

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 11238 - L2 Version 3
Chandra X-Ray Center

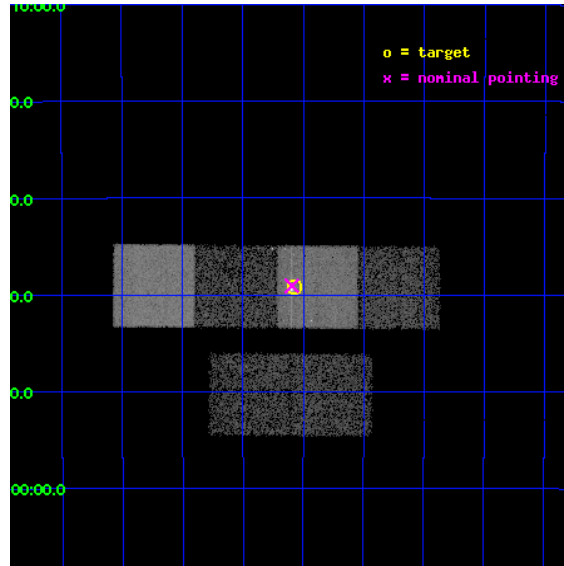
L2 Processing Date : Jul 9 2012

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

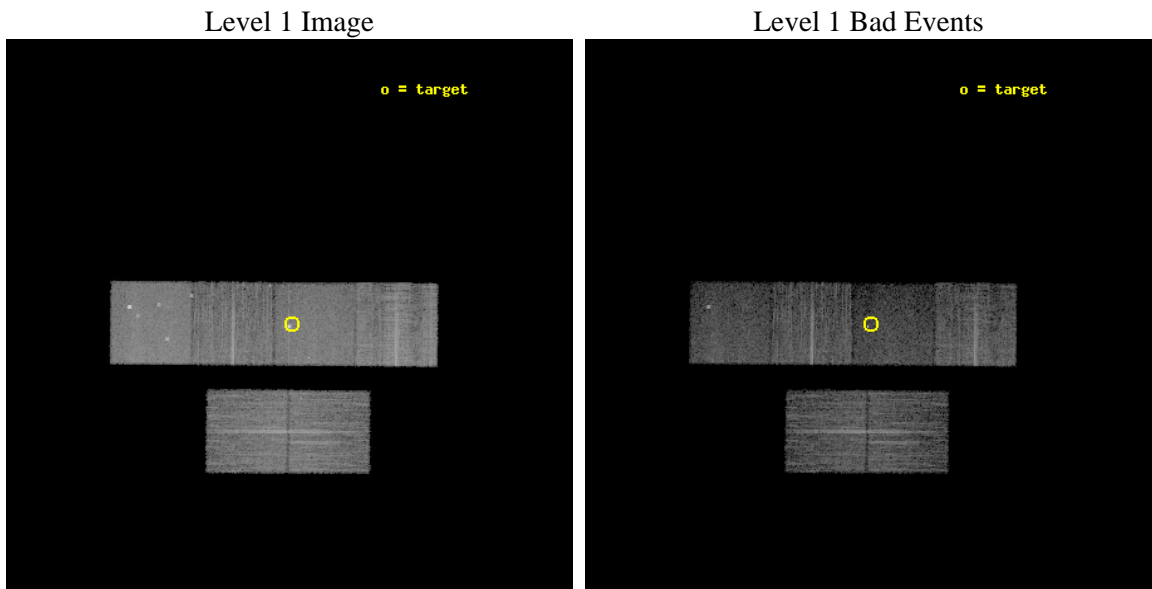
seq_num	501323	Sequence number
obs_id	11238	Observation id
title	Chandra Observations of New X-ray Supernovae	Proposal title
observer	Prof. David Pooley	Principal investigator
object	SN 2010jr	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	79.893625	Observer's specified target RA [deg]
dec_targ	-32.654056	Observer's specified target Dec [deg]
ra_nom	79.898533172446	Nominal RA [deg]
dec_nom	-32.651414807442	Nominal Dec [deg]
roll_nom	0.41116612386875	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9550.8930182457	Sum of GTIs [s]
livetime	9429.9538599913	Livetime [s]
ontime2	9550.934058249	Sum of GTIs [s]
ontime3	9550.7698982358	Sum of GTIs [s]
ontime5	9550.8519782424	Sum of GTIs [s]
ontime6	9547.5699278116	Sum of GTIs [s]
ontime7	9550.8930182457	Sum of GTIs [s]
ontime8	9550.7288582325	Sum of GTIs [s]
l2events	103826	Number of level 2 events



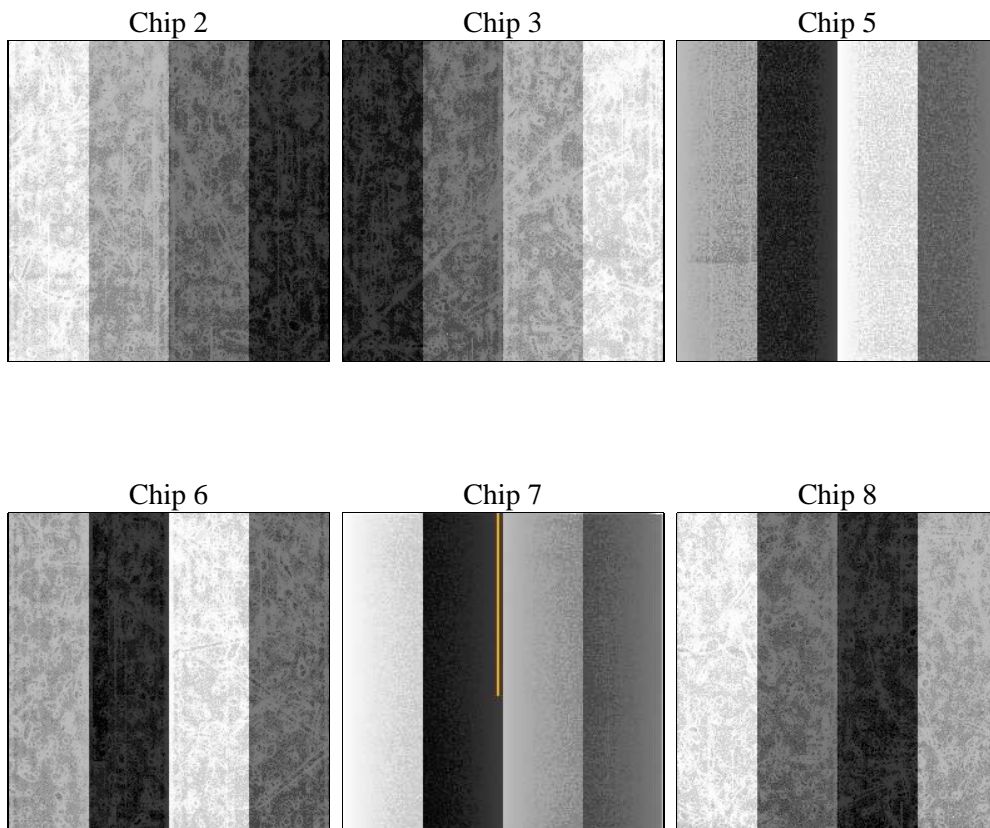
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9550.8930182457	Sum of GTIs [s]
caldbver	4.5.0	 	ontime2	9550.934058249	Sum of GTIs [s]
date	2012-07-09T13:46:21	Date and time of file creation	ontime3	9550.7698982358	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	9550.8519782424	Sum of GTIs [s]
			ontime6	9547.5699278116	Sum of GTIs [s]
			ontime7	9550.8930182457	Sum of GTIs [s]
			ontime8	9550.7288582325	Sum of GTIs [s]
			l1events	436264	Number of level 1 events

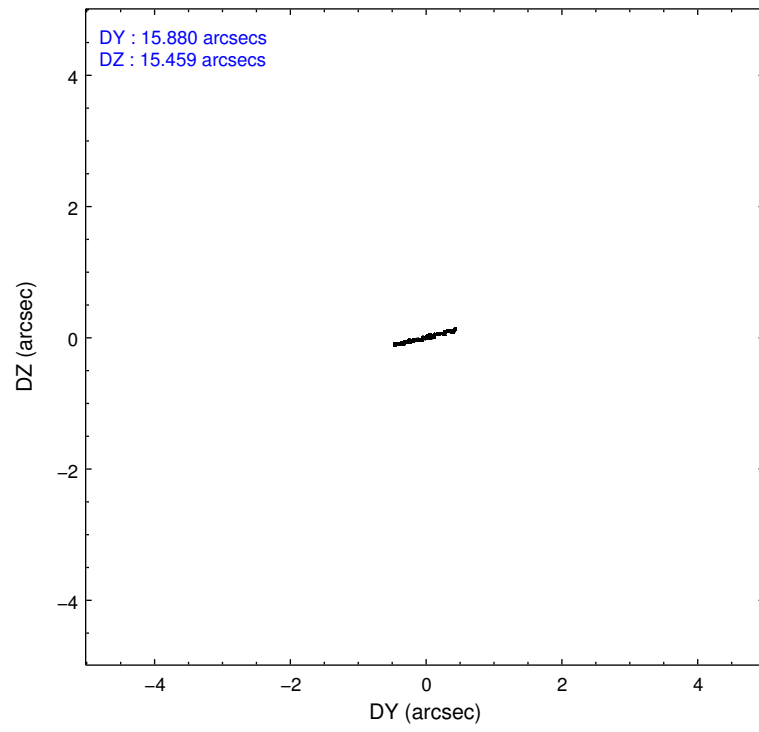
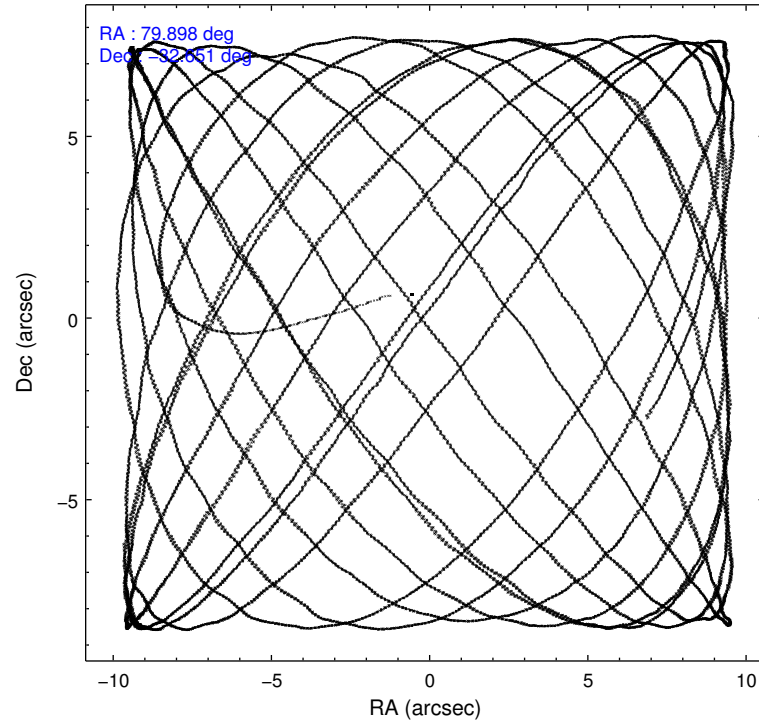
2.1.4 Events

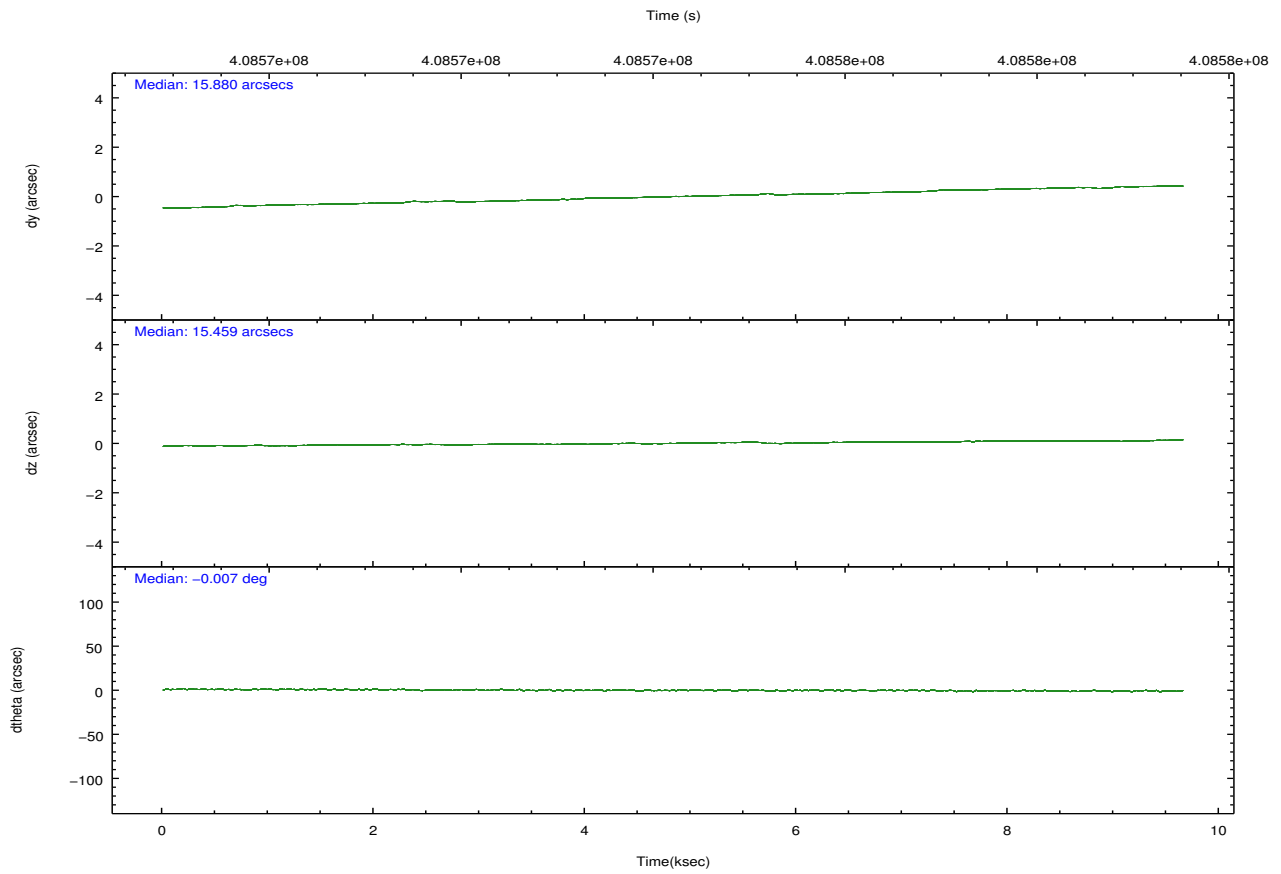
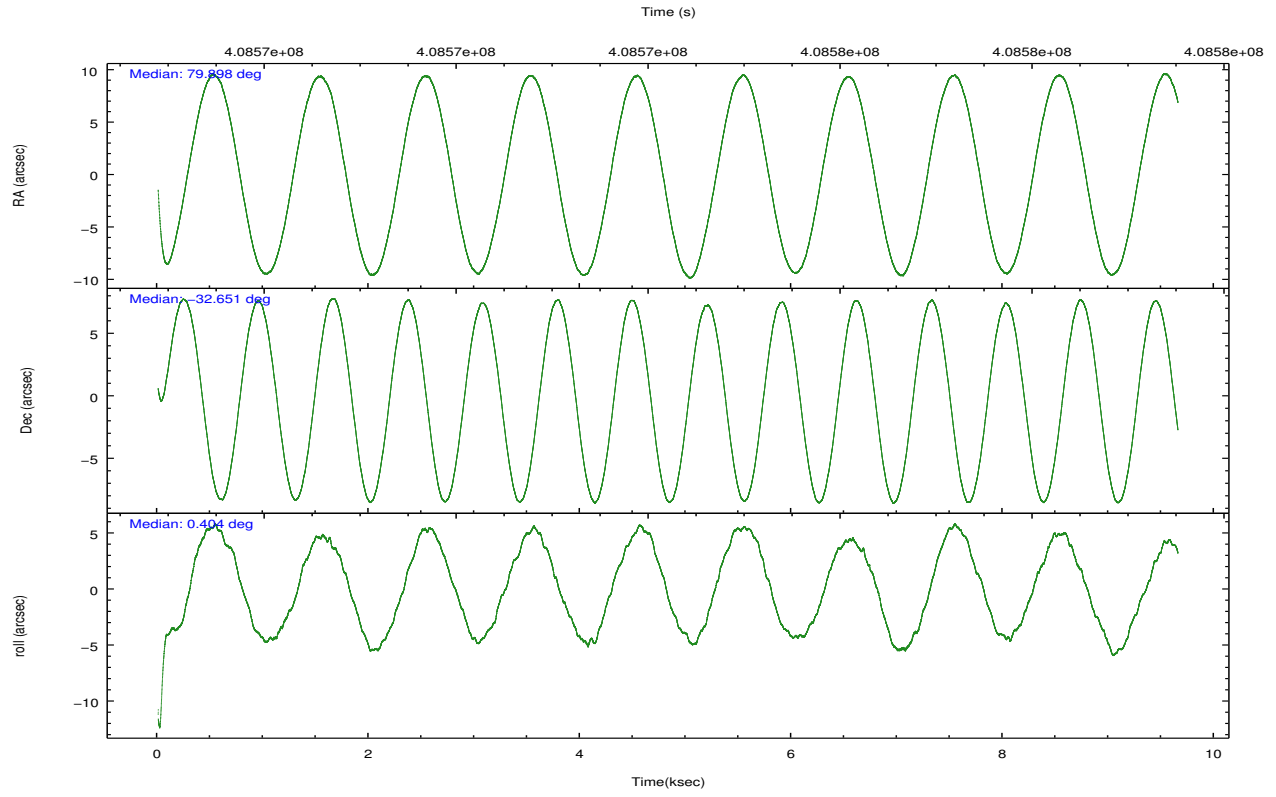
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	65448	61676	89807	62534	72514	84285	grade 0 events	2563	2402	5370	2787	4774	6634
rejected events	58446	55221	42202	55230	35137	60881		3%	3%	5%	4%	6%	7%
rejected %	89%	89%	46%	88%	48%	72%	grade 1 events	37	32	238	31	197	73
								0%	0%	0%	0%	0%	0%
							grade 2 events	1770	1400	15125	1580	8223	5396
								2%	2%	16%	2%	11%	6%
							grade 3 events	661	687	1863	747	3490	2637
								1%	1%	2%	1%	4%	3%
							grade 4 events	712	705	1771	709	3457	2446
								1%	1%	1%	1%	4%	2%
							grade 5 events	2172	2319	6878	2443	7396	3771
								3%	3%	7%	3%	10%	4%
							grade 6 events	1300	1263	23500	1483	17448	6316
								1%	2%	26%	2%	24%	7%
							grade 7 events	56233	52868	35062	52754	27529	57012
								85%	85%	39%	84%	37%	67%

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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	79.870729	79.89853317244648	CCD I2 on	O1	Y
[deg] Pointing Dec	-32.665642	-32.65141480744227	CCD I3 on	O2	Y
[deg] Pointing Roll	0.239552	0.4111661238687537	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	Y	Y
[s] Observation start time (MET)	408569541.184000	408568115.97445	CCD S5 on	N	N
Observation start date	2010-12-12T19:31:15	2010-12-12T19:08:35	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	408579041.184000	408579642.10005	On-chip summing requested	N	N
Observation end date	2010-12-12T22:09:35	2010-12-12T22:20:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



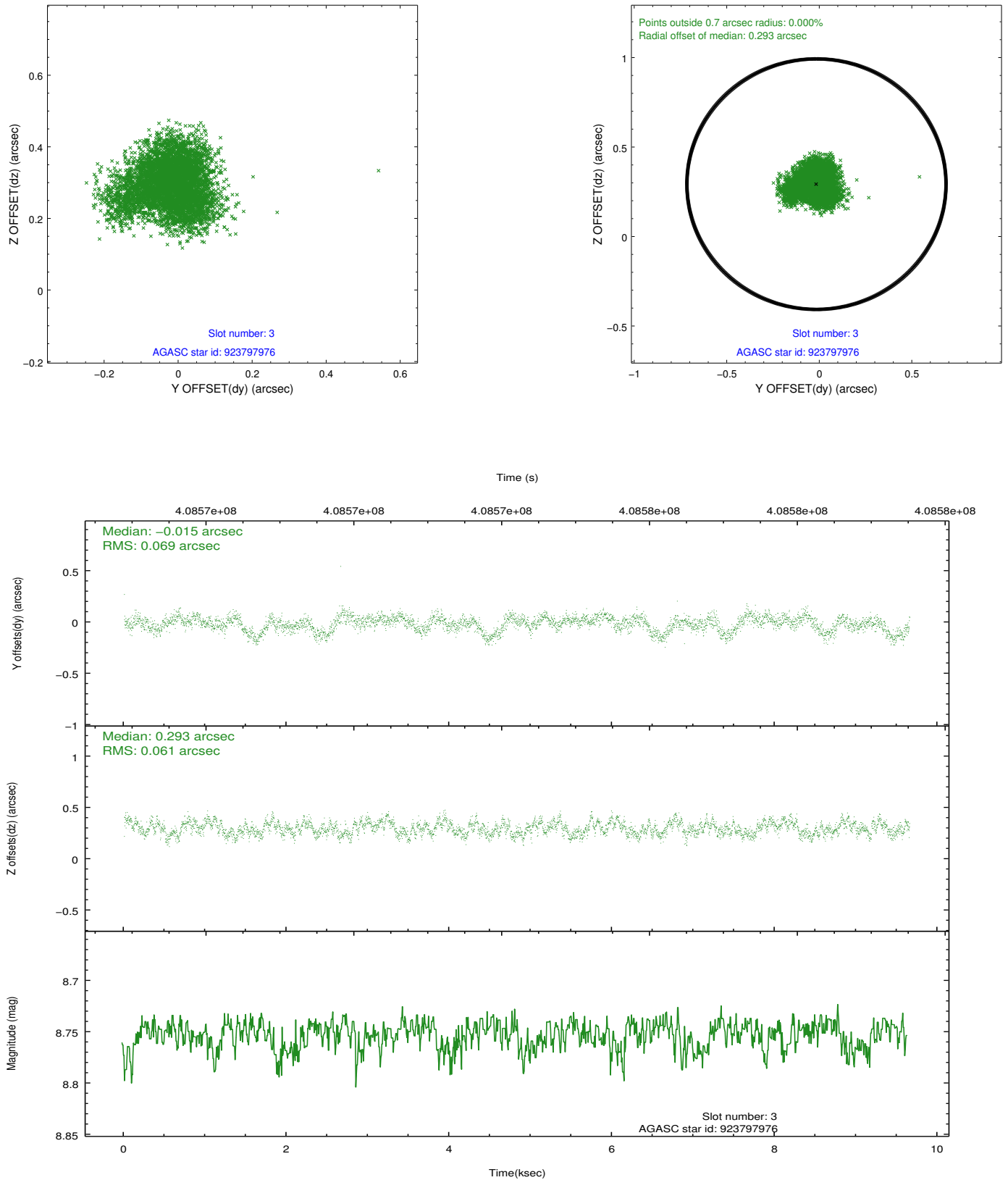


Slot Statistics

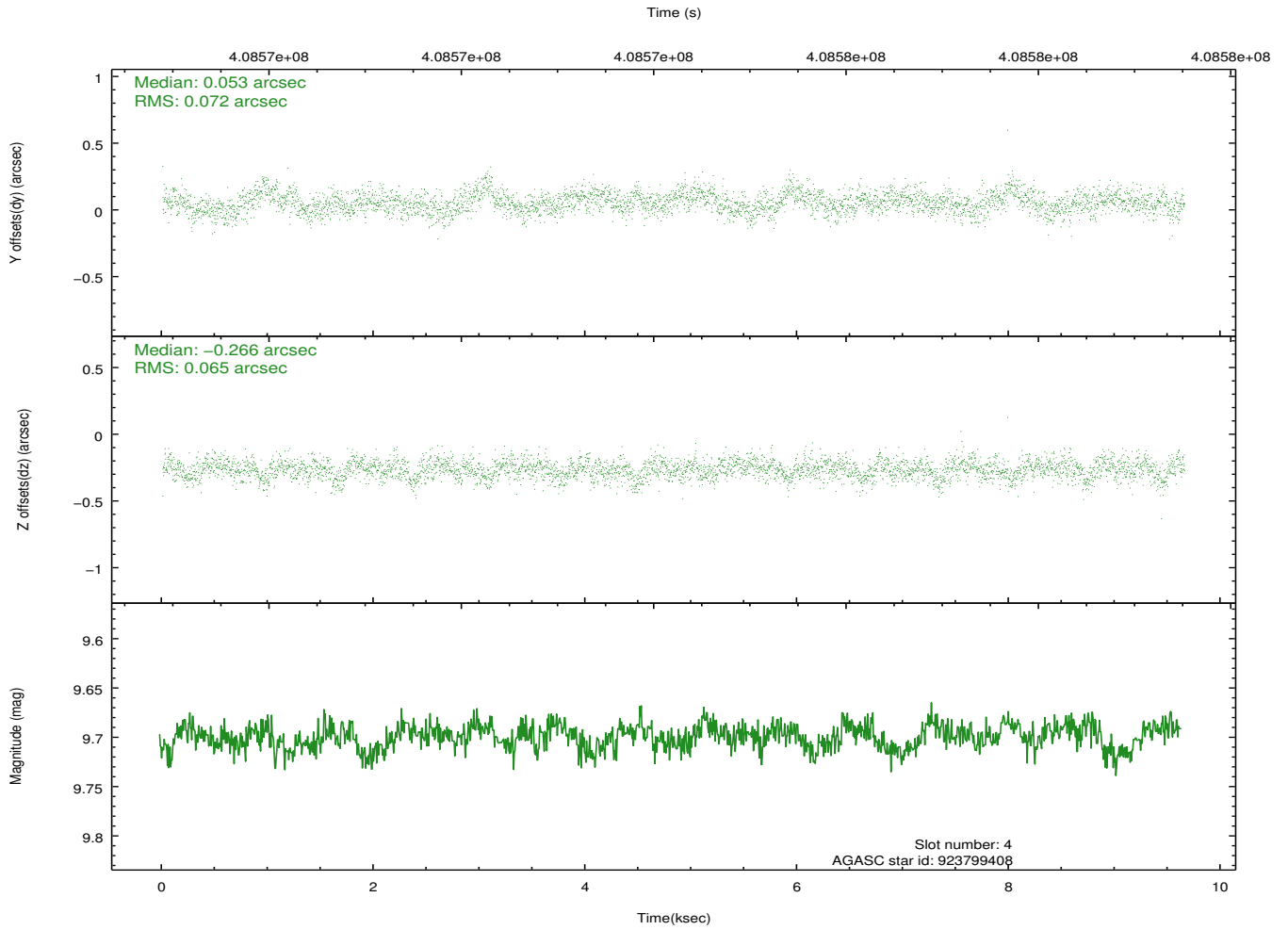
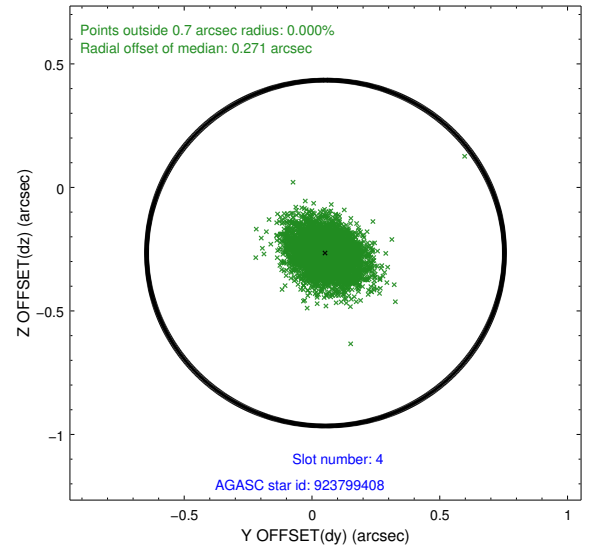
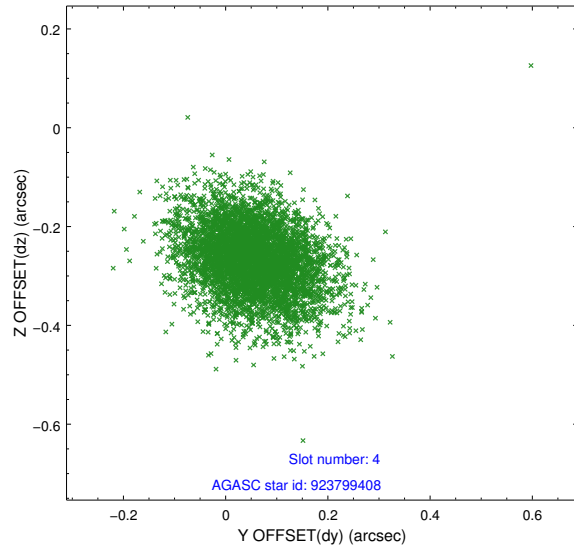
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.00	2353	0.054	-0.061	0.012	0.022	0.000000	0.000000	927.26	-1732.53
1	FID	ACIS-S-5	7.05	2353	-0.094	0.031	0.014	0.026	0.000000	0.000000	-1821.62	164.50
2	FID	ACIS-S-6	7.16	2354	0.022	0.042	0.017	0.025	0.000000	0.000000	392.13	809.13
3	GUIDE	923797976	8.75	4705	-0.015	0.293	0.098	0.155	79.531597	-32.443563	-1026.79	801.95
4	GUIDE	923799408	9.70	4698	0.053	-0.266	0.102	0.170	79.309484	-32.341151	-1702.19	1170.15
5	GUIDE	924192560	7.78	4709	-0.100	-0.072	0.081	0.120	80.544313	-32.539454	2045.89	439.31
6	GUIDE	924192696	9.37	4704	0.028	0.116	0.099	0.160	80.272430	-32.507931	1222.70	560.46
7	GUIDE	923797560	9.77	4699	0.039	-0.064	0.147	0.230	80.329760	-32.464335	1397.81	715.71

2.4 Star Slots

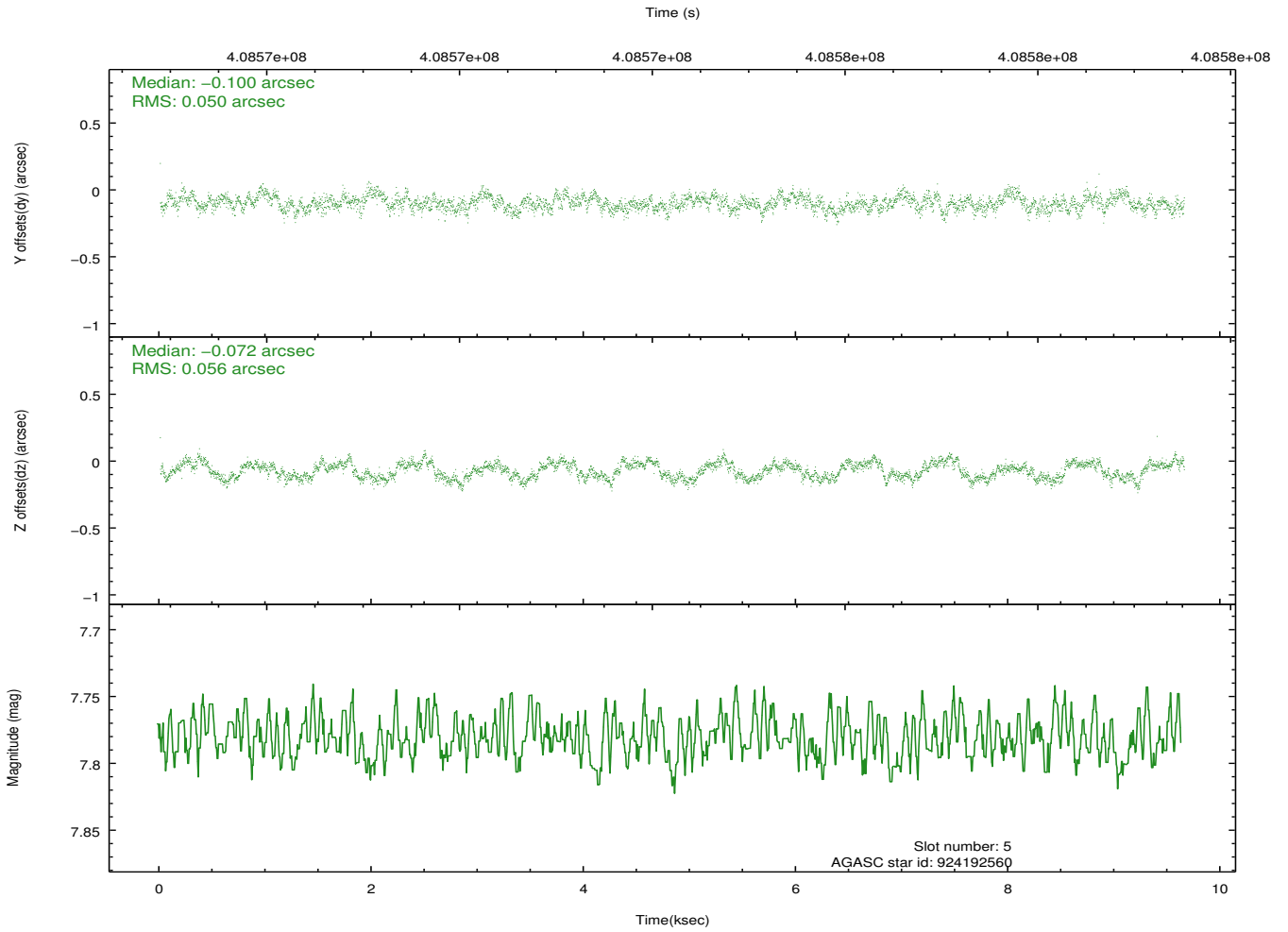
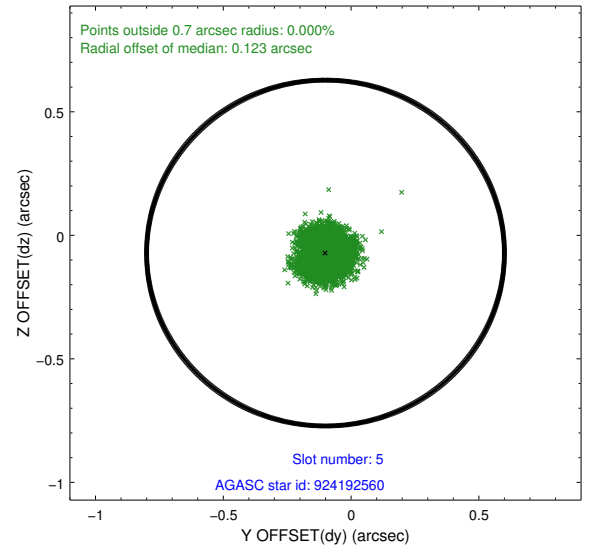
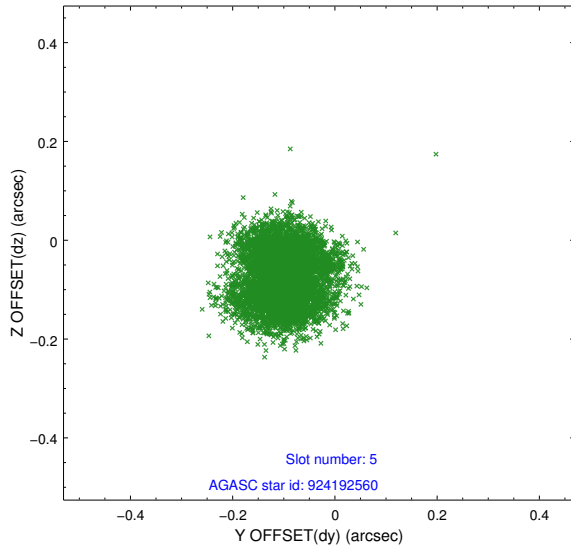
2.4.1 Slot 3



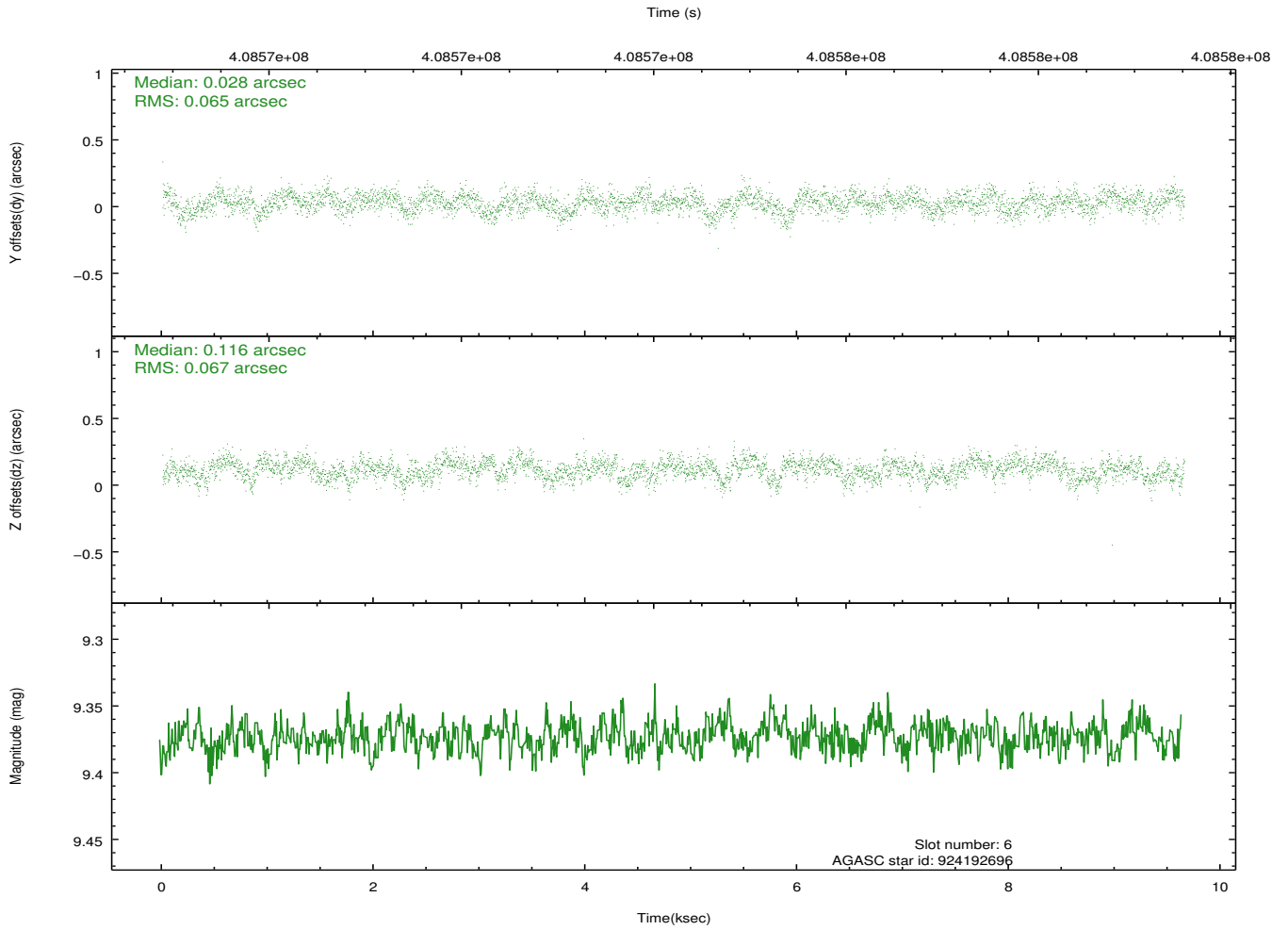
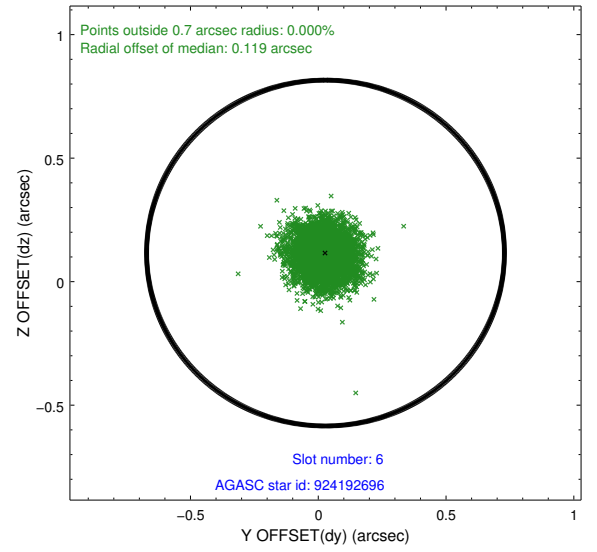
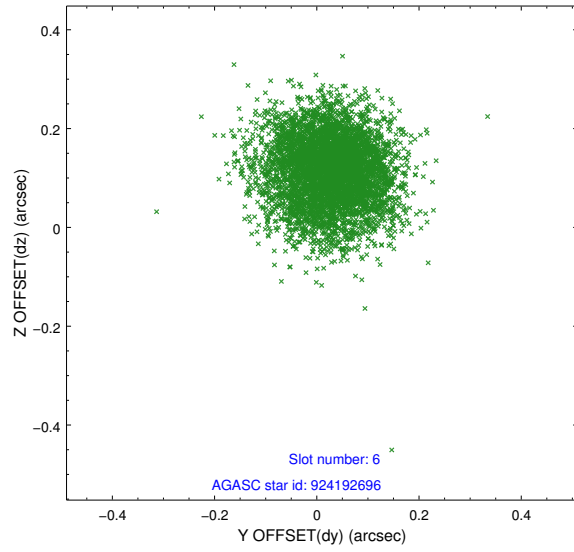
2.4.2 Slot 4



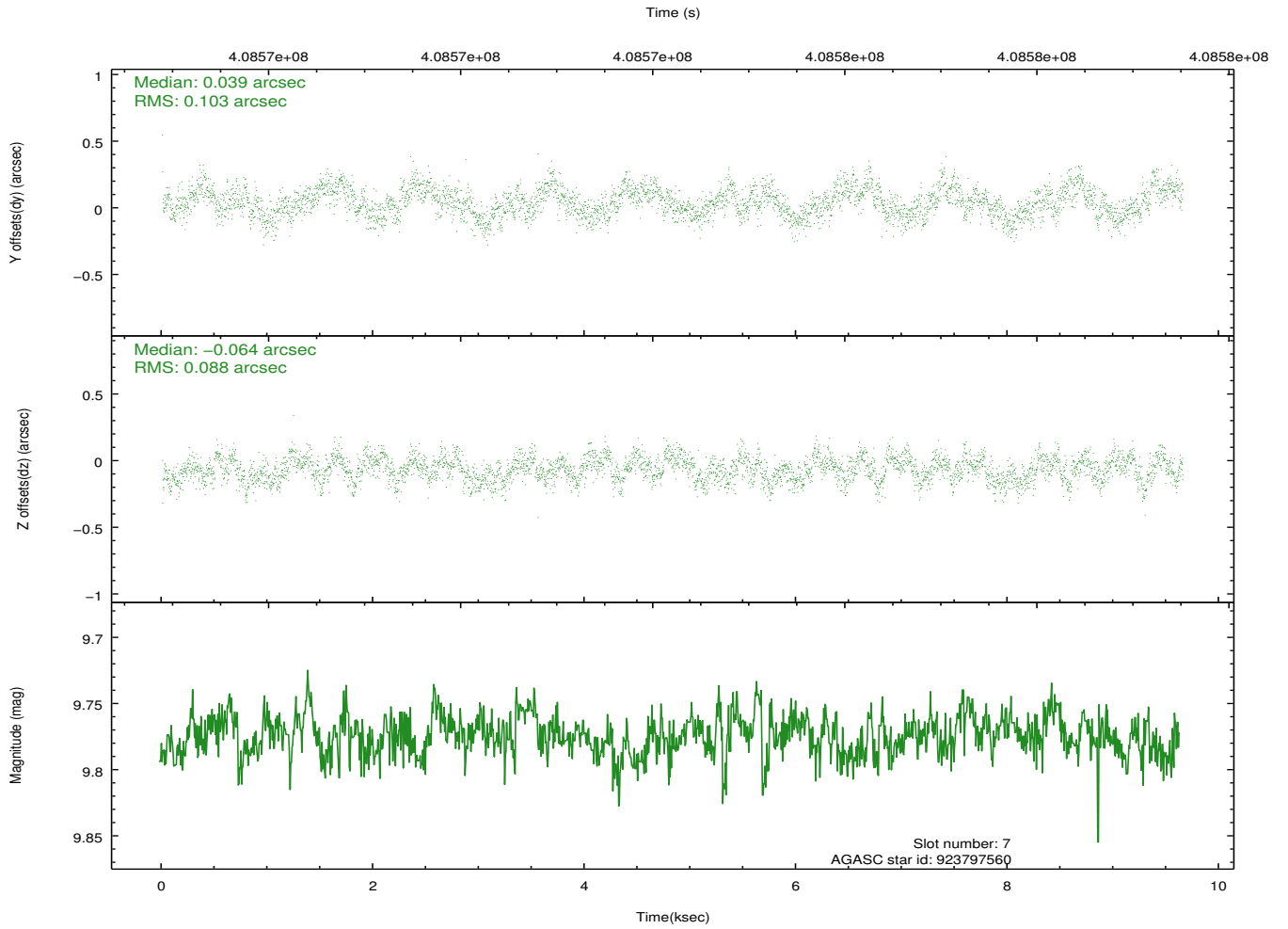
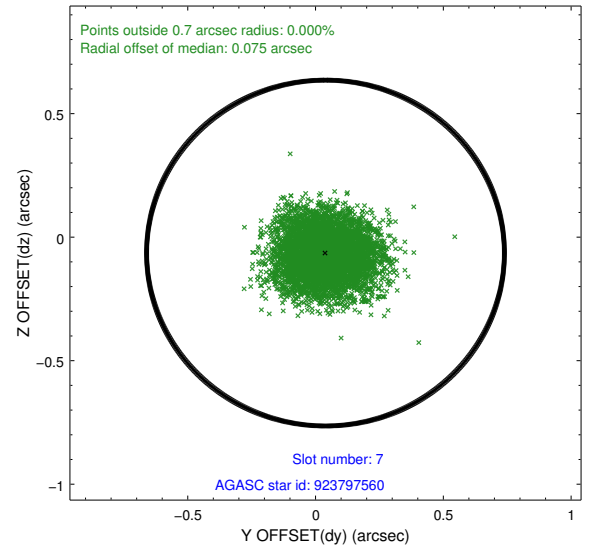
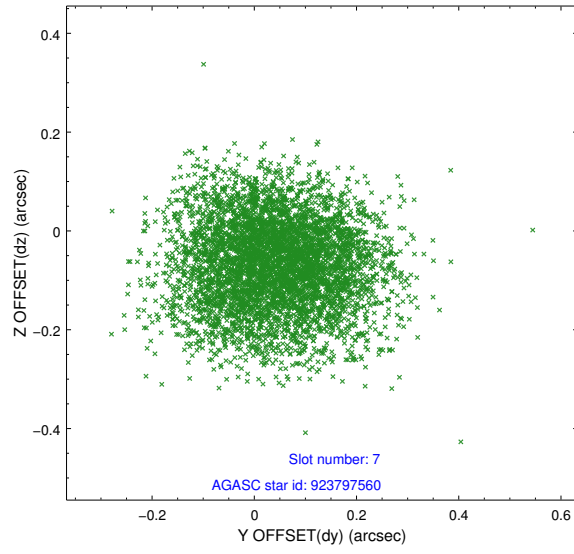
2.4.3 Slot 5



2.4.4 Slot 6

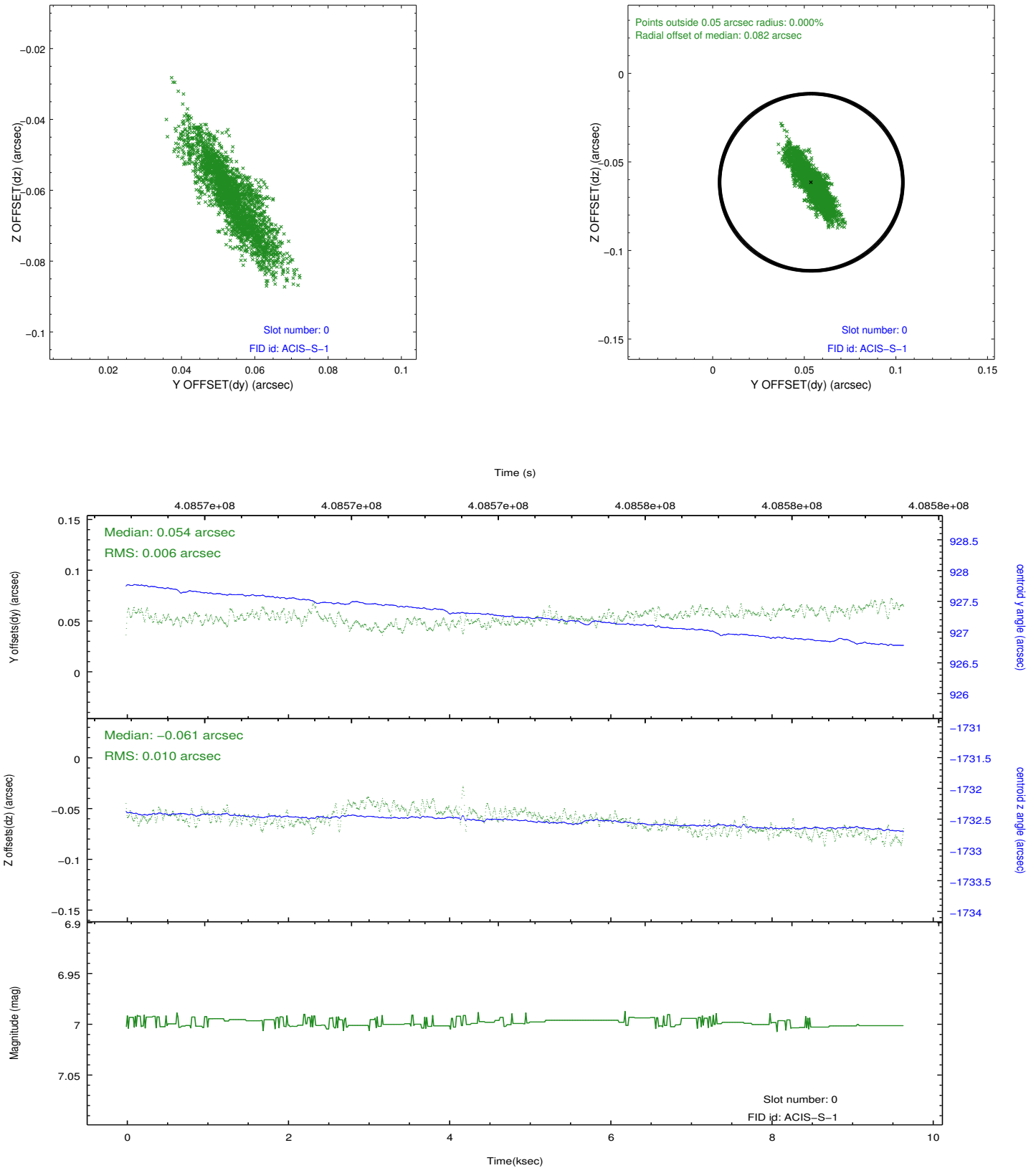


2.4.5 Slot 7

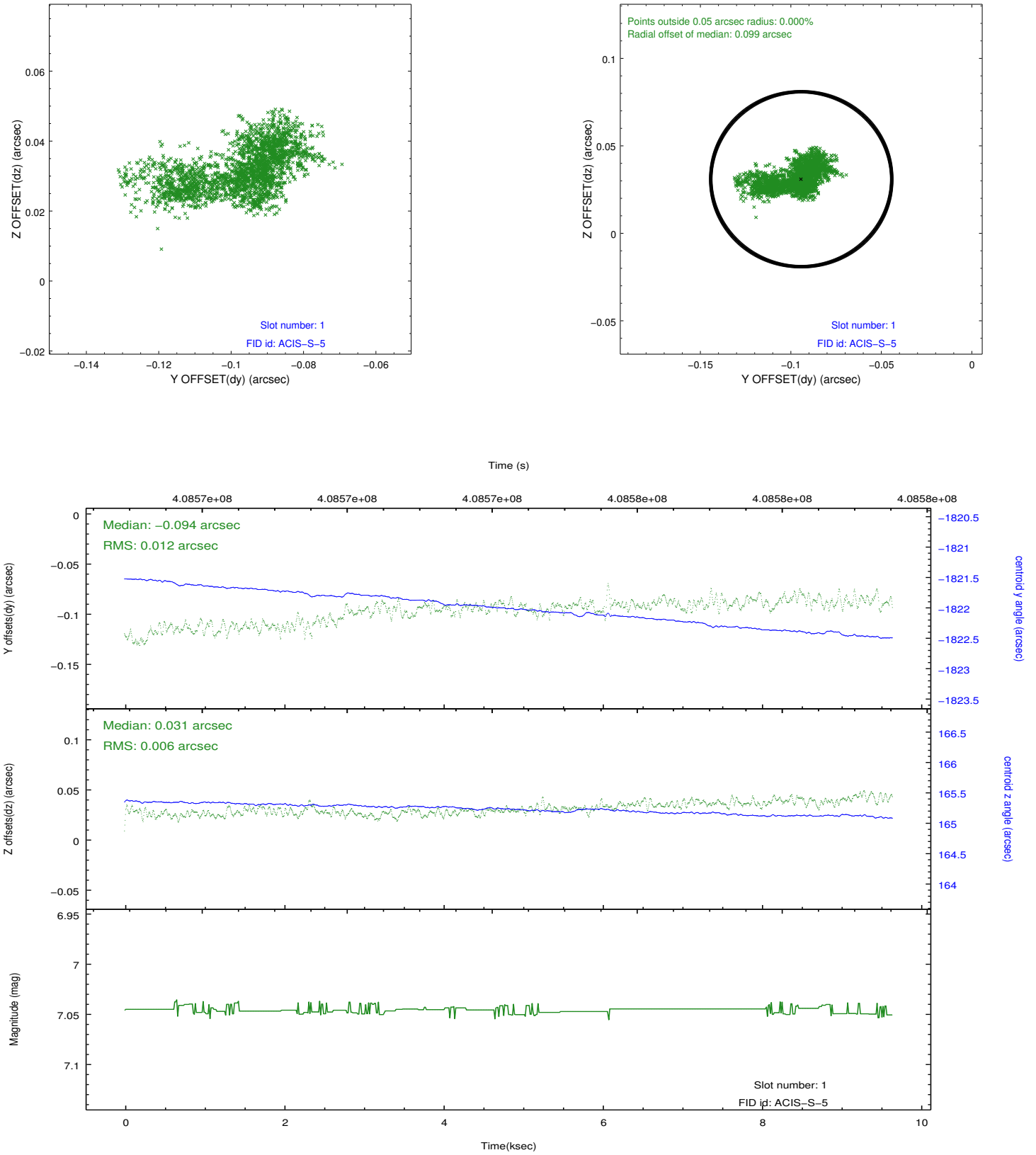


2.5 FID Slots

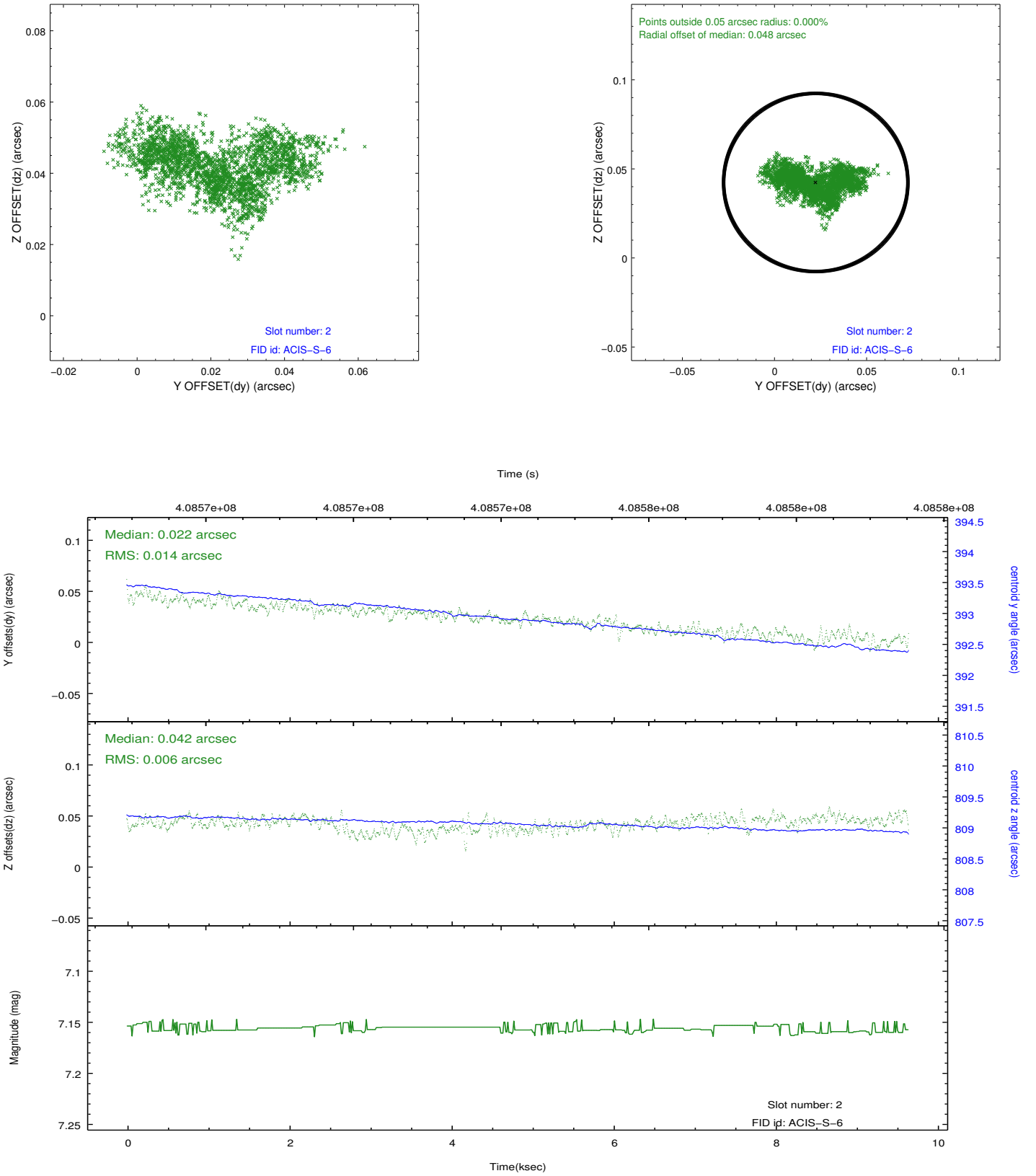
2.5.1 Slot 0



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)	2012.07.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.5508930135965

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:
(80.05423,-32.61386),(80.04661,-32.61392),(80.04783,-32.72187),(80.05546,-32.72181)