

# V&V Reference Report

## L2 ASCDS Version : 10.8.1

Observation 23133 - L2 Version 1  
Chandra X-Ray Center

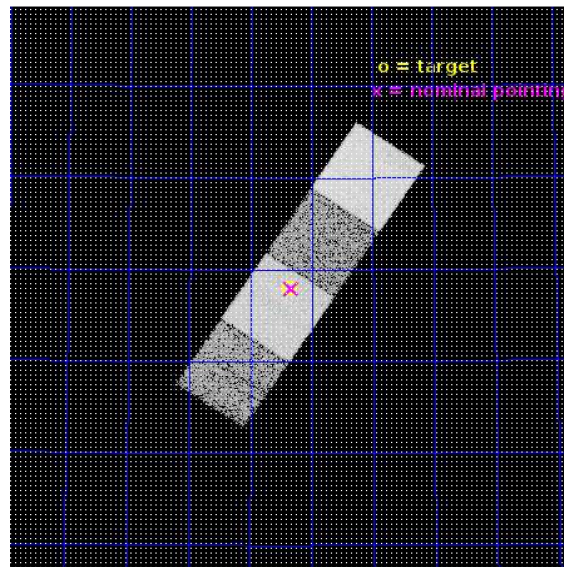
L2 Processing Date : Feb 6 2020

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# 1 Front

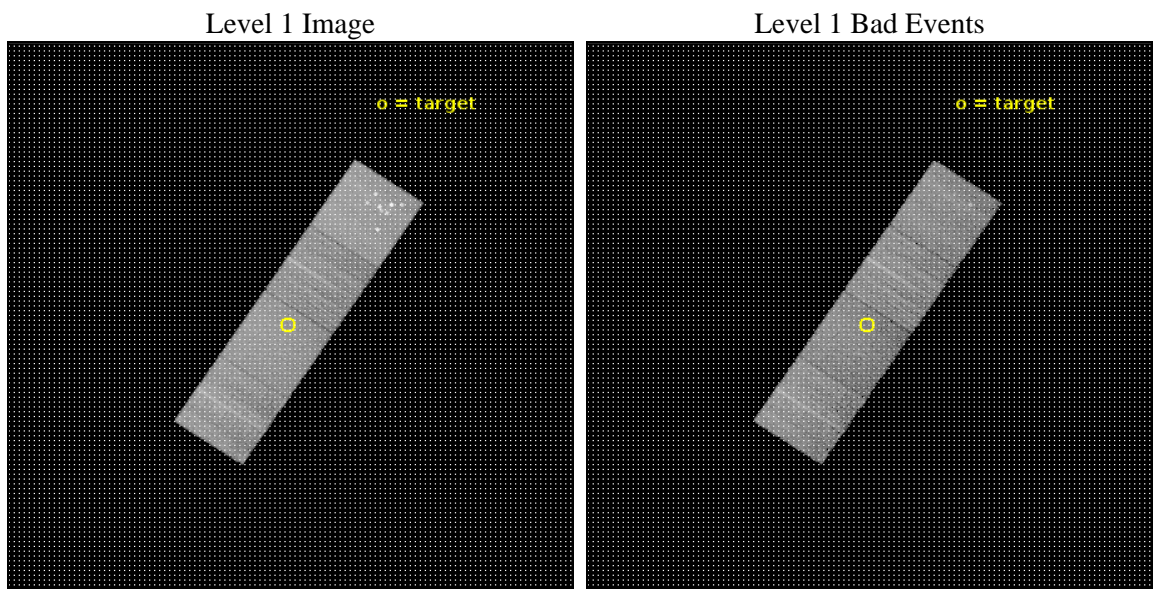
seq_num	503198	Sequence number
obs_id	23133	Observation id
title	Chandra Observation of SN 2019yvq	Proposal title
observer	David Pooley	Principal investigator
object	SN 2019yvq	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.840979	Observer's specified target RA [deg]
dec_targ	64.799964	Observer's specified target Dec [deg]
ra_nom	186.83323099503	Nominal RA [deg]
dec_nom	64.799094272885	Nominal Dec [deg]
roll_nom	123.53374041743	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10058.17707026	Sum of GTIs [s]
livetime	9926.7595821149	Livetime [s]
ontime5	10058.136030316	Sum of GTIs [s]
ontime6	10051.812879324	Sum of GTIs [s]
ontime7	10058.17707026	Sum of GTIs [s]
ontime8	10058.05395031	Sum of GTIs [s]
l2events	114067	Number of level 2 events



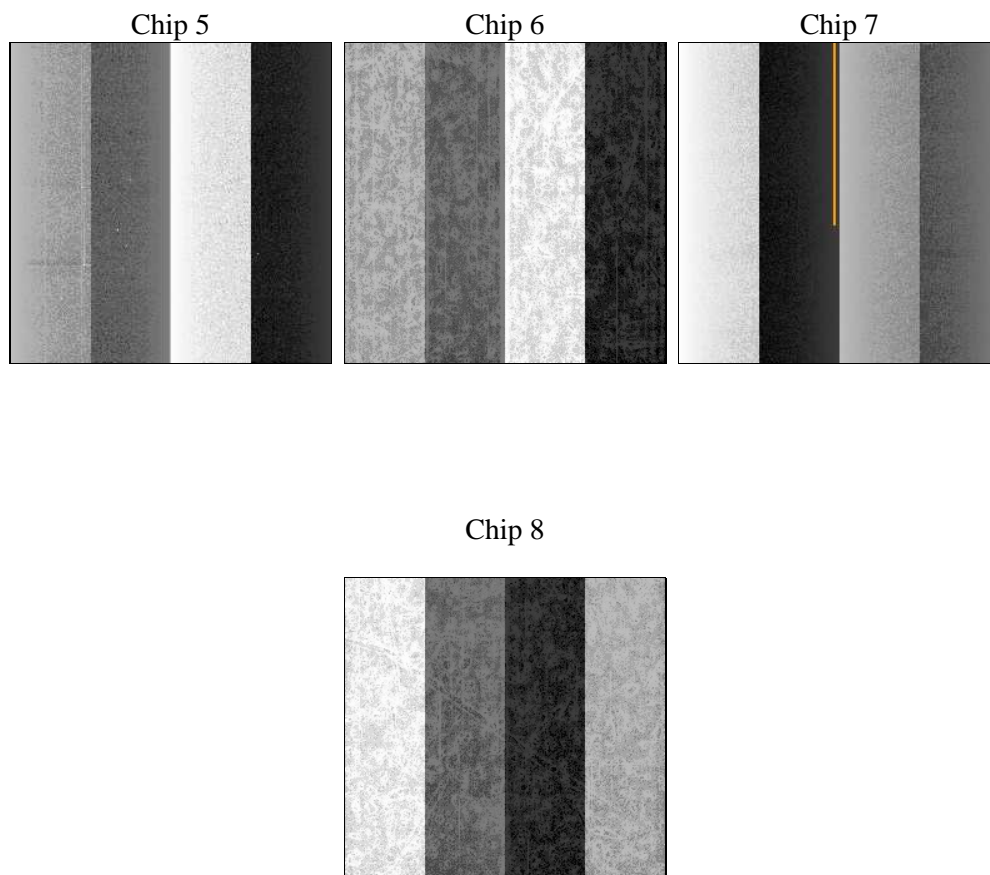
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	10058.17707026	Sum of GTIs [s]
caldsver	4.8.4.2	&#160	ontime5	10058.136030316	Sum of GTIs [s]
date	2020-02-06T13:49:26	Date and time of file creation	ontime6	10051.812879324	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	10058.17707026	Sum of GTIs [s]
			ontime8	10058.05395031	Sum of GTIs [s]
			l1events	423302	Number of level 1 events

### 2.1.4 Events

	<b>ccd 5</b>	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	142971	81267	99718	99346
rejected events	66137	72690	56939	74606
rejected %	46%	89%	57%	75%

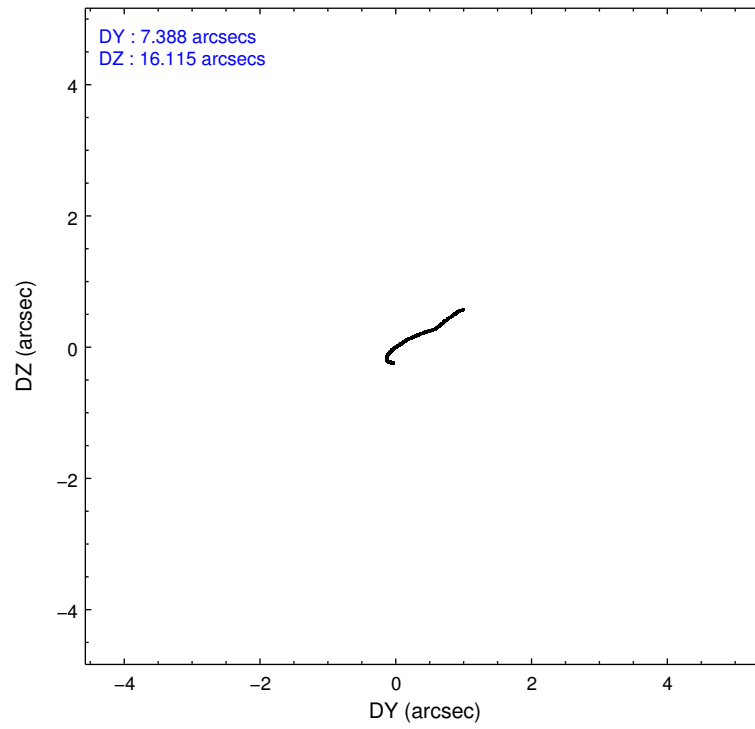
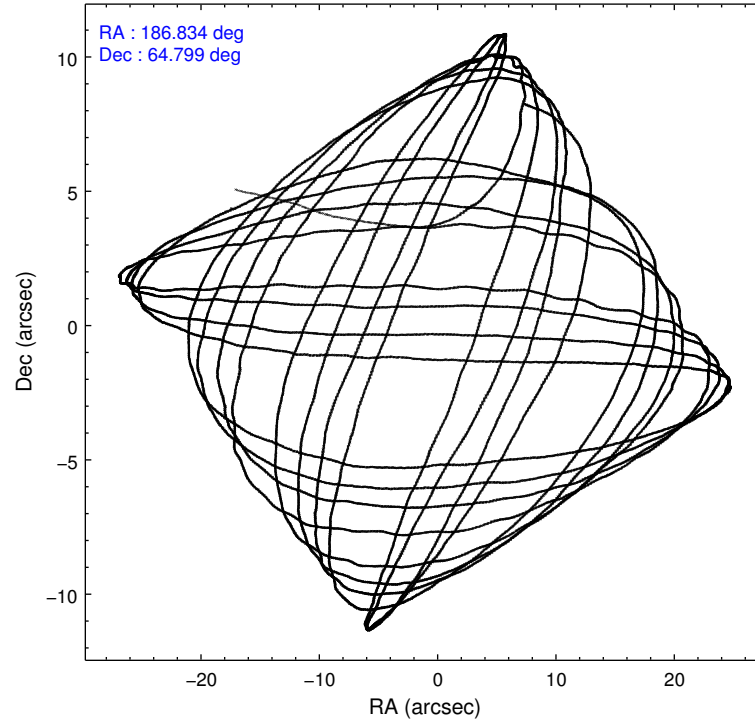
	<b>ccd 5</b>	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	17472	2454	3433	6854
	12%	3%	3%	6%
grade 1 events	995	40	134	69
	0%	0%	0%	0%
grade 2 events	21511	2347	9001	5956
	15%	2%	9%	5%
grade 3 events	2407	657	3351	2603
	1%	0%	3%	2%
grade 4 events	1726	741	3192	2372
	1%	0%	3%	2%
grade 5 events	7841	3131	9640	5129
	5%	3%	9%	5%
grade 6 events	33779	2384	23836	6969
	23%	2%	23%	7%
grade 7 events	57240	69513	47131	69394
	40%	85%	47%	69%

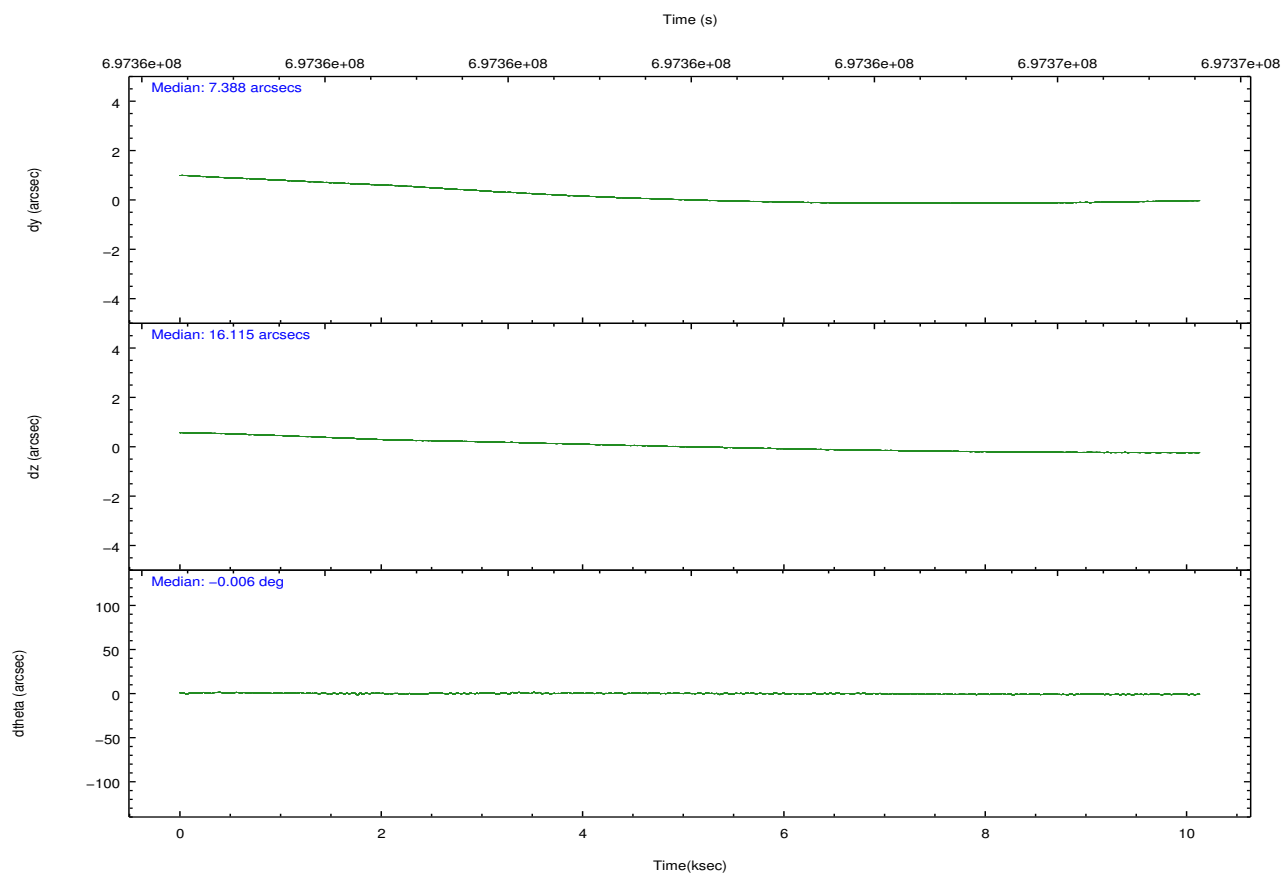
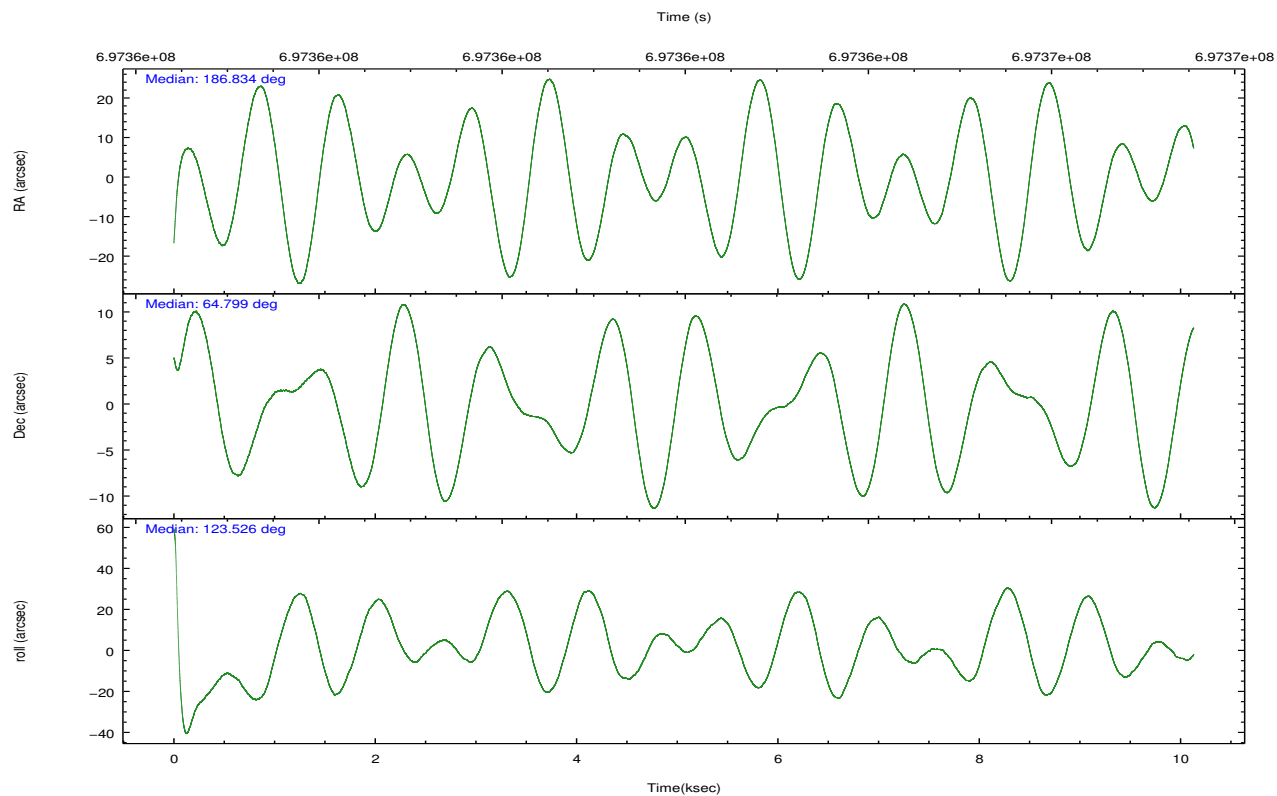


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	186.891251	186.8332309950327	CCD I2 on	N	N
[deg] Pointing Dec	64.787155	64.79909427288541	CCD I3 on	N	N
[deg] Pointing Roll	123.324503	123.533740417433	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O3	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O2	Y
[s] Observation start time (MET)	697357038.184000	697356051.73251	CCD S5 on	N	N
Observation start date	2020-02-06T06:16:09	2020-02-06T06:00:51	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	697367038.184000	697367822.32072	On-chip summing requested	N	N
Observation end date	2020-02-06T09:02:49	2020-02-06T09:17:02	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



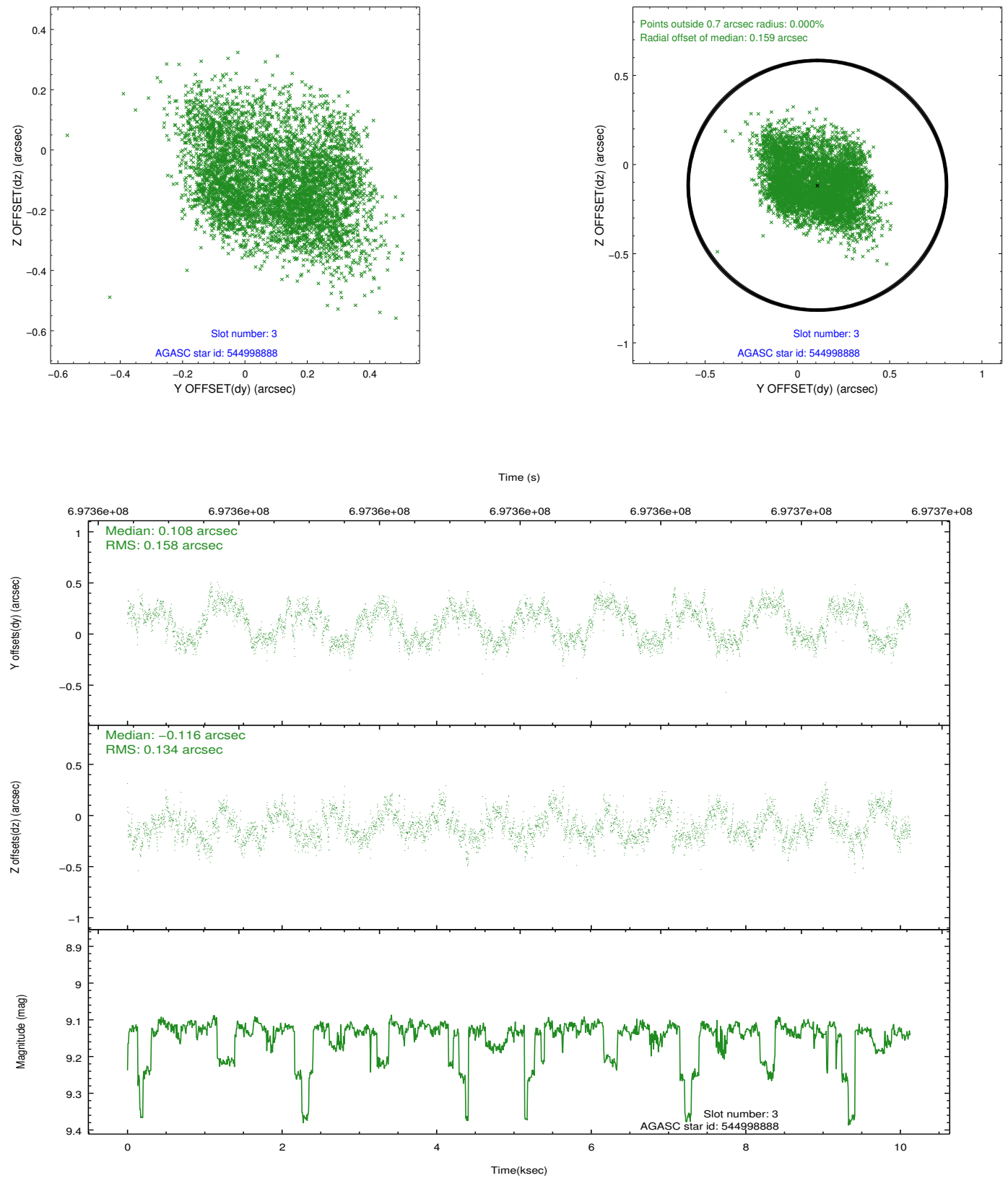


Slot Statistics

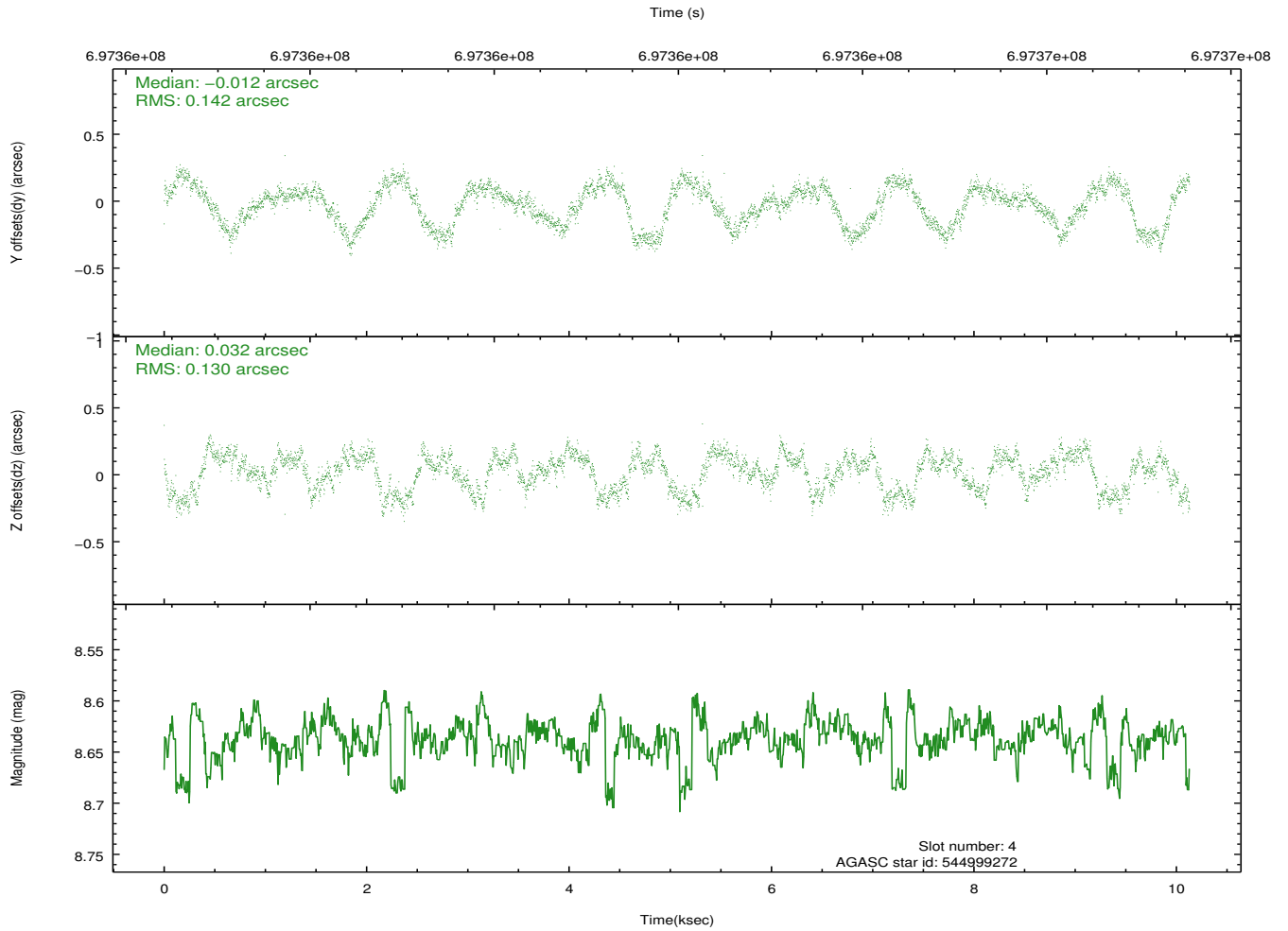
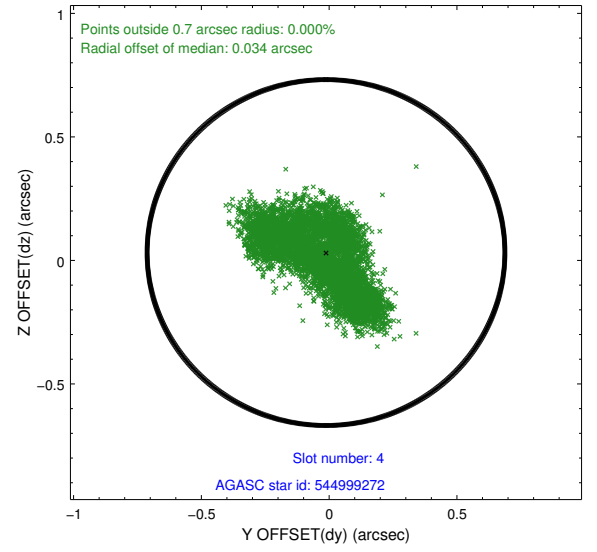
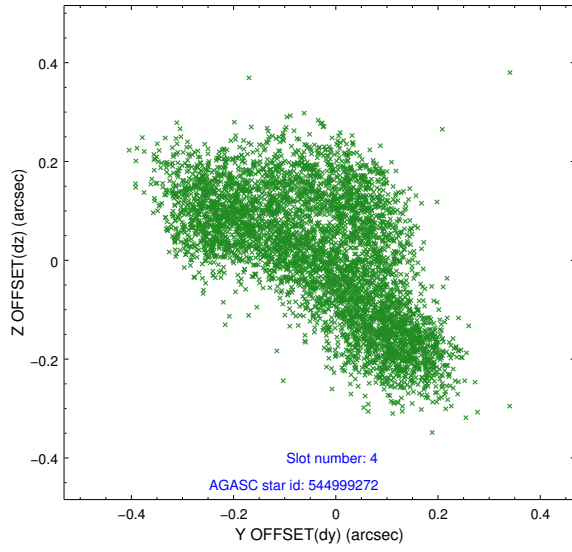
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.02	2471	1.000	-0.255	-0.088	0.016	0.033	0.000000	0.000000	-760.55	-1737
1	FID		ACIS-S-4	7.16	2470	1.000	0.564	0.146	0.012	0.030	0.000000	0.000000	2153.26	170
2	FID		ACIS-S-5	7.13	2471	1.000	-0.338	-0.050	0.020	0.057	0.000000	0.000000	-1812.87	164
3	GUIDE	used	544998888	9.13	4940	1.000	0.108	-0.116	0.226	0.337	186.198130	64.033685	-1661.26	2399
4	GUIDE	used	544999272	8.64	4941	1.000	-0.012	0.032	0.215	0.313	185.944053	64.527494	33.89	1734
5	GUIDE	used	545002520	8.08	4940	1.000	0.111	0.072	0.125	0.204	186.151442	64.105441	-1405.88	2317
6	GUIDE	used	545002560	9.21	4864	1.000	-0.202	-0.286	0.389	0.537	185.089737	64.776261	1517.05	2310
7	GUIDE	used	545397680	9.86	4934	1.000	-0.001	0.294	0.221	0.378	186.633679	65.182994	1405.96	-456

## 2.4 Star Slots

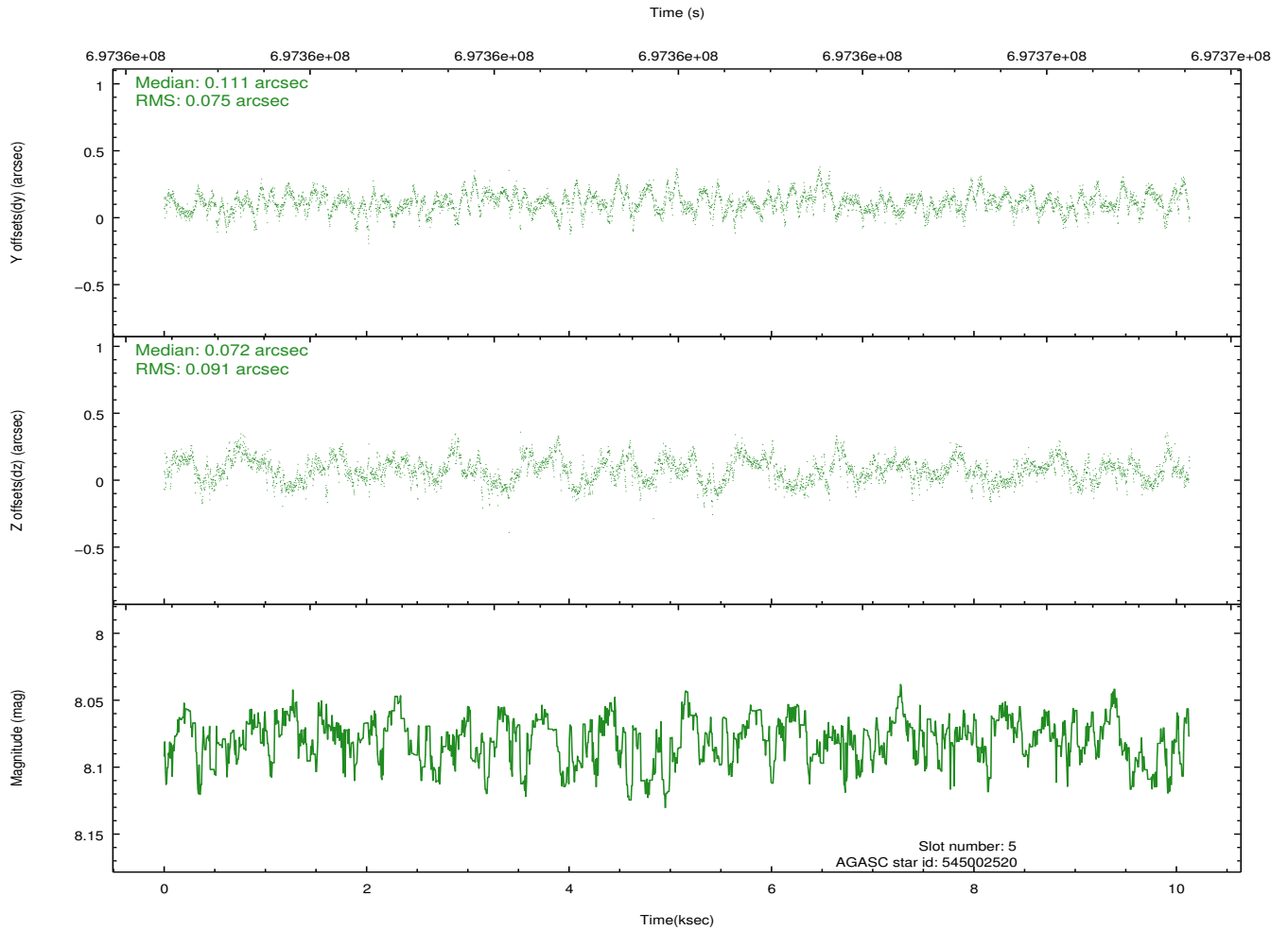
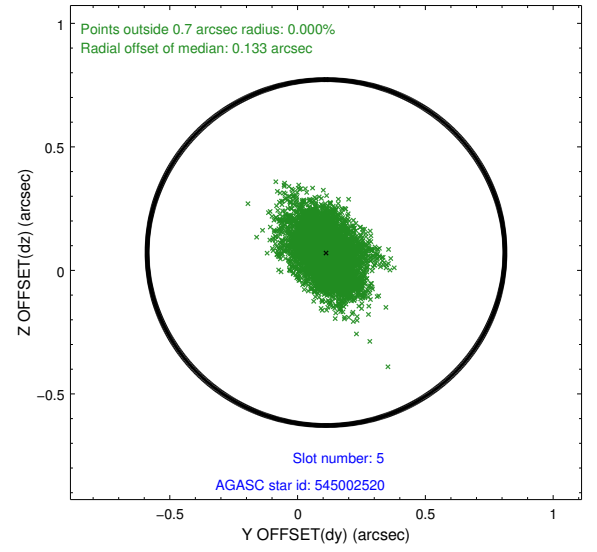
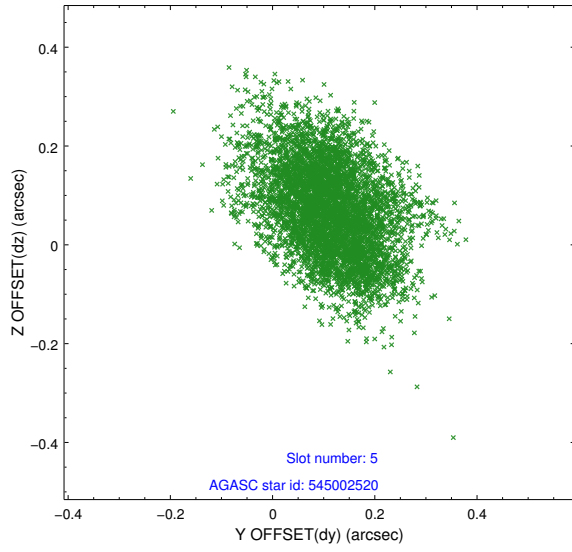
### 2.4.1 Slot 3



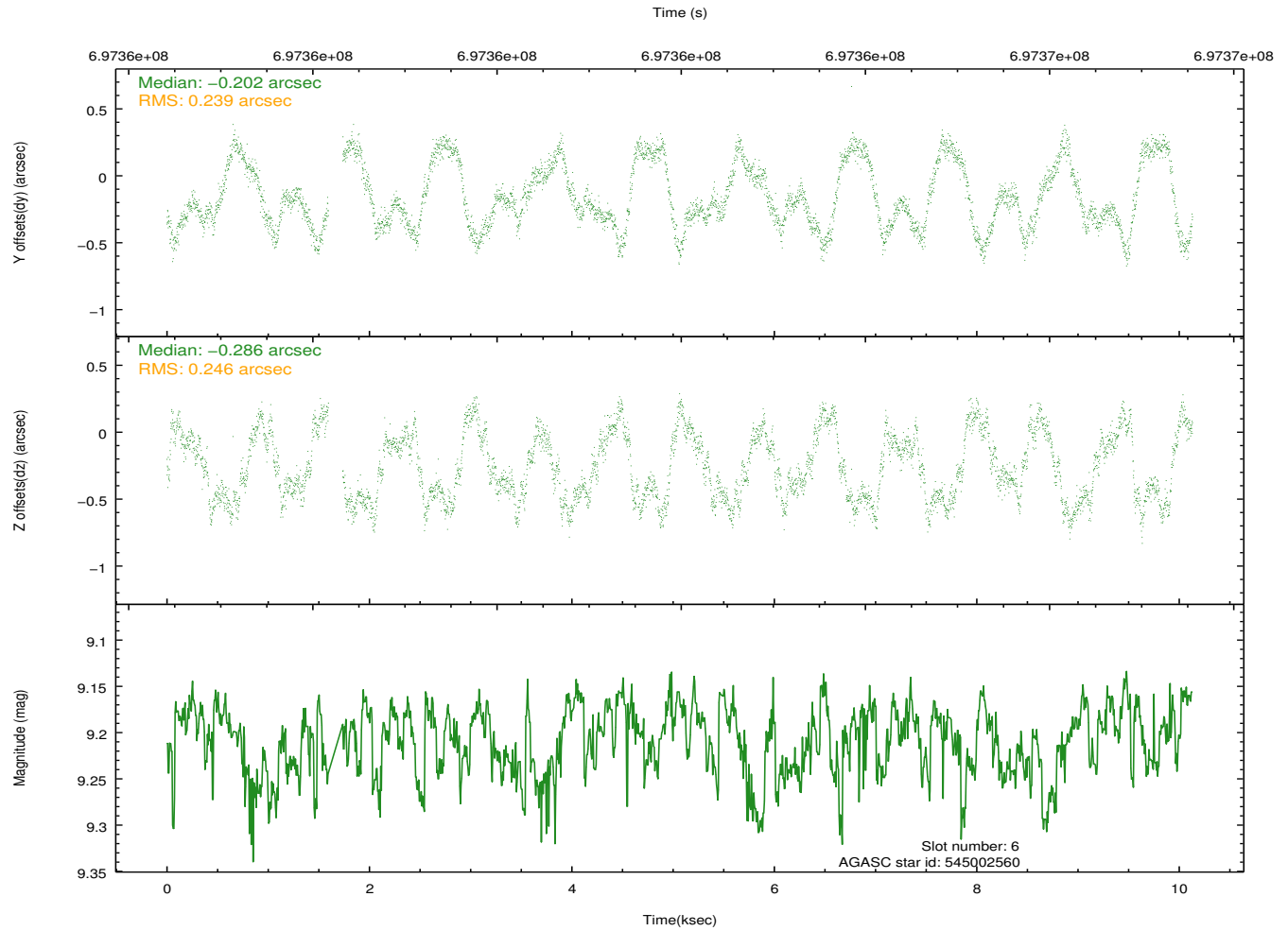
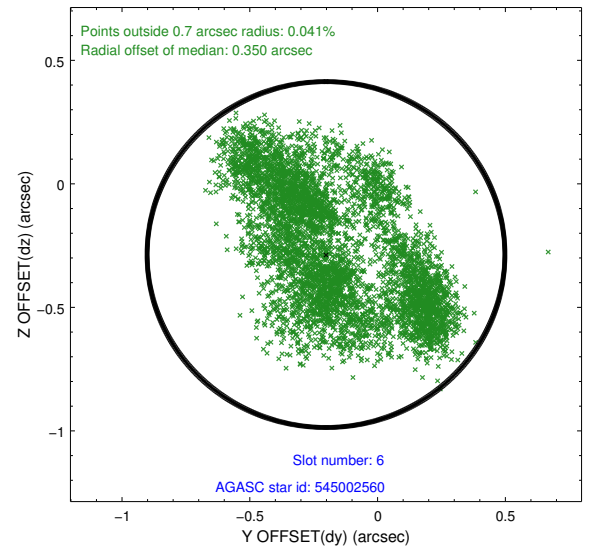
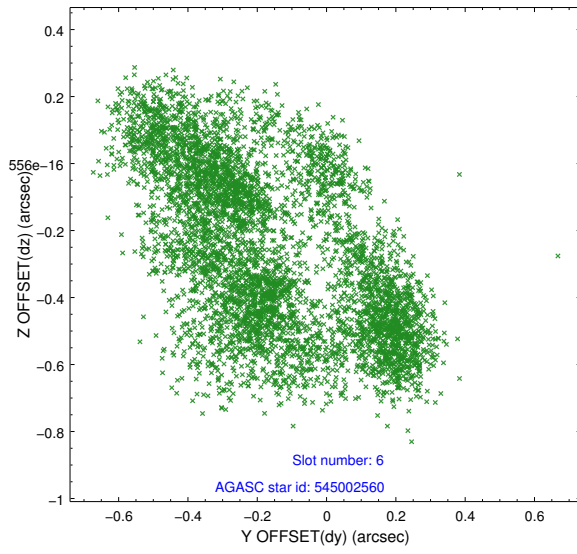
## 2.4.2 Slot 4



### 2.4.3 Slot 5

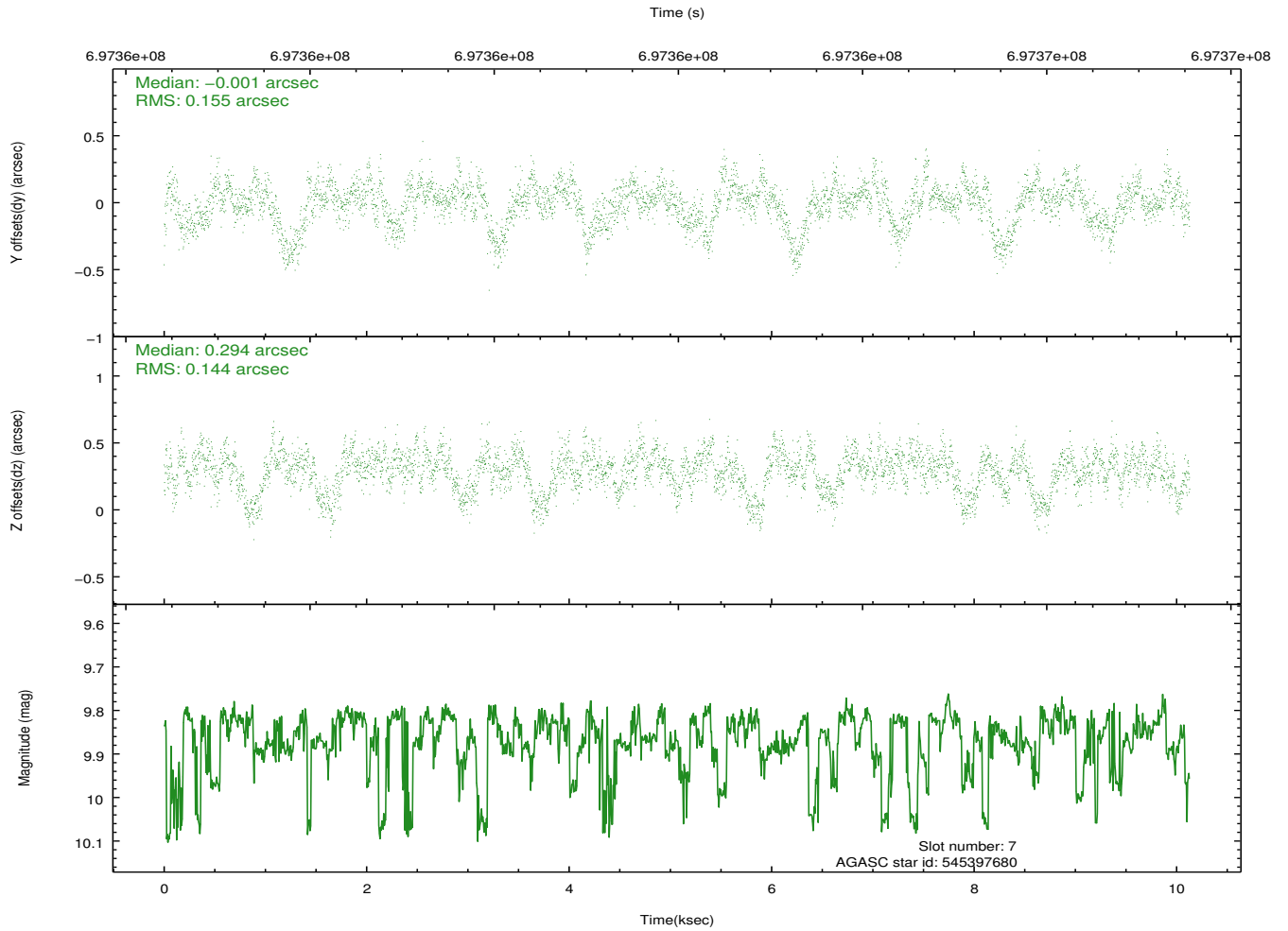
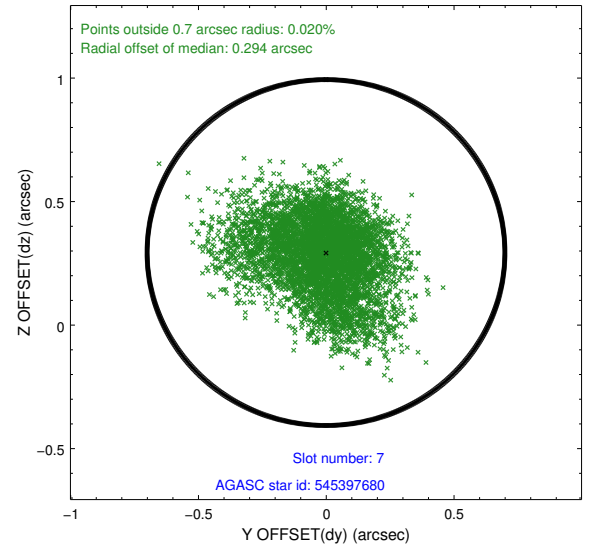
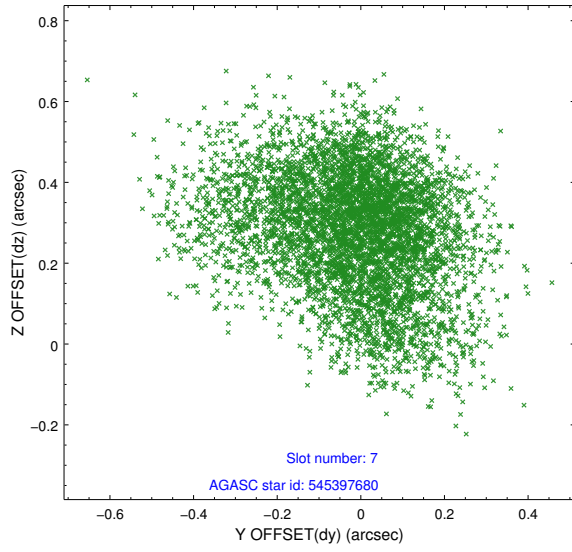


## 2.4.4 Slot 6



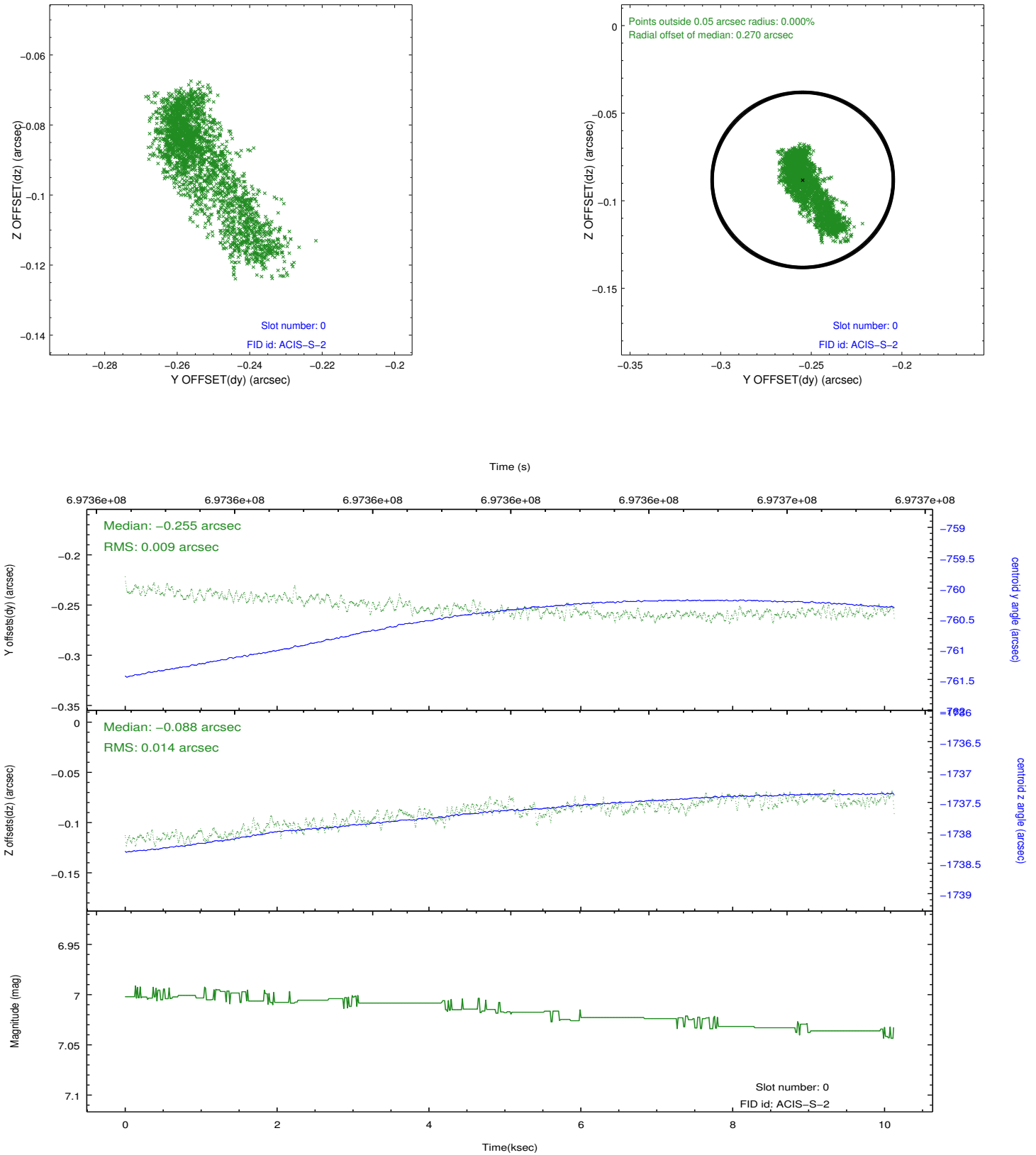


## 2.4.5 Slot 7

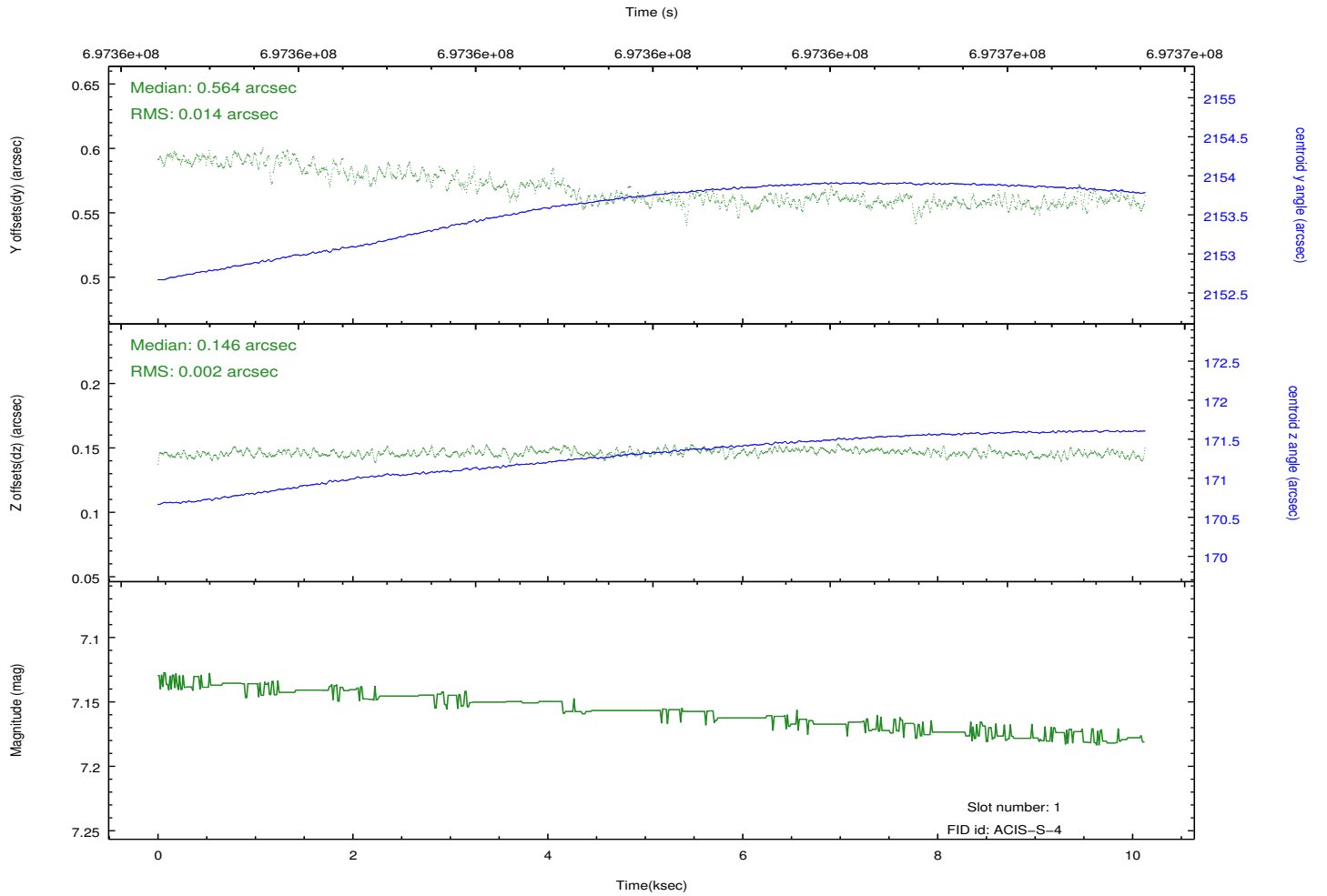
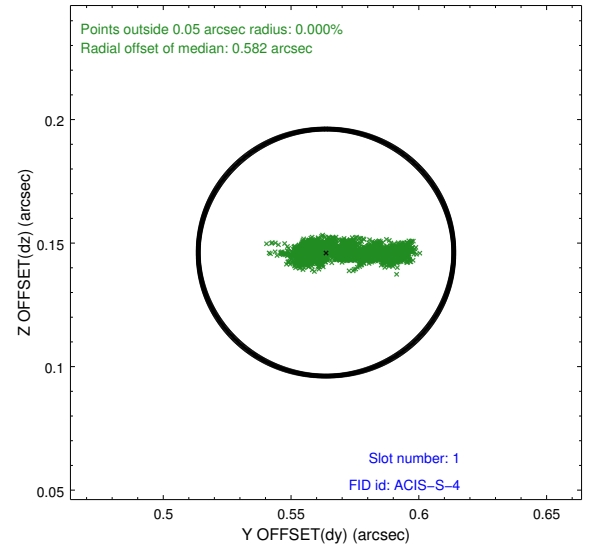
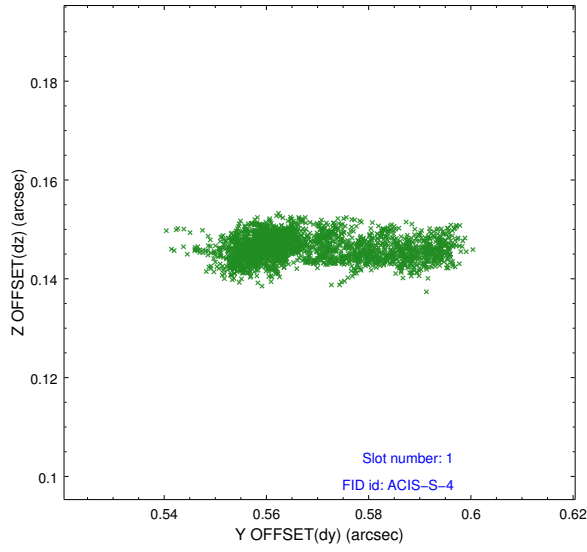


## 2.5 FID Slots

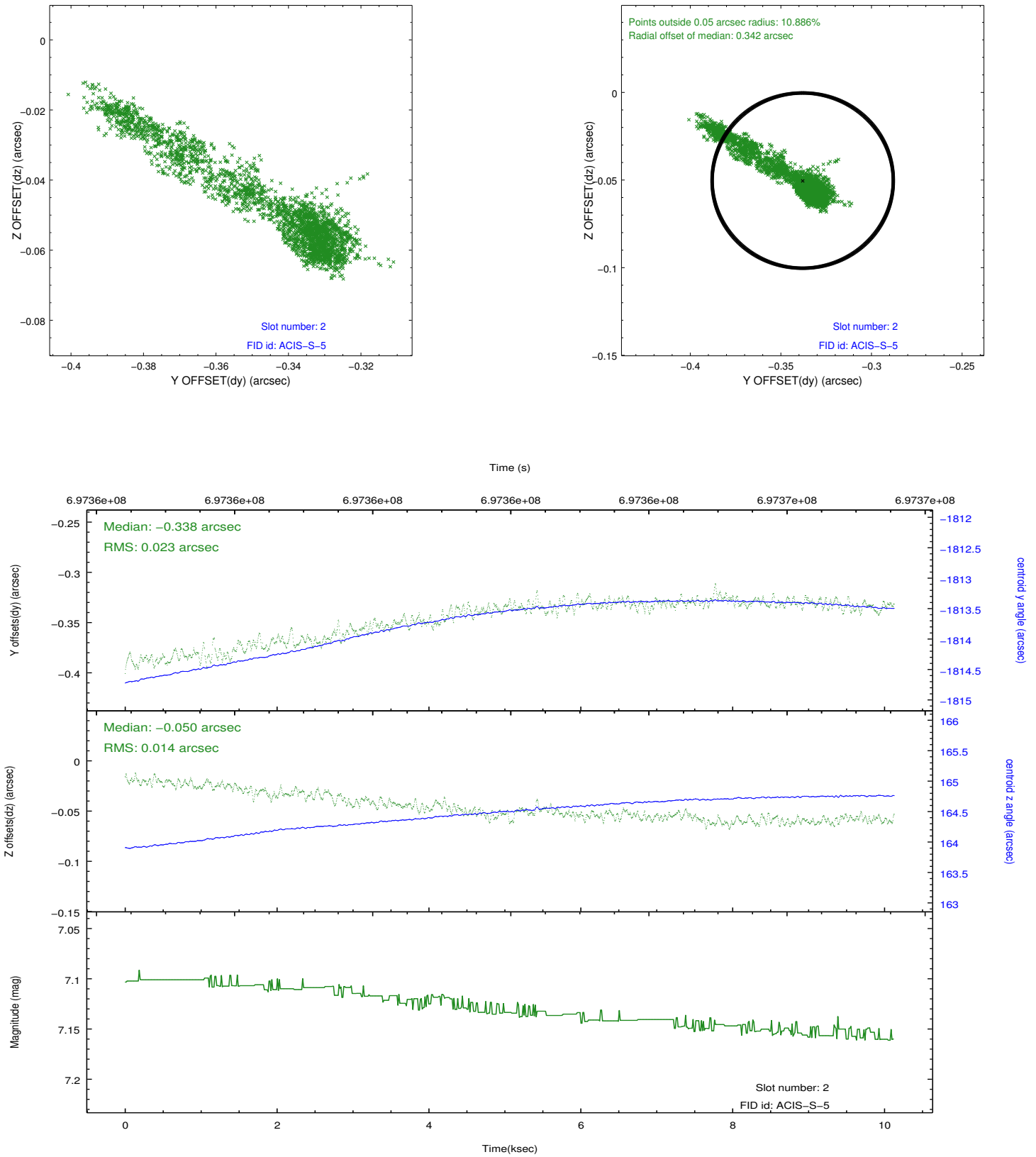
### 2.5.1 Slot 0



## 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)	2020.02.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.05817707026

### A.2 Comments