

V&V Reference Report

L2 ASCDS Version : 10.2.4

Observation 17539 - L2 Version 1
Chandra X-Ray Center

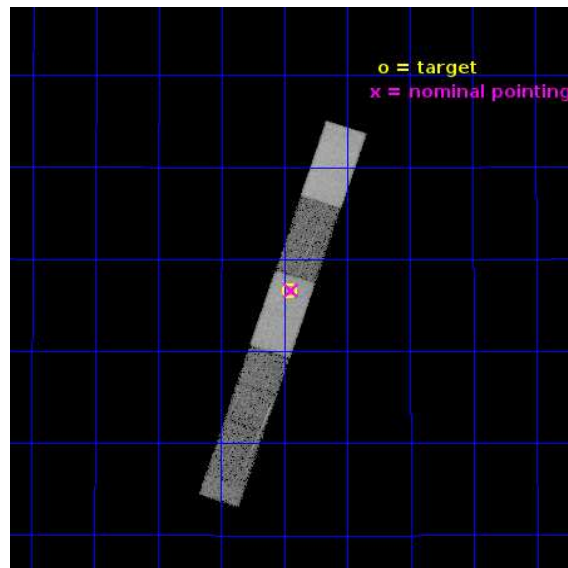
L2 Processing Date : Oct 24 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Gratings	17
3.1	HEG Arm	17
3.2	MEG Arm	19
A	Summary	21
A.1	Status	21
A.2	Comments	21

1 Front

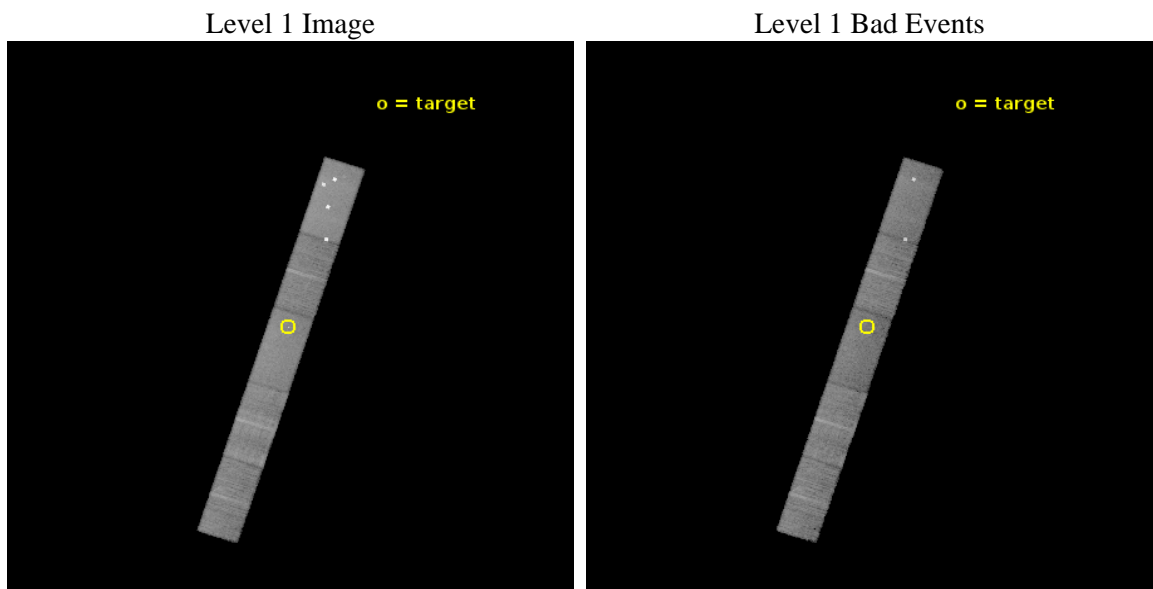
seq_num	200935	Sequence number
obs_id	17539	Observation id
title	Coronal and Shock Emission in the Accreting T Tauri Star RY Tau	Pr
observer	Dr. Stephen SKINNER	Principal investigator
object	RYTau	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	65.489167	Observer's specified target RA [deg]
dec_targ	28.443194	Observer's specified target Dec [deg]
ra_nom	65.485726301526	Nominal RA [deg]
dec_nom	28.444041517457	Nominal Dec [deg]
roll_nom	108.15826839734	Nominal Roll [deg]
revision	1	Processing version of data
ontime	24465.746895075	Sum of GTIs [s]
livetime	23889.037426841	Livetime [s]
ontime5	24465.705855072	Sum of GTIs [s]
ontime6	24465.664815068	Sum of GTIs [s]
ontime7	24465.746895075	Sum of GTIs [s]
ontime8	24465.623775065	Sum of GTIs [s]
ontime9	24460.359604895	Sum of GTIs [s]
l2events	107429	Number of level 2 events



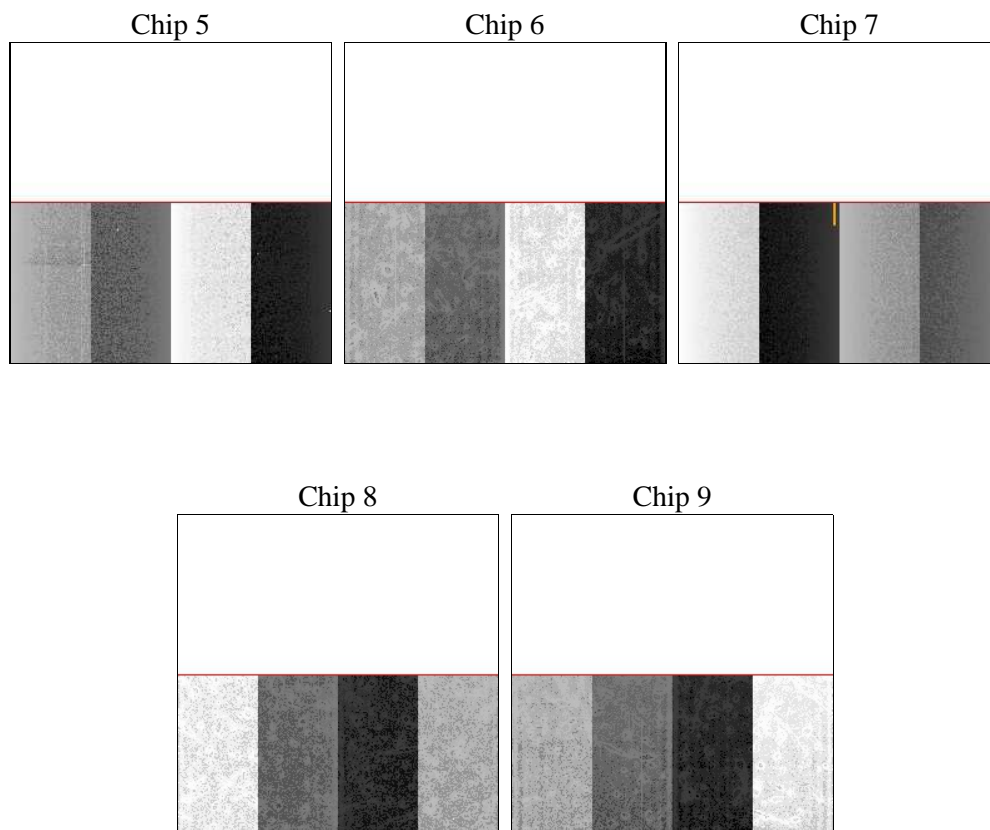
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	24376.569000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	24465.746895075	Sum of GTIs [s]
caldbver	4.6.3	 	ontime5	24465.705855072	Sum of GTIs [s]
date	2014-10-24T16:17:22	Date and time of file creation	ontime6	24465.664815068	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	24465.746895075	Sum of GTIs [s]
			ontime8	24465.623775065	Sum of GTIs [s]
			ontime9	24460.359604895	Sum of GTIs [s]
			l1events	465761	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4073.65, 4089.55)	src1a sky pixel position

2.1.4 Events

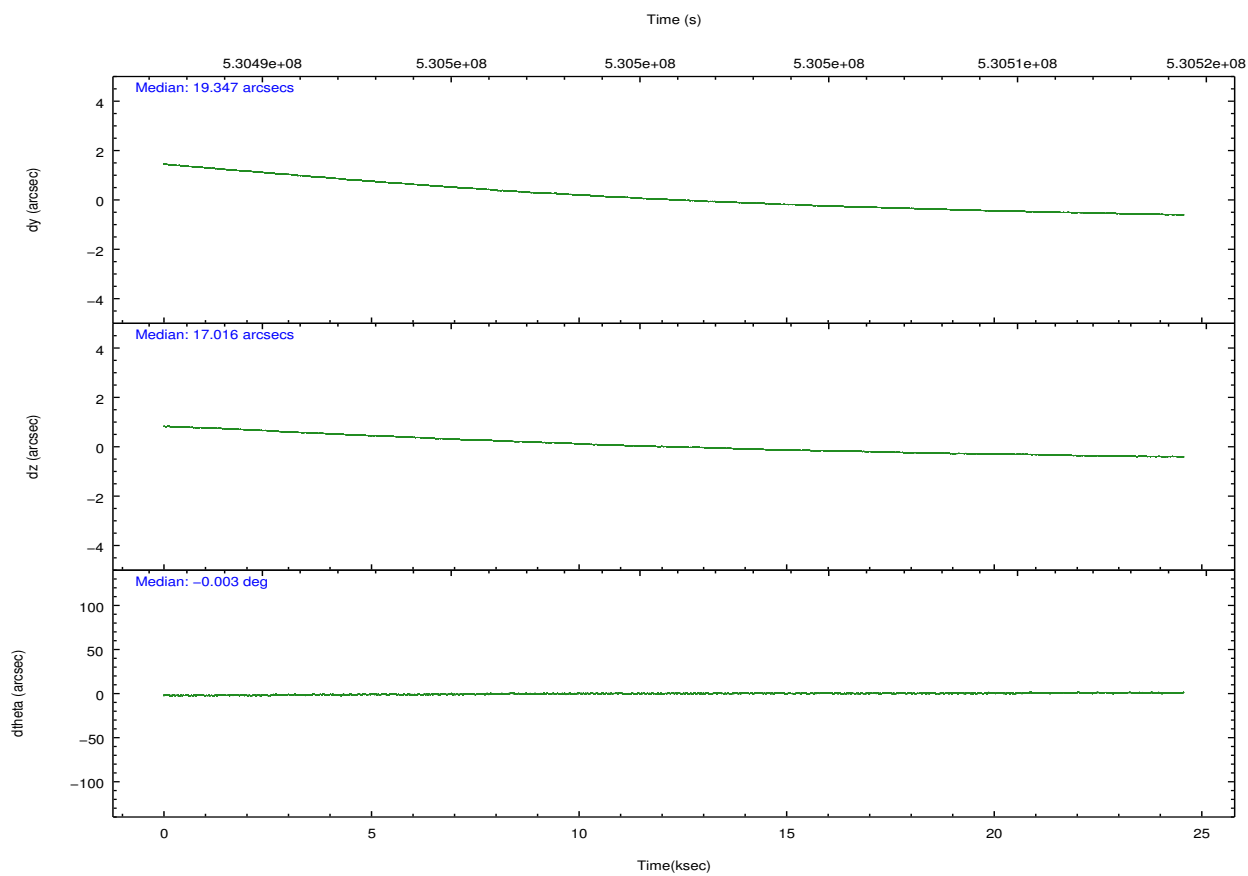
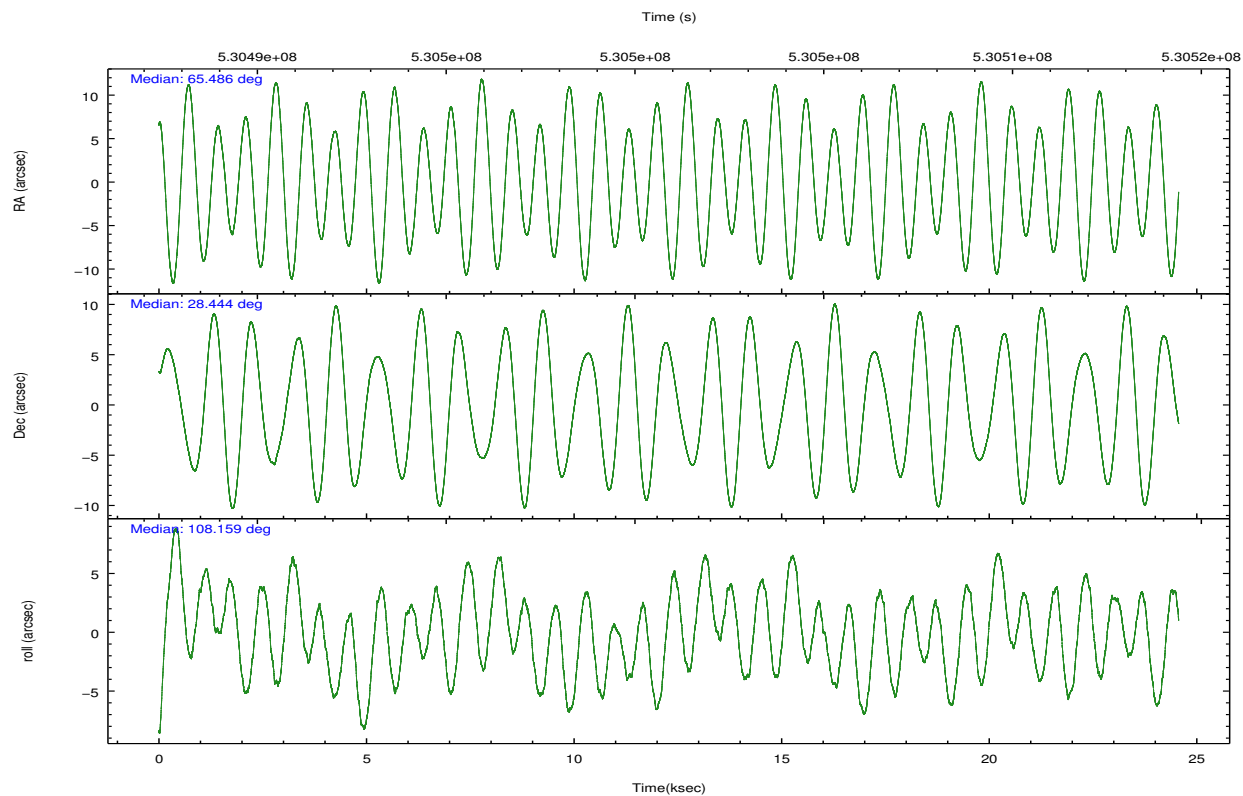
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	152510	68399	86474	89629	68749
rejected events	62516	60038	47965	66268	60197
rejected %	40%	87%	55%	73%	87%

	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	30297	2808	3255	6419	2915
	19%	4%	3%	7%	4%
grade 1 events	4867	24	98	49	23
	3%	0%	0%	0%	0%
grade 2 events	18409	1877	7845	5461	1779
	12%	2%	9%	6%	2%
grade 3 events	5531	921	3495	2652	1010
	3%	1%	4%	2%	1%
grade 4 events	4182	927	3393	2450	974
	2%	1%	3%	2%	1%
grade 5 events	10448	3102	8491	4546	3431
	6%	4%	9%	5%	4%
grade 6 events	31586	1830	20527	6387	1876
	20%	2%	23%	7%	2%
grade 7 events	47190	56910	39370	61665	56741
	30%	83%	45%	68%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	65.509282	65.48572630152609	CCD I2 on	N	N
[deg] Pointing Dec	28.425980	28.44404151745677	CCD I3 on	N	N
[deg] Pointing Roll	107.990428	108.1582683973394	CCD S0 on	O1	N
[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	-183.992523	-183.9875365069546	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-6.14	-6.144986076053243	CCD S4 on	Y	Y
[s] Observation start time (MET)	530488794.184000	530487449.057	CCD S5 on	O2	Y
Observation start date	2014-10-23T21:58:47	2014-10-23T21:37:29	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	530513171.184000	530513394.88344	On-chip summing requested	N	N
Observation end date	2014-10-24T04:45:04	2014-10-24T04:49:54	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	1	1
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

2.3 Aspect

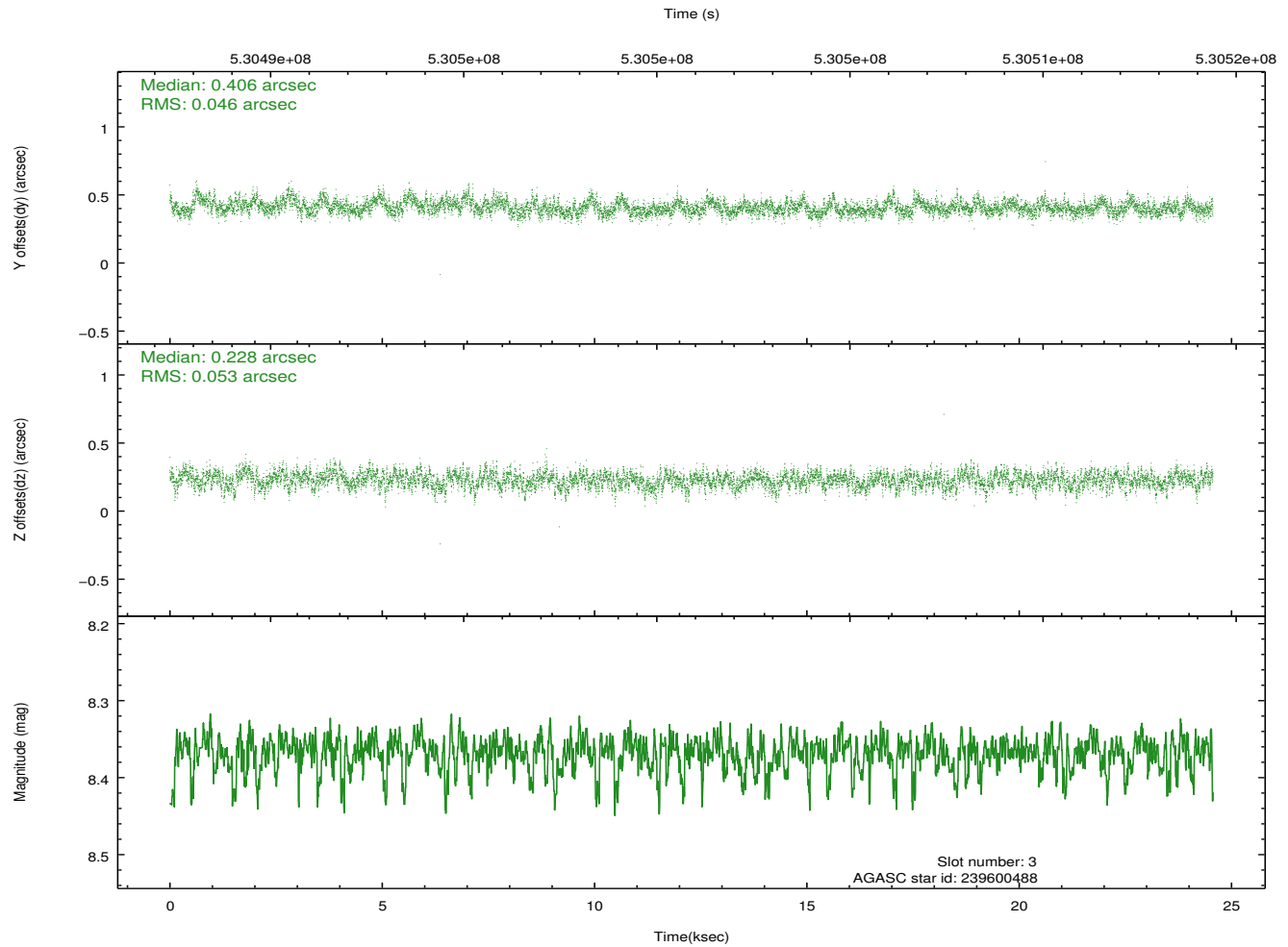
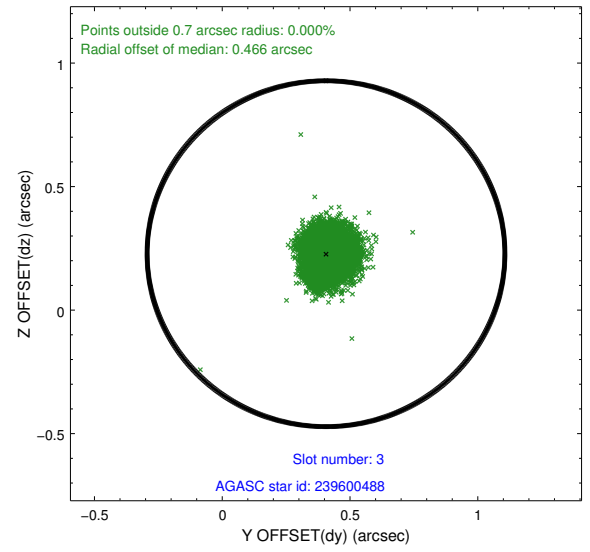
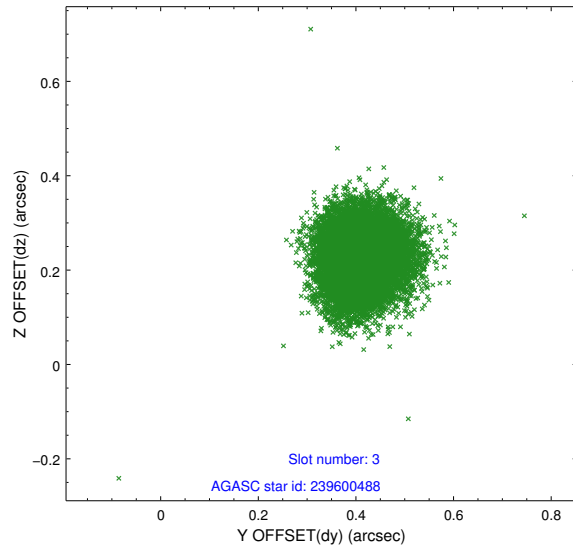


Slot Statistics

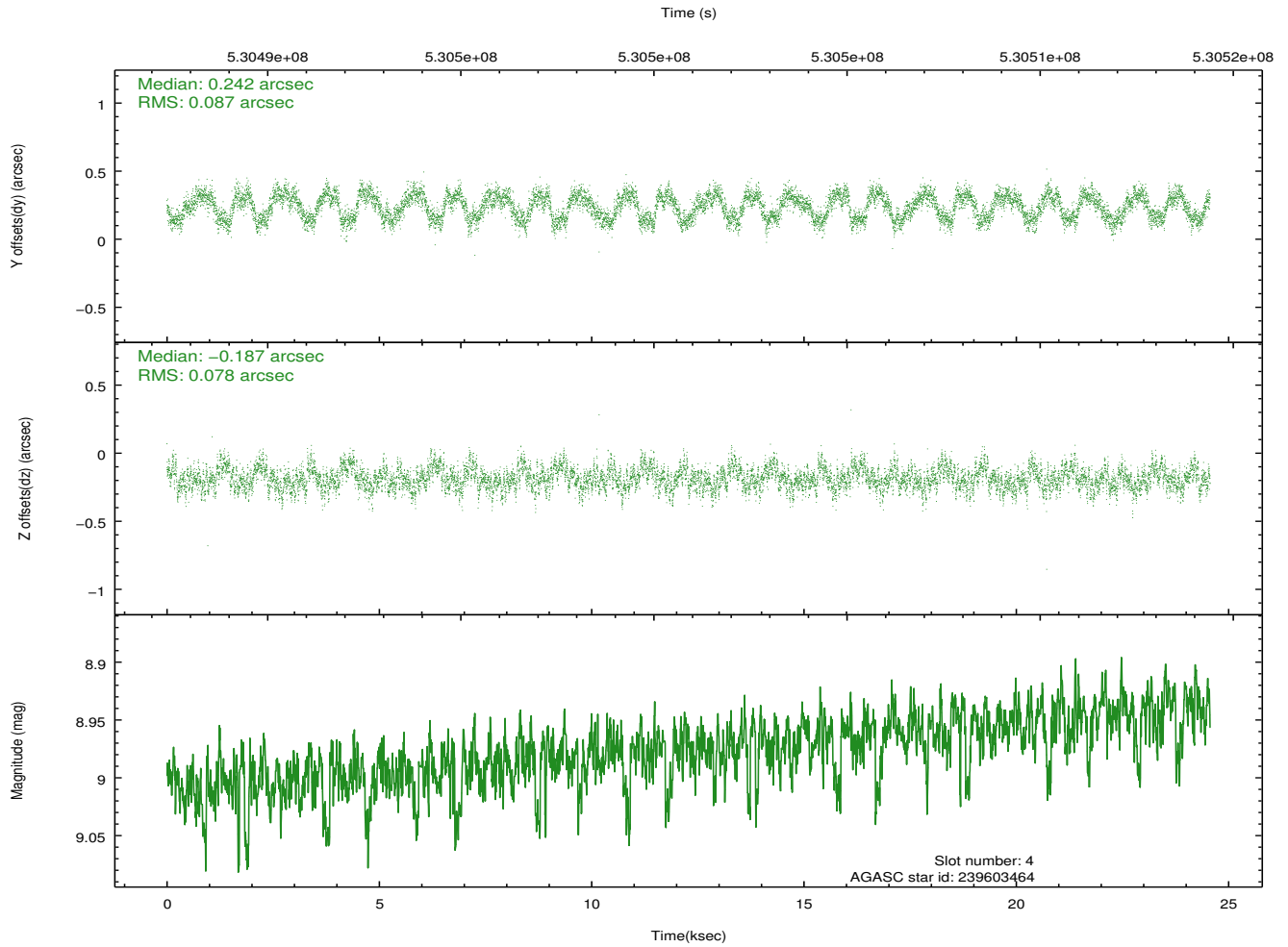
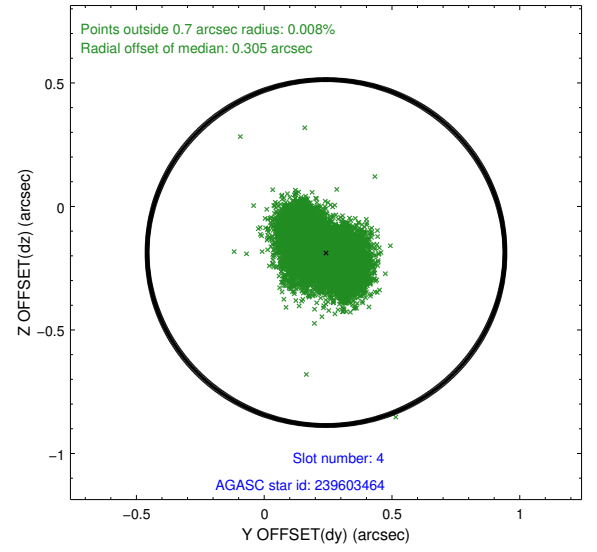
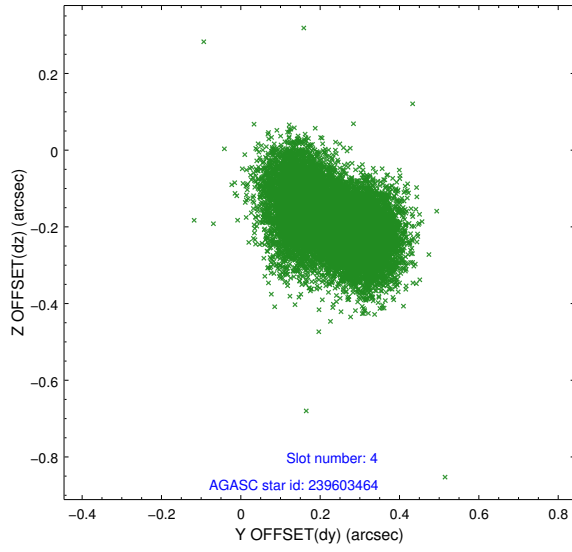
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	5991	-0.125	-0.103	0.030	0.041	0.000000	0.000000	-772.31	-1865.27
1	FID	ACIS-S-4	7.20	5991	0.345	0.088	0.024	0.042	0.000000	0.000000	2141.40	43.20
2	FID	ACIS-S-5	7.24	5992	-0.243	0.024	0.024	0.036	0.000000	0.000000	-1825.09	37.00
3	GUIDE	239600488	8.37	11981	0.406	0.228	0.074	0.120	65.933091	28.186307	-1235.02	-1013.10
4	GUIDE	239603464	8.98	11972	0.242	-0.187	0.127	0.196	65.495198	28.301805	-411.39	180.42
5	GUIDE	239606272	8.15	11980	-0.236	0.325	0.103	0.156	65.782047	29.028160	1797.63	-1486.06
6	GUIDE	239612528	8.18	11977	-0.222	-0.228	0.103	0.159	65.157445	28.892017	1939.51	535.70
7	GUIDE	239613168	8.39	11977	-0.184	-0.128	0.109	0.168	65.055525	28.814853	1776.02	927.93

2.4 Star Slots

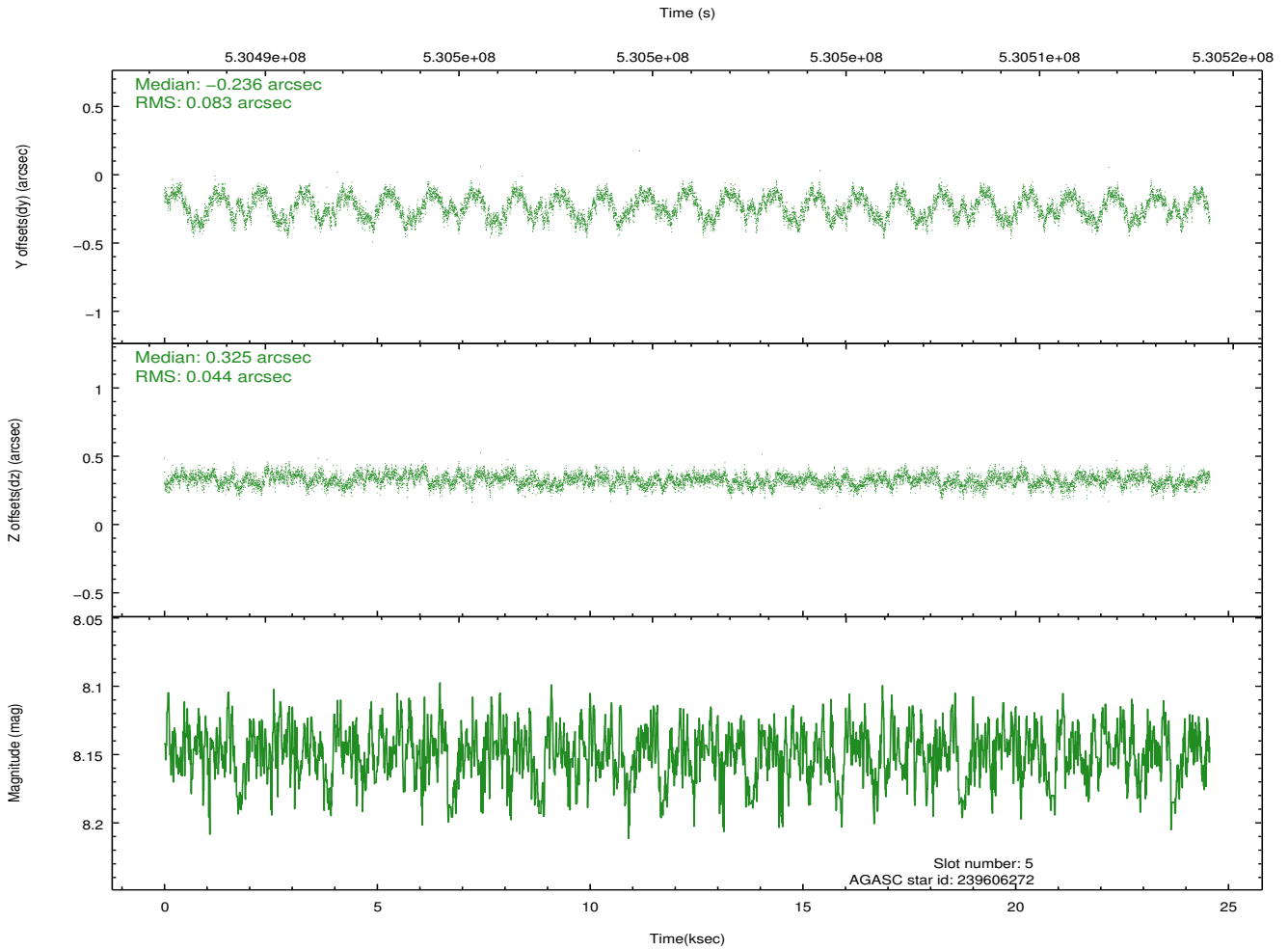
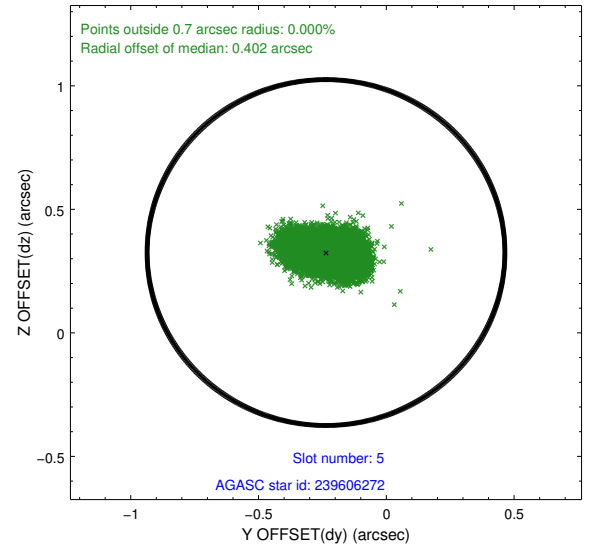
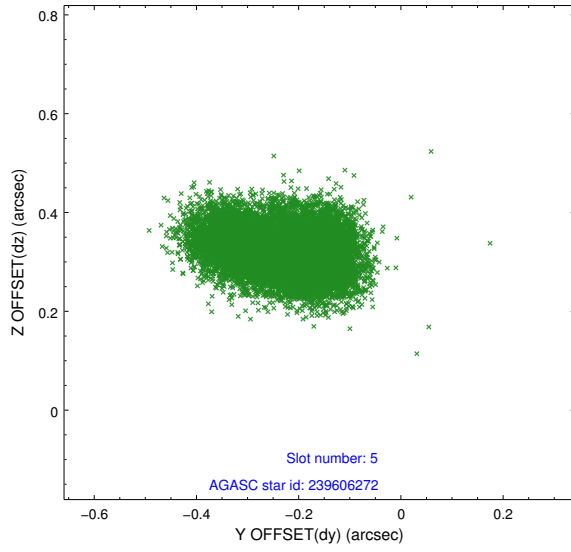
2.4.1 Slot 3



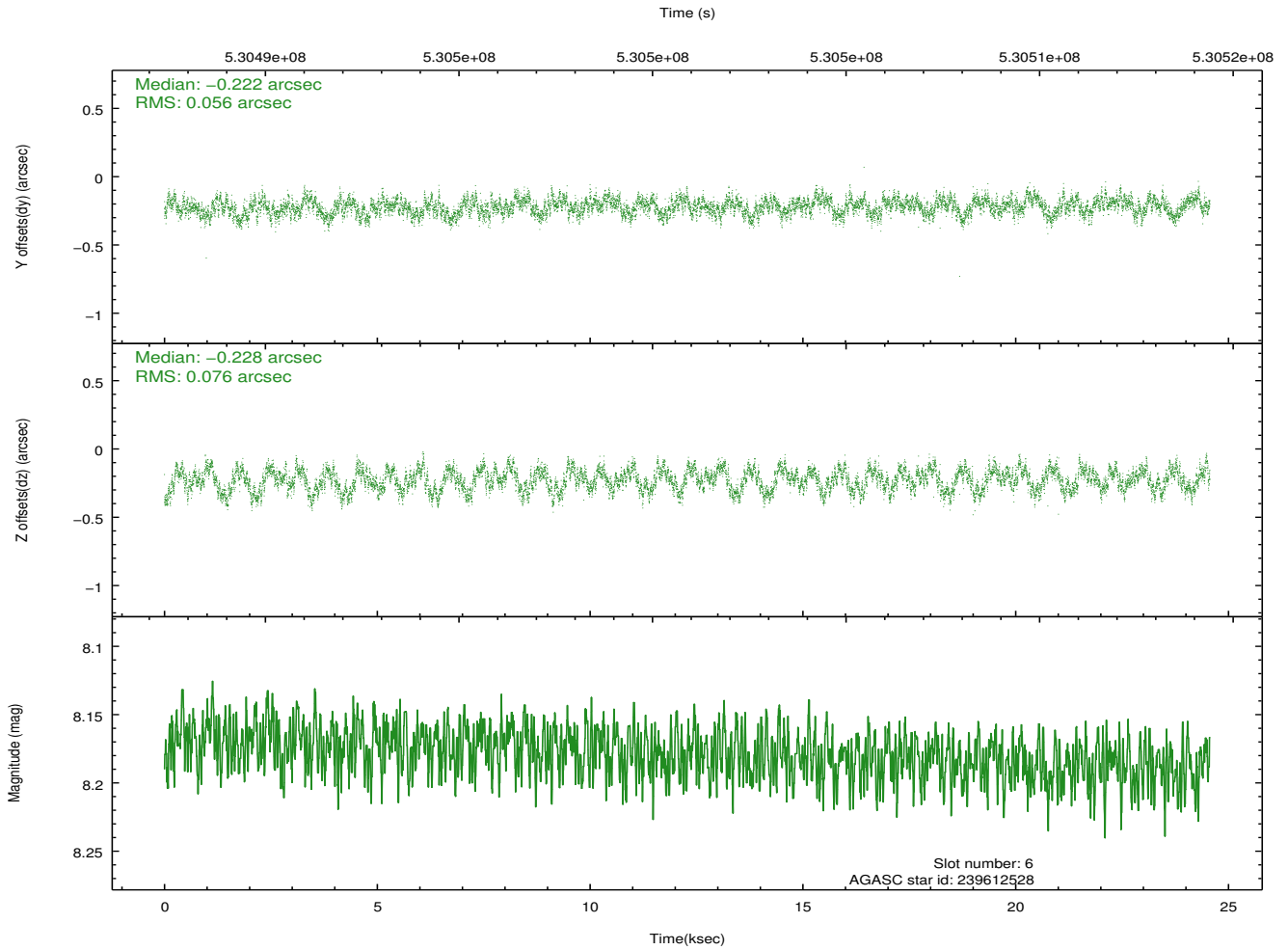
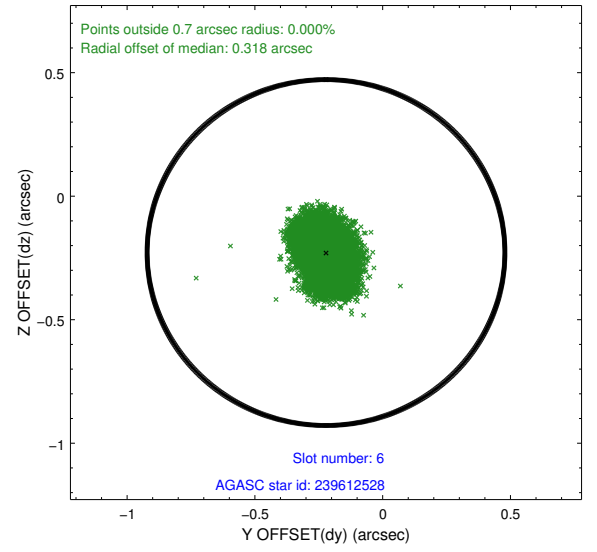
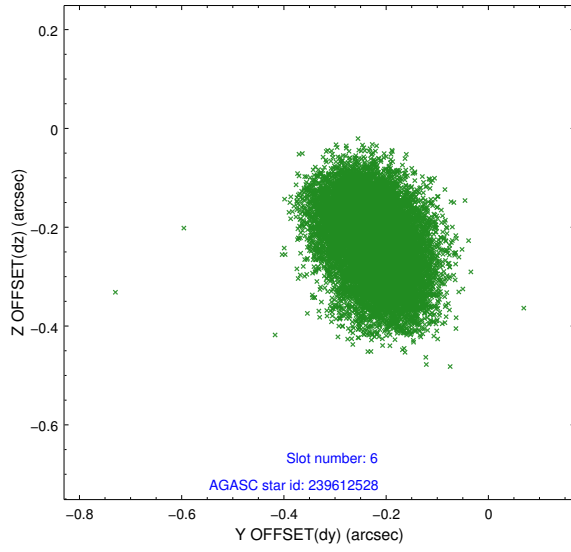
2.4.2 Slot 4



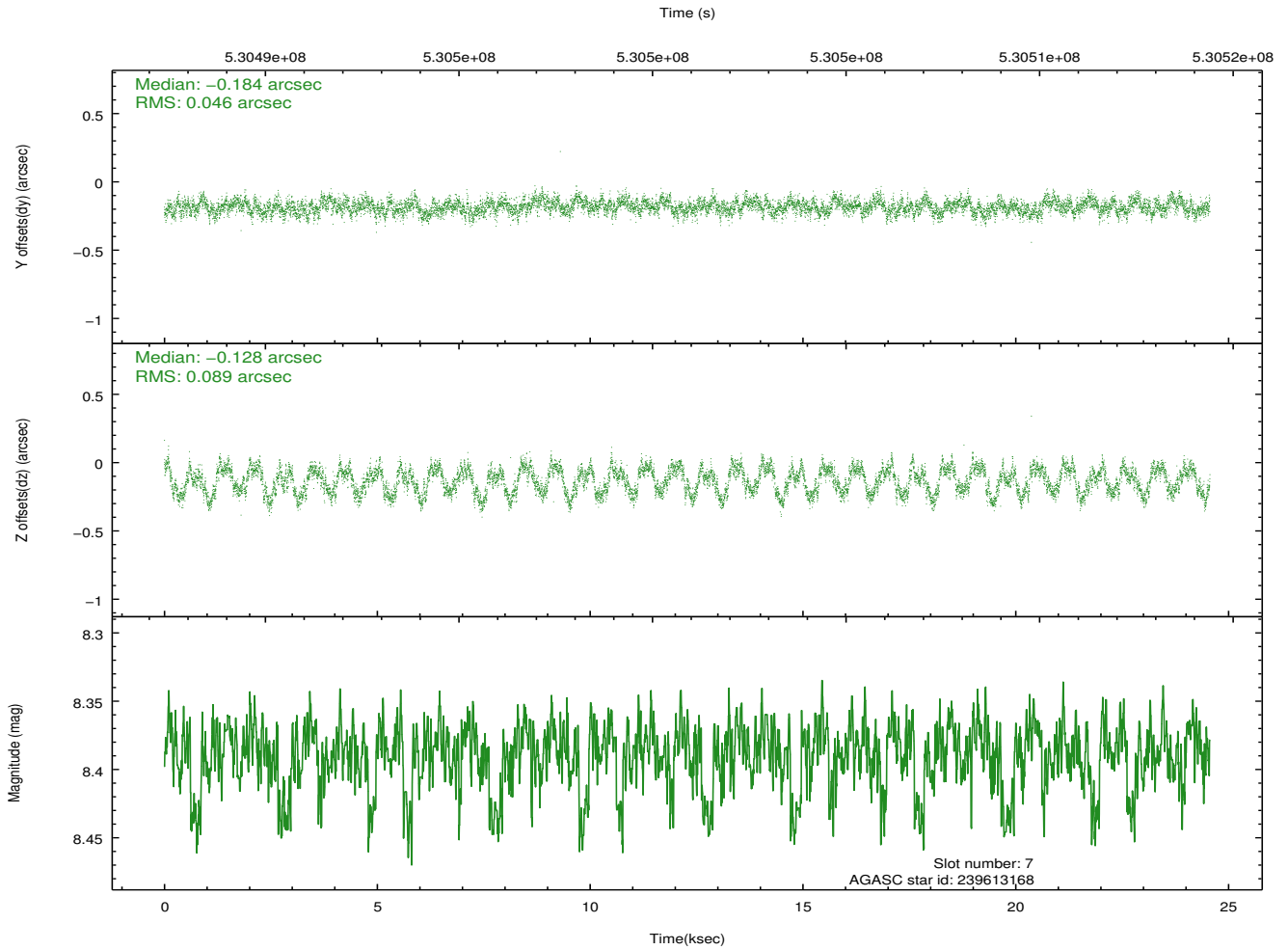
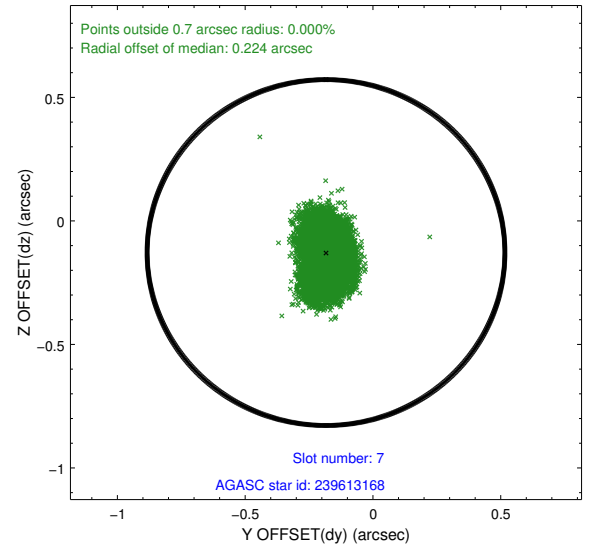
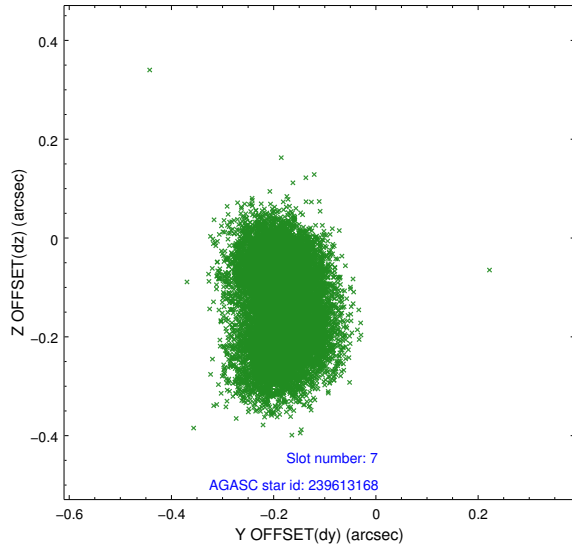
2.4.3 Slot 5



2.4.4 Slot 6

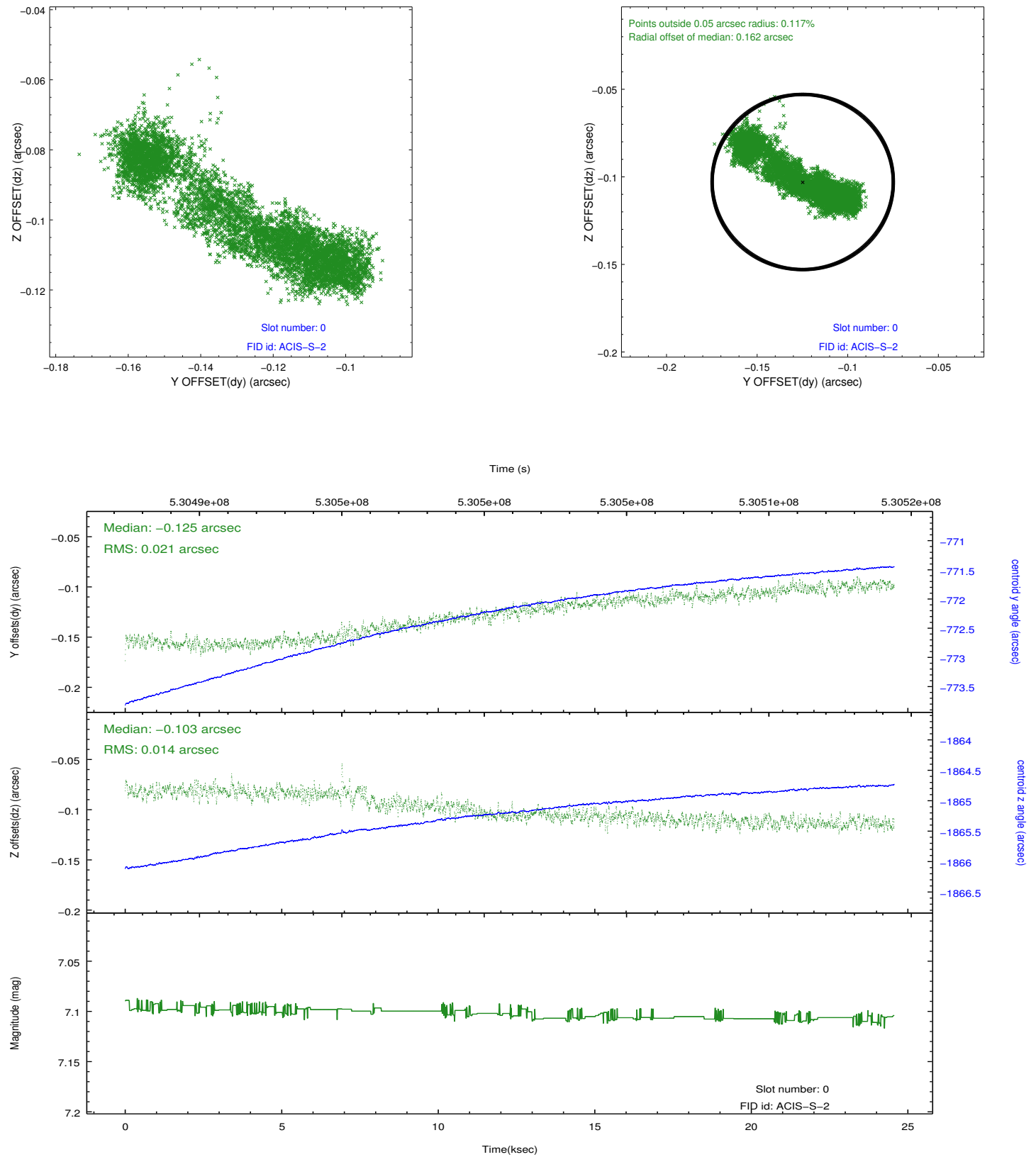


2.4.5 Slot 7

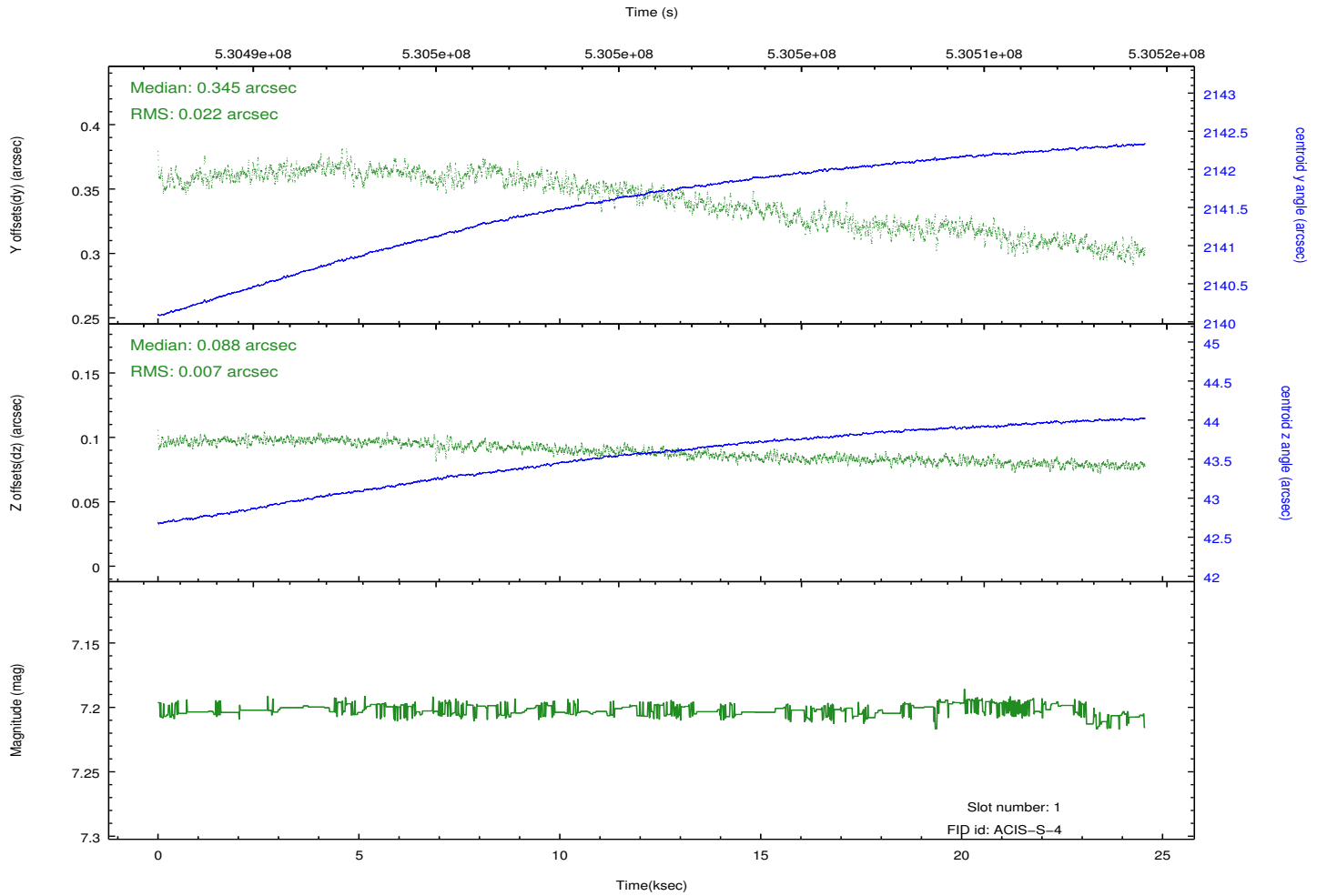
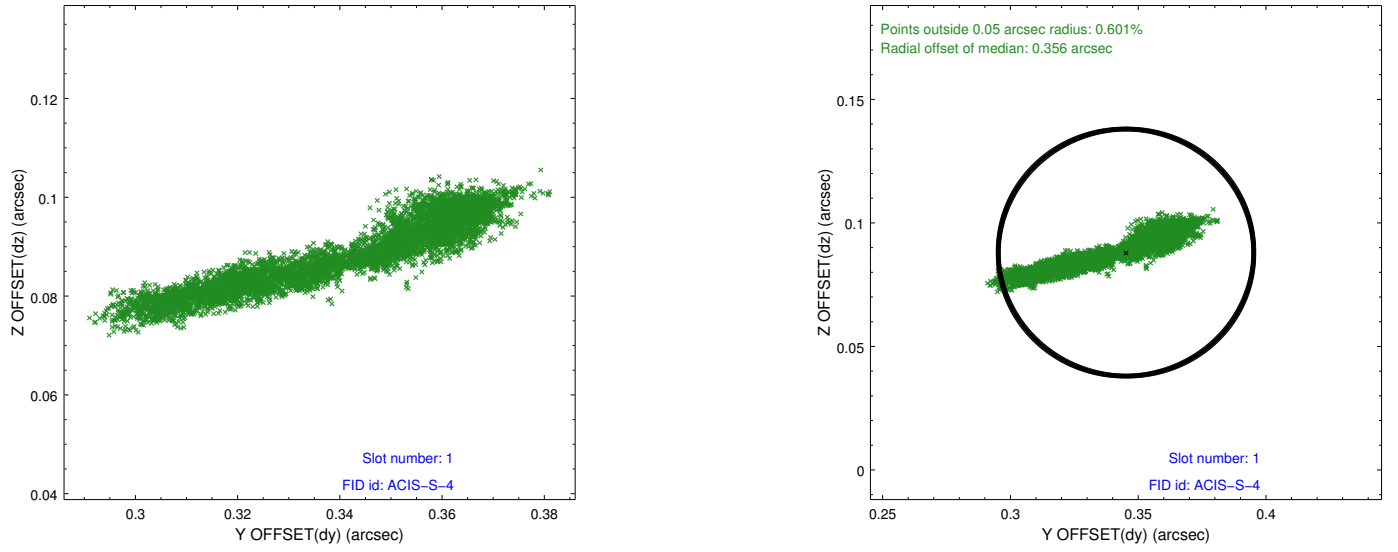


2.5 FID Slots

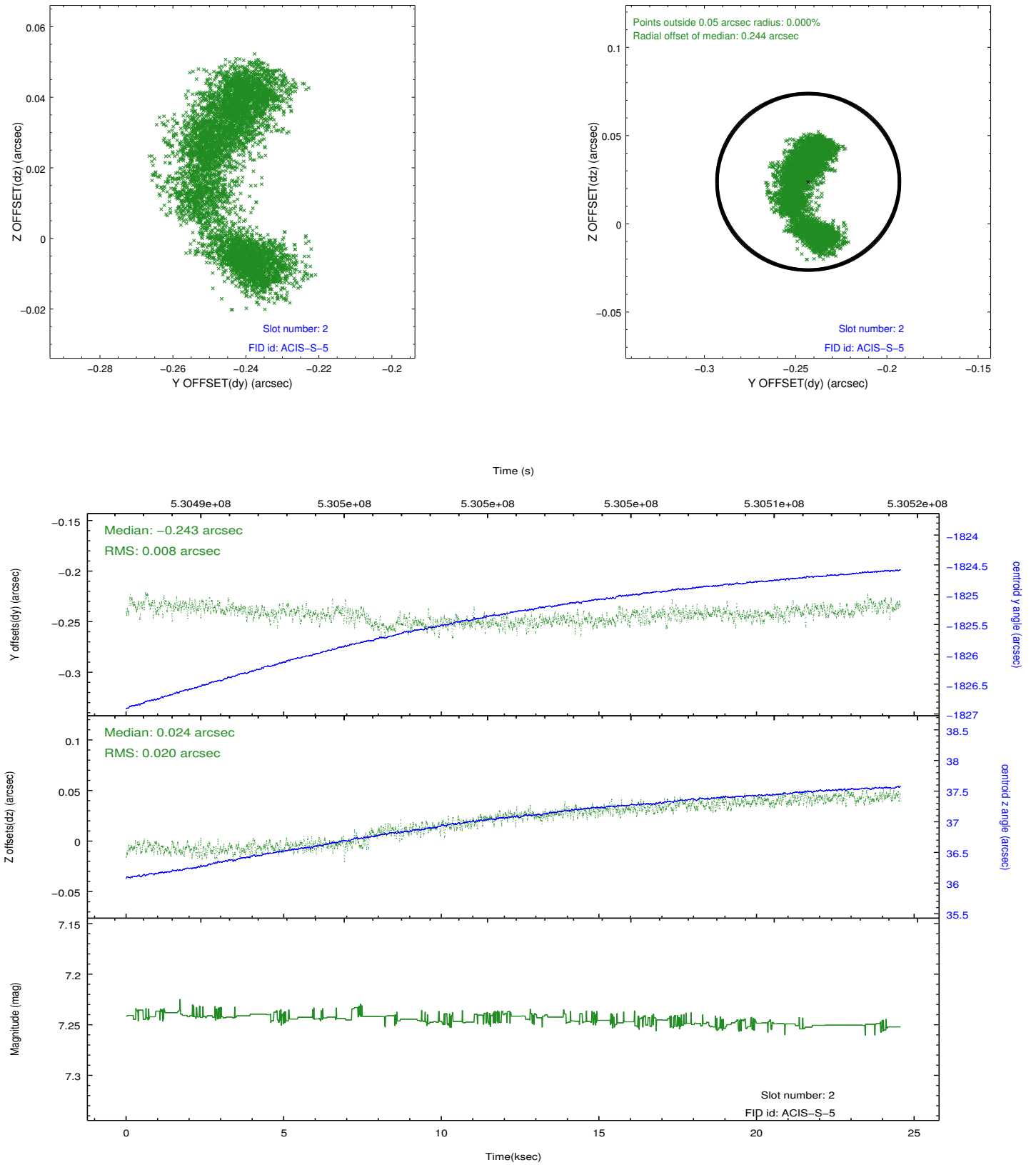
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

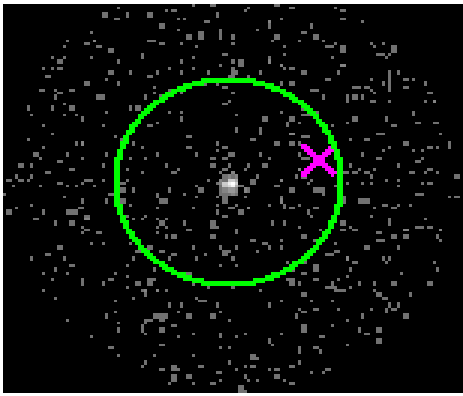


3 Gratings

3.1 HEG Arm



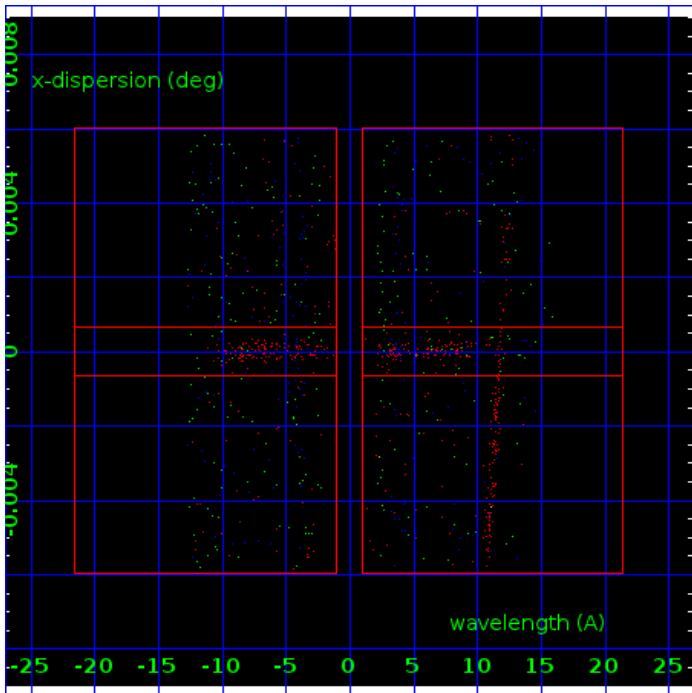
HEG Order Sort 123



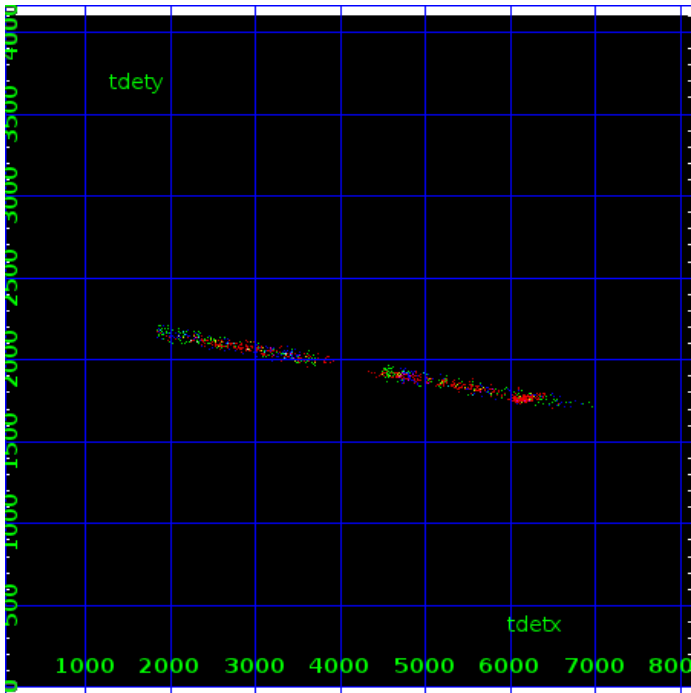
HEG Zero Order



HEG Order Sort ALL

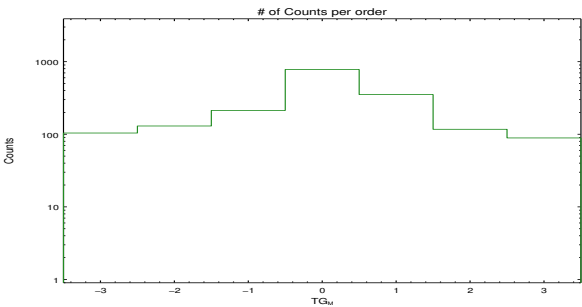


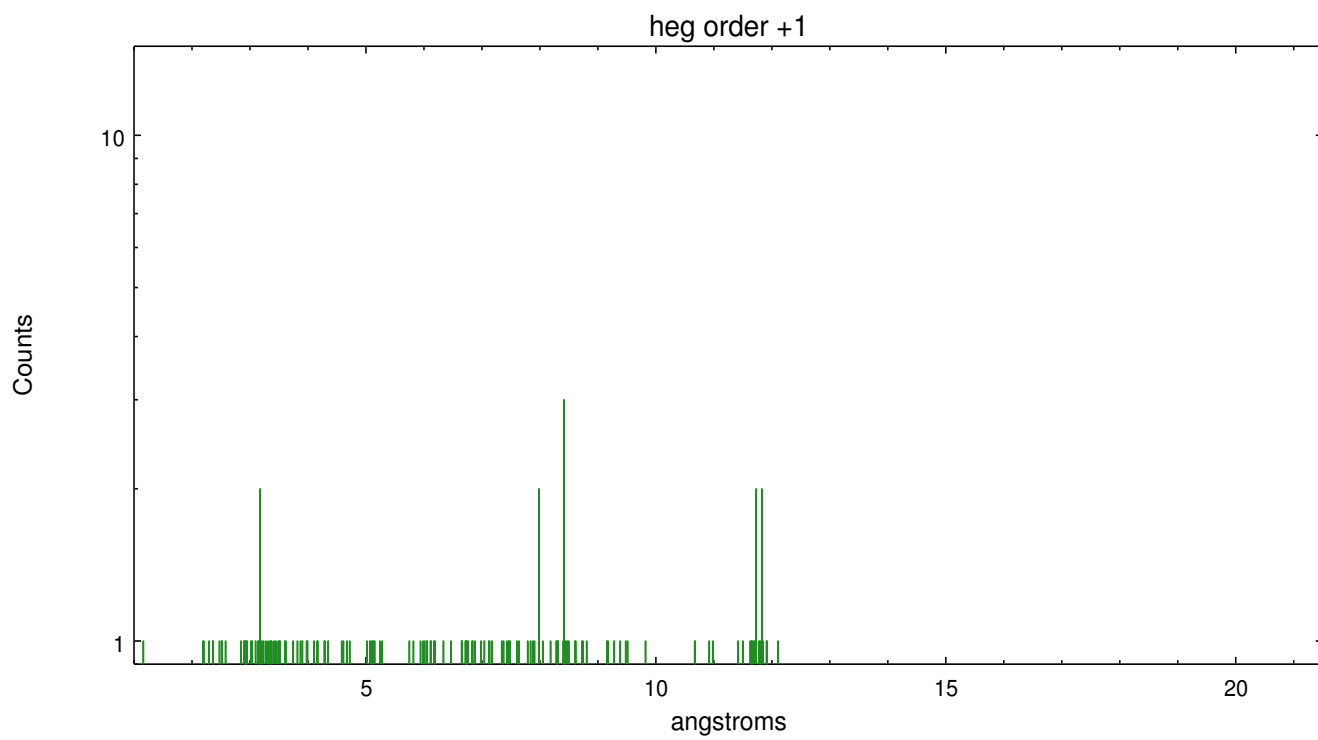
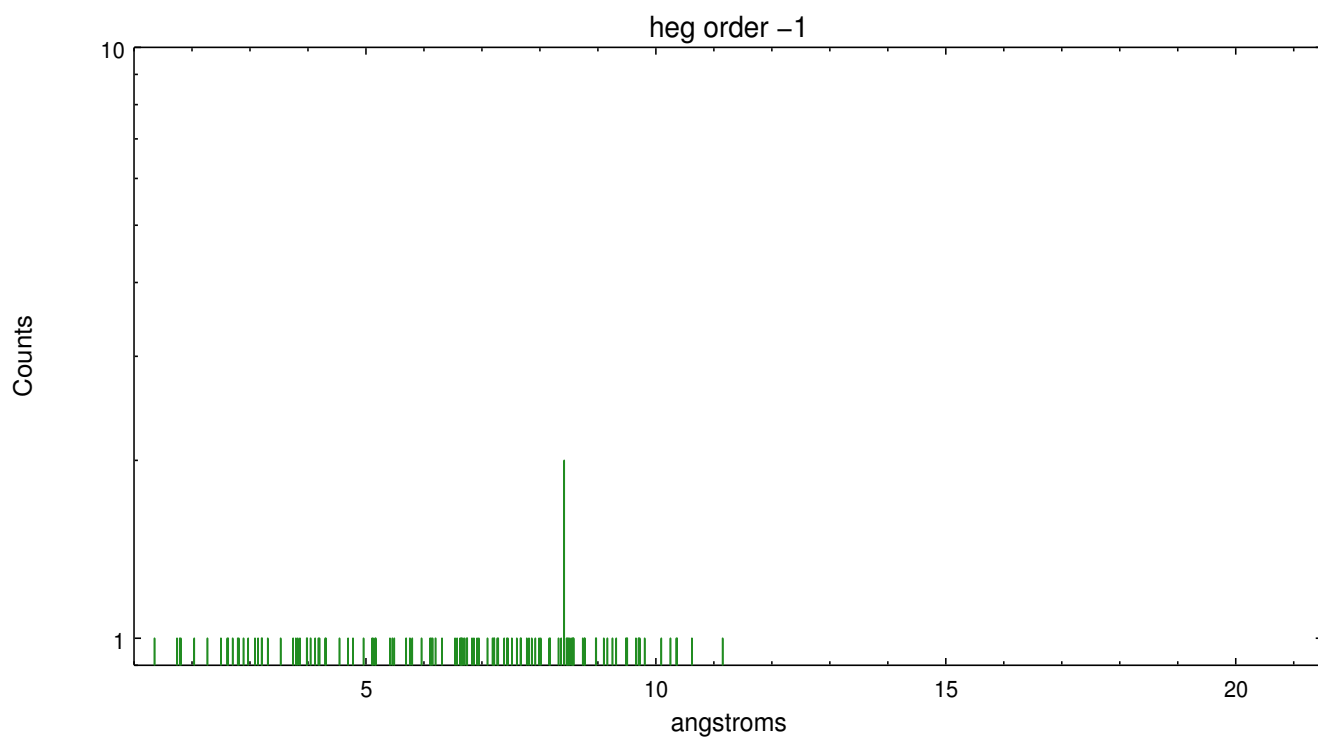
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	104	130	213	779	352	117	89

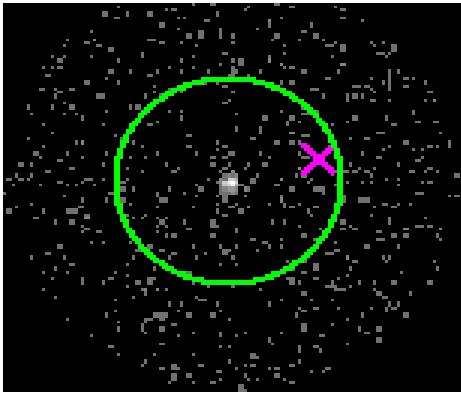




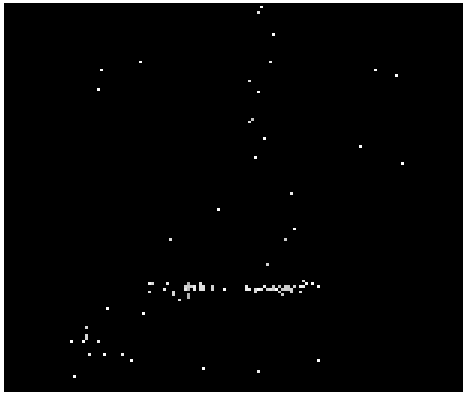
3.2 MEG Arm



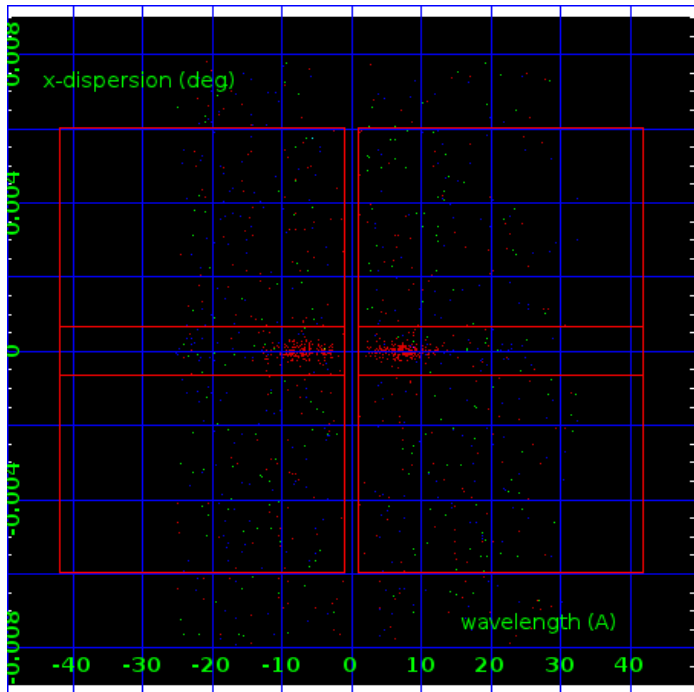
MEG Order Sort 123



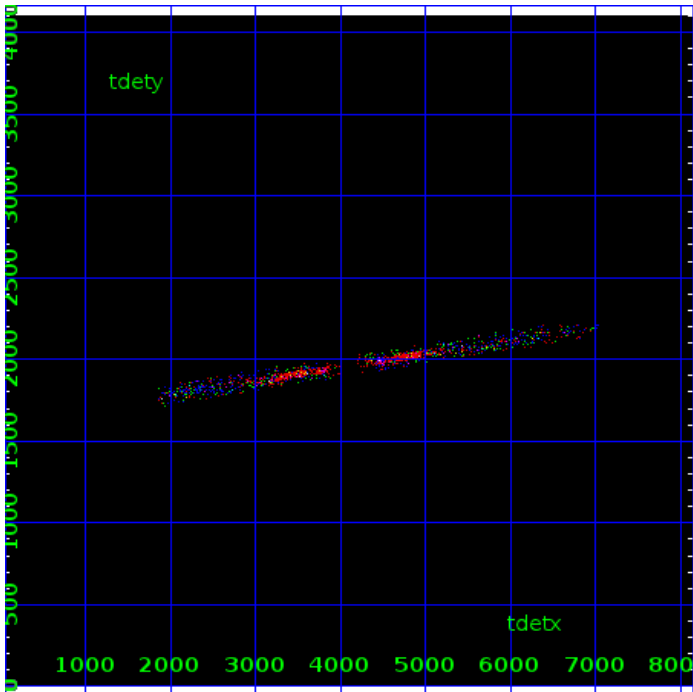
MEG Zero Order



MEG Order Sort ALL

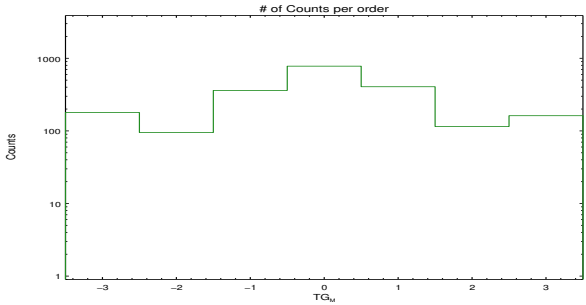


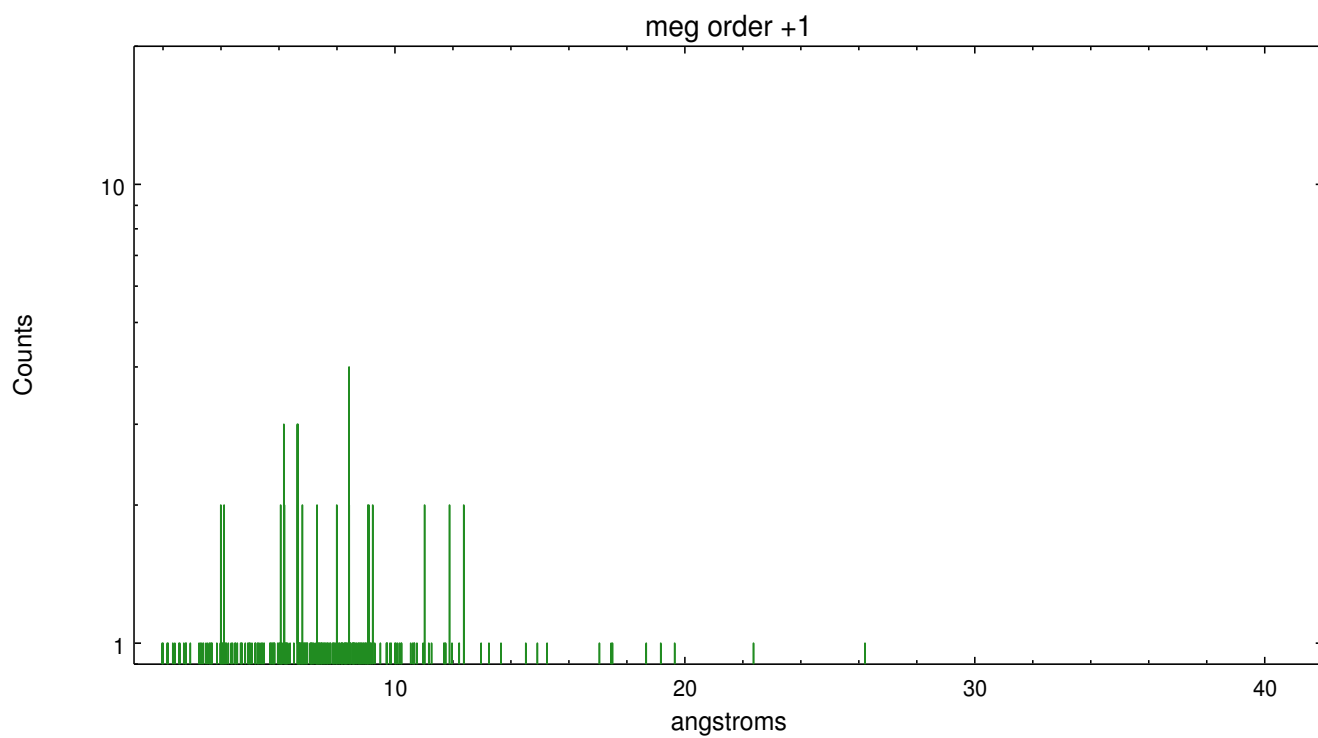
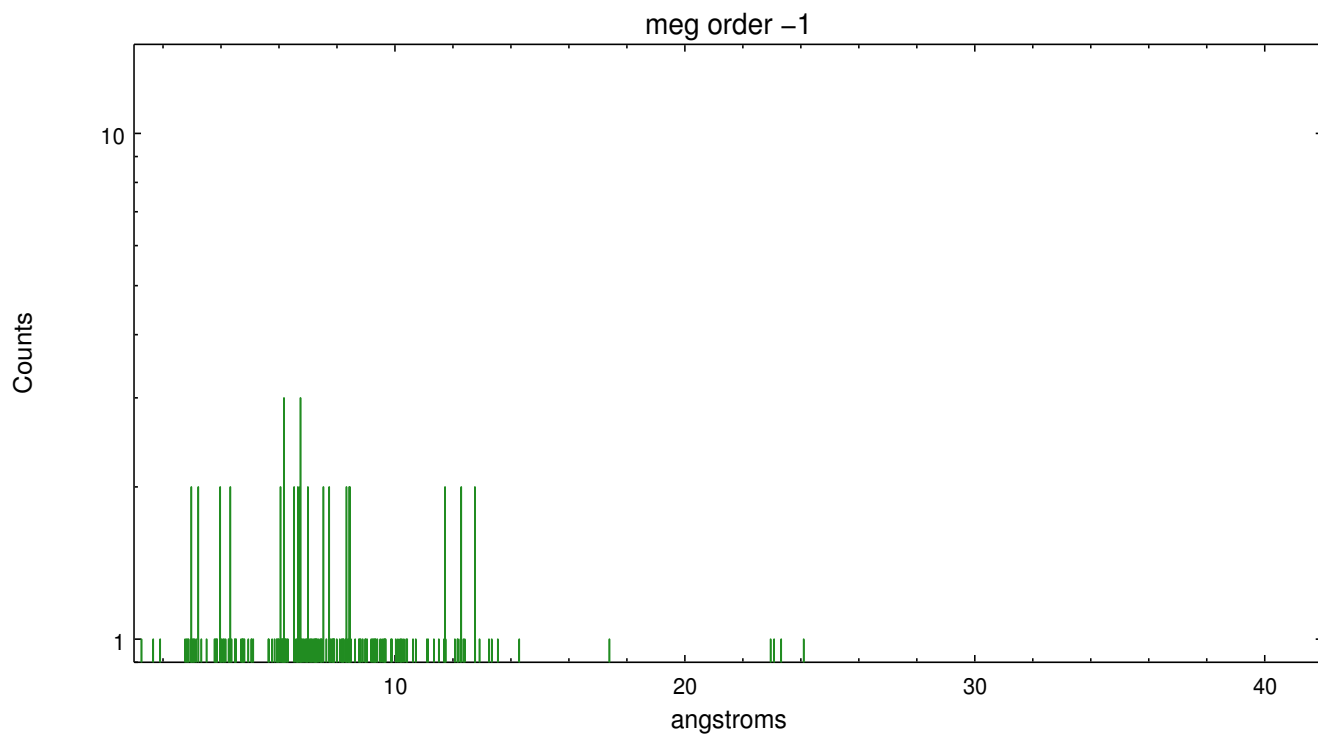
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	179	95	361	779	406	115	162





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2014.10.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.465746895075

A.2 Comments