

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21985 - L2 Version 1
Chandra X-Ray Center

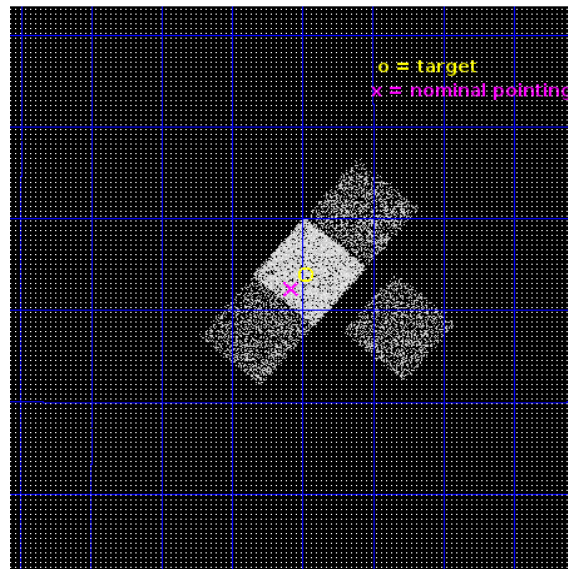
L2 Processing Date : Dec 13 2018

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1 Front

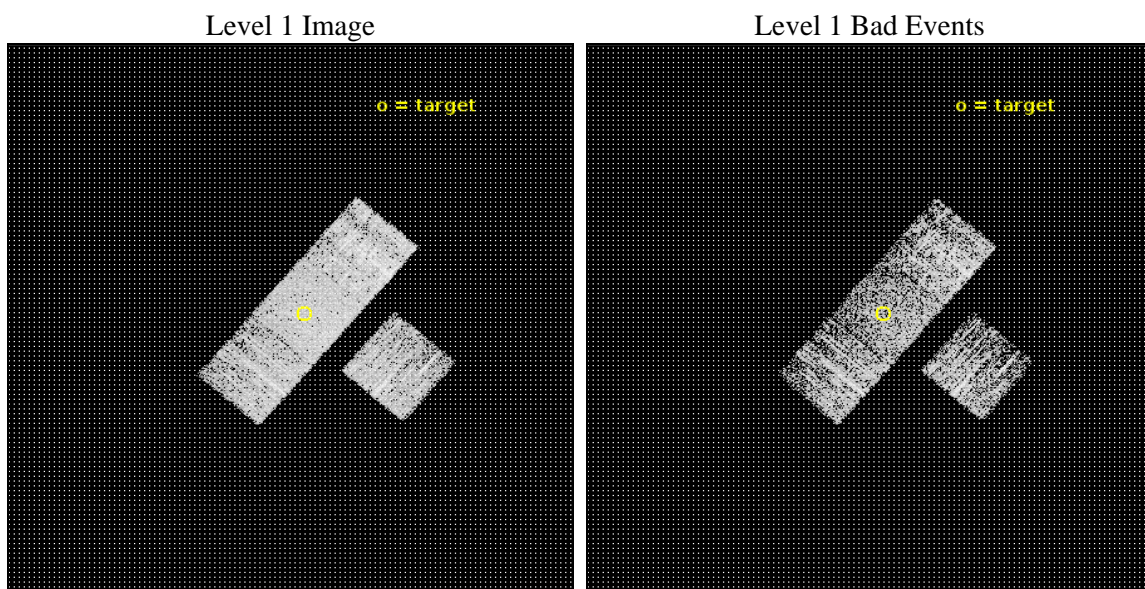
seq_num	100169	Sequence number
obs_id	21985	Observation id
title	Close encounter with comet 46P/Wirtanen: X-ray tomography of the coma	Proposal title
observer	Dennis Bodewits	Principal investigator
object	46P/Wirtanen	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	54.243718	Observer's specified target RA [deg]
dec_targ	10.396987	Observer's specified target Dec [deg]
ra_nom	54.269609155649	Nominal RA [deg]
dec_nom	10.372553901756	Nominal Dec [deg]
roll_nom	310.55200273526	Nominal Roll [deg]
revision	1	Processing version of data
ontime	2179.30001688	Sum of GTIs [s]
livetime	2150.8258577822	Livetime [s]
ontime3	2176.1589463949	Sum of GTIs [s]
ontime6	2179.30001688	Sum of GTIs [s]
ontime7	2179.30001688	Sum of GTIs [s]
ontime8	2176.1589667797	Sum of GTIs [s]
l2events	13627	Number of level 2 events



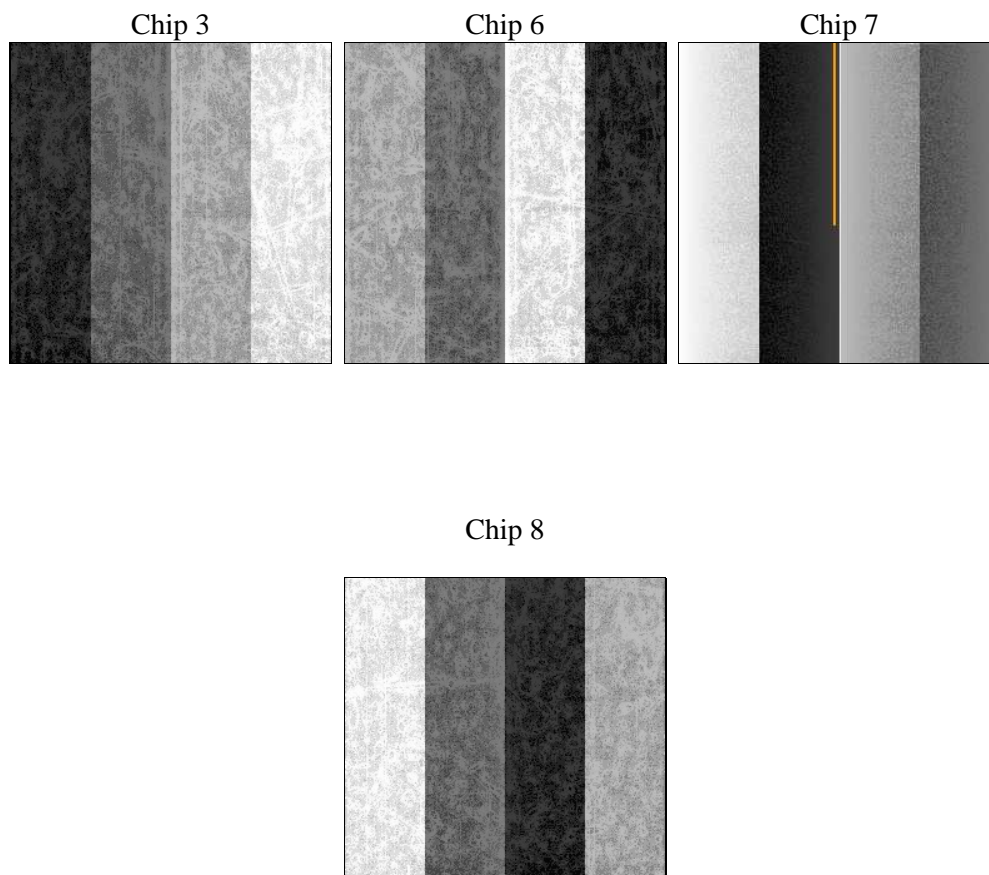
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	2179.30001688	Sum of GTIs [s]
caldsver	4.8.2	 	ontime3	2176.1589463949	Sum of GTIs [s]
date	2018-12-14T00:50:21	Date and time of file creation	ontime6	2179.30001688	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	2179.30001688	Sum of GTIs [s]
			ontime8	2176.1589667797	Sum of GTIs [s]
			l1events	100237	Number of level 1 events

2.1.4 Events

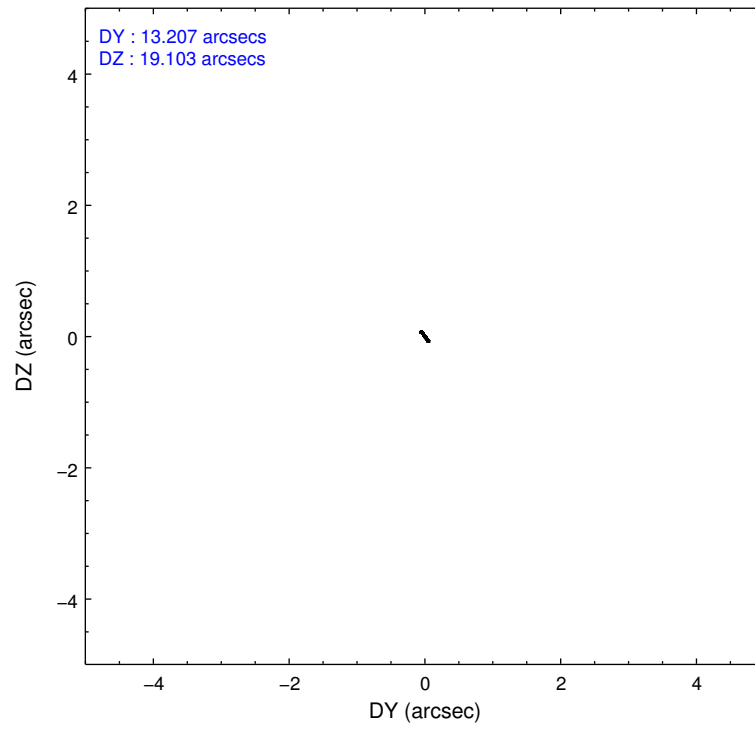
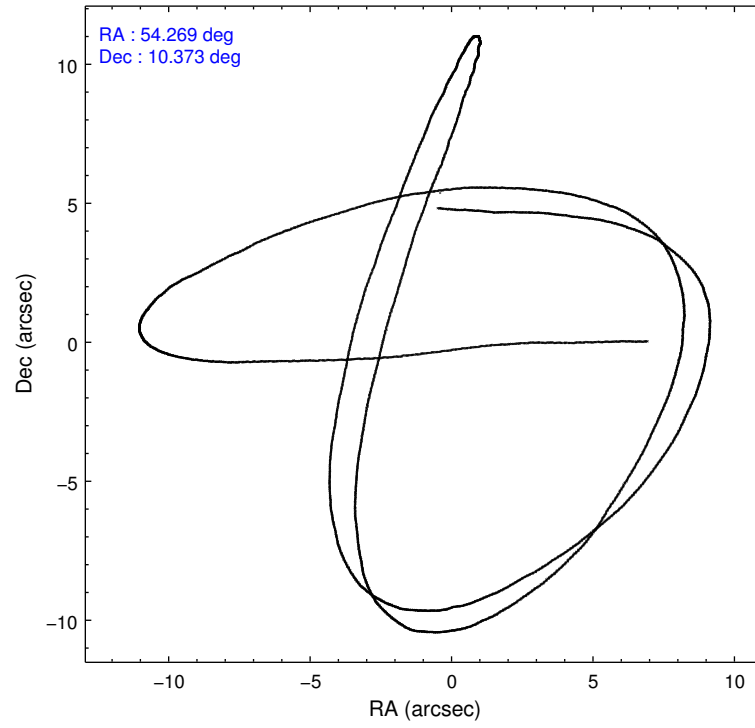
	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	20383	21778	27987	30089
rejected events	18635	19961	19068	23906
rejected %	91%	91%	68%	79%

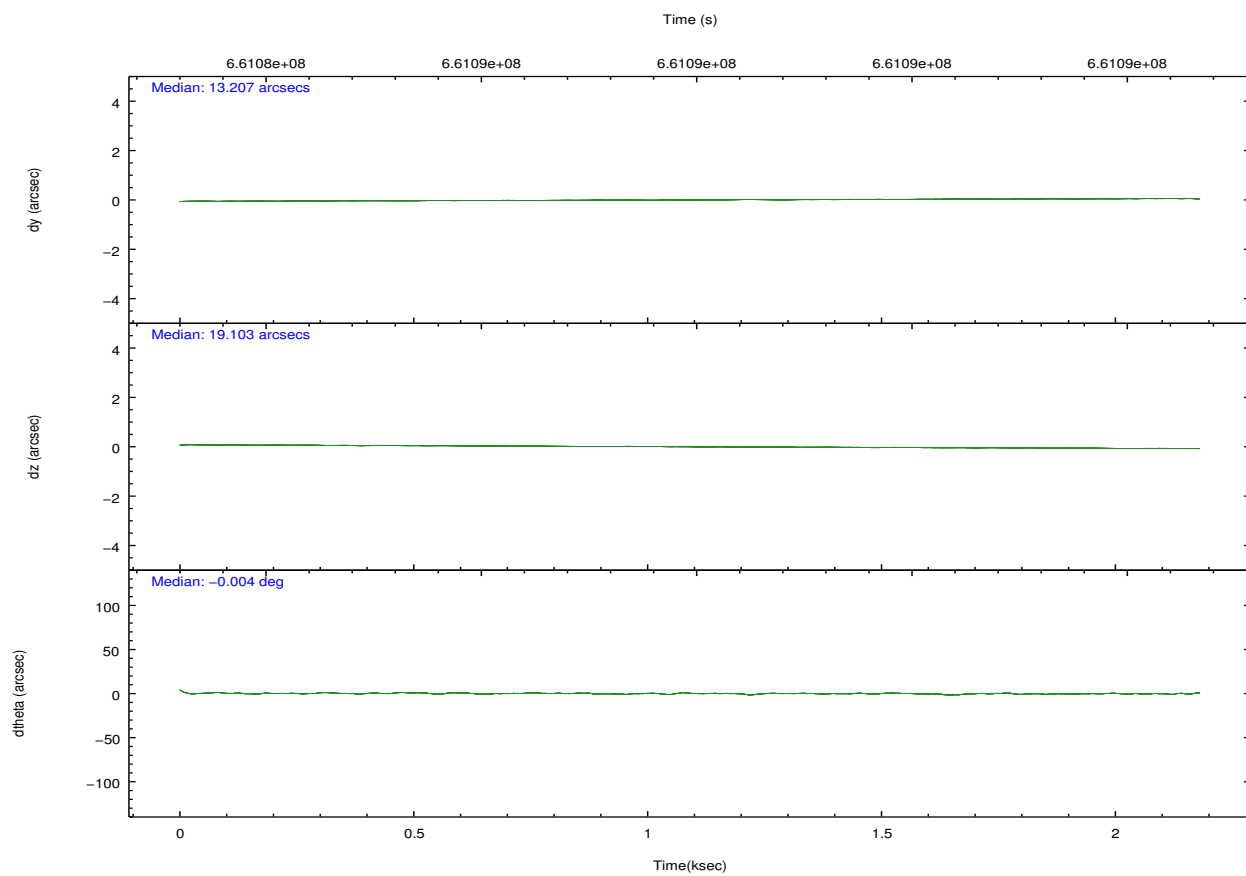
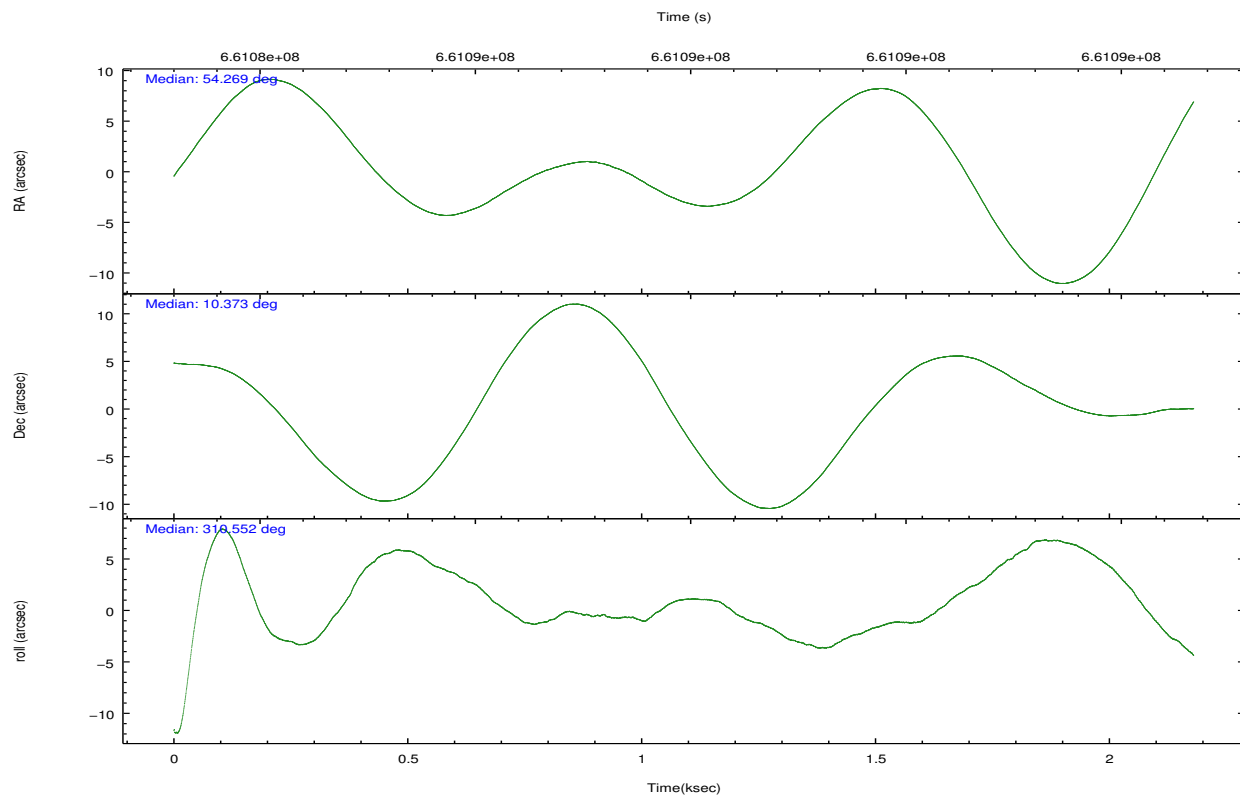
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	769	757	1035	2153
	3%	3%	3%	7%
grade 1 events	10	6	39	20
	0%	0%	0%	0%
grade 2 events	534	567	2537	1872
	2%	2%	9%	6%
grade 3 events	248	254	962	886
	1%	1%	3%	2%
grade 4 events	226	222	902	852
	1%	1%	3%	2%
grade 5 events	959	970	2821	1544
	4%	4%	10%	5%
grade 6 events	479	586	6427	2142
	2%	2%	22%	7%
grade 7 events	17158	18416	13264	20620
	84%	84%	47%	68%

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	54.243120	54.26960915564868	CCD I2 on	O2	N
[deg] Pointing Dec	10.381288	10.37255390175556	CCD I3 on	Y	Y
[deg] Pointing Roll	310.400106	310.55200273526	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	-190.1400660498719	CCD S5 on	N	N
[mm] SIM translation stage offset	0	0.00754346686406393	Number of optional ACIS chips dropped	2	2
[s] Observation start time (MET)	661085058.184000	661084491.91652	On-chip summing requested	N	N
Observation start date	2018-12-13T10:43:09	2018-12-13T10:34:51	Subarray requested	NONE	NONE
[s] Observation end time (MET)	661087058.184000	661087386.51669	Alternating exposures requested	N	N
Observation end date	2018-12-13T11:16:29	2018-12-13T11:23:06	[s] Primary exposure time	0.000000	3.1
Read mode	TIMED	TIMED			

2.3 Aspect



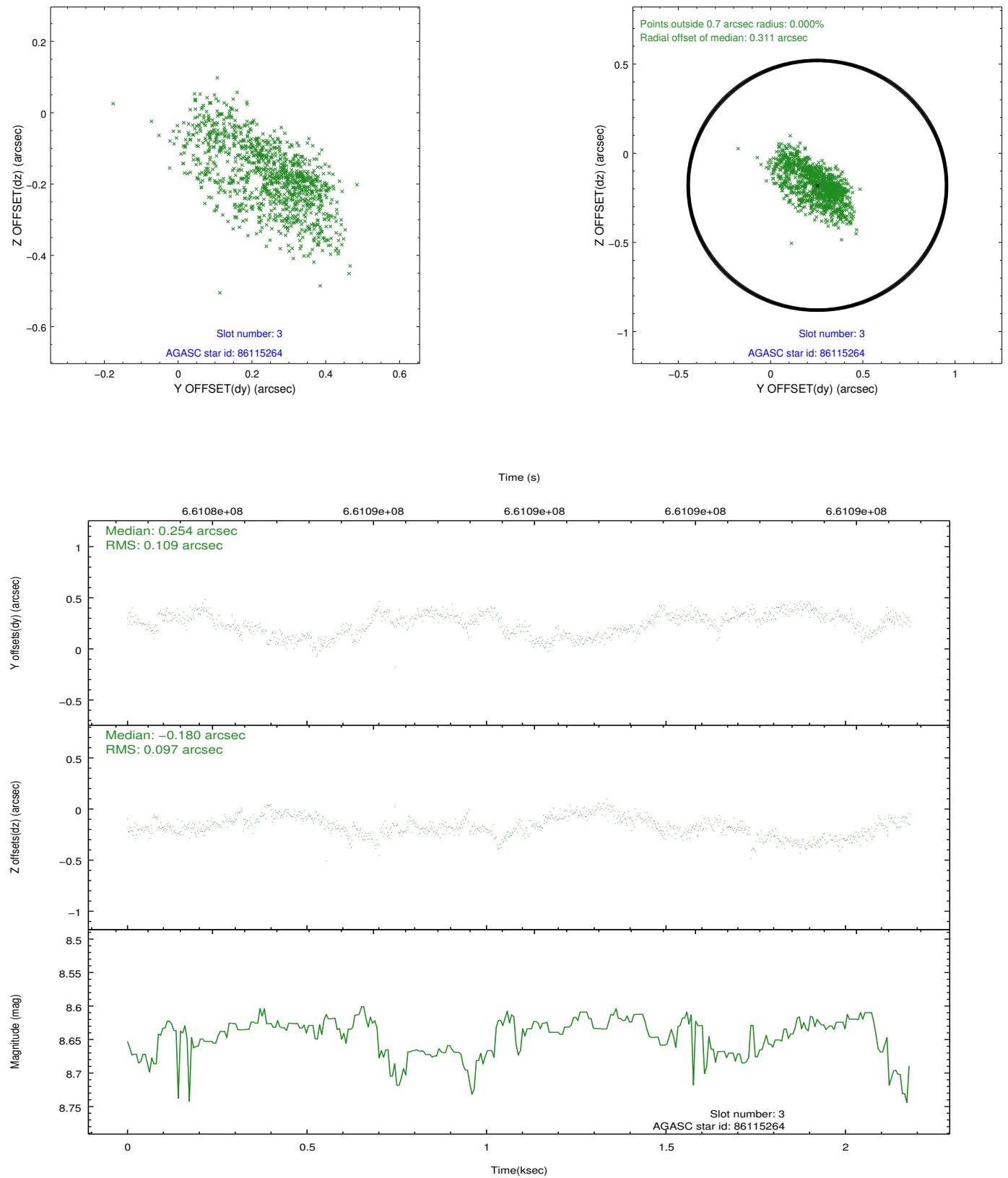


Slot Statistics

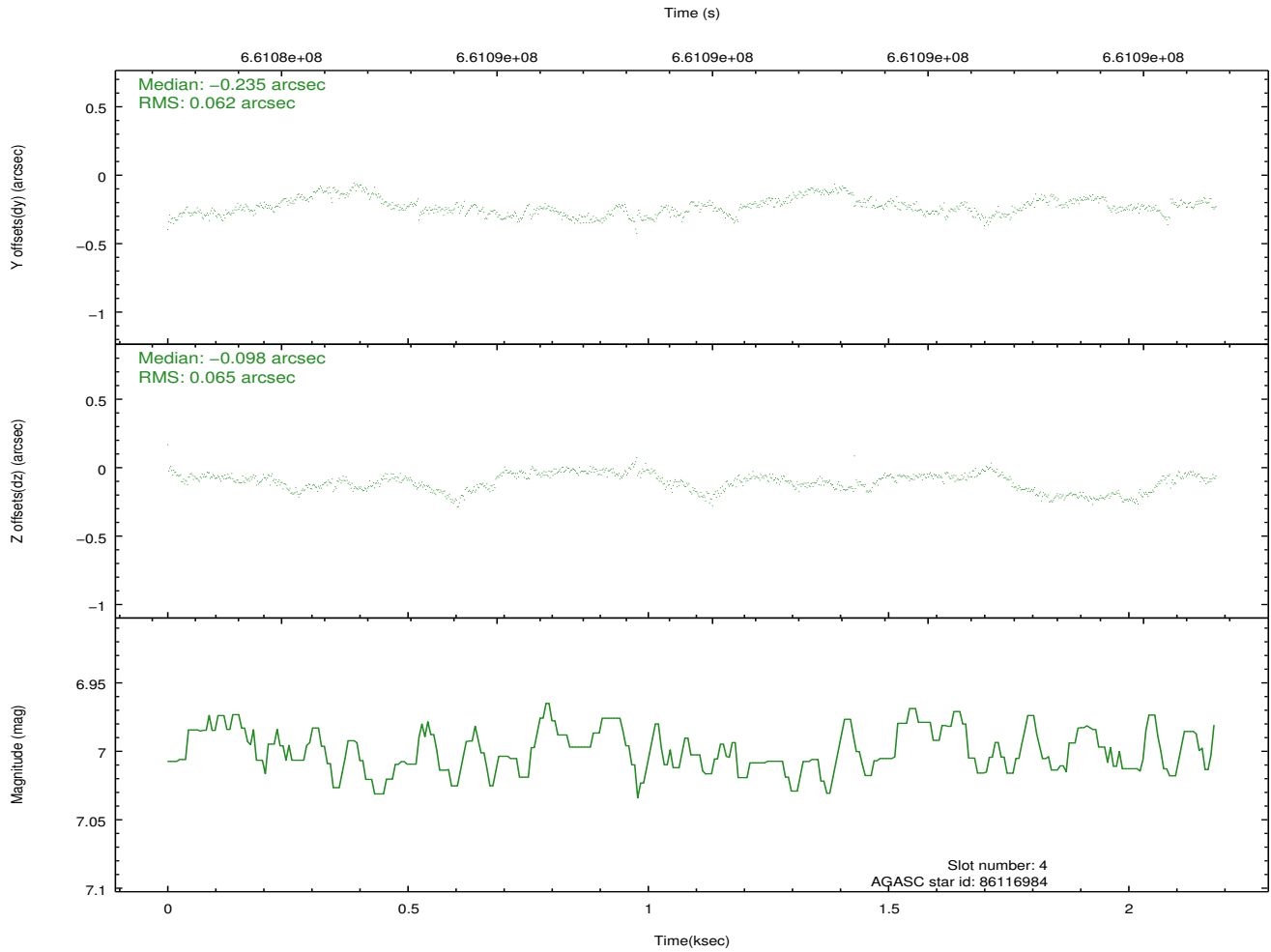
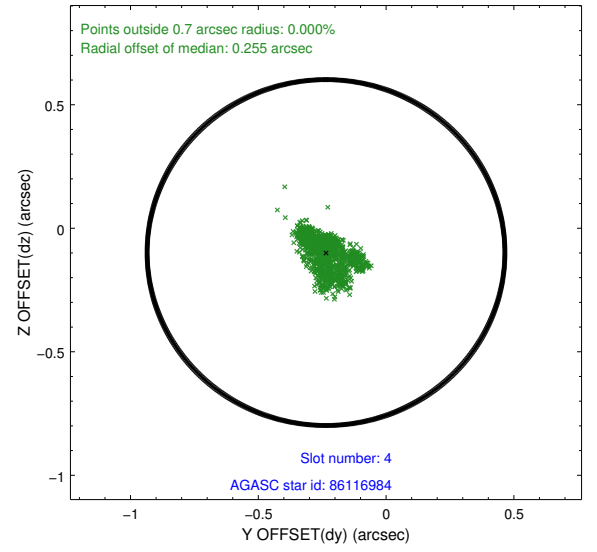
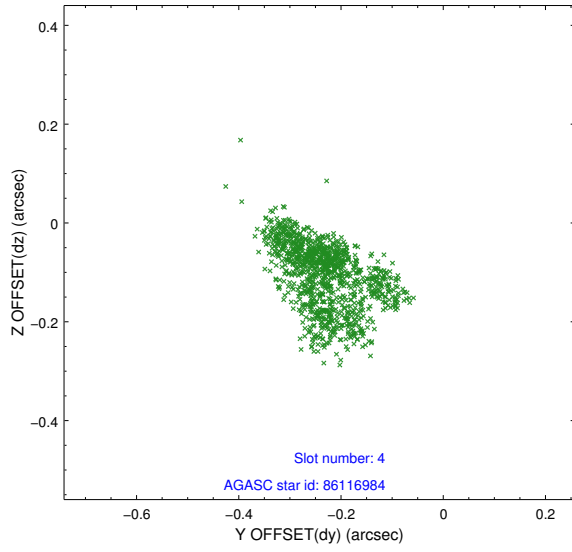
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.11	532	1.000	0.240	0.075	0.006	0.012	0.000000	0.000000	930.10	-1736
1	FID		ACIS-S-2	7.01	532	1.000	-0.352	-0.184	0.007	0.013	0.000000	0.000000	-764.73	-1744
2	FID		ACIS-S-6	7.27	532	1.000	0.091	0.113	0.007	0.011	0.000000	0.000000	394.31	802
3	GUIDE	used	86115264	8.64	1062	1.000	0.254	-0.180	0.157	0.253	54.191764	9.800176	1475.60	-1494
4	GUIDE	used	86116984	7.00	1065	1.000	-0.235	-0.098	0.101	0.152	54.479042	9.932832	1773.63	-410
5	GUIDE	used	86511872	9.73	1061	1.000	-0.002	0.062	0.231	0.426	54.009934	10.794884	-1666.28	337
6	GUIDE	used	86512984	9.05	1064	1.000	-0.210	-0.183	0.101	0.162	54.433894	10.707148	-456.53	1275
7	GUIDE	used	85592624	7.72	1063	1.000	0.204	0.381	0.092	0.146	53.453940	10.233788	-1409.80	-2469

2.4 Star Slots

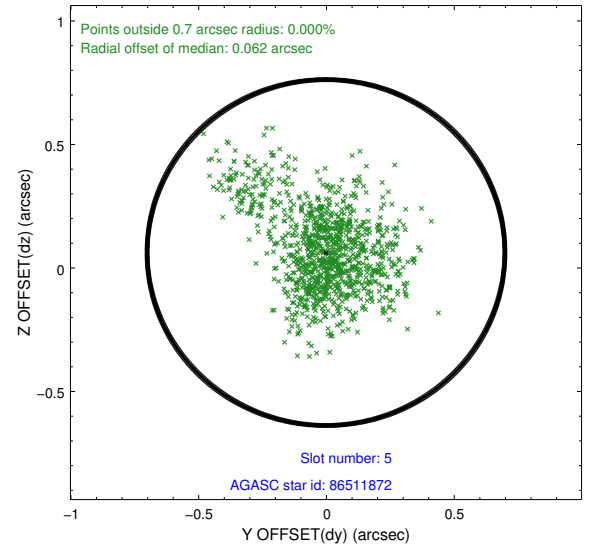
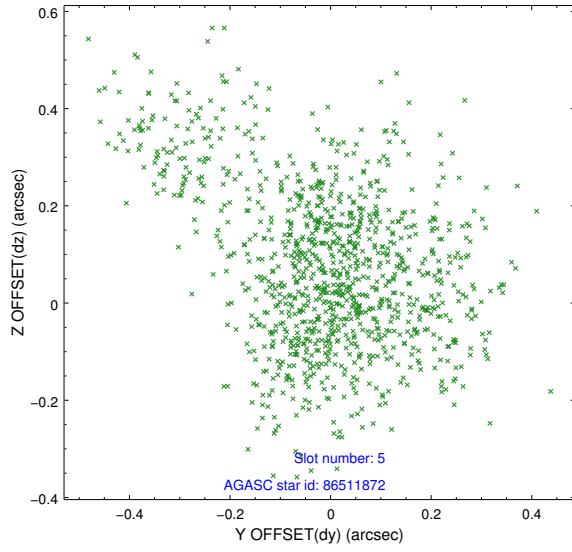
2.4.1 Slot 3



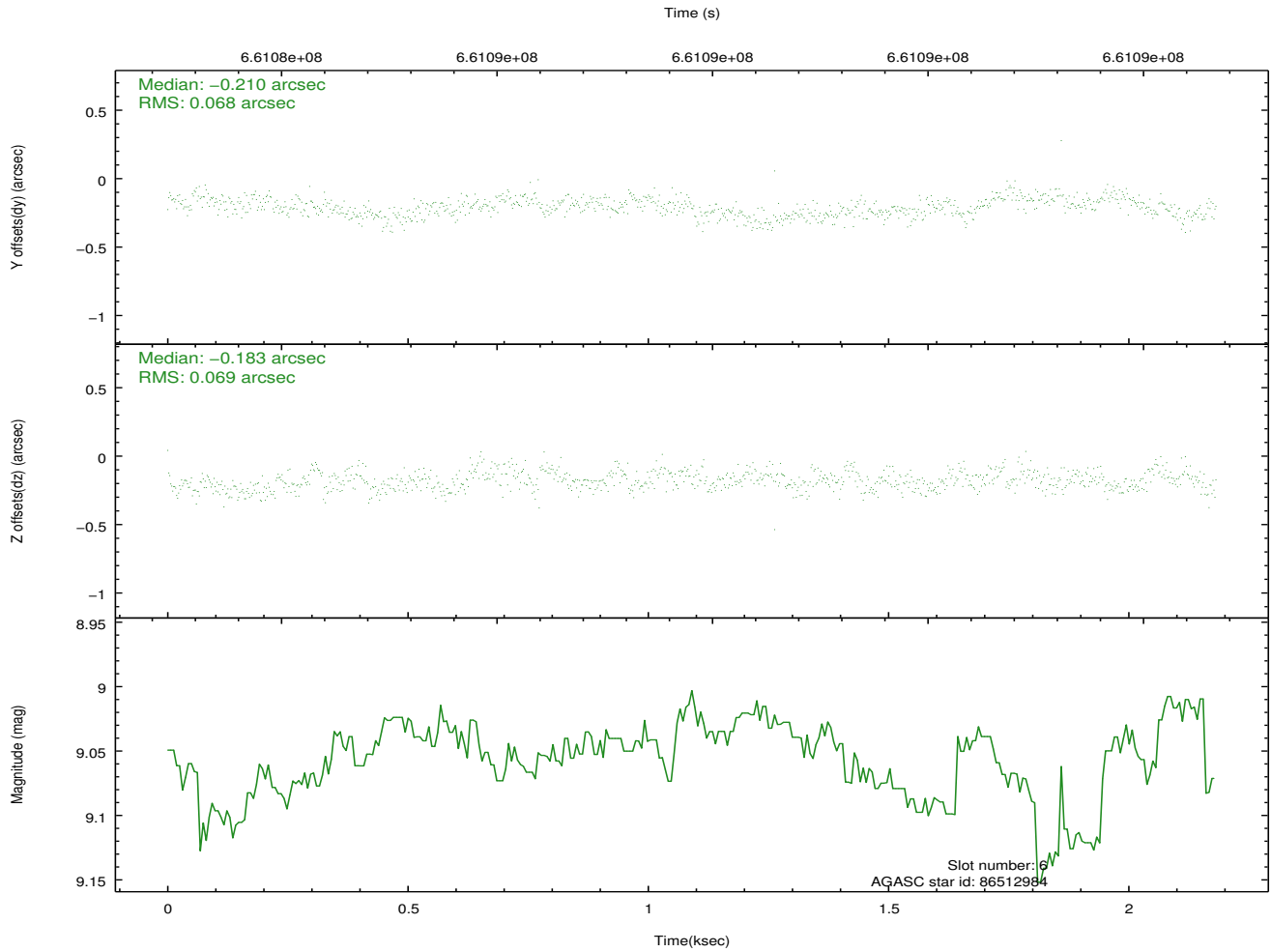
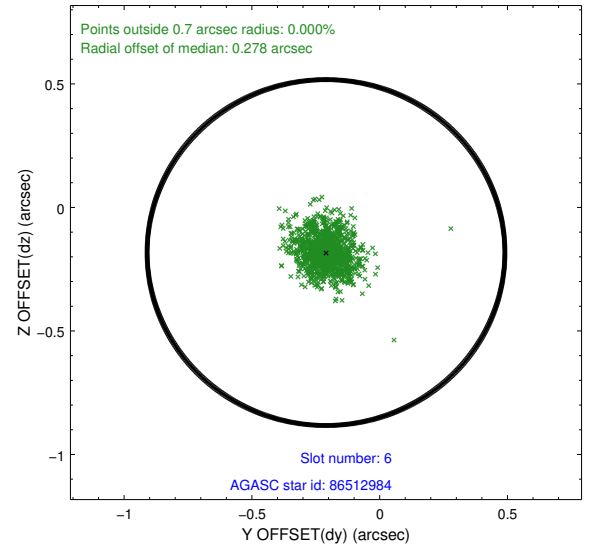
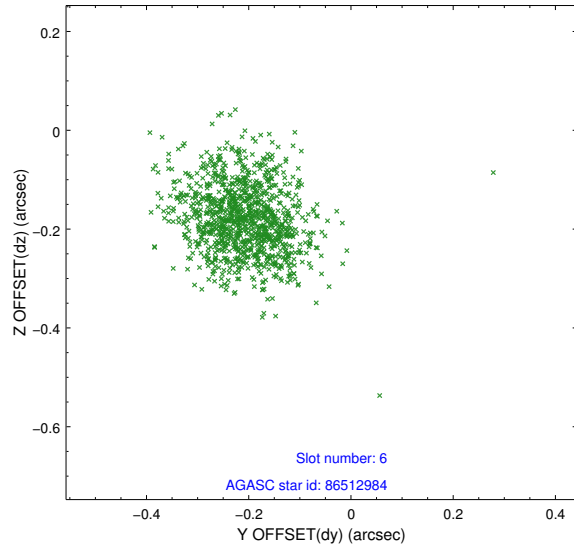
2.4.2 Slot 4



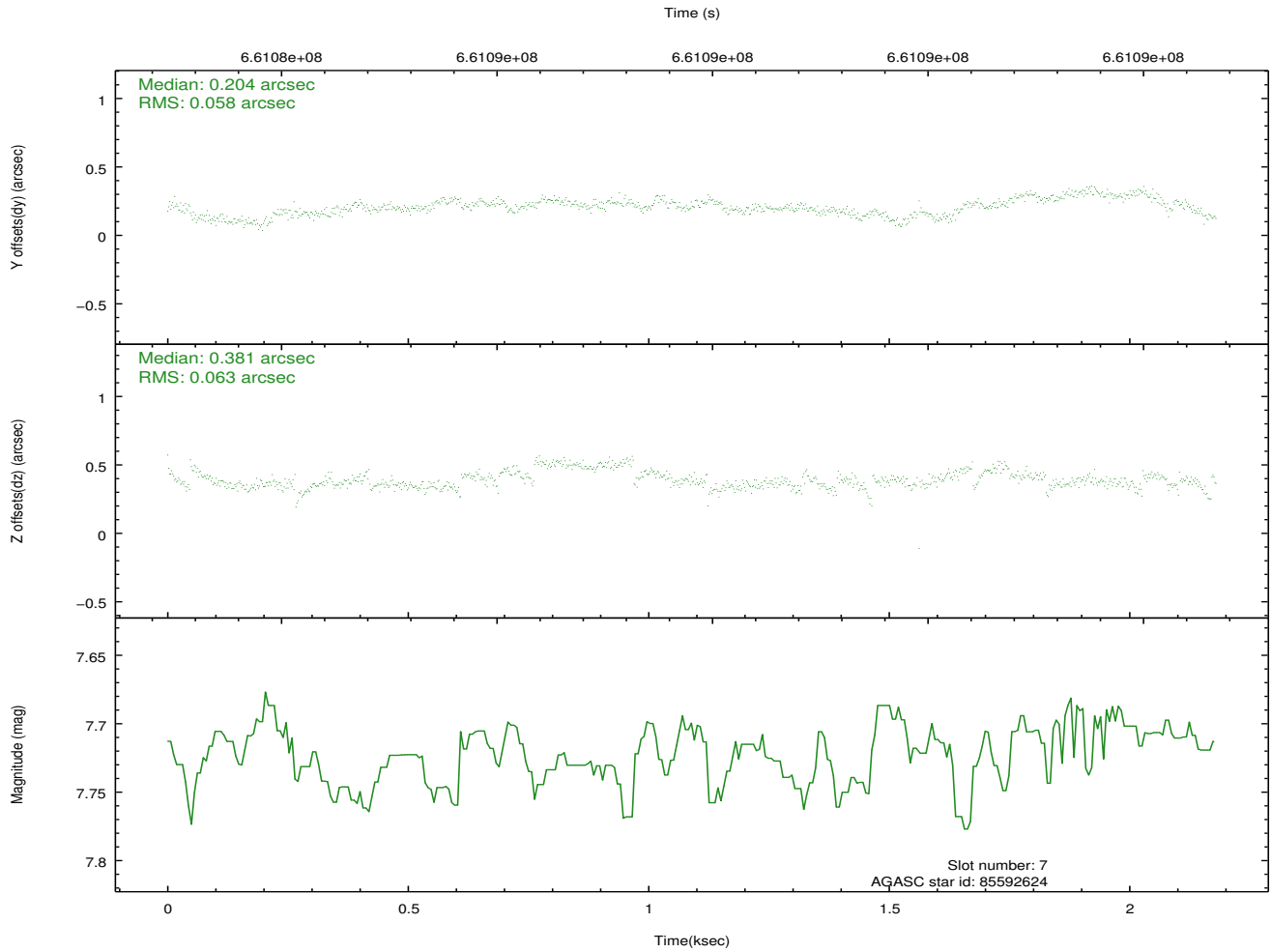
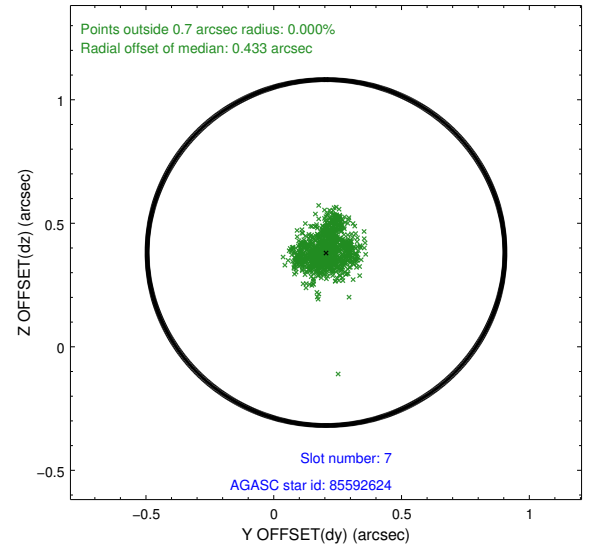
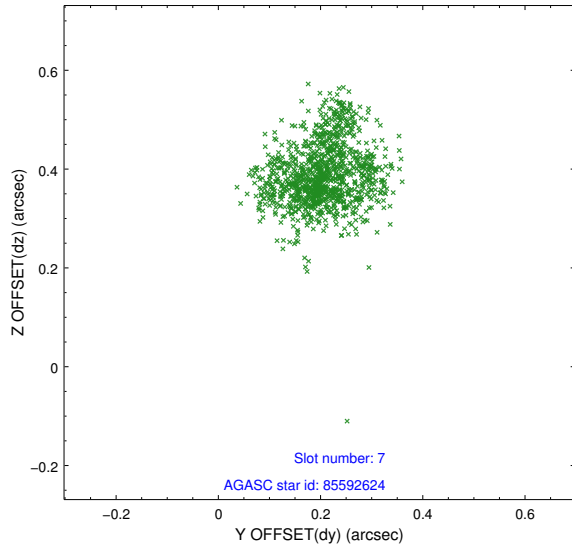
2.4.3 Slot 5



2.4.4 Slot 6

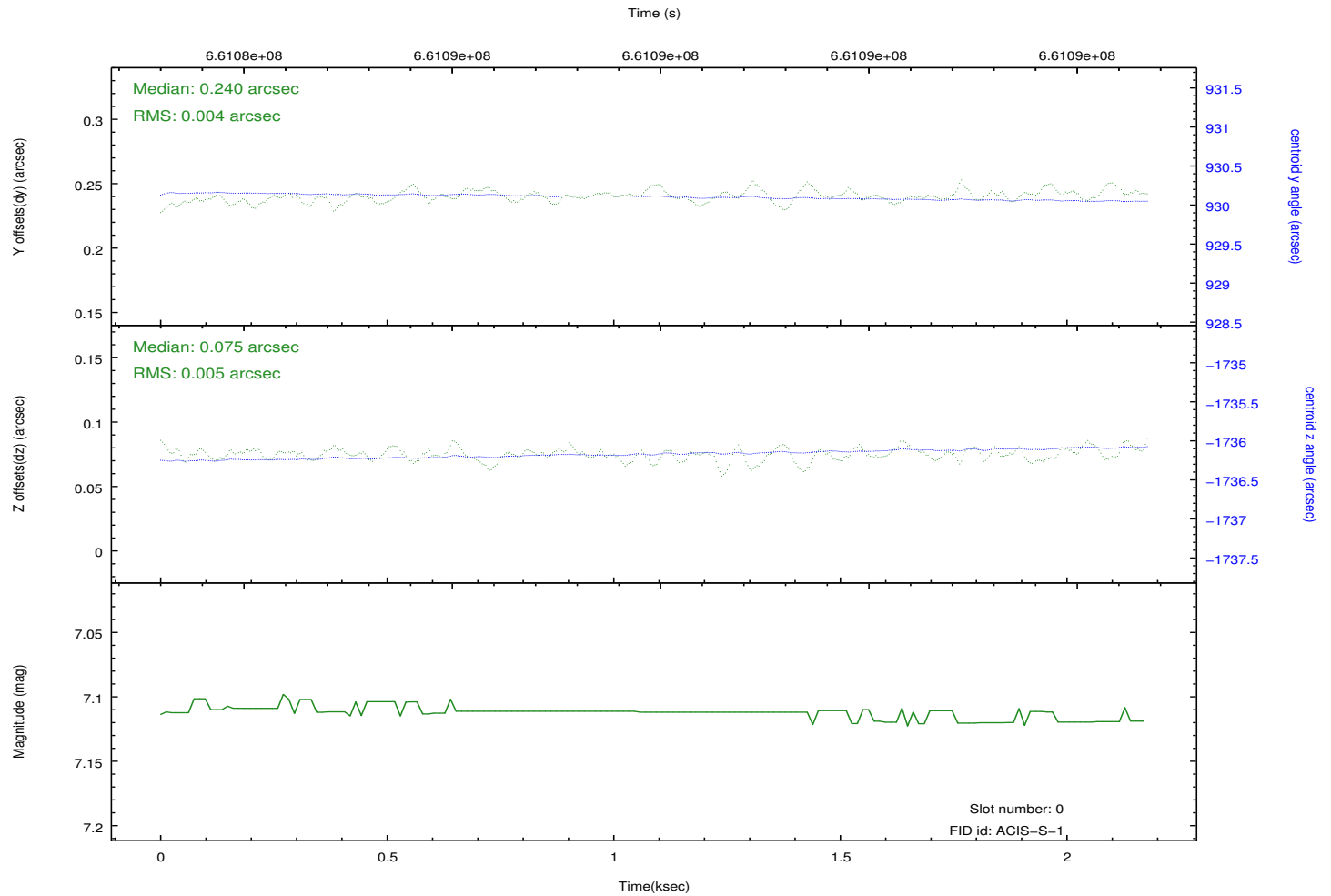
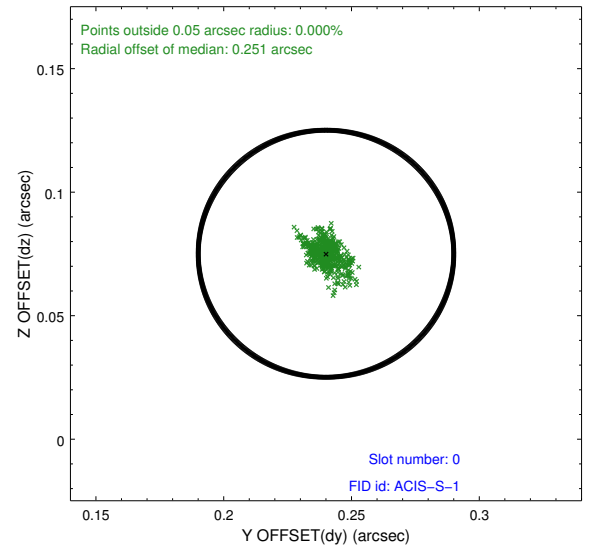
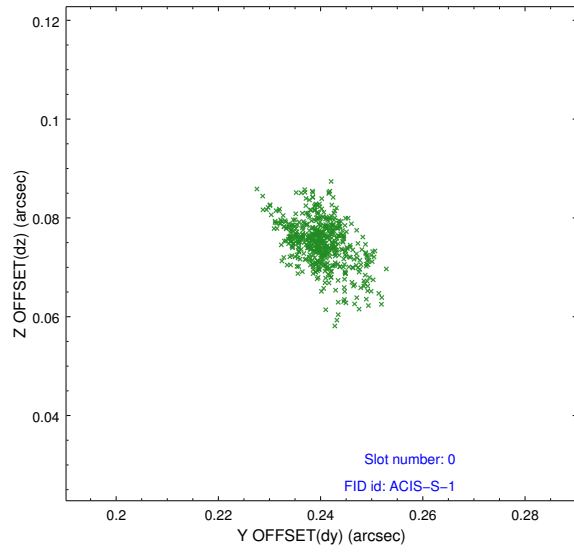


2.4.5 Slot 7

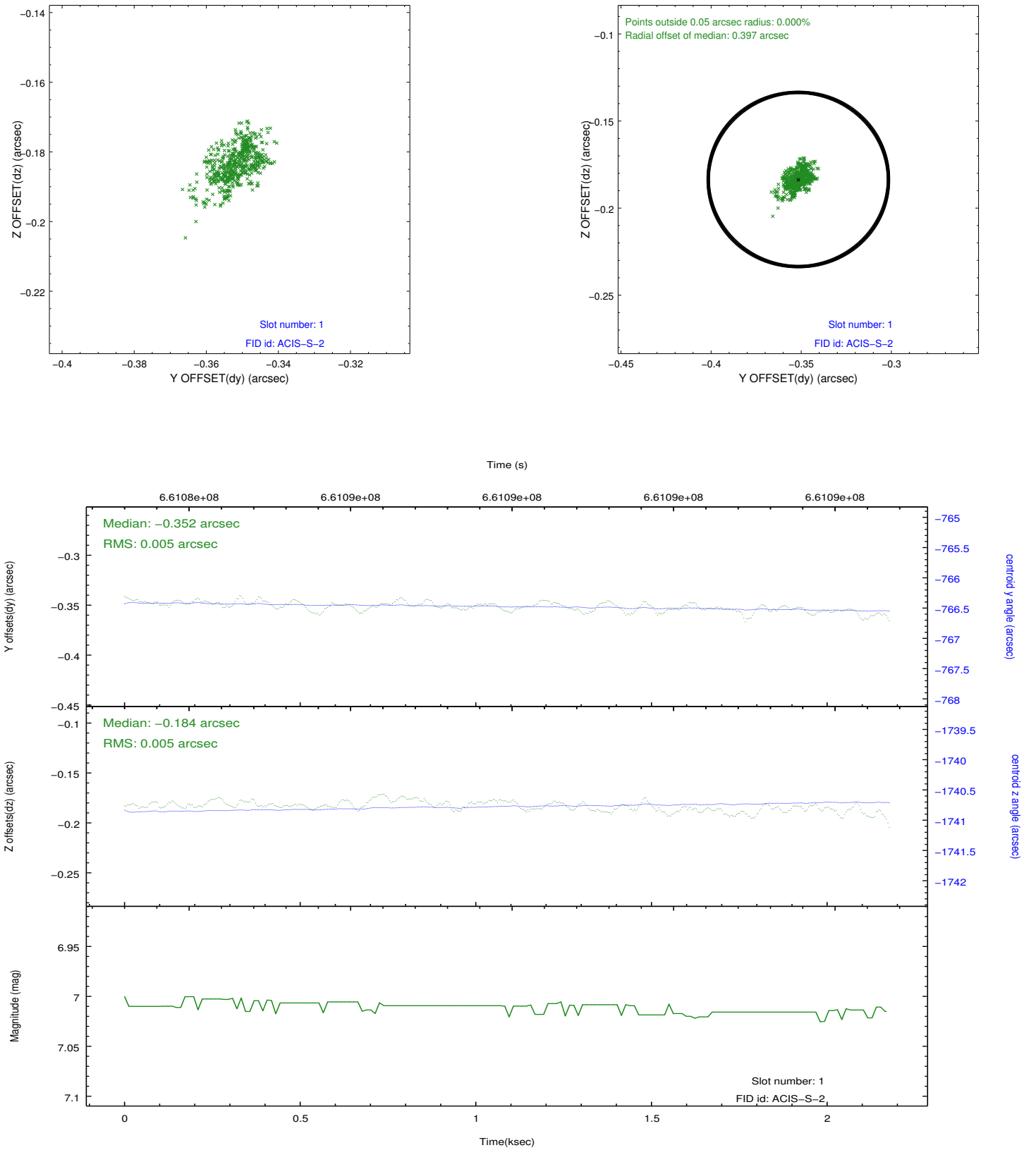


2.5 FID Slots

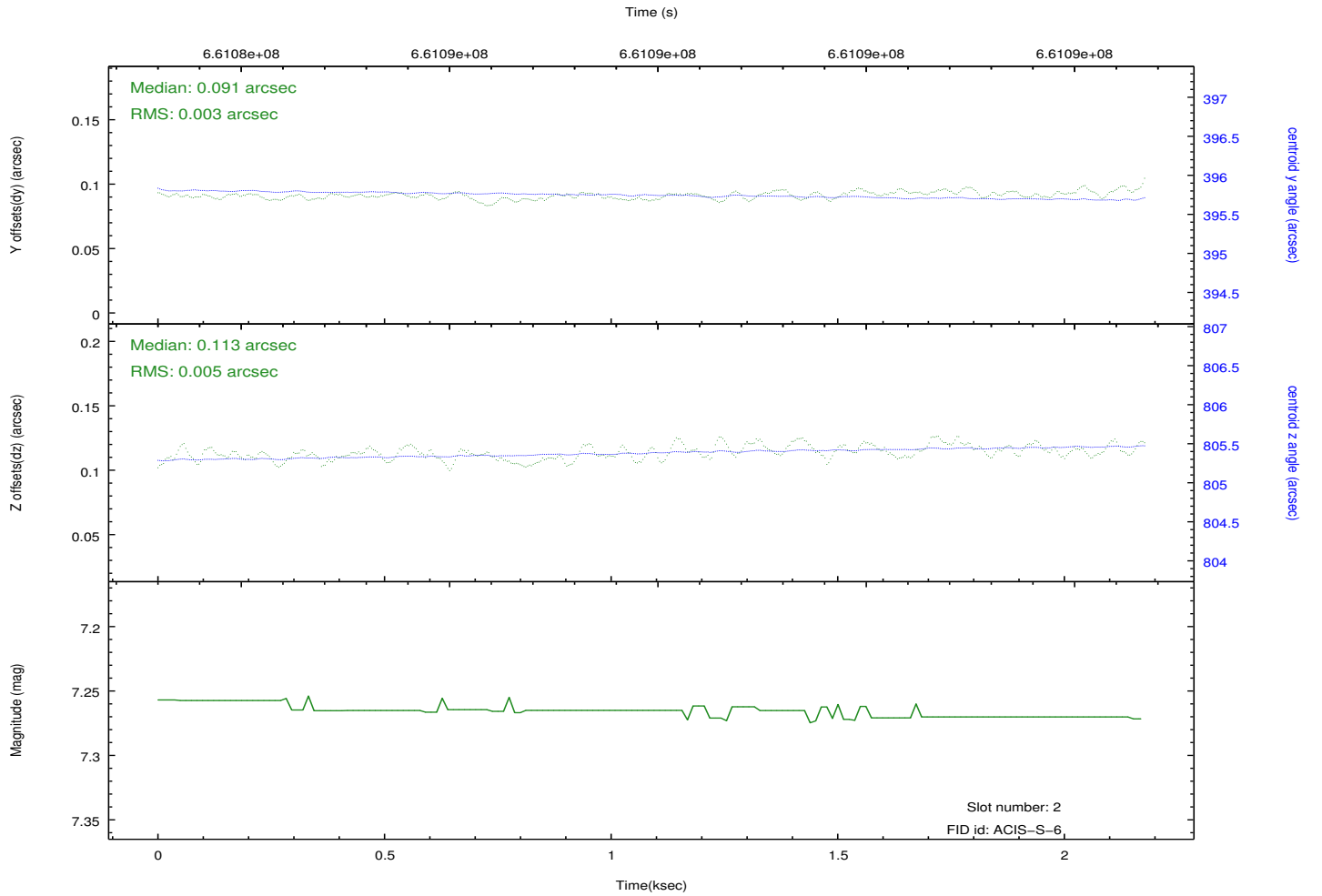
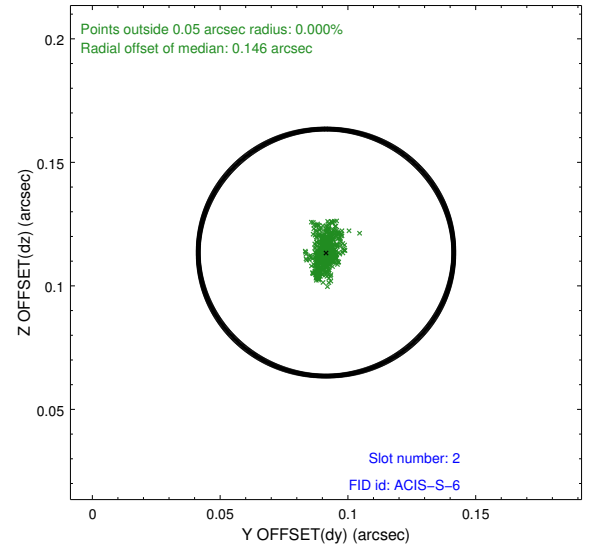
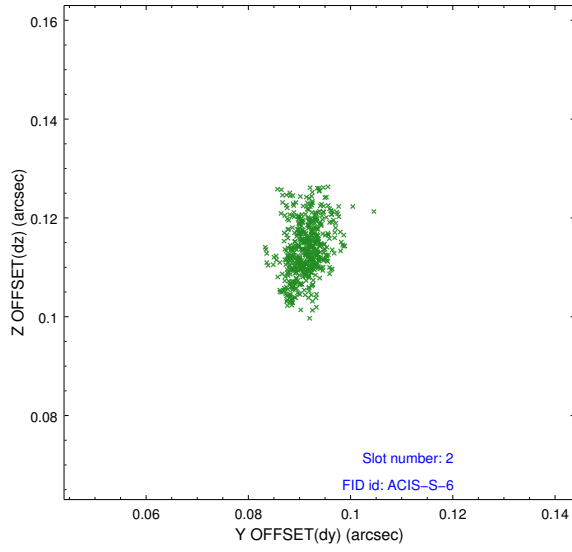
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2018.12.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.17930001688

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.