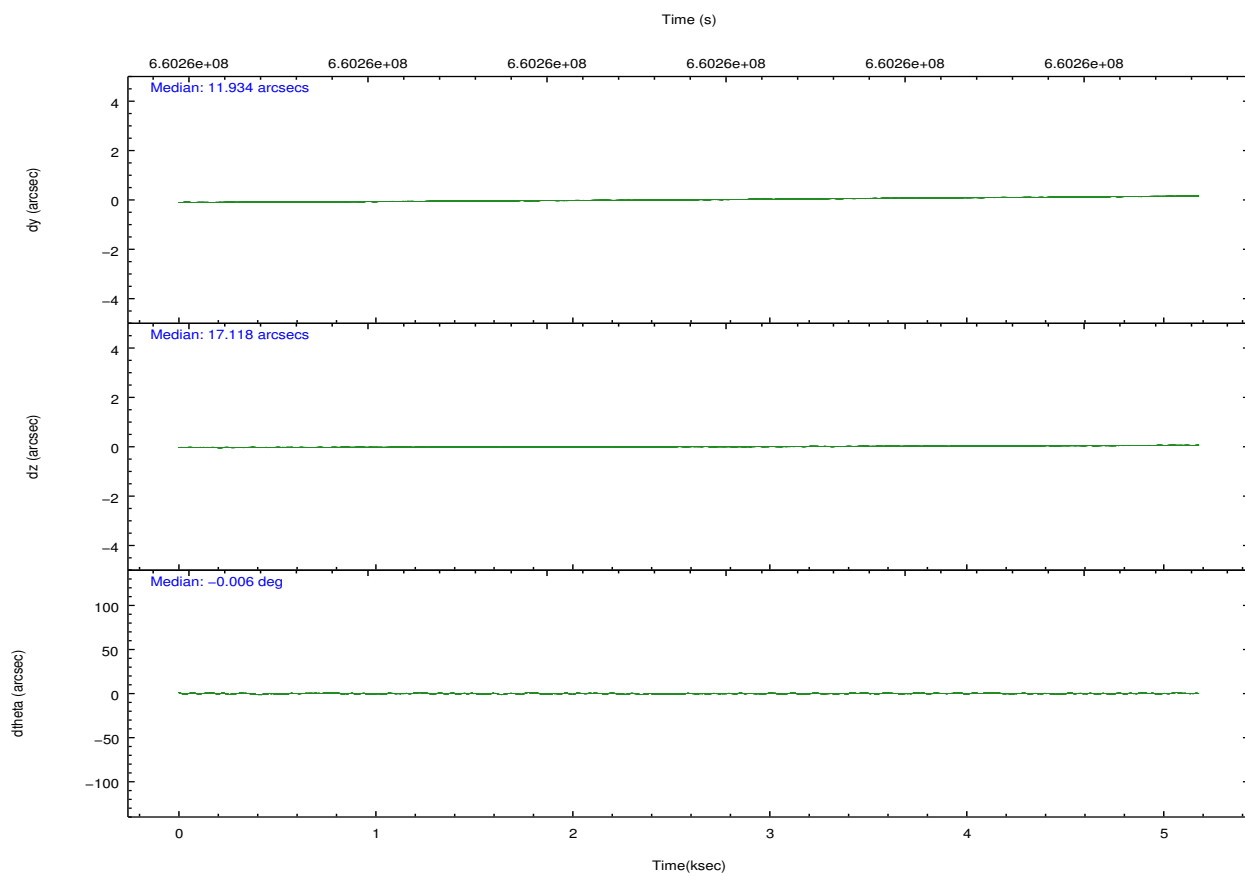
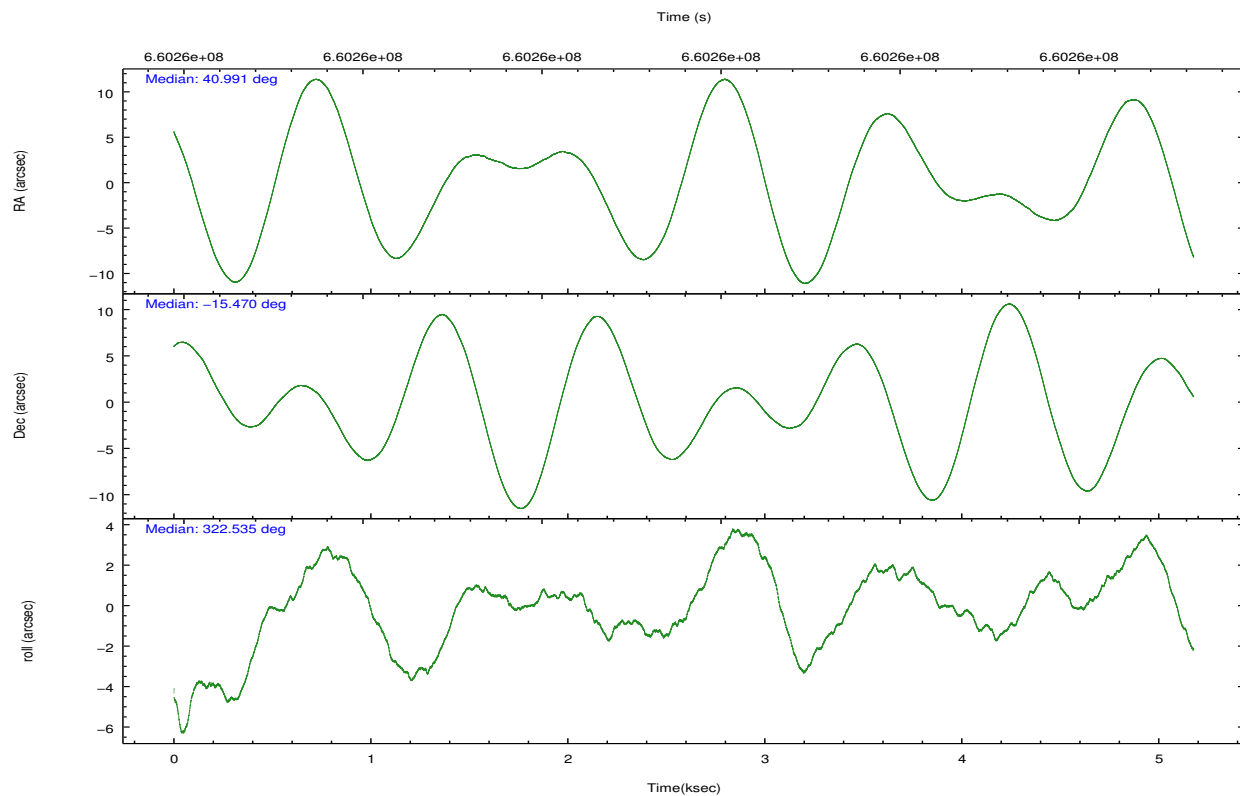
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1438	1241	2012	3587
	3%	2%	3%	6%
grade 1 events	26	19	73	31
	0%	0%	0%	0%
grade 2 events	919	1336	4812	3347
	2%	3%	8%	5%
grade 3 events	407	341	1850	1253
	0%	0%	3%	2%
grade 4 events	424	379	1767	1323
	0%	0%	3%	2%
grade 5 events	1785	1625	5193	2829
	4%	3%	9%	5%
grade 6 events	1002	1384	12688	3833
	2%	3%	23%	6%
grade 7 events	37802	37144	25324	39894
	86%	85%	47%	71%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-3678	ACIS-3678	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	40.963270	40.99156650755465	CCD I2 on	O2	N
[deg] Pointing Dec	-15.467127	-15.47026069220316	CCD I3 on	Y	Y
[deg] Pointing Roll	322.374917	322.5390967612574	CCD S0 on	N	N
[s] Window start time (MET)	660009669.184000	660009669.184000	CCD S1 on	O1	N
[s] Window stop time (MET)	660355269.184000	660355269.184000	CCD S2 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S5 on	N	N
[mm] SIM translation stage offset	0	0.01005778216563158	Number of optional ACIS chips dropped	2	2
[s] Observation start time (MET)	660259410.184000	660259034.25482	On-chip summing requested	N	N
Observation start date	2018-12-03T21:22:21	2018-12-03T21:17:14	Subarray requested	NONE	NONE
[s] Observation end time (MET)	660264410.184000	660264543.63015	Alternating exposures requested	N	N
Observation end date	2018-12-03T22:45:41	2018-12-03T22:49:03	[s] Primary exposure time	0.000000	3.1
Read mode	TIMED	TIMED			

2.3 Aspect



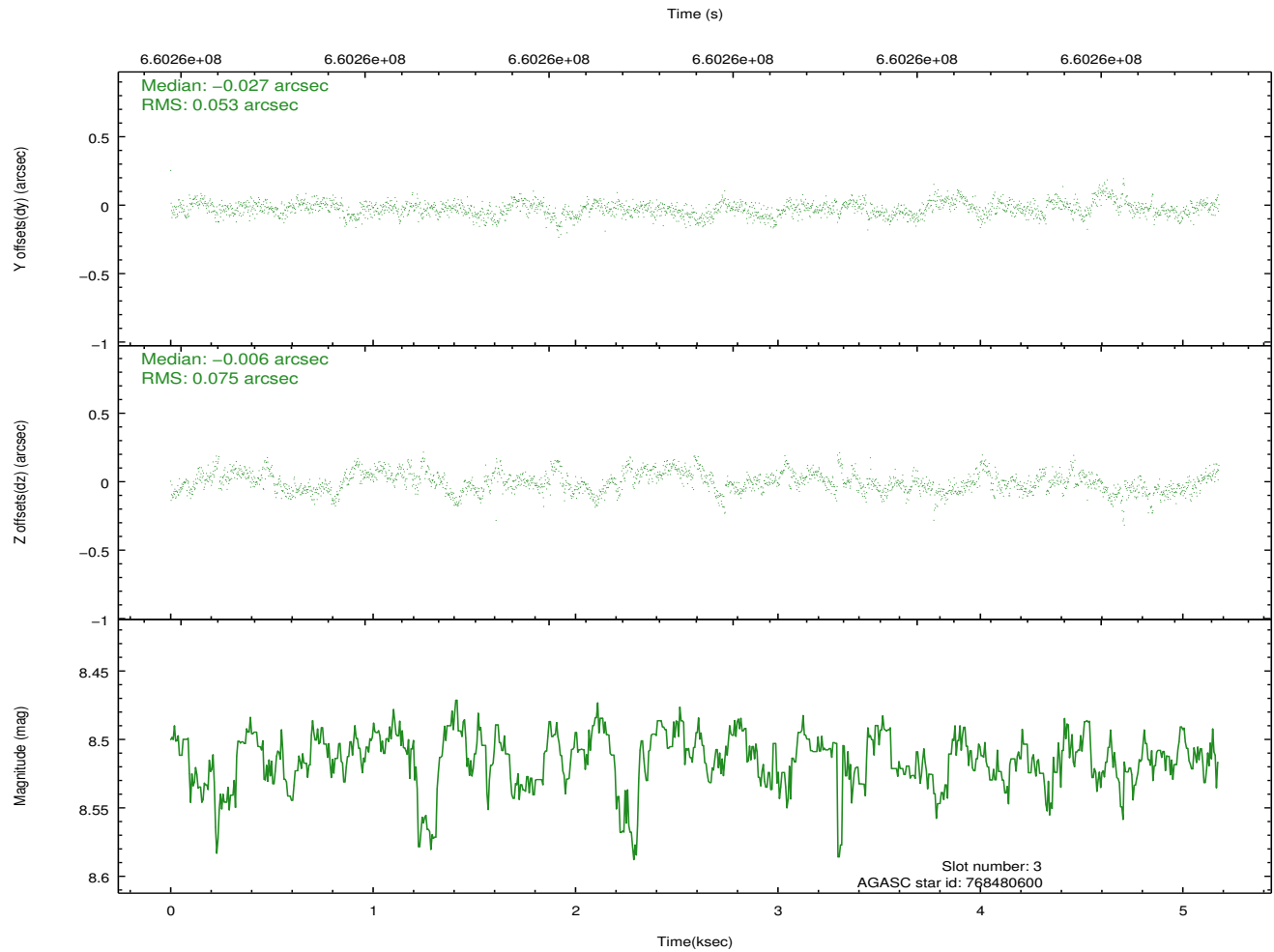
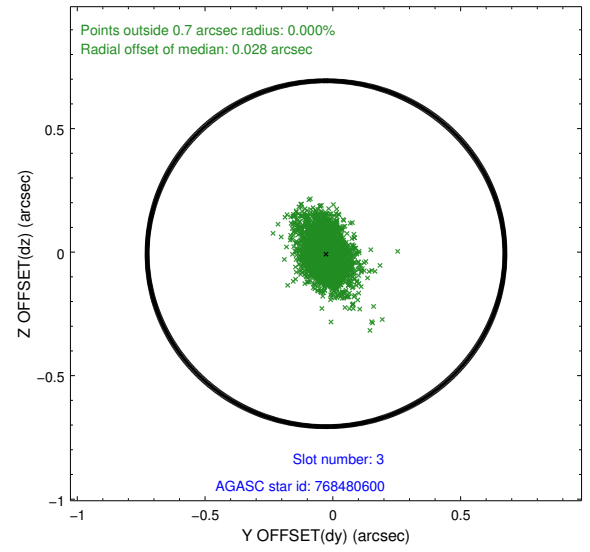
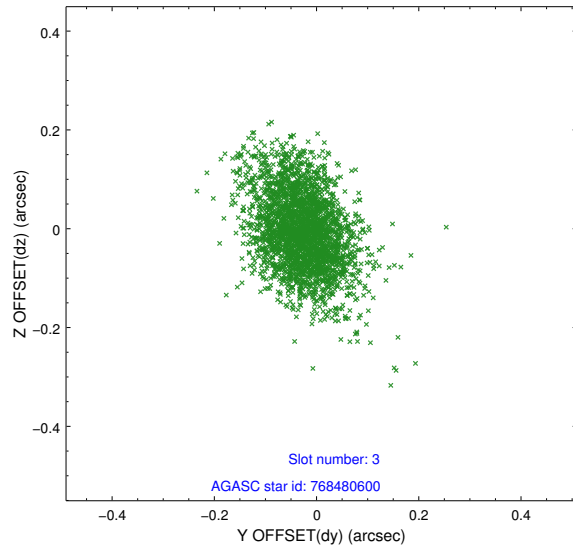


Slot Statistics

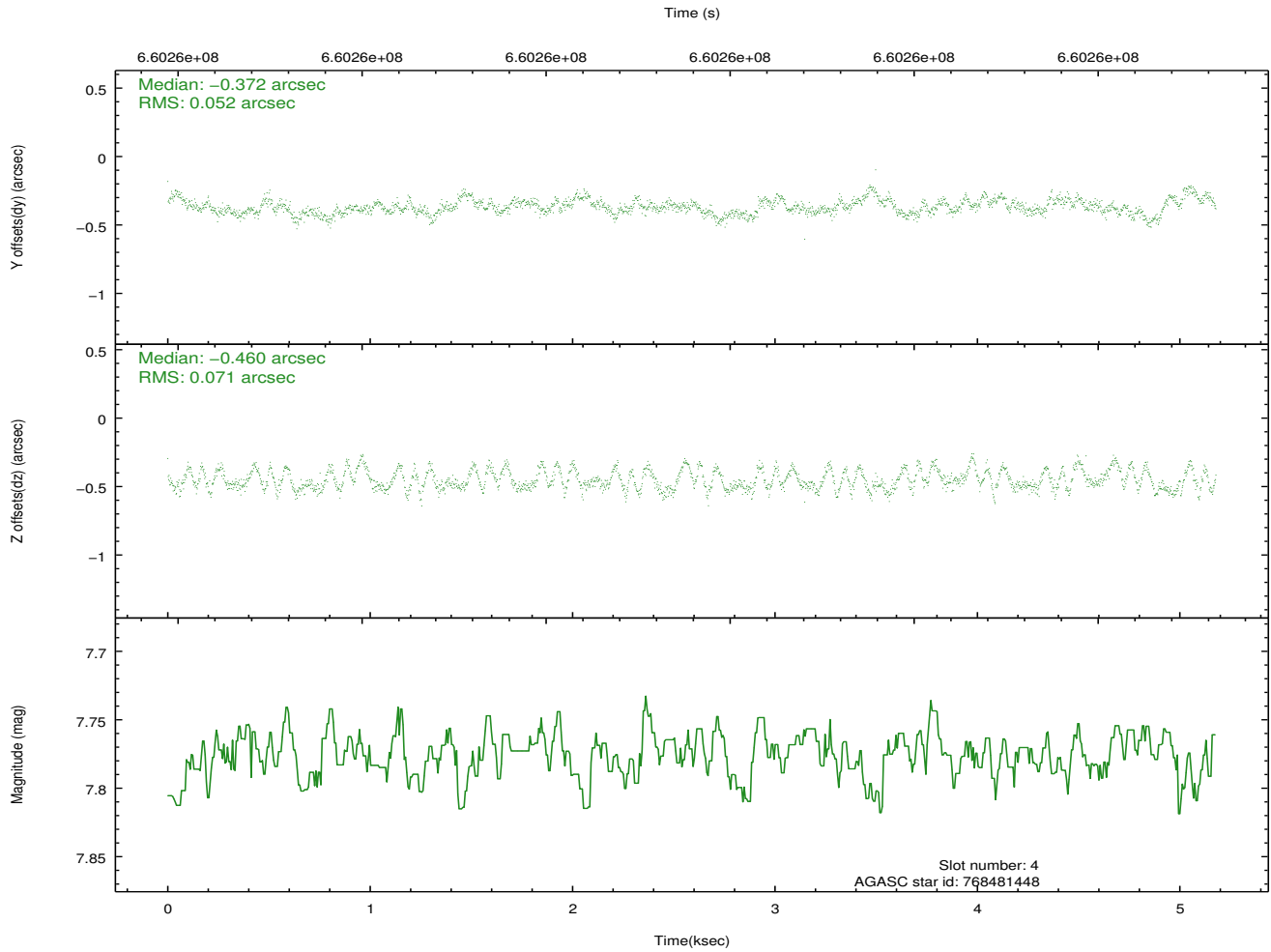
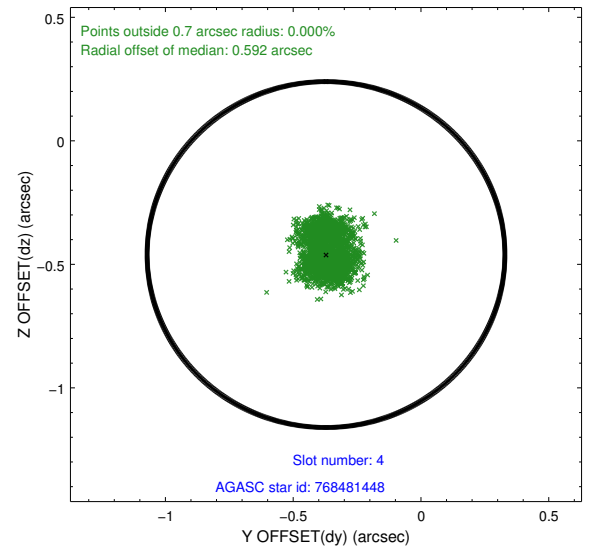
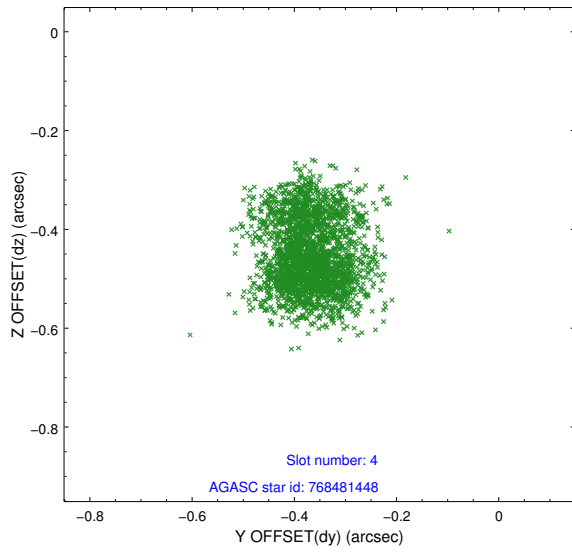
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.18	1263	1.000	-0.253	-0.195	0.008	0.013	0.000000	0.000000	-765.03	-1738
1	FID		ACIS-S-4	7.32	1263	1.000	0.694	0.174	0.006	0.010	0.000000	0.000000	2148.60	169
2	FID		ACIS-S-5	7.29	1263	1.000	-0.472	0.029	0.009	0.015	0.000000	0.000000	-1816.65	163
3	GUIDE	used	768480600	8.51	2527	1.000	-0.027	-0.006	0.094	0.166	40.992909	-15.785552	781.78	-845
4	GUIDE	used	768481448	7.78	2527	1.000	-0.372	-0.460	0.096	0.147	41.719335	-15.287038	1687.66	2111
5	GUIDE	used	768481512	9.50	2526	1.000	0.330	0.514	0.191	0.308	40.348930	-15.497051	-1618.66	-1388
6	GUIDE	used	768482072	7.56	2526	1.000	-0.121	-0.296	0.100	0.174	41.302106	-15.426646	842.68	832
7	GUIDE	used	768483392	7.73	2526	1.000	0.205	0.233	0.101	0.161	40.577879	-16.021405	164.58	-2394

2.4 Star Slots

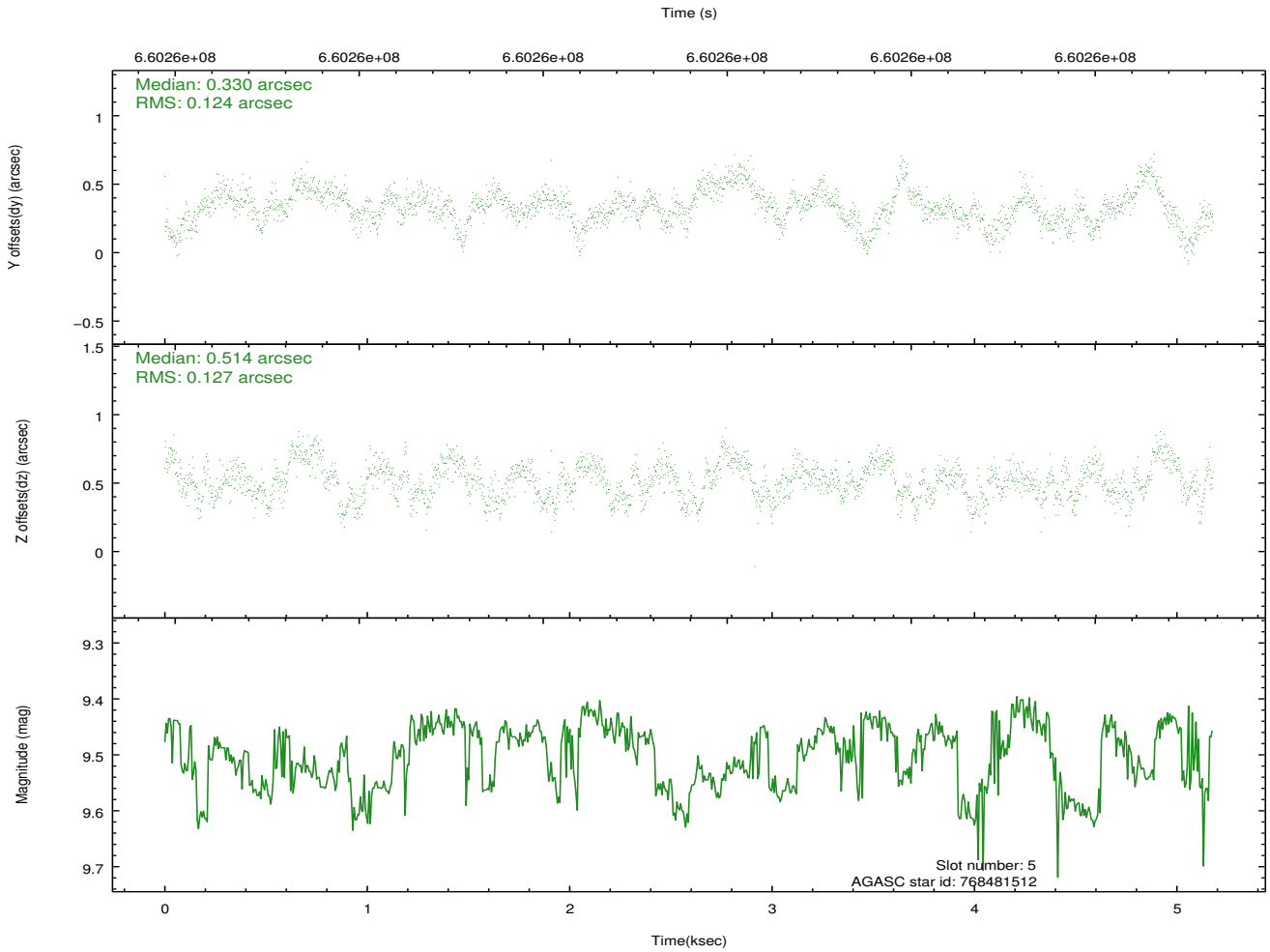
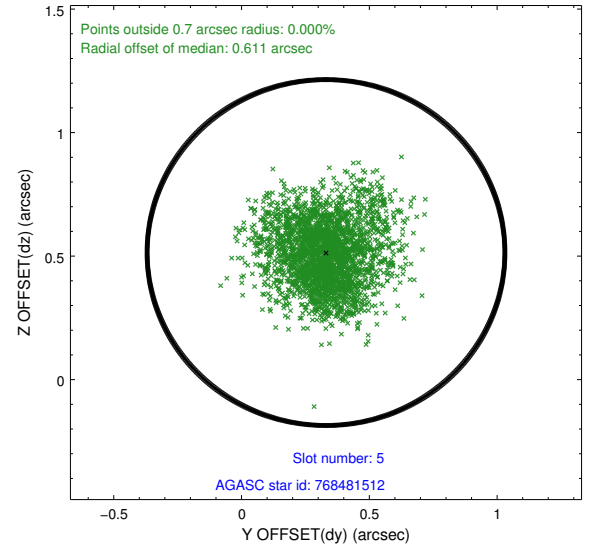
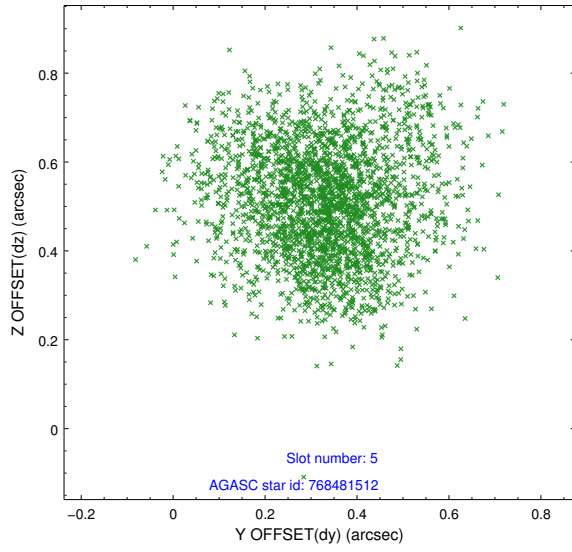
2.4.1 Slot 3



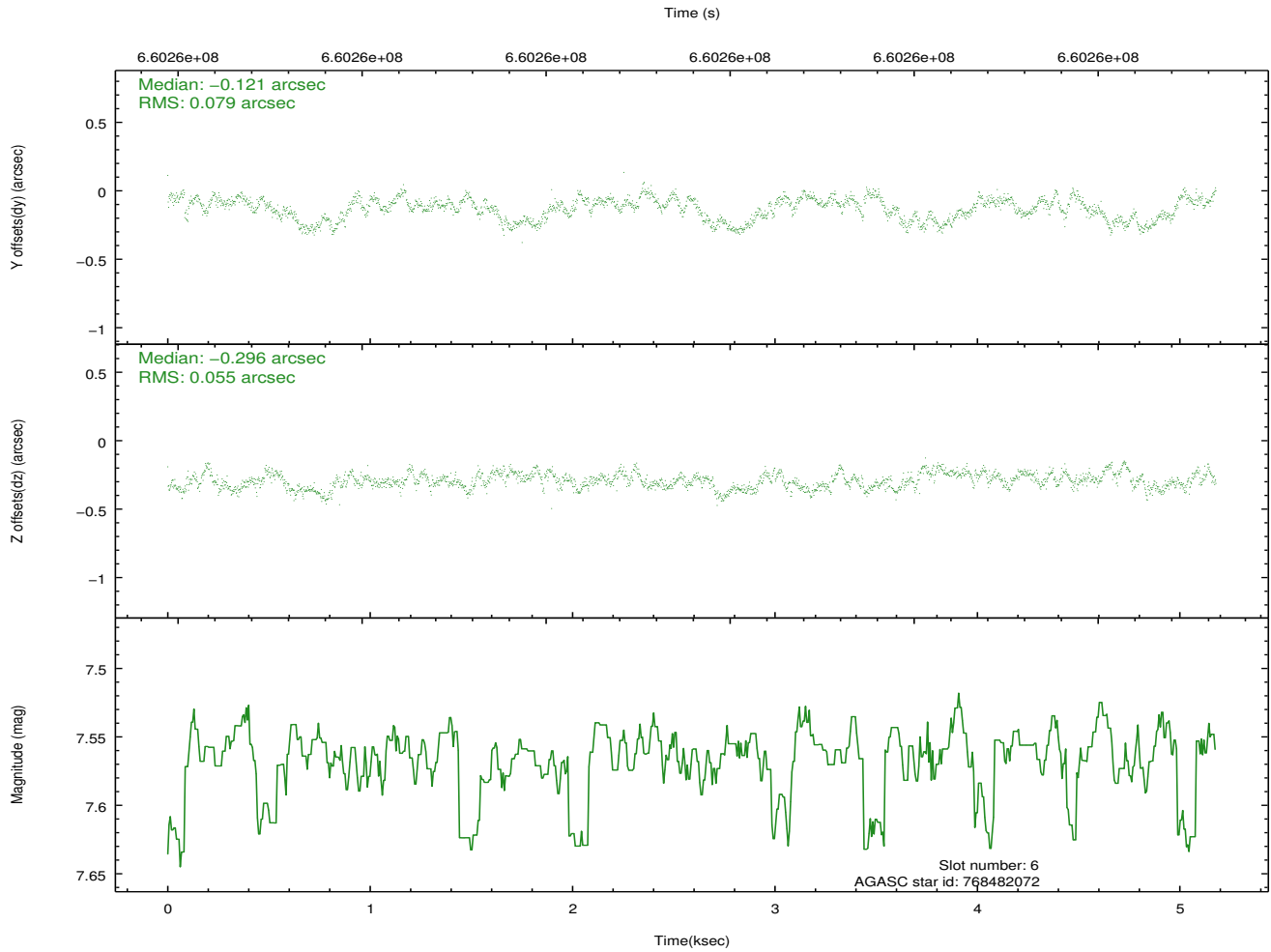
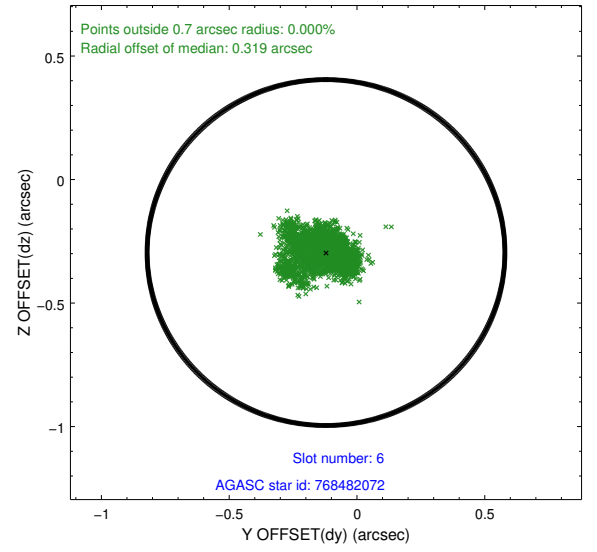
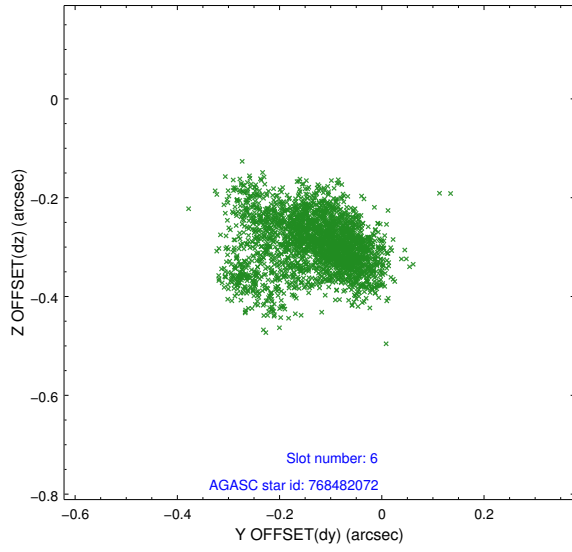
2.4.2 Slot 4



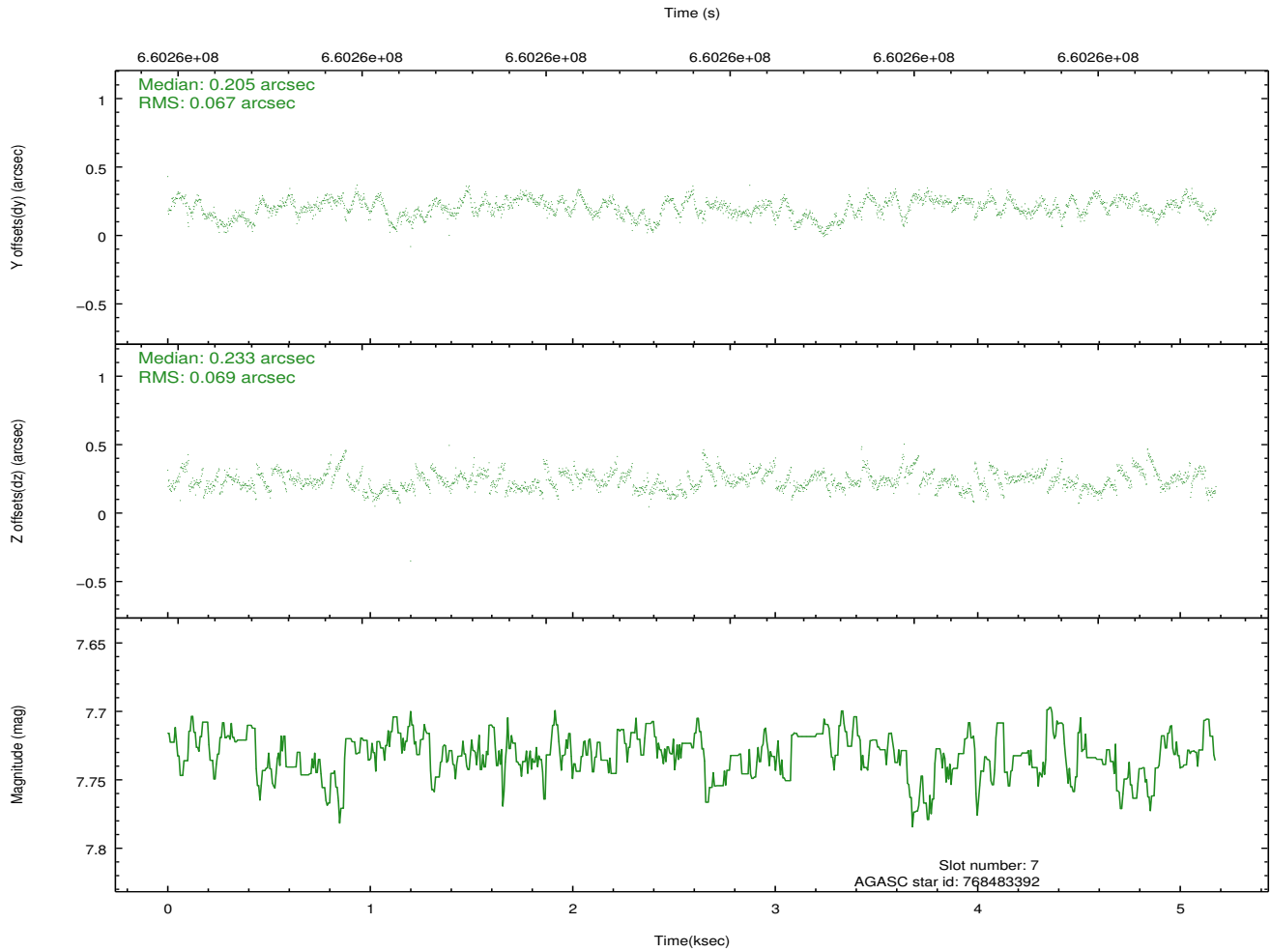
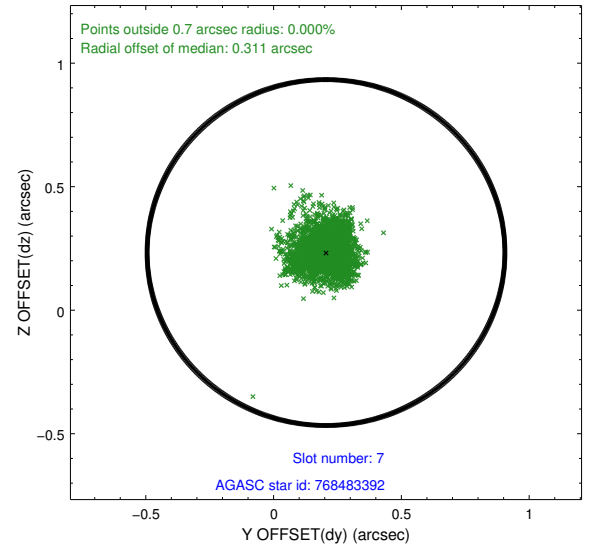
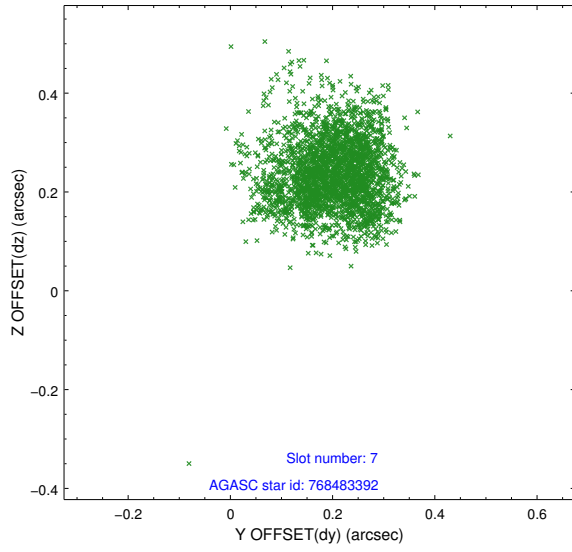
2.4.3 Slot 5



2.4.4 Slot 6

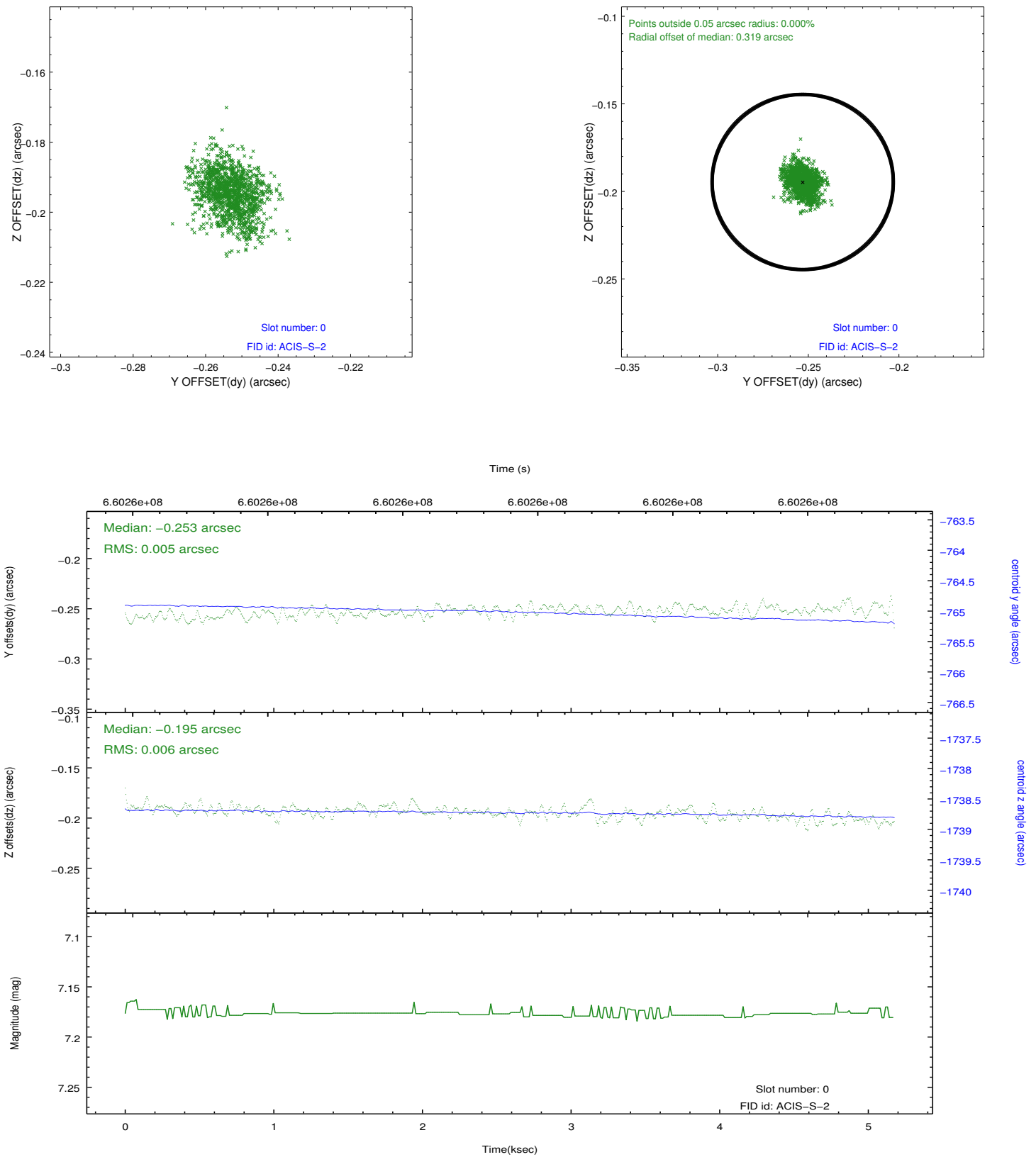


2.4.5 Slot 7

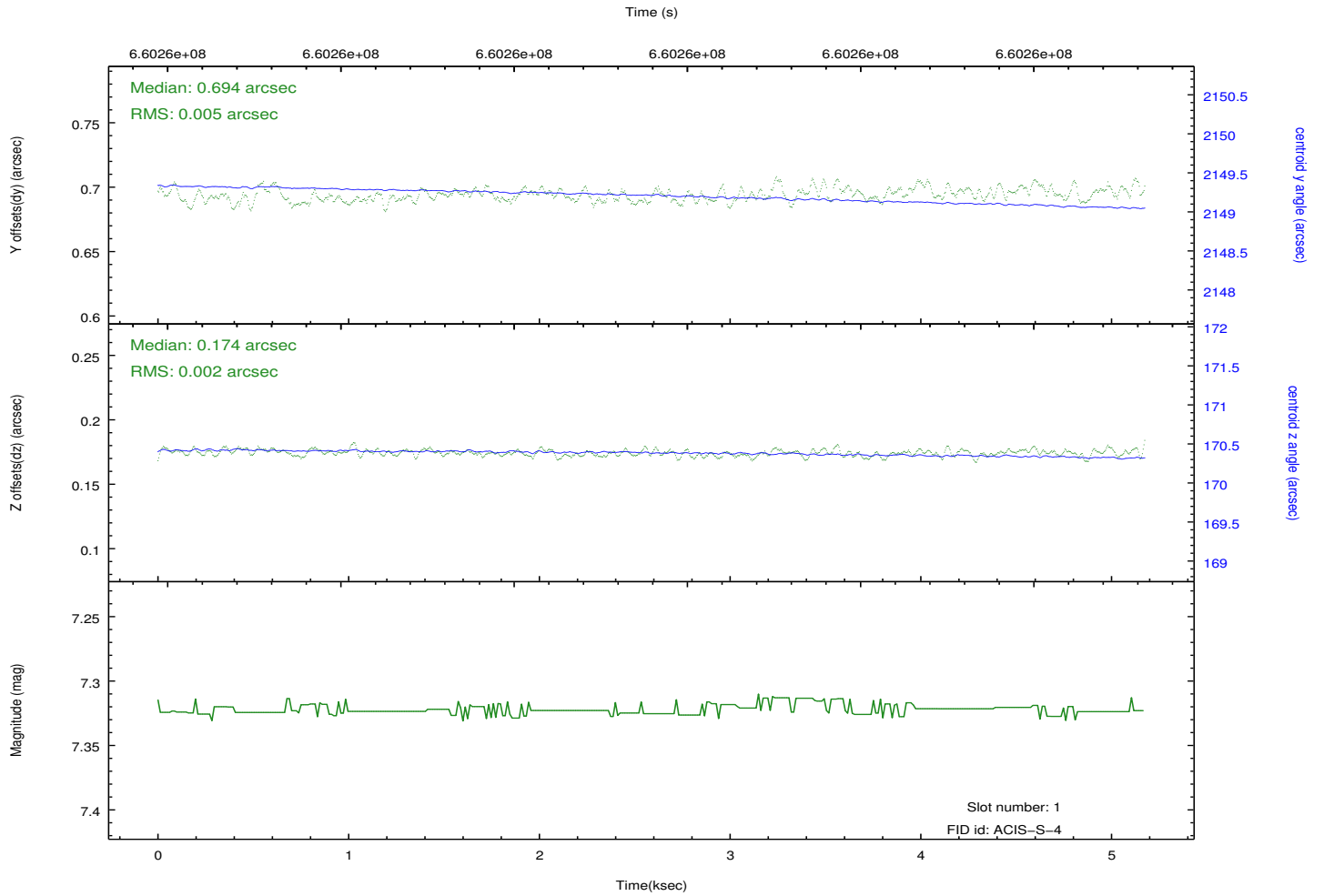
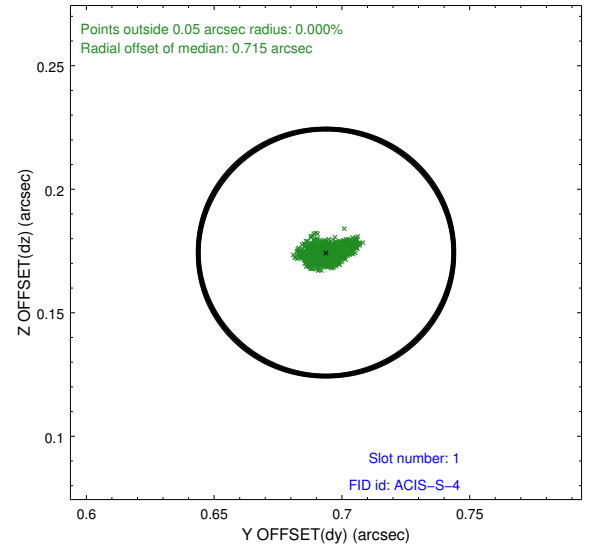
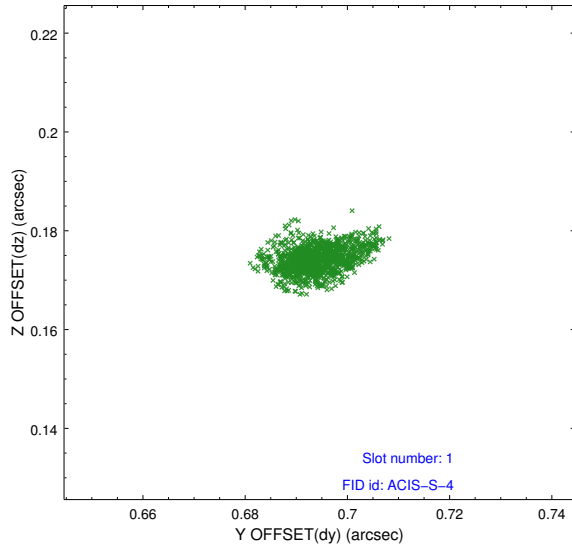


2.5 FID Slots

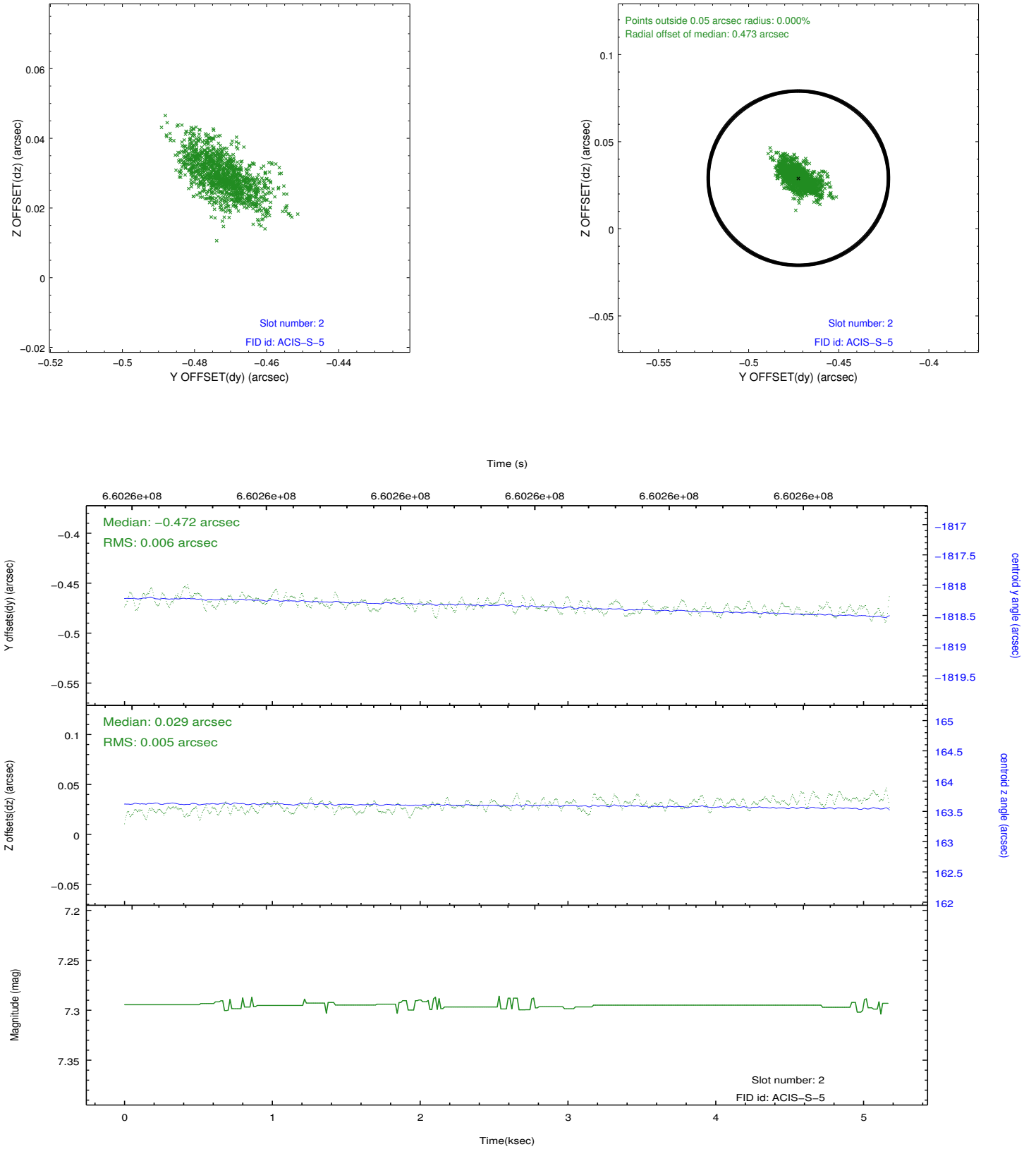
2.5.1 Slot 0



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)	2018.12.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.1770000399351

A.2 Comments

This is a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the target.