

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16375 - L2 Version 2
Chandra X-Ray Center

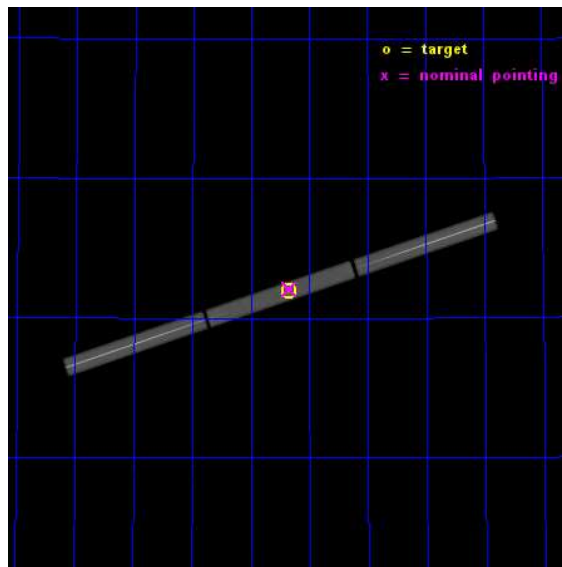
L2 Processing Date : Dec 10 2014

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1 Front

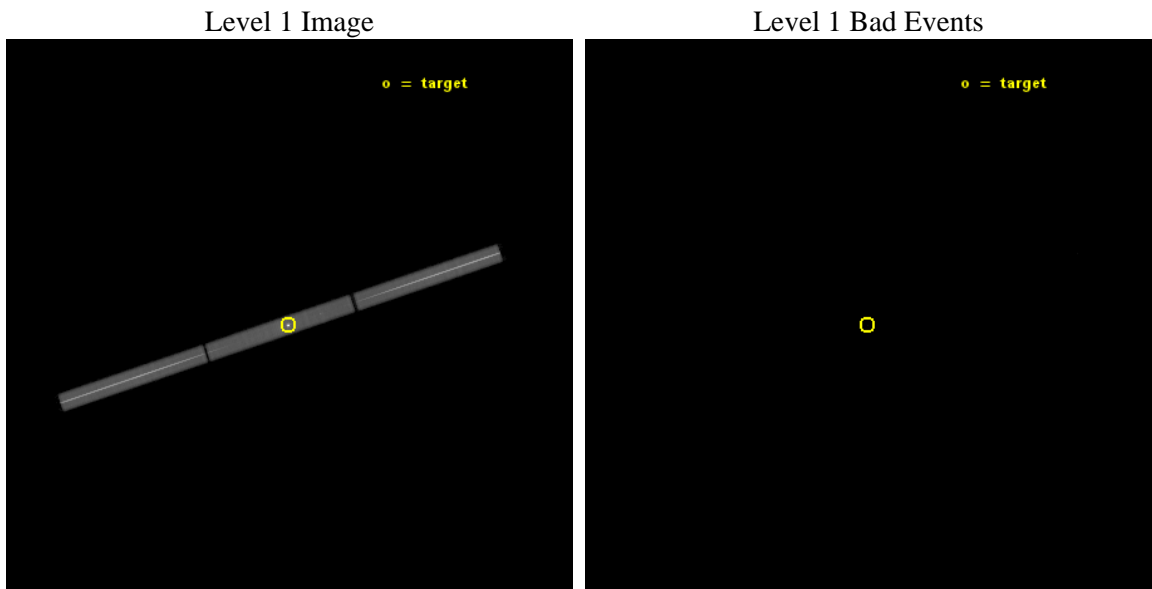
seq_num	291147	Sequence number
obs_id	16375	Observation id
title	AO-15 LETG/HRC-S Calibration Observations of HZ43	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	HZ43	Source name
ra_targ	199.090417	Observer's specified target RA [deg]
dec_targ	29.098306	Observer's specified target Dec [deg]
ra_nom	199.08533821077	Nominal RA [deg]
dec_nom	29.099801599389	Nominal Dec [deg]
roll_nom	161.75588099681	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20144.454234362	[s]
livetime	19965.128845419	Ontime multiplied by DTCOR
l2events	1782724	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	10.3.1	Processing system revision	ontime	20144.582360089	[s]
caldsver	4.6.4	 	l1events	2264392	Number of level 1 events
date	2014-12-10T17:25:00	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	2	Processing version of data	zo_pos	(32643.23, 32729.85)	src1a sky pixel position

2.1.3 Events

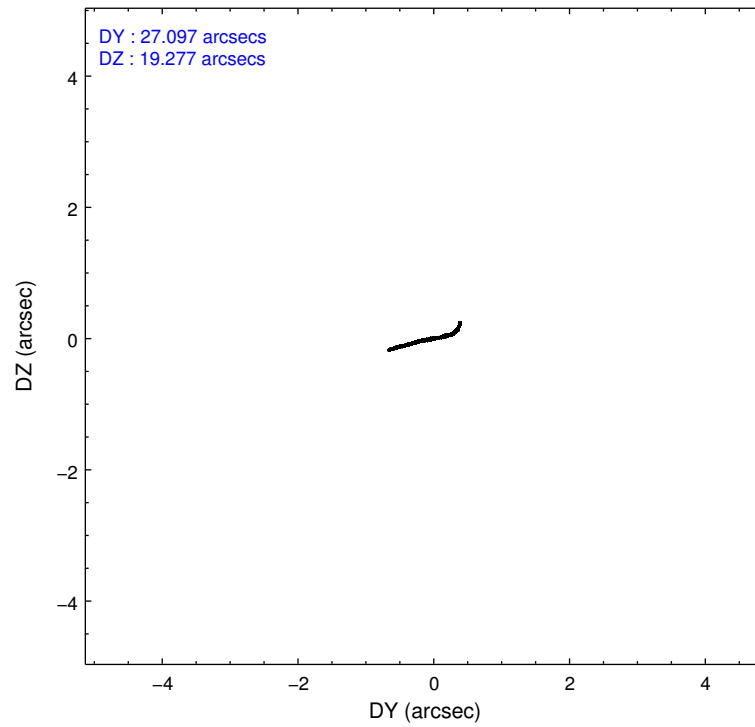
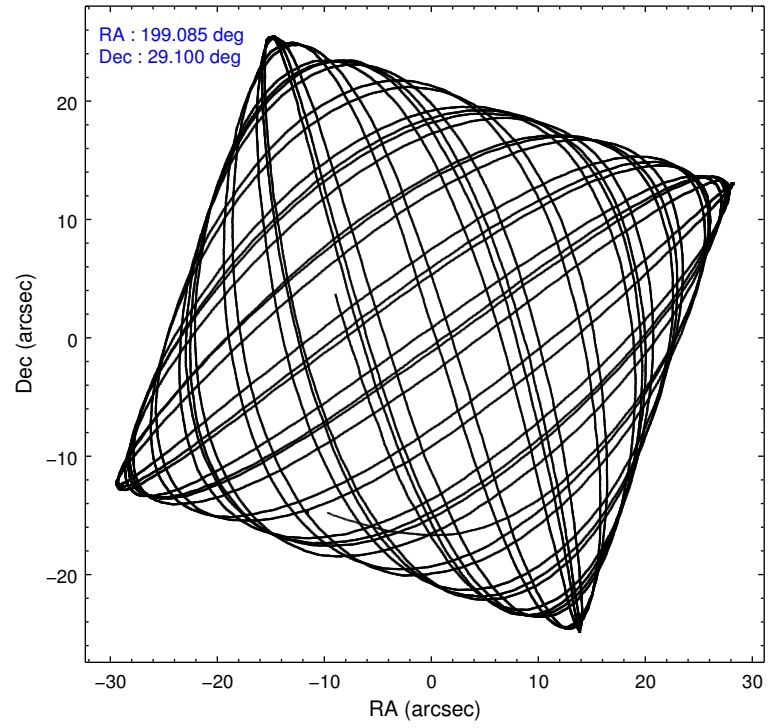
Level 1 Events

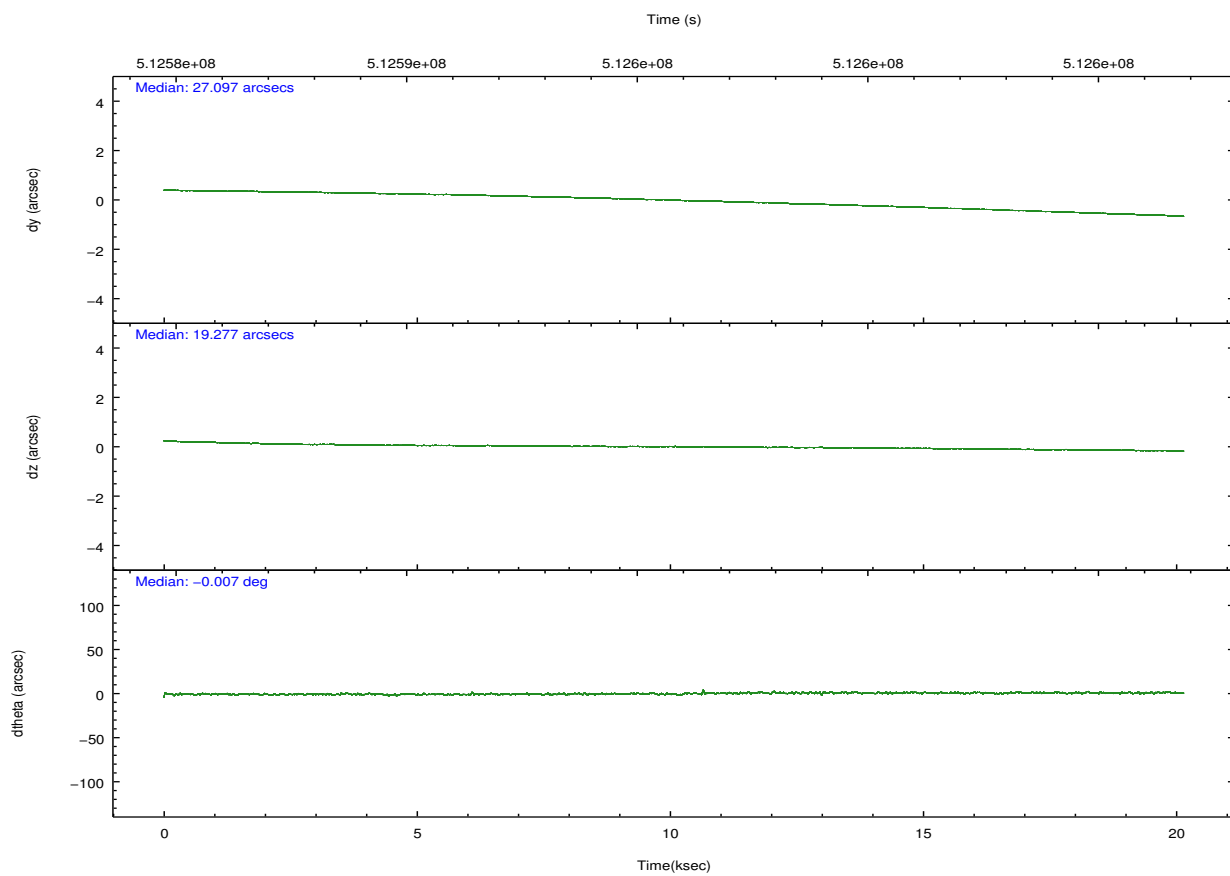
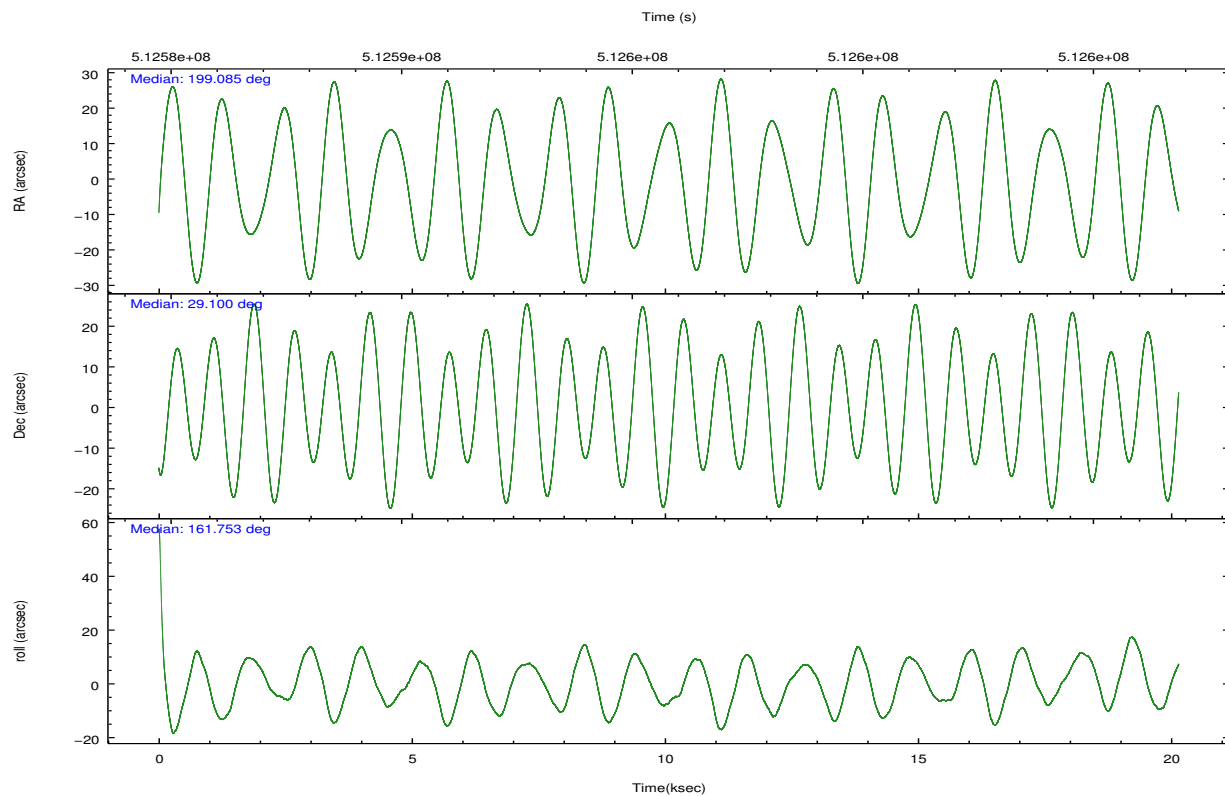
	segment 1	segment 2	segment 3
level 1 events	790291	680538	793563
rejected events	39541	38775	40017
rejected %	5%	5%	5%

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	199.117063	199.0853382107731			
[deg] Pointing Dec	29.107103	29.09980159938936			
[deg] Pointing Roll	161.673083	161.7558809968112			
[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)	512585868.184000	512584146.16569			
Observation start date	2014-03-30T16:56:41	2014-03-30T16:29:06			
[s] Observation end time (MET)	512605868.184000	512606345.61692			
Observation end date	2014-03-30T22:30:01	2014-03-30T22:39:05			

2.3 Aspect



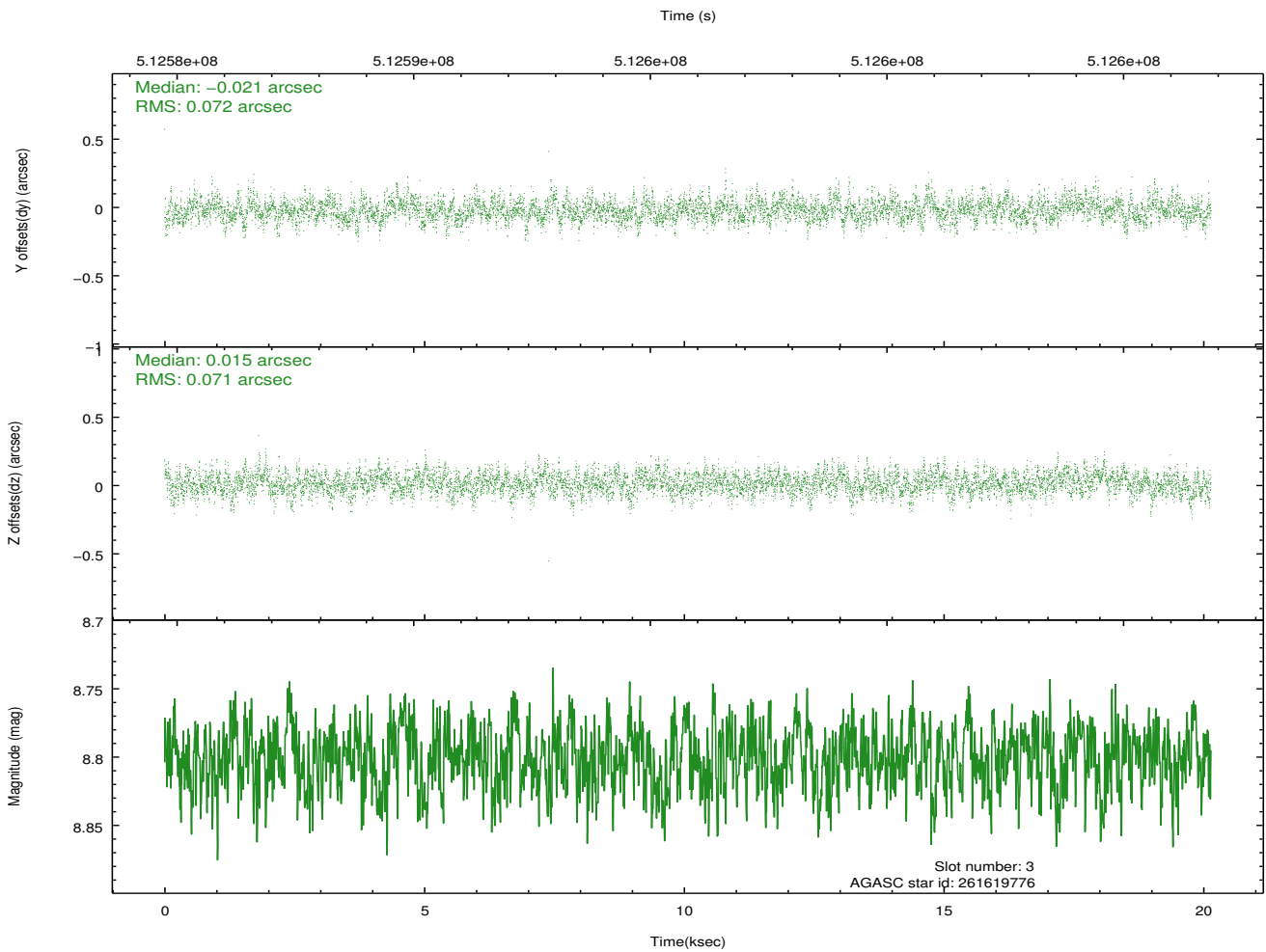
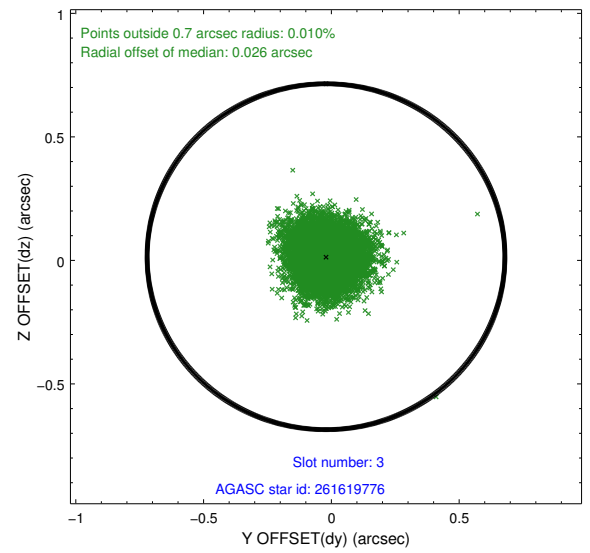
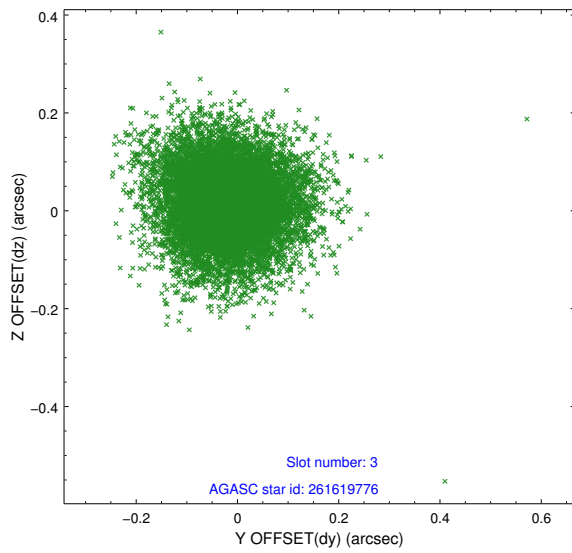


Slot Statistics

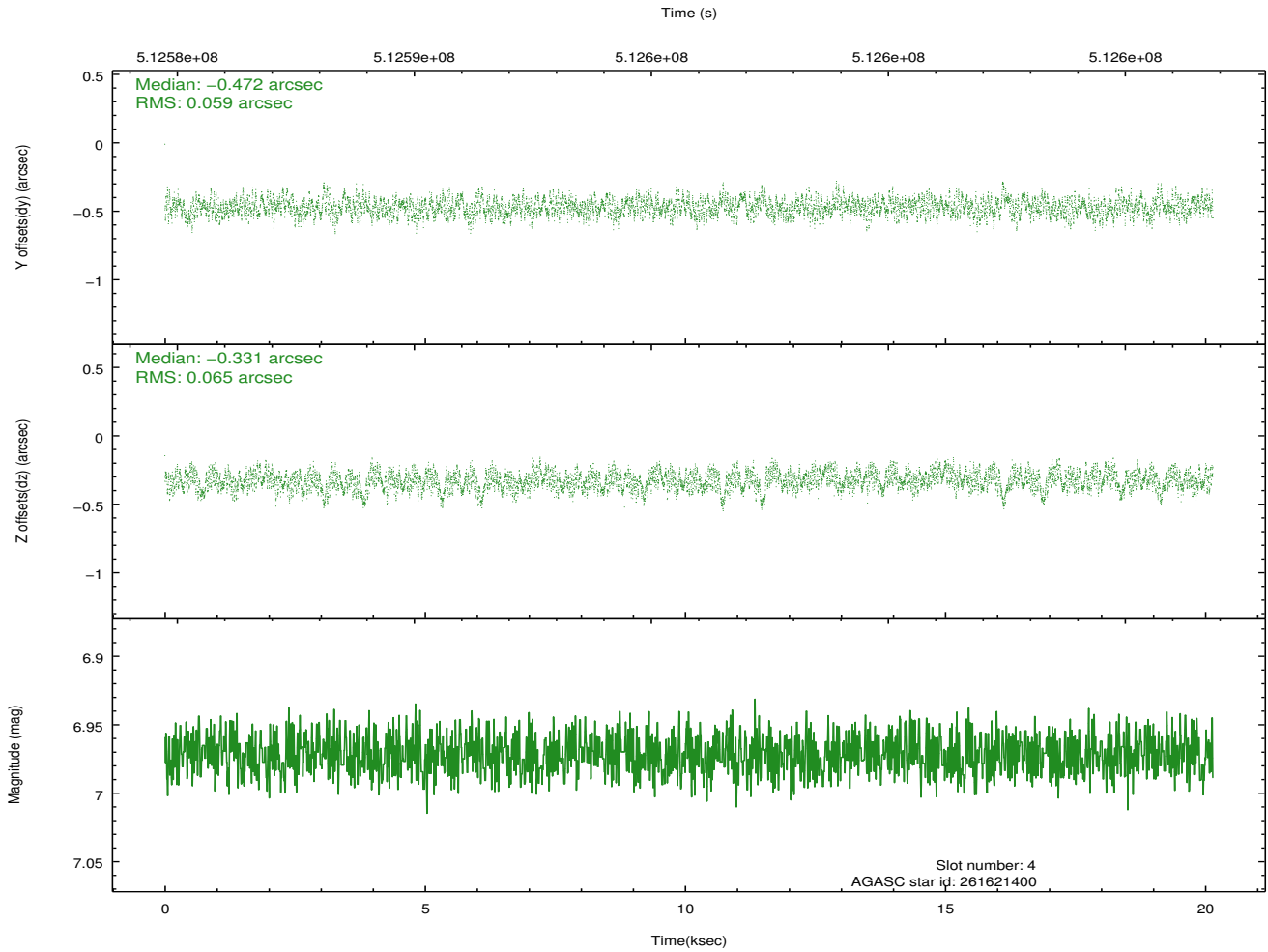
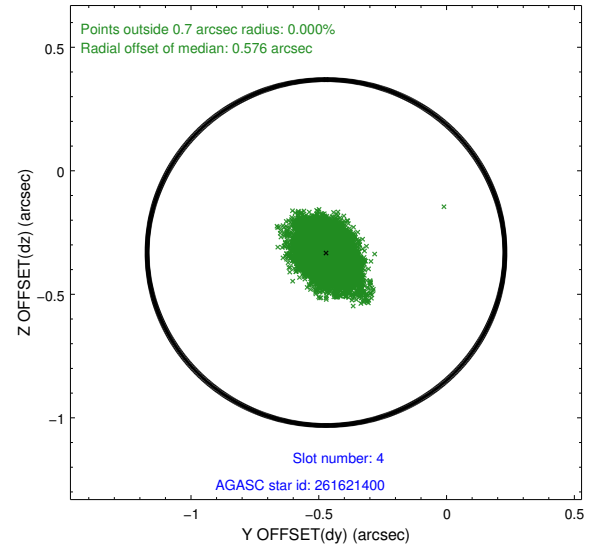
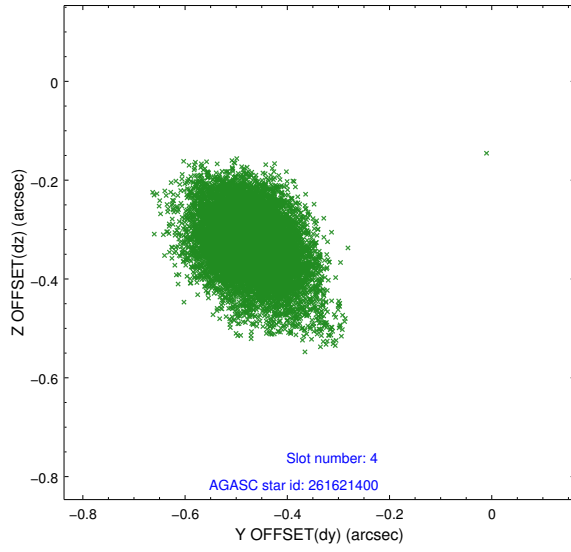
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.00	4914	0.003	-0.183	0.007	0.012	0.000000	0.000000	-1181.82	-468.39
1	FID		HRC-S-2	6.97	4914	0.345	-0.138	0.010	0.016	0.000000	0.000000	1217.96	-460.94
2	FID		HRC-S-3	7.00	4913	0.042	0.019	0.010	0.015	0.000000	0.000000	-1184.32	561.25
3	GUIDE	used	261619776	8.80	9824	-0.021	0.015	0.106	0.175	198.654383	29.401174	1711.11	-550.70
4	GUIDE	used	261621400	6.97	9827	-0.472	-0.331	0.093	0.150	198.901600	28.741982	233.30	1460.99
5	GUIDE	used	261623040	9.12	9823	-0.131	0.353	0.139	0.223	198.792686	29.757643	1699.95	-1904.89
6	GUIDE	used	261623624	9.09	9821	0.481	0.089	0.145	0.234	199.611555	28.454113	-2222.71	1736.39
7	GUIDE	used	261629720	8.11	9827	0.142	-0.127	0.092	0.149	199.236176	29.044452	-426.12	96.34

2.4 Star Slots

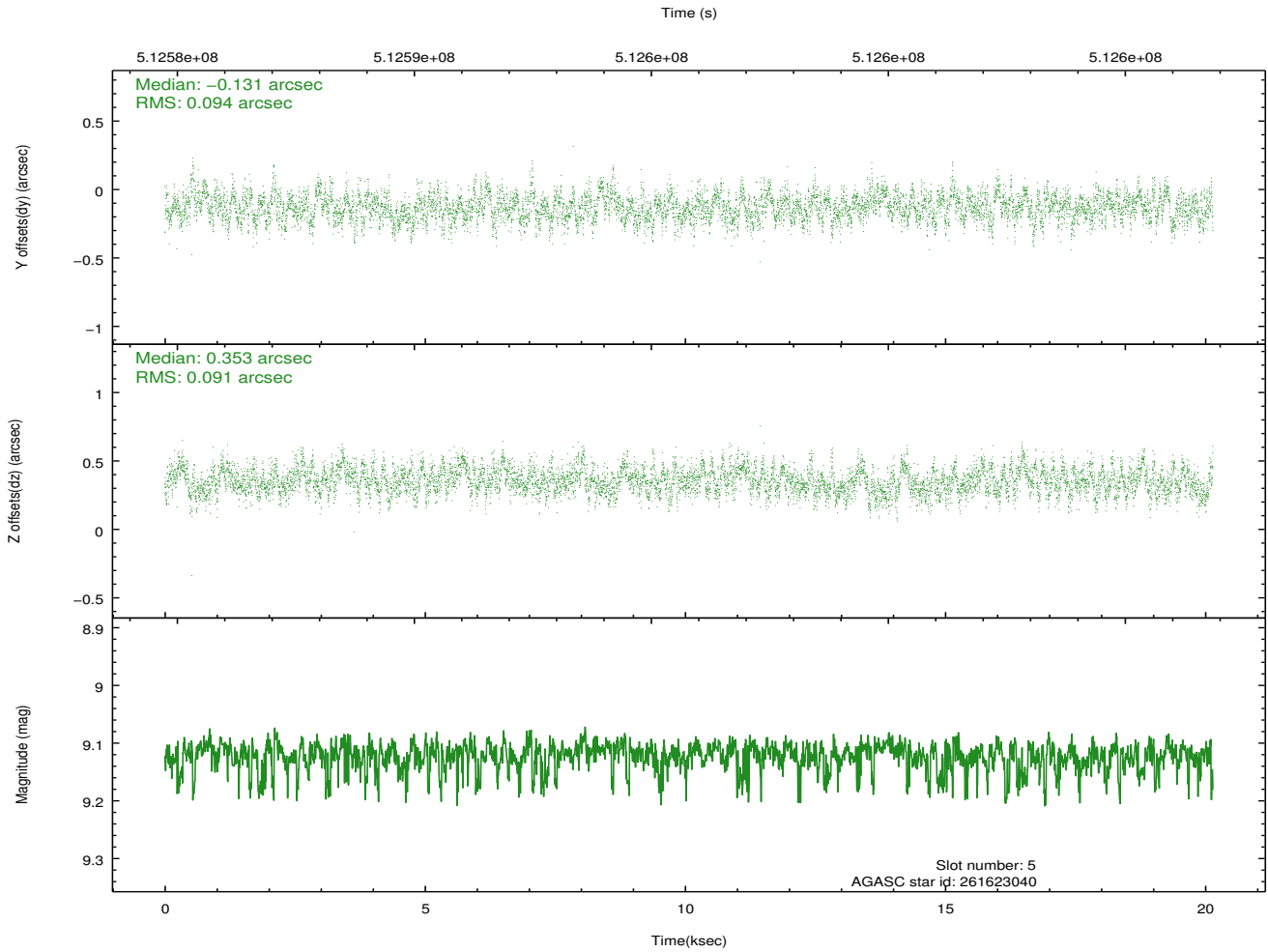
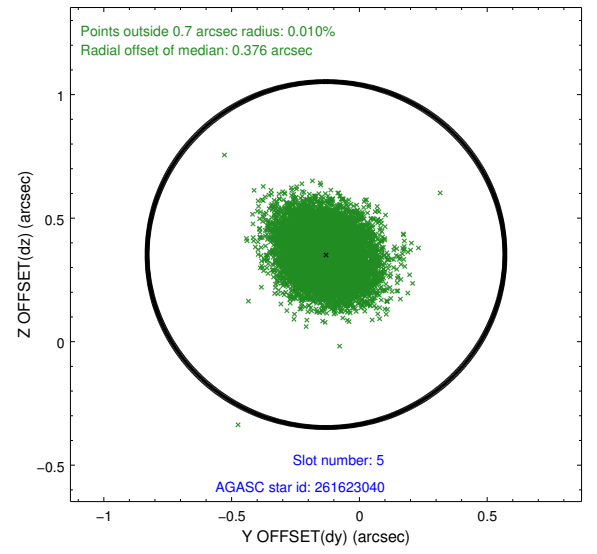
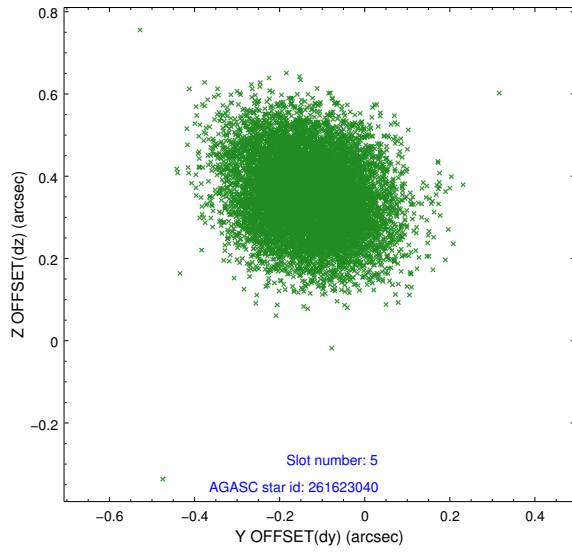
2.4.1 Slot 3



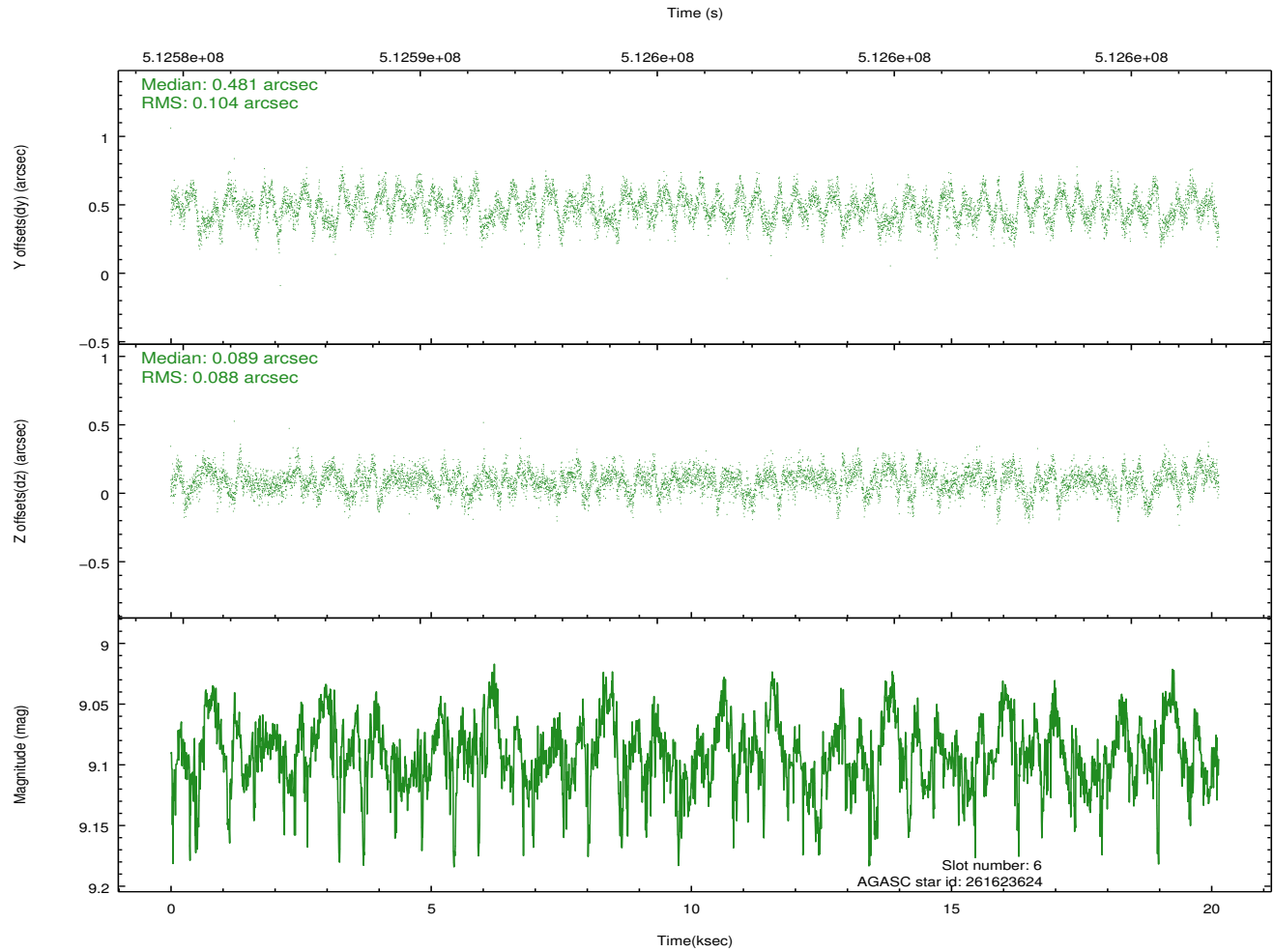
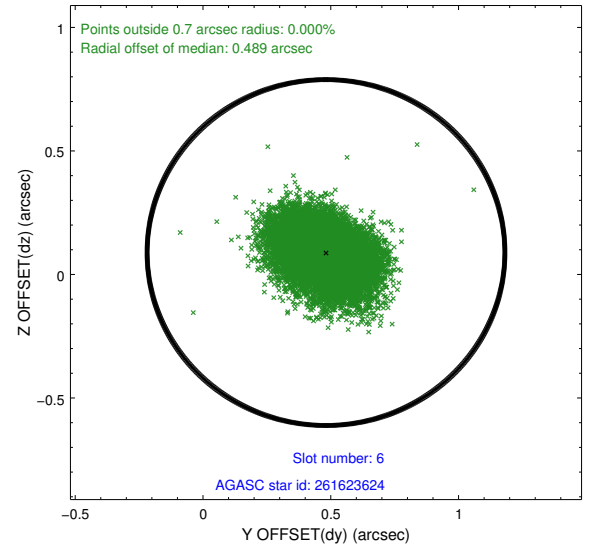
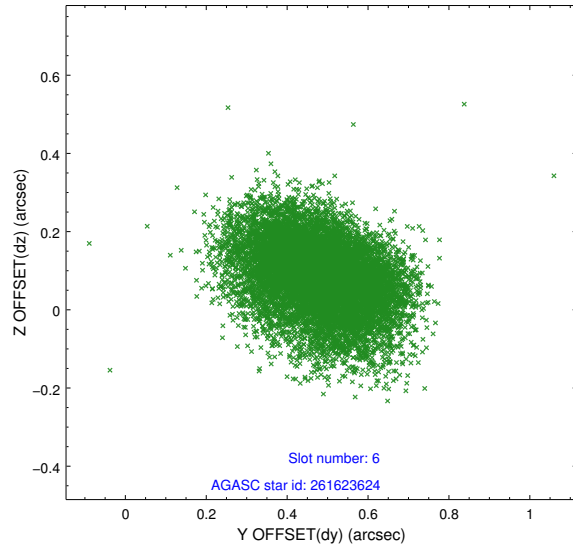
2.4.2 Slot 4



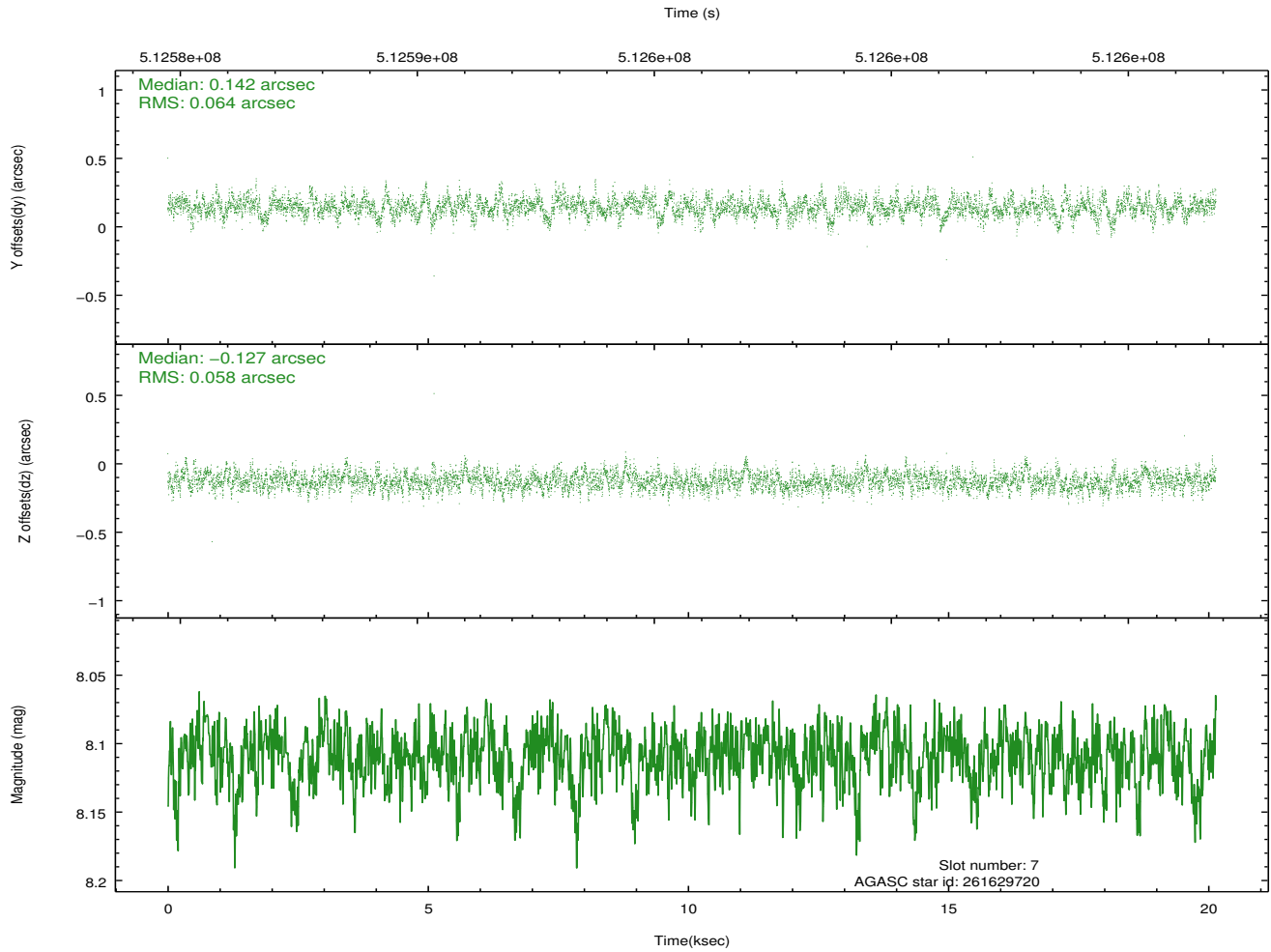
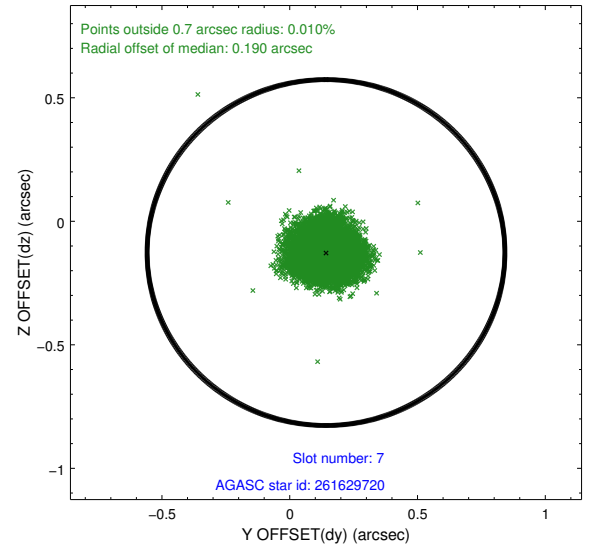
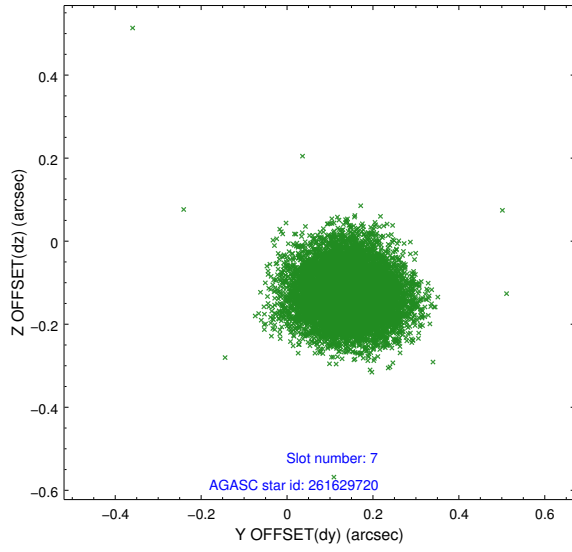
2.4.3 Slot 5



2.4.4 Slot 6

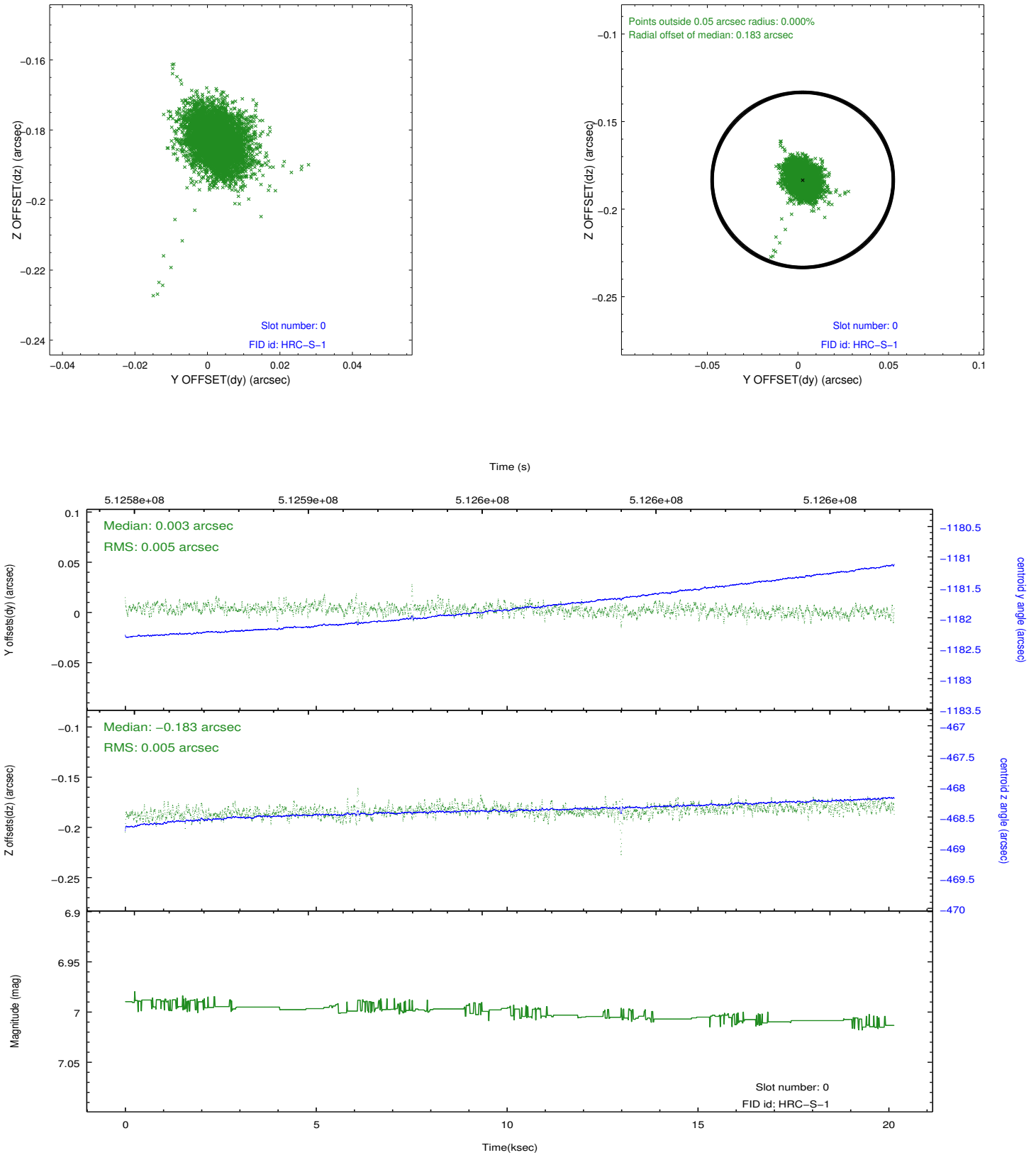


2.4.5 Slot 7

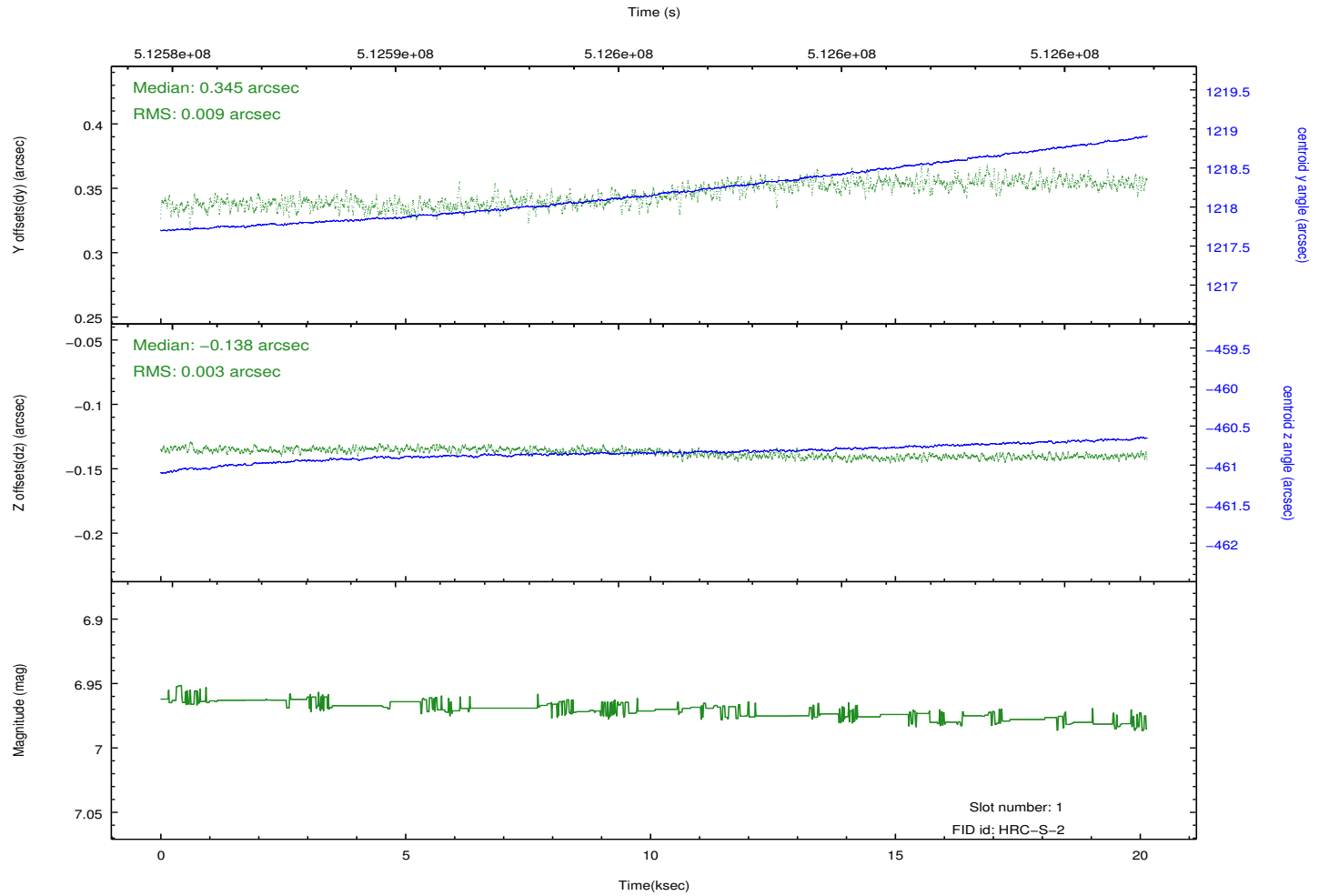
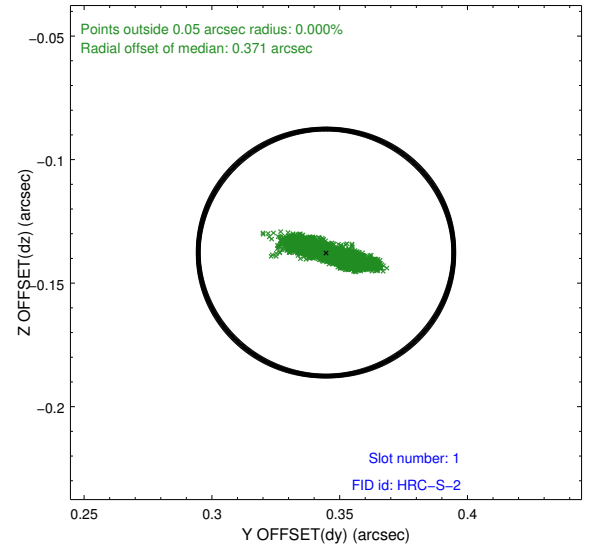
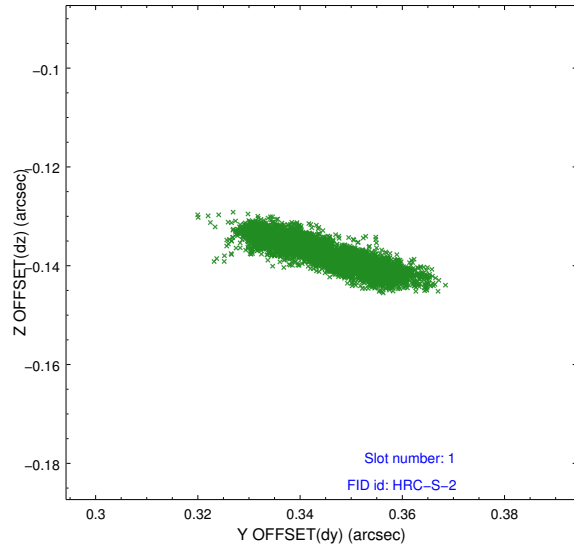


2.5 FID Slots

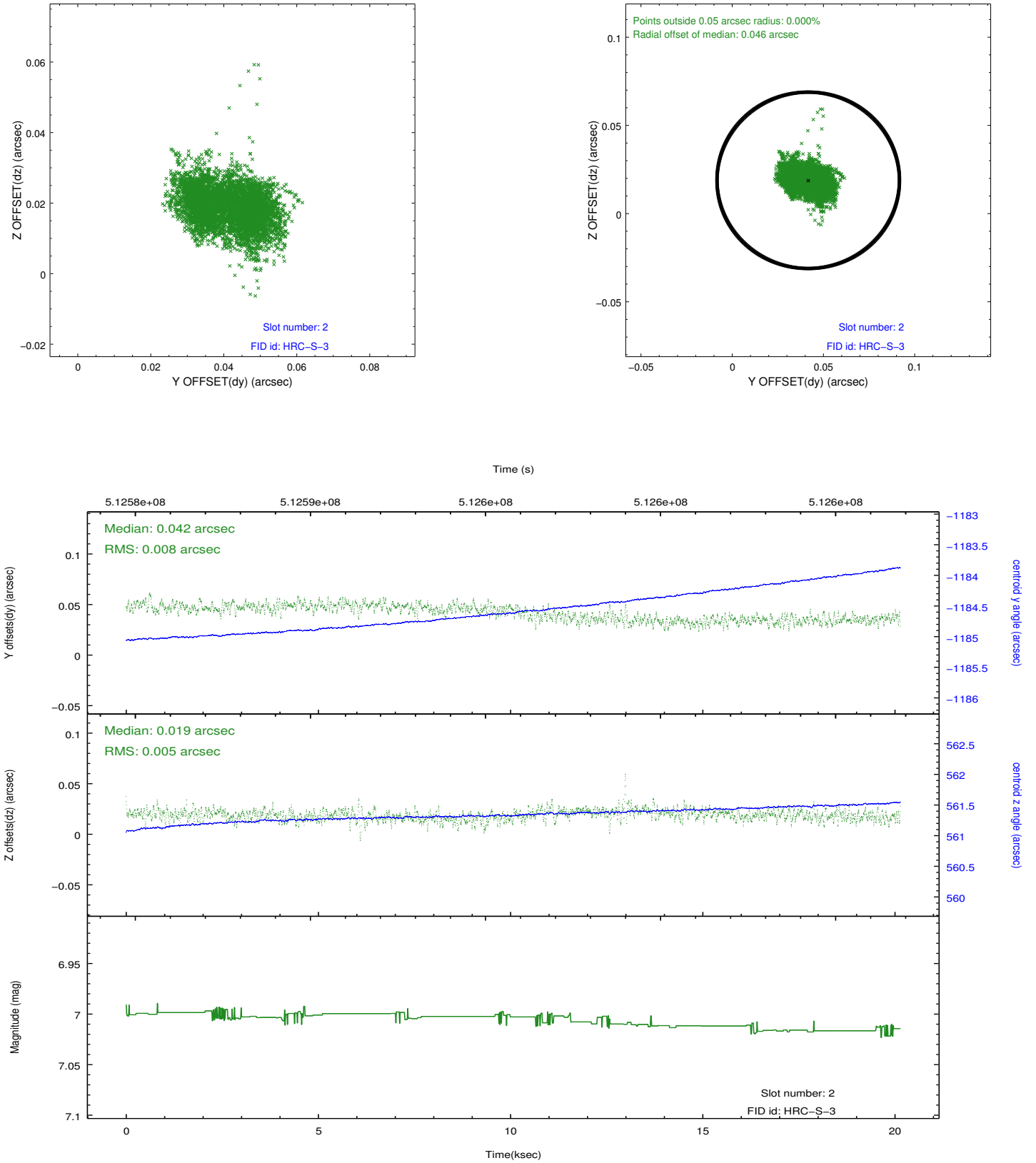
2.5.1 Slot 0



2.5.2 Slot 1

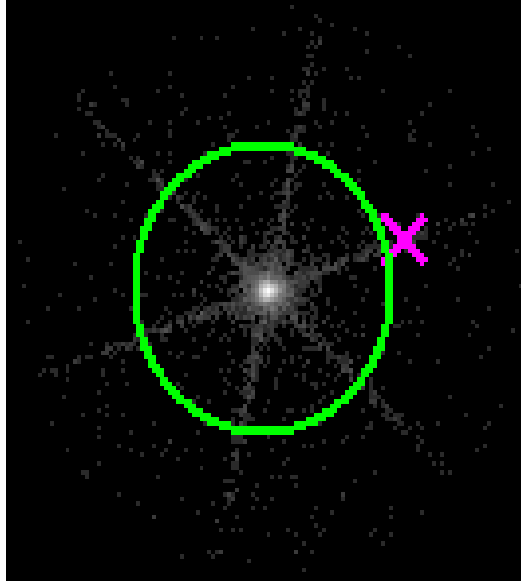


2.5.3 Slot 2

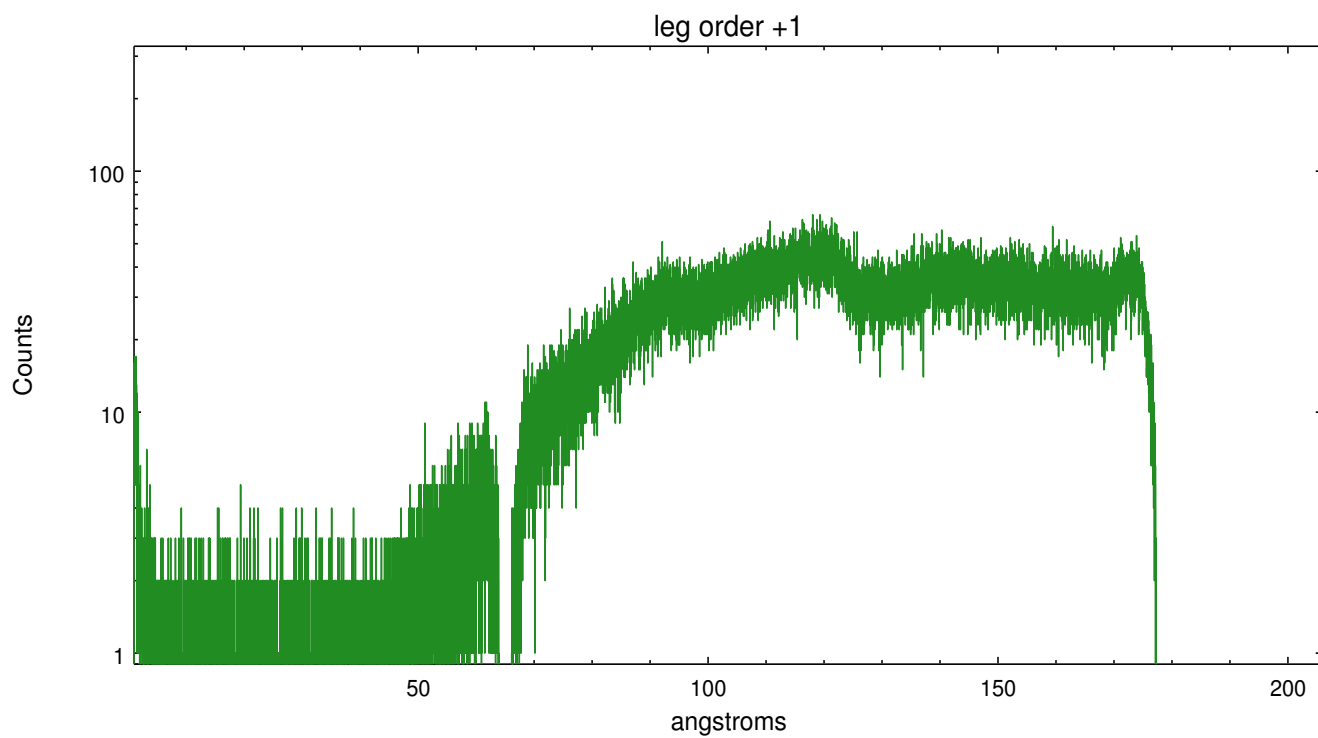
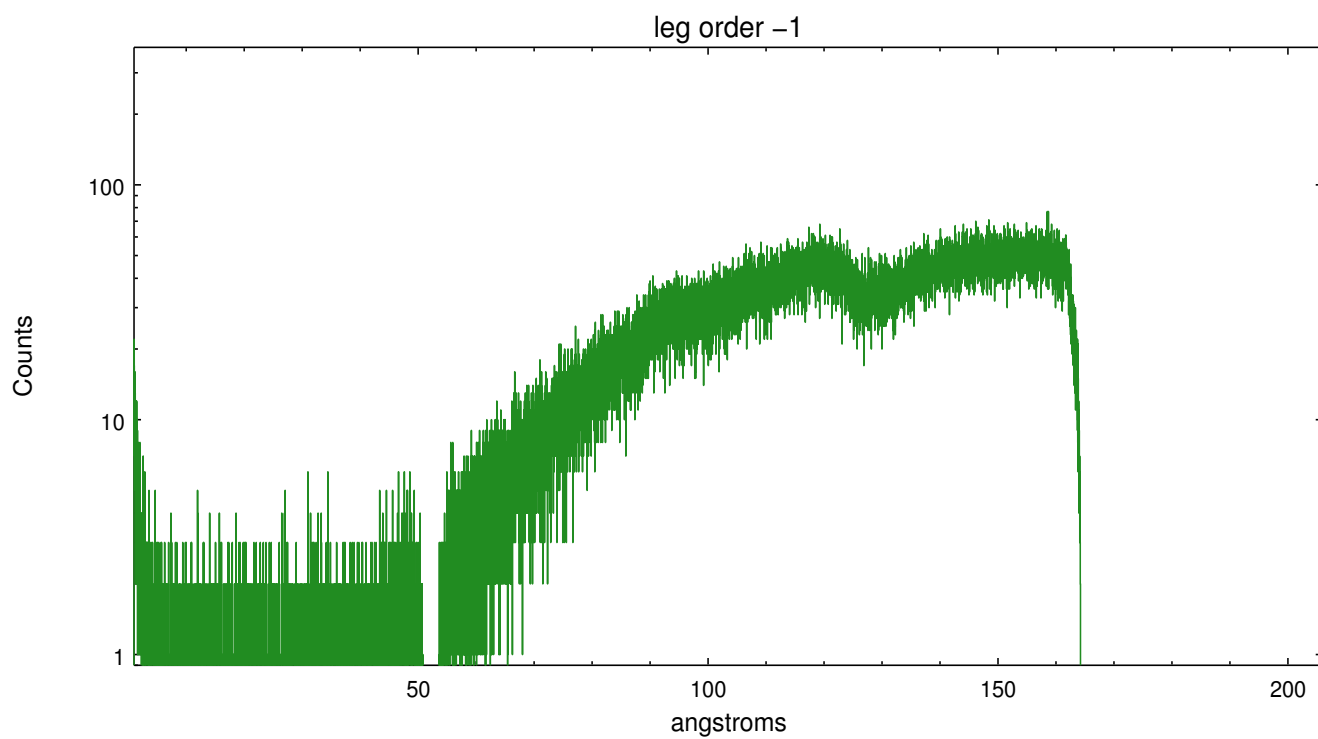


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.11.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.144454234362

A.2 Comments

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.