

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4631 - L2 Version 4  
Chandra X-Ray Center

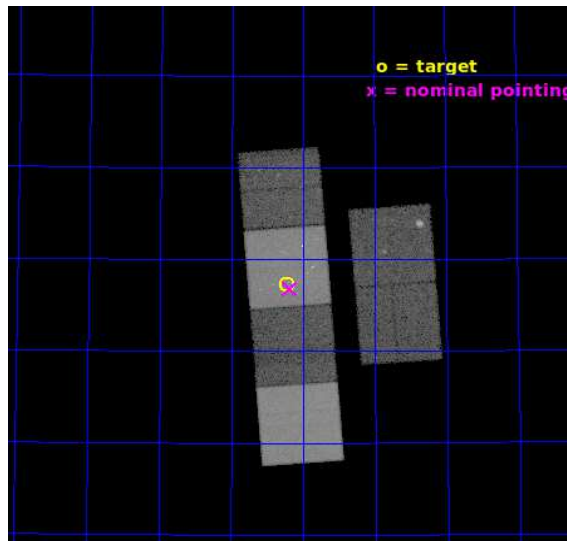
L2 Processing Date : Oct 3 2020

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

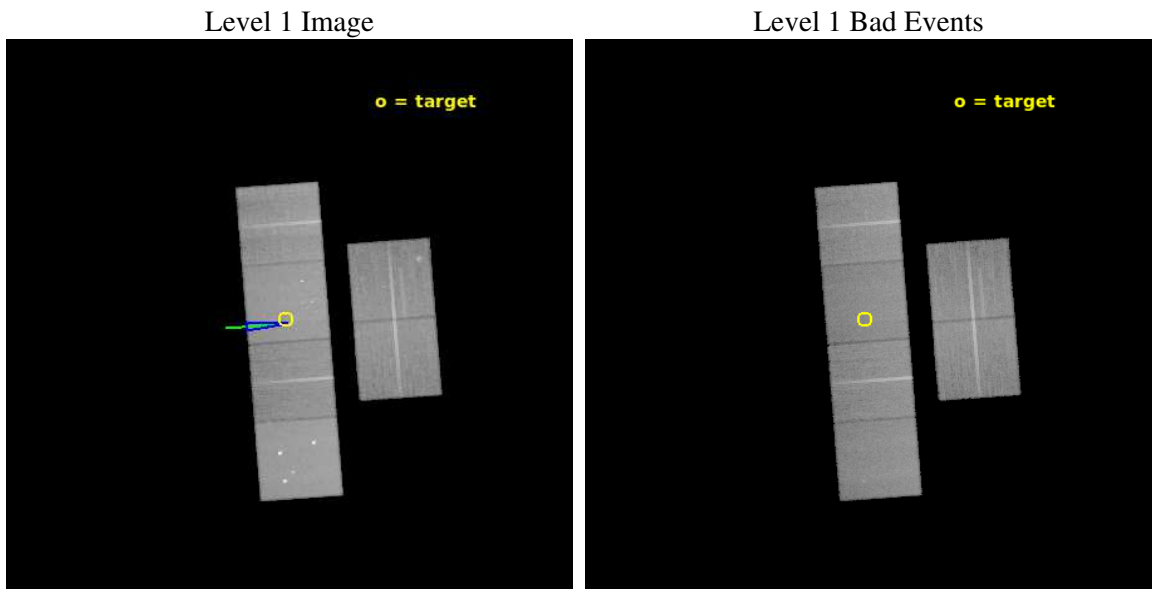
seq_num	500456	Sequence number
obs_id	4631	Observation id
title	Prompt Chandra Observations of Nearby Supernovae	Proposal title
observer	Prof. Walter Lewin	Principal investigator
object	SN 2004et	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	308.805833	Observer's specified target RA [deg]
dec_targ	60.121556	Observer's specified target Dec [deg]
ra_nom	308.79619356296	Nominal RA [deg]
dec_nom	60.113681570127	Nominal Dec [deg]
roll_nom	265.59125546583	Nominal Roll [deg]
revision	4	Processing version of data
ontime	30121.599887788	Sum of GTIs [s]
livetime	29740.182052959	Livetime [s]
ontime2	30121.599887788	Sum of GTIs [s]
ontime3	30121.599887788	Sum of GTIs [s]
ontime5	30121.599887788	Sum of GTIs [s]
ontime6	30121.599887788	Sum of GTIs [s]
ontime7	30121.599887788	Sum of GTIs [s]
ontime8	30121.599887788	Sum of GTIs [s]
l2events	396707	Number of level 2 events



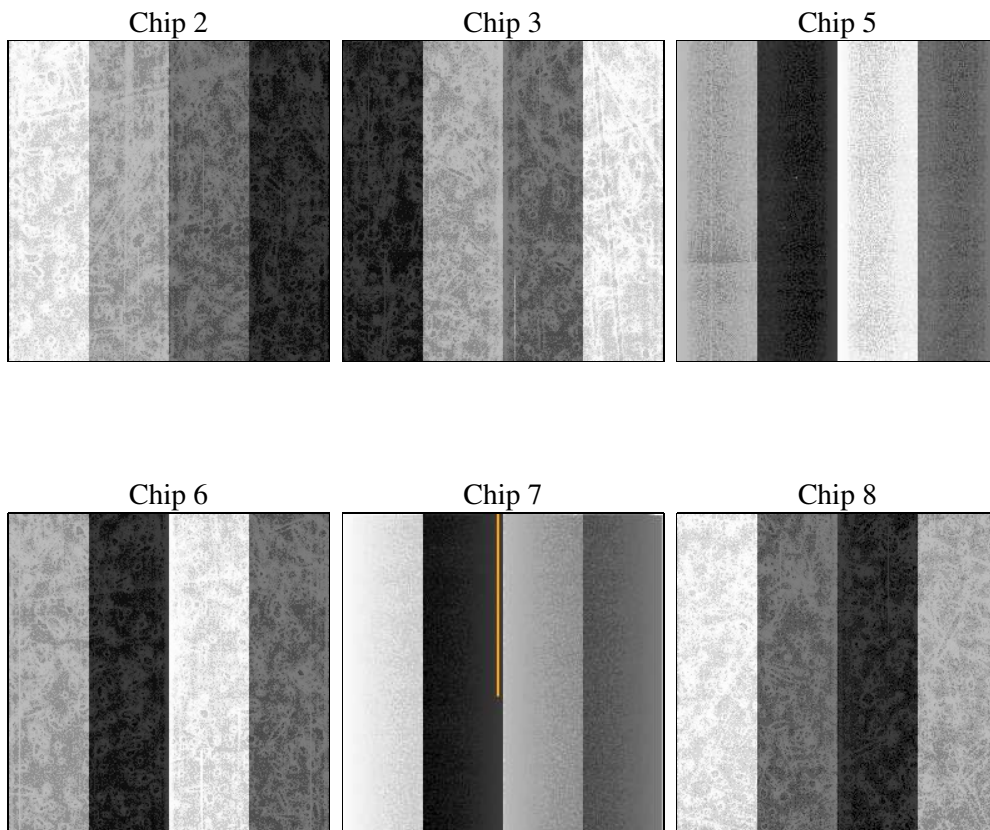
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	30121.599887788	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime2	30121.599887788	Sum of GTIs [s]
date	2020-10-03T17:50:21	Date and time of file creation	ontime3	30121.599887788	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	30121.599887788	Sum of GTIs [s]
			ontime6	30121.599887788	Sum of GTIs [s]
			ontime7	30121.599887788	Sum of GTIs [s]
			ontime8	30121.599887788	Sum of GTIs [s]
			l1events	1747056	Number of level 1 events

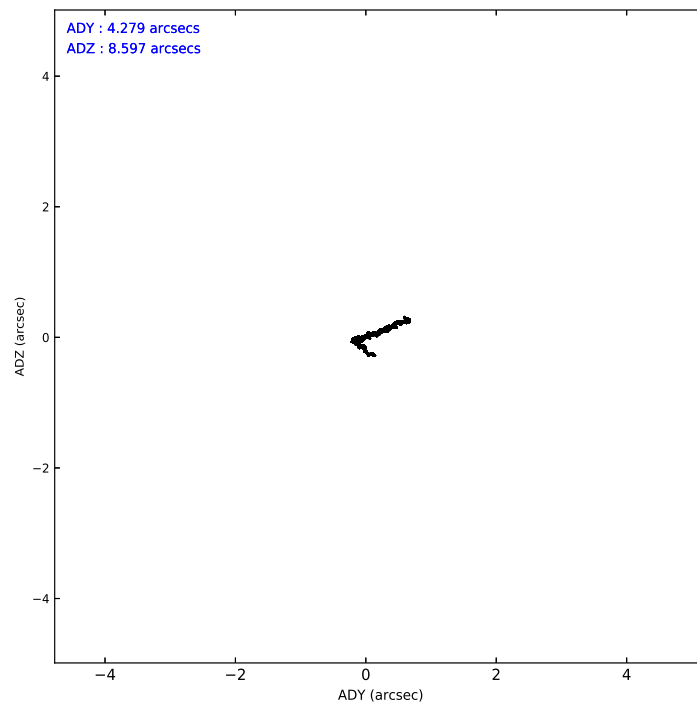
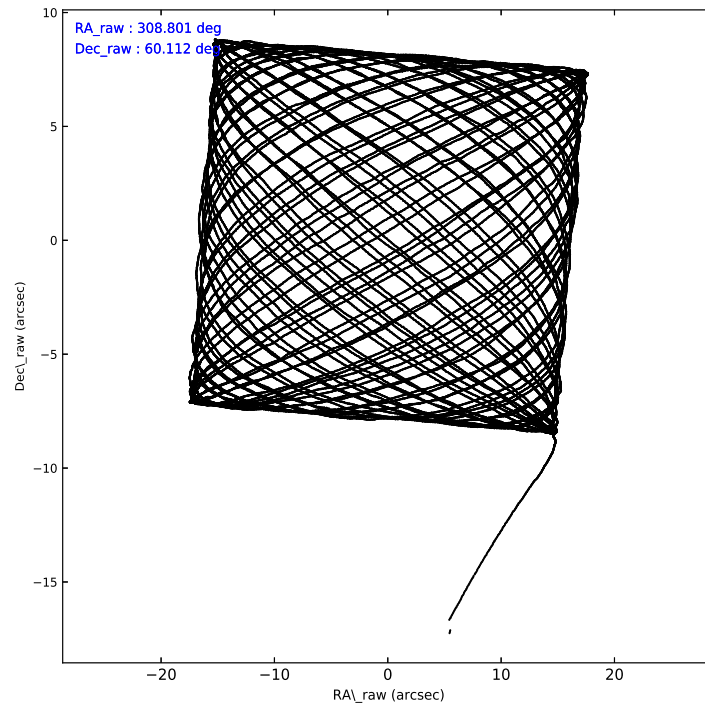
### 2.1.4 Events

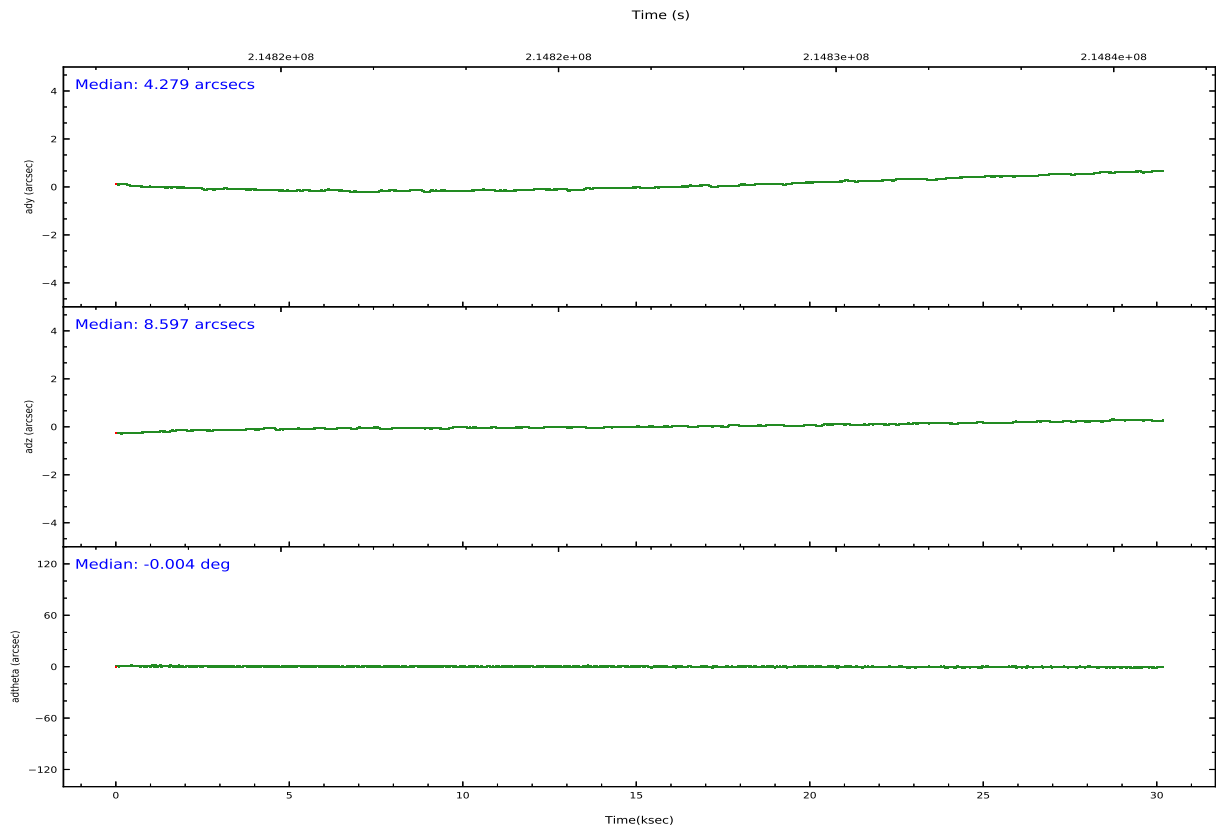
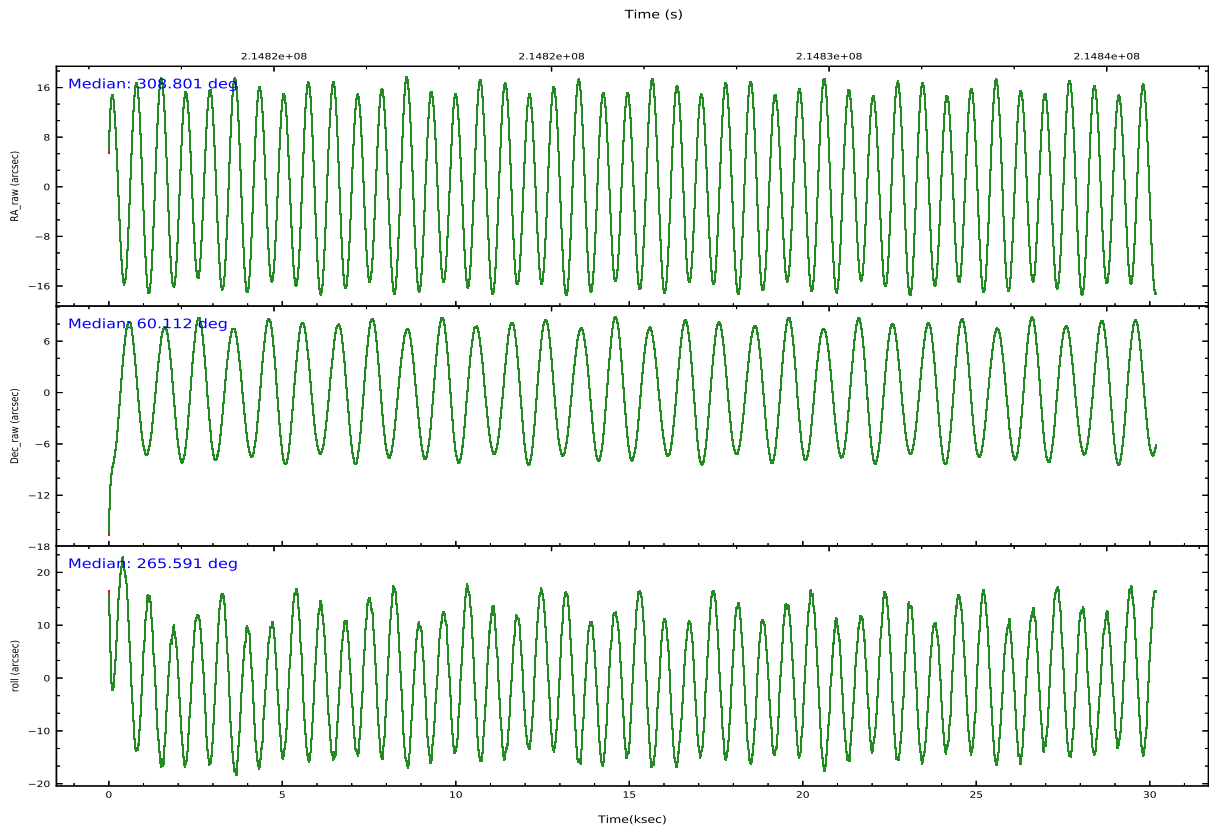
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	249347	237551	376106	245506	333853	304693	grade 0 events	12543	13928	29106	11407	14773	20278
rejected events	220729	207457	197118	216719	190122	240530		5%	5%	7%	4%	4%	6%
rejected %	88%	87%	52%	88%	56%	78%	grade 1 events	162	155	667	109	351	220
								0%	0%	0%	0%	0%	0%
							grade 2 events	5886	5568	50301	6042	29327	14070
								2%	2%	13%	2%	8%	4%
							grade 3 events	2694	2783	6040	2731	12885	6679
								1%	1%	1%	1%	3%	2%
							grade 4 events	2793	2879	6045	2727	12843	6296
								1%	1%	1%	1%	3%	2%
							grade 5 events	9569	10734	26199	11207	30854	14190
								3%	4%	6%	4%	9%	4%
							grade 6 events	4710	4945	87529	5887	73946	16844
								1%	2%	23%	2%	22%	5%
							grade 7 events	210990	196559	170219	205396	158874	226116
								84%	82%	45%	83%	47%	74%

## 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	308.776691	308.79619356296	Subarray requested	NONE	NONE
[deg] Pointing Dec	60.136588	60.113681570127	Alternating exposures requested	N	N
[deg] Pointing Roll	265.458743	265.59125546583	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	265.000000	265.000000			
[deg] Roll tolerance	5.000000	5.000000			
Roll constraint allows 180D rotation	N	N			
[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)	214811425.184000	214810380.13729			
Observation start date	2004-10-22T05:49:21	2004-10-22T05:33:00			
[s] Observation end time (MET)	214841425.184000	214843227.80127			
Observation end date	2004-10-22T14:09:21	2004-10-22T14:40:27			
Read mode	TIMED	TIMED			

## 2.3 Aspect



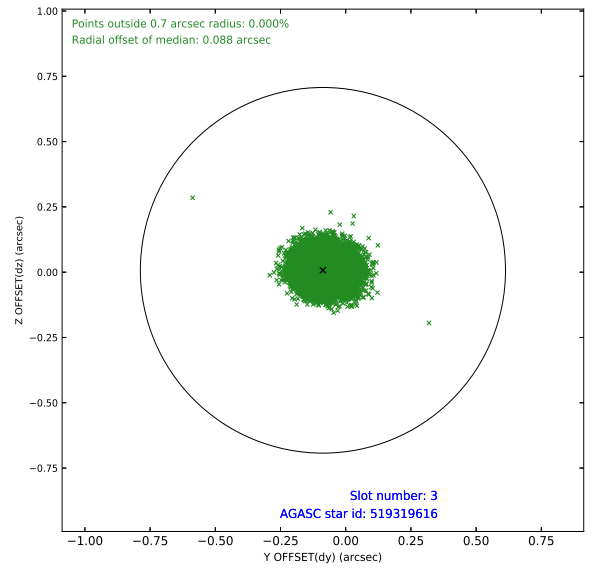
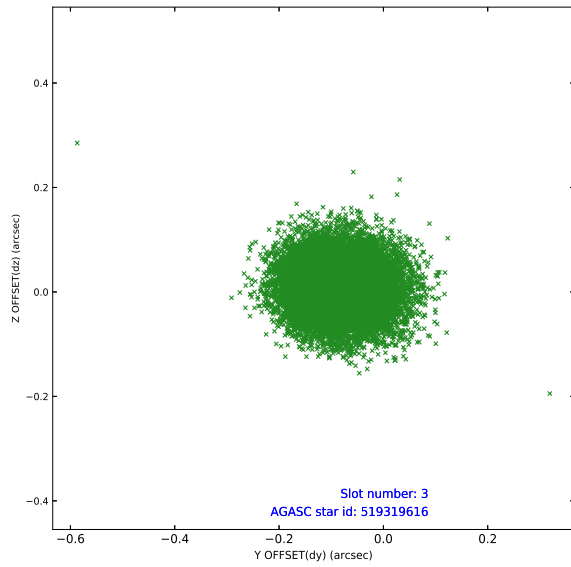


### Slot Statistics

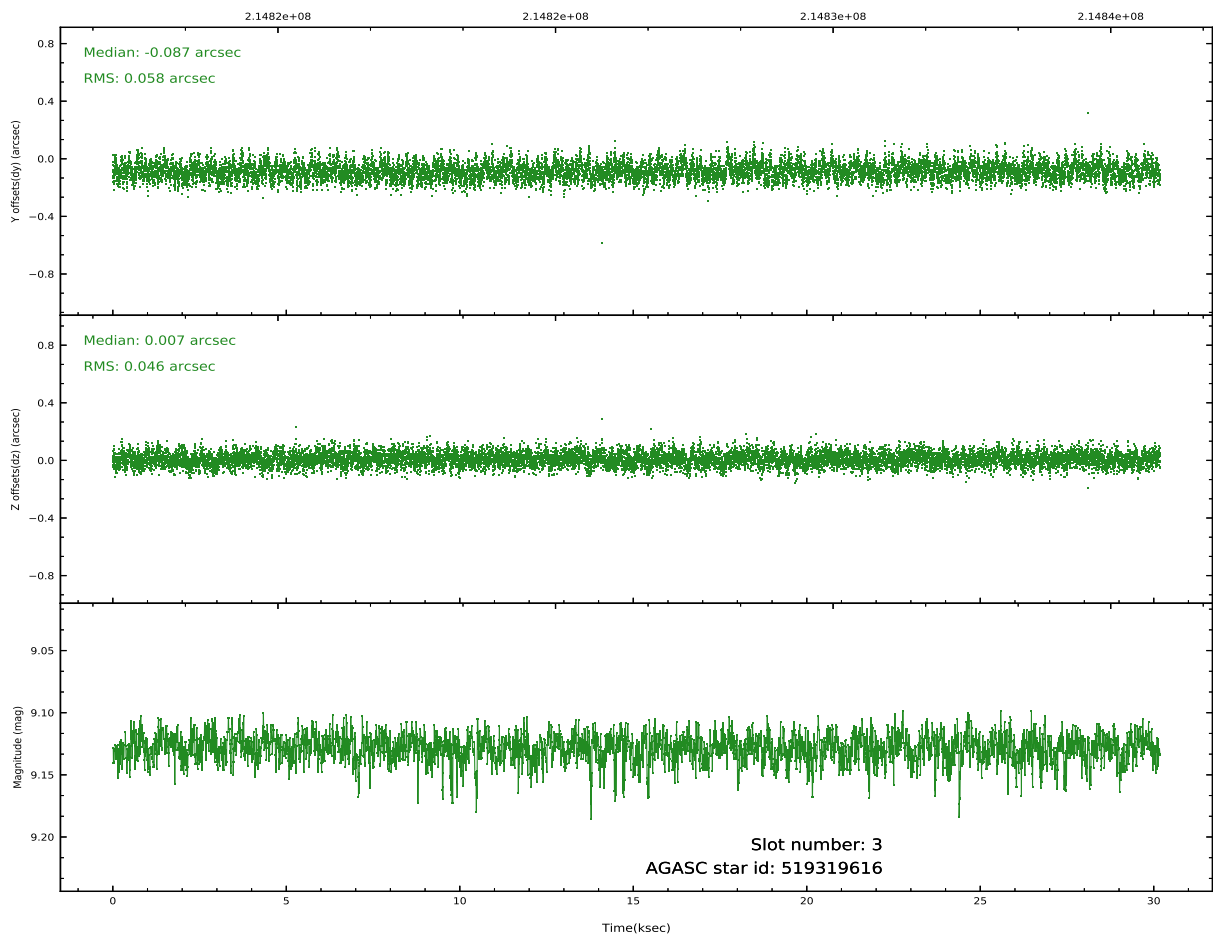
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.11	7362	1.000	-0.068	-0.087	0.008	0.013	0.000000	0.000000	-757.11	-1729
1	FID		ACIS-S-4	7.20	7363	1.000	0.168	0.056	0.008	0.015	0.000000	0.000000	2156.35	178
2	FID		ACIS-S-5	7.23	7361	1.000	-0.131	0.040	0.007	0.012	0.000000	0.000000	-1809.94	172
3	GUIDE	used	519319616	9.13	14701	1.000	-0.087	0.007	0.078	0.127	308.290973	59.595846	2007.65	-727
4	GUIDE	used	554839376	7.41	14719	1.000	-0.117	-0.077	0.075	0.118	308.018563	60.422364	-925.80	-1425
5	GUIDE	used	556537192	9.20	14715	1.000	-0.043	0.020	0.086	0.139	309.975880	60.344309	-934.07	2068
6	GUIDE	used	519320296	9.08	14715	1.000	0.194	0.011	0.108	0.171	308.366901	59.489372	2380.11	-561
7	GUIDE	used	519309304	8.67	14682	1.000	0.056	0.040	0.074	0.124	309.978425	59.702936	1364.00	2297

## 2.4 Star Slots

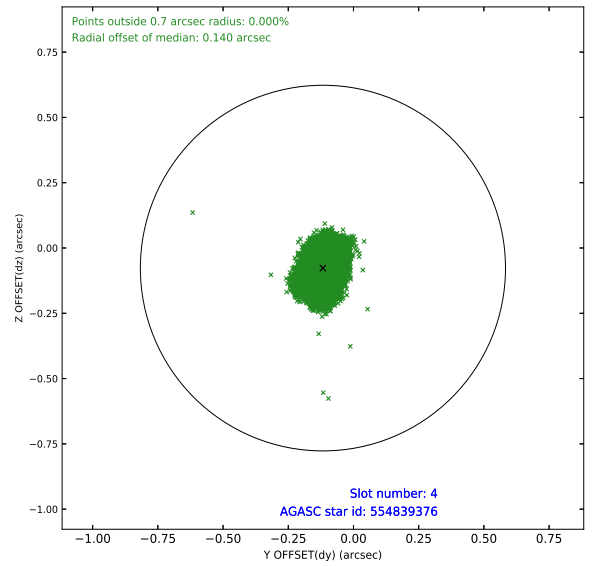
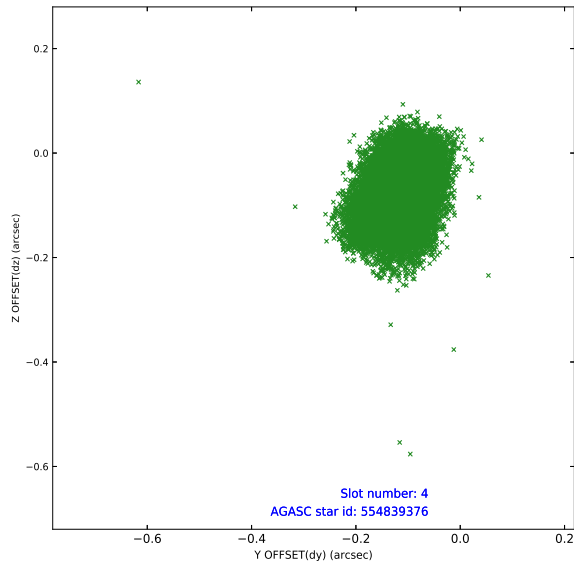
### 2.4.1 Slot 3



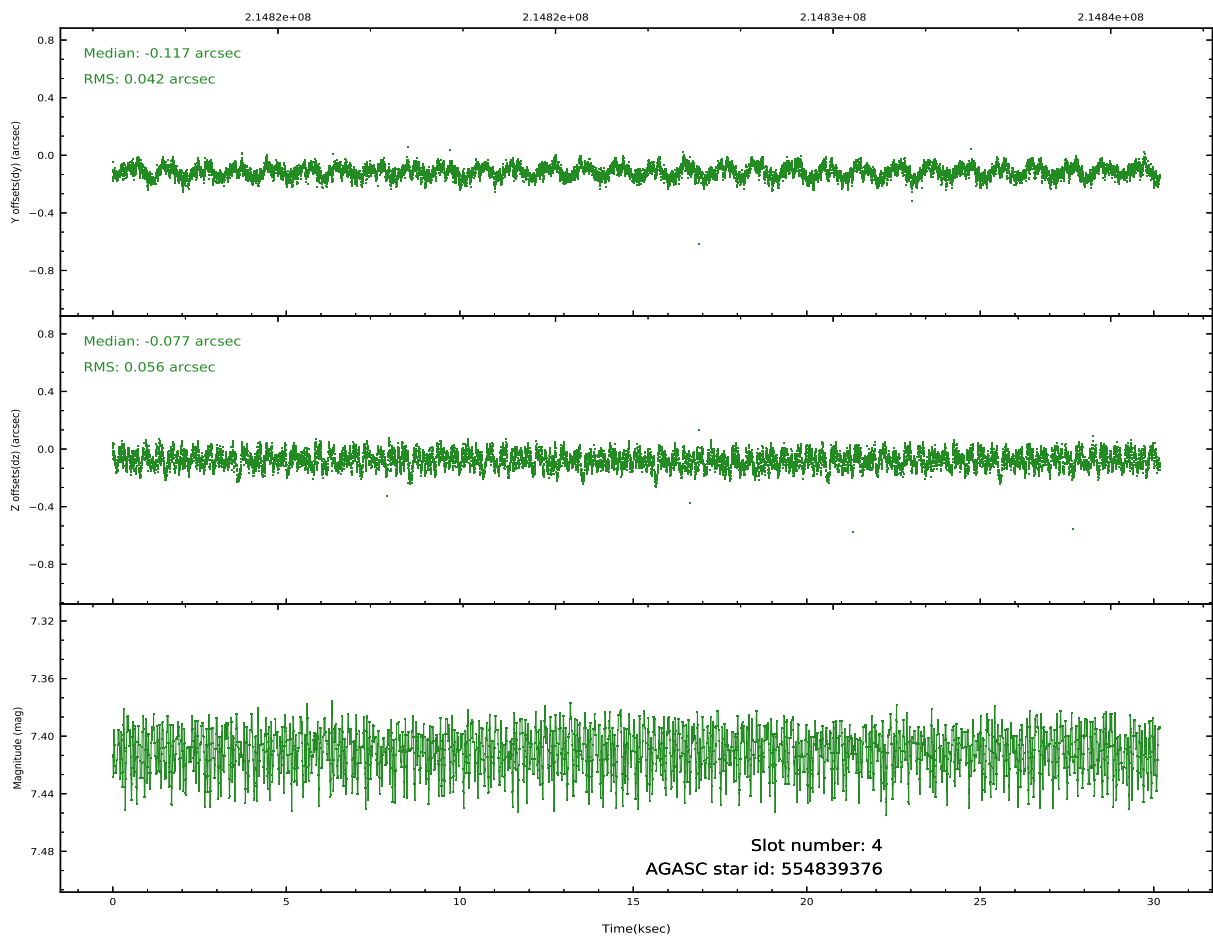
Time (s)



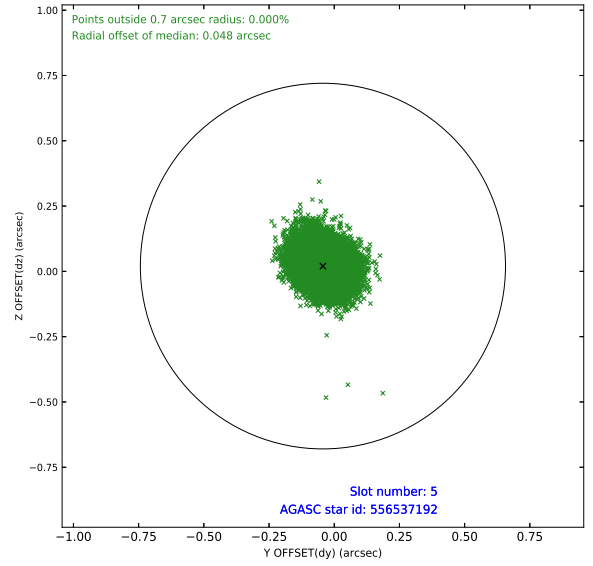
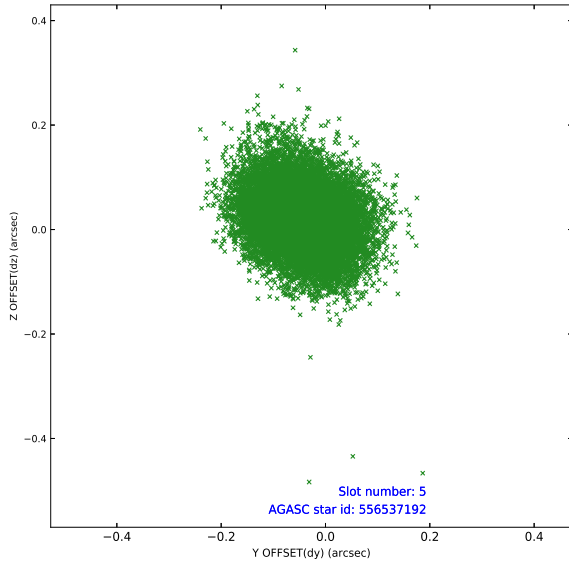
## 2.4.2 Slot 4



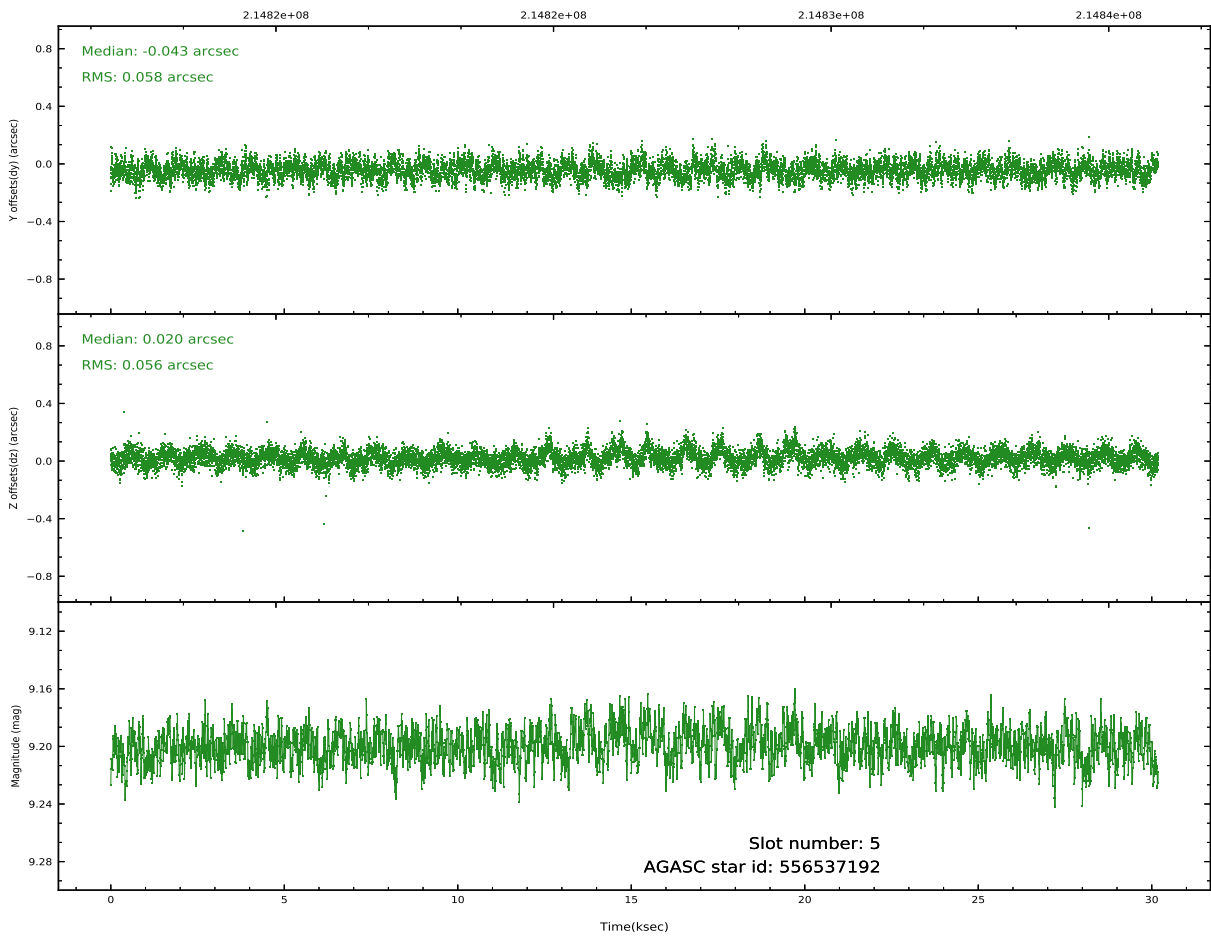
Time (s)



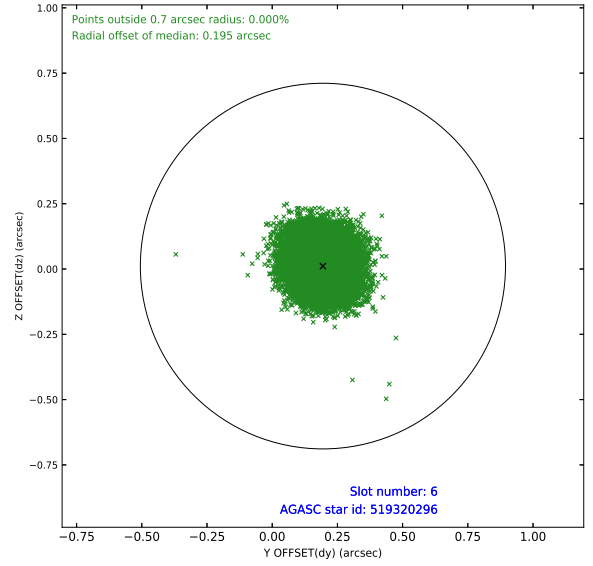
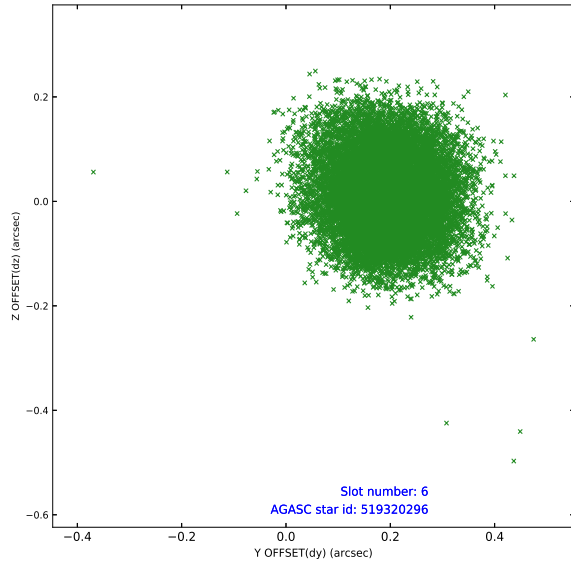
### 2.4.3 Slot 5



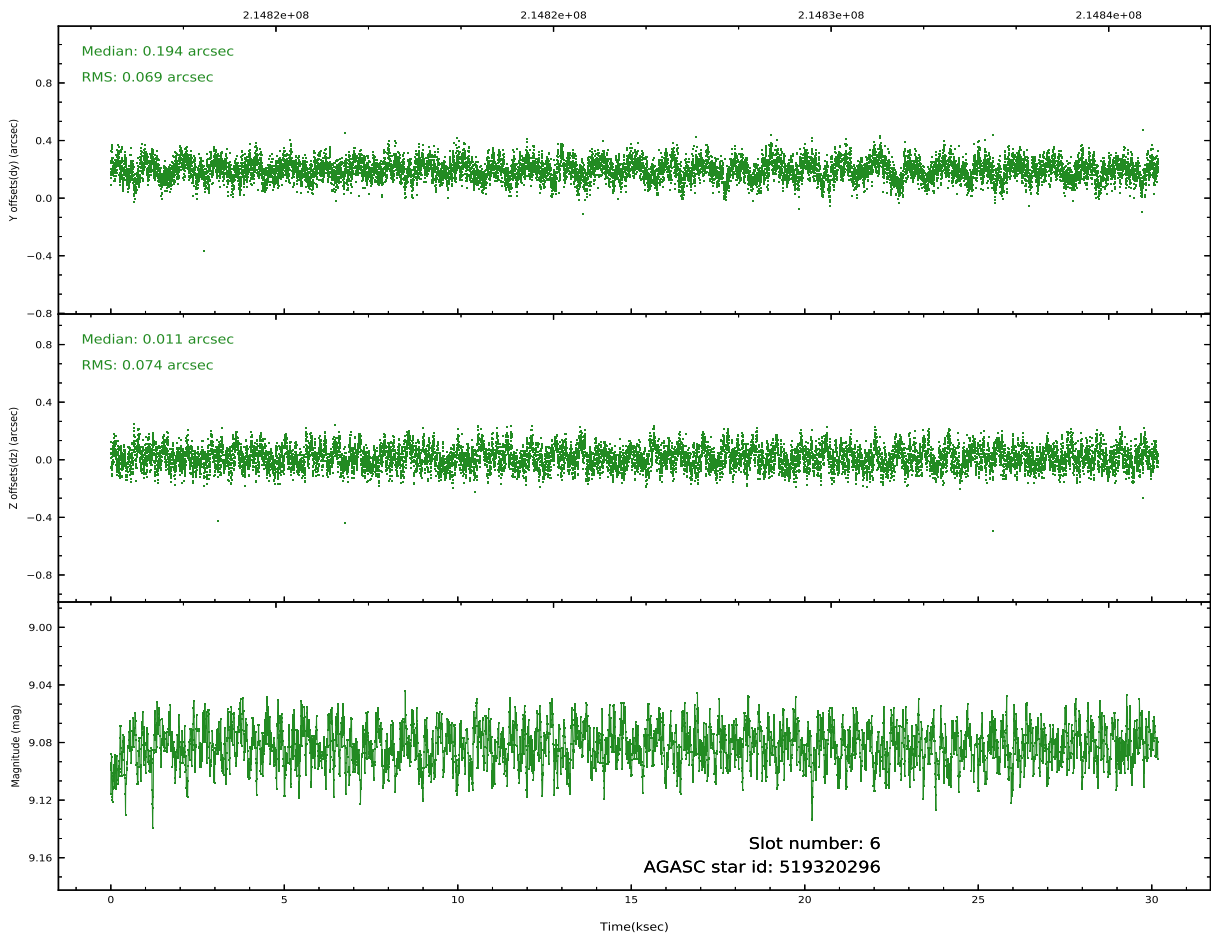
Time (s)



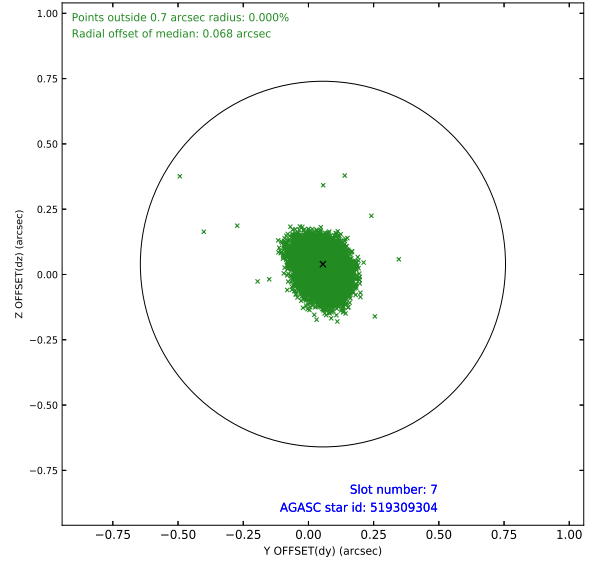
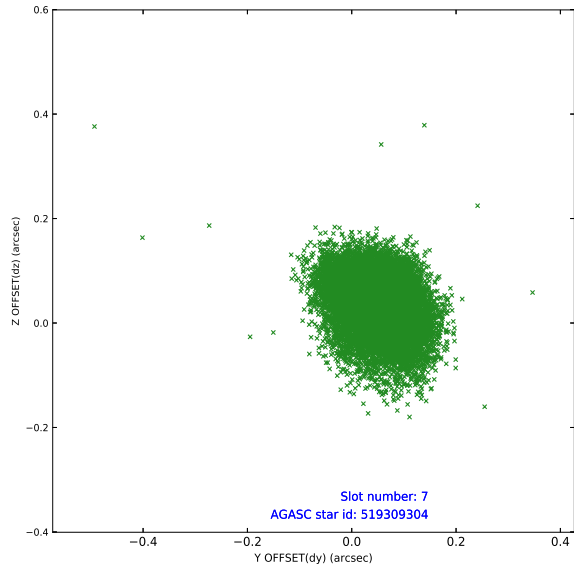
## 2.4.4 Slot 6



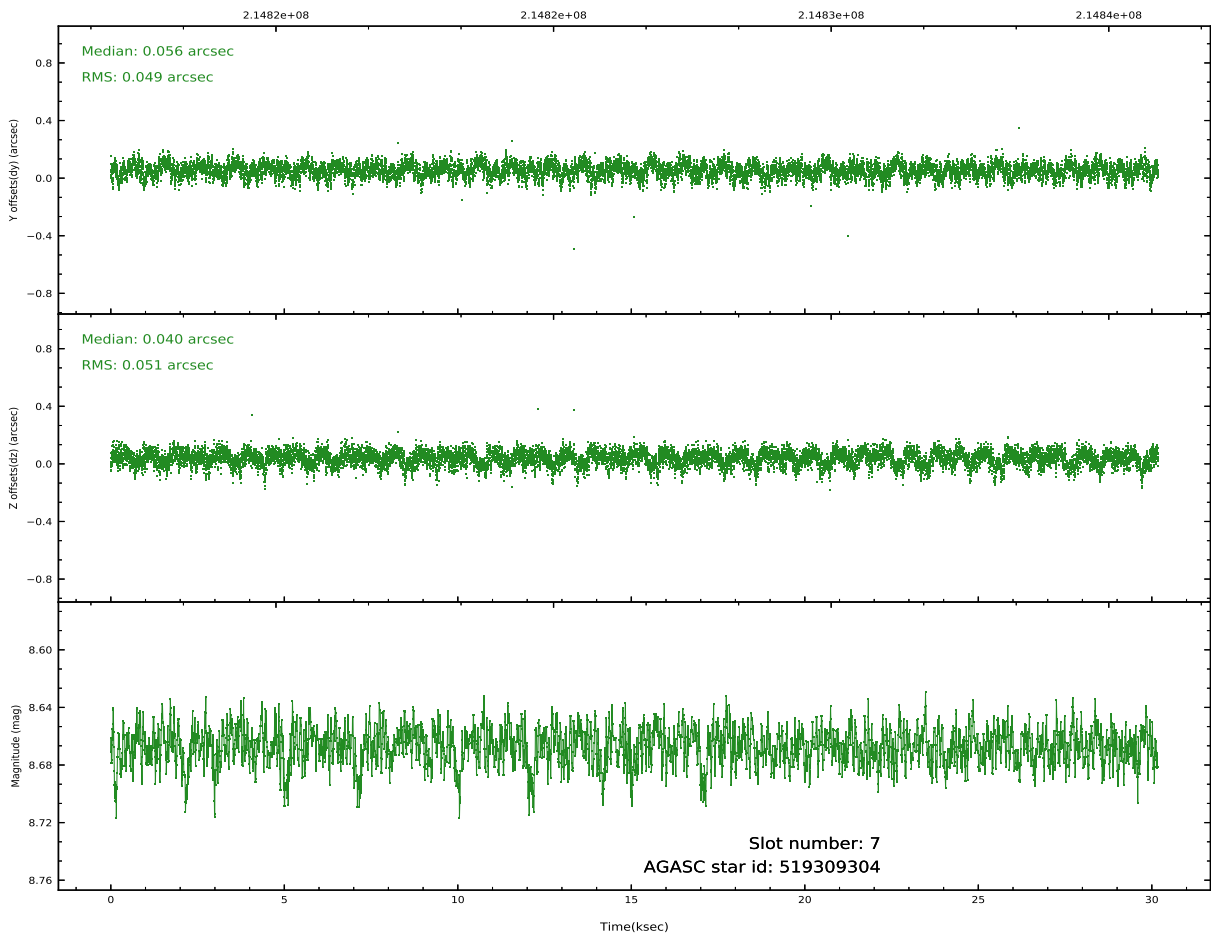
Time (s)



## 2.4.5 Slot 7

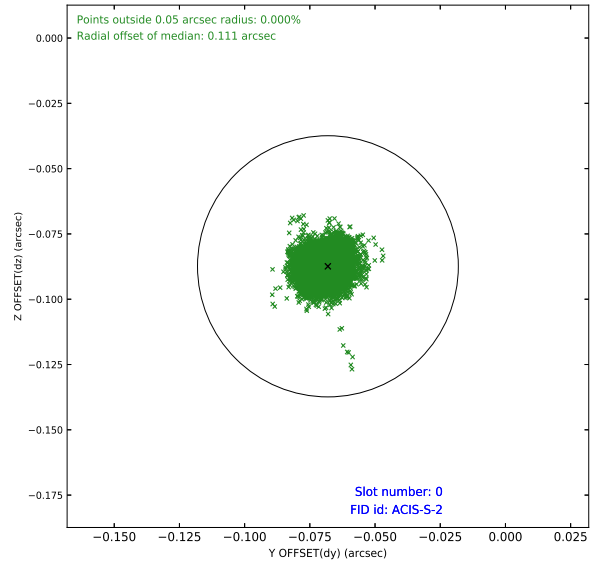
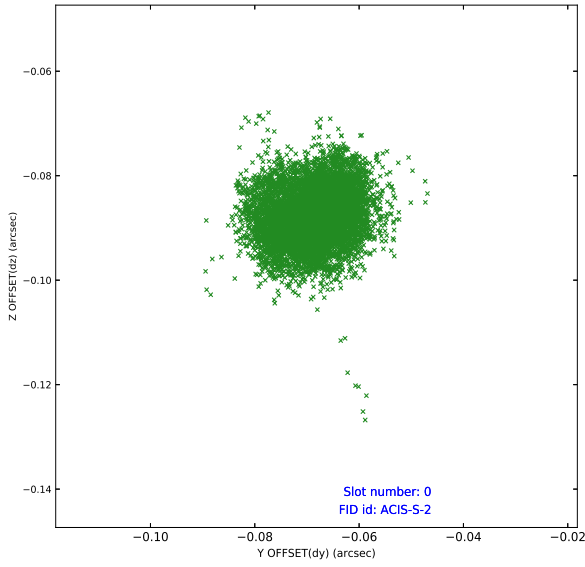


Time (s)

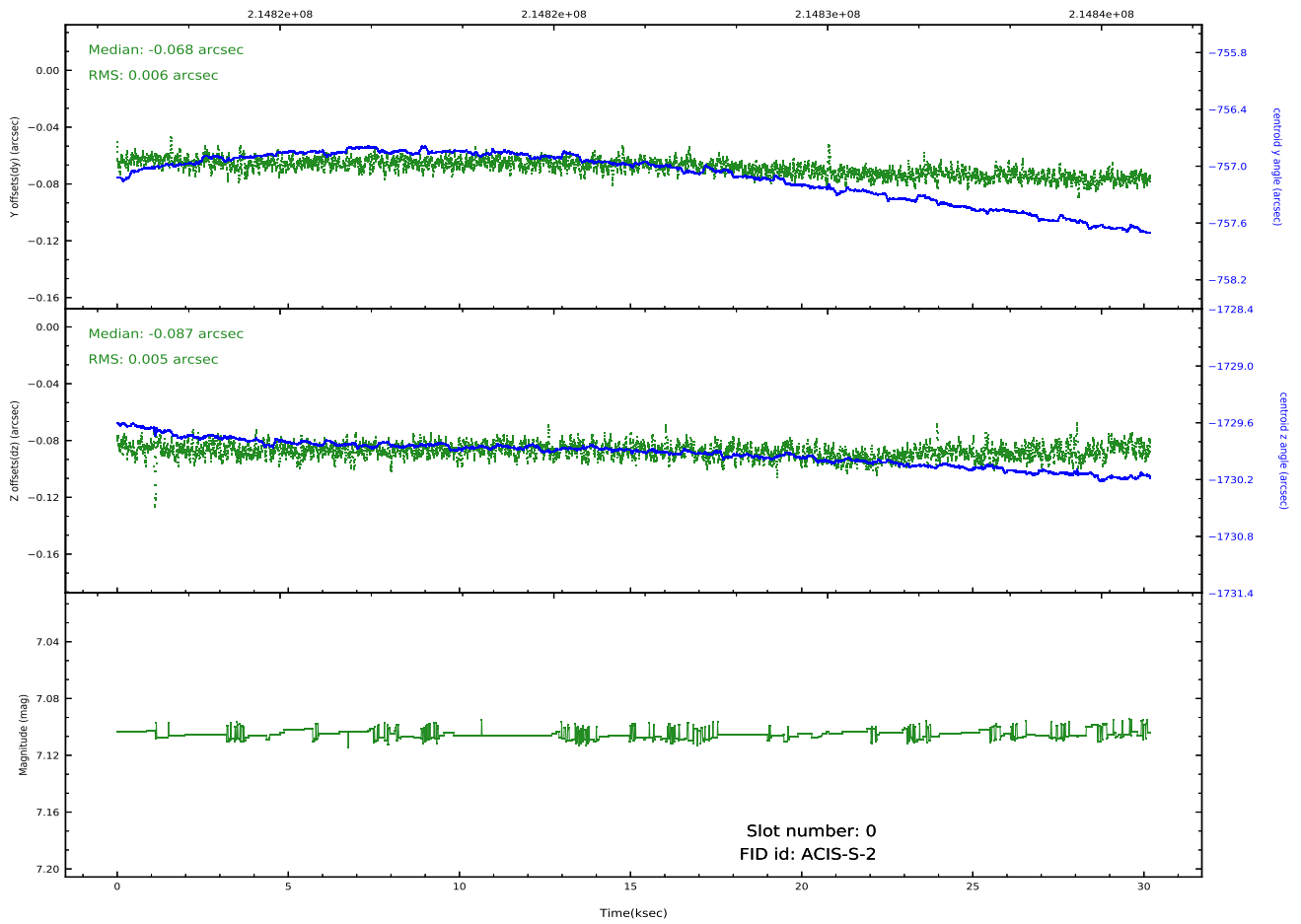


## 2.5 FID Slots

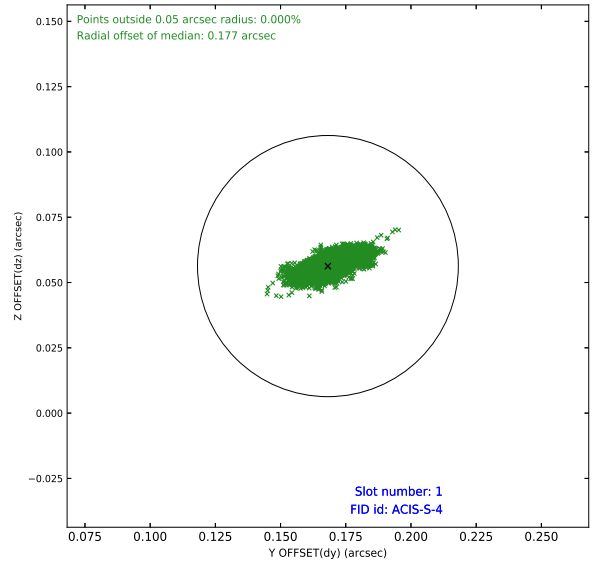
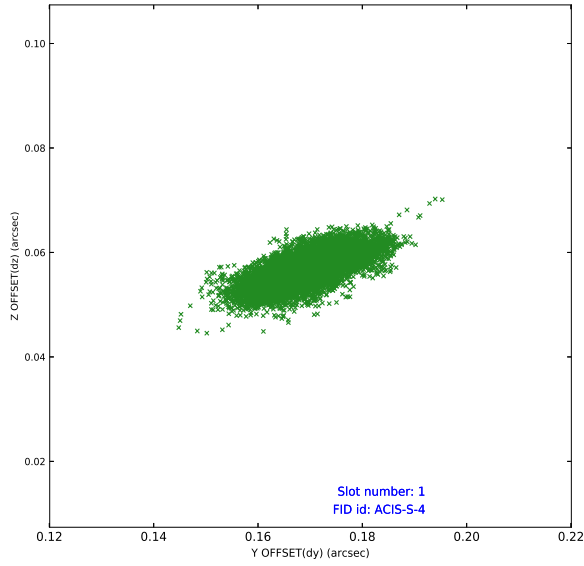
### 2.5.1 Slot 0



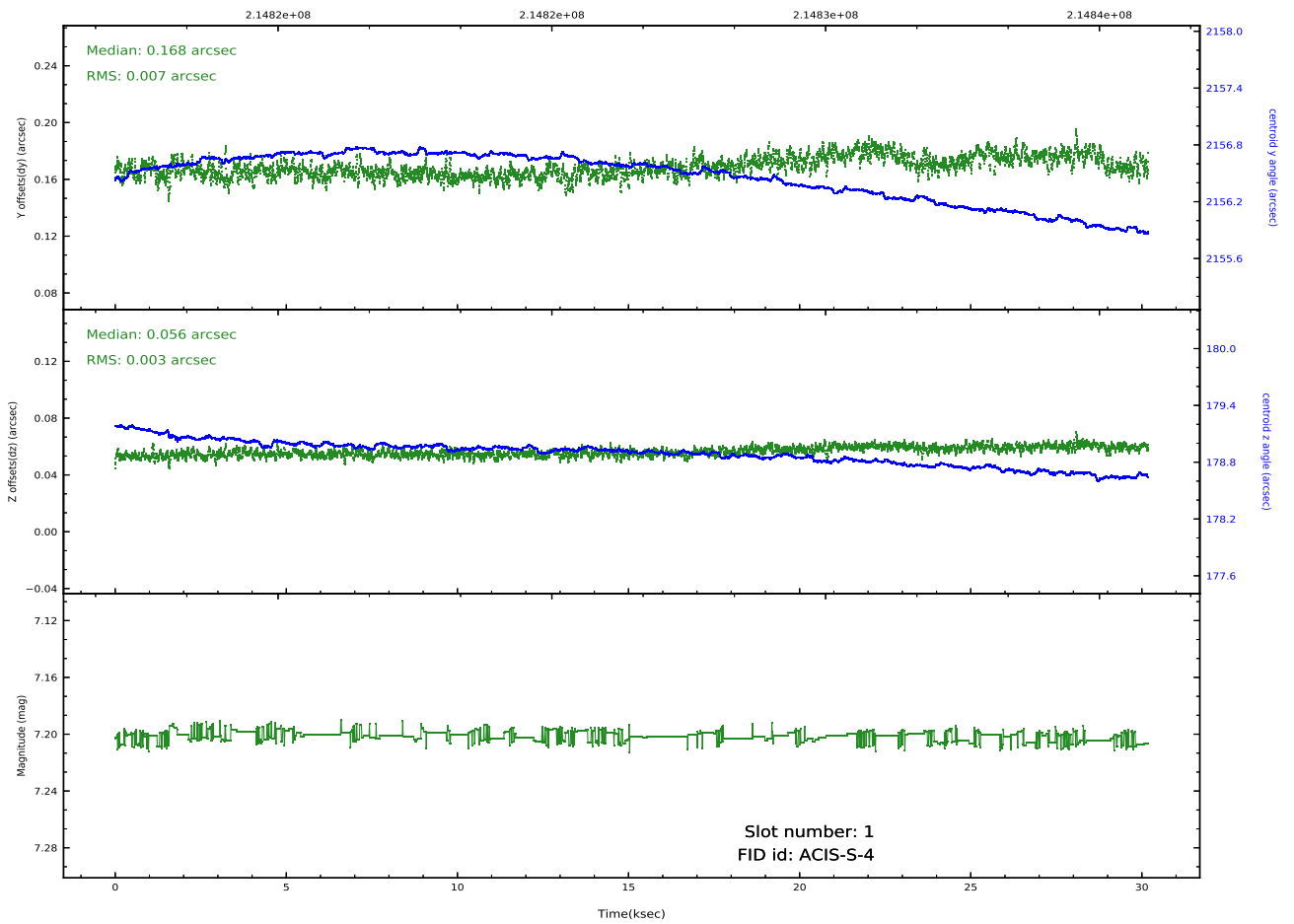
Time (s)



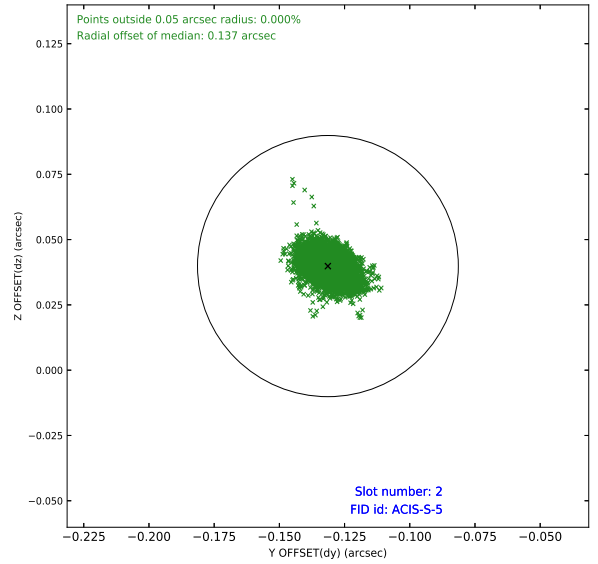
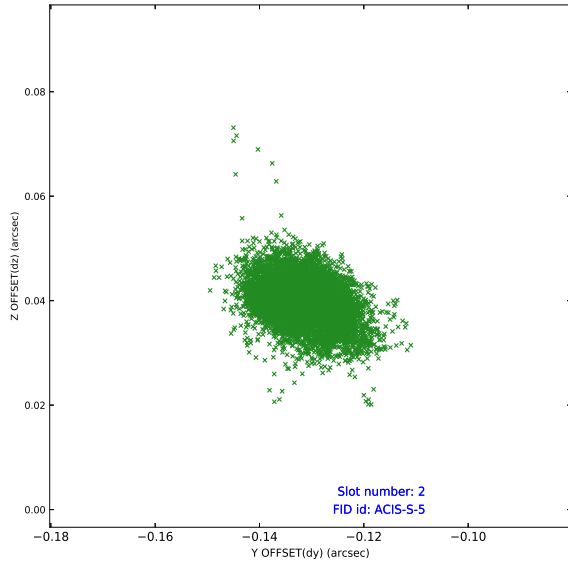
## 2.5.2 Slot 1



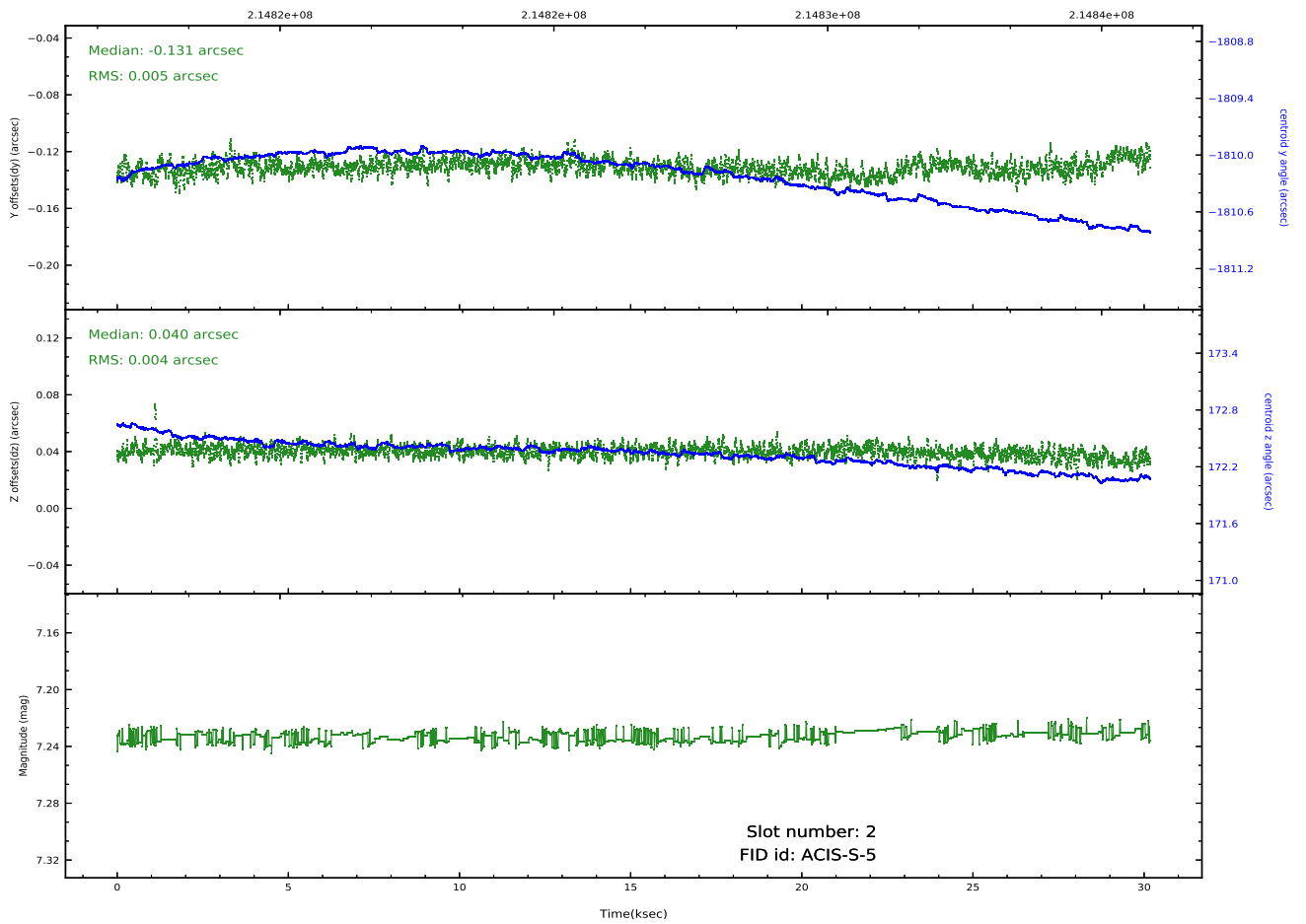
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.121

## A.2 Comments

Roll constraint met.