

# V&V Reference Report

## L2 ASCDS Version : 10.9.2

Observation 19389 - L2 Version 2  
Chandra X-Ray Center

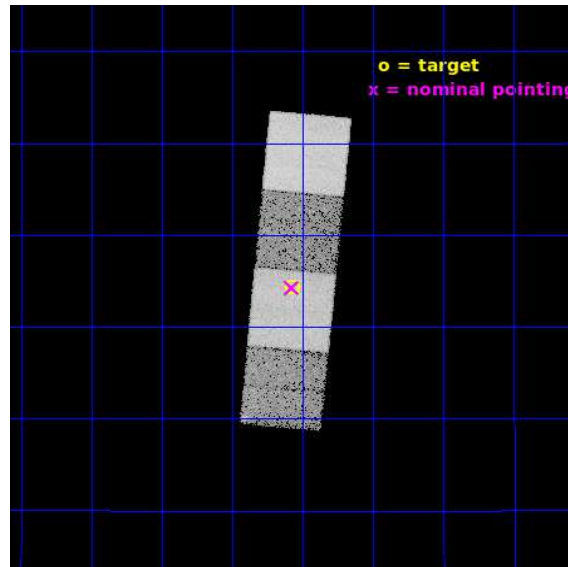
L2 Processing Date : Oct 24 2020

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# 1 Front

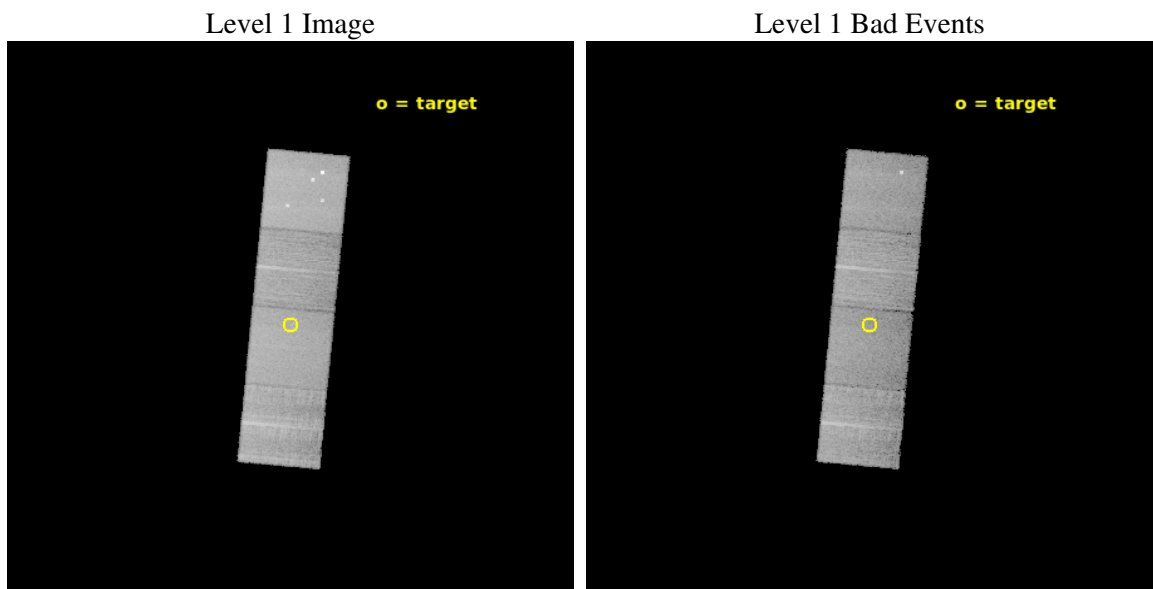
seq_num	601346	Sequence number
obs_id	19389	Observation id
title	Spiral galaxies of the Virgo cluster	Proposal title
observer	Roberto Soria	Principal investigator
object	NGC 4568	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	189.142917	Observer's specified target RA [deg]
dec_targ	11.238889	Observer's specified target Dec [deg]
ra_nom	189.14432887508	Nominal RA [deg]
dec_nom	11.238070503002	Nominal Dec [deg]
roll_nom	95.309560894074	Nominal Roll [deg]
revision	2	Processing version of data
ontime	13906.028035641	Sum of GTIs [s]
livetime	13724.335541886	Livetime [s]
ontime5	13905.986995697	Sum of GTIs [s]
ontime6	13905.945955634	Sum of GTIs [s]
ontime7	13906.028035641	Sum of GTIs [s]
ontime8	13905.90491569	Sum of GTIs [s]
l2events	152509	Number of level 2 events



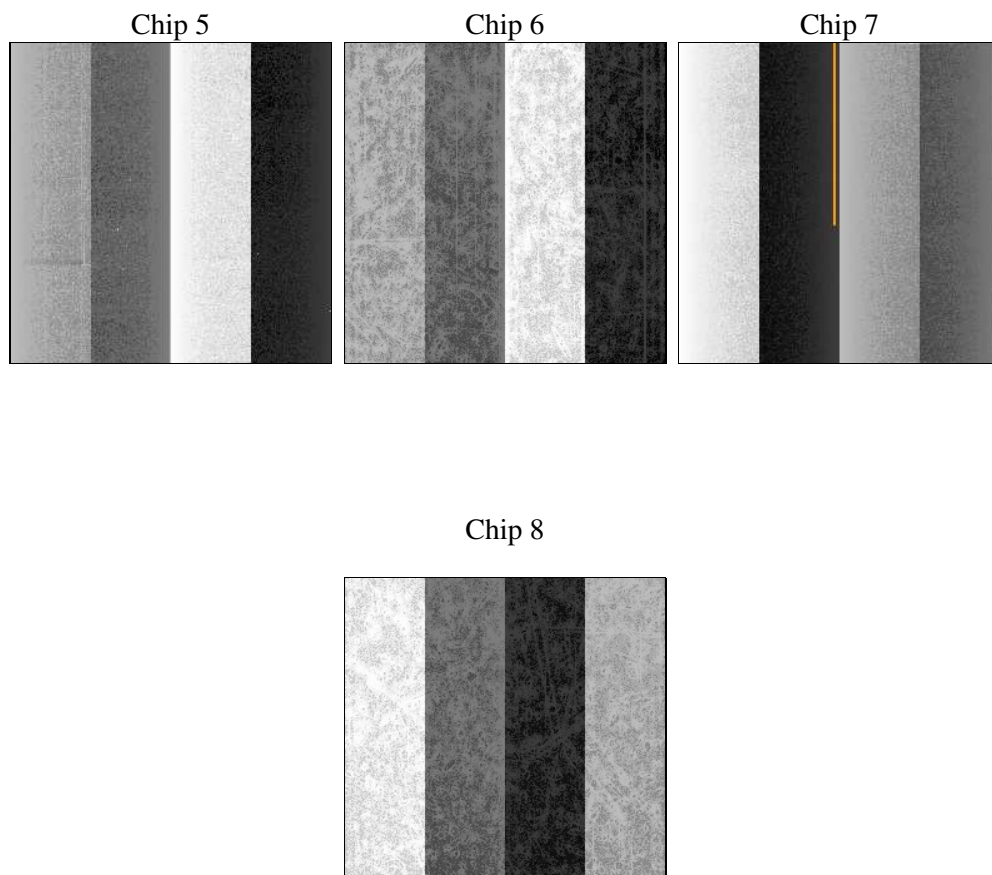
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	13845.161000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	13906.028035641	Sum of GTIs [s]
caldsver	4.9.3	&#160	ontime5	13905.986995697	Sum of GTIs [s]
date	2020-10-25T00:29:54	Date and time of file creation	ontime6	13905.945955634	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	13906.028035641	Sum of GTIs [s]
			ontime8	13905.90491569	Sum of GTIs [s]
			l1events	538359	Number of level 1 events

### 2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	166818	107958	132046	131537
rejected events	84655	96115	74100	97495
rejected %	50%	89%	56%	74%

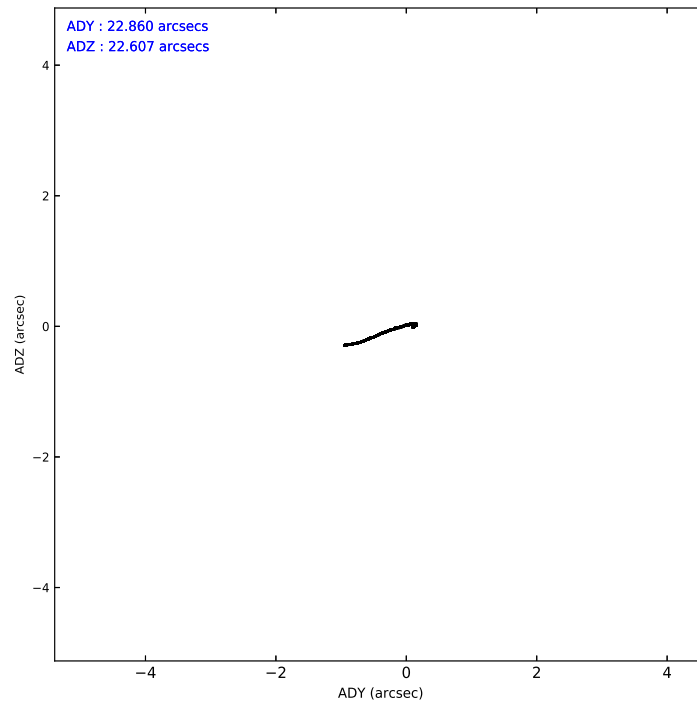
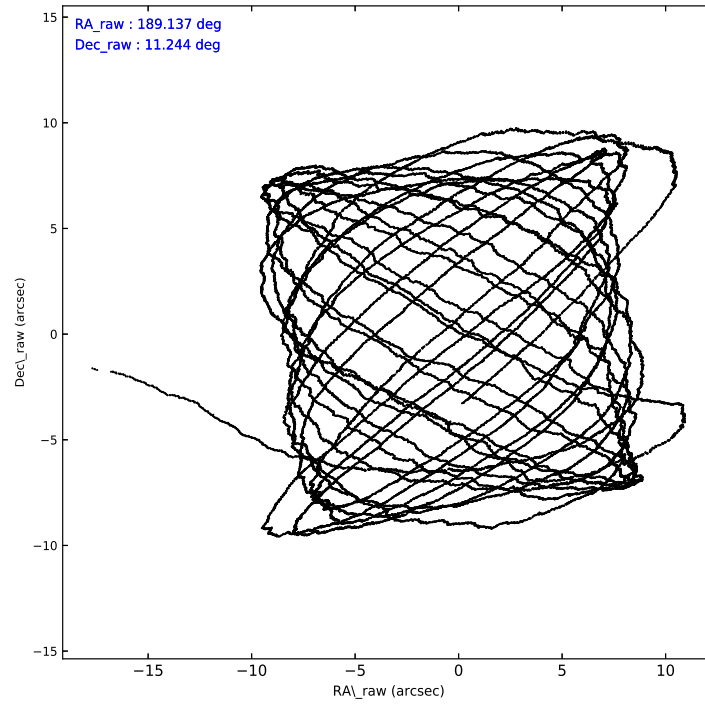
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	8103	3997	5158	9853
	4%	3%	3%	7%
grade 1 events	386	44	173	92
	0%	0%	0%	0%
grade 2 events	25561	2934	12302	8249
	15%	2%	9%	6%
grade 3 events	2208	1101	4655	3629
	1%	1%	3%	2%
grade 4 events	2180	1035	4510	3239
	1%	0%	3%	2%
grade 5 events	10635	4732	12649	7178
	6%	4%	9%	5%
grade 6 events	44151	2782	31352	9098
	26%	2%	23%	6%
grade 7 events	73594	91333	61247	90199
	44%	84%	46%	68%

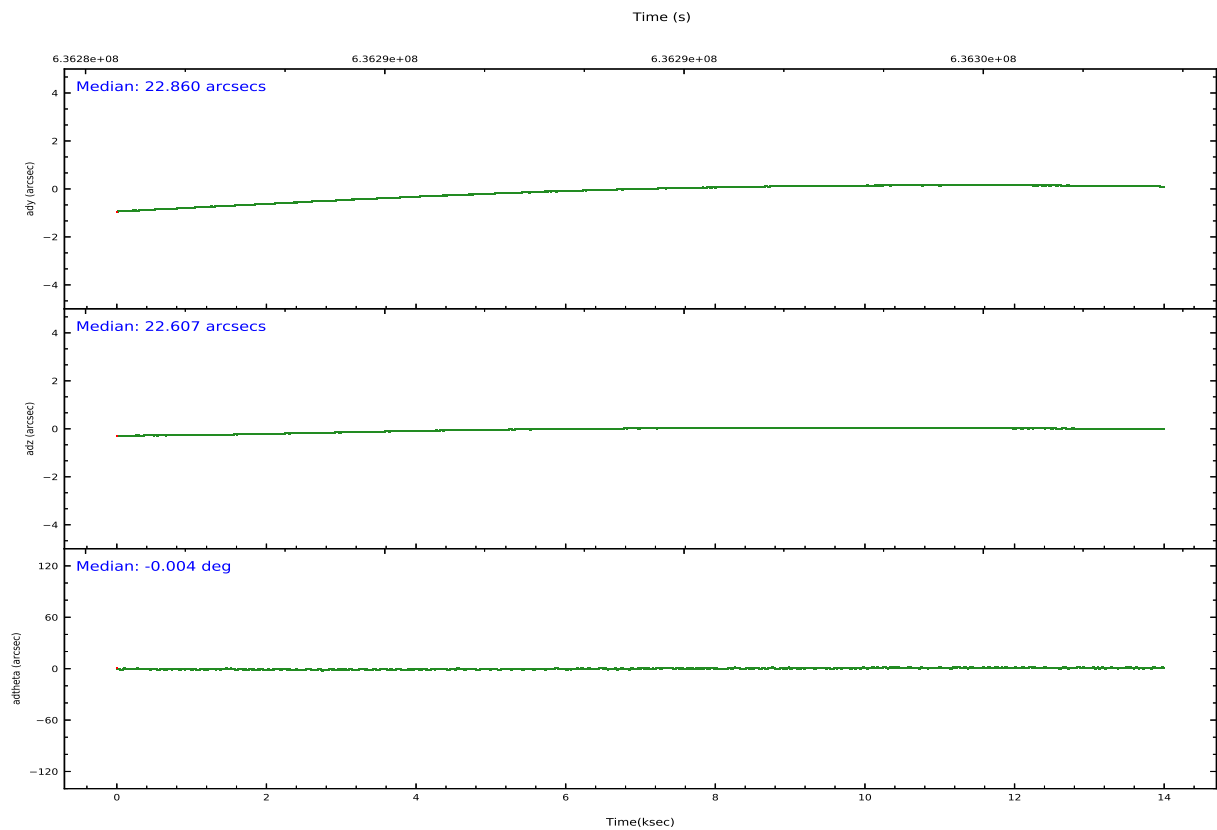
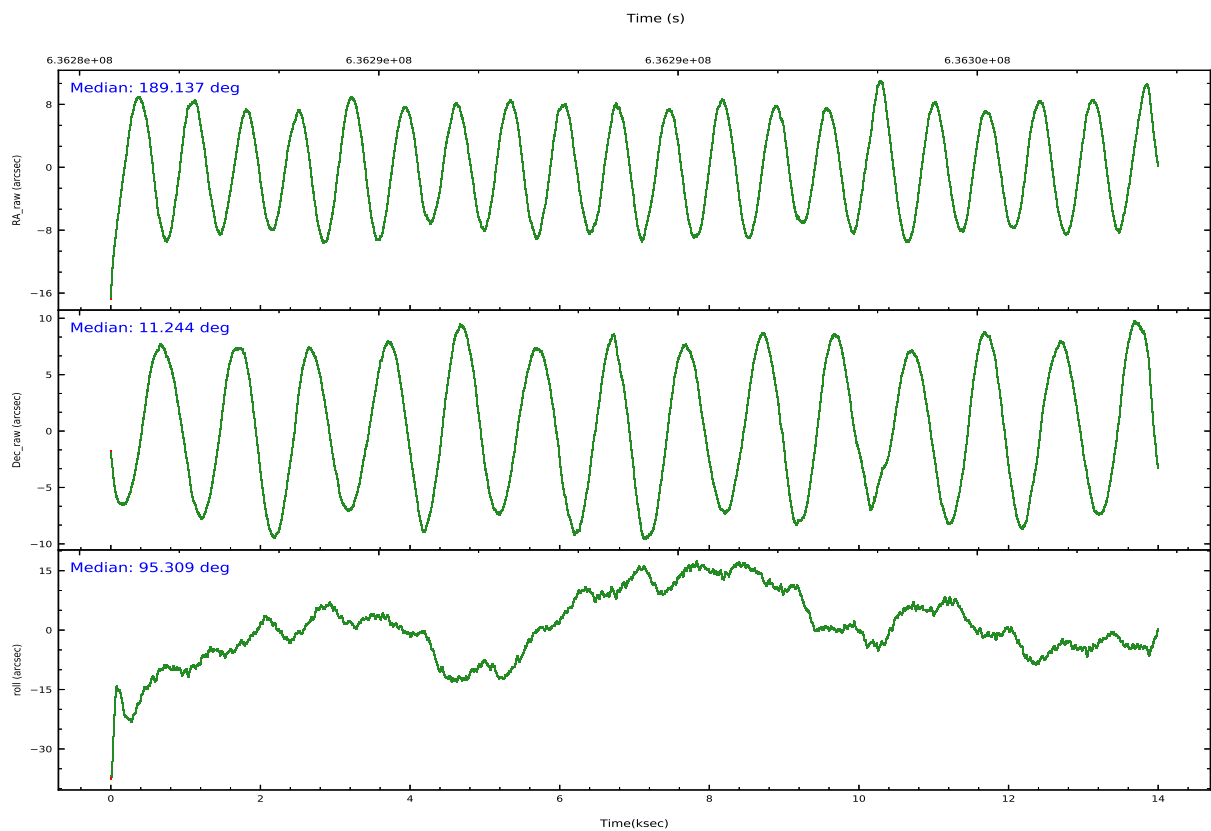


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-5678	ACIS-5678	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	189.153597	189.14432887508	Subarray requested	NONE	NONE
[deg] Pointing Dec	11.221761	11.238070503002	Alternating exposures requested	N	N
[deg] Pointing Roll	95.151583	95.309560894074	[s] Primary exposure time	0.000000	3.1
[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)	636284572.184000	636283563.71667			
Observation start date	2018-03-01T09:41:43	2018-03-01T09:26:03			
[s] Observation end time (MET)	636298417.184000	636299405.09261			
Observation end date	2018-03-01T13:32:28	2018-03-01T13:50:05			
Read mode	TIMED	TIMED			

## 2.3 Aspect



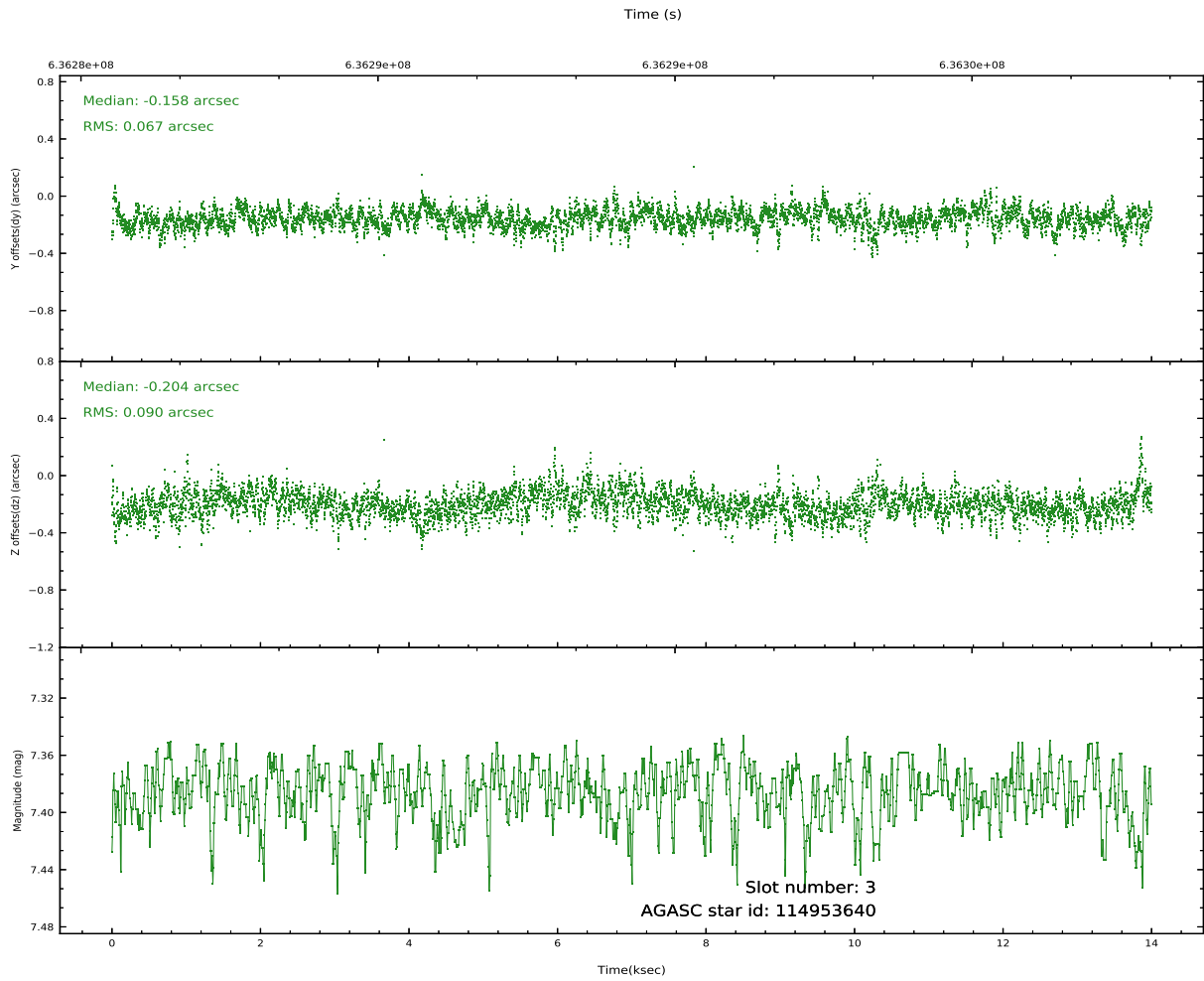
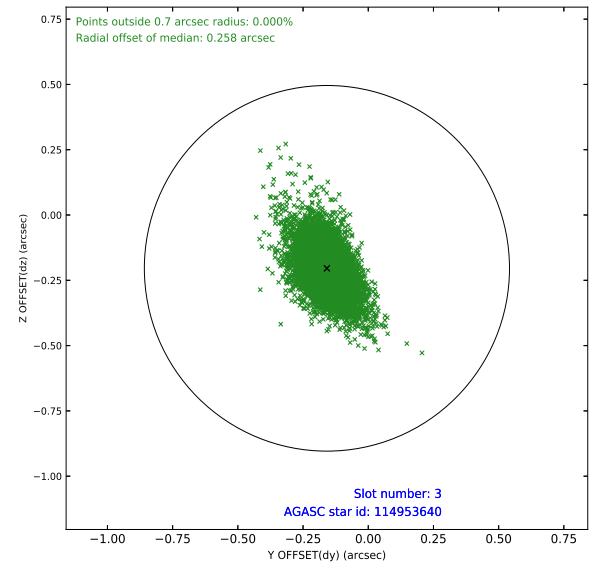
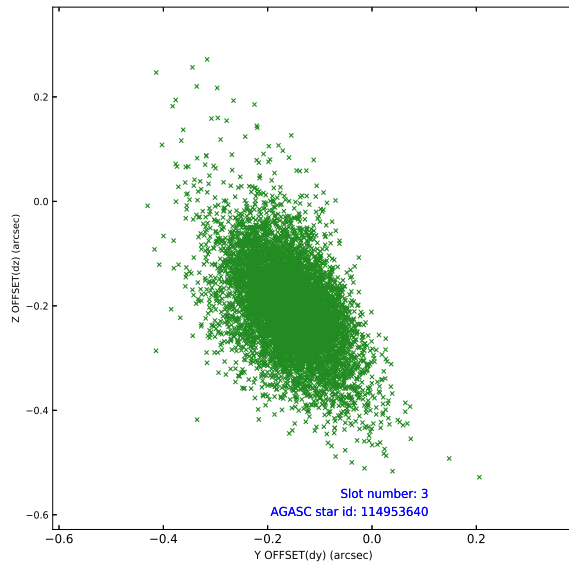


Slot Statistics

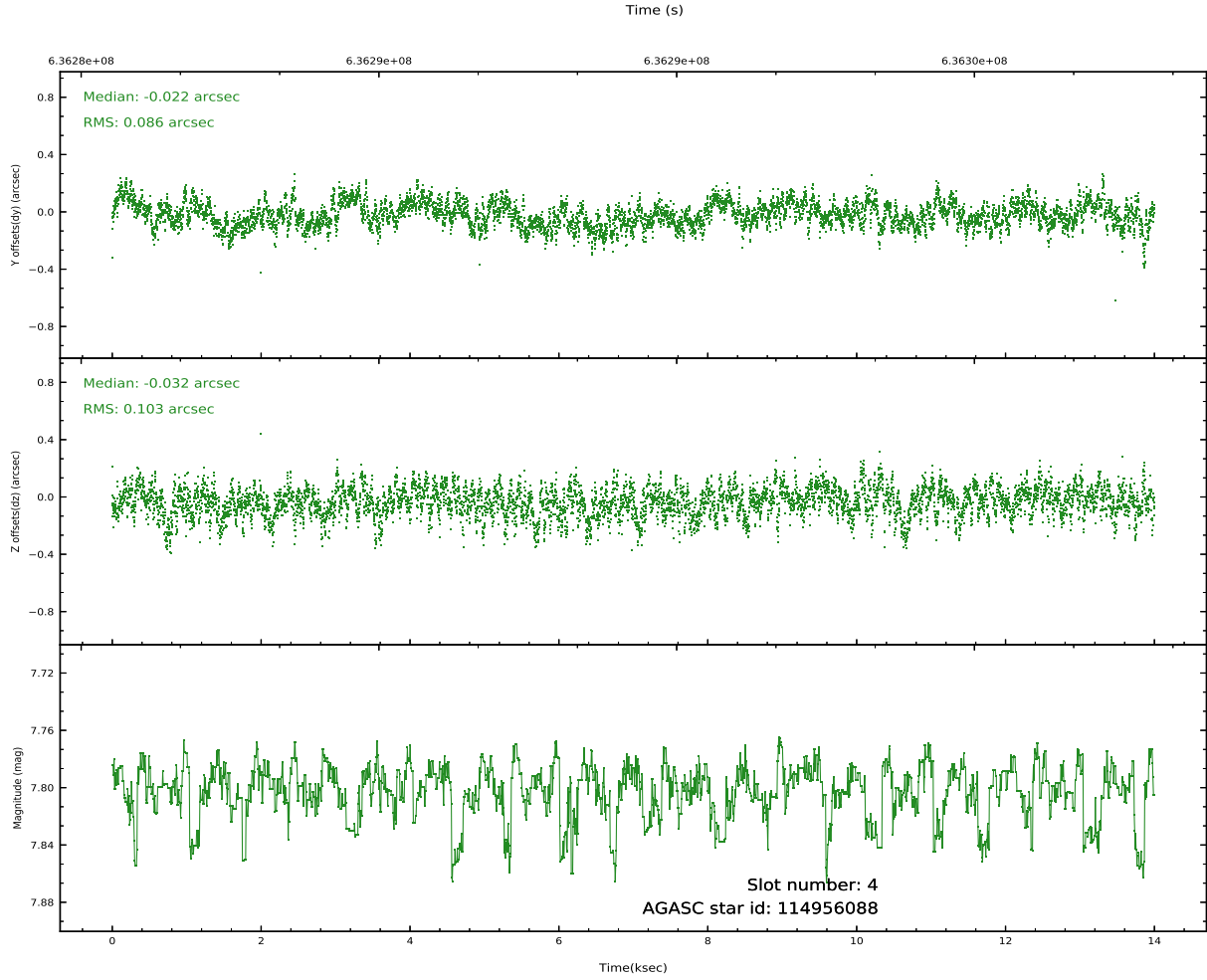
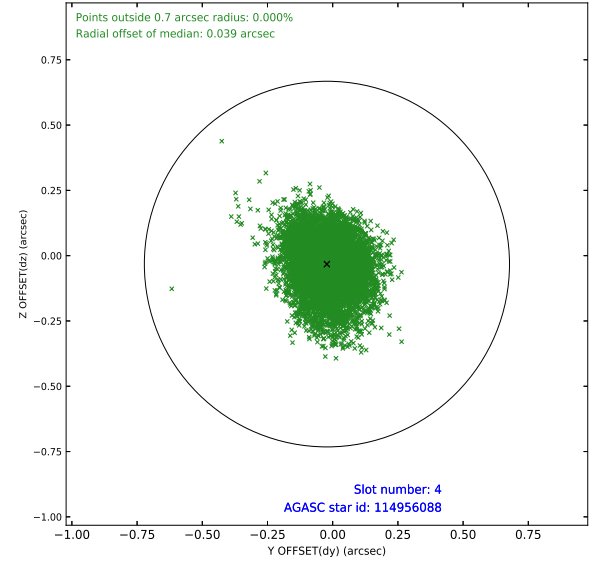
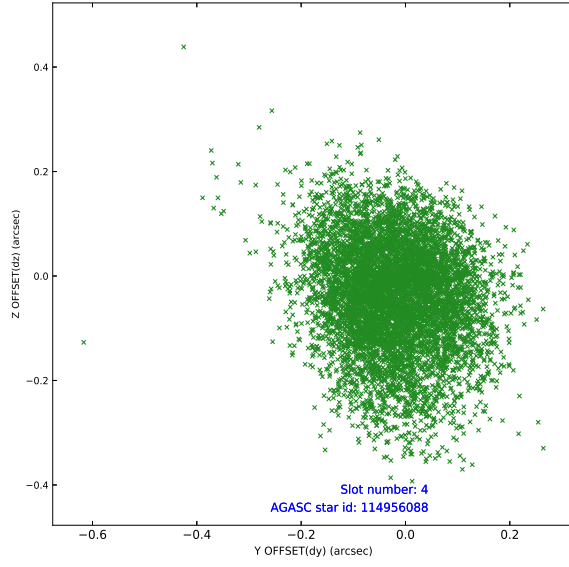
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.20	3414	1.000	0.153	-0.113	0.010	0.016	0.000000	0.000000	920.24	-1739
1	FID		ACIS-S-2	7.12	3415	1.000	-0.102	0.087	0.008	0.016	0.000000	0.000000	-775.73	-1744
2	FID		ACIS-S-6	7.39	3415	1.000	-0.071	0.032	0.008	0.014	0.000000	0.000000	385.60	801
3	GUIDE	used	114953640	7.38	6829	1.000	-0.158	-0.204	0.111	0.201	188.794711	11.547726	1282.97	1155
4	GUIDE	used	114956088	7.80	6826	1.000	-0.022	-0.032	0.142	0.232	188.583972	10.921101	-896.09	2104
5	GUIDE	used	115085264	7.88	6825	1.000	-0.006	0.107	0.147	0.253	189.302301	11.817775	2090.12	-714
6	GUIDE	used	115089856	8.77	6824	1.000	0.201	0.063	0.133	0.228	189.118504	10.729832	-1752.48	282
7	GUIDE	used	114956456	8.15	6825	1.000	-0.017	0.072	0.123	0.209	188.716512	10.836292	-1242.94	1664

## 2.4 Star Slots

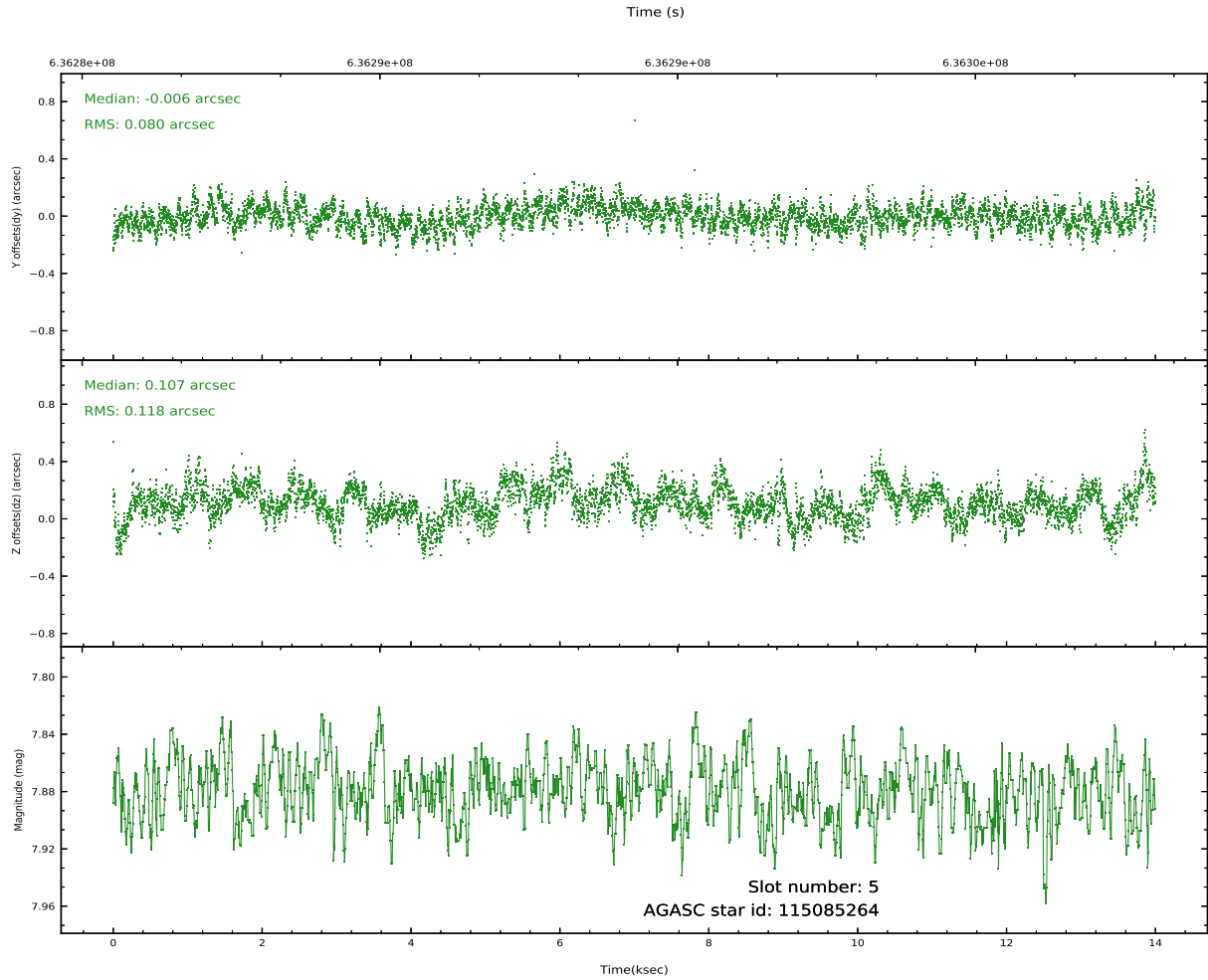
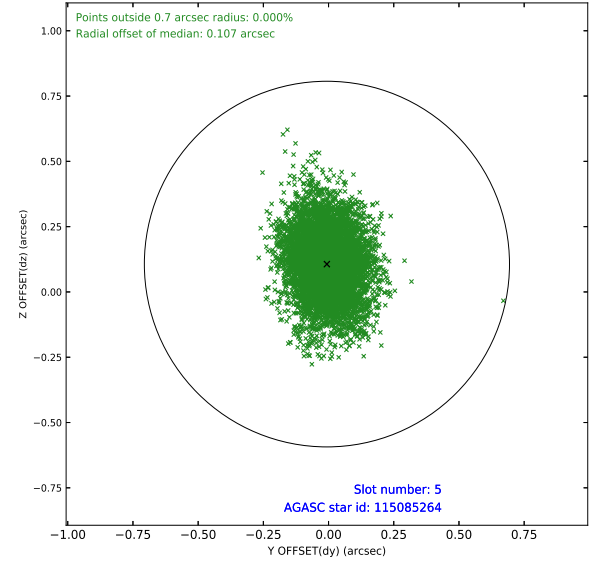
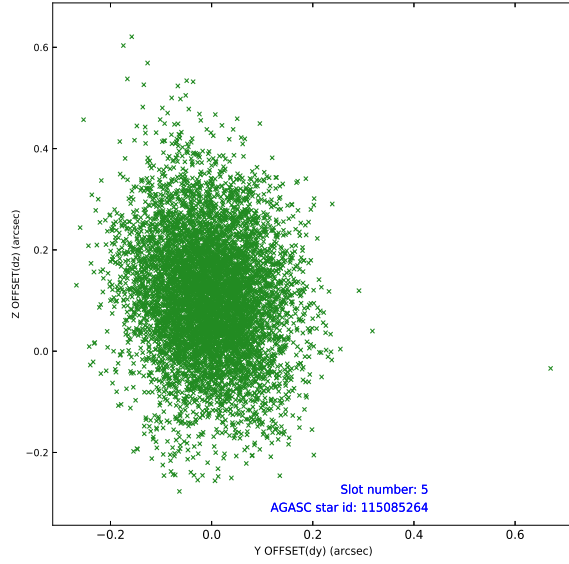
### 2.4.1 Slot 3



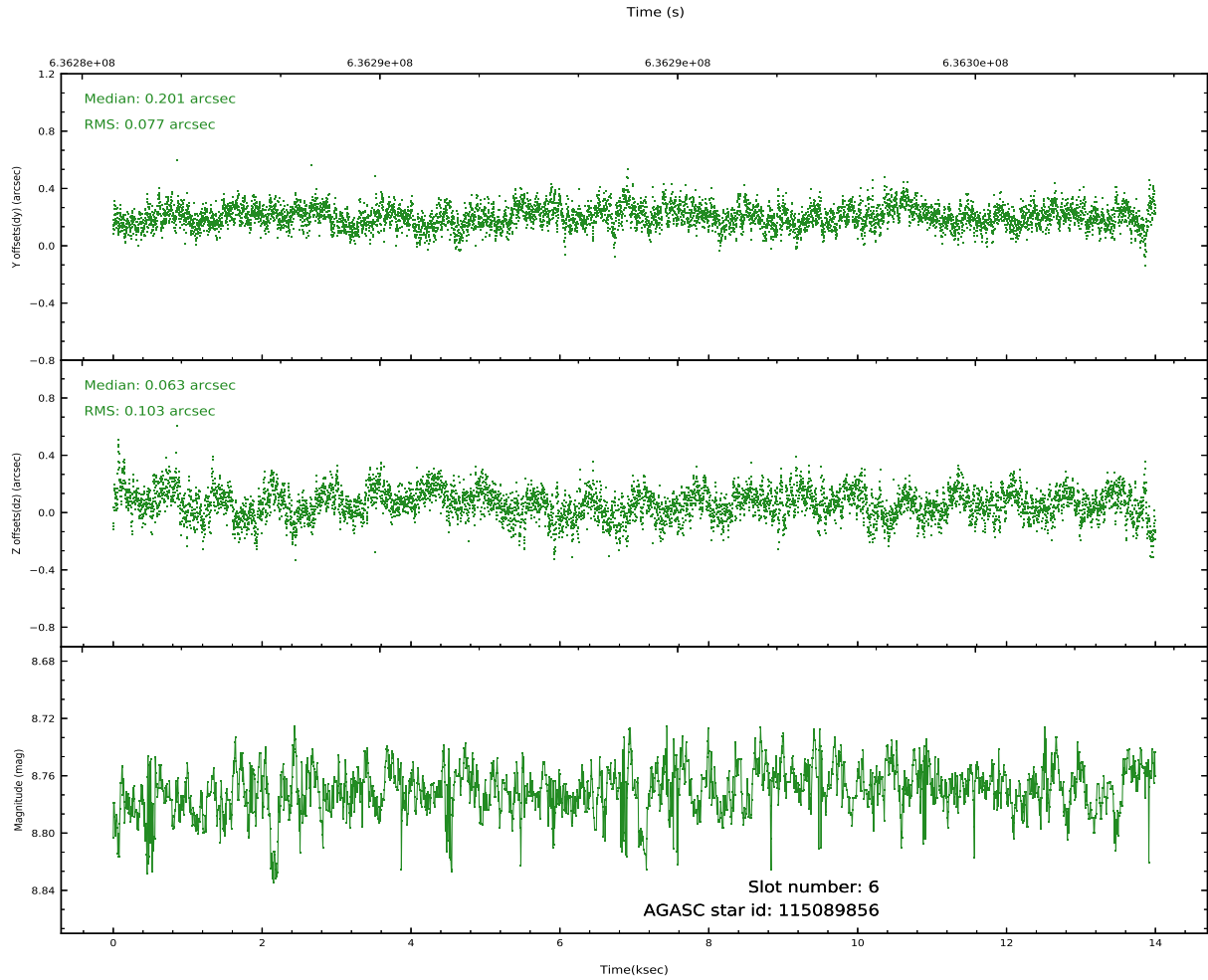
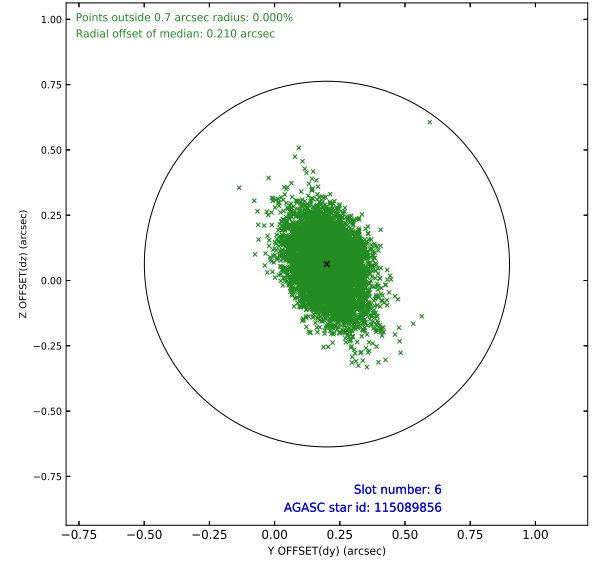
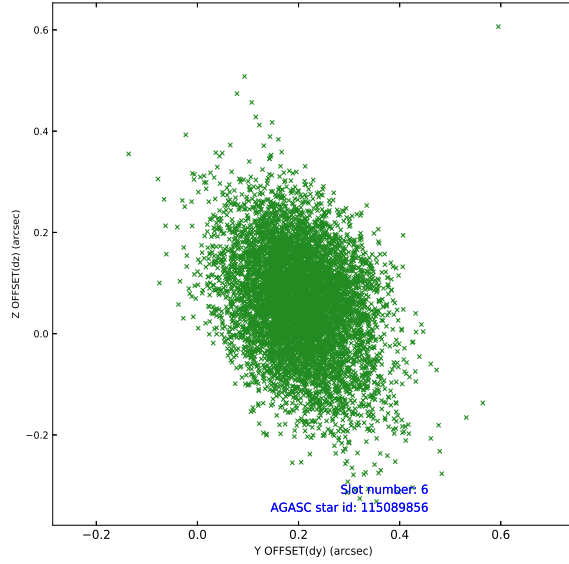
## 2.4.2 Slot 4



### 2.4.3 Slot 5

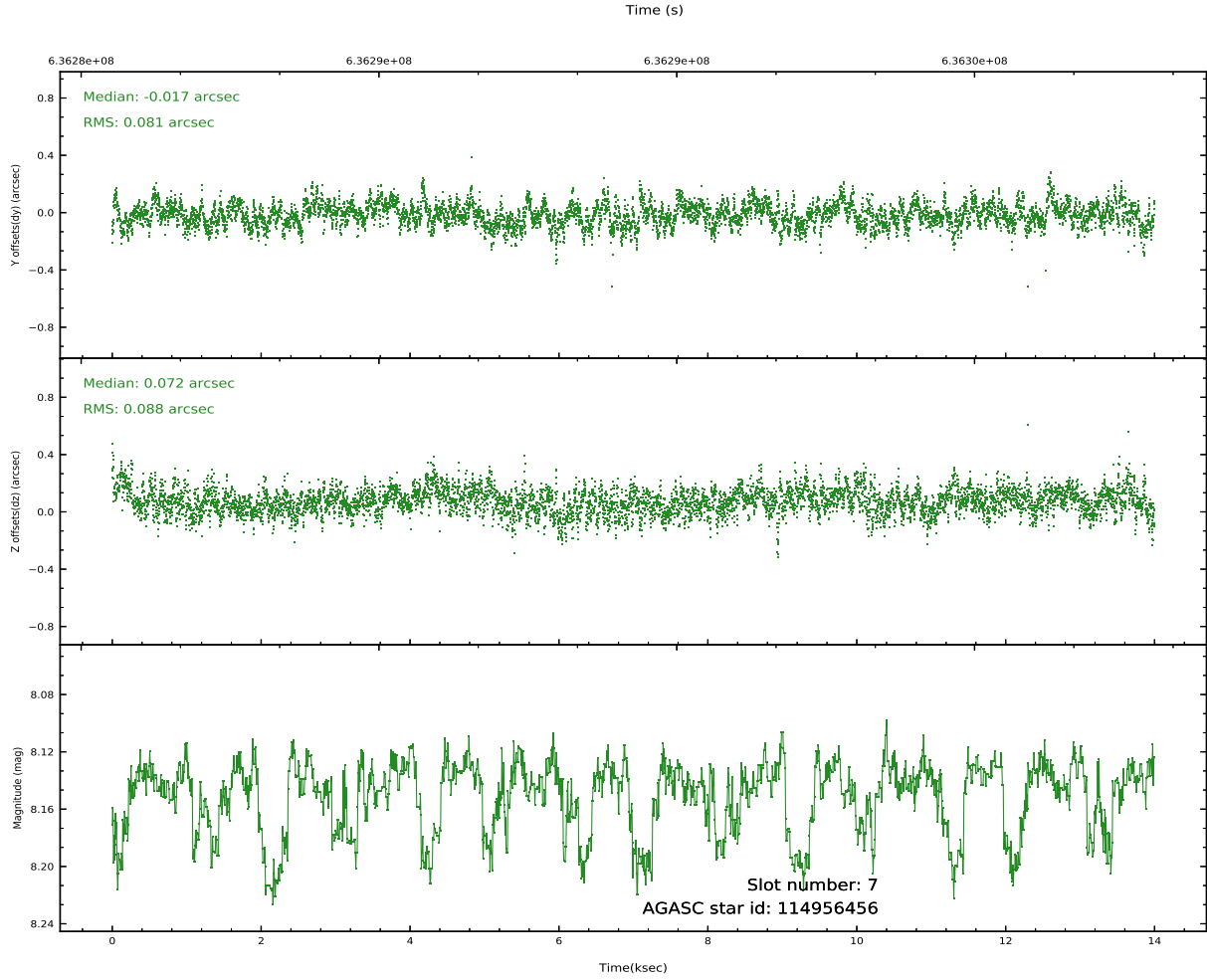
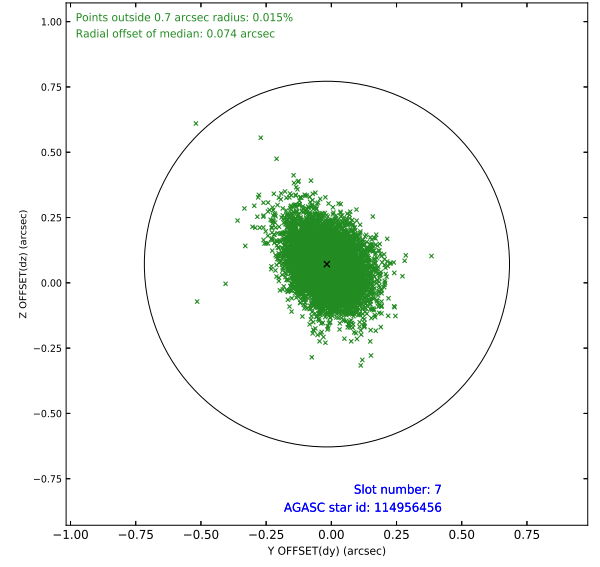
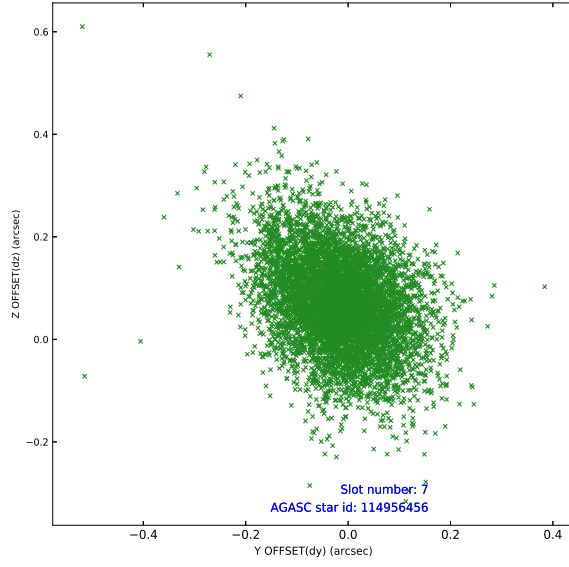


## 2.4.4 Slot 6



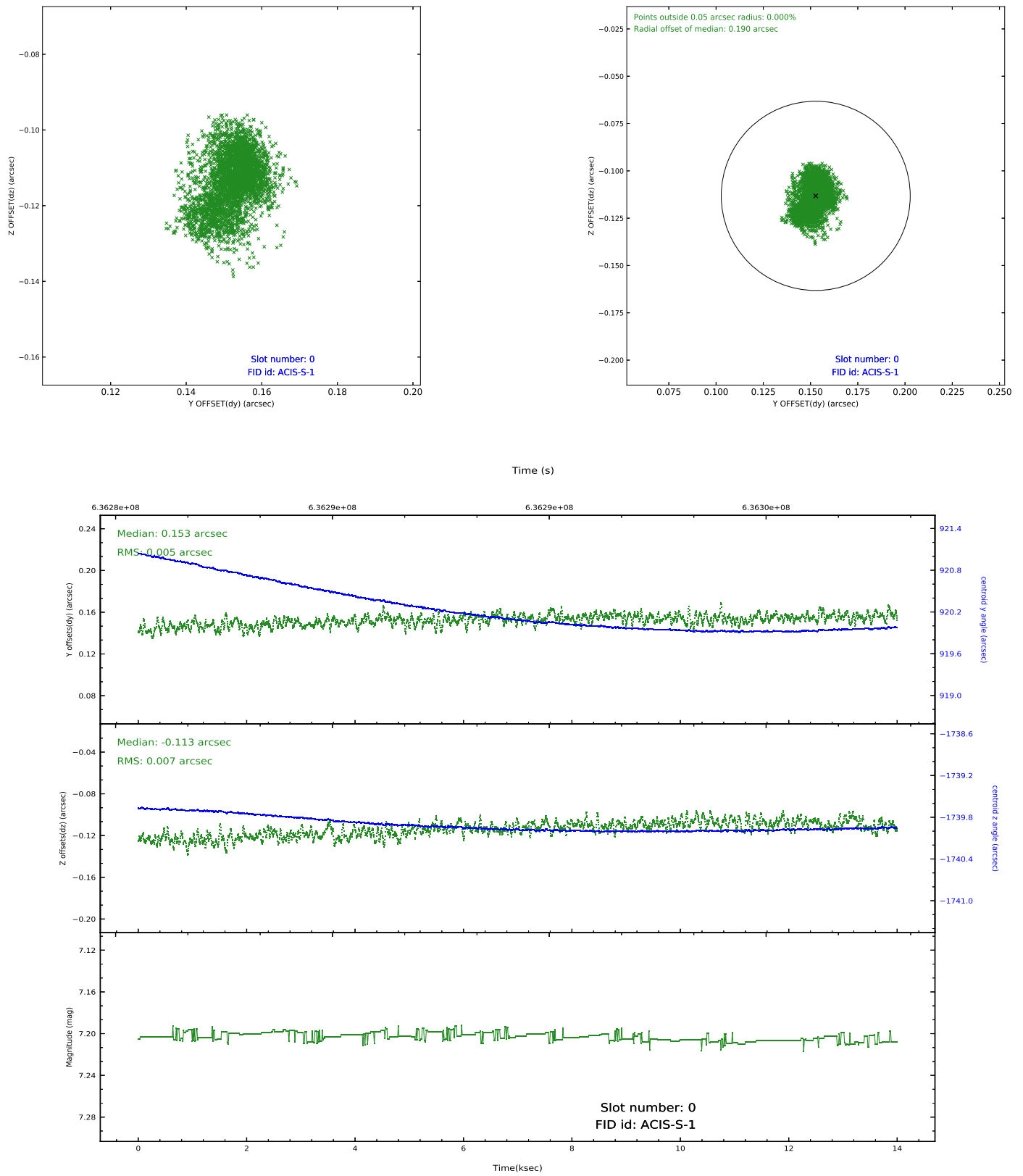


## 2.4.5 Slot 7

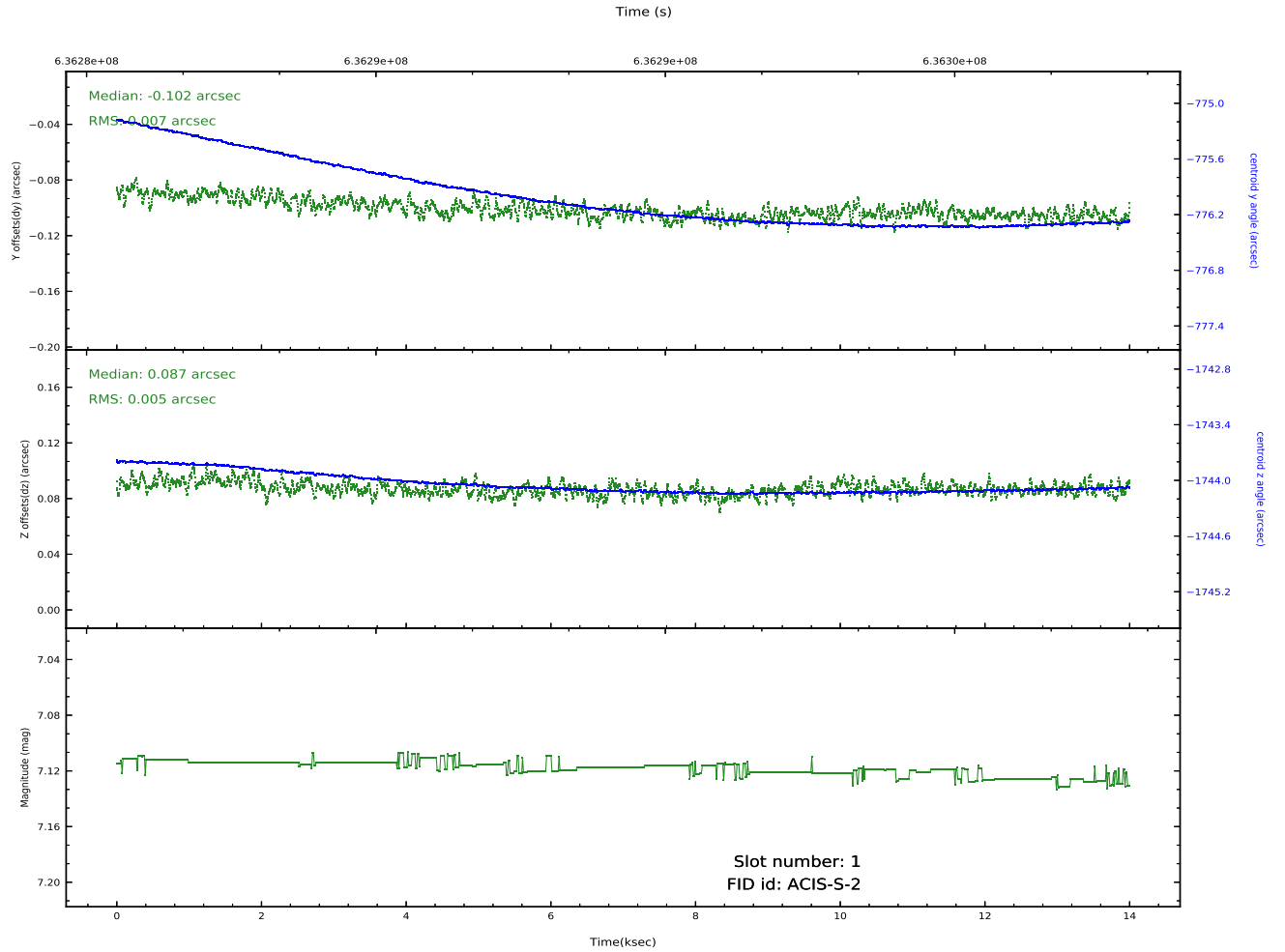
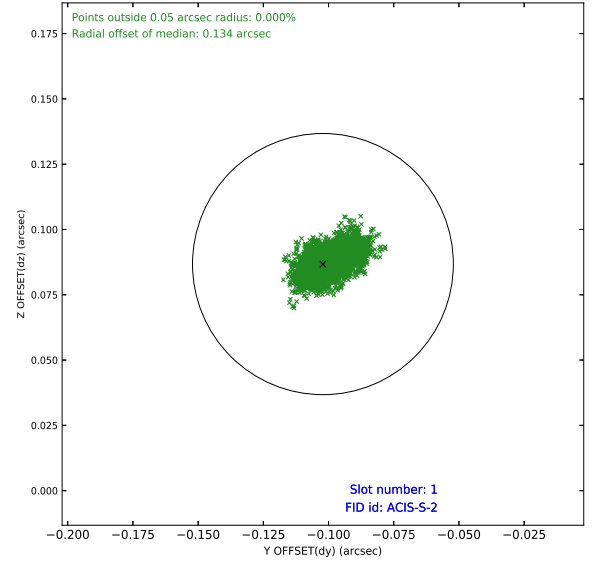
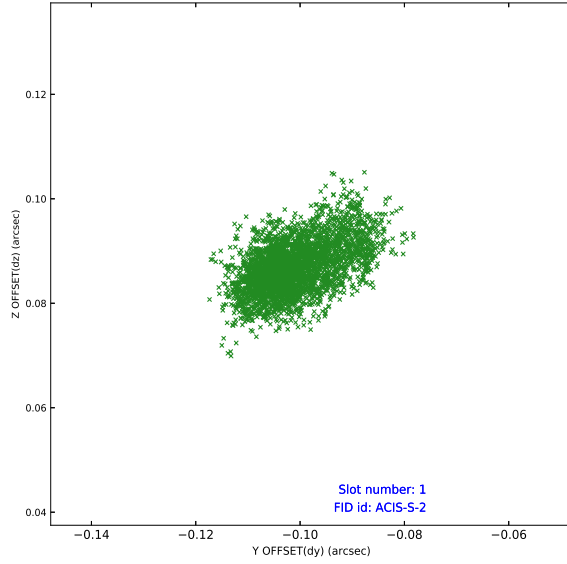


## 2.5 FID Slots

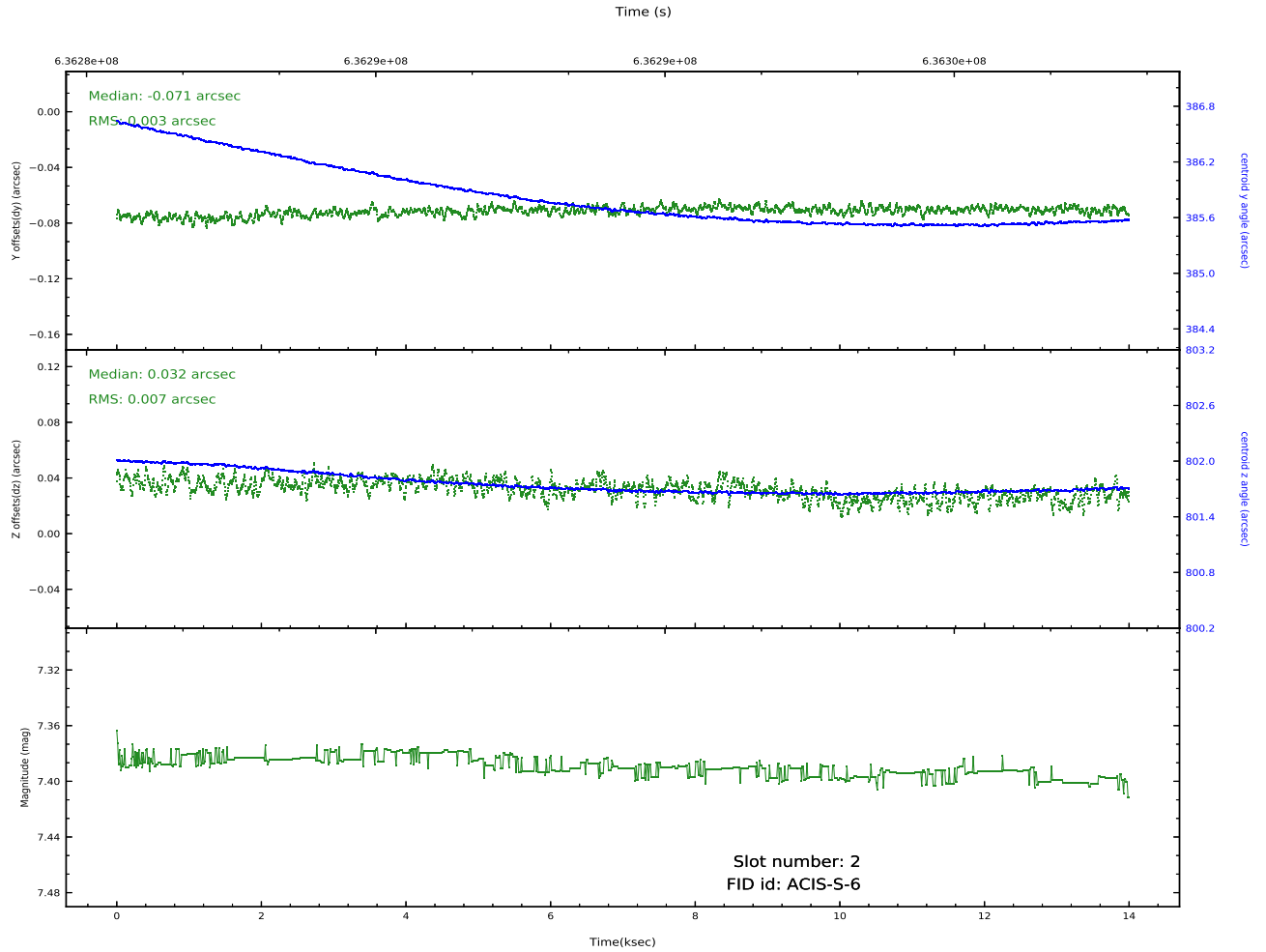
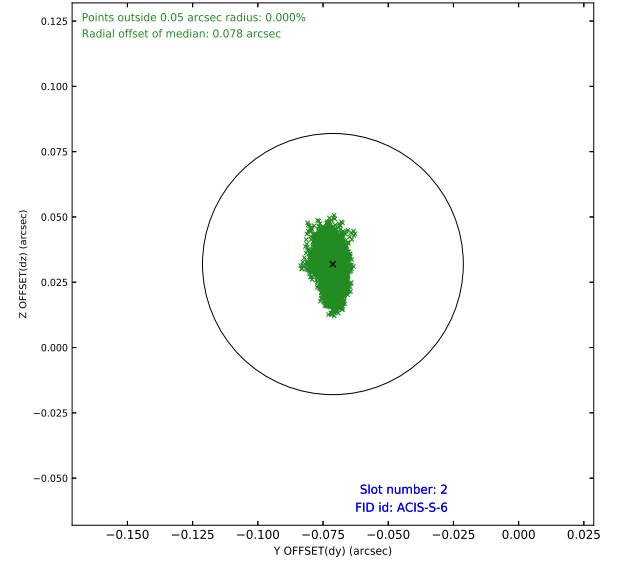
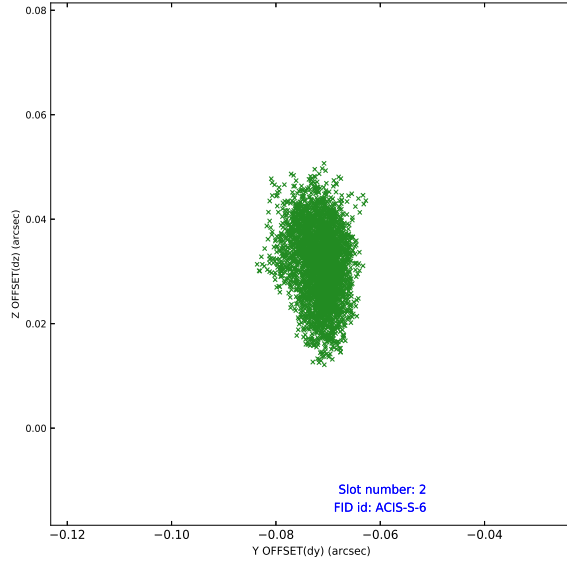
### 2.5.1 Slot 0



## 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)	2020.10.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	13.906028040051

### A.2 Comments