

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 1799 - L2 Version 5
Chandra X-Ray Center

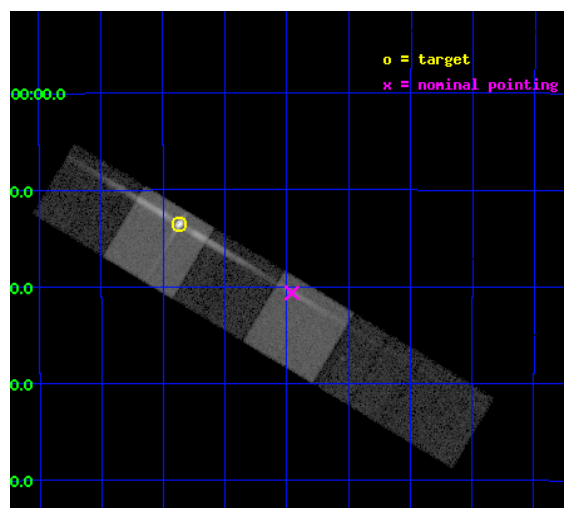
L2 Processing Date : Jan 16 2013

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1 Front

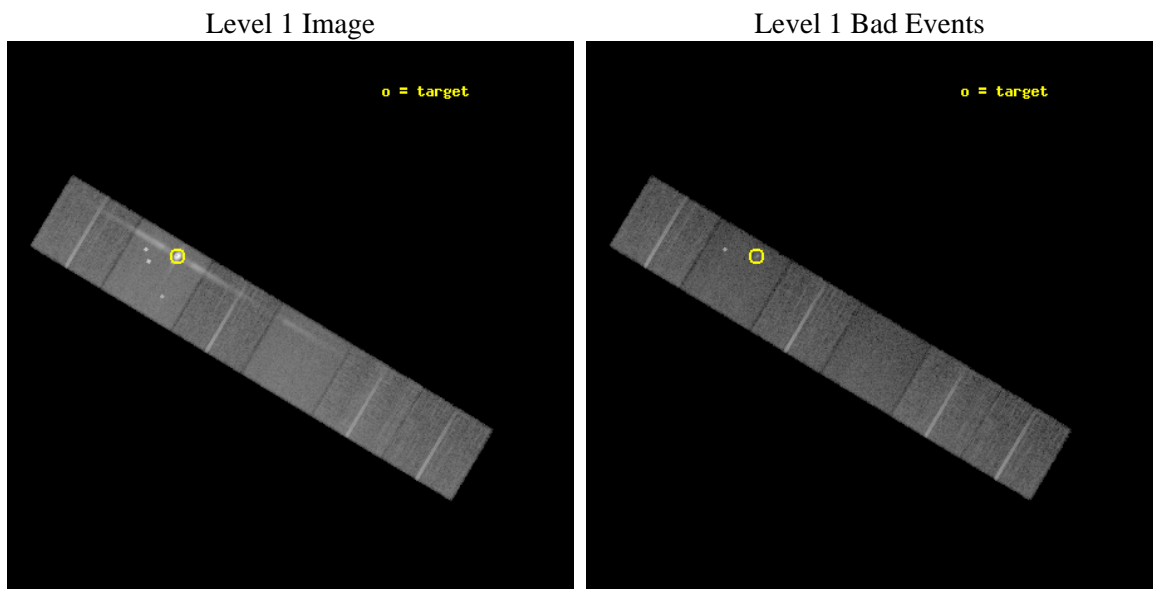
seq_num	390017	Sequence number
obs_id	1799	Observation id
title	GRATINGS CALIBRATION OBSERVATIONS OF PKS2155-304	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	PKS2155-304	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	329.716667	Observer's specified target RA [deg]
dec_targ	-30.225556	Observer's specified target Dec [deg]
ra_nom	329.48973967339	Nominal RA [deg]
dec_nom	-30.344222243671	Nominal Dec [deg]
roll_nom	30.858412559108	Nominal Roll [deg]
revision	5	Processing version of data
ontime	20140.800018743	Sum of GTIs [s]
livetime	19885.765081572	Livetime [s]
ontime4	20140.800018743	Sum of GTIs [s]
ontime5	20140.800018743	Sum of GTIs [s]
ontime6	20140.800018743	Sum of GTIs [s]
ontime7	20140.800018743	Sum of GTIs [s]
ontime8	20140.800018743	Sum of GTIs [s]
ontime9	20140.800018743	Sum of GTIs [s]
l2events	265053	Number of level 2 events



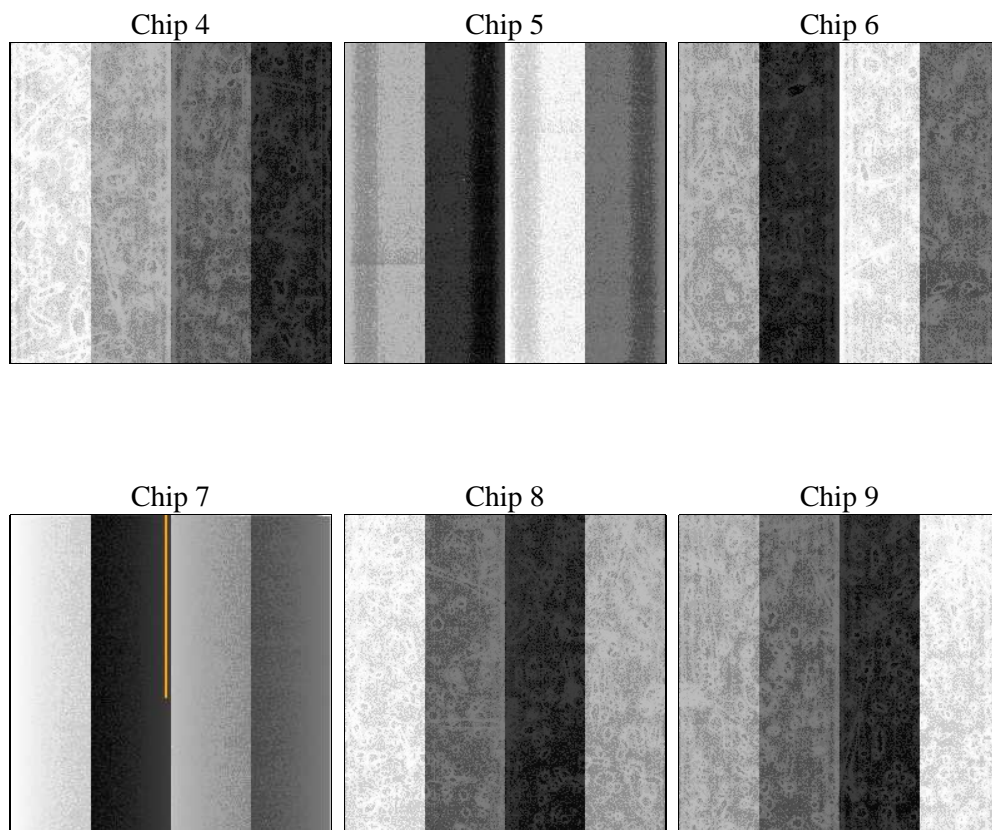
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	20140.800018743	Sum of GTIs [s]
caldsver	4.5.1.1	 	ontime4	20140.800018743	Sum of GTIs [s]
date	2012-08-31T13:55:31	Date and time of file creation	ontime5	20140.800018743	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	20140.800018743	Sum of GTIs [s]
			ontime7	20140.800018743	Sum of GTIs [s]
			ontime8	20140.800018743	Sum of GTIs [s]
			ontime9	20140.800018743	Sum of GTIs [s]
			l1events	1119561	Number of level 1 events

2.1.4 Events

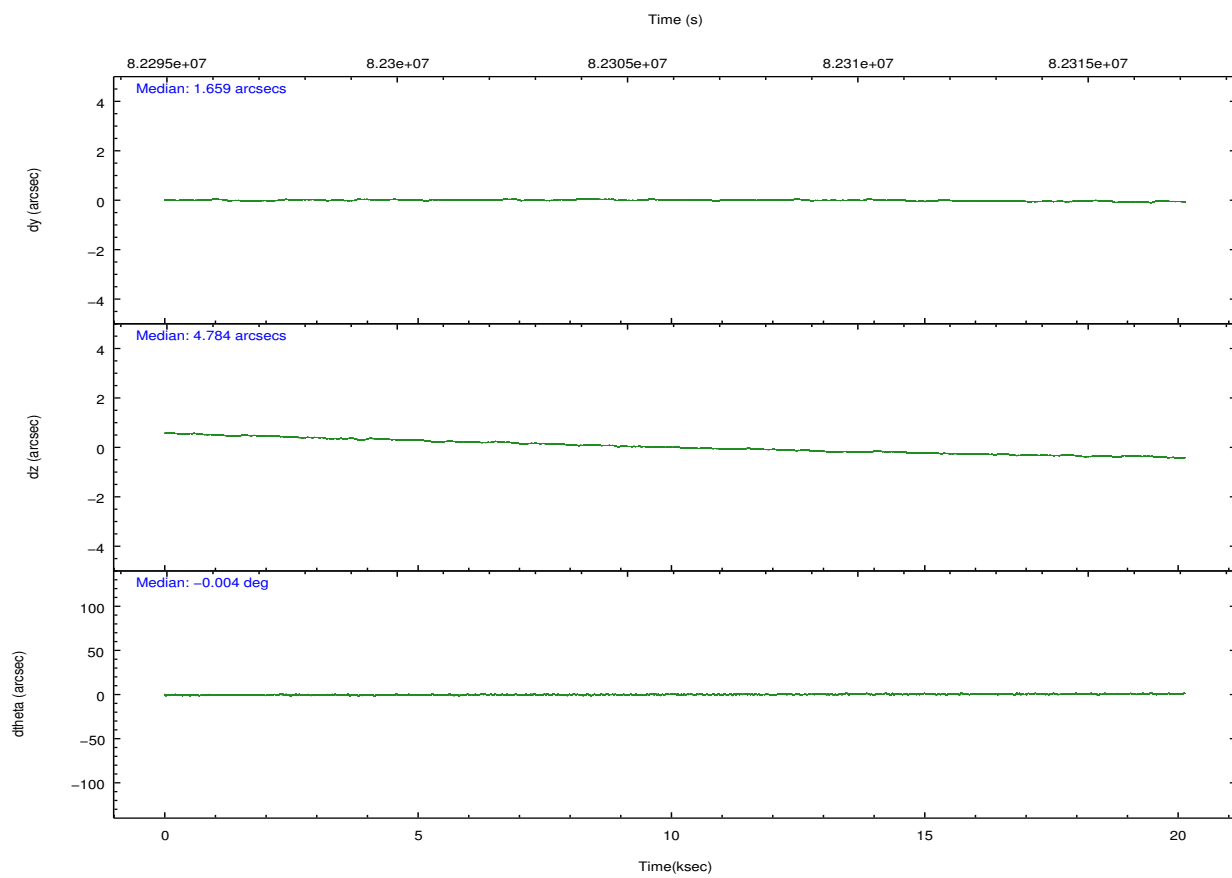
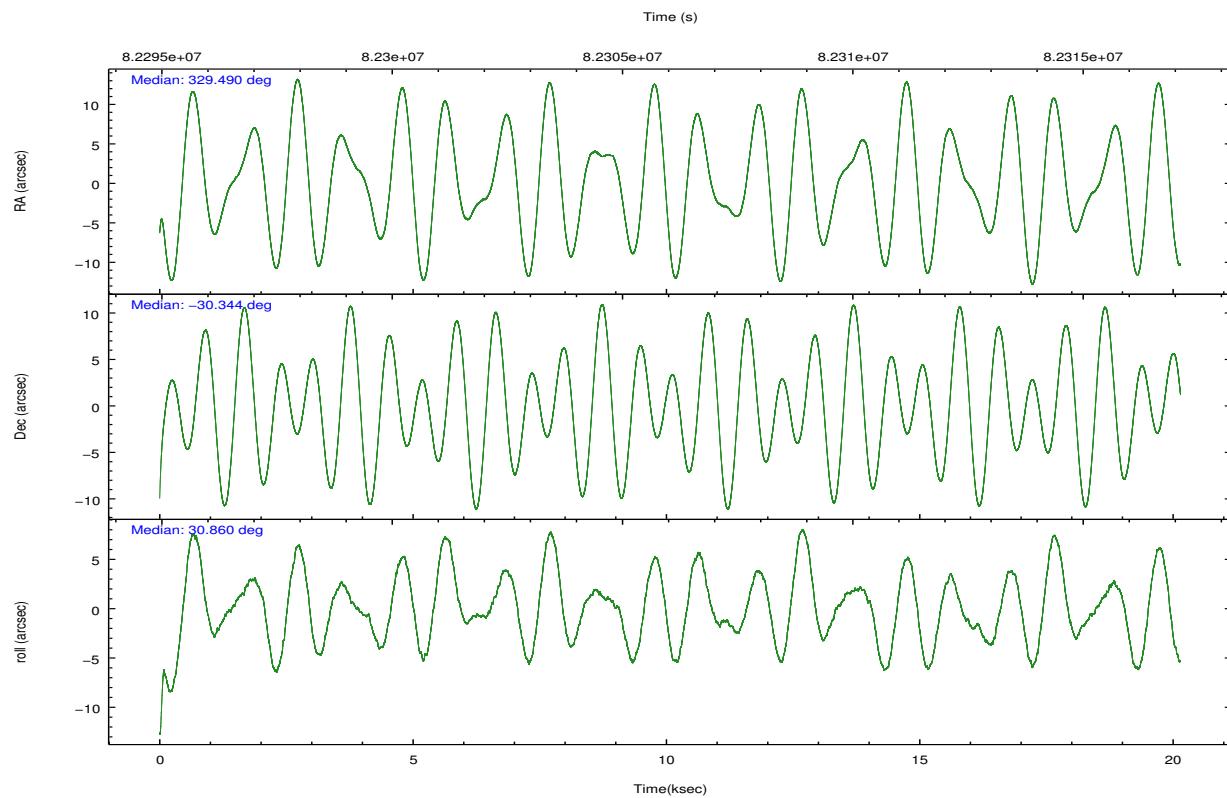
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	155387	292107	150945	202449	175845	142828	grade 0 events	20562	62664	25713	21569	23480	19074
rejected events	139013	137491	131303	132621	147803	129379		13%	21%	17%	10%	13%	13%
rejected %	89%	47%	86%	65%	84%	90%	grade 1 events	144	586	146	172	154	106
								0%	0%	0%	0%	0%	0%
							grade 2 events	7180	54998	7587	23852	10468	7038
								4%	18%	5%	11%	5%	4%
							grade 3 events	2599	13325	3004	11020	4777	2849
								1%	4%	1%	5%	2%	1%
							grade 4 events	2488	12712	3045	11002	4596	2846
								1%	4%	2%	5%	2%	1%
							grade 5 events	4114	14560	4816	14368	6055	5054
								2%	4%	3%	7%	3%	3%
							grade 6 events	5104	56159	6734	49438	10928	6153
								3%	19%	4%	24%	6%	4%
							grade 7 events	113196	77103	99900	71028	115387	99708
								72%	26%	66%	35%	65%	69%

2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	LETG	LETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	329.474464	329.489739673393
[deg] Pointing Dec	-30.368225	-30.34422224367141
[deg] Pointing Roll	30.694074	30.85841255910782
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-182.131972	-182.1344861297048
[mm] SIM translation stage offset	-8.000551	-7.998036453302973
[s] Observation start time (MET)	82296105.184000	82294186.519398
Observation start date	2000-08-10T12:00:41	2000-08-10T11:29:46
[s] Observation end time (MET)	82316105.184000	82316295.770224
Observation end date	2000-08-10T17:34:01	2000-08-10T17:38:15
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

2.3 Aspect

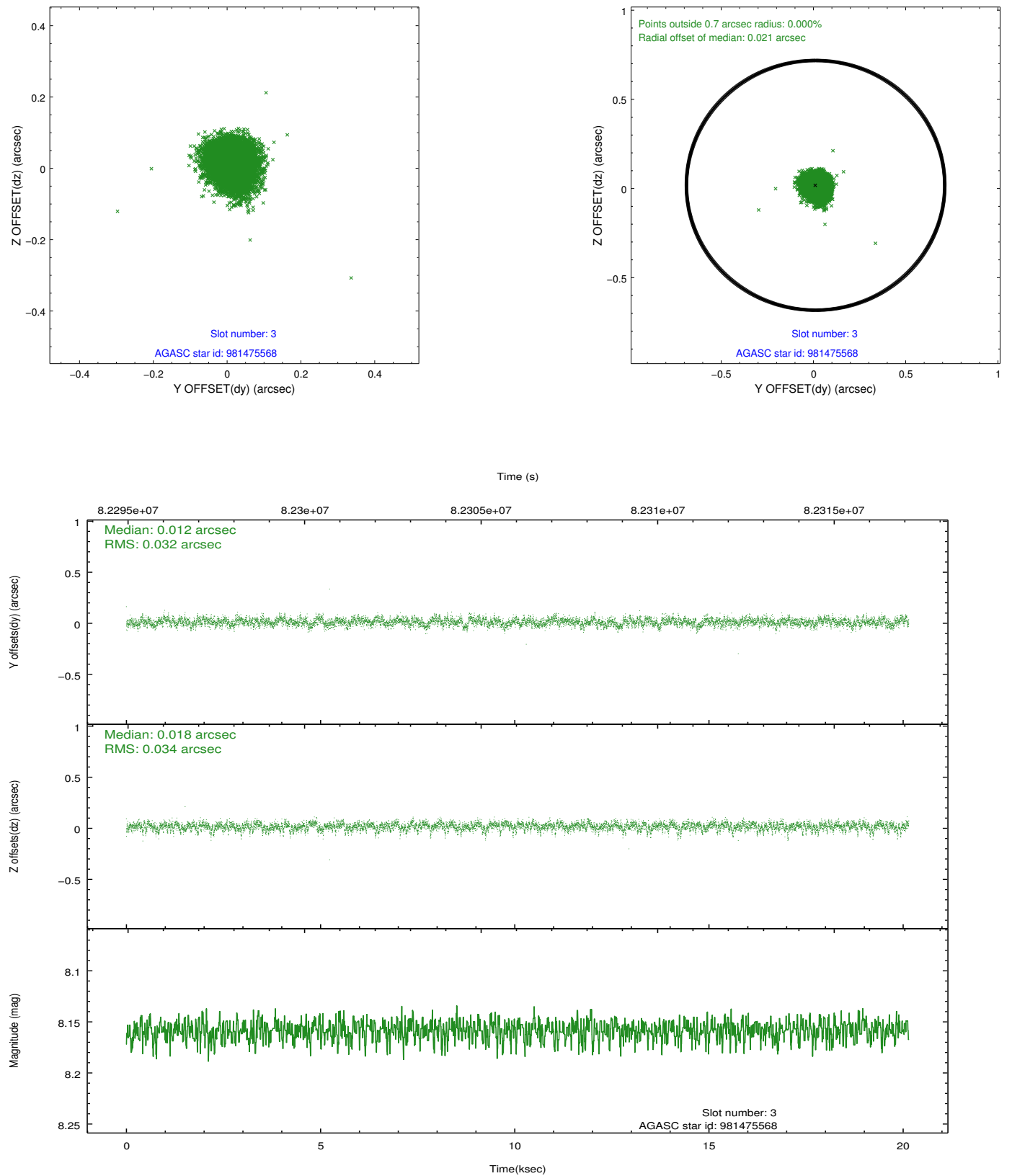


Slot Statistics

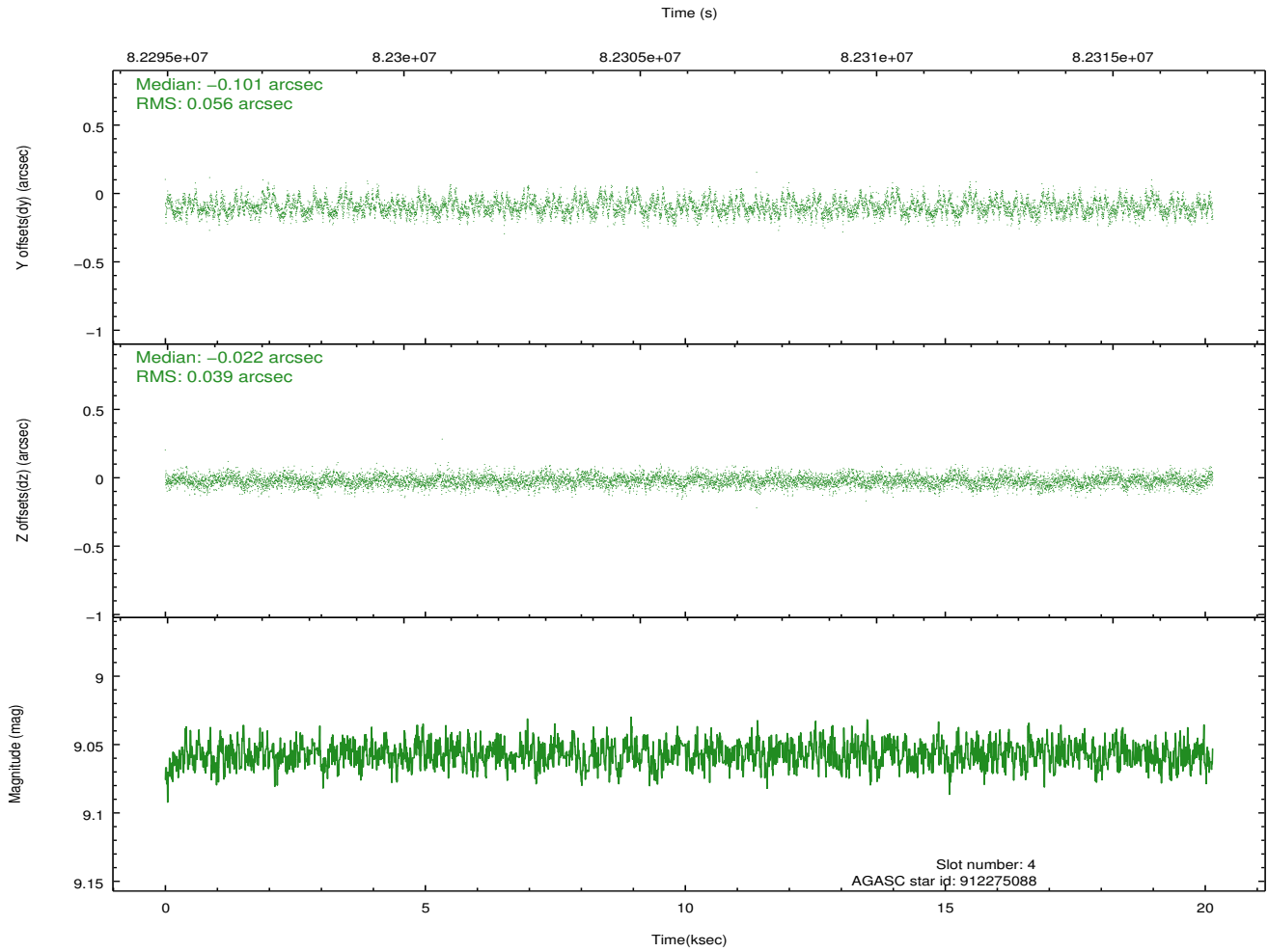
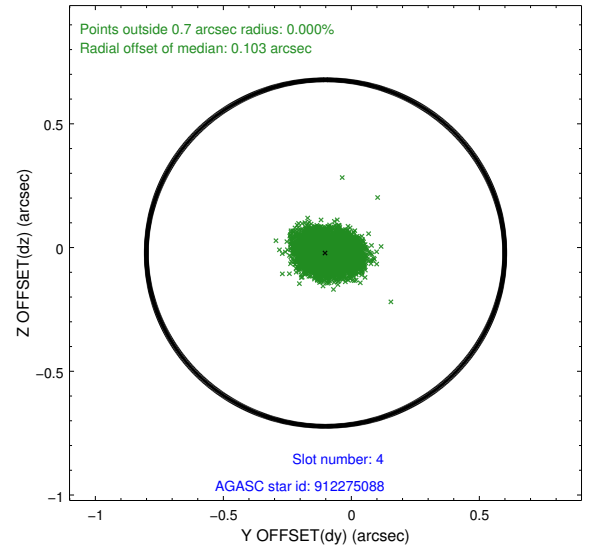
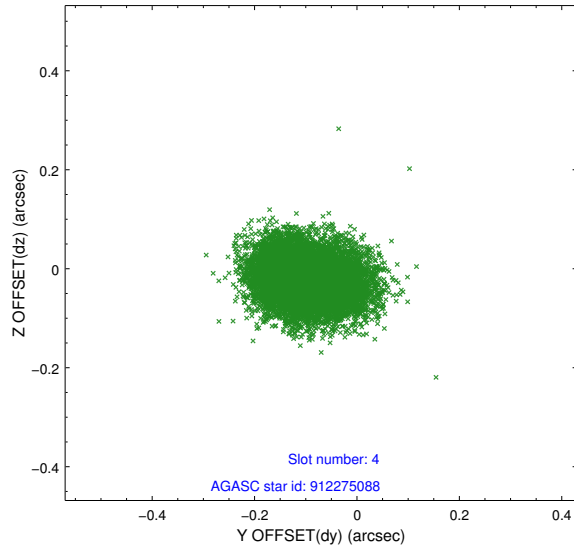
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	4912	-0.077	-0.057	0.006	0.010	0.000000	0.000000	-753.76	-1890.74
1	FID	ACIS-S-4	7.19	4913	0.051	0.045	0.006	0.010	0.000000	0.000000	2159.56	17.61
2	FID	ACIS-S-6	7.42	4913	-0.001	0.019	0.007	0.012	0.000000	0.000000	408.54	655.19
3	GUIDE	981475568	8.16	9826	0.012	0.018	0.049	0.081	328.999408	-30.923402	-2283.51	-971.18
4	GUIDE	912275088	9.06	9823	-0.101	-0.022	0.072	0.117	329.619228	-29.738698	1545.45	1718.62
5	GUIDE	981468288	9.20	9821	0.086	-0.005	0.093	0.143	328.608359	-30.257017	-2116.67	1711.49
6	GUIDE	981478152	9.41	9821	-0.024	0.018	0.084	0.138	329.415589	-30.057192	413.47	1057.81
7	GUIDE	981468128	9.35	9820	0.026	-0.005	0.079	0.128	329.756350	-30.158334	1139.62	202.17

2.4 Star Slots

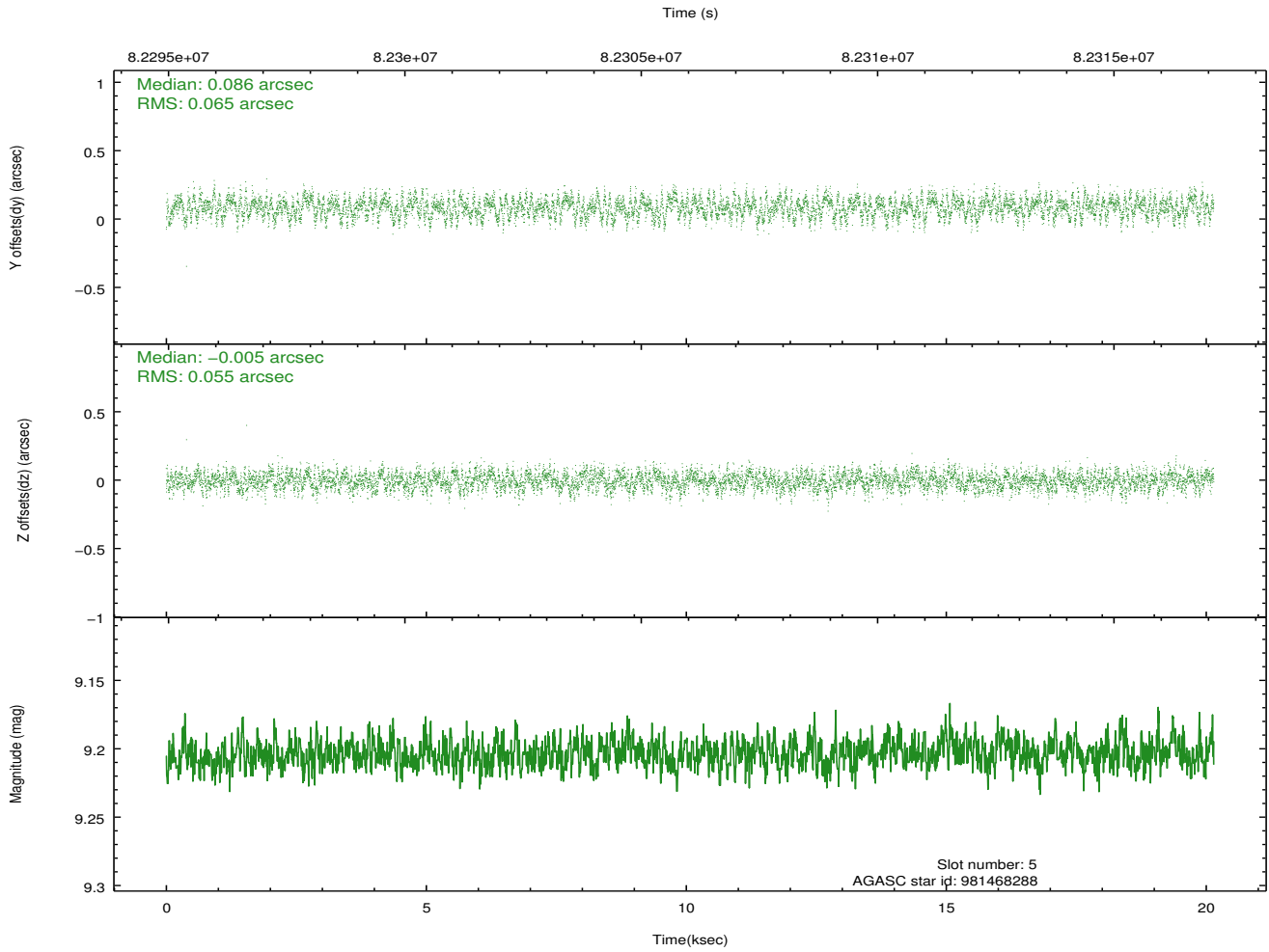
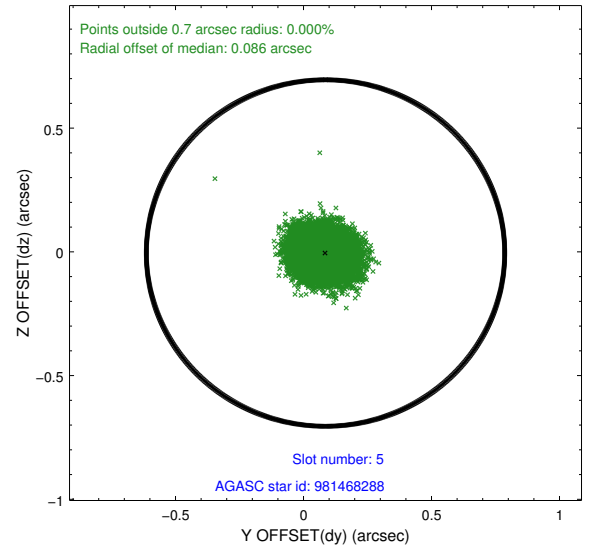
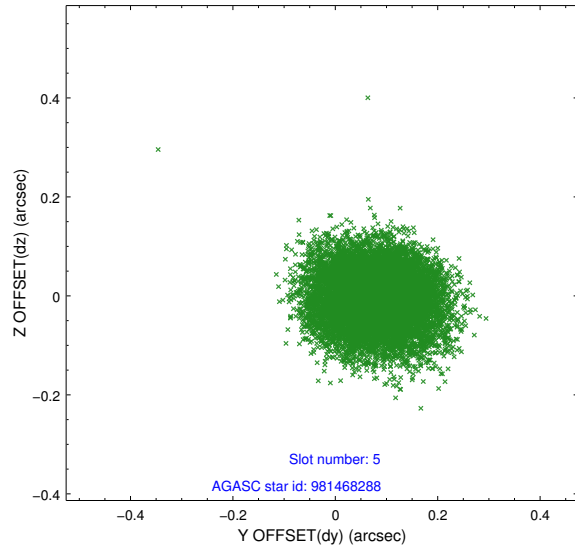
2.4.1 Slot 3



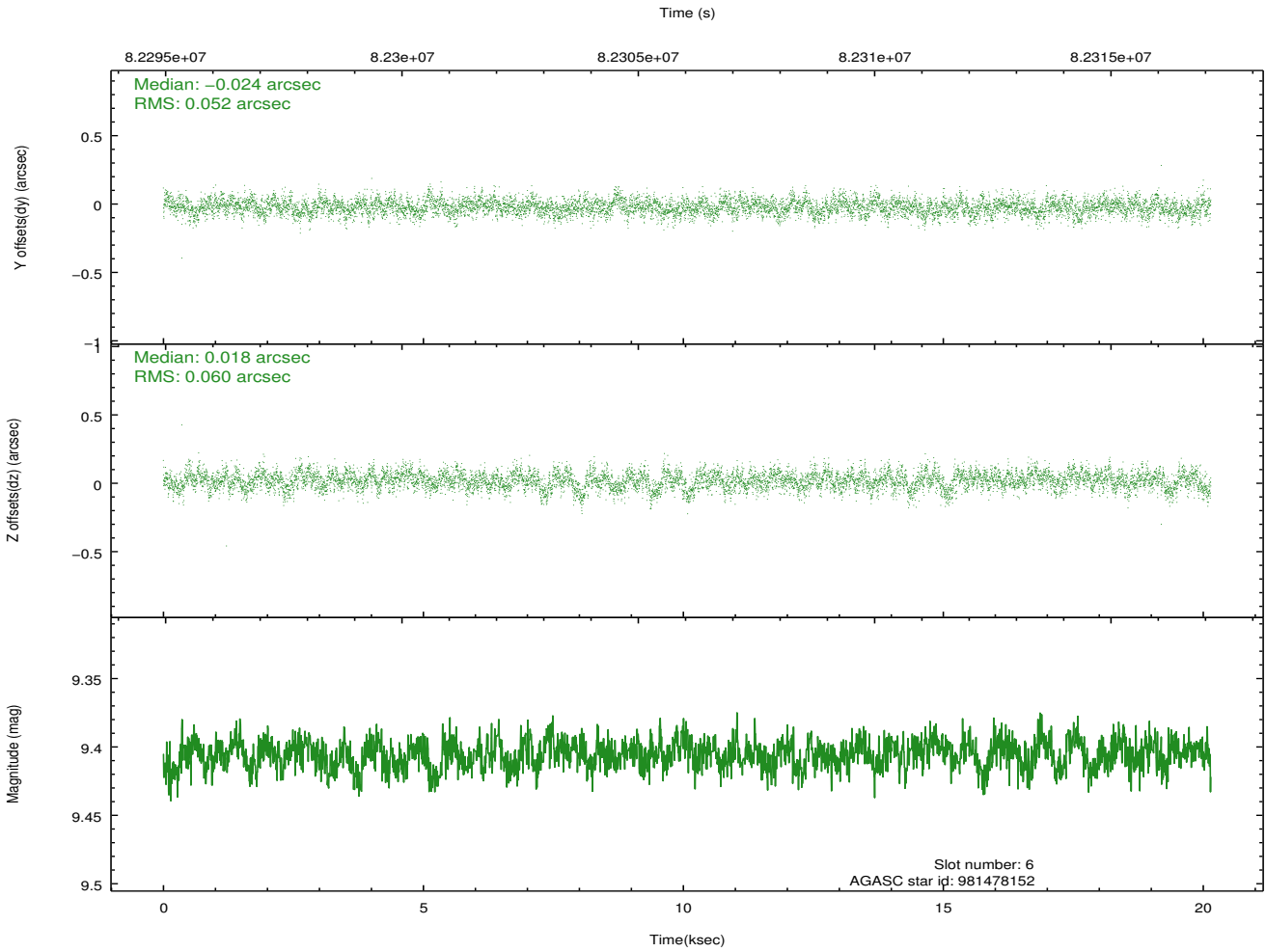
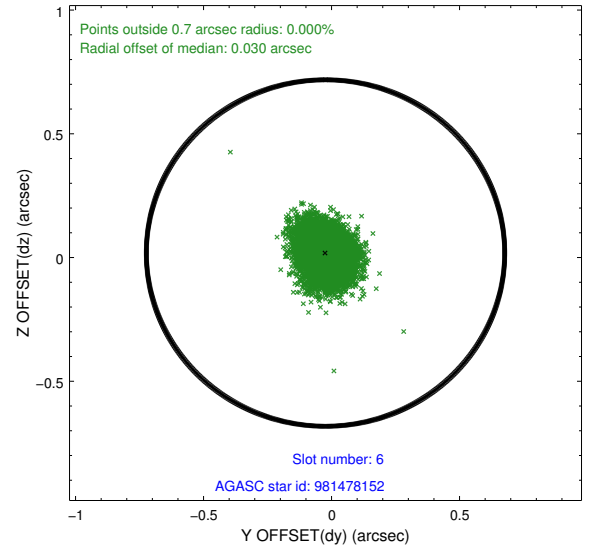
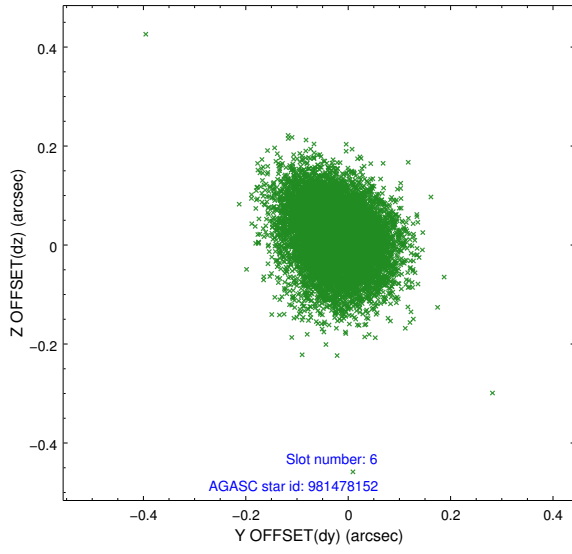
2.4.2 Slot 4



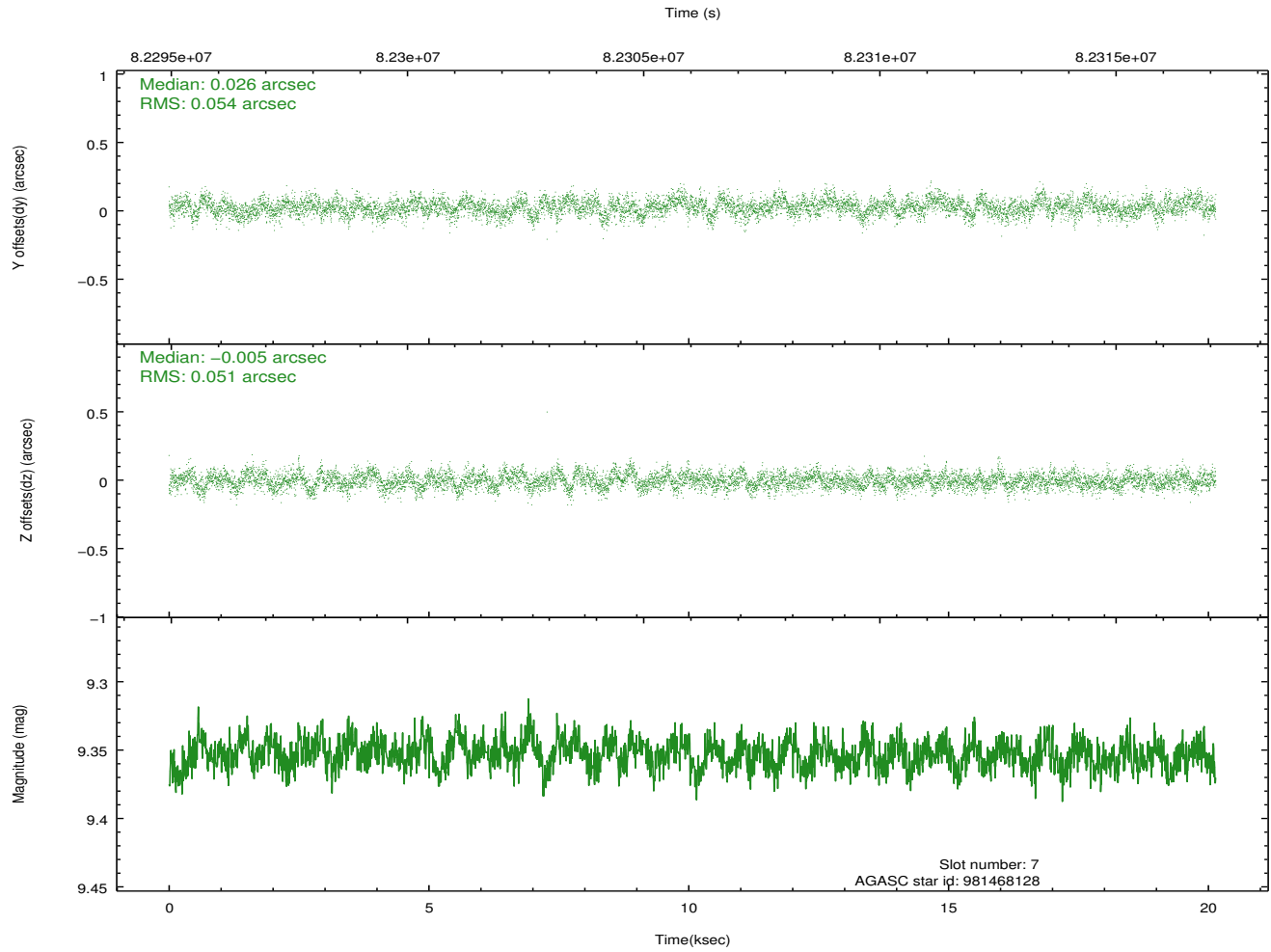
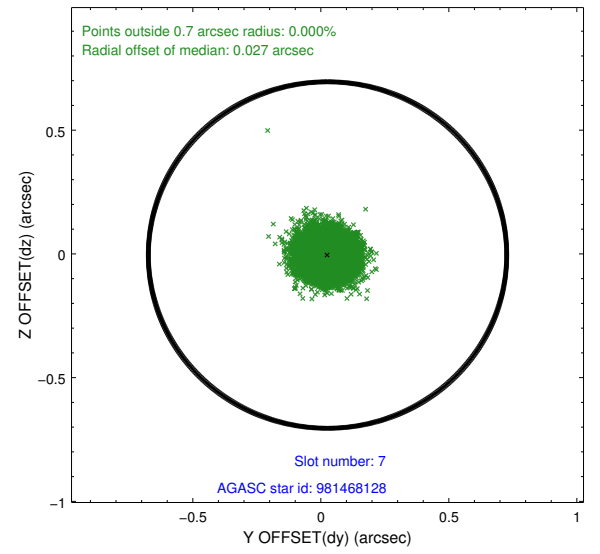
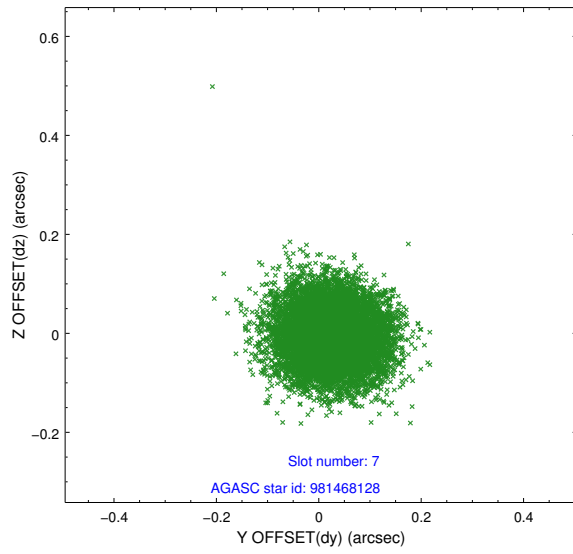
2.4.3 Slot 5



2.4.4 Slot 6

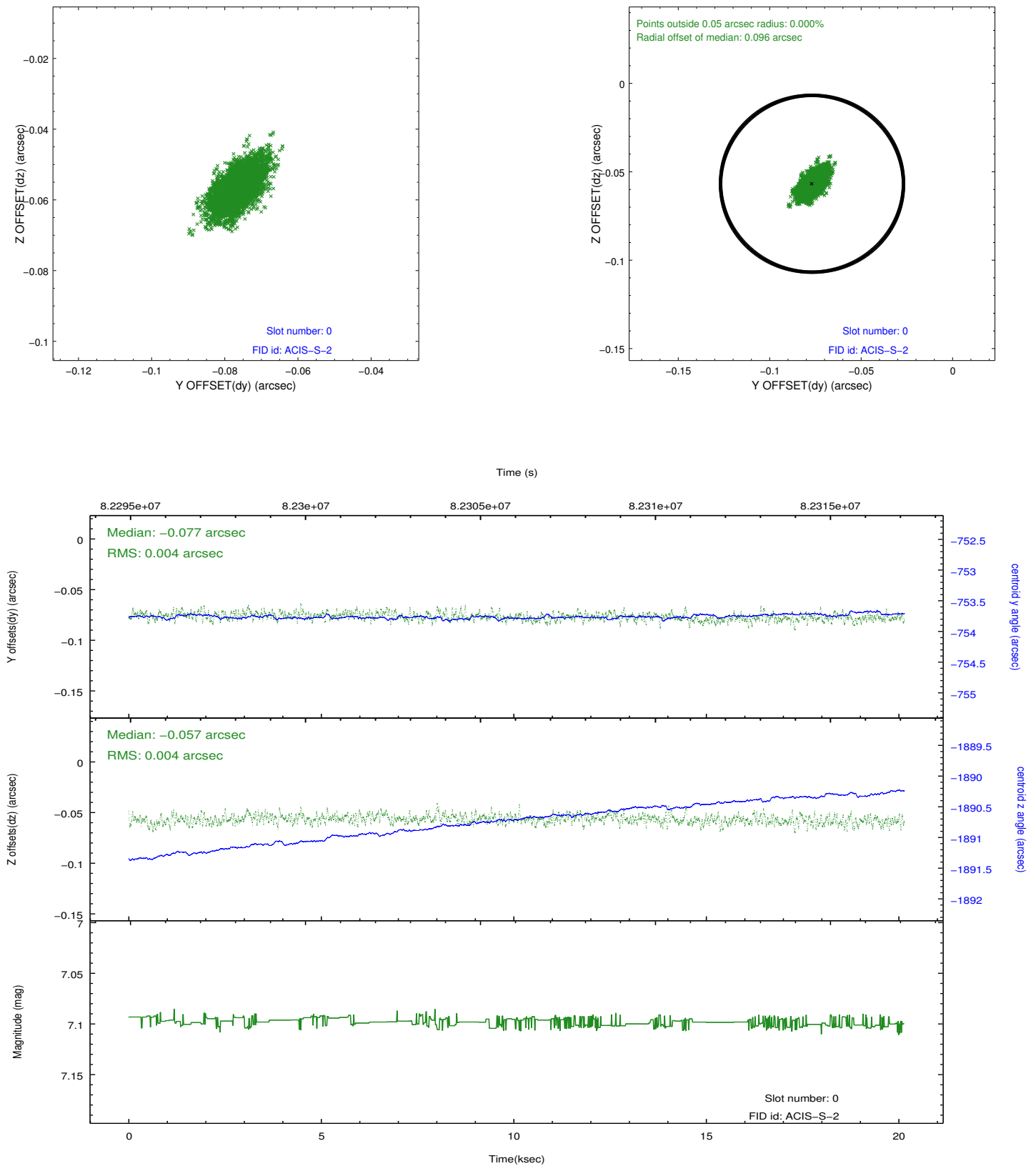


2.4.5 Slot 7

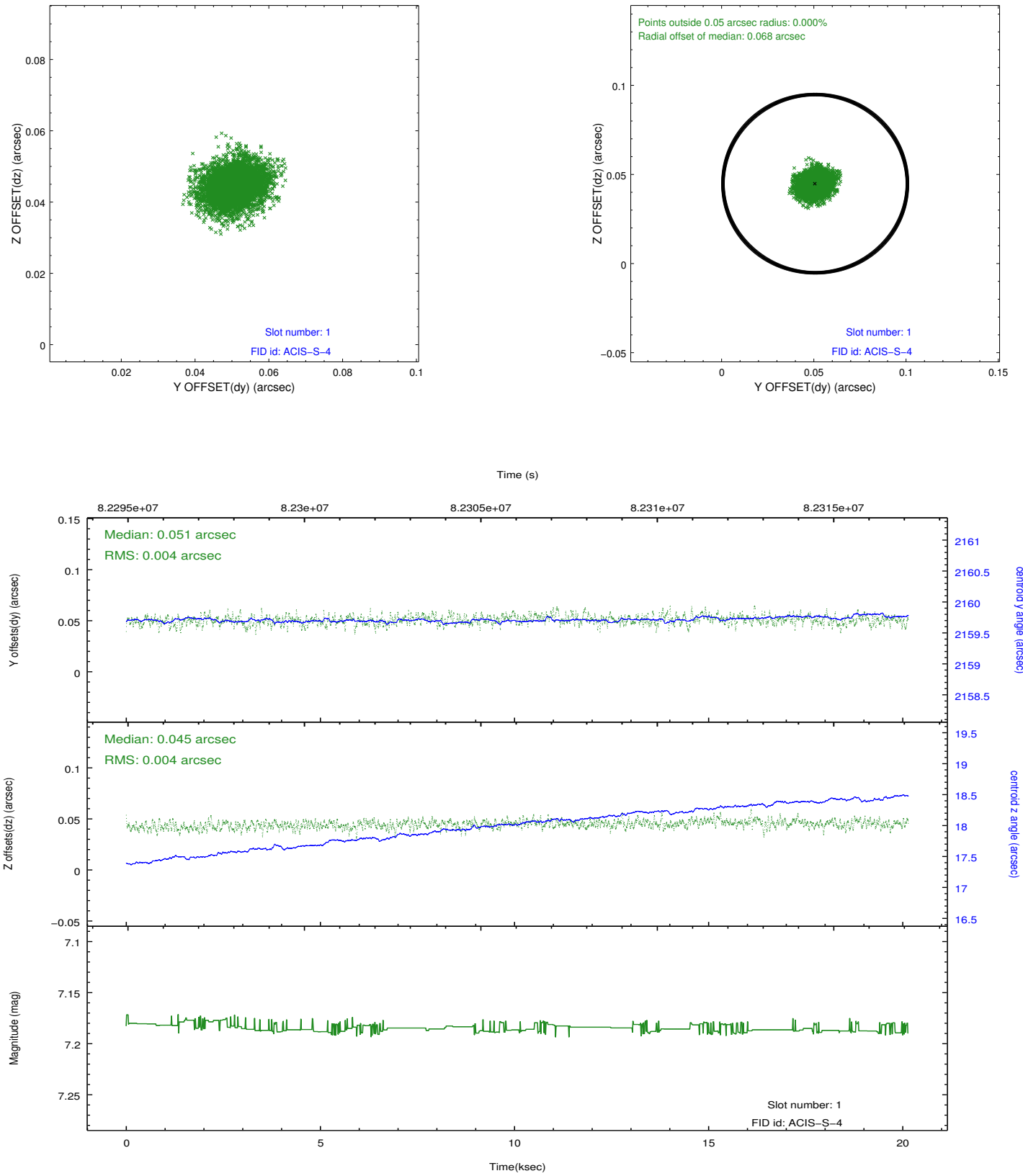


2.5 FID Slots

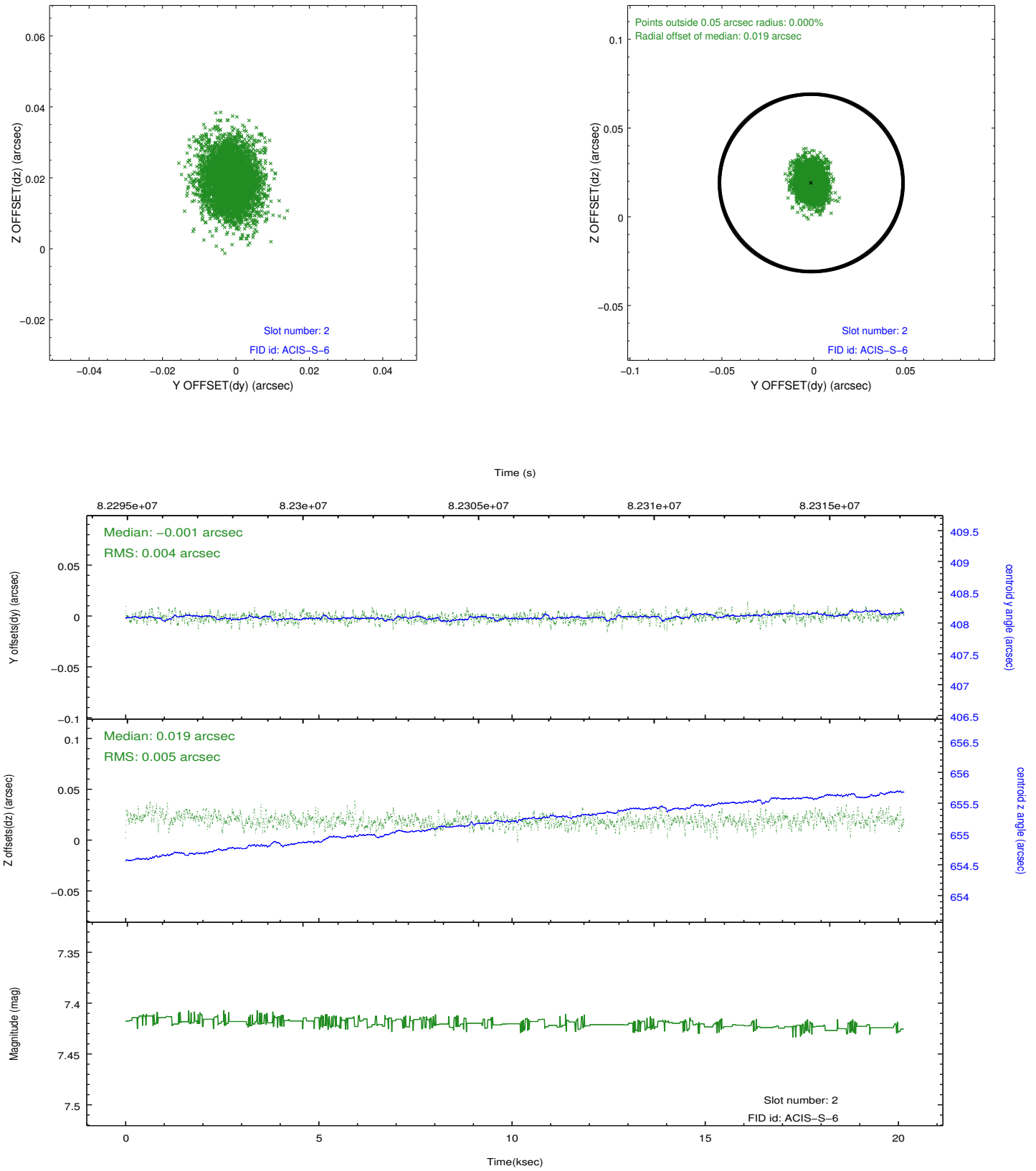
2.5.1 Slot 0



2.5.2 Slot 1

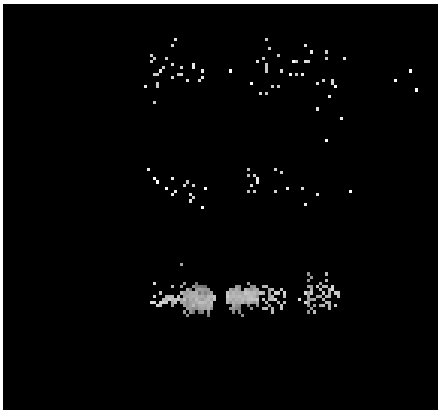


2.5.3 Slot 2

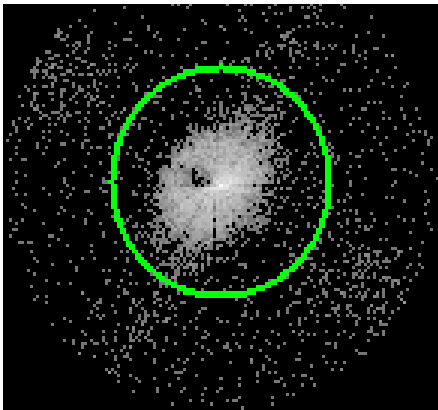


3 Gratings

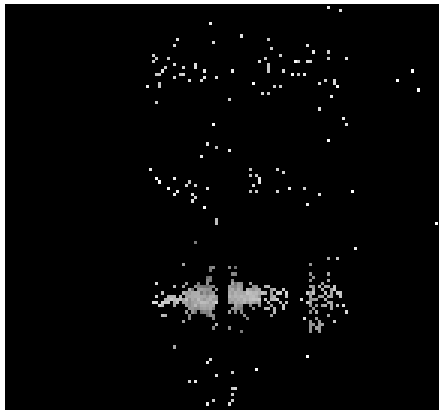
3.1 LETG Arm



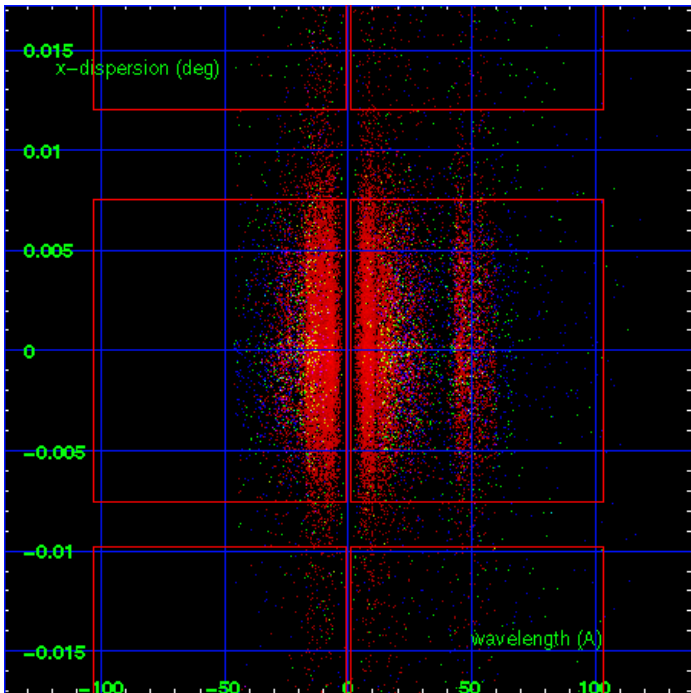
LETG Order Sort 123



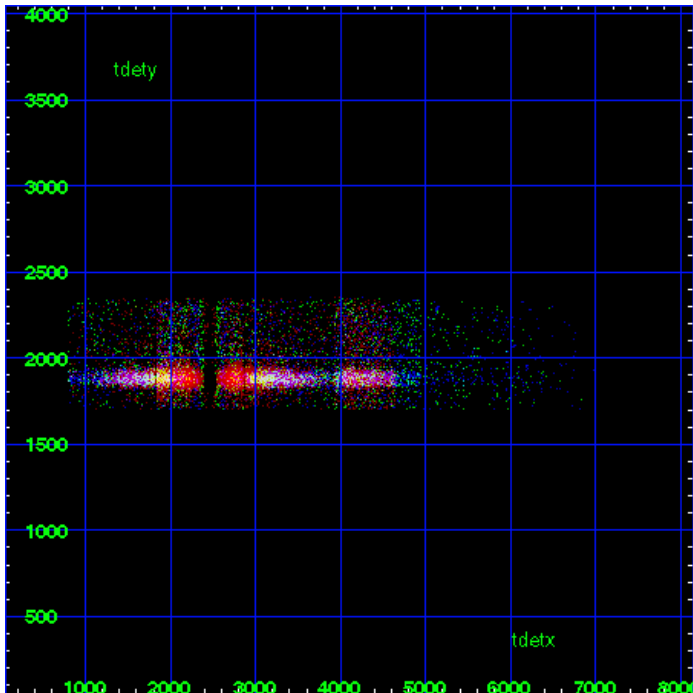
LETG Zero Order



LETG Order Sort ALL

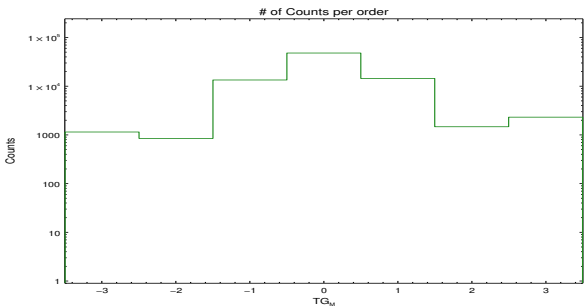


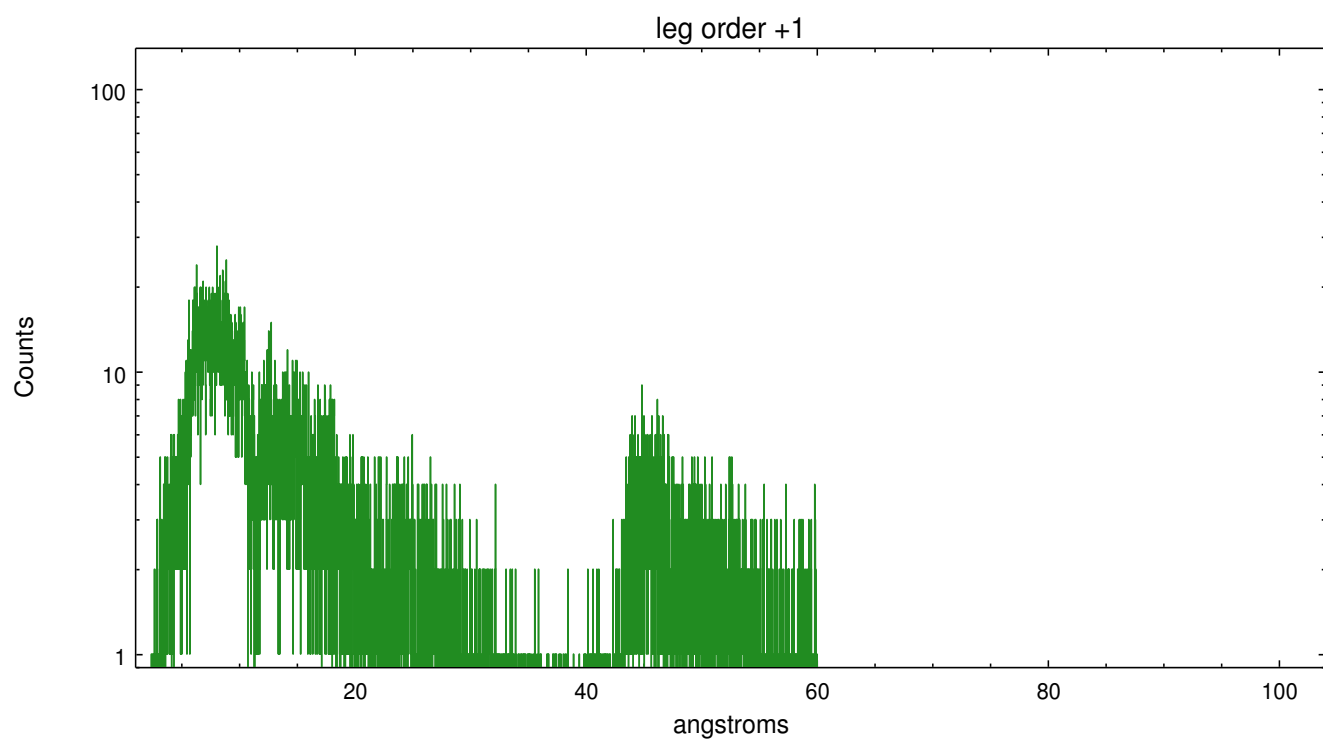
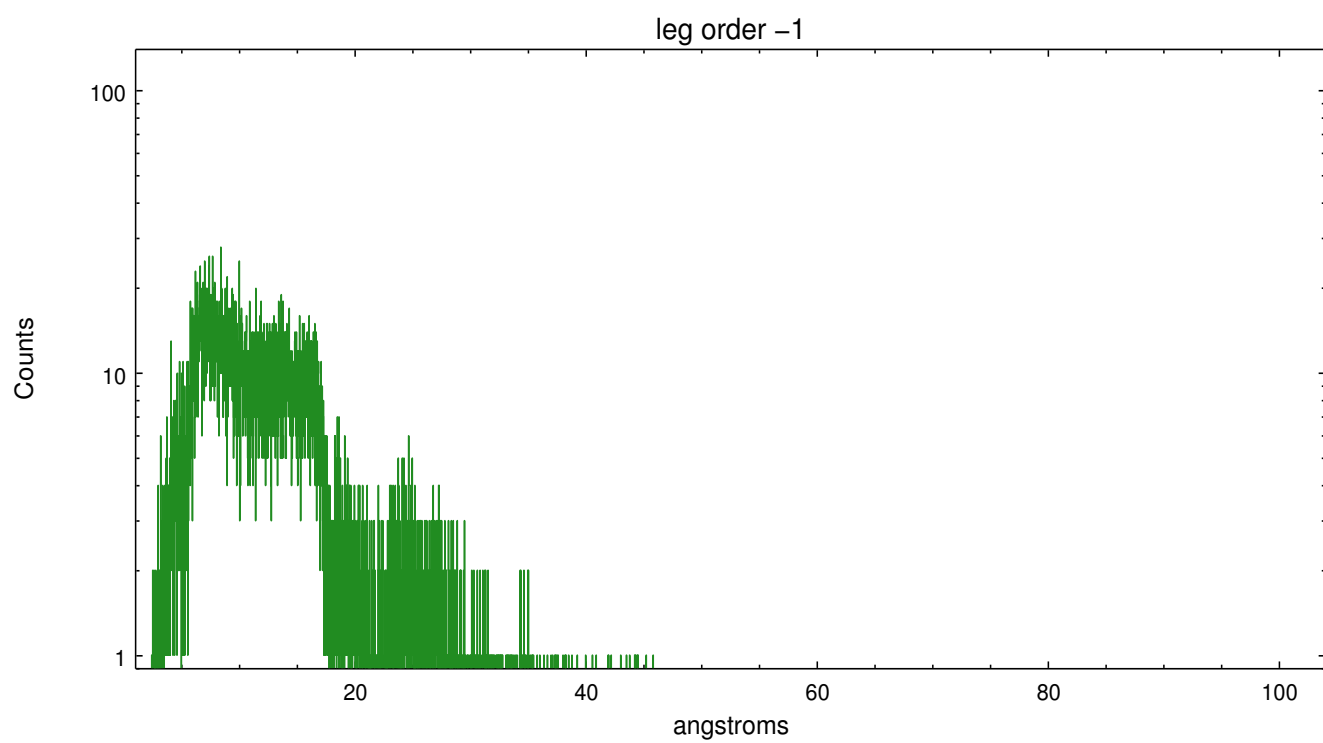
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1150	849	13509	48409	14523	1476	2321





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2013.01.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.14

A.2 Comments

Note: far off-axis pointing; spatial extraction regions have been adjusted to accomodate the enlarged PSF. However, there are no grating line-spread-function calibrations (grating RMF) for off-axis sources.