

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20733 - L2 Version 3
Chandra X-Ray Center

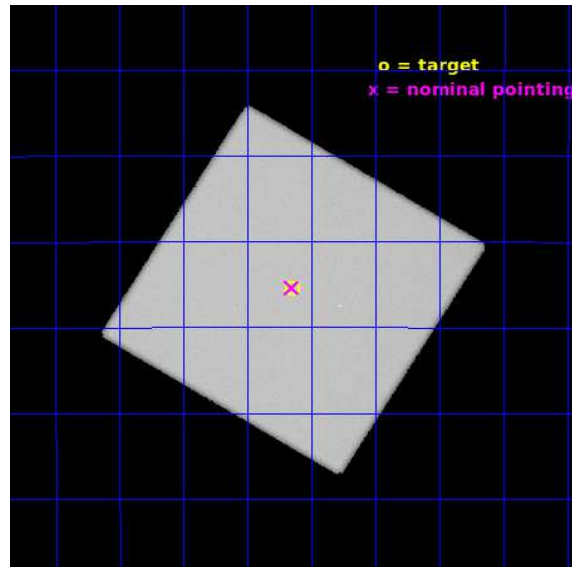
L2 Processing Date : Oct 25 2020

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1 Front

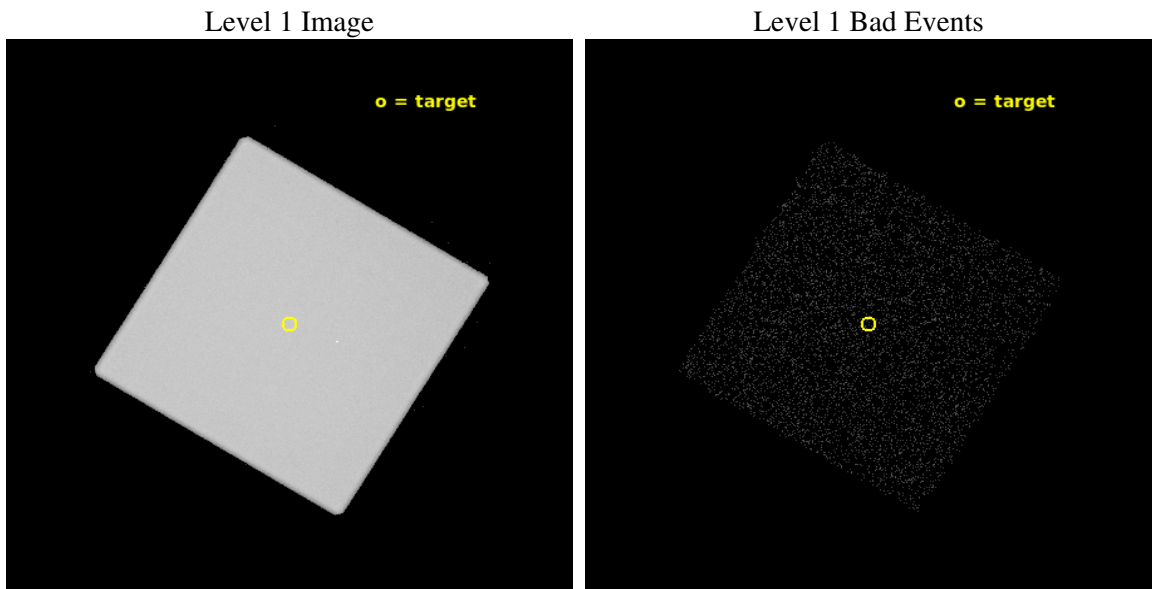
seq_num	100170	Sequence number
obs_id	20733	Observation id
title	Monitoring of the Jovian X-ray Aurora during Juno perijove 15 passage	Proposal title
observer	Ralph Kraft	Principal investigator
object	Jupiter	Source name
ra_targ	230.037166	Observer's specified target RA [deg]
dec_targ	-17.091585	Observer's specified target Dec [deg]
ra_nom	230.03831121998	Nominal RA [deg]
dec_nom	-17.089484321437	Nominal Dec [deg]
roll_nom	76.43724365004	Nominal Roll [deg]
revision	3	Processing version of data
ontime	40011.133610725	[s]
livetime	38788.013047792	Ontime multiplied by DTCOR
l2events	4486271	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	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	40011.133610725	[s]
caldbver	4.9.3	 	l1events	5989760	Number of level 1 events
date	2020-10-25T11:01:41	Date and time of file creation			
revision	3	Processing version of data			

2.1.3 Events

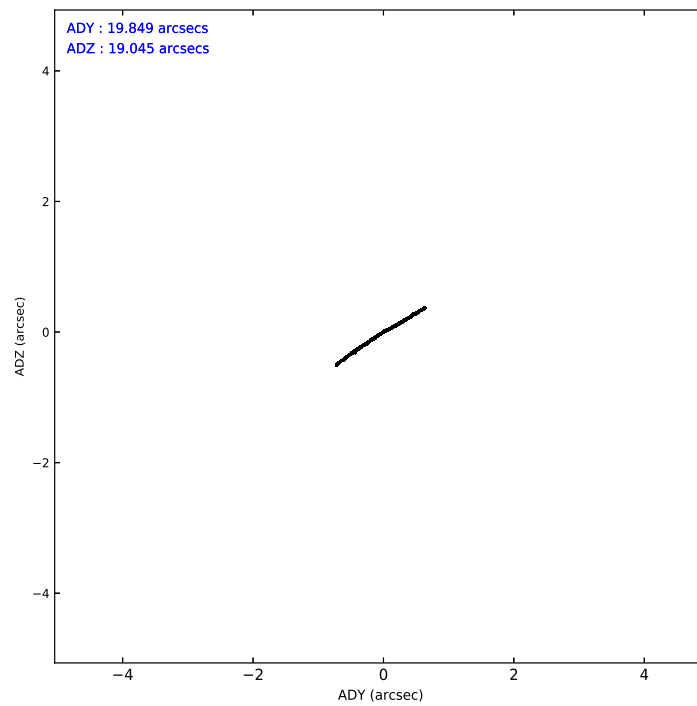
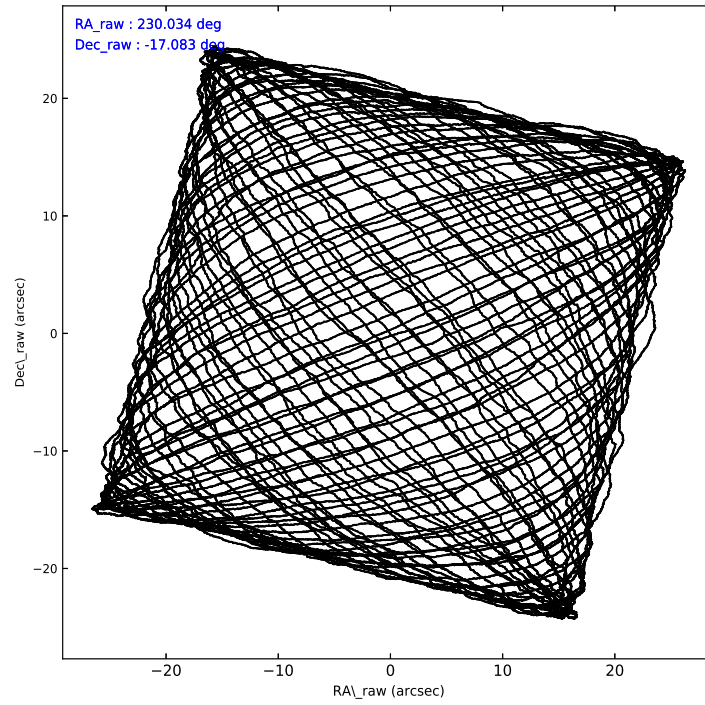
Level 1 Events

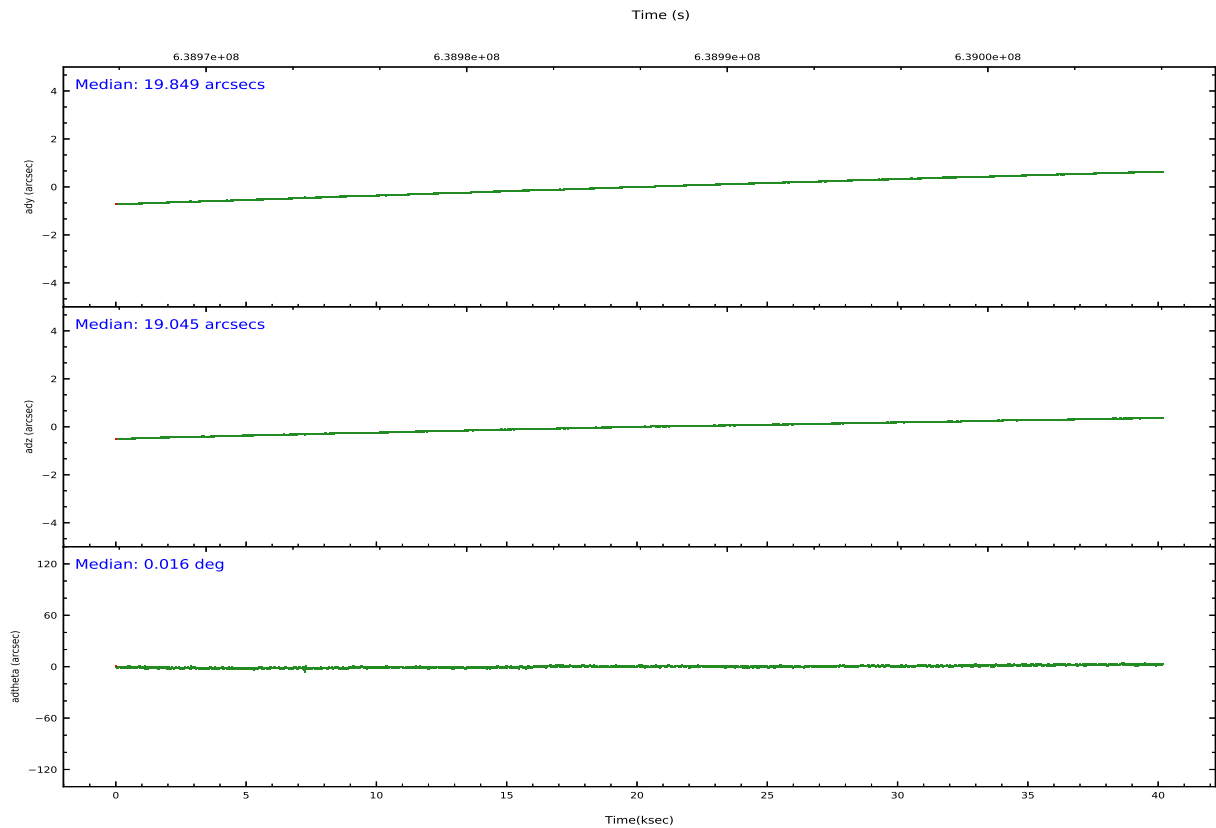
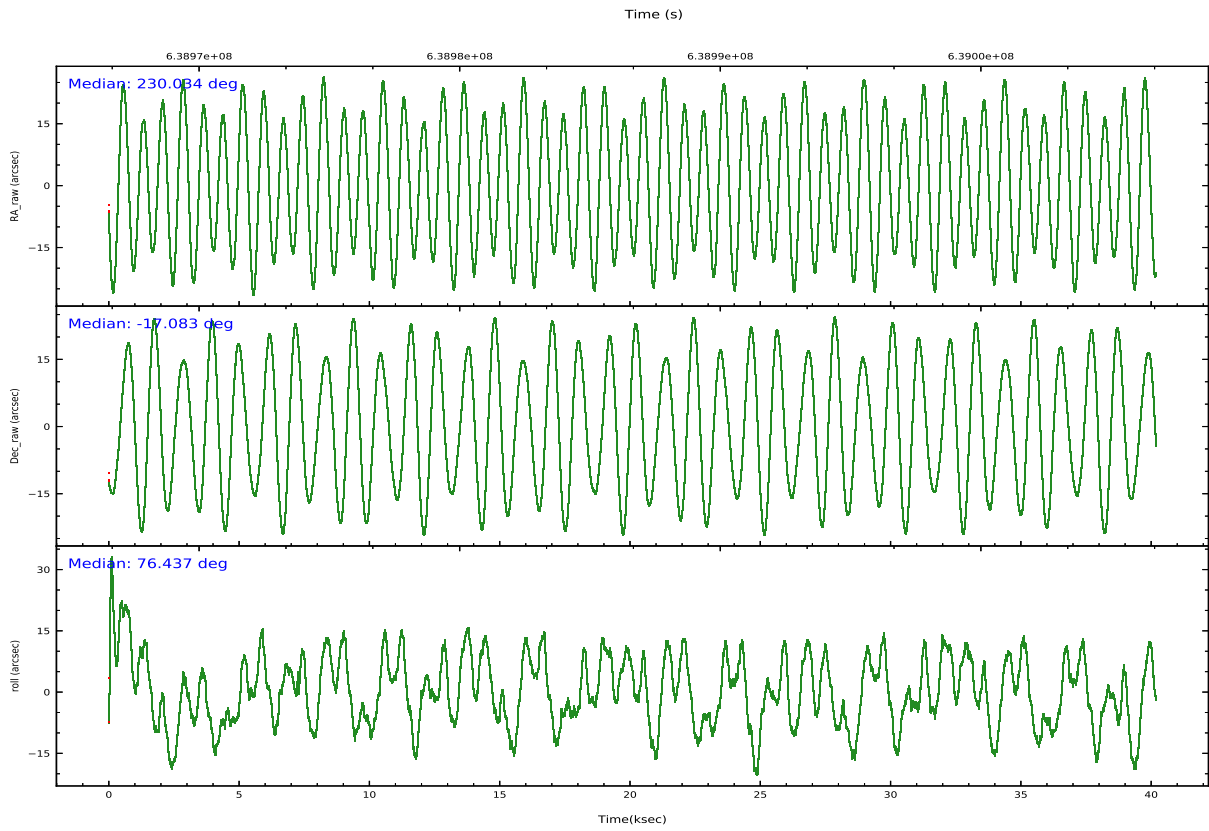
	segment 0
level 1 events	5989760
rejected events	59451
rejected %	0%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar version number	8	8
Detector	HRC-I	HRC-I	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	230.042860	230.03831121998			
[deg] Pointing Dec	-17.108744	-17.089484321437			
[deg] Pointing Roll	76.552780	76.43724365004			
[s] Window start time (MET)	638964069.184000	638964069.184000			
[s] Window stop time (MET)	639014409.184000	639014409.184000			
[mm] SIM focus pos	-1.040293	-1.038866356238299			
[mm] SIM defocus	0	0.001426264420575141			
[mm] SIM translation stage pos	126.985494	126.9829799899862			
[mm] SIM translation stage offset	0	0.002508901615314585			
[s] Observation start time (MET)	638966726.184000	638966349.67489			
Observation start date	2018-04-01T10:44:17	2018-04-01T10:39:09			
[s] Observation end time (MET)	639006726.184000	639007187.7273			
Observation end date	2018-04-01T21:50:57	2018-04-01T21:59:47			

2.3 Aspect





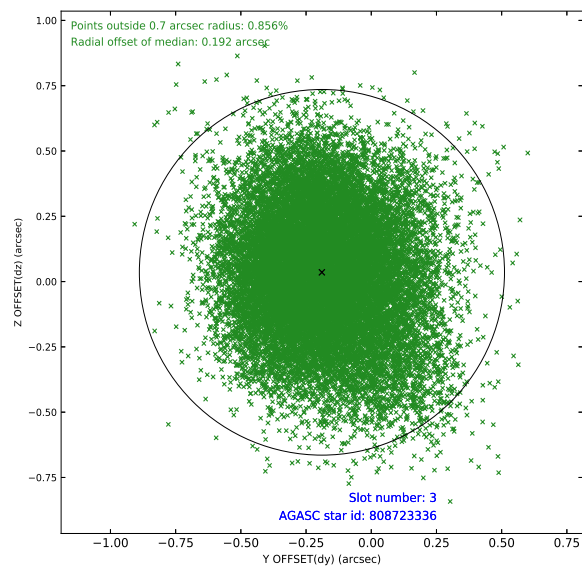
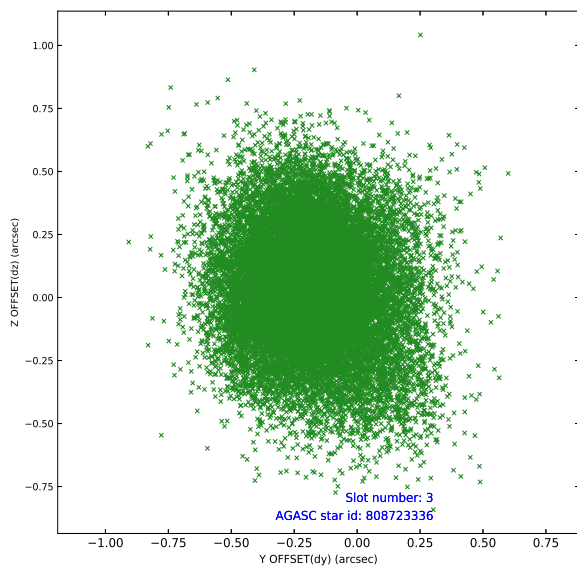
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		HRC-I-1	7.05	9803	1.000	-0.134	0.047	0.022	0.033	0.000000	0.000000	-776.08	-1307
1	FID		HRC-I-2	7.07	9802	1.000	0.266	-0.110	0.022	0.030	0.000000	0.000000	836.87	-1309
2	FID		HRC-I-4	7.06	9801	1.000	-0.018	-0.024	0.020	0.033	0.000000	0.000000	1267.22	994
3	GUIDE	used	808723336	9.98	19155	1.000	-0.189	0.035	0.334	0.539	229.644169	-16.594363	1479.52	1768
4	GUIDE	used	808724104	9.51	19563	1.000	-0.142	-0.259	0.278	0.449	229.979136	-16.666557	1496.87	584
5	GUIDE	used	809243944	9.71	19460	1.000	-0.069	-0.142	0.291	0.507	229.371532	-17.526378	-2002.46	1890
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	809372152	9.46	19571	1.000	0.384	0.372	0.267	0.434	230.095696	-17.693960	-2006.65	-665

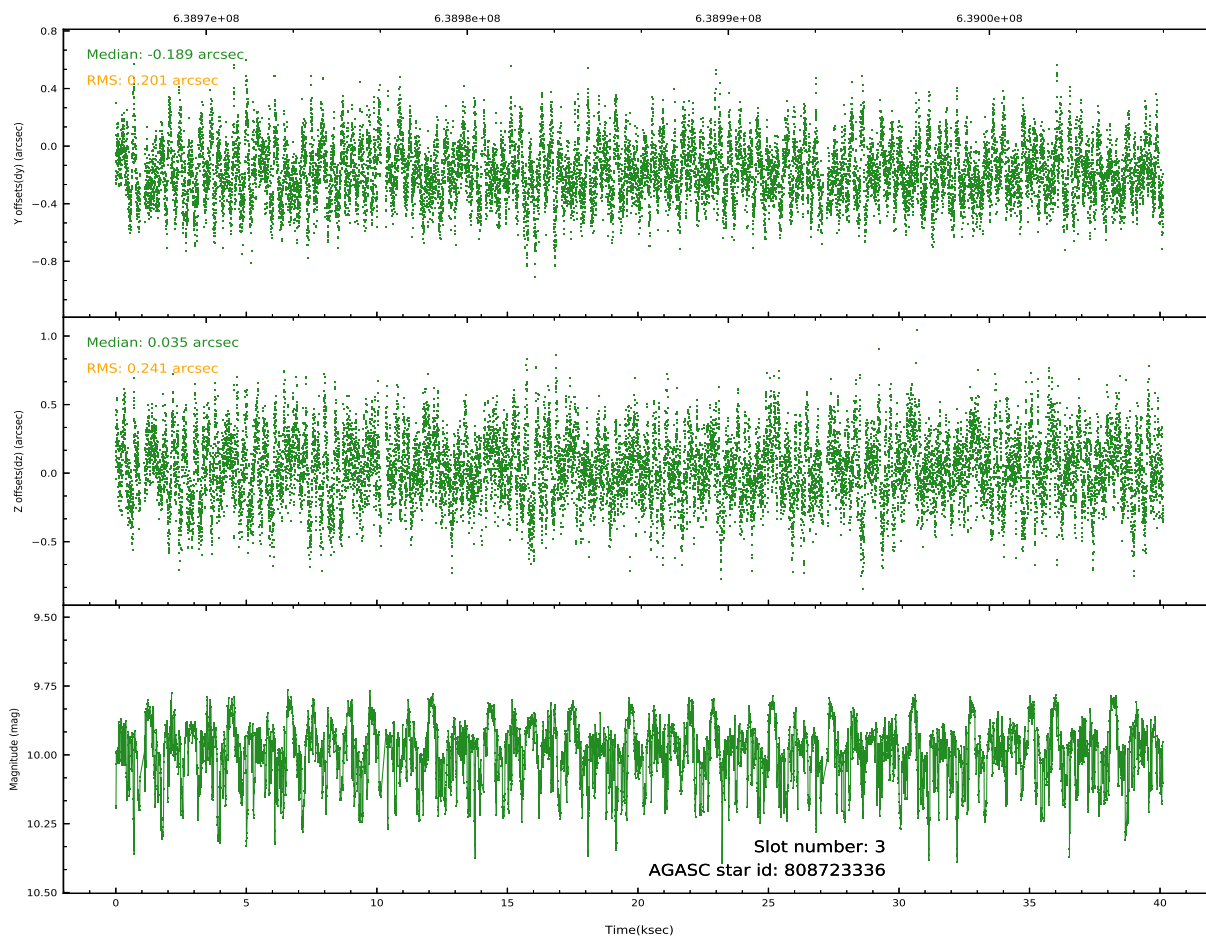
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2.4 Star Slots

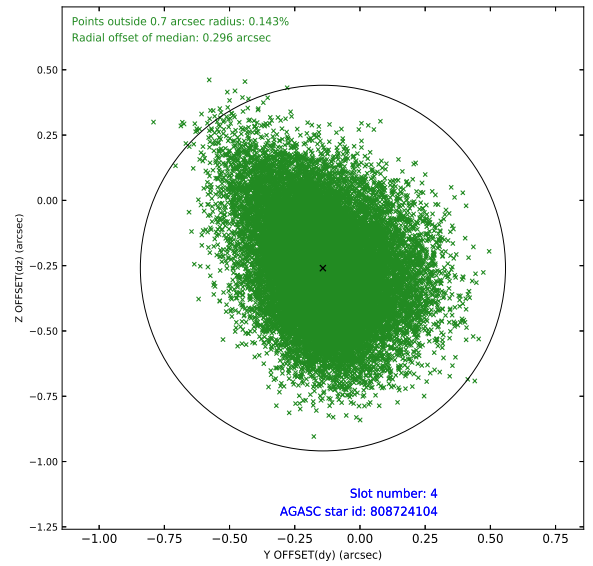
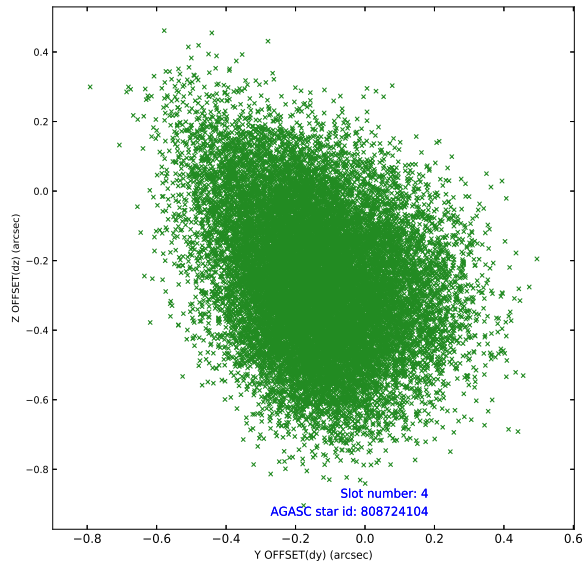
2.4.1 Slot 3



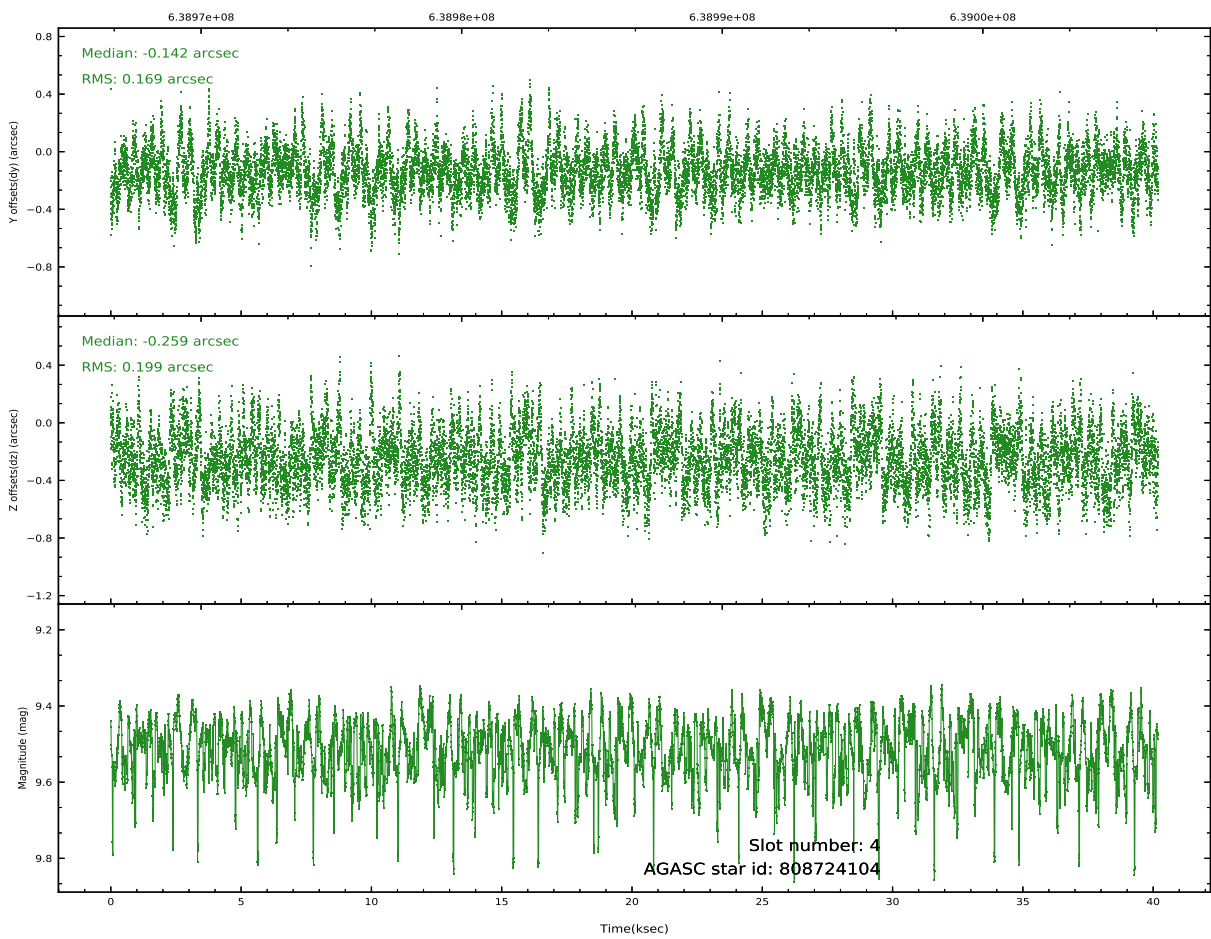
Time (s)



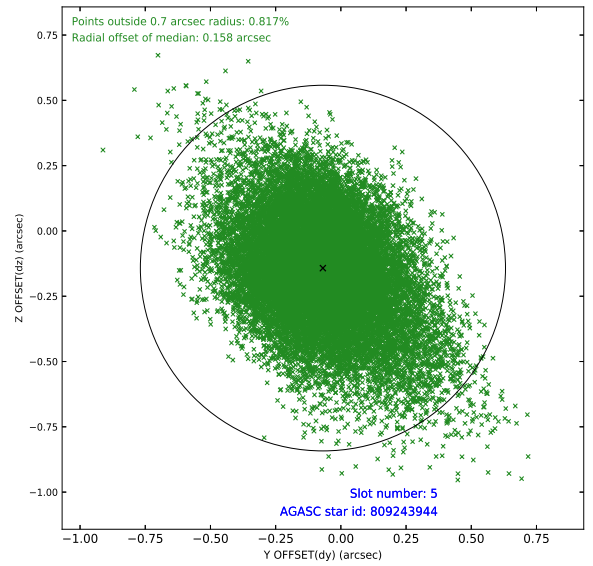
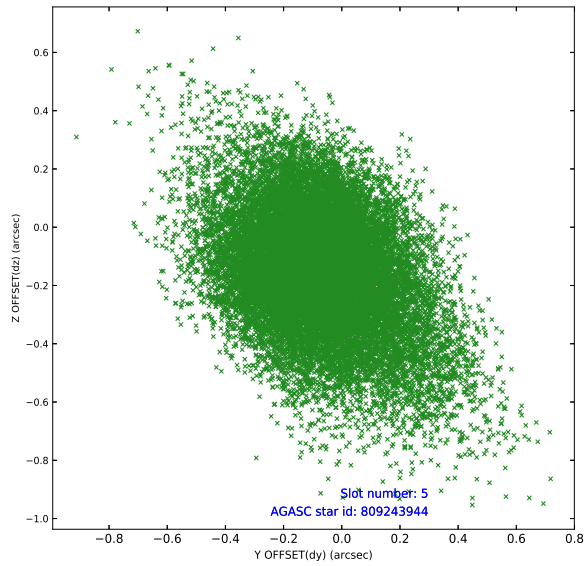
2.4.2 Slot 4



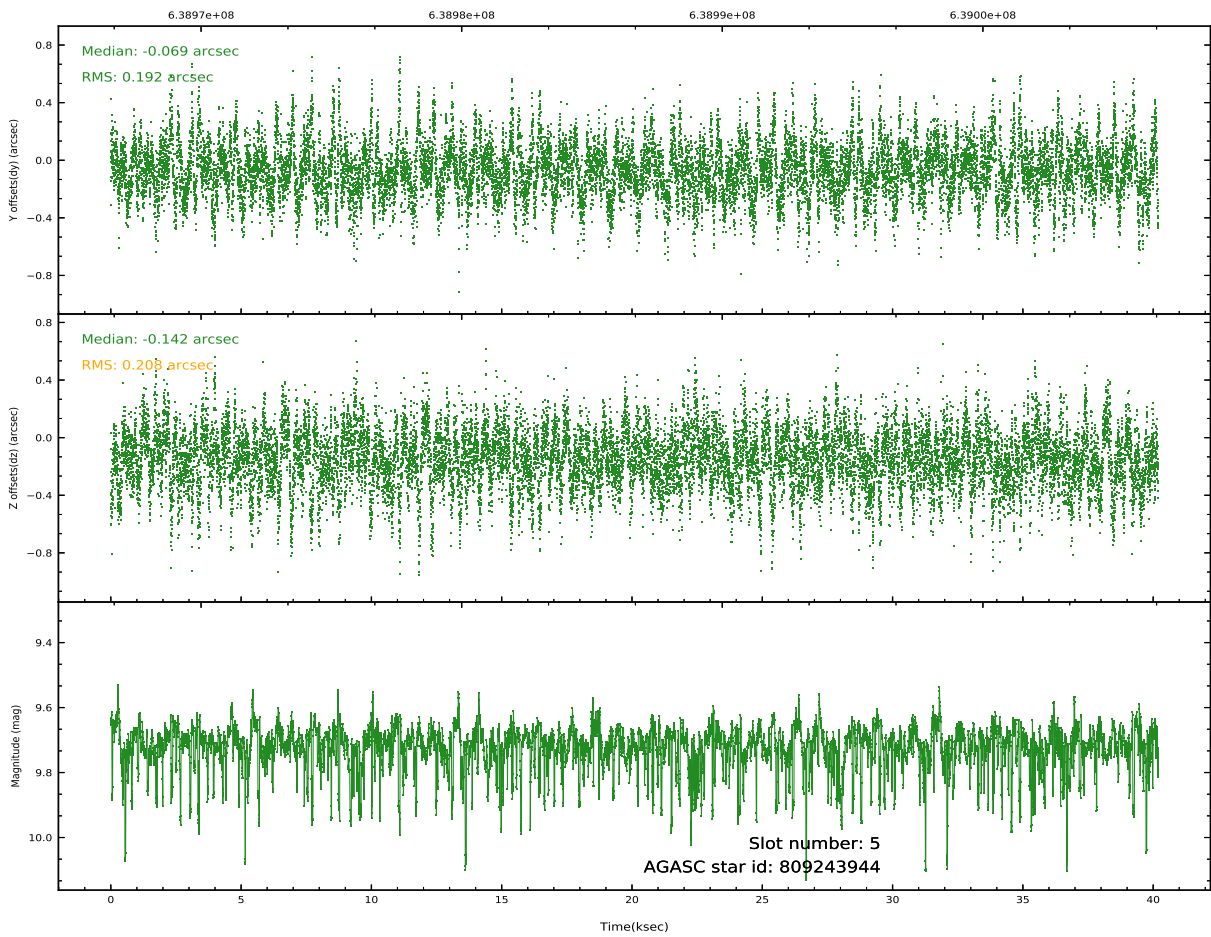
Time (s)



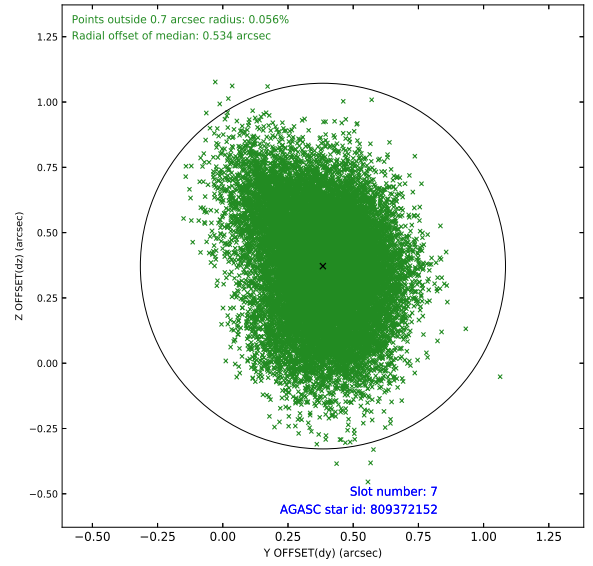
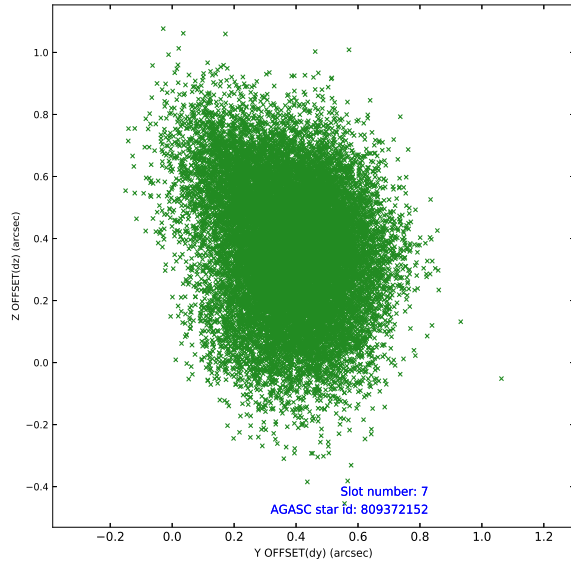
2.4.3 Slot 5



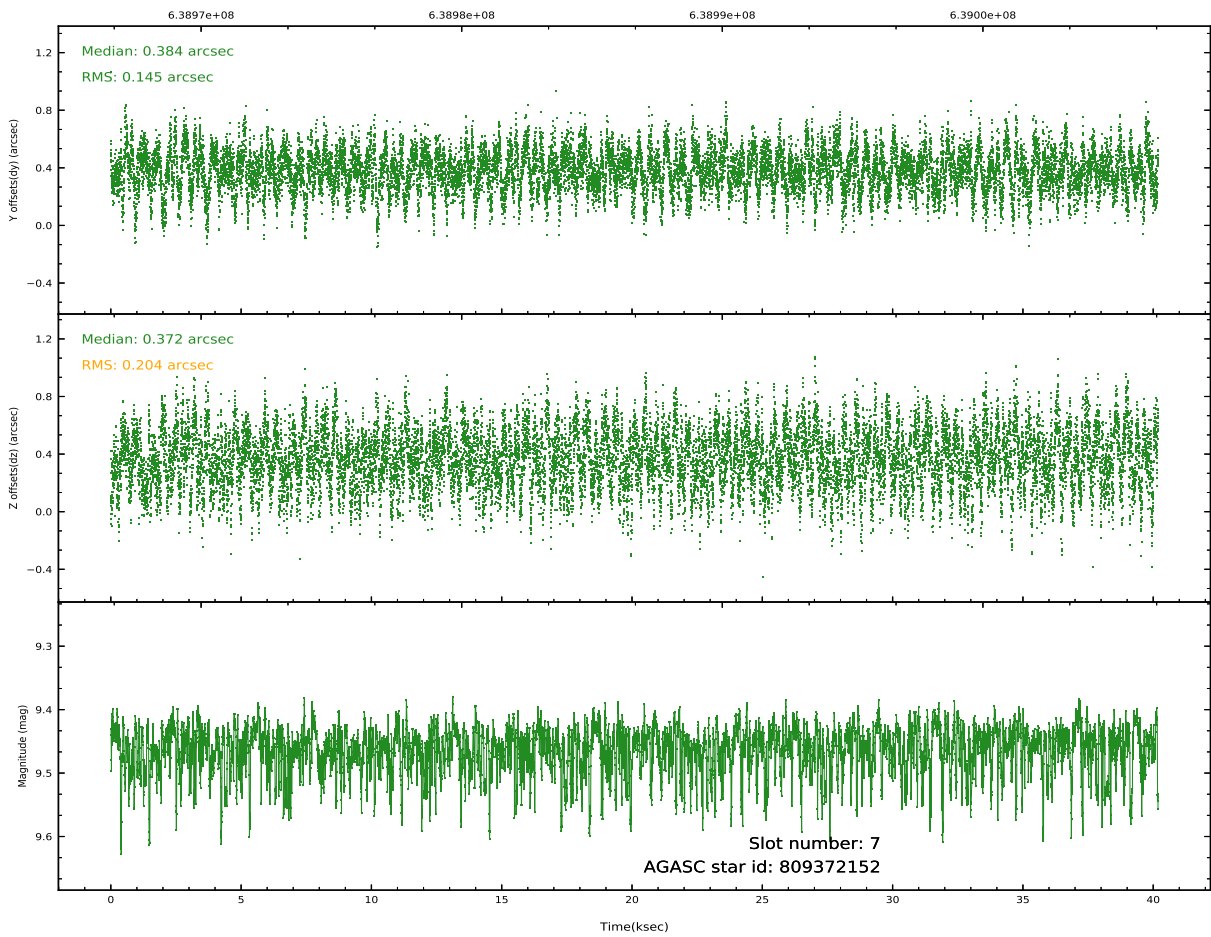
Time (s)



2.4.4 Slot 7

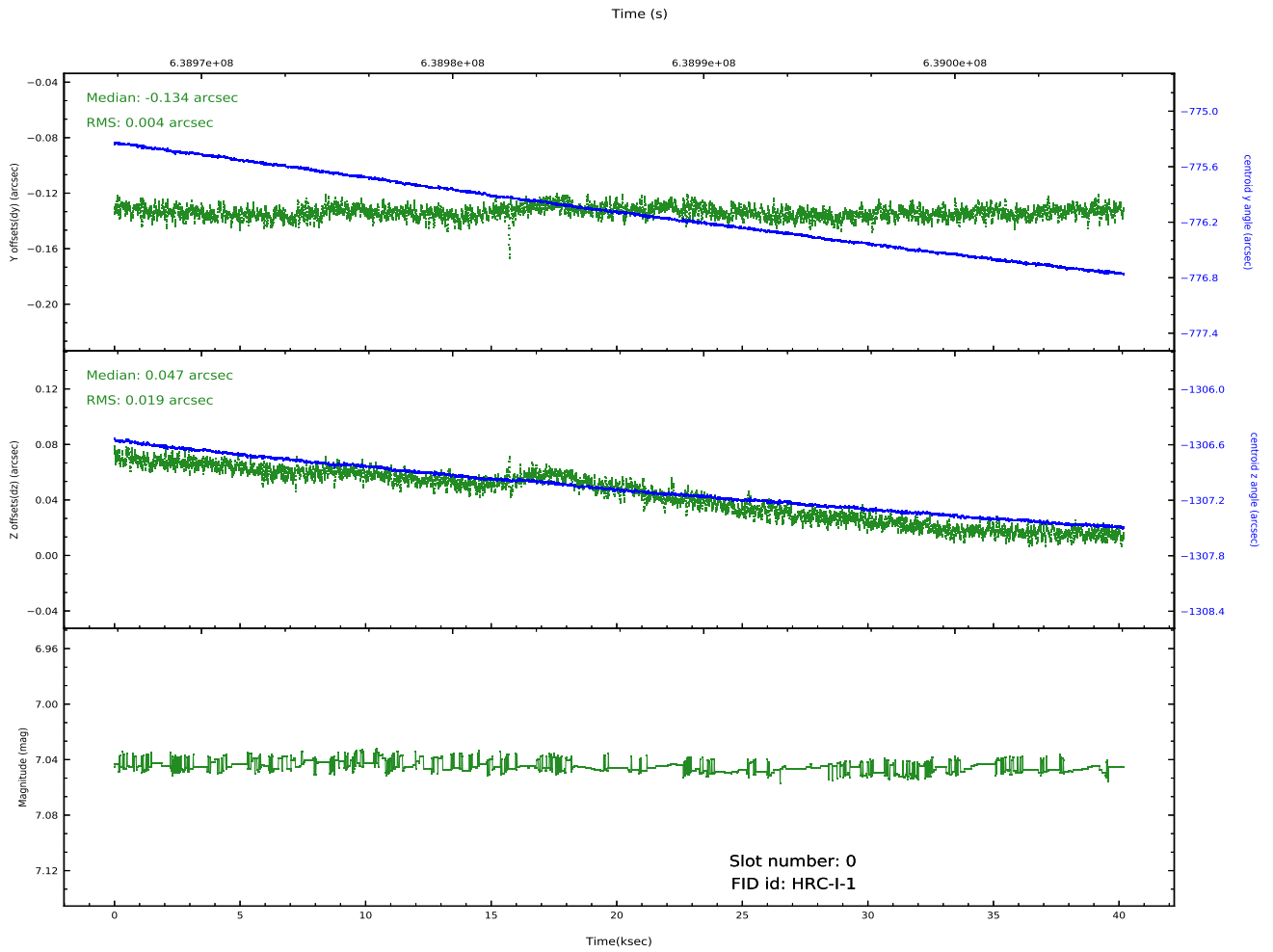
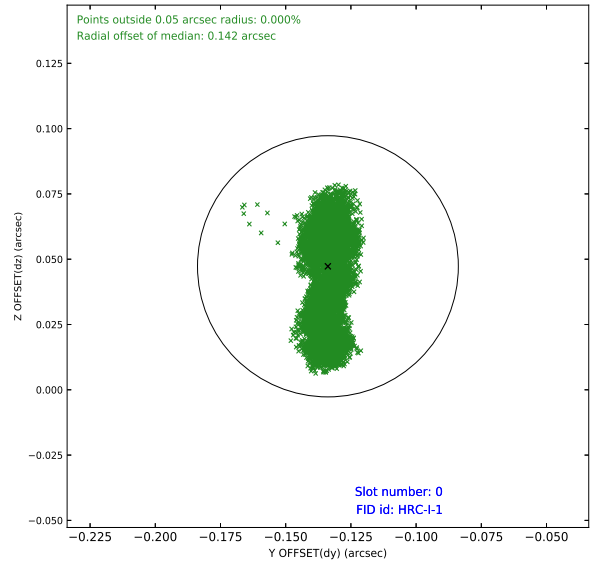
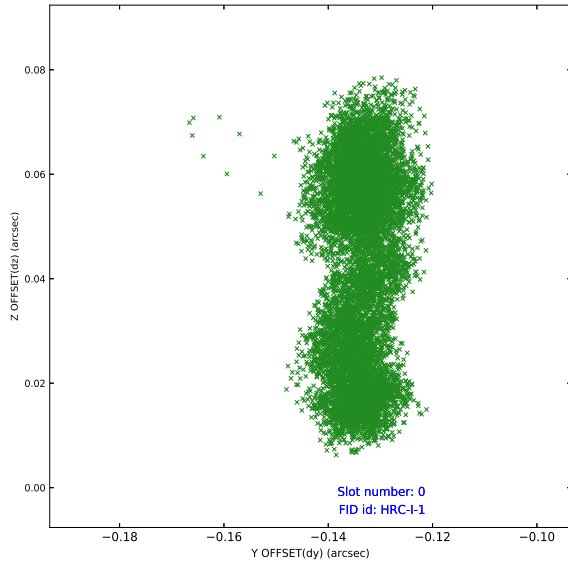


Time (s)

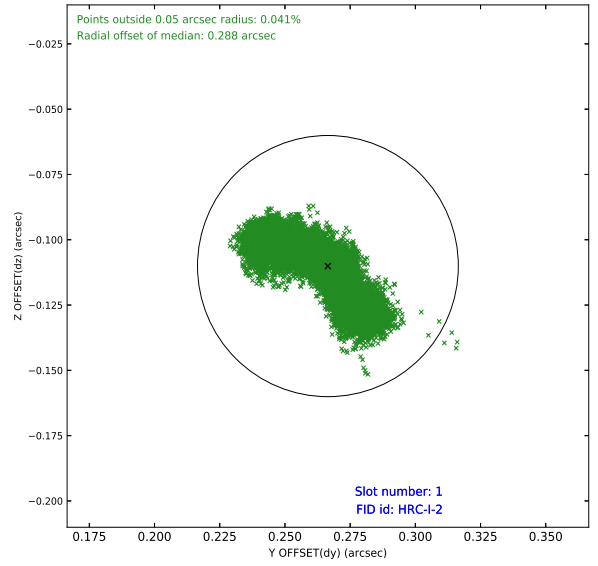
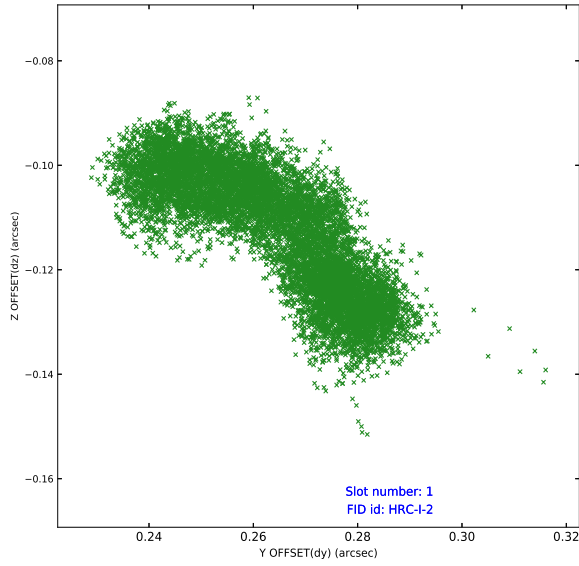


2.5 FID Slots

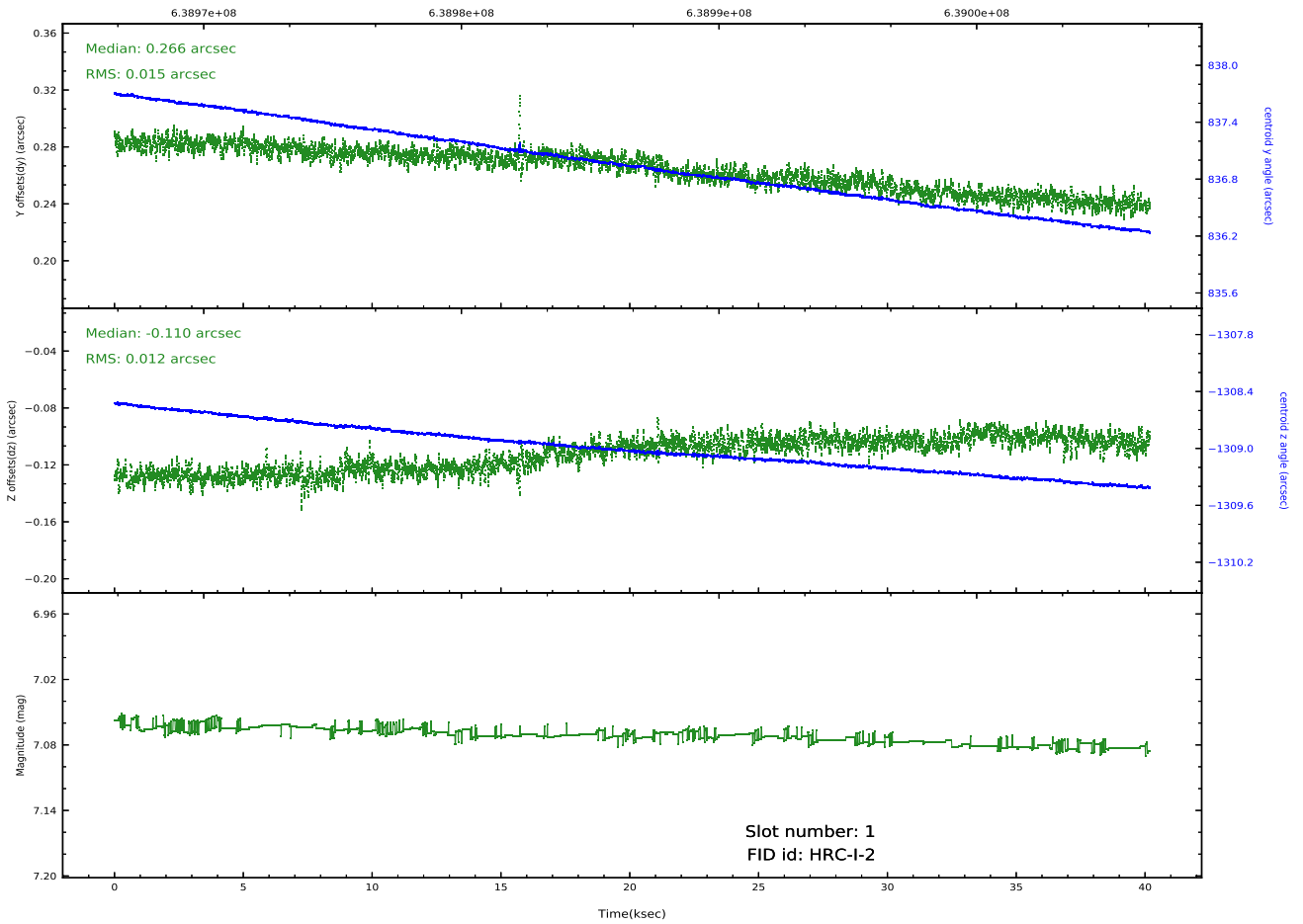
2.5.1 Slot 0



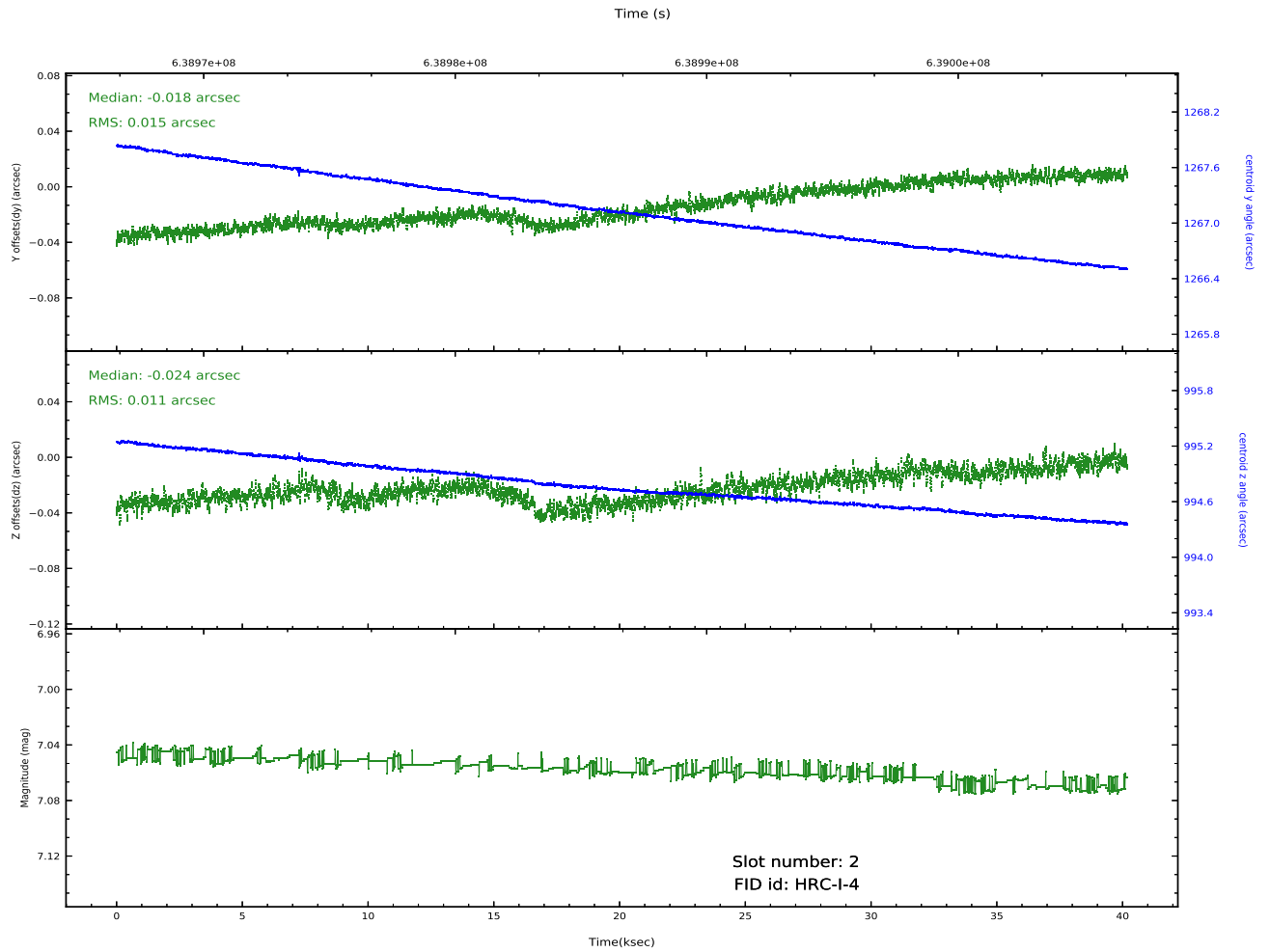
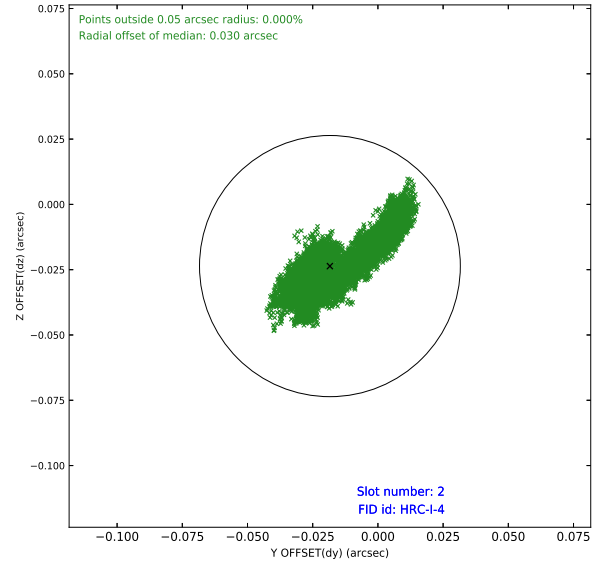
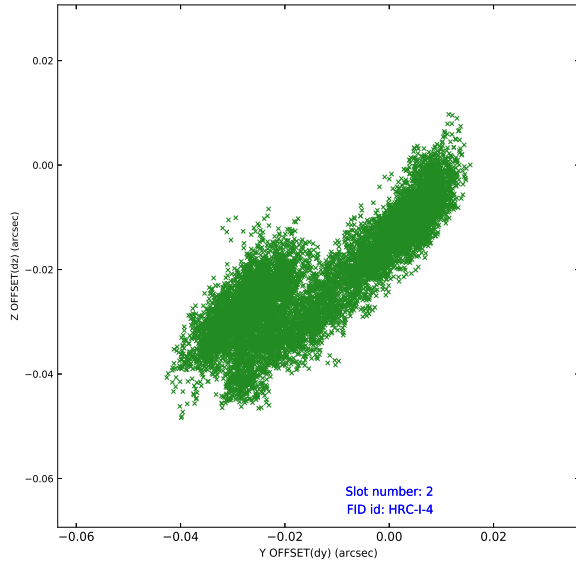
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.011133610964

A.2 Comments

This is an observation of a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the target.

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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. This correction should be applied before `sso_freeze` is used on the data.

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The guide star in slot 6 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.

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Window constraint met.