

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 10869 - L2 Version 2  
Chandra X-Ray Center

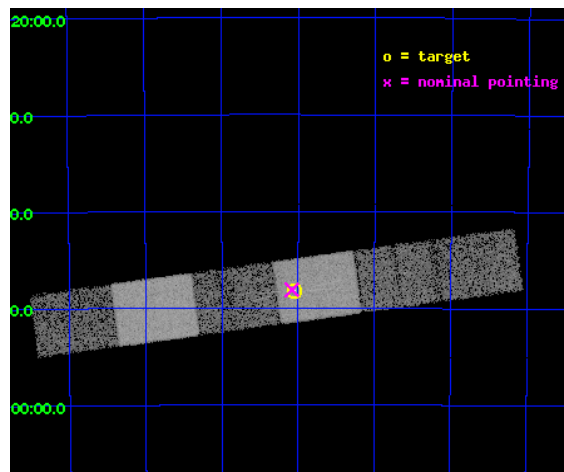
L2 Processing Date : May 31 2012

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# 1 Front

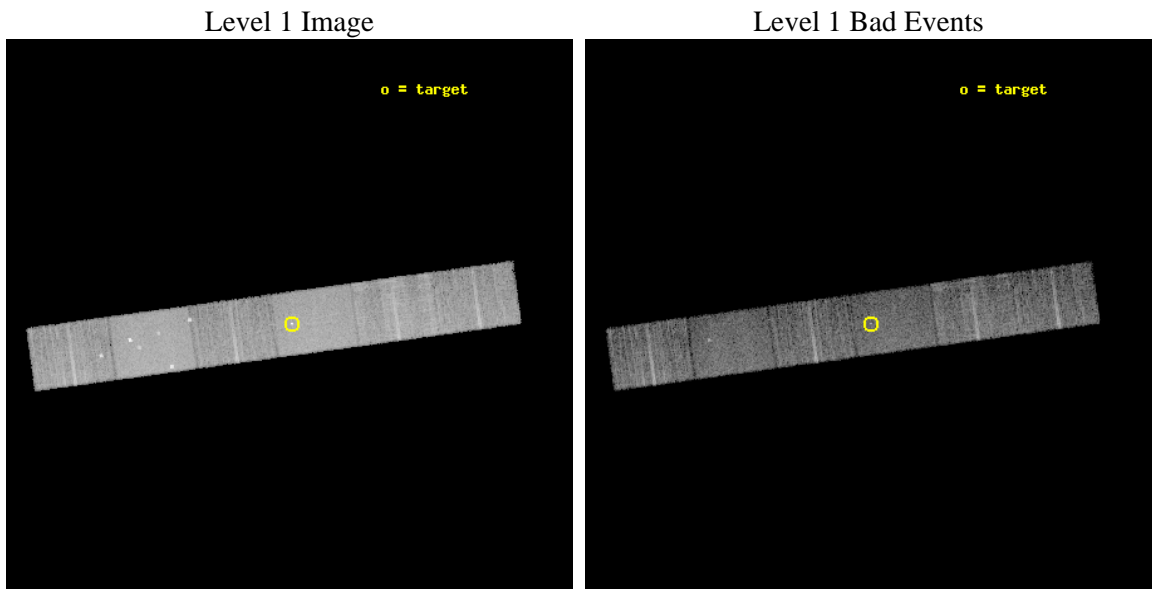
seq_num	300223	Sequence number
obs_id	10869	Observation id
title	The Symbiotic Star SS73 17: What Generates the Hard X-rays?	Propos
observer	Dr. Randall Smith	Principal investigator
object	SS73 17	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	152.762083	Observer's specified target RA [deg]
dec_targ	-57.803861	Observer's specified target Dec [deg]
ra_nom	152.77056691173	Nominal RA [deg]
dec_nom	-57.801904120023	Nominal Dec [deg]
roll_nom	352.16376621827	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6477.5	Sum of GTIs [s]
livetime	6372.8827566665	Livetime [s]
ontime4	6477.5	Sum of GTIs [s]
ontime5	6477.5	Sum of GTIs [s]
ontime6	6477.5	Sum of GTIs [s]
ontime7	6477.5	Sum of GTIs [s]
ontime8	6477.5	Sum of GTIs [s]
ontime9	6477.5	Sum of GTIs [s]
l2events	85968	Number of level 2 events



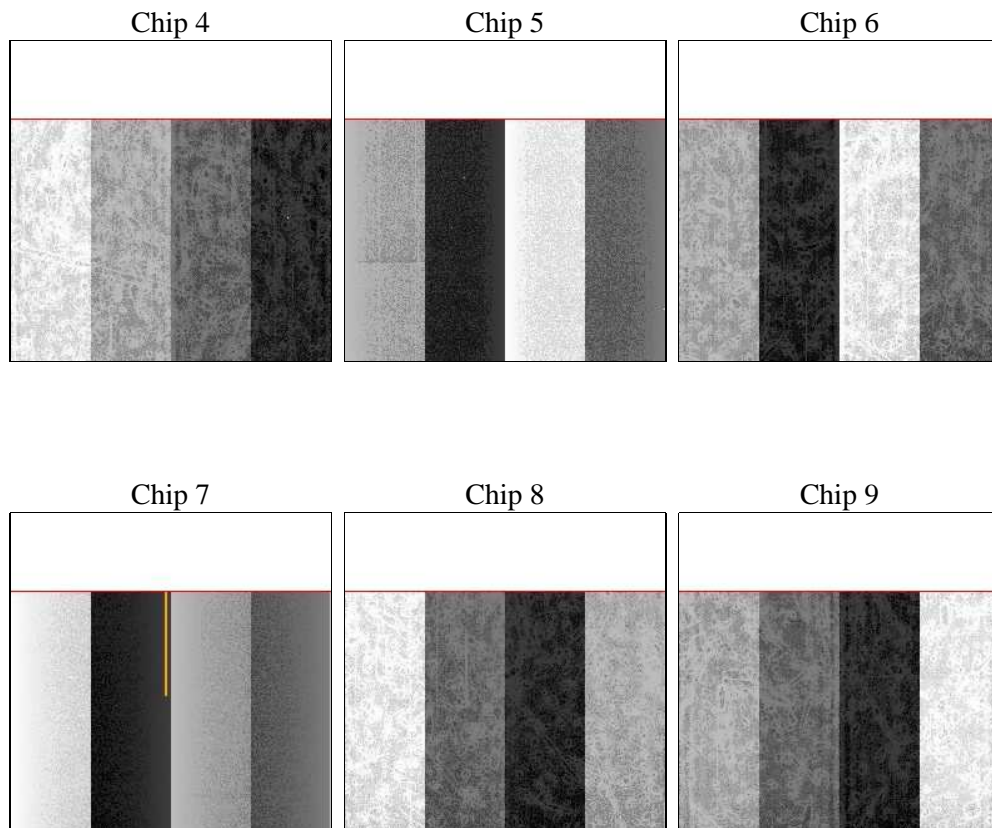
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6450.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	6477.5	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime4	6477.5	Sum of GTIs [s]
date	2012-05-31T15:03:40	Date and time of file creation	ontime5	6477.5	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	6477.5	Sum of GTIs [s]
			ontime7	6477.5	Sum of GTIs [s]
			ontime8	6477.5	Sum of GTIs [s]
			ontime9	6477.5	Sum of GTIs [s]
			l1events	385302	Number of level 1 events

### 2.1.4 Events

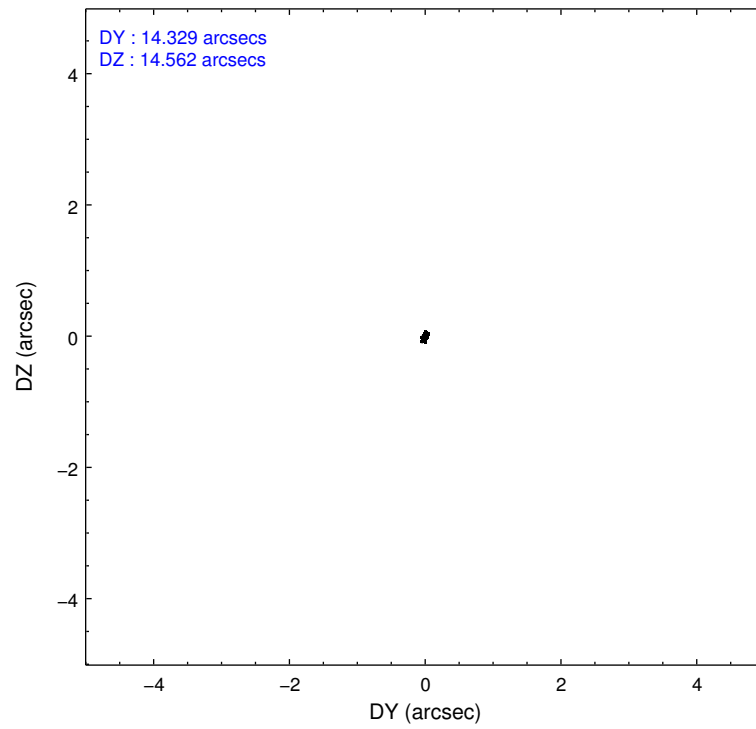
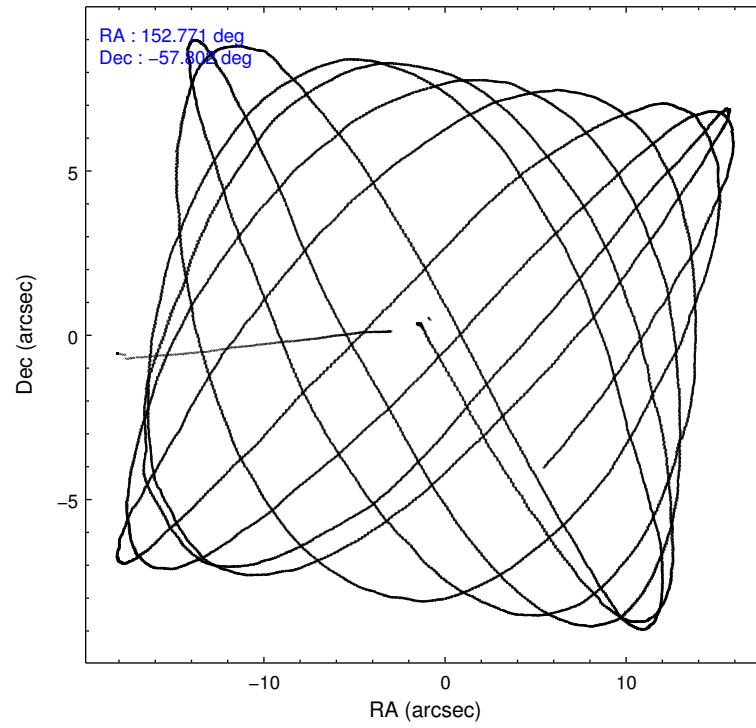
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	58946	83648	52487	72287	68161	49773	grade 0 events	3738	5718	2639	2825	4806	2578
rejected events	51459	44543	46026	42144	52714	43365		6%	6%	5%	3%	7%	5%
rejected %	87%	53%	87%	58%	77%	87%	grade 1 events	57	338	23	73	45	28
								0%	0%	0%	0%	0%	0%
							grade 2 events	1553	12267	1476	6423	3606	1414
								2%	14%	2%	8%	5%	2%
							grade 3 events	688	1519	624	2594	1703	689
								1%	1%	1%	3%	2%	1%
							grade 4 events	667	1467	608	2737	1599	657
								1%	1%	1%	3%	2%	1%
							grade 5 events	2309	5781	2467	6595	3324	2543
								3%	6%	4%	9%	4%	5%
							grade 6 events	1087	19398	1354	16543	4229	1245
								1%	23%	2%	22%	6%	2%
							grade 7 events	48847	37160	43296	34497	48849	40619
								82%	44%	82%	47%	71%	81%

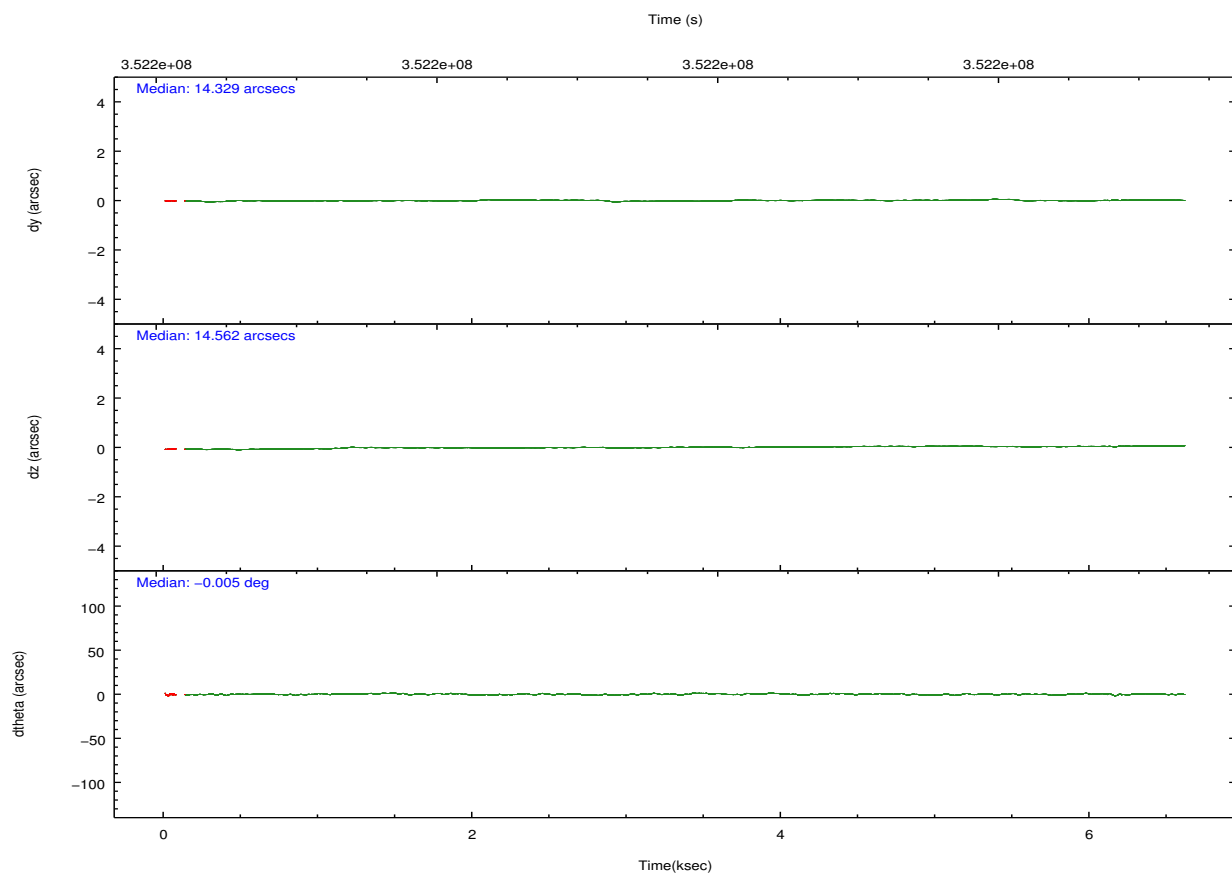
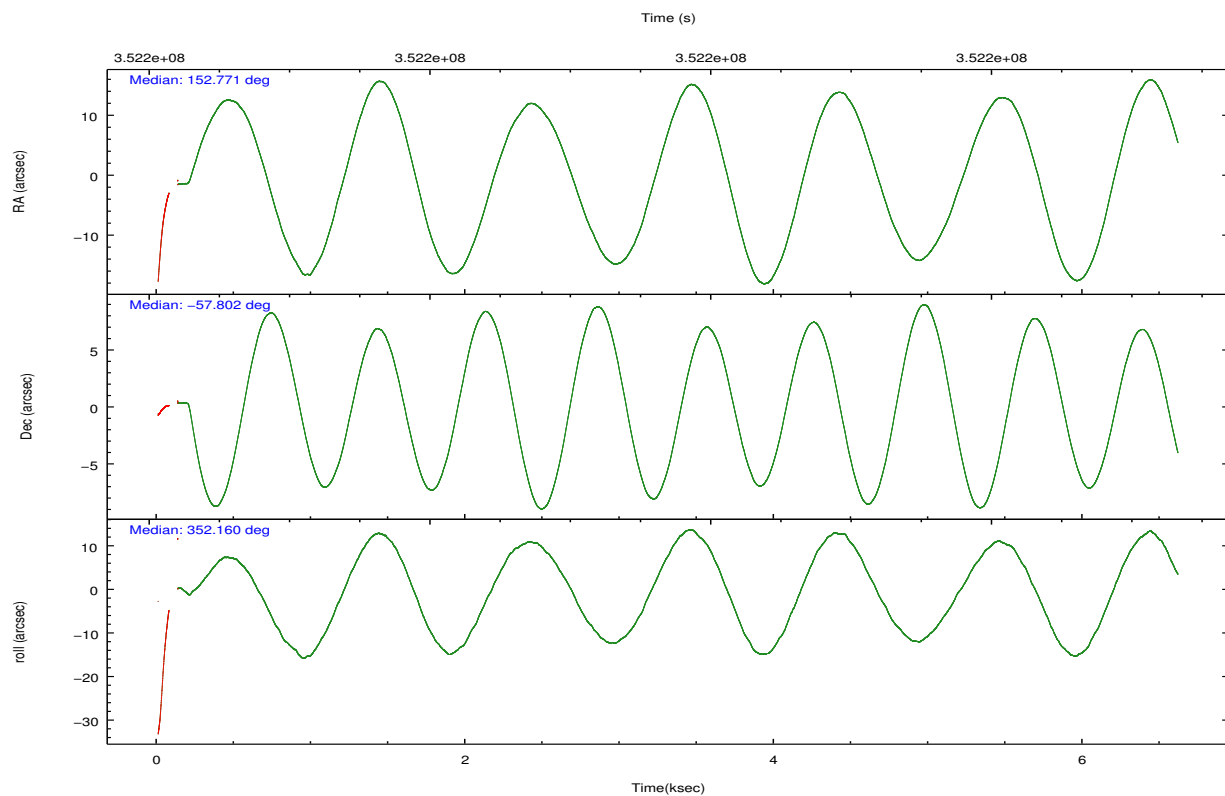


## 2.2 Compared Parameters

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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	152.723145	152.77056691173	CCD I2 on	N	N
[deg] Pointing Dec	-57.812551	-57.80190412002252	CCD I3 on	N	N
[deg] Pointing Roll	351.967043	352.1637662182677	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	-187.132523	-187.1254020033014	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-3	-3.007120579706367	CCD S4 on	Y	Y
[s] Observation start time (MET)	352196556.184000	352195408.60988	CCD S5 on	O2	Y
Observation start date	2009-02-28T08:21:30	2009-02-28T08:03:28	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	352203006.184000	352203600.92278	On-chip summing requested	N	N
Observation end date	2009-02-28T10:09:00	2009-02-28T10:20:00	Subarray requested	CUSTOM	CUSTOM
Read mode	TIMED	TIMED	Subarray start row	1	1
			Subarray row count	774	774
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	2.5

## 2.3 Aspect



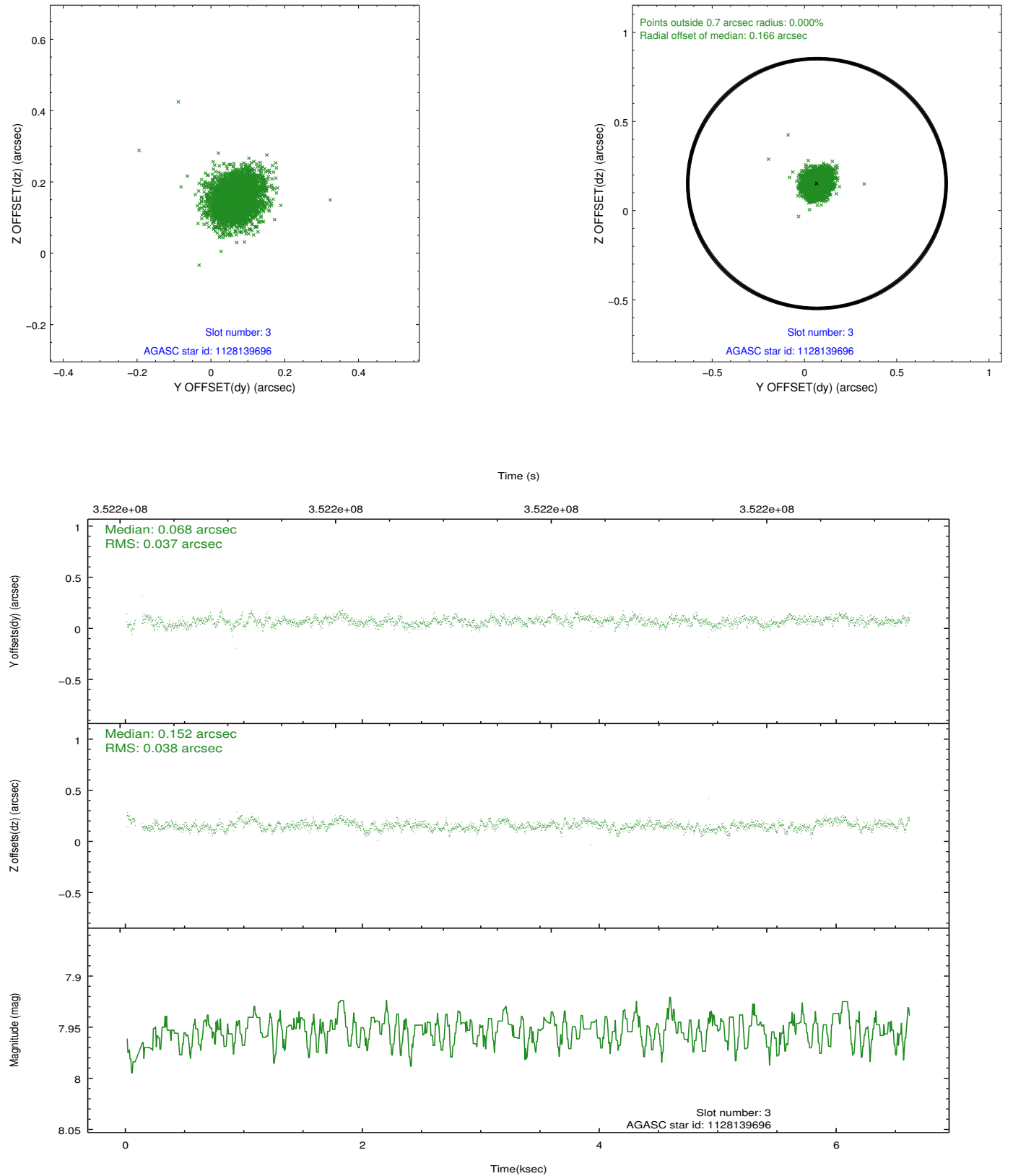


Slot Statistics

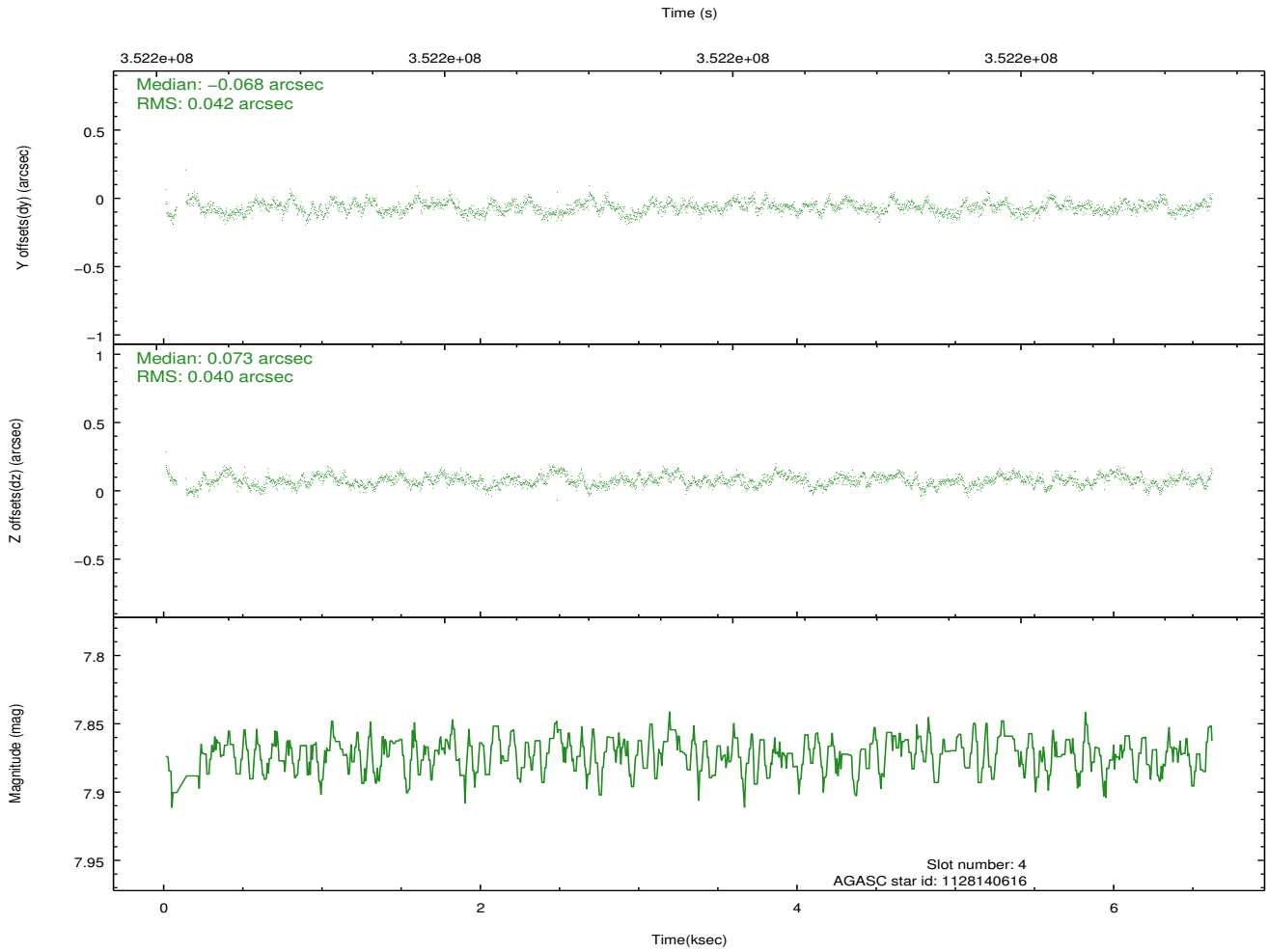
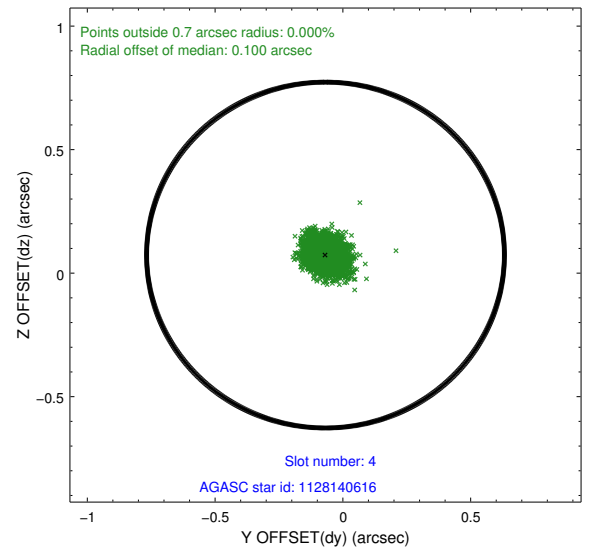
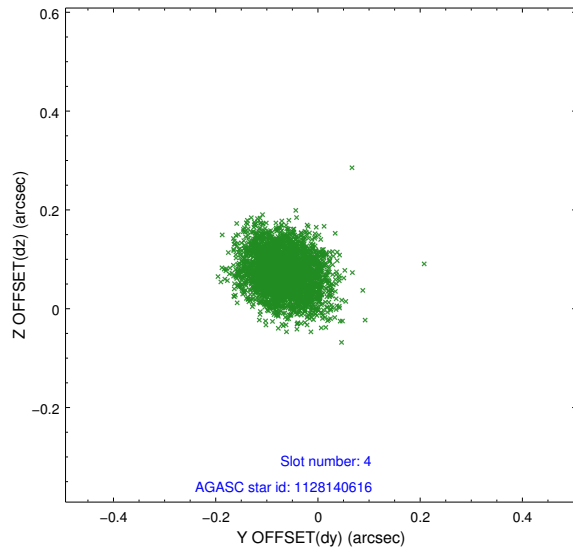
	status	id	mag	n_pts	med_dy	med_dz	drl
	FID	ACIS-S-1	7.05	1600	0.085	-0.024	0.007
	FID	ACIS-S-5	7.10	1599	-0.177	0.054	0.007
	FID	ACIS-S-6	7.23	1600	0.070	-0.018	0.008
	GUIDE	1128139696	7.95	3196	0.068	0.152	0.056
	GUIDE	1128140616	7.87	3197	-0.068	0.073	0.063
	GUIDE	1128148264	8.73	3195	0.033	-0.180	0.088
	GUIDE	1128274392	9.35	3193	-0.034	-0.045	0.105
0.0000.0000.0000.0000000.00000000.000.00							

## 2.4 Star Slots

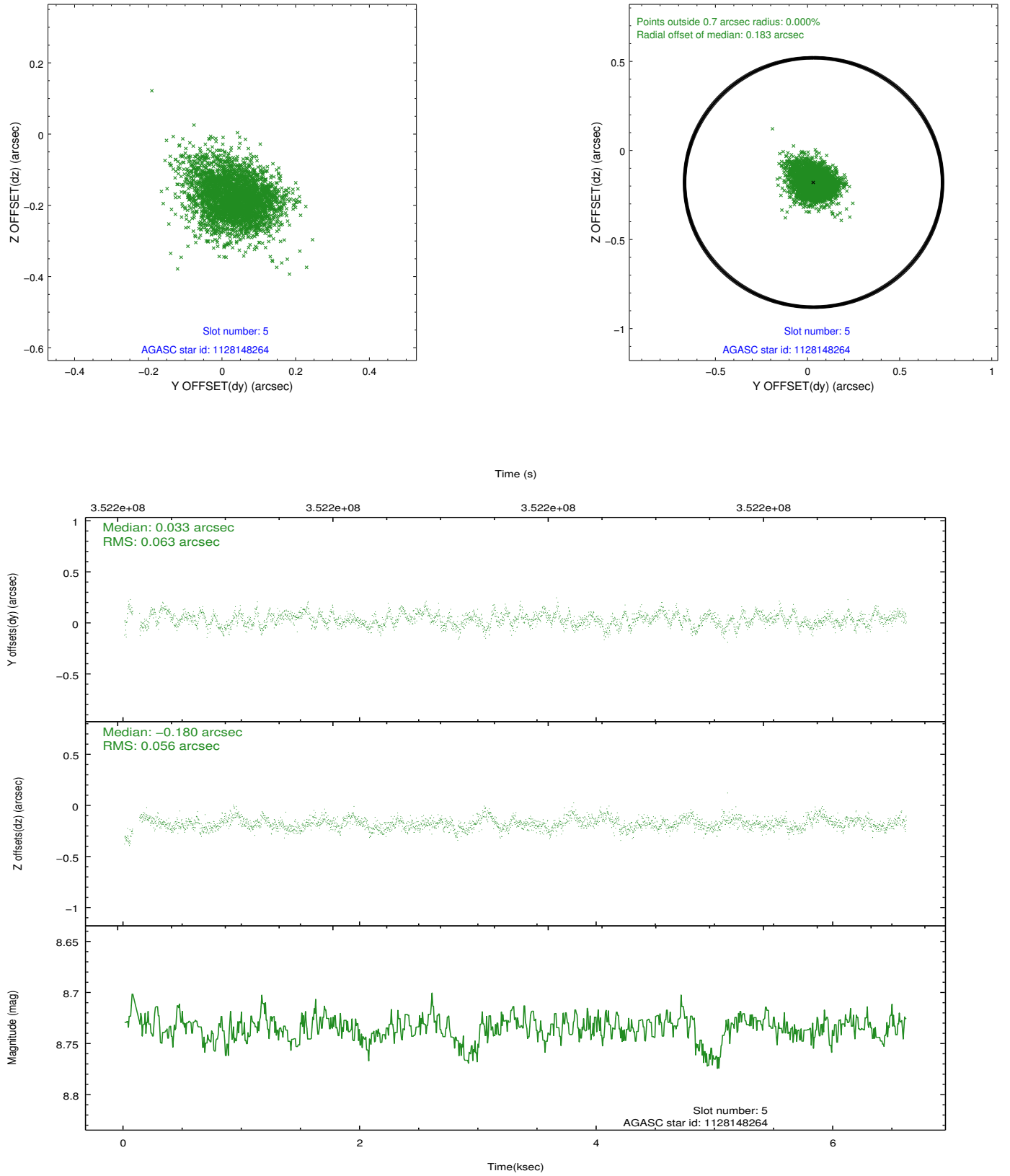
### 2.4.1 Slot 3



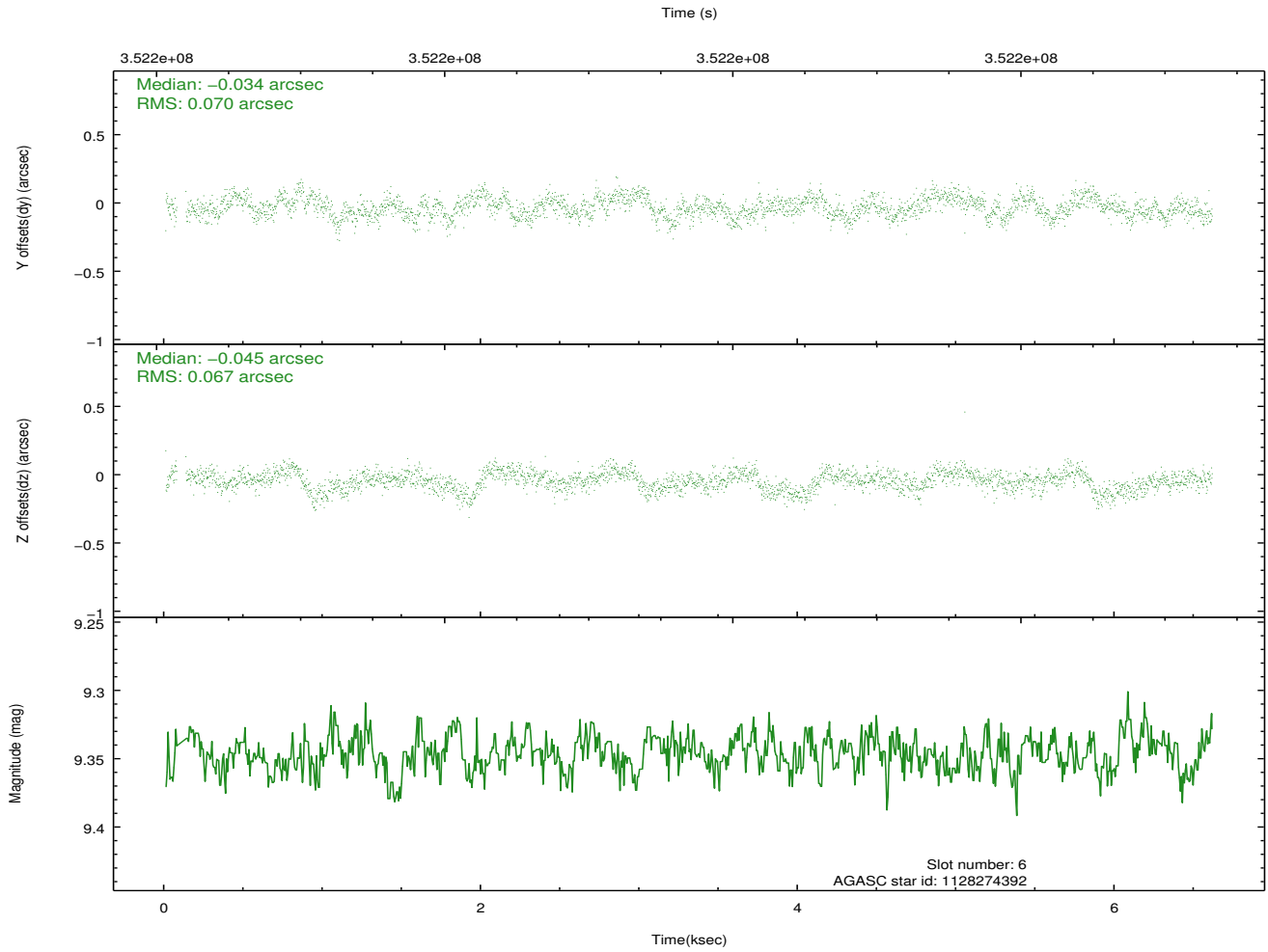
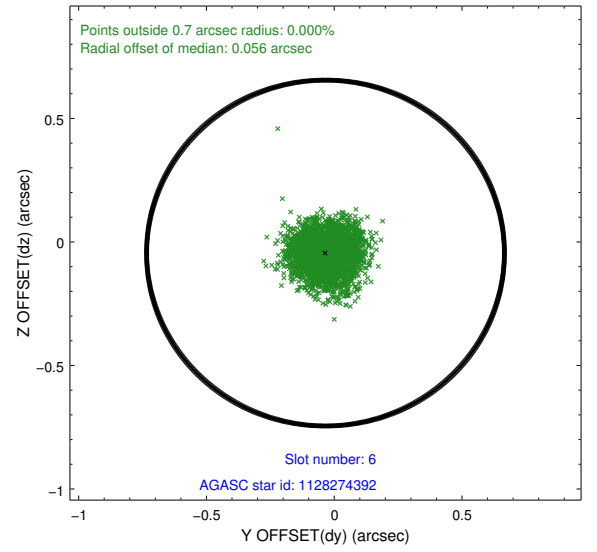
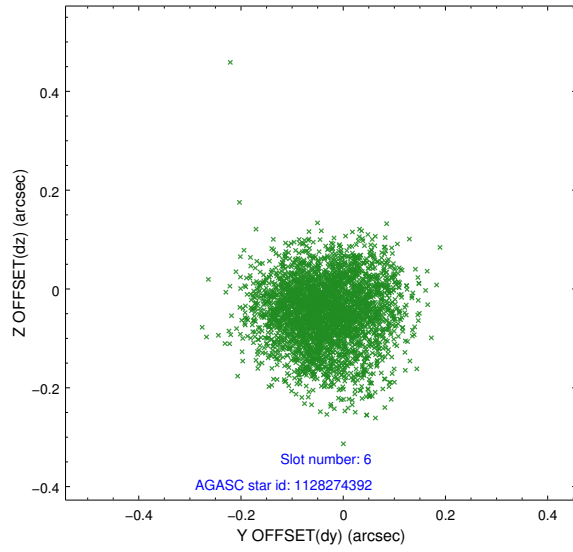
## 2.4.2 Slot 4



### 2.4.3 Slot 5



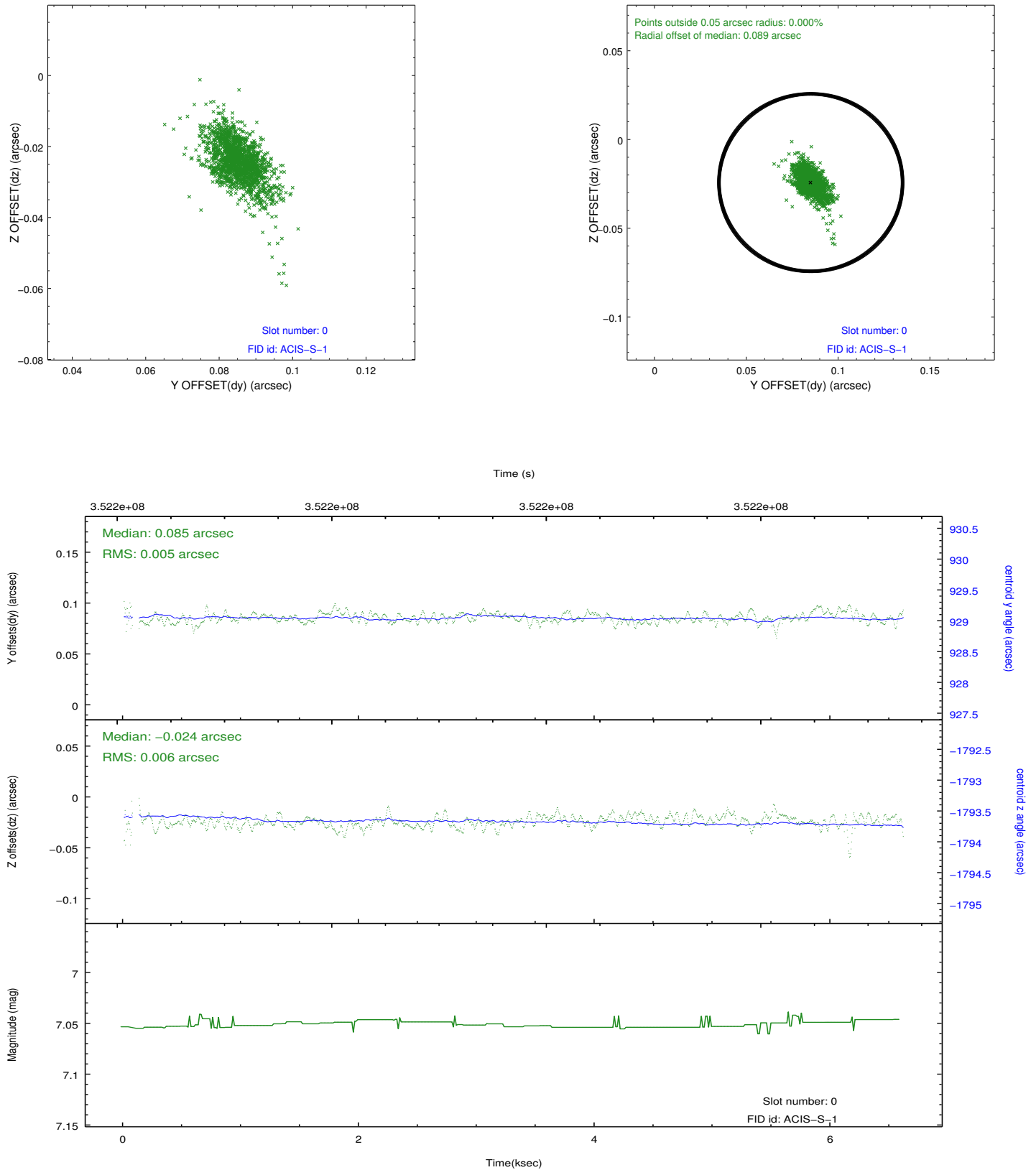
## 2.4.4 Slot 6



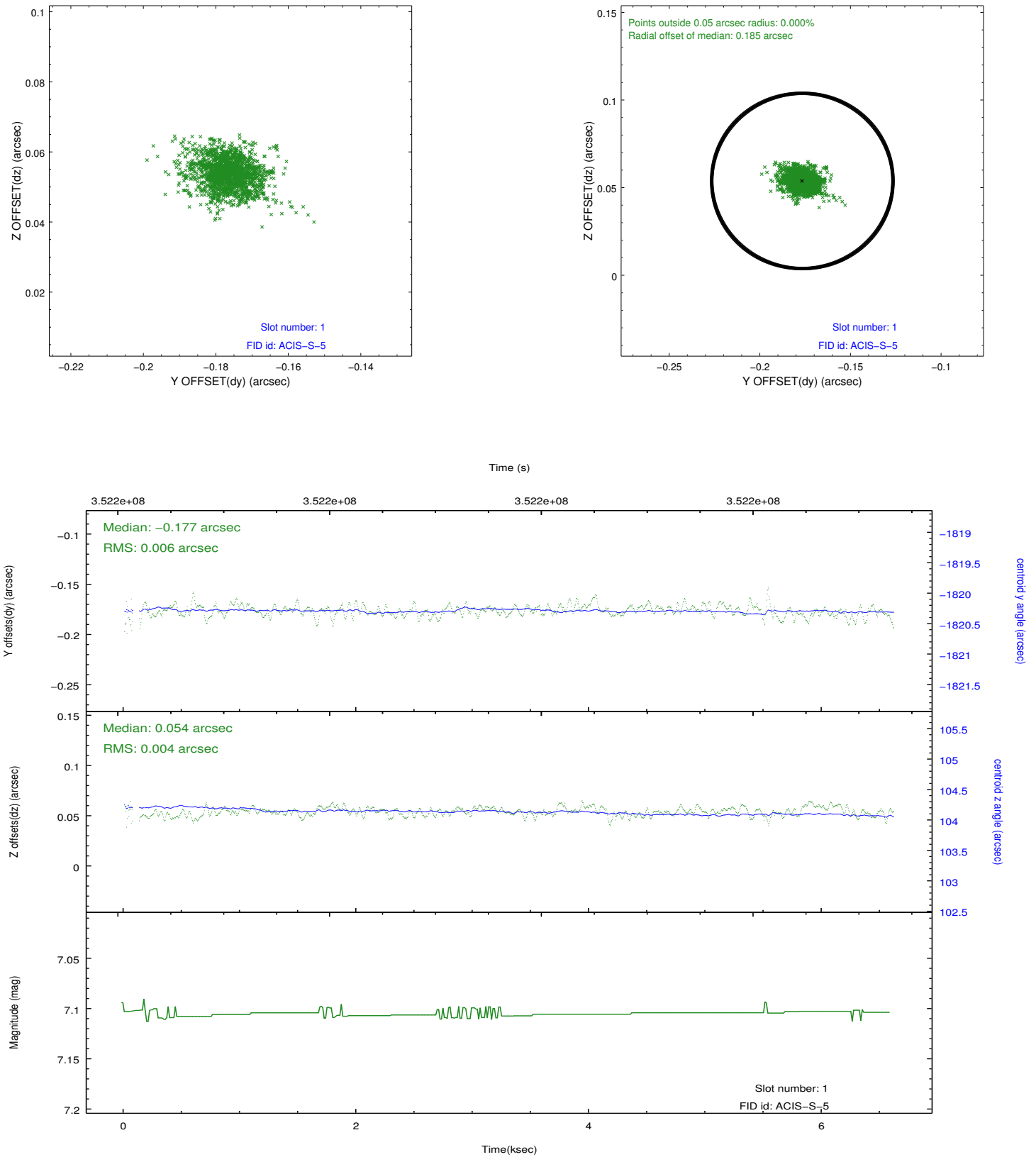


## 2.5 FID Slots

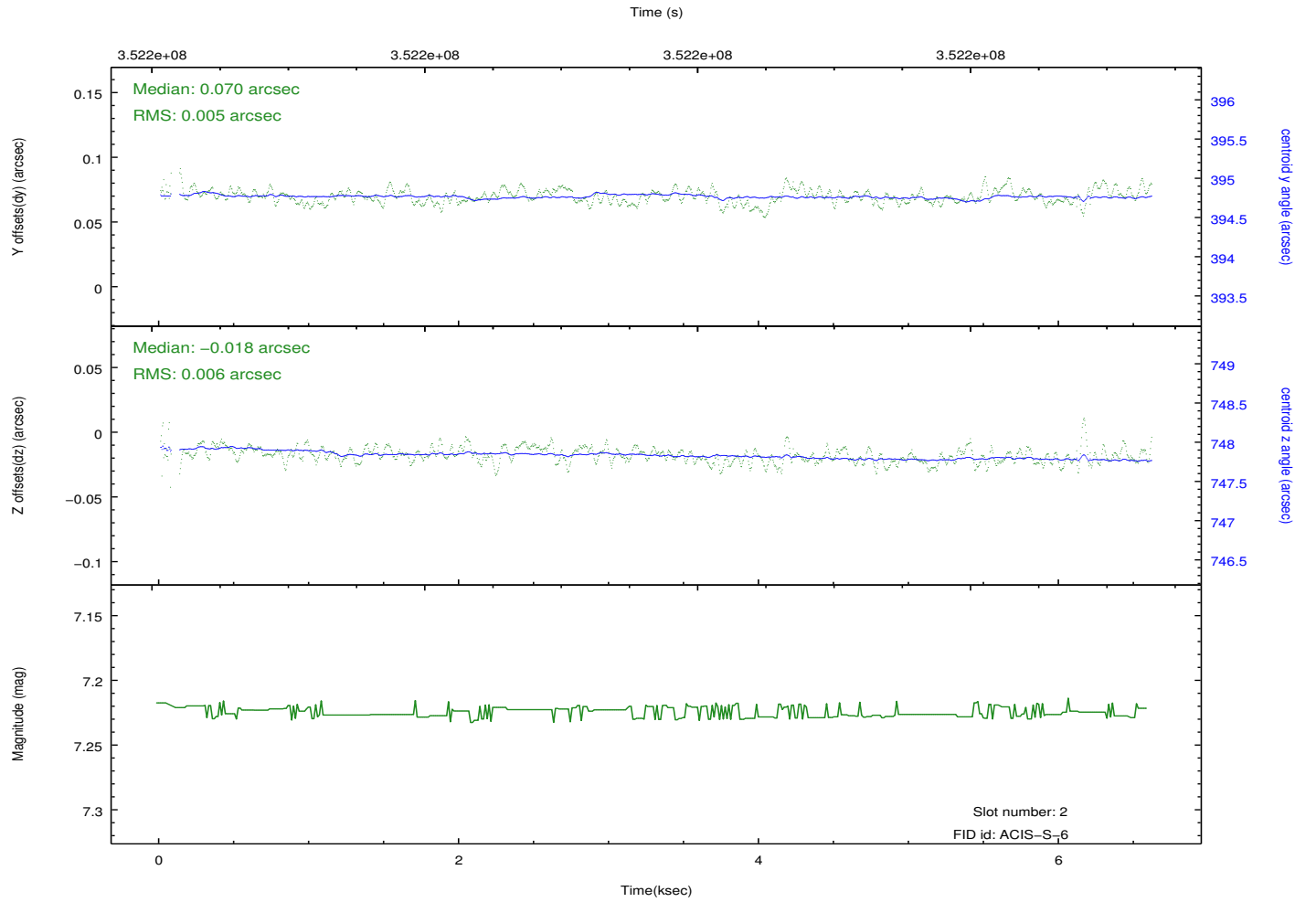
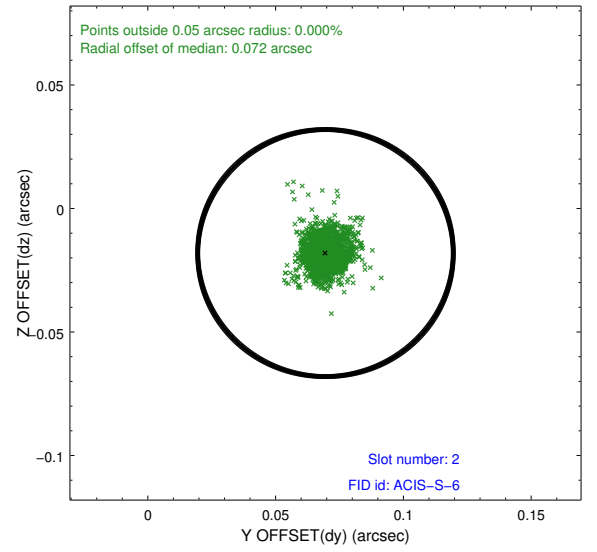
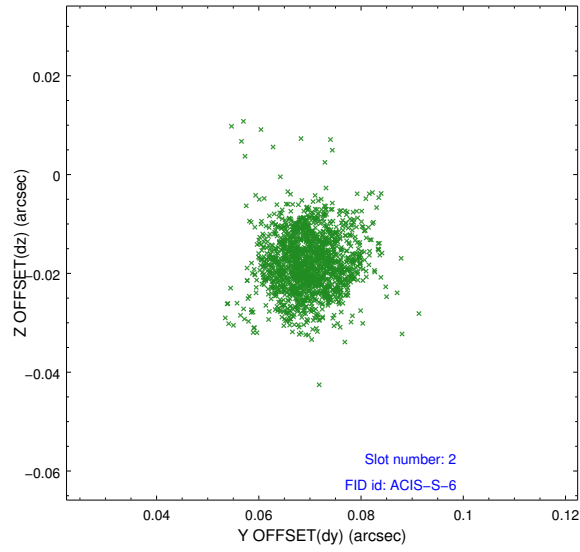
### 2.5.1 Slot 0



## 2.5.2 Slot 1

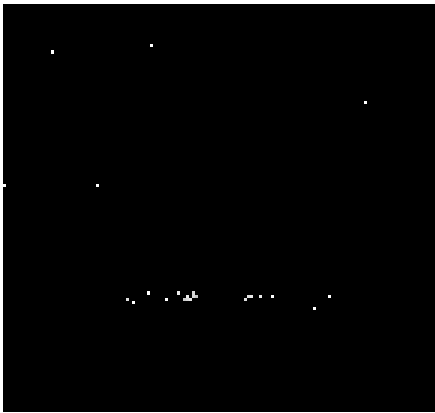


### 2.5.3 Slot 2

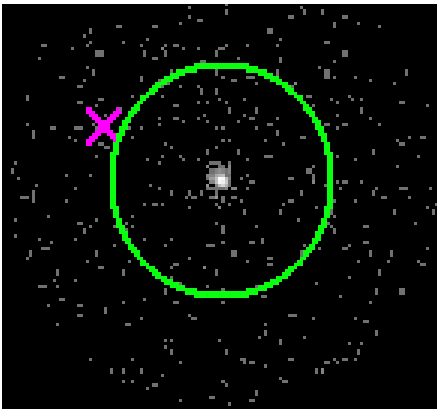


# 3 Gratings

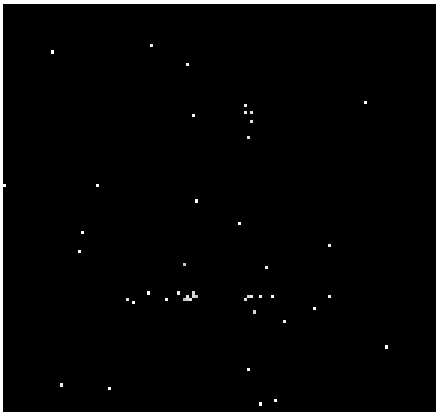
## 3.1 HEG Arm



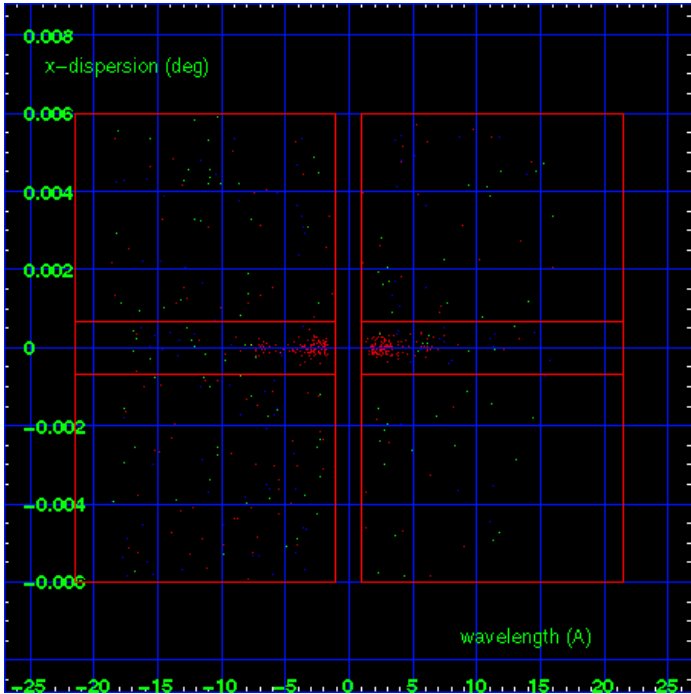
HEG Order Sort 123



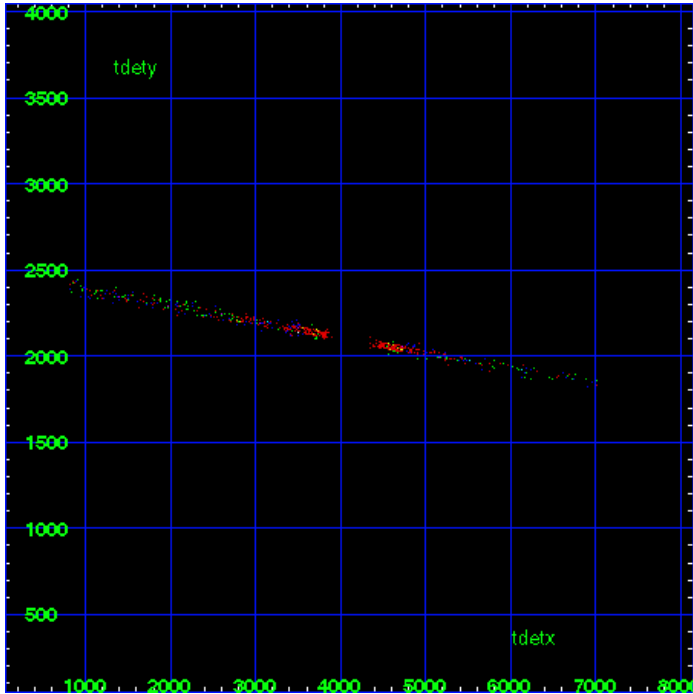
HEG Zero Order



HEG Order Sort ALL

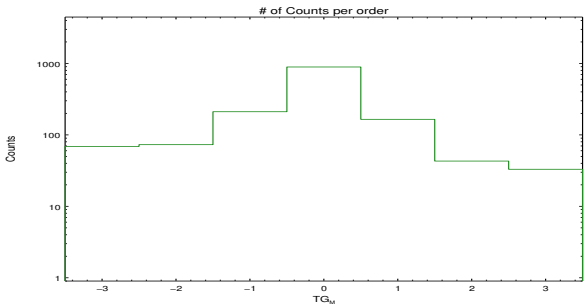


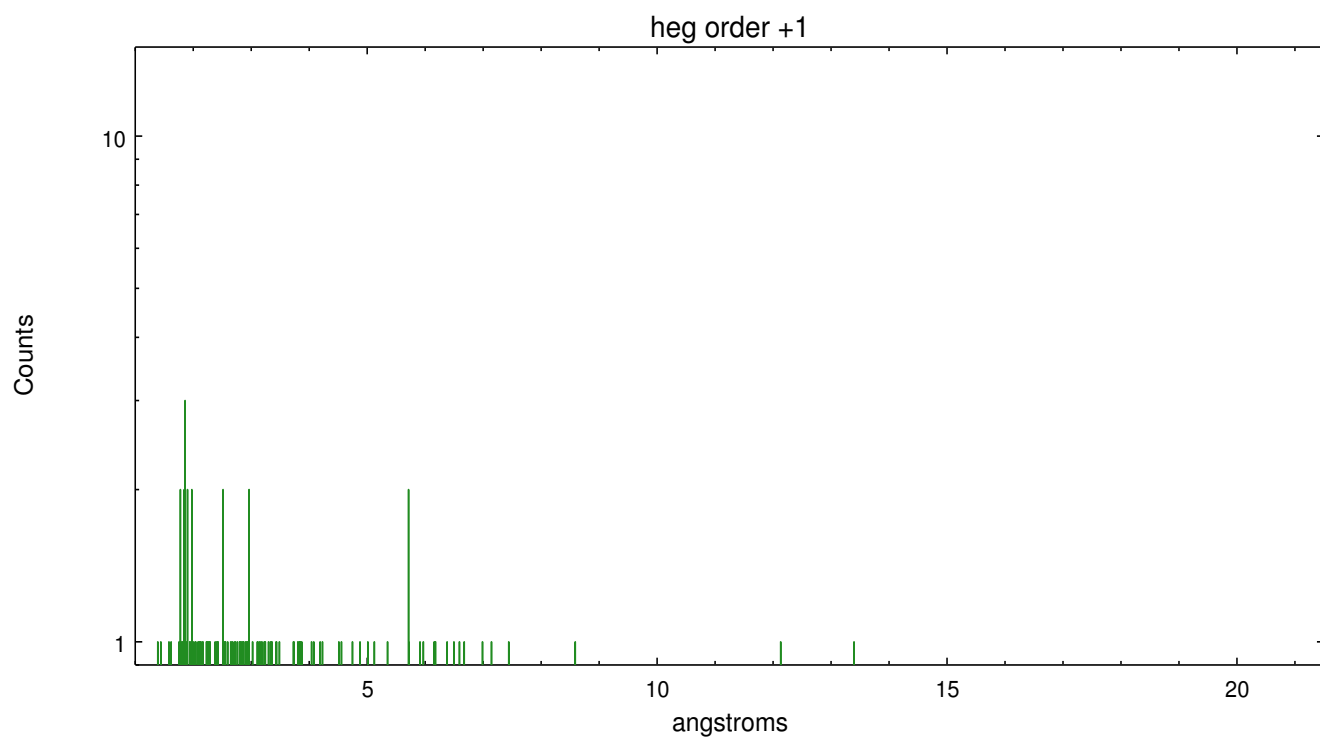
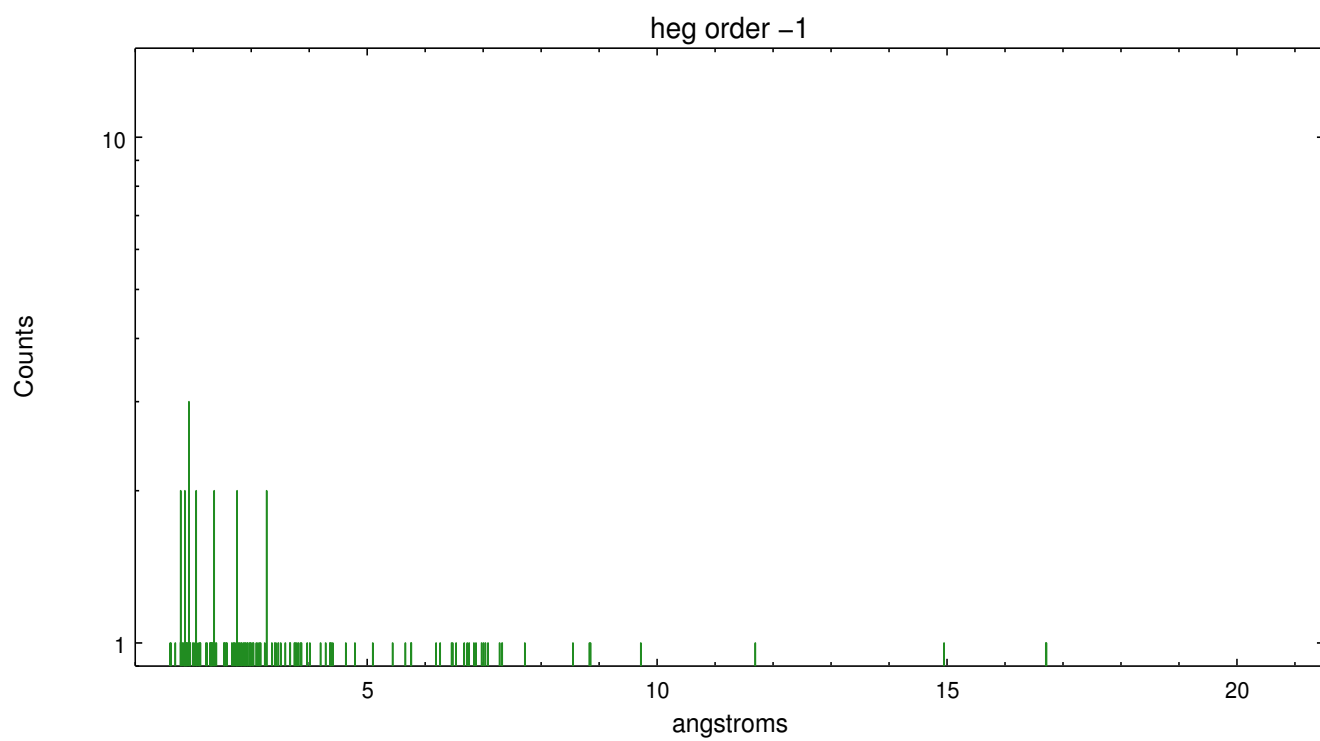
Spot Image HEG



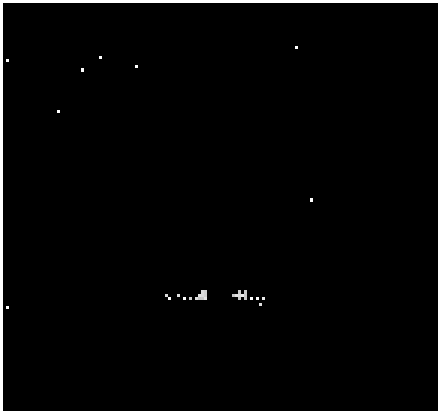
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	69	73	211	892	165	43	33

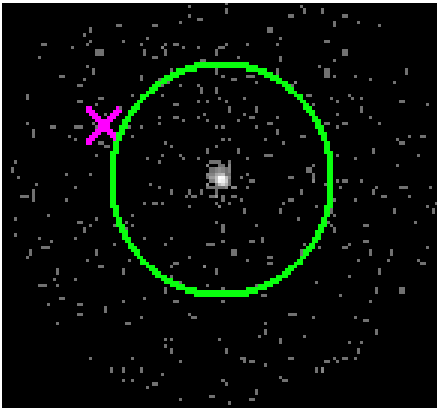




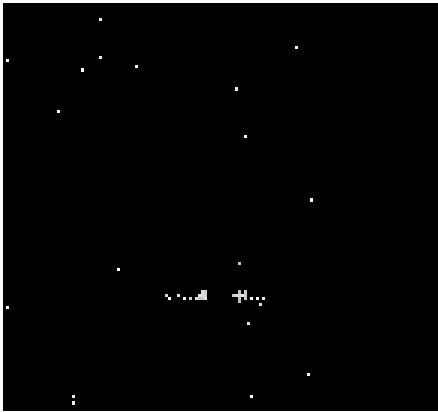
3.2 MEG Arm



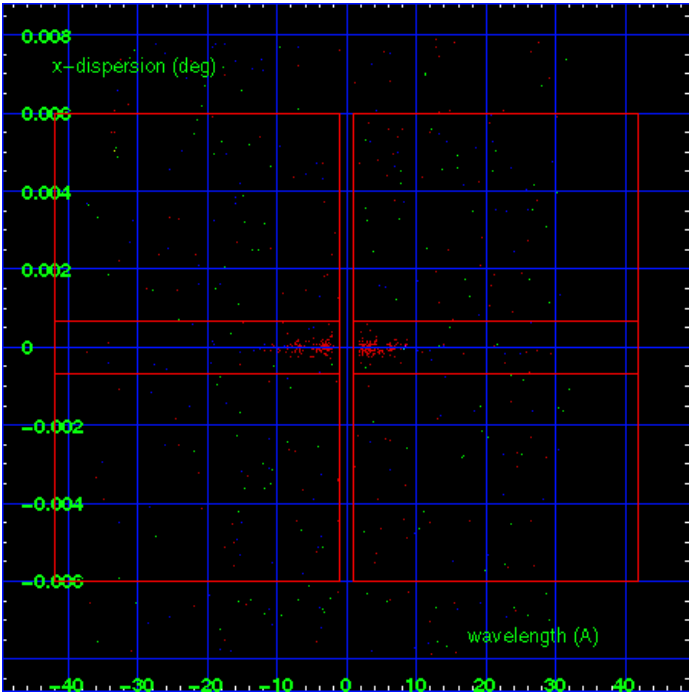
MEG Order Sort 123



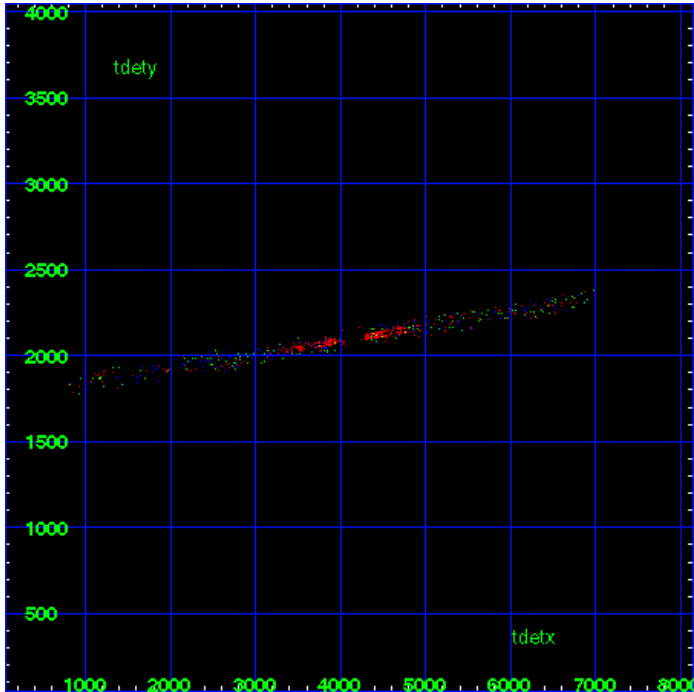
MEG Zero Order



MEG Order Sort ALL

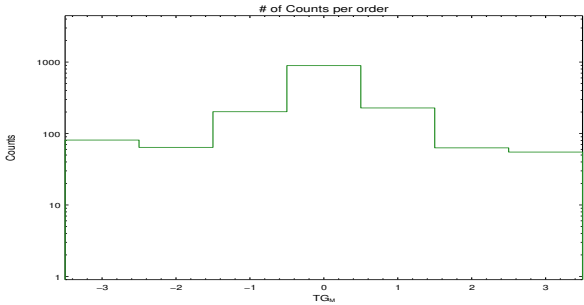


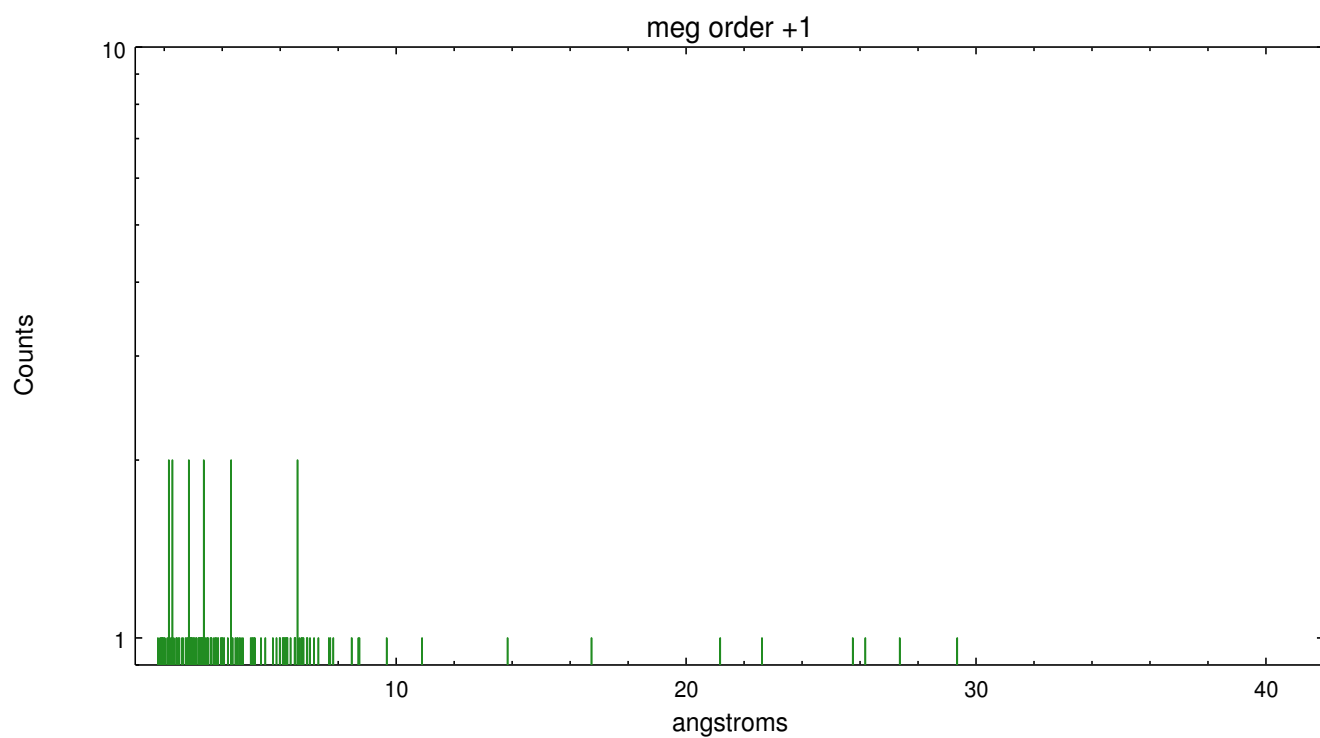
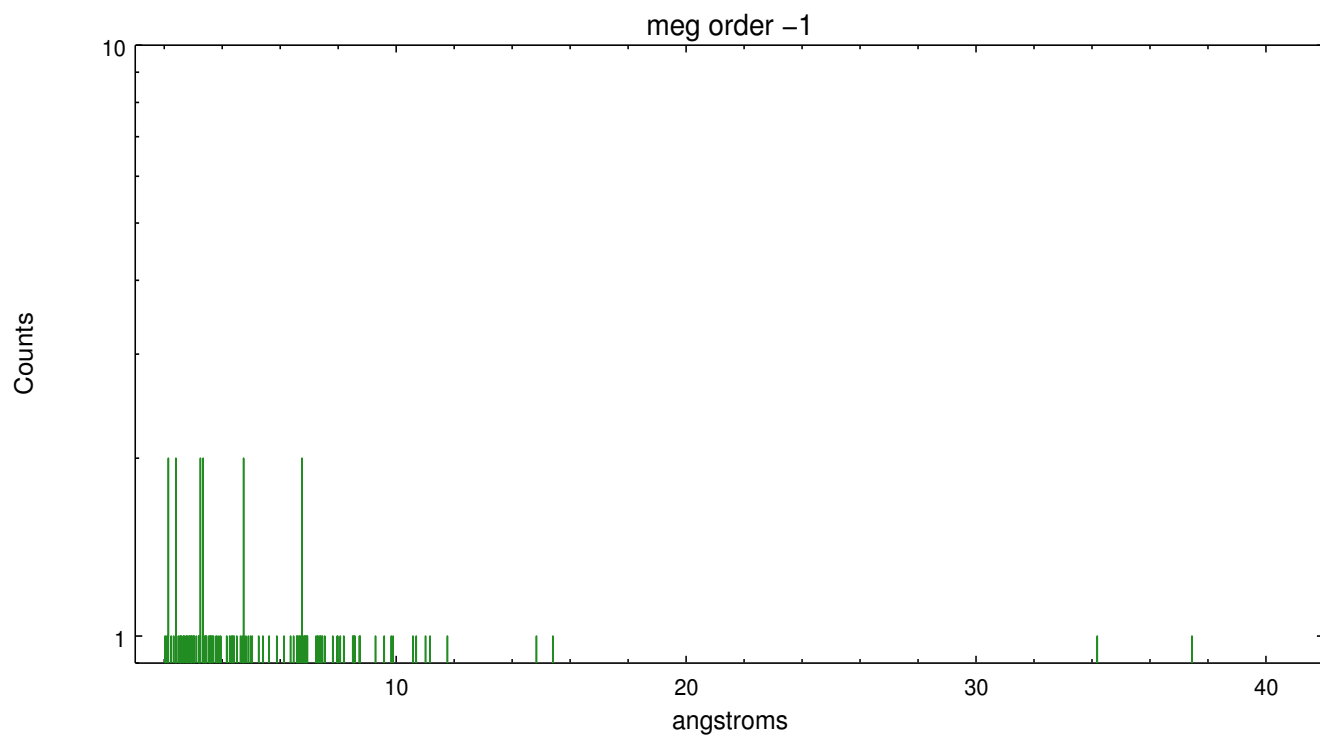
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	81	64	202	892	228	63	55





## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.06.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.4775

### A.2 Comments

Optical photometry of target in guide star slot 7.