

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22198 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : May 7 2019

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1 Front

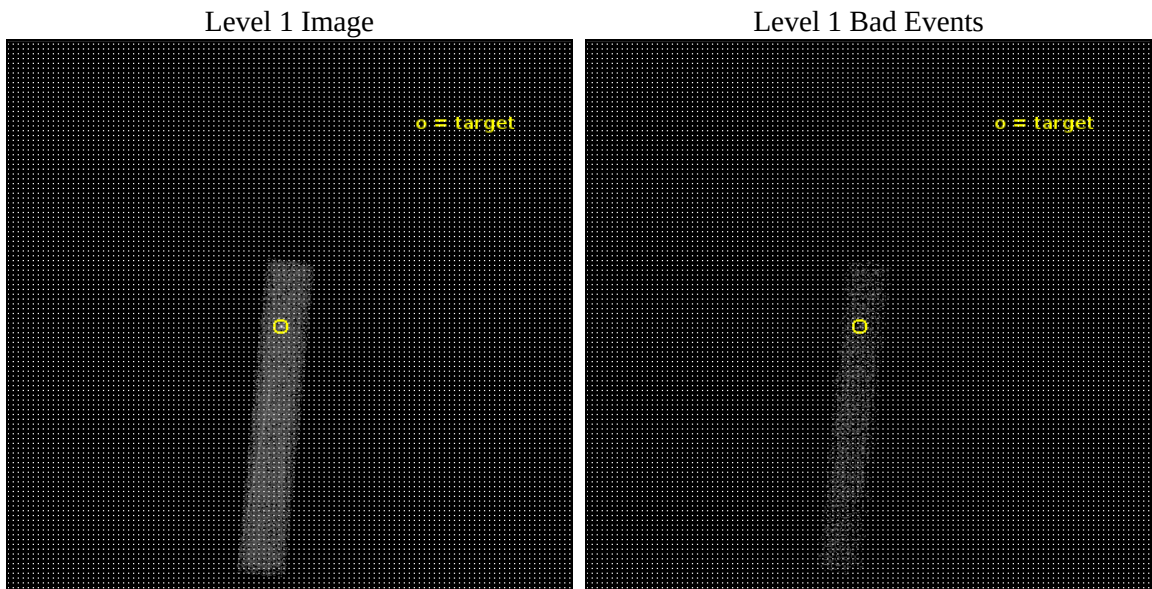
seq_num	703886	Sequence number
obs_id	22198	Observation id
title	Chandra observation of the gravitationally lensed balzar PKS 1830-211 during its brightest outburst	Proposal title
observer	Sara Buson	Principal investigator
object	PKS 1830-211	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.41625	Observer's specified target RA [deg]
dec_targ	-21.061194	Observer's specified target Dec [deg]
ra_nom	278.4124059914	Nominal RA [deg]
dec_nom	-21.059894642404	Nominal Dec [deg]
roll_nom	95.149553388698	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20069.180699348	Sum of GTIs [s]
livetime	18201.687556093	Livetime [s]
ontime7	20069.180699348	Sum of GTIs [s]
l2events	17961	Number of level 2 events



2 OBI

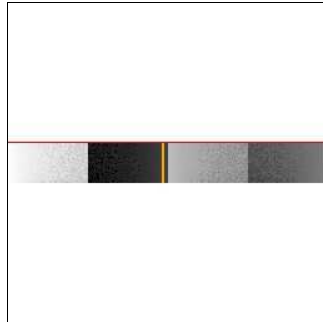
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	20069.180699348	Sum of GTIs [s]
caldsver	4.8.2	 	ontime7	20069.180699348	Sum of GTIs [s]
date	2019-05-08T00:17:33	Date and time of file creation	l1events	32662	Number of level 1 events
revision	1	Processing version of data	tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4070.85, 4088.11)	src1a sky pixel position

2.1.4 Events

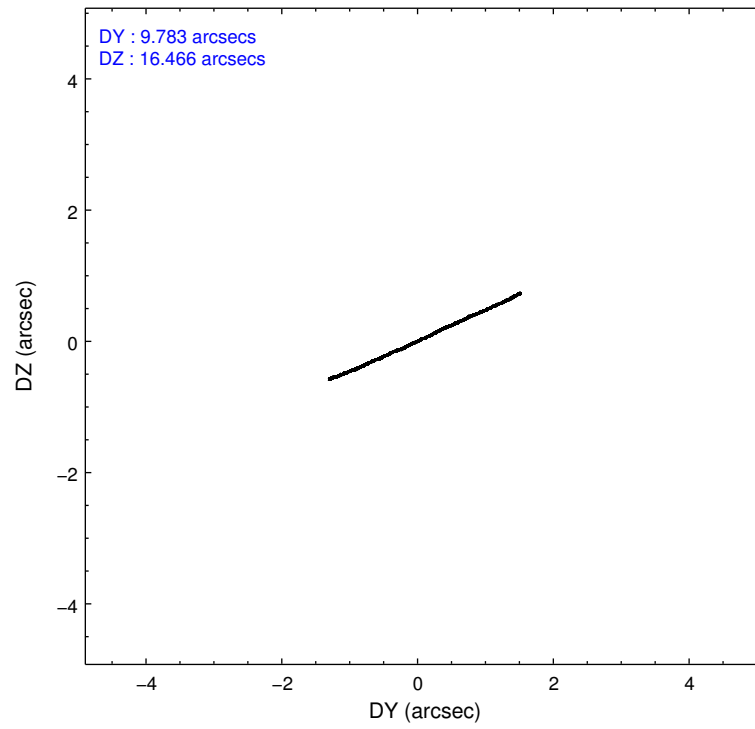
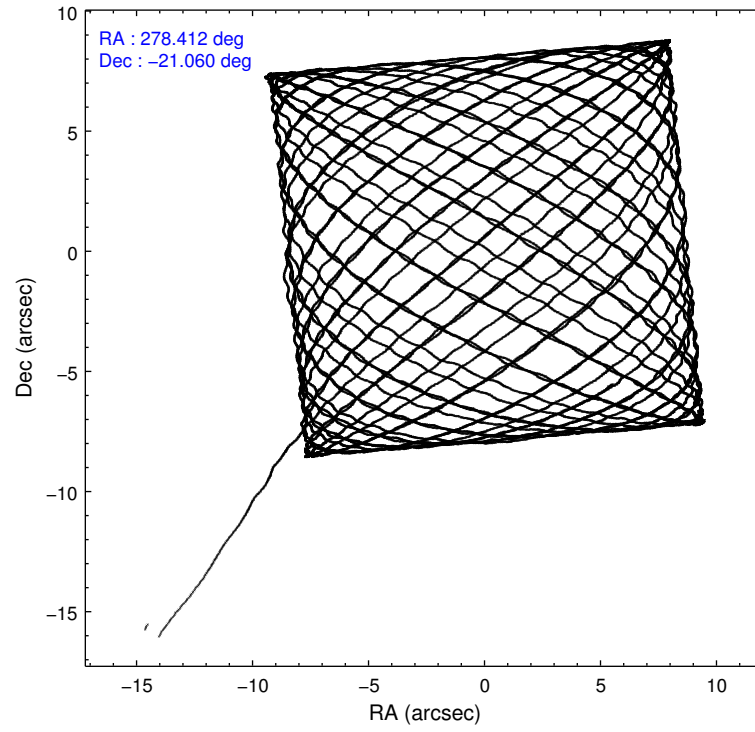
	ccd 7
level 1 events	32662
rejected events	14049
rejected %	43%

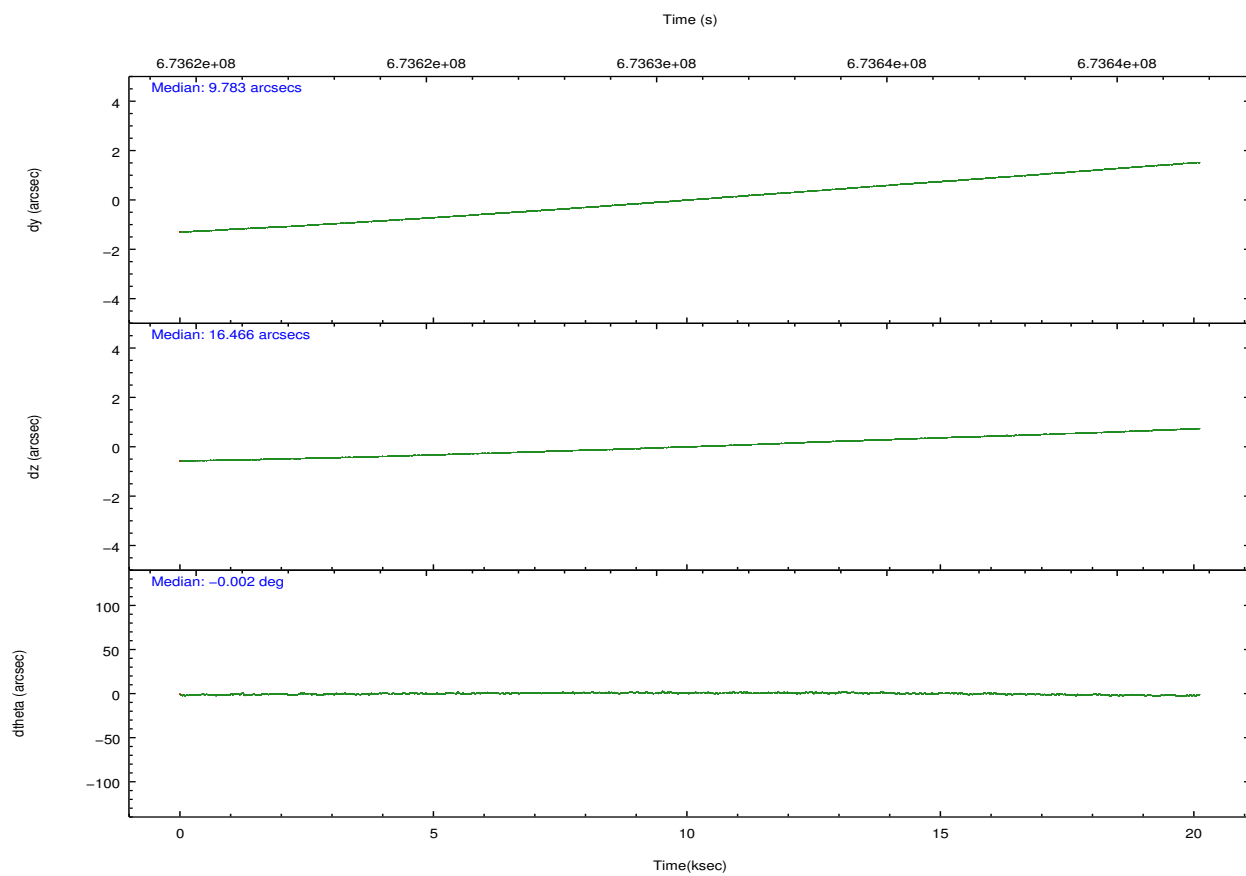
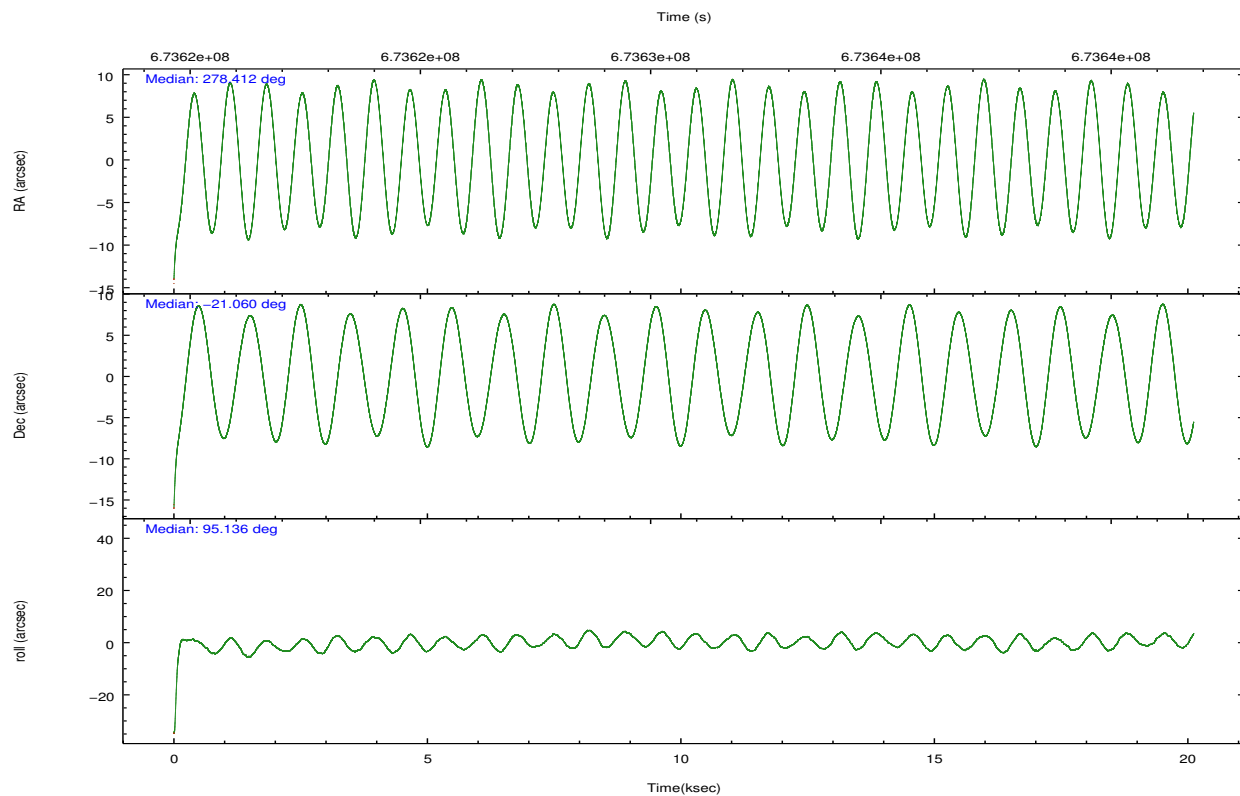
	ccd 7
grade 0 events	2555
	7%
grade 1 events	47
	0%
grade 2 events	3663
	11%
grade 3 events	2341
	7%
grade 4 events	2232
	6%
grade 5 events	2773
	8%
grade 6 events	7823
	23%
grade 7 events	11228
	34%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	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	278.429676	278.412405991401	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-21.082109	-21.05989464240435	Subarray start row	449	449
[deg] Pointing Roll	94.999153	95.149553388698	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	0.4
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	673620759.184000	673619121.31576			
Observation start date	2019-05-07T12:51:30	2019-05-07T12:25:21			
[s] Observation end time (MET)	673640759.184000	673641681.05461			
Observation end date	2019-05-07T18:24:50	2019-05-07T18:41:21			
Read mode	TIMED	TIMED			

2.3 Aspect



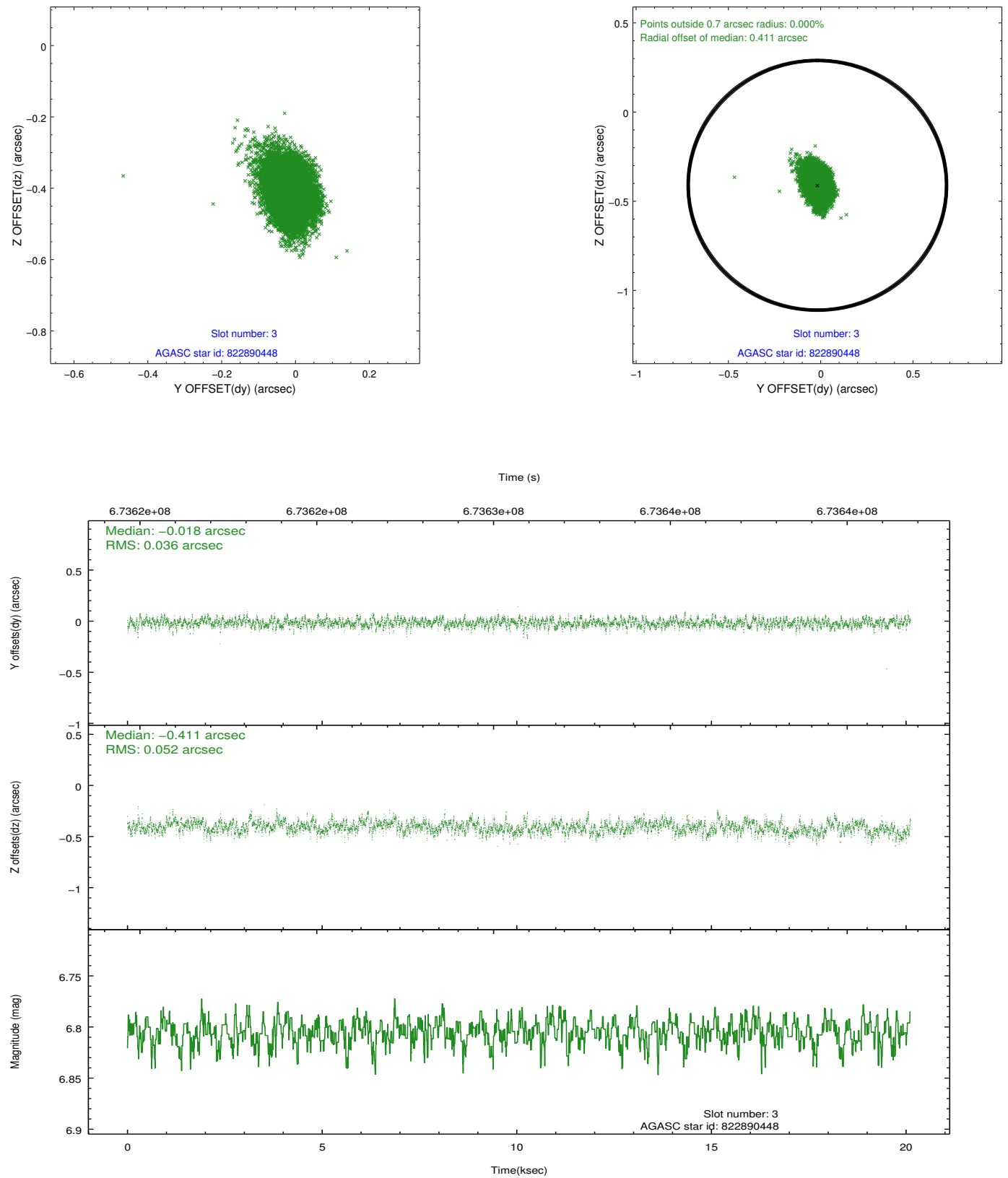


Slot Statistics

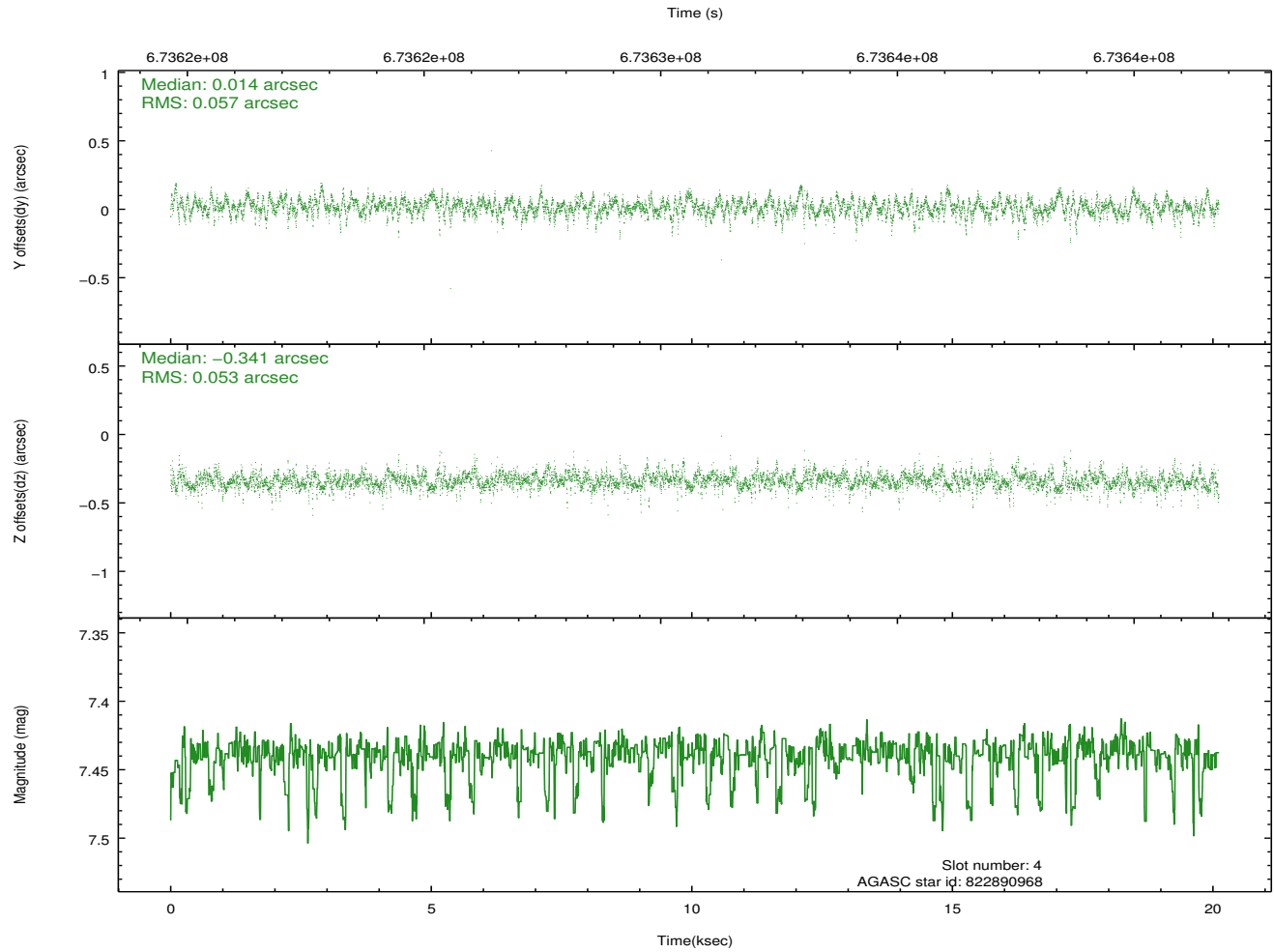
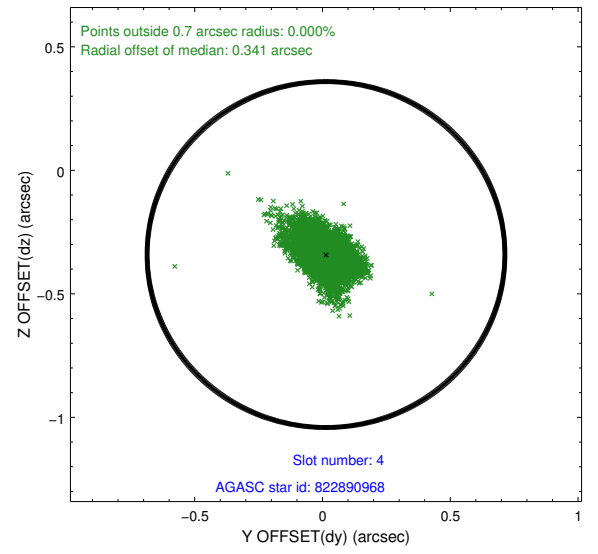
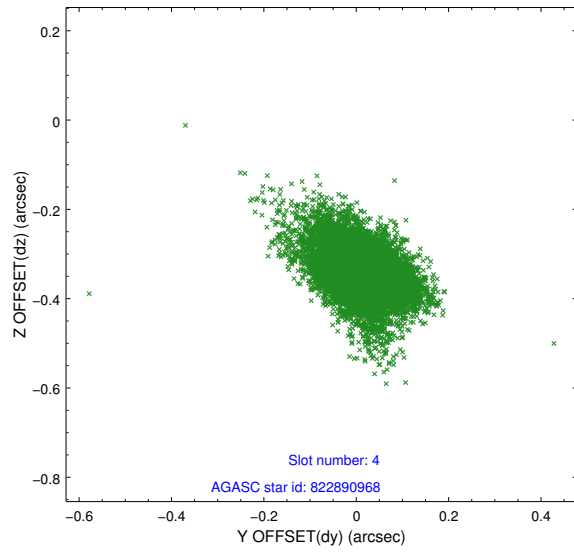
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.09	4907	1.000	-0.400	-0.265	0.014	0.035	0.000000	0.000000	-763.10	-1738
1	FID		ACIS-S-4	7.23	4907	1.000	0.430	0.233	0.019	0.029	0.000000	0.000000	2150.98	170
2	FID		ACIS-S-6	7.35	4906	1.000	-0.060	0.036	0.014	0.028	0.000000	0.000000	399.54	808
3	GUIDE	used	822890448	6.80	9812	1.000	-0.018	-0.411	0.066	0.110	277.870792	-21.249416	-440.01	1920
4	GUIDE	used	822890968	7.44	9813	1.000	0.014	-0.341	0.078	0.140	277.752036	-21.525964	-1399.19	2399
5	GUIDE	used	823010120	8.34	9811	1.000	0.121	0.603	0.086	0.138	278.797500	-21.355824	-1089.93	-1141
6	GUIDE	used	823010144	8.01	9811	1.000	0.084	-0.078	0.085	0.142	278.155693	-21.242957	-497.68	966
7	GUIDE	used	823012712	6.79	9812	1.000	-0.193	0.238	0.112	0.195	278.838881	-20.840446	745.36	-1447

2.4 Star Slots

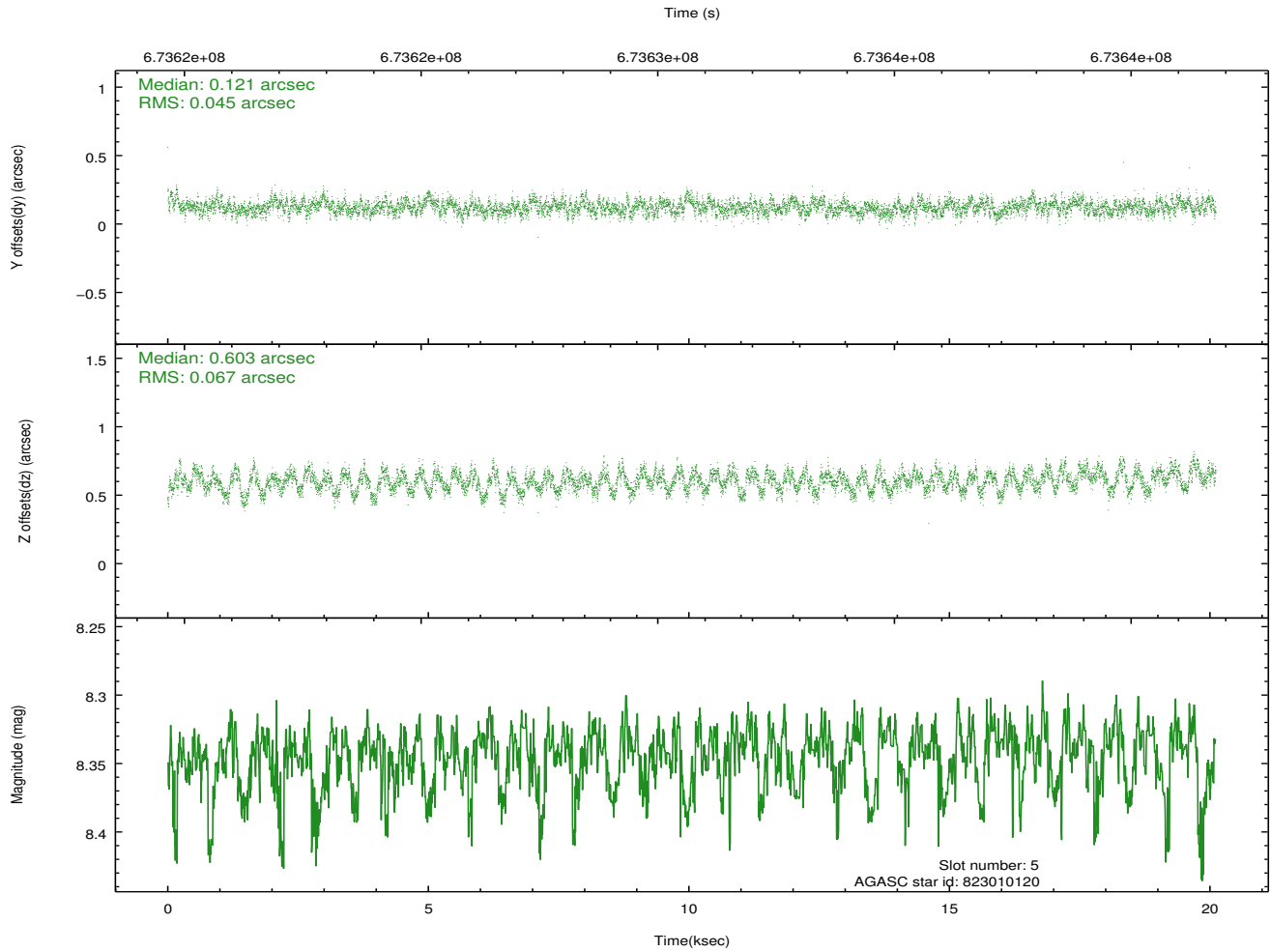
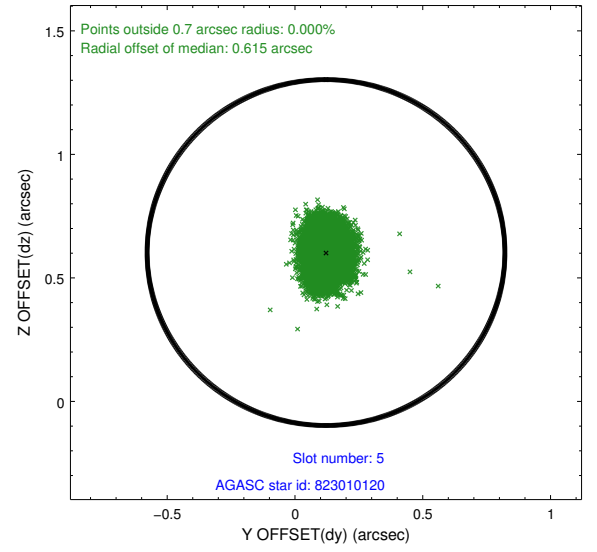
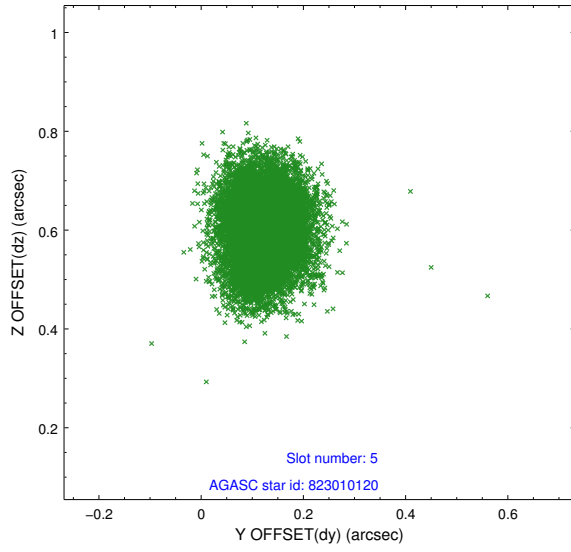
2.4.1 Slot 3



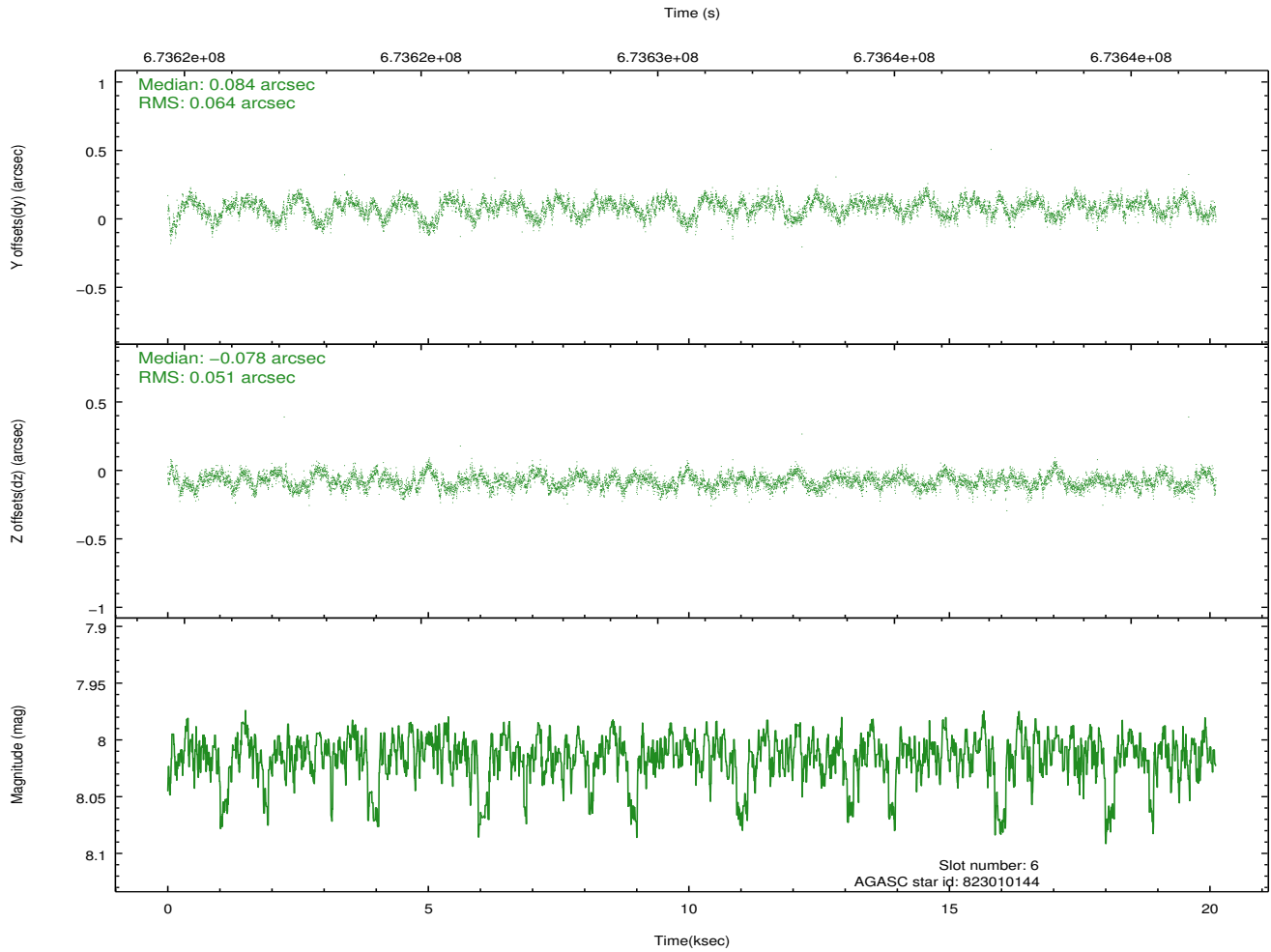
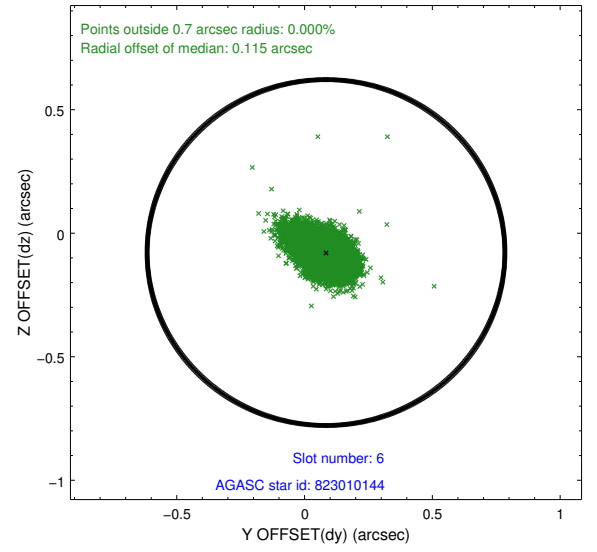
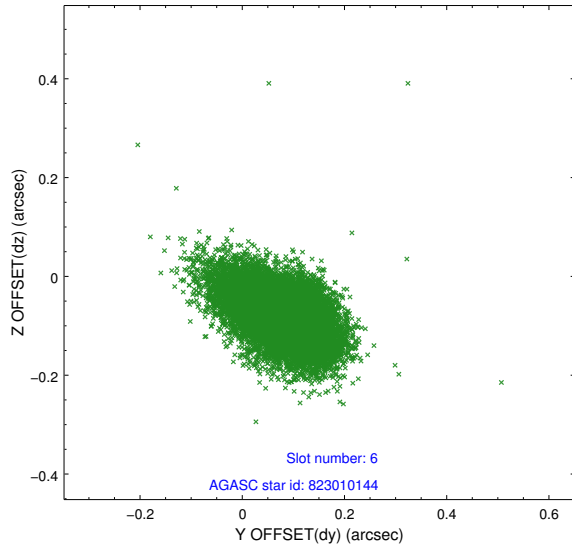
2.4.2 Slot 4



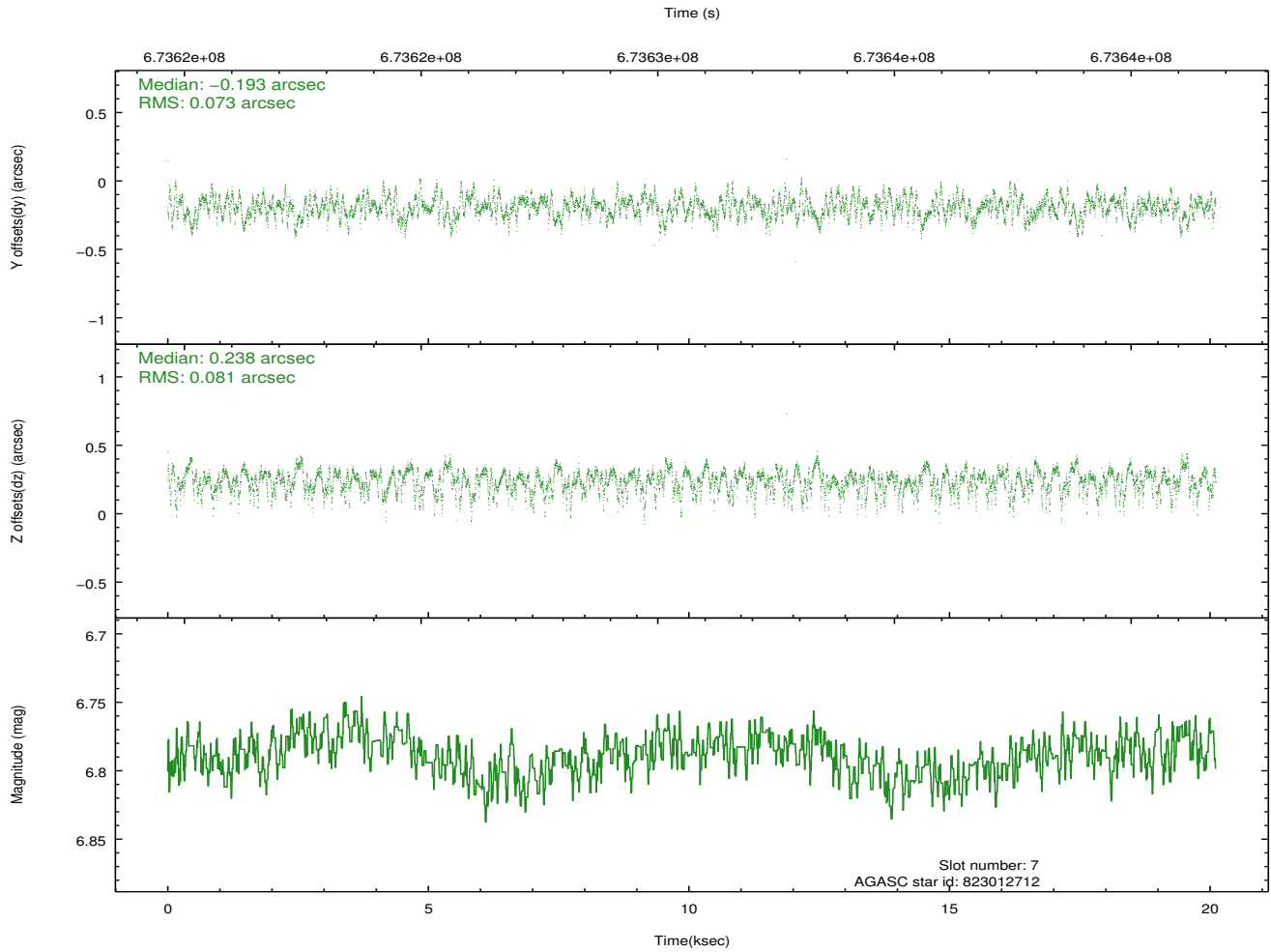
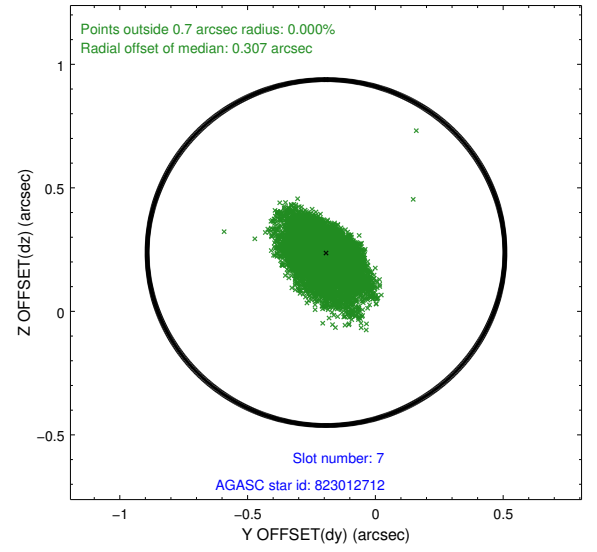
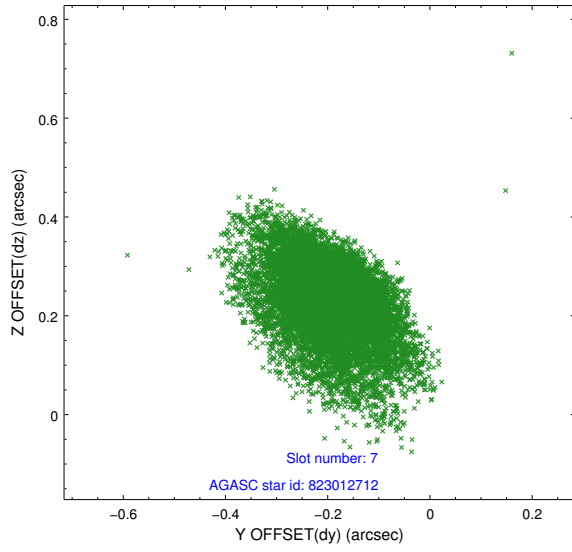
2.4.3 Slot 5



2.4.4 Slot 6

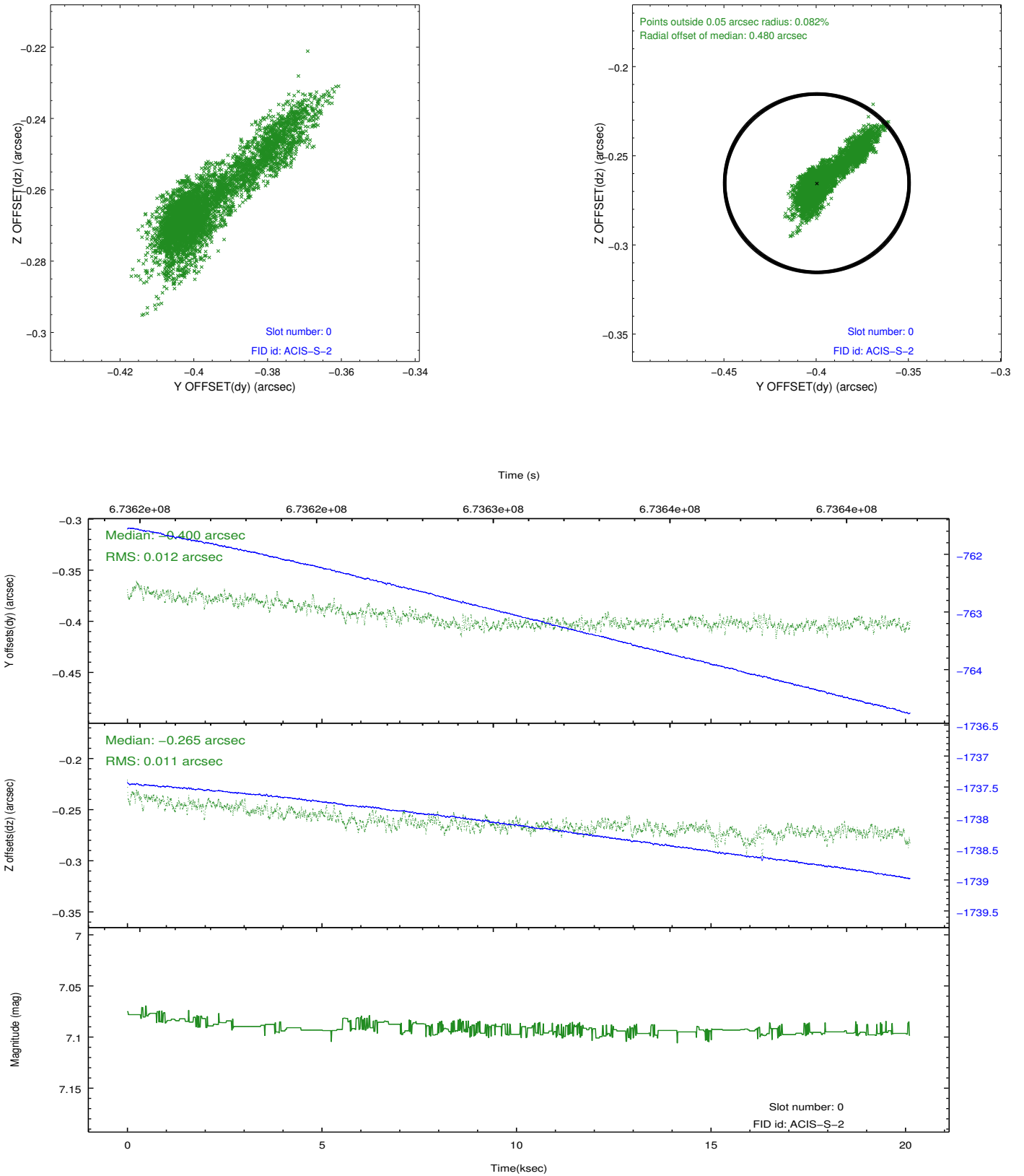


2.4.5 Slot 7

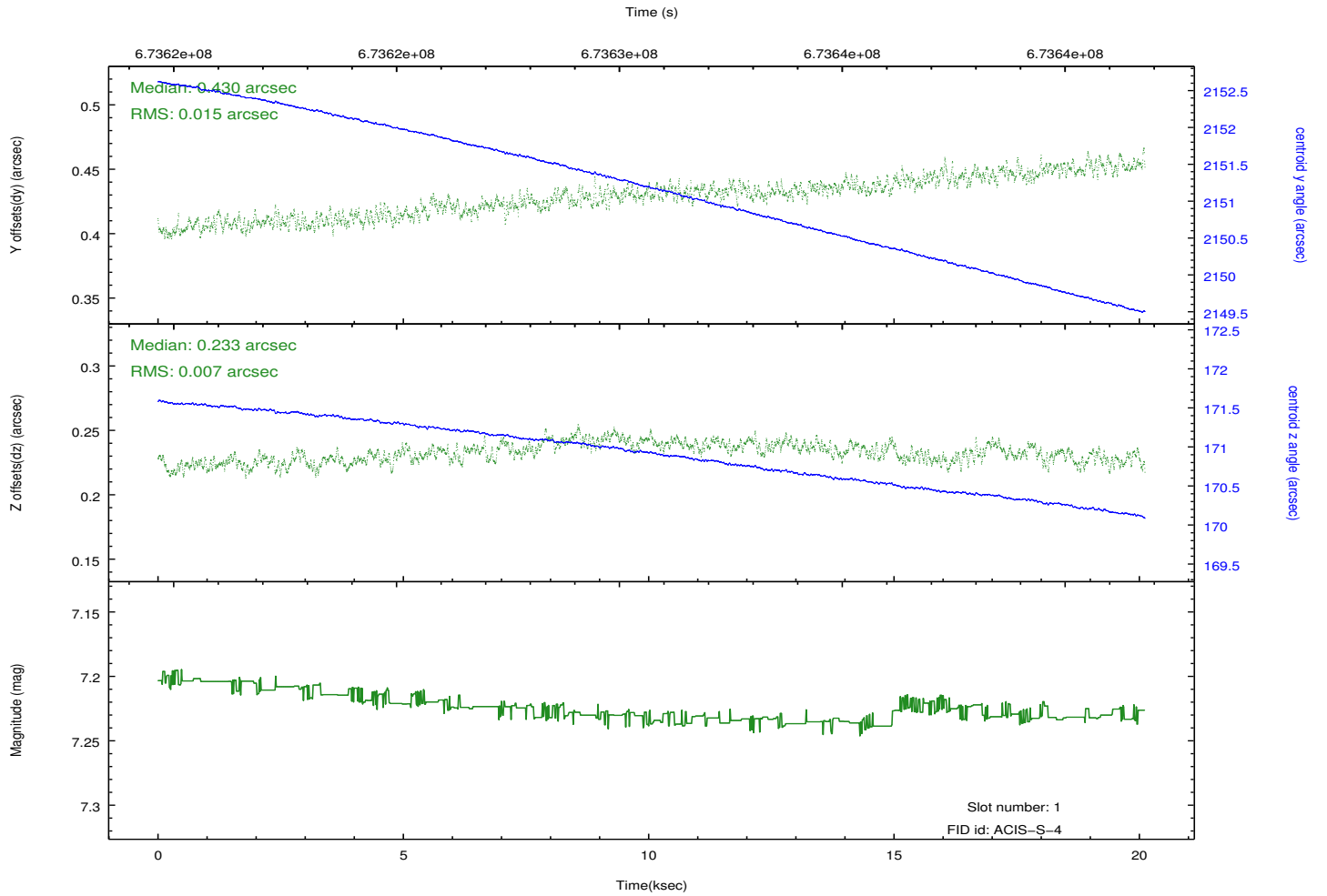
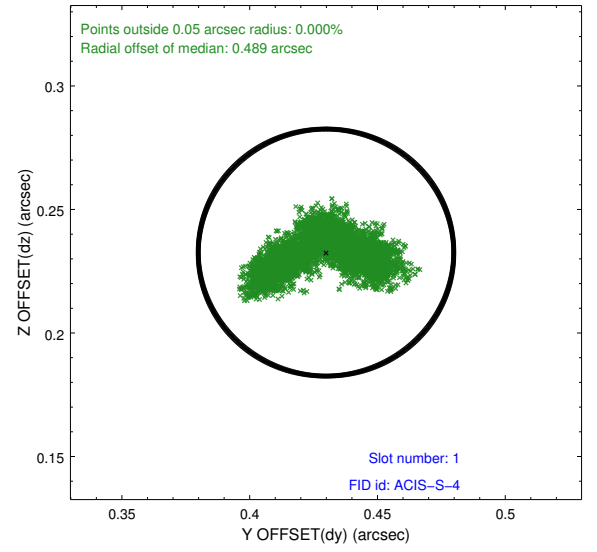
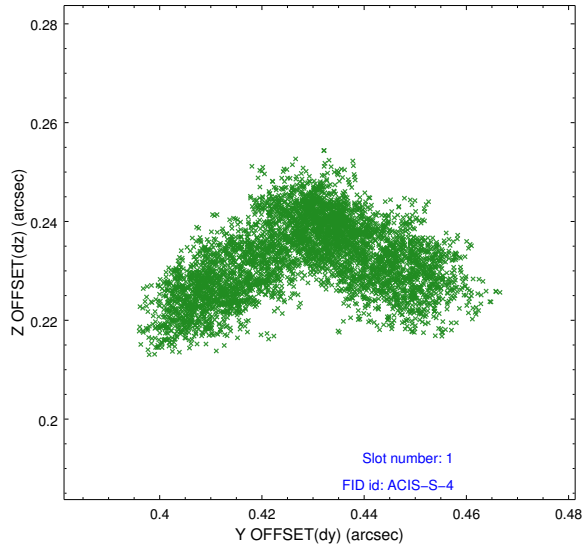


2.5 FID Slots

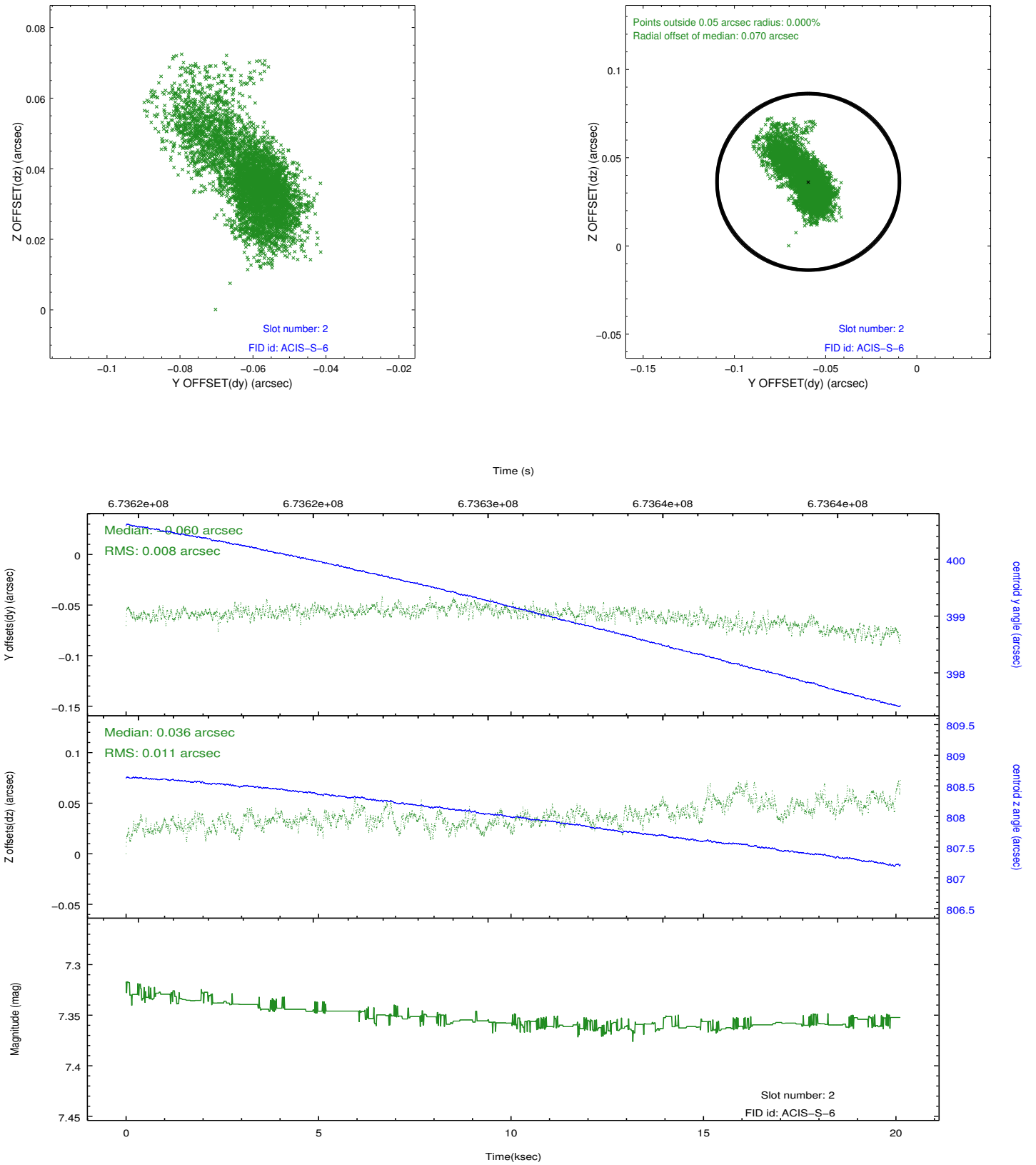
2.5.1 Slot 0



2.5.2 Slot 1

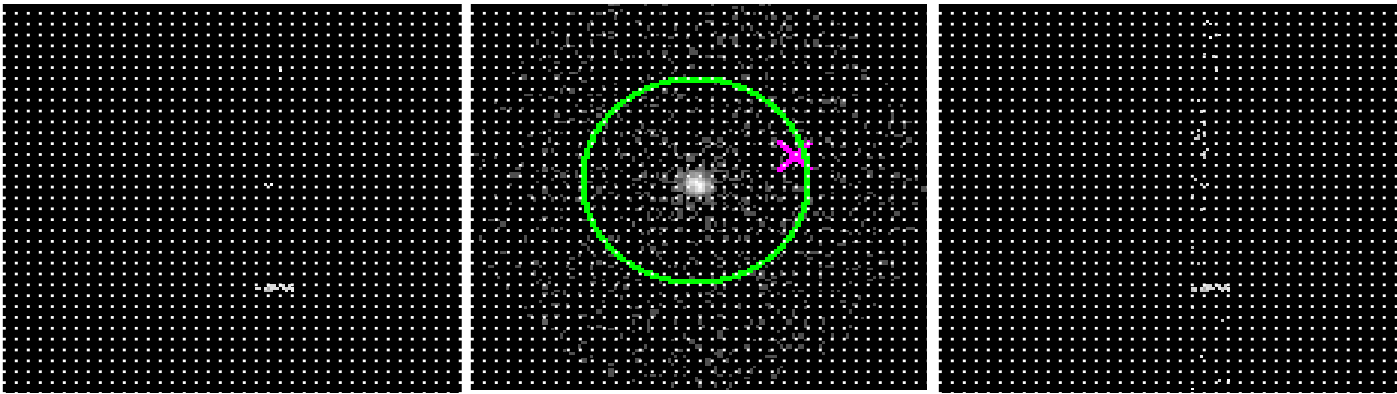


2.5.3 Slot 2



3 Gratings

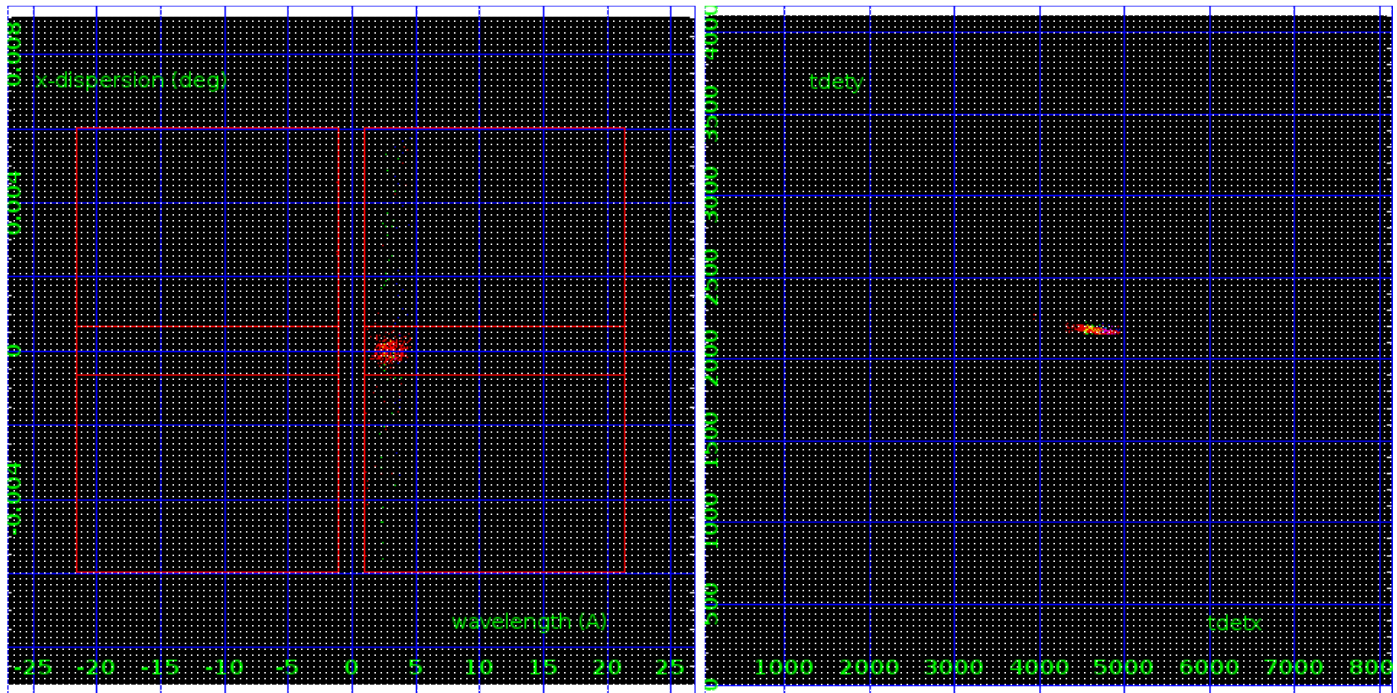
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

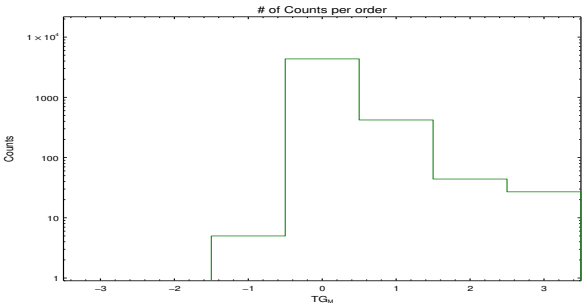
HEG Order Sort ALL

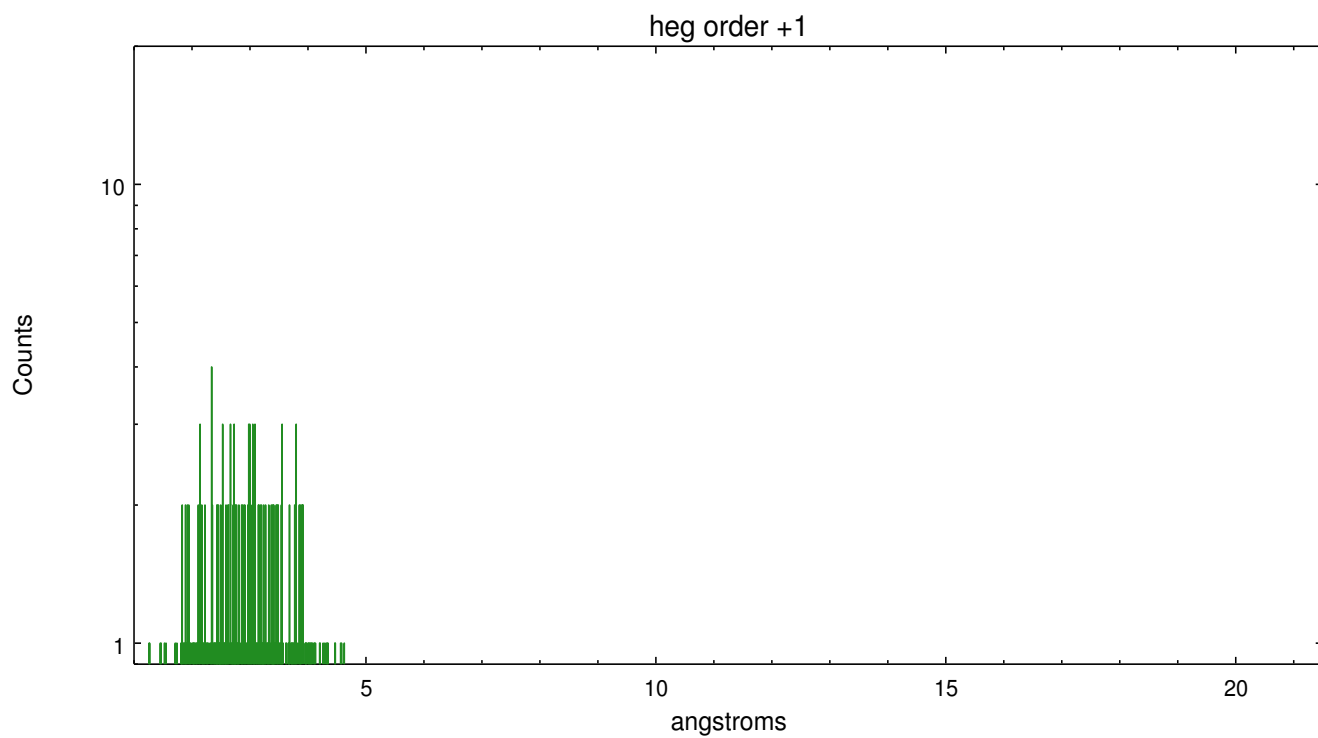
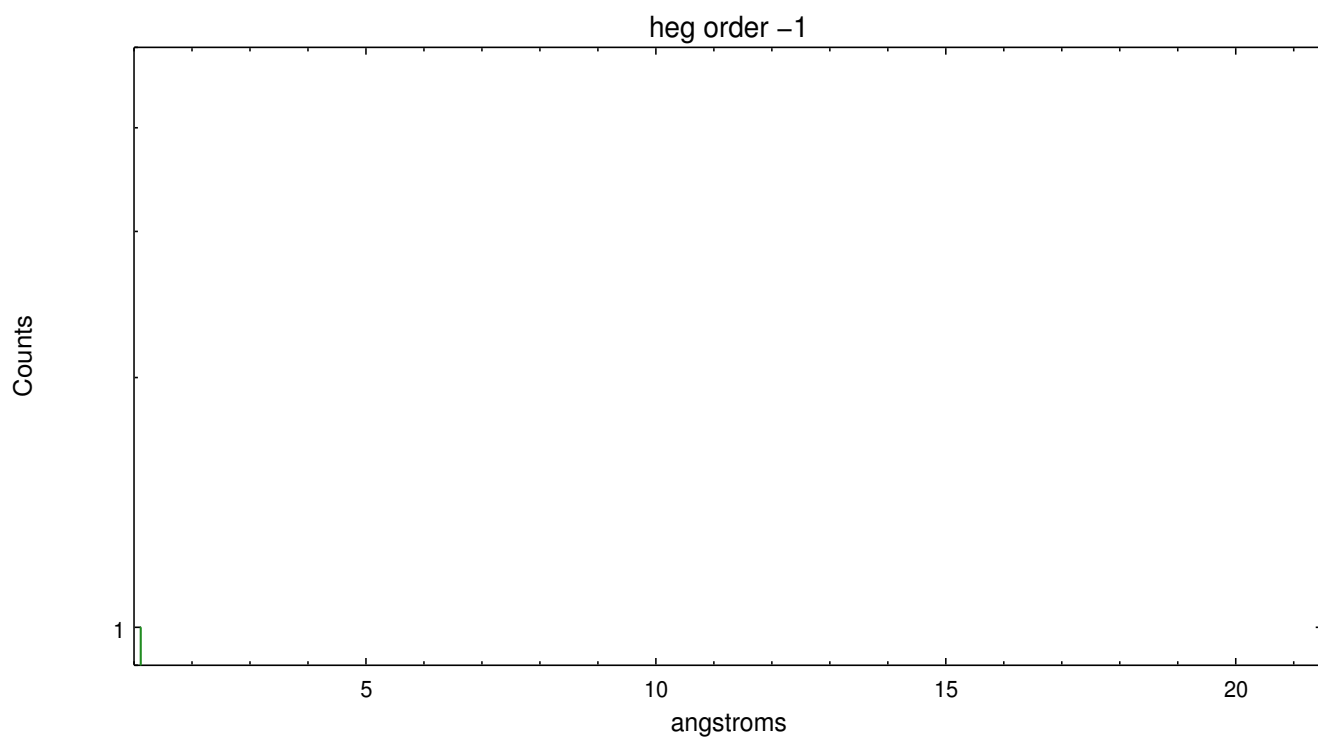


Spot Image HEG

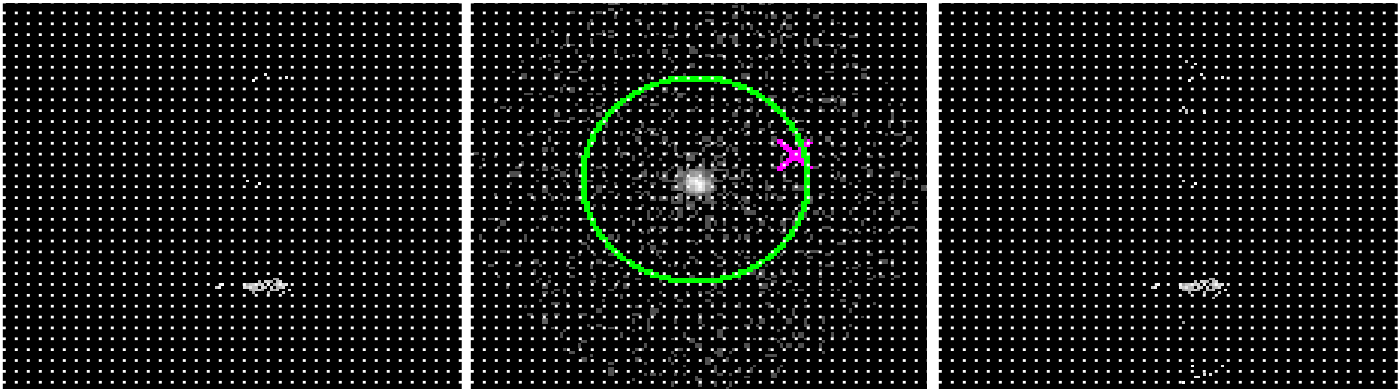
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	0	0	5	4349	421	44	27





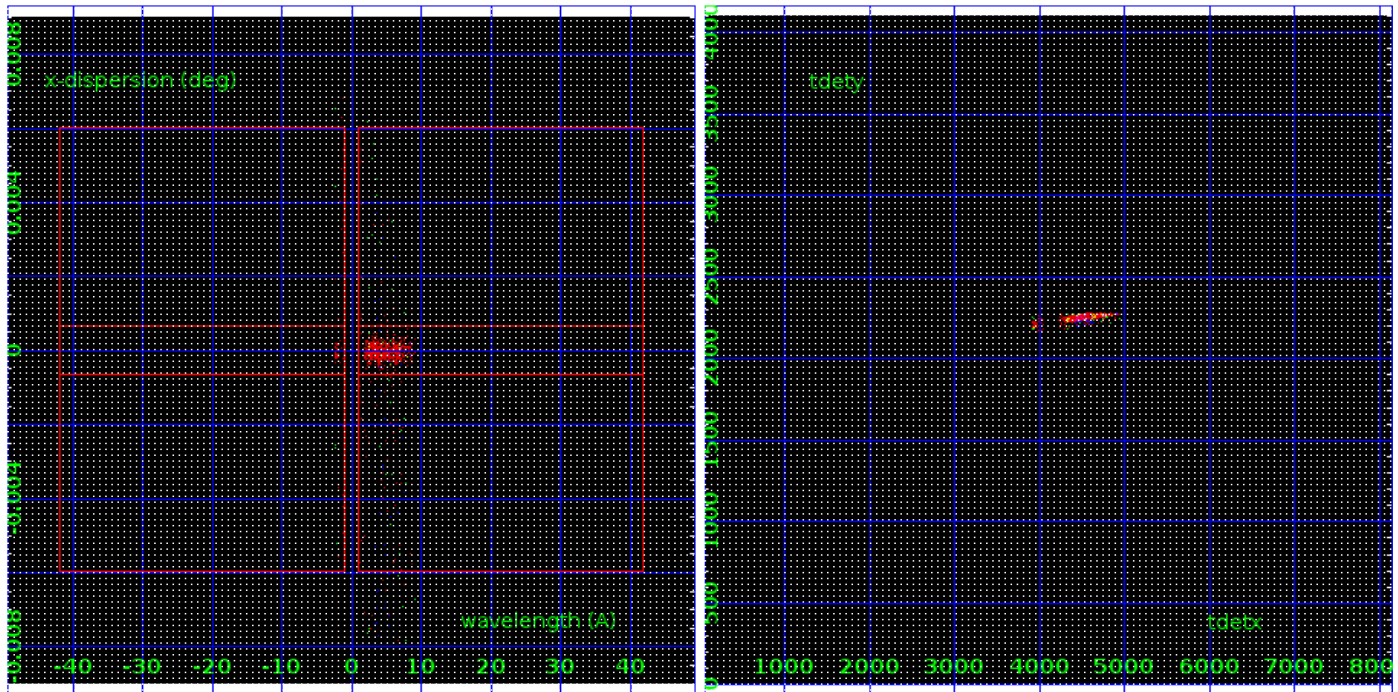
3.2 MEG Arm



MEG Order Sort 123

MEG Zero Order

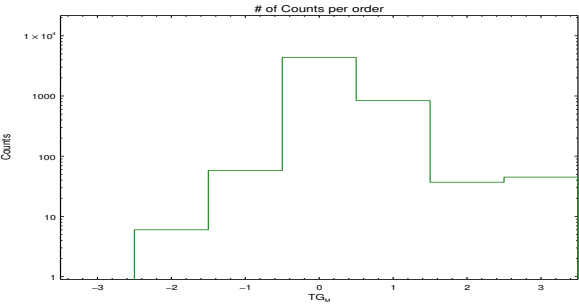
MEG Order Sort ALL

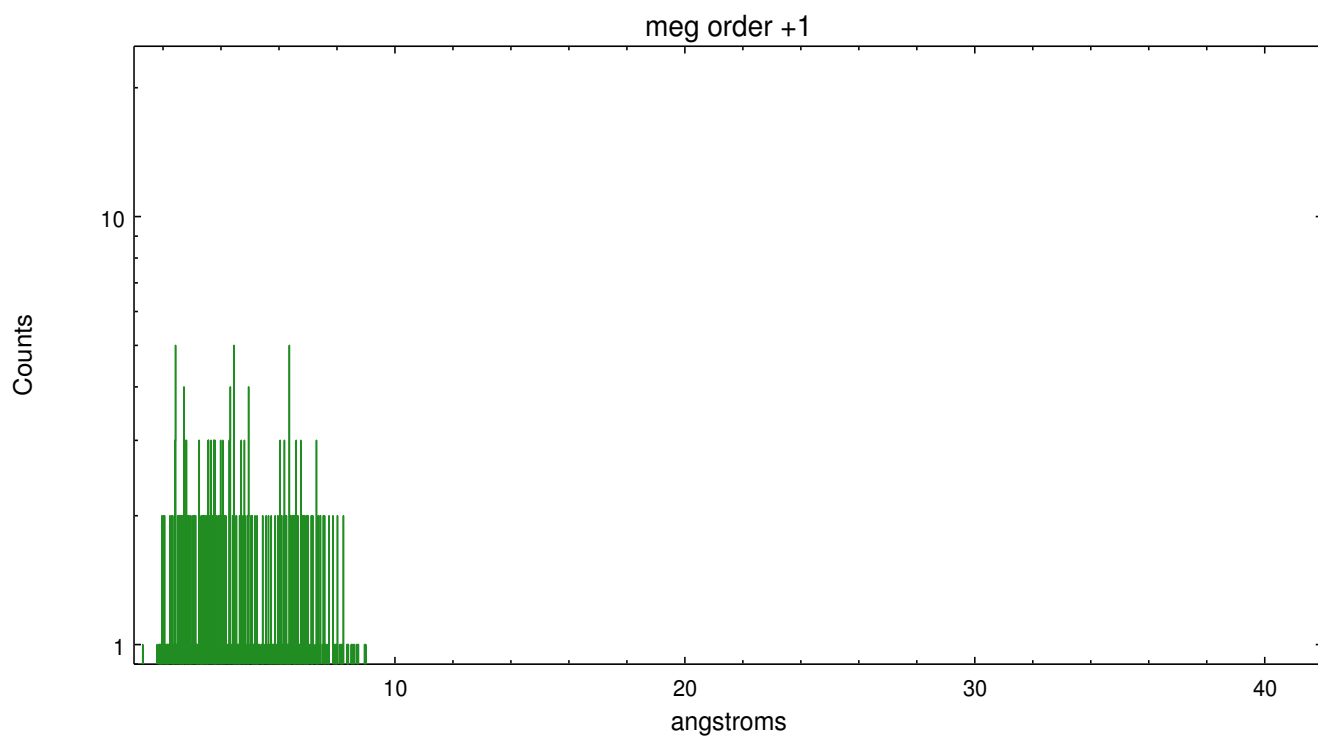
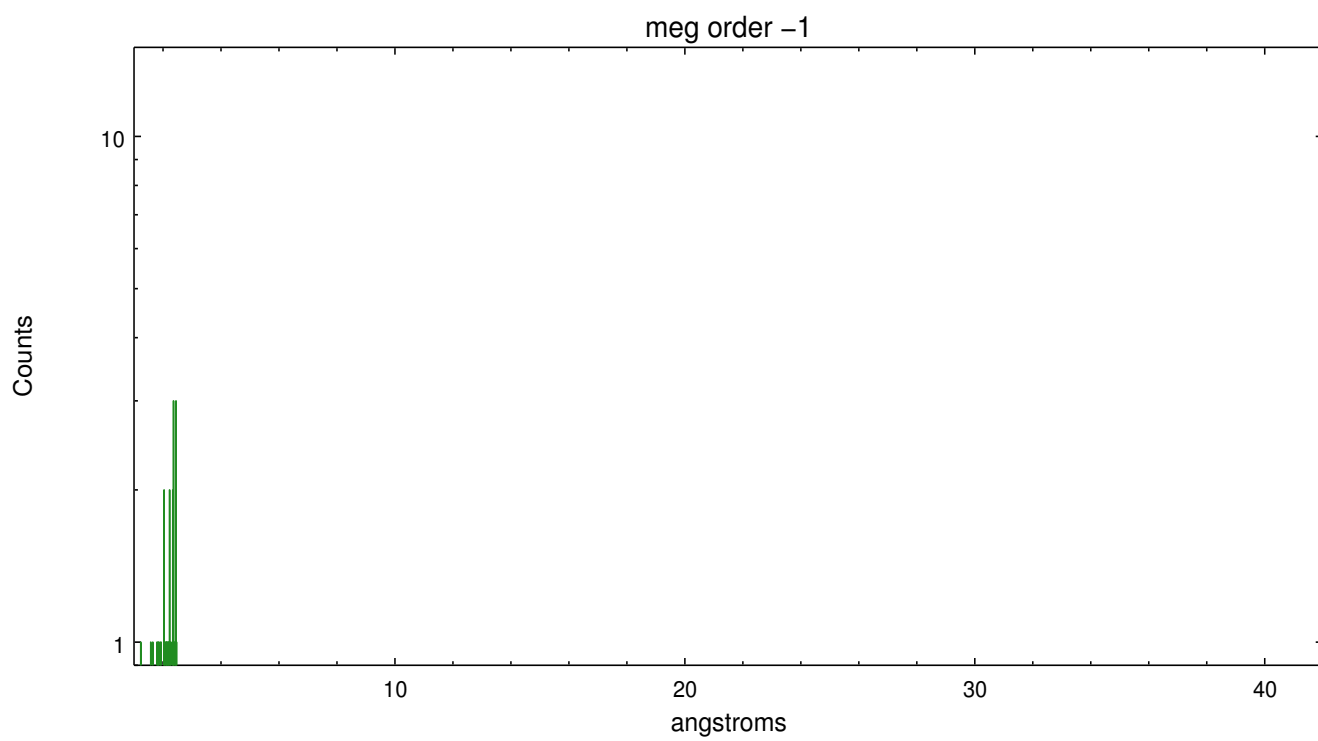


Spot Image MEG

Full Detector MEG

	order	order	order	order	order	order	order
	-3	-2	-1	0	1	2	3
Events	0	6	58	4349	836	37	45





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.05.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.069180699348

A.2 Comments

Note: grating primarily serves as a filter; grating spectra visible, but only one CCD active, only highest energy portions of HEG, MEG will be present in the dispersed spectrum.