

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 7692 - L2 Version 3
Chandra X-Ray Center

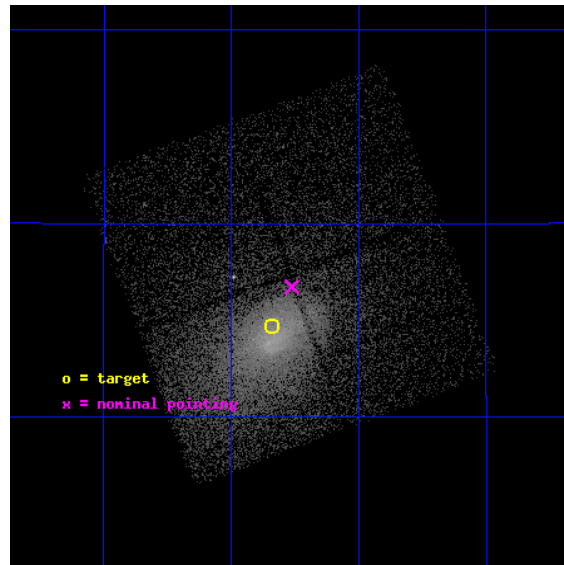
L2 Processing Date : Apr 24 2012

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

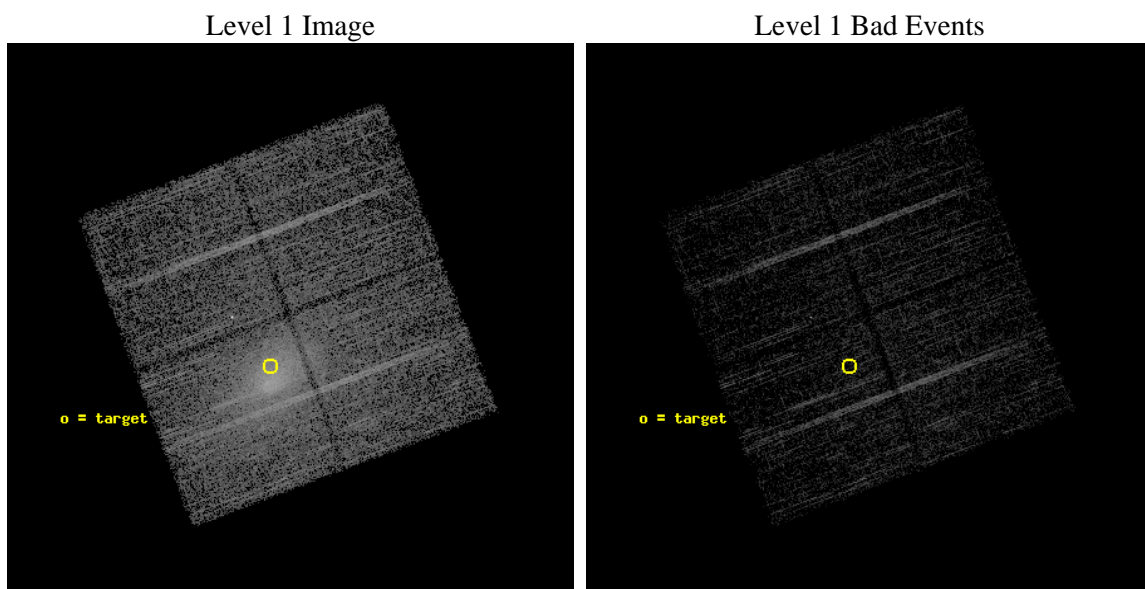
seq_num	701360	Sequence number
obs_id	7692	Observation id
title	Snapshot Survey for X-ray Outbursts in Rich Clusters of Galaxies	P
observer	Professor Gordon Garmire	Principal investigator
object	A2142	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.584583	Observer's specified target RA [deg]
dec_targ	27.245556	Observer's specified target Dec [deg]
ra_nom	239.56548268917	Nominal RA [deg]
dec_nom	27.27883701021	Nominal Dec [deg]
roll_nom	159.50002938416	Nominal Roll [deg]
revision	3	Processing version of data
ontime	5057.9042899013	Sum of GTIs [s]
livetime	4991.8190467787	Livetime [s]
ontime0	5057.7811698914	Sum of GTIs [s]
ontime1	5057.8222098947	Sum of GTIs [s]
ontime2	5054.7222597003	Sum of GTIs [s]
ontime3	5057.9042899013	Sum of GTIs [s]
l2events	48912	Number of level 2 events



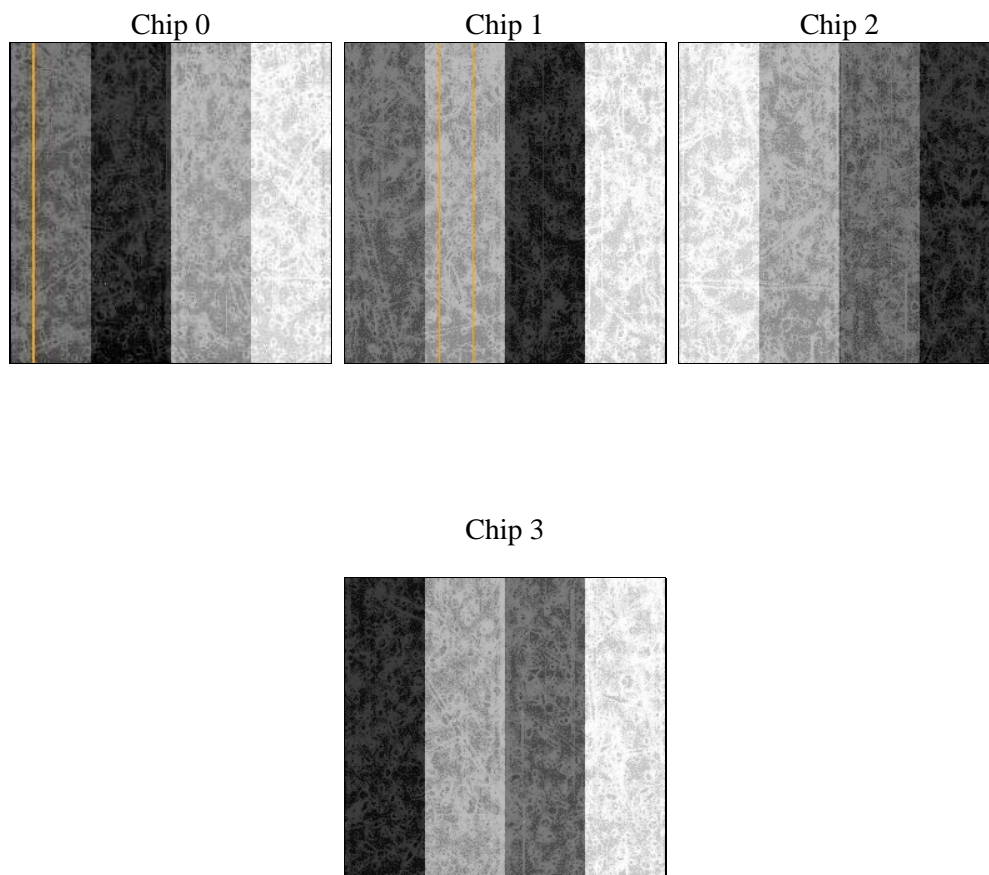
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	5057.9042899013	Sum of GTIs [s]
caldbver	4.4.9	 	ontime0	5057.7811698914	Sum of GTIs [s]
date	2012-04-24T14:03:22	Date and time of file creation	ontime1	5057.8222098947	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	5054.7222597003	Sum of GTIs [s]
			ontime3	5057.9042899013	Sum of GTIs [s]
			l1events	174866	Number of level 1 events

2.1.4 Events

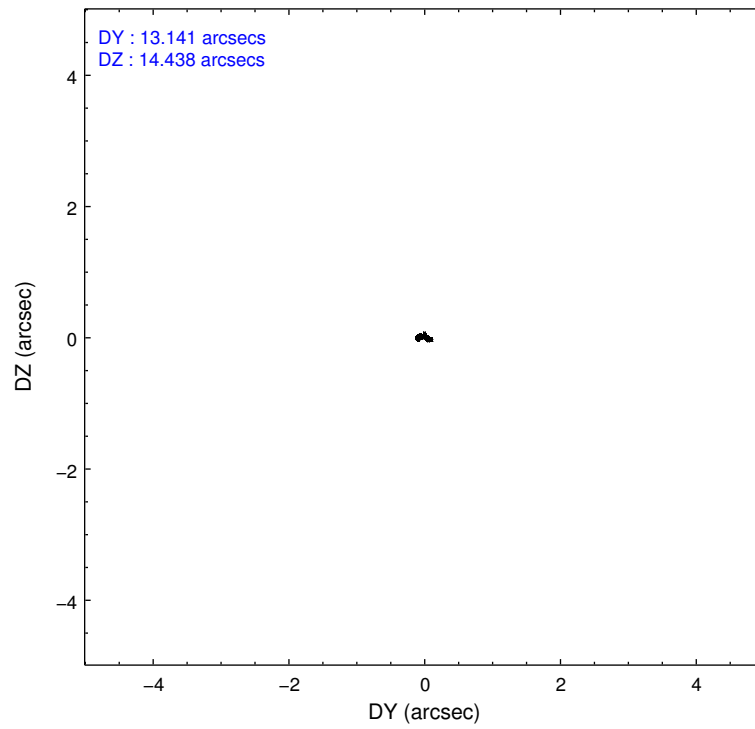
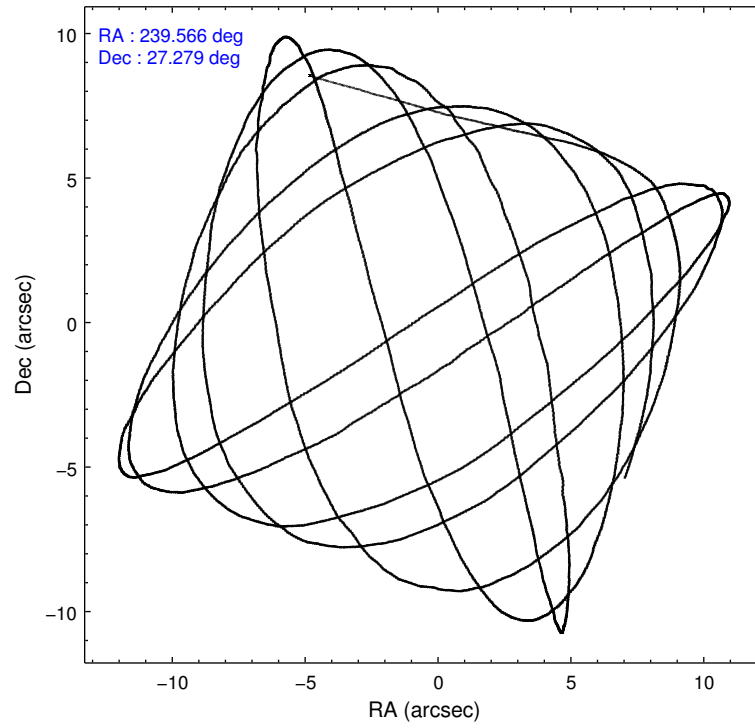
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	33053	33648	41310	66855
rejected events	28677	27333	33469	32292
rejected %	86%	81%	81%	48%

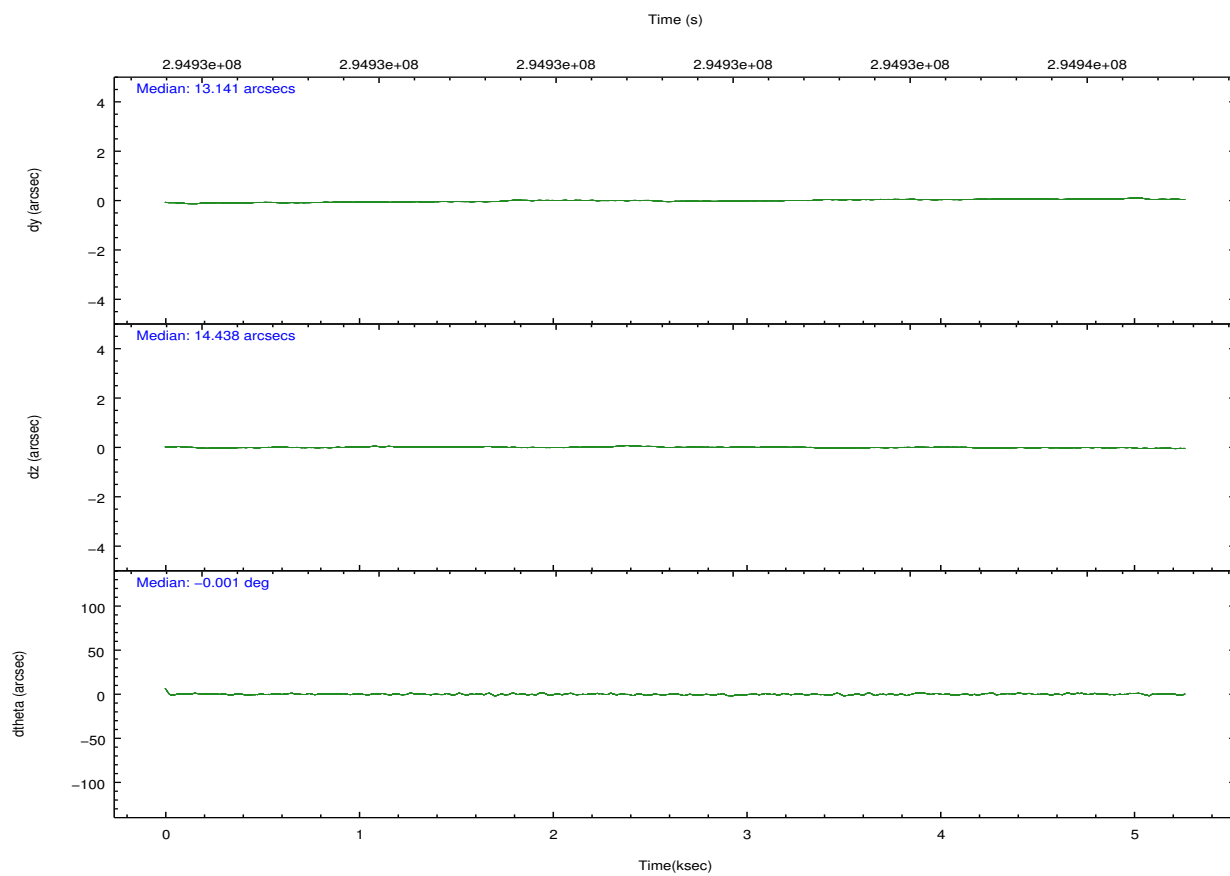
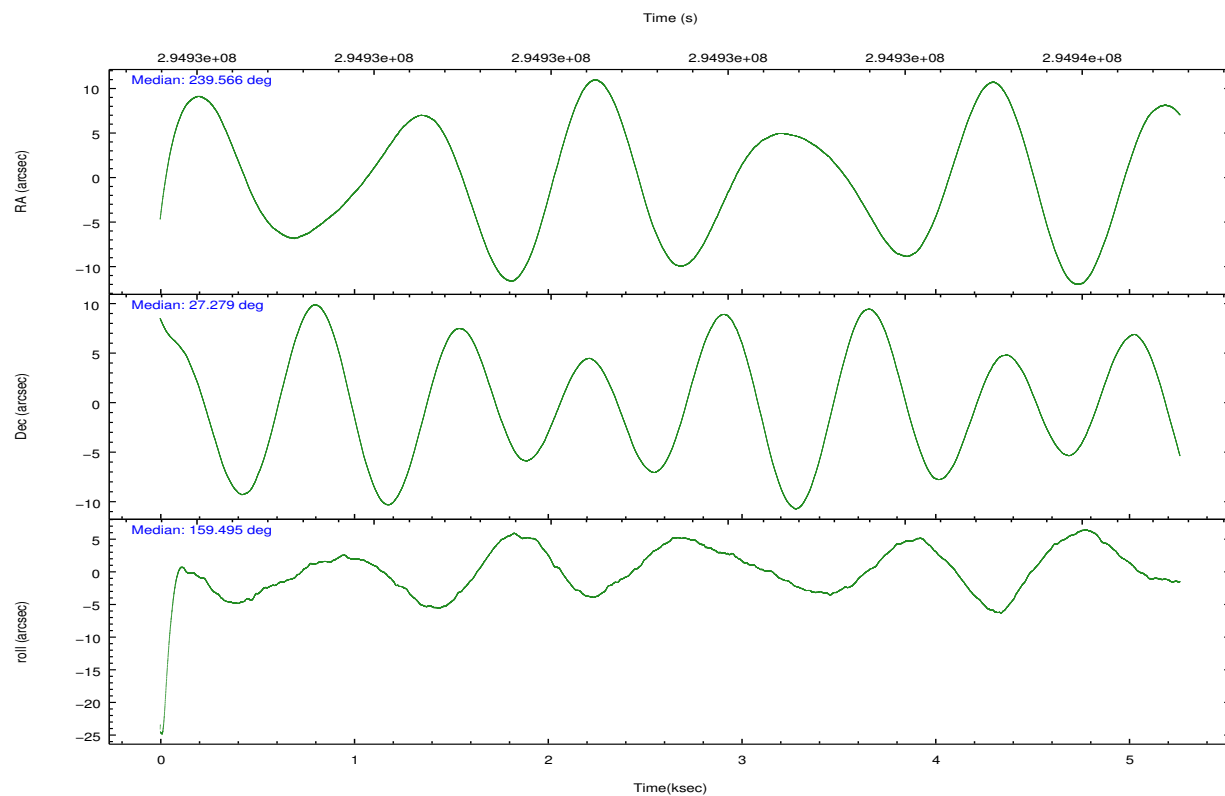
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	2273	3651	5165	26984
	6%	10%	12%	40%
grade 1 events	20	67	51	179
	0%	0%	0%	0%
grade 2 events	904	1066	1191	3709
	2%	3%	2%	5%
grade 3 events	355	483	500	1277
	1%	1%	1%	1%
grade 4 events	345	486	479	1297
	1%	1%	1%	1%
grade 5 events	567	652	557	829
	1%	1%	1%	1%
grade 6 events	505	637	518	1331
	1%	1%	1%	1%
grade 7 events	28084	26606	32849	31249
	84%	79%	79%	46%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	239.595900	239.5654826891723	Subarray requested	NONE	NONE
[deg] Pointing Dec	27.283450	27.27883701020984	Alternating exposures requested	N	N
[deg] Pointing Roll	159.277468	159.5000293841577	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	294930309.184000	294929397.63739			
Observation start date	2007-05-07T13:04:04	2007-05-07T12:49:57			
[s] Observation end time (MET)	294935309.184000	294935711.12519			
Observation end date	2007-05-07T14:27:24	2007-05-07T14:35:11			
Read mode	TIMED	TIMED			

2.3 Aspect



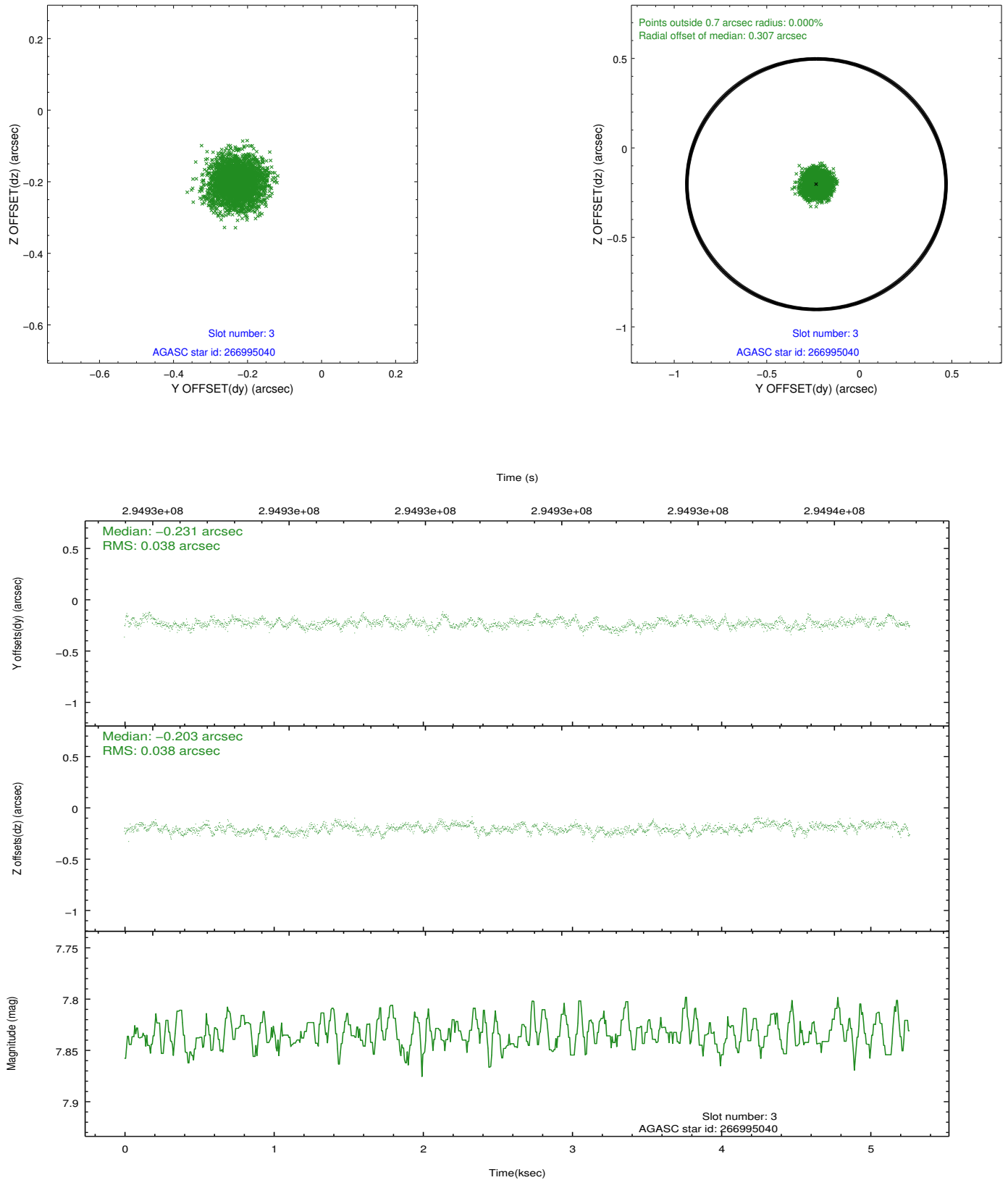


Slot Statistics

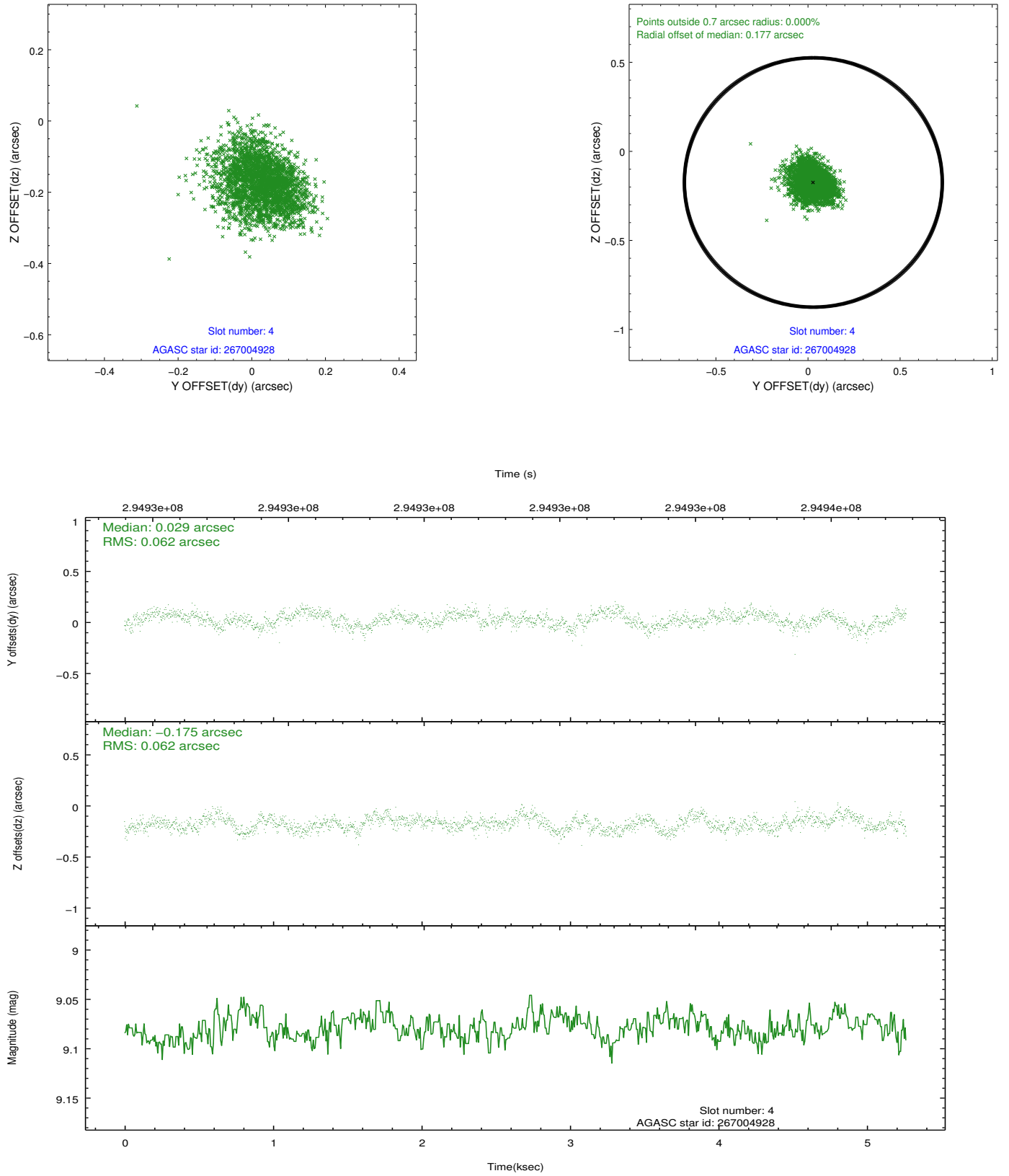
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.14	1284	-0.079	-0.070	0.008	0.015	0.000000	0.000000	-767.88	-844.45
1	FID	ACIS-I-4	7.16	1284	0.241	0.068	0.005	0.010	0.000000	0.000000	2145.99	1061.25
2	FID	ACIS-I-5	7.21	1284	-0.263	0.071	0.008	0.014	0.000000	0.000000	-1820.40	1060.45
3	GUIDE	266995040	7.83	2568	-0.231	-0.203	0.058	0.091	239.014769	27.051479	1448.73	1436.67
4	GUIDE	267004928	9.08	2567	0.029	-0.175	0.092	0.150	239.711277	26.663193	-1136.47	1957.69
5	GUIDE	267137048	7.88	2569	0.018	0.168	0.056	0.095	240.280451	27.143889	-2226.66	-310.55
6	GUIDE	267139016	9.15	2566	-0.010	0.136	0.088	0.140	240.326918	27.469213	-1945.27	-1457.87
7	GUIDE	267398208	10.33	2565	0.198	0.075	0.160	0.262	239.207175	27.898400	1941.05	-1634.78

2.4 Star Slots

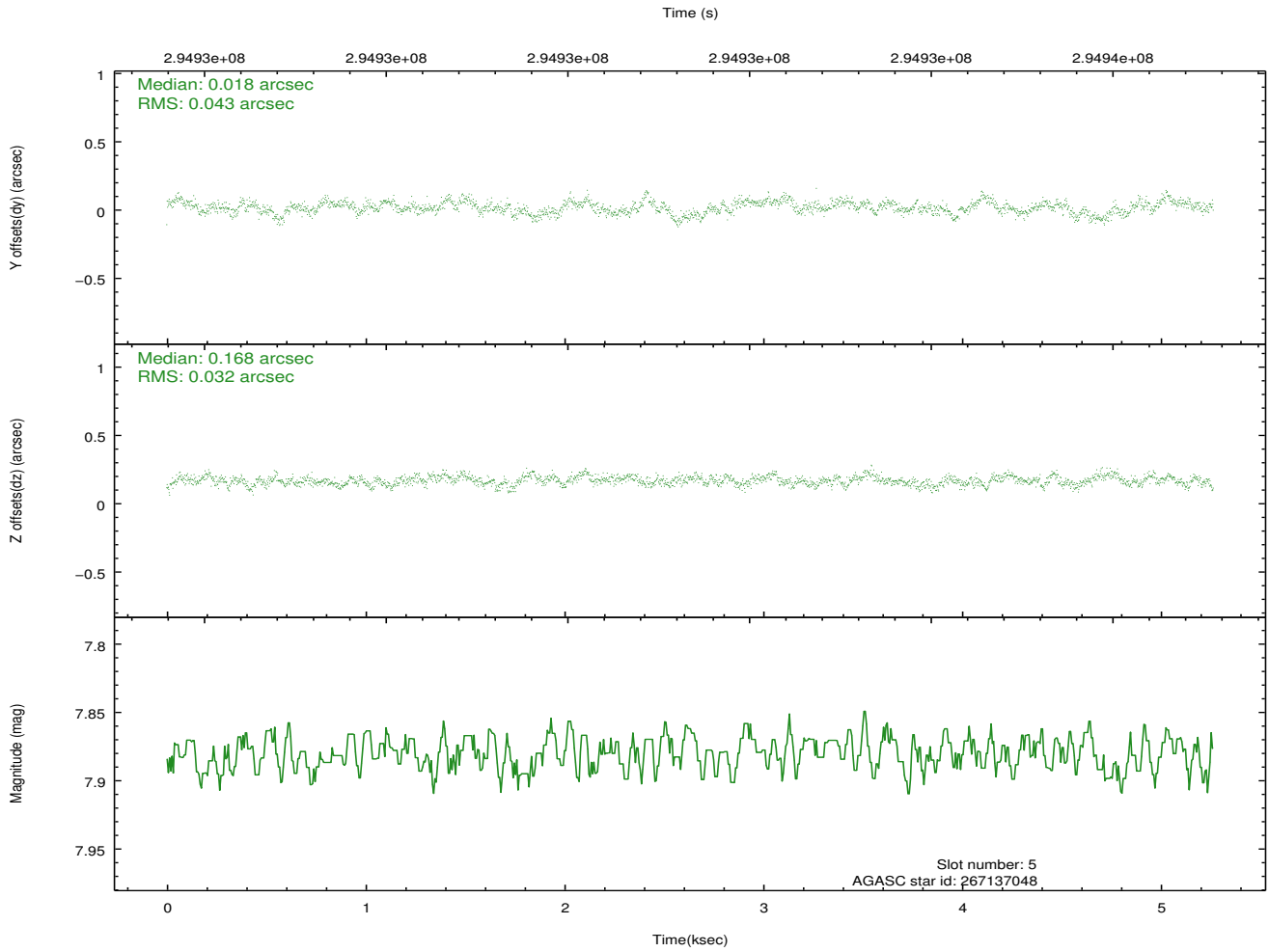
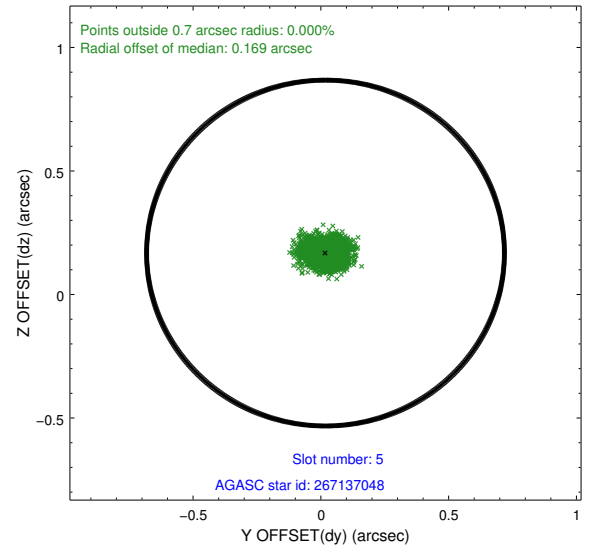
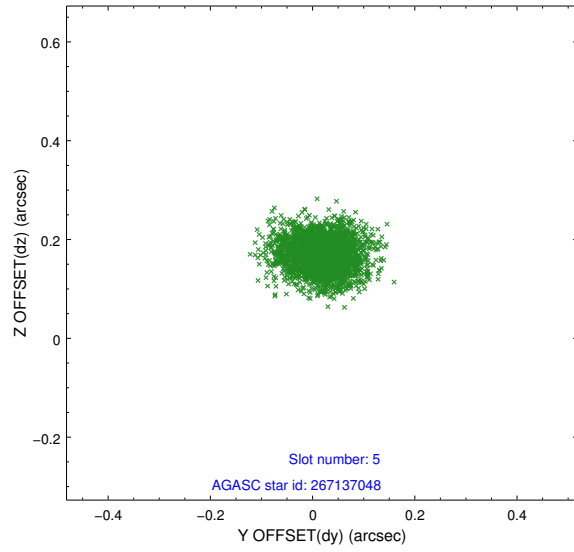
2.4.1 Slot 3



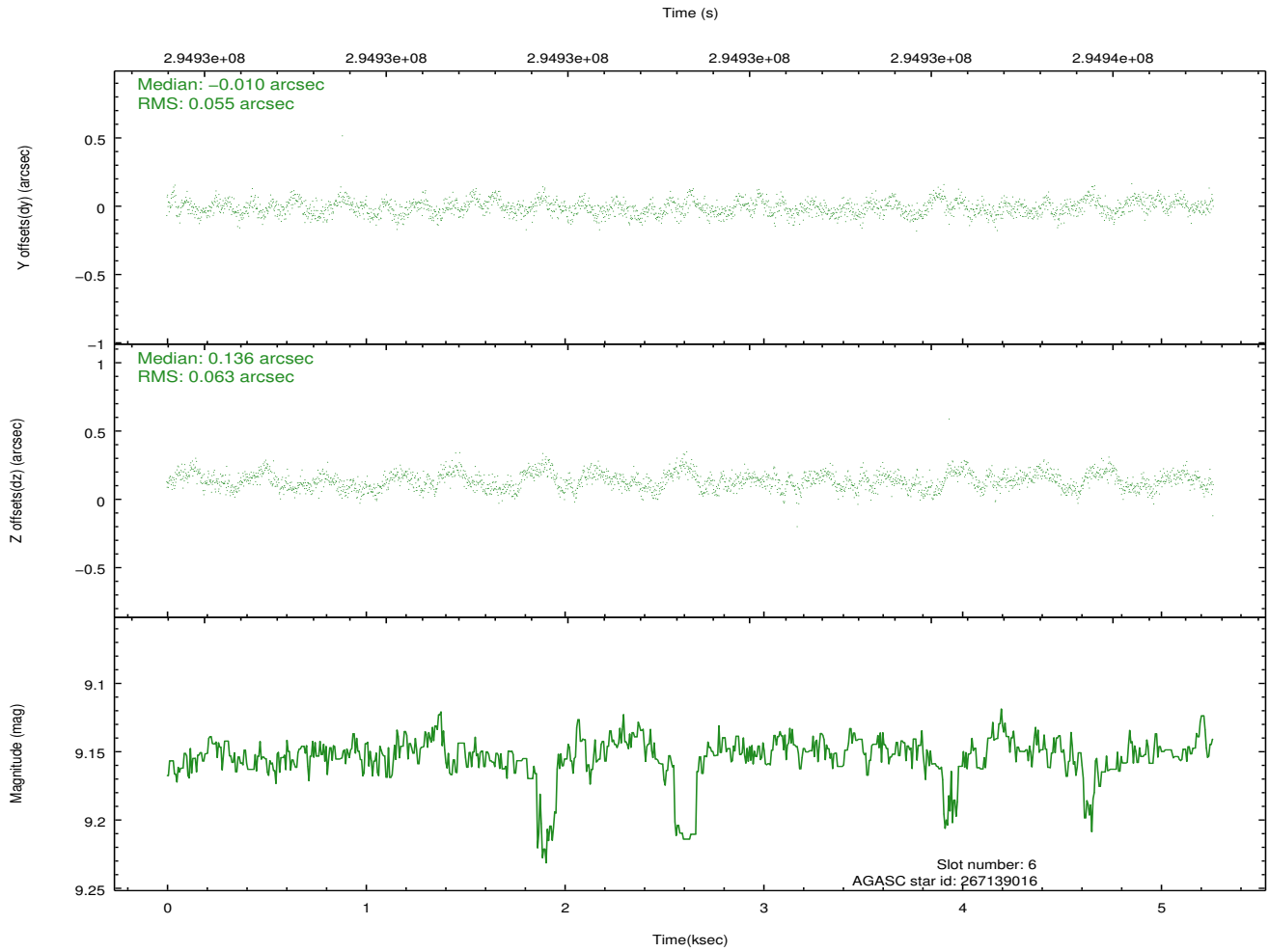
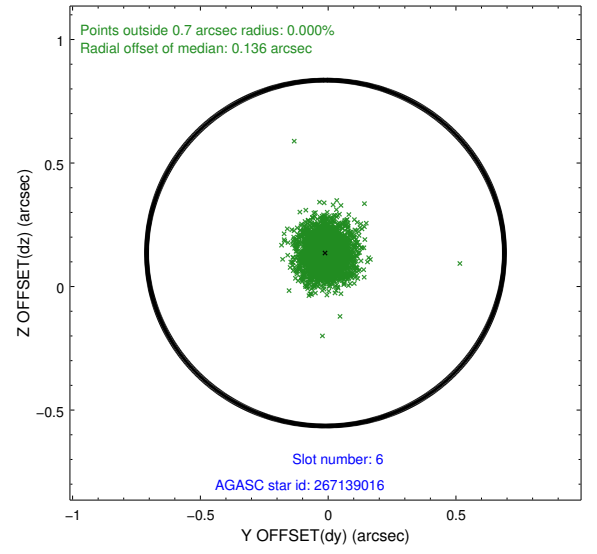
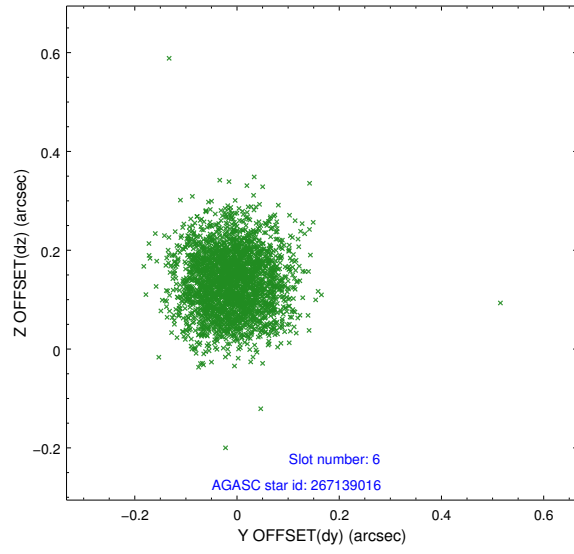
2.4.2 Slot 4



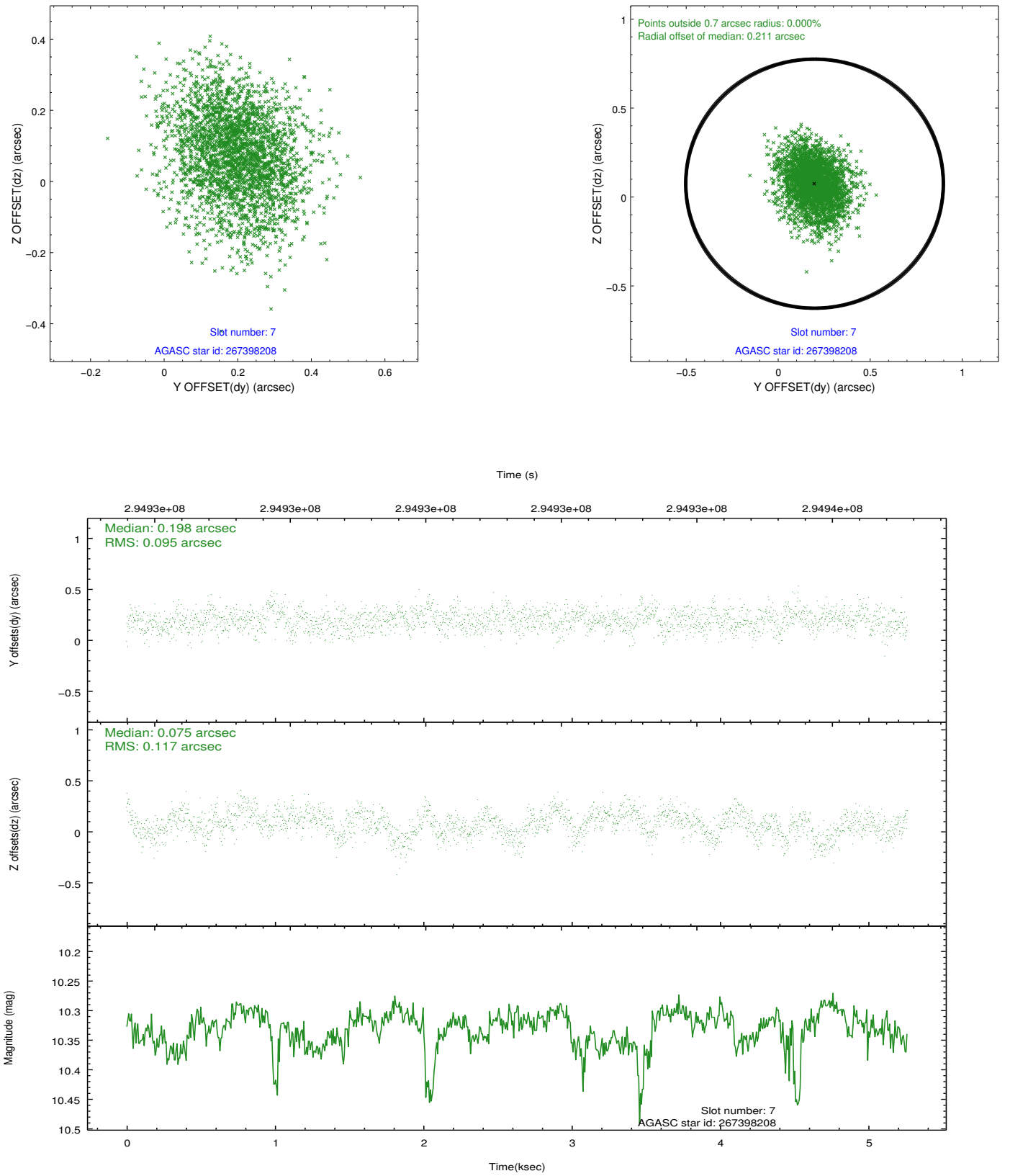
2.4.3 Slot 5



2.4.4 Slot 6

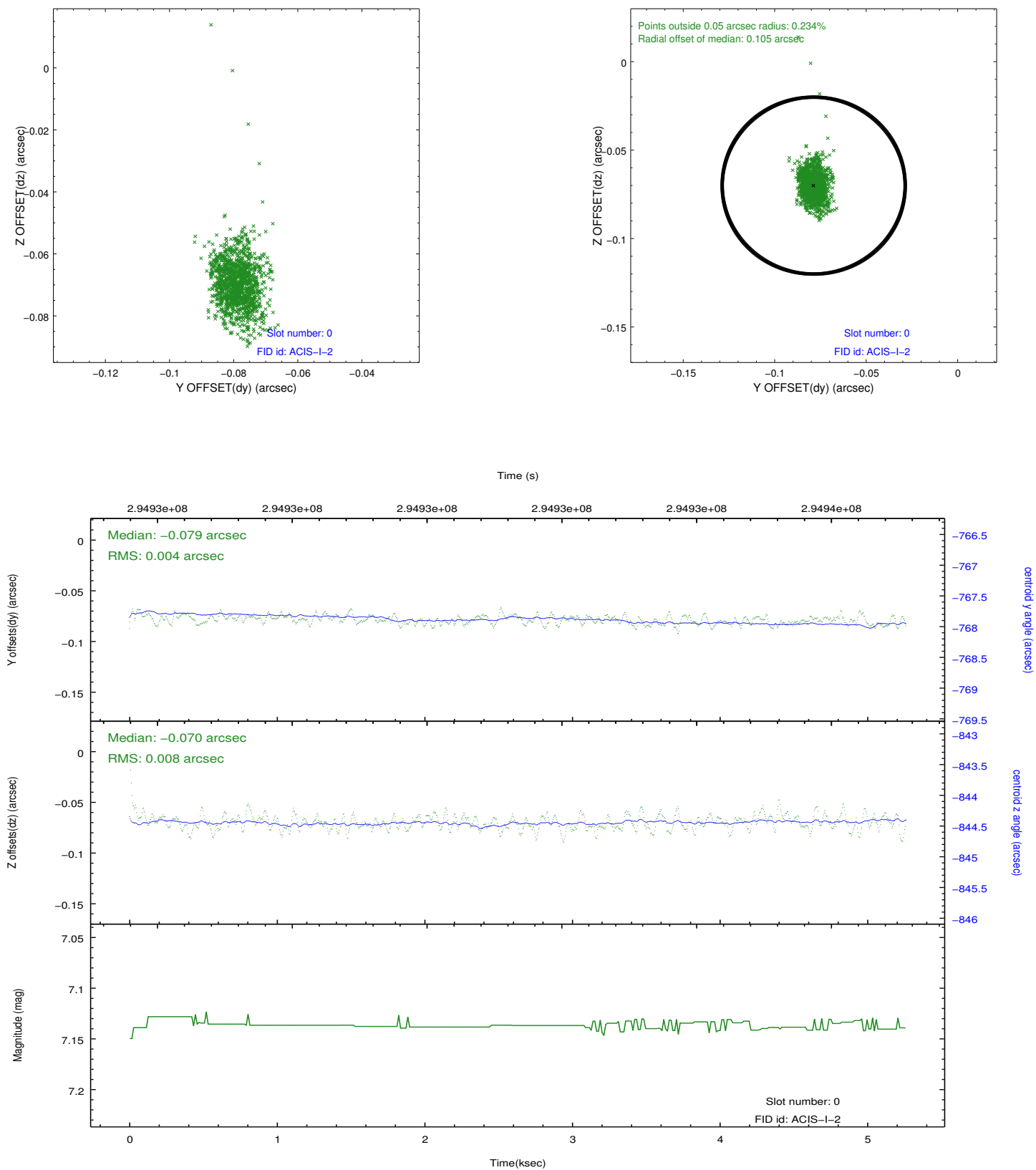


2.4.5 Slot 7

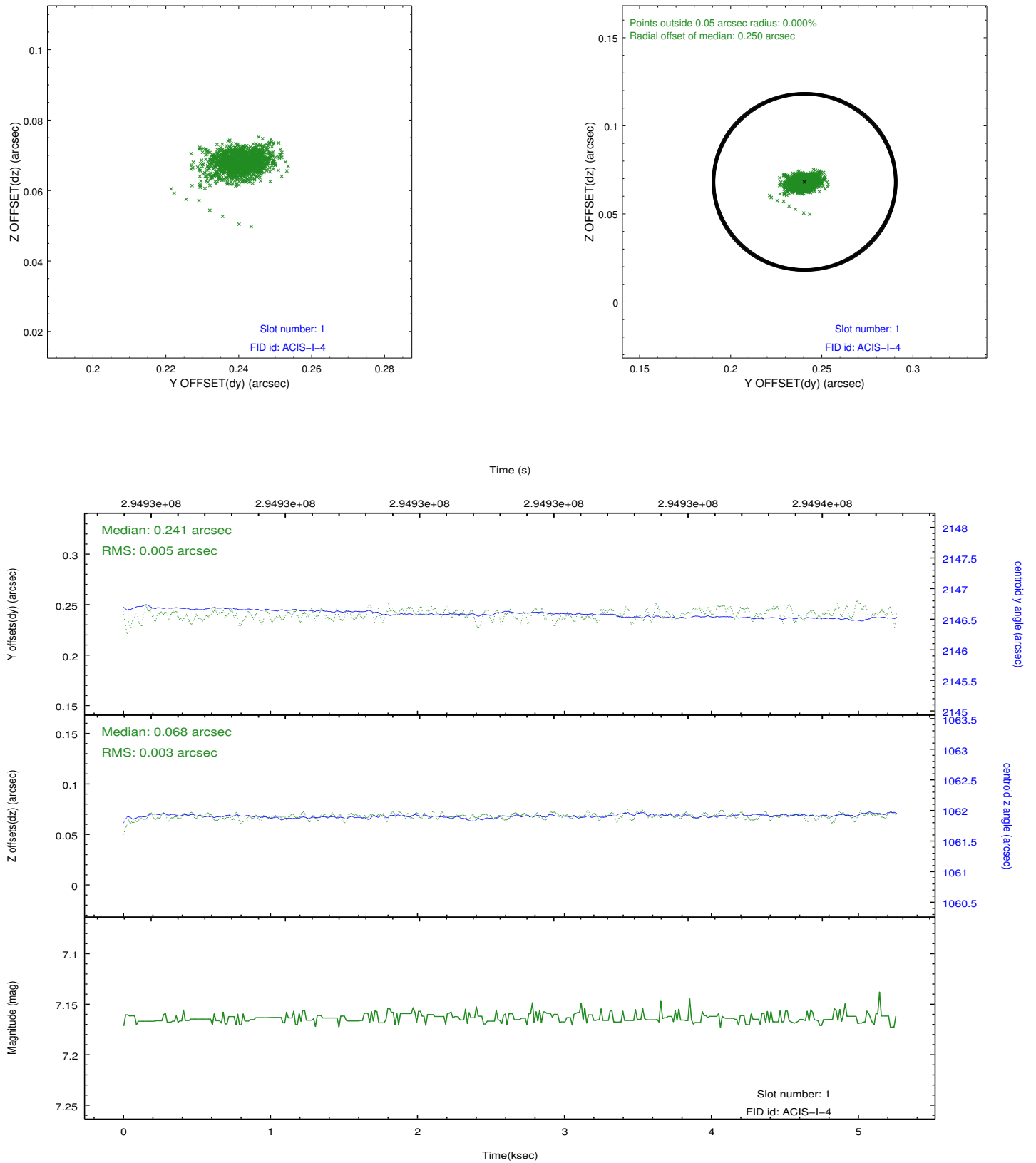


2.5 FID Slots

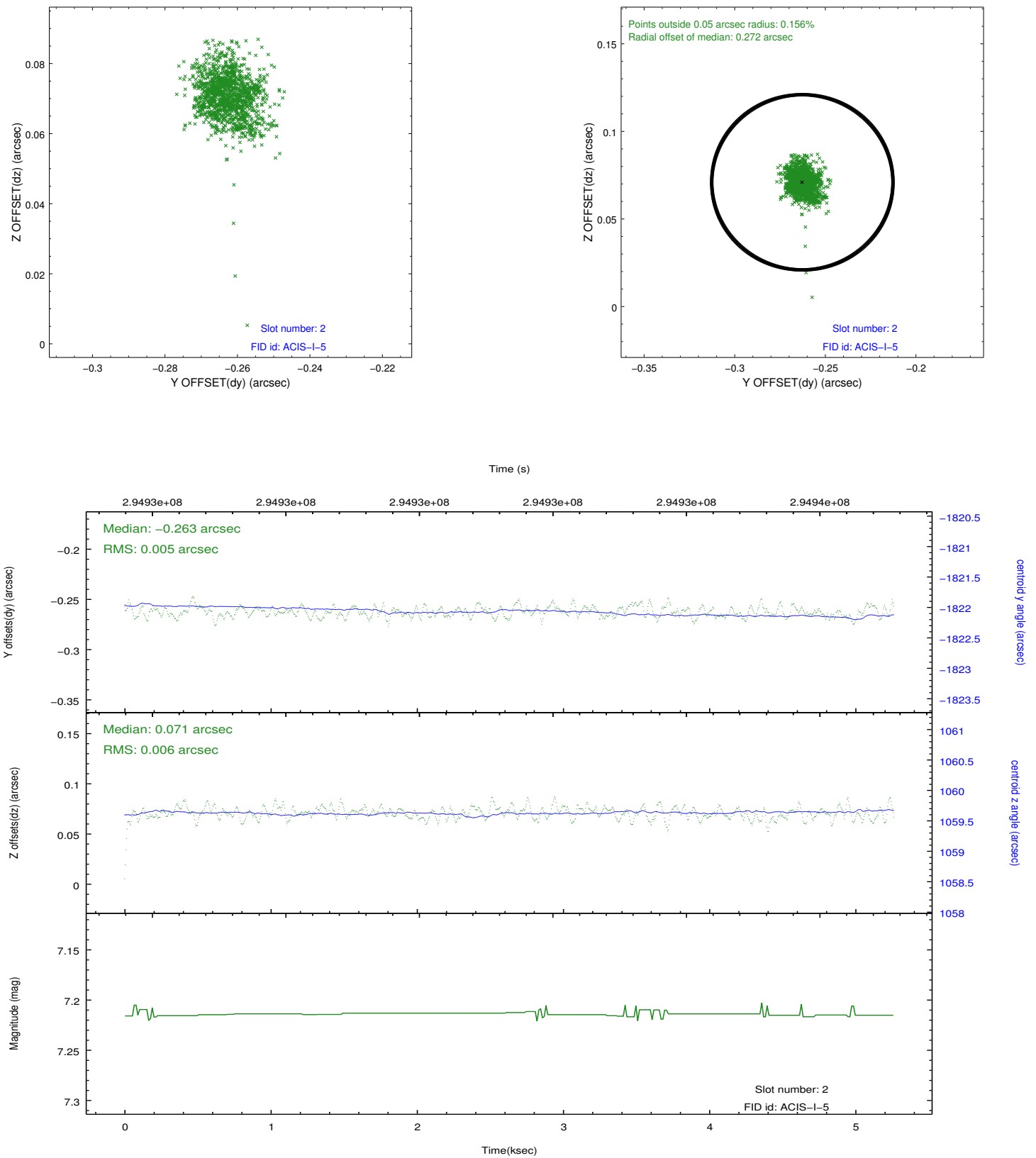
2.5.1 Slot 0



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)	2012.04.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.05920003

A.2 Comments

A spatial region of the original bias map for CCD = 0 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 = 0 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:

(239.53622,27.39124), (239.53503,27.38843), (239.58709,27.37115), (239.59144,27.37291)