

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5544 - L2 Version 5
Chandra X-Ray Center

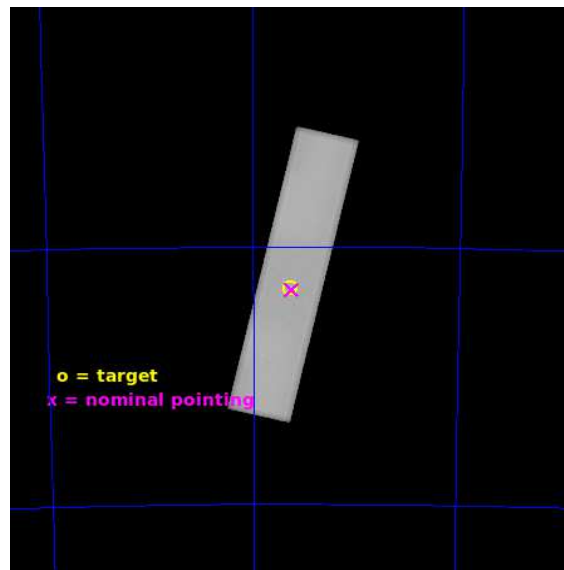
L2 Processing Date : Oct 12 2020

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1 Front

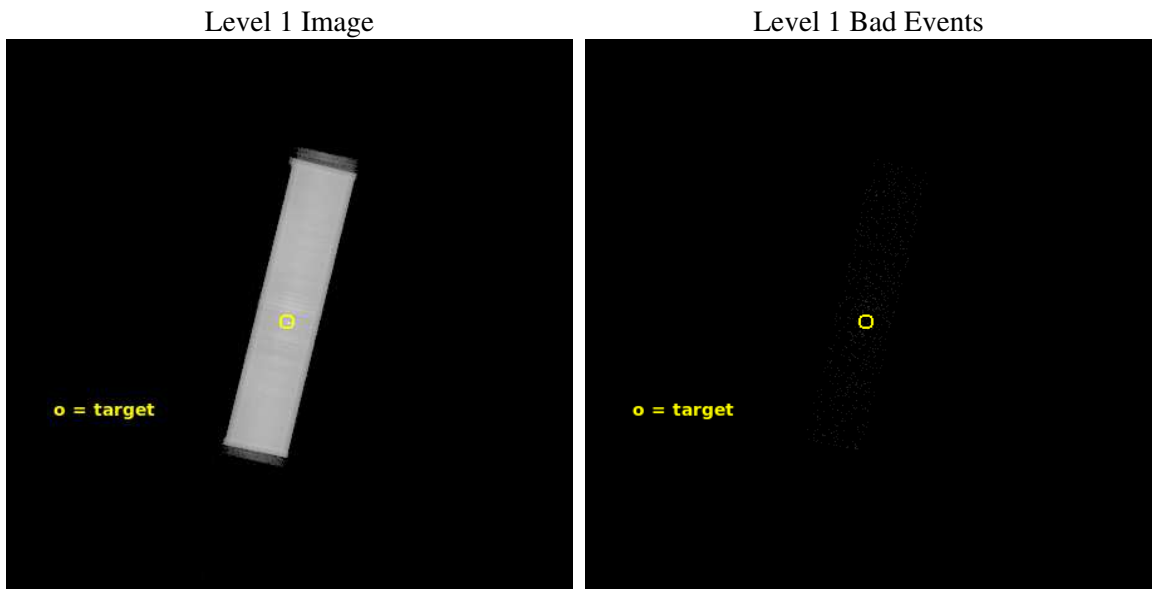
seq_num	500535	Sequence number
obs_id	5544	Observation id
title	Search for Sub-Millisecond Pulsars in 47 Tuc	Proposal title
observer	Prof. Robert Rutledge	Principal investigator
object	47 Tuc	Source name
ra_targ	6.021667	Observer's specified target RA [deg]
dec_targ	-72.080528	Observer's specified target Dec [deg]
ra_nom	6.0136726686739	Nominal RA [deg]
dec_nom	-72.083390720713	Nominal Dec [deg]
roll_nom	283.14325864406	Nominal Roll [deg]
revision	5	Processing version of data
ontime	50140.183570951	[s]
livetime	49829.004092301	Ontime multiplied by DTCOR
l2events	2919163	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	50000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	50140.183570951	[s]
caldbver	4.9.2	 	l1events	3954359	Number of level 1 events
date	2020-10-12T06:38:50	Date and time of file creation			
revision	5	Processing version of data			

2.1.3 Events

Level 1 Events

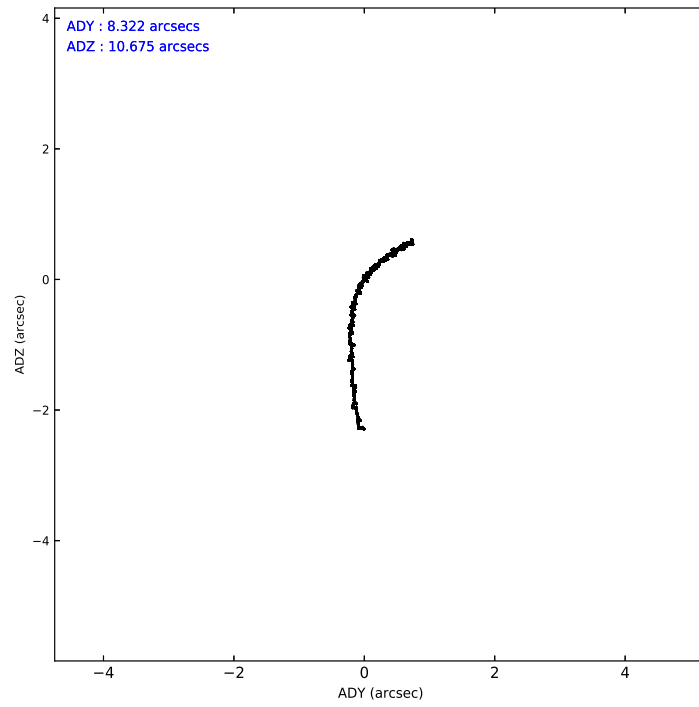
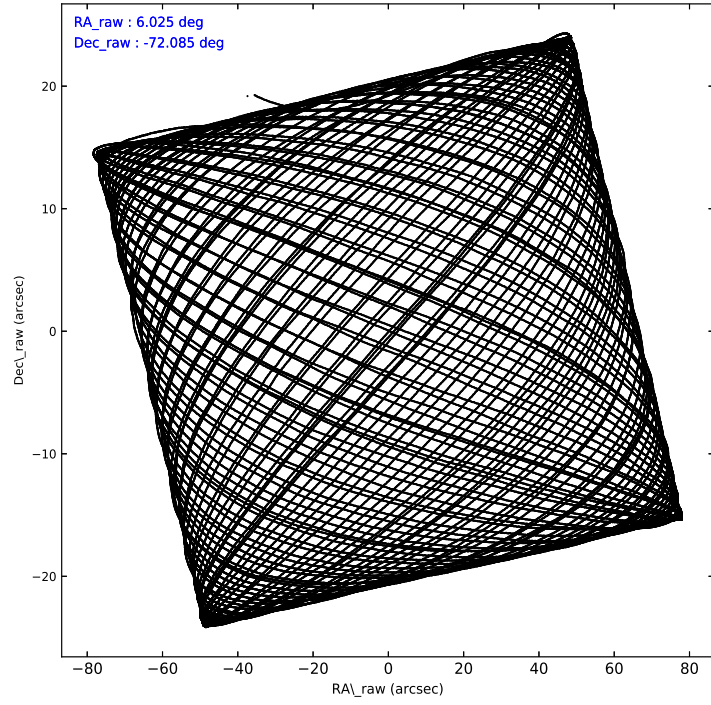
	segment 1	segment 2	segment 3
level 1 events	4523	3948419	1417
rejected events	95	63067	31
rejected %	2%	1%	2%

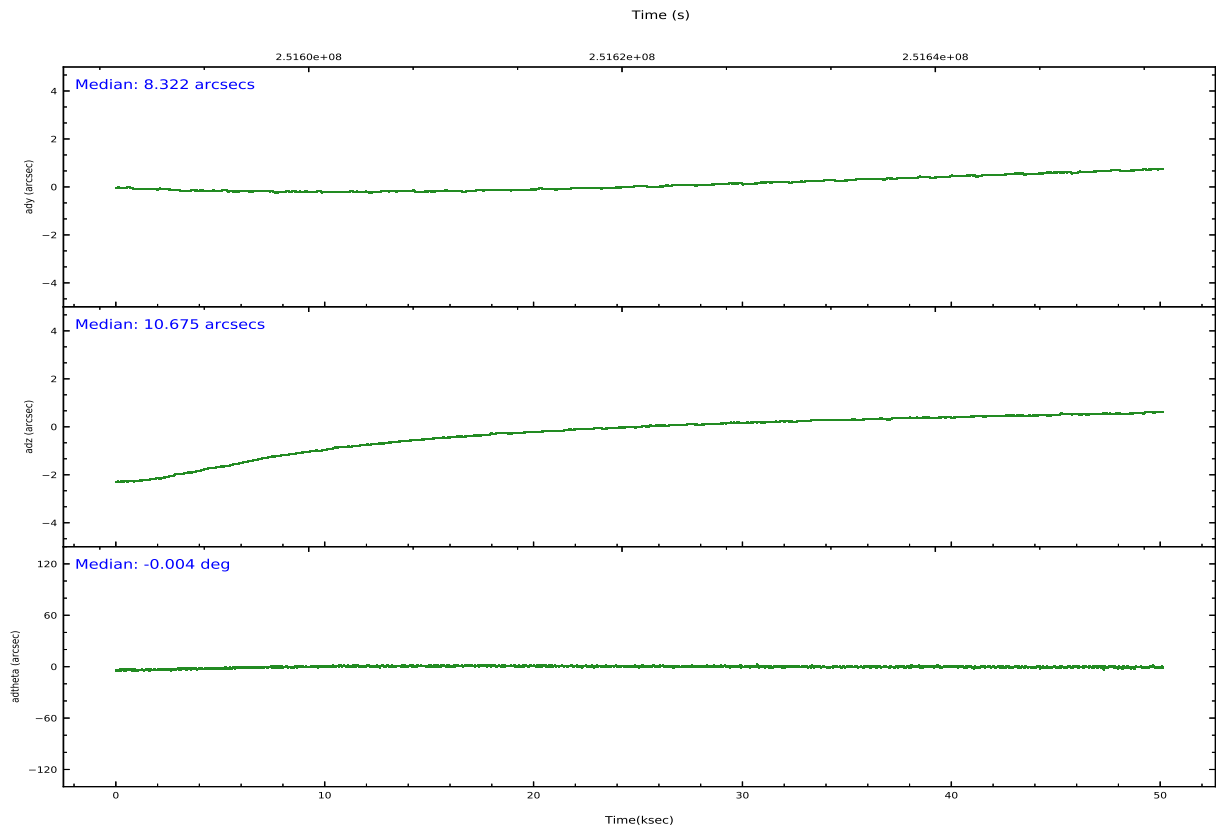
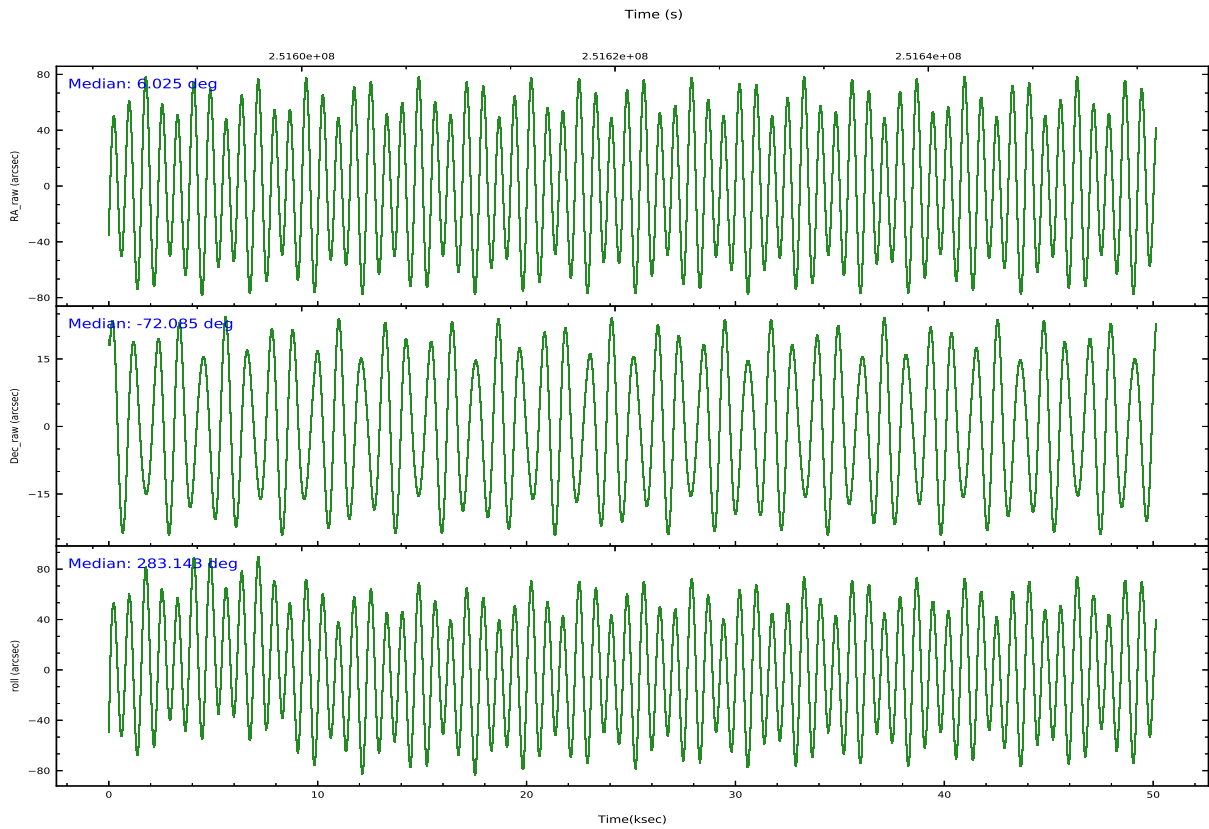
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-S	HRC-S
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	5.957889	6.0136726686739
[deg] Pointing Dec	-72.065231	-72.083390720713
[deg] Pointing Roll	283.014247	283.14325864406
[mm] SIM focus pos	-1.533336	-1.526339935833849
[mm] SIM defocus	7.710433287538843e-07	0.006996703570447904
[mm] SIM translation stage pos	250.455976	250.466033080201
[mm] SIM translation stage offset	0	-0.01005468664627074
[s] Observation start time (MET)	251595915.184000	251594783.85085
Observation start date	2005-12-21T23:44:11	2005-12-21T23:26:23
[s] Observation end time (MET)	251645915.184000	251646920.47826
Observation end date	2005-12-22T13:37:31	2005-12-22T13:55:20

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

2.3 Aspect





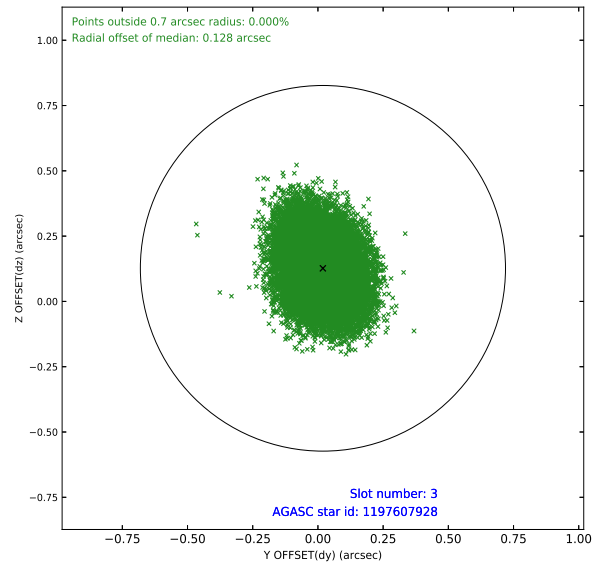
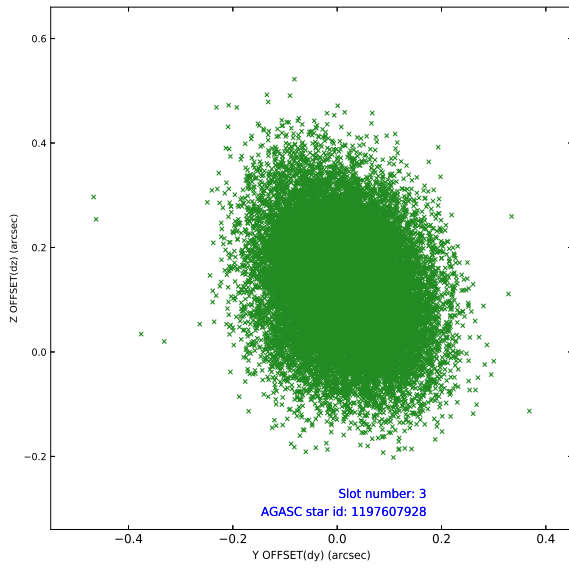
Slot Statistics

	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	m
	FID		HRC-S-1	7.01	12229	1.000	0.120	-0.190	0.017	0.028	0.000000	0.000000	-1162.62	-4
	FID		HRC-S-2	7.01	12229	1.000	0.175	-0.115	0.008	0.014	0.000000	0.000000	1237.00	-4
	FID		HRC-S-3	7.02	12229	1.000	0.095	0.003	0.021	0.033	0.000000	0.000000	-1165.27	5
	GUIDE	used	1197607928	9.62	24443	1.000	0.019	0.127	0.136	0.222	7.837743	-72.165759	851.03	19
	GUIDE	used	1197620848	10.02	24430	1.000	-0.124	-0.058	0.182	0.315	3.913465	-71.739620	-1622.87	-19
	BAD	unused	1197635184	0.00	0	-nan	0.000	0.000	56.328	59.350	6.018453	-72.095535	71.80	
	GUIDE	used	1197621088	9.94	24342	1.000	-0.026	-0.029	0.159	0.260	3.823480	-72.180366	-84.11	-23
	GUIDE	used	1198000776	9.89	24430	1.000	0.135	-0.035	0.170	0.275	4.972441	-72.805451	2369.34	-16

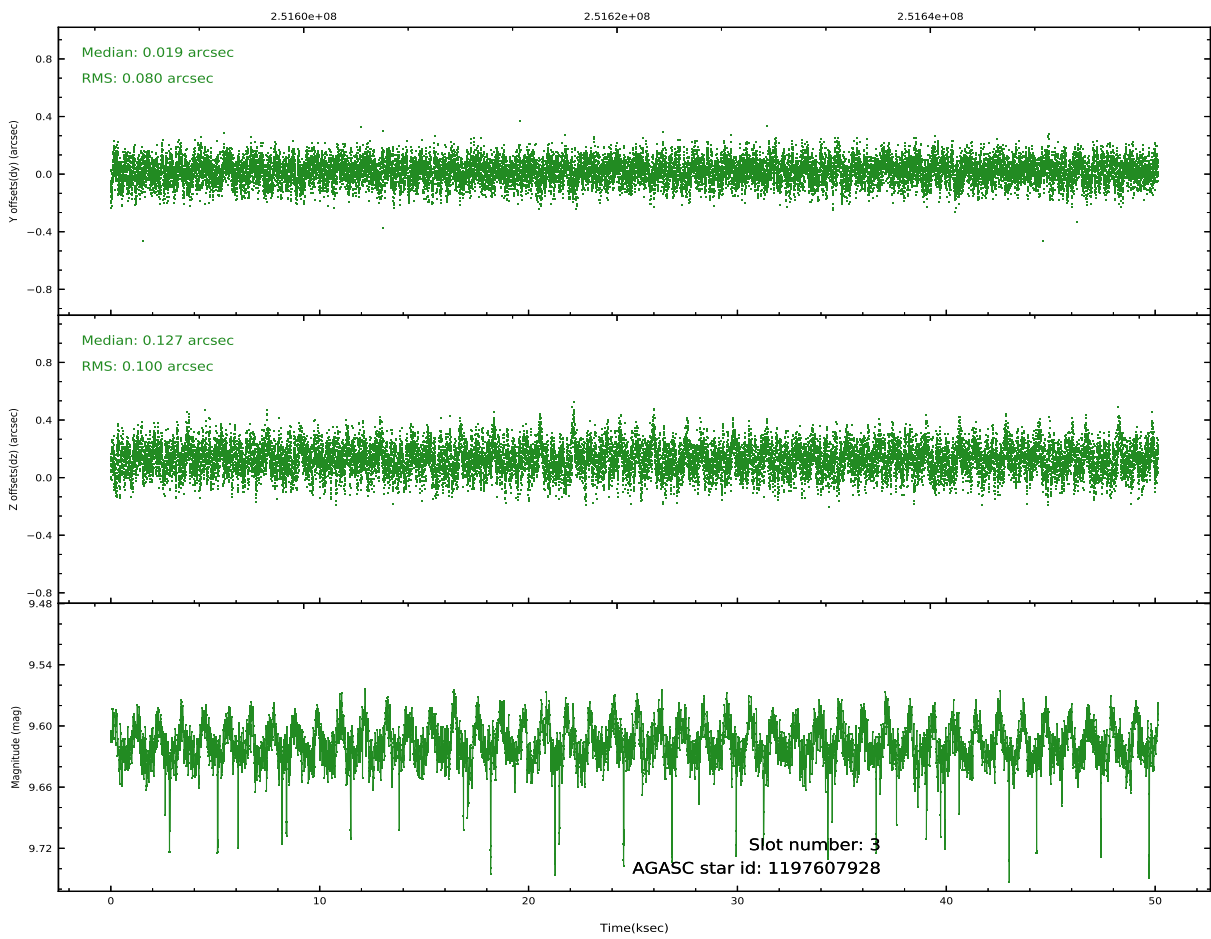
∞

2.4 Star Slots

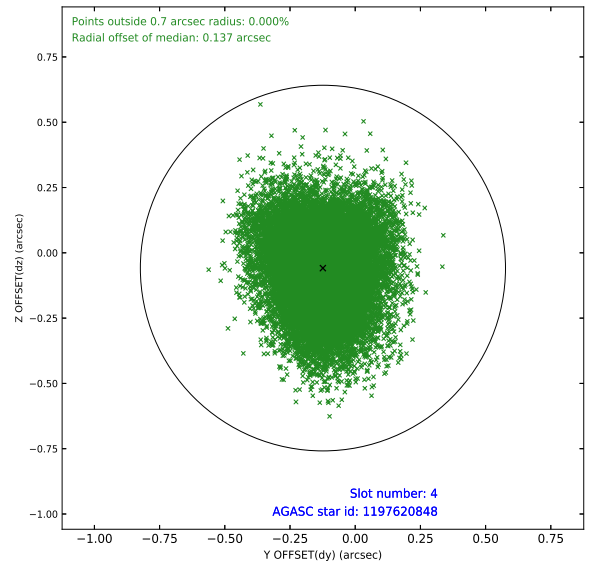
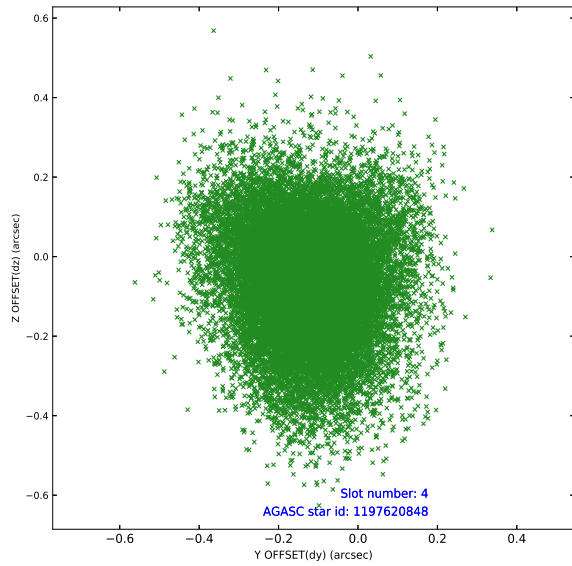
2.4.1 Slot 3



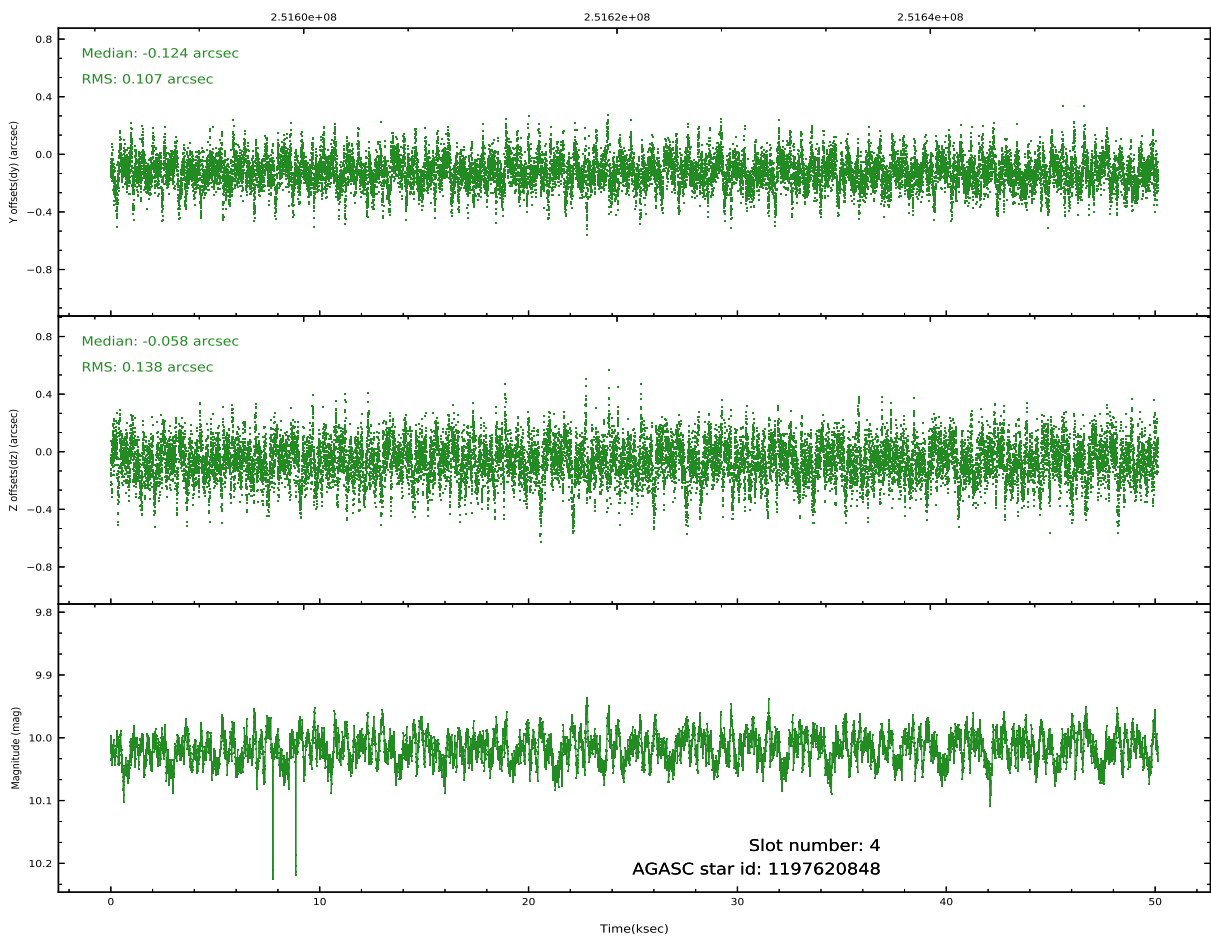
Time (s)



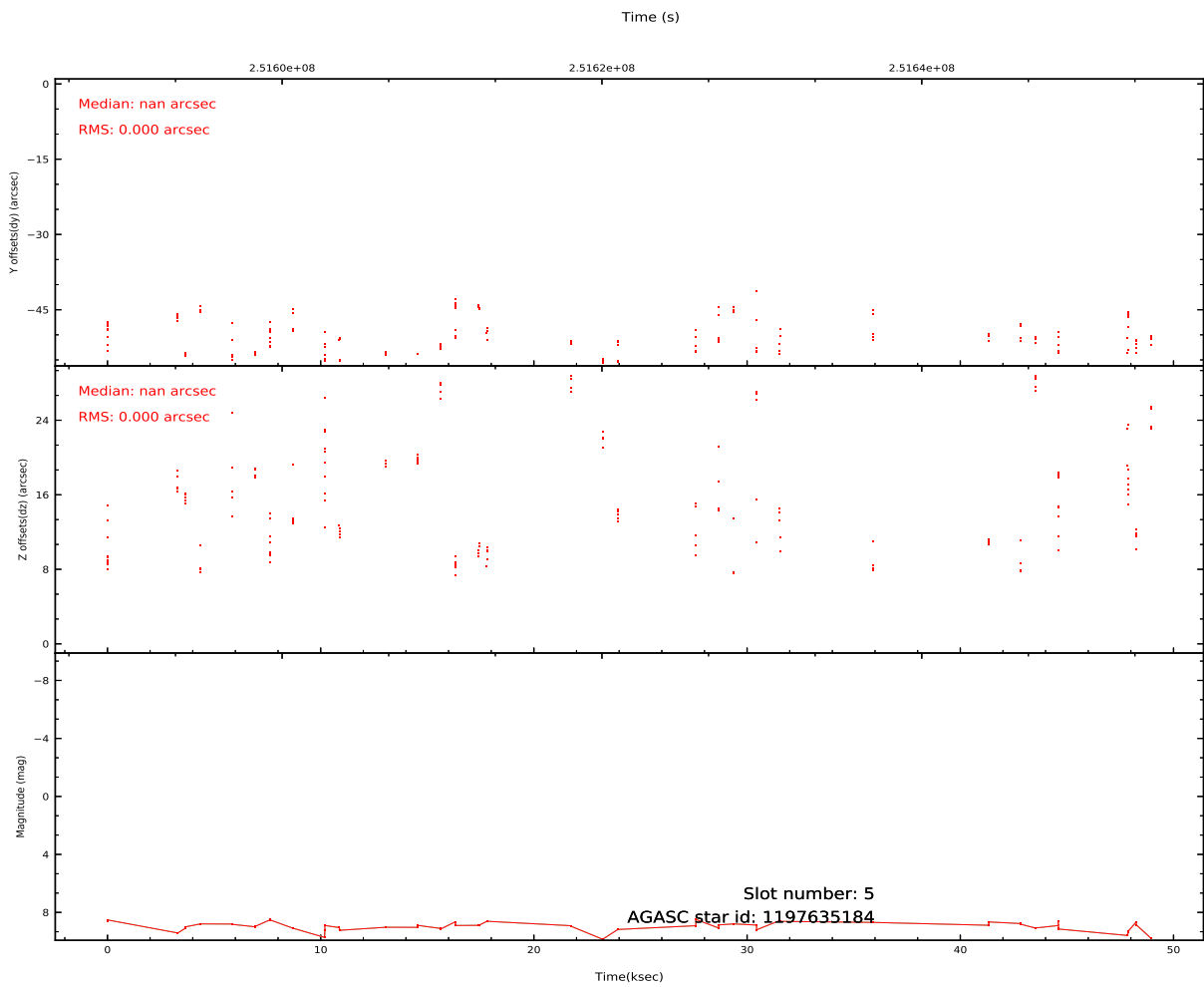
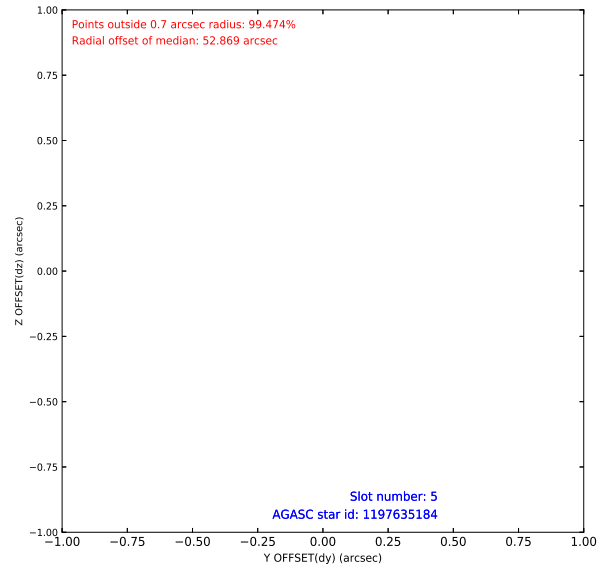
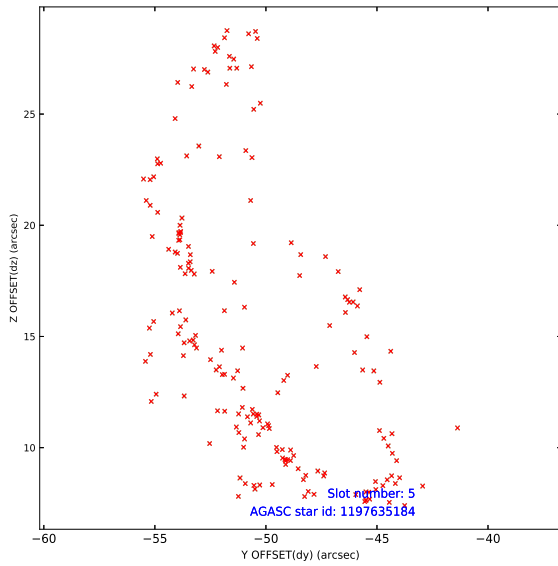
2.4.2 Slot 4



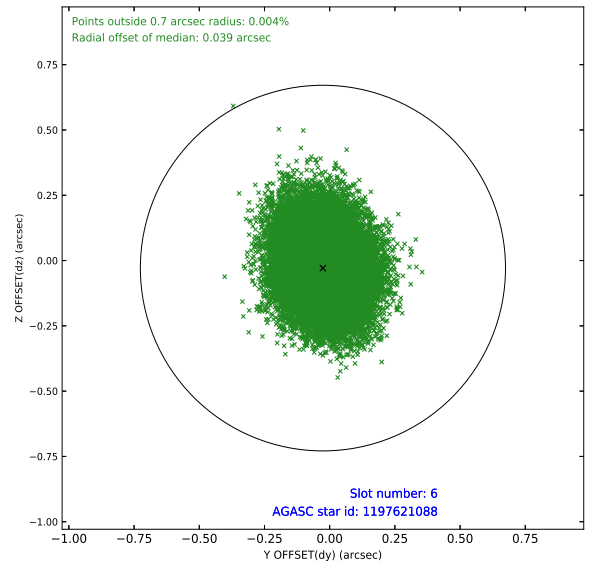
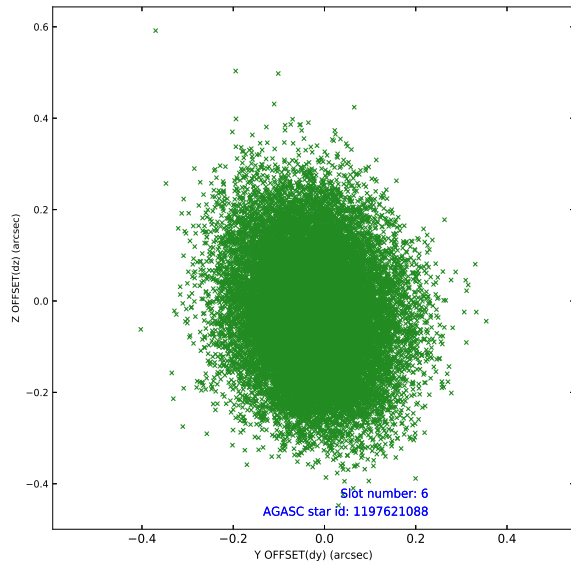
Time (s)



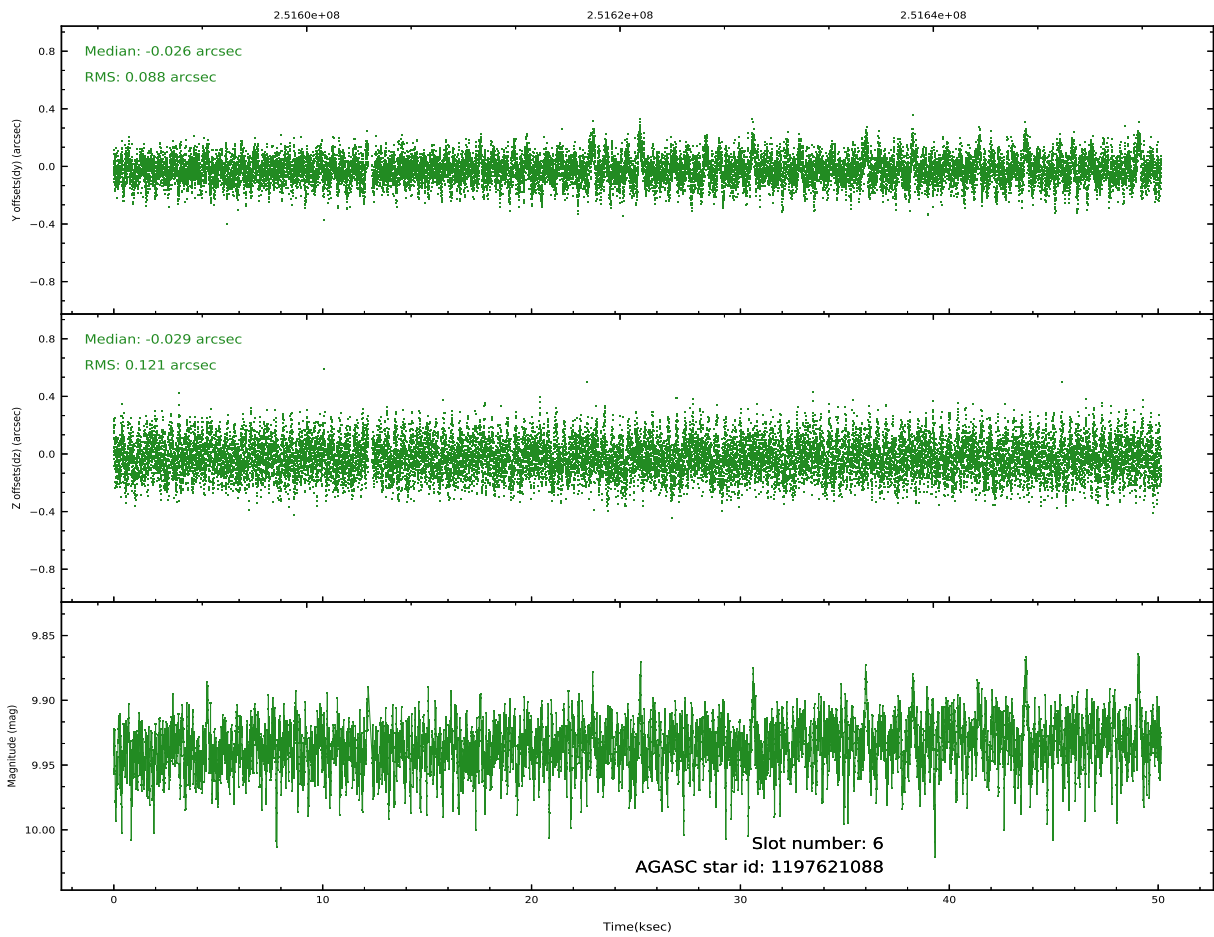
2.4.3 Slot 5



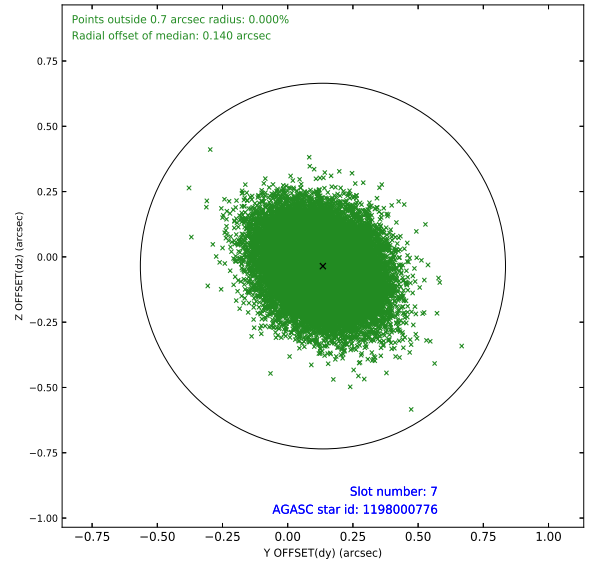
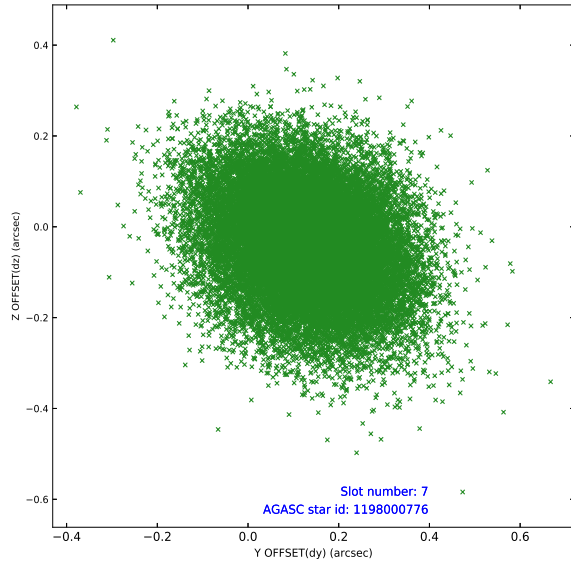
2.4.4 Slot 6



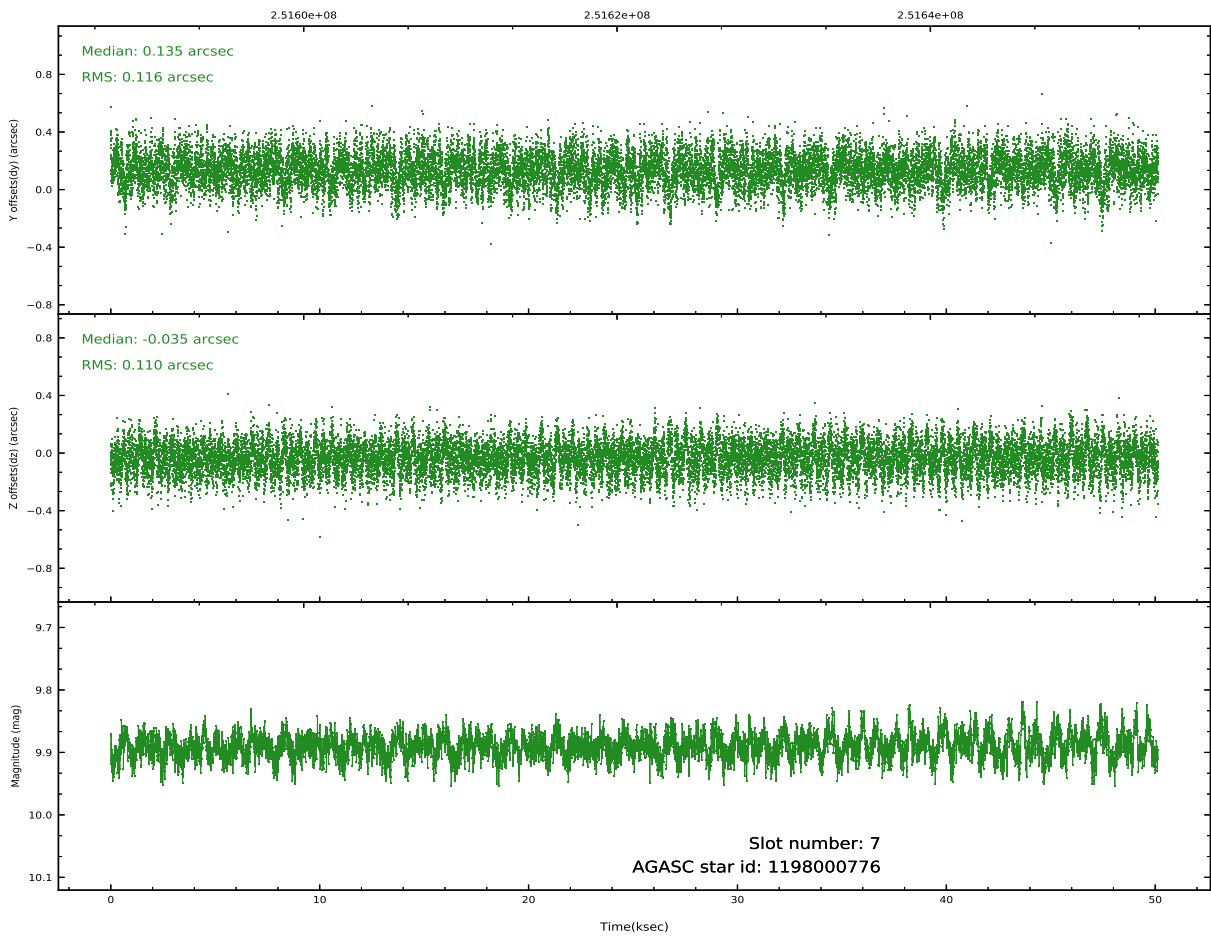
Time (s)



2.4.5 Slot 7

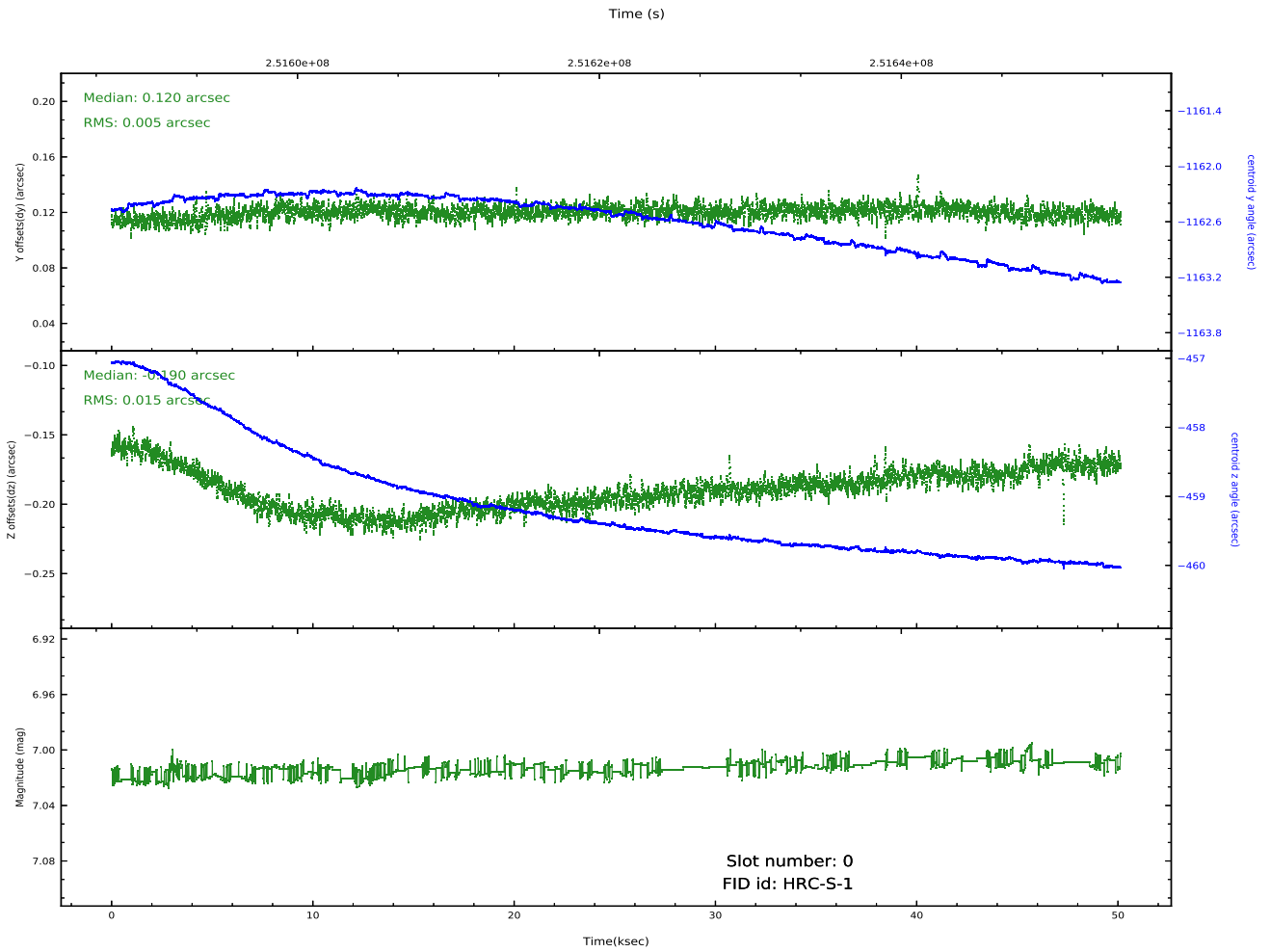
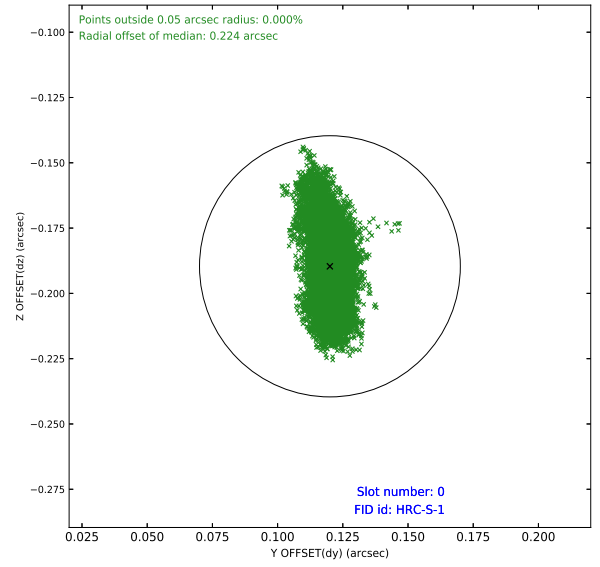
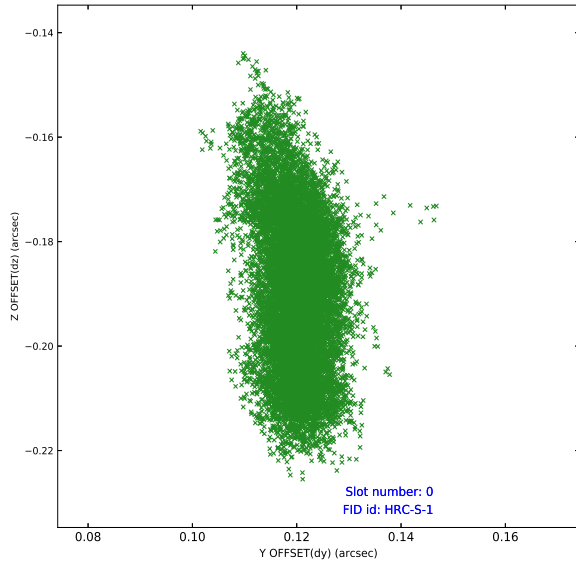


Time (s)

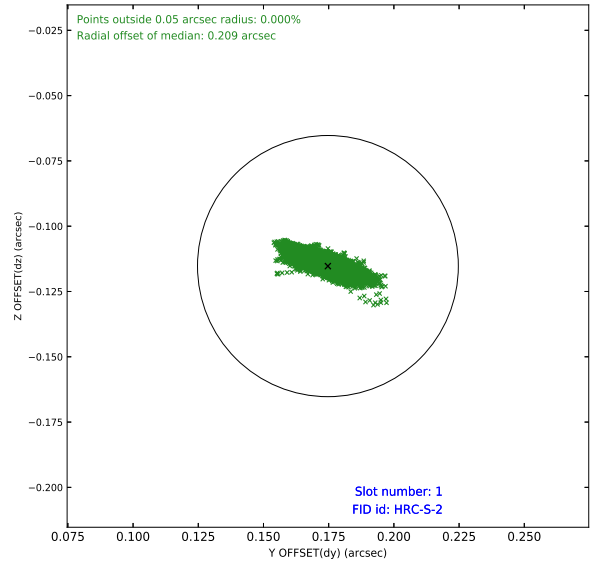
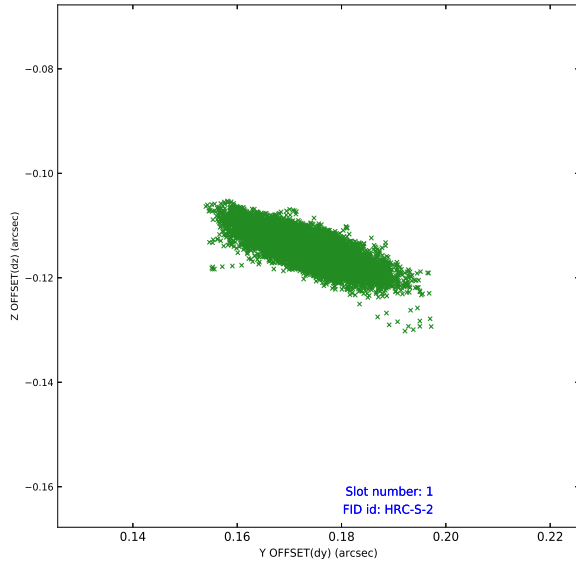


2.5 FID Slots

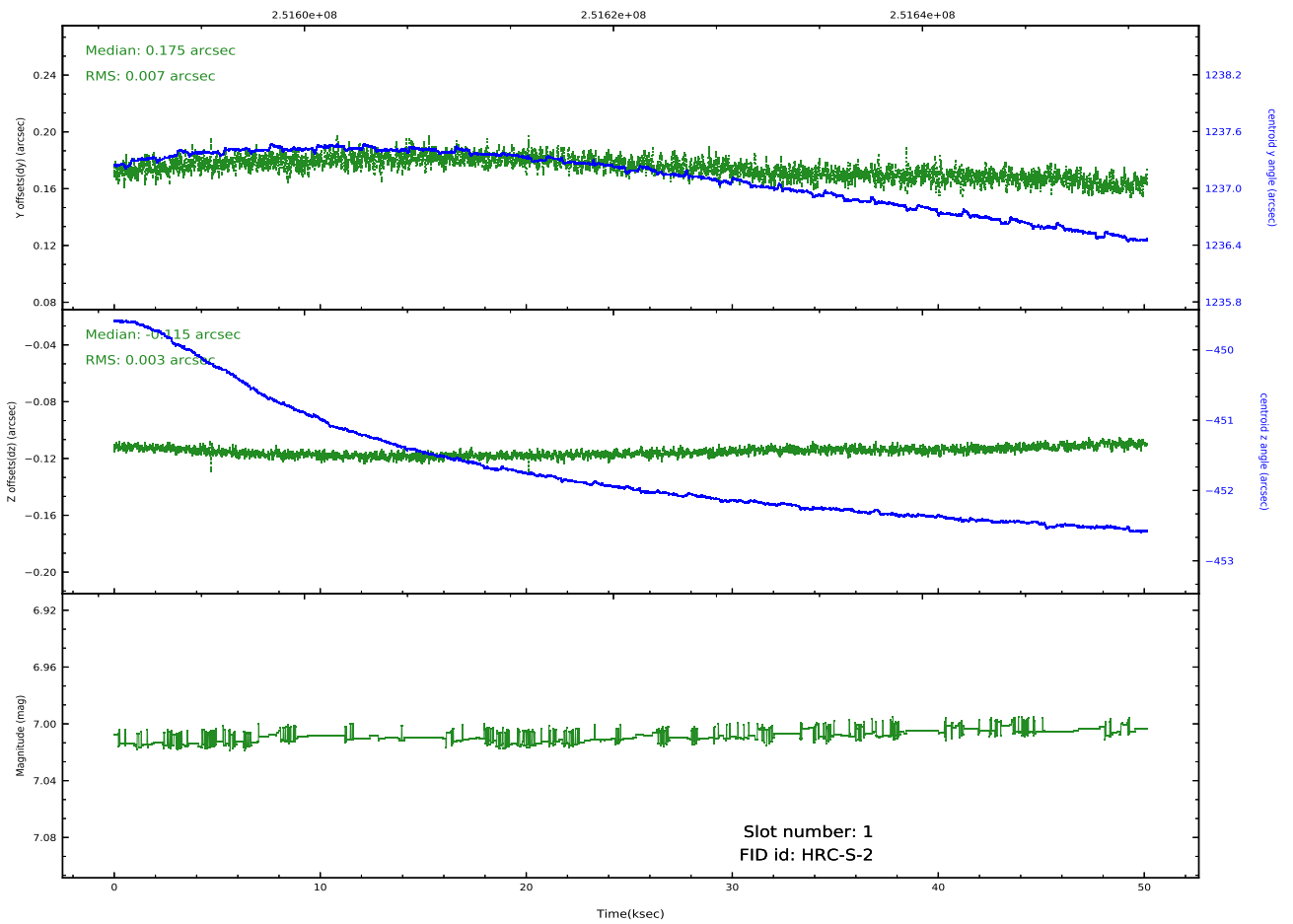
2.5.1 Slot 0



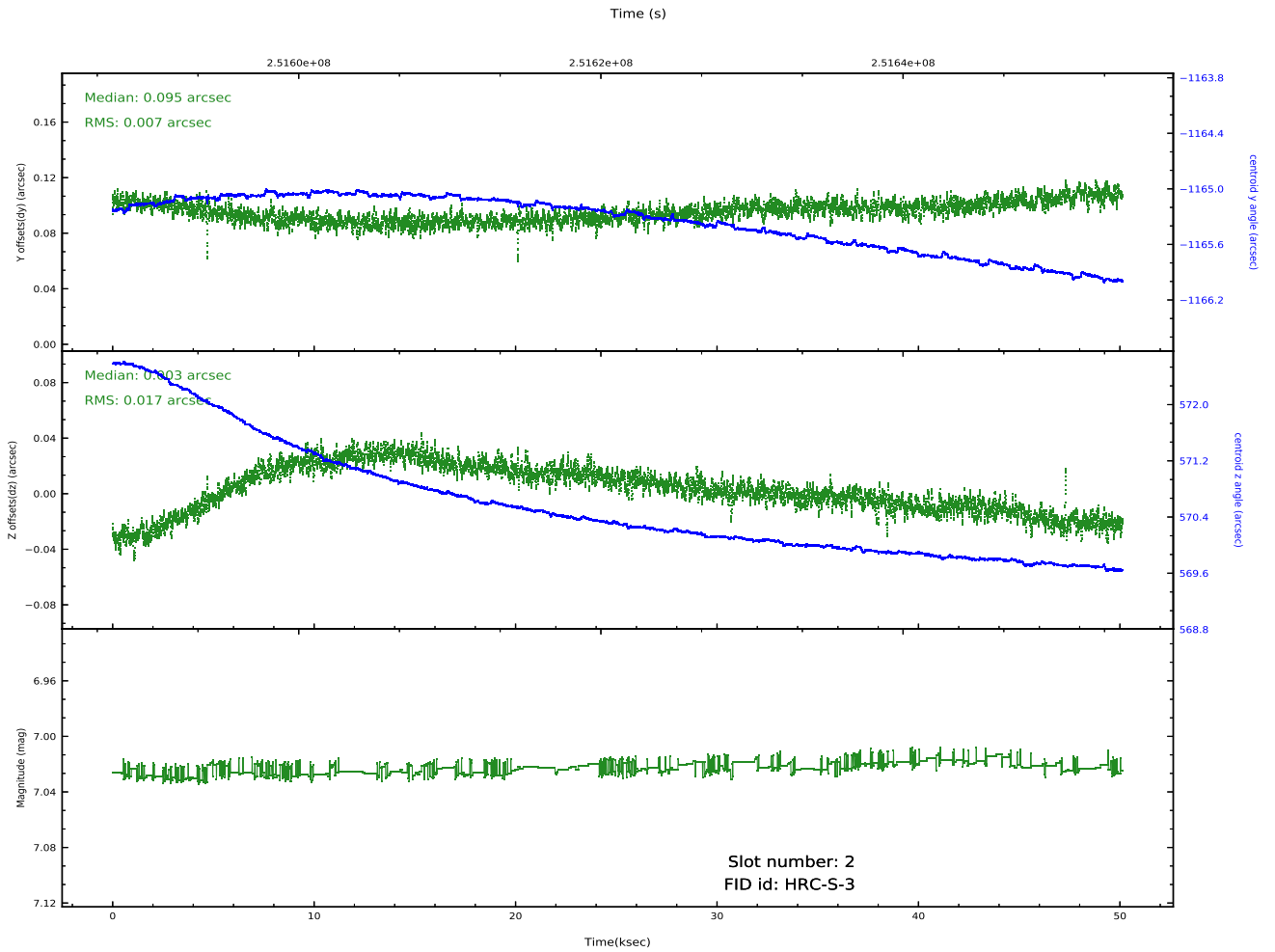
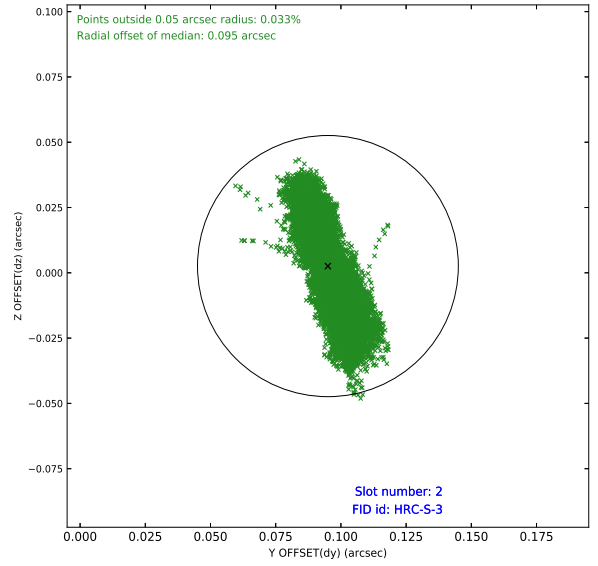
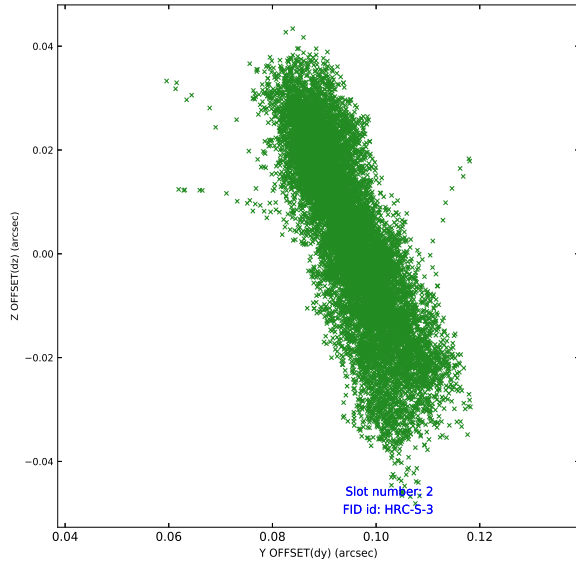
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.14018

A.2 Comments

The guide star in slot 5 was automatically 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.