

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 16355 - L2 Version 1  
Chandra X-Ray Center

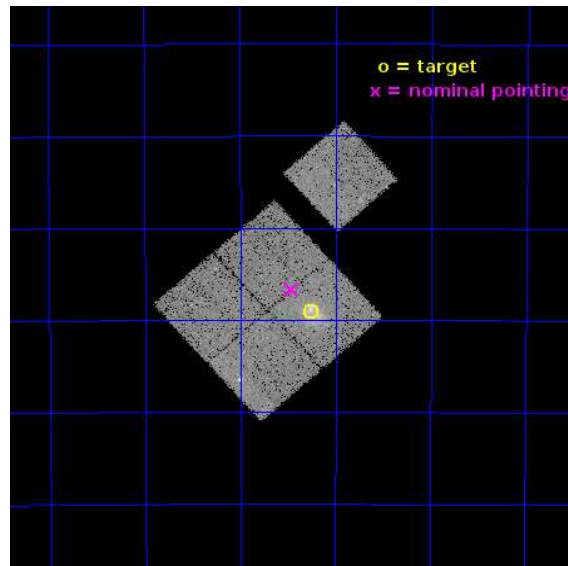
L2 Processing Date : Oct 13 2014

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# 1 Front

seq_num	801434	Sequence number
obs_id	16355	Observation id
title	Do Cluster Mergers Halt Cooling Flows?	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	SPT-CLJ0411-4819	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	62.81625	Observer's specified target RA [deg]
dec_targ	-48.318111	Observer's specified target Dec [deg]
ra_nom	62.86573256868	Nominal RA [deg]
dec_nom	-48.27782073933	Nominal Dec [deg]
roll_nom	48.245627974831	Nominal Roll [deg]
revision	1	Processing version of data
ontime	26281.800202131	Sum of GTIs [s]
livetime	25938.409134111	Livetime [s]
ontime0	26281.800202131	Sum of GTIs [s]
ontime1	26281.800202131	Sum of GTIs [s]
ontime2	26281.800202131	Sum of GTIs [s]
ontime3	26281.800202131	Sum of GTIs [s]
ontime6	26281.800202131	Sum of GTIs [s]
l2events	72767	Number of level 2 events

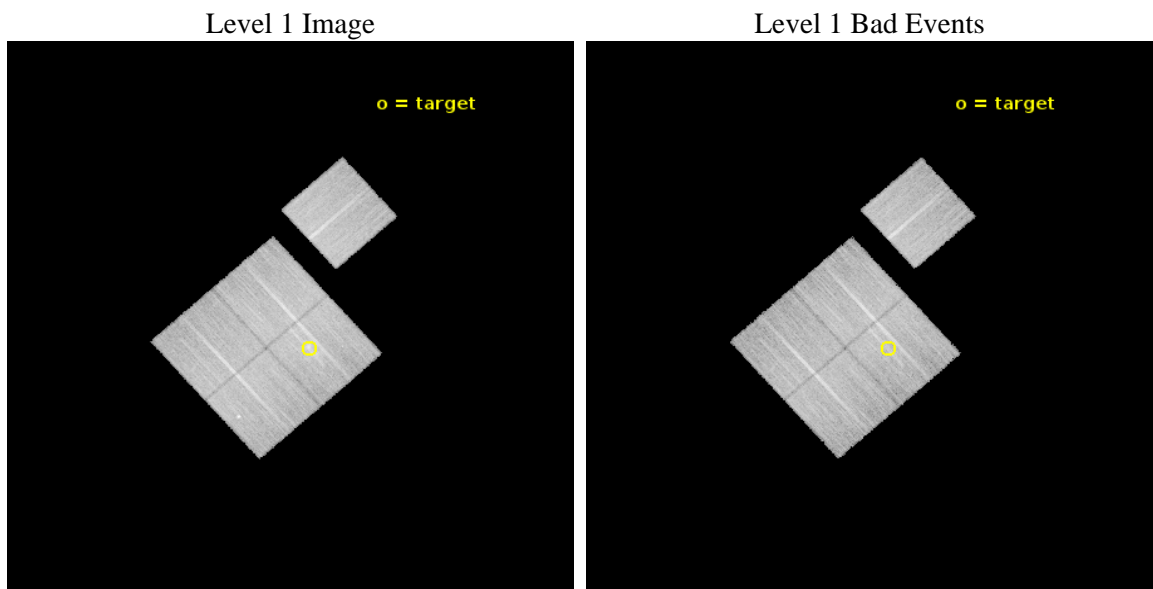




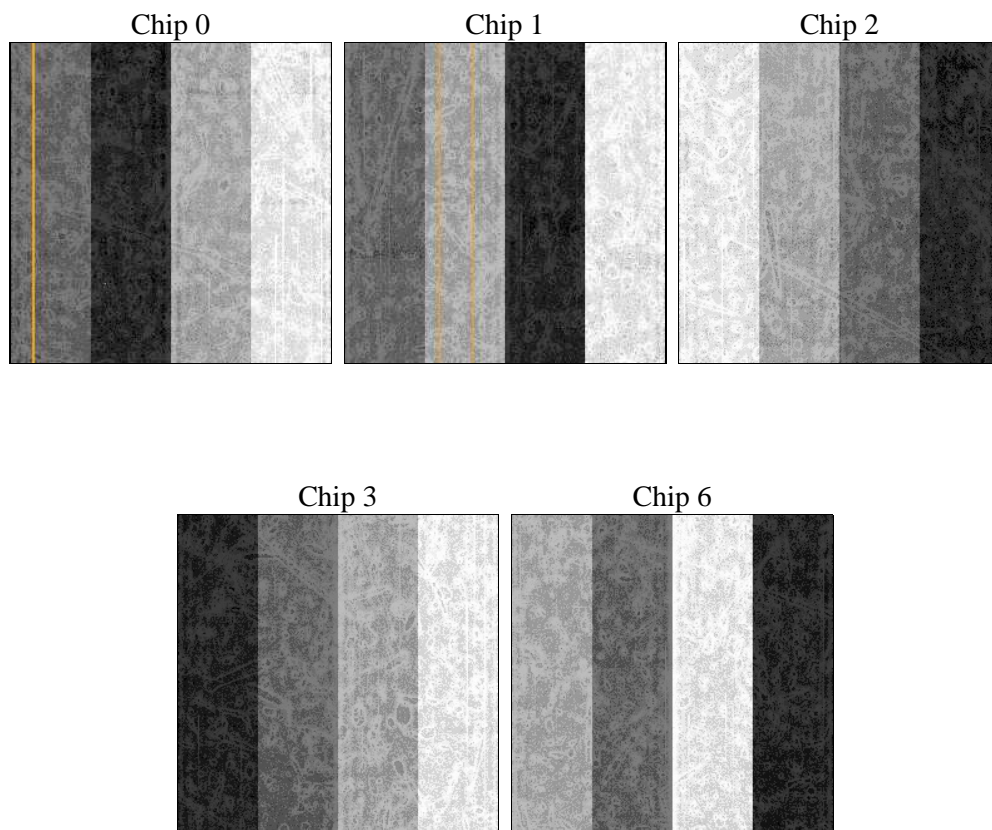
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	26200.056000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	26281.800202131	Sum of GTIs [s]
caldsver	4.6.3	&#160	ontime0	26281.800202131	Sum of GTIs [s]
date	2014-10-13T21:40:56	Date and time of file creation	ontime1	26281.800202131	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	26281.800202131	Sum of GTIs [s]
			ontime3	26281.800202131	Sum of GTIs [s]
			ontime6	26281.800202131	Sum of GTIs [s]
			l1events	650761	Number of level 1 events

### 2.1.4 Events

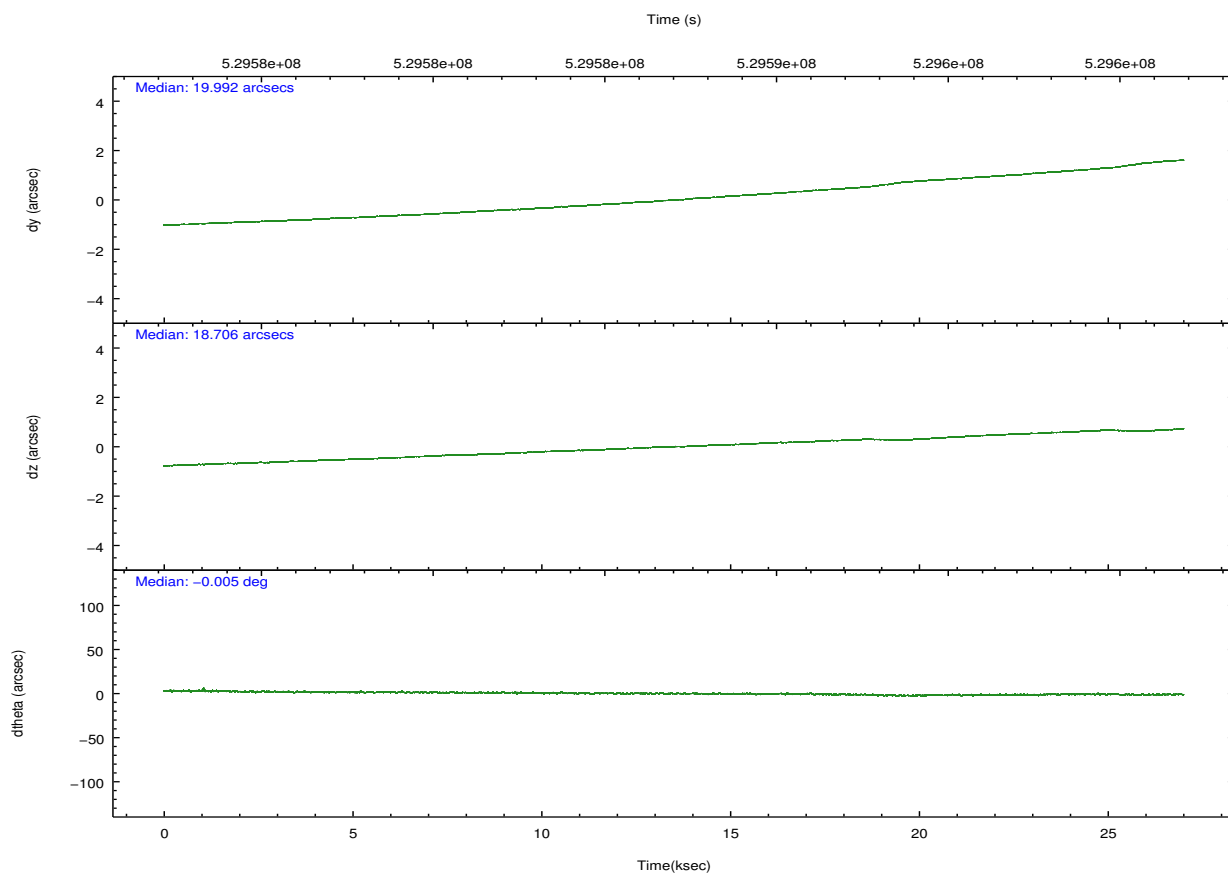
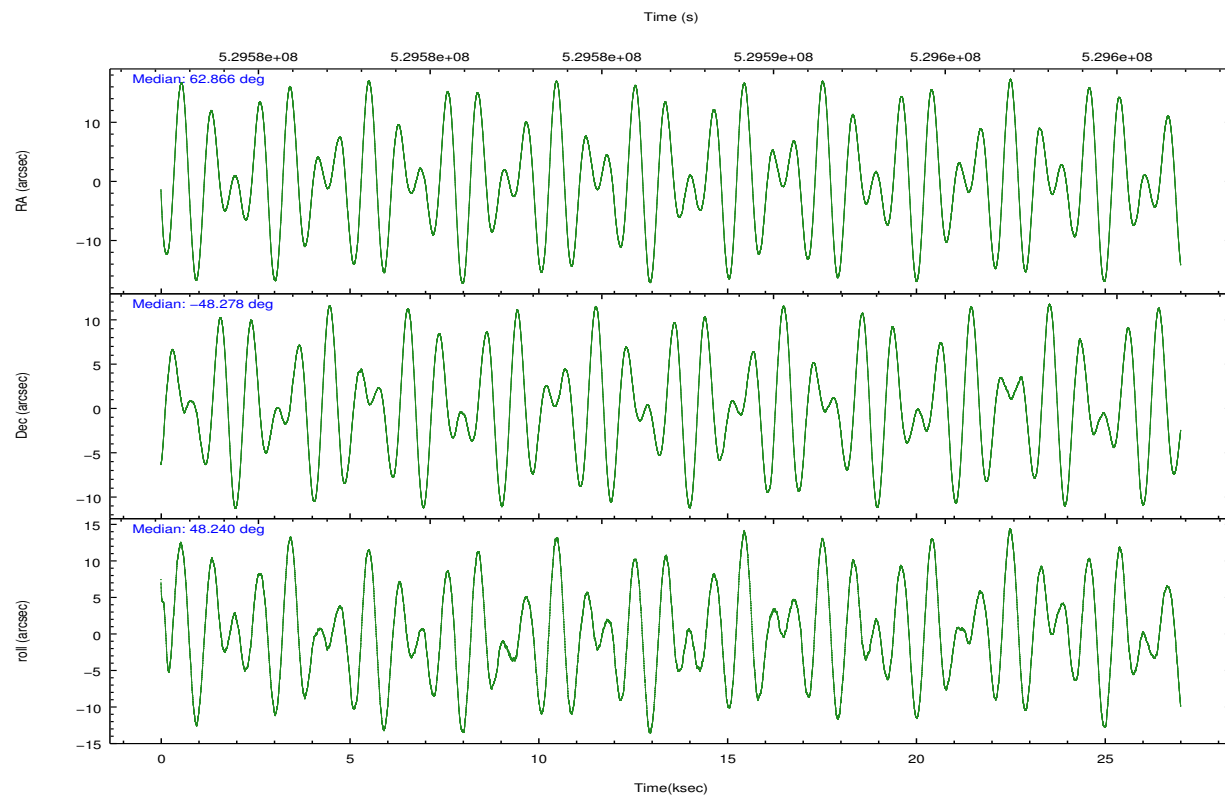
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	119422	127641	135150	133594	134954
rejected events	103589	109493	119902	114001	118924
rejected %	86%	85%	88%	85%	88%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5395	6524	5334	9098	5463
	4%	5%	3%	6%	4%
grade 1 events	64	68	69	94	57
	0%	0%	0%	0%	0%
grade 2 events	3874	4386	3617	3789	3535
	3%	3%	2%	2%	2%
grade 3 events	1658	1660	1579	1666	1652
	1%	1%	1%	1%	1%
grade 4 events	1548	1692	1602	1730	1617
	1%	1%	1%	1%	1%
grade 5 events	6450	6551	5909	7311	6788
	5%	5%	4%	5%	5%
grade 6 events	3361	3891	3118	3313	3767
	2%	3%	2%	2%	2%
grade 7 events	97072	102869	113922	106593	112075
	81%	80%	84%	79%	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	62.857438	62.86573256867986	CCD I2 on	Y	Y
[deg] Pointing Dec	-48.304868	-48.27782073932991	CCD I3 on	Y	Y
[deg] Pointing Roll	48.030751	48.24562797483078	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	-225.840463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.752	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	529574301.184000	529573052.14369	CCD S5 on	N	N
Observation start date	2014-10-13T07:57:14	2014-10-13T07:37:32	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	529600501.184000	529600735.85772	On-chip summing requested	N	N
Observation end date	2014-10-13T15:13:54	2014-10-13T15:18:55	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect

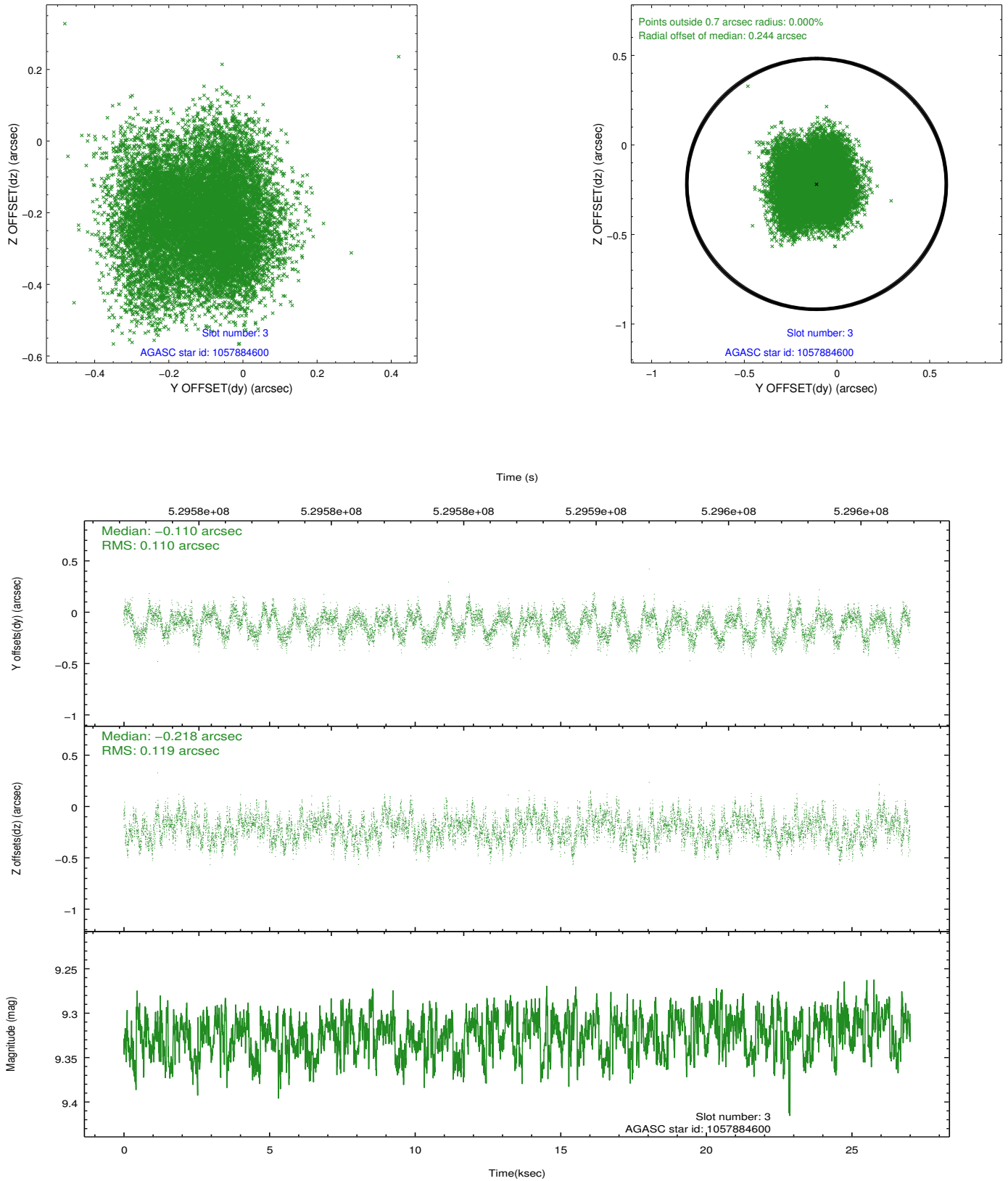


### Slot Statistics

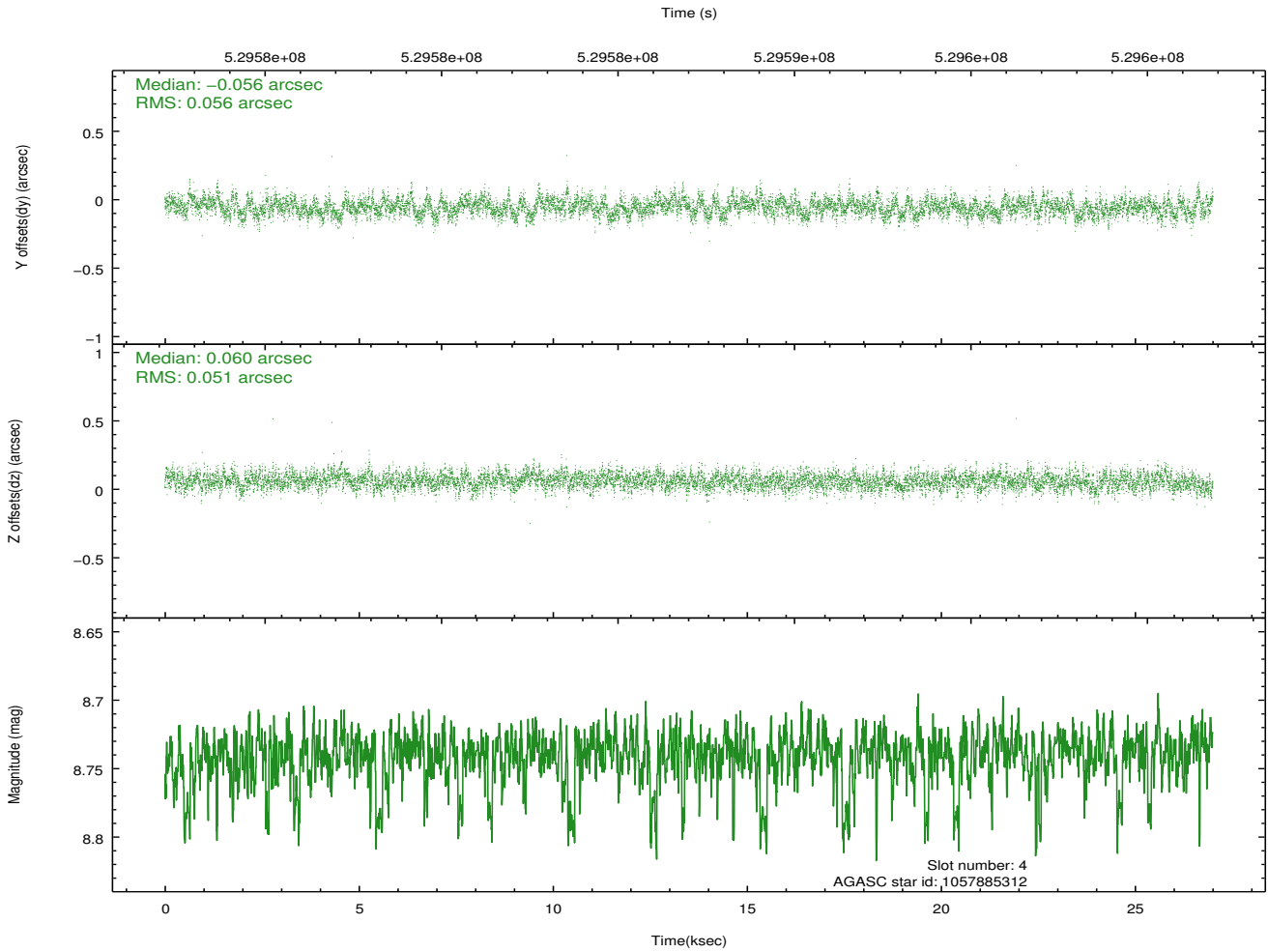
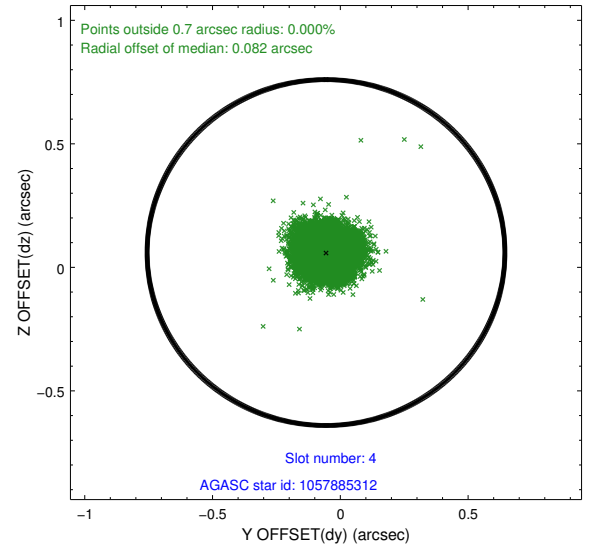
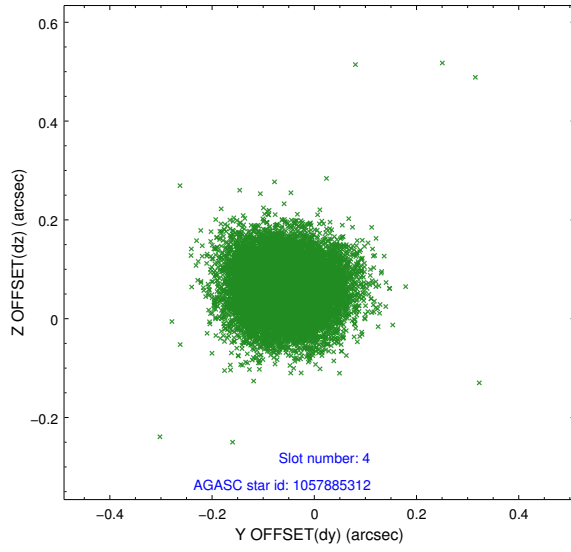
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.20	6586	0.134	-0.089	0.011	0.022	0.000000	0.000000	919.27	-1001.51
1	FID	ACIS-I-5	7.18	6586	-0.345	0.094	0.010	0.018	0.000000	0.000000	-1829.36	895.95
2	FID	ACIS-I-6	7.20	6586	0.120	0.065	0.013	0.023	0.000000	0.000000	384.56	1540.65
3	GUIDE	1057884600	9.32	13170	-0.110	-0.218	0.176	0.270	62.943353	-47.976140	1018.87	637.42
4	GUIDE	1057885312	8.74	13165	-0.056	0.060	0.080	0.131	63.453714	-48.106999	1484.38	-592.60
5	GUIDE	1057891656	8.65	13171	0.180	0.414	0.147	0.224	63.028923	-48.976842	-1527.42	-1918.93
6	GUIDE	1057892856	7.73	13175	-0.016	-0.147	0.090	0.138	62.048221	-48.345716	-1411.81	1334.01
7	GUIDE	1057893392	8.78	13172	-0.001	-0.102	0.153	0.224	62.278022	-48.476035	-1386.28	612.82

## 2.4 Star Slots

### 2.4.1 Slot 3

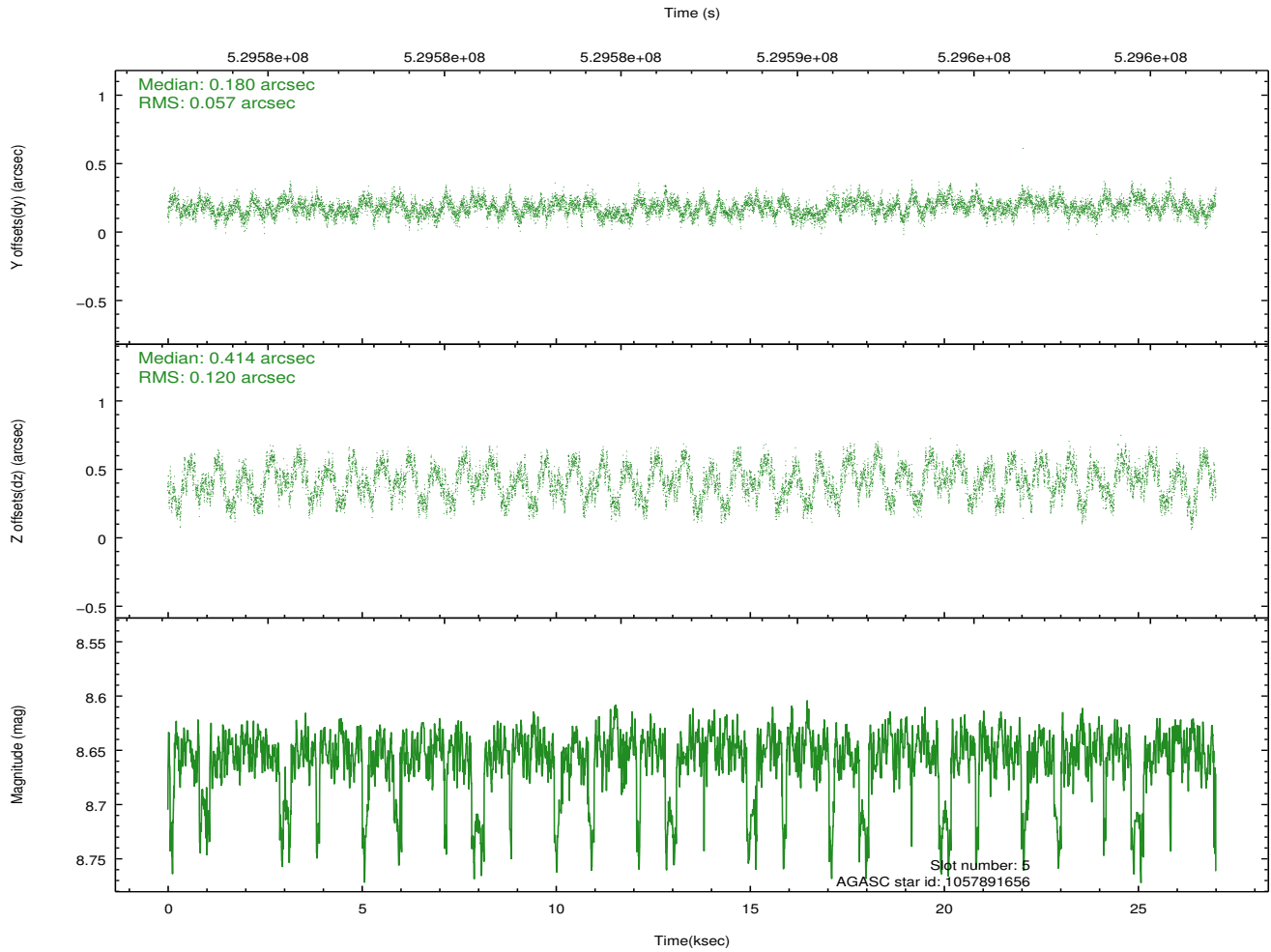
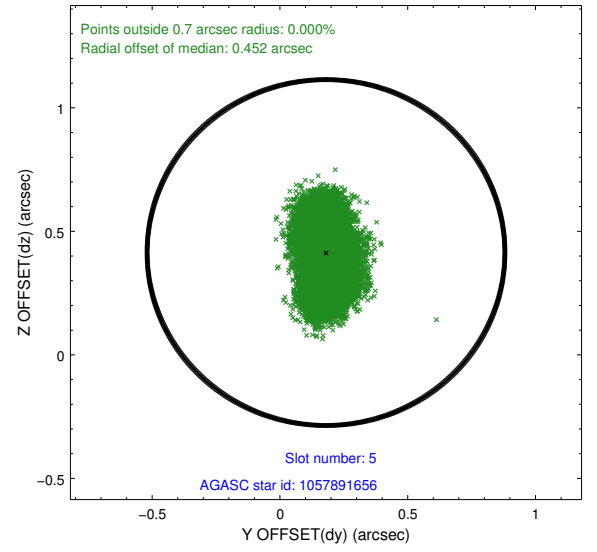
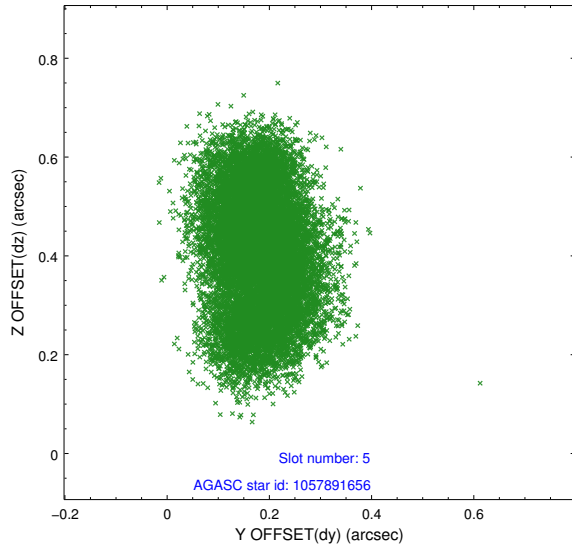


## 2.4.2 Slot 4

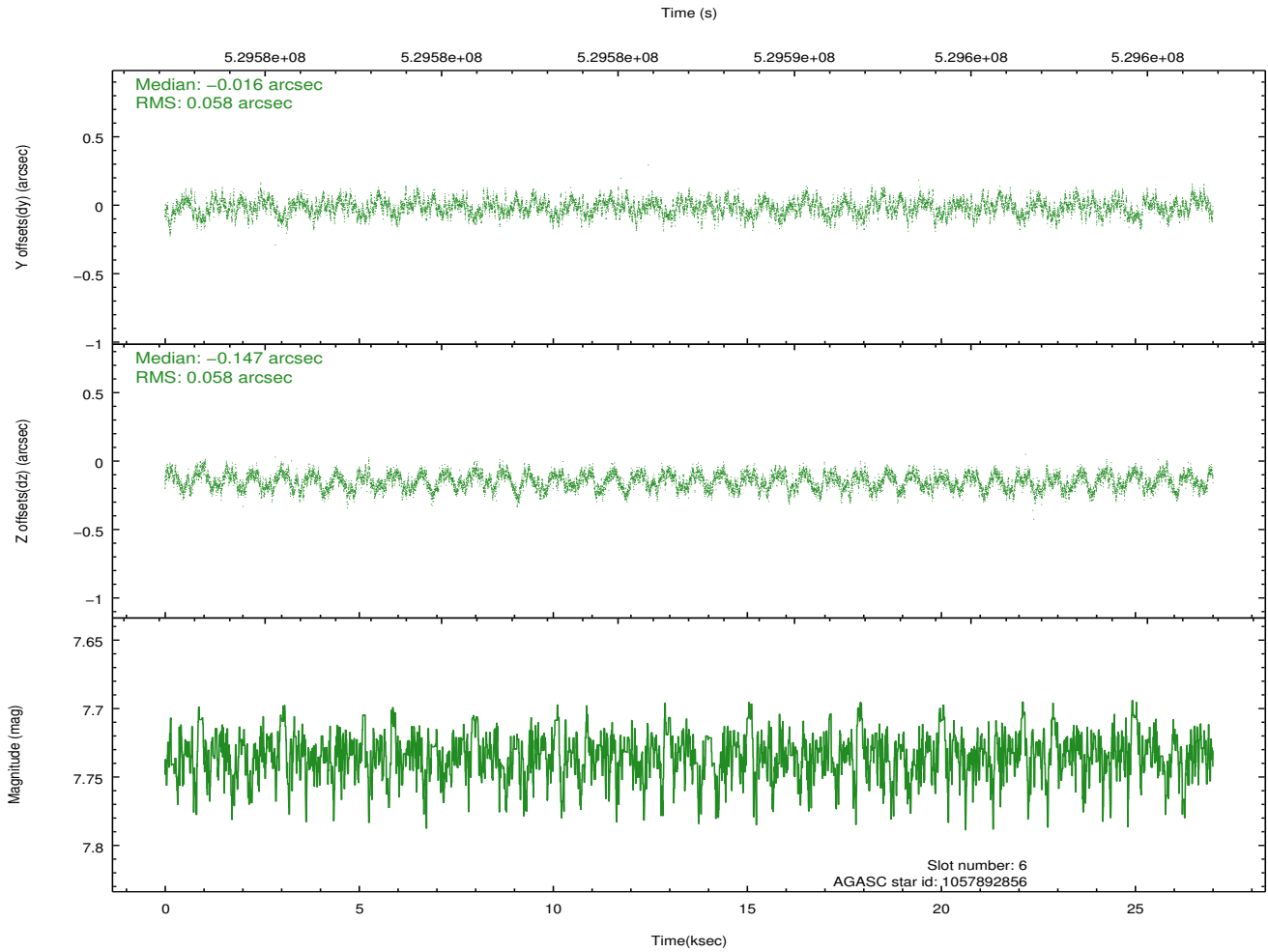
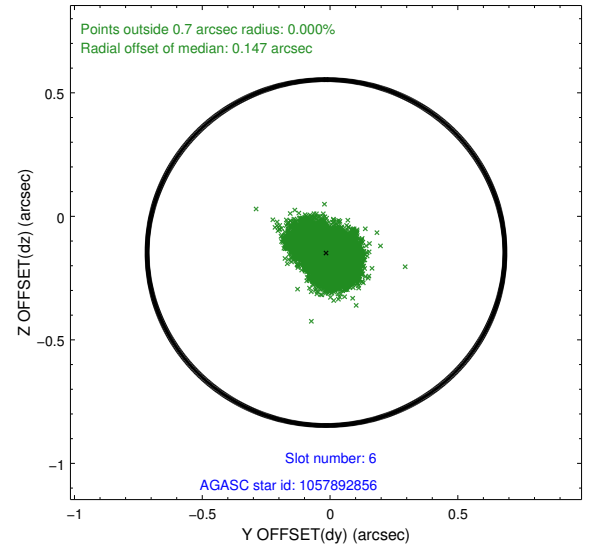
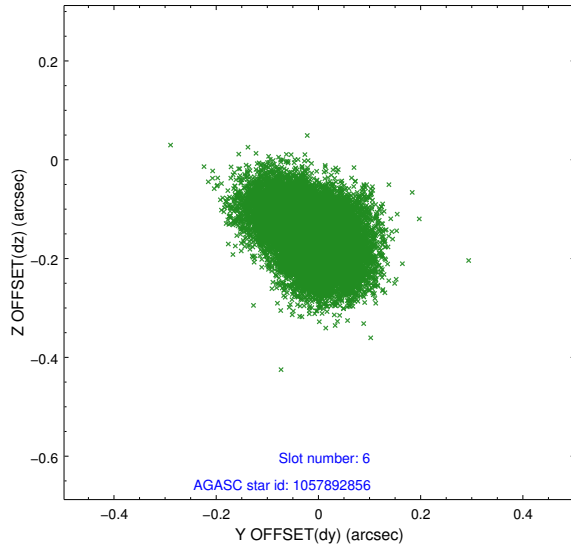




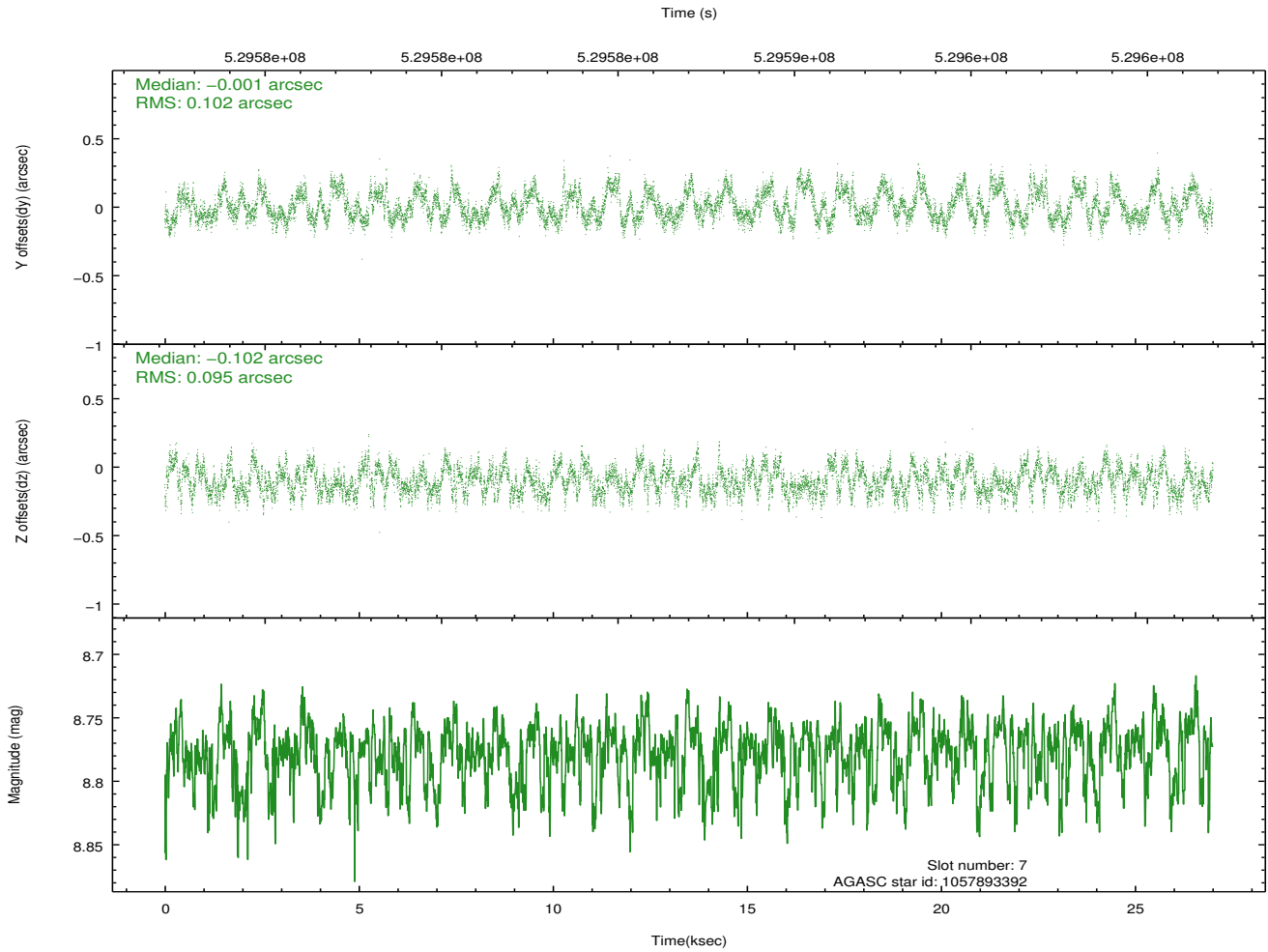
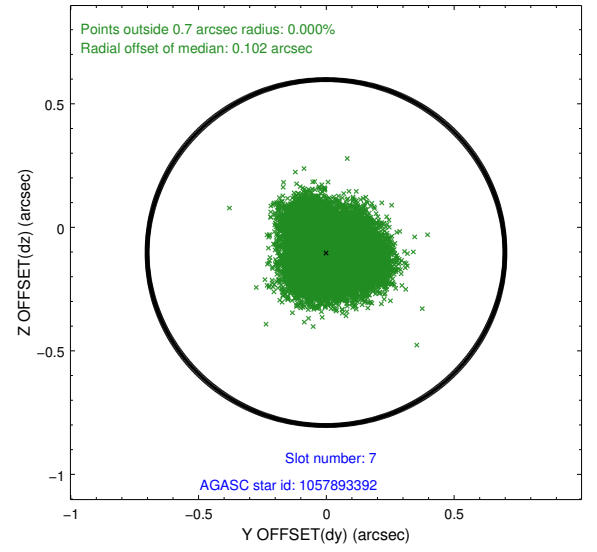
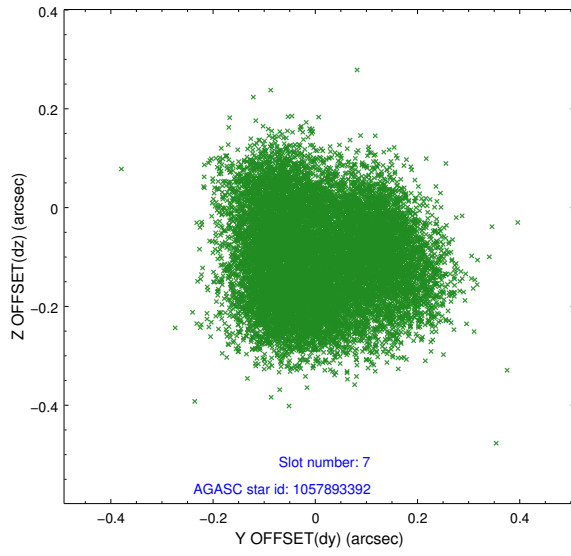
### 2.4.3 Slot 5



## 2.4.4 Slot 6

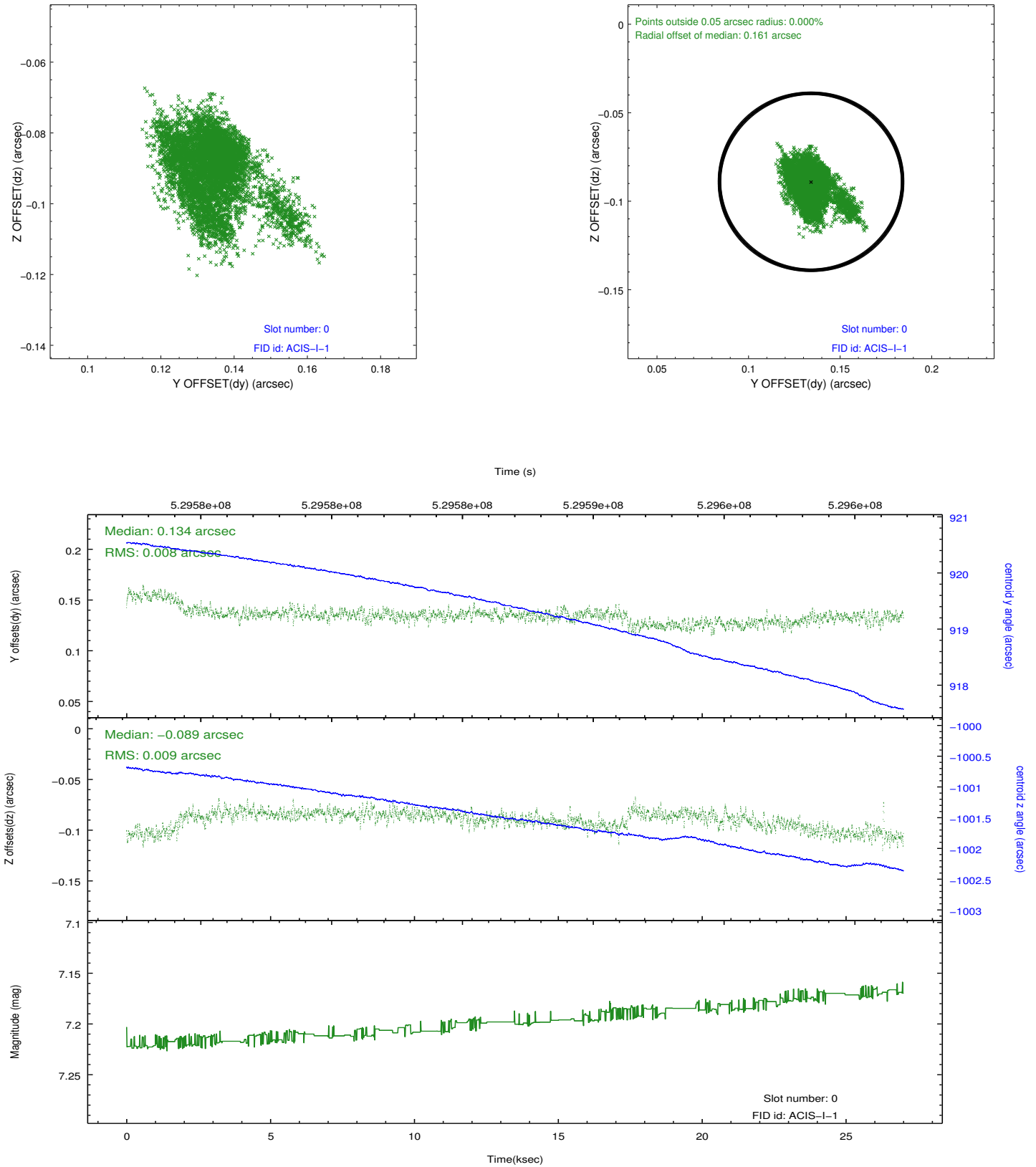


## 2.4.5 Slot 7

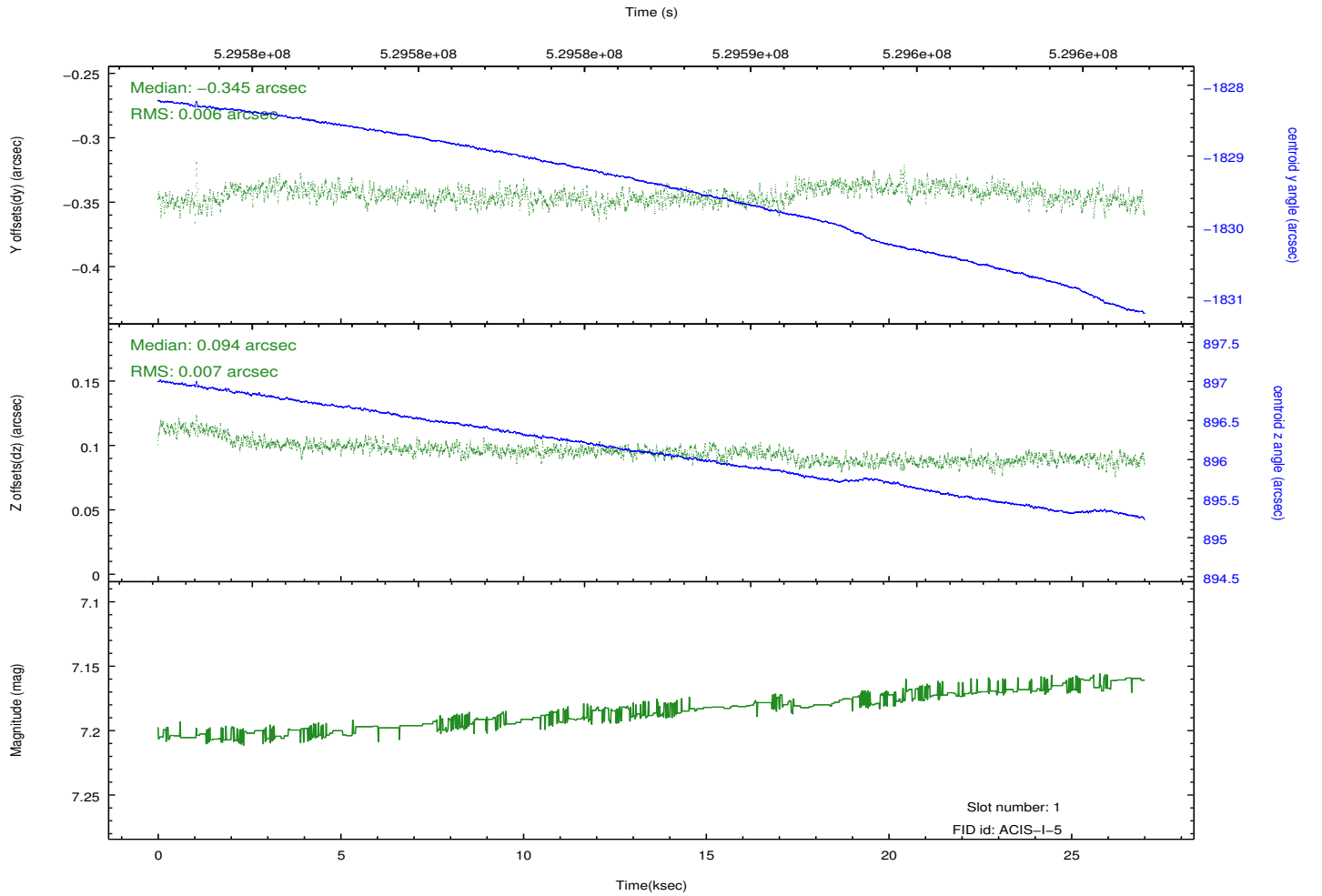
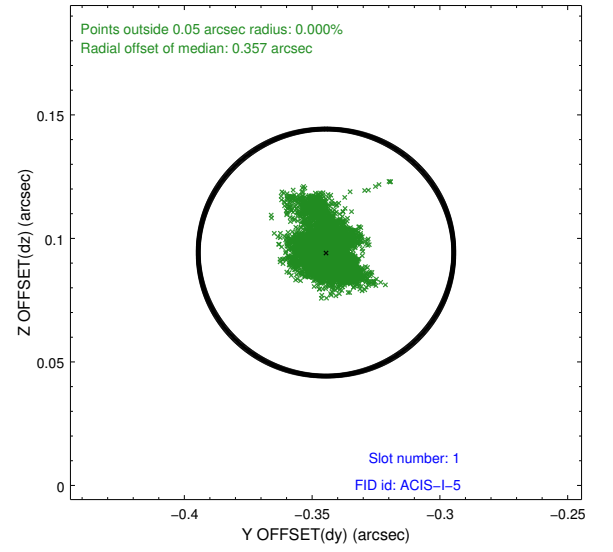
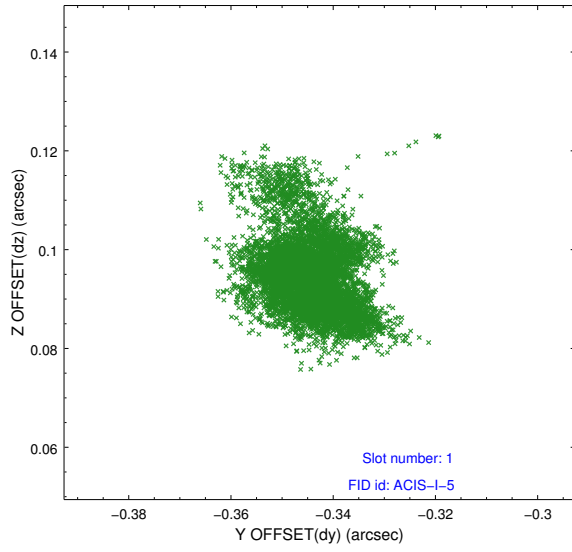


## 2.5 FID Slots

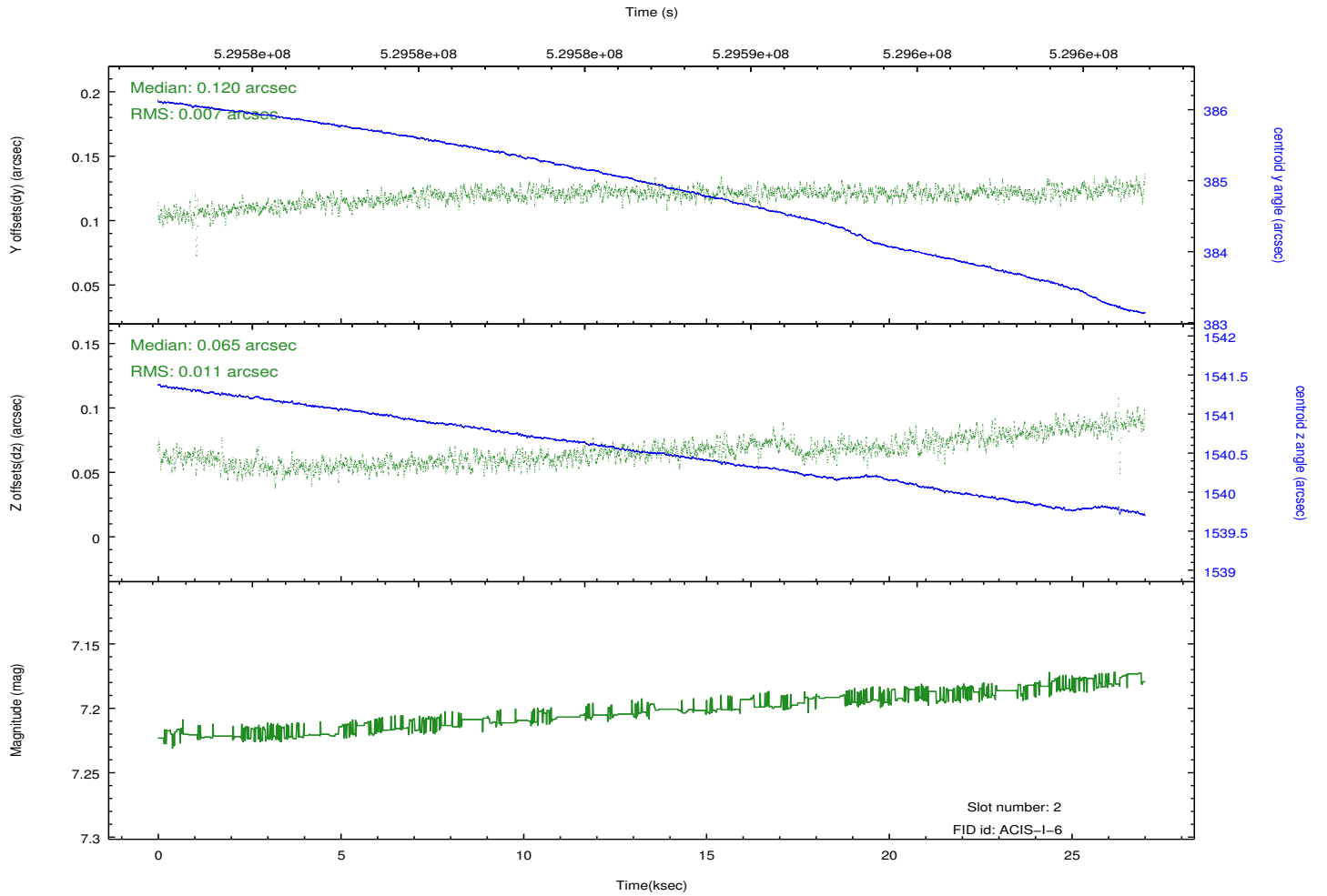
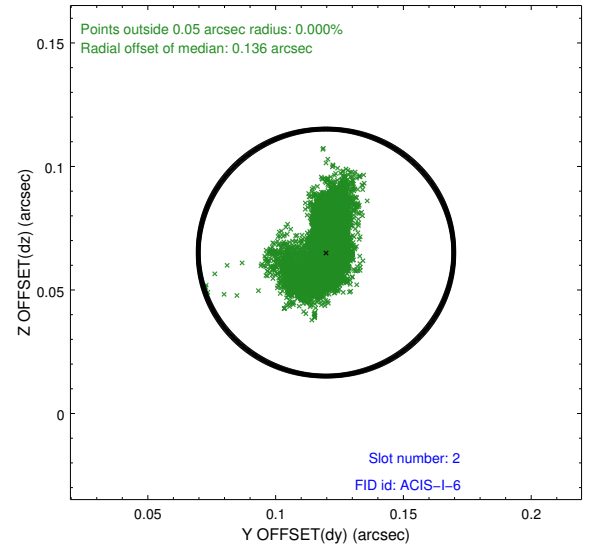
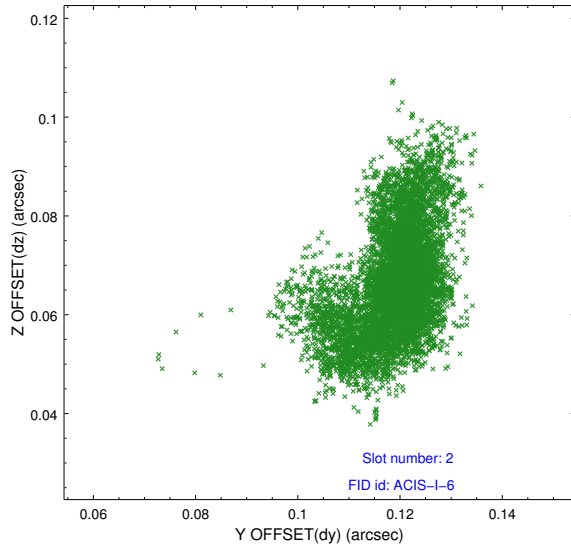
### 2.5.1 Slot 0



## 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)	2014.10.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	26.281800202131

### A.2 Comments