

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 10691 - L2 Version 2
Chandra X-Ray Center

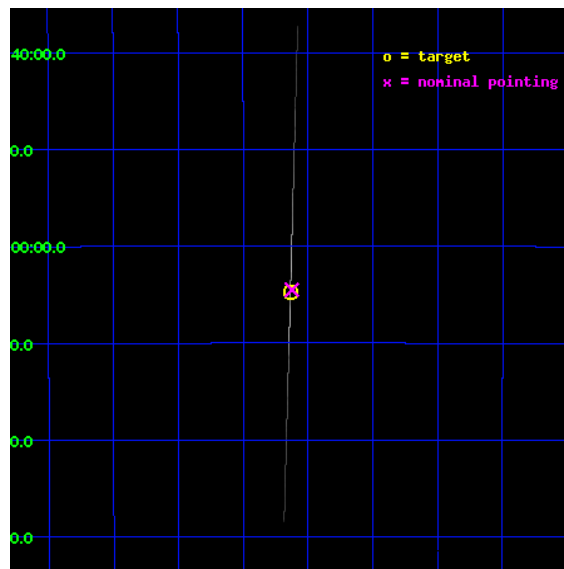
L2 Processing Date : Jun 1 2012

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1 Front

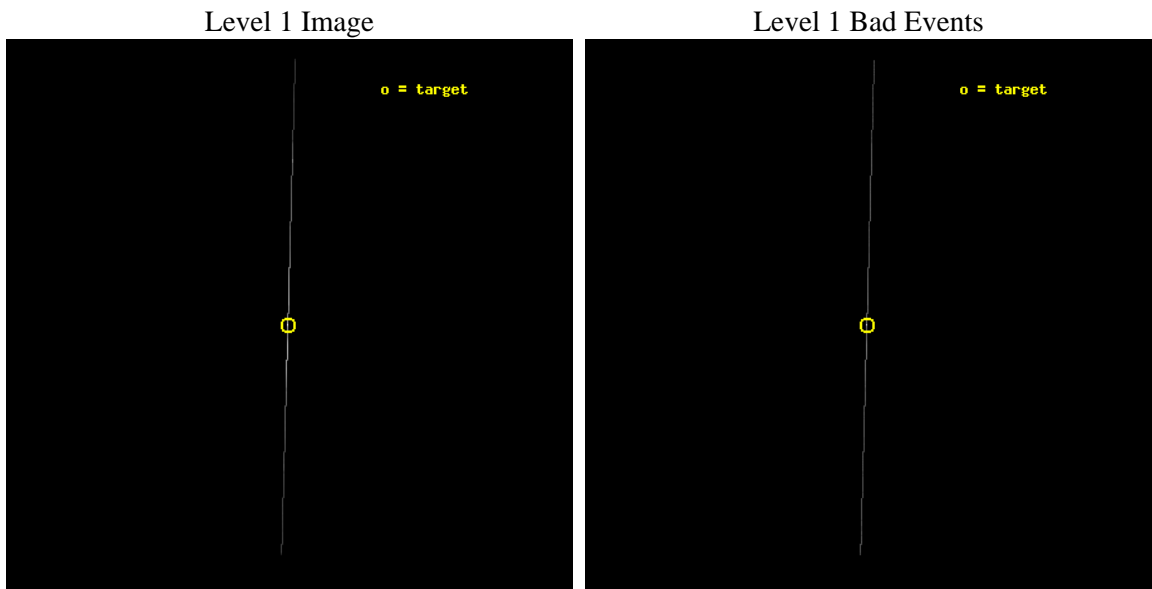
seq_num	401058	Sequence number
obs_id	10691	Observation id
title	Observe Z sources at High Mass Accretion Rates	Proposal title
observer	Prof Claude Canizares	Principal investigator
object	GX 5-1	Source name
ra_targ	270.284167	Observer's specified target RA [deg]
dec_targ	-25.079167	Observer's specified target Dec [deg]
ra_nom	270.28121464851	Nominal RA [deg]
dec_nom	-25.075046965622	Nominal Dec [deg]
roll_nom	91.544105594885	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8076.75	Sum of GTIs [s]
livetime	8045.2001953125	Livetime [s]
ontime4	8076.75	Sum of GTIs [s]
ontime5	8076.75	Sum of GTIs [s]
ontime6	8076.75	Sum of GTIs [s]
ontime7	8076.75	Sum of GTIs [s]
ontime8	8076.75	Sum of GTIs [s]
ontime9	8076.75	Sum of GTIs [s]
l2events	2373662	Number of level 2 events



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	8076.75	Sum of GTIs [s]
caldsver	4.4.9	 	ontime4	8076.75	Sum of GTIs [s]
date	2012-06-01T10:15:47	Date and time of file creation	ontime5	8076.75	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	8076.75	Sum of GTIs [s]
			ontime7	8076.75	Sum of GTIs [s]
			ontime8	8076.75	Sum of GTIs [s]
			ontime9	8076.75	Sum of GTIs [s]
			l1events	2648948	Number of level 1 events

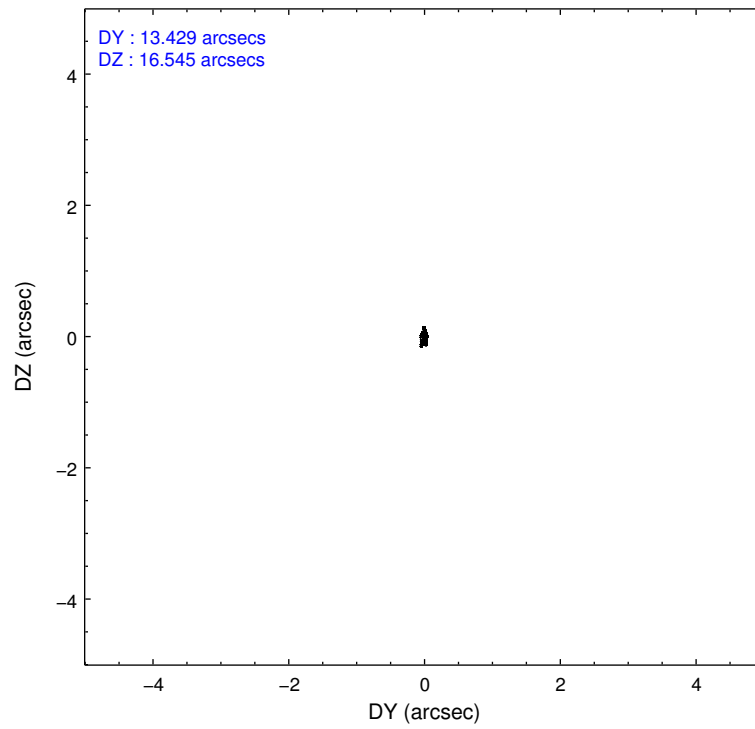
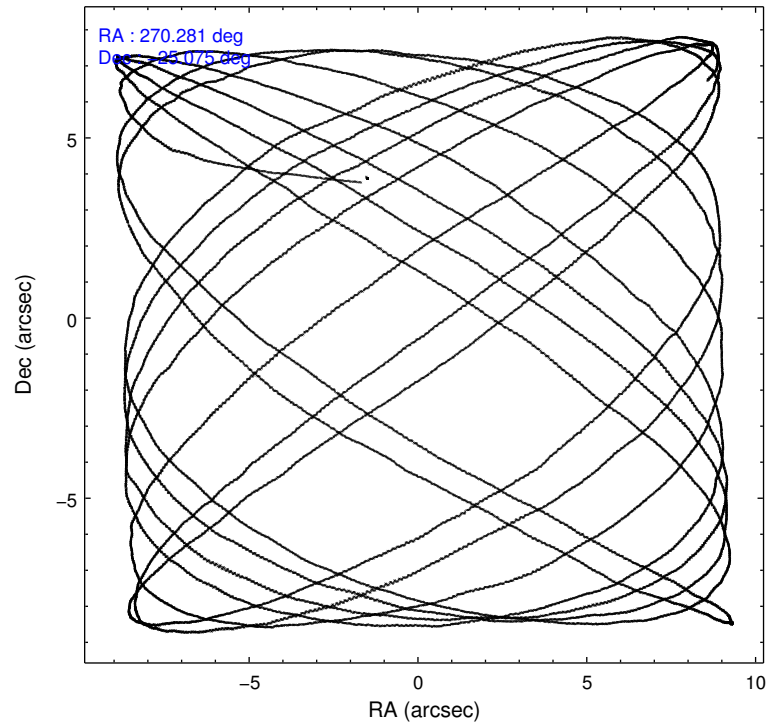
2.1.3 Events

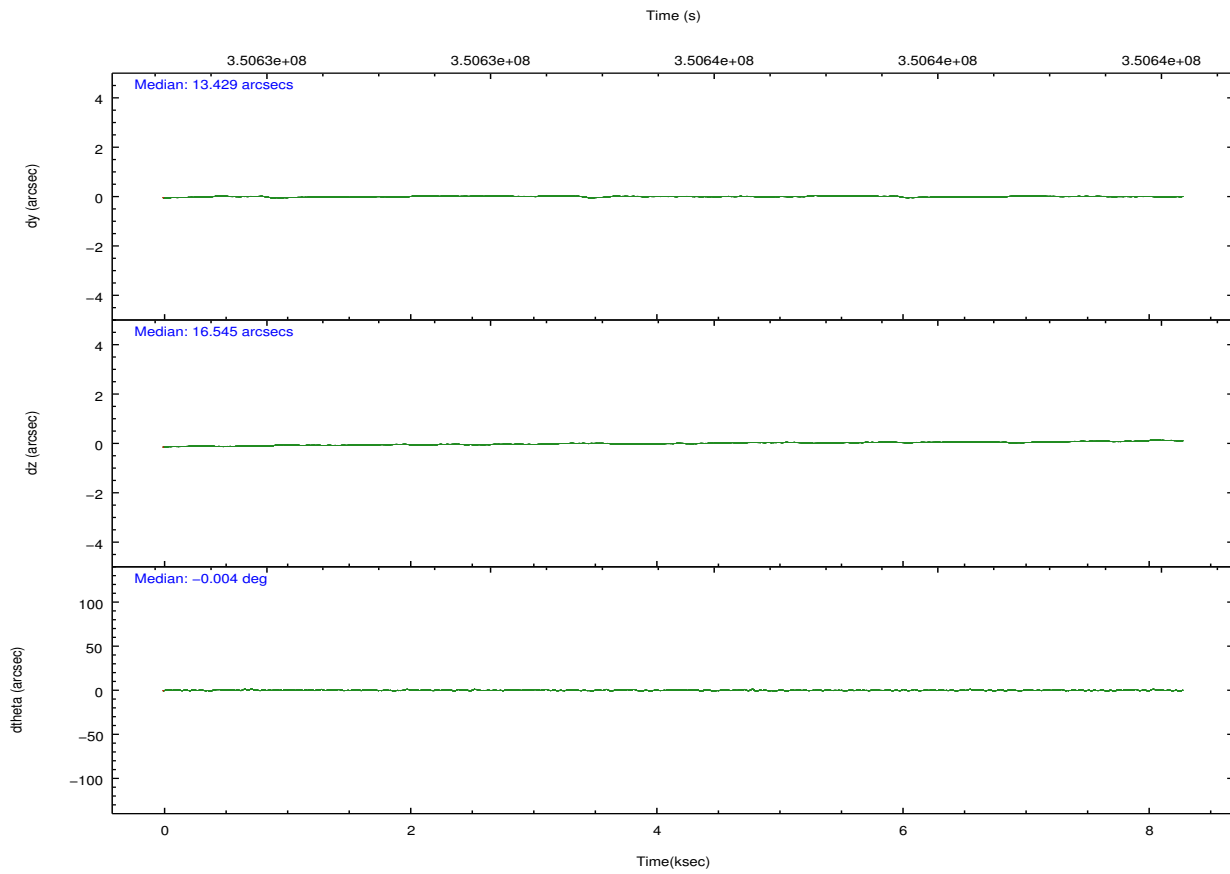
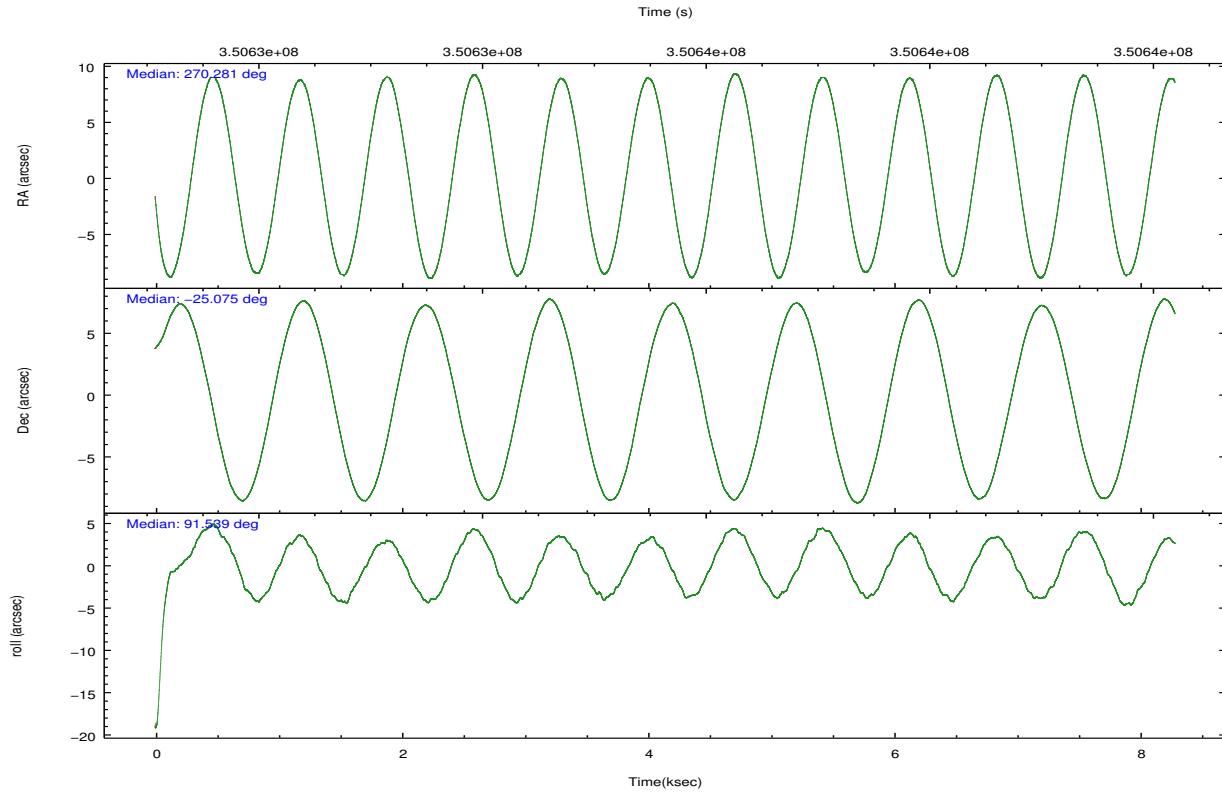
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	33385	136554	743452	1589186	107863	38508	grade 0 events	2102	19333	359852	211357	39788	4083
rejected events	3194	7547	10895	123638	5810	4029		6%	14%	48%	13%	36%	10%
rejected %	9%	5%	1%	7%	5%	10%	grade 1 events	55	119	2079	25934	231	88
								0%	0%	0%	1%	0%	0%
							grade 2 events	19444	48519	249779	401267	38363	20899
								58%	35%	33%	25%	35%	54%
							grade 3 events	1801	2832	26861	116325	5297	1833
								5%	2%	3%	7%	4%	4%
							grade 4 events	1856	2658	26719	113994	5111	1876
								5%	1%	3%	7%	4%	4%
							grade 5 events	3128	7390	8600	97195	5531	3927
								9%	5%	1%	6%	5%	10%
							grade 6 events	4999	55703	69562	623114	13542	5802
								14%	40%	9%	39%	12%	15%
							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	HETG	HETG	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	270.297377	270.2812146485122	CCD I2 on	N	N
[deg] Pointing Dec	-25.098220	-25.07504696562194	CCD I3 on	N	N
[deg] Pointing Roll	91.394360	91.54410559488458	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	-178.832523	-178.8382187693597	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-11.3	-11.29430381364813	CCD S4 on	Y	Y
[s] Observation start time (MET)	350631762.184000	350631086.84479	CCD S5 on	O2	Y
Observation start date	2009-02-10T05:41:36	2009-02-10T05:31:26	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	350639762.184000	350640040.22023	On-chip summing requested	N	N
Observation end date	2009-02-10T07:54:56	2009-02-10T08:00:40	Subarray requested	NONE	NONE
Read mode	CONTINUOUS	CONTINUOUS	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0

2.3 Aspect



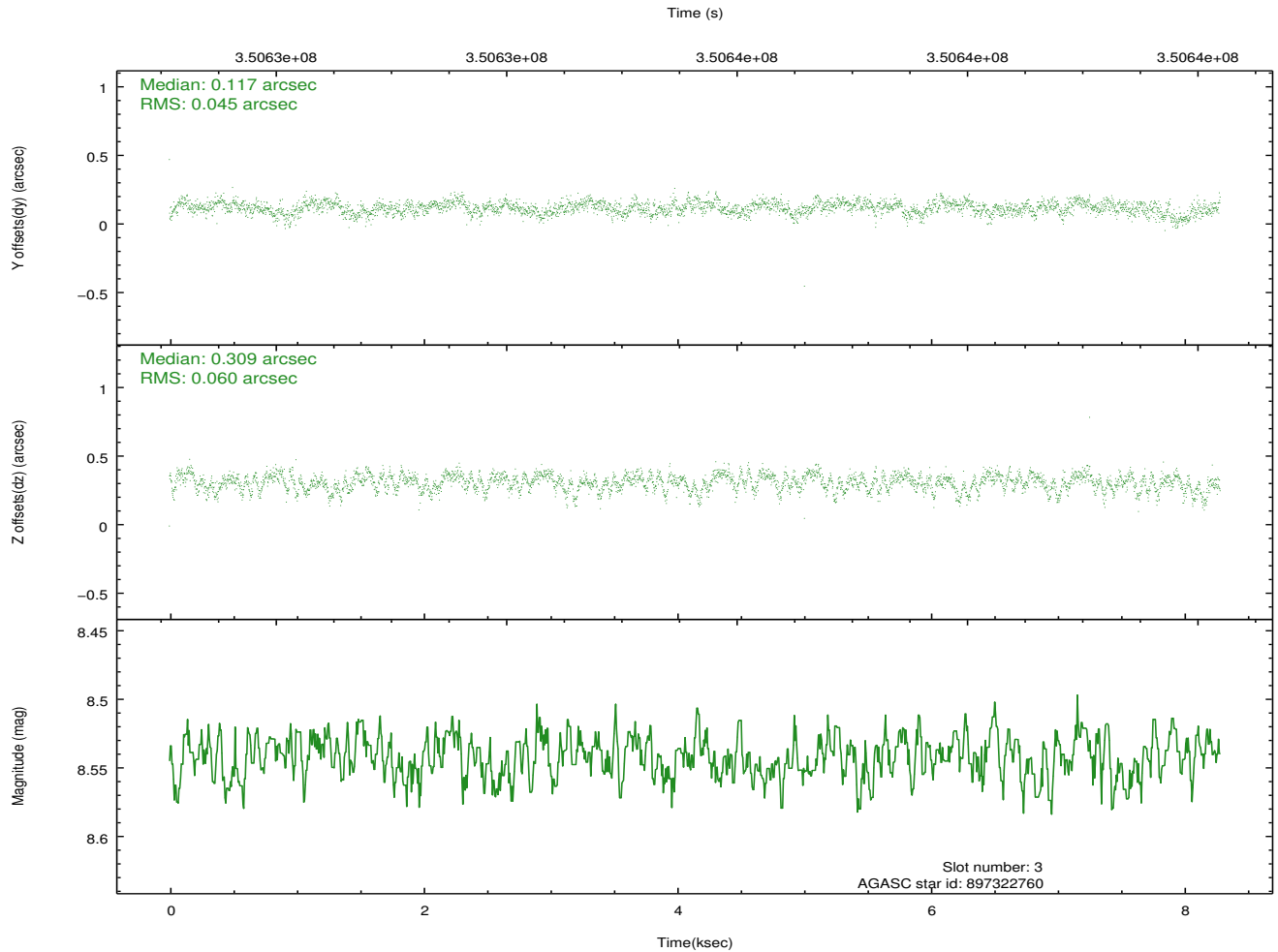
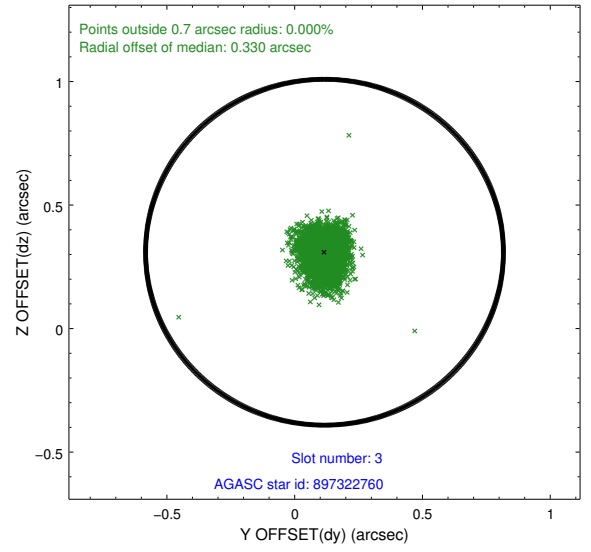
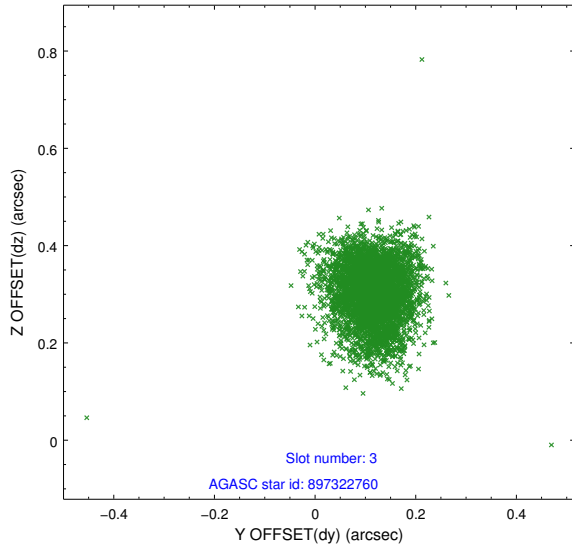


Slot Statistics

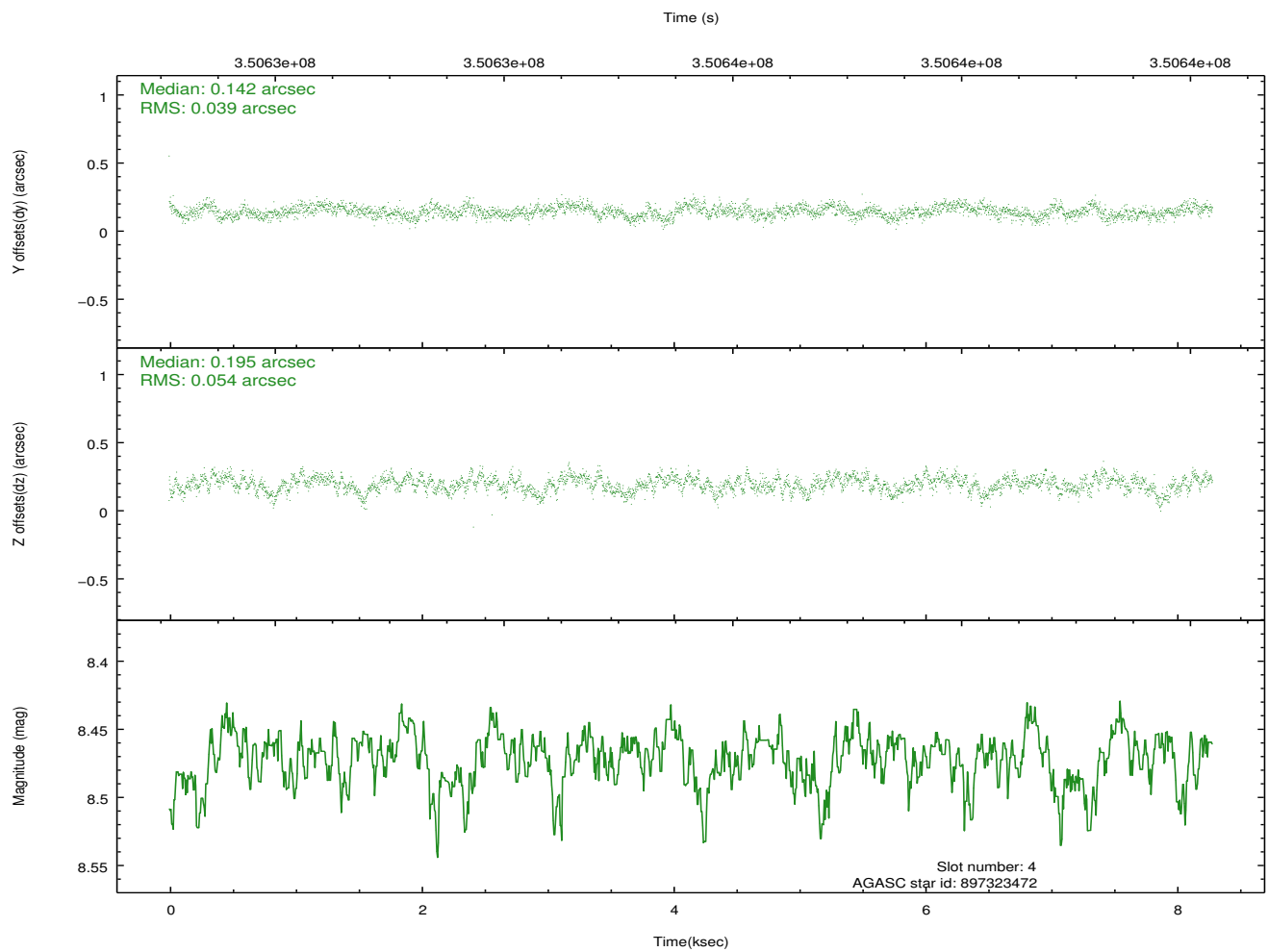
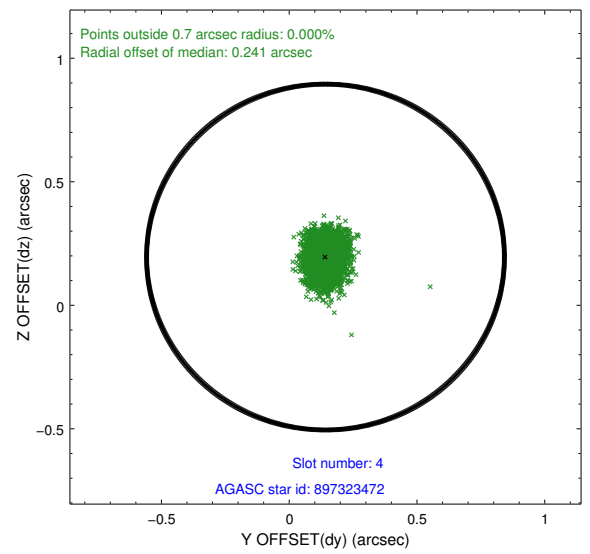
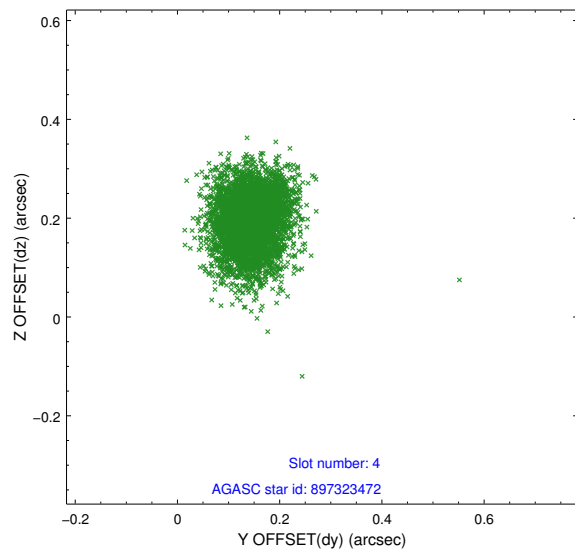
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-4	6.93	2022	0.127	0.135	0.006	0.012	0.000000	0.000000	2147.96	-61.70
1	FID	ACIS-S-5	7.01	2022	-0.142	0.109	0.006	0.013	0.000000	0.000000	-1817.64	-68.28
2	FID	ACIS-S-6	7.18	2021	-0.013	-0.230	0.007	0.012	0.000000	0.000000	395.35	575.11
3	GUIDE	897322760	8.54	4043	0.117	0.309	0.077	0.130	270.988015	-25.669699	-2117.80	-2189.51
4	GUIDE	897323472	8.47	4041	0.142	0.195	0.071	0.116	270.860121	-25.266503	-654.31	-1817.12
5	GUIDE	897324960	7.66	4043	-0.127	0.025	0.059	0.093	270.333871	-24.632185	1674.07	-160.43
6	GUIDE	897325464	8.21	4042	-0.150	0.153	0.063	0.106	270.454899	-24.555059	1942.15	-562.78
7	GUIDE	897190880	8.12	4038	0.024	-0.676	0.059	0.096	269.584058	-25.142408	-108.29	2327.19

2.4 Star Slots

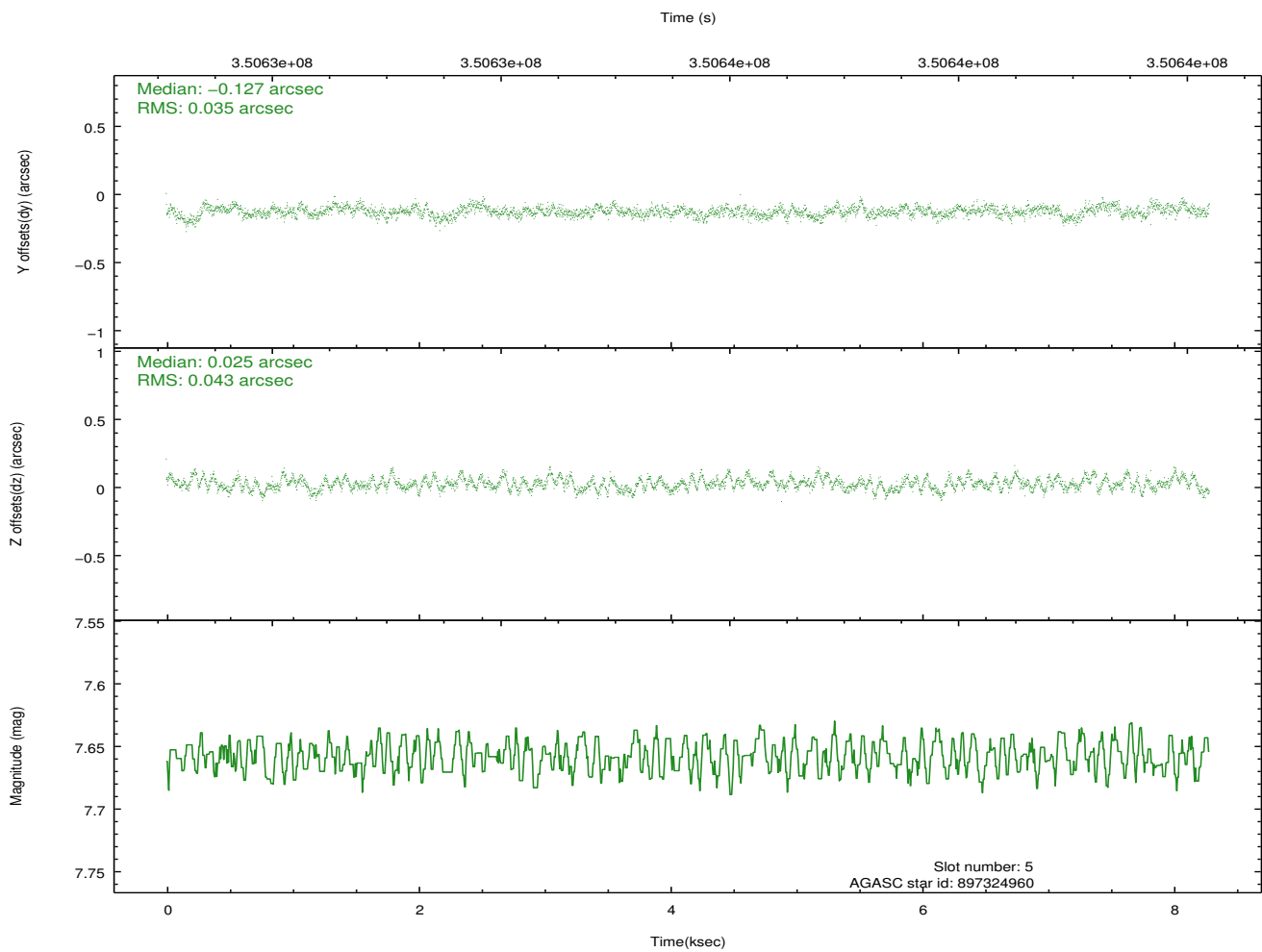
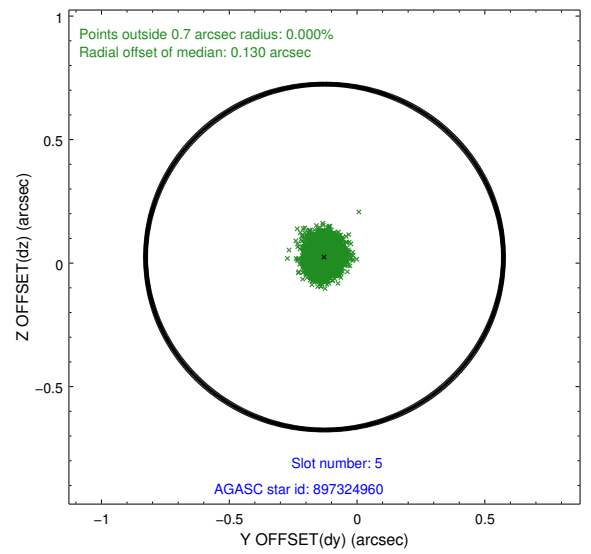
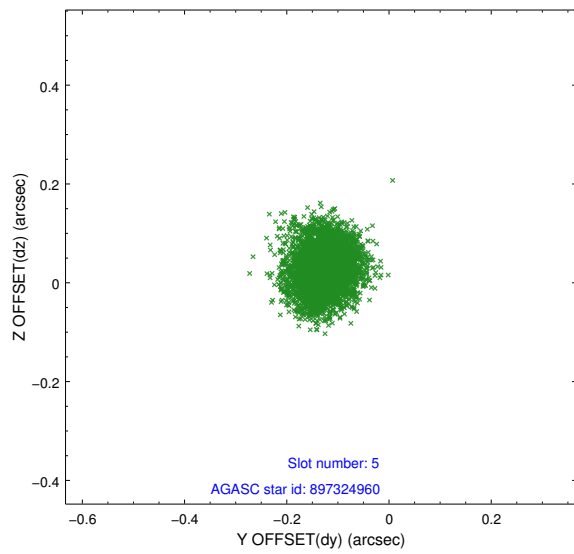
2.4.1 Slot 3



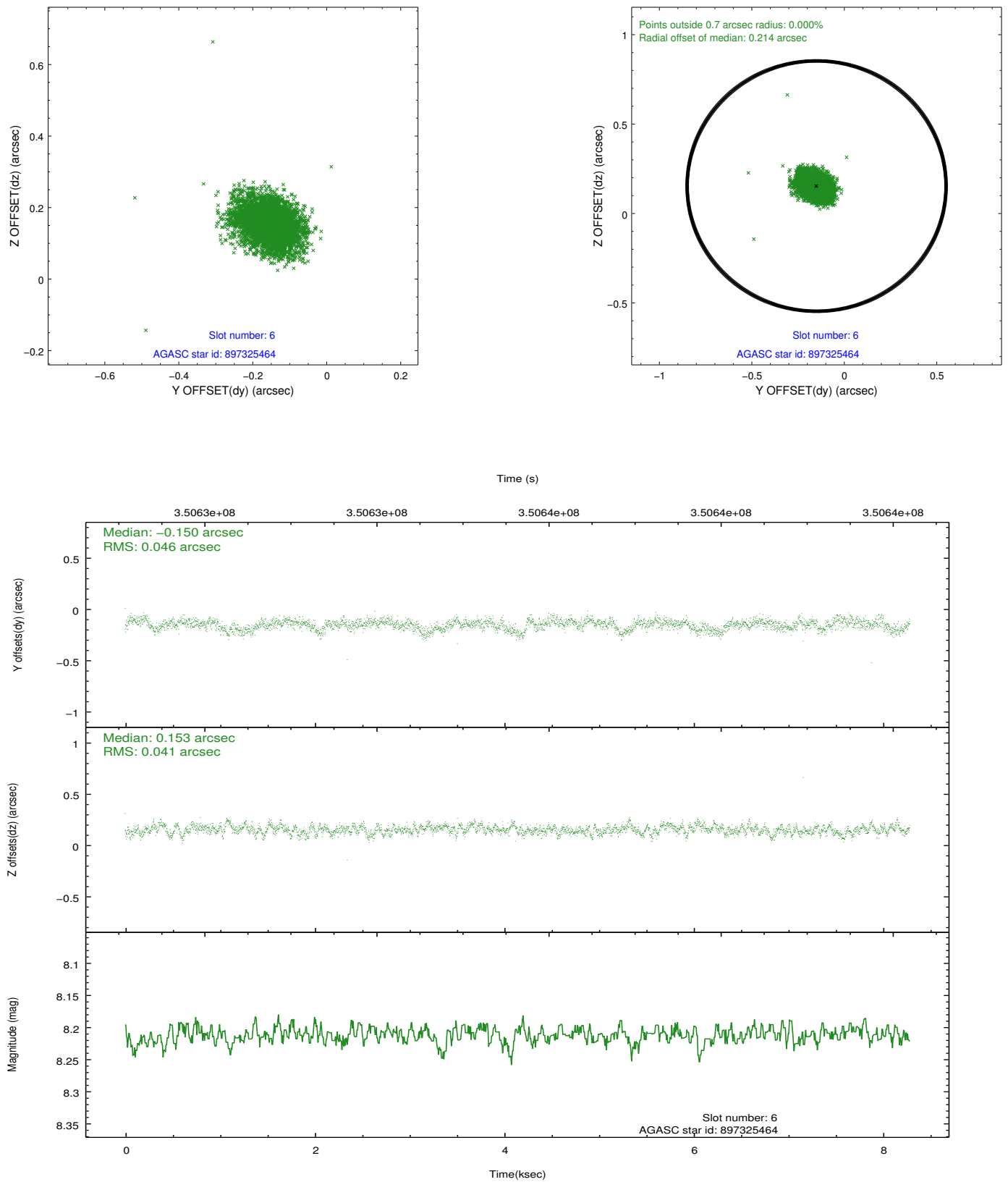
2.4.2 Slot 4



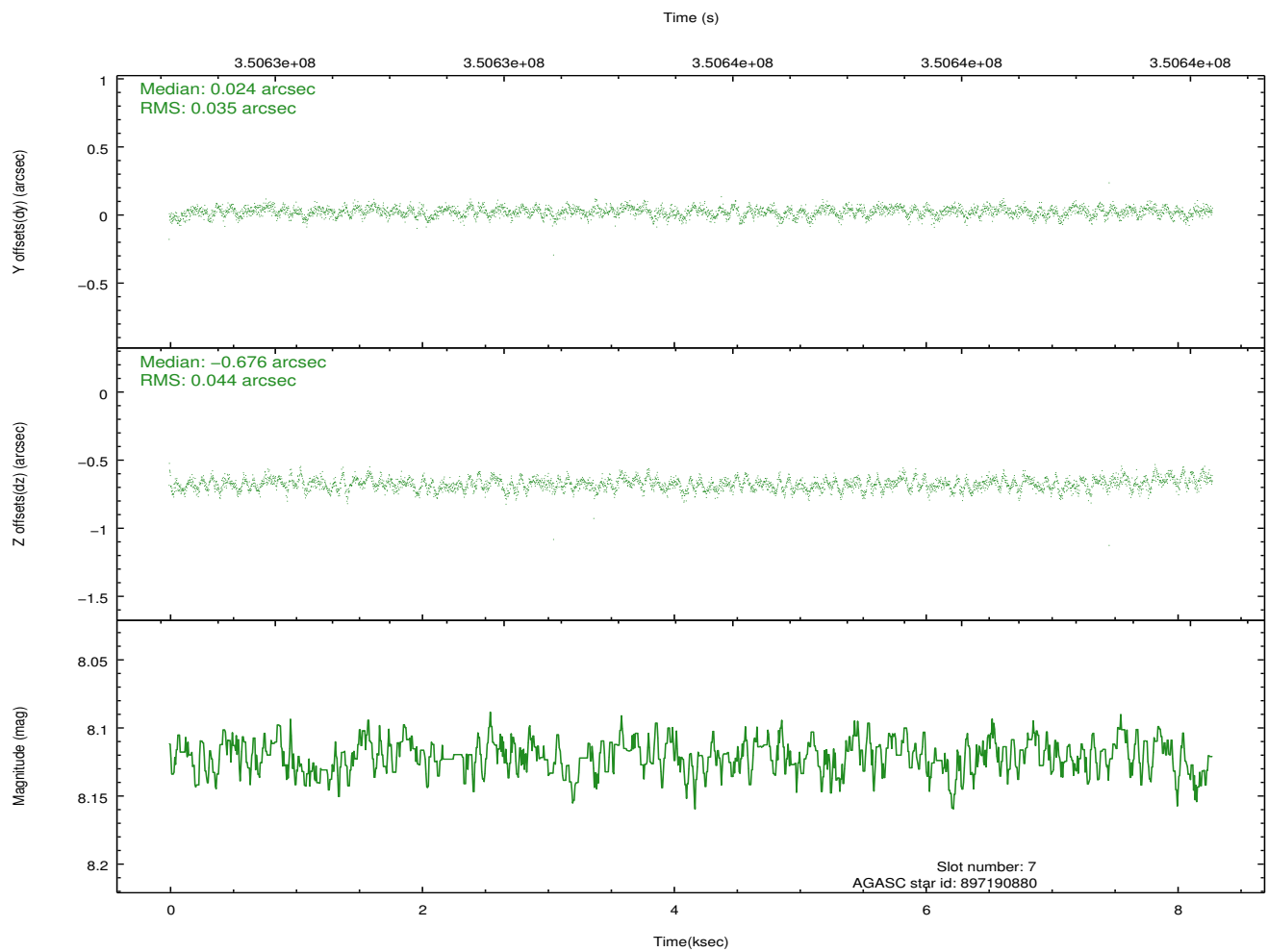
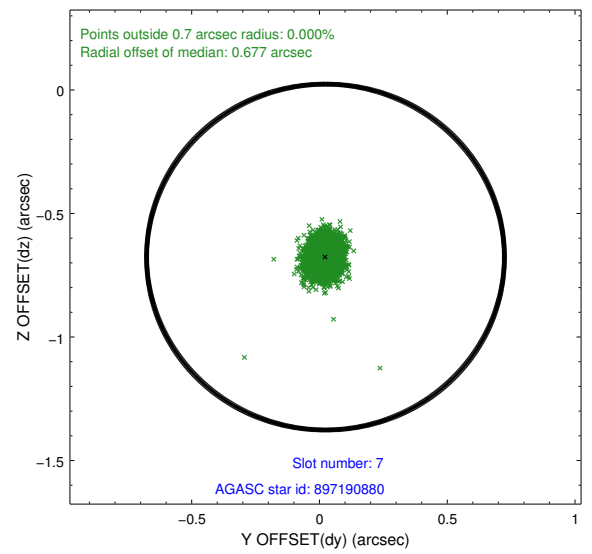
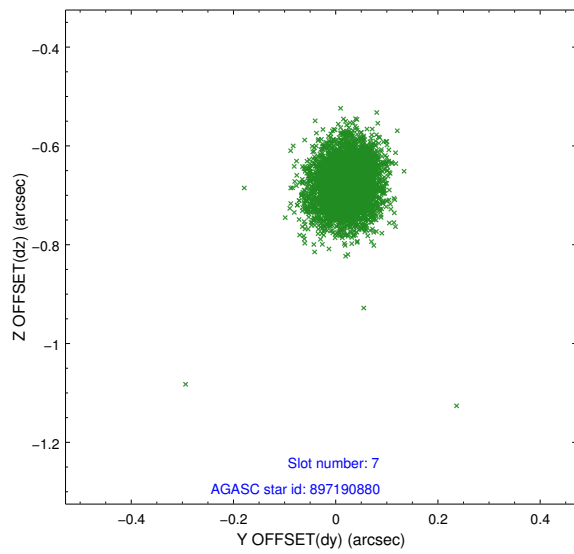
2.4.3 Slot 5



2.4.4 Slot 6

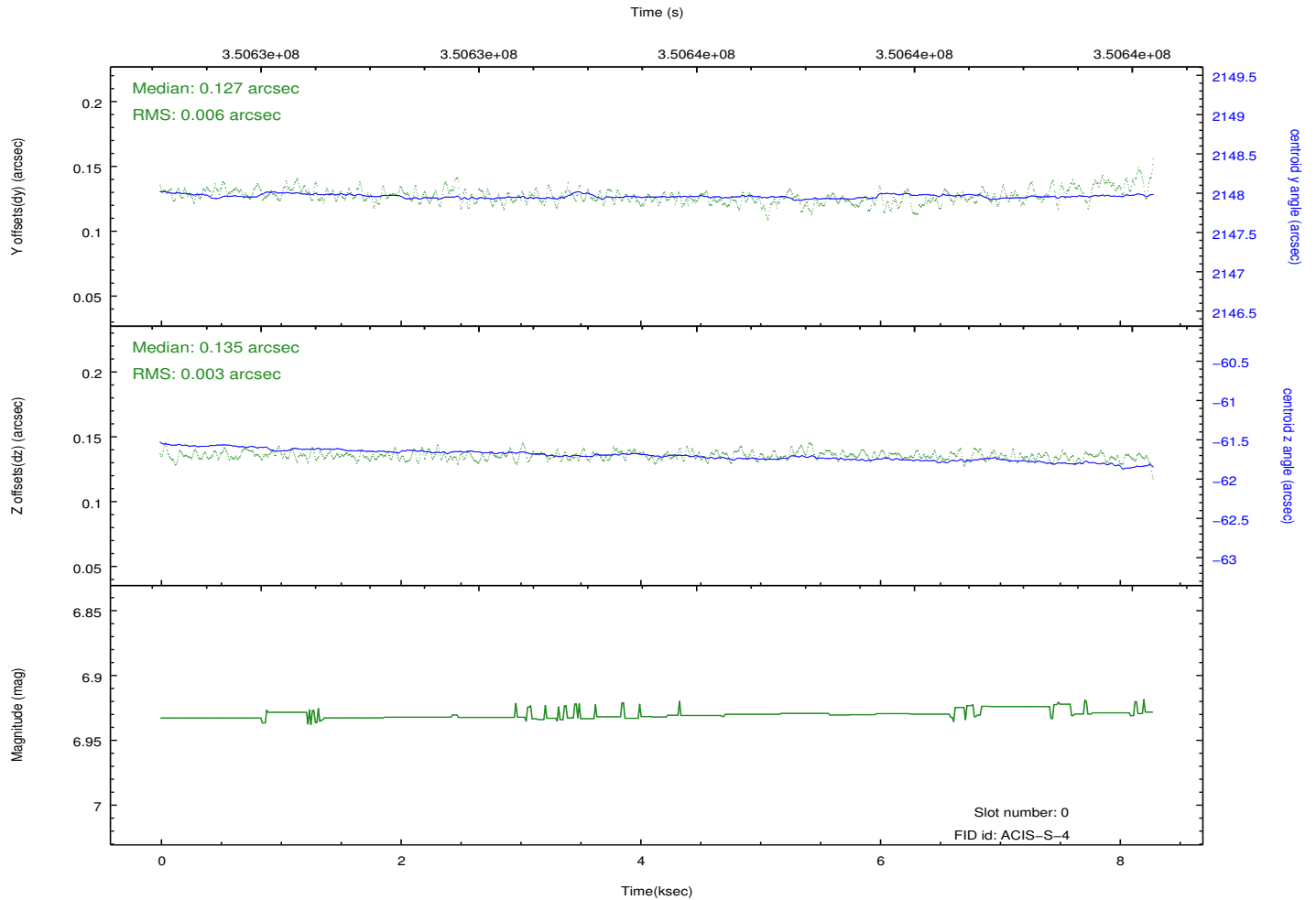
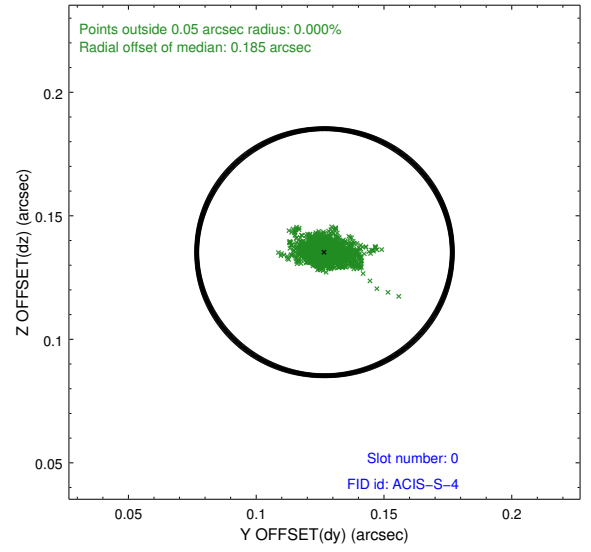
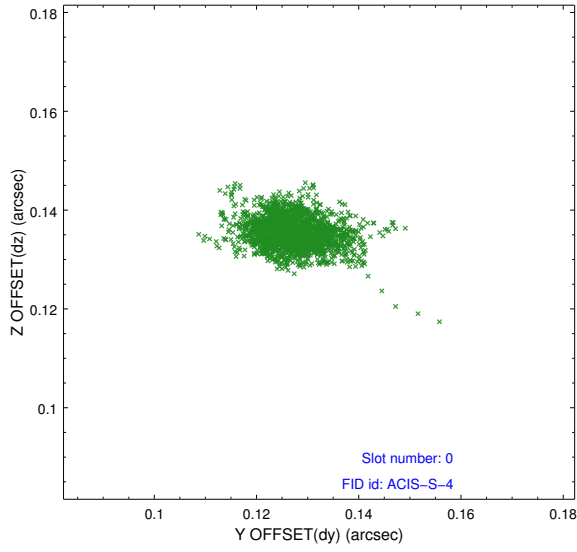


2.4.5 Slot 7

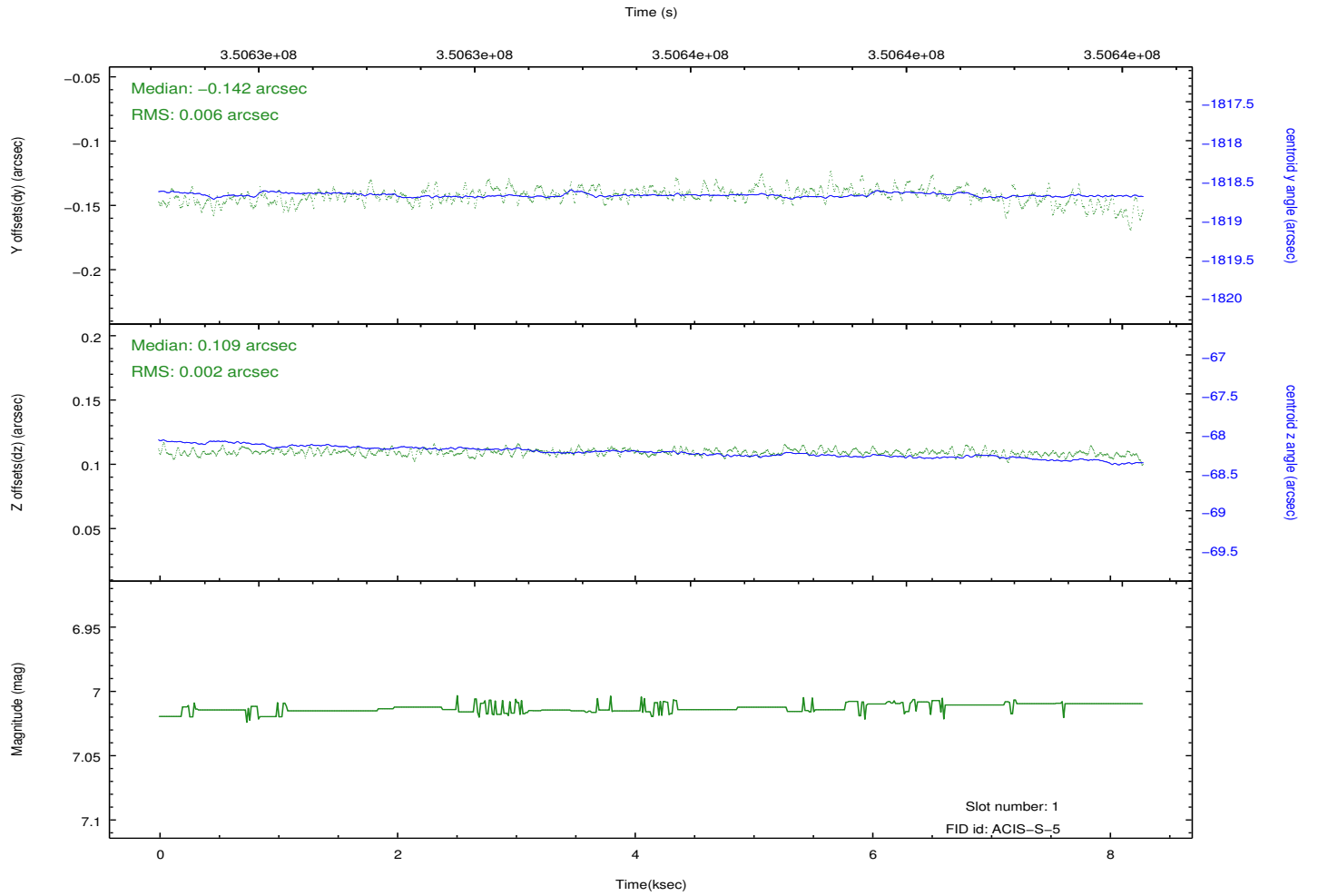
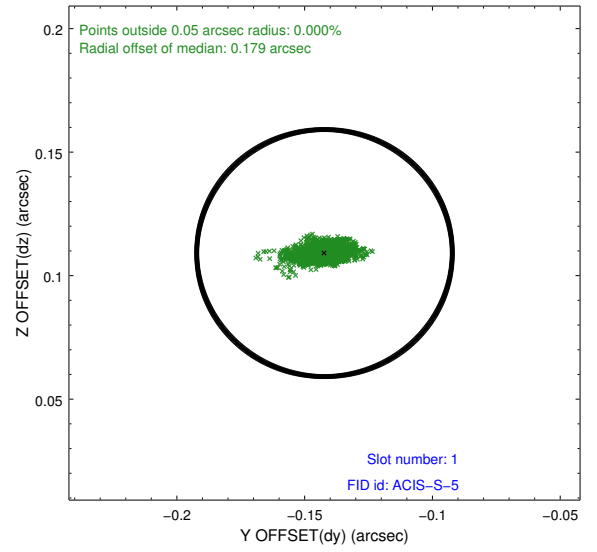
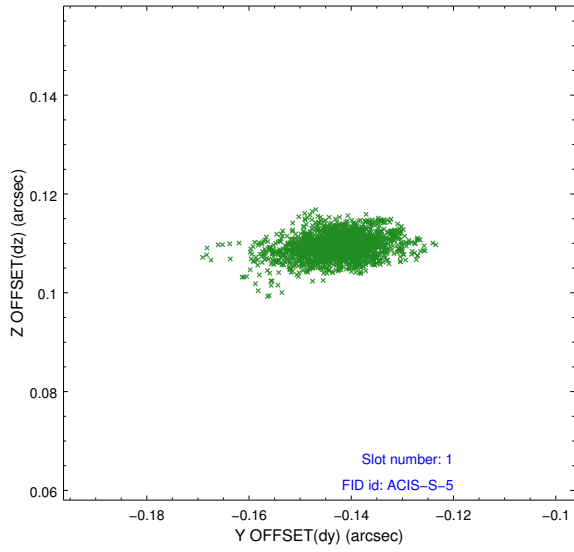


2.5 FID Slots

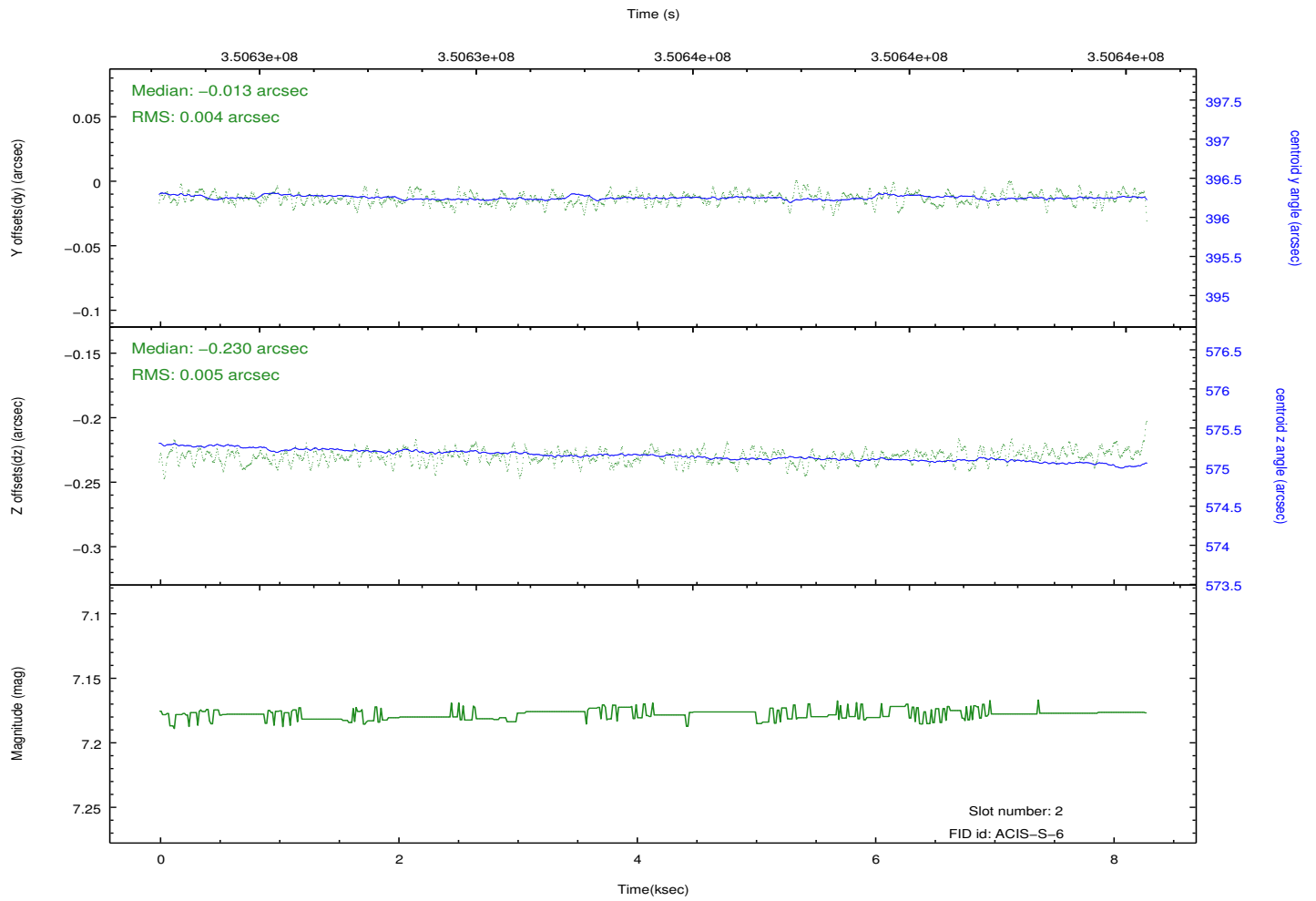
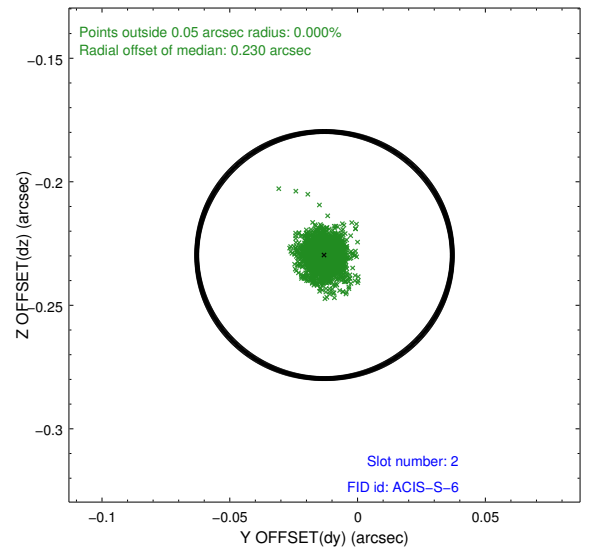
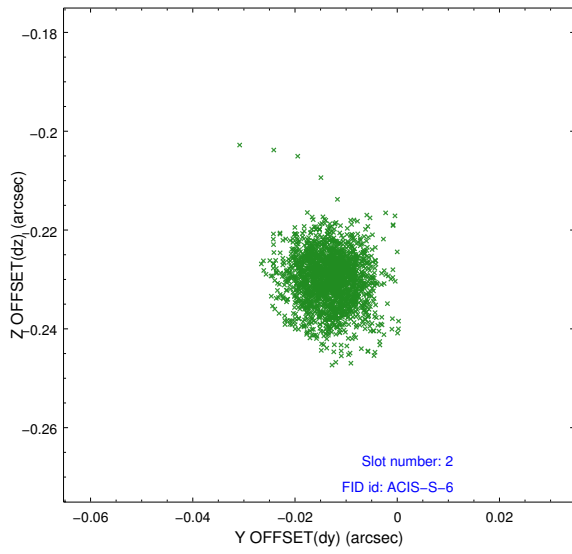
2.5.1 Slot 0



2.5.2 Slot 1

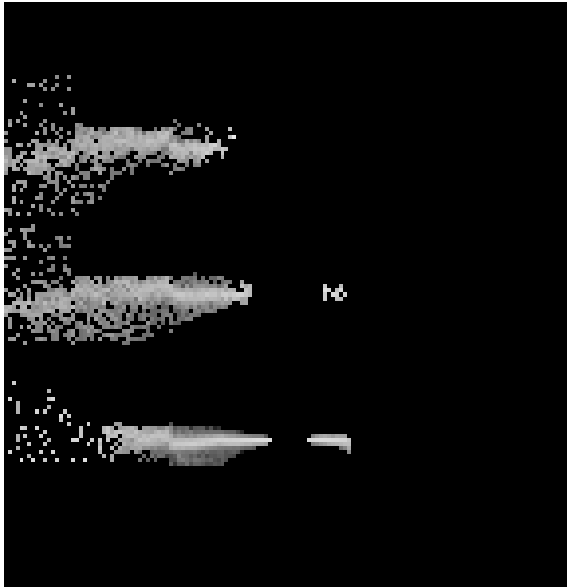


2.5.3 Slot 2

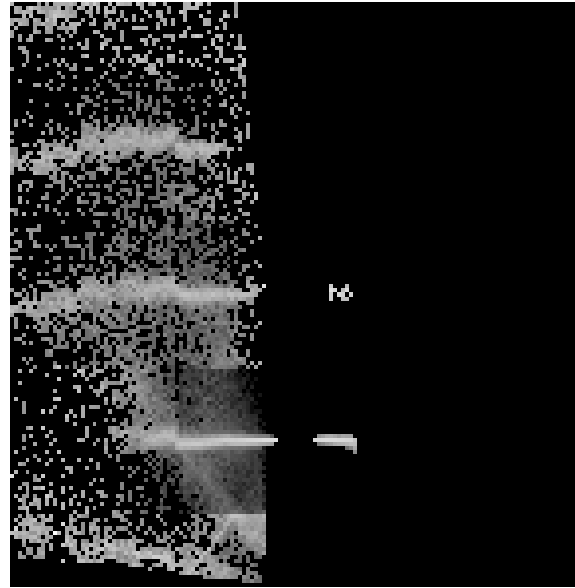


3 Gratings

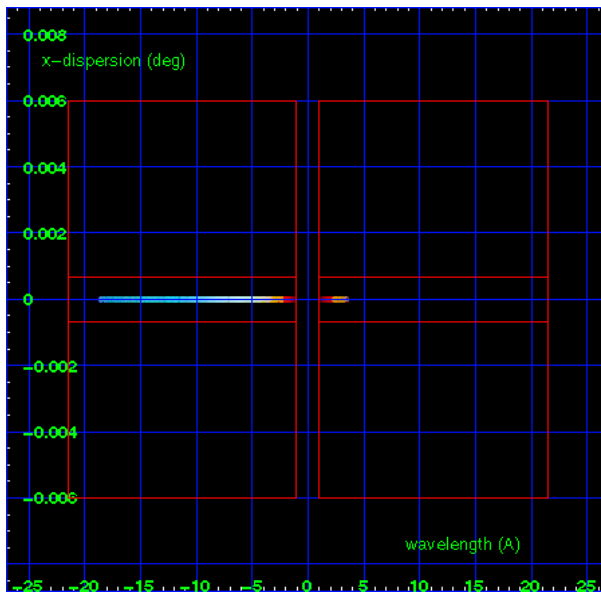
3.1 HEG Arm



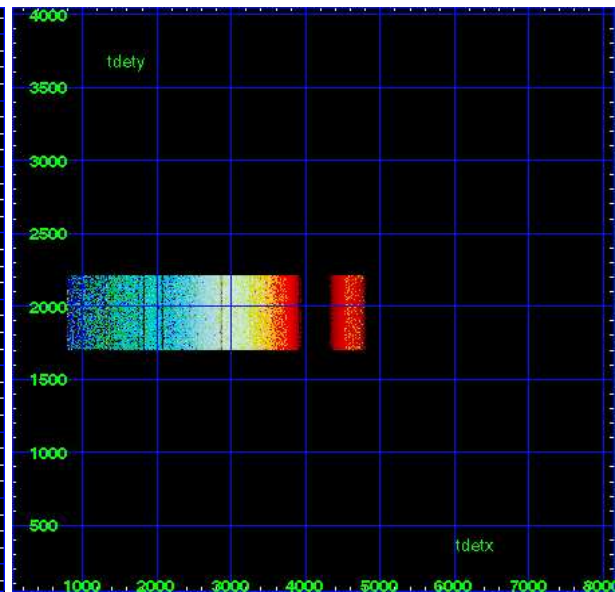
HEG Order Sort 123



HEG Order Sort ALL

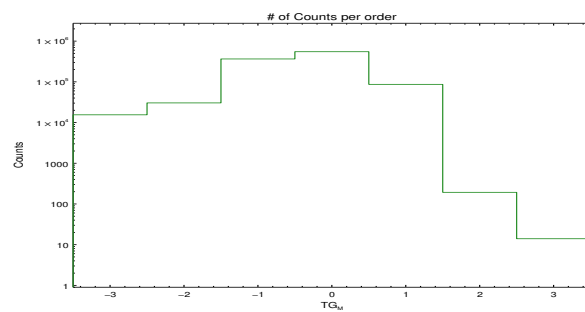


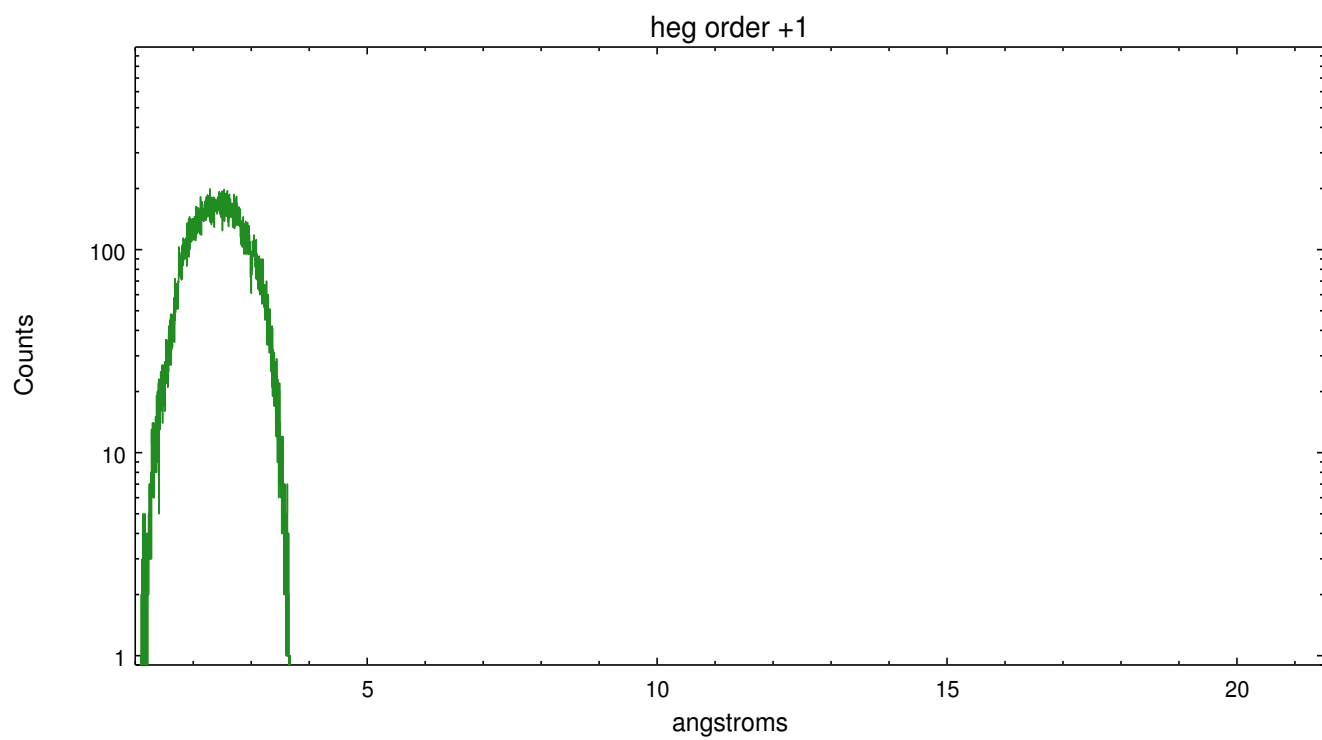
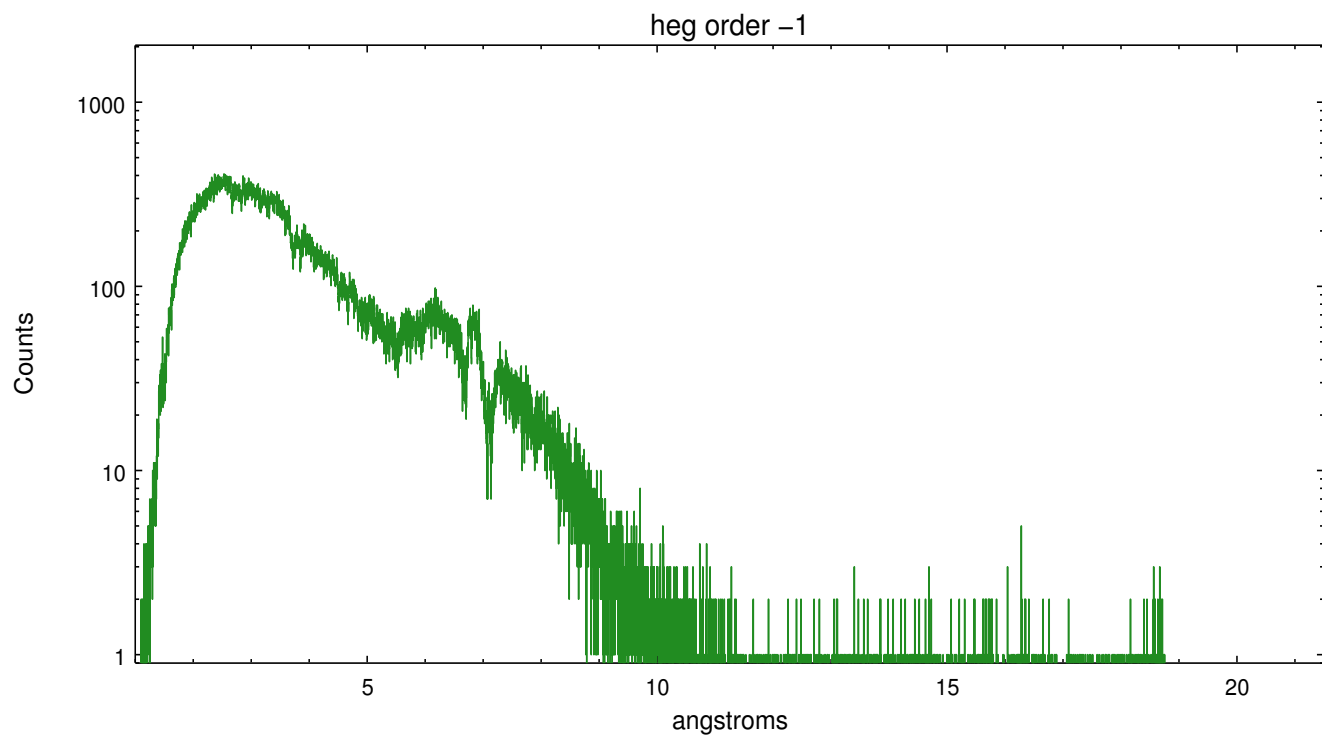
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	15492	30377	364873	549849	86643	193	14

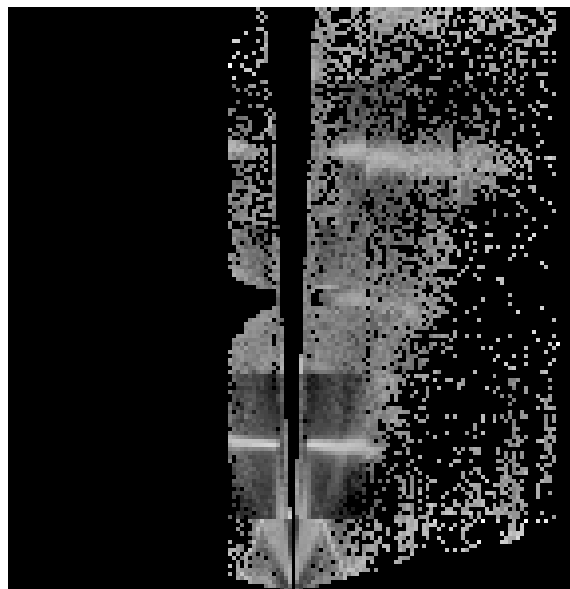




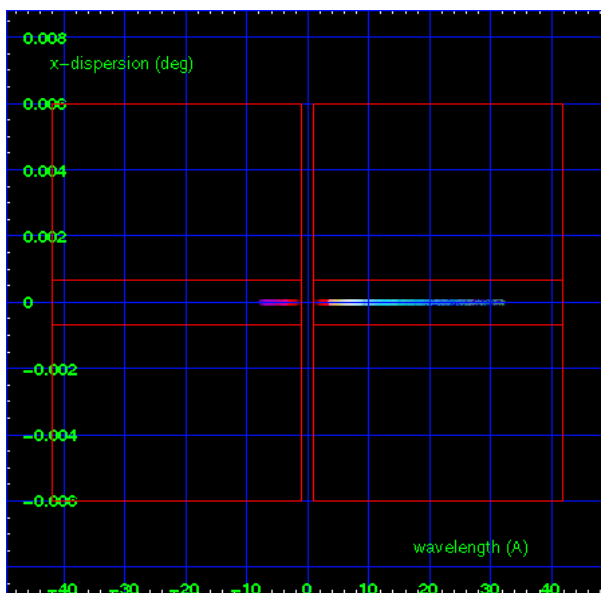
3.2 MEG Arm



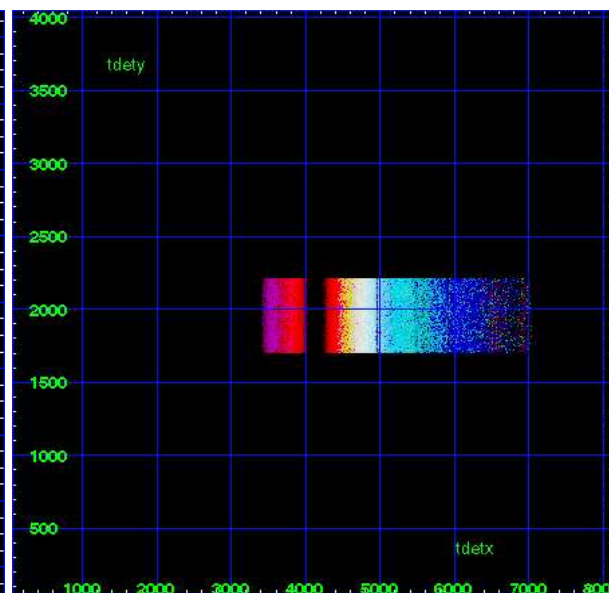
MEG Order Sort 123



MEG Order Sort ALL

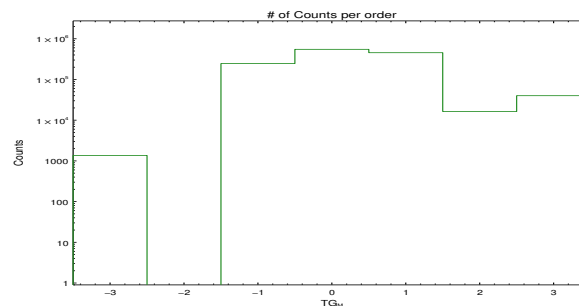


Spot Image MEG

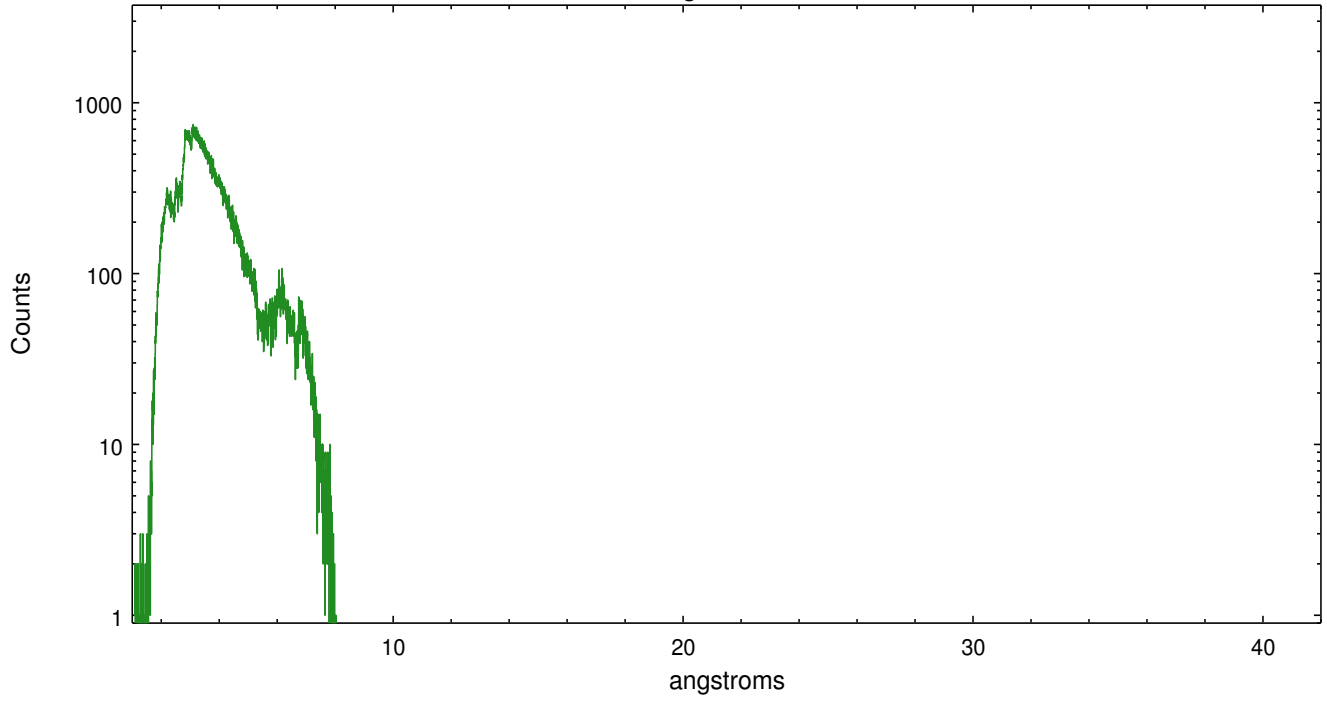


Full Detector MEG

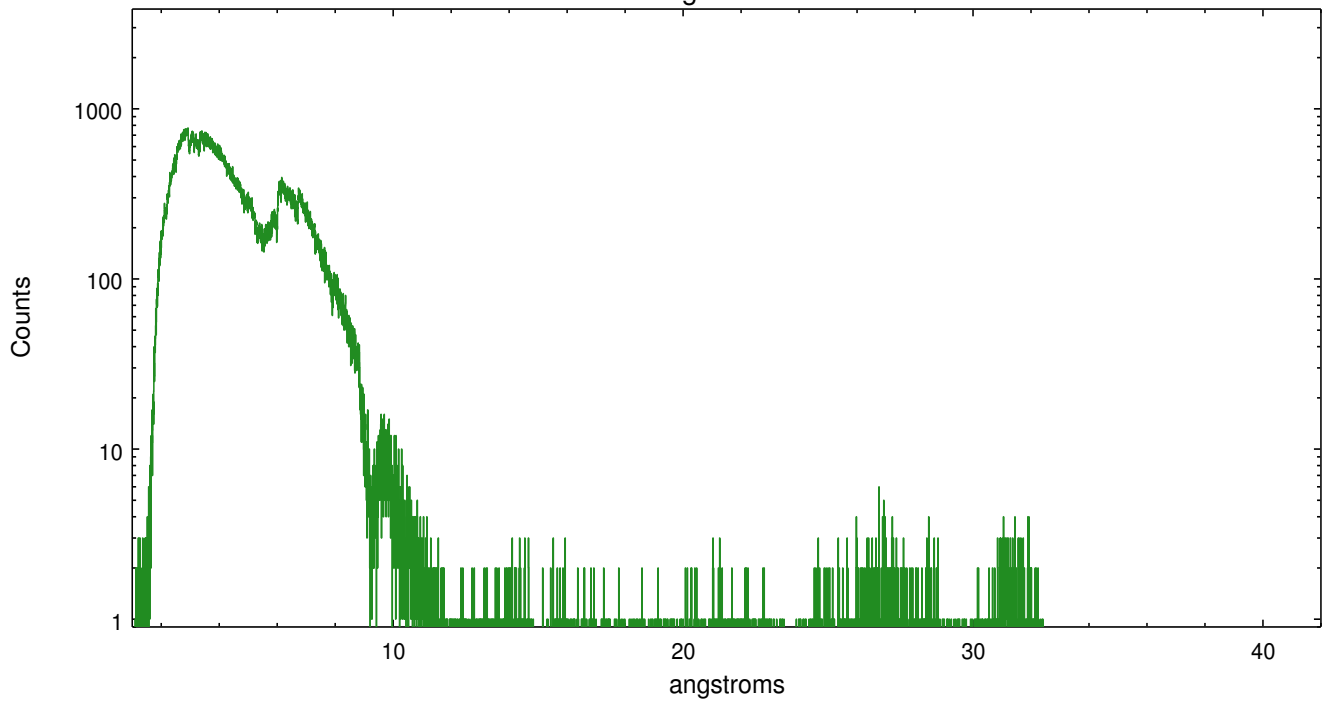
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1362	0	245608	549849	454944	16349	39997



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.06.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.07675

A.2 Comments

Note: intentional SIM offset to place two spectral arms off the array; spectra are primarily of HEG minus and MEG positive orders.