

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 21236 - L2 Version 1
Chandra X-Ray Center

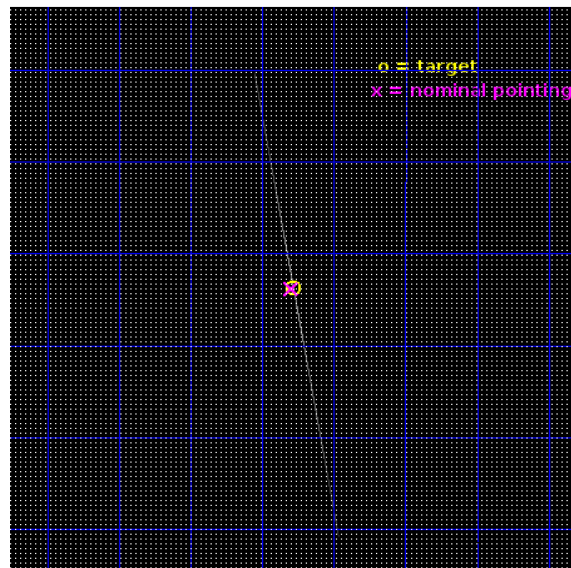
L2 Processing Date : Aug 28 2019

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1 Front

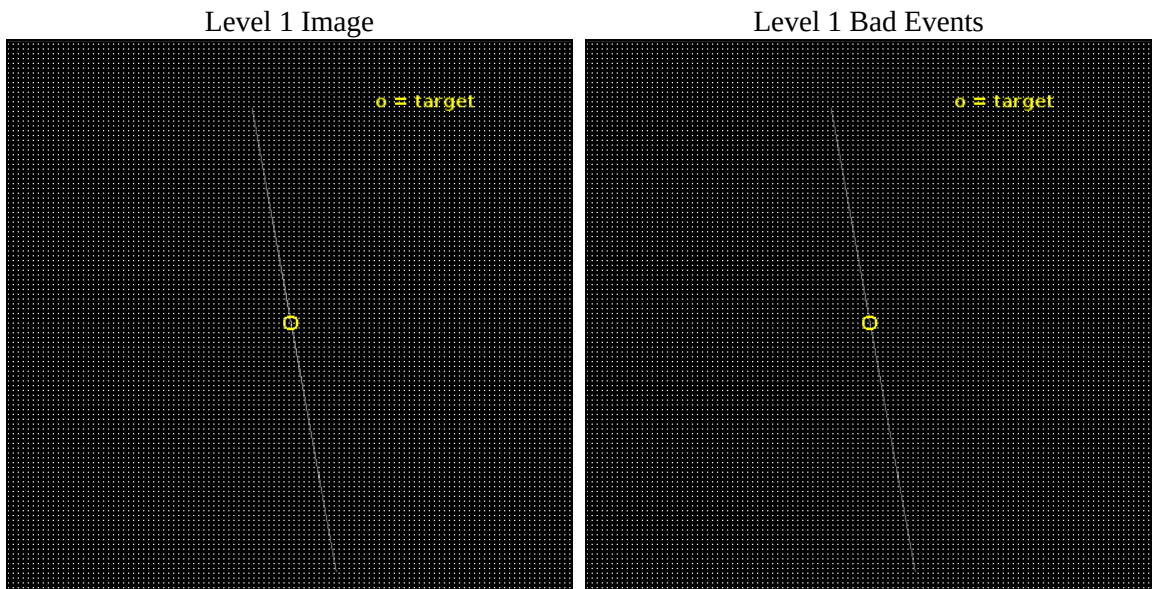
seq_num	402068	Sequence number
obs_id	21236	Observation id
title	An Integrated Approach to Winds, Jets, and State Transitions	Propo
observer	Joey Neilsen	Principal investigator
object	EXO 1846-031	Source name
ra_targ	282.3213	Observer's specified target RA [deg]
dec_targ	-3.0622	Observer's specified target Dec [deg]
ra_nom	282.32423070153	Nominal RA [deg]
dec_nom	-3.0636473250777	Nominal Dec [deg]
roll_nom	260.09409717415	Nominal Roll [deg]
revision	1	Processing version of data
ontime	30068.25	Sum of GTIs [s]
livetime	29950.795898438	Livetime [s]
ontime4	30068.25	Sum of GTIs [s]
ontime5	30068.25	Sum of GTIs [s]
ontime6	30068.25	Sum of GTIs [s]
ontime7	30068.25	Sum of GTIs [s]
ontime8	30066.792056799	Sum of GTIs [s]
ontime9	30068.25	Sum of GTIs [s]
l2events	3734025	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	30000.263000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	30068.25	Sum of GTIs [s]
caldsver	4.8.3.1	 	ontime4	30068.25	Sum of GTIs [s]
date	2019-08-28T15:55:11	Date and time of file creation	ontime5	30068.25	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	30068.25	Sum of GTIs [s]
			ontime7	30068.25	Sum of GTIs [s]
			ontime8	30066.792056799	Sum of GTIs [s]
			ontime9	30068.25	Sum of GTIs [s]
			l1events	8621243	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			src1a_pos	(4122.21, 4082.21)	src1a sky pixel position

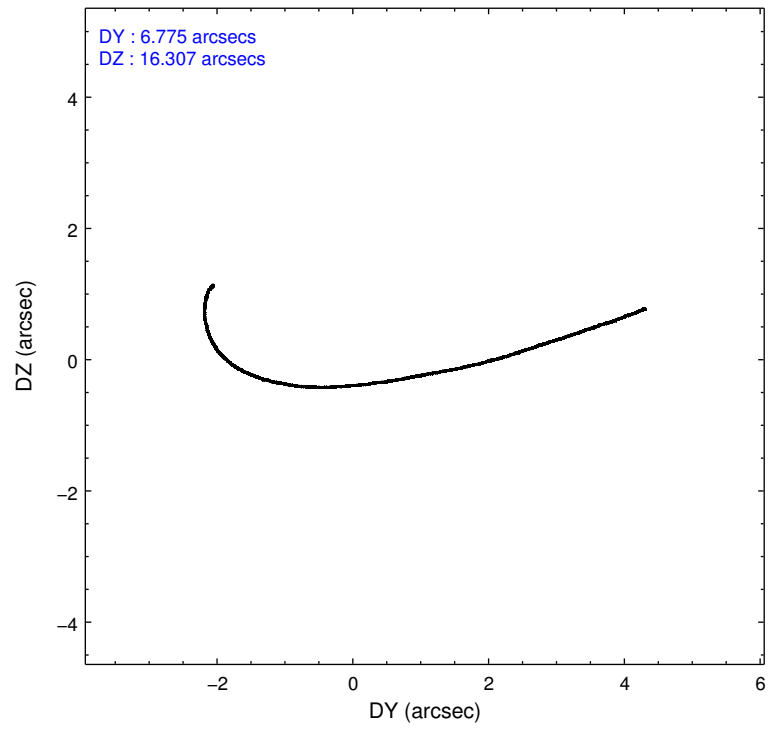
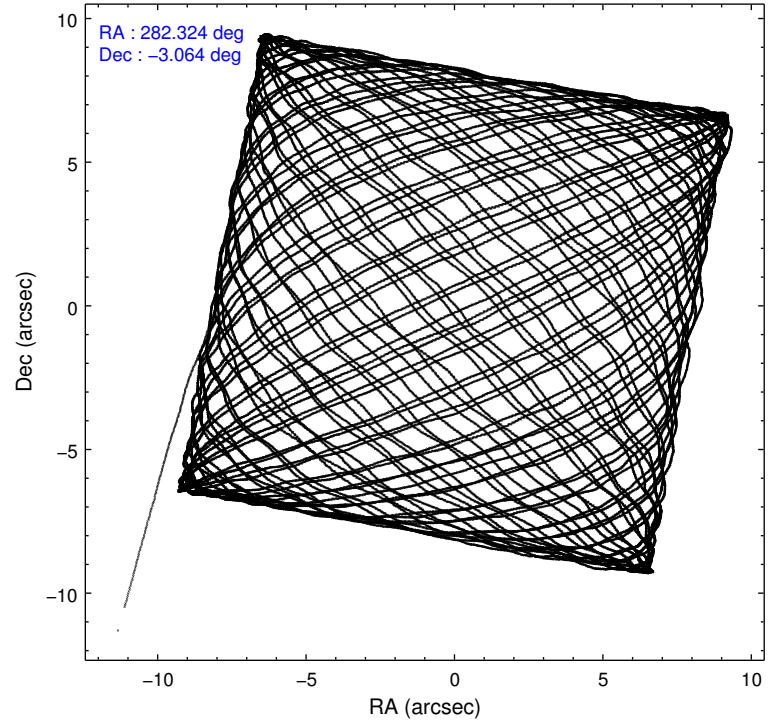
2.1.3 Events

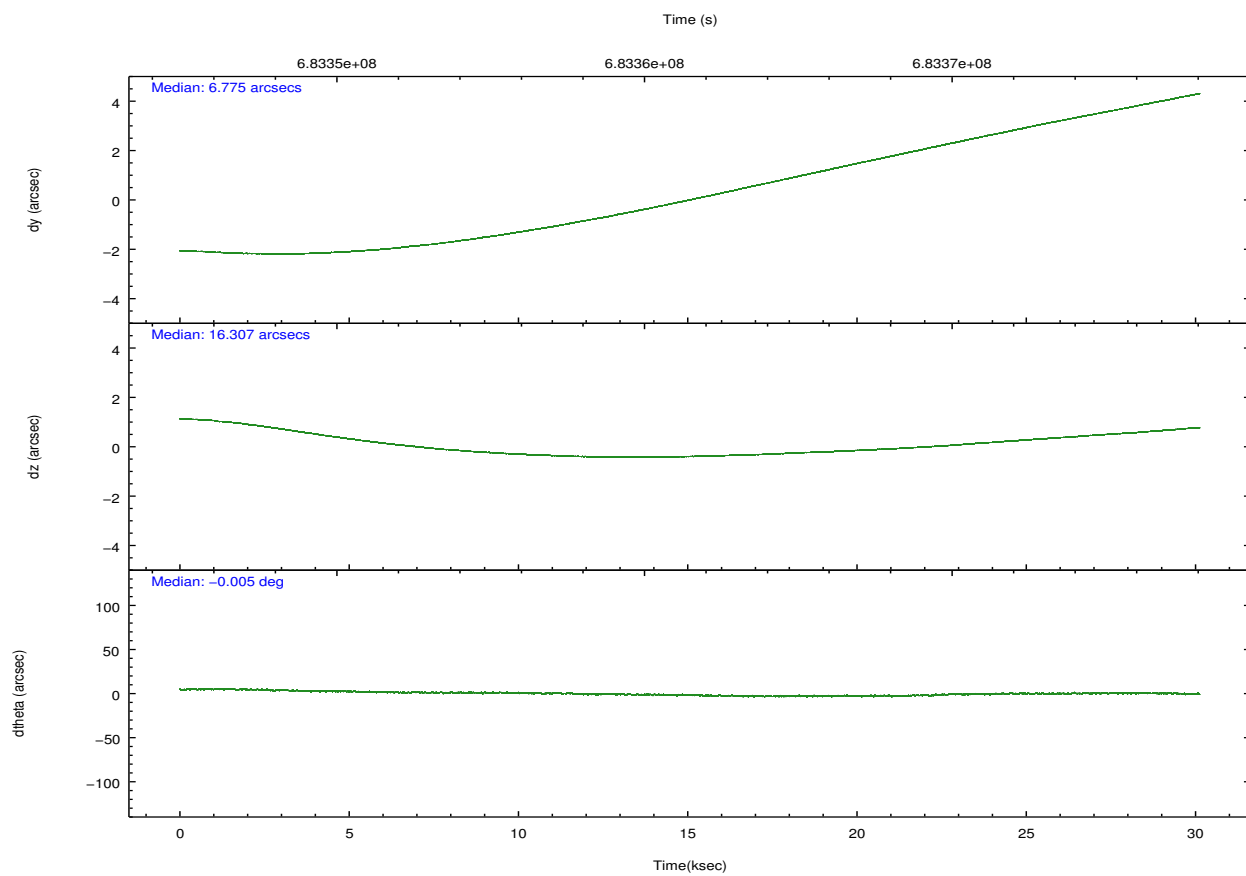
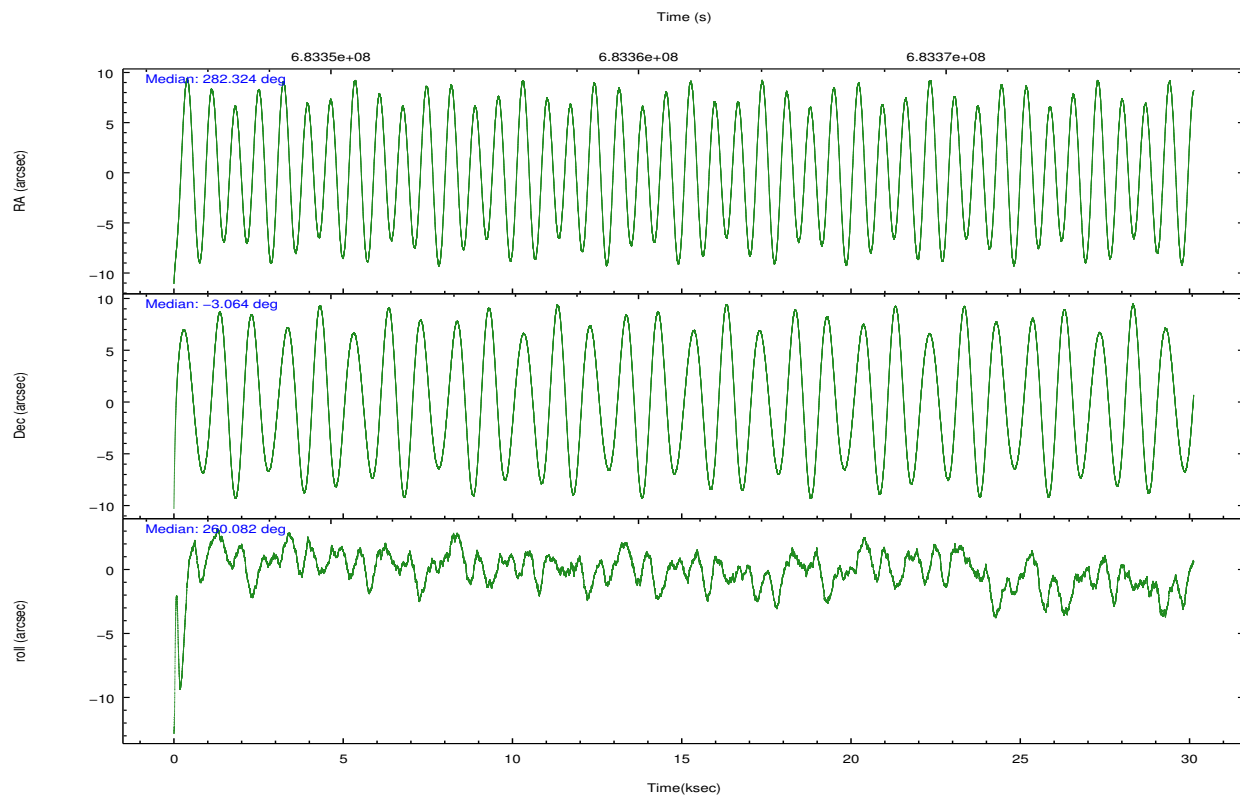
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	462290	2193592	1377209	3253657	860708	473787	grade 0 events	4575	201263	12432	151665	32894	5526
rejected events	396207	1378673	438817	984302	549077	393444		0%	9%	0%	4%	3%	1%
rejected %	85%	62%	31%	30%	63%	83%	grade 1 events	162	414	188	6137	472	166
								0%	0%	0%	0%	0%	0%
							grade 2 events	39181	457510	817324	867574	209074	50528
								8%	20%	59%	26%	24%	10%
							grade 3 events	5044	4365	4932	96161	11940	4327
								1%	0%	0%	2%	1%	0%
							grade 4 events	4962	4236	4742	95469	11682	4724
								1%	0%	0%	2%	1%	0%
							grade 5 events	9987	20690	15071	95887	17580	12153
								2%	0%	1%	2%	2%	2%
							grade 6 events	12331	147573	99051	1058721	46078	15246
								2%	6%	7%	32%	5%	3%
							grade 7 events	386048	1357541	423469	882043	530988	381117
								83%	61%	30%	27%	61%	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	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	282.314450	282.3242307015263	CCD I2 on	N	N
[deg] Pointing Dec	-3.037992	-3.063647325077694	CCD I3 on	N	N
[deg] Pointing Roll	259.936959	260.094097174146	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	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	683346549.184000	683345402.76215	CCD S5 on	O2	Y
Observation start date	2019-08-28T02:28:00	2019-08-28T02:10:02	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	683376549.184000	683377196.72656	On-chip summing requested	N	N
Observation end date	2019-08-28T10:48:00	2019-08-28T10:59:56	Subarray requested	NONE	NONE
Read mode	CONTINUOUS	CONTINUOUS	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0

2.3 Aspect



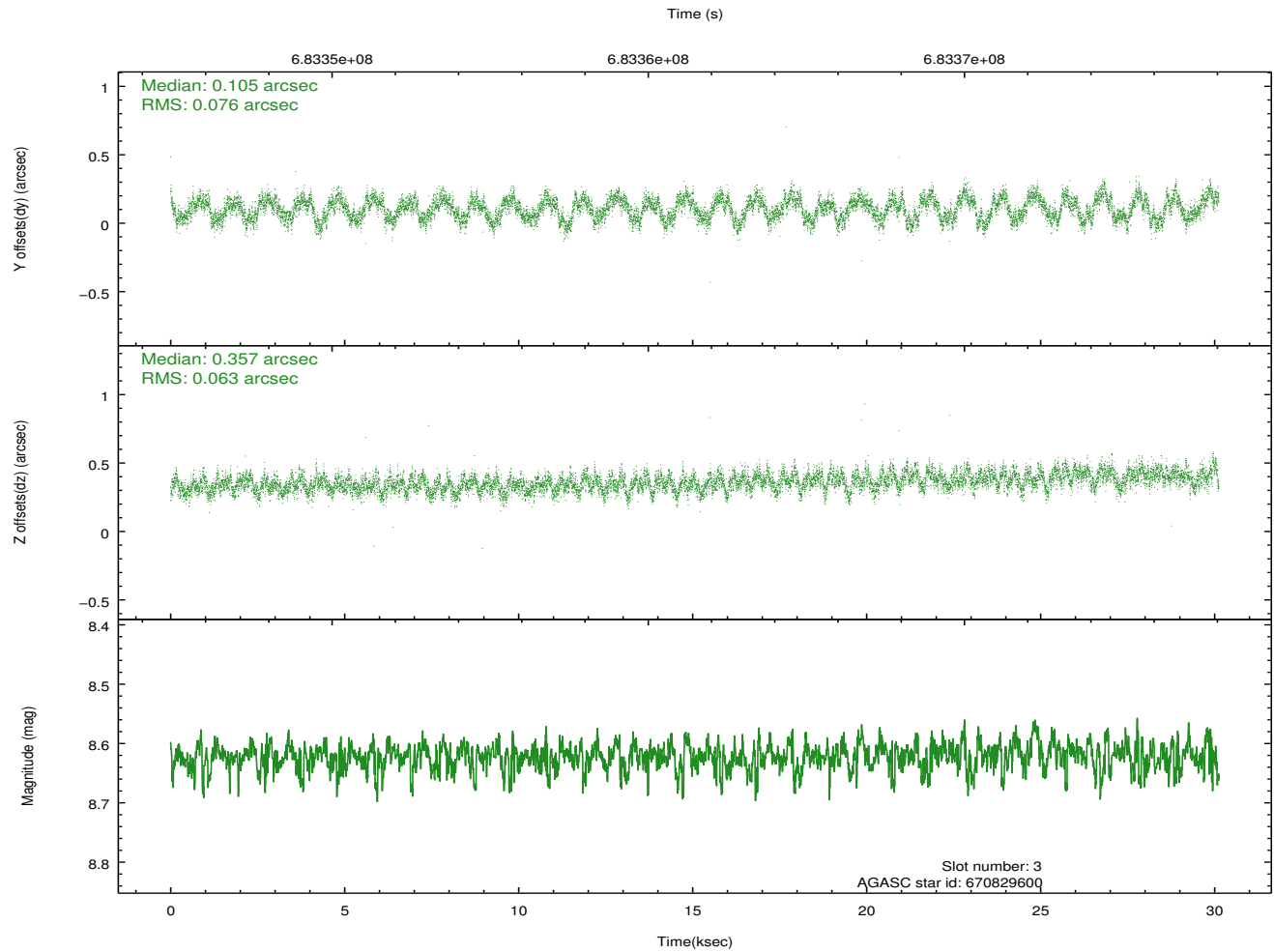
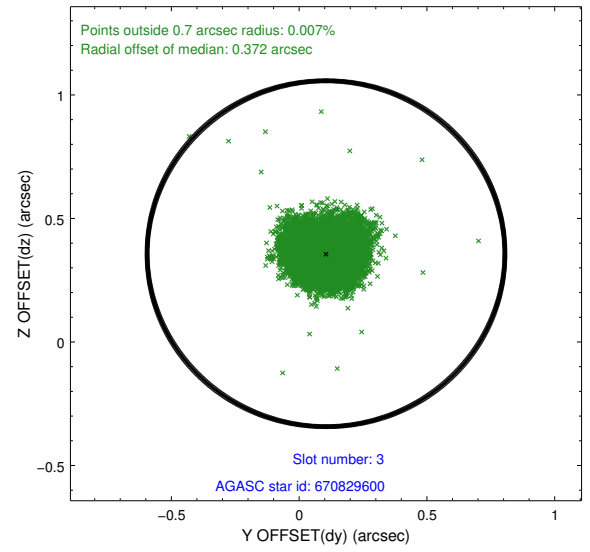
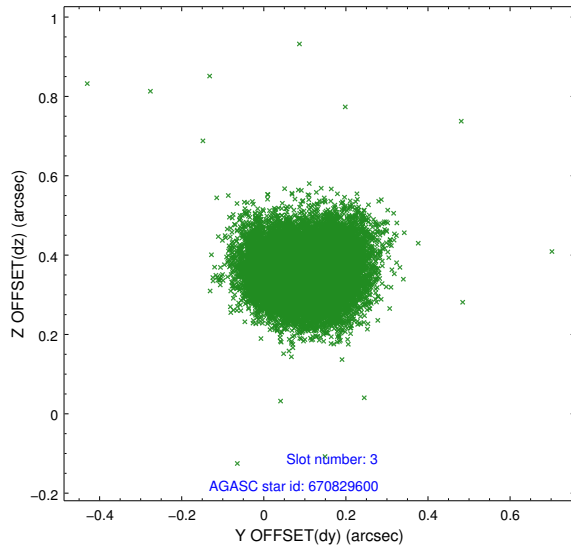


Slot Statistics

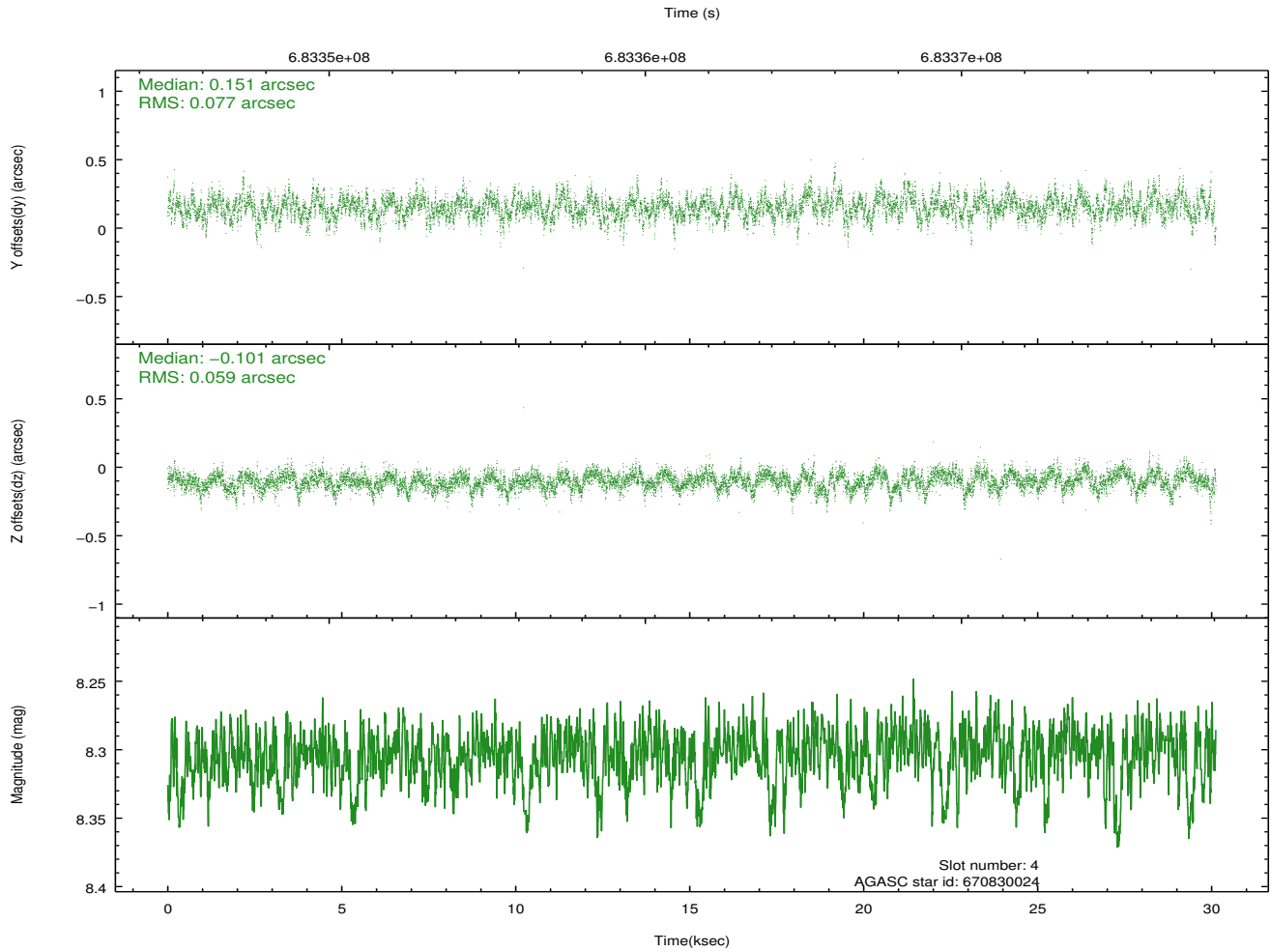
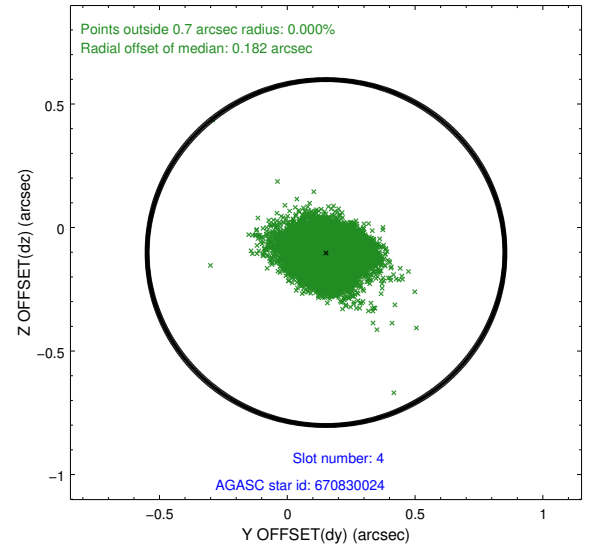
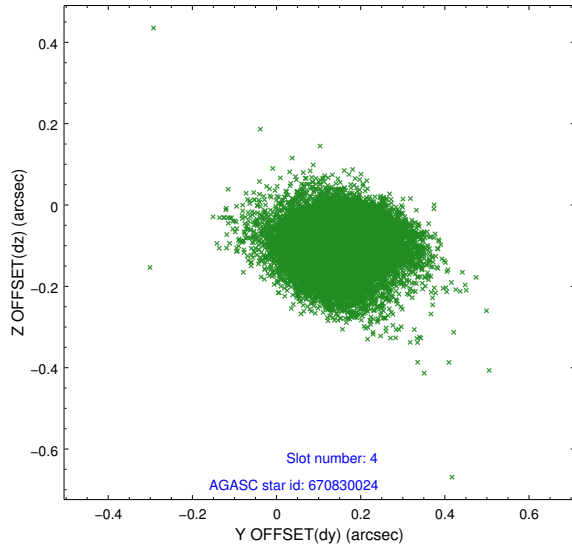
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.02	7347	1.000	-0.229	-0.076	0.035	0.069	0.000000	0.000000	-760.06	-1737
1	FID		ACIS-S-4	7.15	7347	1.000	0.517	0.135	0.034	0.096	0.000000	0.000000	2153.91	170
2	FID		ACIS-S-5	7.13	7347	1.000	-0.309	-0.041	0.064	0.115	0.000000	0.000000	-1812.96	164
3	GUIDE	used	670829600	8.62	14678	1.000	0.105	0.357	0.106	0.163	282.227270	-3.031765	33.26	-312
4	GUIDE	used	670830024	8.30	14687	1.000	0.151	-0.101	0.101	0.167	281.863539	-3.639841	2423.38	-1217
5	GUIDE	used	670830160	6.37	14695	1.000	-0.116	-0.044	0.116	0.174	282.842323	-3.317856	661.43	2044
6	GUIDE	used	670830248	7.19	14695	1.000	-0.210	0.080	0.124	0.197	282.772544	-3.261134	504.74	1760
7	GUIDE	used	670830256	8.23	14682	1.000	0.061	-0.290	0.145	0.210	282.680944	-3.575346	1675.03	1634

2.4 Star Slots

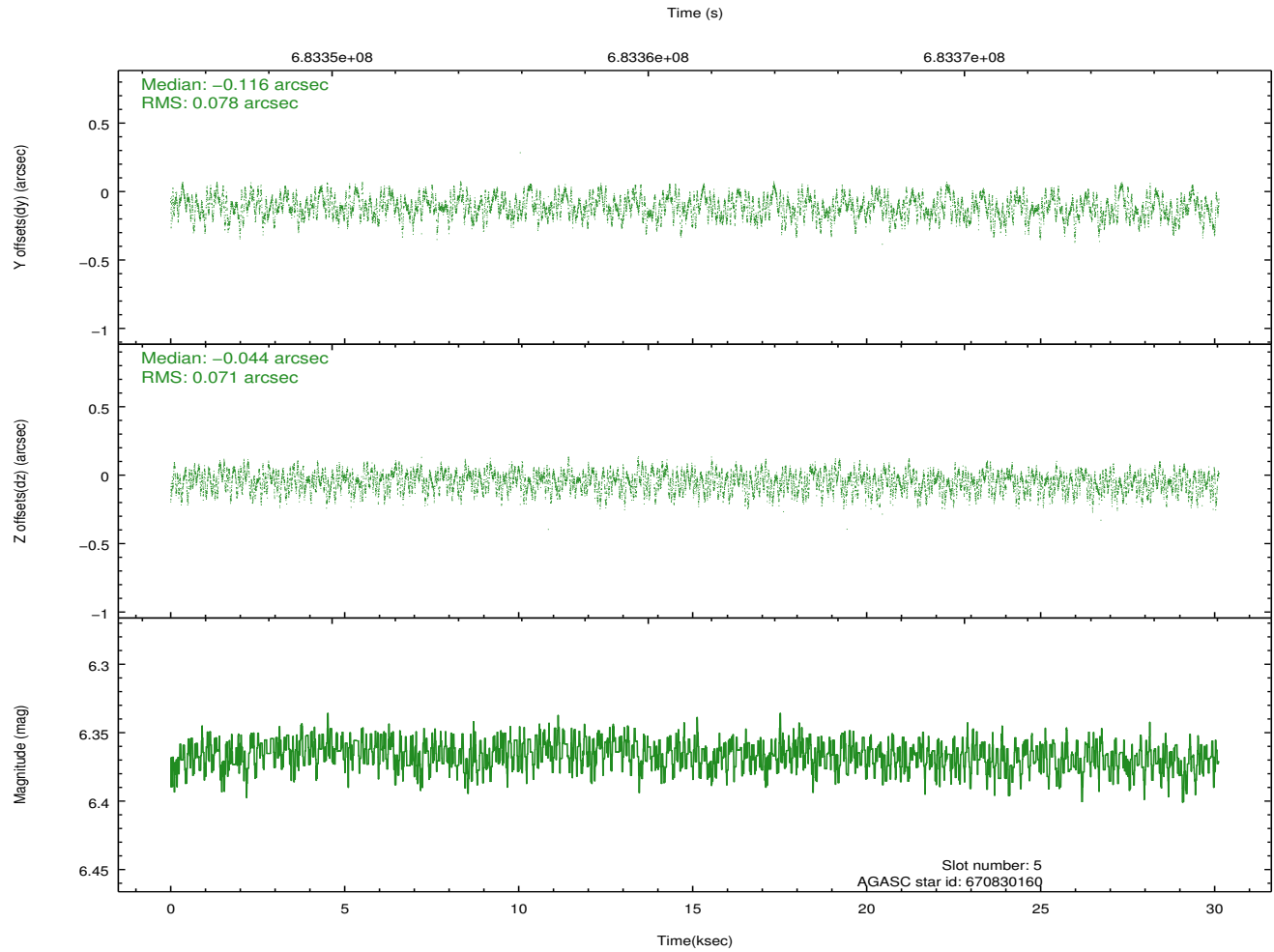
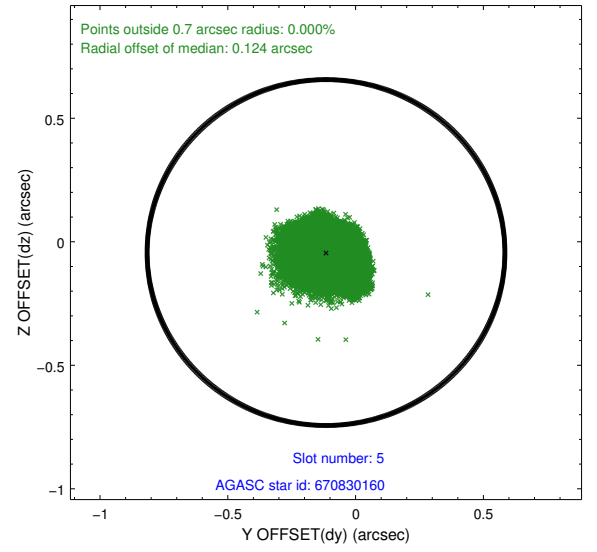
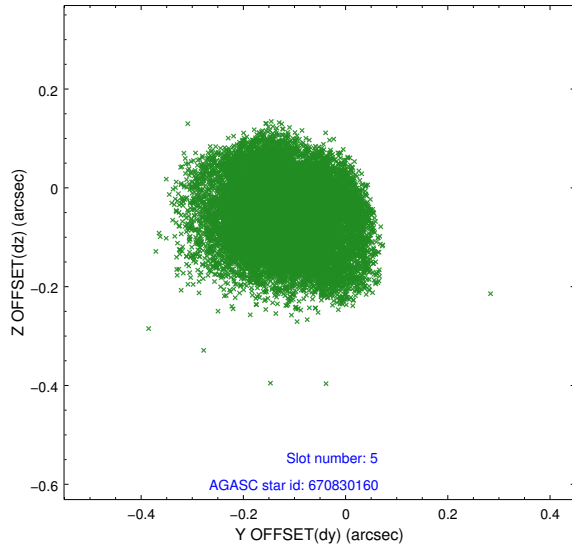
2.4.1 Slot 3



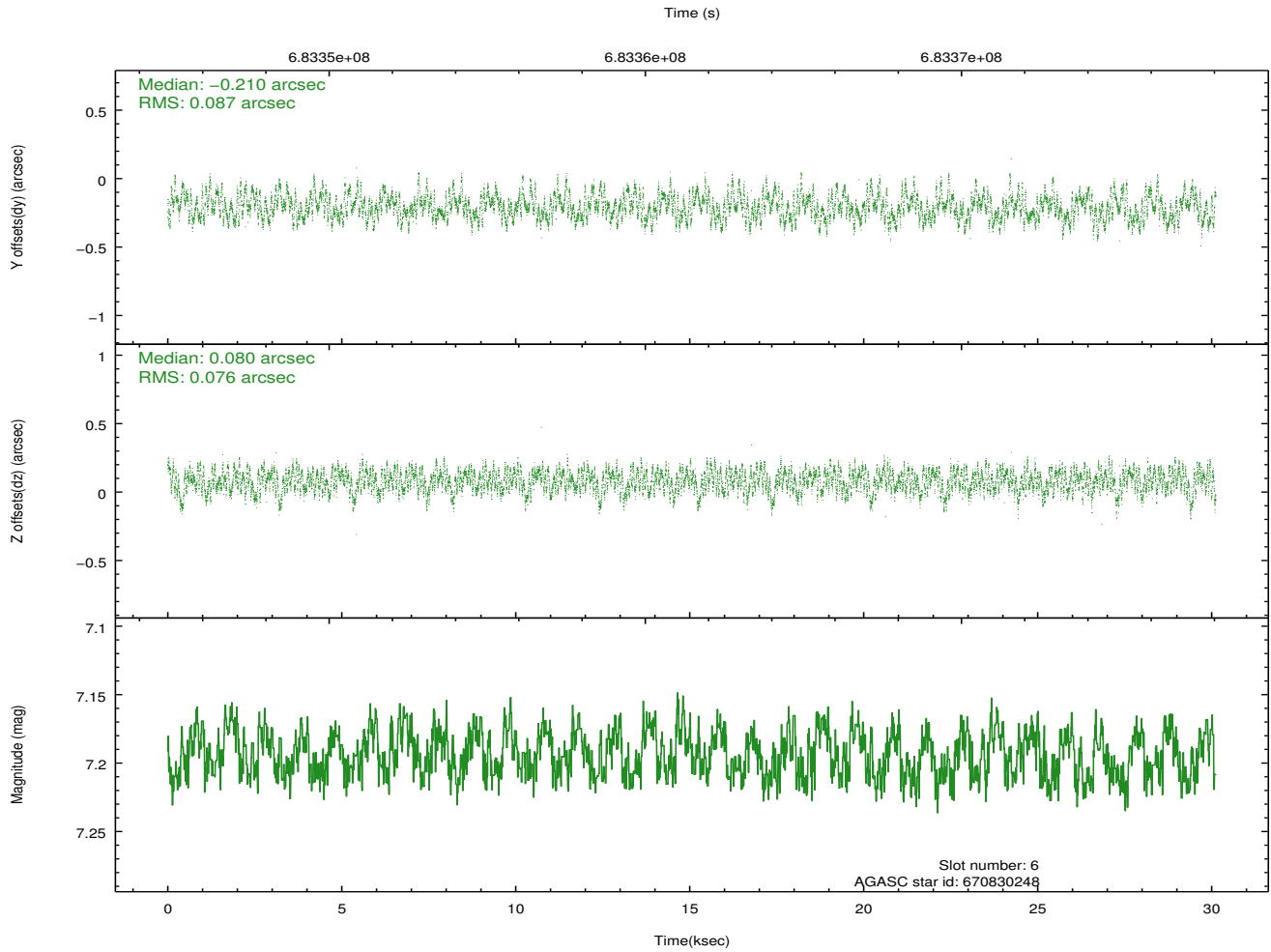
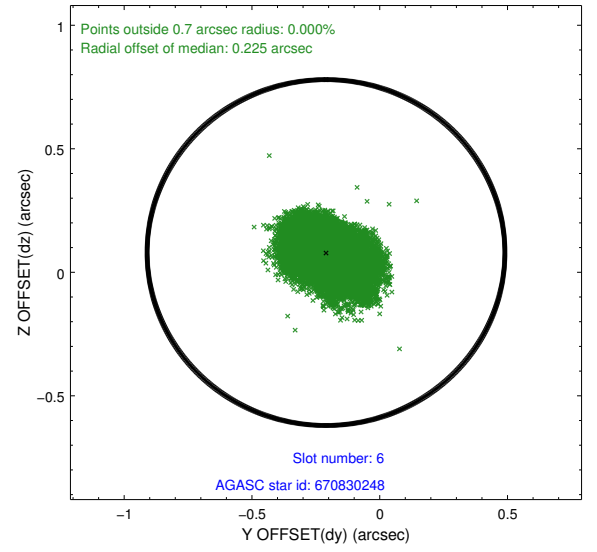
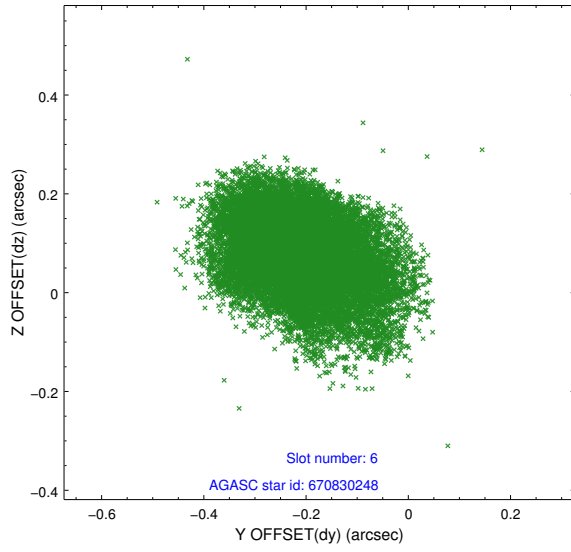
2.4.2 Slot 4



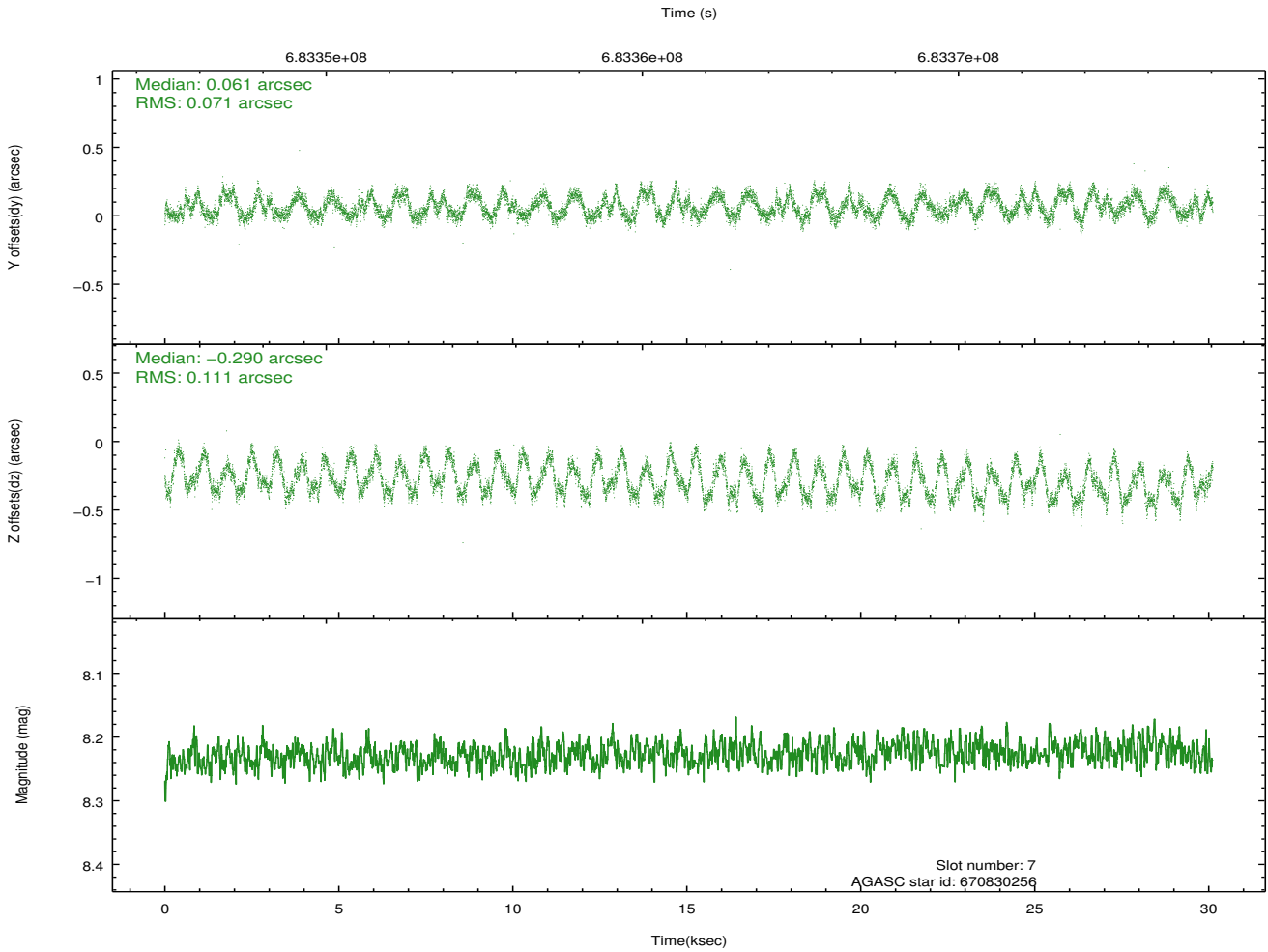
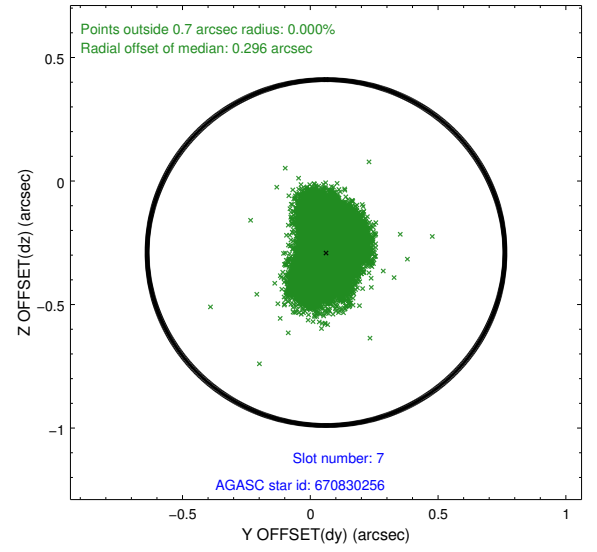
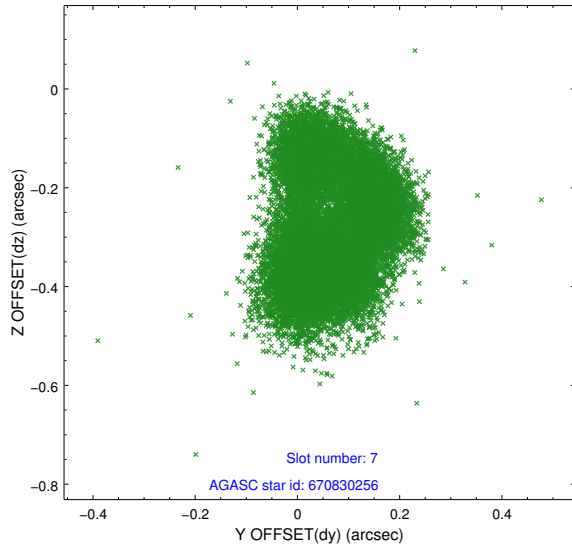
2.4.3 Slot 5



2.4.4 Slot 6

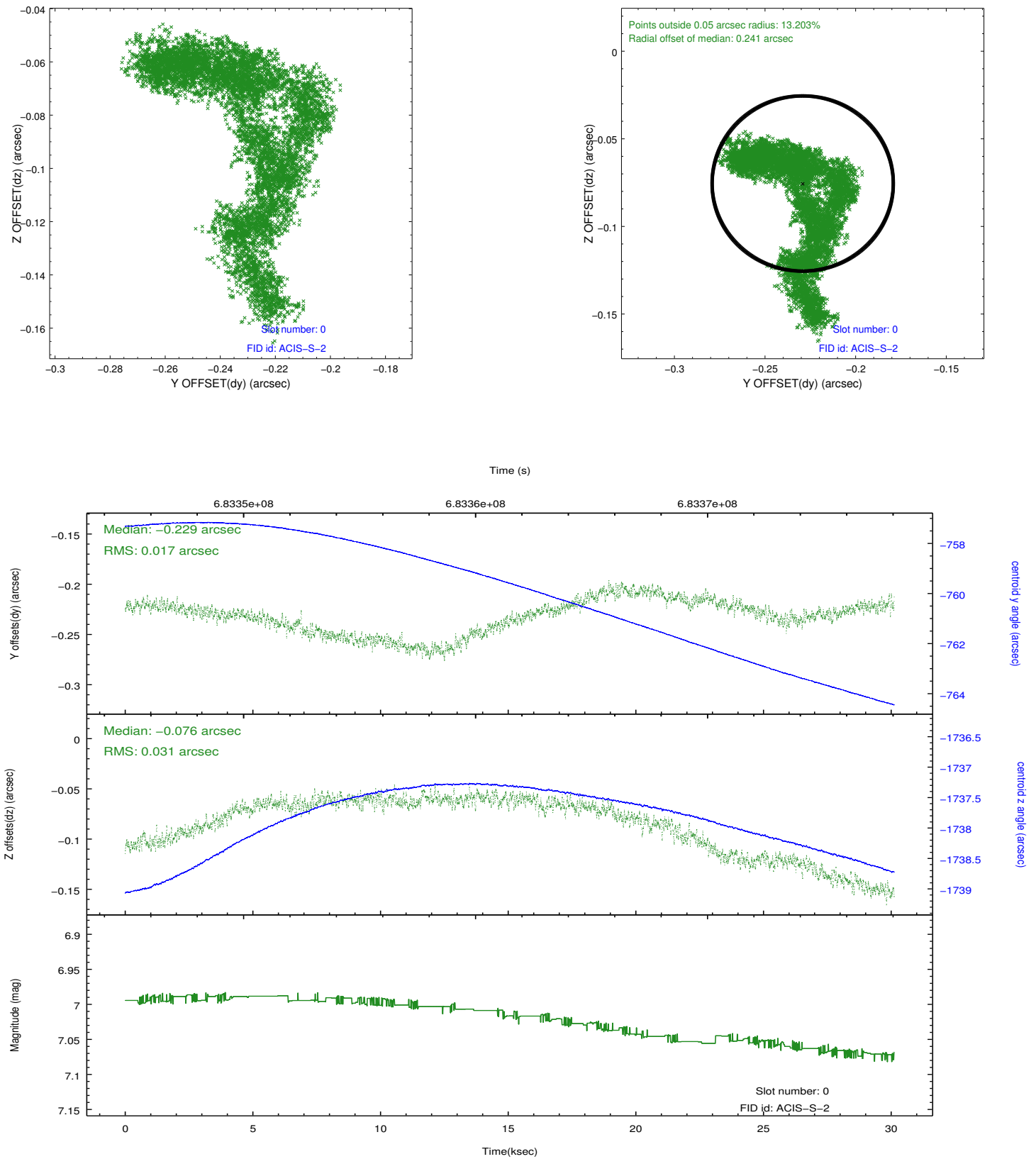


2.4.5 Slot 7

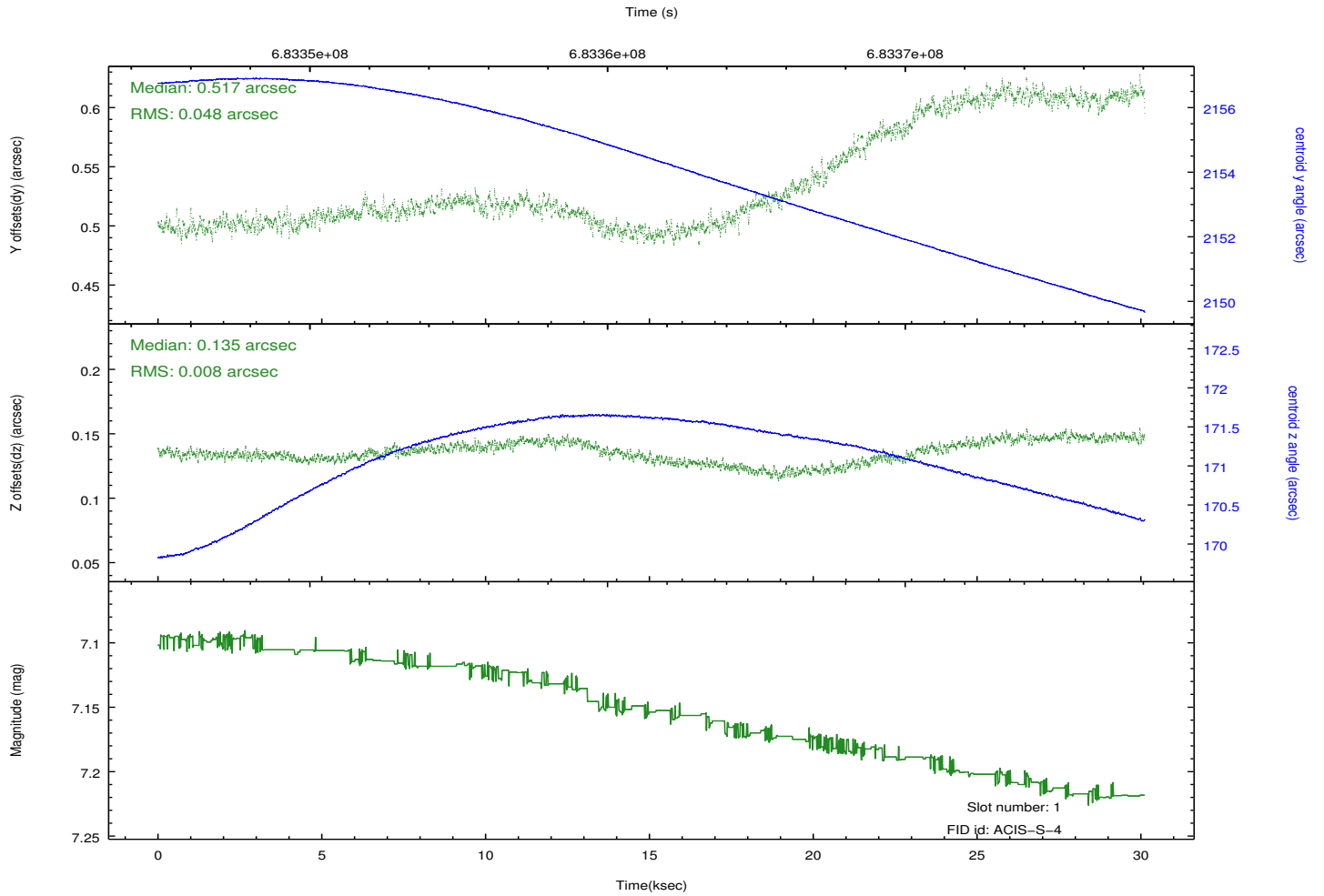
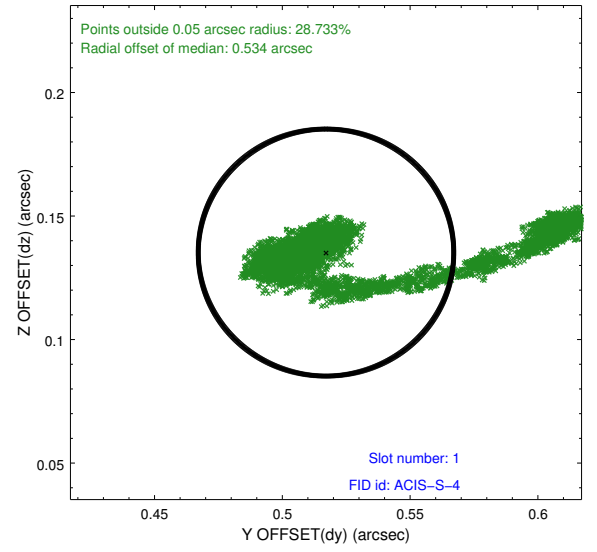
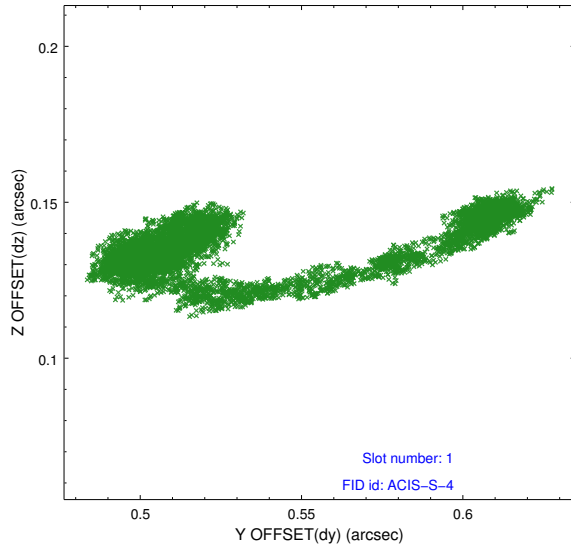


2.5 FID Slots

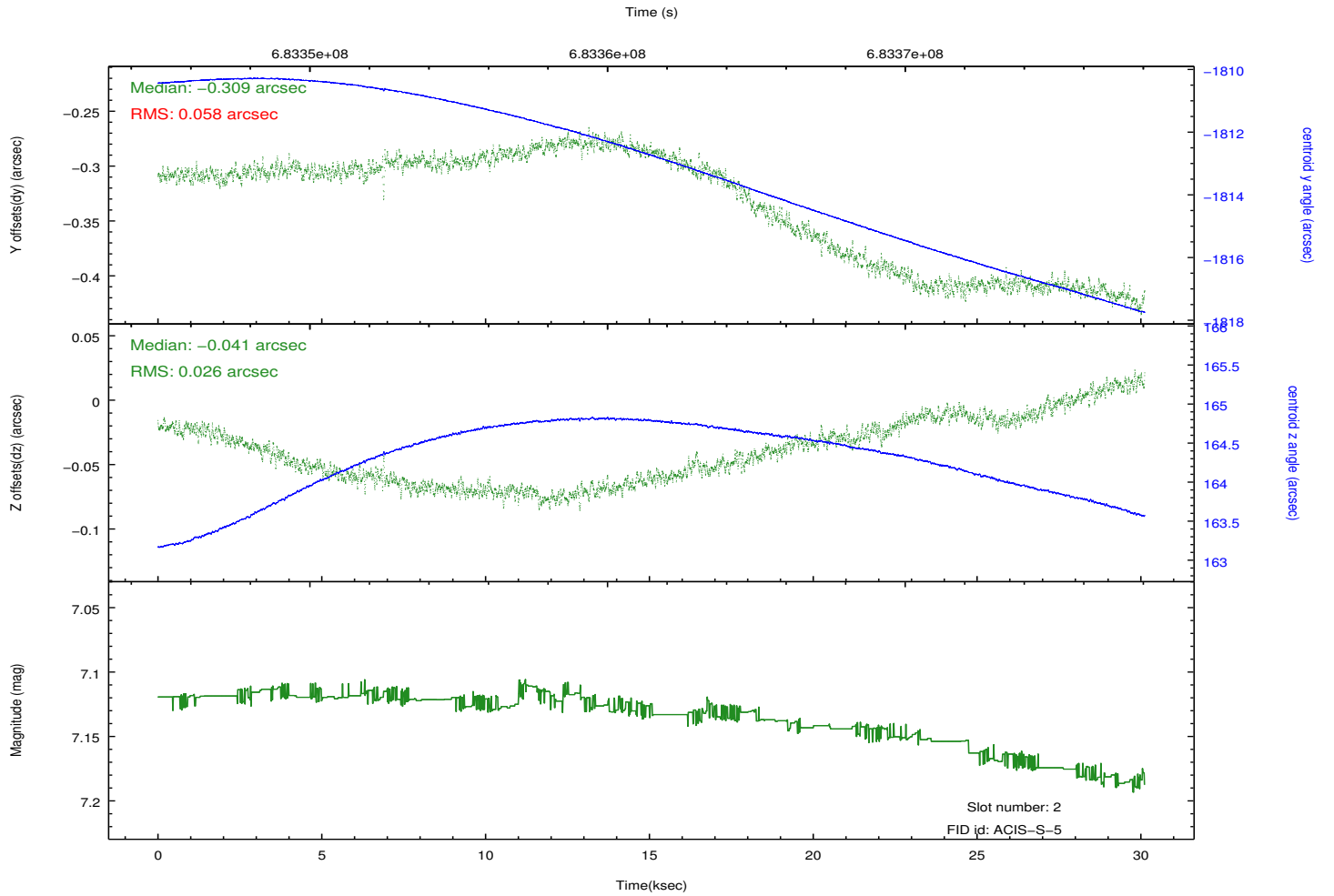
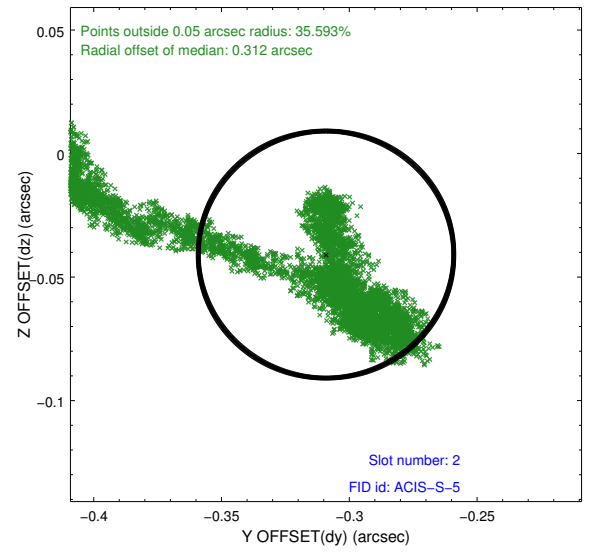
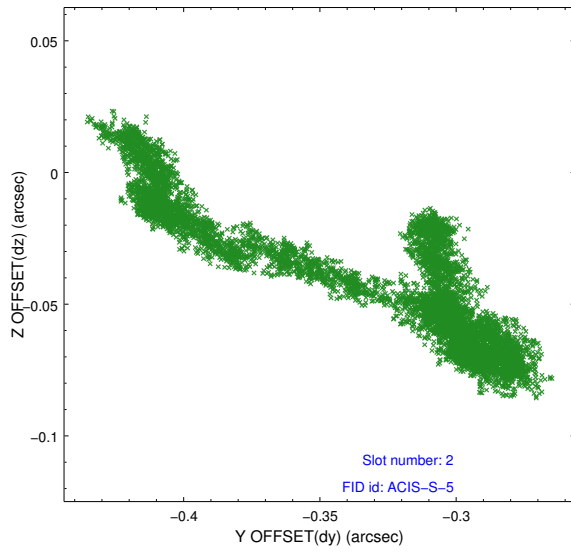
2.5.1 Slot 0



2.5.2 Slot 1

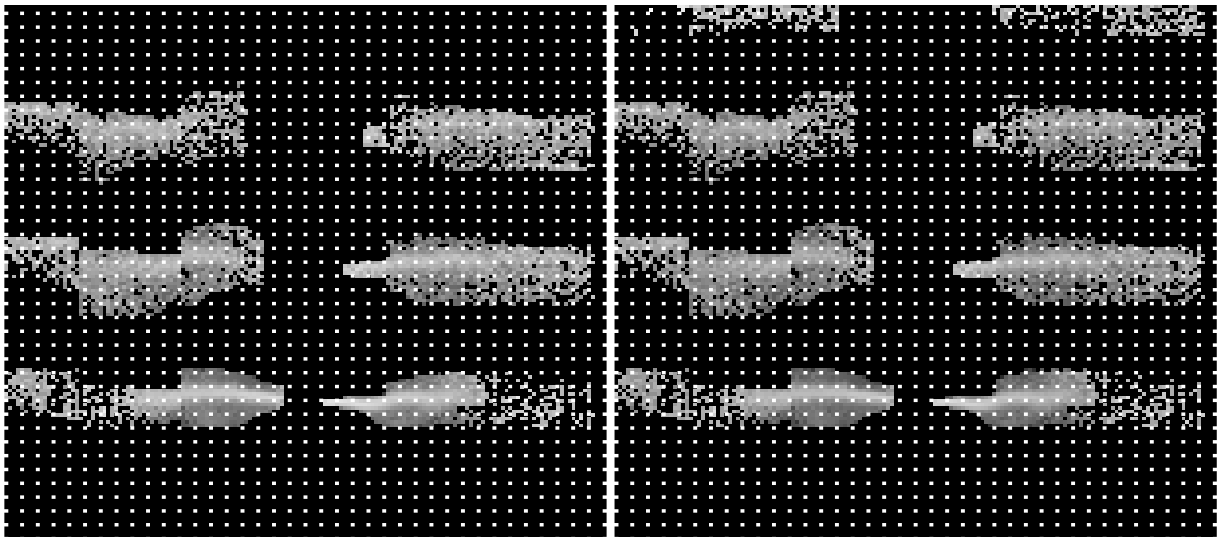


2.5.3 Slot 2



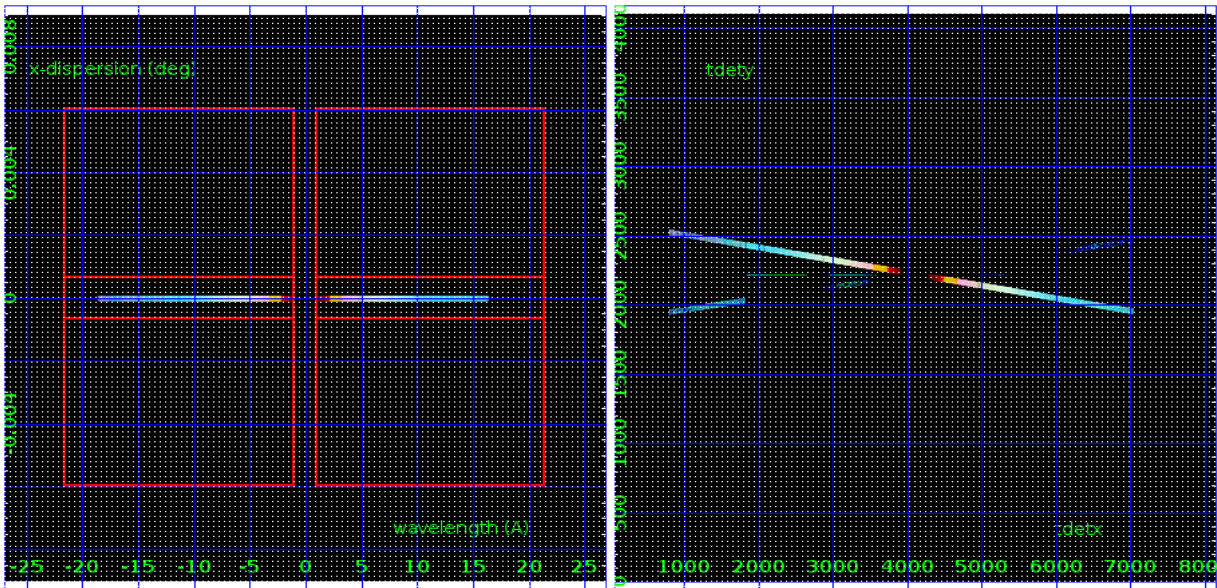
3 Gratings

3.1 HEG Arm



HEG Order Sort 123

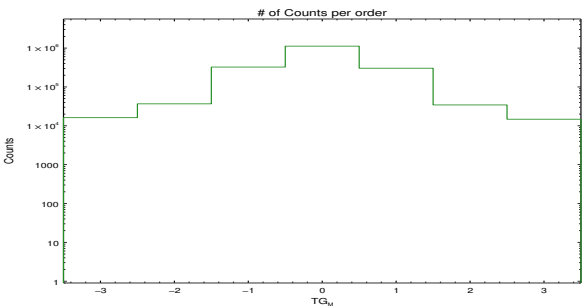
HEG Order Sort ALL

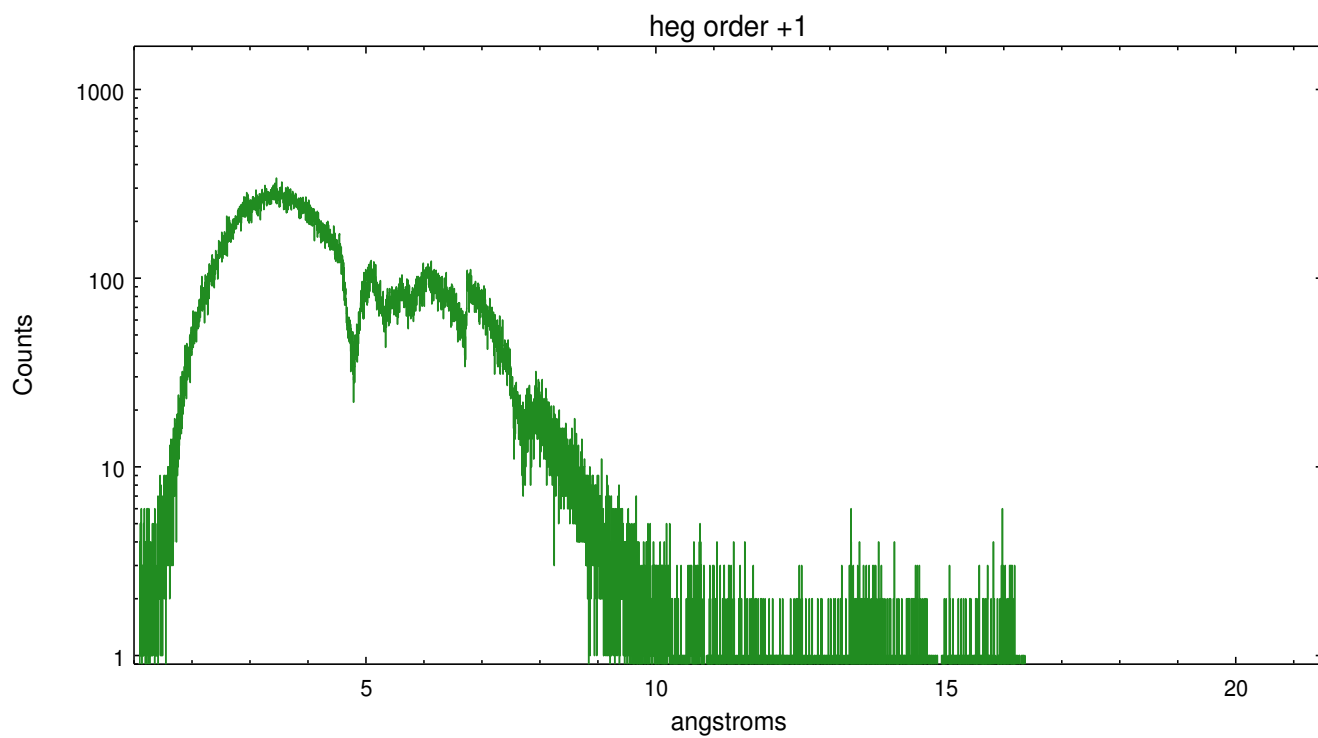
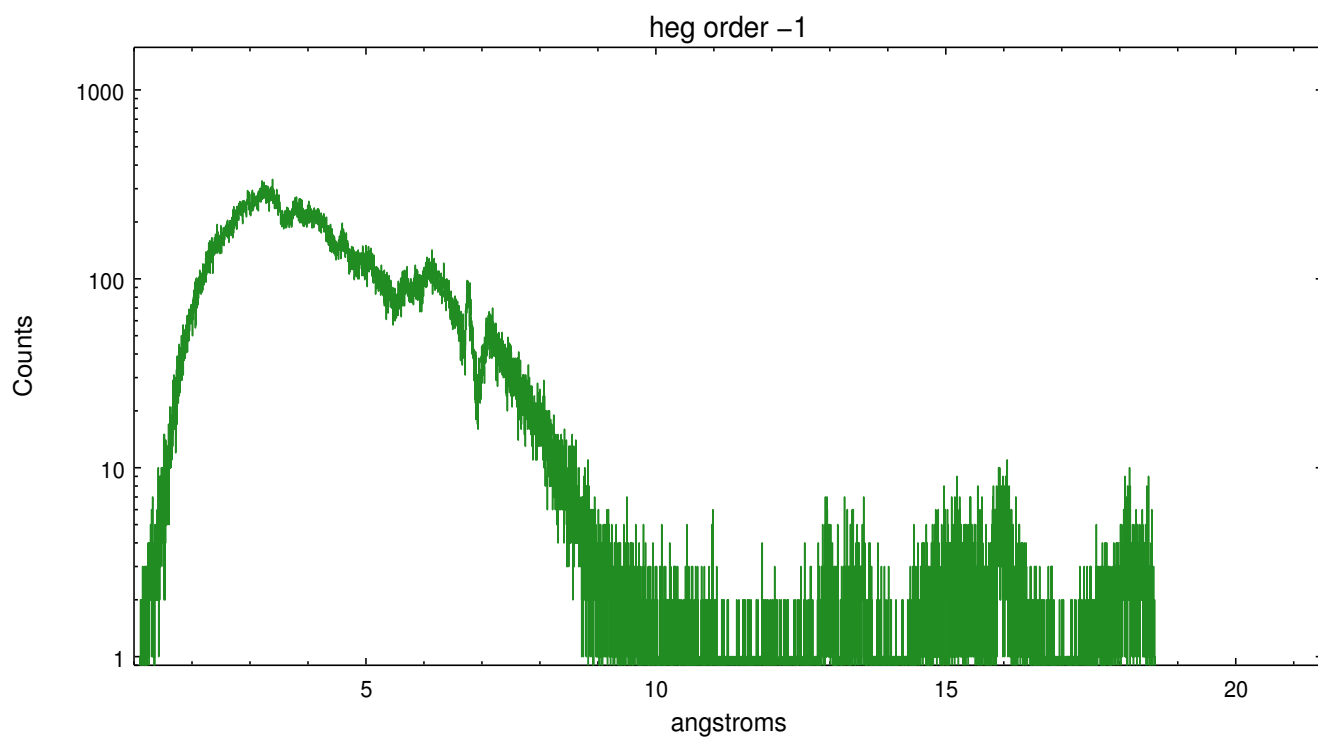


Spot Image HEG

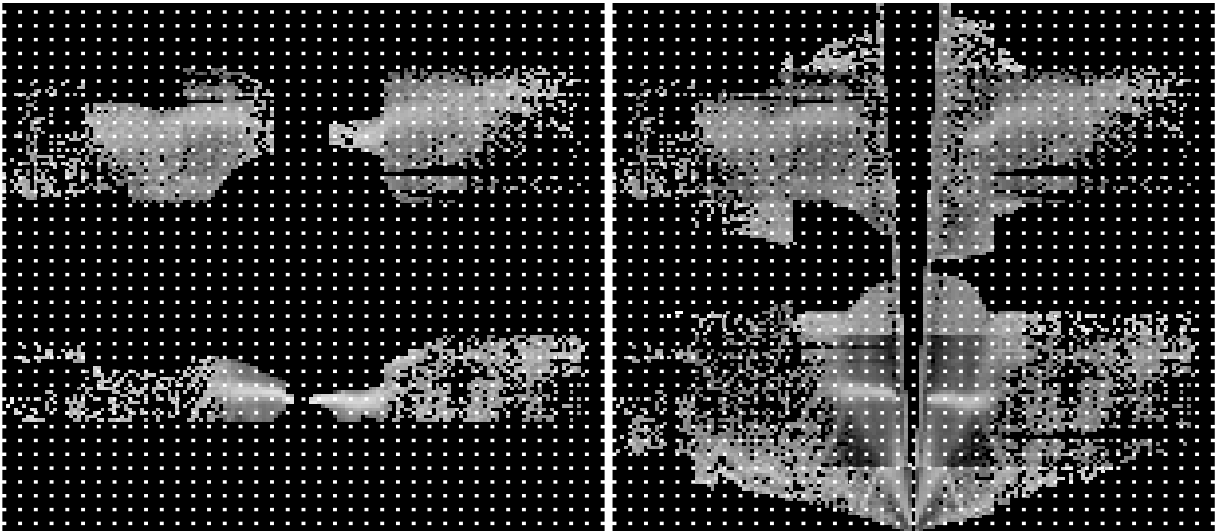
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	16193	36745	325020	1121978	303290	34427	14762



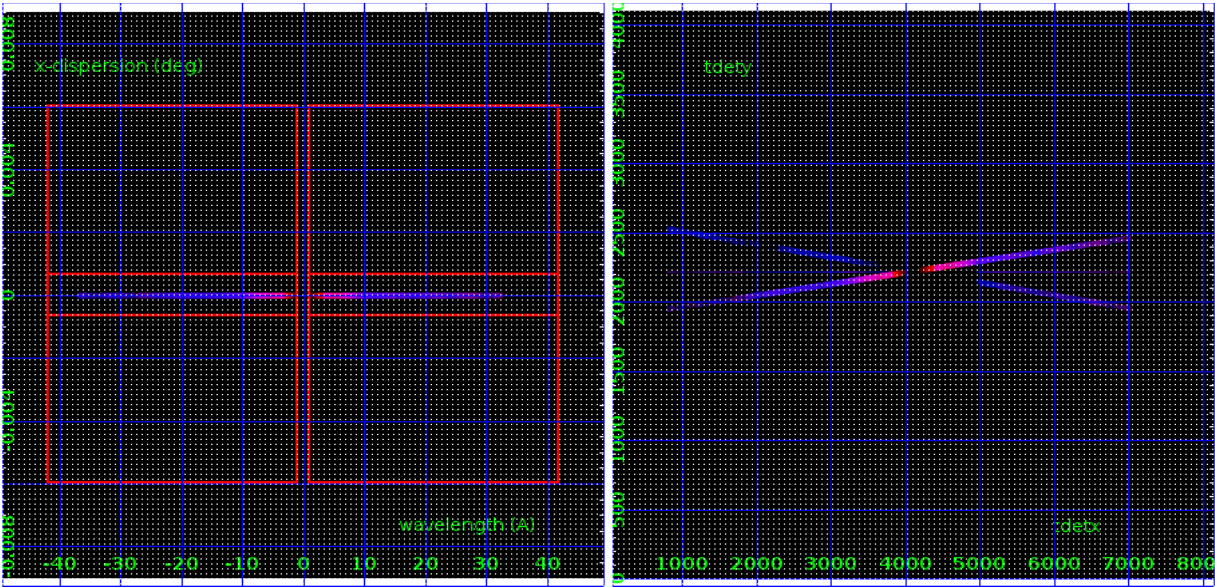


3.2 MEG Arm



MEG Order Sort 123

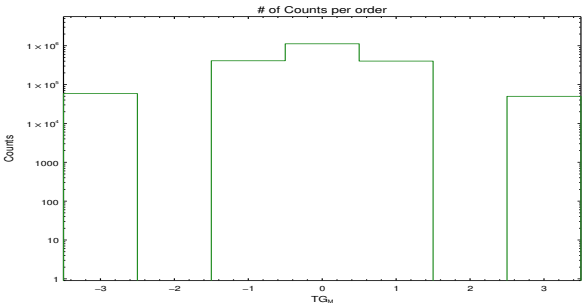
MEG Order Sort ALL

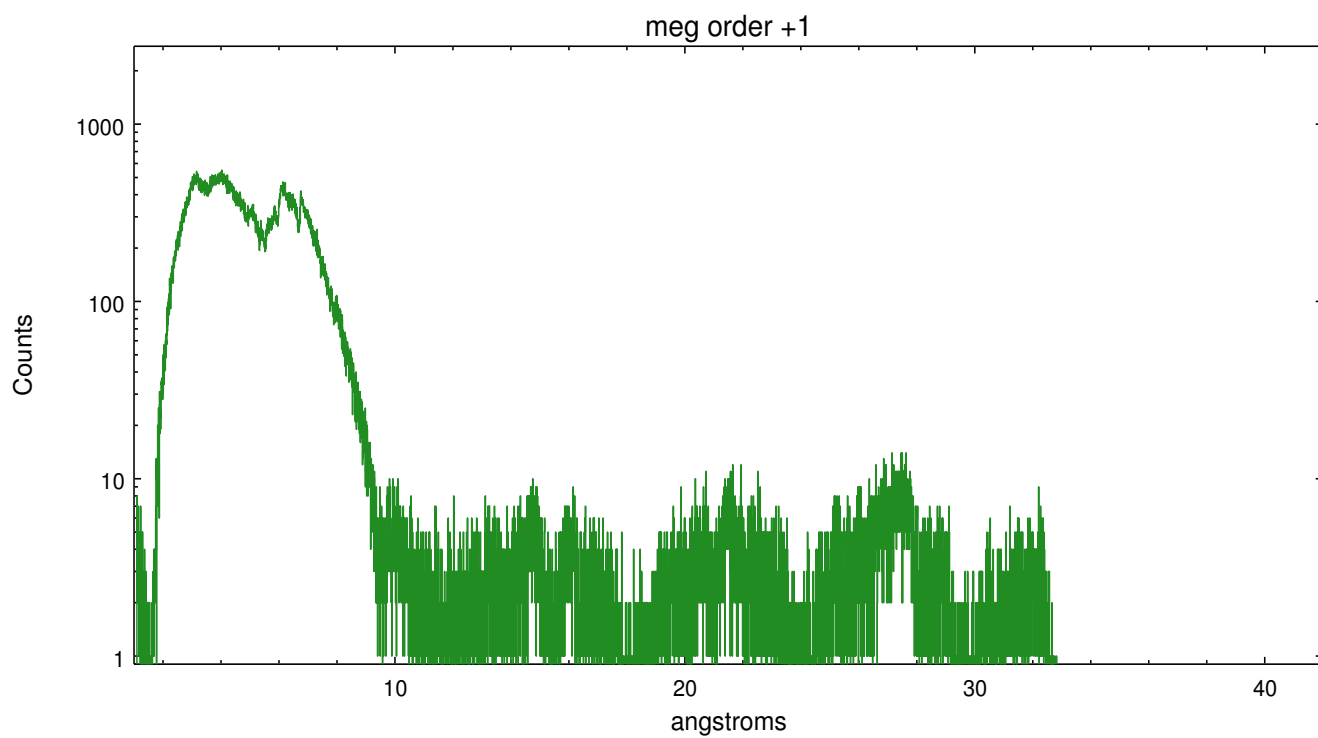
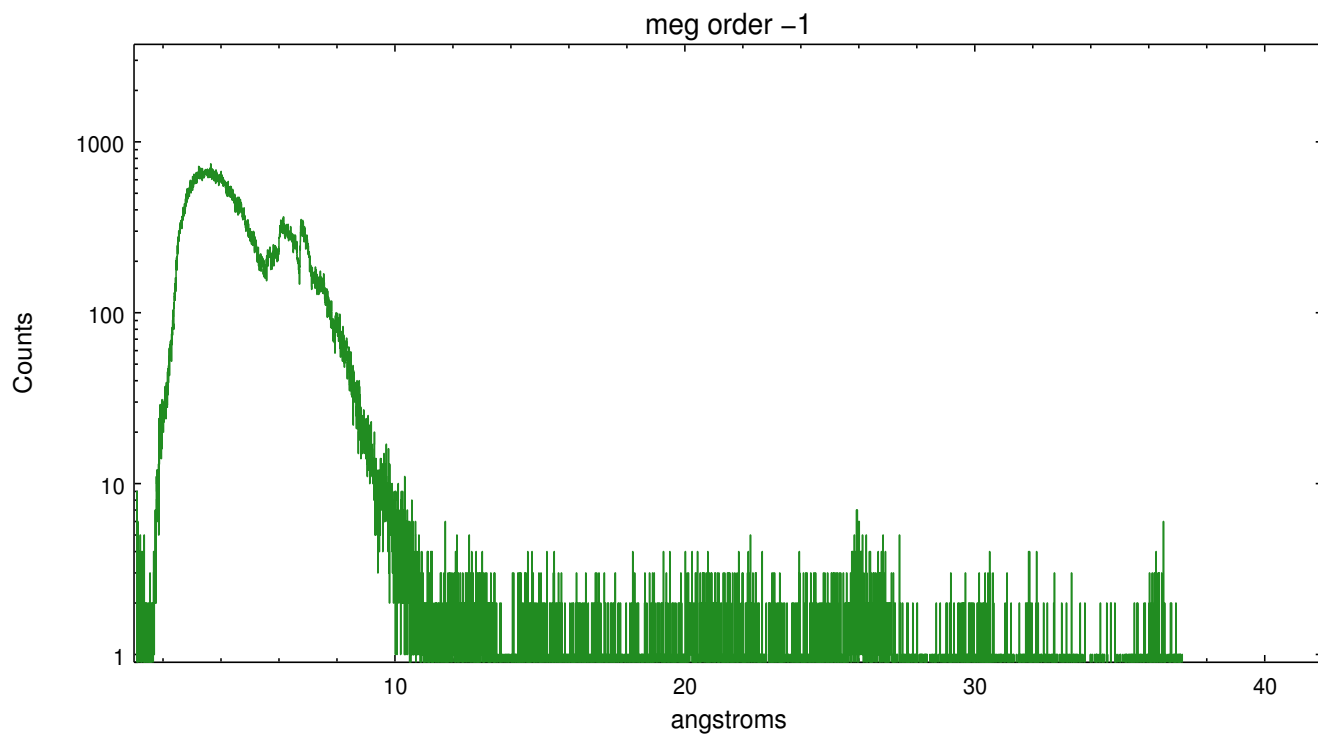


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	58583	0	410632	1121978	402200	0	49803





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.08.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.06825

A.2 Comments

Comments for Obi 0

Fid in slot 2 has an RMS deviation > 0.050000 arcsec

Aspect review: acceptable.