

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21982 - L2 Version 1
Chandra X-Ray Center

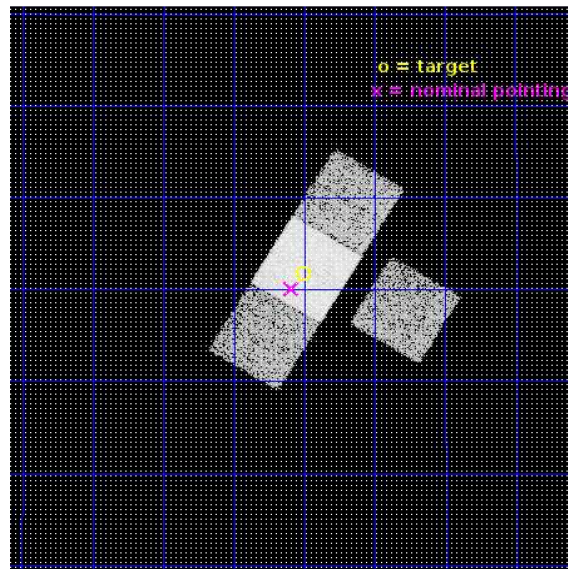
L2 Processing Date : Dec 13 2018

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1 Front

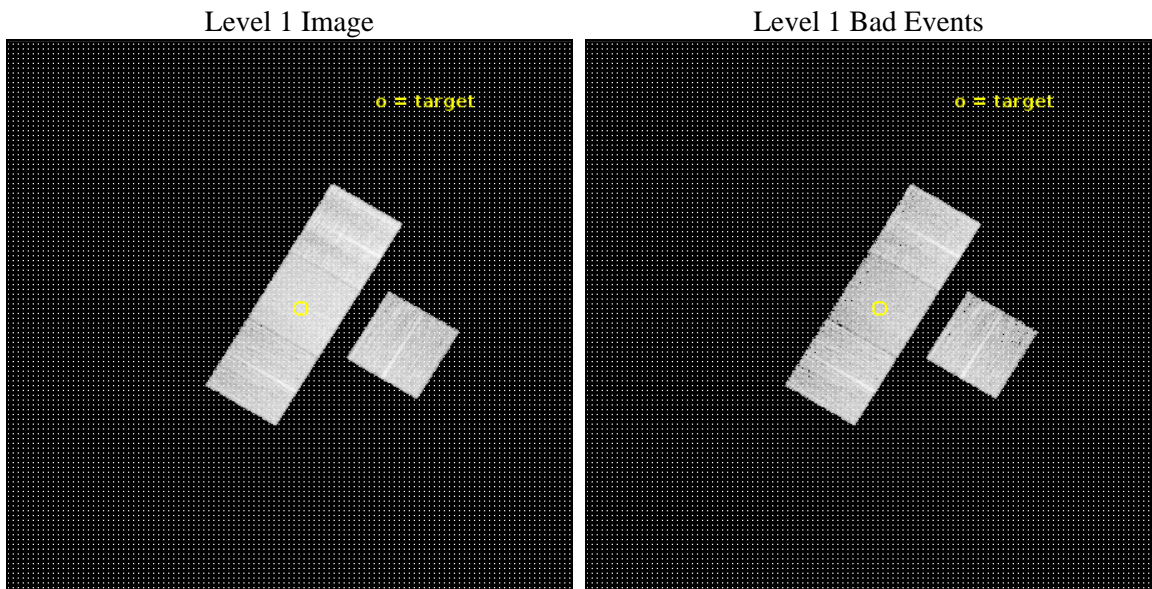
seq_num	100169	Sequence number
obs_id	21982	Observation id
title	Close encounter with comet 46P/Wirtanen: X-ray tomography of the coma	Proposal title
observer	Dennis Bodewits	Principal investigator
object	46P/Wirtanen	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	54.126578	Observer's specified target RA [deg]
dec_targ	10.196807	Observer's specified target Dec [deg]
ra_nom	54.148000346569	Nominal RA [deg]
dec_nom	10.168370976807	Nominal Dec [deg]
roll_nom	301.06412398931	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10074.641980886	Sum of GTIs [s]
livetime	9943.0093665627	Livetime [s]
ontime3	10074.55990088	Sum of GTIs [s]
ontime6	10074.600940943	Sum of GTIs [s]
ontime7	10074.641980886	Sum of GTIs [s]
ontime8	10071.377879977	Sum of GTIs [s]
l2events	64552	Number of level 2 events



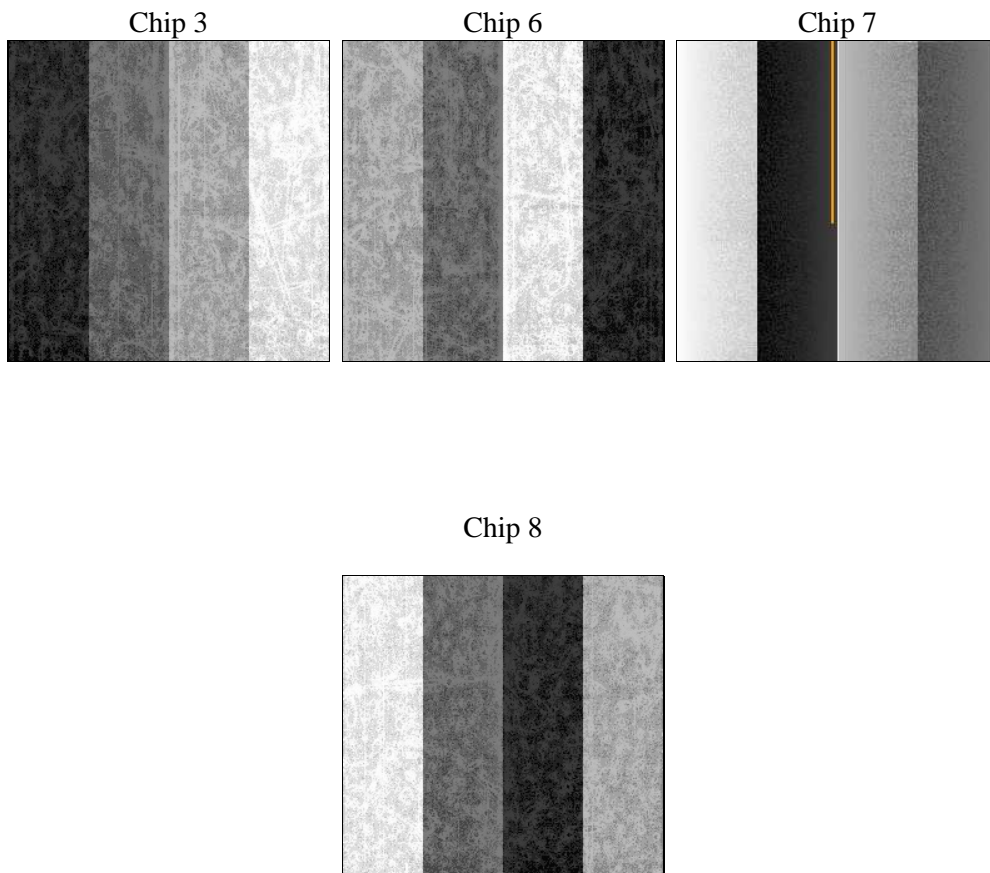
2 OBI

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	10.7.1	Processing system revision	ontime	10074.641980886	Sum of GTIs [s]
caldsver	4.8.2	 	ontime3	10074.55990088	Sum of GTIs [s]
date	2018-12-14T00:50:19	Date and time of file creation	ontime6	10074.600940943	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	10074.641980886	Sum of GTIs [s]
			ontime8	10071.377879977	Sum of GTIs [s]
			l1events	338401	Number of level 1 events

2.1.4 Events

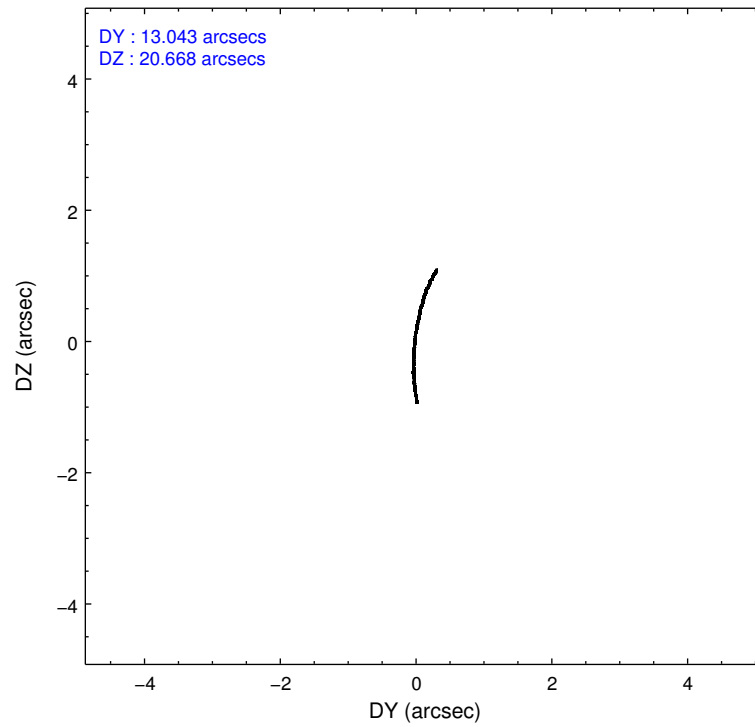
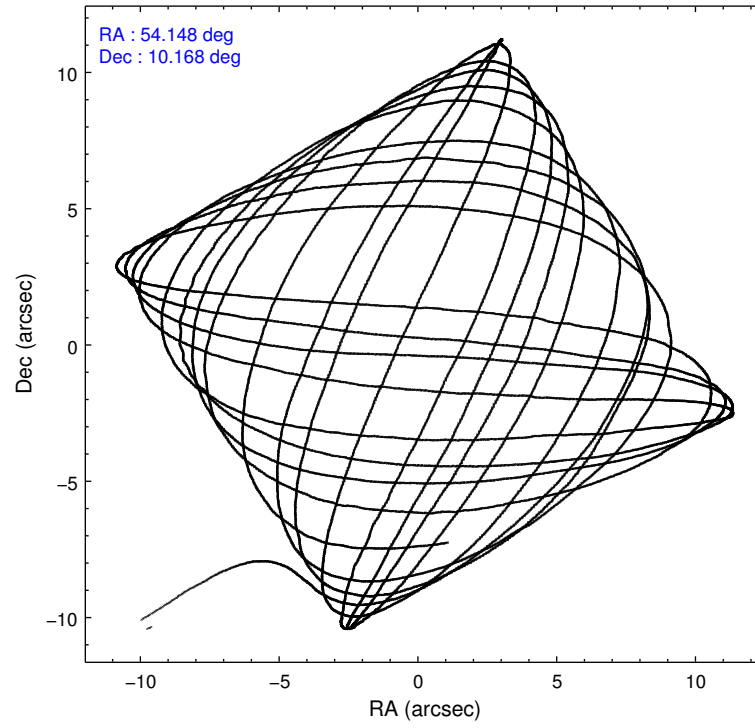
	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	67920	73338	96462	100681
rejected events	60006	64669	54765	71638
rejected %	88%	88%	56%	71%

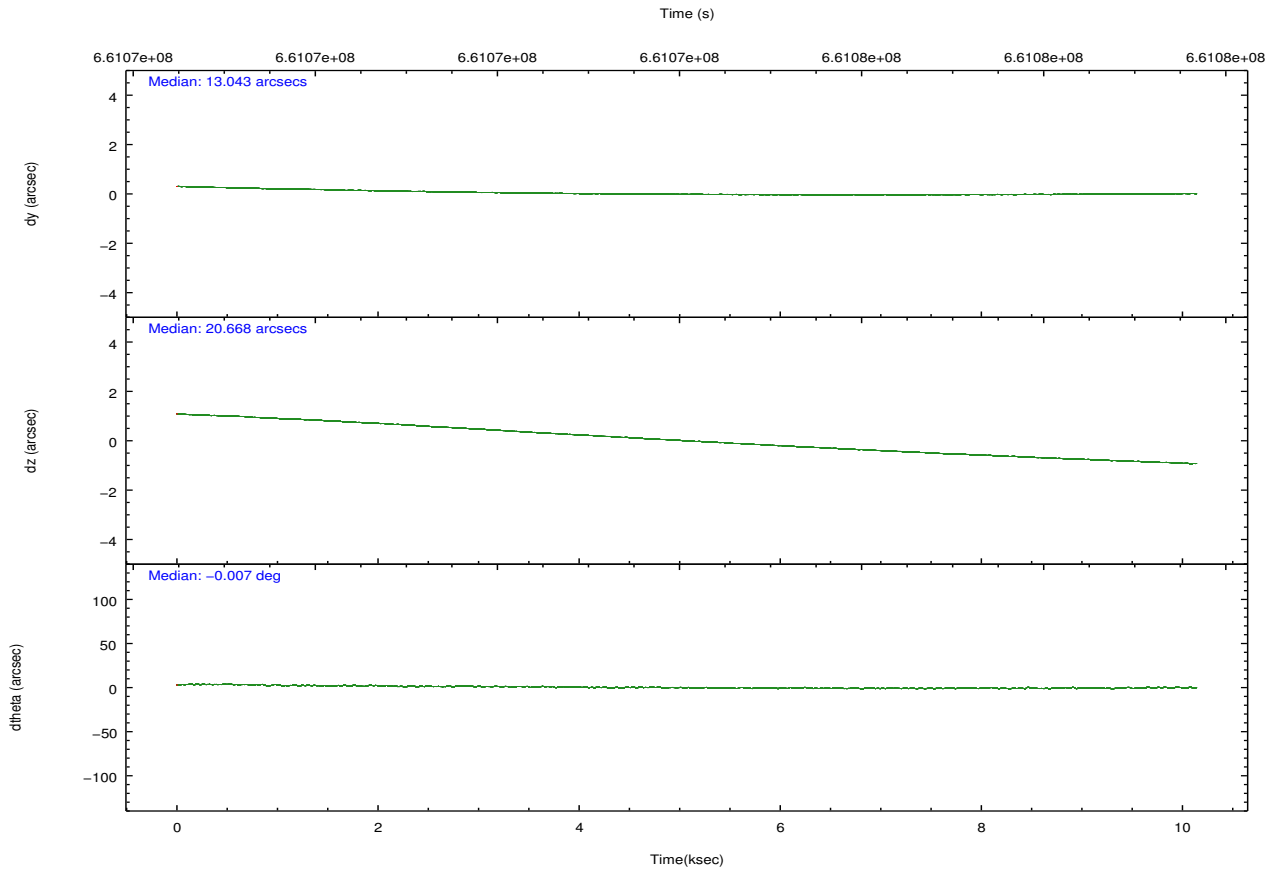
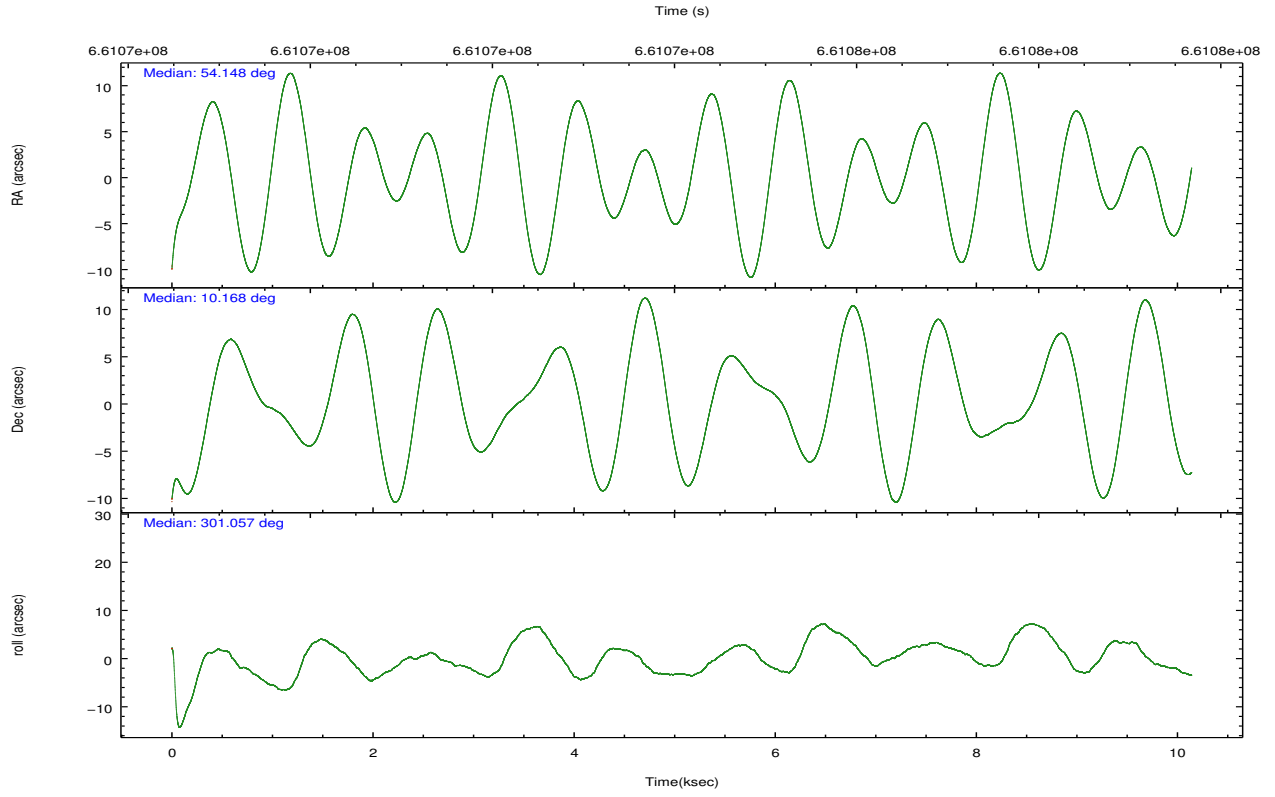
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	2949	2848	3407	8272
	4%	3%	3%	8%
grade 1 events	26	38	151	84
	0%	0%	0%	0%
grade 2 events	1710	2069	9143	7149
	2%	2%	9%	7%
grade 3 events	886	885	3388	3108
	1%	1%	3%	3%
grade 4 events	811	880	3235	2908
	1%	1%	3%	2%
grade 5 events	3488	3565	9479	5347
	5%	4%	9%	5%
grade 6 events	1649	2093	23069	8131
	2%	2%	23%	8%
grade 7 events	56401	60960	44590	65682
	83%	83%	46%	65%

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	54.123446	54.14800034656943	CCD I2 on	O2	N
[deg] Pointing Dec	10.181360	10.16837097680738	CCD I3 on	Y	Y
[deg] Pointing Roll	300.911804	301.0641239893126	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
[s] Window start time (MET)	660009669.184000	660009669.184000	CCD S3 on	Y	Y
[s] Window stop time (MET)	660355269.184000	660355269.184000	CCD S4 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S5 on	N	N
[mm] SIM defocus	0	0.001444936568705701	Number of optional ACIS chips dropped	2	2
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	On-chip summing requested	N	N
[mm] SIM translation stage offset	0	0.00754346686406393	Subarray requested	NONE	NONE
[s] Observation start time (MET)	661069147.184000	661067859.75302	Alternating exposures requested	N	N
Observation start date	2018-12-13T06:17:58	2018-12-13T05:57:39	[s] Primary exposure time	0.000000	3.1
[s] Observation end time (MET)	661079147.184000	661079281.3286999			
Observation end date	2018-12-13T09:04:38	2018-12-13T09:08:01			
Read mode	TIMED	TIMED			

2.3 Aspect



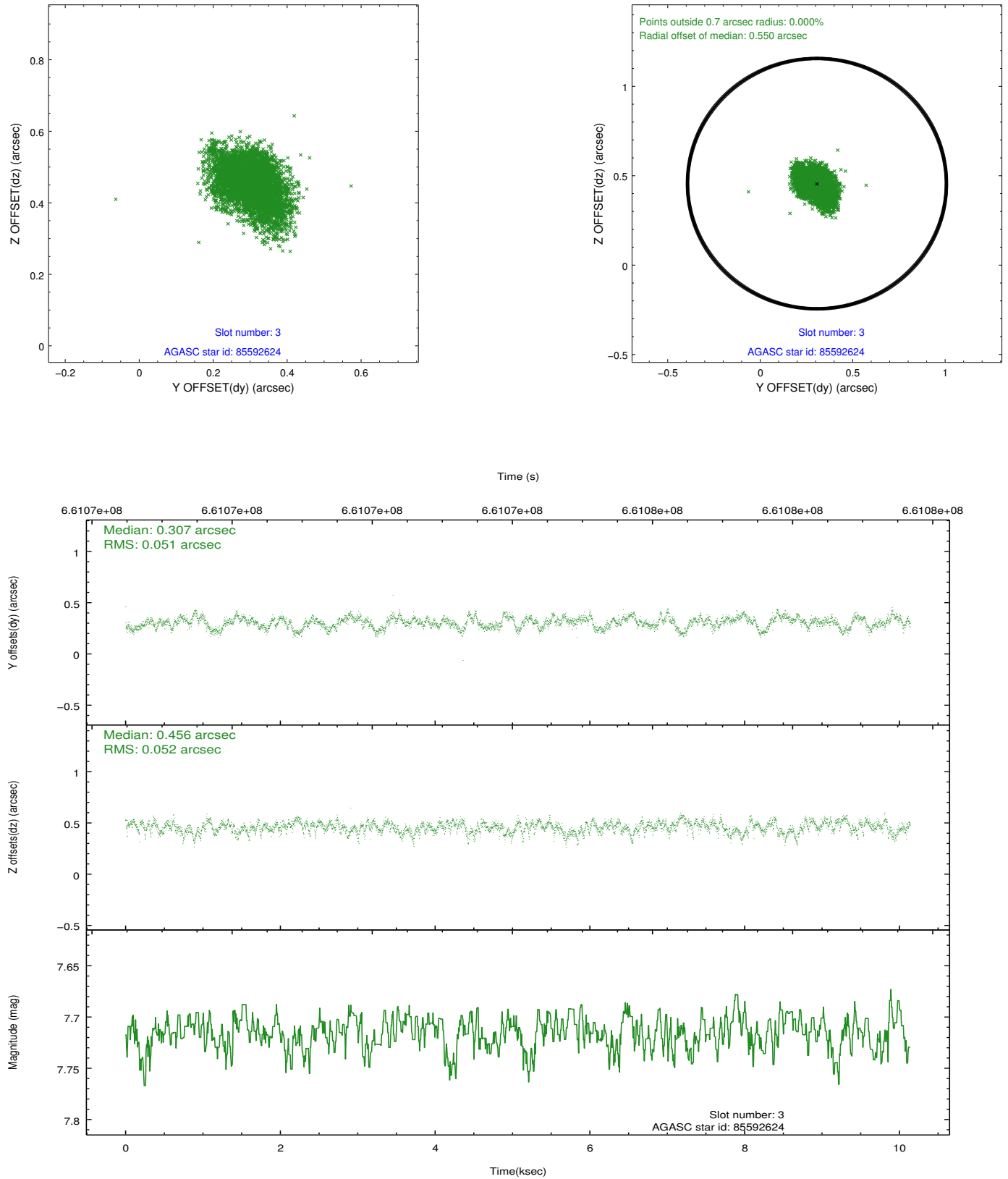


Slot Statistics

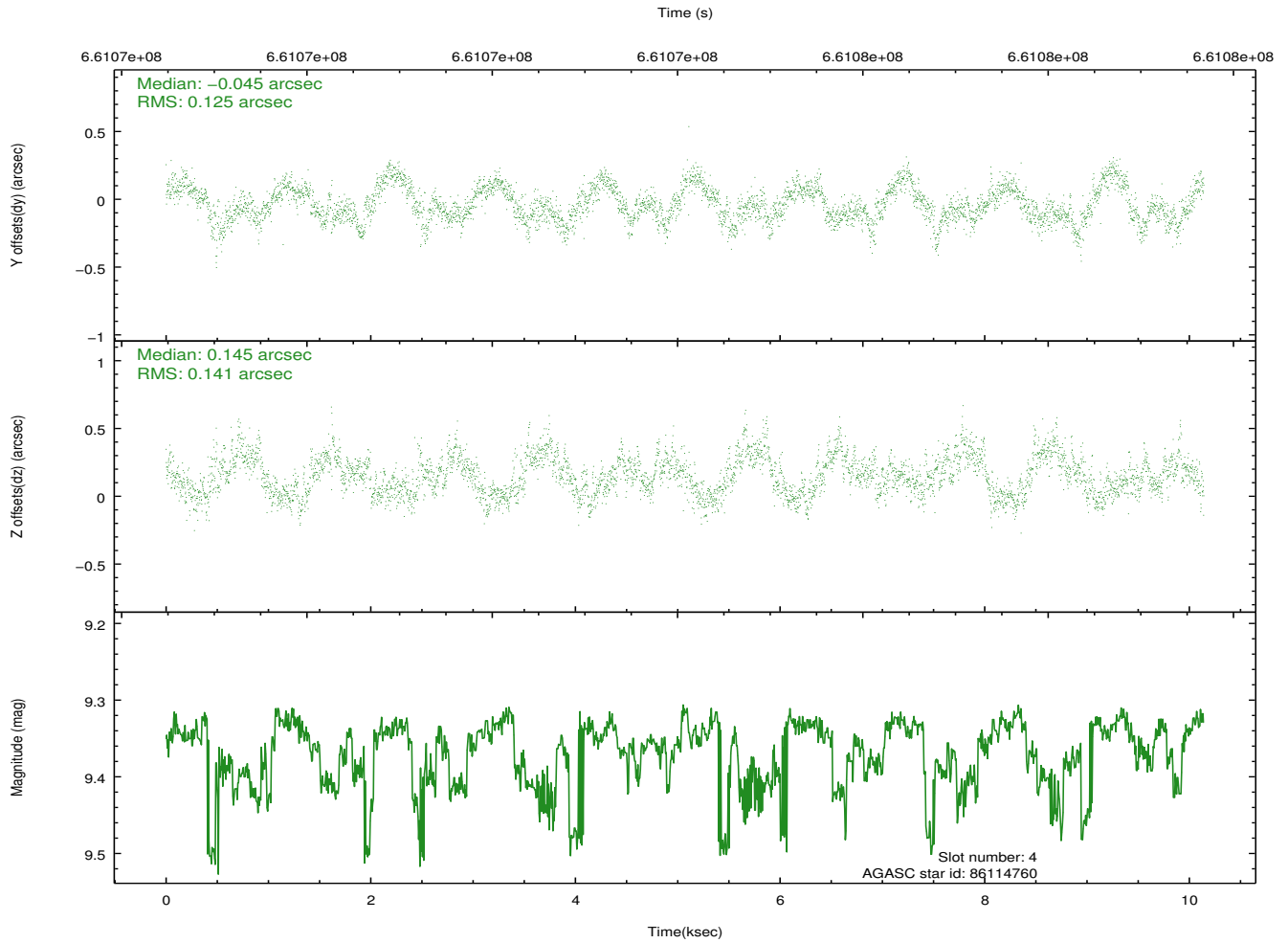
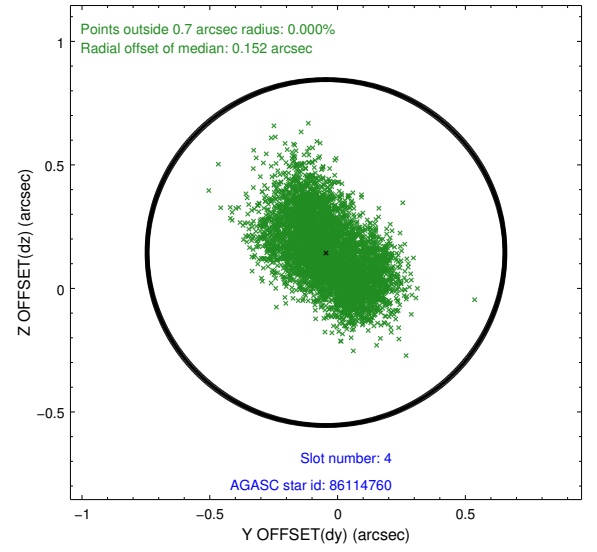
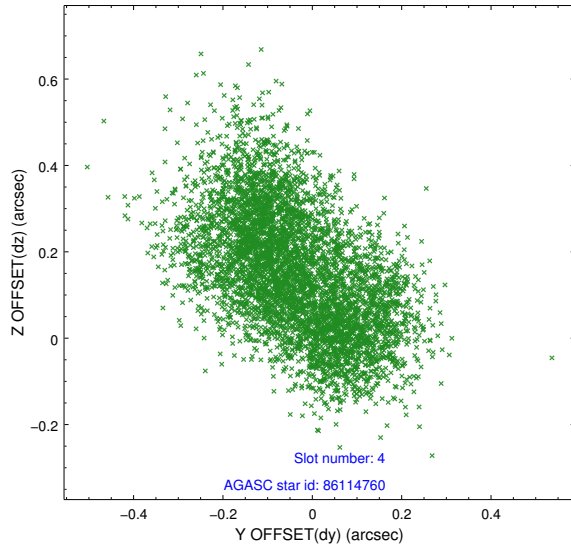
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.96	2473	1.000	-0.289	-0.124	0.013	0.024	0.000000	0.000000	-766.21	-1742
1	FID		ACIS-S-4	7.09	2474	1.000	0.692	0.173	0.009	0.016	0.000000	0.000000	2147.72	165
2	FID		ACIS-S-5	7.08	2473	1.000	-0.433	-0.039	0.015	0.029	0.000000	0.000000	-1818.62	159
3	GUIDE	used	85592624	7.72	4947	1.000	0.307	0.456	0.077	0.129	53.453940	10.233788	-1381.43	-1936
4	GUIDE	used	86114760	9.36	4937	1.000	-0.045	0.145	0.206	0.313	53.682793	9.762726	489.51	-2115
5	GUIDE	used	86115264	8.64	4873	1.000	0.208	-0.076	0.105	0.169	54.191764	9.800176	1302.40	-497
6	GUIDE	used	86116984	6.99	4940	1.000	-0.308	-0.412	0.085	0.140	54.479042	9.932832	1415.49	622
7	GUIDE	used	86512984	9.03	4943	1.000	-0.164	-0.112	0.126	0.209	54.433894	10.707148	-1059.33	1915

2.4 Star Slots

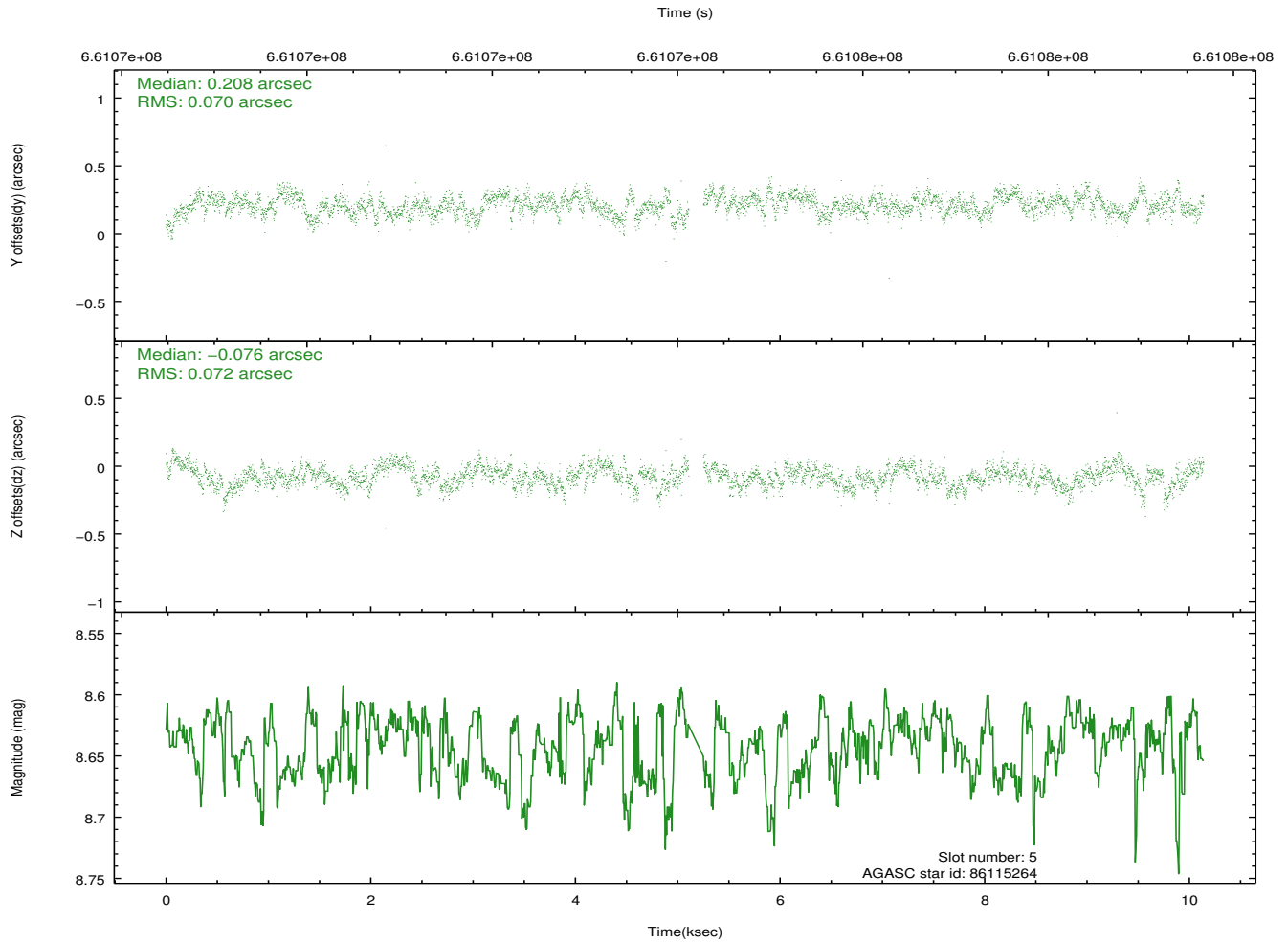
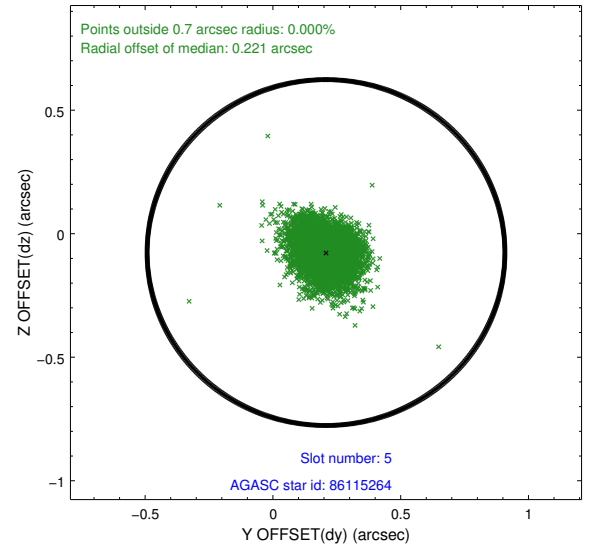
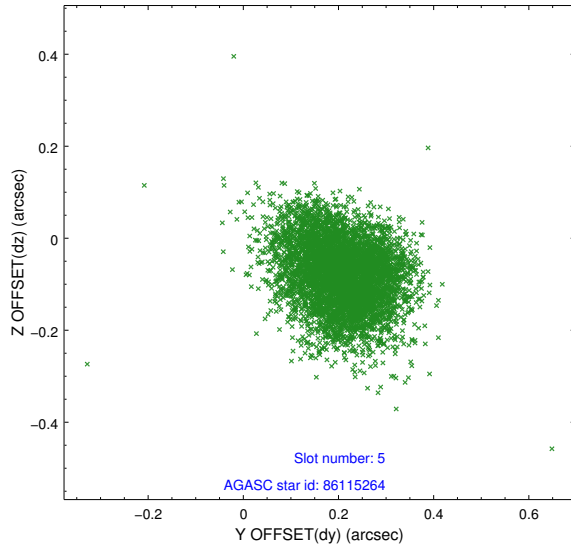
2.4.1 Slot 3



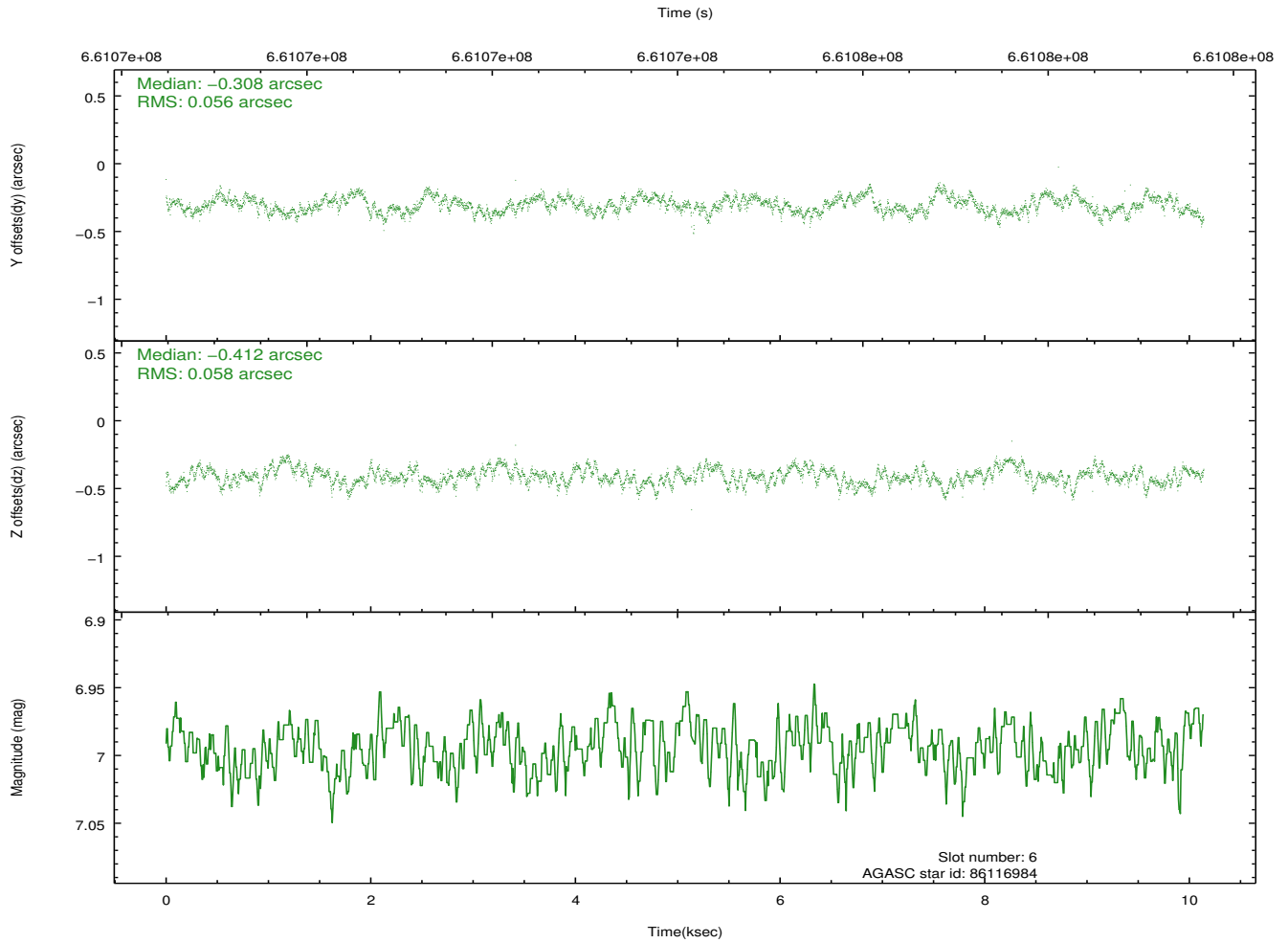
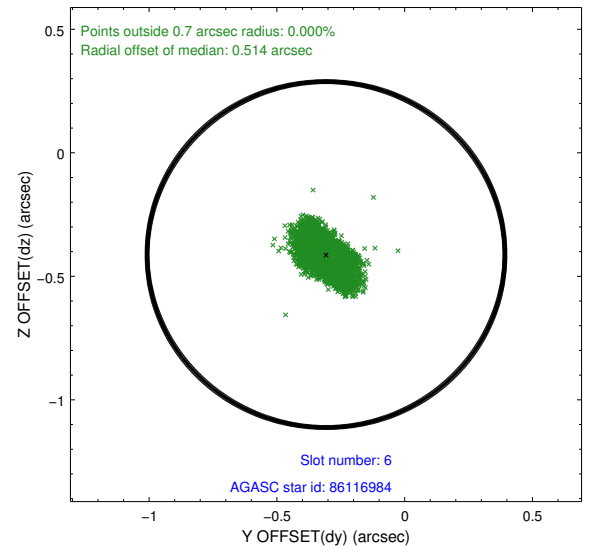
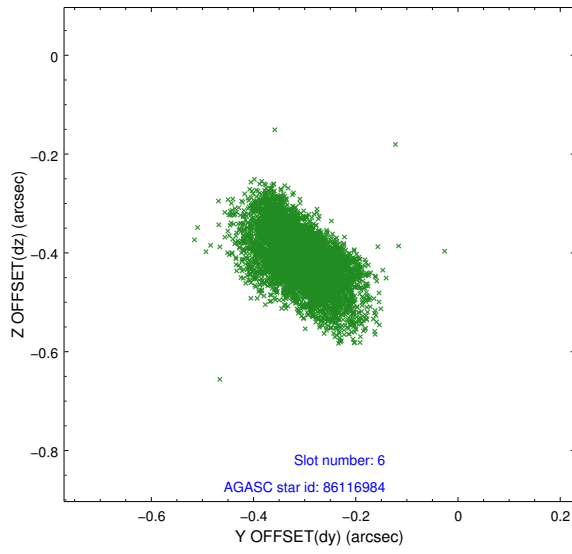
2.4.2 Slot 4



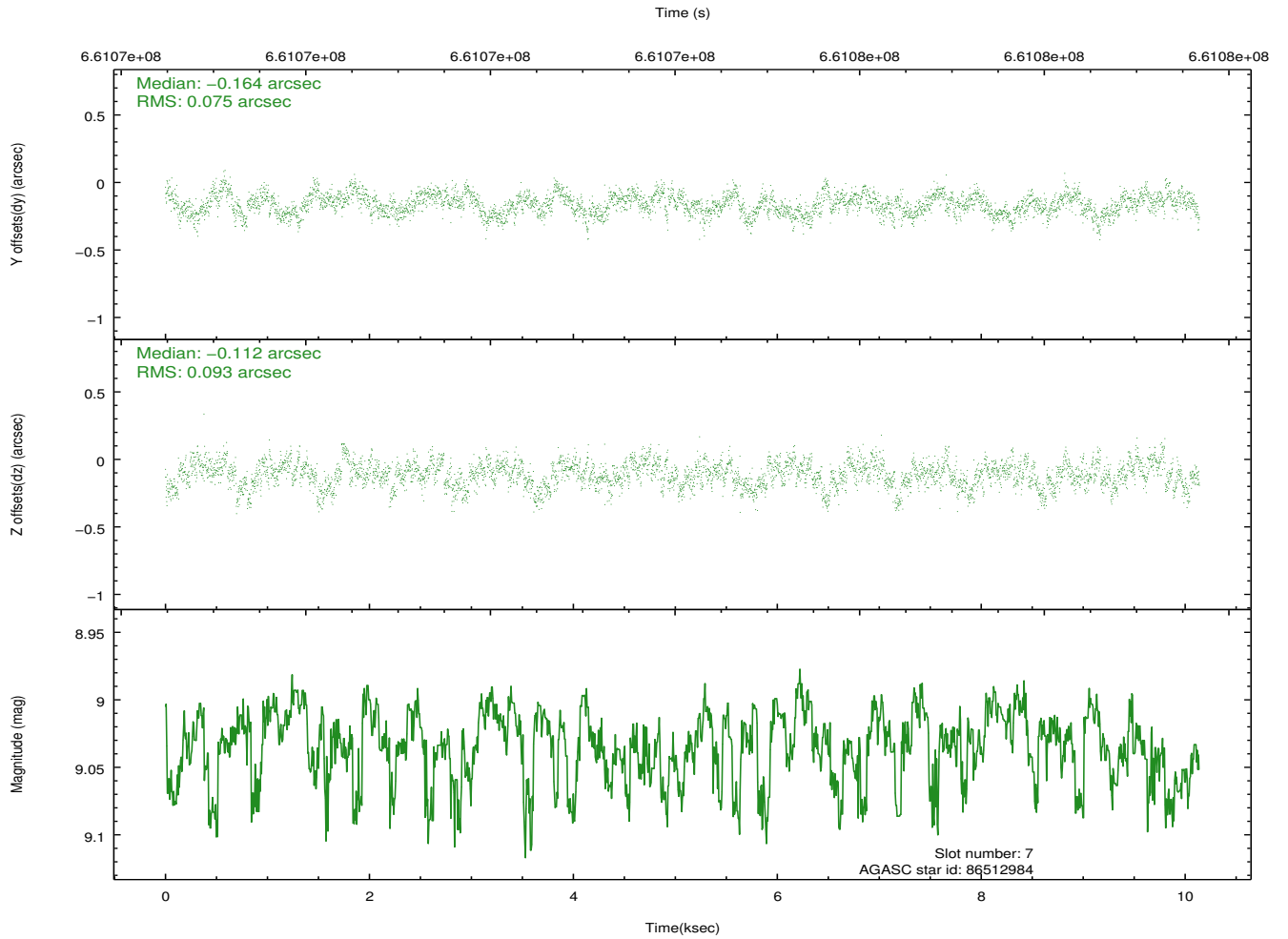
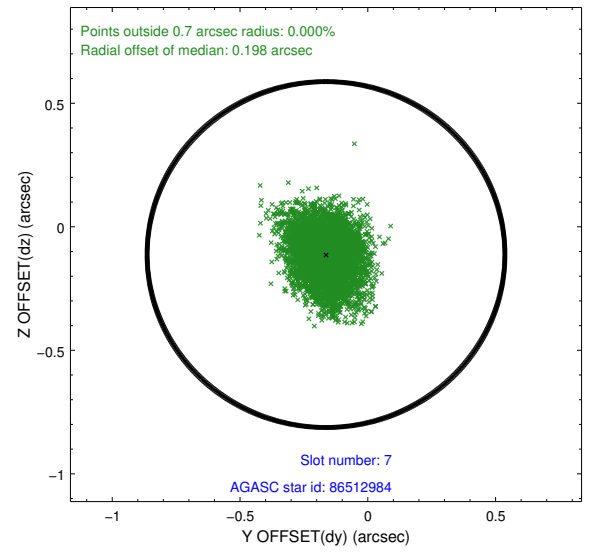
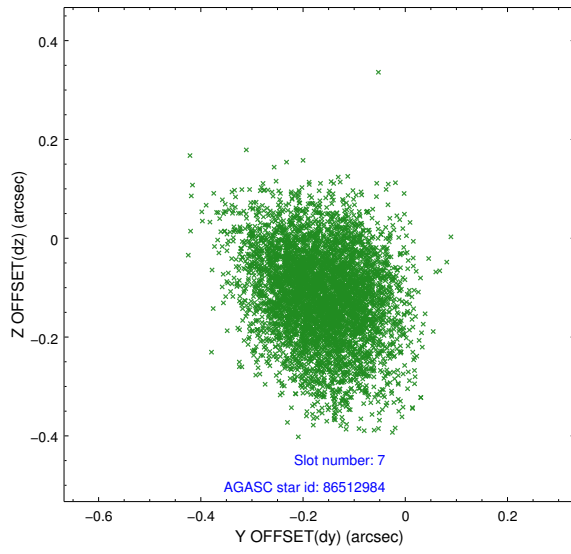
2.4.3 Slot 5



2.4.4 Slot 6

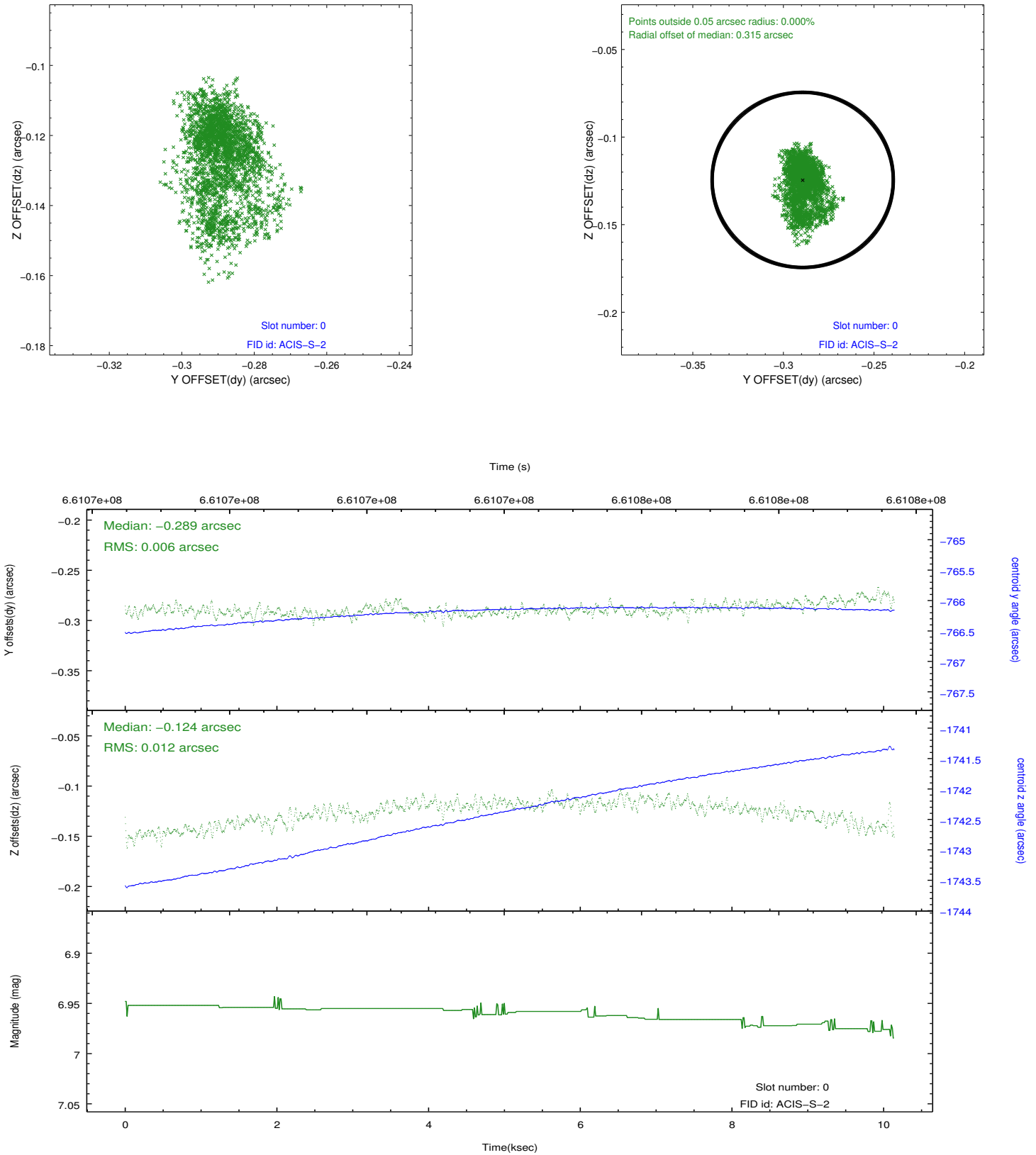


2.4.5 Slot 7

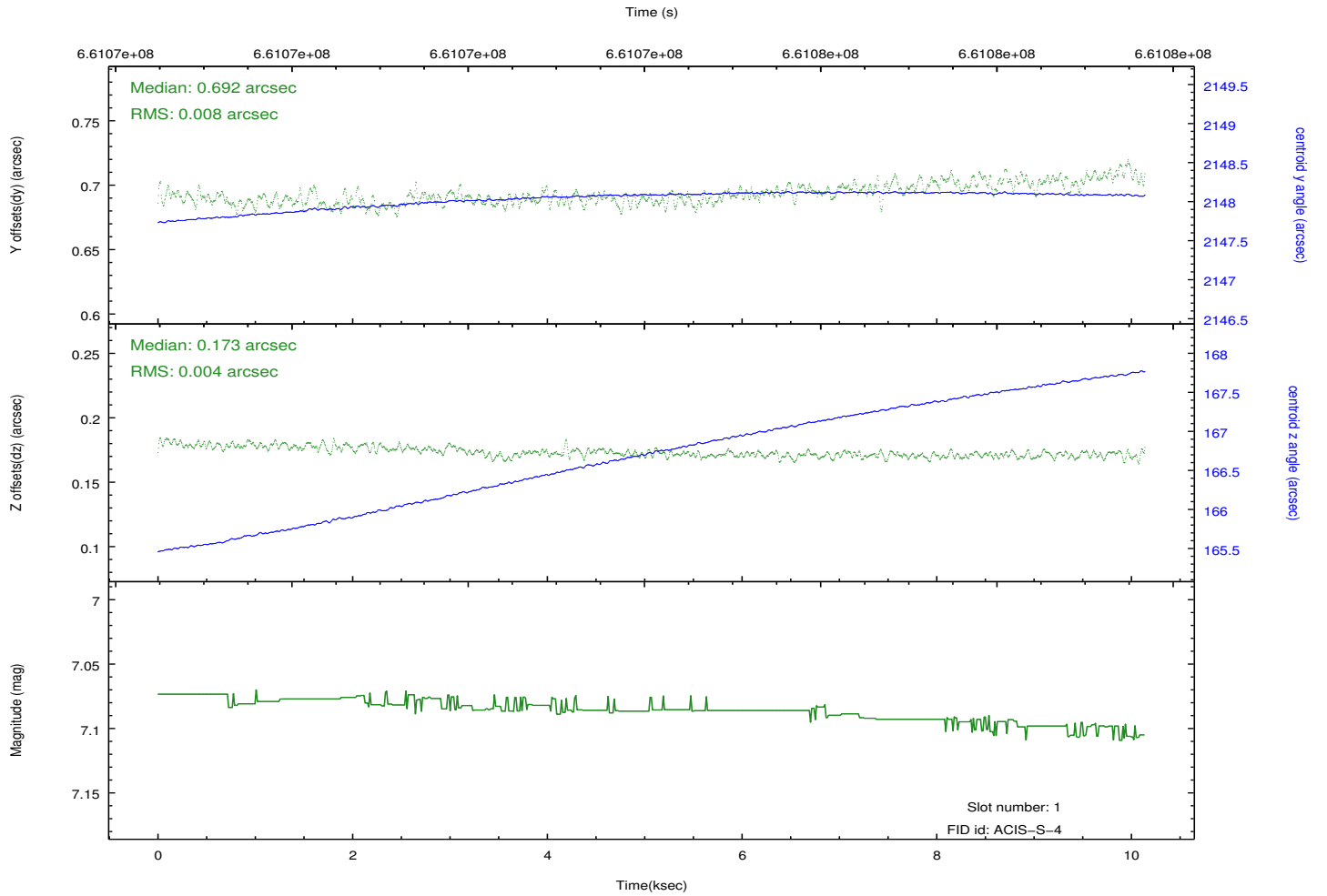
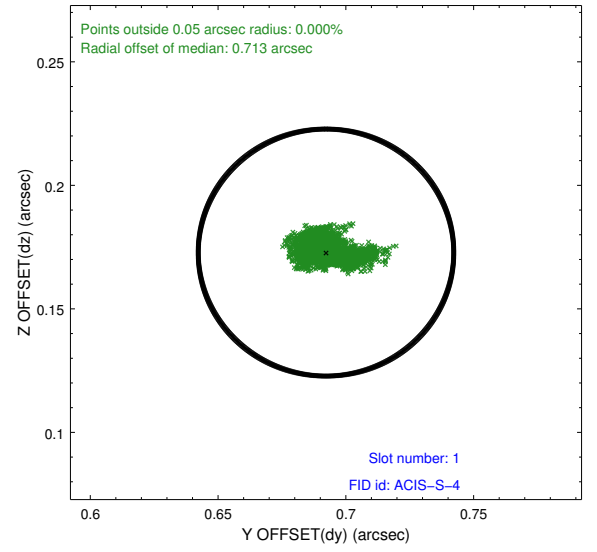
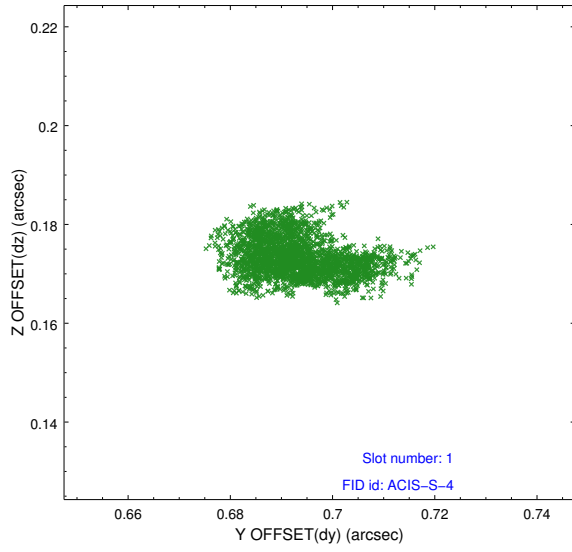


2.5 FID Slots

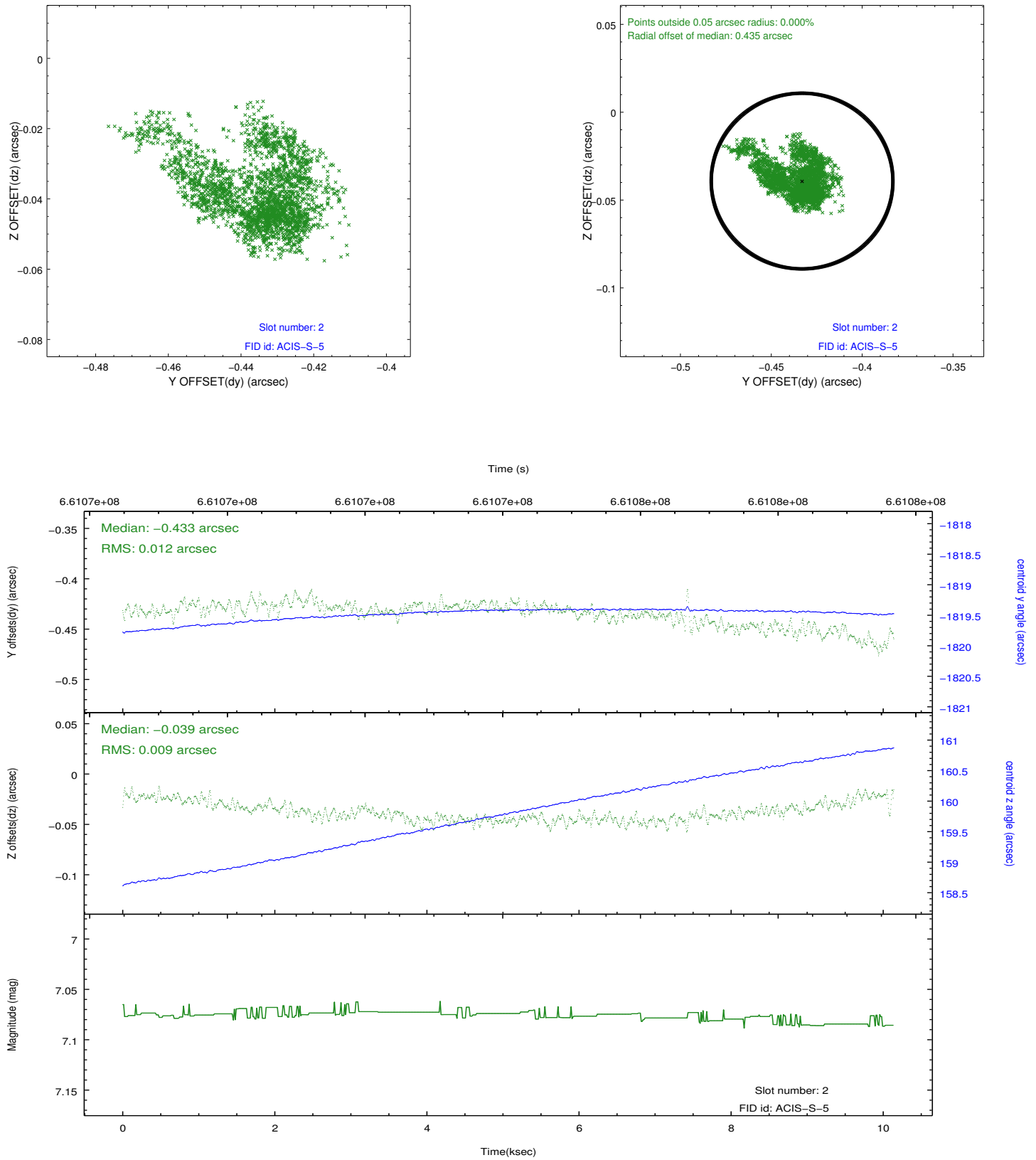
2.5.1 Slot 0



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	10.074641980886

A.2 Comments