

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9000 - L2 Version 2
Chandra X-Ray Center

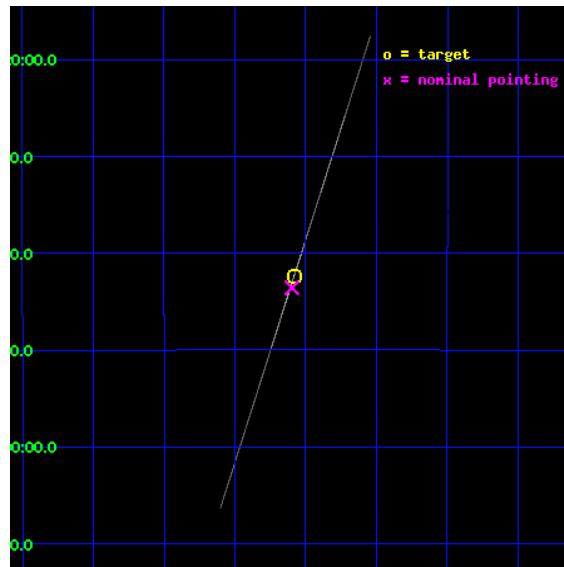
L2 Processing Date : May 15 2012

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1 Front

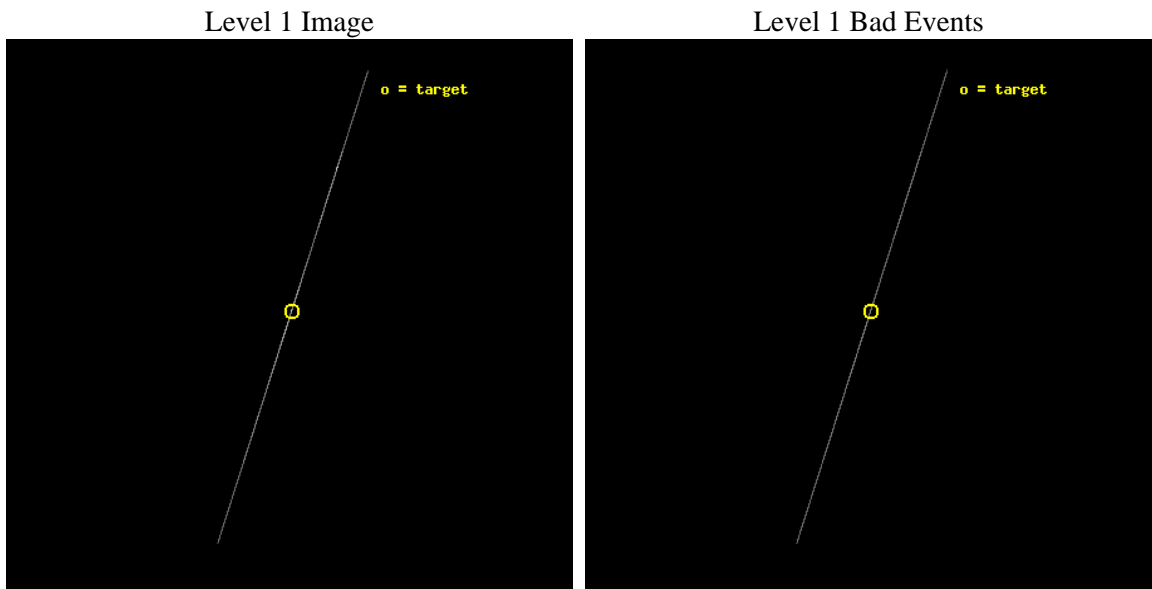
seq_num	400851	Sequence number
obs_id	9000	Observation id
title	First Chandra observation of the ultra-compact X-ray binary 4U~1850--087 during its high luminosity state	Proposal title
observer	Mr DIEGO ALTAMIRANO	Principal investigator
object	4U 1850-087	Source name
ra_targ	283.270417	Observer's specified target RA [deg]
dec_targ	-8.705667	Observer's specified target Dec [deg]
ra_nom	283.27435403738	Nominal RA [deg]
dec_nom	-8.7263440684829	Nominal Dec [deg]
roll_nom	107.7998039134	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29047.0	Sum of GTIs [s]
livetime	28933.53515625	Livetime [s]
ontime4	29047.0	Sum of GTIs [s]
ontime5	29047.0	Sum of GTIs [s]
ontime6	29047.0	Sum of GTIs [s]
ontime7	29047.0	Sum of GTIs [s]
ontime8	29047.0	Sum of GTIs [s]
ontime9	29047.0	Sum of GTIs [s]
l2events	1034182	Number of level 2 events



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	1	Obi number	sched_exp_time	28864.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	29047.0	Sum of GTIs [s]
caldbver	4.4.9	 	ontime4	29047.0	Sum of GTIs [s]
date	2012-05-15T00:21:39	Date and time of file creation	ontime5	29047.0	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	29047.0	Sum of GTIs [s]
			ontime7	29047.0	Sum of GTIs [s]
			ontime8	29047.0	Sum of GTIs [s]
			ontime9	29047.0	Sum of GTIs [s]
			l1events	1360425	Number of level 1 events

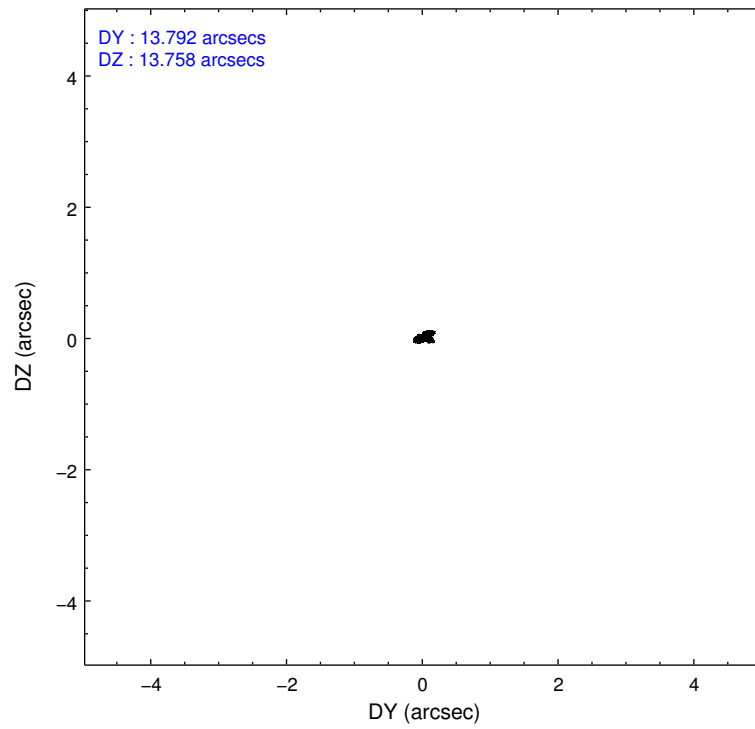
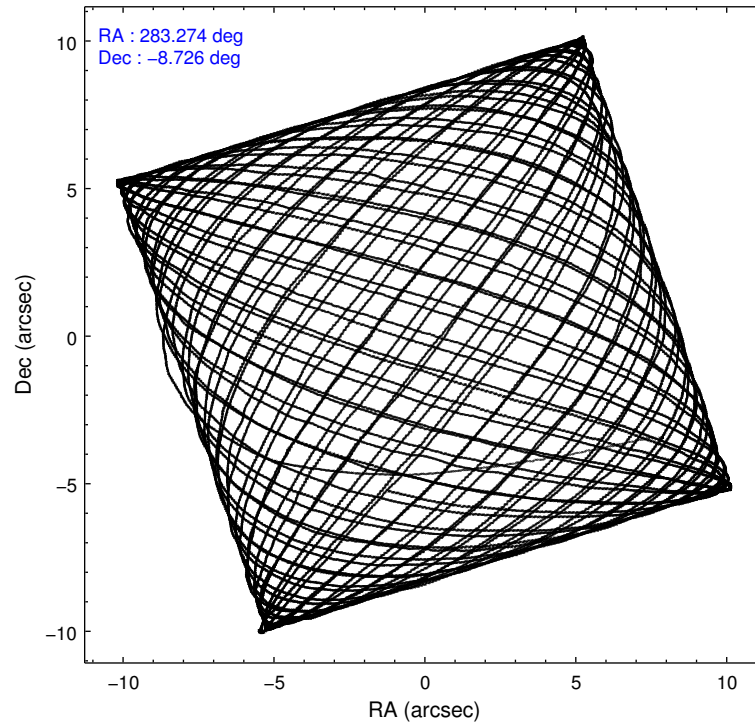
2.1.3 Events

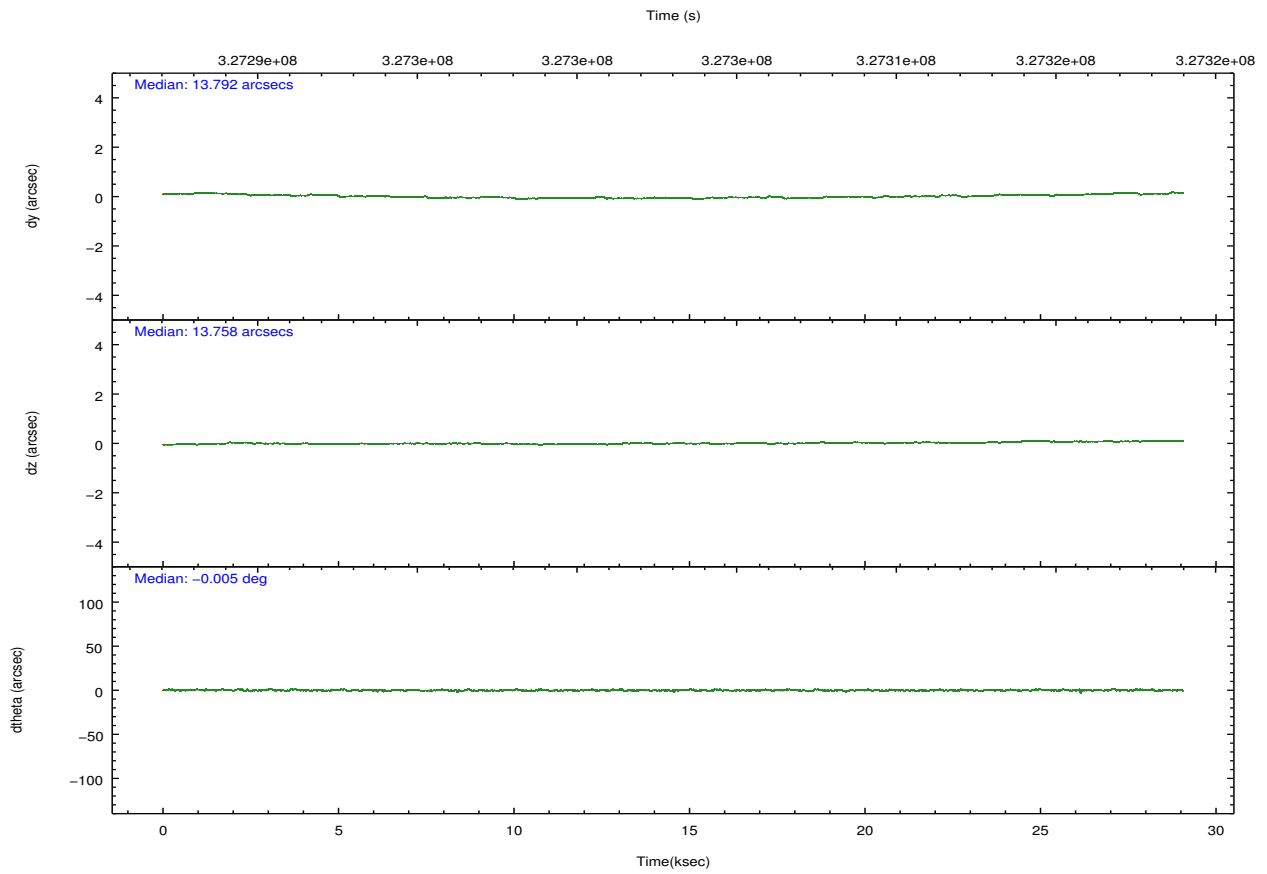
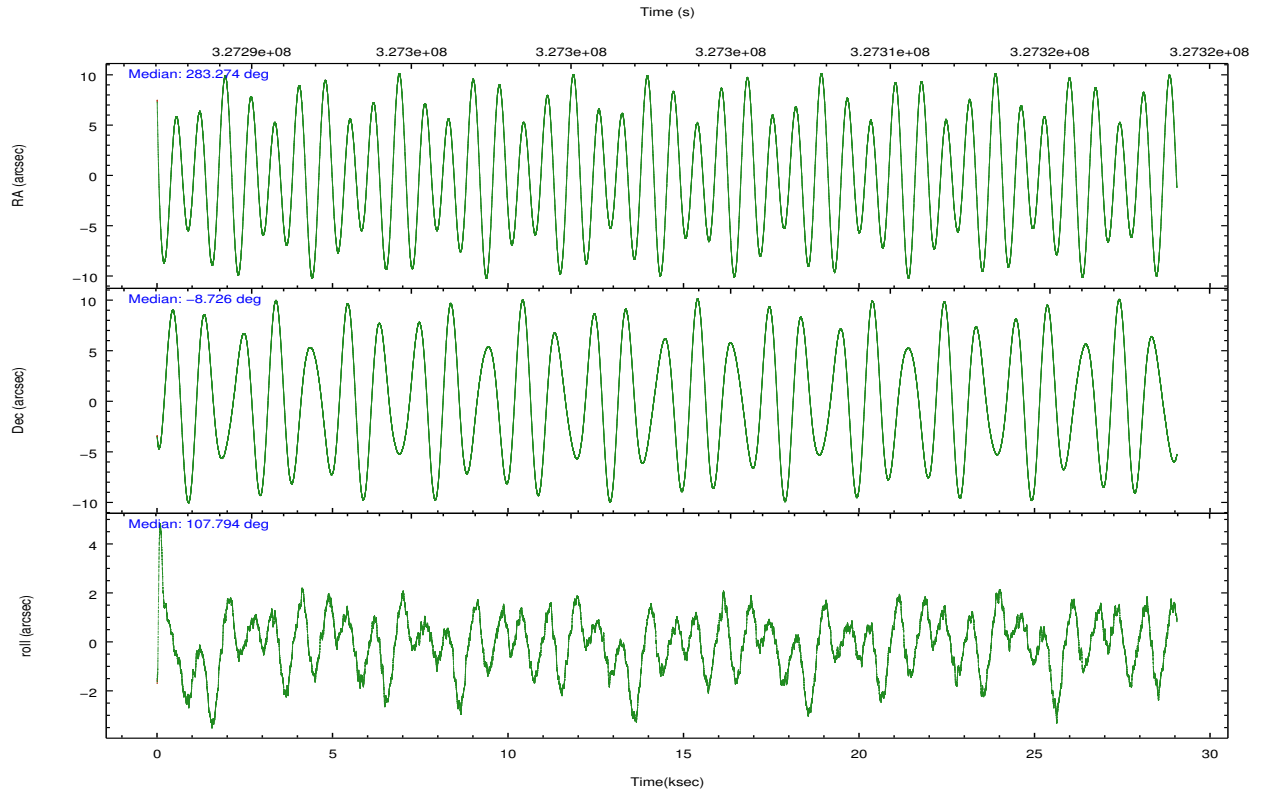
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	64636	329673	195555	562177	141276	67108	grade 0 events	6290	85596	49970	82118	29743	7578
rejected events	11016	25099	15069	33982	18961	13505		9%	25%	25%	14%	21%	11%
rejected %	17%	7%	7%	6%	13%	20%	grade 1 events	197	364	295	739	443	211
								0%	0%	0%	0%	0%	0%
							grade 2 events	23191	84721	95071	157804	37820	21131
								35%	25%	48%	28%	26%	31%
							grade 3 events	6346	4913	7972	41923	12374	5610
								9%	1%	4%	7%	8%	8%
							grade 4 events	6487	4724	7606	40867	12036	5977
								10%	1%	3%	7%	8%	8%
							grade 5 events	10367	22181	13285	30304	17514	12842
								16%	6%	6%	5%	12%	19%
							grade 6 events	11758	127174	21356	208422	31346	13759
								18%	38%	10%	37%	22%	20%
							grade 7 events	0	0	0	0	0	0
								0%	0%	0%	0%	0%	0%

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	CC33_GRADED	CC33_GRADED	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	283.295100	283.2743540373822	CCD I2 on	N	N
[deg] Pointing Dec	-8.744429	-8.726344068482886	CCD I3 on	N	N
[deg] Pointing Roll	107.646327	107.7998039133966	CCD S0 on	O1	Y
[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	-182.132523	-182.1370004450064	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-8	-7.995522138001405	CCD S4 on	Y	Y
[s] Observation start time (MET)	327288673.184000	327287865.07416	CCD S5 on	O2	Y
Observation start date	2008-05-16T01:30:08	2008-05-16T01:17:45	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	327317537.184000	327318090.27563	On-chip summing requested	N	N
Observation end date	2008-05-16T09:31:12	2008-05-16T09:41:30	Subarray requested	NONE	NONE
Read mode	CONTINUOUS	CONTINUOUS	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0

2.3 Aspect





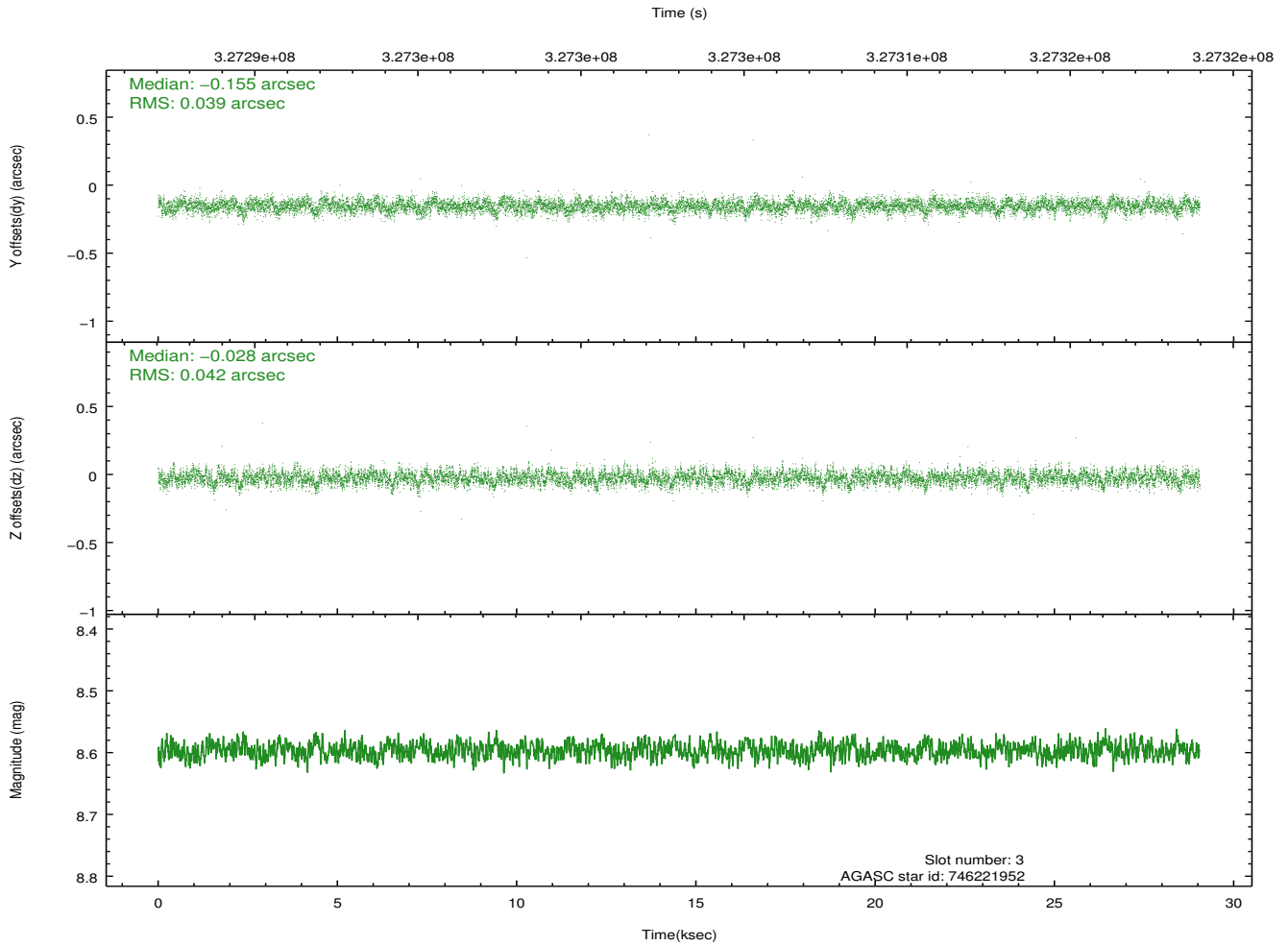
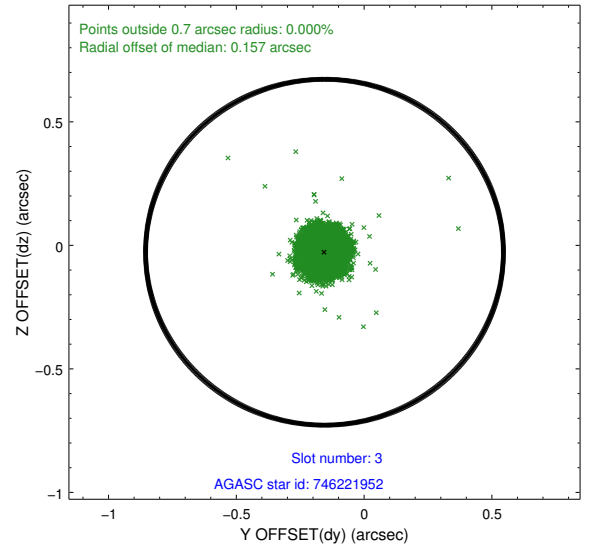
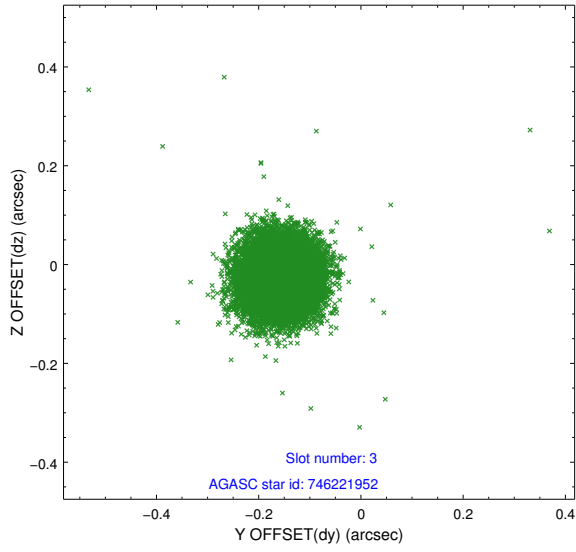
Slot Statistics

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	7087	0.074	0.200	0.007	0.013	0.000000	0.000000	929.92	-1895.27
1	FID	ACIS-S-2	6.91	7087	-0.171	-0.140	0.007	0.012	0.000000	0.000000	-766.18	-1900.24
2	FID	ACIS-S-4	6.98	7086	0.073	-0.054	0.006	0.012	0.000000	0.000000	2147.15	8.50
3	GUIDE	746221952	8.60	14168	-0.155	-0.028	0.060	0.097	283.010159	-8.460584	1280.68	657.78
4	GUIDE	746235352	7.91	14170	0.042	-0.027	0.085	0.130	283.027477	-9.082655	-872.14	1276.00
5	GUIDE	746239504	8.36	14171	0.025	-0.315	0.071	0.110	282.830293	-9.257290	-1259.94	2133.75
6	GUIDE	747914792	7.17	14173	0.003	0.330	0.045	0.072	283.972099	-8.794515	-903.81	-2239.27
7	GUIDE	747897648	7.21	14171	0.082	0.033	0.063	0.109	283.483122	-9.370309	-2349.64	46.54

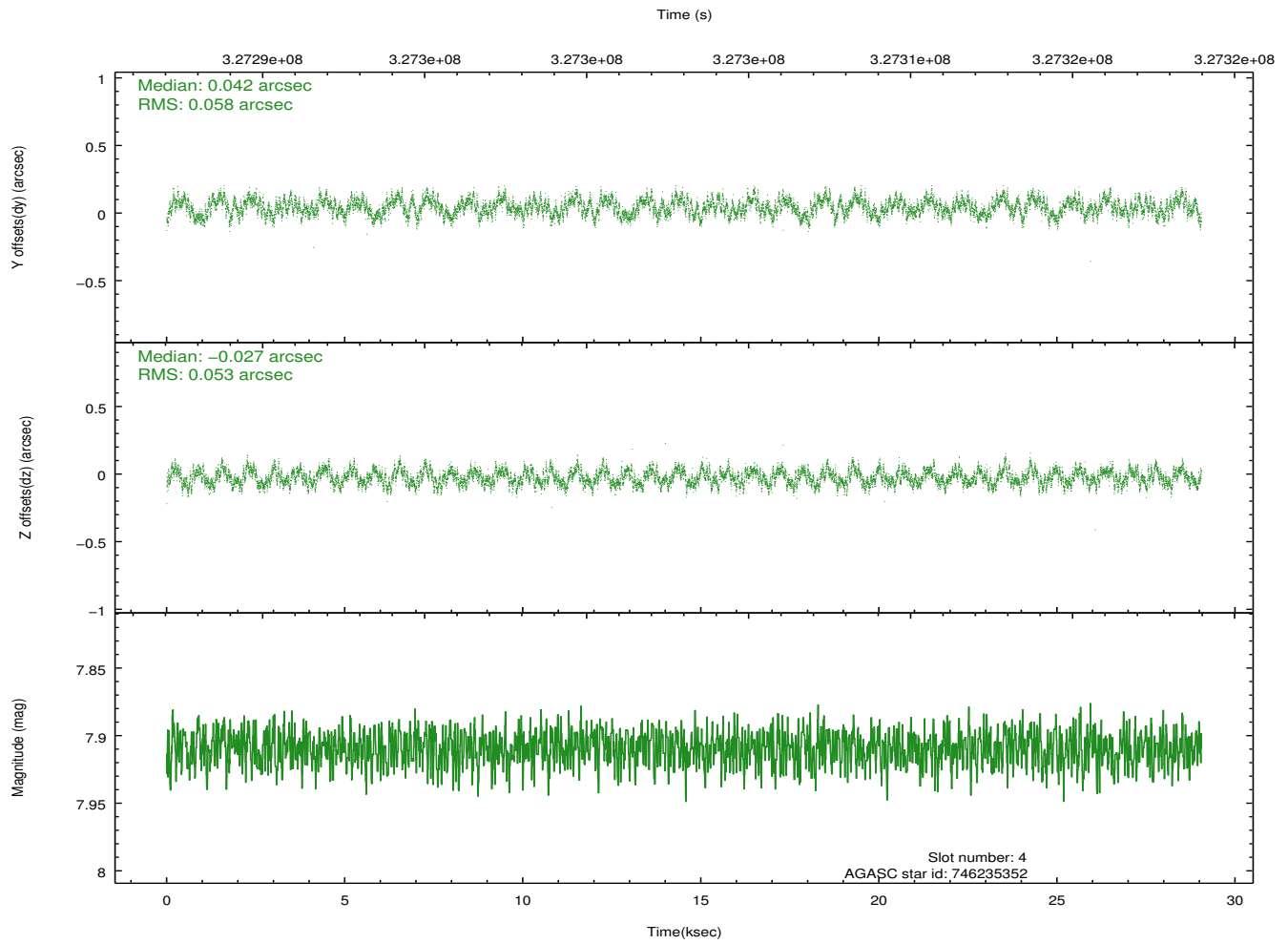
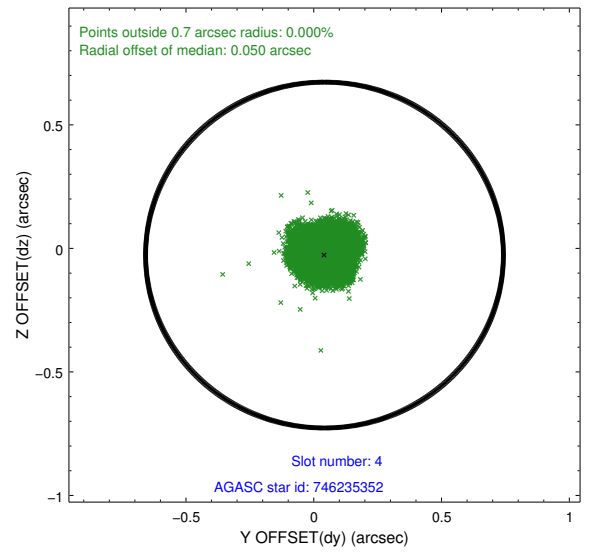
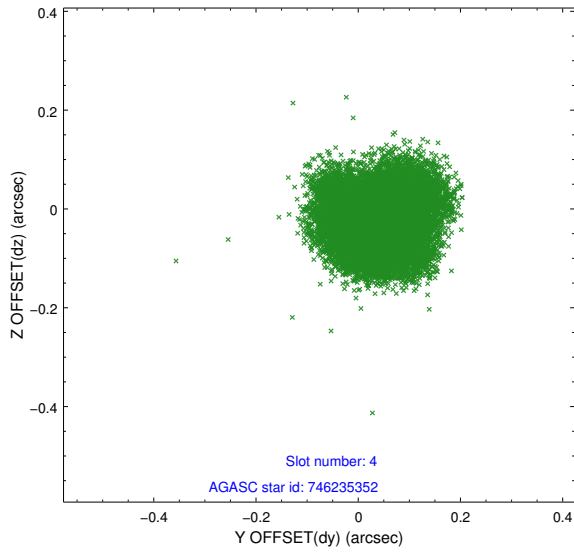
∞

2.4 Star Slots

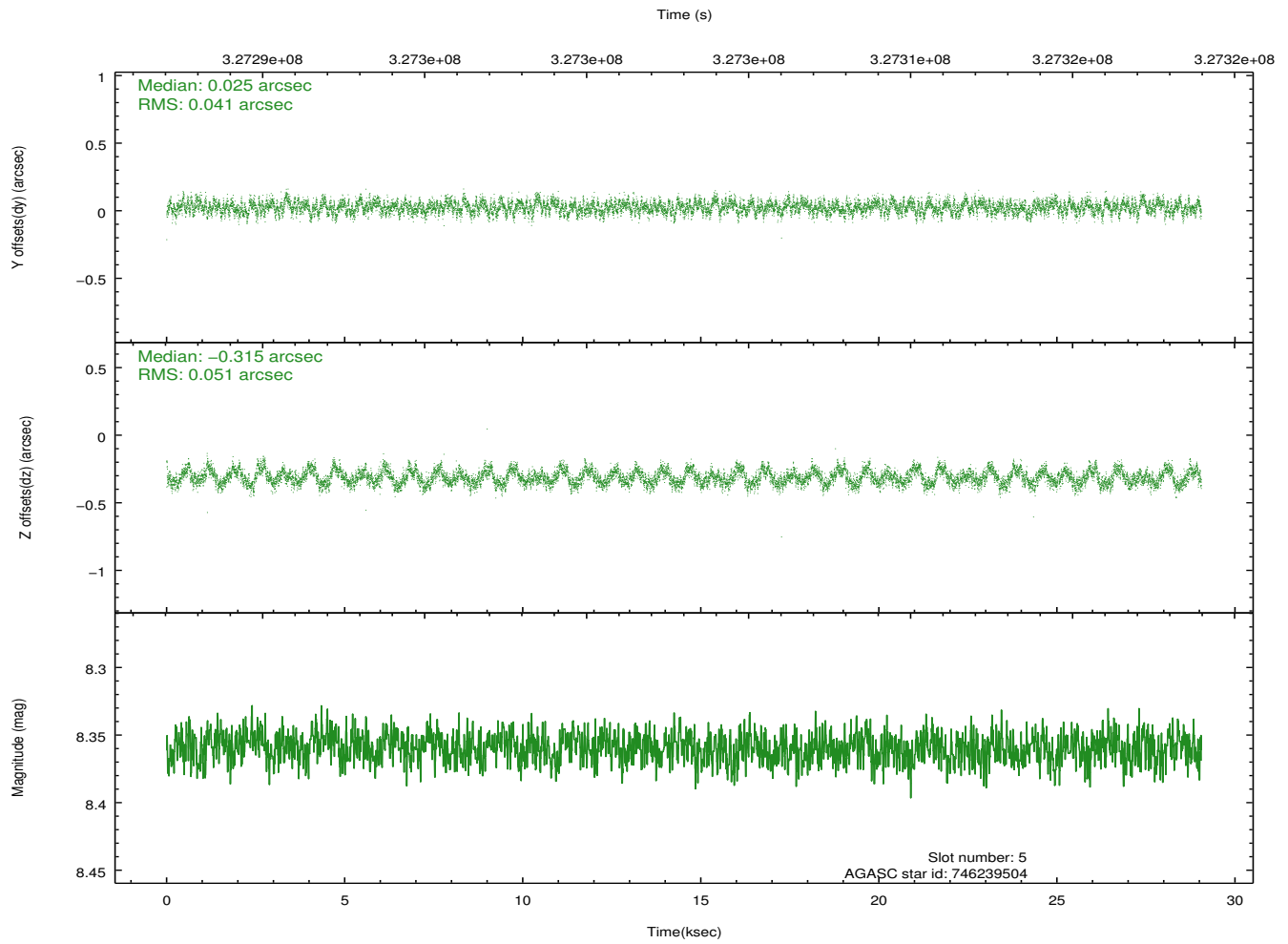
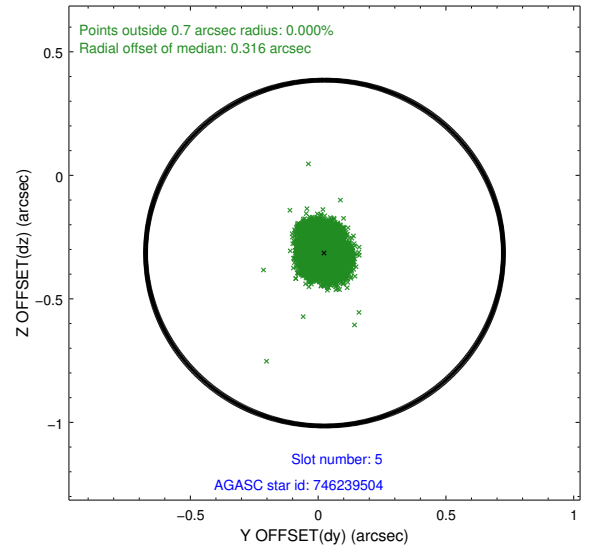
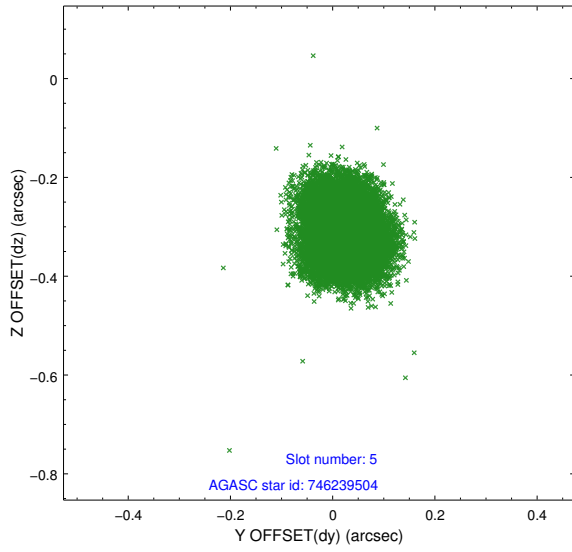
2.4.1 Slot 3



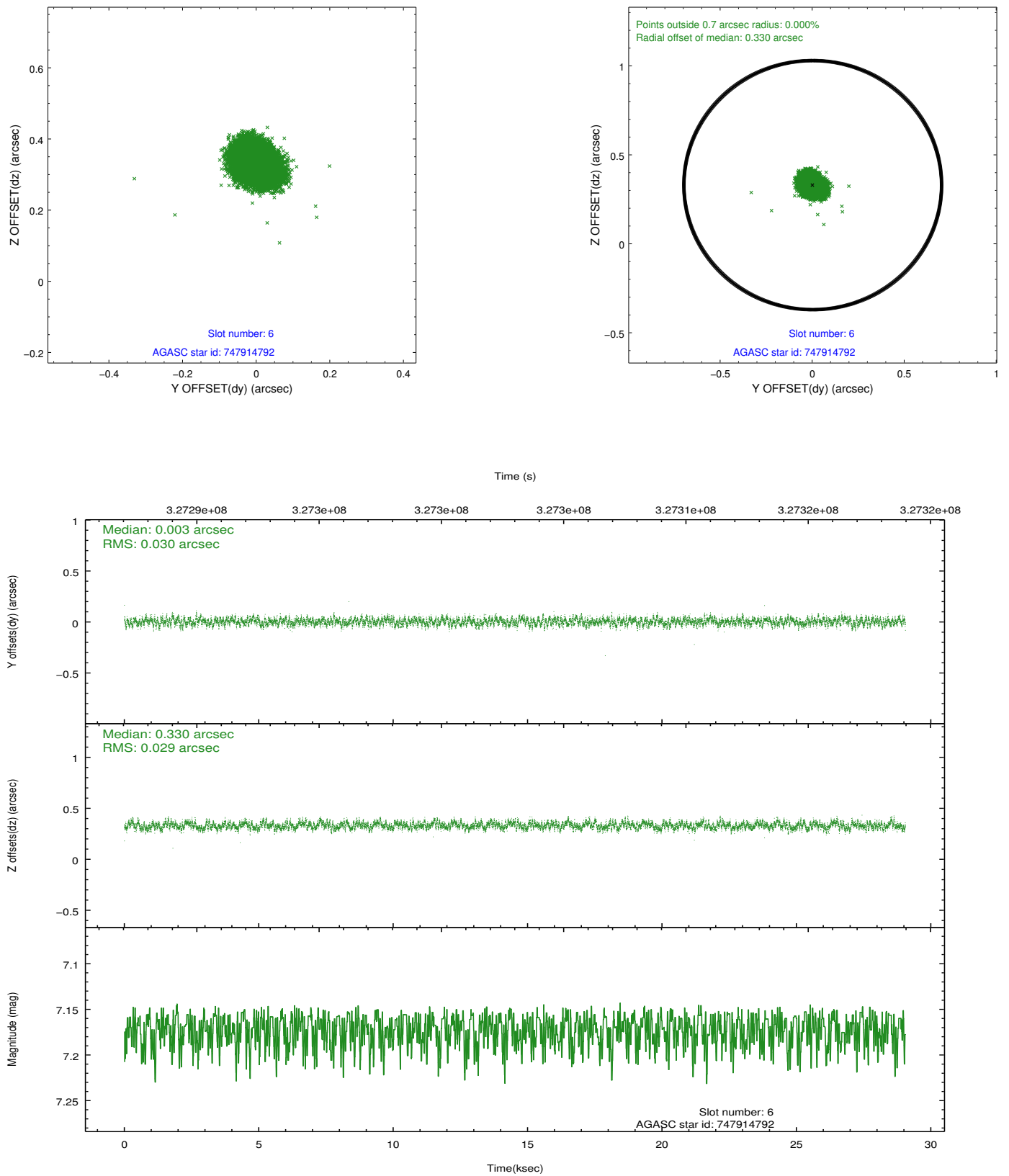
2.4.2 Slot 4



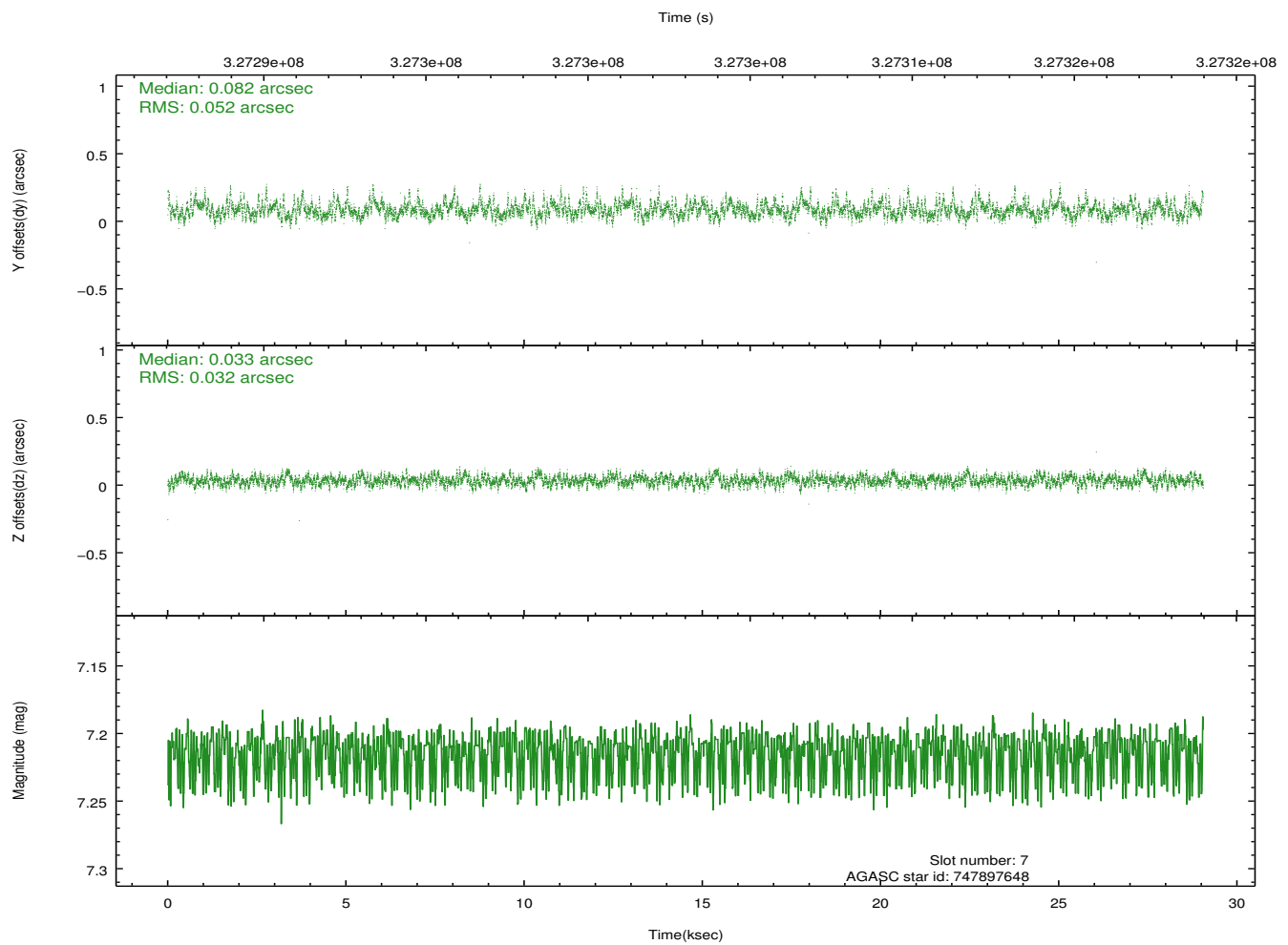
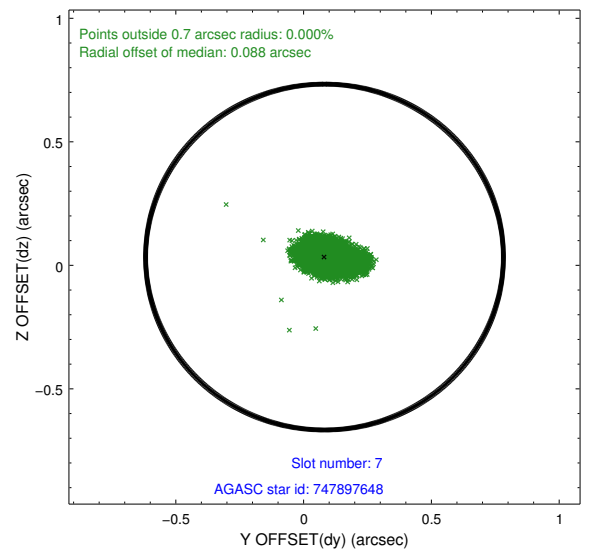
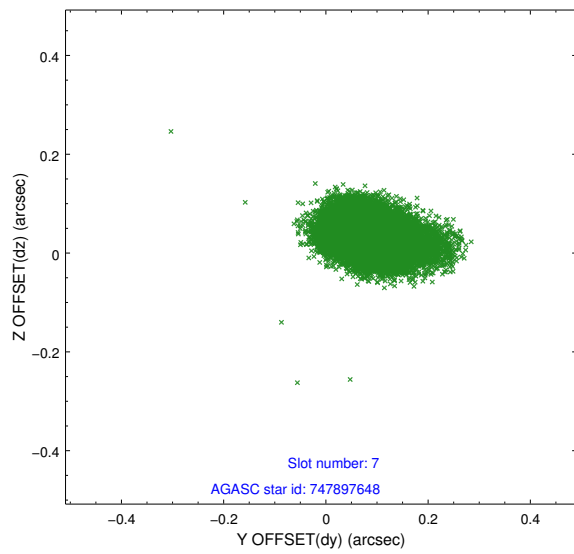
2.4.3 Slot 5



2.4.4 Slot 6

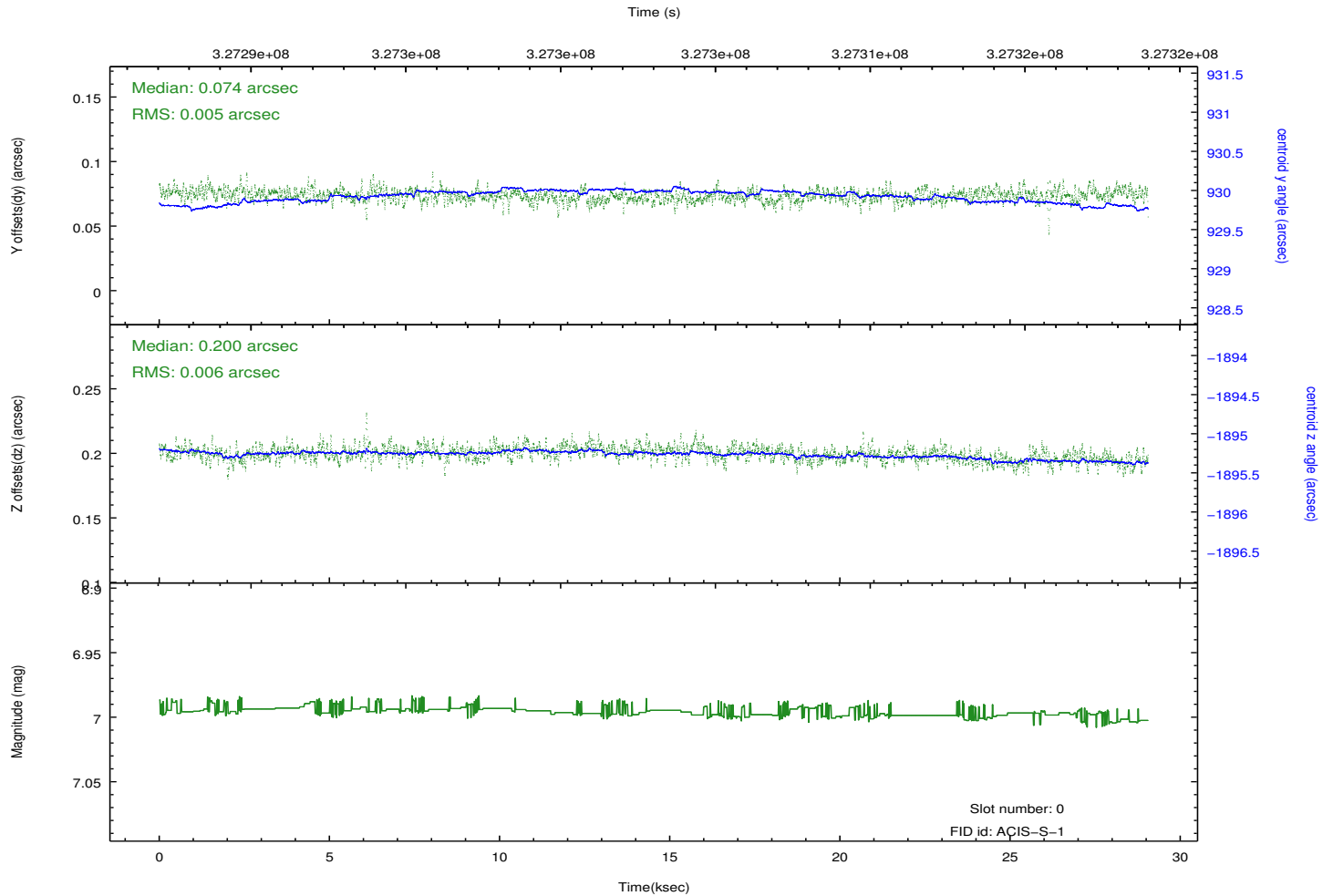
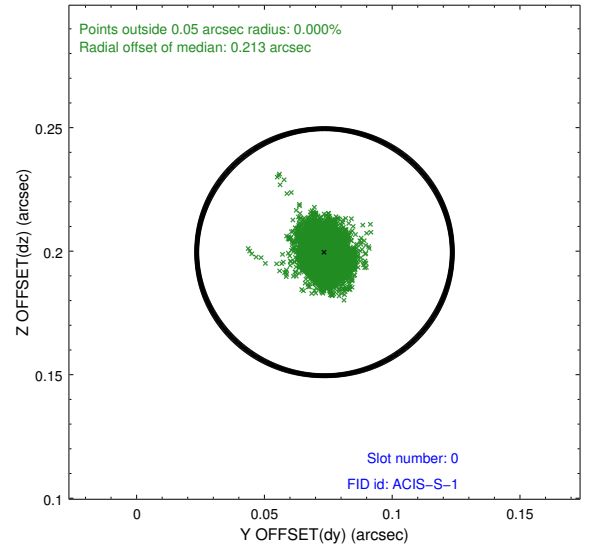
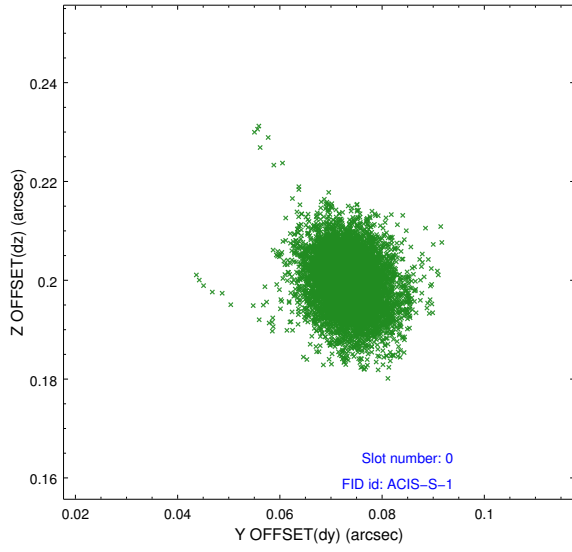


2.4.5 Slot 7

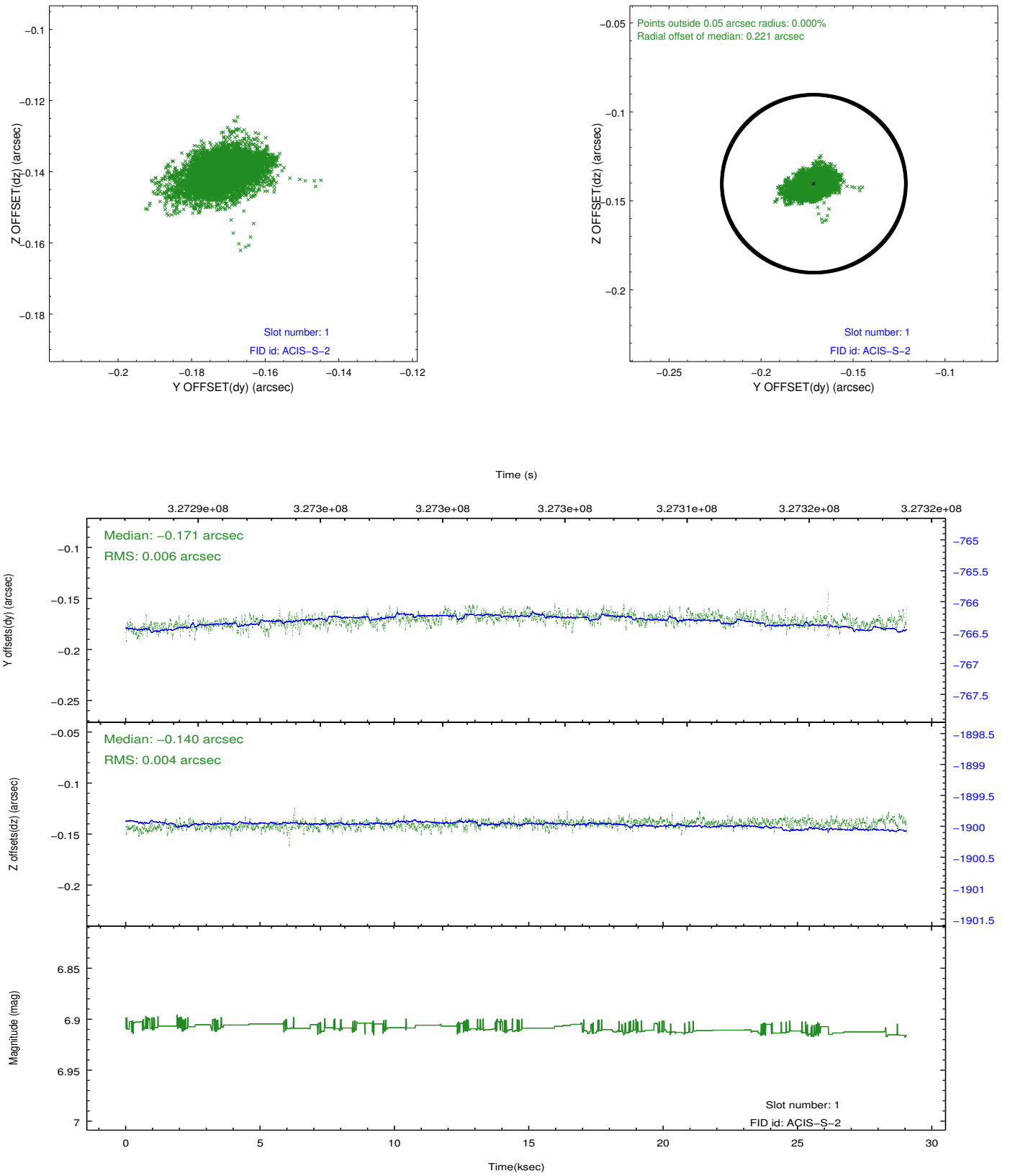


2.5 FID Slots

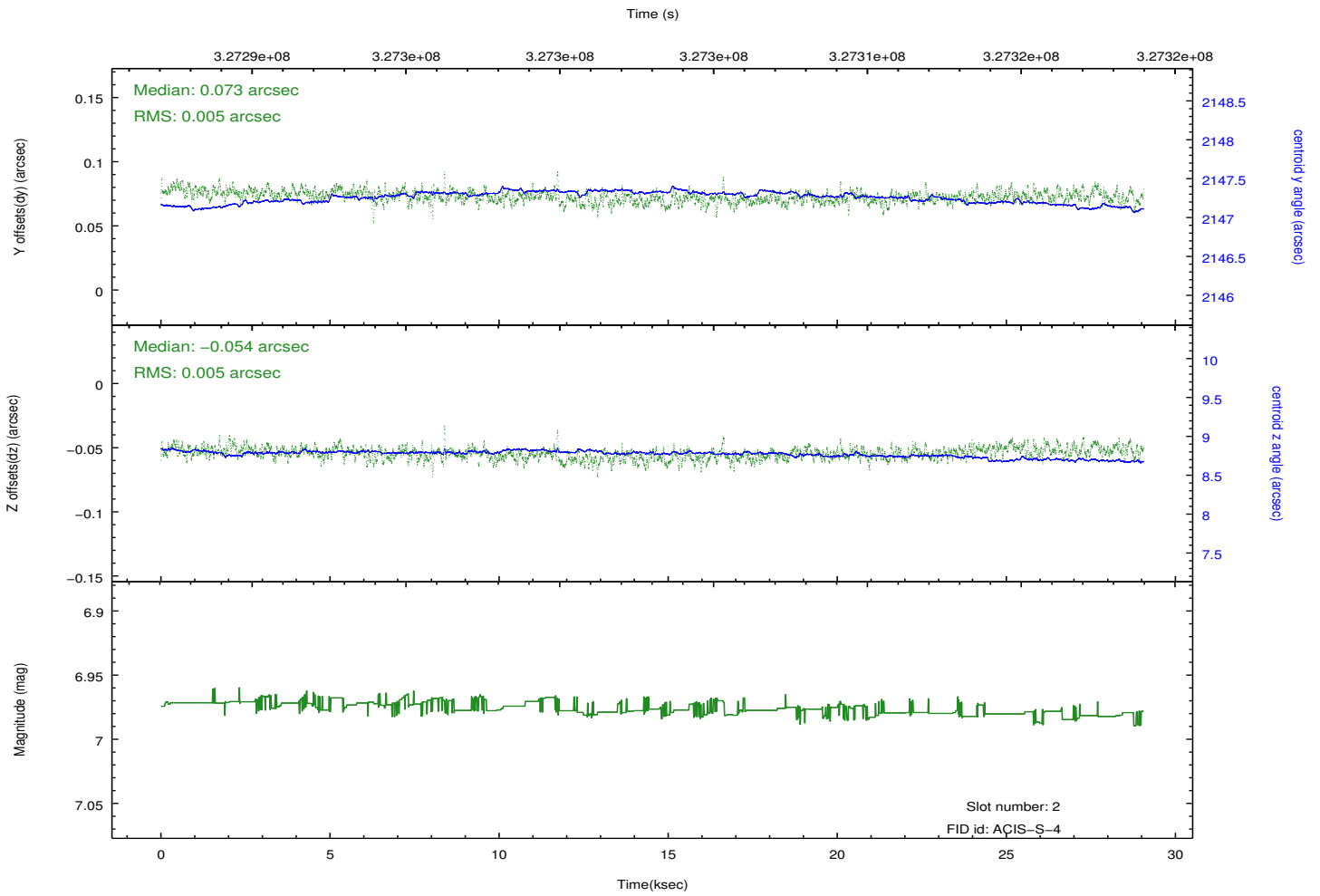
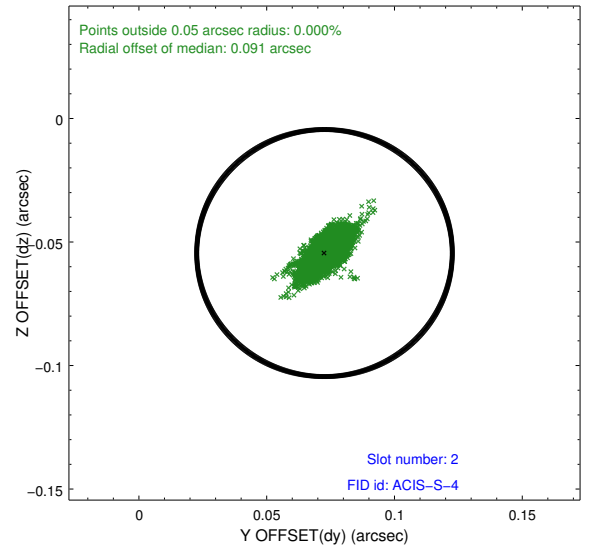
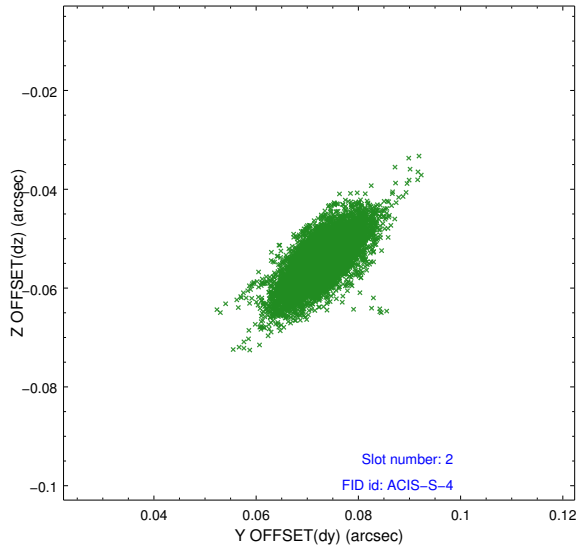
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



3 Gratings

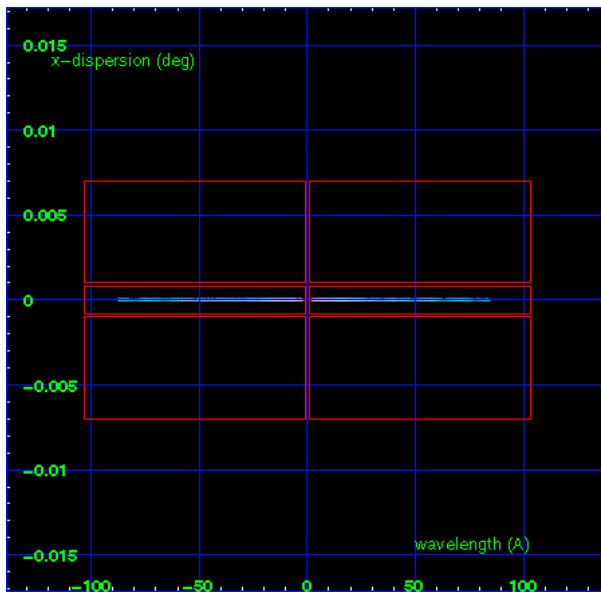
3.1 LETG Arm



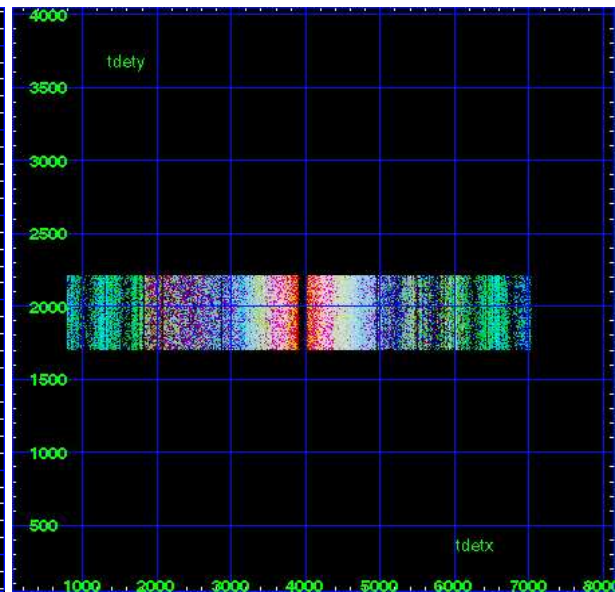
LETG Order Sort 123



LETG Order Sort ALL

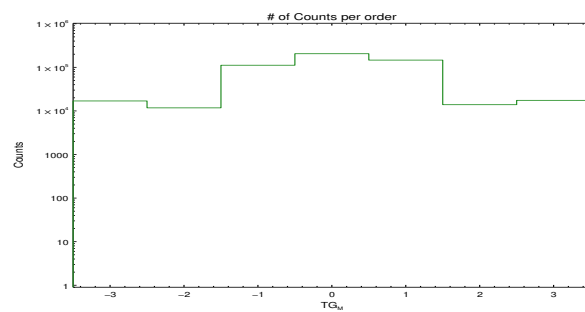


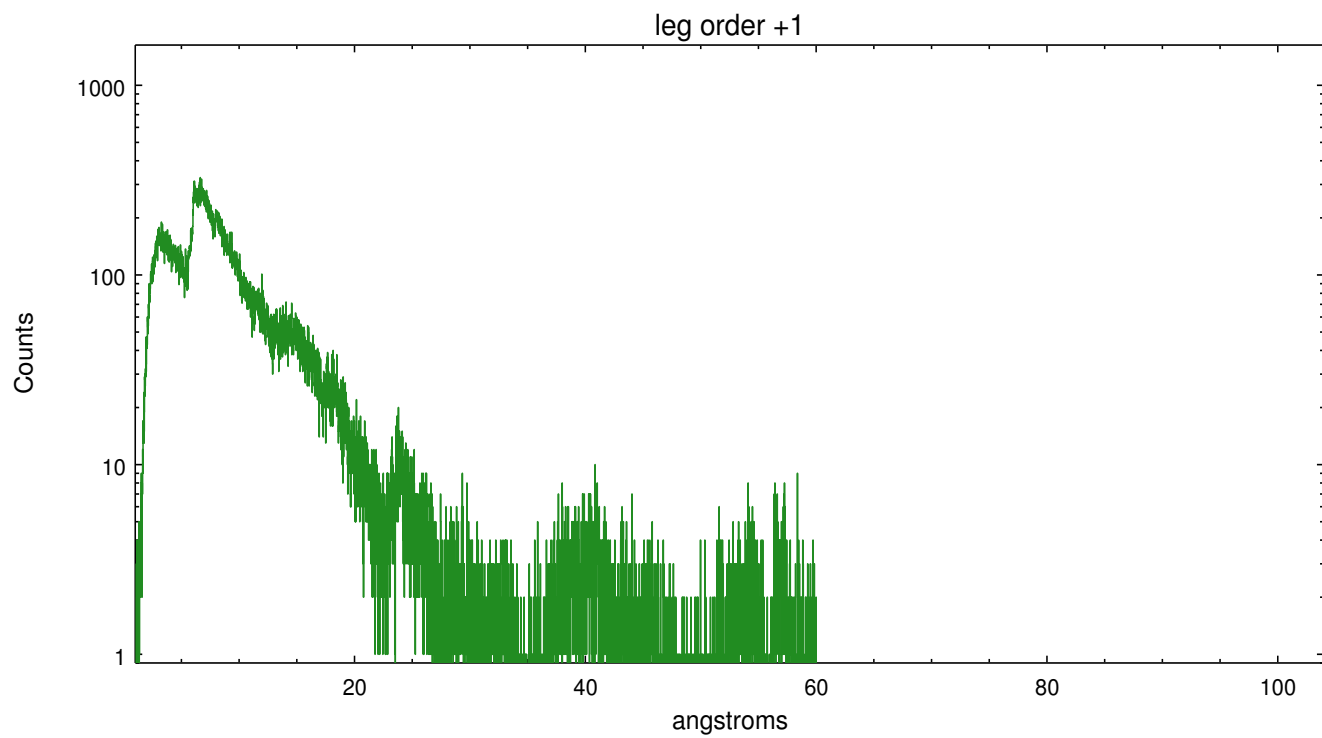
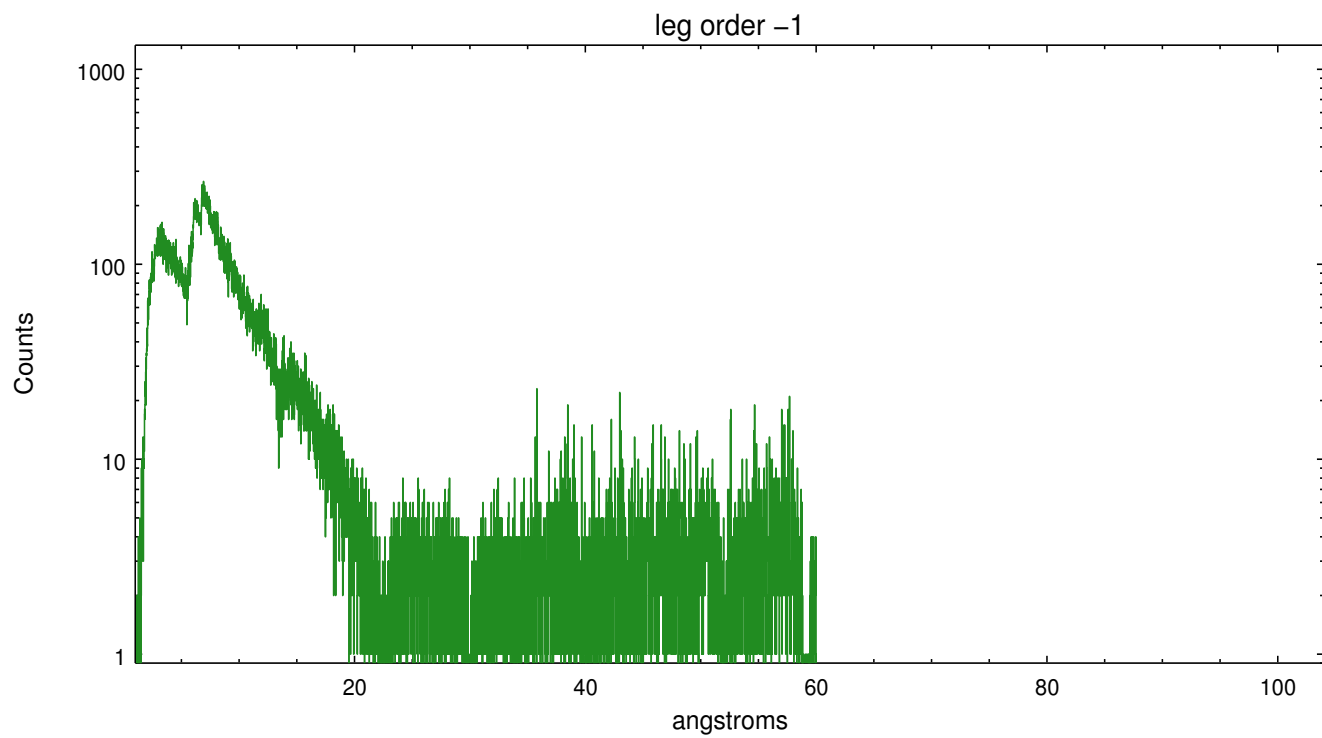
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	16933	11754	111704	205408	146494	13897	17472





A Summary

A.1 Status

V&V Scientist	Mike Nowak
V&V Date (YYYY-MM-DD)	2012.05.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.047

A.2 Comments

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.