

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 18239 - L2 Version 1  
Chandra X-Ray Center

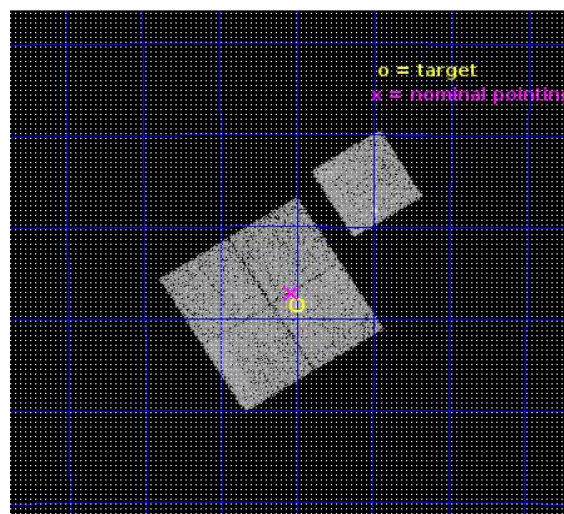
L2 Processing Date : Aug 5 2016

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# 1 Front

seq_num	801565	Sequence number
obs_id	18239	Observation id
title	Deep X-ray Observations of 3 exceptional high-z clusters of galaxies	&#160
observer	Julie Hlavacek-Larrondo	Principal investigator
object	SPT-CLJ0000-5748	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	0.247917	Observer's specified target RA [deg]
dec_targ	-57.809194	Observer's specified target Dec [deg]
ra_nom	0.26838501902187	Nominal RA [deg]
dec_nom	-57.787009118938	Nominal Dec [deg]
roll_nom	58.034135108716	Nominal Roll [deg]
revision	1	Processing version of data
ontime	19074.300146818	Sum of GTIs [s]
livetime	18825.080373105	Livetime [s]
ontime0	19071.159106851	Sum of GTIs [s]
ontime1	19074.300146818	Sum of GTIs [s]
ontime2	19071.159106374	Sum of GTIs [s]
ontime3	19074.300146818	Sum of GTIs [s]
ontime6	19071.159106731	Sum of GTIs [s]
l2events	60490	Number of level 2 events

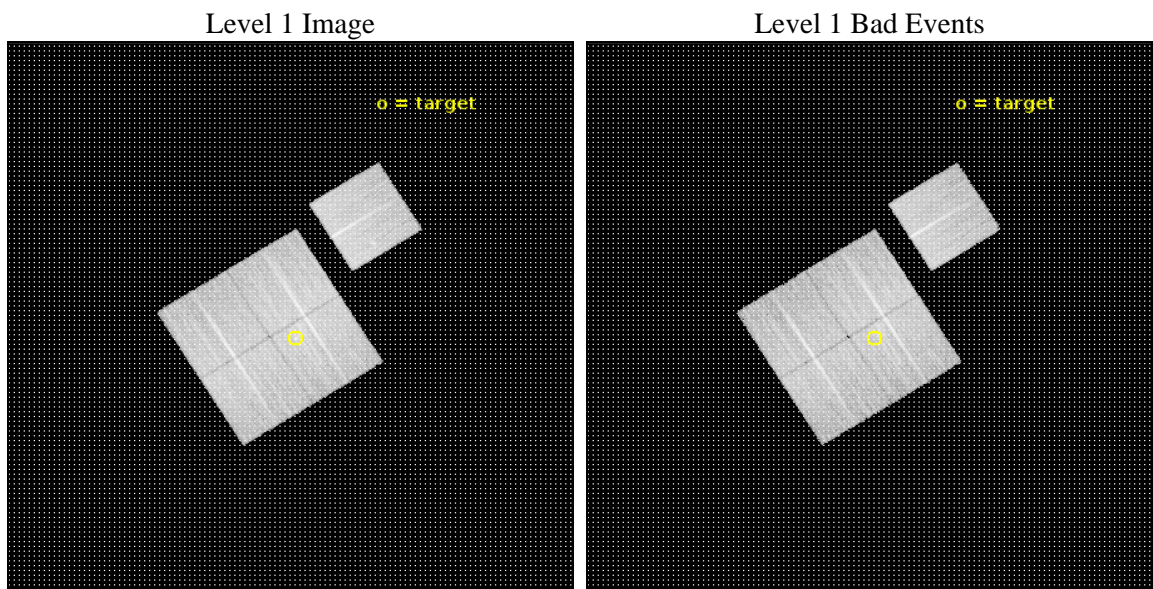




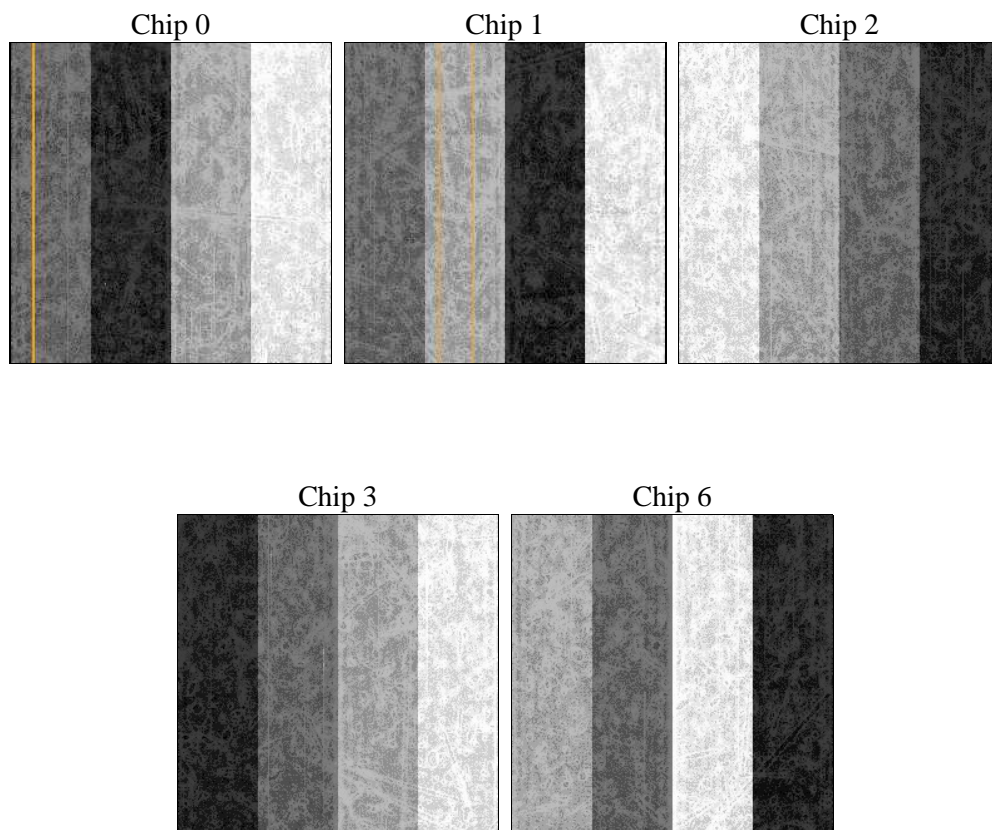
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19000.000000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	19074.300146818	Sum of GTIs [s]
caldbver	4.7.2	&#160	ontime0	19071.159106851	Sum of GTIs [s]
date	2016-08-06T02:52:29	Date and time of file creation	ontime1	19074.300146818	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	19071.159106374	Sum of GTIs [s]
			ontime3	19074.300146818	Sum of GTIs [s]
			ontime6	19071.159106731	Sum of GTIs [s]
			l1events	600684	Number of level 1 events

### 2.1.4 Events

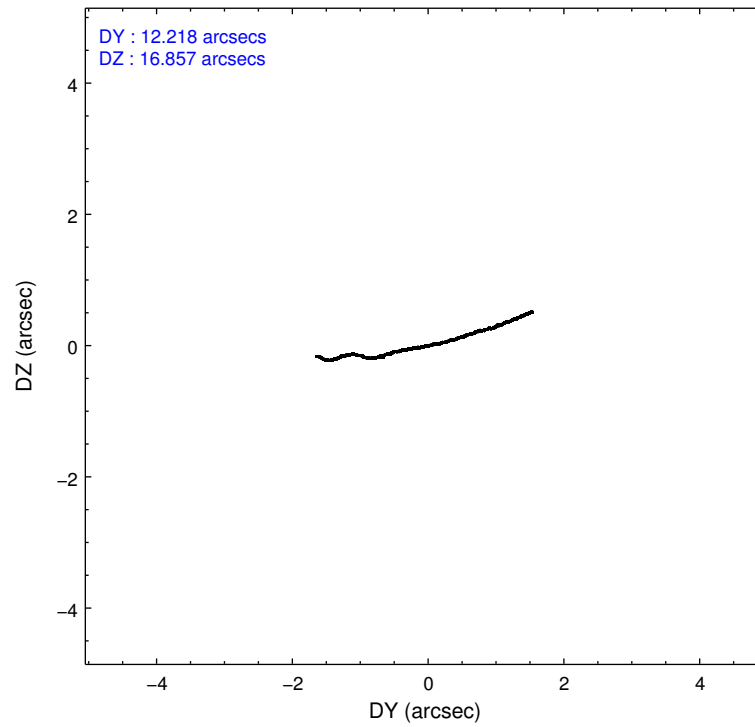
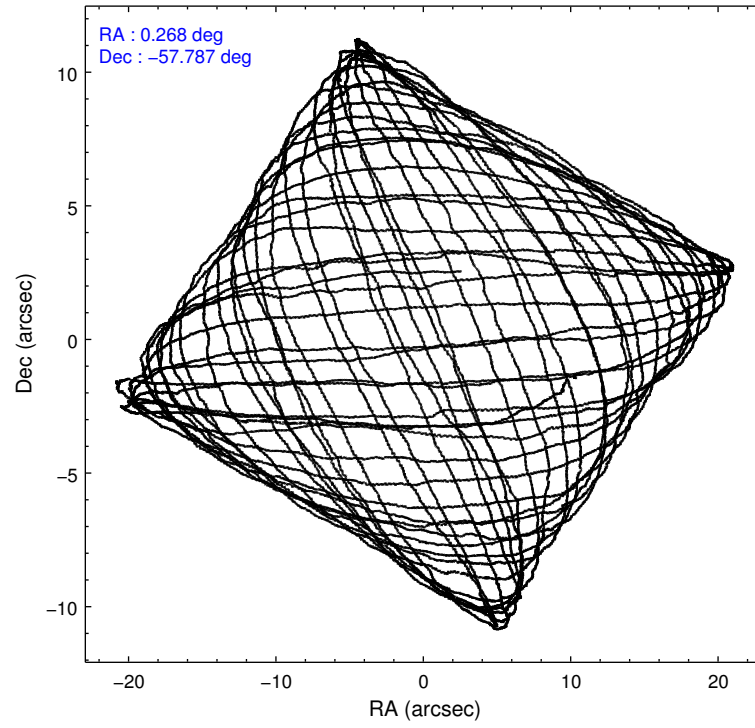
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	110795	115192	123523	122966	128208
rejected events	96800	99546	110174	108829	113656
rejected %	87%	86%	89%	88%	88%

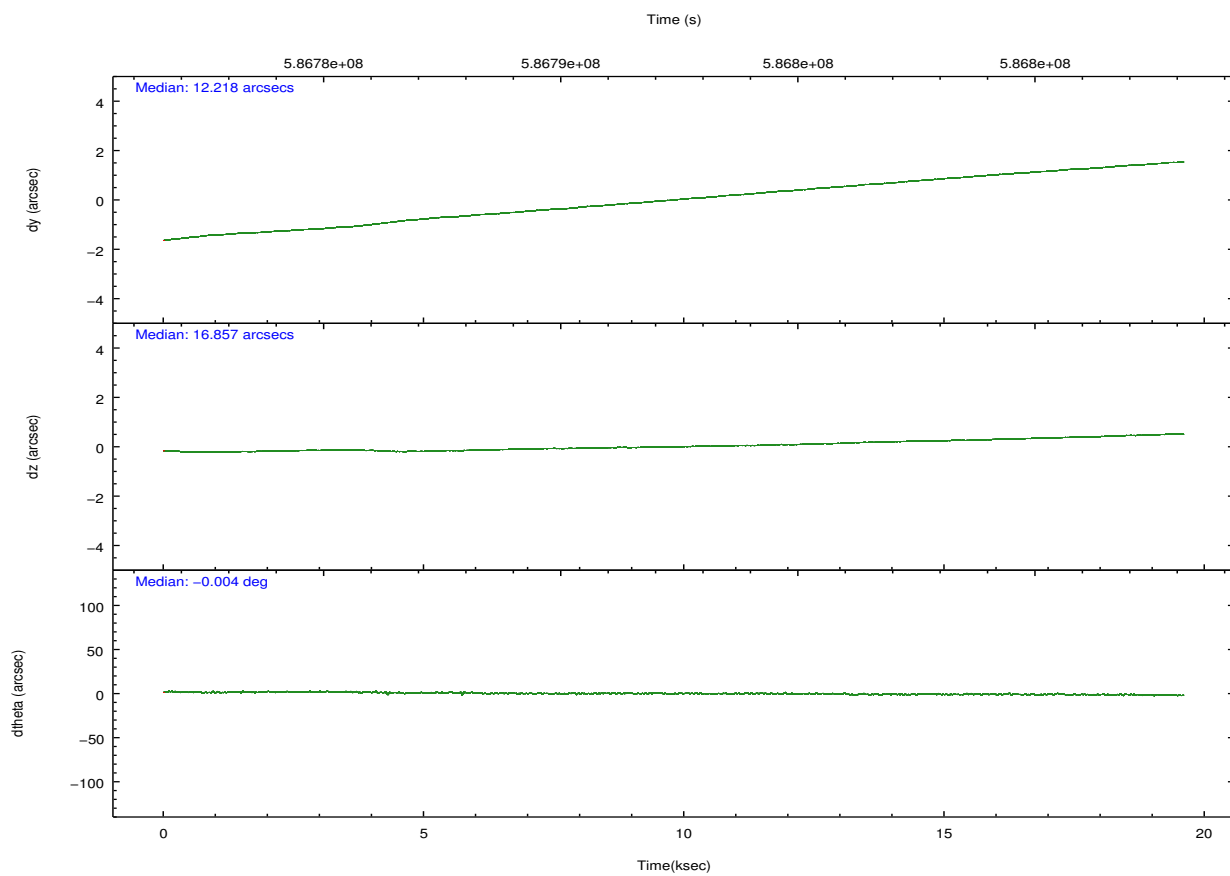
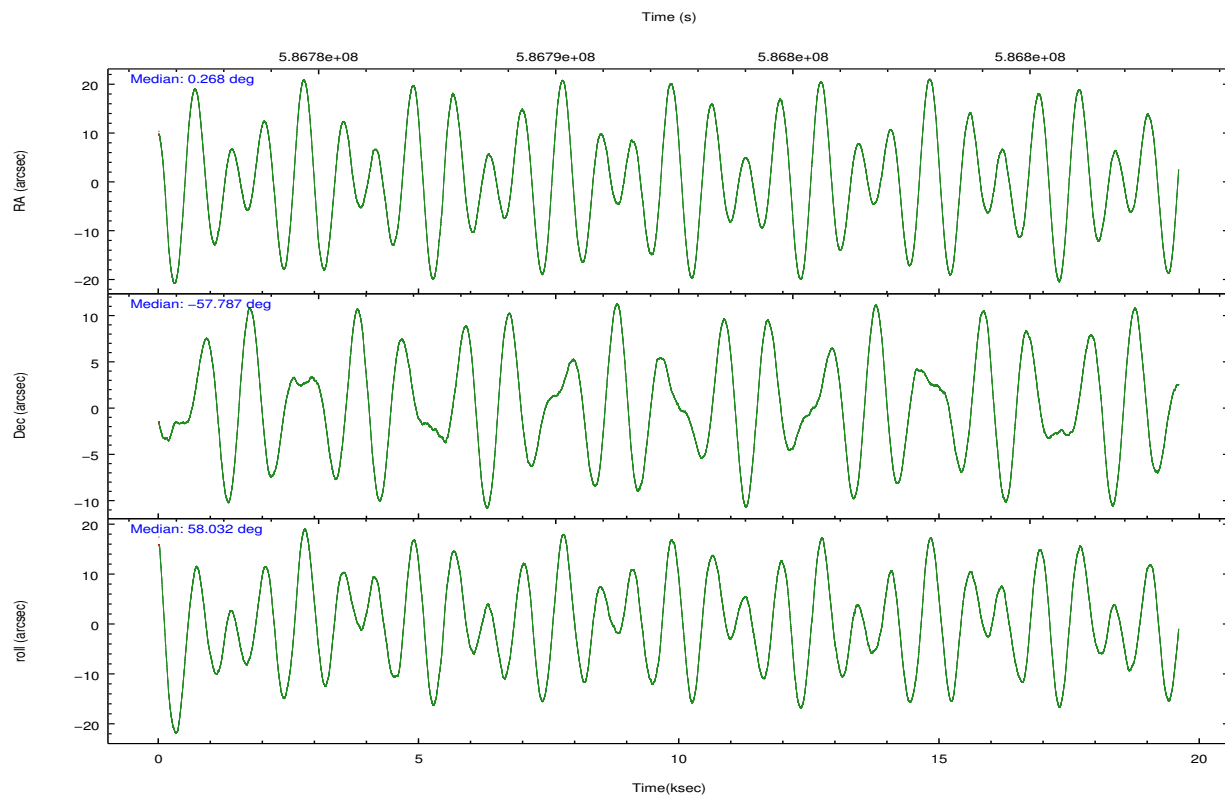
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4775	5408	4573	5396	5122
	4%	4%	3%	4%	3%
grade 1 events	63	71	90	83	73
	0%	0%	0%	0%	0%
grade 2 events	3510	3822	3404	3054	3239
	3%	3%	2%	2%	2%
grade 3 events	1422	1542	1324	1485	1490
	1%	1%	1%	1%	1%
grade 4 events	1367	1484	1334	1437	1428
	1%	1%	1%	1%	1%
grade 5 events	5562	5766	5203	6309	6010
	5%	5%	4%	5%	4%
grade 6 events	2924	3391	2716	2768	3273
	2%	2%	2%	2%	2%
grade 7 events	91172	93708	104879	102434	107573
	82%	81%	84%	83%	83%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	0.266858	0.2683850190218706	CCD I2 on	Y	Y
[deg] Pointing Dec	-57.814578	-57.78700911893831	CCD I3 on	Y	Y
[deg] Pointing Roll	57.824148	58.03413510871604	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	-228.472463	-228.4783457680588	CCD S3 on	N	N
[mm] SIM translation stage offset	-5.12	-5.114107234870914	CCD S4 on	N	N
[s] Observation start time (MET)	586783197.184000	586782057.59855	CCD S5 on	N	N
Observation start date	2016-08-05T11:18:49	2016-08-05T11:00:57	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	586802197.184000	586802796.93724	On-chip summing requested	N	N
Observation end date	2016-08-05T16:35:29	2016-08-05T16:46:36	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



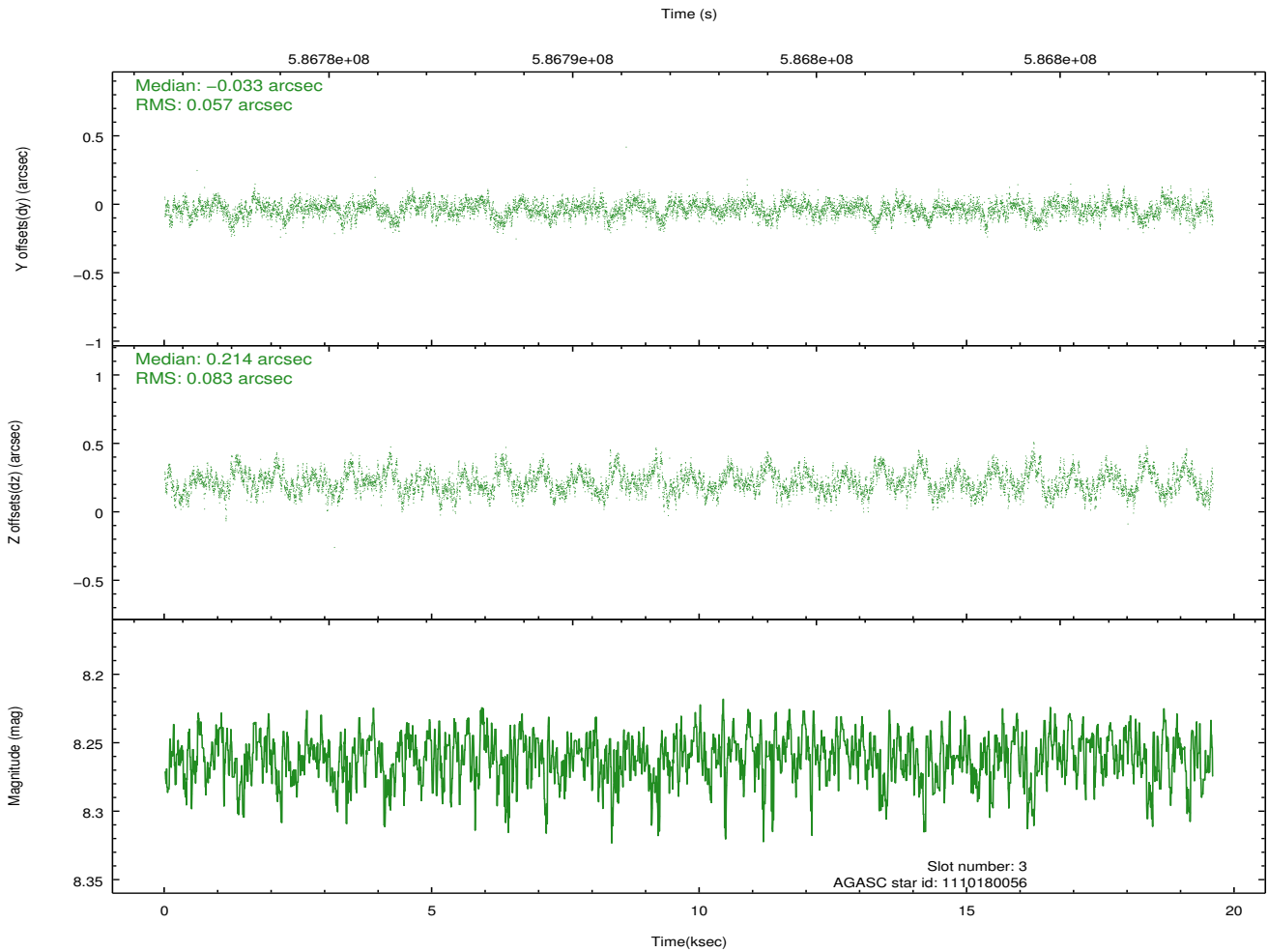
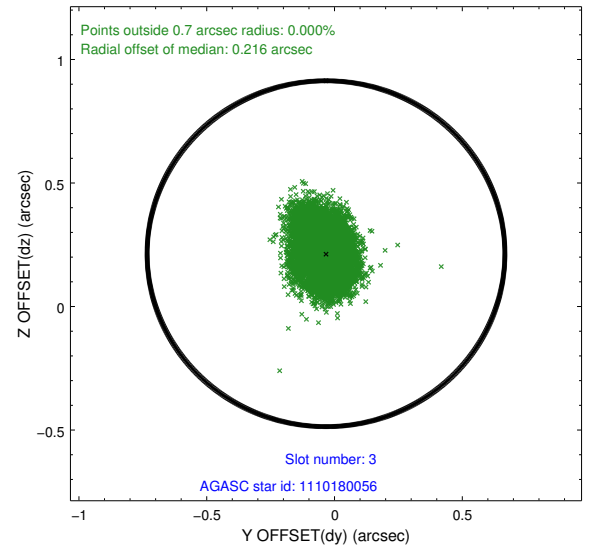
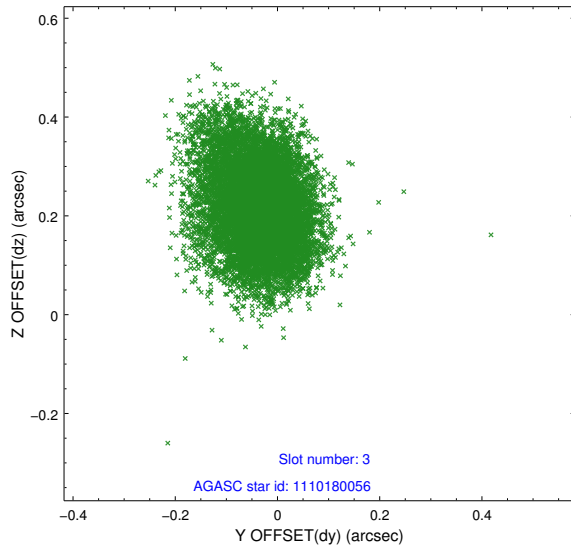


### Slot Statistics

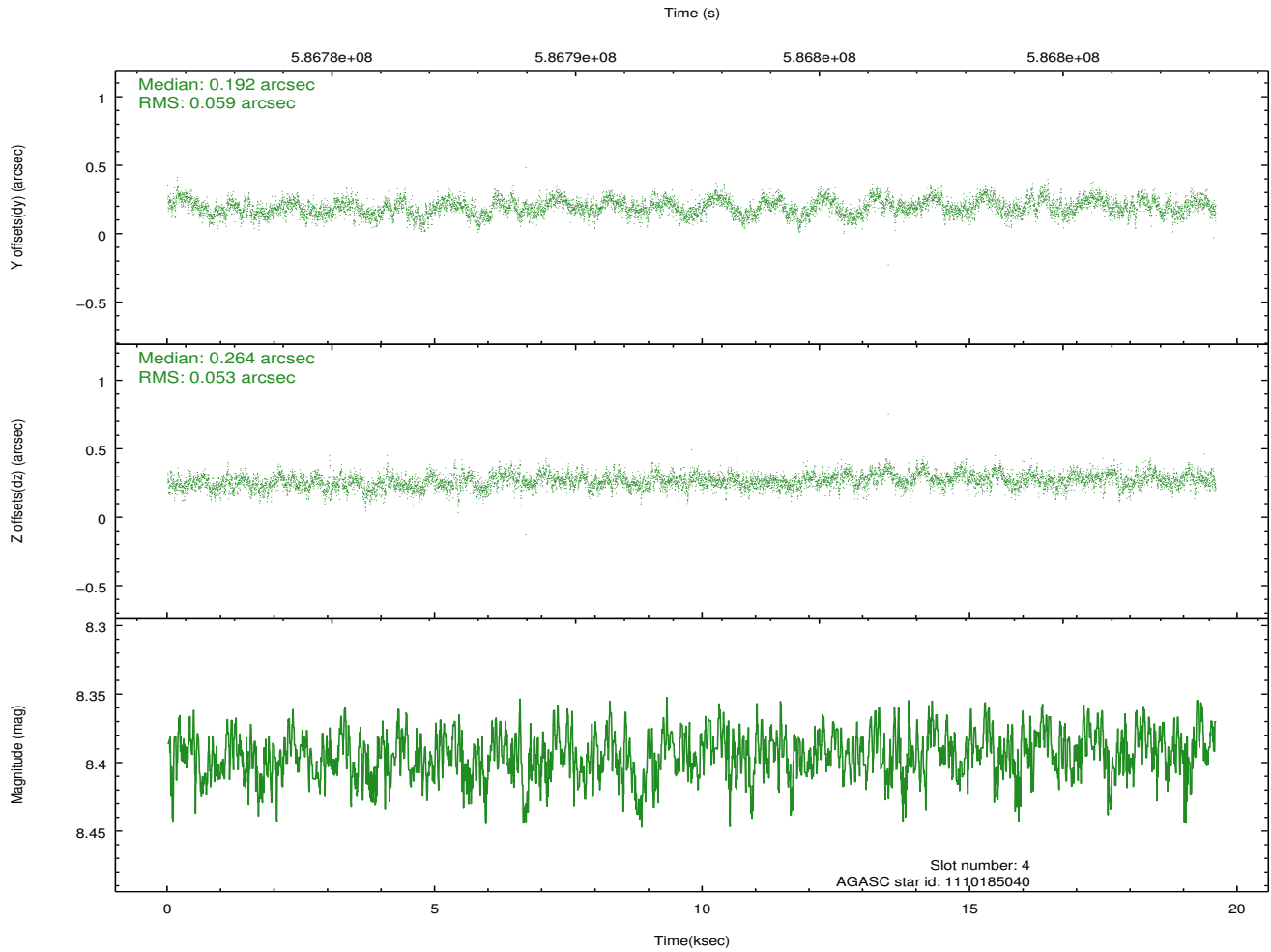
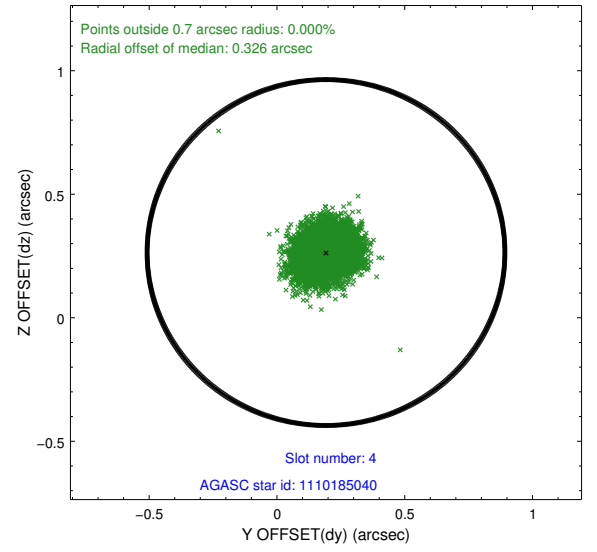
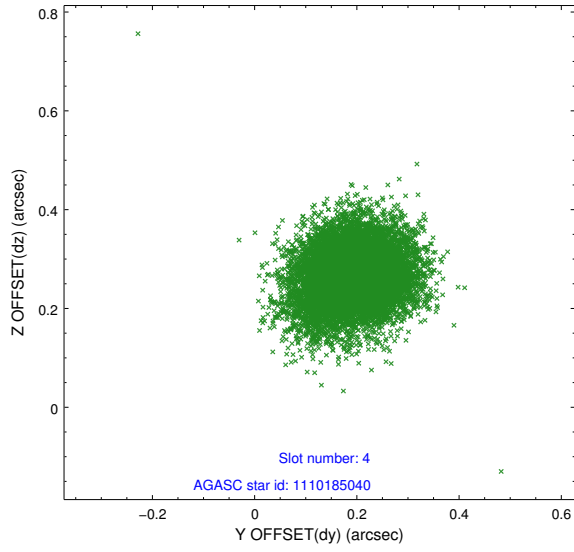
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.06	4779	0.125	-0.101	0.016	0.030	0.000000	0.000000	927.39	-945.58
1	FID		ACIS-I-5	7.04	4779	-0.327	0.088	0.014	0.021	0.000000	0.000000	-1821.13	951.88
2	FID		ACIS-I-6	7.05	4778	0.110	0.081	0.014	0.027	0.000000	0.000000	392.62	1596.68
3	GUIDE	used	1110180056	8.26	9551	-0.033	0.214	0.106	0.176	0.679636	-57.633667	972.58	-327.30
4	GUIDE	used	1110185040	8.39	9554	0.192	0.264	0.085	0.138	0.334642	-58.580271	-2264.90	-1575.49
5	GUIDE	used	1158553656	9.50	9543	0.100	-0.054	0.181	0.285	359.738396	-57.783236	-446.90	915.37
6	GUIDE	used	1158554544	9.63	9545	0.017	-0.419	0.192	0.312	359.171758	-57.656252	-655.02	2079.29
7	GUIDE	used	1110180416	9.30	9550	-0.265	-0.000	0.215	0.308	0.633004	-57.667068	823.19	-314.64

## 2.4 Star Slots

### 2.4.1 Slot 3

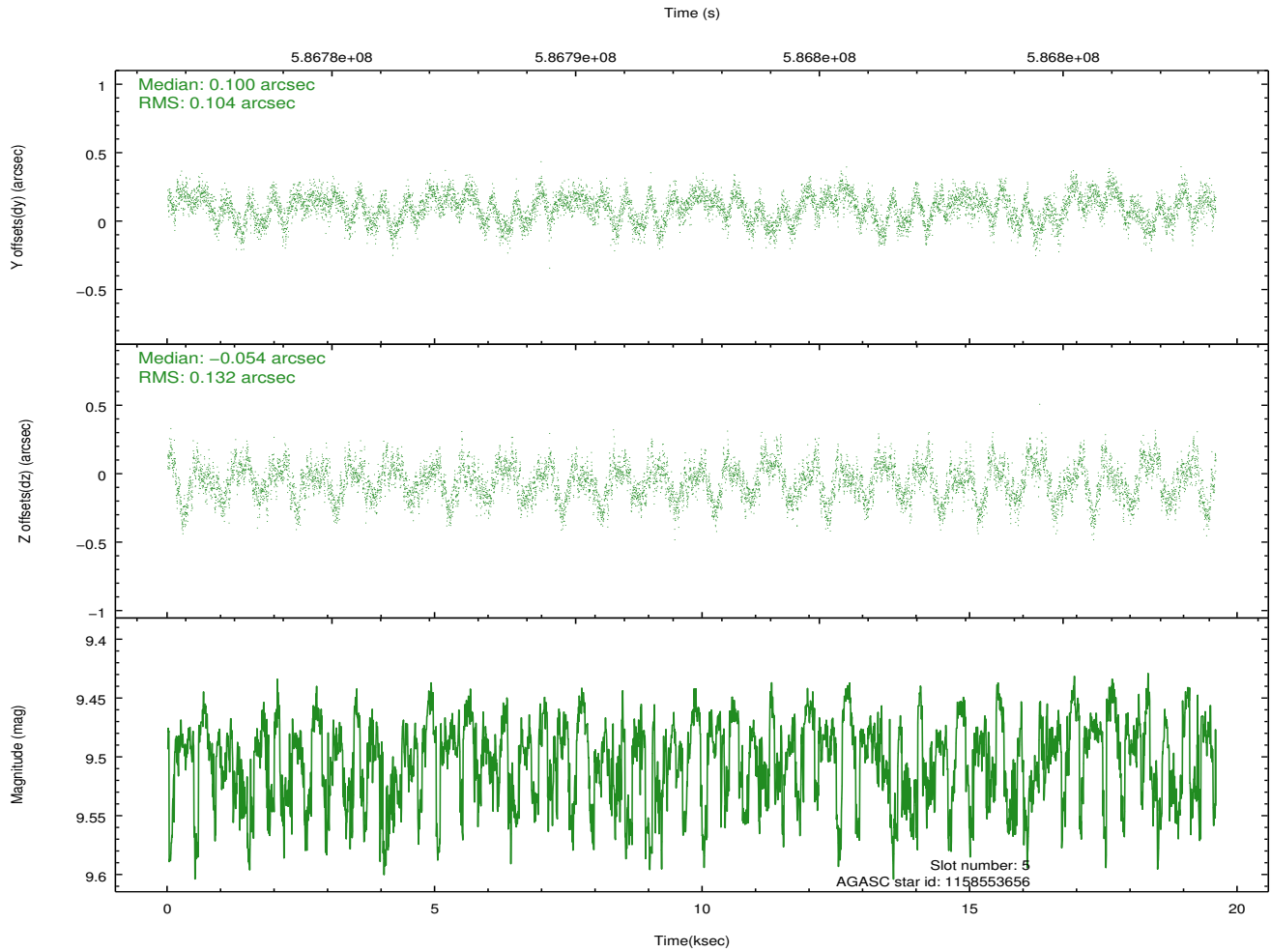
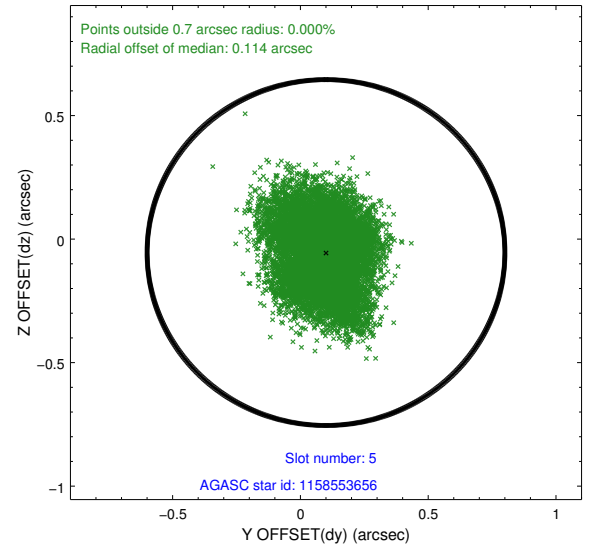
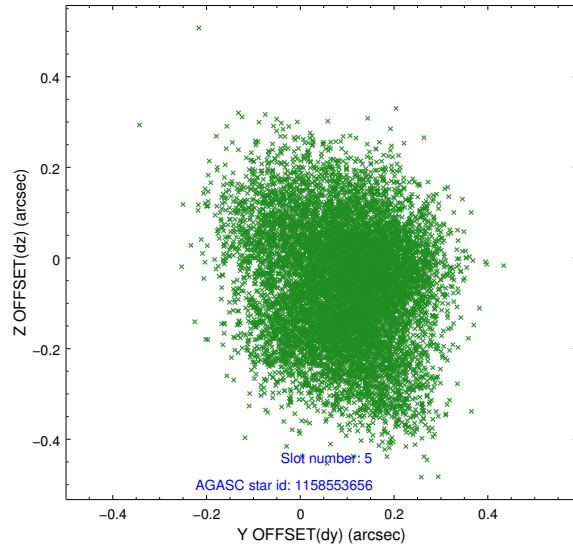


## 2.4.2 Slot 4

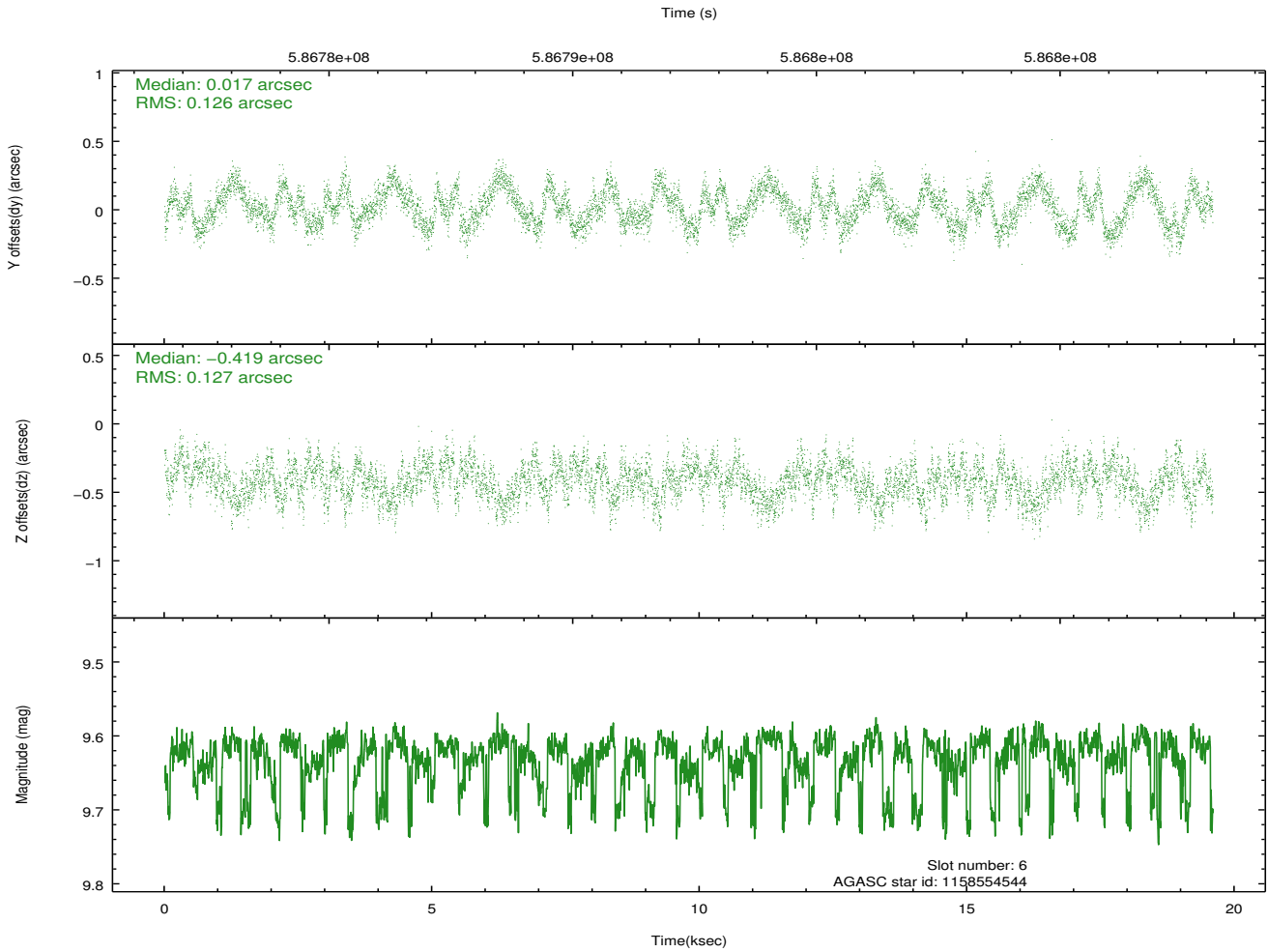
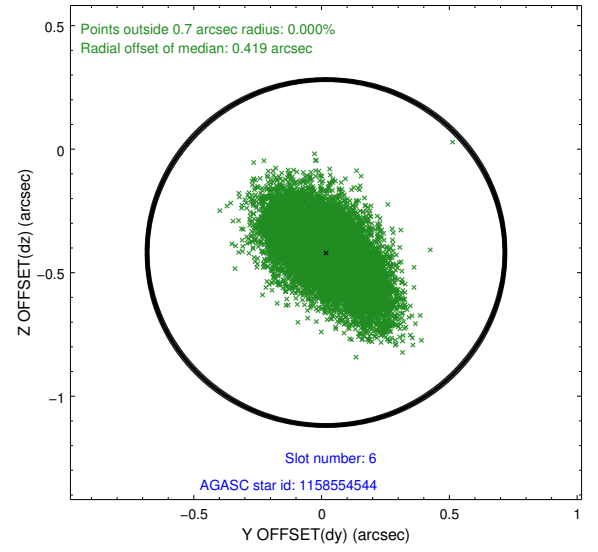
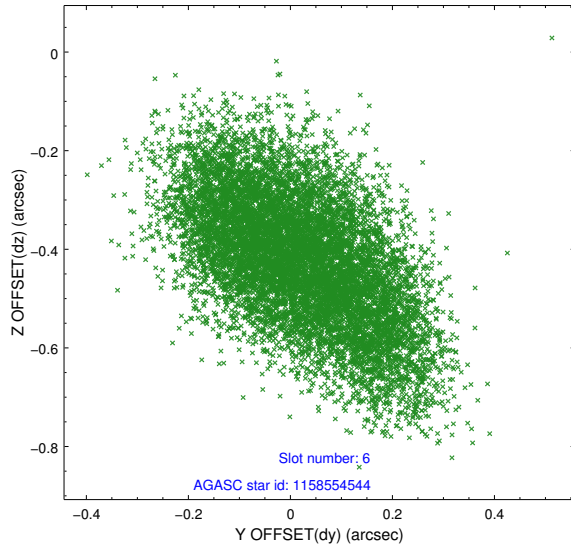




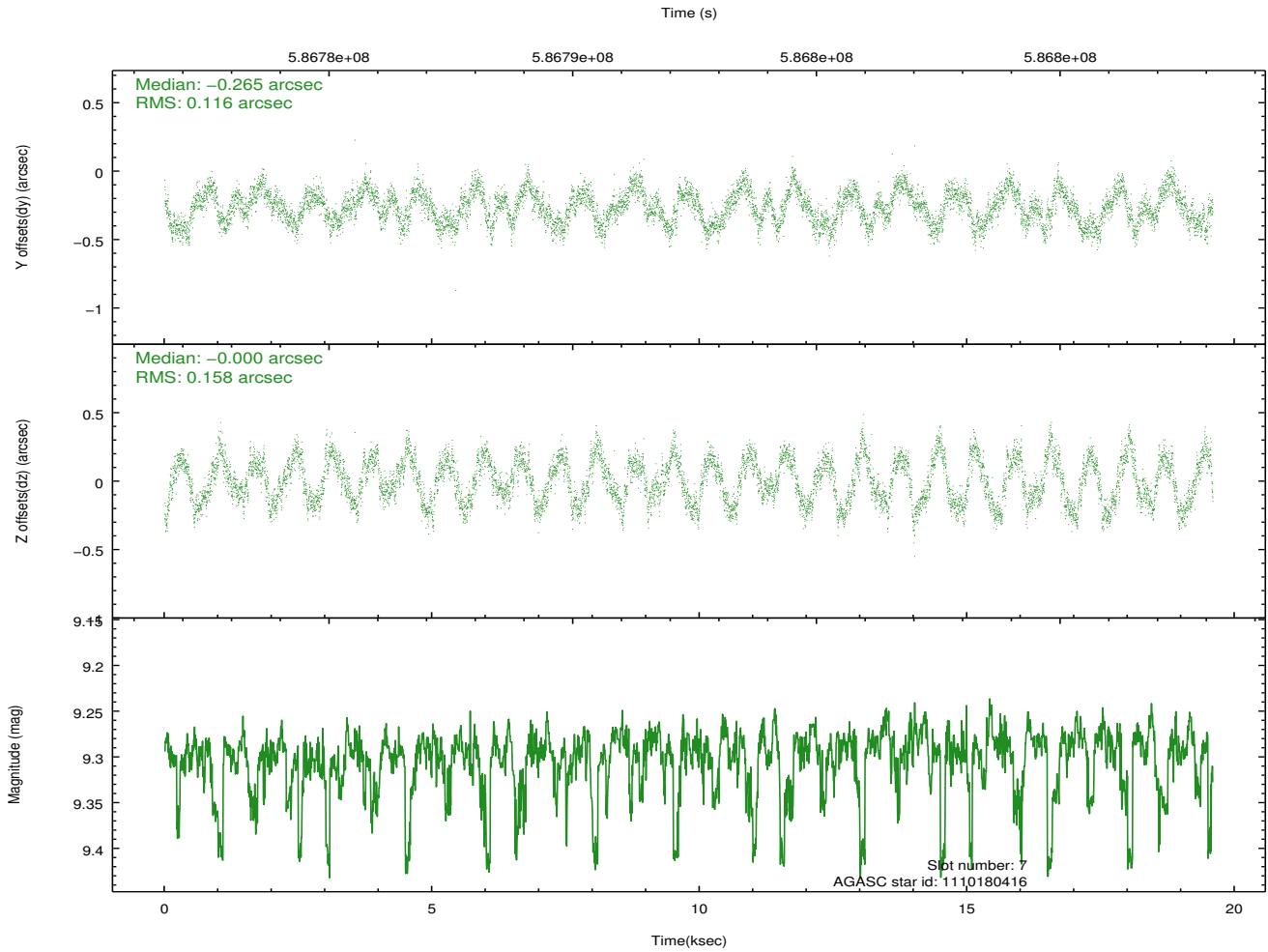
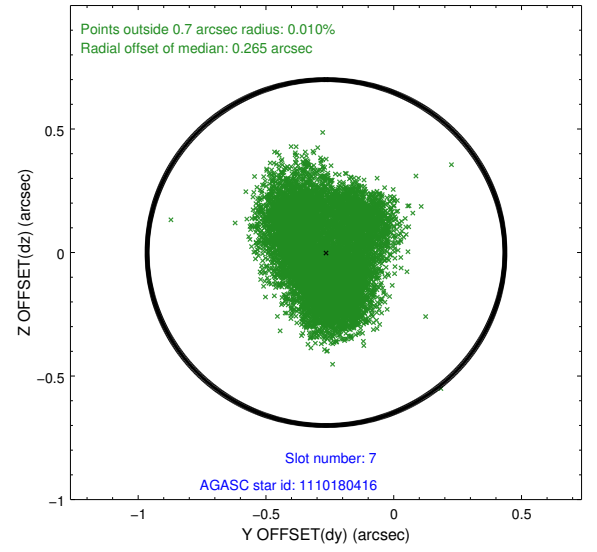
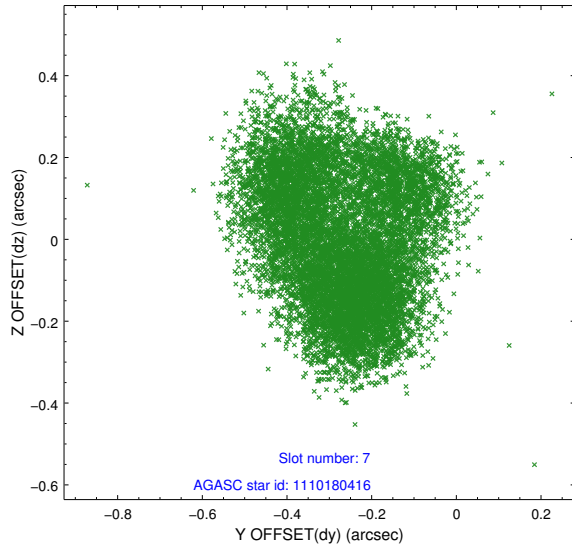
### 2.4.3 Slot 5



## 2.4.4 Slot 6

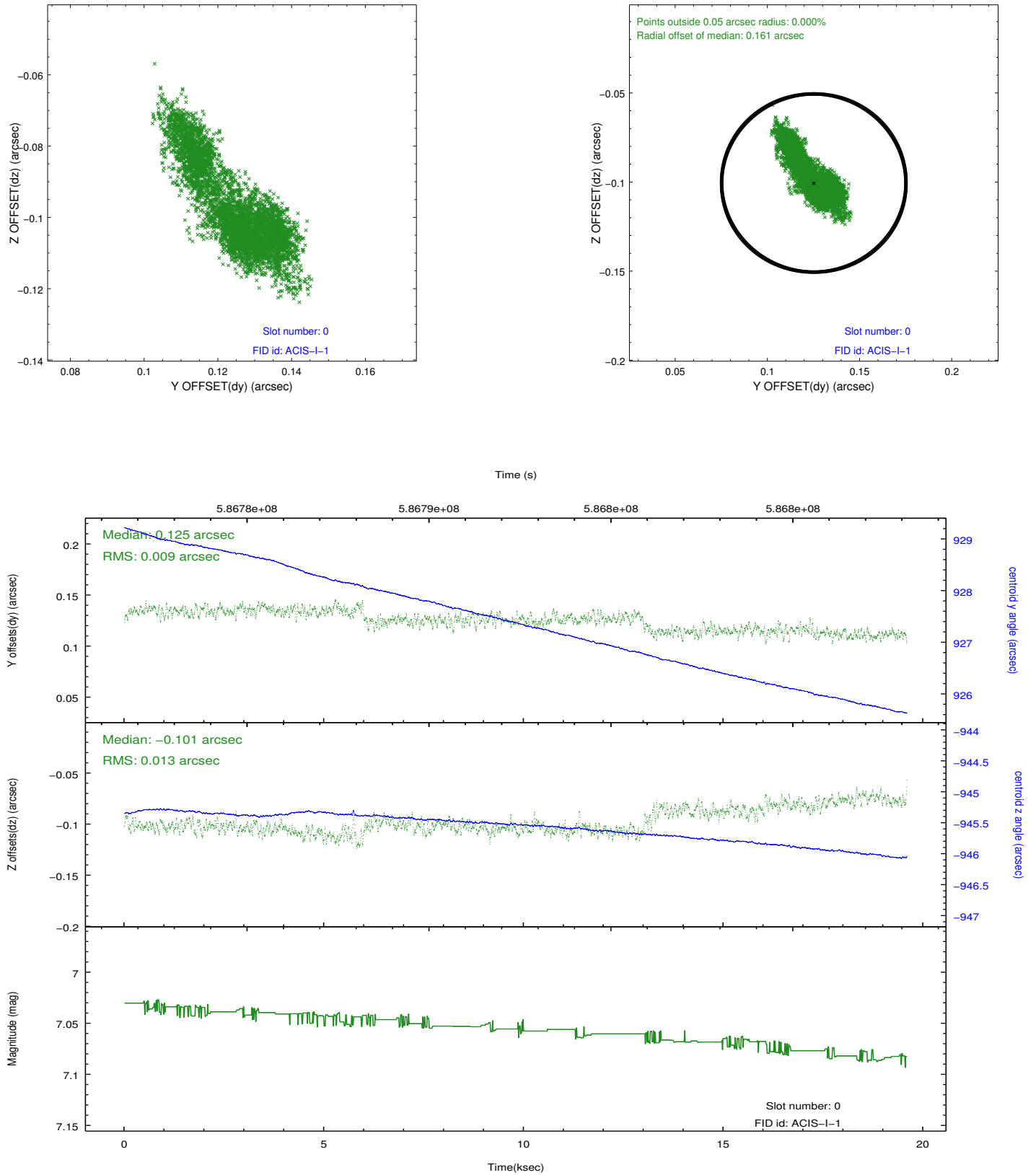


## 2.4.5 Slot 7

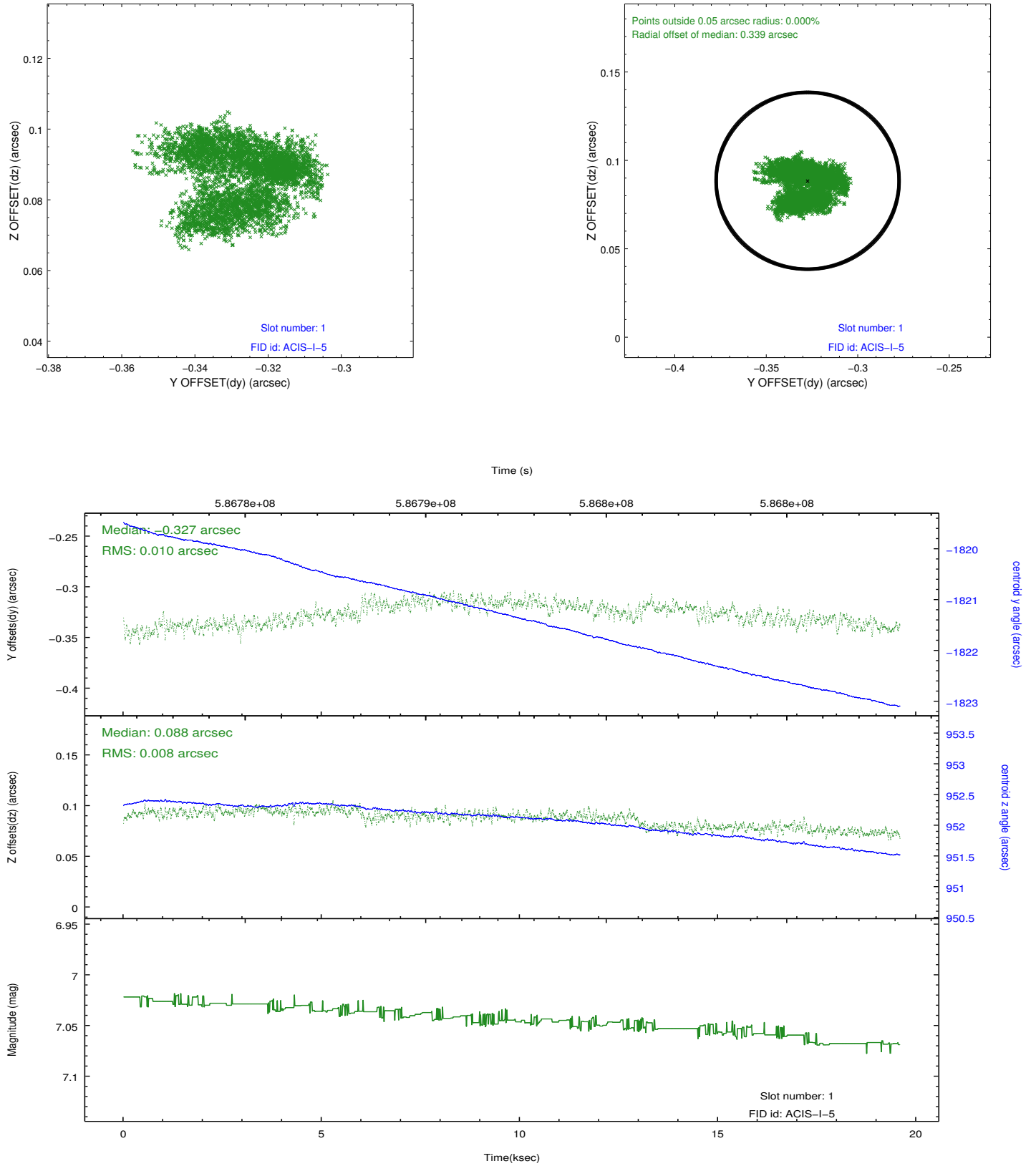


## 2.5 FID Slots

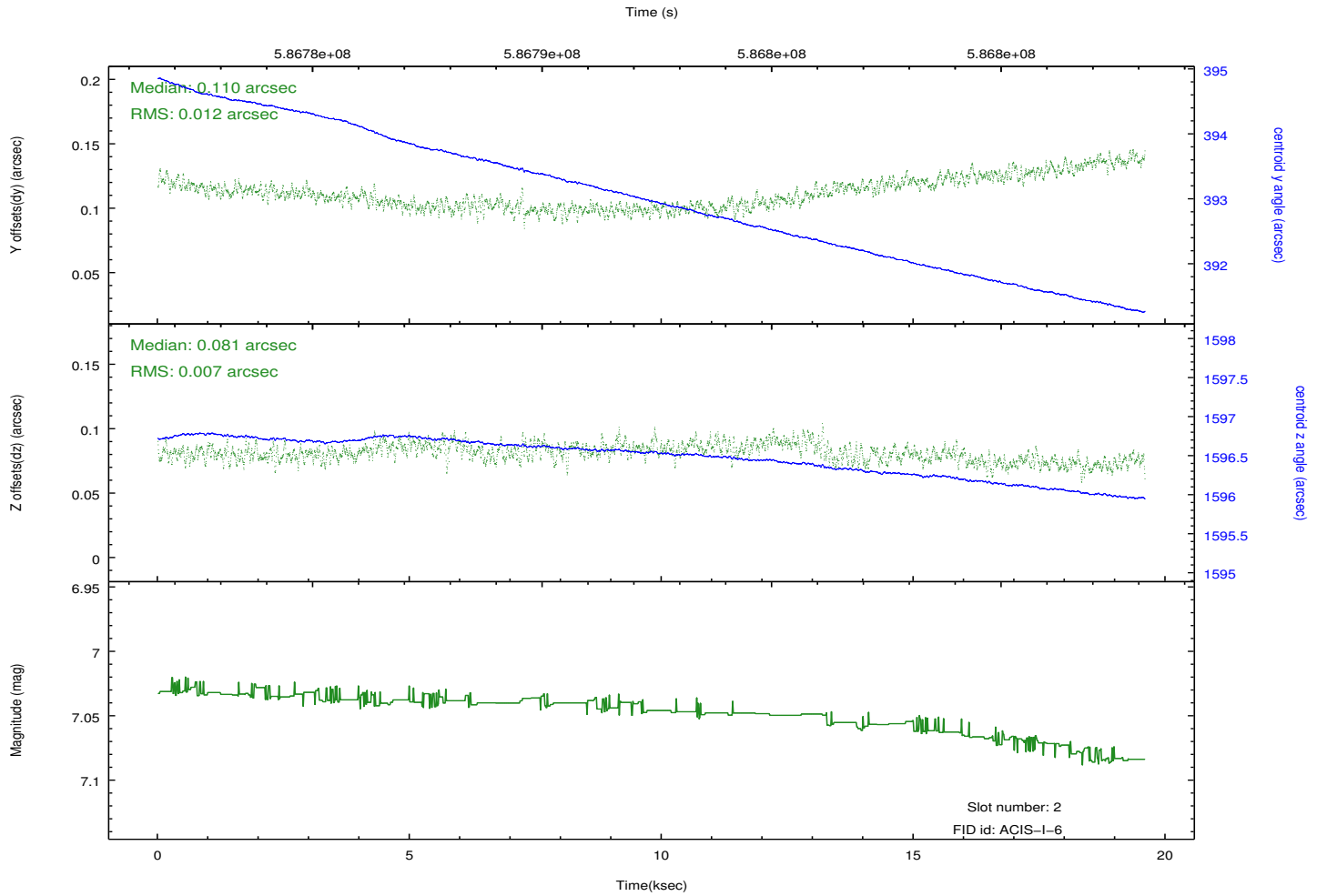
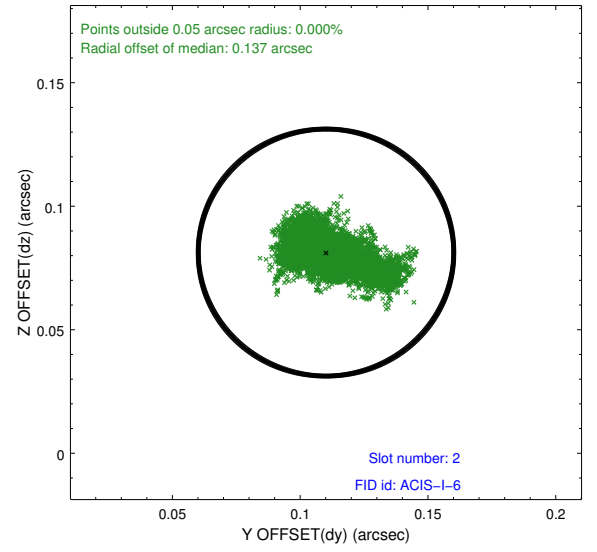
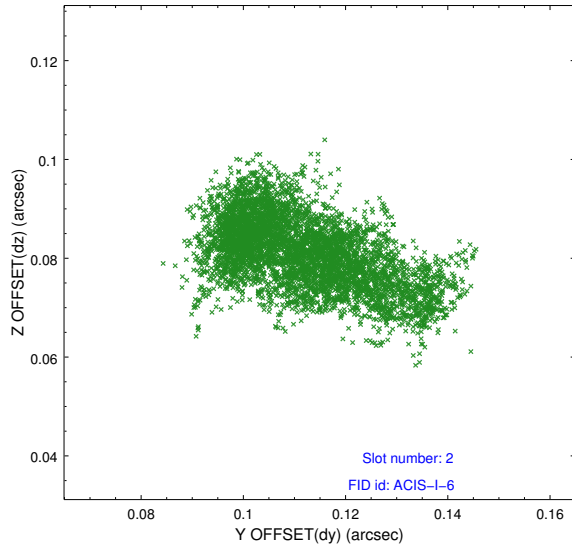
### 2.5.1 Slot 0



## 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)	2016.08.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.074300146818

### A.2 Comments

Joint proposal with HST.