

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16295 - L2 Version 2
Chandra X-Ray Center

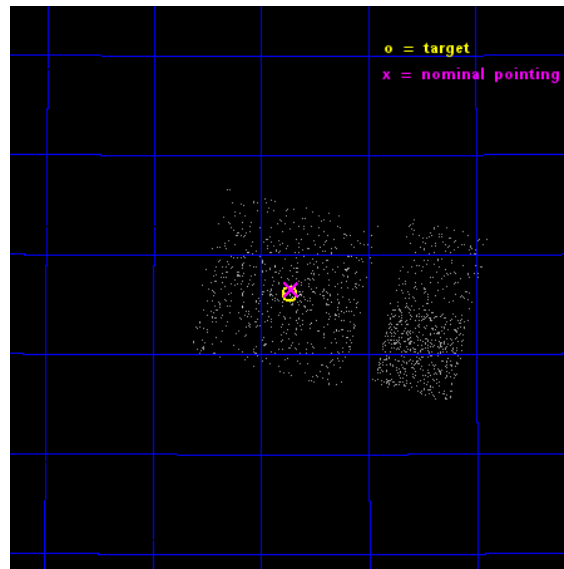
L2 Processing Date : Dec 11 2014

Contents

1	Front	2
2	OBI Primary	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
3	OBI Secondary	17
3.1	OBI	17
3.1.1	Images	17
3.1.2	Bias	17
3.1.3	Parameters	18
3.1.4	Events	18
A	Summary	19
A.1	Status	19
A.2	Comments	19

1 Front

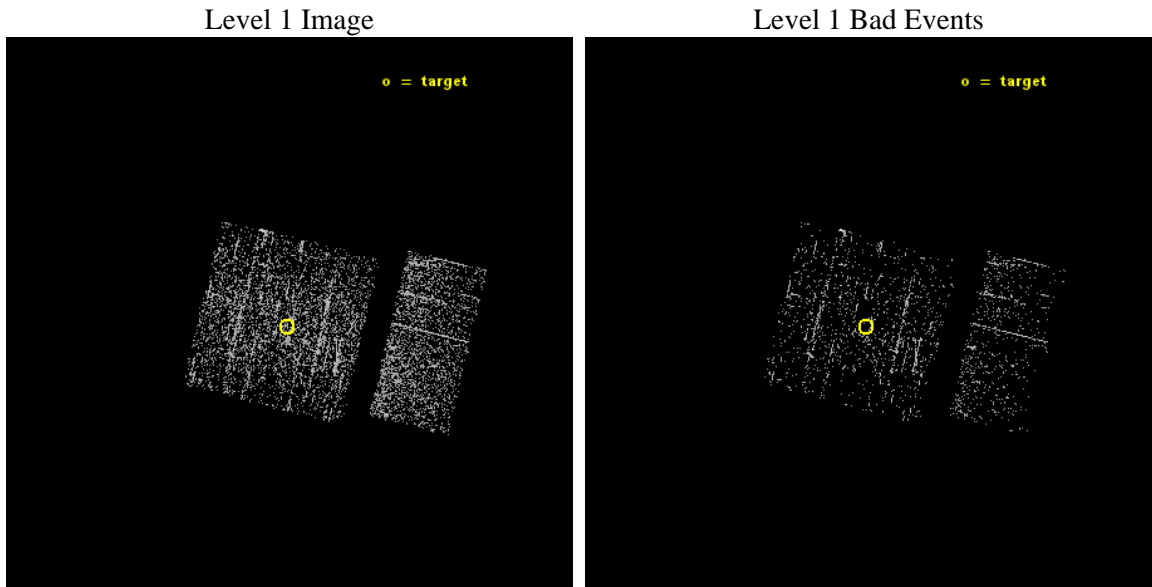
seq_num	601139	Sequence number
obs_id	16295	Observation id
title	M31 BHXNe	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	M31 BHXNe	Source name
dtcycle	0	
cycle	P	events are from which exps? P[rimary] S[econdar
ra_targ	10.685	Observer's specified target RA [deg]
dec_targ	41.268972	Observer's specified target Dec [deg]
ra_nom	10.679535036957	Nominal RA [deg]
dec_nom	41.275972896465	Nominal Dec [deg]
roll_nom	103.4354871761	Nominal Roll [deg]
revision	2	Processing version of data
ontime	926.38993442059	Sum of GTIs [s]
livetime	145.8361216606	Livetime [s]
ontime0	926.38993442059	Sum of GTIs [s]
ontime1	926.38993442059	Sum of GTIs [s]
ontime2	926.38993442059	Sum of GTIs [s]
ontime3	926.38993442059	Sum of GTIs [s]
ontime6	926.38993442059	Sum of GTIs [s]
ontime7	926.38993442059	Sum of GTIs [s]
l2events	1674	Number of level 2 events



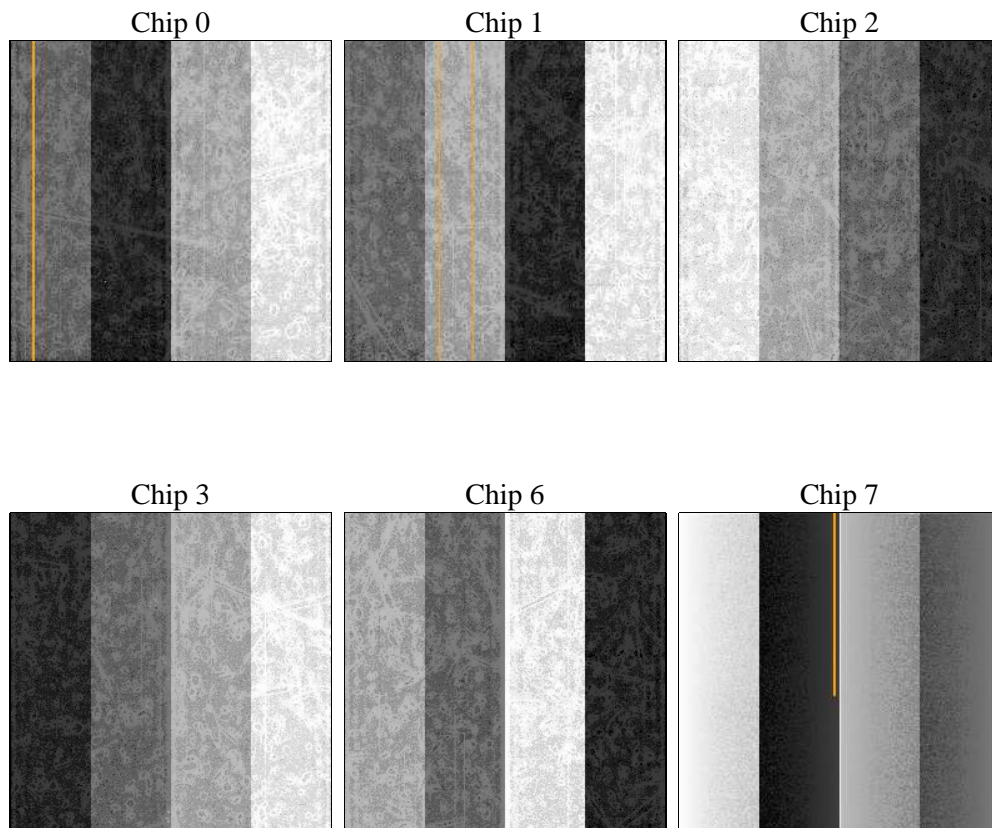
2 OBI Primary

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	10.3.1	Processing system revision	ontime	926.38993442059	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	926.38993442059	Sum of GTIs [s]
date	2014-12-12T01:57:57	Date and time of file creation	ontime1	926.38993442059	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	926.38993442059	Sum of GTIs [s]
			ontime3	926.38993442059	Sum of GTIs [s]
			ontime6	926.38993442059	Sum of GTIs [s]
			ontime7	926.38993442059	Sum of GTIs [s]
			l1events	12330	Number of level 1 events

2.1.4 Events

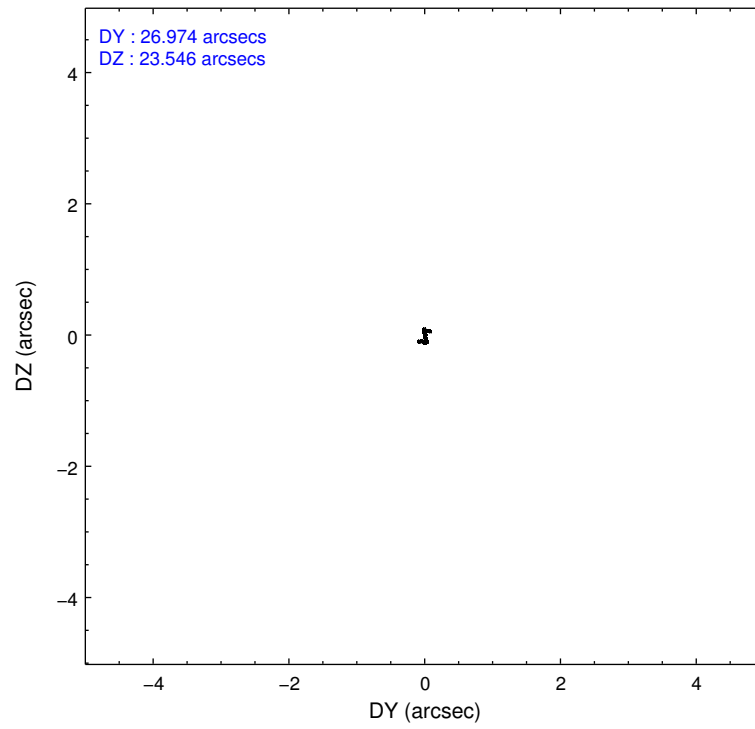
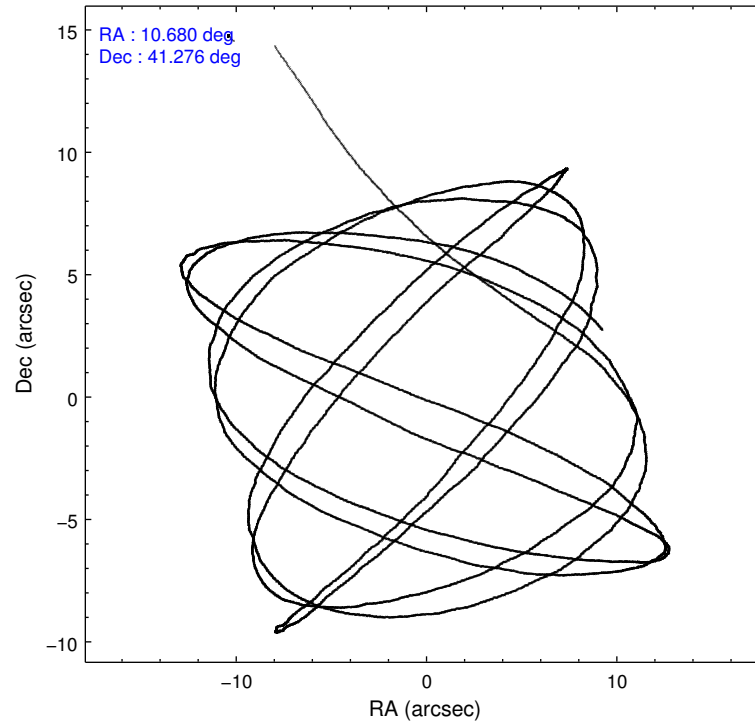
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	2035	1961	1868	2283	2103	2080
rejected events	1807	1694	1620	1940	1902	1491
rejected %	88%	86%	86%	84%	90%	71%

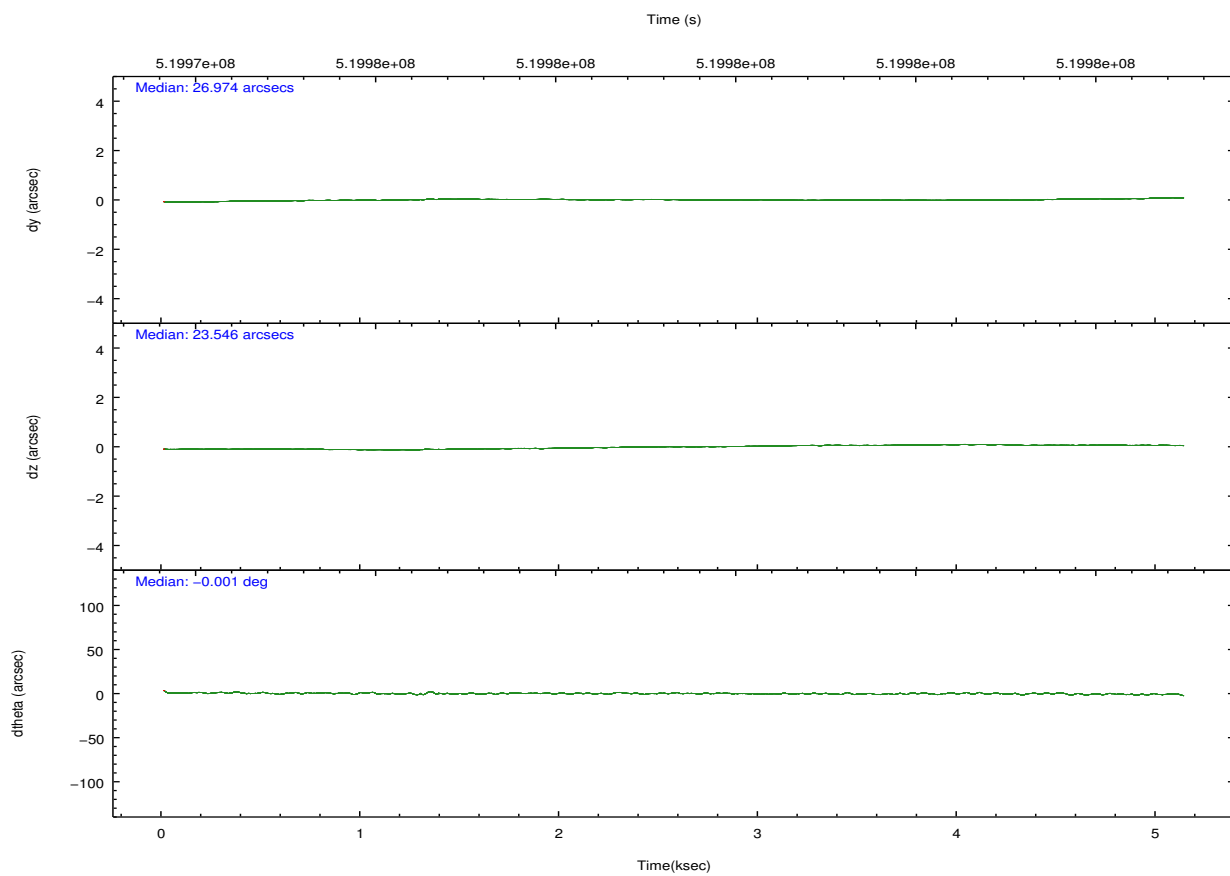
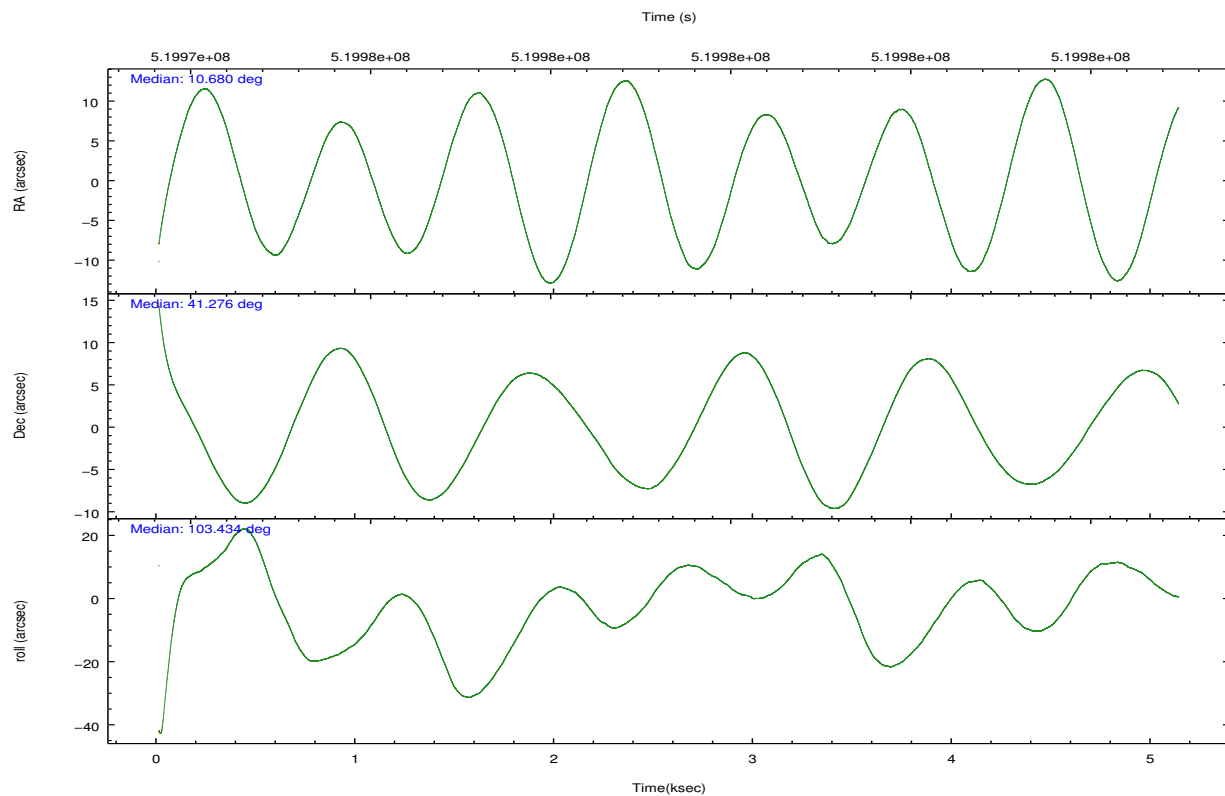
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	94	116	101	176	41	50
	4%	5%	5%	7%	1%	2%
grade 1 events	0	1	1	1	1	0
	0%	0%	0%	0%	0%	0%
grade 2 events	53	56	50	79	59	135
	2%	2%	2%	3%	2%	6%
grade 3 events	21	29	22	20	29	49
	1%	1%	1%	0%	1%	2%
grade 4 events	23	27	38	30	22	52
	1%	1%	2%	1%	1%	2%
grade 5 events	89	100	78	105	83	183
	4%	5%	4%	4%	3%	8%
grade 6 events	38	43	39	39	50	303
	1%	2%	2%	1%	2%	14%
grade 7 events	1717	1589	1539	1833	1818	1308
	84%	81%	82%	80%	86%	62%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	10.704762	10.67953503695662	CCD I2 on	Y	Y
[deg] Pointing Dec	41.256018	41.27597289646478	CCD I3 on	Y	Y
[deg] Pointing Roll	103.210342	103.4354871761022	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	519974225.184000	519972845.23627	CCD S5 on	N	N
Observation start date	2014-06-24T05:15:58	2014-06-24T04:54:05	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	519979225.184000	519980436.89919	On-chip summing requested	N	N
Observation end date	2014-06-24T06:39:18	2014-06-24T07:00:36	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	Y	Y
			[s] Primary exposure time	0.600000	0.6
			[s] Secondary exposure time	0.000000	3.2
			Duty cycle	5	5

2.3 Aspect



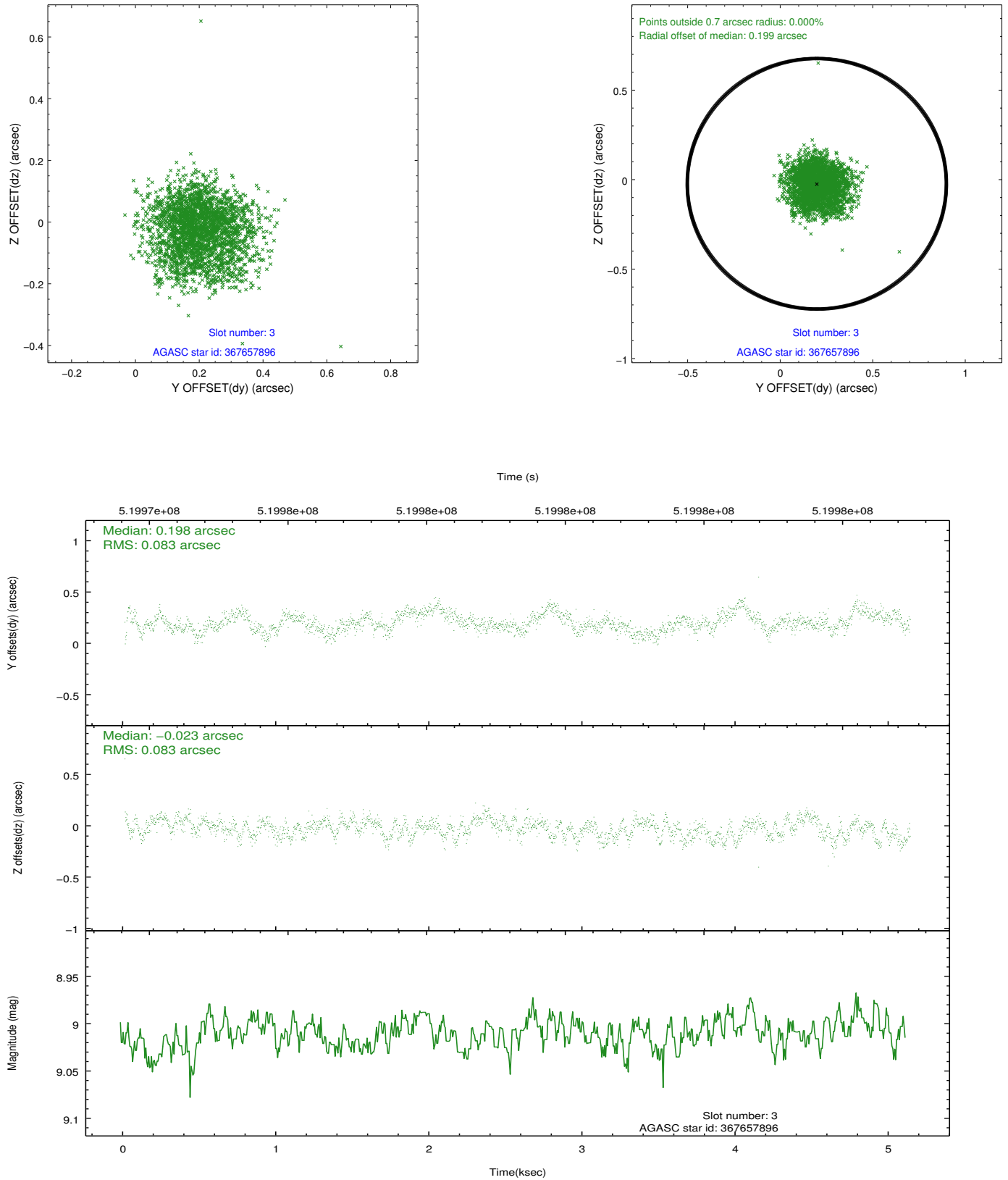


Slot Statistics

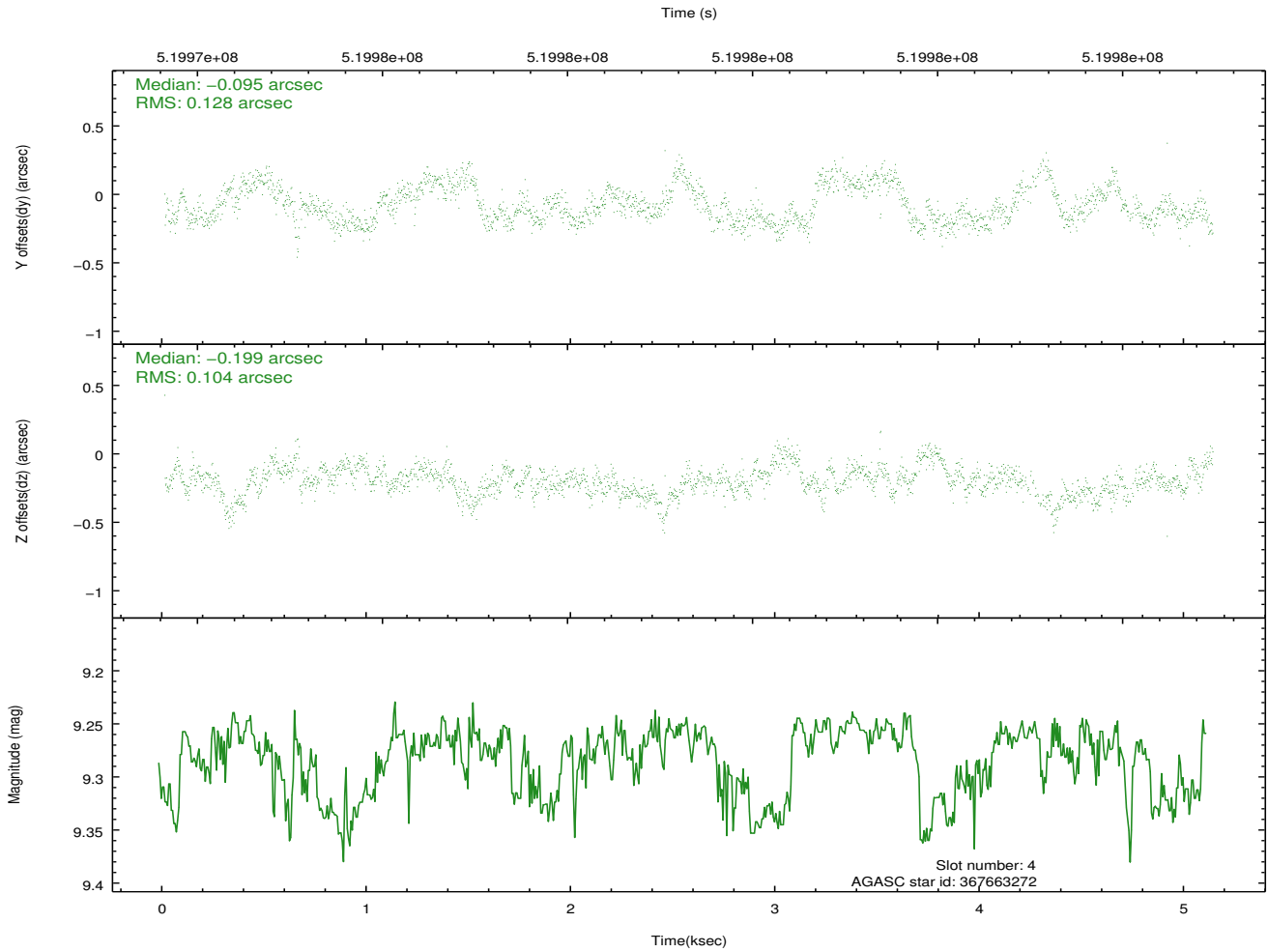
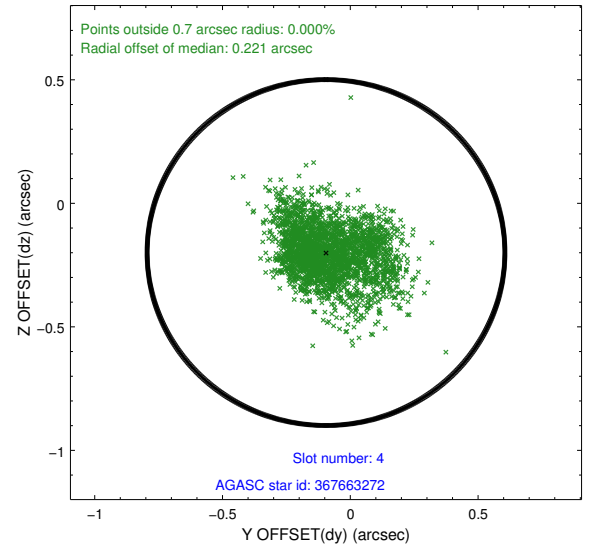
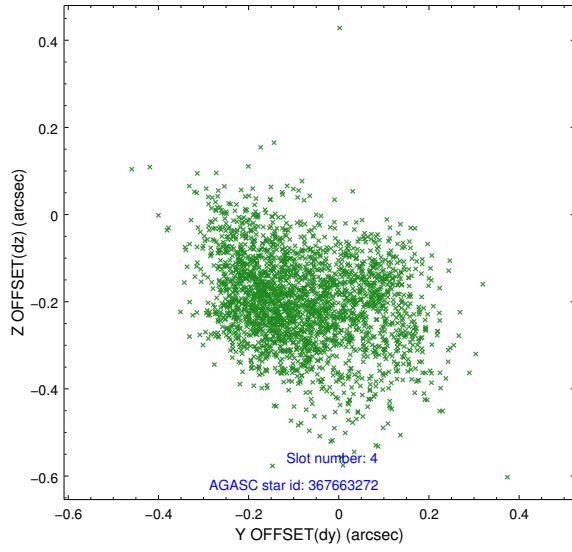
lot	status	used	id	mag	n_pts	med_dy	med_dz	drl	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-I-2	6.99	1251	-0.024	-0.050	0.008	0.014	0.000000	0.000000	-782.06	-853.75
1	FID		ACIS-I-5	7.07	1252	-0.218	0.019	0.008	0.013	0.000000	0.000000	-1836.87	1049.58
2	FID		ACIS-I-6	7.07	1252	0.148	0.100	0.006	0.010	0.000000	0.000000	376.57	1695.48
3	GUIDE	used	367657896	9.01	2499	0.198	-0.023	0.127	0.198	11.197765	41.313576	-98.78	-1345.67
4	GUIDE	used	367663272	9.28	2452	-0.095	-0.199	0.173	0.285	10.656279	41.699429	1583.59	-236.84
5	GUIDE	used	367674552	8.83	2502	-0.177	0.009	0.157	0.229	11.016238	41.570845	913.67	-1075.83
6	BAD	used	367148872	7.21	1621	-0.359	-0.195	0.083	0.145	10.505940	40.688258	-1865.64	991.66
7	GUIDE	used	367138920	7.72	2502	0.260	0.356	0.122	0.197	11.513485	40.808909	-2062.02	-1779.84

2.4 Star Slots

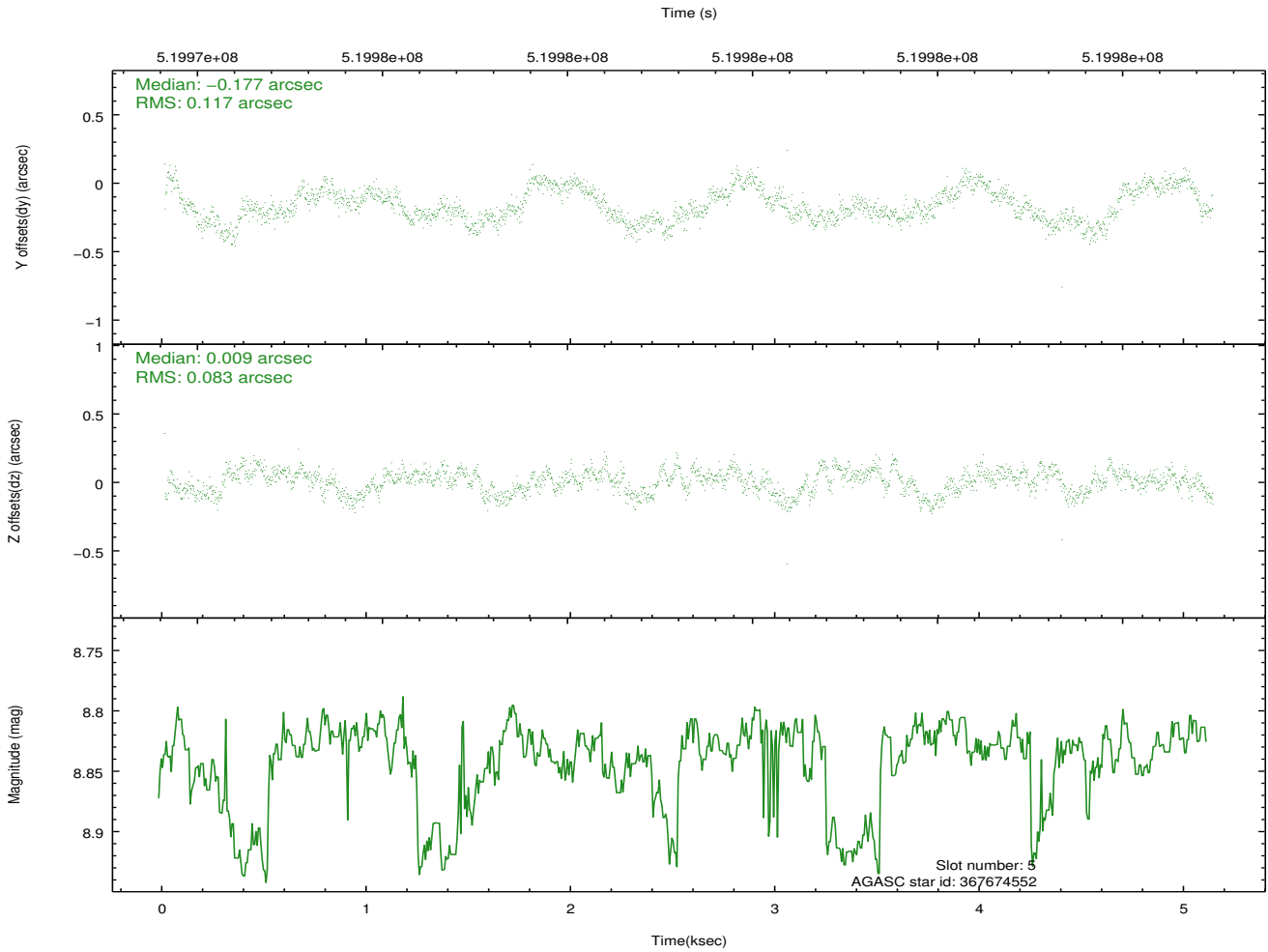
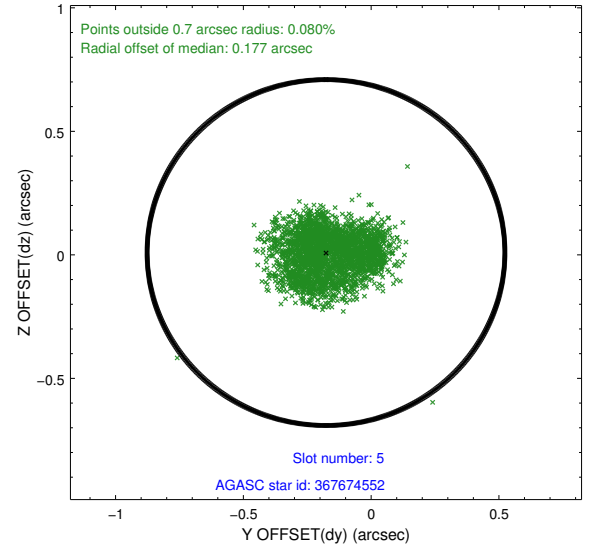
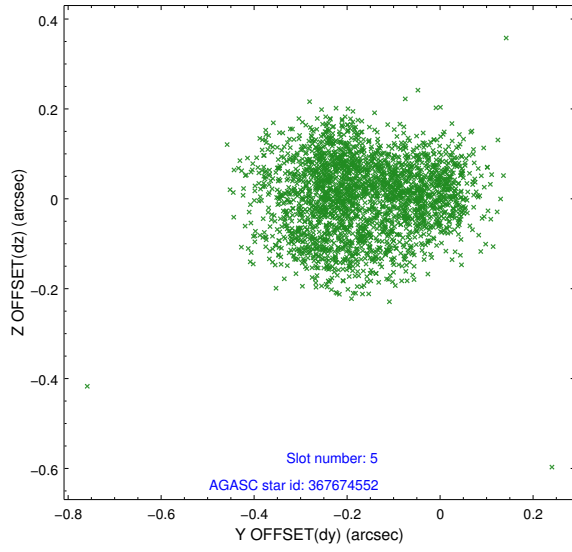
2.4.1 Slot 3



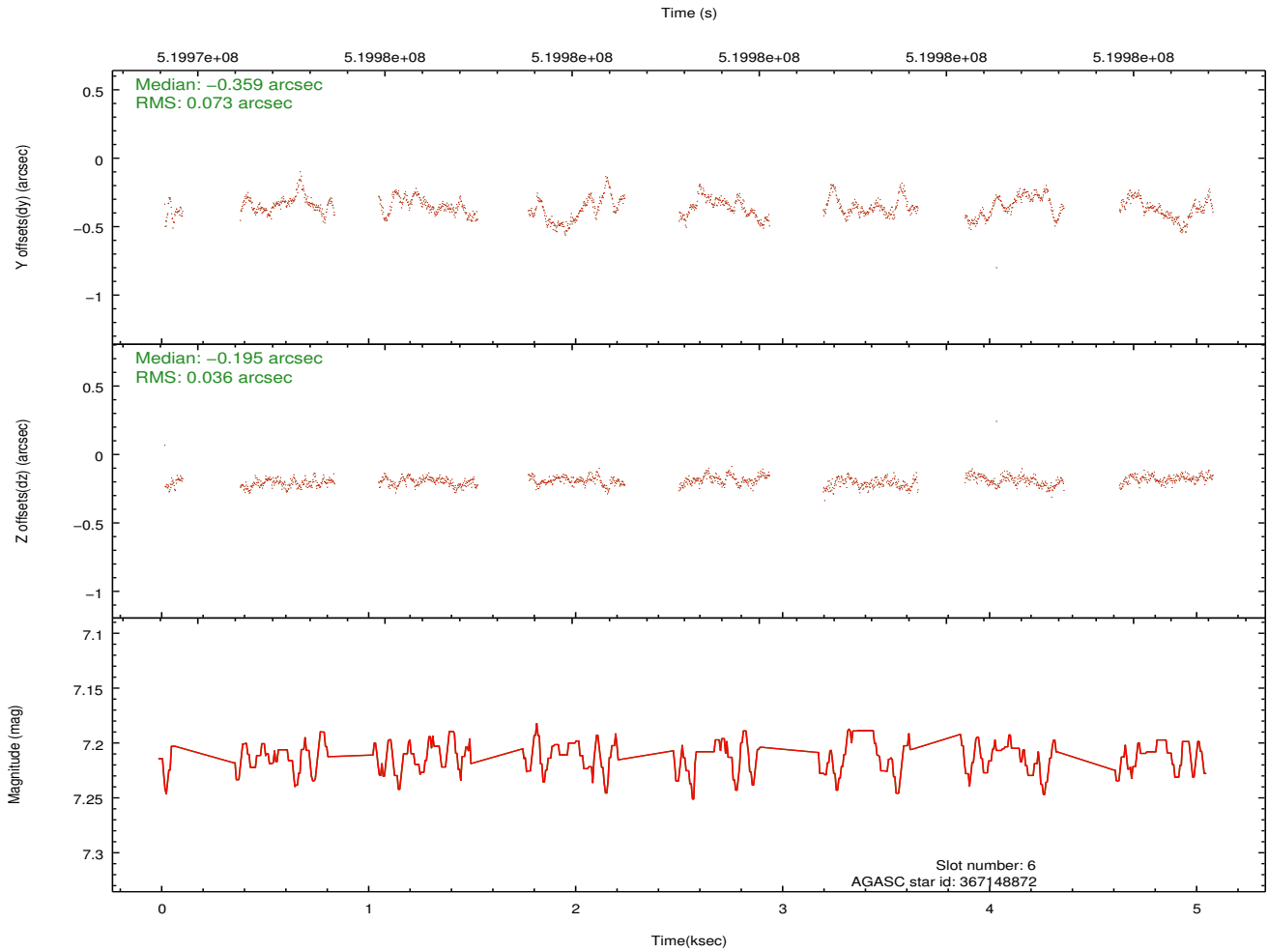
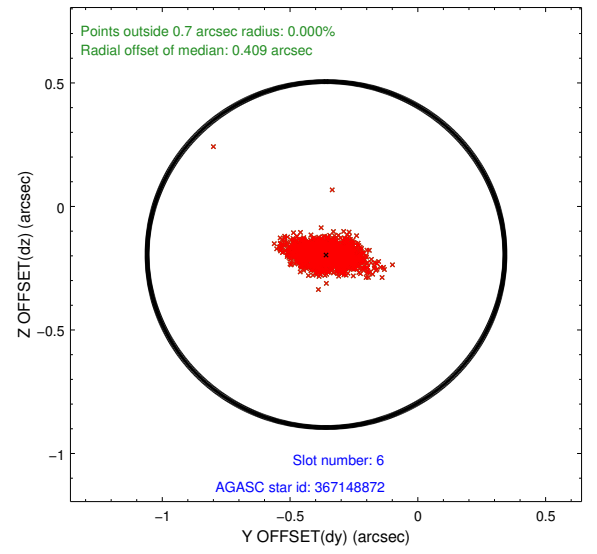
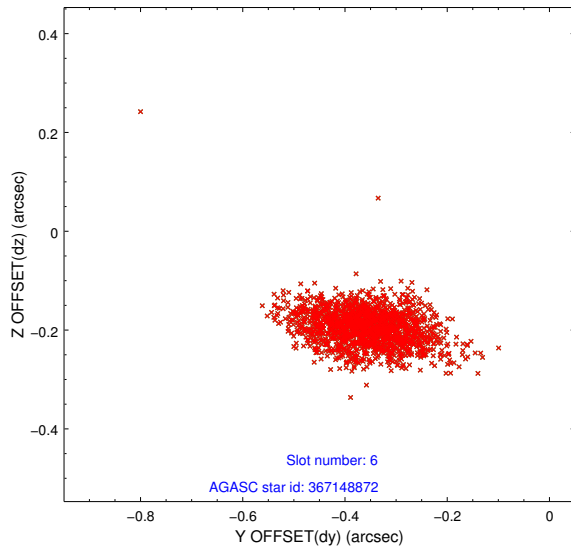
2.4.2 Slot 4



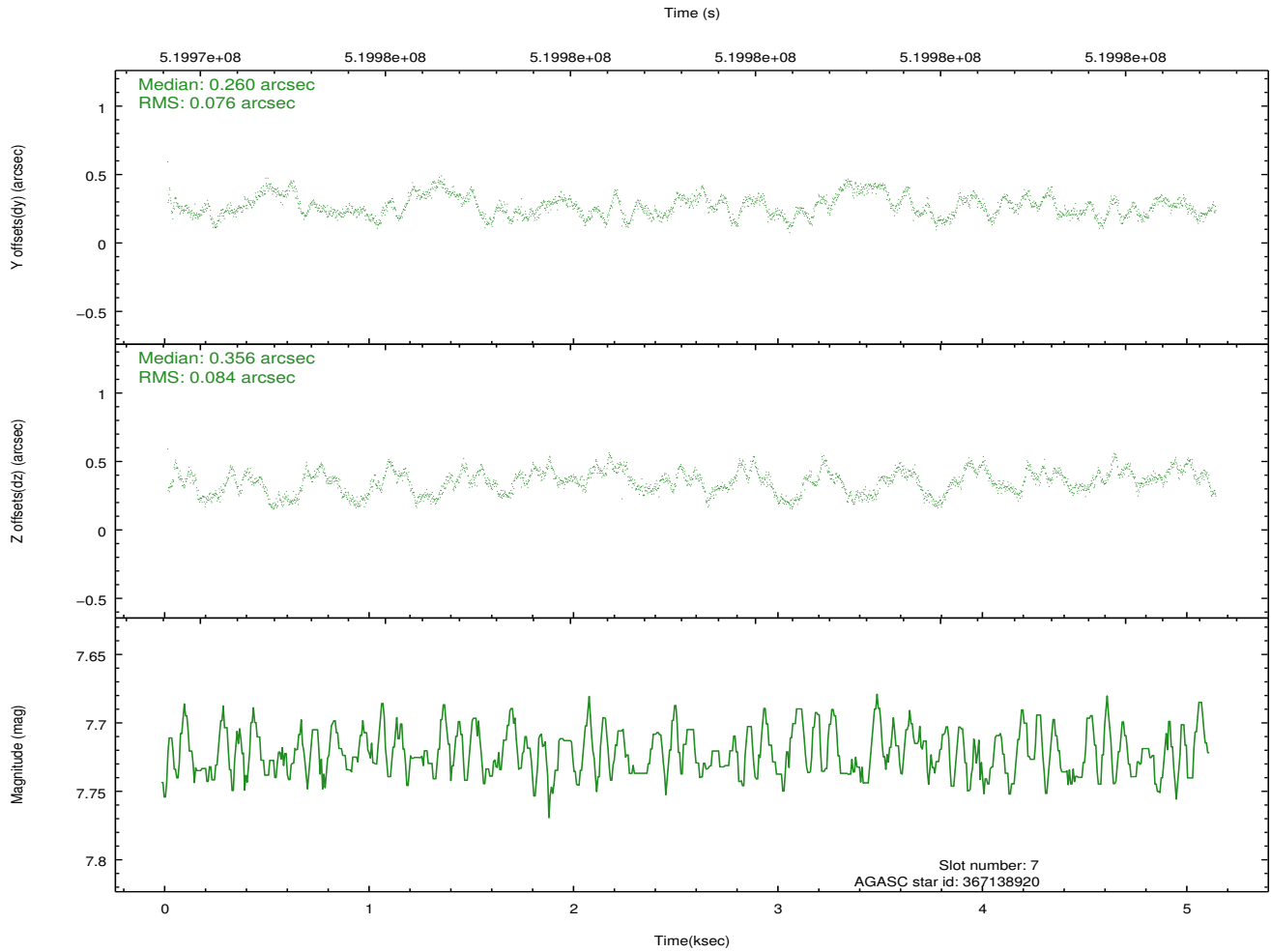
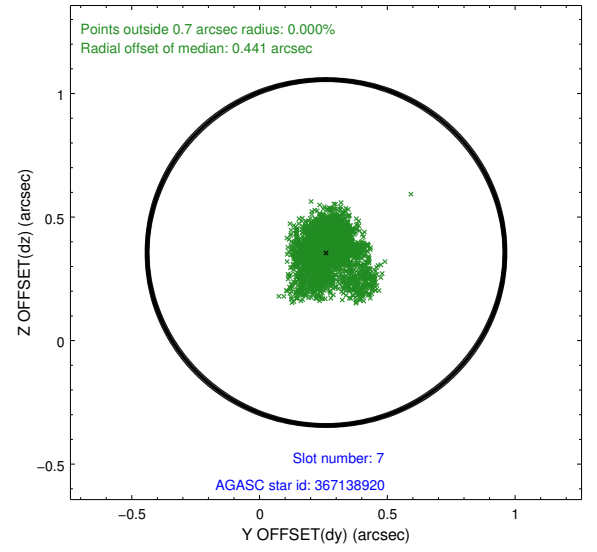
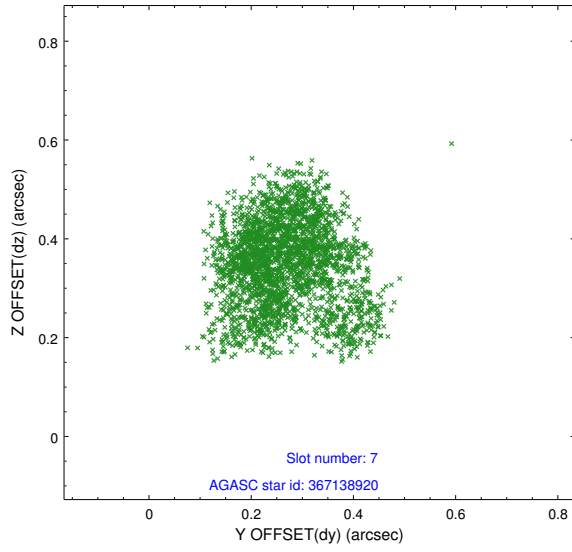
2.4.3 Slot 5



2.4.4 Slot 6

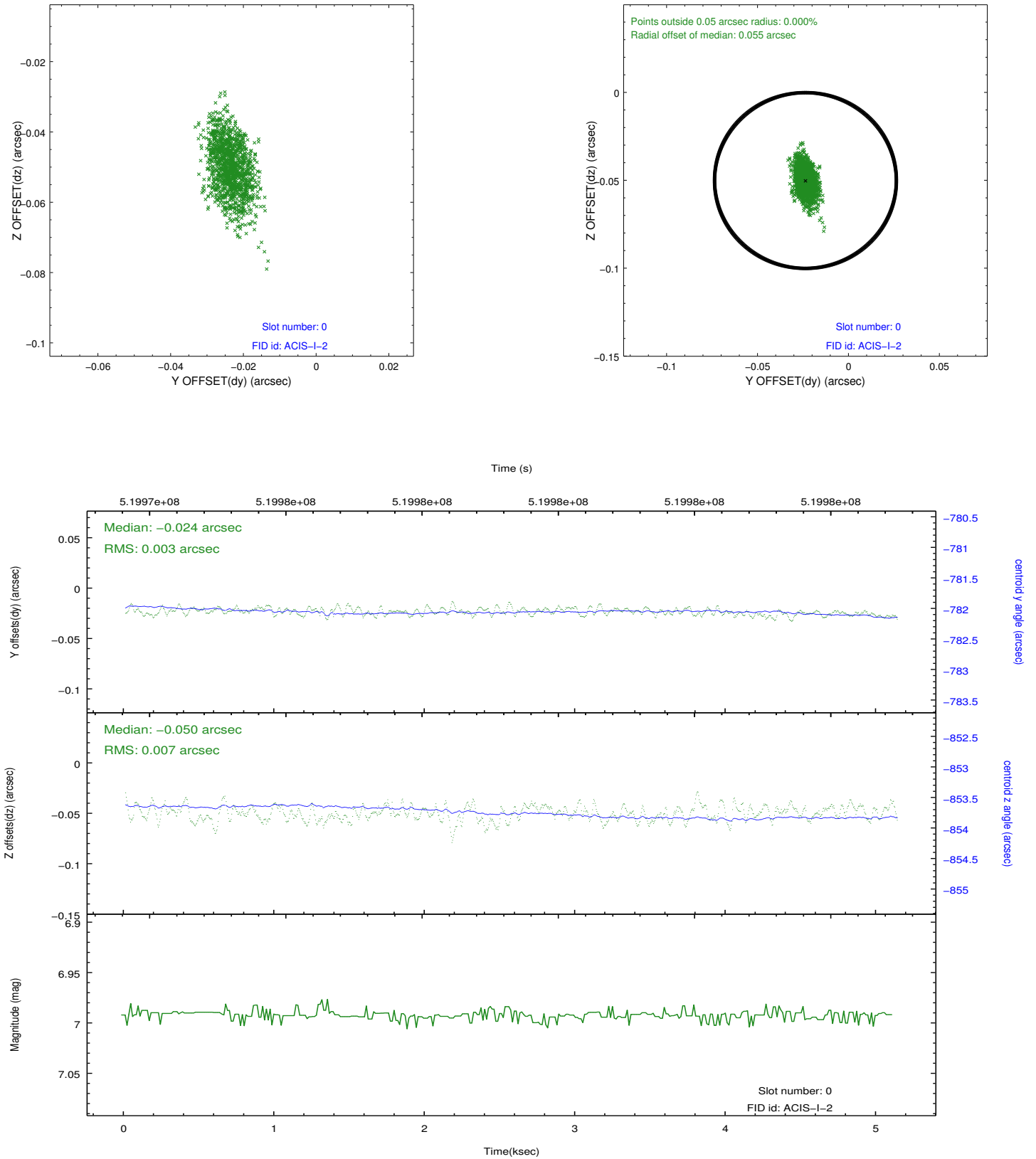


2.4.5 Slot 7

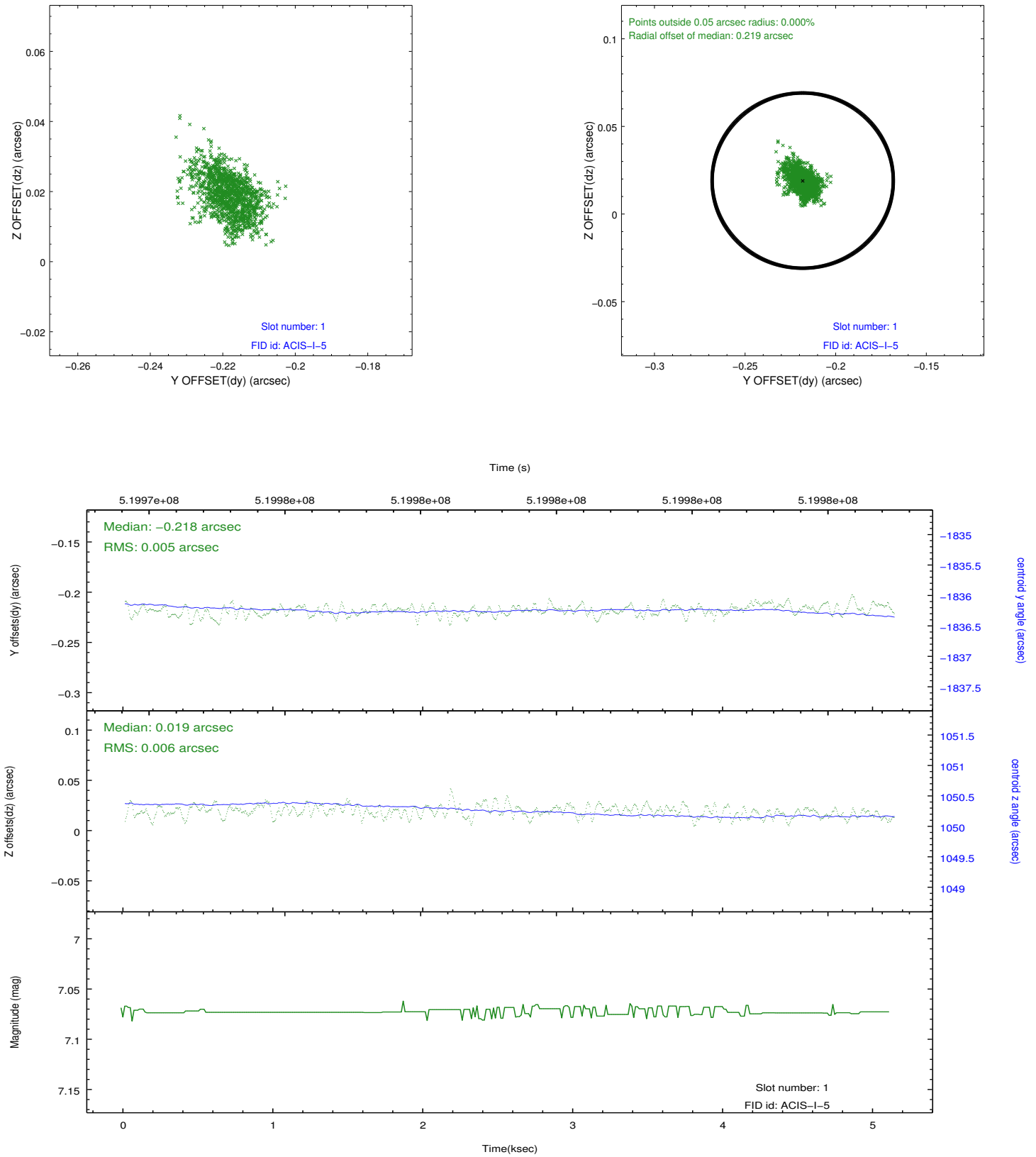


2.5 FID Slots

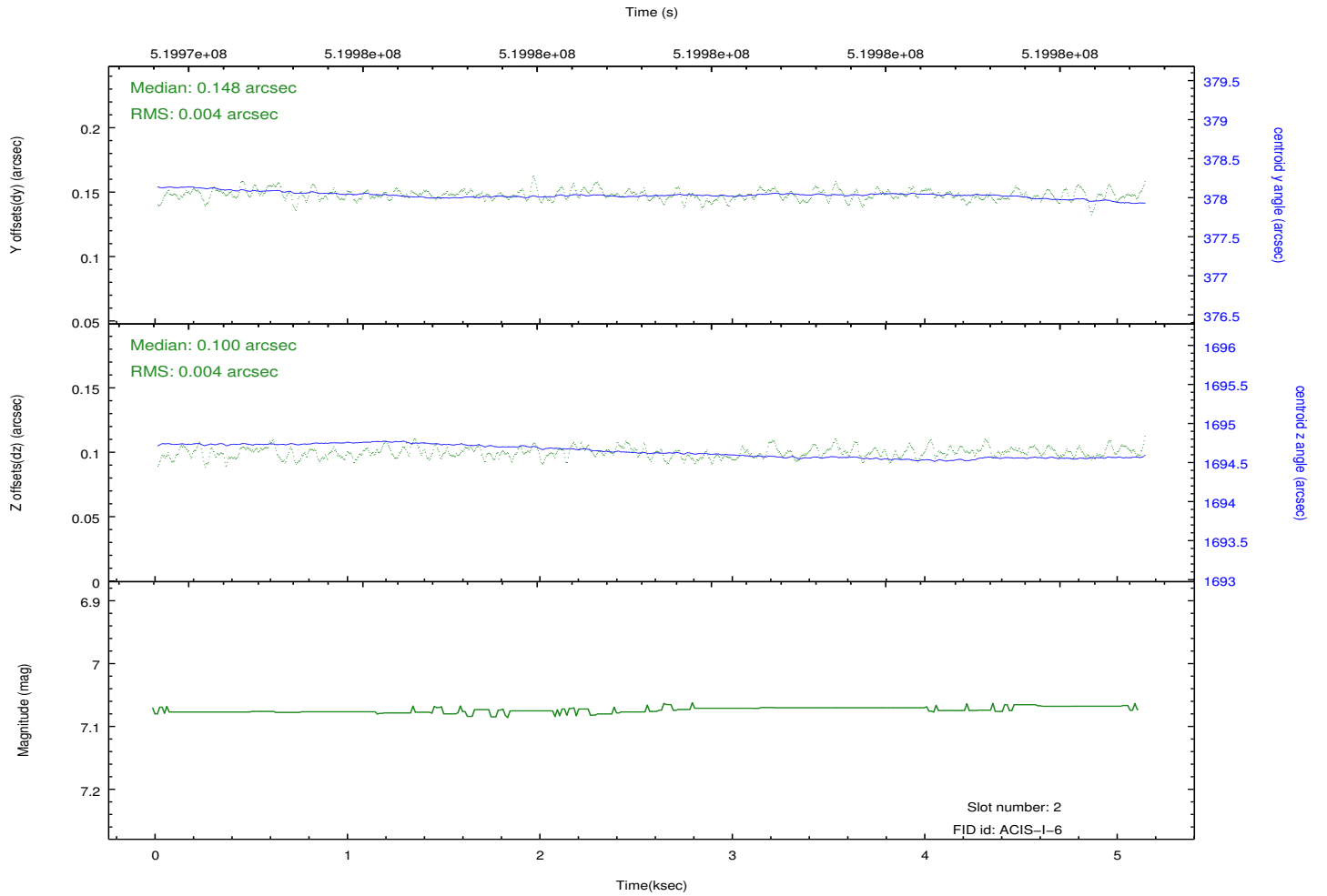
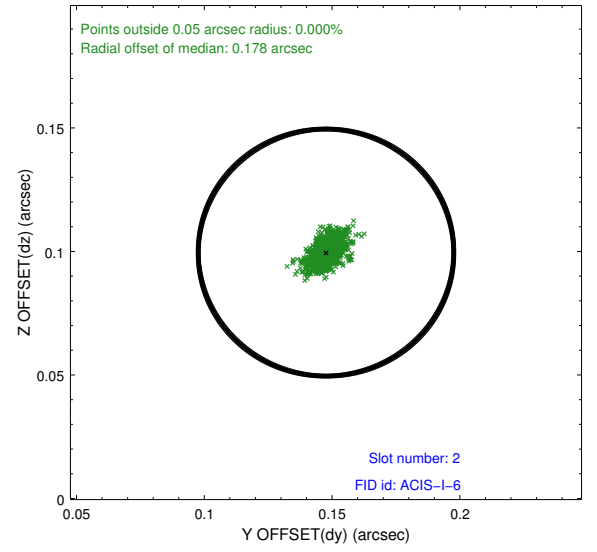
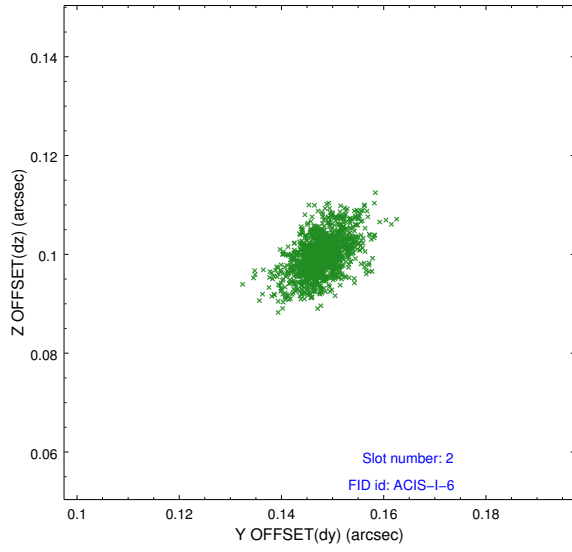
2.5.1 Slot 0



2.5.2 Slot 1



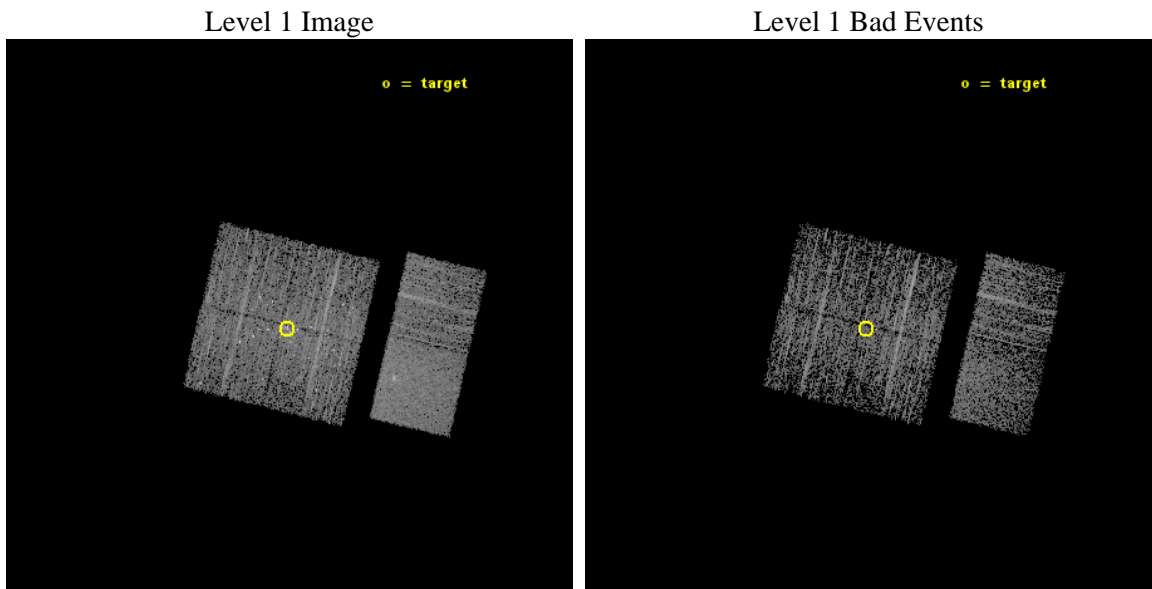
2.5.3 Slot 2



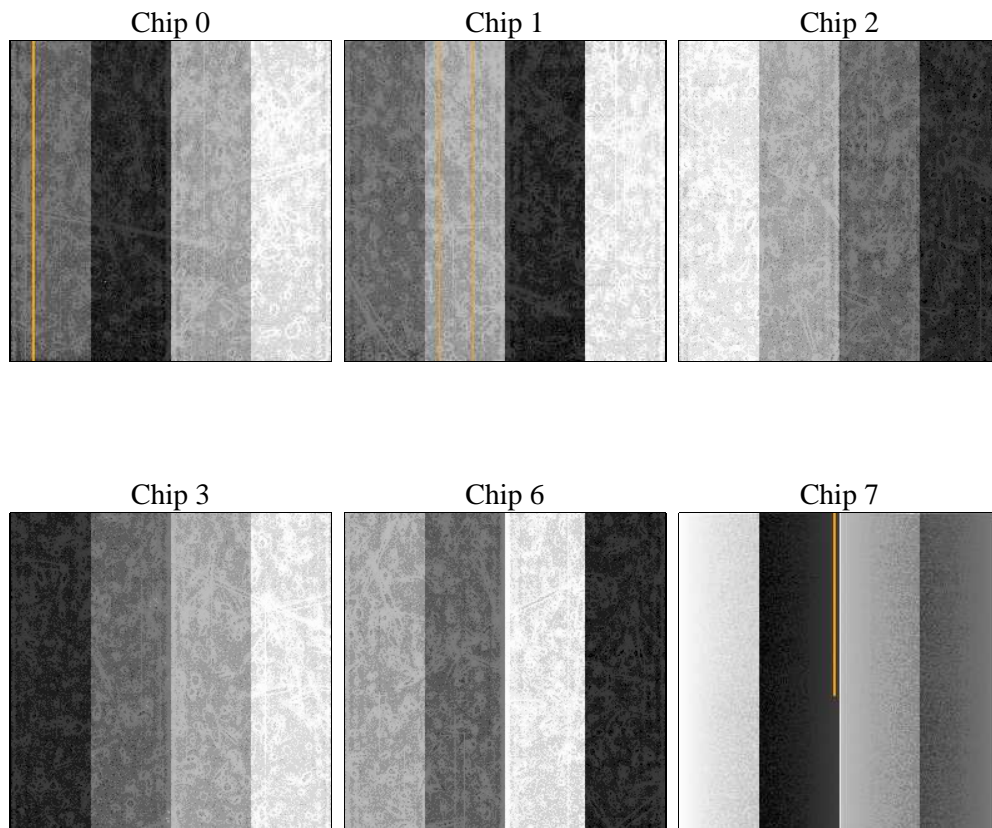
3 OBI Secondary

3.1 OBI

3.1.1 Images



3.1.2 Bias



3.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	3957.6473956108	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	3957.6476646066	Sum of GTIs [s]
date	2014-12-12T02:21:46	Date and time of file creation	ontime1	3957.6472768784	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	3957.647475481	Sum of GTIs [s]
			ontime3	3957.6473956108	Sum of GTIs [s]
			ontime6	3957.6474255919	Sum of GTIs [s]
			ontime7	3957.6472565532	Sum of GTIs [s]
			l1events	121812	Number of level 1 events

3.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	17638	19167	20655	21218	18203	24931	grade 0 events	1740	2465	2146	3511	774	1016
rejected events	14234	14643	16849	15560	15930	14014		9%	12%	10%	16%	4%	4%
rejected %	80%	76%	81%	73%	87%	56%	grade 1 events	19	27	22	98	12	25
								0%	0%	0%	0%	0%	0%
							grade 2 events	633	845	678	863	523	2252
								3%	4%	3%	4%	2%	9%
							grade 3 events	264	301	267	350	217	930
								1%	1%	1%	1%	1%	3%
							grade 4 events	273	318	285	347	236	927
								1%	1%	1%	1%	1%	3%
							grade 5 events	857	927	790	1032	1056	2520
								4%	4%	3%	4%	5%	10%
							grade 6 events	500	603	435	596	530	5806
								2%	3%	2%	2%	2%	23%
							grade 7 events	13352	13681	16032	14421	14855	11455
								75%	71%	77%	67%	81%	45%

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.88403733003139

A.2 Comments

Monitor constraint met.

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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.