

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 13224 - L2 Version 2  
Chandra X-Ray Center

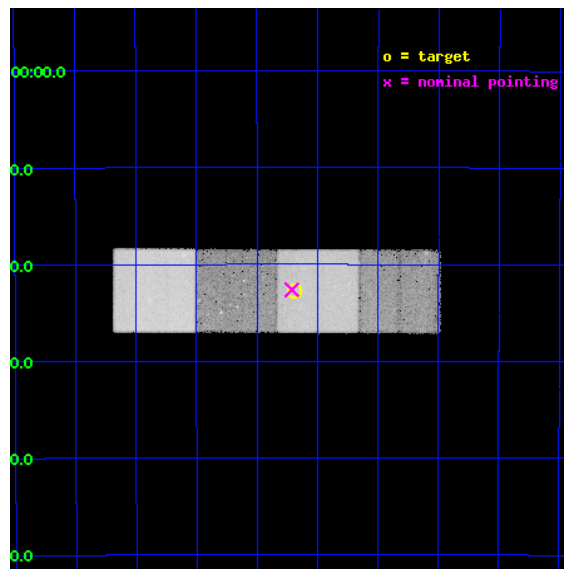
L2 Processing Date : Feb 3 2012

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# 1 Front

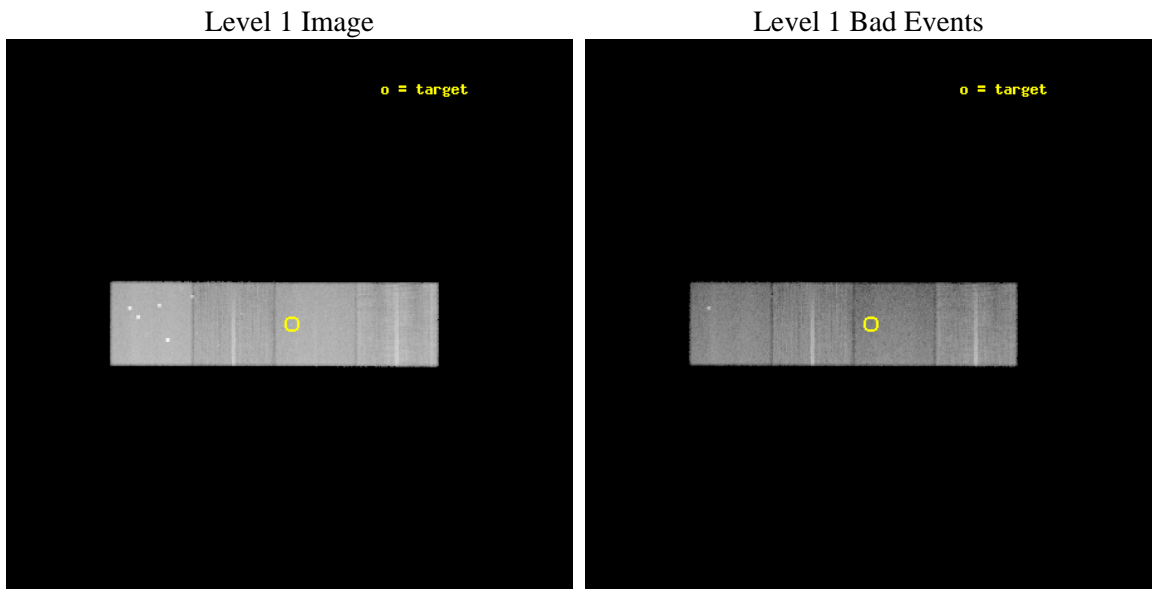
seq_num	300284	Sequence number
obs_id	13224	Observation id
title	The Extended X-ray Emission from the Shell of Recurrent Nova T Pyxidis	Proposal title
observer	Assoc. Prof. Dr. Solen Balman	Principal investigator
object	T Pyxidis	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	136.172917	Observer's specified target RA [deg]
dec_targ	-32.379722	Observer's specified target Dec [deg]
ra_nom	136.17779796427	Nominal RA [deg]
dec_nom	-32.377164936276	Nominal Dec [deg]
roll_nom	0.15924083481654	Nominal Roll [deg]
revision	2	Processing version of data
ontime	31266.600240469	Sum of GTIs [s]
livetime	30858.079090191	Livetime [s]
ontime5	31266.600240469	Sum of GTIs [s]
ontime6	31266.600240469	Sum of GTIs [s]
ontime7	31266.600240469	Sum of GTIs [s]
ontime8	31266.600240469	Sum of GTIs [s]
l2events	320704	Number of level 2 events



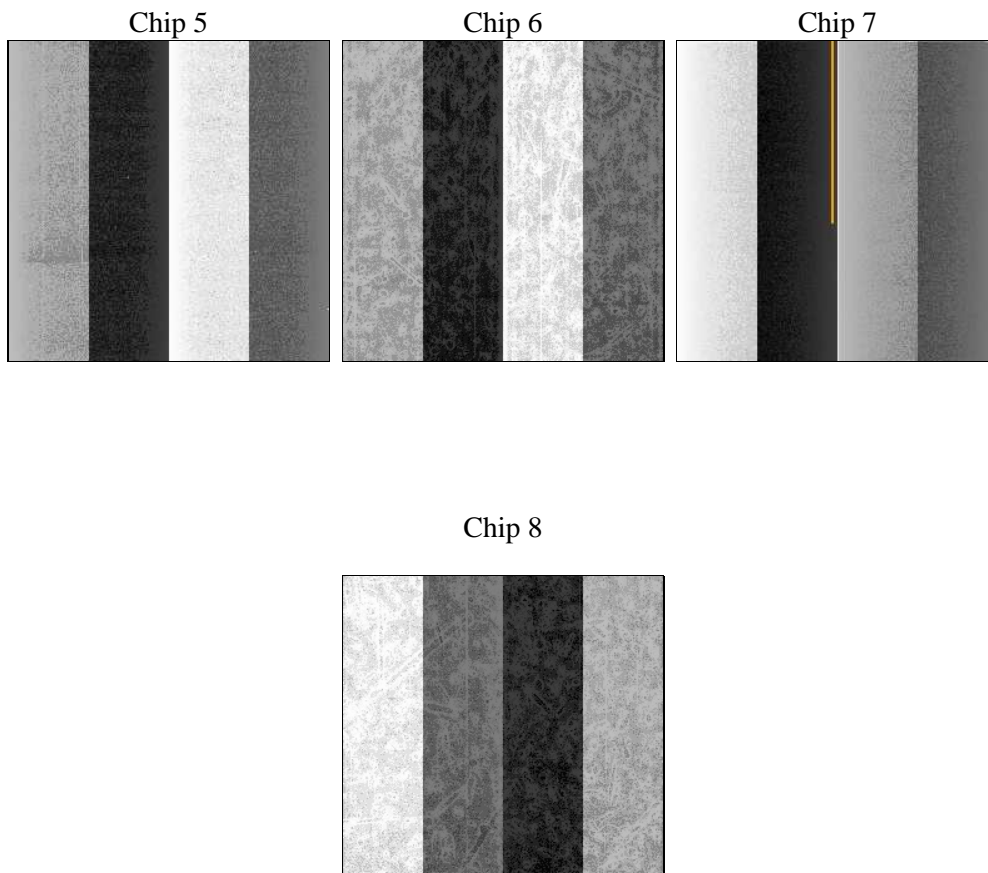
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	31217.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	31266.600240469	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime5	31266.600240469	Sum of GTIs [s]
date	2012-02-03T16:28:15	Date and time of file creation	ontime6	31266.600240469	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	31266.600240469	Sum of GTIs [s]
			ontime8	31266.600240469	Sum of GTIs [s]
			l1events	1128145	Number of level 1 events

### 2.1.4 Events

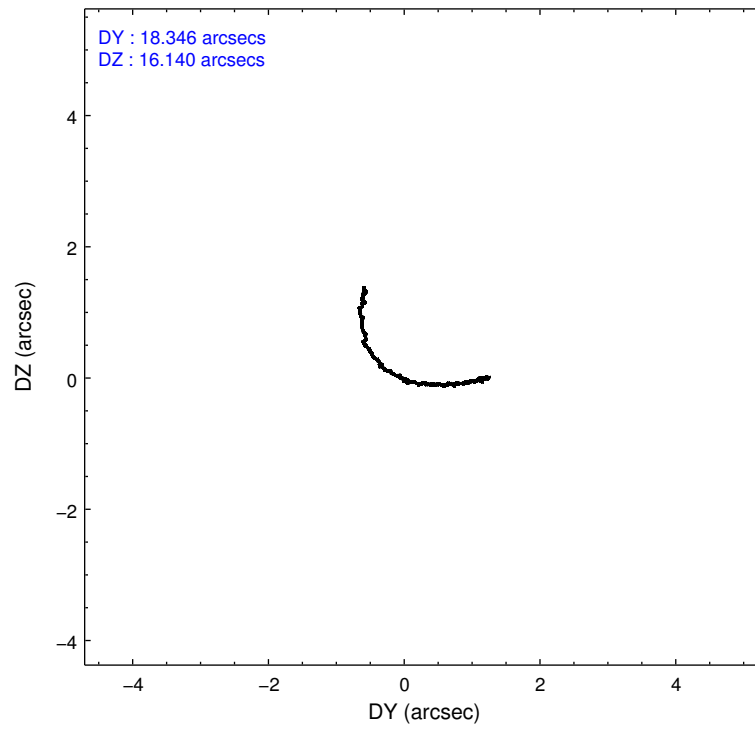
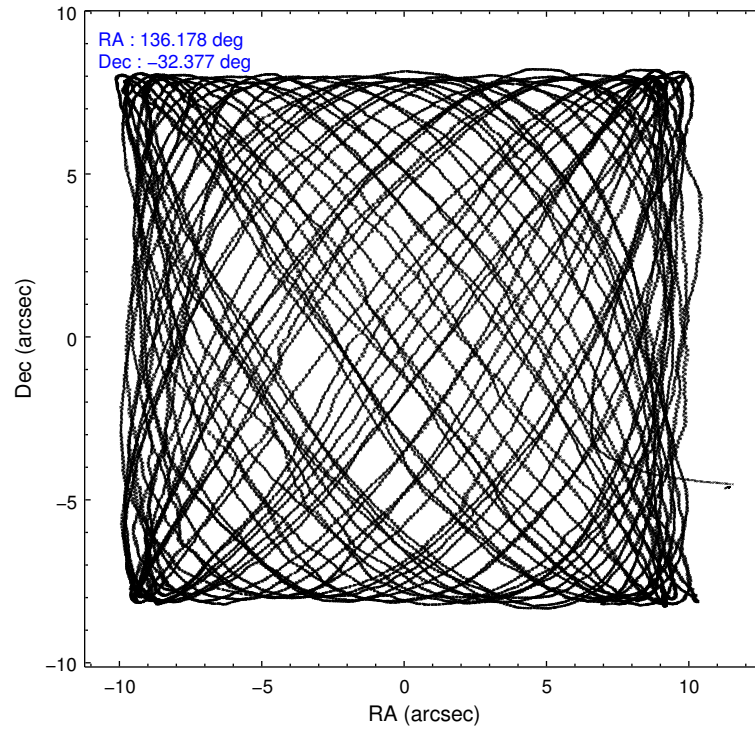
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	348278	222454	270721	286692
rejected events	171401	196837	149333	210305
rejected %	49%	88%	55%	73%

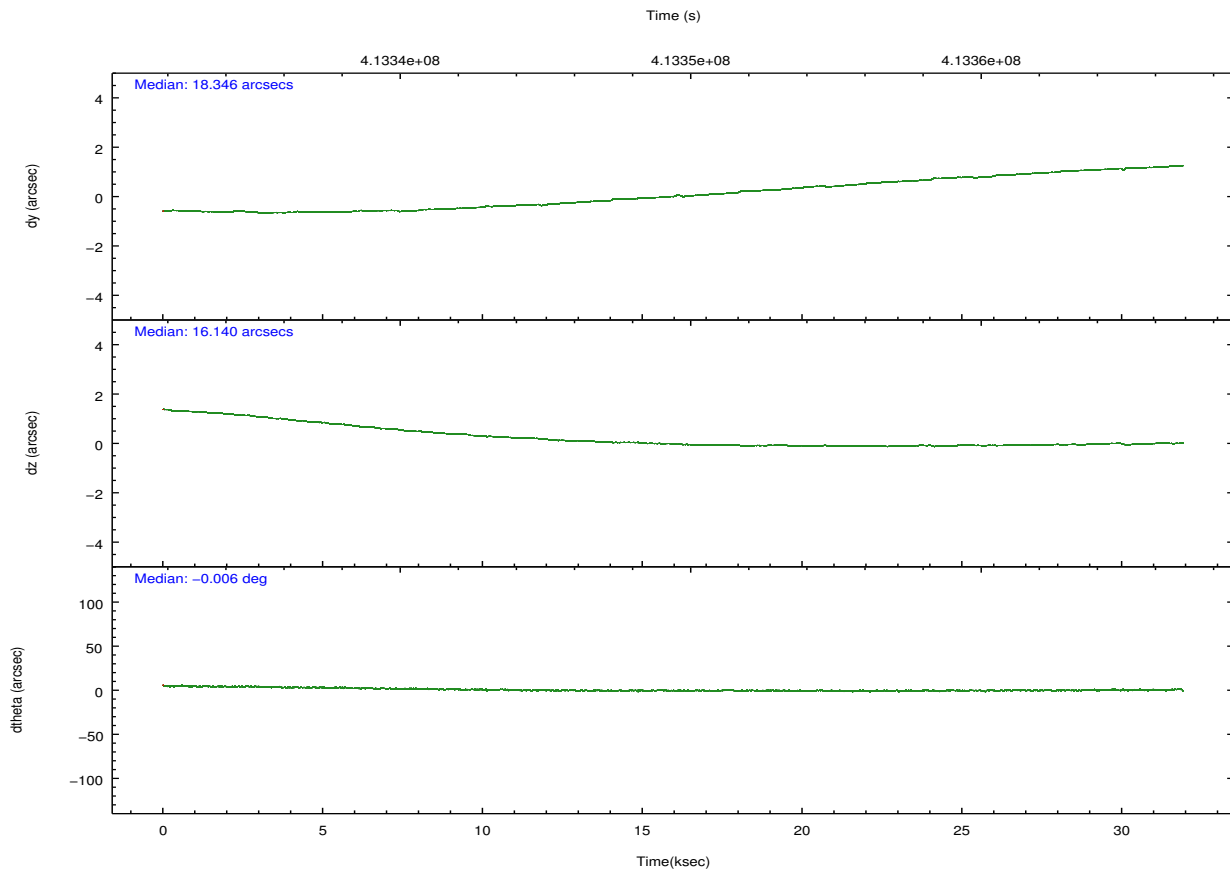
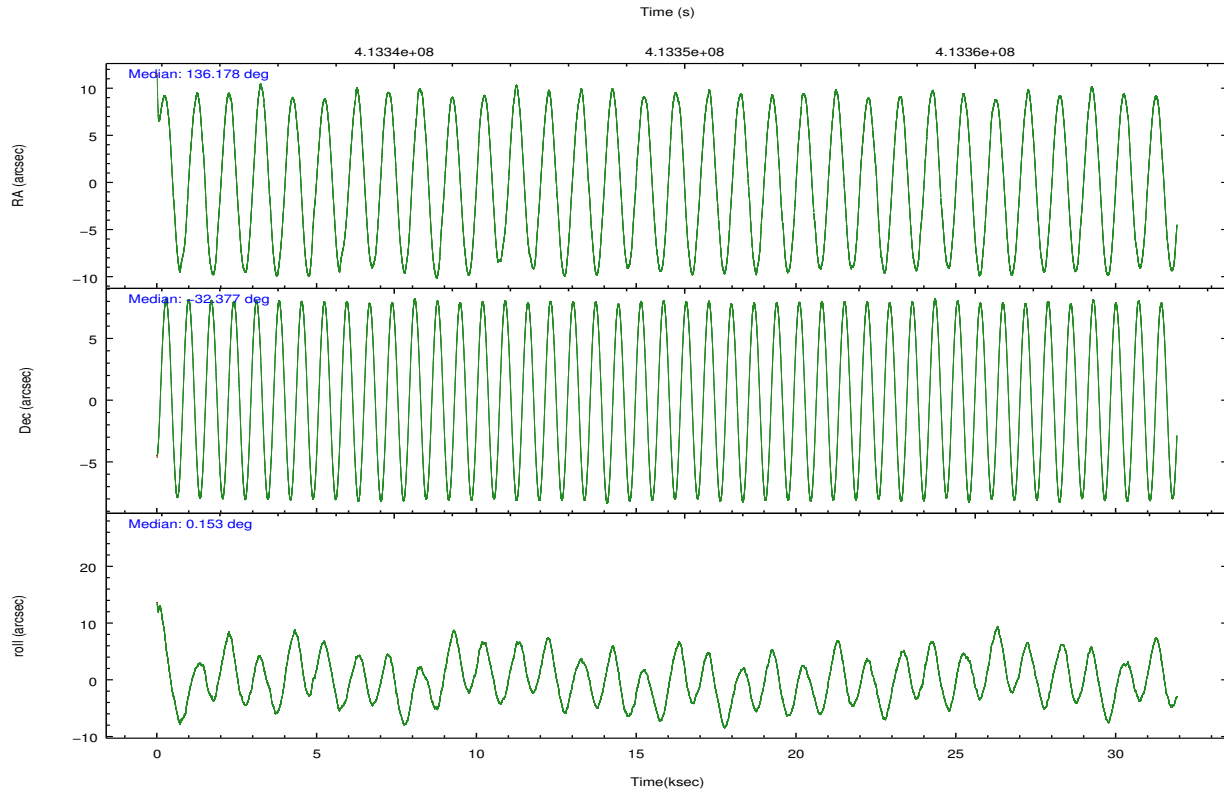
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	26120	9209	10990	22479
	7%	4%	4%	7%
grade 1 events	650	104	336	229
	0%	0%	0%	0%
grade 2 events	50691	5726	24720	18164
	14%	2%	9%	6%
grade 3 events	6717	2574	10883	7830
	1%	1%	4%	2%
grade 4 events	6203	2554	10677	7320
	1%	1%	3%	2%
grade 5 events	26111	10050	28072	14634
	7%	4%	10%	5%
grade 6 events	87182	5558	64137	20628
	25%	2%	23%	7%
grade 7 events	144604	186679	120906	195408
	41%	83%	44%	68%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	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	136.150017	136.1777979642709	Subarray requested	NONE	NONE
[deg] Pointing Dec	-32.391223	-32.37716493627555	Alternating exposures requested	N	N
[deg] Pointing Roll	359.987728	0.1592408348165416	[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	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	413334142.184000	413332432.55812			
Observation start date	2011-02-05T23:01:16	2011-02-05T22:33:52			
[s] Observation end time (MET)	413365359.184000	413365966.97236			
Observation end date	2011-02-06T07:41:33	2011-02-06T07:52:46			
Read mode	TIMED	TIMED			

## 2.3 Aspect



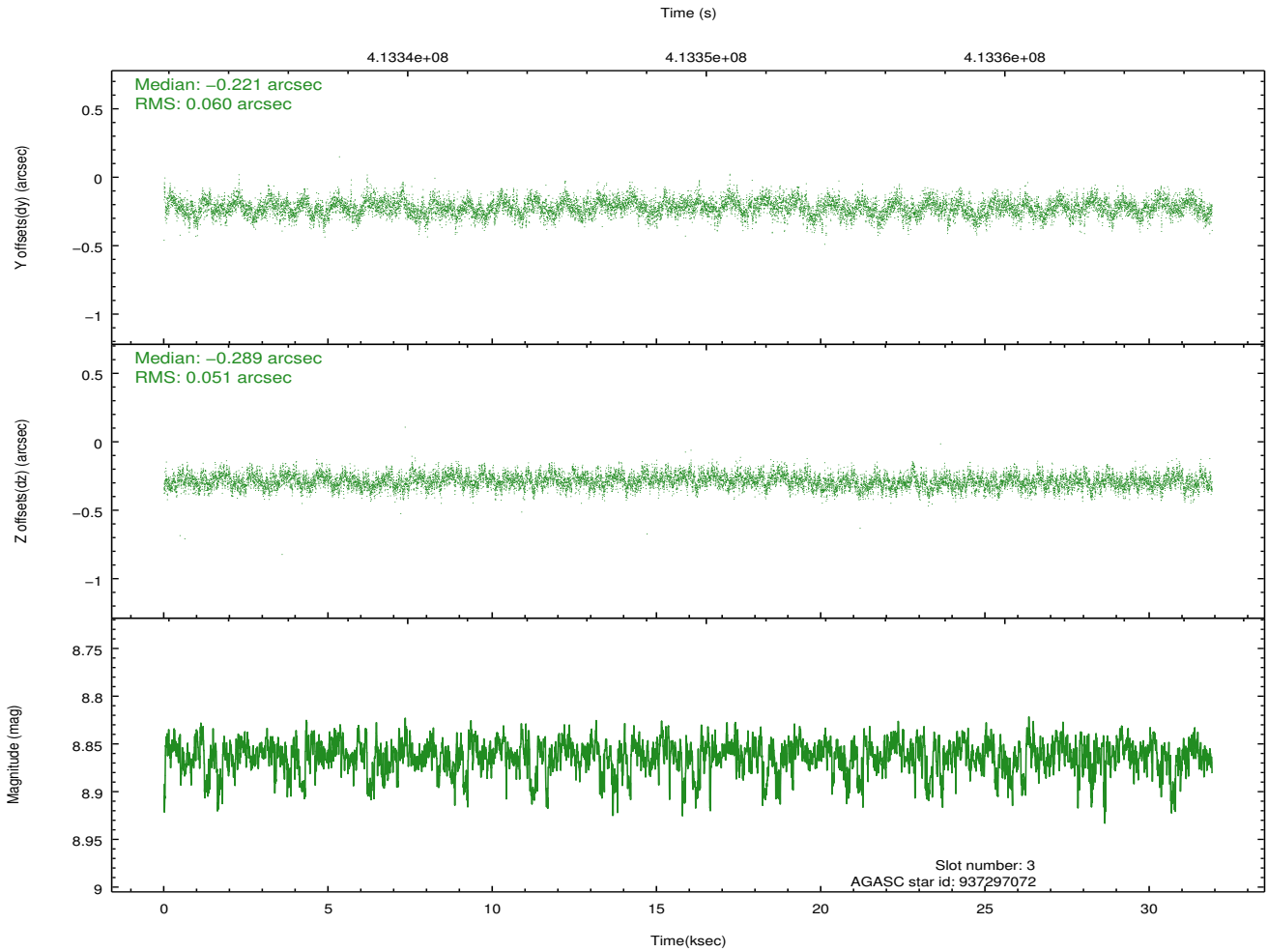
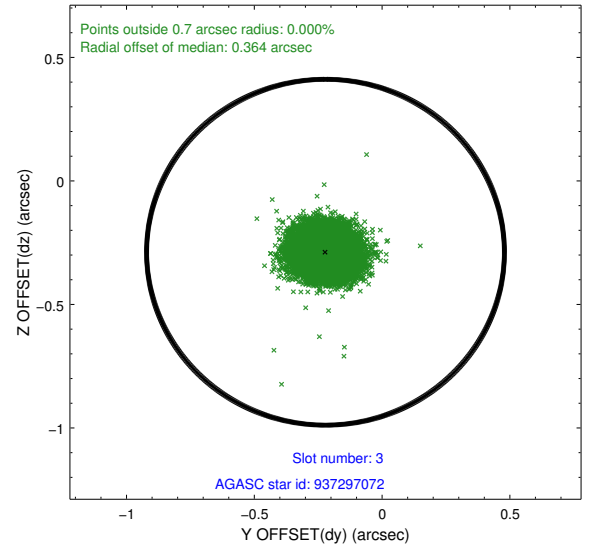
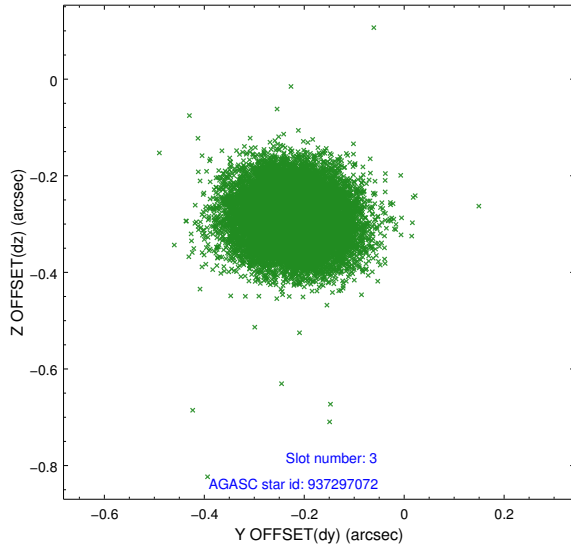


### Slot Statistics

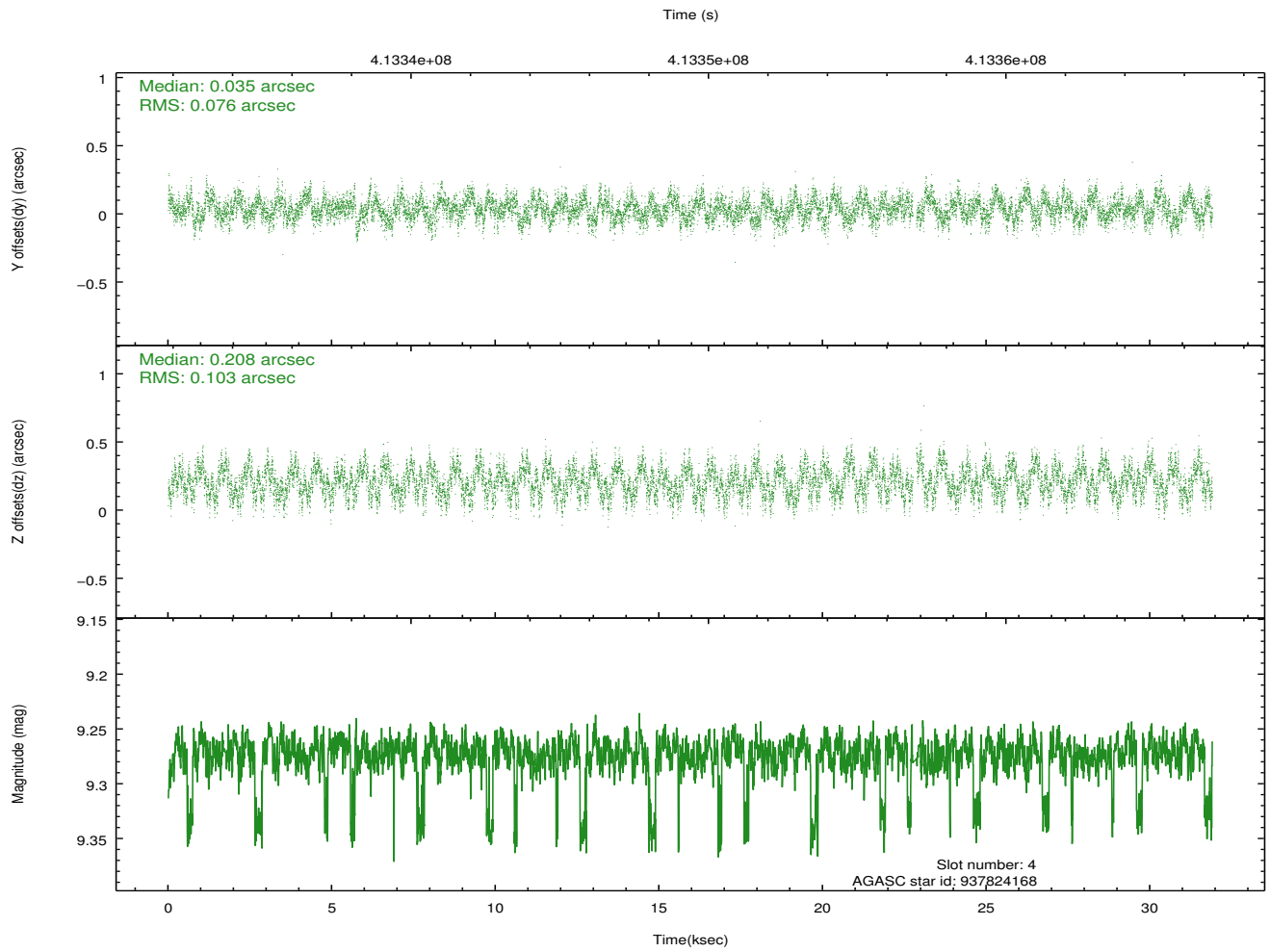
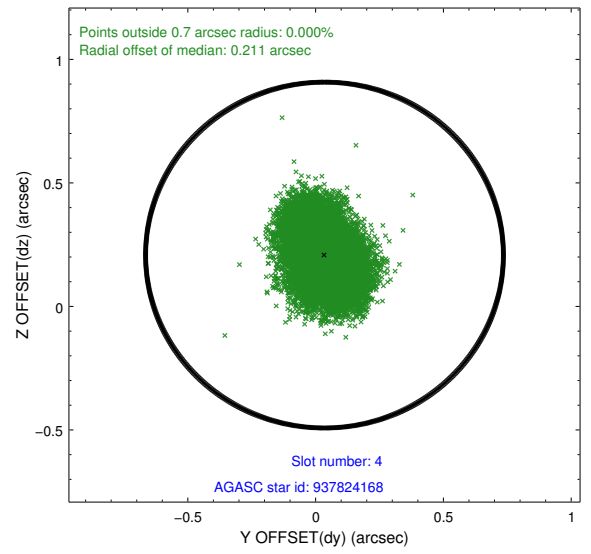
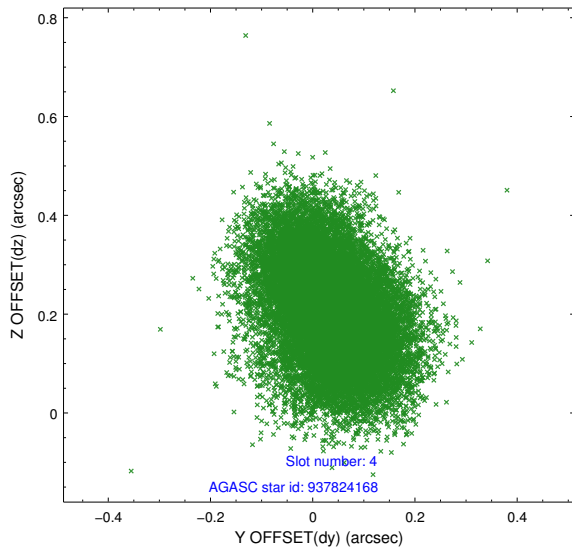
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.93	7783	0.059	-0.054	0.027	0.035	0.000000	0.000000	924.57	-1733.49
1	FID	ACIS-S-4	6.94	7782	0.153	0.016	0.020	0.046	0.000000	0.000000	2142.09	170.68
2	FID	ACIS-S-5	6.97	7782	-0.230	0.054	0.016	0.025	0.000000	0.000000	-1824.51	164.36
3	GUIDE	937297072	8.86	15553	-0.221	-0.289	0.083	0.135	136.754791	-31.833481	1849.23	2003.11
4	GUIDE	937824168	9.27	15449	0.035	0.208	0.139	0.217	135.922945	-32.911857	-685.26	-1874.79
5	GUIDE	937826768	8.71	15557	-0.018	0.181	0.096	0.161	135.967374	-32.659484	-553.01	-966.24
6	GUIDE	937829280	8.88	15552	0.116	-0.188	0.084	0.140	135.716733	-31.898439	-1325.03	1771.02
7	GUIDE	937839048	9.38	15553	0.091	0.088	0.134	0.209	136.496287	-32.832453	1048.29	-1589.52

## 2.4 Star Slots

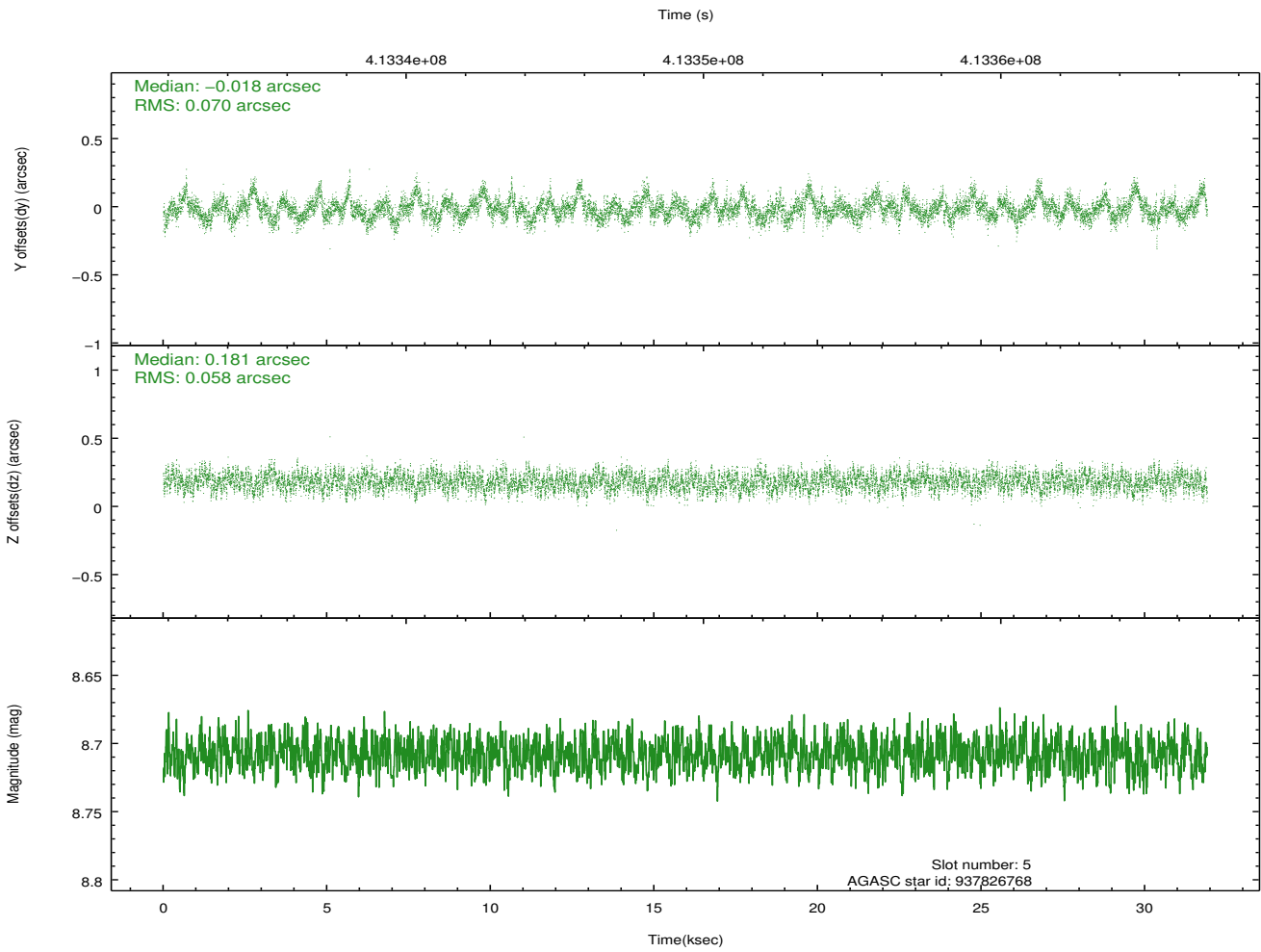
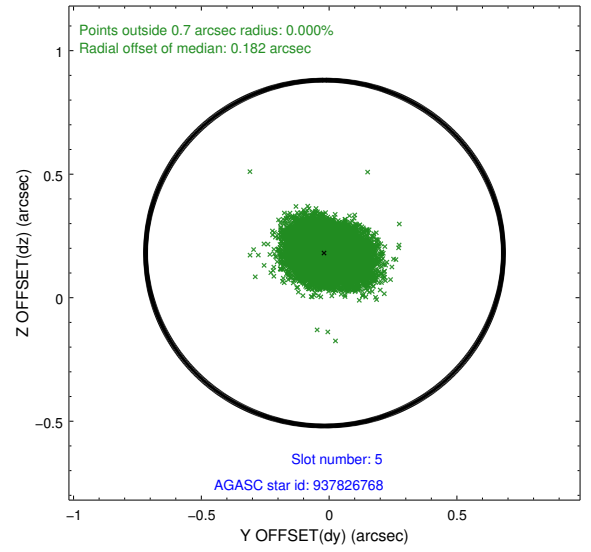
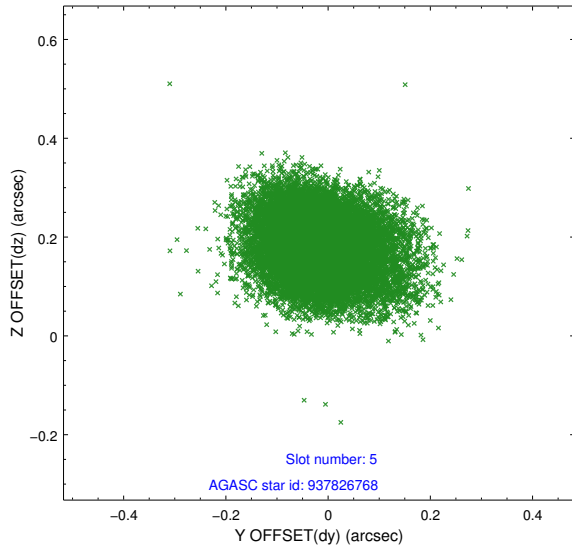
### 2.4.1 Slot 3



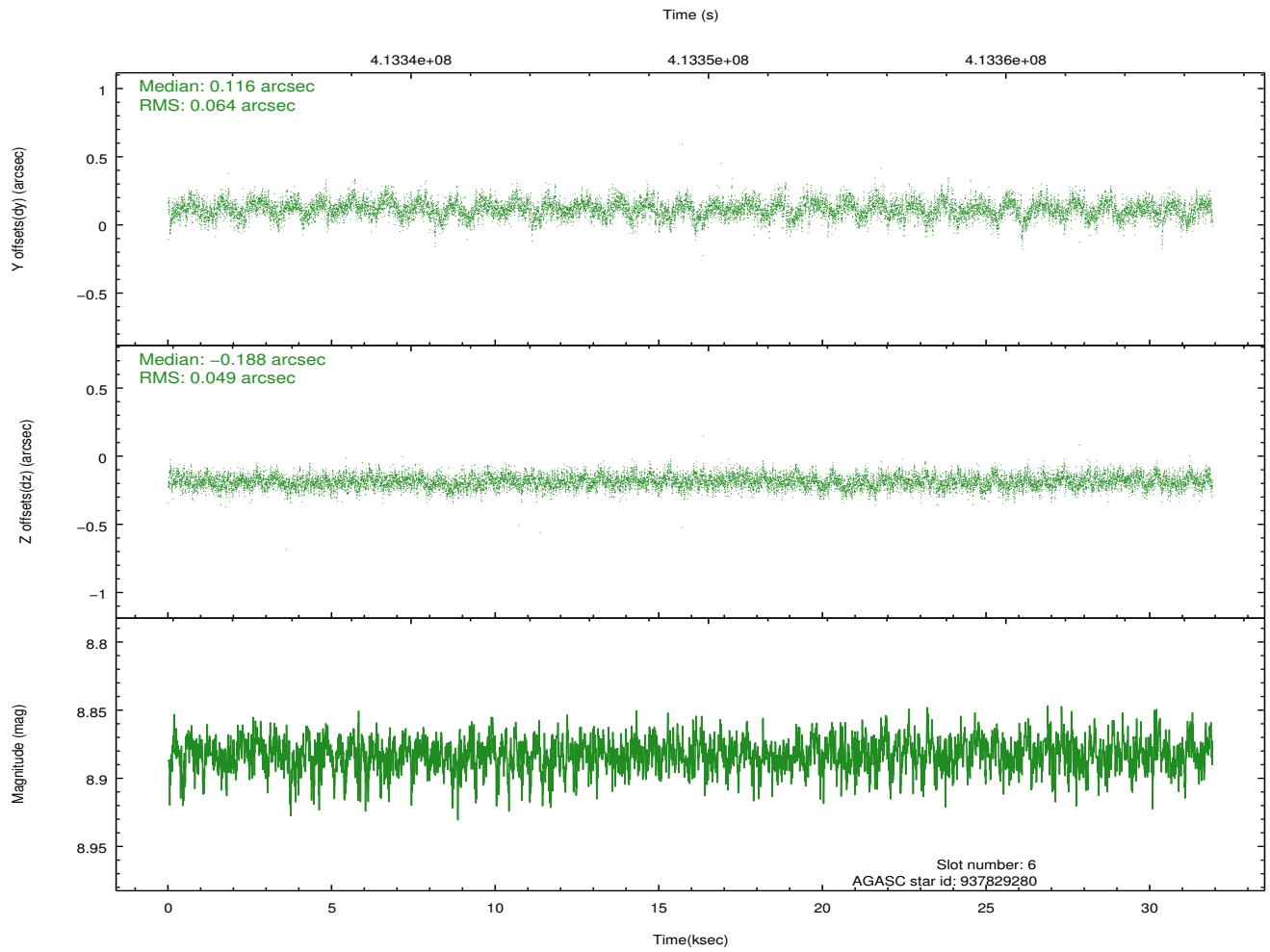
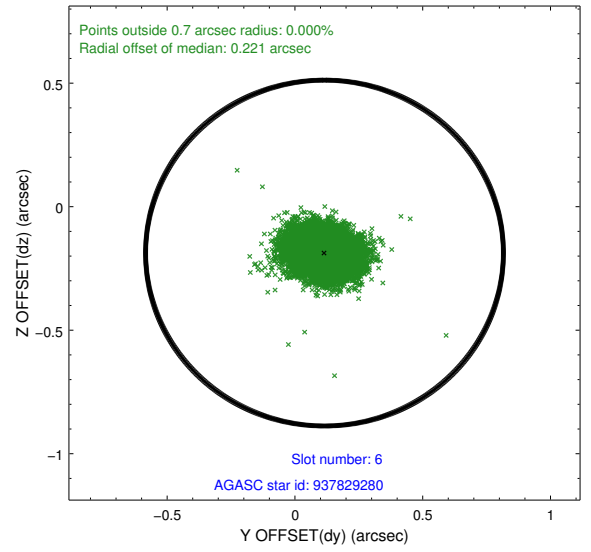
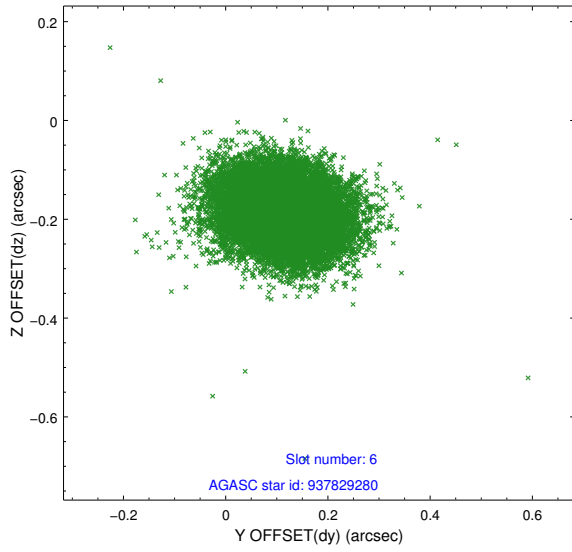
### 2.4.2 Slot 4



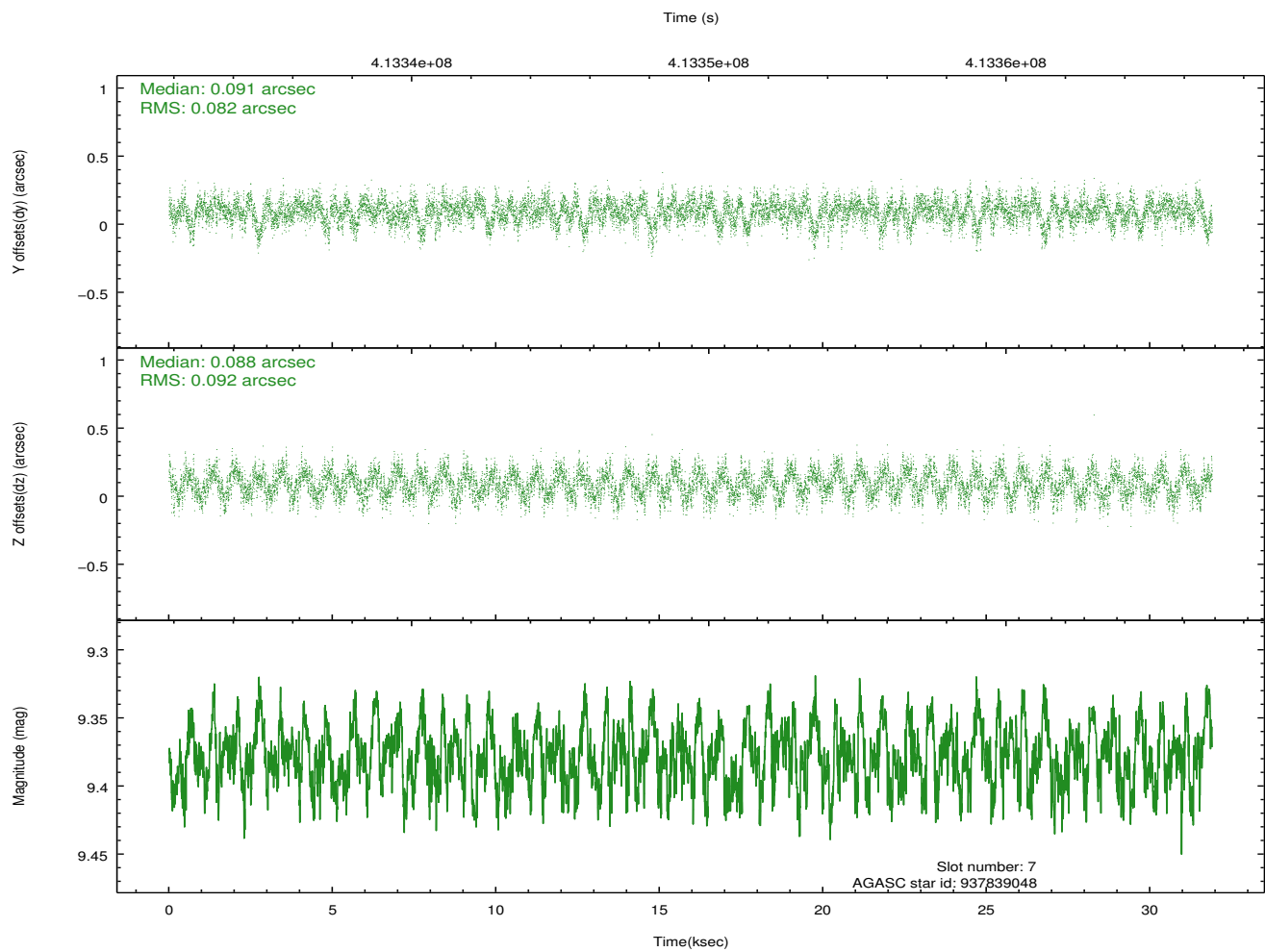
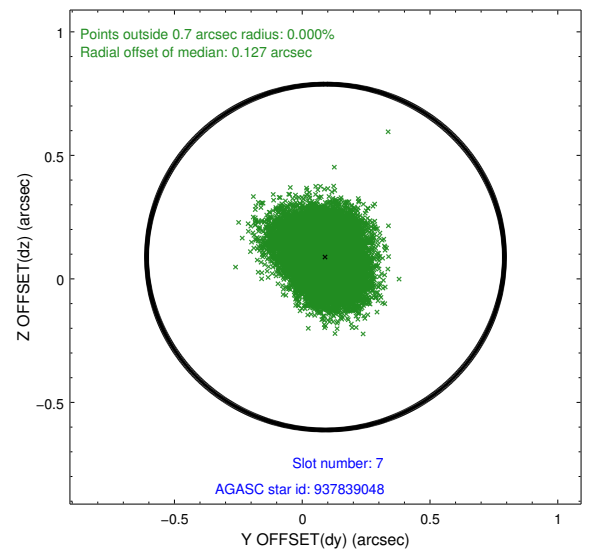
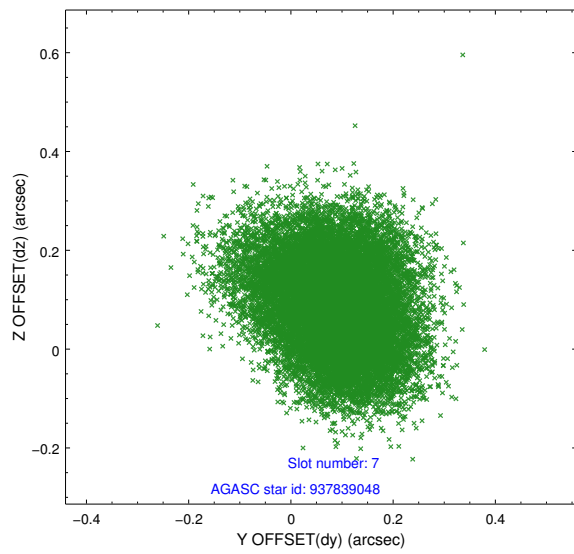
### 2.4.3 Slot 5



## 2.4.4 Slot 6

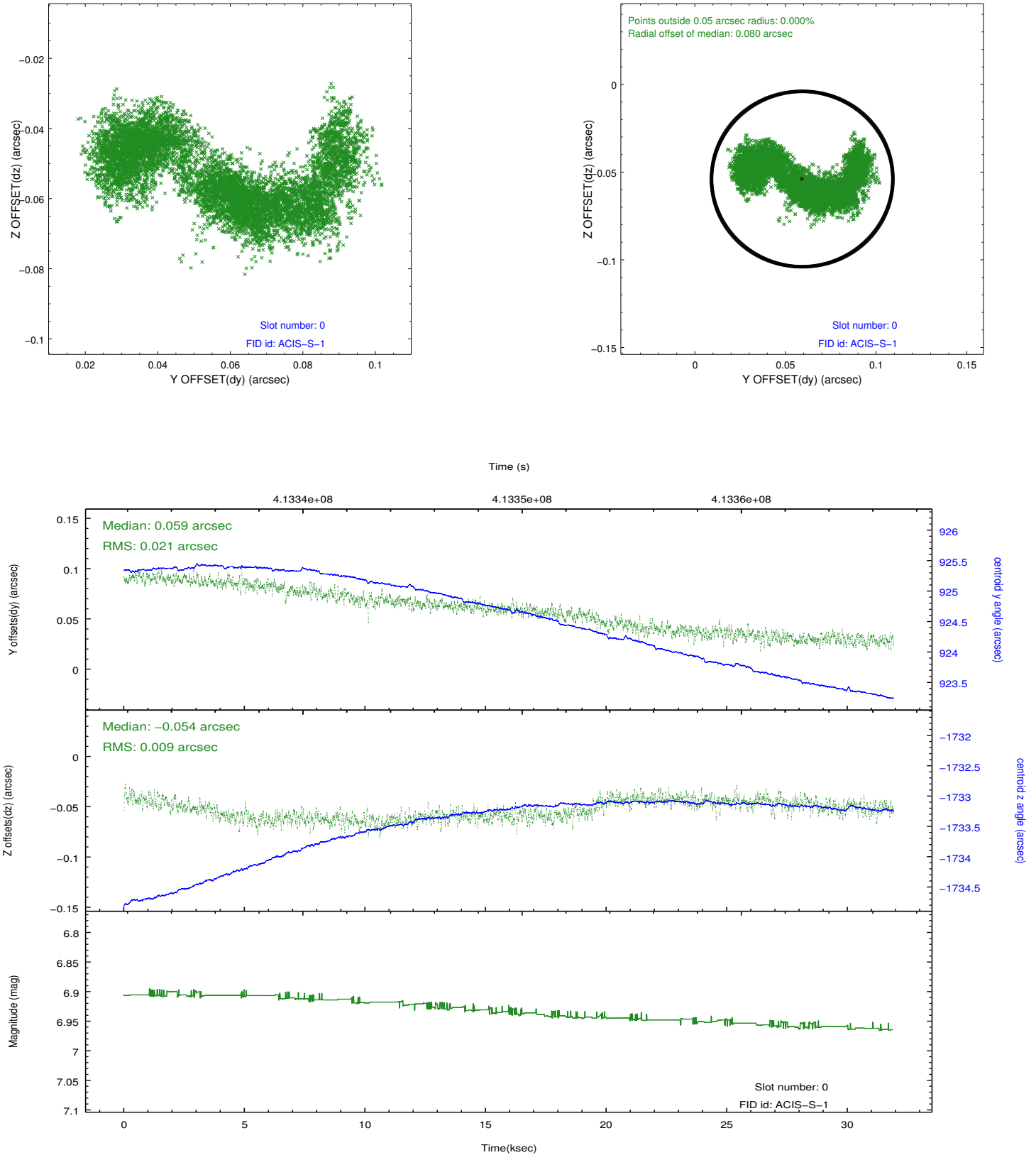


## 2.4.5 Slot 7

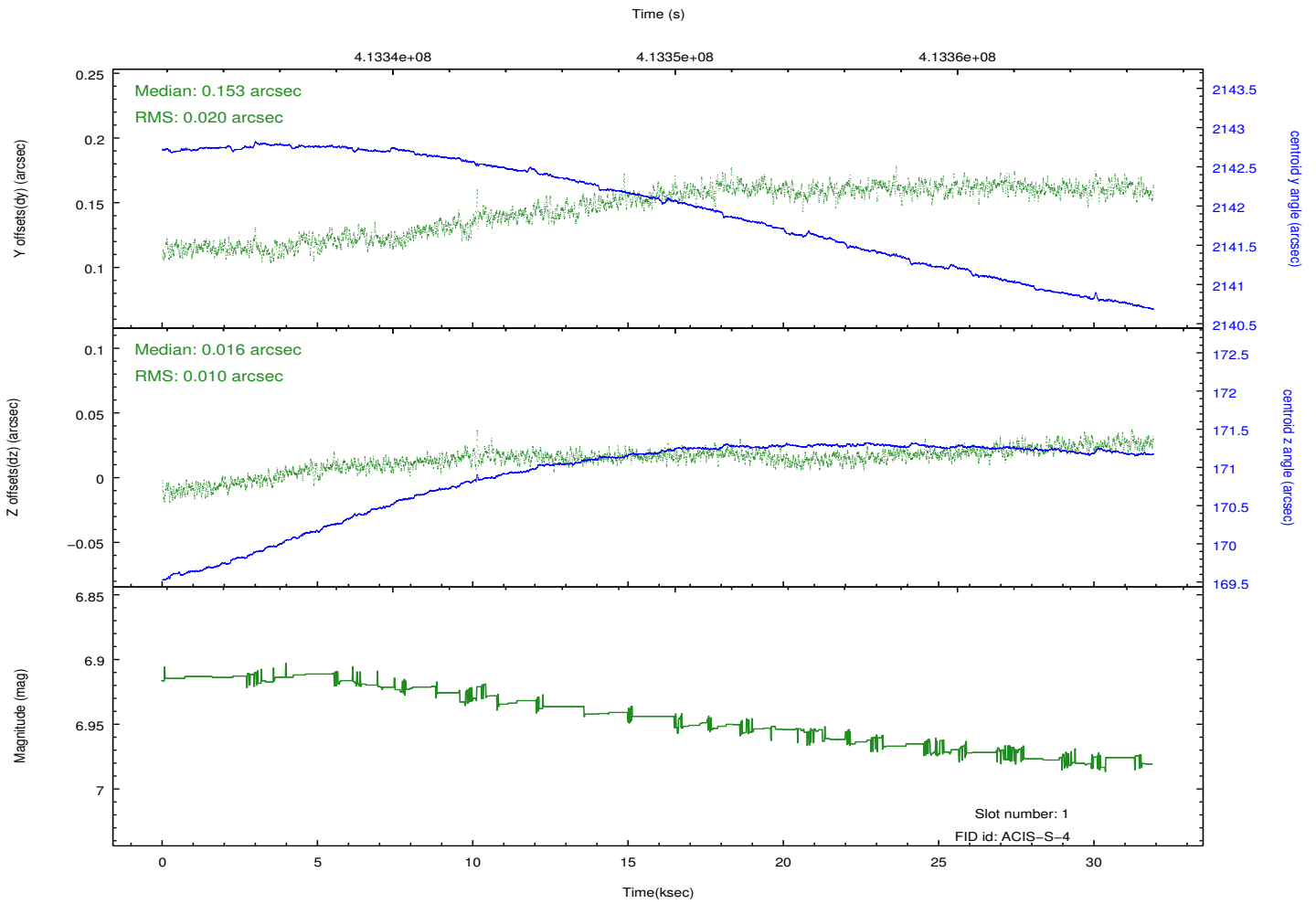
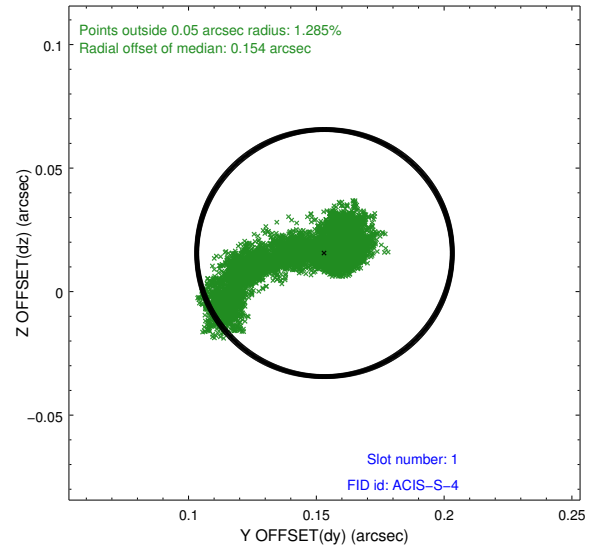
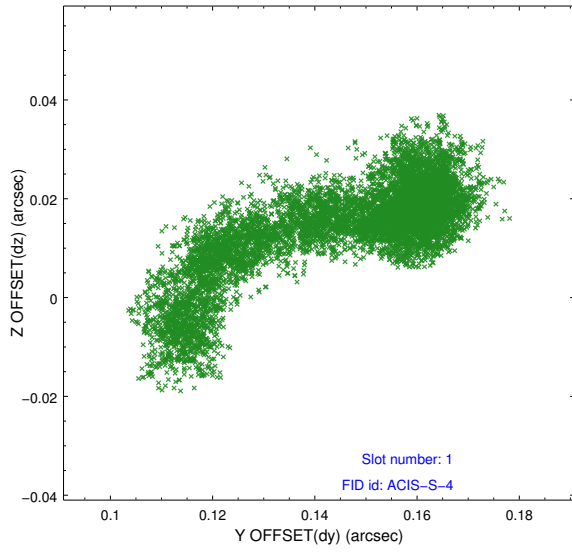


## 2.5 FID Slots

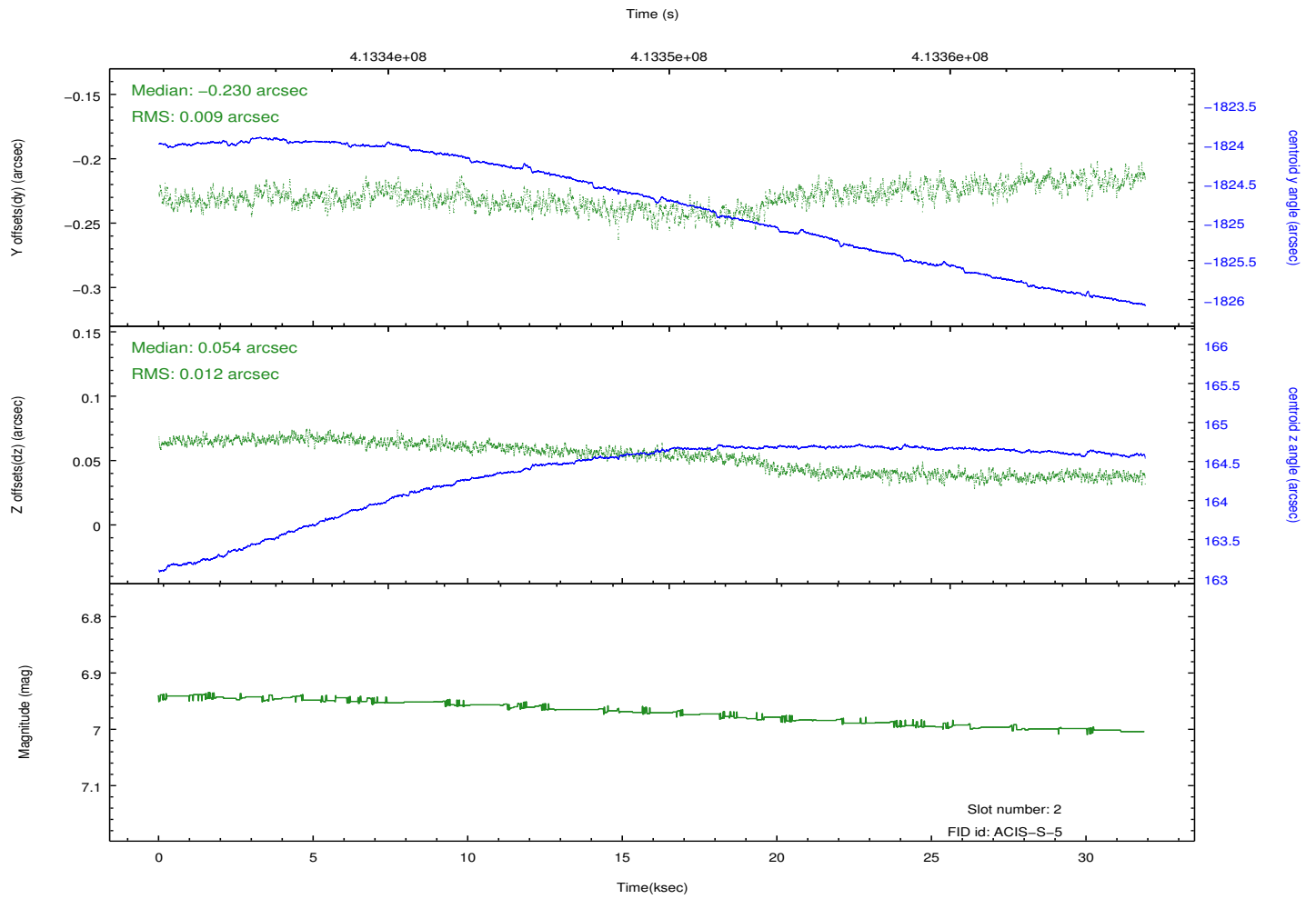
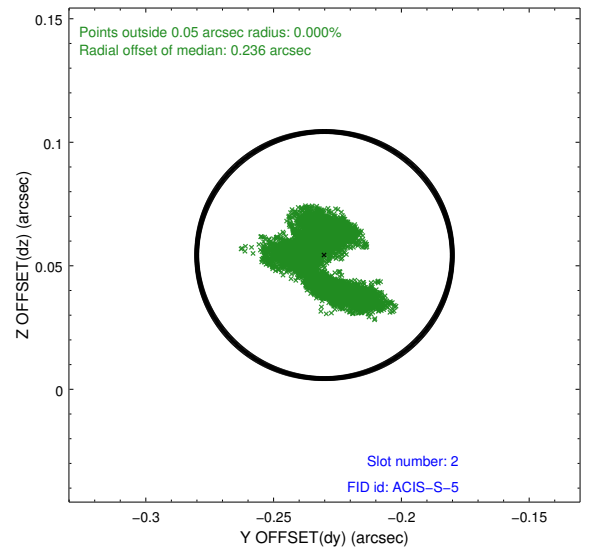
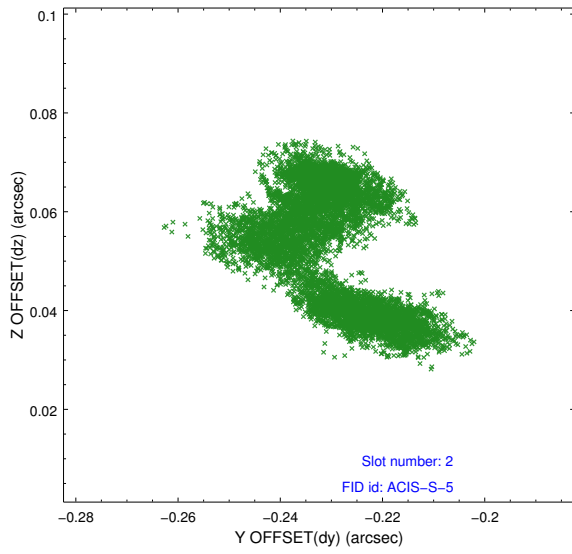
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	31.266600240469

## A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.