

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22070 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Feb 2 2019

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1 Front

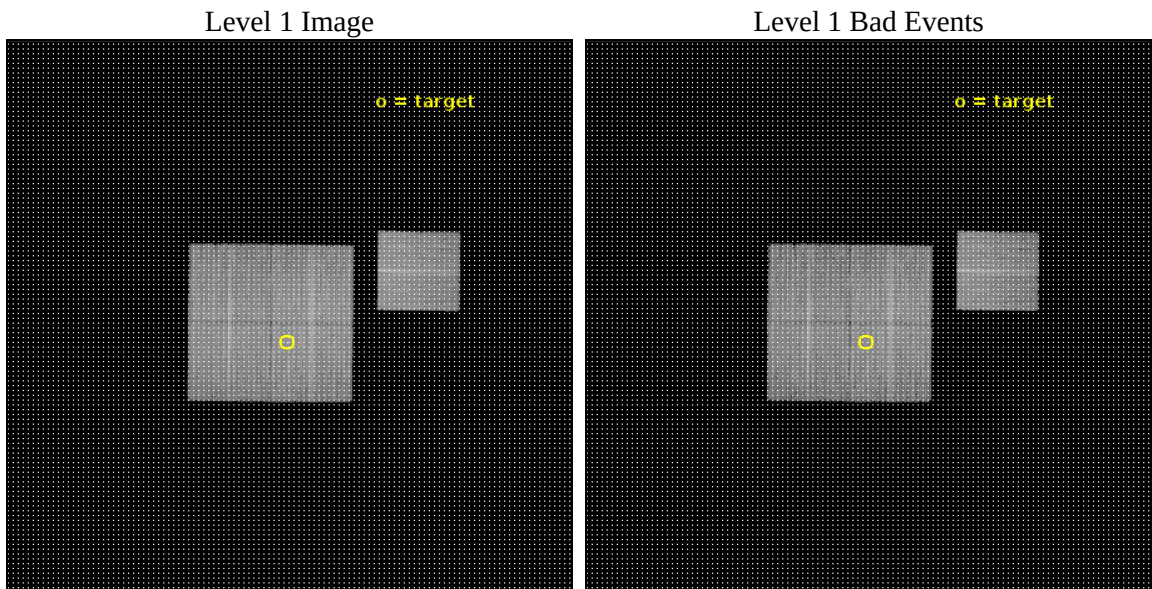
seq_num	801795	Sequence number
obs_id	22070	Observation id
title	A Chandra Snapshot of a Potential QSO-Hosting Cluster	Proposal tit
observer	Ralph Kraft	Principal investigator
object	SDSS527	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	169.8775	Observer's specified target RA [deg]
dec_targ	22.446722	Observer's specified target Dec [deg]
ra_nom	169.87348698945	Nominal RA [deg]
dec_nom	22.481380485103	Nominal Dec [deg]
roll_nom	90.610209638873	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15066.000115991	Sum of GTIs [s]
livetime	14869.151733047	Livetime [s]
ontime0	15066.000115991	Sum of GTIs [s]
ontime1	15062.859115839	Sum of GTIs [s]
ontime2	15062.859125853	Sum of GTIs [s]
ontime3	15066.000115991	Sum of GTIs [s]
ontime6	15066.000115991	Sum of GTIs [s]
l2events	56155	Number of level 2 events



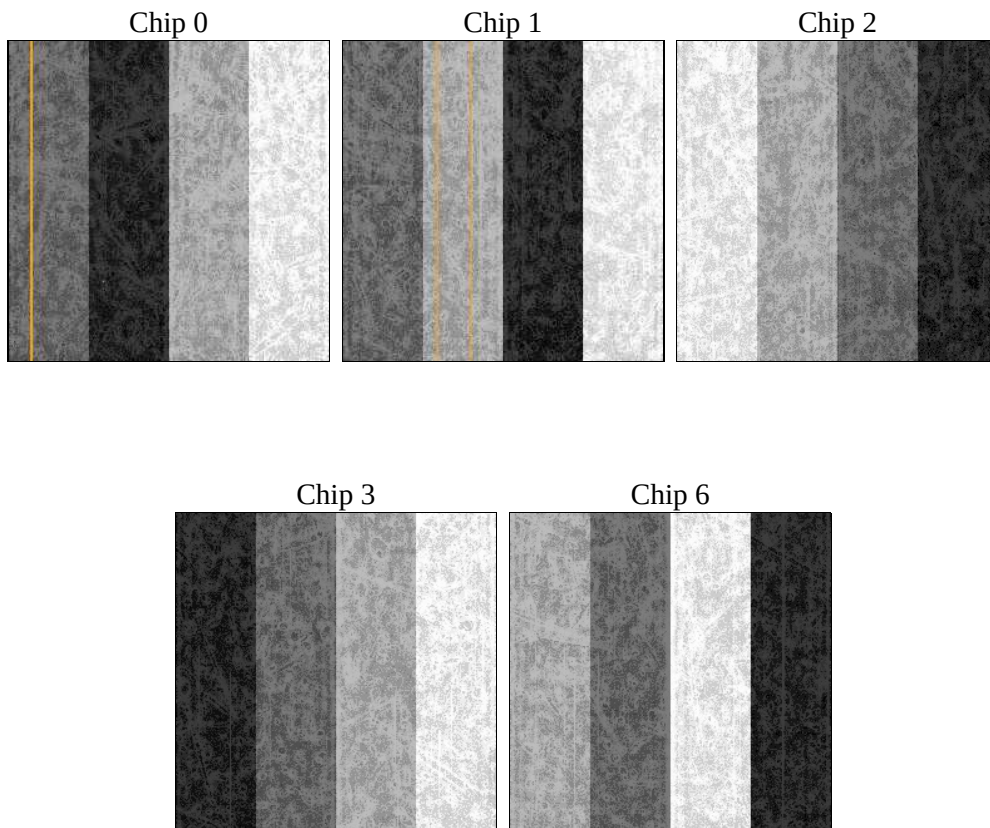
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	15066.000115991	Sum of GTIs [s]
caldbver	4.8.2	 	ontime0	15066.000115991	Sum of GTIs [s]
date	2019-02-02T20:19:38	Date and time of file creation	ontime1	15062.859115839	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	15062.859125853	Sum of GTIs [s]
			ontime3	15066.000115991	Sum of GTIs [s]
			ontime6	15066.000115991	Sum of GTIs [s]
			l1events	577697	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	105999	107995	124814	119669	119220
rejected events	93384	93858	112450	105752	106308
rejected %	88%	86%	90%	88%	89%

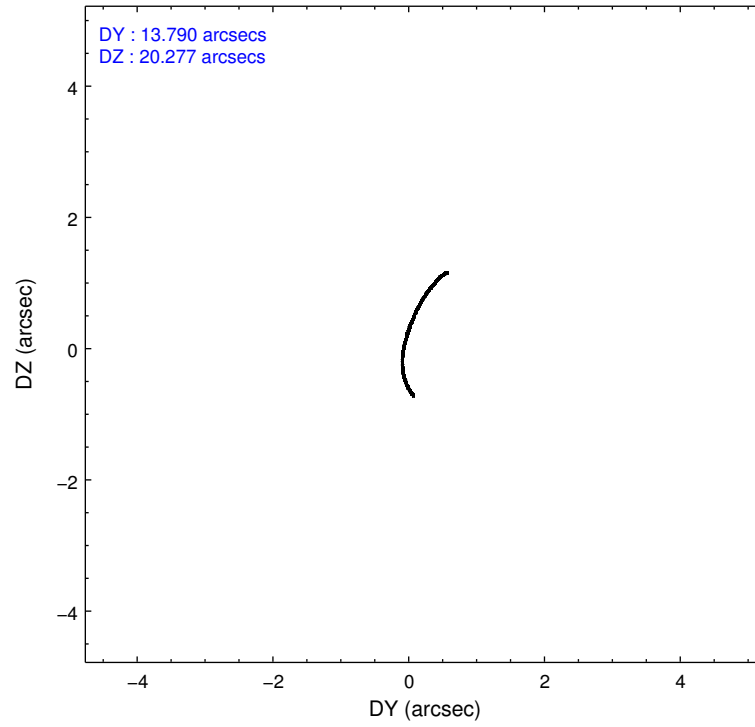
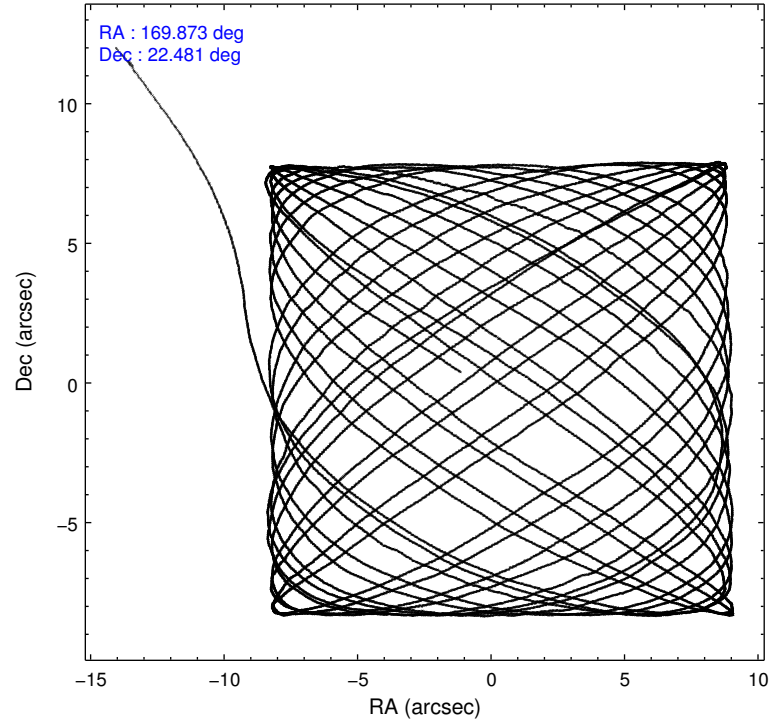
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4210	4293	4260	5692	4053
	3%	3%	3%	4%	3%
grade 1 events	58	49	71	121	61
	0%	0%	0%	0%	0%
grade 2 events	3149	3862	3147	2931	3213
	2%	3%	2%	2%	2%
grade 3 events	1298	1347	1207	1262	1207
	1%	1%	0%	1%	1%
grade 4 events	1197	1209	1225	1363	1209
	1%	1%	0%	1%	1%
grade 5 events	4915	4884	4470	5347	5005
	4%	4%	3%	4%	4%
grade 6 events	2763	3431	2525	2673	3232
	2%	3%	2%	2%	2%
grade 7 events	88409	88920	107909	100280	101240
	83%	82%	86%	83%	84%

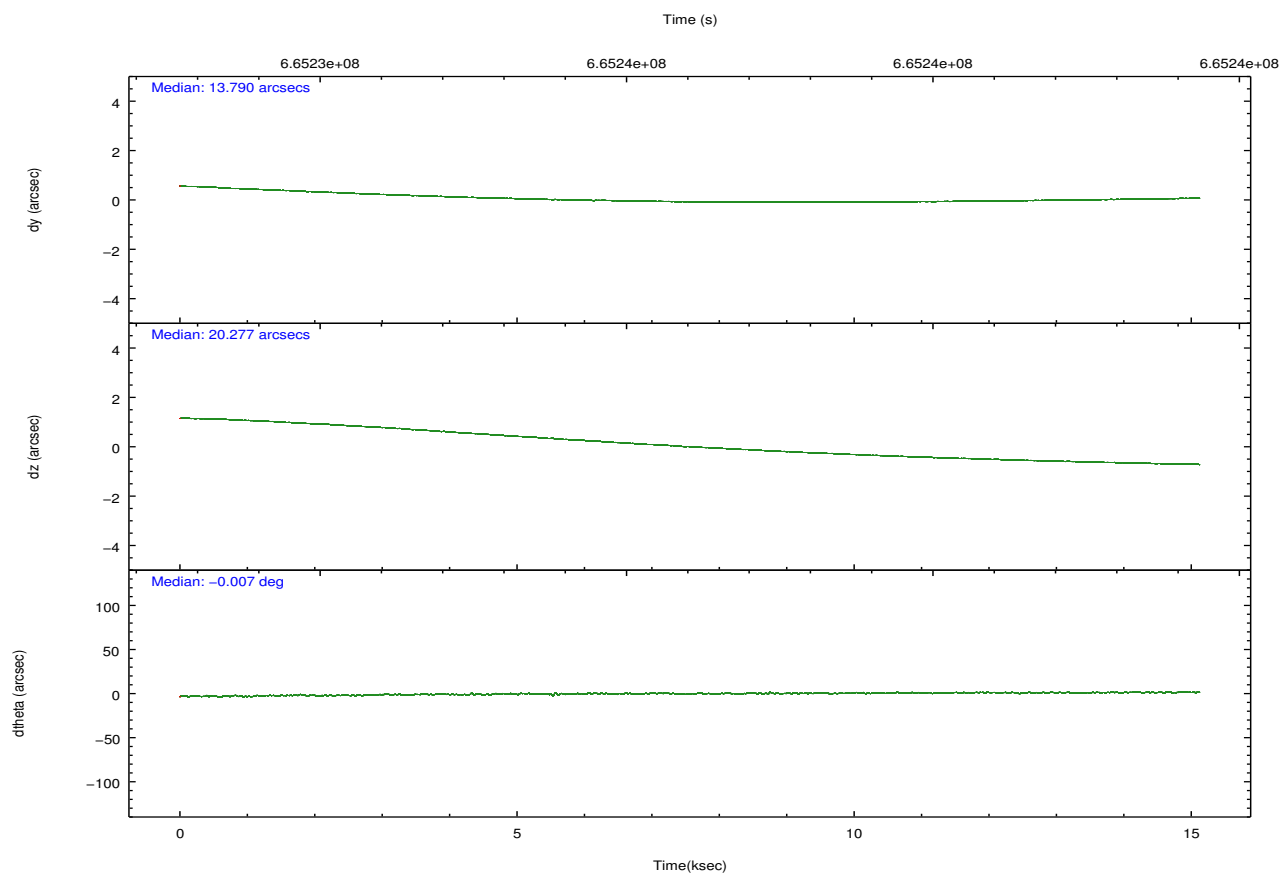
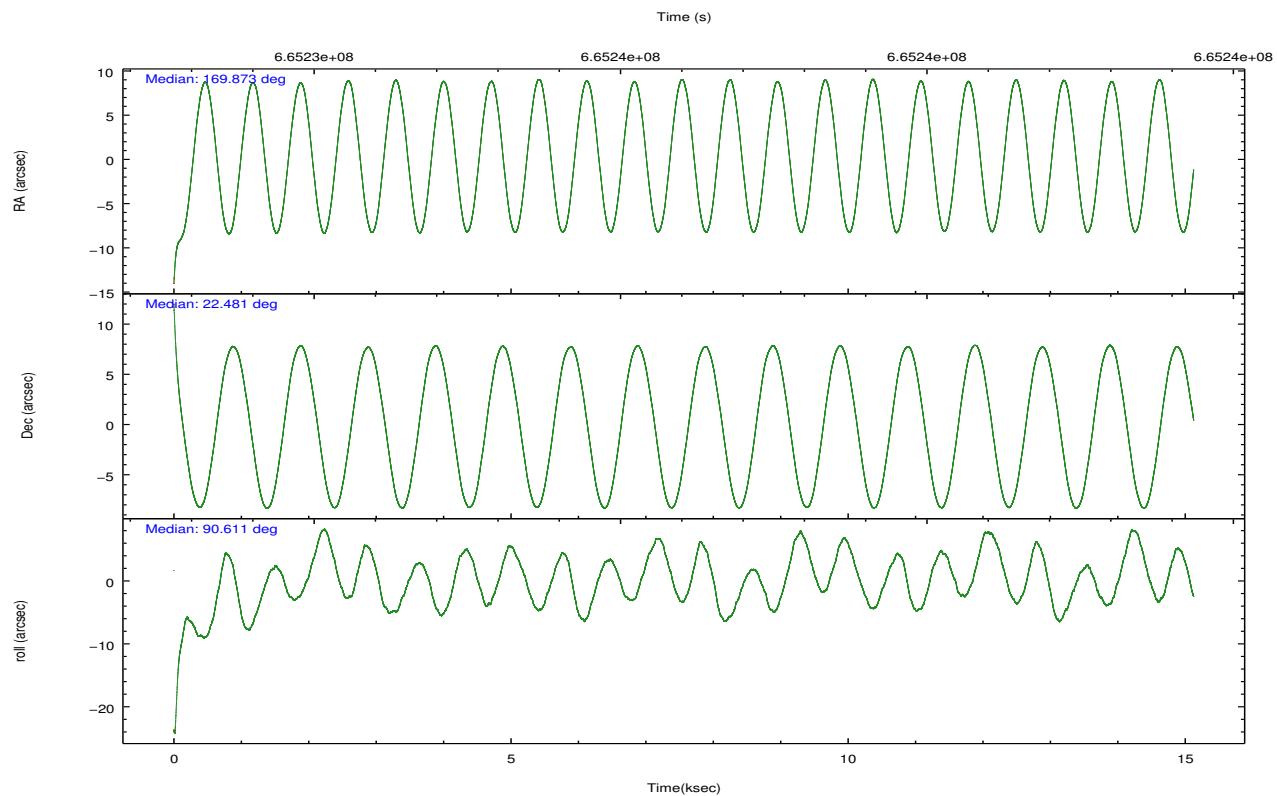
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01236	ACIS-01236
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	169.888831	169.8734869894502
[deg] Pointing Dec	22.457663	22.48138048510343
[deg] Pointing Roll	90.395667	90.61020963887337
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-230.082463	-230.0875075610572
[mm] SIM translation stage offset	-3.51	-3.504945441872508
[s] Observation start time (MET)	665228618.184000	665227387.38879
Observation start date	2019-01-30T09:42:29	2019-01-30T09:23:07
[s] Observation end time (MET)	665243618.184000	665244106.6772799
Observation end date	2019-01-30T13:52:29	2019-01-30T14:01:46
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O1	Y
CCD S3 on	N	N
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



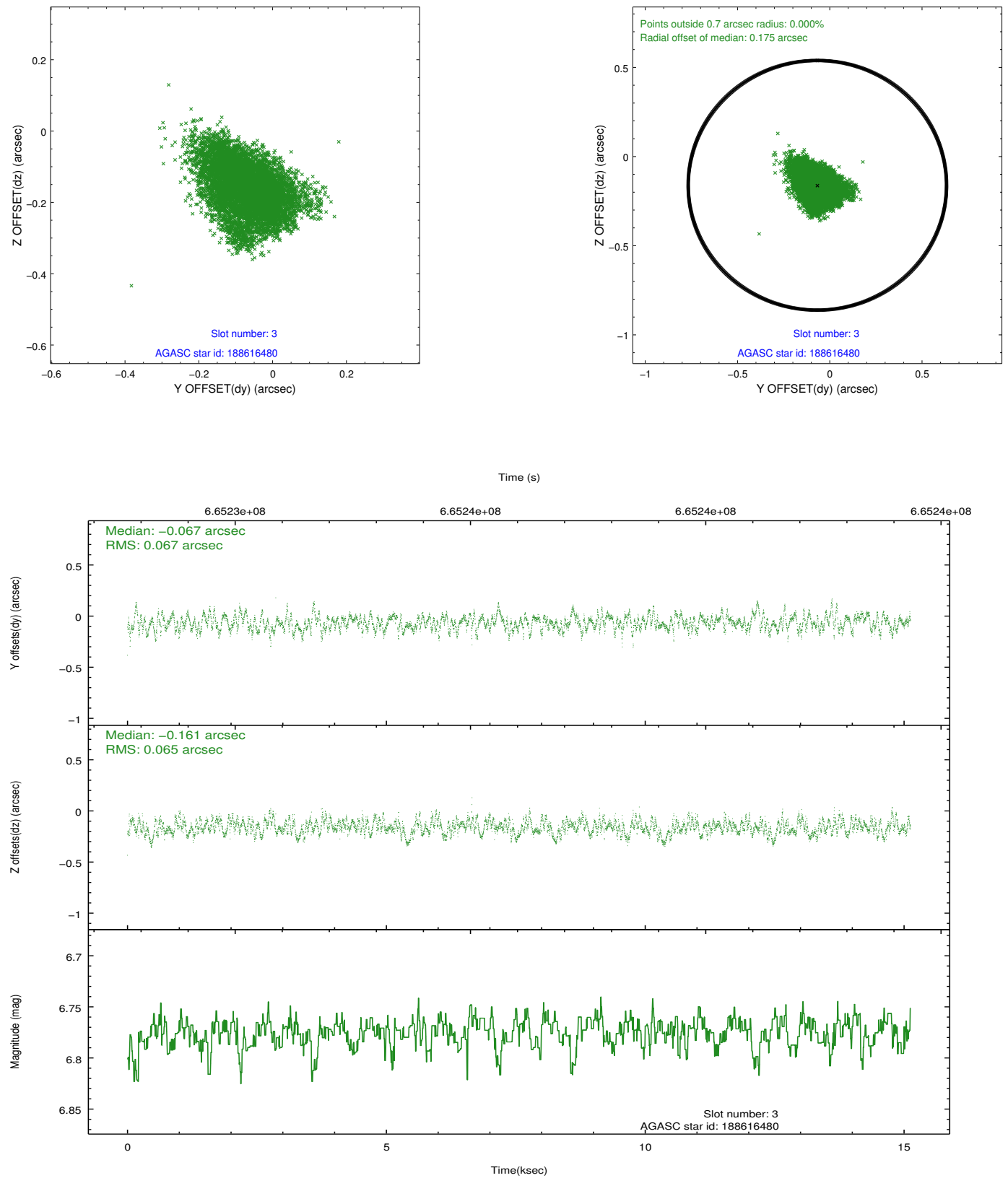


Slot Statistics

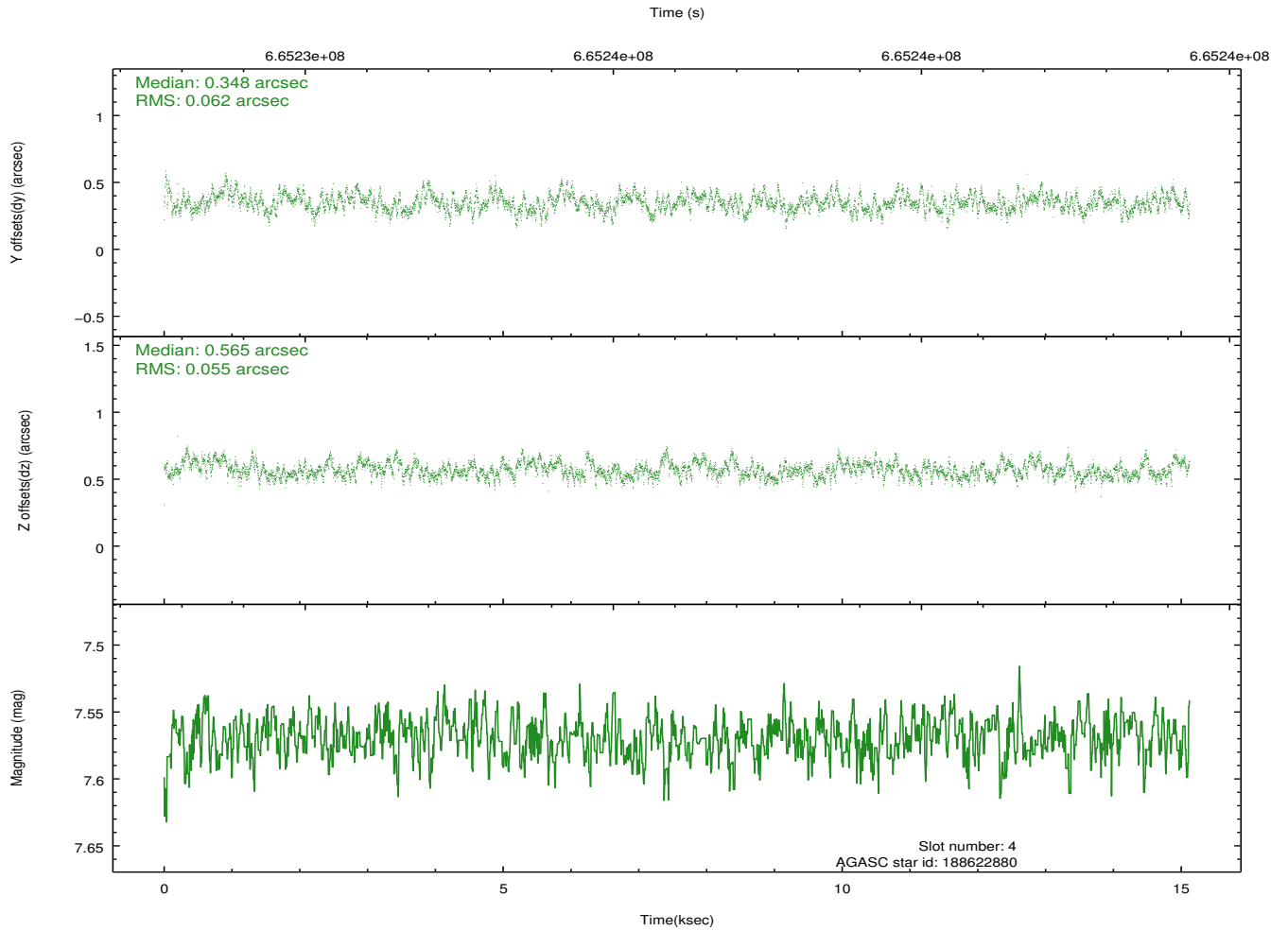
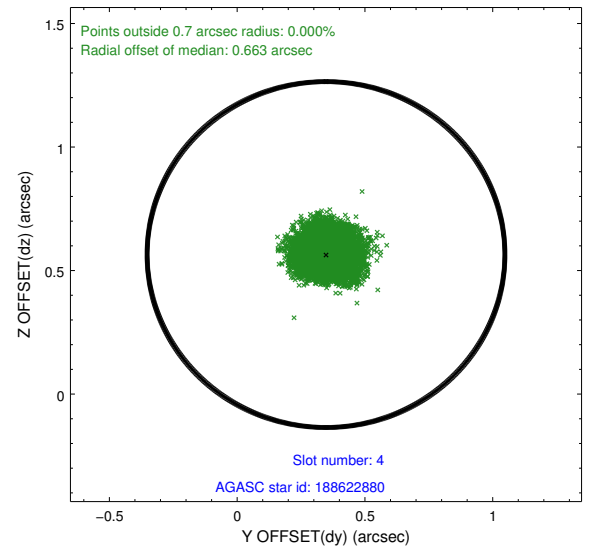
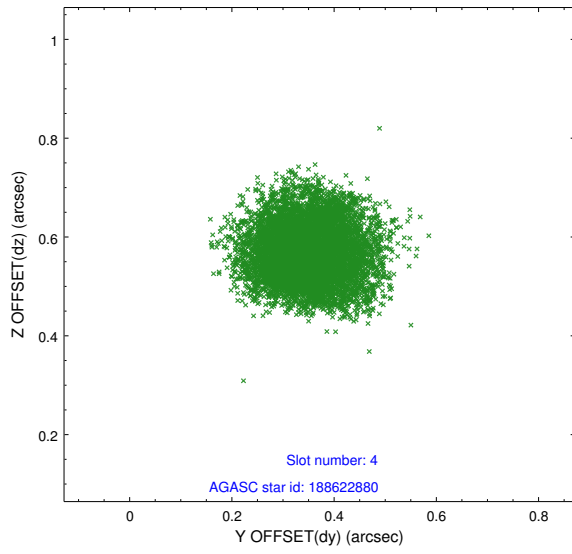
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.26	3690	1.000	0.148	-0.122	0.036	0.053	0.000000	0.000000	925.80	-916
1	FID		ACIS-I-5	7.23	3690	1.000	-0.559	0.040	0.009	0.016	0.000000	0.000000	-1823.03	981
2	FID		ACIS-I-6	7.24	3690	1.000	0.320	0.152	0.031	0.044	0.000000	0.000000	390.95	1626
3	GUIDE	used	188616480	6.77	7378	1.000	-0.067	-0.161	0.100	0.160	169.505757	22.179948	-989.51	1284
4	GUIDE	used	188622880	7.57	7376	1.000	0.348	0.565	0.089	0.141	170.025103	21.913955	-1960.76	-441
5	GUIDE	used	259669904	9.12	7369	1.000	0.240	0.238	0.203	0.323	170.457578	22.685196	809.63	-1894
6	GUIDE	used	259670032	7.56	7377	1.000	-0.530	-0.660	0.071	0.109	169.354718	22.827854	1347.66	1762
7	GUIDE	used	259672768	8.88	7366	1.000	0.011	0.030	0.178	0.270	169.971255	23.035236	2077.44	-287

2.4 Star Slots

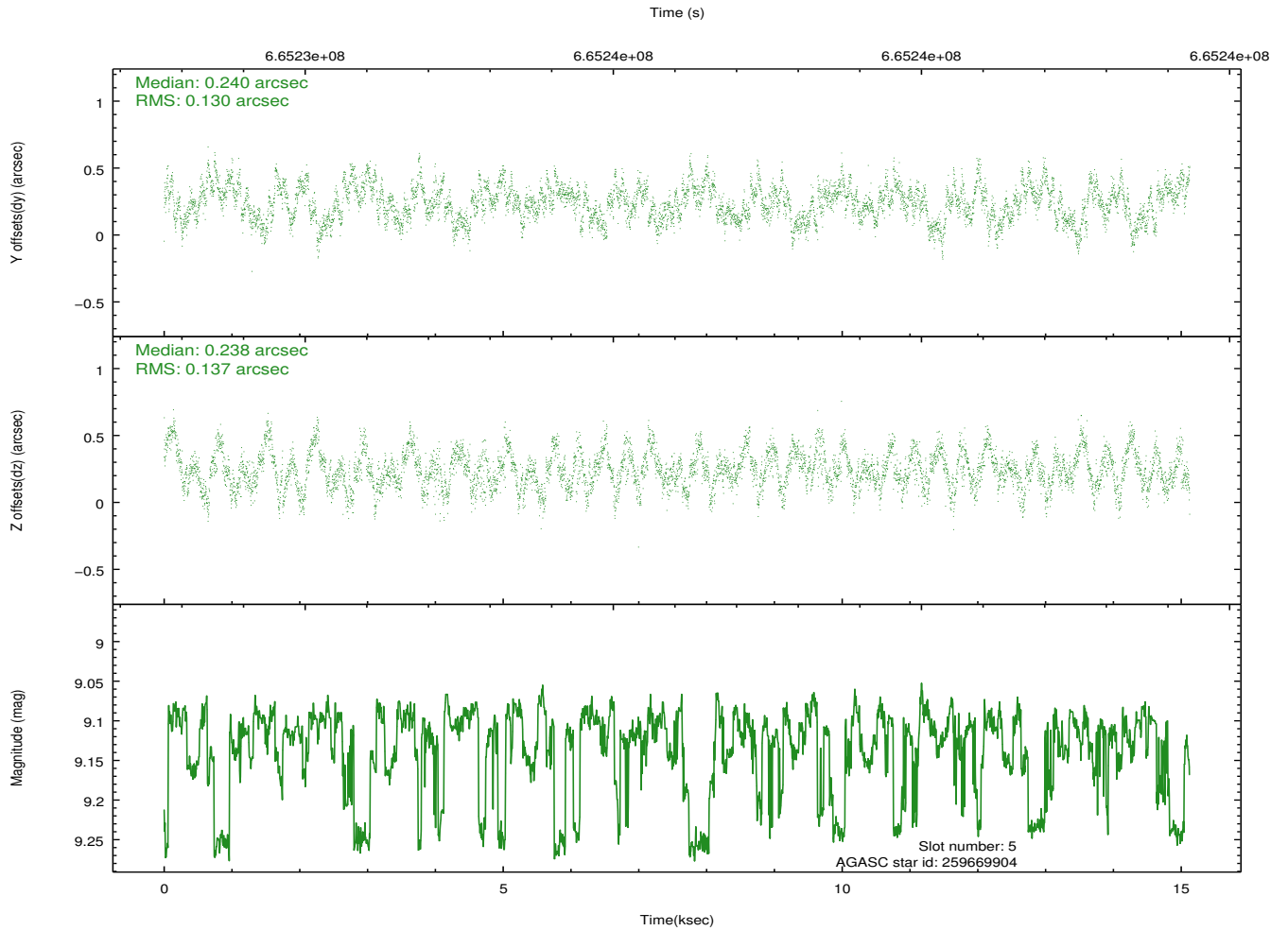
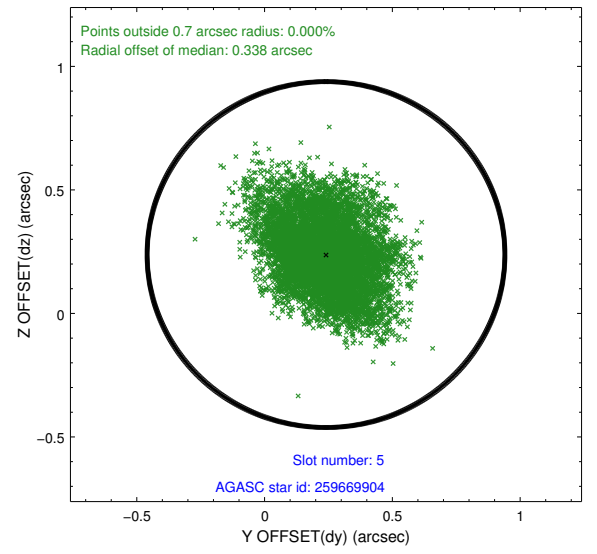
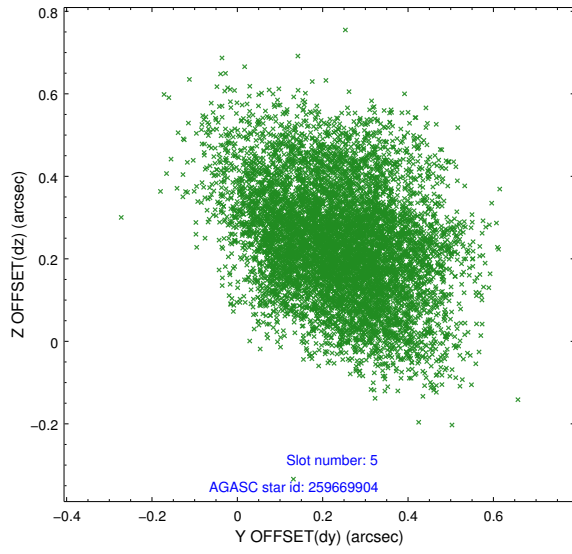
2.4.1 Slot 3



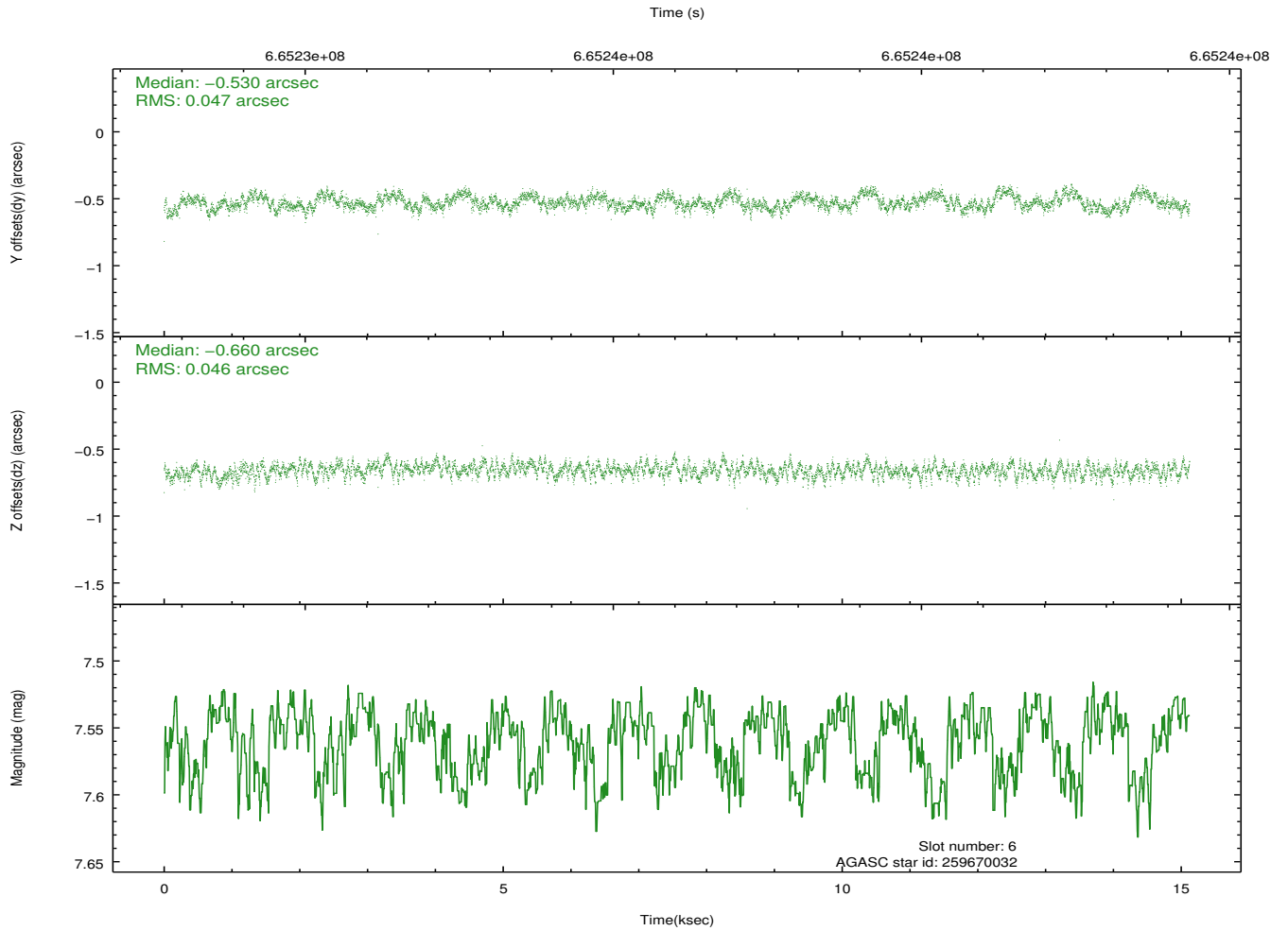
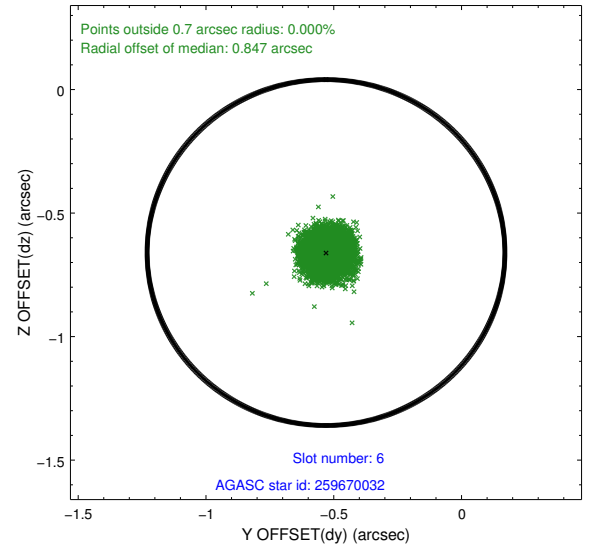
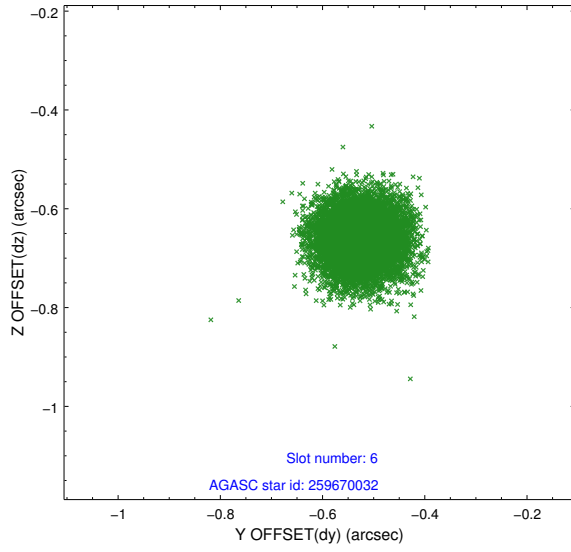
2.4.2 Slot 4



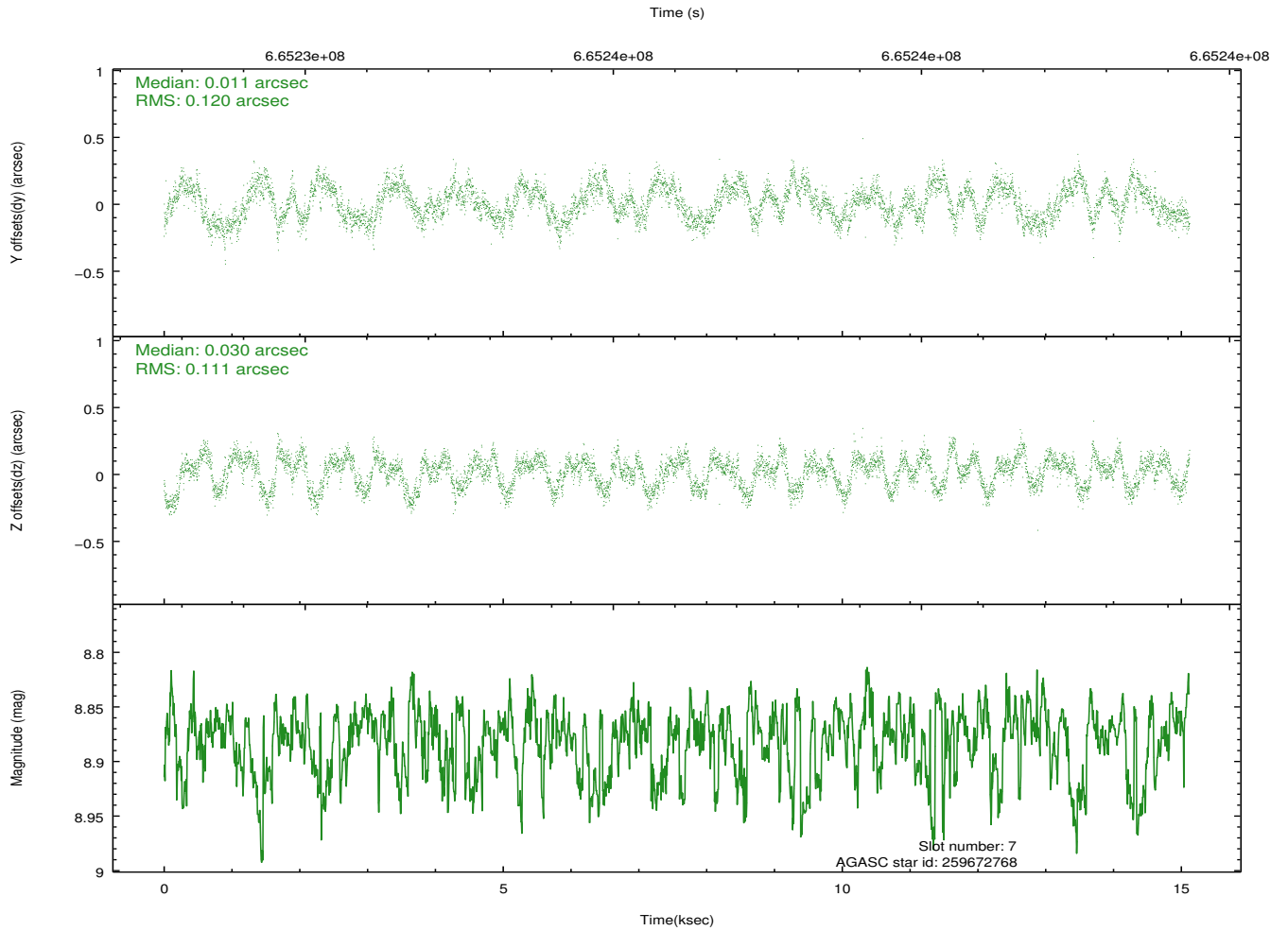
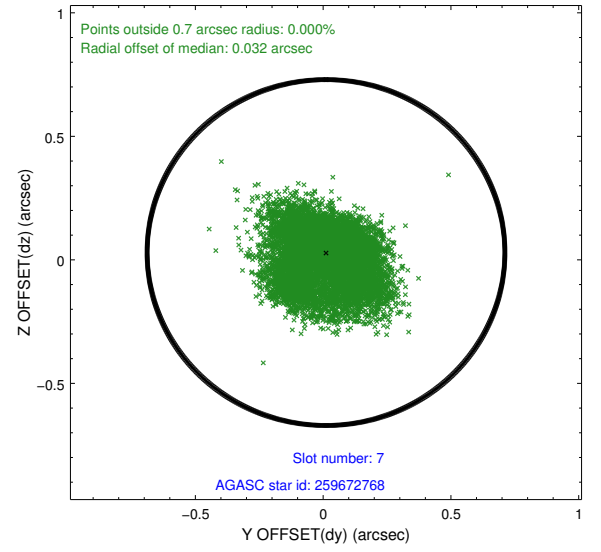
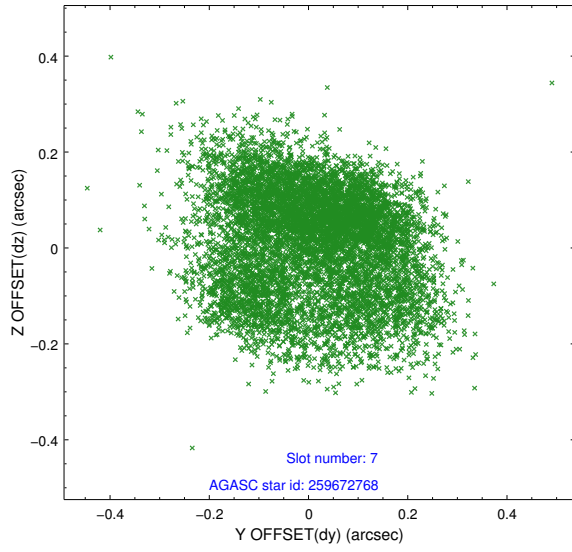
2.4.3 Slot 5



2.4.4 Slot 6

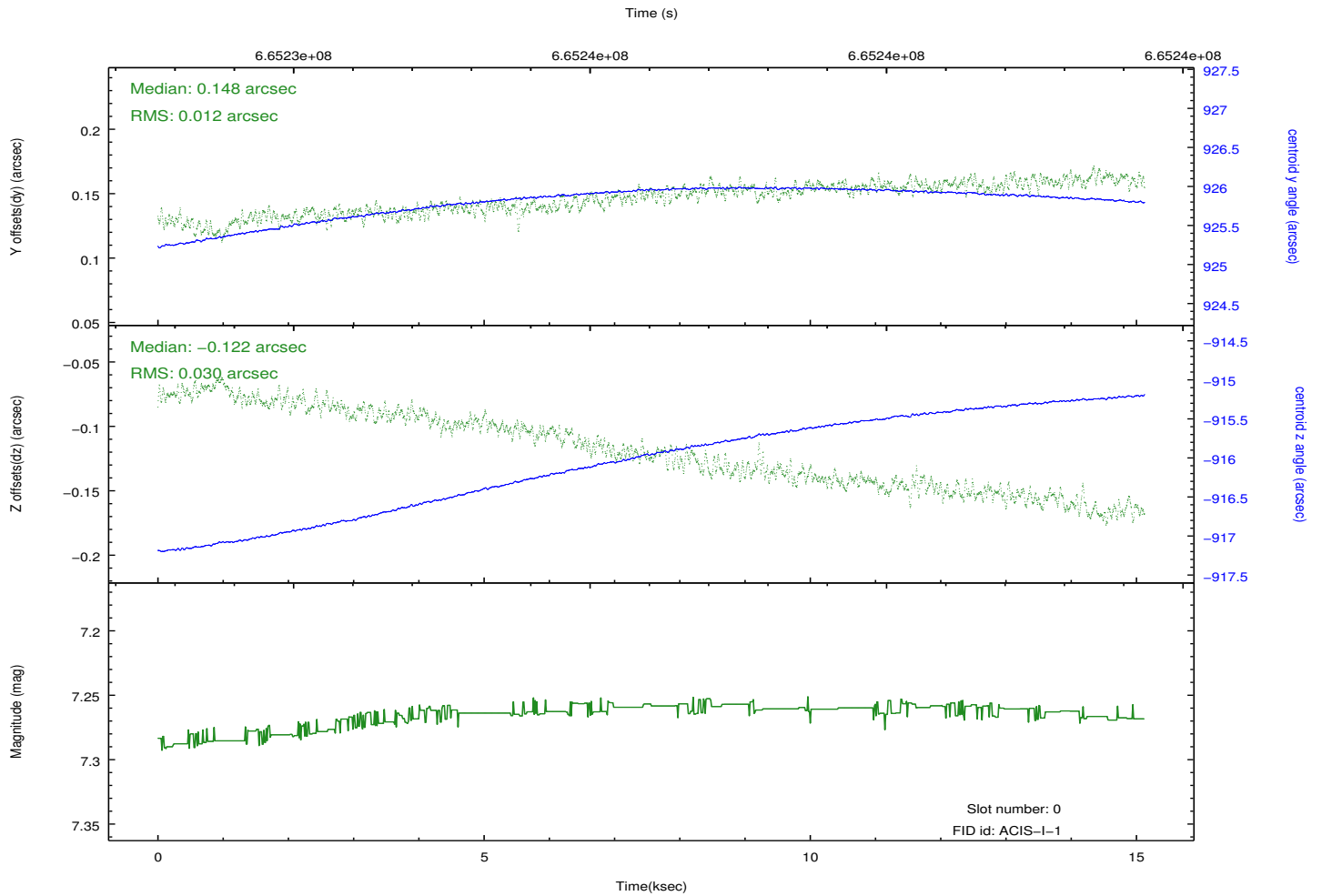
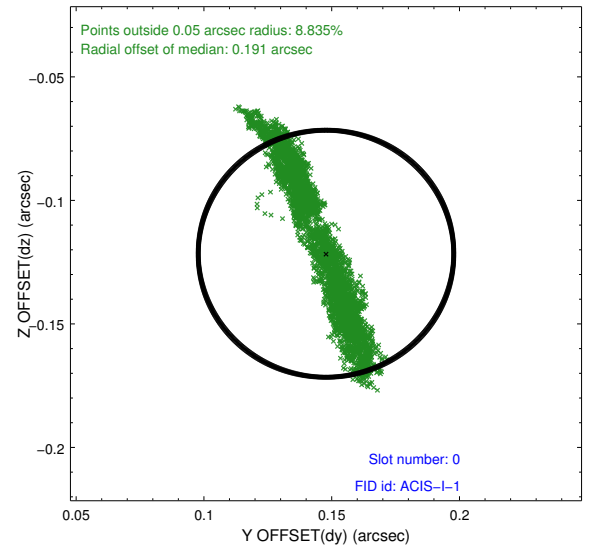
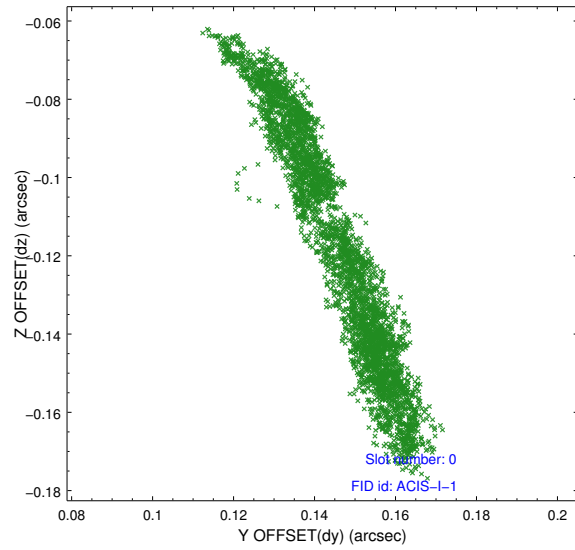


2.4.5 Slot 7

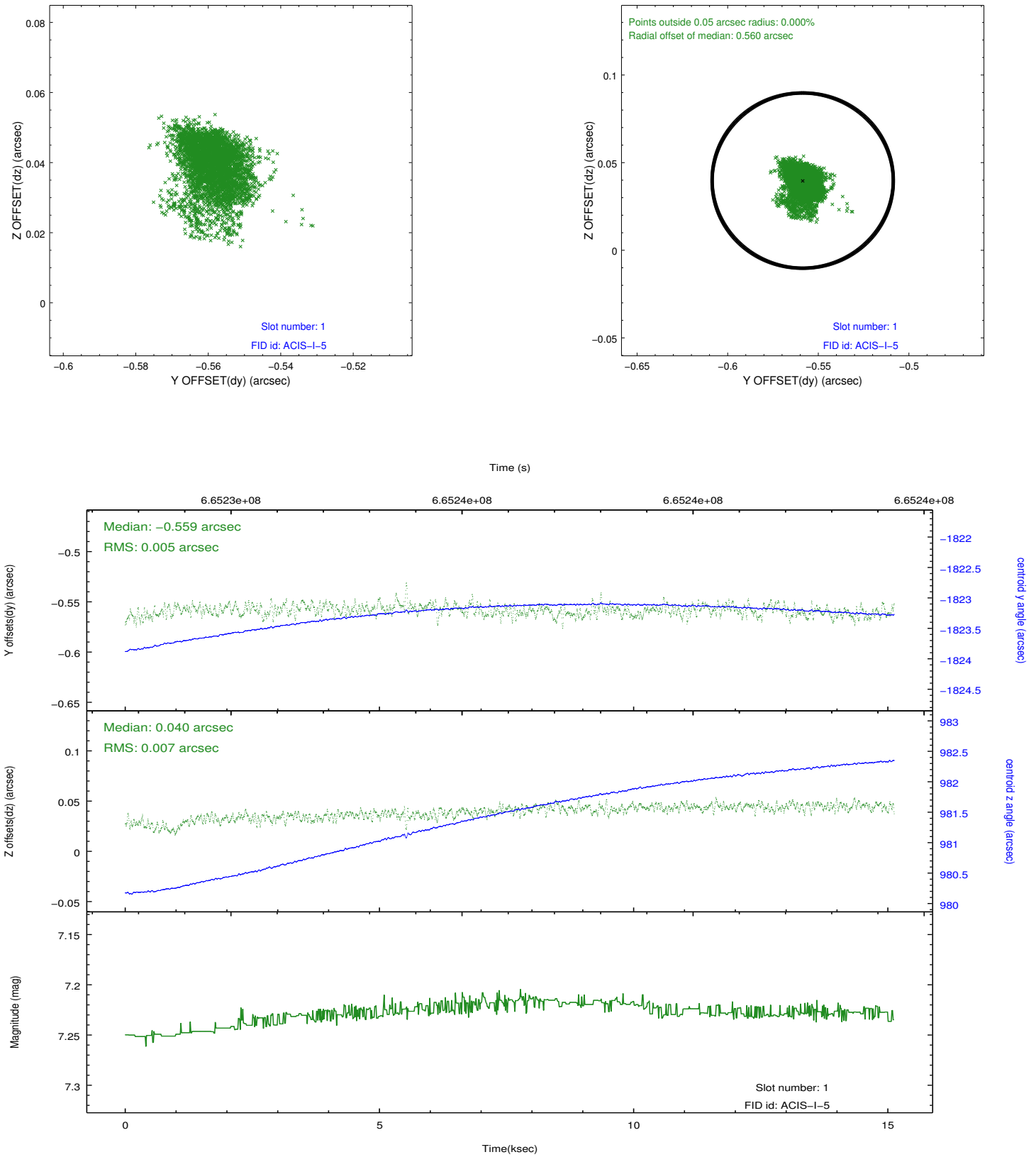


2.5 FID Slots

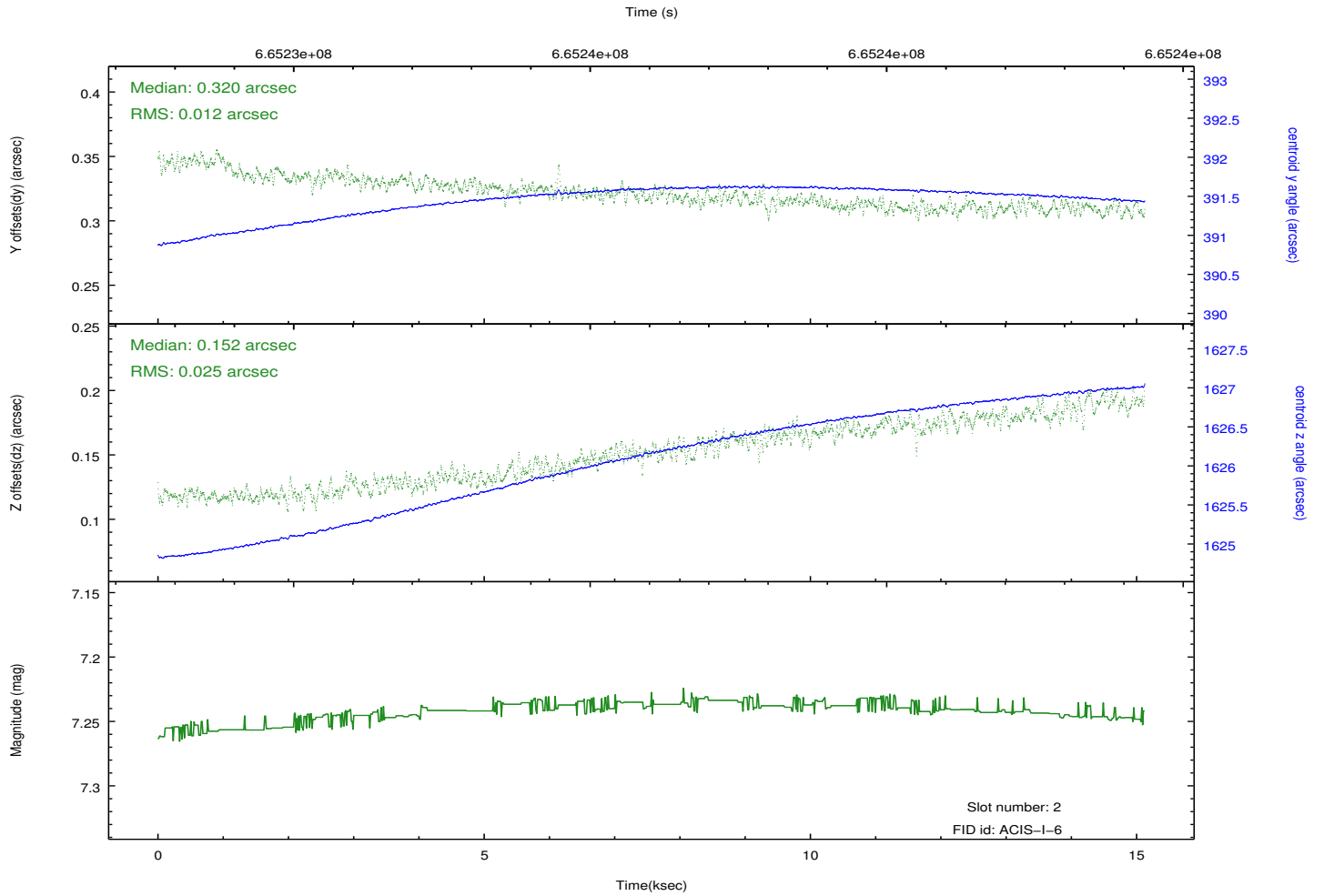
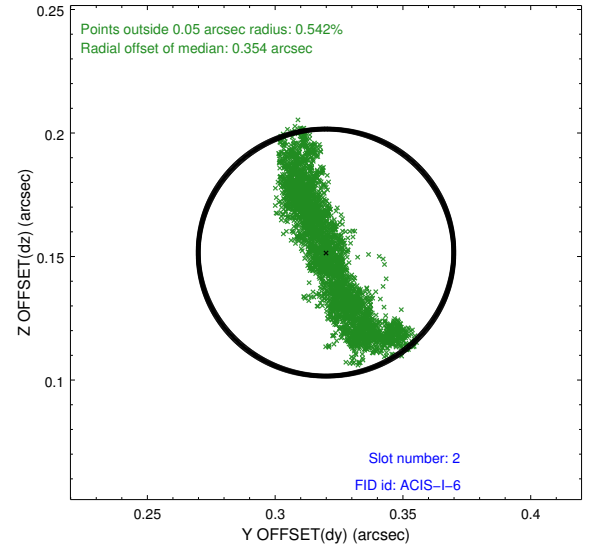
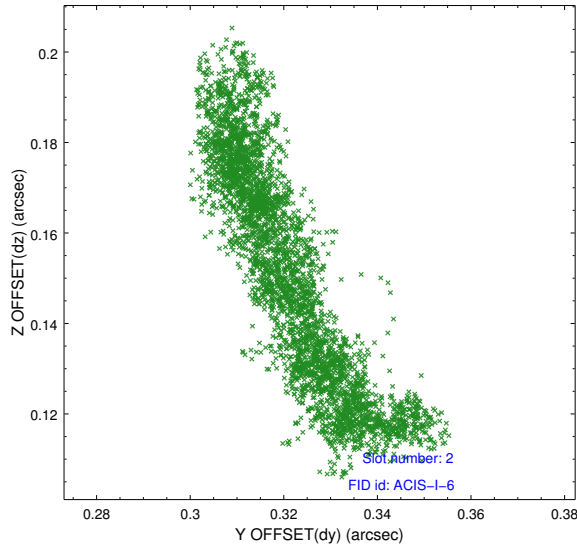
2.5.1 Slot 0



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)	2019.02.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.066000115991

A.2 Comments

A spatial region of the original bias map for CCD = 3 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 3 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords: (169.90554,22.34226), (169.90878,22.34228), (169.90836,22.37923), (169.90511,22.38002)