

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 14486 - L2 Version 2
Chandra X-Ray Center

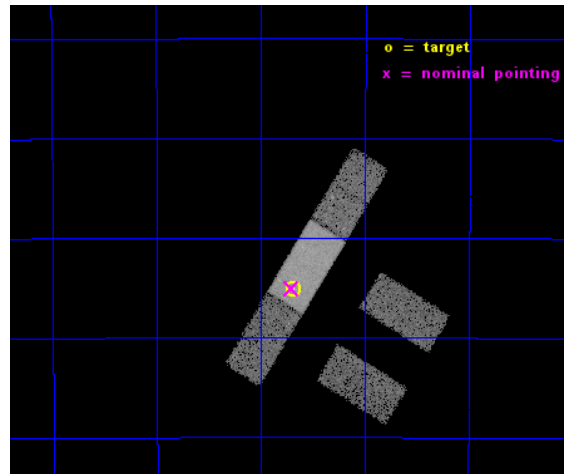
L2 Processing Date : Dec 9 2014

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

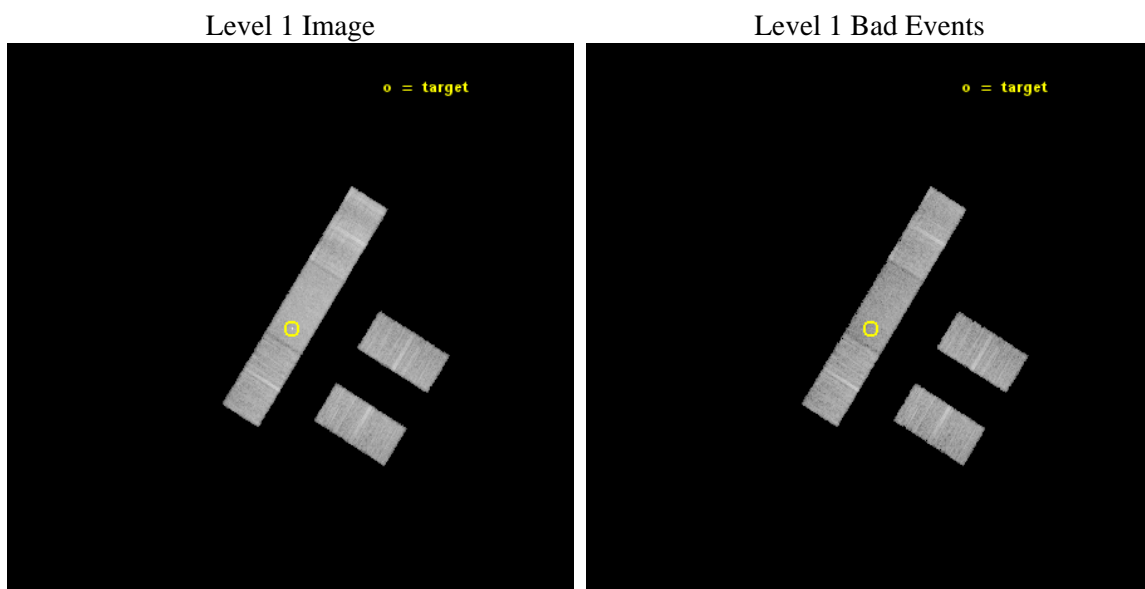
seq_num	702723	Sequence number
obs_id	14486	Observation id
title	ENERGY DEPENDENT X-RAY MICROLENSING AND THE STRUCTURE OF QUASARS	P
observer	Prof. Christopher Kochanek	Principal investigator
object	QJ0158-4325	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	29.6725	Observer's specified target RA [deg]
dec_targ	-43.417833	Observer's specified target Dec [deg]
ra_nom	29.676656921023	Nominal RA [deg]
dec_nom	-43.417864383036	Nominal Dec [deg]
roll_nom	301.76886824126	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19062.09986639	Sum of GTIs [s]
livetime	18612.765802545	Livetime [s]
ontime2	19062.09986639	Sum of GTIs [s]
ontime3	19062.09986639	Sum of GTIs [s]
ontime6	19062.09986639	Sum of GTIs [s]
ontime7	19062.09986639	Sum of GTIs [s]
ontime8	19062.09986639	Sum of GTIs [s]
l2events	54091	Number of level 2 events



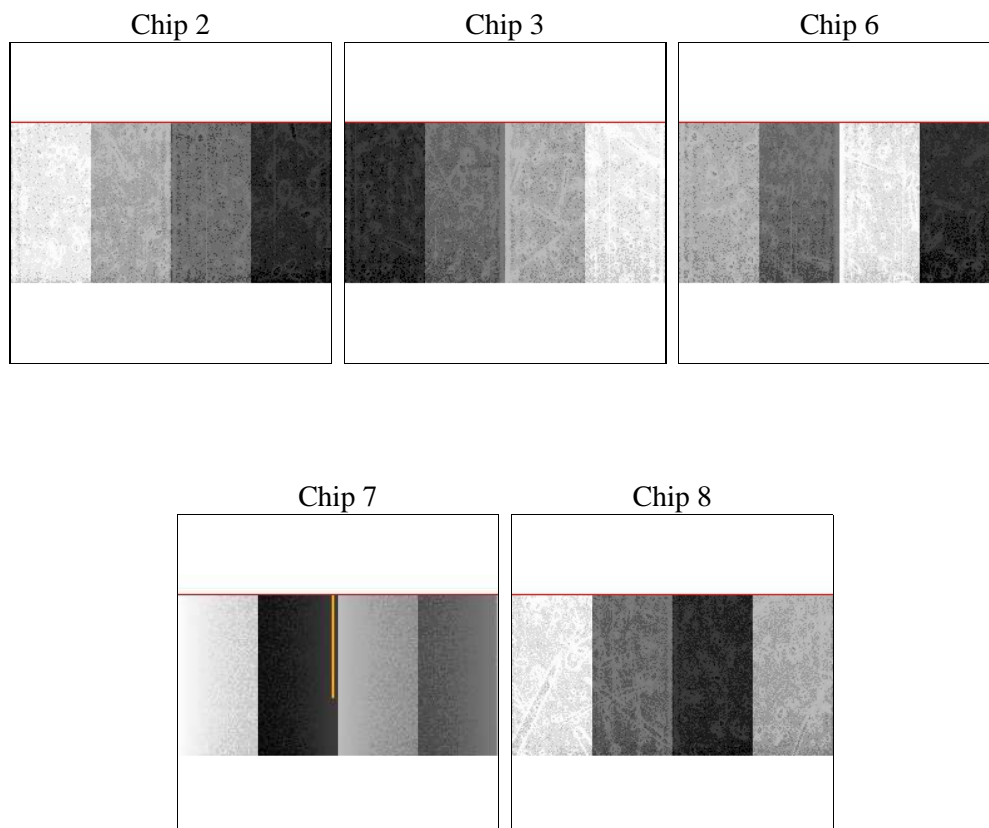
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	19062.09986639	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	19062.09986639	Sum of GTIs [s]
date	2014-12-09T09:11:15	Date and time of file creation	ontime3	19062.09986639	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	19062.09986639	Sum of GTIs [s]
			ontime7	19062.09986639	Sum of GTIs [s]
			ontime8	19062.09986639	Sum of GTIs [s]
			l1events	320326	Number of level 1 events

2.1.4 Events

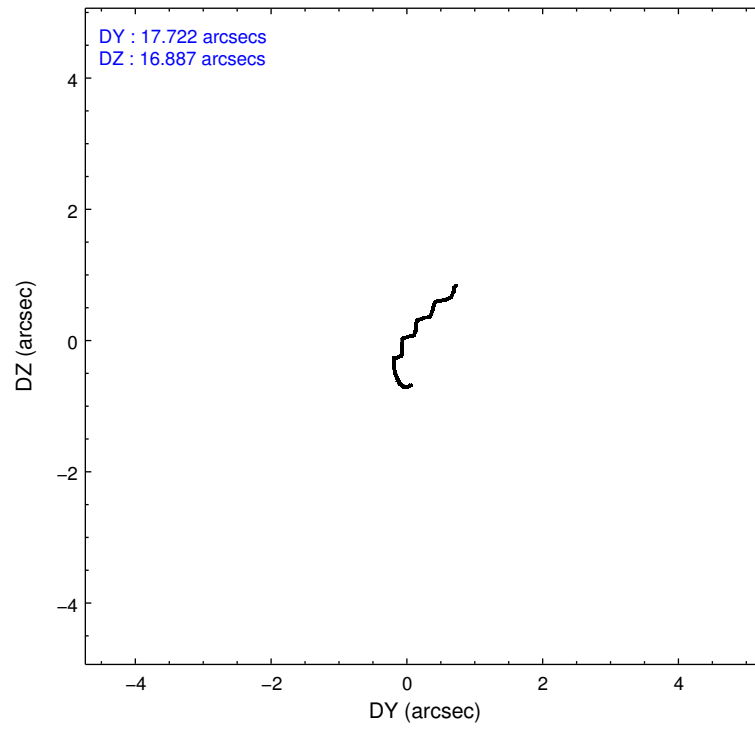
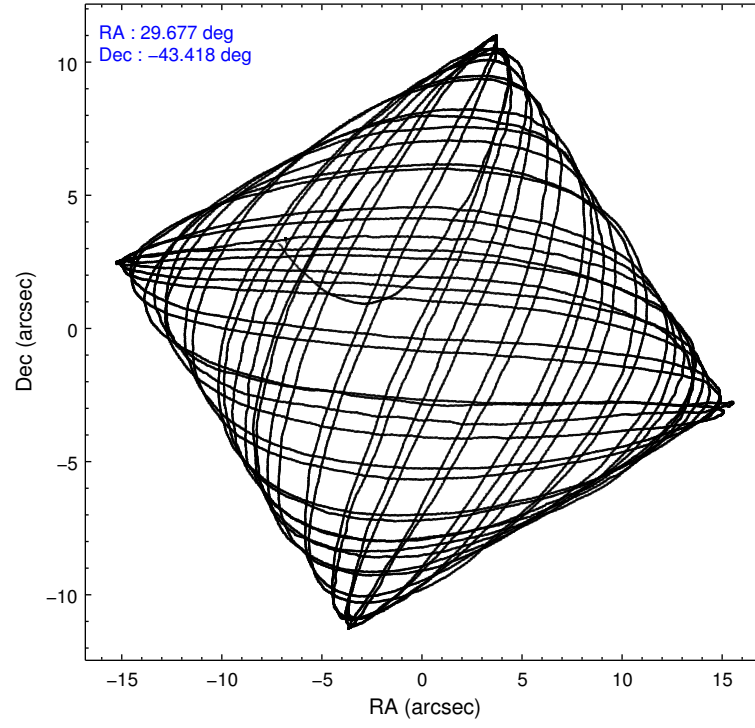
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	56789	54913	58051	69562	81011
rejected events	50433	48742	51092	37608	55456
rejected %	88%	88%	88%	54%	68%

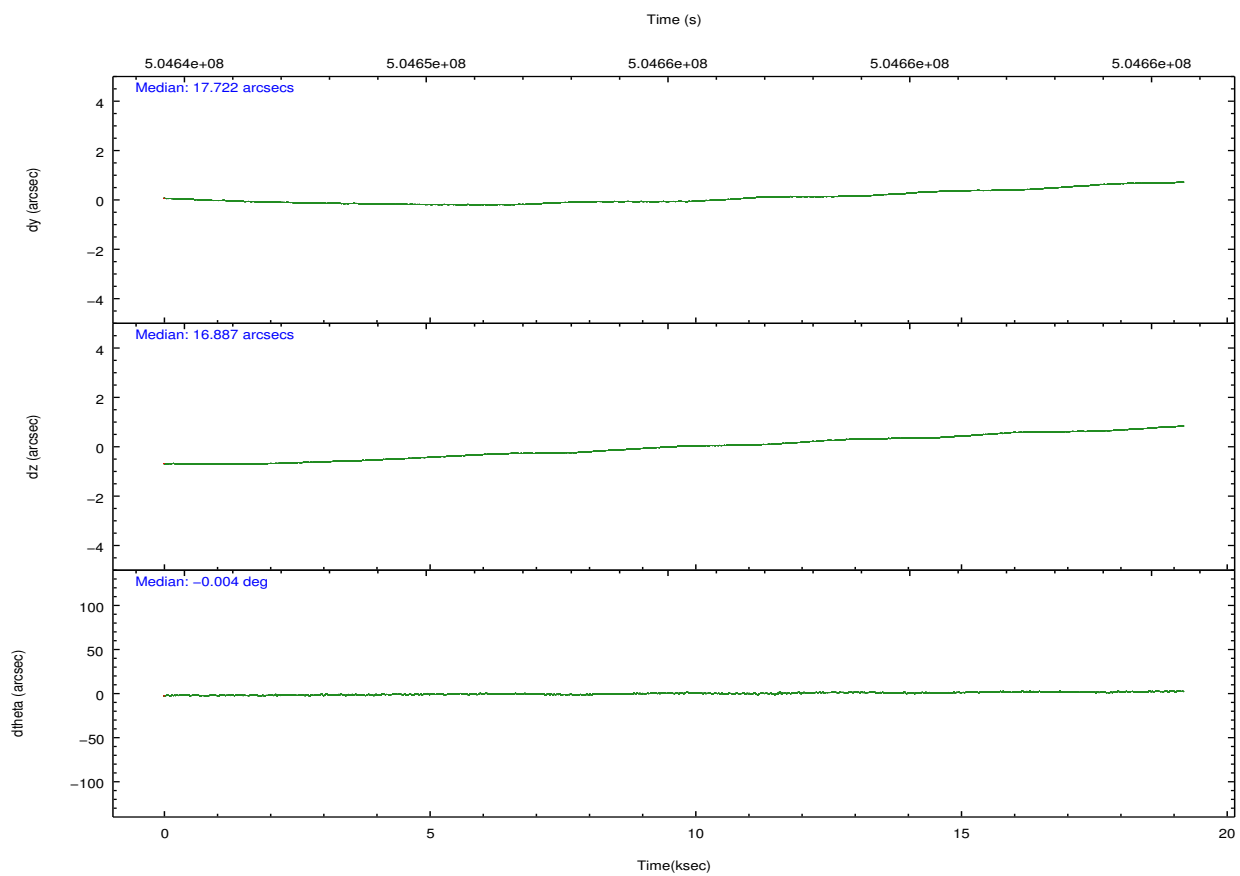
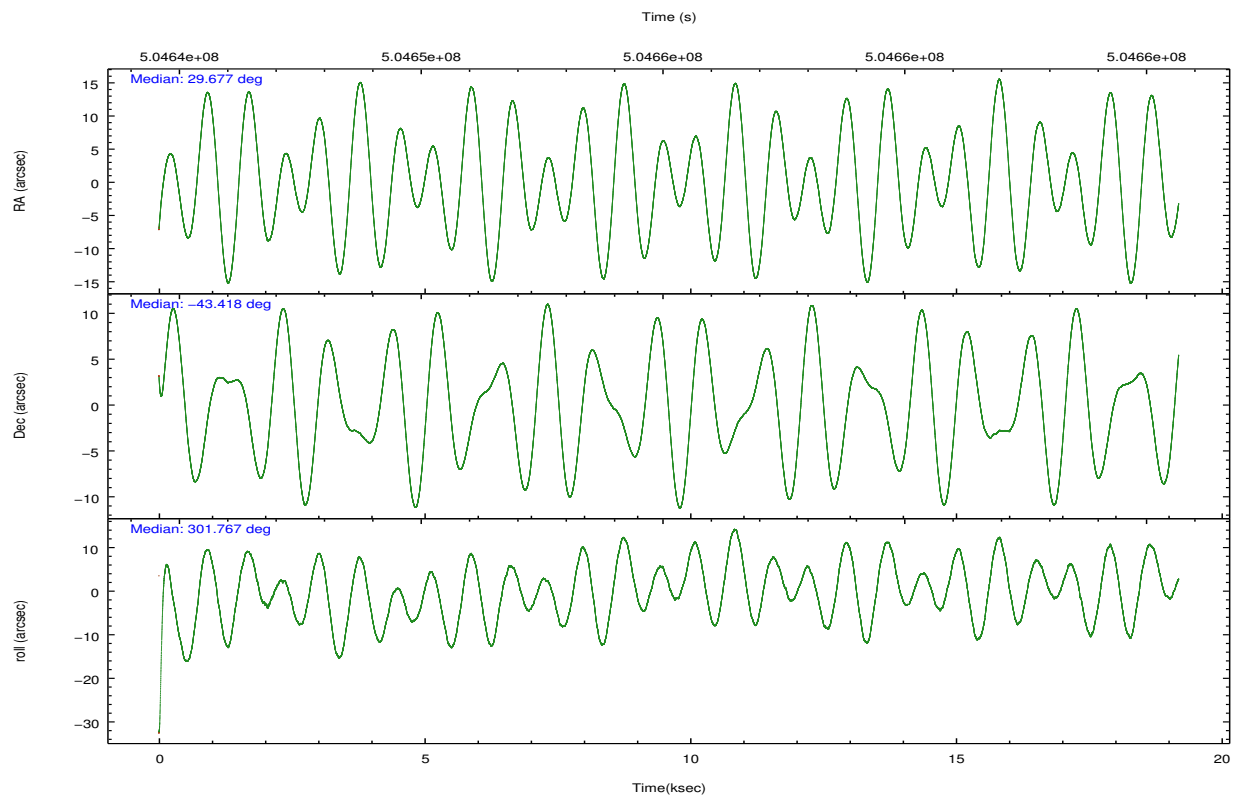
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	2250	2113	2326	3192	7294
	3%	3%	4%	4%	9%
grade 1 events	22	25	20	109	49
	0%	0%	0%	0%	0%
grade 2 events	1472	1242	1531	6875	5730
	2%	2%	2%	9%	7%
grade 3 events	719	808	775	3221	2792
	1%	1%	1%	4%	3%
grade 4 events	743	748	820	3005	2728
	1%	1%	1%	4%	3%
grade 5 events	2115	2637	2553	6991	3675
	3%	4%	4%	10%	4%
grade 6 events	1172	1261	1510	15666	7013
	2%	2%	2%	22%	8%
grade 7 events	48296	46079	48516	30503	51730
	85%	83%	83%	43%	63%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	29.643275	29.67665692102343	CCD I2 on	O4	Y
[deg] Pointing Dec	-43.405265	-43.41786438303603	CCD I3 on	O3	Y
[deg] Pointing Roll	301.589329	301.7688682412578	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O2	Y
[s] Observation start time (MET)	504645718.184000	504644831.9288	CCD S5 on	N	N
Observation start date	2013-12-28T19:20:51	2013-12-28T19:07:11	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	504664718.184000	504665515.91744	On-chip summing requested	N	N
Observation end date	2013-12-29T00:37:31	2013-12-29T00:51:55	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

2.3 Aspect



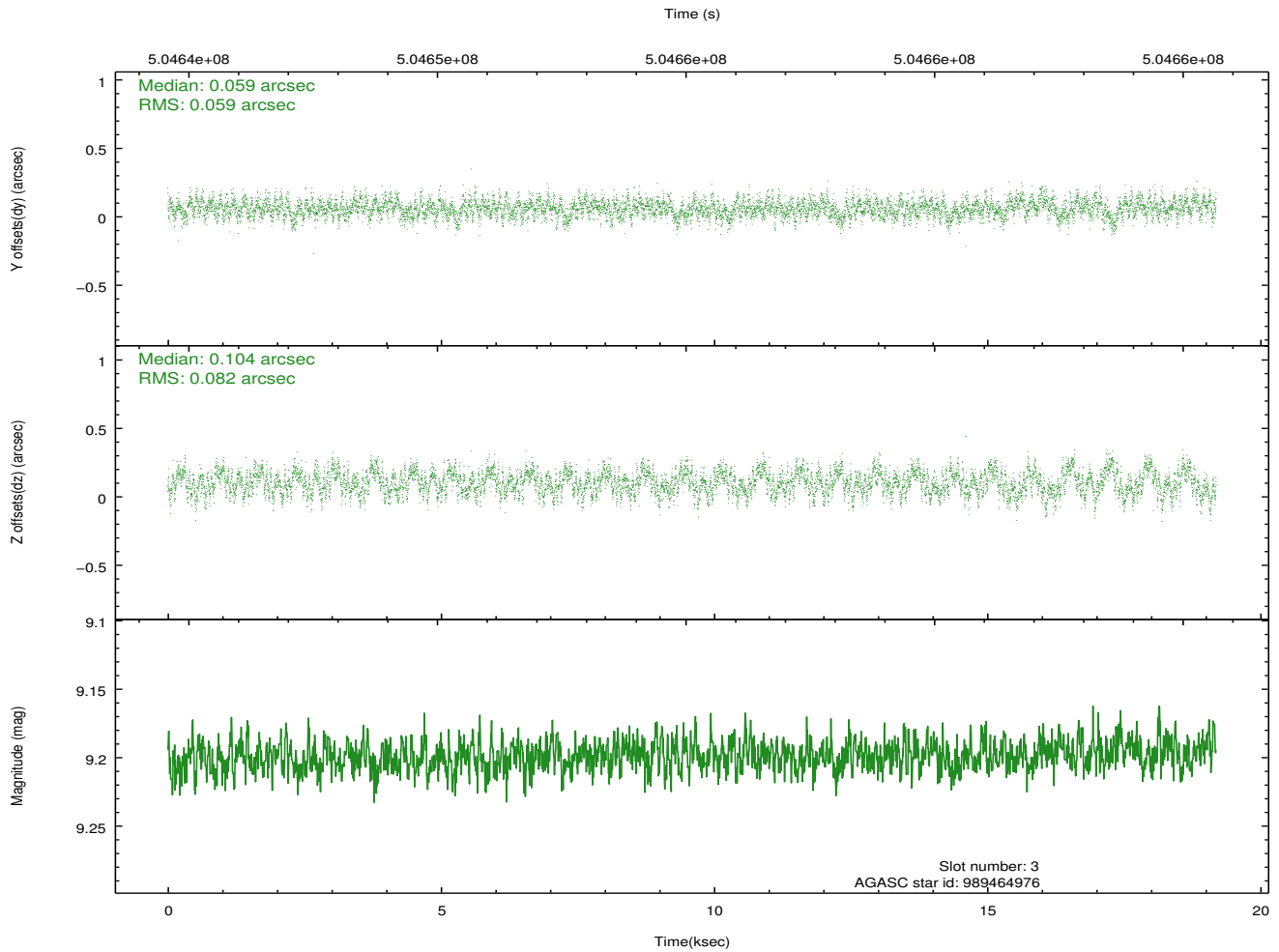
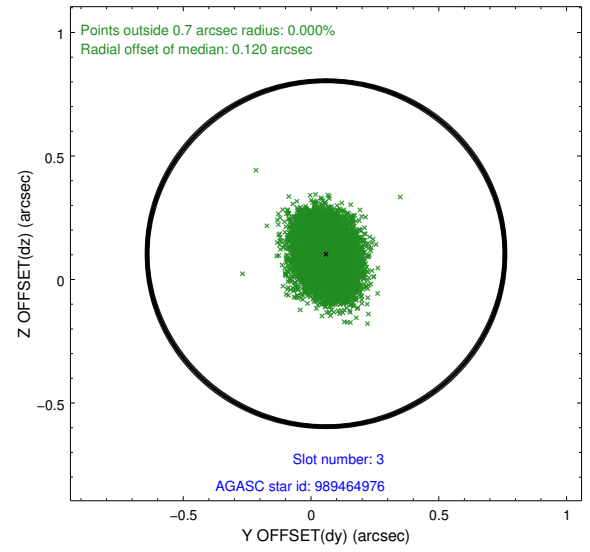
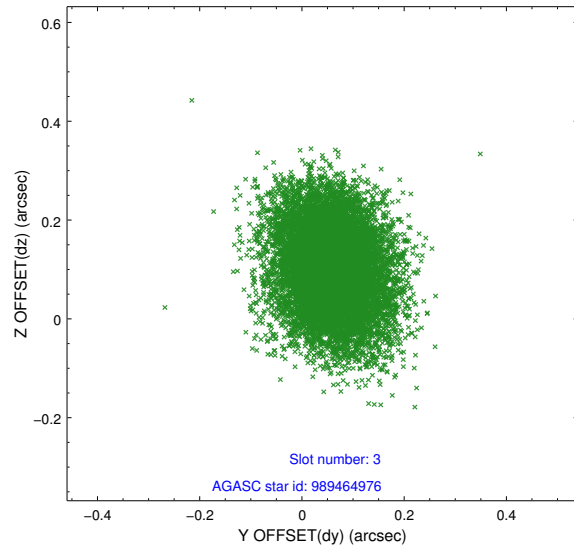


Slot Statistics

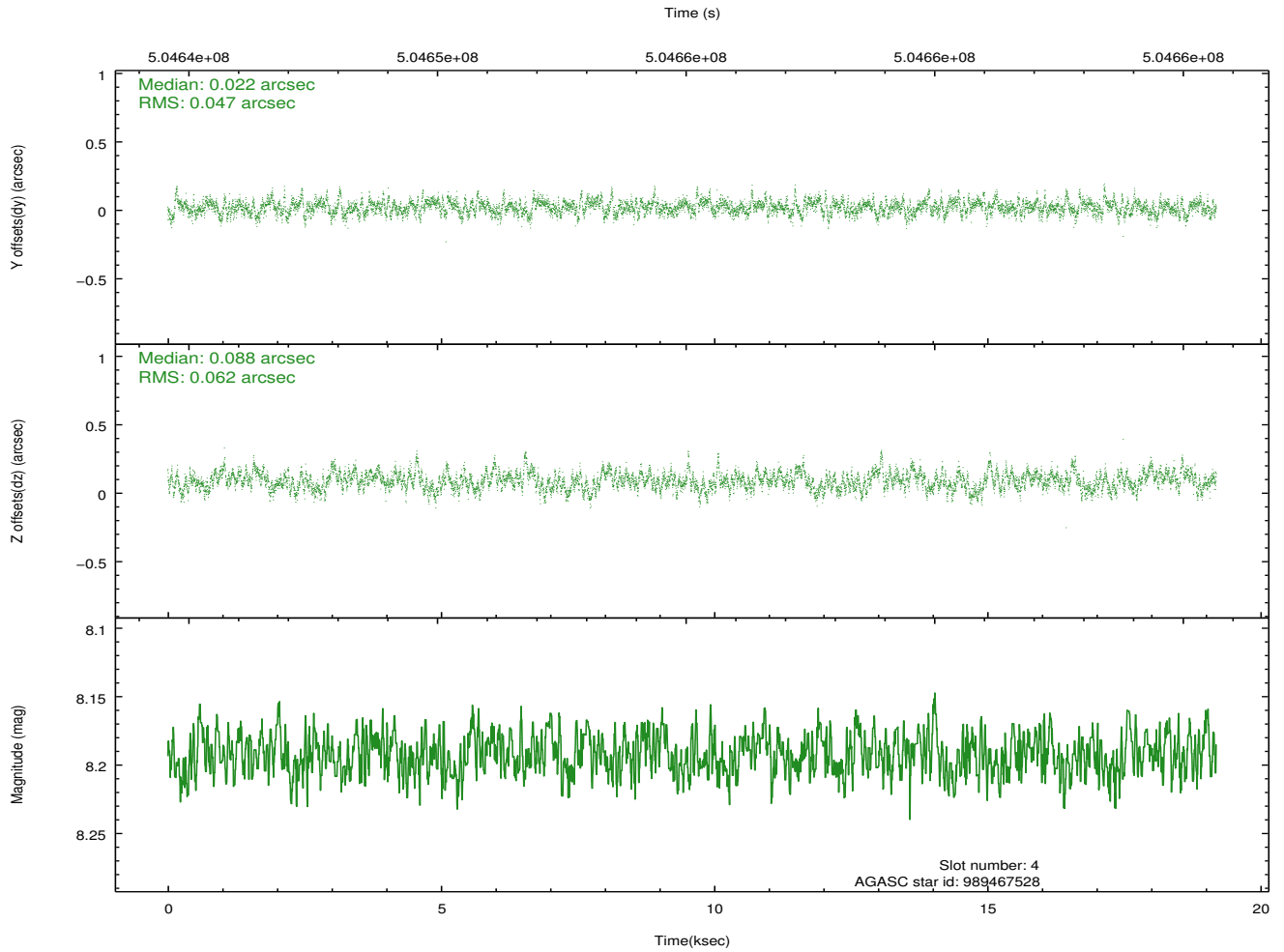
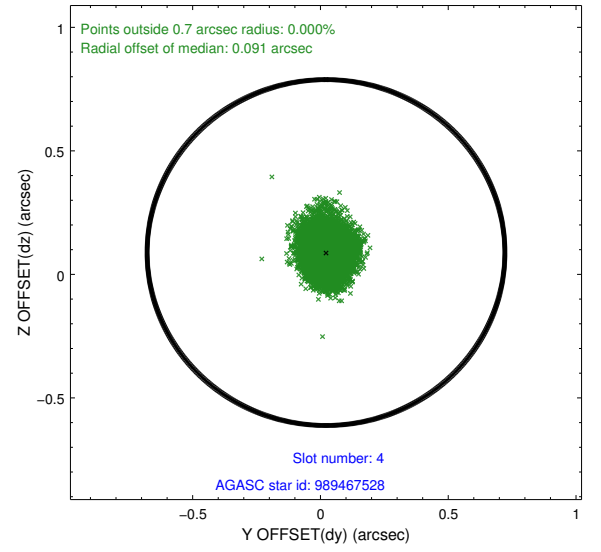
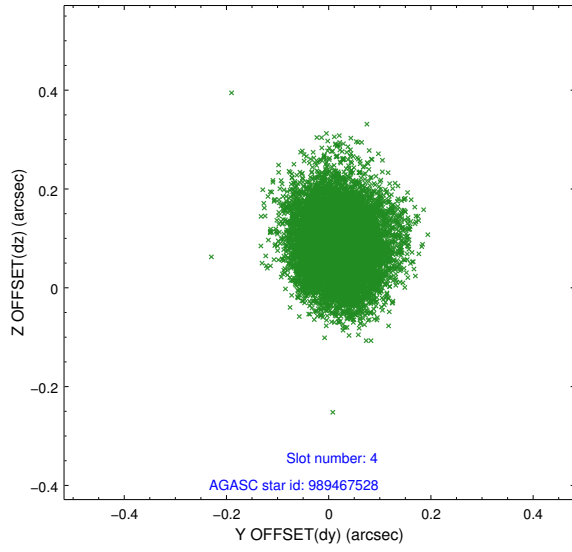
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.07	4681	-0.097	-0.037	0.020	0.029	0.000000	0.000000	-770.98	-1738.33
1	FID		ACIS-S-4	7.15	4680	0.261	0.058	0.008	0.016	0.000000	0.000000	2142.58	170.02
2	FID		ACIS-S-5	7.18	4679	-0.193	-0.011	0.019	0.027	0.000000	0.000000	-1823.65	163.88
3	GUIDE	used	989464976	9.20	9352	0.059	0.104	0.109	0.173	28.960994	-43.047006	-2032.47	-857.11
4	GUIDE	used	989467528	8.19	9361	0.022	0.088	0.083	0.135	29.209436	-43.178151	-1289.98	-542.95
5	GUIDE	used	990381216	9.44	9358	0.059	-0.053	0.120	0.192	30.795771	-43.607731	2212.40	2166.76
6	GUIDE	used	989469232	8.75	9356	0.077	0.052	0.098	0.158	28.685830	-43.208230	-1907.26	-1775.66
7	GUIDE	used	989464056	6.68	9361	-0.214	-0.188	0.099	0.152	29.735893	-42.949136	-1270.93	1067.58

2.4 Star Slots

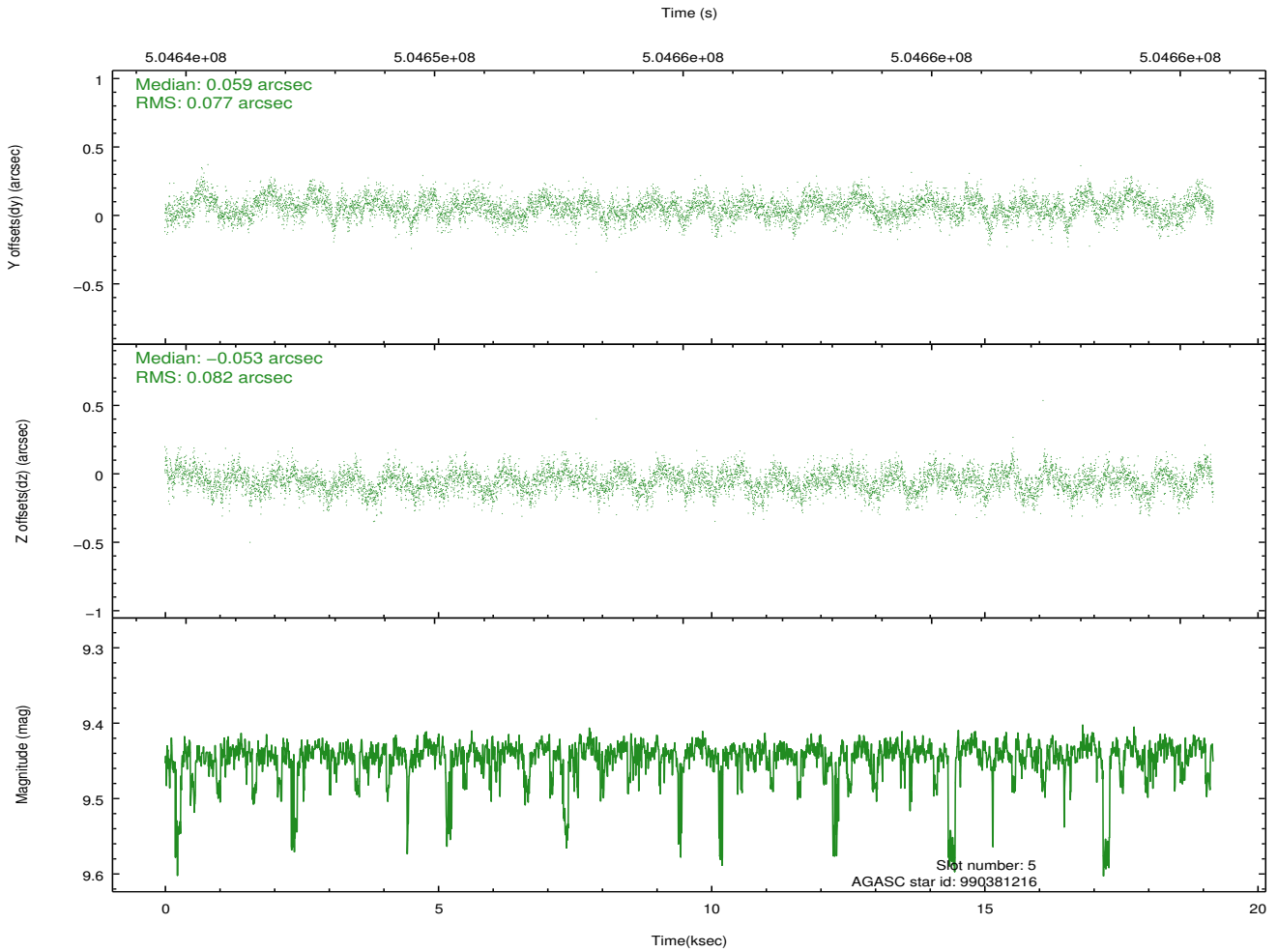
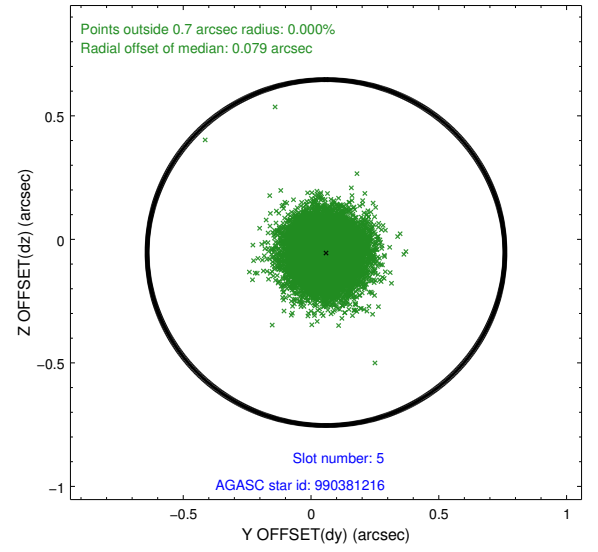
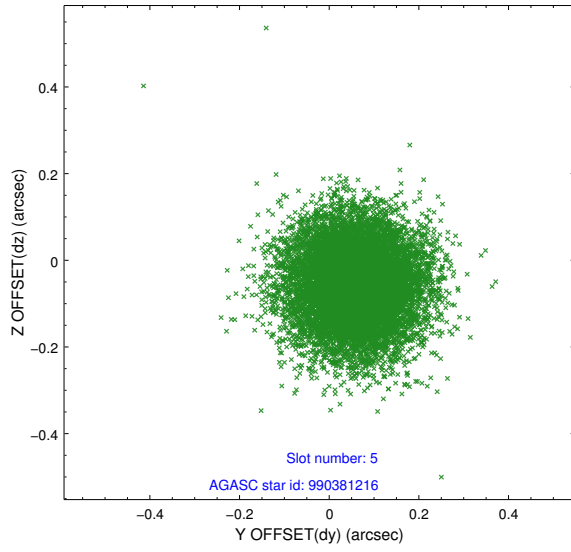
2.4.1 Slot 3



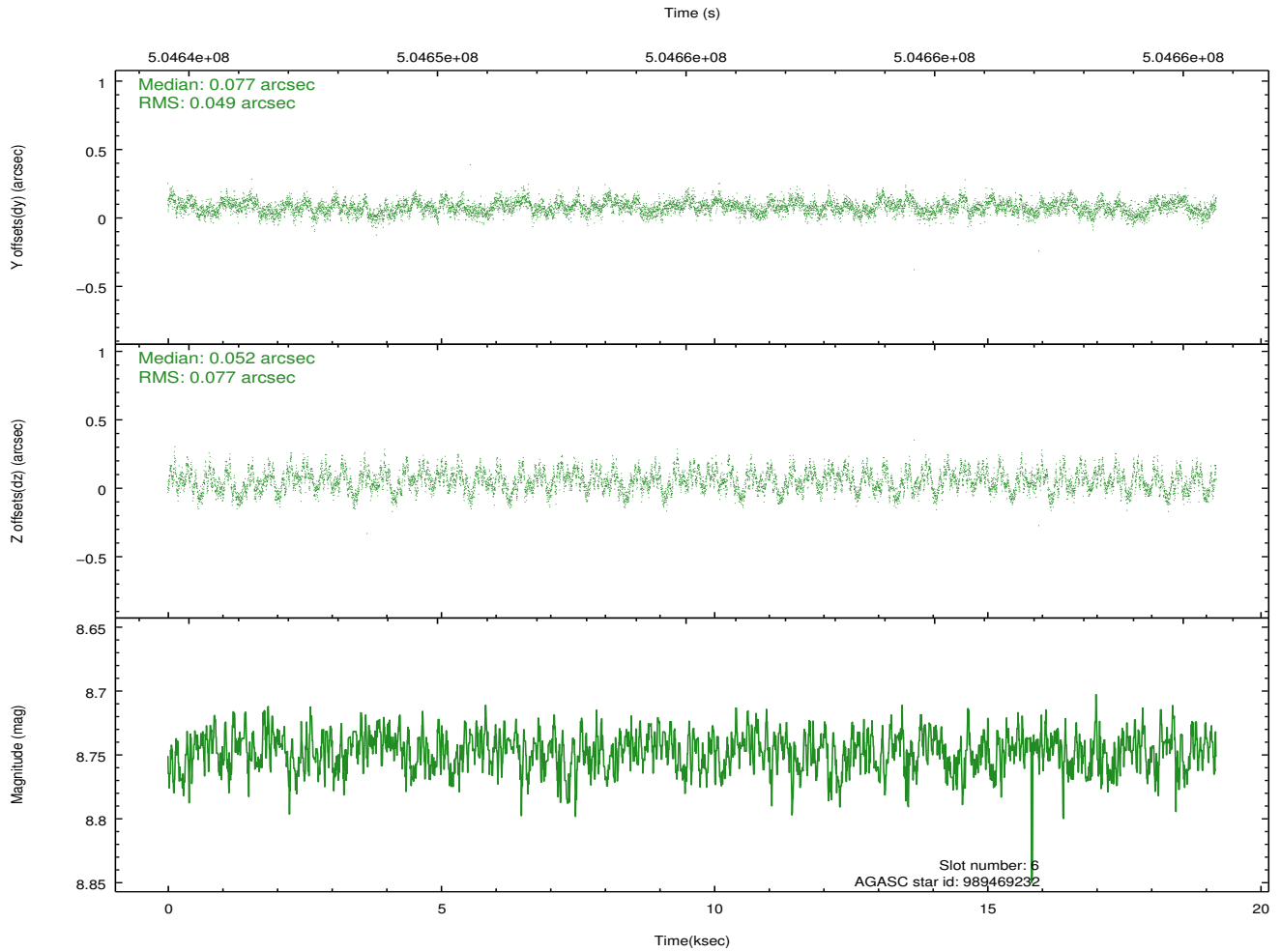
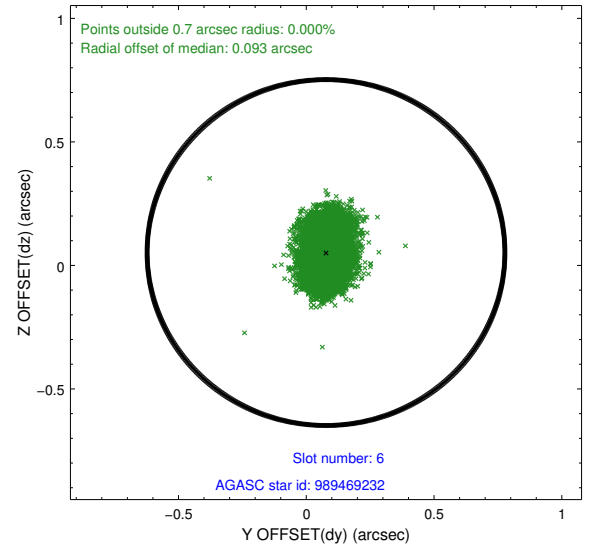
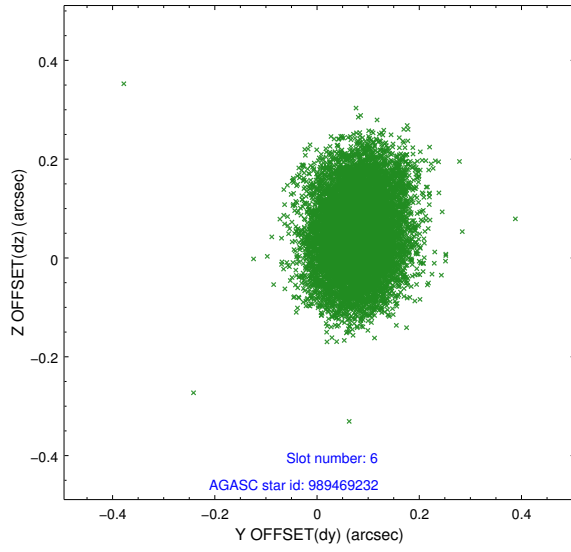
2.4.2 Slot 4



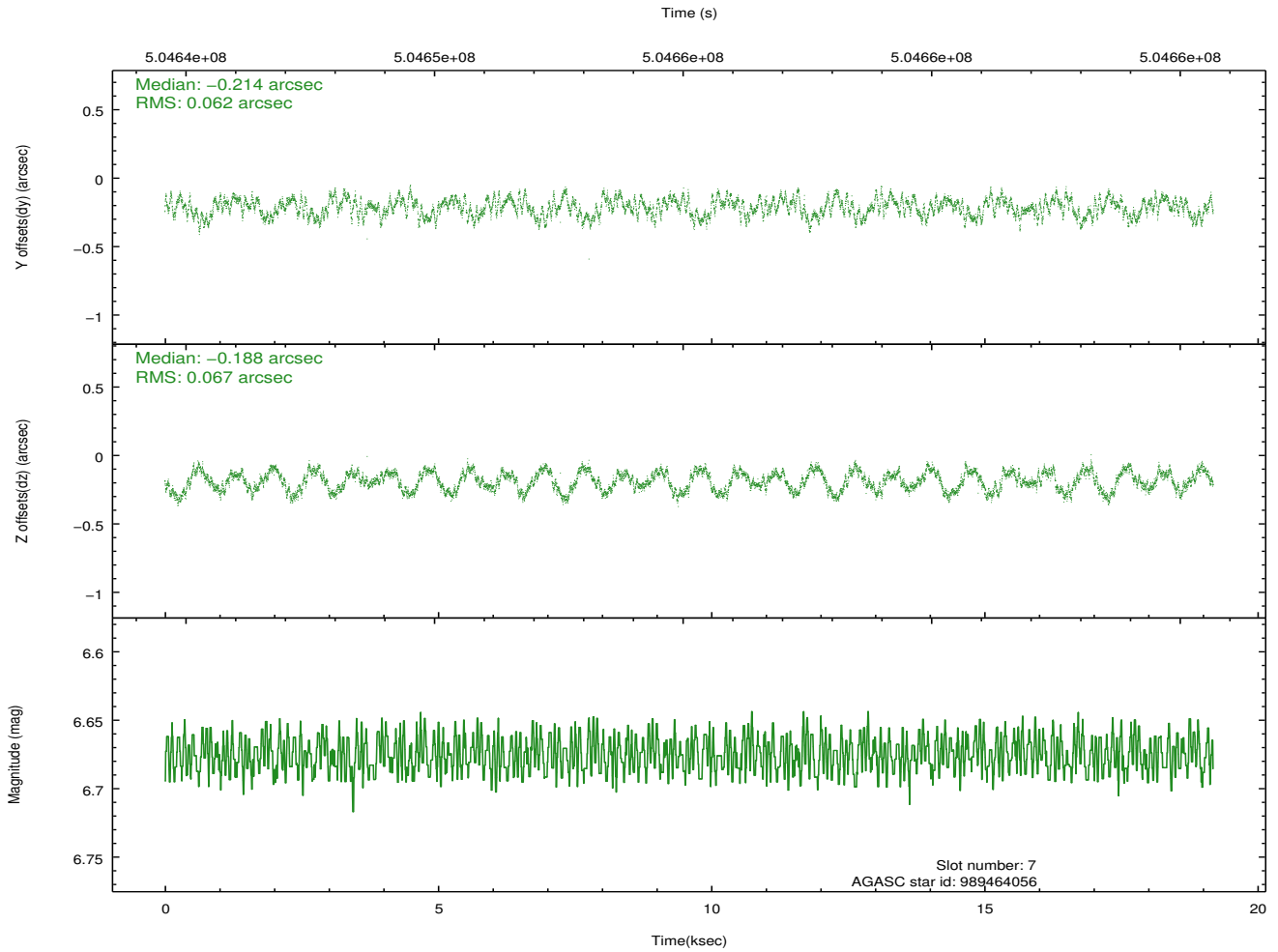
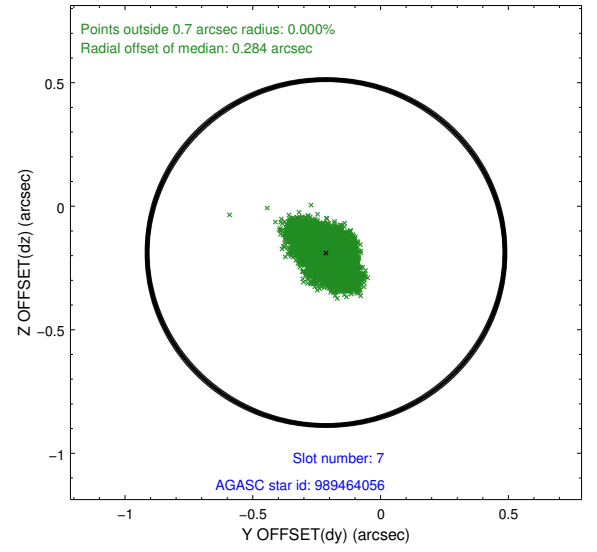
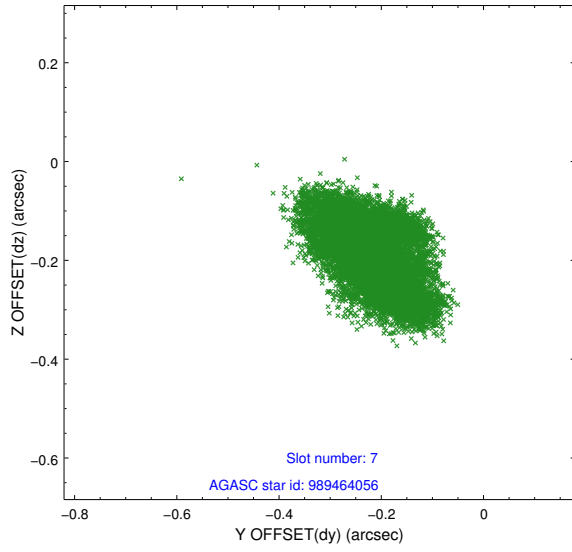
2.4.3 Slot 5



2.4.4 Slot 6

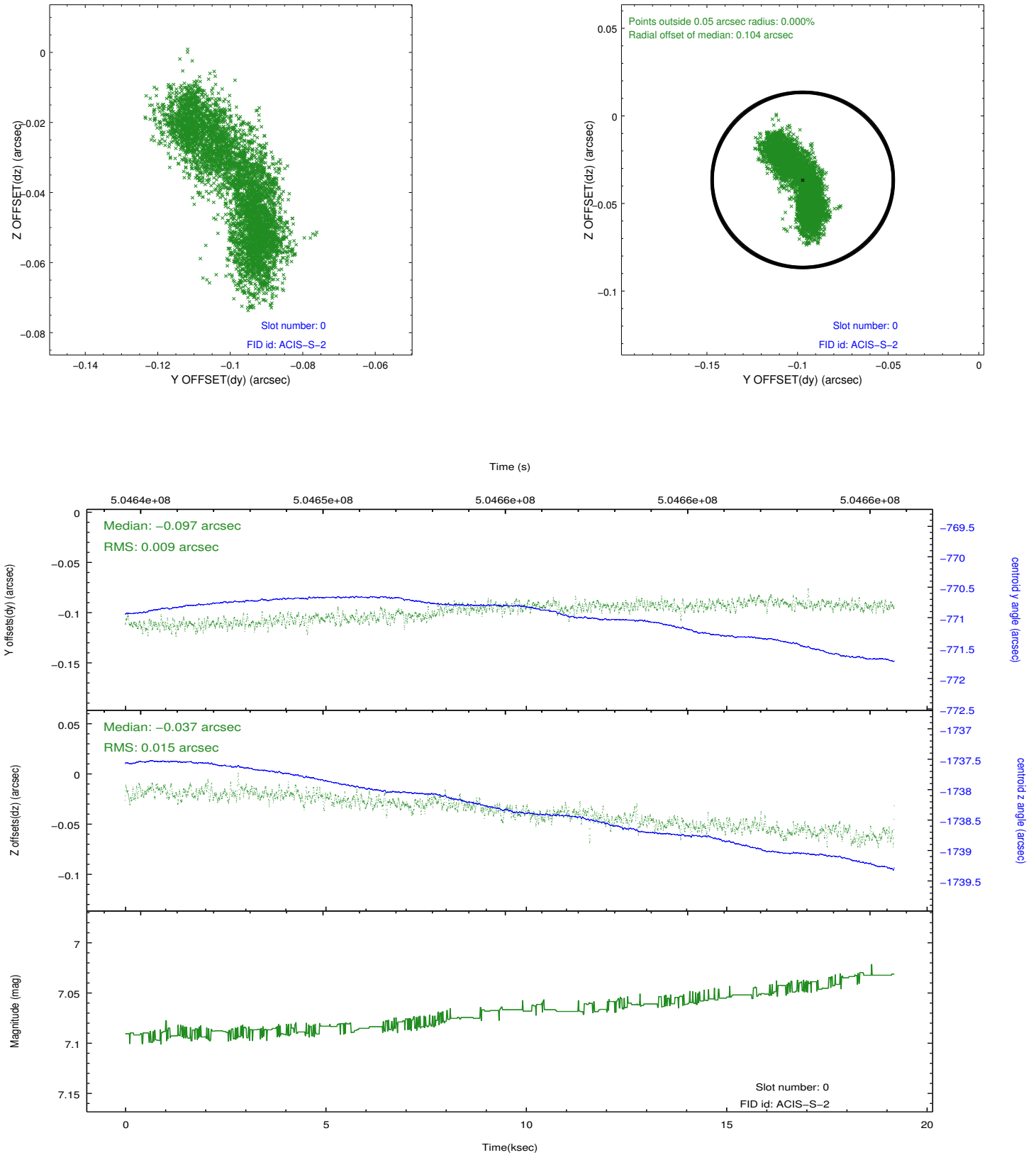


2.4.5 Slot 7

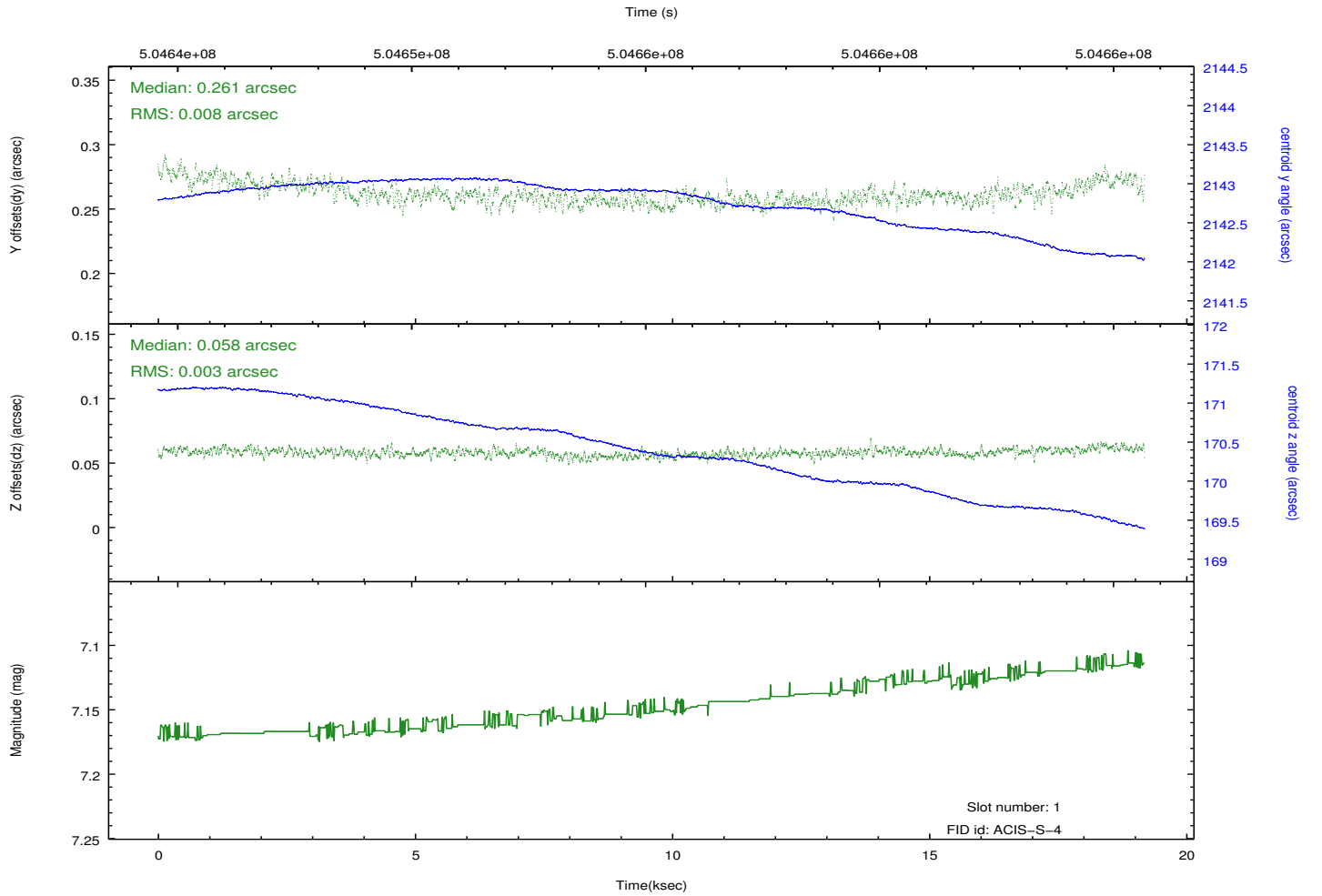
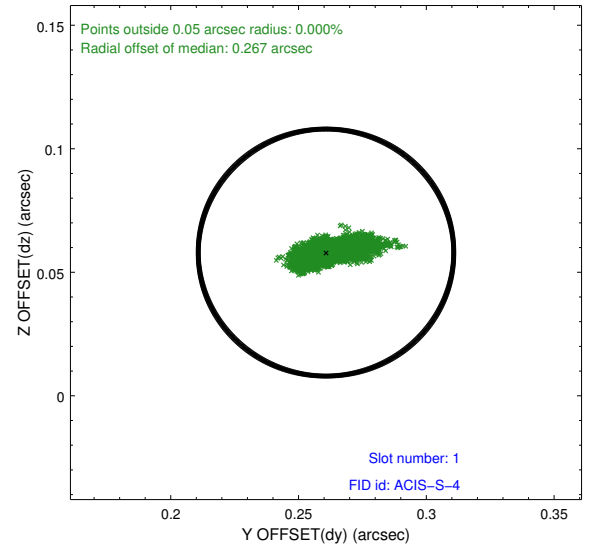
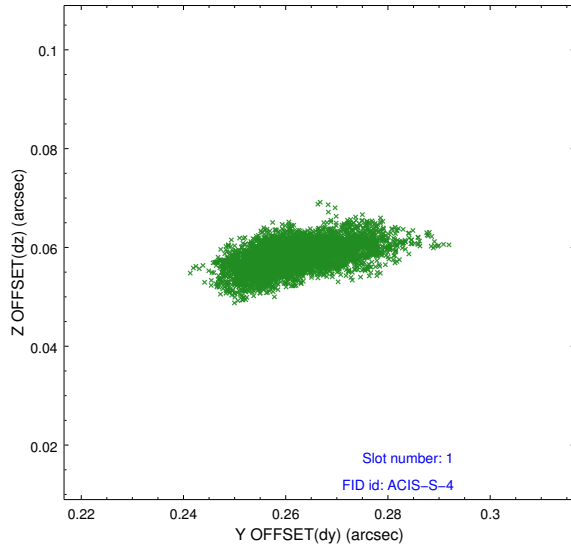


2.5 FID Slots

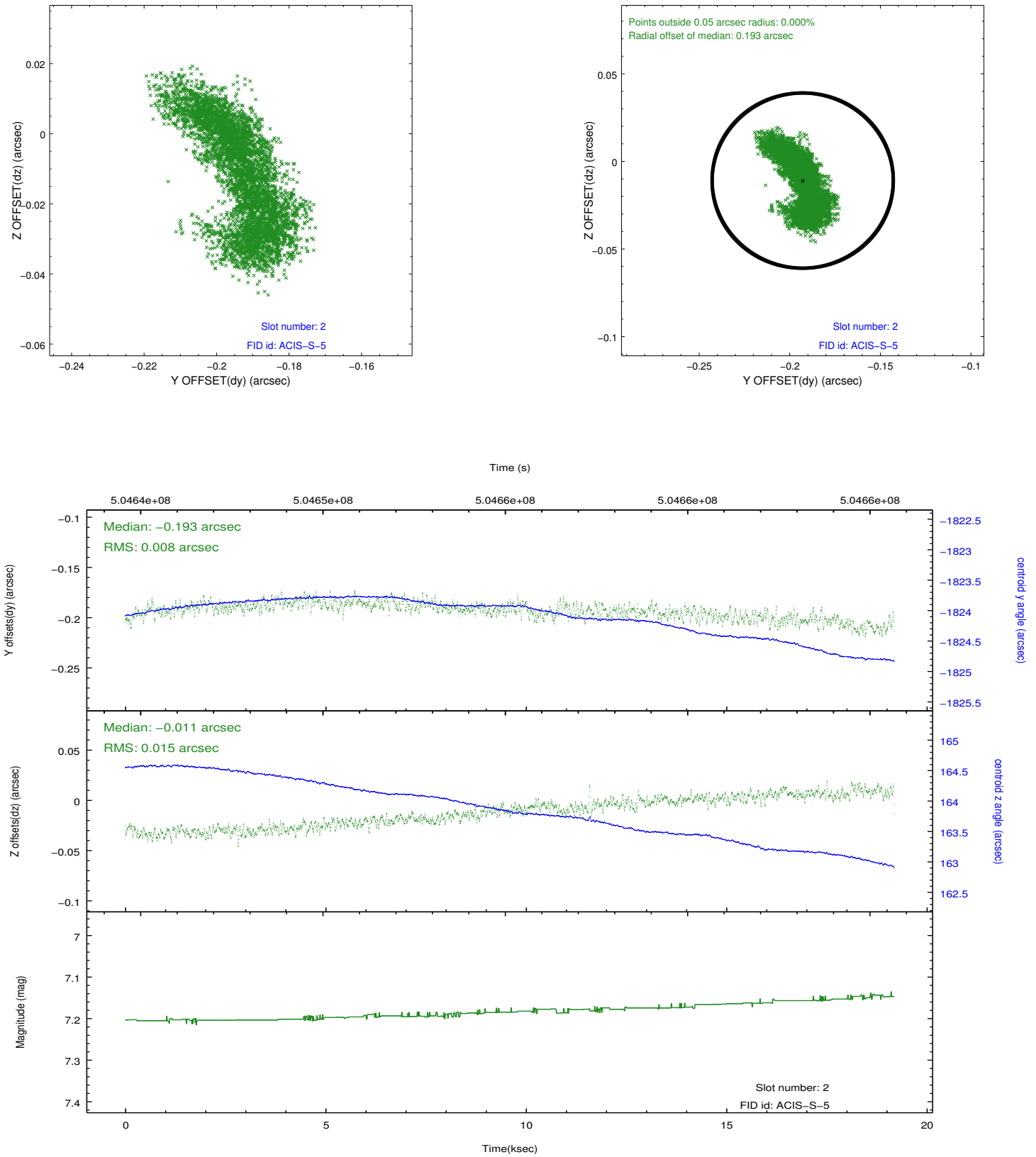
2.5.1 Slot 0



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)	2014.12.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.06209986639

A.2 Comments

Joint proposal with HST.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.