

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 19963 - L2 Version 1  
Chandra X-Ray Center

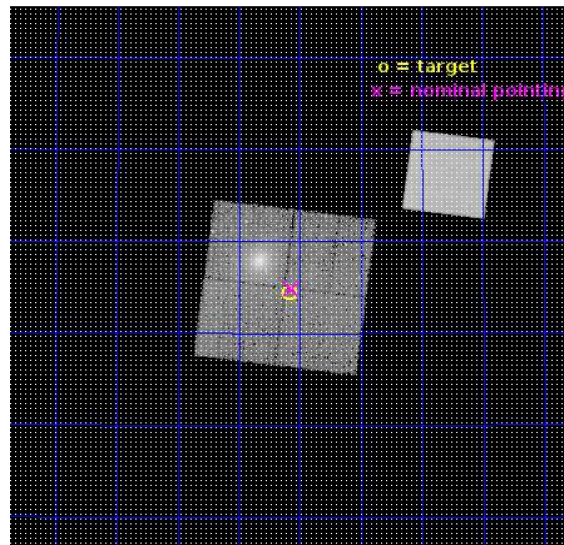
L2 Processing Date : Dec 19 2016

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# 1 Front

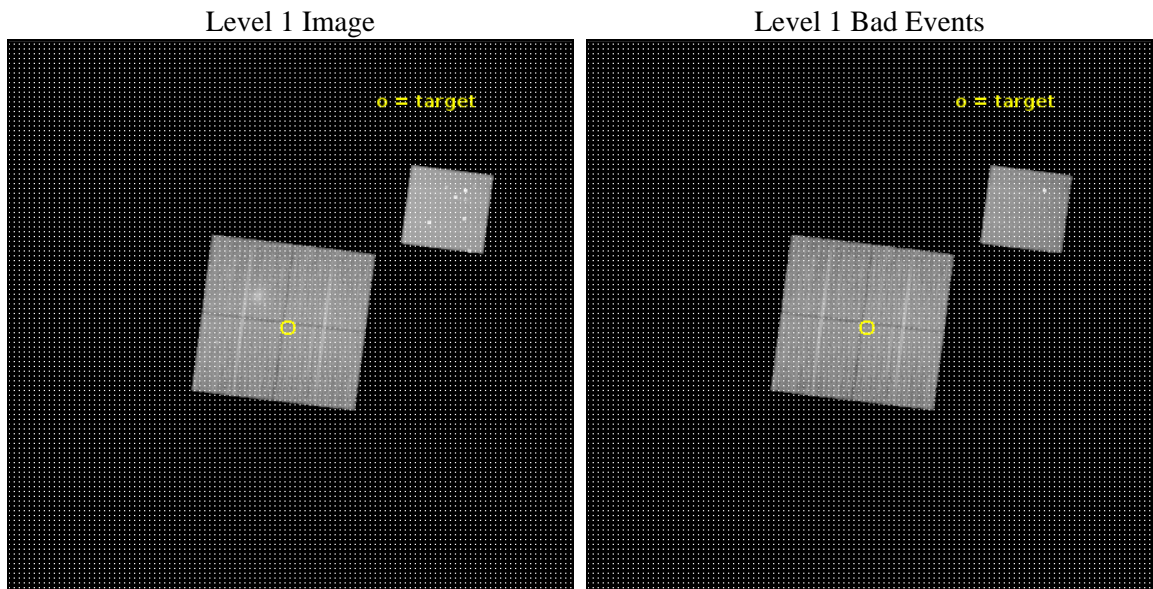
seq_num	801597	Sequence number
obs_id	19963	Observation id
title	Mapping an unusually Relaxed Non-Cool-Core Cluster out to the Viral Radius	Proposal title
observer	Yuanyuan Su	Principal investigator
object	Abell 586	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	113.0225	Observer's specified target RA [deg]
dec_targ	31.57375	Observer's specified target Dec [deg]
ra_nom	113.01752054286	Nominal RA [deg]
dec_nom	31.580977601418	Nominal Dec [deg]
roll_nom	97.211299433292	Nominal Roll [deg]
revision	1	Processing version of data
ontime	30066.707128406	Sum of GTIs [s]
livetime	29673.863464985	Livetime [s]
ontime0	30066.584008336	Sum of GTIs [s]
ontime1	30066.625048399	Sum of GTIs [s]
ontime2	30066.666088343	Sum of GTIs [s]
ontime3	30066.707128406	Sum of GTIs [s]
ontime5	30066.748168349	Sum of GTIs [s]
l2events	253537	Number of level 2 events



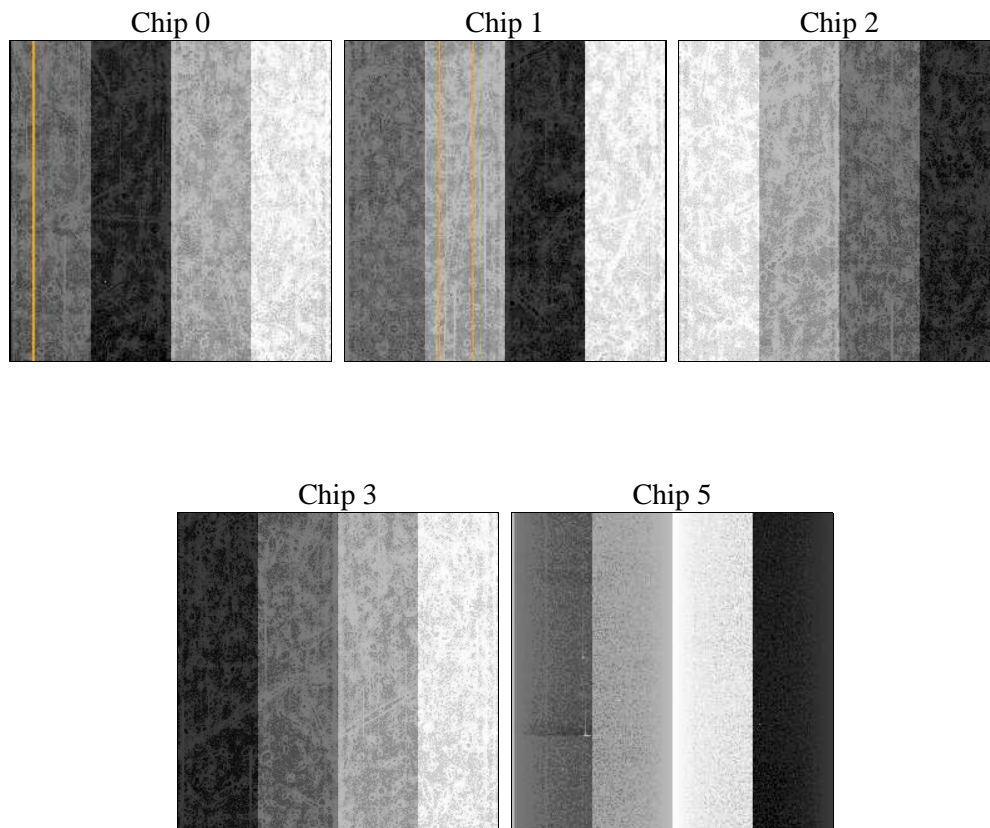
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	30066.707128406	Sum of GTIs [s]
caldsver	4.7.3	&#160	ontime0	30066.584008336	Sum of GTIs [s]
date	2016-12-19T15:52:43	Date and time of file creation	ontime1	30066.625048399	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	30066.666088343	Sum of GTIs [s]
			ontime3	30066.707128406	Sum of GTIs [s]
			ontime5	30066.748168349	Sum of GTIs [s]
			l1events	1203389	Number of level 1 events

### 2.1.4 Events

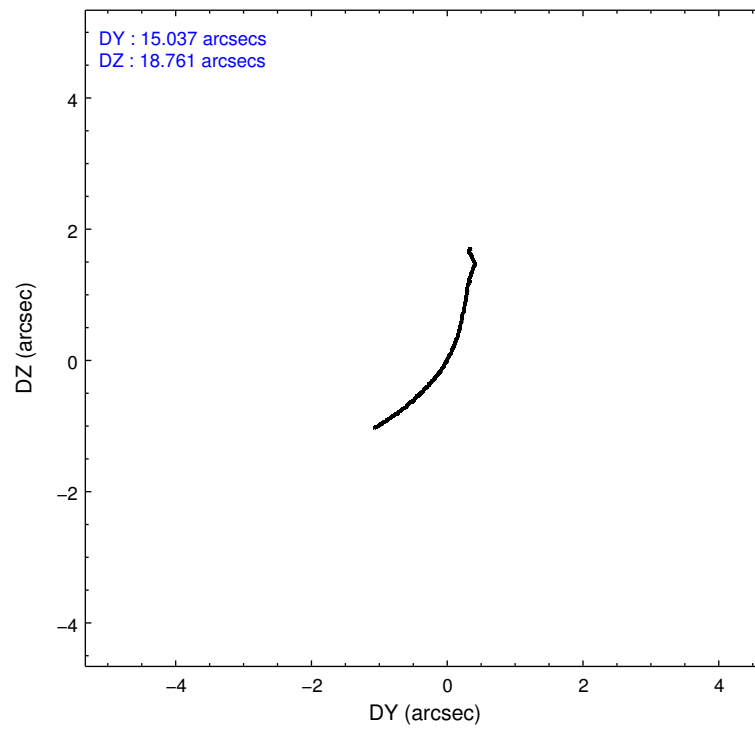
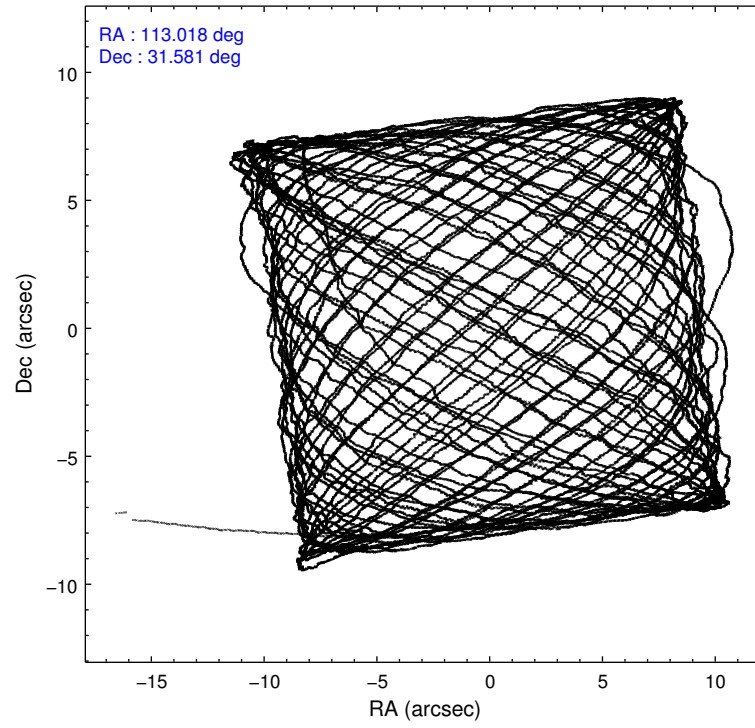
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 5
level 1 events	213135	199179	218251	202246	370578
rejected events	168456	172772	194541	180467	183267
rejected %	79%	86%	89%	89%	49%

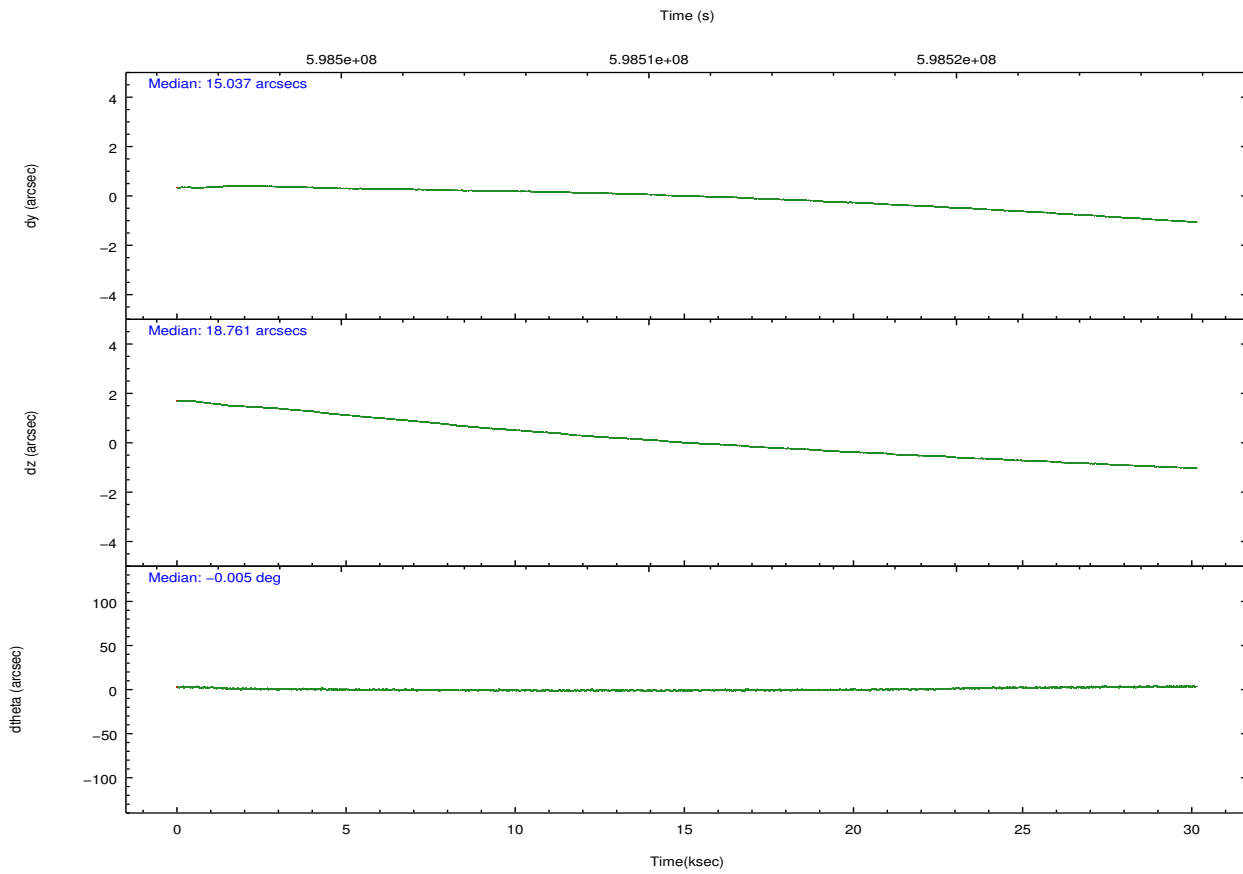
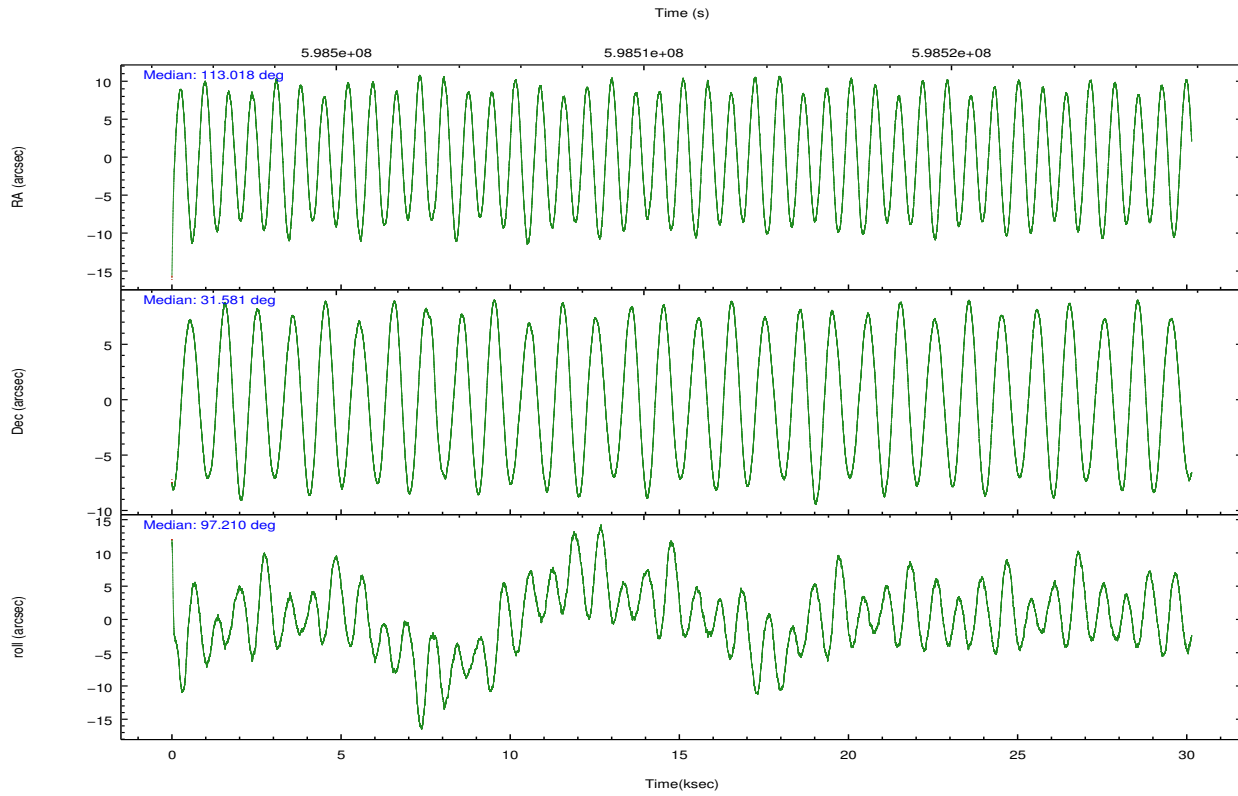
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 5
grade 0 events	24631	9575	8598	7657	32661
	11%	4%	3%	3%	8%
grade 1 events	197	138	114	120	776
	0%	0%	0%	0%	0%
grade 2 events	8280	6112	5817	4783	53536
	3%	3%	2%	2%	14%
grade 3 events	3133	2530	2369	2279	5734
	1%	1%	1%	1%	1%
grade 4 events	3031	2545	2351	2326	6397
	1%	1%	1%	1%	1%
grade 5 events	9285	9486	8641	10166	24546
	4%	4%	3%	5%	6%
grade 6 events	5612	5650	4577	4738	89026
	2%	2%	2%	2%	24%
grade 7 events	158966	163143	185784	170177	157902
	74%	81%	85%	84%	42%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01235	ACIS-01235	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	113.037188	113.0175205428642	CCD I2 on	Y	Y
[deg] Pointing Dec	31.559062	31.58097760141829	CCD I3 on	Y	Y
[deg] Pointing Roll	96.992307	97.21129943329197	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	598496296.184000	598495037.18604	CCD S5 on	N	N
Observation start date	2016-12-19T00:57:08	2016-12-19T00:37:17	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	598526296.184000	598527137.1129	On-chip summing requested	N	N
Observation end date	2016-12-19T09:17:08	2016-12-19T09:32:17	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



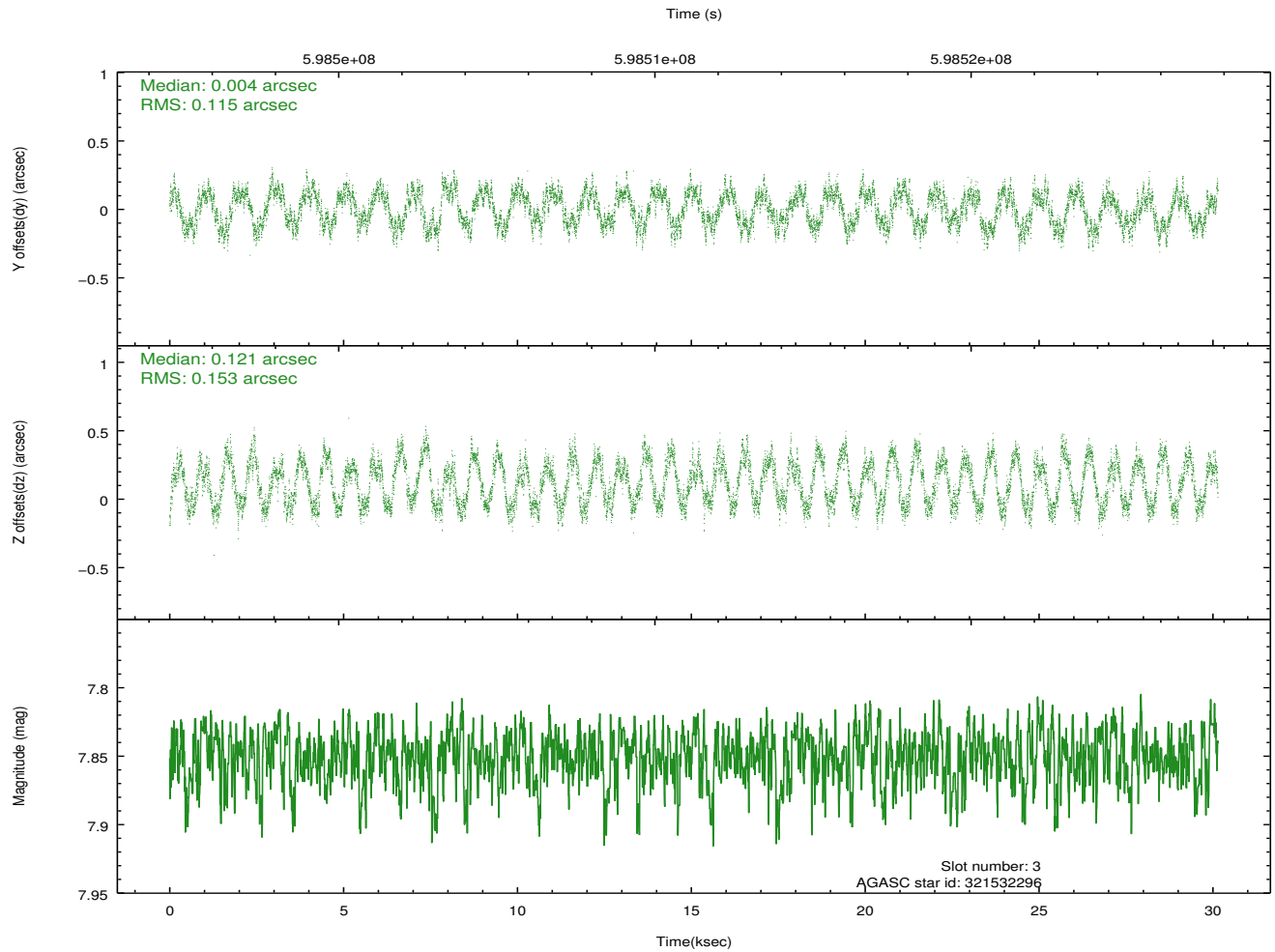
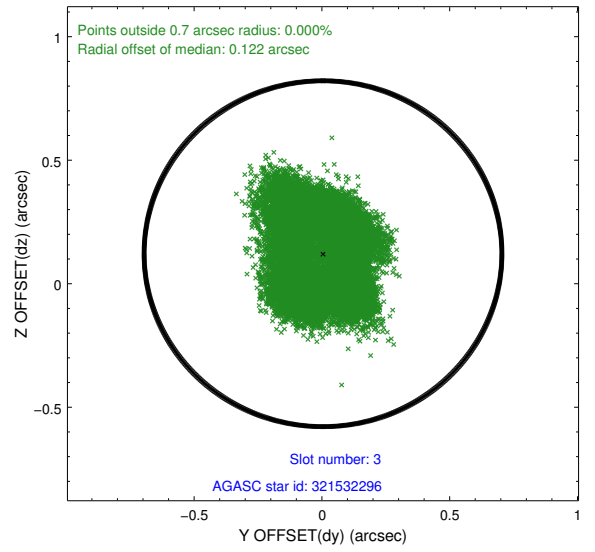
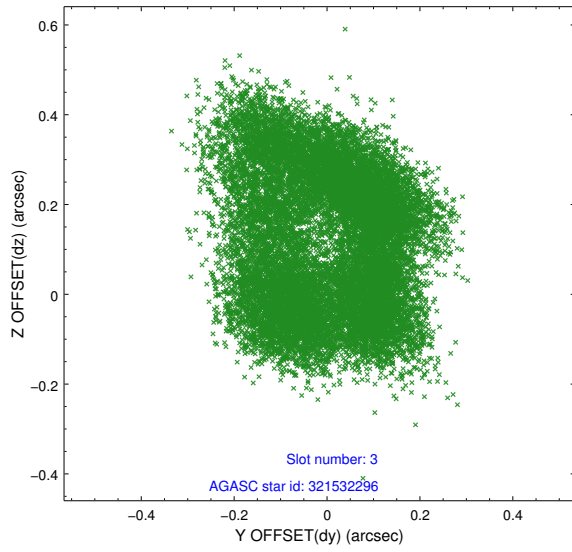


### Slot Statistics

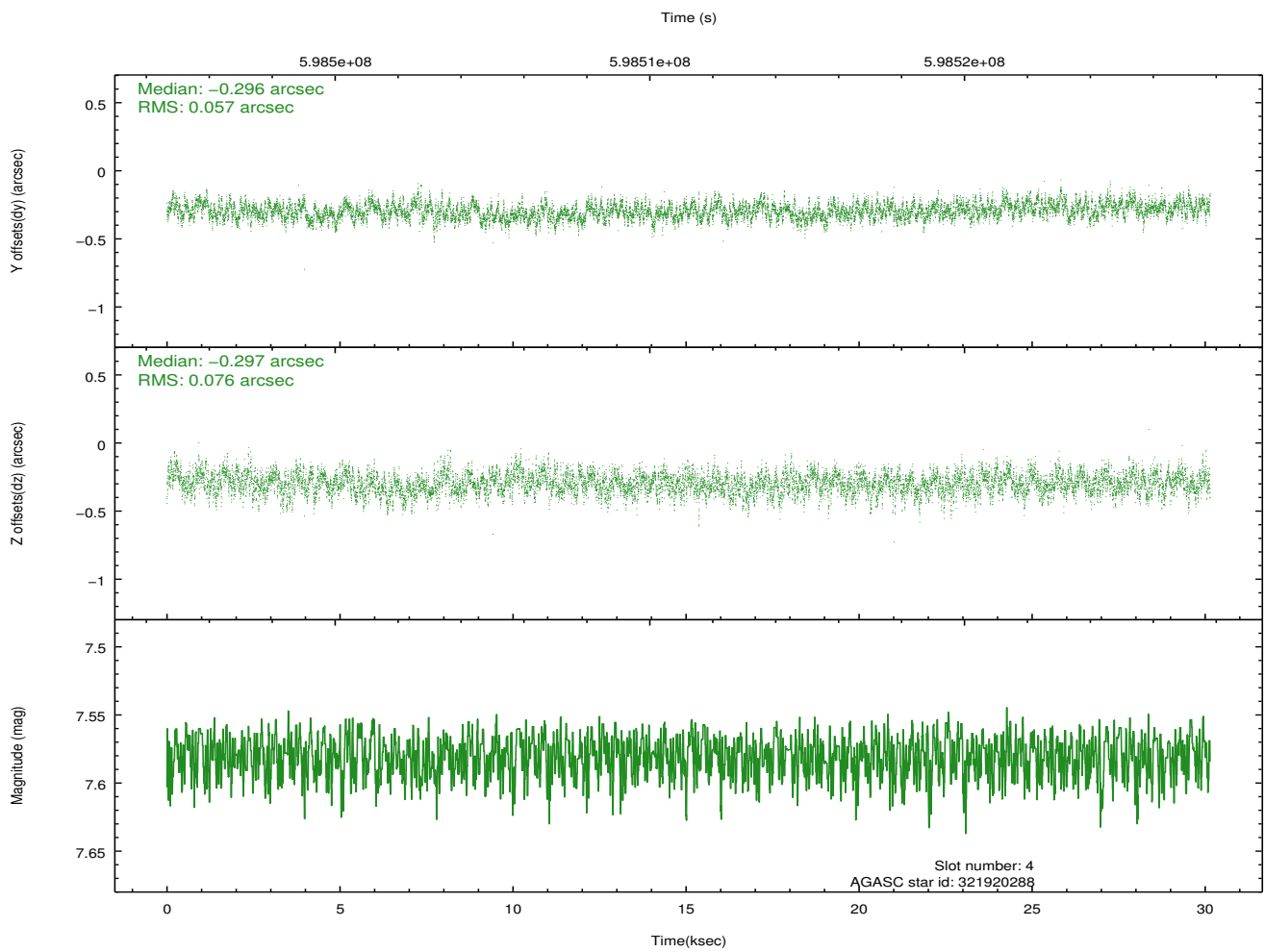
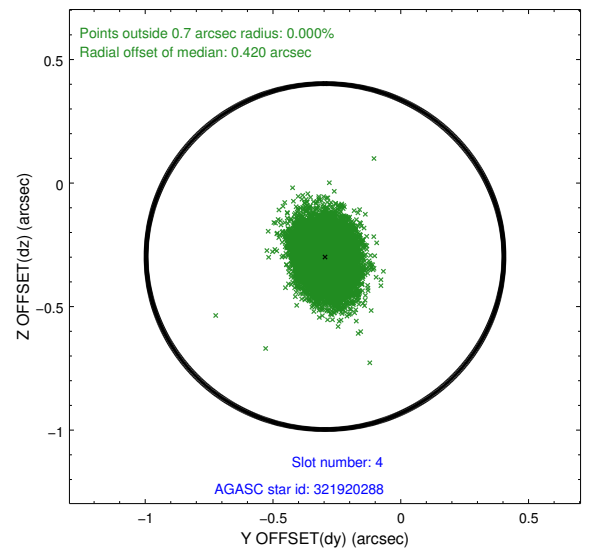
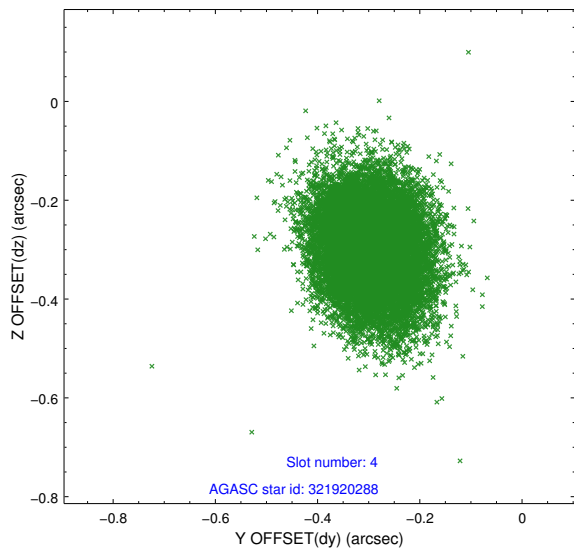
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.14	7353	0.047	0.005	0.023	0.049	0.000000	0.000000	924.63	-842.57
1	FID		ACIS-I-5	7.15	7351	-0.327	0.023	0.012	0.021	0.000000	0.000000	-1823.90	1054.79
2	FID		ACIS-I-6	7.15	7353	0.188	0.043	0.019	0.038	0.000000	0.000000	390.12	1699.49
3	GUIDE	used	321532296	7.85	14701	0.004	0.121	0.208	0.295	113.066115	31.102052	-1643.75	111.97
4	GUIDE	used	321920288	7.58	14700	-0.296	-0.297	0.100	0.163	112.257380	31.993844	1854.18	2168.46
5	GUIDE	used	321527936	7.99	14706	0.032	-0.062	0.101	0.166	112.604277	31.145118	-1314.24	1505.47
6	GUIDE	used	321529016	9.06	14697	0.539	0.499	0.215	0.312	113.590081	31.231460	-1373.28	-1545.14
7	GUIDE	used	321921352	9.15	14695	-0.271	-0.259	0.142	0.233	112.322646	32.133037	2322.97	1909.61

## 2.4 Star Slots

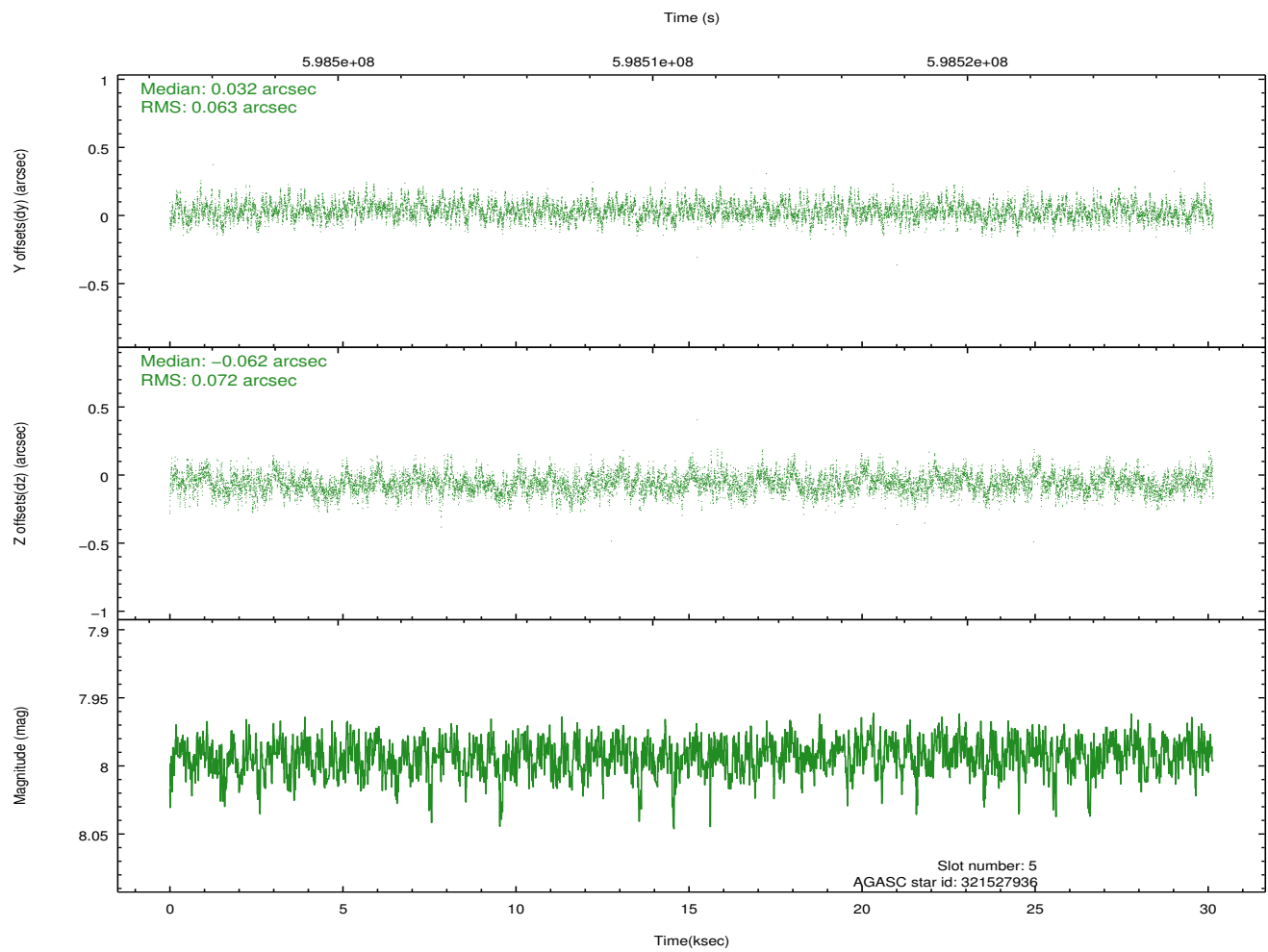
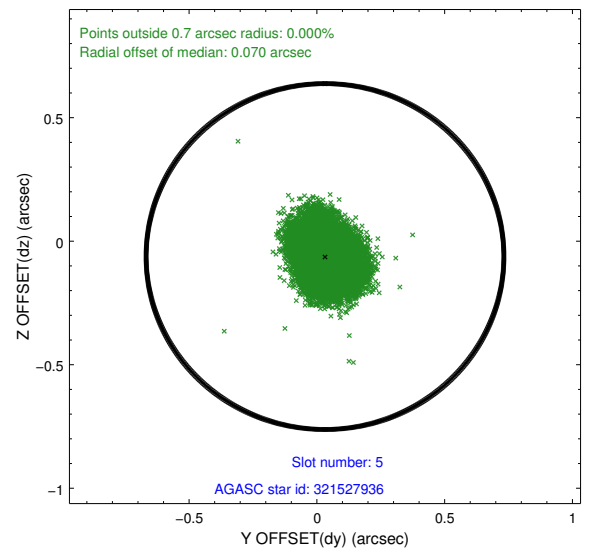
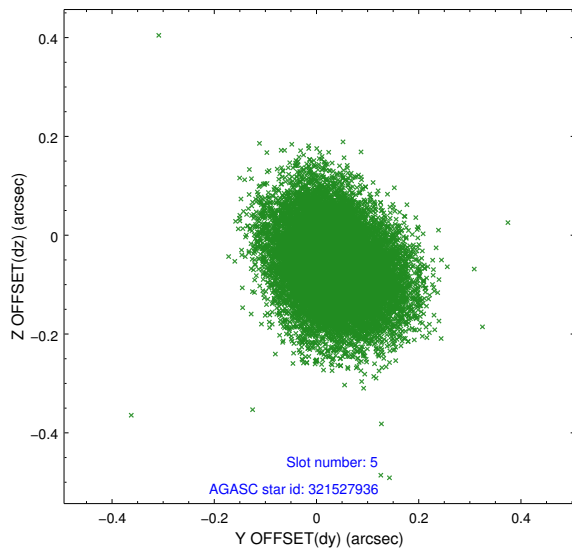
### 2.4.1 Slot 3



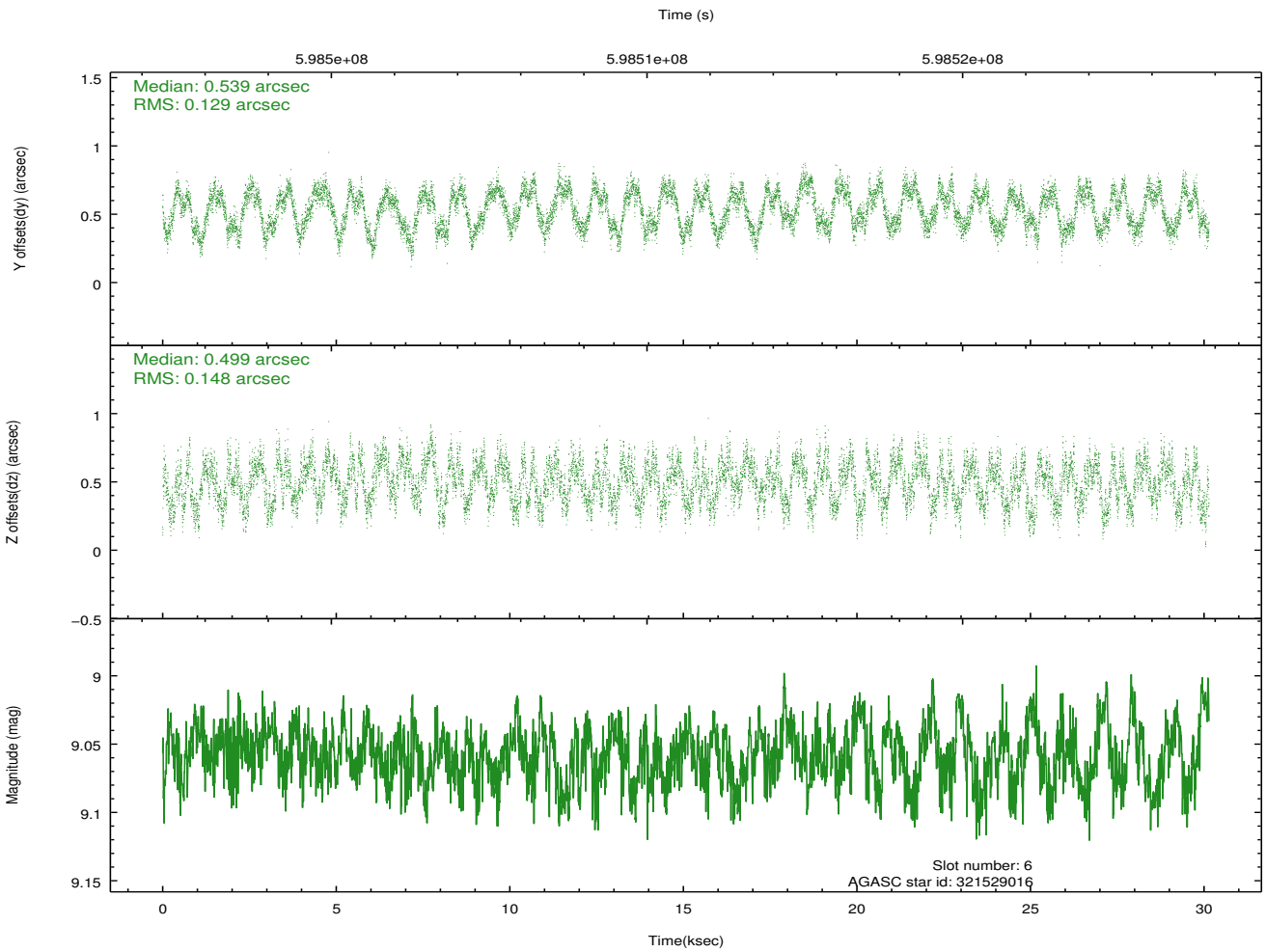
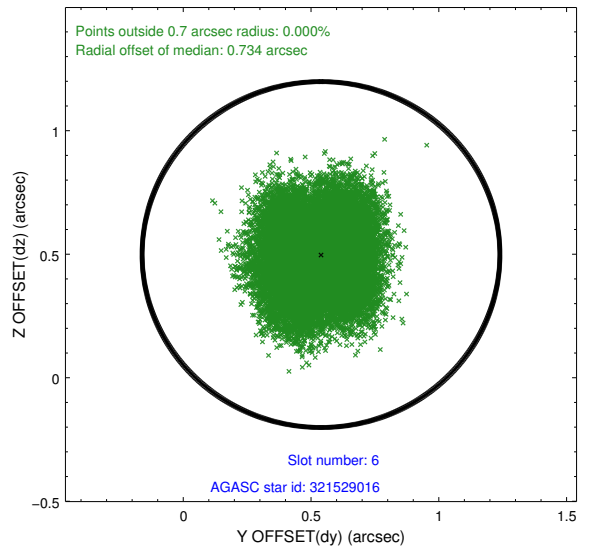
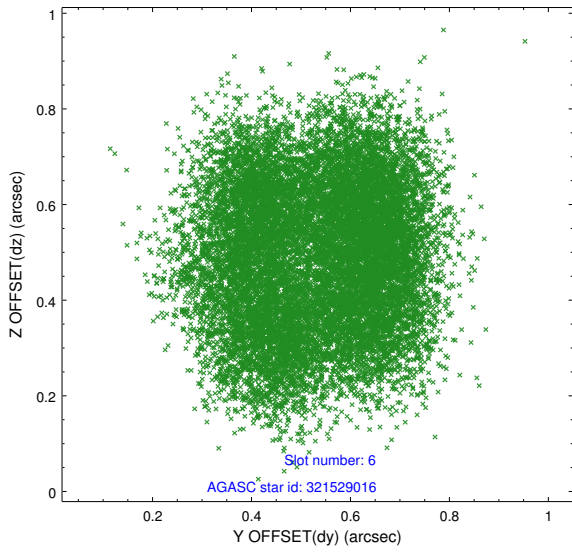
## 2.4.2 Slot 4



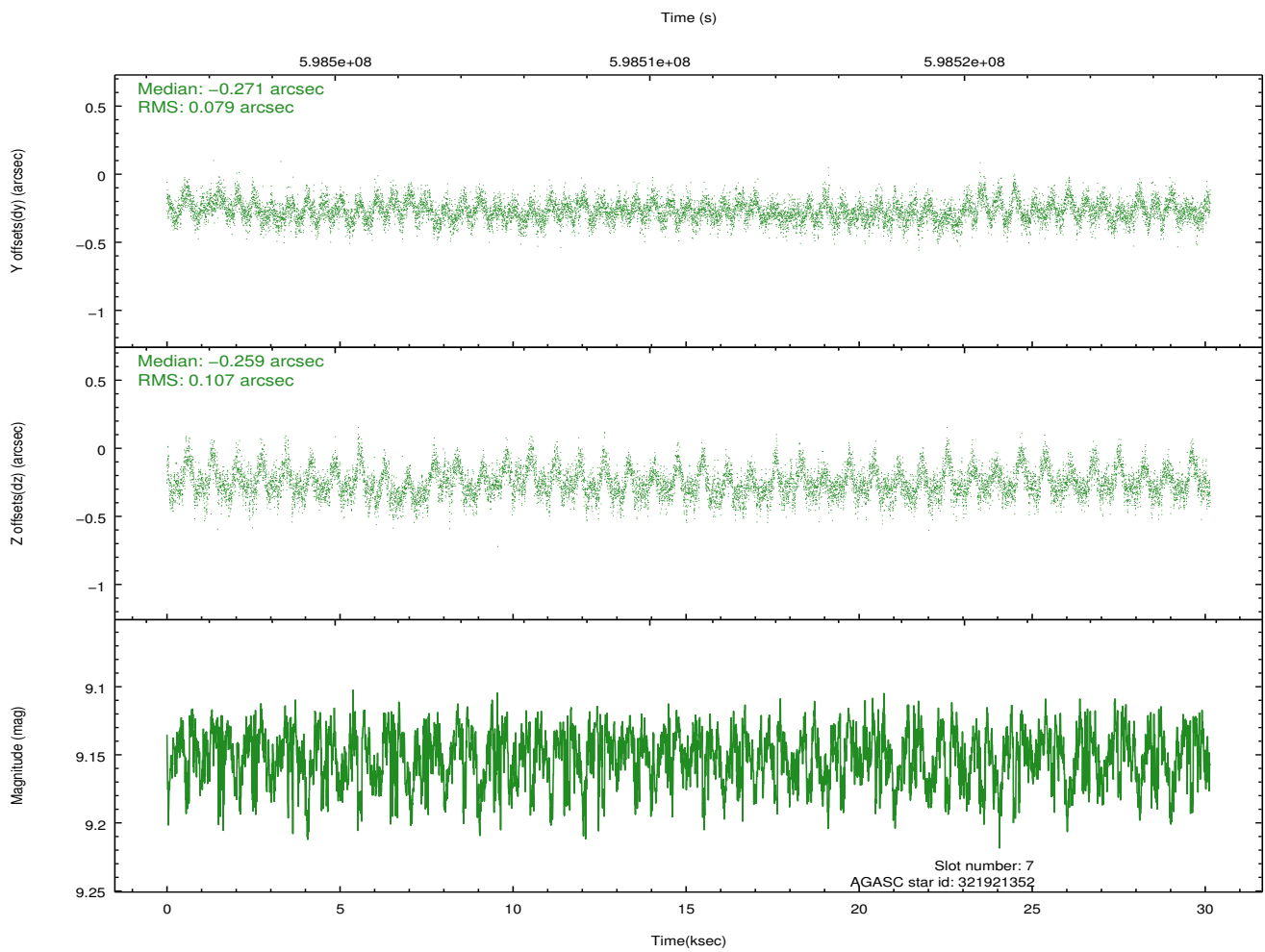
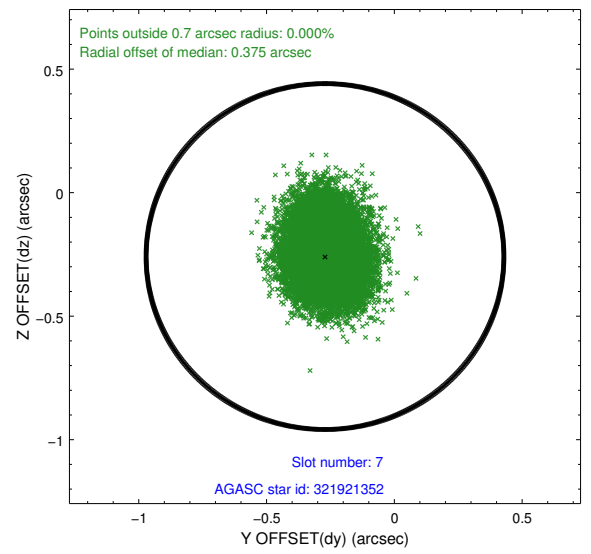
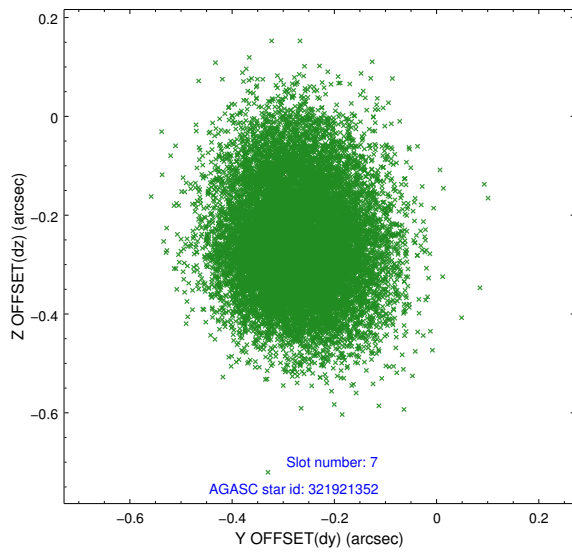
### 2.4.3 Slot 5



## 2.4.4 Slot 6

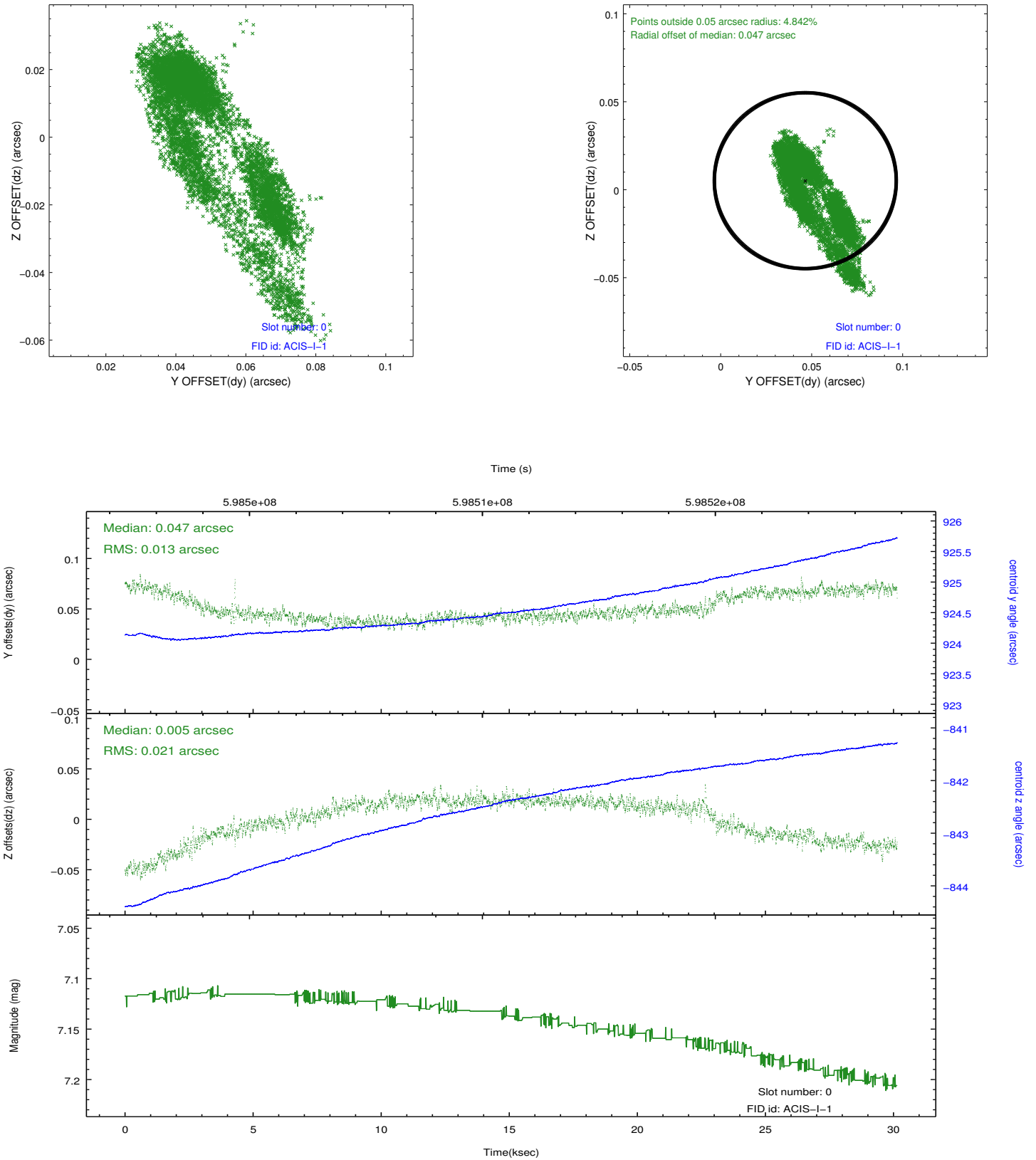


## 2.4.5 Slot 7

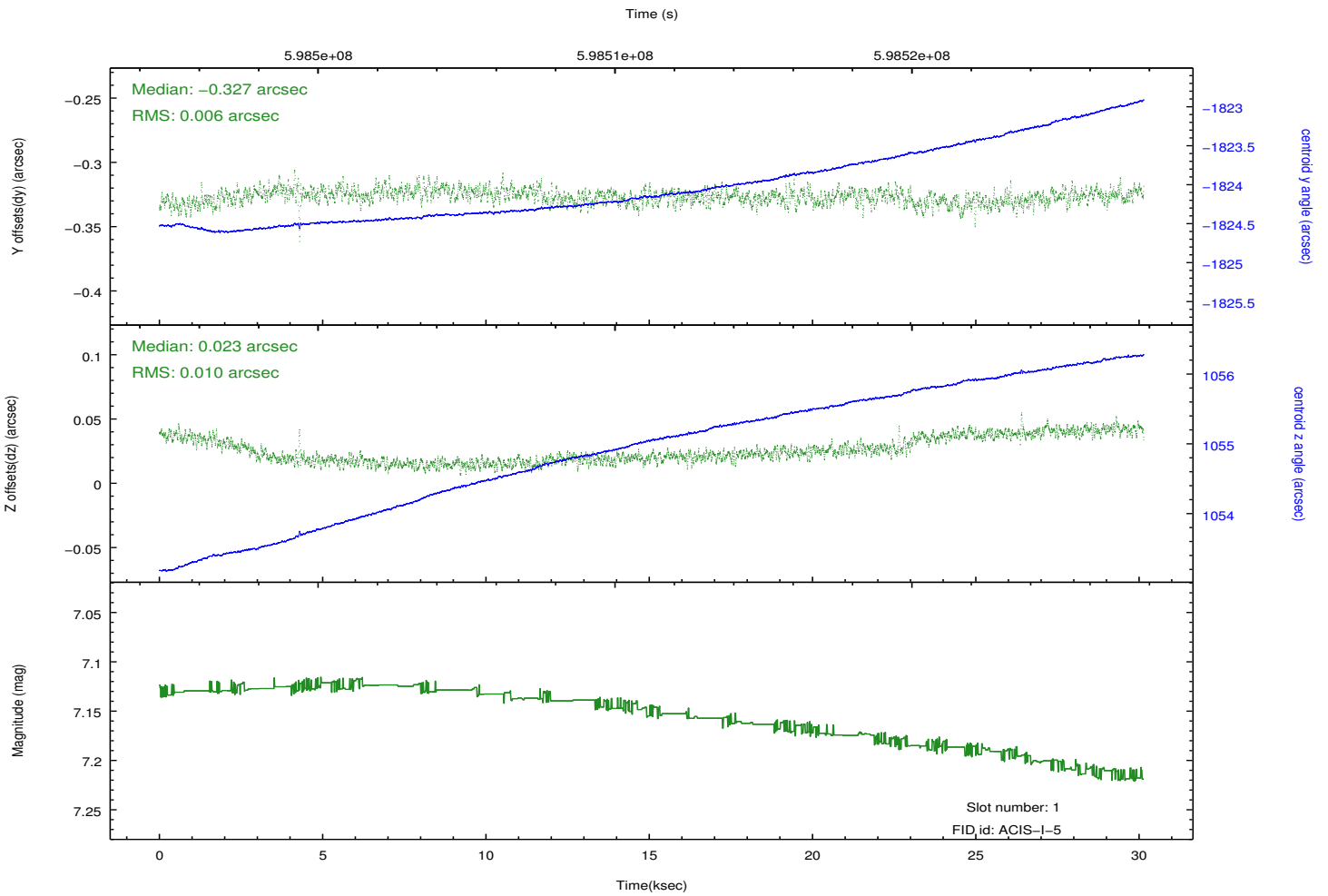
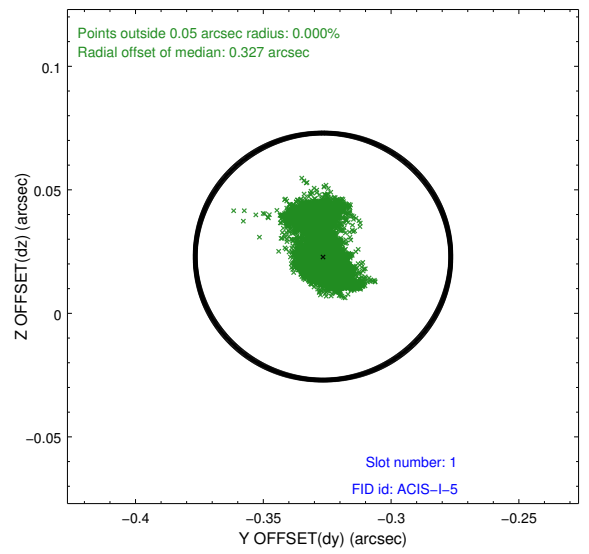
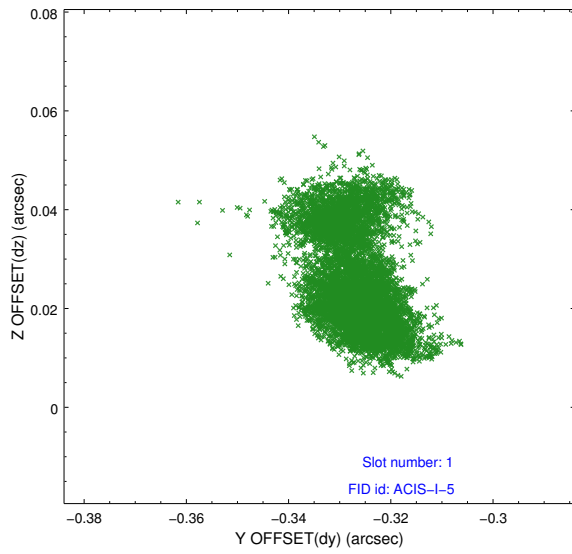


## 2.5 FID Slots

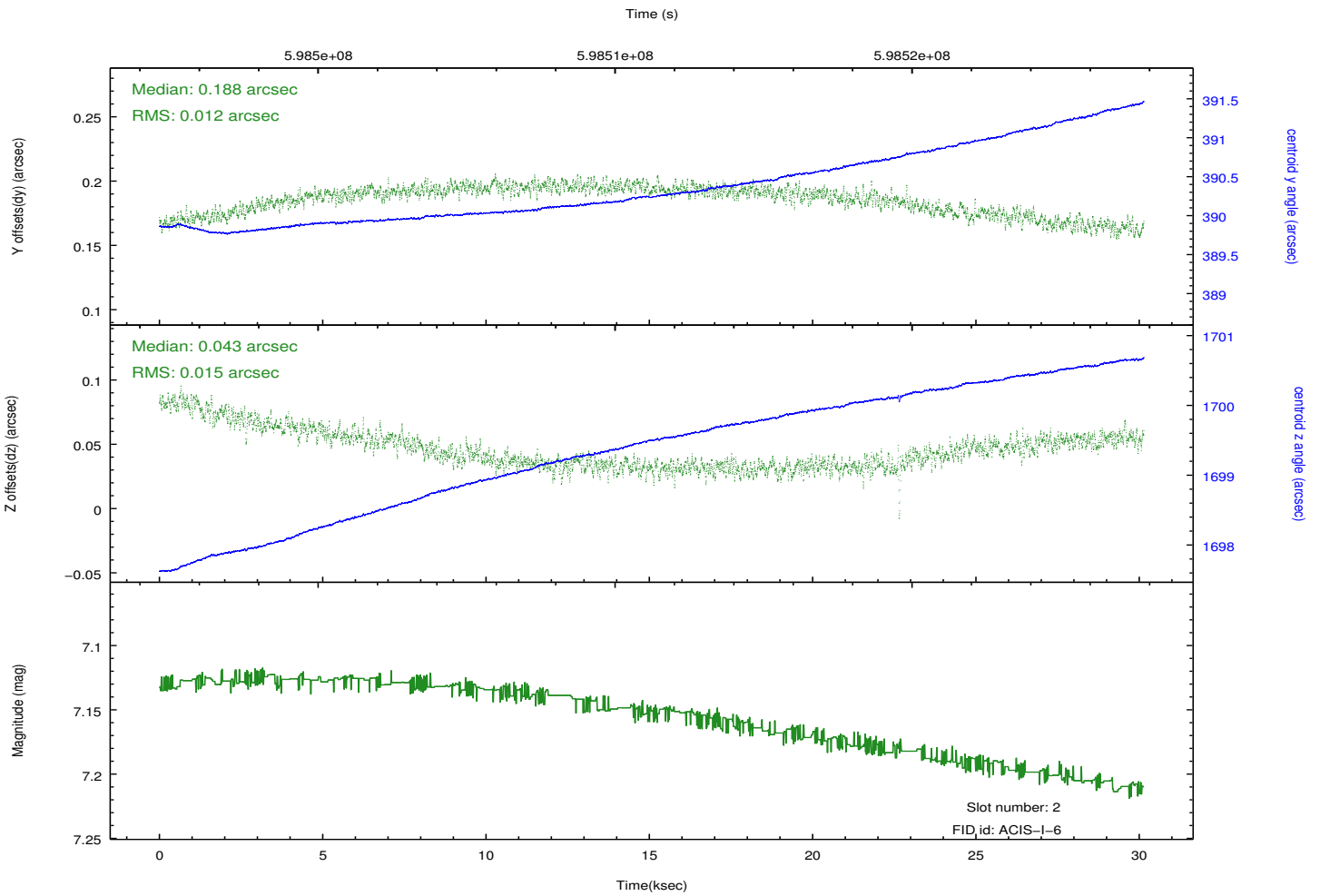
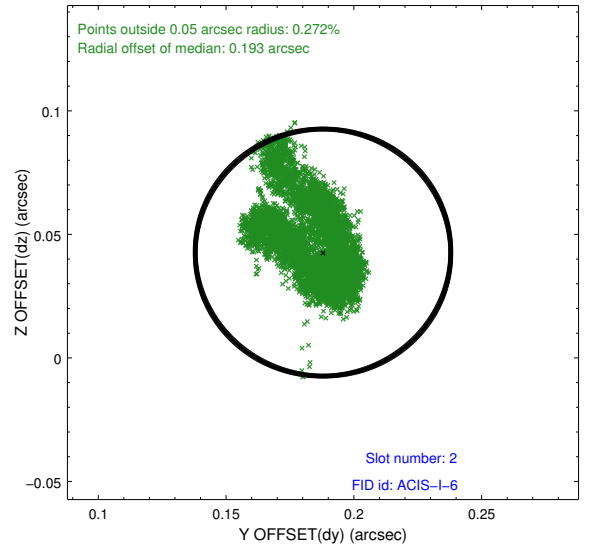
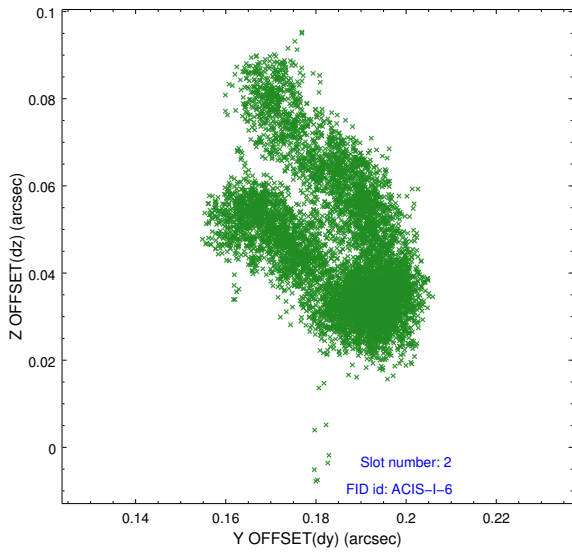
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2016.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.066707128406

## A.2 Comments

One optional chip was dropped.