

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22197 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : Apr 19 2019

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1 Front

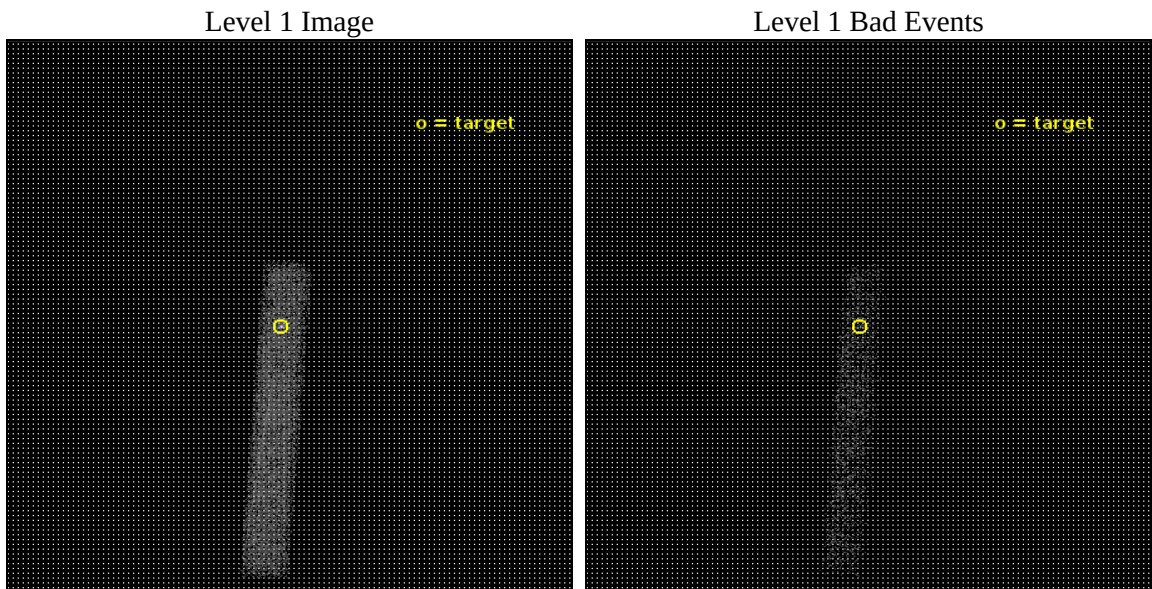
seq_num	703885	Sequence number
obs_id	22197	Observation id
title	Chandra observation of the gravitationally lensed balzar PKS 1830-211 during its brightest outburst	Proposal title
observer	Sara Buson	Principal investigator
object	PKS 1830-211	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.41625	Observer's specified target RA [deg]
dec_targ	-21.061194	Observer's specified target Dec [deg]
ra_nom	278.41248222425	Nominal RA [deg]
dec_nom	-21.059887119072	Nominal Dec [deg]
roll_nom	94.259984996534	Nominal Roll [deg]
revision	1	Processing version of data
ontime	14069.199161291	Sum of GTIs [s]
livetime	12760.021006069	Livetime [s]
ontime7	14069.199161291	Sum of GTIs [s]
l2events	11558	Number of level 2 events



2 OBI

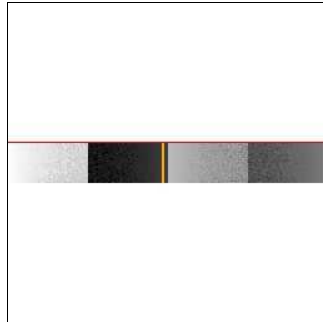
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	14069.199161291	Sum of GTIs [s]
caldsver	4.8.2	 	ontime7	14069.199161291	Sum of GTIs [s]
date	2019-04-19T15:17:19	Date and time of file creation	l1events	21848	Number of level 1 events
revision	1	Processing version of data	tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4071.10, 4087.60)	src1a sky pixel position

2.1.4 Events

	ccd 7
level 1 events	21848
rejected events	9865
rejected %	45%

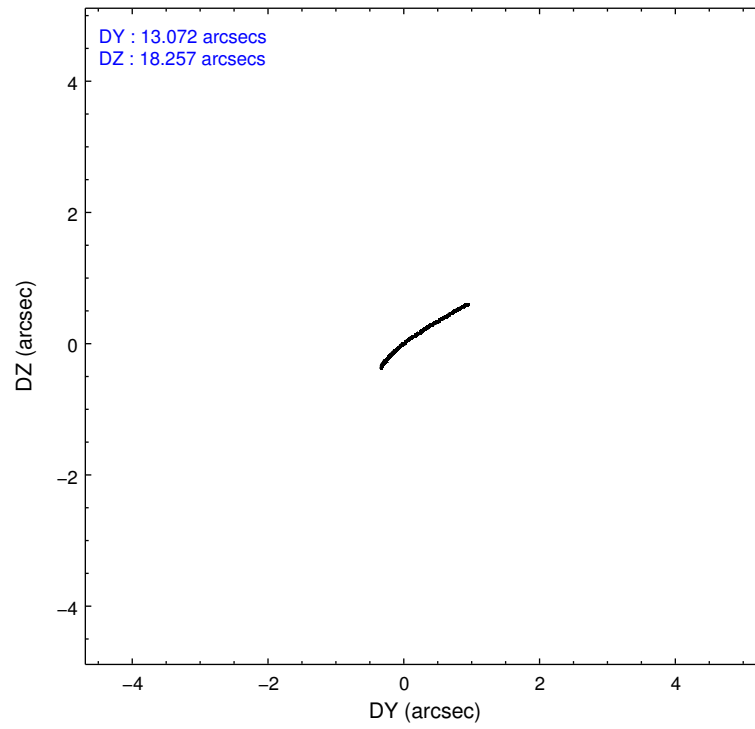
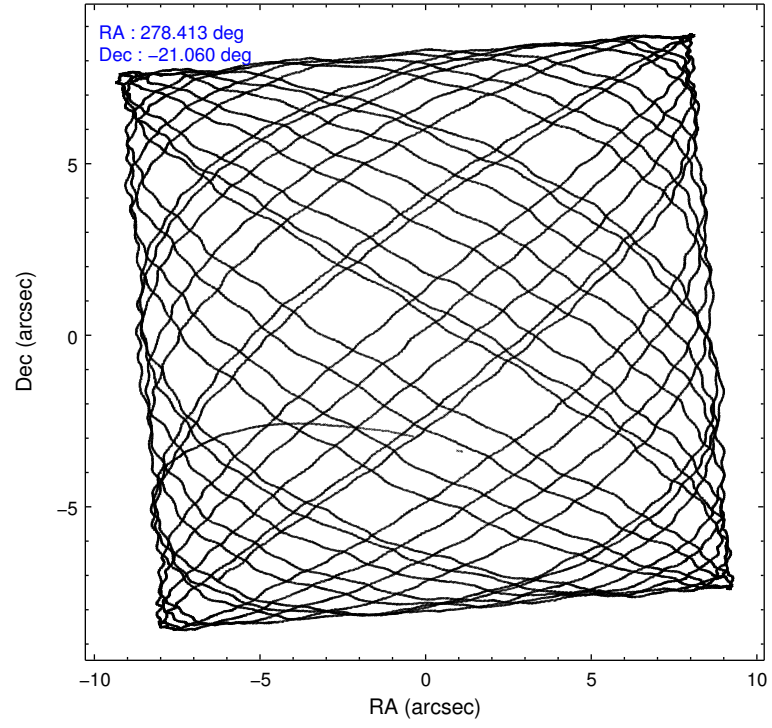
	ccd 7
grade 0 events	1513
	6%
grade 1 events	33
	0%
grade 2 events	2376
	10%
grade 3 events	1498
	6%
grade 4 events	1502
	6%
grade 5 events	1822
	8%
grade 6 events	5095
	23%
grade 7 events	8009
	36%

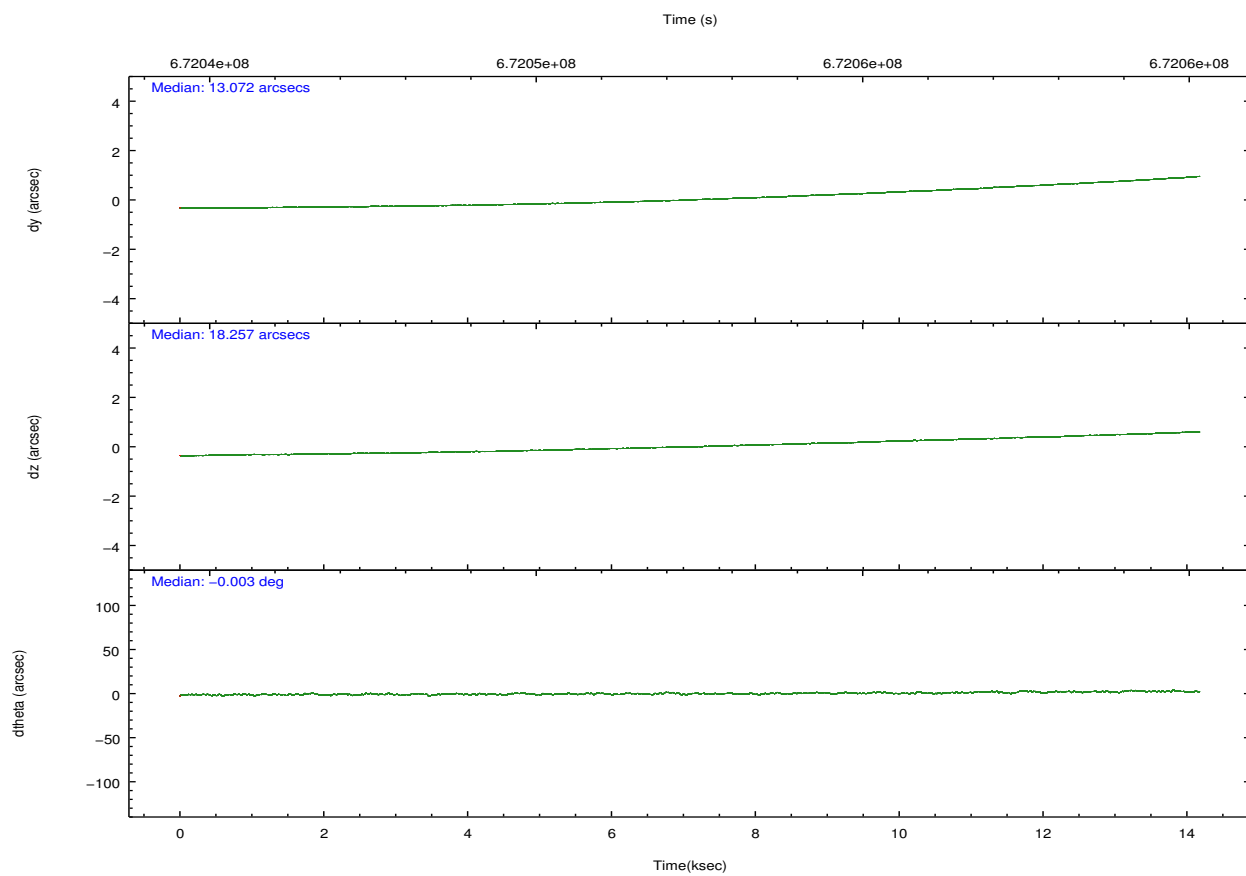
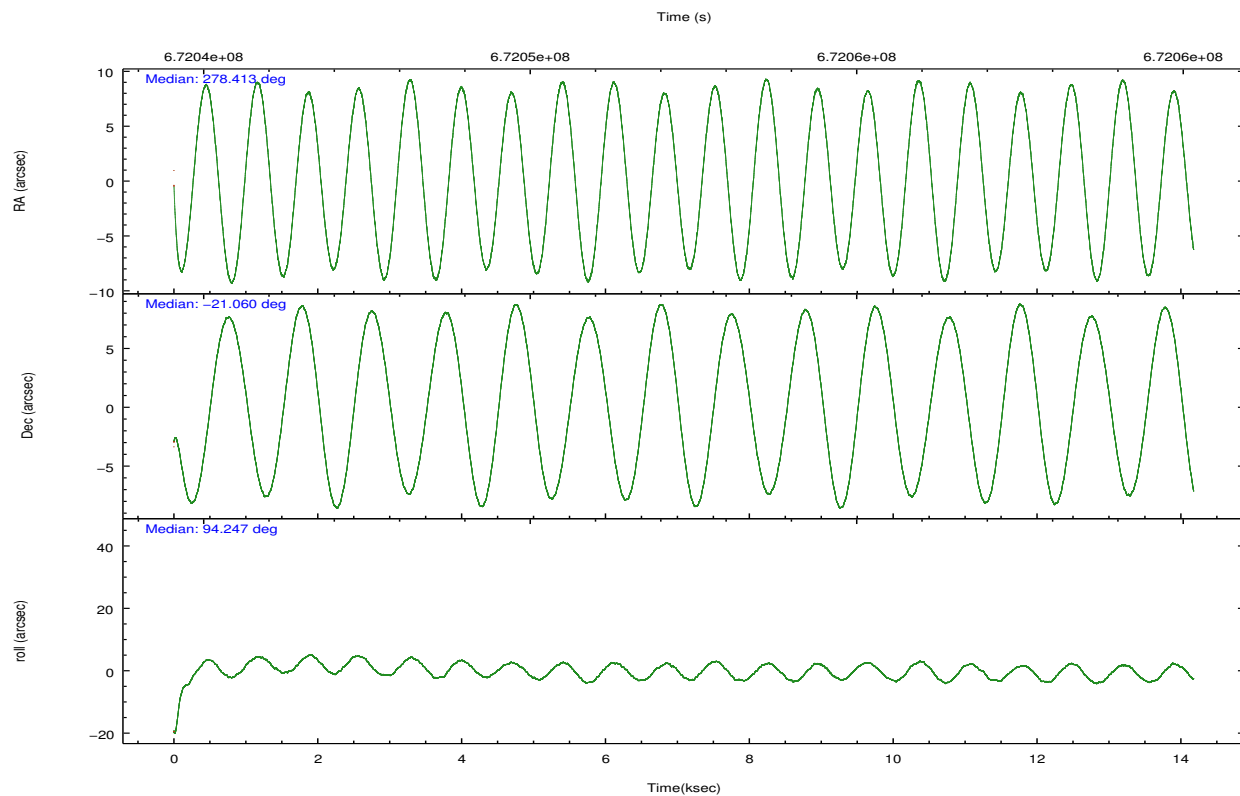
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	HETG	HETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	278.429371	278.4124822242481
[deg] Pointing Dec	-21.082349	-21.05988711907233
[deg] Pointing Roll	94.109443	94.25998499653419
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1400660498719
[mm] SIM translation stage offset	0	0.00754346686406393
[s] Observation start time (MET)	672045434.184000	672044110.8339
Observation start date	2019-04-19T07:16:05	2019-04-19T06:55:10
[s] Observation end time (MET)	672059434.184000	672060382.70988
Observation end date	2019-04-19T11:09:25	2019-04-19T11:26:22
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	CUSTOM	1/8
Subarray start row	449	449
Subarray row count	128	128
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.4

2.3 Aspect



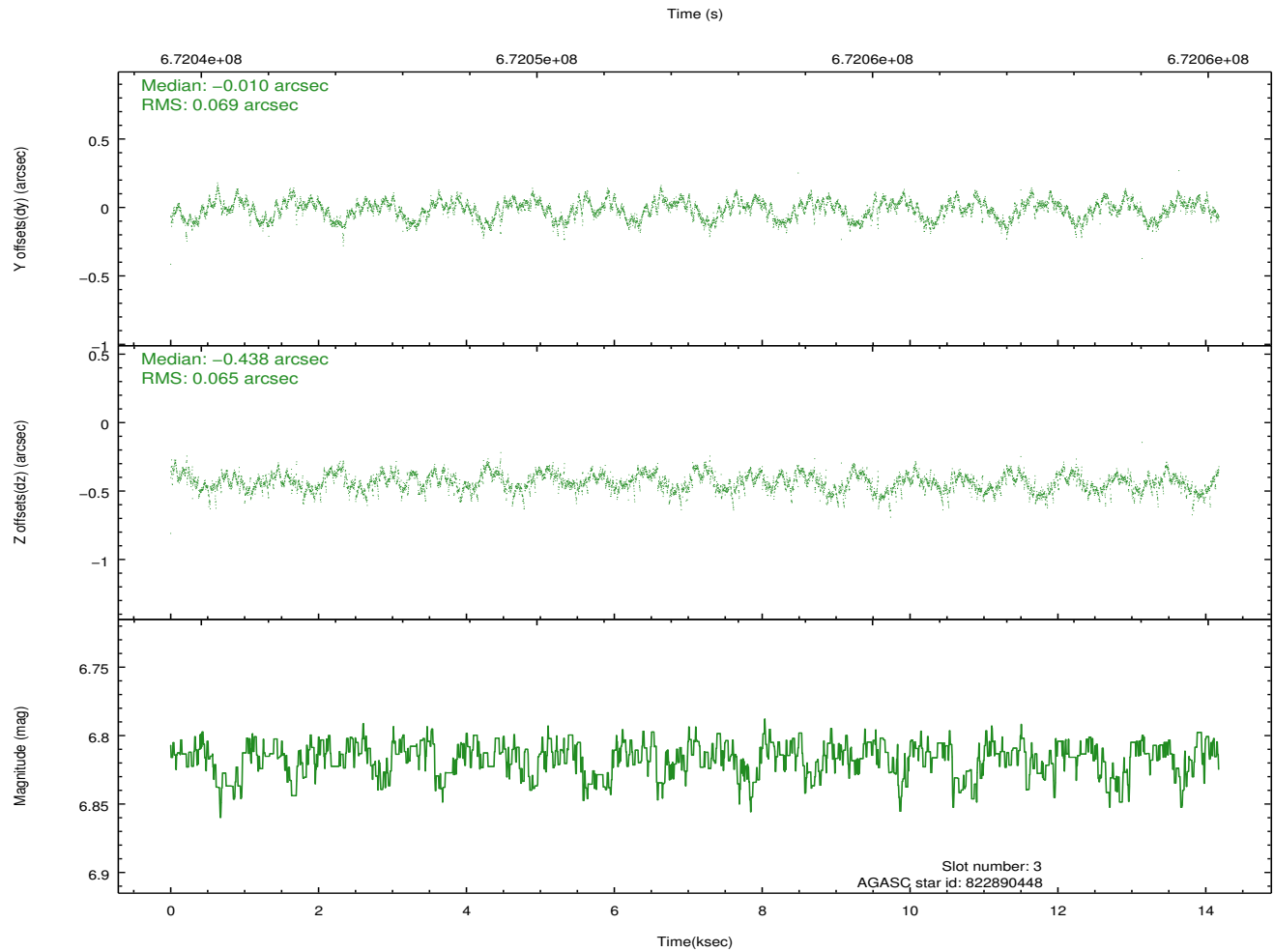
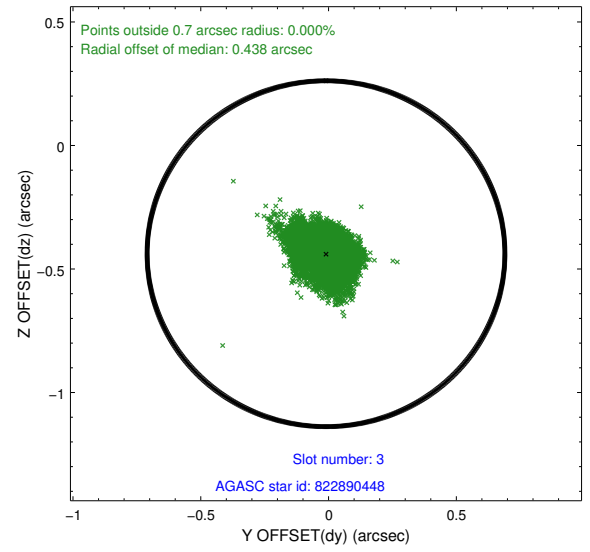
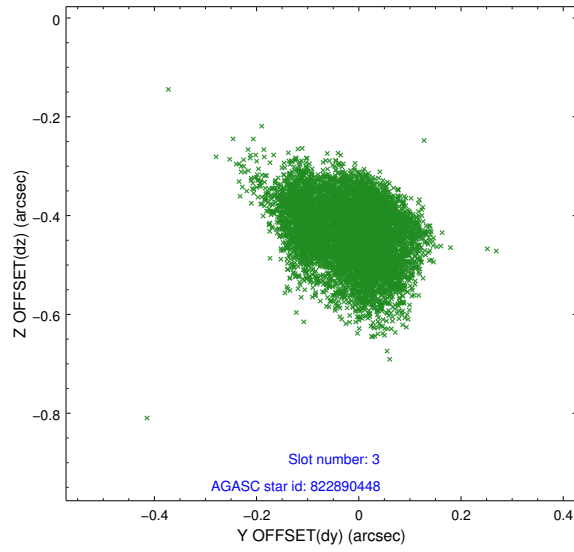


Slot Statistics

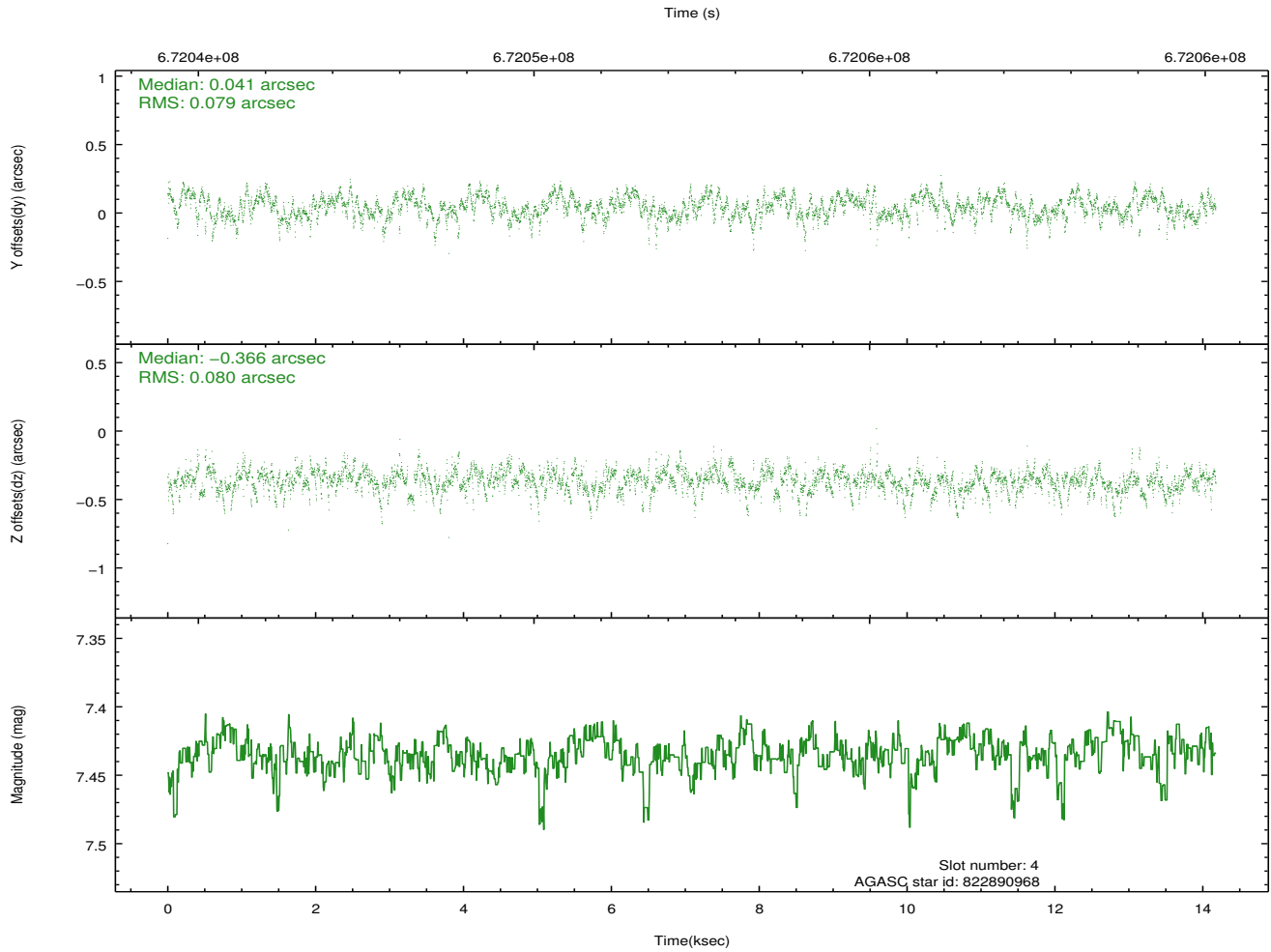
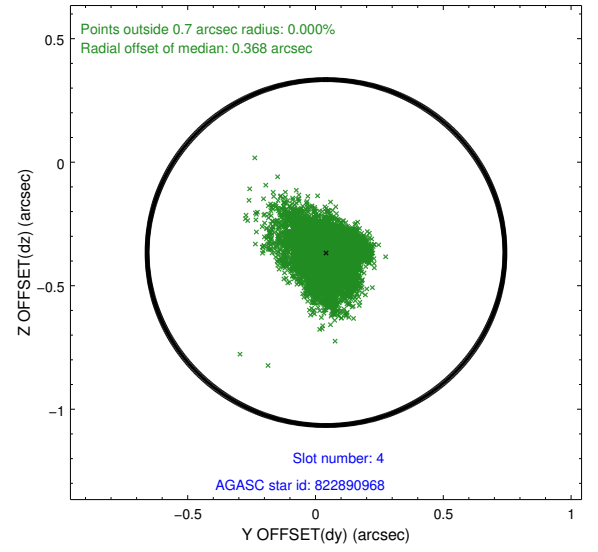
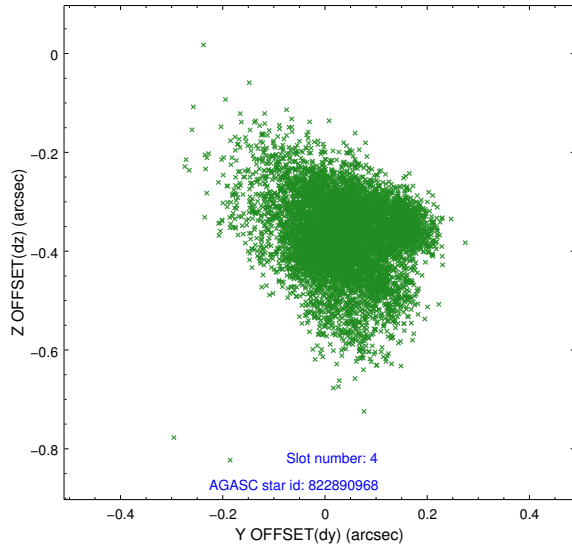
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.13	3459	1.000	-0.444	-0.309	0.026	0.046	0.000000	0.000000	-766.57	-1740
1	FID		ACIS-S-4	7.27	3458	1.000	0.483	0.253	0.025	0.045	0.000000	0.000000	2147.51	168
2	FID		ACIS-S-6	7.40	3458	1.000	-0.065	0.058	0.016	0.027	0.000000	0.000000	396.25	806
3	GUIDE	used	822890448	6.82	6915	1.000	-0.010	-0.438	0.103	0.155	277.870792	-21.249416	-468.68	1912
4	GUIDE	used	822890968	7.44	6915	1.000	0.041	-0.366	0.117	0.196	277.752036	-21.525964	-1435.17	2376
5	GUIDE	used	823010120	8.35	6914	1.000	0.106	0.679	0.085	0.135	278.797500	-21.355824	-1071.07	-1159
6	GUIDE	used	823010144	8.03	6916	1.000	0.043	-0.081	0.098	0.170	278.155693	-21.242957	-511.61	957
7	GUIDE	used	823012712	6.80	6916	1.000	-0.167	0.227	0.081	0.150	278.838881	-20.840446	768.81	-1436

2.4 Star Slots

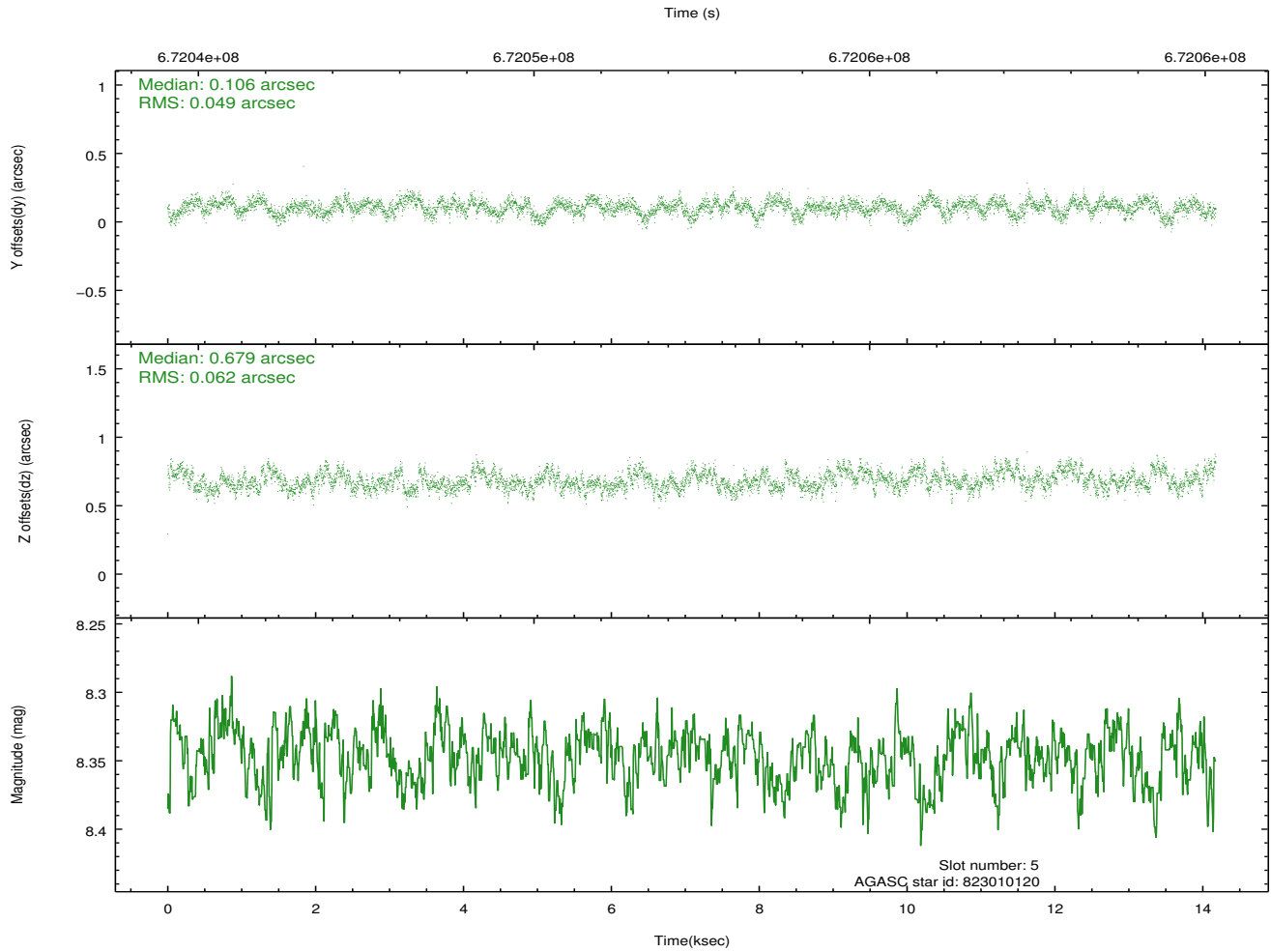
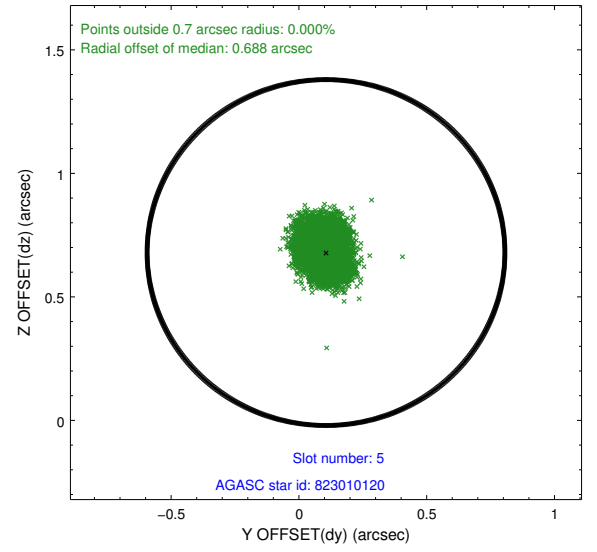
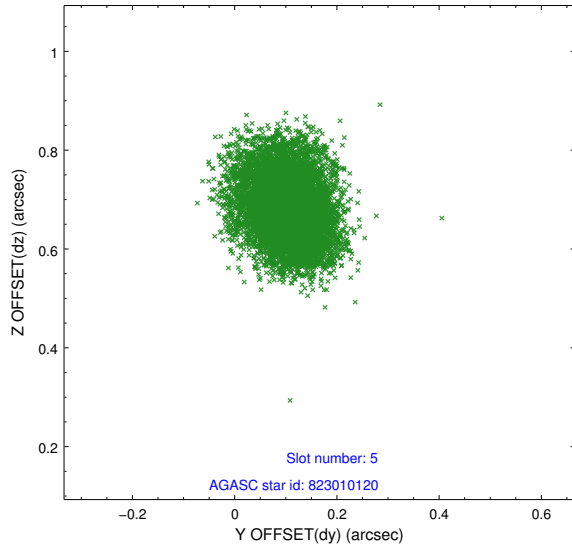
2.4.1 Slot 3



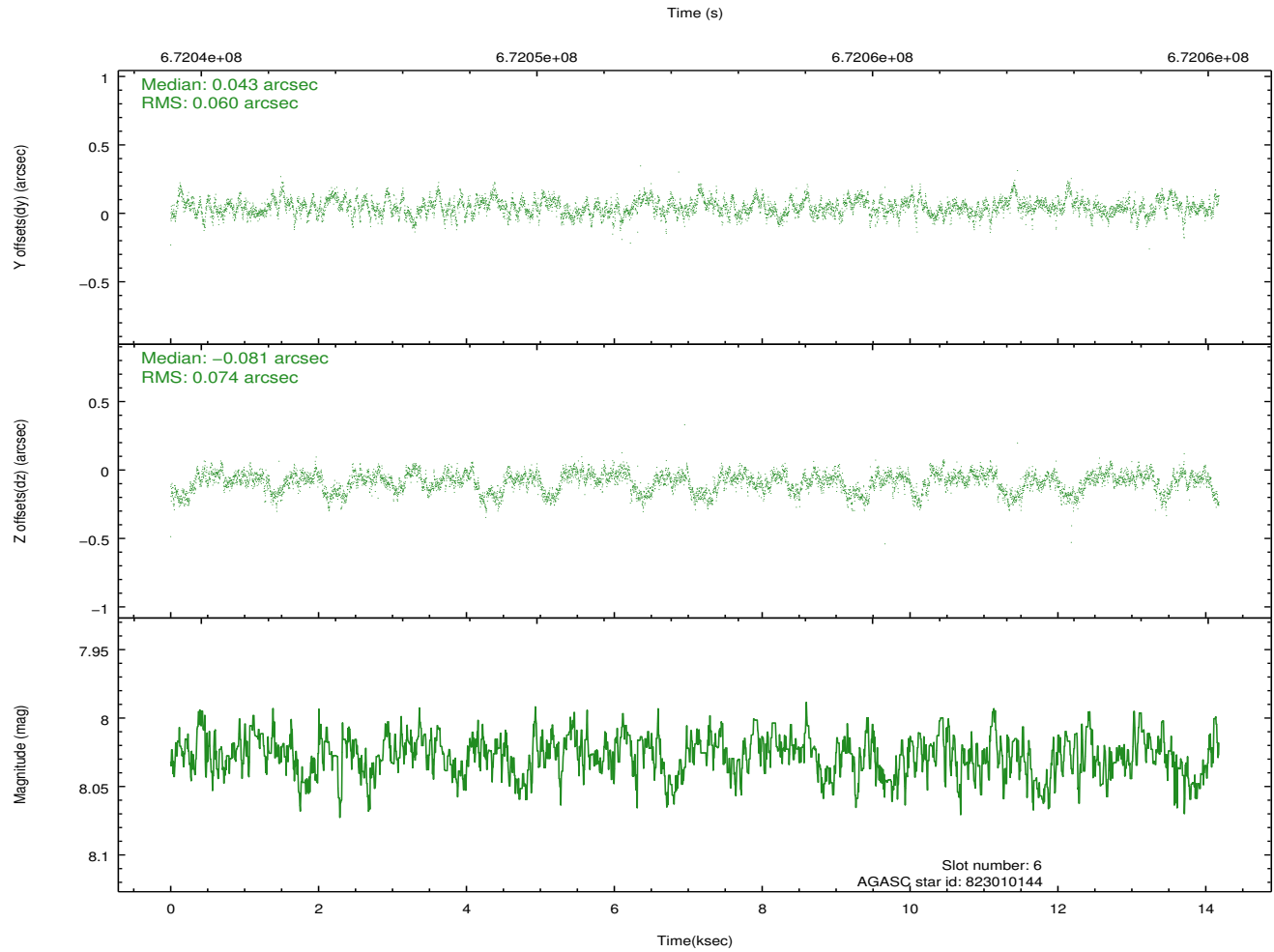
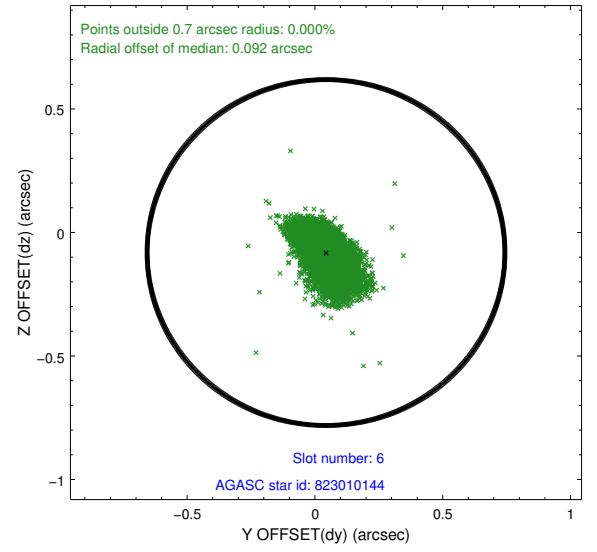
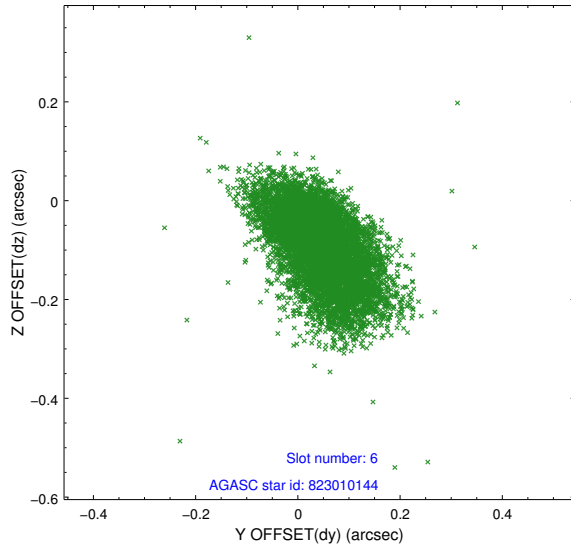
2.4.2 Slot 4



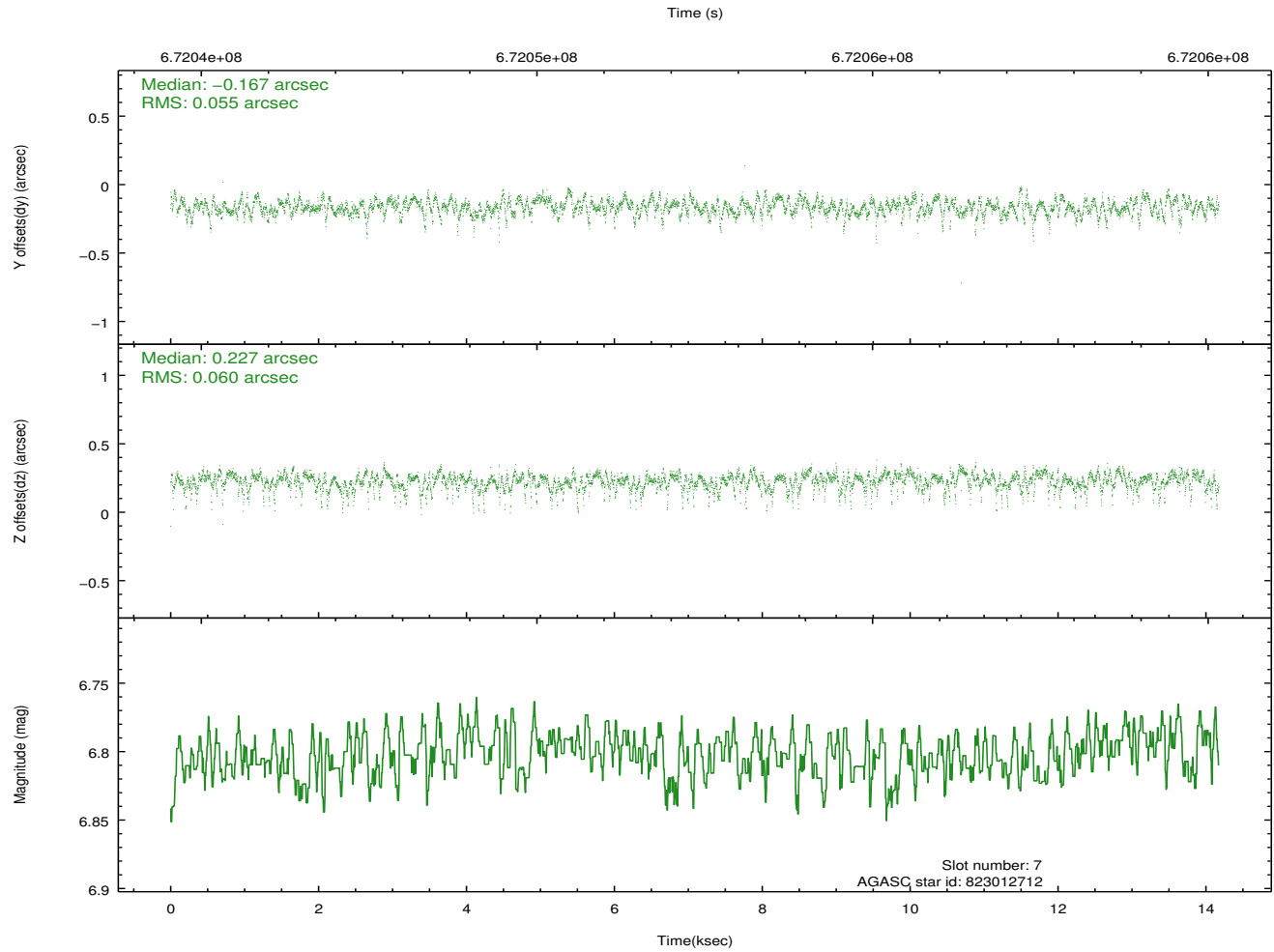
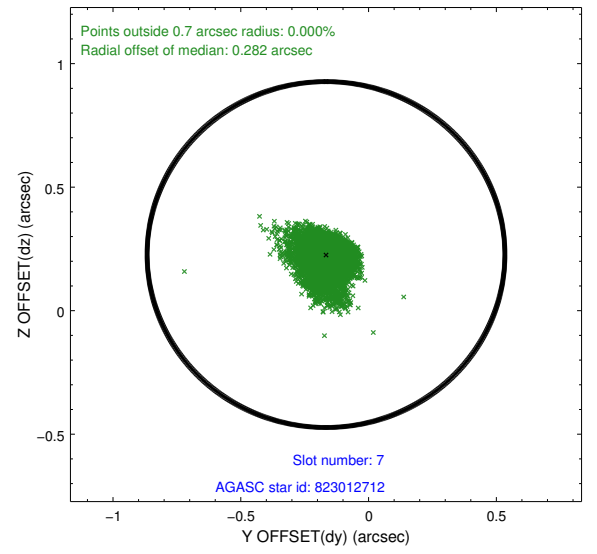
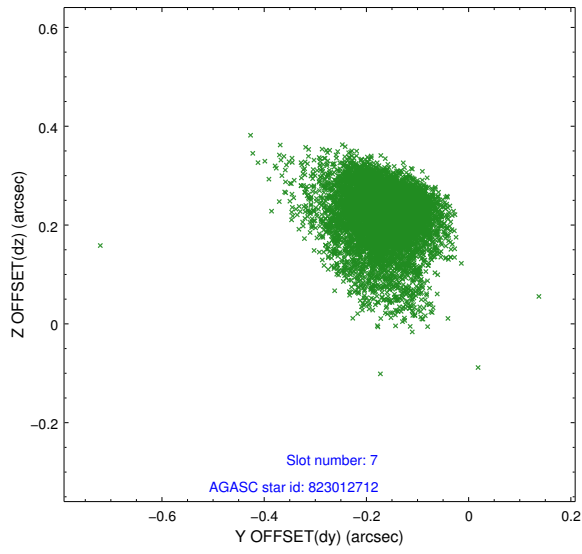
2.4.3 Slot 5



2.4.4 Slot 6

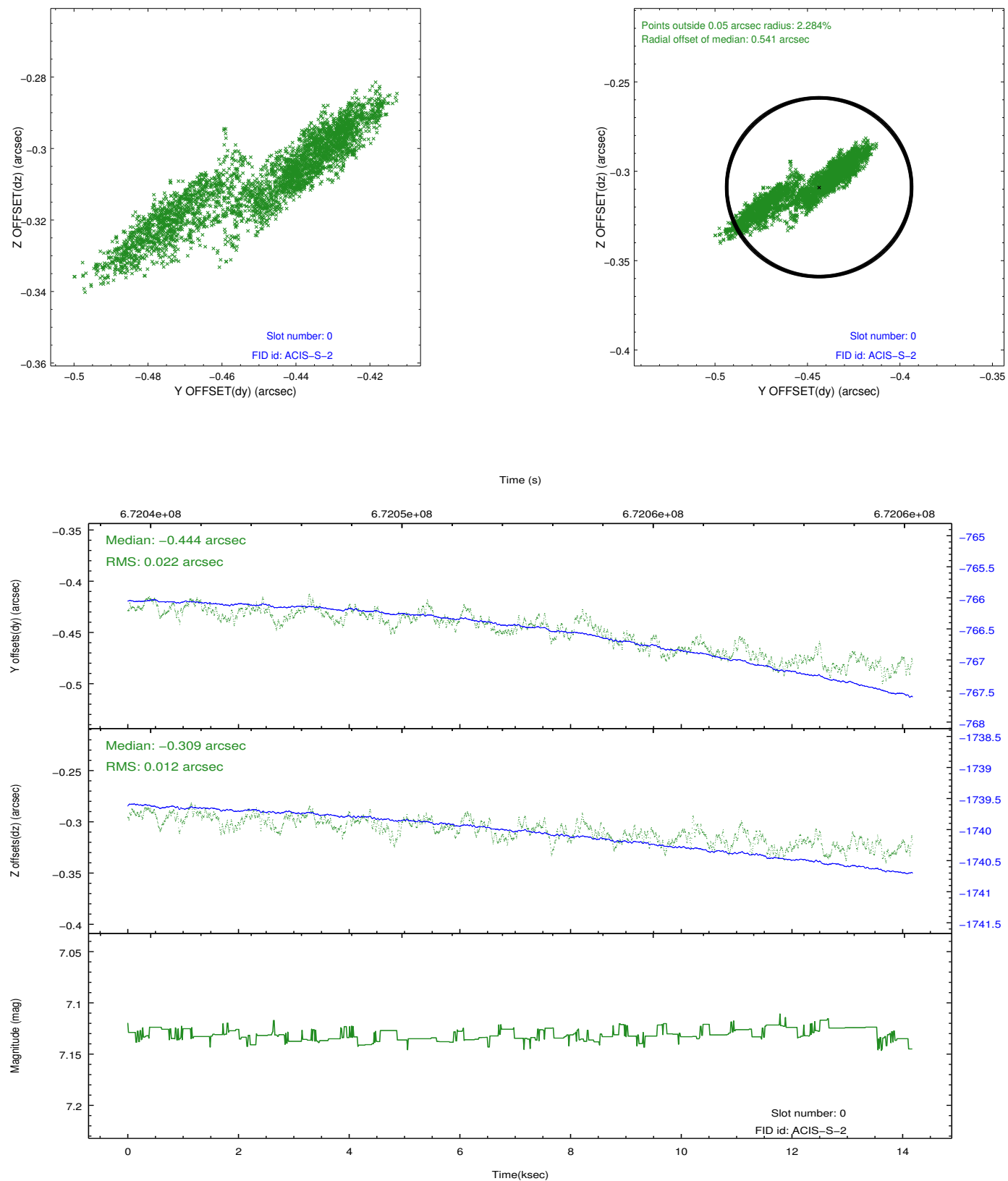


2.4.5 Slot 7

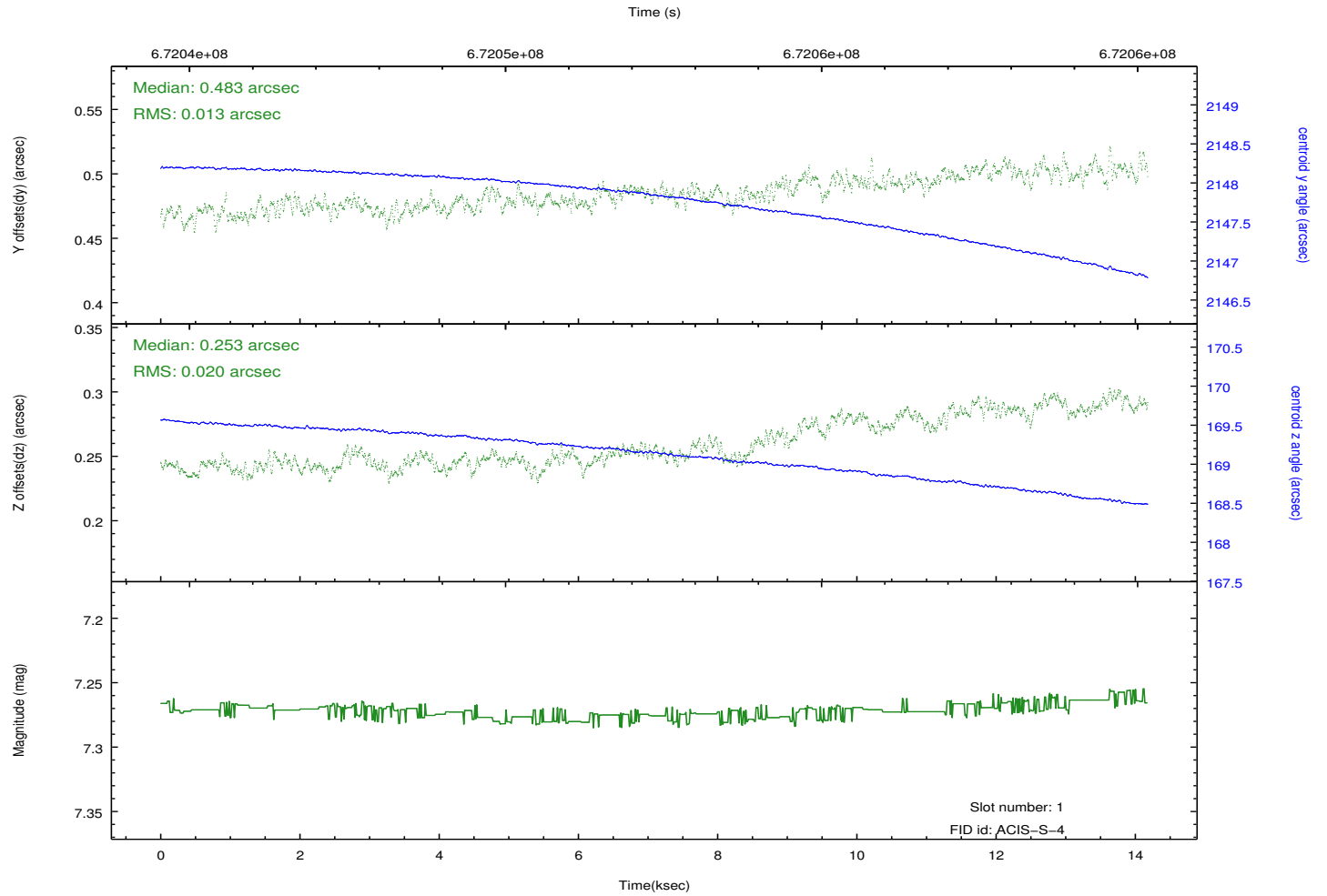
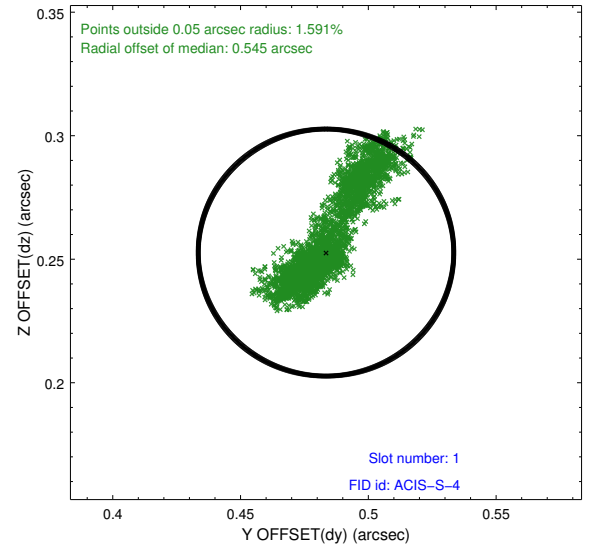
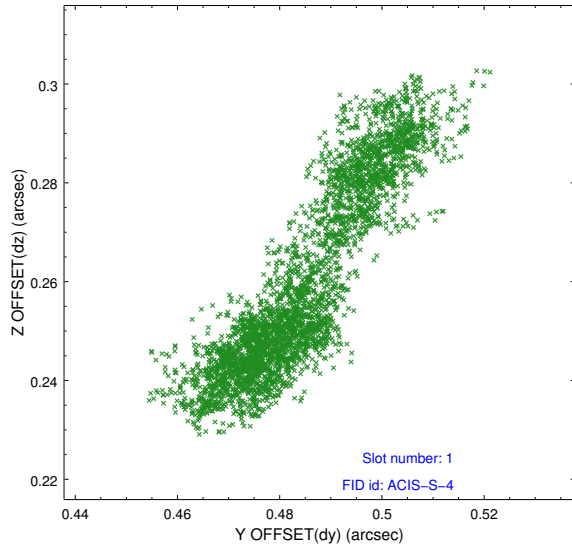


2.5 FID Slots

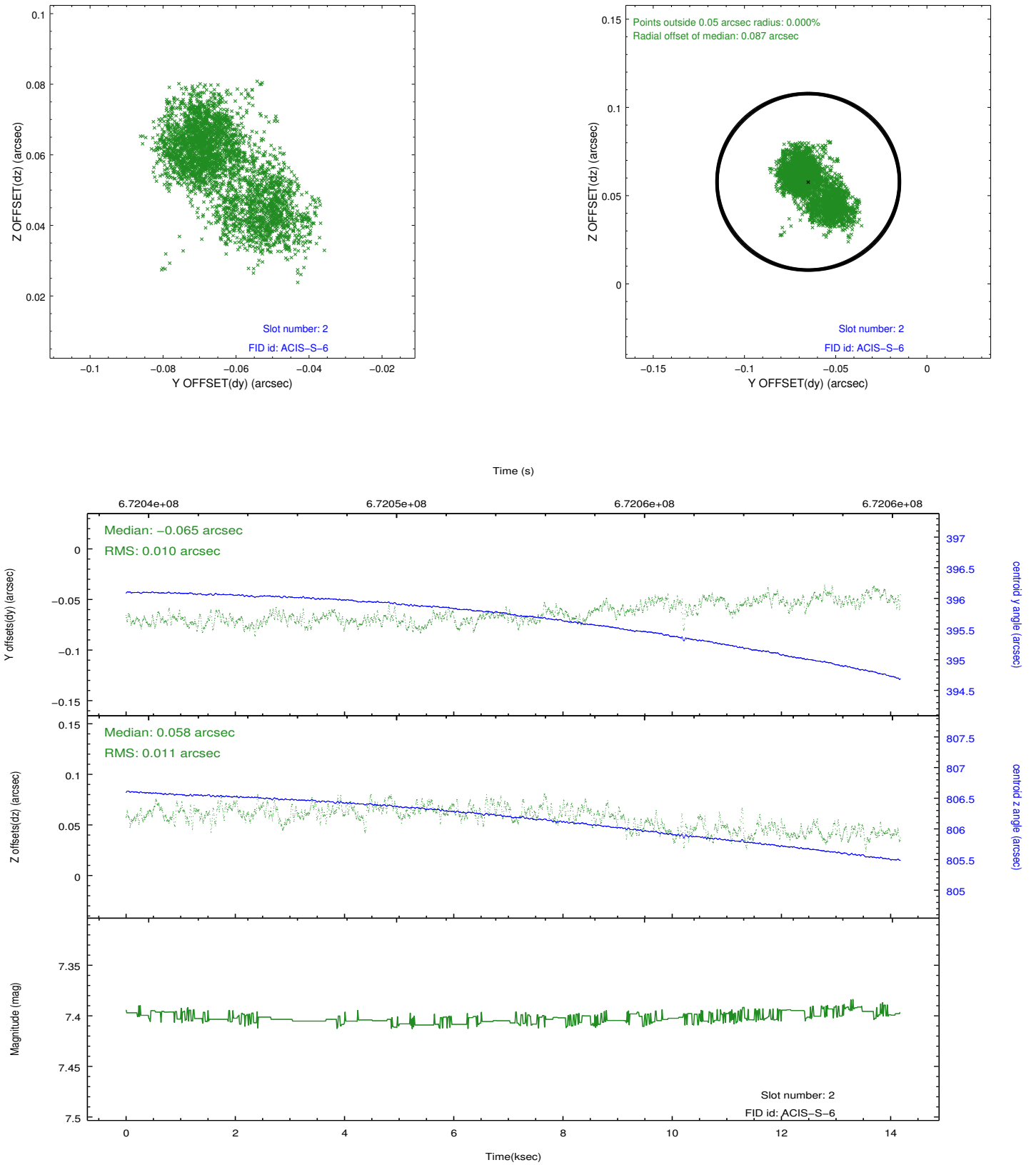
2.5.1 Slot 0



2.5.2 Slot 1

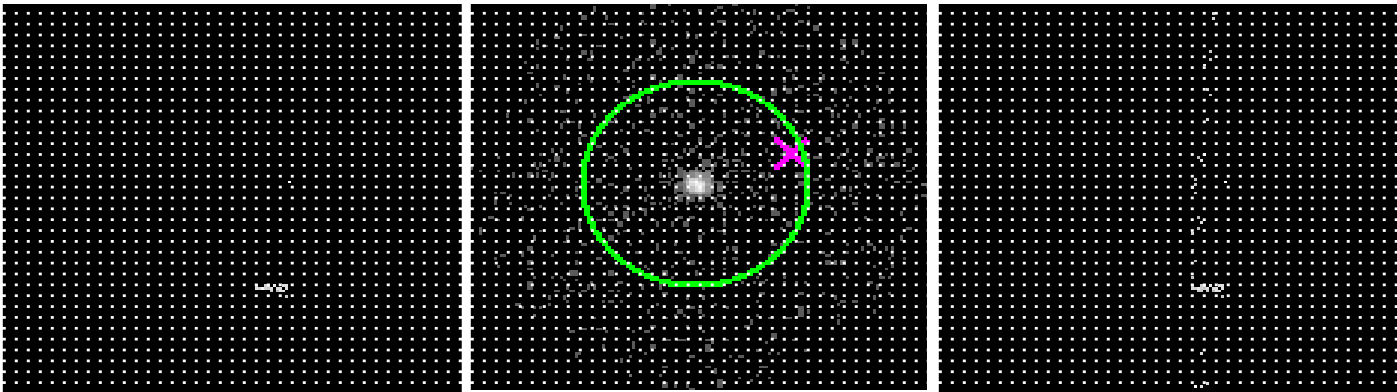


2.5.3 Slot 2



3 Gratings

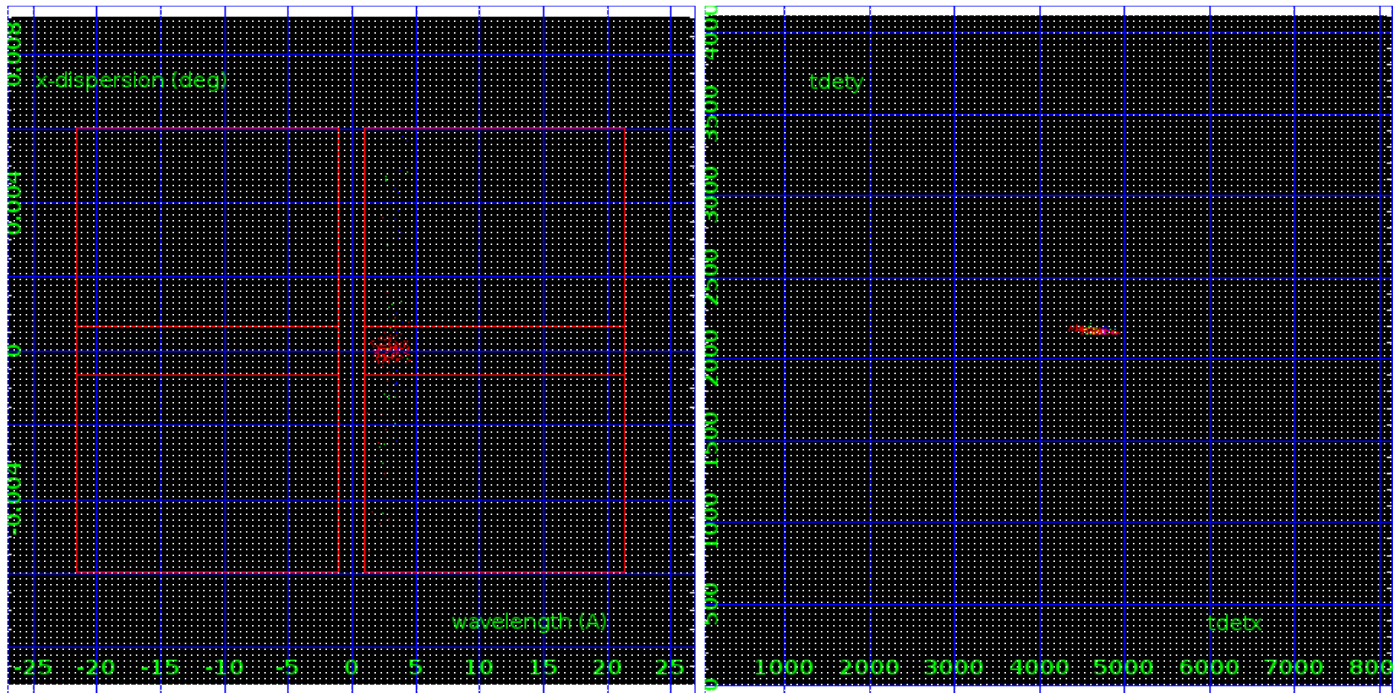
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

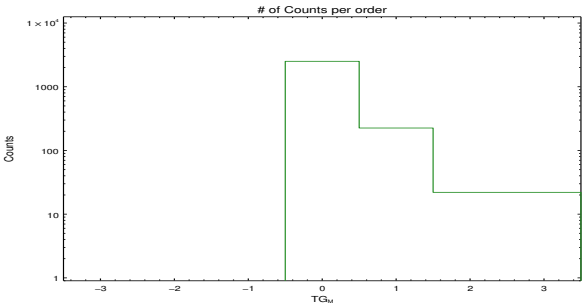
HEG Order Sort ALL

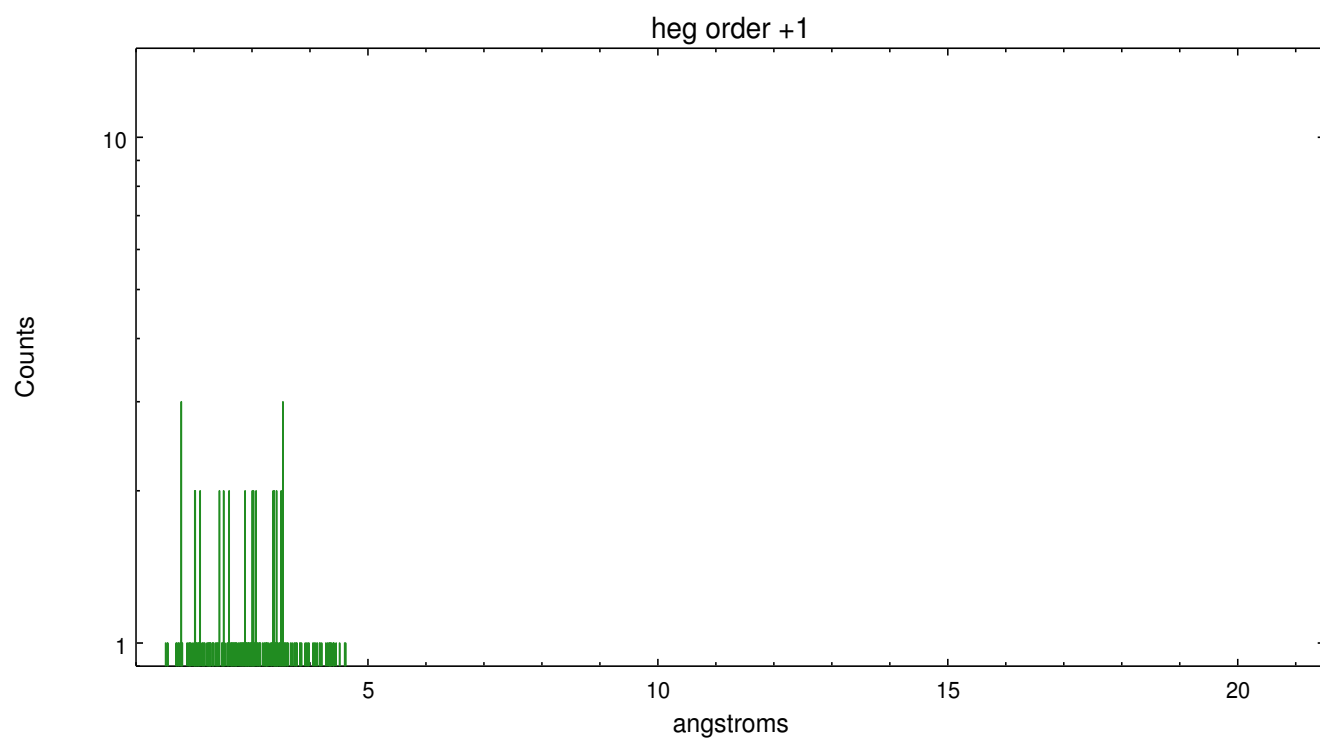
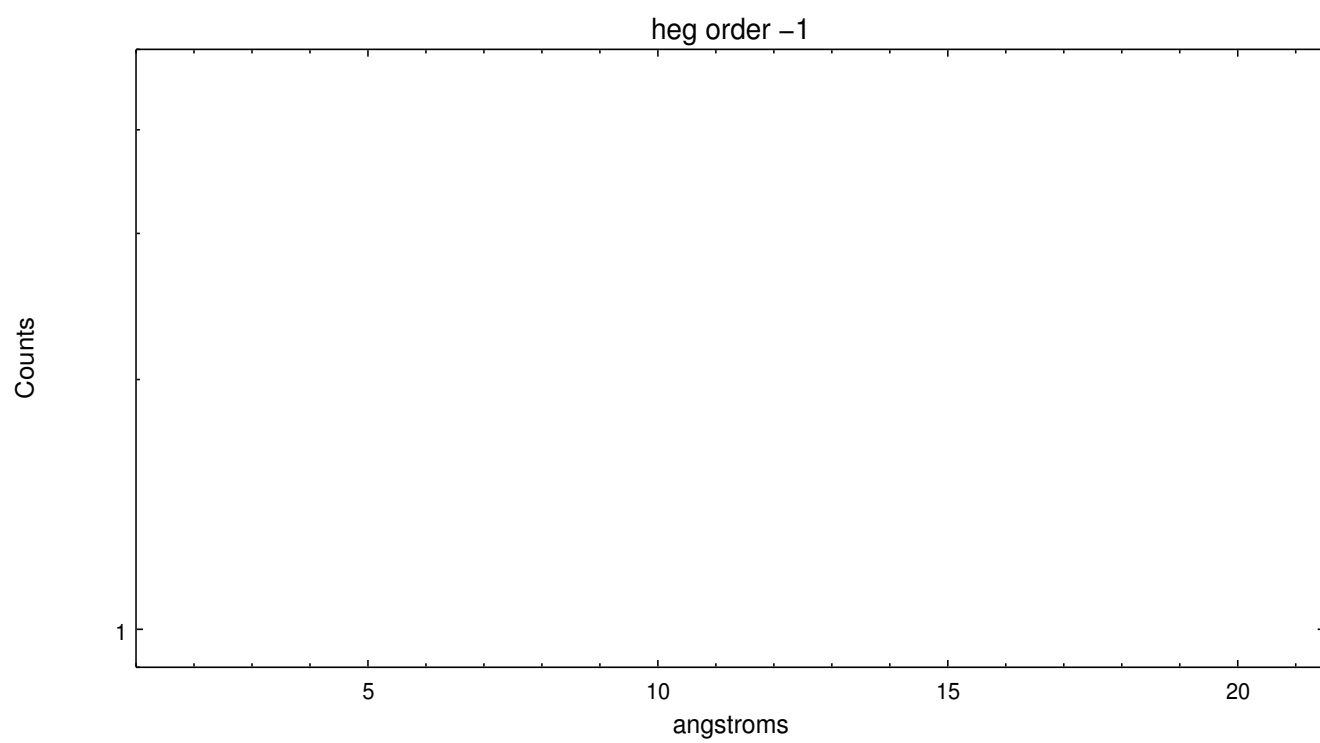


Spot Image HEG

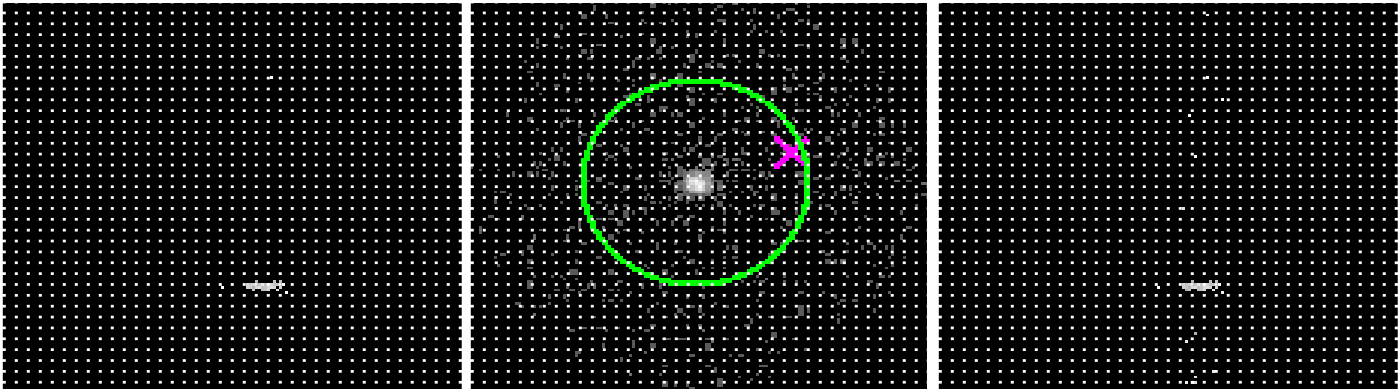
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	0	2507	225	22	22





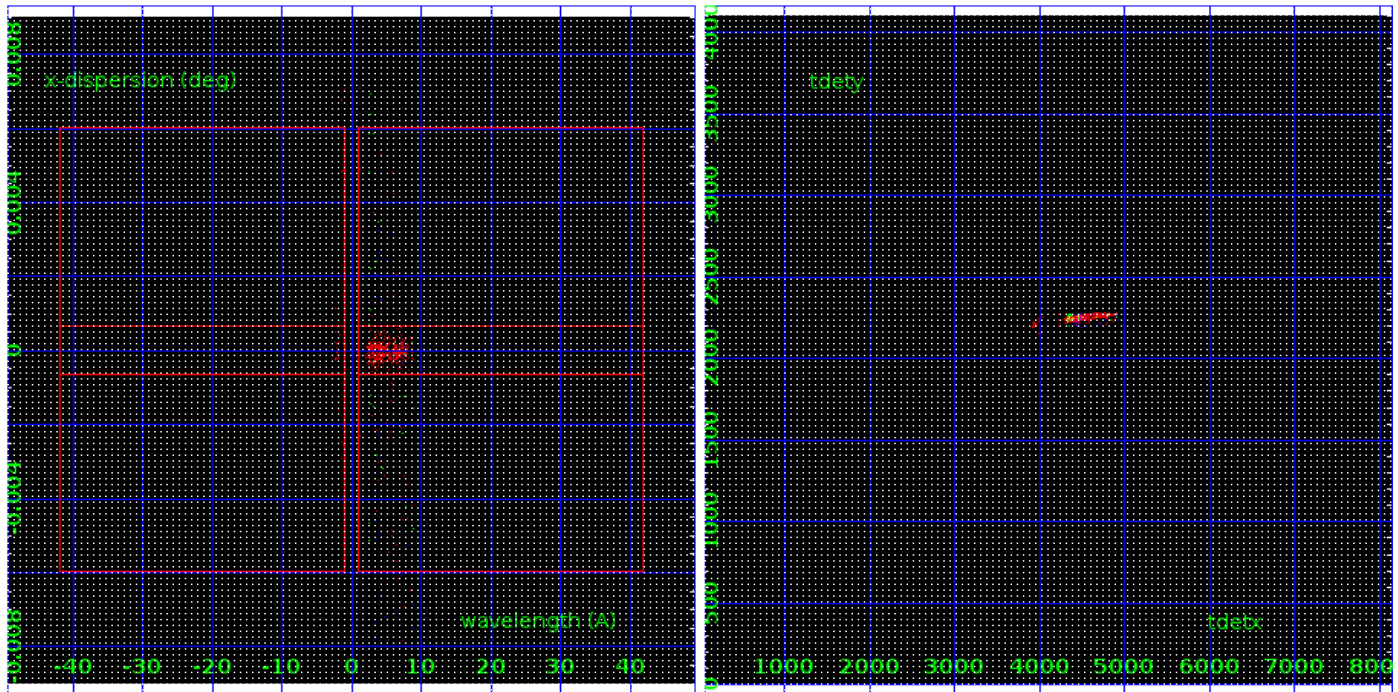
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

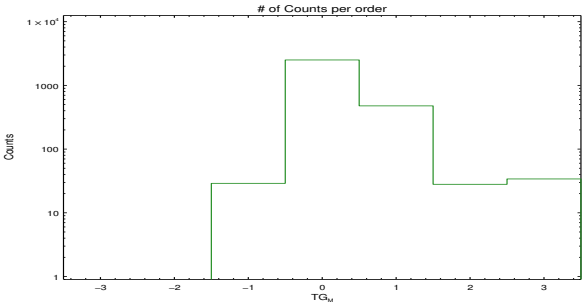
MEG Order Sort ALL

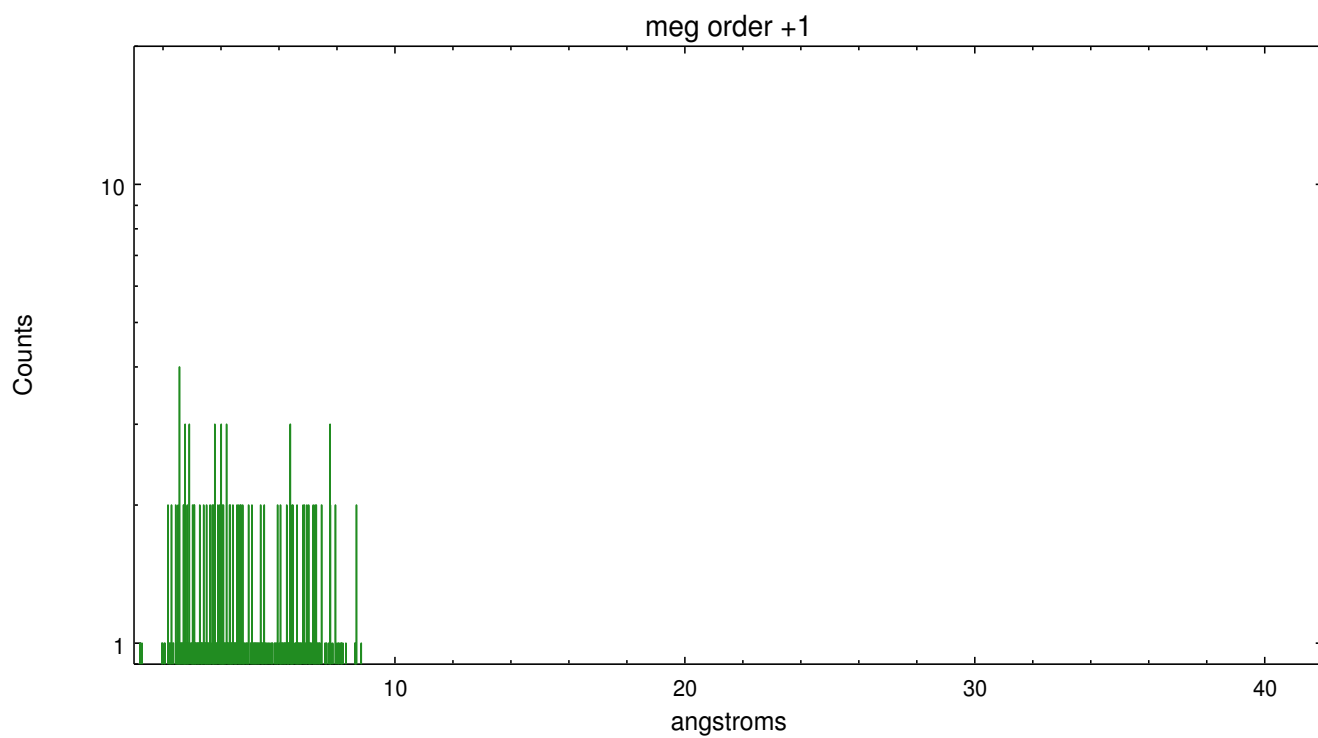
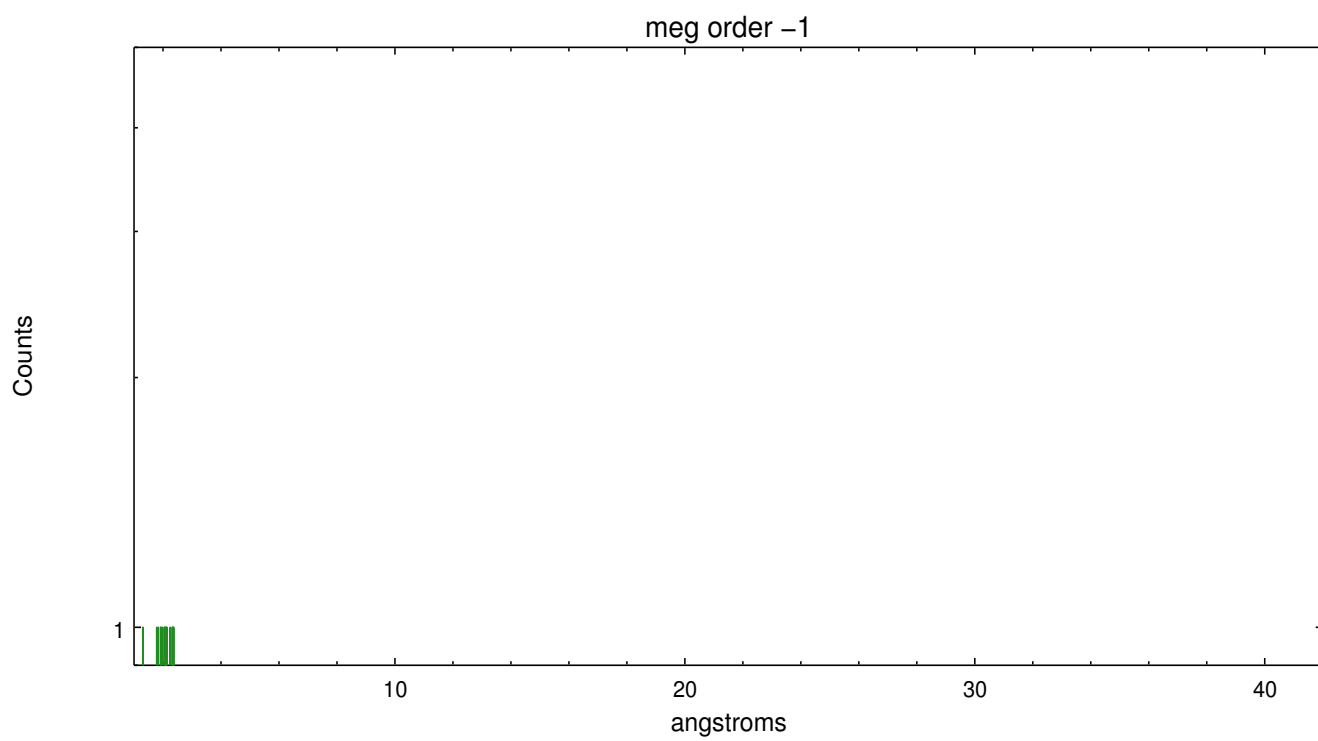


Spot Image MEG

Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	29	2507	477	28	34





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.04.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.069199161291

A.2 Comments