

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 10682 - L2 Version 3  
Chandra X-Ray Center

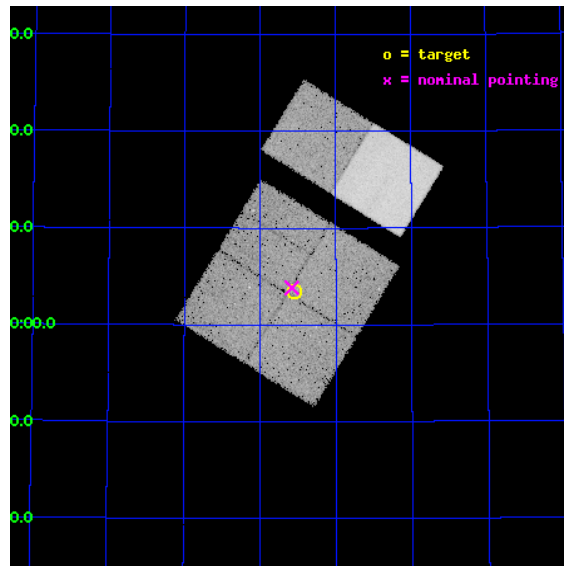
L2 Processing Date : Jun 2 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

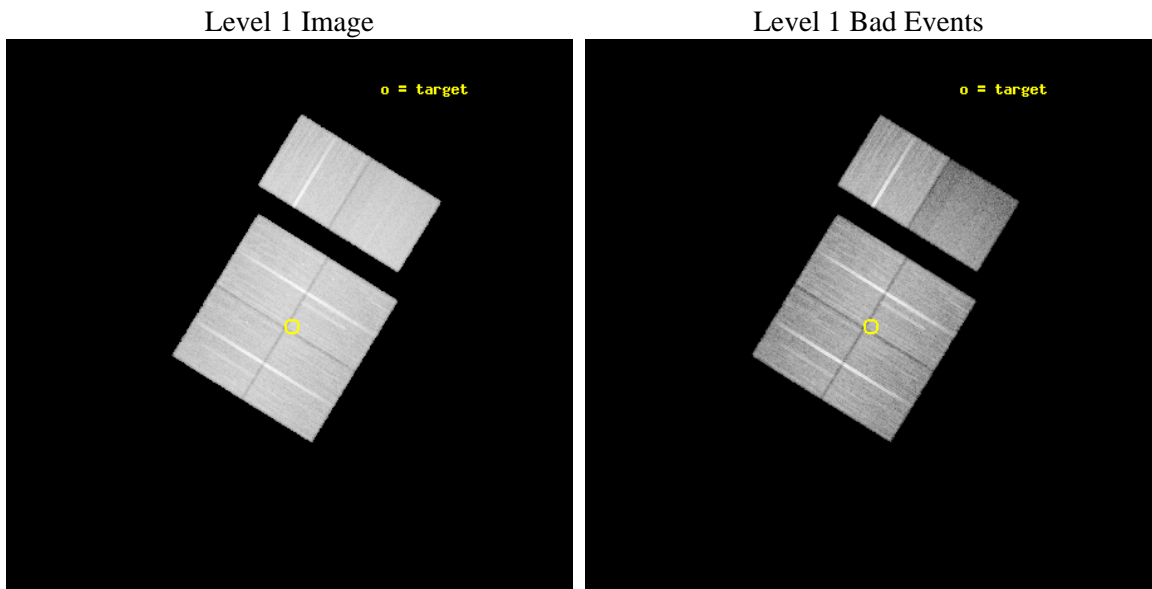
seq_num	200567	Sequence number
obs_id	10682	Observation id
title	Search for triggered star formation in the type A bright rimmed cloud 34	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	BRC34	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	323.385	Observer's specified target RA [deg]
dec_targ	58.057889	Observer's specified target Dec [deg]
ra_nom	323.39500908566	Nominal RA [deg]
dec_nom	58.063985424396	Nominal Dec [deg]
roll_nom	31.645005865775	Nominal Roll [deg]
revision	3	Processing version of data
ontime	27286.358928144	Sum of GTIs [s]
livetime	26940.842621523	Livetime [s]
ontime0	27286.358928025	Sum of GTIs [s]
ontime1	27289.599898398	Sum of GTIs [s]
ontime2	27289.599898398	Sum of GTIs [s]
ontime3	27286.358928144	Sum of GTIs [s]
ontime6	27283.118077278	Sum of GTIs [s]
ontime7	27289.599898398	Sum of GTIs [s]
l2events	201601	Number of level 2 events



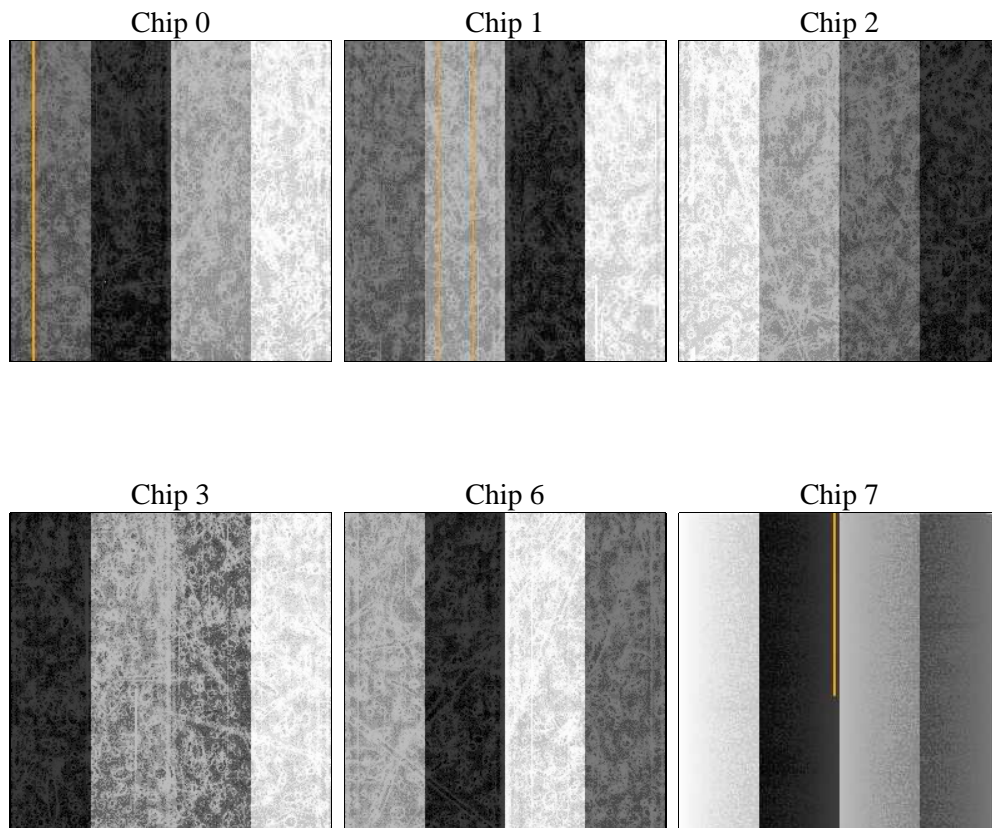
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	27248.280000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	27286.358928144	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime0	27286.358928025	Sum of GTIs [s]
date	2012-06-02T15:10:21	Date and time of file creation	ontime1	27289.599898398	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	27289.599898398	Sum of GTIs [s]
			ontime3	27286.358928144	Sum of GTIs [s]
			ontime6	27283.118077278	Sum of GTIs [s]
			ontime7	27289.599898398	Sum of GTIs [s]
			l1events	1309220	Number of level 1 events

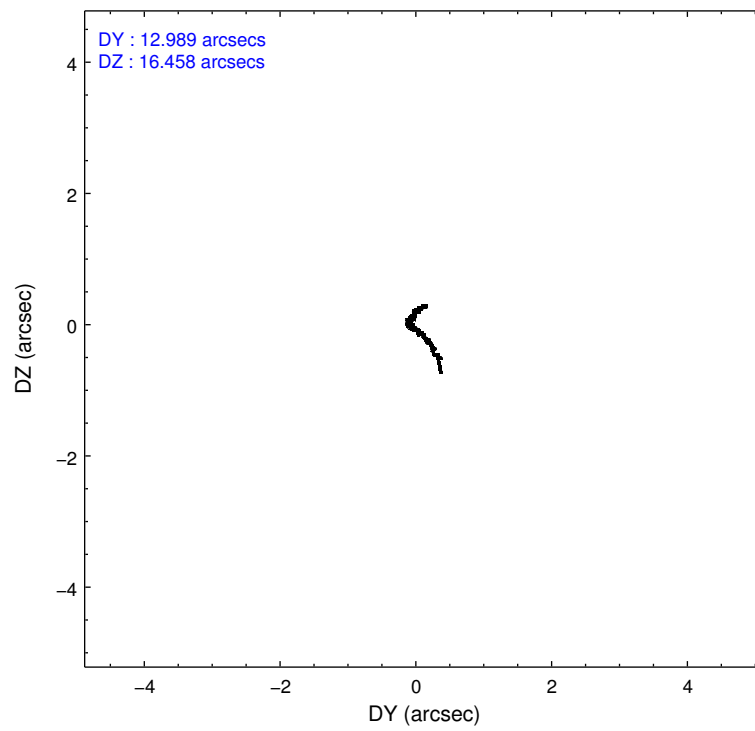
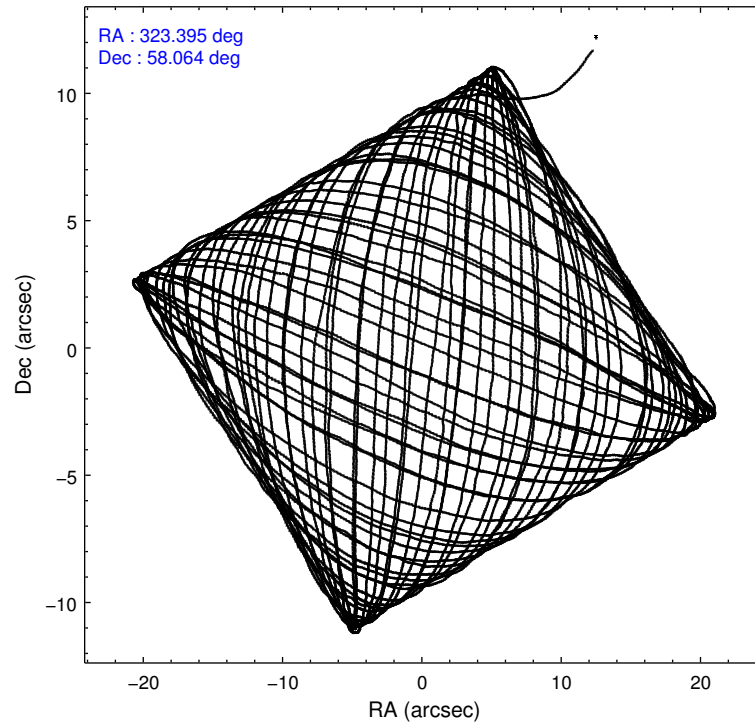
### 2.1.4 Events

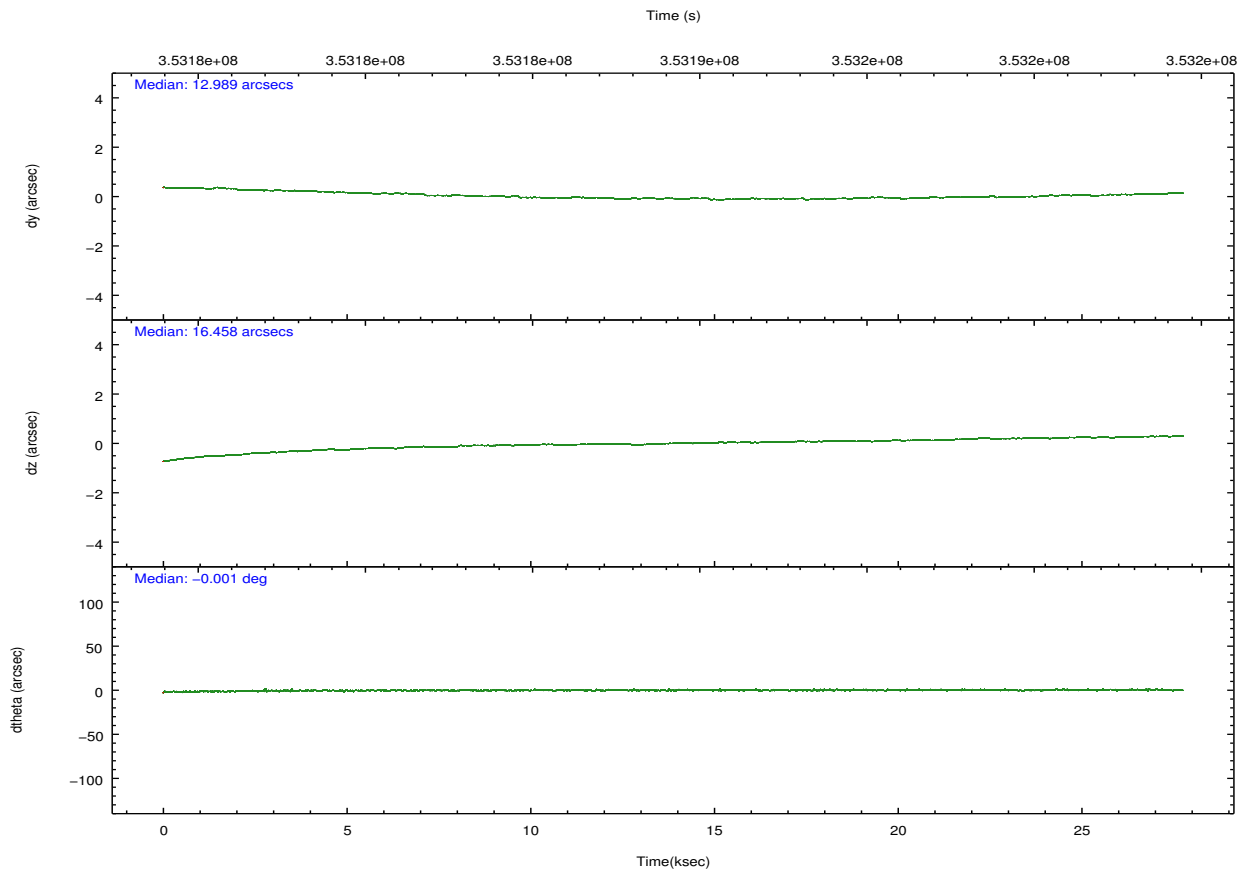
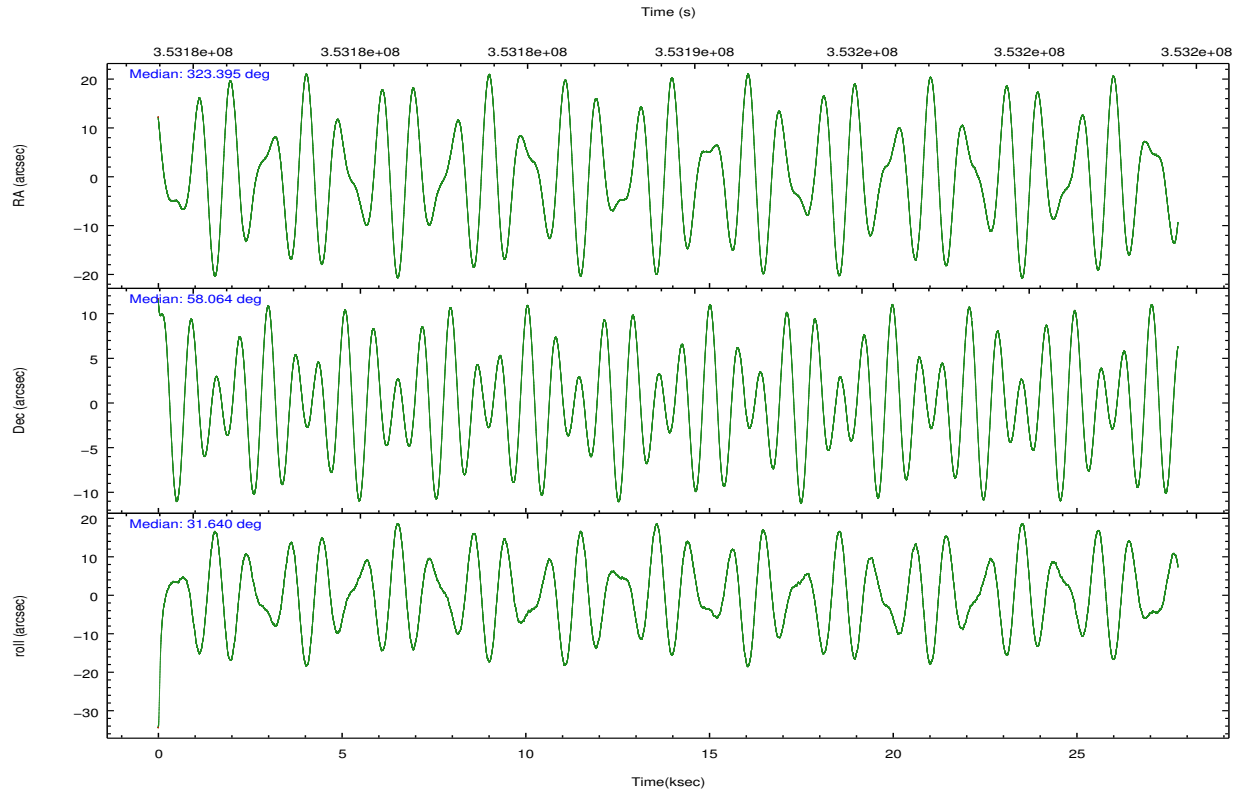
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	201056	202872	235764	220599	232181	216748	grade 0 events	8896	8867	8904	8583	9395	10927
rejected events	177782	178778	213040	198587	207647	108413		4%	4%	3%	3%	4%	5%
rejected %	88%	88%	90%	90%	89%	50%	grade 1 events	128	109	145	128	128	368
								0%	0%	0%	0%	0%	0%
							grade 2 events	5601	5242	5379	4765	5522	23056
								2%	2%	2%	2%	2%	10%
							grade 3 events	2476	2726	2312	2327	2527	10160
								1%	1%	0%	1%	1%	4%
							grade 4 events	2318	2607	2244	2323	2455	10057
								1%	1%	0%	1%	1%	4%
							grade 5 events	6853	7257	6269	7850	7745	22814
								3%	3%	2%	3%	3%	10%
							grade 6 events	3996	4659	3892	4024	4647	54170
								1%	2%	1%	1%	2%	24%
							grade 7 events	170788	171405	206619	190599	199762	85196
								84%	84%	87%	86%	86%	39%

## 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	323.370539	323.3950090856563	CCD I2 on	Y	Y
[deg] Pointing Dec	58.039737	58.06398542439591	CCD I3 on	Y	Y
[deg] Pointing Roll	31.457094	31.64500586577457	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	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	353175828.184000	353174662.39599	CCD S5 on	N	N
Observation start date	2009-03-11T16:22:42	2009-03-11T16:04:22	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	353203076.184000	353203315.24742	On-chip summing requested	N	N
Observation end date	2009-03-11T23:56:50	2009-03-12T00:01:55	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



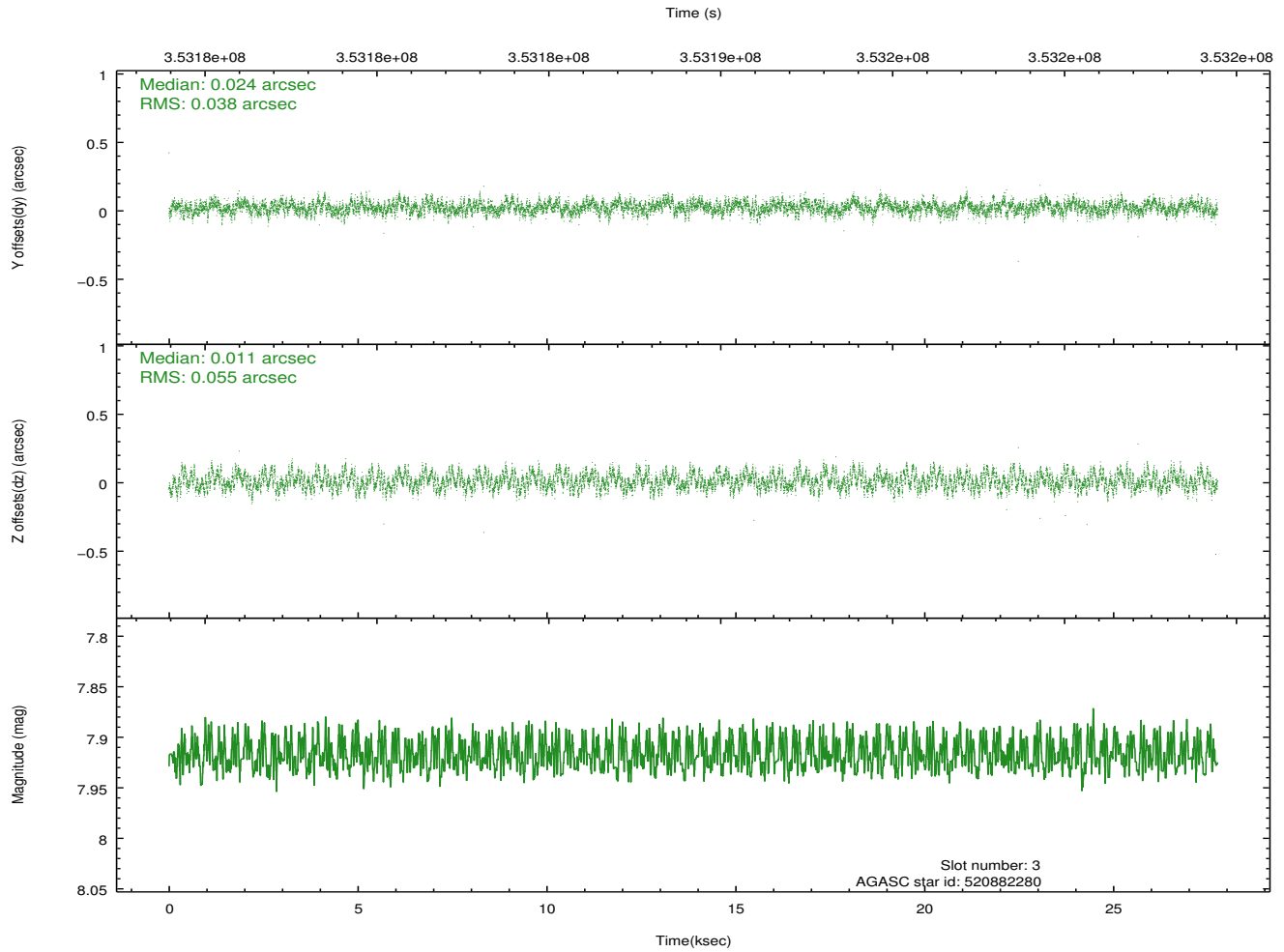
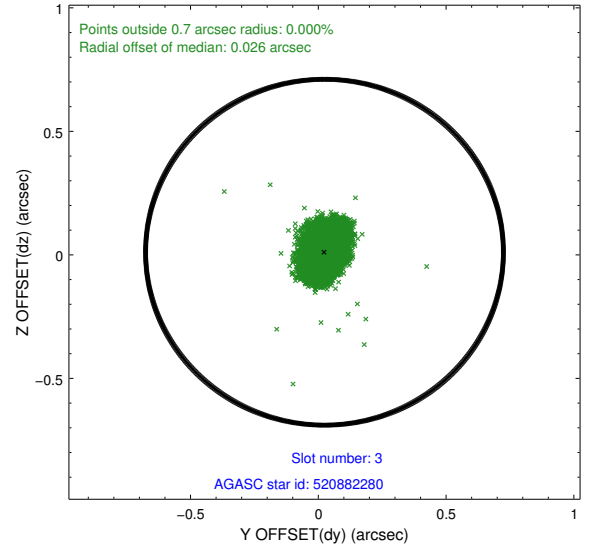
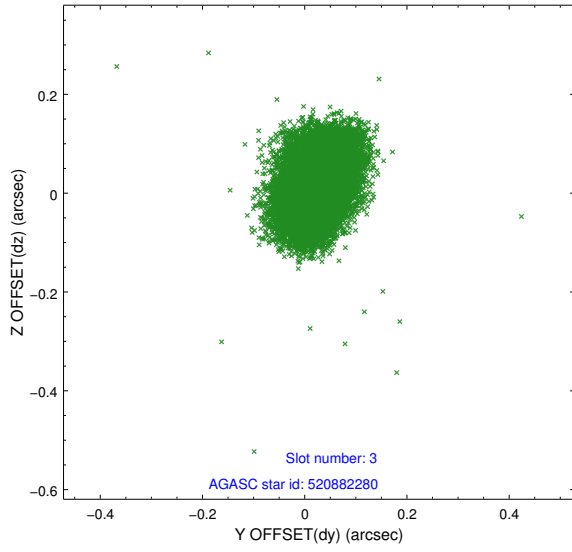


### Slot Statistics

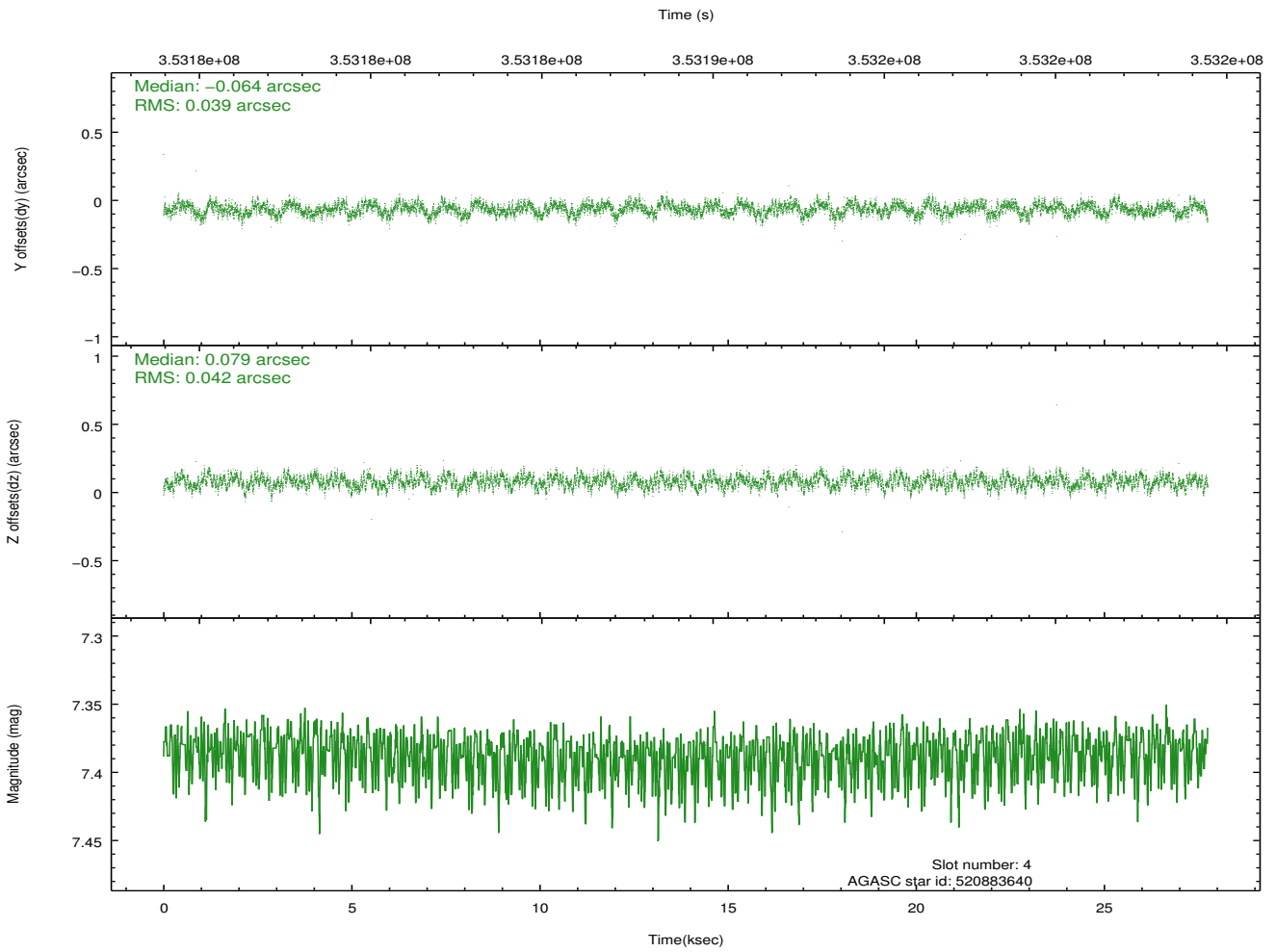
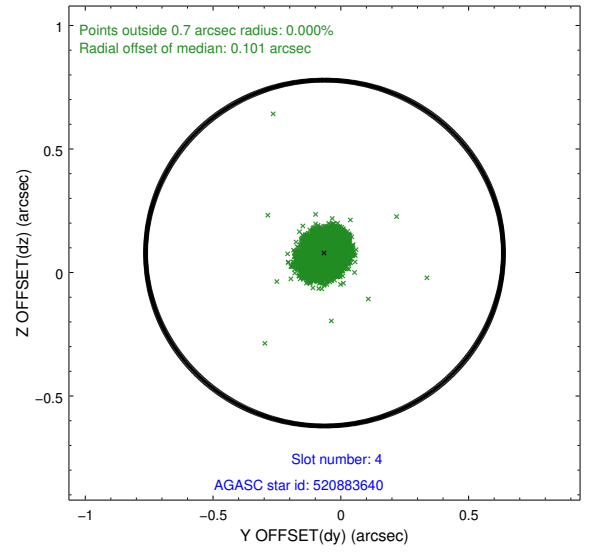
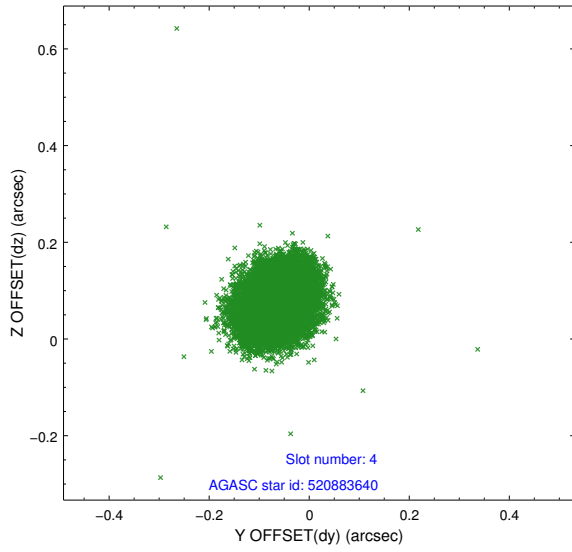
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.03	6769	0.053	-0.024	0.007	0.012	0.000000	0.000000	926.52	-840.10
1	FID	ACIS-I-5	7.03	6770	-0.185	0.064	0.010	0.018	0.000000	0.000000	-1821.75	1057.47
2	FID	ACIS-I-6	7.03	6770	0.039	0.030	0.011	0.022	0.000000	0.000000	391.99	1702.01
3	GUIDE	520882280	7.92	13538	0.024	0.011	0.072	0.116	323.124310	57.538342	-1347.27	-1290.70
4	GUIDE	520883640	7.39	13538	-0.064	0.079	0.061	0.096	322.910028	57.502591	-1767.14	-1182.21
5	GUIDE	521545056	8.19	13536	0.089	-0.013	0.063	0.099	323.423776	58.195898	379.77	426.93
6	GUIDE	521545688	8.59	13534	0.049	0.041	0.071	0.115	324.248507	58.140166	1617.87	-552.64
7	GUIDE	521409648	8.38	13534	-0.094	-0.119	0.099	0.155	323.000045	58.609265	478.81	2113.20

## 2.4 Star Slots

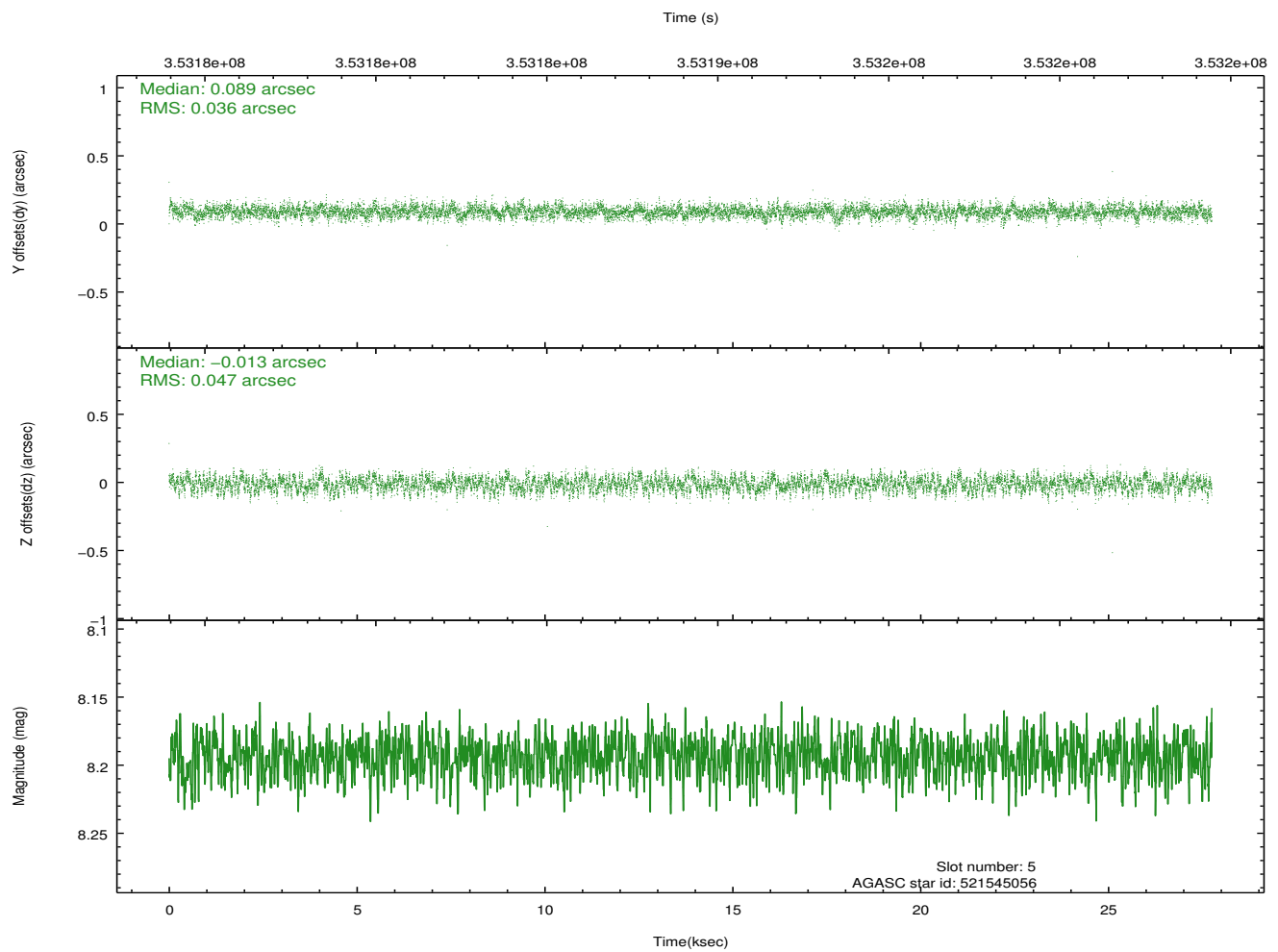
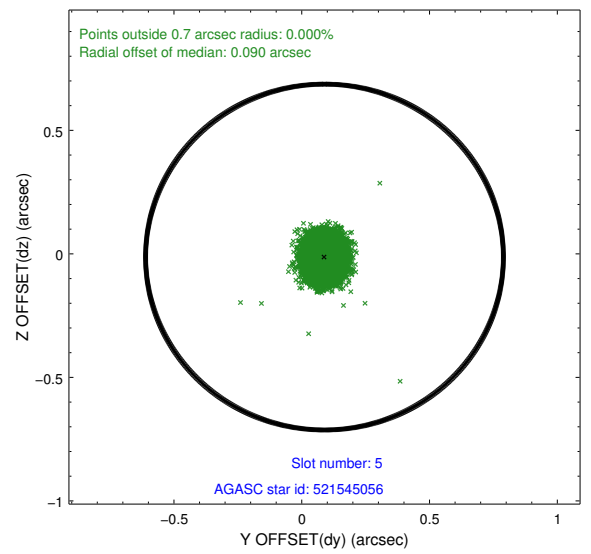
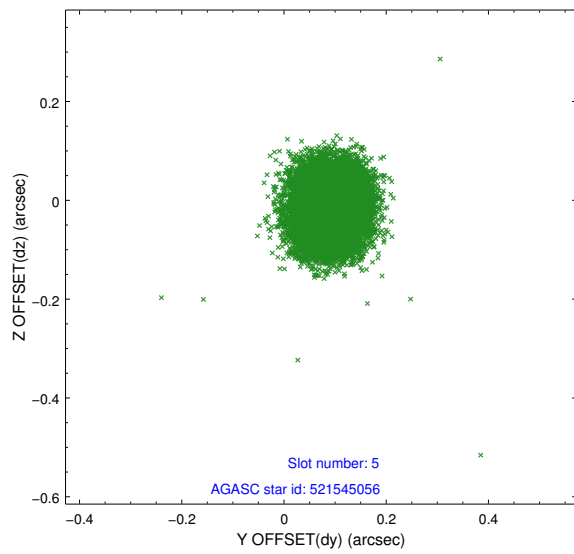
### 2.4.1 Slot 3



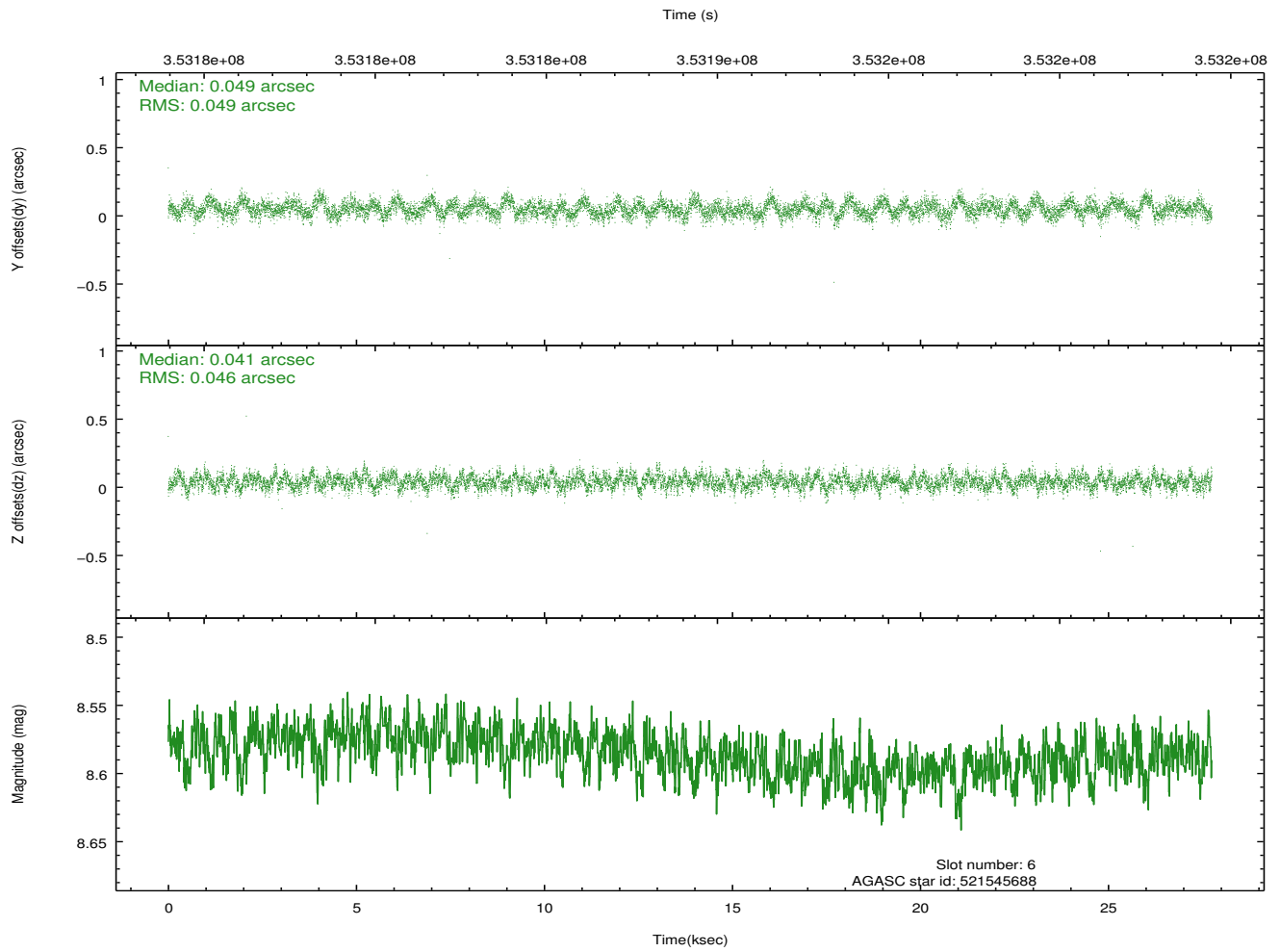
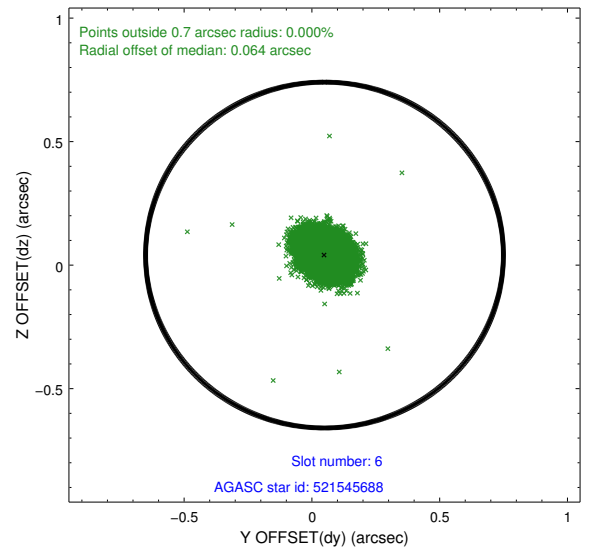
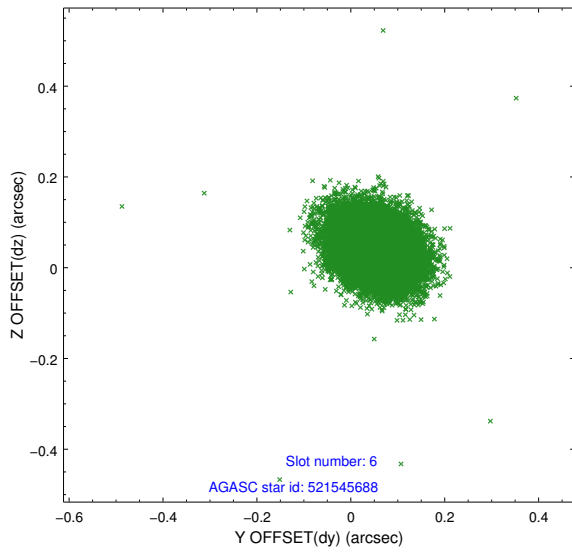
## 2.4.2 Slot 4



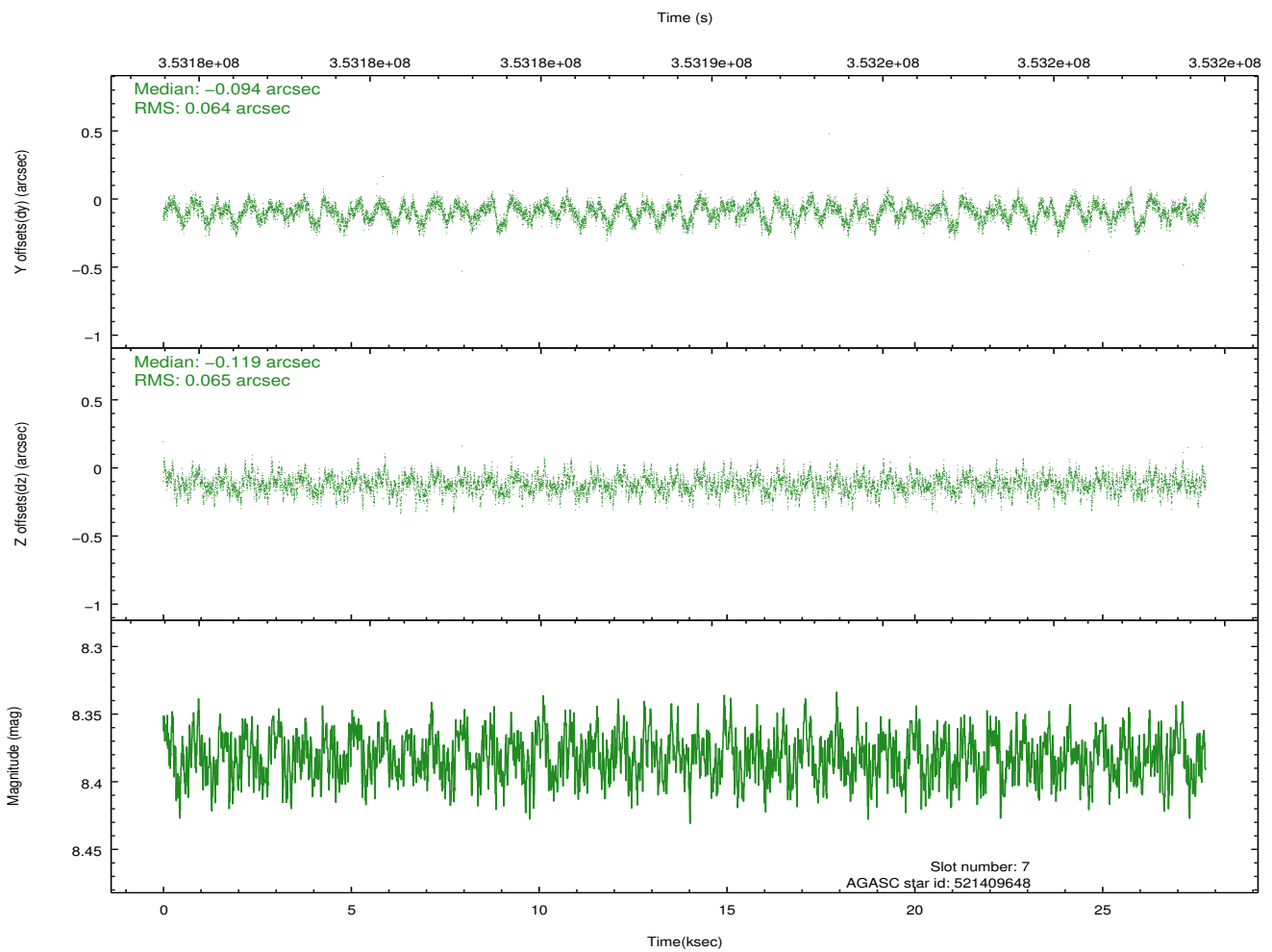
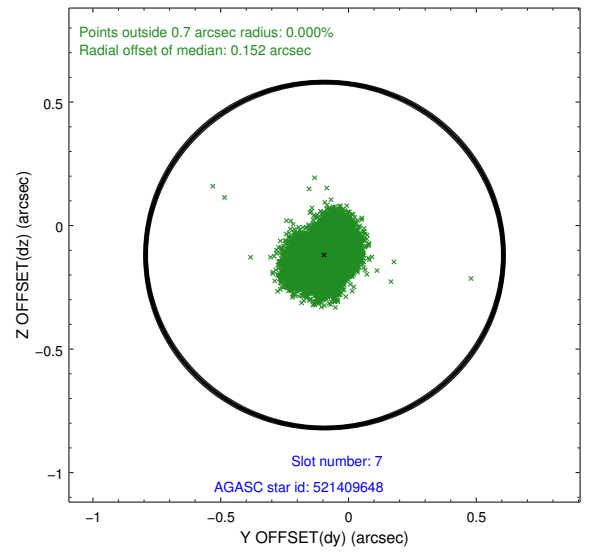
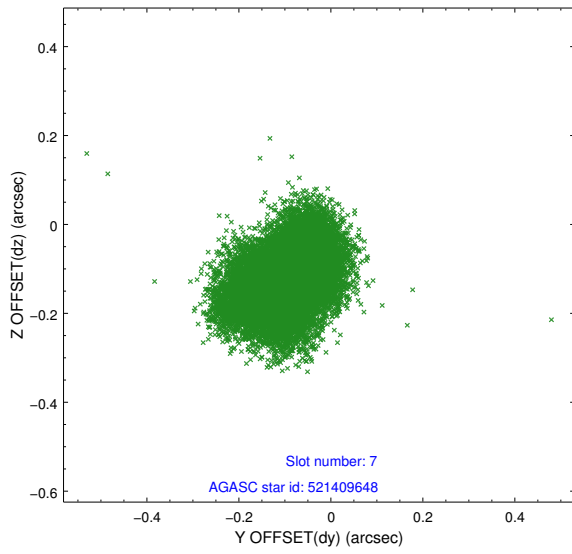
### 2.4.3 Slot 5



## 2.4.4 Slot 6

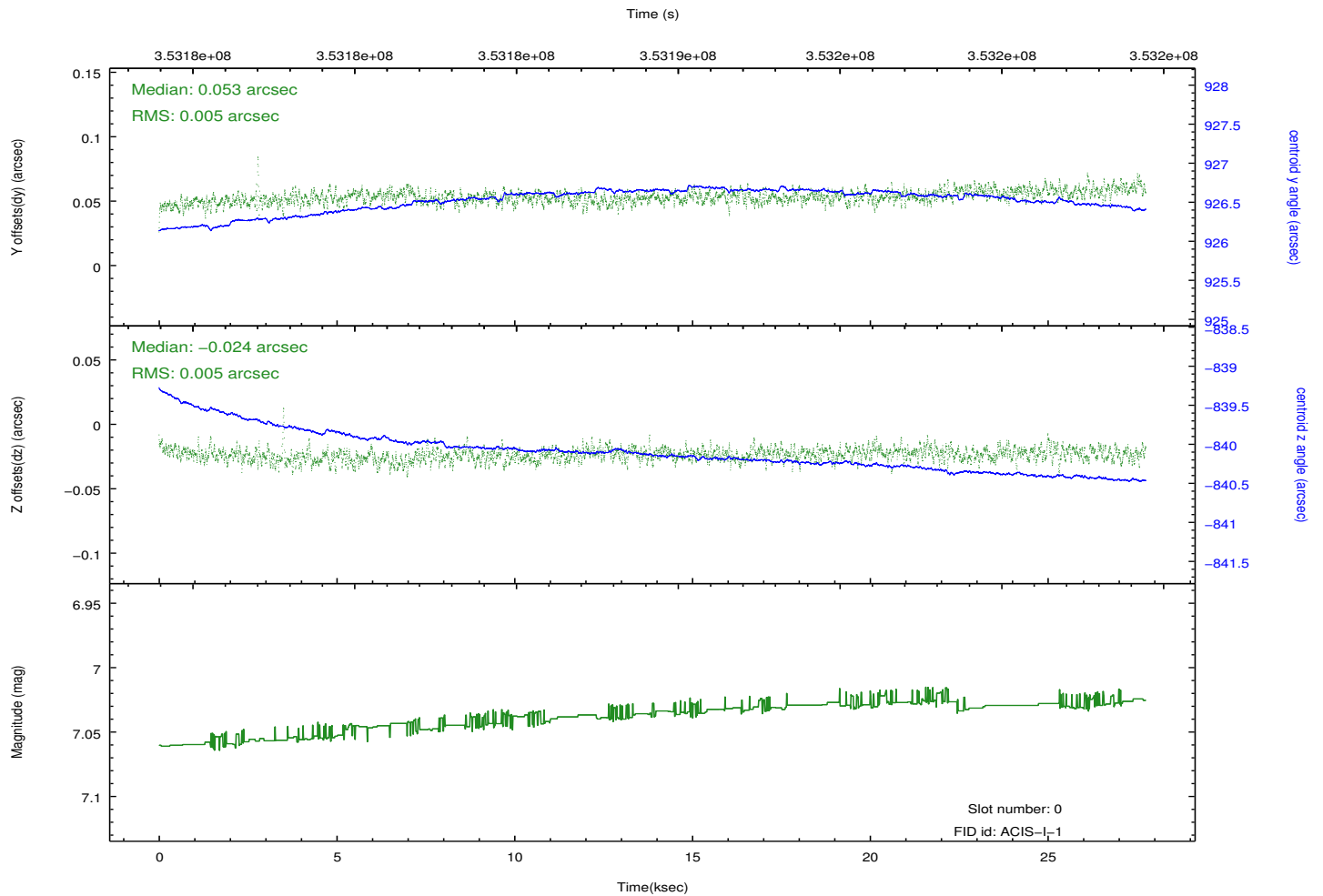
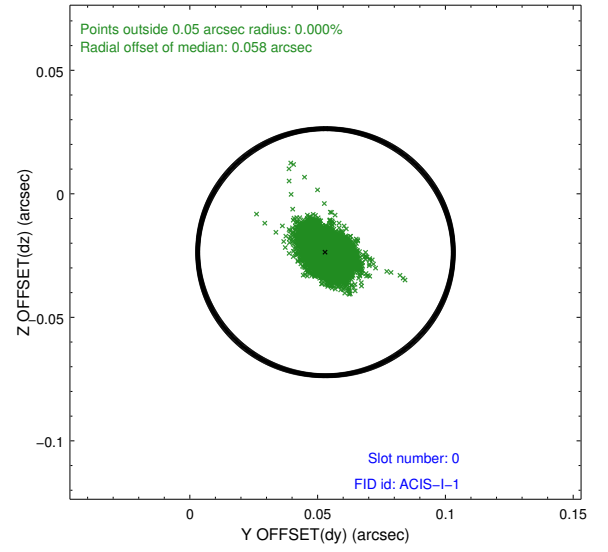
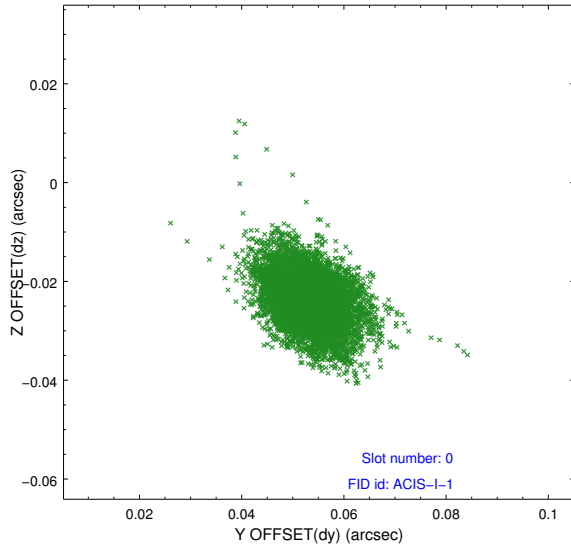


## 2.4.5 Slot 7

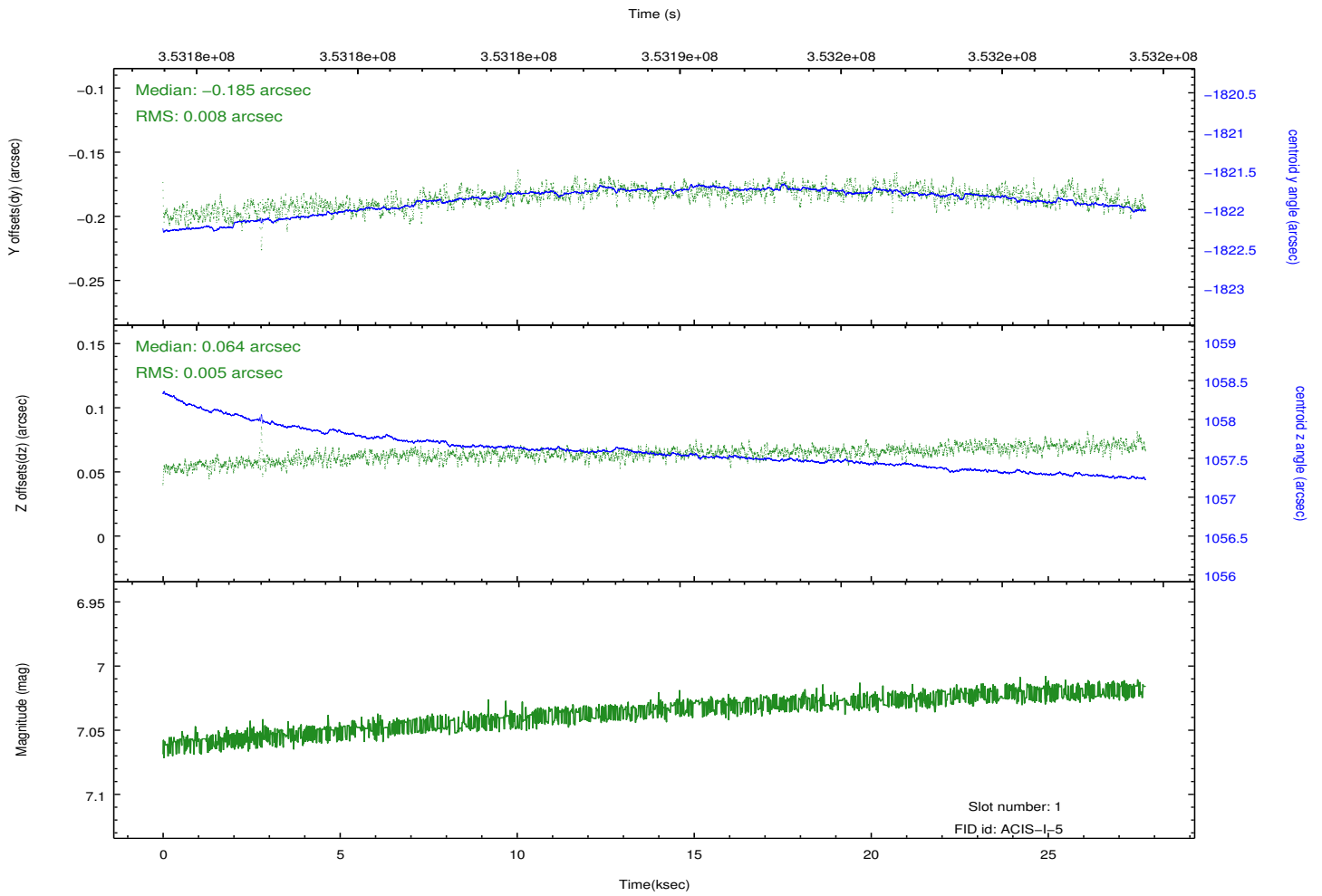
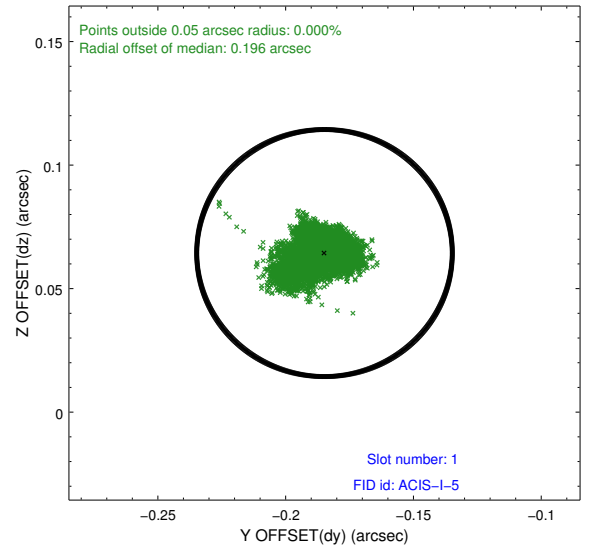
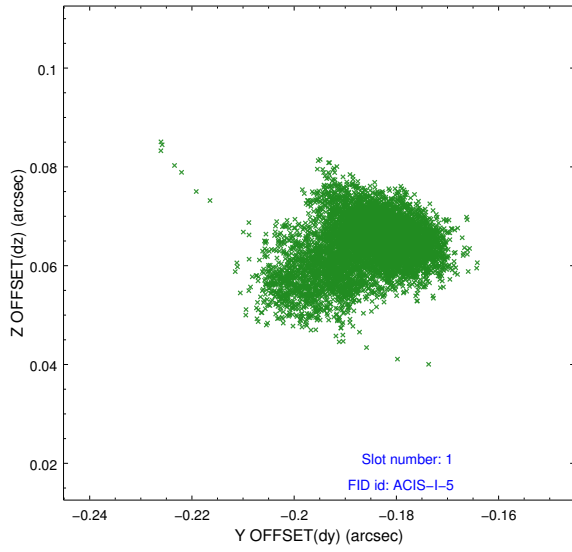


## 2.5 FID Slots

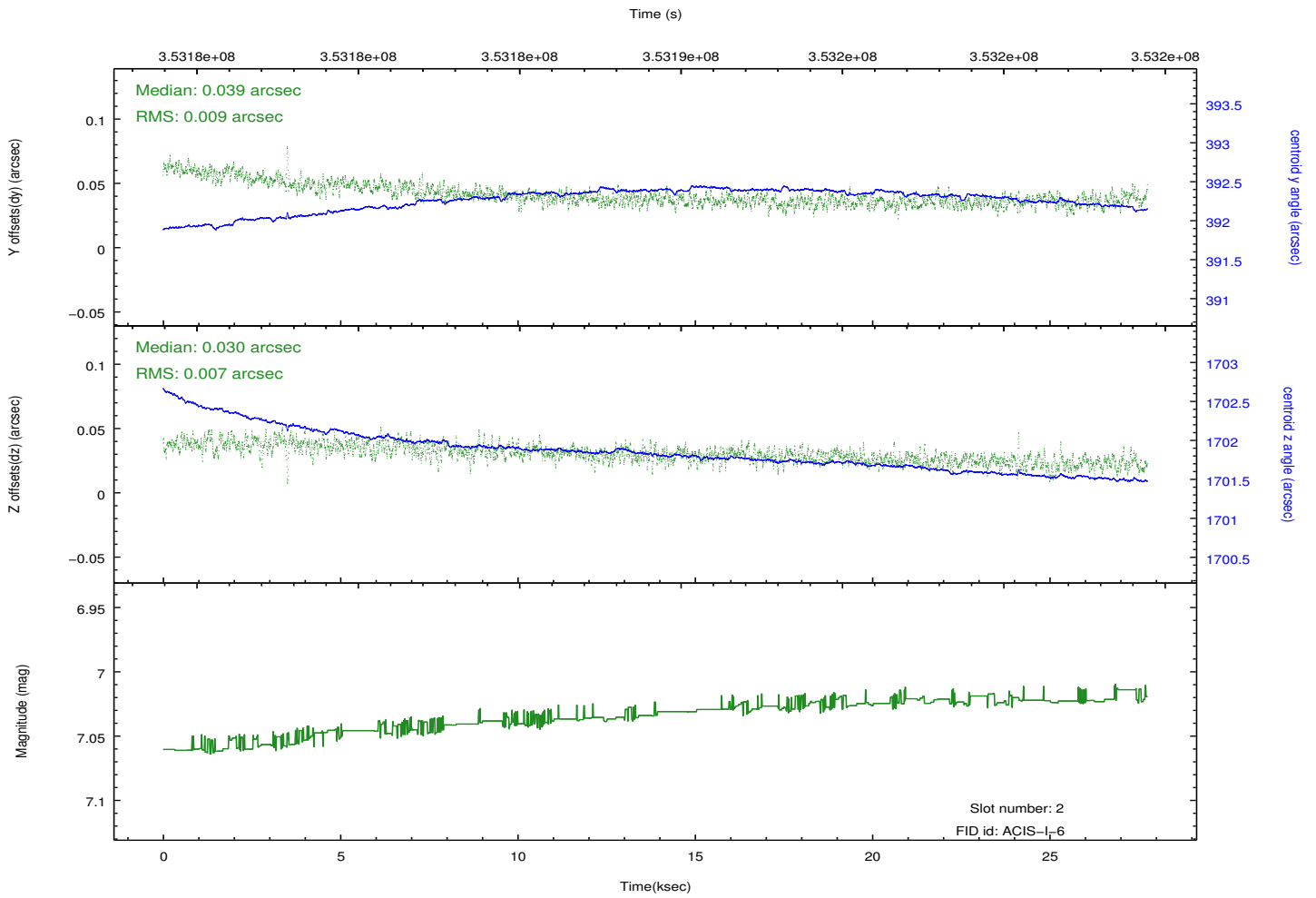
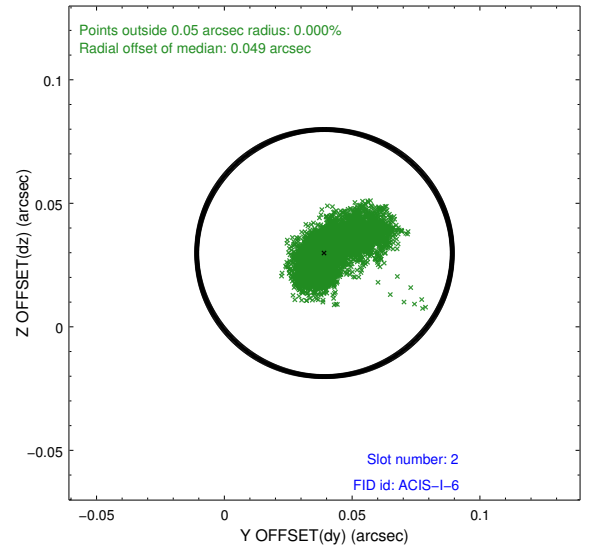
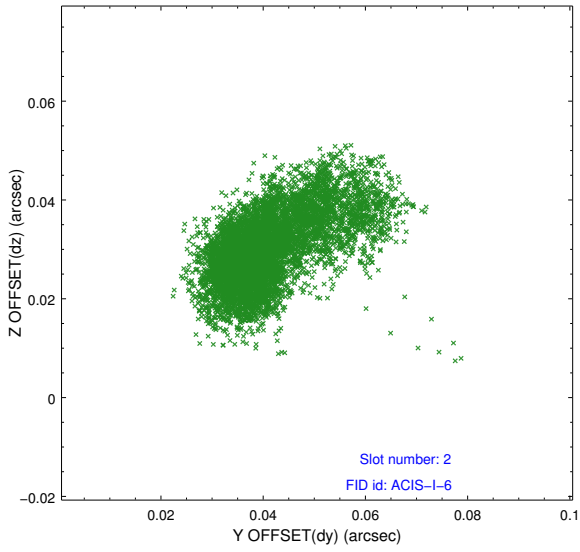
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	27.2863589

## A.2 Comments

A spatial region of the original bias map for CCD = 0 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small ( $\sim 20$  eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 0 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:  
(323.61092, 58.10549), (323.60730, 58.10863), (323.42141, 58.04830), (323.42505, 58.04516)