

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6340 - L2 Version 5  
Chandra X-Ray Center

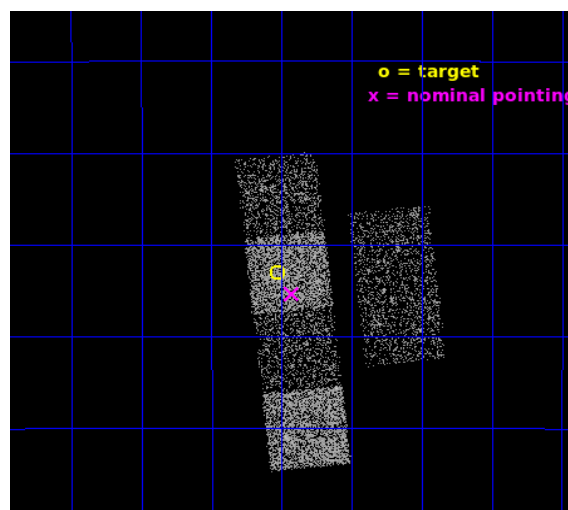
L2 Processing Date : Oct 9 2020

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# 1 Front

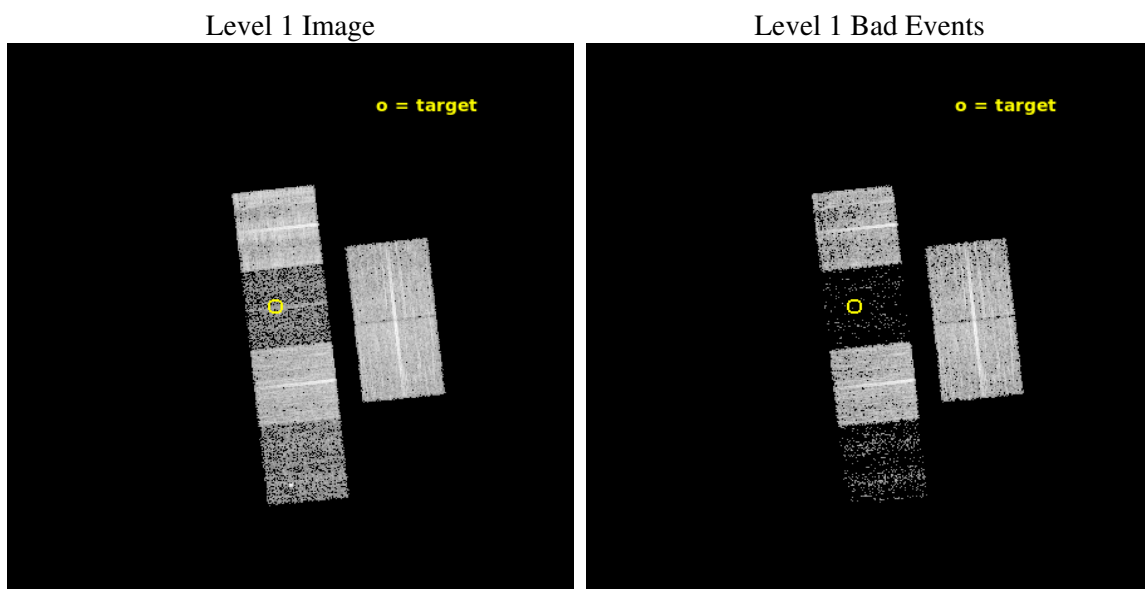
seq_num	100056	Sequence number
obs_id	6340	Observation id
title	Comet 9P/Tempel 1 During the Deep Impact Encounter	Proposal title
observer	Carey Lisse	Principal investigator
object	Comet 9P/Tempel 1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	207.882802	Observer's specified target RA [deg]
dec_targ	-12.384228	Observer's specified target Dec [deg]
ra_nom	207.85661796815	Nominal RA [deg]
dec_nom	-12.422209327969	Nominal Dec [deg]
roll_nom	263.73705643952	Nominal Roll [deg]
revision	5	Processing version of data
ontime	8531.1999682188	Sum of GTIs [s]
livetime	8423.1727773493	Livetime [s]
ontime2	8531.1999682188	Sum of GTIs [s]
ontime3	8531.1999682188	Sum of GTIs [s]
ontime5	8531.1999682188	Sum of GTIs [s]
ontime6	8531.1999682188	Sum of GTIs [s]
ontime7	8531.1999682188	Sum of GTIs [s]
ontime8	8531.1999682188	Sum of GTIs [s]
l2events	14085	Number of level 2 events



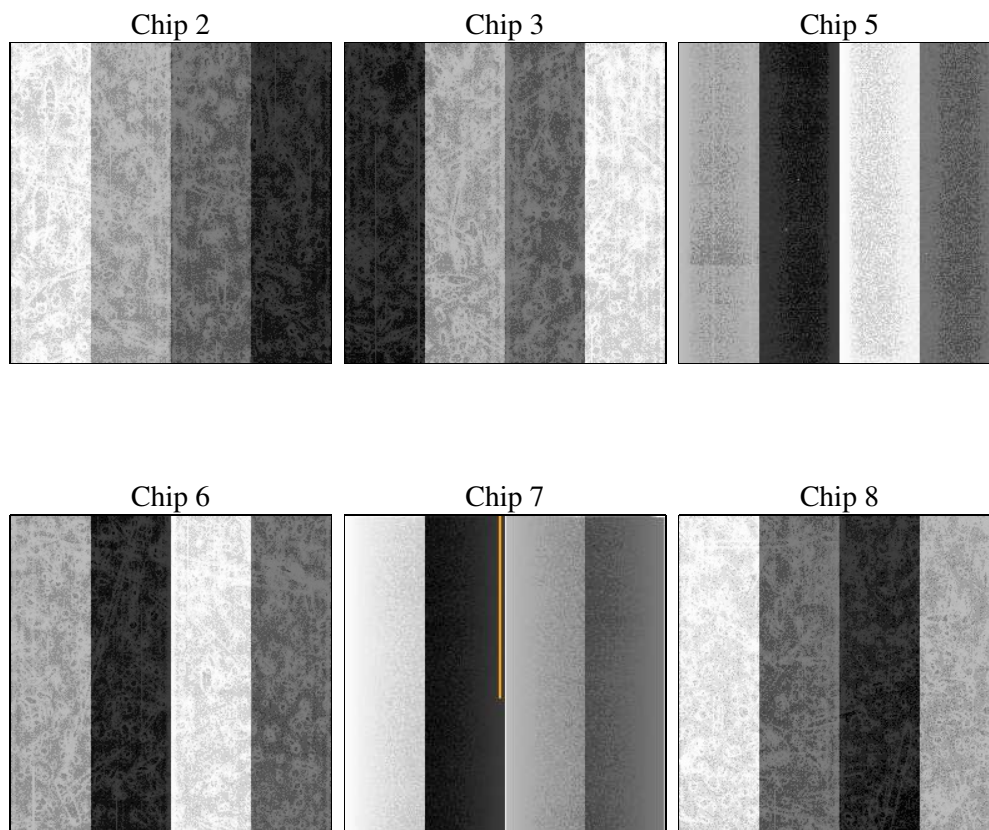
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8350.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	8531.1999682188	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	8531.1999682188	Sum of GTIs [s]
date	2020-10-09T08:47:16	Date and time of file creation	ontime3	8531.1999682188	Sum of GTIs [s]
revision	5	Processing version of data	ontime5	8531.1999682188	Sum of GTIs [s]
			ontime6	8531.1999682188	Sum of GTIs [s]
			ontime7	8531.1999682188	Sum of GTIs [s]
			ontime8	8531.1999682188	Sum of GTIs [s]
			l1events	182766	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	44242	36714	8790	38097	6461	48462
rejected events	41972	35300	3352	36167	1559	31475
rejected %	94%	96%	38%	94%	24%	64%

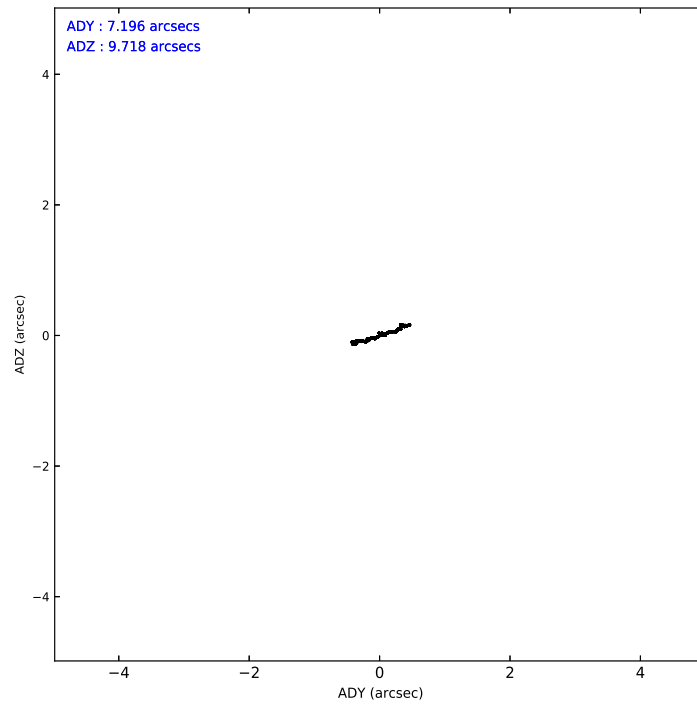
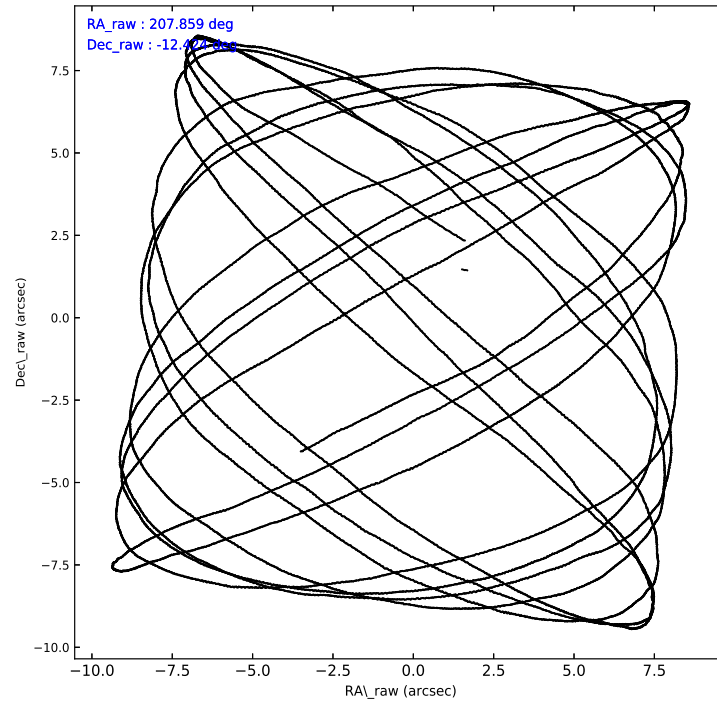
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	1149	741	1597	1100	1432	5952
	2%	2%	18%	2%	22%	12%
grade 1 events	24	8	58	15	27	58
	0%	0%	0%	0%	0%	0%
grade 2 events	507	217	2023	361	1719	2966
	1%	0%	23%	0%	26%	6%
grade 3 events	235	199	776	219	719	2812
	0%	0%	8%	0%	11%	5%
grade 4 events	299	207	630	235	713	2480
	0%	0%	7%	0%	11%	5%
grade 5 events	56	28	466	26	193	243
	0%	0%	5%	0%	2%	0%
grade 6 events	196	115	659	113	587	3672
	0%	0%	7%	0%	9%	7%
grade 7 events	41776	35199	2581	36028	1071	30279
	94%	95%	29%	94%	16%	62%

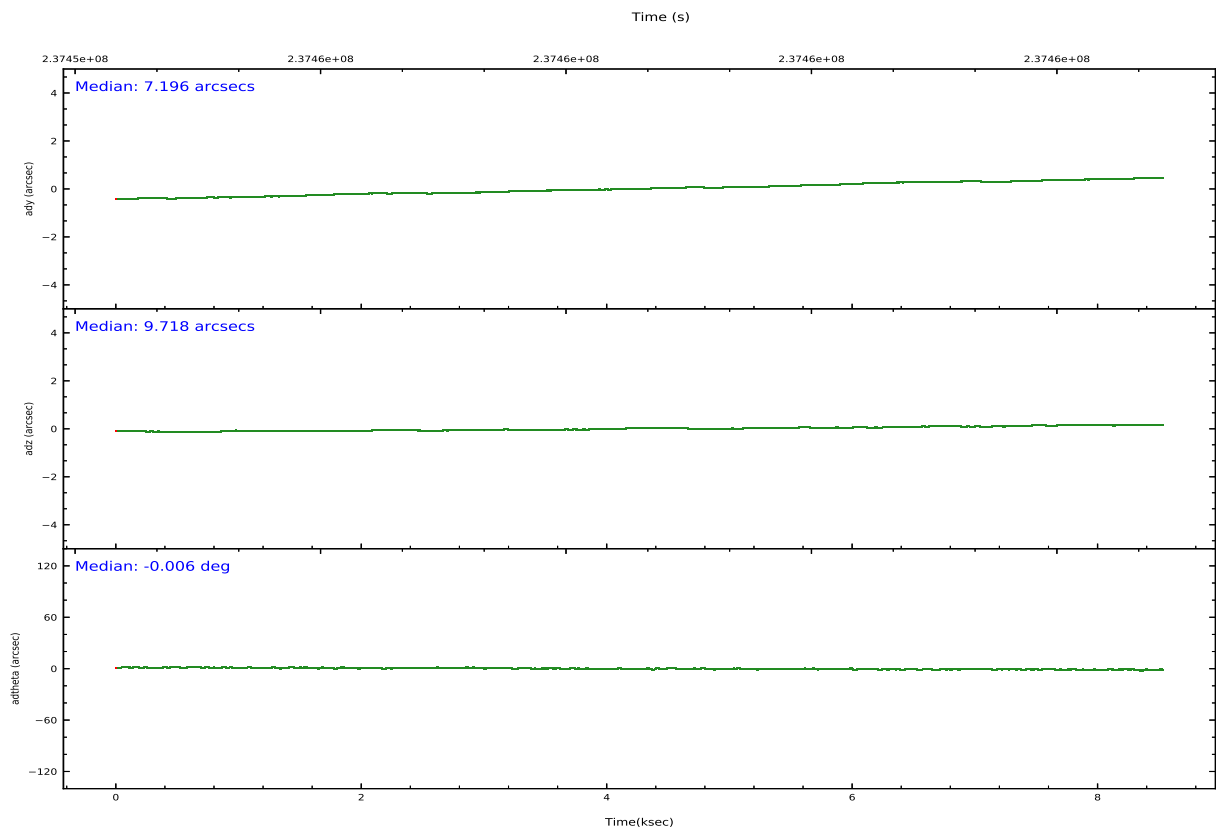
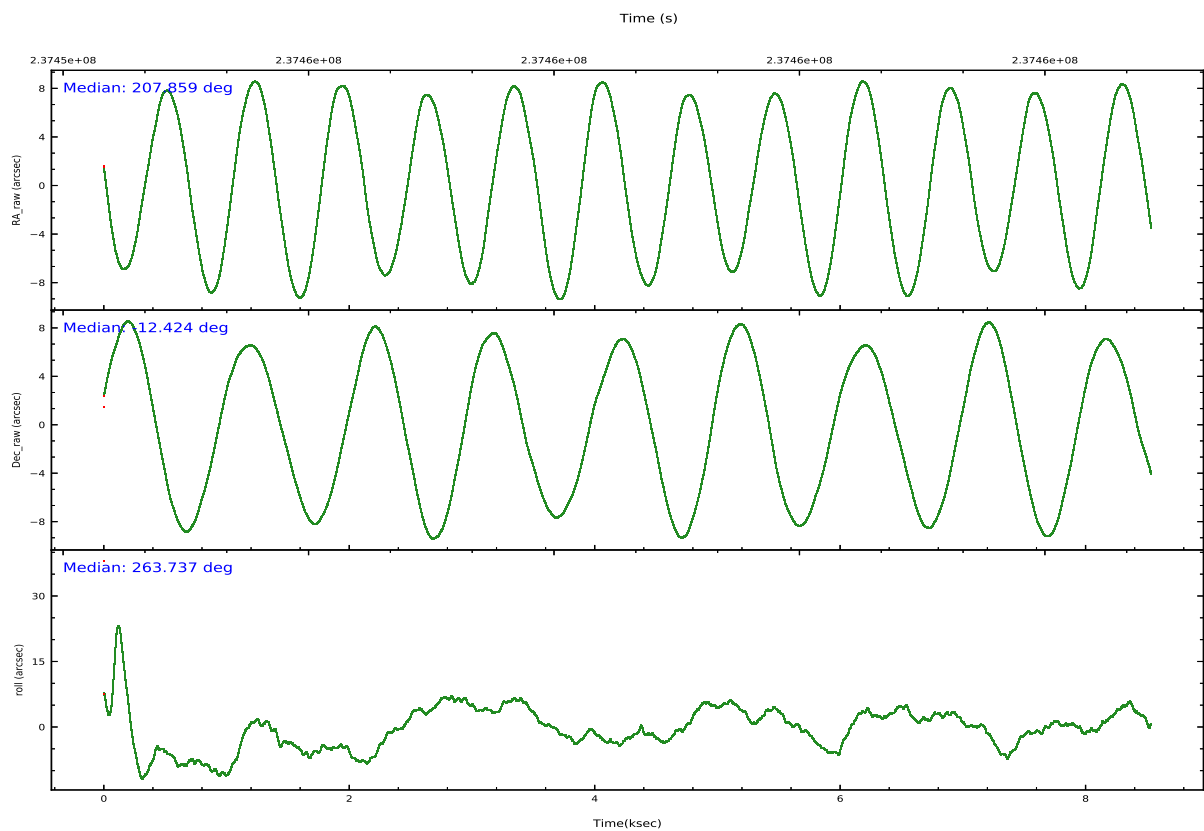


## 2.2 Compared Parameters

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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	207.847693	207.85661796815	Subarray requested	NONE	NONE
[deg] Pointing Dec	-12.400005	-12.422209327969	Alternating exposures requested	N	N
[deg] Pointing Roll	263.582467	263.73705643952	[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)	237454516.184000	237453894.9877			
Observation start date	2005-07-11T07:34:12	2005-07-11T07:24:54			
[s] Observation end time (MET)	237462866.184000	237463247.08813			
Observation end date	2005-07-11T09:53:22	2005-07-11T10:00:47			
Read mode	TIMED	TIMED			

## 2.3 Aspect



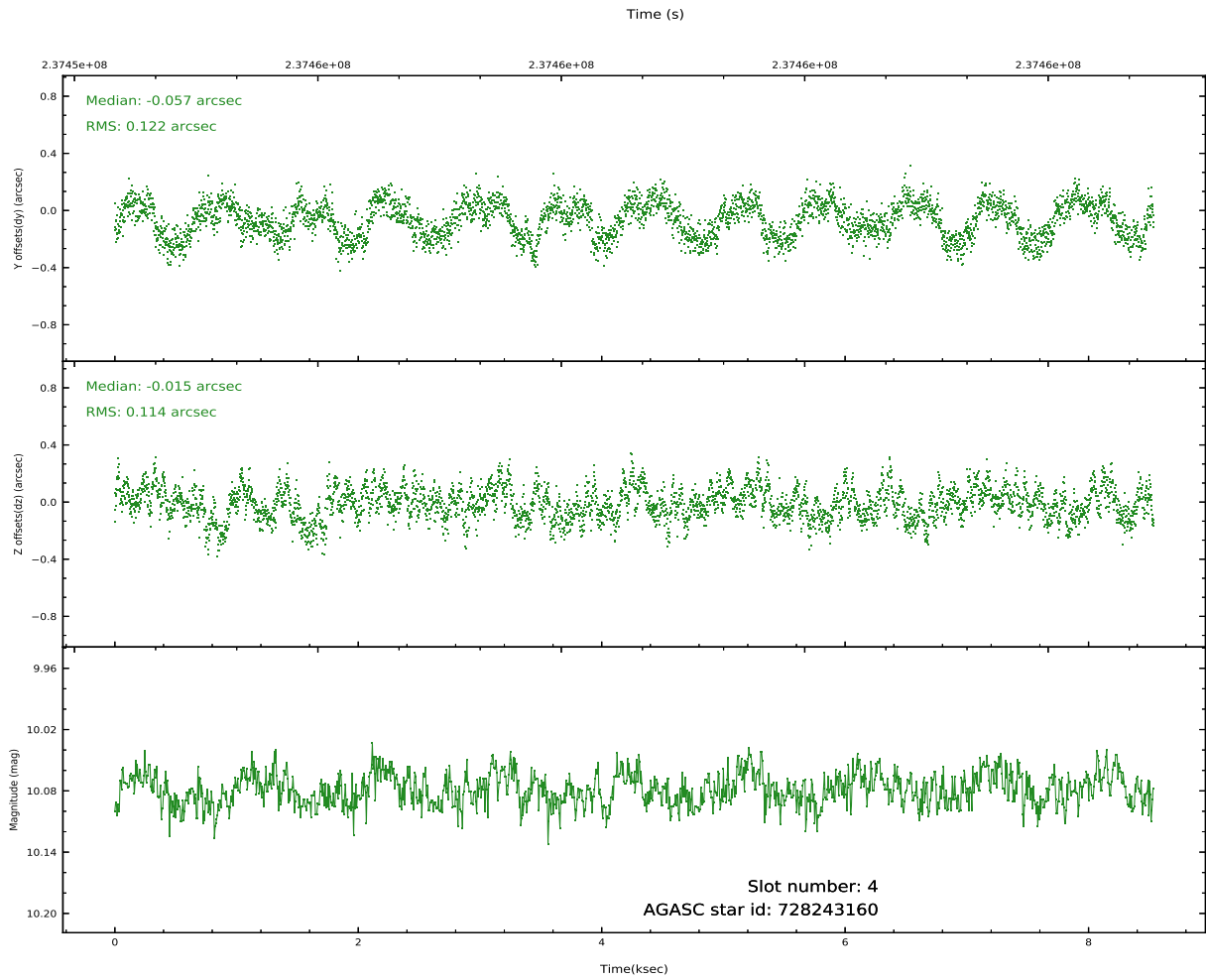
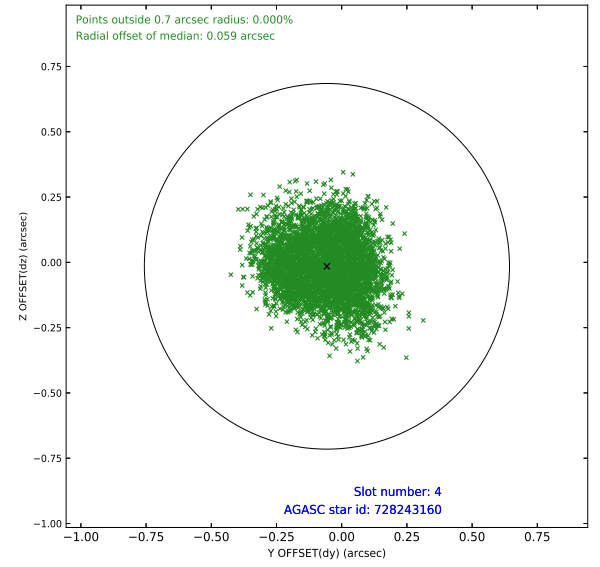
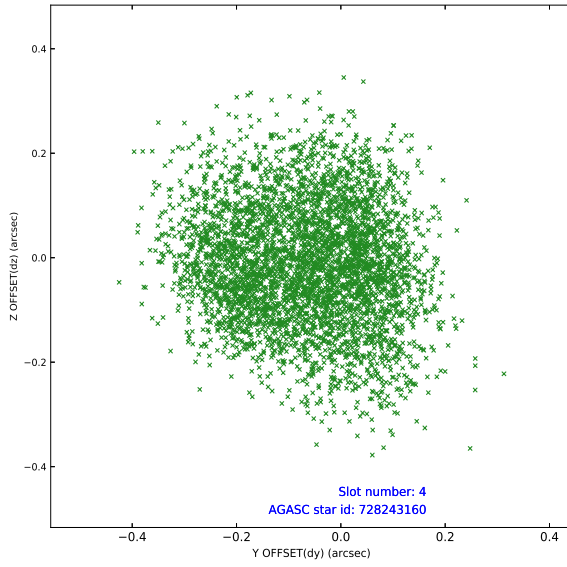


Slot Statistics

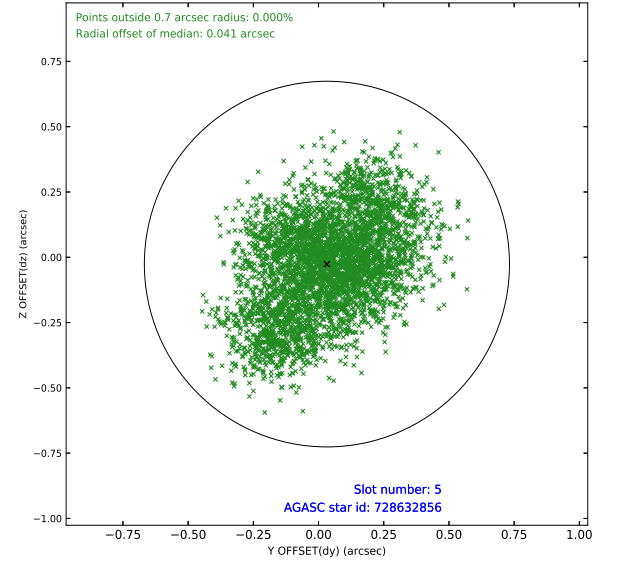
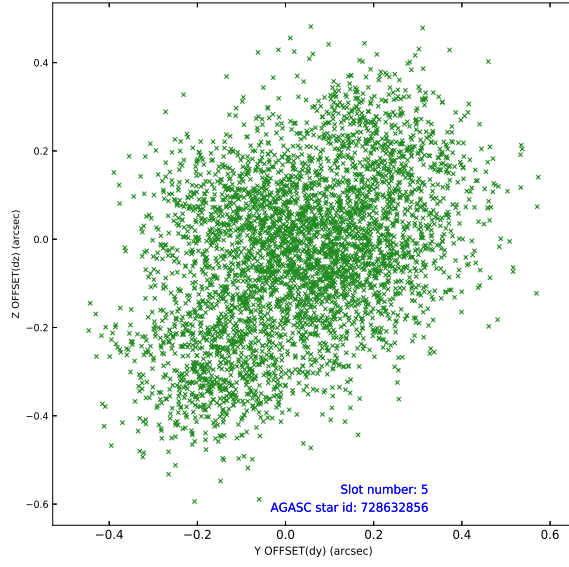
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	2082	1.000	-0.078	-0.071	0.007	0.012	0.000000	0.000000	-759.97	-1731
1	FID		ACIS-S-4	7.21	2082	1.000	0.157	0.056	0.007	0.014	0.000000	0.000000	2153.17	176
2	FID		ACIS-S-5	7.23	2081	1.000	-0.110	0.023	0.009	0.015	0.000000	0.000000	-1812.09	171
3	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
4	GUIDE	used	728243160	10.08	4160	1.000	-0.057	-0.015	0.182	0.276	208.309960	-11.797392	-2336.02	1376
5	GUIDE	used	728632856	10.57	4156	1.000	0.032	-0.026	0.283	0.435	208.274834	-12.910844	1661.21	1696
6	GUIDE	used	728633928	10.32	4155	1.000	0.038	0.048	0.219	0.334	208.253445	-12.706055	937.71	1540
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

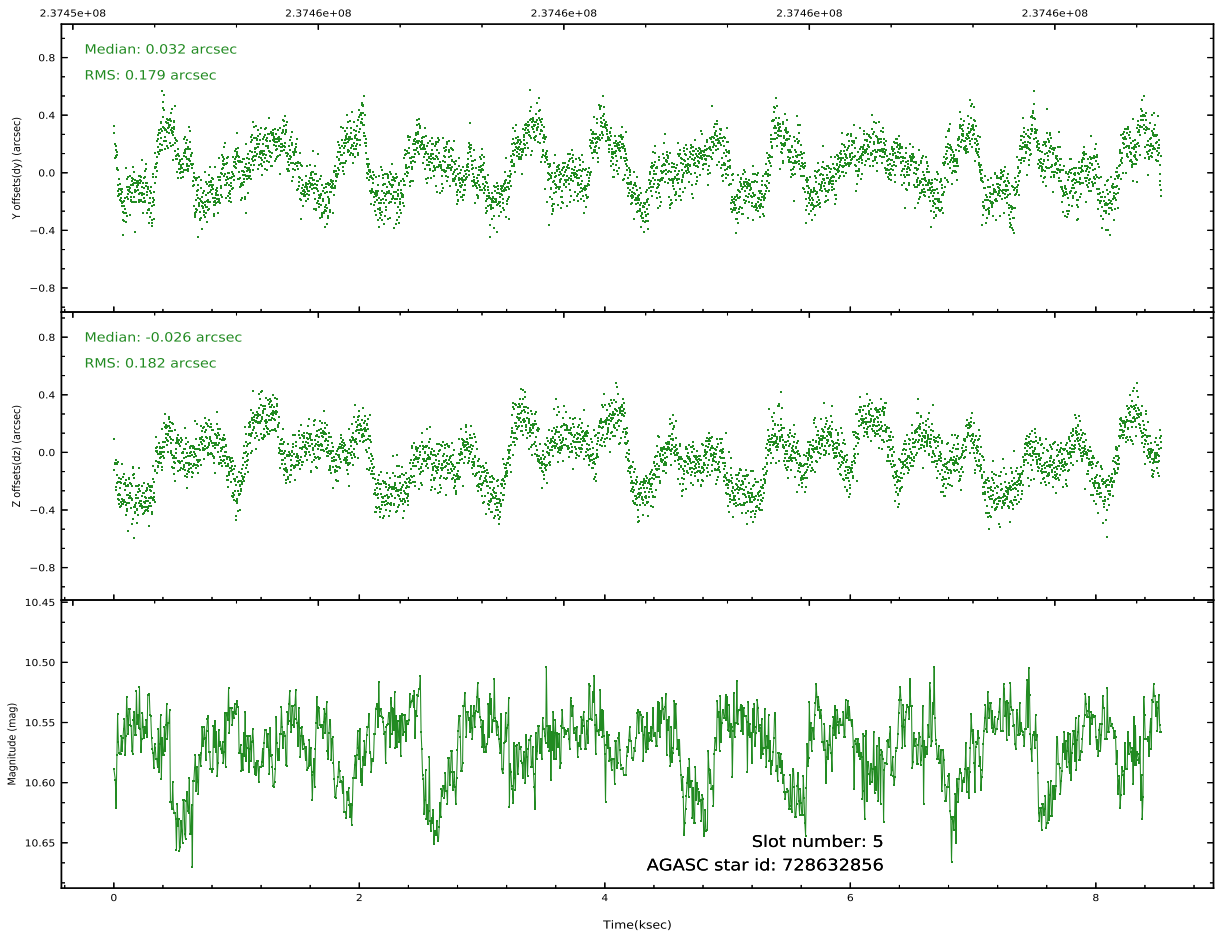
### 2.4.1 Slot 4



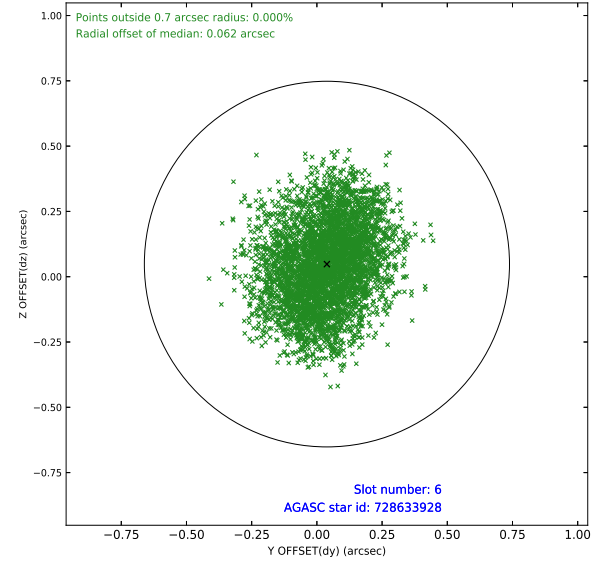
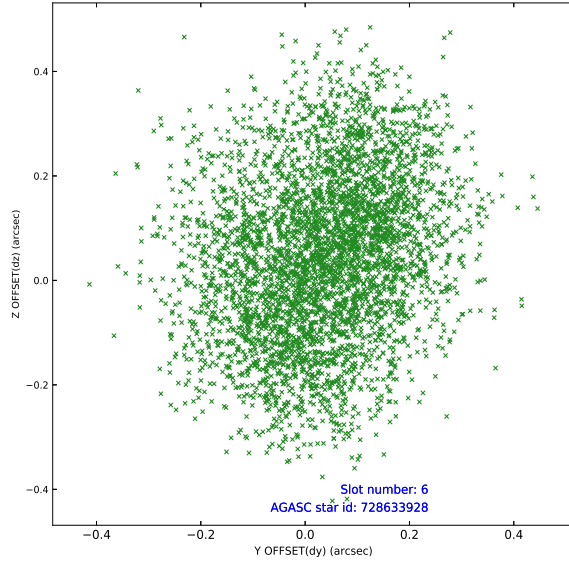
## 2.4.2 Slot 5



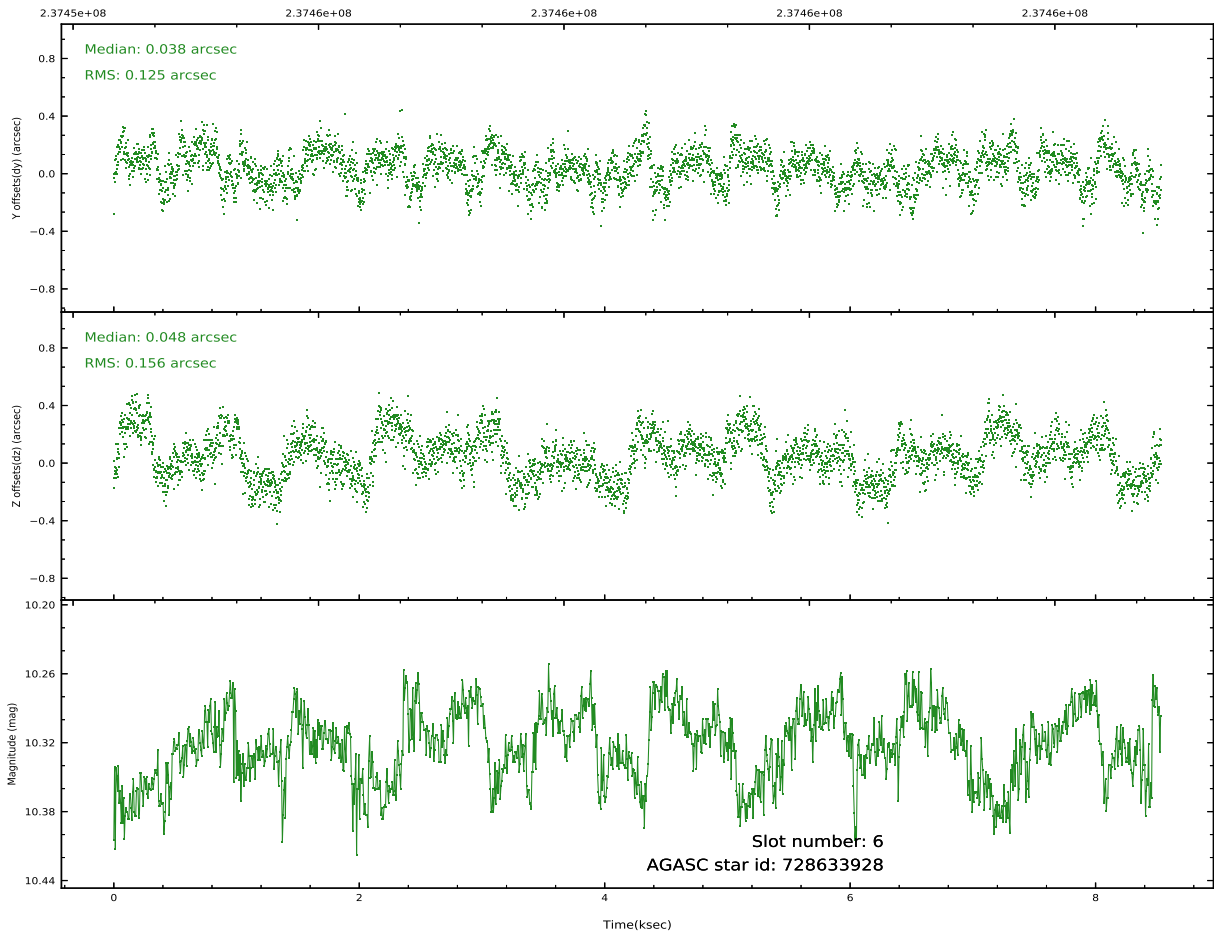
Time (s)



### 2.4.3 Slot 6

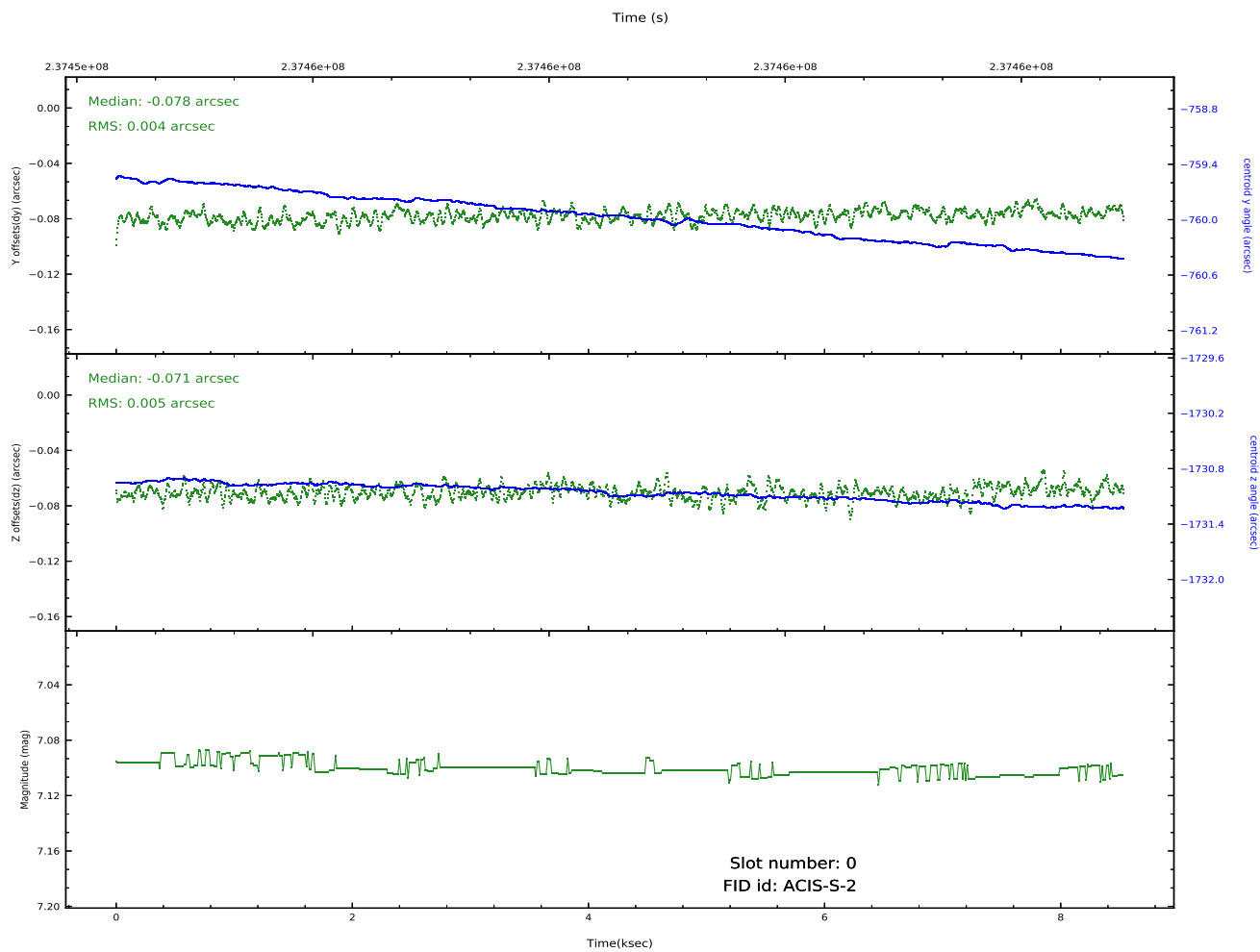
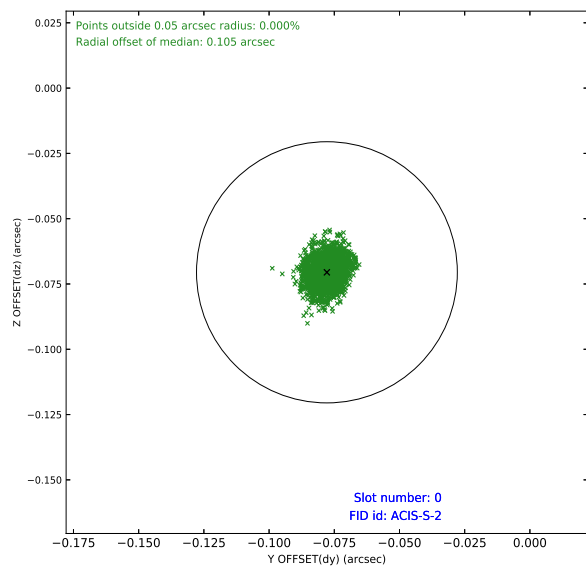
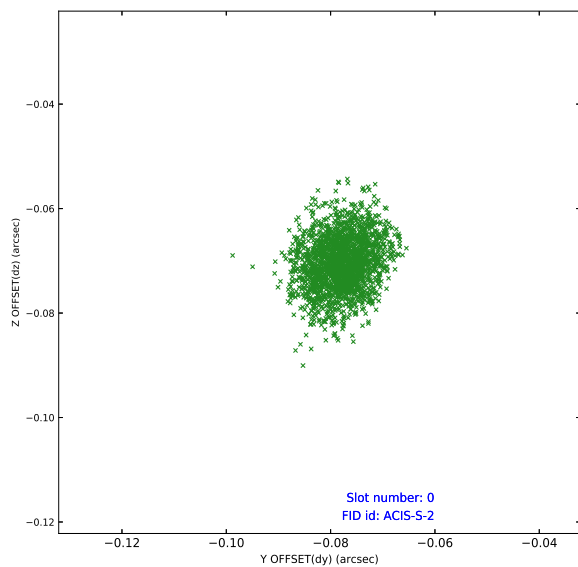


Time (s)



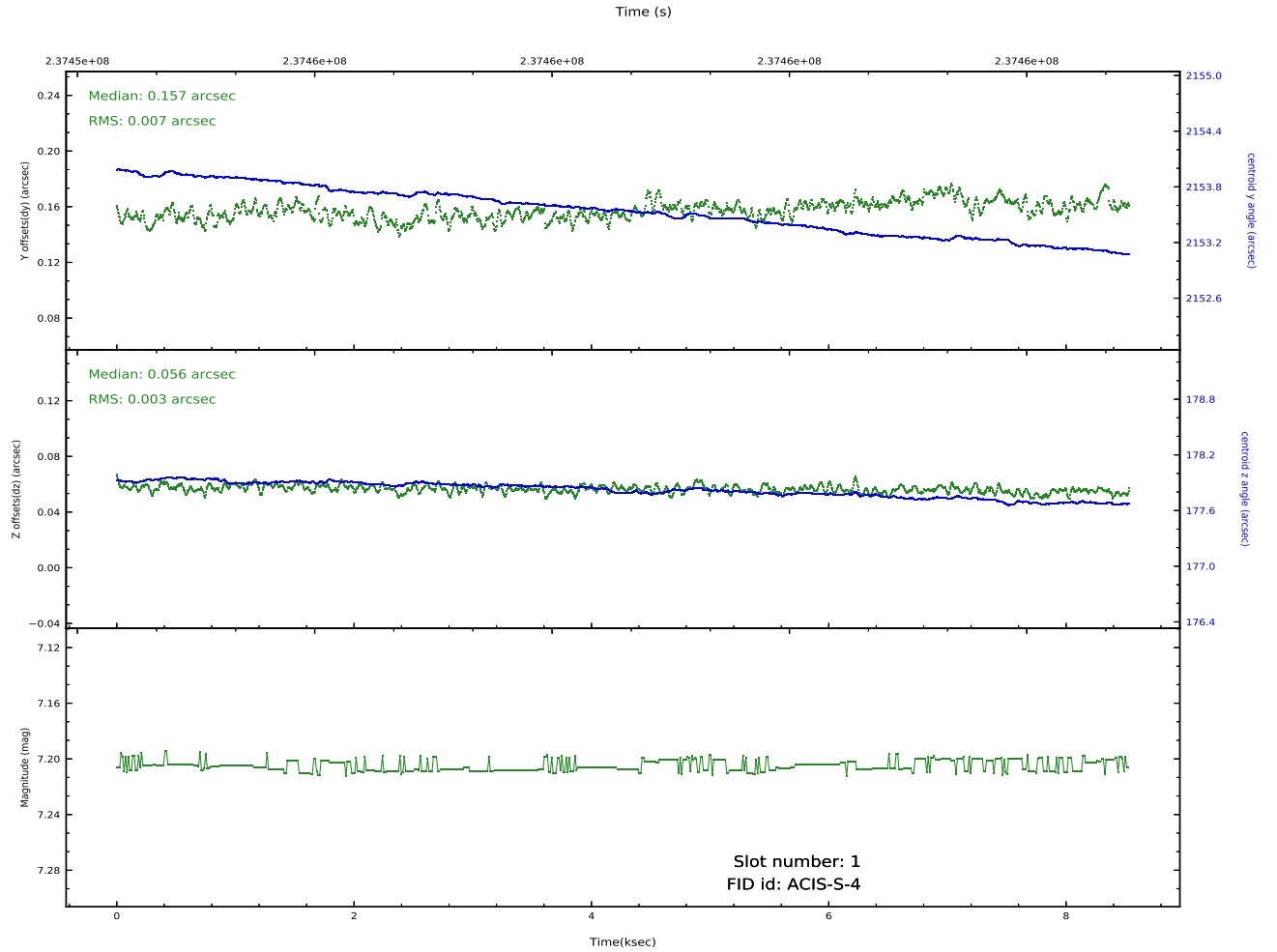
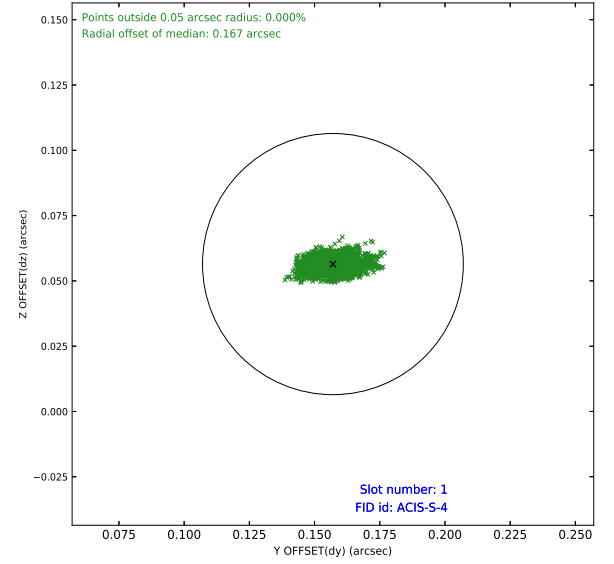
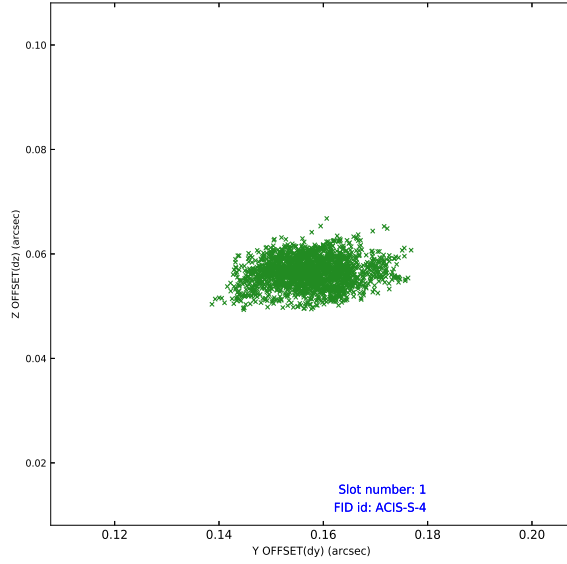
## 2.5 FID Slots

### 2.5.1 Slot 0

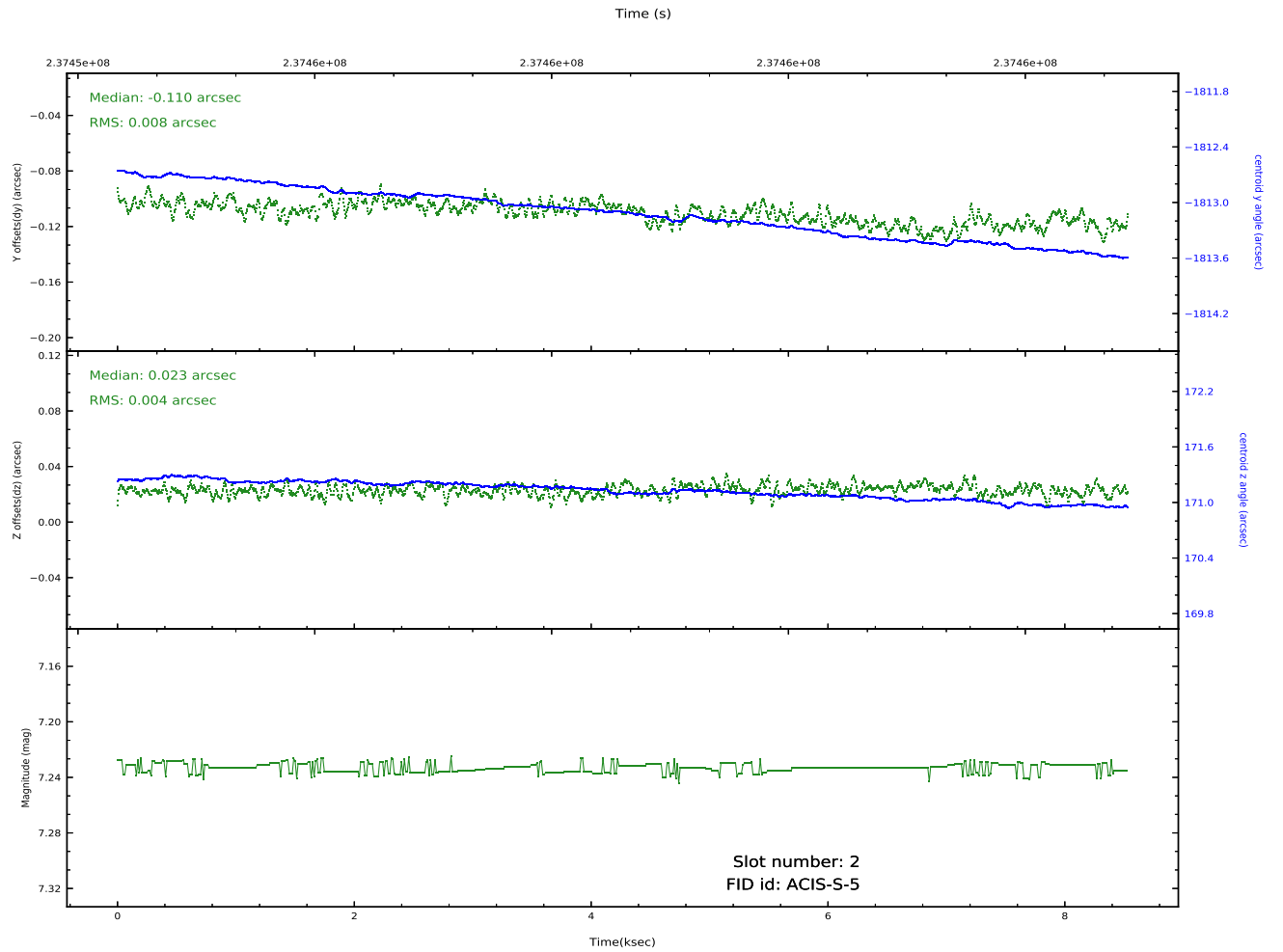
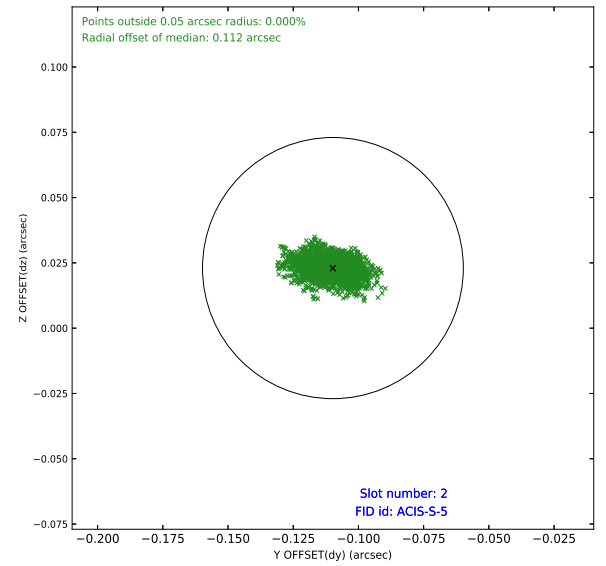
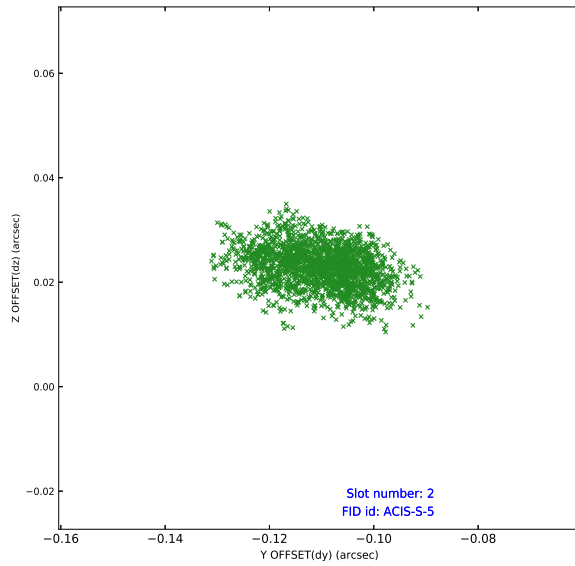




## 2.5.2 Slot 1



## 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.531199

## A.2 Comments

The guide stars in slots 3 and 7 were removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of these guide stars from the solution.

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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.