

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6856 - L2 Version 3  
Chandra X-Ray Center

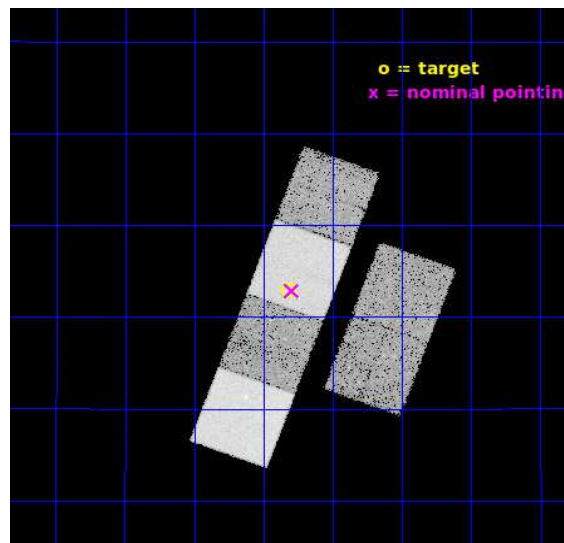
L2 Processing Date : Oct 12 2020

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# 1 Front

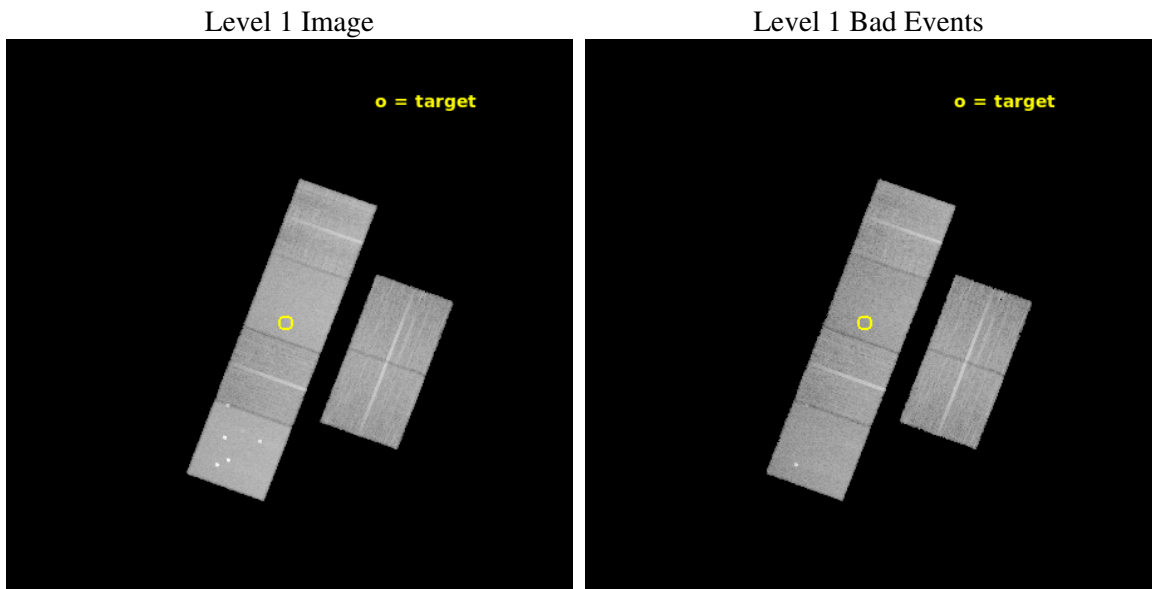
seq_num	701274	Sequence number
obs_id	6856	Observation id
title	Chandra observations of (U)LIRGs with double nuclei: search for binary AGN and X-ray luminous starbursts	Proposal title
observer	Dr. Stefanie Komossa	Principal investigator
object	IRAS03359+1523	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	54.703333	Observer's specified target RA [deg]
dec_targ	15.548889	Observer's specified target Dec [deg]
ra_nom	54.698636923432	Nominal RA [deg]
dec_nom	15.548030344795	Nominal Dec [deg]
roll_nom	290.23300708527	Nominal Roll [deg]
revision	3	Processing version of data
ontime	14953.599944293	Sum of GTIs [s]
livetime	14764.248457822	Livetime [s]
ontime2	14950.358954012	Sum of GTIs [s]
ontime3	14953.599944293	Sum of GTIs [s]
ontime5	14953.599944293	Sum of GTIs [s]
ontime6	14953.599944293	Sum of GTIs [s]
ontime7	14953.599944293	Sum of GTIs [s]
ontime8	14953.599944293	Sum of GTIs [s]
l2events	193855	Number of level 2 events



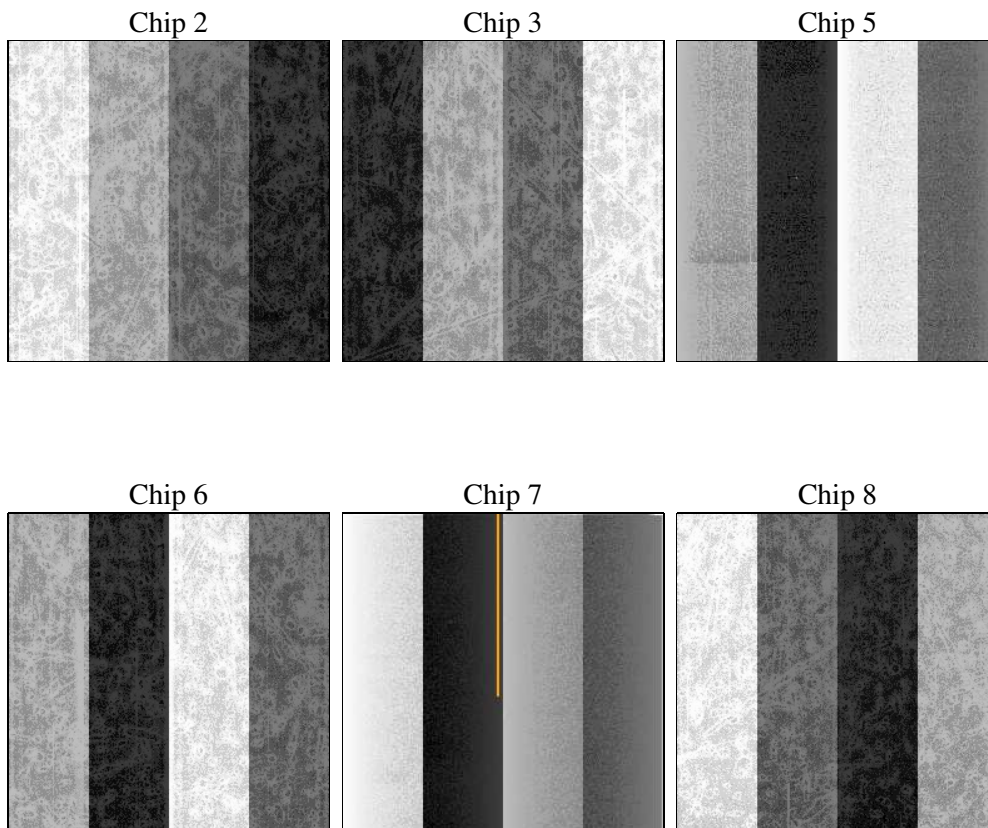
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	14953.599944293	Sum of GTIs [s]
caldsver	4.9.2	&#160	ontime2	14950.358954012	Sum of GTIs [s]
date	2020-10-12T05:39:36	Date and time of file creation	ontime3	14953.599944293	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	14953.599944293	Sum of GTIs [s]
			ontime6	14953.599944293	Sum of GTIs [s]
			ontime7	14953.599944293	Sum of GTIs [s]
			ontime8	14953.599944293	Sum of GTIs [s]
			l1events	875309	Number of level 1 events

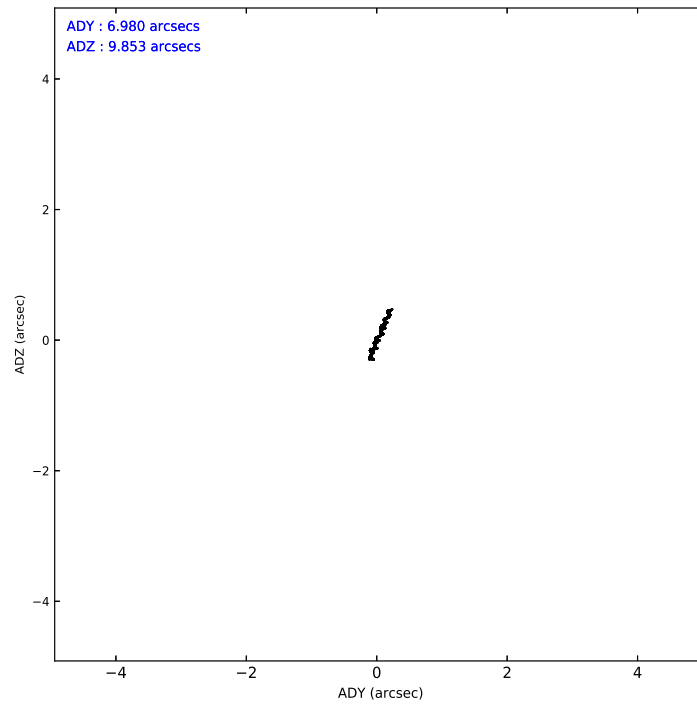
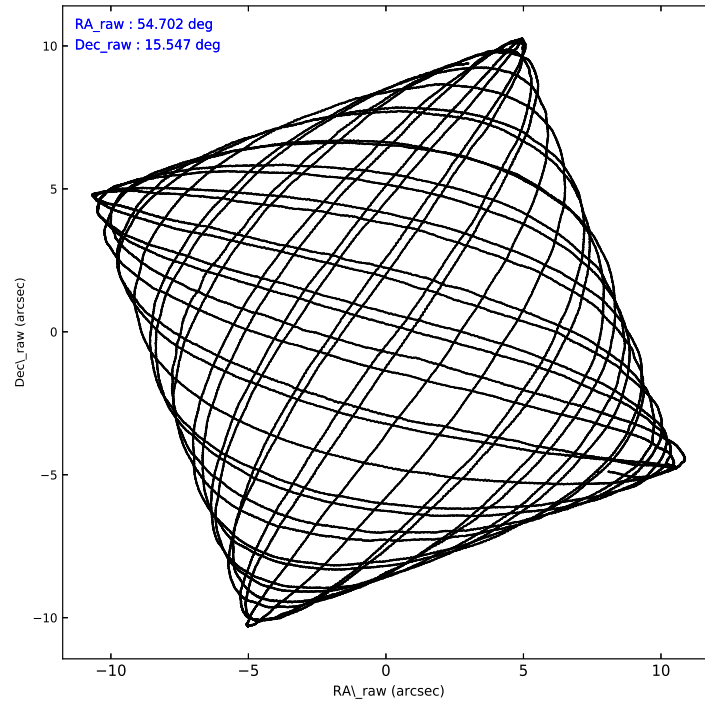
### 2.1.4 Events

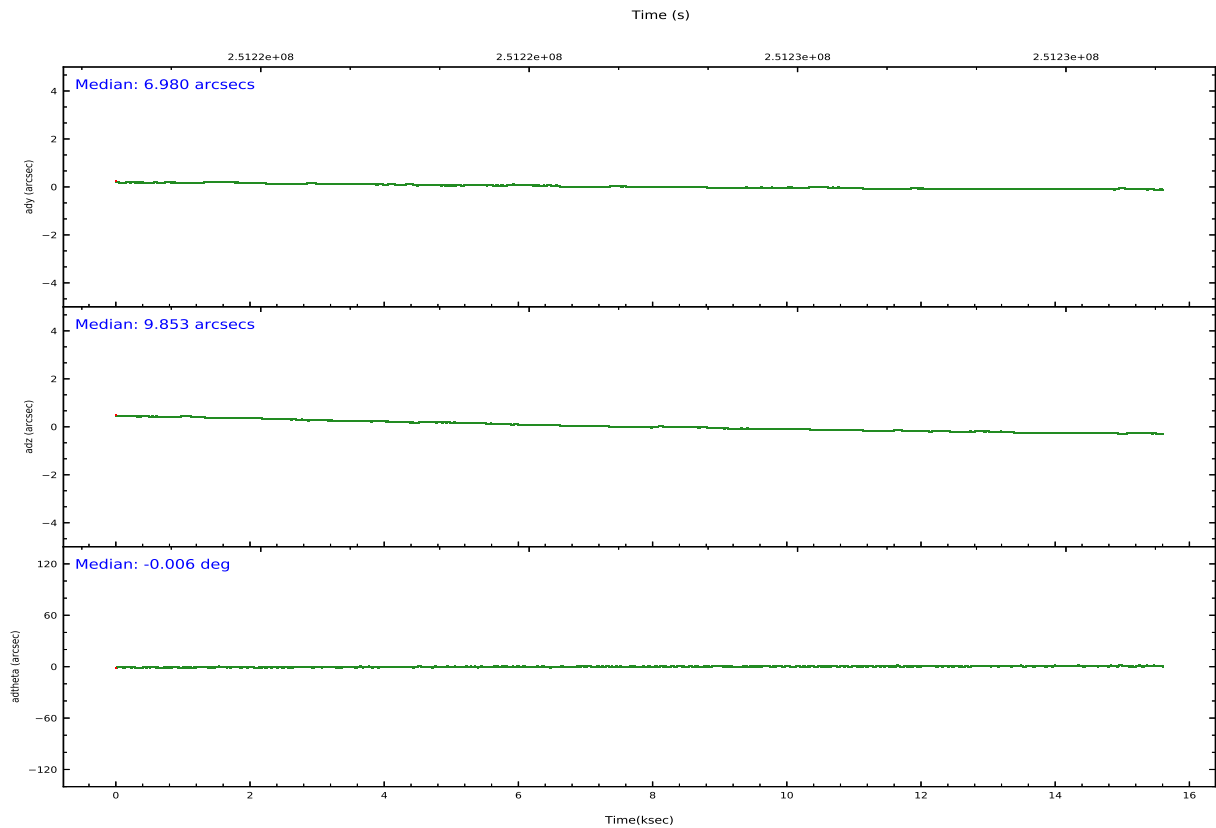
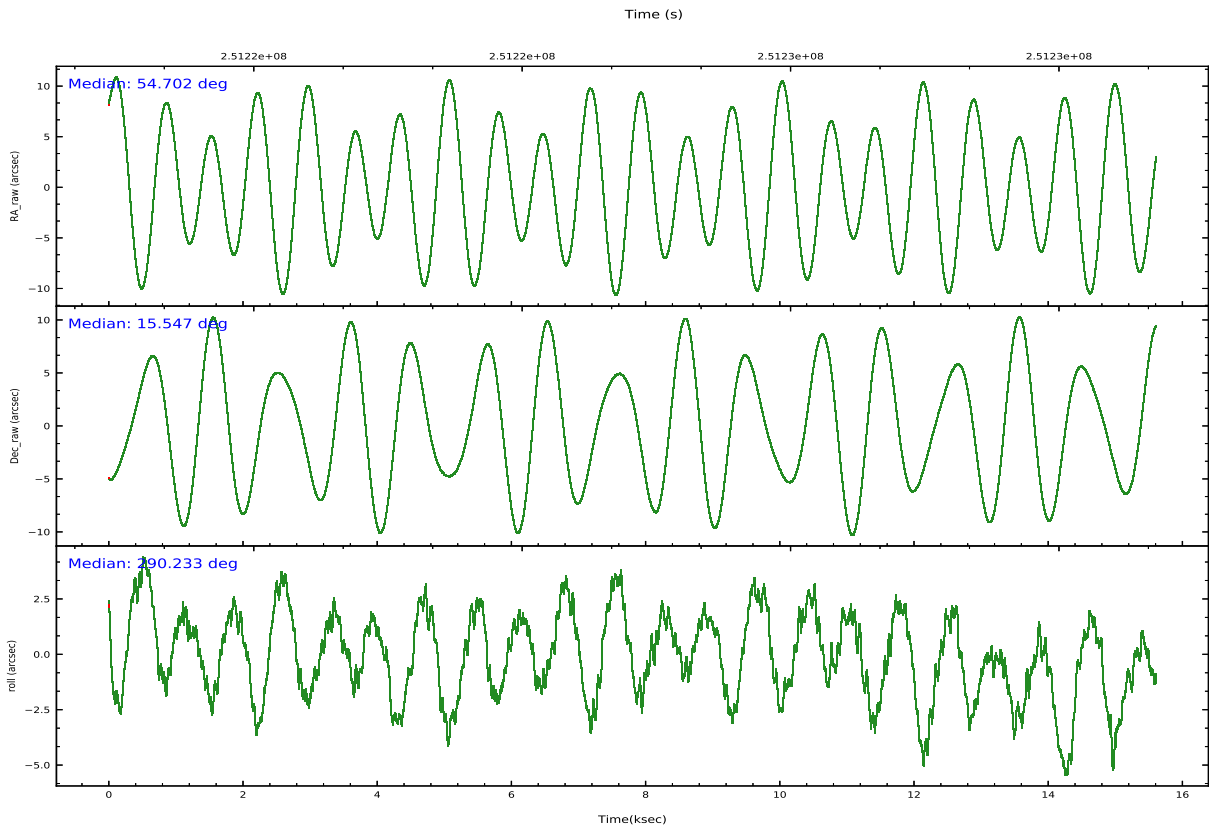
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	124751	117683	192976	120445	164232	155222	grade 0 events	6327	6088	15322	5663	5886	10443
rejected events	110637	103684	101281	106008	96752	121824		5%	5%	7%	4%	3%	6%
rejected %	88%	88%	52%	88%	58%	78%	grade 1 events	71	81	345	77	167	94
								0%	0%	0%	0%	0%	0%
							grade 2 events	2921	2676	25693	3120	13584	7521
								2%	2%	13%	2%	8%	4%
							grade 3 events	1269	1386	3404	1414	5944	3558
								1%	1%	1%	1%	3%	2%
							grade 4 events	1353	1340	2946	1360	5762	3229
								1%	1%	1%	1%	3%	2%
							grade 5 events	4698	5398	13703	5737	15705	7500
								3%	4%	7%	4%	9%	4%
							grade 6 events	2257	2513	44364	2891	36334	8653
								1%	2%	22%	2%	22%	5%
							grade 7 events	105855	98201	87199	100183	80850	114224
								84%	83%	45%	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	54.680181	54.698636923432	Subarray requested	NONE	NONE
[deg] Pointing Dec	15.564278	15.548030344795	Alternating exposures requested	N	N
[deg] Pointing Roll	290.081018	290.23300708527	[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)	251218448.184000	251217277.35838			
Observation start date	2005-12-17T14:53:04	2005-12-17T14:34:37			
[s] Observation end time (MET)	251233448.184000	251234478.90918			
Observation end date	2005-12-17T19:03:04	2005-12-17T19:21:18			
Read mode	TIMED	TIMED			

## 2.3 Aspect





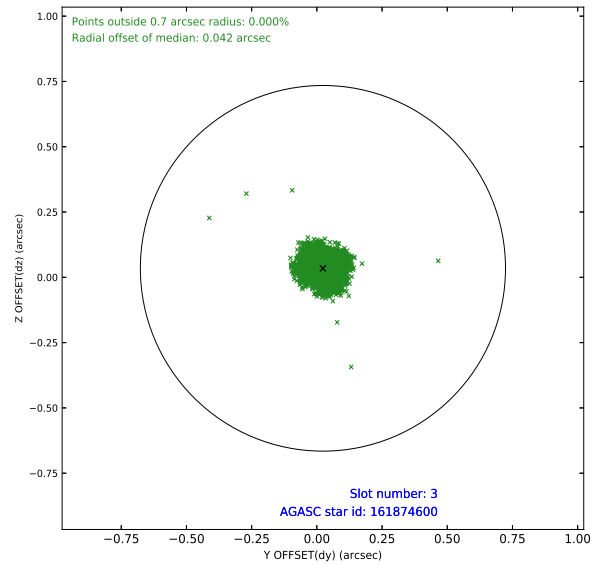
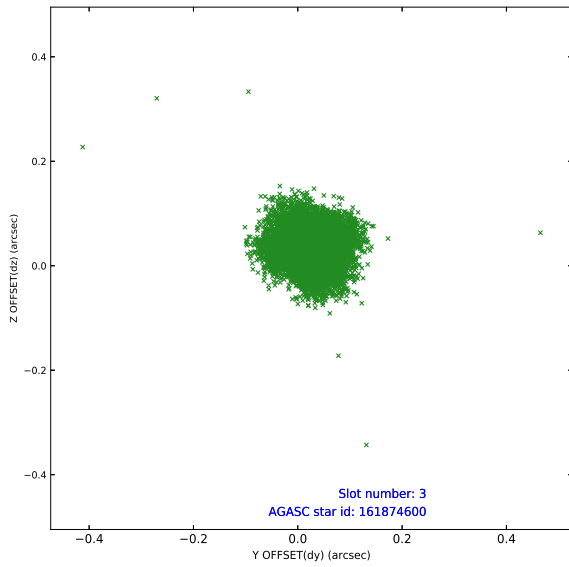
### Slot Statistics

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	3808	1.000	-0.091	-0.076	0.009	0.016	0.000000	0.000000	-759.78	-1731
1	FID		ACIS-S-4	7.21	3808	1.000	0.170	0.064	0.006	0.011	0.000000	0.000000	2153.56	177
2	FID		ACIS-S-5	7.24	3808	1.000	-0.110	0.021	0.008	0.013	0.000000	0.000000	-1812.34	171
3	GUIDE	used	161874600	7.12	7615	1.000	0.023	0.035	0.059	0.092	54.609888	15.149628	1318.58	-741
4	GUIDE	used	161875408	8.87	7613	1.000	0.202	-0.056	0.064	0.103	55.060083	15.190636	1715.91	778
5	GUIDE	used	161877120	8.73	7612	1.000	-0.178	0.093	0.081	0.133	55.001293	16.360197	-2311.20	2026
6	GUIDE	used	161880568	9.45	7611	1.000	-0.108	0.084	0.103	0.162	54.926982	16.178550	-1784.90	1561
7	GUIDE	used	161882088	6.81	7613	1.000	0.059	-0.158	0.069	0.108	54.449296	15.430556	176.80	-917

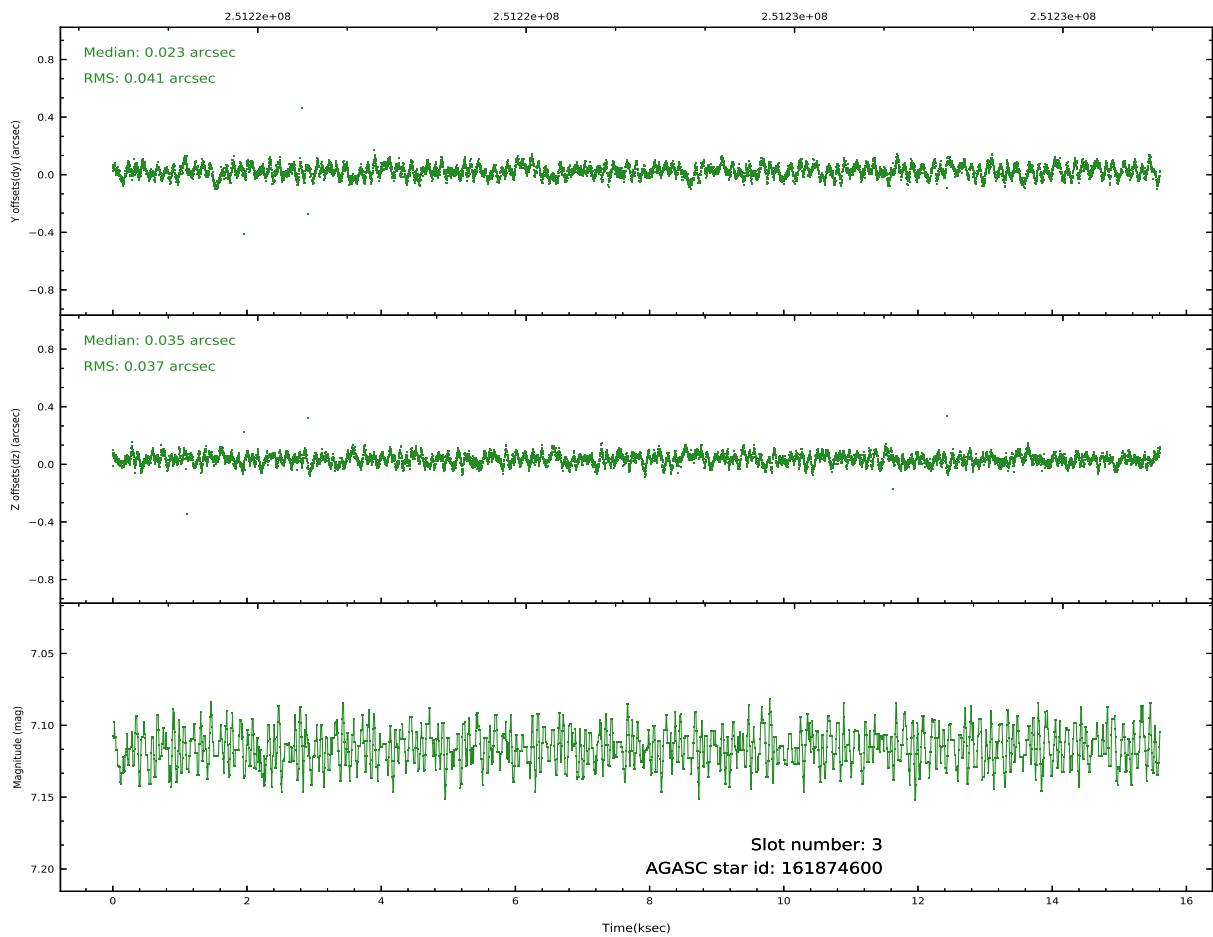
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## 2.4 Star Slots

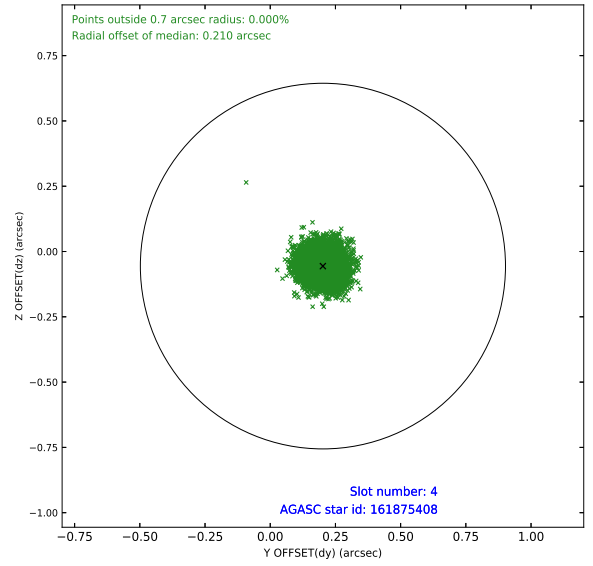
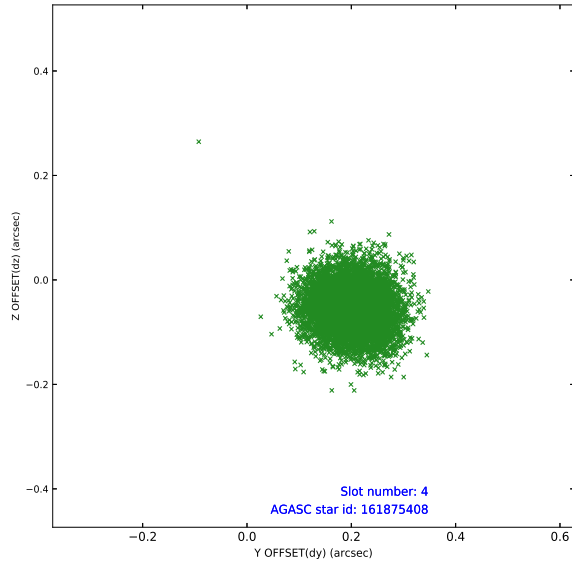
### 2.4.1 Slot 3



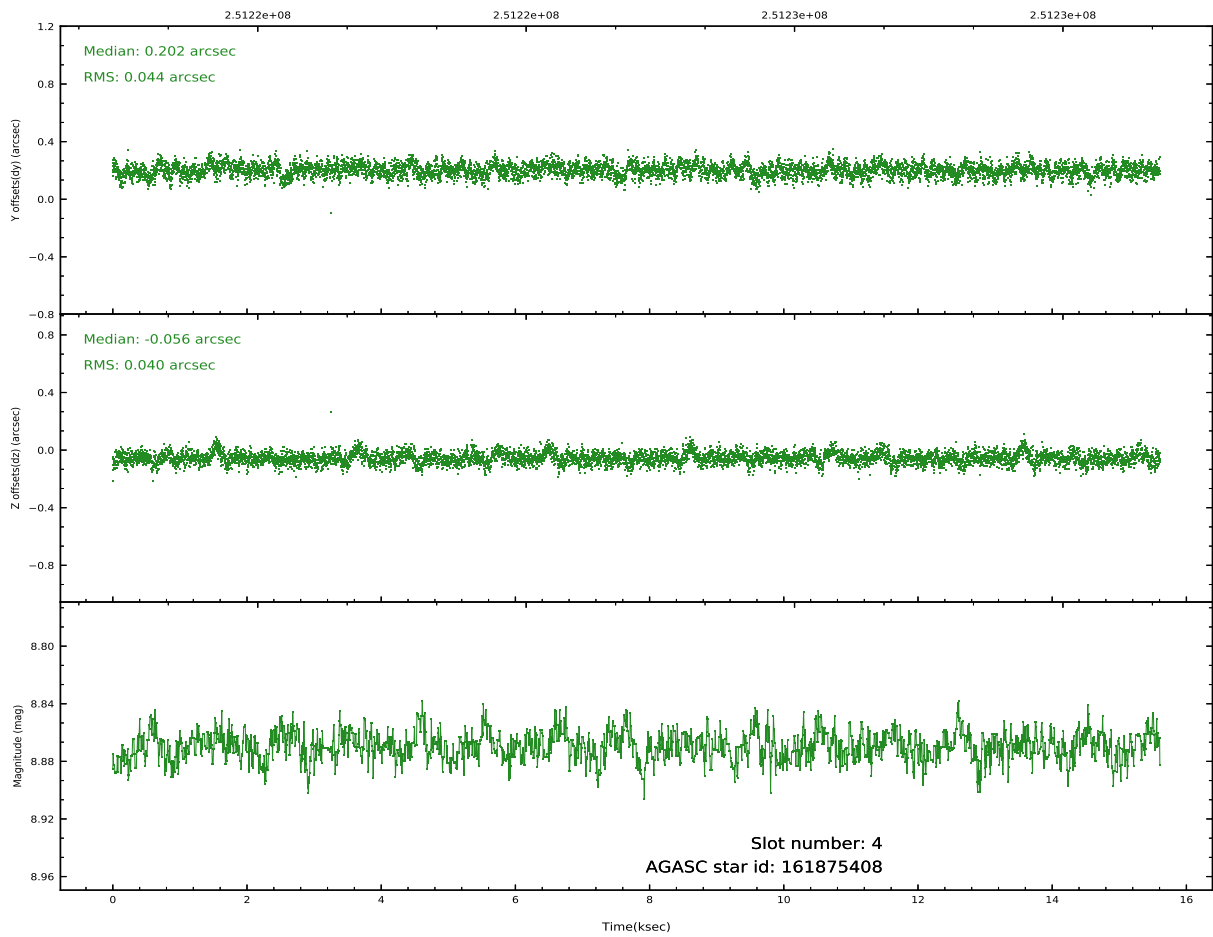
Time (s)



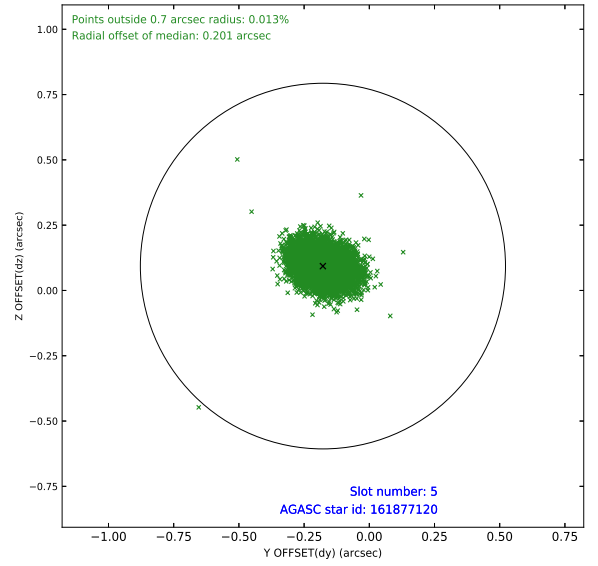
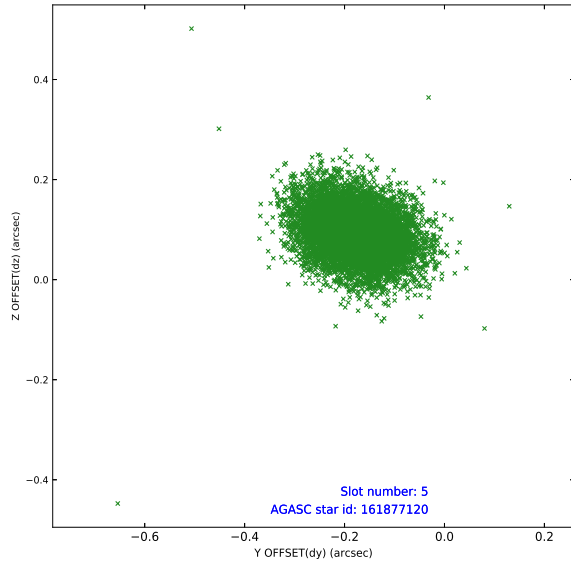
## 2.4.2 Slot 4



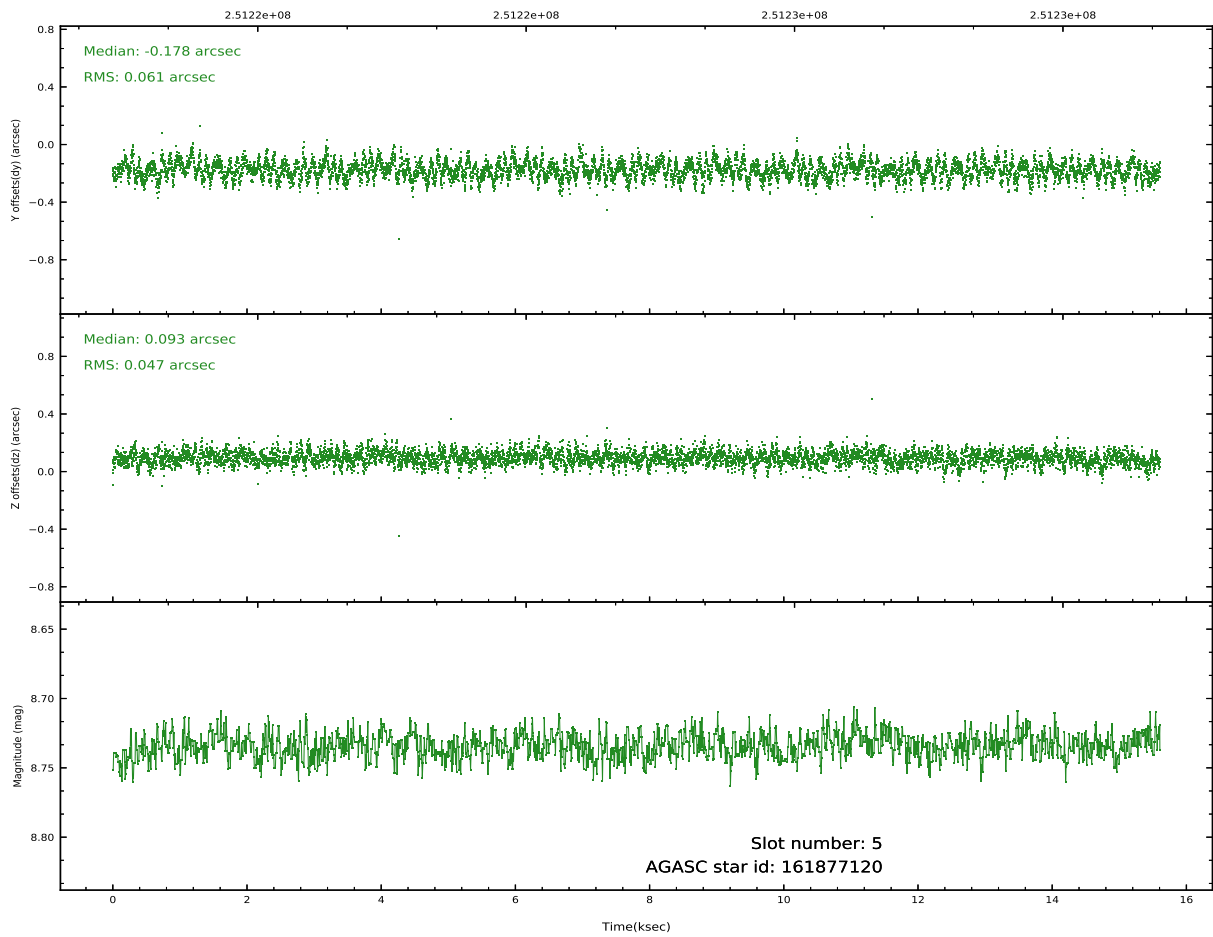
Time (s)



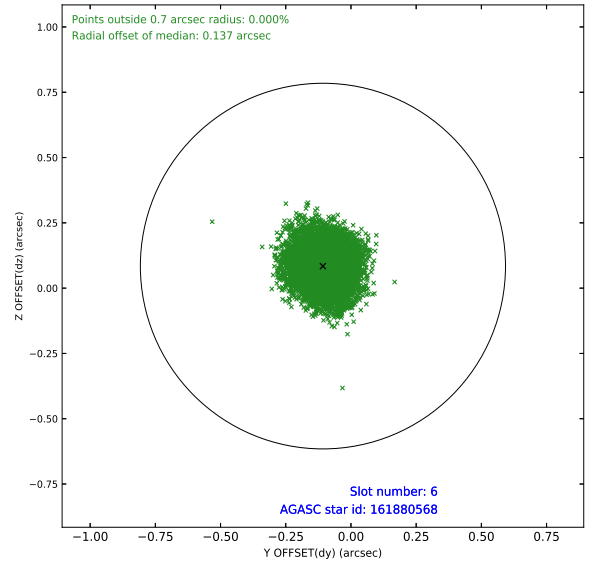
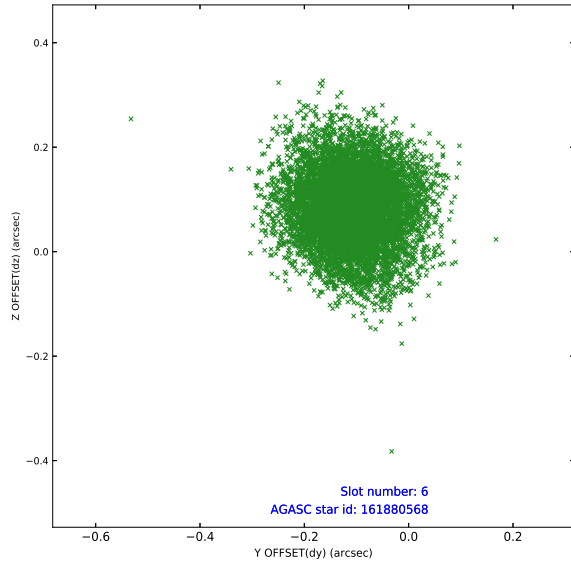
### 2.4.3 Slot 5



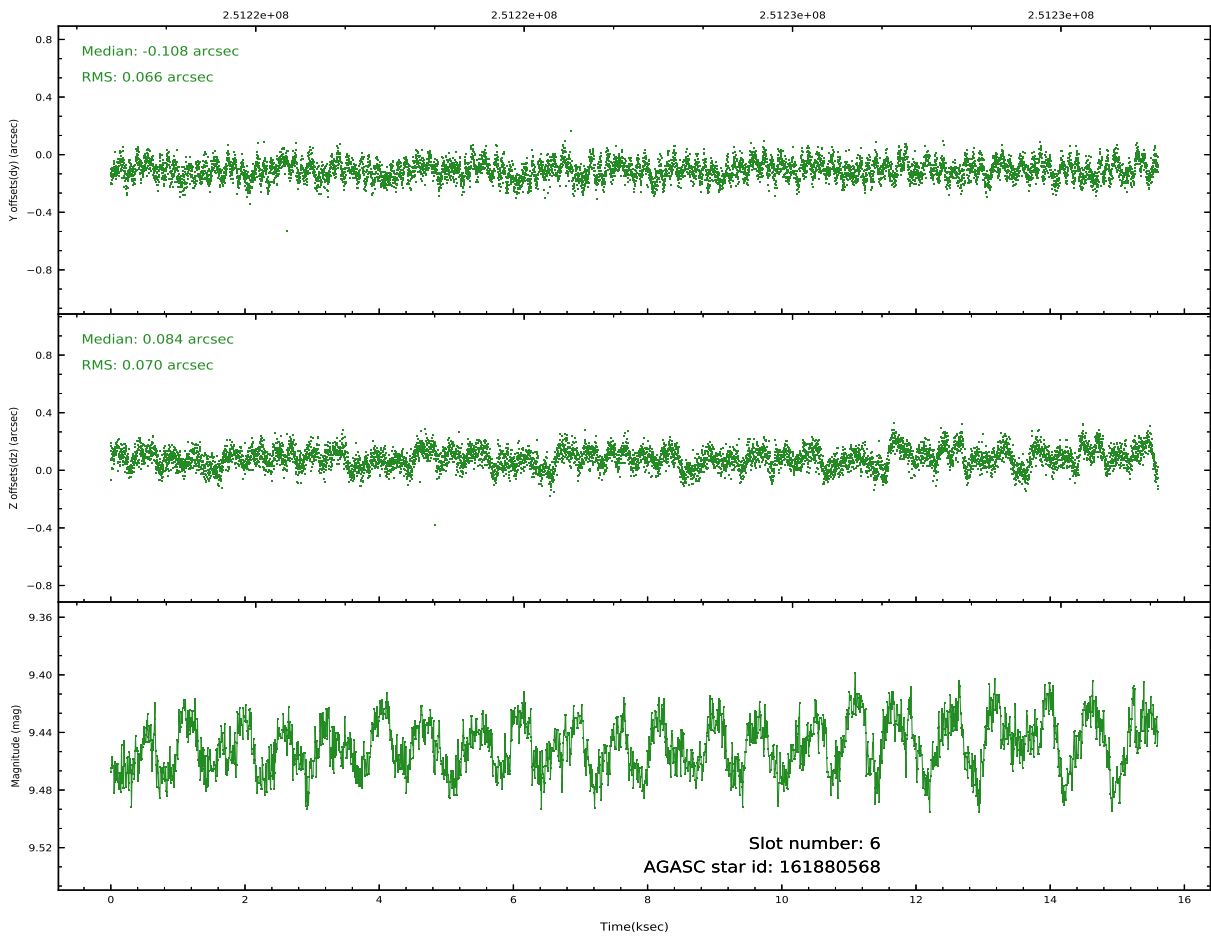
Time (s)



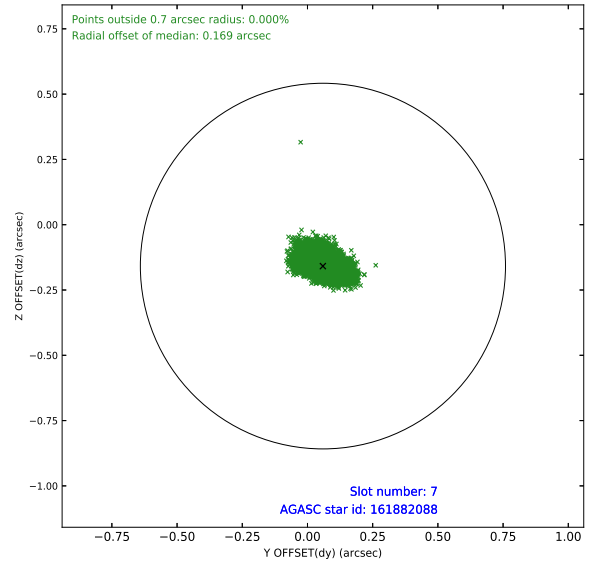
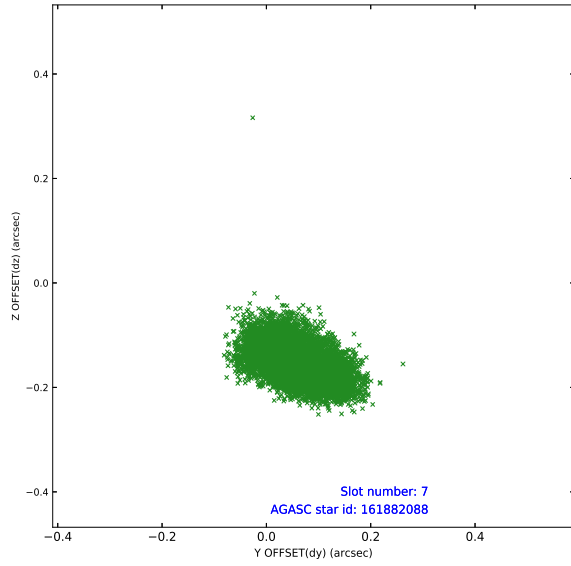
## 2.4.4 Slot 6



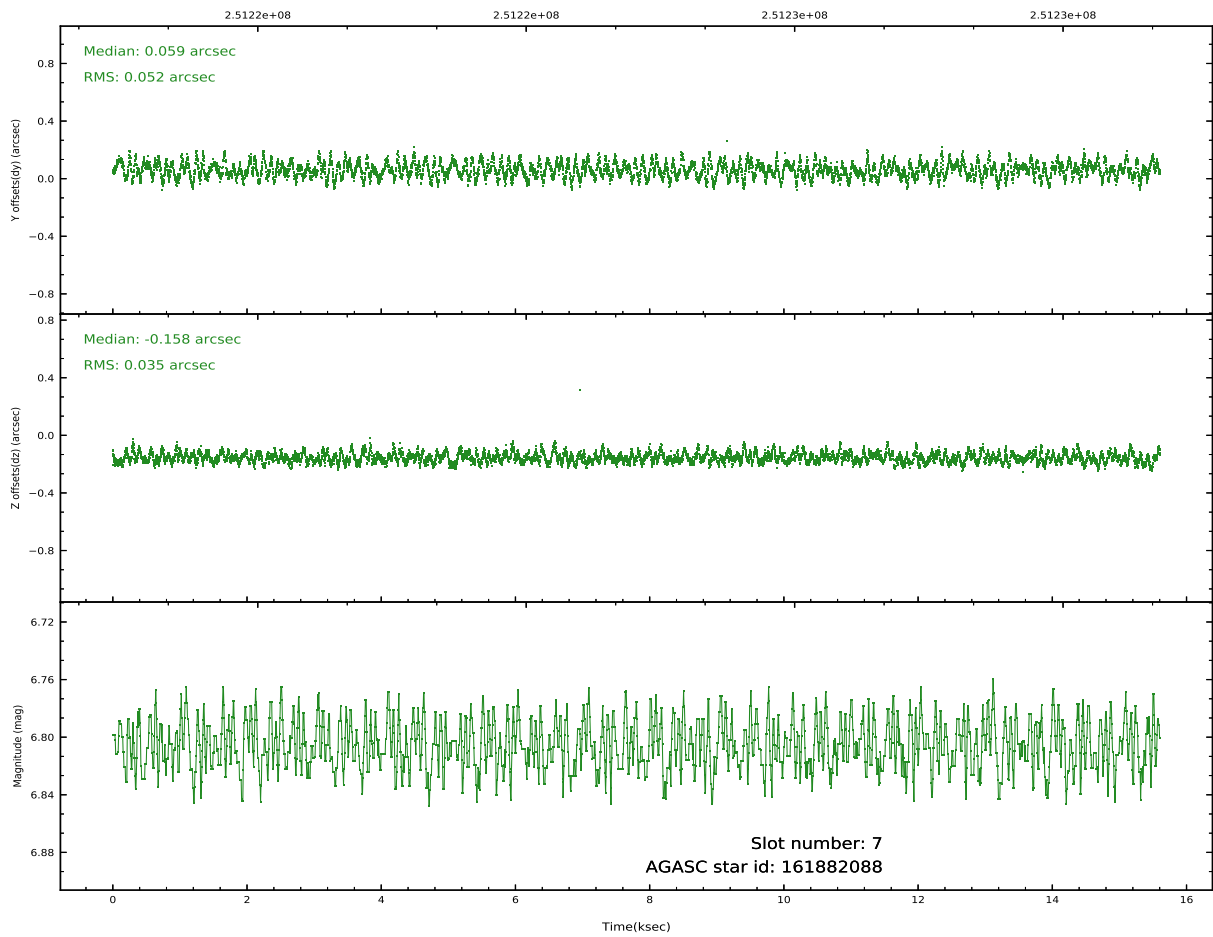
Time (s)



## 2.4.5 Slot 7

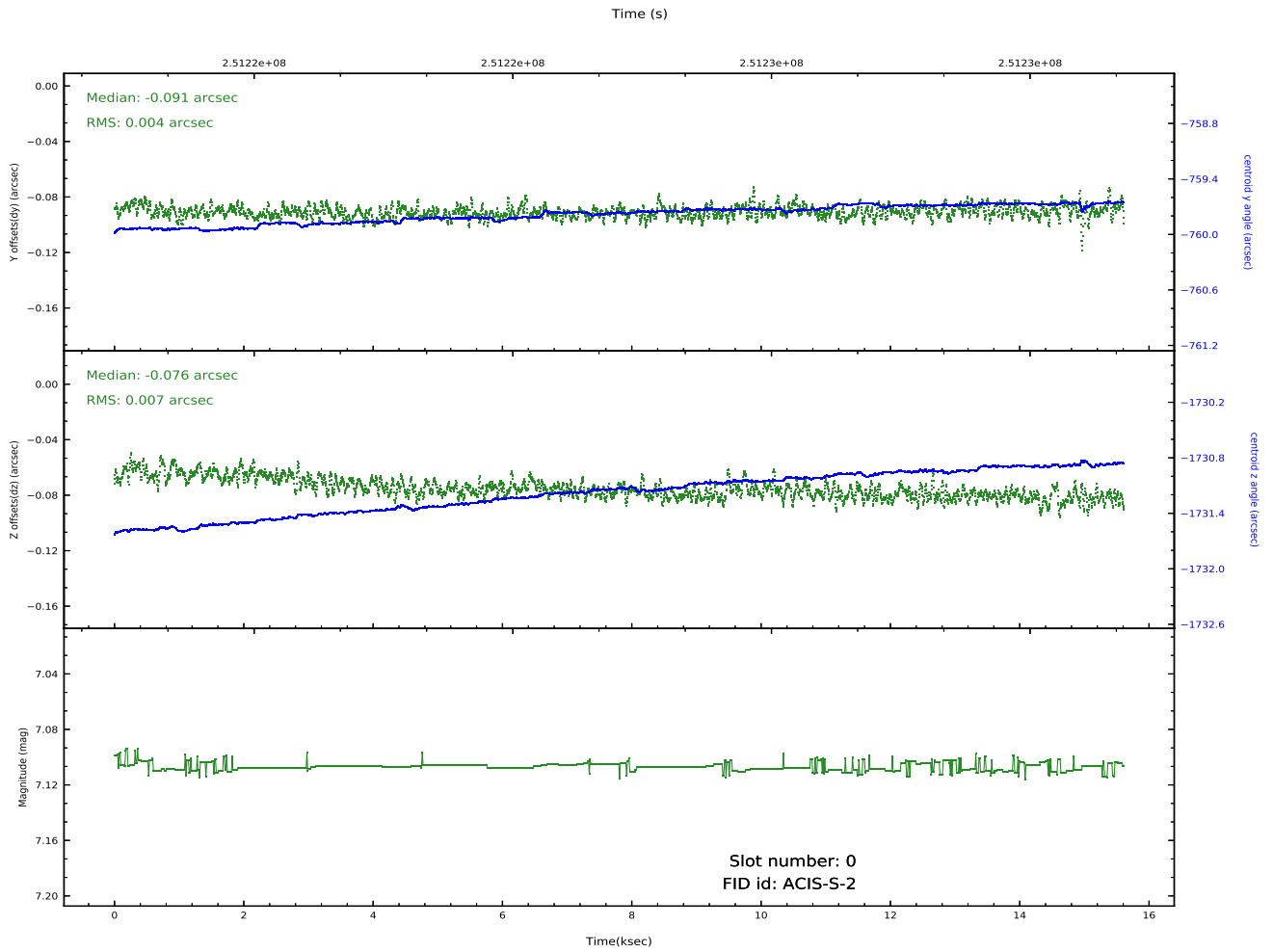
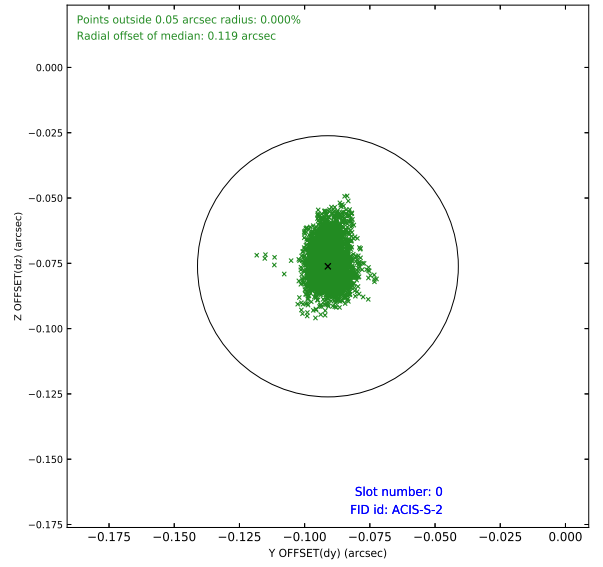
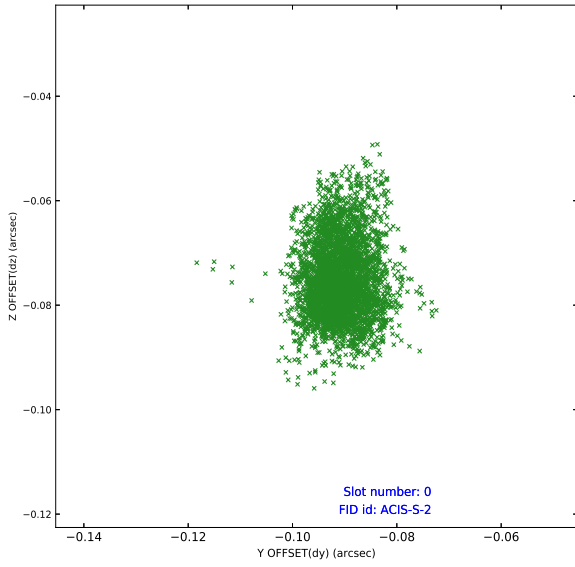


Time (s)

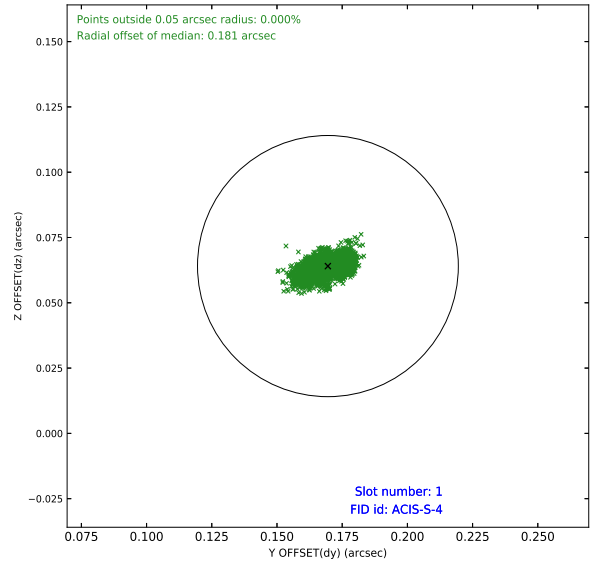
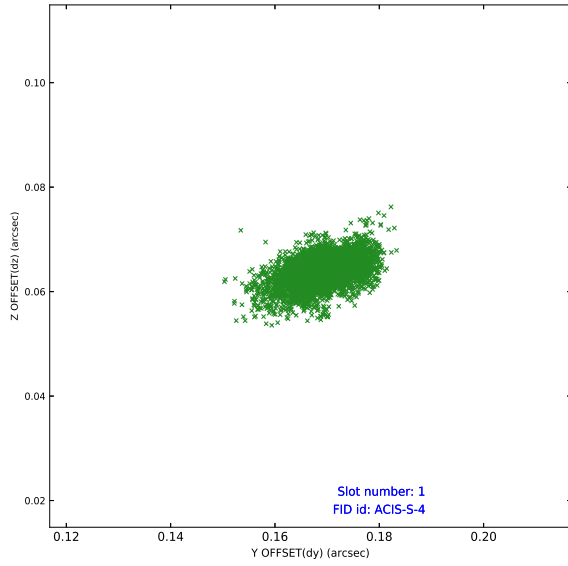


## 2.5 FID Slots

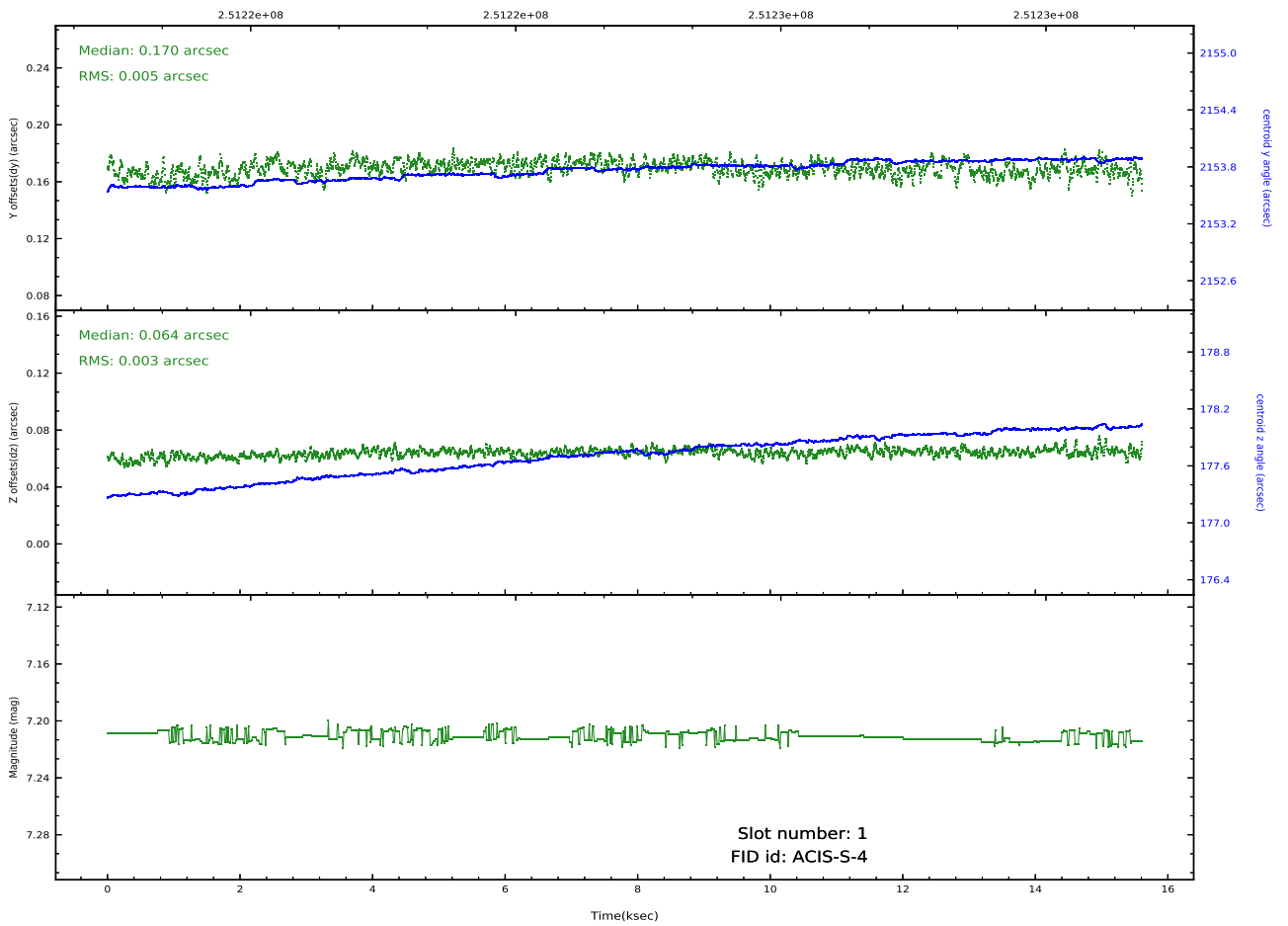
### 2.5.1 Slot 0



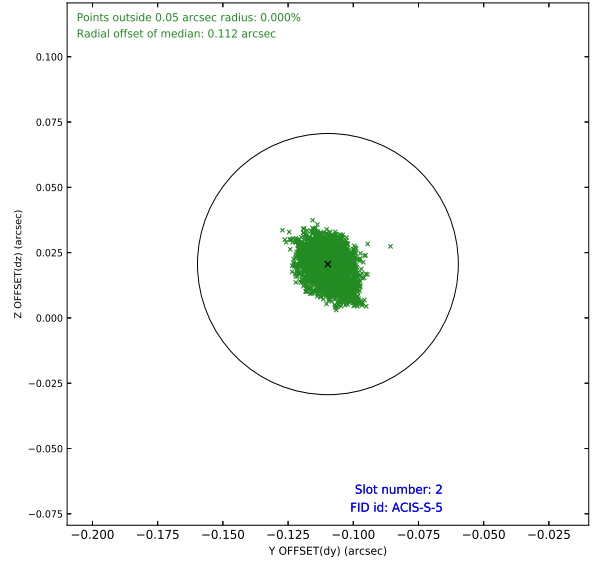
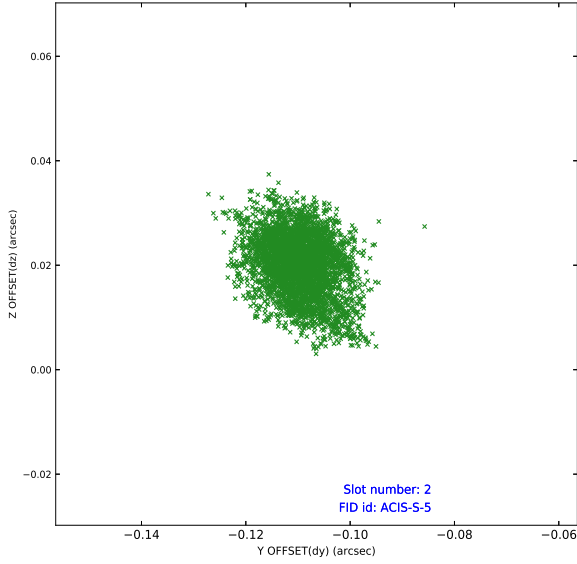
## 2.5.2 Slot 1



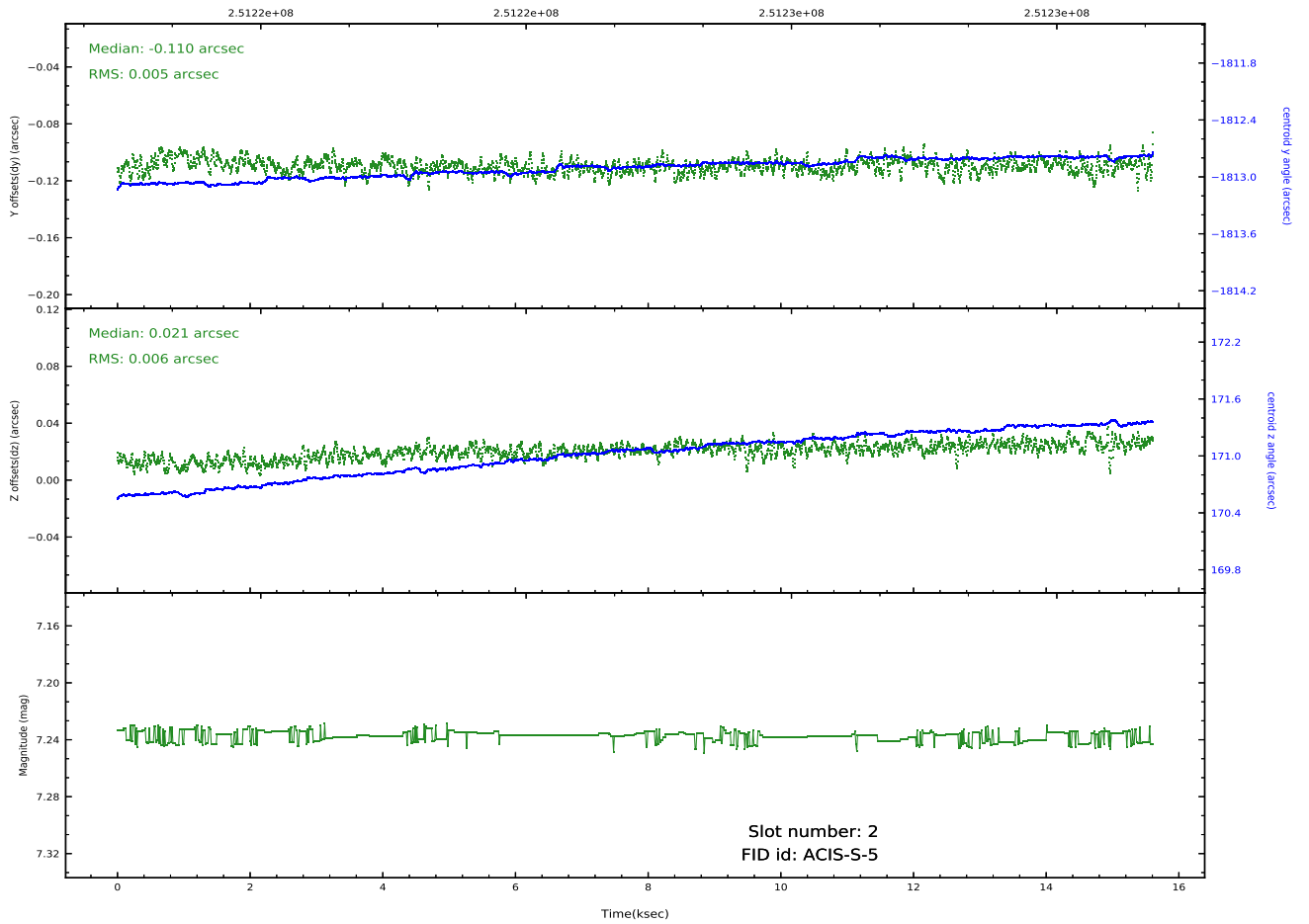
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Francesca Civano
V&V Date (YYYY-MM-DD)	2020.10.14
V&V Edition	1
V&V Disposition and Status	Repr+DD
V&V Charge Time	14.95359

## A.2 Comments

The bias map for CCD\_ID = 6 suffers from anomalously high bias values in an 'exacto-knife'-shaped area of the bias file. Pixels in the event data that have been bias-corrected by one of the affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small ( $\sim 20$  eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD\_ID = 6 will be recreated to remove this anomaly and the data will be reprocessed.