

V&V Reference Report

L2 ASCDS Version : 10.7

Observation 20275 - L2 Version 1
Chandra X-Ray Center

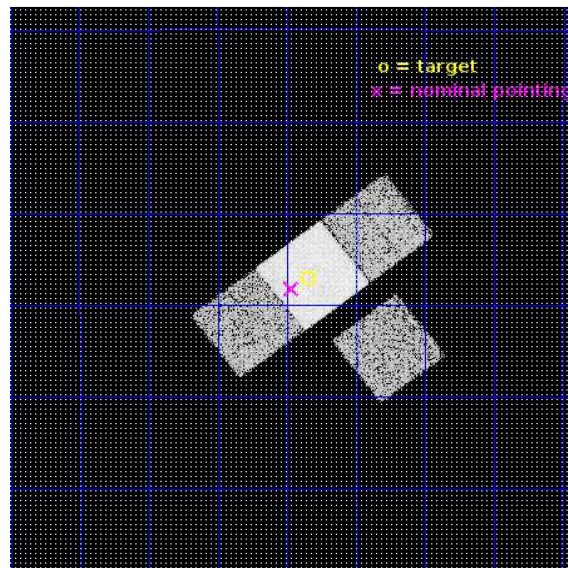
L2 Processing Date : Dec 6 2018

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	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

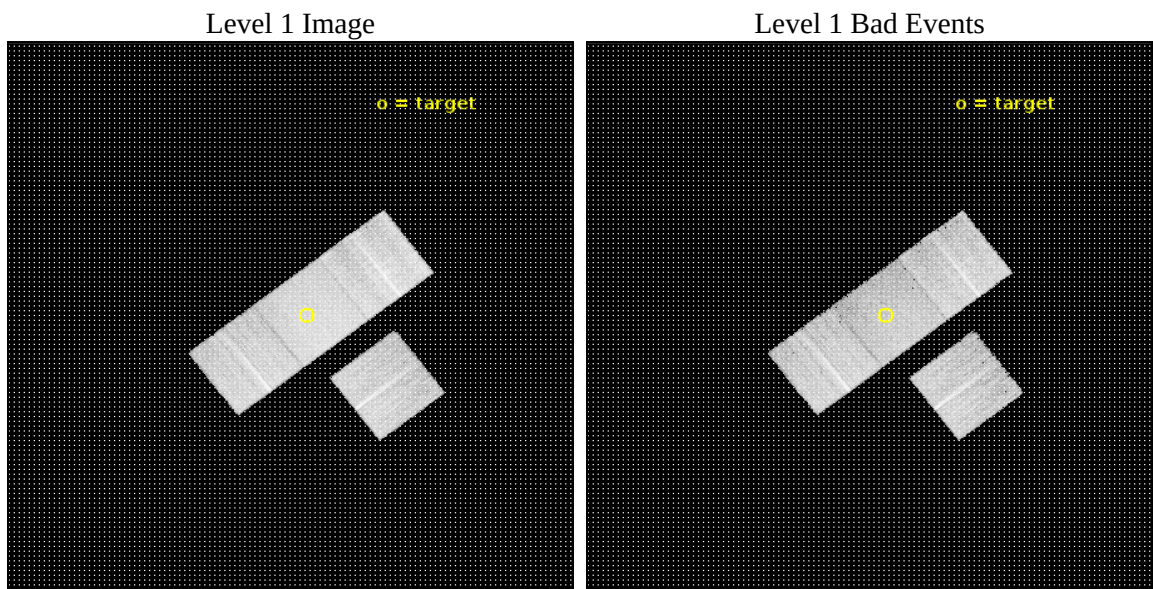
seq_num	100169	Sequence number
obs_id	20275	Observation id
title	Close encounter with comet 46P/Wirtanen: X-ray tomography of the coma	Proposal title
observer	Dennis Bodewits	Principal investigator
object	46P/Wirtanen	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	40.960254	Observer's specified target RA [deg]
dec_targ	-15.451592	Observer's specified target Dec [deg]
ra_nom	40.991477426387	Nominal RA [deg]
dec_nom	-15.470251317578	Nominal Dec [deg]
roll_nom	322.66076901093	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10068.294780374	Sum of GTIs [s]
livetime	9936.7450968972	Livetime [s]
ontime3	10068.212700367	Sum of GTIs [s]
ontime6	10065.112650156	Sum of GTIs [s]
ontime7	10068.294780374	Sum of GTIs [s]
ontime8	10065.03047955	Sum of GTIs [s]
l2events	64459	Number of level 2 events



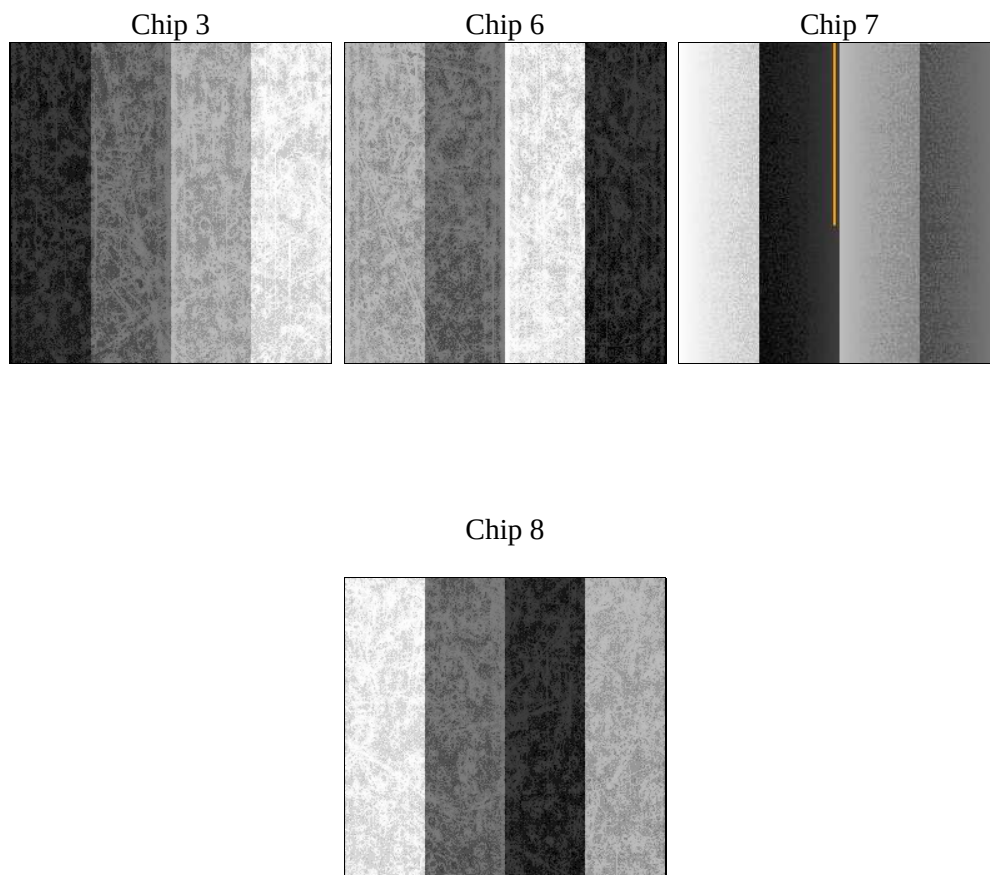
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.7	Processing system revision	ontime	10068.294780374	Sum of GTIs [s]
caldsver	4.8.0.1	 	ontime3	10068.212700367	Sum of GTIs [s]
date	2018-12-07T03:21:27	Date and time of file creation	ontime6	10065.112650156	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	10068.294780374	Sum of GTIs [s]
			ontime8	10065.03047955	Sum of GTIs [s]
			l1events	367105	Number of level 1 events

2.1.4 Events

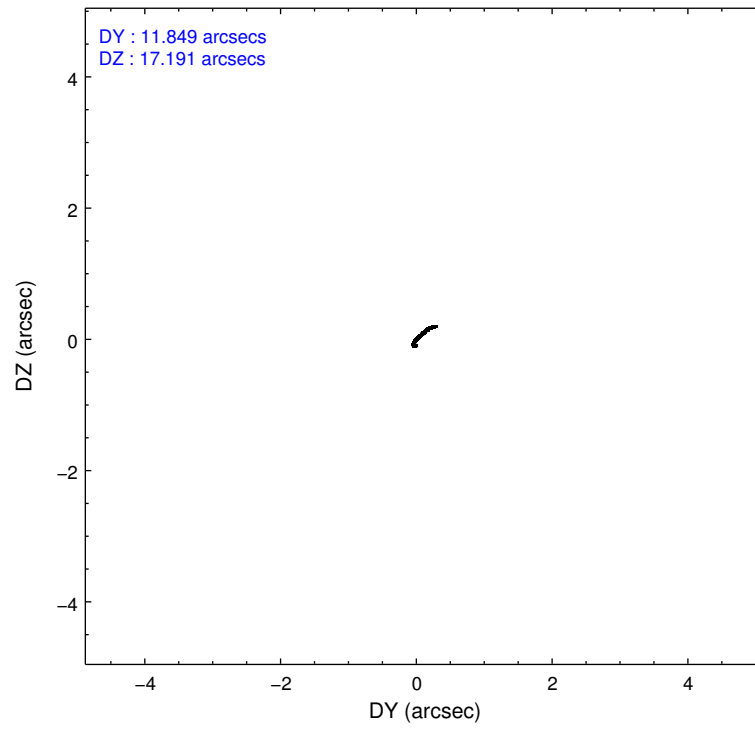
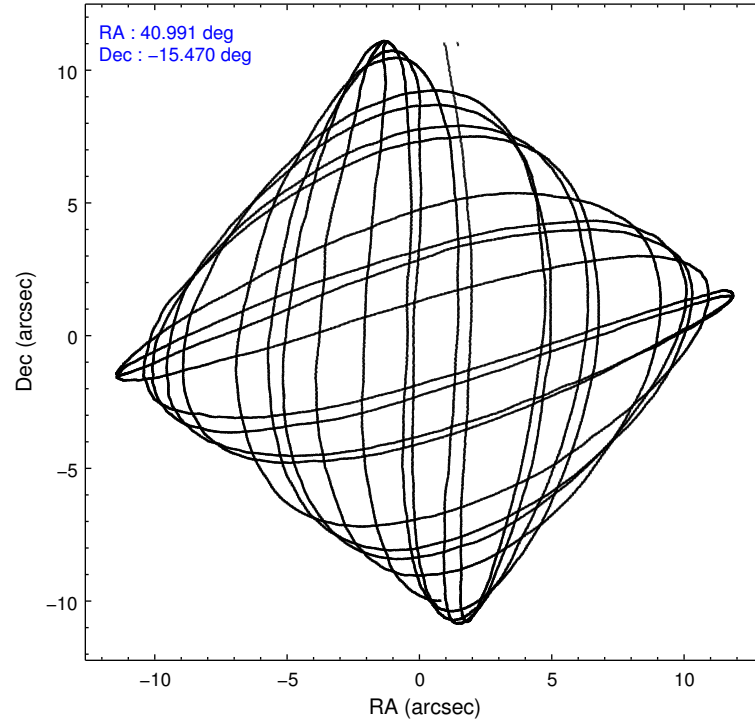
	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	79064	86052	100330	101659
rejected events	71331	77459	57716	77357
rejected %	90%	90%	57%	76%

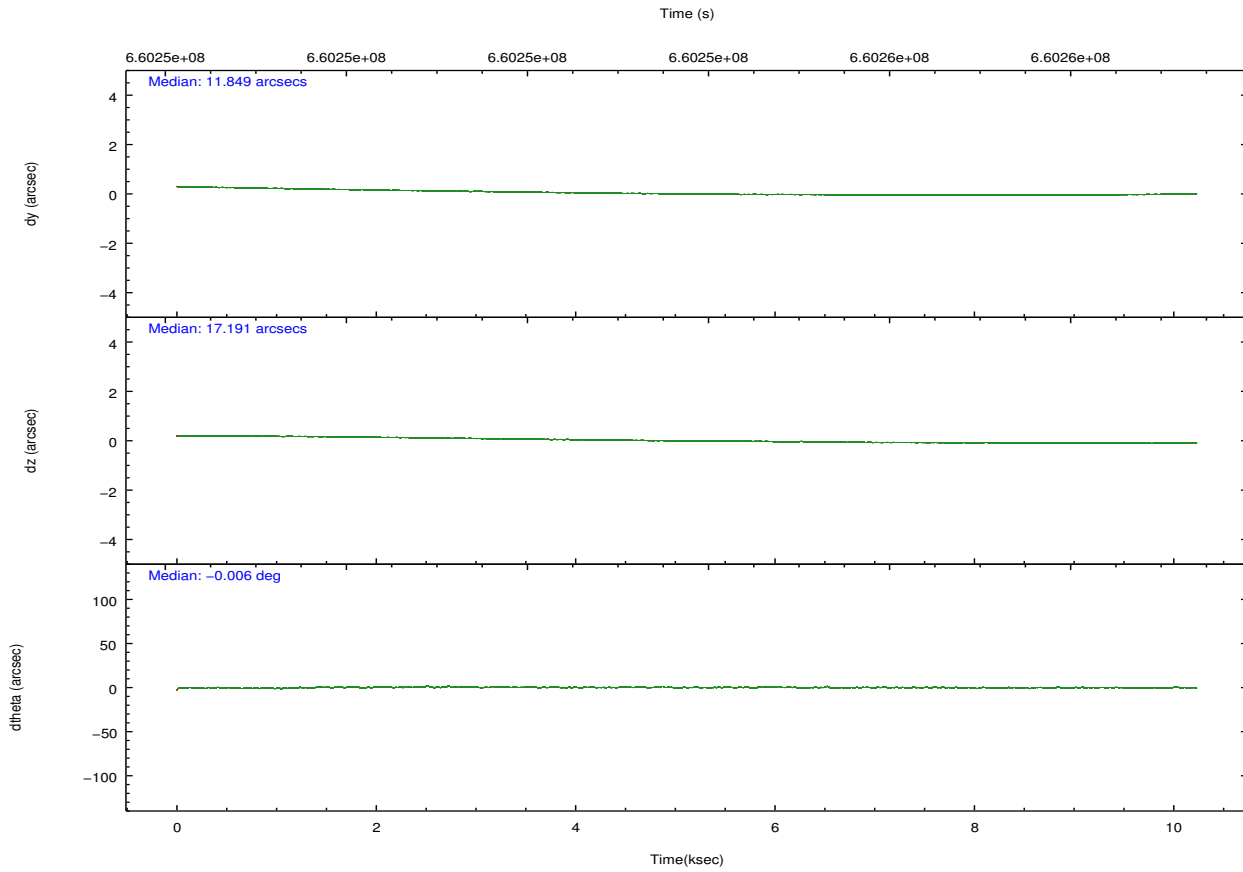
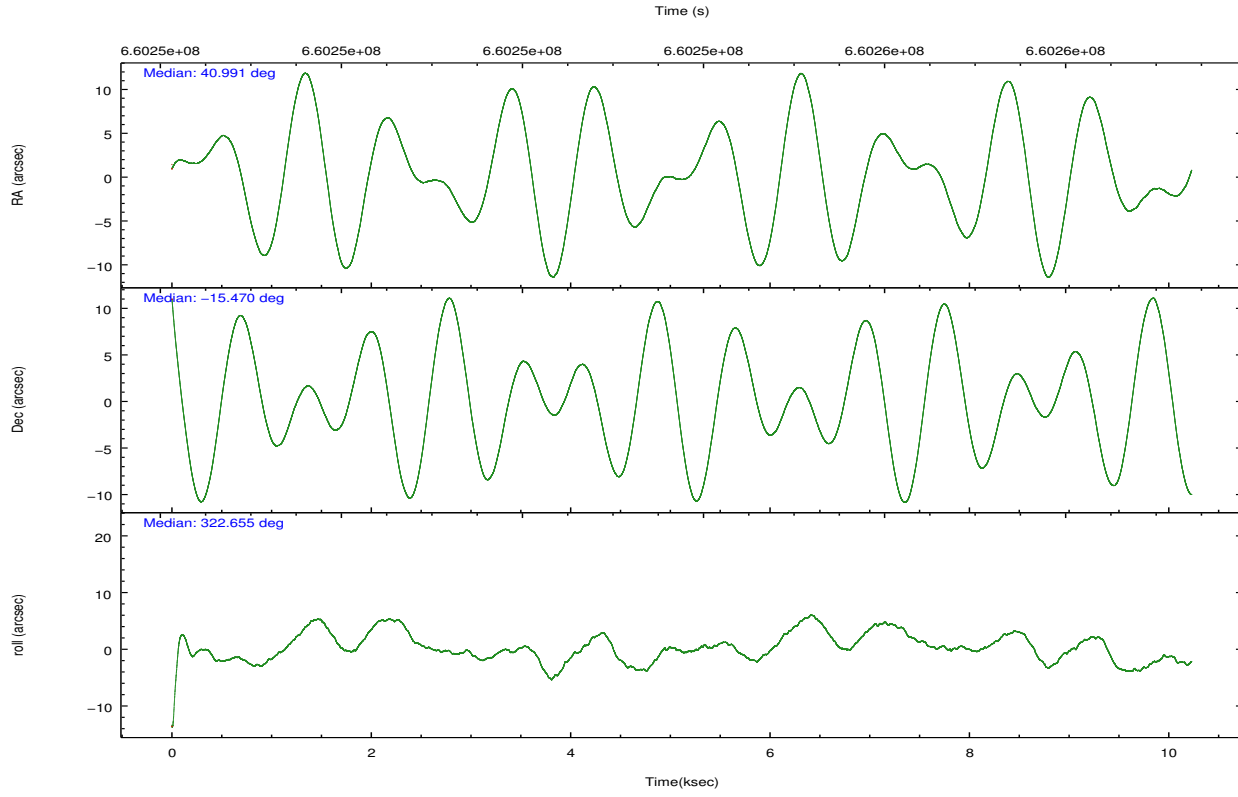
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	2675	2351	3675	6710
	3%	2%	3%	6%
grade 1 events	36	43	165	87
	0%	0%	0%	0%
grade 2 events	1699	2503	8730	6176
	2%	2%	8%	6%
grade 3 events	804	692	3401	2511
	1%	0%	3%	2%
grade 4 events	832	708	3268	2344
	1%	0%	3%	2%
grade 5 events	3351	3058	9598	5148
	4%	3%	9%	5%
grade 6 events	1826	2472	24153	6958
	2%	2%	24%	6%
grade 7 events	67841	74225	47340	71725
	85%	86%	47%	70%

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	40.963185	40.99147742638718	CCD I2 on	O2	N
[deg] Pointing Dec	-15.467093	-15.47025131757849	CCD I3 on	Y	Y
[deg] Pointing Roll	322.496612	322.660769010928	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)	660248900.184000	660247999.10416	On-chip summing requested	N	N
Observation start date	2018-12-03T18:27:11	2018-12-03T18:13:19	Subarray requested	NONE	NONE
[s] Observation end time (MET)	660258900.184000	660259034.25482	Alternating exposures requested	N	N
Observation end date	2018-12-03T21:13:51	2018-12-03T21:17:14	[s] Primary exposure time	0.000000	3.1
Read mode	TIMED	TIMED			

2.3 Aspect



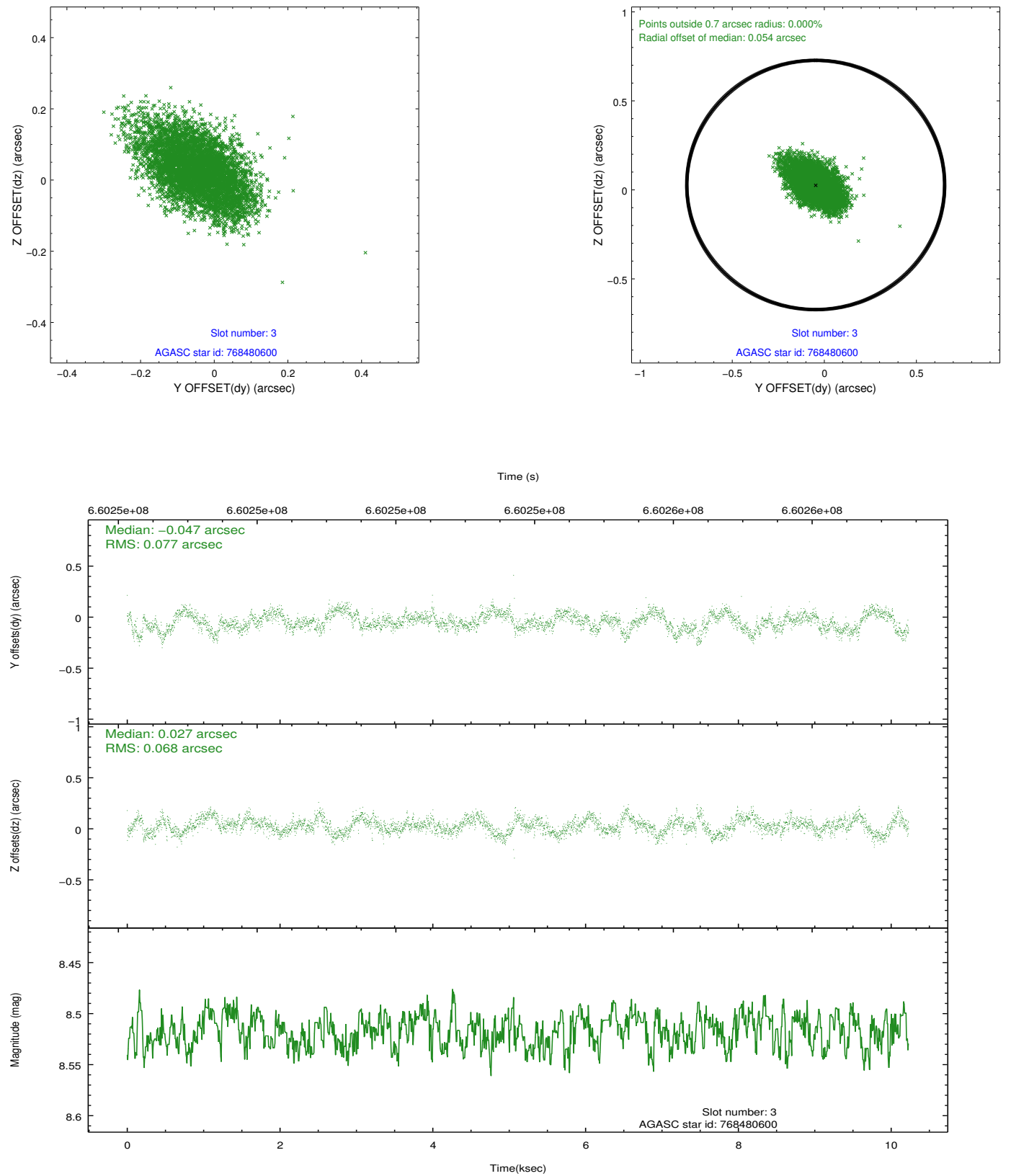


Slot Statistics

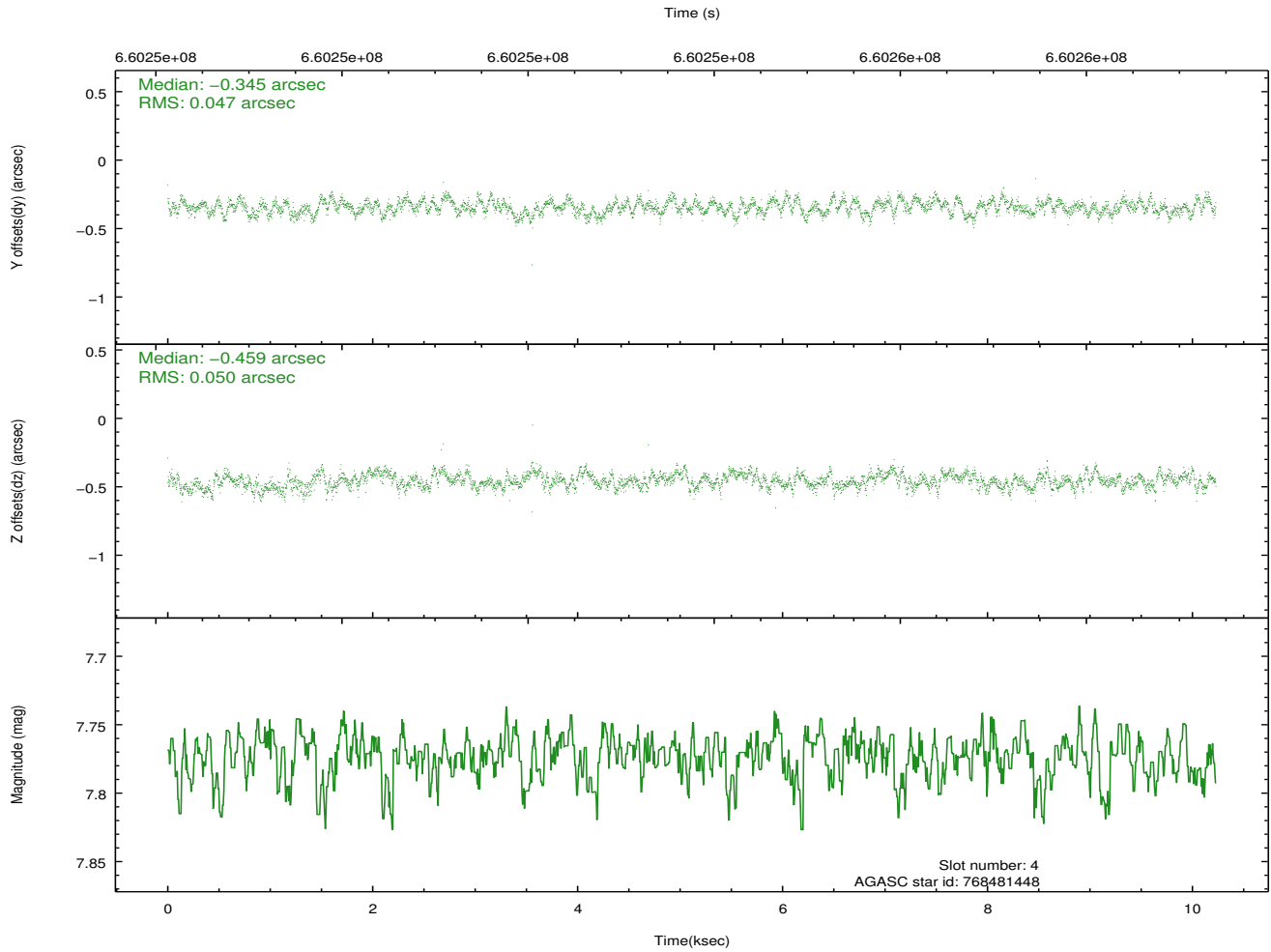
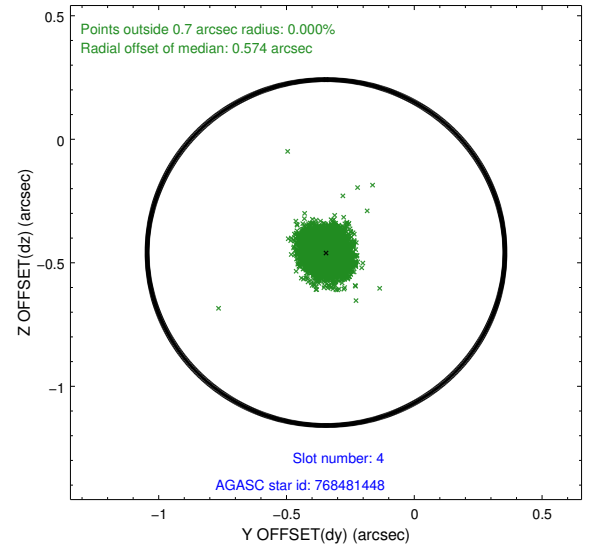
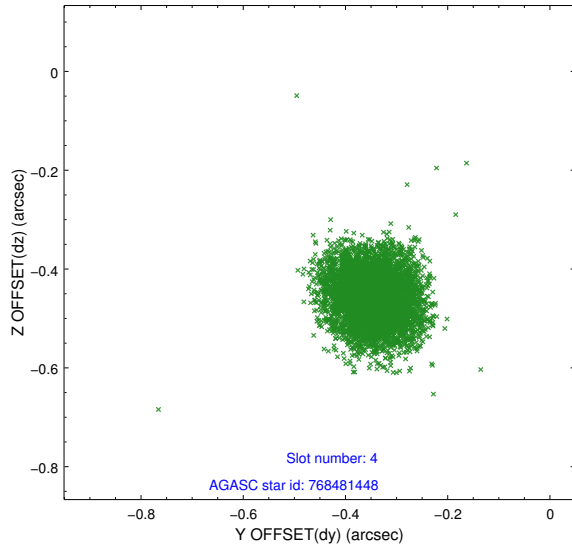
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.17	2496	1.000	-0.258	-0.209	0.010	0.016	0.000000	0.000000	-764.98	-1738
1	FID		ACIS-S-4	7.31	2496	1.000	0.717	0.180	0.007	0.015	0.000000	0.000000	2148.97	169
2	FID		ACIS-S-5	7.29	2496	1.000	-0.490	0.037	0.011	0.019	0.000000	0.000000	-1817.46	163
3	GUIDE	used	768480600	8.52	4986	1.000	-0.047	0.027	0.109	0.180	40.992909	-15.785552	780.14	-846
4	GUIDE	used	768481448	7.77	4991	1.000	-0.345	-0.459	0.073	0.114	41.719335	-15.287038	1692.11	2108
5	GUIDE	used	768481512	9.52	4981	1.000	0.332	0.483	0.172	0.288	40.348930	-15.497051	-1621.72	-1384
6	GUIDE	used	768482072	7.57	4990	1.000	-0.133	-0.301	0.095	0.184	41.302106	-15.426646	844.89	831
7	GUIDE	used	768483392	7.74	4988	1.000	0.195	0.251	0.093	0.160	40.577879	-16.021405	159.57	-2394

2.4 Star Slots

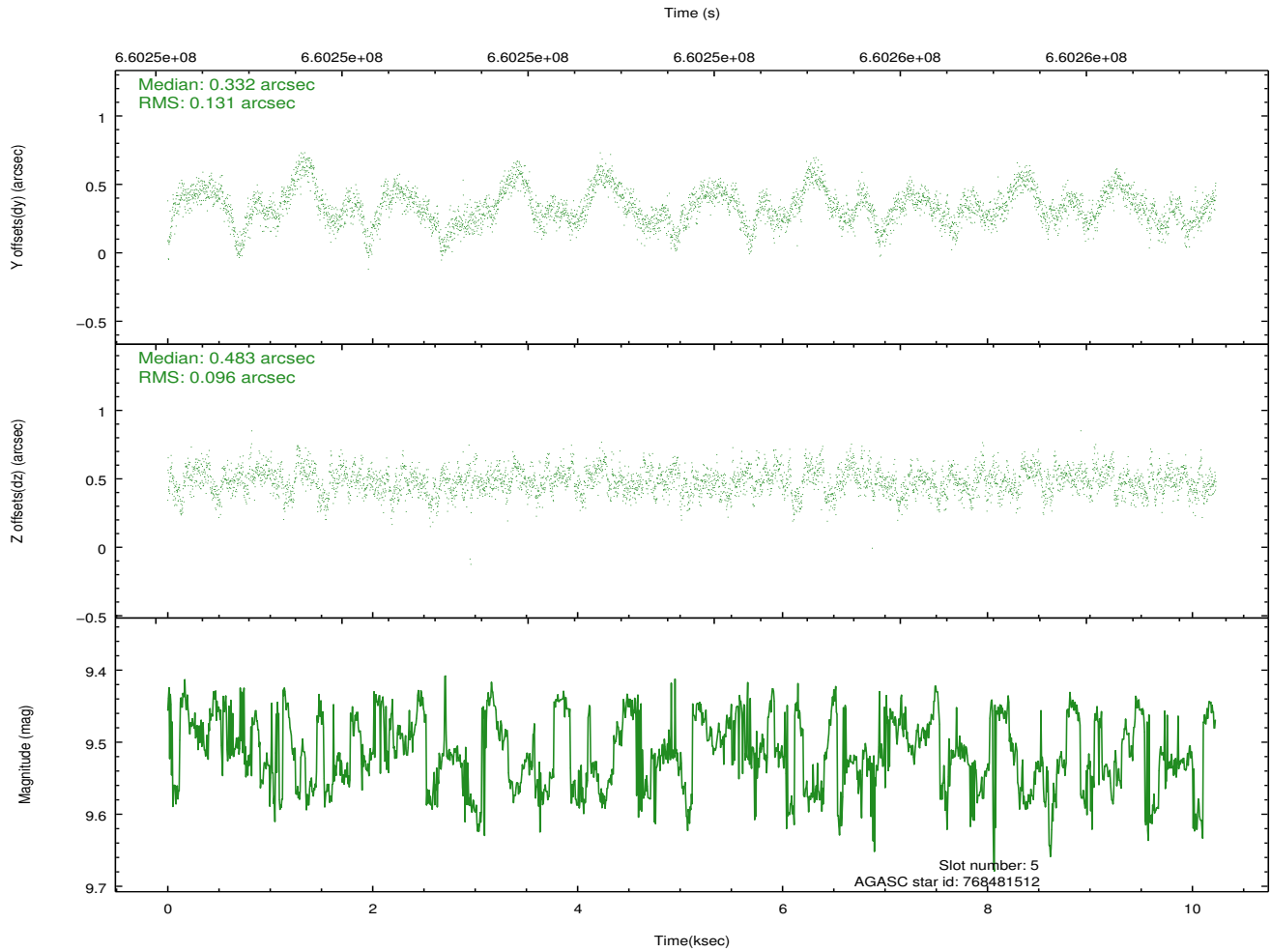
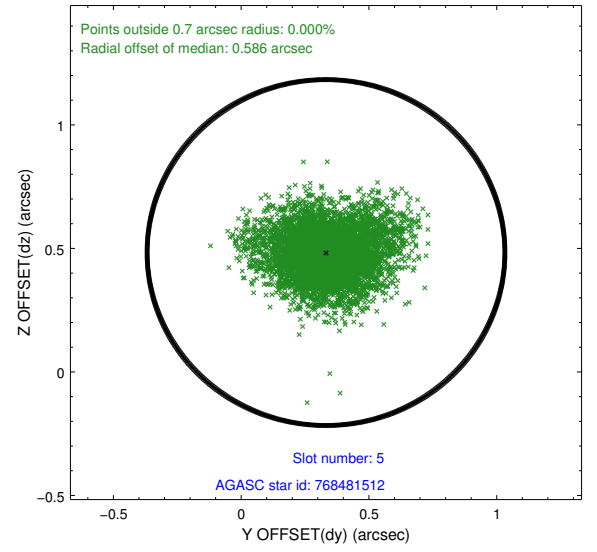
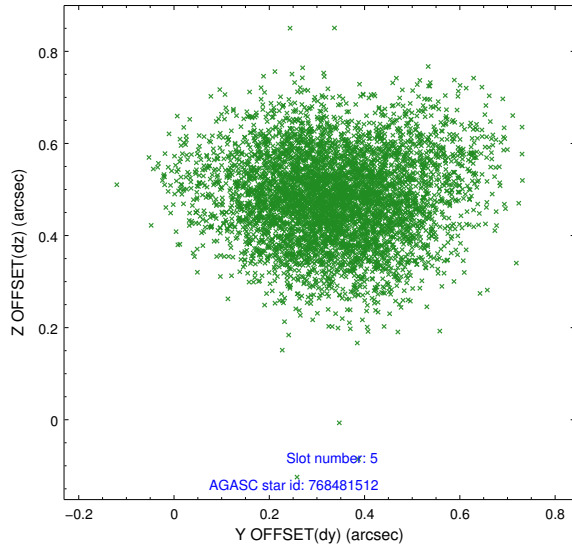
2.4.1 Slot 3



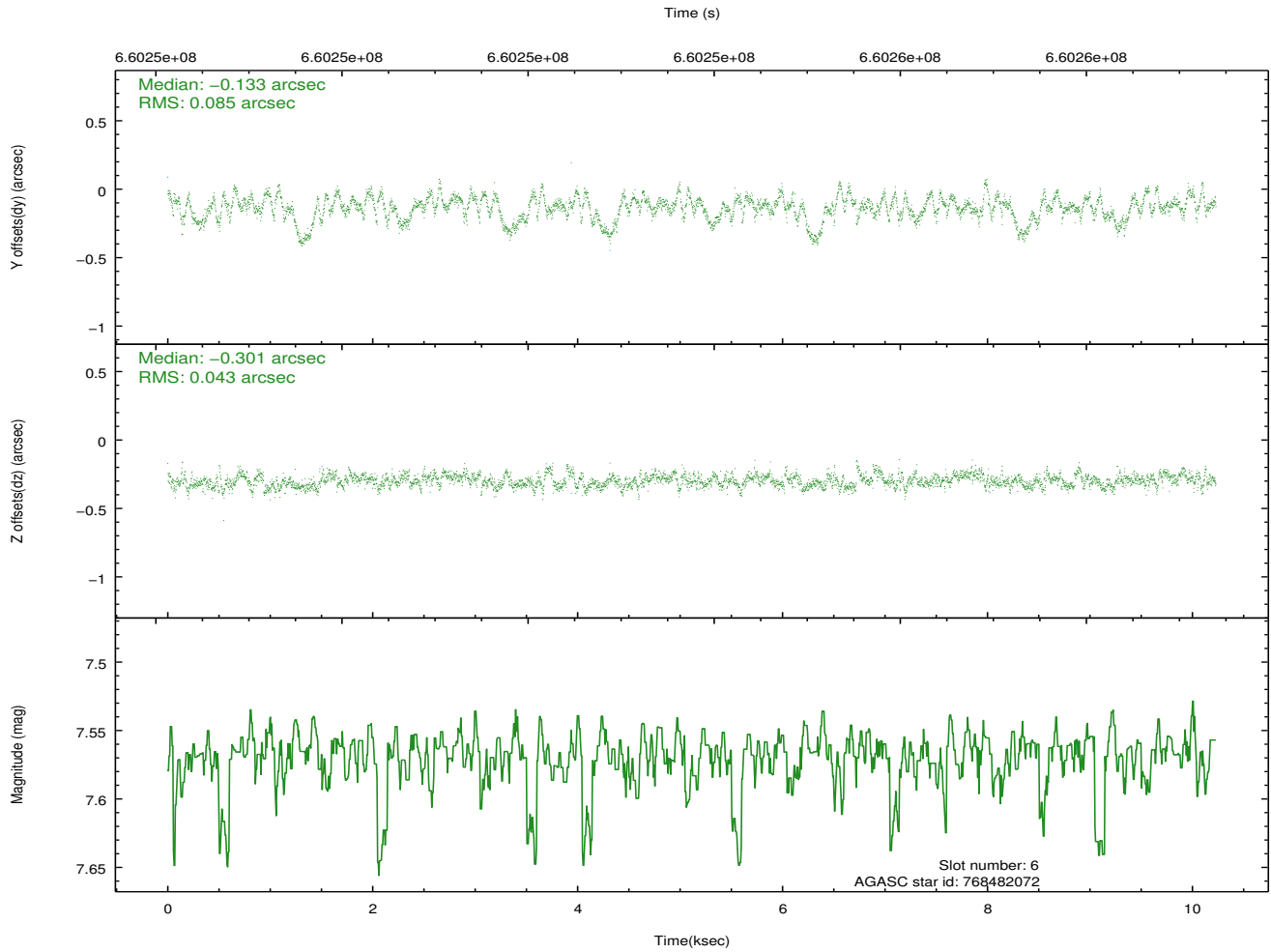
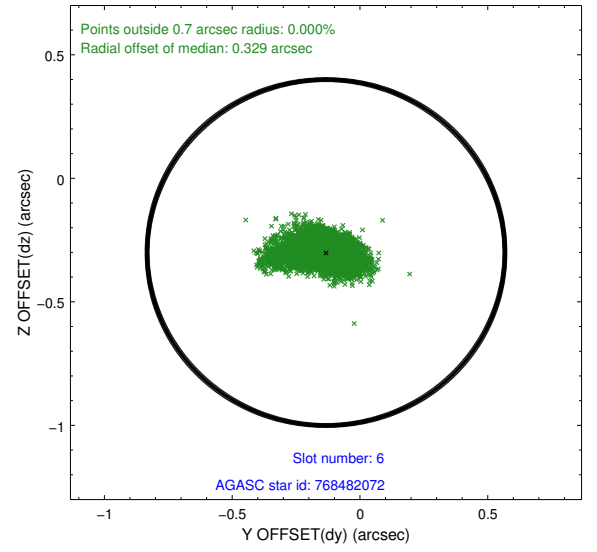
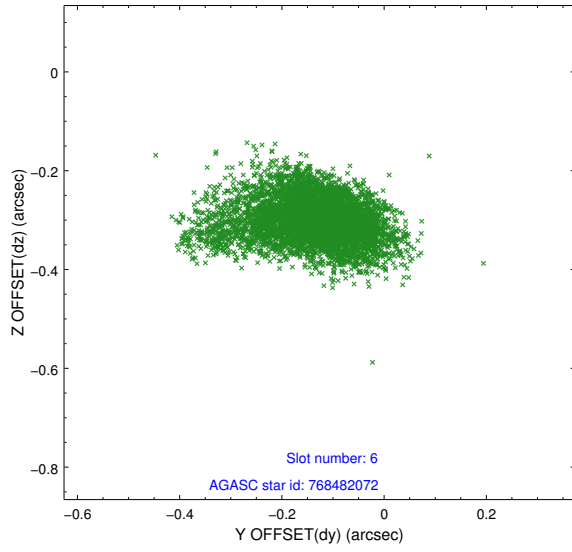
2.4.2 Slot 4



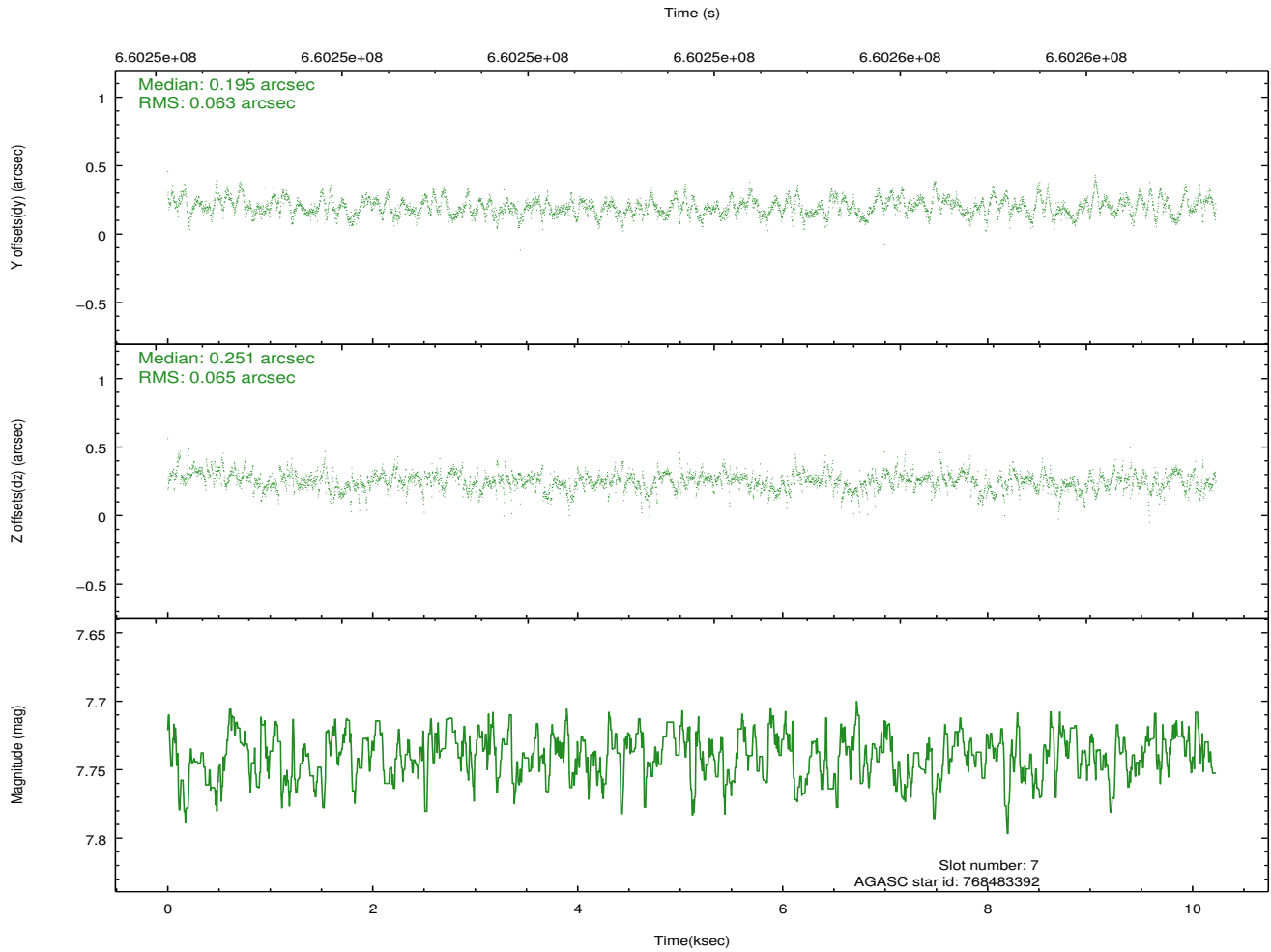
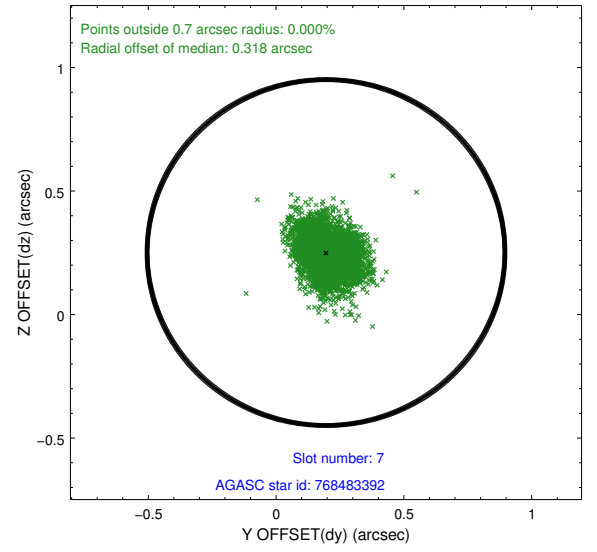
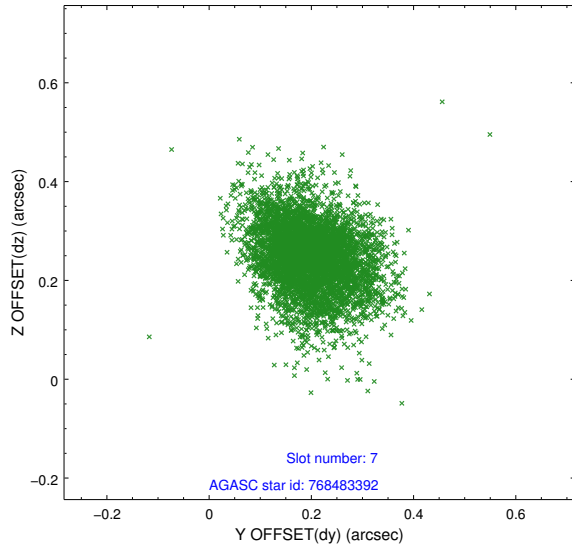
2.4.3 Slot 5



2.4.4 Slot 6

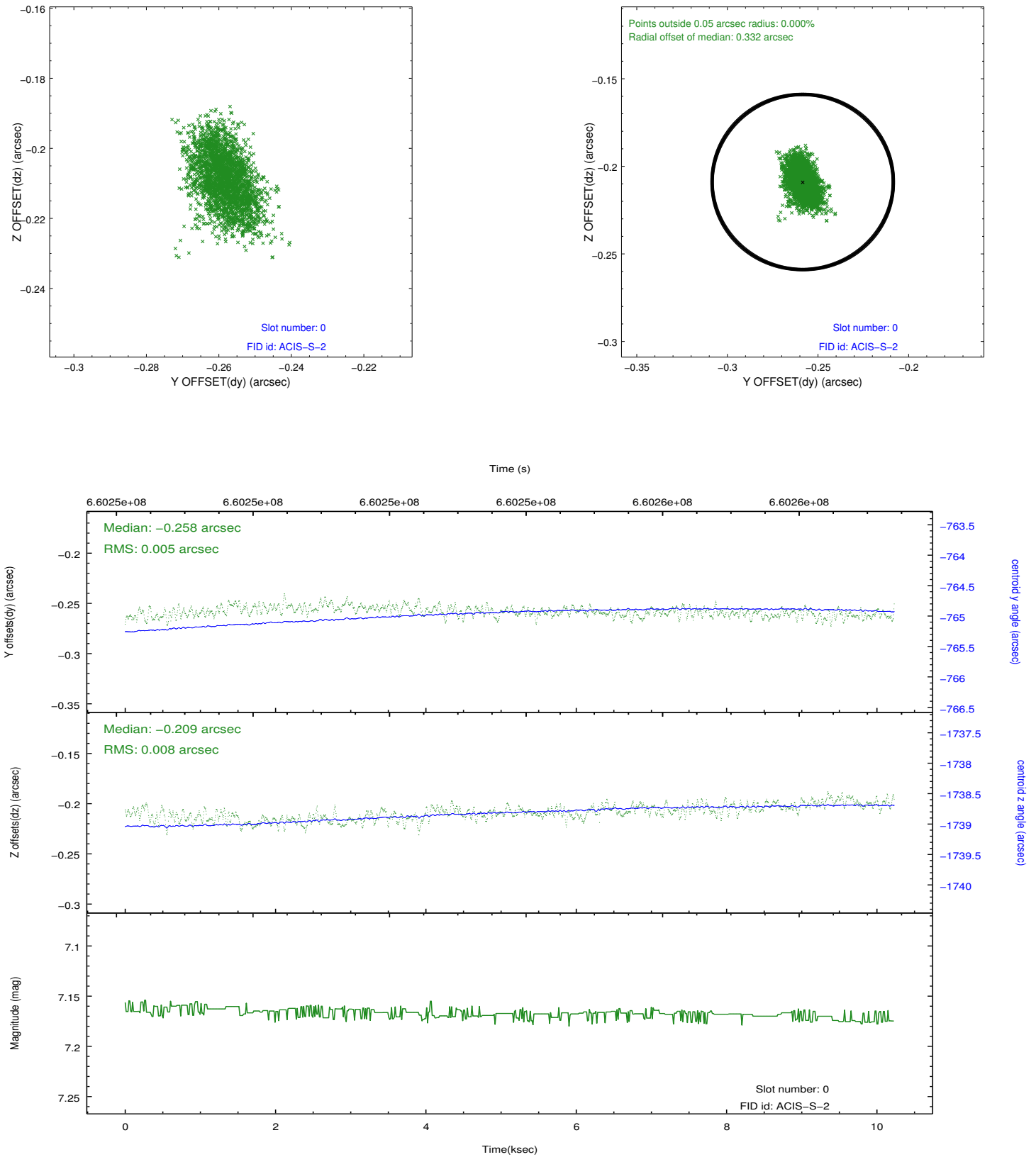


2.4.5 Slot 7

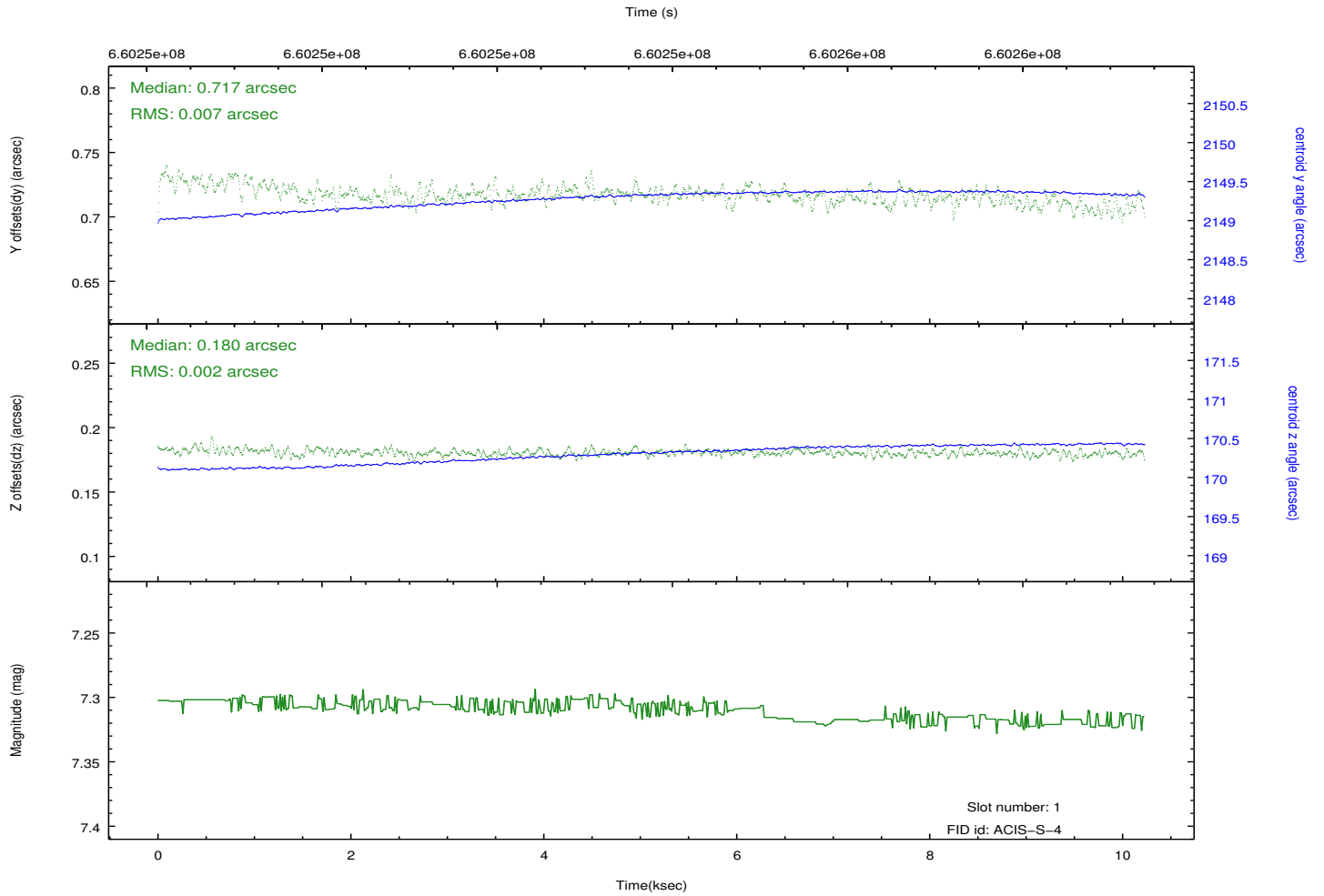
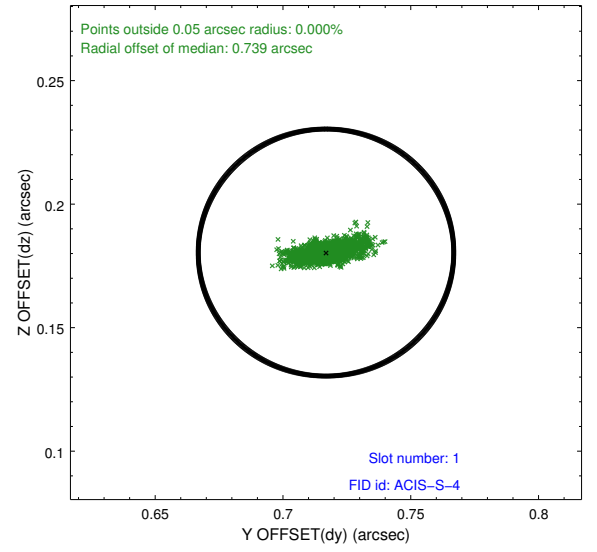
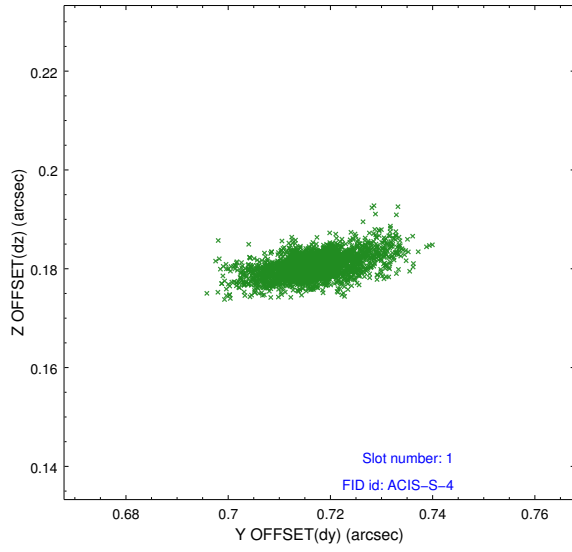


2.5 FID Slots

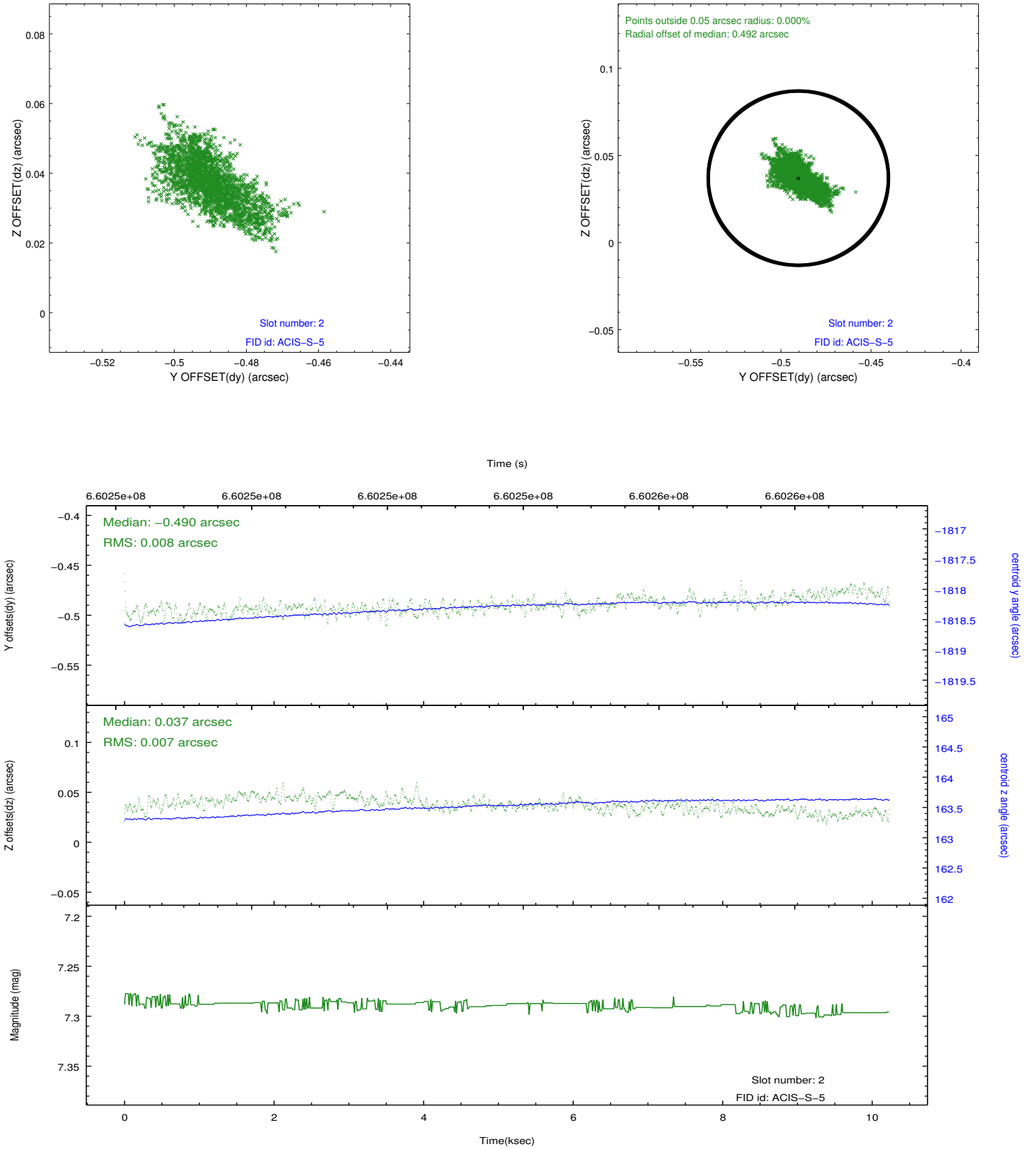
2.5.1 Slot 0



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	10.068294780374

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.