

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 23089 - L2 Version 1
Chandra X-Ray Center

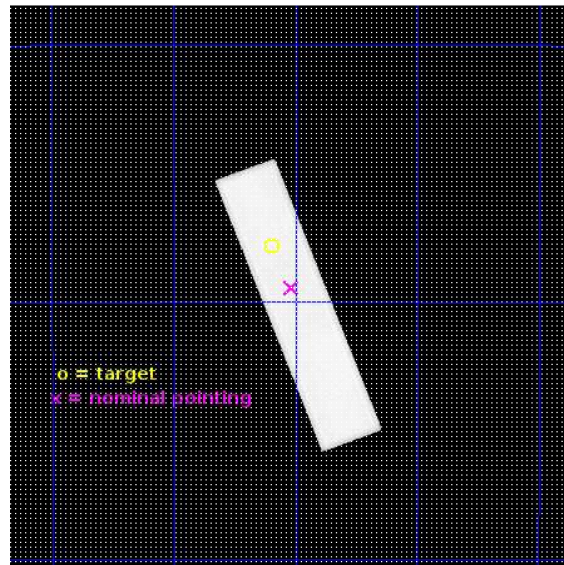
L2 Processing Date : Dec 16 2019

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Parameters	4
2.1.3	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

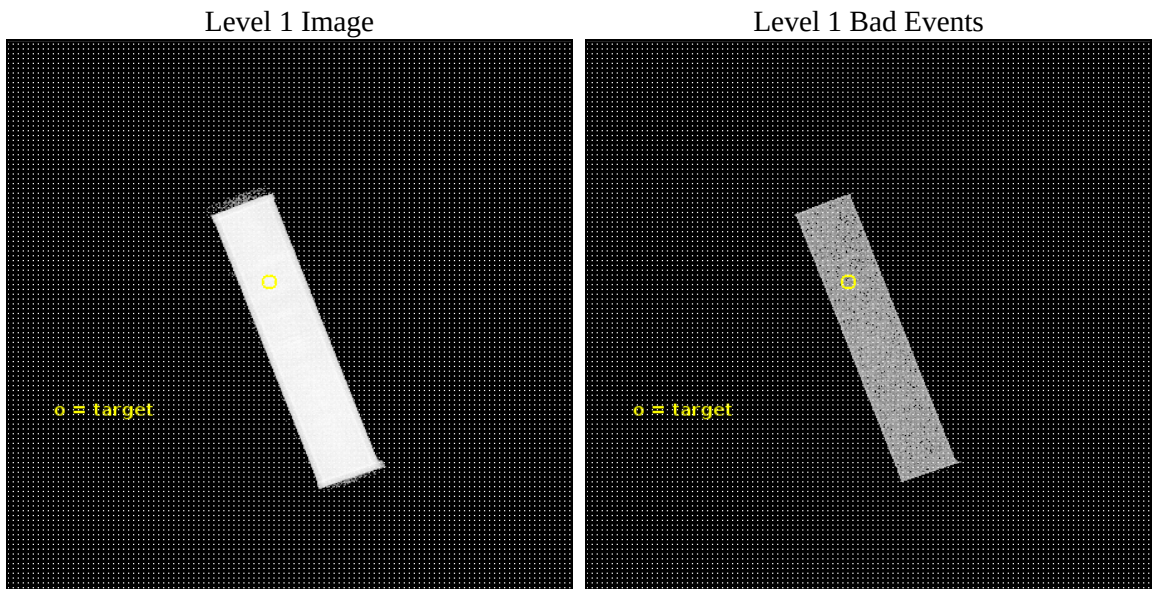
seq_num	100192	Sequence number
obs_id	23089	Observation id
title	Chandra Observations of the Interstellar Comet C/2019 Q4 Borisov	P
observer	Bradford Snios	Principal investigator
object	C/2019 Q4 Borisov	Source name
ra_targ	175.299528	Observer's specified target RA [deg]
dec_targ	-24.390453	Observer's specified target Dec [deg]
ra_nom	175.2584487977	Nominal RA [deg]
dec_nom	-24.472121341385	Nominal Dec [deg]
roll_nom	69.050340678748	Nominal Roll [deg]
revision	1	Processing version of data
ontime	12694.882017016	[s]
livetime	12569.972440158	Ontime multiplied by DTCOR
l2events	958549	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	12694.882017016	[s]
caldbver	4.8.4.2	 	l1events	1182227	Number of level 1 events
date	2019-12-16T21:22:30	Date and time of file creation			
revision	1	Processing version of data			

2.1.3 Events

Level 1 Events

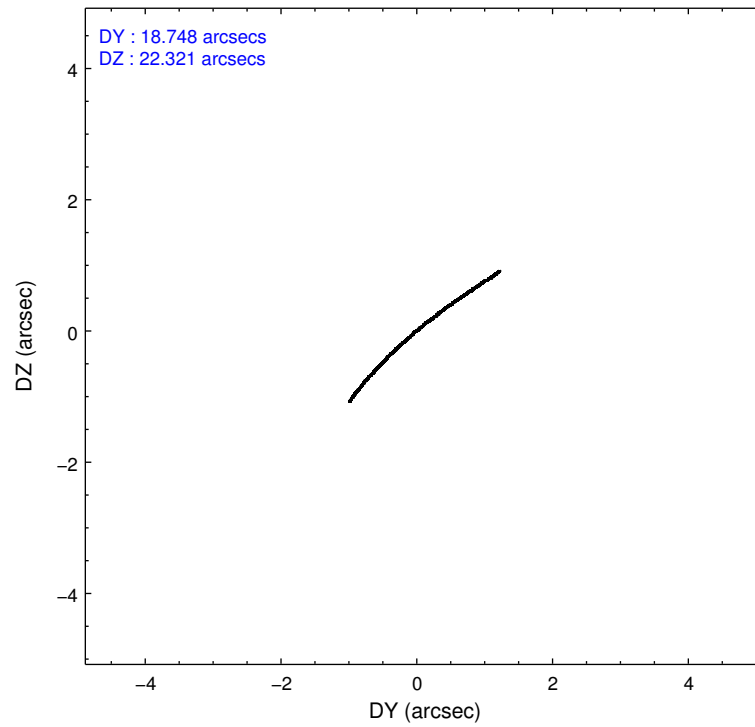
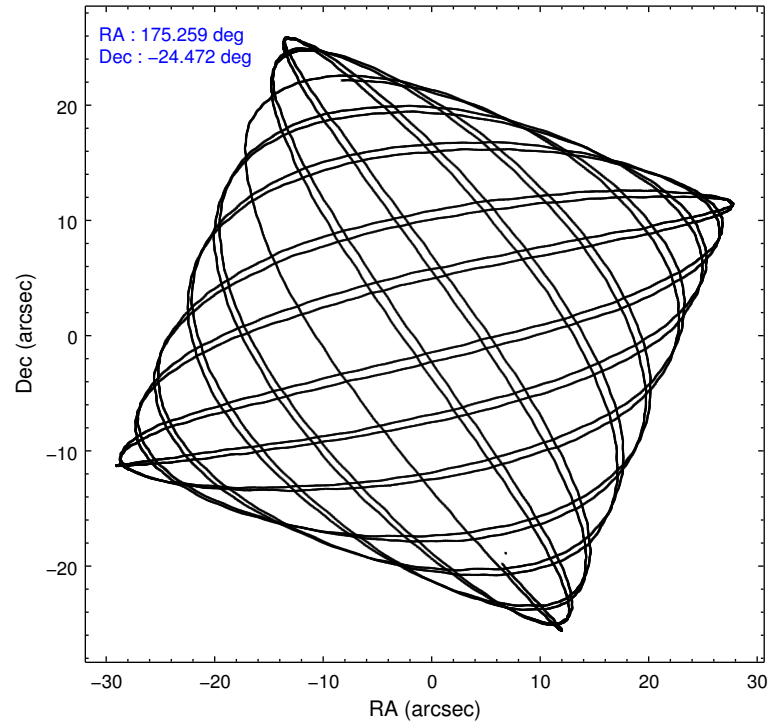
	segment 1	segment 2	segment 3
level 1 events	0	1182227	0
rejected events	0	82856	0
rejected %	0%	7%	0%

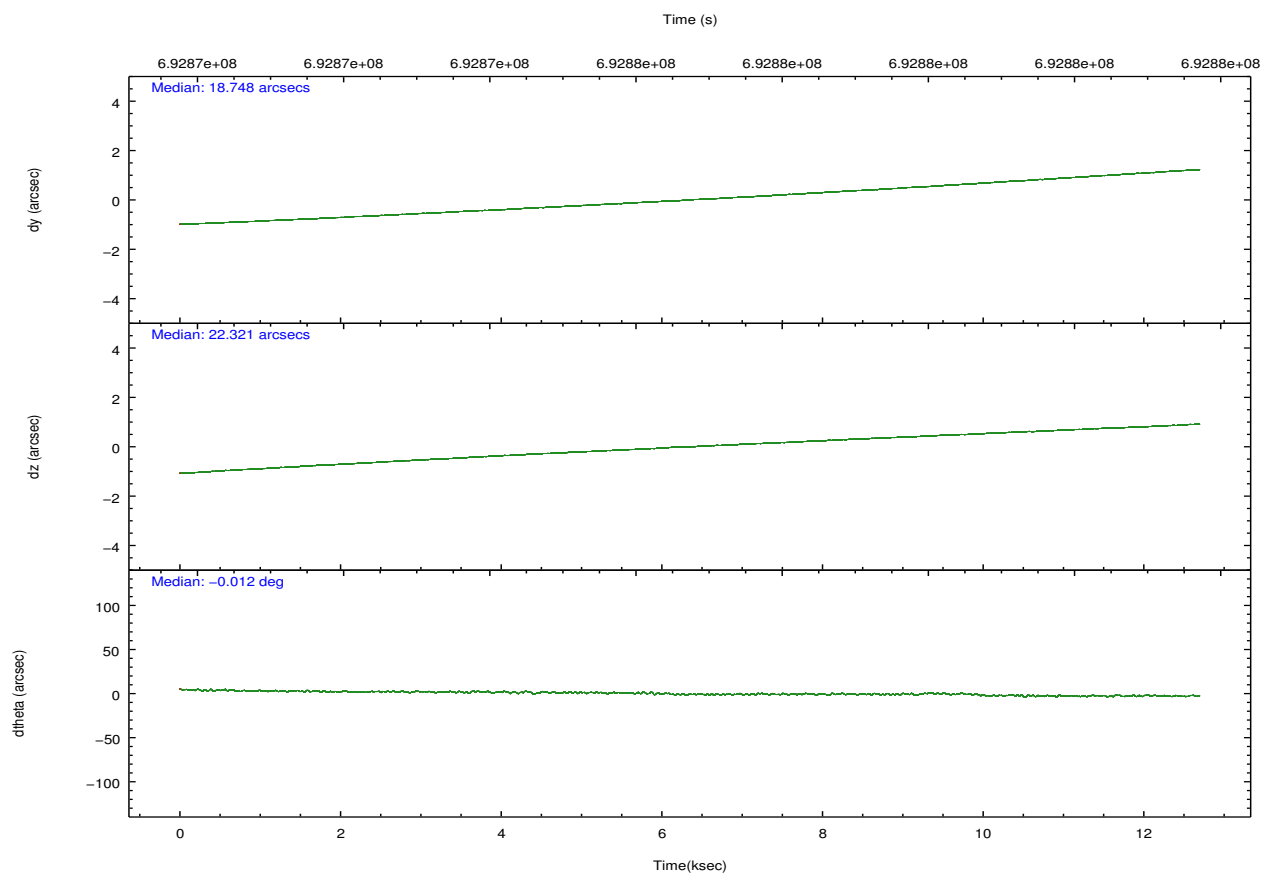
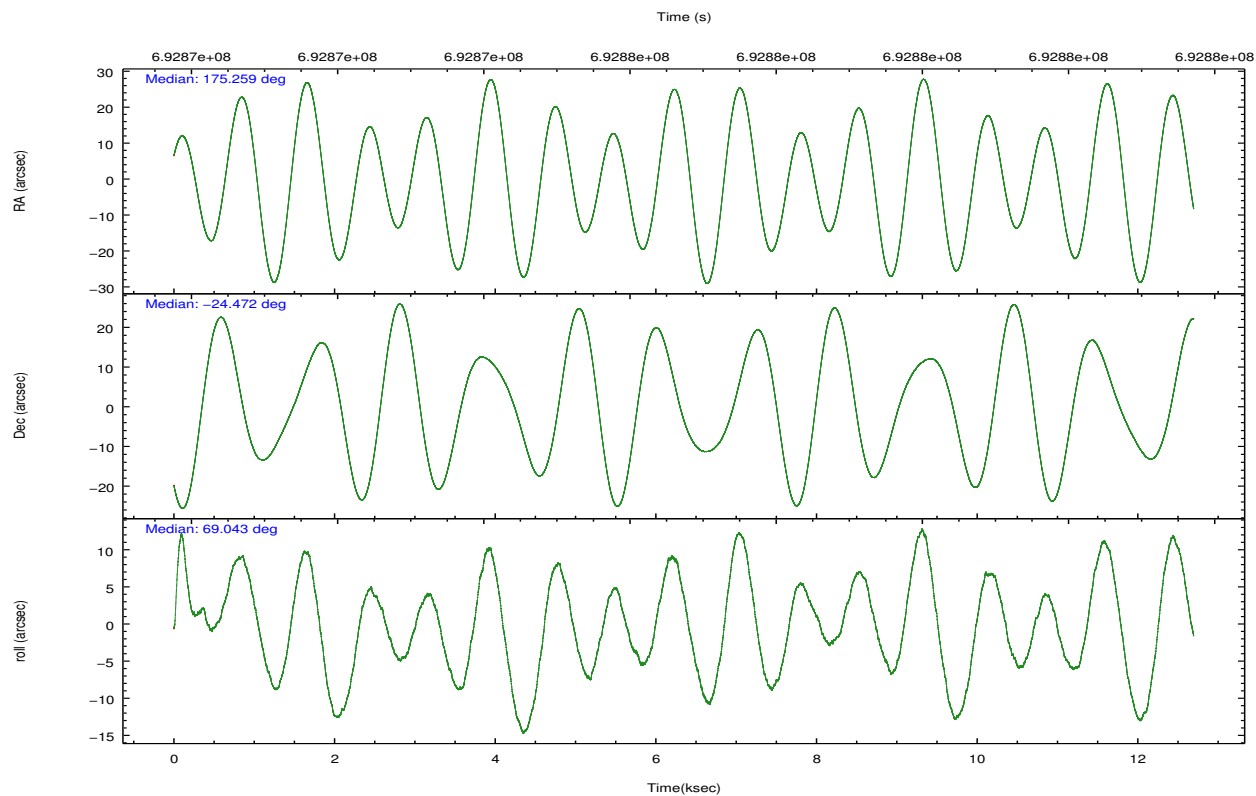
2.2 Compared Parameters

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	175.264876	175.2584487976968
[deg] Pointing Dec	-24.500340	-24.47212134138464
[deg] Pointing Roll	68.985679	69.05034067874811
[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)	692870597.184000	692870220.96126
Observation start date	2019-12-16T08:02:08	2019-12-16T07:57:00
[s] Observation end time (MET)	692883097.184000	692883989.27459
Observation end date	2019-12-16T11:30:28	2019-12-16T11:46:29

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

2.3 Aspect



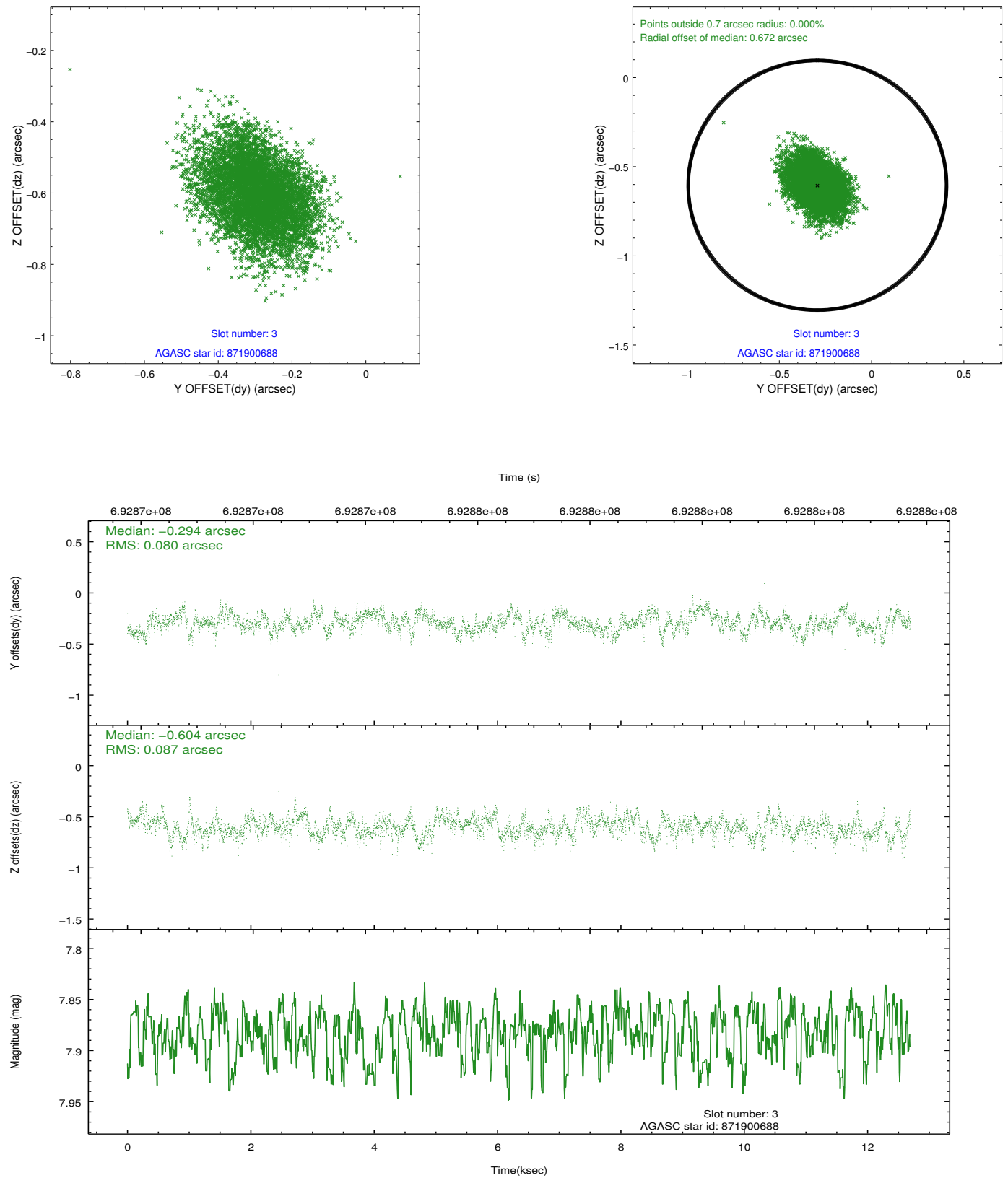


Slot Statistics

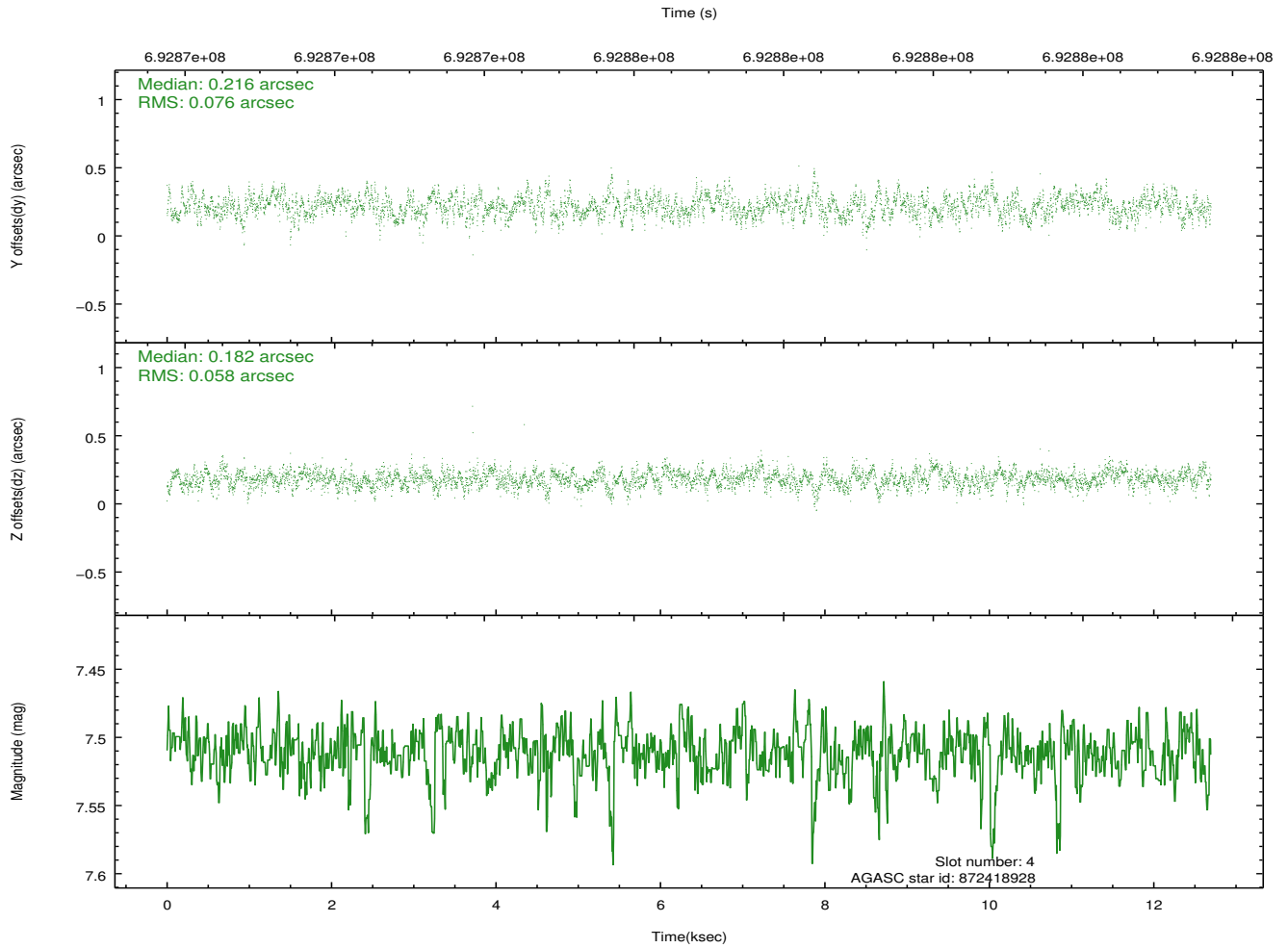
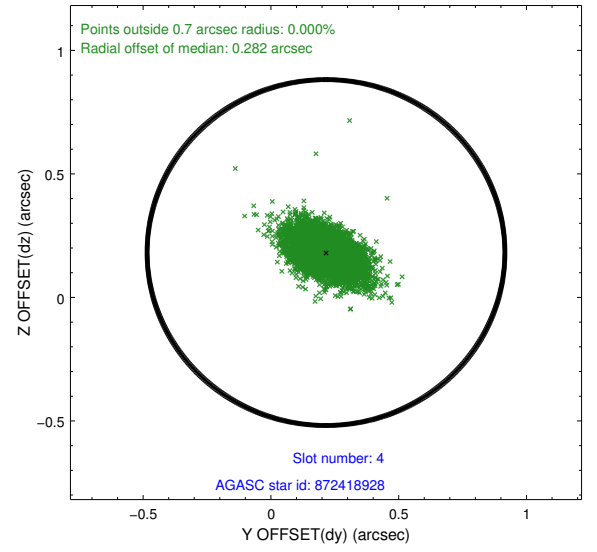
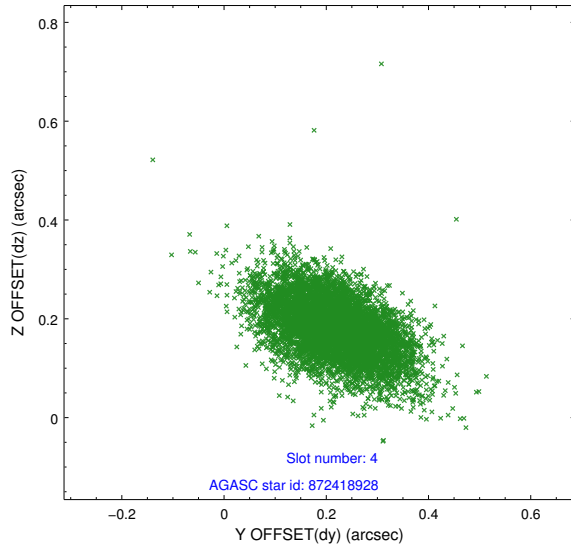
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-S-1	7.11	3097	1.000	-0.156	-0.206	0.015	0.039	0.000000	0.000000	-1173.42	-471
1	FID		HRC-S-2	7.07	3096	1.000	0.468	-0.122	0.016	0.033	0.000000	0.000000	1226.49	-463
2	FID		HRC-S-3	7.07	3096	1.000	0.079	0.024	0.021	0.059	0.000000	0.000000	-1175.66	558
3	GUIDE	used	871900688	7.88	6192	1.000	-0.294	-0.604	0.126	0.204	174.764382	-24.305703	62.32	1783
4	GUIDE	used	872418928	7.51	6193	1.000	0.216	0.182	0.099	0.169	174.842903	-24.896427	-1826.52	775
5	GUIDE	used	872423312	6.37	6193	1.000	0.047	-0.127	0.095	0.163	174.751843	-24.721092	-1350.45	1278
6	GUIDE	used	873602864	8.33	6190	1.000	-0.145	-0.070	0.128	0.230	175.901464	-24.215750	1701.74	-1584
7	GUIDE	used	874121856	8.27	6189	1.000	0.180	0.621	0.119	0.201	175.838313	-24.758064	-196.55	-2083

2.4 Star Slots

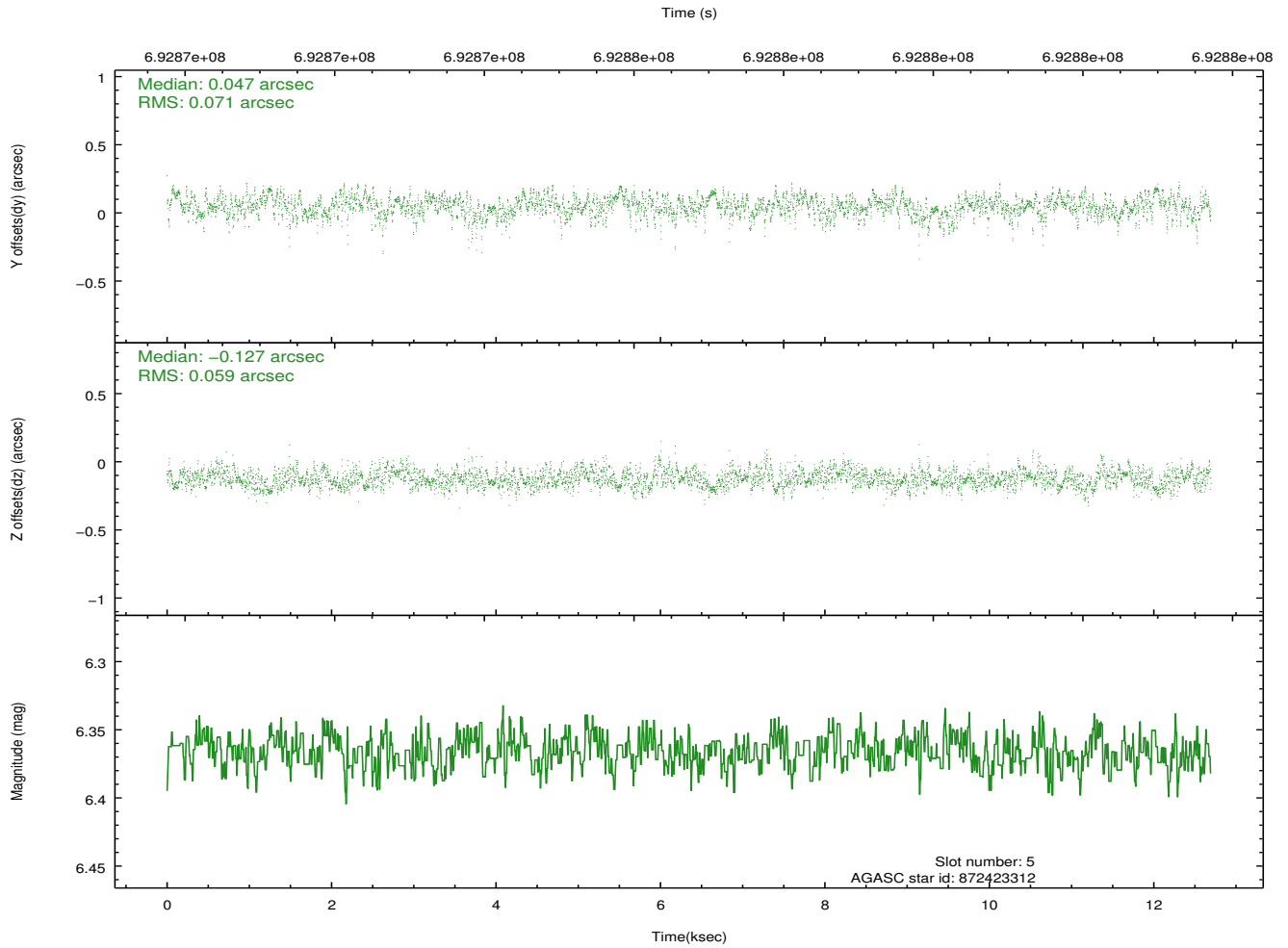
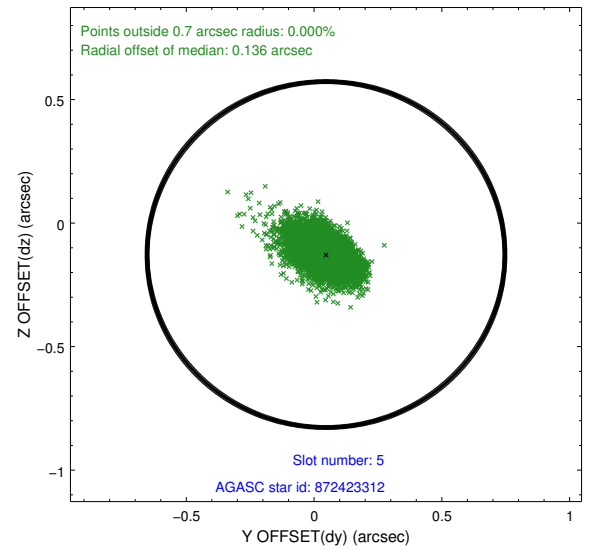
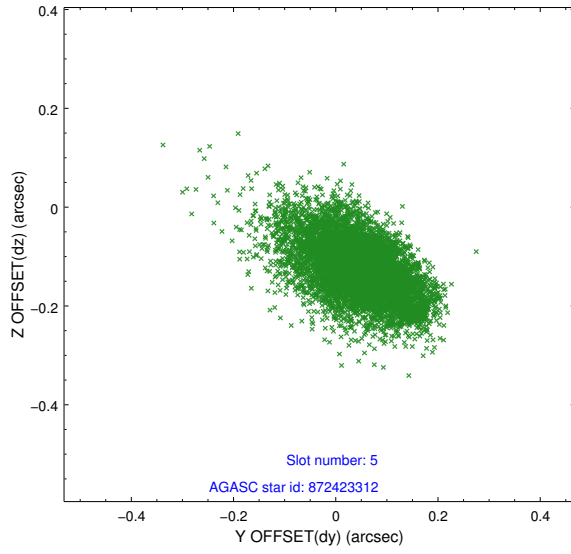
2.4.1 Slot 3



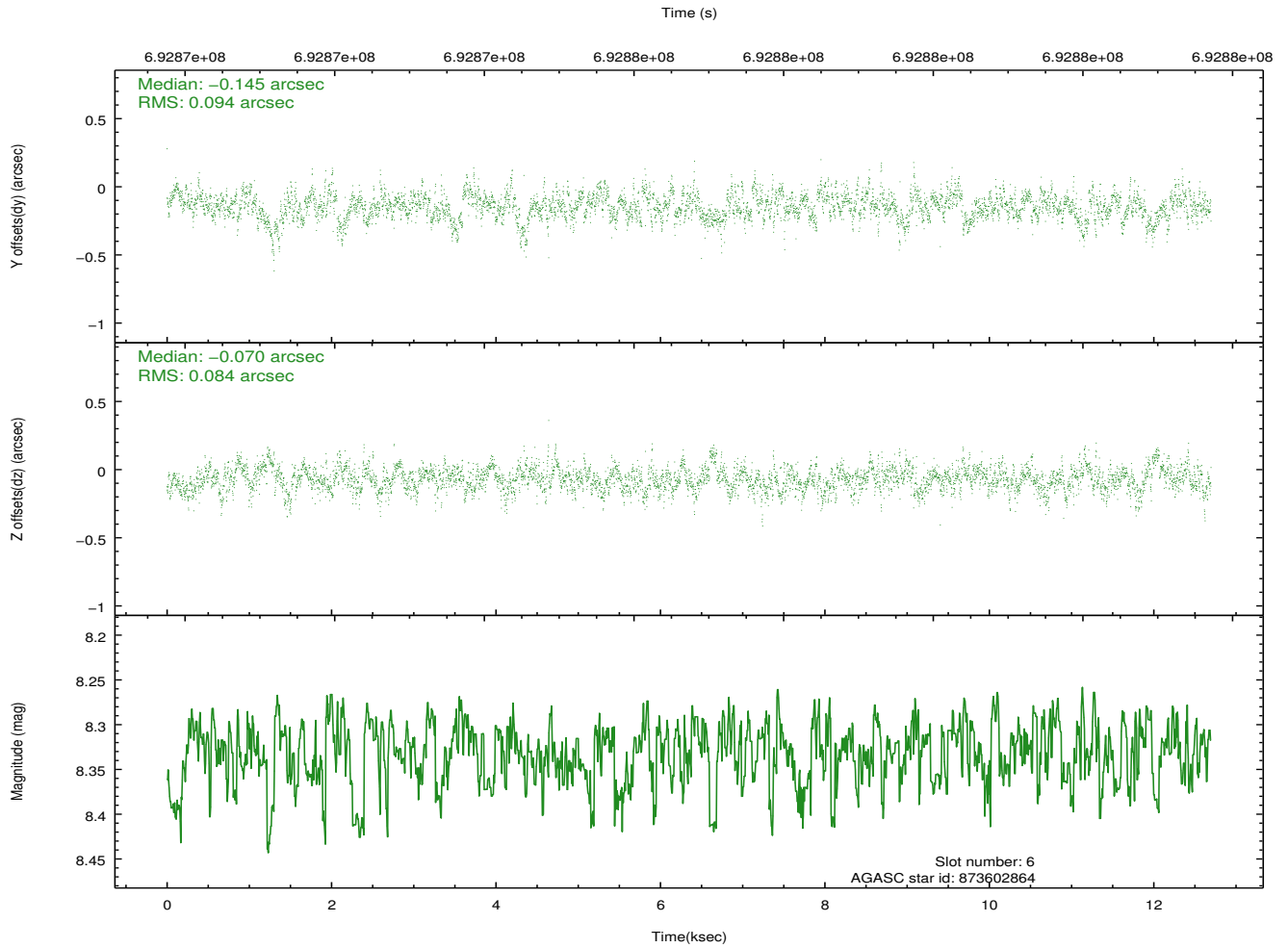
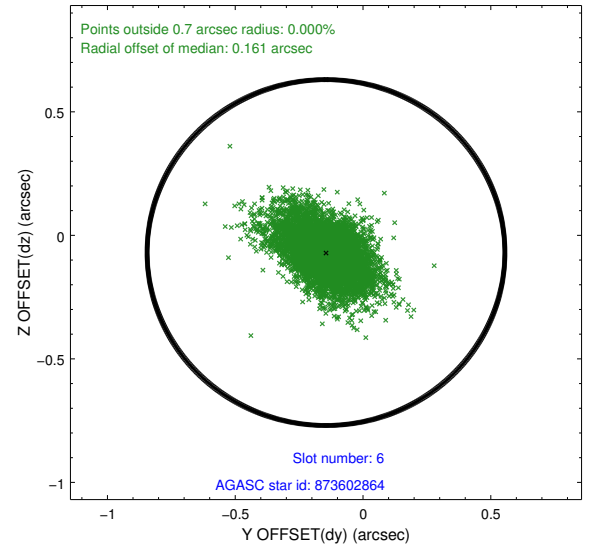
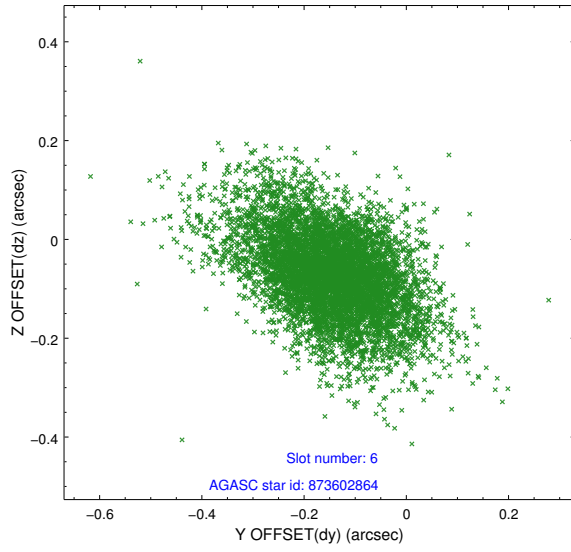
2.4.2 Slot 4



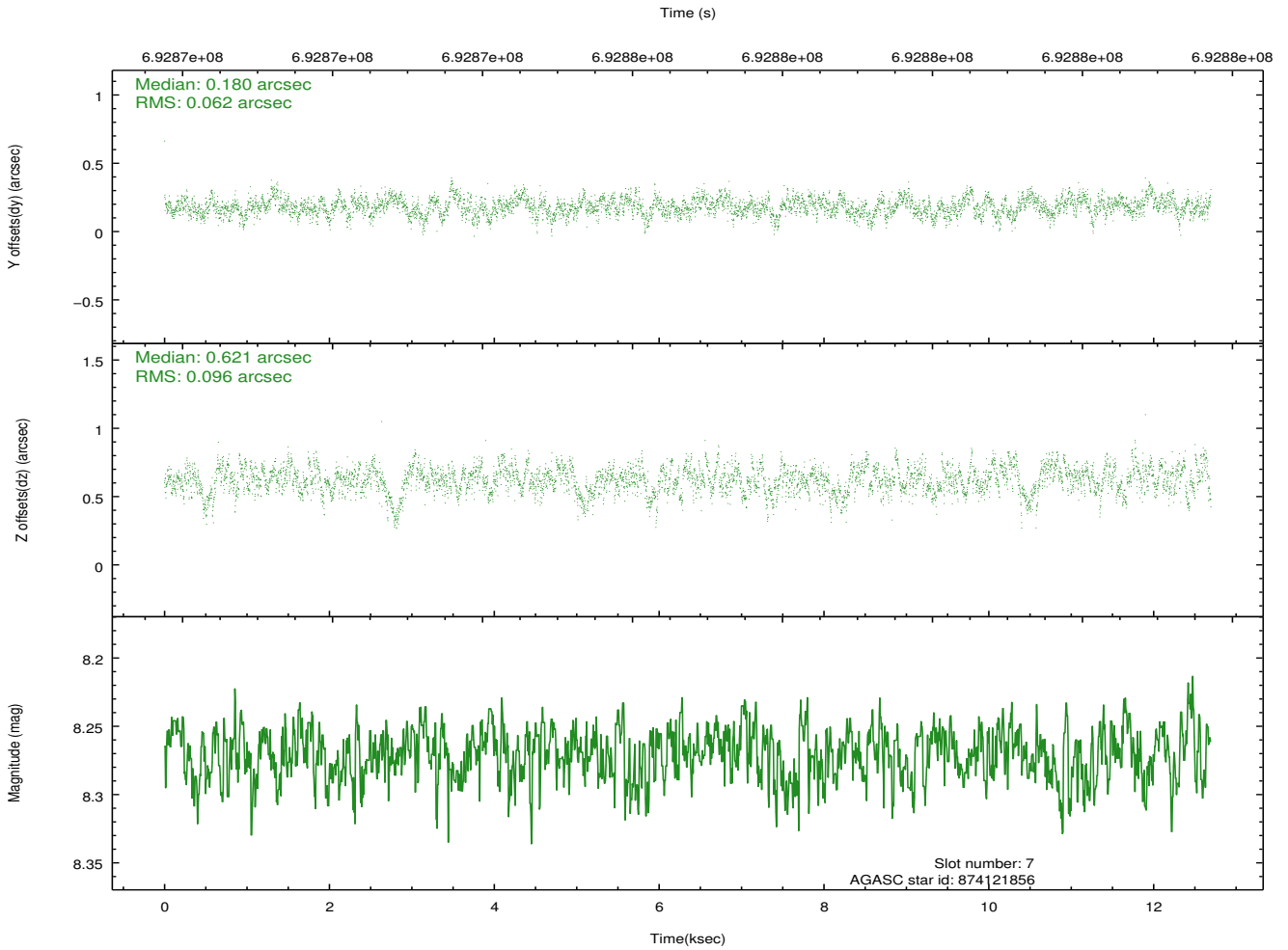
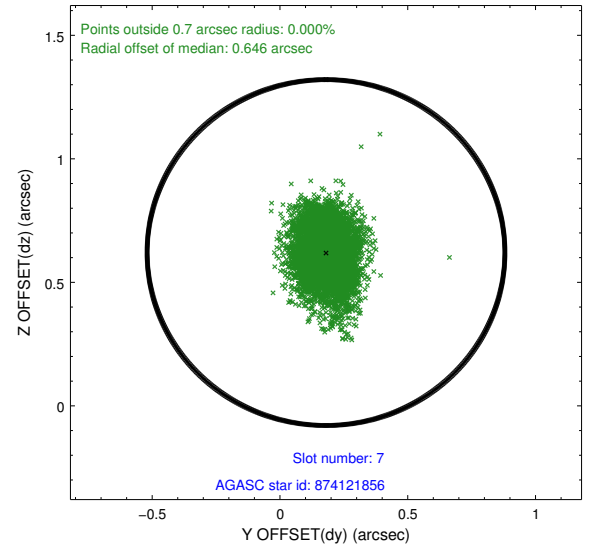
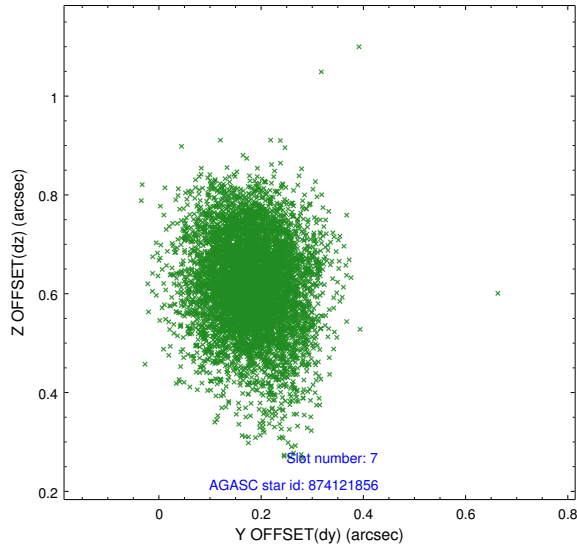
2.4.3 Slot 5



2.4.4 Slot 6

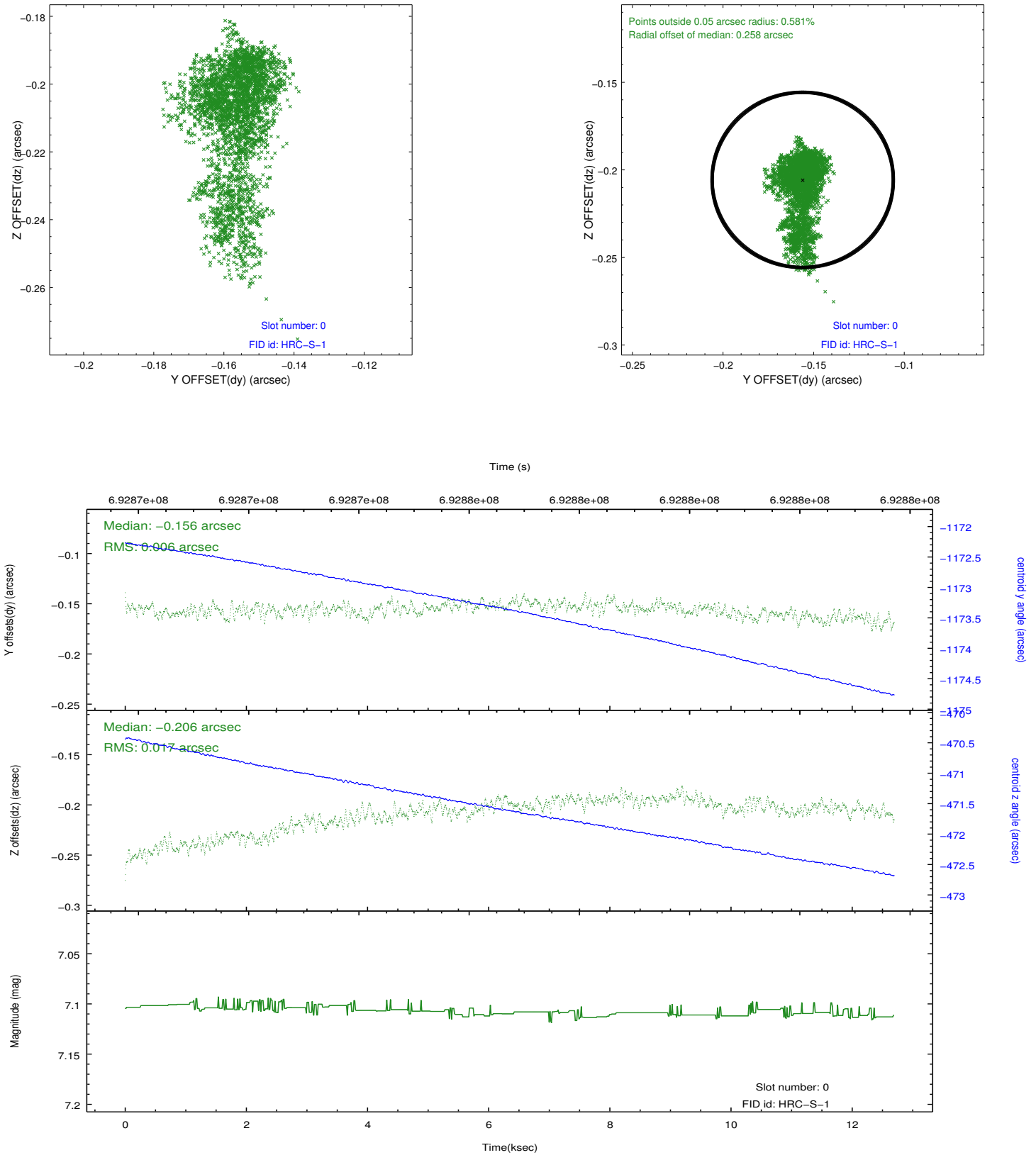


2.4.5 Slot 7

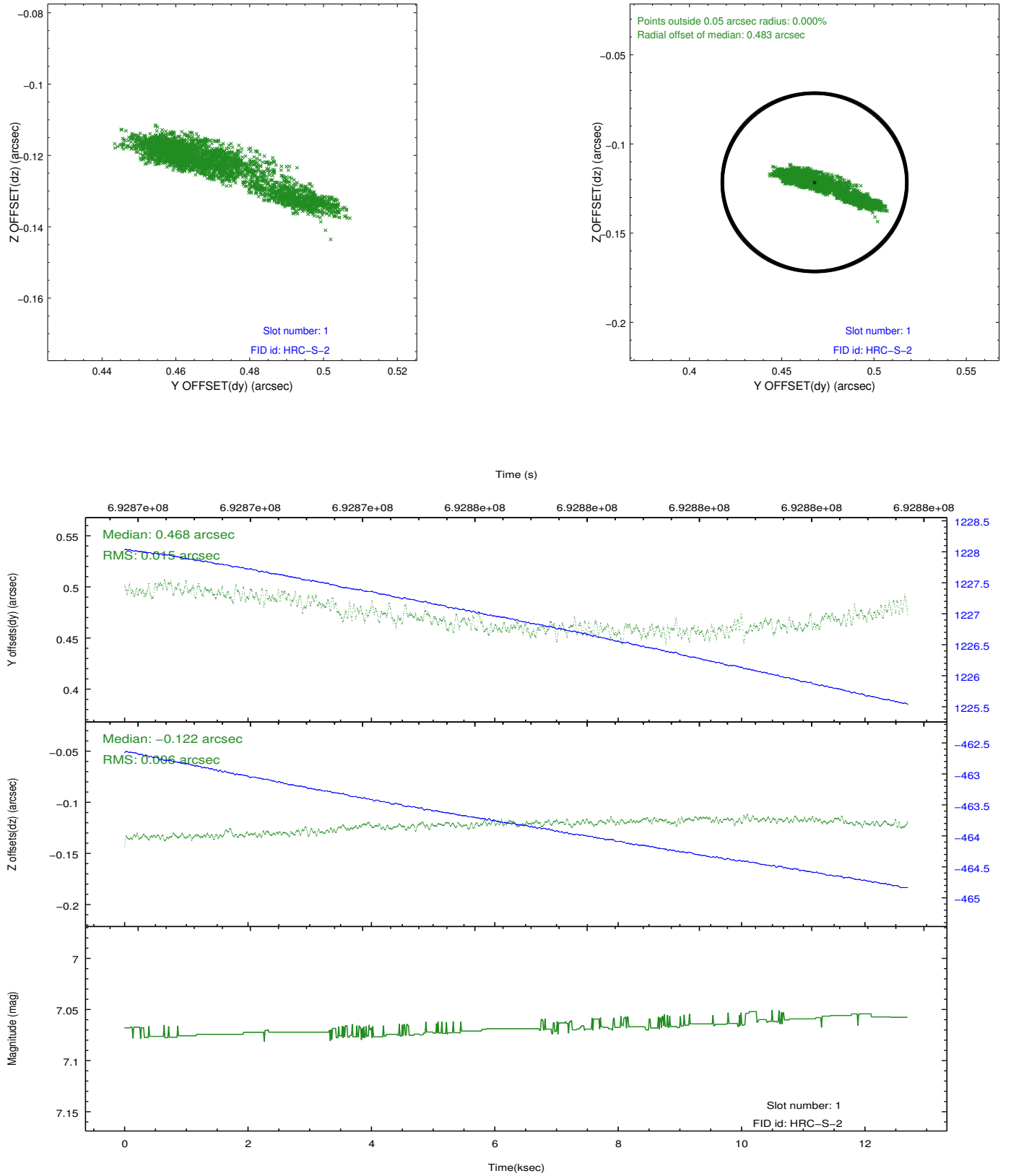


2.5 FID Slots

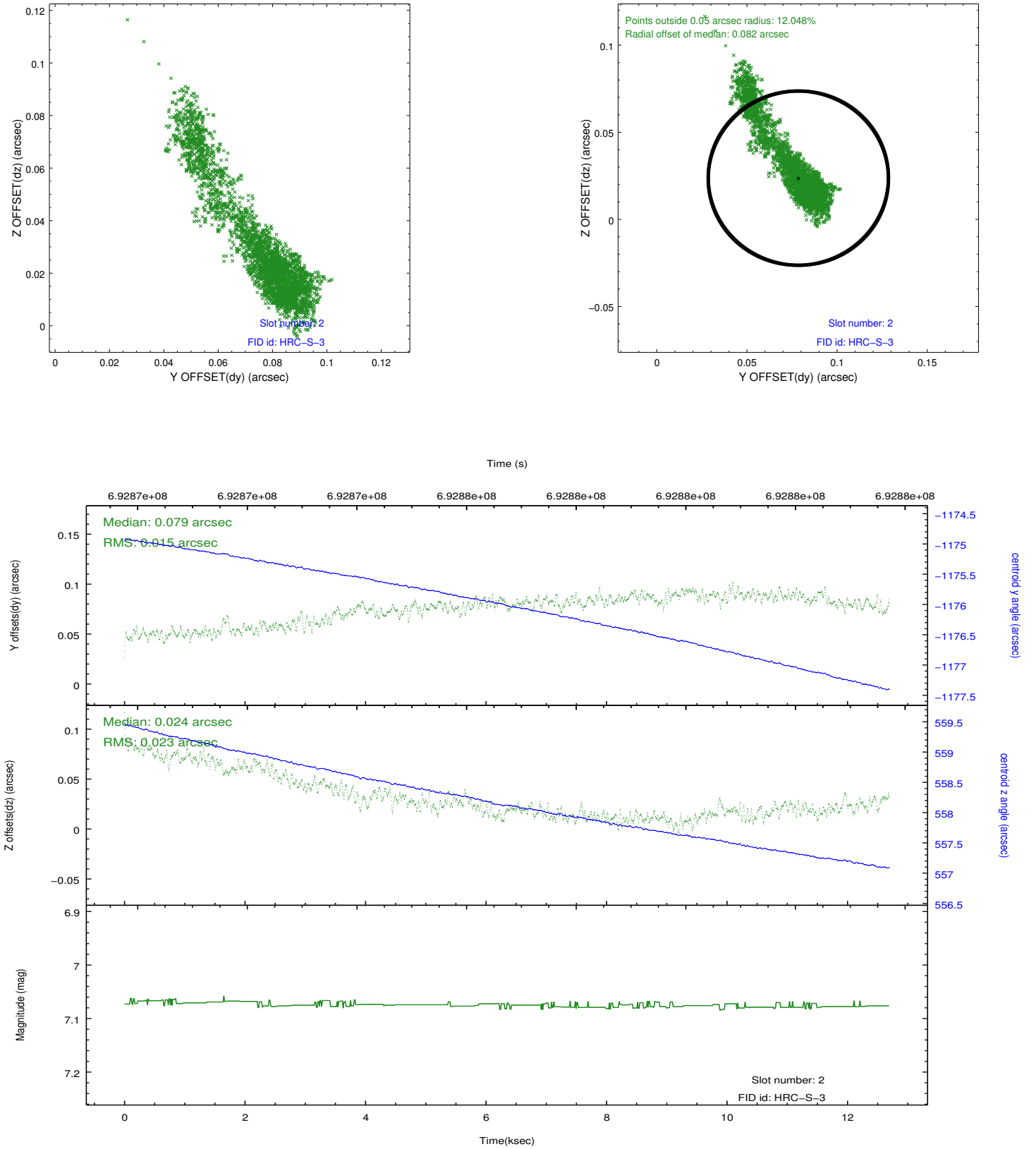
2.5.1 Slot 0



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)	2019.12.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.694882017016

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.