

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 10662 - L2 Version 2
Chandra X-Ray Center

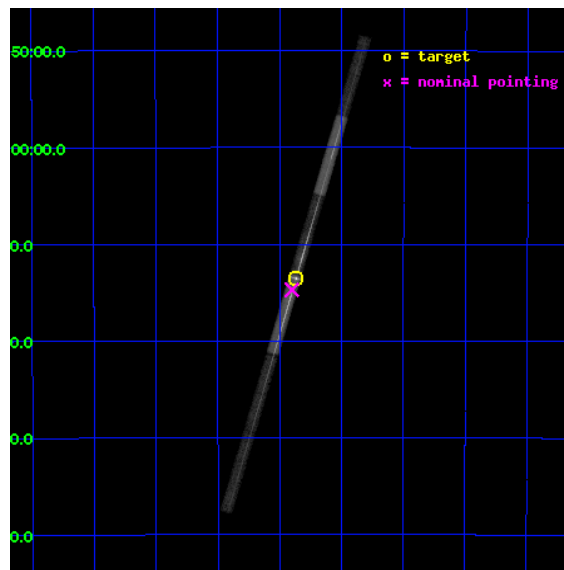
L2 Processing Date : Jun 8 2012

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1 Front

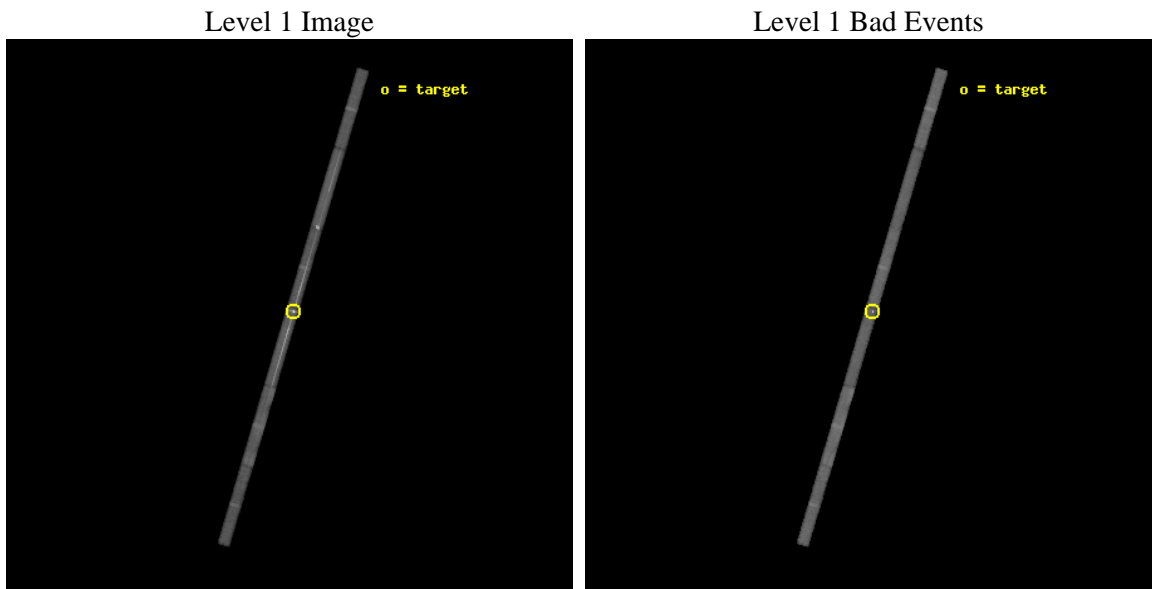
seq_num	790199	Sequence number
obs_id	10662	Observation id
title	AO-10 Calibration Observations of PKS2155-304	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	PKS2155-304	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	329.716667	Observer's specified target RA [deg]
dec_targ	-30.225556	Observer's specified target Dec [deg]
ra_nom	329.72525848802	Nominal RA [deg]
dec_nom	-30.245132211981	Nominal Dec [deg]
roll_nom	106.50104519206	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30063.59948796	Sum of GTIs [s]
livetime	28398.62847022	Livetime [s]
ontime4	30063.59948796	Sum of GTIs [s]
ontime5	30063.59948796	Sum of GTIs [s]
ontime6	30062.858467877	Sum of GTIs [s]
ontime7	30063.59948796	Sum of GTIs [s]
ontime8	30063.59948796	Sum of GTIs [s]
ontime9	30063.59948796	Sum of GTIs [s]
l2events	210774	Number of level 2 events



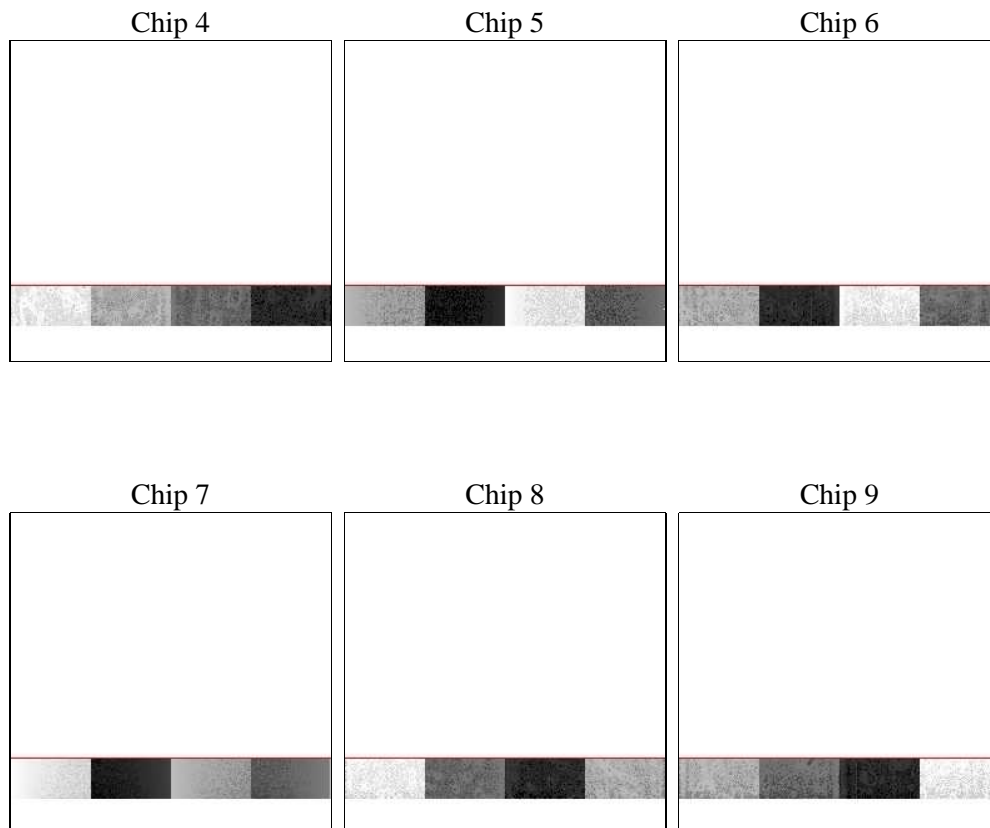
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	30063.59948796	Sum of GTIs [s]
caldbver	4.4.10	 	ontime4	30063.59948796	Sum of GTIs [s]
date	2012-06-08T06:57:08	Date and time of file creation	ontime5	30063.59948796	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	30062.858467877	Sum of GTIs [s]
			ontime7	30063.59948796	Sum of GTIs [s]
			ontime8	30063.59948796	Sum of GTIs [s]
			ontime9	30063.59948796	Sum of GTIs [s]
			l1events	502939	Number of level 1 events

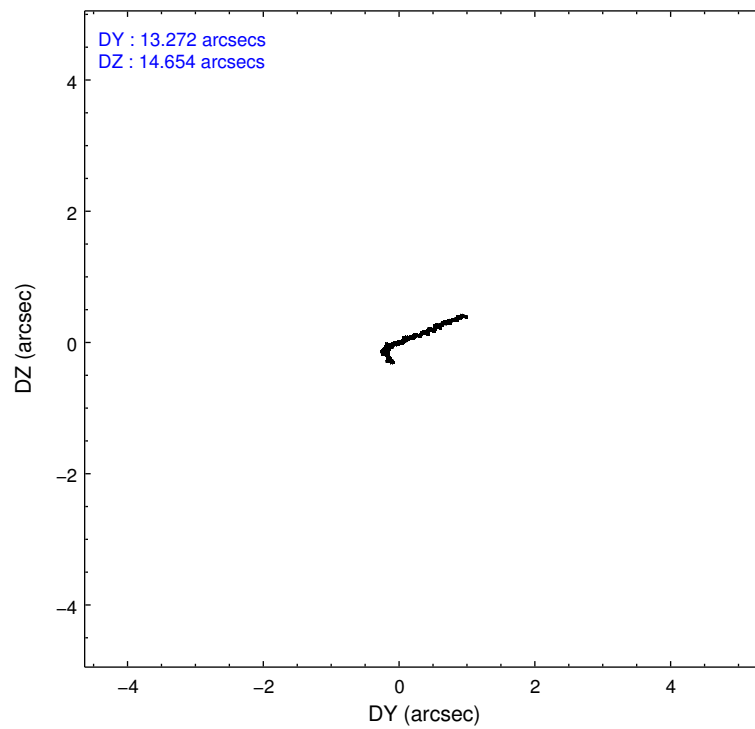
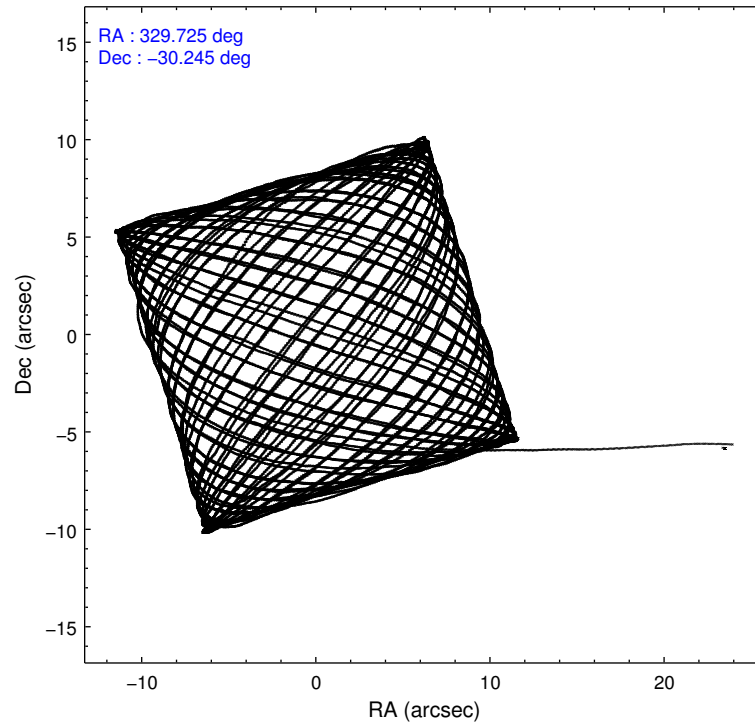
2.1.4 Events

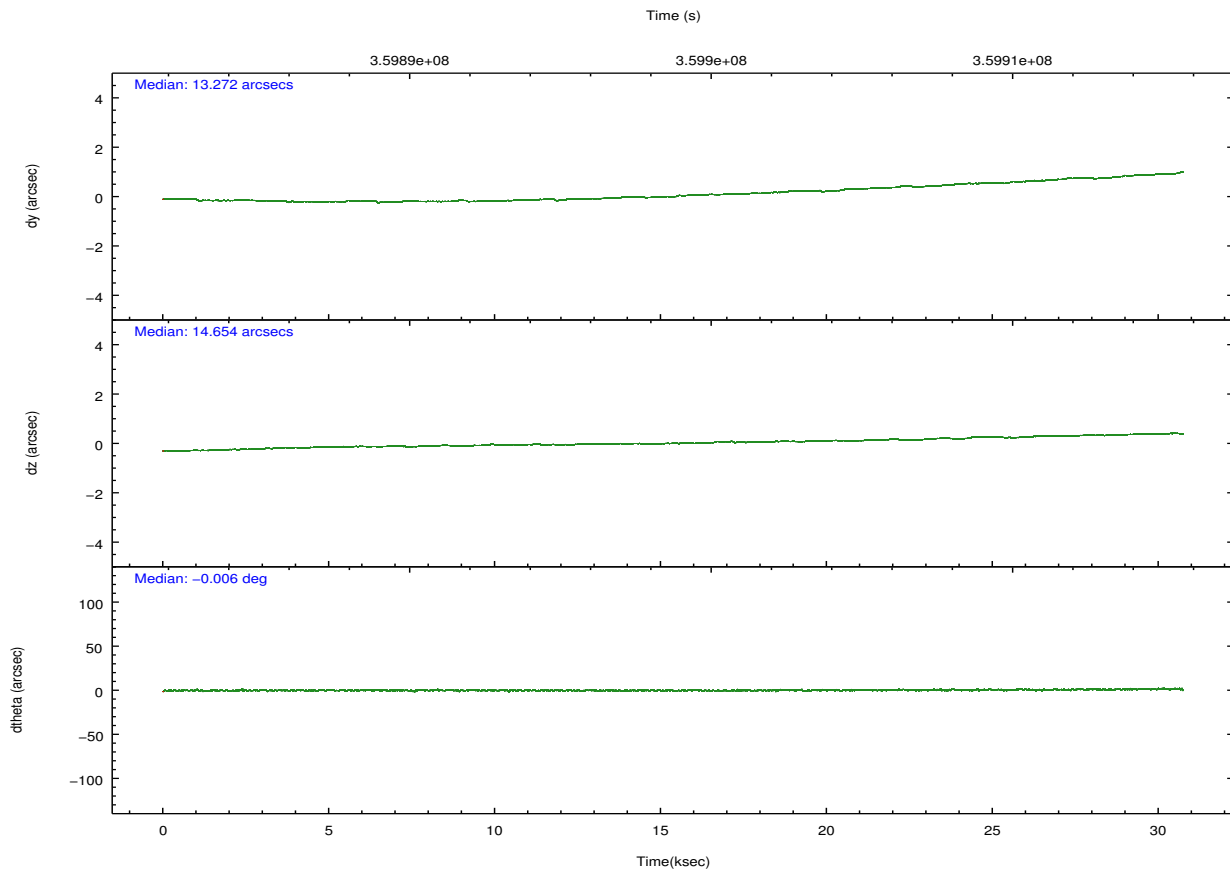
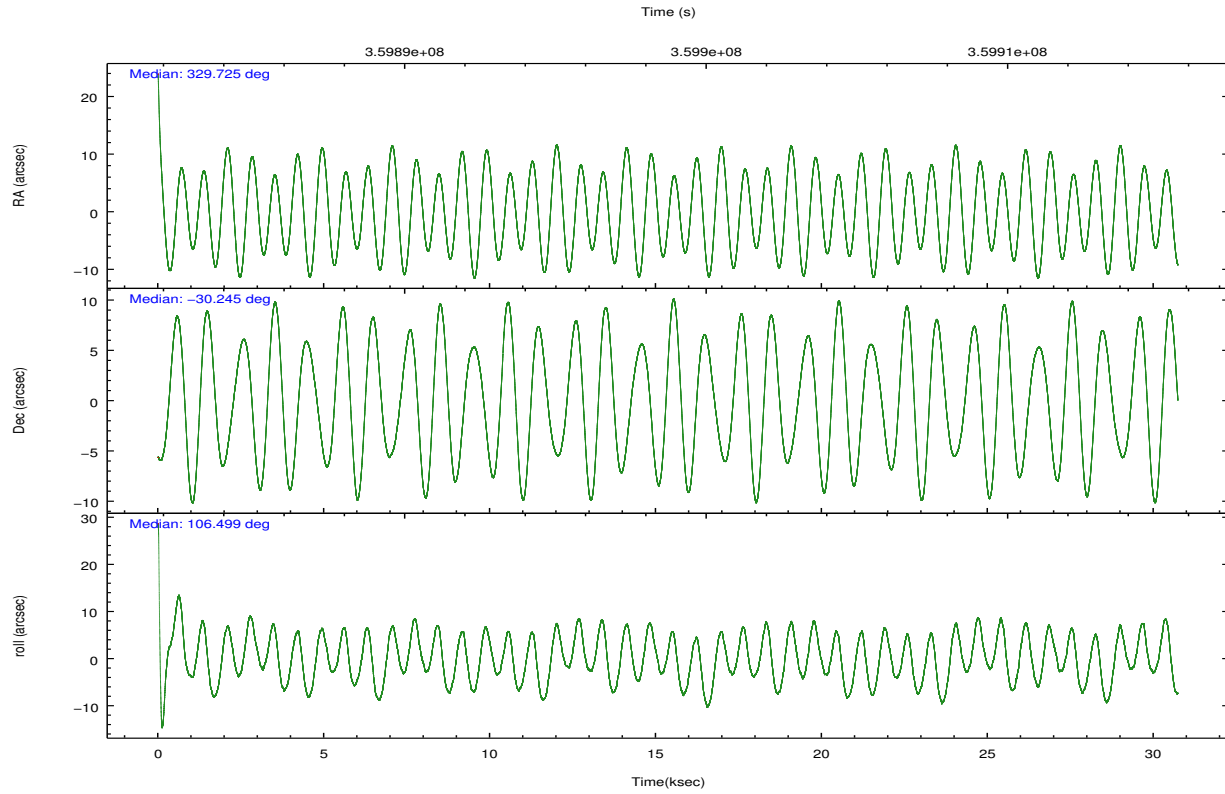
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	56136	86967	81525	161236	70924	46151	grade 0 events	3437	20074	28510	28695	6375	3141
rejected events	48103	32920	43790	47053	53311	39008		6%	23%	34%	17%	8%	6%
rejected %	85%	37%	53%	29%	75%	84%	grade 1 events	22	185	84	1505	30	16
								0%	0%	0%	0%	0%	0%
							grade 2 events	1535	10578	4097	27046	3229	1109
								2%	12%	5%	16%	4%	2%
							grade 3 events	970	4440	1764	12683	1853	904
								1%	5%	2%	7%	2%	1%
							grade 4 events	967	3716	1743	12511	1755	933
								1%	4%	2%	7%	2%	2%
							grade 5 events	1816	5558	1708	10384	2504	1833
								3%	6%	2%	6%	3%	3%
							grade 6 events	1124	15241	1624	33253	4401	1058
								2%	17%	1%	20%	6%	2%
							grade 7 events	46265	27175	41995	35159	50777	37157
								82%	31%	51%	21%	71%	80%

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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	329.748513	329.7252584880192	CCD I2 on	N	N
[deg] Pointing Dec	-30.263694	-30.24513221198051	CCD I3 on	N	N
[deg] Pointing Roll	106.356116	106.5010451920596	CCD S0 on	O1	Y
[s] Window start time (MET)	354931266.184000	354931266.184000	CCD S1 on	Y	Y
[s] Window stop time (MET)	360115266.184000	360115266.184000	CCD S2 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	Y	Y
[mm] SIM translation stage pos	-182.132523	-182.1344861297048	CCD S5 on	Y	Y
[mm] SIM translation stage offset	-8	-7.998036453302973	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	359884107.184000	359882582.01732	On-chip summing requested	N	N
Observation start date	2009-05-28T07:47:21	2009-05-28T07:23:02	Subarray requested	CUSTOM	1/8
[s] Observation end time (MET)	359914107.184000	359914849.01893	Subarray start row	113	113
Observation end date	2009-05-28T16:07:21	2009-05-28T16:20:49	Subarray row count	128	128
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0.7

2.3 Aspect



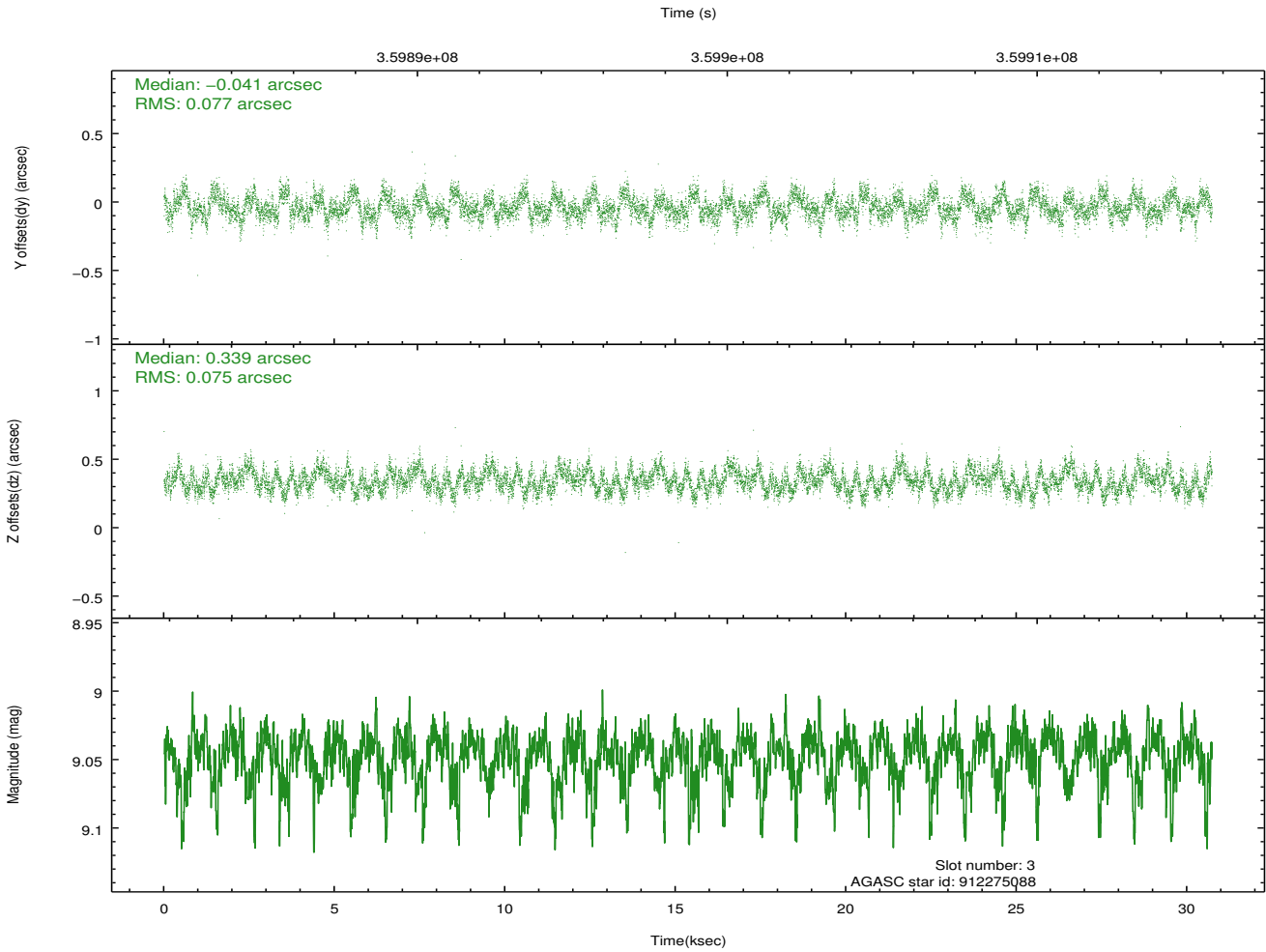
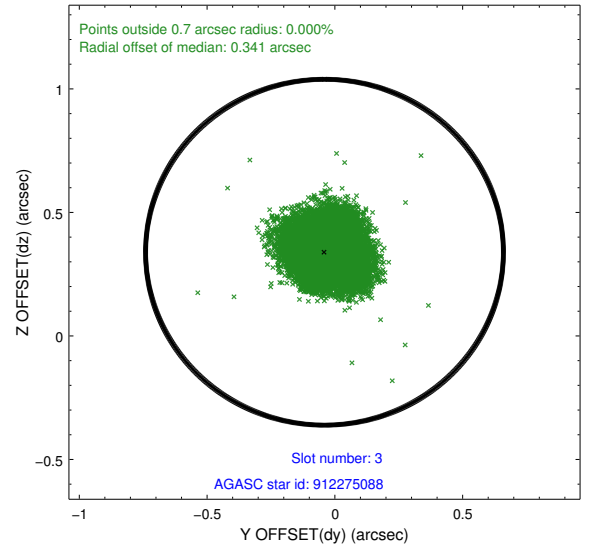
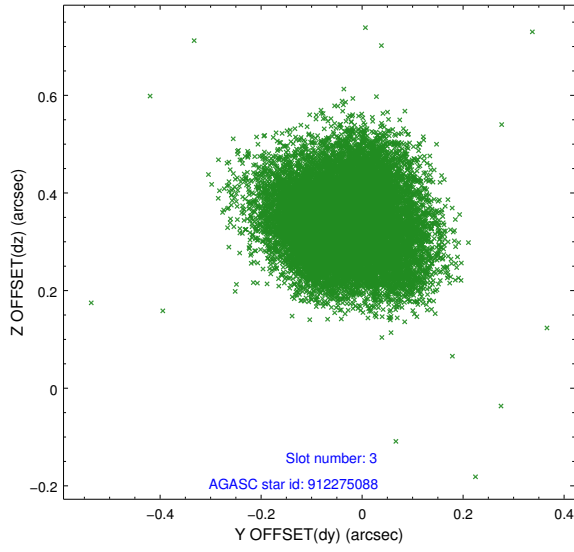


Slot Statistics

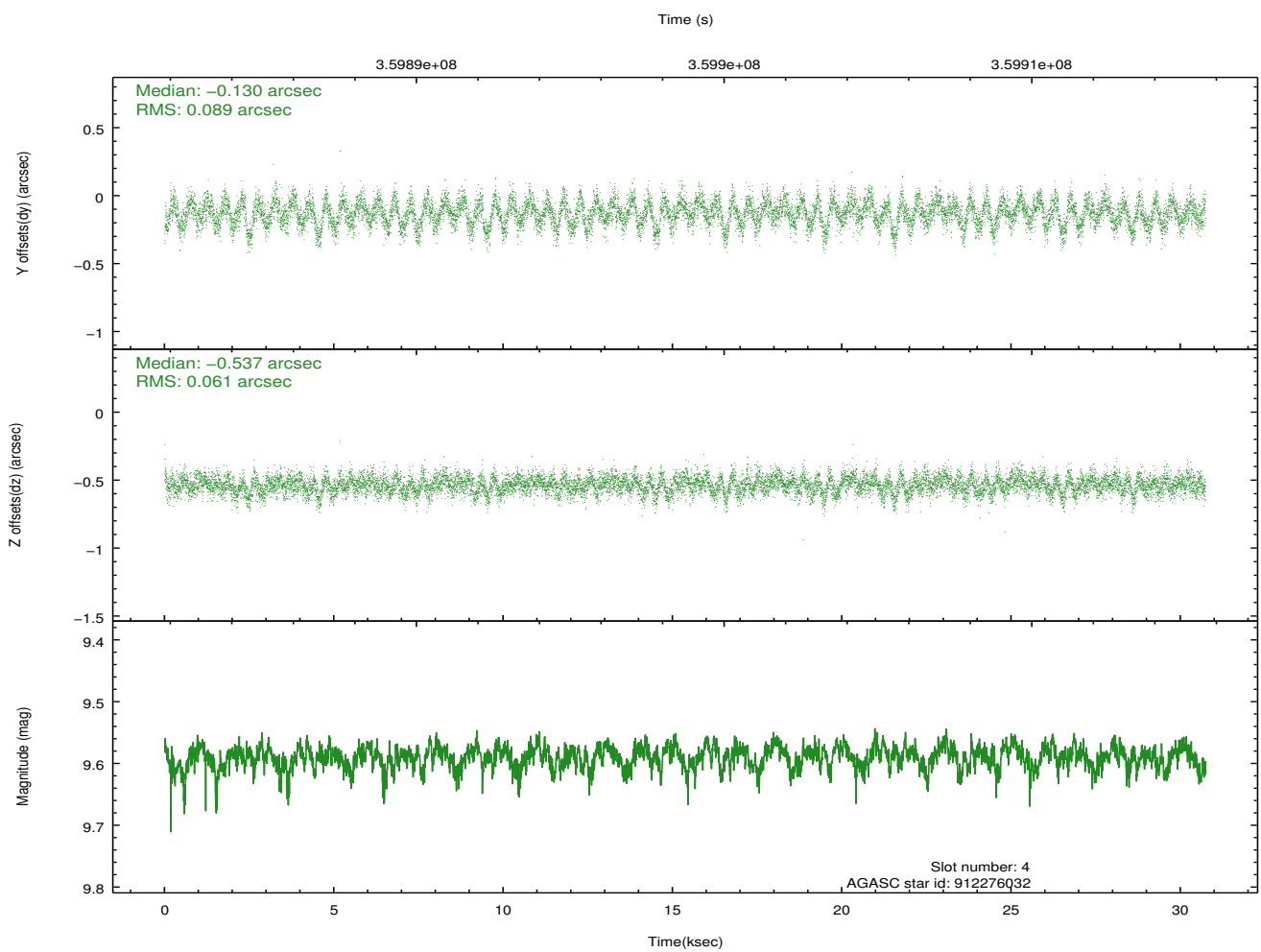
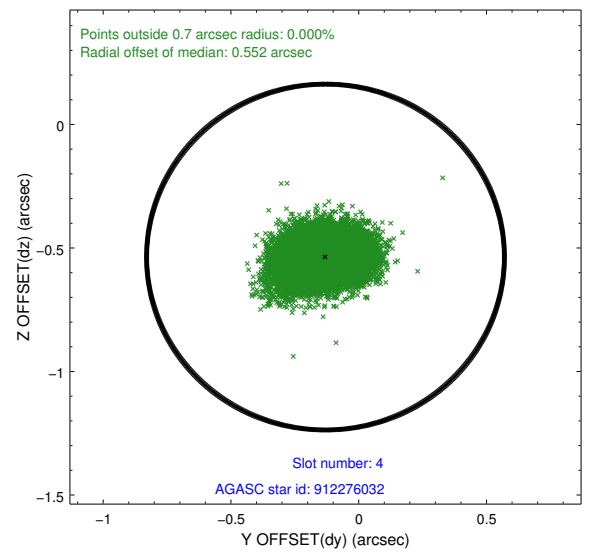
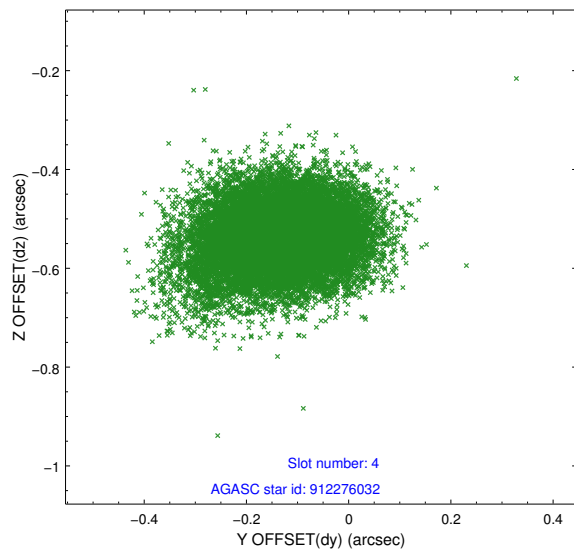
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.97	7495	0.087	0.117	0.013	0.023	0.000000	0.000000	930.38	-1896.32
1	FID	ACIS-S-2	6.89	7497	-0.163	-0.087	0.010	0.027	0.000000	0.000000	-765.74	-1901.19
2	FID	ACIS-S-6	7.18	7497	0.056	-0.028	0.011	0.019	0.000000	0.000000	395.94	644.76
3	GUIDE	912275088	9.05	14980	-0.041	0.339	0.116	0.181	329.619228	-29.738698	1927.14	-143.96
4	GUIDE	912276032	9.59	14966	-0.130	-0.537	0.113	0.187	329.395967	-29.803466	1898.35	590.21
5	GUIDE	981468128	9.35	14969	0.293	0.240	0.125	0.193	329.756350	-30.158334	357.40	-130.04
6	GUIDE	981469488	9.58	14980	-0.244	-0.005	0.126	0.215	329.261199	-30.045155	1179.28	1236.58
7	GUIDE	981478152	9.38	14964	0.117	-0.033	0.146	0.247	329.415589	-30.057192	1004.25	786.55

2.4 Star Slots

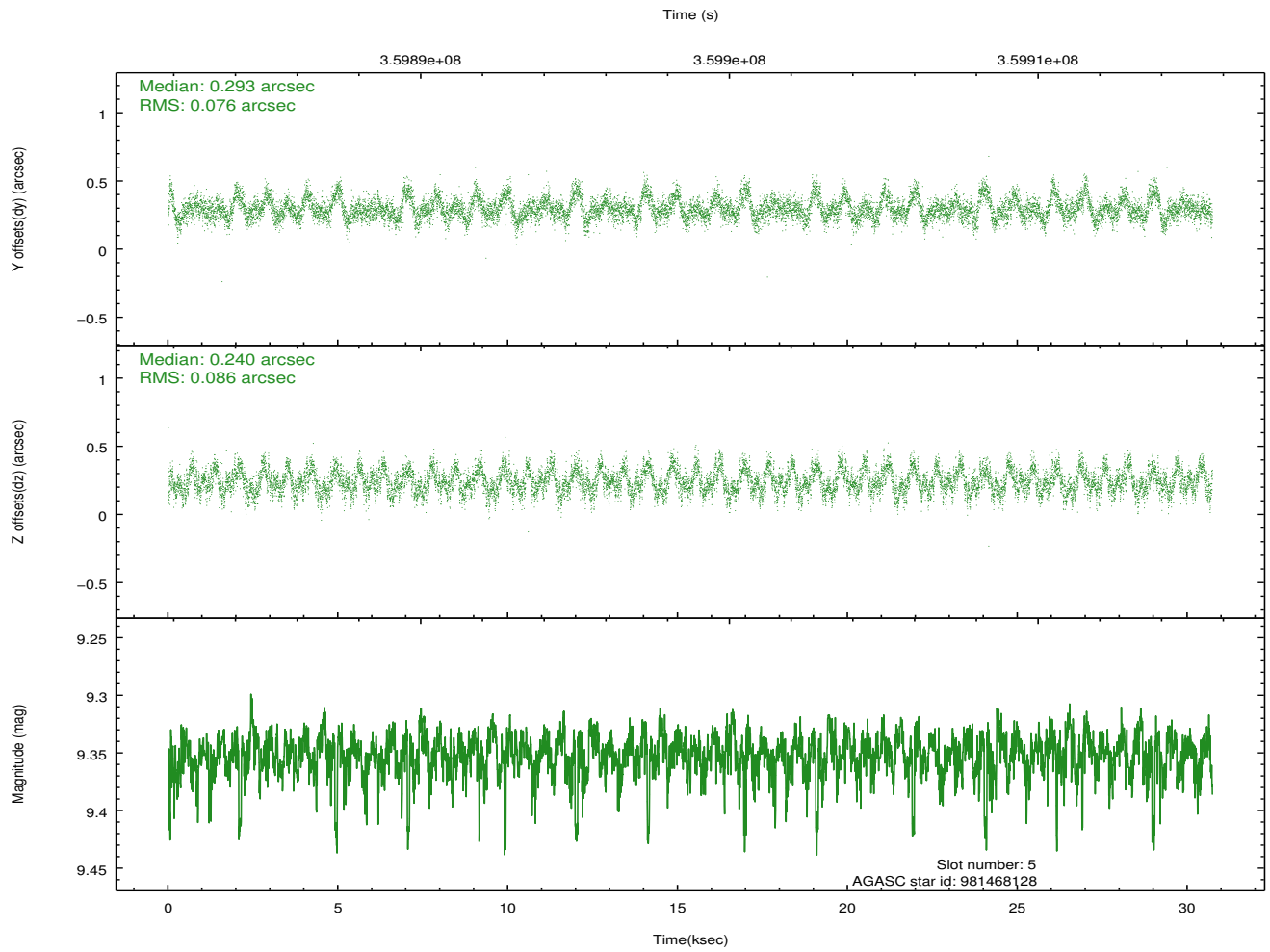
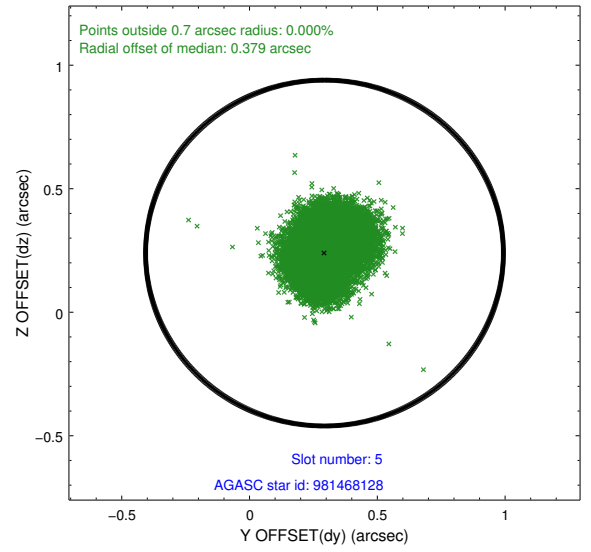
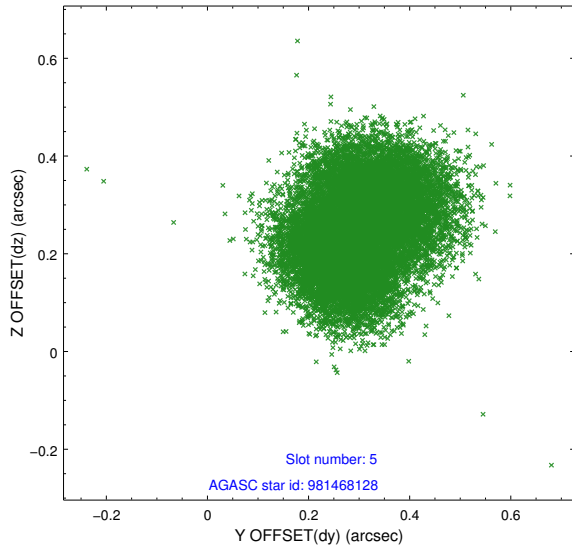
2.4.1 Slot 3



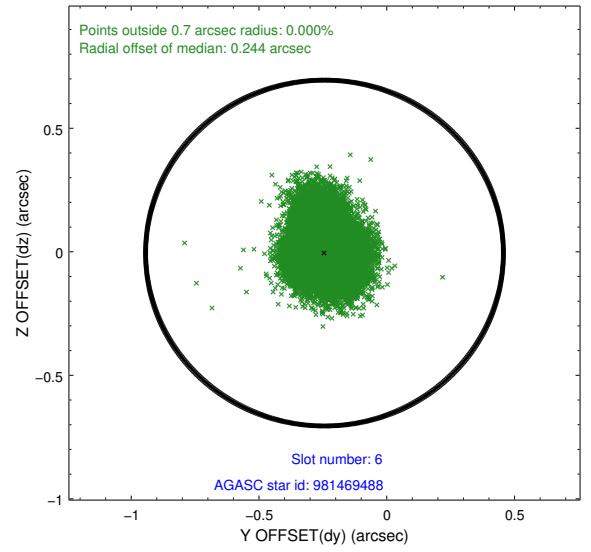
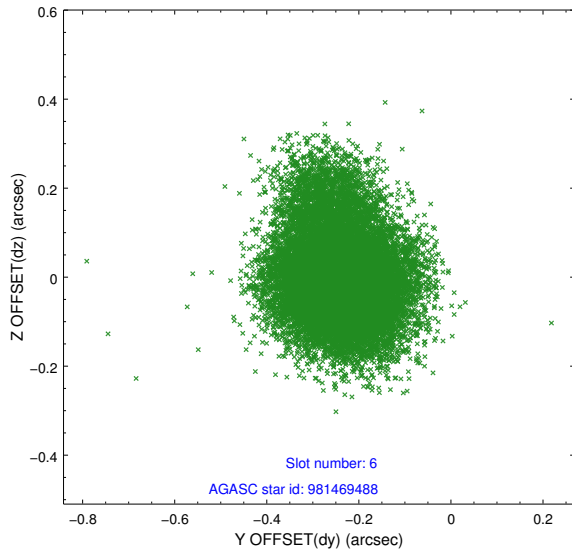
2.4.2 Slot 4



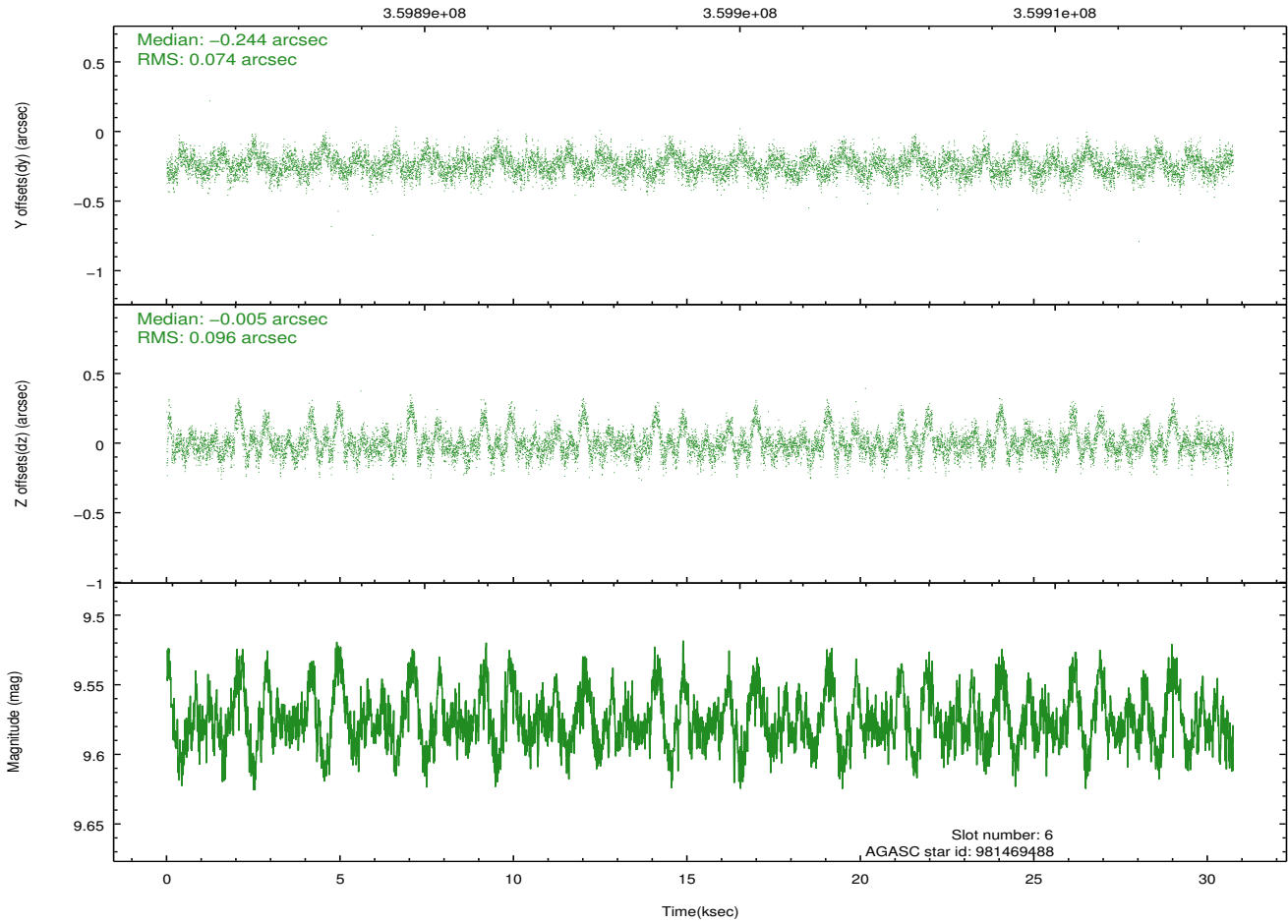
2.4.3 Slot 5



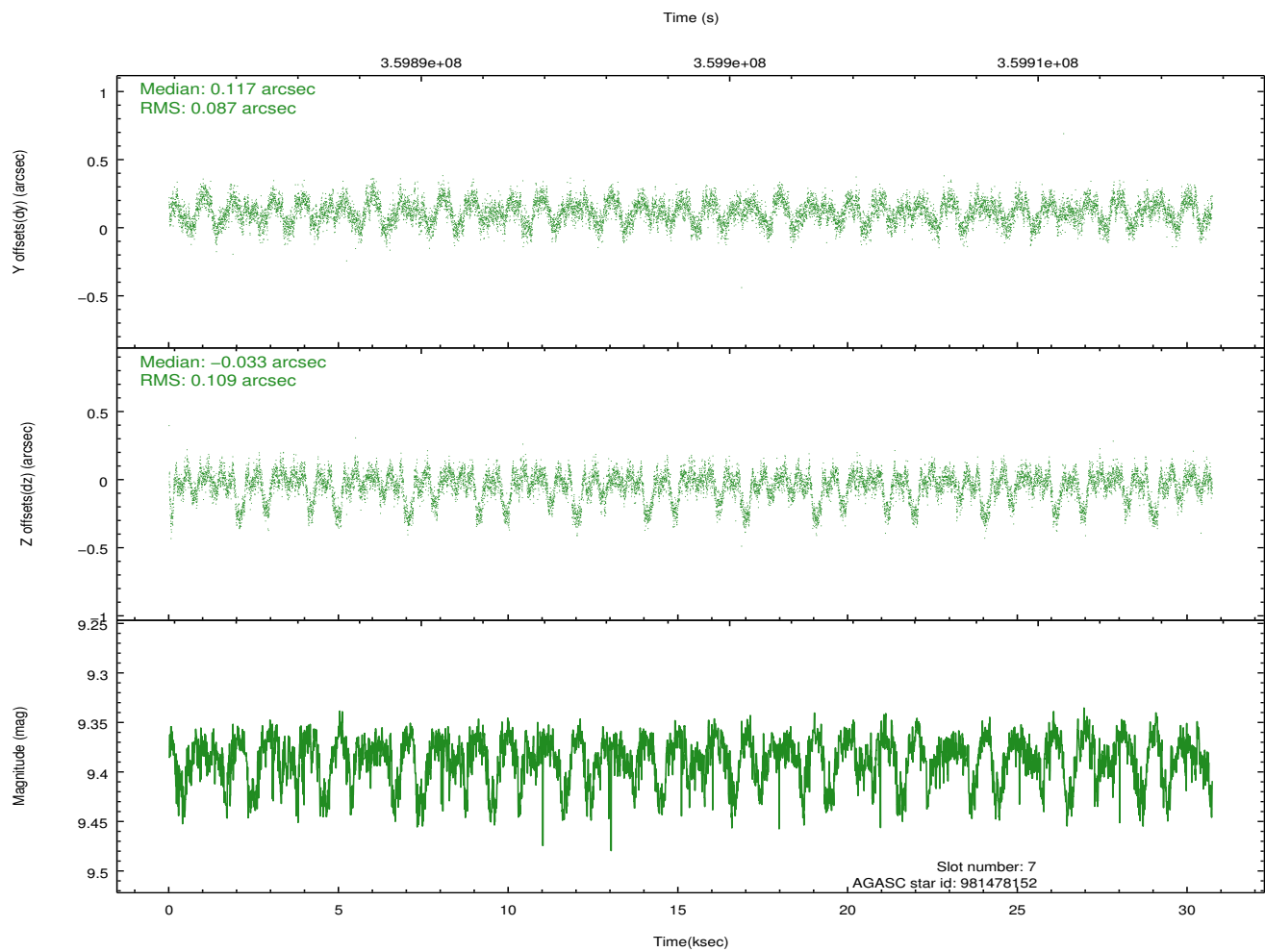
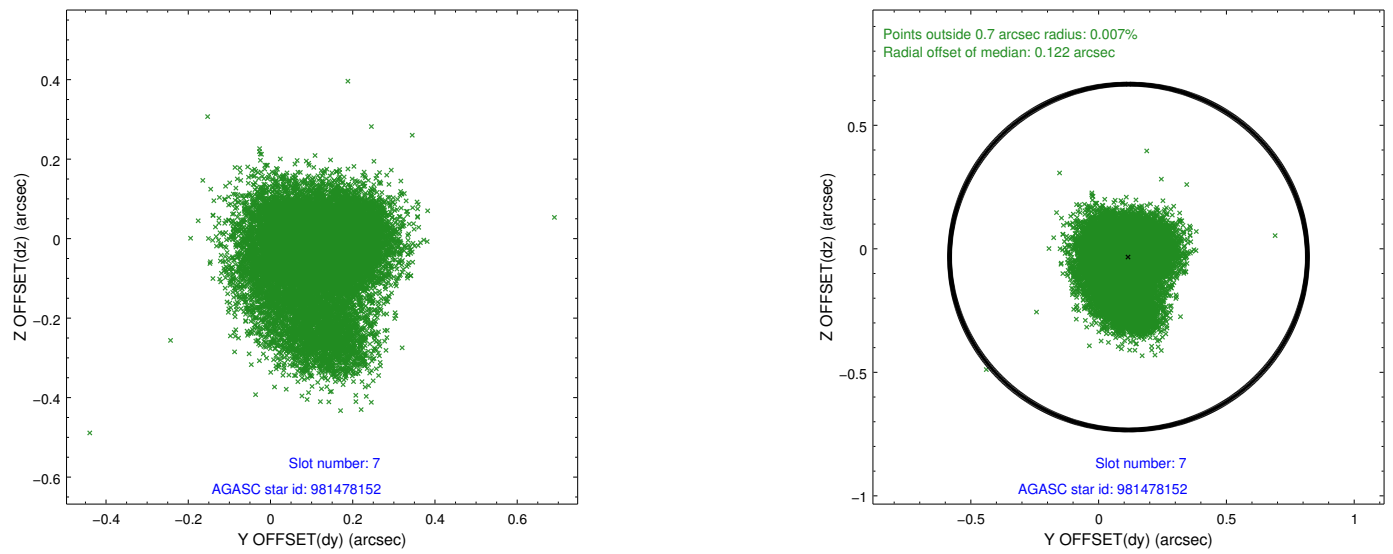
2.4.4 Slot 6



Time (s)

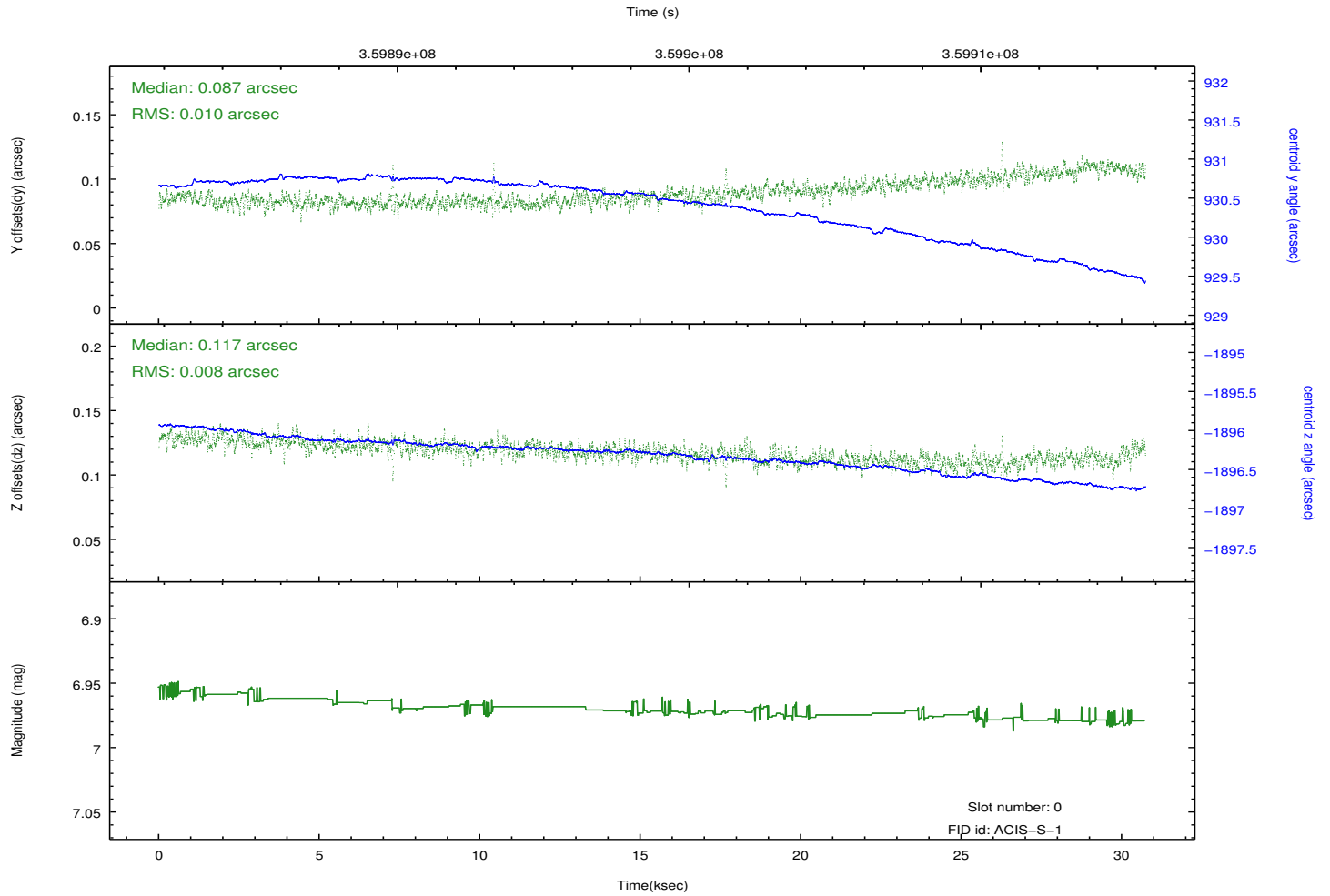
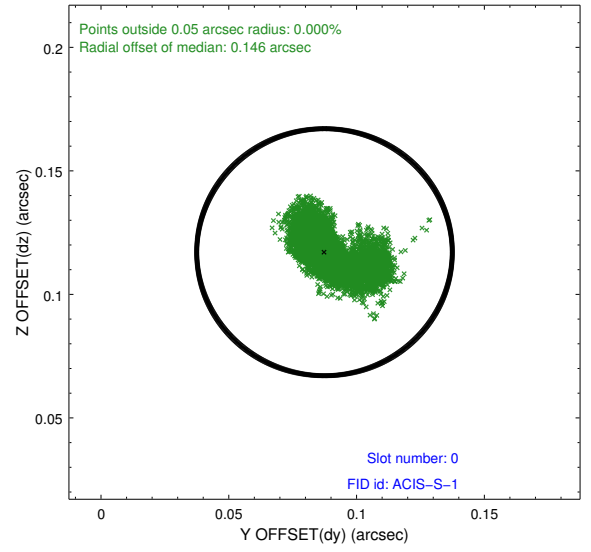
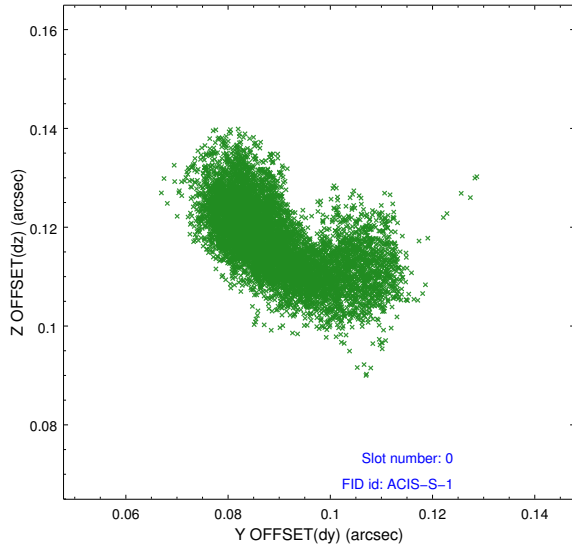


2.4.5 Slot 7

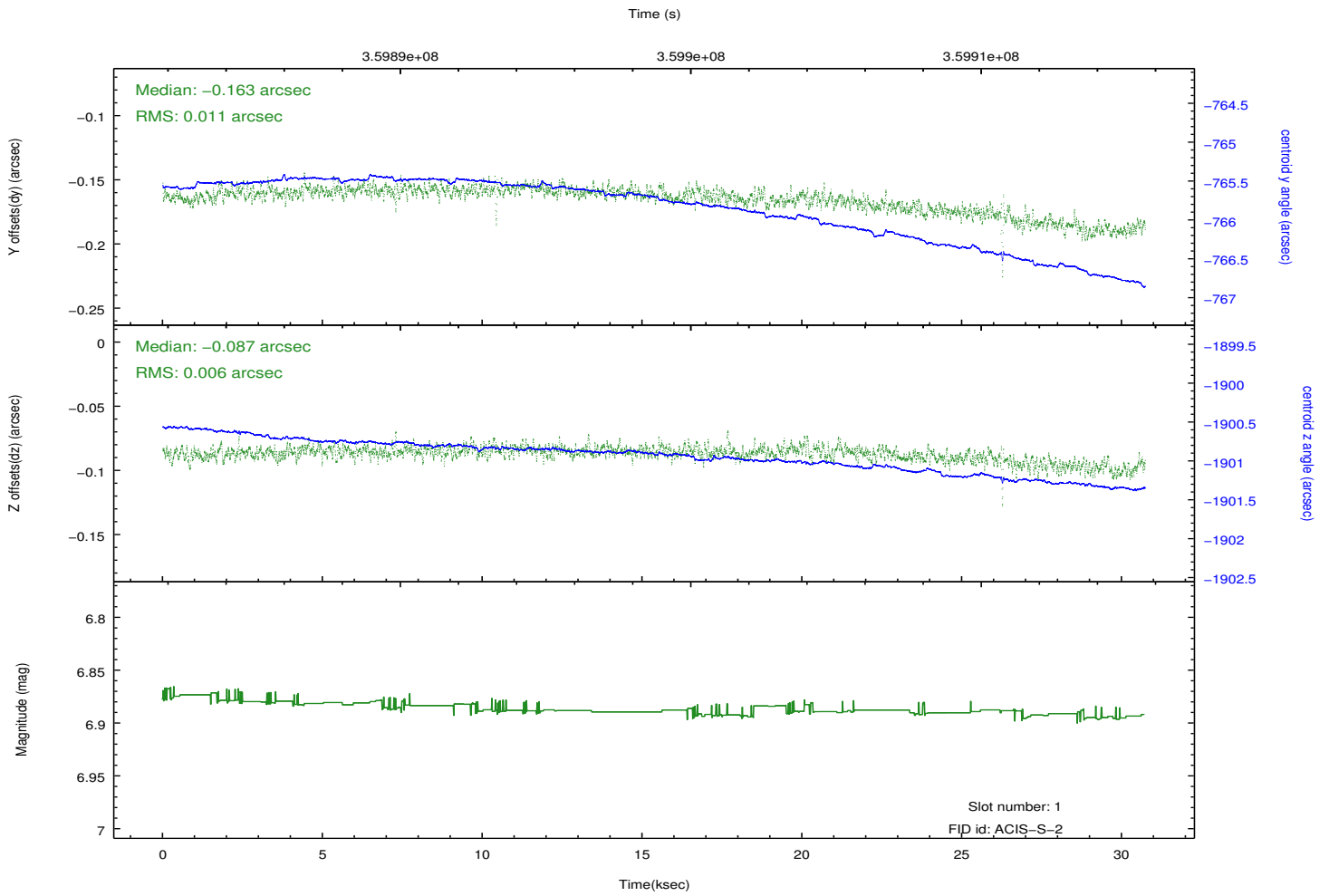
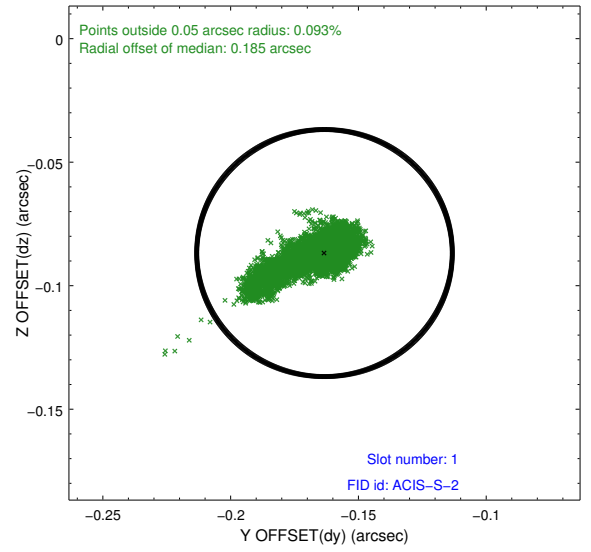
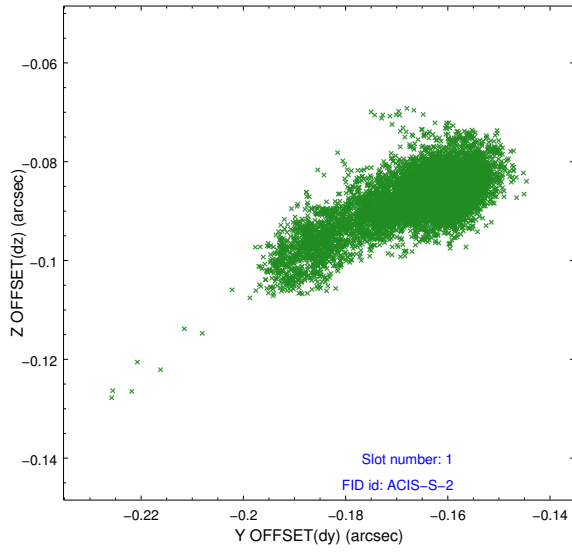


2.5 FID Slots

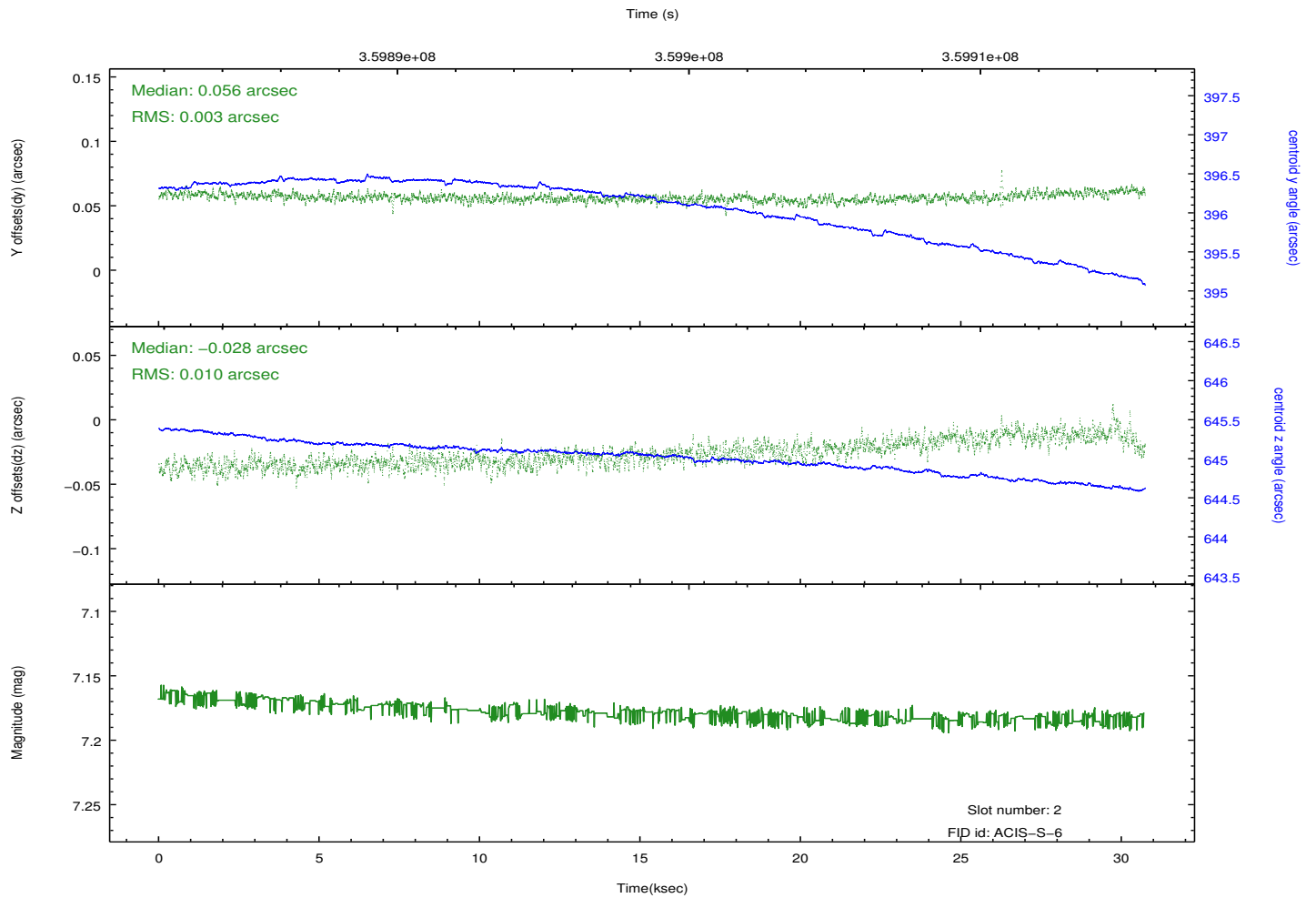
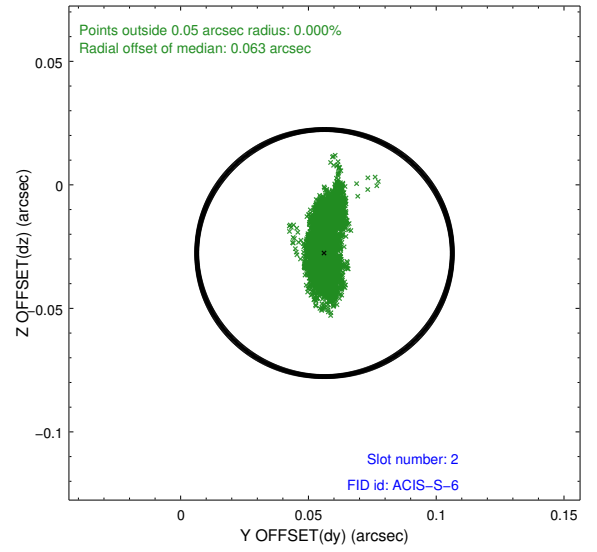
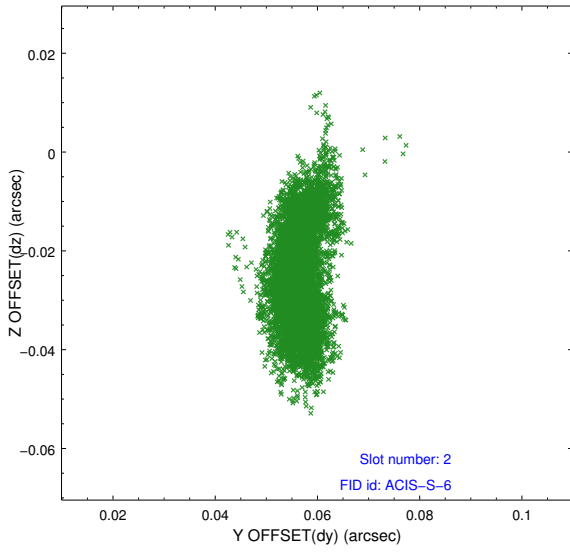
2.5.1 Slot 0



2.5.2 Slot 1

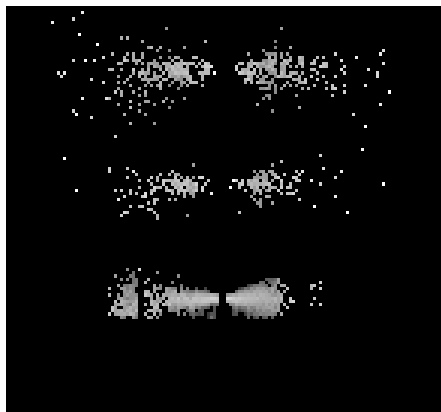


2.5.3 Slot 2

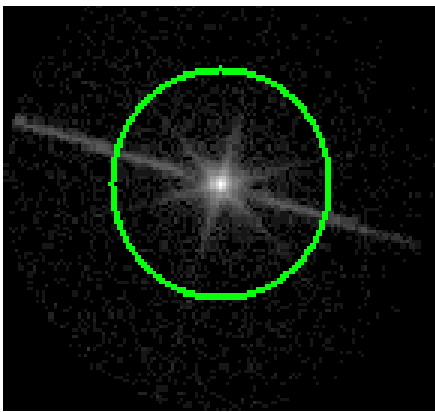


3 Gratings

3.1 LETG Arm



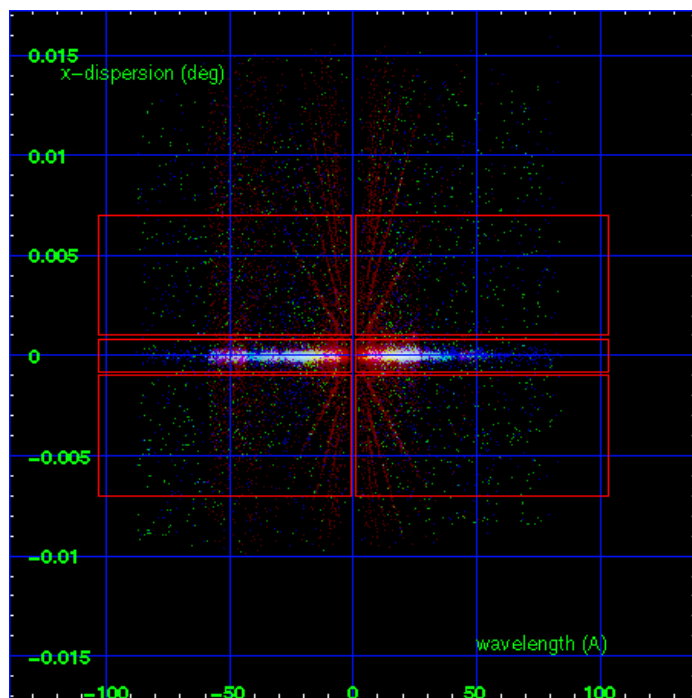
LETG Order Sort 123



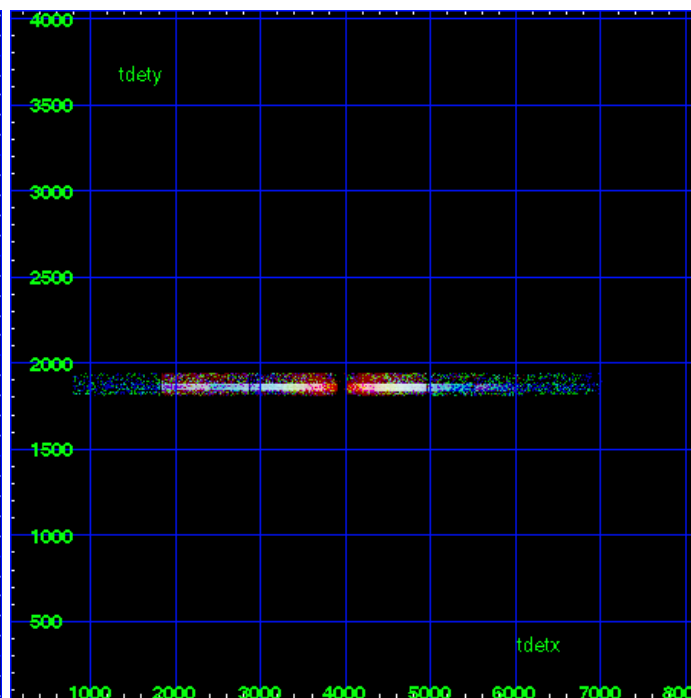
LETG Zero Order



LETG Order Sort ALL

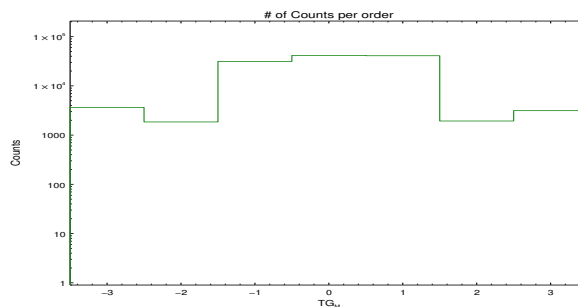


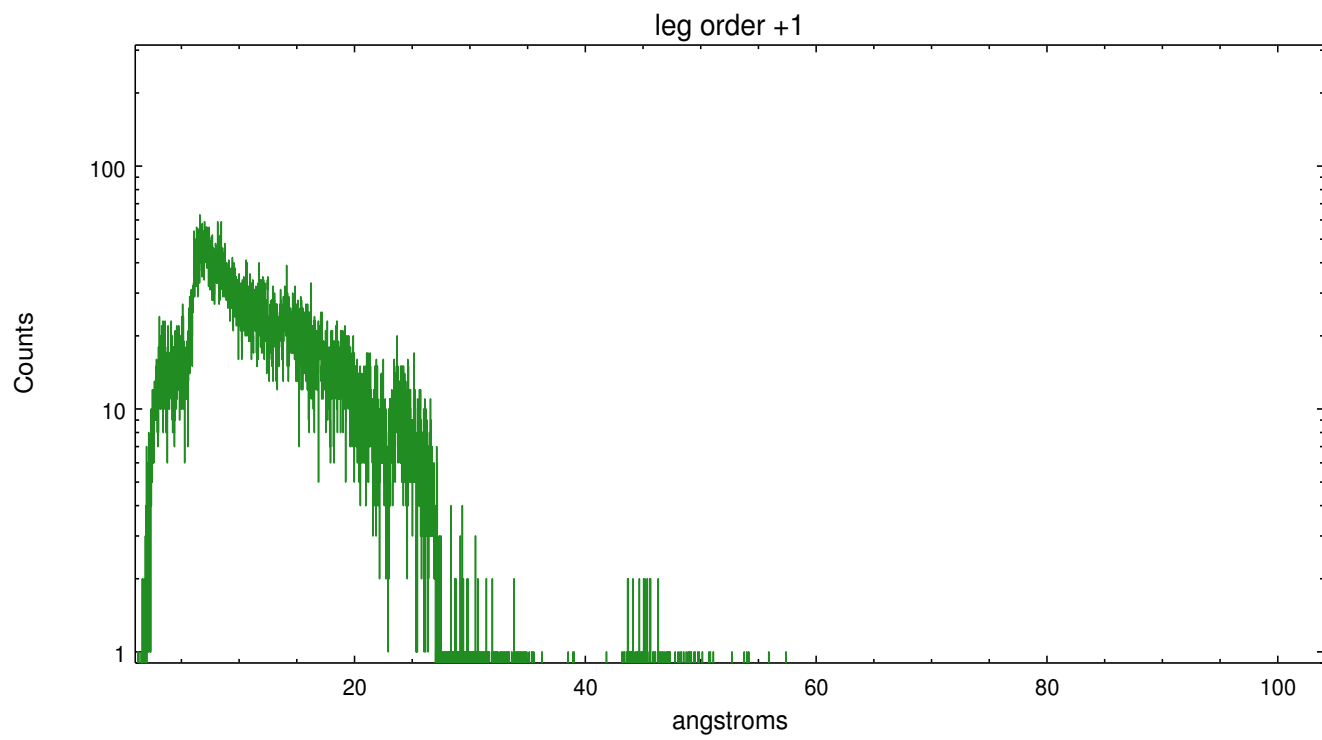
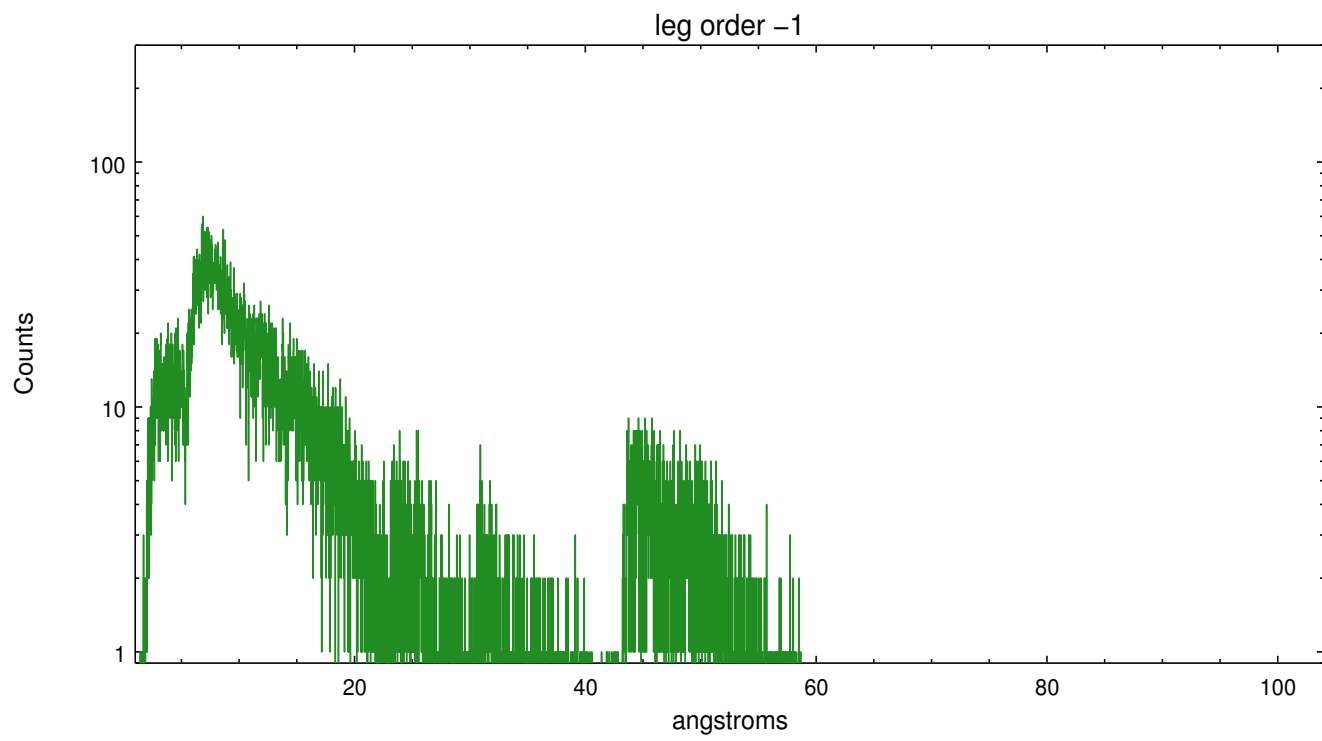
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	3641	1850	31384	41460	40981	1933	3140





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.06.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.06359948802

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.