

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 5520 - L2 Version 3
Chandra X-Ray Center

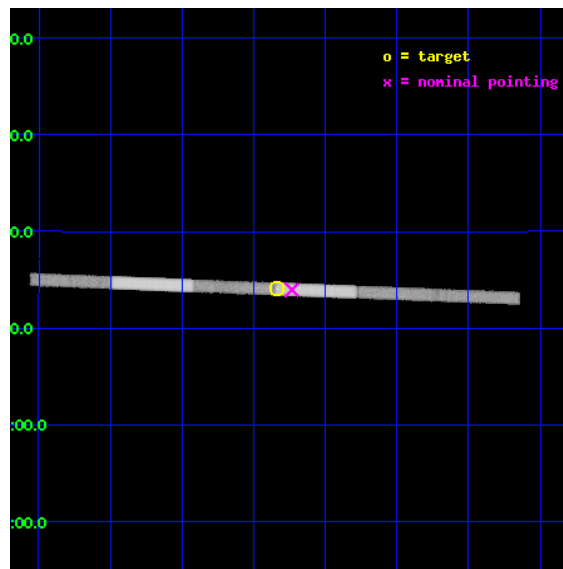
L2 Processing Date : Dec 10 2012

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1 Front

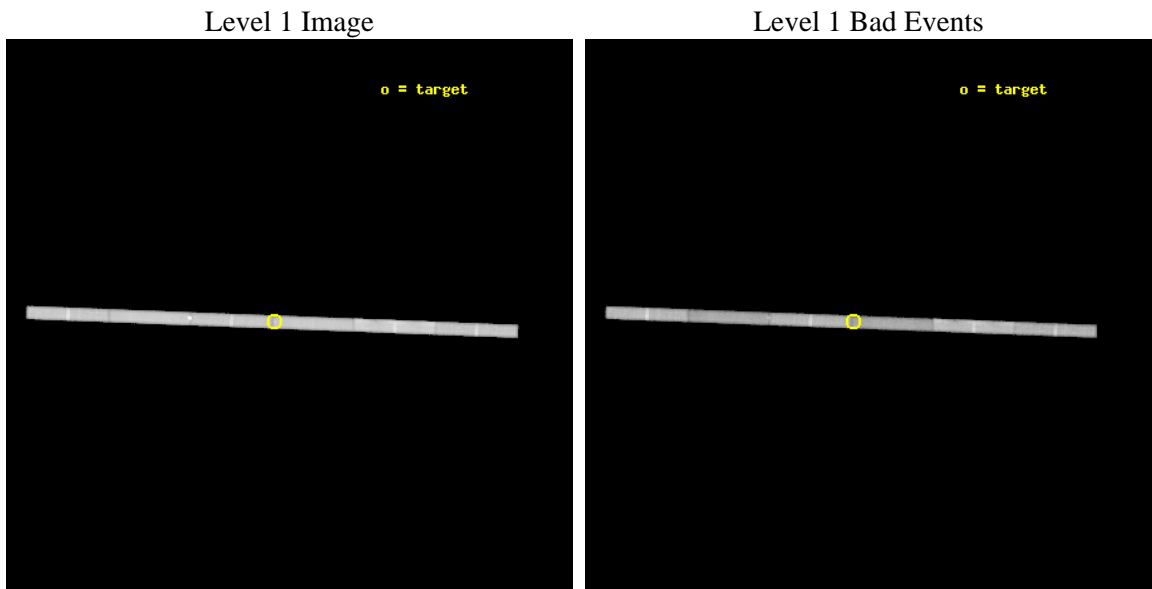
seq_num	500514	Sequence number
obs_id	5520	Observation id
title	Observations of a Bright GRB	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	GRB041006	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	13.70917	Observer's specified target RA [deg]
dec_targ	1.23528	Observer's specified target Dec [deg]
ra_nom	13.683276363811	Nominal RA [deg]
dec_nom	1.2327062178845	Nominal Dec [deg]
roll_nom	2.1571913812477	Nominal Roll [deg]
revision	3	Processing version of data
ontime	91354.898444235	Sum of GTIs [s]
livetime	86295.515641483	Livetime [s]
ontime4	91354.898444235	Sum of GTIs [s]
ontime5	91354.898444235	Sum of GTIs [s]
ontime6	91354.898444235	Sum of GTIs [s]
ontime7	91354.898444235	Sum of GTIs [s]
ontime8	91354.898444235	Sum of GTIs [s]
ontime9	91354.898444235	Sum of GTIs [s]
l2events	159488	Number of level 2 events



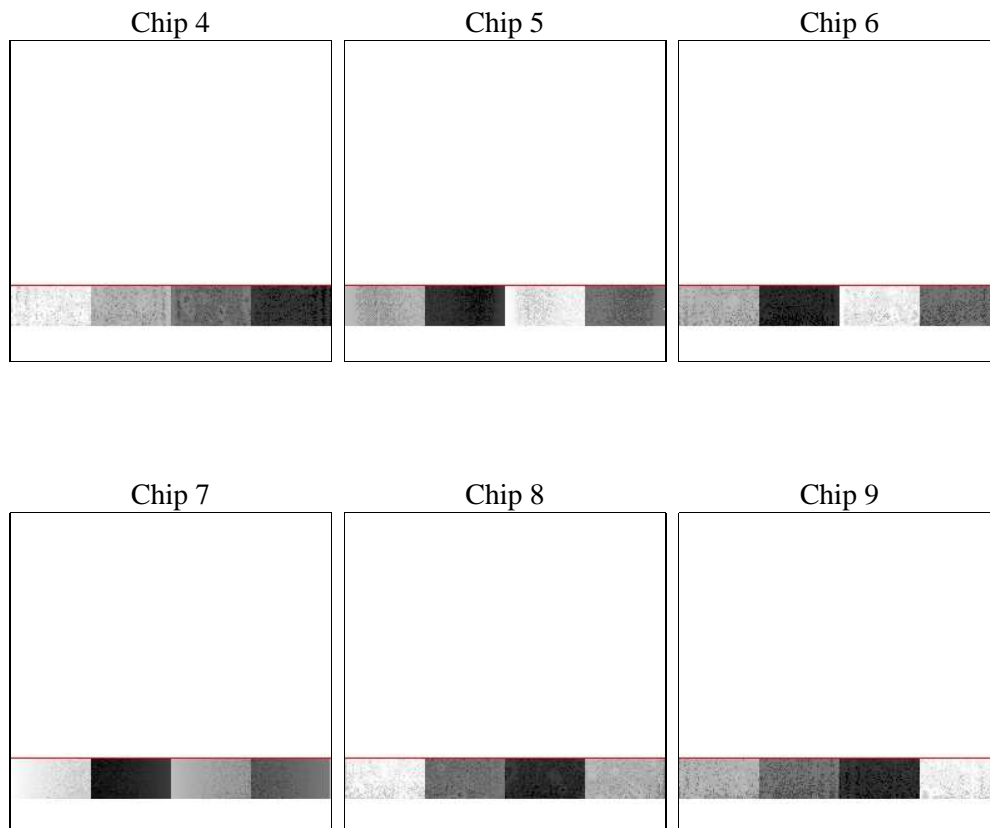
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	91173.961000	[s] Scheduled observation exposure time
ascdsver	8.5	Processing system revision	ontime	91354.898444235	Sum of GTIs [s]
caldbver	4.5.4	 	ontime4	91354.898444235	Sum of GTIs [s]
date	2012-12-09T22:44:59	Date and time of file creation	ontime5	91354.898444235	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	91354.898444235	Sum of GTIs [s]
			ontime7	91354.898444235	Sum of GTIs [s]
			ontime8	91354.898444235	Sum of GTIs [s]
			ontime9	91354.898444235	Sum of GTIs [s]
			l1events	808543	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	135313	145911	121005	127602	167716	110996	grade 0 events	4962	12860	4592	5041	7739	4510
rejected events	121032	73926	107492	73070	137077	97821		3%	8%	3%	3%	4%	4%
rejected %	89%	50%	88%	57%	81%	88%	grade 1 events	49	956	30	122	46	39
								0%	0%	0%	0%	0%	0%
							grade 2 events	2918	17644	2286	10959	6090	2180
								2%	12%	1%	8%	3%	1%
							grade 3 events	2196	5532	2287	6029	3873	2196
								1%	3%	1%	4%	2%	1%
							grade 4 events	2082	5251	2248	6041	3708	2199
								1%	3%	1%	4%	2%	1%
							grade 5 events	3752	12124	3923	11680	5107	4079
								2%	8%	3%	9%	3%	3%
							grade 6 events	2268	31998	2249	27168	9742	2256
								1%	21%	1%	21%	5%	2%
							grade 7 events	117086	59546	103390	60562	131411	93537
								86%	40%	85%	47%	78%	84%

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	LETG	LETG	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	13.660395	13.68327636381064	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	1.217899	1.232706217884466	Subarray start row	113	113
[deg] Pointing Roll	2.001047	2.157191381247724	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	0.7
[mm] SIM translation stage pos	-182.132523	-182.1370004450064			
[mm] SIM translation stage offset	-8	-7.995522138001405			
[s] Observation start time (MET)	213514165.184000	213512761.85426			
Observation start date	2004-10-07T05:28:21	2004-10-07T05:06:01			
[s] Observation end time (MET)	213605339.184000	213605549.47091			
Observation end date	2004-10-08T06:47:55	2004-10-08T06:52:29			
Read mode	TIMED	TIMED			

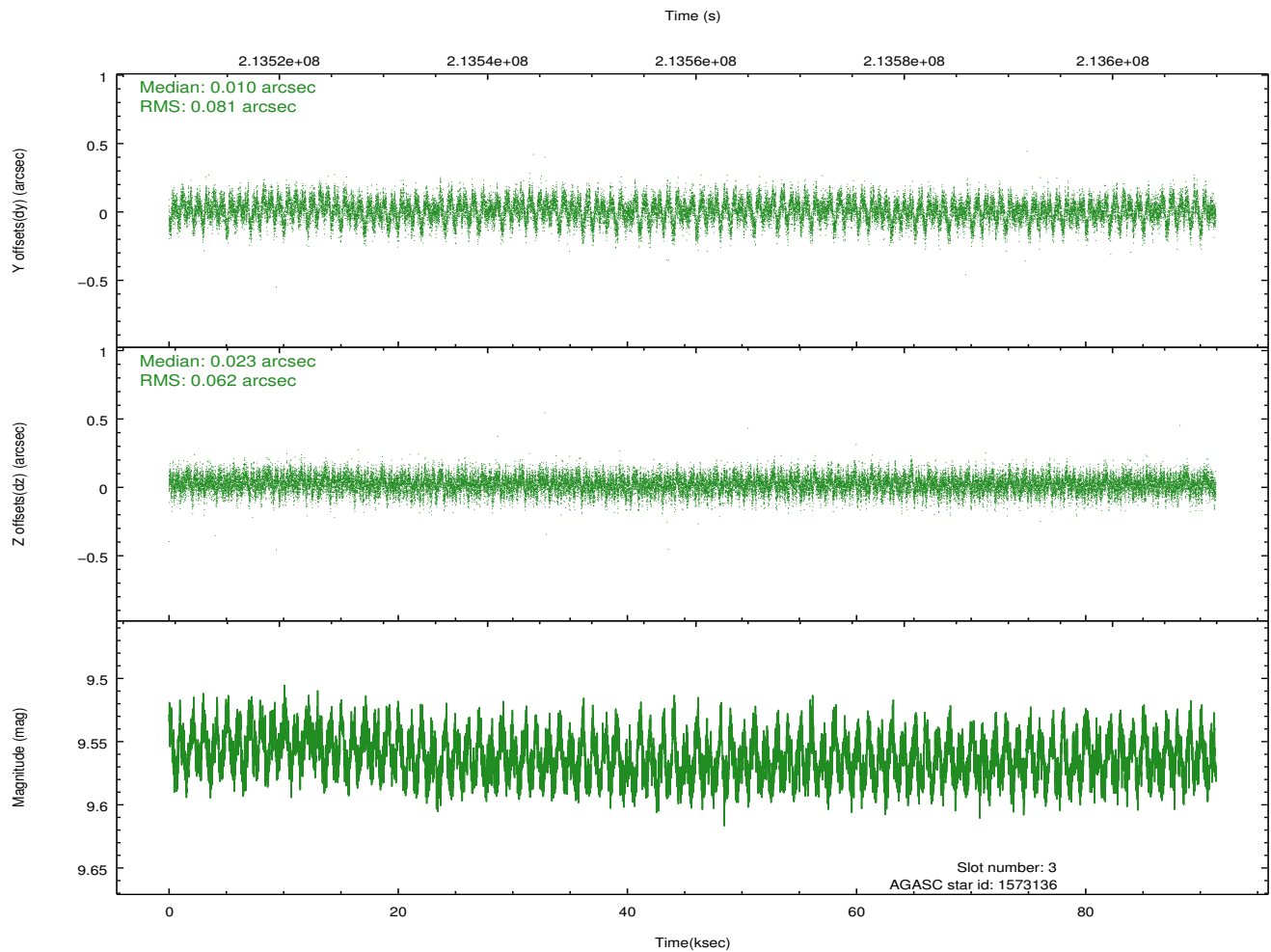
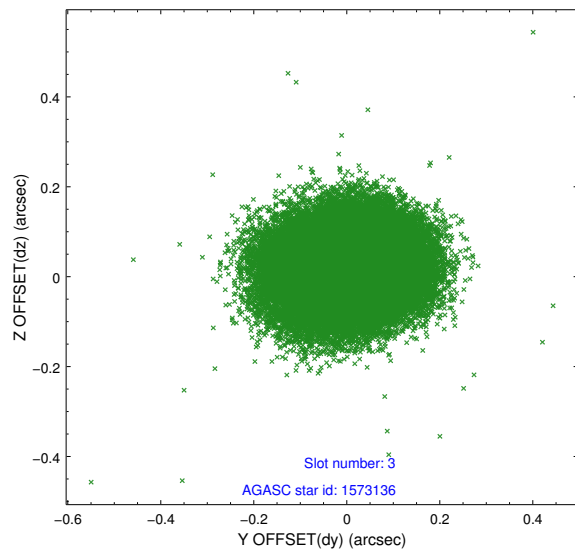
2.3 Aspect

Slot Statistics

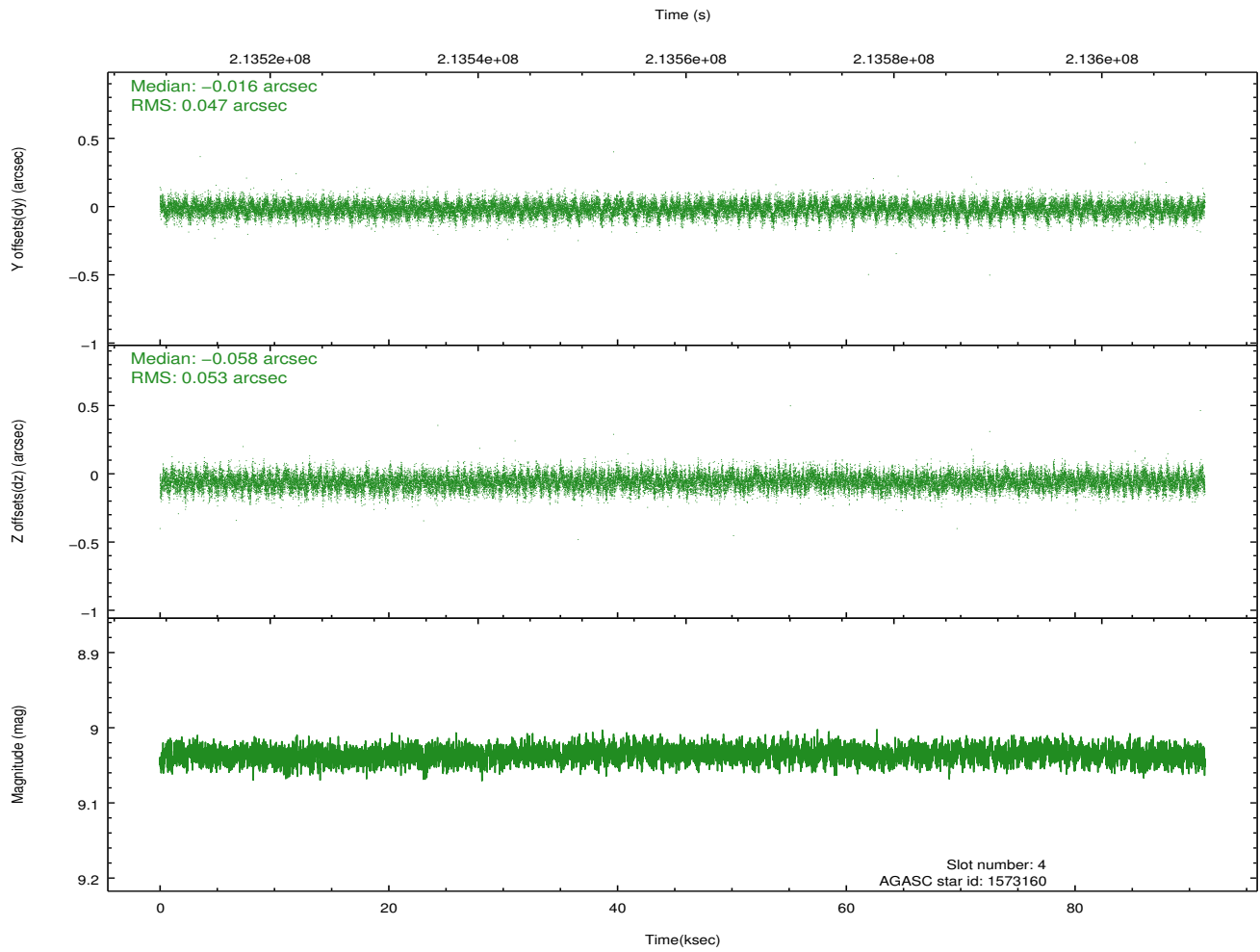
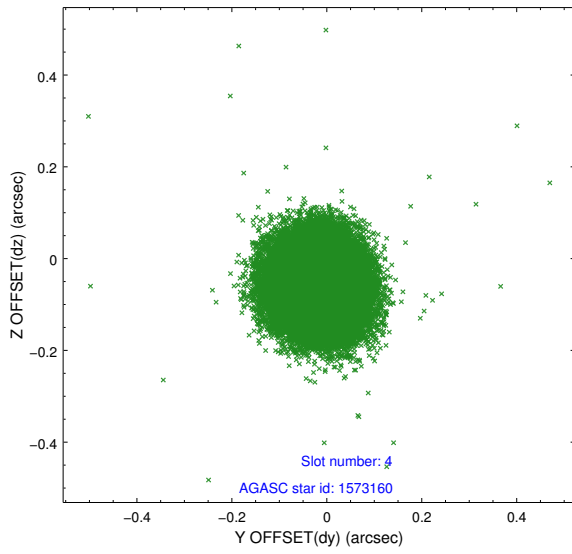
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	22282	-0.066	-0.156	0.040	0.076	0.000000	0.000000	-758.48	-1894.61
1	FID	ACIS-S-4	7.18	22281	0.161	0.075	0.036	0.068	0.000000	0.000000	2155.07	14.10
2	FID	ACIS-S-5	7.22	22282	-0.121	0.086	0.046	0.068	0.000000	0.000000	-1811.45	7.75
3	GUIDE	1573136	9.56	44528	0.010	0.023	0.109	0.175	13.115854	1.099009	-1973.26	-359.32
4	GUIDE	1573160	9.04	44541	-0.016	-0.058	0.075	0.120	13.702913	1.100807	138.40	-426.67
5	GUIDE	1573696	7.94	44553	-0.019	-0.068	0.058	0.093	13.755831	0.789553	289.83	-1553.38
6	GUIDE	1578704	8.83	44545	-0.047	0.068	0.064	0.103	14.213044	1.680901	2045.79	1596.87
7	GUIDE	1581504	9.32	44541	0.081	0.036	0.088	0.142	14.179515	1.875214	1949.54	2300.09

2.4 Star Slots

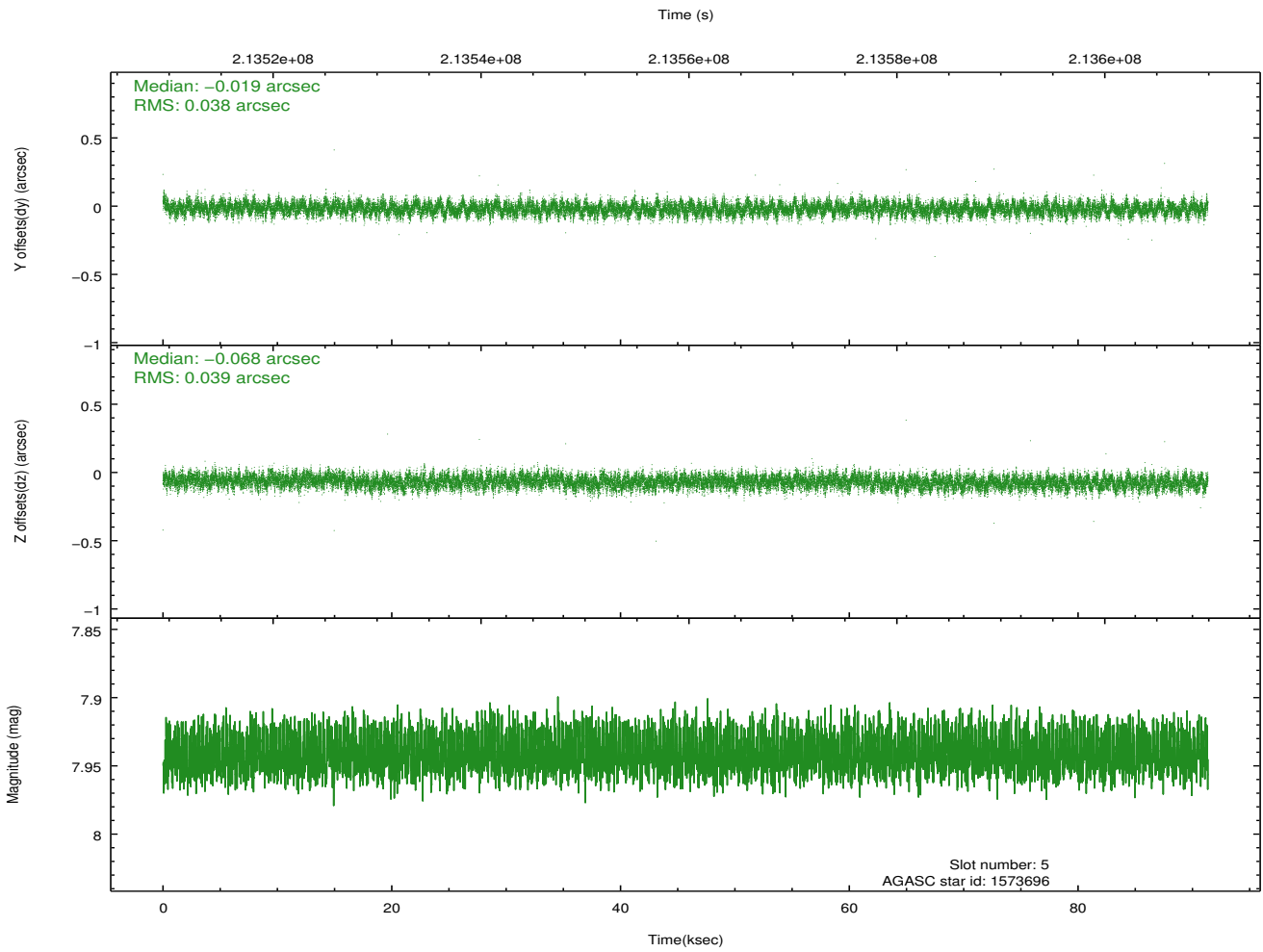
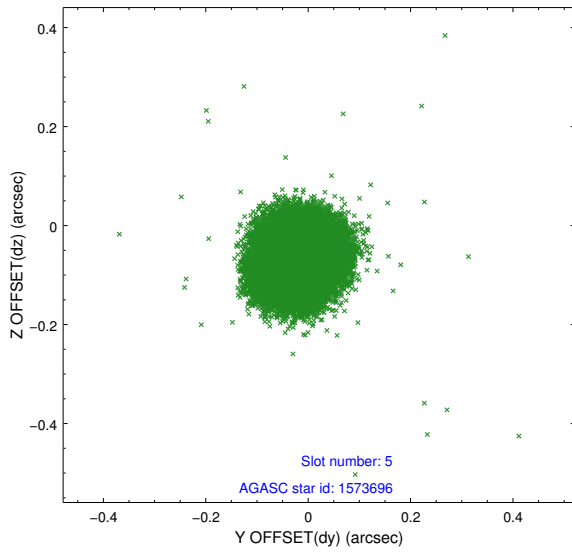
2.4.1 Slot 3



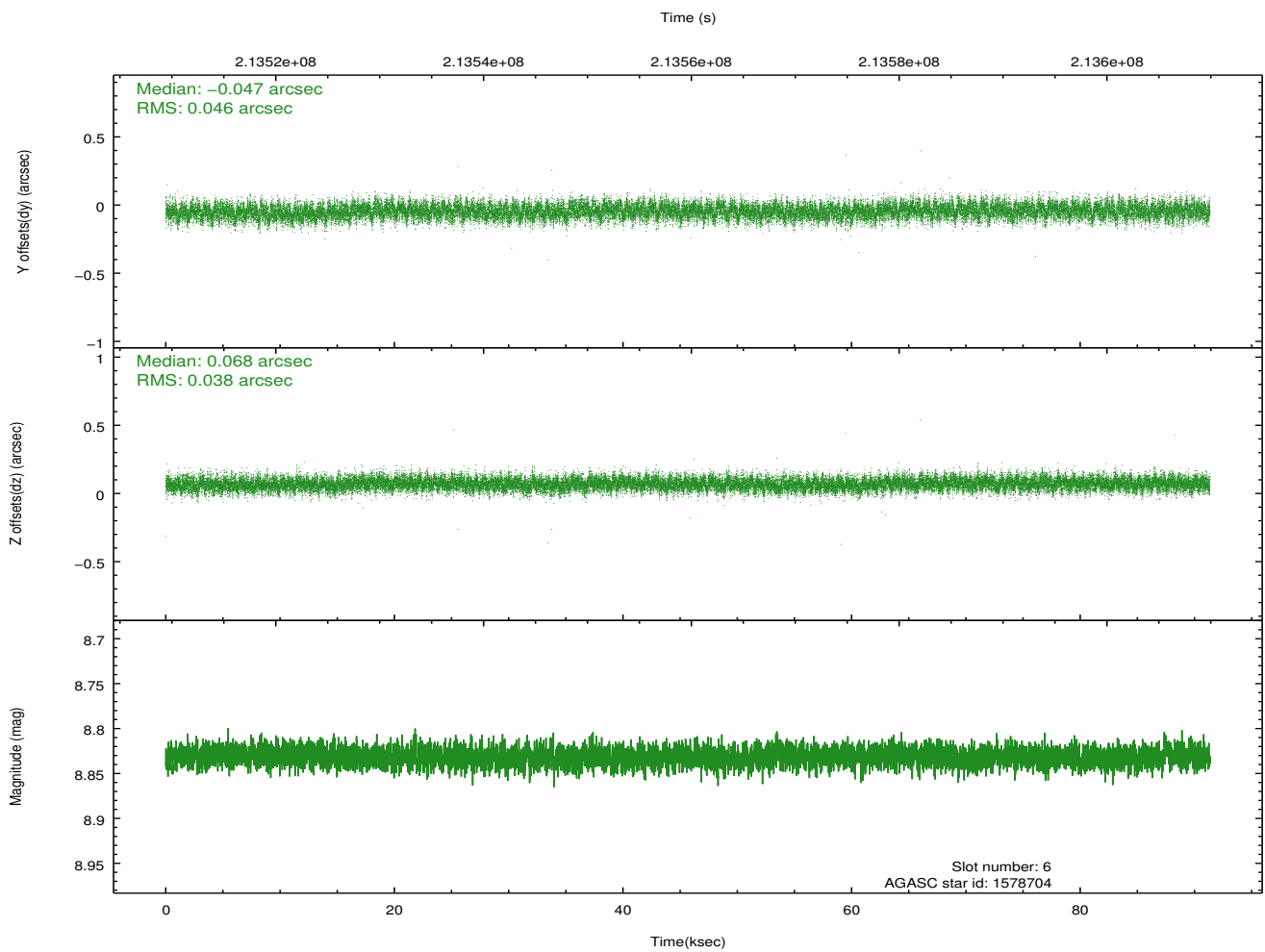
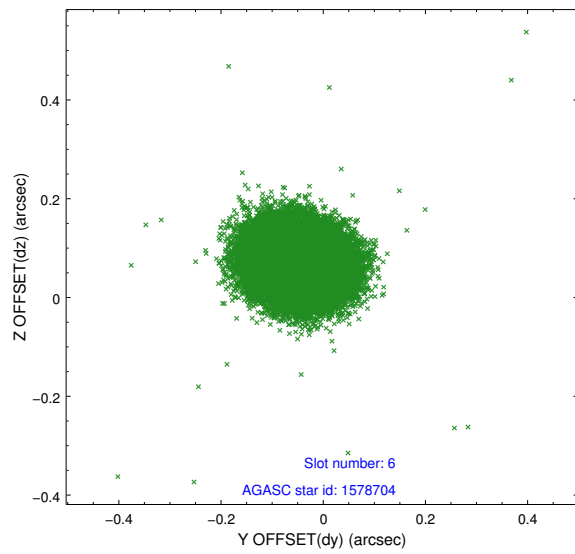
2.4.2 Slot 4



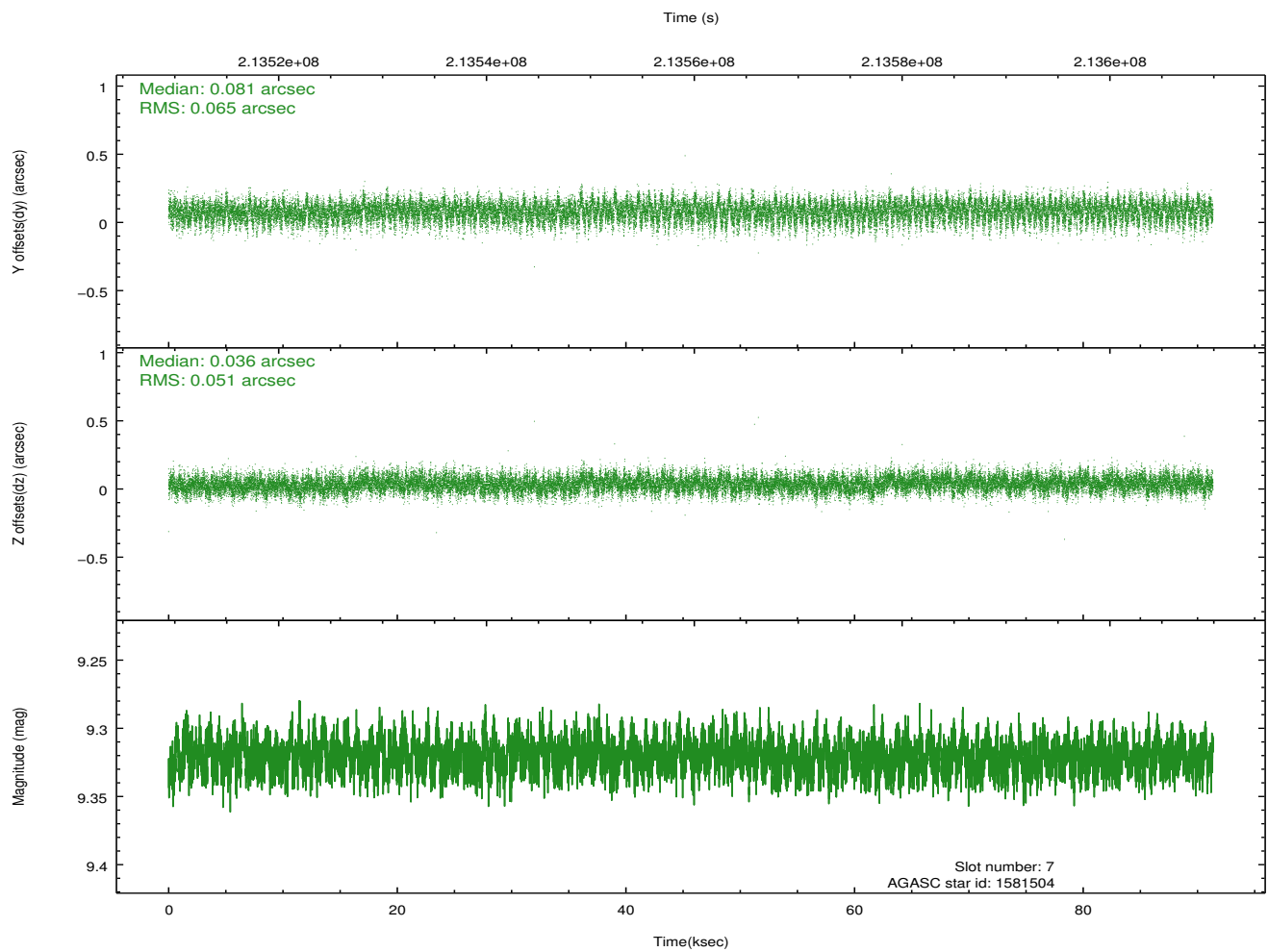
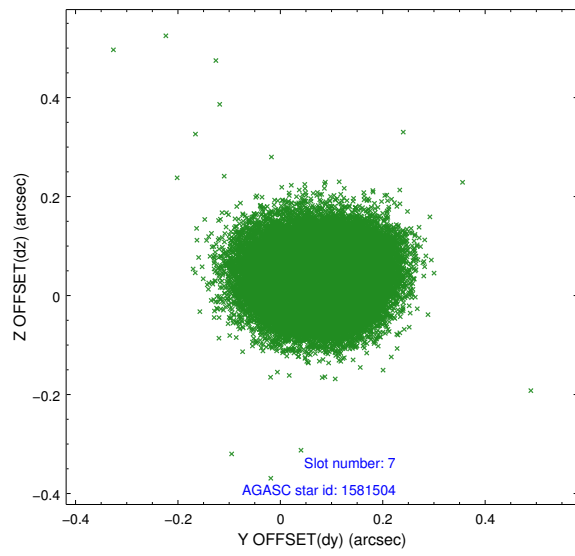
2.4.3 Slot 5



2.4.4 Slot 6

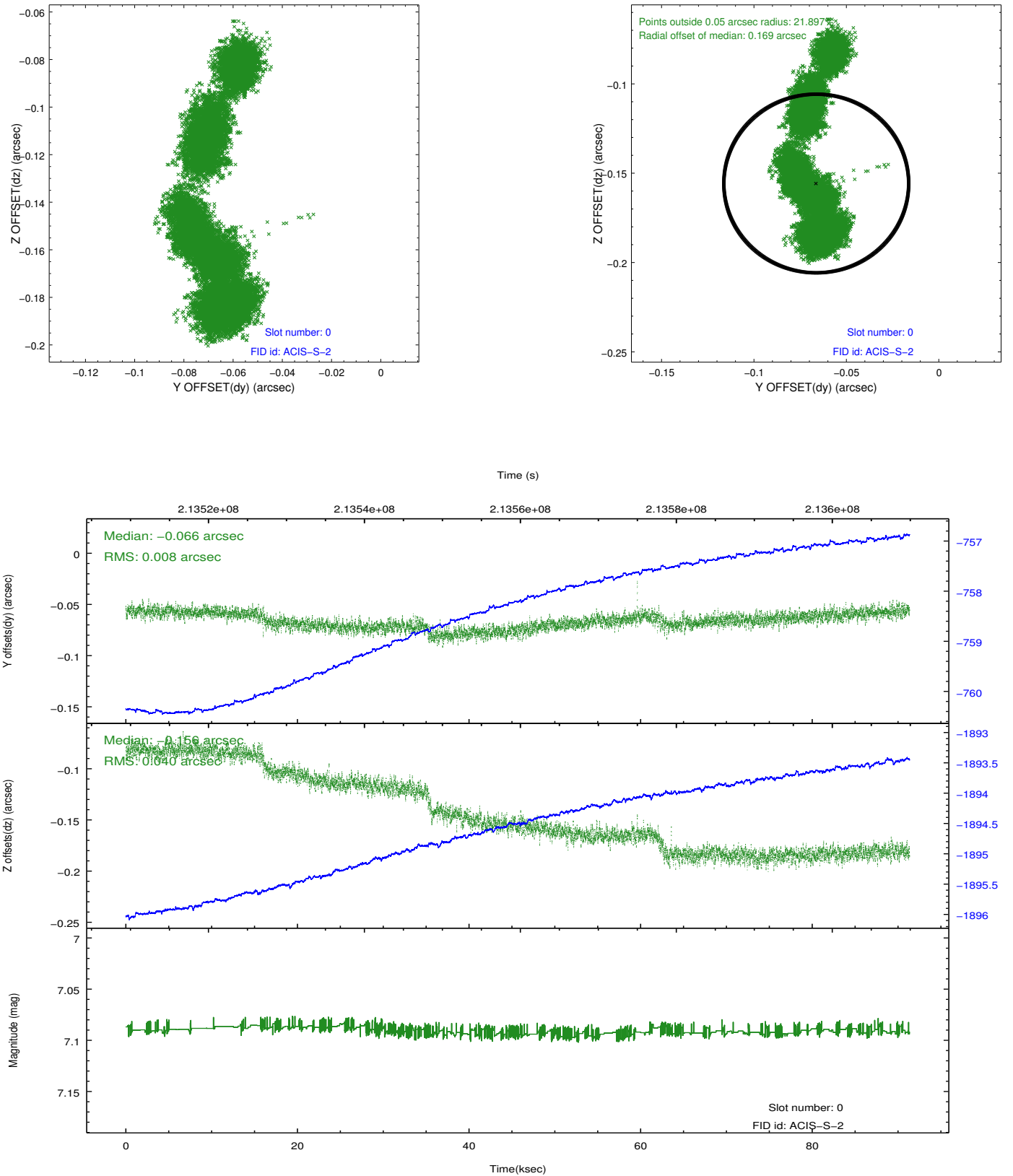


2.4.5 Slot 7

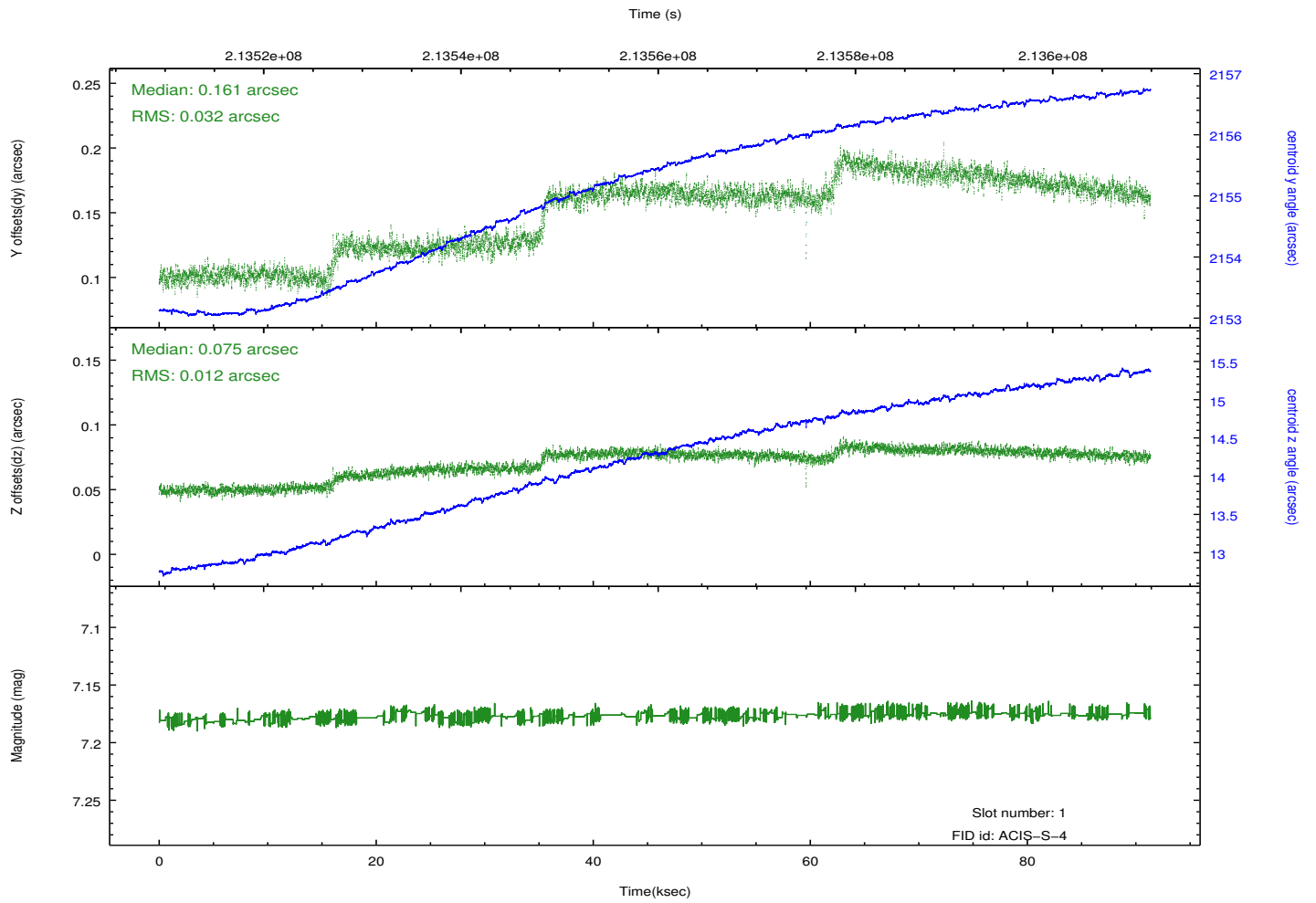
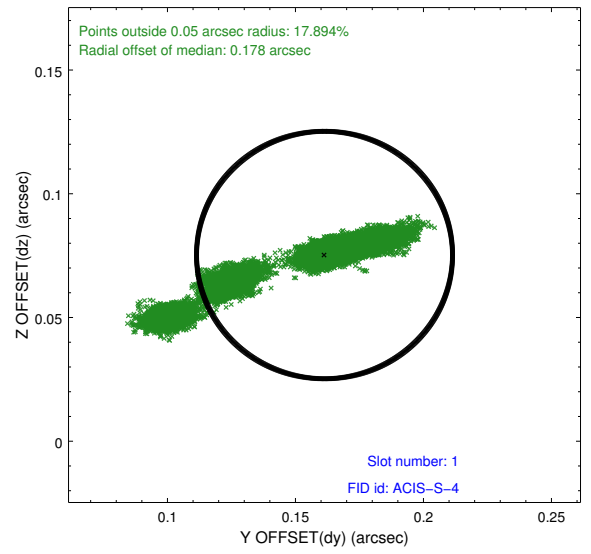
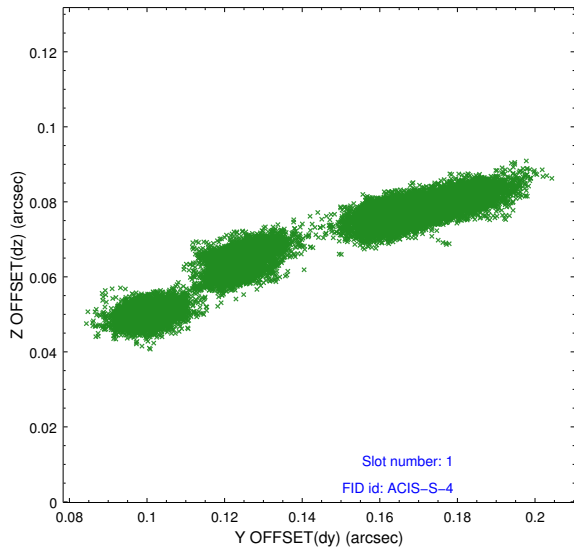


2.5 FID Slots

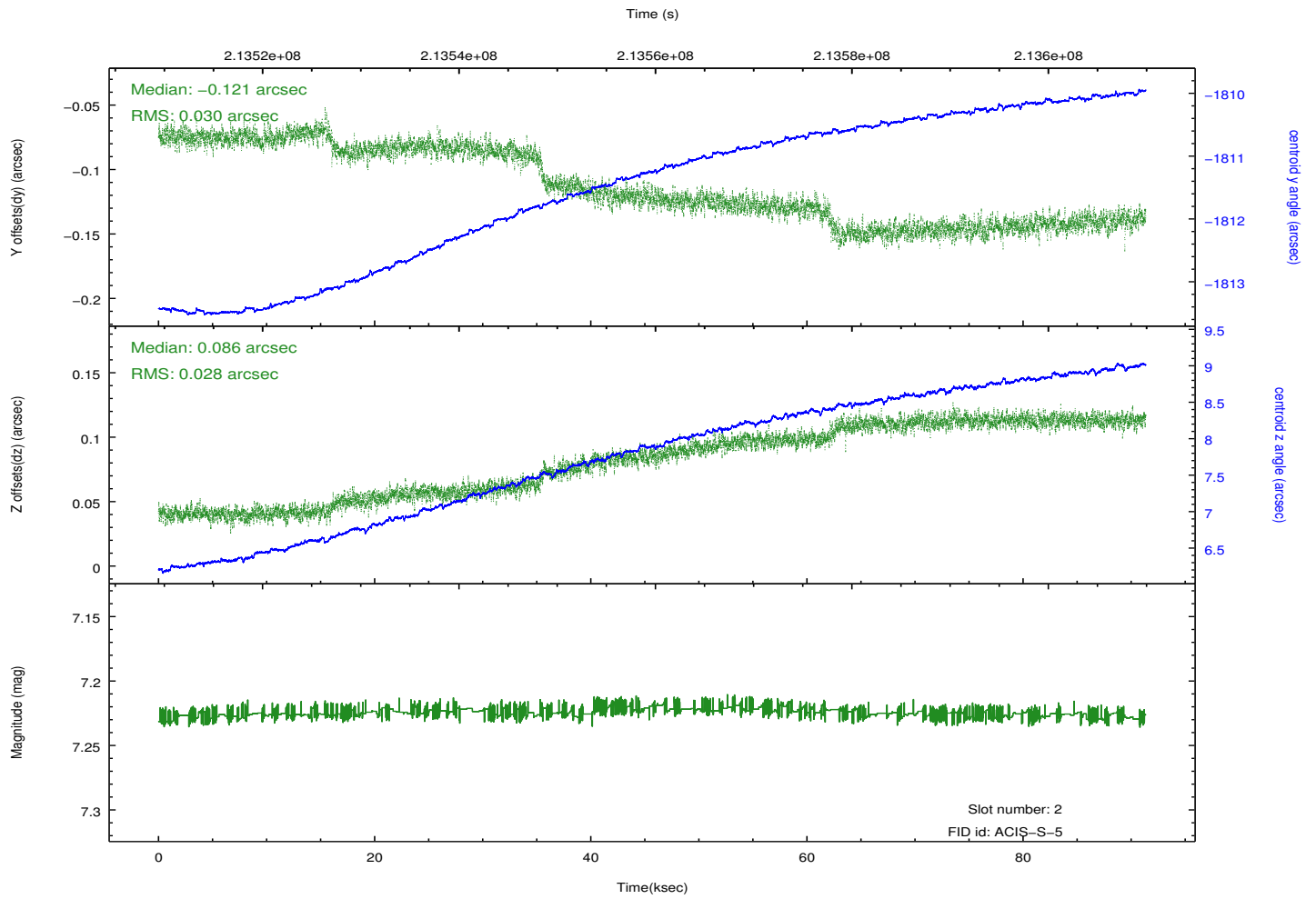
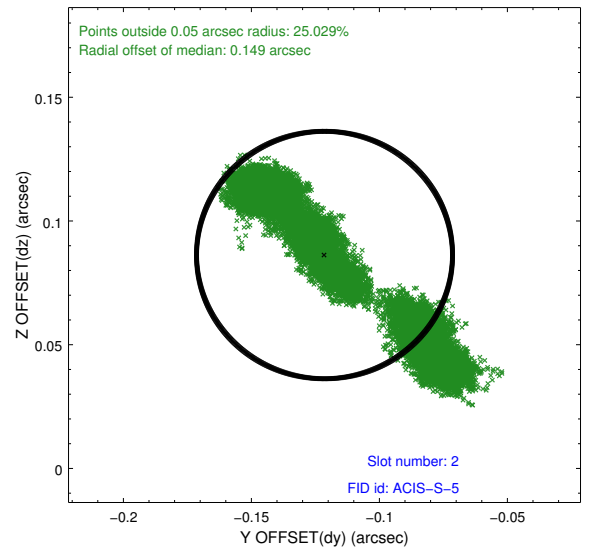
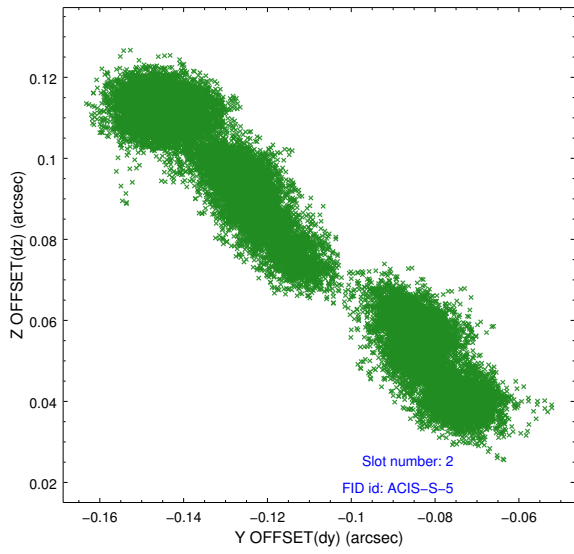
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

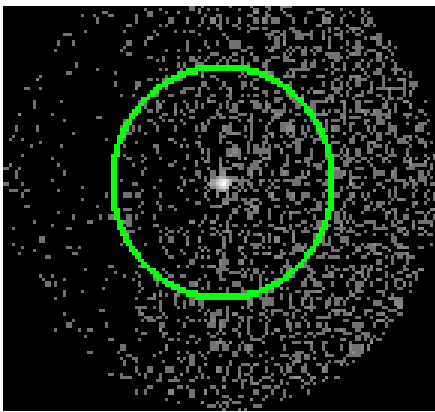


3 Gratings

3.1 LETG Arm



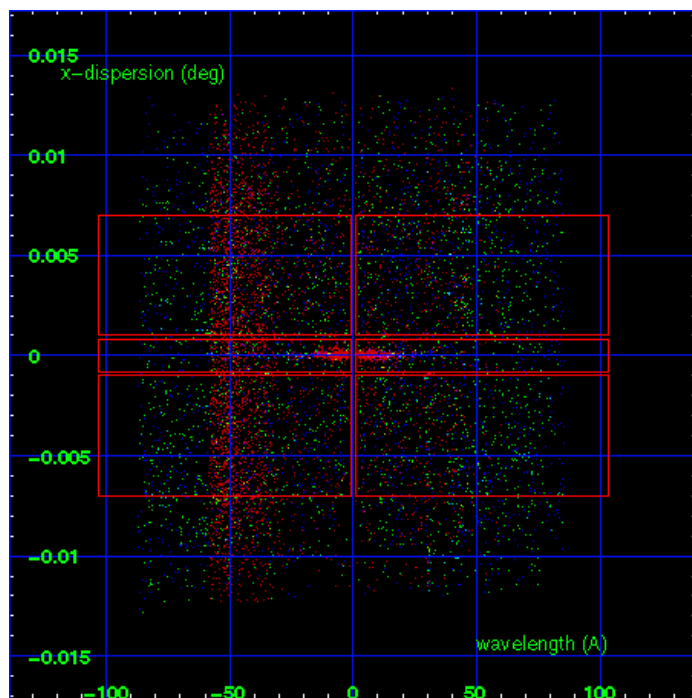
LETG Order Sort 123



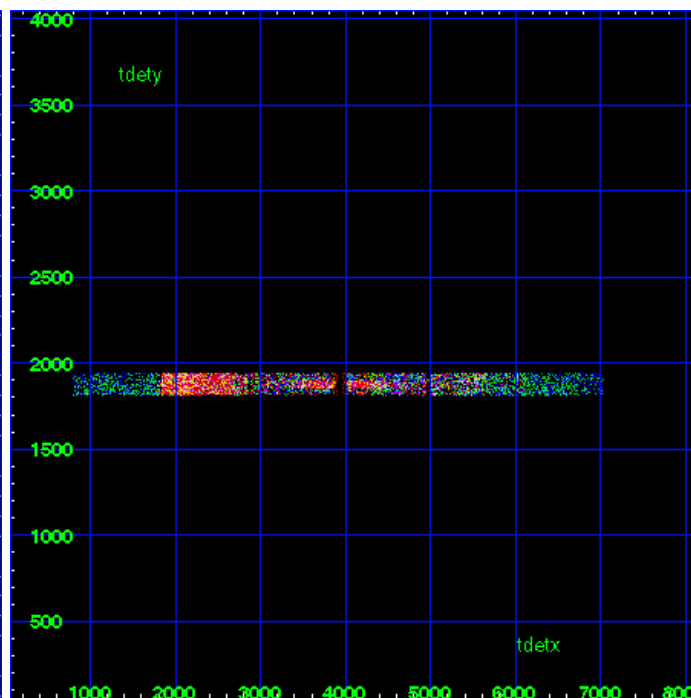
LETG Zero Order



LETG Order Sort ALL

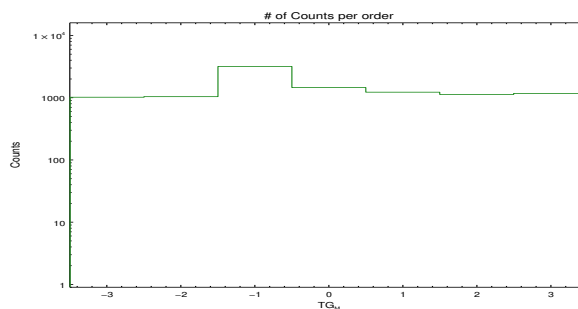


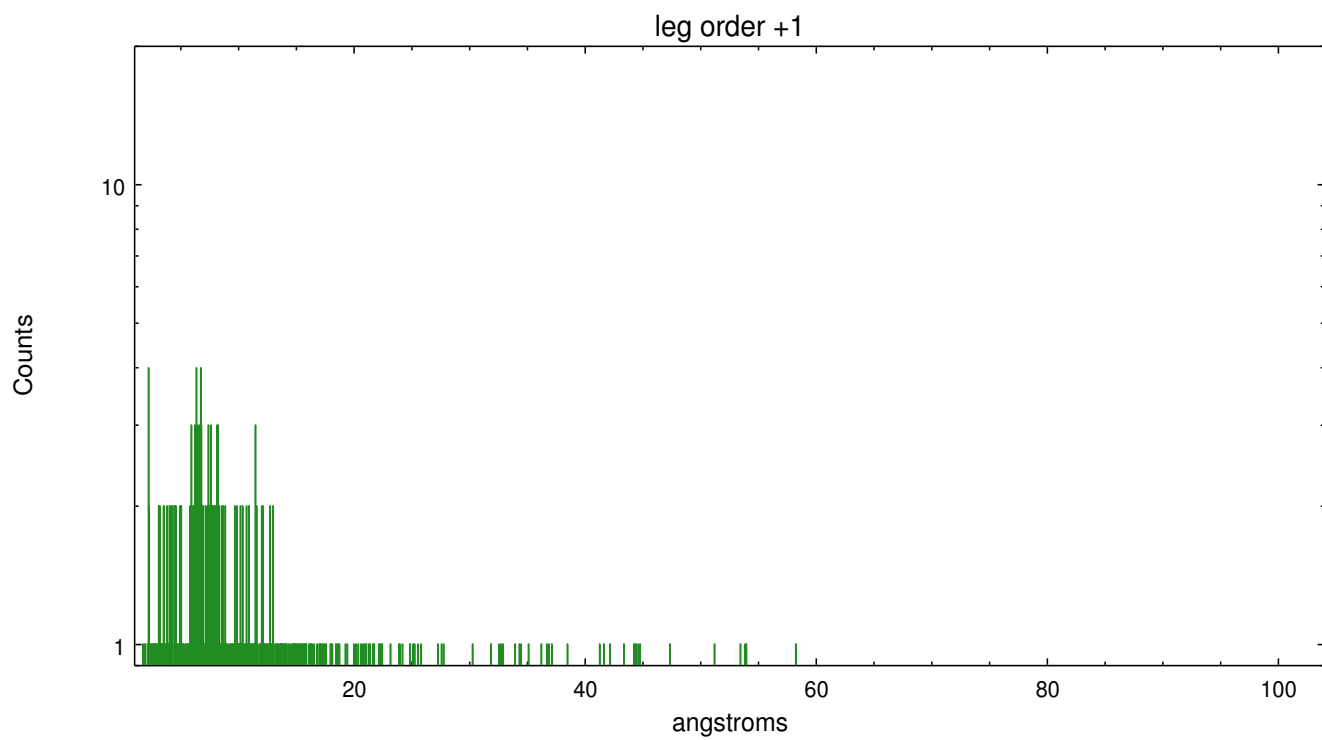
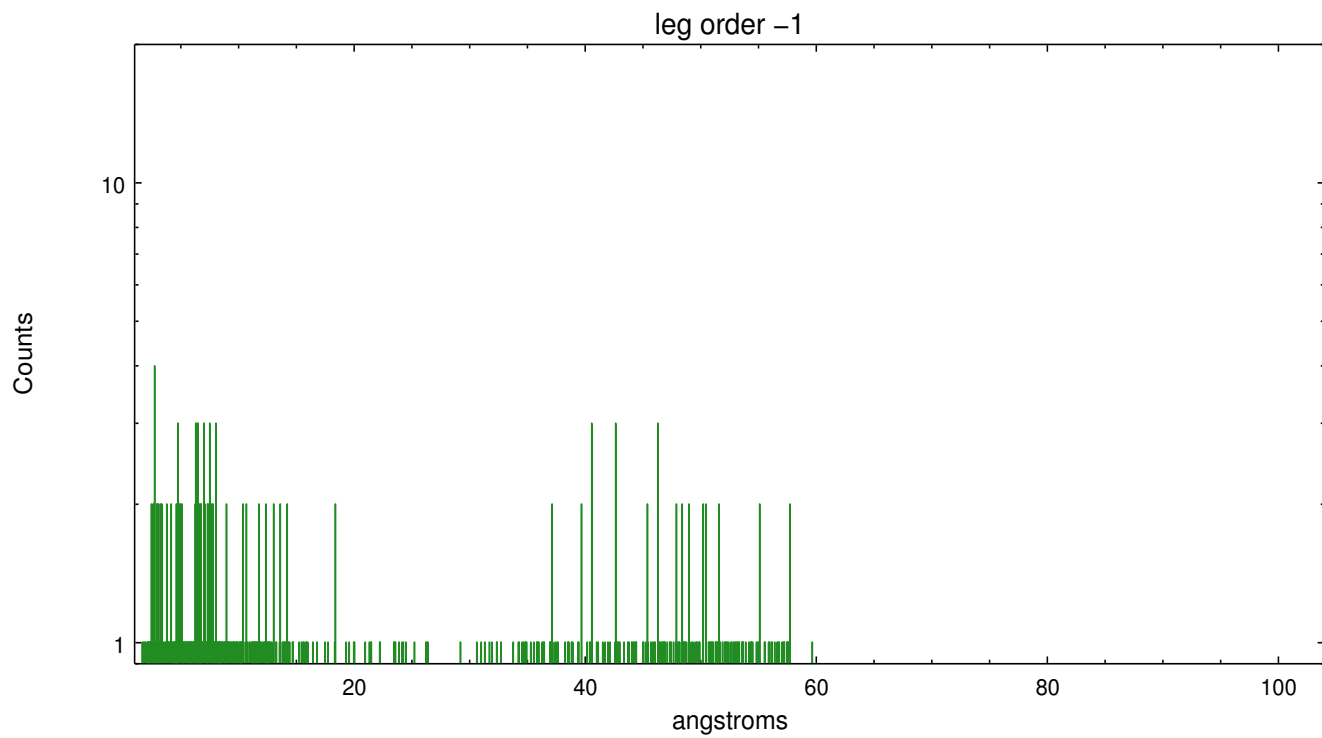
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1022	1045	3197	1463	1232	1134	1177





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	91.354

A.2 Comments

Gain and CTI correction are not well calibrated on CCD_ID 5 (ACIS-S1). Default order sorting can clip some regions, particularly longward of 30A (first order). User-specified custom processing parameters may be required in `tg_resolve_events` (`osipfile=None`, `osort_lo`, `osort_hi ~0.5`) though this can allow more zeroth order background at short wavelengths.

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Target is very close to CCD chip edge and may have dithered into the chip edge. Care should be taken in determining the flux and any variability.