

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8388 - L2 Version 2
Chandra X-Ray Center

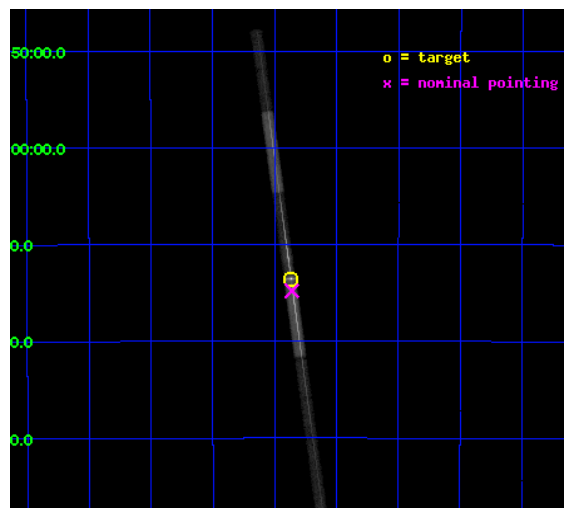
L2 Processing Date : Apr 28 2012

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1 Front

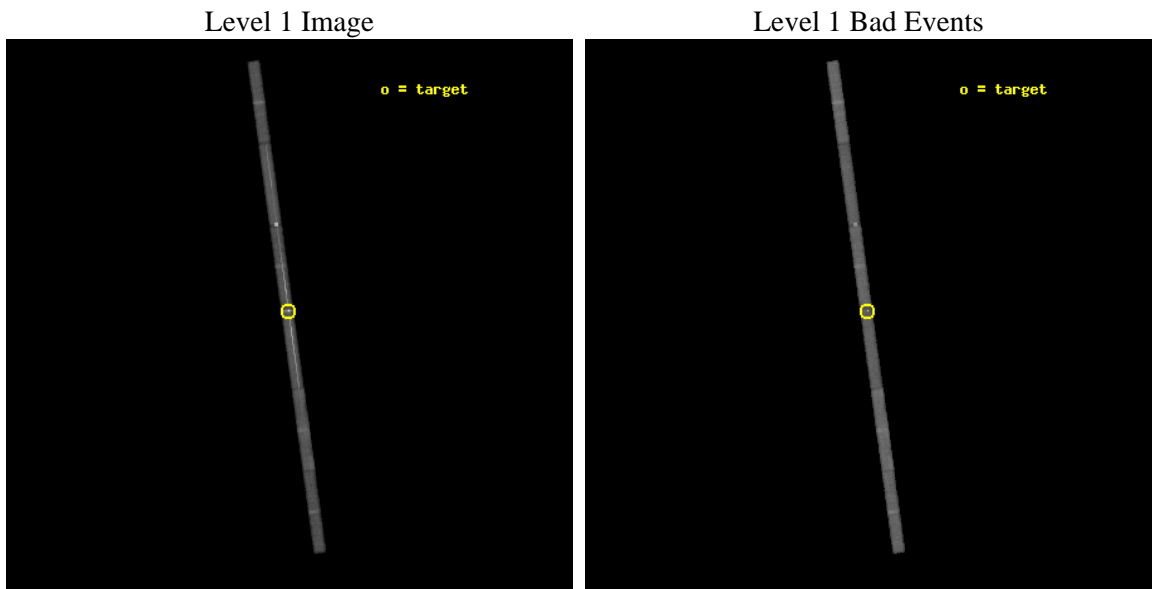
seq_num	790124	Sequence number
obs_id	8388	Observation id
title	AO8 Calibration Observations of Mkn 421 and PKS2155-304	Proposal t
observer	Dr. CXC Calibration	Principal investigator
object	PKS2155-304	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	329.716667	Observer's specified target RA [deg]
dec_targ	-30.225556	Observer's specified target Dec [deg]
ra_nom	329.71516357619	Nominal RA [deg]
dec_nom	-30.246457530957	Nominal Dec [deg]
roll_nom	82.155874918986	Nominal Roll [deg]
revision	2	Processing version of data
ontime	31063.899470925	Sum of GTIs [s]
livetime	29343.530213818	Livetime [s]
ontime4	31063.899470925	Sum of GTIs [s]
ontime5	31063.899470925	Sum of GTIs [s]
ontime6	31063.899470925	Sum of GTIs [s]
ontime7	31063.899470925	Sum of GTIs [s]
ontime8	31063.86460495	Sum of GTIs [s]
ontime9	31063.823564947	Sum of GTIs [s]
l2events	209951	Number of level 2 events



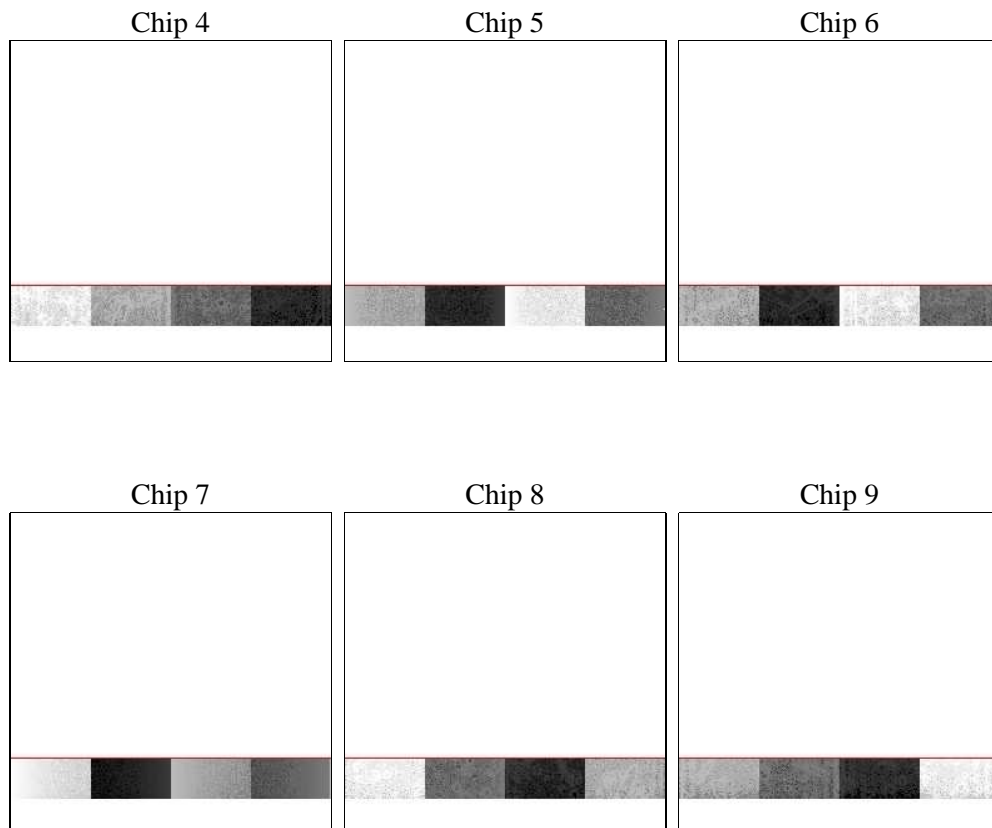
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	31000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	31063.899470925	Sum of GTIs [s]
caldsver	4.4.9	 	ontime4	31063.899470925	Sum of GTIs [s]
date	2012-04-28T01:06:48	Date and time of file creation	ontime5	31063.899470925	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	31063.899470925	Sum of GTIs [s]
			ontime7	31063.899470925	Sum of GTIs [s]
			ontime8	31063.86460495	Sum of GTIs [s]
			ontime9	31063.823564947	Sum of GTIs [s]
			l1events	508408	Number of level 1 events

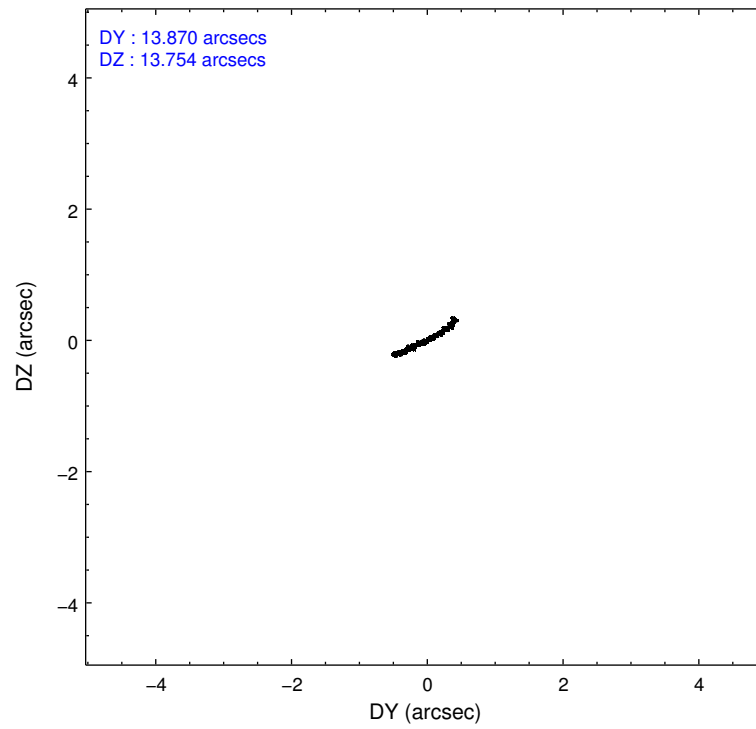
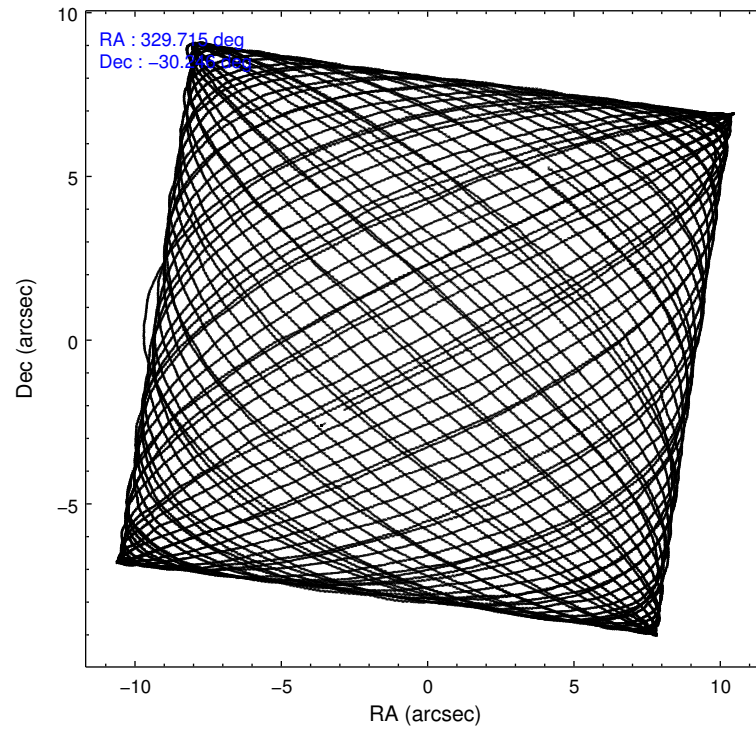
2.1.4 Events

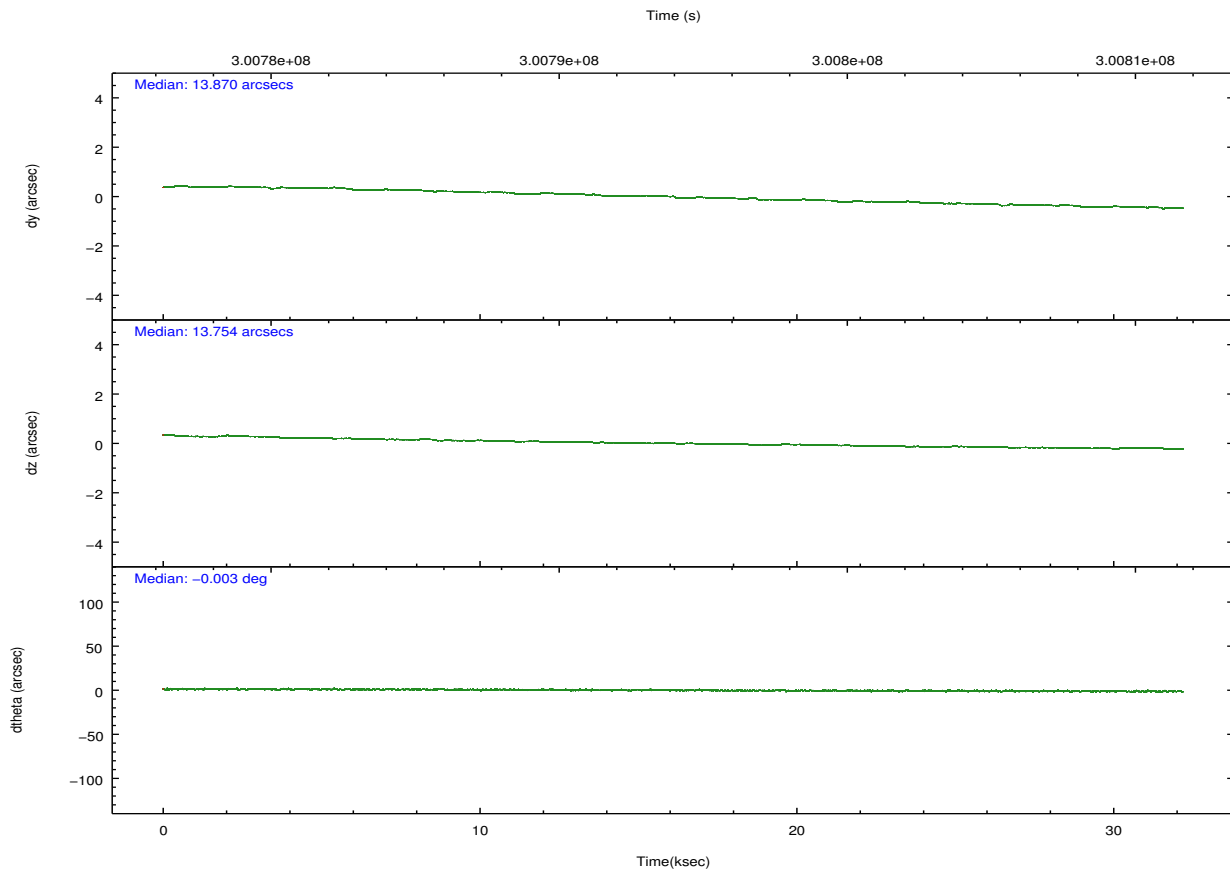
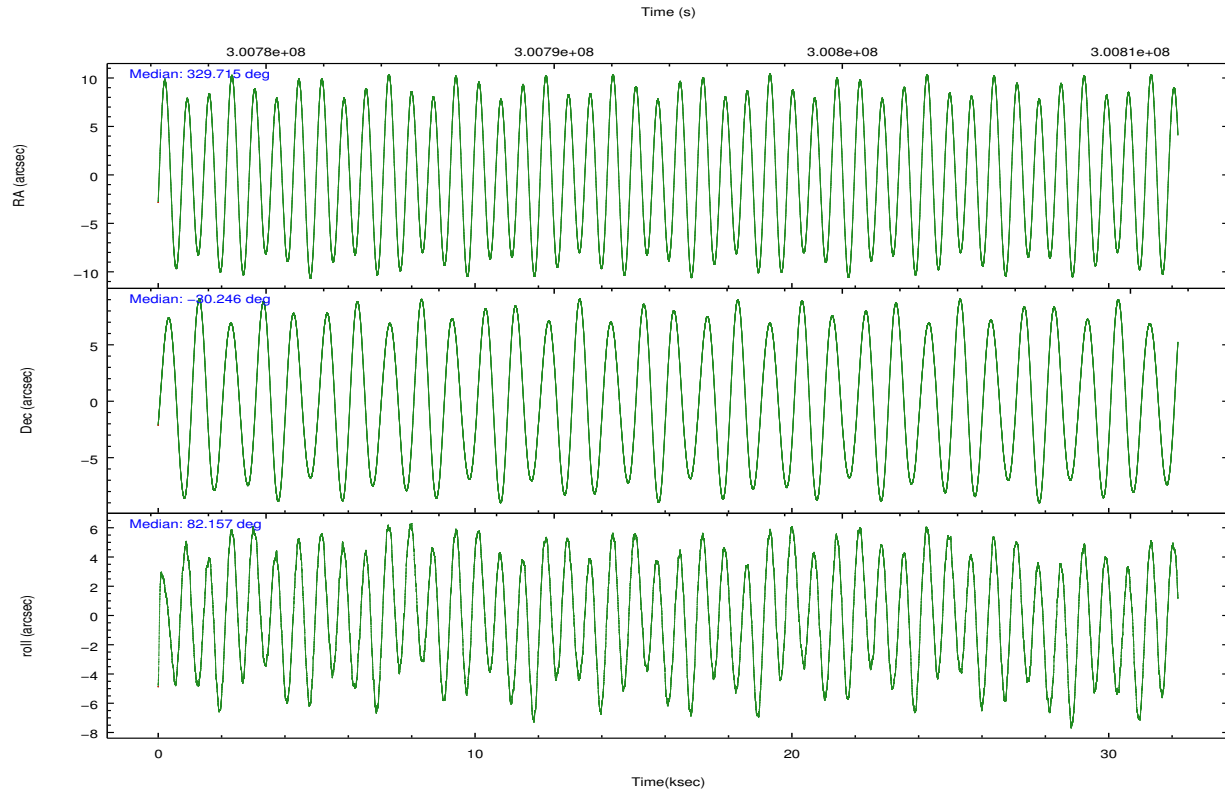
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	54200	98732	80848	161943	67179	45506	grade 0 events	3211	20125	29473	29140	6104	2966
rejected events	46761	34275	41836	45497	50833	38822		5%	20%	36%	17%	9%	6%
rejected %	86%	34%	51%	28%	75%	85%	grade 1 events	17	1765	73	1545	22	15
								0%	1%	0%	0%	0%	0%
							grade 2 events	1362	10455	4201	27938	2973	1021
								2%	10%	5%	17%	4%	2%
							grade 3 events	979	8968	1807	12900	1700	914
								1%	9%	2%	7%	2%	2%
							grade 4 events	888	9137	1839	12561	1634	843
								1%	9%	2%	7%	2%	1%
							grade 5 events	1652	6919	1691	10081	2251	1732
								3%	7%	2%	6%	3%	3%
							grade 6 events	999	15775	1693	33909	3935	940
								1%	15%	2%	20%	5%	2%
							grade 7 events	45092	25588	40071	33869	48560	37075
								83%	25%	49%	20%	72%	81%

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	329.727484	329.7151635761929	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-30.271642	-30.24645753095718	Subarray start row	113	113
[deg] Pointing Roll	82.005450	82.15587491898602	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	-182.1370004450064			
[mm] SIM translation stage offset	-8	-7.995522138001405			
[s] Observation start time (MET)	300778859.184000	300777546.17951			
Observation start date	2007-07-14T05:39:54	2007-07-14T05:19:06			
[s] Observation end time (MET)	300809859.184000	300810294.93108			
Observation end date	2007-07-14T14:16:34	2007-07-14T14:24:54			
Read mode	TIMED	TIMED			

2.3 Aspect



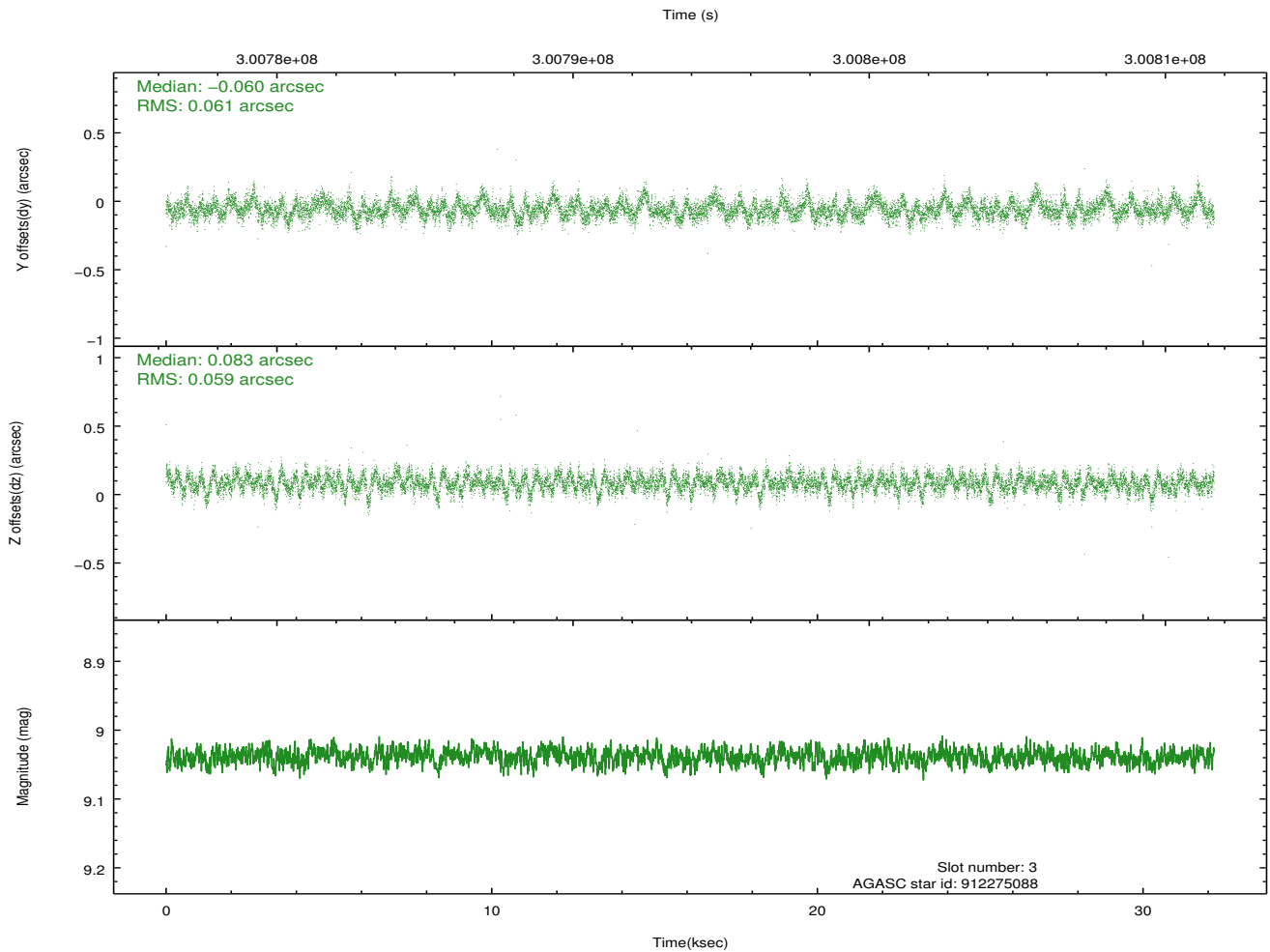
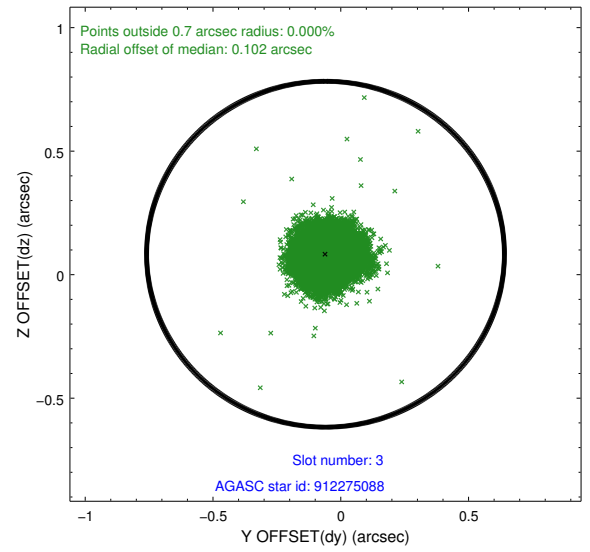
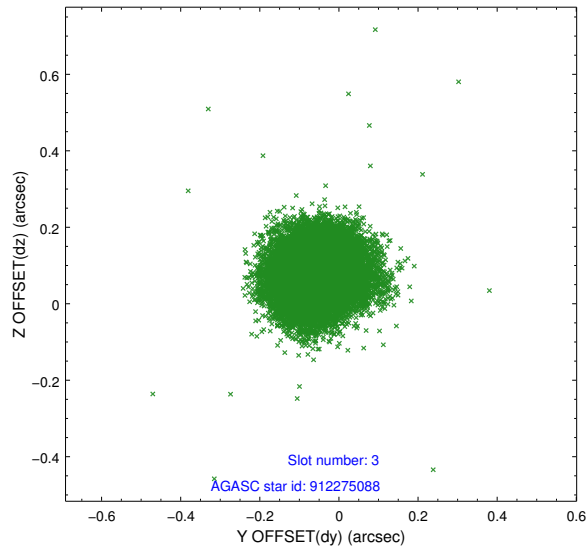


Slot Statistics

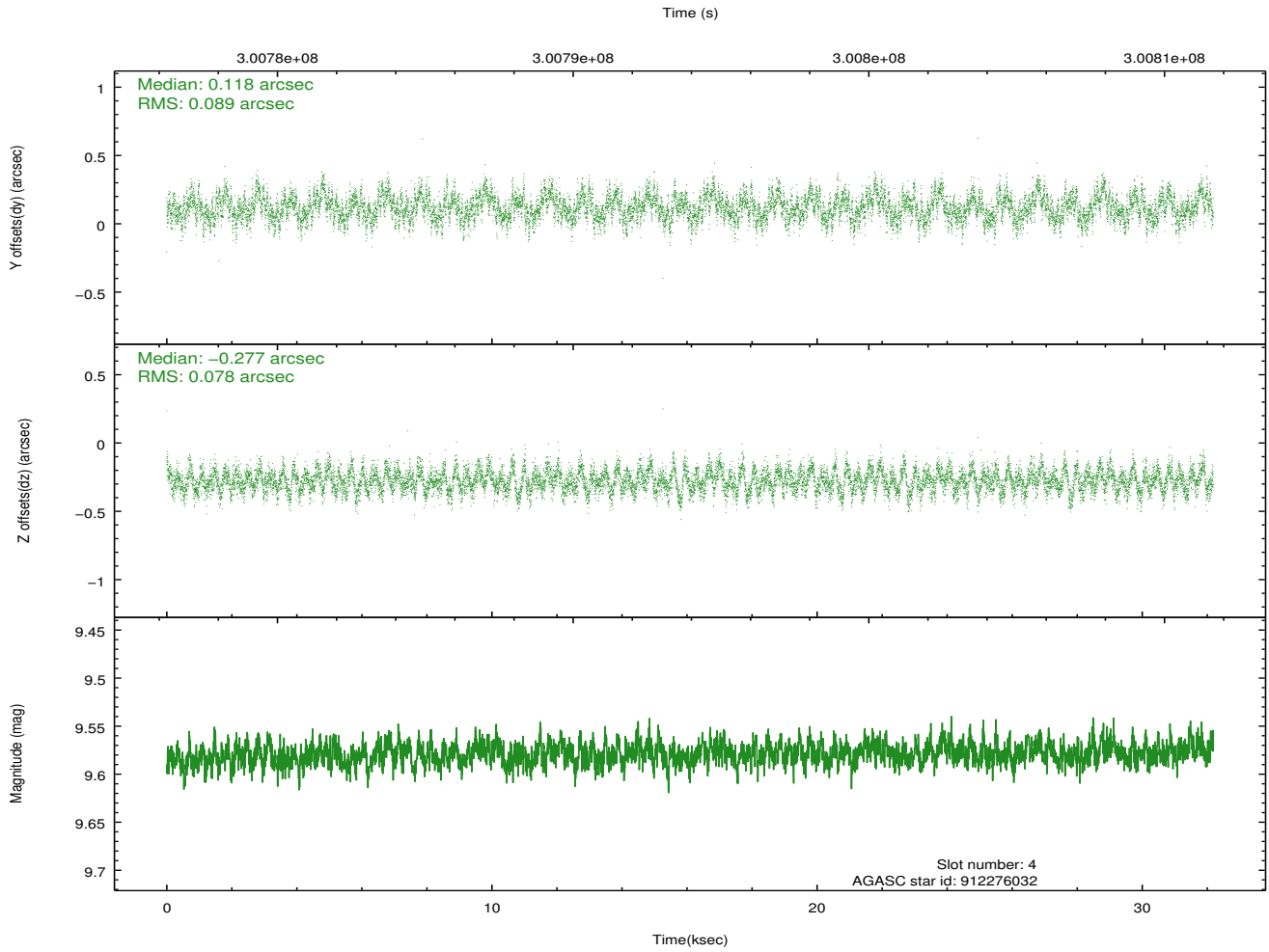
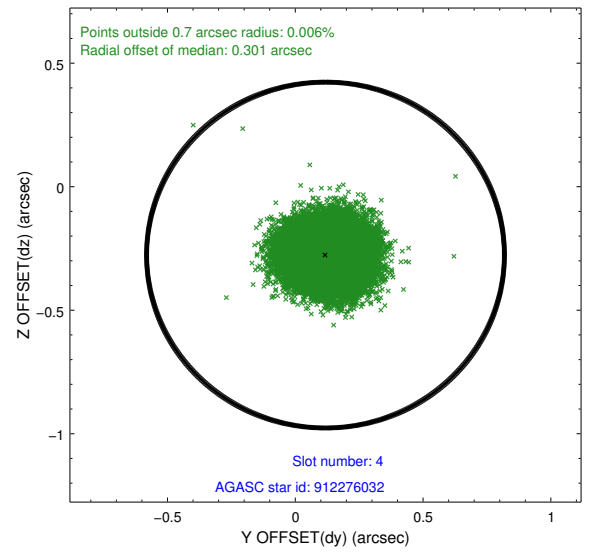
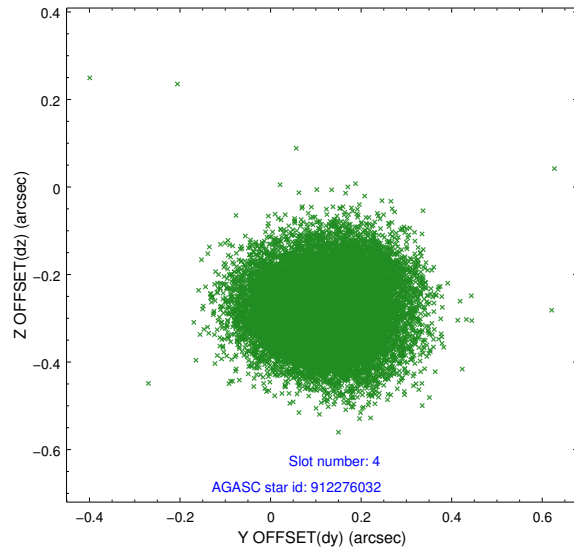
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.08	7851	-0.155	-0.110	0.011	0.016	0.000000	0.000000	-766.40	-1899.93
1	FID	ACIS-S-4	7.17	7851	0.137	0.091	0.012	0.017	0.000000	0.000000	2147.16	8.62
2	FID	ACIS-S-6	7.40	7851	-0.009	0.024	0.011	0.023	0.000000	0.000000	395.83	646.04
3	GUIDE	912275088	9.04	15682	-0.060	0.083	0.090	0.144	329.619228	-29.738698	1852.59	602.11
4	GUIDE	912276032	9.58	15679	0.118	-0.277	0.128	0.198	329.395967	-29.803466	1523.71	1259.63
5	GUIDE	981469488	9.56	15681	-0.162	0.059	0.224	0.322	329.261199	-30.045155	602.27	1552.20
6	GUIDE	981471664	6.34	15701	0.053	-0.086	0.101	0.148	328.981826	-30.605916	-1520.65	2119.31
7	GUIDE	981478152	9.39	15684	0.052	0.203	0.105	0.164	329.415589	-30.057192	627.92	1070.02

2.4 Star Slots

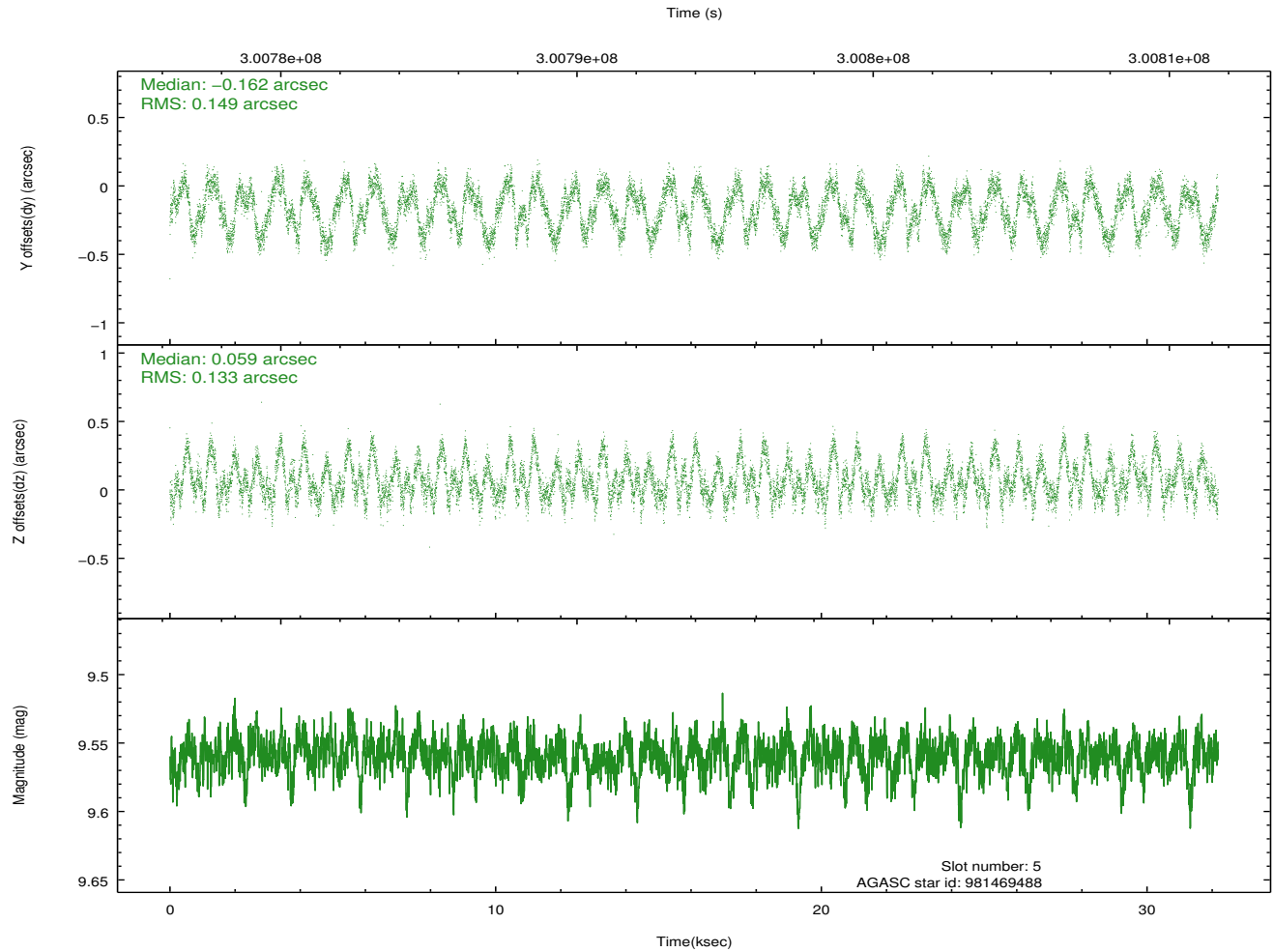
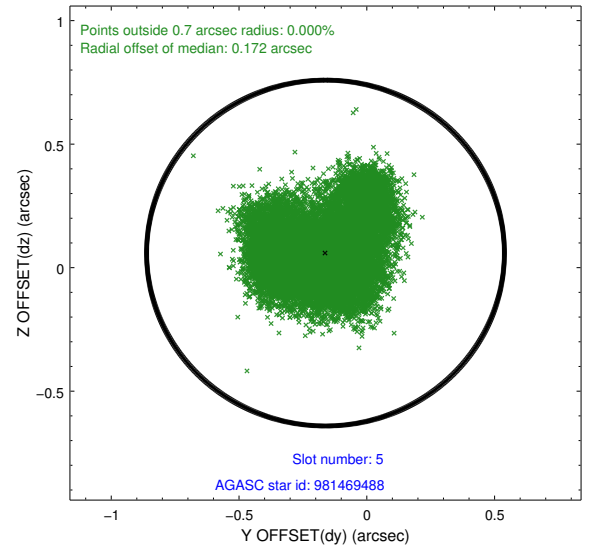
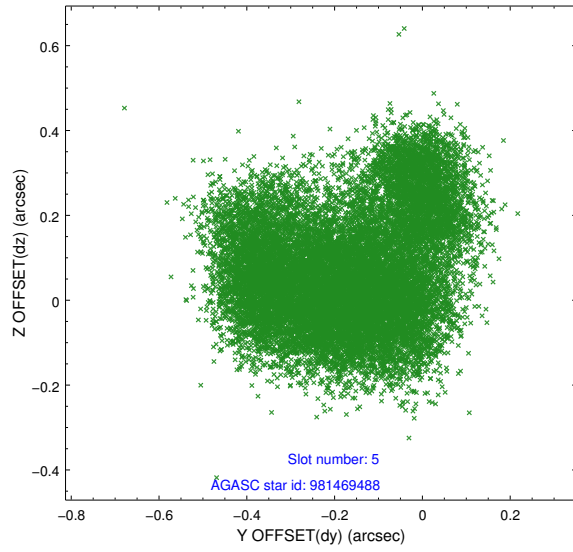
2.4.1 Slot 3



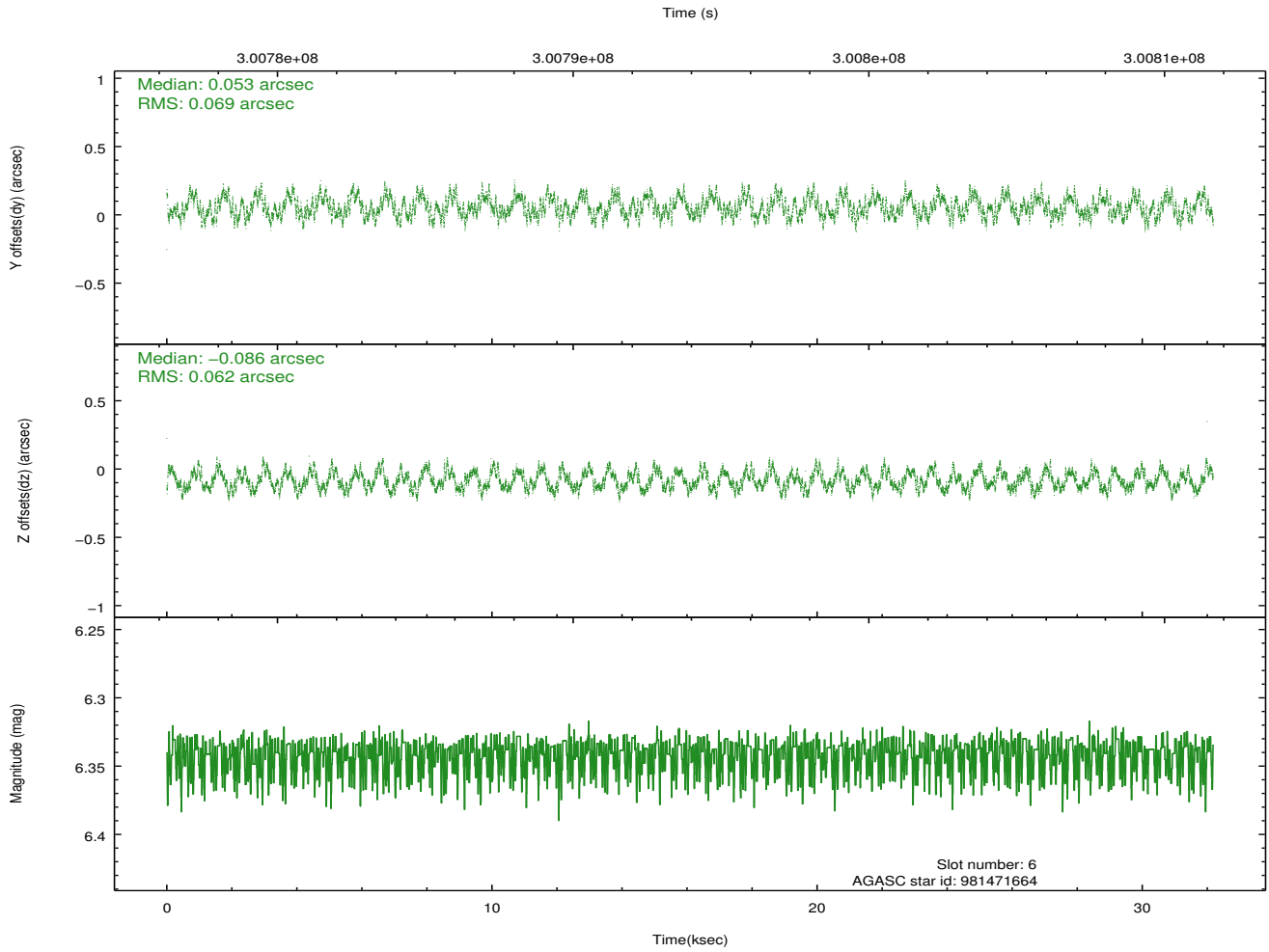
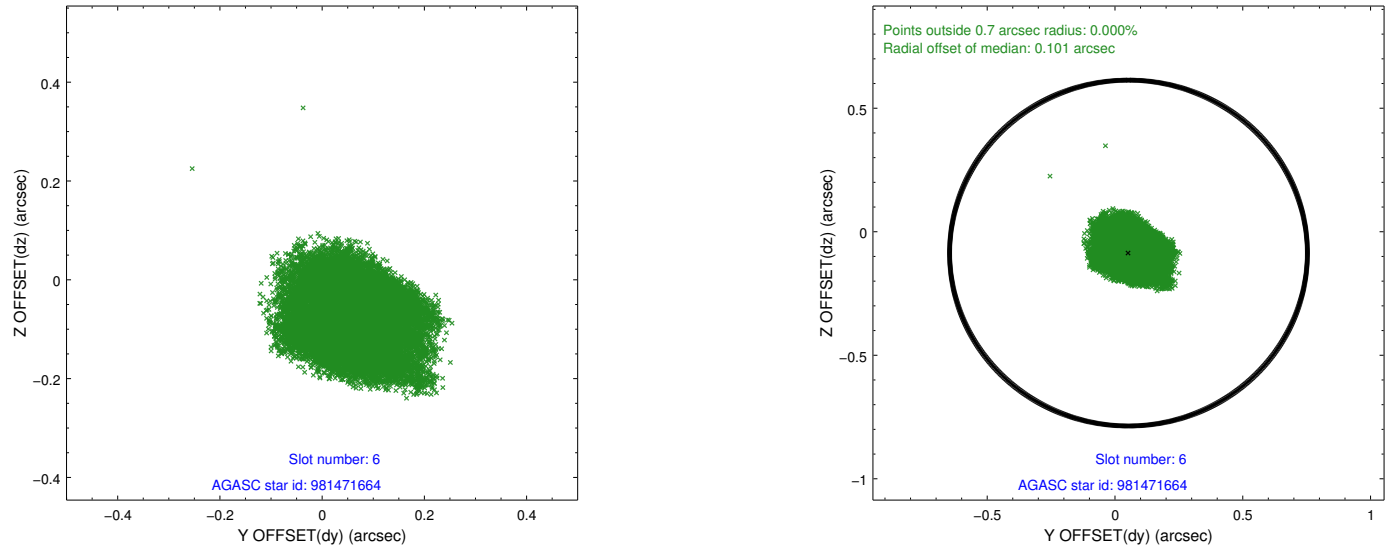
2.4.2 Slot 4



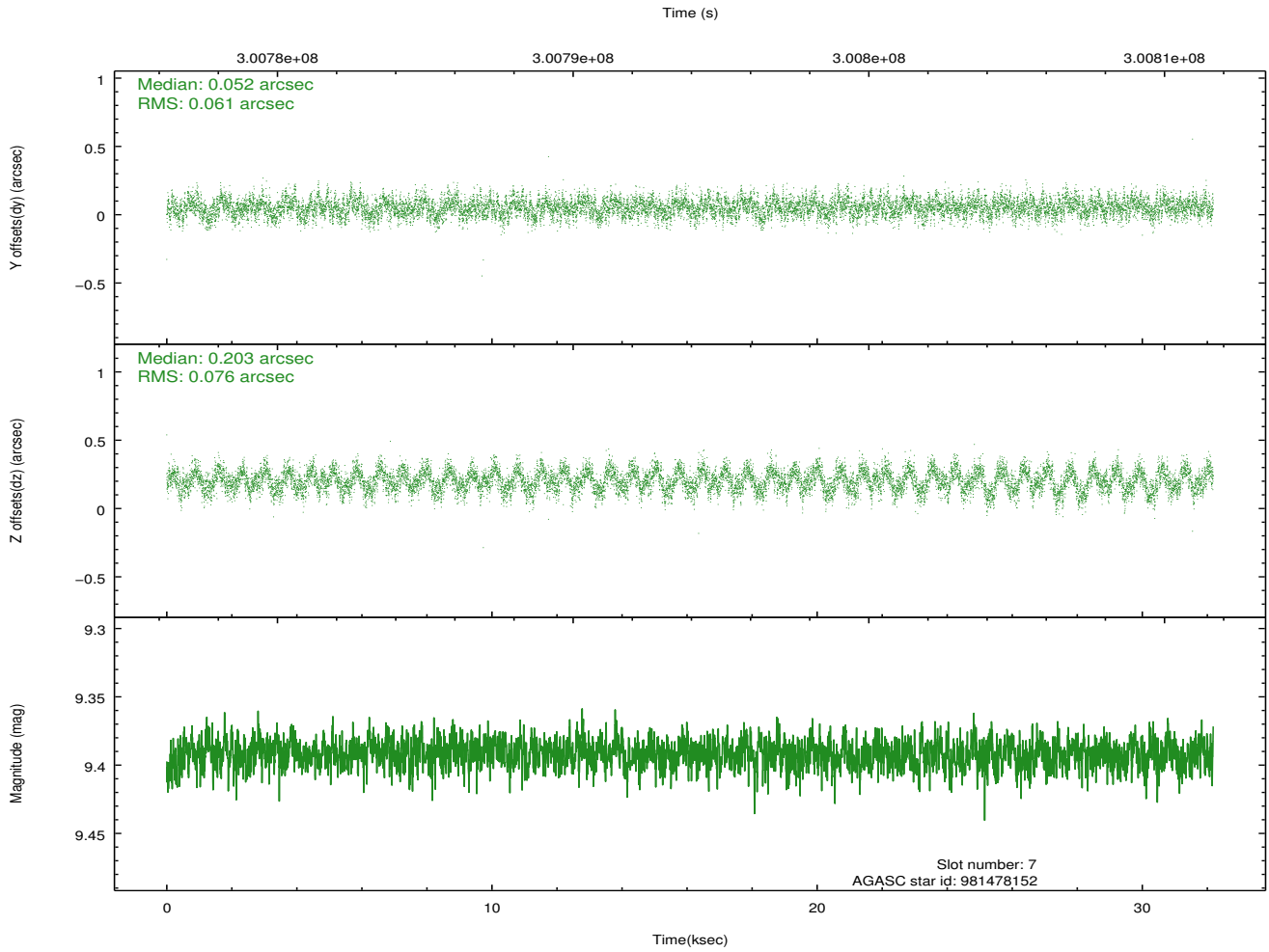
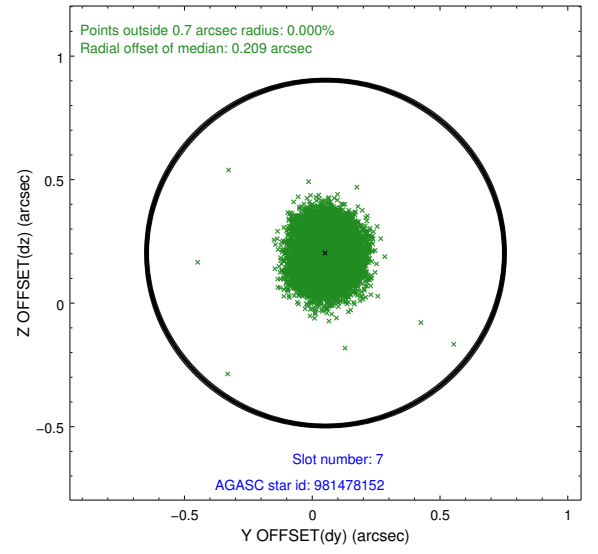
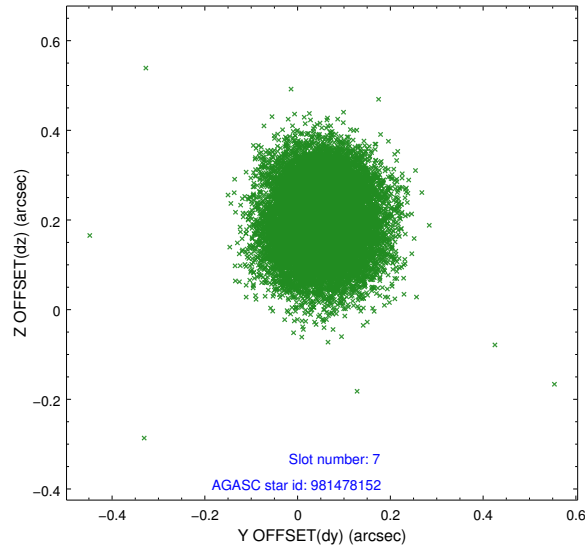
2.4.3 Slot 5



2.4.4 Slot 6

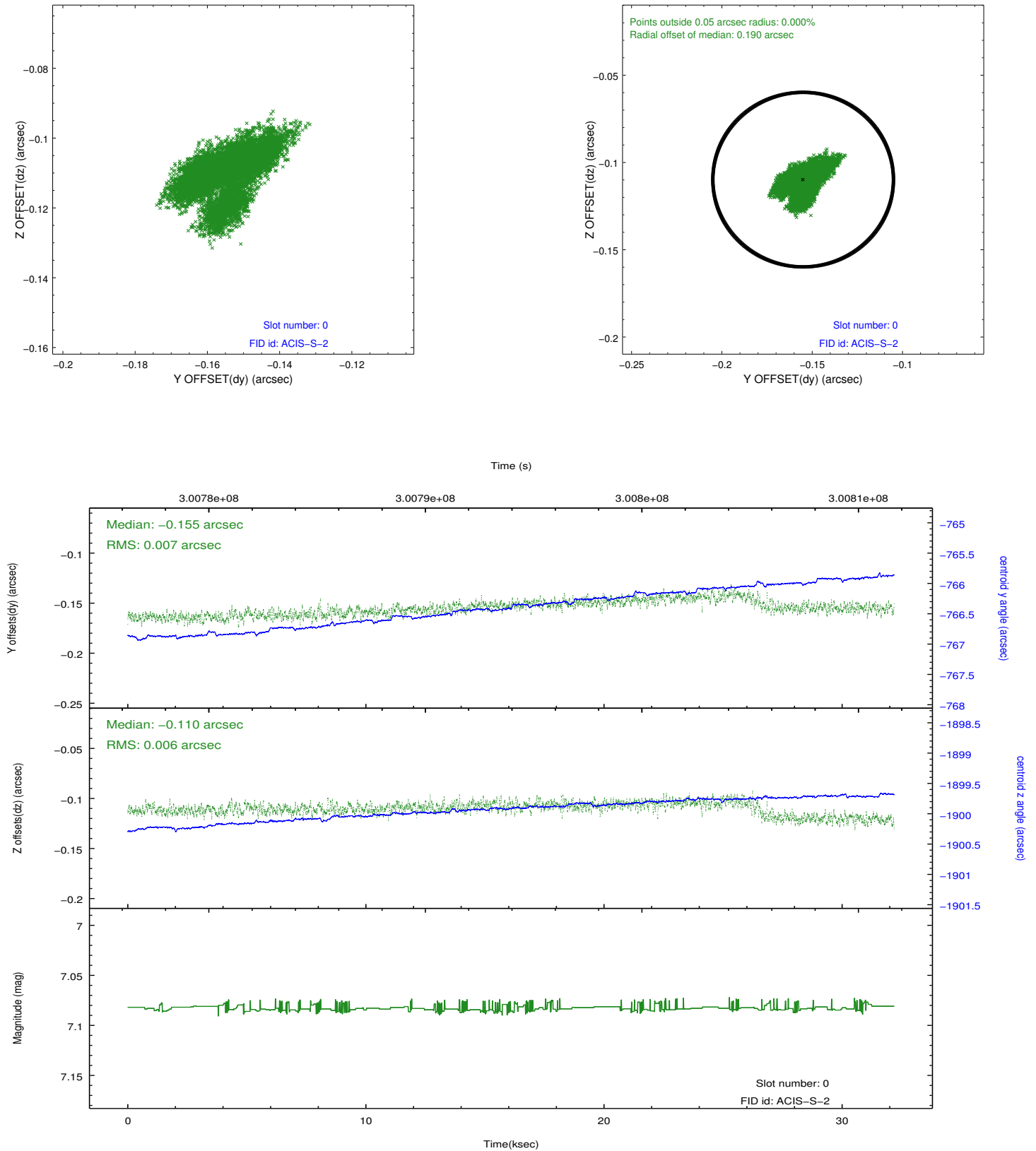


2.4.5 Slot 7

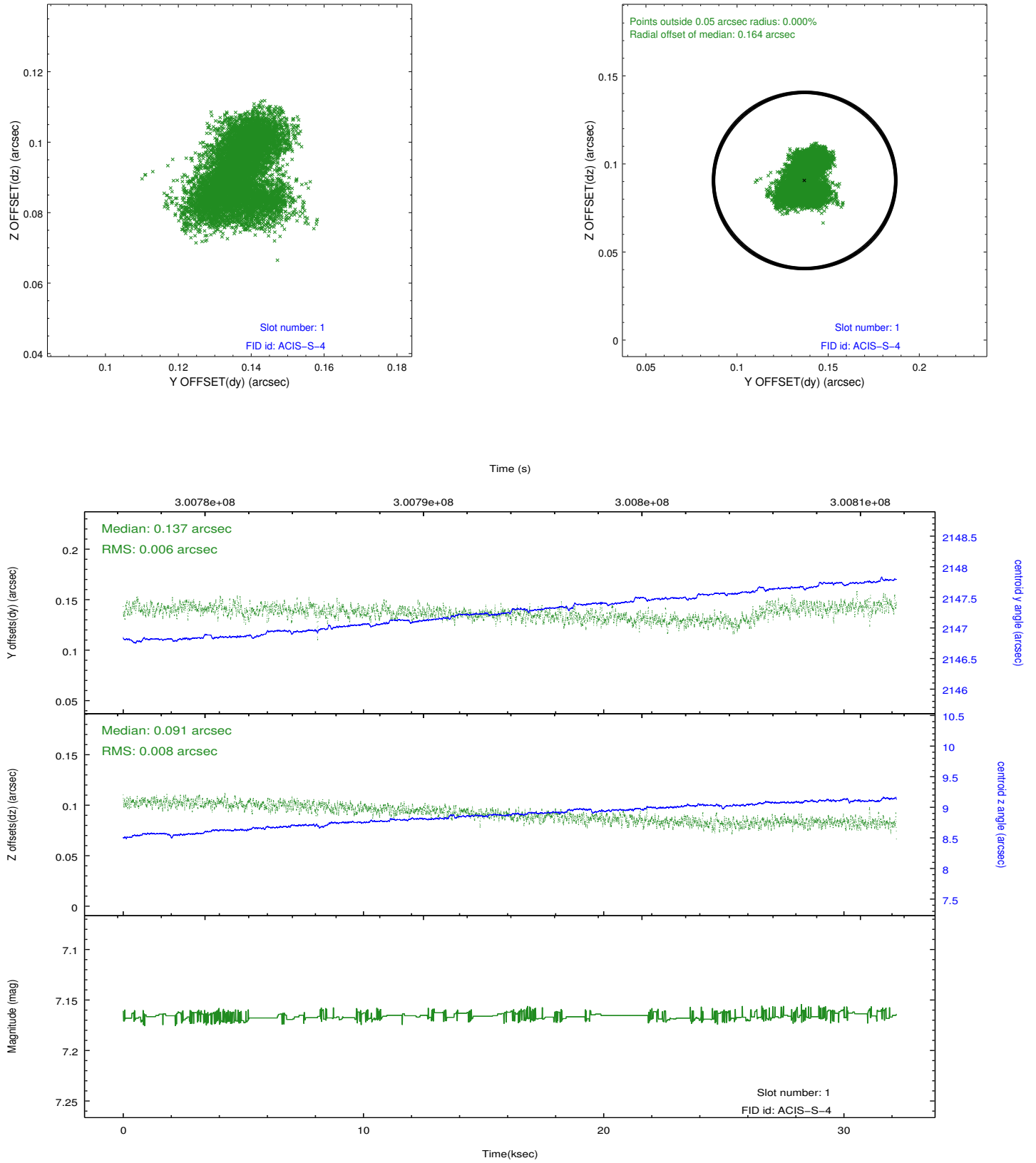


2.5 FID Slots

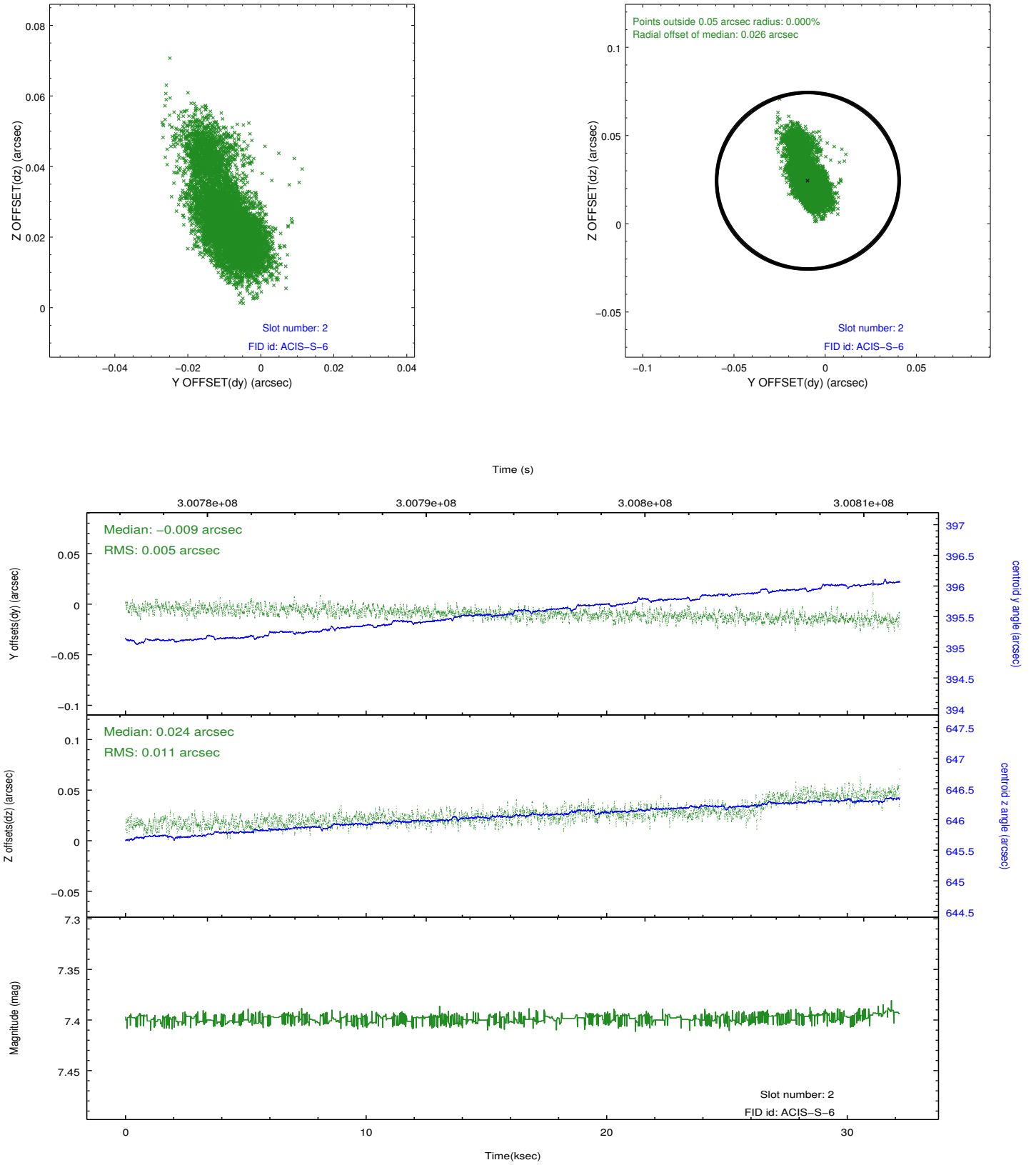
2.5.1 Slot 0



2.5.2 Slot 1

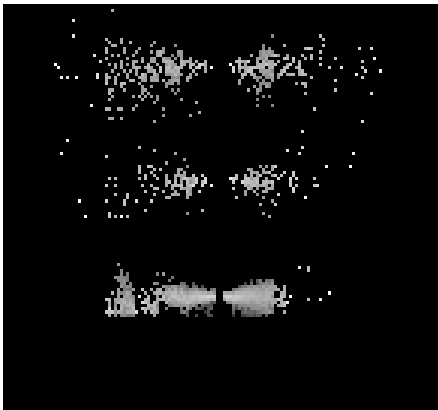


2.5.3 Slot 2

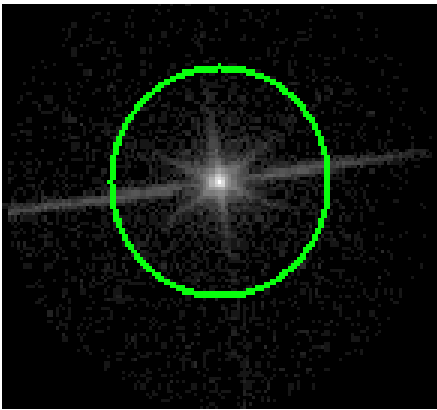


3 Gratings

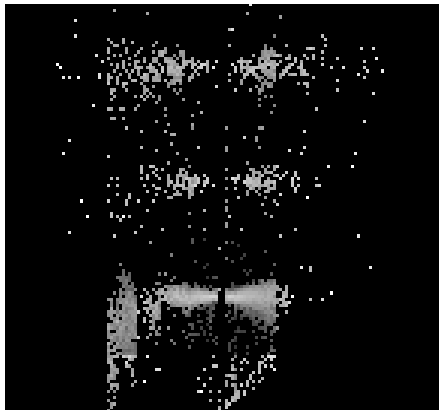
3.1 LETG Arm



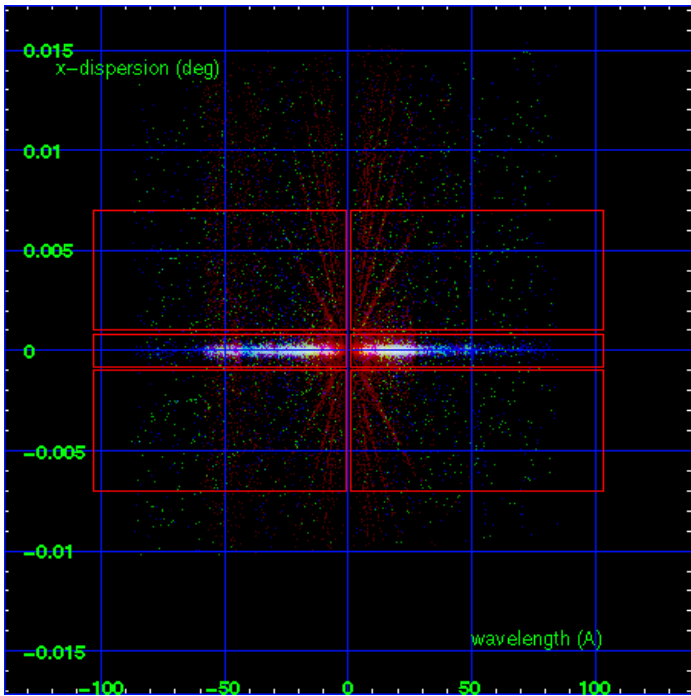
LETG Order Sort 123



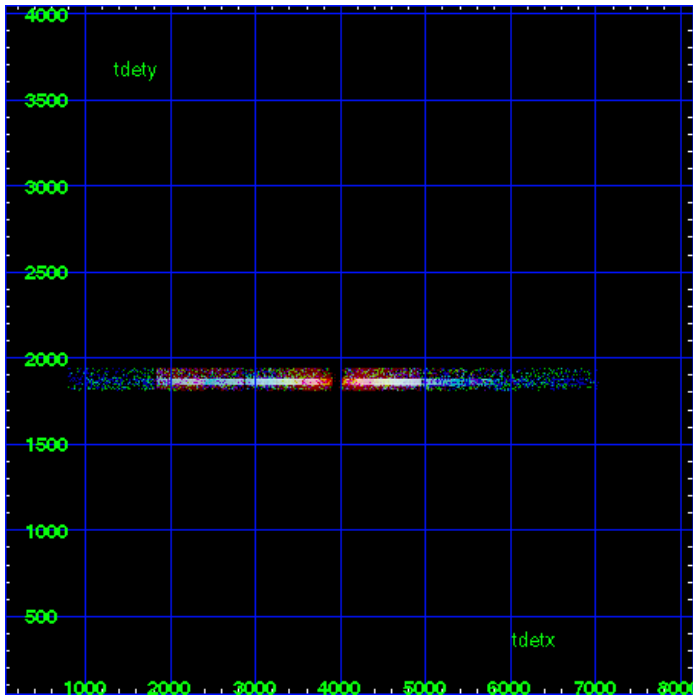
LETG Zero Order



LETG Order Sort ALL

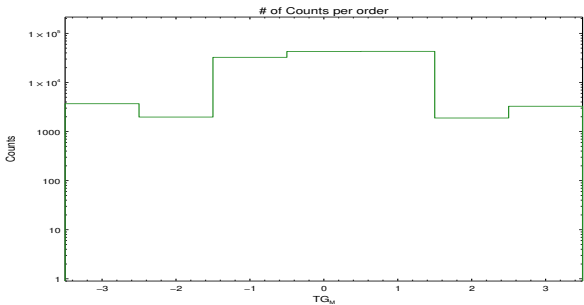


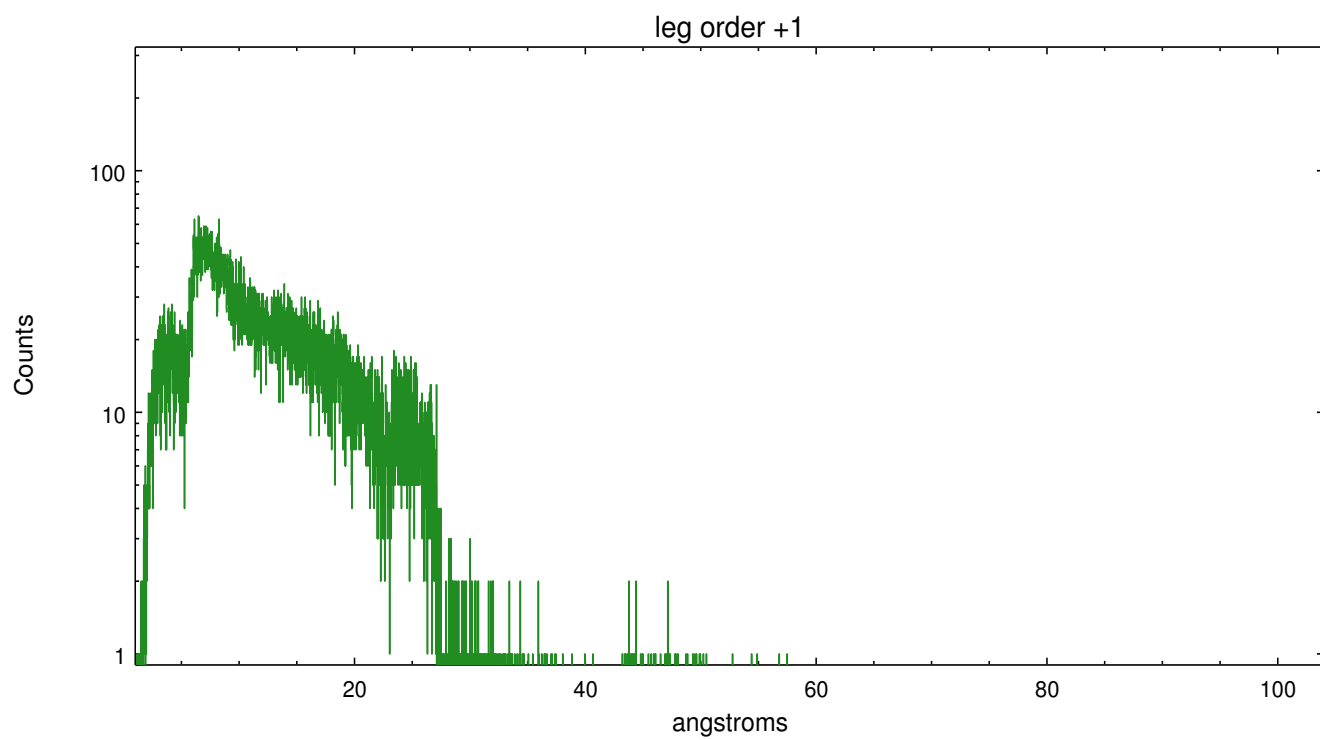
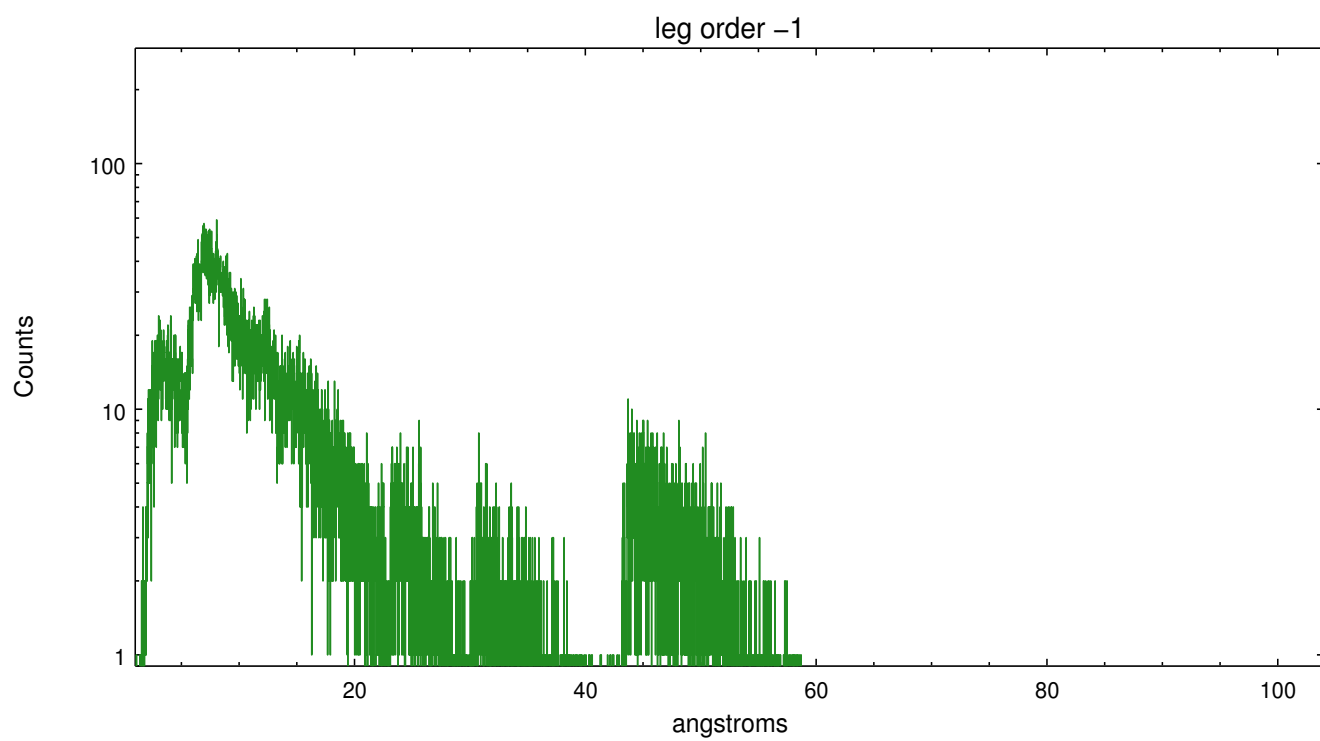
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	3689	1973	32504	42811	43023	1887	3275





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.05.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	31.0638994

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.