

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 22919 - L2 Version 1
Chandra X-Ray Center

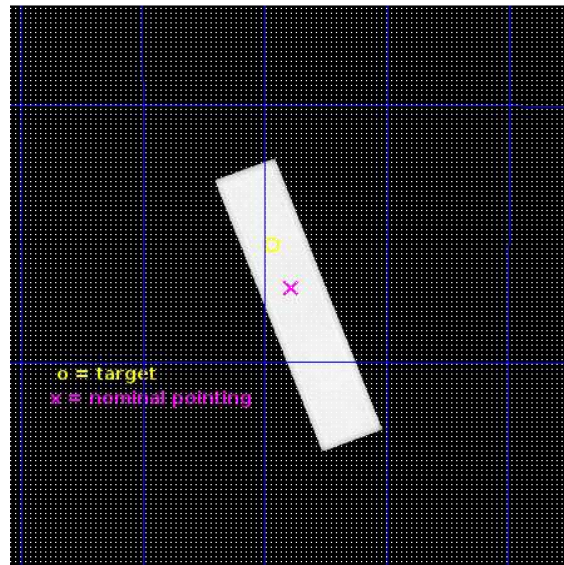
L2 Processing Date : Dec 16 2019

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1 Front

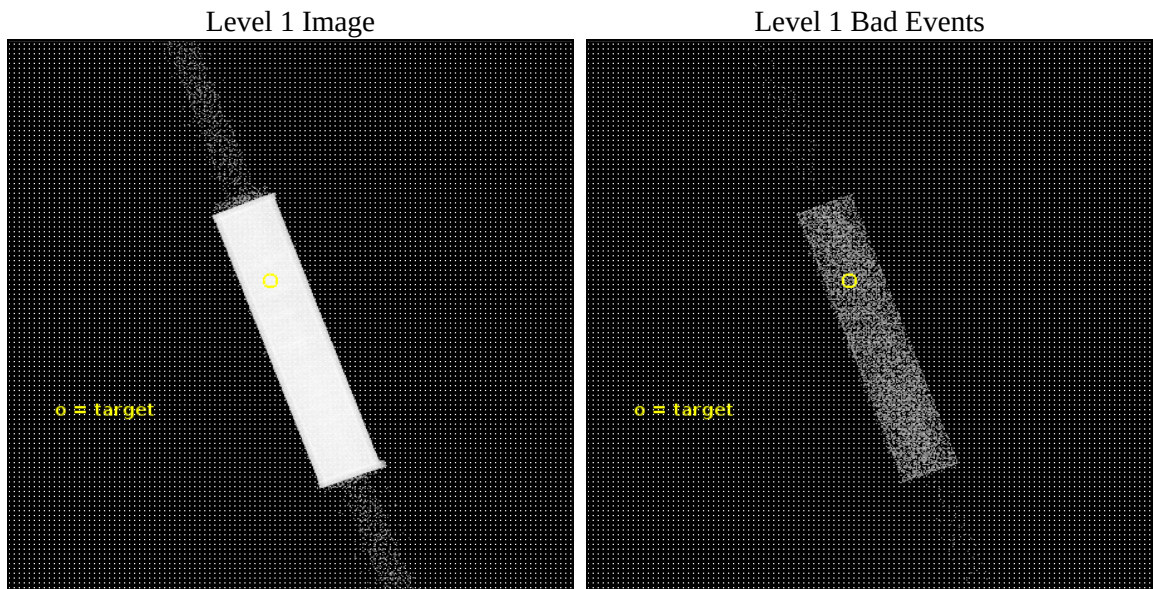
seq_num	100192	Sequence number
obs_id	22919	Observation id
title	Chandra Observations of the Interstellar Comet C/2019 Q4 Borisov	P
observer	Bradford Snios	Principal investigator
object	C/2019 Q4 Borisov	Source name
ra_targ	175.236202	Observer's specified target RA [deg]
dec_targ	-24.272778	Observer's specified target Dec [deg]
ra_nom	175.19516711264	Nominal RA [deg]
dec_nom	-24.354923063204	Nominal Dec [deg]
roll_nom	69.050455602583	Nominal Roll [deg]
revision	1	Processing version of data
ontime	12534.982007742	[s]
livetime	12255.879603032	Ontime multiplied by DTCOR
l2events	932151	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	12534.982007742	[s]
caldbver	4.8.4.2	 	l1events	1188265	Number of level 1 events
date	2019-12-16T13:18:11	Date and time of file creation			
revision	1	Processing version of data			

2.1.3 Events

Level 1 Events

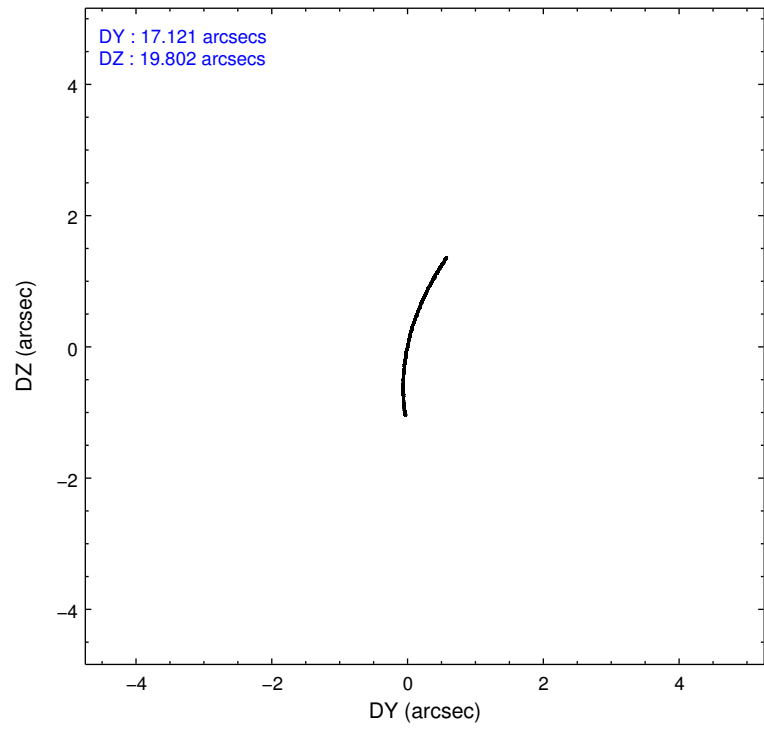
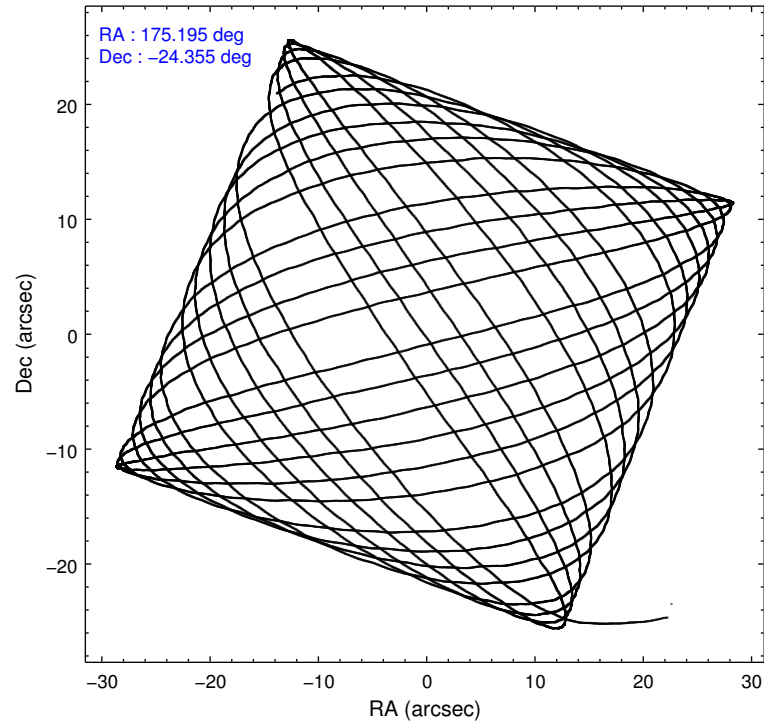
	segment 1	segment 2	segment 3
level 1 events	1477	1185464	1324
rejected events	1477	114697	1324
rejected %	100%	9%	100%

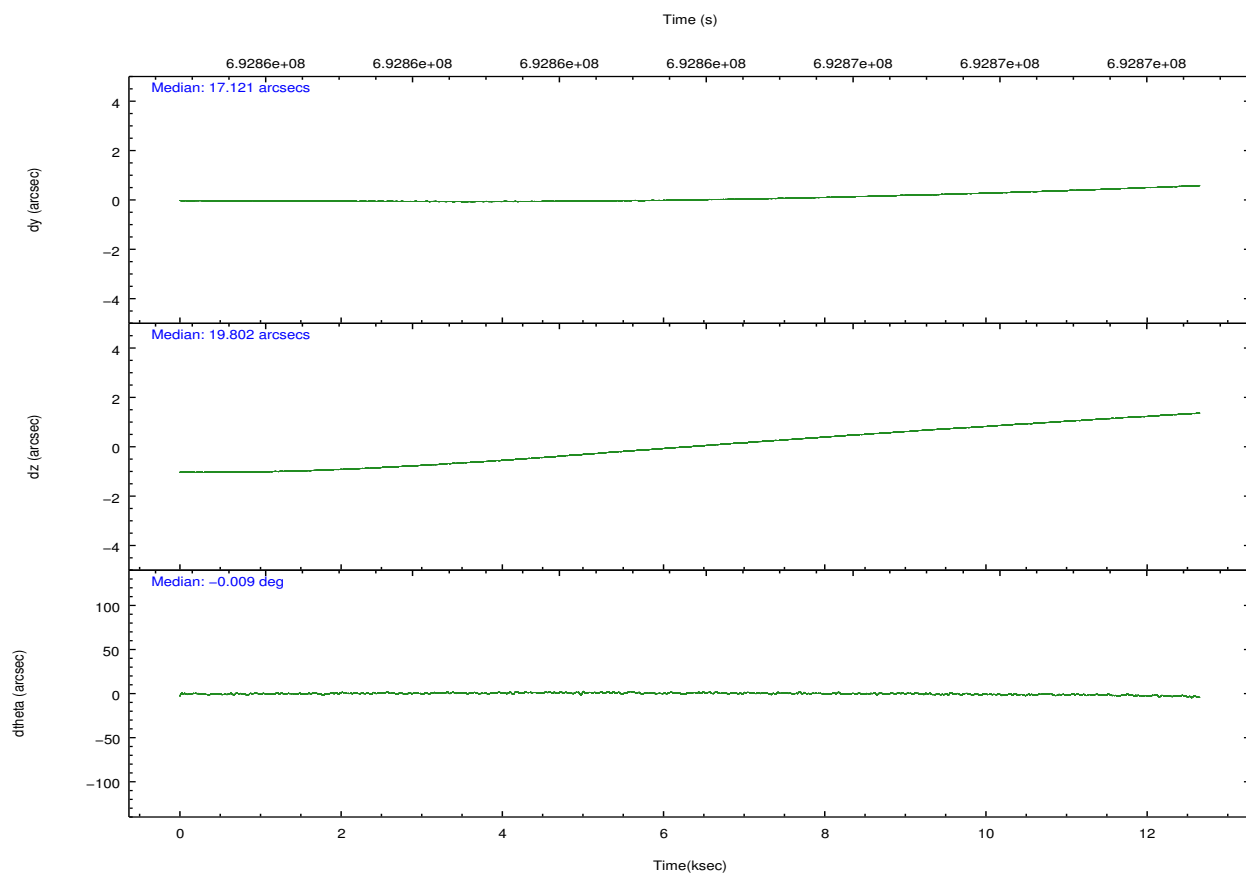
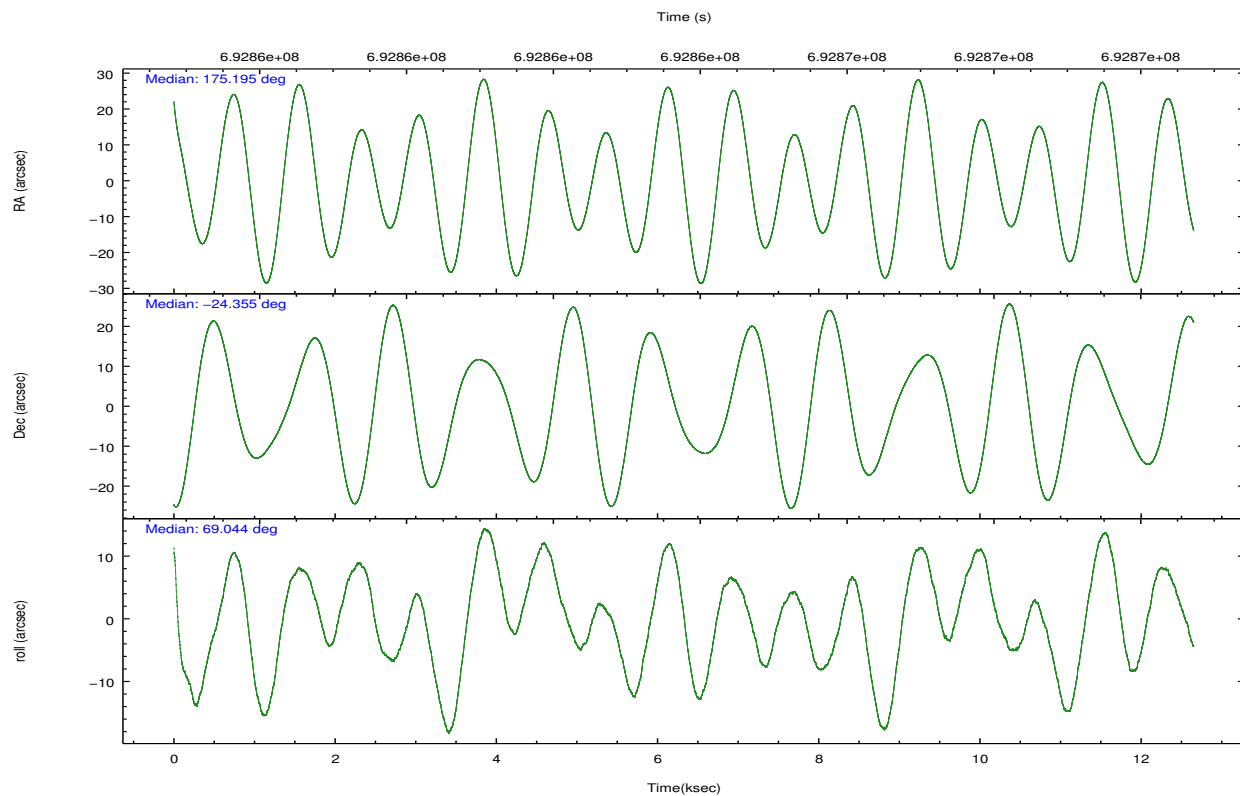
2.2 Compared Parameters

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	175.201626	175.1951671126367
[deg] Pointing Dec	-24.383213	-24.35492306320415
[deg] Pointing Roll	68.985780	69.05045560258287
[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	250.466033080201
[mm] SIM translation stage offset	0	-0.01005468664627074
[s] Observation start time (MET)	692857587.184000	692856541.82293
Observation start date	2019-12-16T04:25:18	2019-12-16T04:09:01
[s] Observation end time (MET)	692870087.184000	692870220.96126
Observation end date	2019-12-16T07:53:38	2019-12-16T07:57:00

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect



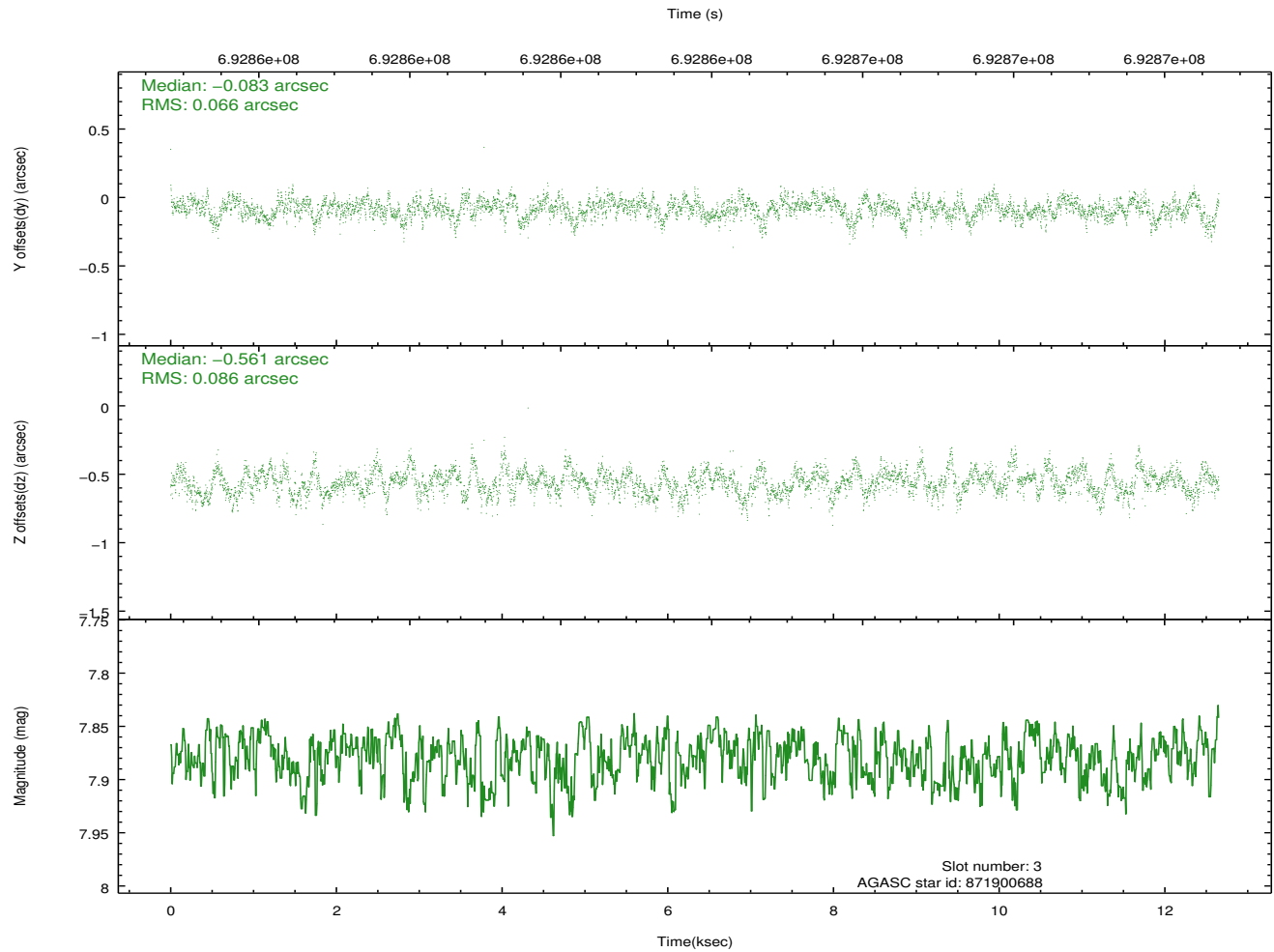
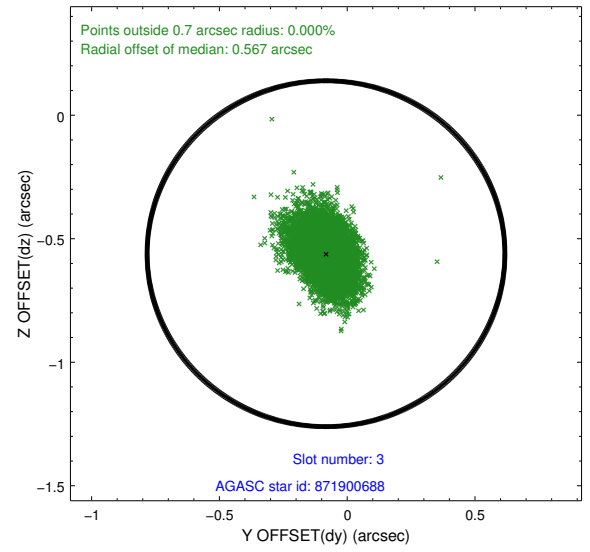
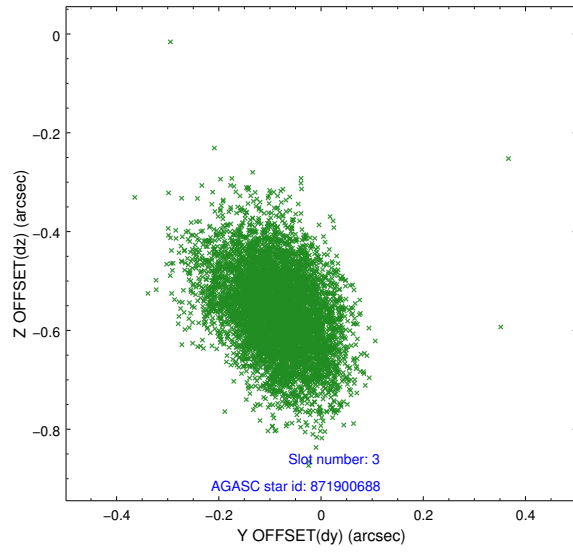


Slot Statistics

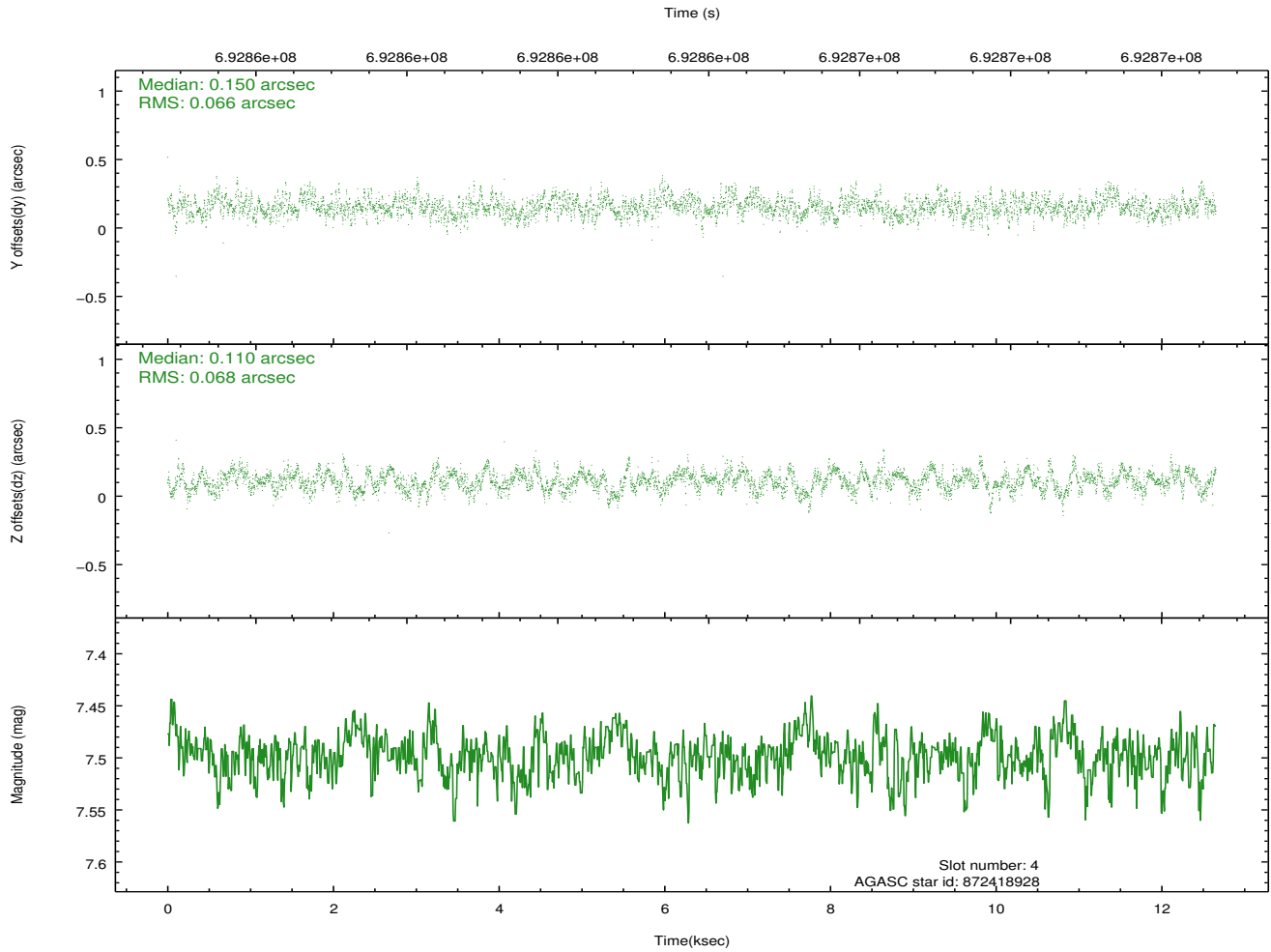
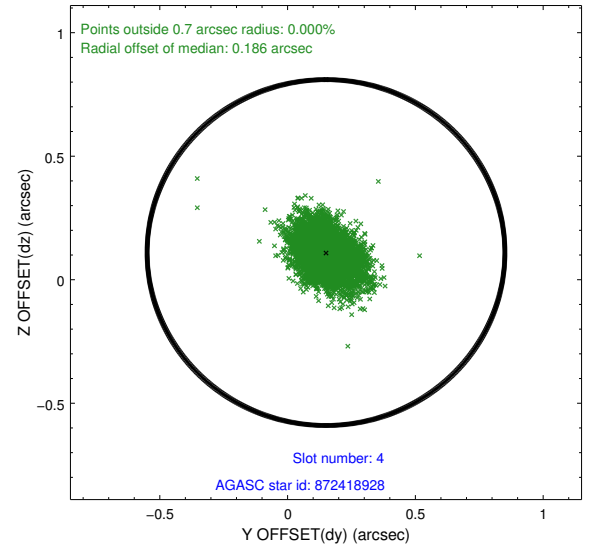
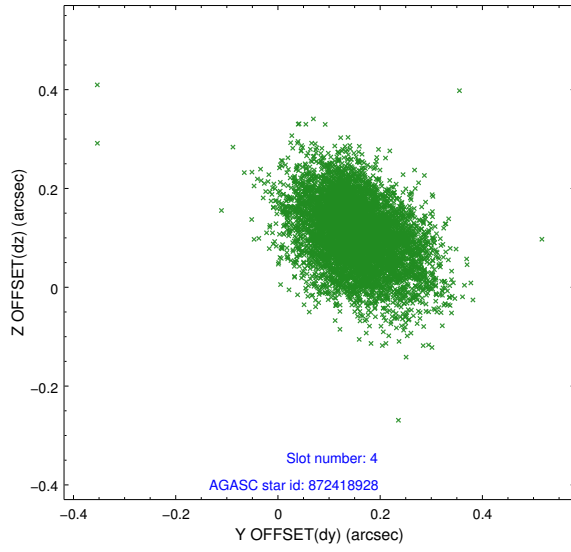
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-S-1	7.11	3086	1.000	-0.149	-0.303	0.017	0.036	0.000000	0.000000	-1171.83	-469
1	FID		HRC-S-2	7.06	3083	1.000	0.518	-0.146	0.008	0.015	0.000000	0.000000	1228.11	-461
2	FID		HRC-S-3	7.07	3086	1.000	0.020	0.148	0.018	0.046	0.000000	0.000000	-1174.09	560
3	GUIDE	used	871900688	7.88	6171	1.000	-0.083	-0.561	0.114	0.191	174.764382	-24.305703	-255.93	1438
4	GUIDE	used	872418928	7.50	6173	1.000	0.150	0.110	0.099	0.165	174.842903	-24.896427	-2145.57	431
5	GUIDE	used	872423312	6.36	6173	1.000	-0.045	-0.177	0.104	0.175	174.751843	-24.721092	-1669.28	934
6	GUIDE	used	873602864	8.33	6168	1.000	-0.184	-0.006	0.138	0.226	175.901464	-24.215750	1381.60	-1929
7	GUIDE	used	874121856	8.26	6165	1.000	0.157	0.642	0.134	0.226	175.838313	-24.758064	-516.90	-2427

2.4 Star Slots

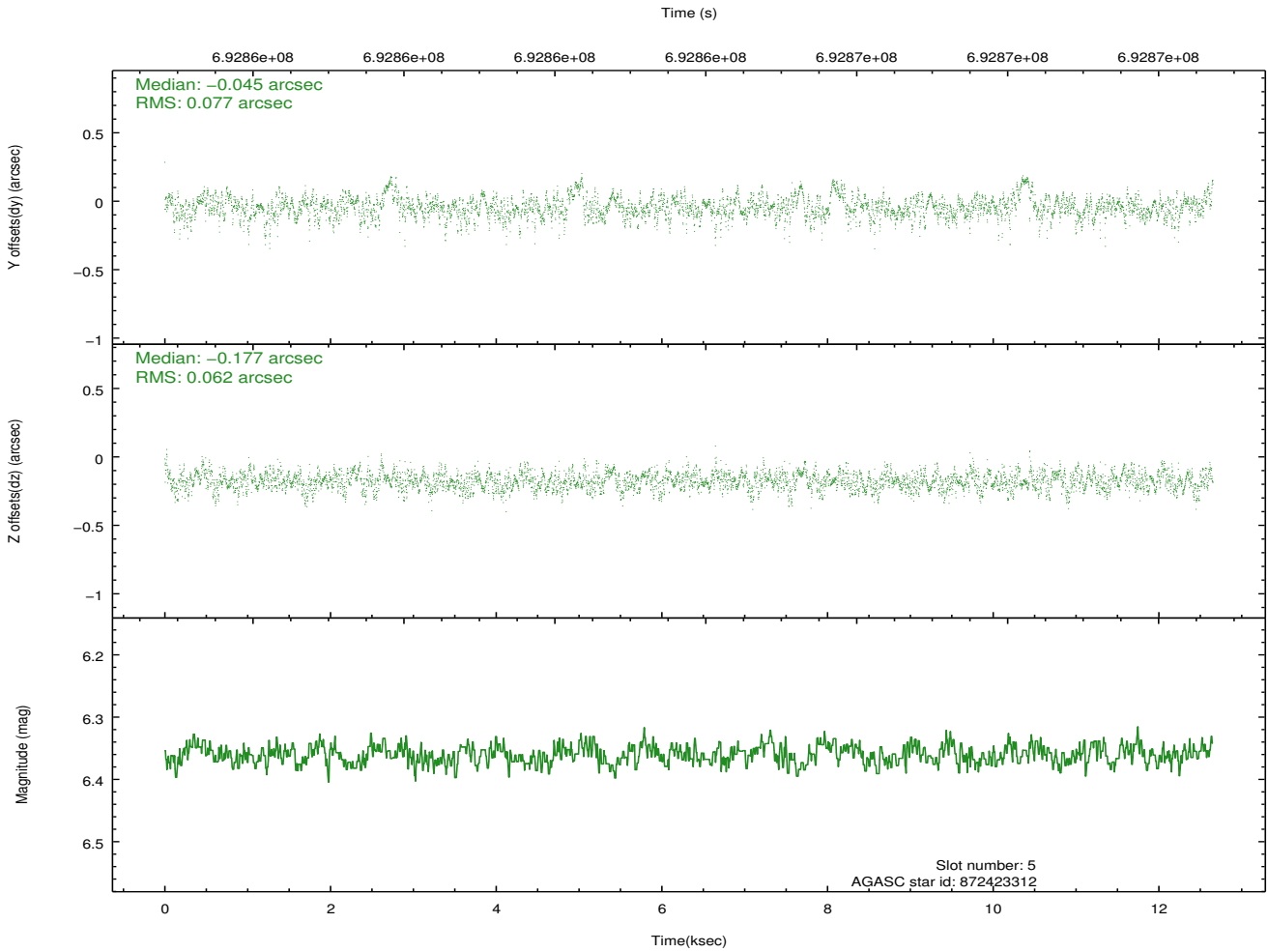
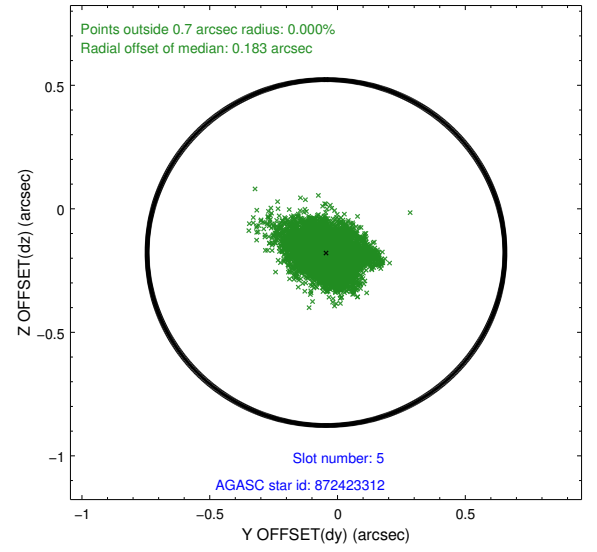
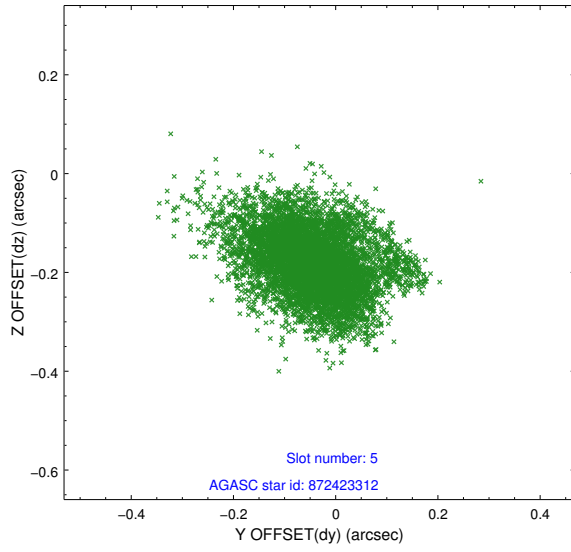
2.4.1 Slot 3



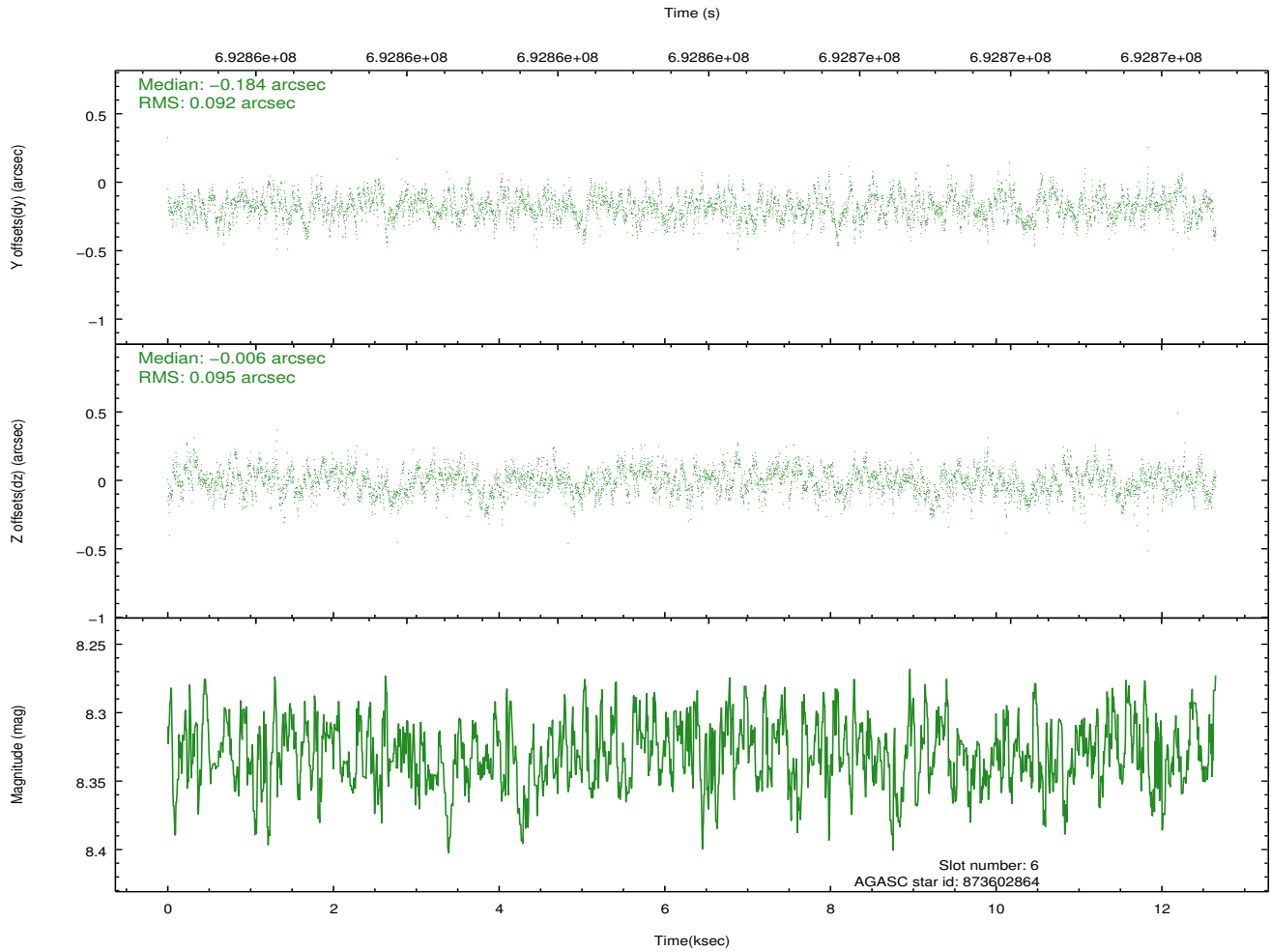
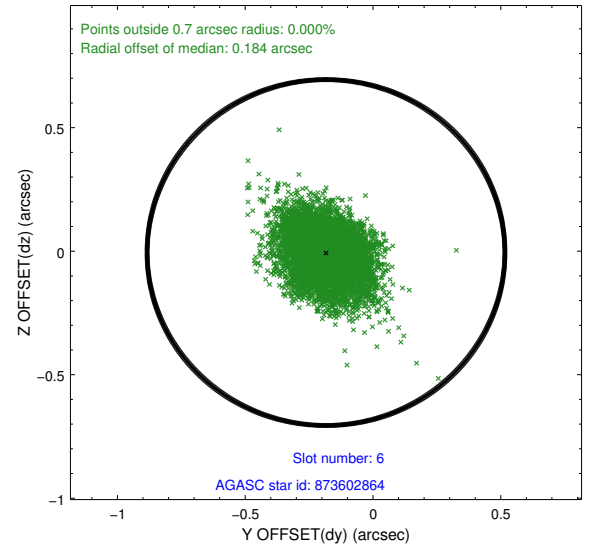
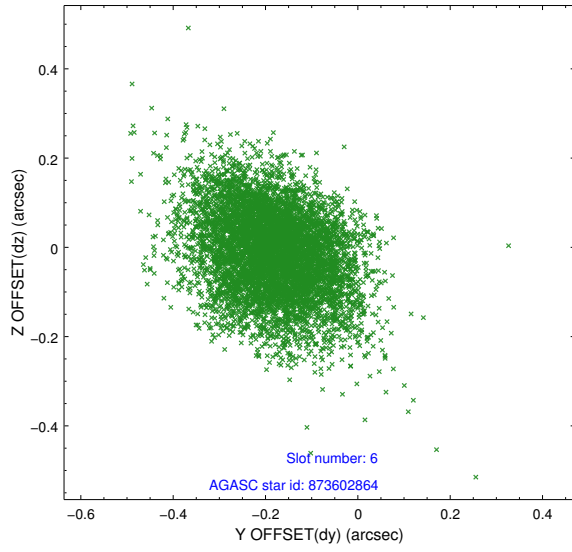
2.4.2 Slot 4



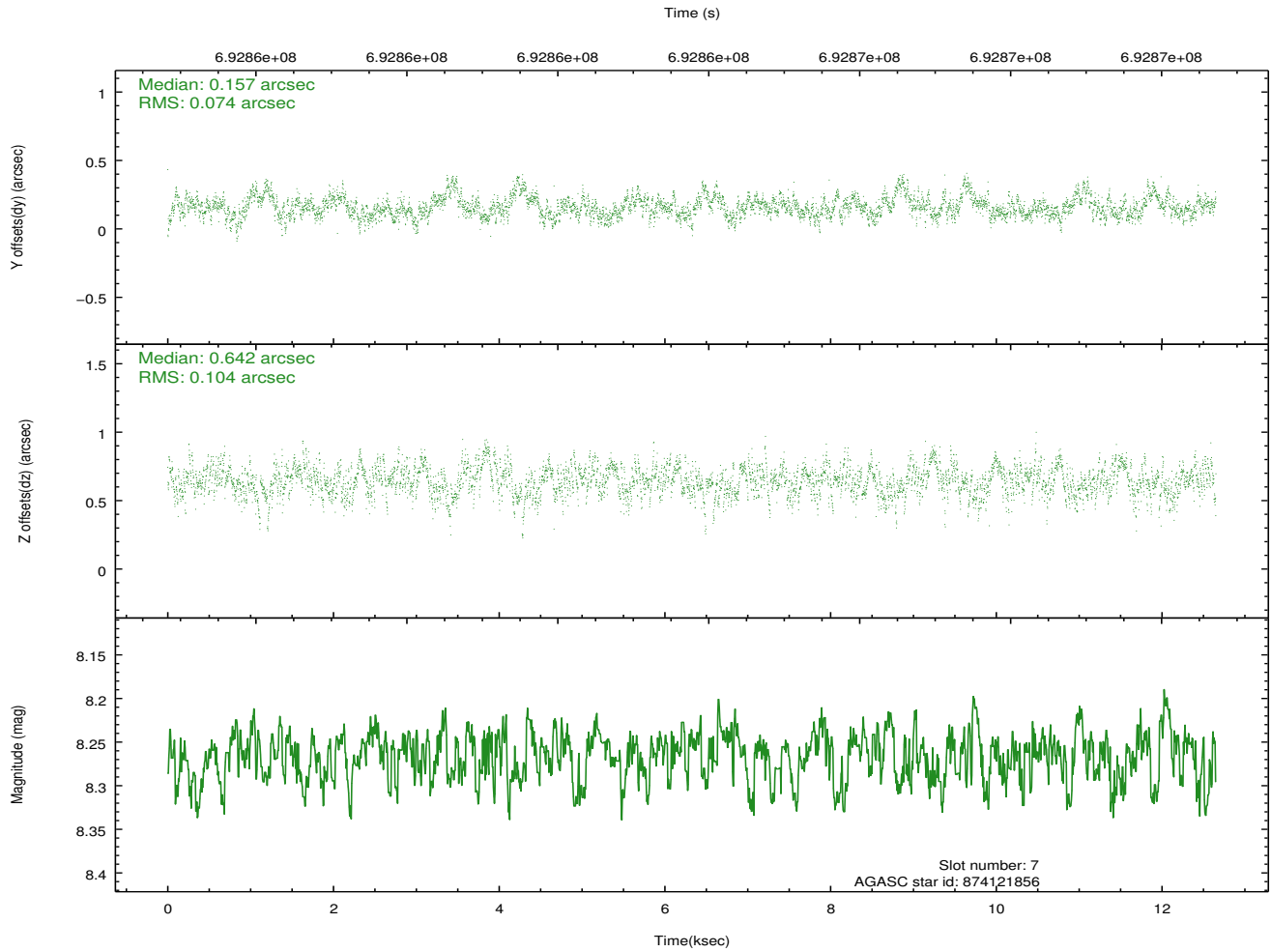
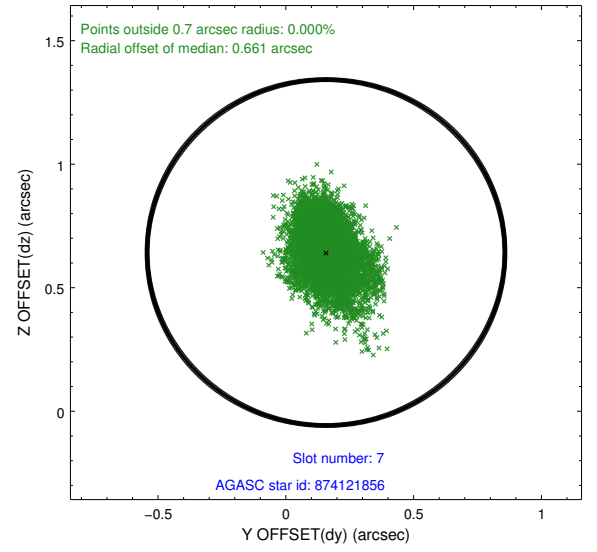
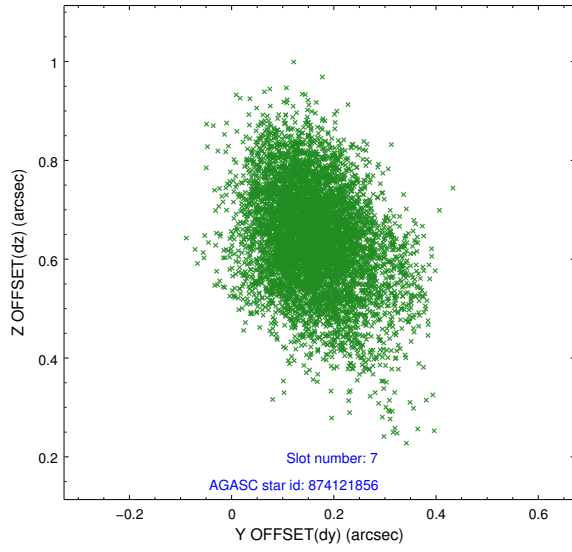
2.4.3 Slot 5



2.4.4 Slot 6

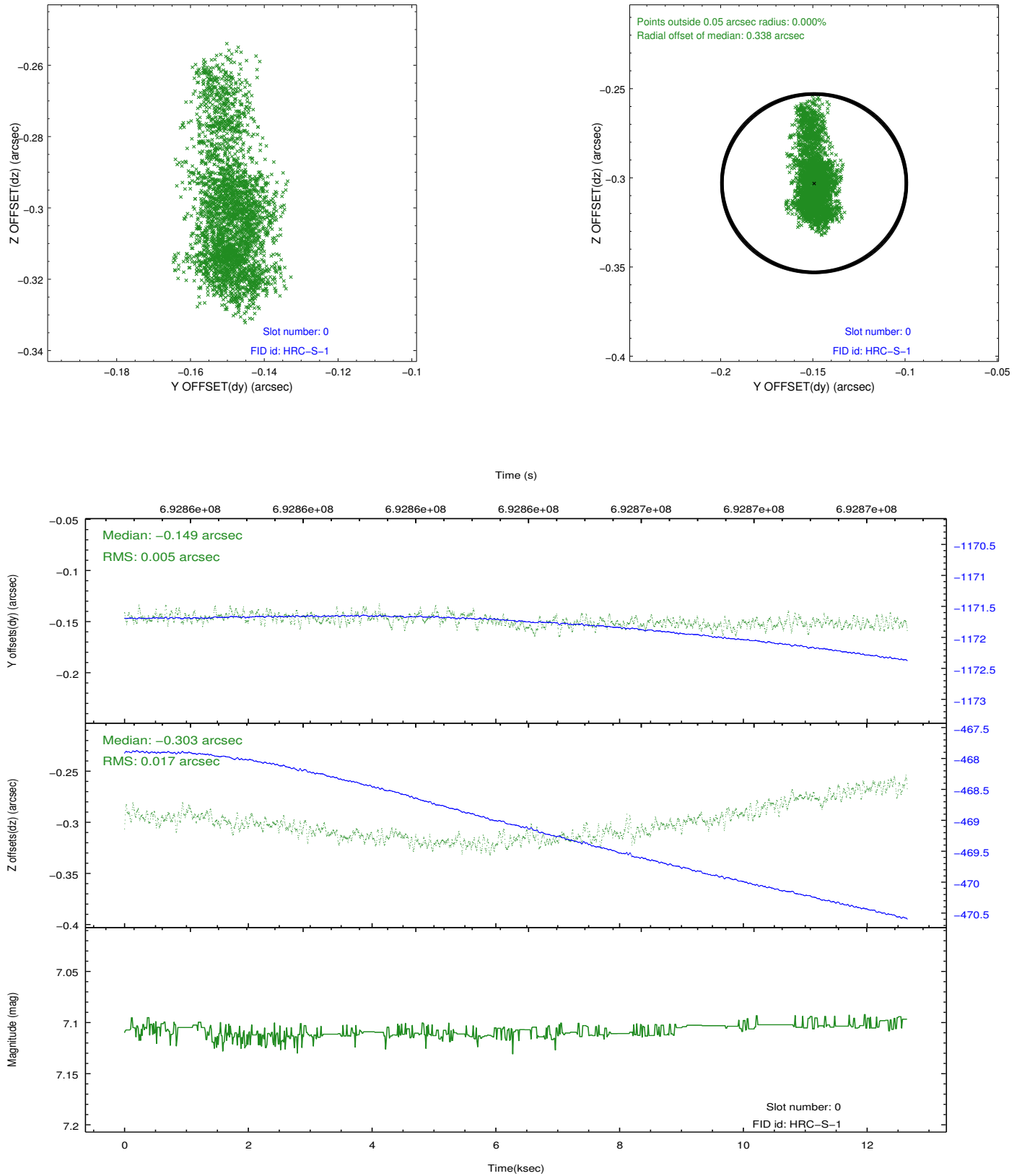


2.4.5 Slot 7

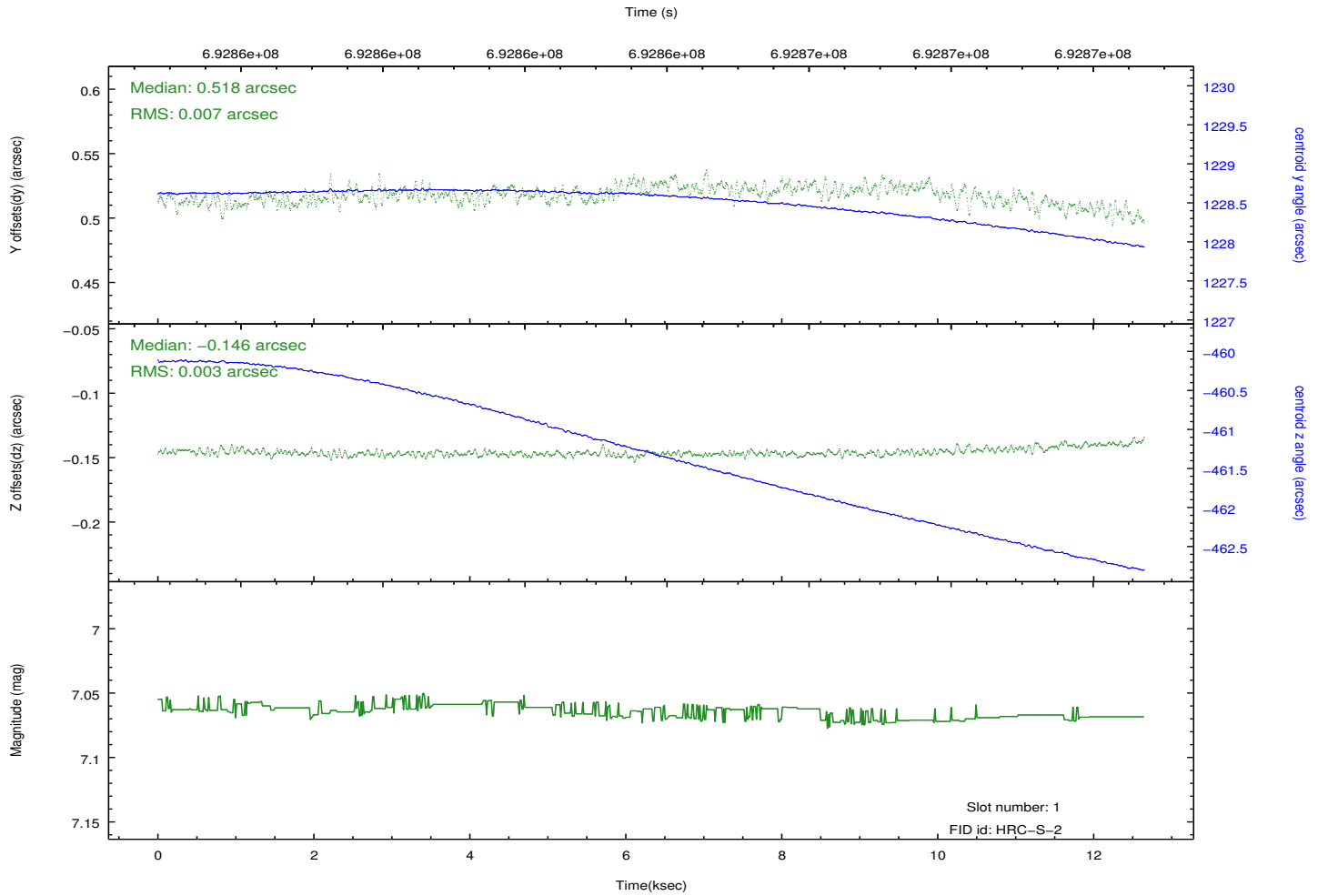
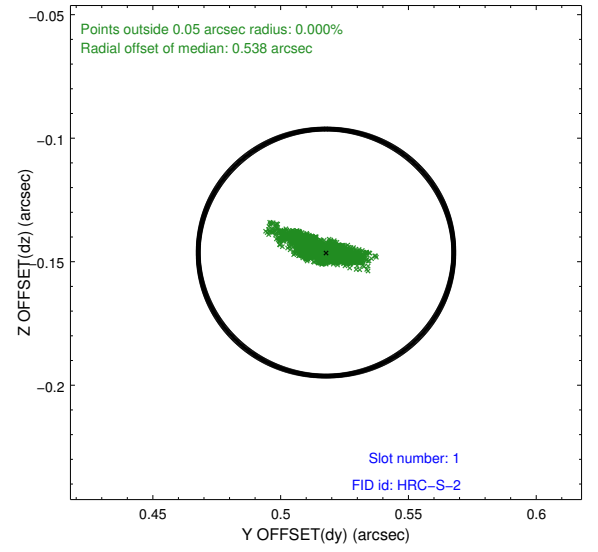
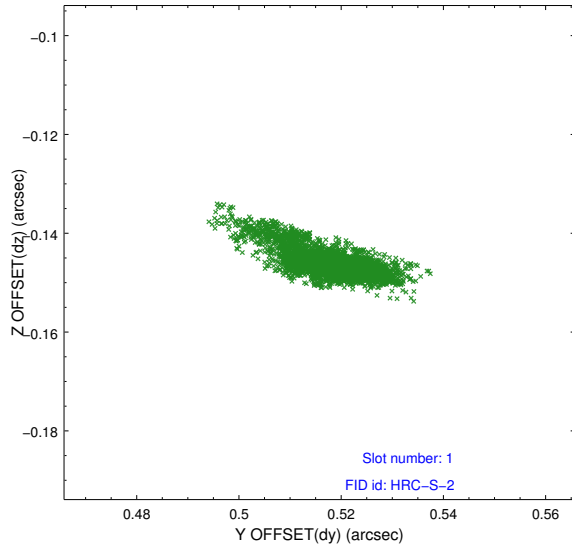


2.5 FID Slots

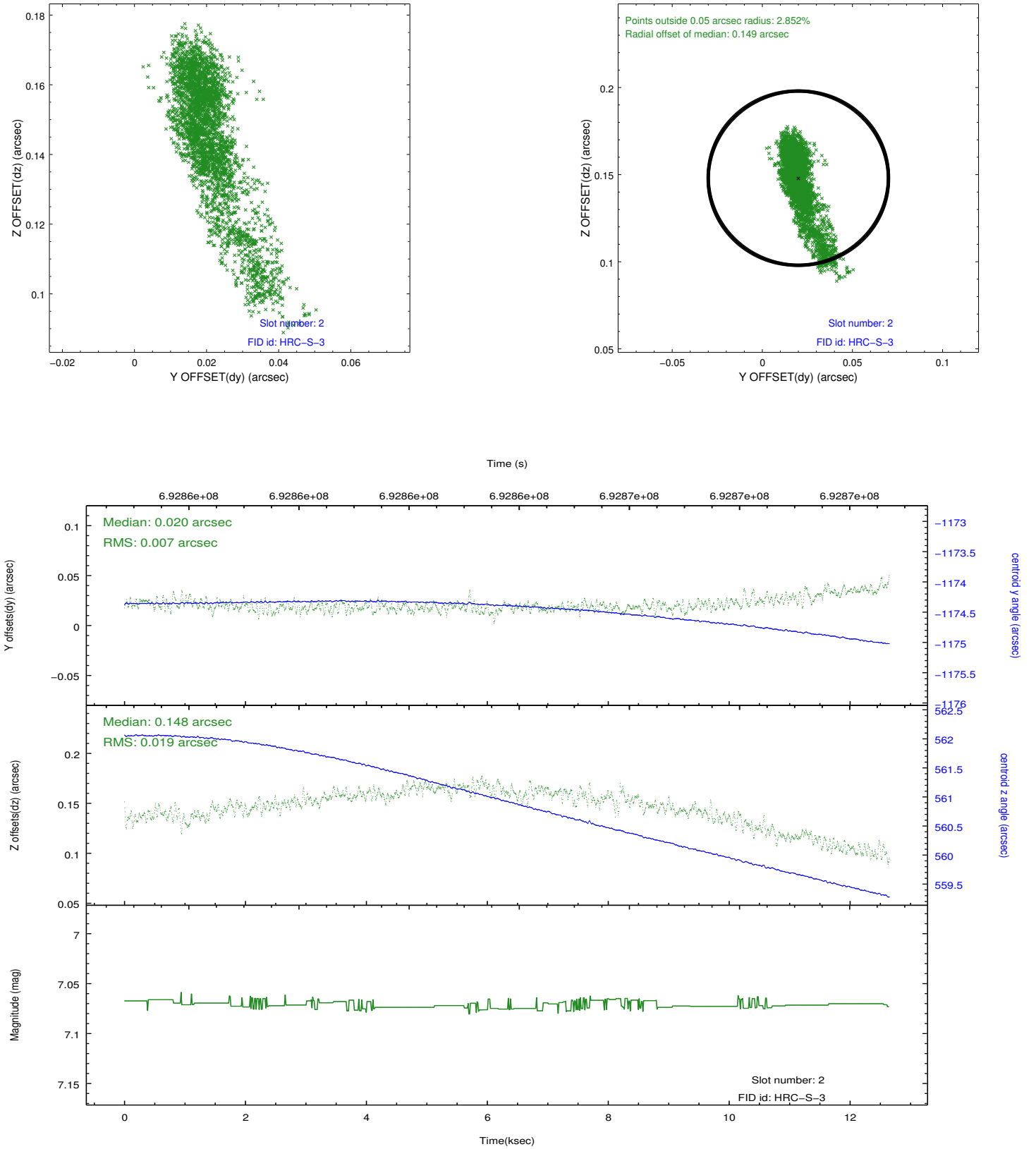
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2019.12.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.534982007742

A.2 Comments

This is 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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Window constraint met.

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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.