

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4466 - L2 Version 4  
Chandra X-Ray Center

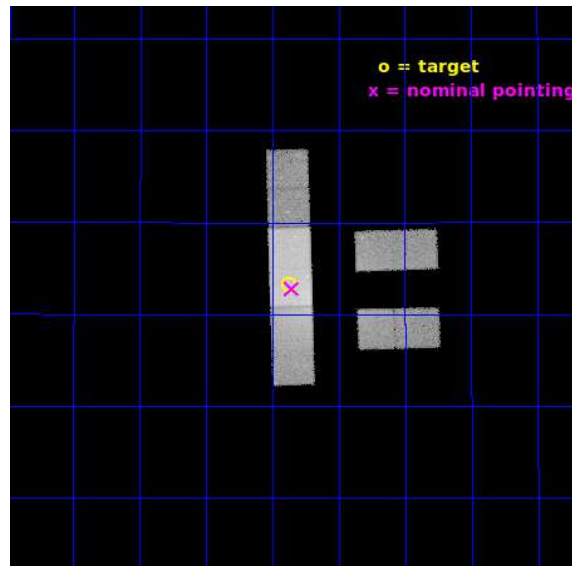
L2 Processing Date : Sep 23 2020

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# 1 Front

seq_num	100049	Sequence number
obs_id	4466	Observation id
title	SEARCH FOR X-RAYS FROM SATURNIAN SYSTEM	Proposal title
observer	DR. J WAITE	Principal investigator
object	SATURN	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	98.84301	Observer's specified target RA [deg]
dec_targ	22.55375	Observer's specified target Dec [deg]
ra_nom	98.838034433491	Nominal RA [deg]
dec_nom	22.54659810369	Nominal Dec [deg]
roll_nom	268.35997070925	Nominal Roll [deg]
revision	4	Processing version of data
ontime	38273.717731208	Sum of GTIs [s]
livetime	37371.525147643	Livetime [s]
ontime2	38275.458731413	Sum of GTIs [s]
ontime3	38273.717721224	Sum of GTIs [s]
ontime6	38273.717731208	Sum of GTIs [s]
ontime7	38273.717731208	Sum of GTIs [s]
ontime8	38273.717691362	Sum of GTIs [s]
l2events	177991	Number of level 2 events

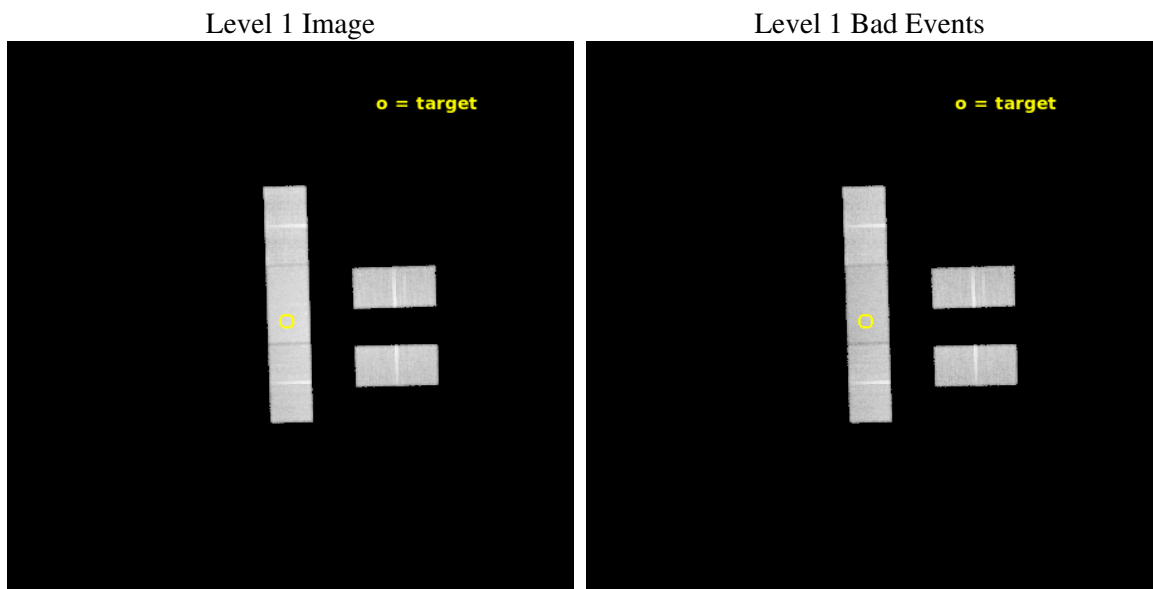




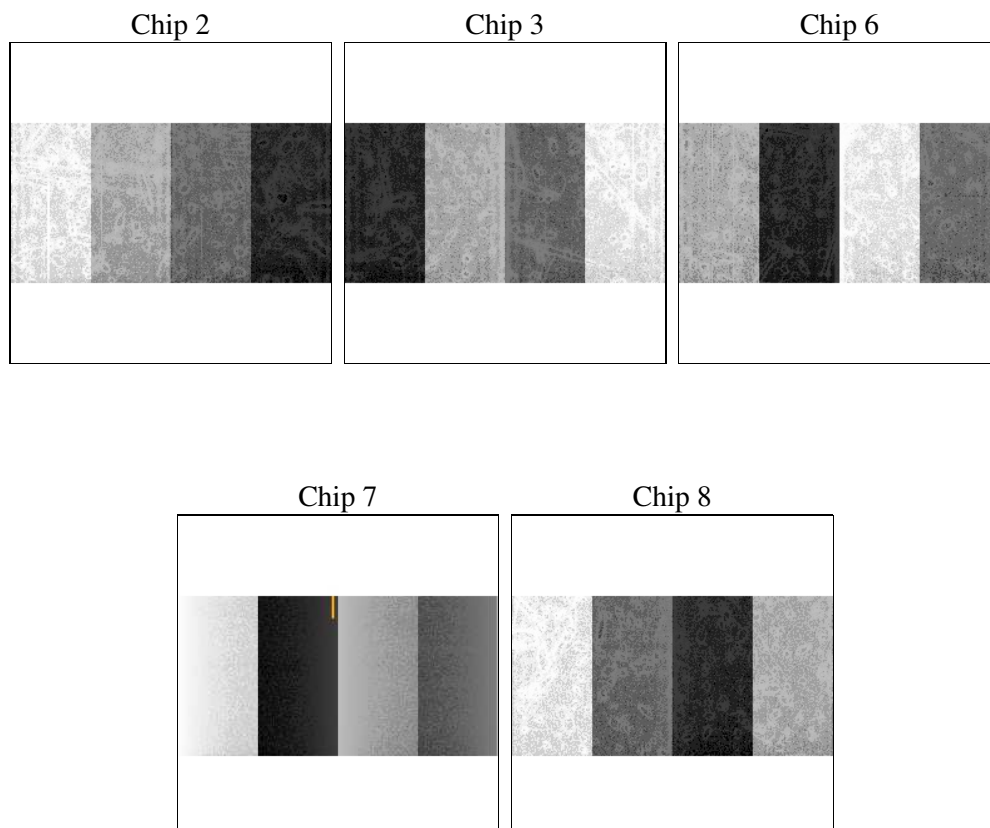
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37819.587000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	38273.717731208	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	38275.458731413	Sum of GTIs [s]
date	2020-09-23T14:07:34	Date and time of file creation	ontime3	38273.717721224	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	38273.717731208	Sum of GTIs [s]
			ontime7	38273.717731208	Sum of GTIs [s]
			ontime8	38273.717691362	Sum of GTIs [s]
			l1events	802410	Number of level 1 events

### 2.1.4 Events

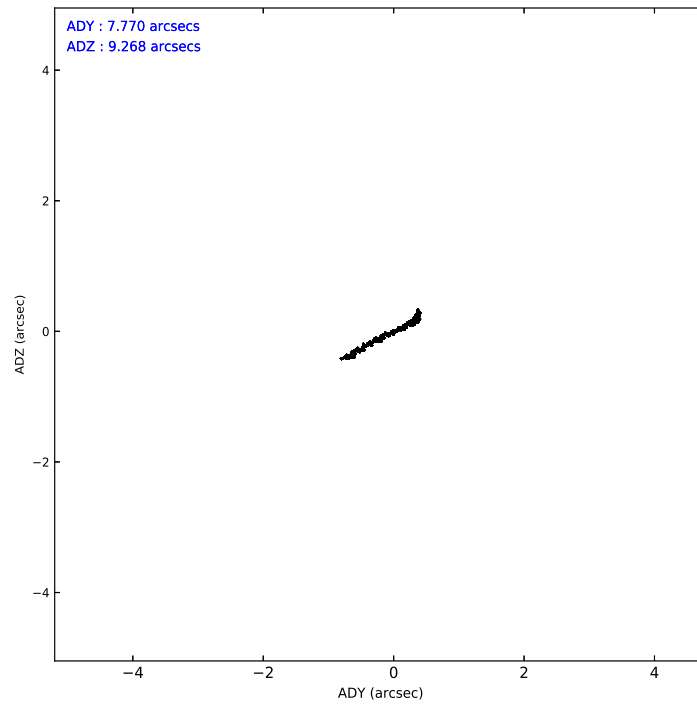
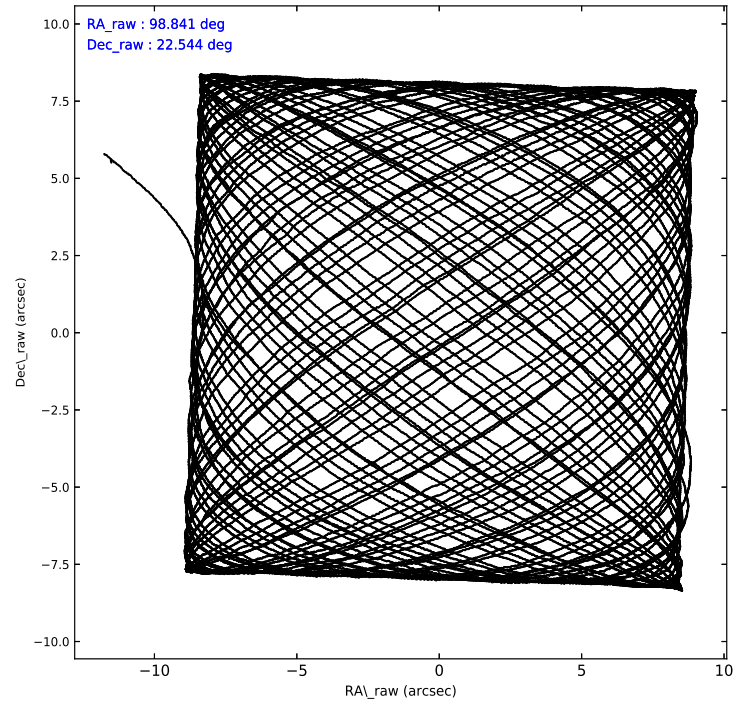
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	135123	136746	159472	194586	176483
rejected events	113611	116624	122205	101649	139970
rejected %	84%	85%	76%	52%	79%

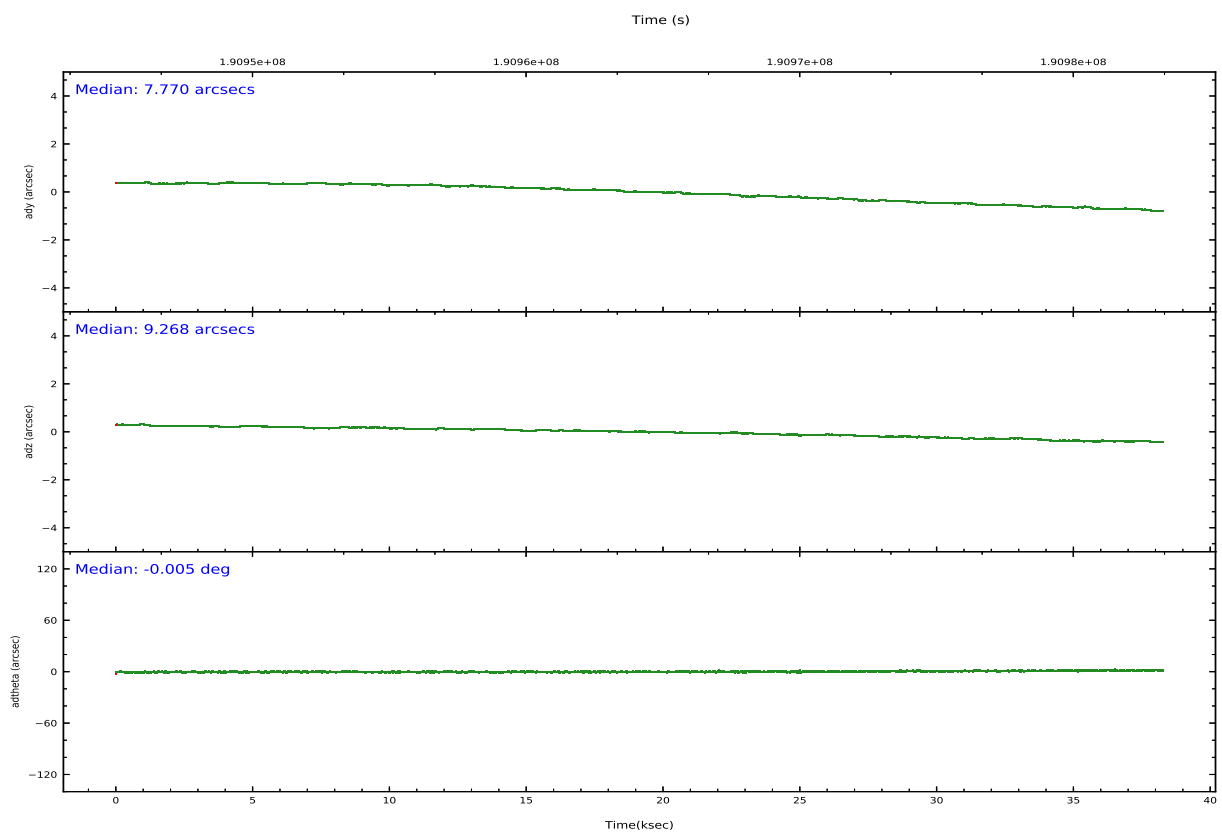
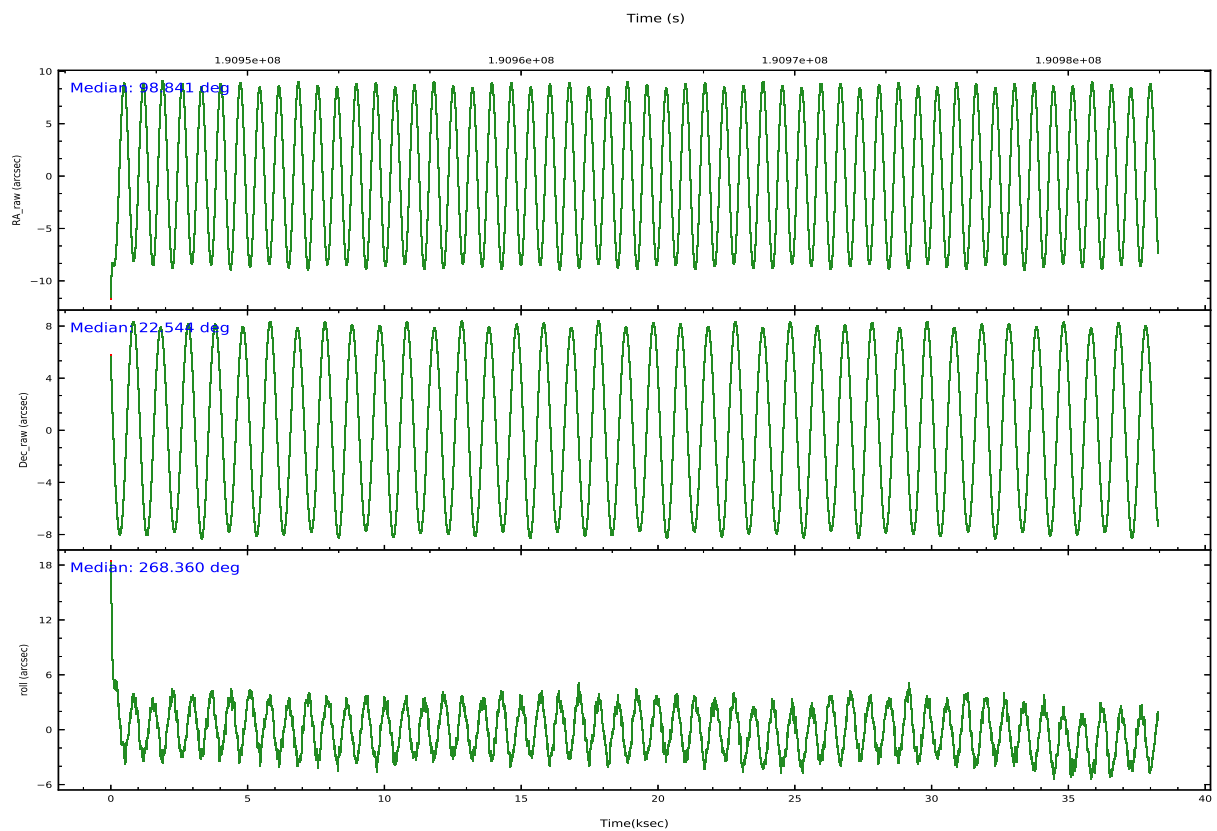
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	11478	10059	23126	11957	12275
	8%	7%	14%	6%	6%
grade 1 events	65	62	83	209	71
	0%	0%	0%	0%	0%
grade 2 events	3575	3409	5416	19900	7505
	2%	2%	3%	10%	4%
grade 3 events	1951	1945	2514	9300	3923
	1%	1%	1%	4%	2%
grade 4 events	1945	1953	2571	9212	3640
	1%	1%	1%	4%	2%
grade 5 events	4866	5664	6104	16872	7472
	3%	4%	3%	8%	4%
grade 6 events	2581	2766	3670	42624	9234
	1%	2%	2%	21%	5%
grade 7 events	108662	110888	115988	84512	132363
	80%	81%	72%	43%	75%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	98.826527	98.838034433491	Subarray requested	CUSTOM	1/2
[deg] Pointing Dec	22.568065	22.54659810369	Subarray start row	257	257
[deg] Pointing Roll	268.207626	268.35997070925	Subarray row count	512	512
[s] Window start time (MET)	190684864.184000	190684864.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	191203264.184000	191203264.184000	[s] Primary exposure time	0.000000	1.7
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	190945464.184000	190944366.20696			
Observation start date	2004-01-20T00:23:20	2004-01-20T00:06:06			
[s] Observation end time (MET)	190983283.184000	190983598.08367			
Observation end date	2004-01-20T10:53:39	2004-01-20T10:59:58			
Read mode	TIMED	TIMED			

## 2.3 Aspect



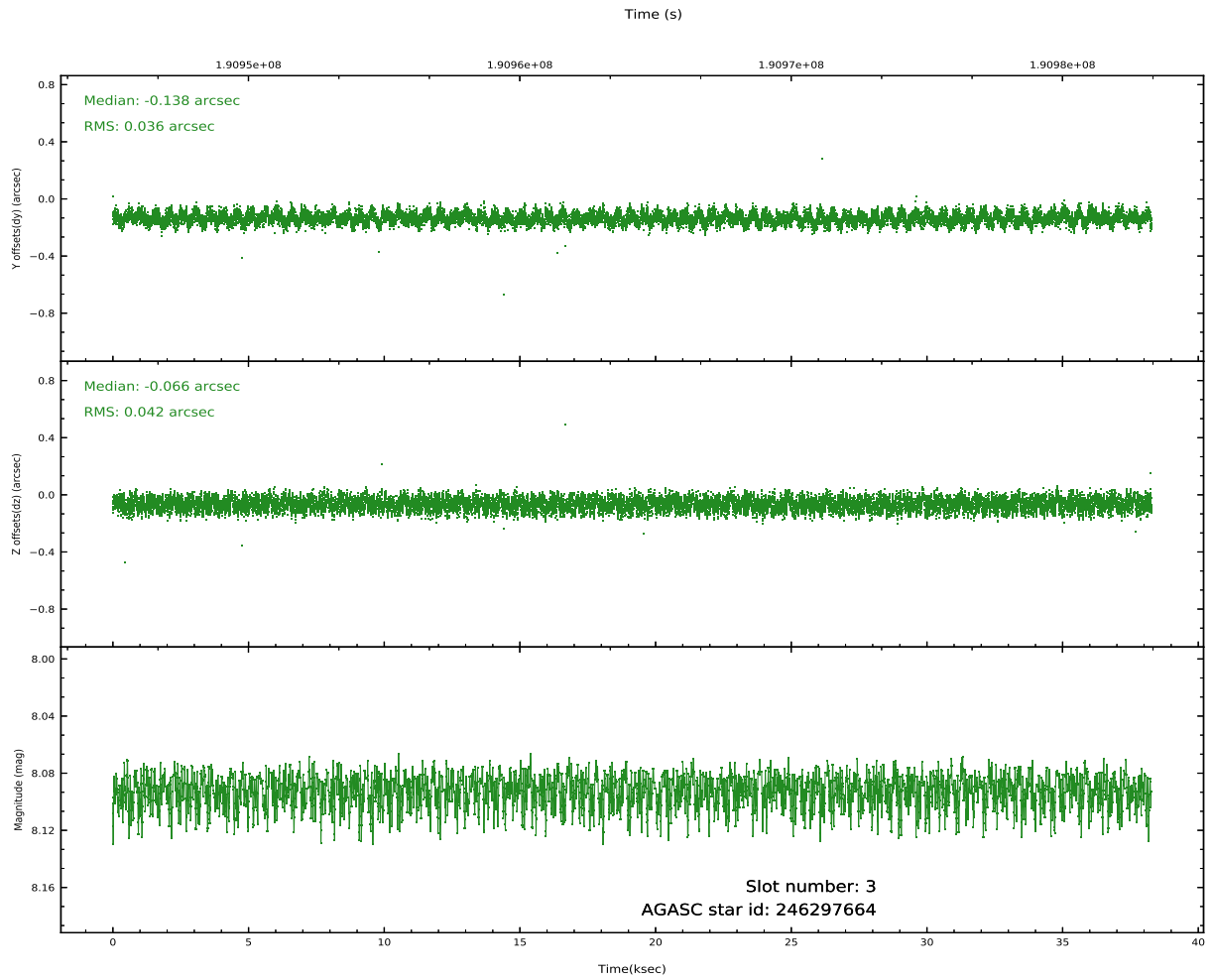
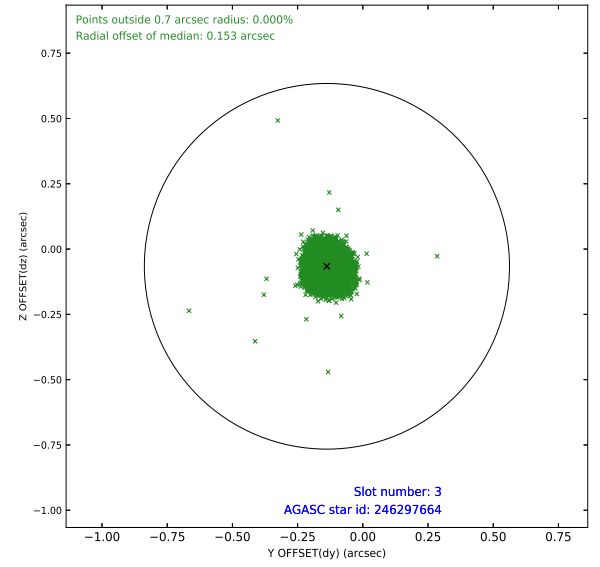
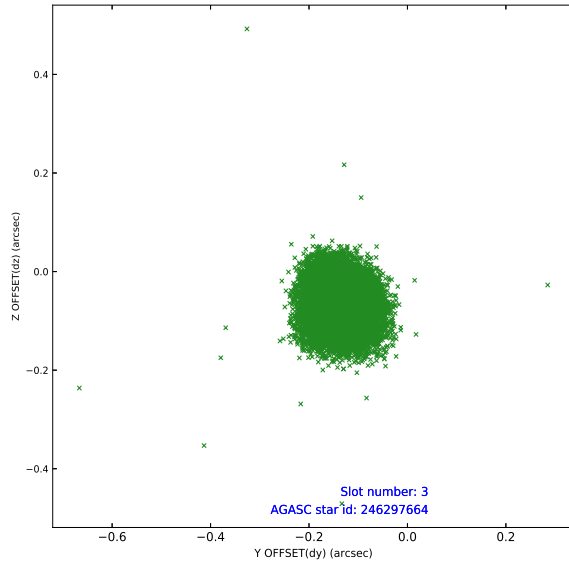


Slot Statistics

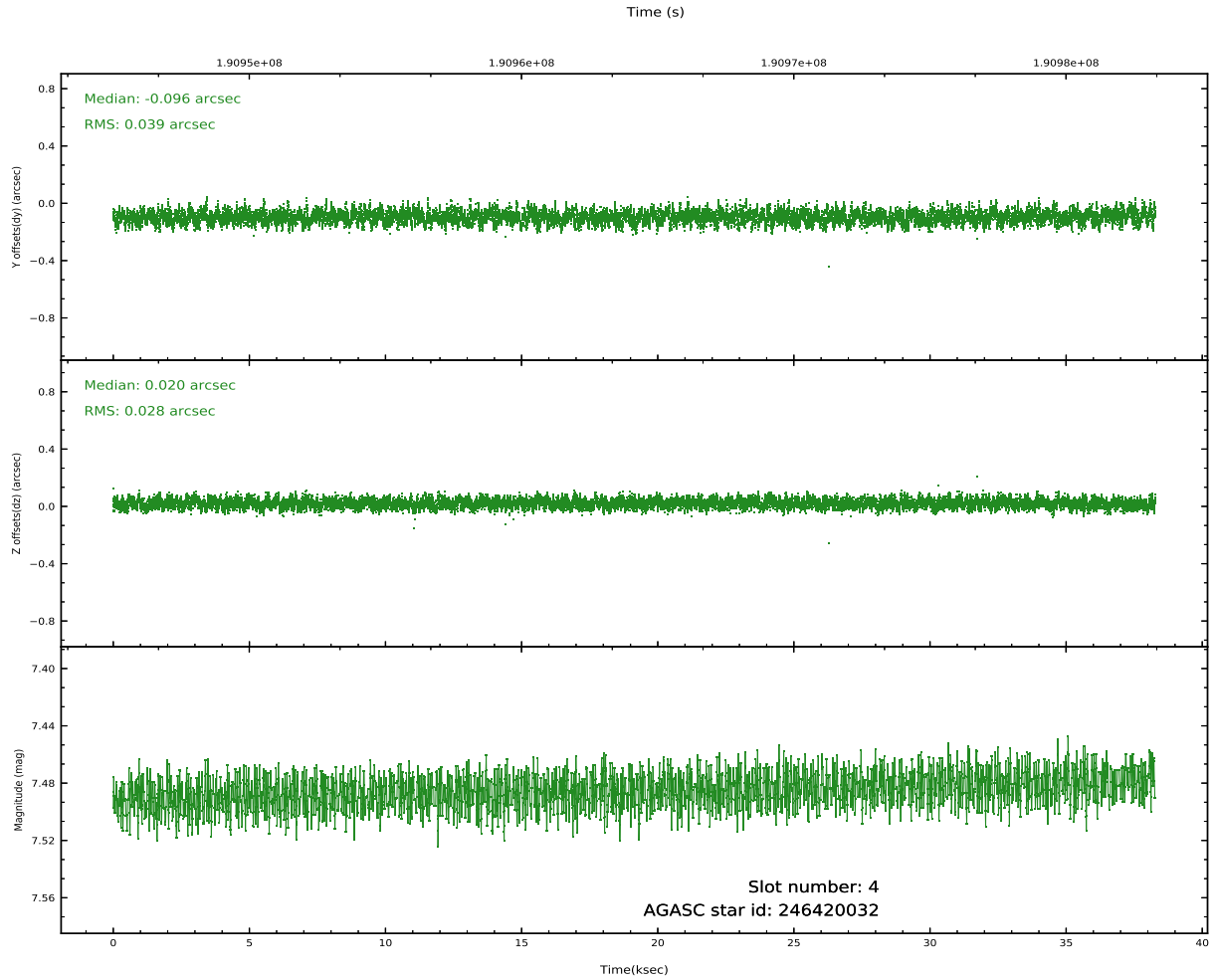
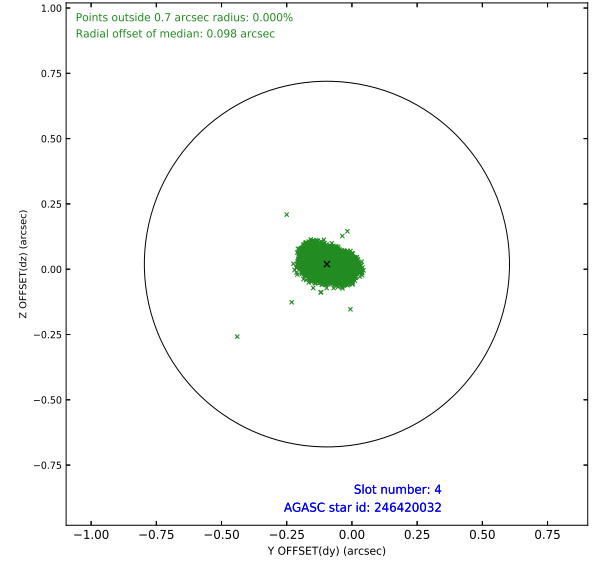
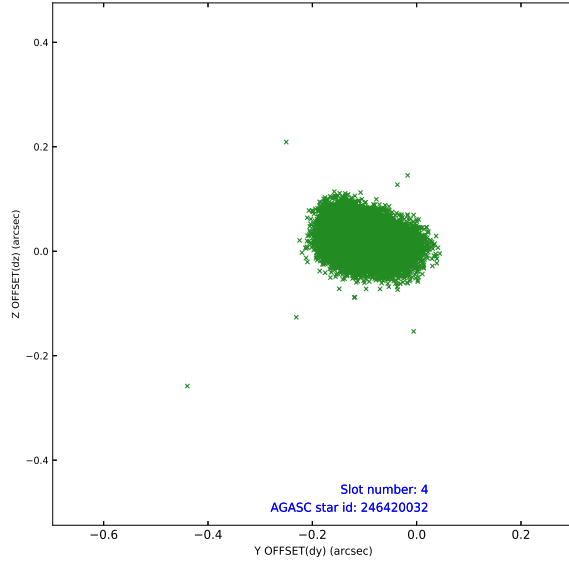
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	9334	1.000	-0.100	-0.074	0.007	0.014	0.000000	0.000000	-760.54	-1730
1	FID		ACIS-S-4	7.20	9334	1.000	0.093	0.050	0.008	0.014	0.000000	0.000000	2152.88	178
2	FID		ACIS-S-6	7.35	9334	1.000	-0.021	0.031	0.008	0.013	0.000000	0.000000	401.50	815
3	GUIDE	used	246297664	8.09	18664	1.000	-0.138	-0.066	0.060	0.093	98.363620	23.178719	-2151.61	-1600
4	GUIDE	used	246420032	7.48	18669	1.000	-0.096	0.020	0.051	0.085	99.176465	23.098044	-1944.70	1098
5	GUIDE	used	175779128	7.62	18668	1.000	0.037	-0.027	0.054	0.089	98.515144	22.117655	1652.46	-986
6	GUIDE	used	175780728	7.52	18671	1.000	0.099	0.006	0.052	0.083	98.529568	22.124139	1627.98	-939
7	GUIDE	used	175773480	8.12	18664	1.000	0.096	0.071	0.059	0.096	99.372112	22.148794	1448.79	1865

## 2.4 Star Slots

### 2.4.1 Slot 3

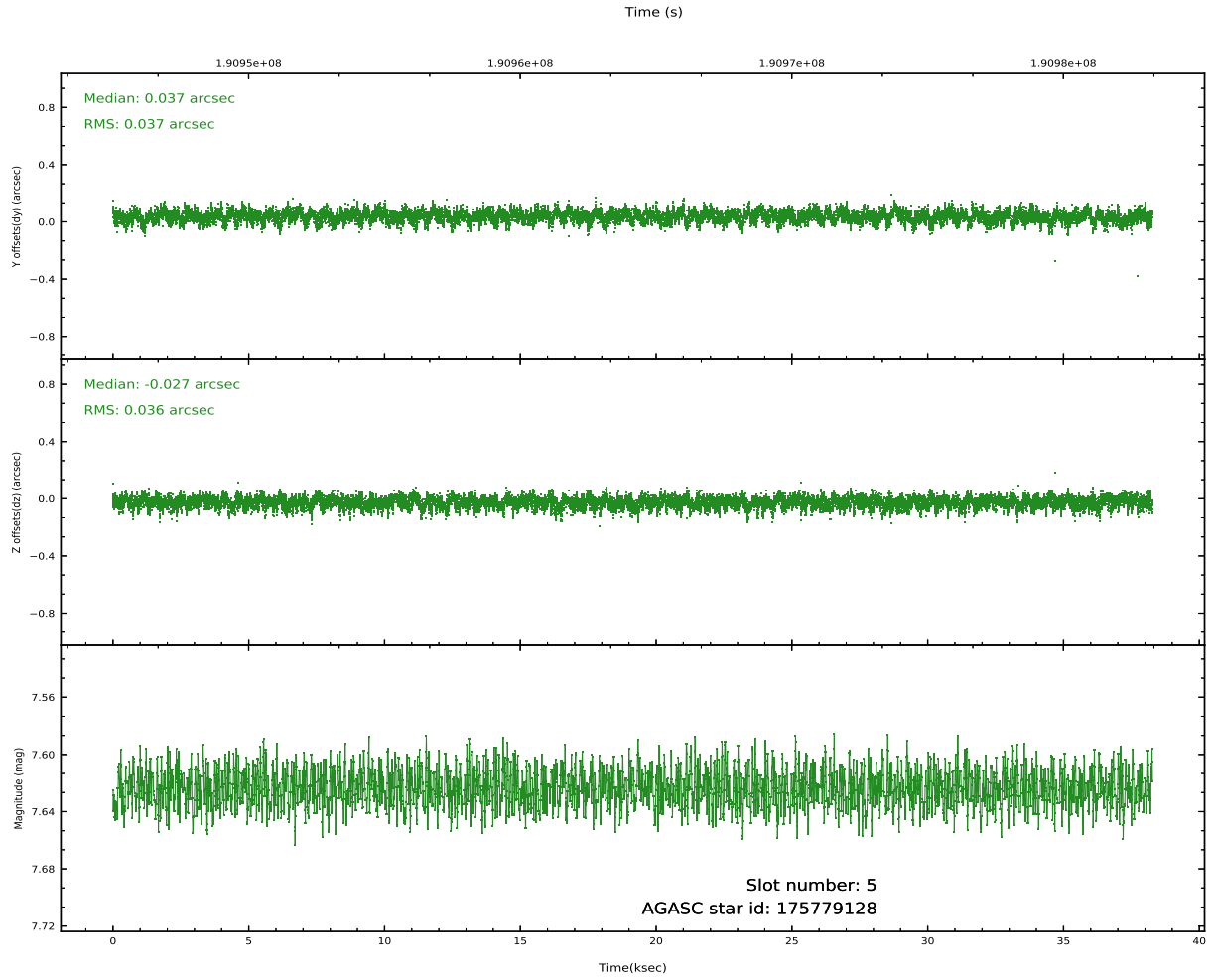
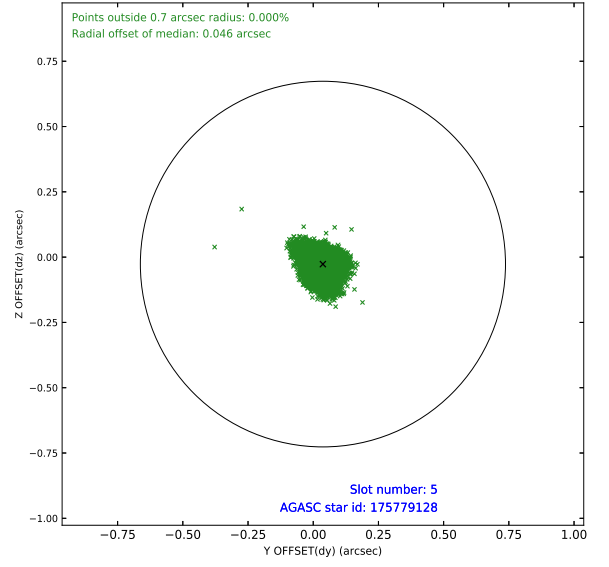
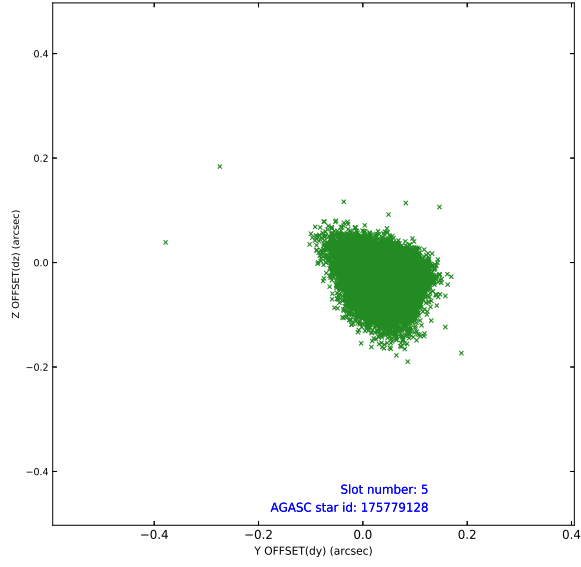


## 2.4.2 Slot 4

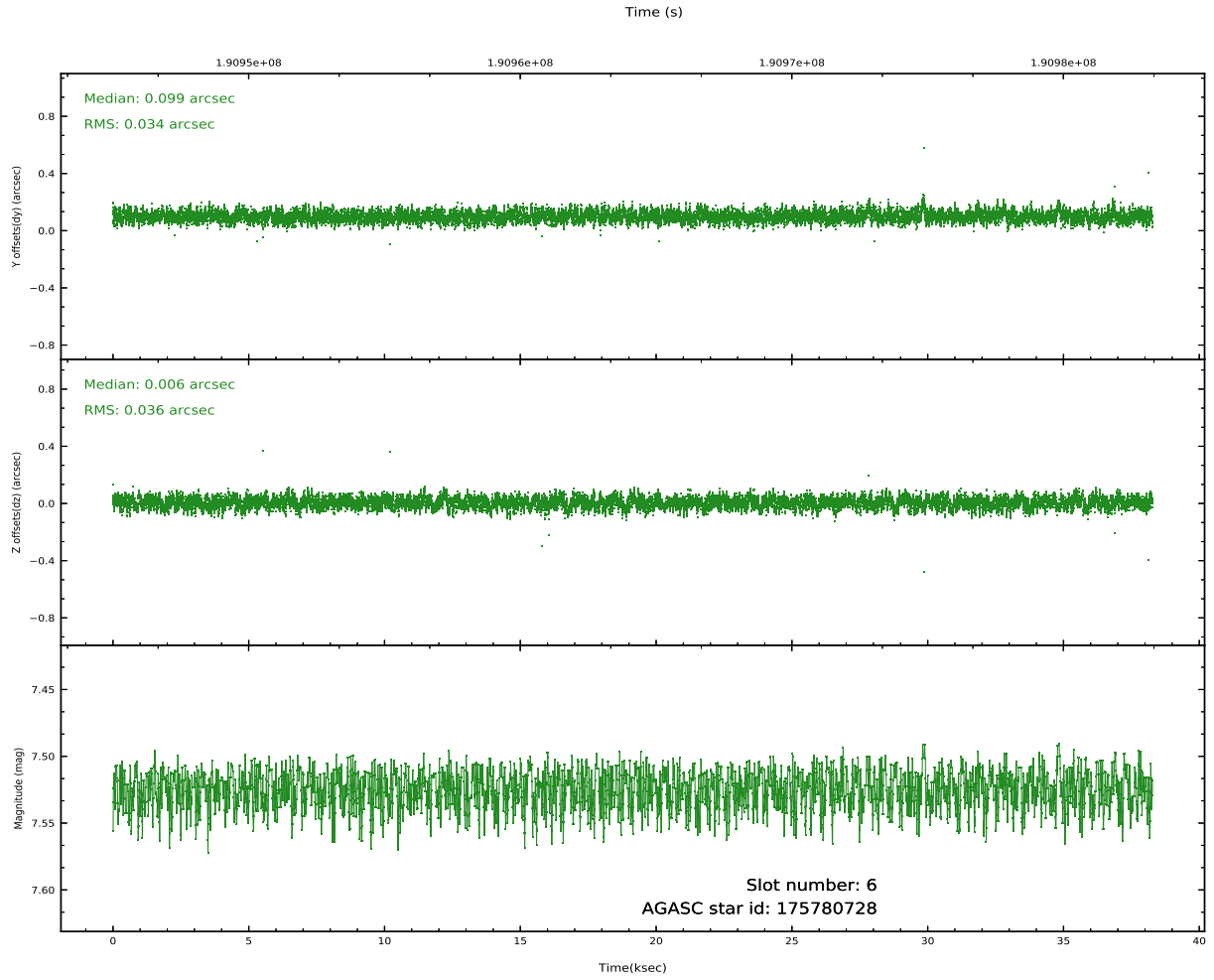
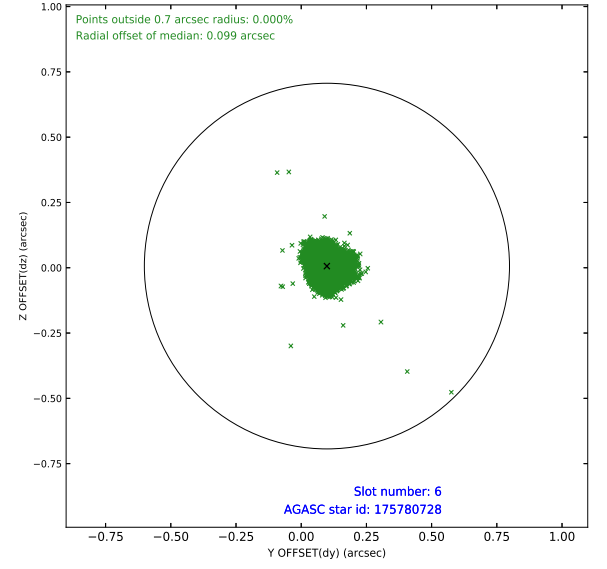
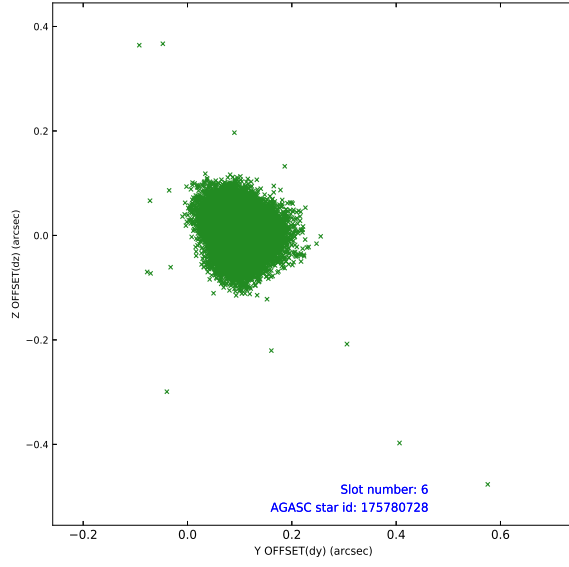




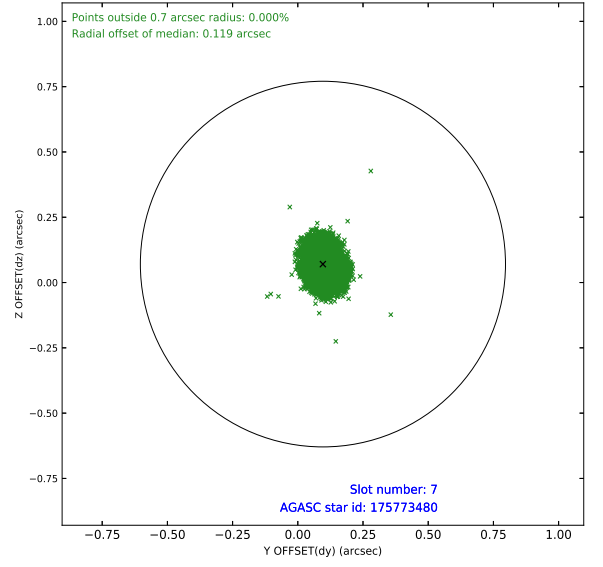
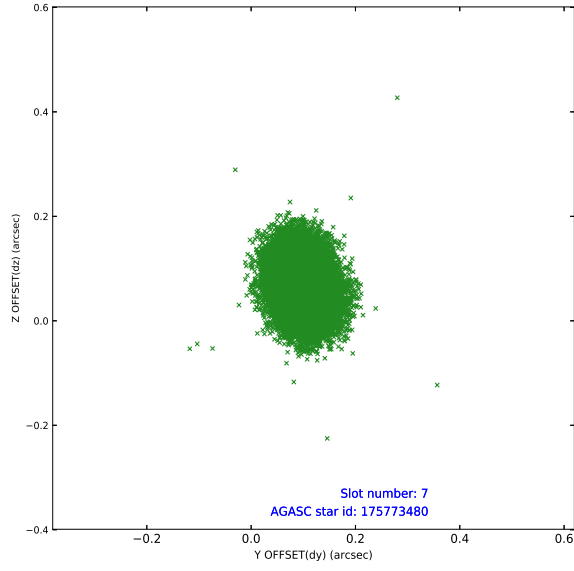
### 2.4.3 Slot 5



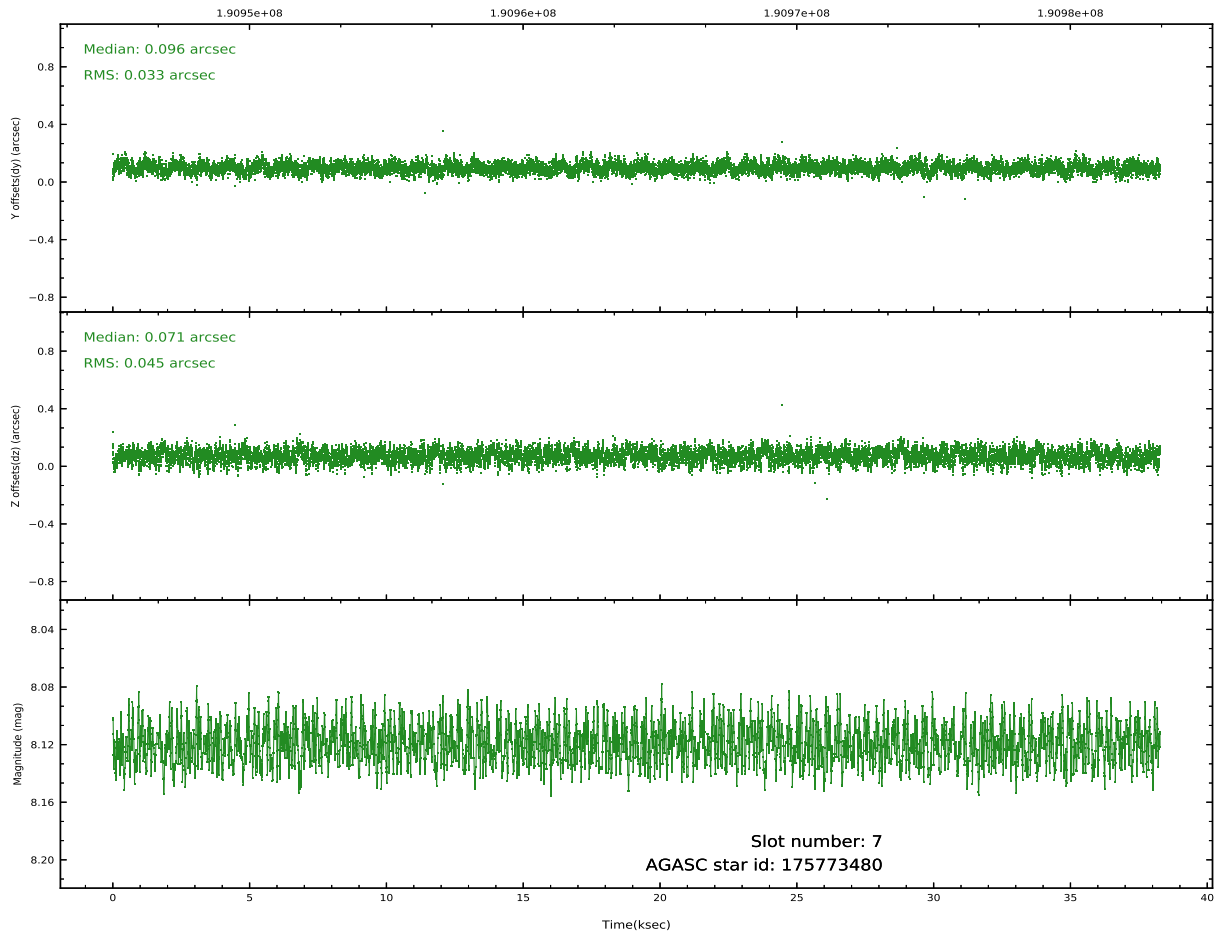
## 2.4.4 Slot 6



## 2.4.5 Slot 7

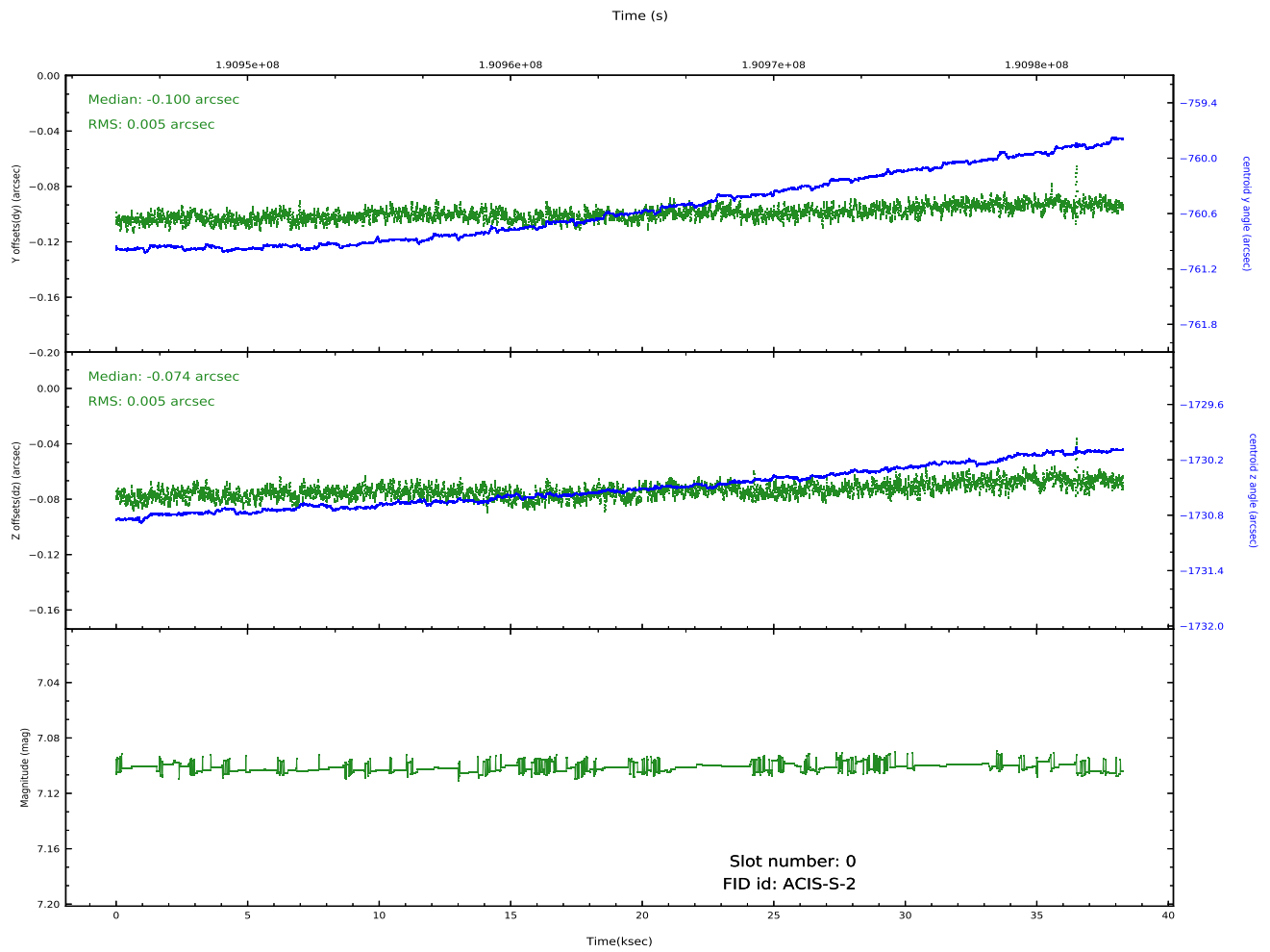
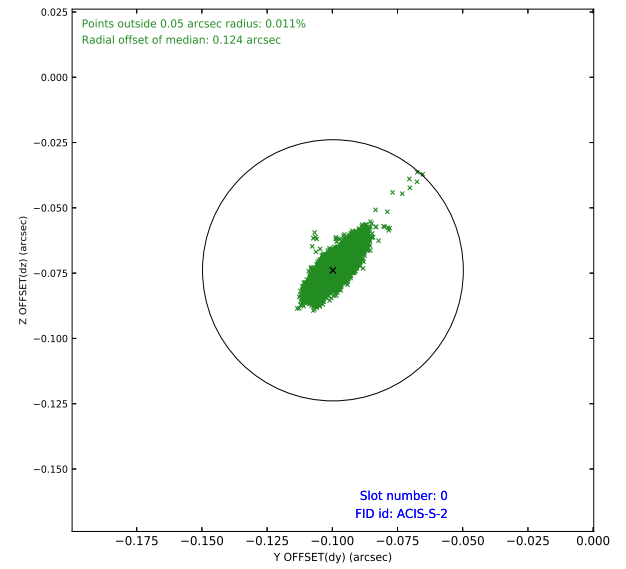
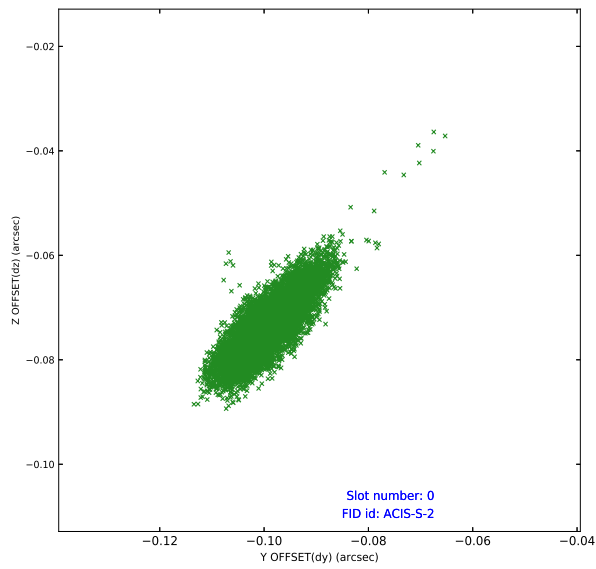


Time (s)

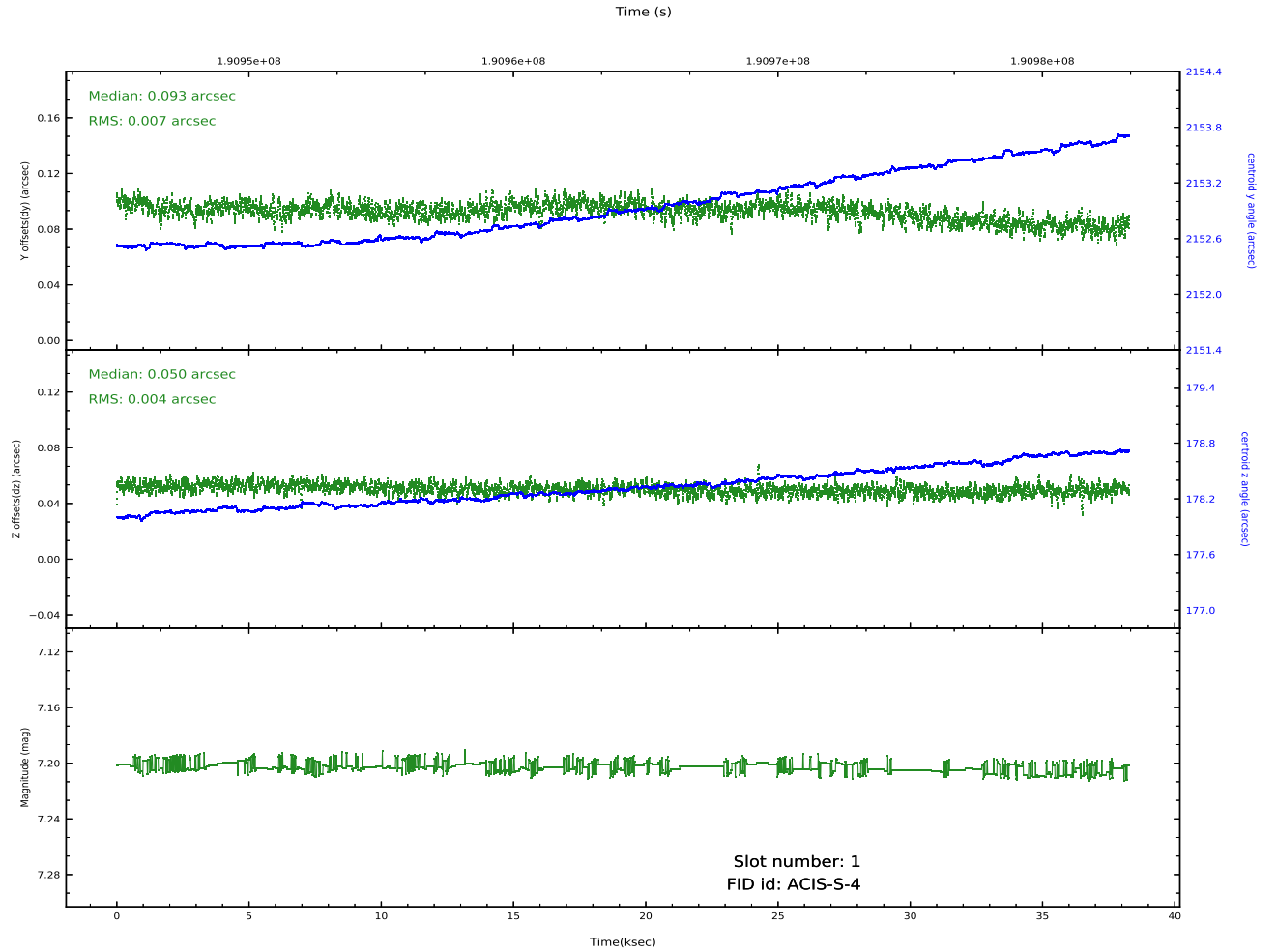
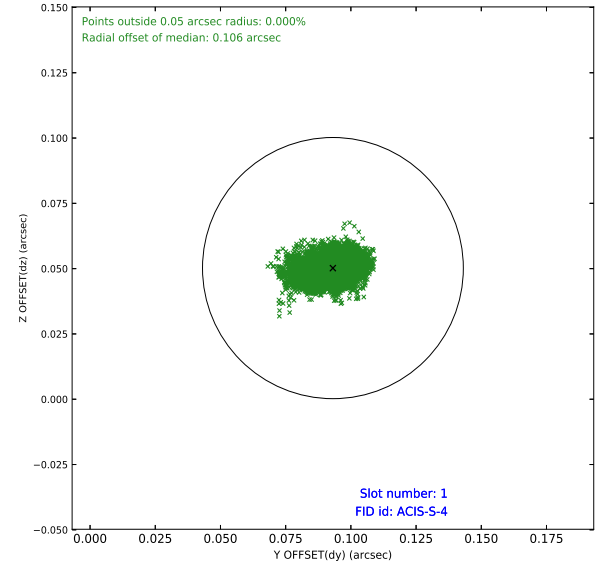
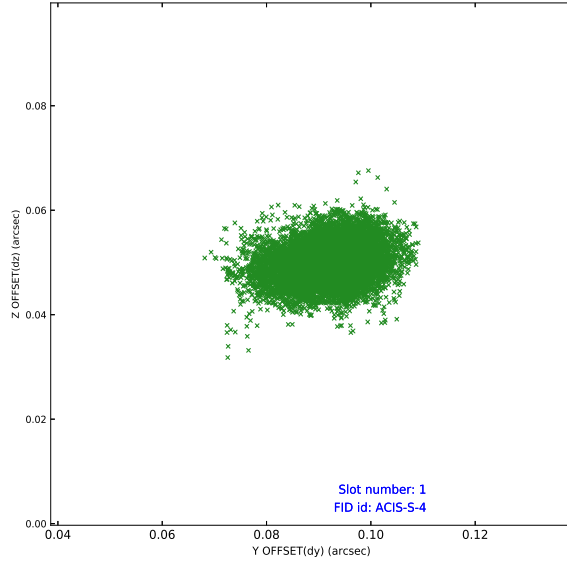


## 2.5 FID Slots

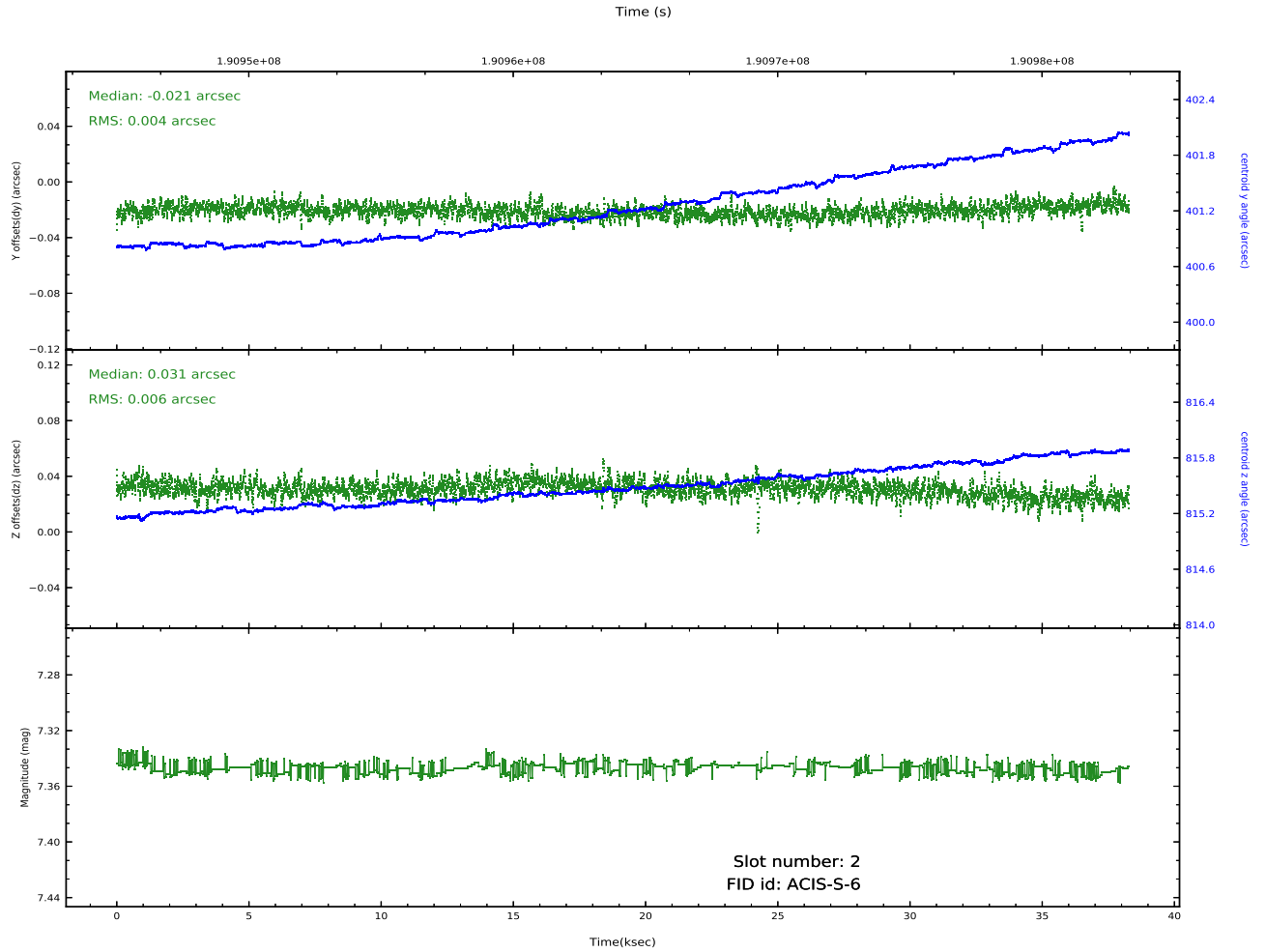
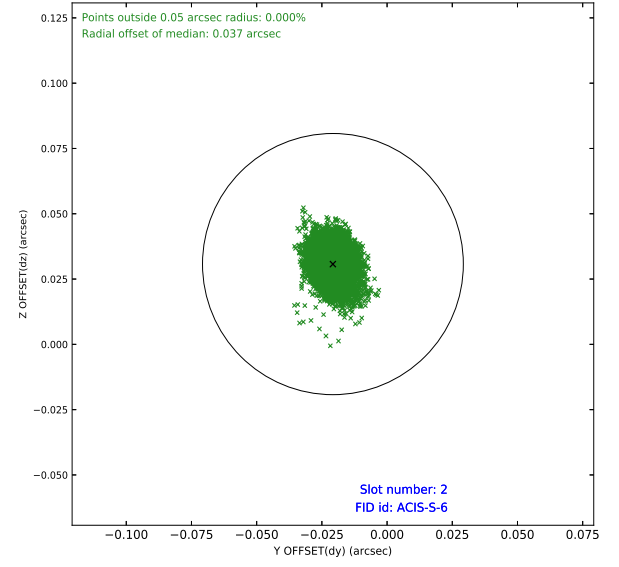
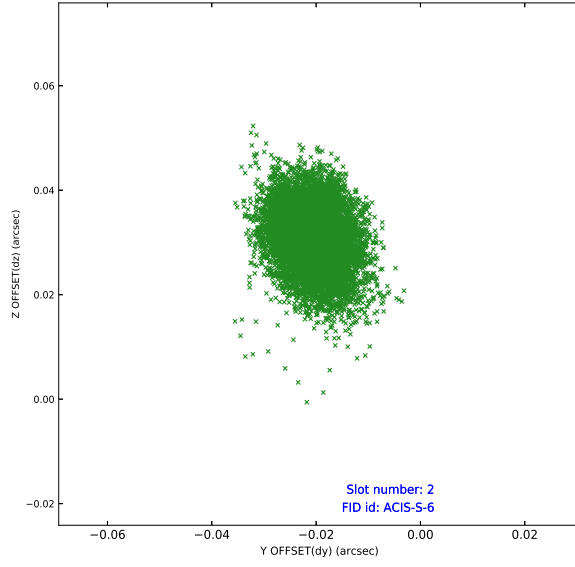
### 2.5.1 Slot 0



## 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)	2020.09.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	38.273

## 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.