

# V&V Reference Report

## L2 ASCDS Version : 10.3

Observation 16443 - L2 Version 1  
Chandra X-Ray Center

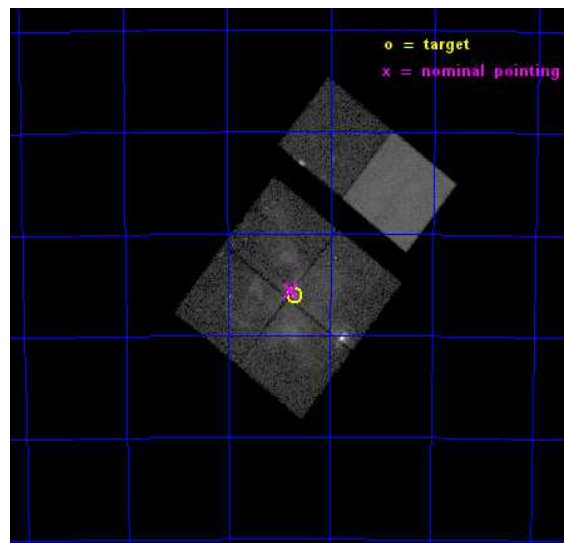
L2 Processing Date : Nov 15 2014

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# 1 Front

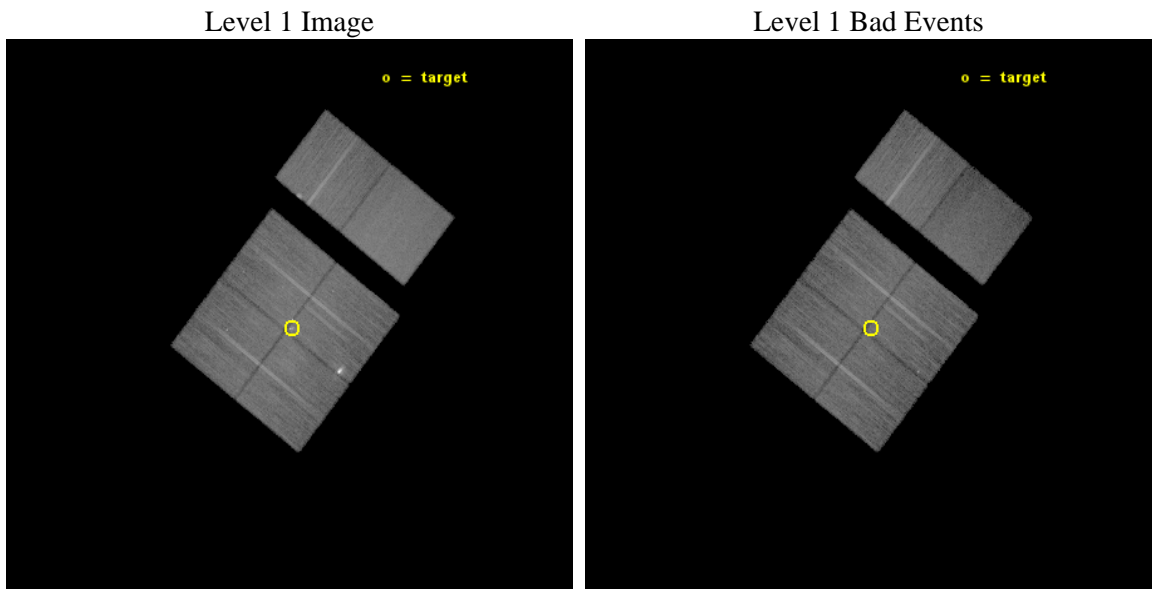
seq_num	901116	Sequence number
obs_id	16443	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.676667	Observer's specified target RA [deg]
dec_targ	-69.100806	Observer's specified target Dec [deg]
ra_nom	84.689647651982	Nominal RA [deg]
dec_nom	-69.094054644191	Nominal Dec [deg]
roll_nom	38.220805858094	Nominal Roll [deg]
revision	1	Processing version of data
ontime	34972.799869776	Sum of GTIs [s]
livetime	34529.953219733	Livetime [s]
ontime0	34972.777472854	Sum of GTIs [s]
ontime1	34972.799869776	Sum of GTIs [s]
ontime2	34969.558879435	Sum of GTIs [s]
ontime3	34972.799869776	Sum of GTIs [s]
ontime6	34969.558859527	Sum of GTIs [s]
ontime7	34972.799869776	Sum of GTIs [s]
l2events	227346	Number of level 2 events



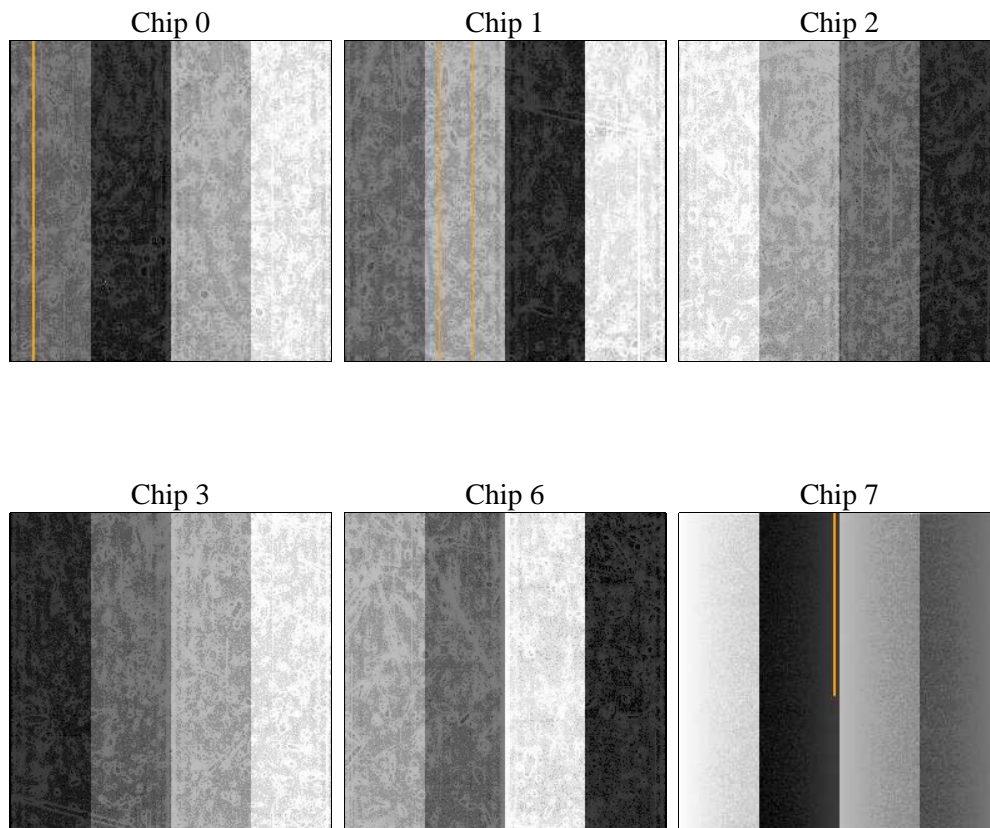
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	34972.799869776	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	34972.777472854	Sum of GTIs [s]
date	2014-11-15T19:19:52	Date and time of file creation	ontime1	34972.799869776	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	34969.558879435	Sum of GTIs [s]
			ontime3	34972.799869776	Sum of GTIs [s]
			ontime6	34969.558859527	Sum of GTIs [s]
			ontime7	34972.799869776	Sum of GTIs [s]
			l1events	1038733	Number of level 1 events

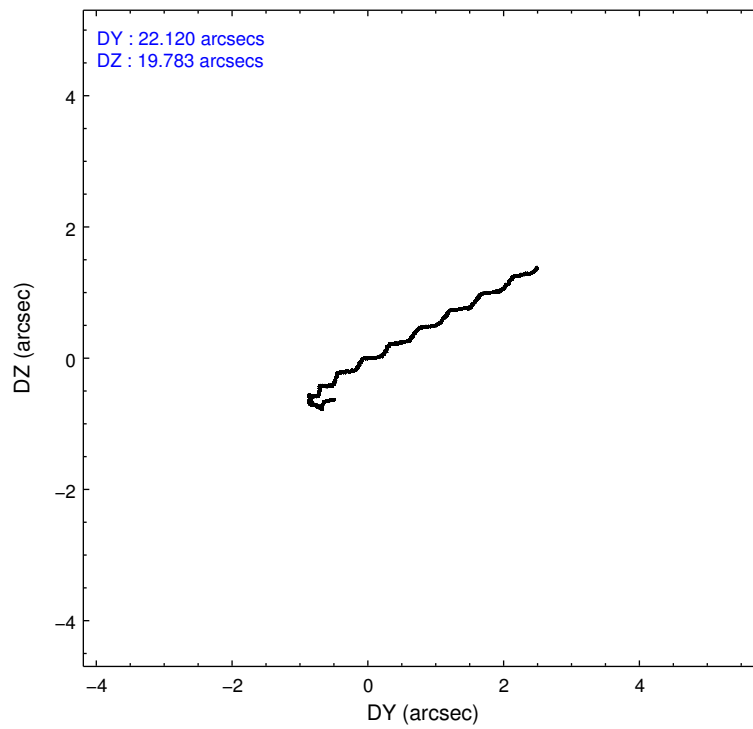
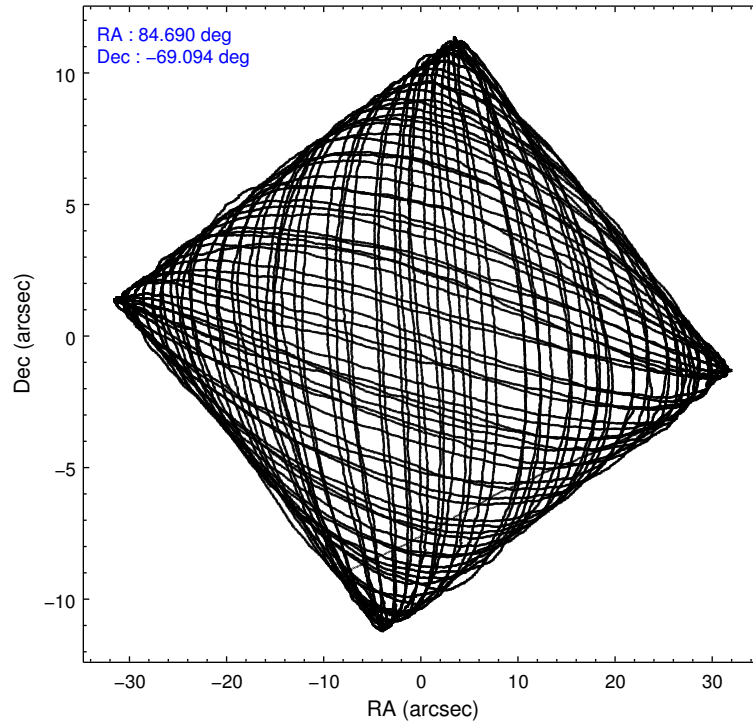
### 2.1.4 Events

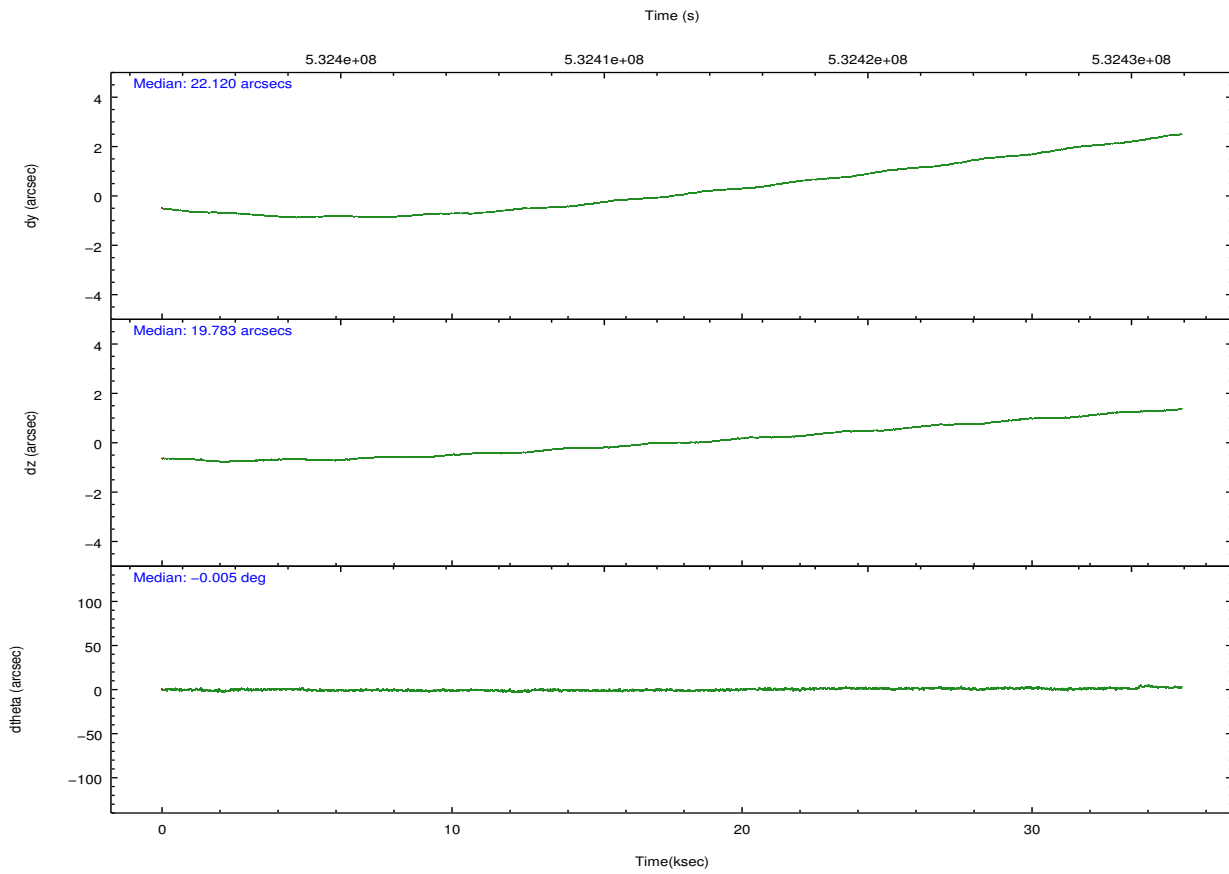
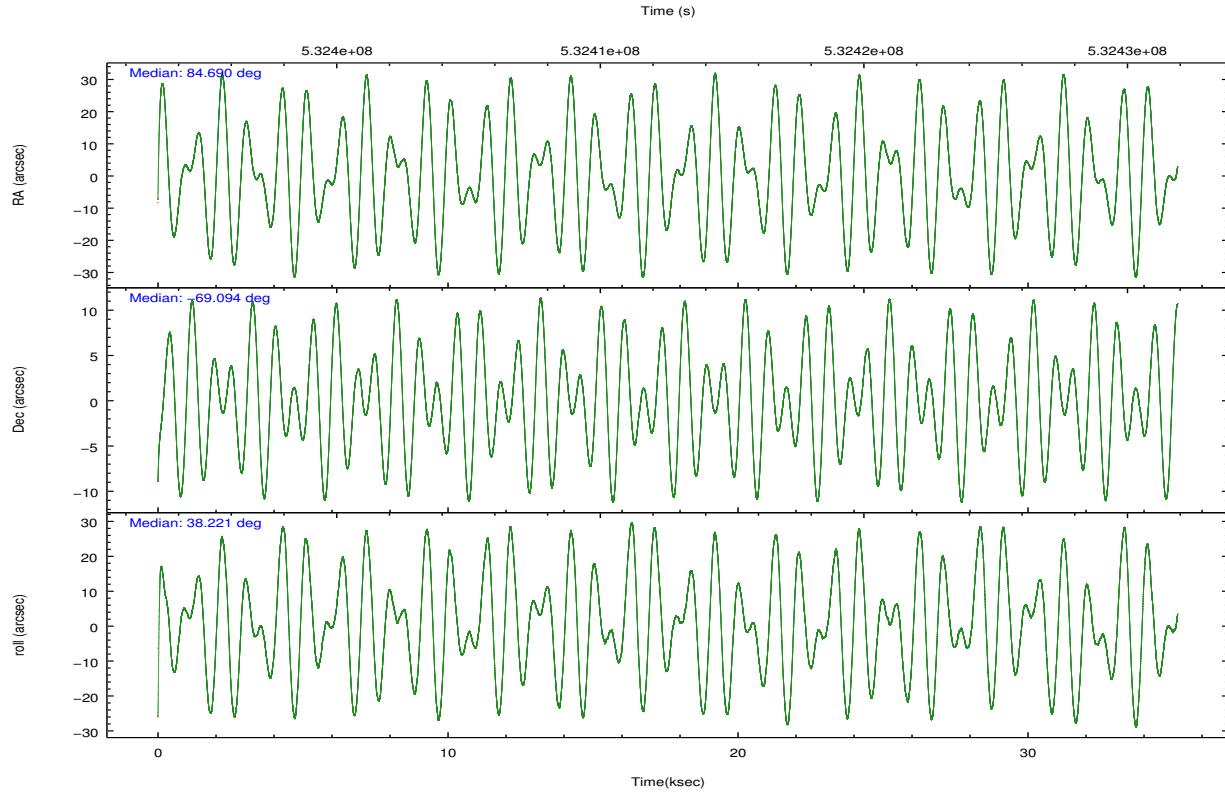
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	154026	161375	171654	186603	170779	194296	grade 0 events	12379	16570	14540	31932	9115	9131
rejected events	128395	130345	144162	137533	148641	102080		8%	10%	8%	17%	5%	4%
rejected %	83%	80%	83%	73%	87%	52%	grade 1 events	96	98	134	253	90	292
								0%	0%	0%	0%	0%	0%
							grade 2 events	5351	5679	5325	7132	4784	20200
								3%	3%	3%	3%	2%	10%
							grade 3 events	2141	2210	1969	2795	1935	8039
								1%	1%	1%	1%	1%	4%
							grade 4 events	1985	2256	2137	2884	1985	8087
								1%	1%	1%	1%	1%	4%
							grade 5 events	6758	6975	6316	7526	7509	20493
								4%	4%	3%	4%	4%	10%
							grade 6 events	3778	4316	3524	4331	4320	46764
								2%	2%	2%	2%	2%	24%
							grade 7 events	121538	123271	137709	129750	141041	81290
								78%	76%	80%	69%	82%	41%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	84.661162	84.68964765198228	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.119734	-69.09405464419051	CCD I3 on	Y	Y
[deg] Pointing Roll	37.985516	38.22080585809381	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	532395135.184000	532394071.65055	CCD S5 on	N	N
Observation start date	2014-11-14T23:31:08	2014-11-14T23:14:31	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	532430135.184000	532431069.54011	On-chip summing requested	N	N
Observation end date	2014-11-15T09:14:28	2014-11-15T09:31:09	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





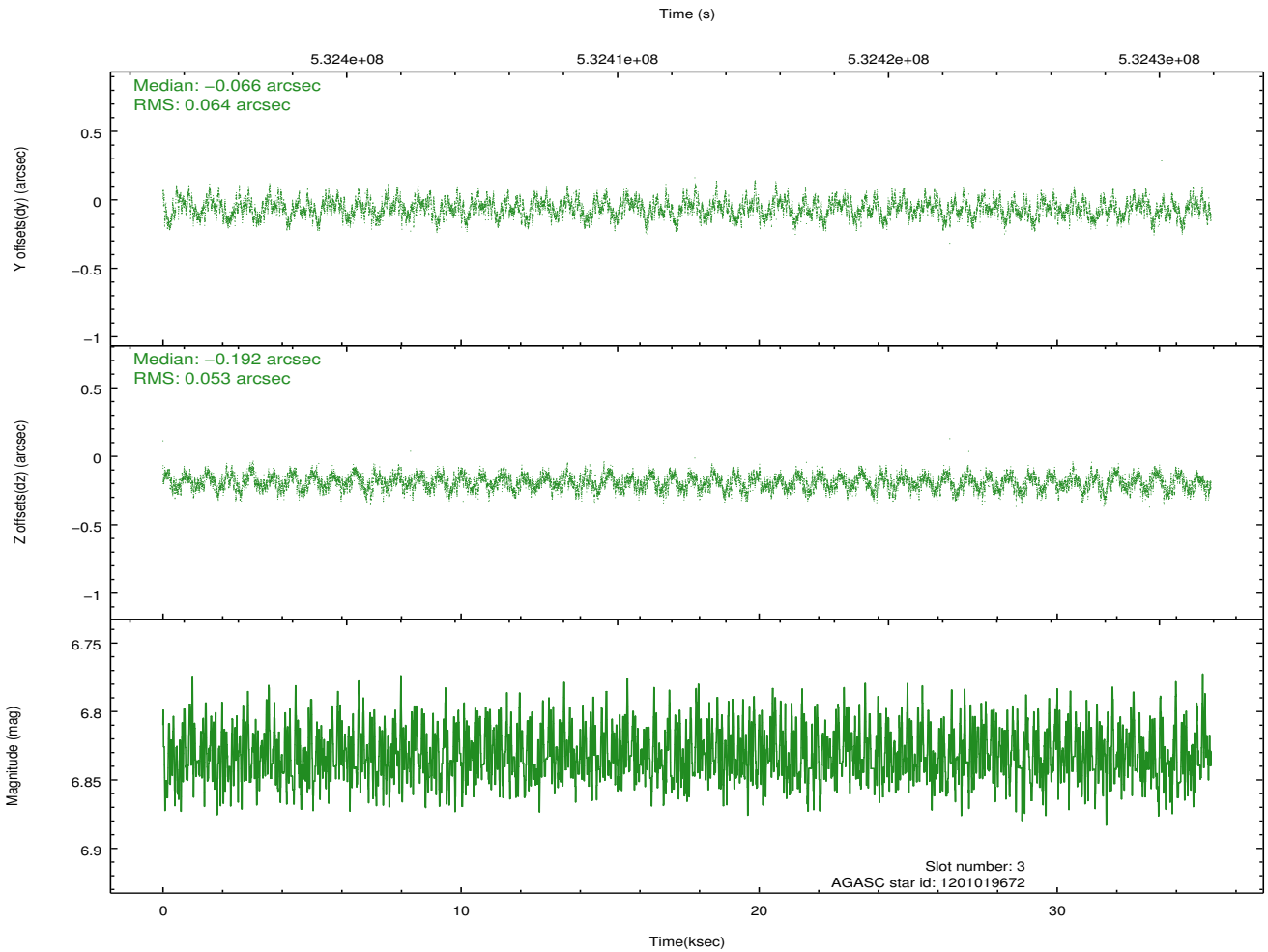
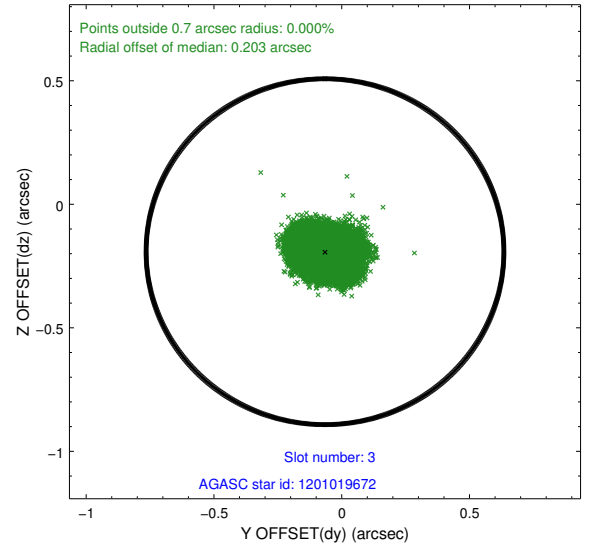
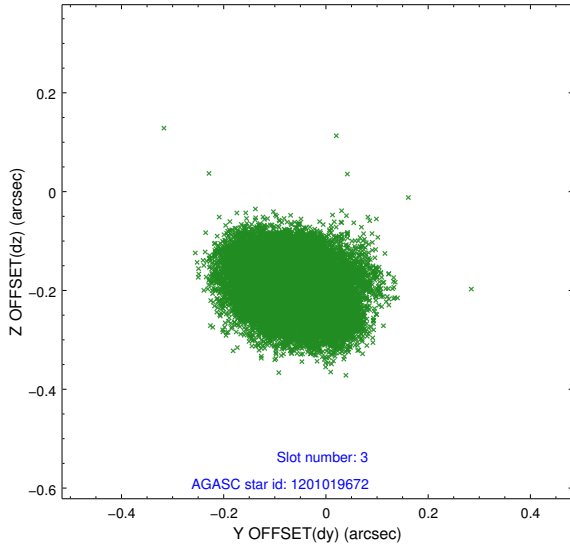
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	6.97	8577	-0.101	-0.072	0.024	0.063	0.000000	0.000000	-777.41	-850.07
1	FID		ACIS-I-4	7.01	8575	0.280	0.079	0.028	0.042	0.000000	0.000000	2136.93	1056.38
2	FID		ACIS-I-5	7.05	8576	-0.273	0.059	0.016	0.031	0.000000	0.000000	-1831.43	1054.06
3	GUIDE	used	1201019672	6.83	17150	-0.066	-0.192	0.090	0.139	85.312192	-68.770187	1440.56	465.86
4	GUIDE	used	1201020040	8.56	17153	-0.087	-0.175	0.080	0.131	85.379163	-68.879396	1263.25	104.39
5	GUIDE	used	1201542672	8.18	17136	0.420	0.372	0.081	0.133	84.492488	-69.957531	-2017.87	-2247.40
6	GUIDE	used	1201018384	9.04	17147	-0.185	0.011	0.112	0.185	85.801362	-68.593260	2339.01	560.55
7	GUIDE	used	1201019928	9.51	17136	-0.086	-0.015	0.127	0.205	85.136920	-68.248318	2429.67	2080.20

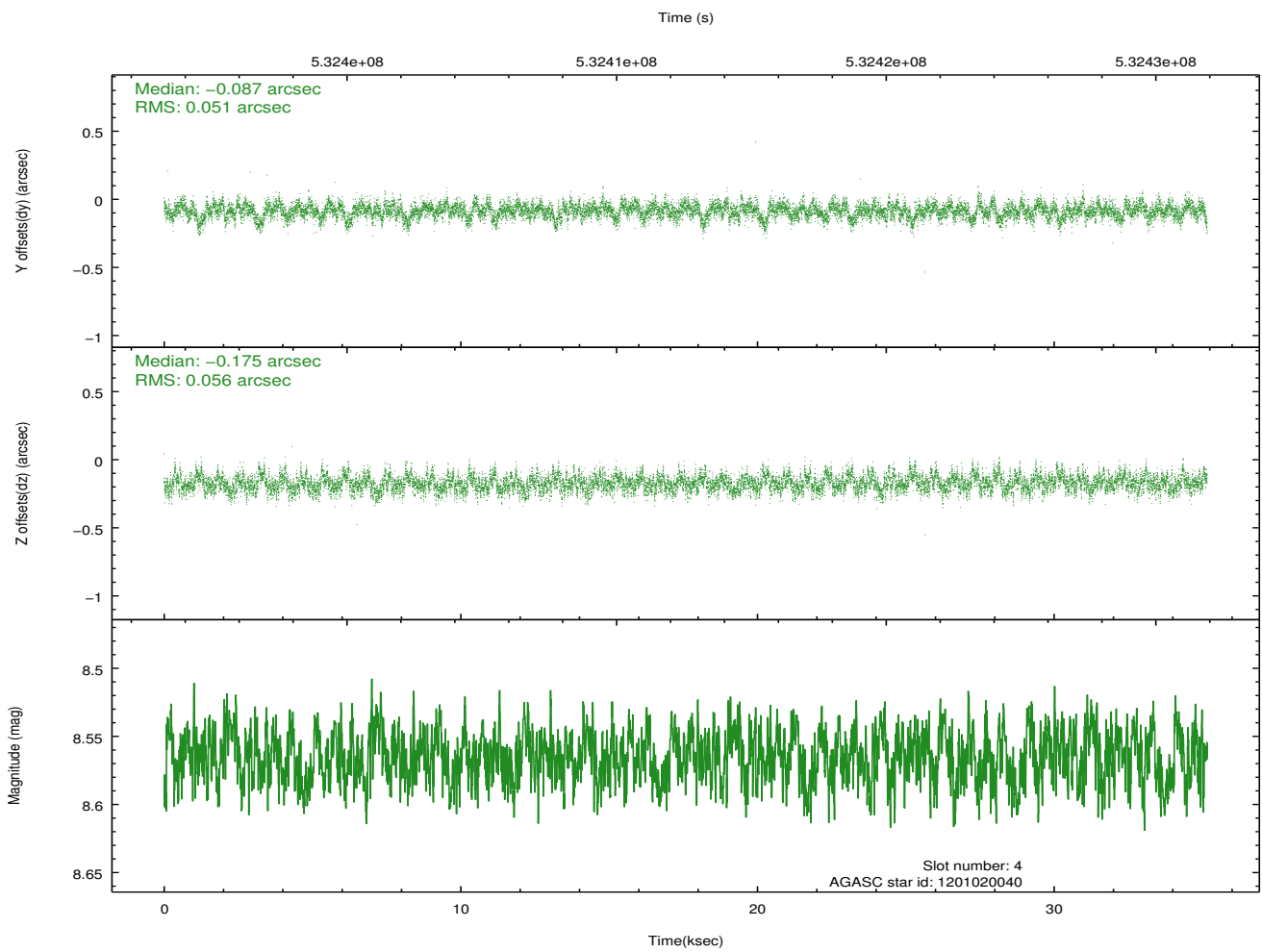
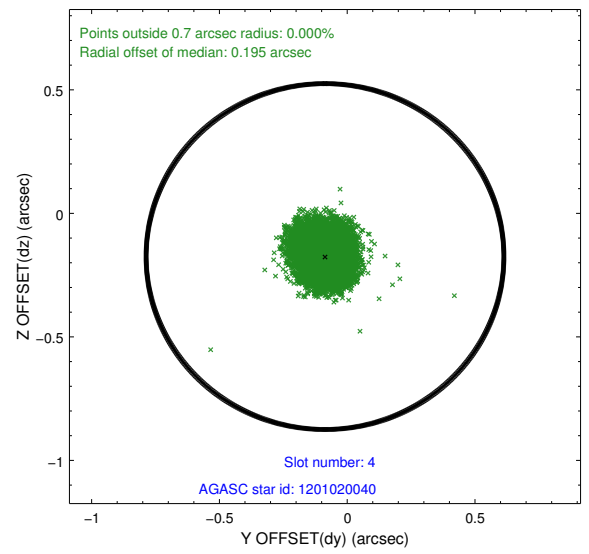
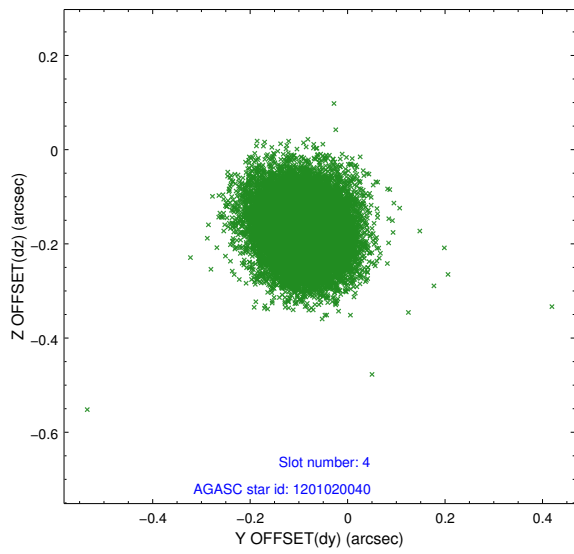
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## 2.4 Star Slots

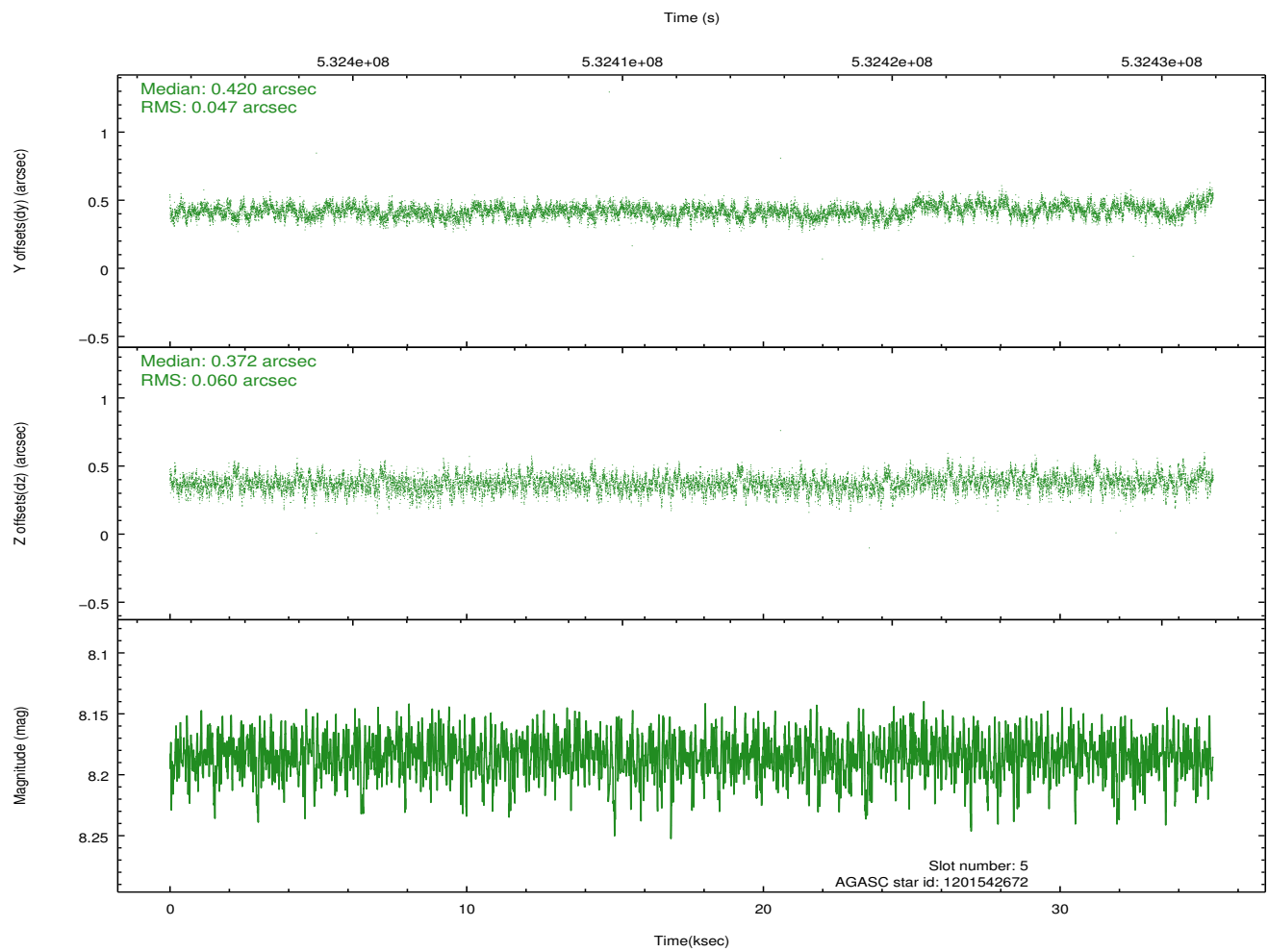
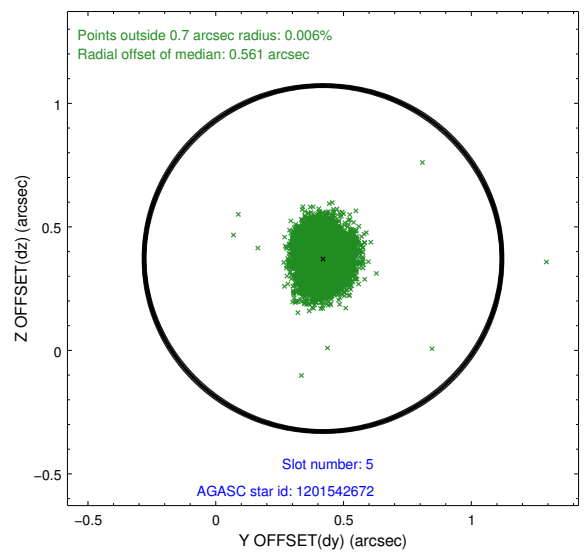
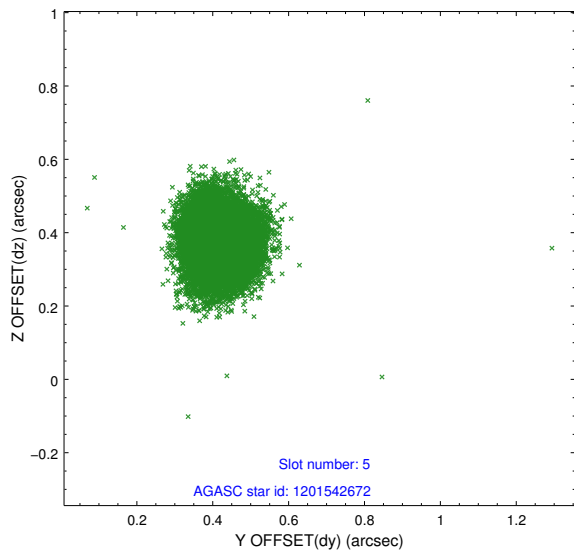
### 2.4.1 Slot 3



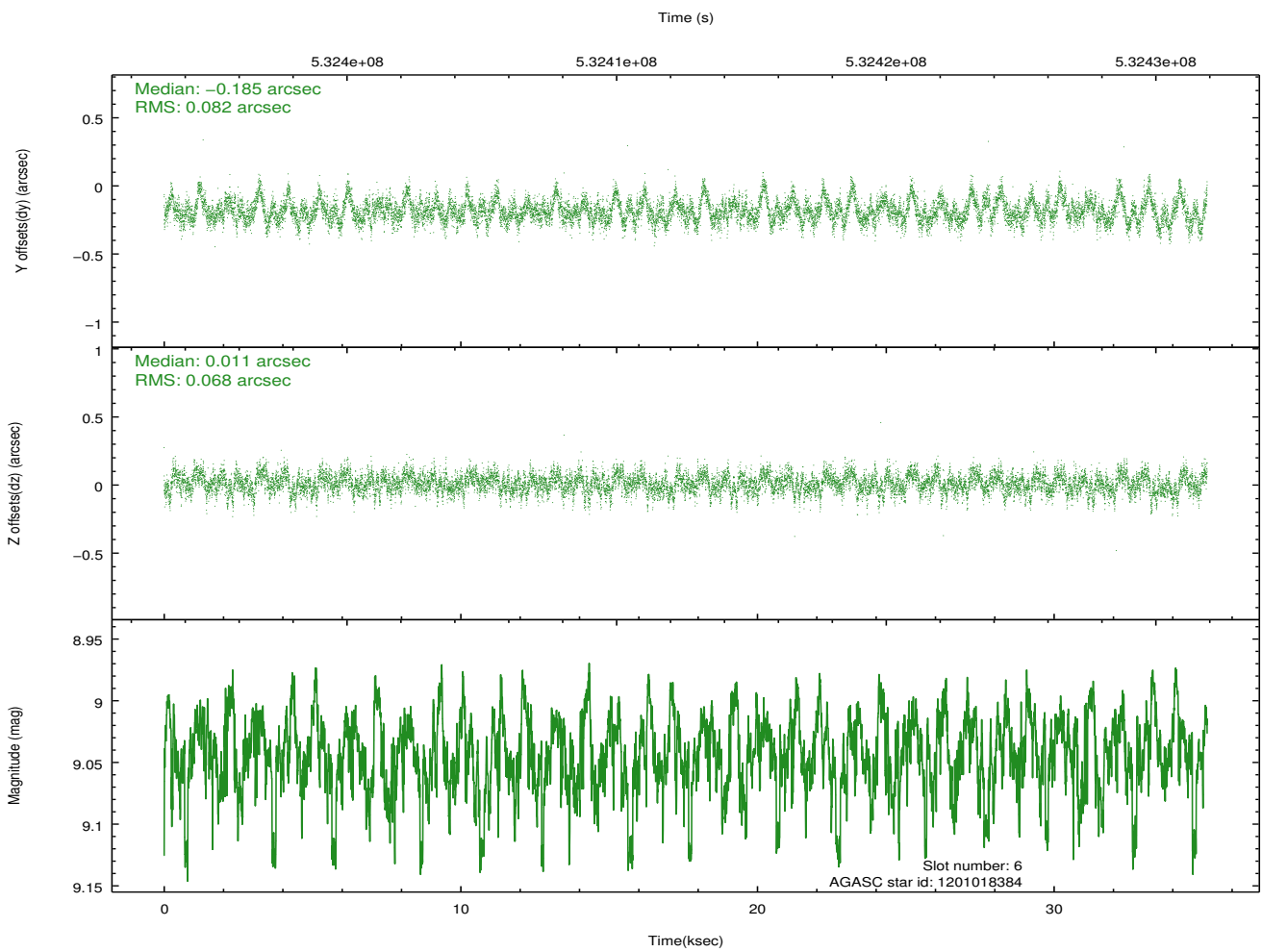
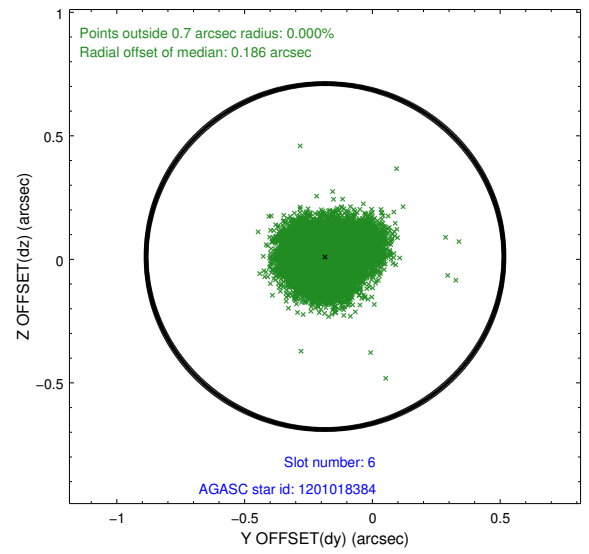
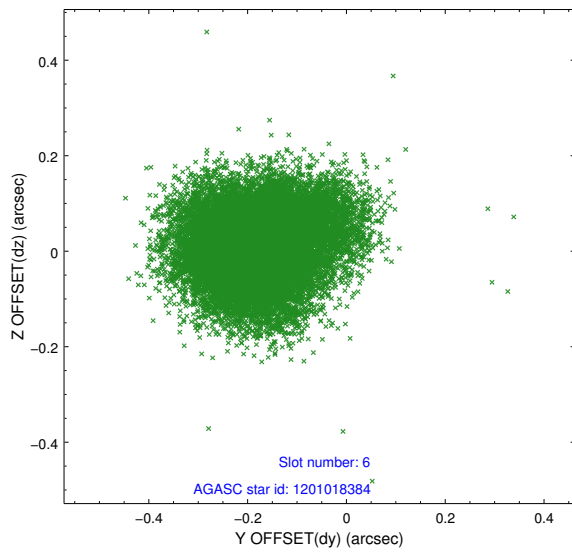
## 2.4.2 Slot 4



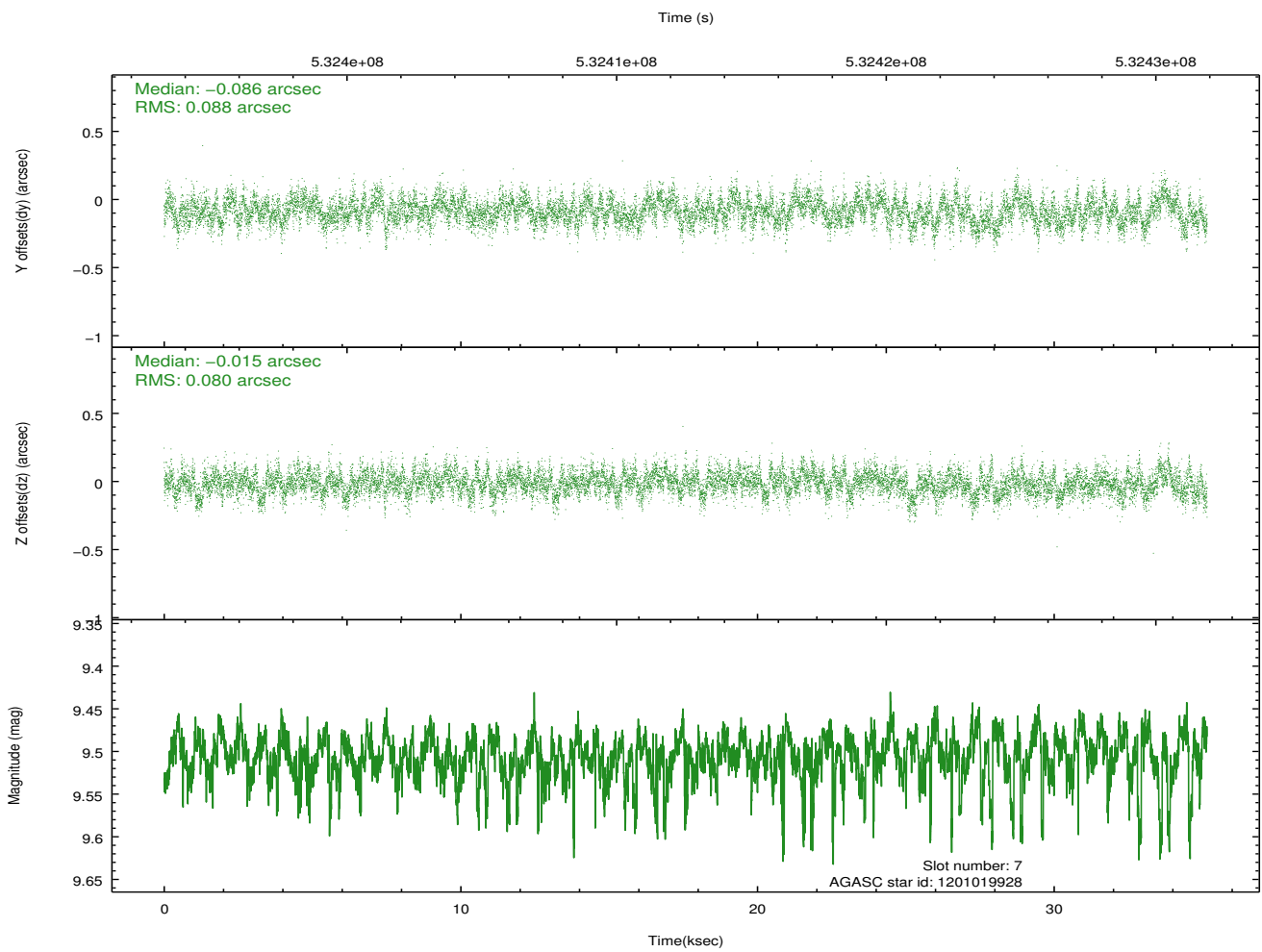
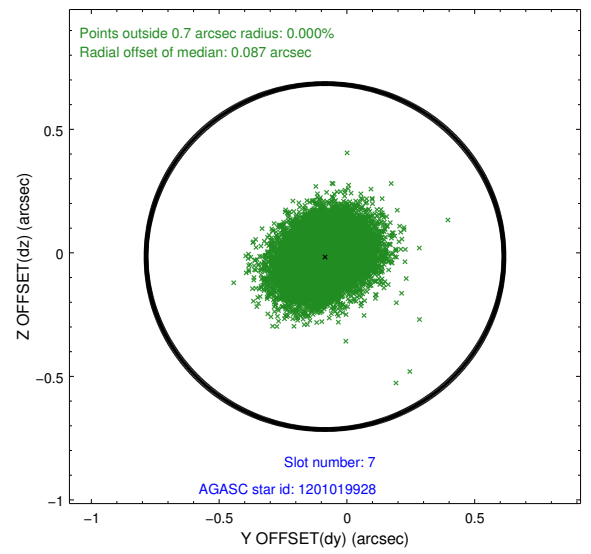
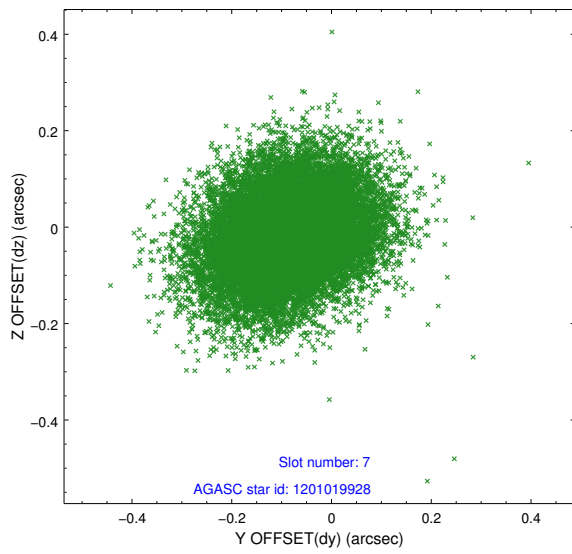
### 2.4.3 Slot 5



## 2.4.4 Slot 6

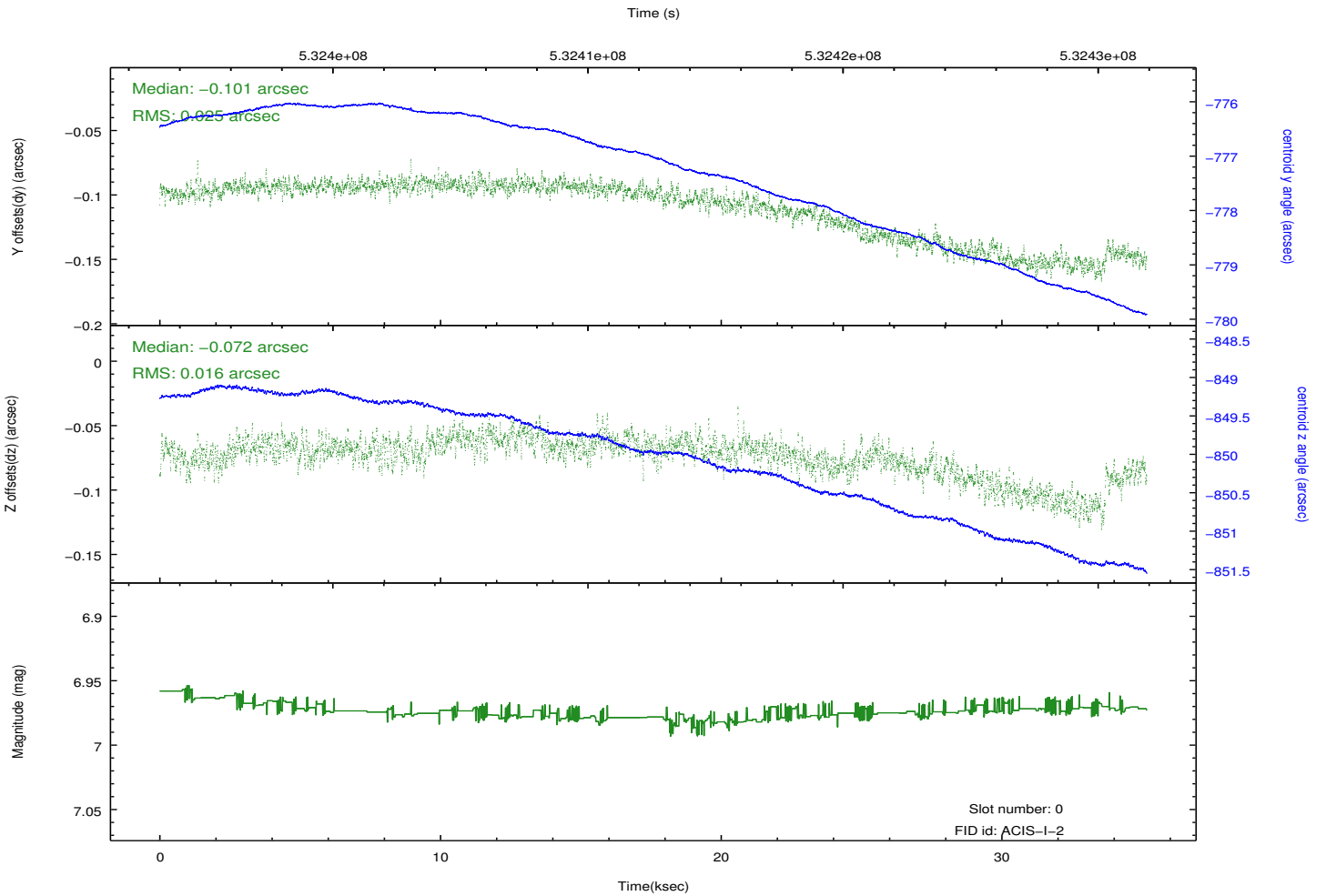
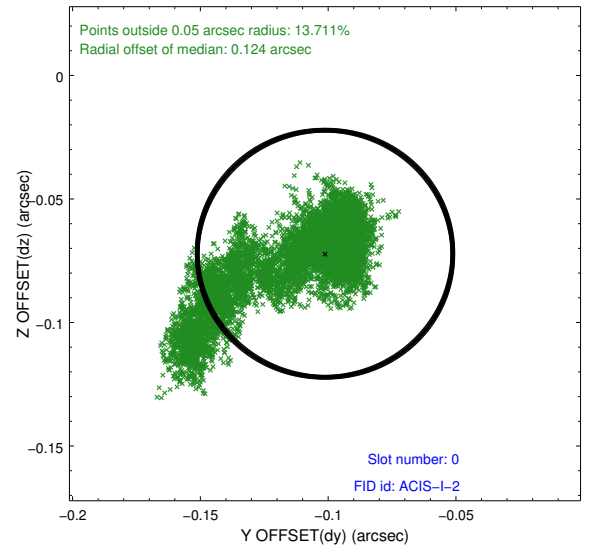
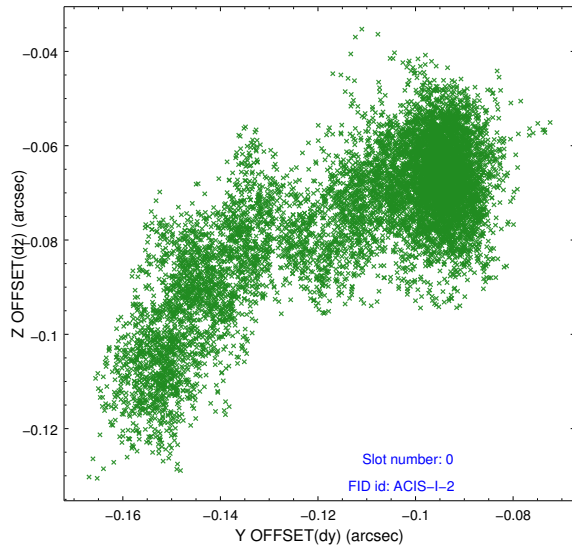


## 2.4.5 Slot 7

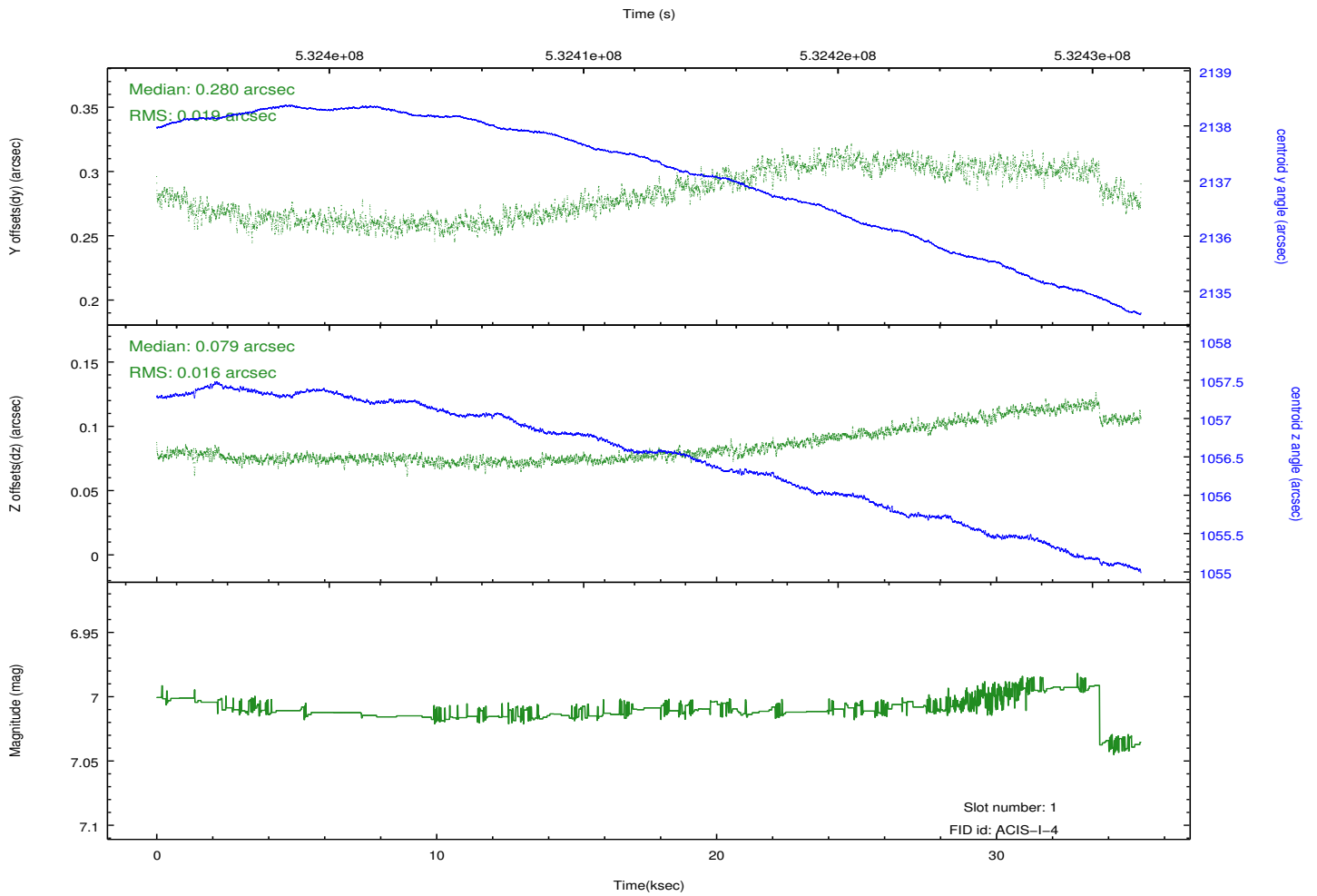
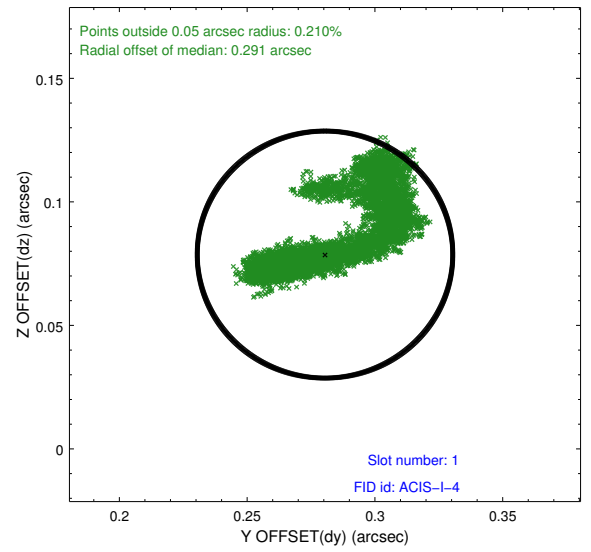
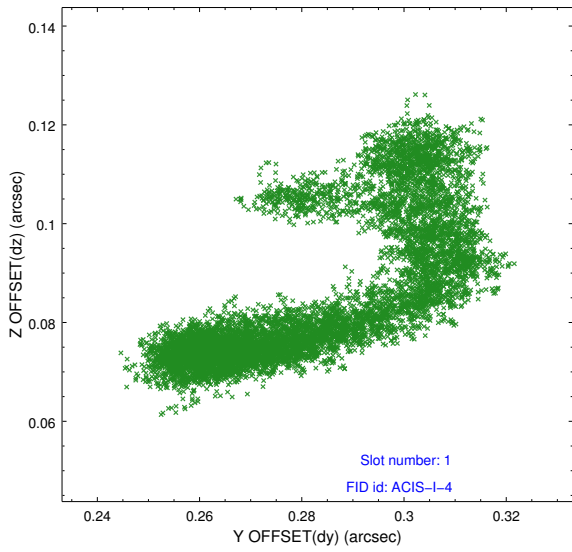


## 2.5 FID Slots

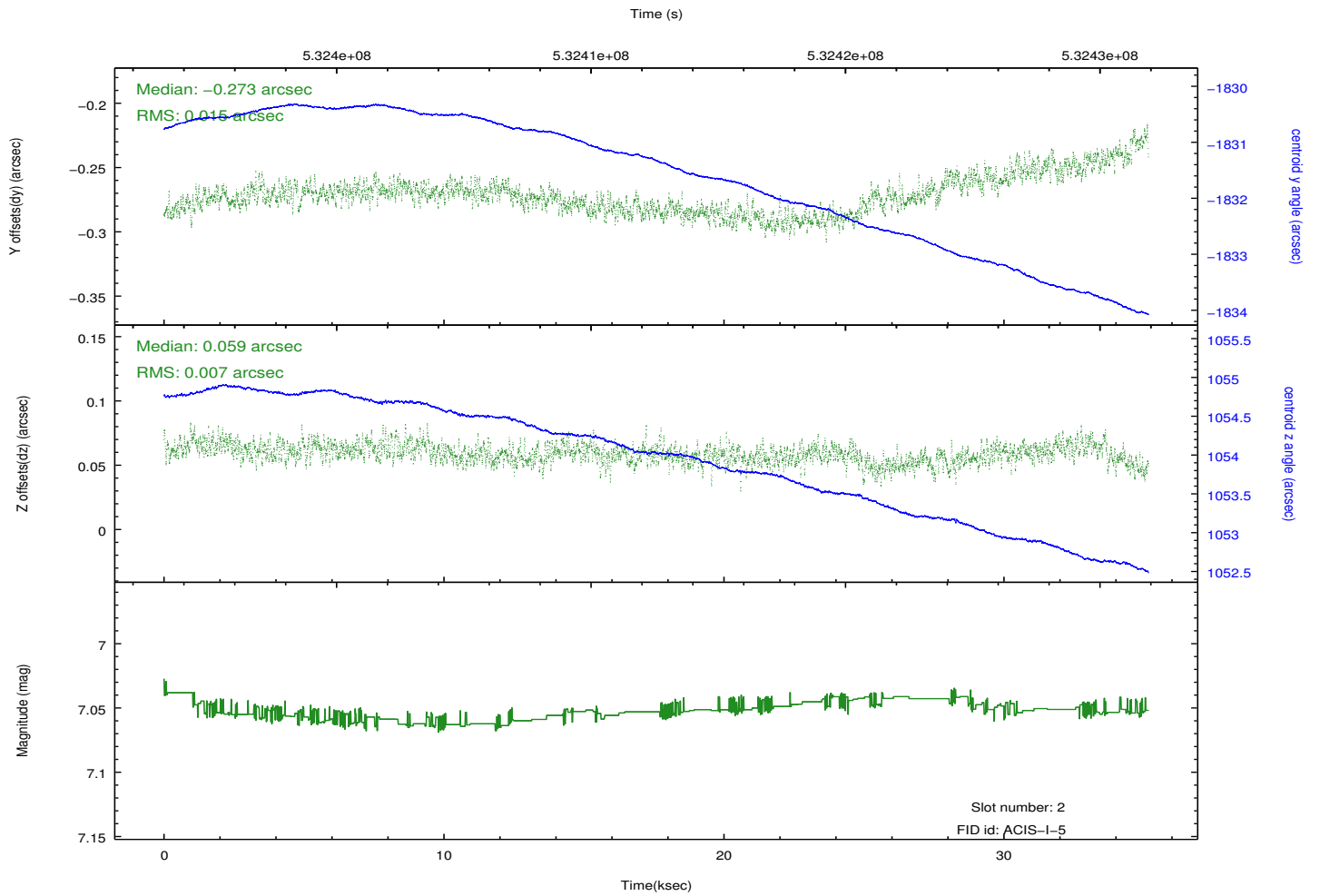
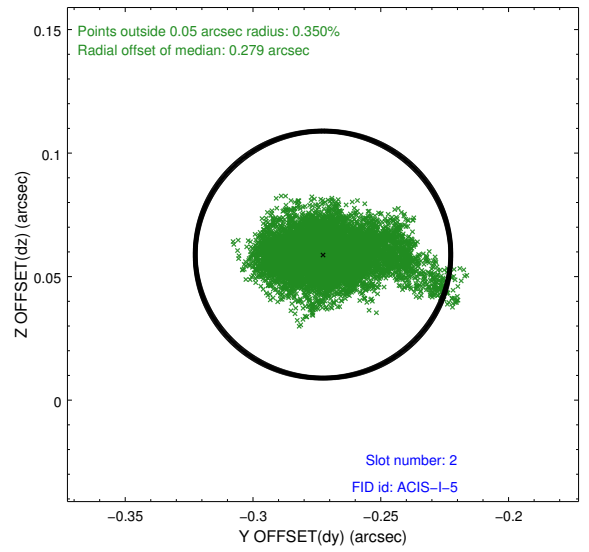
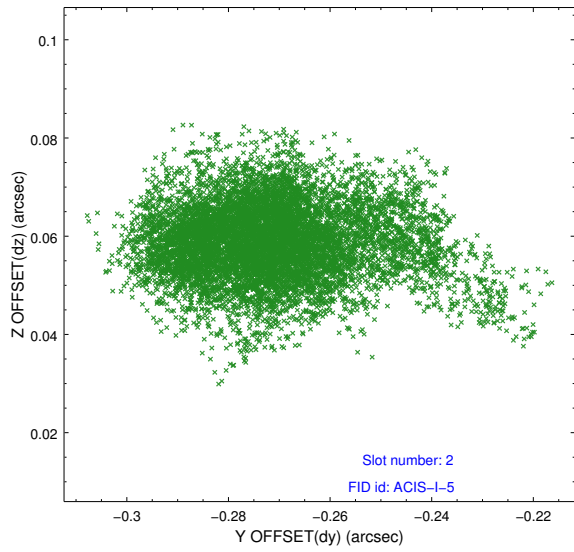
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2014.11.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.972799869776

## A.2 Comments