

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 18014 - L2 Version 1  
Chandra X-Ray Center

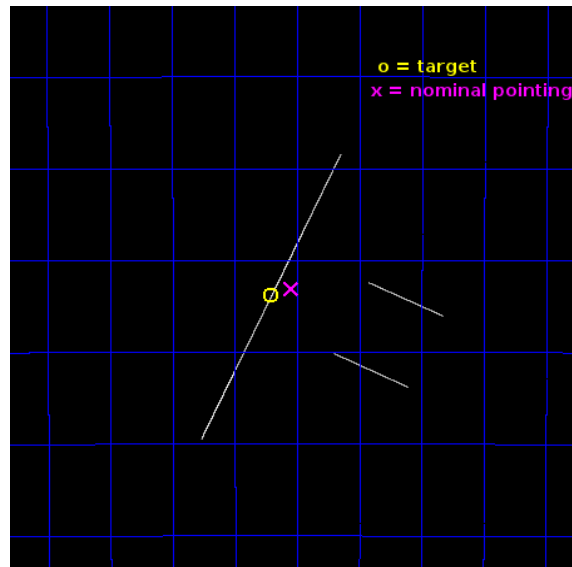
L2 Processing Date : Mar 29 2016

## 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

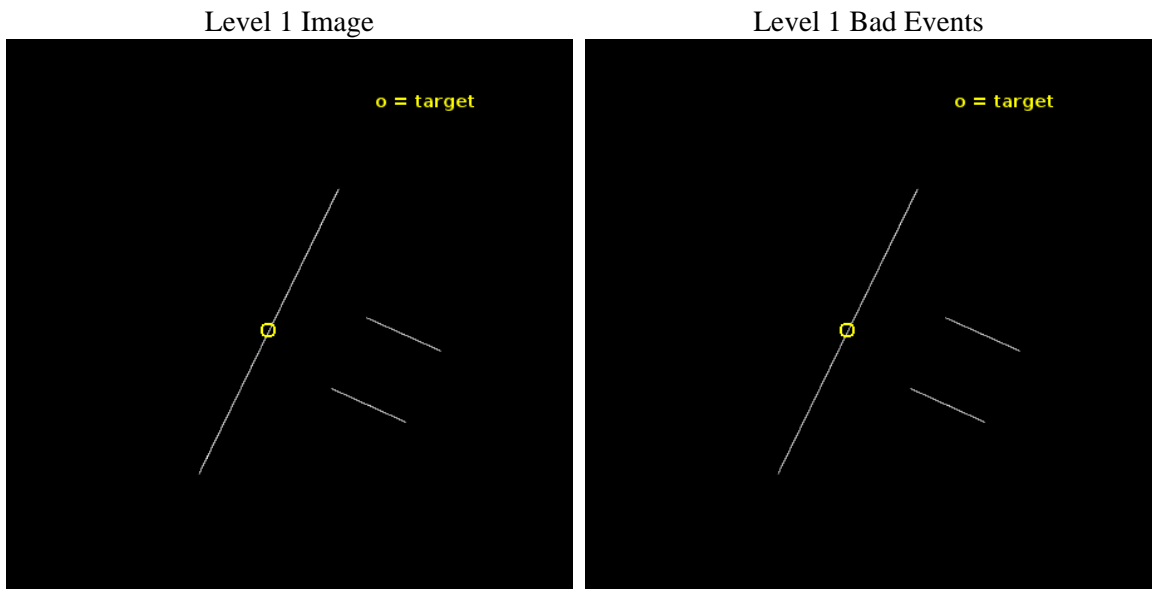
seq_num	502633	Sequence number
obs_id	18014	Observation id
title	Target-of-Opportunity Chandra Observations of Magnetars in Outburst	&#160
observer	Professor Victoria Kaspi	Principal investigator
object	SGR 0755-2933	Source name
ra_targ	118.92754	Observer's specified target RA [deg]
dec_targ	-29.56467	Observer's specified target Dec [deg]
ra_nom	118.88647719734	Nominal RA [deg]
dec_nom	-29.55189318226	Nominal Dec [deg]
roll_nom	295.15815617902	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10074.5	Sum of GTIs [s]
livetime	10035.146484375	Livetime [s]
ontime2	10074.5	Sum of GTIs [s]
ontime3	10074.5	Sum of GTIs [s]
ontime5	10074.5	Sum of GTIs [s]
ontime6	10074.5	Sum of GTIs [s]
ontime7	10074.5	Sum of GTIs [s]
ontime8	10074.5	Sum of GTIs [s]
l2events	117696	Number of level 2 events



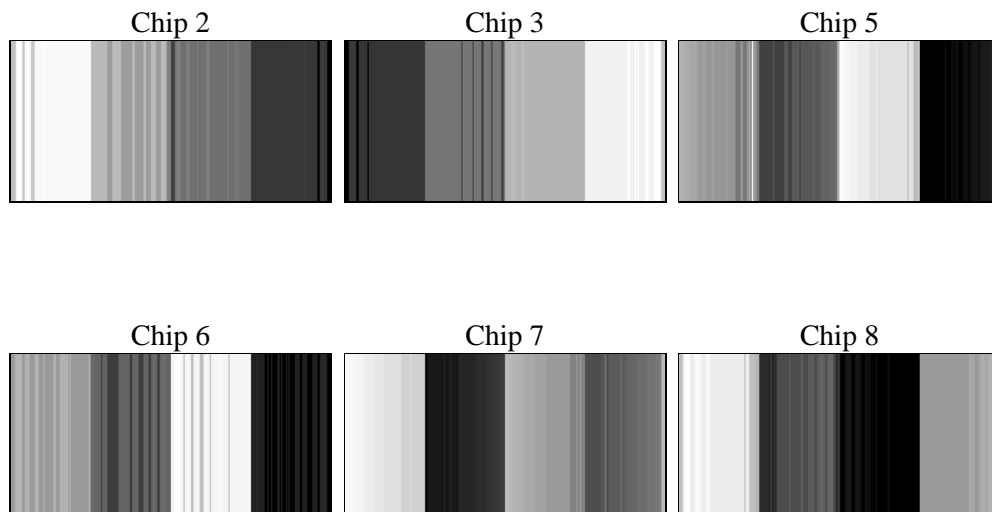
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	10074.5	Sum of GTIs [s]
caldsver	4.7.1	&#160	ontime2	10074.5	Sum of GTIs [s]
date	2016-03-29T17:34:45	Date and time of file creation	ontime3	10074.5	Sum of GTIs [s]
revision	1	Processing version of data	ontime5	10074.5	Sum of GTIs [s]
			ontime6	10074.5	Sum of GTIs [s]
			ontime7	10074.5	Sum of GTIs [s]
			ontime8	10074.5	Sum of GTIs [s]
			l1events	795655	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	105123	102083	190929	105229	118274	174017	grade 0 events	1152	1188	43615	1112	2144	6159
rejected events	95761	92220	85958	94379	82224	144762		1%	1%	22%	1%	1%	3%
rejected %	91%	90%	45%	89%	69%	83%	grade 1 events	55	64	162	47	95	103
								0%	0%	0%	0%	0%	0%
							grade 2 events	3577	3478	29242	4268	10016	9118
								3%	3%	15%	4%	8%	5%
							grade 3 events	1245	1378	1082	1345	1493	2954
								1%	1%	0%	1%	1%	1%
							grade 4 events	1156	1271	984	1215	1493	2847
								1%	1%	0%	1%	1%	1%
							grade 5 events	2714	3127	6477	3113	6919	4664
								2%	3%	3%	2%	5%	2%
							grade 6 events	2237	2555	30092	2914	20933	8195
								2%	2%	15%	2%	17%	4%
							grade 7 events	92987	89022	79275	91215	75181	139977
								88%	87%	41%	86%	63%	80%

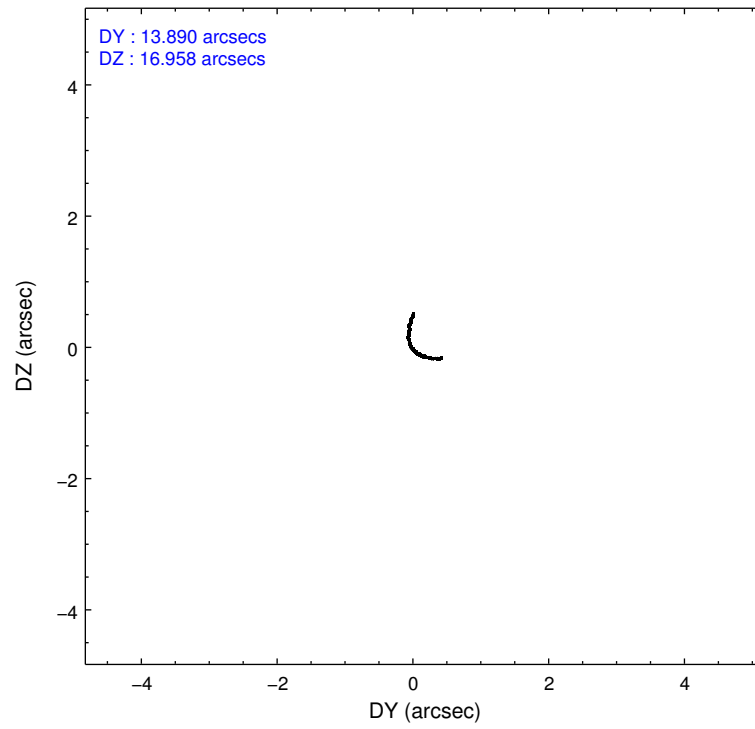
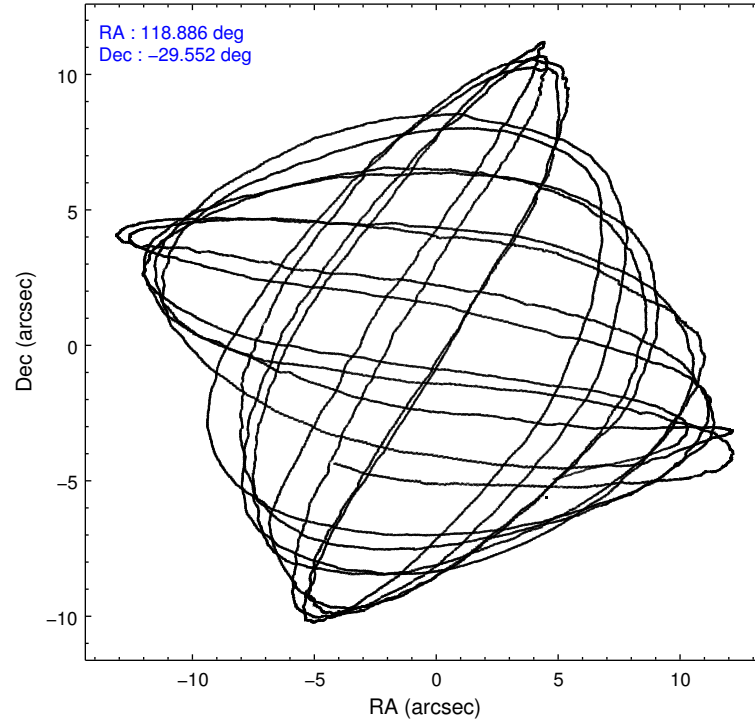


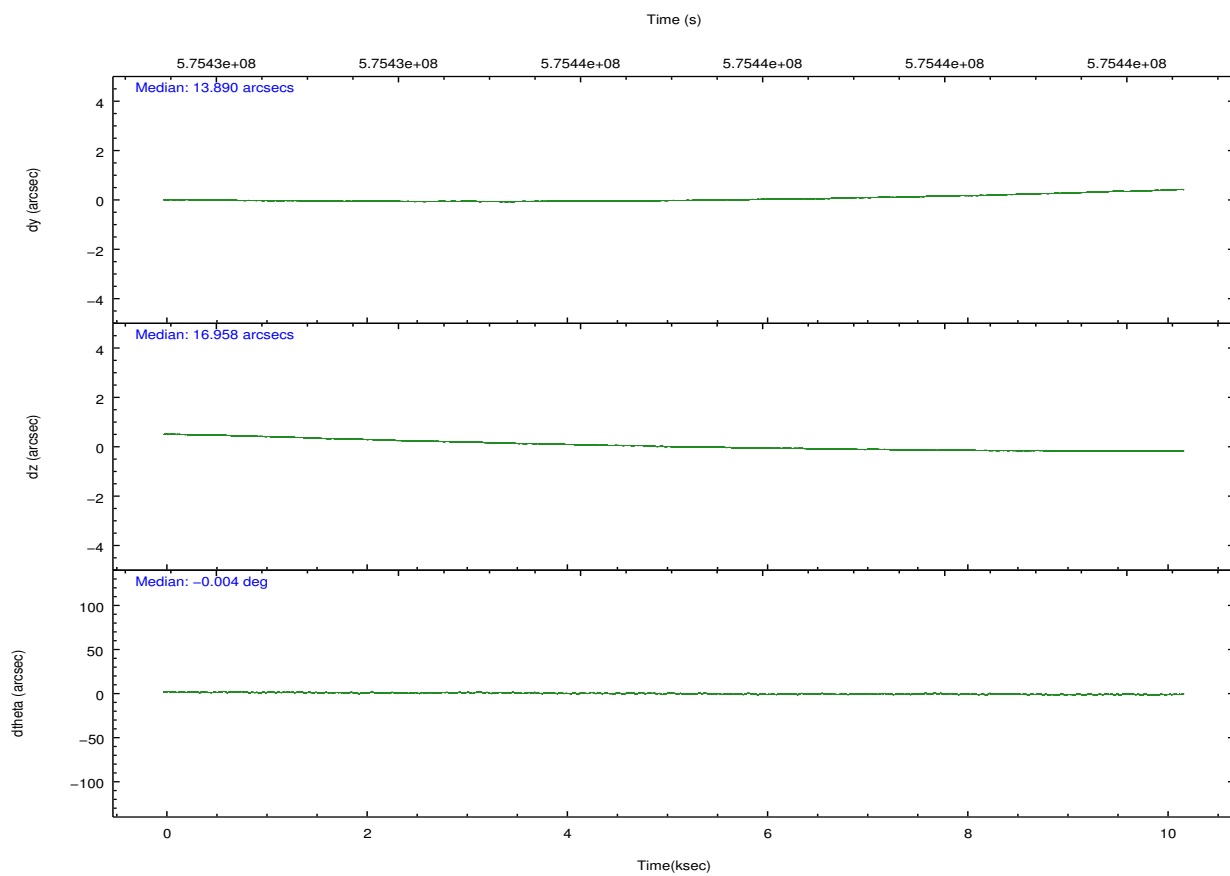
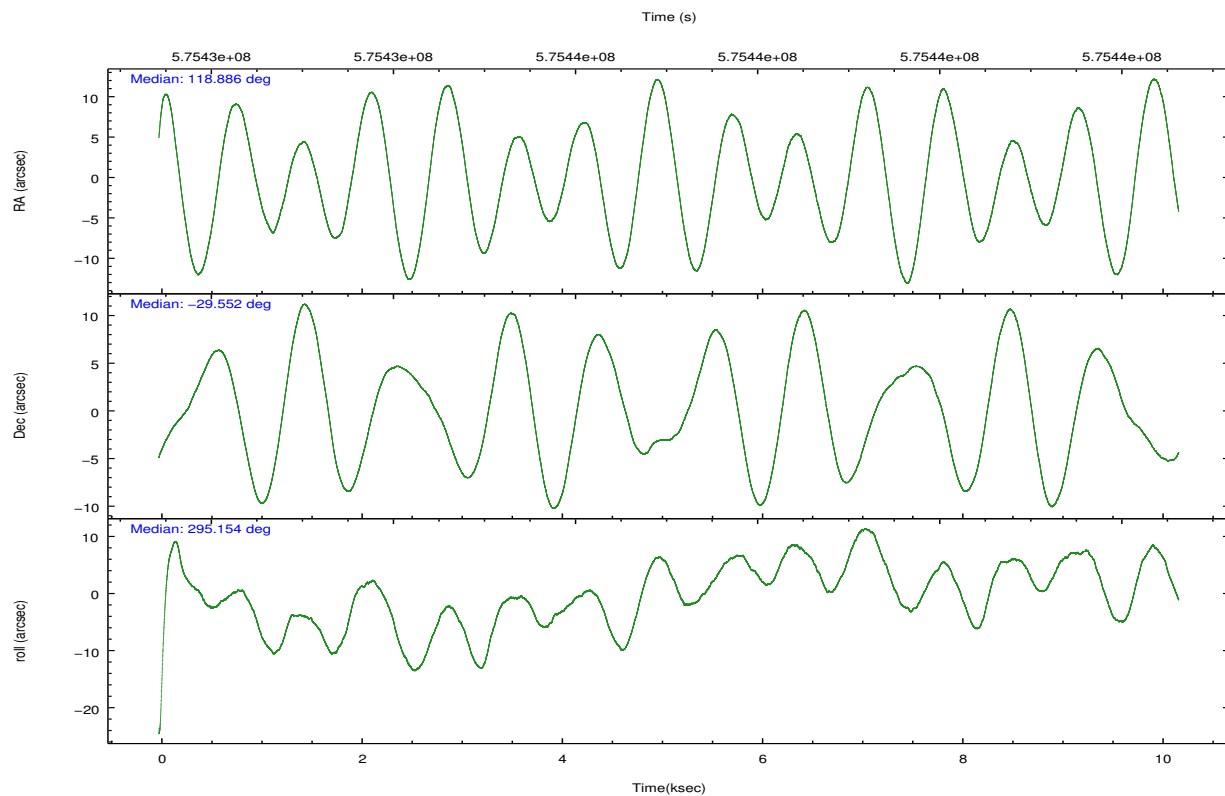
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-235678	ACIS-235678
Grating	NONE	NONE
Data mode	CC33_FAINT	CC33_FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	118.860305	118.8864771973402
[deg] Pointing Dec	-29.536496	-29.55189318226025
[deg] Pointing Roll	294.988650	295.1581561790192
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	575432093.184000	575430992.2111599
Observation start date	2016-03-27T02:13:45	2016-03-27T01:56:32
[s] Observation end time (MET)	575442093.184000	575443518.22438
Observation end date	2016-03-27T05:00:25	2016-03-27T05:25:18
Read mode	CONTINUOUS	CONTINUOUS

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	O2	Y
CCD I3 on	O3	Y
CCD S0 on	N	N
CCD S1 on	O1	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	Y
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0

## 2.3 Aspect



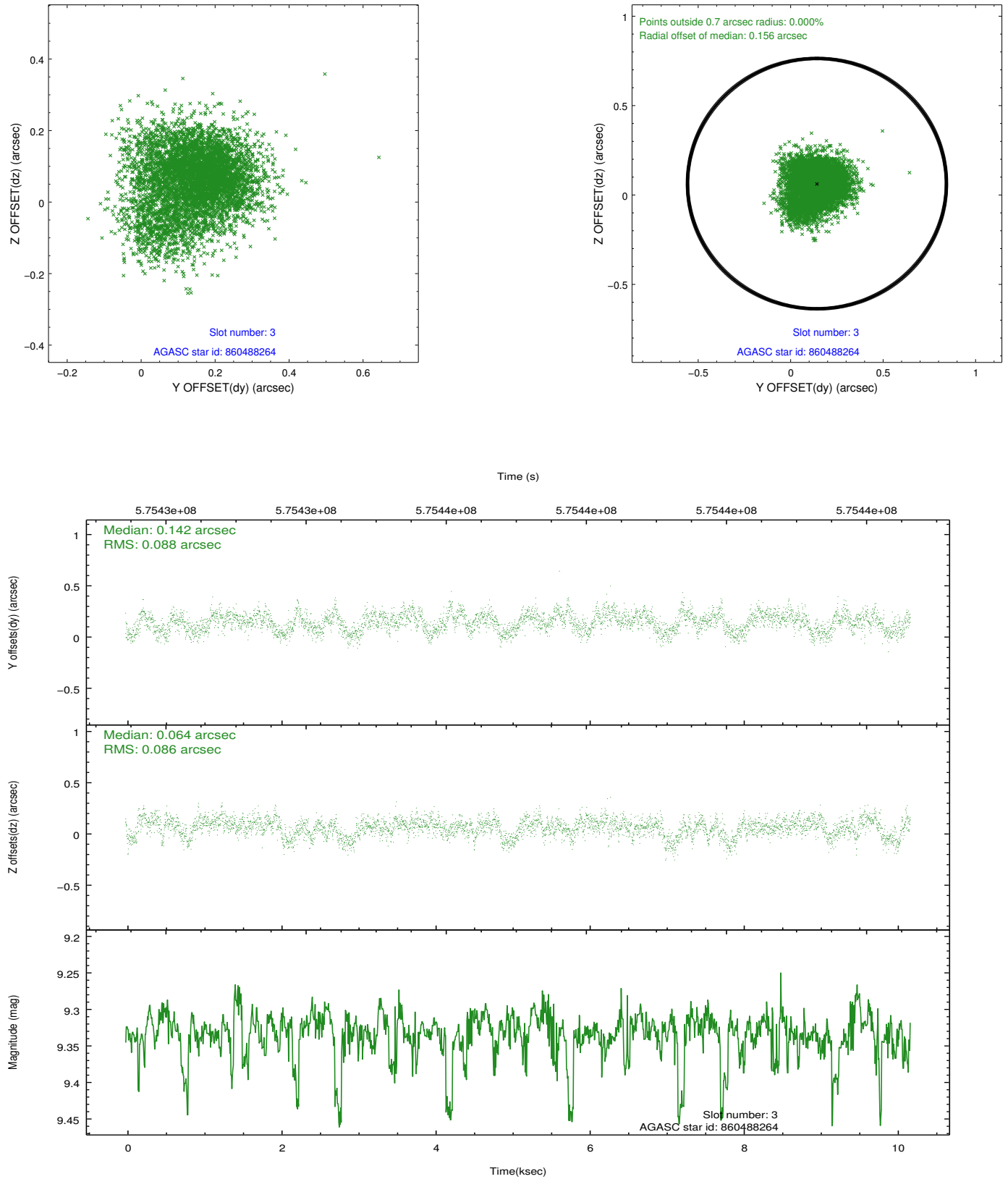


### Slot Statistics

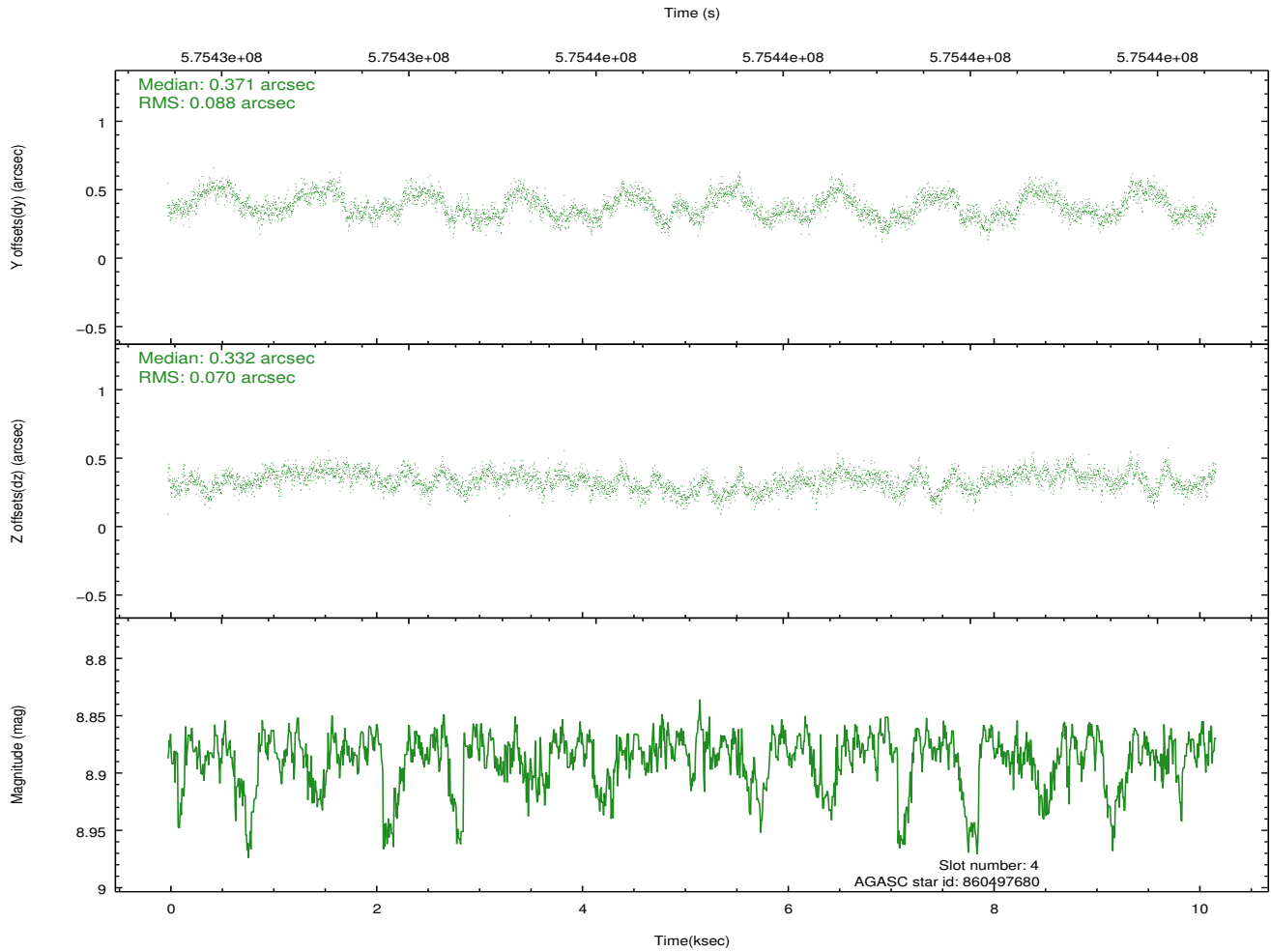
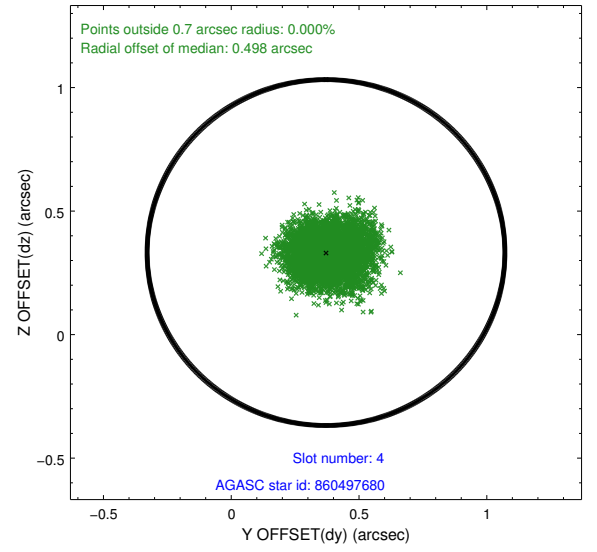
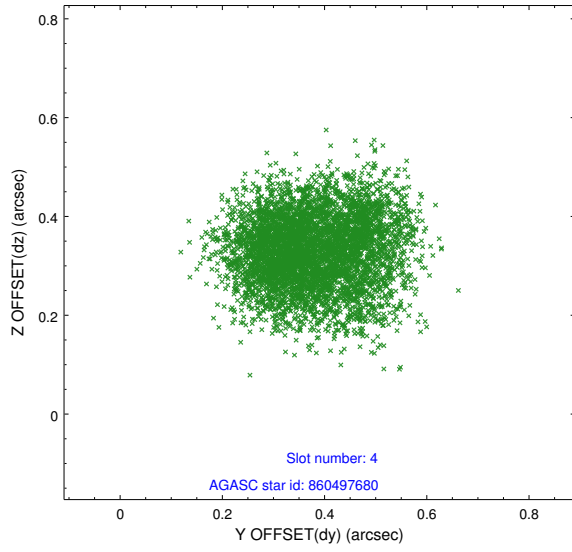
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.11	2484	-0.136	-0.098	0.012	0.026	0.000000	0.000000	-767.02	-1738.51
1	FID		ACIS-S-4	7.22	2485	0.413	0.093	0.006	0.012	0.000000	0.000000	2146.56	169.64
2	FID		ACIS-S-5	7.24	2483	-0.307	0.015	0.012	0.027	0.000000	0.000000	-1819.37	163.80
3	GUIDE	used	860488264	9.33	4965	0.142	0.064	0.132	0.213	118.898007	-29.863694	1117.77	-390.83
4	GUIDE	used	860497680	8.88	4967	0.371	0.332	0.122	0.189	118.416268	-29.122994	-1935.91	-637.98
5	GUIDE	used	860622216	8.96	4963	-0.202	-0.149	0.100	0.159	119.319150	-29.711564	1179.43	1032.71
6	GUIDE	used	860639000	9.13	4969	-0.204	-0.242	0.109	0.177	119.656952	-29.664574	1478.53	2060.43
7	GUIDE	used	860510912	8.94	4969	-0.122	0.002	0.100	0.167	119.267458	-29.244029	-411.77	1603.38

## 2.4 Star Slots

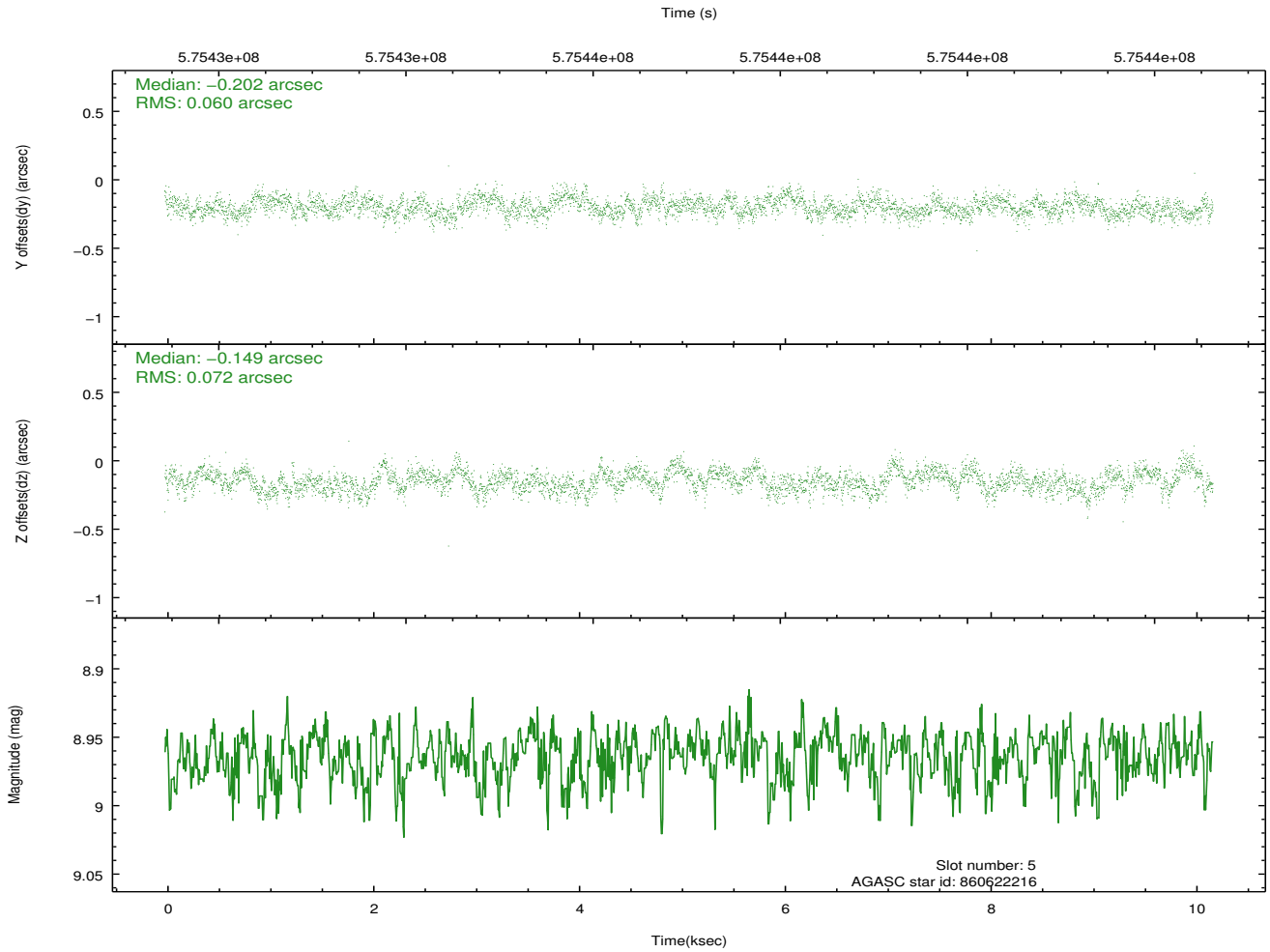
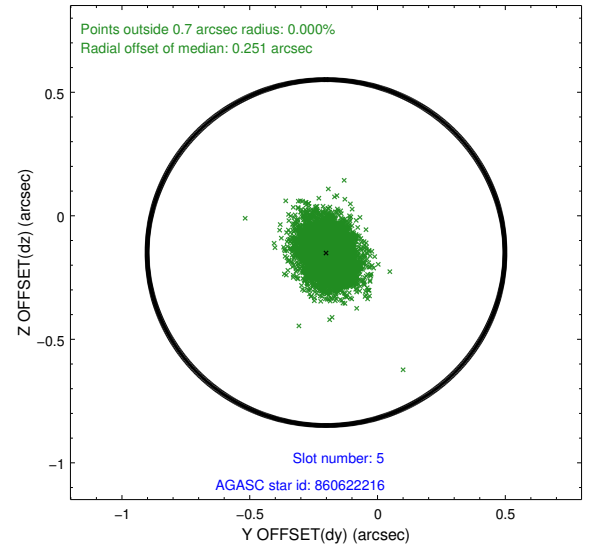
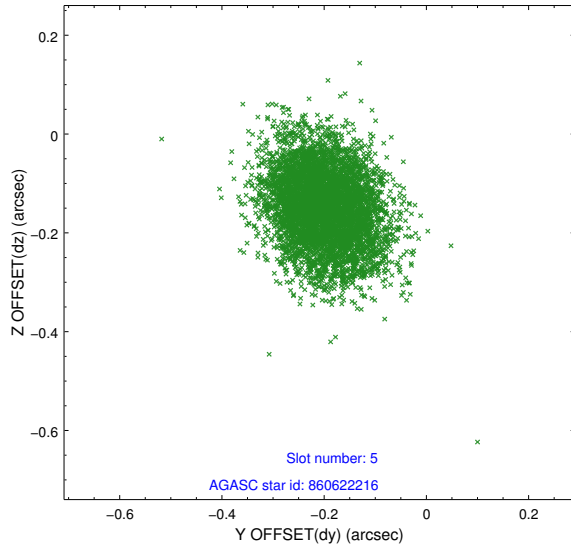
### 2.4.1 Slot 3



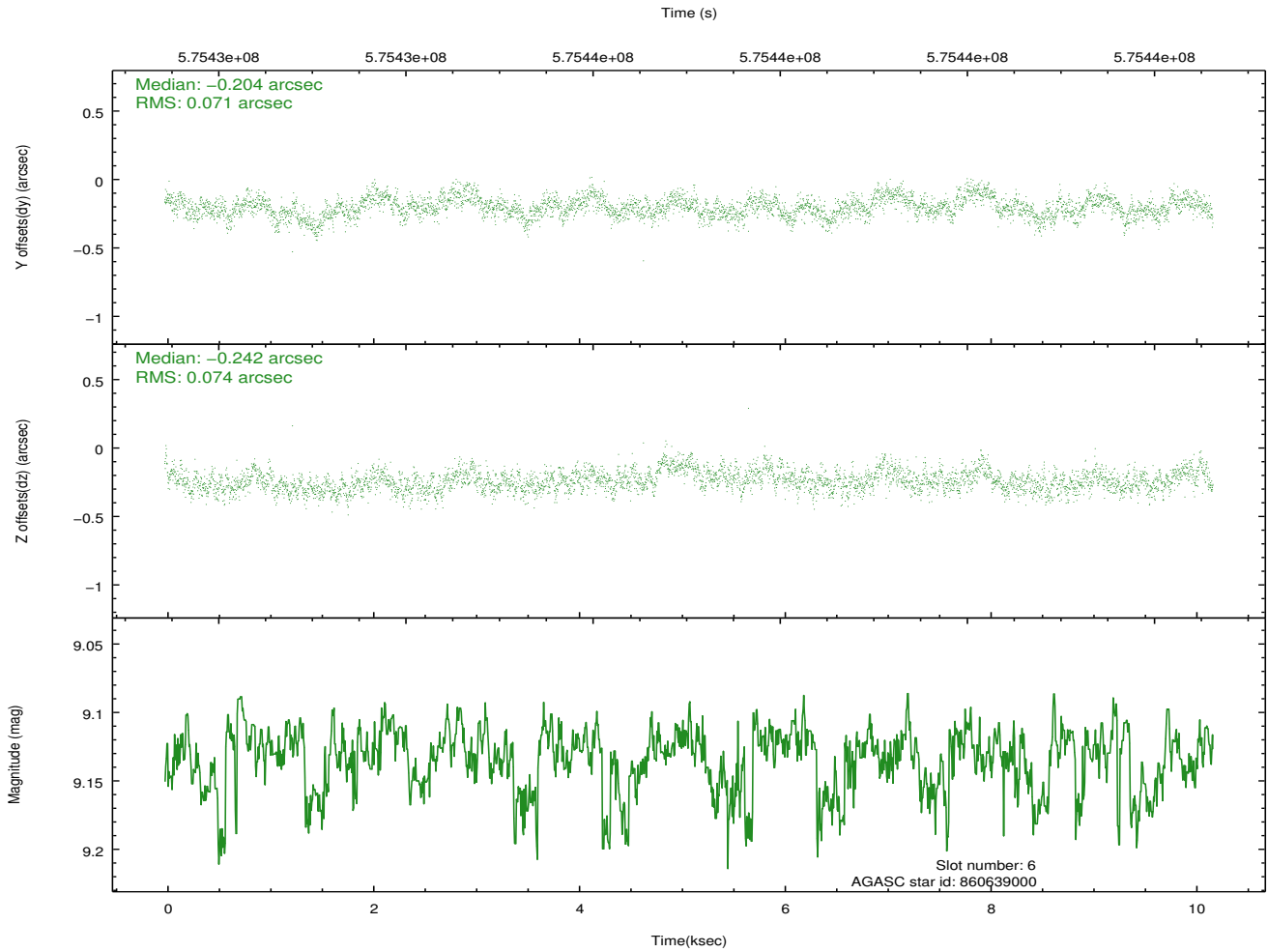
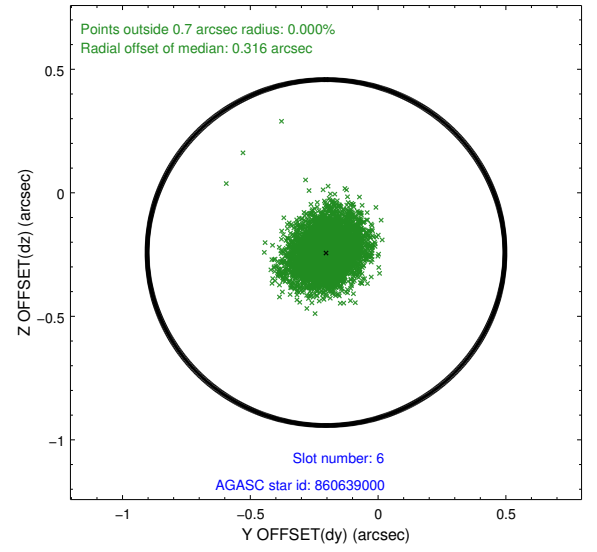
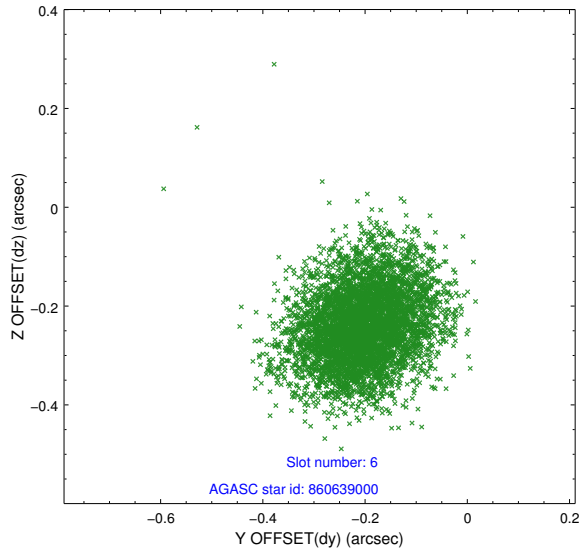
## 2.4.2 Slot 4



### 2.4.3 Slot 5

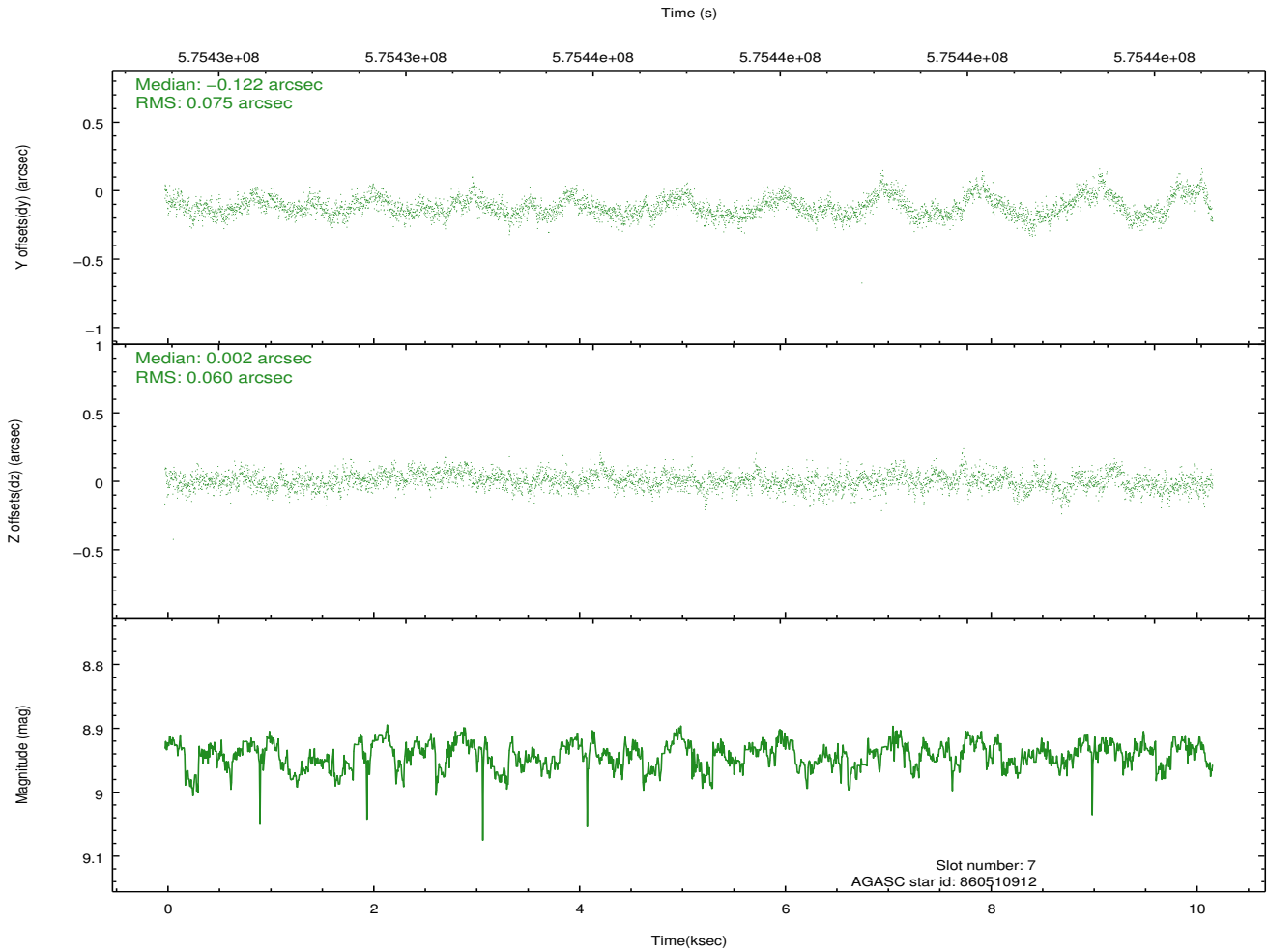
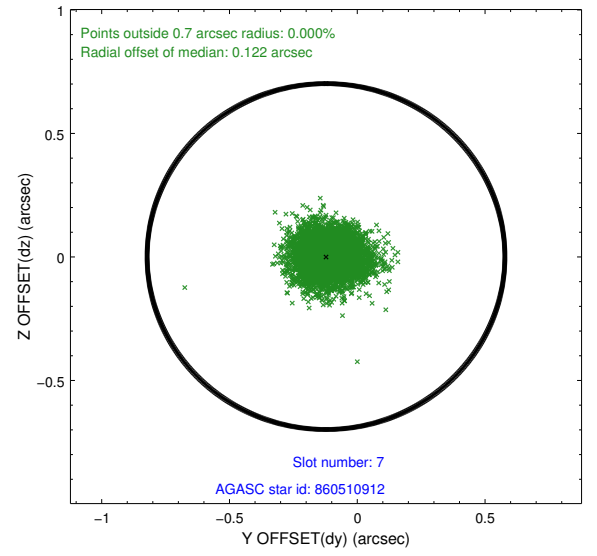
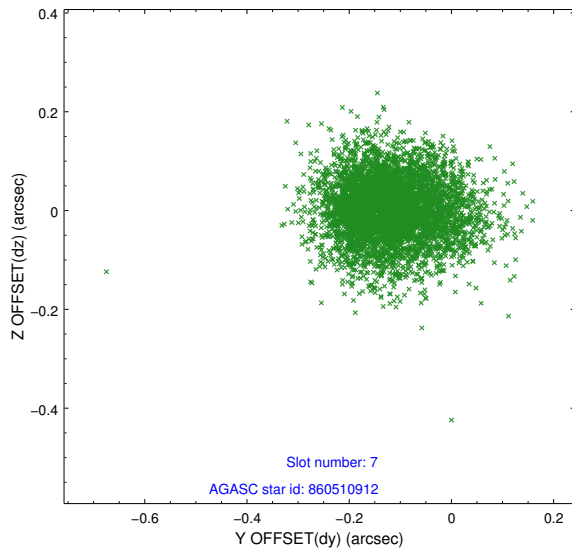


## 2.4.4 Slot 6



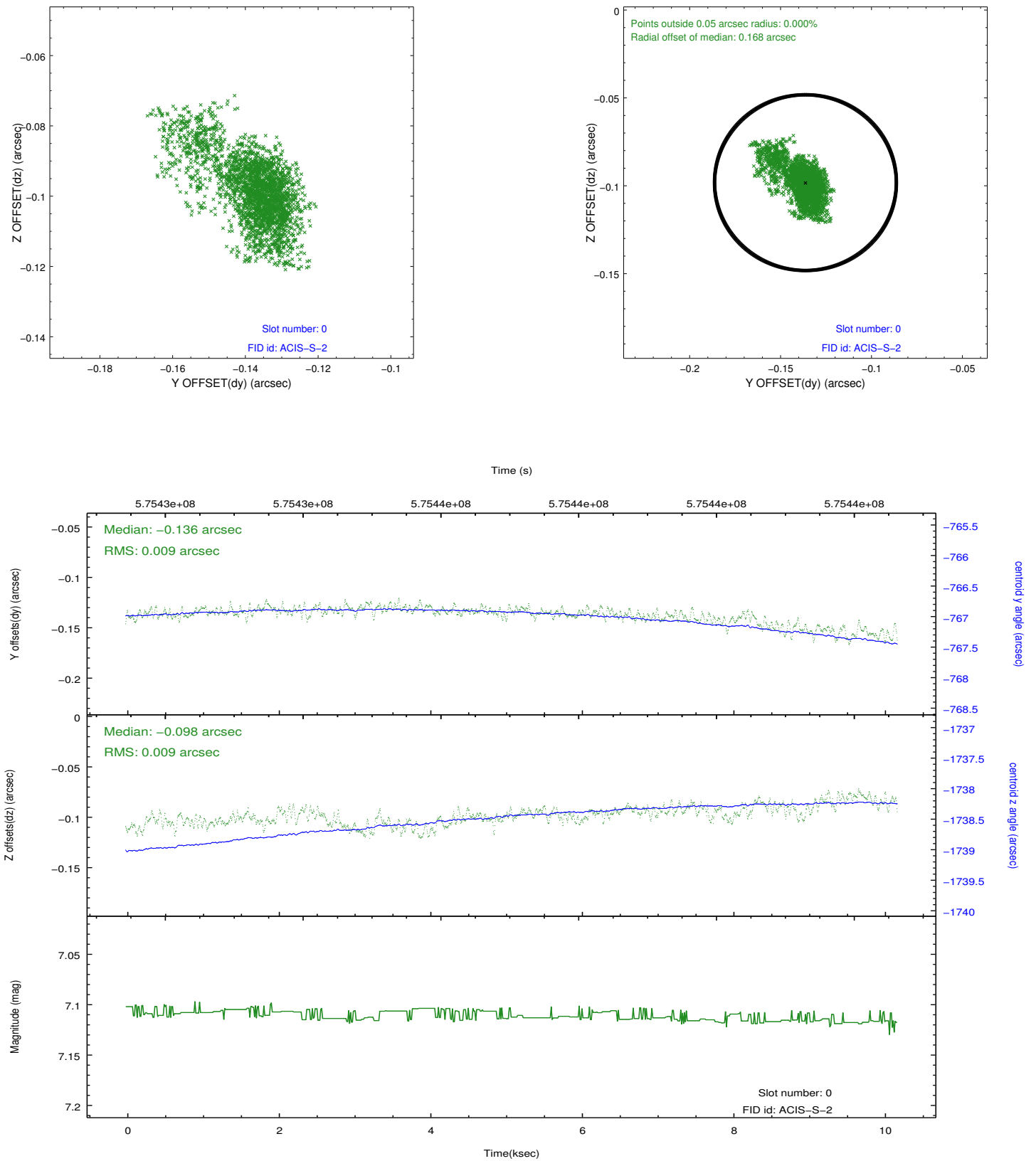


## 2.4.5 Slot 7

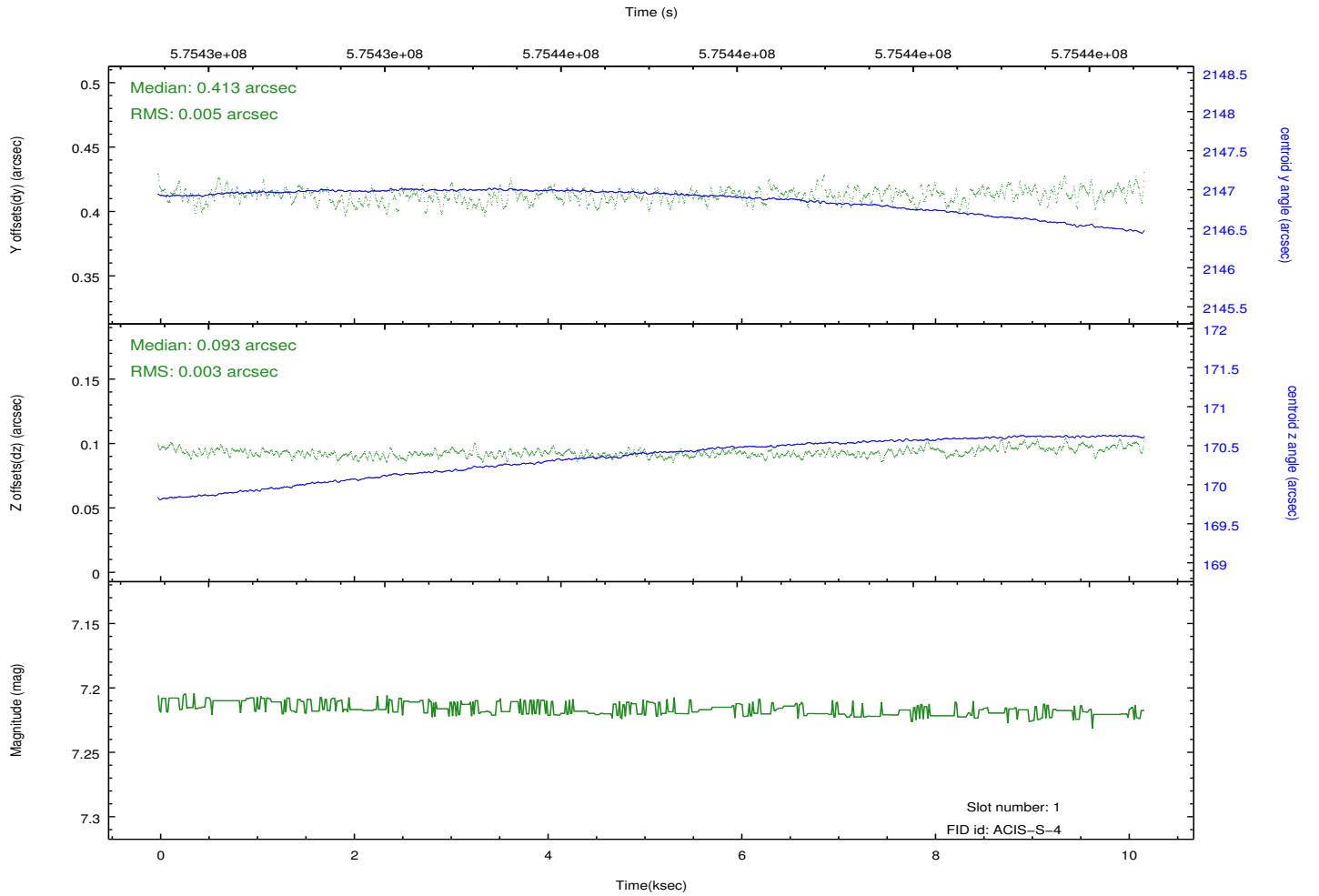
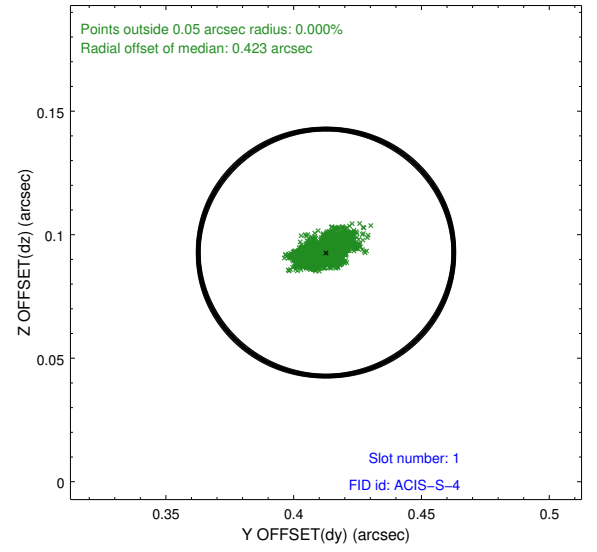
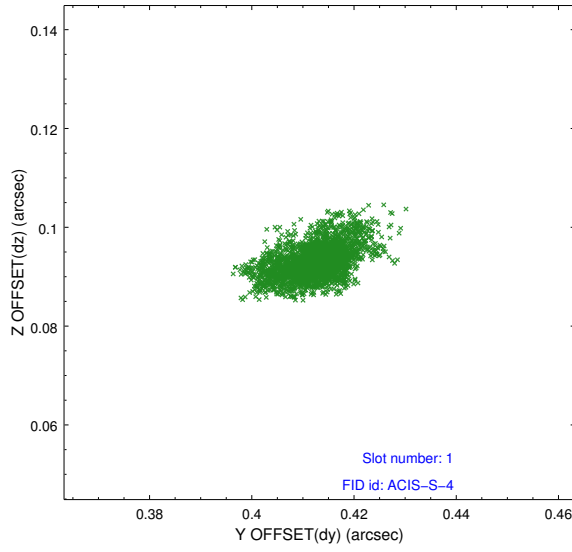


## 2.5 FID Slots

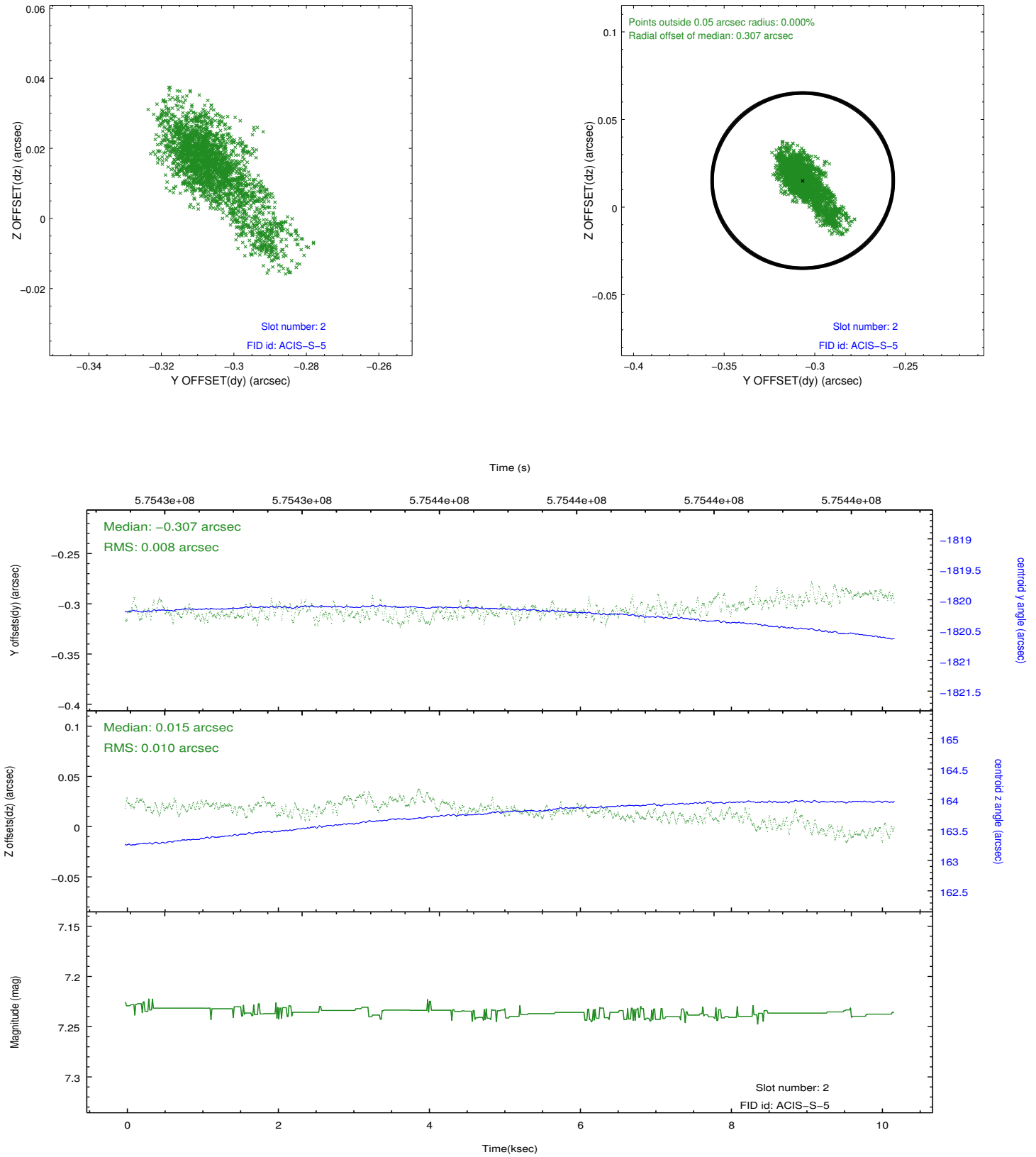
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.03.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.0745

## A.2 Comments

The coordinates given by the user were incorrect. The corrected coordinates (118.927,-29.563667) provided by the user and published in ATEL attributed to XTE were also not precisely at the position of the emission. Analysis of the data in this observation found the bright emission at (118.92754,-29.56467), which is about 4 arcsec away from the corrected coordinates. Therefore, the coordinates (118.92754,-29.56467) were used for the values of ra\_targ and dec\_targ in this processing of the observation. Although these positional differences are small, the effect on the data can be important because of the difference in grade assignments. We believe this is the best processing of these data.

===

Note: there are 3 observations of this target planned. If the rolls are not the same for all of these, then it should be possible to determine the source location from the set of observations.

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Target was placed near a CCD chip gap and was dithered in and out of the gap during the observation.

Approximately 12 intervals of about 300 s occur when the target is in the chip gap. Analysis of the data must account for this issue. It is not reflected in the GTI.