

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 5606 - L2 Version 4  
Chandra X-Ray Center

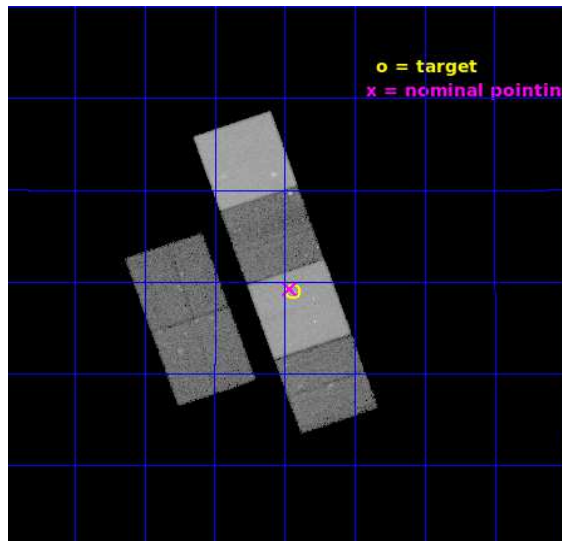
L2 Processing Date : Oct 5 2020

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# 1 Front

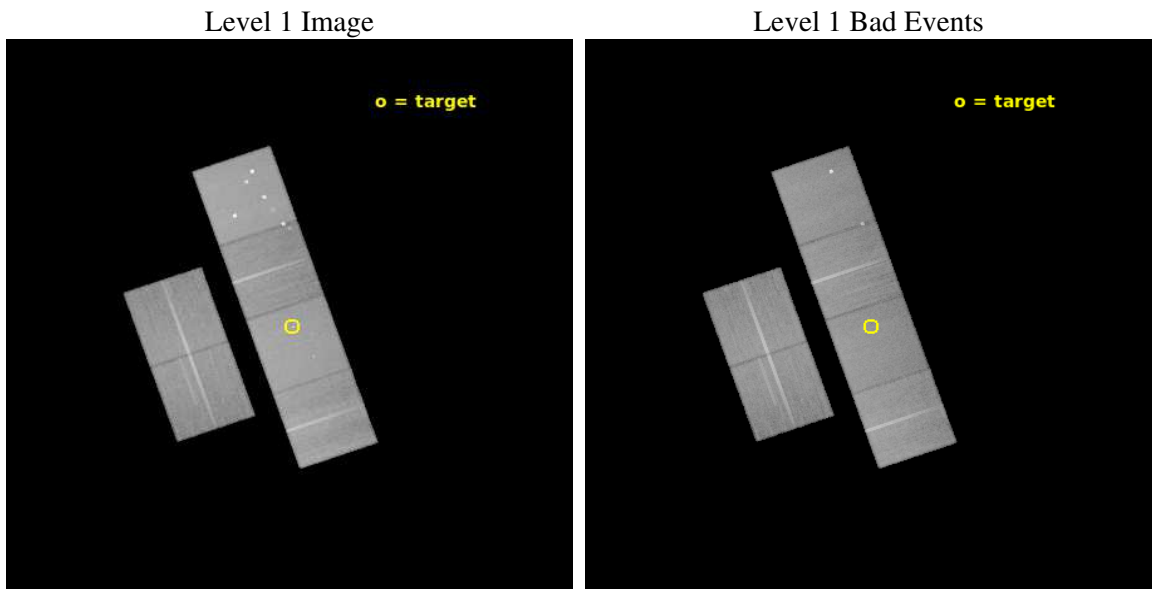
seq_num	701029	Sequence number
obs_id	5606	Observation id
title	ACIS Imaging of an X-ray Jet from the Remarkable Quasar PG 1004+130	&#160
observer	Gordon Garmire	Principal investigator
object	PG 1004+130	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	151.85875	Observer's specified target RA [deg]
dec_targ	12.815556	Observer's specified target Dec [deg]
ra_nom	151.86552771608	Nominal RA [deg]
dec_nom	12.821127624045	Nominal Dec [deg]
roll_nom	70.772619629658	Nominal Roll [deg]
revision	4	Processing version of data
ontime	41590.317864478	Sum of GTIs [s]
livetime	41063.676216995	Livetime [s]
ontime2	41580.594873756	Sum of GTIs [s]
ontime3	41583.835963517	Sum of GTIs [s]
ontime5	41596.79984504	Sum of GTIs [s]
ontime6	41587.076874197	Sum of GTIs [s]
ontime7	41590.317864478	Sum of GTIs [s]
ontime8	41587.076874197	Sum of GTIs [s]
l2events	450621	Number of level 2 events



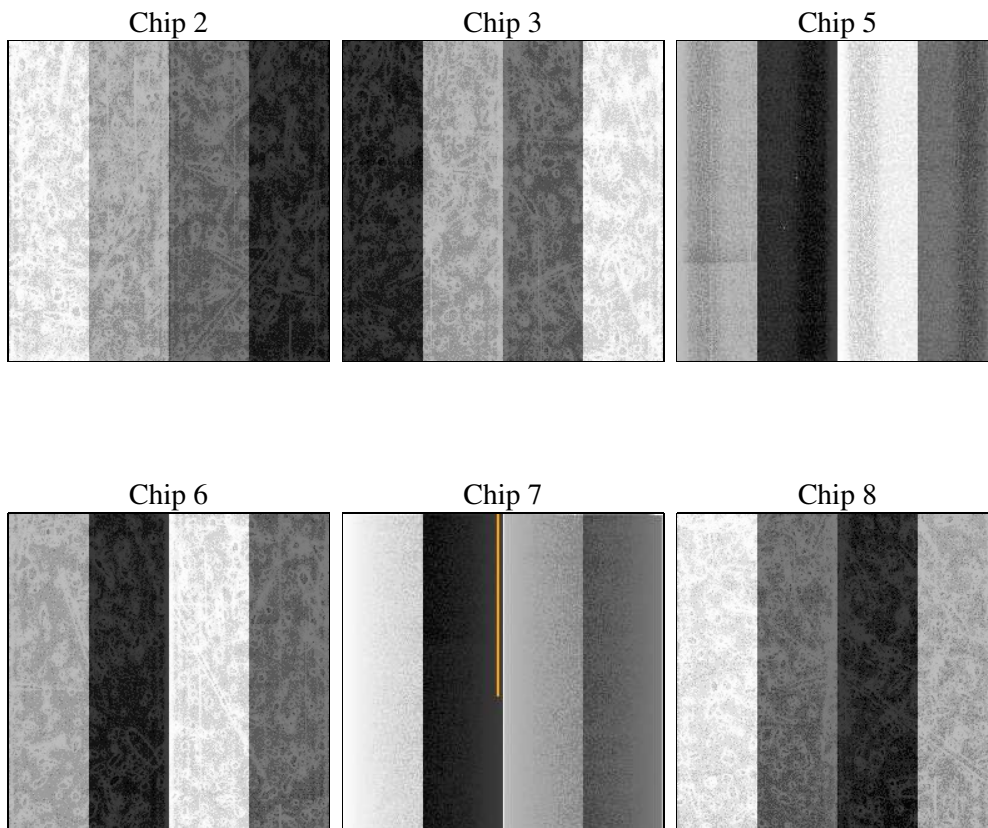
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	41418.116000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	41590.317864478	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	41580.594873756	Sum of GTIs [s]
date	2020-10-06T02:46:52	Date and time of file creation	ontime3	41583.835963517	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	41596.79984504	Sum of GTIs [s]
			ontime6	41587.076874197	Sum of GTIs [s]
			ontime7	41590.317864478	Sum of GTIs [s]
			ontime8	41587.076874197	Sum of GTIs [s]
			l1events	2037426	Number of level 1 events

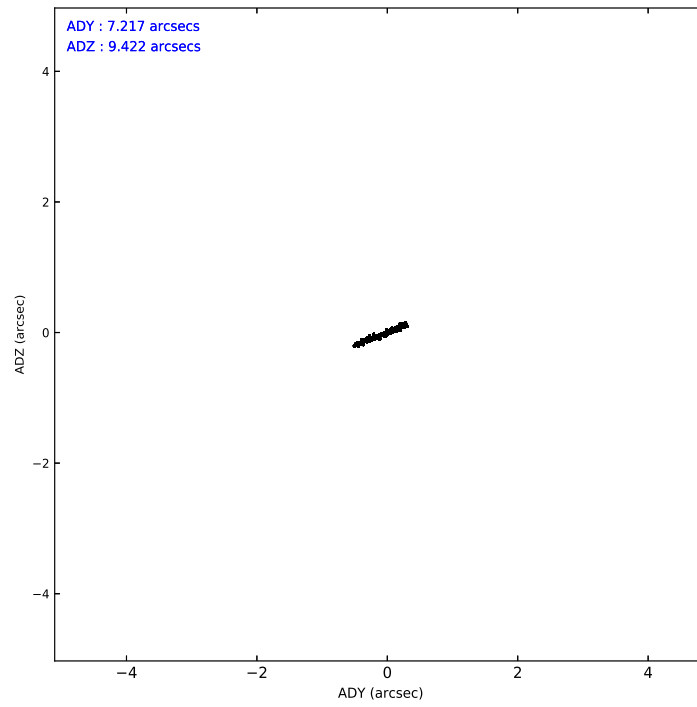
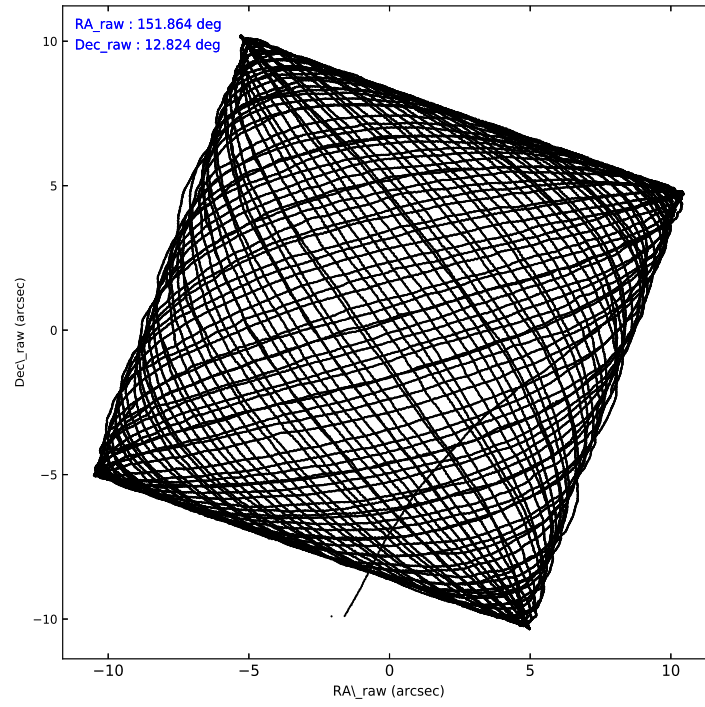
### 2.1.4 Events

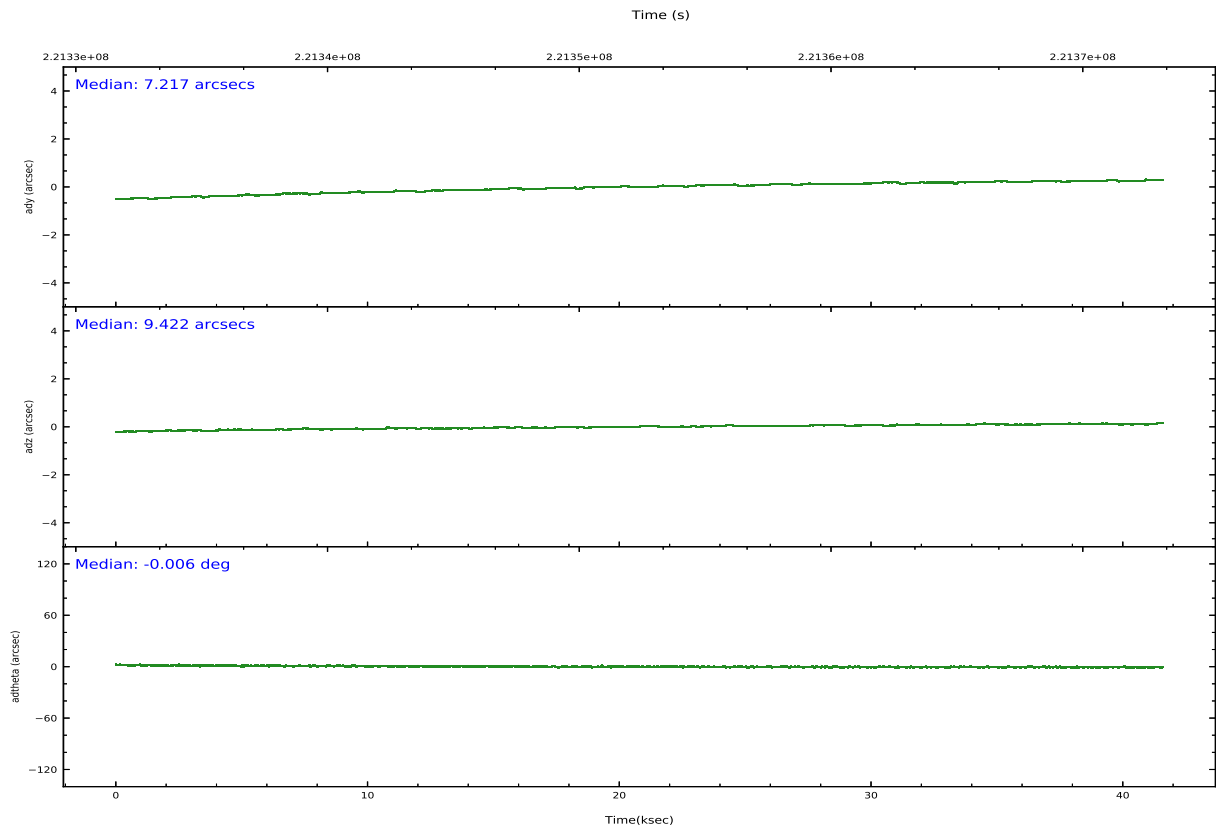
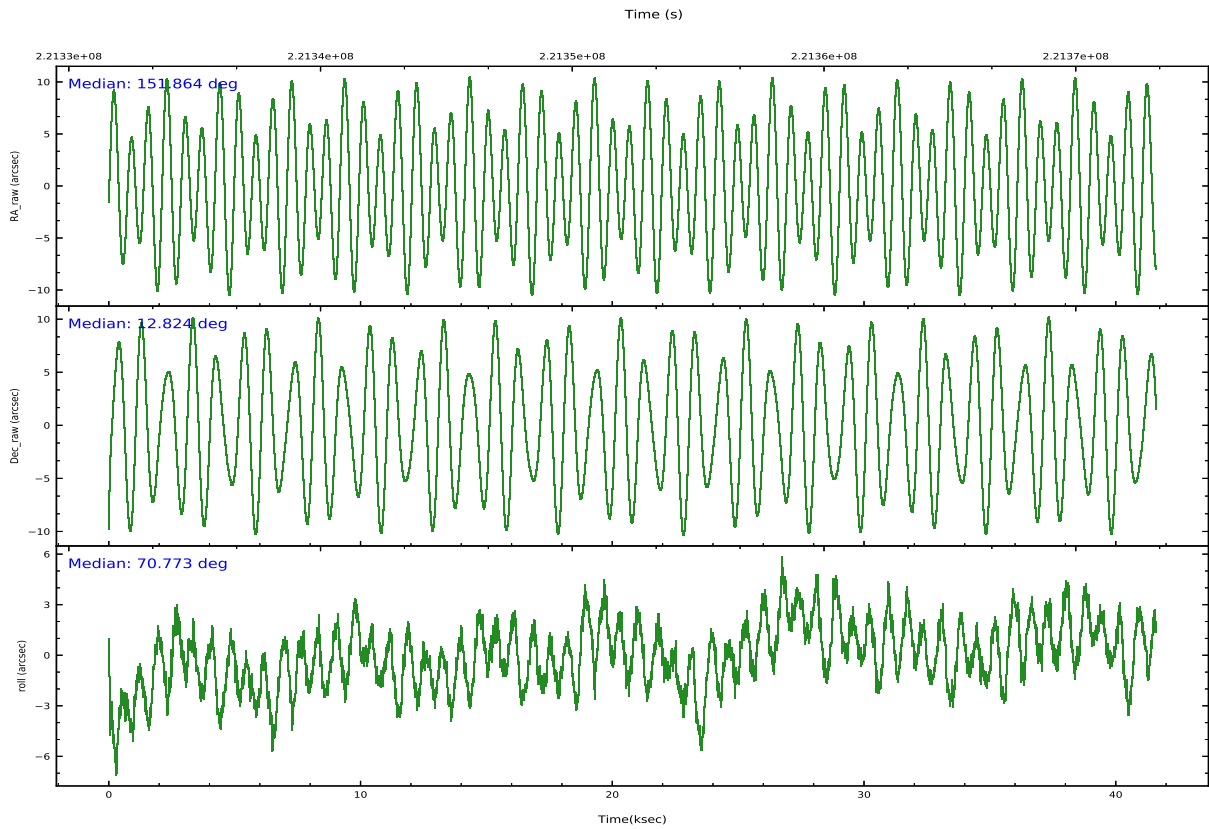
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	287376	271119	451887	285064	383500	358480	grade 0 events	14597	14546	39892	13823	14330	23999
rejected events	254077	238264	235479	250547	225801	281836		5%	5%	8%	4%	3%	6%
rejected %	88%	87%	52%	87%	58%	78%	grade 1 events	182	151	1086	120	347	207
								0%	0%	0%	0%	0%	0%
							grade 2 events	6786	6182	60651	7278	31432	17063
								2%	2%	13%	2%	8%	4%
							grade 3 events	3128	3293	7300	3323	13569	7998
								1%	1%	1%	1%	3%	2%
							grade 4 events	3201	3233	6858	3180	13522	7522
								1%	1%	1%	1%	3%	2%
							grade 5 events	11251	12108	31145	12904	35503	17015
								3%	4%	6%	4%	9%	4%
							grade 6 events	5655	5649	102143	6977	85149	20165
								1%	2%	22%	2%	22%	5%
							grade 7 events	242576	225957	202812	237459	189648	264511
								84%	83%	44%	83%	49%	73%

## 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	151.869200	151.86552771608	Subarray requested	NONE	NONE
[deg] Pointing Dec	12.797308	12.821127624045	Alternating exposures requested	N	N
[deg] Pointing Roll	70.618478	70.772619629658	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	221331775.184000	221330667.3178			
Observation start date	2005-01-05T17:01:51	2005-01-05T16:44:27			
[s] Observation end time (MET)	221373194.184000	221373416.99472			
Observation end date	2005-01-06T04:32:10	2005-01-06T04:36:56			
Read mode	TIMED	TIMED			

## 2.3 Aspect





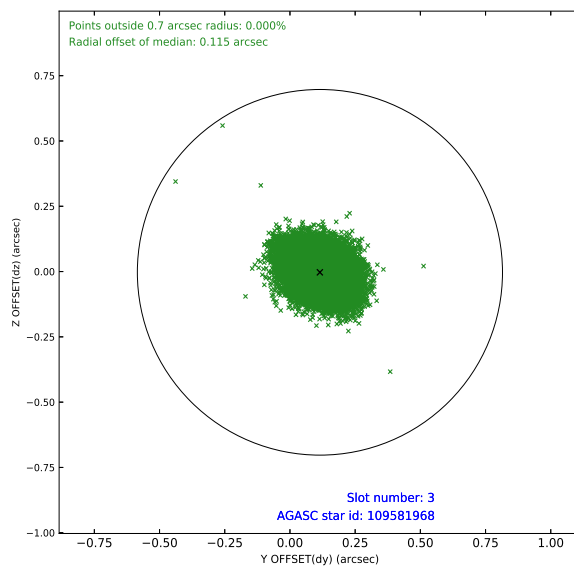
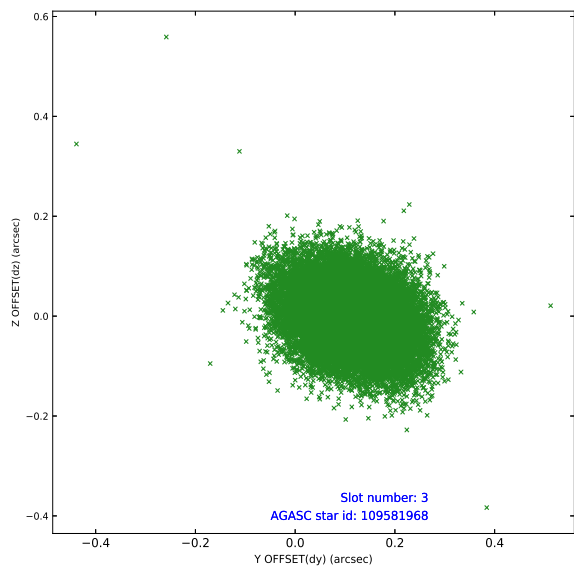
### Slot Statistics

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	7.19	10142	1.000	0.019	-0.053	0.007	0.012	0.000000	0.000000	936.13	-1726
1	FID		ACIS-S-4	7.21	10138	1.000	0.112	0.032	0.007	0.011	0.000000	0.000000	2153.61	177
2	FID		ACIS-S-5	7.23	10139	1.000	-0.158	0.034	0.007	0.013	0.000000	0.000000	-1812.93	171
3	GUIDE	used	109581968	9.23	20273	1.000	0.115	-0.003	0.098	0.158	151.370541	12.539307	-1456.09	1345
4	GUIDE	used	109583536	8.77	20283	1.000	-0.105	0.123	0.069	0.111	152.151485	13.126373	1446.52	-539
5	GUIDE	used	109583824	8.80	20277	1.000	0.057	-0.252	0.073	0.118	151.226198	12.847685	-575.36	2189
6	GUIDE	used	109584104	7.72	20282	1.000	0.023	-0.041	0.063	0.100	151.655187	12.782068	-300.81	690
7	GUIDE	used	109580360	9.39	20279	1.000	-0.091	0.173	0.100	0.161	152.643604	12.921249	1327.02	-2413

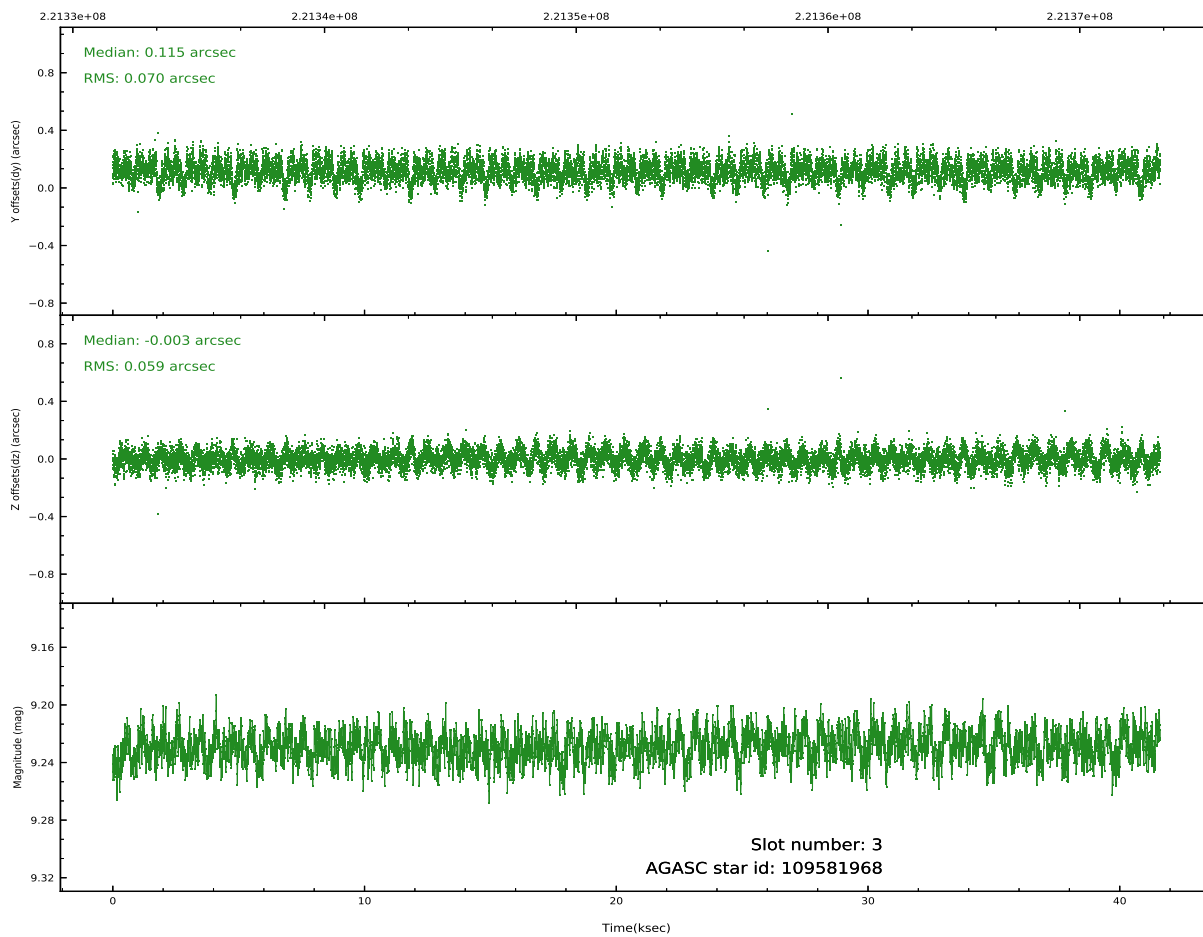
∞

## 2.4 Star Slots

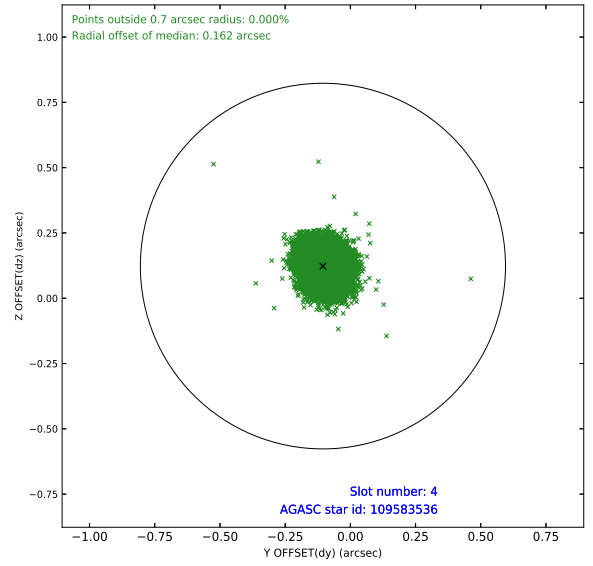
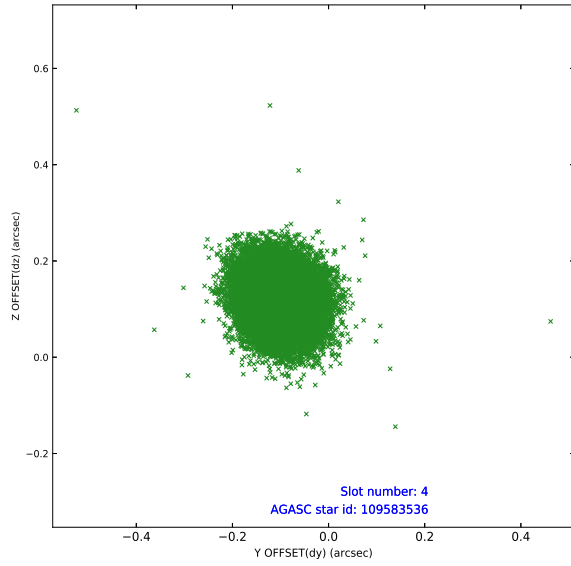
### 2.4.1 Slot 3



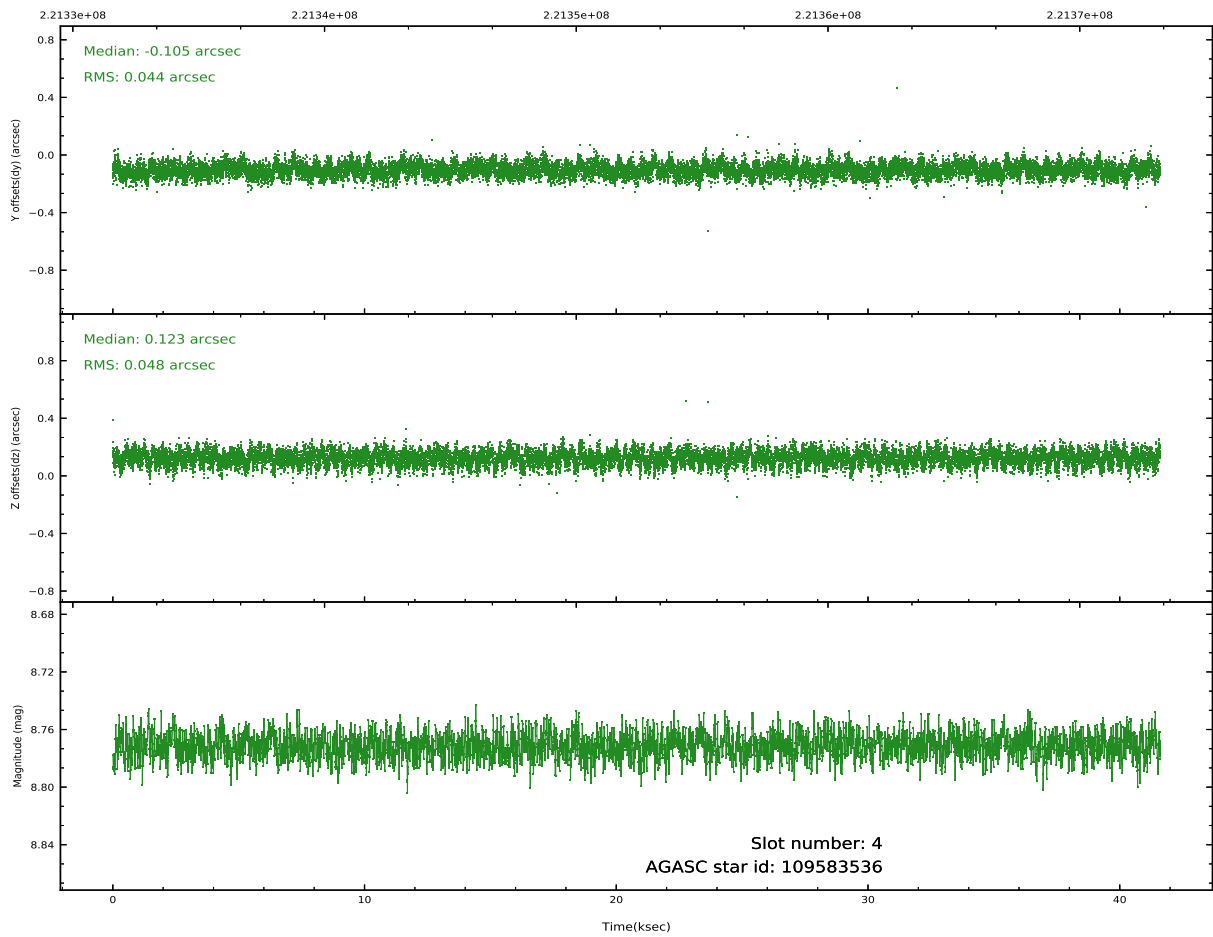
Time (s)



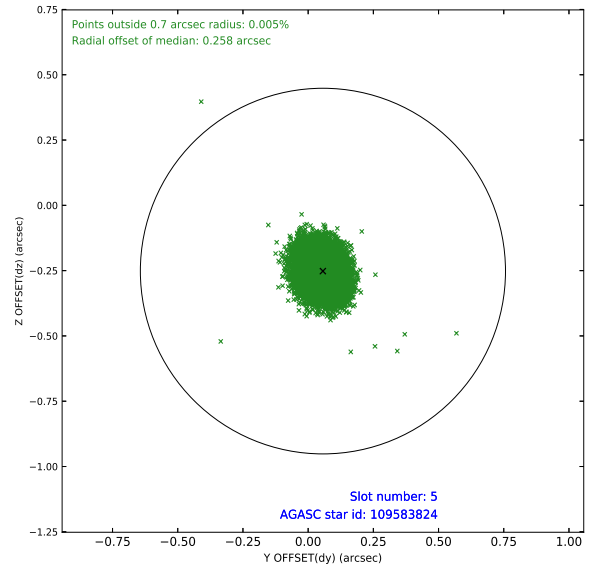
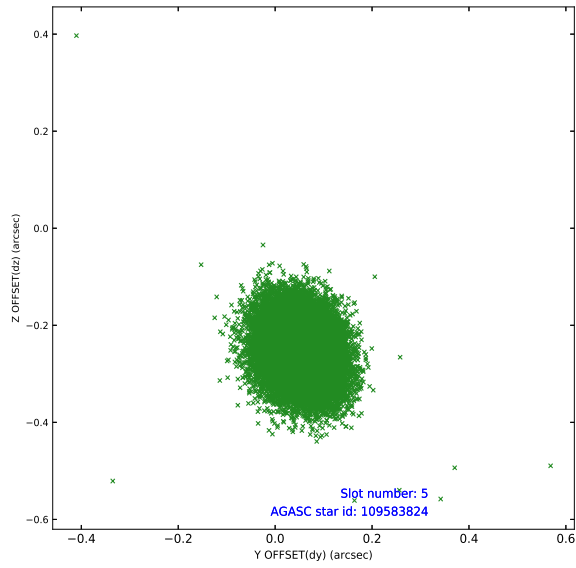
## 2.4.2 Slot 4



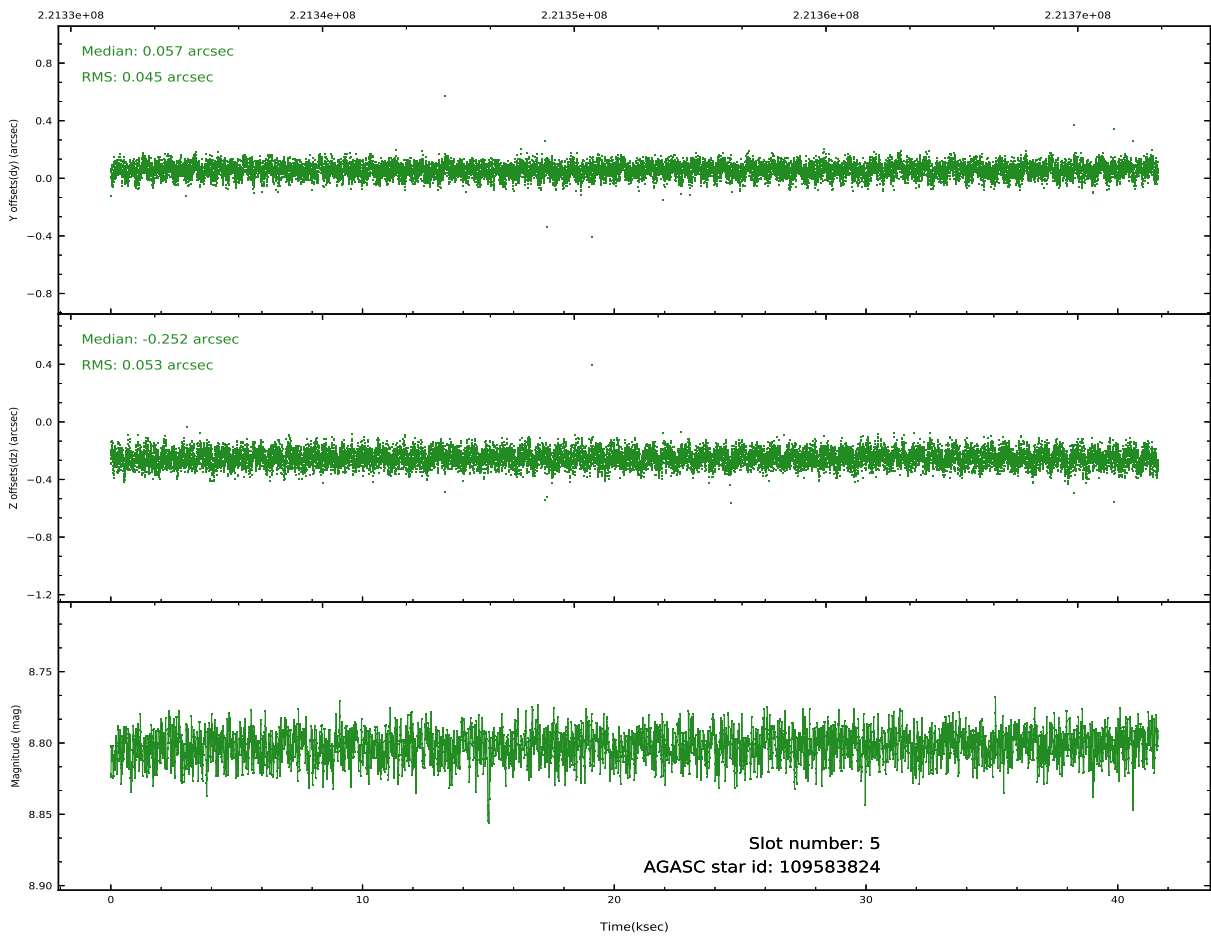
Time (s)



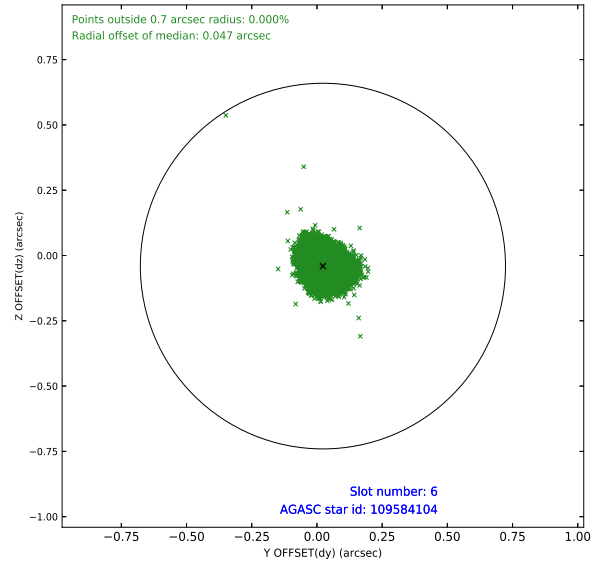
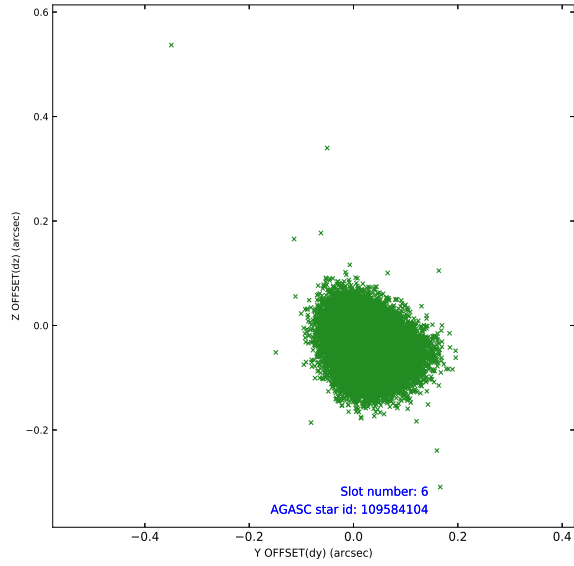
### 2.4.3 Slot 5



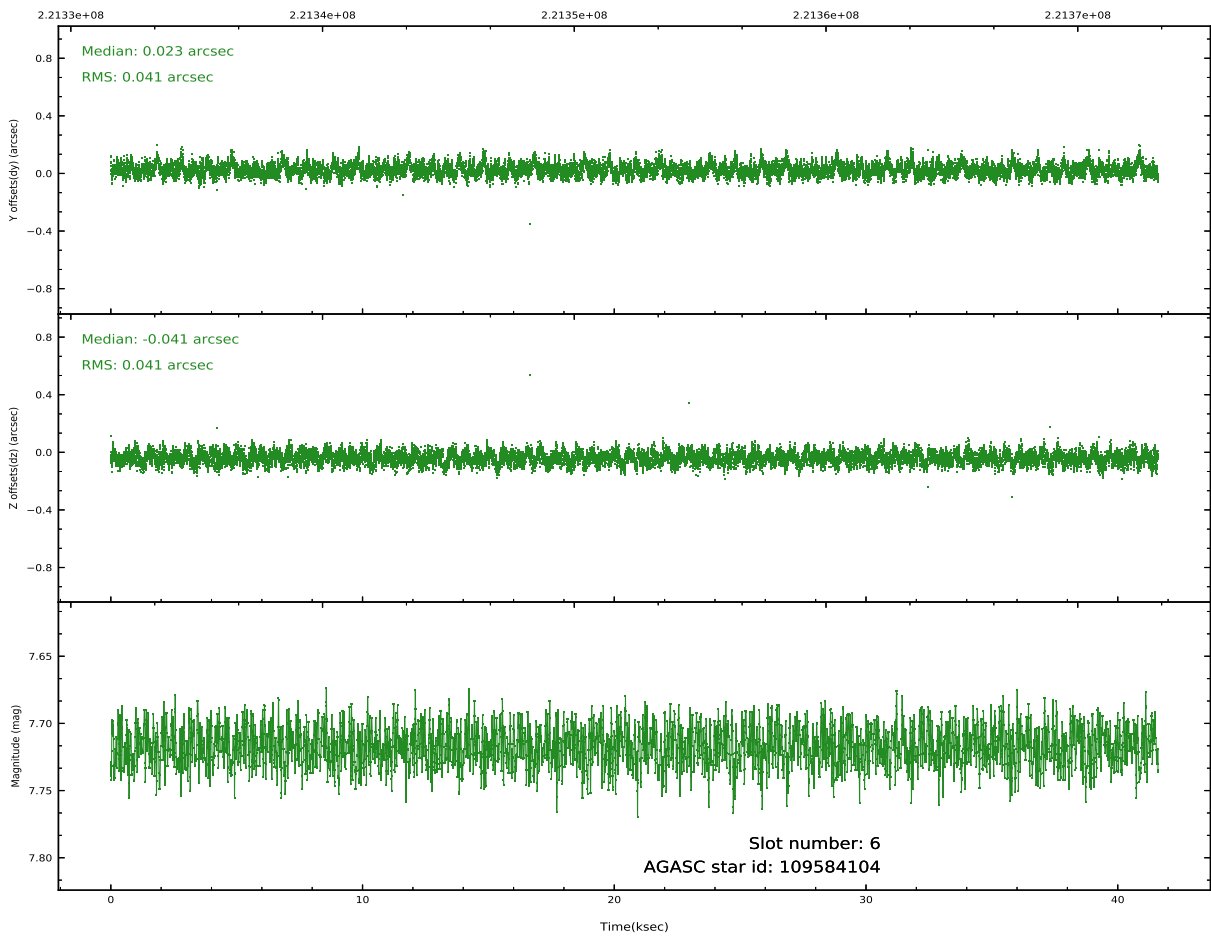
Time (s)



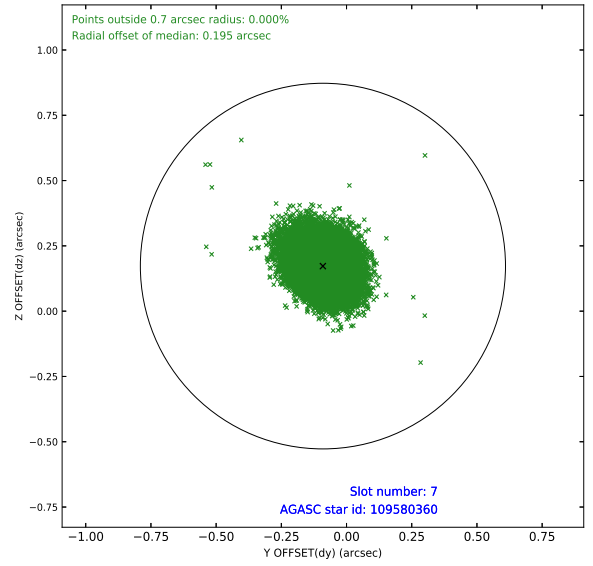
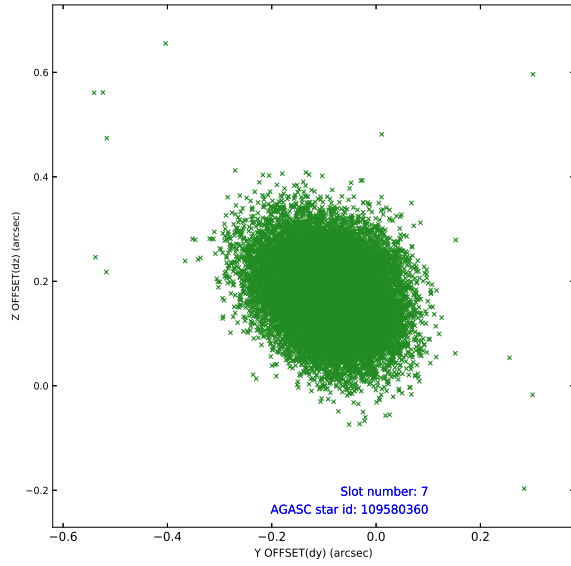
## 2.4.4 Slot 6



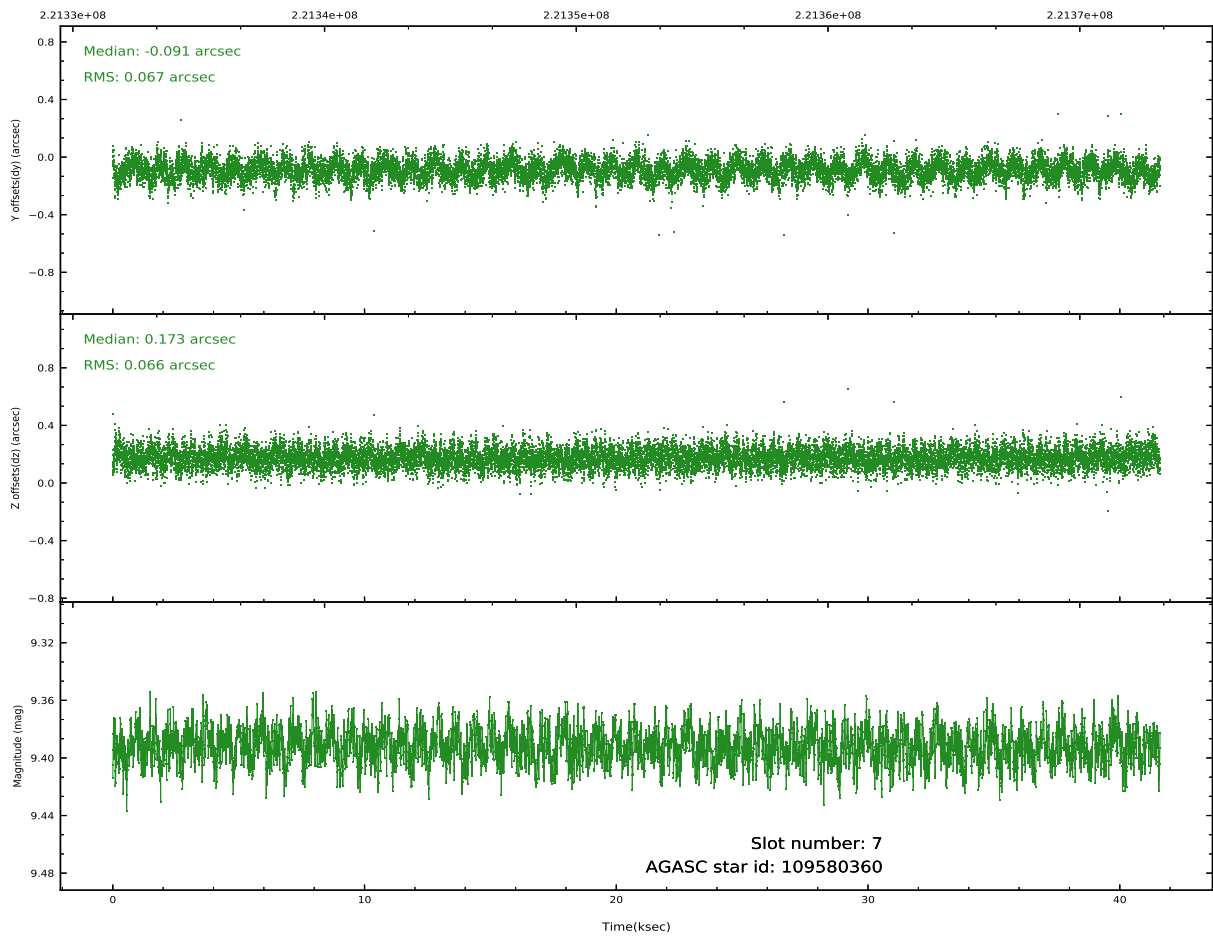
Time (s)



## 2.4.5 Slot 7

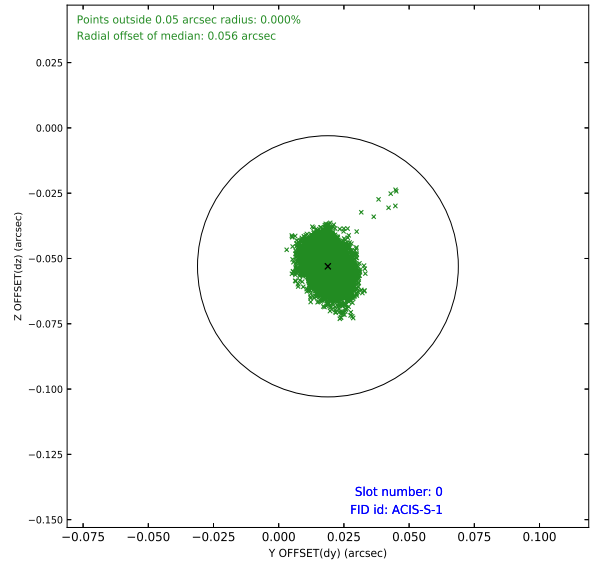
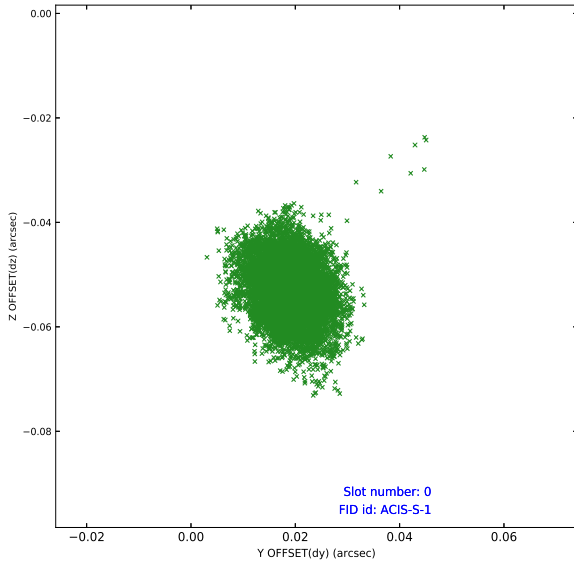


Time (s)

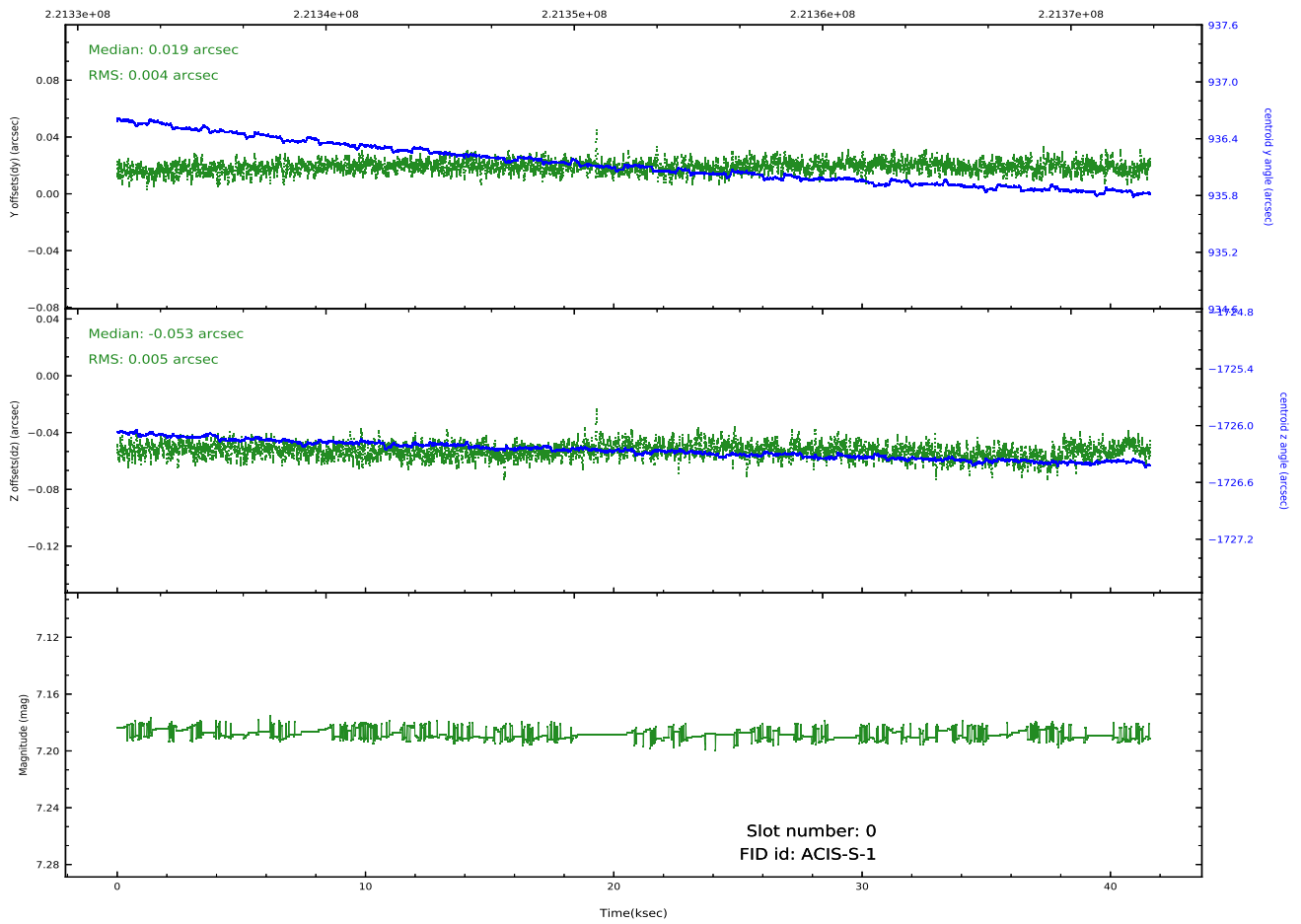


## 2.5 FID Slots

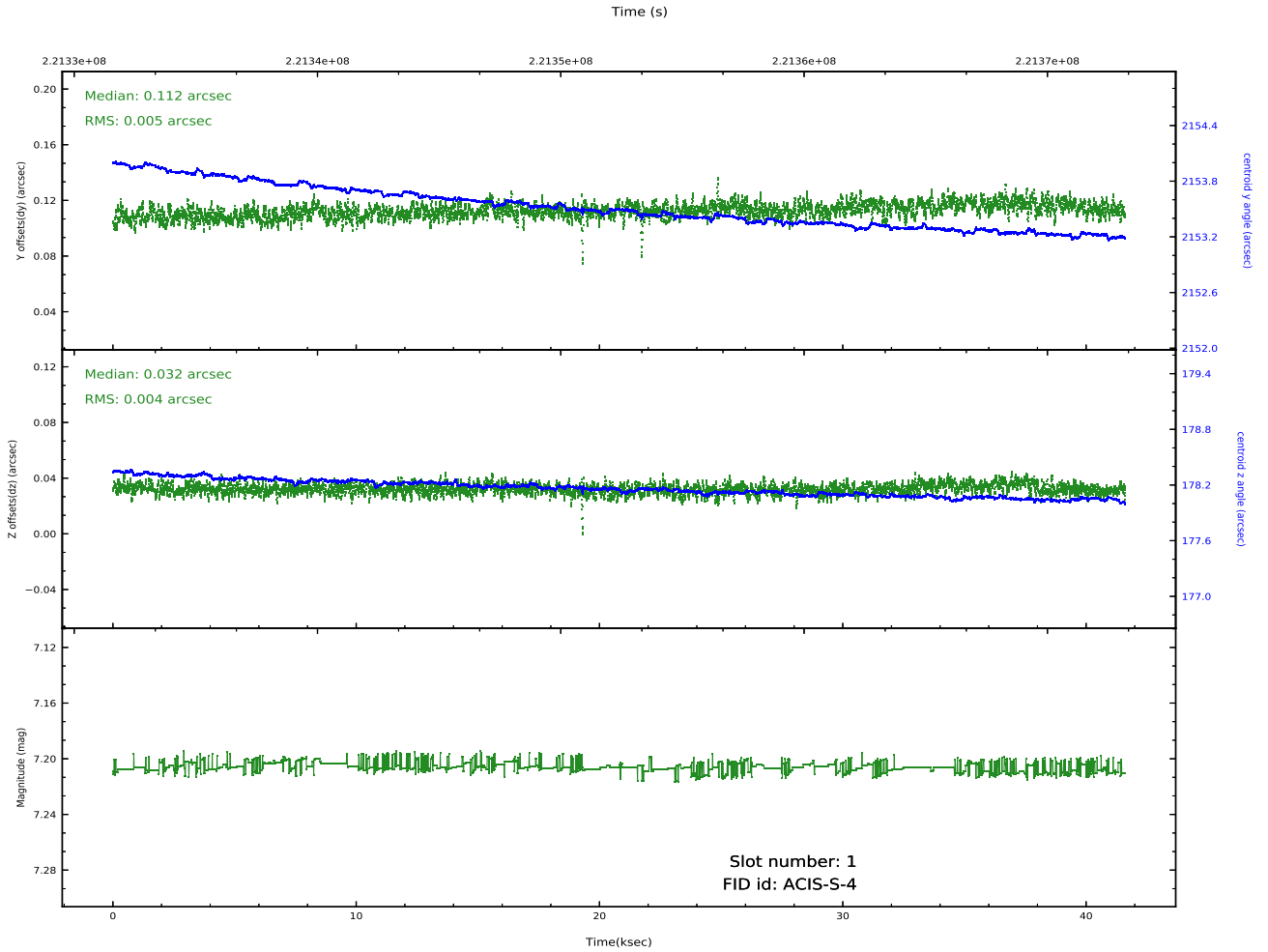
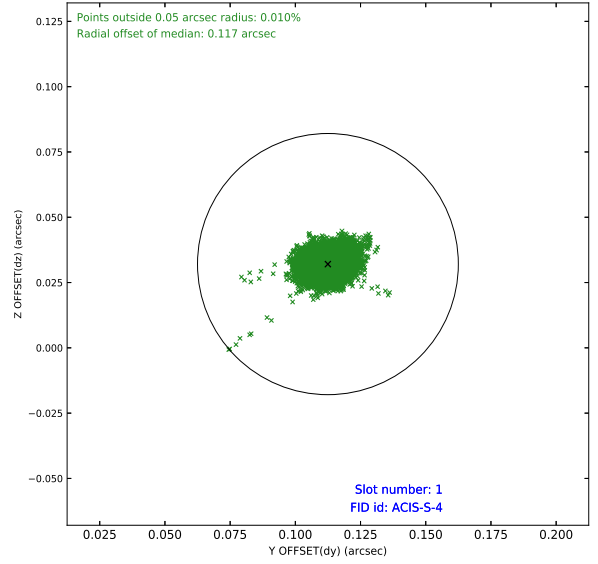
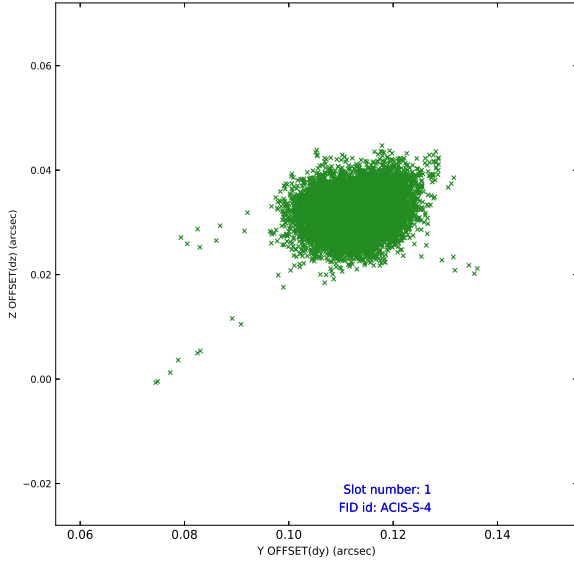
### 2.5.1 Slot 0



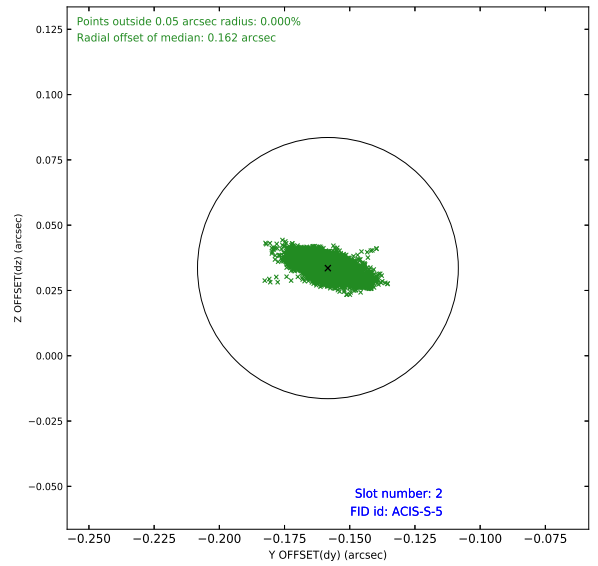
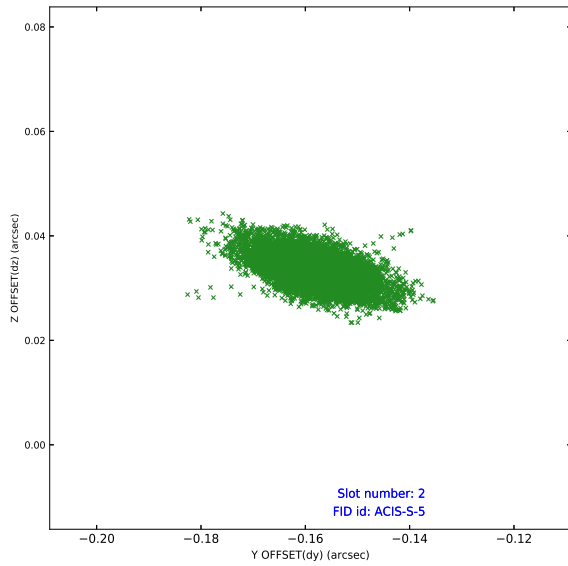
Time (s)



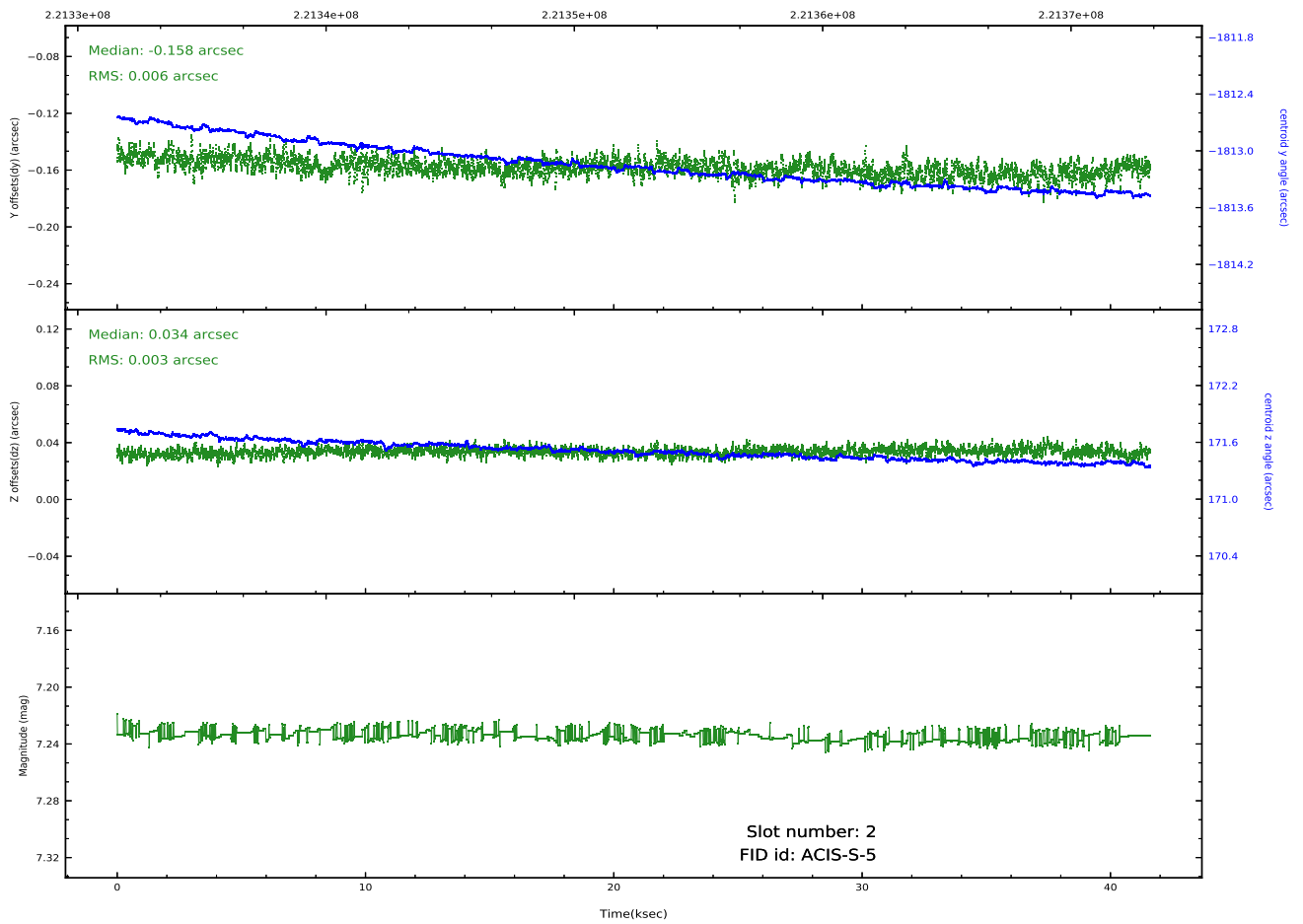
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.59031

## A.2 Comments