

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4823 - L2 Version 4  
Chandra X-Ray Center

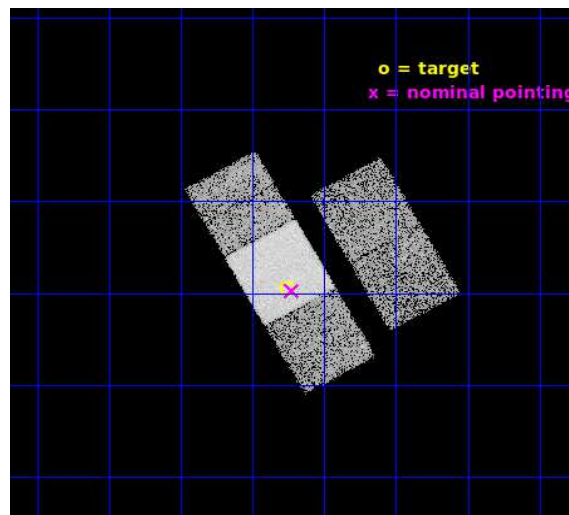
L2 Processing Date : Sep 26 2020

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# 1 Front

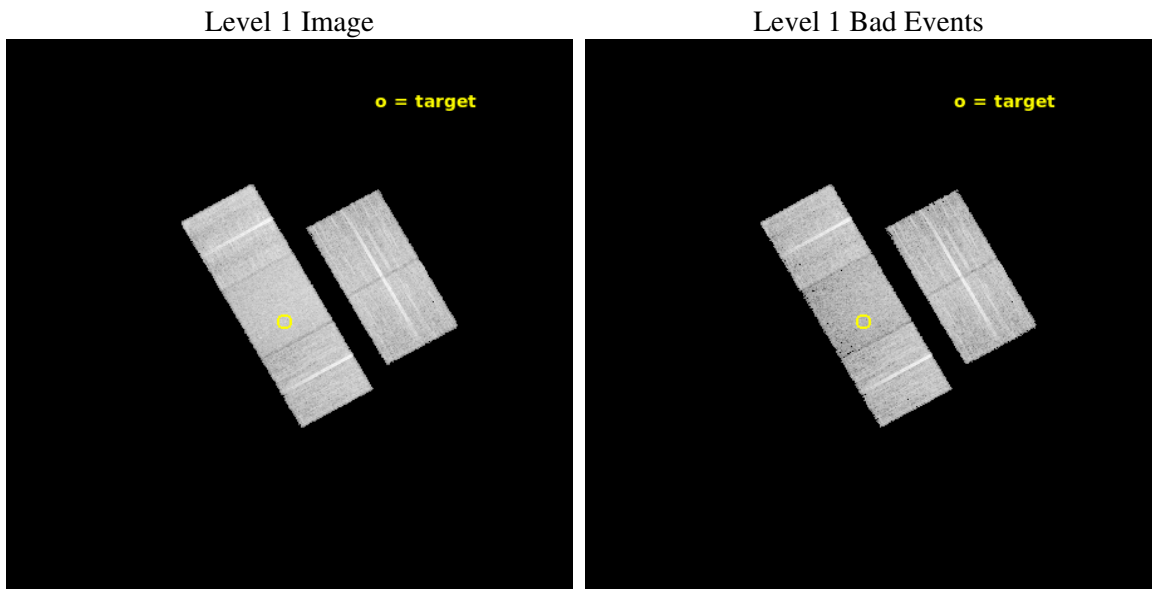
seq_num	700905	Sequence number
obs_id	4823	Observation id
title	Destroying Degeneracy: Spanning the Luminosity Range for Radio-Quiet Quasars at z=4	Proposal title
observer	Dr. Jill Bechtold	Principal investigator
object	QSO J1413+0000	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	213.31375	Observer's specified target RA [deg]
dec_targ	0.008889	Observer's specified target Dec [deg]
ra_nom	213.30617565864	Nominal RA [deg]
dec_nom	0.0046592071596309	Nominal Dec [deg]
roll_nom	240.54063880964	Nominal Roll [deg]
revision	4	Processing version of data
ontime	12631.630749822	Sum of GTIs [s]
livetime	12466.589194804	Livetime [s]
ontime2	12628.325589657	Sum of GTIs [s]
ontime3	12628.407689571	Sum of GTIs [s]
ontime6	12631.589709818	Sum of GTIs [s]
ontime7	12631.630749822	Sum of GTIs [s]
ontime8	12625.225719124	Sum of GTIs [s]
l2events	64302	Number of level 2 events



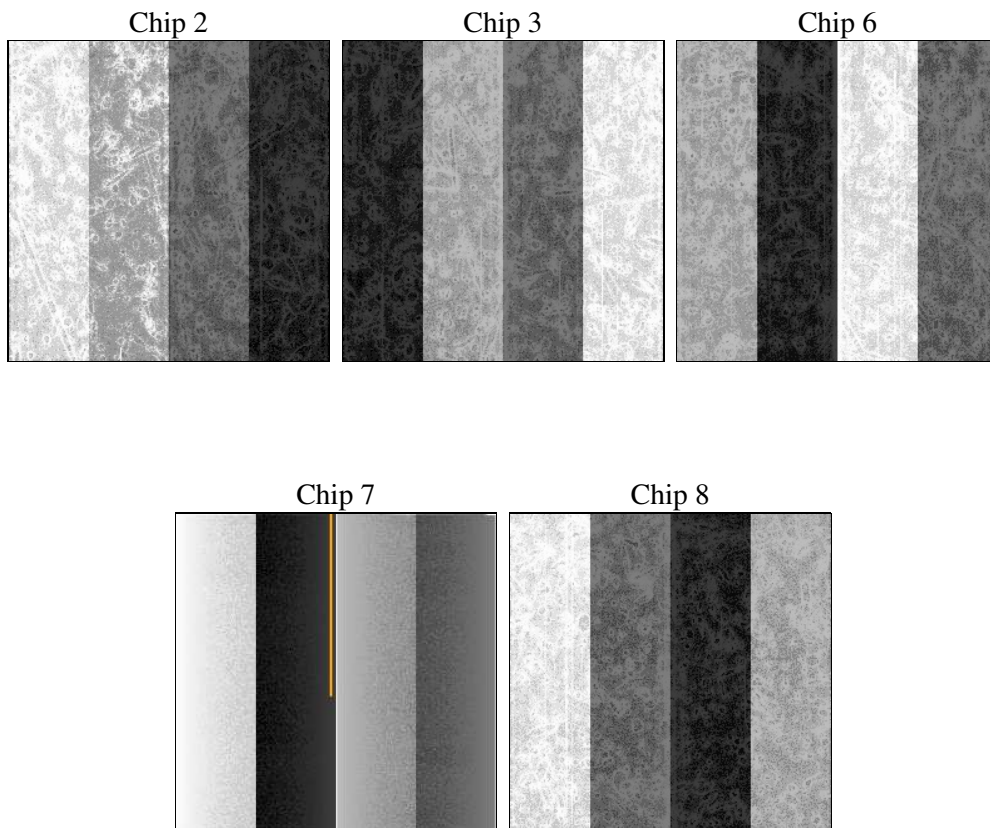
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	12594.310000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	12631.630749822	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	12628.325589657	Sum of GTIs [s]
date	2020-09-26T12:13:46	Date and time of file creation	ontime3	12628.407689571	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	12631.589709818	Sum of GTIs [s]
			ontime7	12631.630749822	Sum of GTIs [s]
			ontime8	12625.225719124	Sum of GTIs [s]
			l1events	419586	Number of level 1 events

### 2.1.4 Events

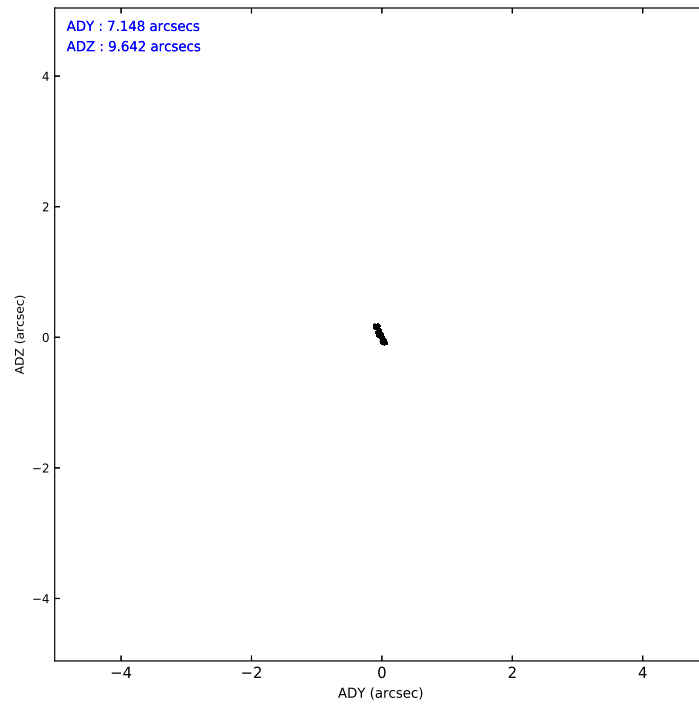
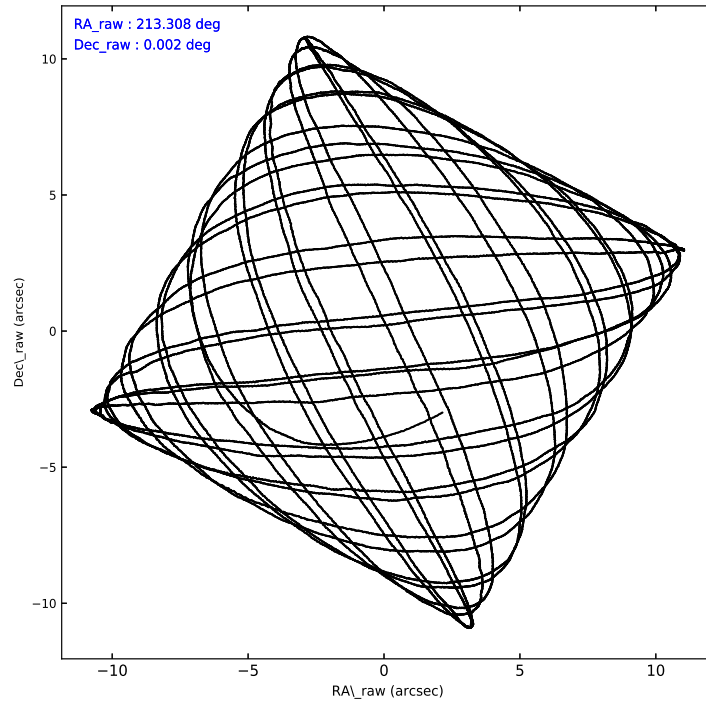
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	80403	77493	78973	85180	97537
rejected events	72961	70377	70964	46658	75729
rejected %	90%	90%	89%	54%	77%

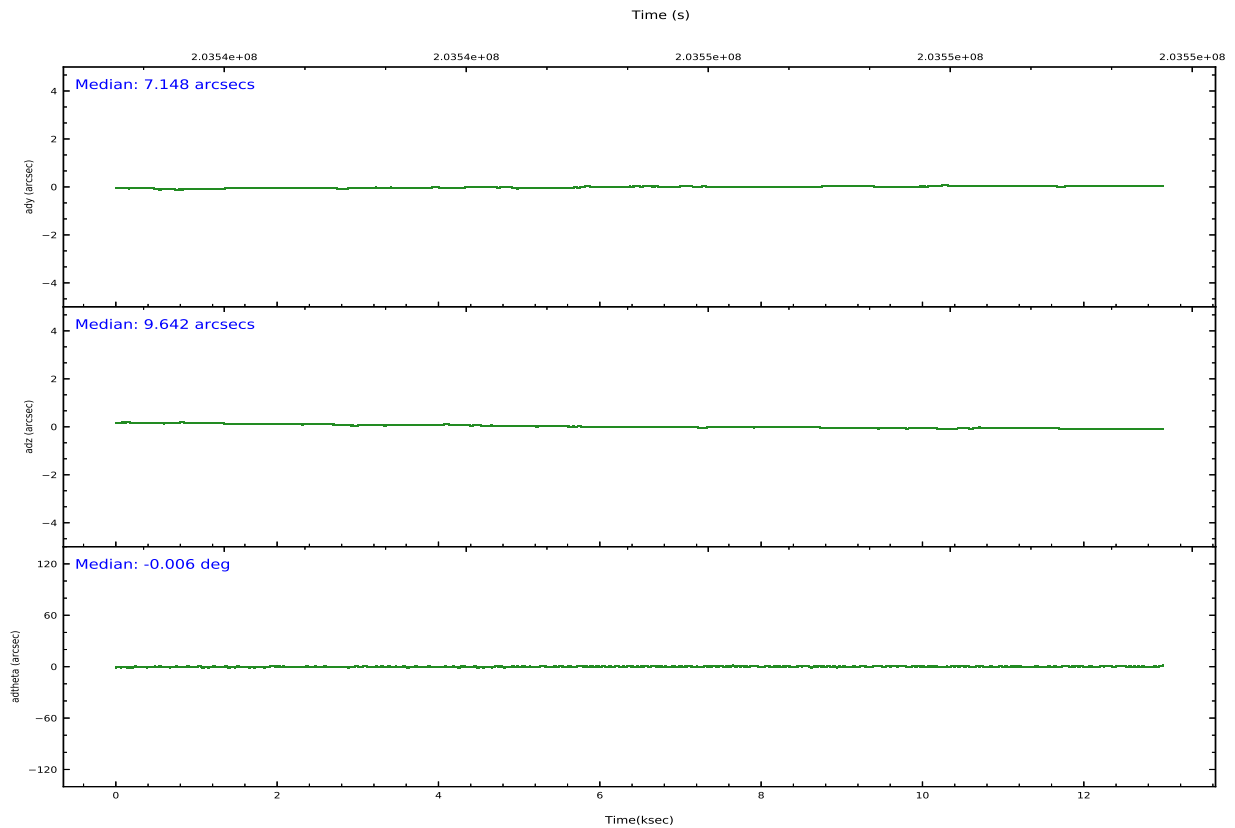
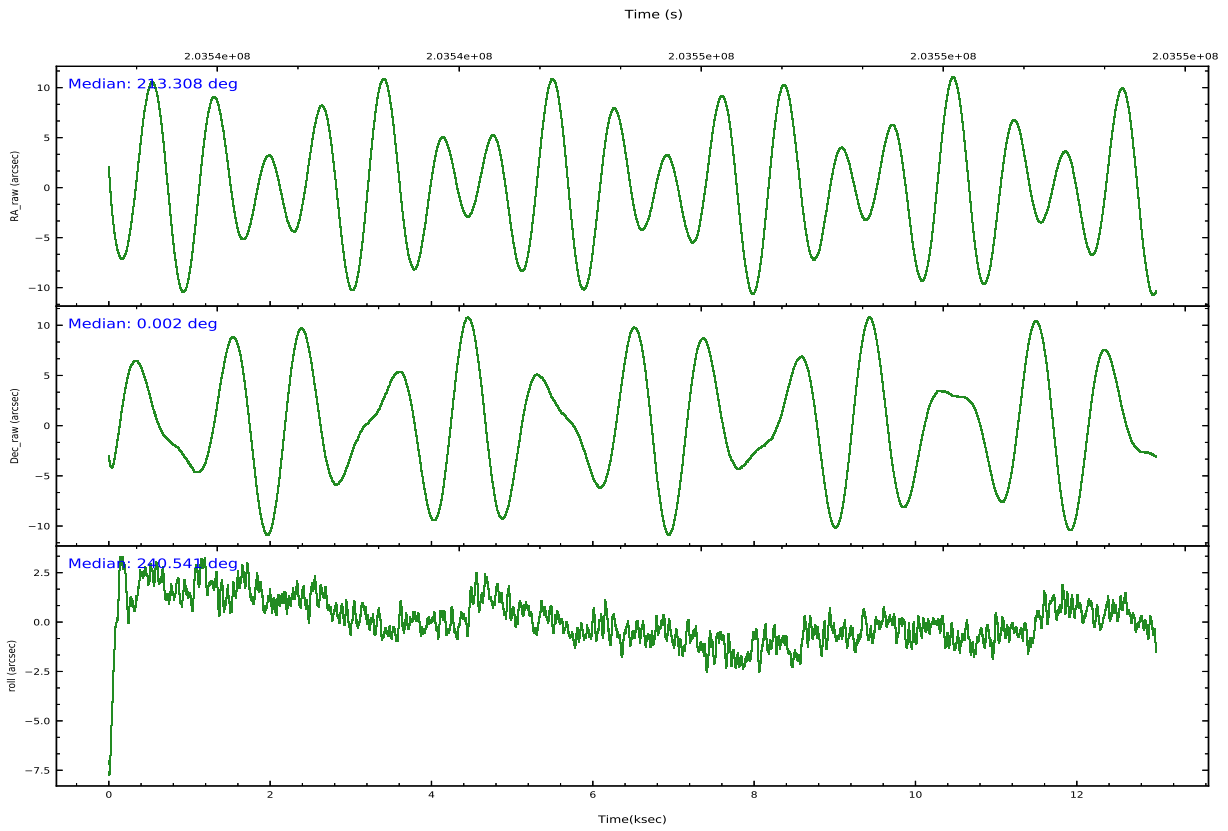
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	2828	2504	2841	3461	6828
	3%	3%	3%	4%	7%
grade 1 events	41	46	40	84	71
	0%	0%	0%	0%	0%
grade 2 events	1679	1514	1738	7605	4623
	2%	1%	2%	8%	4%
grade 3 events	802	830	888	3684	2418
	0%	1%	1%	4%	2%
grade 4 events	844	869	906	3582	2290
	1%	1%	1%	4%	2%
grade 5 events	2388	3011	2962	8994	4378
	2%	3%	3%	10%	4%
grade 6 events	1301	1407	1641	20197	5663
	1%	1%	2%	23%	5%
grade 7 events	70520	67312	67957	37573	71266
	87%	86%	86%	44%	73%

## 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	213.306964	213.30617565864	Subarray requested	NONE	NONE
[deg] Pointing Dec	0.028662	0.0046592071596309	Alternating exposures requested	N	N
[deg] Pointing Roll	240.381531	240.54063880964	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	203541045.184000	203540014.68558			
Observation start date	2004-06-13T19:09:41	2004-06-13T18:53:34			
[s] Observation end time (MET)	203553639.184000	203553862.43619			
Observation end date	2004-06-13T22:39:35	2004-06-13T22:44:22			
Read mode	TIMED	TIMED			

## 2.3 Aspect





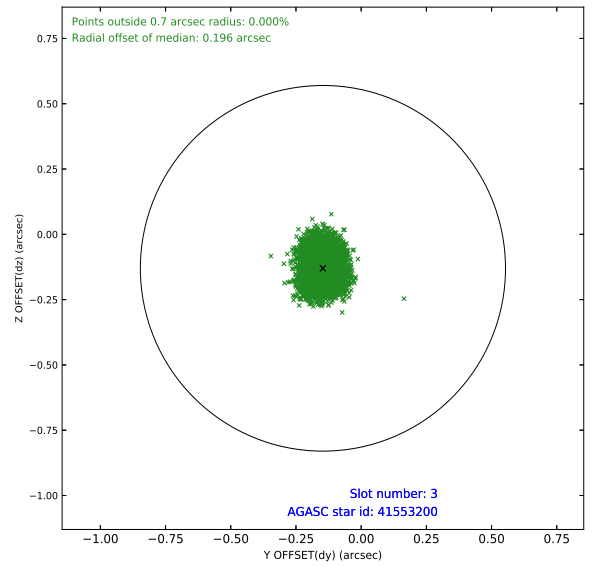
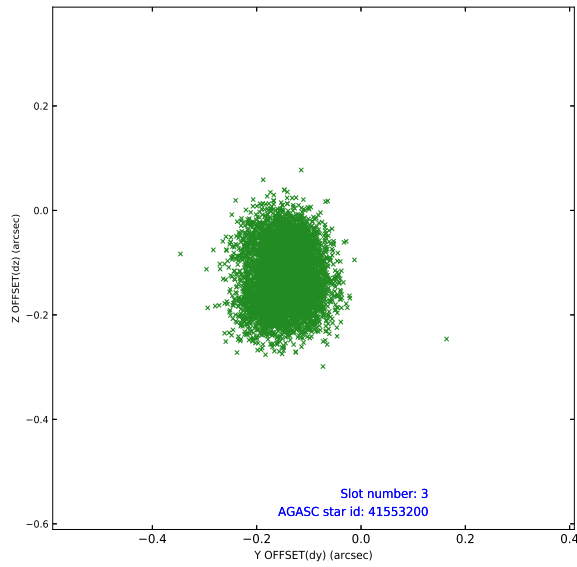
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-1	7.18	3167	1.000	0.044	-0.048	0.007	0.012	0.000000	0.000000	936.21	-1726
1	FID		ACIS-S-5	7.24	3167	1.000	-0.102	0.023	0.007	0.012	0.000000	0.000000	-1812.75	170
2	FID		ACIS-S-6	7.35	3167	1.000	0.036	0.037	0.007	0.012	0.000000	0.000000	401.32	815
3	GUIDE	used	41553200	8.67	6335	1.000	-0.147	-0.130	0.073	0.115	212.949591	0.706619	-1485.59	-2324
4	GUIDE	used	652214552	9.21	6329	1.000	0.340	-0.133	0.087	0.142	212.565488	-0.299387	2347.09	-1737
5	GUIDE	used	652215704	9.12	6334	1.000	0.124	0.269	0.092	0.144	213.594661	-0.601169	1460.00	2021
6	GUIDE	used	41553120	9.41	6328	1.000	-0.119	-0.051	0.074	0.121	213.387100	0.738557	-2363.75	-1011
7	GUIDE	used	41553232	8.86	6329	1.000	-0.197	0.040	0.066	0.105	213.424550	0.711363	-2345.93	-846

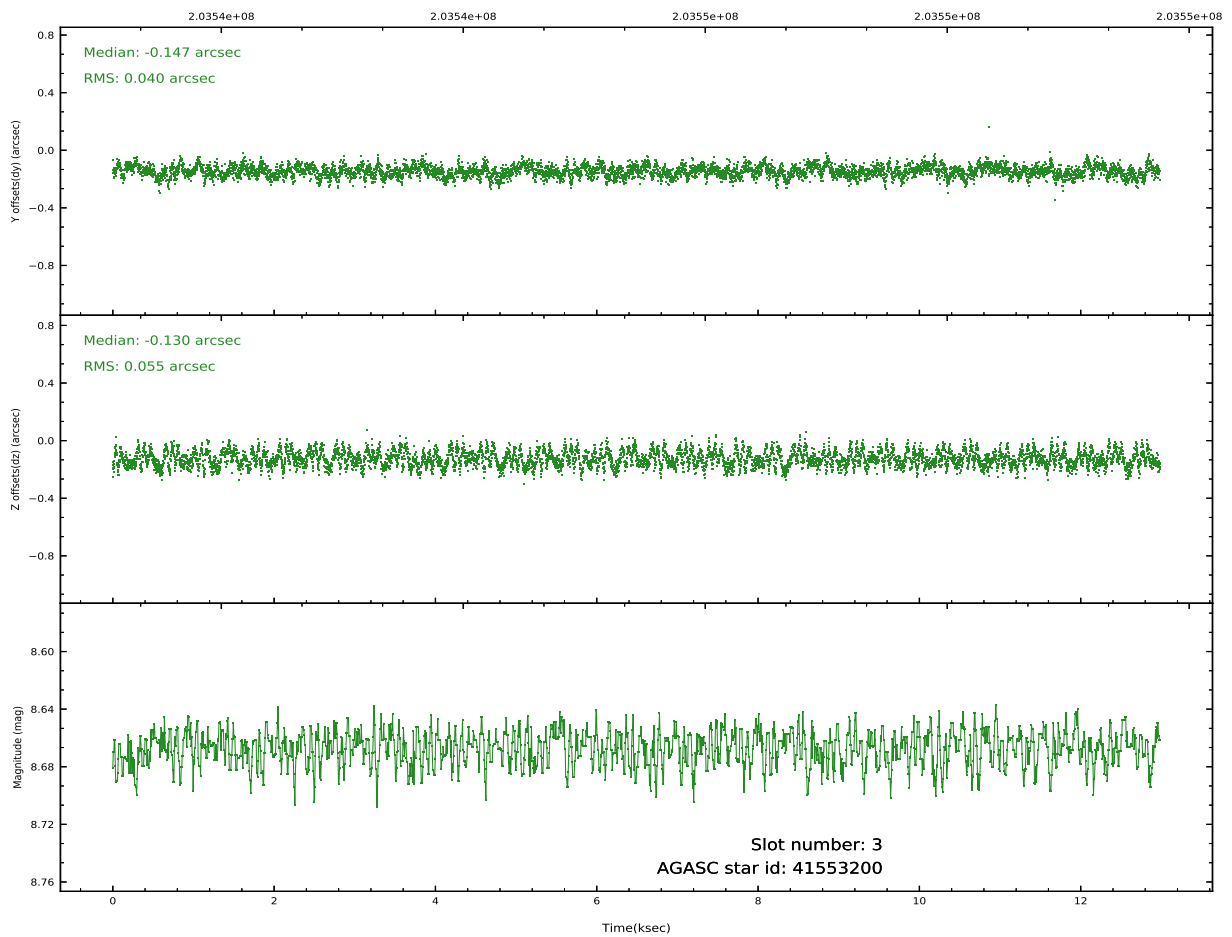
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## 2.4 Star Slots

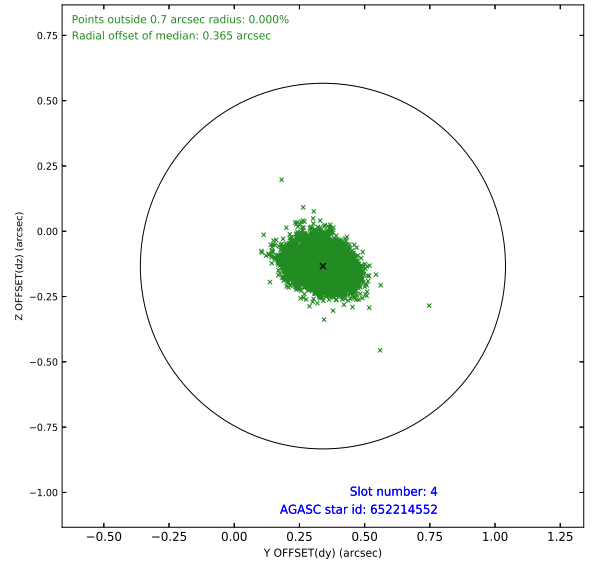
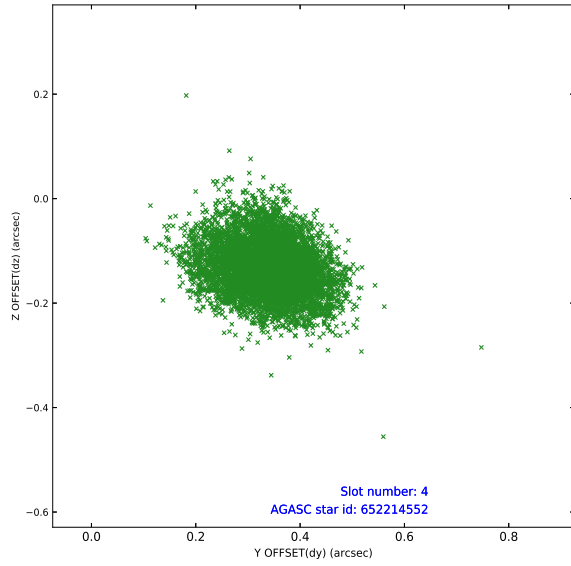
### 2.4.1 Slot 3



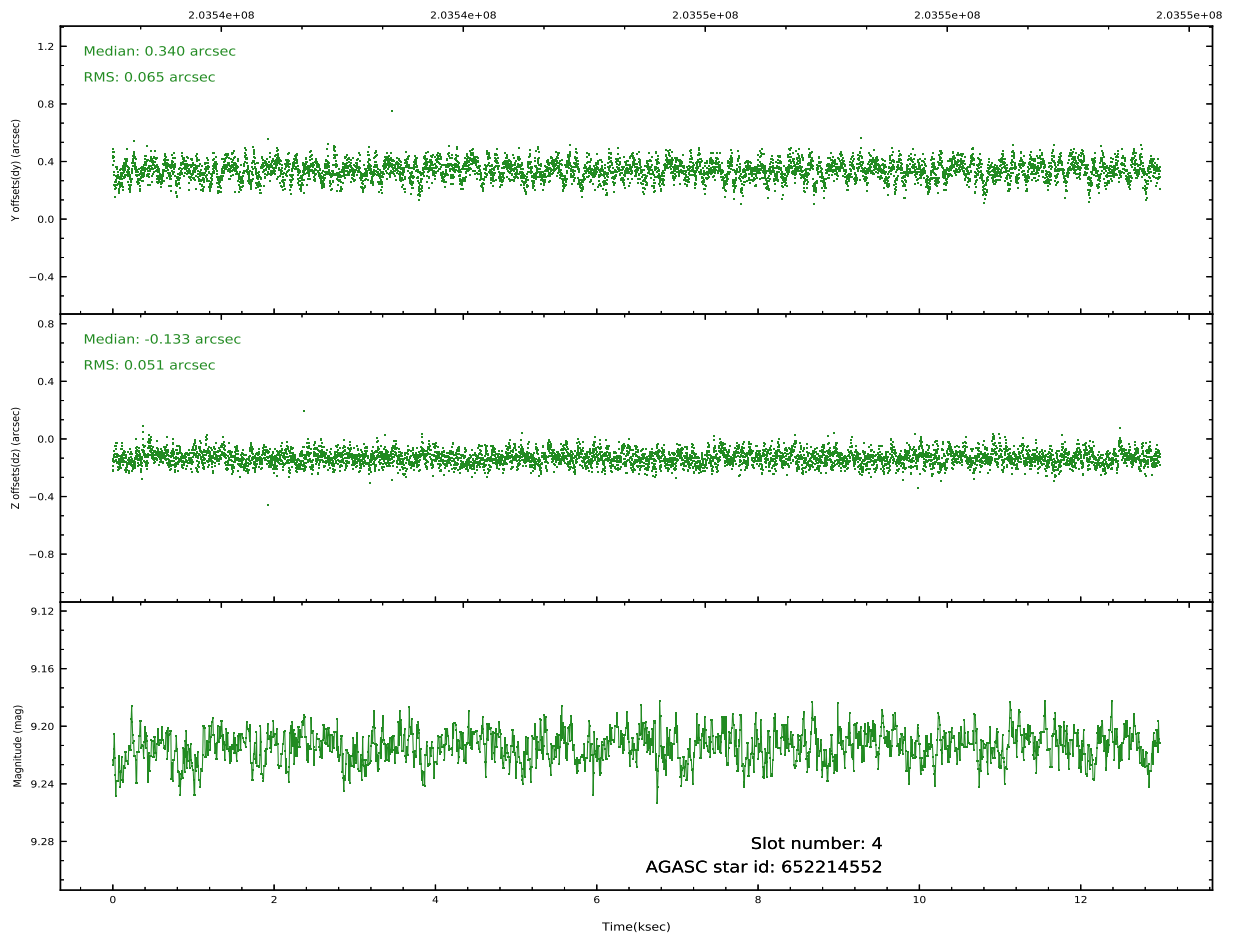
Time (s)



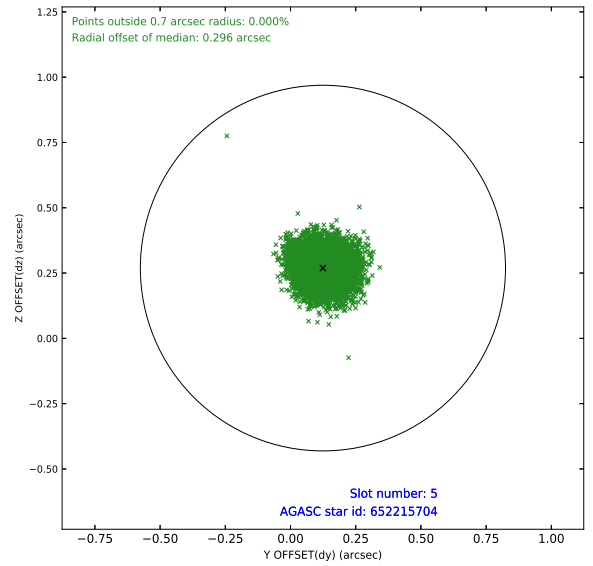
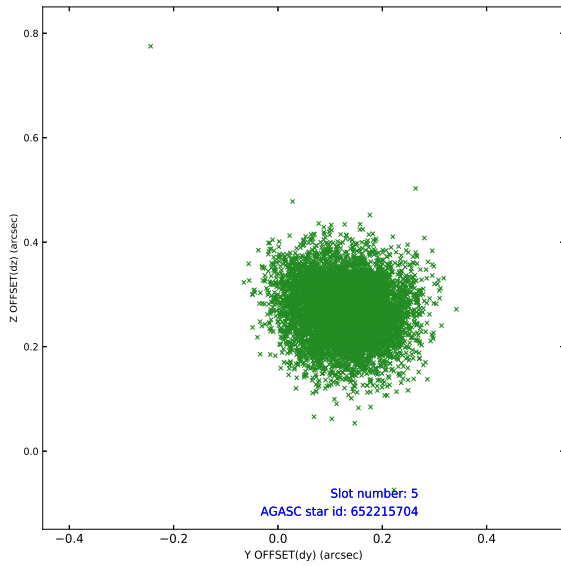
## 2.4.2 Slot 4



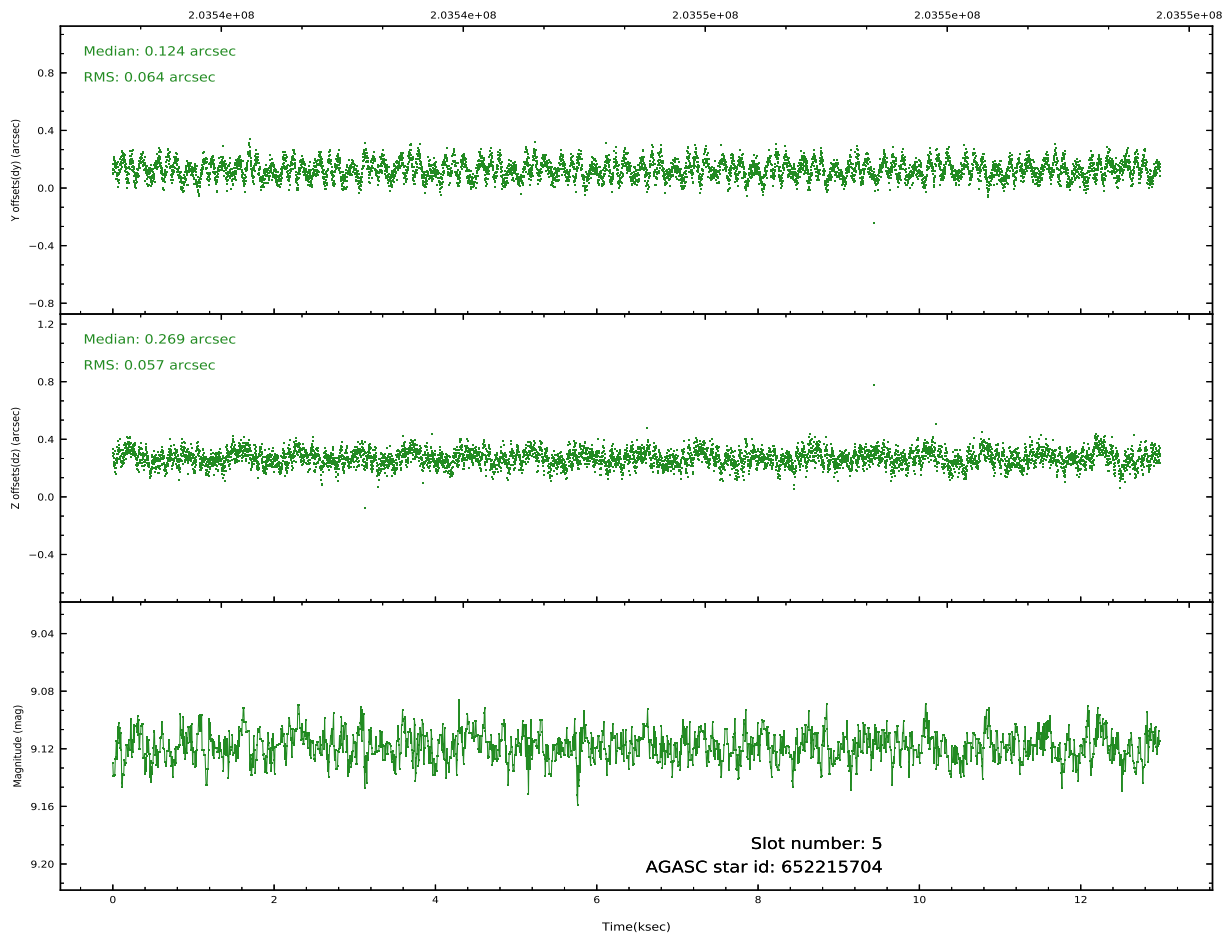
Time (s)



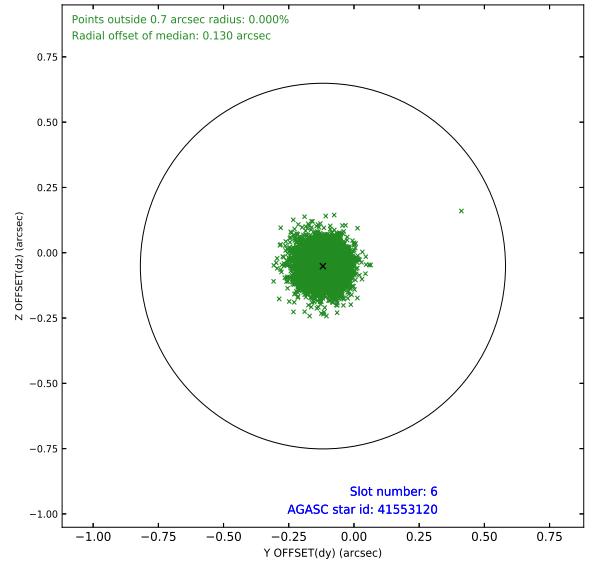
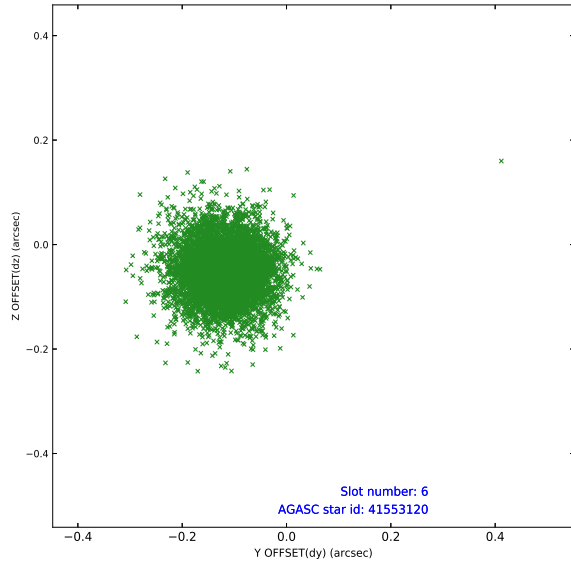
### 2.4.3 Slot 5



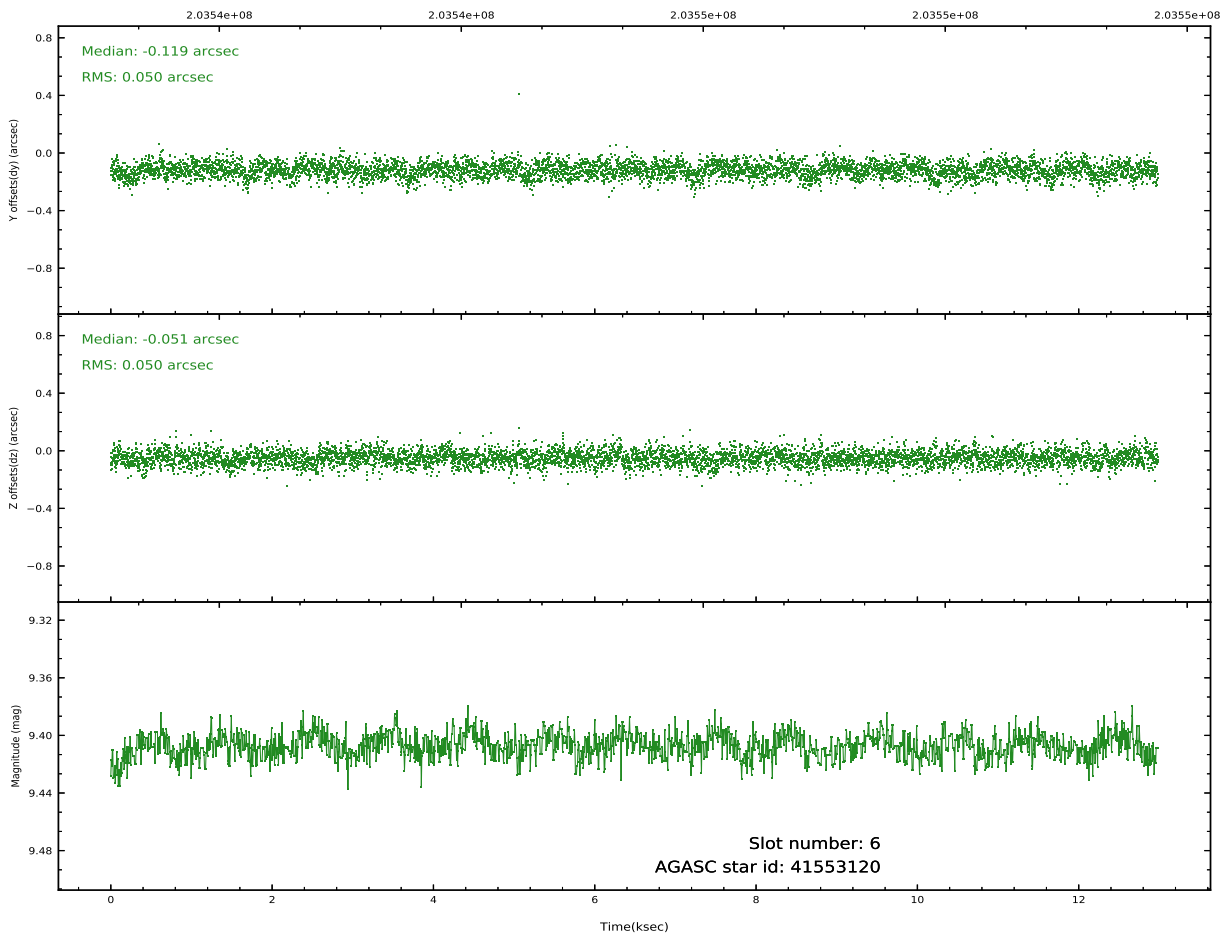
Time (s)



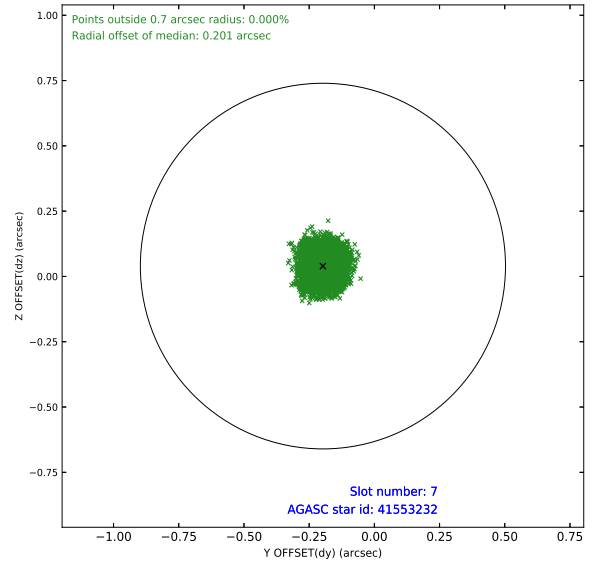
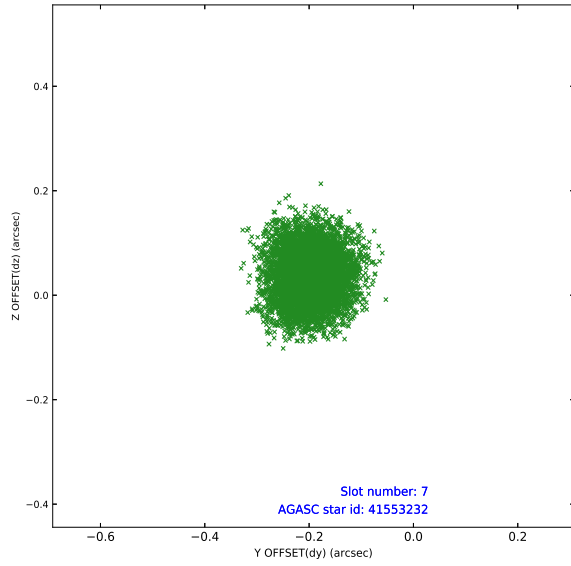
## 2.4.4 Slot 6



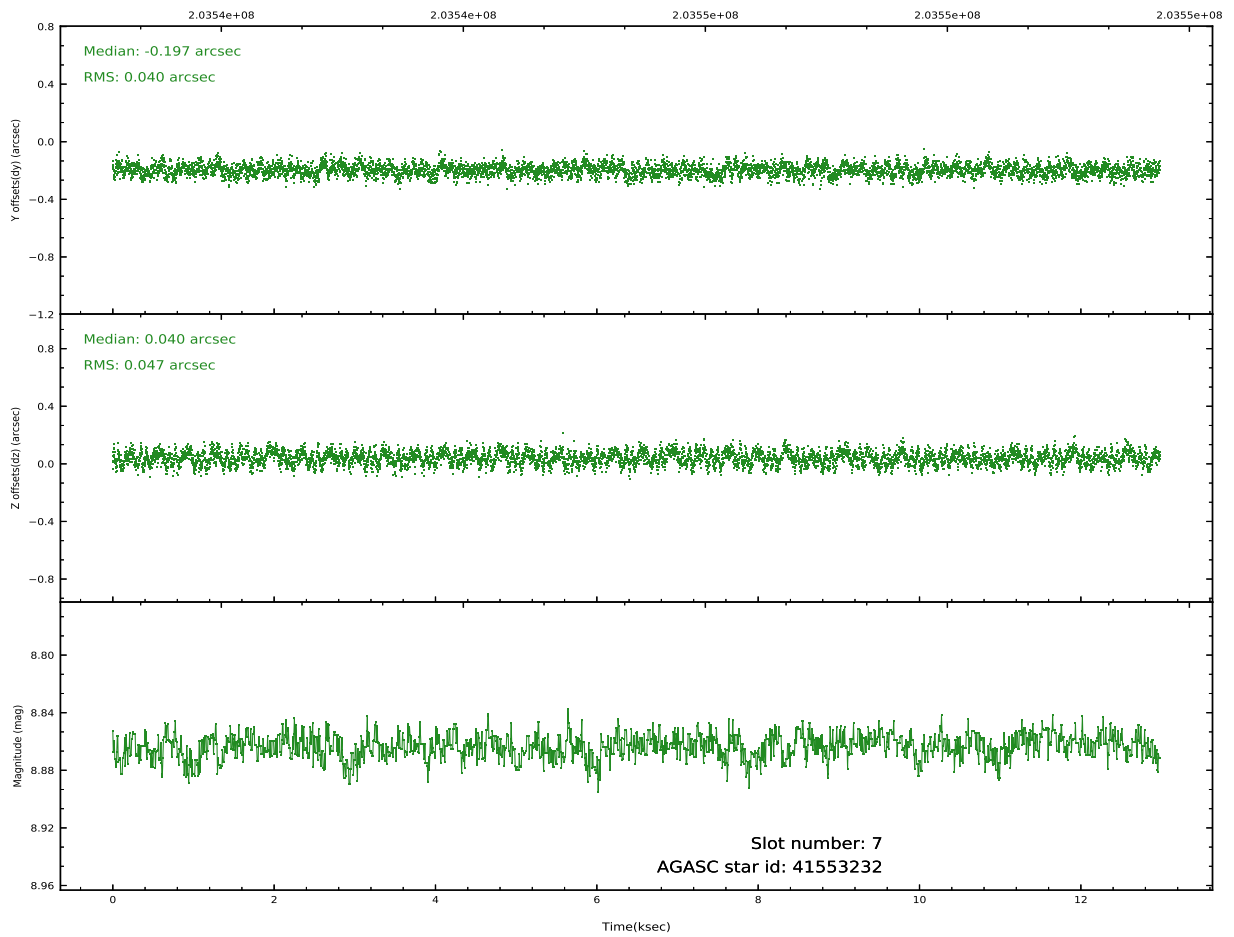
Time (s)



## 2.4.5 Slot 7

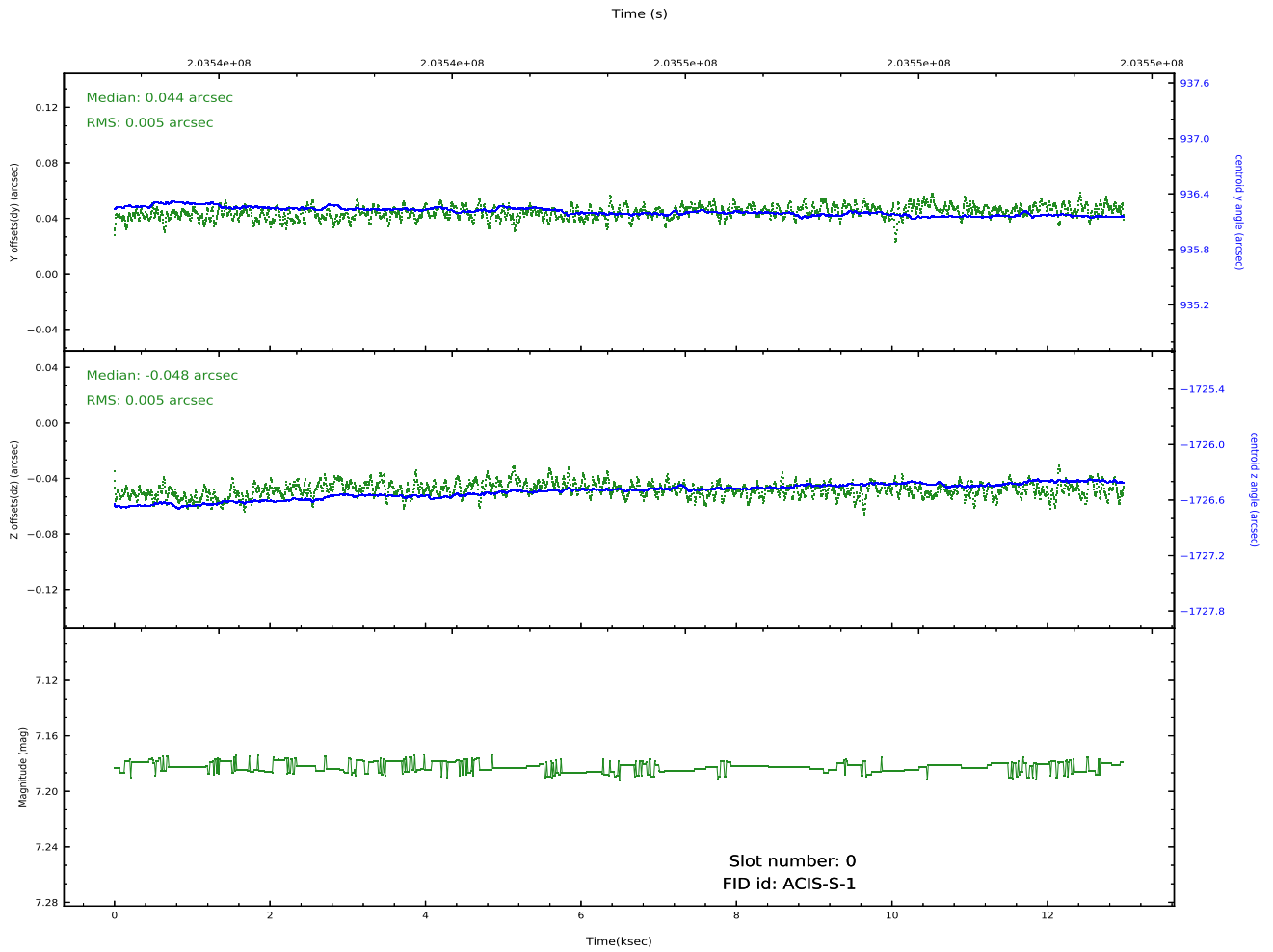
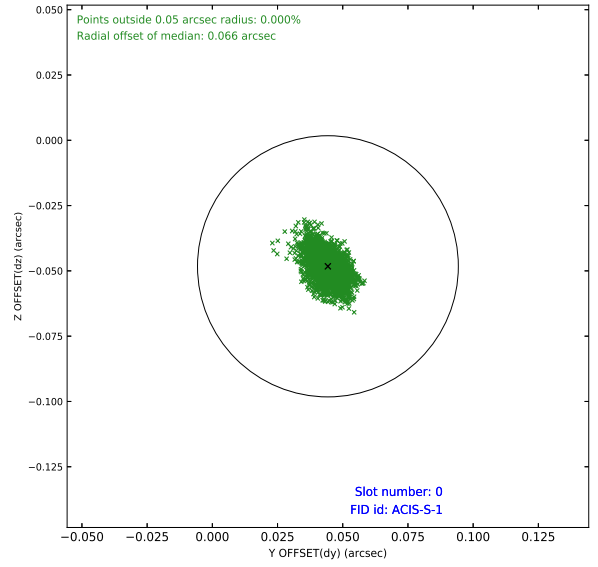
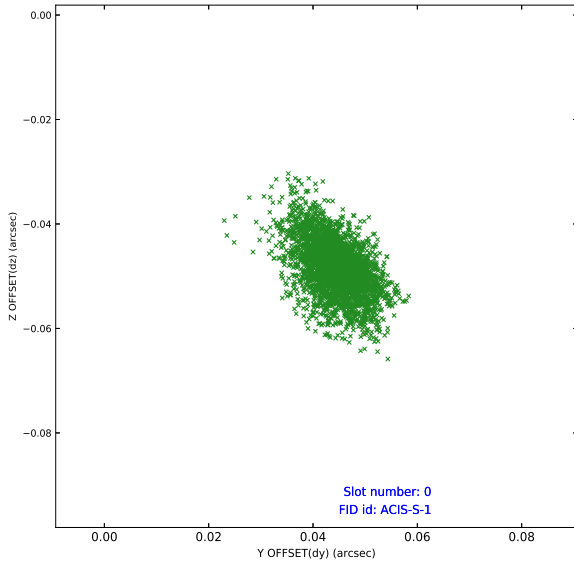


Time (s)

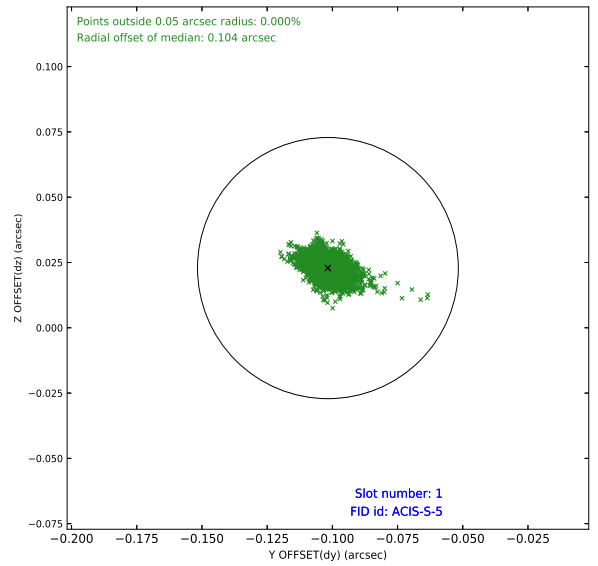
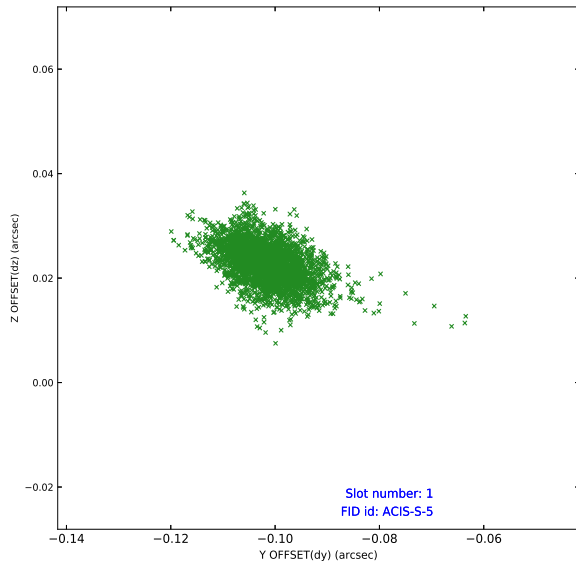


## 2.5 FID Slots

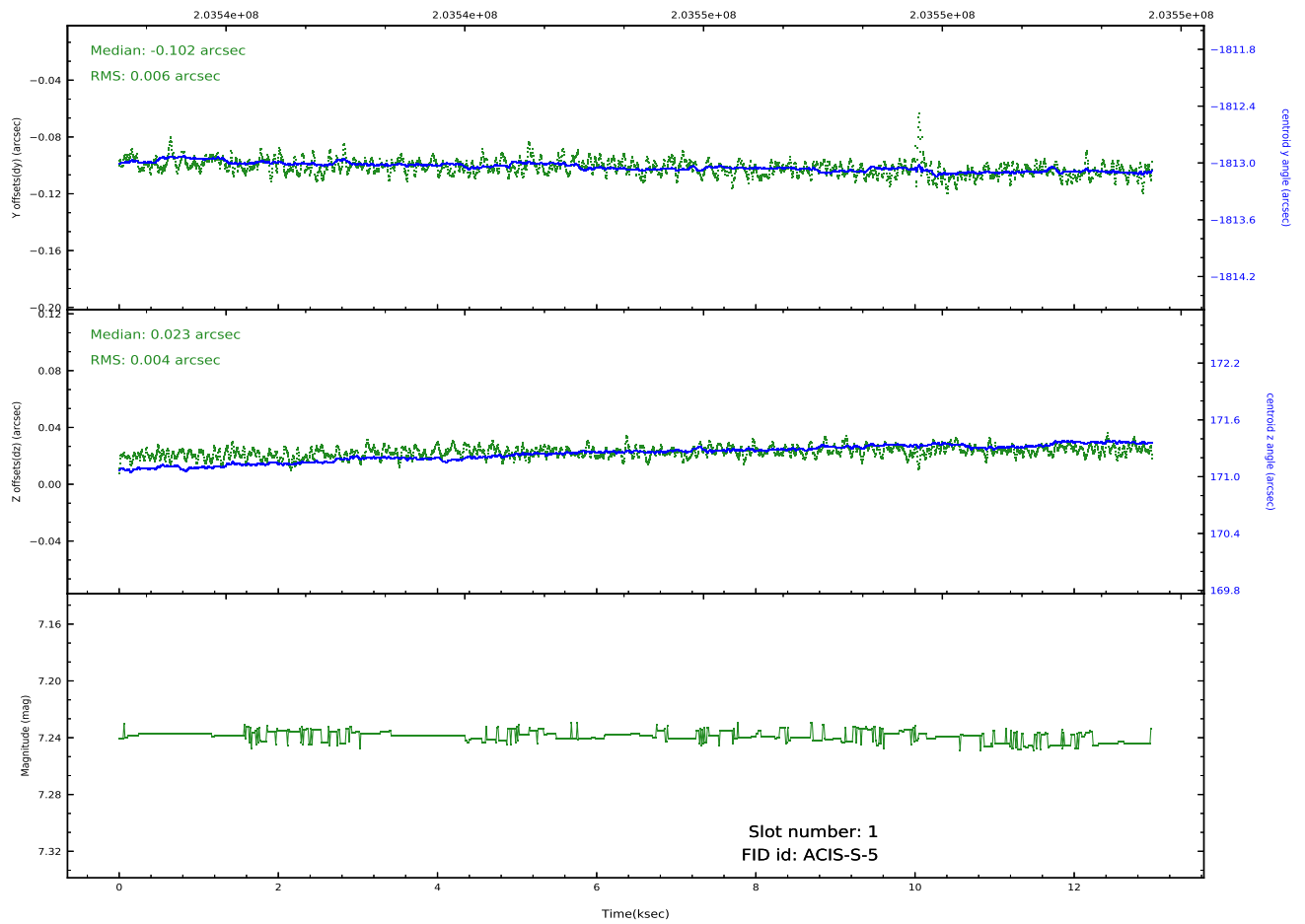
### 2.5.1 Slot 0



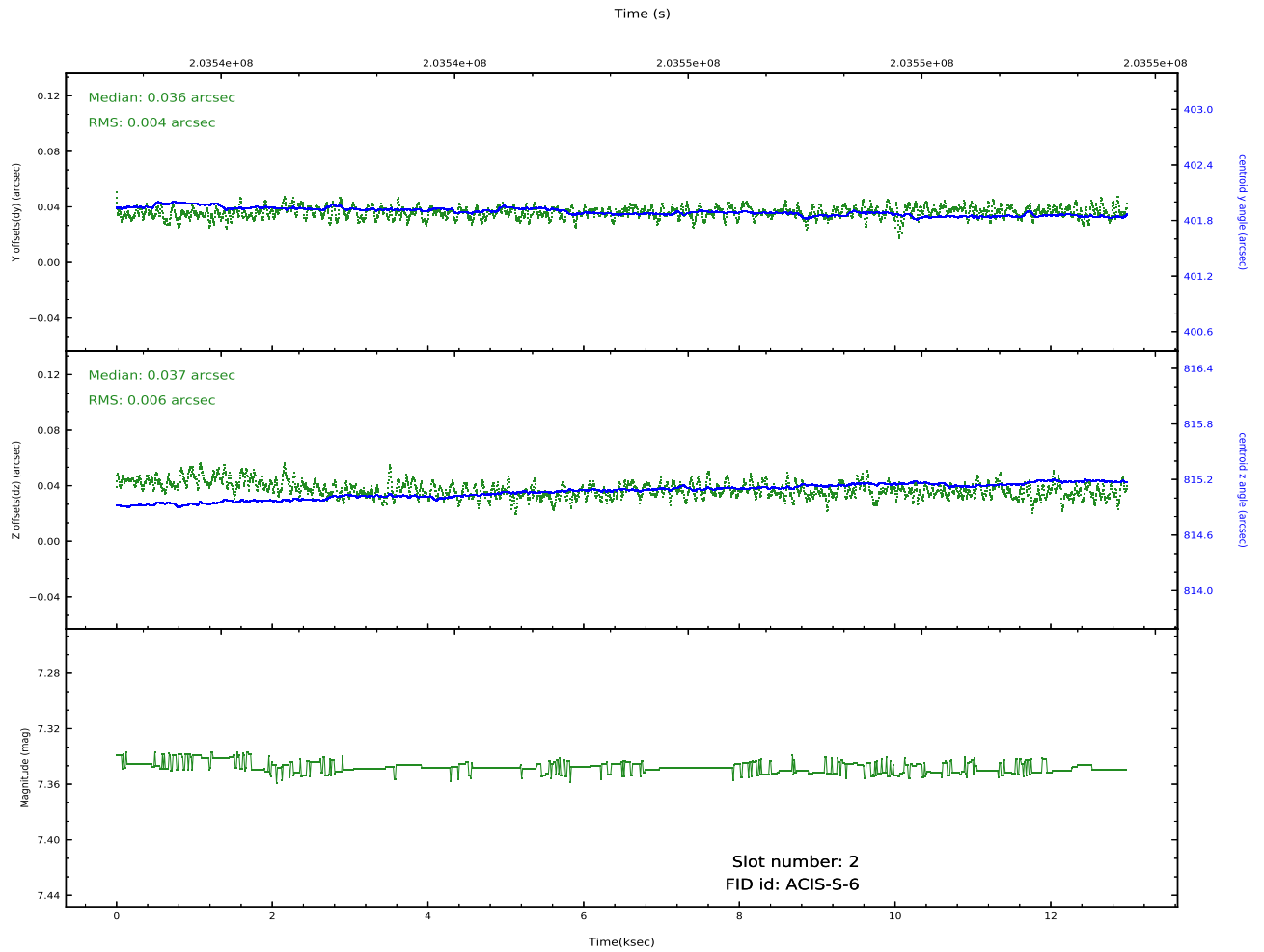
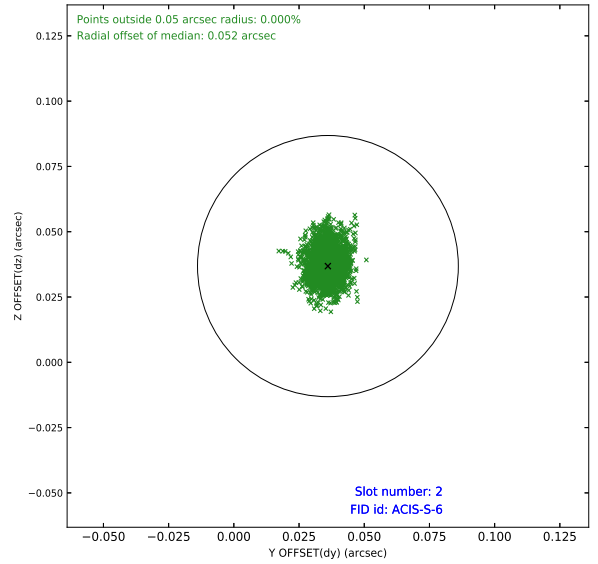
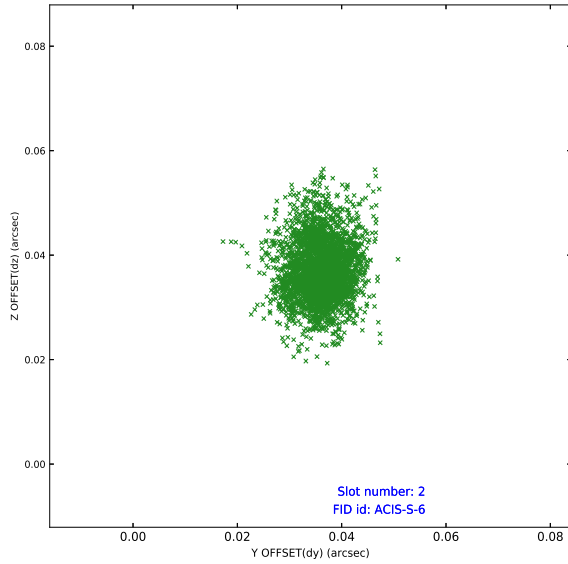
## 2.5.2 Slot 1



Time (s)



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.09.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.632

## A.2 Comments