

# V&V Reference Report

## L2 ASCDS Version : 10.3.3

Observation 17022 - L2 Version 1  
Chandra X-Ray Center

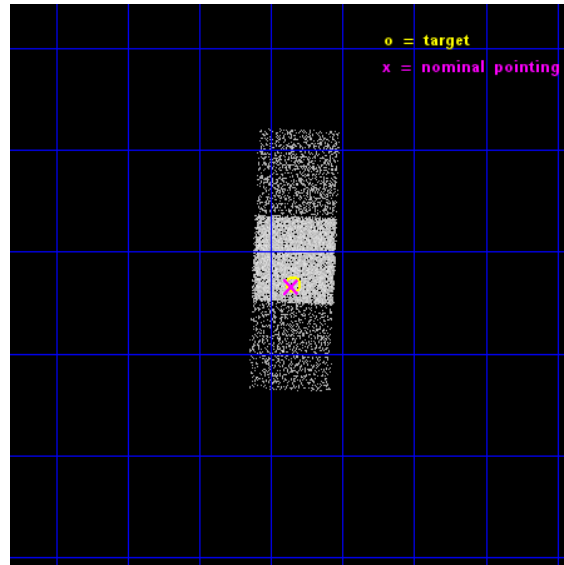
L2 Processing Date : Mar 16 2015

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# 1 Front

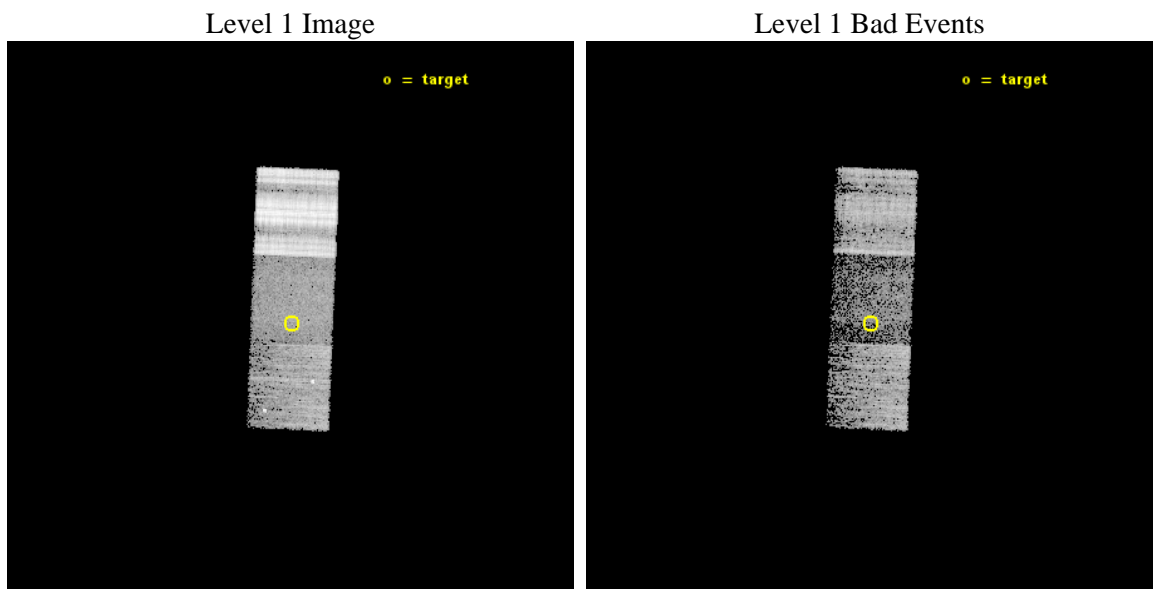
seq_num	703026	Sequence number
obs_id	17022	Observation id
title	Shielding Gas Variations in Transforming Broad Absorption Line Quasars	Proposal title
observer	Prof. W.N. Brandt	Principal investigator
object	SDSS J0936+0046	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	144.085417	Observer's specified target RA [deg]
dec_targ	0.780333	Observer's specified target Dec [deg]
ra_nom	144.08906717762	Nominal RA [deg]
dec_nom	0.77616848794958	Nominal Dec [deg]
roll_nom	272.3560045803	Nominal Roll [deg]
revision	1	Processing version of data
ontime	3074.1161214113	Sum of GTIs [s]
livetime	3033.9505311537	Livetime [s]
ontime6	2053.2366324663	Sum of GTIs [s]
ontime7	3074.1161214113	Sum of GTIs [s]
ontime8	2640.570335865	Sum of GTIs [s]
l2events	14927	Number of level 2 events



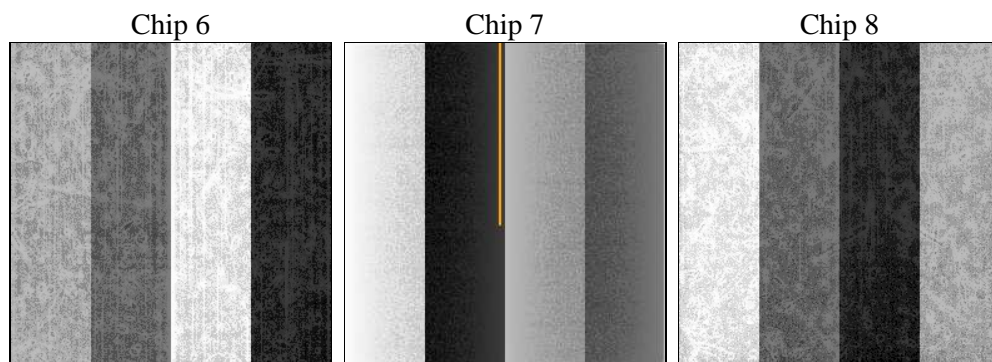
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	3000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	3074.1161214113	Sum of GTIs [s]
caldsver	4.6.7	&#160	ontime6	2053.2366324663	Sum of GTIs [s]
date	2015-03-17T02:48:02	Date and time of file creation	ontime7	3074.1161214113	Sum of GTIs [s]
revision	1	Processing version of data	ontime8	2640.570335865	Sum of GTIs [s]
			l1events	232419	Number of level 1 events

### 2.1.4 Events

	ccd 6	ccd 7	ccd 8
level 1 events	33779	24750	173890
rejected events	29444	12518	42685
rejected %	87%	50%	24%

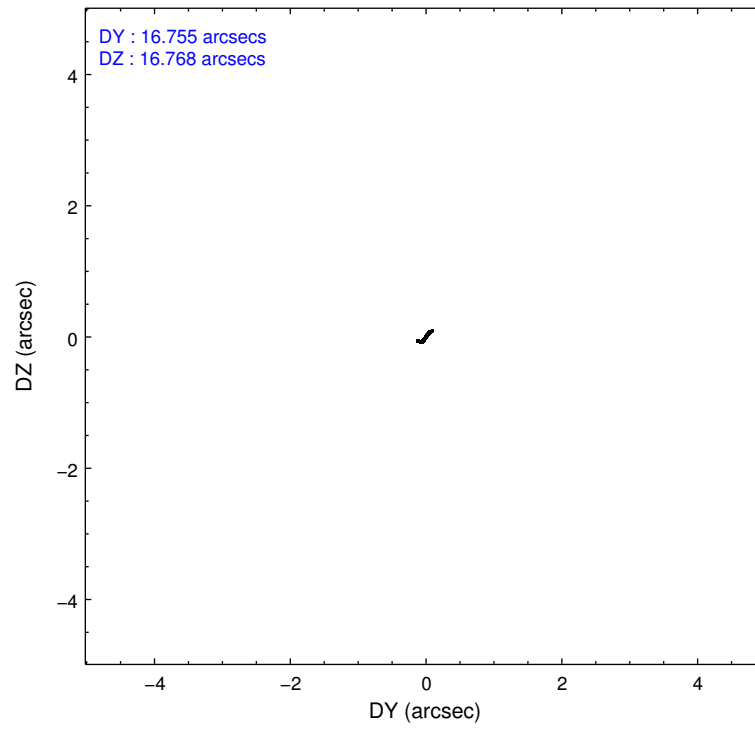
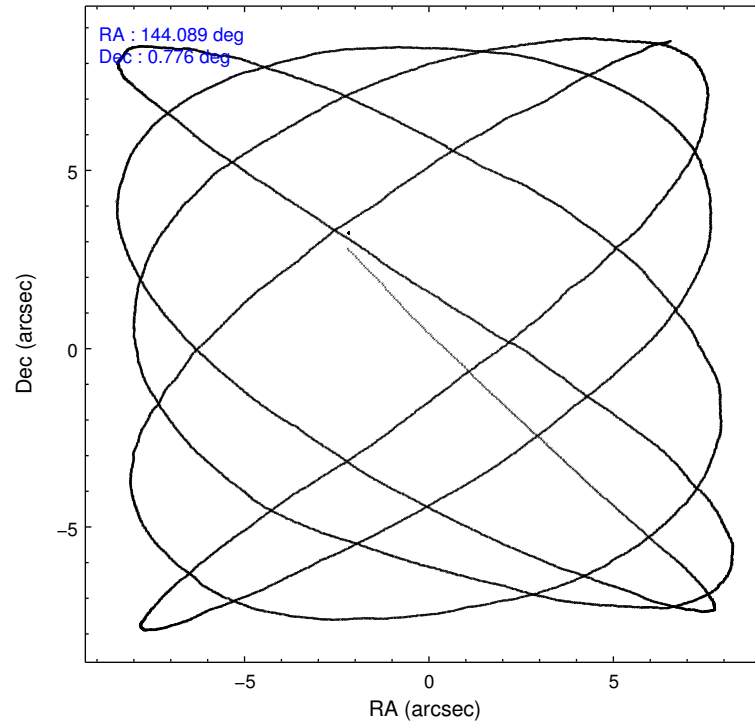
	ccd 6	ccd 7	ccd 8
grade 0 events	1929	1534	38640
	5%	6%	22%
grade 1 events	18	104	349
	0%	0%	0%
grade 2 events	1909	4288	20635
	5%	17%	11%
grade 3 events	109	1066	21981
	0%	4%	12%
grade 4 events	115	1058	20384
	0%	4%	11%
grade 5 events	356	2010	2921
	1%	8%	1%
grade 6 events	273	4297	29666
	0%	17%	17%
grade 7 events	29070	10393	39314
	86%	41%	22%

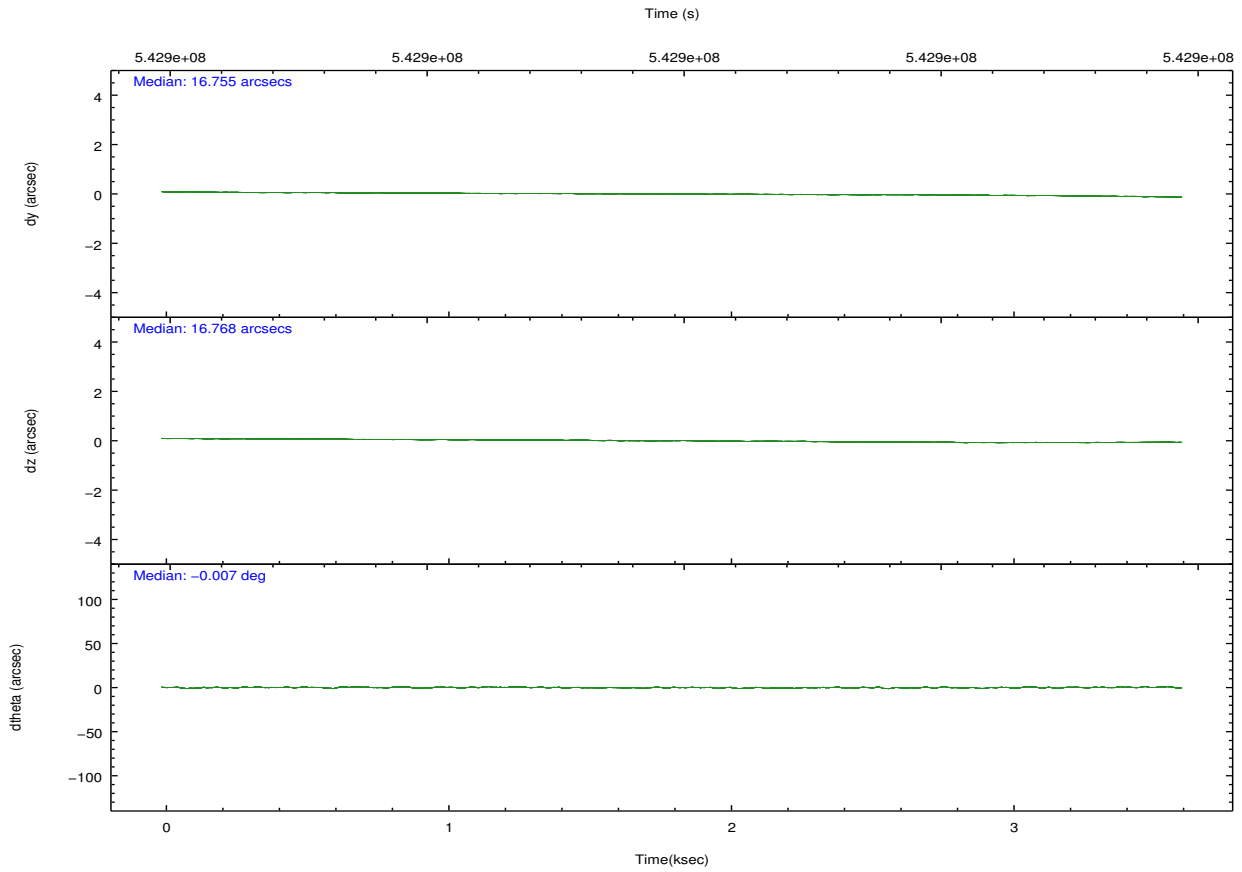
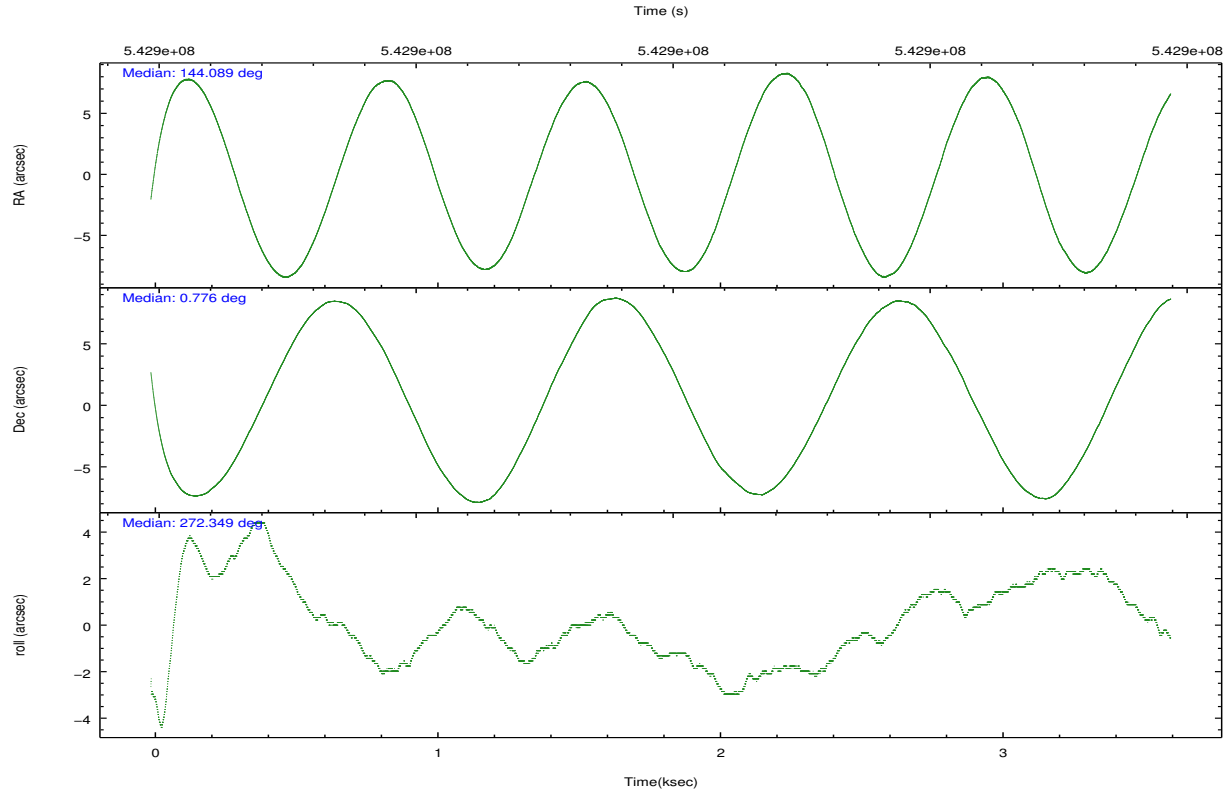


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-678	ACIS-678	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	144.074020	144.0890671776238	Subarray requested	NONE	NONE
[deg] Pointing Dec	0.799244	0.7761684879495792	Alternating exposures requested	N	N
[deg] Pointing Roll	272.199594	272.3560045802996	[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)	542900753.184000	542898932.33685			
Observation start date	2015-03-16T13:44:46	2015-03-16T13:15:32			
[s] Observation end time (MET)	542903753.184000	542904707.18717			
Observation end date	2015-03-16T14:34:46	2015-03-16T14:51:47			
Read mode	TIMED	TIMED			

## 2.3 Aspect



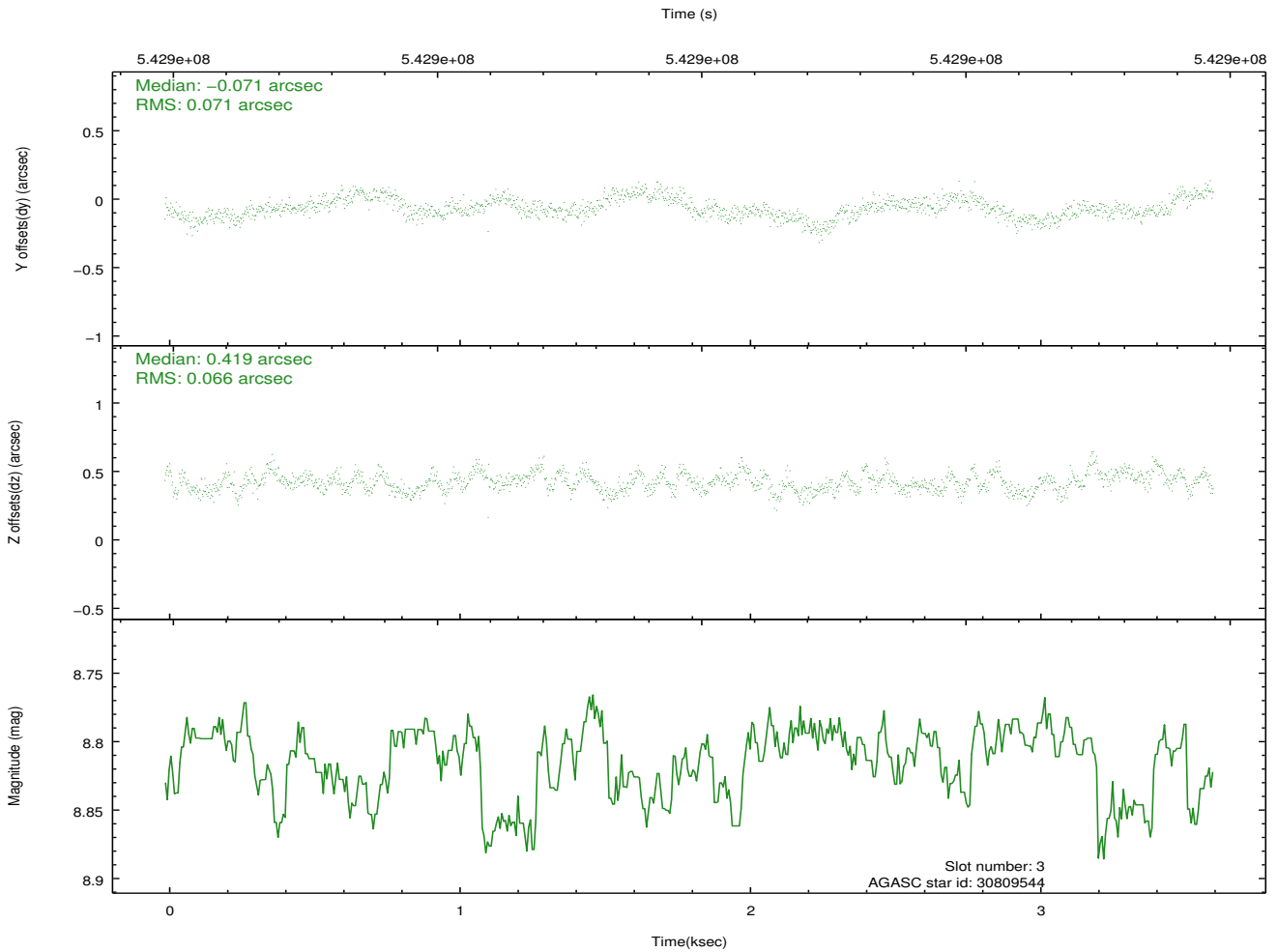
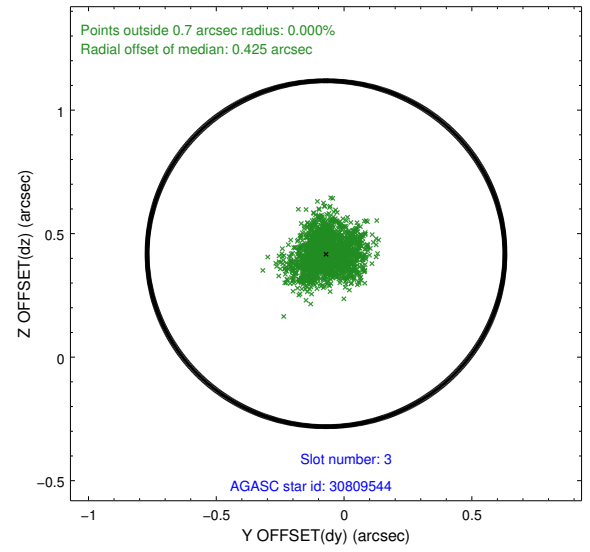
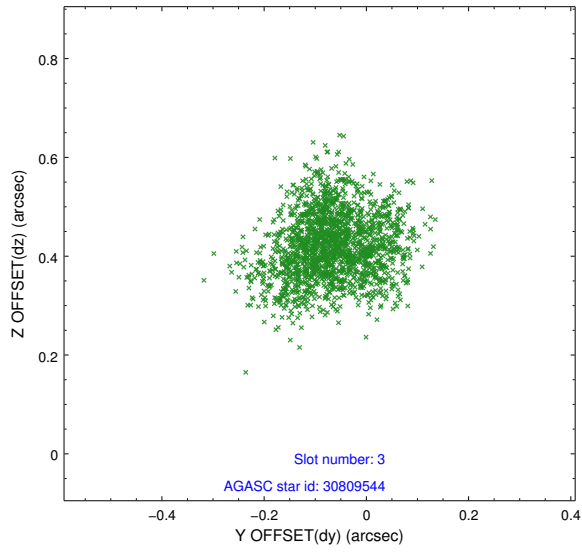


### Slot Statistics

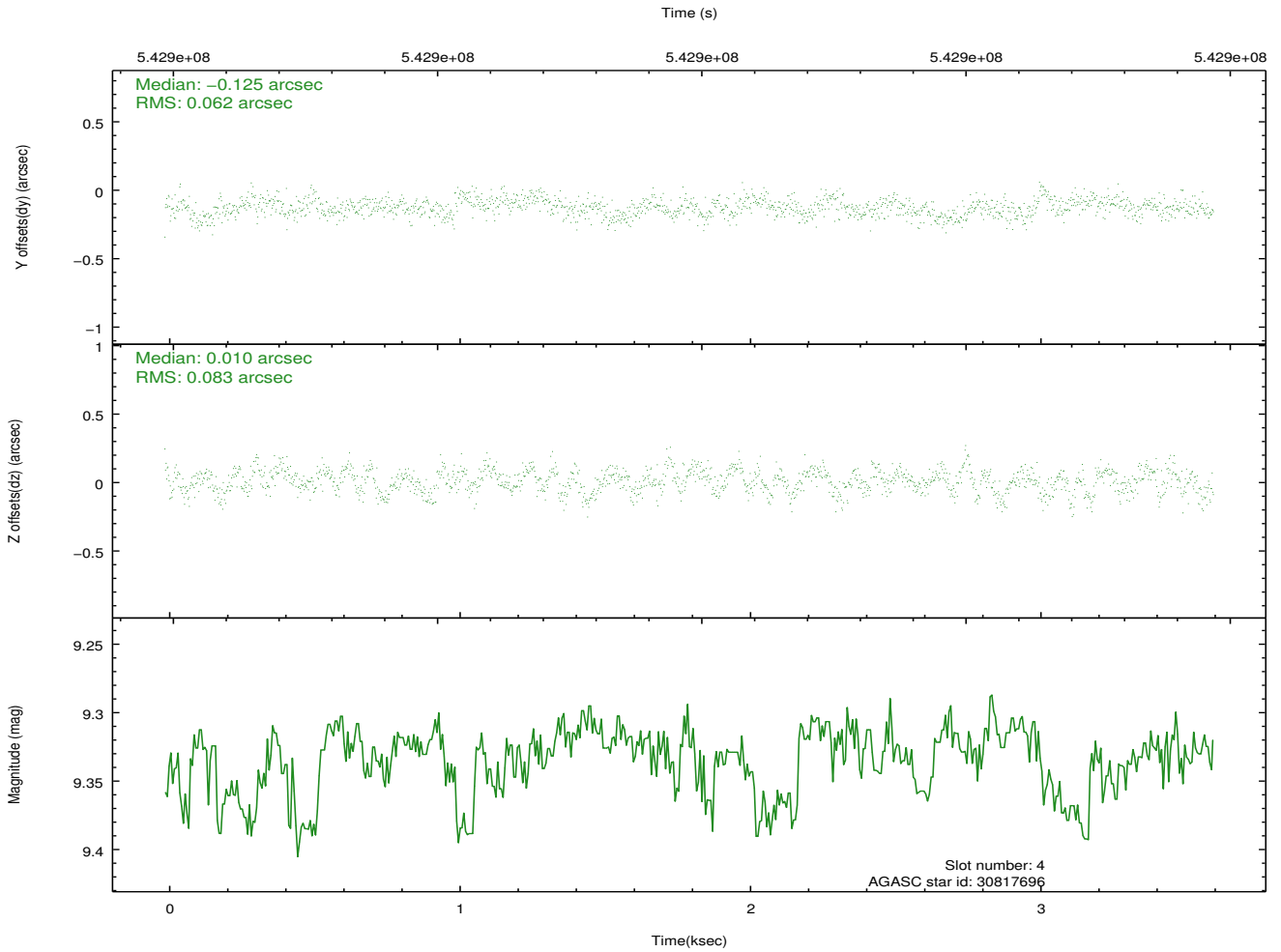
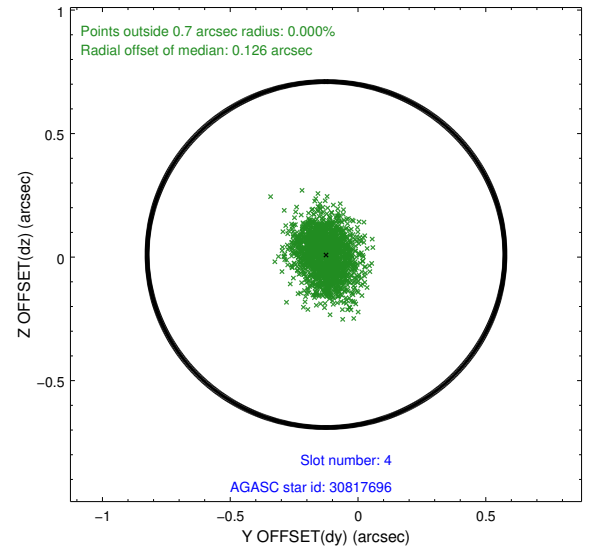
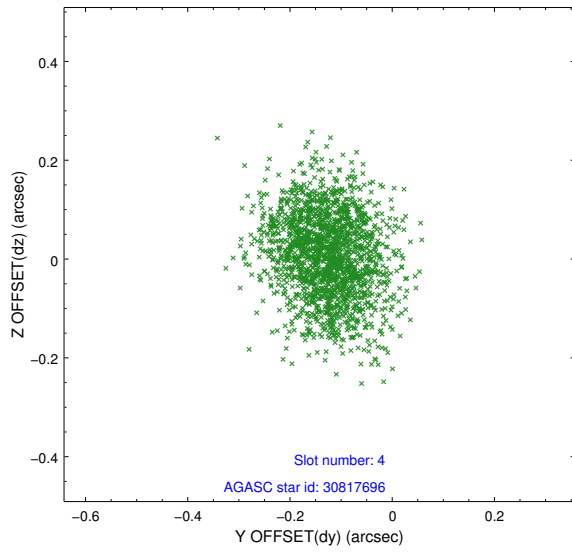
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.09	881	0.206	-0.091	0.006	0.010	0.000000	0.000000	926.51	-1733.90
1	FID		ACIS-S-2	7.01	881	-0.097	0.023	0.007	0.012	0.000000	0.000000	-768.73	-1740.18
2	FID		ACIS-S-5	7.11	880	-0.133	0.075	0.006	0.011	0.000000	0.000000	-1823.82	161.96
3	GUIDE	used	30809544	8.81	1761	-0.071	0.419	0.104	0.166	143.728085	1.199463	-1487.38	-1188.90
4	GUIDE	used	30817696	9.33	1760	-0.125	0.010	0.109	0.176	144.323150	0.738417	252.16	887.01
5	GUIDE	used	30819512	7.75	1761	0.265	0.119	0.070	0.124	143.954009	0.200189	2138.94	-513.70
6	GUIDE	used	30819568	9.32	1761	-0.127	0.053	0.118	0.193	144.048084	0.140964	2365.78	-184.47
7	GUIDE	used	30812464	9.69	1760	0.060	-0.601	0.164	0.264	144.713771	0.927180	-370.91	2317.96

## 2.4 Star Slots

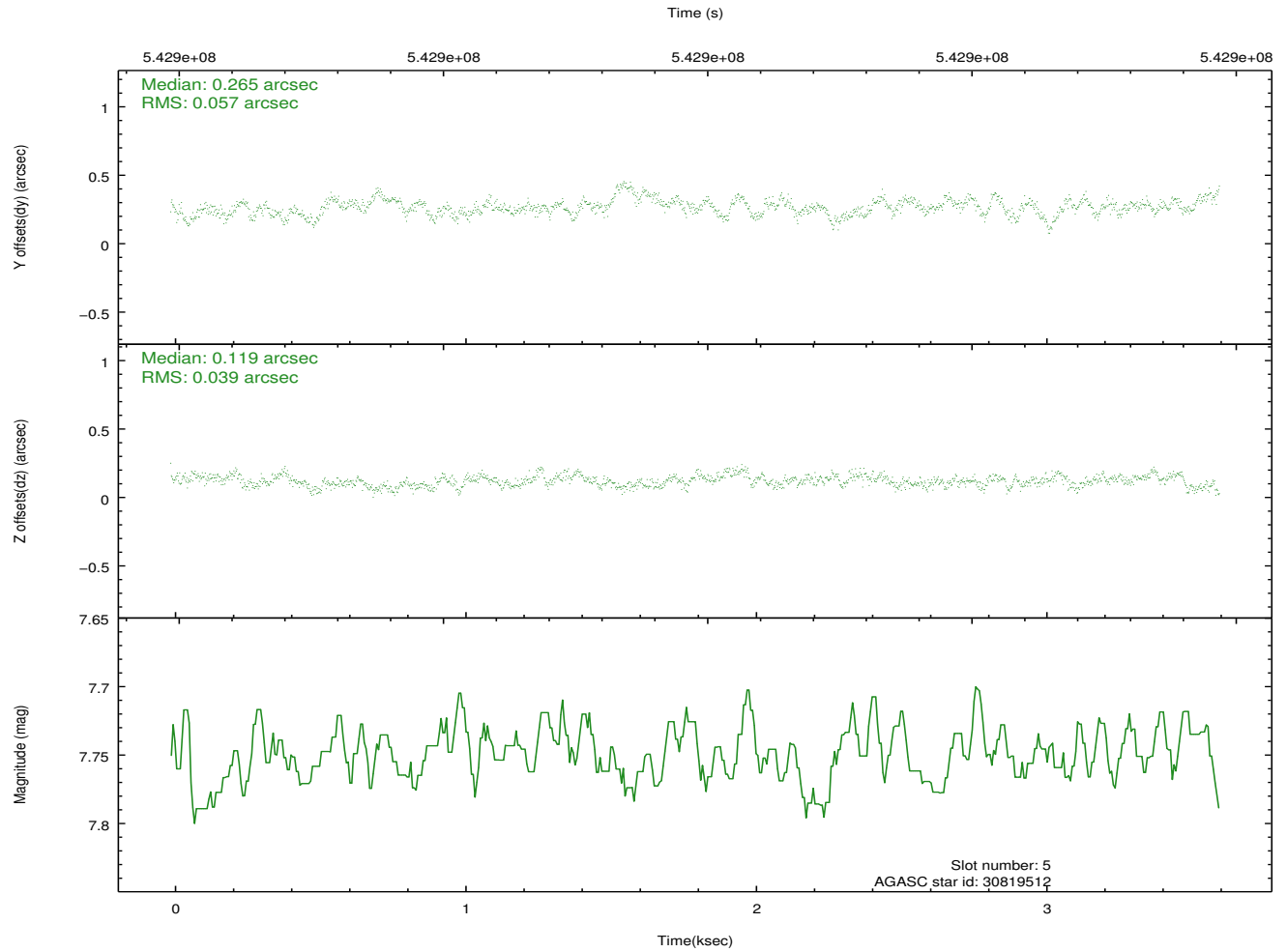
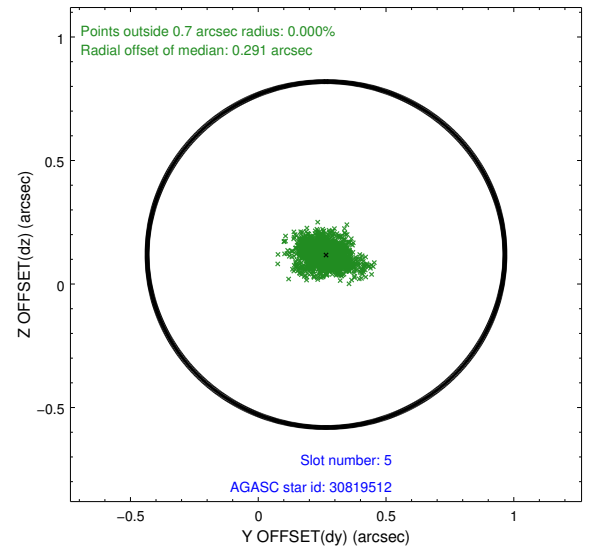
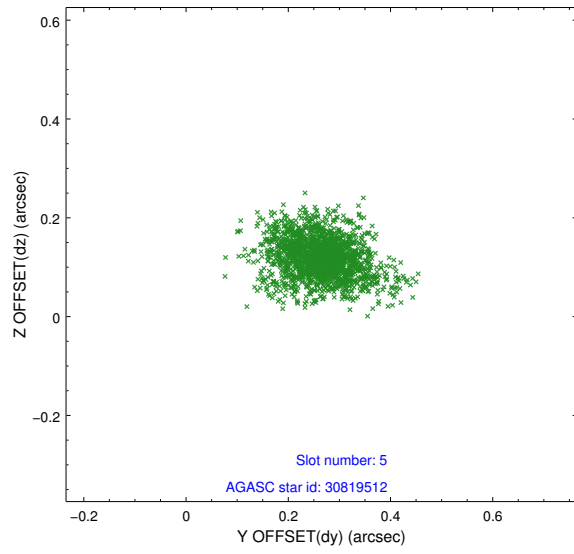
### 2.4.1 Slot 3



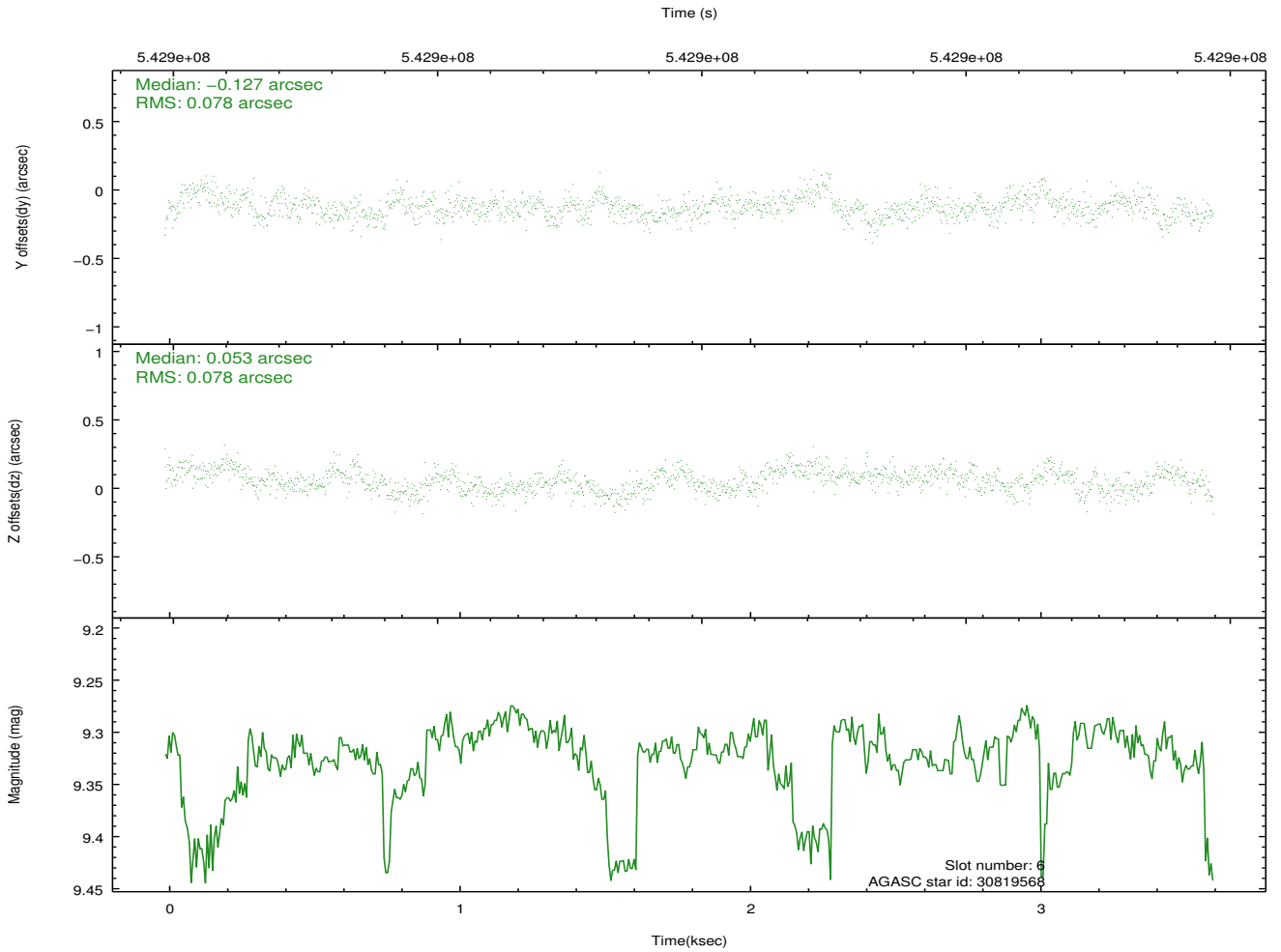
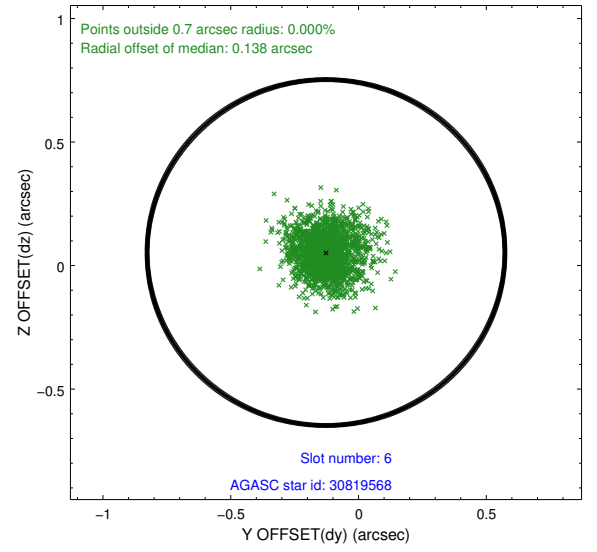
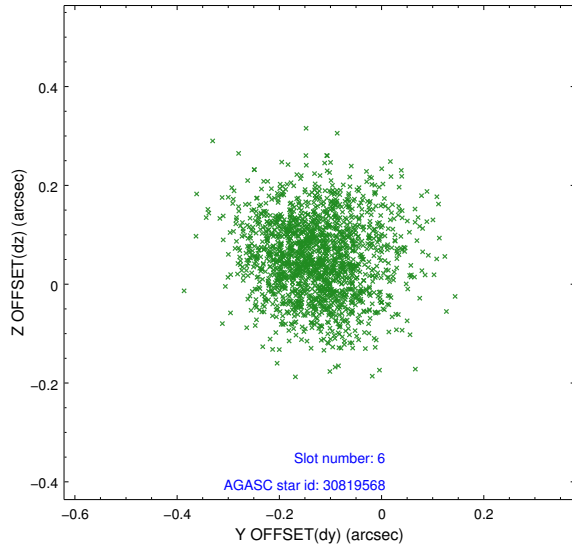
## 2.4.2 Slot 4



### 2.4.3 Slot 5

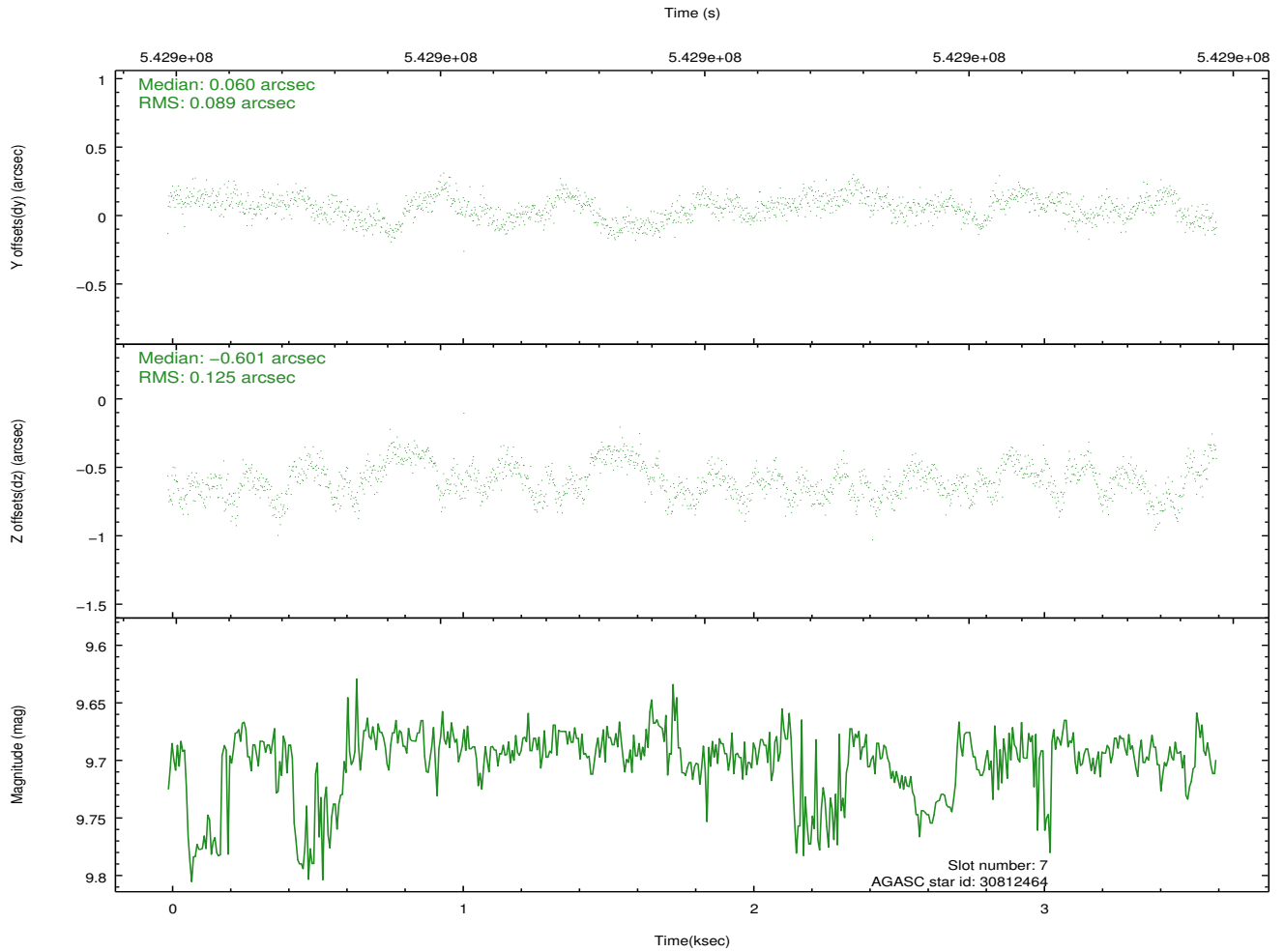
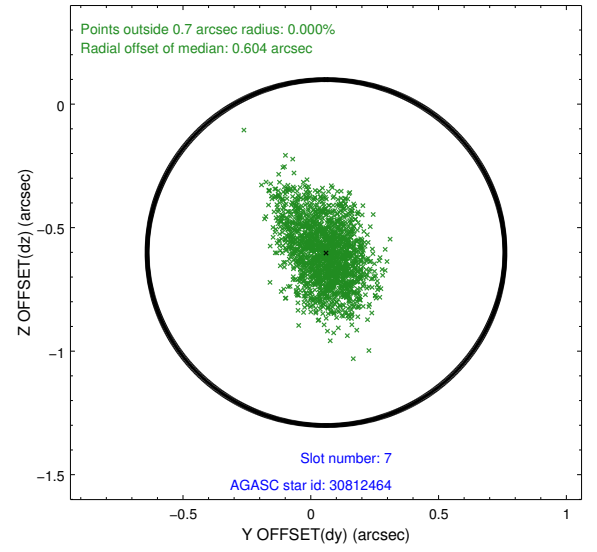
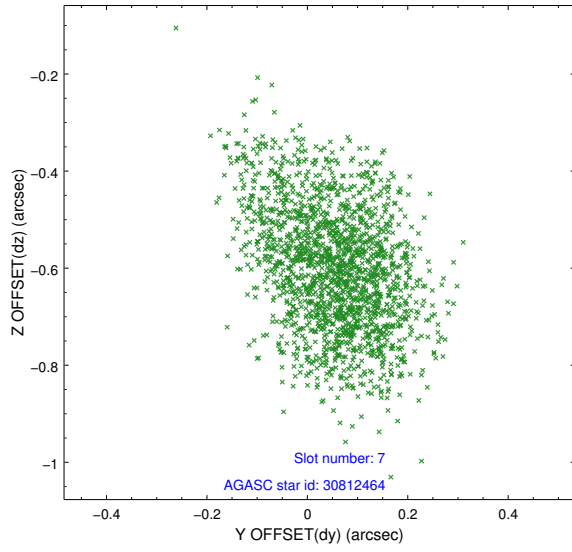


## 2.4.4 Slot 6



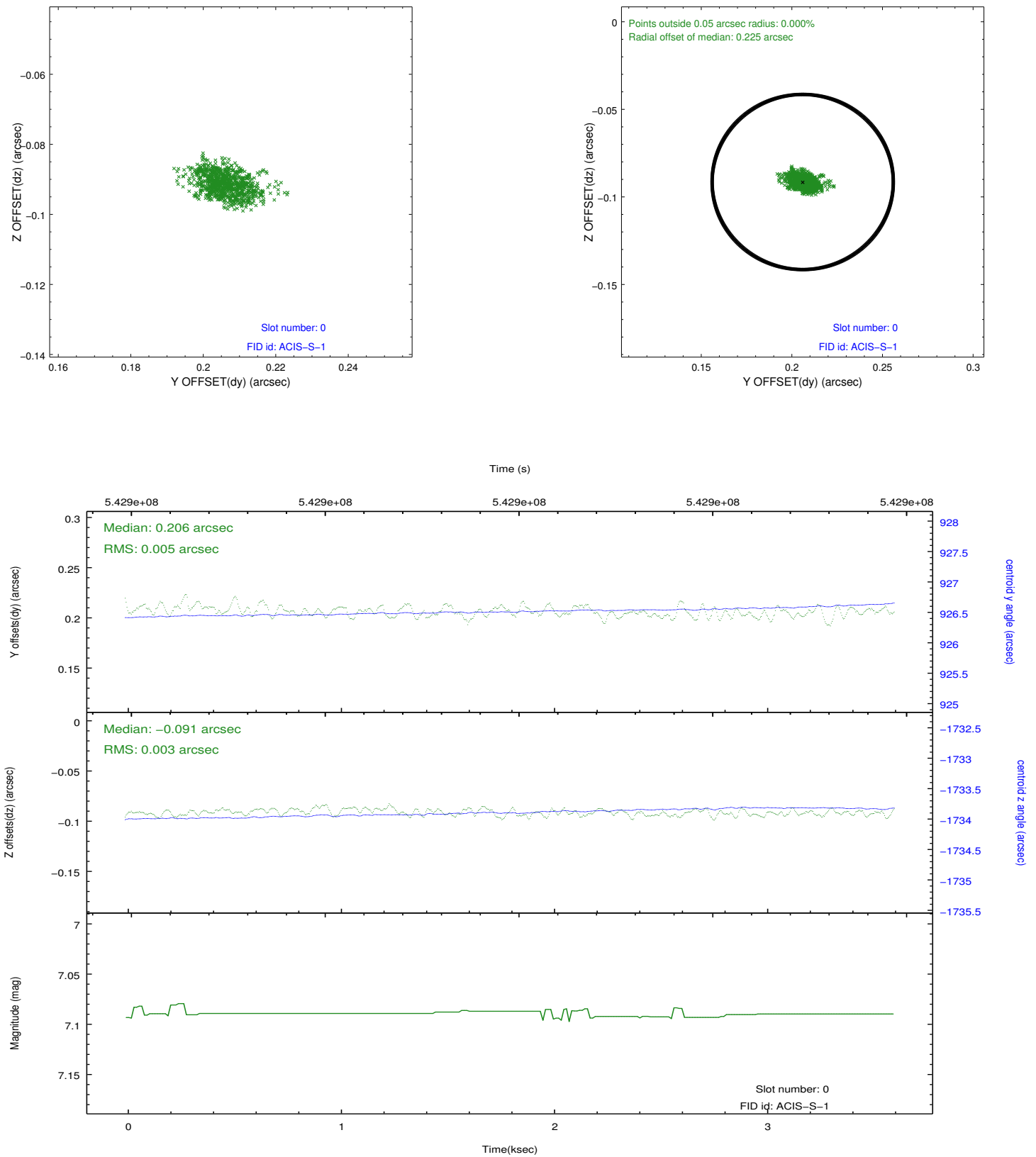


## 2.4.5 Slot 7

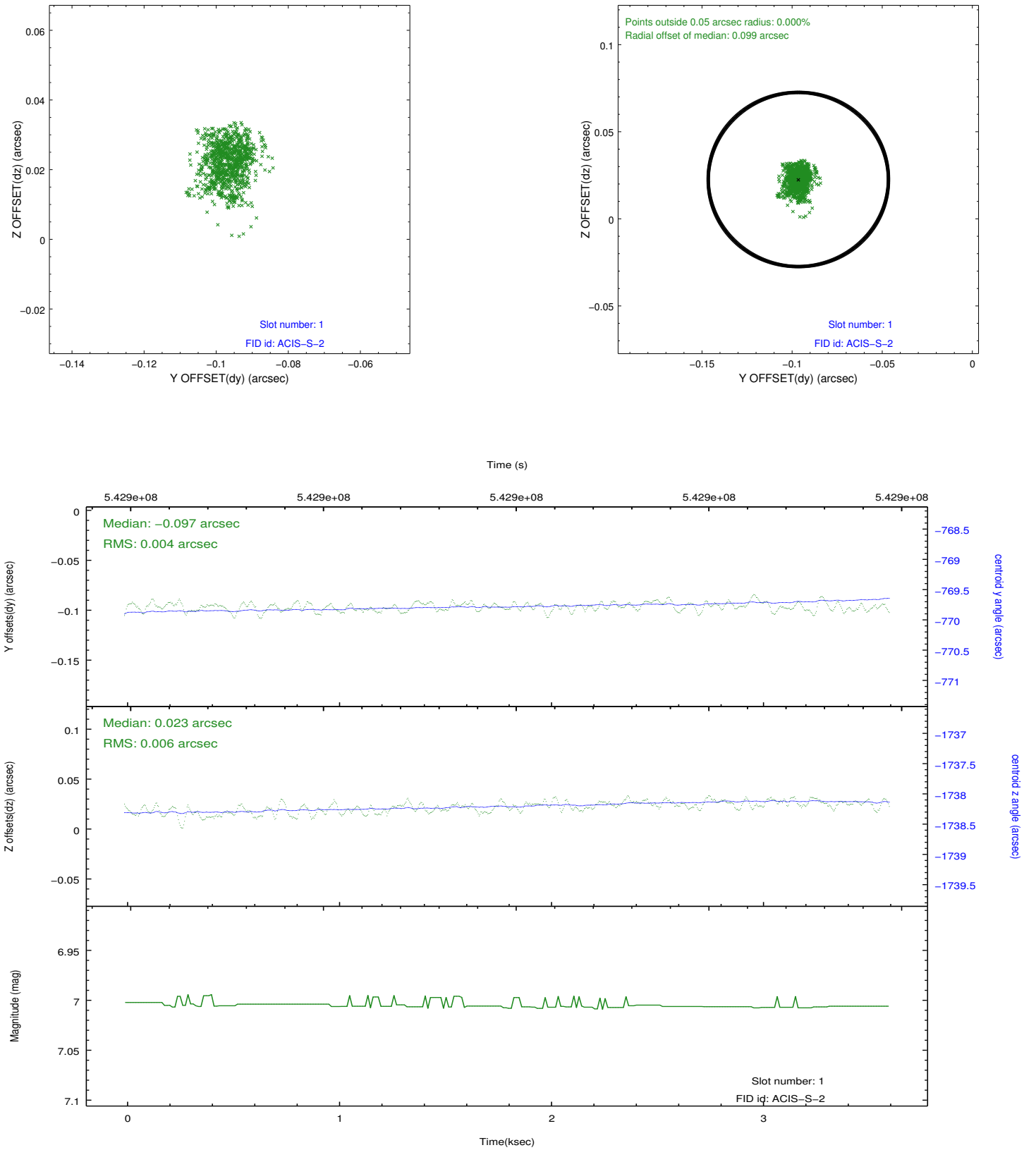


## 2.5 FID Slots

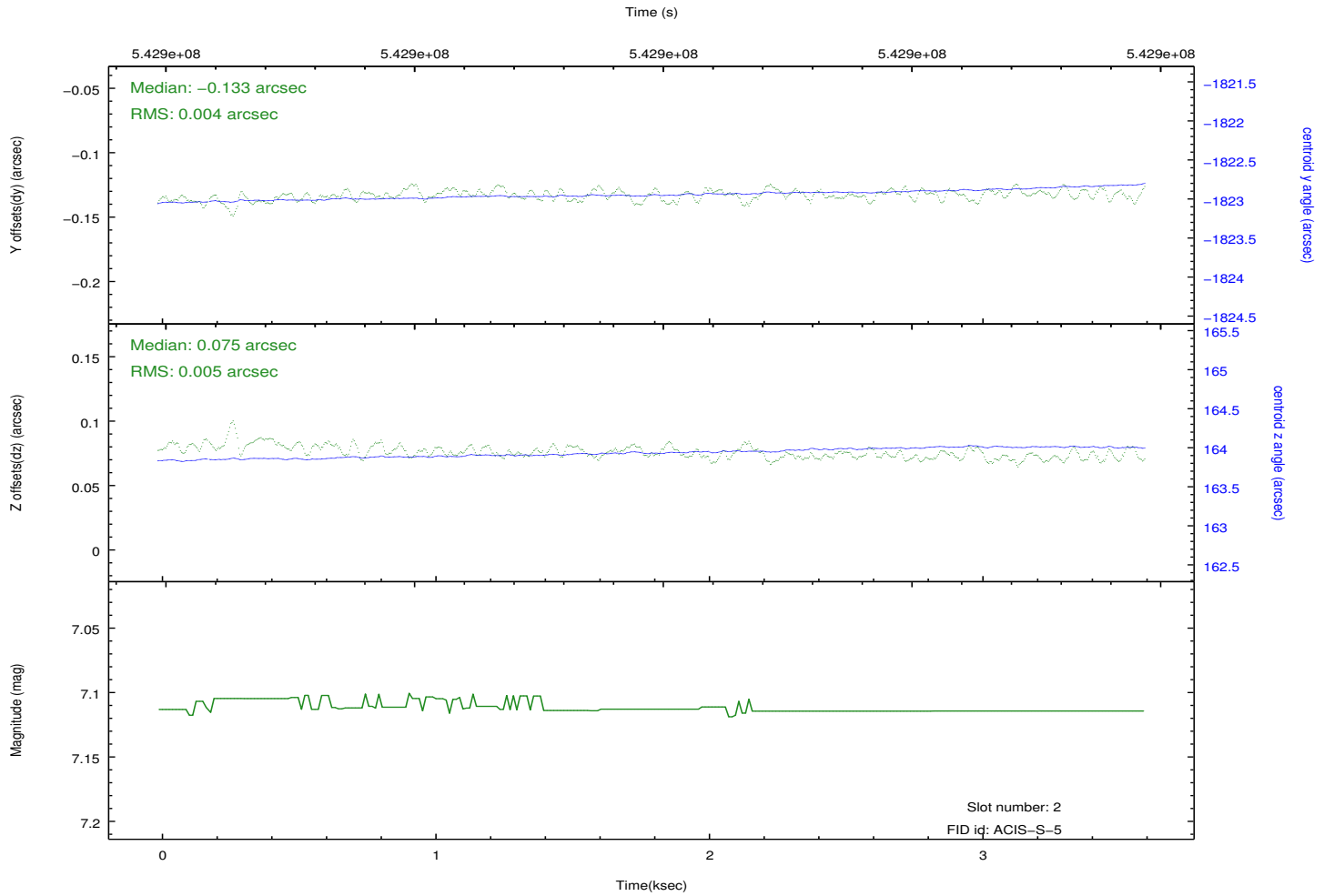
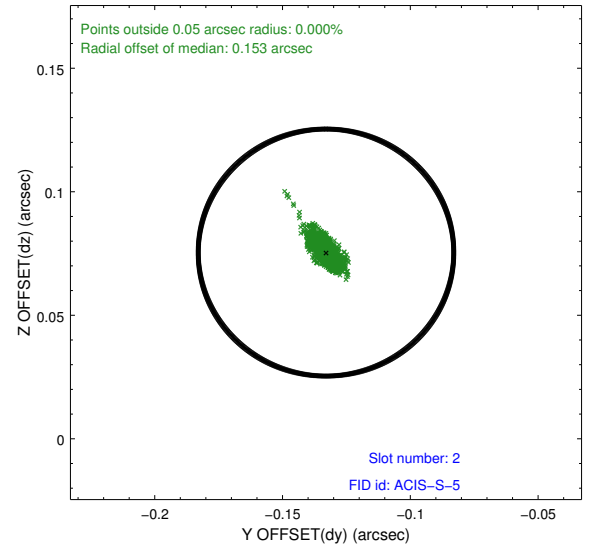
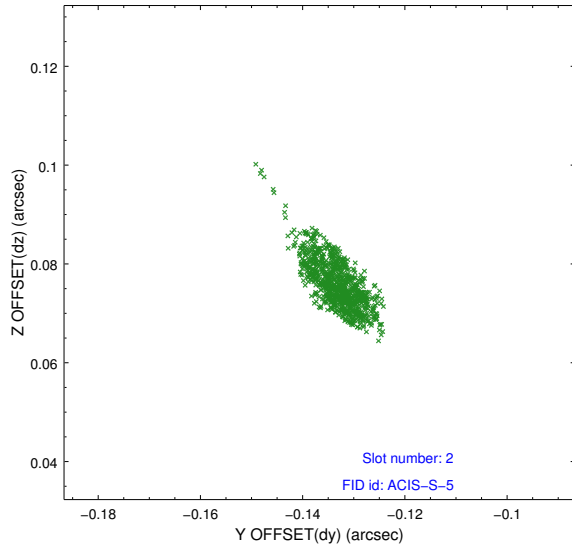
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2015.03.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.0741161214113

## A.2 Comments

The ontime for chips 6 and 8 is less than nominal, due to high particle background.

The aimpoint (CCD\_ID=7) did obtain the planned exposure.