

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14684 - L2 Version 4
Chandra X-Ray Center

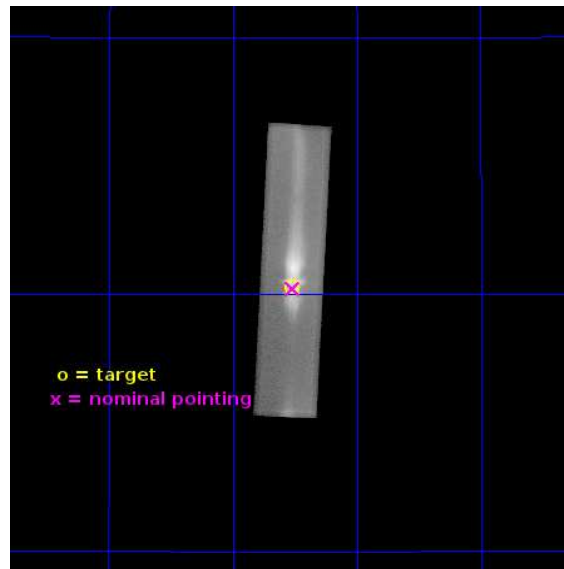
L2 Processing Date : Dec 1 2015

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1 Front

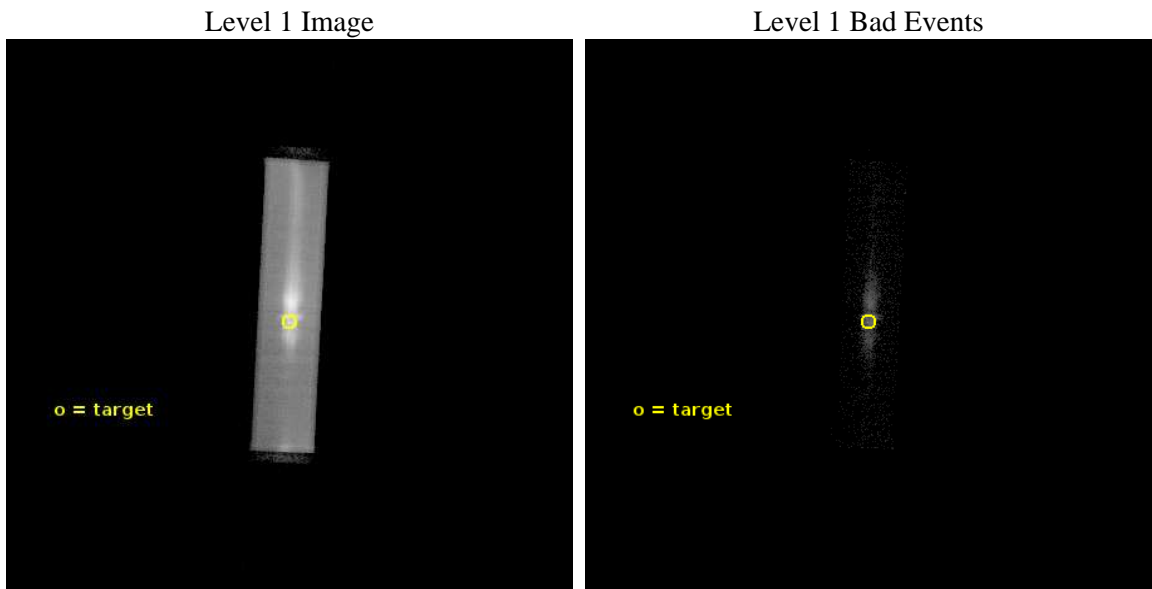
seq_num	501818	Sequence number
obs_id	14684	Observation id
title	Pre-planned Target of Opportunity Observations of the Crab Nebula upon the Occurrence of a Gamma-Ray Flare	Proposal title
observer	Dr. Martin Weisskopf	Principal investigator
object	Crab	Source name
ra_targ	83.631667	Observer's specified target RA [deg]
dec_targ	22.015667	Observer's specified target Dec [deg]
ra_nom	83.631803414307	Nominal RA [deg]
dec_nom	22.010981998022	Nominal Dec [deg]
roll_nom	272.81037839847	Nominal Roll [deg]
revision	4	Processing version of data
ontime	19571.351059079	[s]
liveltime	19485.209145373	Ontime multiplied by DTCOR
l2events	1092838	Number of level 2 events



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.2.1	Processing system revision	ontime	19571.351059079	[s]
caldsver	4.6.10a	 	l1events	1270527	Number of level 1 events
date	2015-12-01T17:45:45	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	4	Processing version of data	zo_pos	(32738.23, 32867.44)	src1a sky pixel position

2.1.3 Events

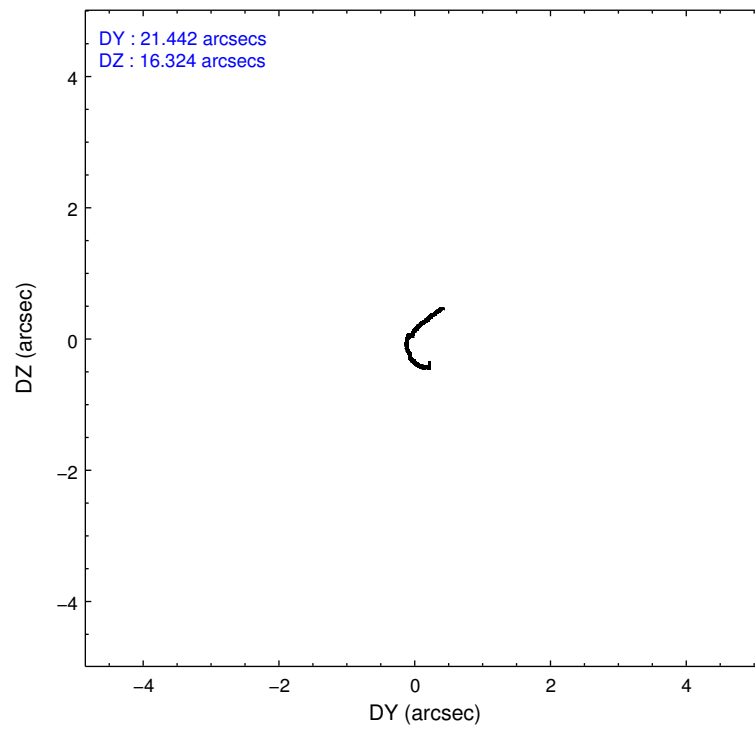
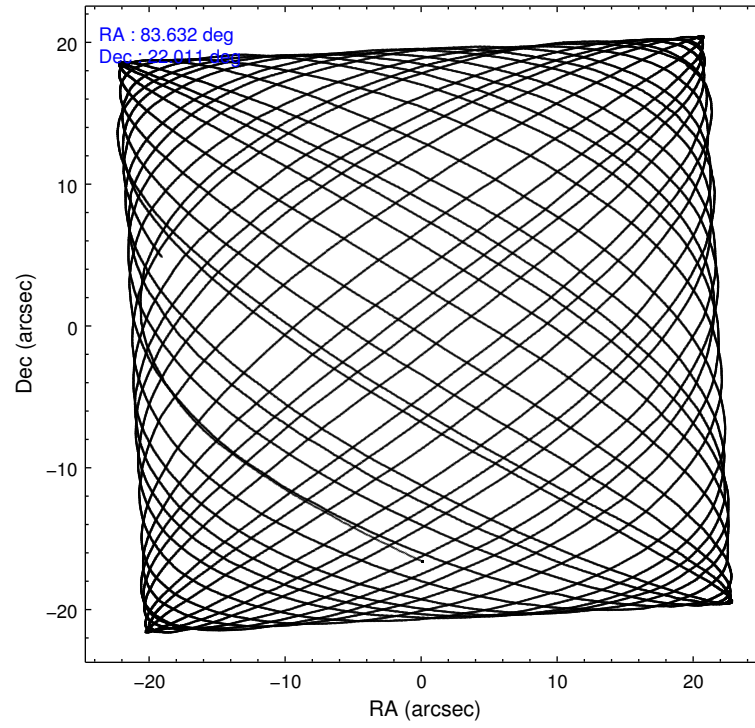
Level 1 Events

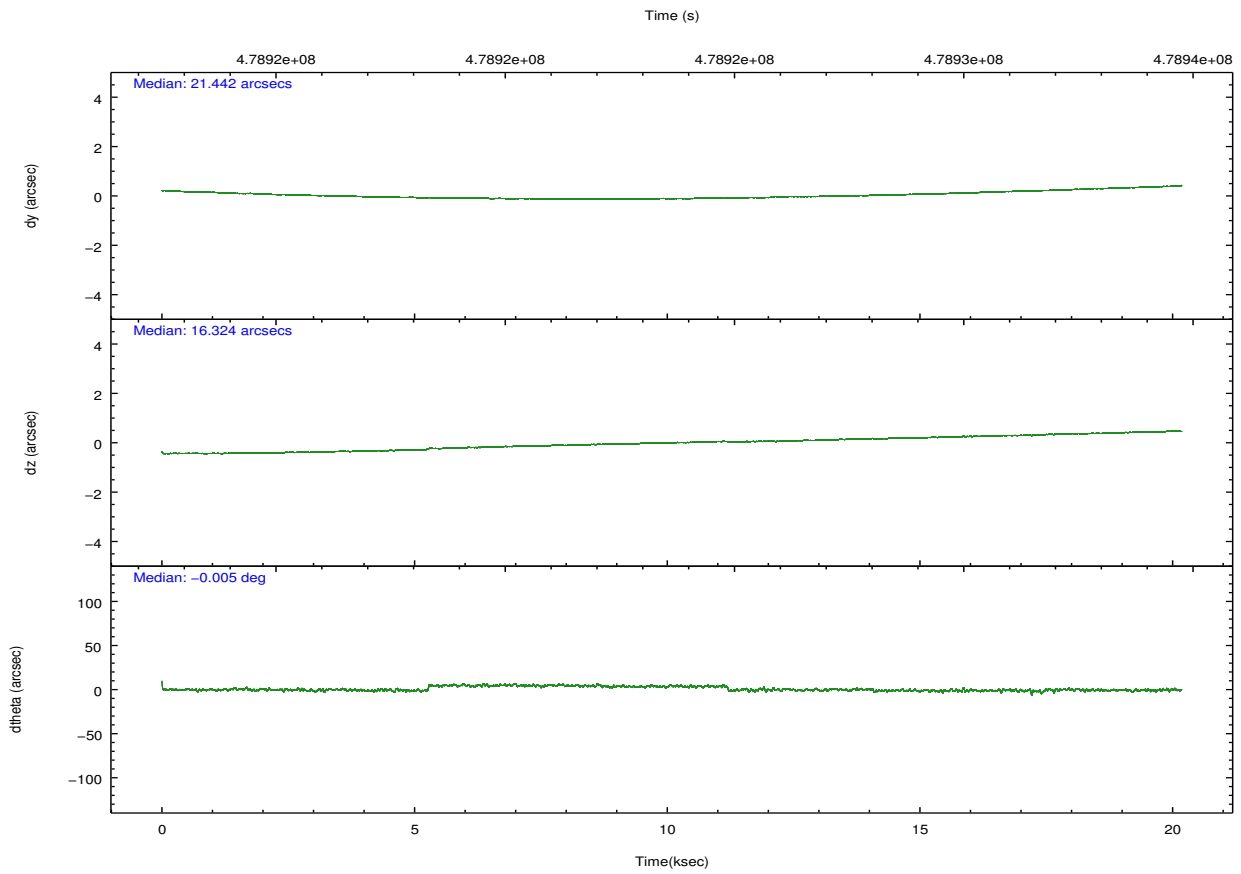
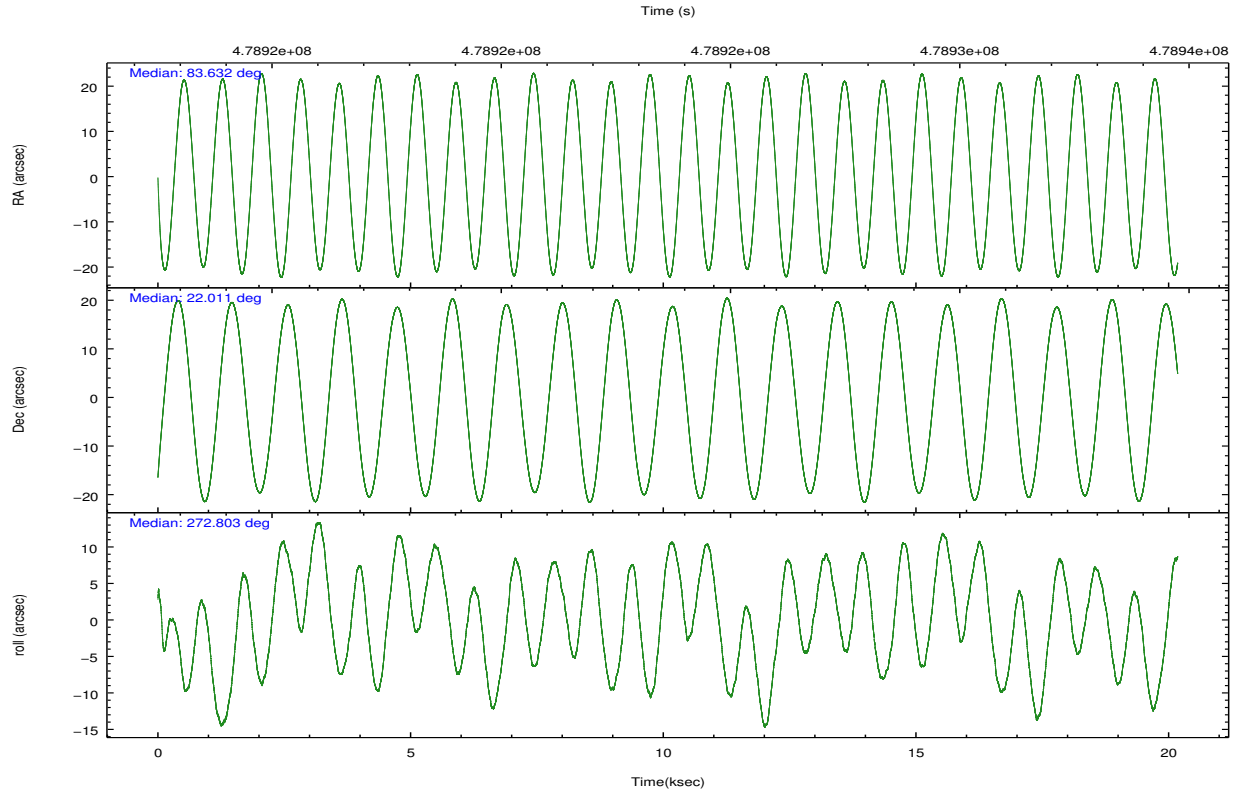
	segment 1	segment 2	segment 3
level 1 events	324	1270198	5
rejected events	6	12603	5
rejected %	1%	0%	100%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	7	7
Detector	HRC-S	HRC-S	Obspar file type	PREDICTED	ACTUAL
Grating	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	83.613786	83.63180341430717			
[deg] Pointing Dec	22.034227	22.01098199802248			
[deg] Pointing Roll	272.749799	272.8103783984749			
[mm] SIM focus pos	-1.429586	-1.428180813131781			
[mm] SIM defocus	0.1037507710433287	0.1051558262725154			
[mm] SIM translation stage pos	250.455976	250.466033080201			
[mm] SIM translation stage offset	0	-0.01005468664627074			
[s] Observation start time (MET)	478913716.184000	478912768.25218			
Observation start date	2013-03-05T23:34:09	2013-03-05T23:19:28			
[s] Observation end time (MET)	478933716.184000	478935129.14089			
Observation end date	2013-03-06T05:07:29	2013-03-06T05:32:09			

2.3 Aspect



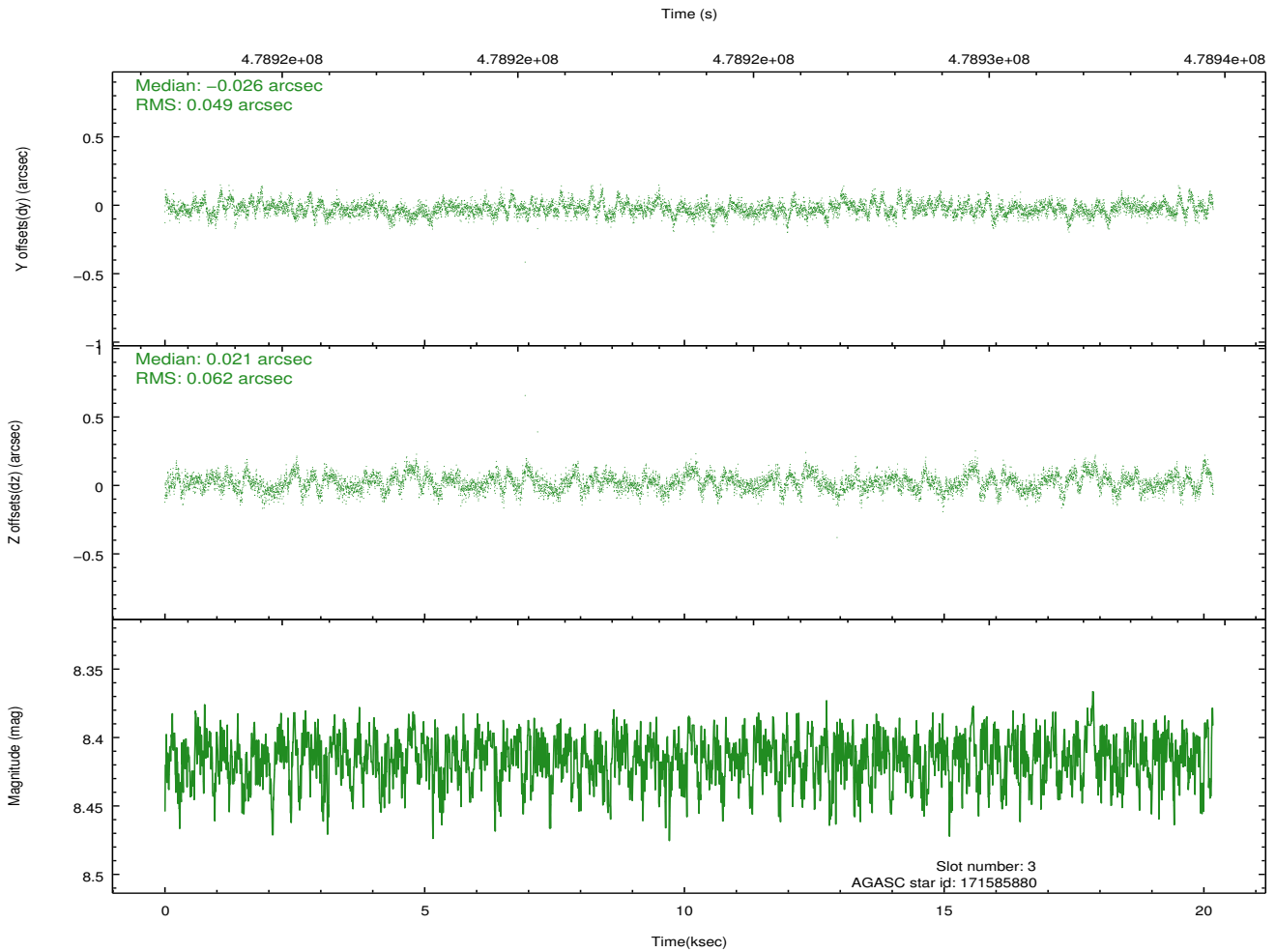
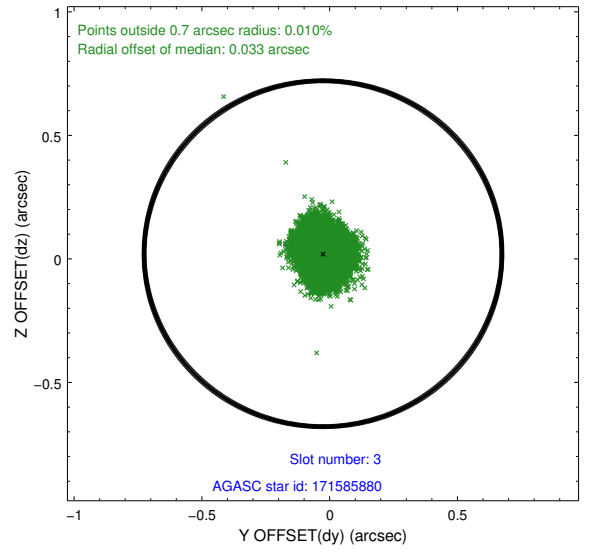
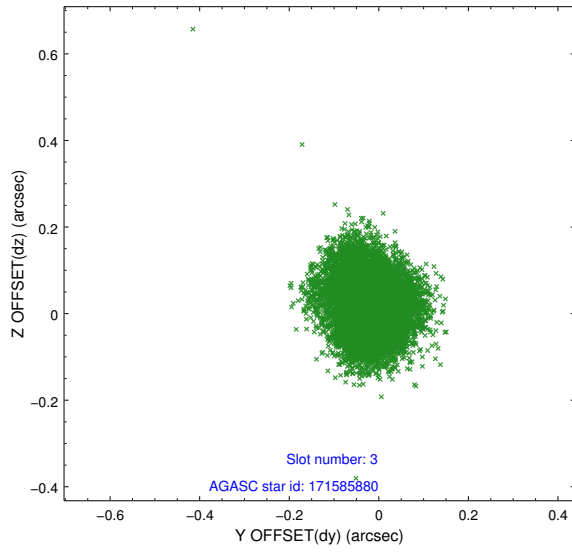


Slot Statistics

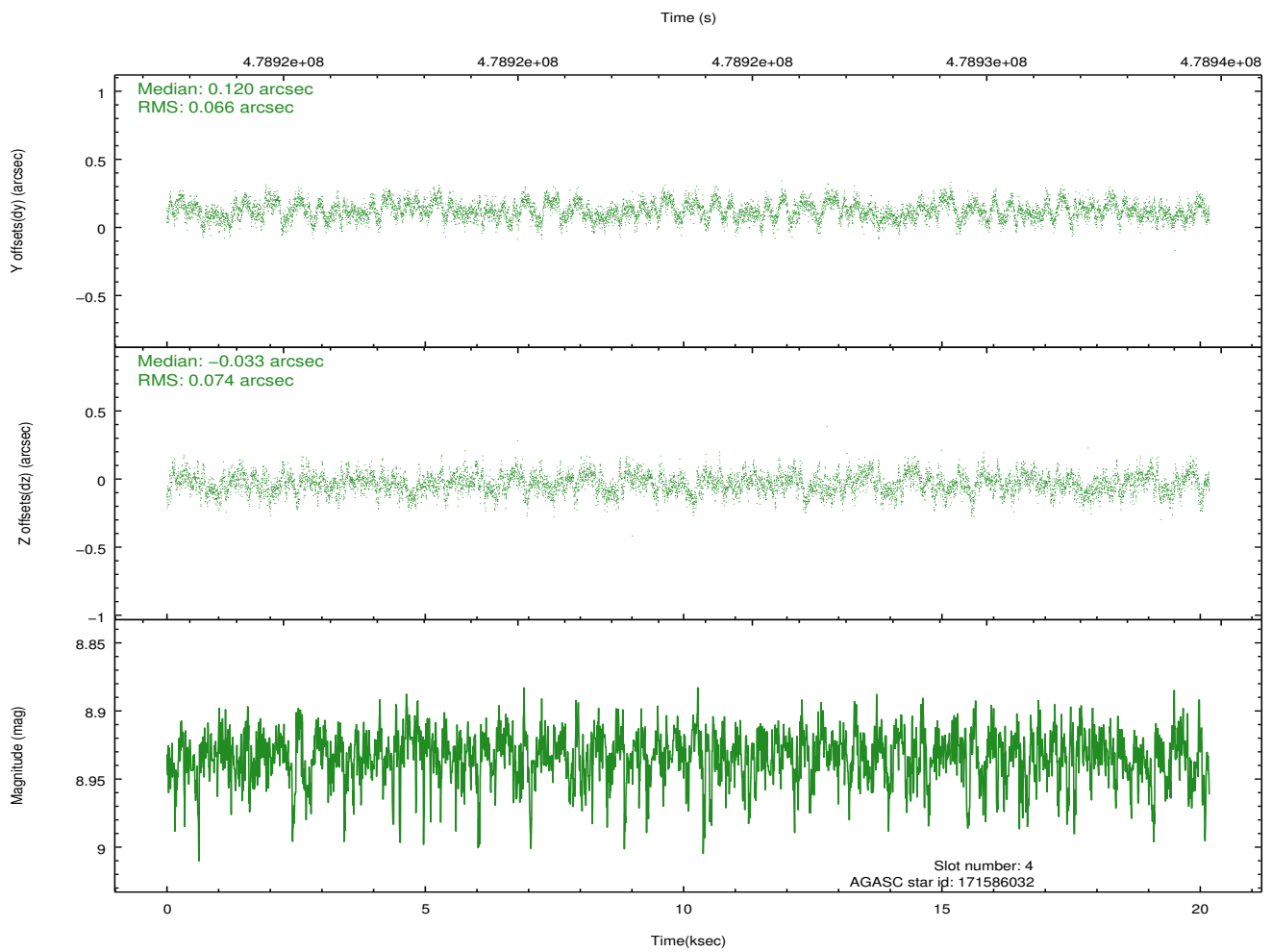
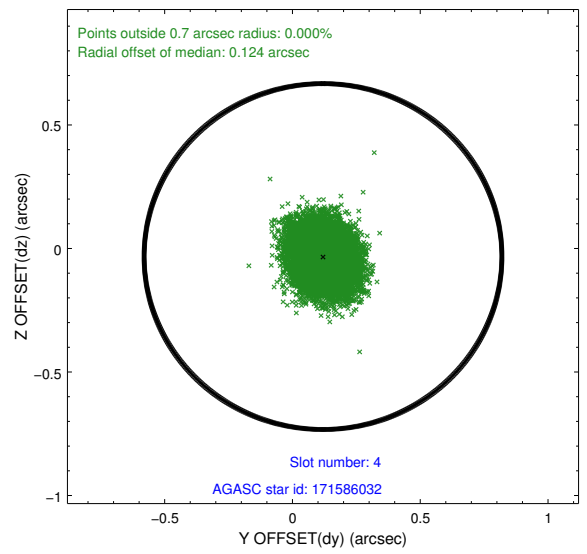
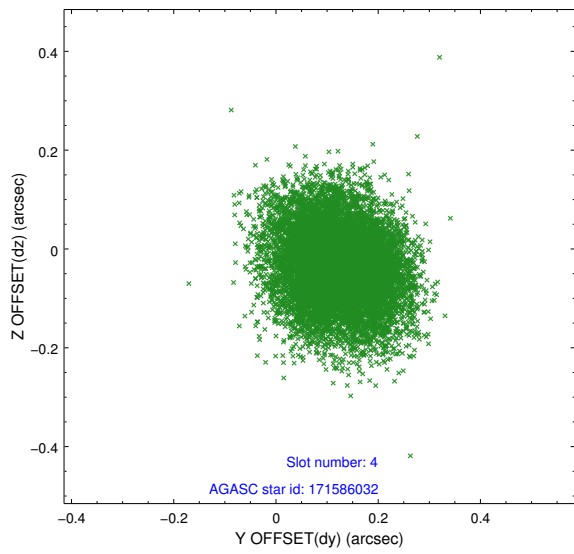
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.04	4921	-0.026	-0.206	0.021	0.030	0.000000	0.000000	-1176.16	-465.29
1	FID		HRC-S-3	7.05	4922	0.061	-0.056	0.021	0.030	0.000000	0.000000	-1179.05	564.29
2	FID		HRC-S-4	6.97	4922	0.351	-0.033	0.007	0.013	0.000000	0.000000	1222.22	567.13
3	GUIDE	used	171585880	8.41	9842	-0.026	0.021	0.084	0.134	83.676260	22.176319	-500.37	232.86
4	GUIDE	used	171586032	8.93	9824	0.120	-0.033	0.107	0.167	83.950197	22.083225	-122.99	1129.75
5	GUIDE	used	171721904	9.20	9820	-0.015	0.027	0.139	0.220	84.272676	22.116922	-196.30	2209.90
6	GUIDE	used	243941560	8.29	9841	-0.273	0.063	0.079	0.131	83.733264	22.568598	-1902.09	489.25
7	GUIDE	used	171597832	9.15	9818	0.188	-0.085	0.123	0.208	83.183230	21.366702	2329.97	-1556.51

2.4 Star Slots

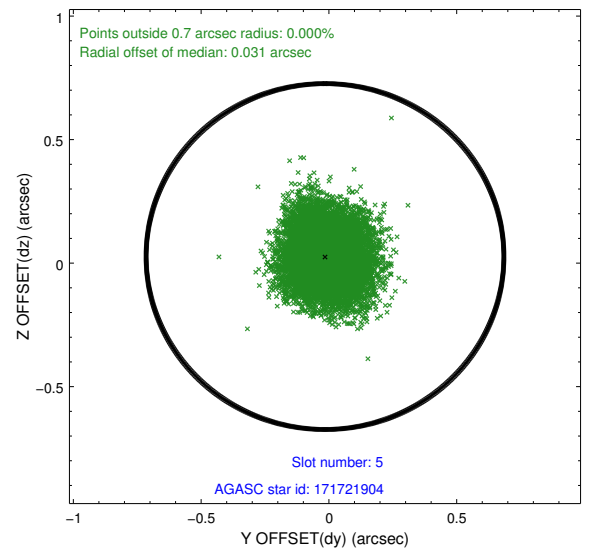
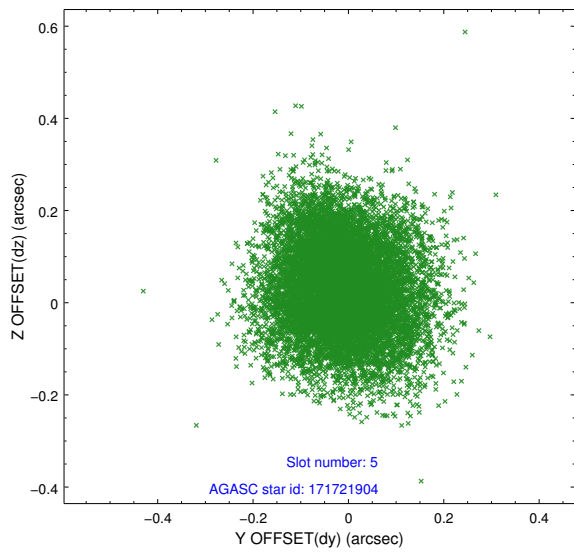
2.4.1 Slot 3



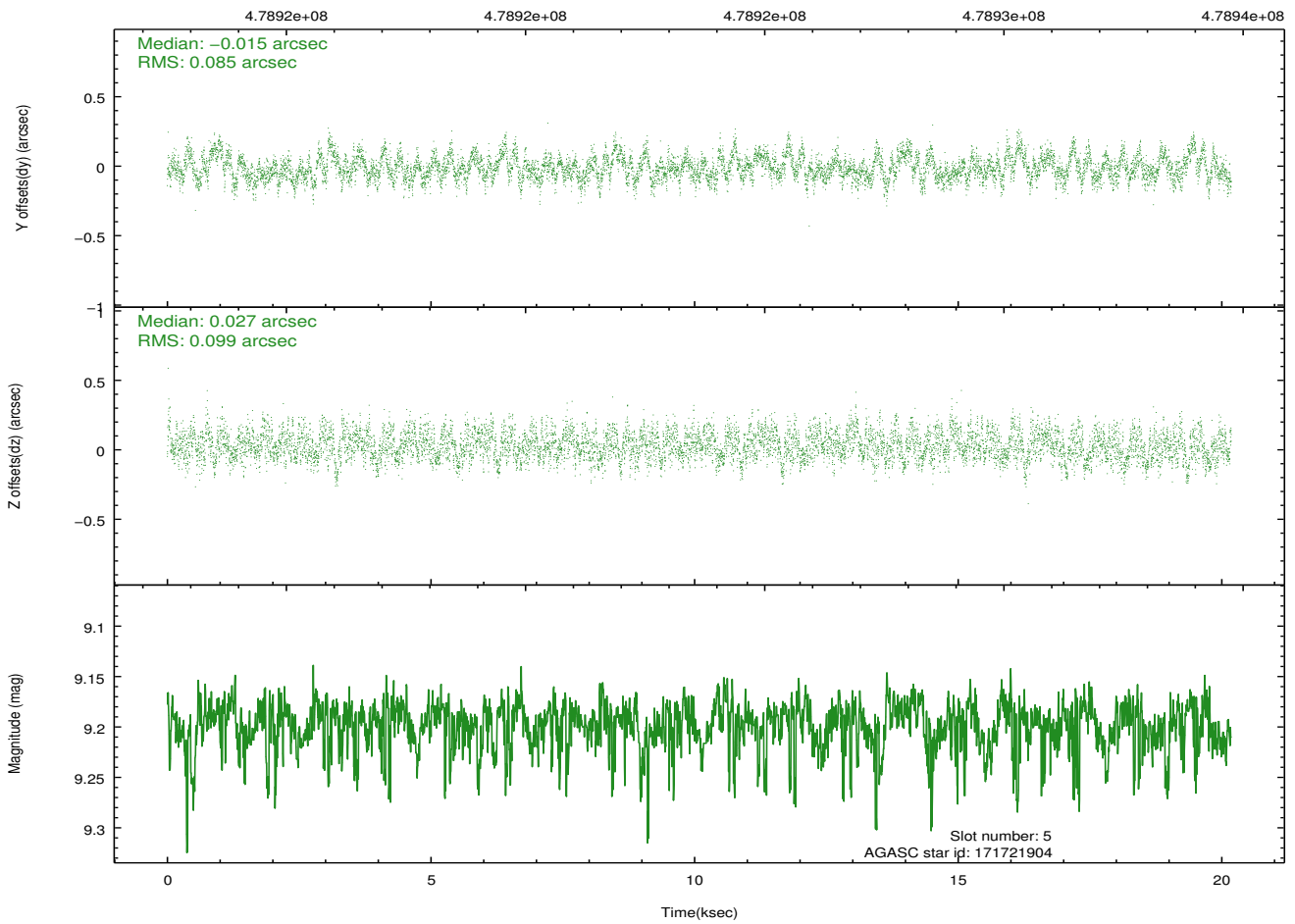
2.4.2 Slot 4



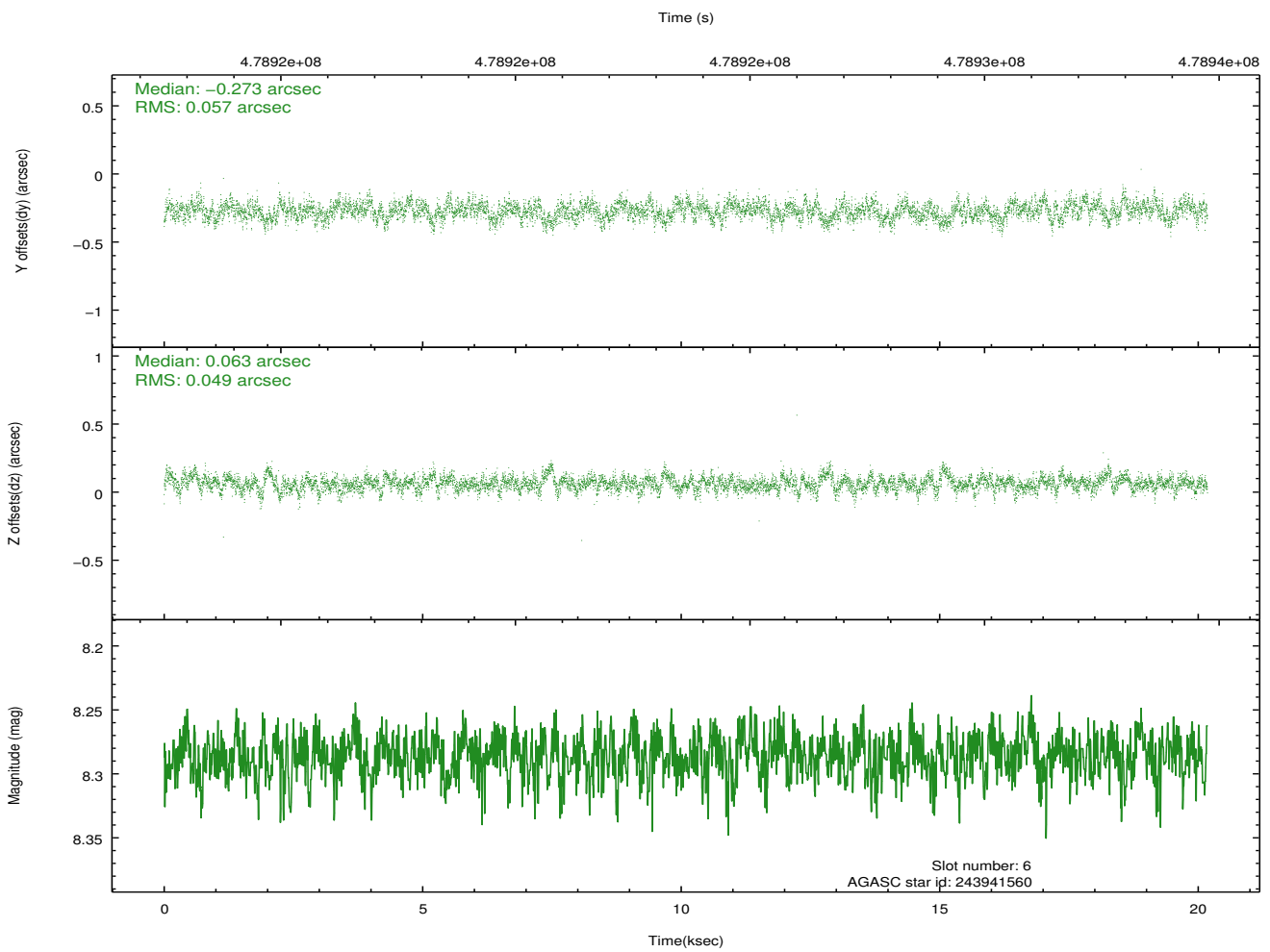
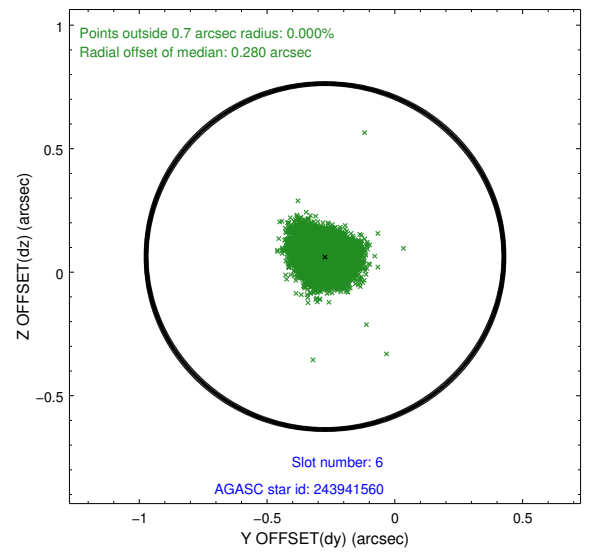
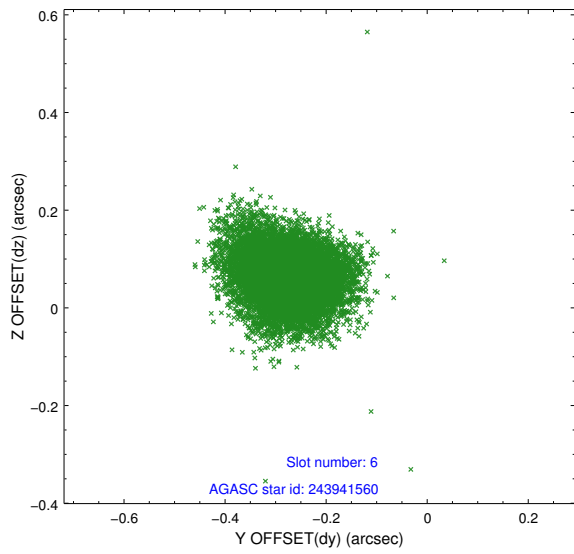
2.4.3 Slot 5



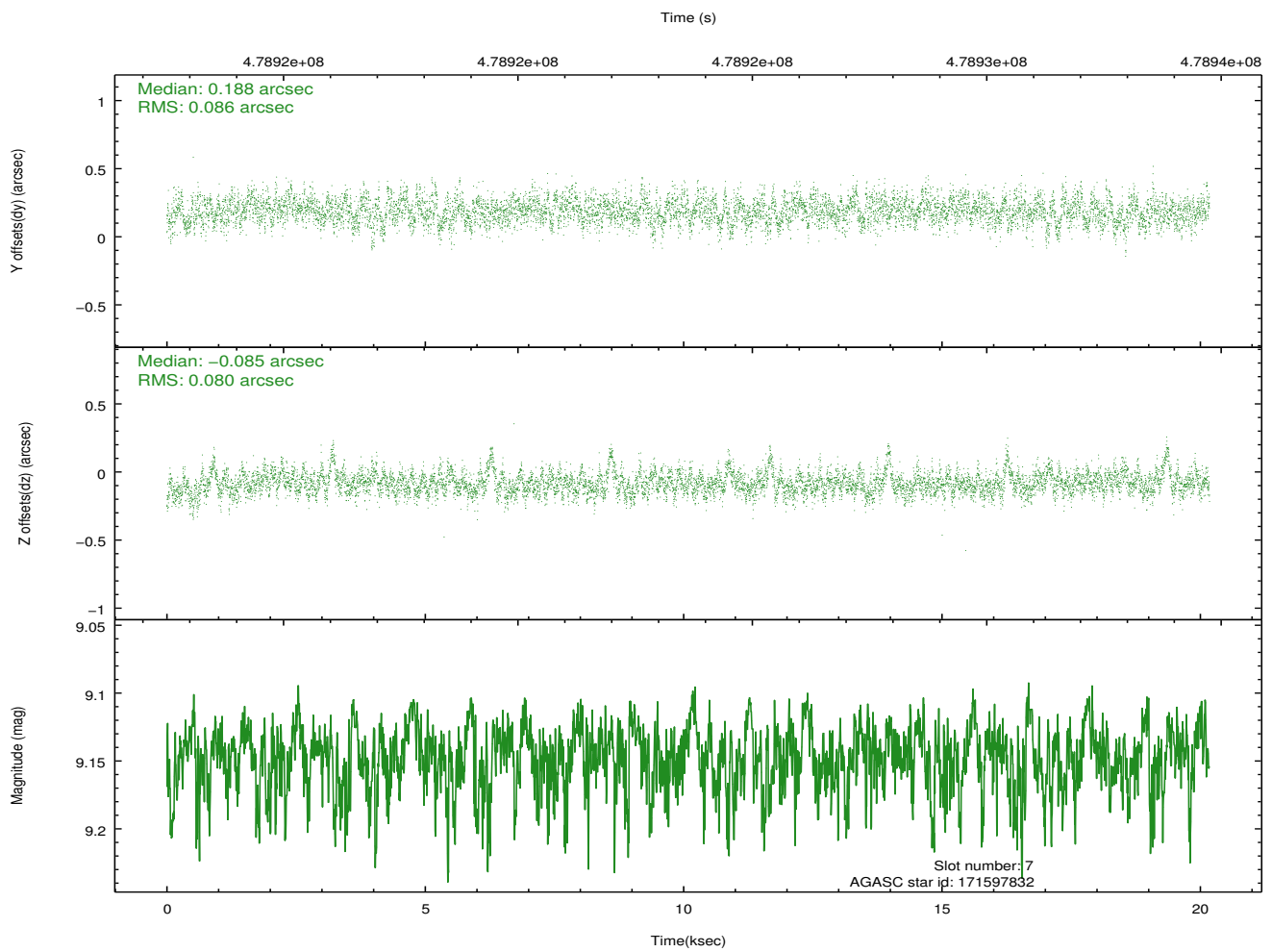
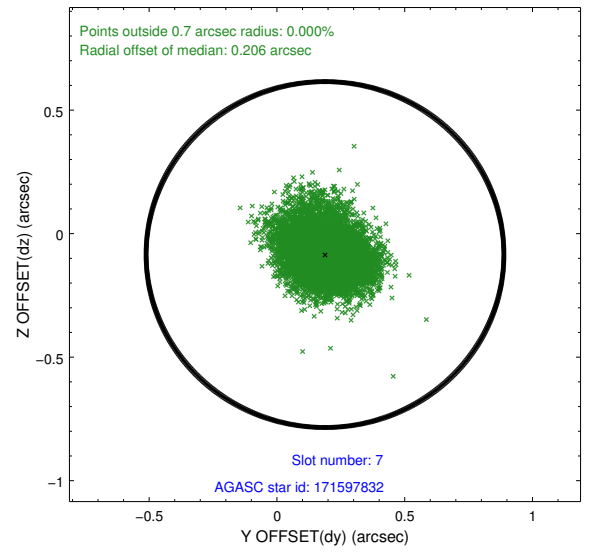
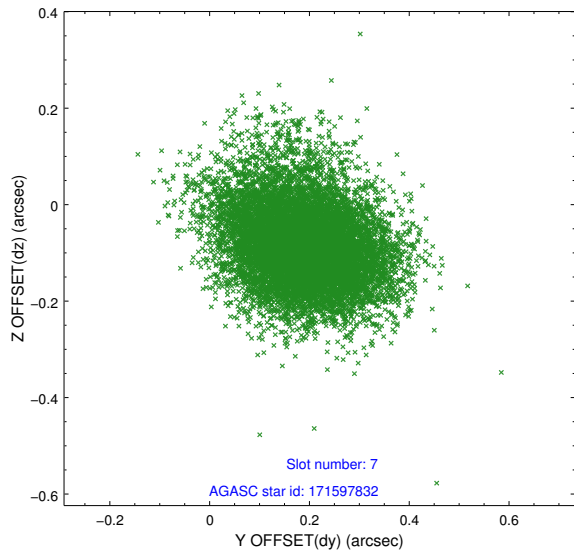
Time (s)



2.4.4 Slot 6

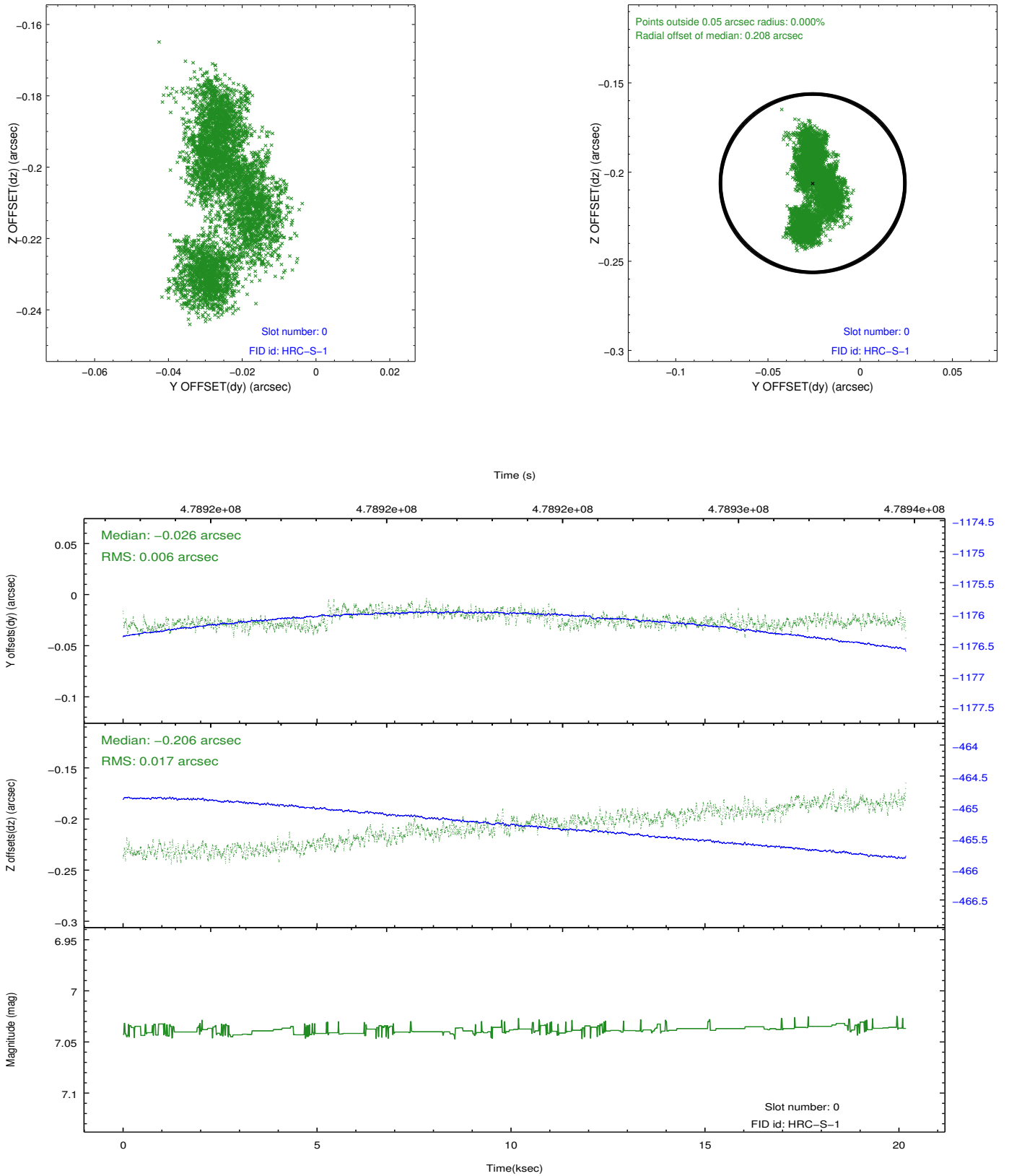


2.4.5 Slot 7

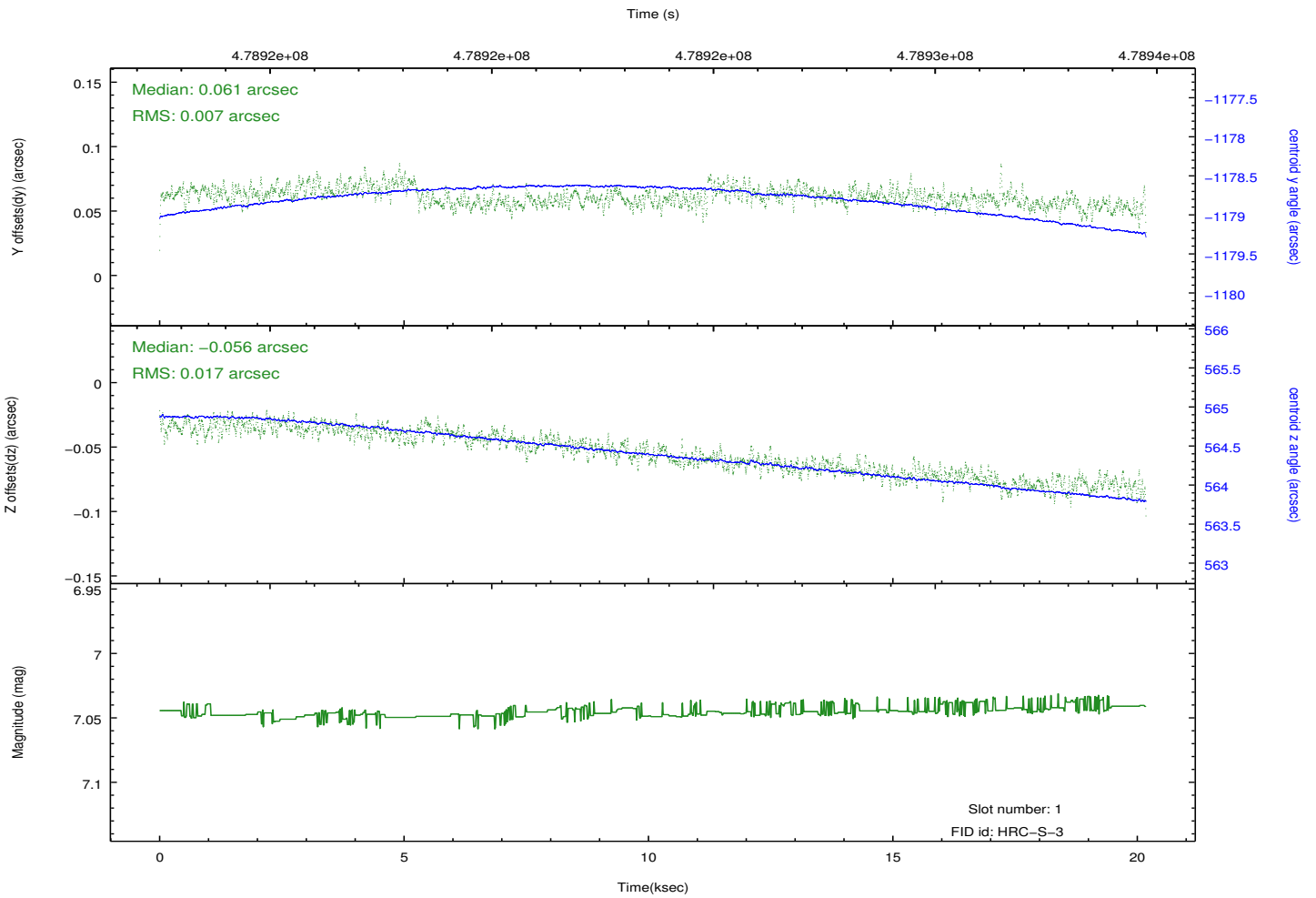
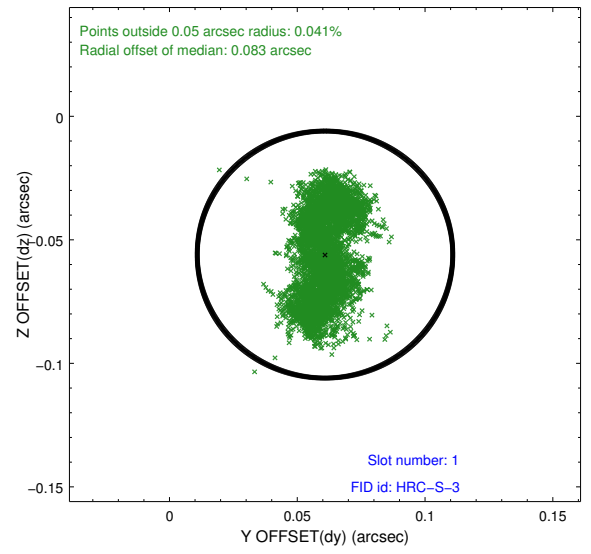
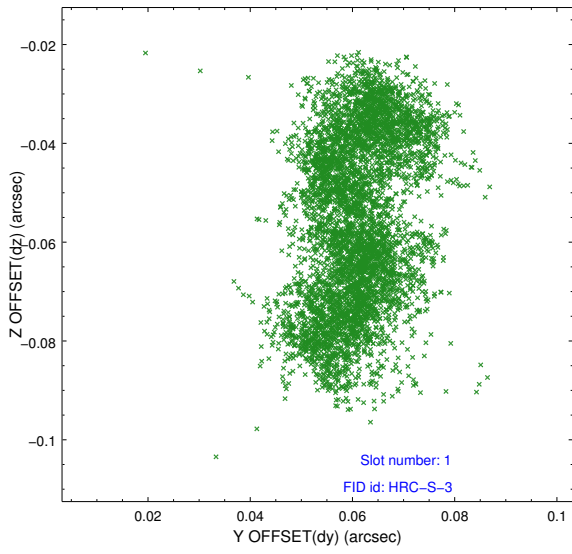


2.5 FID Slots

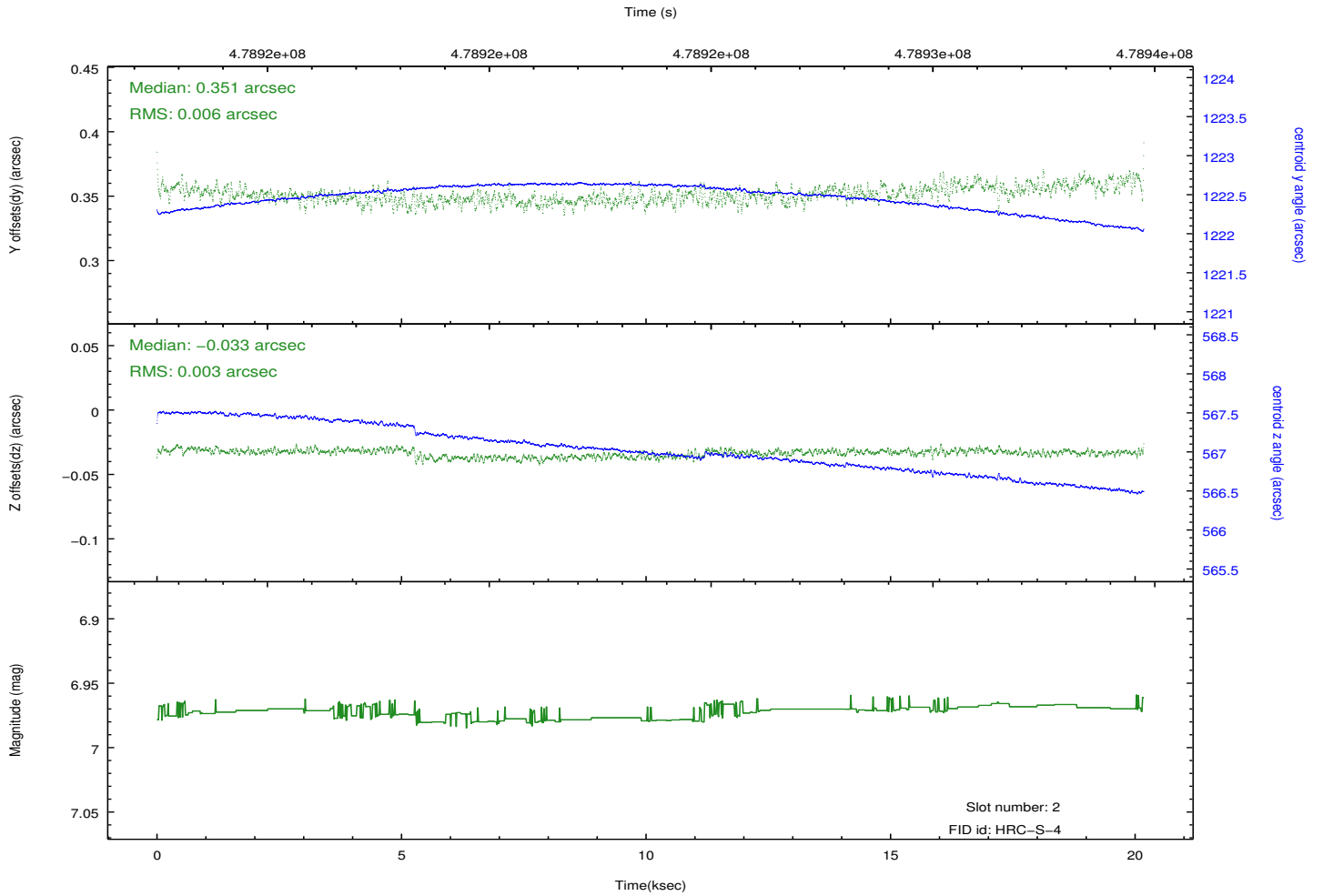
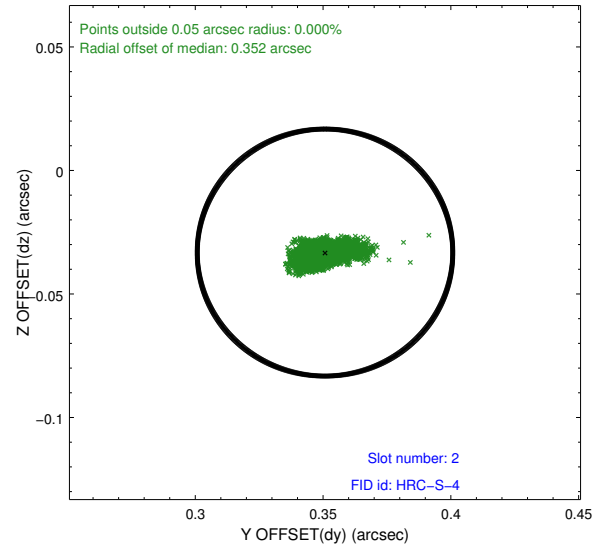
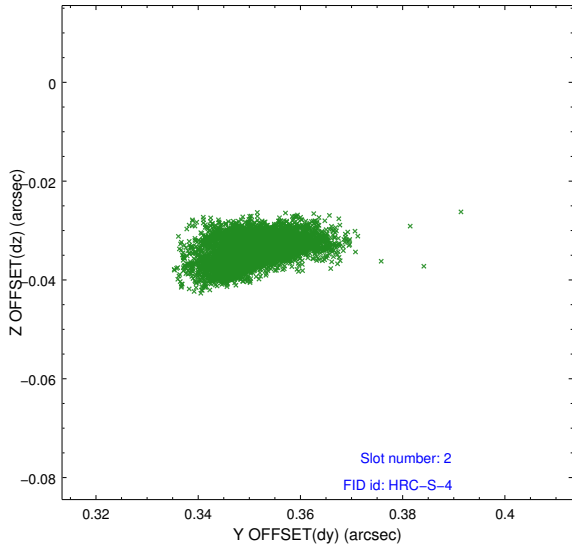
2.5.1 Slot 0



2.5.2 Slot 1

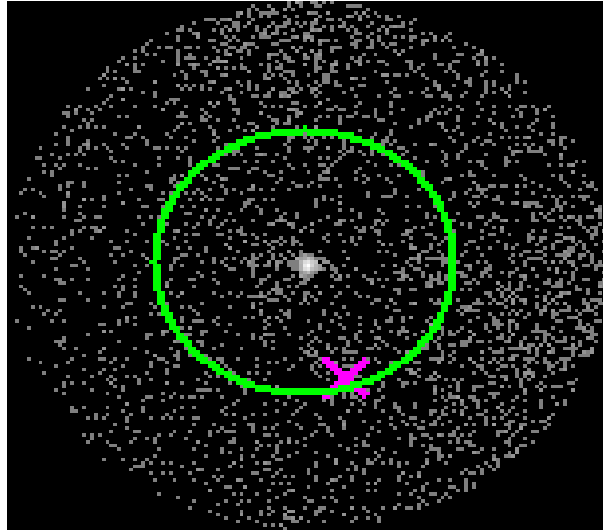


2.5.3 Slot 2

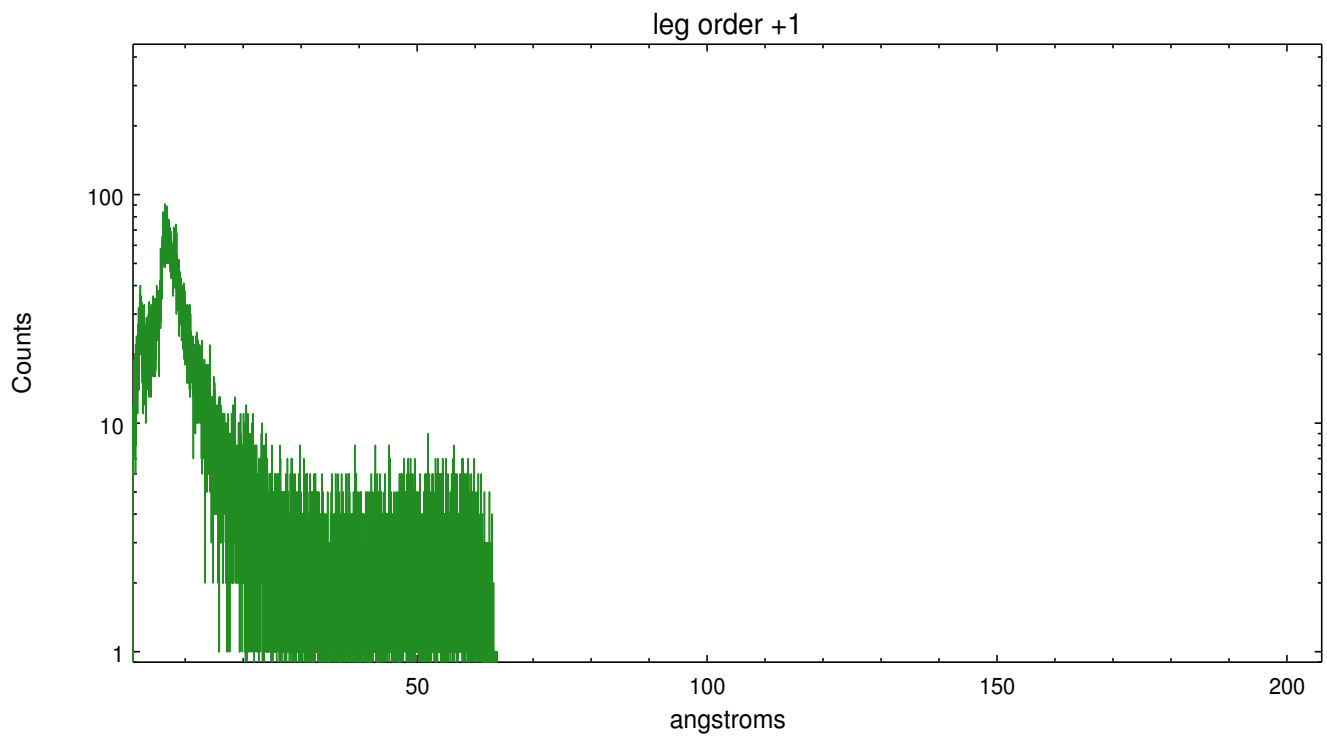
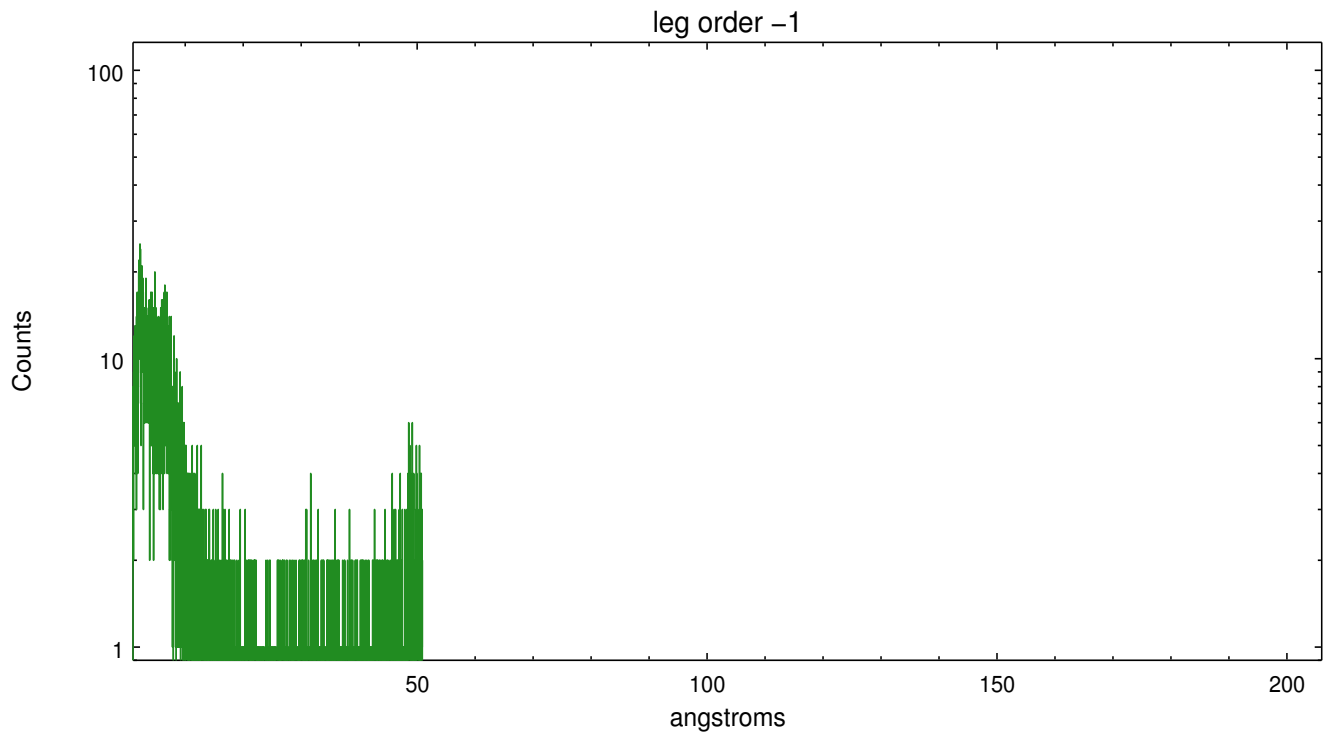


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.571351059079

A.2 Comments

This observation was taken at a lower than standard HRC high voltage setting. The appropriate gain file for this configuration was applied (gainfile = /data/CALDB/sdp/data/chandra/hrc/t_gmap/hracsD1999-07-22t_gmapN0002.fits)

The GTI limits were also manually adjusted to allow the lower HV values. Users who wish to analyze these data should be aware of these custom processing steps.

LETG inserted as a filter only.

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These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.