

V&V Reference Report

L2 ASCDS Version : 10.7

Observation 21979 - L2 Version 1
Chandra X-Ray Center

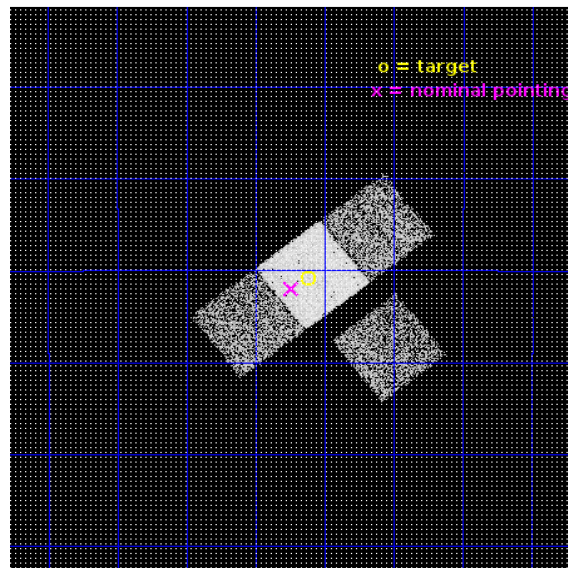
L2 Processing Date : Dec 6 2018

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1 Front

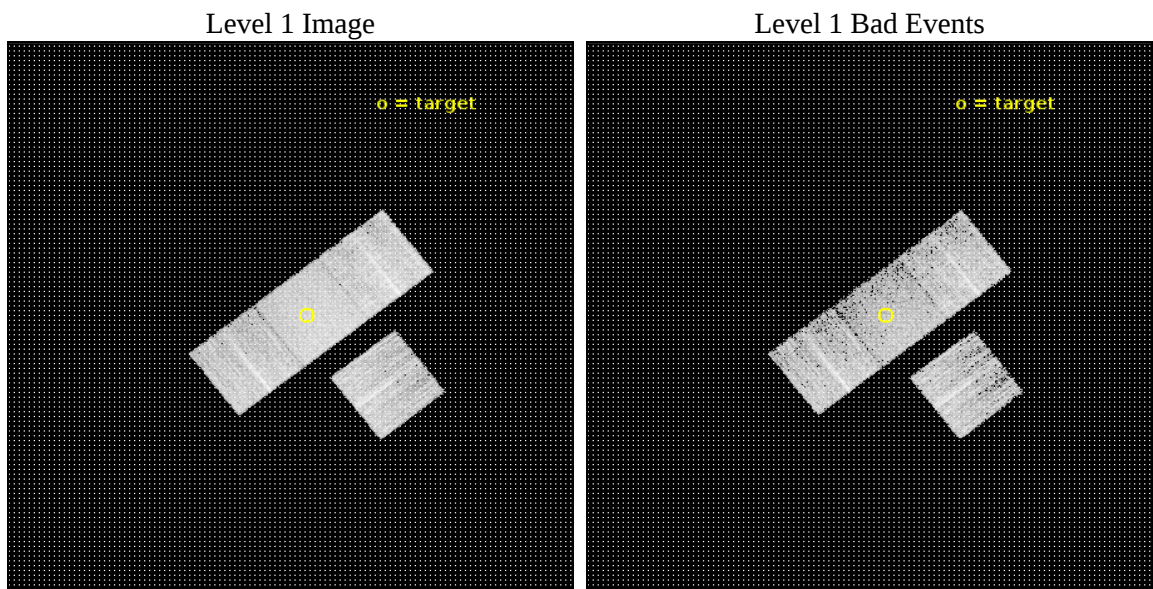
seq_num	100169	Sequence number
obs_id	21979	Observation id
title	Close encounter with comet 46P/Wirtanen: X-ray tomography of the coma	Proposal title
observer	Dennis Bodewits	Principal investigator
object	46P/Wirtanen	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	41.028707	Observer's specified target RA [deg]
dec_targ	-15.18088	Observer's specified target Dec [deg]
ra_nom	41.06019703359	Nominal RA [deg]
dec_nom	-15.199760858654	Nominal Dec [deg]
roll_nom	322.32358182141	Nominal Roll [deg]
revision	1	Processing version of data
ontime	5173.9000399113	Sum of GTIs [s]
livetime	5106.29922692	Livetime [s]
ontime3	5173.9000399113	Sum of GTIs [s]
ontime6	5173.9000399113	Sum of GTIs [s]
ontime7	5173.9000399113	Sum of GTIs [s]
ontime8	5173.9000399113	Sum of GTIs [s]
l2events	32595	Number of level 2 events



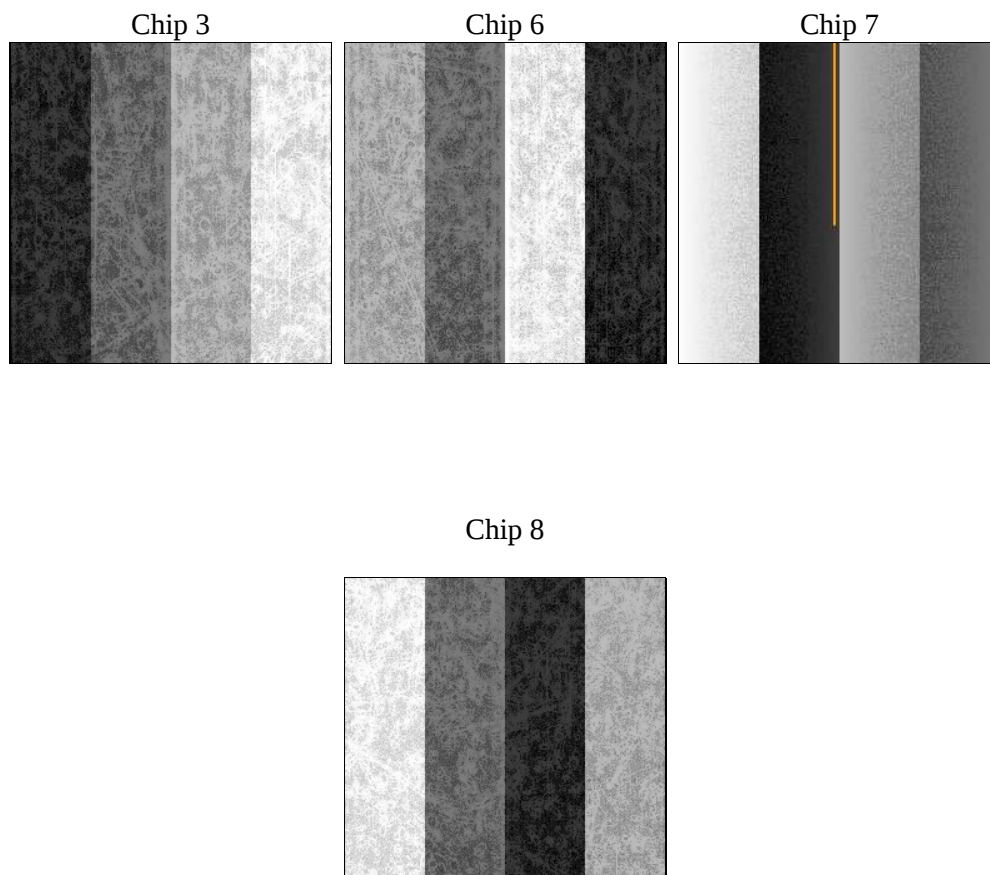
2 OBI

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	5173.9000399113	Sum of GTIs [s]
caldbver	4.8.0.1	 	ontime3	5173.9000399113	Sum of GTIs [s]
date	2018-12-07T03:31:14	Date and time of file creation	ontime6	5173.9000399113	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	5173.9000399113	Sum of GTIs [s]
			ontime8	5173.9000399113	Sum of GTIs [s]
			l1events	197610	Number of level 1 events

2.1.4 Events

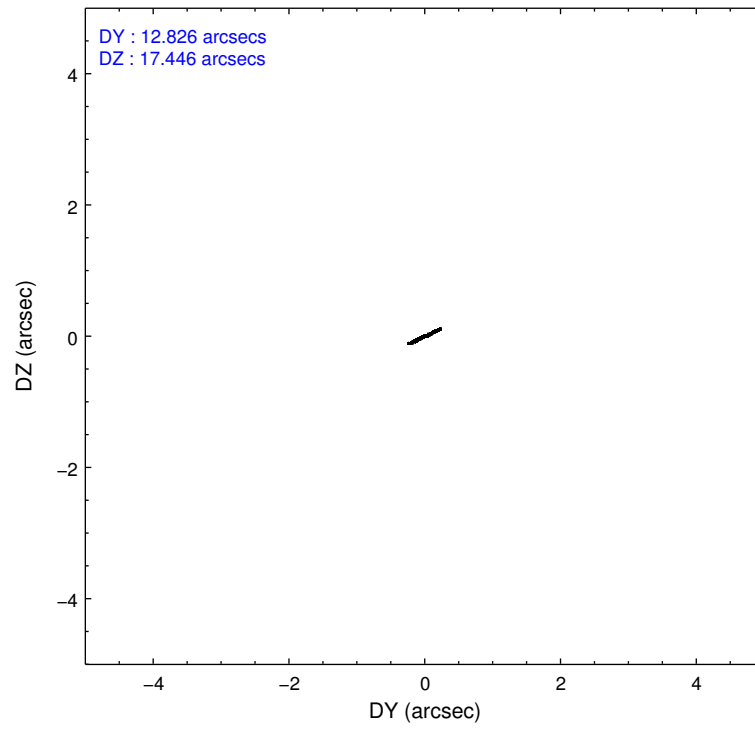
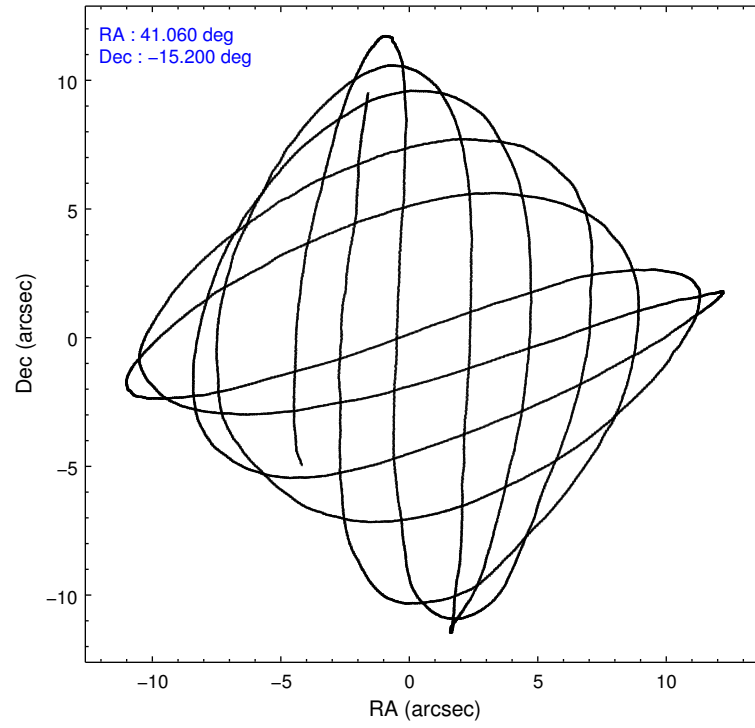
	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	44488	44192	54013	54917
rejected events	40579	39866	32286	42821
rejected %	91%	90%	59%	77%

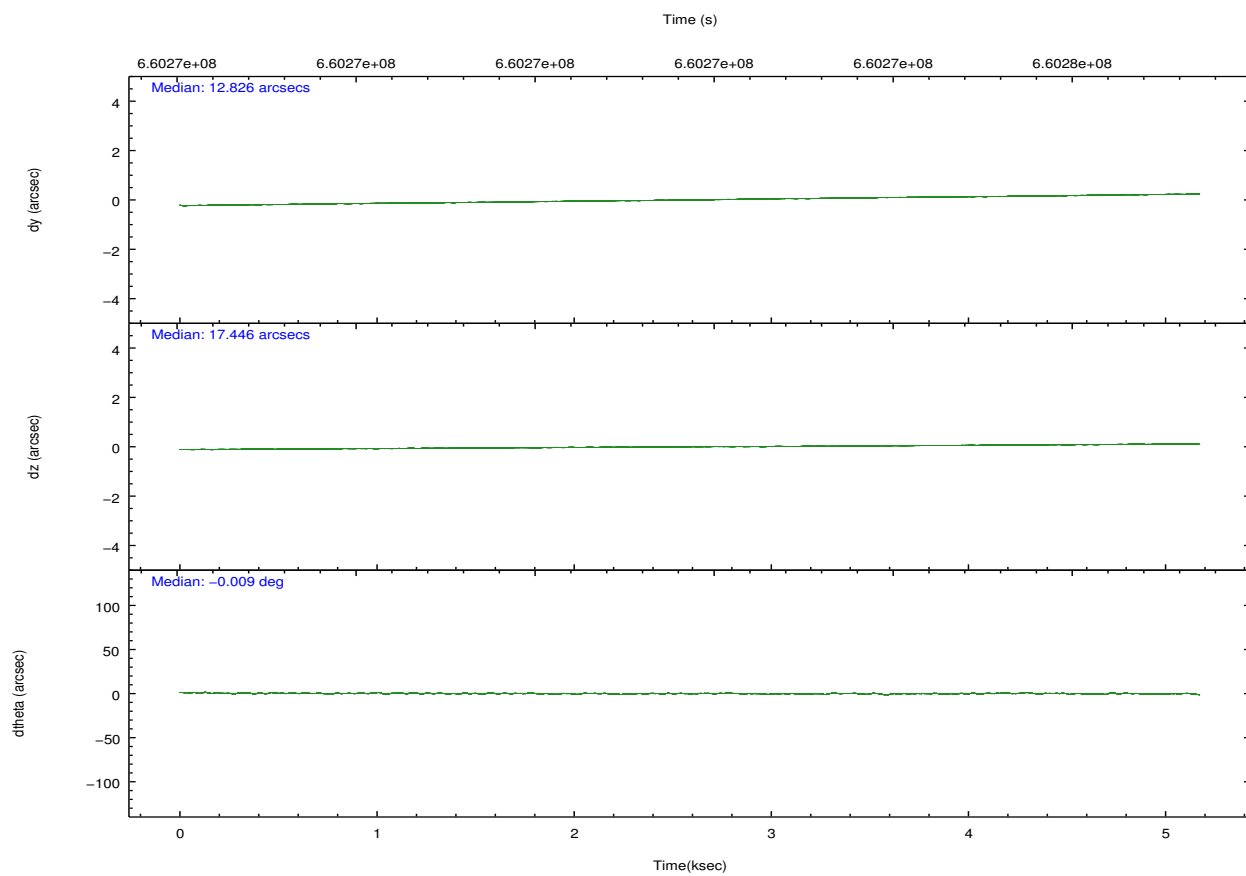
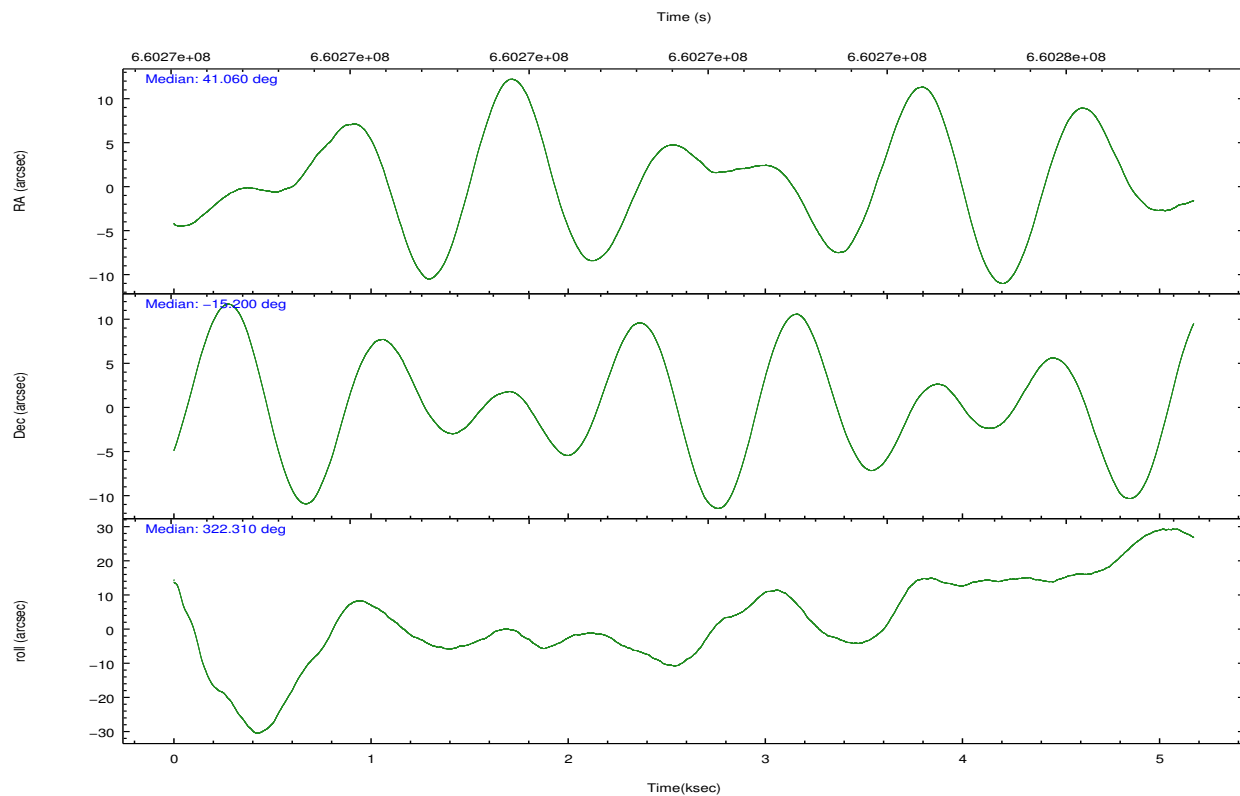
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1452	1214	1983	3599
	3%	2%	3%	6%
grade 1 events	14	11	73	33
	0%	0%	0%	0%
grade 2 events	926	1341	4864	3126
	2%	3%	9%	5%
grade 3 events	410	385	1774	1271
	0%	0%	3%	2%
grade 4 events	403	359	1839	1173
	0%	0%	3%	2%
grade 5 events	1803	1726	5202	2762
	4%	3%	9%	5%
grade 6 events	965	1341	12727	3667
	2%	3%	23%	6%
grade 7 events	38515	37815	25551	39286
	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	41.031976	41.06019703358994	CCD I2 on	O2	N
[deg] Pointing Dec	-15.196495	-15.19976085865447	CCD I3 on	Y	Y
[deg] Pointing Roll	322.159562	322.3235818214055	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)	660270430.184000	660270054.03048	On-chip summing requested	N	N
Observation start date	2018-12-04T00:26:01	2018-12-04T00:20:54	Subarray requested	NONE	NONE
[s] Observation end time (MET)	660275430.184000	660275564.43081	Alternating exposures requested	N	N
Observation end date	2018-12-04T01:49:21	2018-12-04T01:52:44	[s] Primary exposure time	0.000000	3.1
Read mode	TIMED	TIMED			

2.3 Aspect



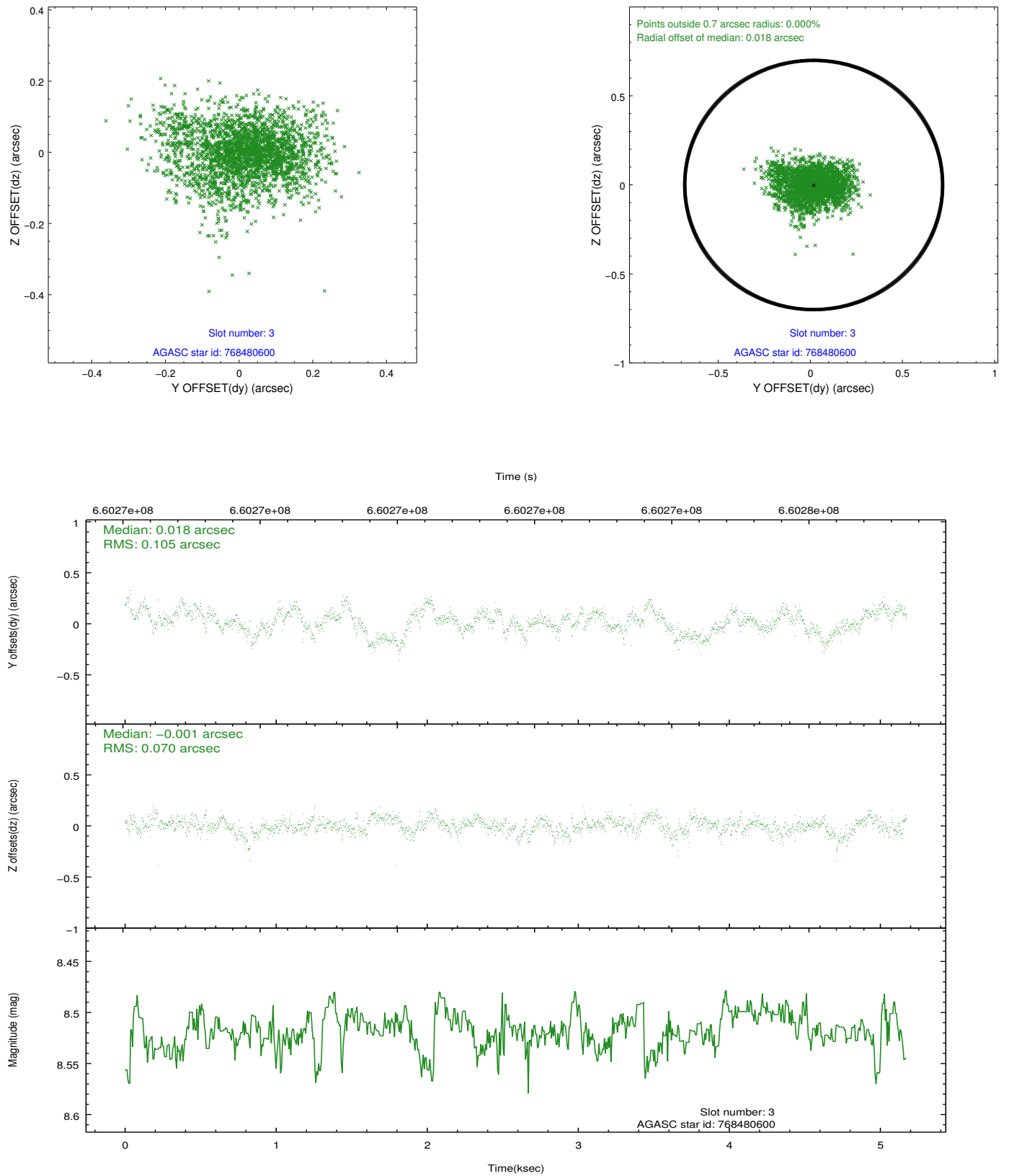


Slot Statistics

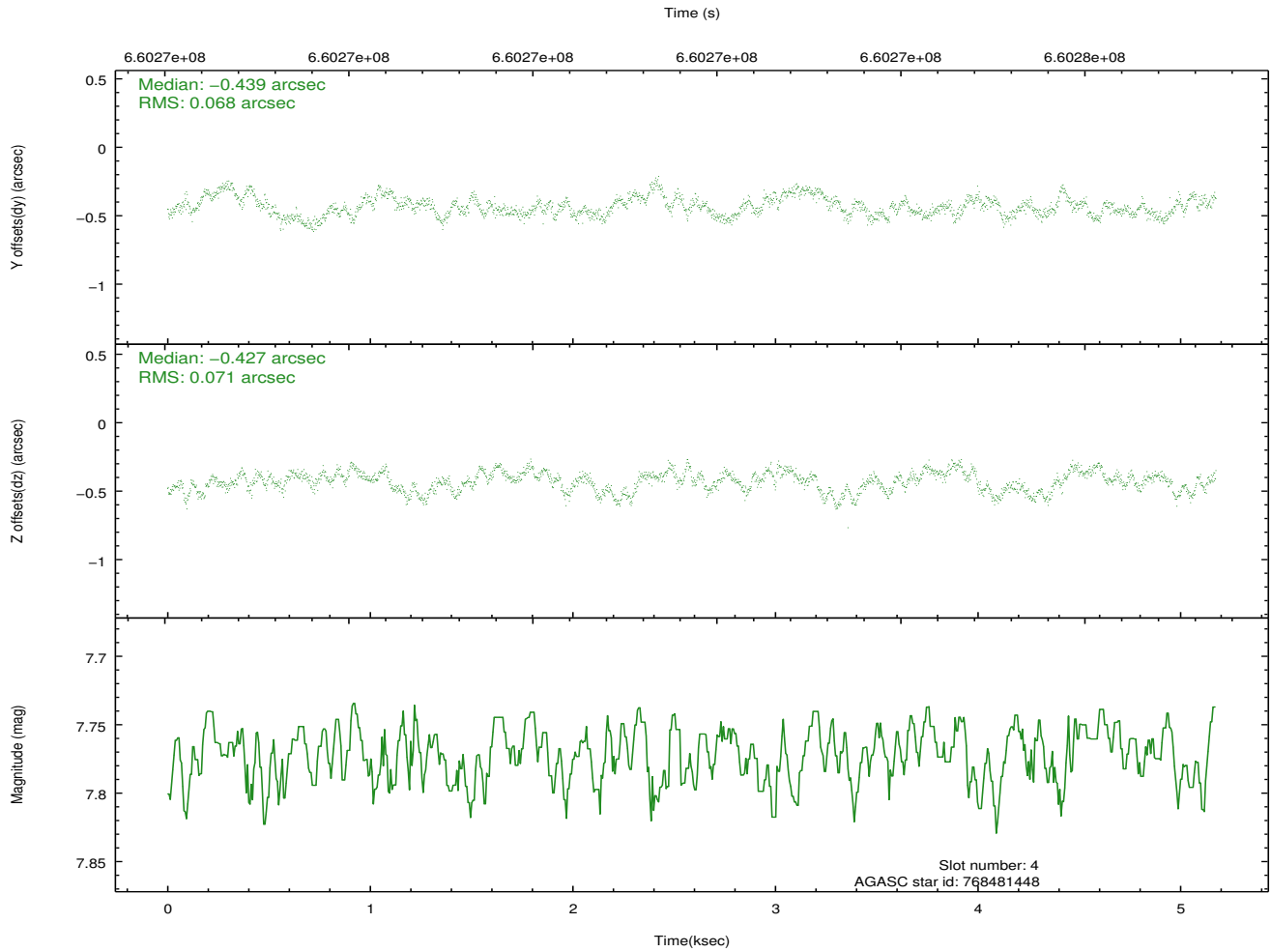
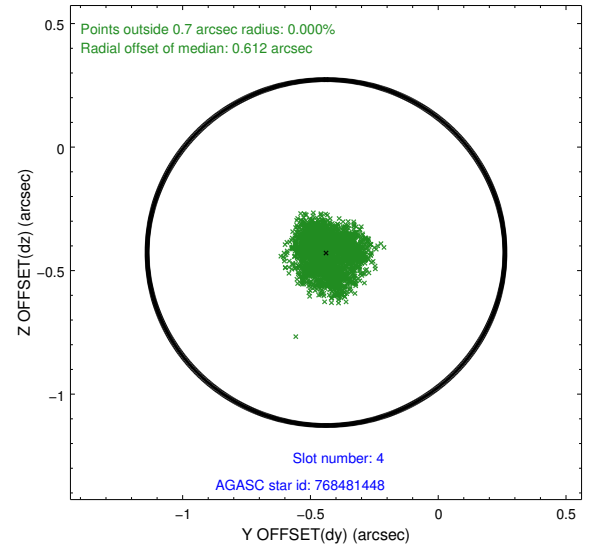
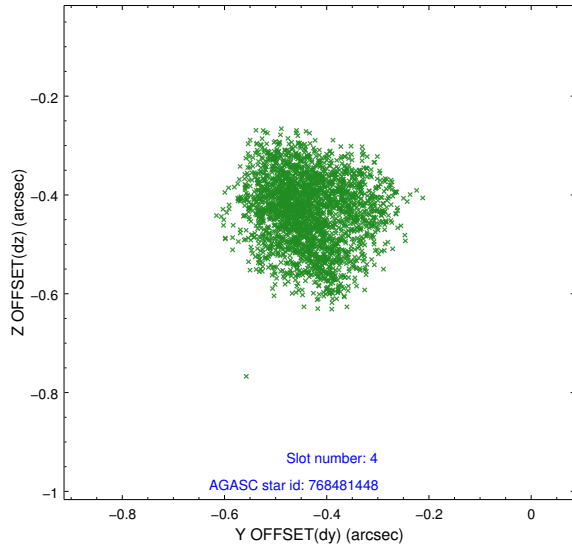
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.28	1262	1.000	0.217	-0.097	0.009	0.013	0.000000	0.000000	930.63	-1734
1	FID		ACIS-S-5	7.29	1262	1.000	-0.500	0.094	0.012	0.019	0.000000	0.000000	-1818.55	161
2	FID		ACIS-S-6	7.45	1261	1.000	0.262	0.015	0.009	0.015	0.000000	0.000000	394.80	807
3	GUIDE	used	768480600	8.52	2521	1.000	0.018	-0.001	0.133	0.226	40.992909	-15.785552	1195.14	-1757
4	GUIDE	used	768481448	7.77	2525	1.000	-0.439	-0.427	0.108	0.161	41.719335	-15.287038	2088.48	1202
5	GUIDE	used	768481512	9.50	2517	1.000	0.428	0.455	0.237	0.346	40.348930	-15.497051	-1202.84	-2310
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
7	GUIDE	used	768482072	7.57	2522	1.000	0.010	-0.022	0.089	0.145	41.302106	-15.426646	1249.17	-79

2.4 Star Slots

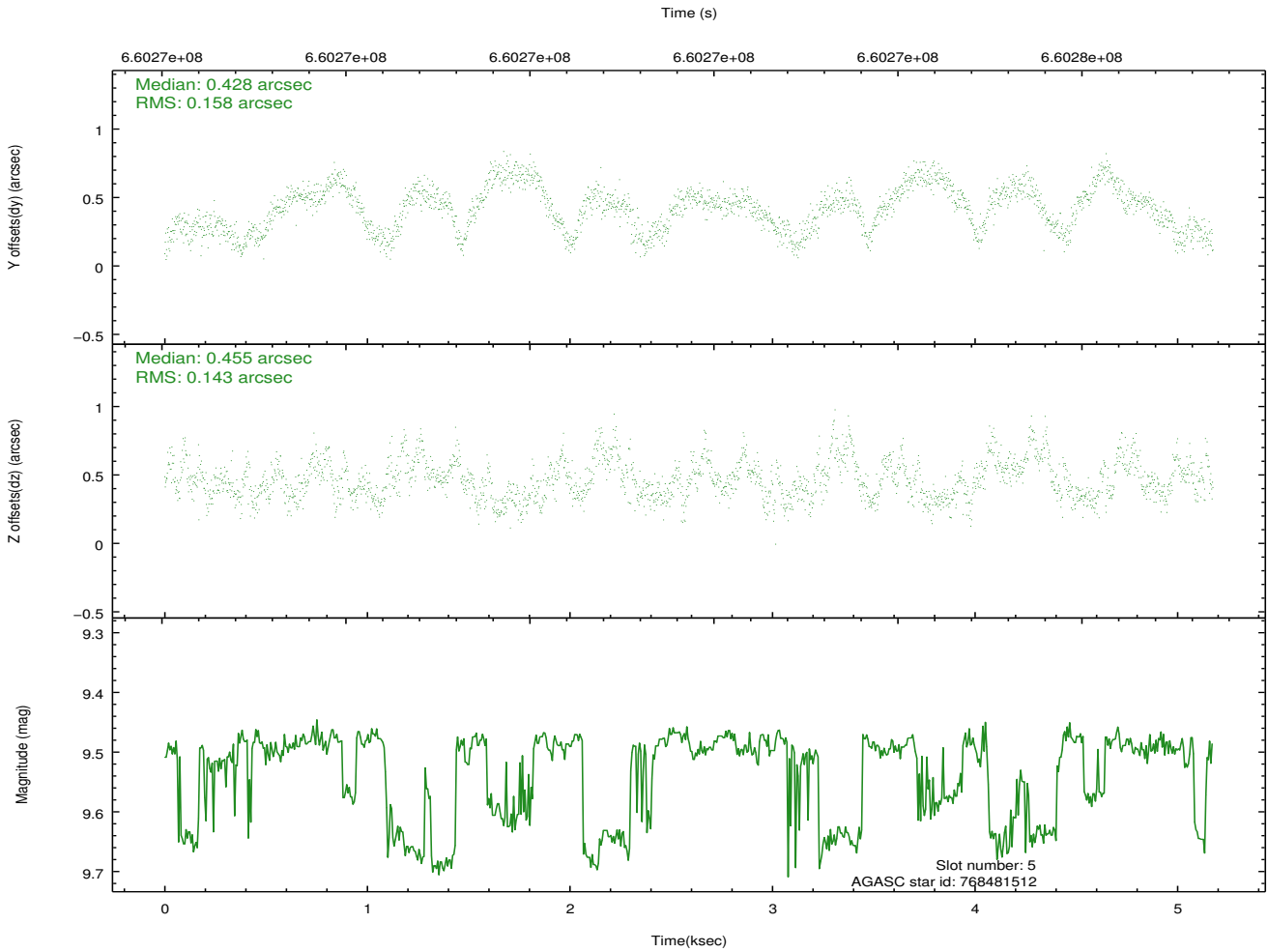
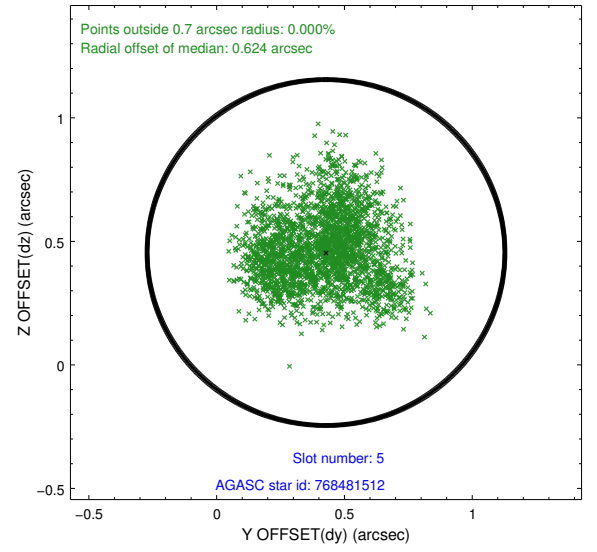
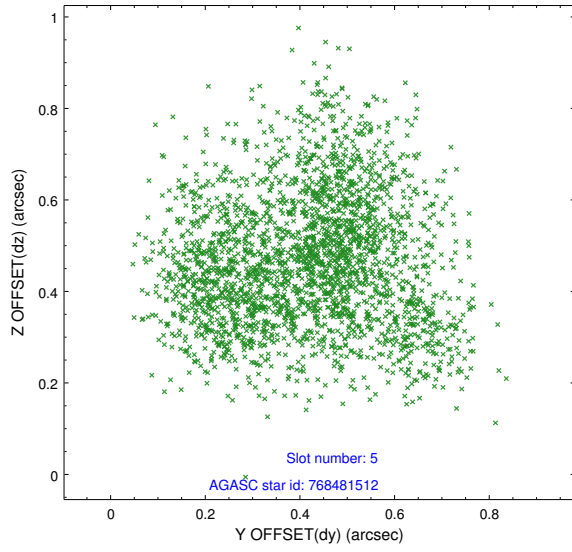
2.4.1 Slot 3



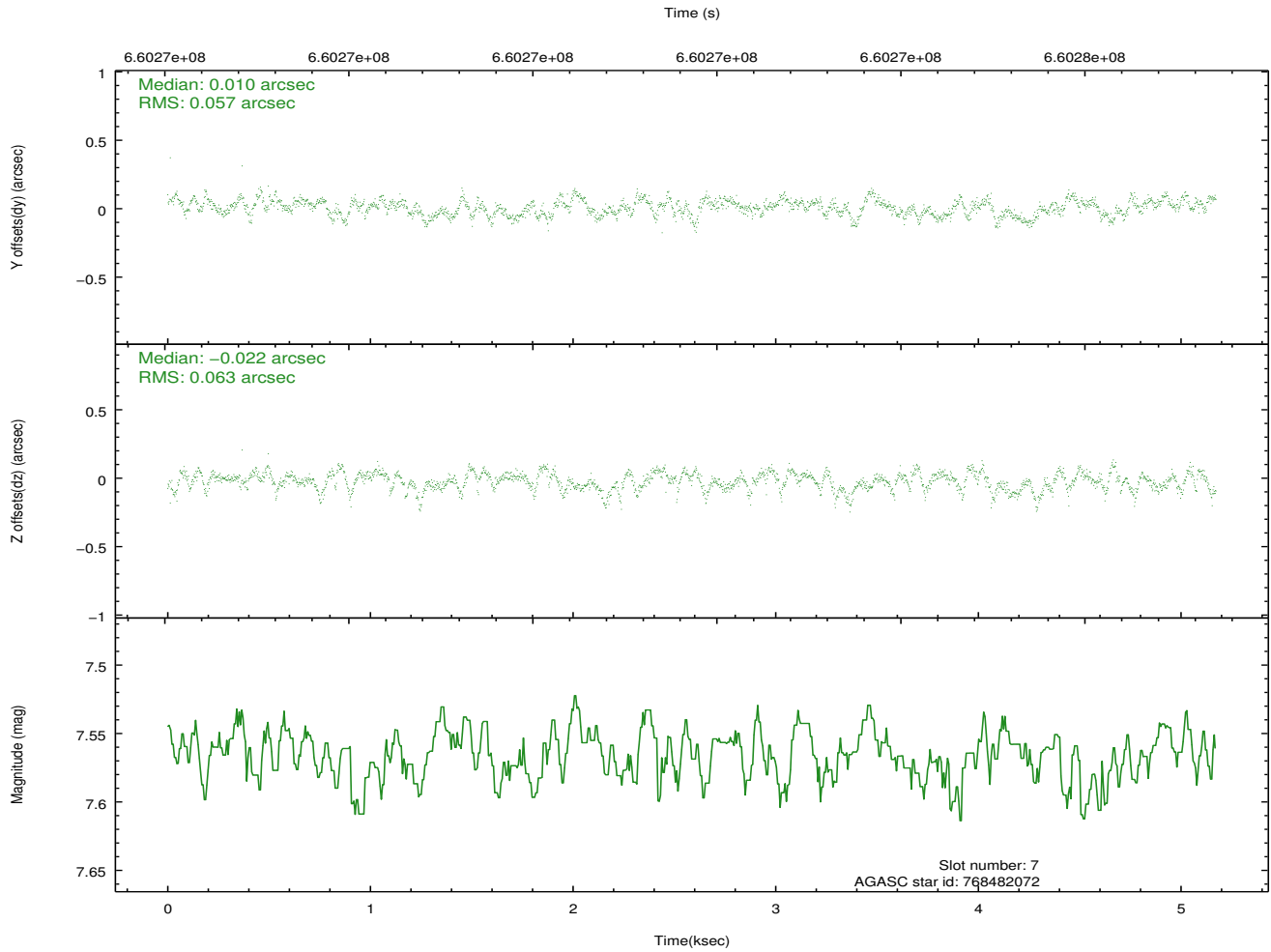
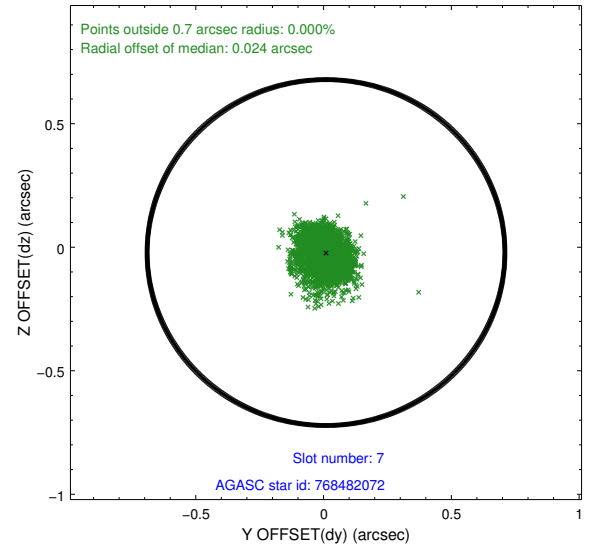
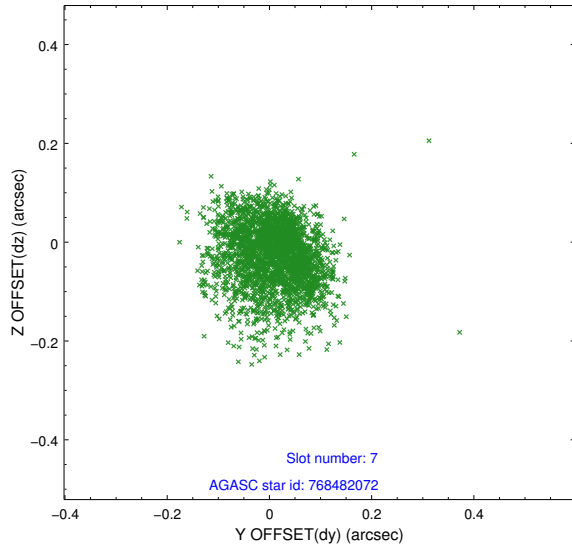
2.4.2 Slot 4



2.4.3 Slot 5

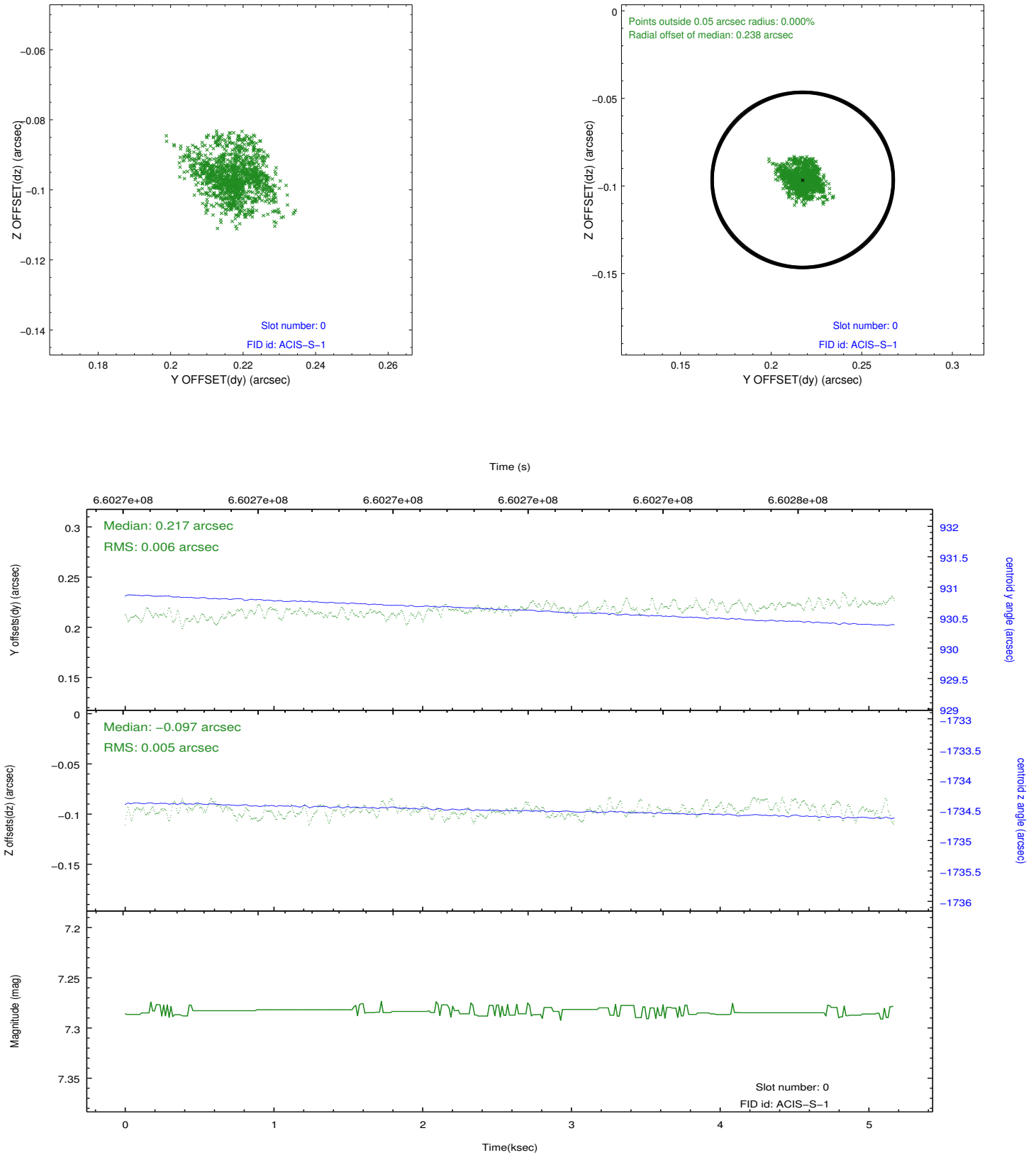


2.4.4 Slot 7

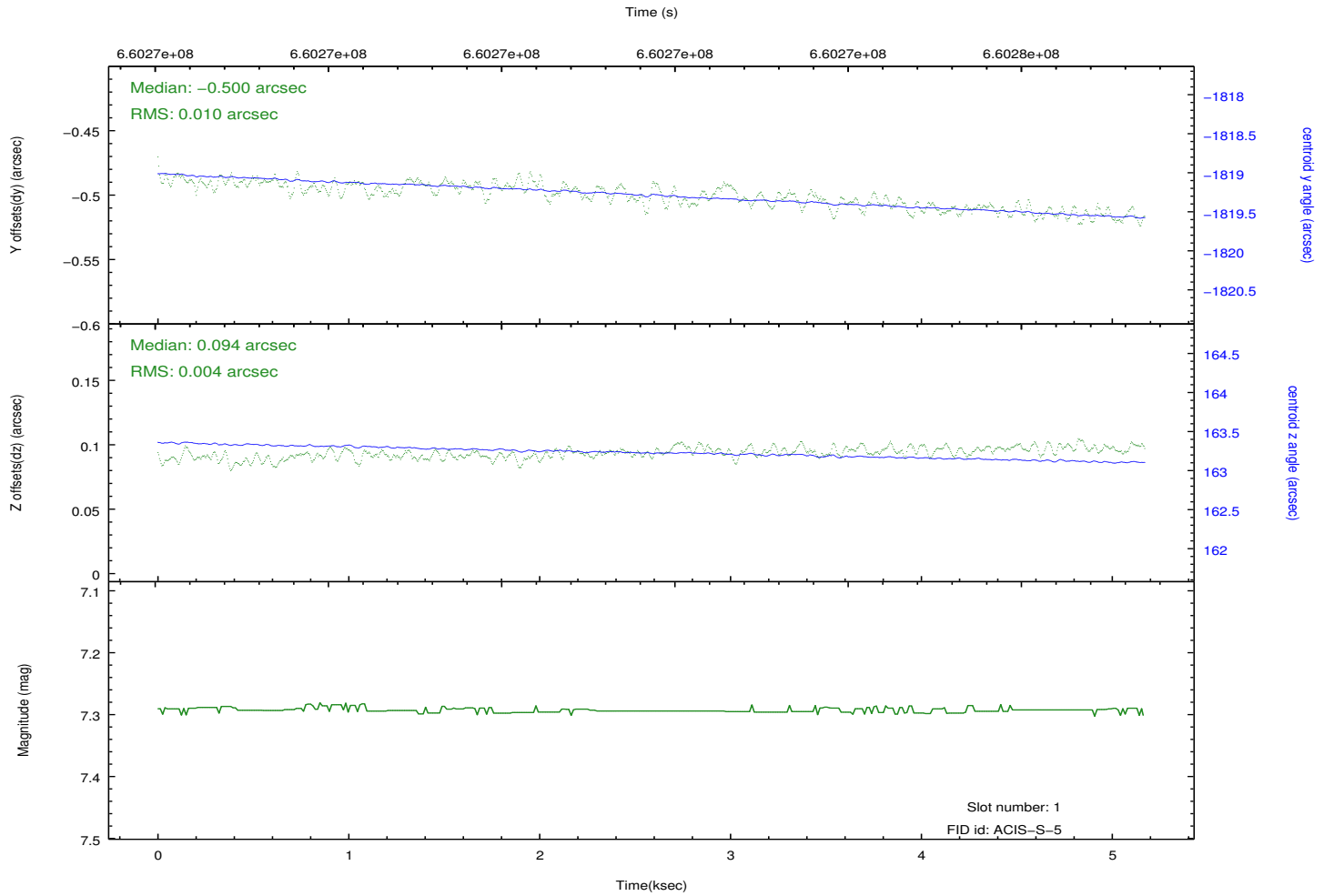
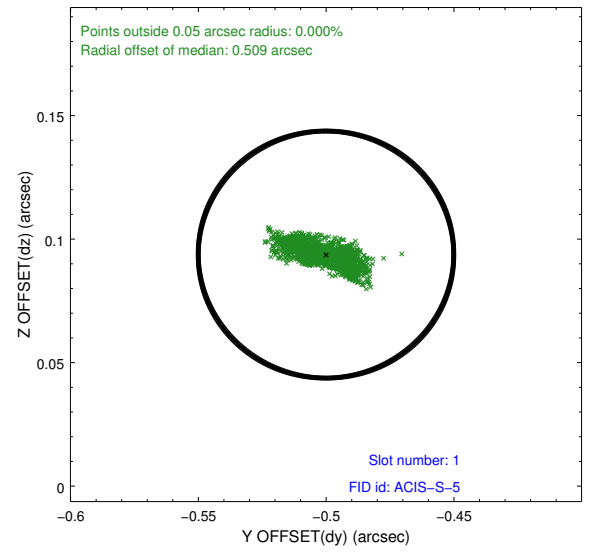
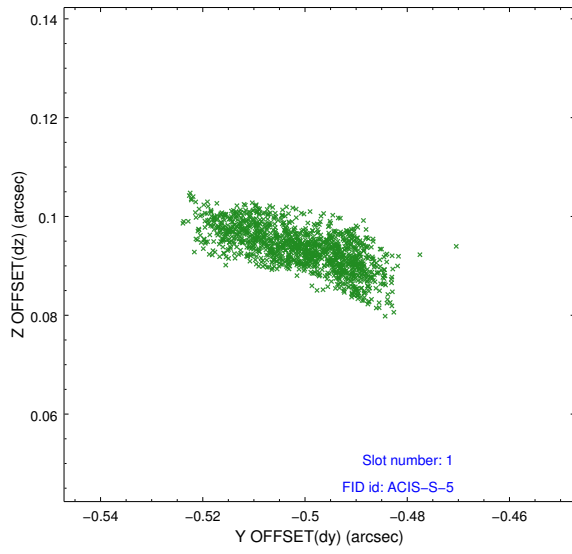


2.5 FID Slots

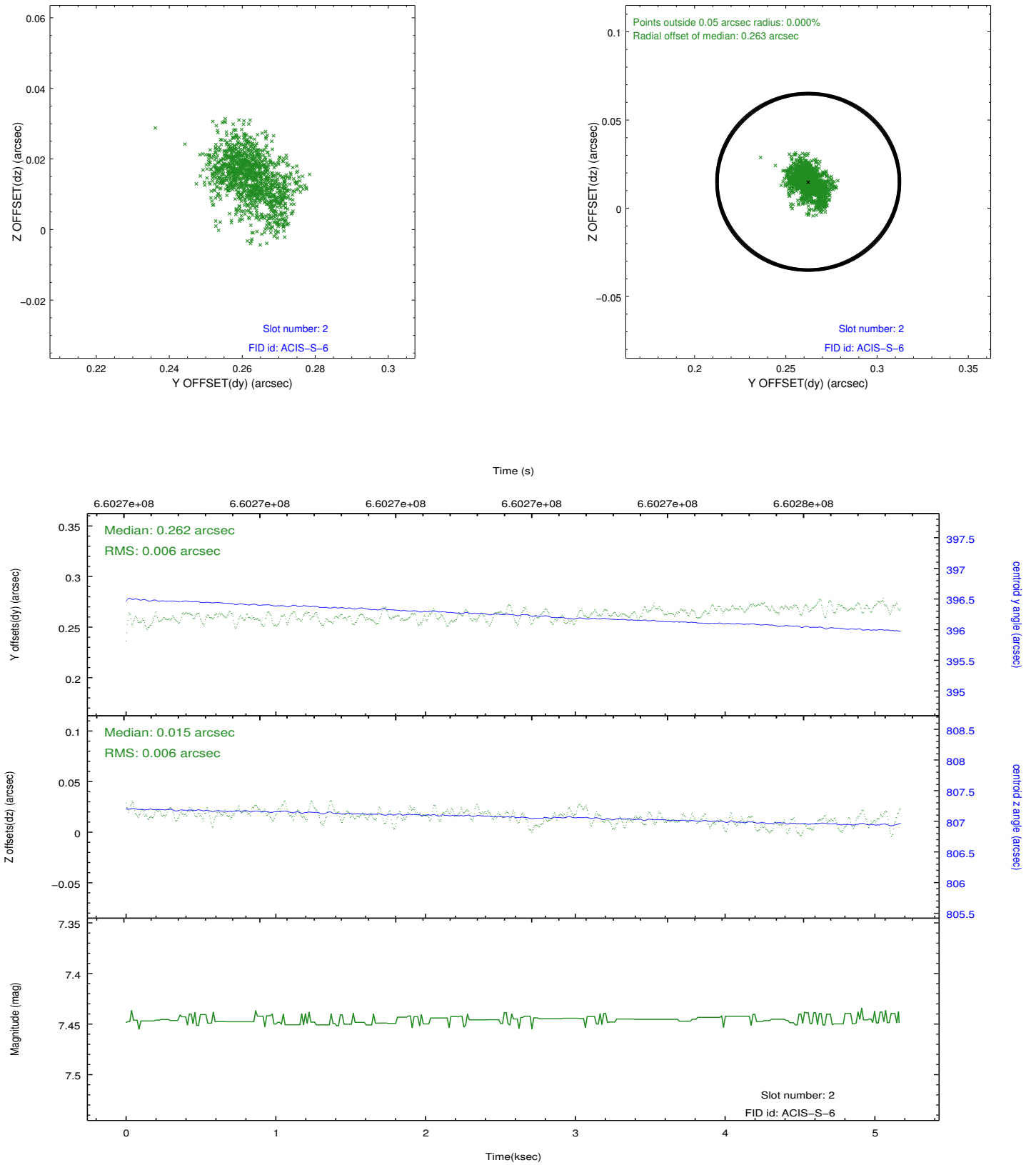
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2018.12.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.1739000399113

A.2 Comments

The guide star in slot 6 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.