

# V&V Reference Report

## L2 ASCDS Version : 10.3.1

Observation 17486 - L2 Version 1  
Chandra X-Ray Center

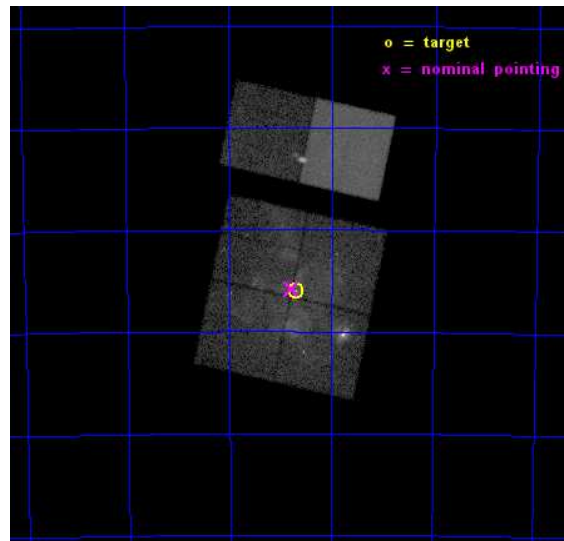
L2 Processing Date : Dec 6 2014

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# 1 Front

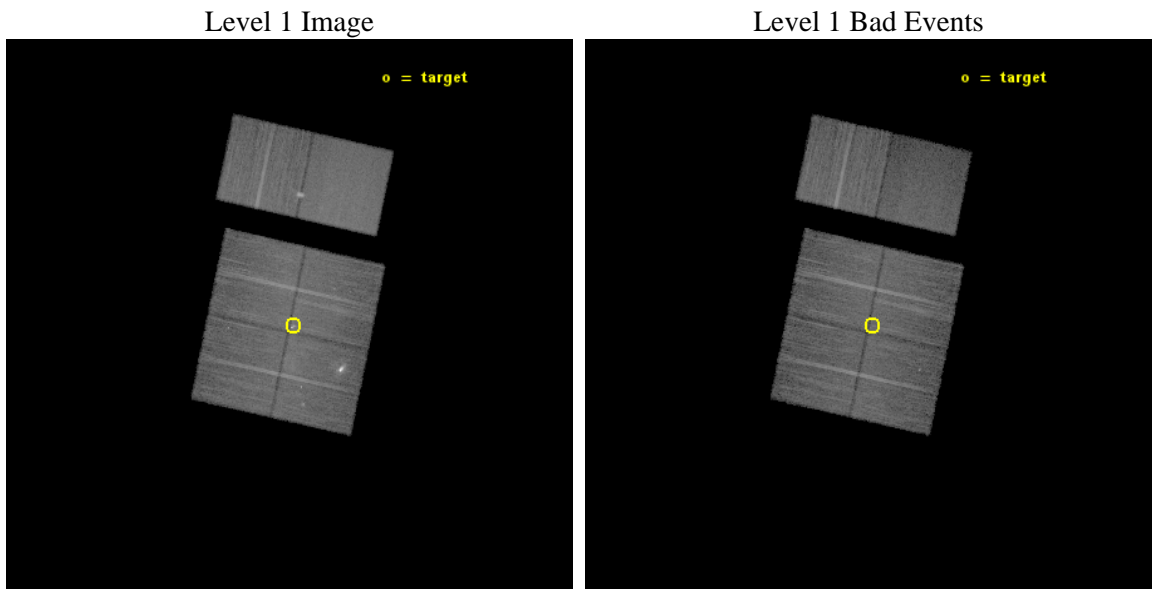
seq_num	901116	Sequence number
obs_id	17486	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	&#160
cycle	P	events from which exps? 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	84.696630881175	Nominal RA [deg]
dec_nom	-69.096772486907	Nominal Dec [deg]
roll_nom	12.227310612189	Nominal Roll [deg]
revision	1	Processing version of data
ontime	33971.188209057	Sum of GTIs [s]
livetime	33541.02456896	Livetime [s]
ontime0	33971.065089047	Sum of GTIs [s]
ontime1	33971.10612905	Sum of GTIs [s]
ontime2	33971.147169054	Sum of GTIs [s]
ontime3	33971.188209057	Sum of GTIs [s]
ontime6	33971.199873507	Sum of GTIs [s]
ontime7	33971.199873507	Sum of GTIs [s]
l2events	211652	Number of level 2 events



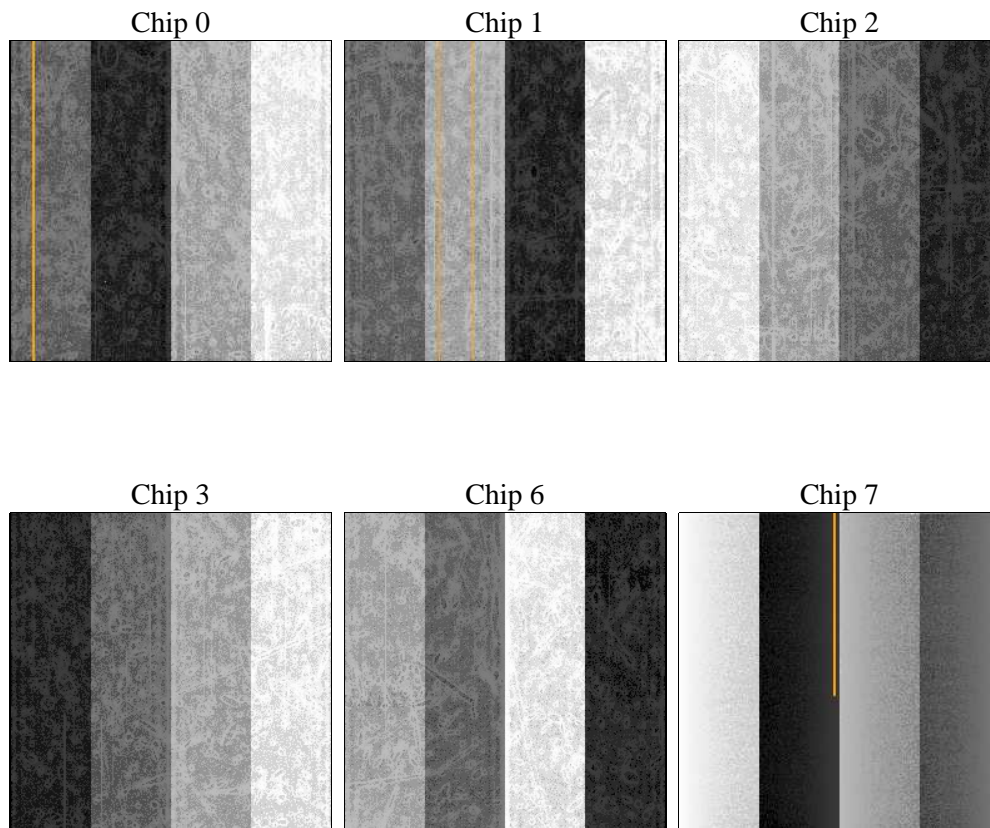
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	34000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	33971.188209057	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	33971.065089047	Sum of GTIs [s]
date	2014-12-06T17:08:58	Date and time of file creation	ontime1	33971.10612905	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	33971.147169054	Sum of GTIs [s]
			ontime3	33971.188209057	Sum of GTIs [s]
			ontime6	33971.199873507	Sum of GTIs [s]
			ontime7	33971.199873507	Sum of GTIs [s]
			l1events	934266	Number of level 1 events

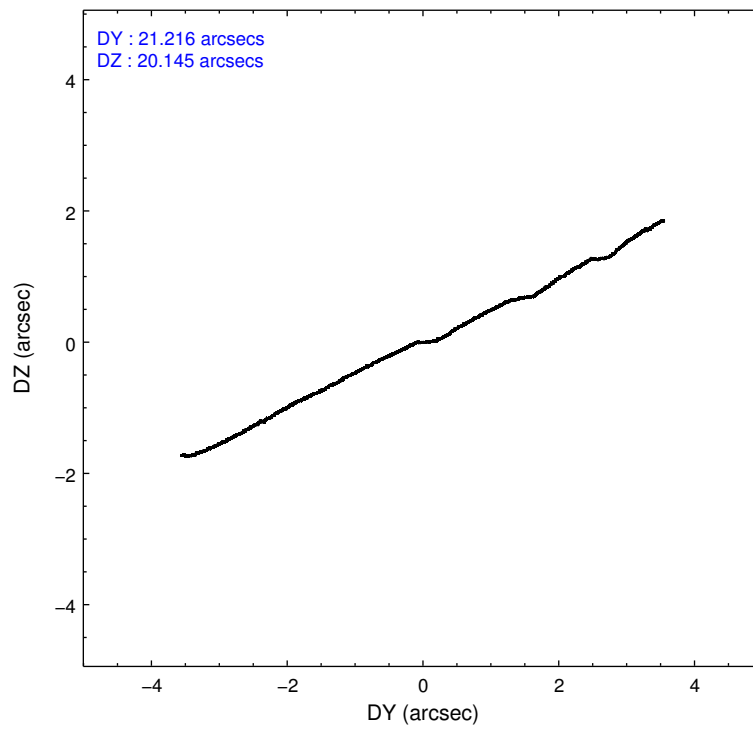
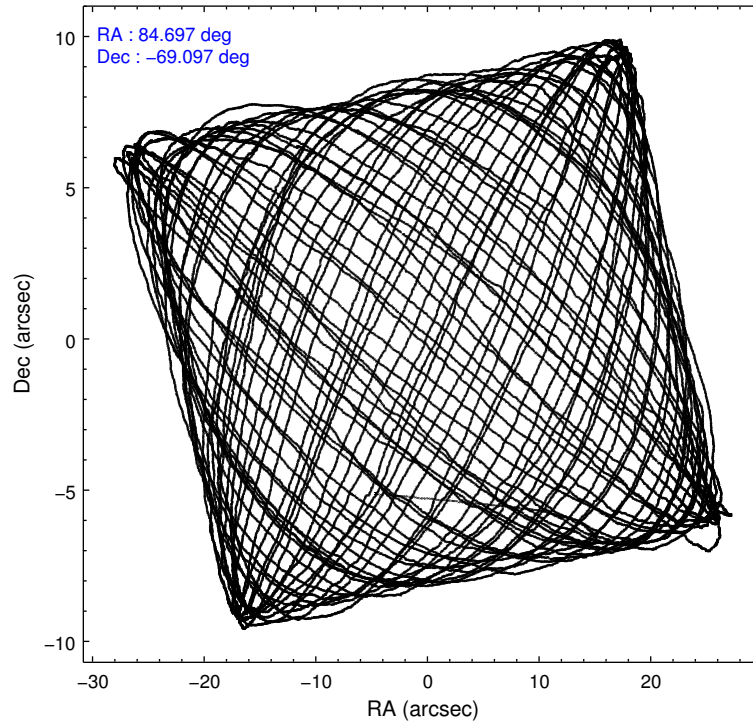
### 2.1.4 Events

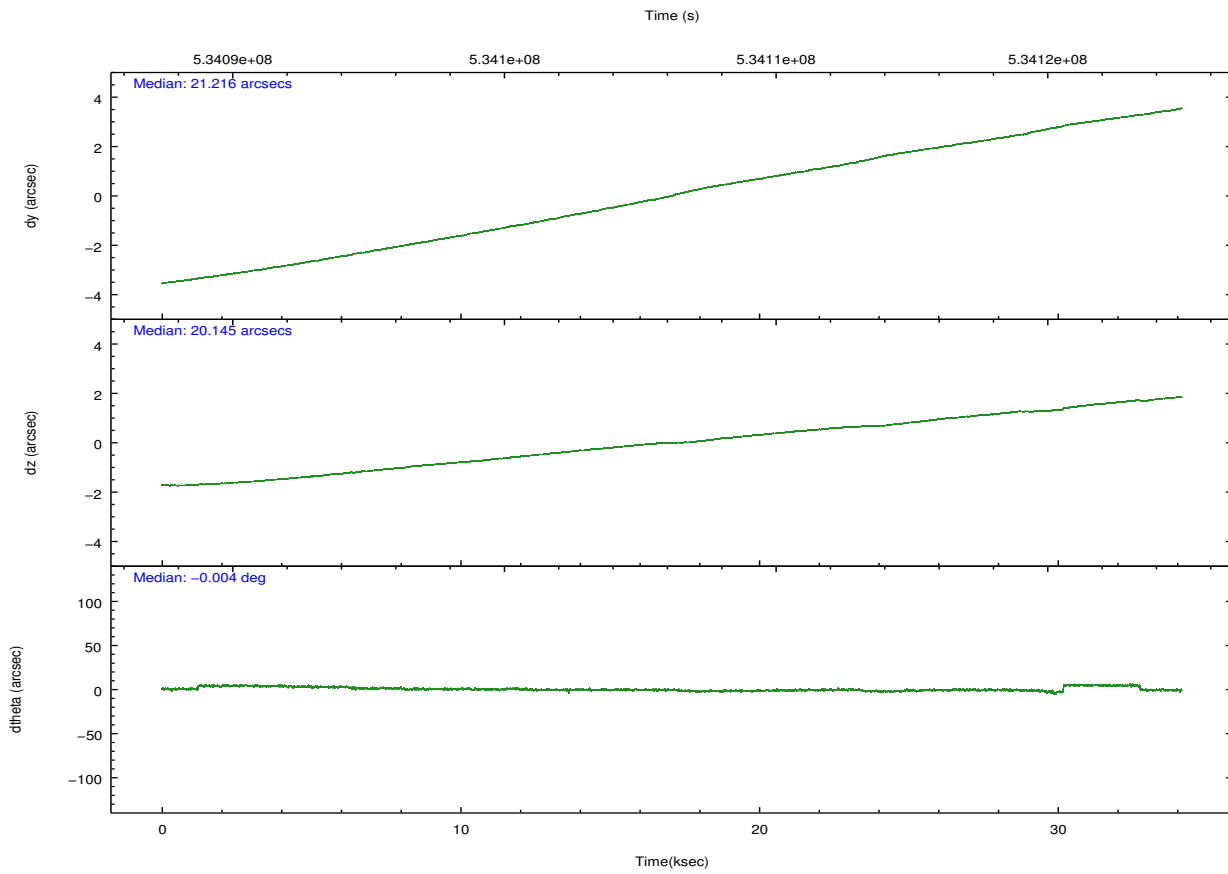
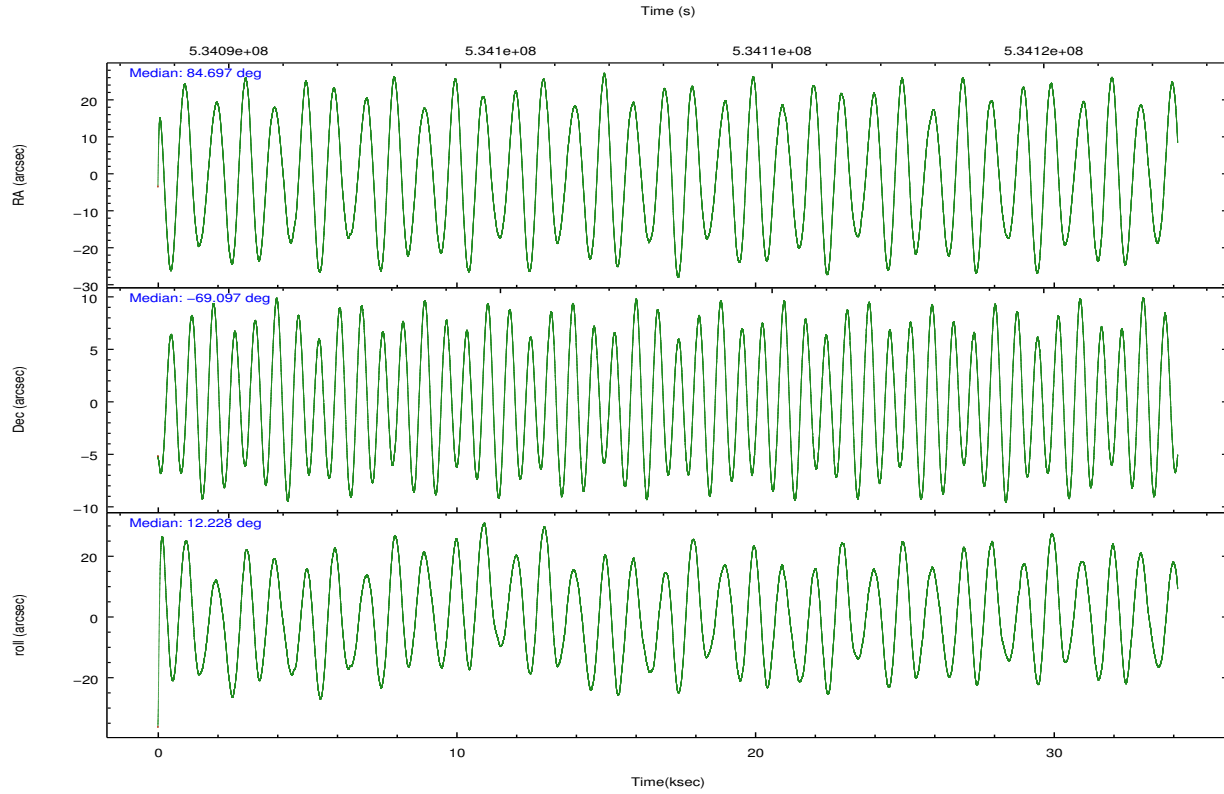
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	136003	162798	153109	151998	155252	175106	grade 0 events	11719	30980	13295	16904	8869	8700
rejected events	112162	114385	128083	122957	134245	90679		8%	19%	8%	11%	5%	4%
rejected %	82%	70%	83%	80%	86%	51%	grade 1 events	102	176	106	138	80	283
								0%	0%	0%	0%	0%	0%
							grade 2 events	4978	7427	4775	4753	4473	18426
								3%	4%	3%	3%	2%	10%
							grade 3 events	1915	2811	1818	1943	1792	7317
								1%	1%	1%	1%	1%	4%
							grade 4 events	1774	2724	1841	1960	1817	7538
								1%	1%	1%	1%	1%	4%
							grade 5 events	5893	6473	5249	6686	6755	18207
								4%	3%	3%	4%	4%	10%
							grade 6 events	3458	4476	3301	3484	4058	42454
								2%	2%	2%	2%	2%	24%
							grade 7 events	106164	107731	122724	116130	127408	72181
								78%	66%	80%	76%	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	84.639482	84.696630881175	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.115376	-69.09677248690707	CCD I3 on	Y	Y
[deg] Pointing Roll	11.965256	12.22731061218914	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)	534089221.184000	534087590.58234	CCD S5 on	N	N
Observation start date	2014-12-04T14:05:54	2014-12-04T13:39:50	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	534123221.184000	534124527.99689	On-chip summing requested	N	N
Observation end date	2014-12-04T23:32:34	2014-12-04T23:55:27	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





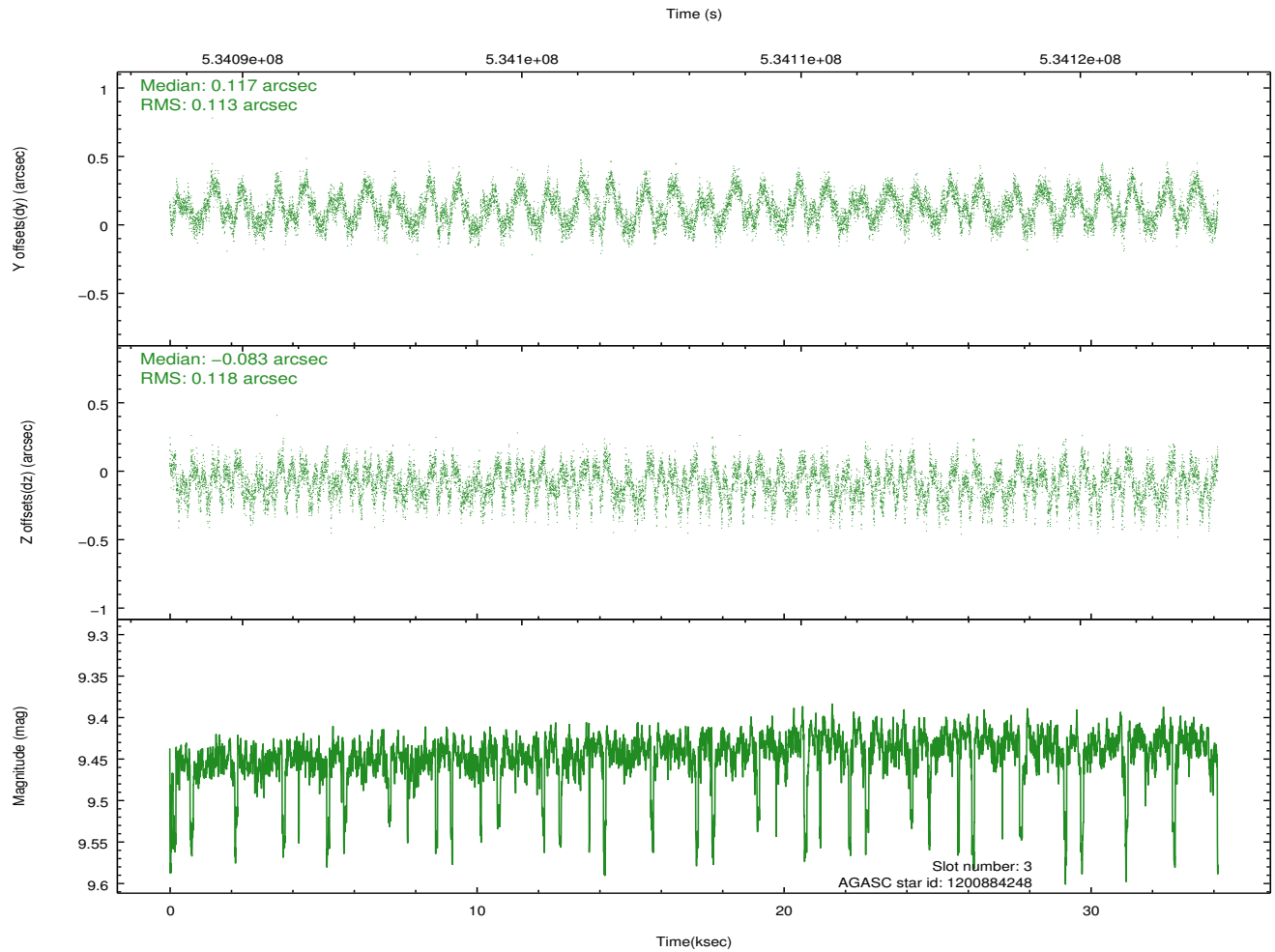
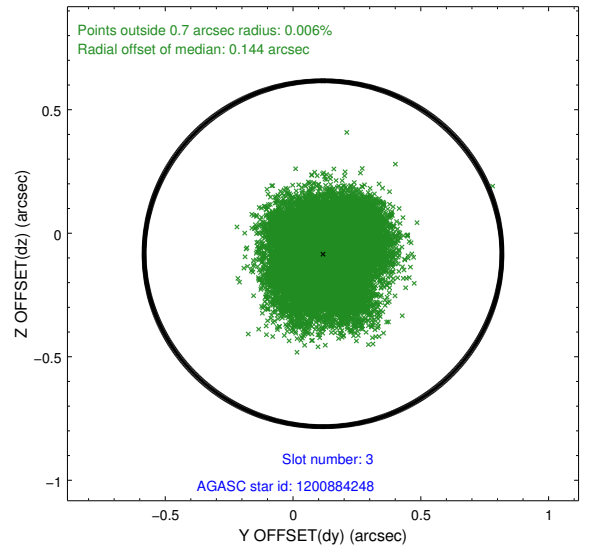
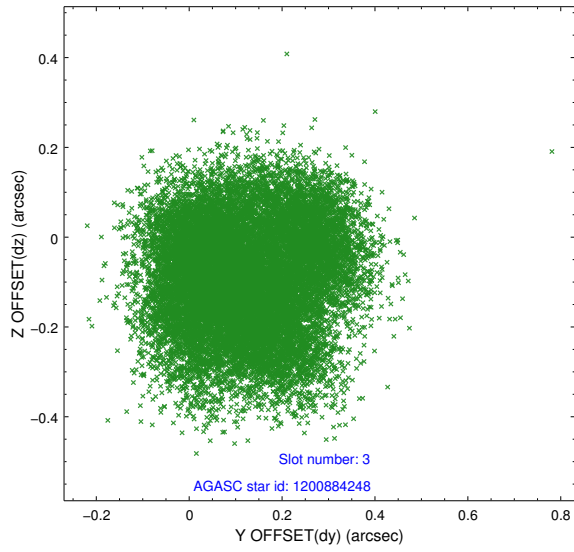
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-4	7.01	8327	0.204	0.053	0.030	0.062	0.000000	0.000000	2138.21	1056.14
1	FID		ACIS-I-5	7.06	8329	-0.345	0.029	0.020	0.034	0.000000	0.000000	-1830.23	1053.80
2	FID		ACIS-I-6	7.07	8329	0.046	-0.015	0.025	0.039	0.000000	0.000000	383.57	1698.15
3	GUIDE	used	1200884248	9.44	16646	0.117	-0.083	0.180	0.267	83.880915	-68.565170	-566.40	2138.94
4	GUIDE	used	1200885760	9.44	16650	0.273	0.129	0.141	0.232	83.723637	-68.777667	-917.08	1428.33
5	GUIDE	used	1201016584	9.40	16644	-0.315	0.023	0.173	0.262	85.677603	-68.415933	1864.15	2167.24
6	GUIDE	used	1201020040	8.56	16648	-0.028	-0.016	0.091	0.150	85.379163	-68.879396	1113.57	626.81
7	GUIDE	used	1201018384	9.04	16640	-0.060	-0.025	0.105	0.171	85.801362	-68.593260	1880.74	1508.40

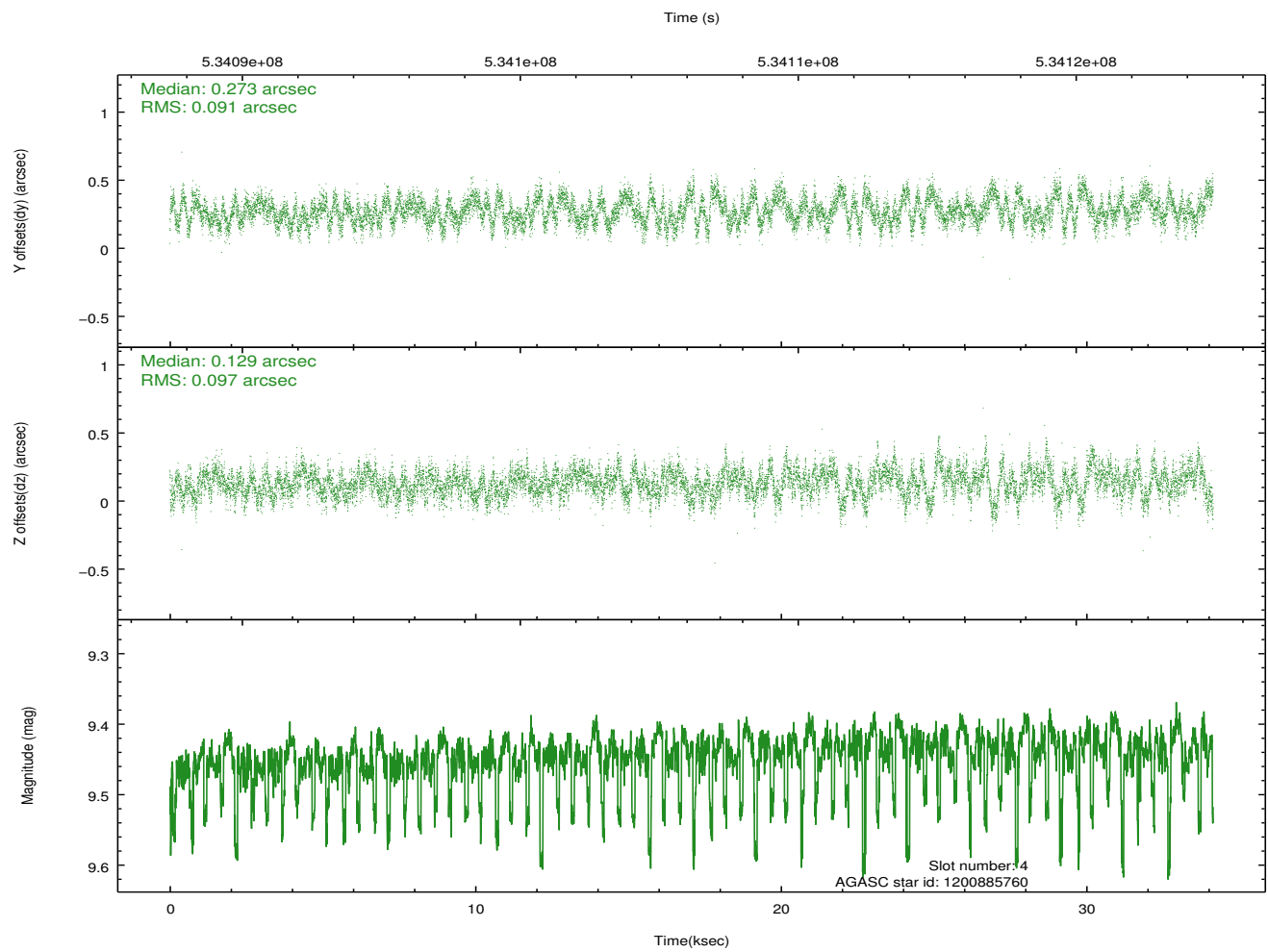
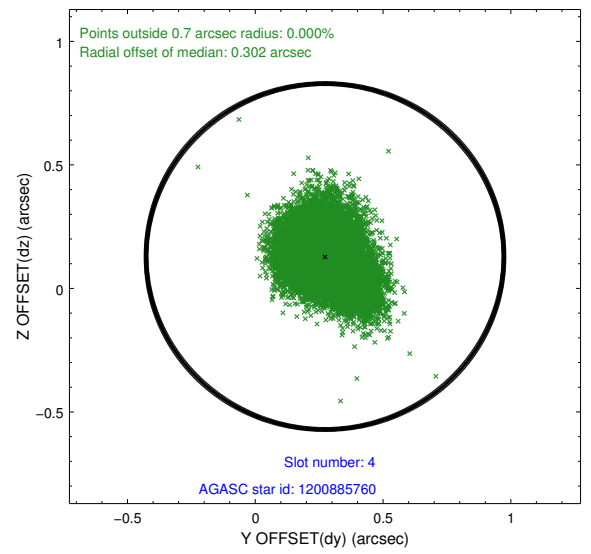
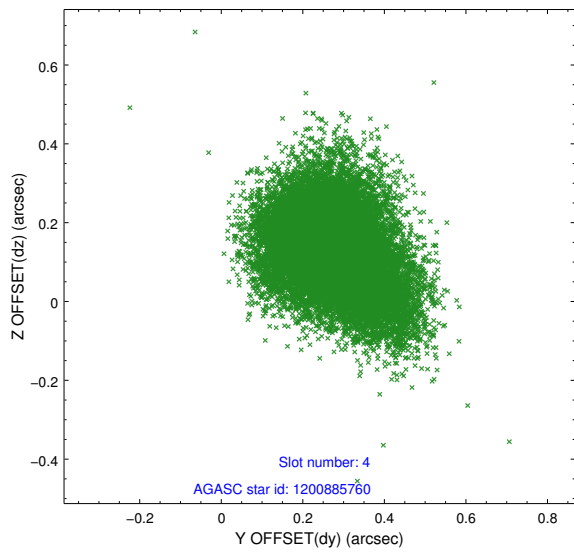
∞

## 2.4 Star Slots

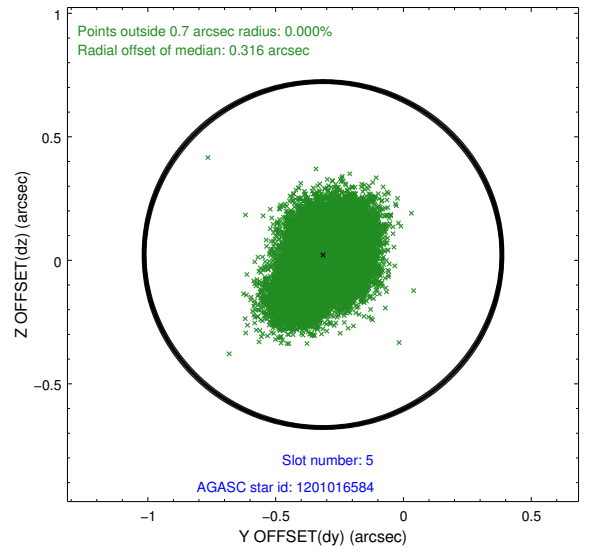
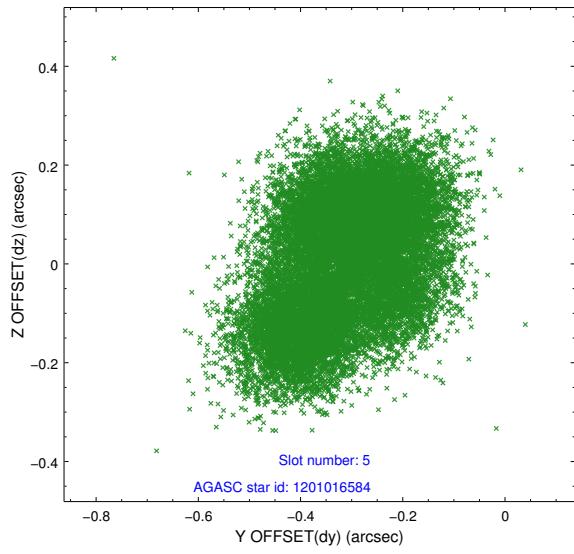
### 2.4.1 Slot 3



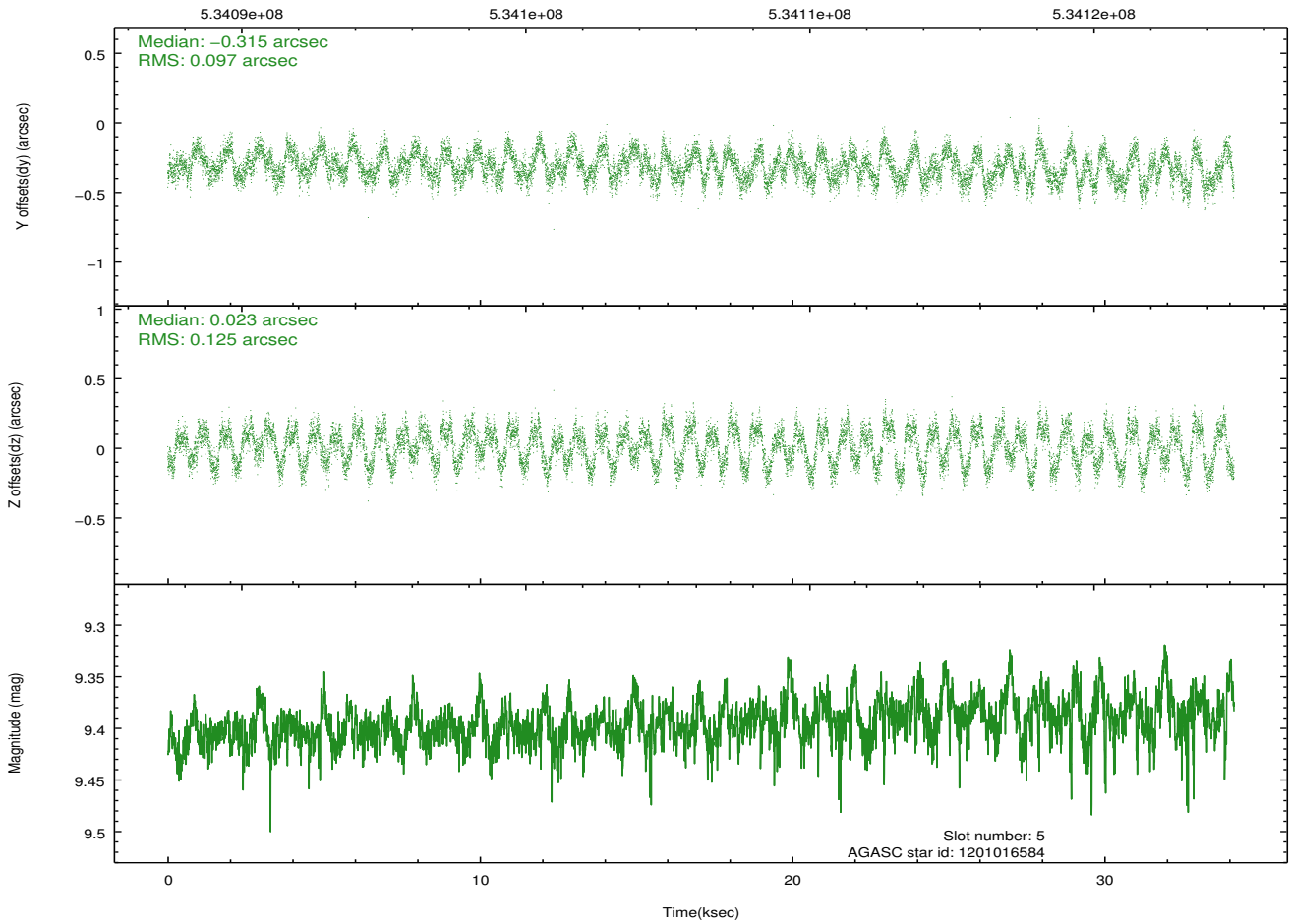
## 2.4.2 Slot 4



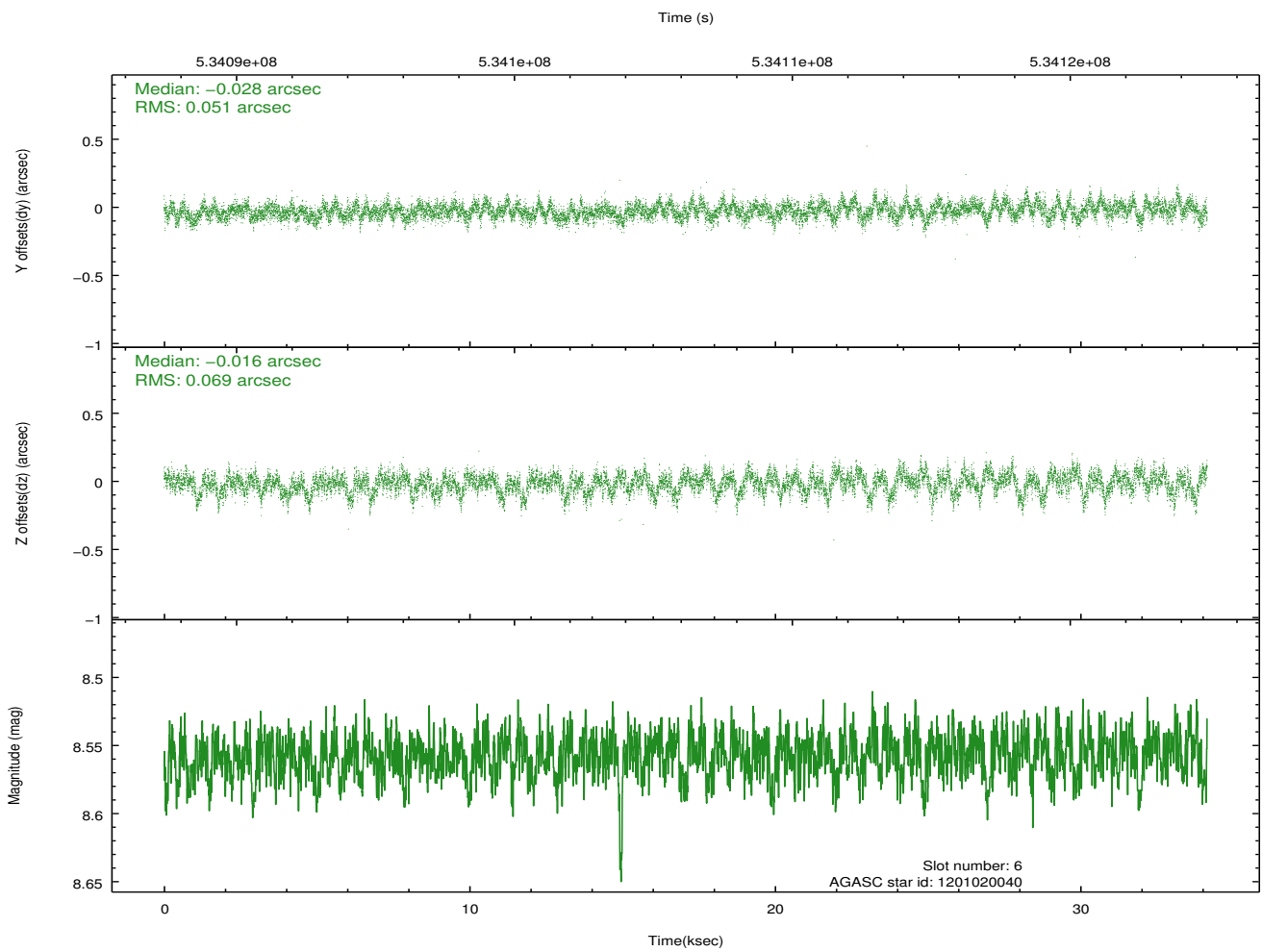
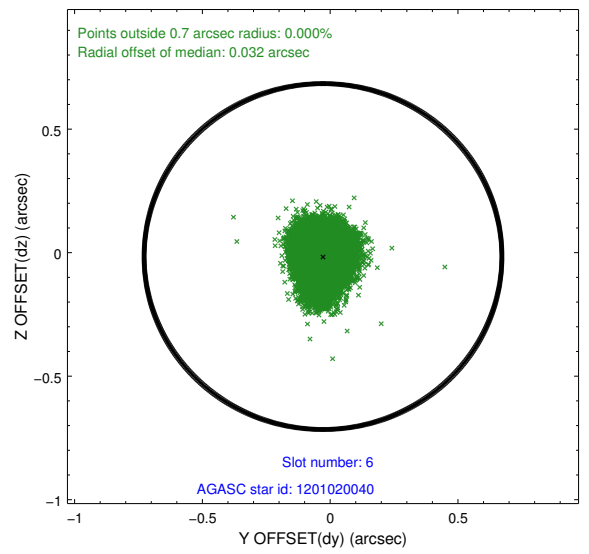
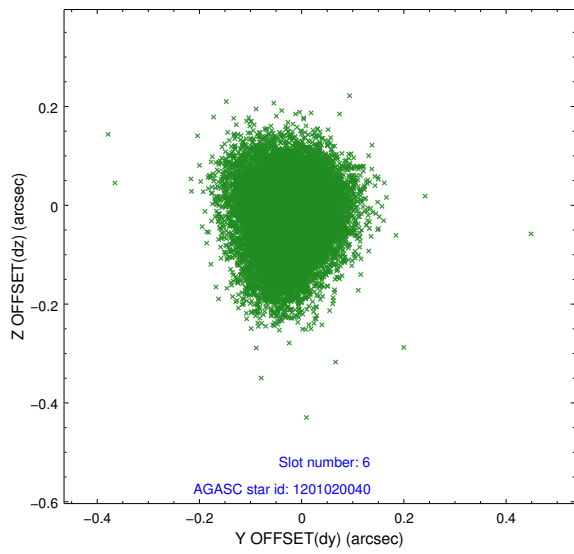
### 2.4.3 Slot 5



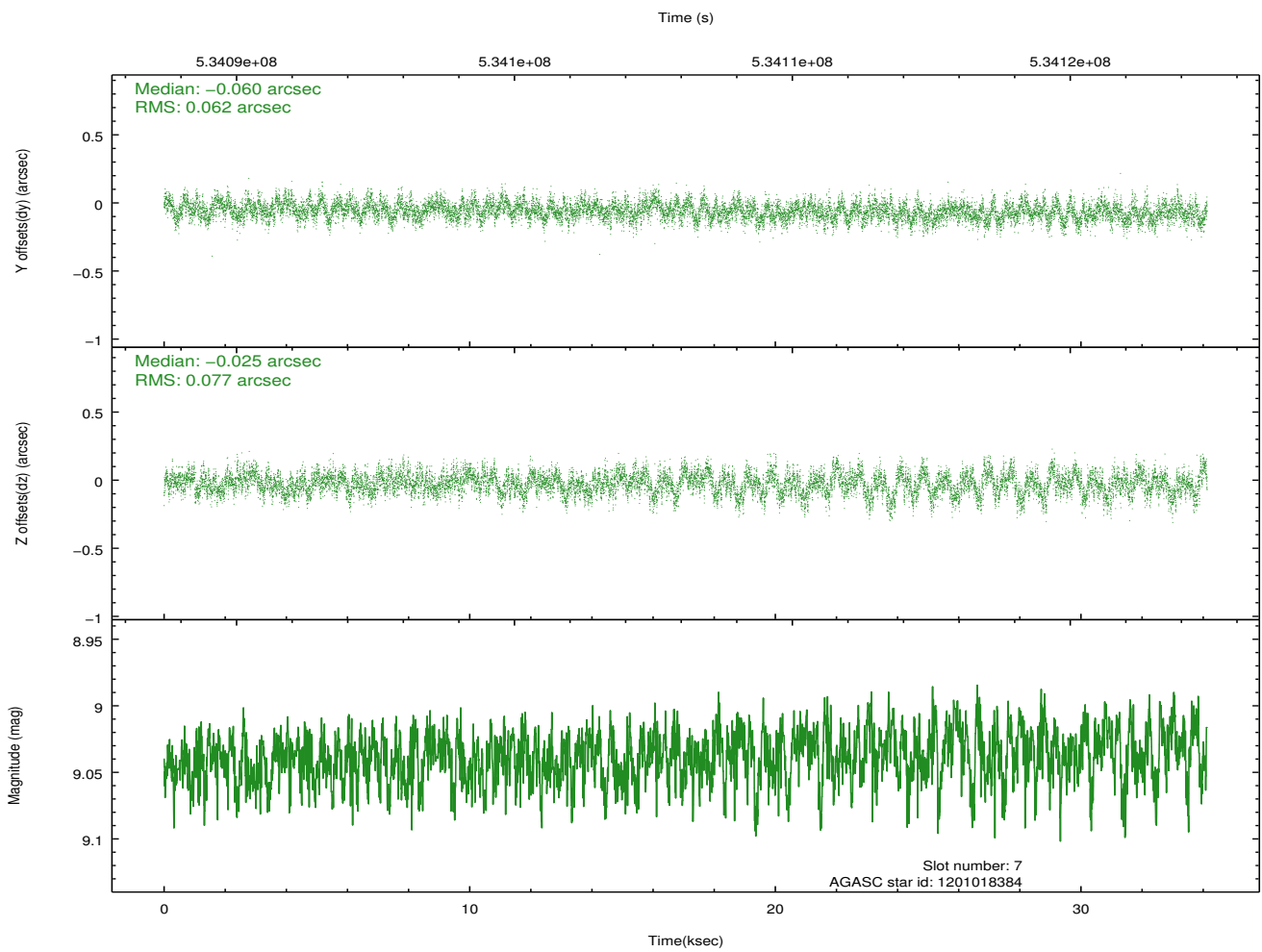
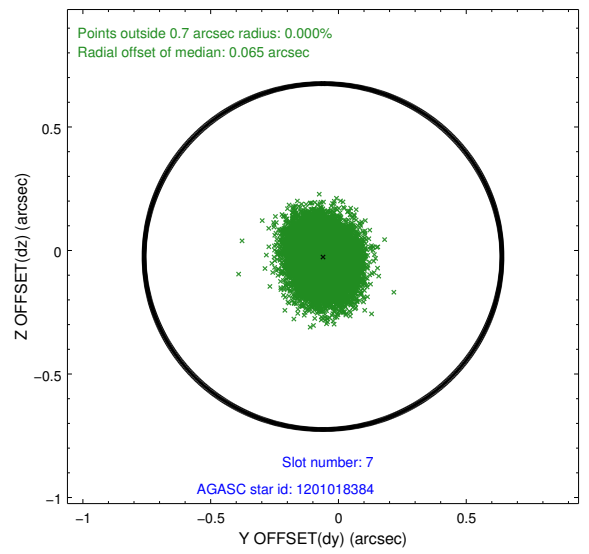
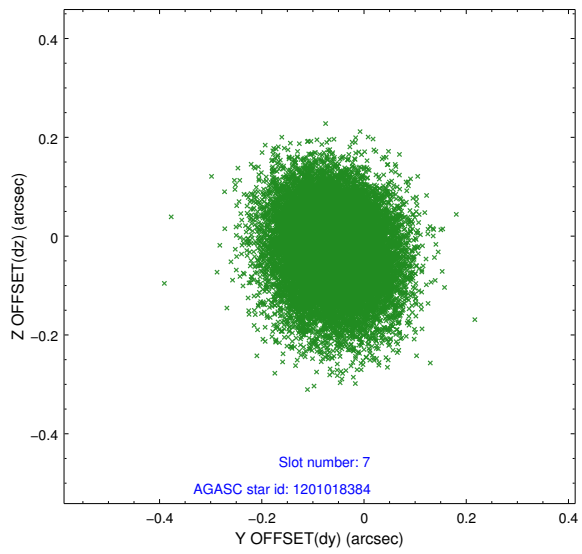
Time (s)



## 2.4.4 Slot 6

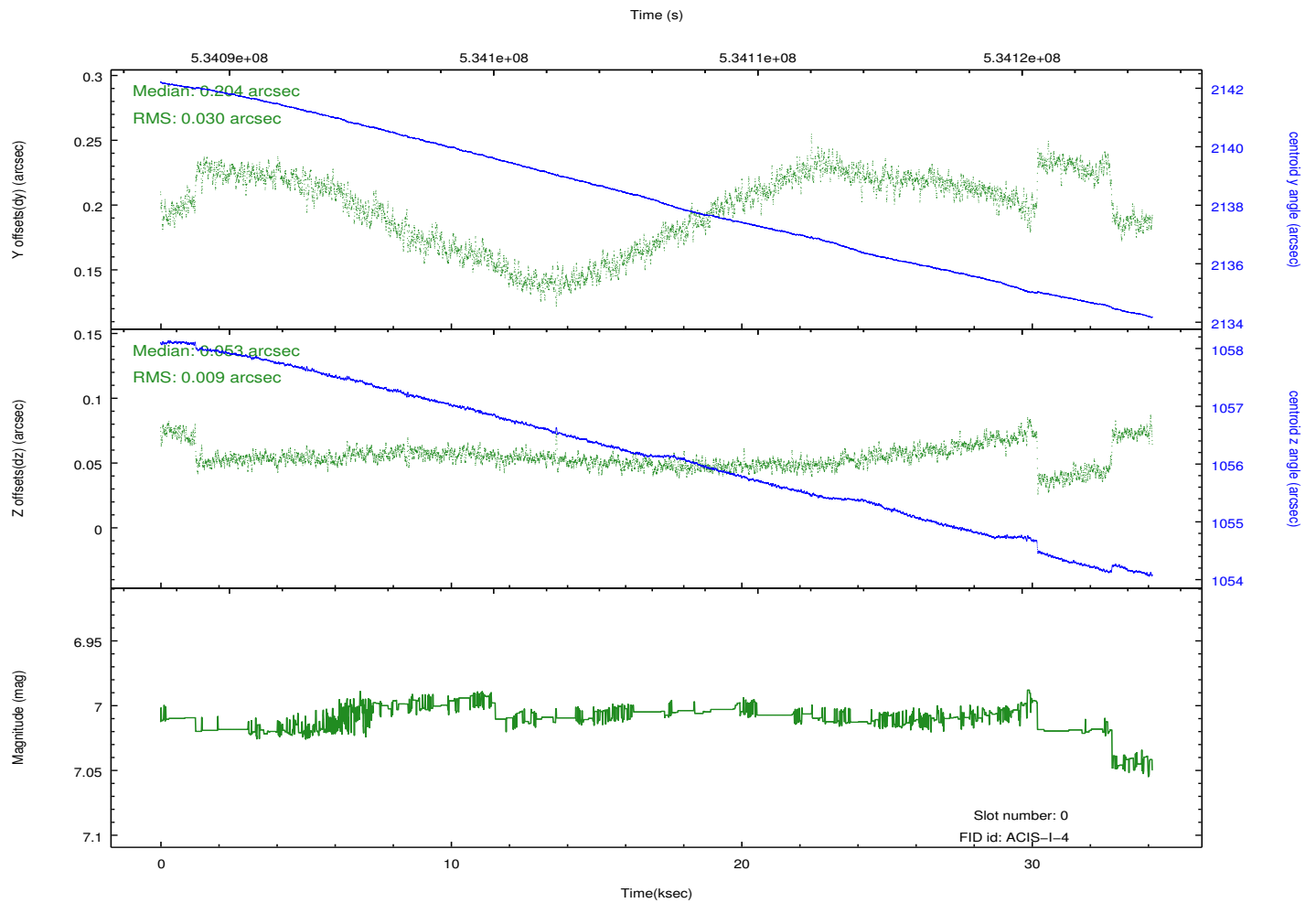
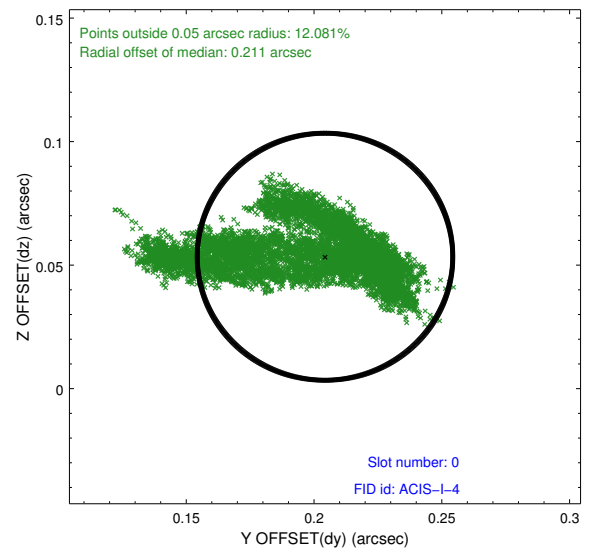
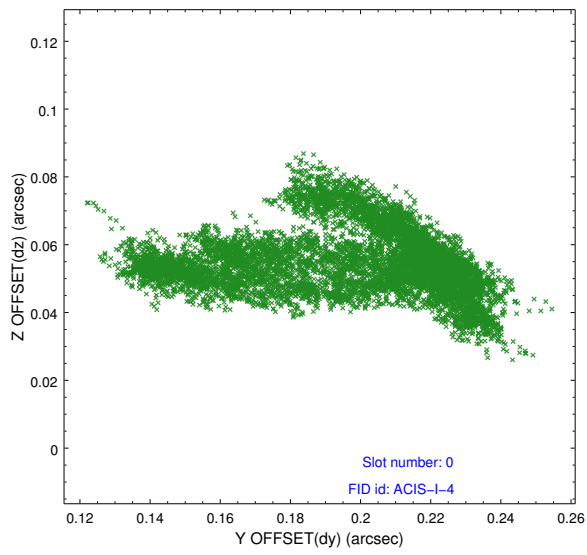


## 2.4.5 Slot 7

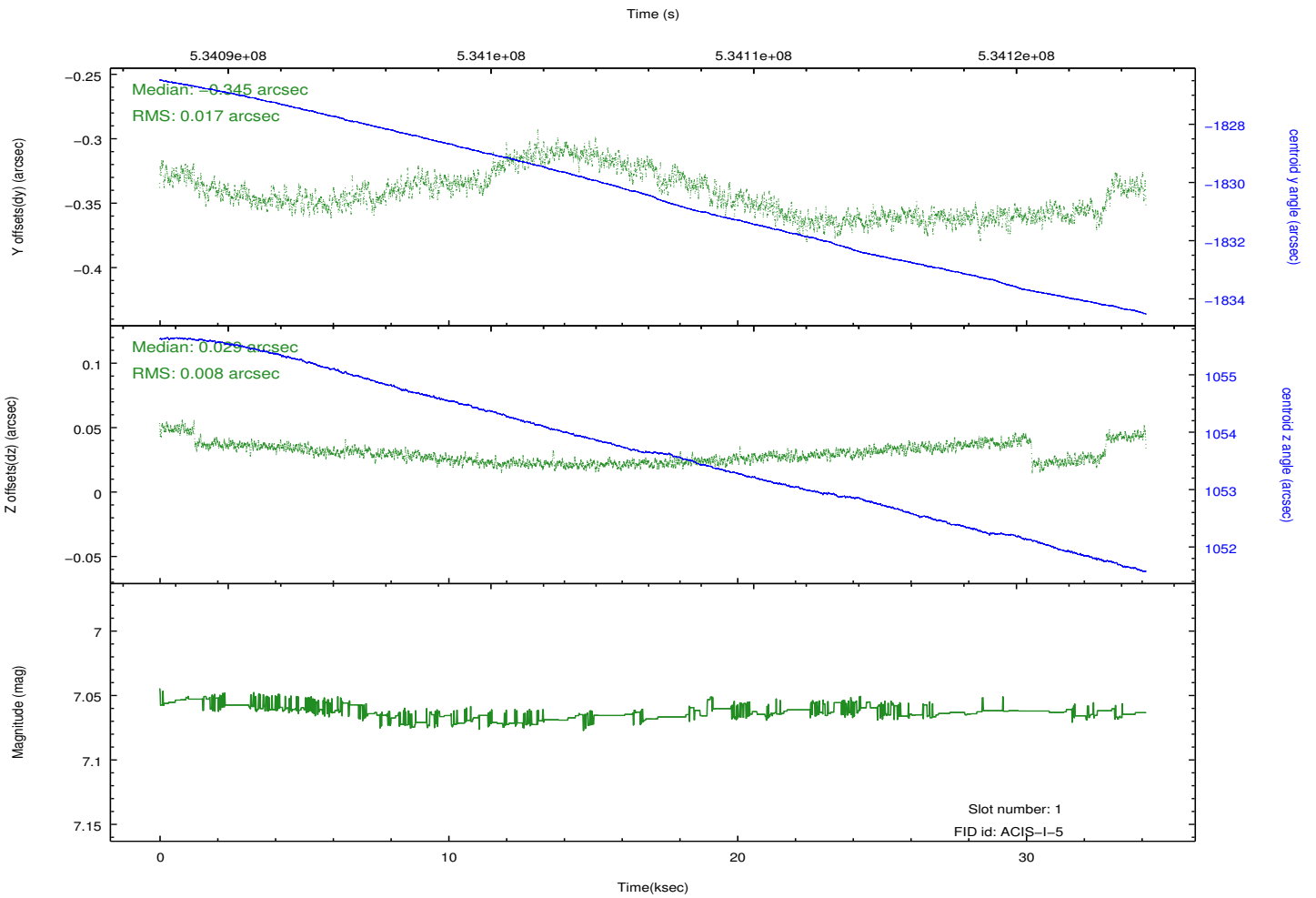
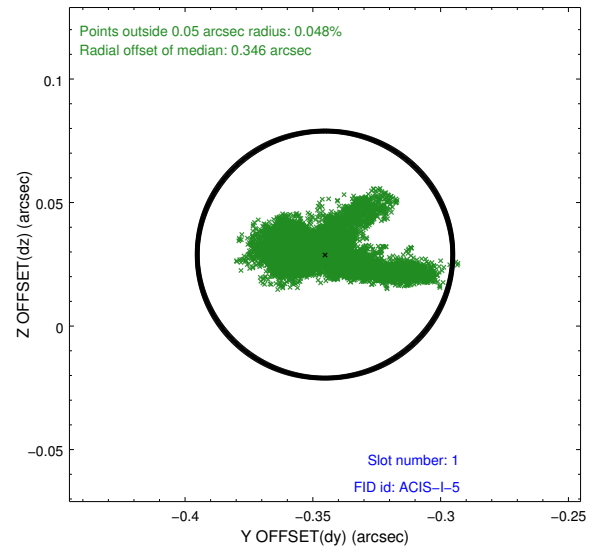
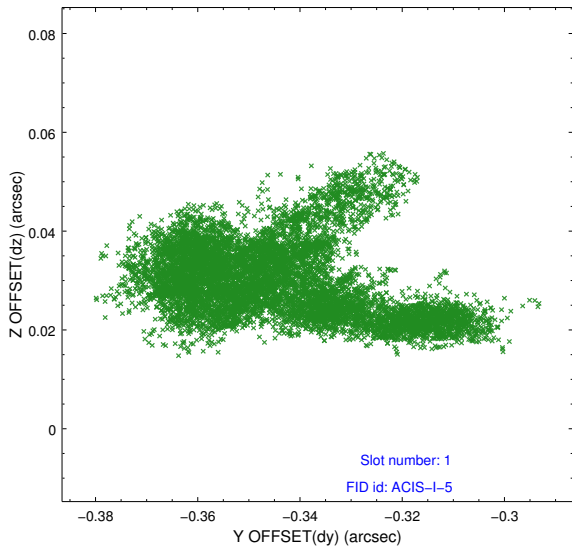


## 2.5 FID Slots

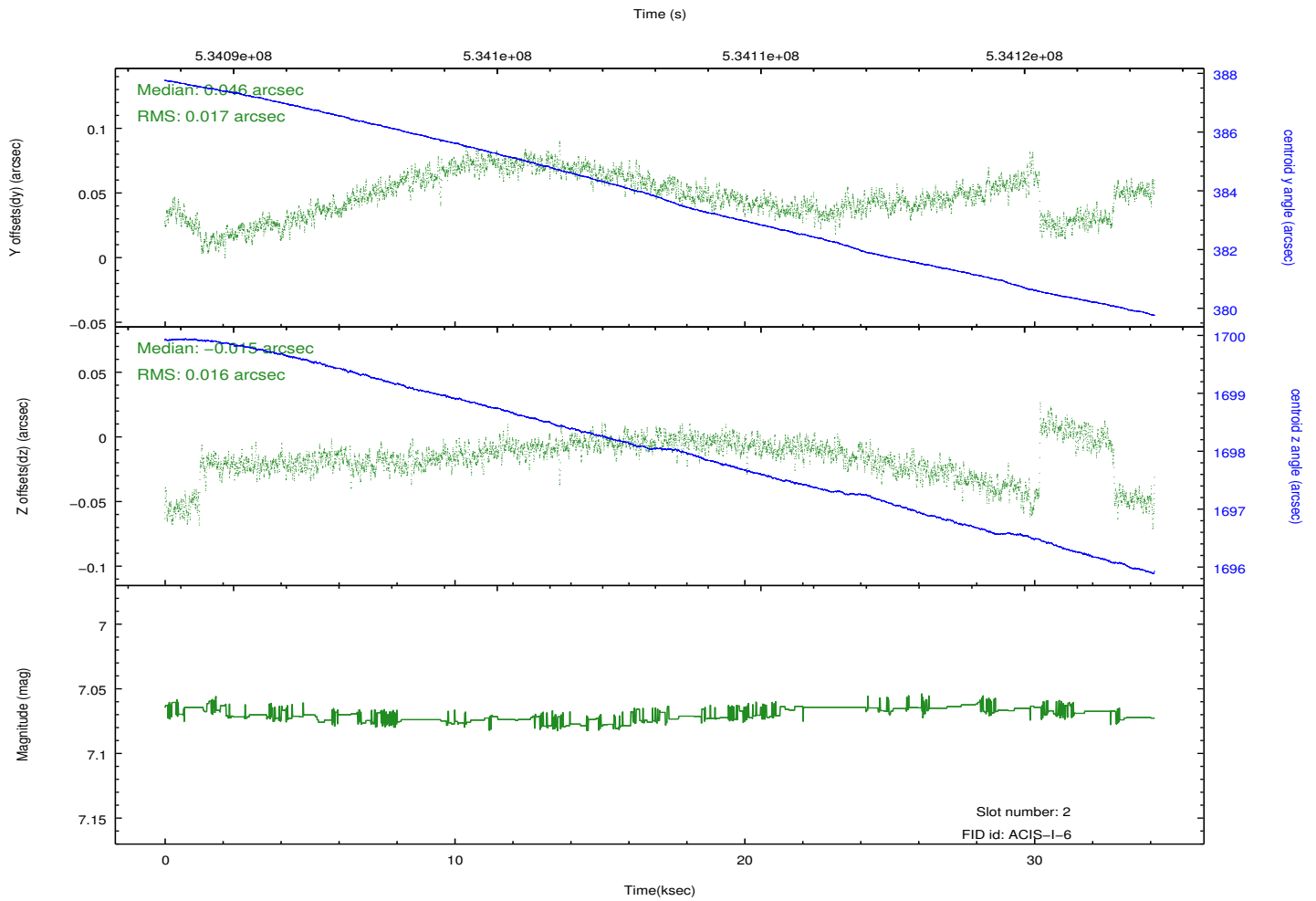
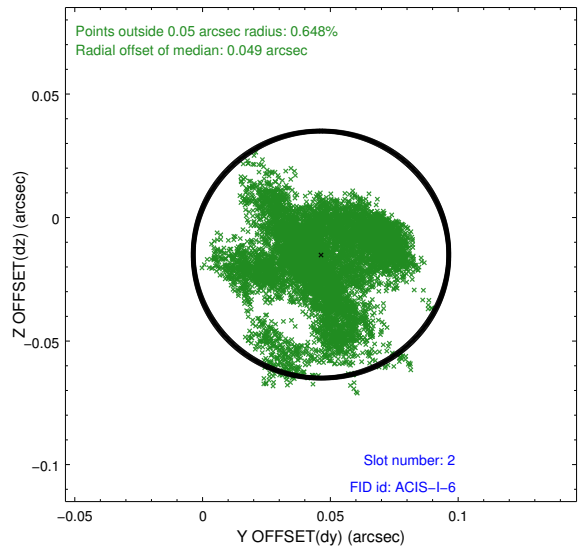
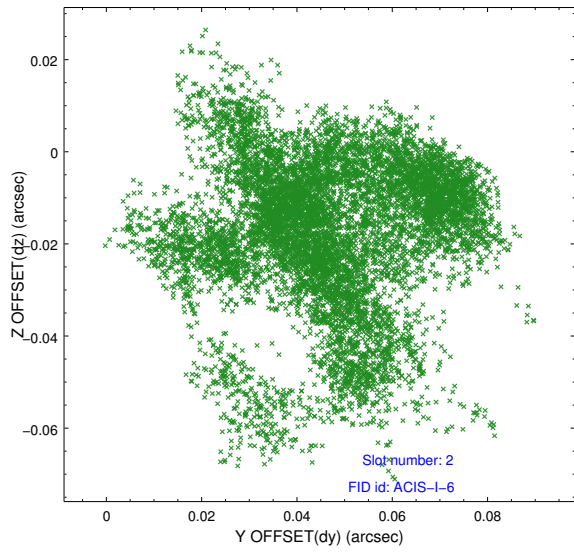
### 2.5.1 Slot 0



## 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)	2014.12.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.971188209057

## A.2 Comments