

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2297 - L2 Version 3
Chandra X-Ray Center

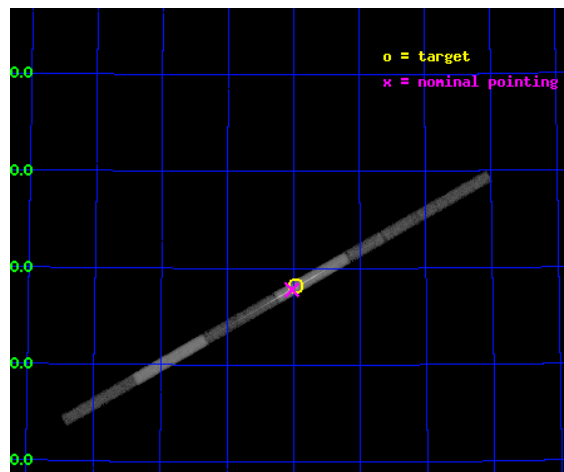
L2 Processing Date : Sep 14 2012

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1 Front

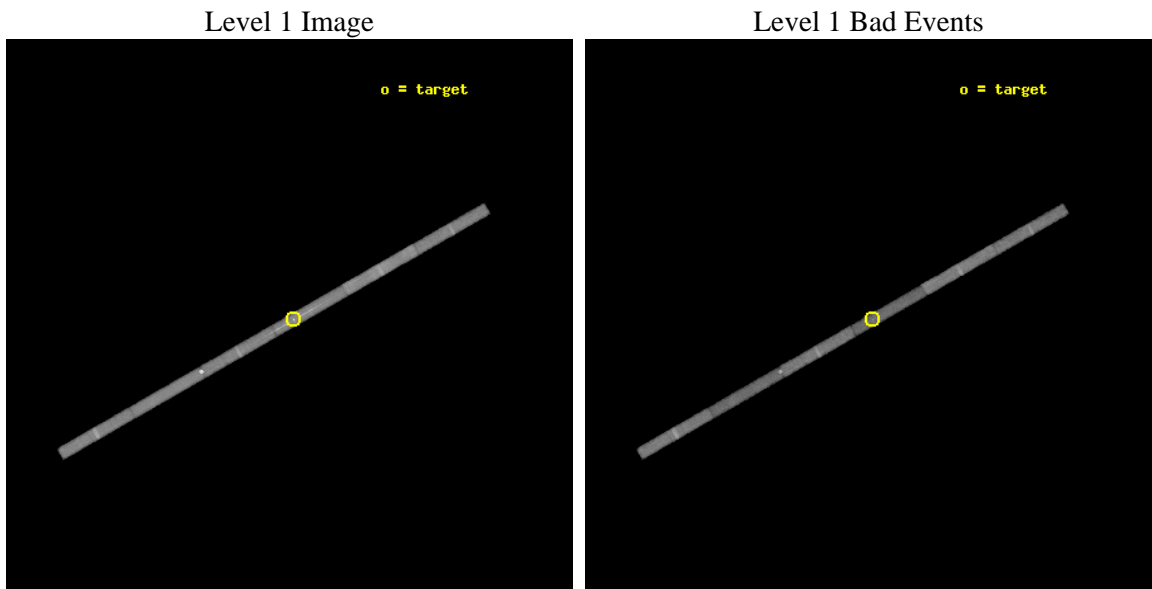
seq_num	900124	Sequence number
obs_id	2297	Observation id
title	THE MOLECULAR FRACTION AND ABUNDANCES OF GAS IN THE GALAXY	Proposa
observer	Dr John Arabadjis	Principal investigator
object	4U 0241+61	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	41.240833	Observer's specified target RA [deg]
dec_targ	62.469583	Observer's specified target Dec [deg]
ra_nom	41.257174523839	Nominal RA [deg]
dec_nom	62.463265044527	Nominal Dec [deg]
roll_nom	330.3266545528	Nominal Roll [deg]
revision	3	Processing version of data
ontime	36934.100157231	Sum of GTIs [s]
livetime	34888.629642208	Livetime [s]
ontime4	36934.100157231	Sum of GTIs [s]
ontime5	36934.100157231	Sum of GTIs [s]
ontime6	36934.100157231	Sum of GTIs [s]
ontime7	36934.100157231	Sum of GTIs [s]
ontime8	36934.100157231	Sum of GTIs [s]
ontime9	36934.100157231	Sum of GTIs [s]
l2events	80153	Number of level 2 events



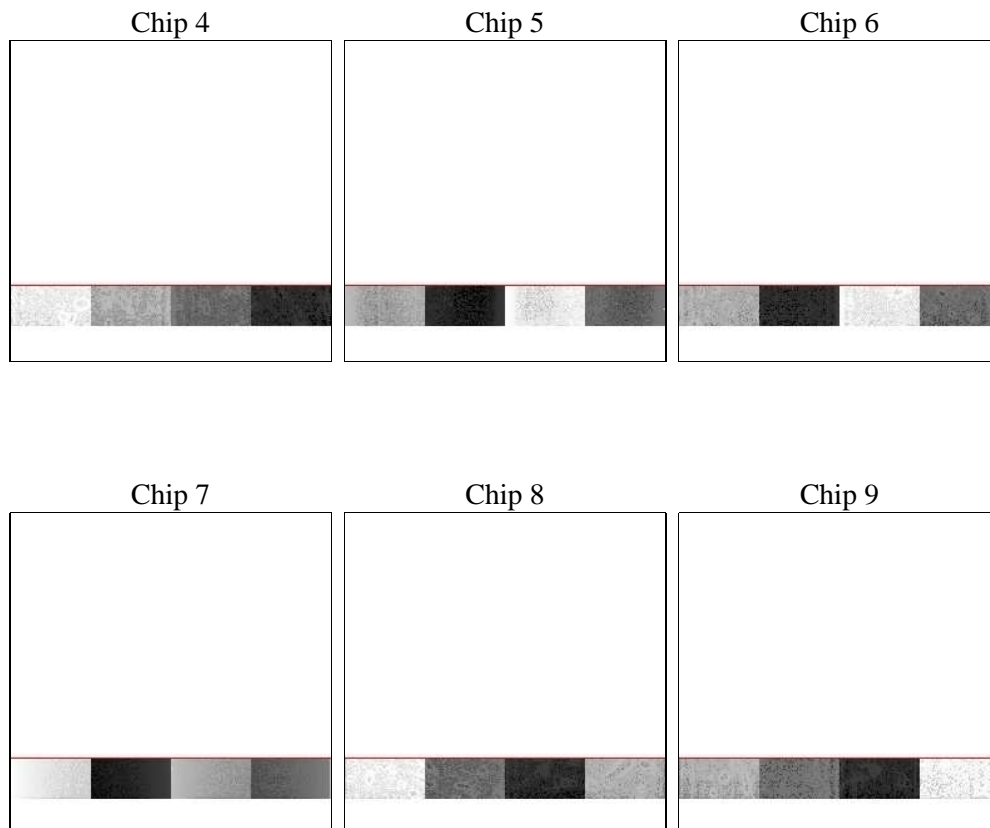
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	36625.515000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	36934.100157231	Sum of GTIs [s]
caldbver	4.5.1.1	 	ontime4	36934.100157231	Sum of GTIs [s]
date	2012-09-14T21:51:02	Date and time of file creation	ontime5	36934.100157231	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	36934.100157231	Sum of GTIs [s]
			ontime7	36934.100157231	Sum of GTIs [s]
			ontime8	36934.100157231	Sum of GTIs [s]
			ontime9	36934.100157231	Sum of GTIs [s]
			l1events	321473	Number of level 1 events

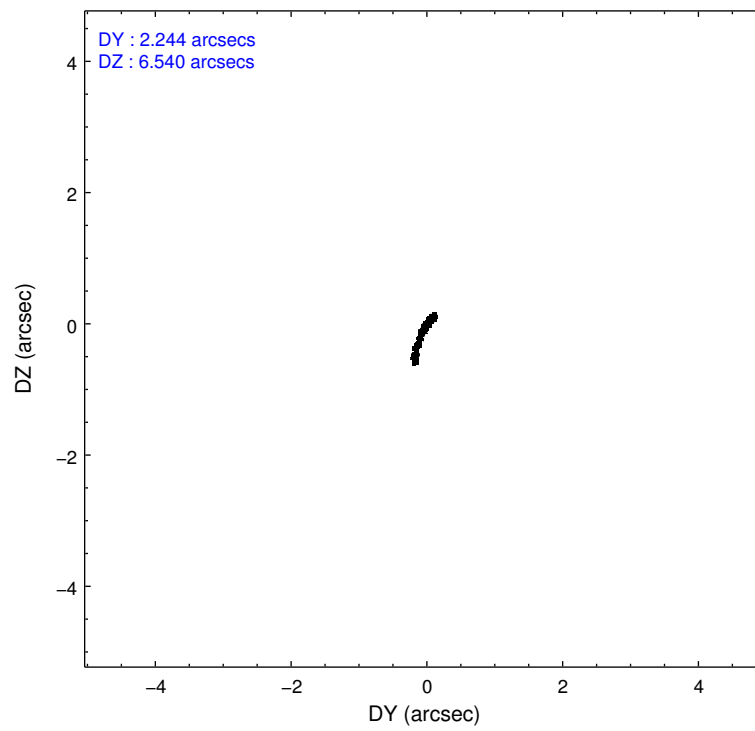
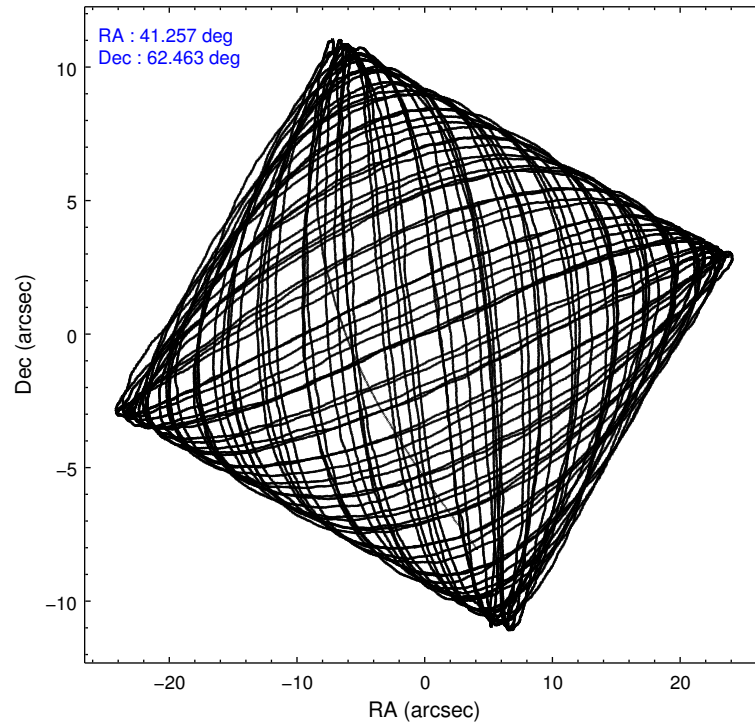
2.1.4 Events

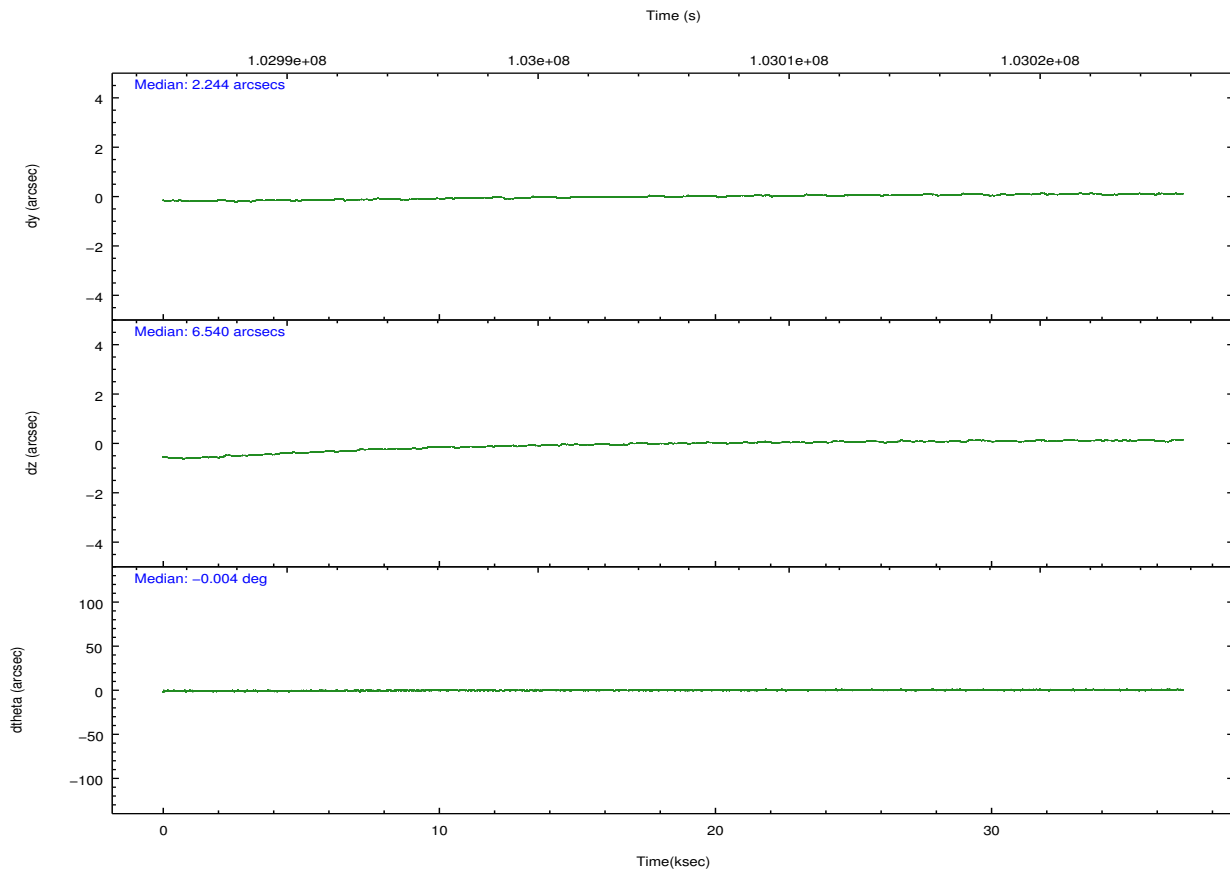
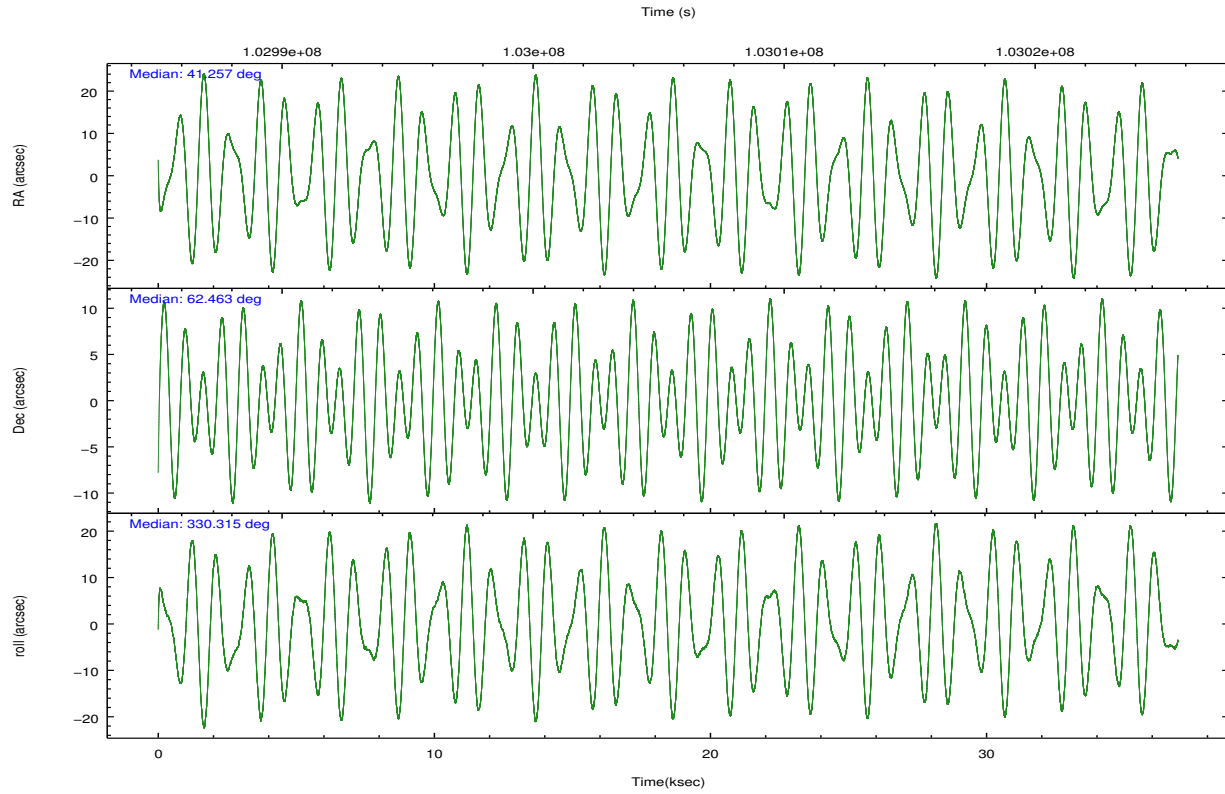
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	47953	61871	44826	59709	65765	41349	grade 0 events	2465	11649	3284	5809	6308	2333
rejected events	41666	24814	37742	22347	46813	35478		5%	18%	7%	9%	9%	5%
rejected %	86%	40%	84%	37%	71%	85%	grade 1 events	11	1588	12	62	40	11
								0%	2%	0%	0%	0%	0%
							grade 2 events	1334	7127	1146	8192	2623	1093
								2%	11%	2%	13%	3%	2%
							grade 3 events	752	3823	846	4116	3305	768
								1%	6%	1%	6%	5%	1%
							grade 4 events	776	3567	817	4143	2879	728
								1%	5%	1%	6%	4%	1%
							grade 5 events	1060	4508	1122	3786	1509	1142
								2%	7%	2%	6%	2%	2%
							grade 6 events	990	11194	1031	15244	3929	983
								2%	18%	2%	25%	5%	2%
							grade 7 events	40565	18415	36568	18357	45172	34291
								84%	29%	81%	30%	68%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	41.198119	41.25717452383901	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	62.462847	62.46326504452731	Subarray start row	115	115
[deg] Pointing Roll	330.222394	330.3266545528036	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.7
[mm] SIM translation stage pos	-182.132523	-182.1344861297048			
[mm] SIM translation stage offset	-8	-7.998036453302973			
[s] Observation start time (MET)	102987218.184000	102986176.47098			
Observation start date	2001-04-06T23:32:34	2001-04-06T23:16:16			
[s] Observation end time (MET)	103023844.184000	103024157.84745			
Observation end date	2001-04-07T09:43:00	2001-04-07T09:49:17			
Read mode	TIMED	TIMED			

2.3 Aspect



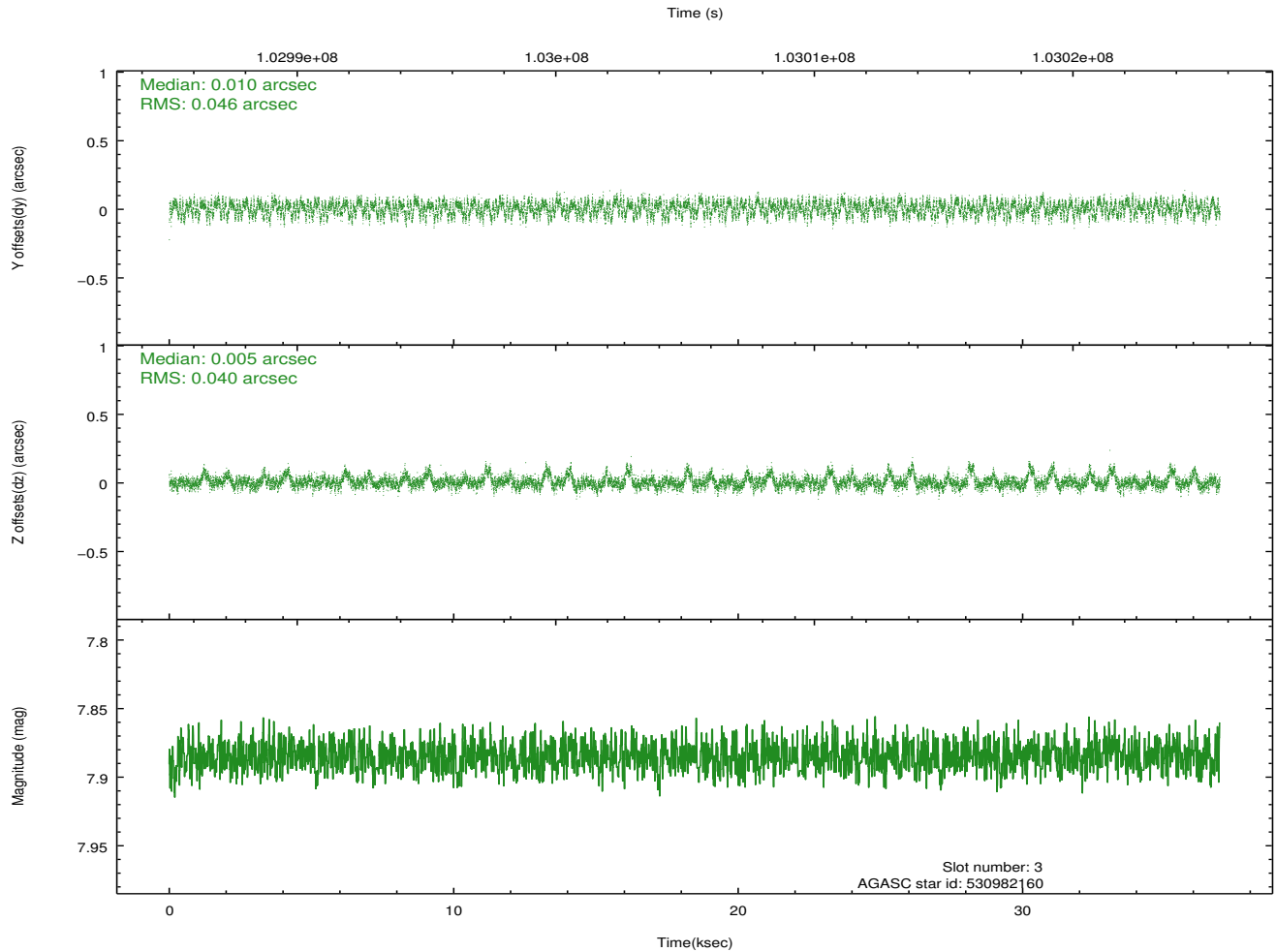
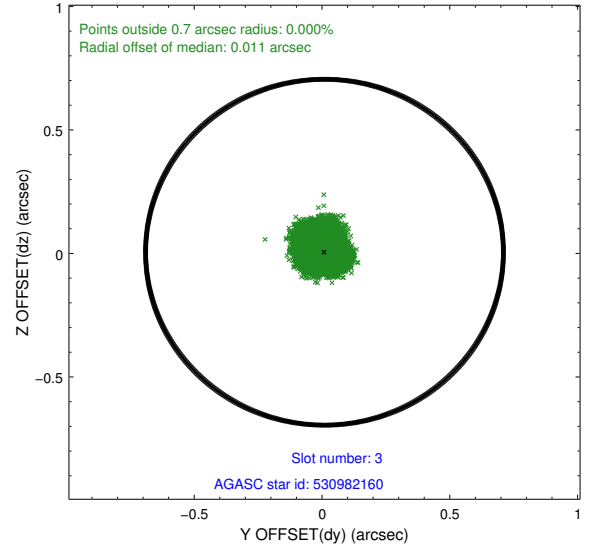
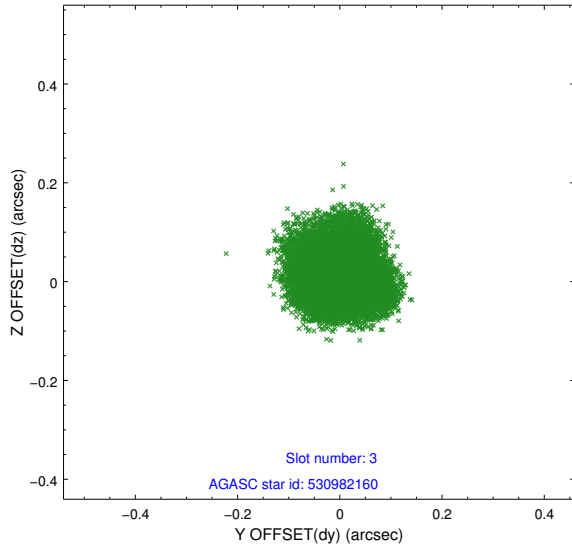


Slot Statistics

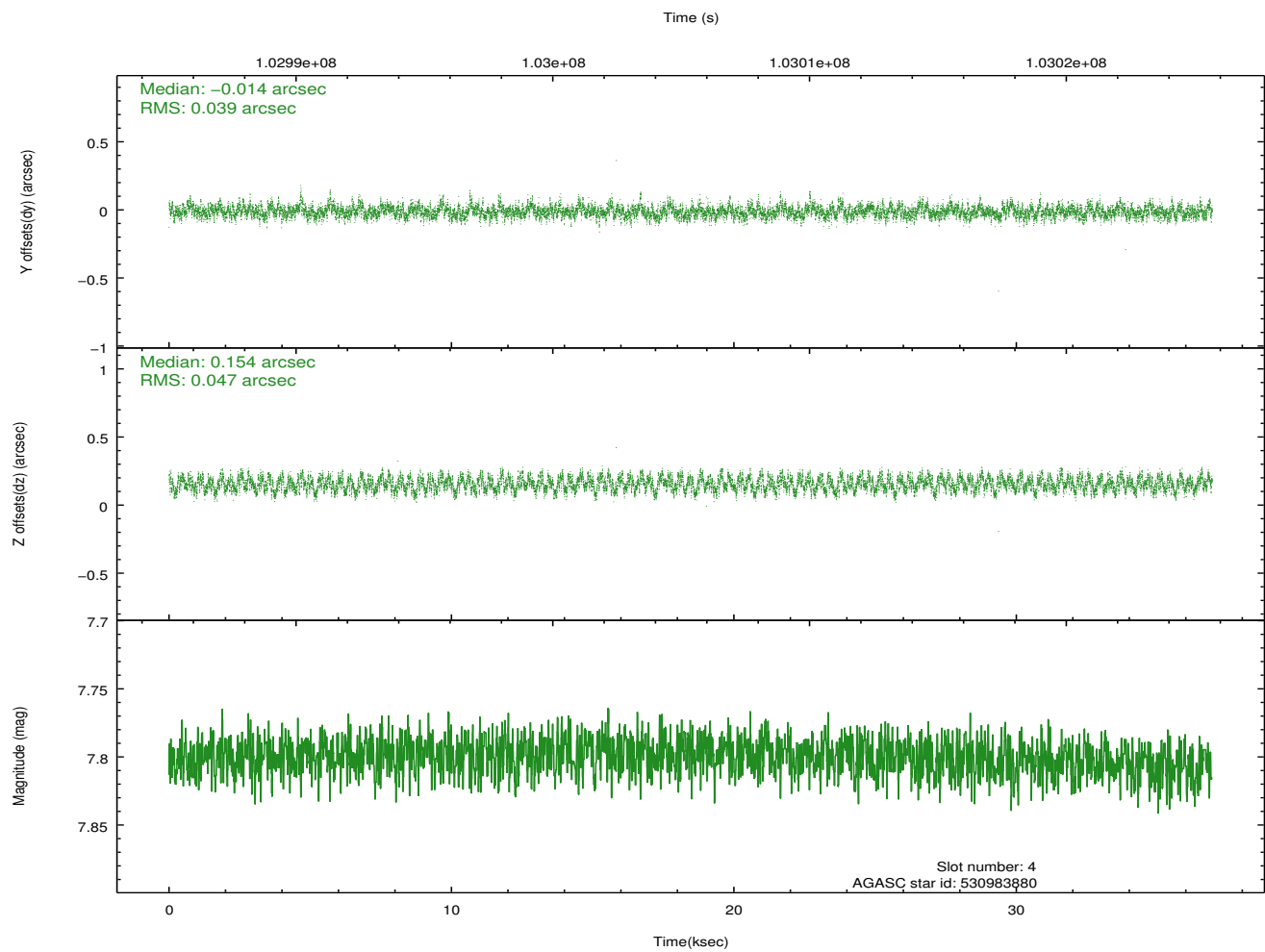
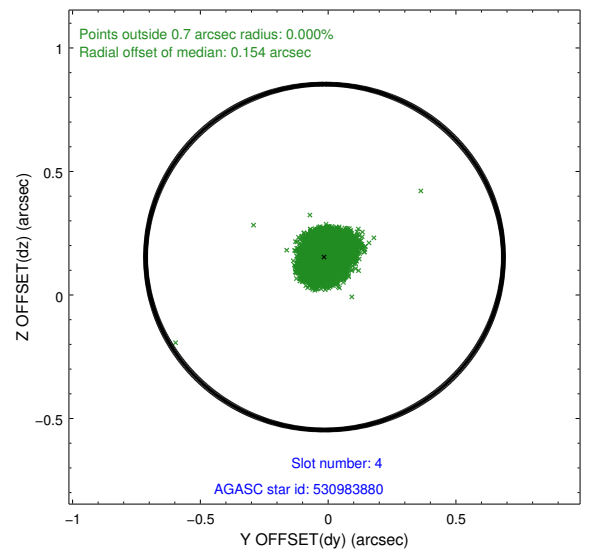
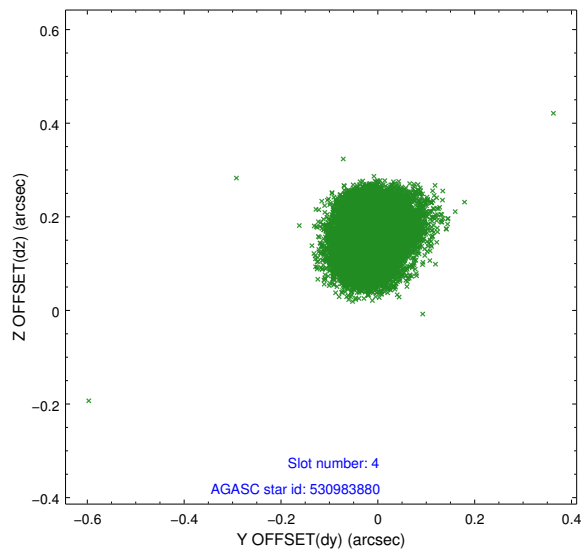
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	9009	-0.039	-0.102	0.012	0.026	0.000000	0.000000	-754.33	-1892.46
1	FID	ACIS-S-4	7.18	9008	0.018	0.046	0.007	0.013	0.000000	0.000000	2159.01	16.08
2	FID	ACIS-S-5	7.23	9009	-0.010	0.064	0.011	0.023	0.000000	0.000000	-1807.09	9.83
3	GUIDE	530982160	7.88	18018	0.010	0.005	0.066	0.106	41.144784	63.208043	-1407.06	2285.05
4	GUIDE	530983880	7.80	18012	-0.014	0.154	0.066	0.101	40.004667	62.601987	-1972.76	-531.61
5	GUIDE	530450872	7.87	18016	-0.024	0.076	0.063	0.104	40.995903	61.778140	926.45	-2309.98
6	GUIDE	530984448	6.40	18018	-0.056	-0.211	0.046	0.072	41.666670	63.005541	-306.62	2077.75
7	GUIDE	530992632	9.33	18008	0.088	-0.025	0.110	0.174	40.543397	62.146854	-392.27	-1529.65

2.4 Star Slots

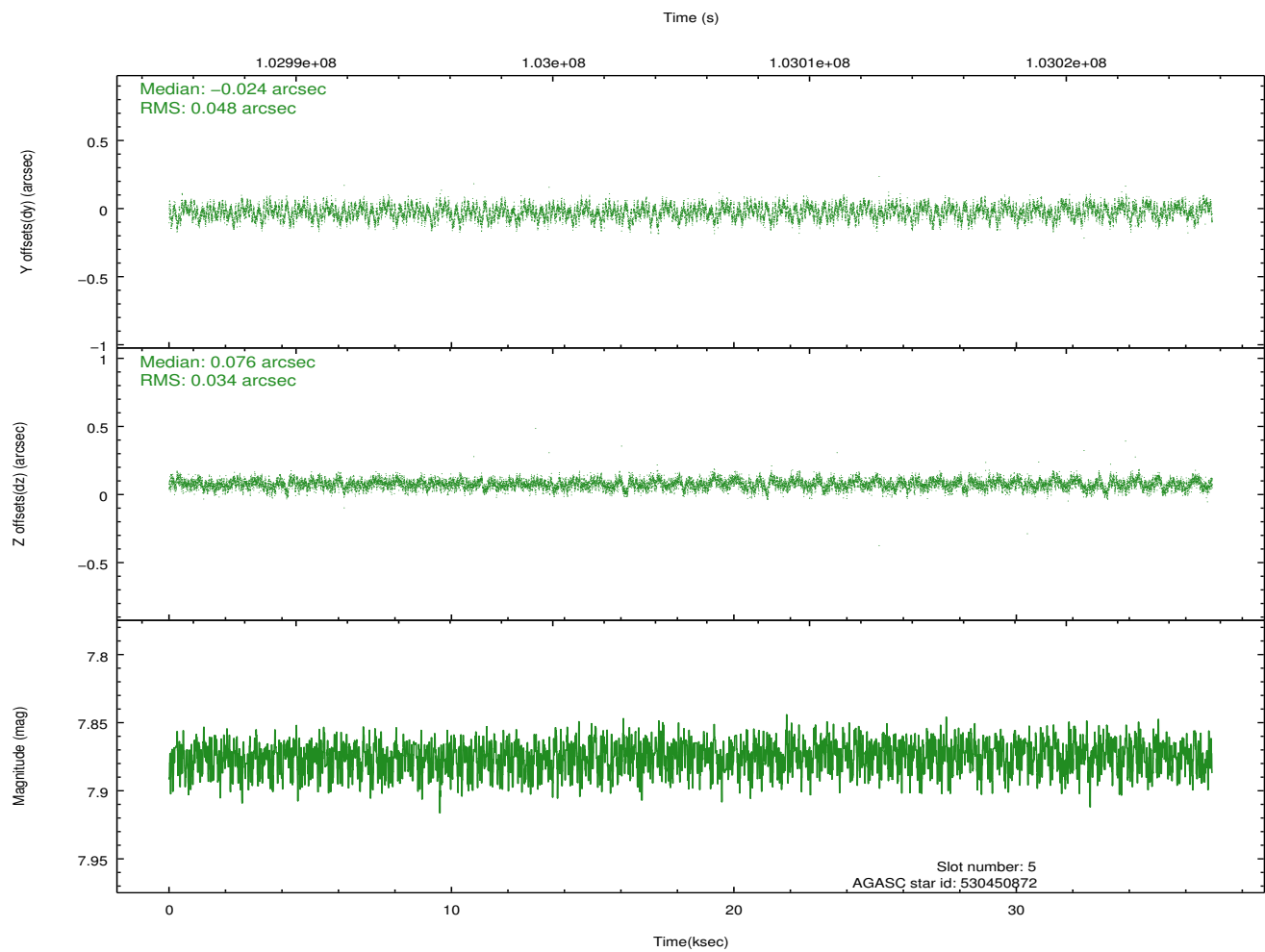
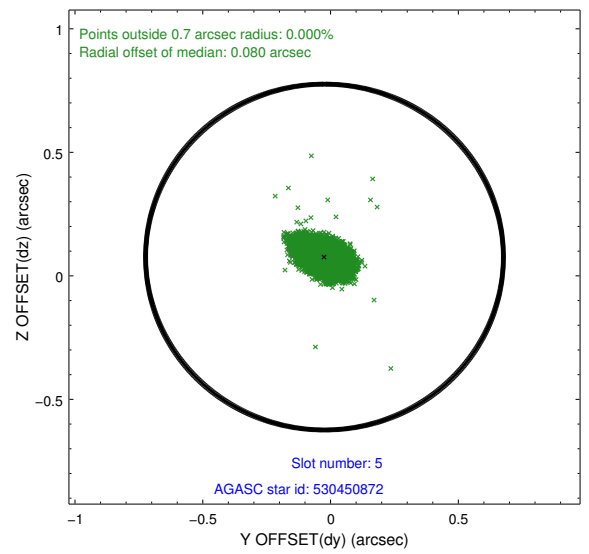
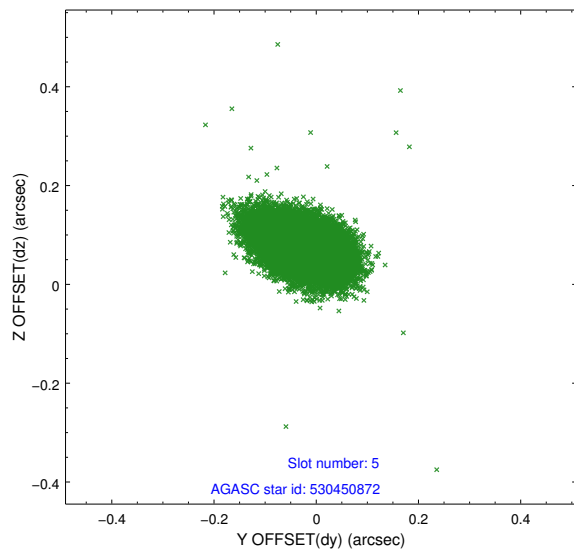
2.4.1 Slot 3



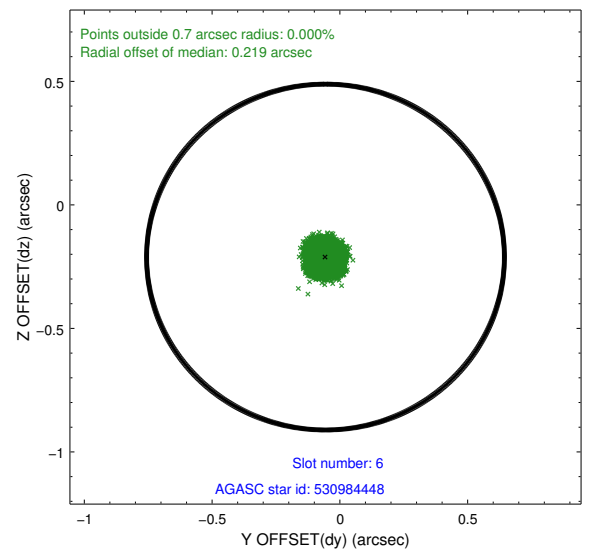
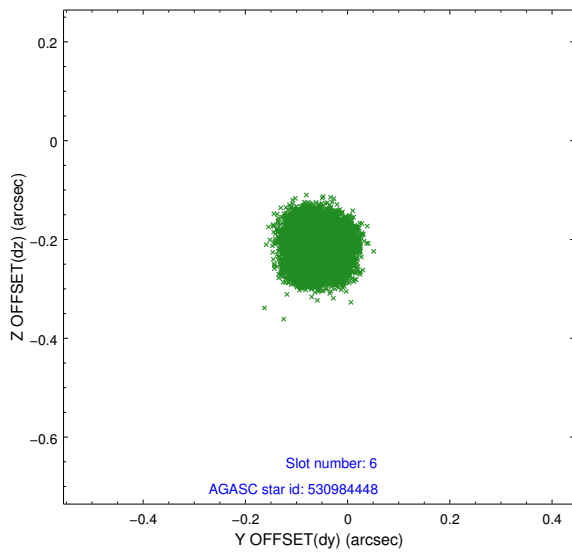
2.4.2 Slot 4



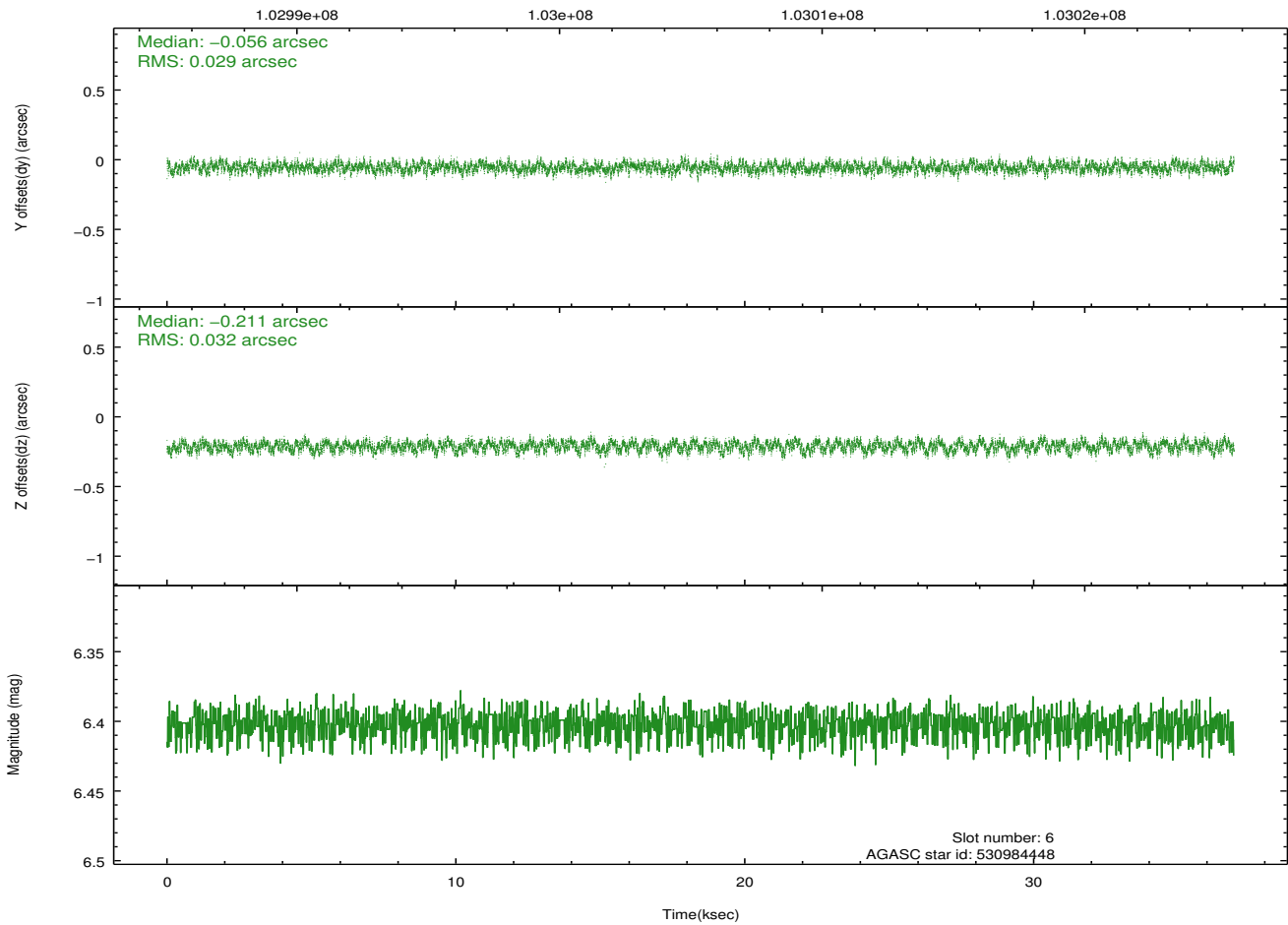
2.4.3 Slot 5



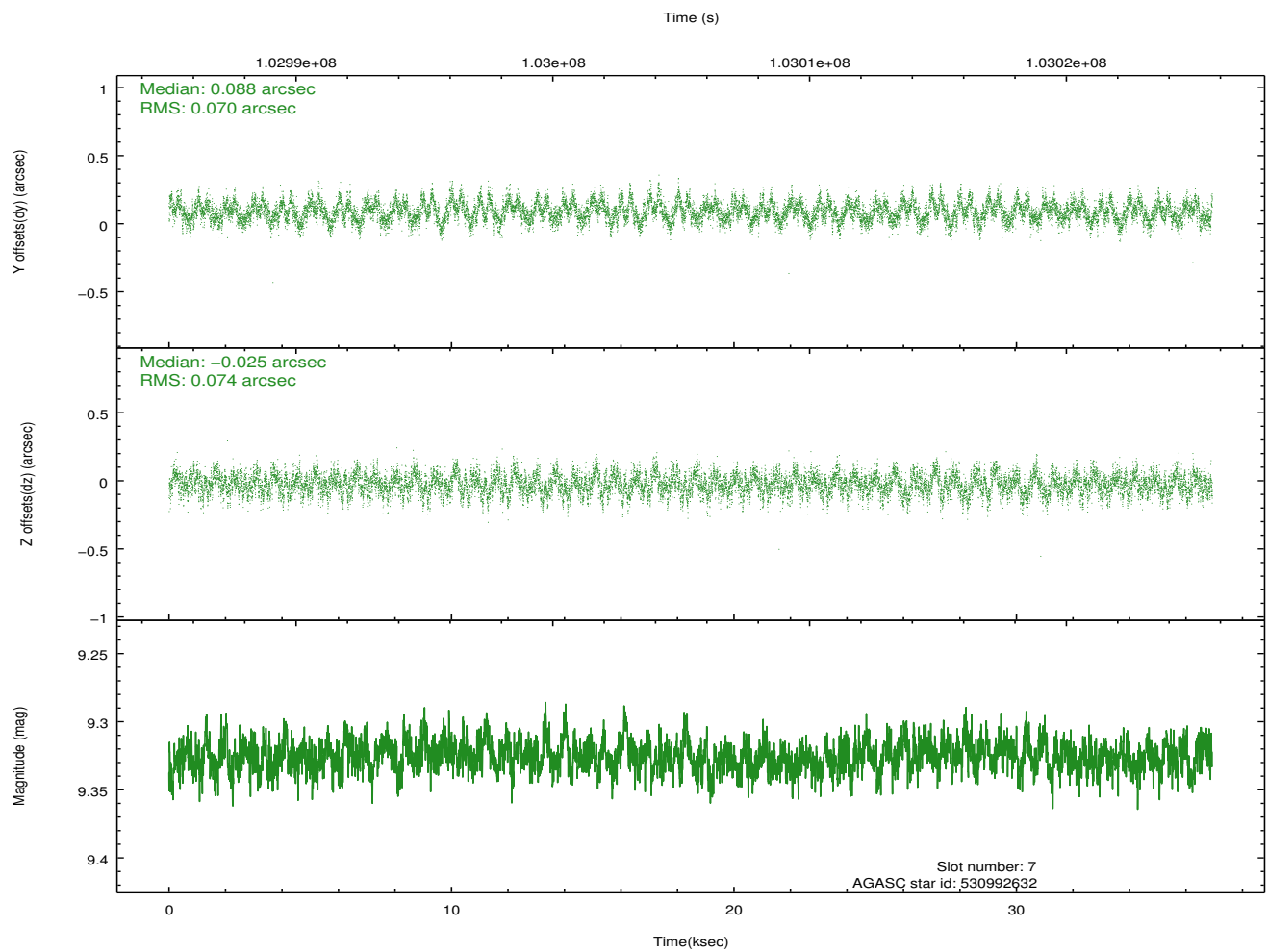
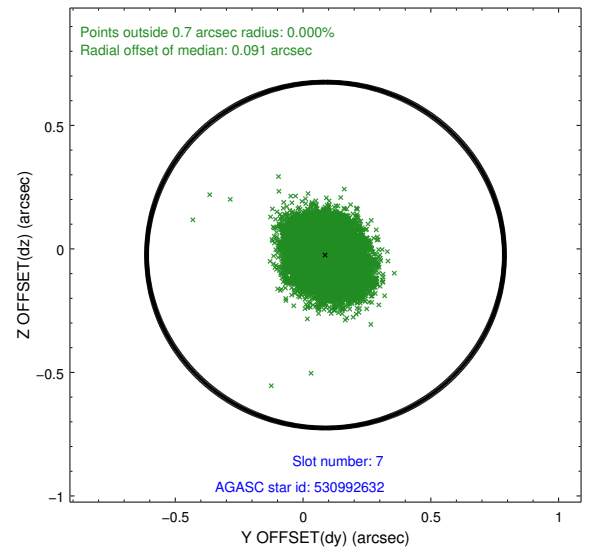
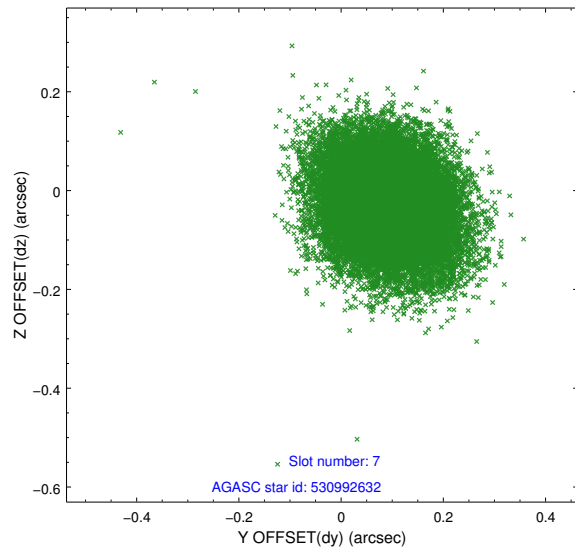
2.4.4 Slot 6



Time (s)

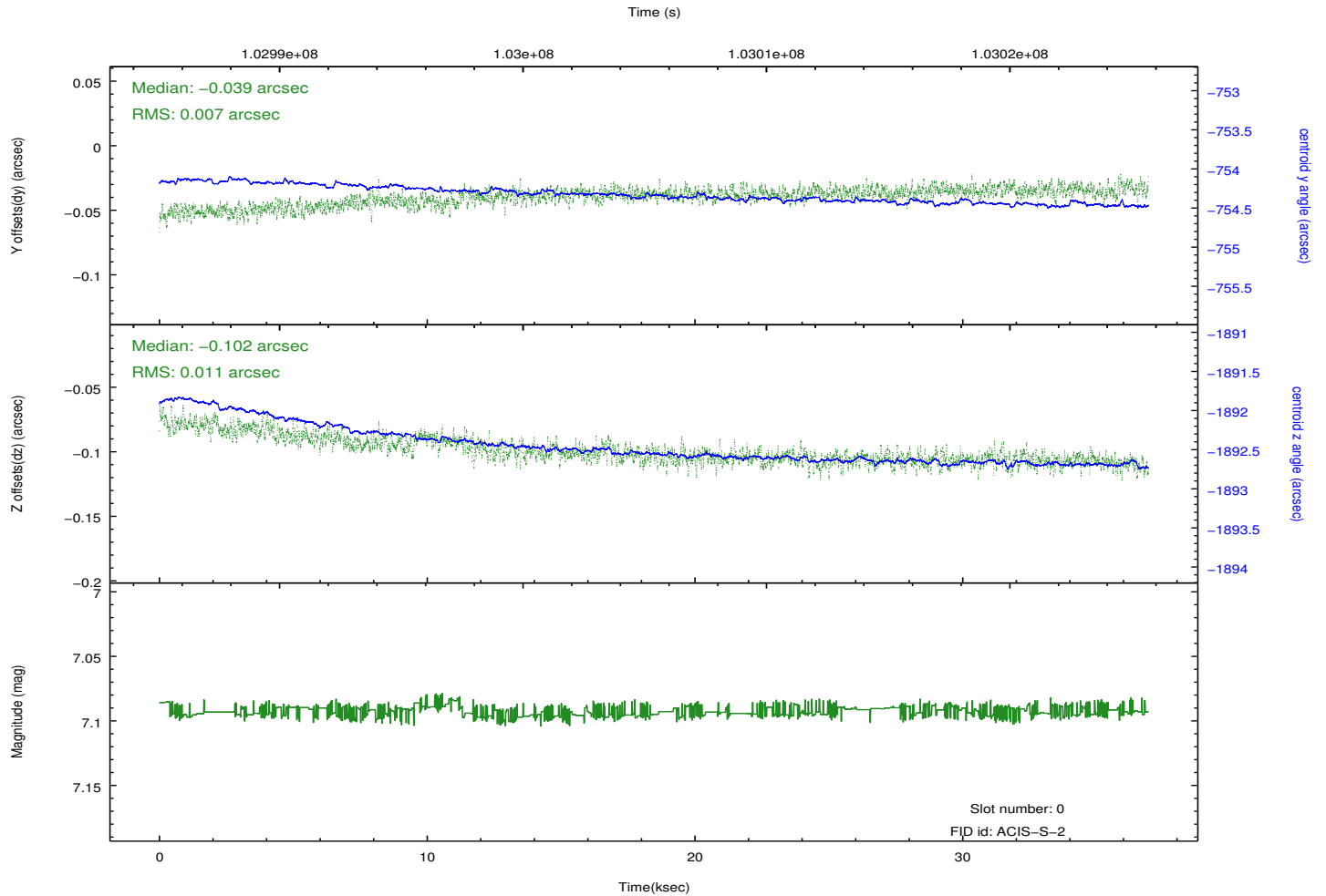
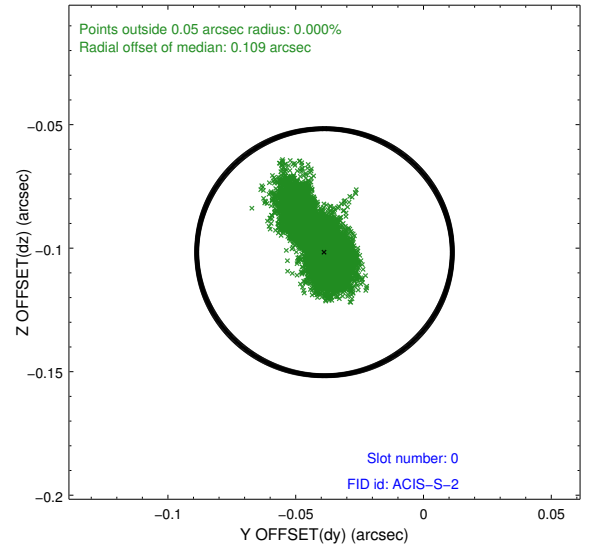
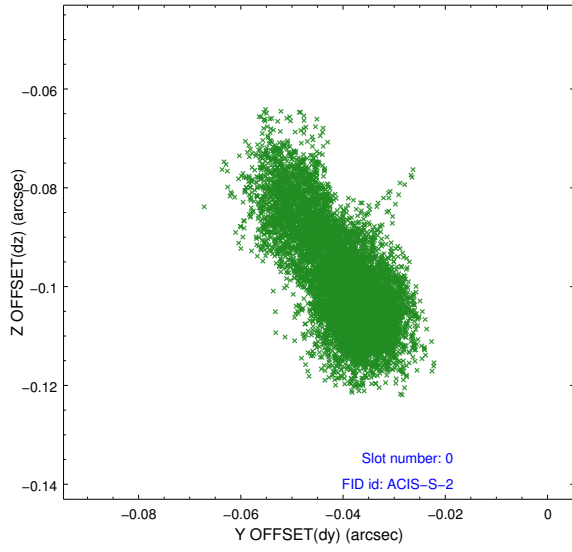


2.4.5 Slot 7

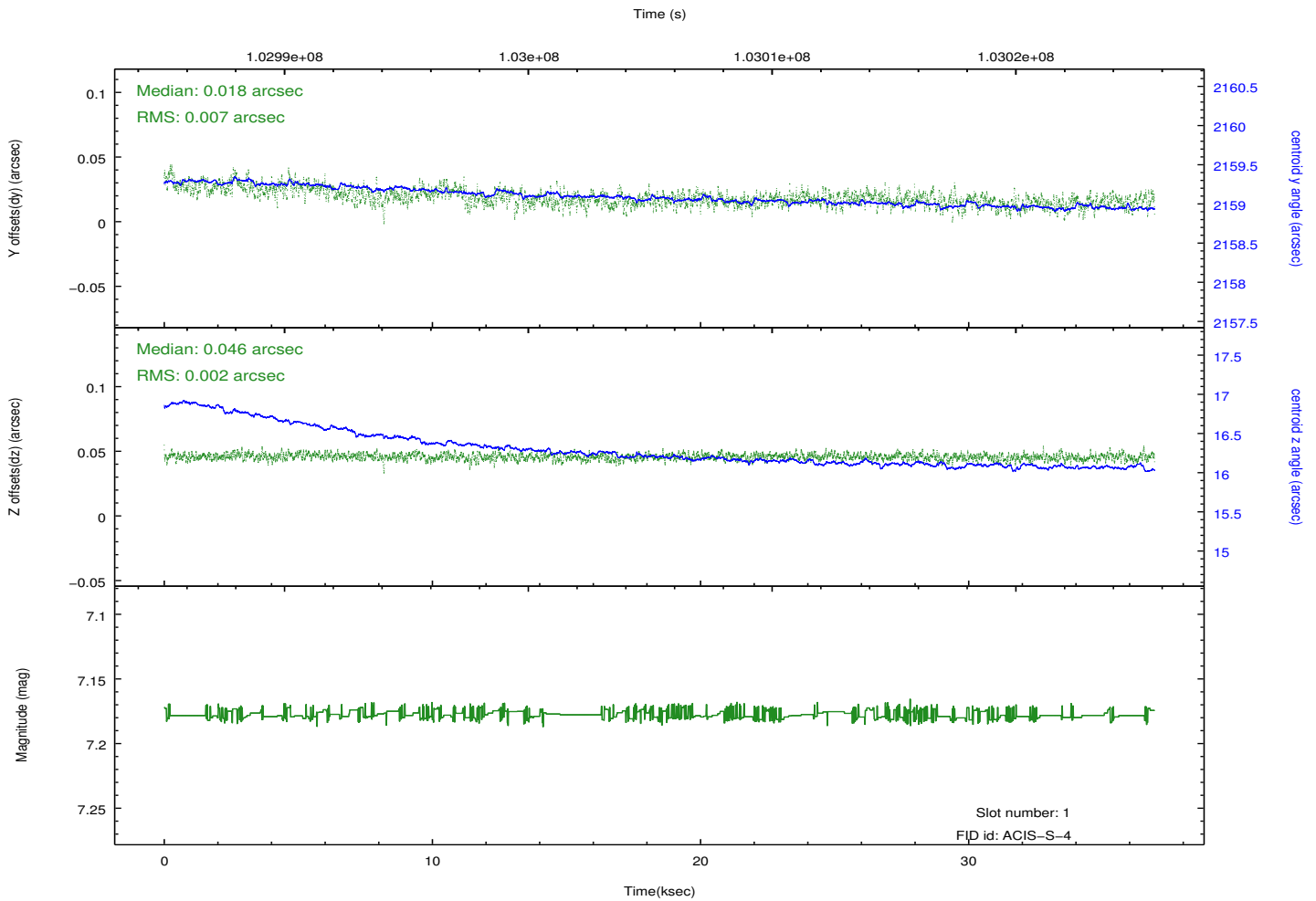
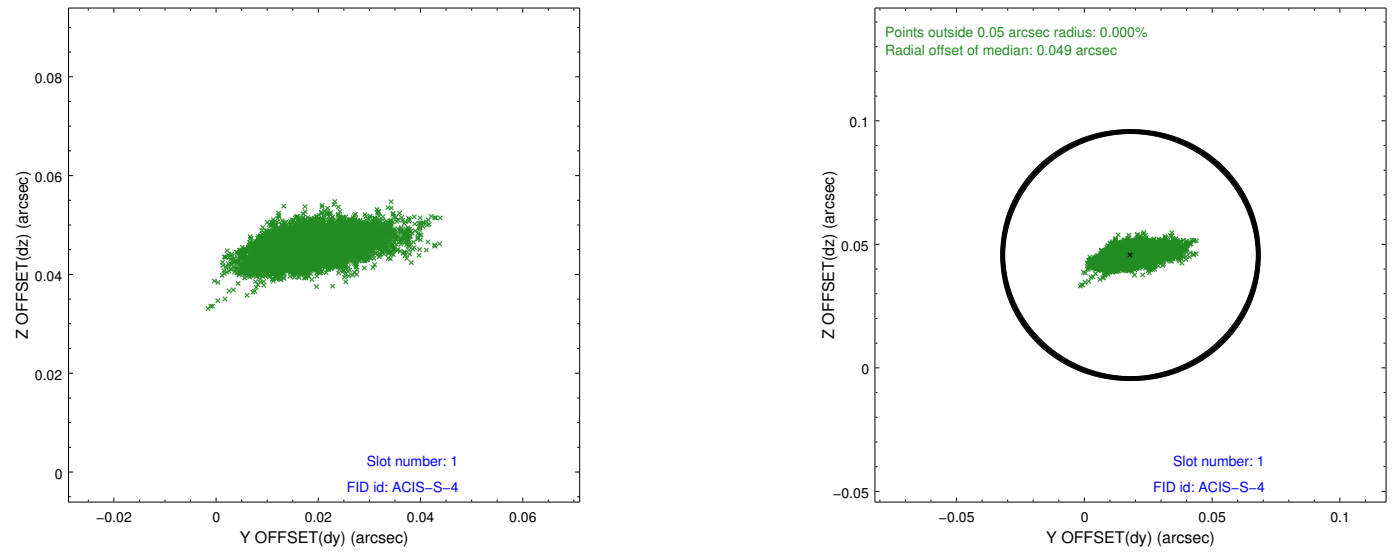


2.5 FID Slots

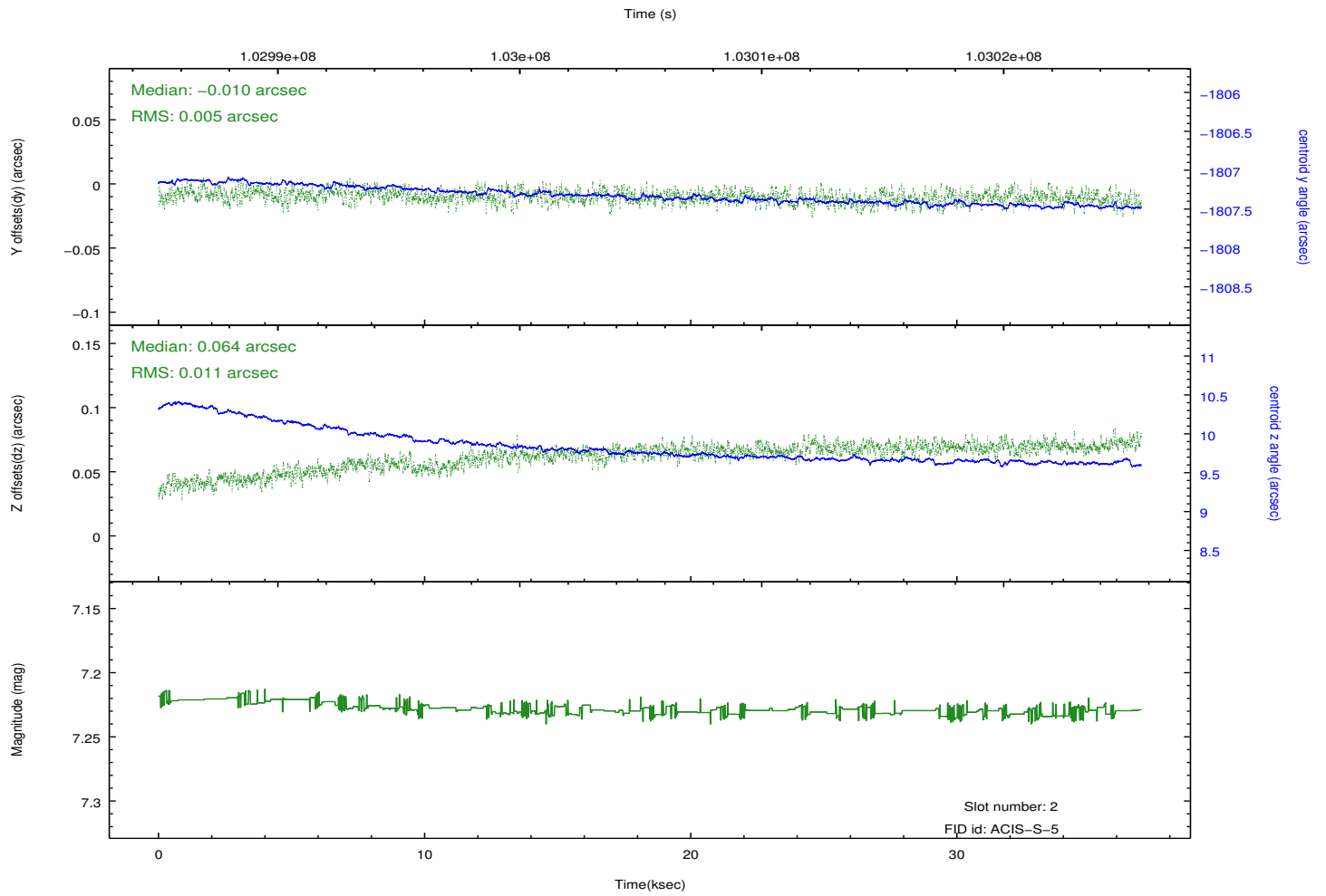
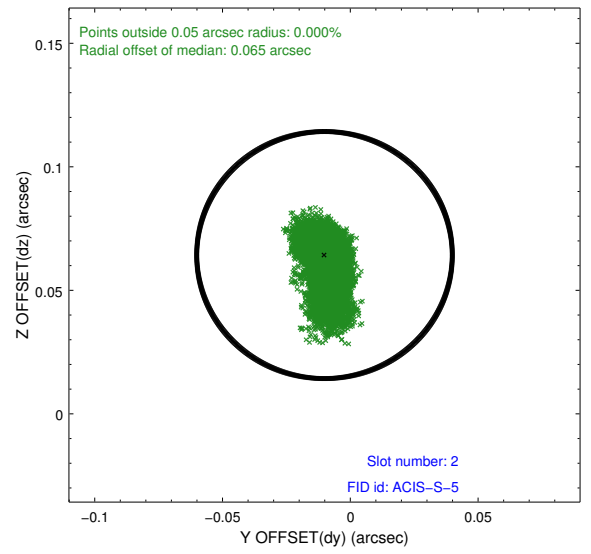
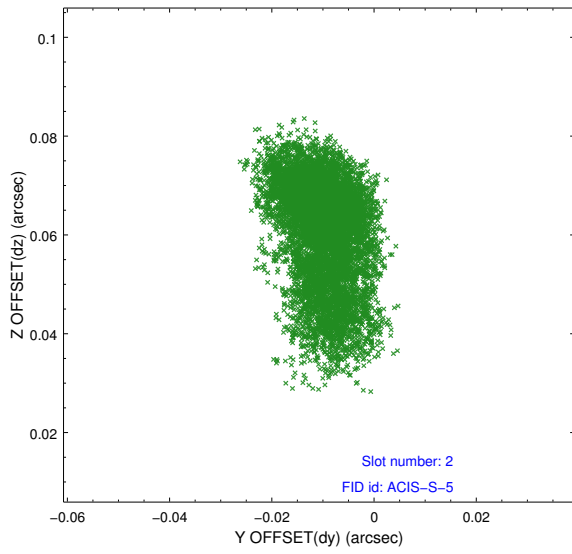
2.5.1 Slot 0



2.5.2 Slot 1

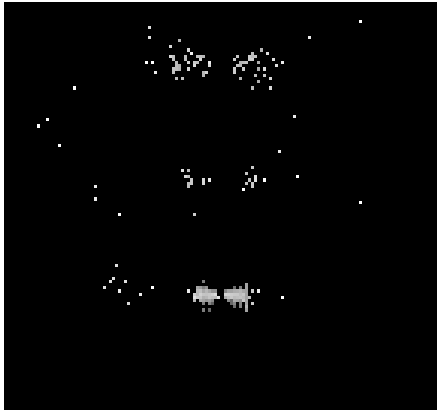


2.5.3 Slot 2

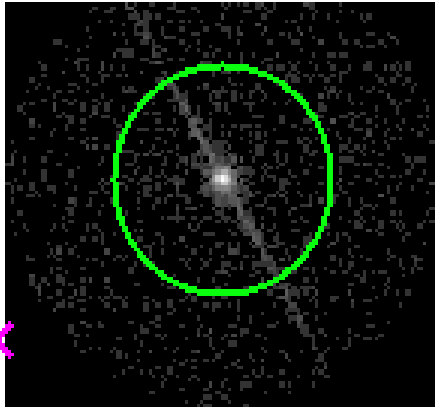


3 Gratings

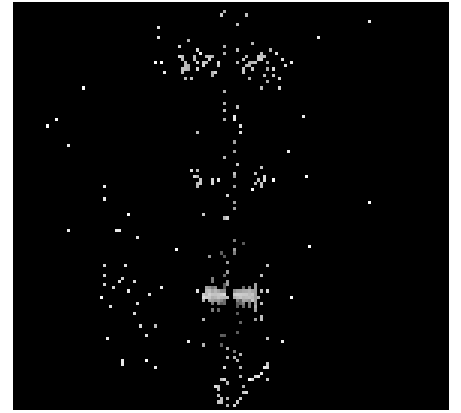
3.1 LETG Arm



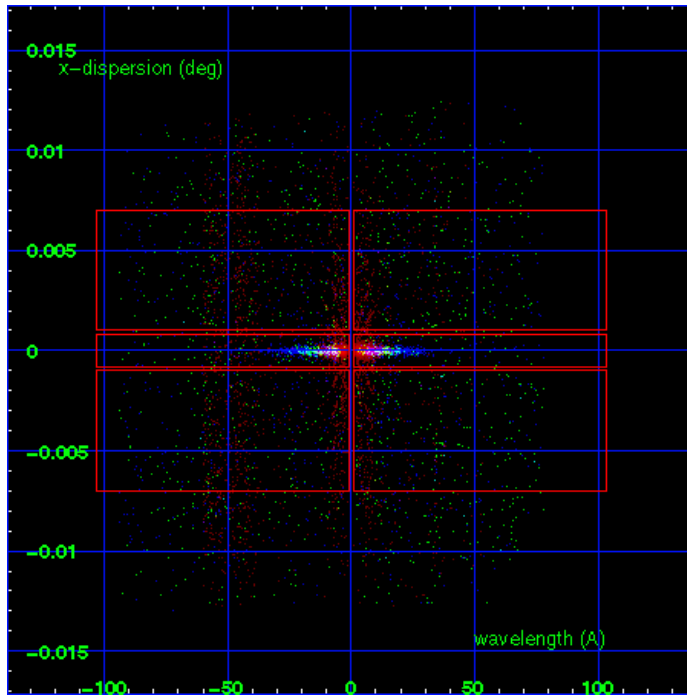
LETG Order Sort 123



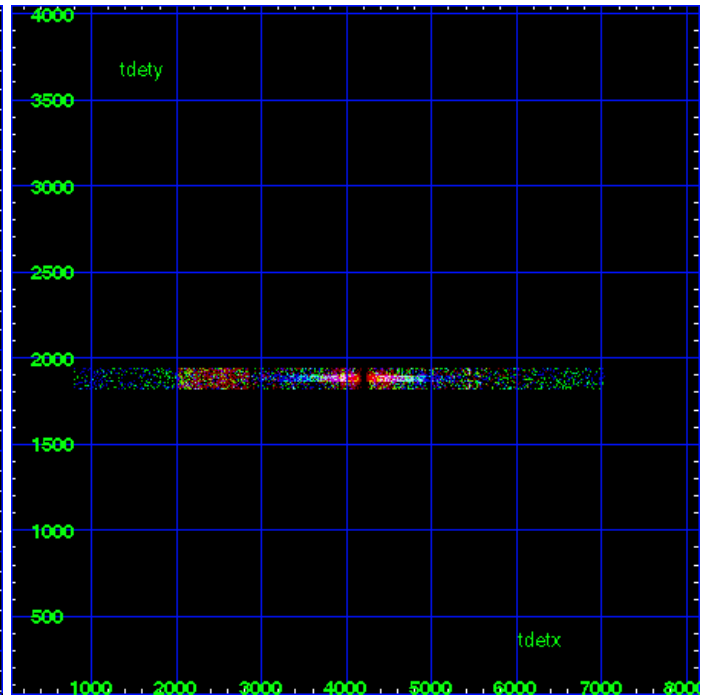
LETG Zero Order



LETG Order Sort ALL

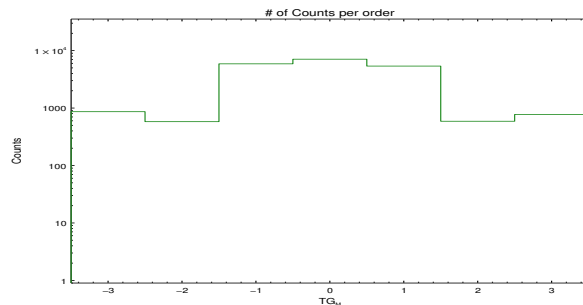


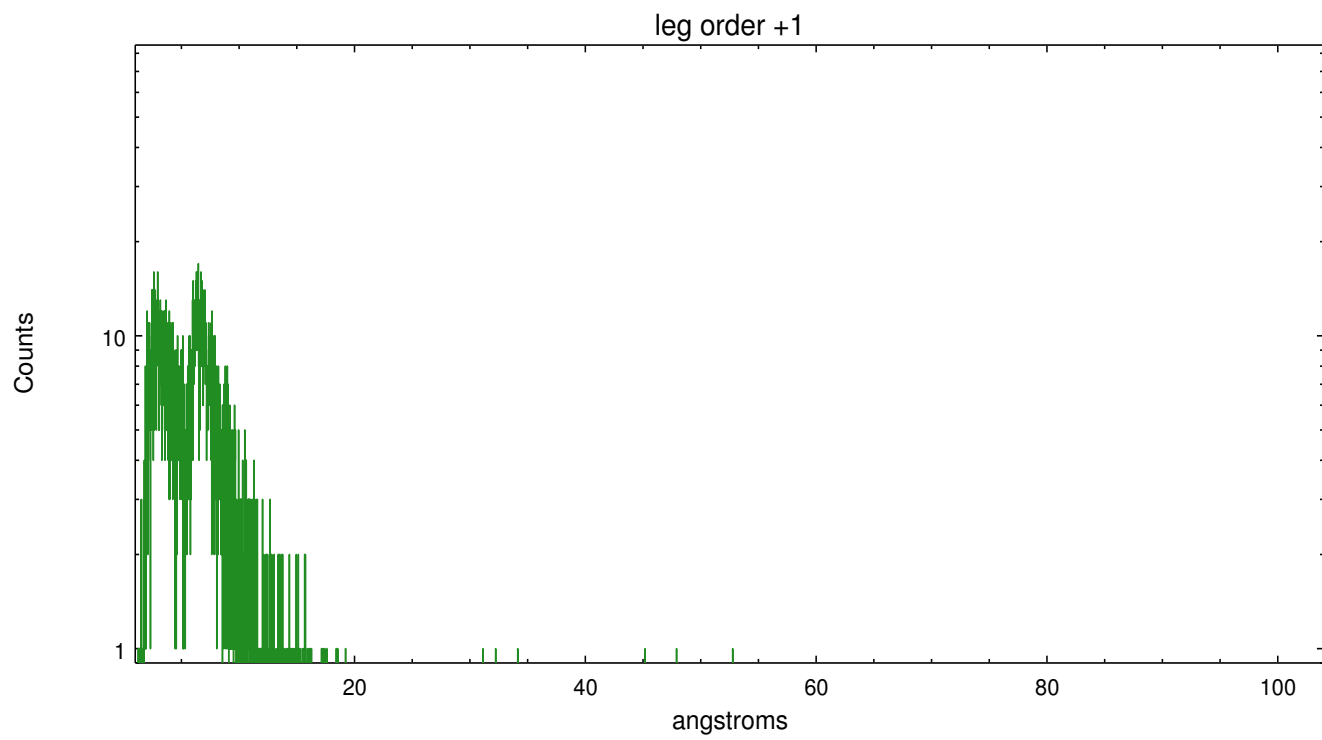
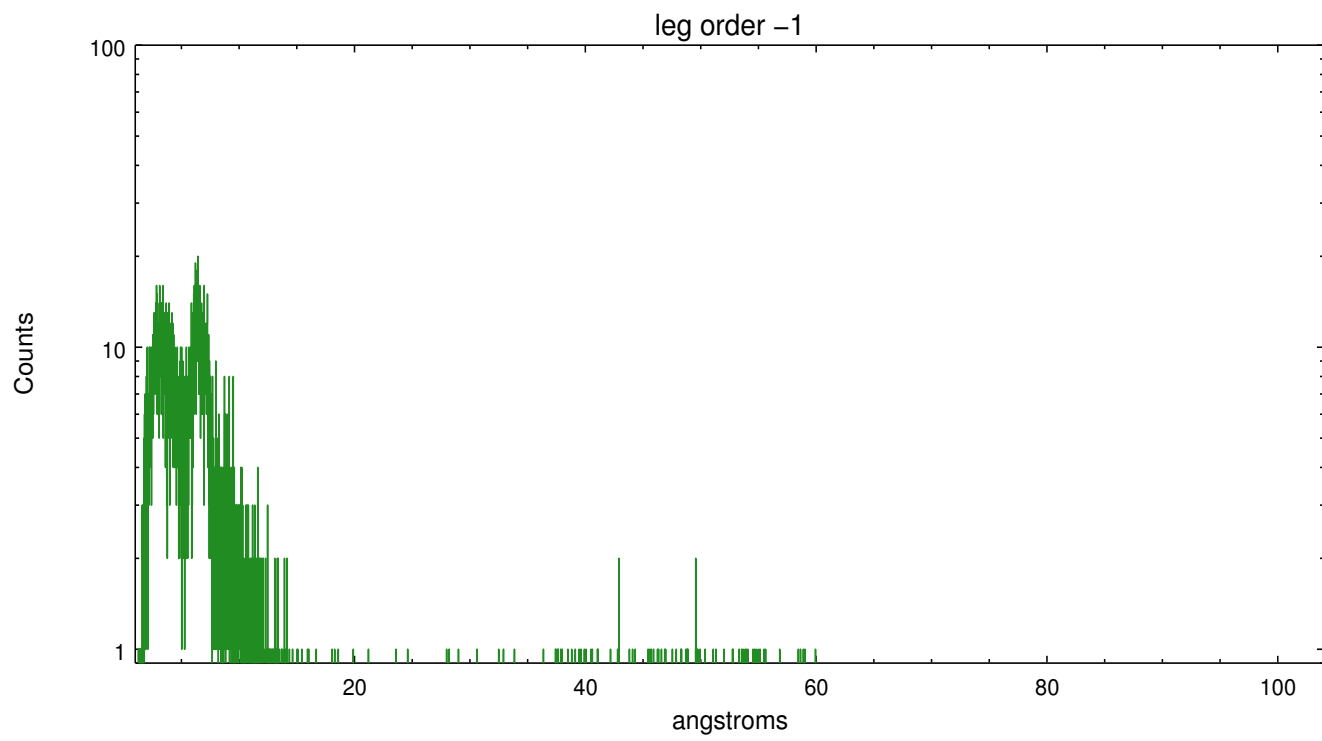
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	865	580	5887	7084	5376	589	773





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.10.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.934

A.2 Comments

Observer requested coordinates of ra=02:44:57.80, dec=+62:28:10.50.
Source is at ra=02:44:57.7, dec=+62:28:06.4. The zeroth order was
correctly identified by the software.

===

Gain and CTI correction are not well calibrated on CCD_ID 5 (ACIS-S1).
Default order sorting can clip some regions, particularly longward of
30A (first order). User-specified custom processing parameters may be
required in tg_resolve_events (osipfile=None, osort_lo, osort_hi ~0.5)
though this can allow more zeroth order background at short wavelengths.