

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 19444 - L2 Version 2
Chandra X-Ray Center

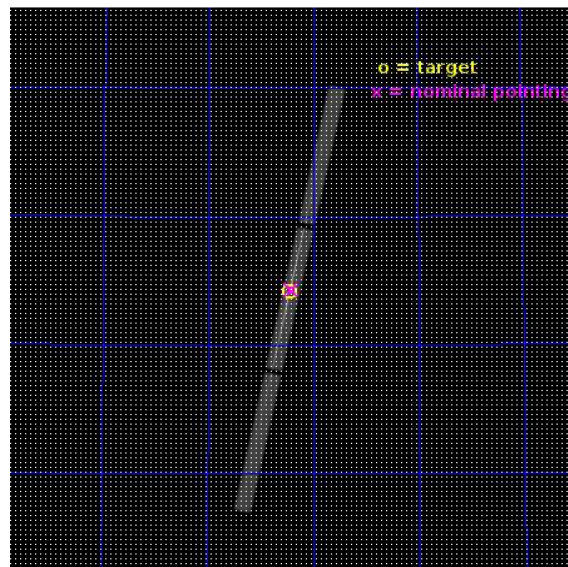
L2 Processing Date : Jan 23 2018

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1 Front

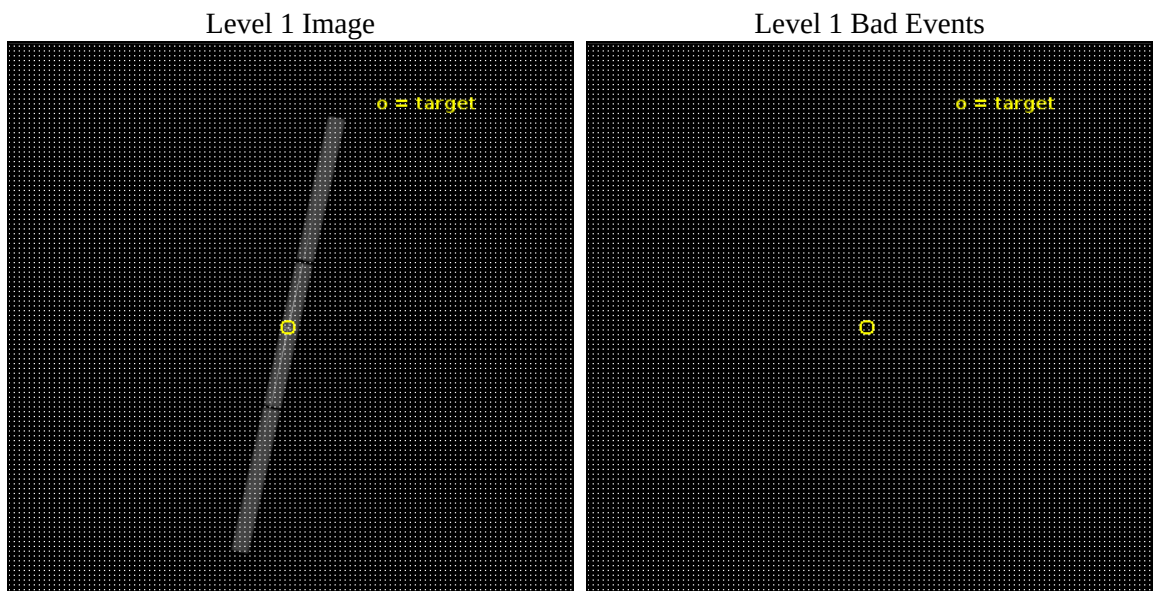
seq_num	901342	Sequence number
obs_id	19444	Observation id
title	Assessing the WHIM detection towards Mkn421	Proposal title
observer	Yair Krongold	Principal investigator
object	Mkn 421	Source name
ra_targ	166.11375	Observer's specified target RA [deg]
dec_targ	38.208889	Observer's specified target Dec [deg]
ra_nom	166.10332222028	Nominal RA [deg]
dec_nom	38.216299866085	Nominal Dec [deg]
roll_nom	102.07380421943	Nominal Roll [deg]
revision	2	Processing version of data
ontime	47102.084022522	[s]
livetime	46178.101674247	Ontime multiplied by DTCOR
l2events	6970982	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	47000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	47102.084022522	[s]
caldbver	4.7.7	 	l1events	8098885	Number of level 1 events
date	2018-01-23T23:13:44	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	2	Processing version of data	zo_pos	(32534.76, 32560.54)	src1a sky pixel position

2.1.3 Events

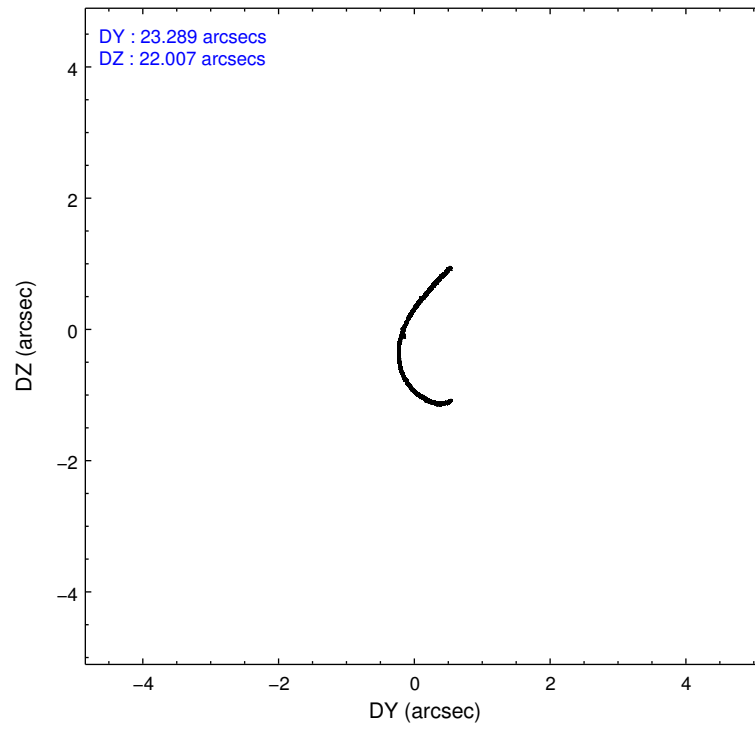
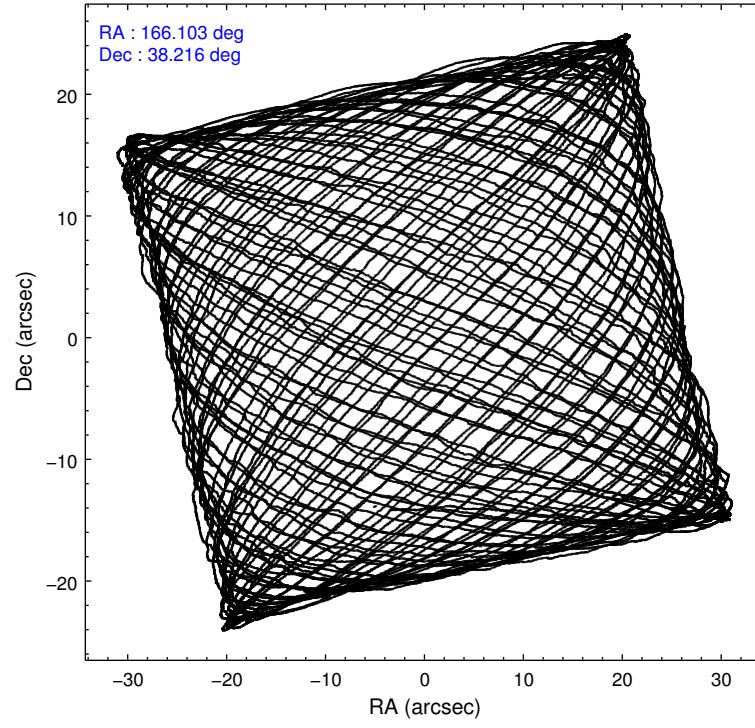
Level 1 Events

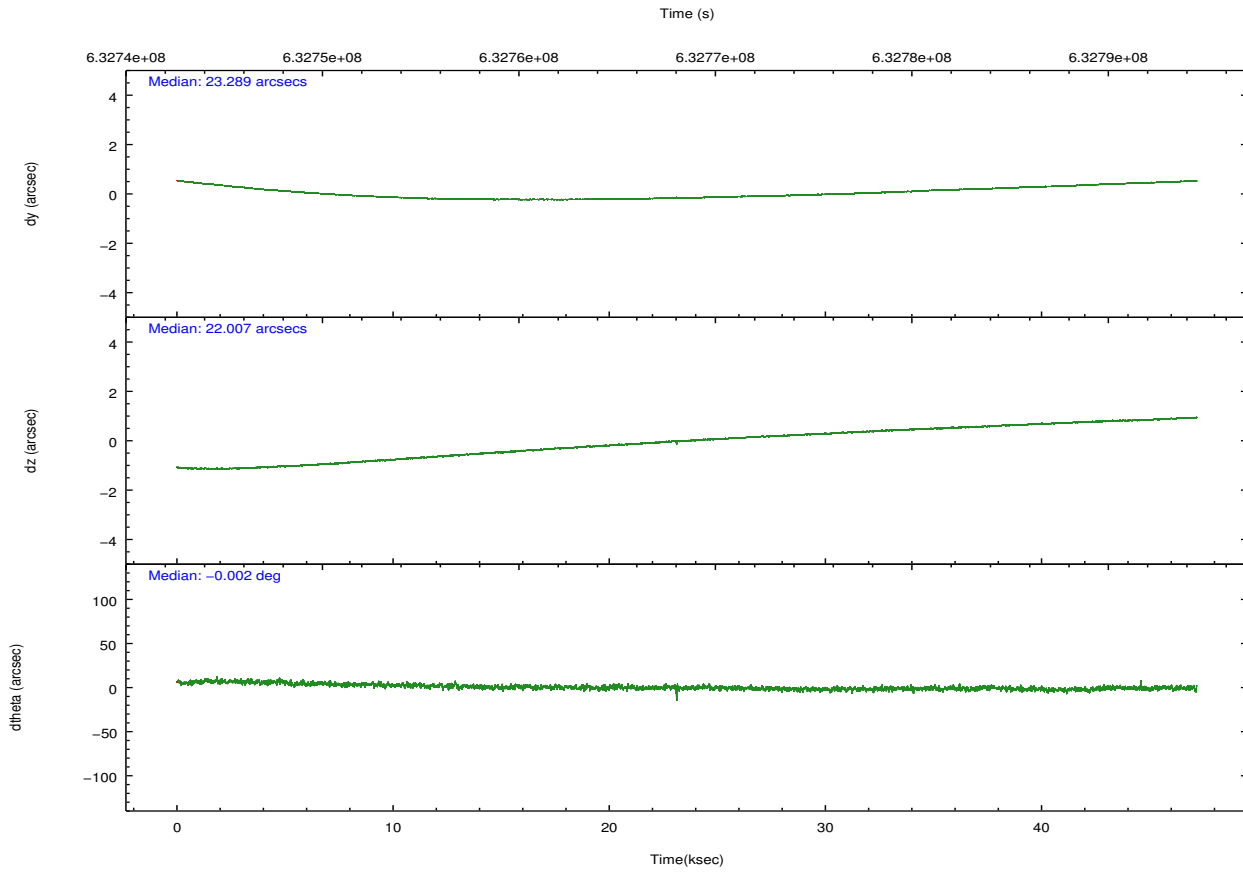
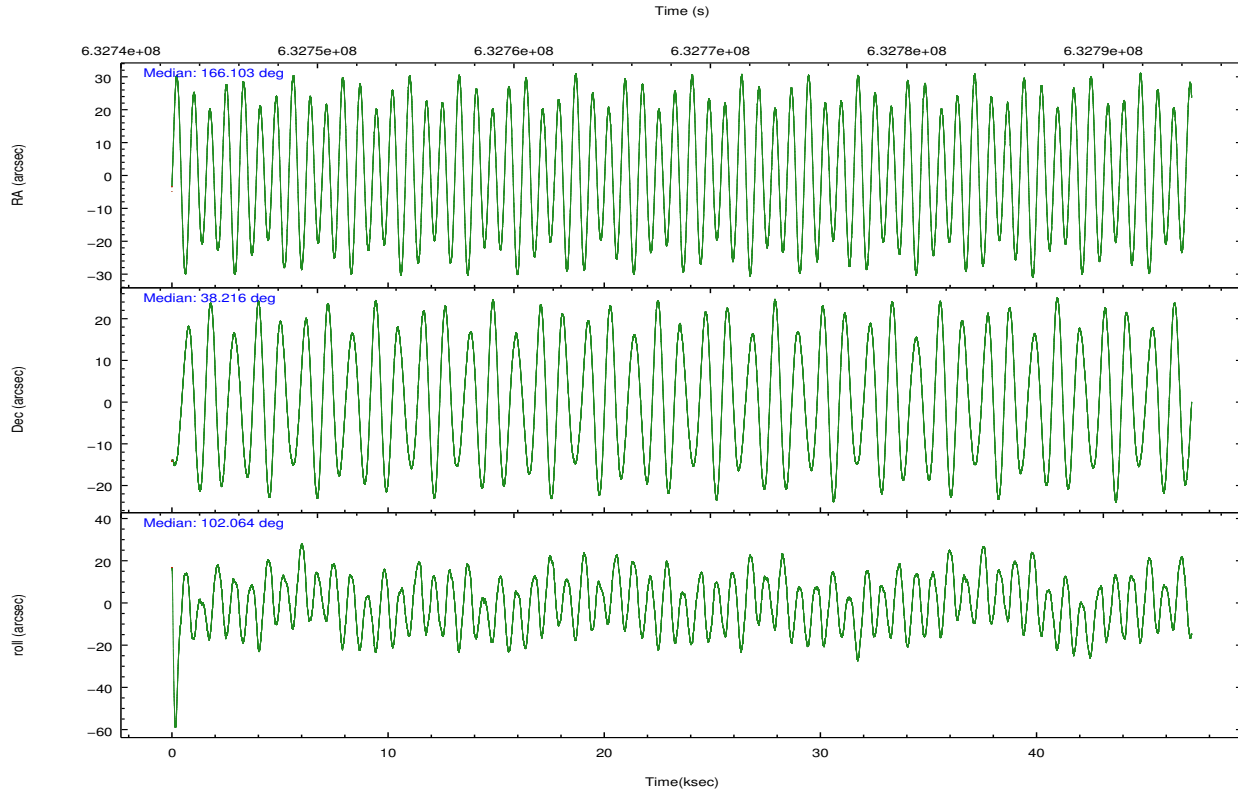
	segment 1	segment 2	segment 3
level 1 events	1833834	4405307	1859744
rejected events	33189	46186	33146
rejected %	1%	1%	1%

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	166.129195	166.1033222202828			
[deg] Pointing Dec	38.195862	38.21629986608549			
[deg] Pointing Roll	101.990449	102.0738042194302			
[mm] SIM focus pos	-1.429586	-1.428180813131781			
[mm] SIM defocus	0.1037507710433287	0.1051558262725154			
[mm] SIM translation stage pos	250.455976	250.4635187648994			
[mm] SIM translation stage offset	0	-0.007540371344731511			
[s] Observation start time (MET)	632745146.184000	632744177.52071			
Observation start date	2018-01-19T10:31:17	2018-01-19T10:16:17			
[s] Observation end time (MET)	632792146.184000	632792595.44856			
Observation end date	2018-01-19T23:34:37	2018-01-19T23:43:15			

2.3 Aspect



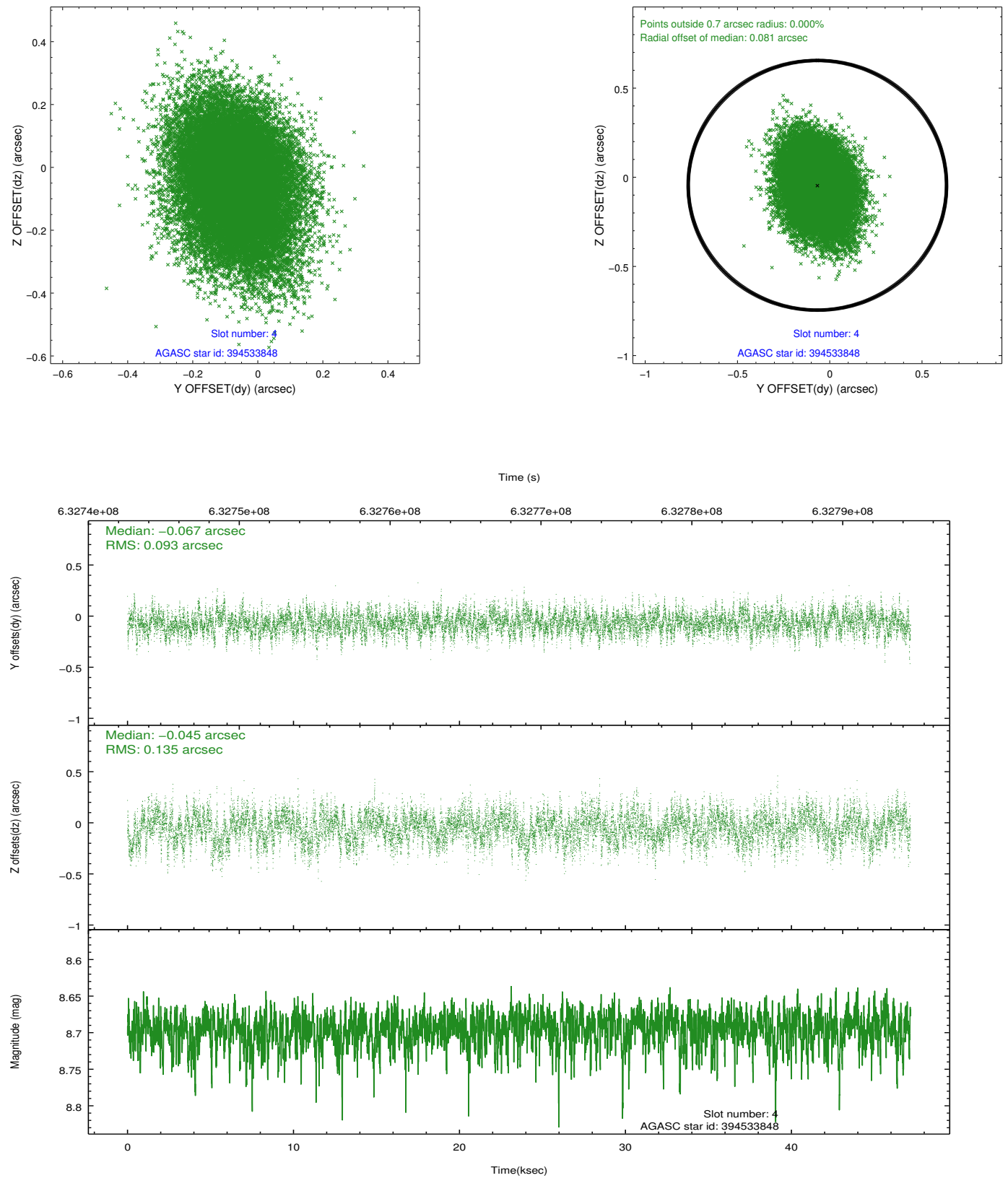


Slot Statistics

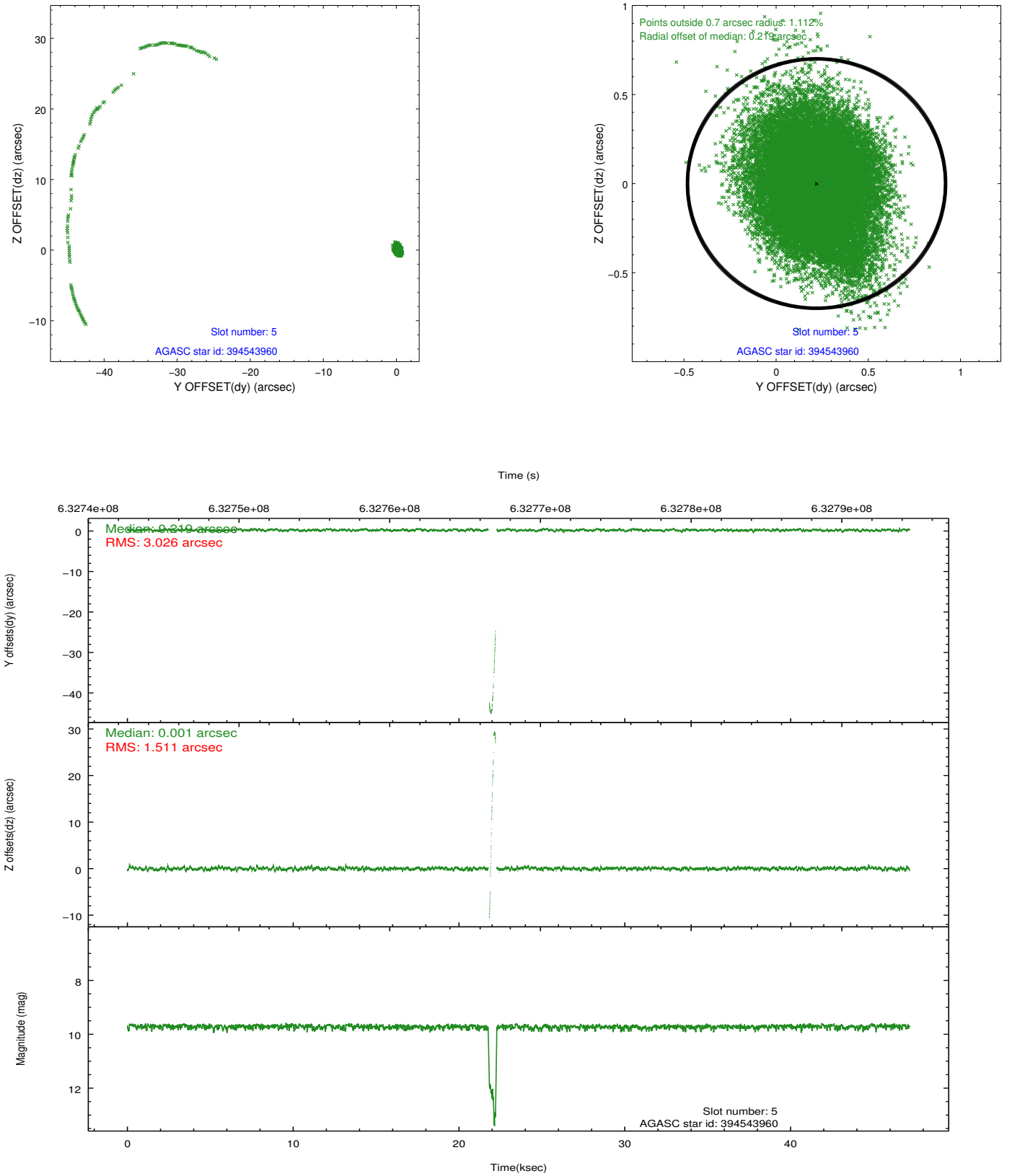
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.08	11504	0.123	-0.183	0.019	0.048	0.000000	0.000000	-1177.93	-470.96
1	FID		HRC-S-3	7.05	11506	0.125	-0.017	0.019	0.048	0.000000	0.000000	-1180.71	558.72
2	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
3	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
4	GUIDE	used	394533848	8.69	22991	-0.067	-0.045	0.172	0.288	166.382906	38.276007	137.01	-755.67
5	GUIDE	used	394543960	9.72	22838	0.219	0.001	0.301	0.500	165.802757	37.787371	-1243.84	1213.67
6	GUIDE	used	394546712	6.59	23011	-0.062	-0.137	0.157	0.264	166.451462	38.394357	512.07	-1036.65
7	GUIDE	used	394530152	7.51	23005	-0.086	0.201	0.155	0.257	166.075805	38.868252	2399.29	-355.77

2.4 Star Slots

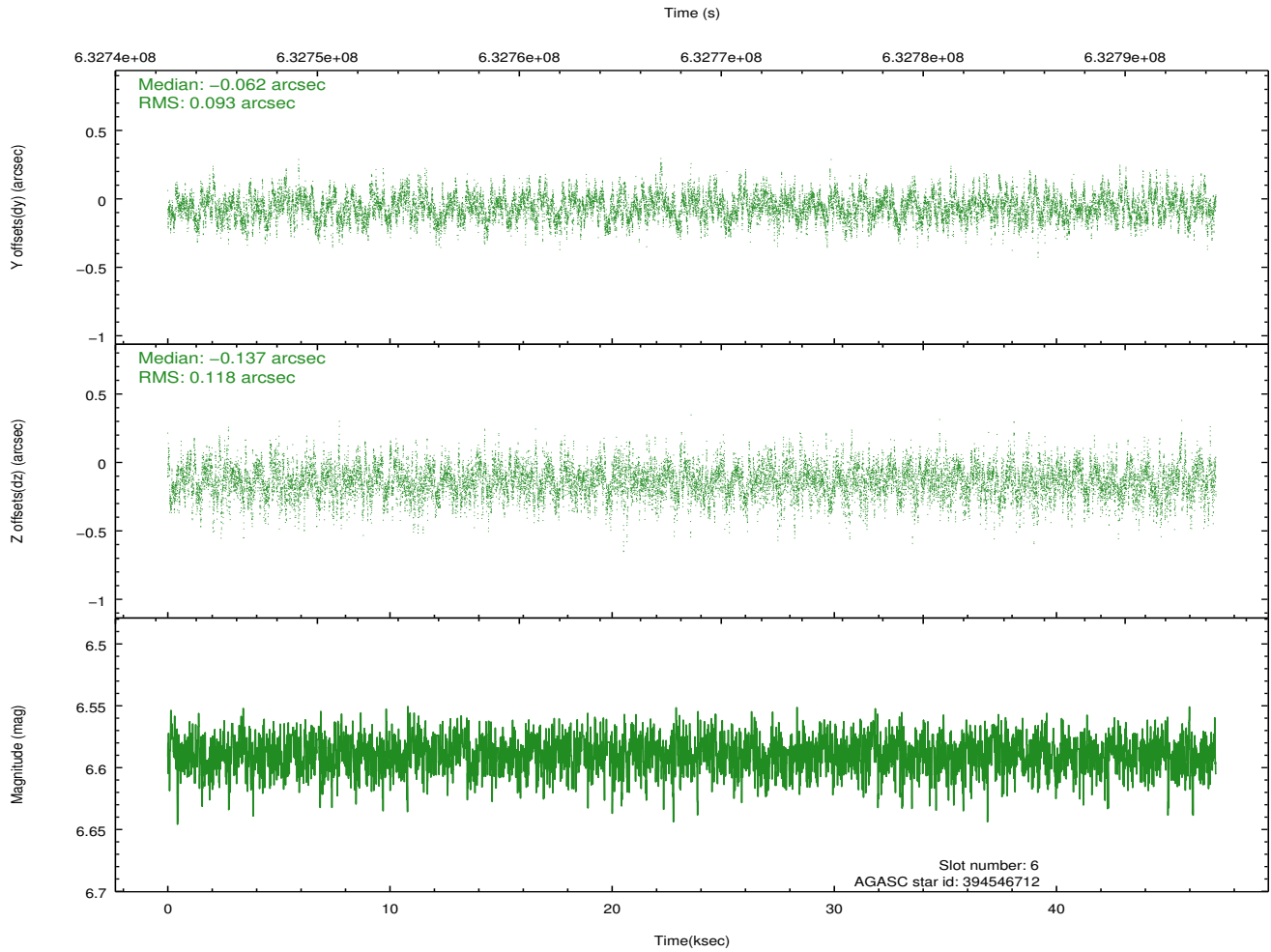
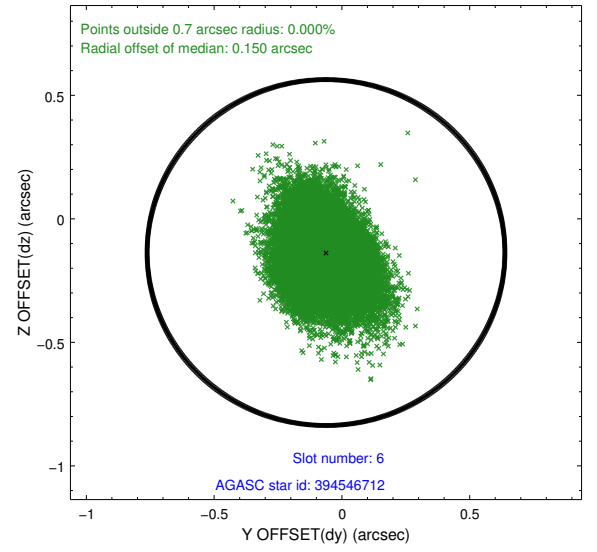
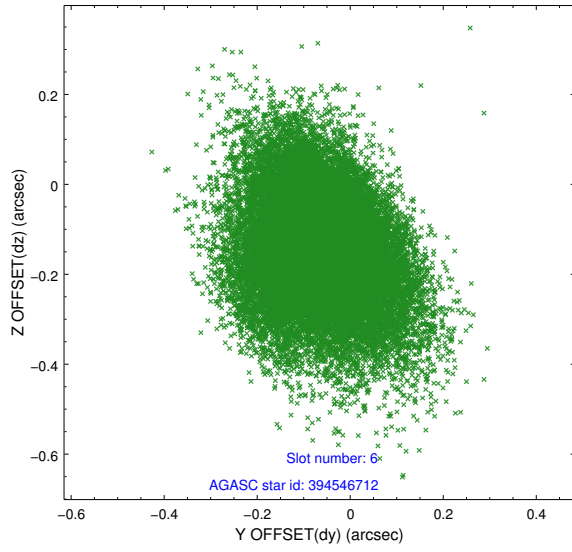
2.4.1 Slot 4



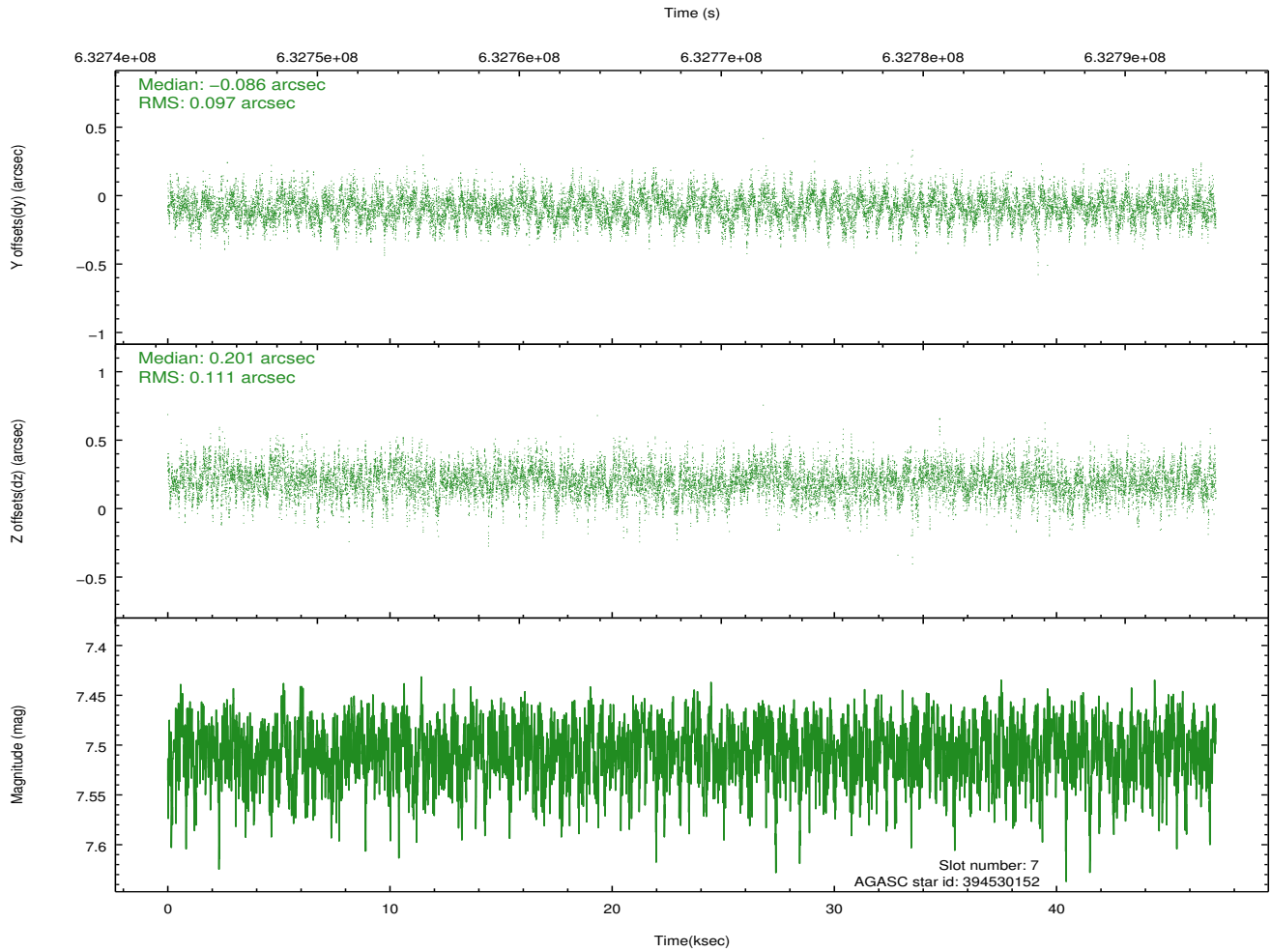
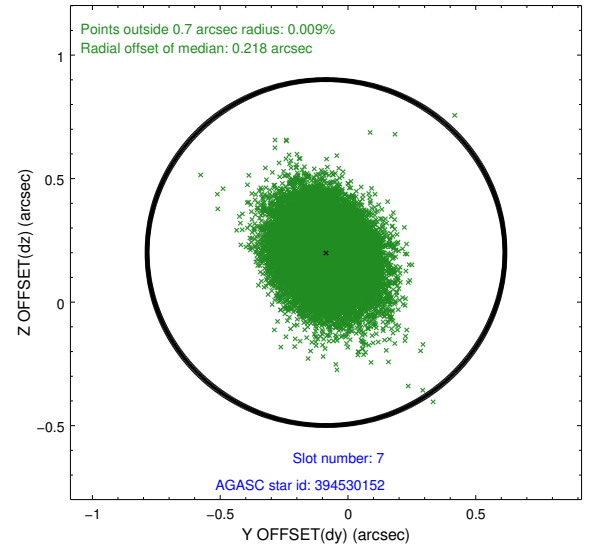
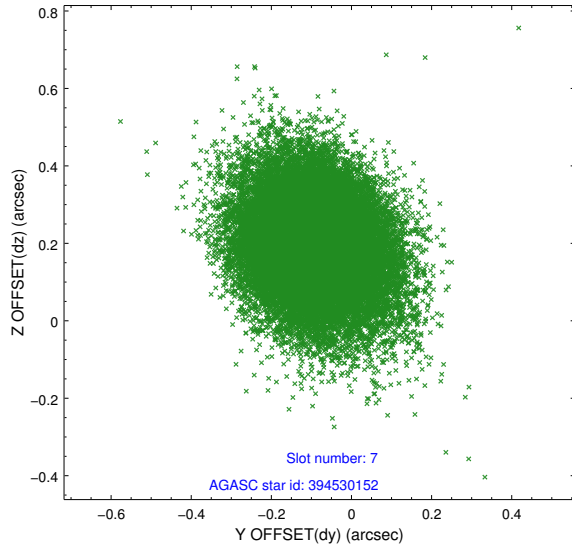
2.4.2 Slot 5



2.4.3 Slot 6

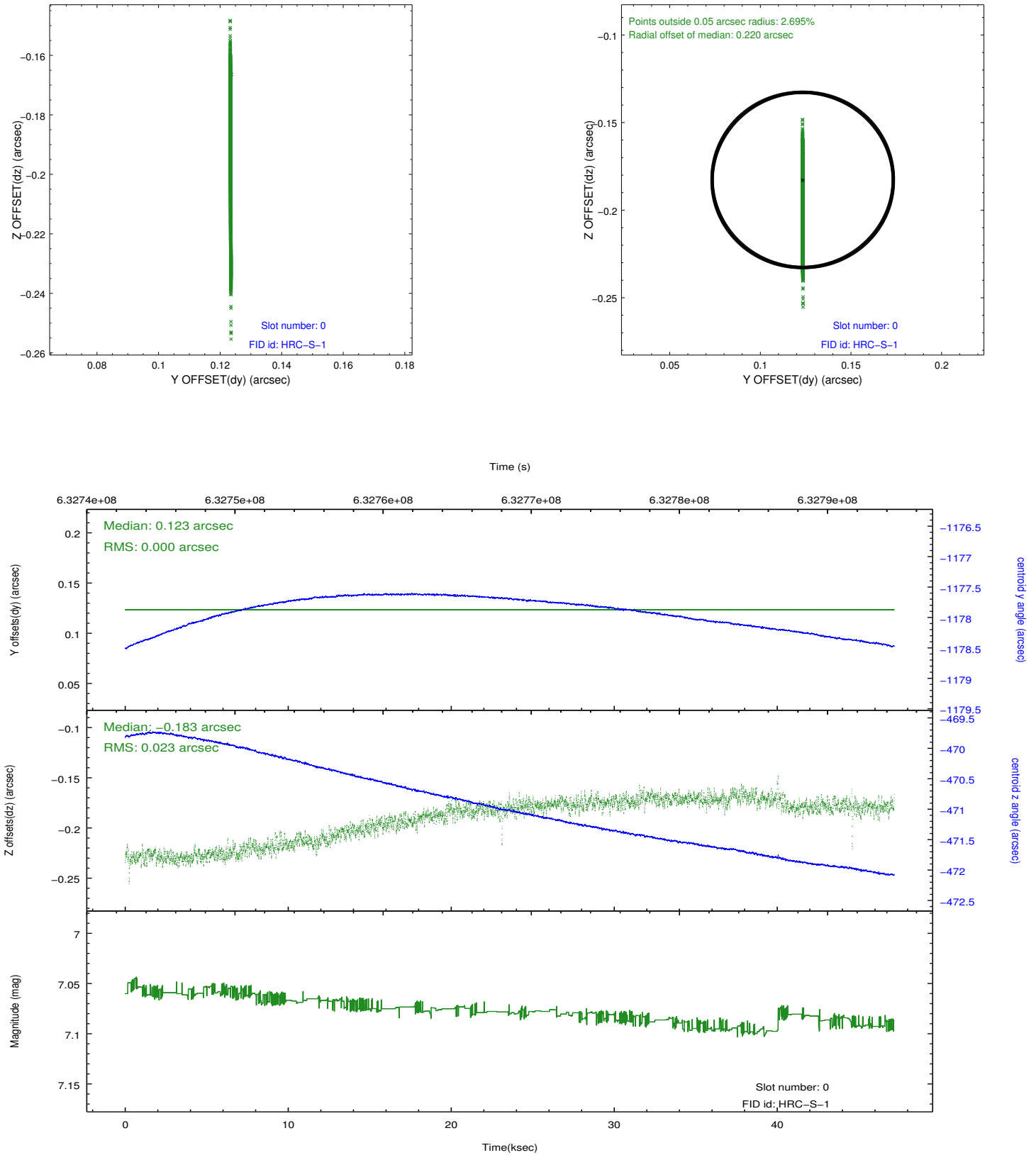


2.4.4 Slot 7

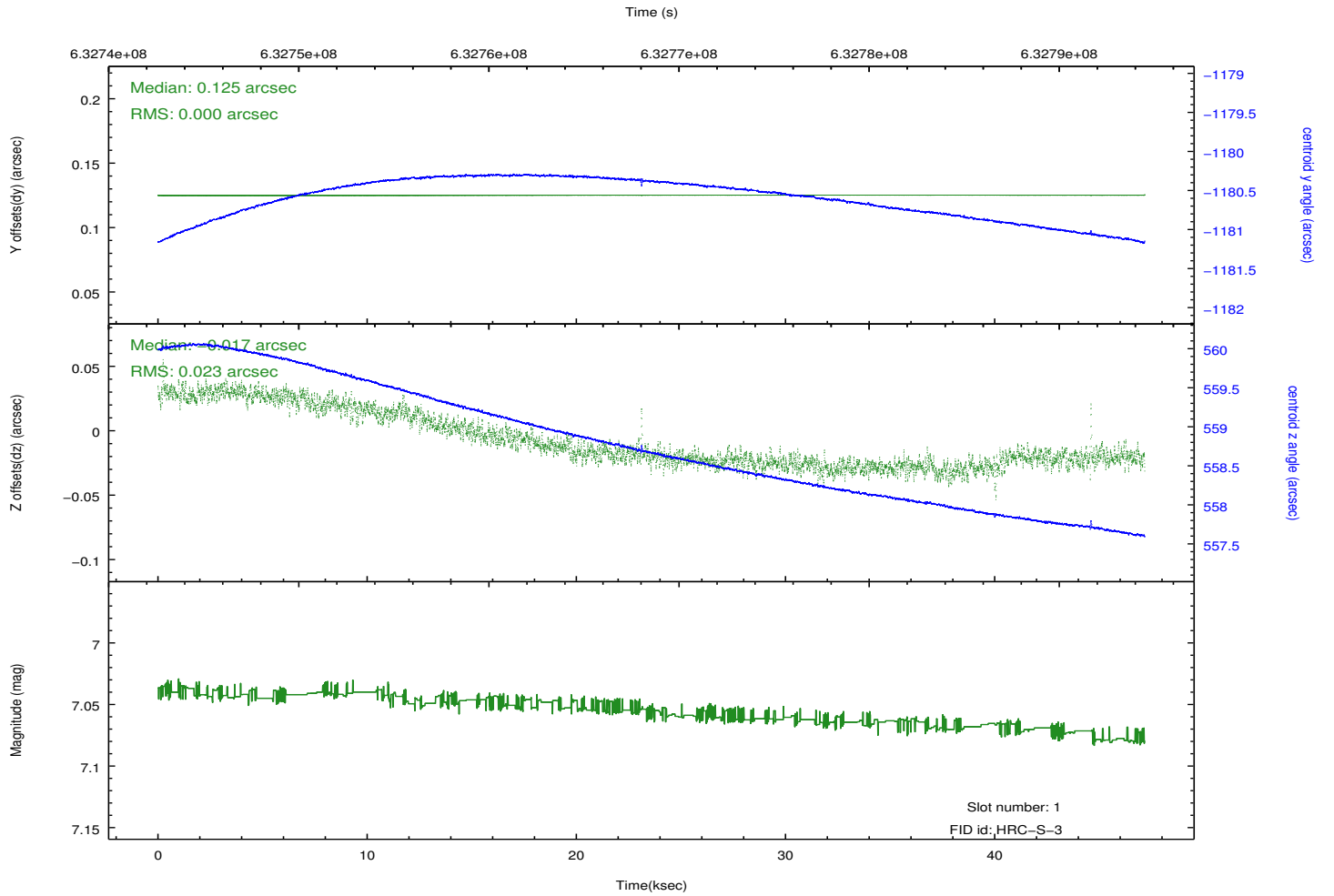
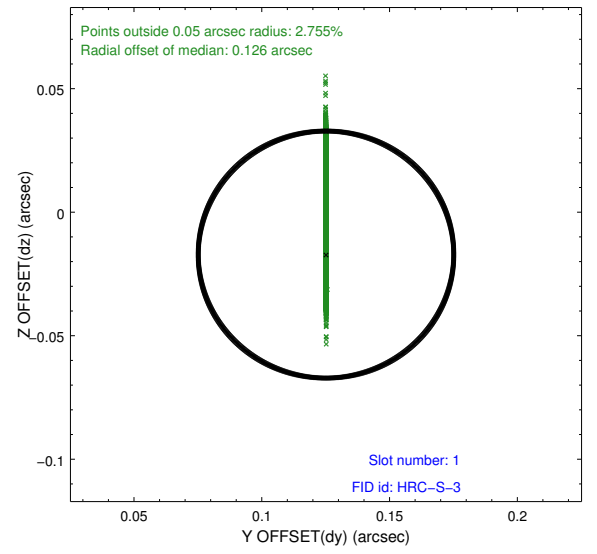
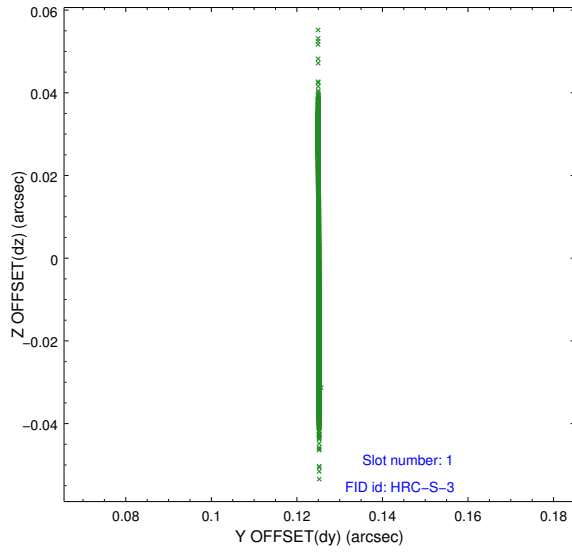


2.5 FID Slots

2.5.1 Slot 0

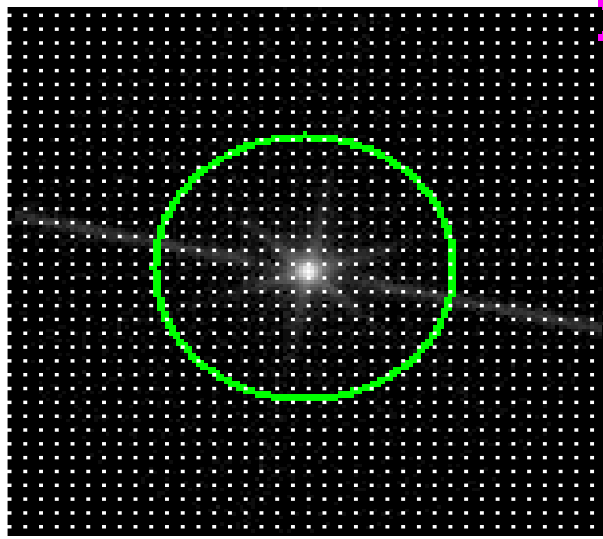


2.5.2 Slot 1

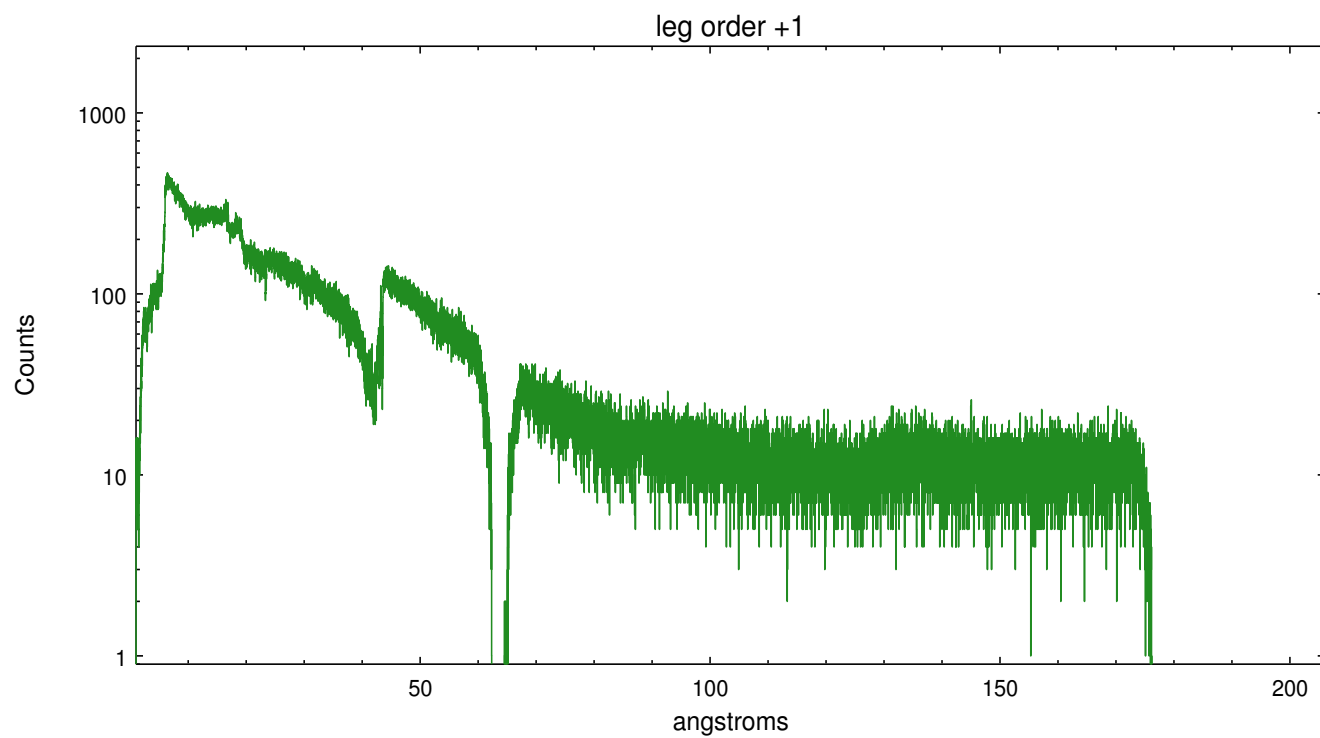
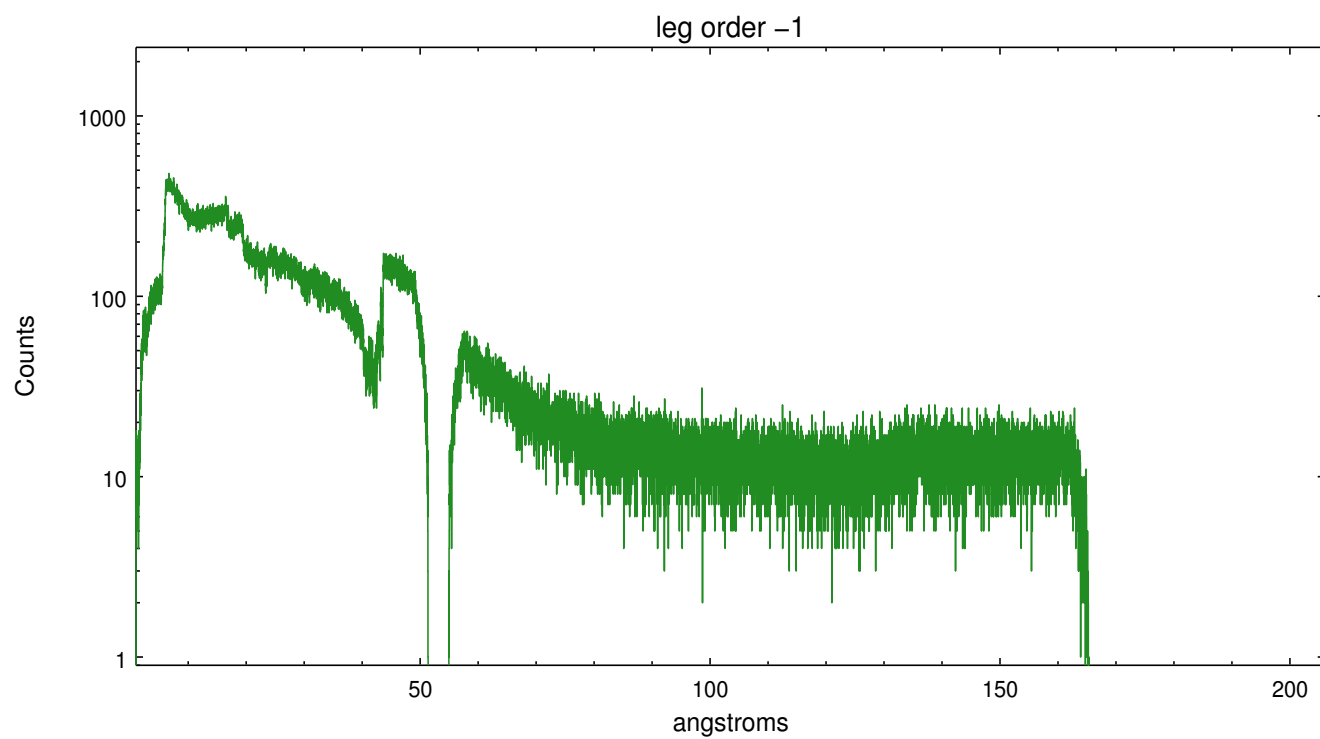


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2018.01.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	47.102084022522

A.2 Comments

Due to corruption of the secondary science data during this observation, some instrument parameters have bogus values. The data in this observation have been inspected by the HRC team. PLEASE NOTE: All the event data in this observation are good. The short gaps in the GTI intervals can be eliminated (i.e., use the first START and last STOP). THE DTF values during this observation can be estimated by dropping all the low values and averaging the remaining values near 1.0.

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The guide star in slot 3 and the fid light in slot 2 were removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star and fid light from the solution.