

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 12965 - L2 Version 2
Chandra X-Ray Center

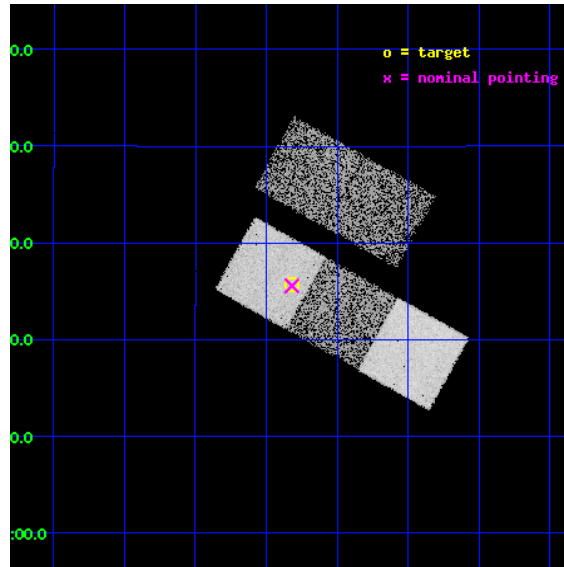
L2 Processing Date : Apr 25 2012

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

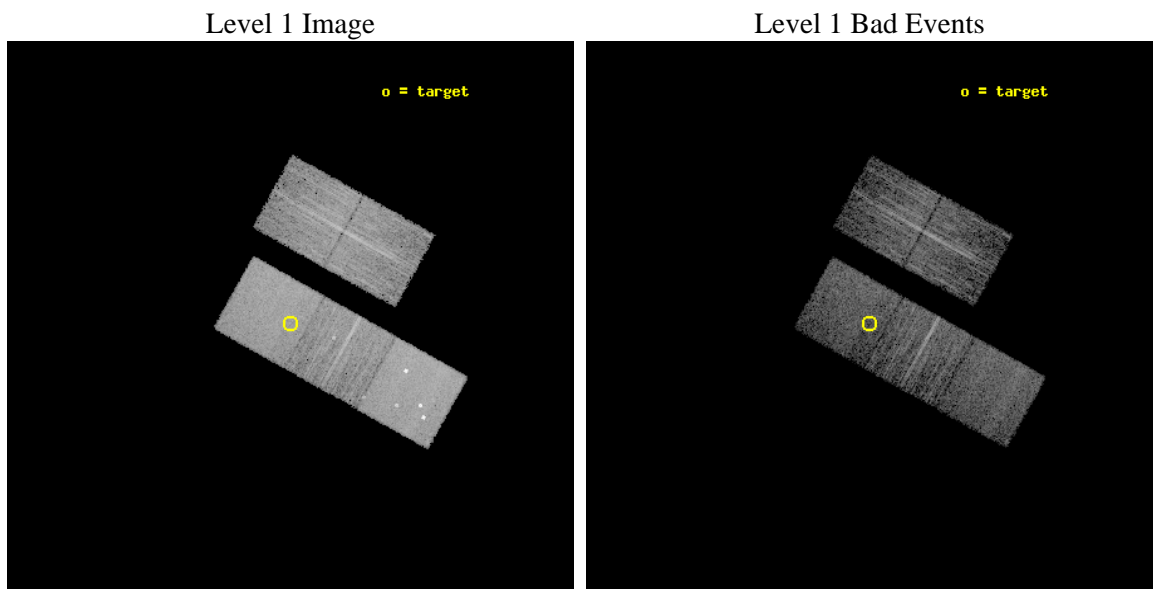
seq_num	600933	Sequence number
obs_id	12965	Observation id
title	X-rays from Isolated Elliptical Galaxies	Proposal title
observer	Dr. DAVID BUOTE	Principal investigator
object	NGC 5080	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	199.83	Observer's specified target RA [deg]
dec_targ	8.429139	Observer's specified target Dec [deg]
ra_nom	199.82987494508	Nominal RA [deg]
dec_nom	8.4261680045761	Nominal Dec [deg]
roll_nom	209.11526969757	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7564.0000581741	Sum of GTIs [s]
livetime	7465.1708288783	Livetime [s]
ontime2	7564.0000581741	Sum of GTIs [s]
ontime3	7564.0000581741	Sum of GTIs [s]
ontime5	7564.0000581741	Sum of GTIs [s]
ontime6	7564.0000581741	Sum of GTIs [s]
ontime7	7564.0000581741	Sum of GTIs [s]
l2events	72347	Number of level 2 events



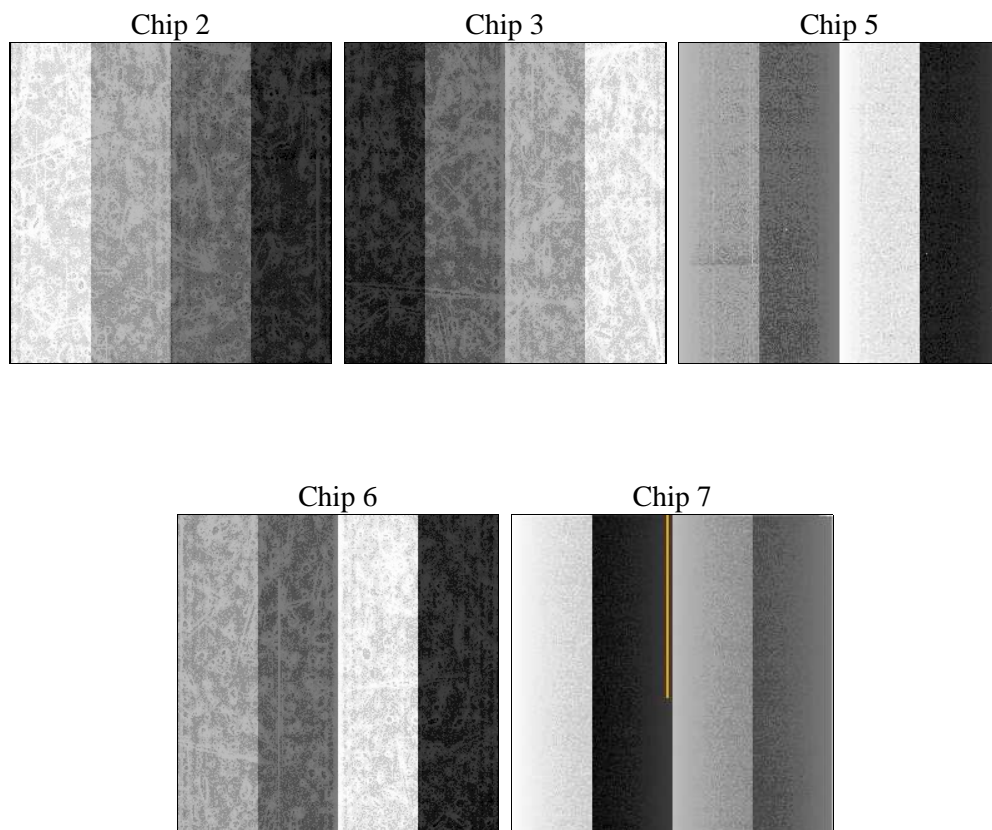
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	7500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	7564.0000581741	Sum of GTIs [s]
caldsver	4.4.9	 	ontime2	7564.0000581741	Sum of GTIs [s]
date	2012-04-25T19:44:57	Date and time of file creation	ontime3	7564.0000581741	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	7564.0000581741	Sum of GTIs [s]
			ontime6	7564.0000581741	Sum of GTIs [s]
			ontime7	7564.0000581741	Sum of GTIs [s]
			l1events	275127	Number of level 1 events

2.1.4 Events

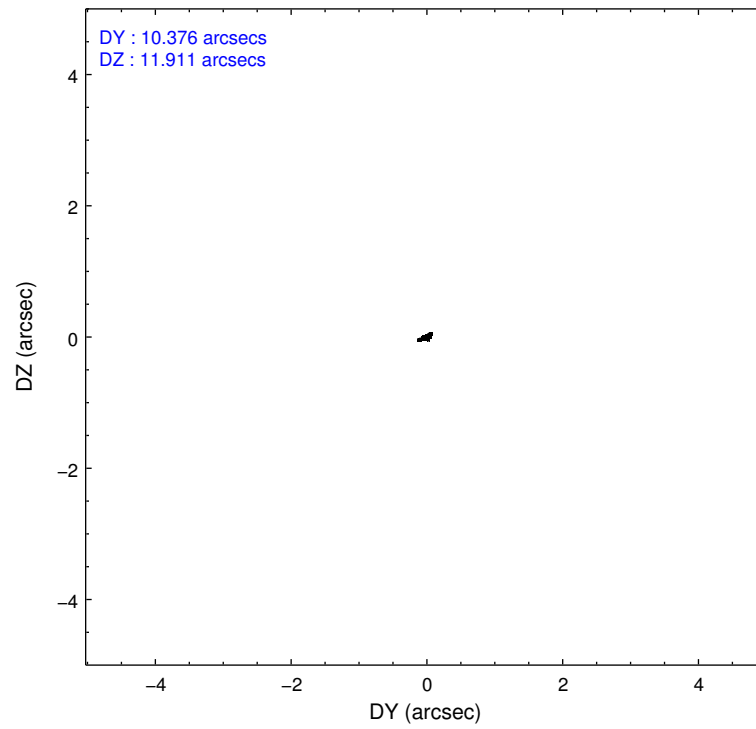
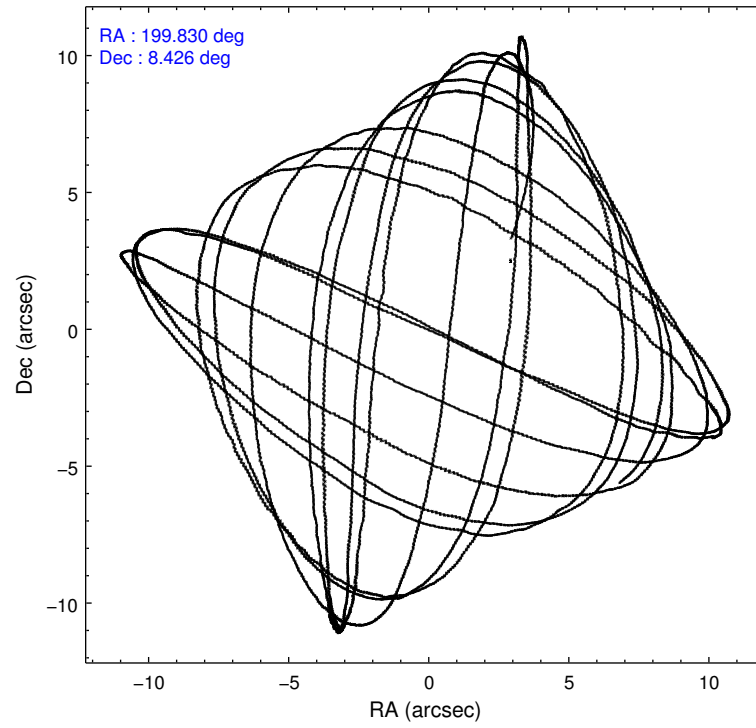
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	44493	43984	79196	46653	60801
rejected events	39426	39160	38140	40852	34452
rejected %	88%	89%	48%	87%	56%

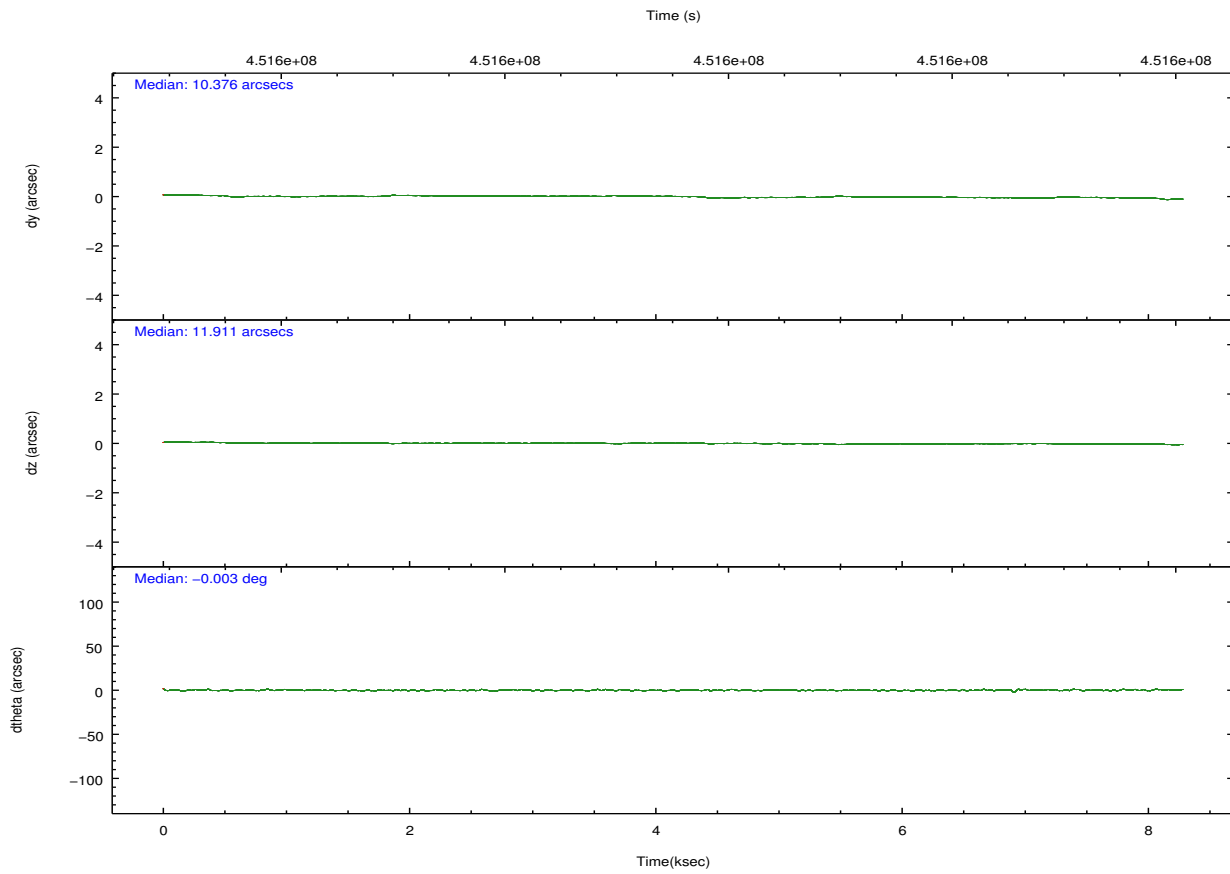
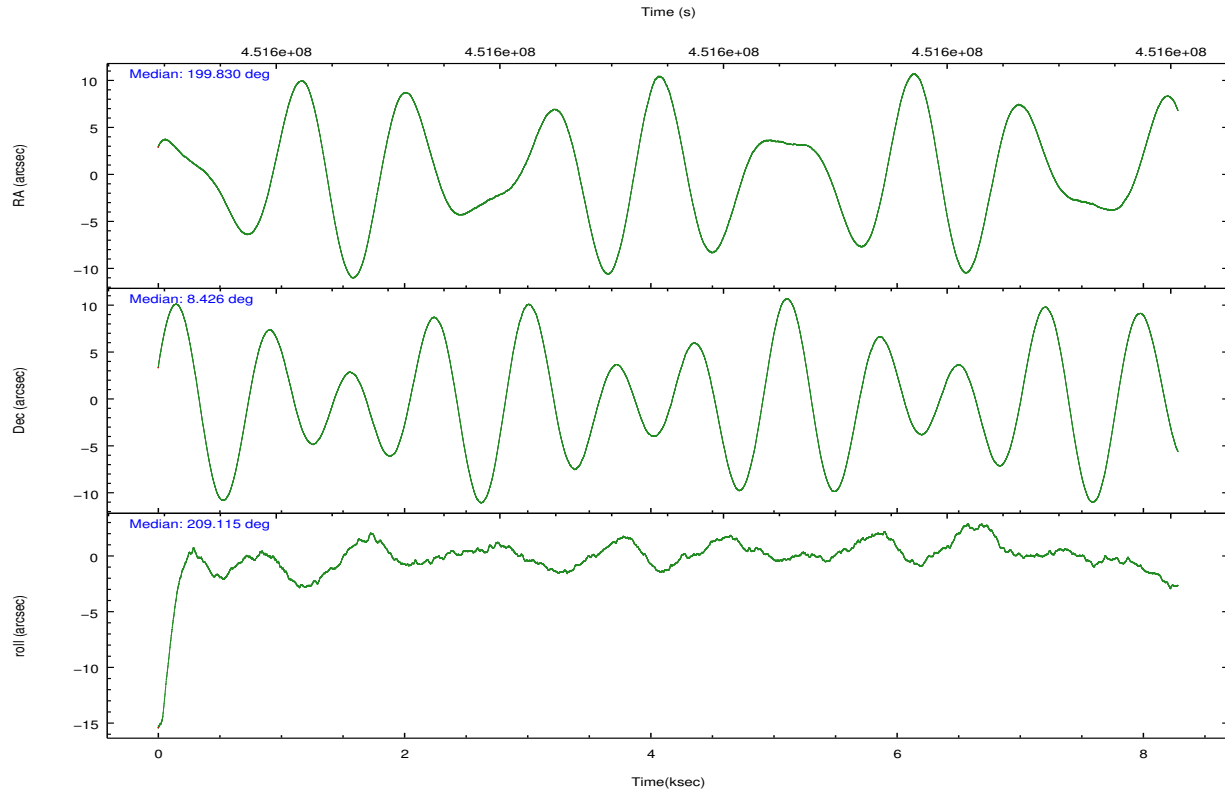
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	1808	1748	7261	1909	2474
	4%	3%	9%	4%	4%
grade 1 events	24	24	186	20	70
	0%	0%	0%	0%	0%
grade 2 events	1121	1028	12341	1500	5442
	2%	2%	15%	3%	8%
grade 3 events	596	534	1146	564	2176
	1%	1%	1%	1%	3%
grade 4 events	550	562	1131	543	2095
	1%	1%	1%	1%	3%
grade 5 events	1916	2155	5166	2238	6105
	4%	4%	6%	4%	10%
grade 6 events	993	955	19206	1287	14185
	2%	2%	24%	2%	23%
grade 7 events	37485	36978	32759	38592	28254
	84%	84%	41%	82%	46%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	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	199.843680	199.8298749450788	CCD I2 on	O2	Y
[deg] Pointing Dec	8.449774	8.426168004576144	CCD I3 on	Y	Y
[deg] Pointing Roll	208.956613	209.1152696975695	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	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	O1	N
[s] Observation start time (MET)	451596141.184000	451594905.49151	CCD S5 on	N	N
Observation start date	2012-04-23T19:21:15	2012-04-23T19:01:45	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	451603641.184000	451605113.46705	On-chip summing requested	N	N
Observation end date	2012-04-23T21:26:15	2012-04-23T21:51:53	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



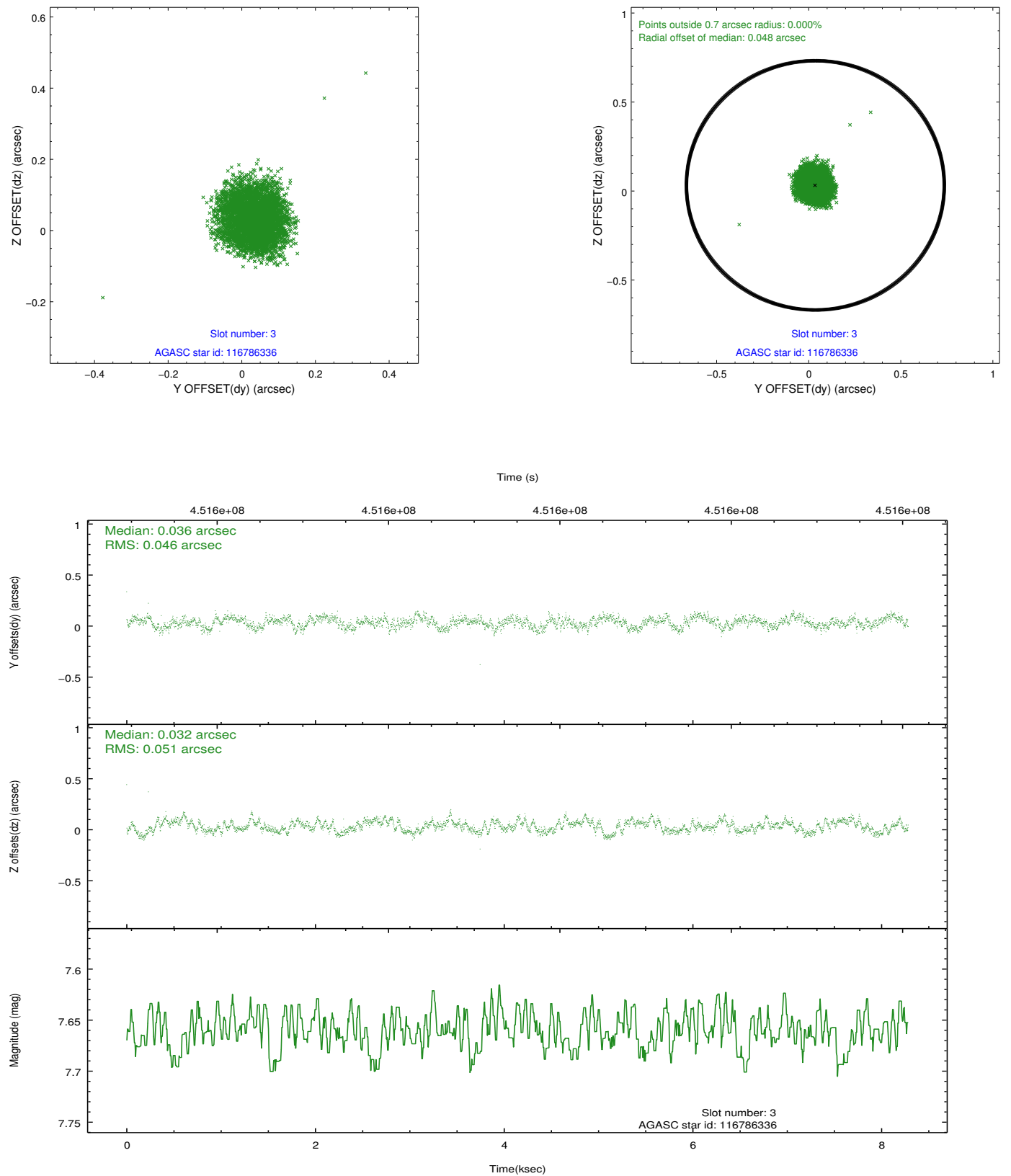


Slot Statistics

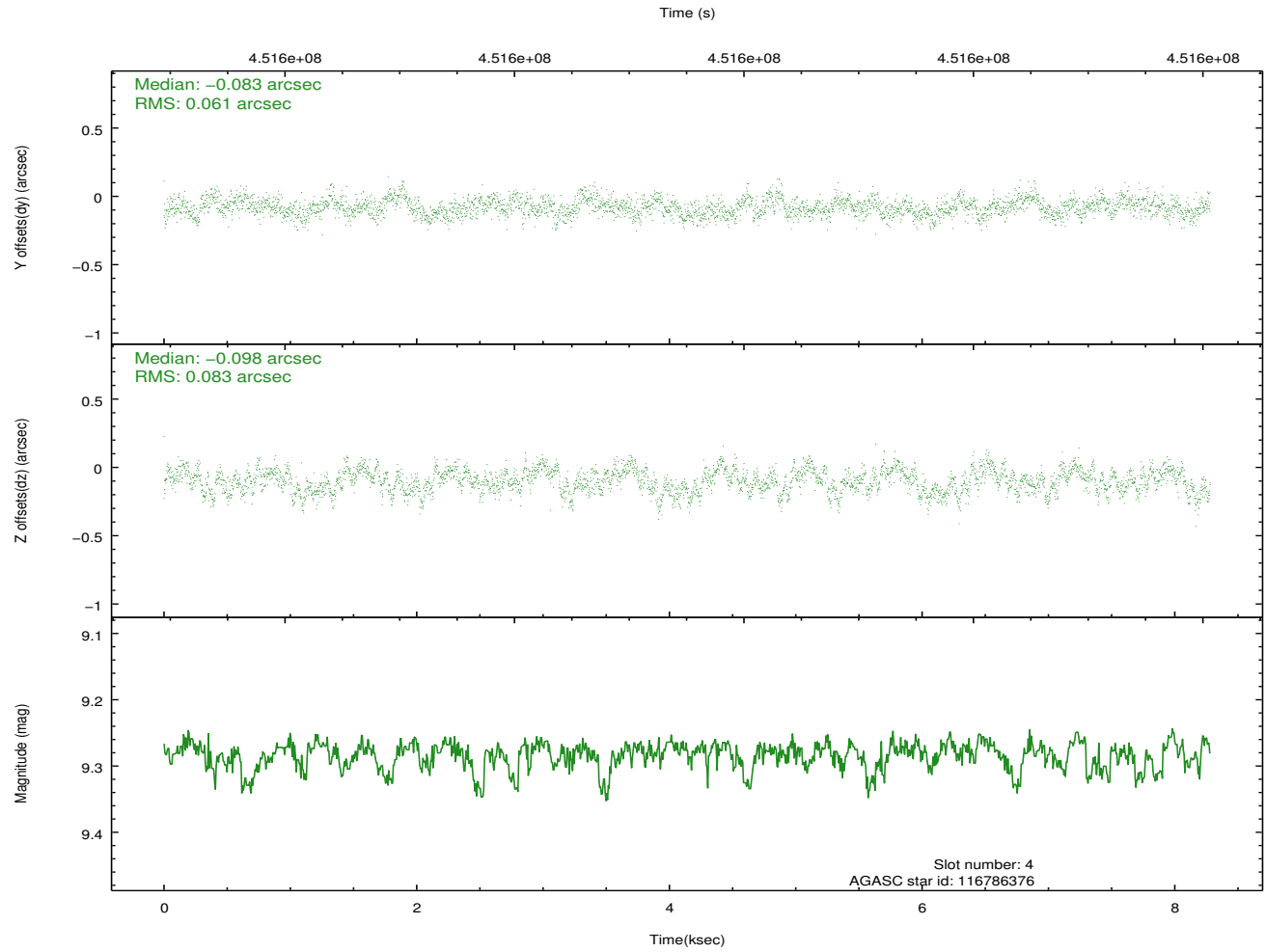
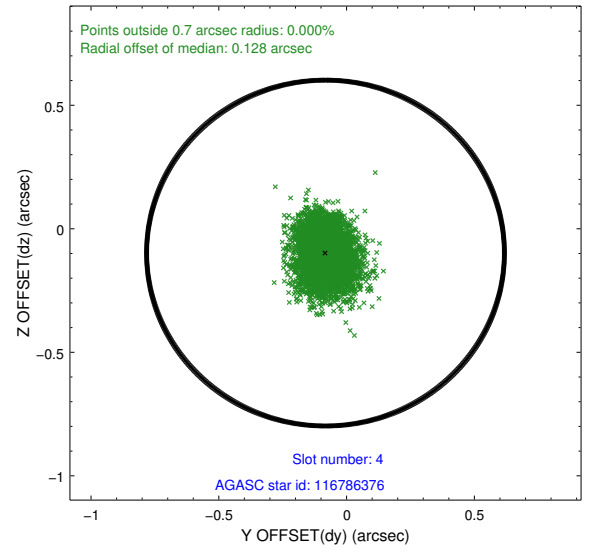
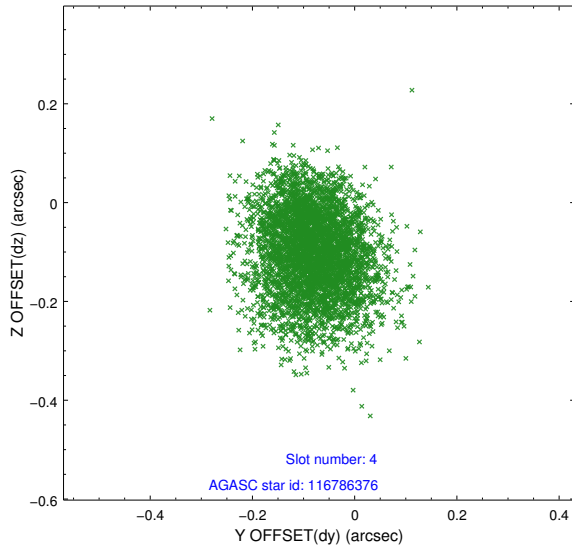
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.05	2020	-0.113	-0.079	0.006	0.010	0.000000	0.000000	-763.37	-1733.26
1	FID	ACIS-S-4	7.14	2021	0.134	0.051	0.006	0.011	0.000000	0.000000	2149.90	174.58
2	FID	ACIS-S-6	7.27	2021	-0.049	0.035	0.007	0.012	0.000000	0.000000	399.61	812.77
3	GUIDE	116786336	7.66	4039	0.036	0.032	0.074	0.112	199.883508	8.645082	-463.49	-546.67
4	GUIDE	116786376	9.28	4036	-0.083	-0.098	0.109	0.177	199.806854	8.289031	395.48	441.79
5	GUIDE	116787376	6.92	4041	0.072	0.092	0.072	0.114	199.987410	8.487131	-512.23	130.54
6	GUIDE	116787992	8.80	4041	-0.008	0.068	0.080	0.131	200.161636	8.922931	-1813.93	-942.66
7	GUIDE	116789928	8.77	4038	-0.019	-0.093	0.074	0.120	200.349230	8.702760	-2015.57	73.08

2.4 Star Slots

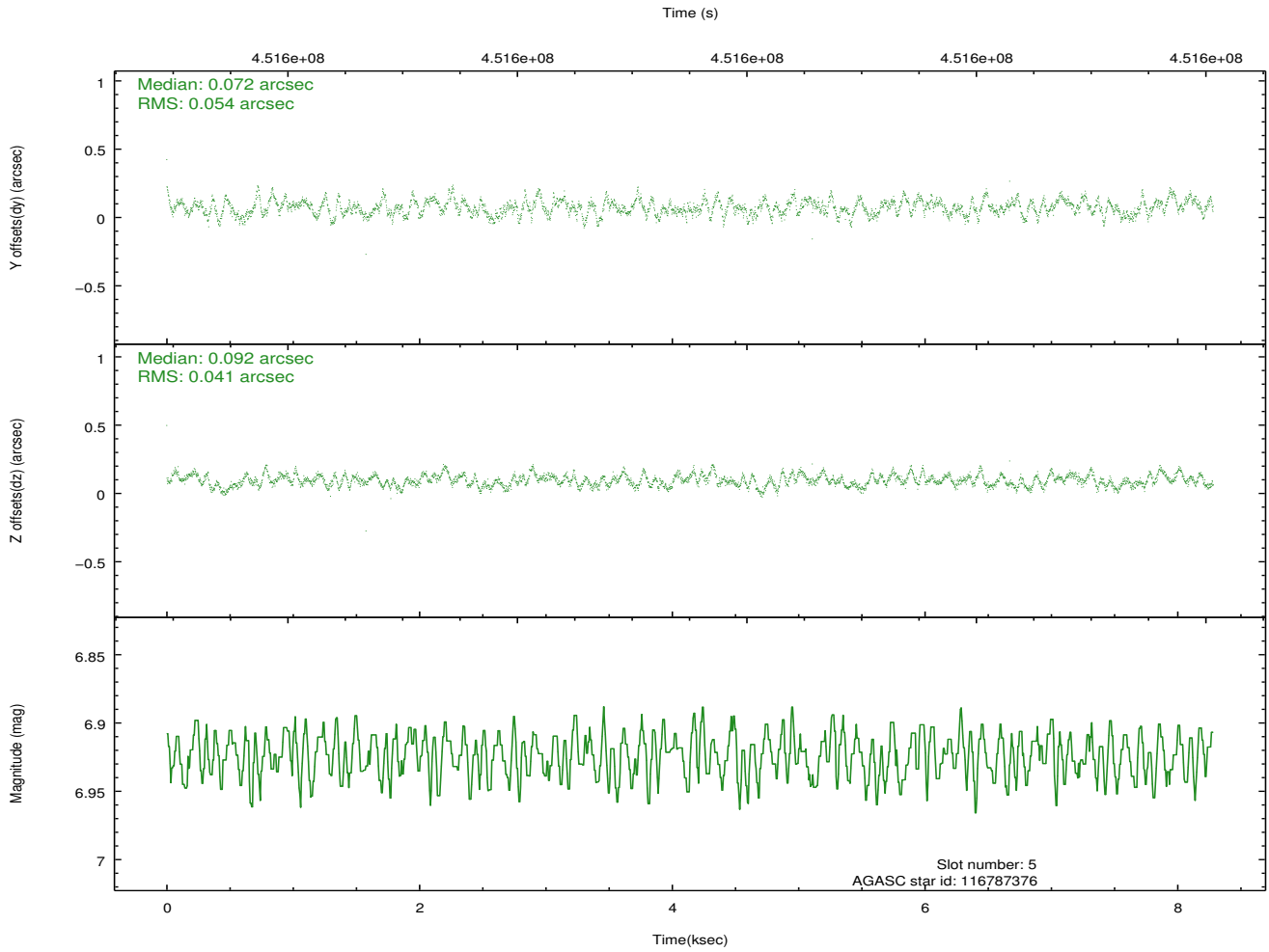
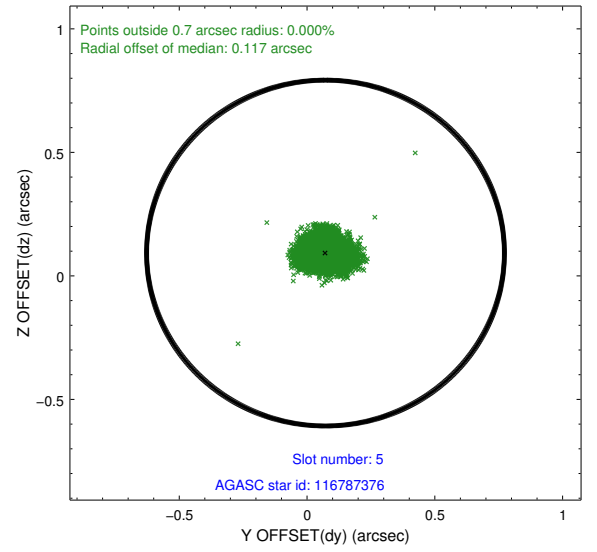
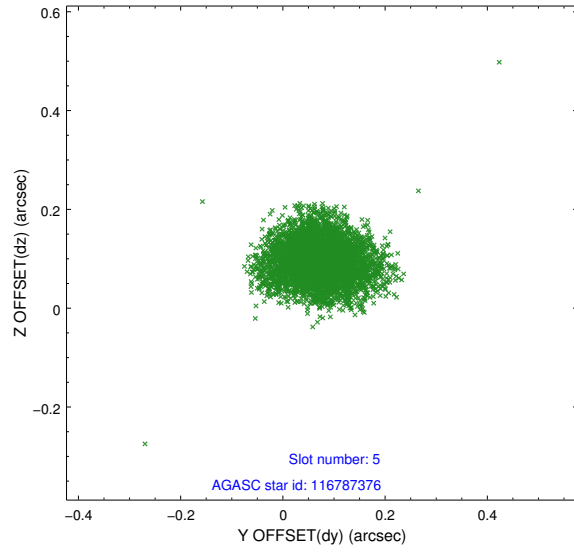
2.4.1 Slot 3



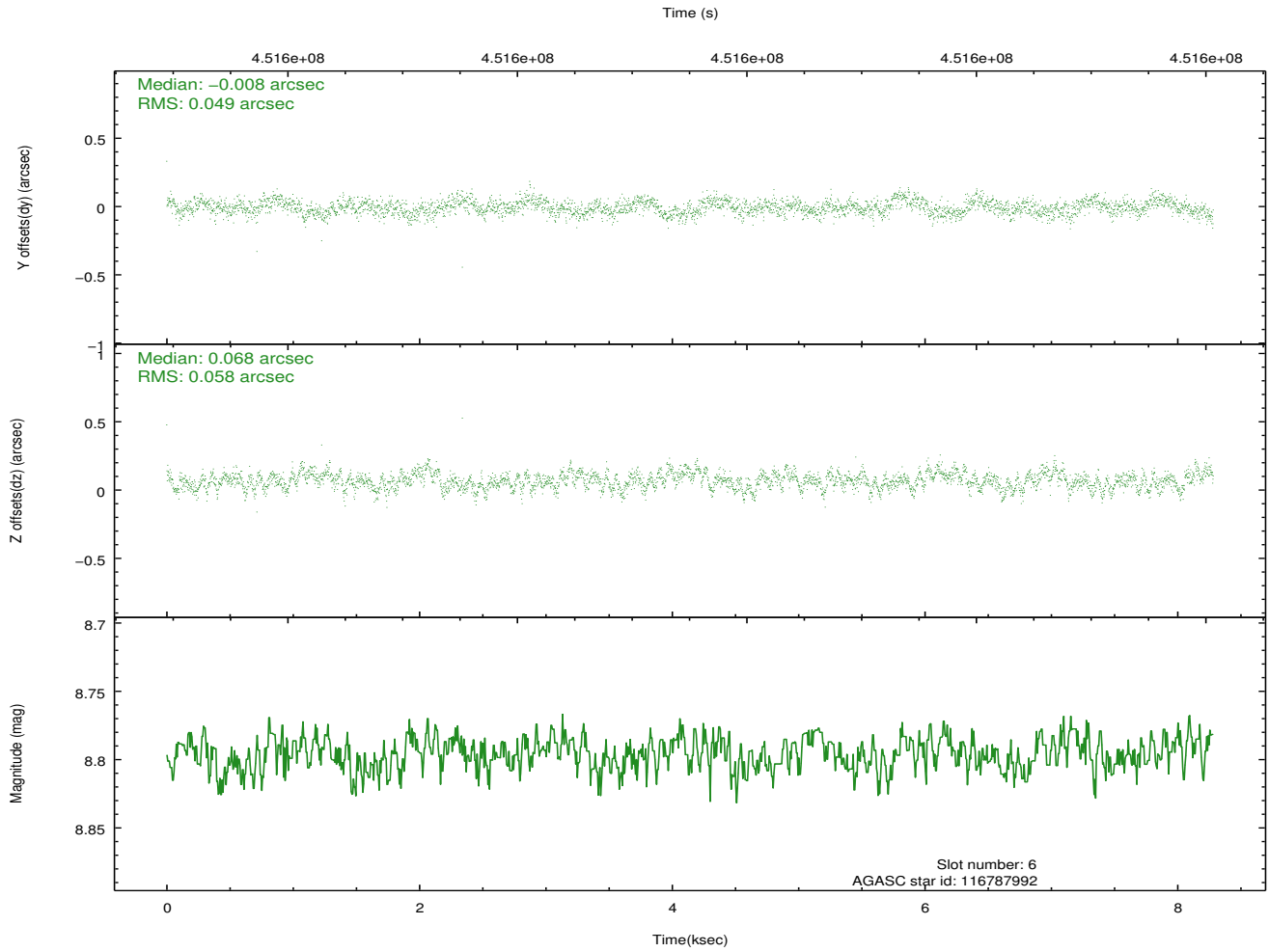
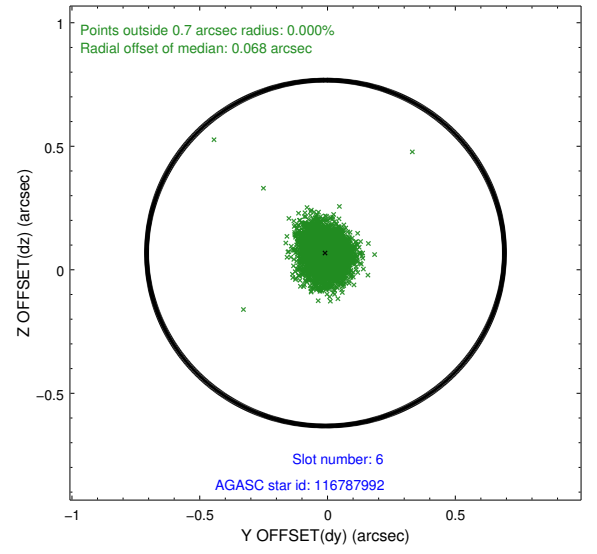
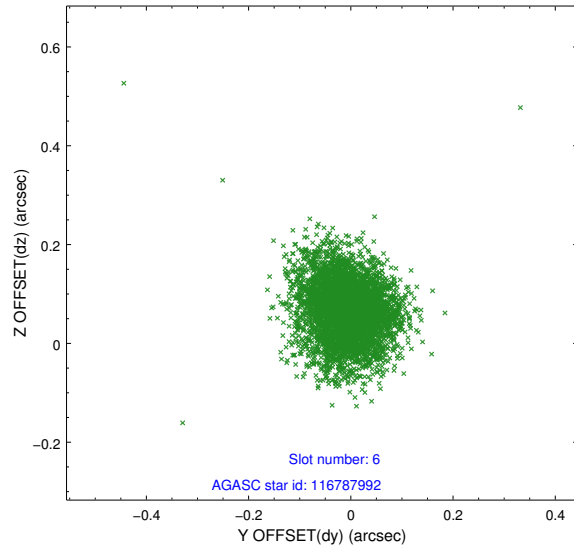
2.4.2 Slot 4



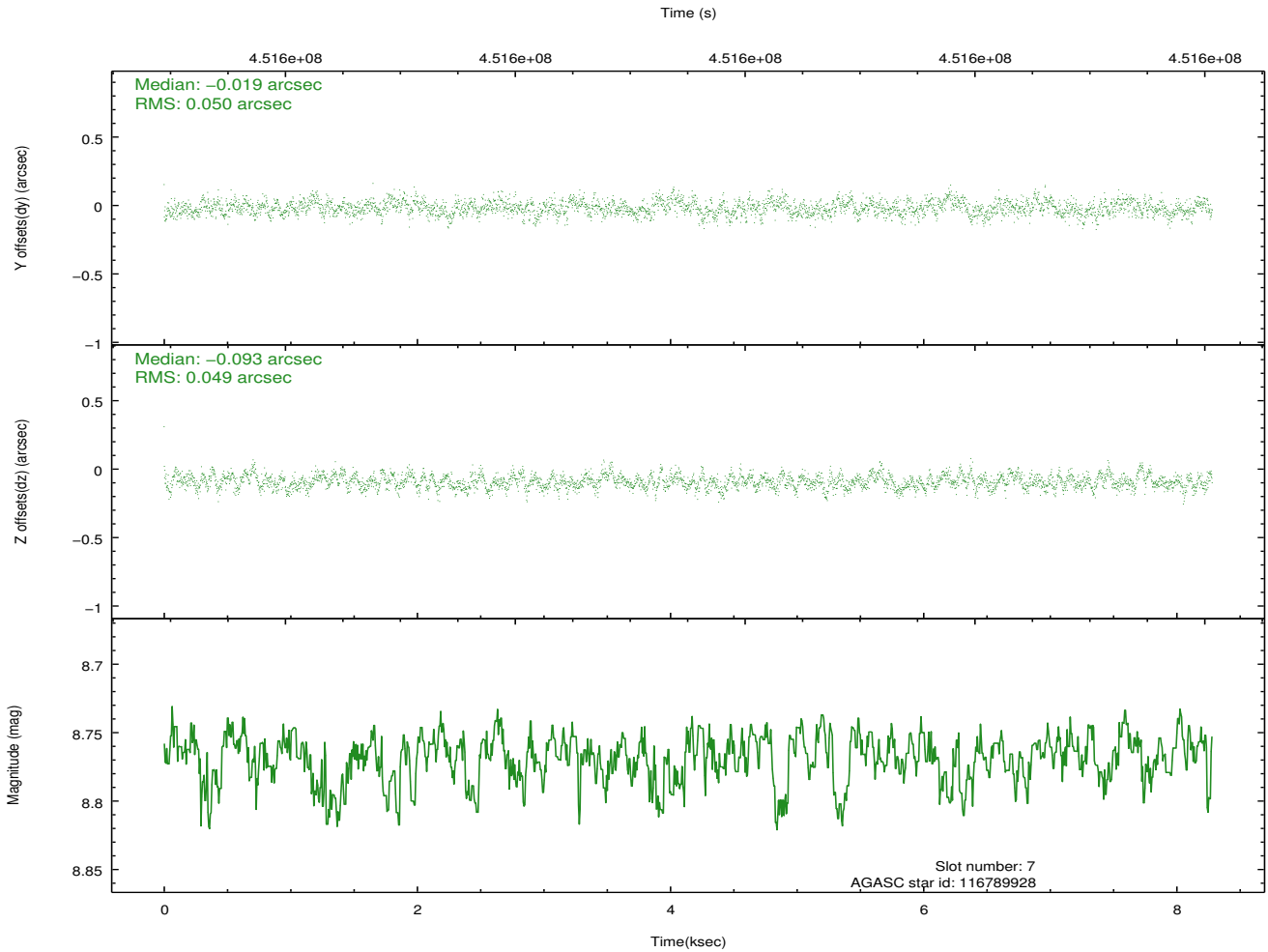
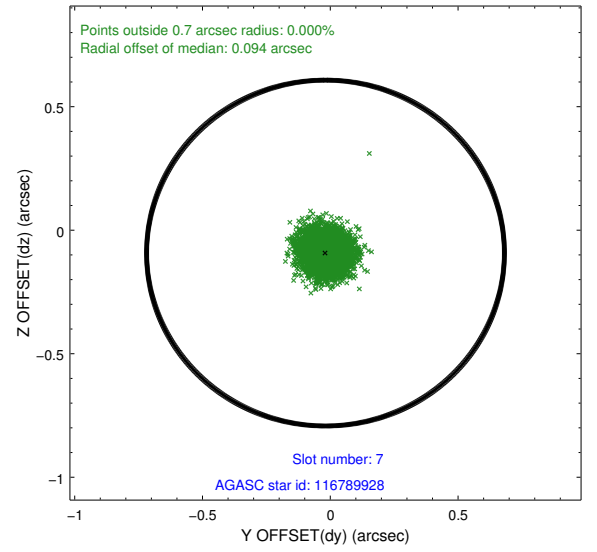
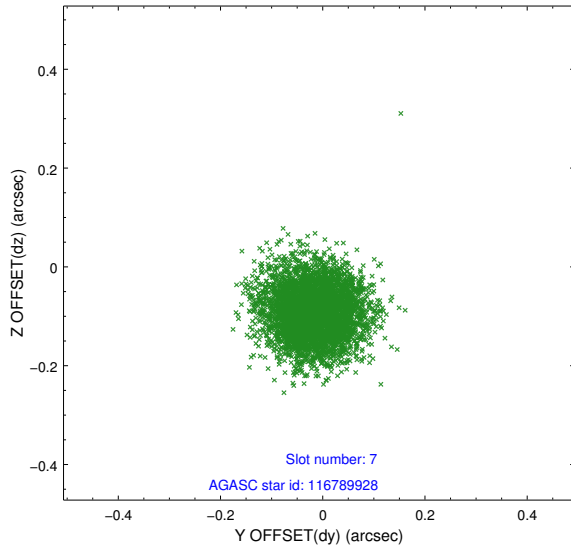
2.4.3 Slot 5



2.4.4 Slot 6

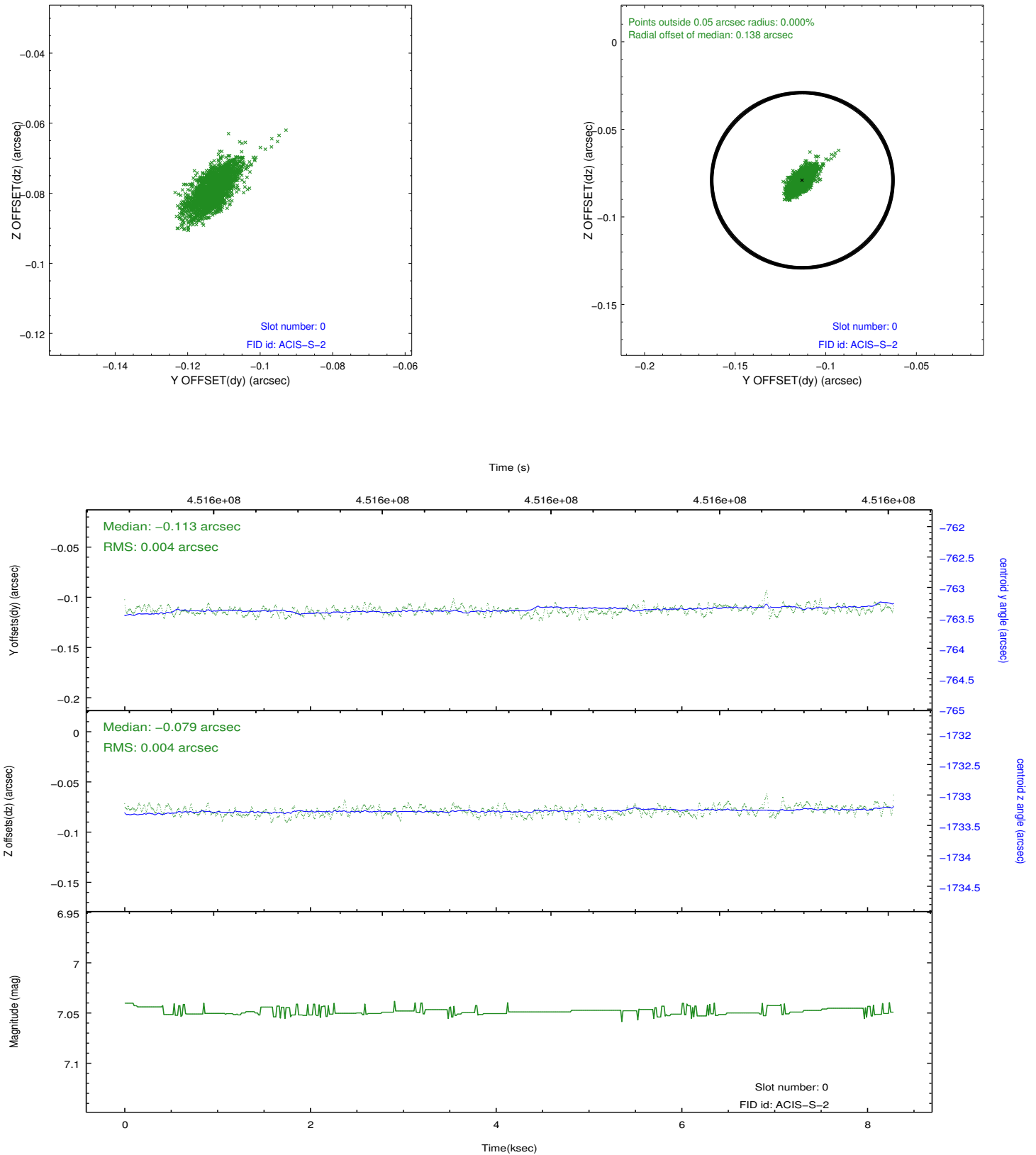


2.4.5 Slot 7

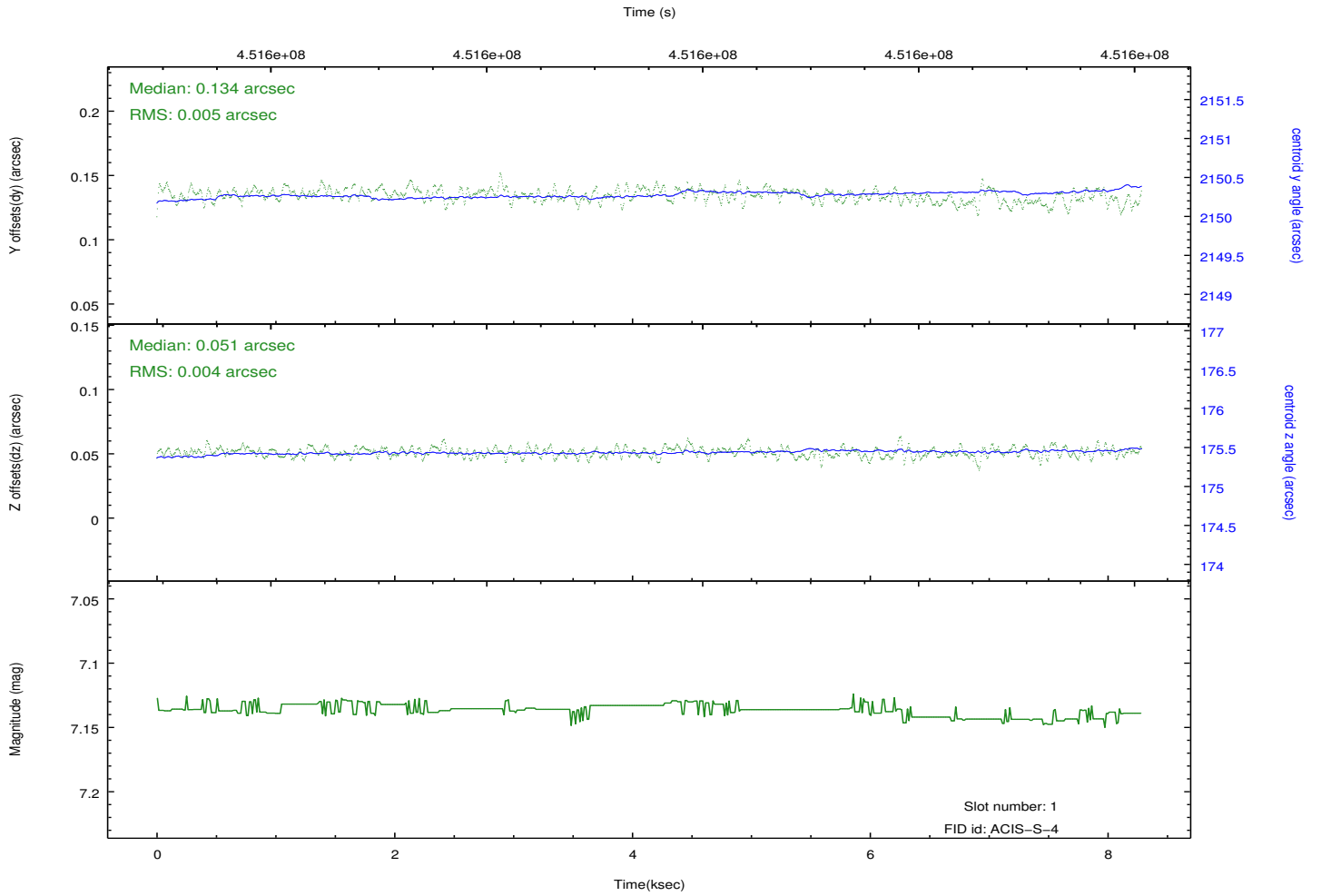
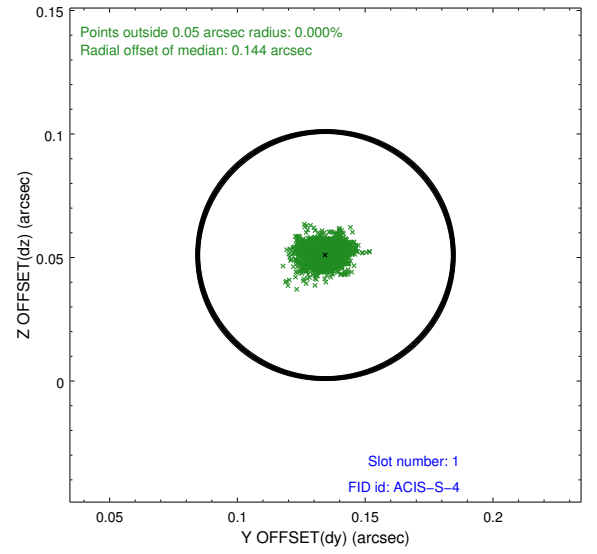
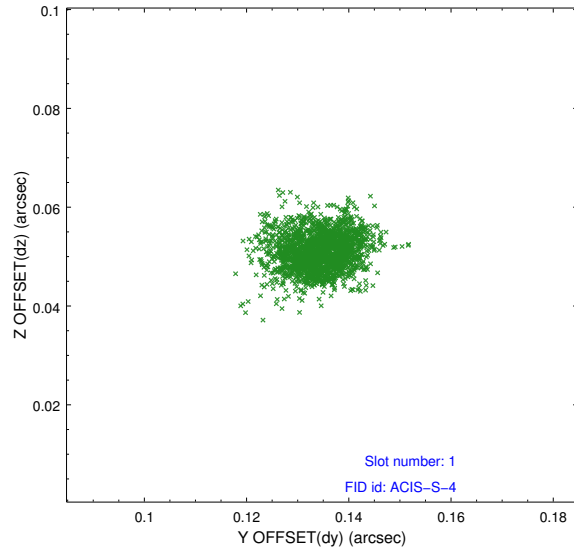


2.5 FID Slots

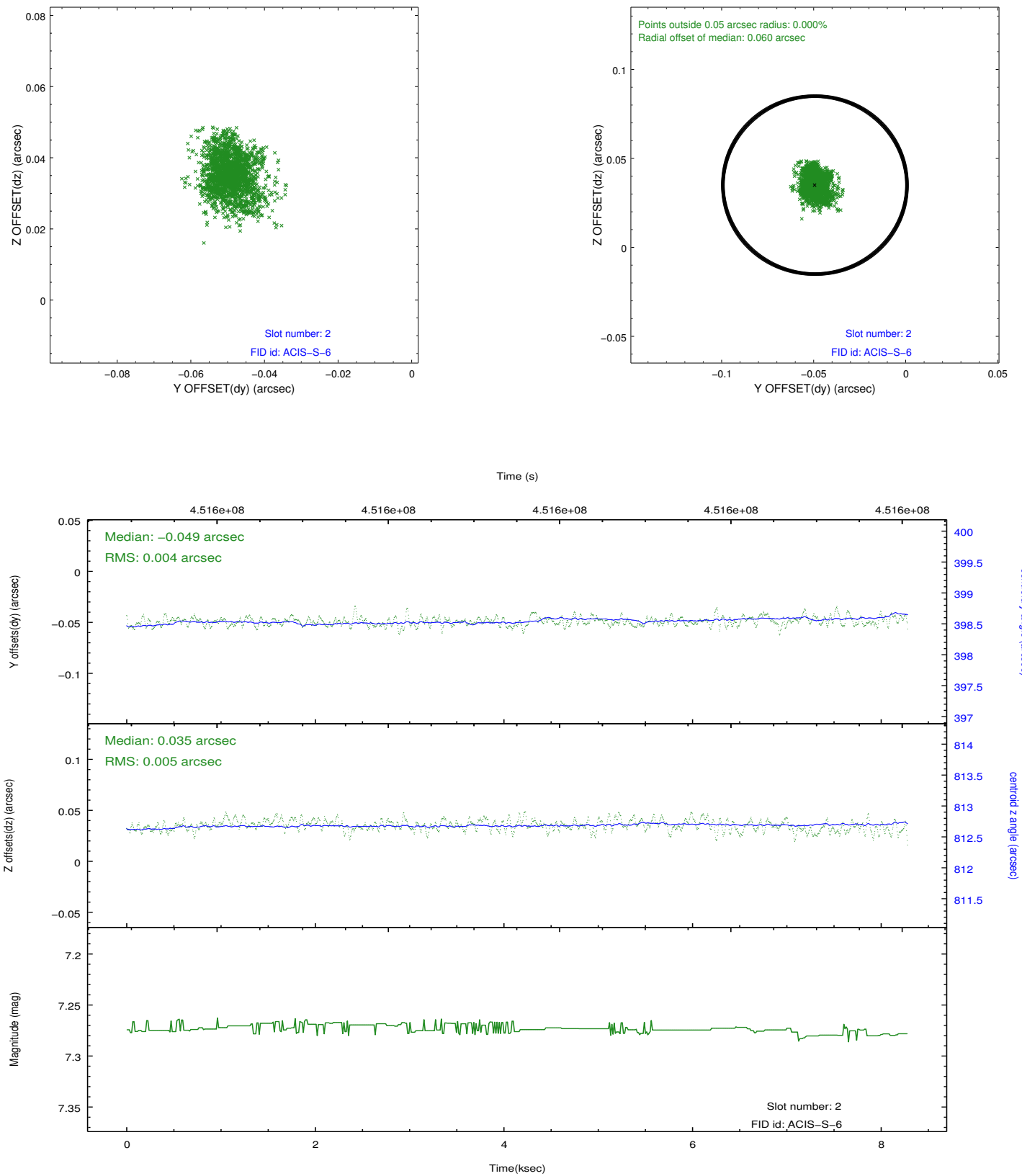
2.5.1 Slot 0



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)	2012.04.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.5640000581741

A.2 Comments

A spatial region of the original bias map for CCD = 6 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 = 6 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:
(199.82444,8.34406), (199.82673,8.34533), (199.75793,8.46724), (199.75565,8.46598)