

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4854 - L2 Version 6  
Chandra X-Ray Center

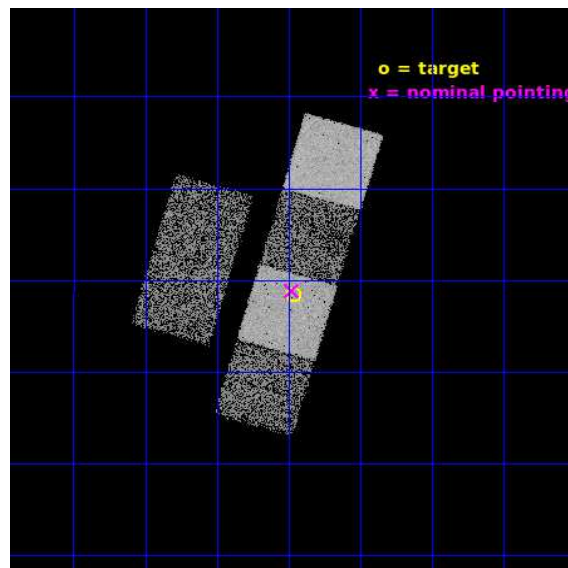
L2 Processing Date : Sep 24 2020

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# 1 Front

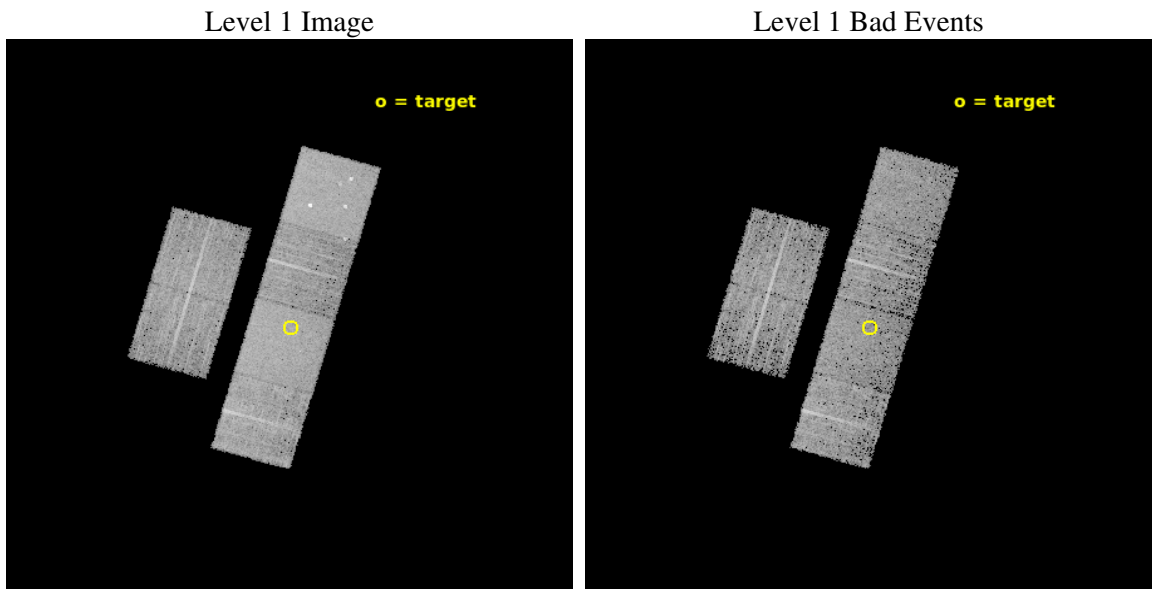
seq_num	700936	Sequence number
obs_id	4854	Observation id
title	X-ray Properties of Dust Reddened Quasars from the Sloan Digital Sky Survey	Proposal title
observer	Gordon Richards	Principal investigator
object	SDSS J131058.14+010822.1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	197.742083	Observer's specified target RA [deg]
dec_targ	1.139472	Observer's specified target Dec [deg]
ra_nom	197.74444256104	Nominal RA [deg]
dec_nom	1.1475836310295	Nominal Dec [deg]
roll_nom	106.14341889176	Nominal Roll [deg]
revision	6	Processing version of data
ontime	5516.7999794483	Sum of GTIs [s]
livetime	5446.9429362904	Livetime [s]
ontime2	5516.7999794483	Sum of GTIs [s]
ontime3	5516.7999794483	Sum of GTIs [s]
ontime5	5516.7999794483	Sum of GTIs [s]
ontime6	5513.558999151	Sum of GTIs [s]
ontime7	5516.7999794483	Sum of GTIs [s]
ontime8	5516.7999794483	Sum of GTIs [s]
l2events	59937	Number of level 2 events



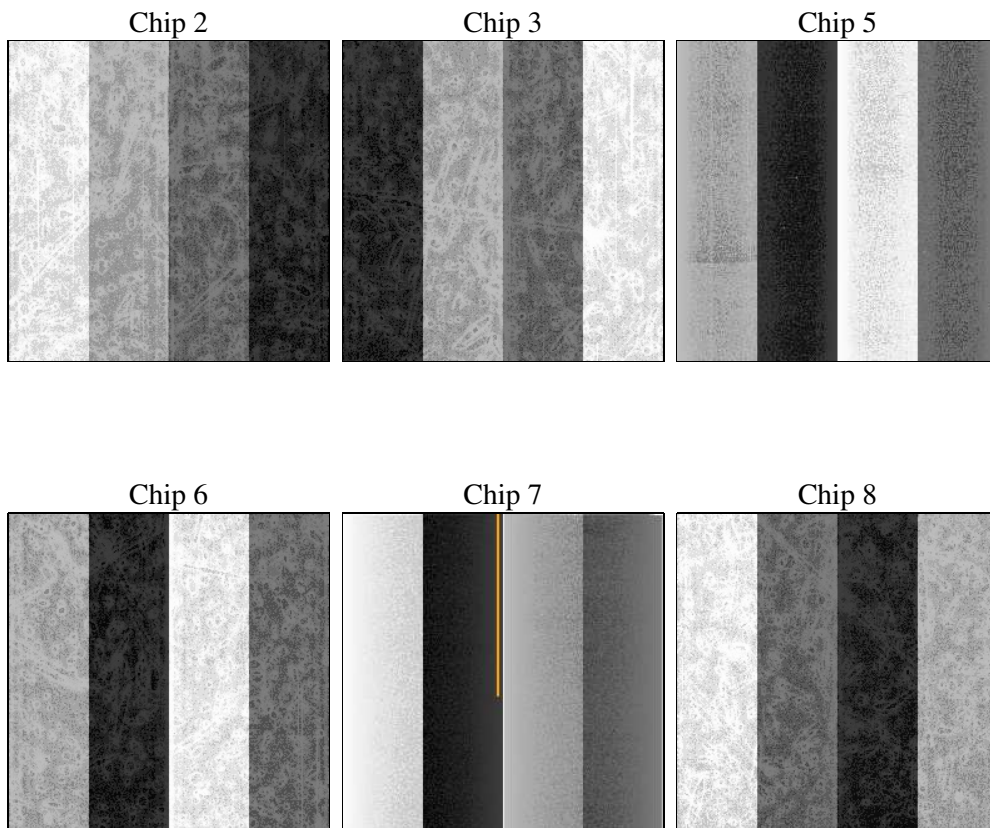
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5560.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	5516.7999794483	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	5516.7999794483	Sum of GTIs [s]
date	2020-09-24T11:57:57	Date and time of file creation	ontime3	5516.7999794483	Sum of GTIs [s]
revision	6	Processing version of data	ontime5	5516.7999794483	Sum of GTIs [s]
			ontime6	5513.558999151	Sum of GTIs [s]
			ontime7	5516.7999794483	Sum of GTIs [s]
			ontime8	5516.7999794483	Sum of GTIs [s]
			l1events	267672	Number of level 1 events

### 2.1.4 Events

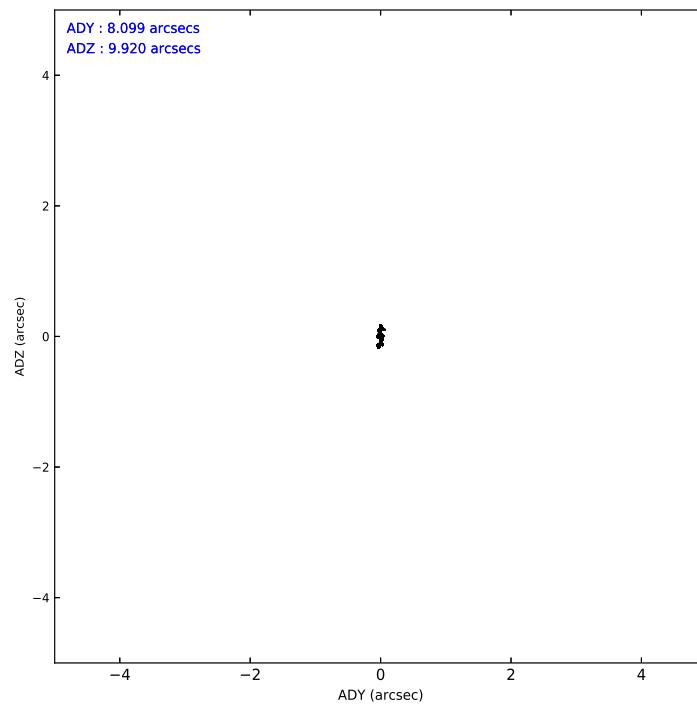
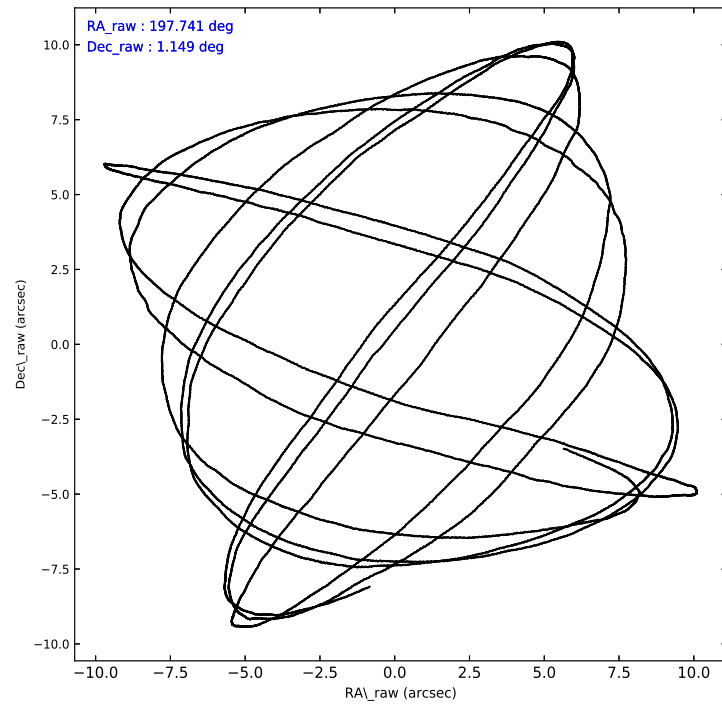
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	39054	36394	57928	36449	51174	46673	grade 0 events	2031	1873	4193	1754	1881	2849
rejected events	34462	32079	30367	32102	30008	37481		5%	5%	7%	4%	3%	6%
rejected %	88%	88%	52%	88%	58%	80%	grade 1 events	14	19	122	13	46	24
								0%	0%	0%	0%	0%	0%
							grade 2 events	990	821	7870	905	4283	2044
								2%	2%	13%	2%	8%	4%
							grade 3 events	409	411	989	414	1839	1016
								1%	1%	1%	1%	3%	2%
							grade 4 events	388	415	958	446	1792	909
								0%	1%	1%	1%	3%	1%
							grade 5 events	1511	1586	4033	1673	4864	2270
								3%	4%	6%	4%	9%	4%
							grade 6 events	779	801	13583	834	11394	2378
								1%	2%	23%	2%	22%	5%
							grade 7 events	32932	30468	26180	30410	25075	35183
								84%	83%	45%	83%	48%	75%

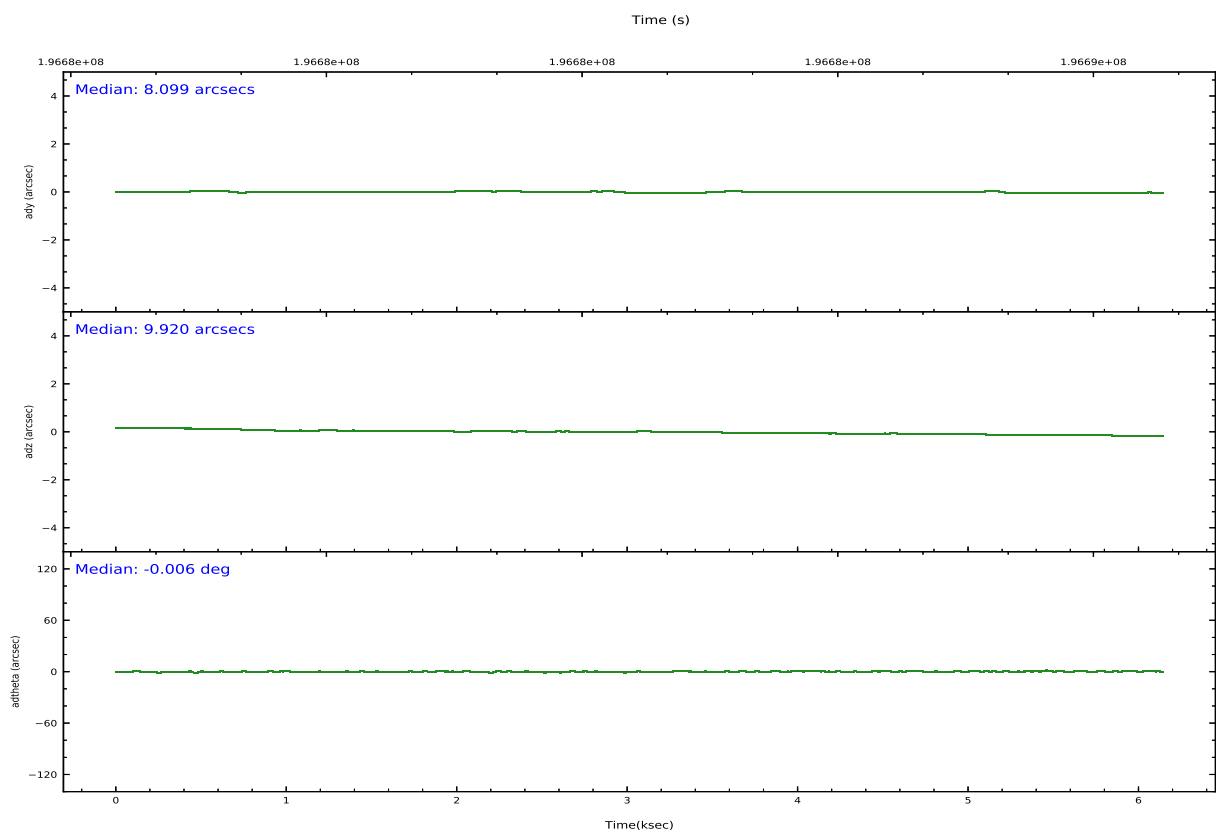
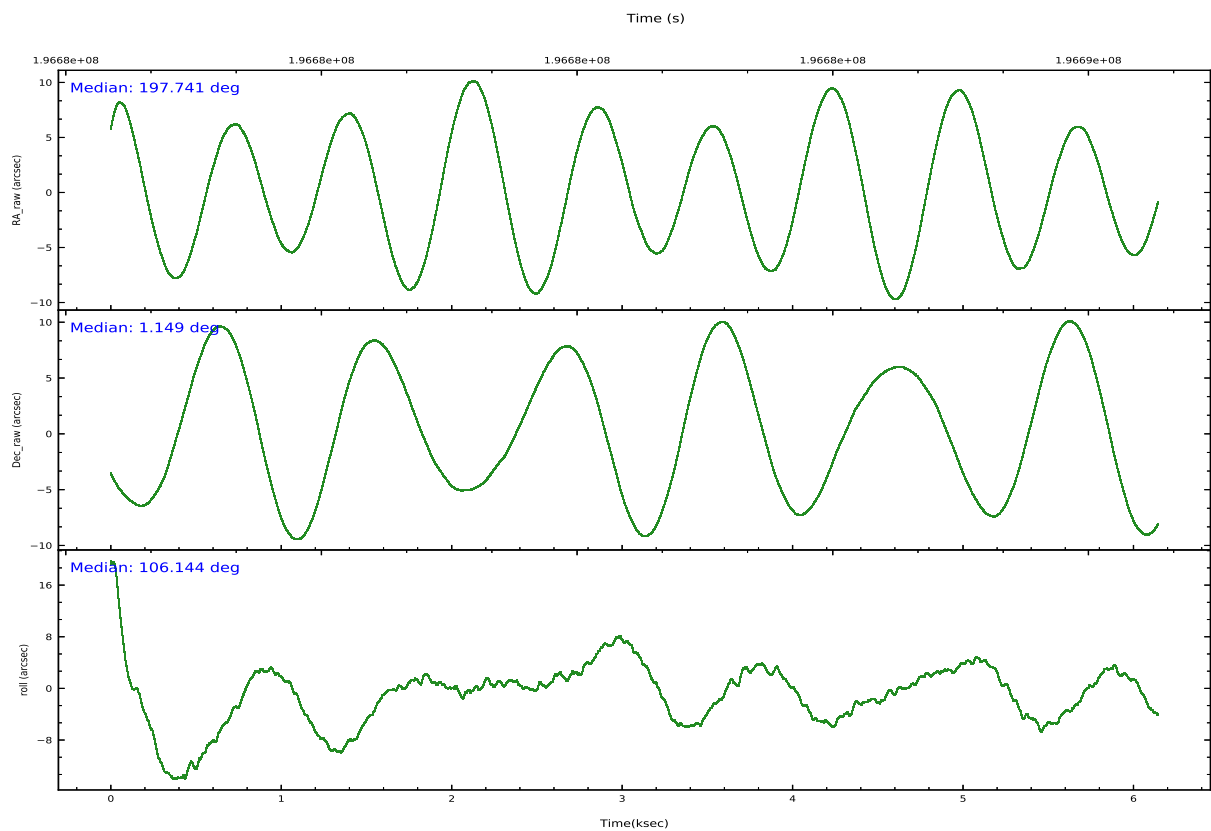


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	197.760958	197.74444256104	Subarray requested	NONE	NONE
[deg] Pointing Dec	1.130495	1.1475836310295	Alternating exposures requested	N	N
[deg] Pointing Roll	105.991944	106.14341889176	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	196680350.184000	196679189.18305			
Observation start date	2004-03-26T09:24:46	2004-03-26T09:06:29			
[s] Observation end time (MET)	196685910.184000	196686809.54588			
Observation end date	2004-03-26T10:57:26	2004-03-26T11:13:29			
Read mode	TIMED	TIMED			

## 2.3 Aspect



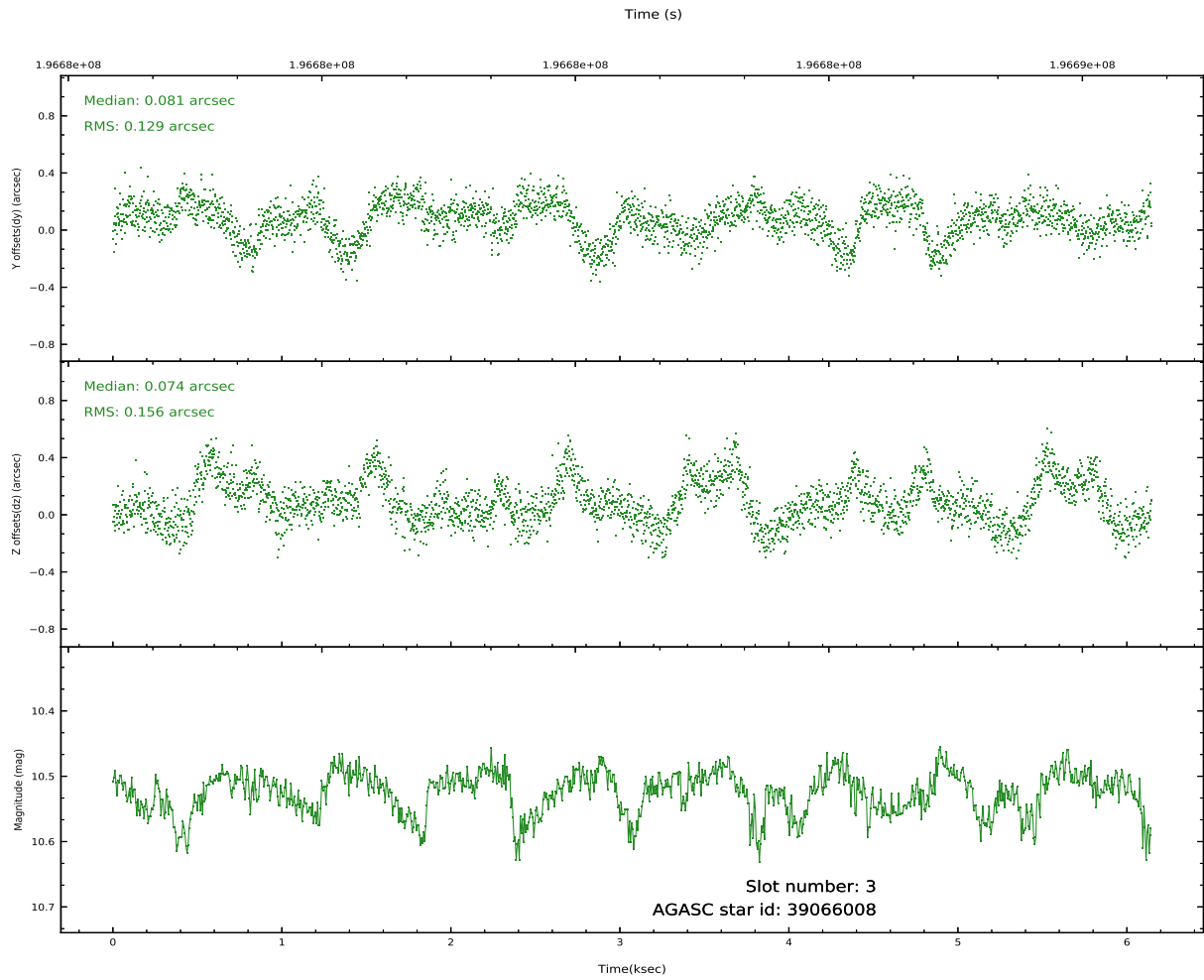
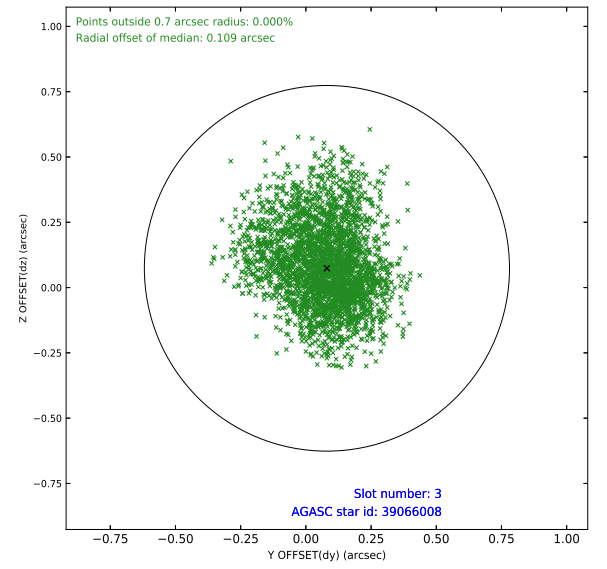
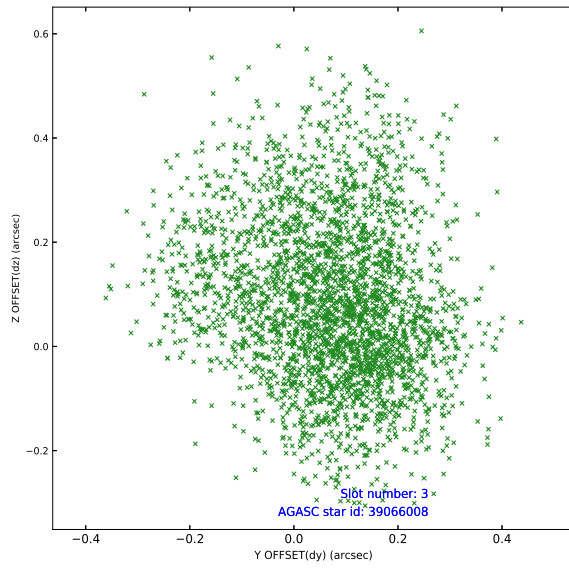


Slot Statistics

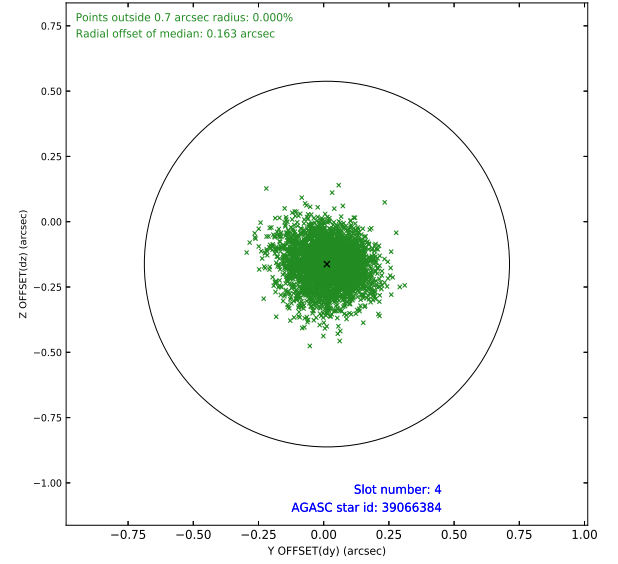
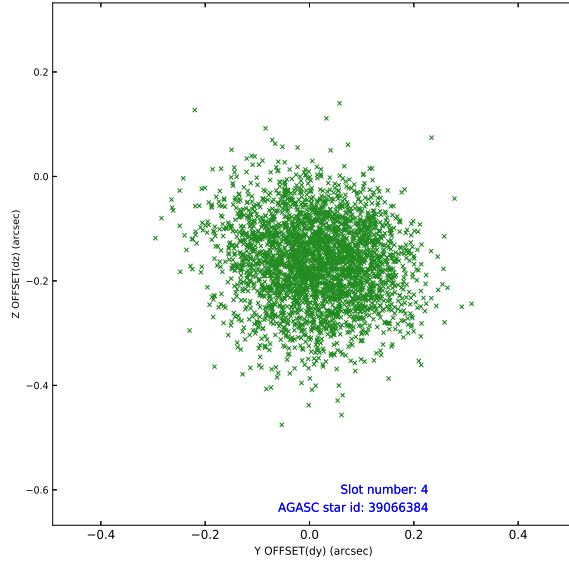
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	1498	1.000	-0.065	-0.057	0.007	0.012	0.000000	0.000000	-760.88	-1731
1	FID		ACIS-S-4	7.20	1499	1.000	0.151	0.047	0.006	0.011	0.000000	0.000000	2152.11	176
2	FID		ACIS-S-5	7.23	1499	1.000	-0.117	0.019	0.007	0.012	0.000000	0.000000	-1812.61	171
3	GUIDE	used	39066008	10.52	2996	1.000	0.081	0.074	0.217	0.351	197.446837	0.858969	-627.97	1356
4	GUIDE	used	39066384	9.85	2995	1.000	0.012	-0.162	0.130	0.209	197.255307	0.655946	-1141.20	2220
5	GUIDE	used	39191520	8.85	2999	1.000	-0.012	0.072	0.103	0.163	197.717780	1.725616	2102.04	-439
6	GUIDE	used	39192736	9.99	2996	1.000	-0.075	0.007	0.128	0.212	198.255413	1.617492	1196.63	-2193
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

## 2.4 Star Slots

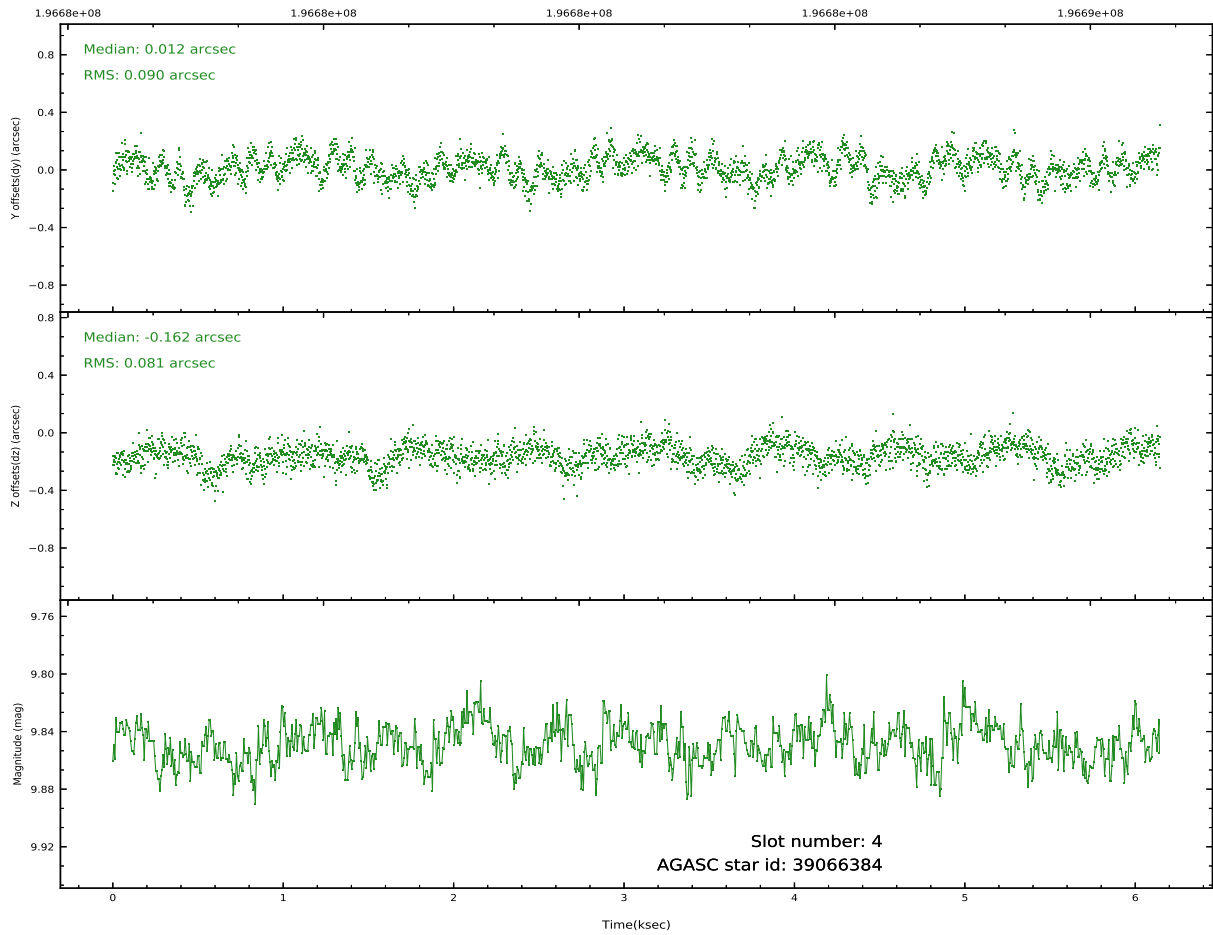
### 2.4.1 Slot 3



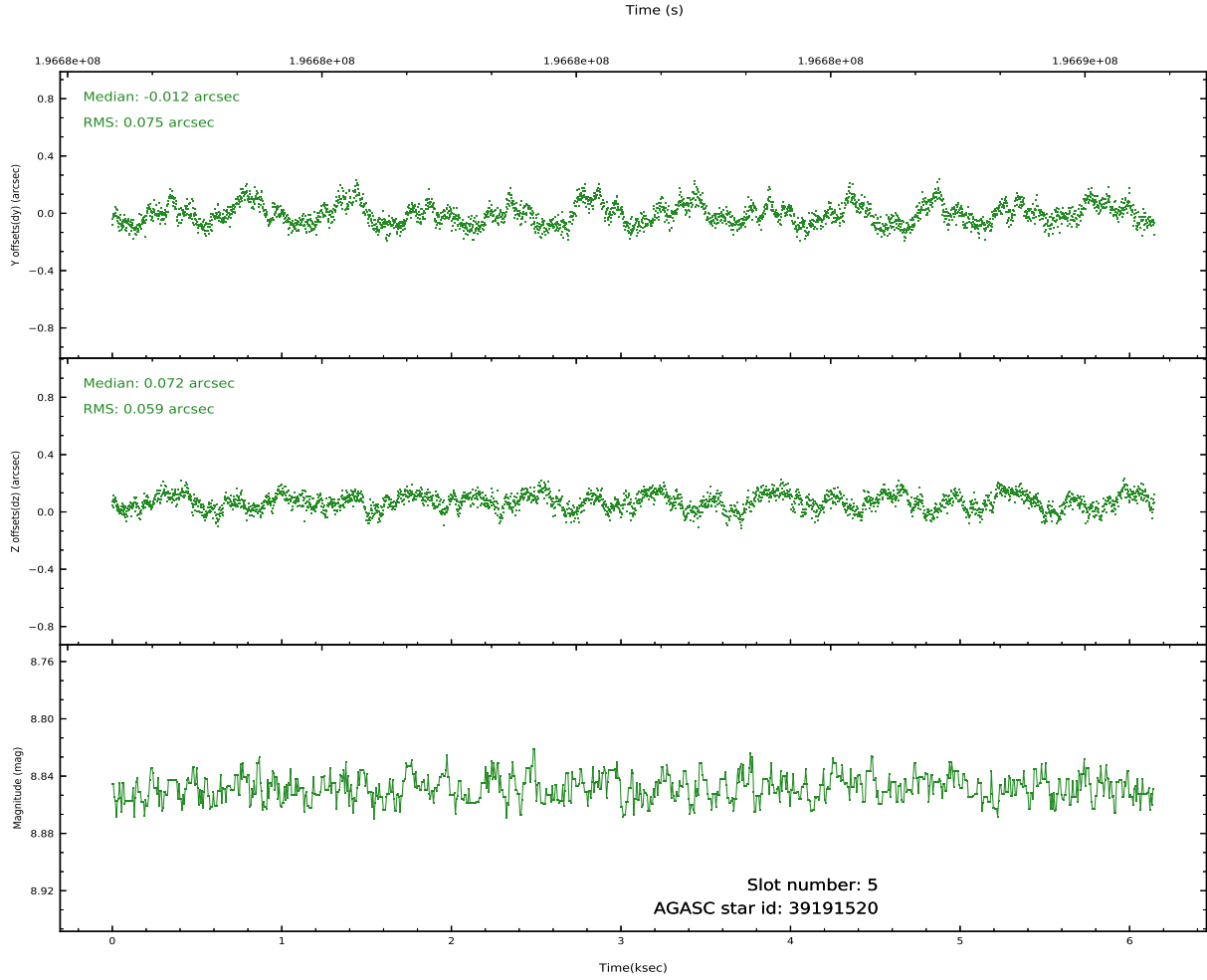
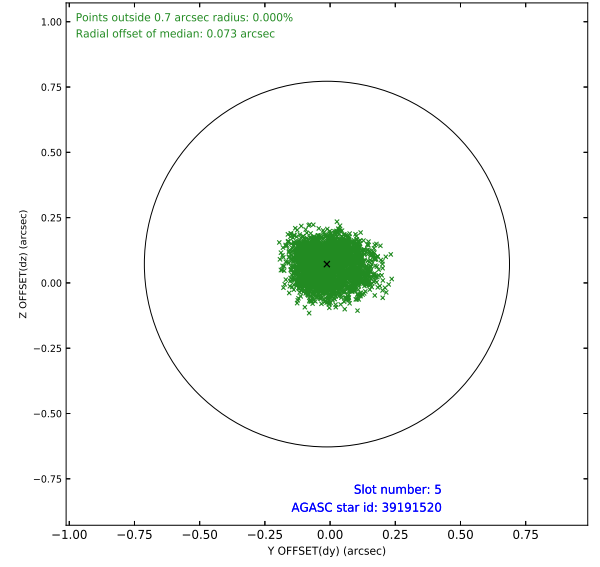
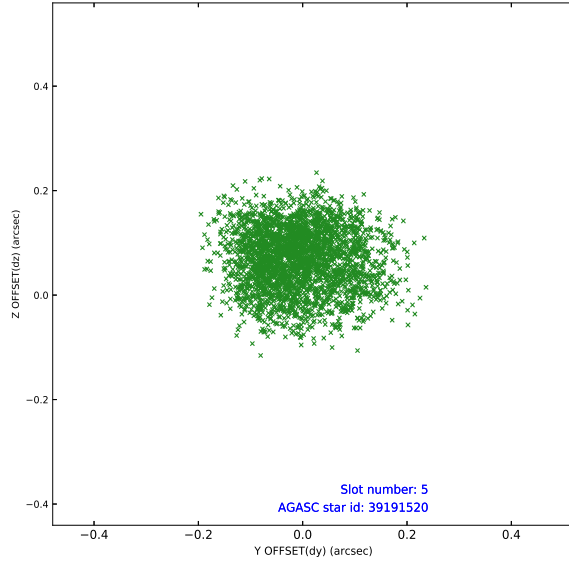
## 2.4.2 Slot 4



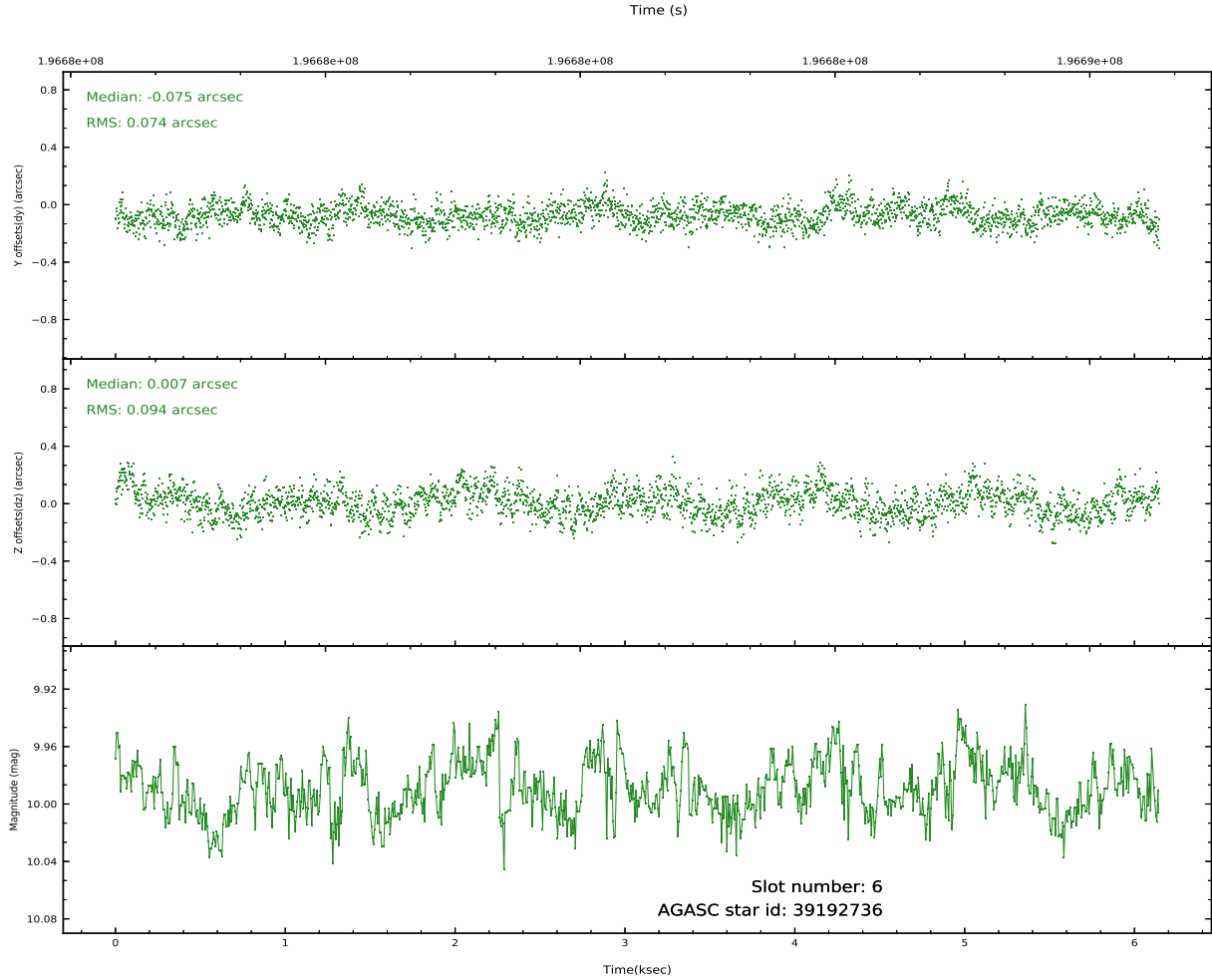
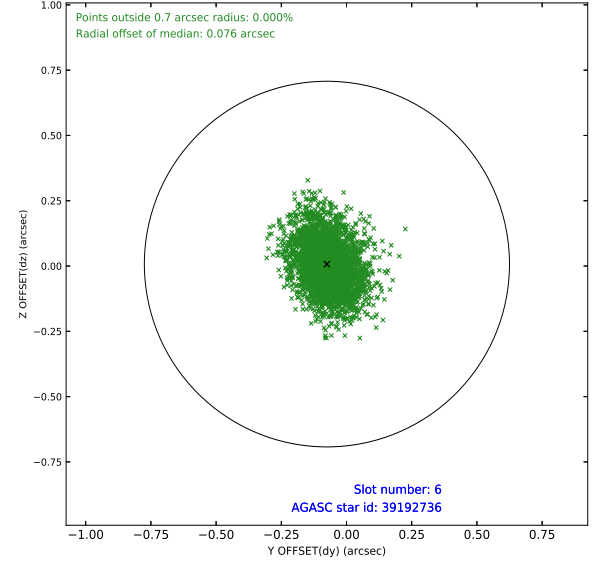
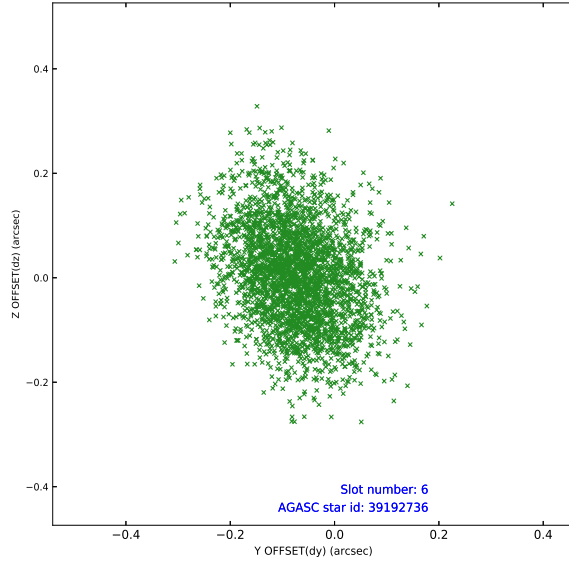
Time (s)



### 2.4.3 Slot 5



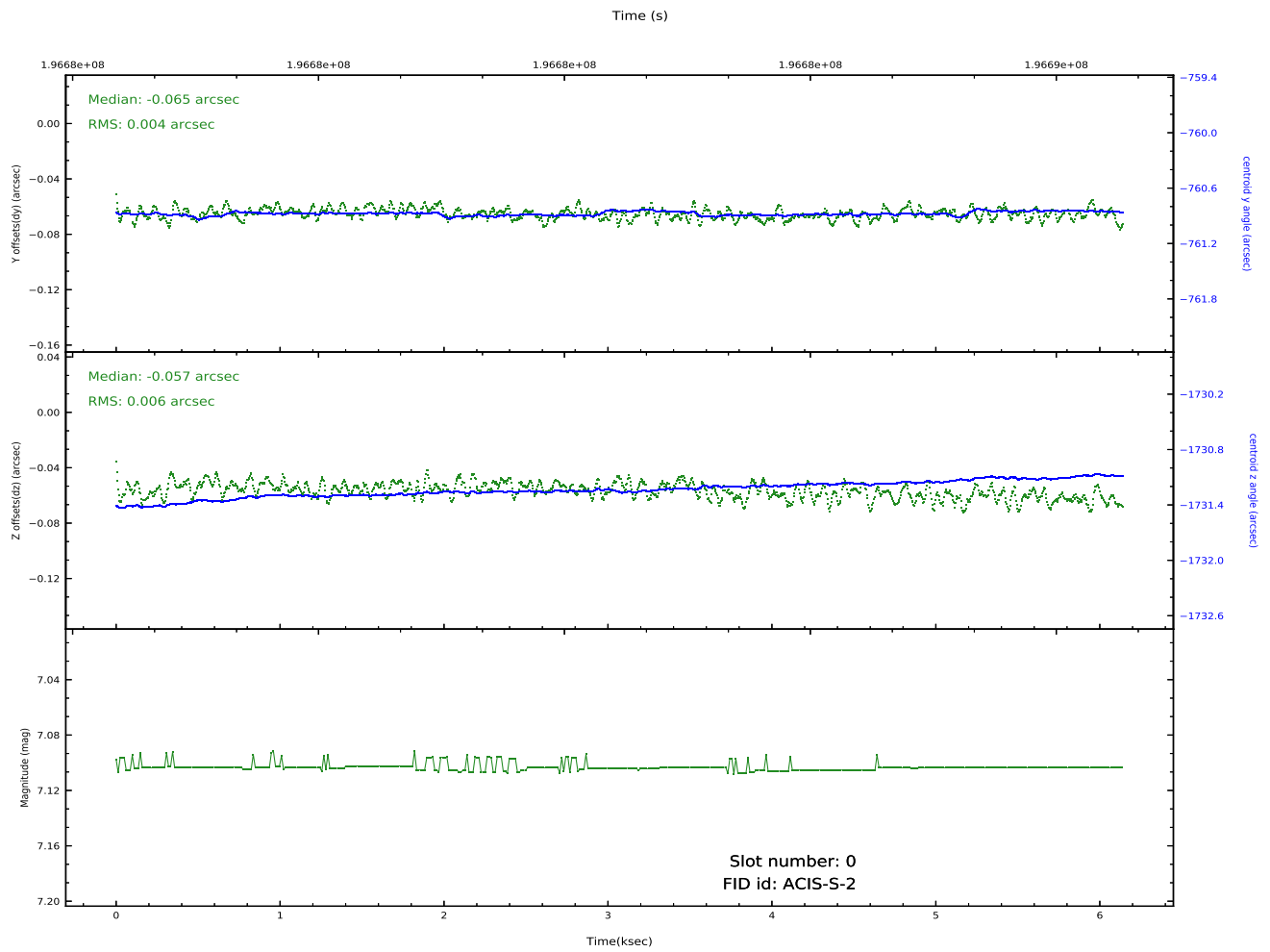
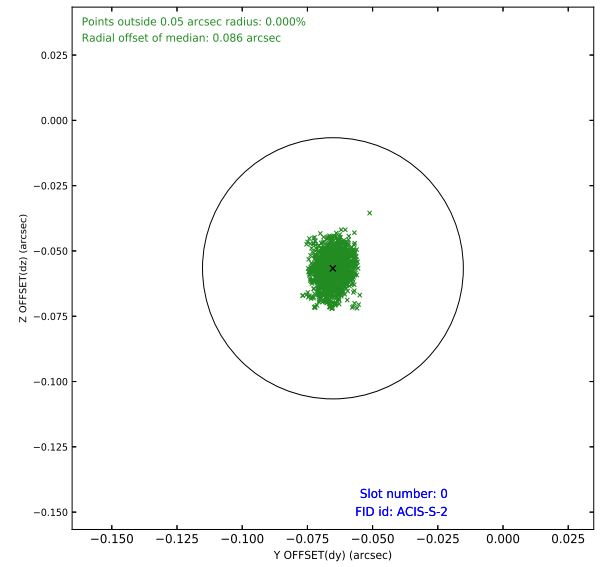
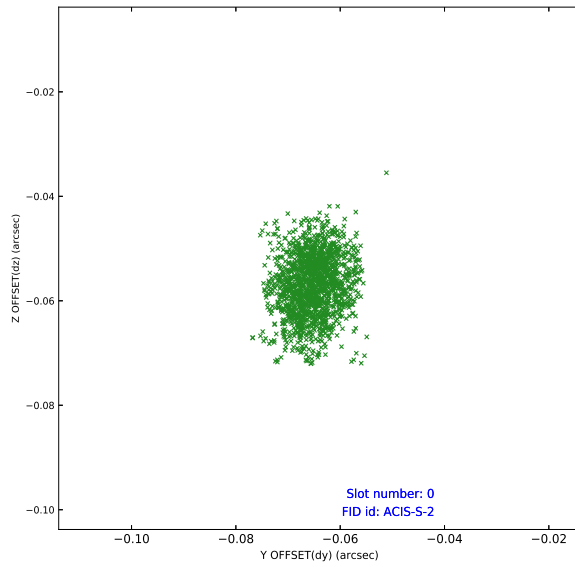
## 2.4.4 Slot 6



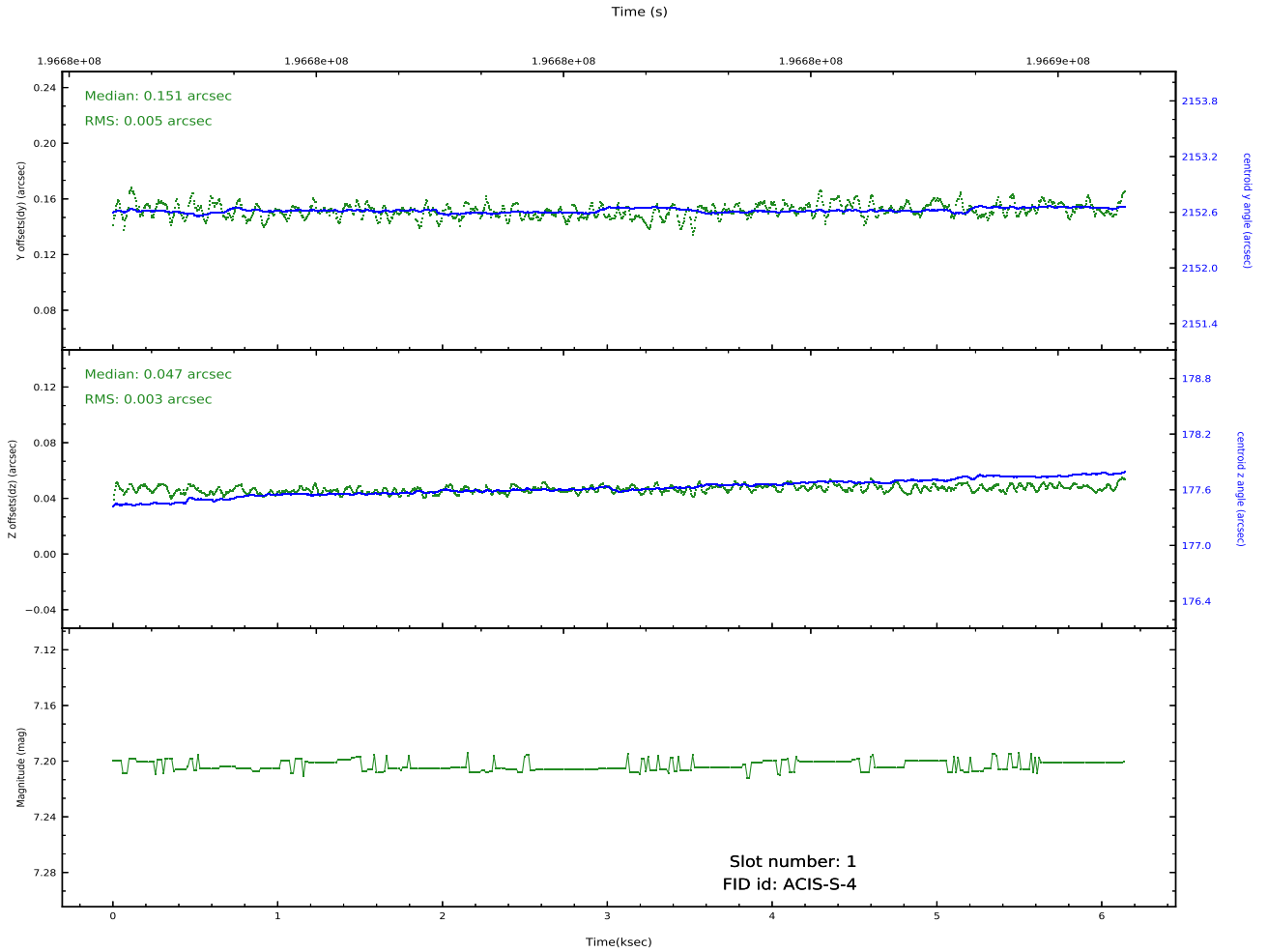
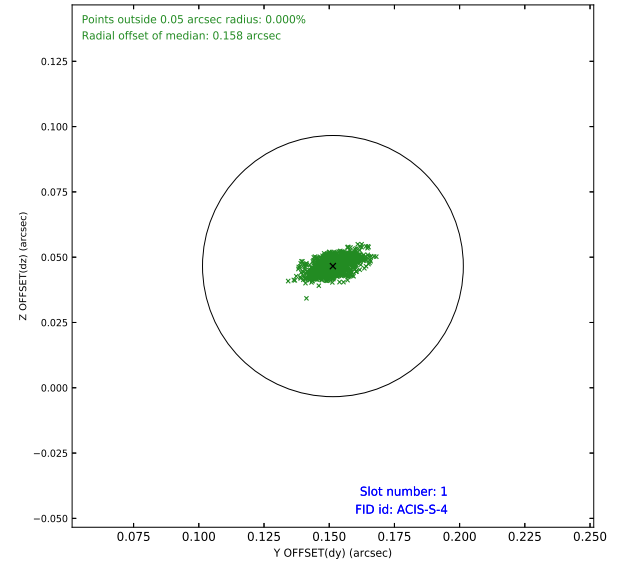
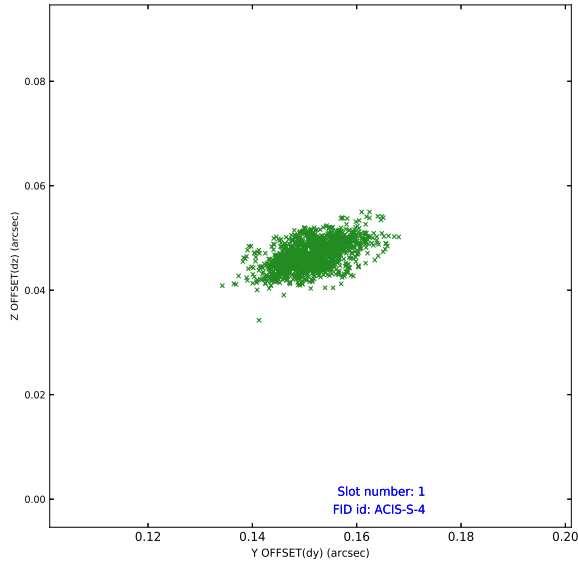


## 2.5 FID Slots

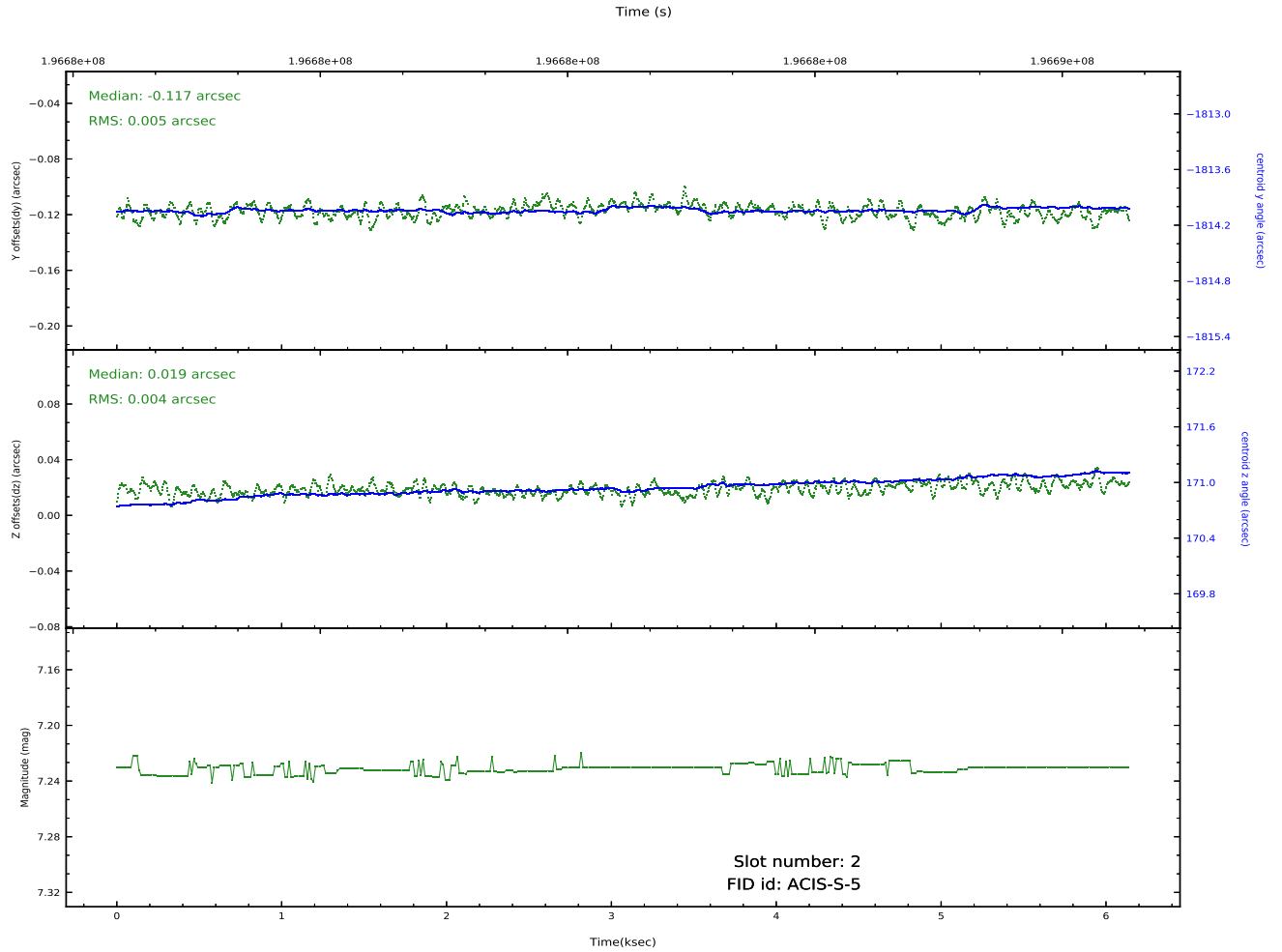
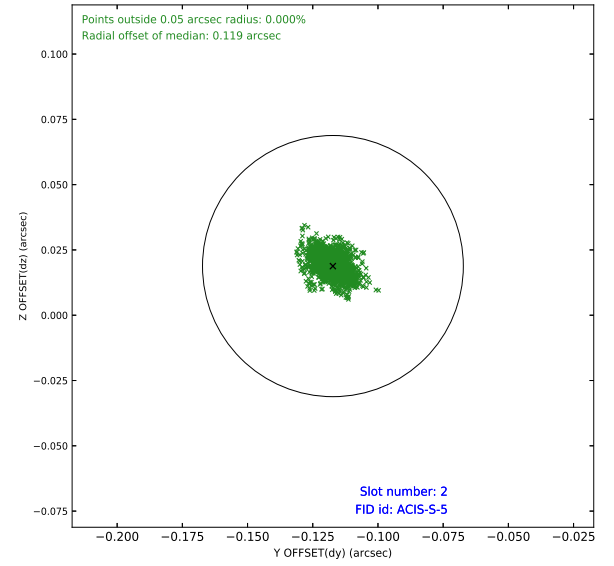
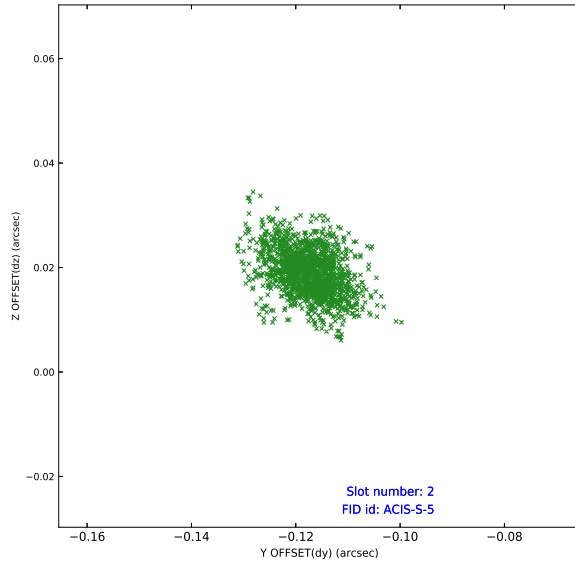
### 2.5.1 Slot 0



## 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)	2020.09.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.519

## A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.