

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 23091 - L2 Version 1
Chandra X-Ray Center

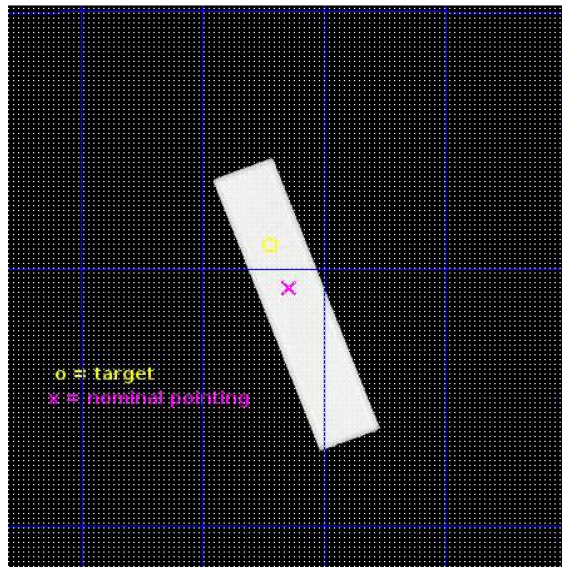
L2 Processing Date : Dec 17 2019

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1 Front

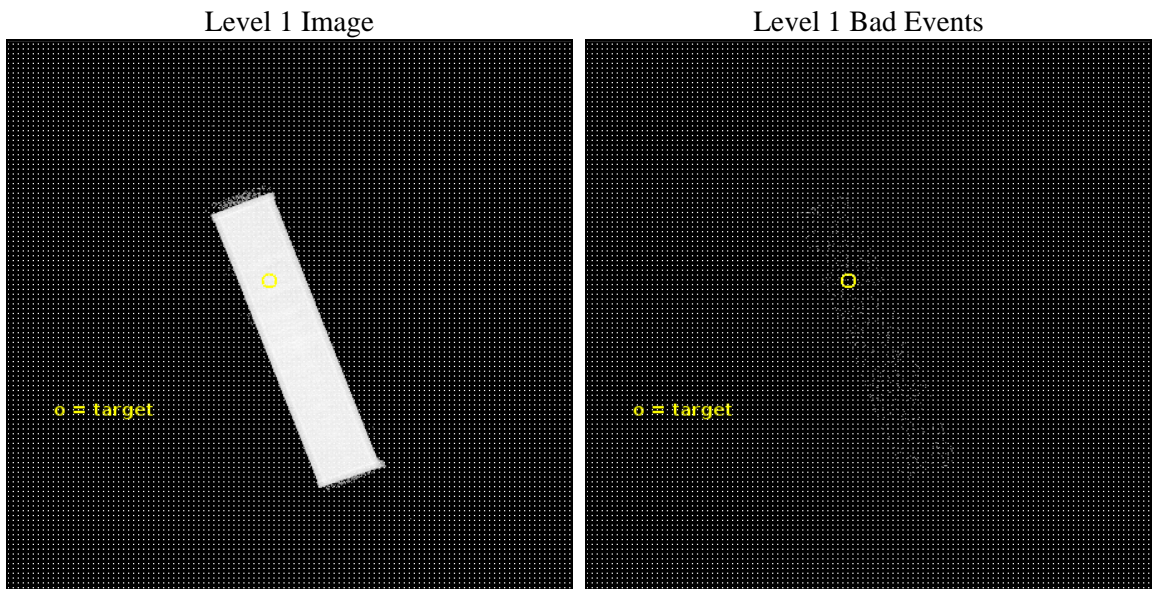
seq_num	100192	Sequence number
obs_id	23091	Observation id
title	Chandra Observations of the Interstellar Comet C/2019 Q4 Borisov	P
observer	Bradford Snios	Principal investigator
object	C/2019 Q4 Borisov	Source name
ra_targ	175.611387	Observer's specified target RA [deg]
dec_targ	-24.954723	Observer's specified target Dec [deg]
ra_nom	175.57016166409	Nominal RA [deg]
dec_nom	-25.037175095972	Nominal Dec [deg]
roll_nom	69.049923137384	Nominal Roll [deg]
revision	1	Processing version of data
ontime	12690.782016993	[s]
livetime	12580.427689549	Ontime multiplied by DTCOR
l2events	832451	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	12500.000000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	12690.782016993	[s]
caldbver	4.8.4.2	 	l1events	989669	Number of level 1 events
date	2019-12-17T18:21:10	Date and time of file creation			
revision	1	Processing version of data			

2.1.3 Events

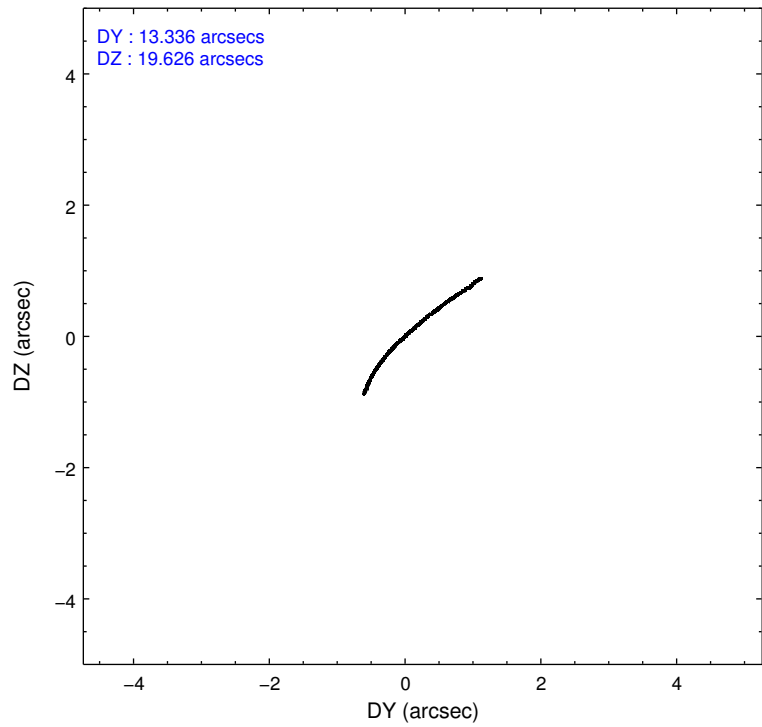
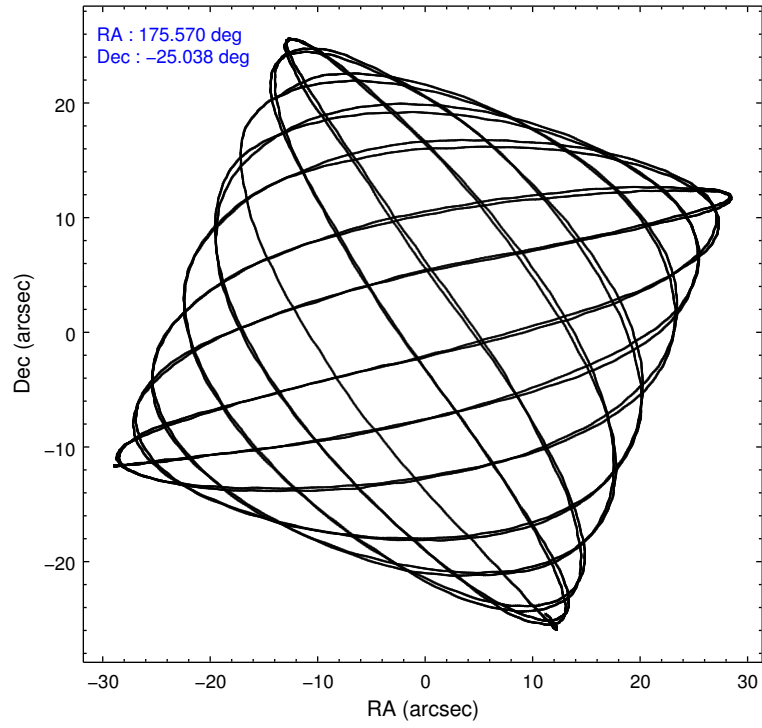
Level 1 Events

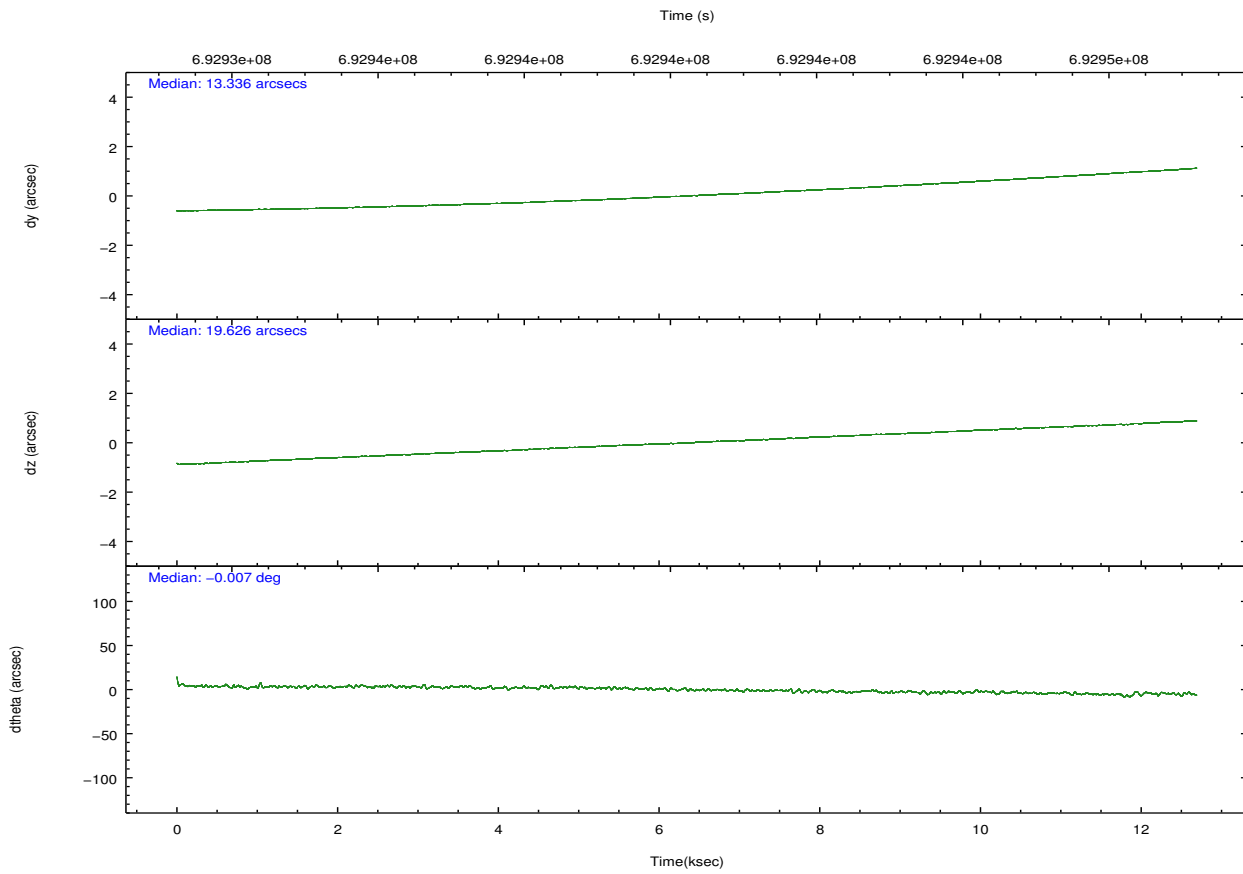
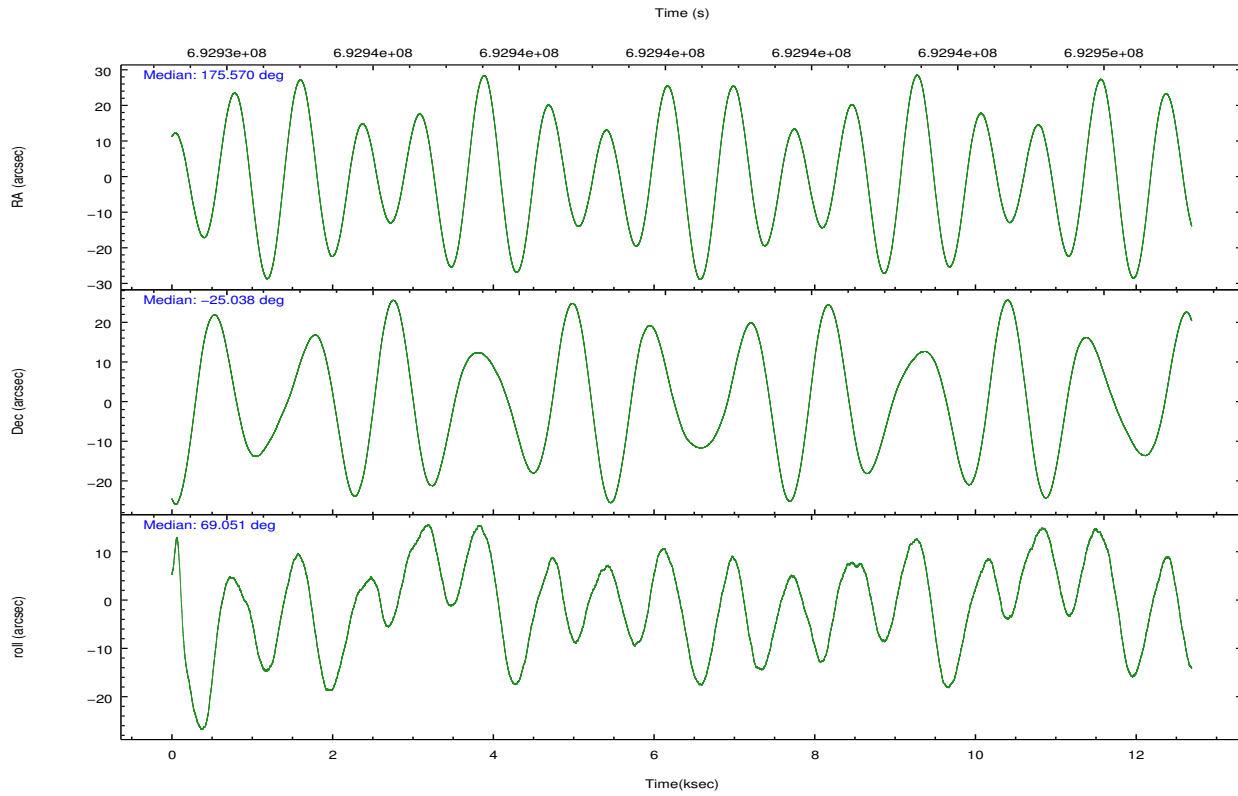
	segment 1	segment 2	segment 3
level 1 events	5	989660	4
rejected events	5	16955	4
rejected %	100%	1%	100%

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	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	175.576640	175.570161664092			
[deg] Pointing Dec	-25.065448	-25.03717509597243			
[deg] Pointing Roll	68.985331	69.04992313738445			
[s] Window start time (MET)	692625669.184000	692625669.184000			
[s] Window stop time (MET)	693835269.184000	693835269.184000			
[mm] SIM focus pos	-1.533336	-1.526339935833849			
[mm] SIM defocus	7.710433287538843e-07	0.006996703570447904			
[mm] SIM translation stage pos	250.455976	250.4635187648994			
[mm] SIM translation stage offset	0	-0.007540371344731511			
[s] Observation start time (MET)	692934057.184000	692933681.79009			
Observation start date	2019-12-17T01:39:48	2019-12-17T01:34:41			
[s] Observation end time (MET)	692946557.184000	692947379.89092			
Observation end date	2019-12-17T05:08:08	2019-12-17T05:22:59			

2.3 Aspect





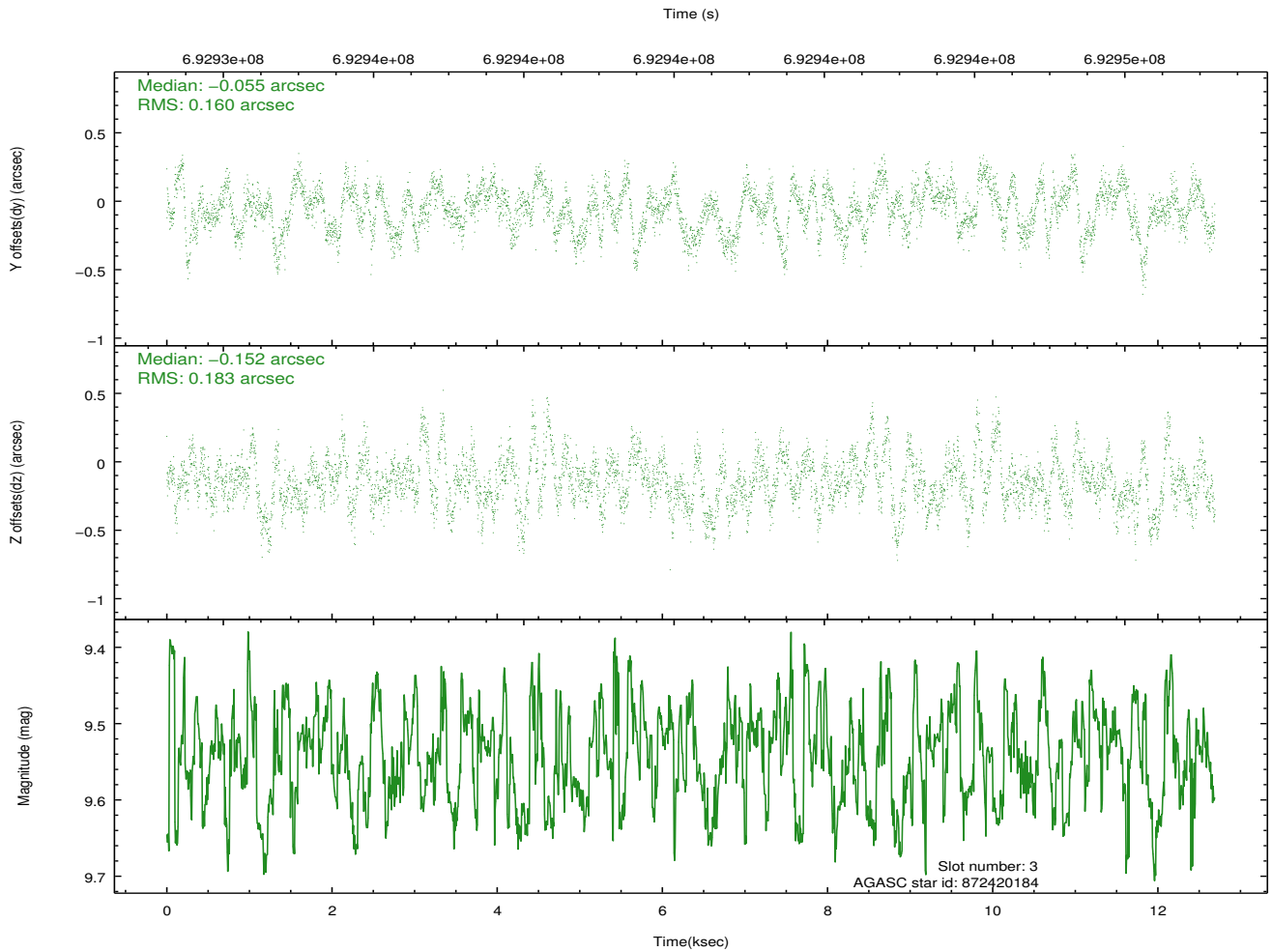
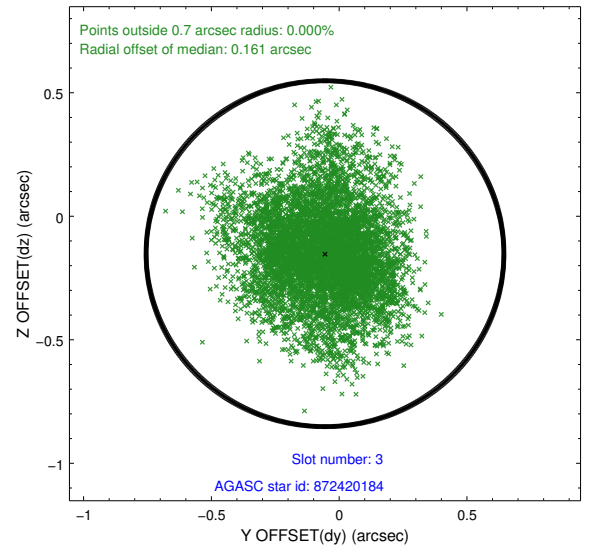
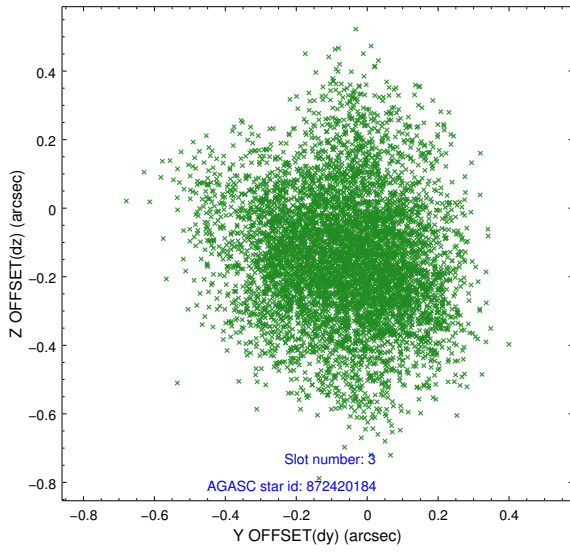
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		HRC-S-1	7.07	3095	1.000	-0.152	-0.365	0.023	0.032	0.000000	0.000000	-1167.95	-468
1	FID		HRC-S-3	7.05	3096	1.000	-0.053	0.047	0.027	0.041	0.000000	0.000000	-1171.01	560
2	FID		HRC-S-4	7.03	3094	1.000	0.594	0.021	0.011	0.015	0.000000	0.000000	1230.59	563
3	GUIDE	used	872420184	9.54	6183	1.000	-0.055	-0.152	0.259	0.423	175.347233	-25.343001	-1200.29	339
4	GUIDE	used	872422744	9.92	6124	0.999	0.291	0.101	0.326	0.563	175.605015	-25.502500	-1435.05	-648
5	GUIDE	used	874121856	8.26	6181	1.000	-0.487	-0.223	0.130	0.221	175.838313	-24.758064	1338.61	-401
6	GUIDE	used	874122240	8.37	6189	1.000	-0.083	0.091	0.145	0.248	176.345178	-25.011702	1073.76	-2271
7	GUIDE	used	874125744	9.26	6181	1.000	0.340	0.183	0.248	0.395	175.933082	-25.663895	-1596.85	-1851

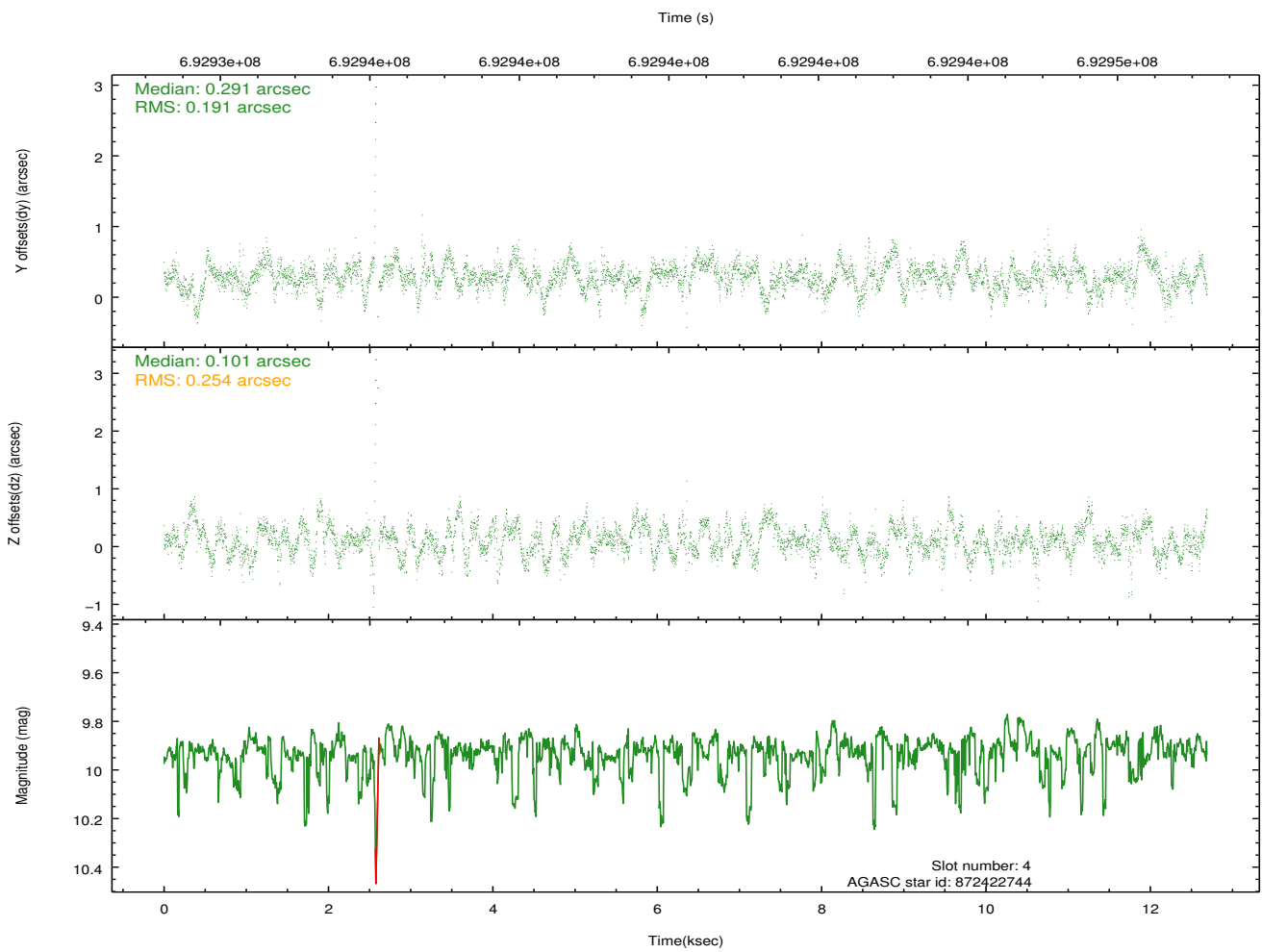
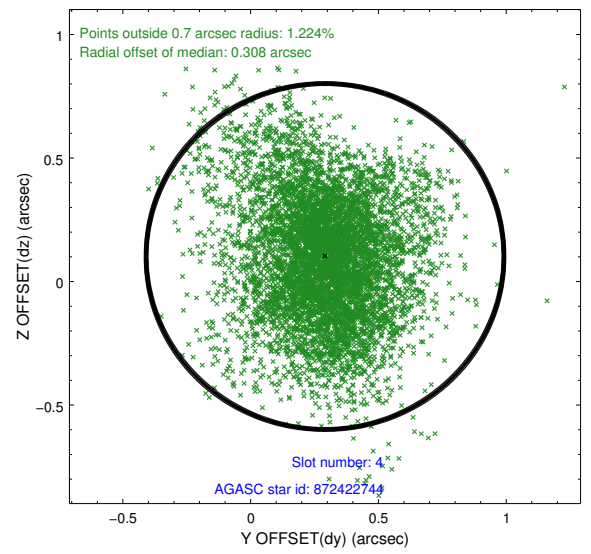
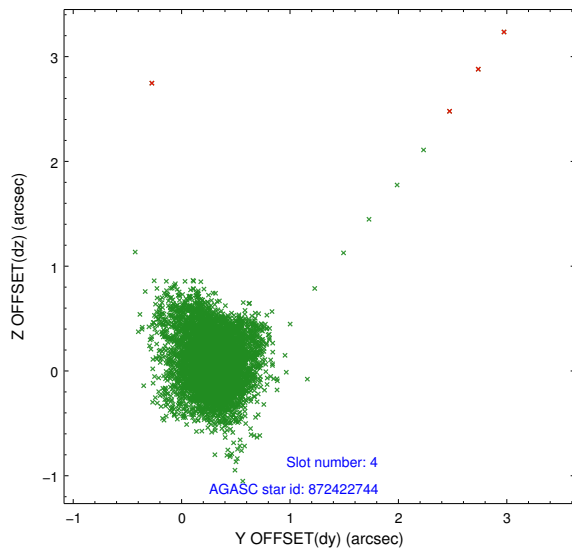
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2.4 Star Slots

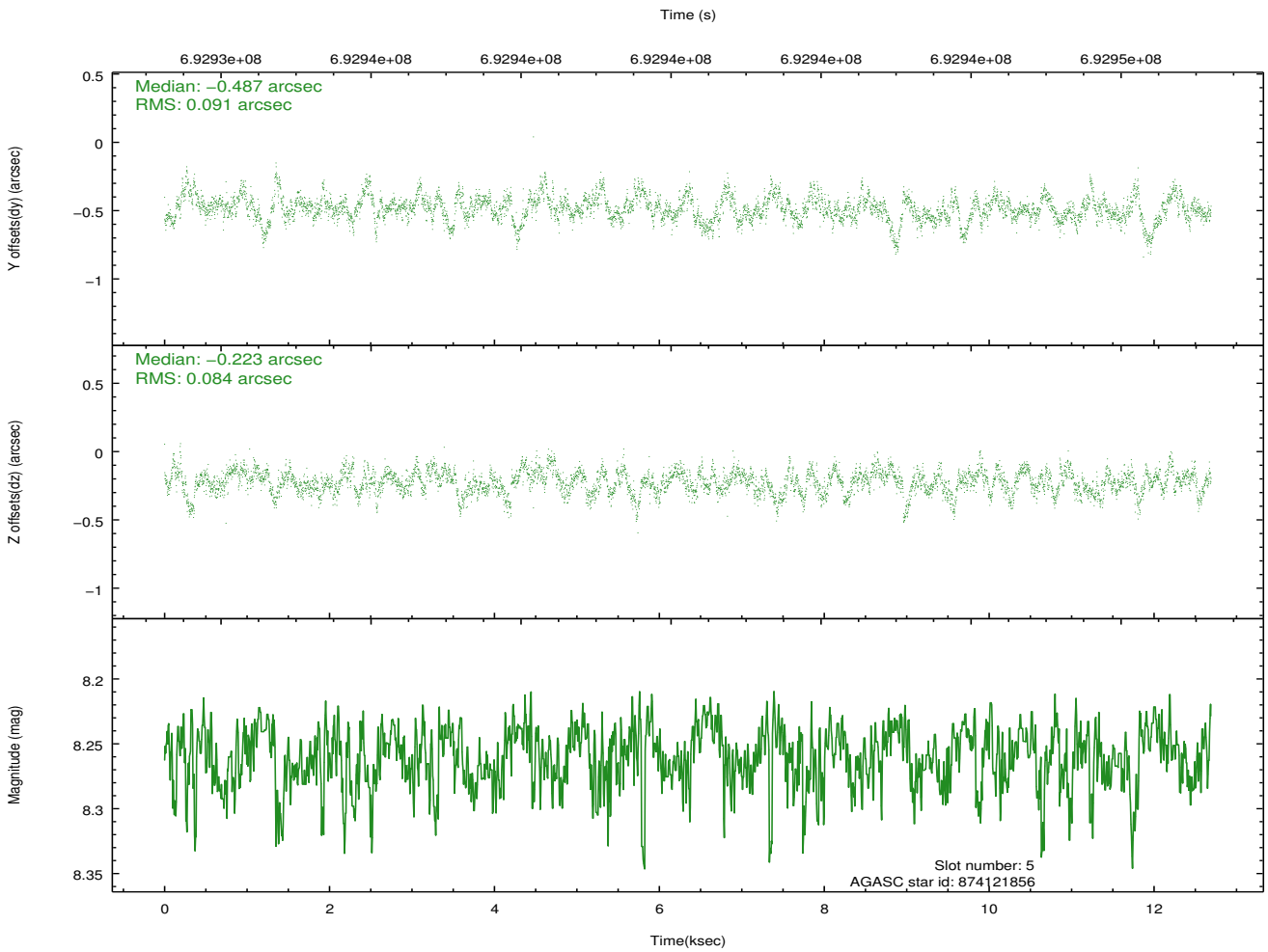
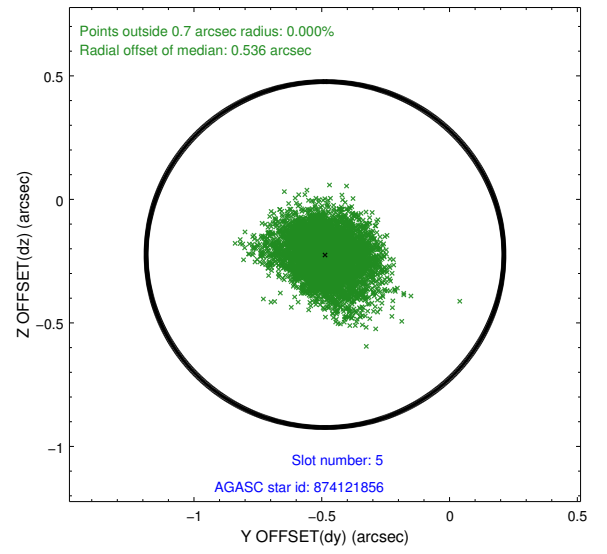
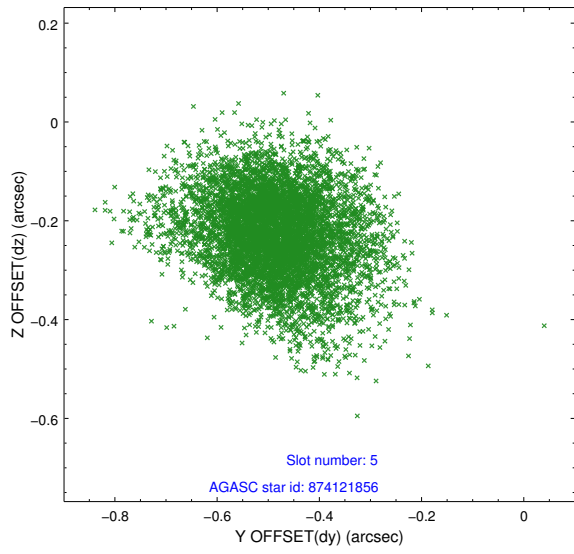
2.4.1 Slot 3



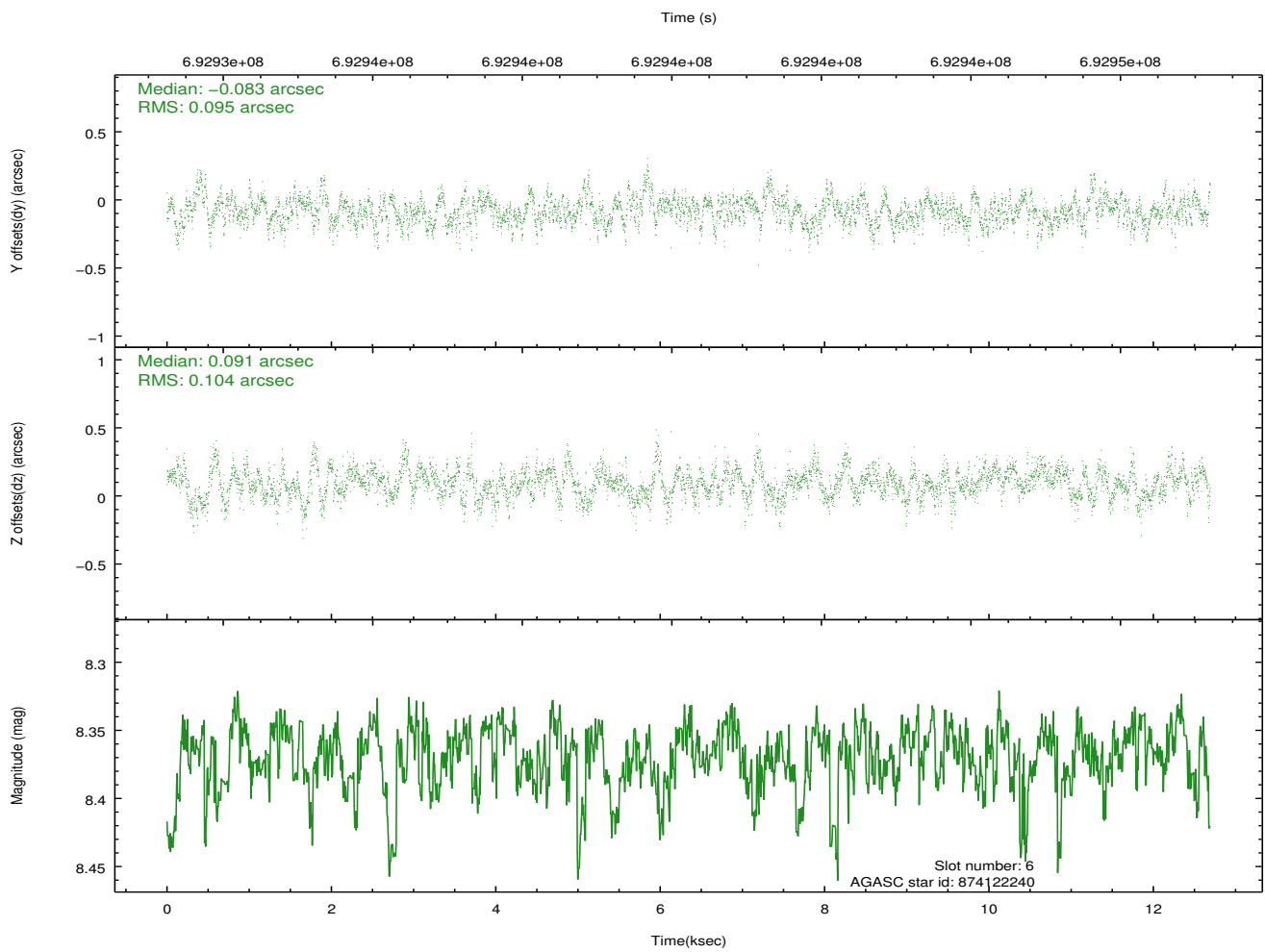
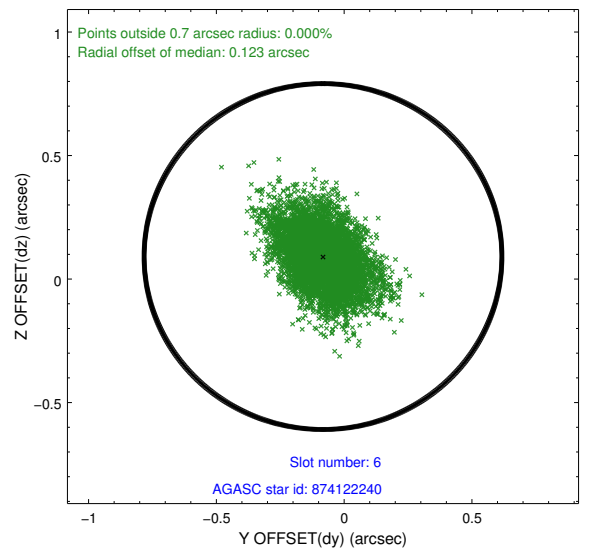
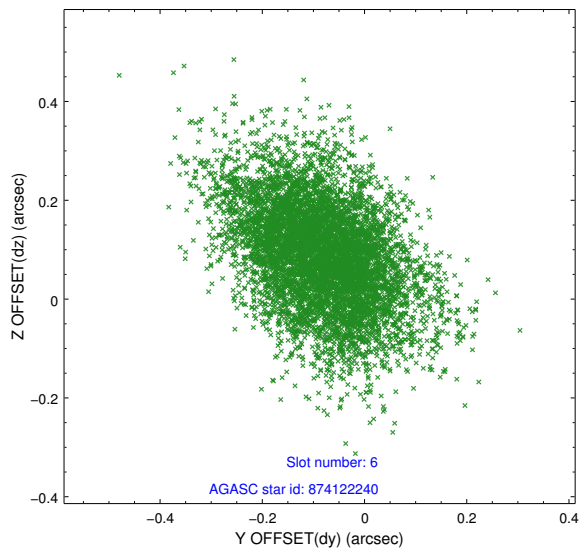
2.4.2 Slot 4



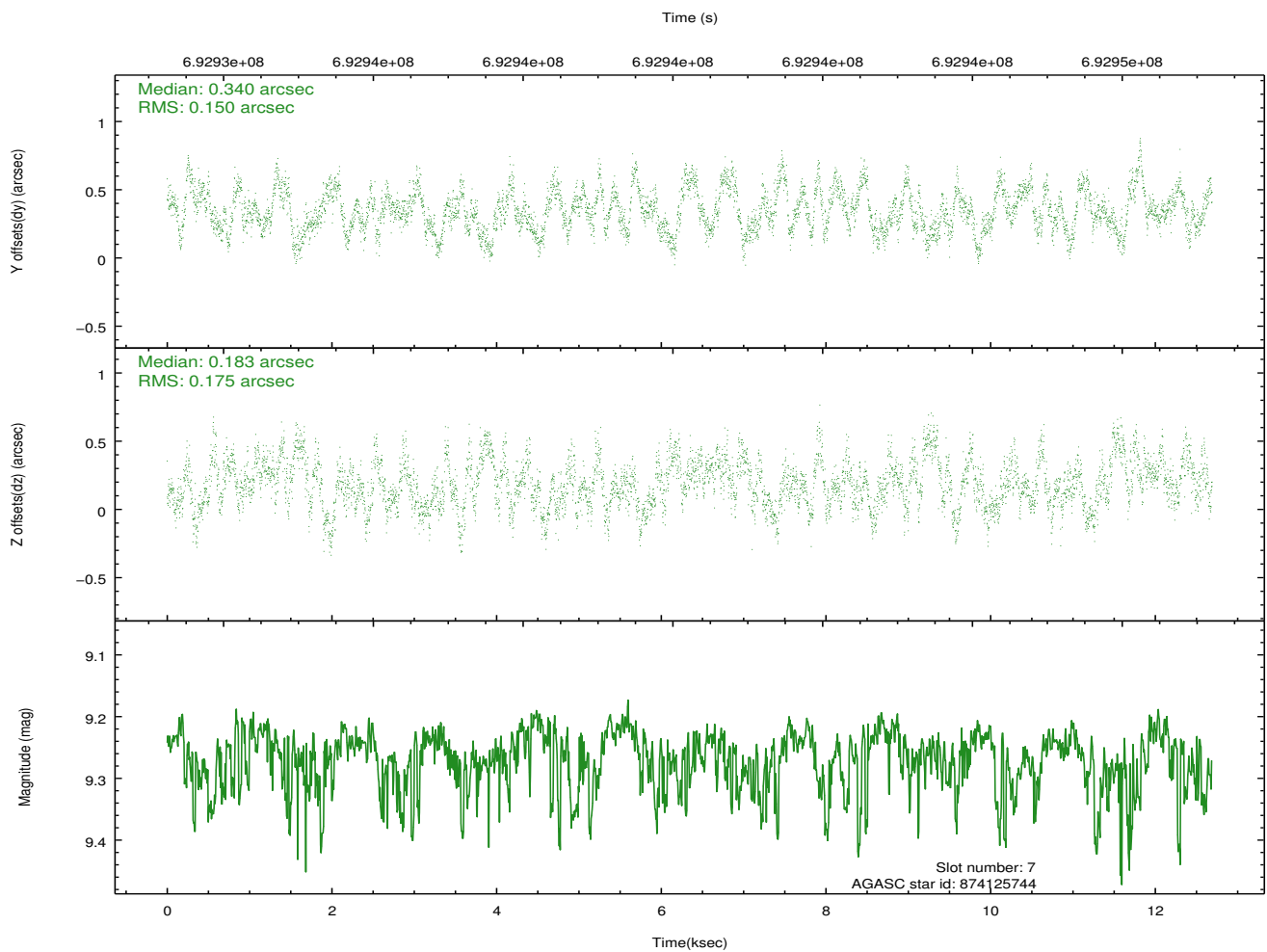
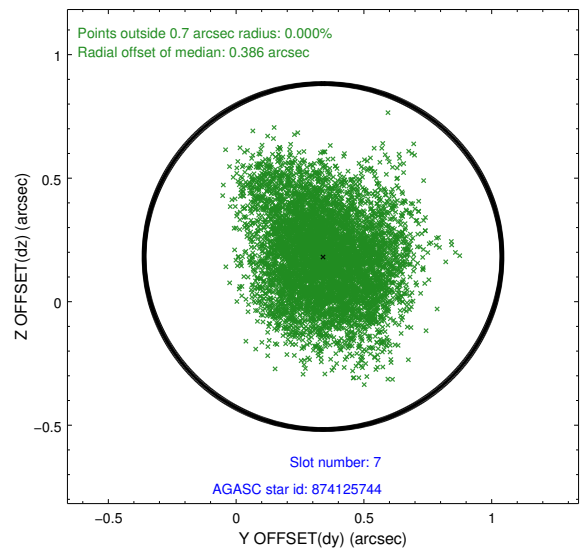
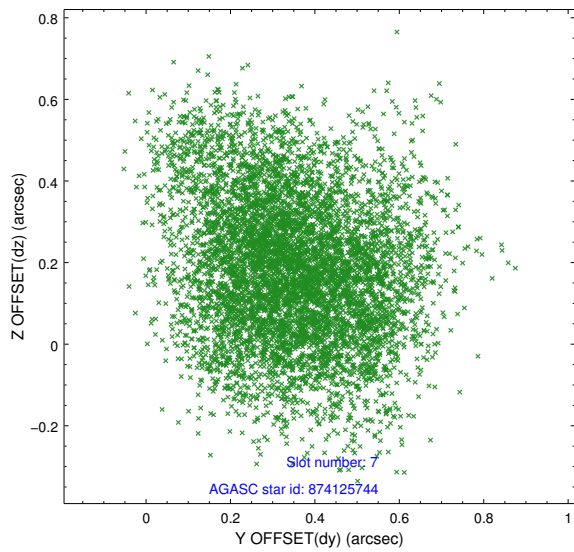
2.4.3 Slot 5



2.4.4 Slot 6

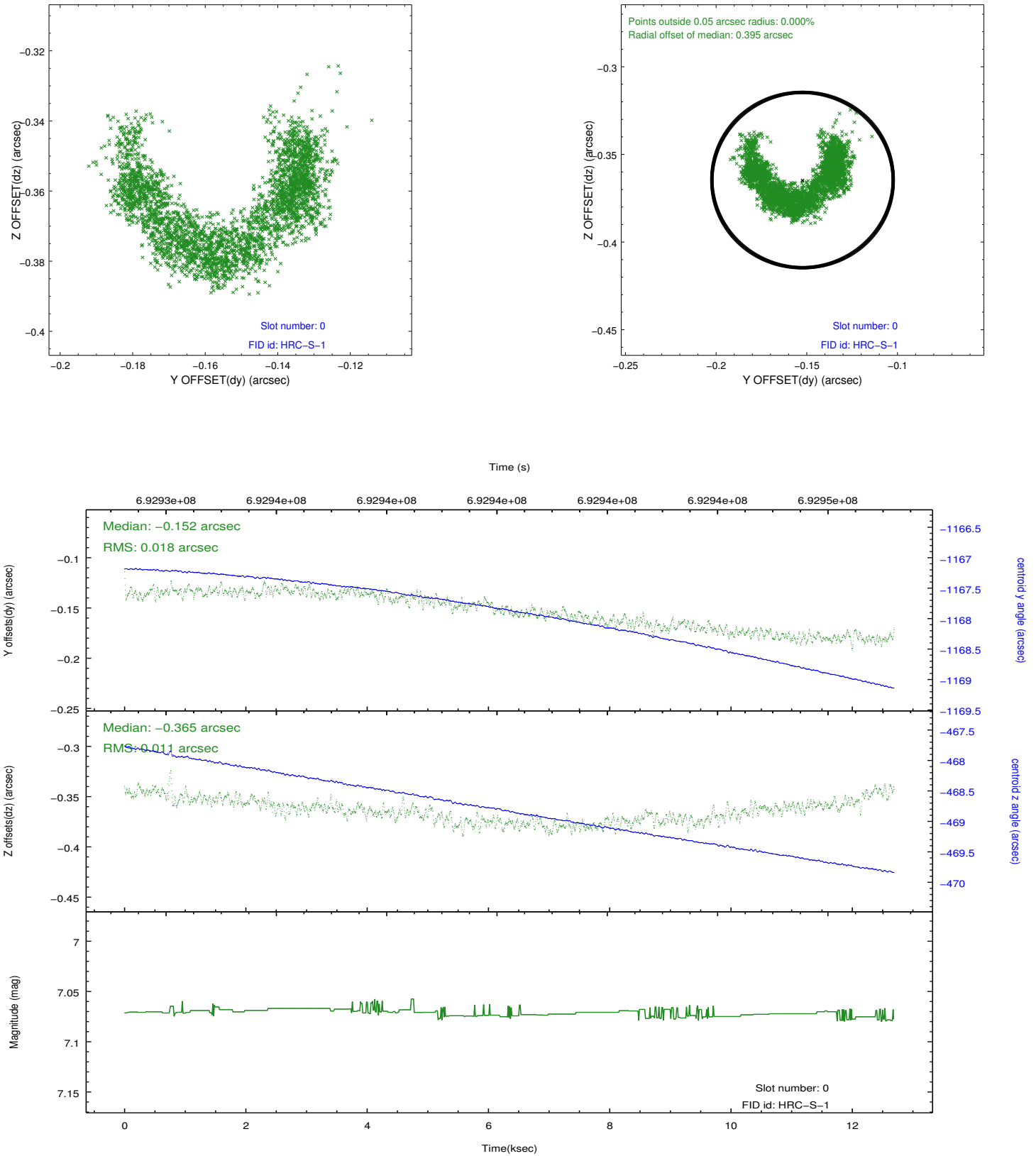


2.4.5 Slot 7

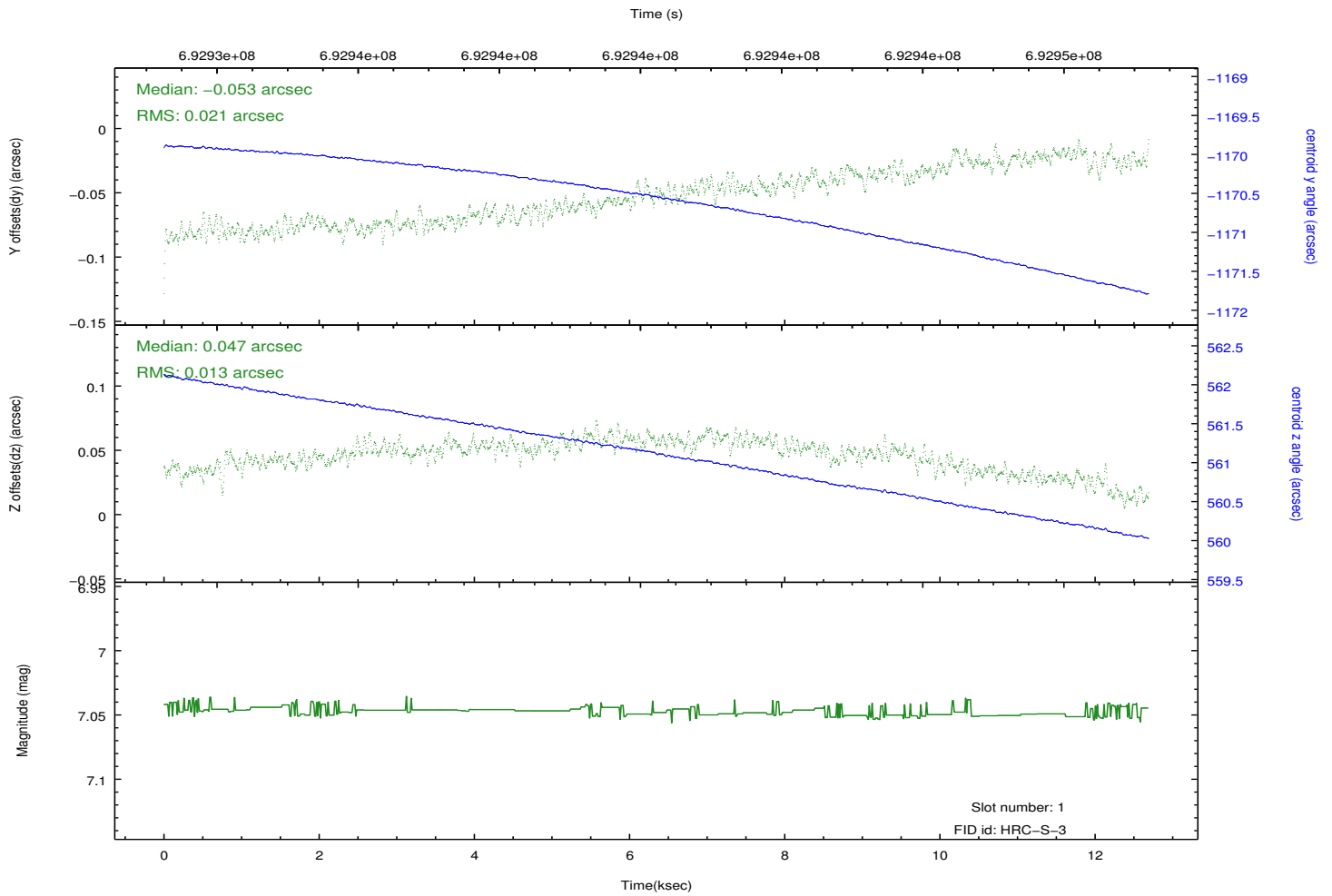
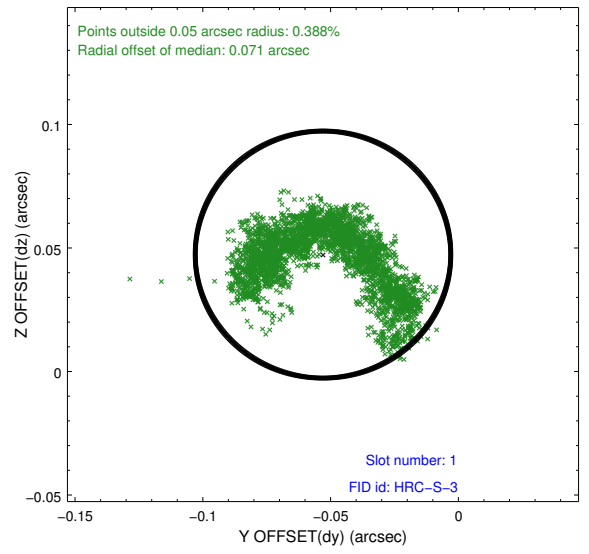
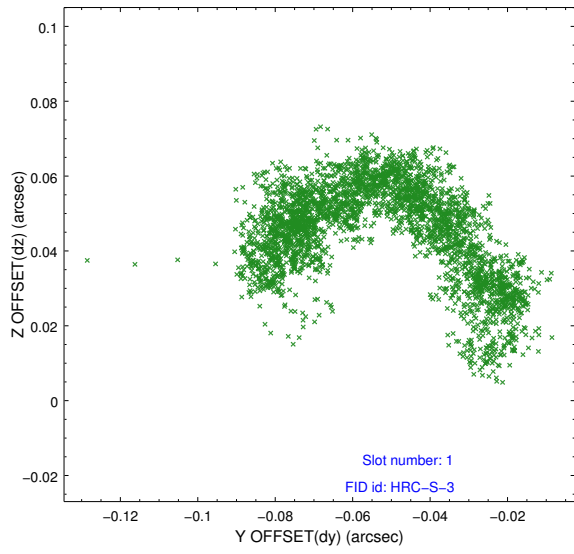


2.5 FID Slots

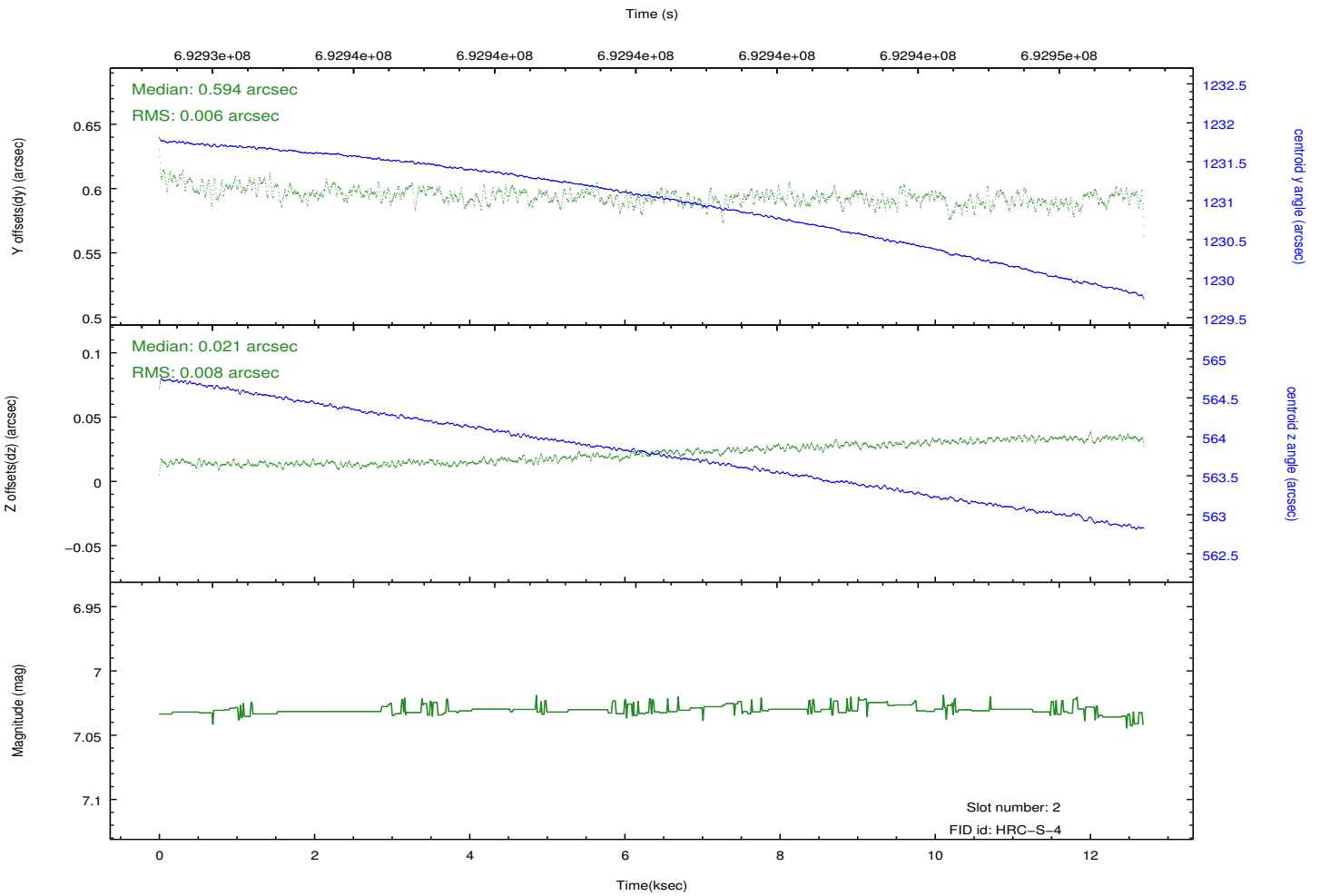
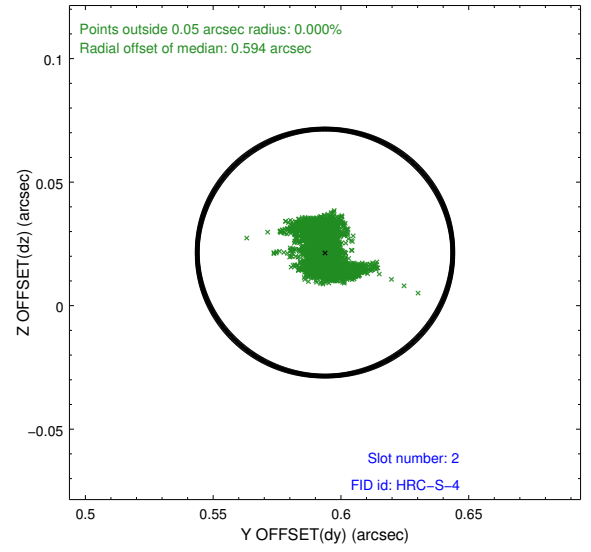
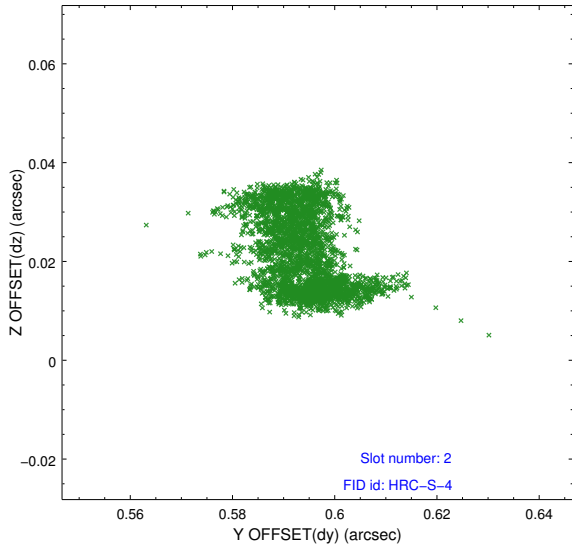
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2019.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.690782016993

A.2 Comments

Window constraint met.

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.