

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 21784 - L2 Version 1
Chandra X-Ray Center

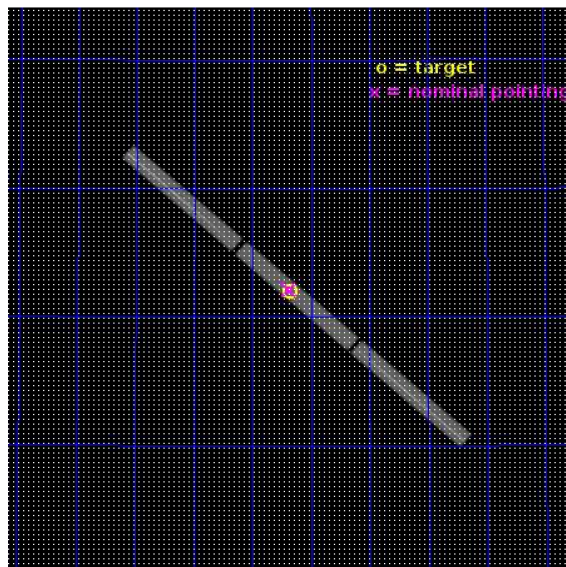
L2 Processing Date : Nov 20 2019

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1 Front

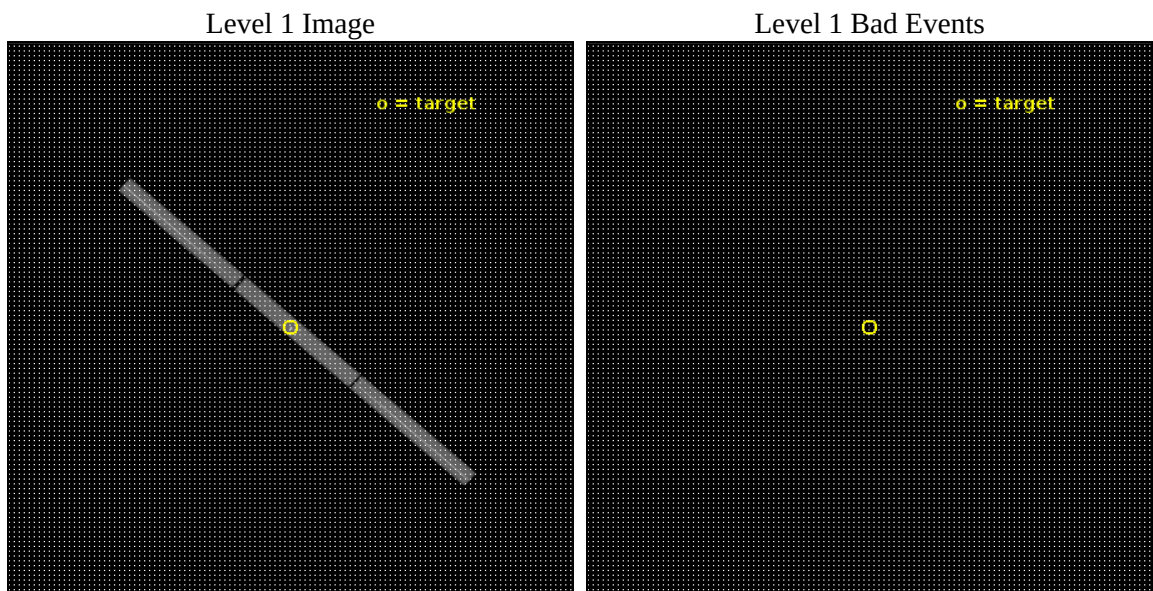
seq_num	291470	Sequence number
obs_id	21784	Observation id
title	AO-20 LETG/HRC-S Calibration Observations of HZ43	Proposal title
observer	CXC Calibration	Principal investigator
object	HZ43	Source name
ra_targ	199.090417	Observer's specified target RA [deg]
dec_targ	29.098306	Observer's specified target Dec [deg]
ra_nom	199.09202113611	Nominal RA [deg]
dec_nom	29.106973824454	Nominal Dec [deg]
roll_nom	41.566559285871	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20105.11996305	[s]
livetime	19827.578138521	Ontime multiplied by DTCOR
l2events	2495159	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	10.8.1	Processing system revision	ontime	20105.11996305	[s]
caldbver	4.8.4.2	 	l1events	3066726	Number of level 1 events
date	2019-11-20T20:09:29	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	1	Processing version of data	zo_pos	(32813.15, 32528.35)	src1a sky pixel position

2.1.3 Events

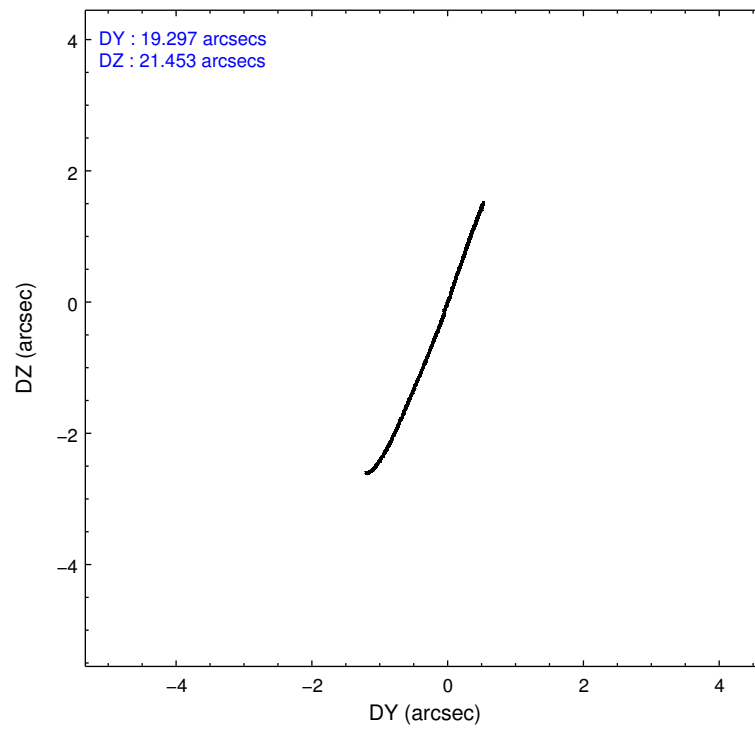
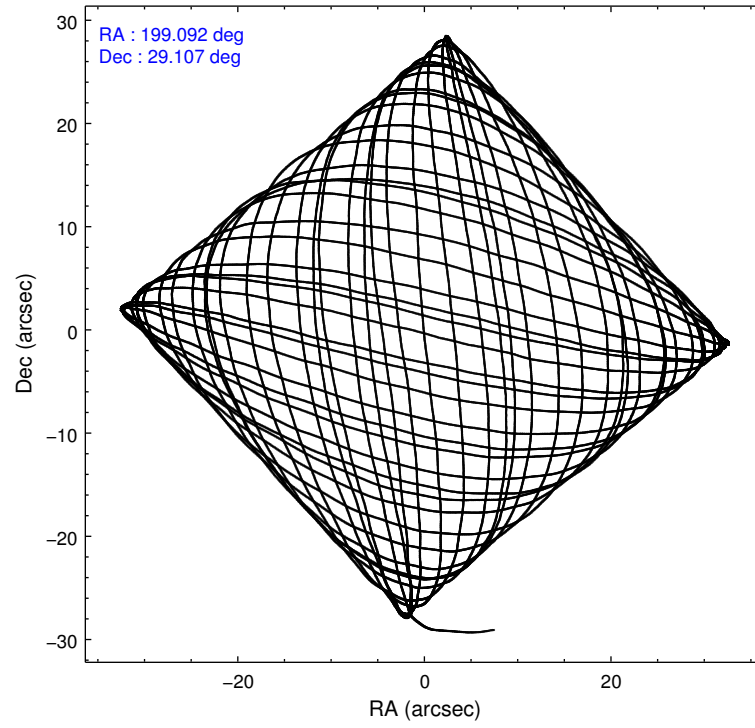
Level 1 Events

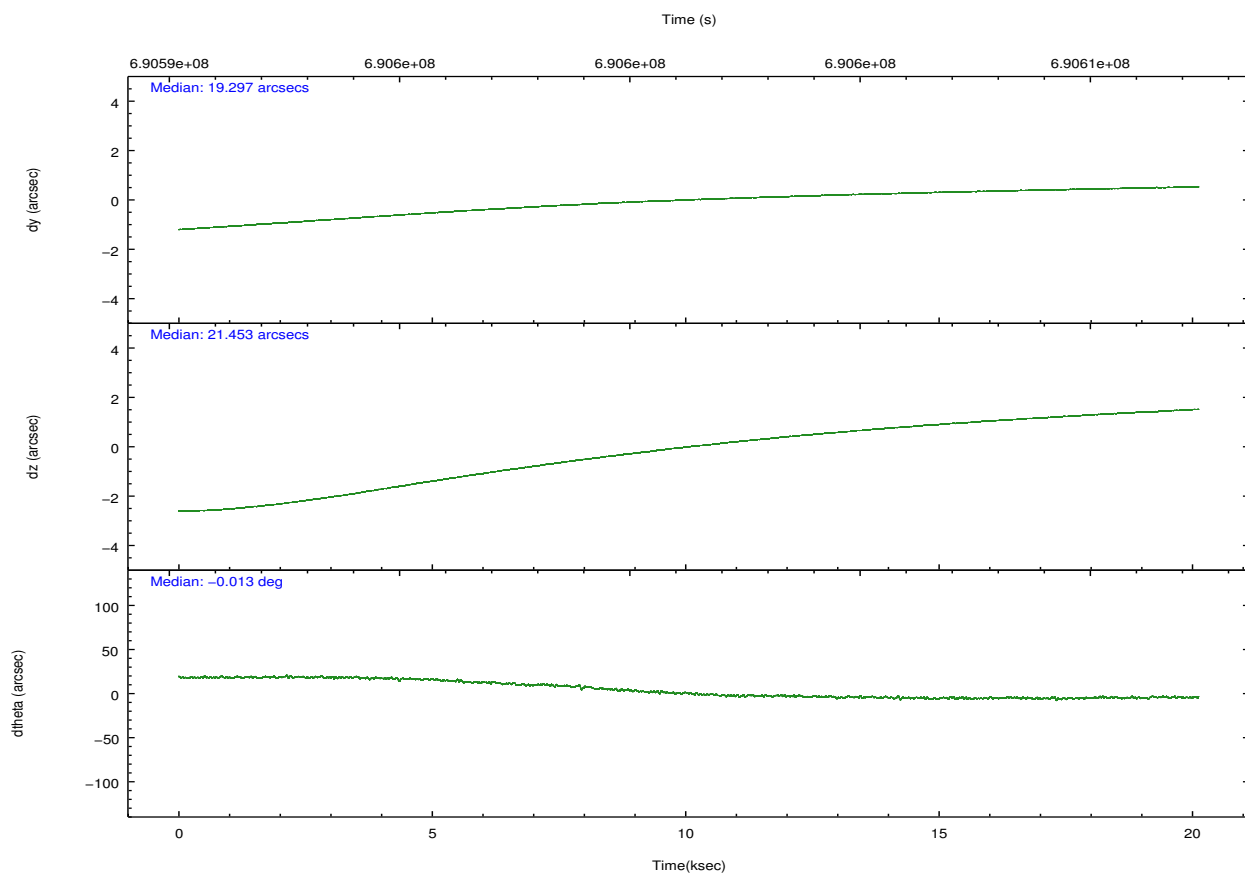
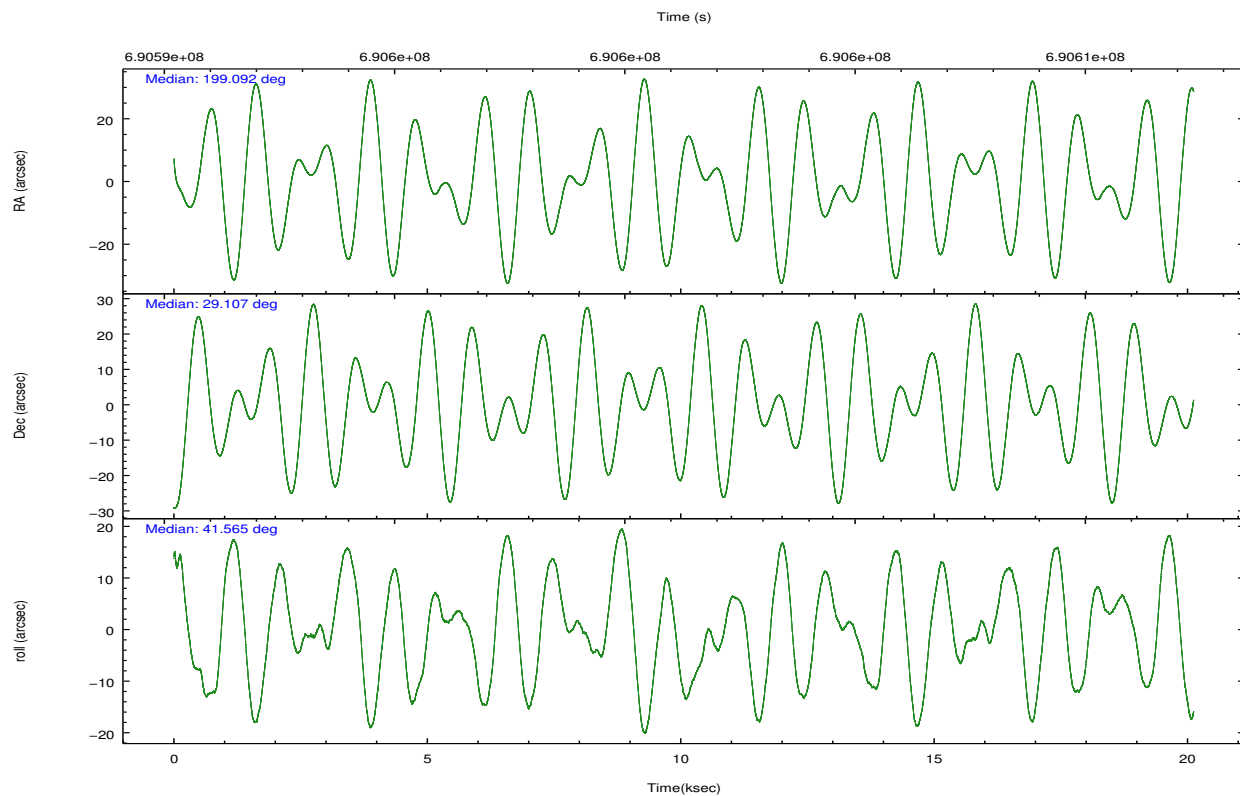
	segment 1	segment 2	segment 3
level 1 events	1053728	957092	1055906
rejected events	44348	42315	43911
rejected %	4%	4%	4%

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	199.083091	199.09202113611			
[deg] Pointing Dec	29.079227	29.10697382445354			
[deg] Pointing Roll	41.503562	41.56655928587067			
[s] Window start time (MET)	688953669.184000	688953669.184000			
[s] Window stop time (MET)	691459269.184000	691459269.184000			
[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)	690591361.184000	690590175.46109			
Observation start date	2019-11-19T22:54:52	2019-11-19T22:36:15			
[s] Observation end time (MET)	690611361.184000	690611537.48737			
Observation end date	2019-11-20T04:28:12	2019-11-20T04:32:17			

2.3 Aspect



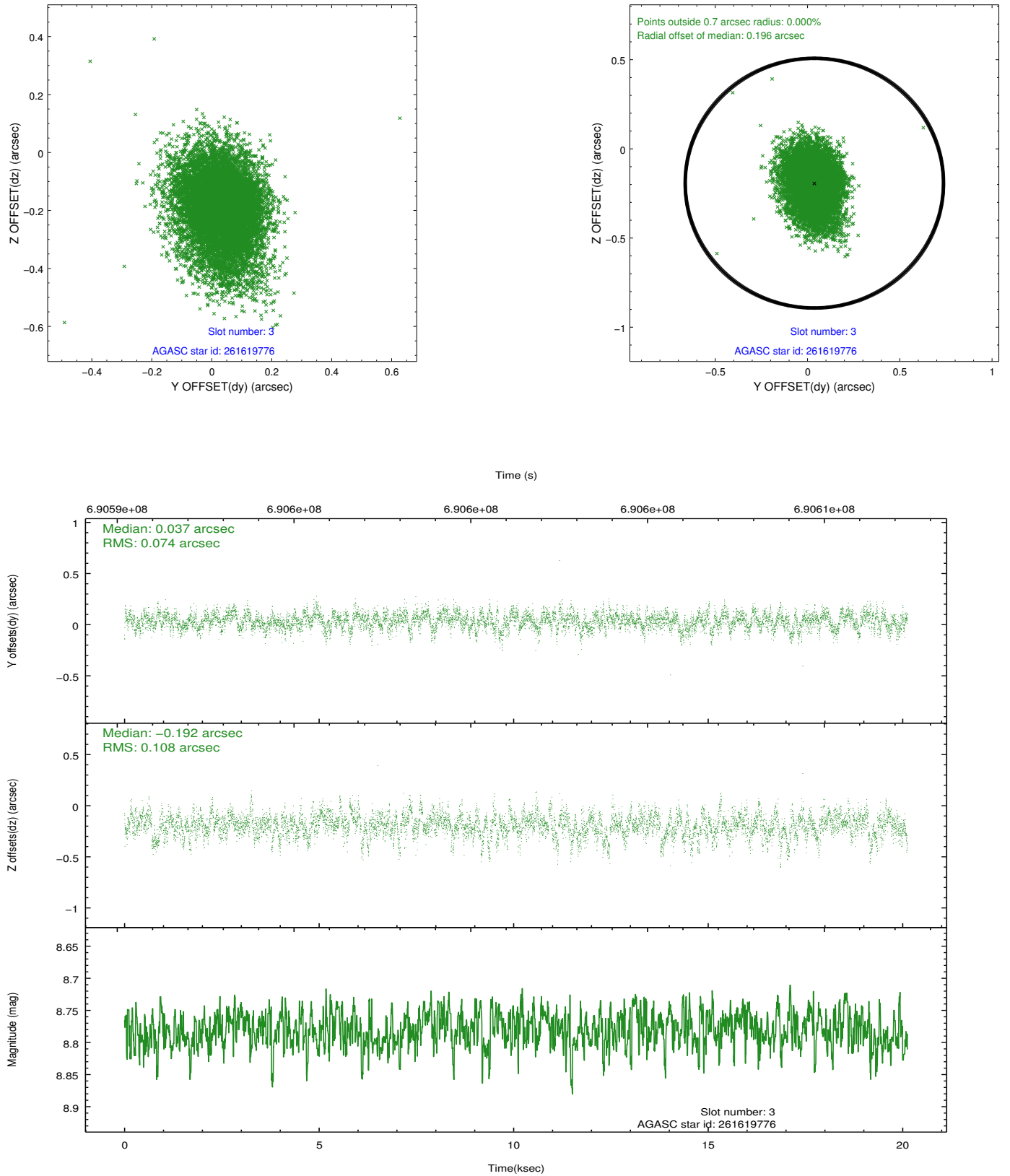


Slot Statistics

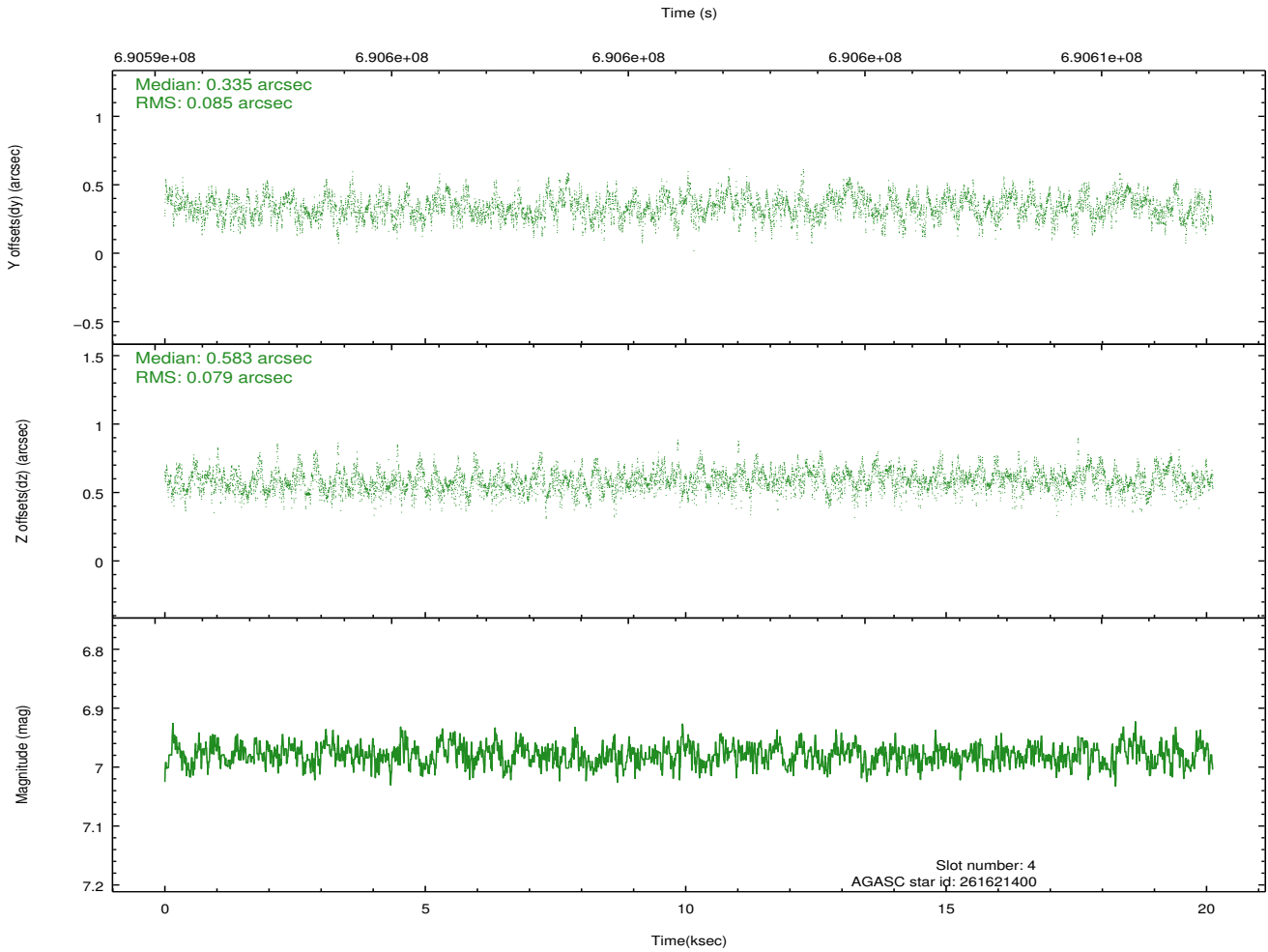
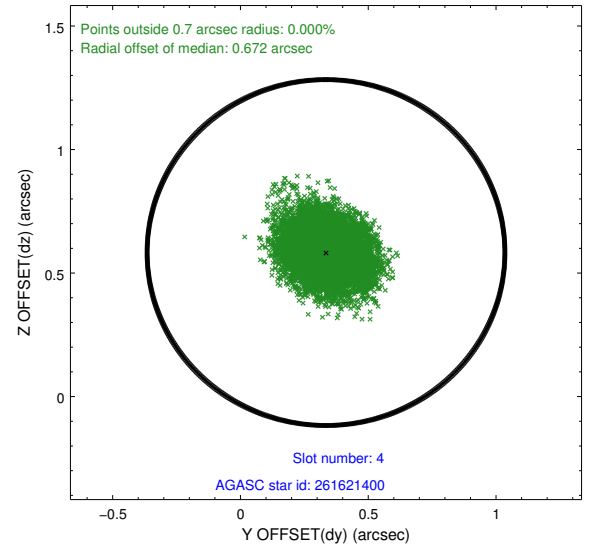
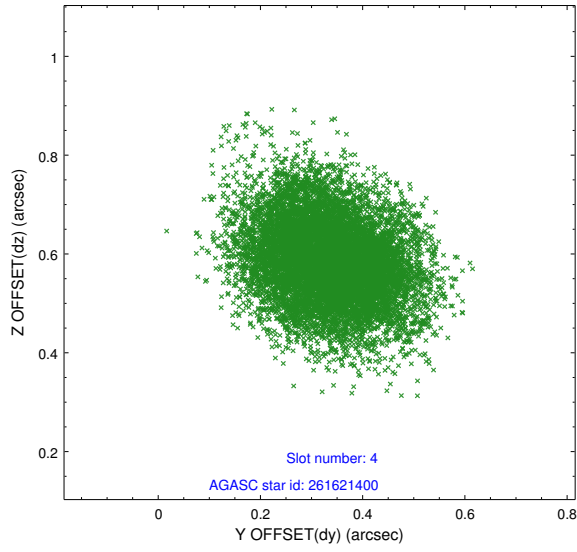
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-S-2	7.07	4908	1.000	0.164	-0.270	0.025	0.044	0.000000	0.000000	1226.17	-462
1	FID		HRC-S-3	7.07	4908	1.000	-0.215	-0.086	0.014	0.026	0.000000	0.000000	-1176.51	559
2	FID		HRC-S-4	7.06	4908	1.000	0.457	0.062	0.023	0.042	0.000000	0.000000	1224.65	562
3	GUIDE	used	261619776	8.78	9806	1.000	0.037	-0.192	0.134	0.238	198.654383	29.401174	-236.80	1758
4	GUIDE	used	261621400	6.98	9817	1.000	0.335	0.583	0.124	0.200	198.901600	28.741982	-1233.10	-528
5	GUIDE	used	261623040	9.08	9792	1.000	-0.443	-0.652	0.202	0.336	198.792686	29.757643	938.88	2430
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
7	GUIDE	used	261629720	8.09	9812	1.000	0.069	0.262	0.117	0.189	199.236176	29.044452	278.26	-412

2.4 Star Slots

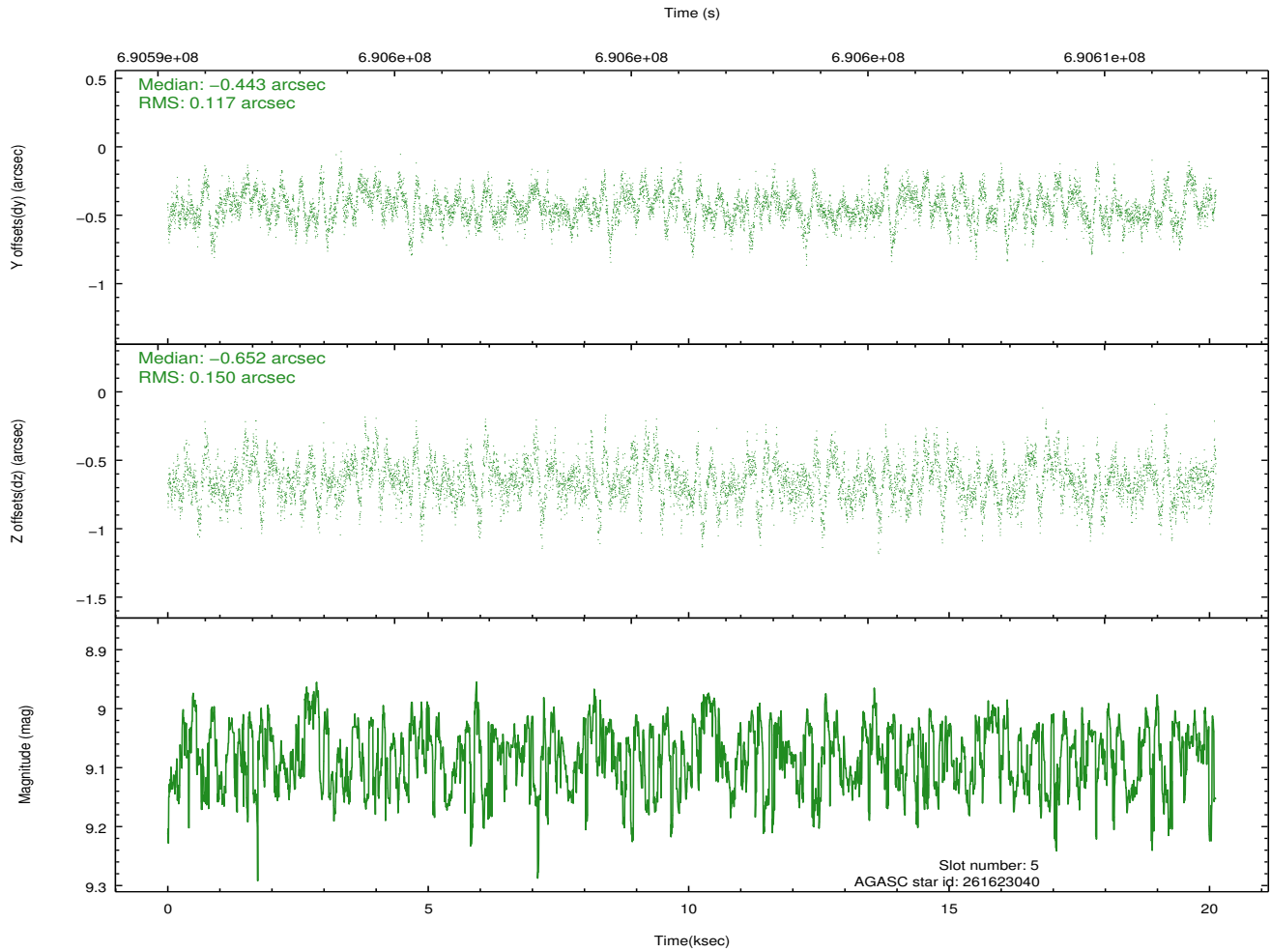
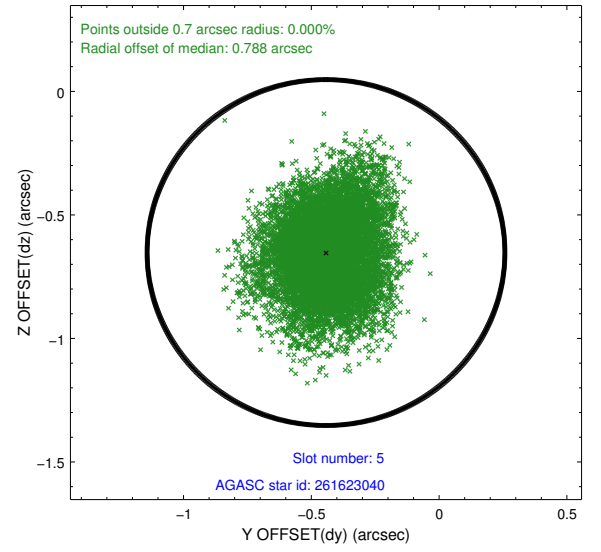
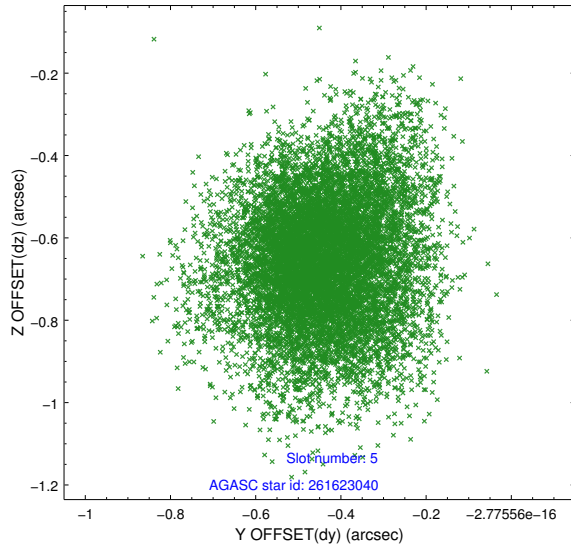
2.4.1 Slot 3



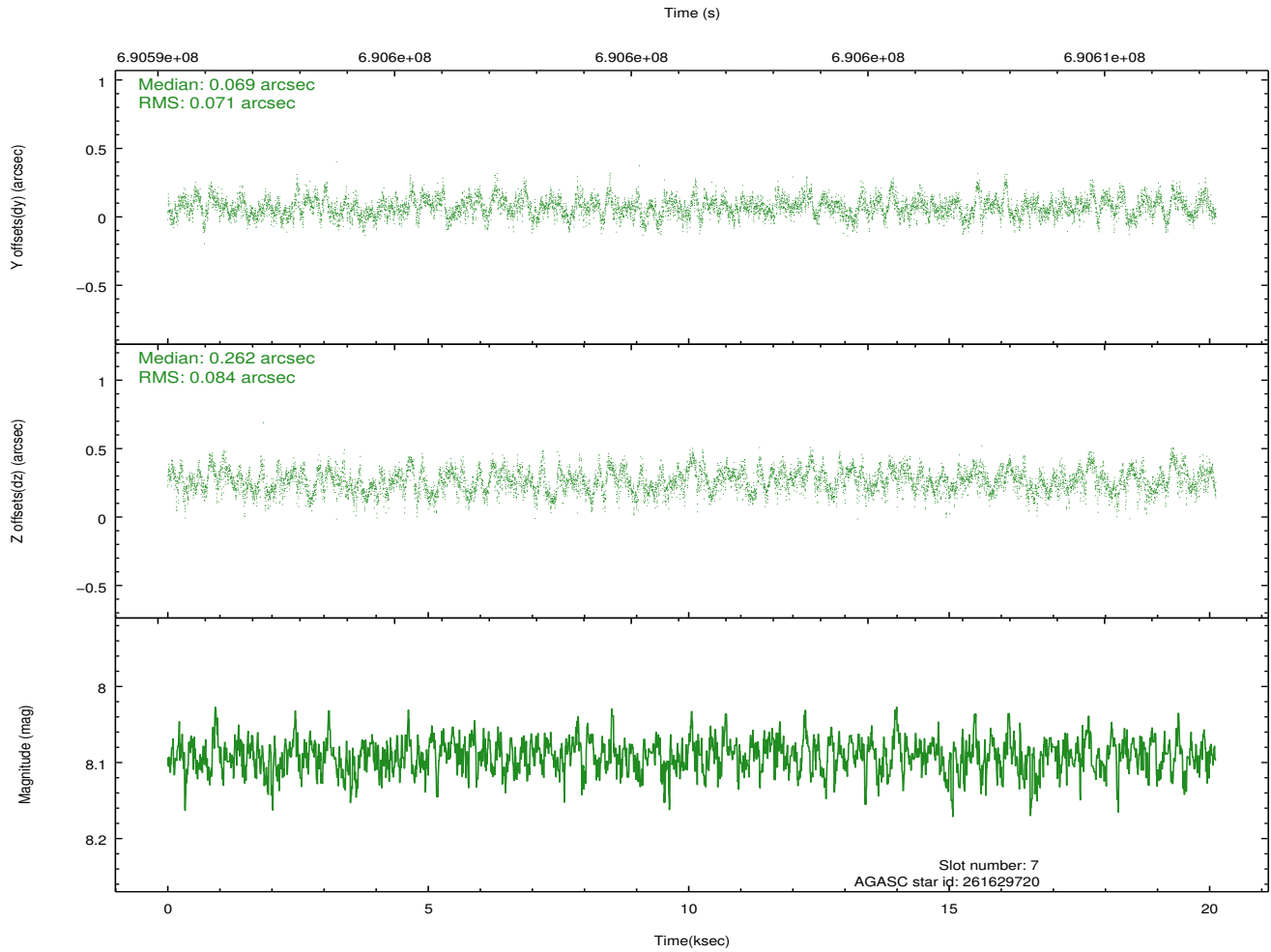
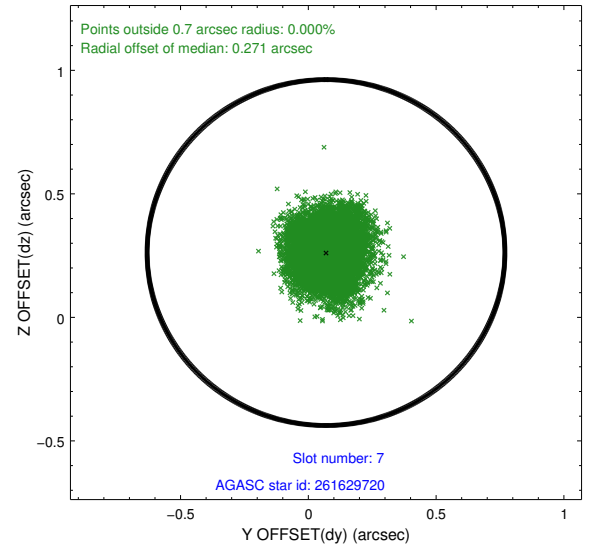
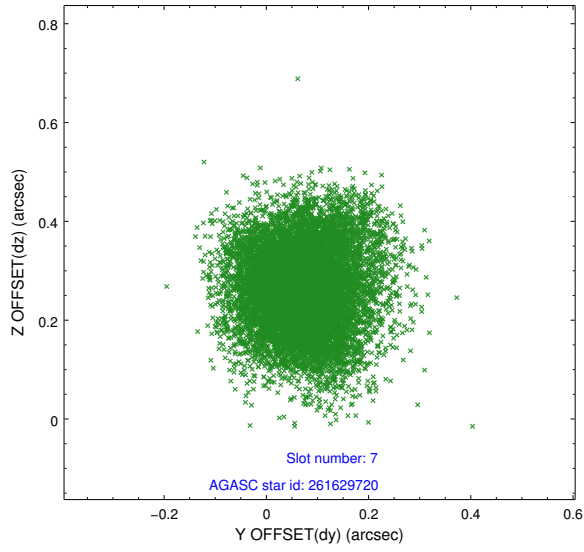
2.4.2 Slot 4



2.4.3 Slot 5

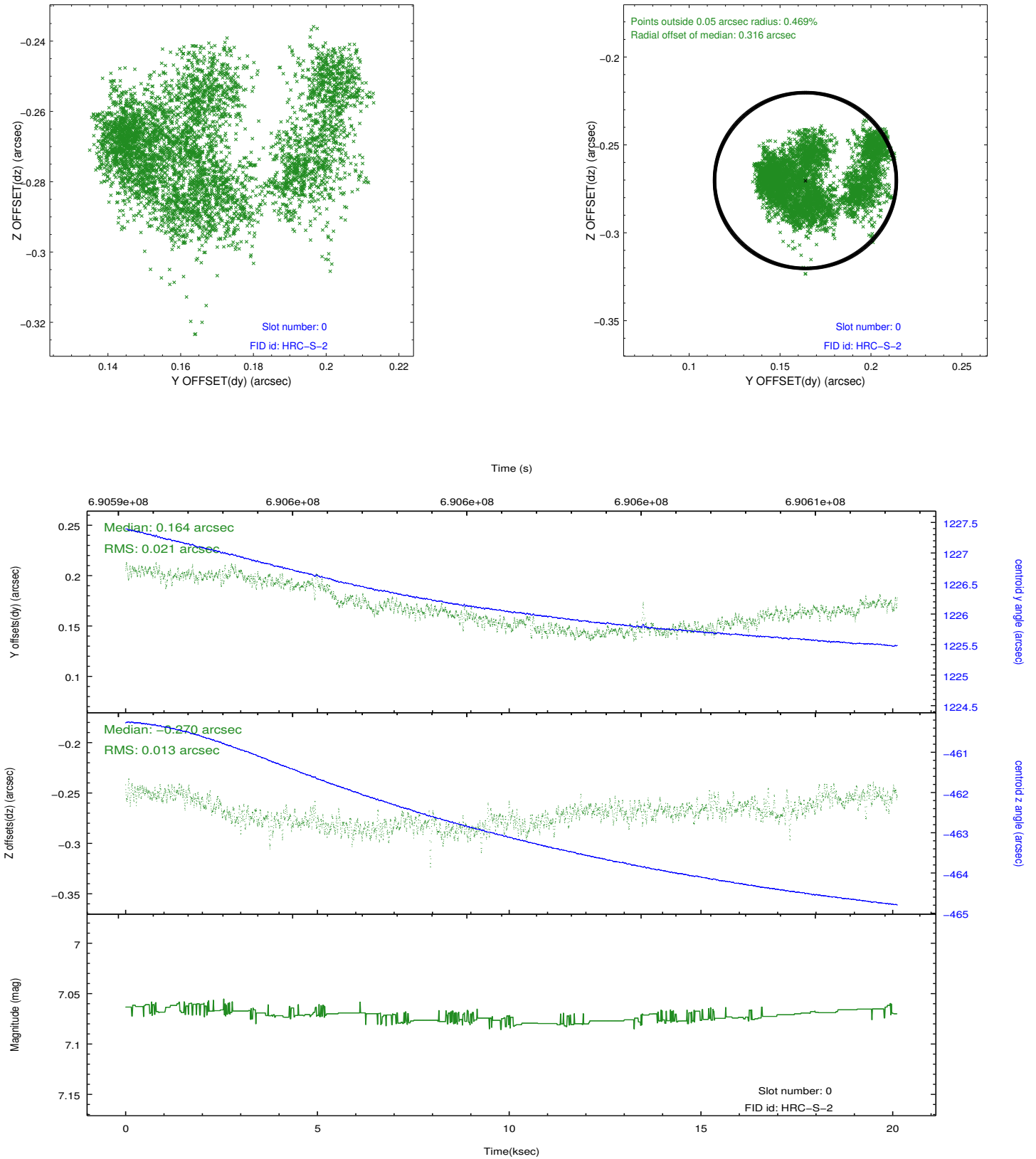


2.4.4 Slot 7

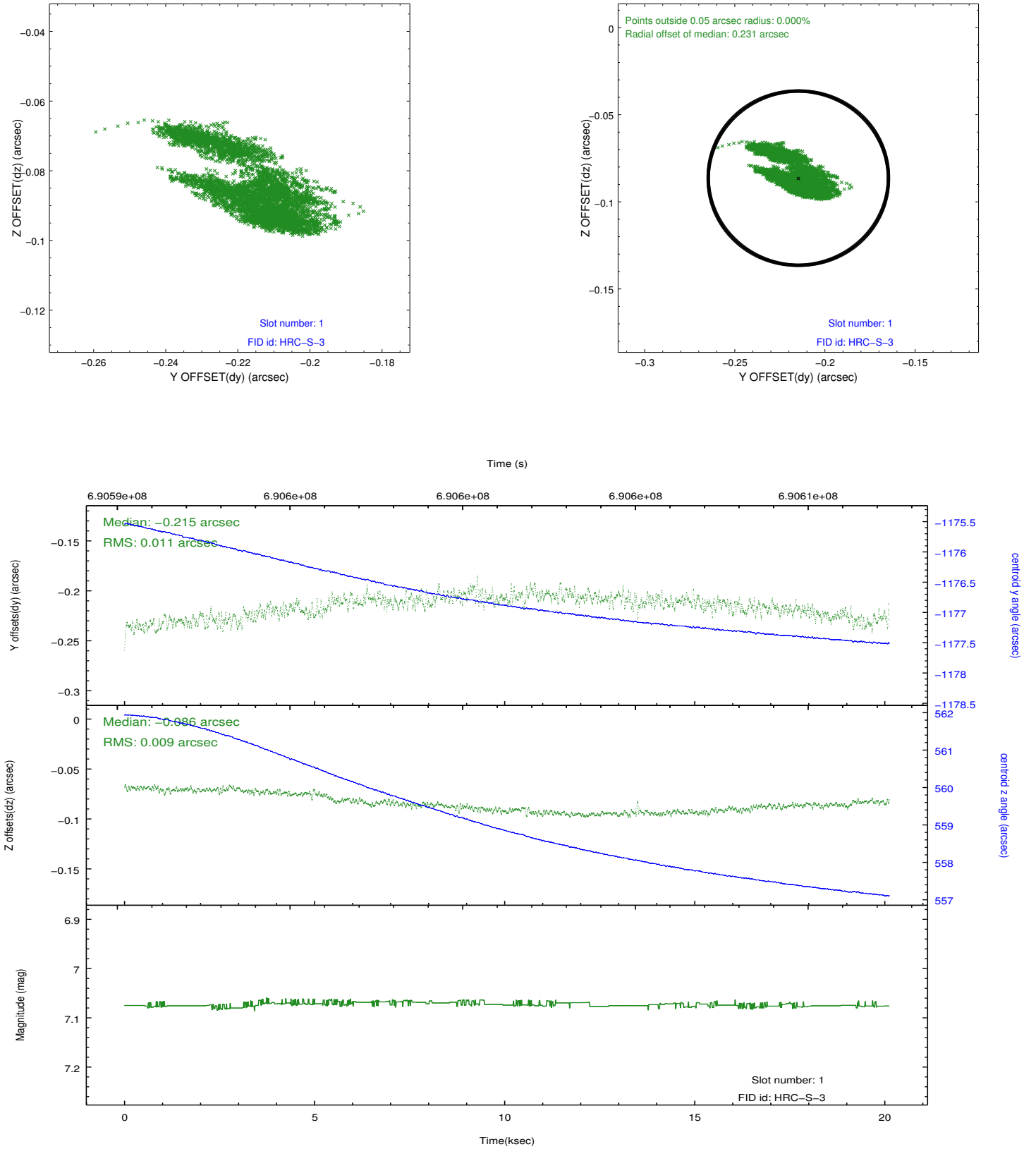


2.5 FID Slots

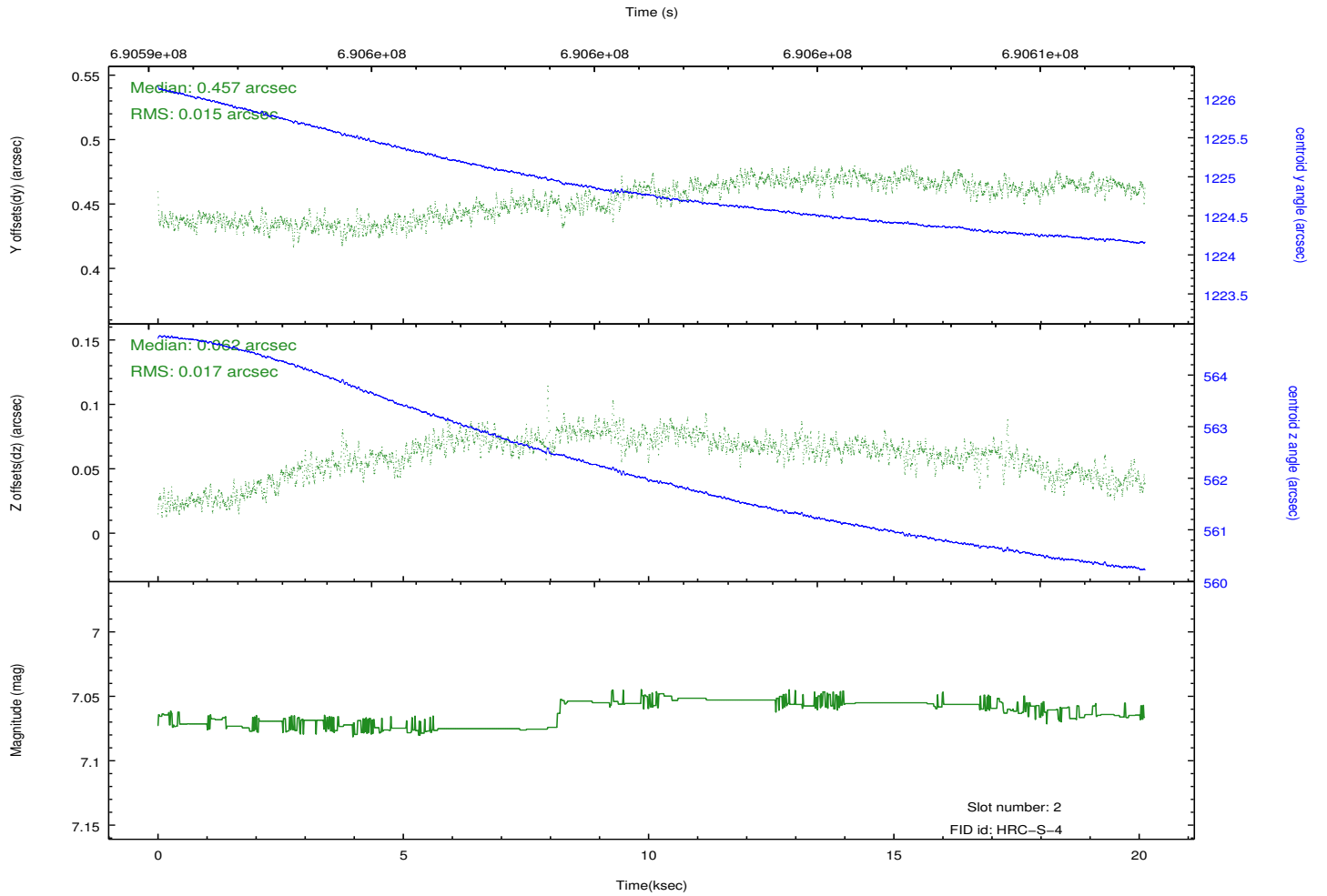
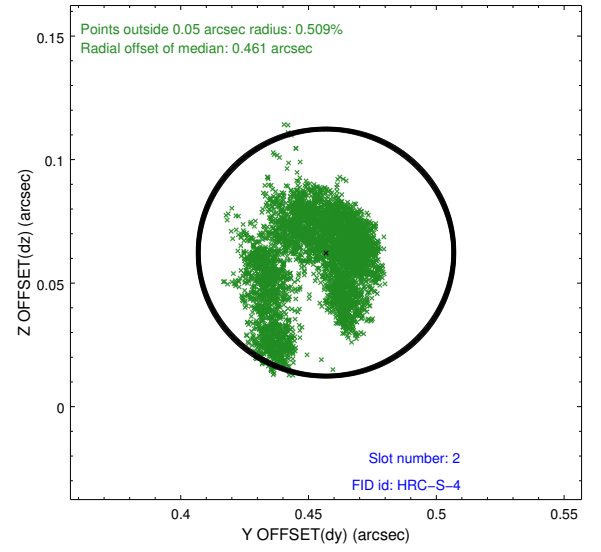
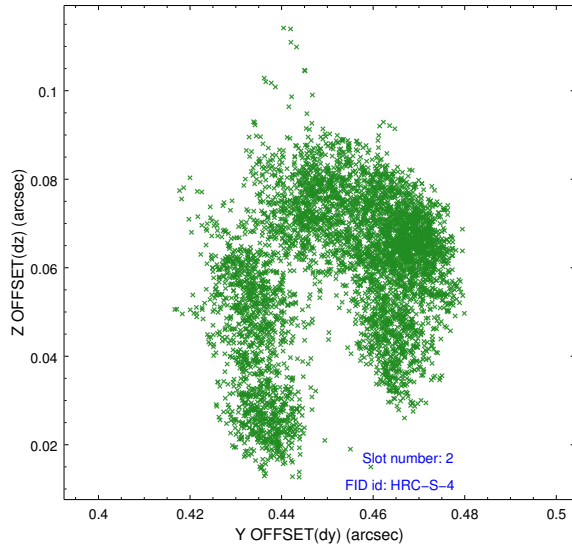
2.5.1 Slot 0



2.5.2 Slot 1

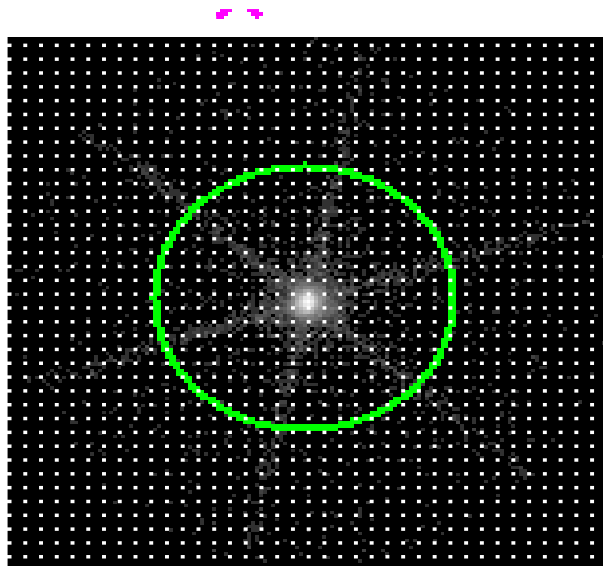


2.5.3 Slot 2

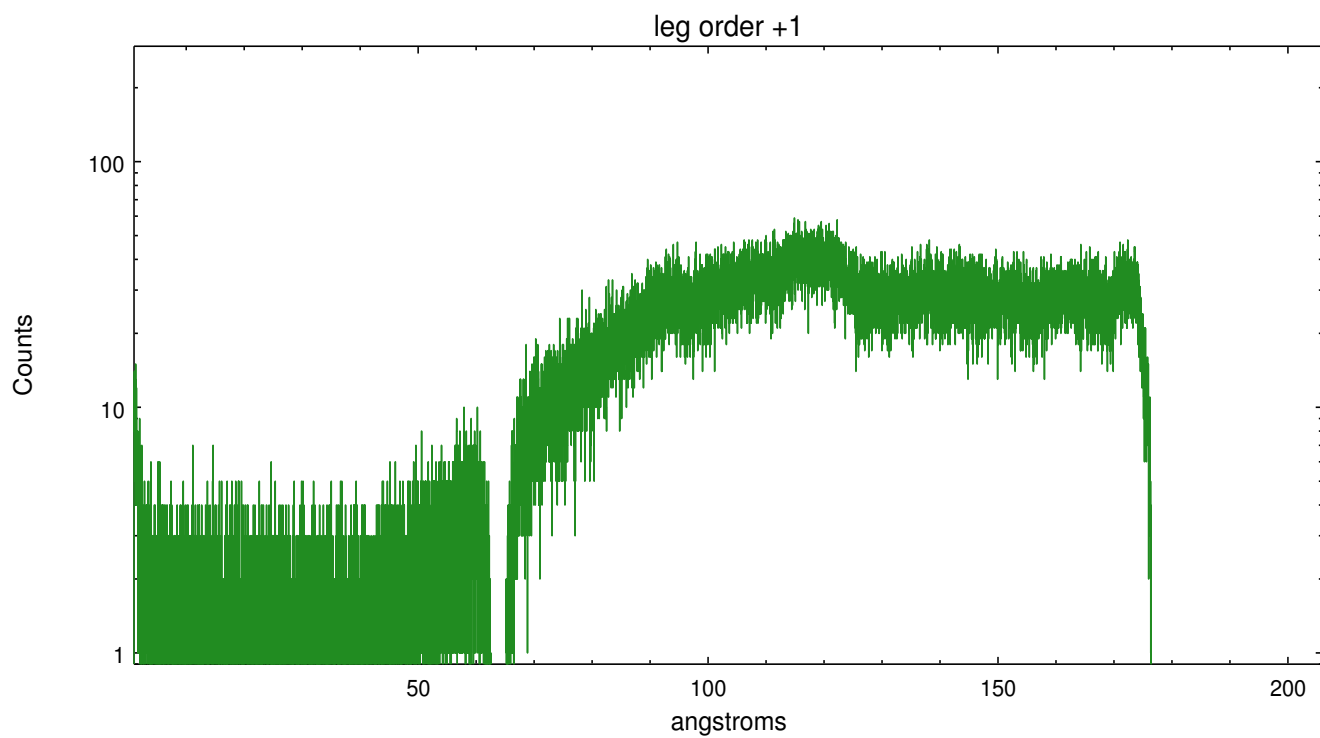
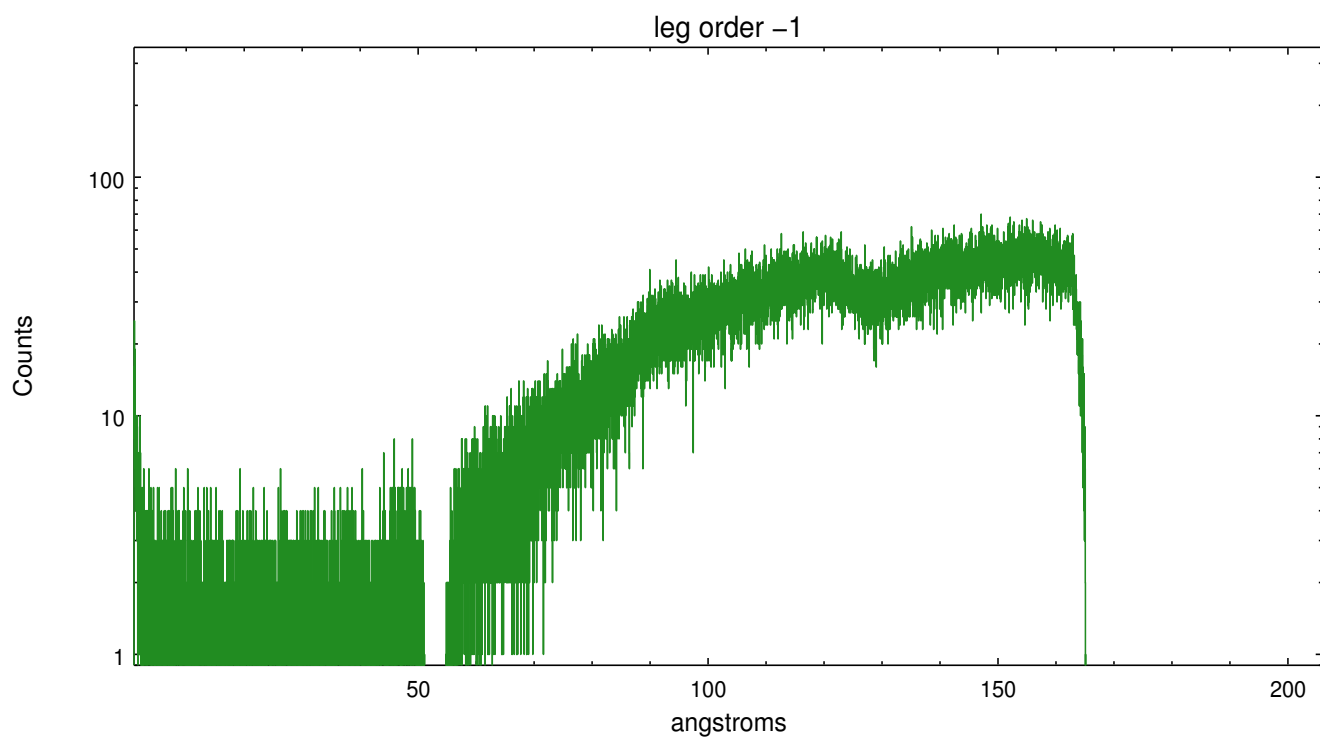


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2019.11.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.10511996305

A.2 Comments