

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 4686 - L2 Version 4
Chandra X-Ray Center

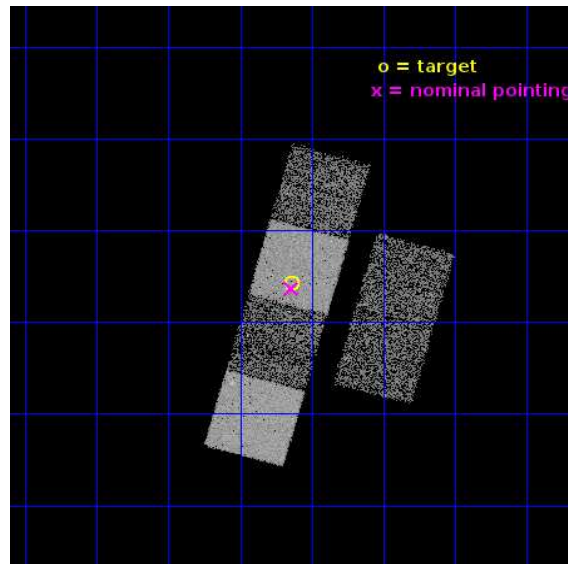
L2 Processing Date : Jul 6 2015

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

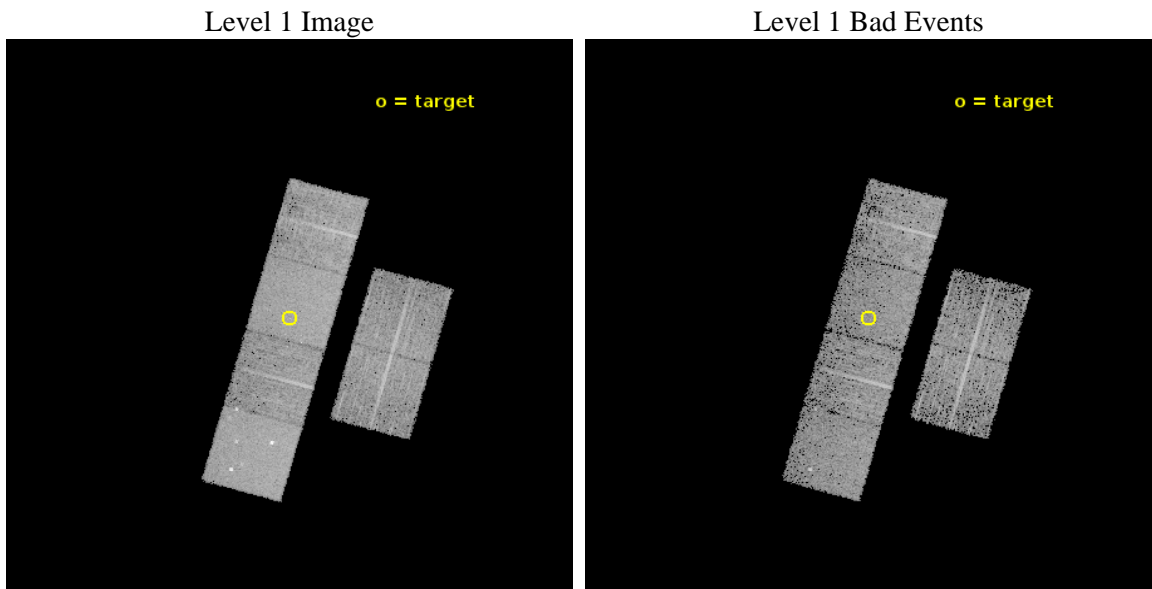
seq_num	600341	Sequence number
obs_id	4686	Observation id
title	Locating Ultraluminous X-Ray Sources	Proposal title
observer	Prof. Philip Kaaret	Principal investigator
object	NGC 1073 ULX	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	40.909583	Observer's specified target RA [deg]
dec_targ	1.403611	Observer's specified target Dec [deg]
ra_nom	40.910563537569	Nominal RA [deg]
dec_nom	1.3939319522071	Nominal Dec [deg]
roll_nom	285.59755600484	Nominal Roll [deg]
revision	4	Processing version of data
ontime	5810.7624394894	Sum of GTIs [s]
livetime	5737.1830666595	Livetime [s]
ontime2	5810.7624394894	Sum of GTIs [s]
ontime3	5810.7624394894	Sum of GTIs [s]
ontime5	5810.7624394894	Sum of GTIs [s]
ontime6	5810.7624394894	Sum of GTIs [s]
ontime7	5810.7624394894	Sum of GTIs [s]
ontime8	5810.7624394894	Sum of GTIs [s]
l2events	59146	Number of level 2 events



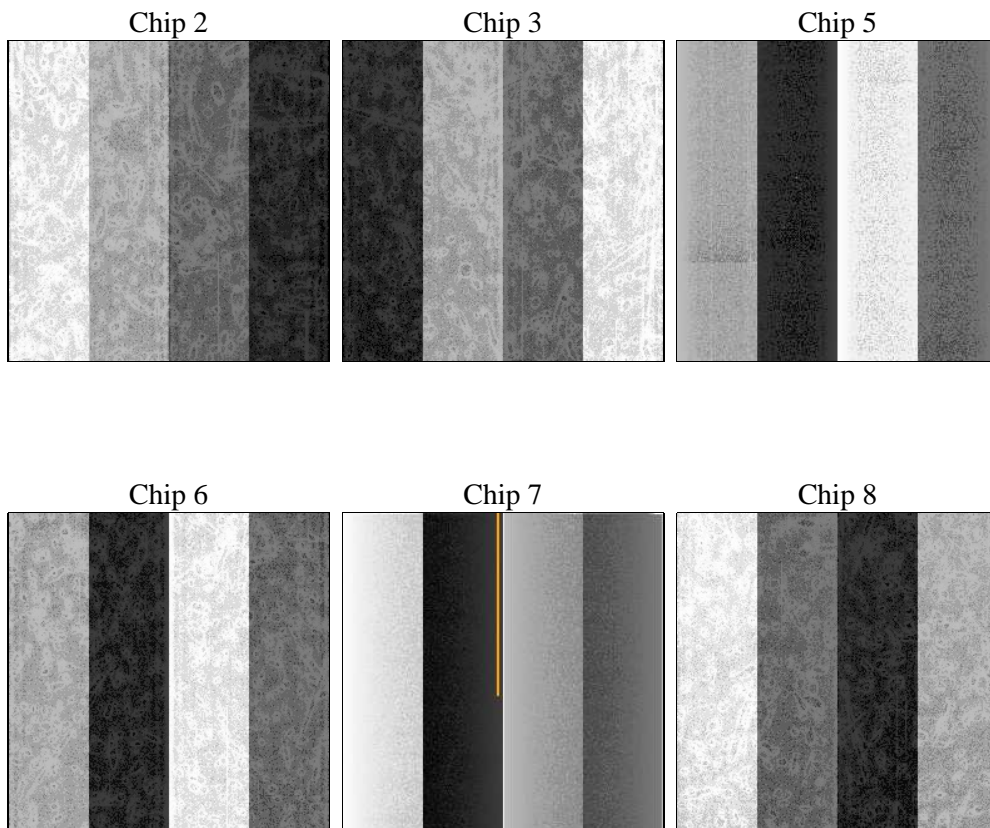
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5673.000000	[s] Scheduled observation exposure time
ascdsver	10.4	Processing system revision	ontime	5810.7624394894	Sum of GTIs [s]
caldsver	4.6.7	 	ontime2	5810.7624394894	Sum of GTIs [s]
date	2015-07-06T21:11:20	Date and time of file creation	ontime3	5810.7624394894	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	5810.7624394894	Sum of GTIs [s]
			ontime6	5810.7624394894	Sum of GTIs [s]
			ontime7	5810.7624394894	Sum of GTIs [s]
			ontime8	5810.7624394894	Sum of GTIs [s]
			l1events	260263	Number of level 1 events

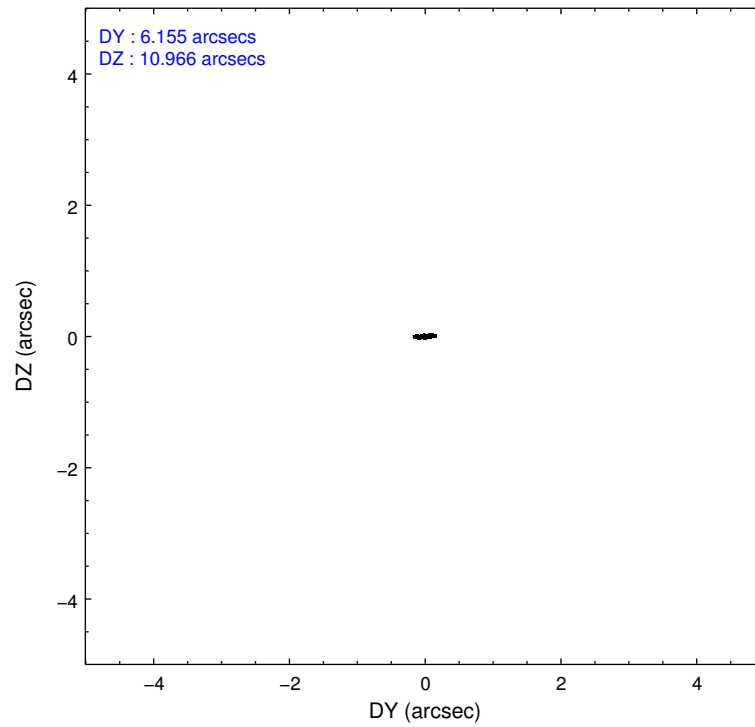
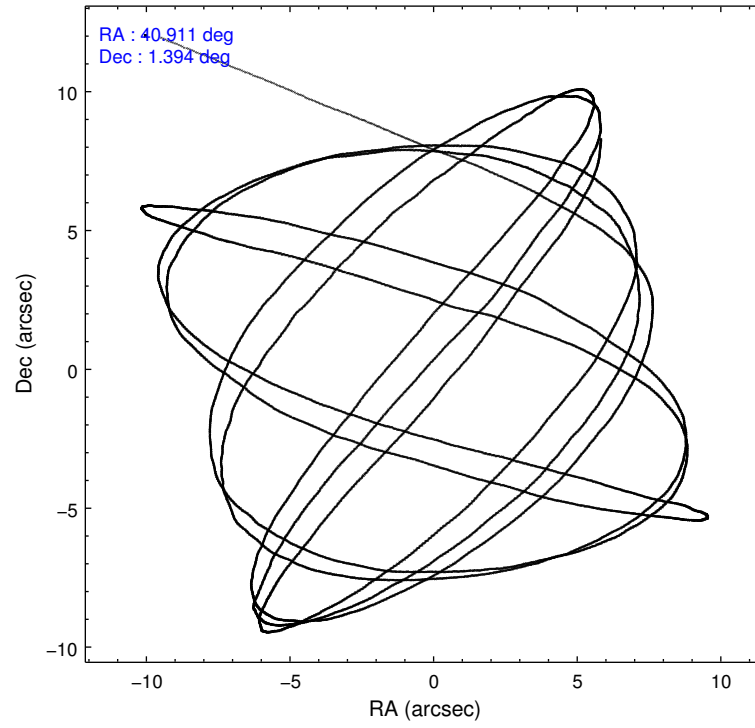
2.1.4 Events

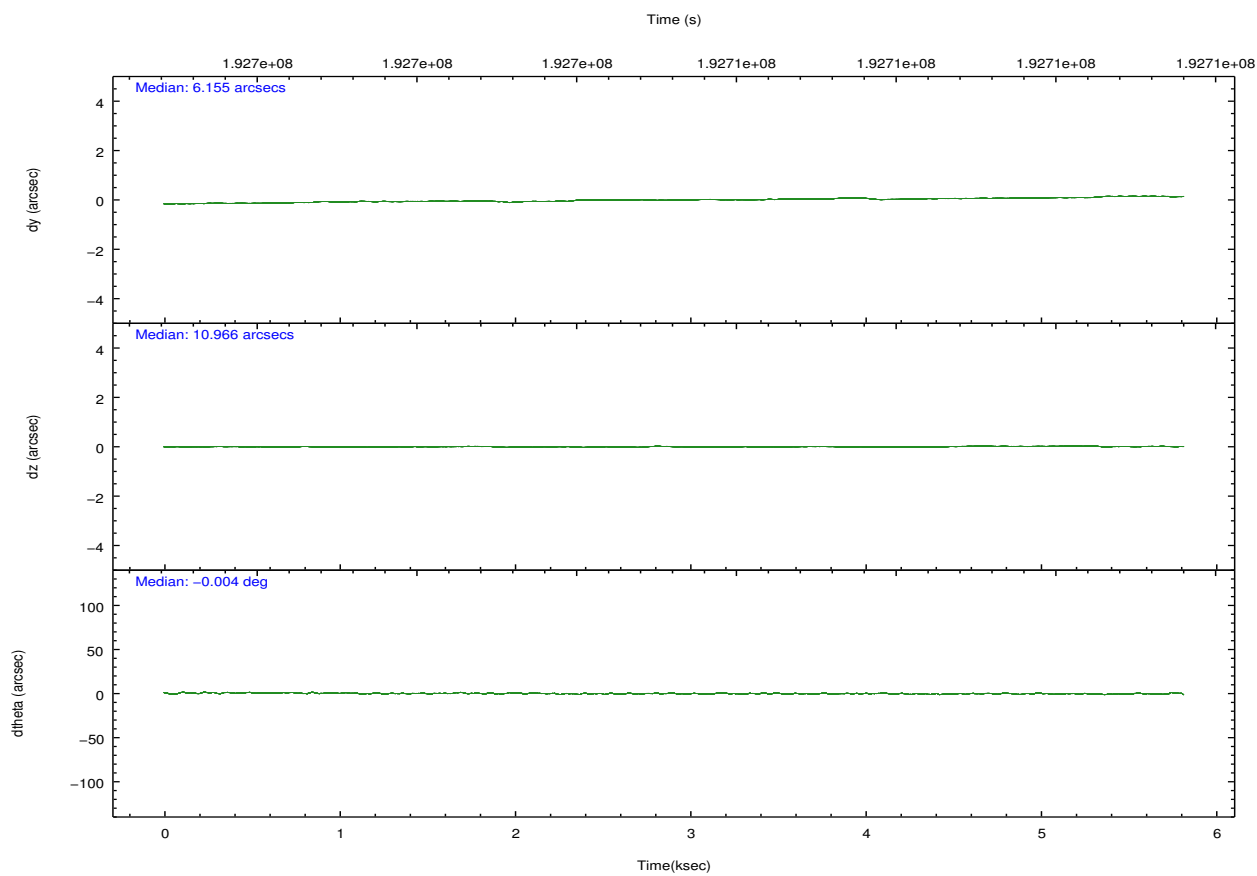
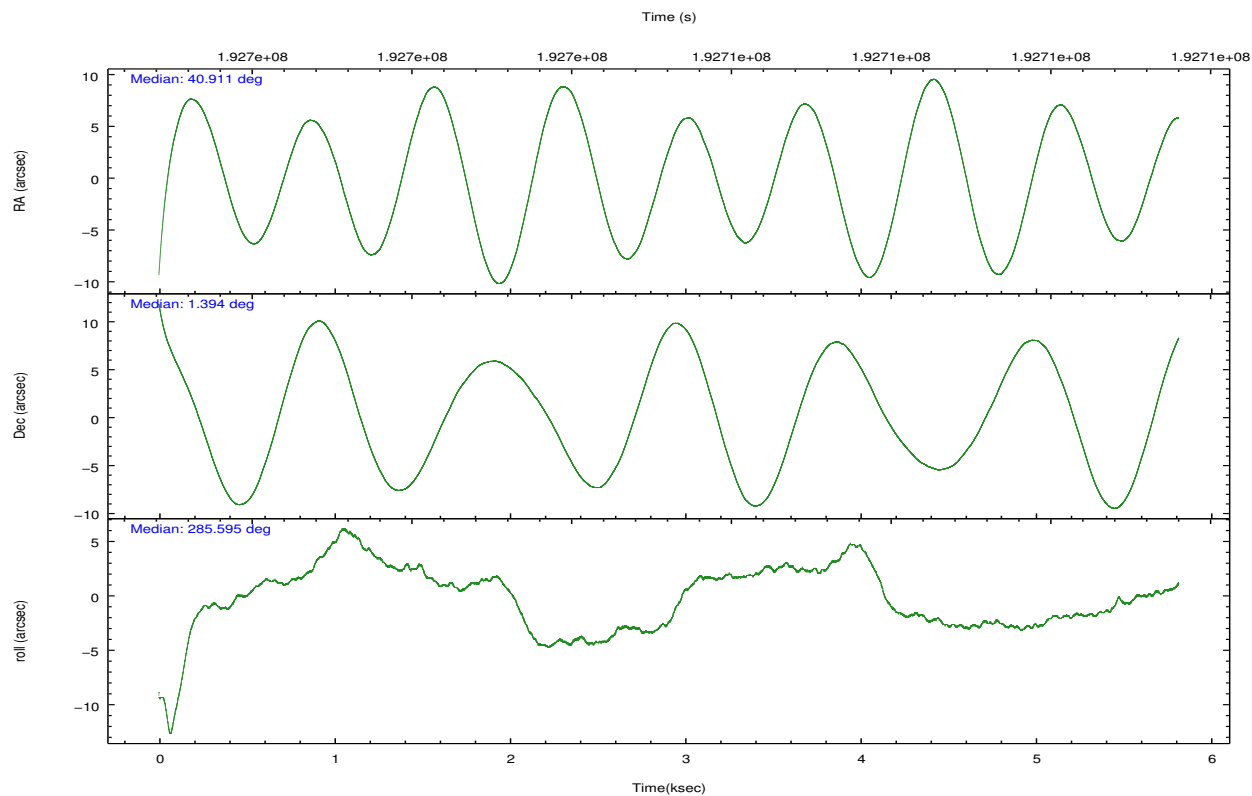
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	36563	34671	56474	36682	50065	45808	grade 0 events	1958	1804	3962	1776	2017	3018
rejected events	32140	30468	30057	32280	29121	36299		5%	5%	7%	4%	4%	6%
rejected %	87%	87%	53%	87%	58%	79%	grade 1 events	22	25	152	18	48	25
								0%	0%	0%	0%	0%	0%
							grade 2 events	883	841	7576	891	4147	2040
								2%	2%	13%	2%	8%	4%
							grade 3 events	424	420	1034	433	1926	1044
								1%	1%	1%	1%	3%	2%
							grade 4 events	442	435	923	436	1831	931
								1%	1%	1%	1%	3%	2%
							grade 5 events	1446	1555	4098	1602	4876	2151
								3%	4%	7%	4%	9%	4%
							grade 6 events	730	708	12973	872	11054	2499
								1%	2%	22%	2%	22%	5%
							grade 7 events	30658	28883	25756	30654	24166	34100
								83%	83%	45%	83%	48%	74%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	40.890797	40.91056353756917	Subarray requested	NONE	NONE
[deg] Pointing Dec	1.412774	1.393931952207108	Alternating exposures requested	N	N
[deg] Pointing Roll	285.441411	285.597556004839	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	192702842.184000	192701789.77123			
Observation start date	2004-02-09T08:32:58	2004-02-09T08:16:29			
[s] Observation end time (MET)	192708515.184000	192709787.84658			
Observation end date	2004-02-09T10:07:31	2004-02-09T10:29:47			
Read mode	TIMED	TIMED			

2.3 Aspect



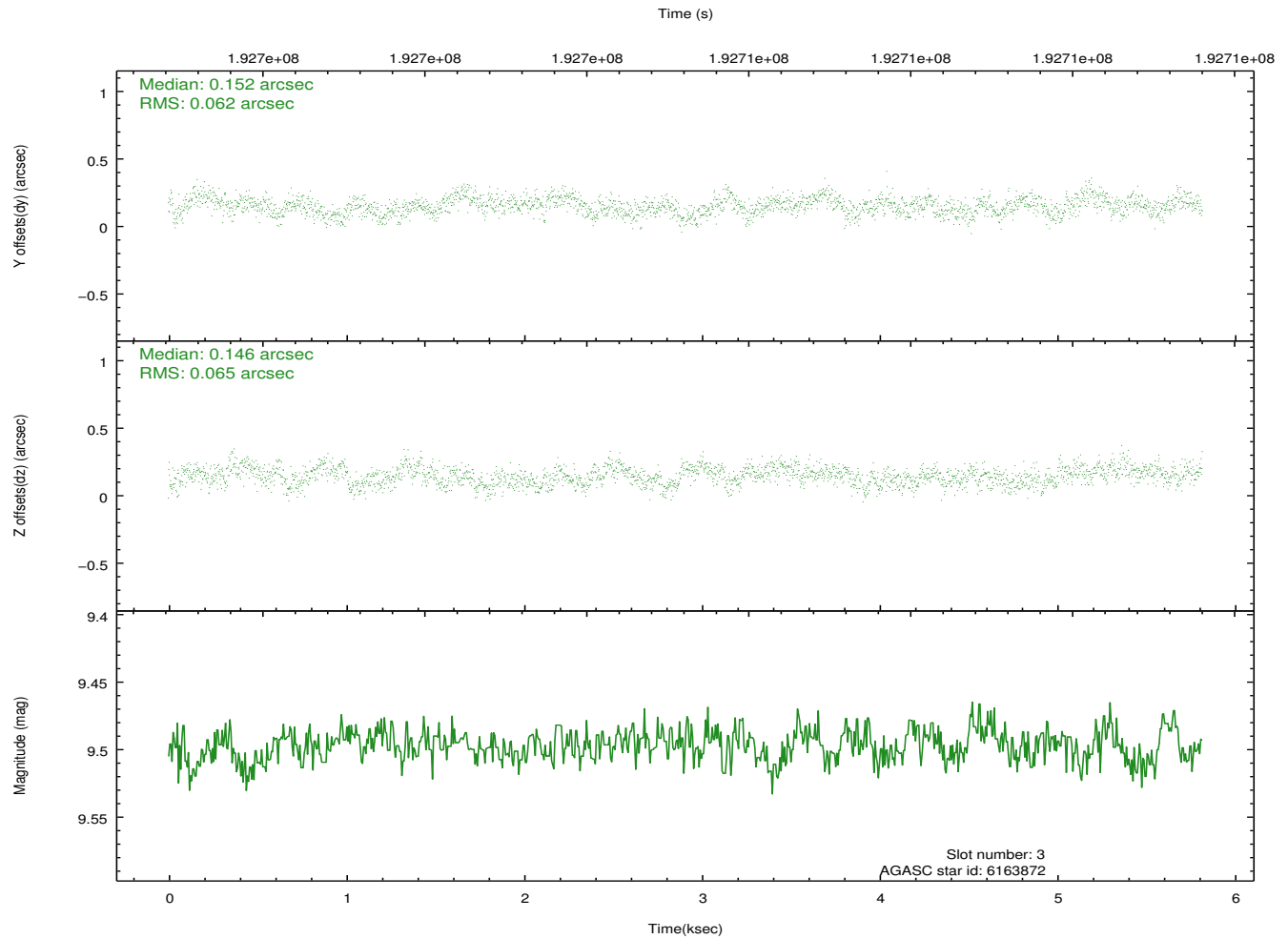
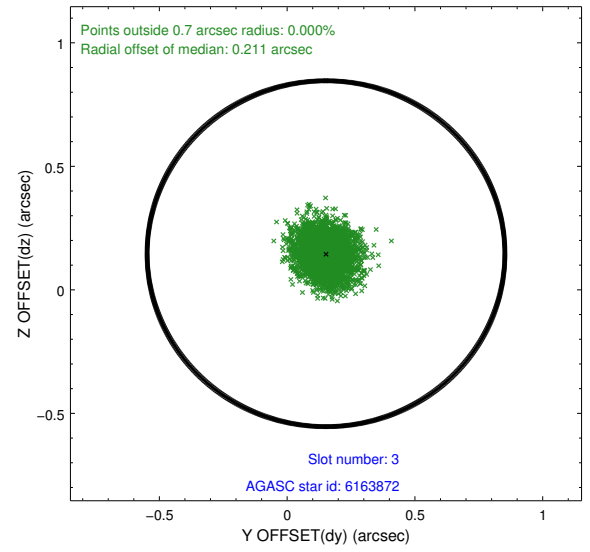
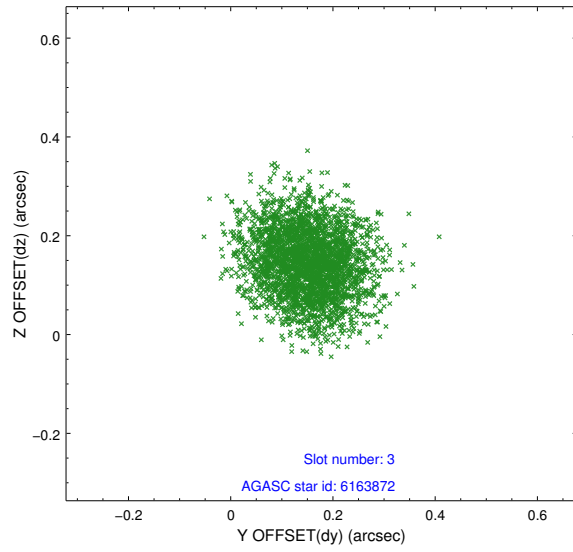


Slot Statistics

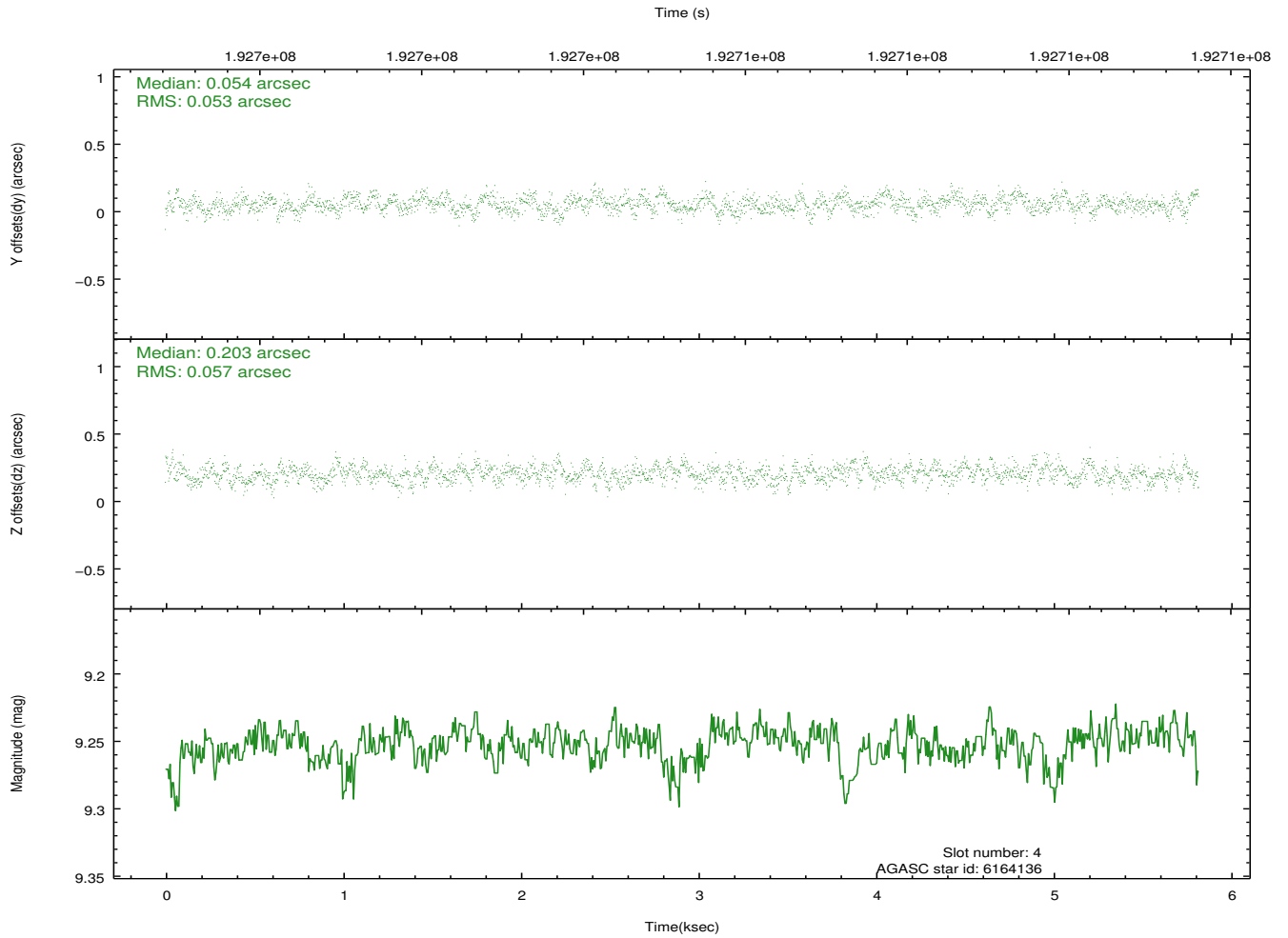
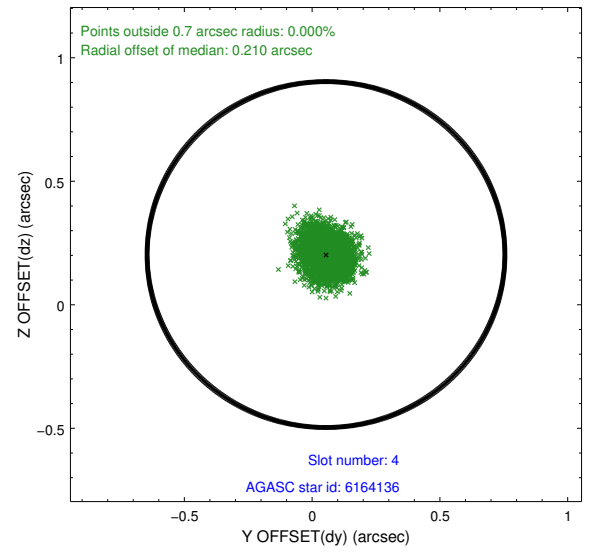
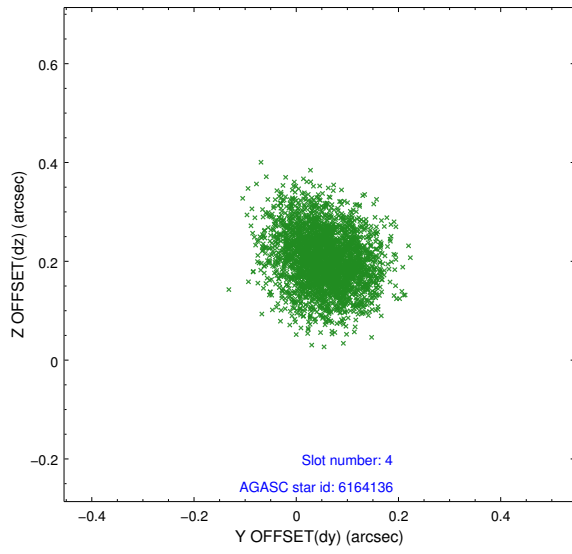
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.18	1419	0.009	-0.061	0.007	0.012	0.000000	0.000000	937.12	-1727.95
1	FID		ACIS-S-2	7.10	1420	-0.074	-0.009	0.005	0.010	0.000000	0.000000	-758.29	-1733.46
2	FID		ACIS-S-4	7.20	1419	0.039	0.075	0.006	0.010	0.000000	0.000000	2153.97	175.26
3	GUIDE	used	6163872	9.50	2823	0.152	0.146	0.096	0.152	41.133772	1.508696	-100.18	935.08
4	GUIDE	used	6164136	9.25	2839	0.054	0.203	0.083	0.132	41.344068	1.447309	314.31	1605.99
5	GUIDE	used	6165200	9.64	2836	-0.004	-0.038	0.105	0.178	40.816423	1.985214	-2057.58	291.36
6	GUIDE	used	6167416	9.87	2834	0.172	0.117	0.102	0.167	41.158447	1.321640	571.99	841.50
7	GUIDE	used	6166328	7.49	2838	-0.372	-0.428	0.052	0.084	40.139957	1.866308	-2293.79	-2169.51

2.4 Star Slots

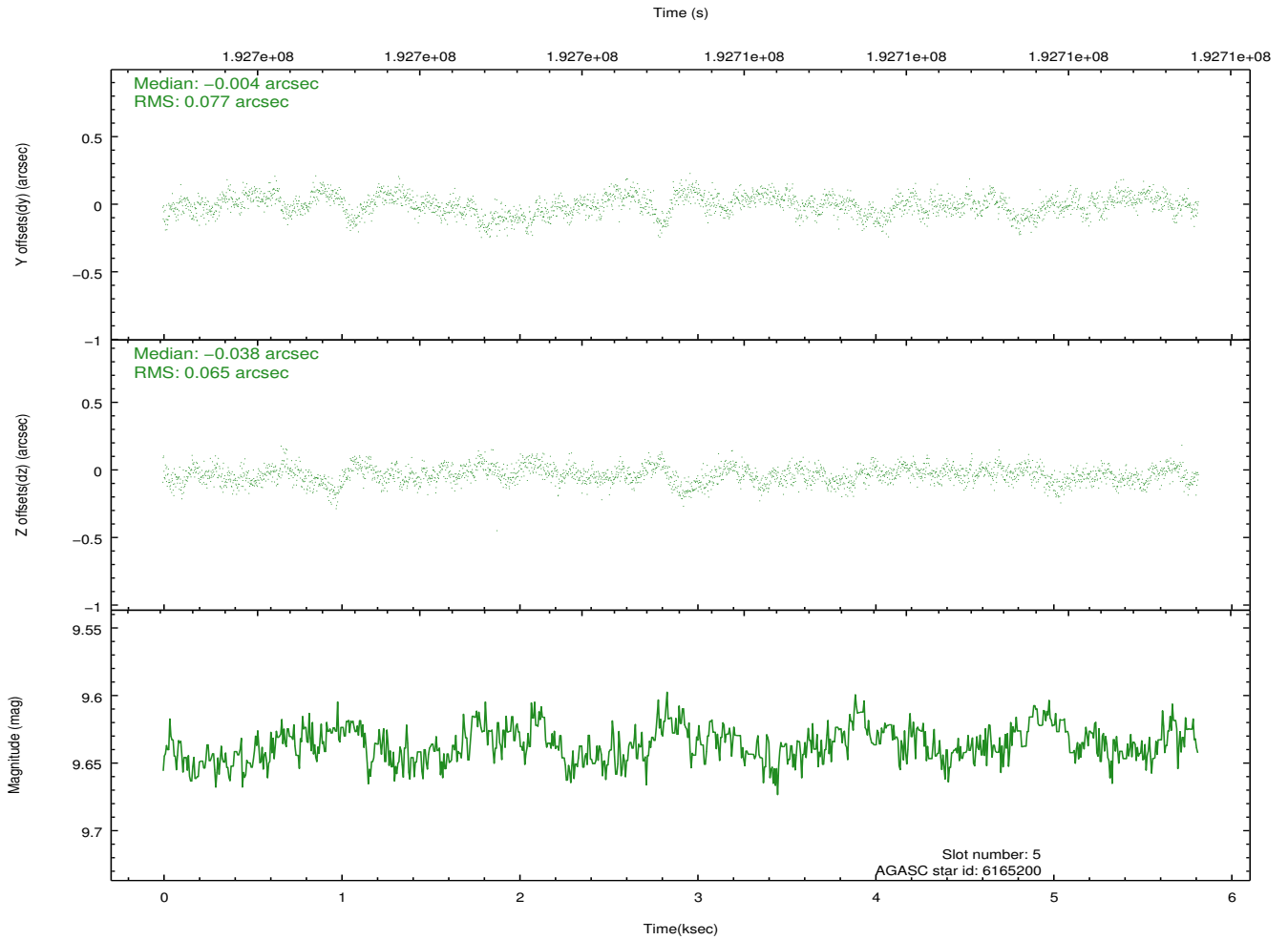
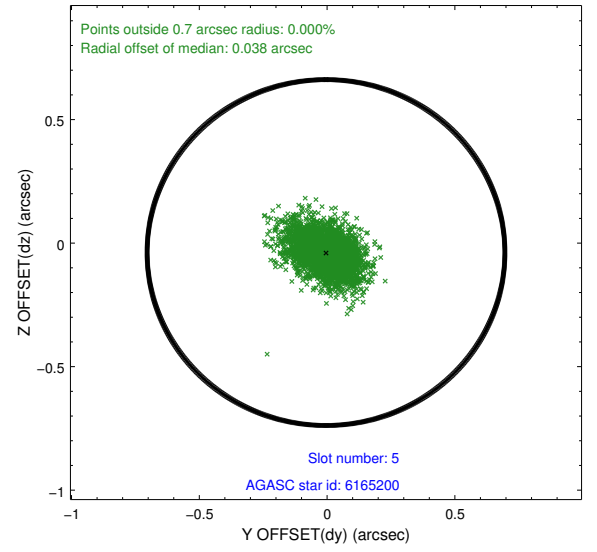
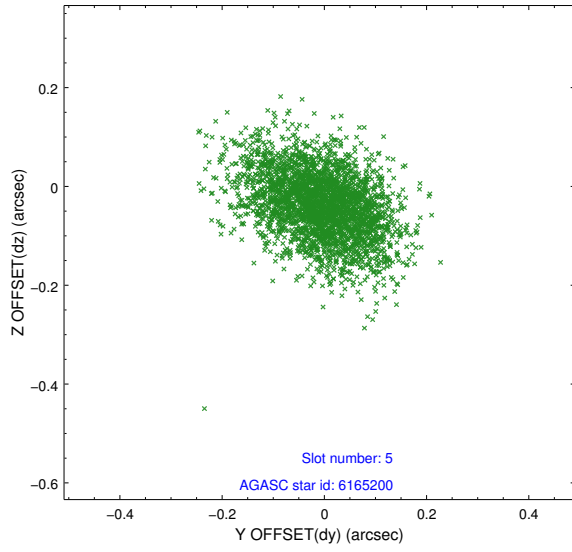
2.4.1 Slot 3



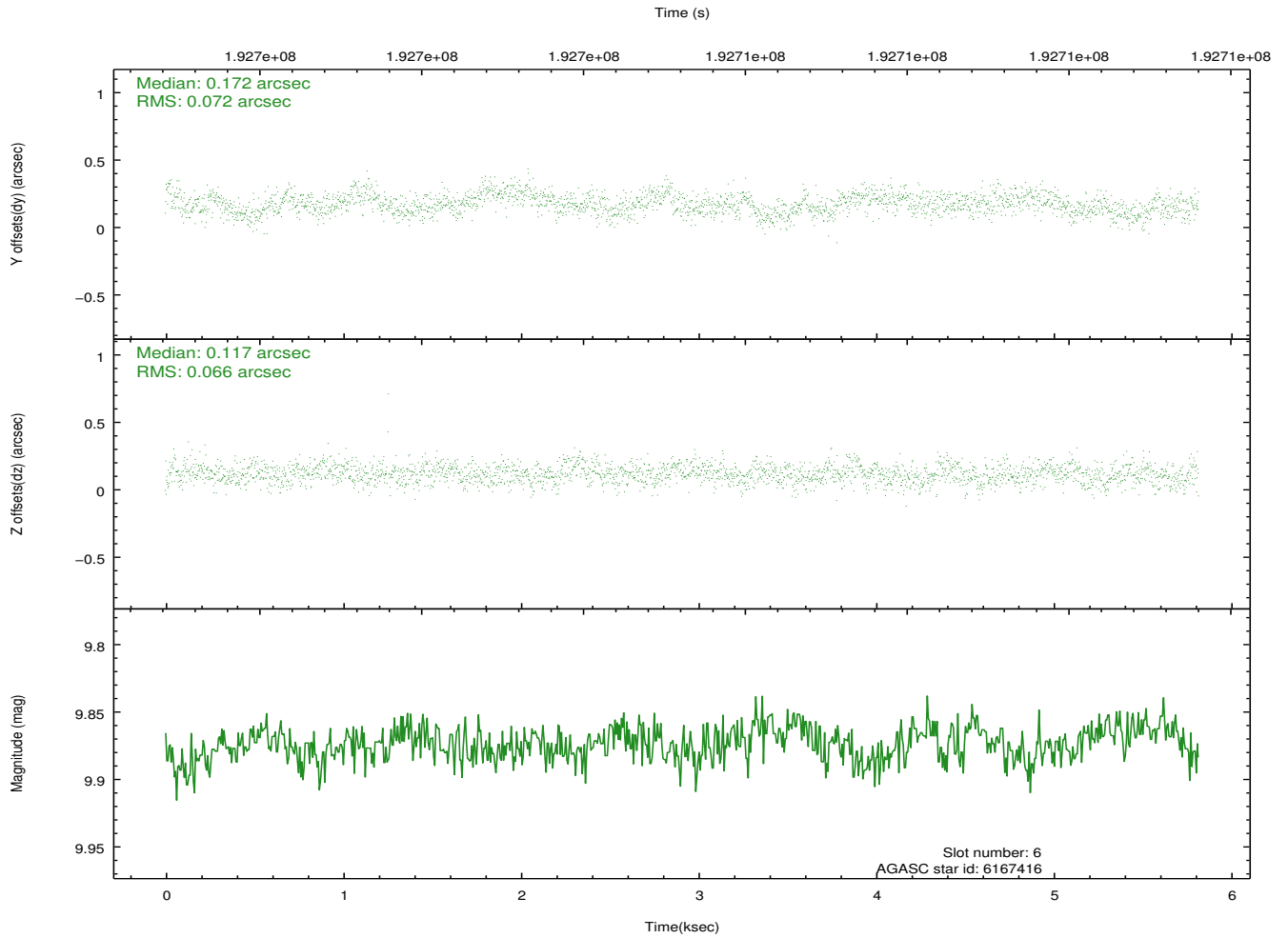
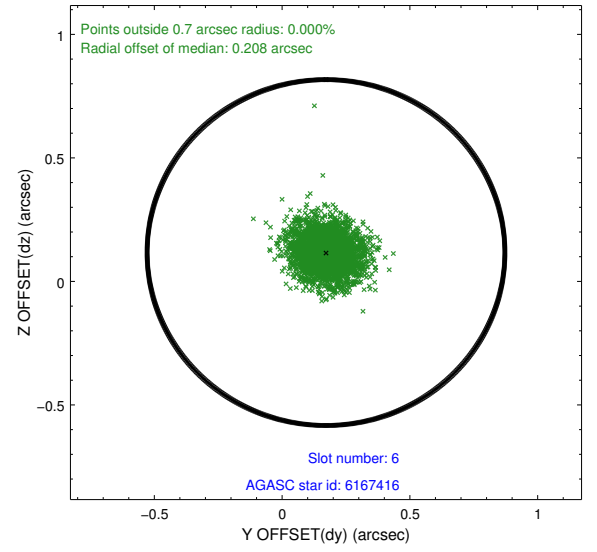
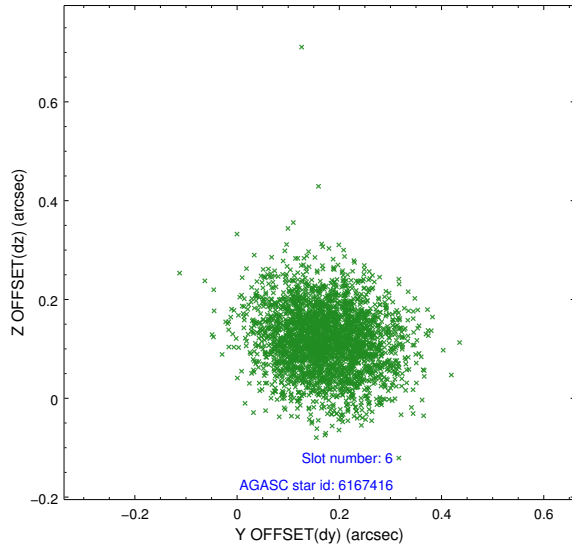
2.4.2 Slot 4



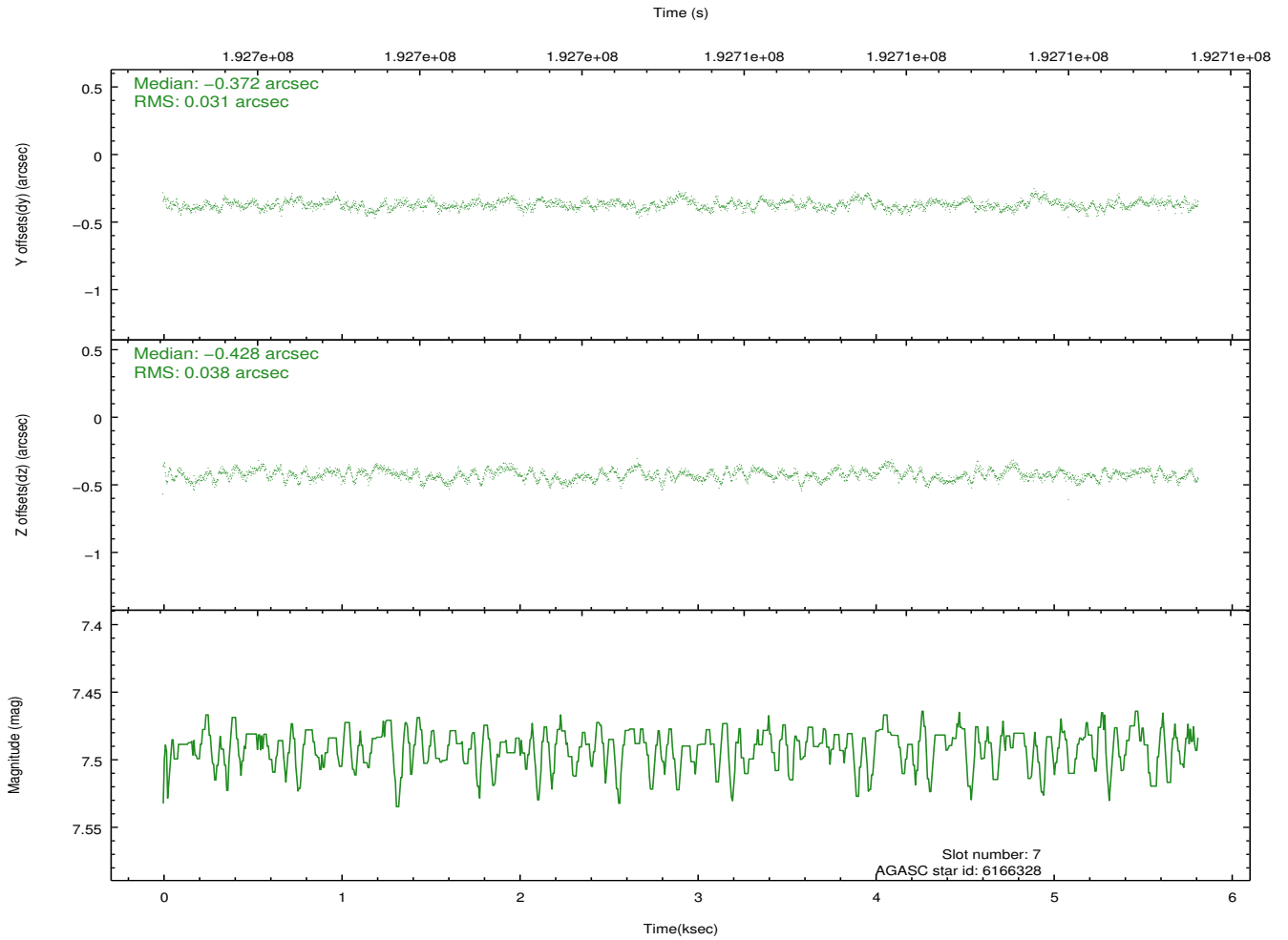
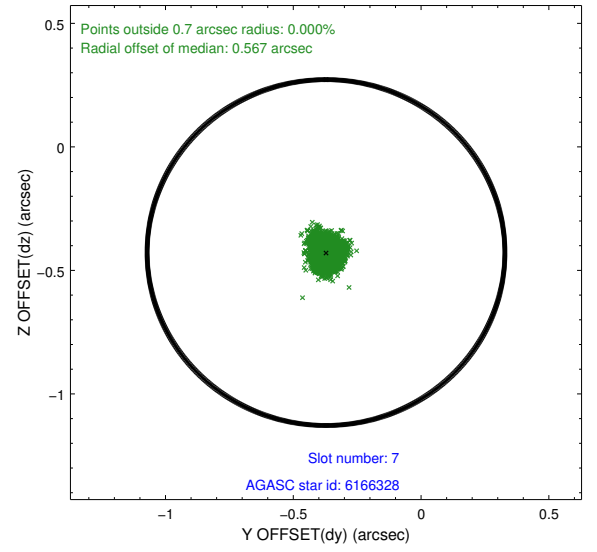
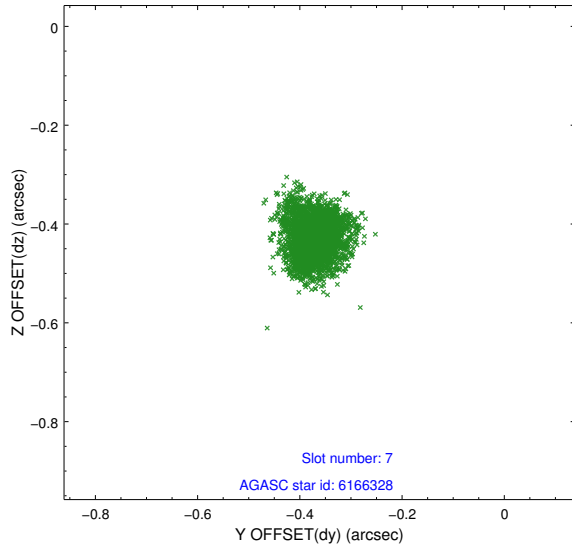
2.4.3 Slot 5



2.4.4 Slot 6

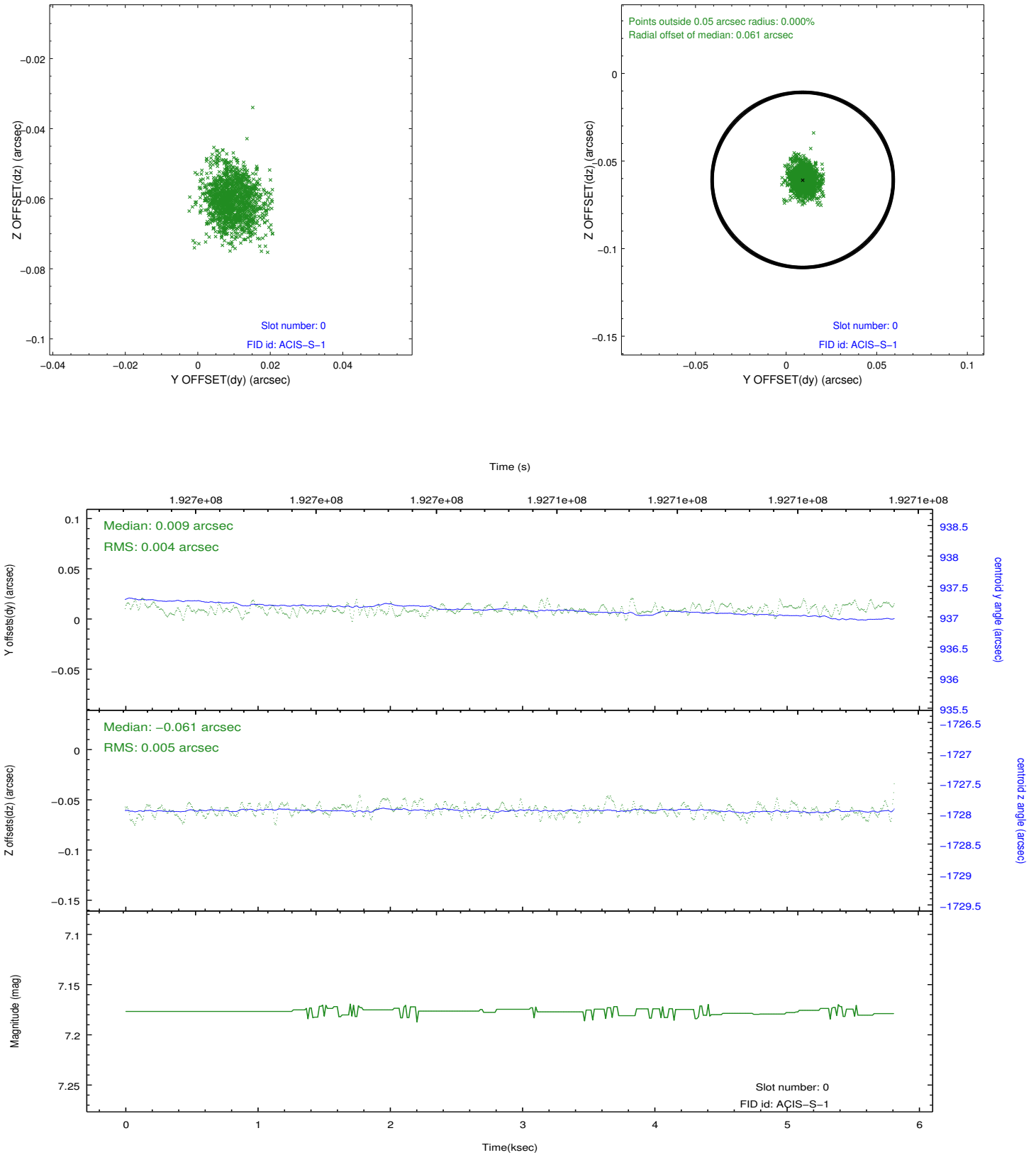


2.4.5 Slot 7

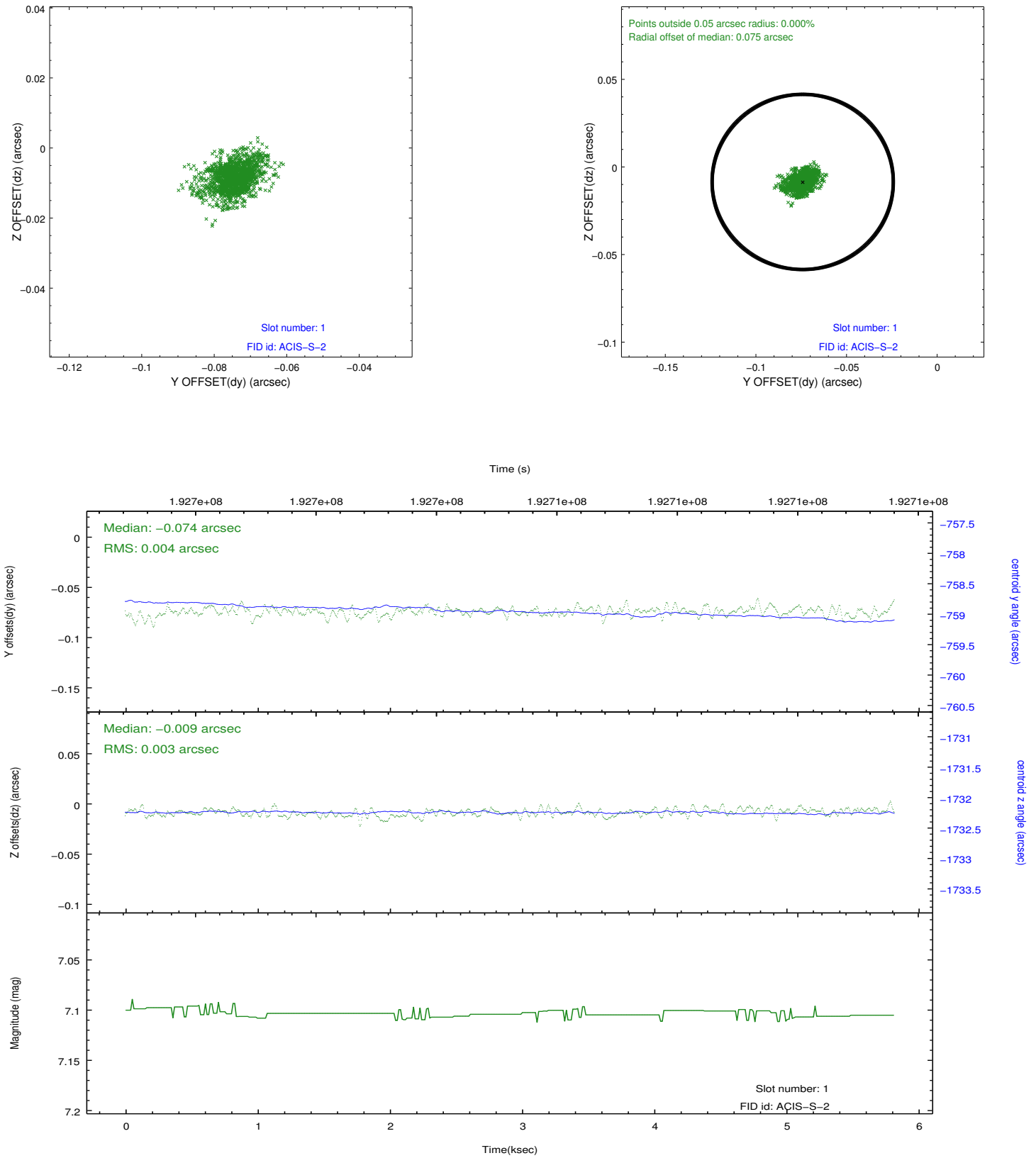


2.5 FID Slots

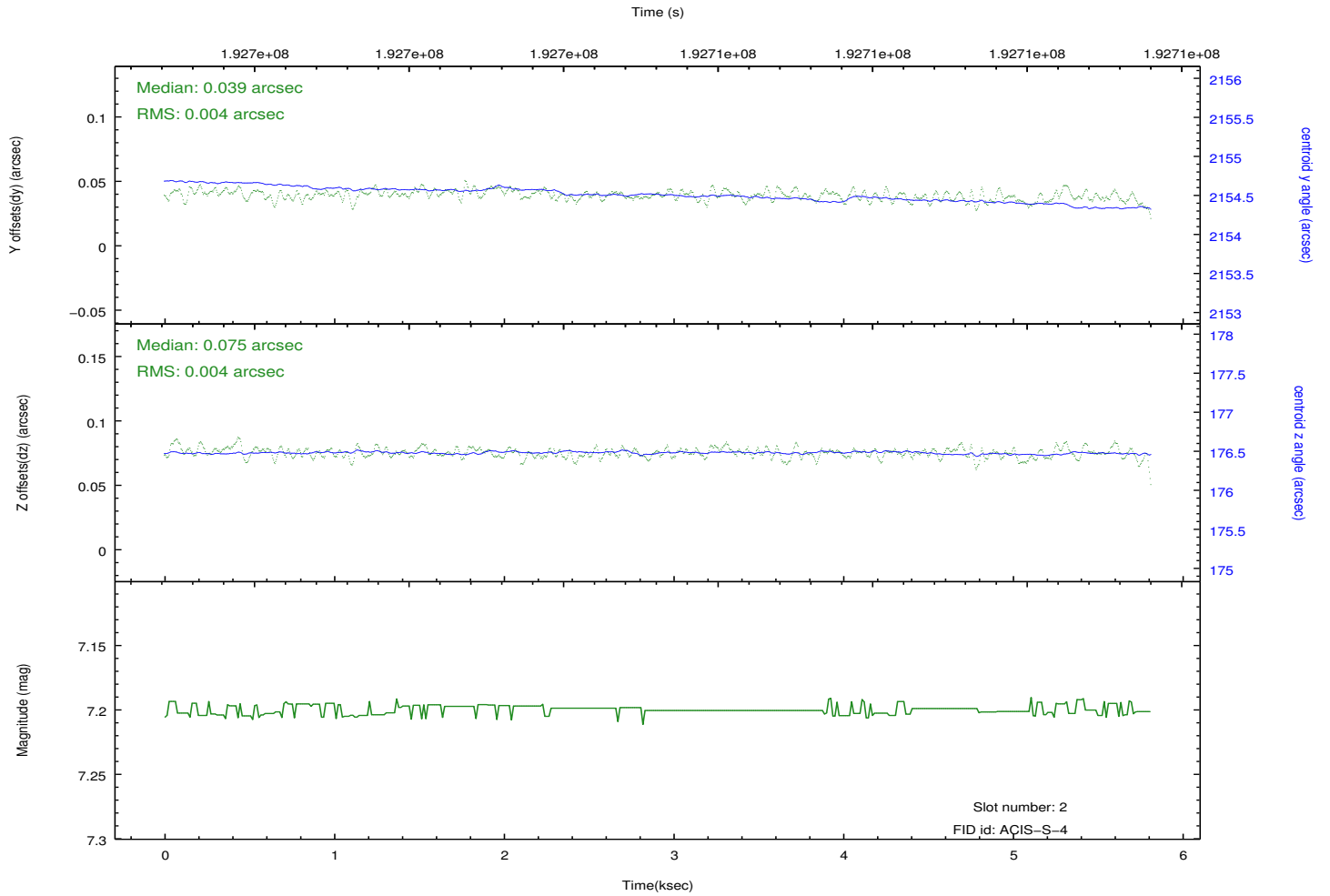
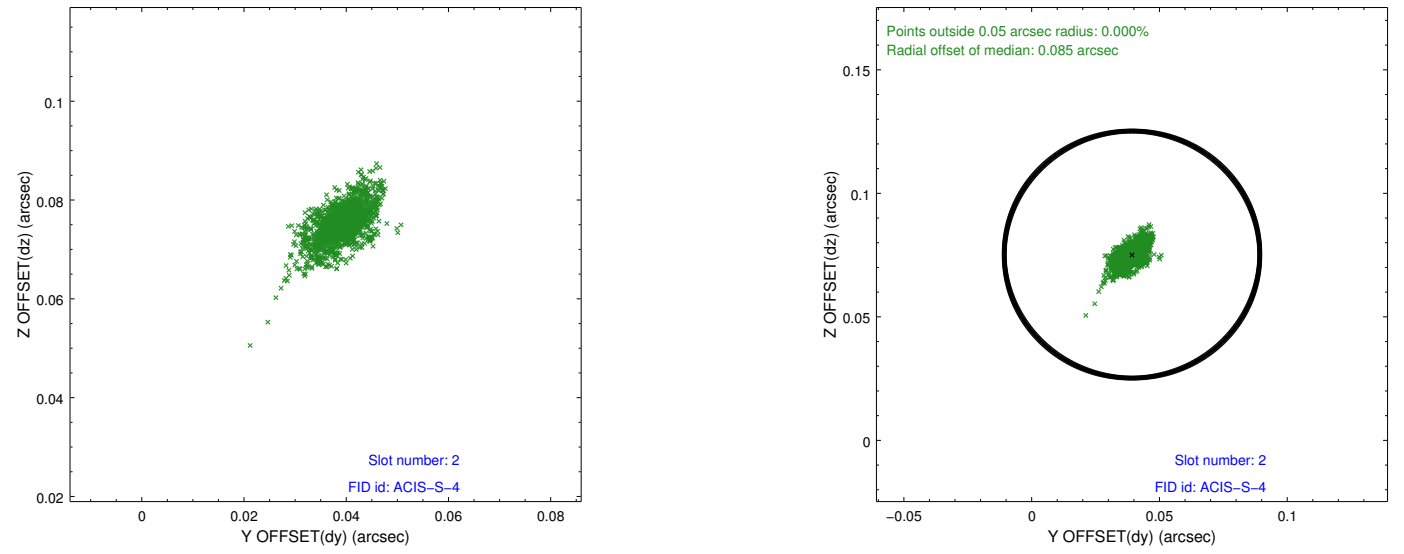
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2015.07.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.811

A.2 Comments

Joint proposal with HST.

Because an aspect solution is determined in a finite time interval, a small number of events registered within the delta time before the first aspect solution do not have proper sky coordinates. We apply a manual workaround to exclude those events with incorrect sky positions until the complete s/w resolution is obtained.