

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21989 - L2 Version 1
Chandra X-Ray Center

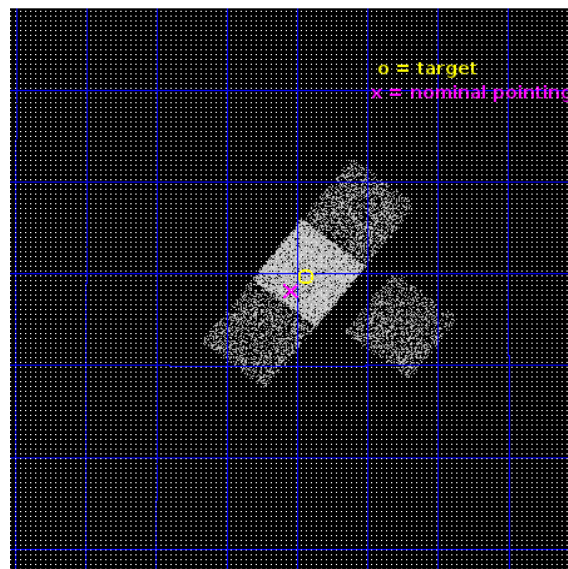
L2 Processing Date : Dec 14 2018

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1 Front

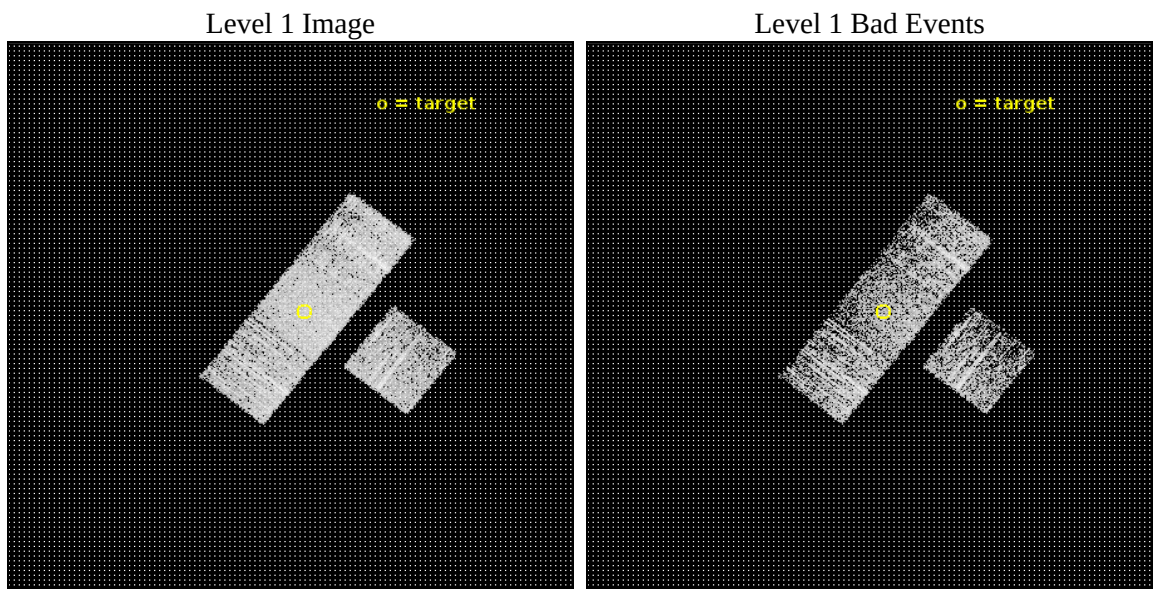
seq_num	100169	Sequence number
obs_id	21989	Observation id
title	Close encounter with comet 46P/Wirtanen: X-ray tomography of the coma	Proposal title
observer	Dennis Bodewits	Principal investigator
object	46P/Wirtanen	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	54.485051	Observer's specified target RA [deg]
dec_targ	10.82782	Observer's specified target Dec [deg]
ra_nom	54.50989144157	Nominal RA [deg]
dec_nom	10.802288050257	Nominal Dec [deg]
roll_nom	308.15196820478	Nominal Roll [deg]
revision	1	Processing version of data
ontime	2182.4000169039	Sum of GTIs [s]
livetime	2153.8853540235	Livetime [s]
ontime3	2182.4000169039	Sum of GTIs [s]
ontime6	2182.4000169039	Sum of GTIs [s]
ontime7	2182.4000169039	Sum of GTIs [s]
ontime8	2182.4000169039	Sum of GTIs [s]
l2events	13712	Number of level 2 events



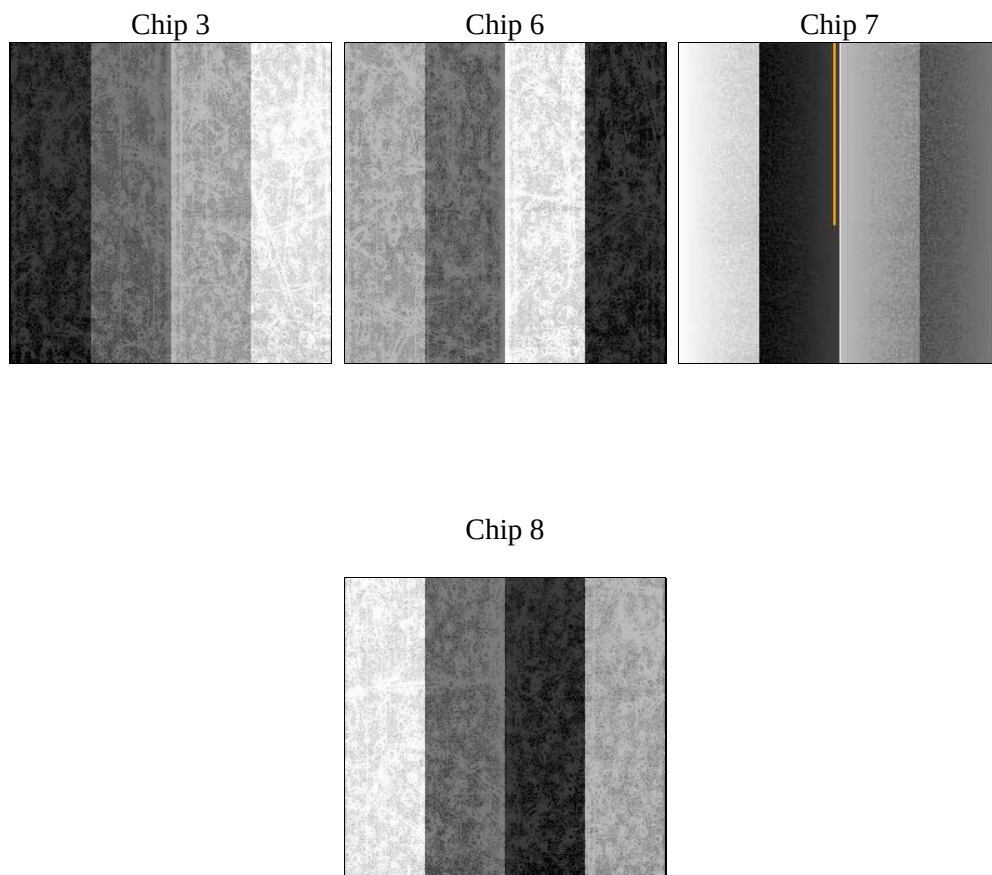
2 OBI

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	2182.4000169039	Sum of GTIs [s]
caldsver	4.8.2	 	ontime3	2182.4000169039	Sum of GTIs [s]
date	2018-12-14T11:54:38	Date and time of file creation	ontime6	2182.4000169039	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	2182.4000169039	Sum of GTIs [s]
			ontime8	2182.4000169039	Sum of GTIs [s]
			l1events	92941	Number of level 1 events

2.1.4 Events

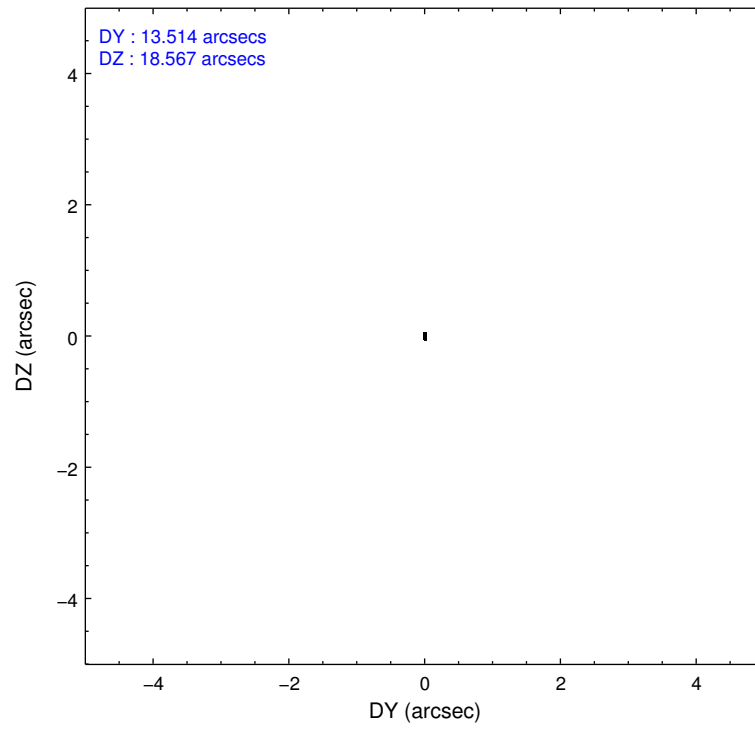
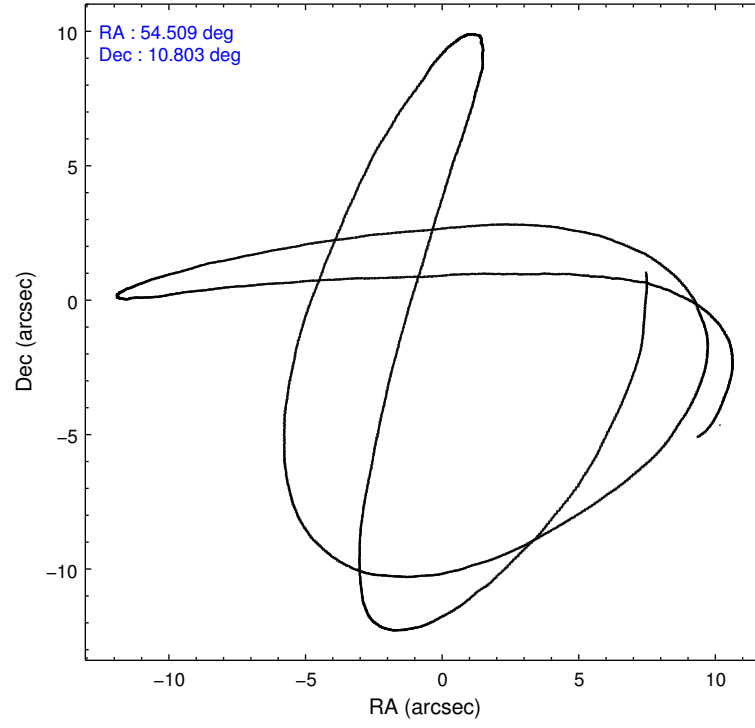
	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	17990	22456	26242	26253
rejected events	16330	20570	17337	20848
rejected %	90%	91%	66%	79%

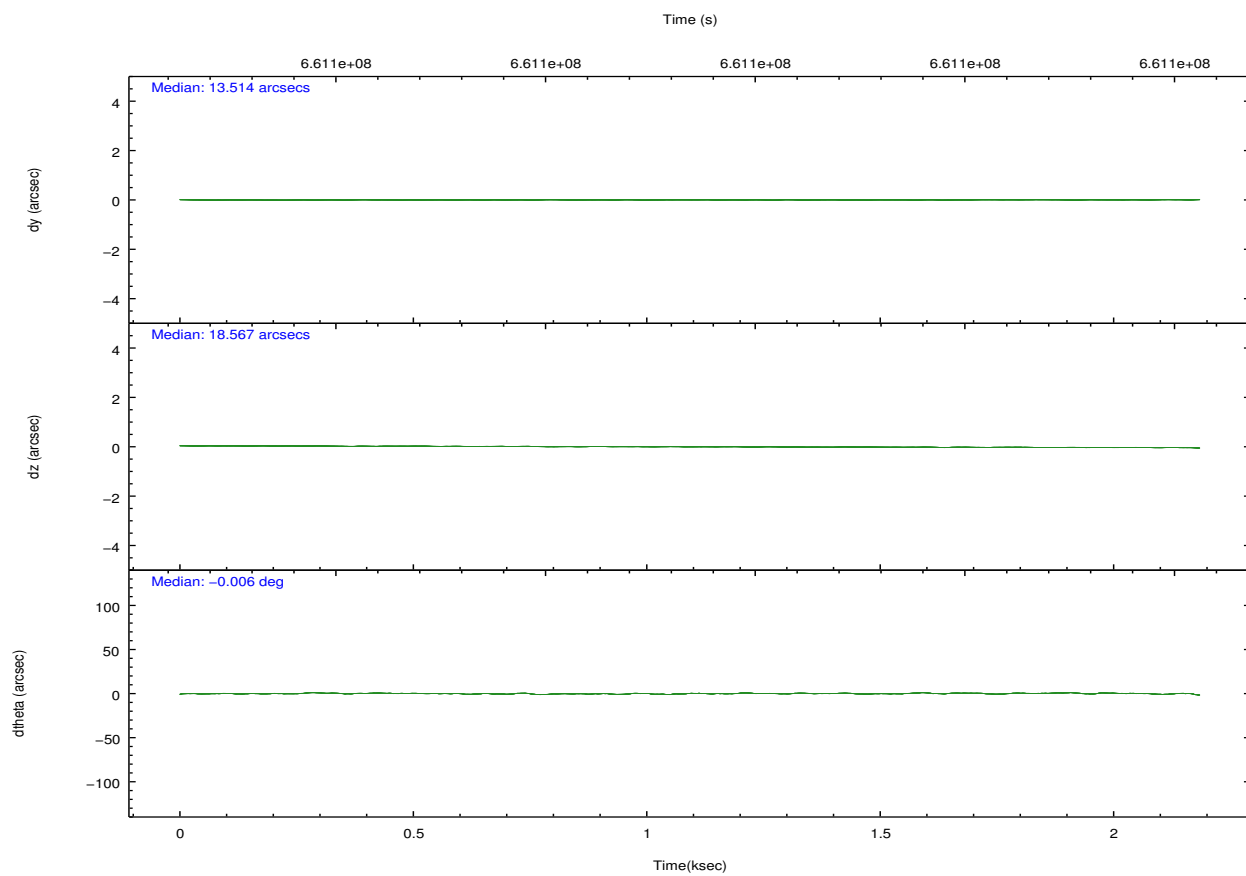
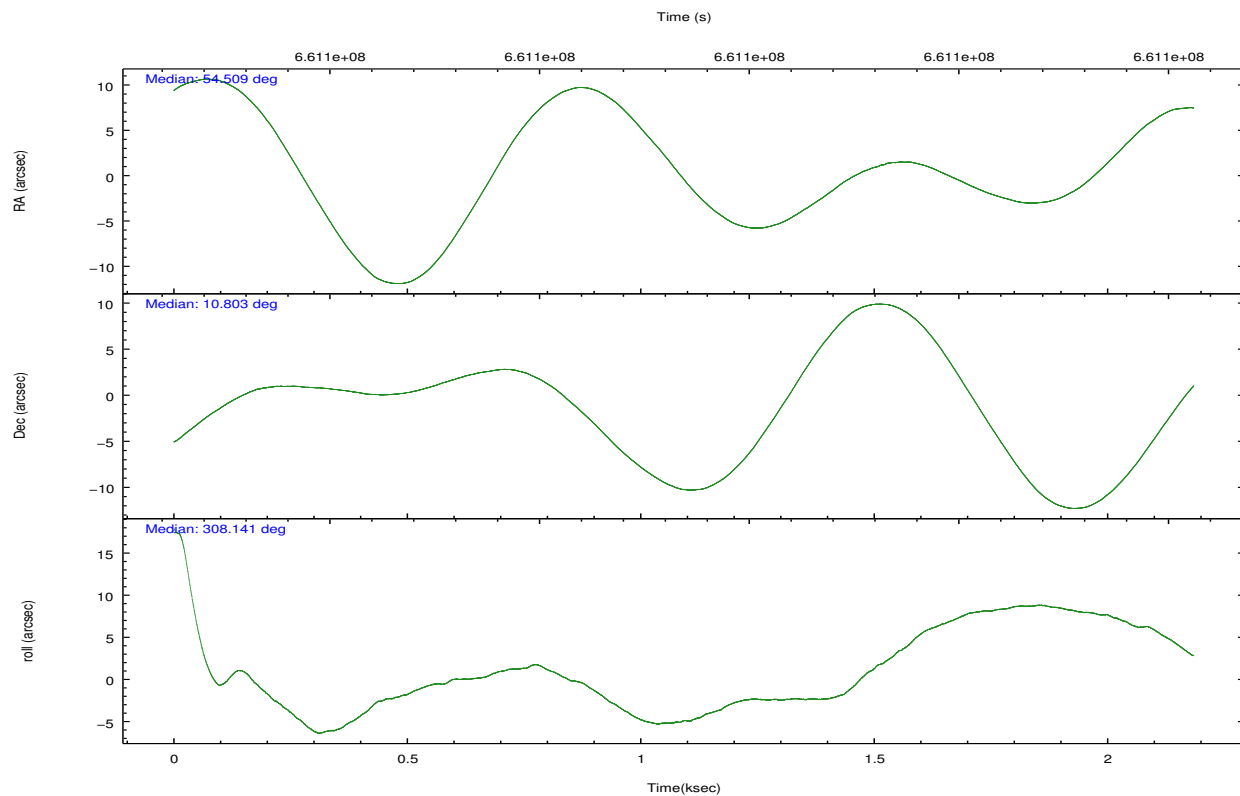
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	706	733	903	1942
	3%	3%	3%	7%
grade 1 events	13	7	40	9
	0%	0%	0%	0%
grade 2 events	449	617	2389	1568
	2%	2%	9%	5%
grade 3 events	220	233	898	720
	1%	1%	3%	2%
grade 4 events	228	187	842	699
	1%	0%	3%	2%
grade 5 events	872	880	2540	1382
	4%	3%	9%	5%
grade 6 events	450	562	6146	1676
	2%	2%	23%	6%
grade 7 events	15052	19237	12484	18257
	83%	85%	47%	69%

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	54.483659	54.50989144157043	CCD I2 on	O2	N
[deg] Pointing Dec	10.812217	10.80228805025709	CCD I3 on	Y	Y
[deg] Pointing Roll	308.000256	308.1519682047805	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)	661096424.184000	661095884.79219	On-chip summing requested	N	N
Observation start date	2018-12-13T13:52:35	2018-12-13T13:44:44	Subarray requested	NONE	NONE
[s] Observation end time (MET)	661098424.184000	661098597.45486	Alternating exposures requested	N	N
Observation end date	2018-12-13T14:25:55	2018-12-13T14:29:57	[s] Primary exposure time	0.000000	3.1
Read mode	TIMED	TIMED			

2.3 Aspect



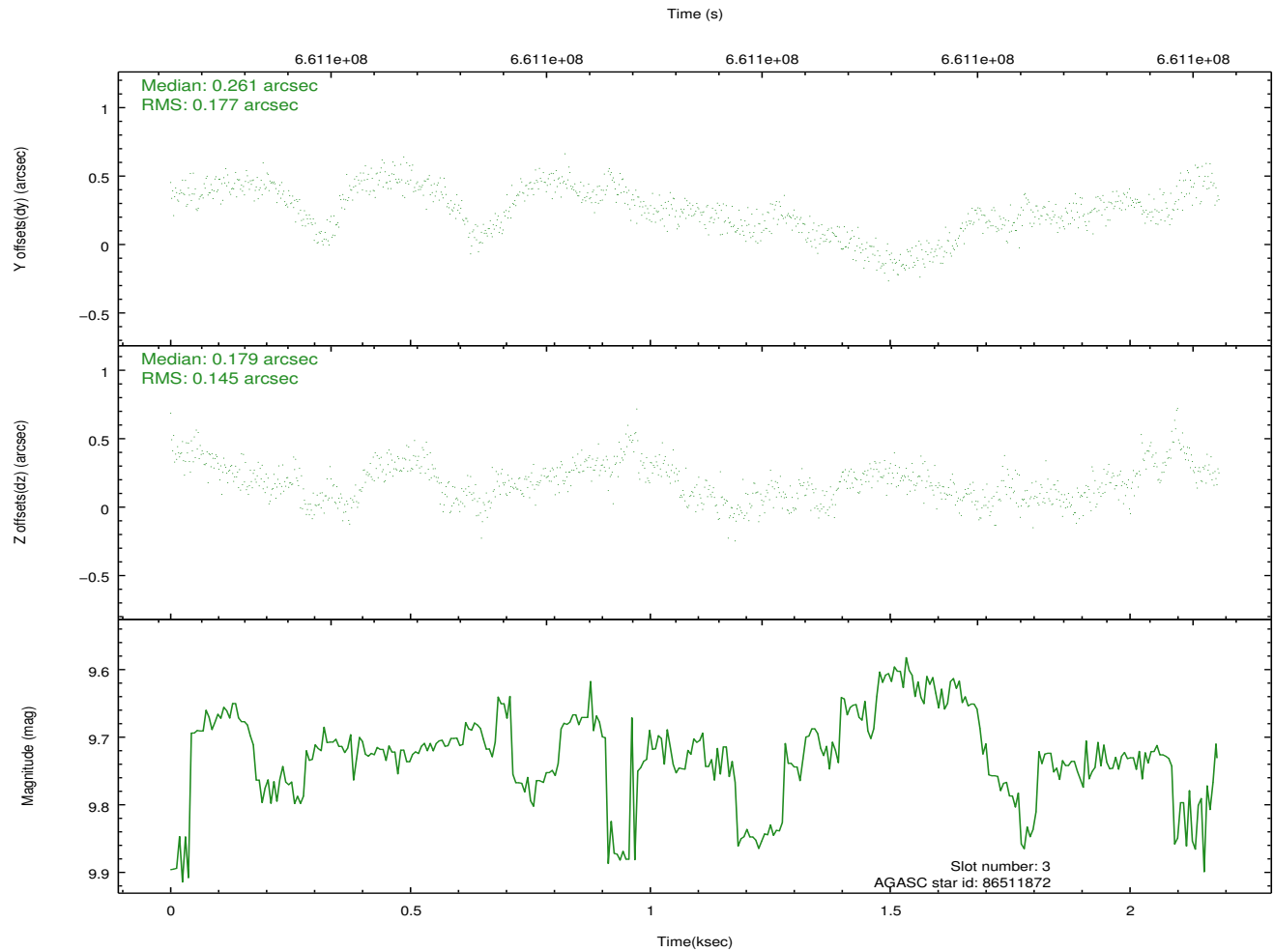
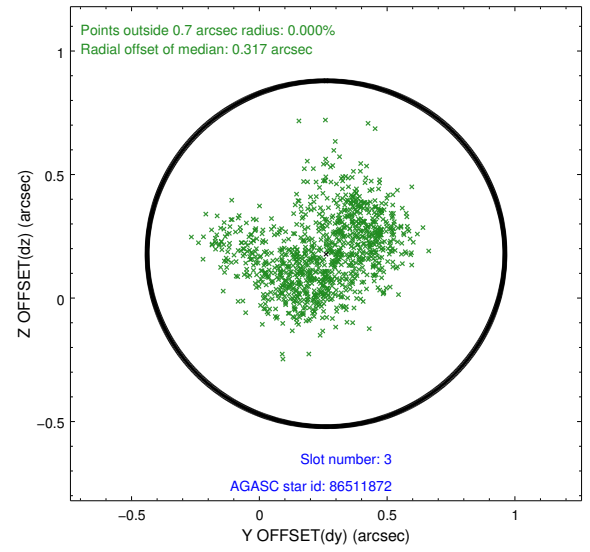
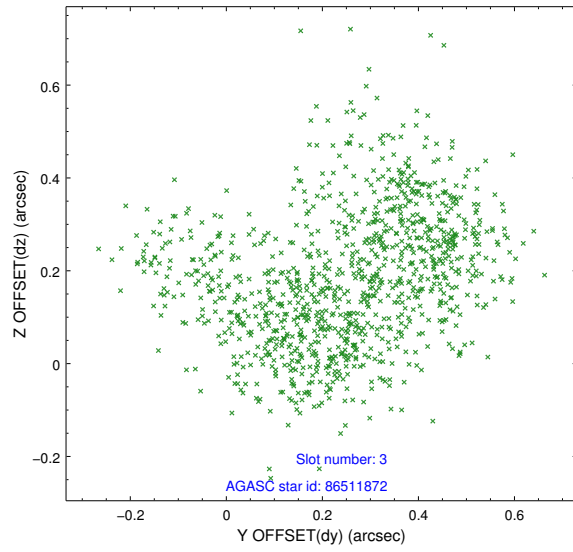


Slot Statistics

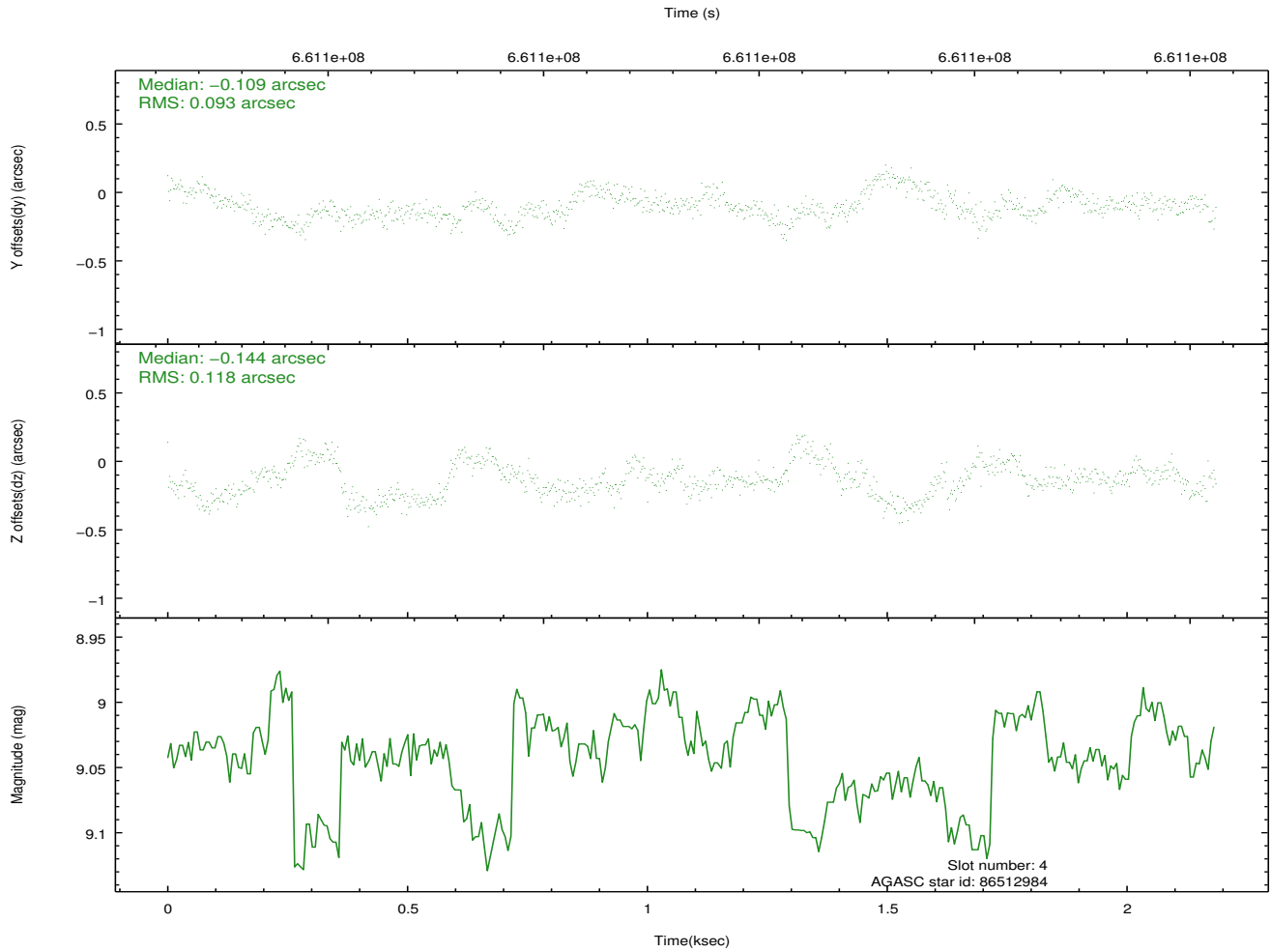
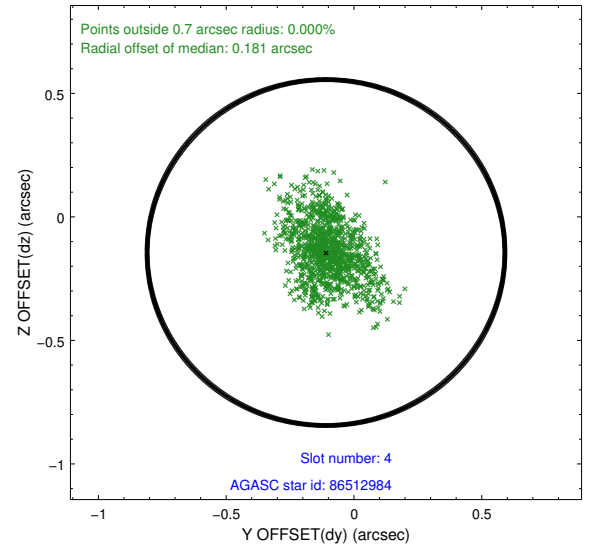
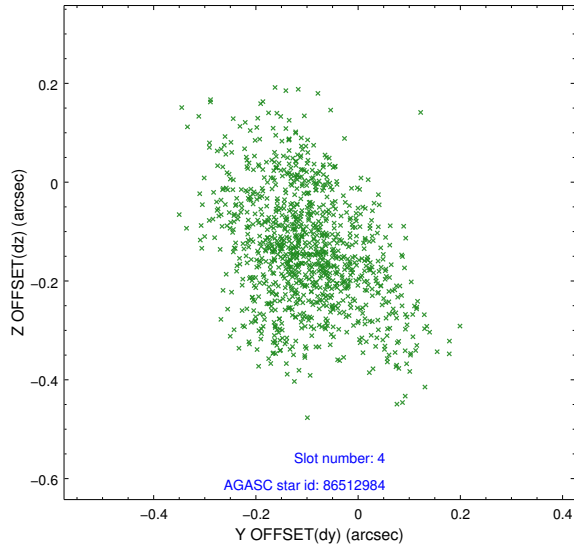
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.07	533	1.000	-0.275	-0.230	0.006	0.011	0.000000	0.000000	-766.66	-1740
1	FID		ACIS-S-4	7.21	533	1.000	0.773	0.194	0.005	0.009	0.000000	0.000000	2146.24	165
2	FID		ACIS-S-5	7.18	533	1.000	-0.529	0.044	0.006	0.010	0.000000	0.000000	-1815.99	162
3	GUIDE	used	86511872	9.72	1066	1.000	0.261	0.179	0.247	0.387	54.009934	10.794884	-982.05	-1357
4	GUIDE	used	86512984	9.04	1065	1.000	-0.109	-0.144	0.160	0.270	54.433894	10.707148	190.14	-371
5	GUIDE	used	86515104	8.08	1066	1.000	-0.085	0.390	0.195	0.322	53.764409	11.045848	-2229.01	-1482
6	GUIDE	used	86509864	9.32	1067	1.000	-0.115	-0.246	0.196	0.335	54.565929	11.706993	-2361.92	2210
7	GUIDE	used	86513000	10.09	1057	1.000	0.049	-0.163	0.377	0.572	54.069408	10.329642	463.83	-2222

2.4 Star Slots

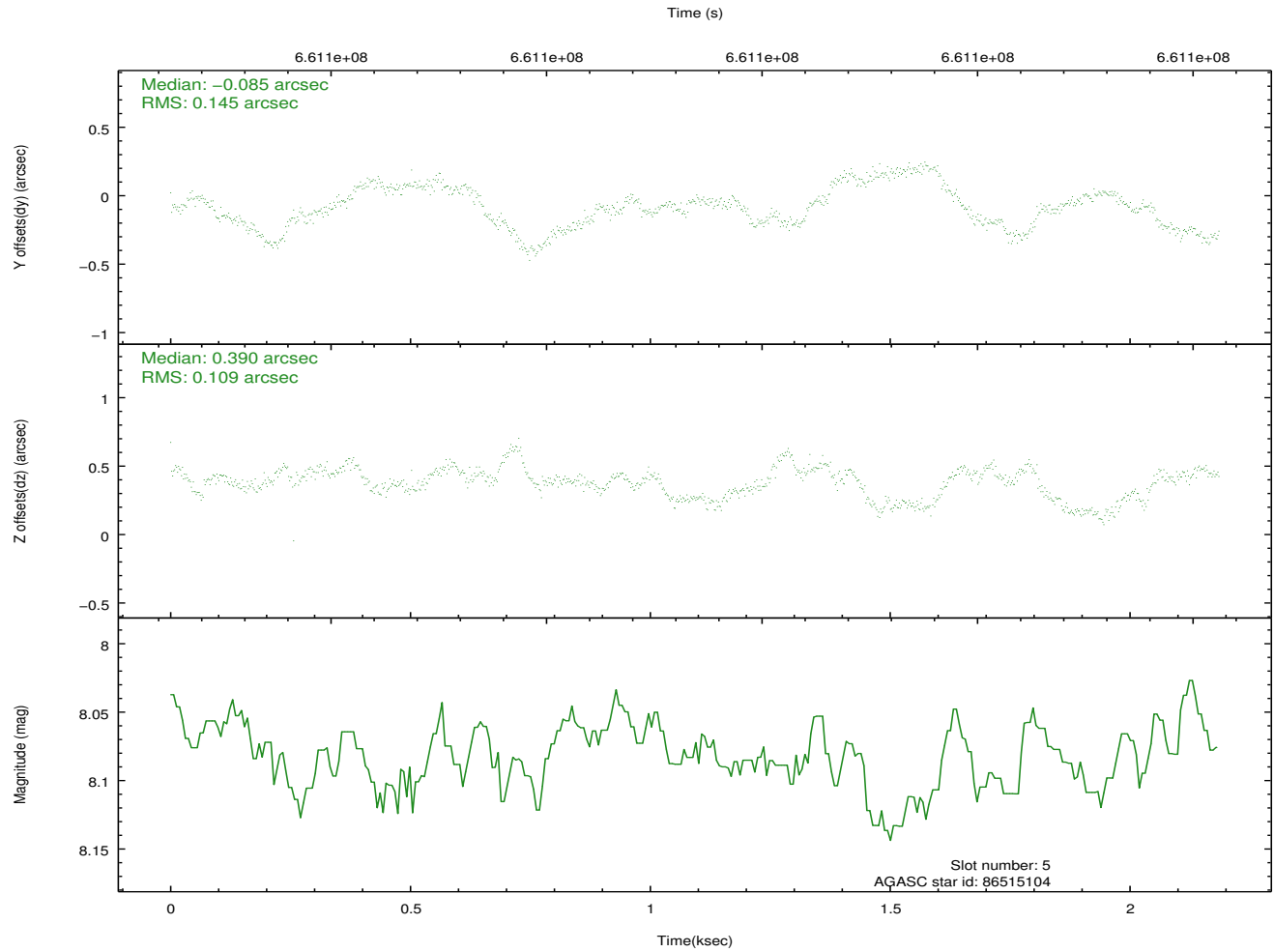
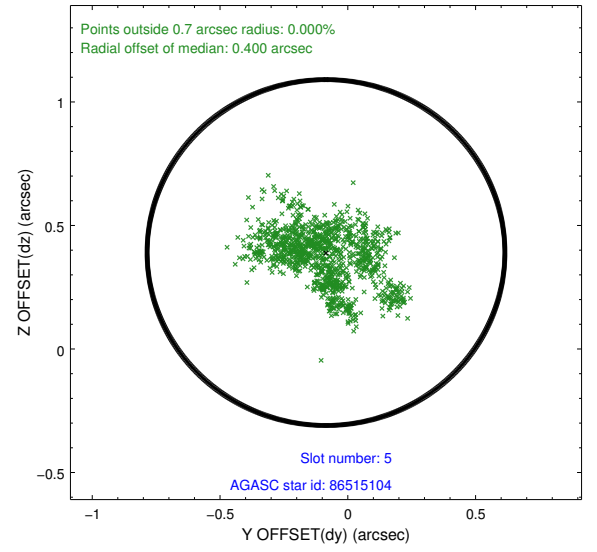
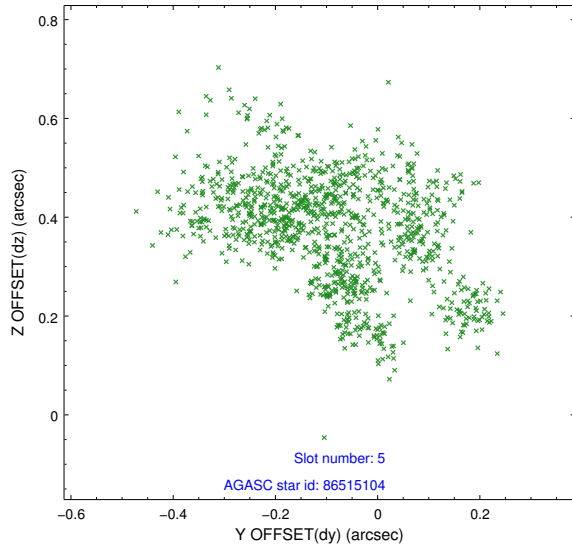
2.4.1 Slot 3



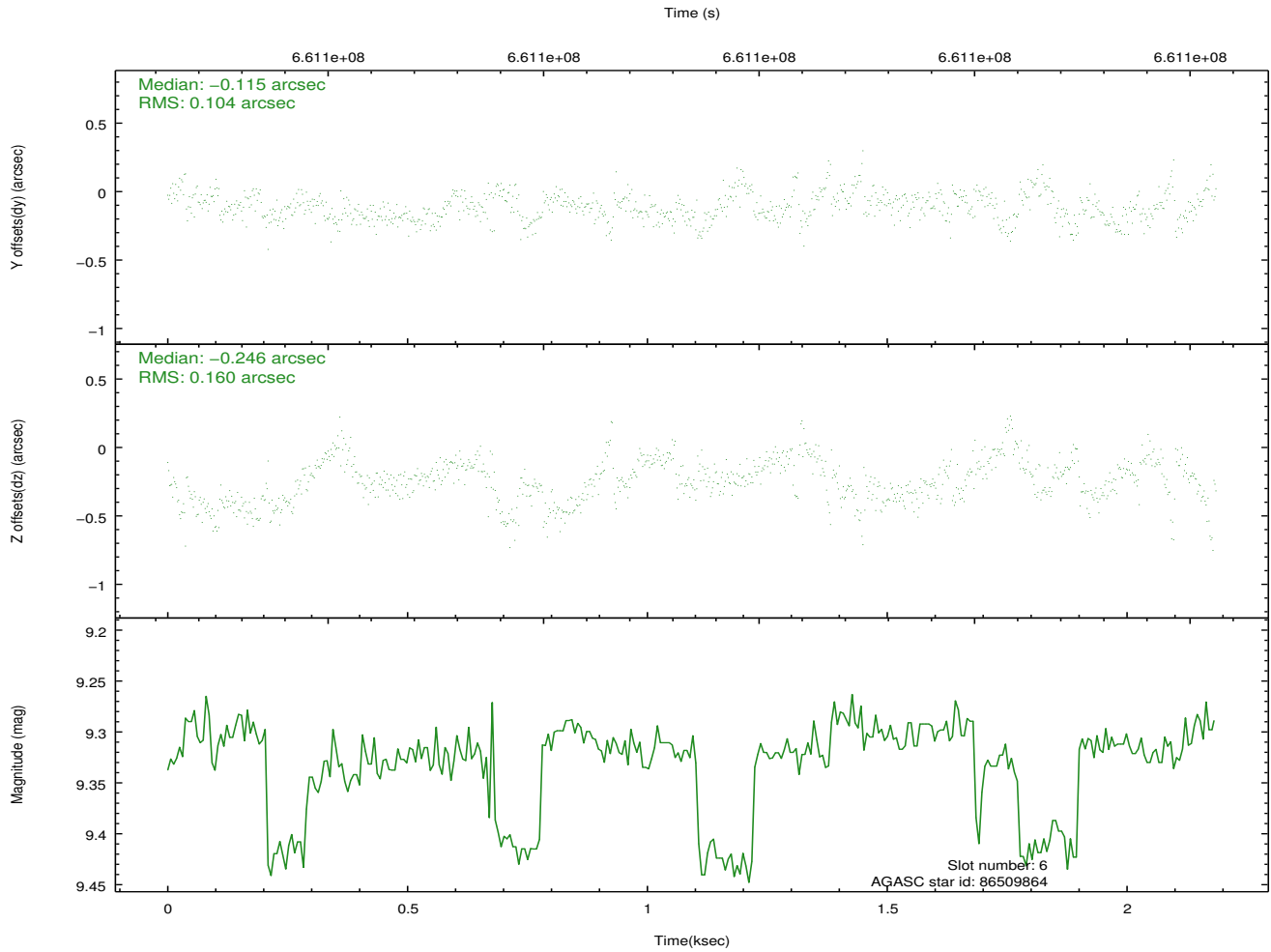
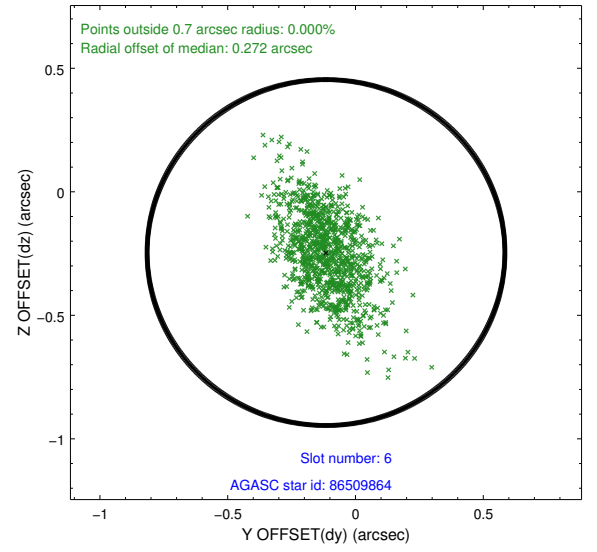
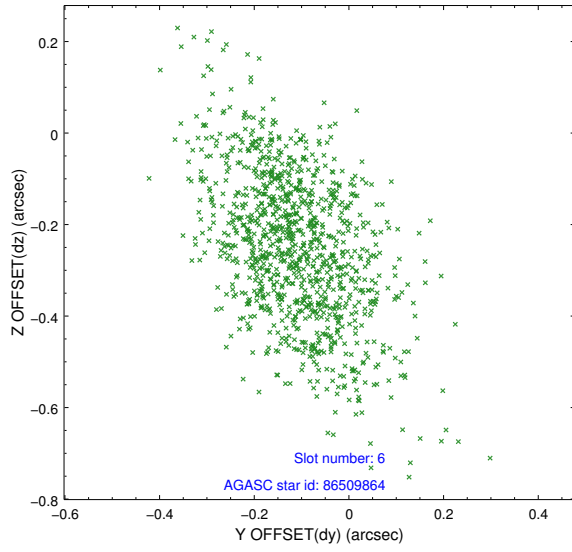
2.4.2 Slot 4



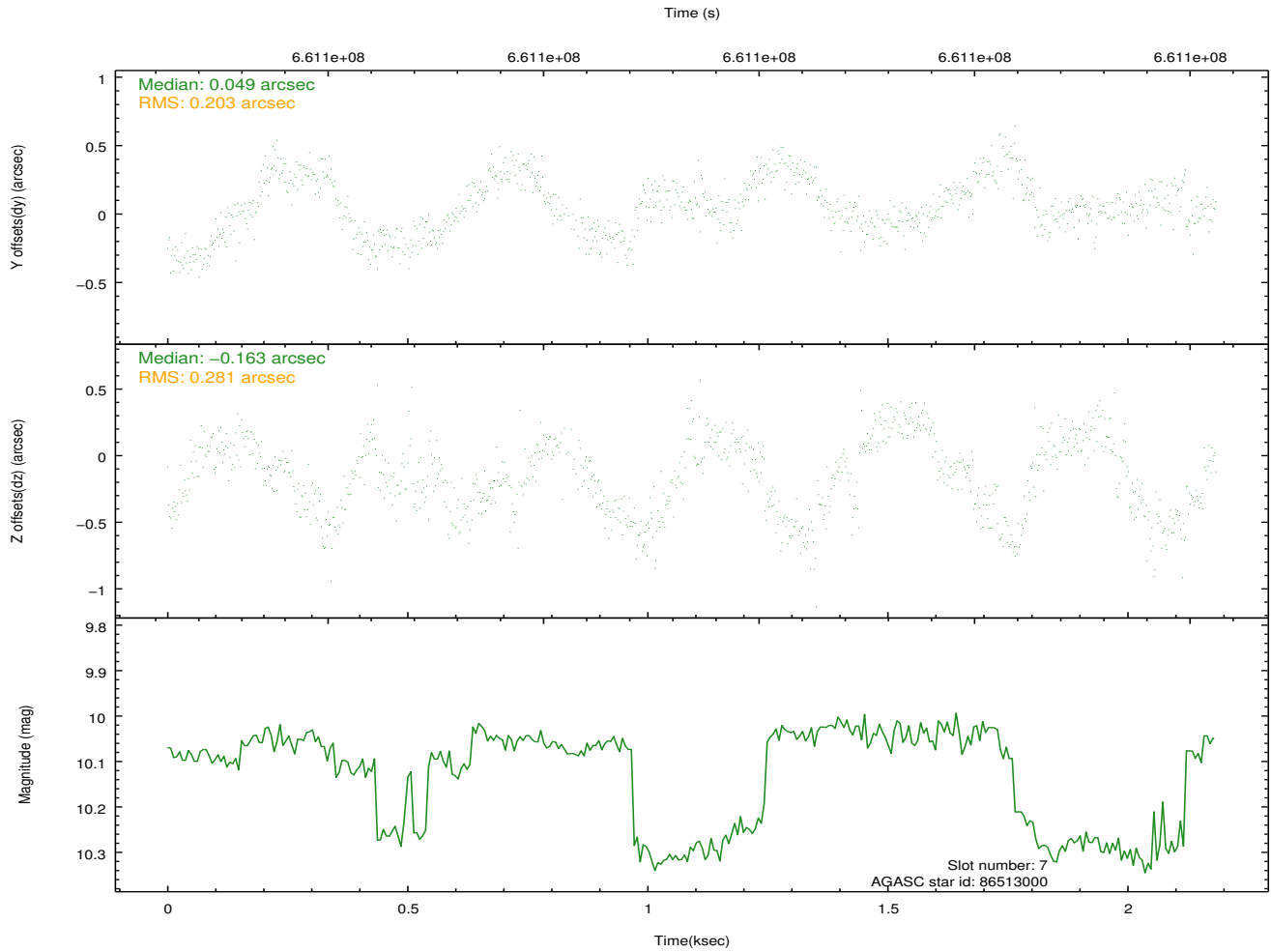
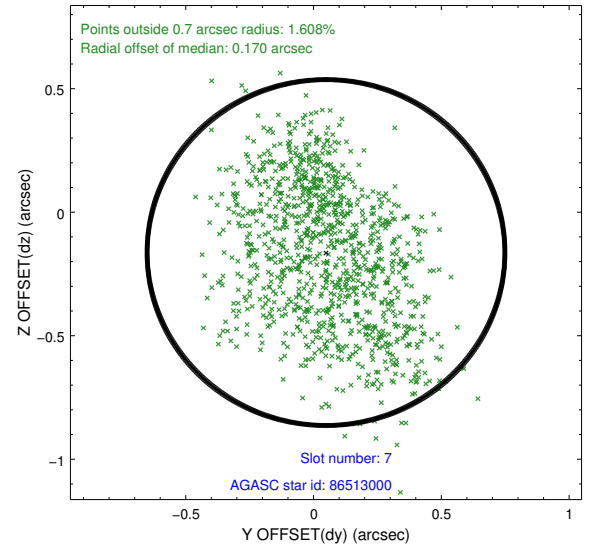
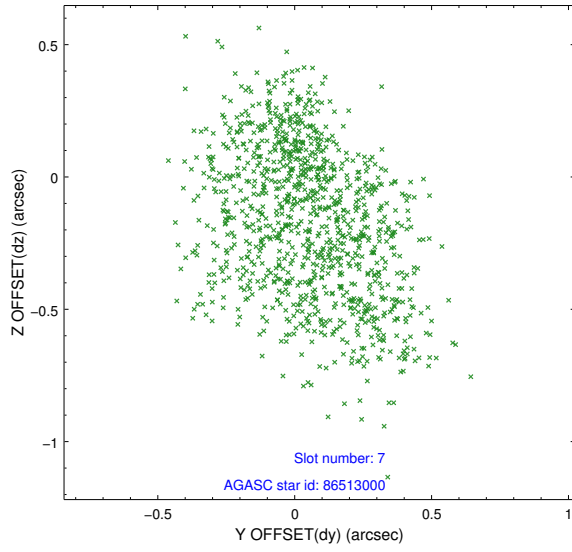
2.4.3 Slot 5



2.4.4 Slot 6

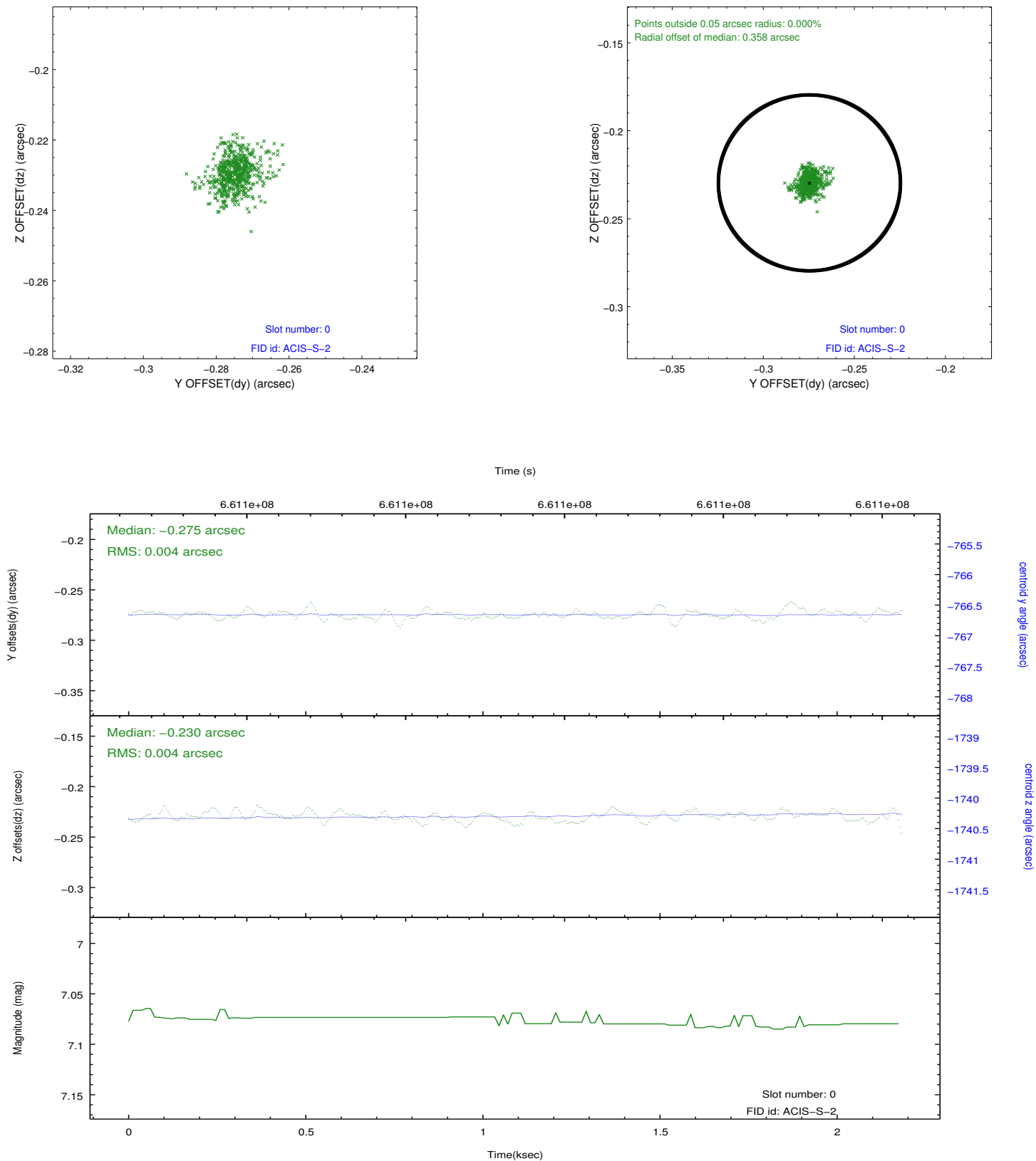


2.4.5 Slot 7

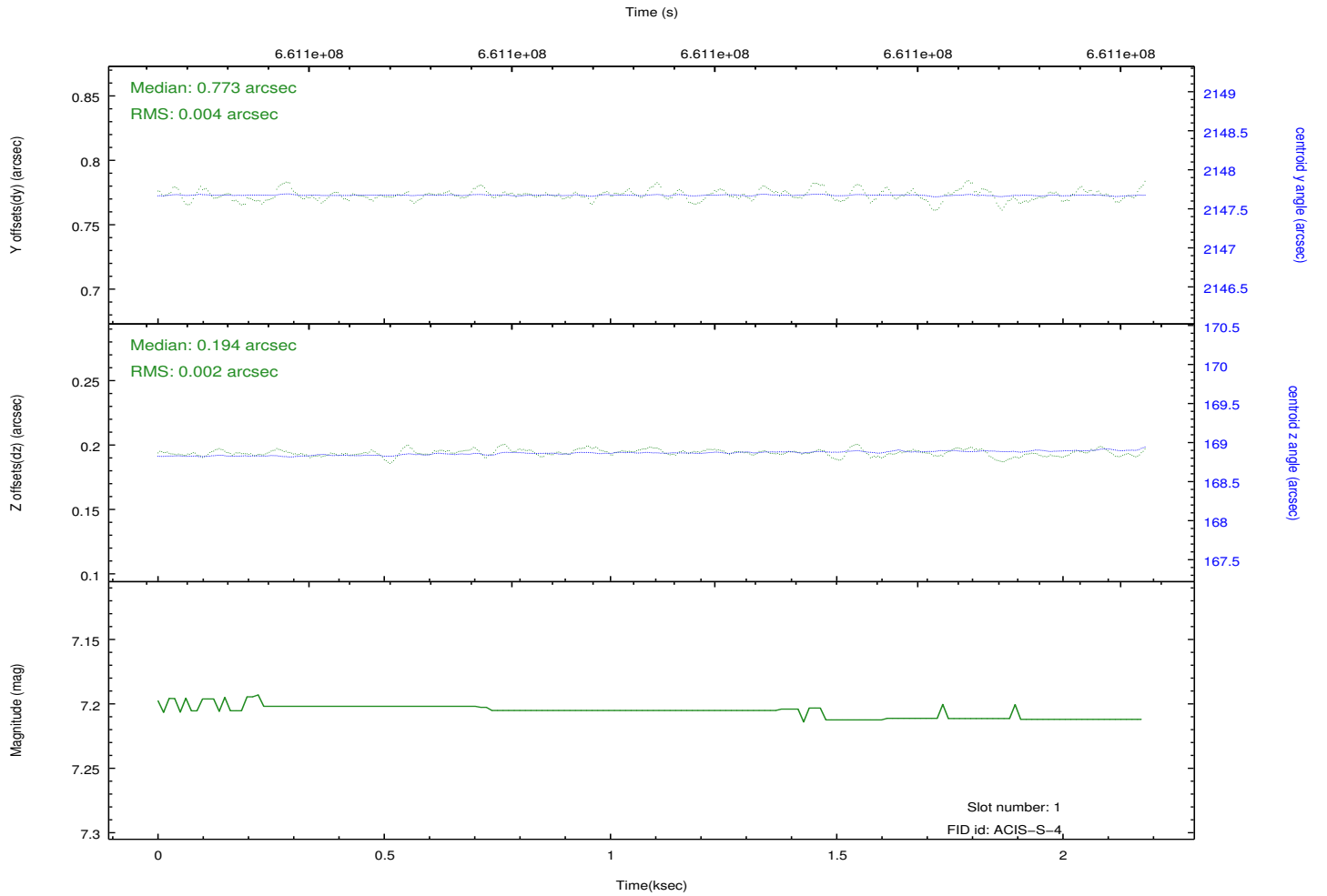
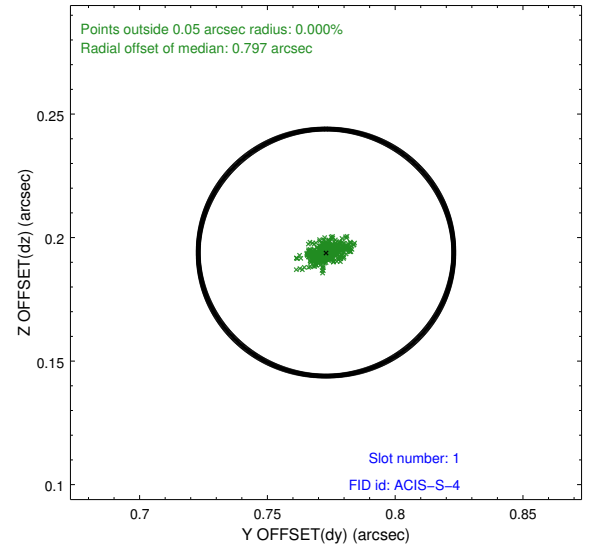
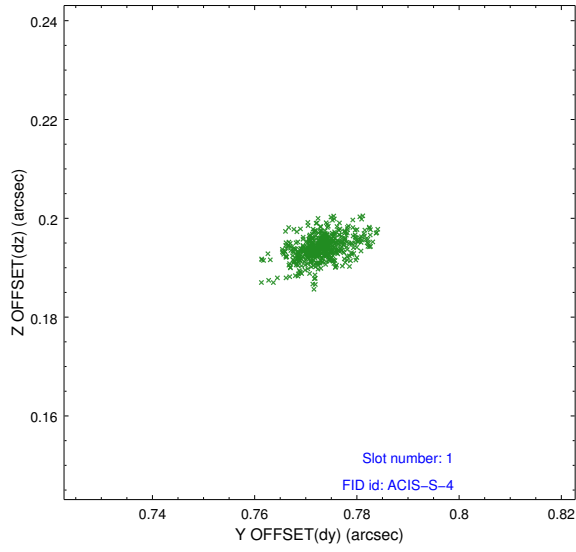


2.5 FID Slots

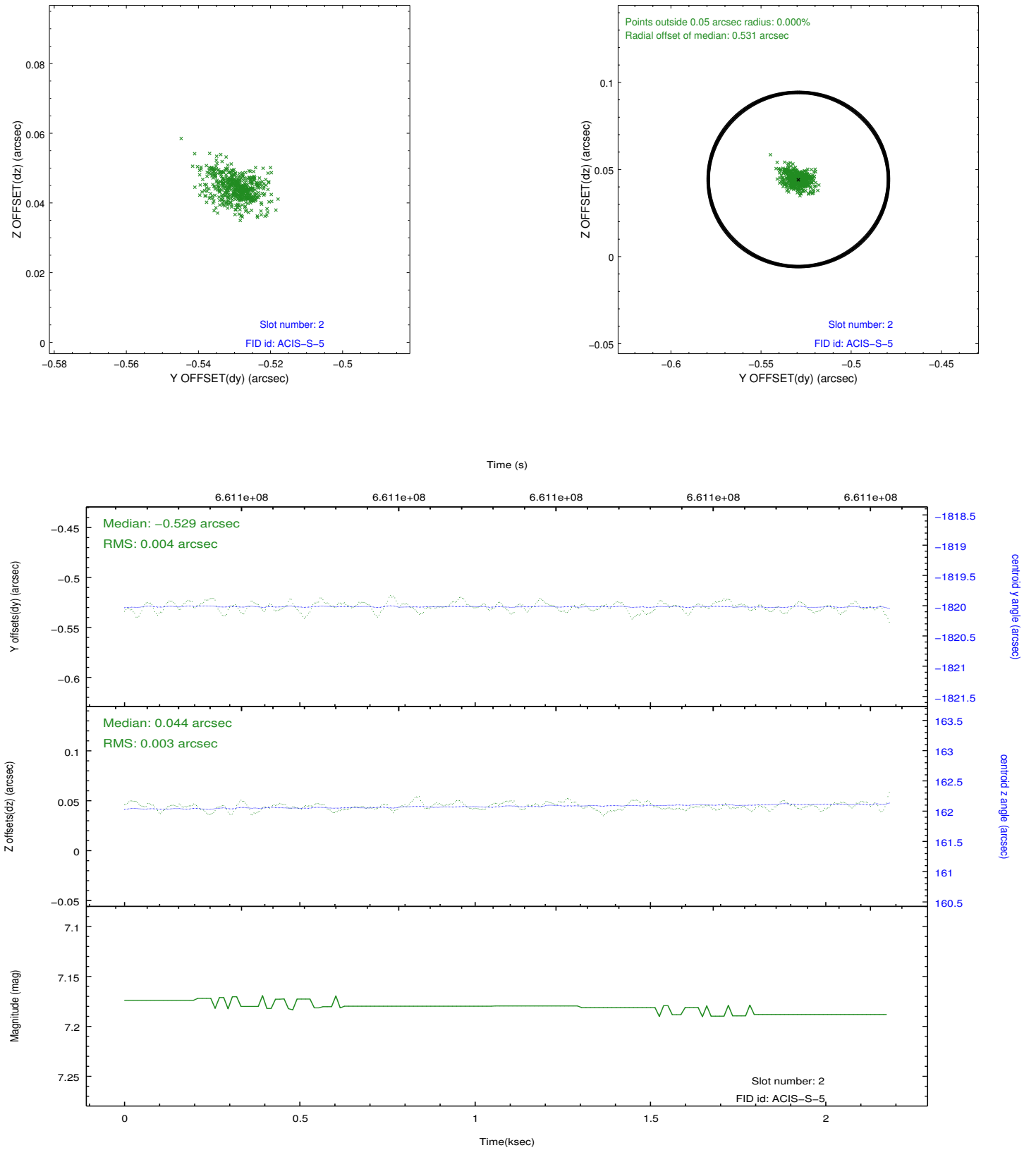
2.5.1 Slot 0



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)	2018.12.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.1824000169039

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.

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Joint Proposal: HST. Window constraint met. Optional chips S1 and I2 not included.