

V&V Reference Report

L2 ASCDS Version : 10.8.4

Observation 23226 - L2 Version 1
Chandra X-Ray Center

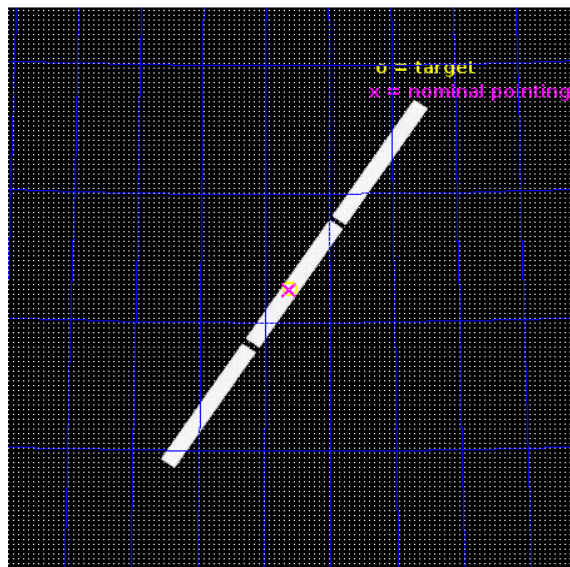
L2 Processing Date : Apr 29 2020

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1 Front

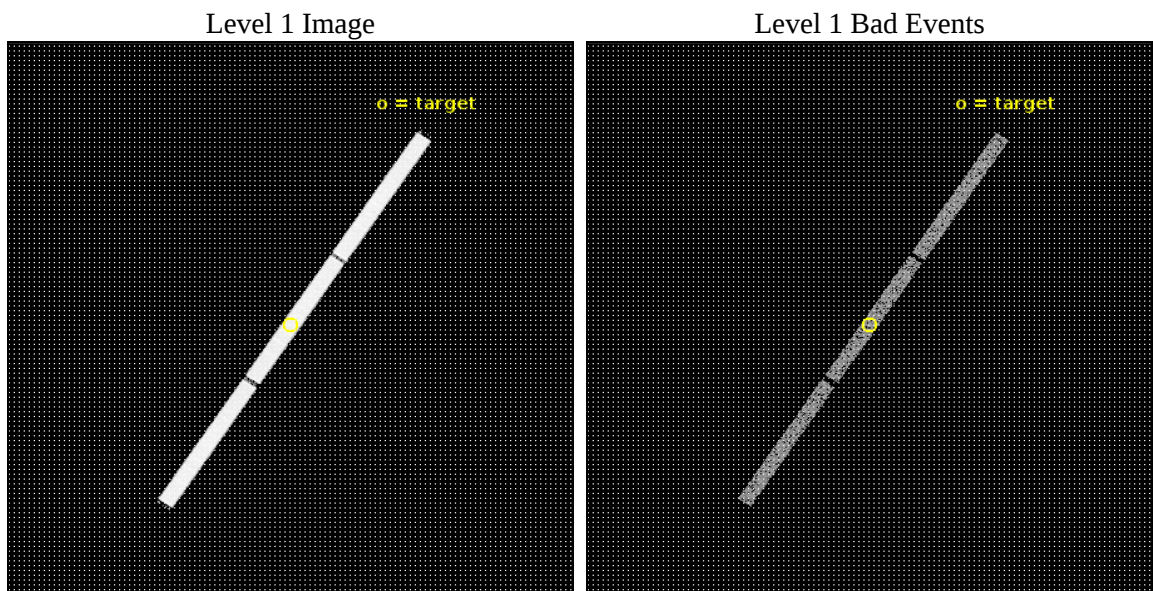
seq_num	100193	Sequence number
obs_id	23226	Observation id
title	Grating spectroscopy of the unexpectedly bright comet C/2019 Y4 ATLAS	Proposal title
observer	Dennis Bodewits	Principal investigator
object	C/2019 Y4 ATLAS	Source name
ra_targ	81.80942	Observer's specified target RA [deg]
dec_targ	61.129325	Observer's specified target Dec [deg]
ra_nom	81.8100871835	Nominal RA [deg]
dec_nom	61.1274898457	Nominal Dec [deg]
roll_nom	304.03942873	Nominal Roll [deg]
revision	1	Processing version of data
ontime	3490.1252118349	[s]
livetime	3449.9371653787	Ontime multiplied by DTCOR
l2events	341253	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	3300.000000	[s] Scheduled observation exposure time
ascdsver	10.8.4	Processing system revision	ontime	3490.1252118349	[s]
caldbver	4.9.1	 	l1events	453566	Number of level 1 events
date	2020-04-29T10:59:39	Date and time of file creation	tgmethod	USER	Method used to create src1a file
revision	1	Processing version of data	zo_pos	(32777.46, 32818.79)	src1a sky pixel position

2.1.3 Events

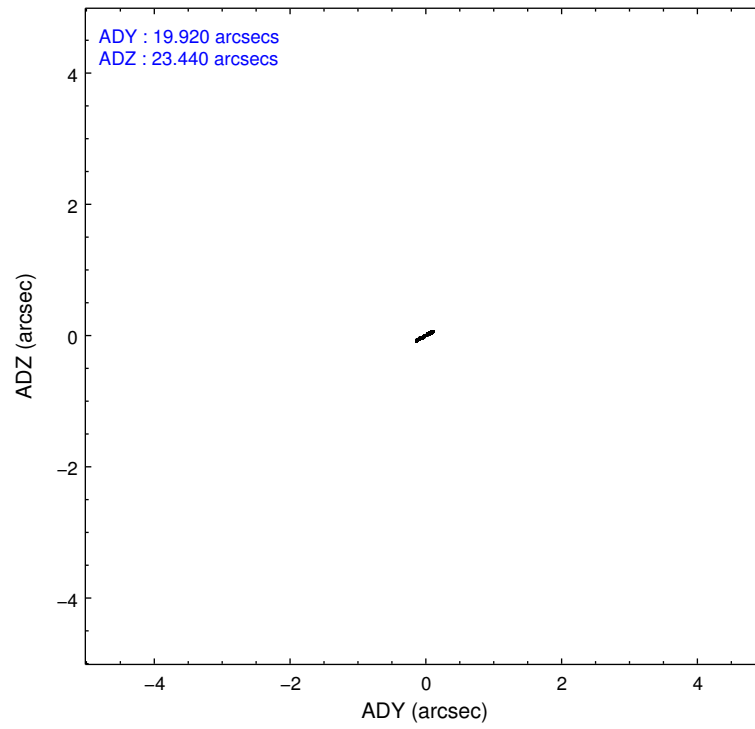
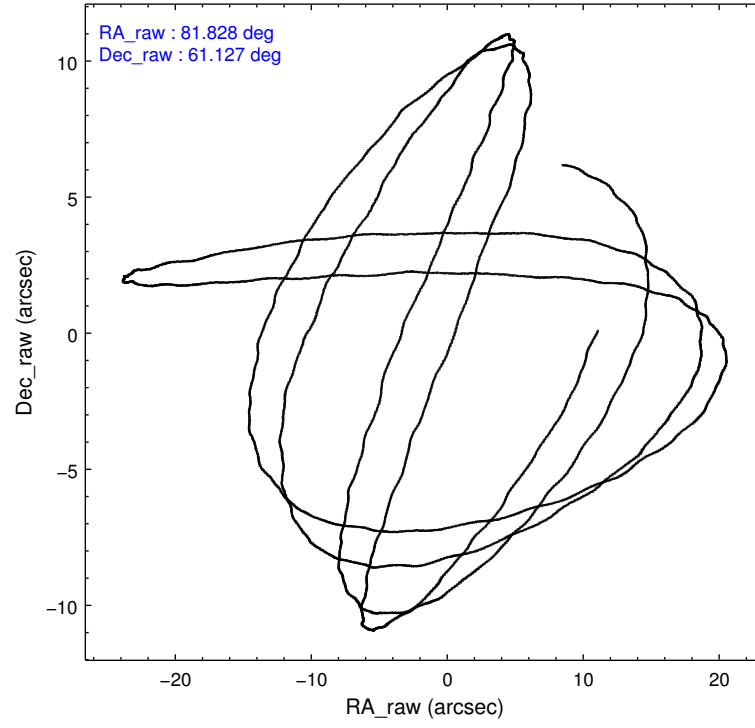
Level 1 Events

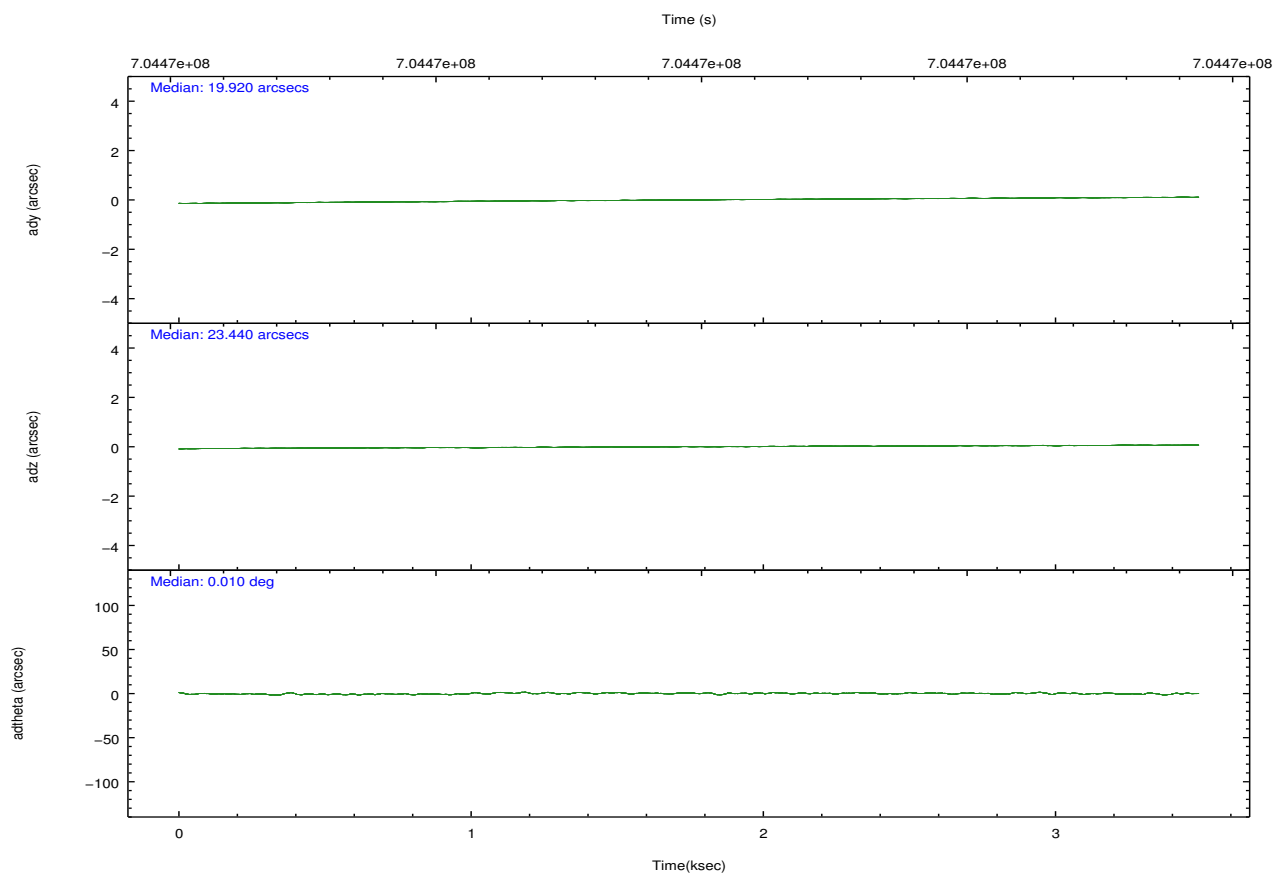
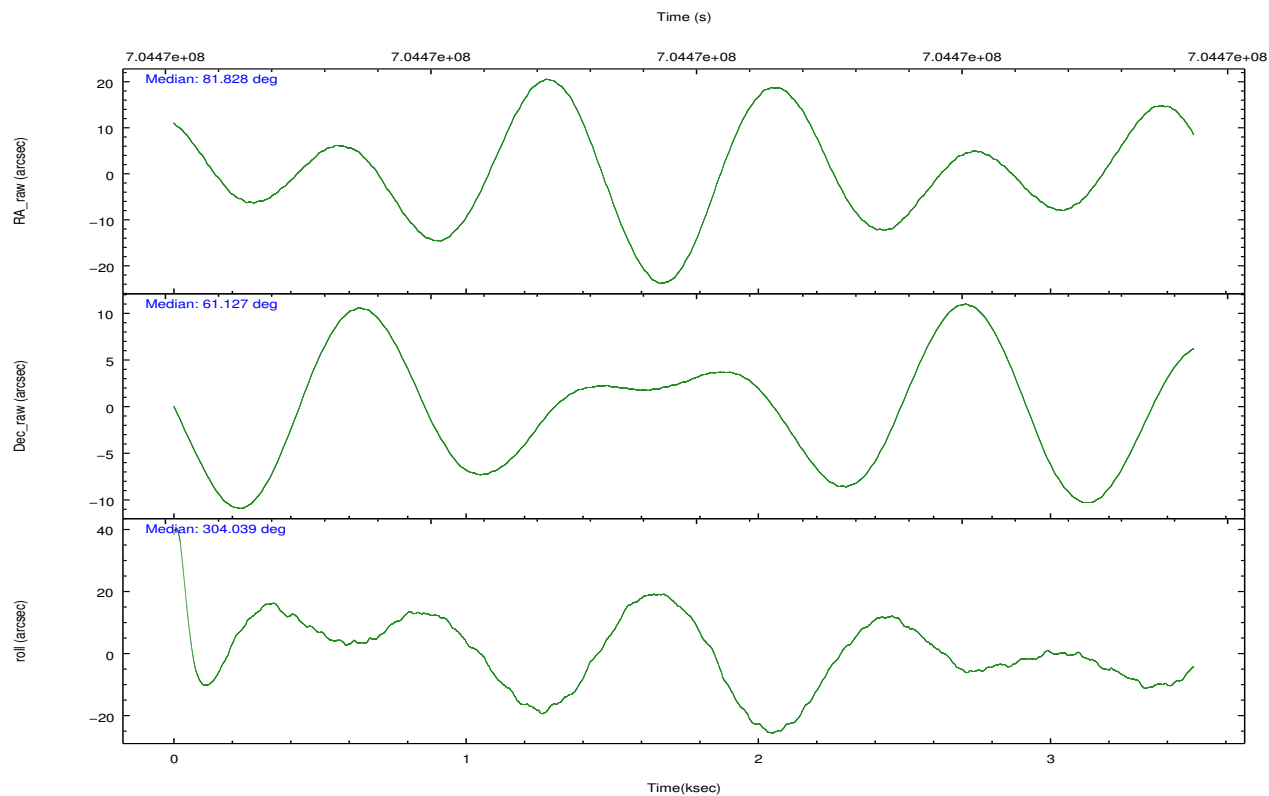
	segment 1	segment 2	segment 3
level 1 events	152355	150328	150883
rejected events	12908	12456	12557
rejected %	8%	8%	8%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar version number	8	8
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	81.772880	81.8100871835			
[deg] Pointing Dec	61.137933	61.1274898457			
[deg] Pointing Roll	304.032009	304.03942873			
[mm] SIM focus pos	-1.429586	-1.428180813131781			
[mm] SIM defocus	0.1037507710433287	0.1051558262725154			
[mm] SIM translation stage pos	251.395976	251.3913011111175			
[mm] SIM translation stage offset	-0.9399999999999999	-0.9353227176203518			
[s] Observation start time (MET)	704468396.184000	704468020.81367			
Observation start date	2020-04-28T13:38:47	2020-04-28T13:33:40			
[s] Observation end time (MET)	704471696.184000	704471830.7388999			
Observation end date	2020-04-28T14:33:47	2020-04-28T14:37:10			

2.3 Aspect



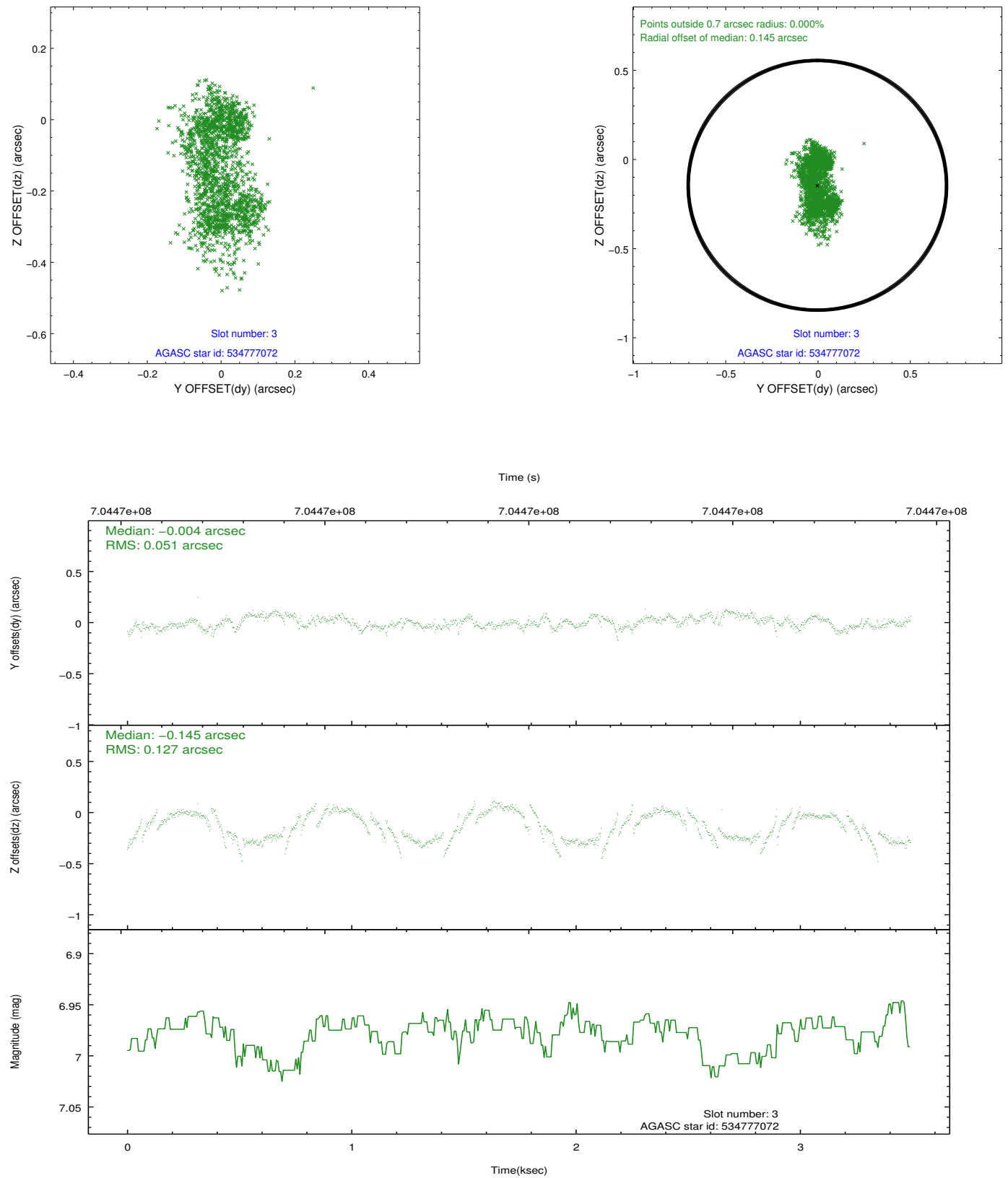


Slot Statistics

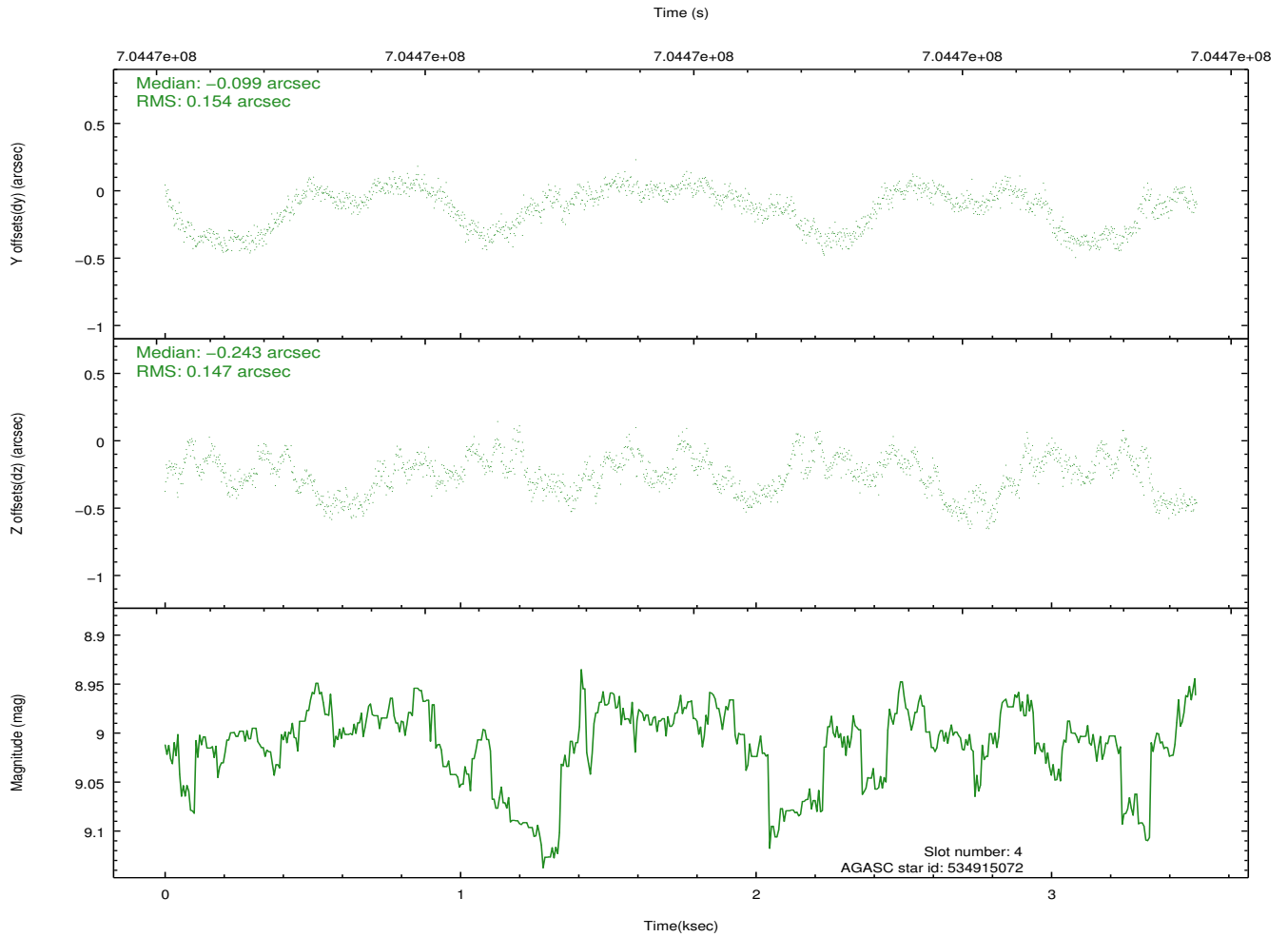
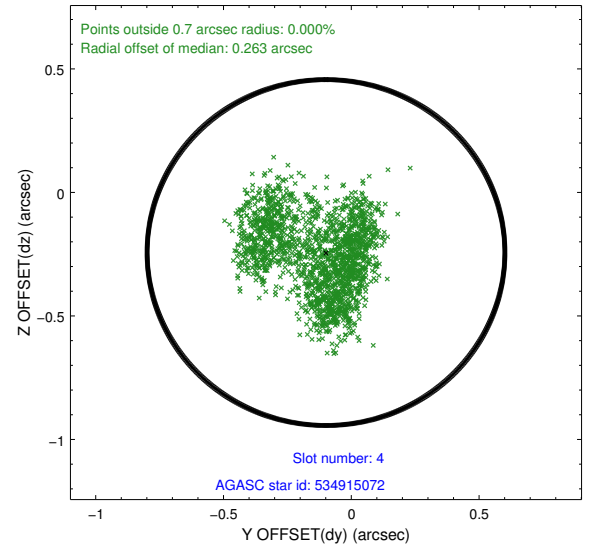
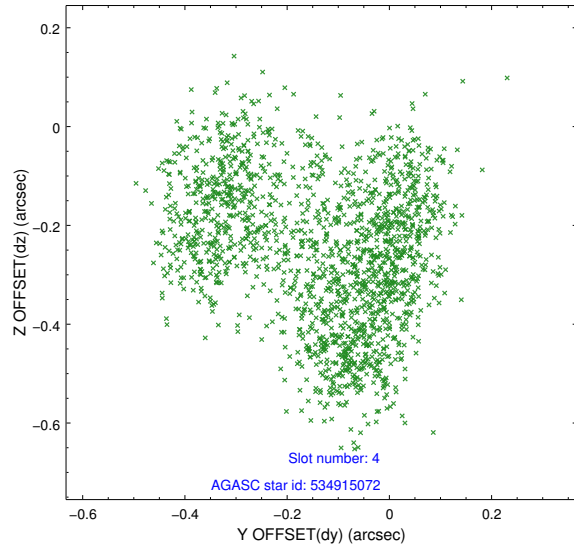
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-S-1	7.08	852	1.000	0.141	-0.088	0.008	0.015	0.000000	0.000000	-1174.42	-491
1	FID		HRC-S-2	7.06	852	1.000	0.342	-0.196	0.007	0.014	0.000000	0.000000	1224.09	-485
2	FID		HRC-S-3	7.07	852	1.000	-0.093	-0.019	0.009	0.014	0.000000	0.000000	-1175.70	537
3	GUIDE	used	534777072	6.98	1704	1.000	-0.004	-0.145	0.150	0.219	80.934101	60.721041	409.54	-2059
4	GUIDE	used	534915072	9.01	1702	1.000	-0.099	-0.243	0.239	0.340	83.202635	61.256813	1007.73	2304
5	GUIDE	used	534916944	8.90	1703	1.000	-0.113	0.067	0.164	0.259	81.479781	61.783099	-2202.83	891
6	GUIDE	used	534922520	8.38	1701	1.000	0.265	0.212	0.139	0.223	81.531321	61.241488	-539.79	-138
7	GUIDE	used	534921960	9.32	1700	1.000	-0.020	0.078	0.194	0.393	83.087290	61.217431	1018.10	2060

2.4 Star Slots

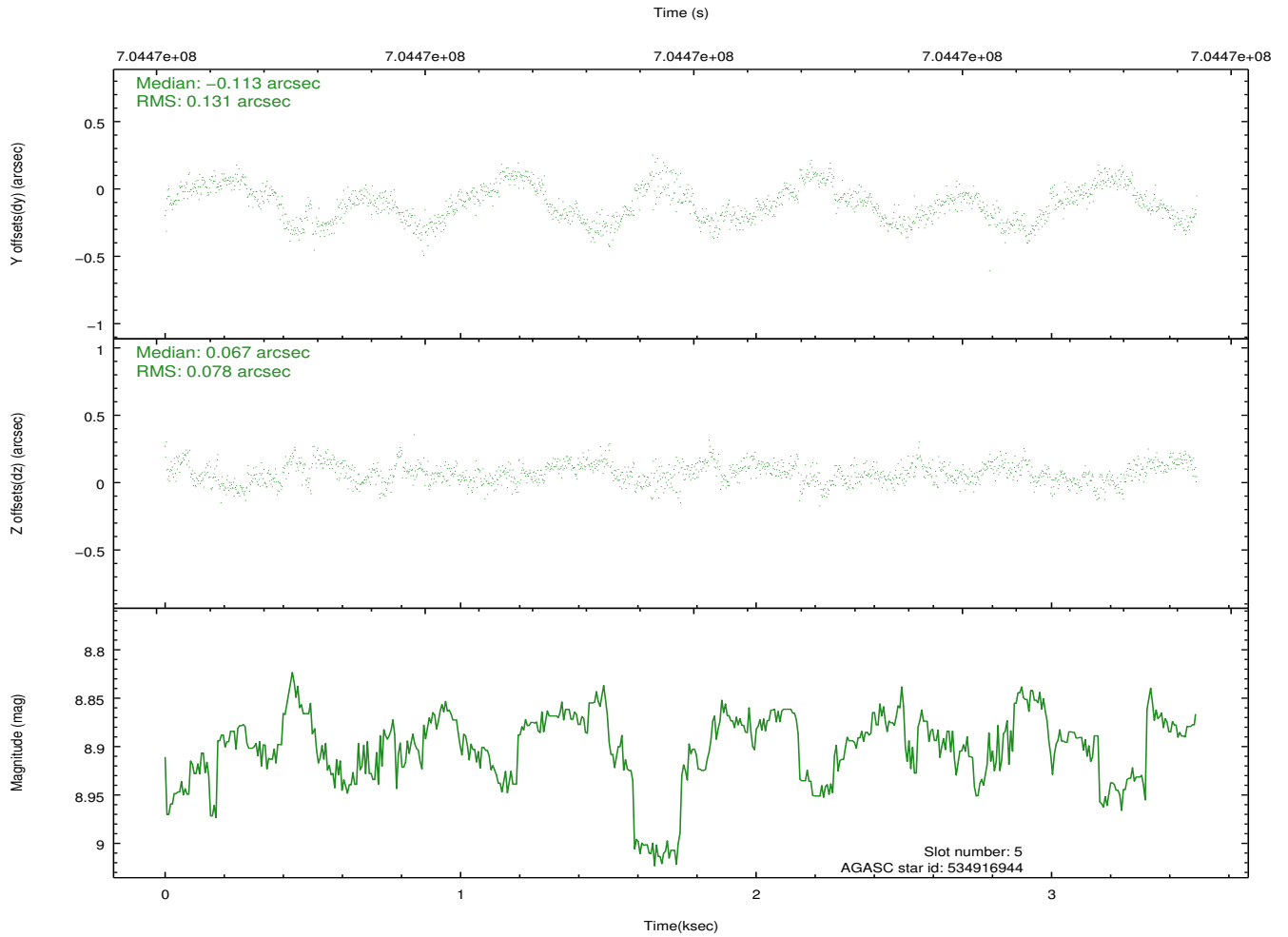
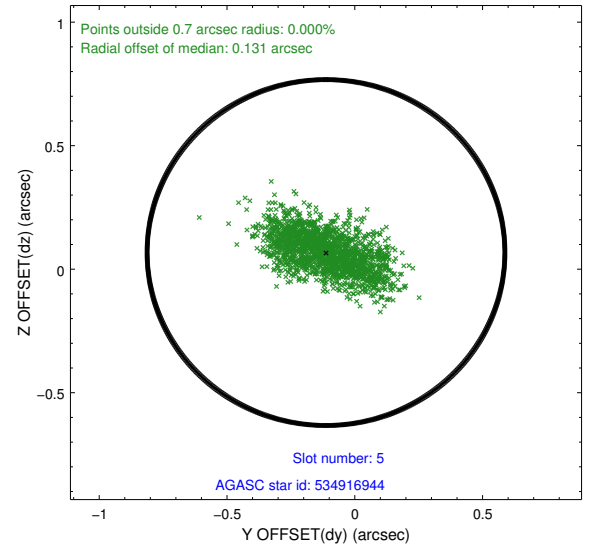
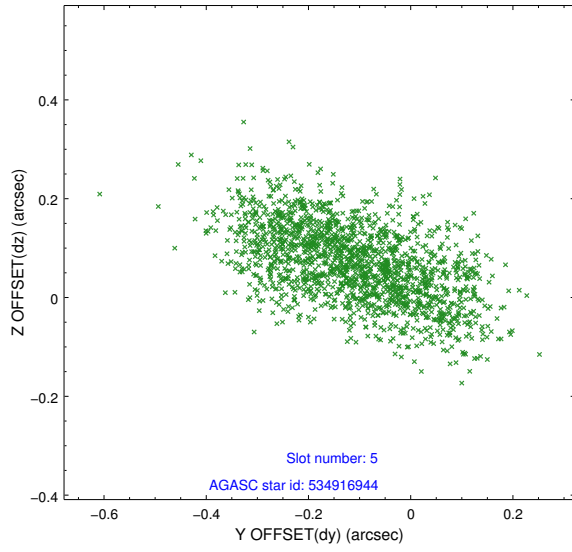
2.4.1 Slot 3



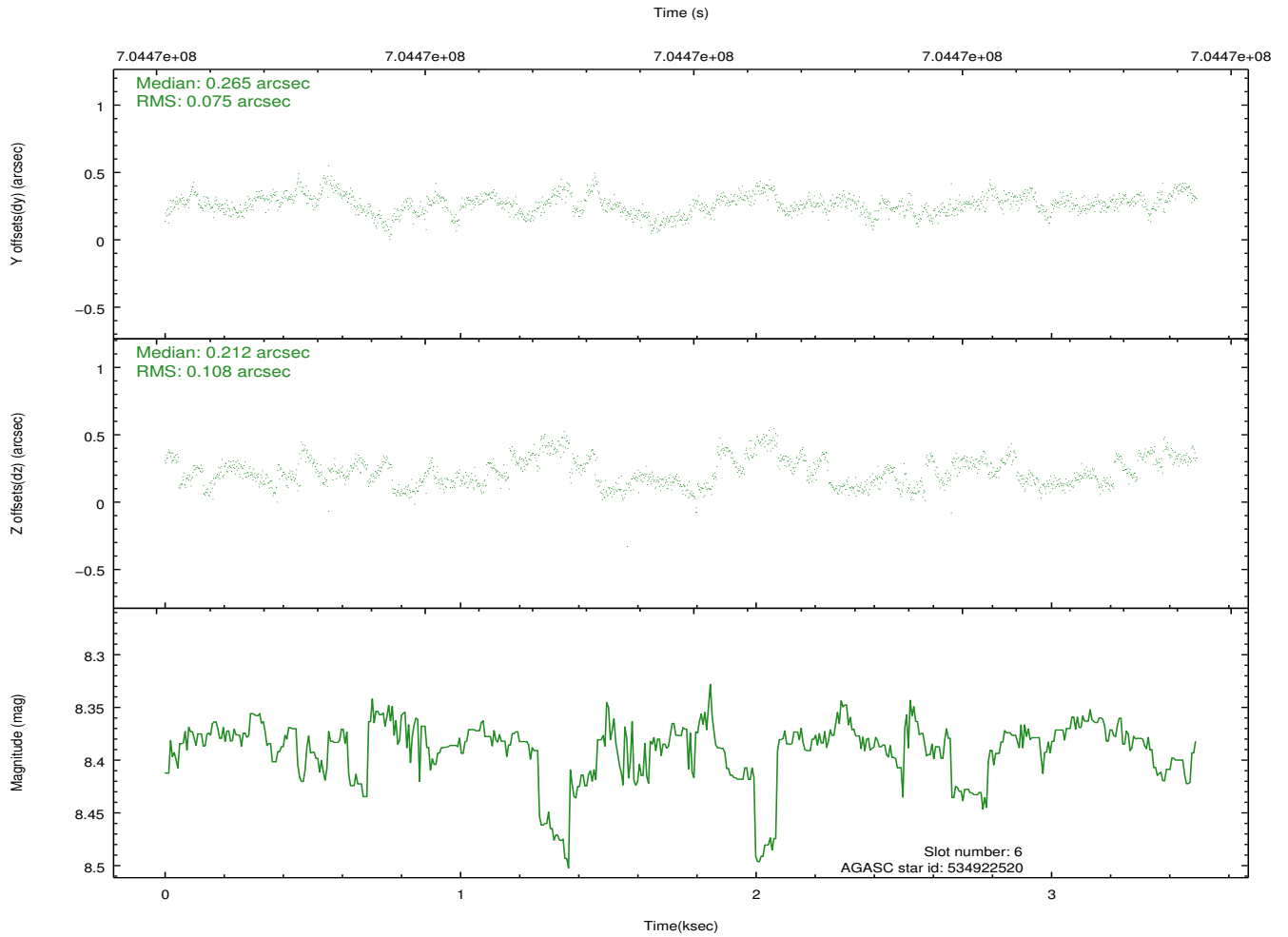
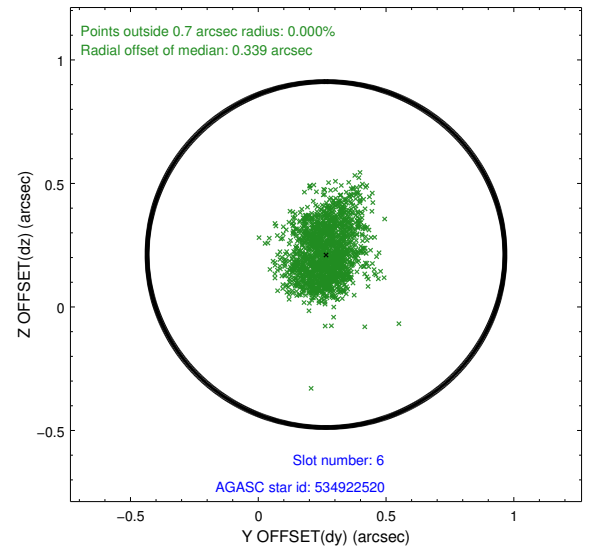
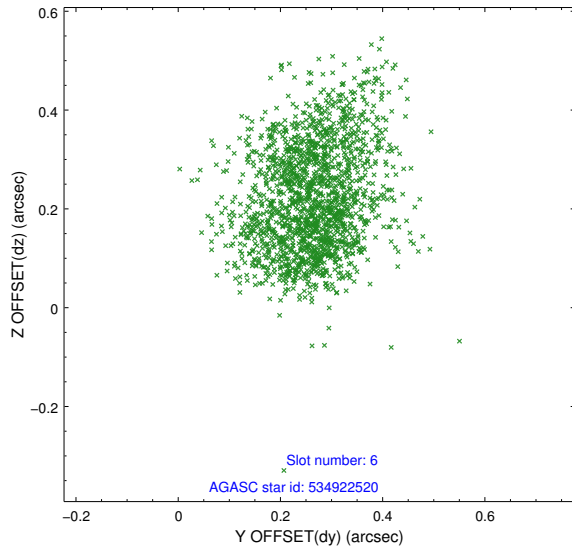
2.4.2 Slot 4



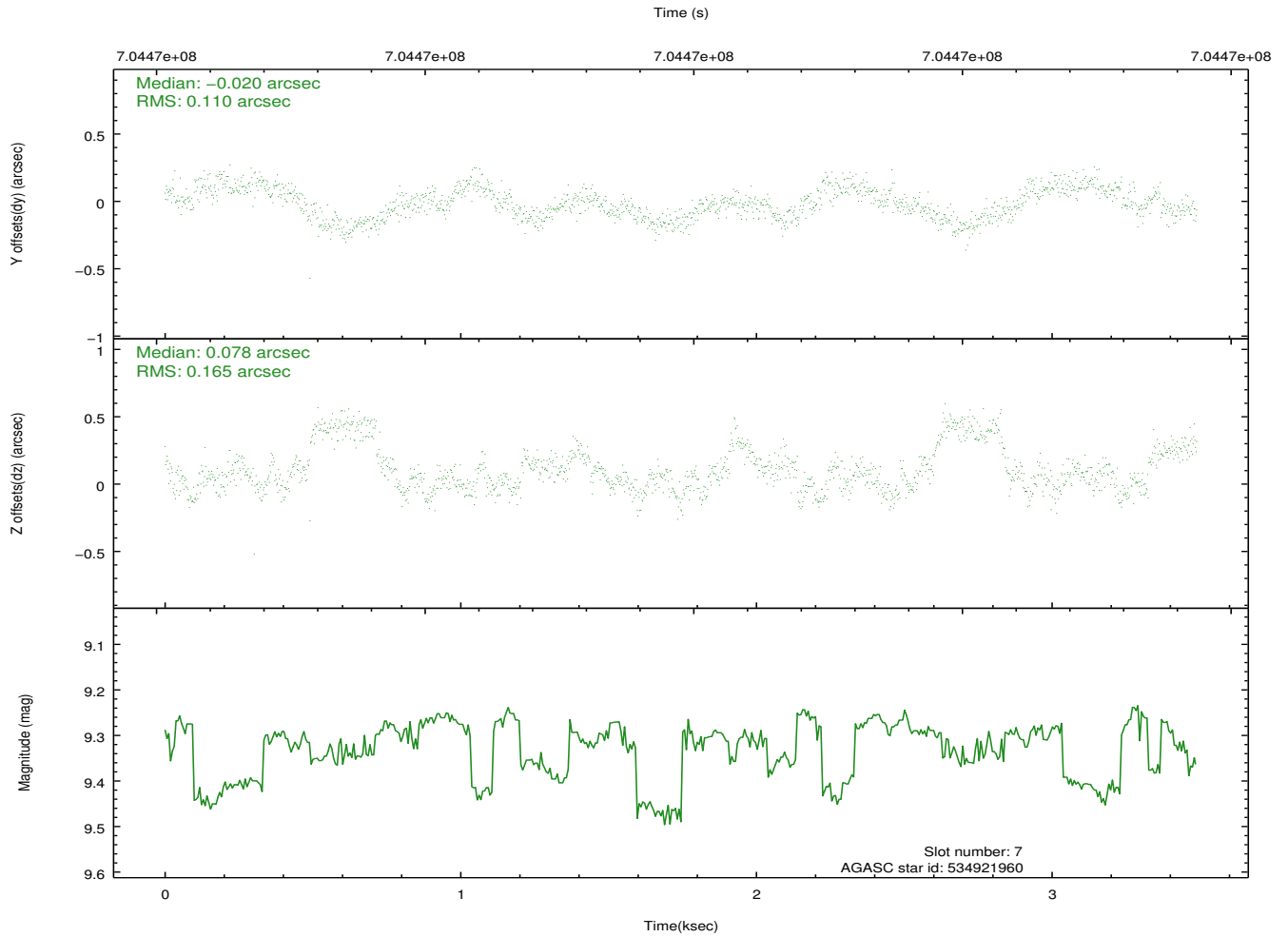
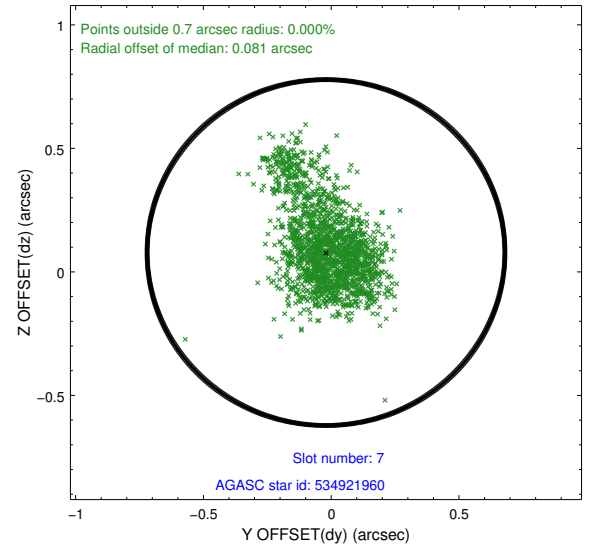
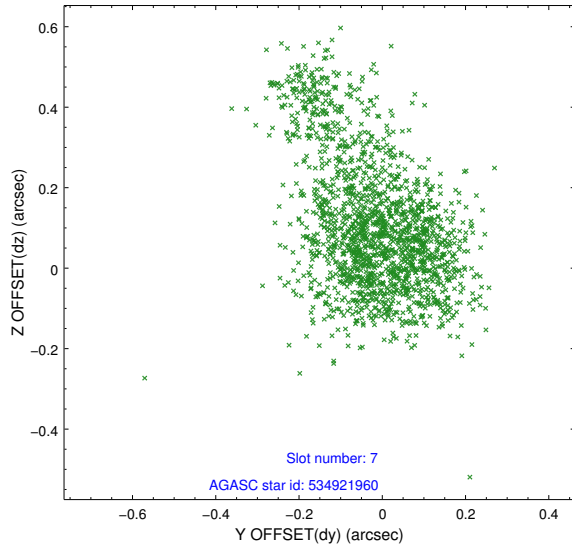
2.4.3 Slot 5



2.4.4 Slot 6

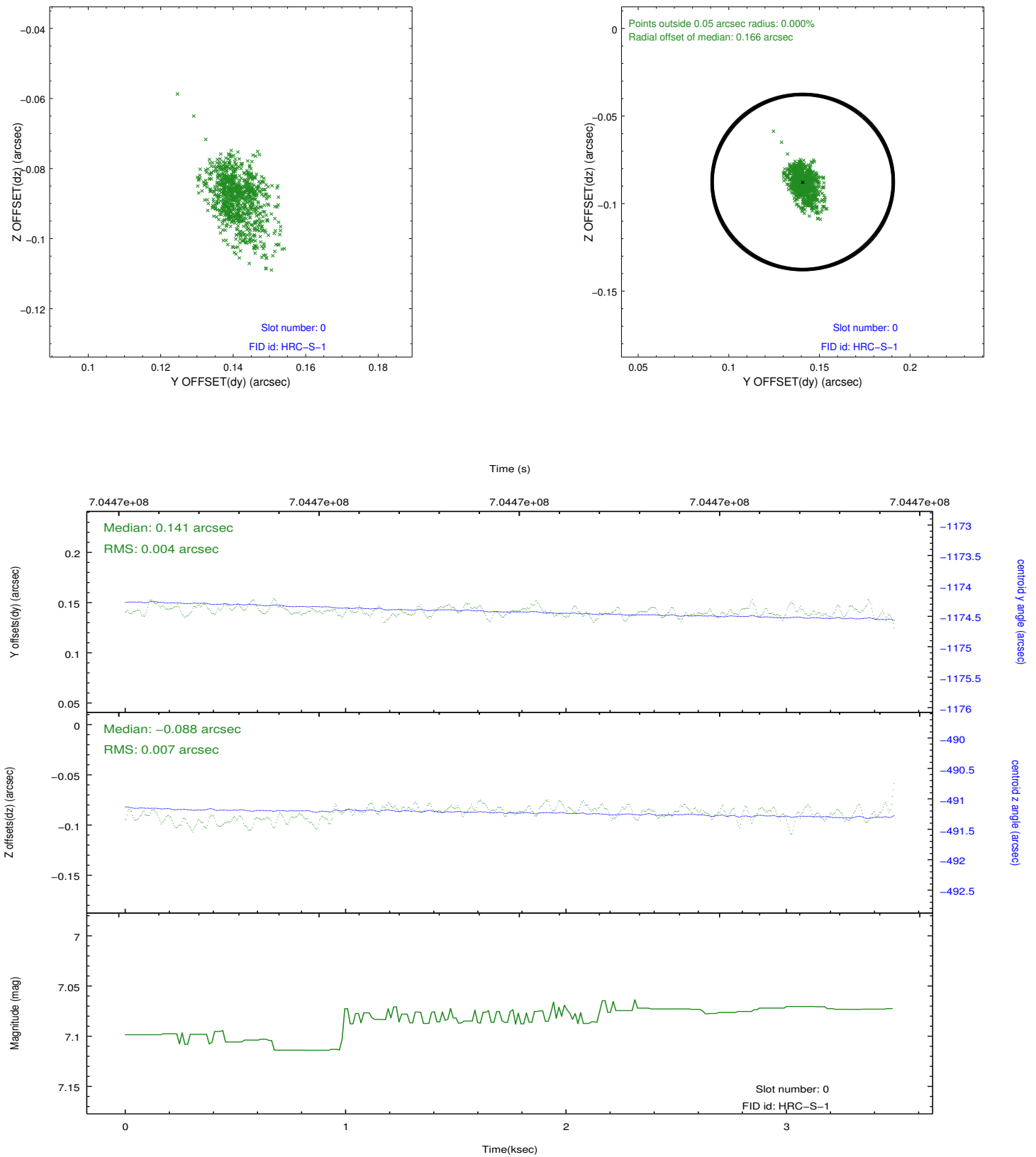


2.4.5 Slot 7

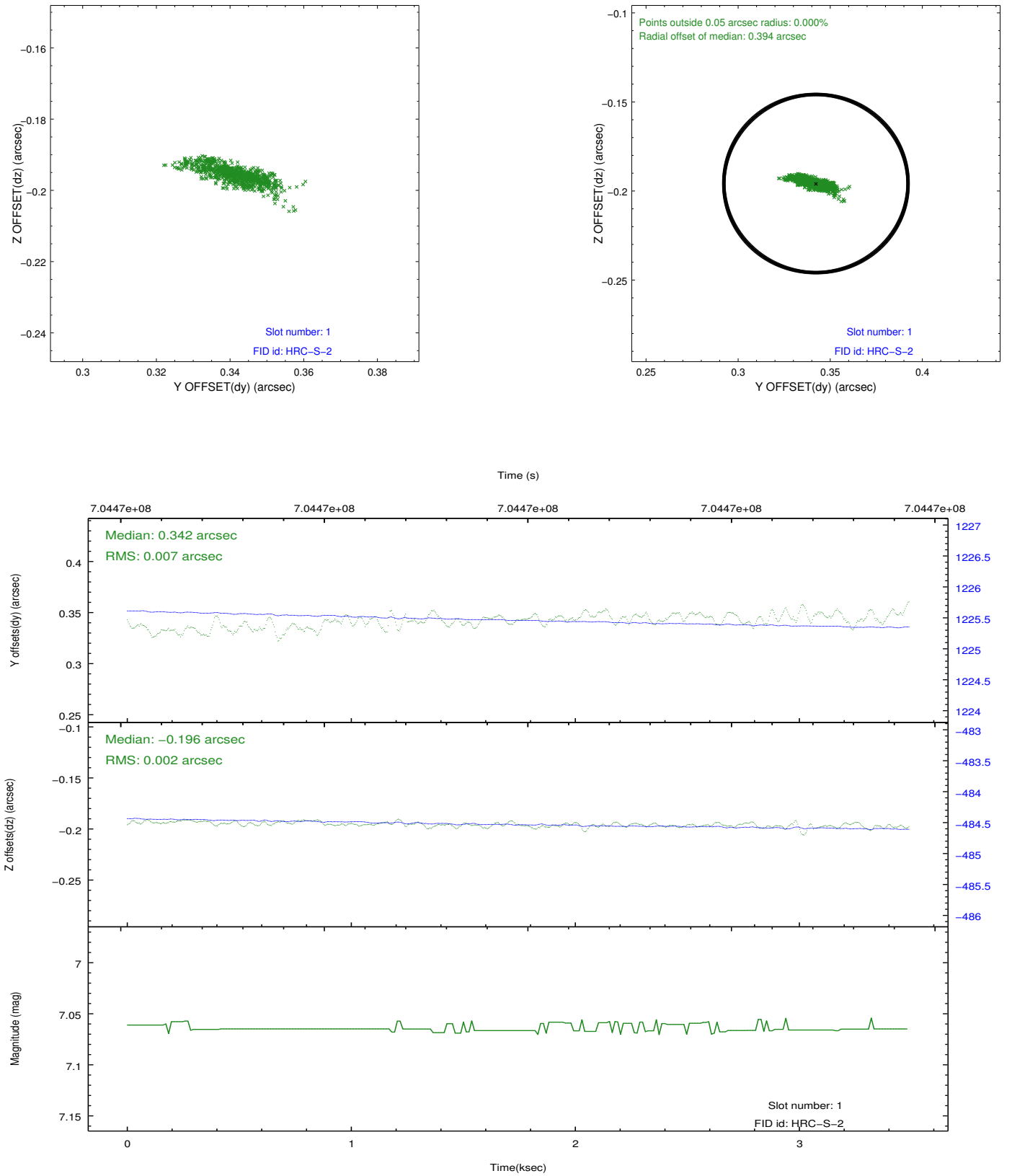


2.5 FID Slots

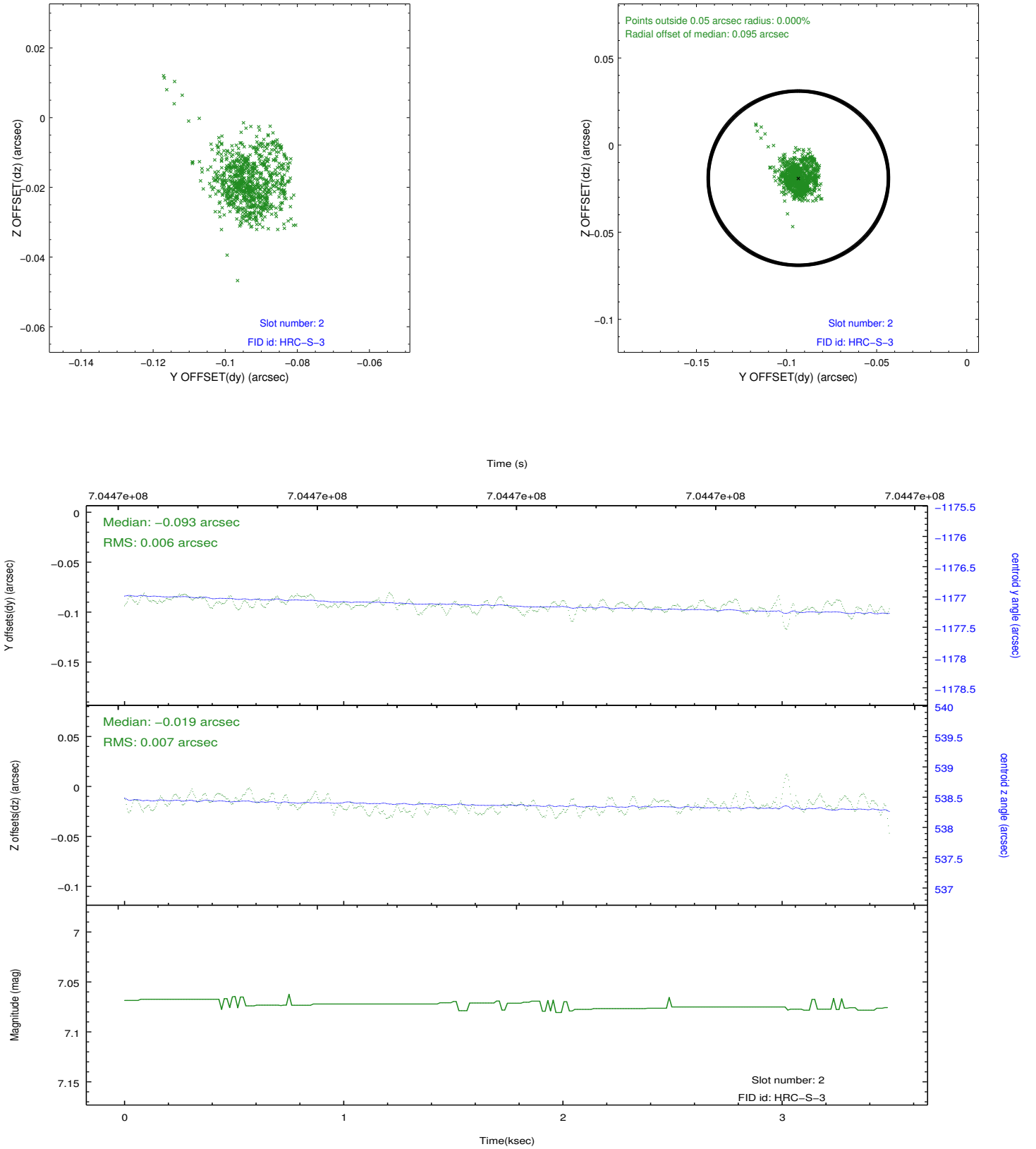
2.5.1 Slot 0



2.5.2 Slot 1

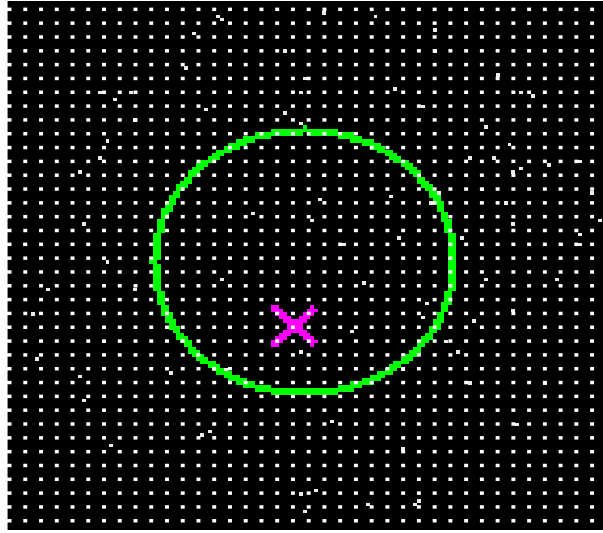


2.5.3 Slot 2

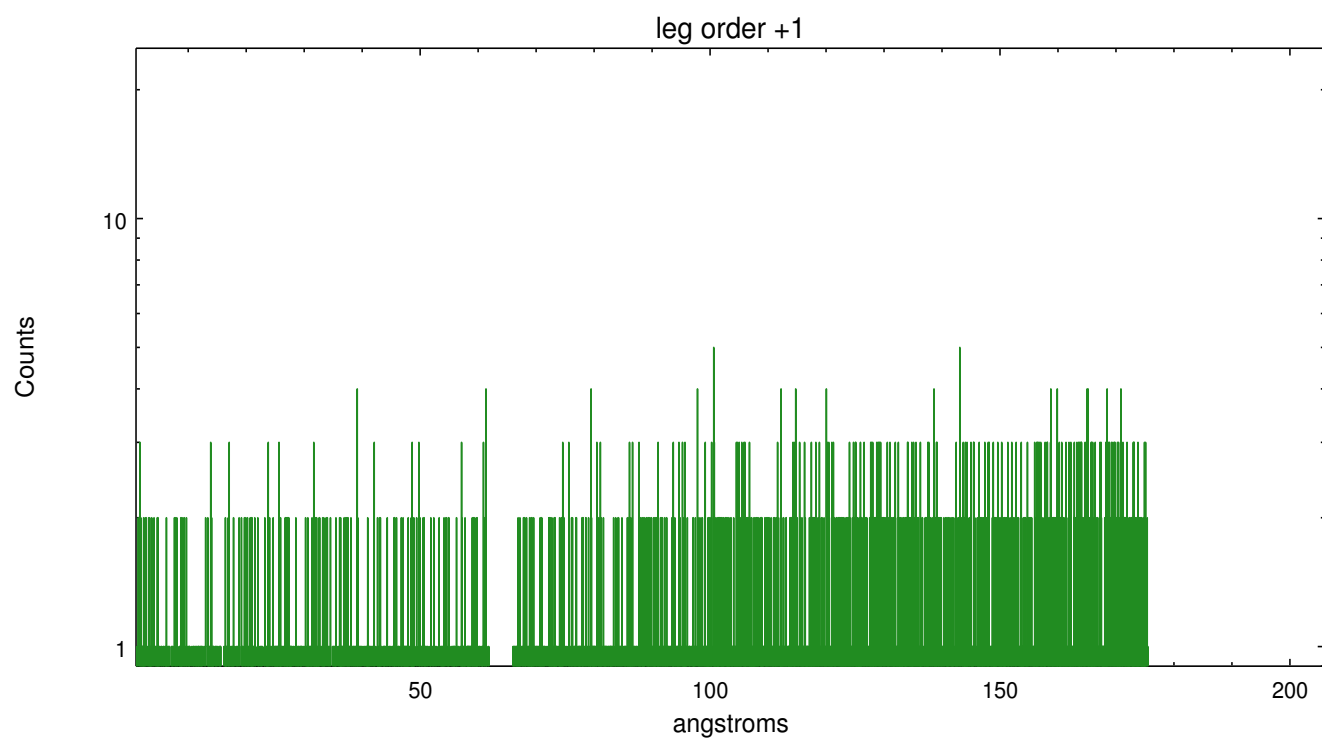
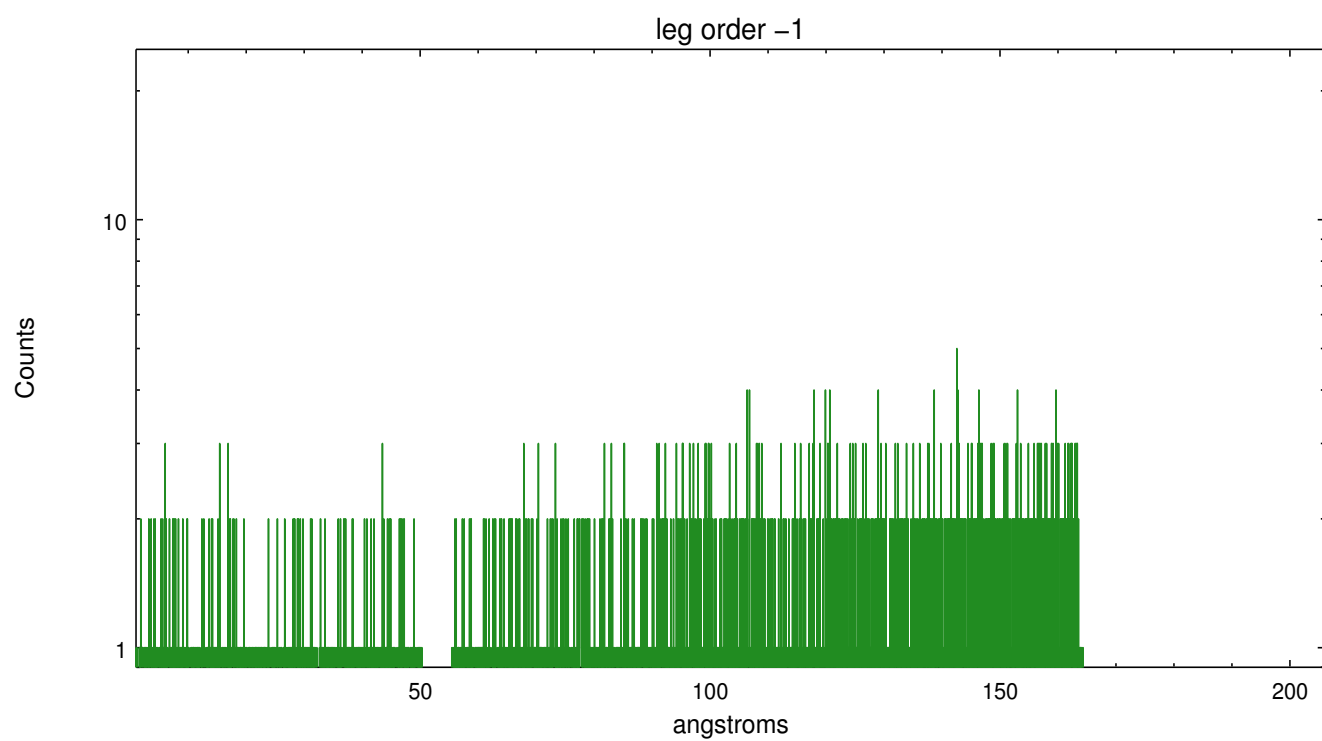


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2020.05.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.4901252118349

A.2 Comments

WARNING: this is a moving, extended object; it was processed as if a stationary point source at the nominal source coordinates. Custom methods will be required (such as `sso_freeze`); it is unlikely that existing ciao programs will compute grating diffraction coordinates for a moving source (even with the modified aspect solution from `sso_freeze`).