

V&V Reference Report

L2 ASCDS Version : 10.8.4

Observation 23227 - L2 Version 1
Chandra X-Ray Center

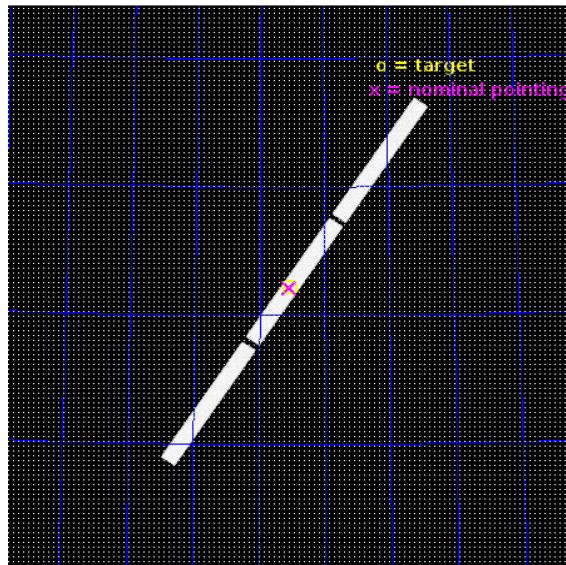
L2 Processing Date : Apr 29 2020

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1 Front

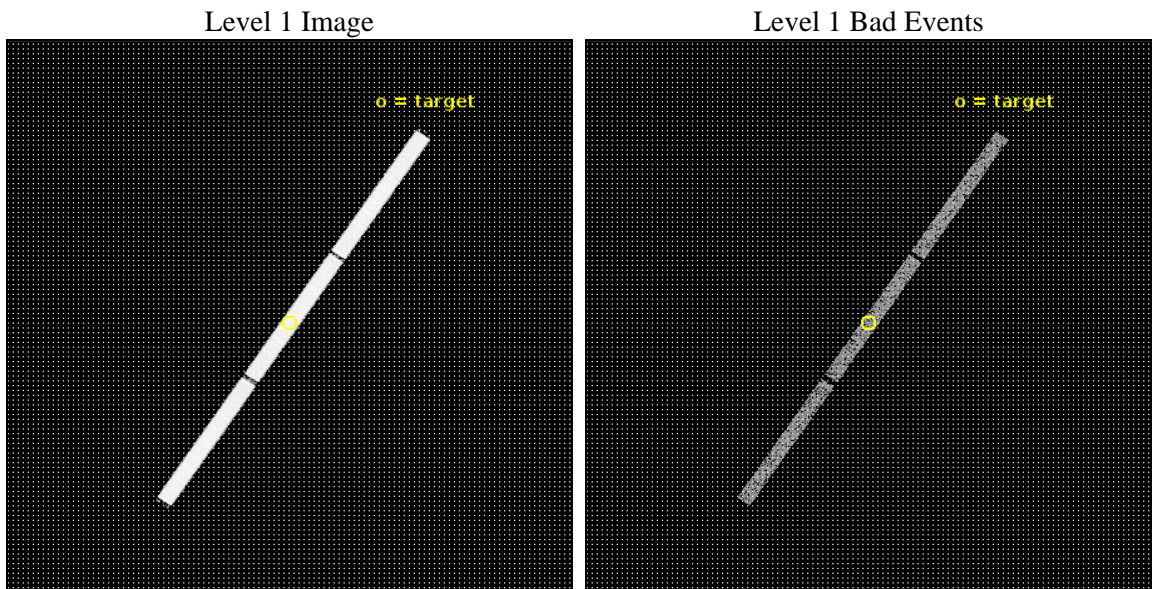
seq_num	100193	Sequence number
obs_id	23227	Observation id
title	Grating spectroscopy of the unexpectedly bright comet C/2019 Y4 ATLAS	Proposal title
observer	Dennis Bodewits	Principal investigator
object	C/2019 Y4 ATLAS	Source name
ra_targ	81.768317	Observer's specified target RA [deg]
dec_targ	61.108906	Observer's specified target Dec [deg]
ra_nom	81.7687587415	Nominal RA [deg]
dec_nom	61.1071450663	Nominal Dec [deg]
roll_nom	304.038871953	Nominal Roll [deg]
revision	1	Processing version of data
ontime	3494.4814623594	[s]
liveltime	3456.6954924065	Ontime multiplied by DTCOR
l2events	347912	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	3494.4814623594	[s]
caldsver	4.9.1	 	l1events	460634	Number of level 1 events
date	2020-04-29T11:00:40	Date and time of file creation	tgmethod	USER	Method used to create src1a file
revision	1	Processing version of data	zo_pos	(32774.50, 32816.84)	src1a sky pixel position

2.1.3 Events

Level 1 Events

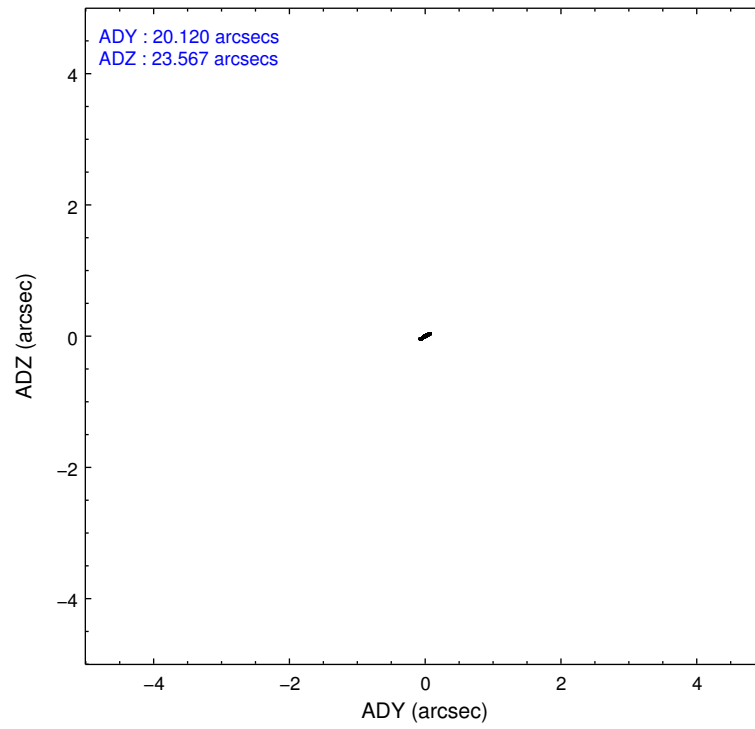
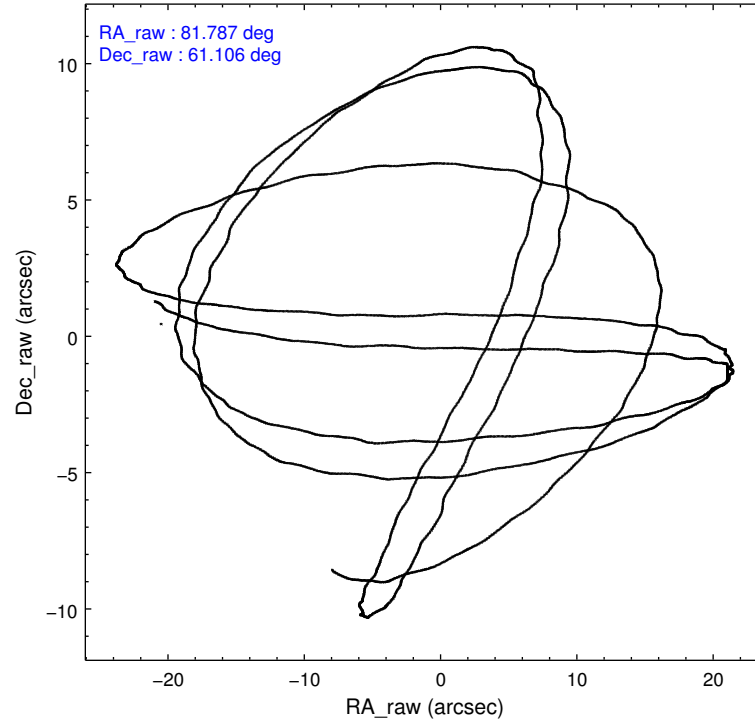
	segment 1	segment 2	segment 3
level 1 events	154862	152235	153537
rejected events	12906	12609	12688
rejected %	8%	8%	8%

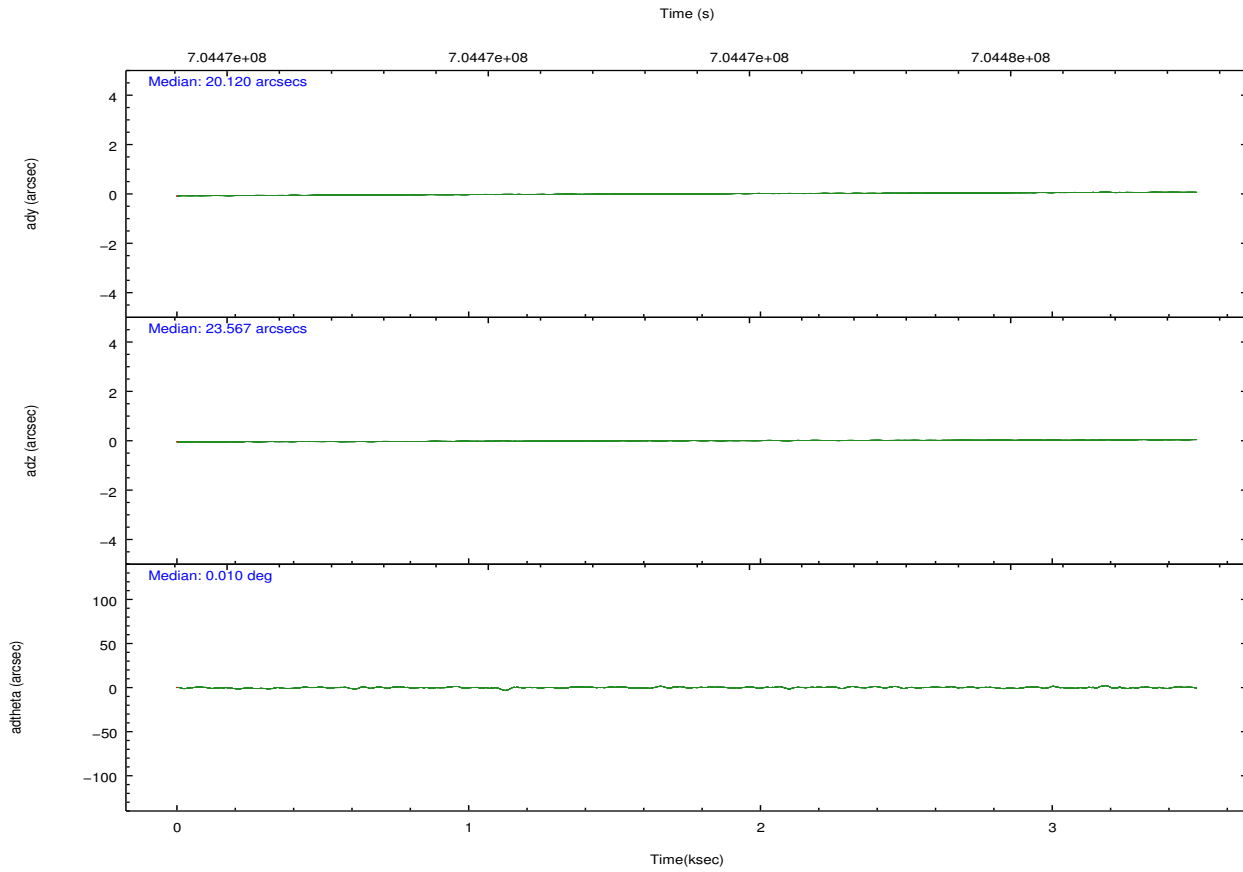
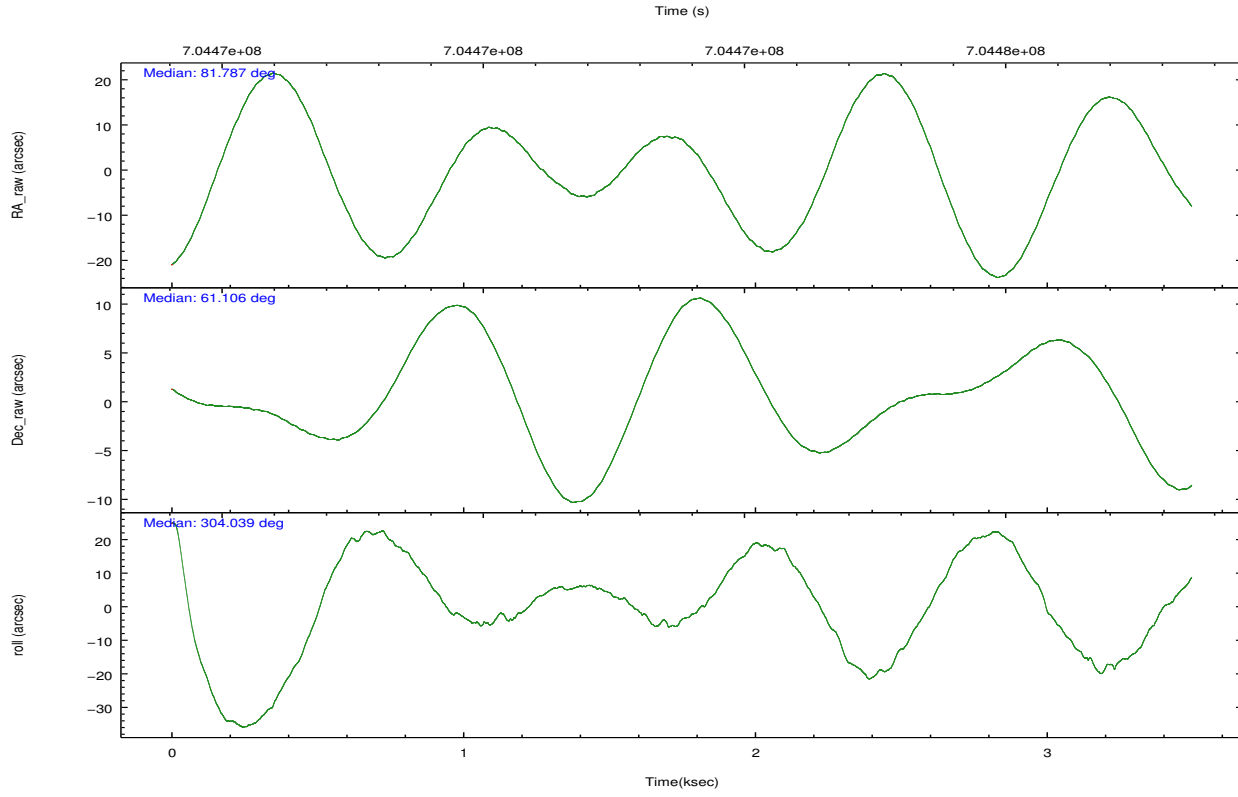
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-S	HRC-S
Grating	LETG	LETG
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	81.731918	81.76875874149999
[deg] Pointing Dec	61.117486	61.1071450663
[deg] Pointing Roll	304.031868	304.038871953
[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)	704472206.184000	704471830.7388999
Observation start date	2020-04-28T14:42:17	2020-04-28T14:37:10
[s] Observation end time (MET)	704475506.184000	704475640.66413
Observation end date	2020-04-28T15:37:17	2020-04-28T15:40:40

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect



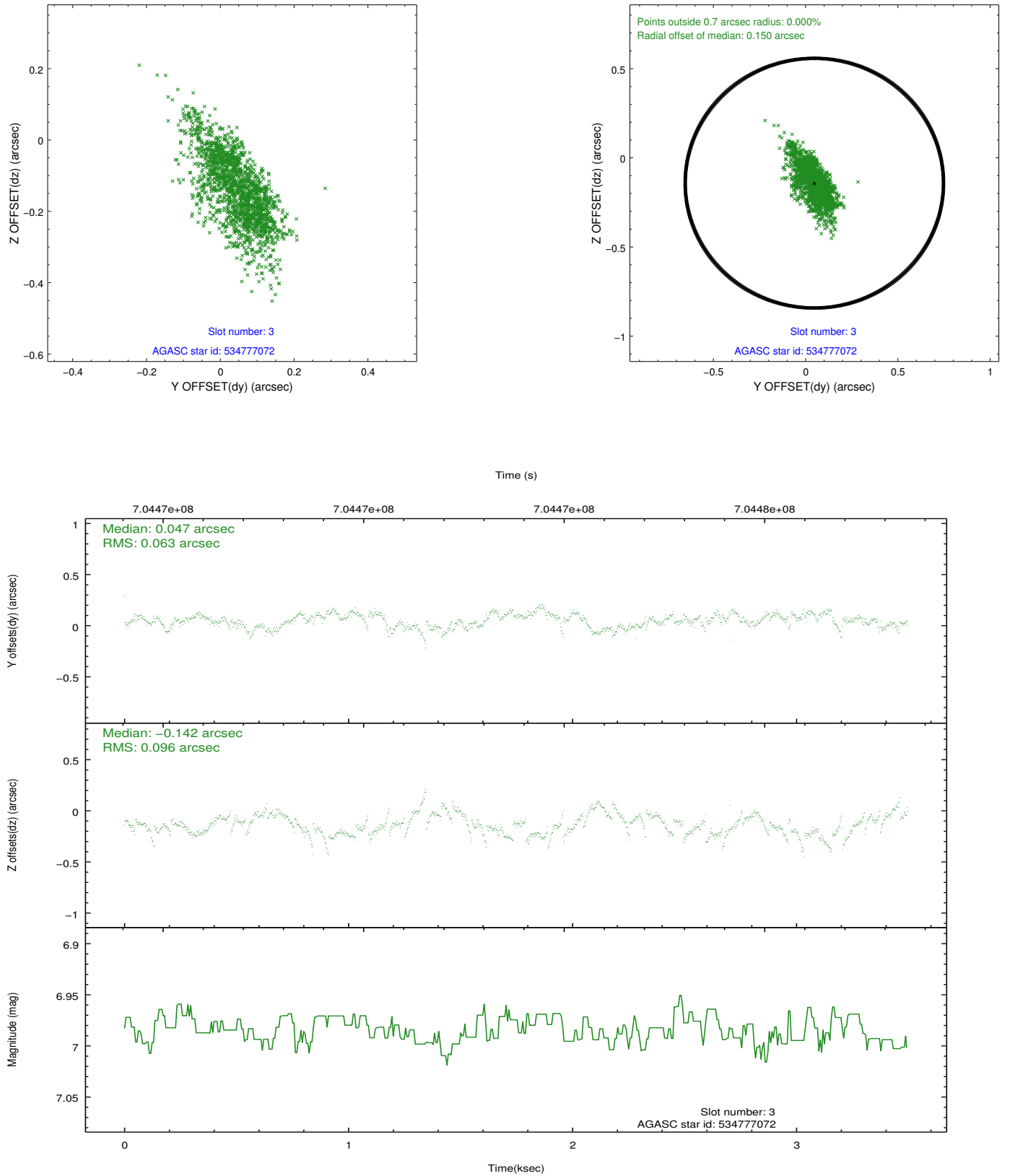


Slot Statistics

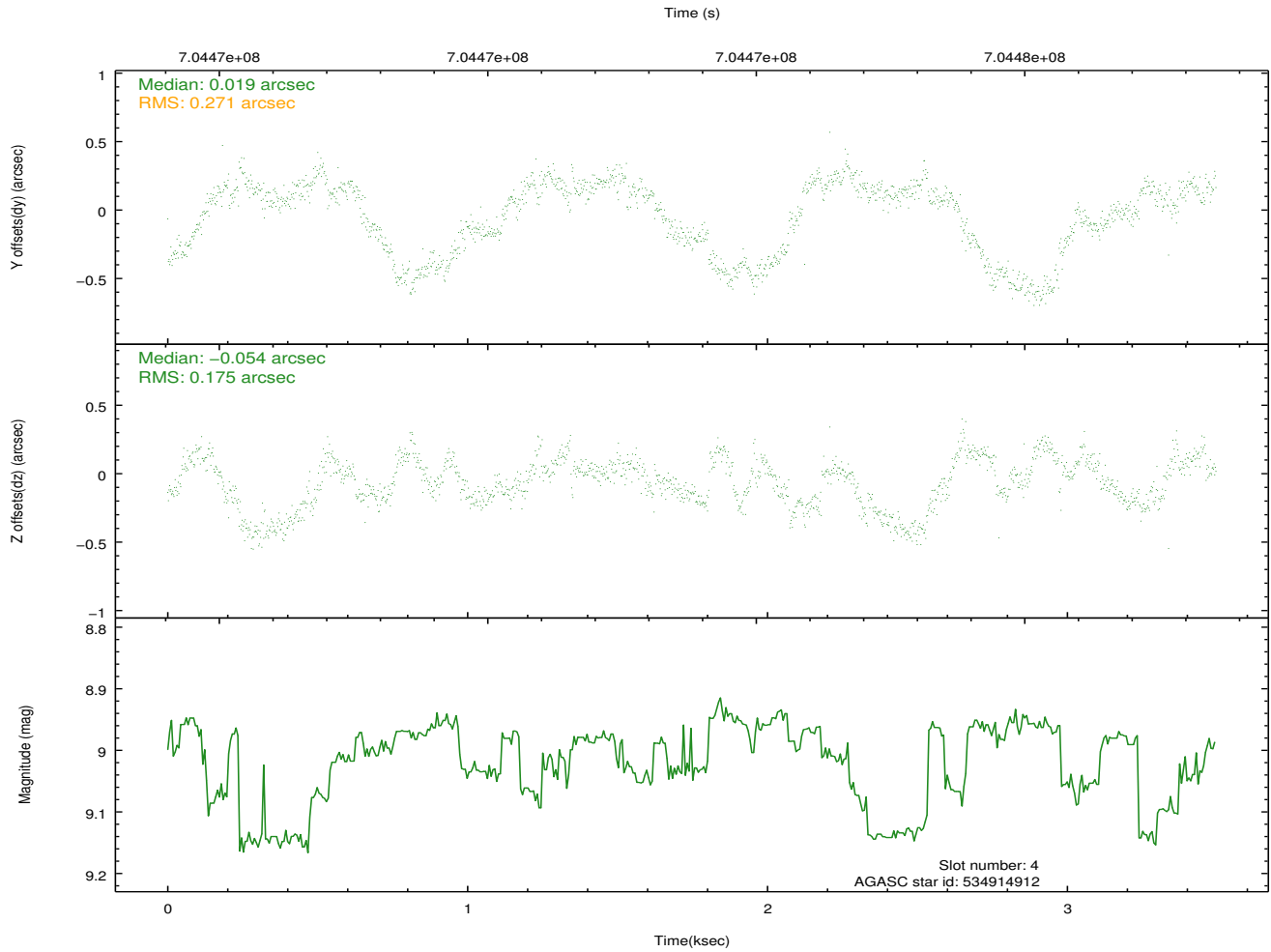
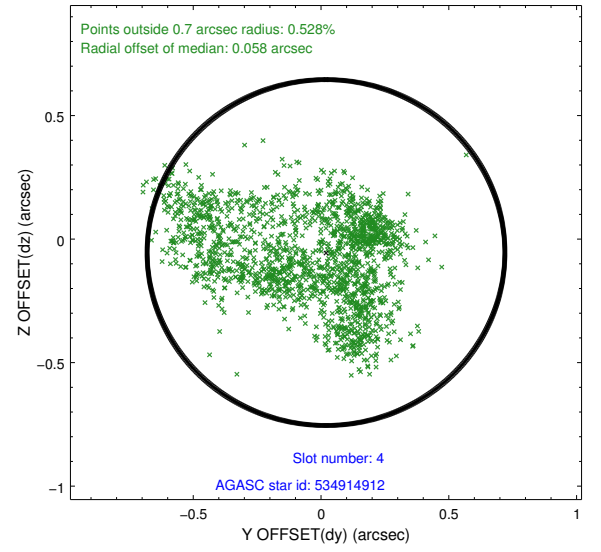
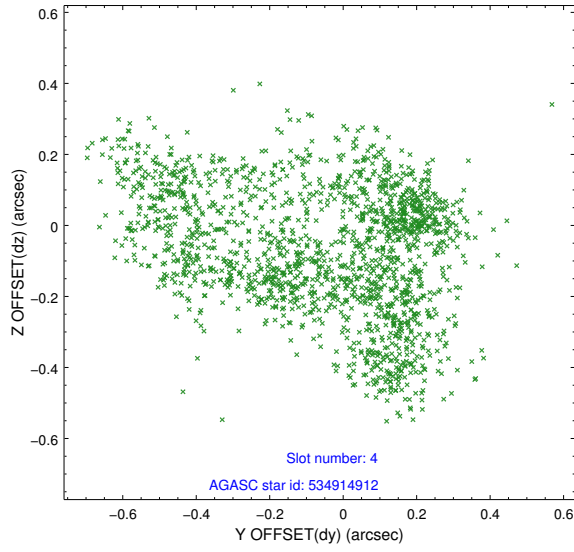
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-S-1	7.09	853	1.000	0.136	-0.093	0.008	0.014	0.000000	0.000000	-1174.63	-491
1	FID		HRC-S-2	7.07	853	1.000	0.356	-0.200	0.007	0.014	0.000000	0.000000	1223.89	-485
2	FID		HRC-S-3	7.07	853	1.000	-0.103	-0.010	0.008	0.015	0.000000	0.000000	-1175.92	537
3	GUIDE	used	534777072	6.98	1706	1.000	0.047	-0.142	0.115	0.214	80.934101	60.721041	390.14	-1958
4	GUIDE	used	534914912	9.01	1704	1.000	0.019	-0.054	0.336	0.581	81.829238	61.781311	-1887.74	1473
5	GUIDE	used	534915072	9.00	1696	1.000	-0.137	-0.245	0.343	0.448	83.202635	61.256813	984.17	2407
6	GUIDE	used	534916944	8.89	1701	1.000	-0.147	0.116	0.142	0.219	81.479781	61.783099	-2224.21	990
7	GUIDE	used	534922520	8.41	1703	1.000	0.270	0.307	0.152	0.235	81.531321	61.241488	-560.47	-38

2.4 Star Slots

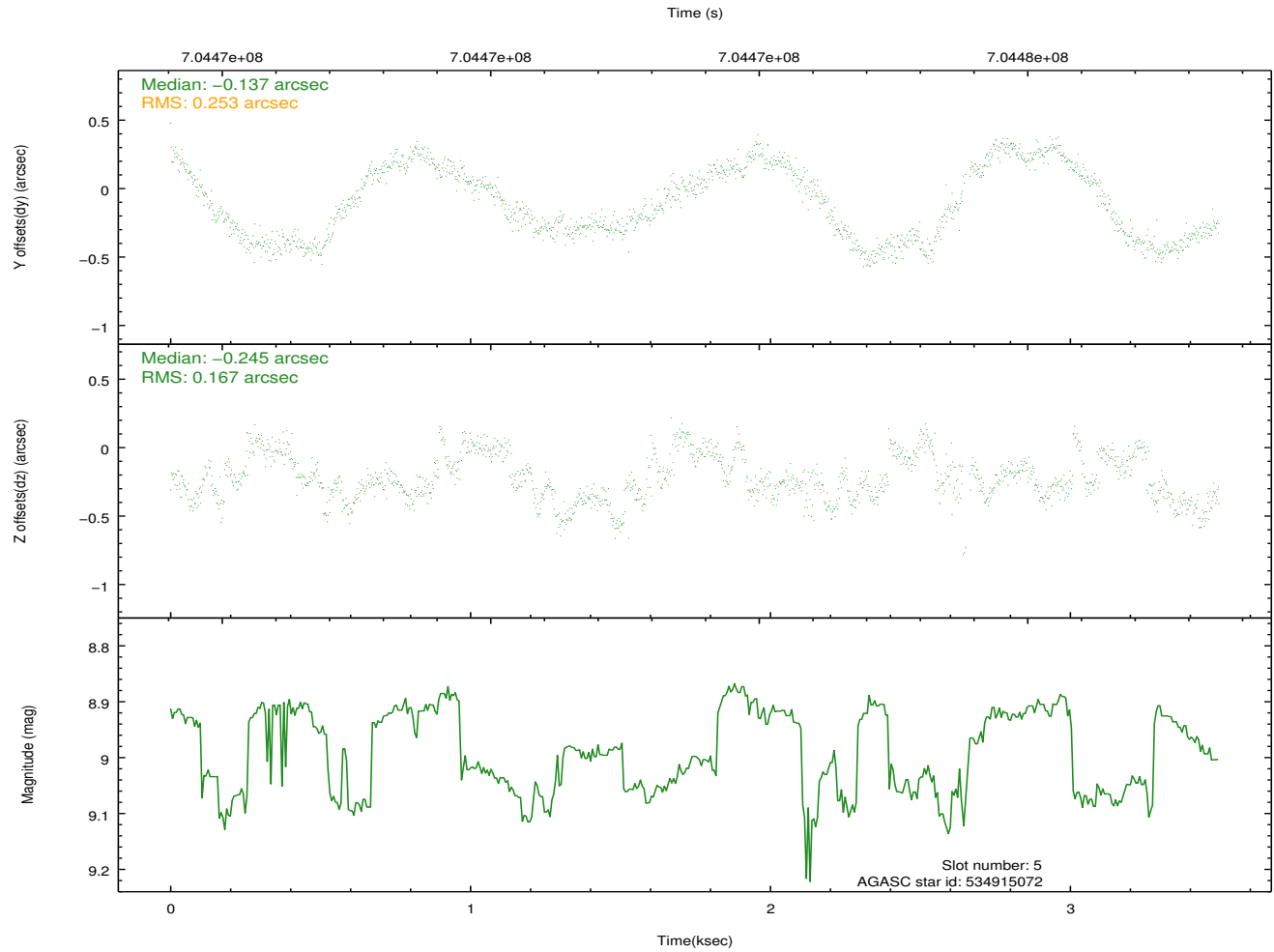
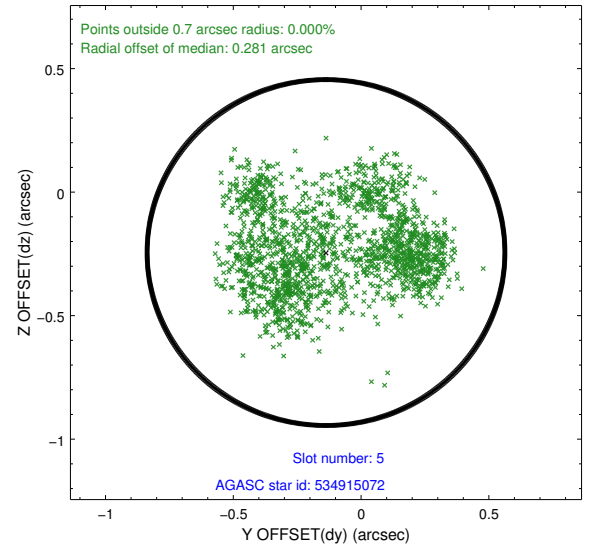
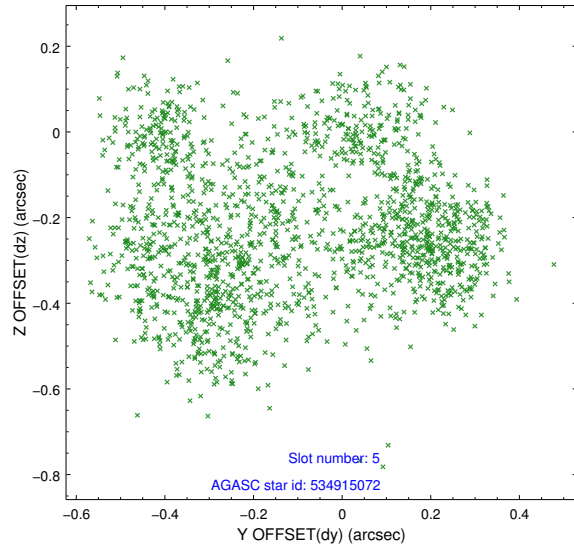
2.4.1 Slot 3



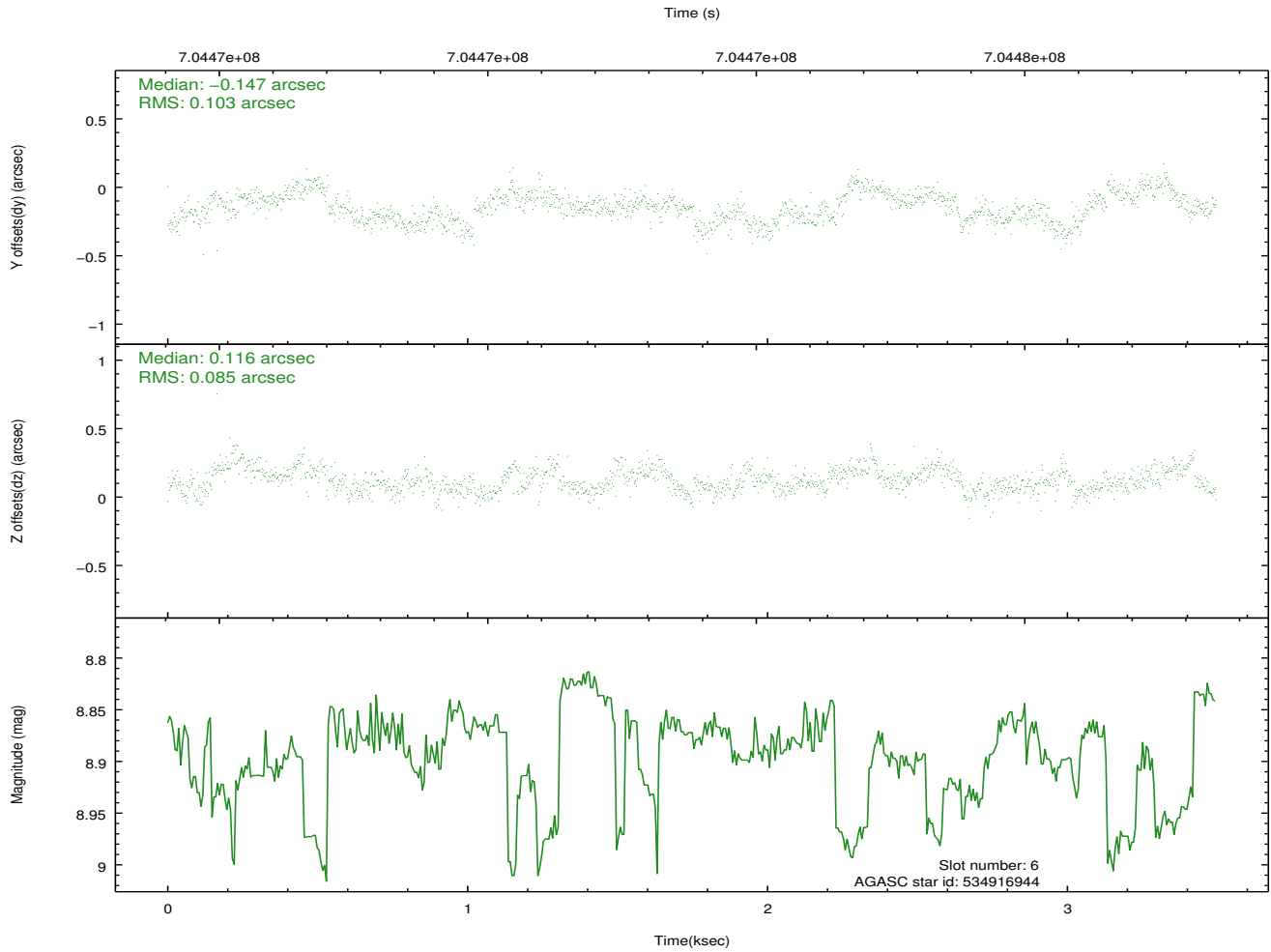
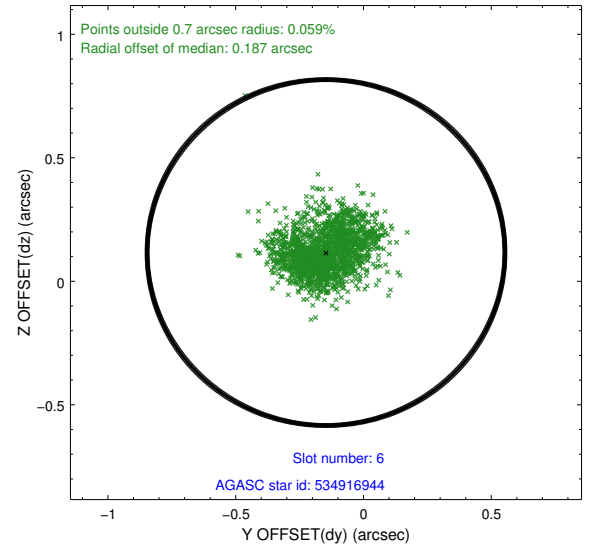
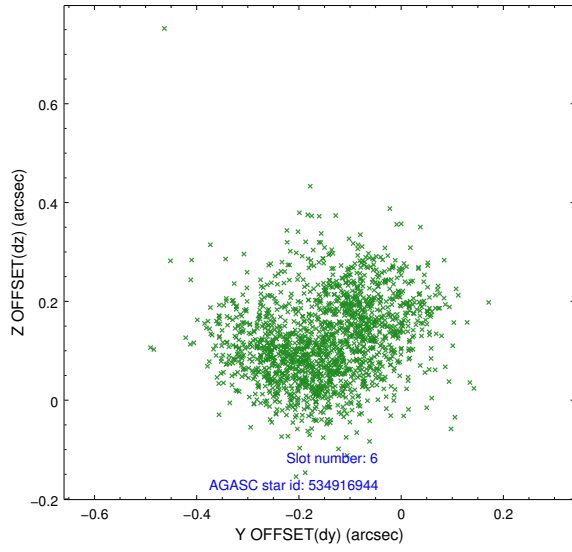
2.4.2 Slot 4



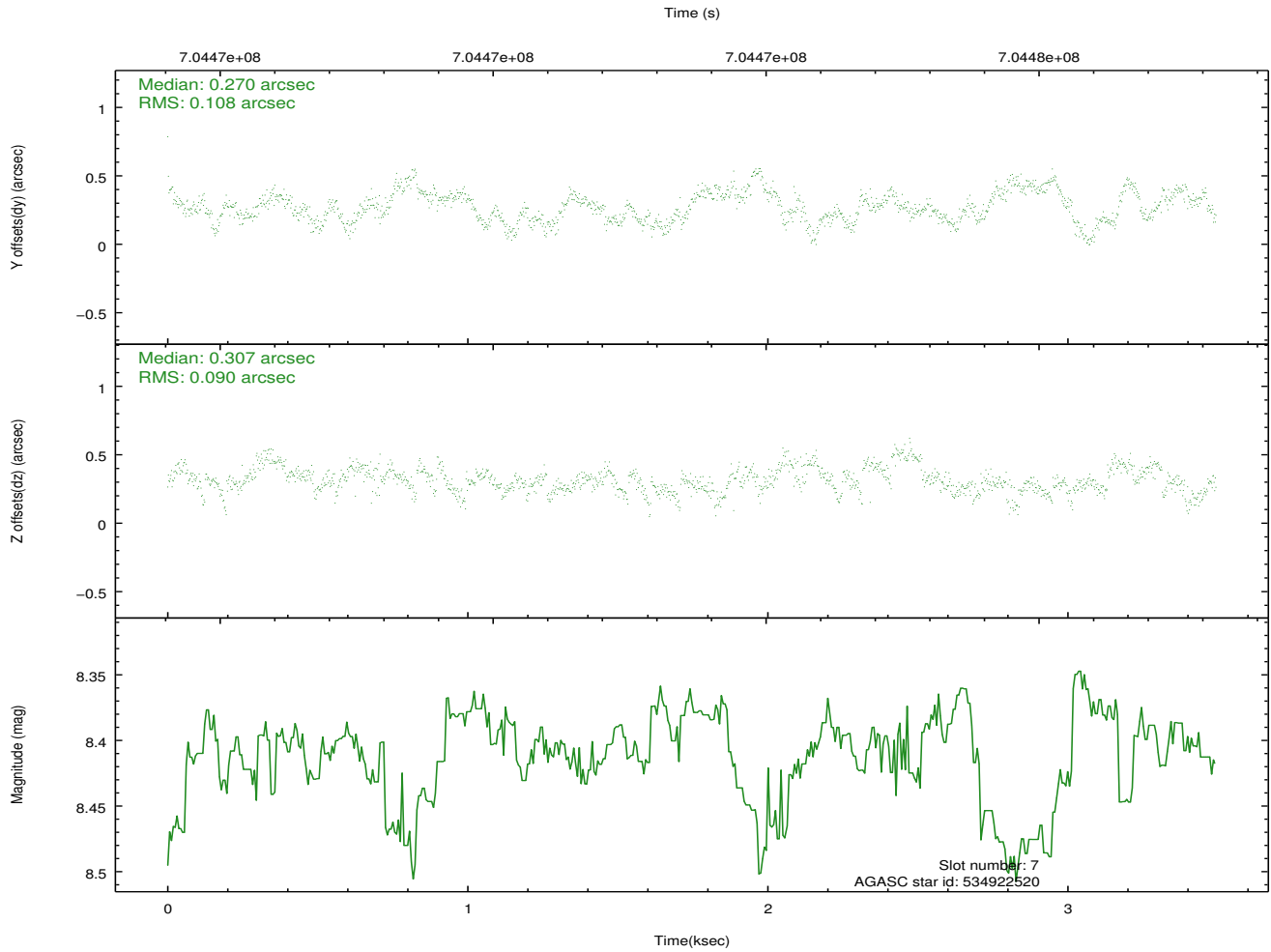
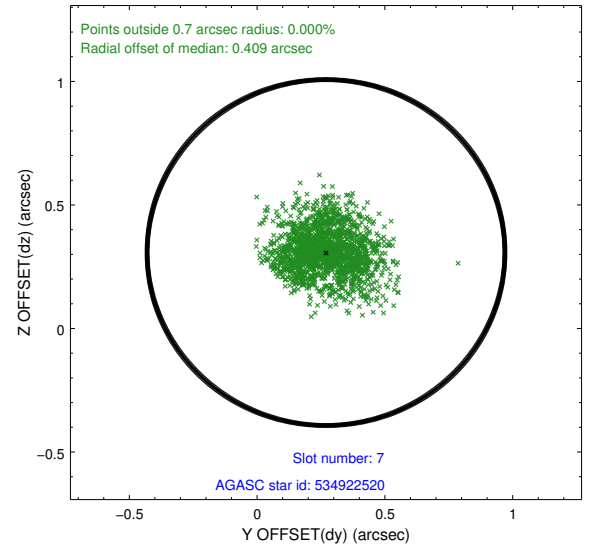
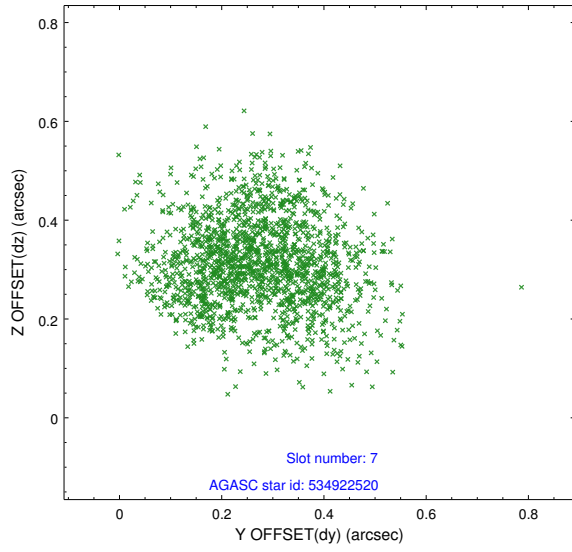
2.4.3 Slot 5



2.4.4 Slot 6

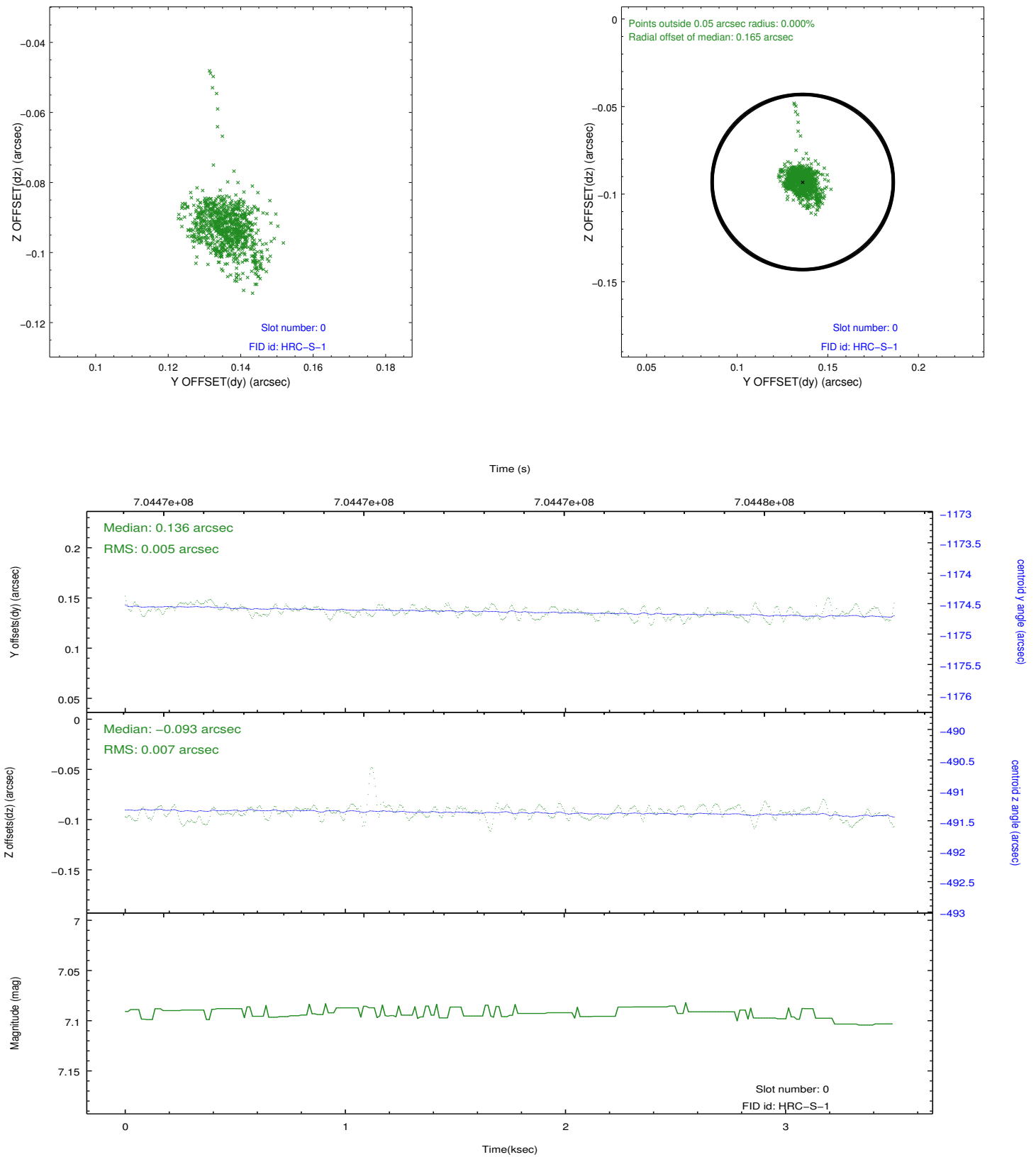


2.4.5 Slot 7

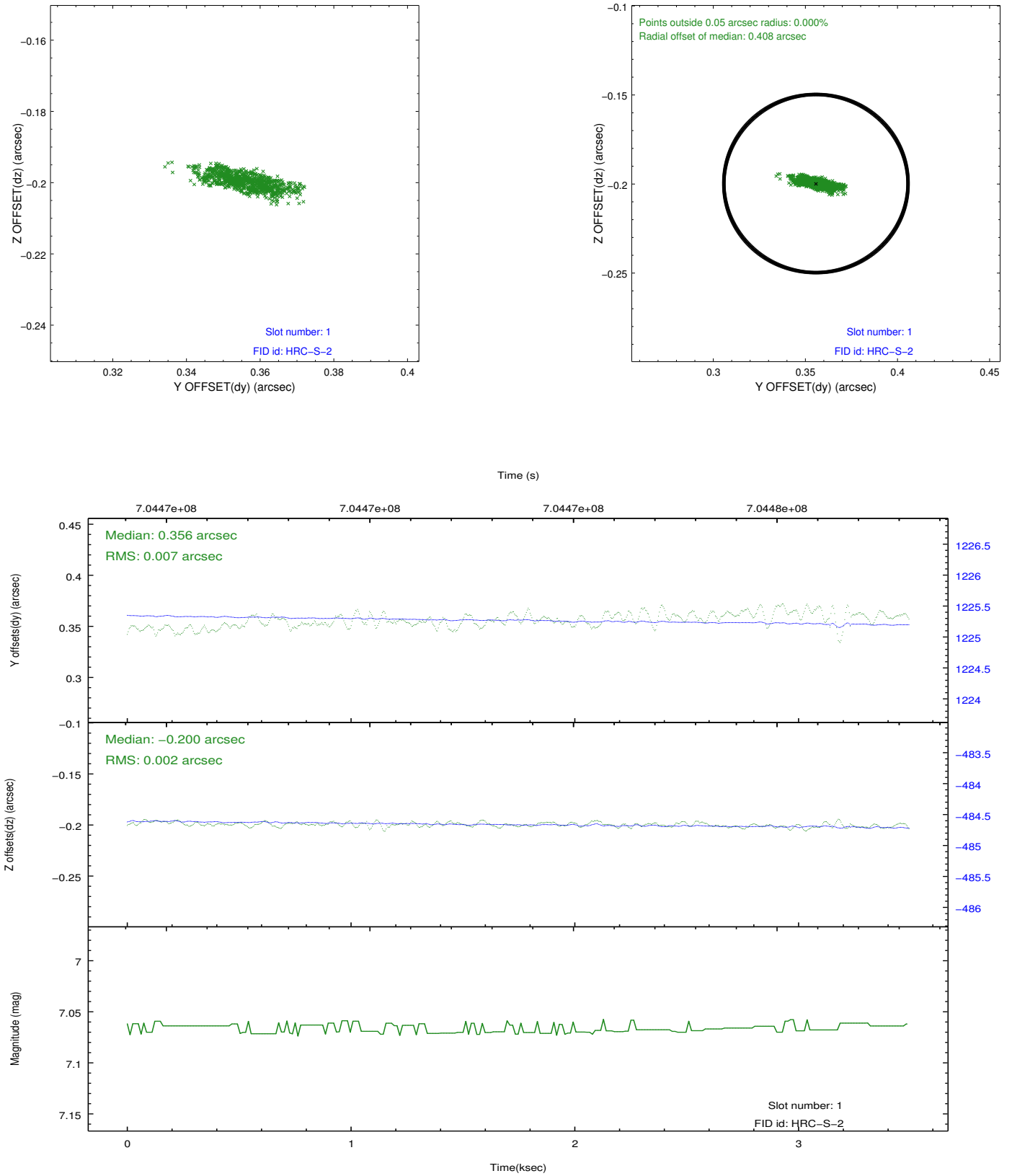


2.5 FID Slots

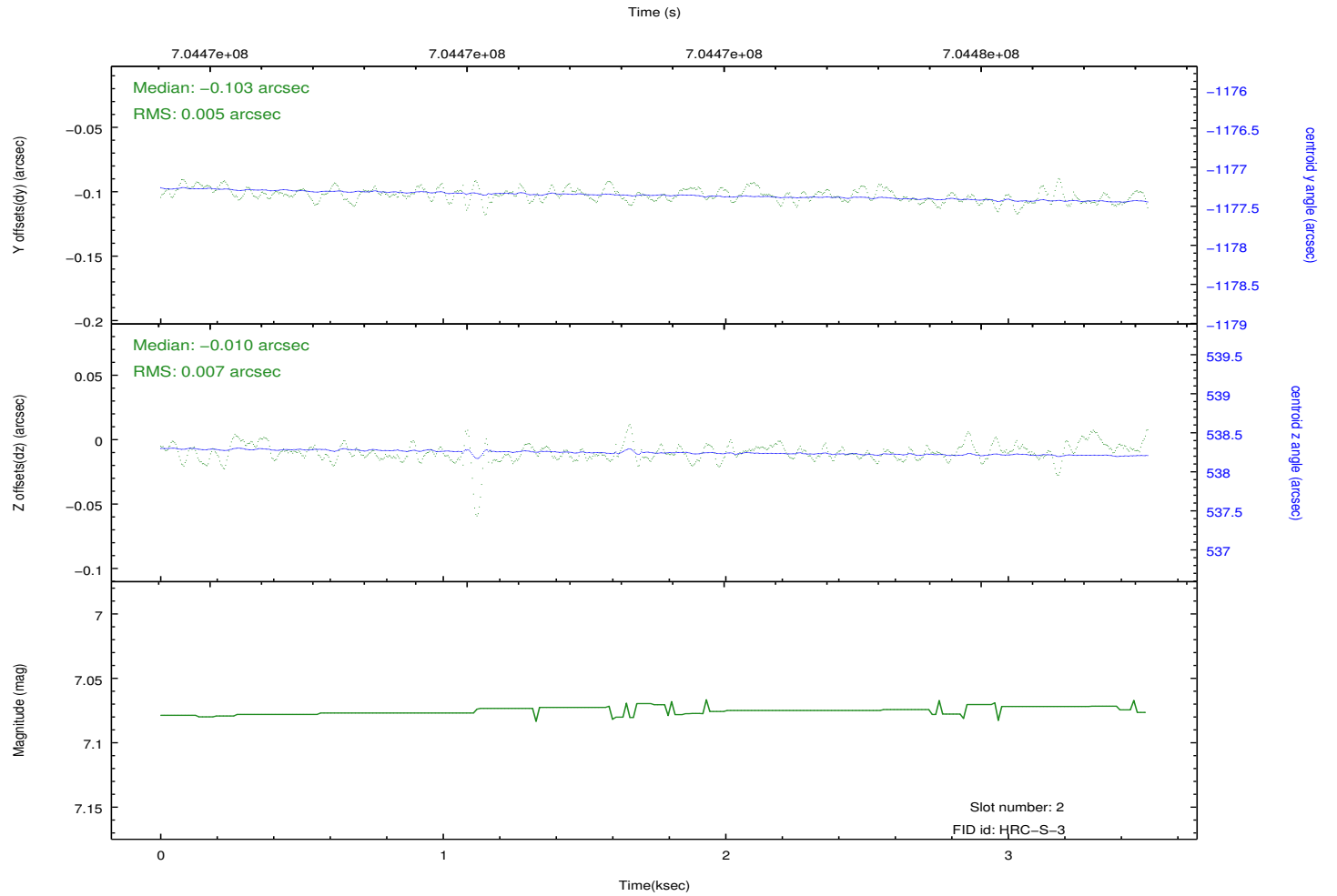
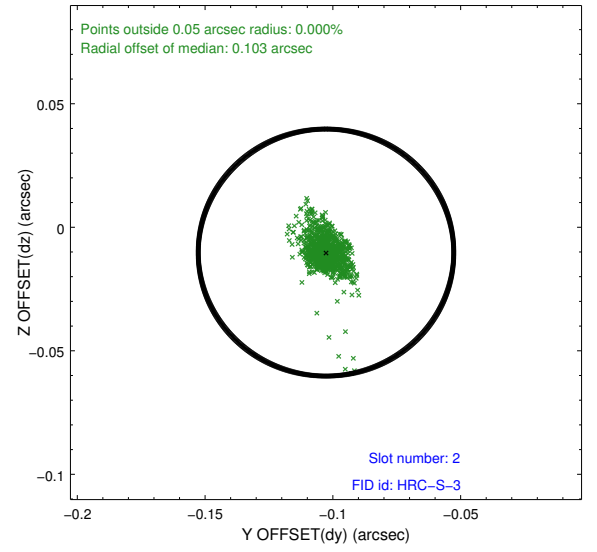
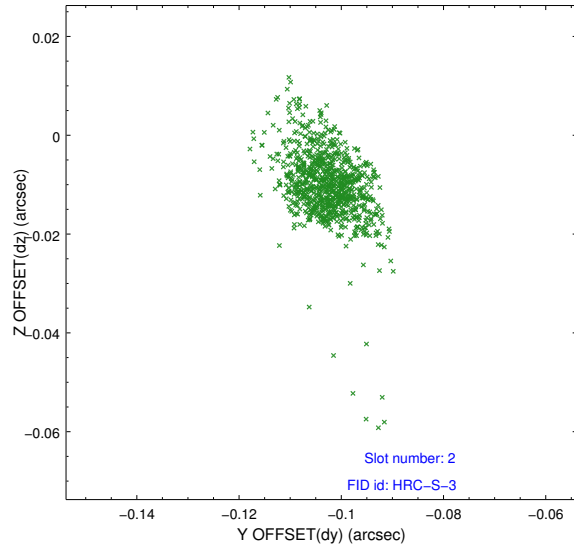
2.5.1 Slot 0



2.5.2 Slot 1

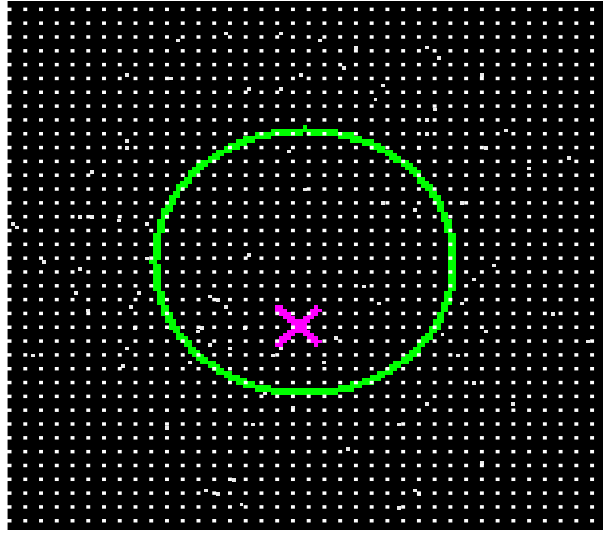


2.5.3 Slot 2

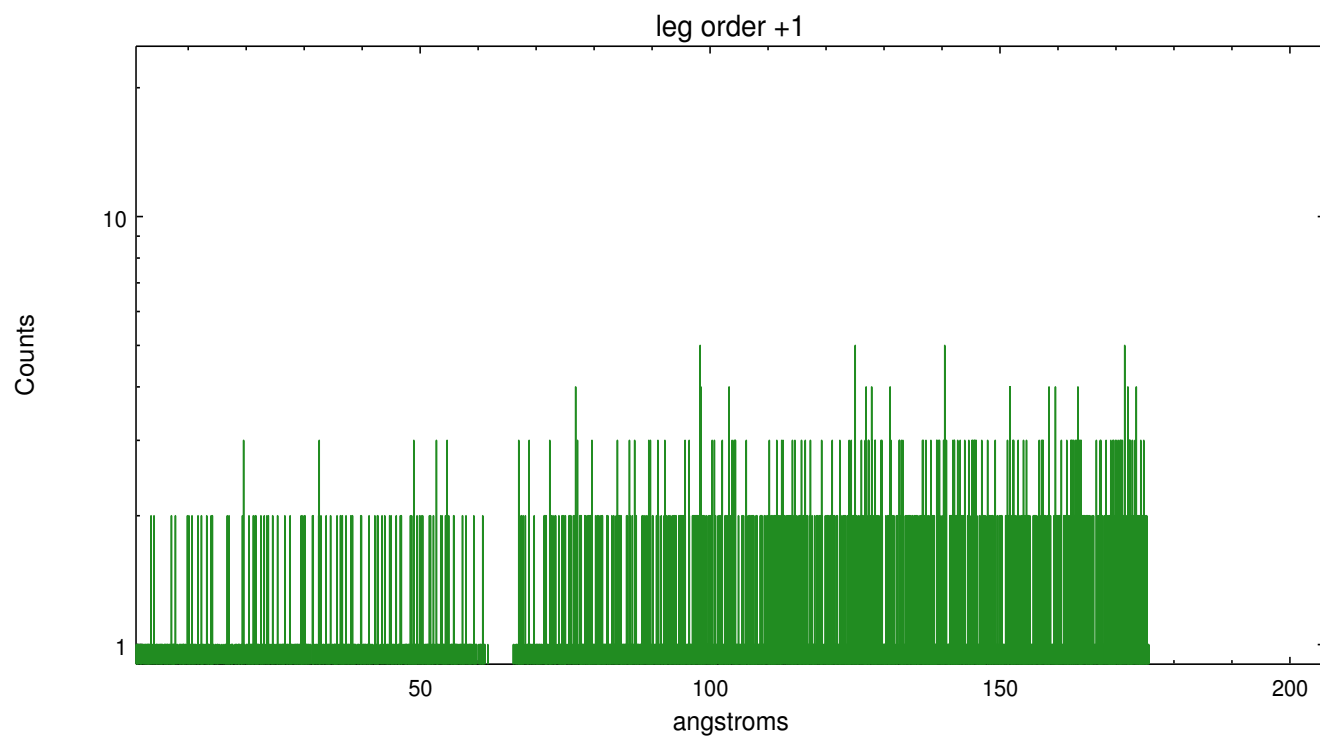
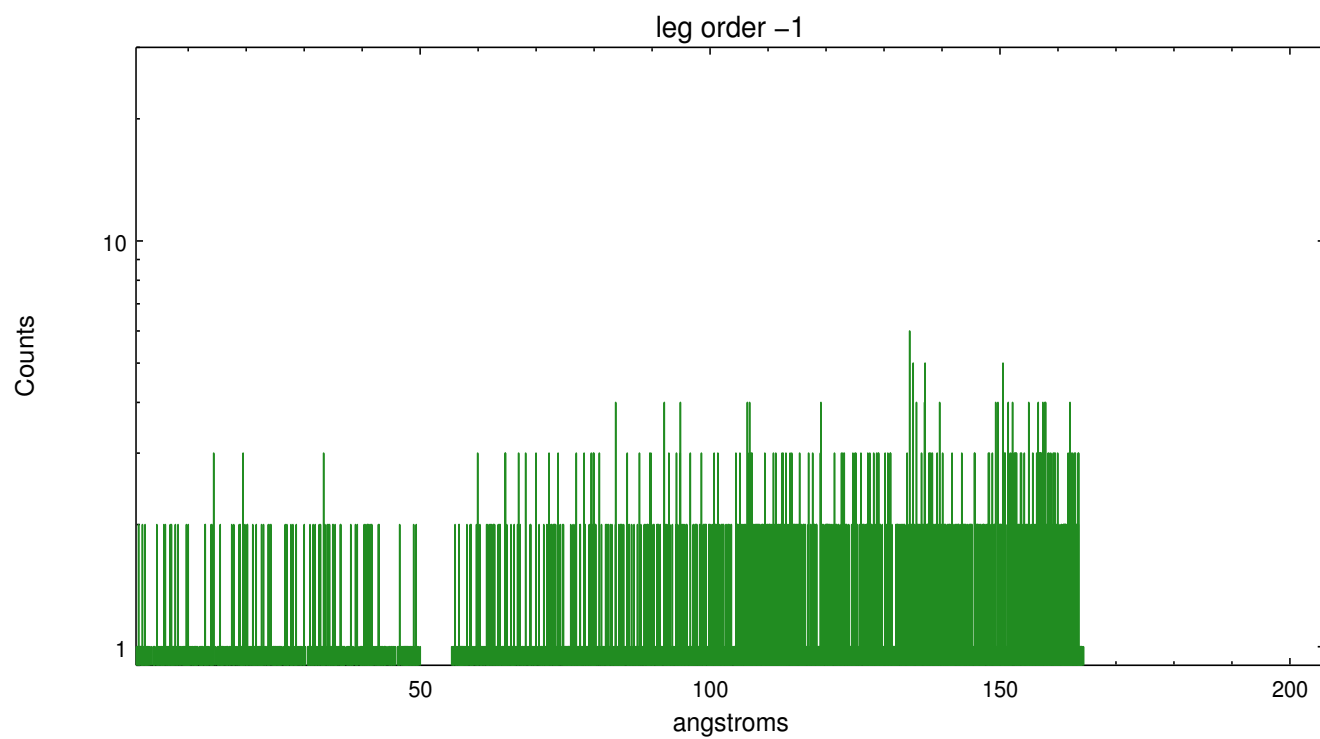


3 Gratings

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	3.4944814623594

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).

Comments for Obi 0

Star in slot 4 has an RMS deviation > 0.200000 arcsec

Star in slot 5 has an RMS deviation > 0.200000 arcsec

(acceptable, as per aspect review)