

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 1458 - L2 Version 4

Chandra X-Ray Center

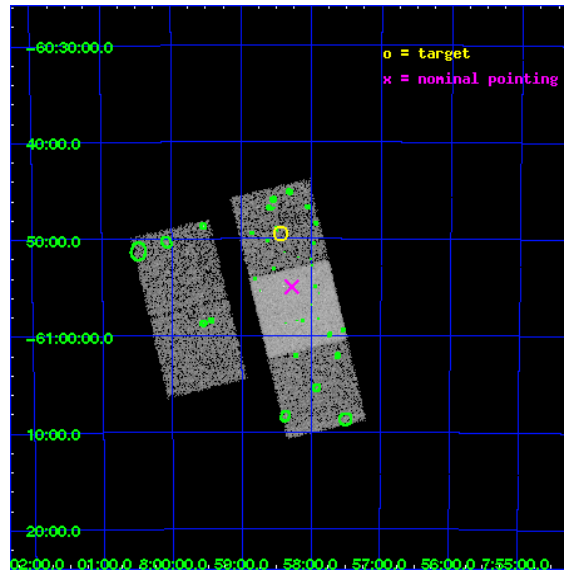
L2 Processing Date : Nov 21 2009

## 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>3</b>	<b>Point Sources</b>	<b>17</b>
<b>A</b>	<b>Summary</b>	<b>18</b>
A.1	Status . . . . .	18
A.2	Comments . . . . .	18

# 1 Front

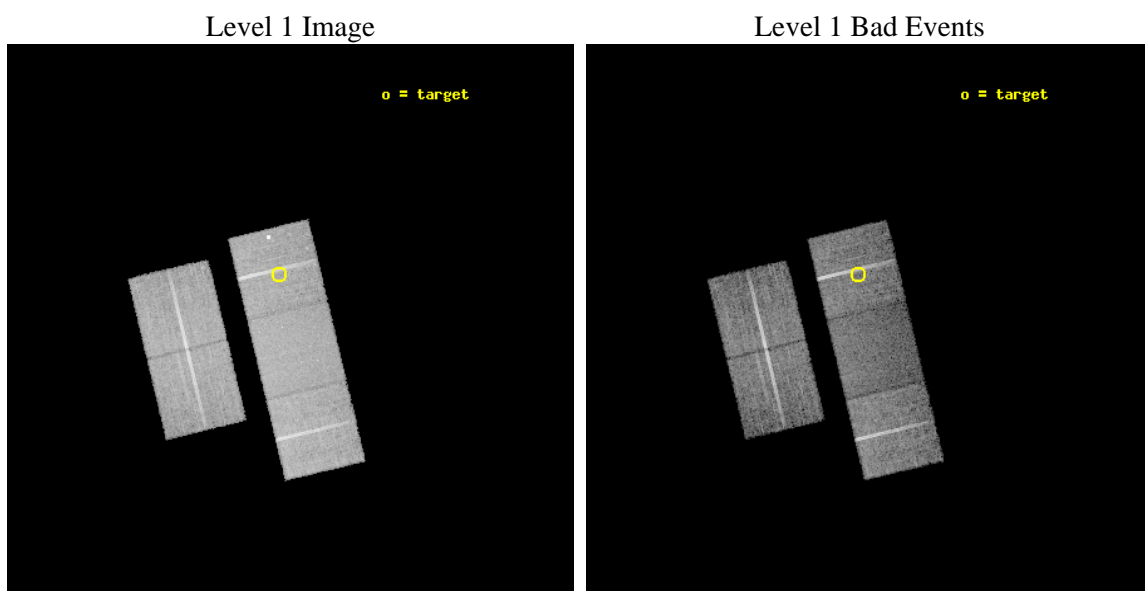
seq_num	280408	Sequence number
obs_id	1458	Observation id
title	CALIBRATION OBSERVATION NGC 2516 FOR BORESIGHTING AND PLATE SCALE	&#160
observer	Dr. CXC Calibration	Principal investigator
object	NGC 2516 - S2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	119.61159	Observer's specified target RA
dec_targ	-60.82355	Observer's specified target Dec
ra_nom	119.56928341899	Nominal RA
dec_nom	-60.916675934215	Nominal Dec
roll_nom	76.520504280684	Nominal Roll
revision	4	Processing version of data
ontime	9772.8000091016	Sum of GTIs [s]
livetime	9649.0509309127	Livetime [s]
ontime2	9772.8000091016	Sum of GTIs [s]
ontime3	9772.8000091016	Sum of GTIs [s]
ontime6	9772.8000091016	Sum of GTIs [s]
ontime7	9772.8000091016	Sum of GTIs [s]
ontime8	9772.8000091016	Sum of GTIs [s]
l2events	68942	Number of level 2 events



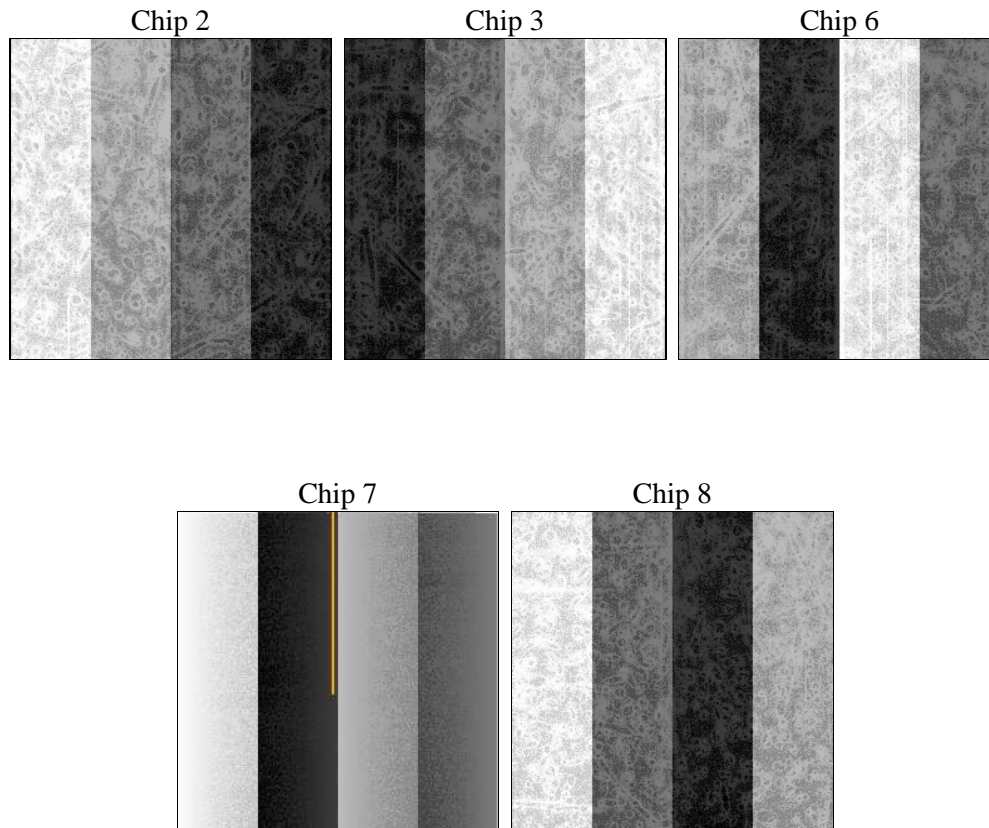
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	10000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	9772.8000091016	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime2	9772.8000091016	Sum of GTIs [s]
date	2009-11-21T09:49:36	Date and time of file creation	ontime3	9772.8000091016	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	9772.8000091016	Sum of GTIs [s]
			ontime7	9772.8000091016	Sum of GTIs [s]
			ontime8	9772.8000091016	Sum of GTIs [s]
			l1events	474787	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	91974	86684	94816	94473	106840
rejected events	83946	78497	82851	57006	89274
rejected %	91%	90%	87%	60%	83%

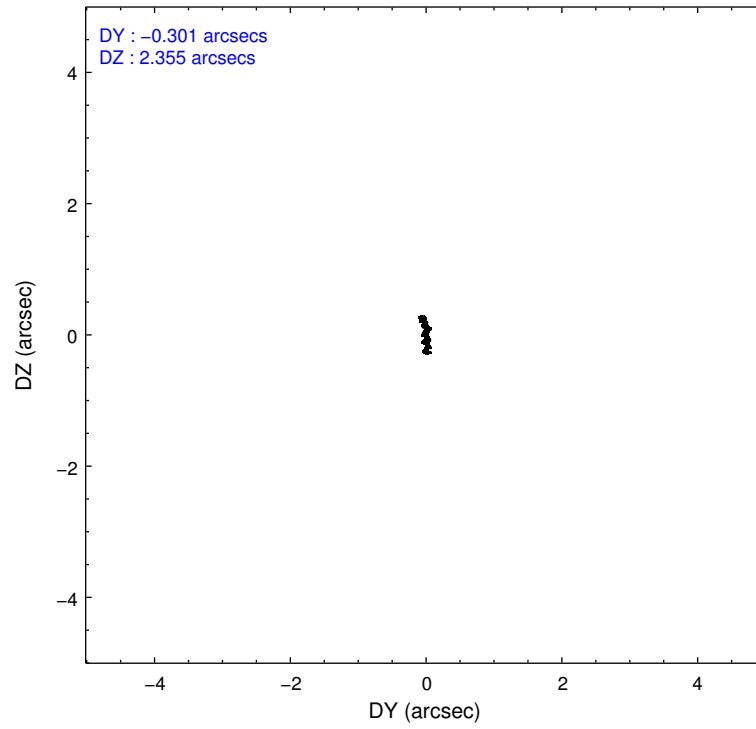
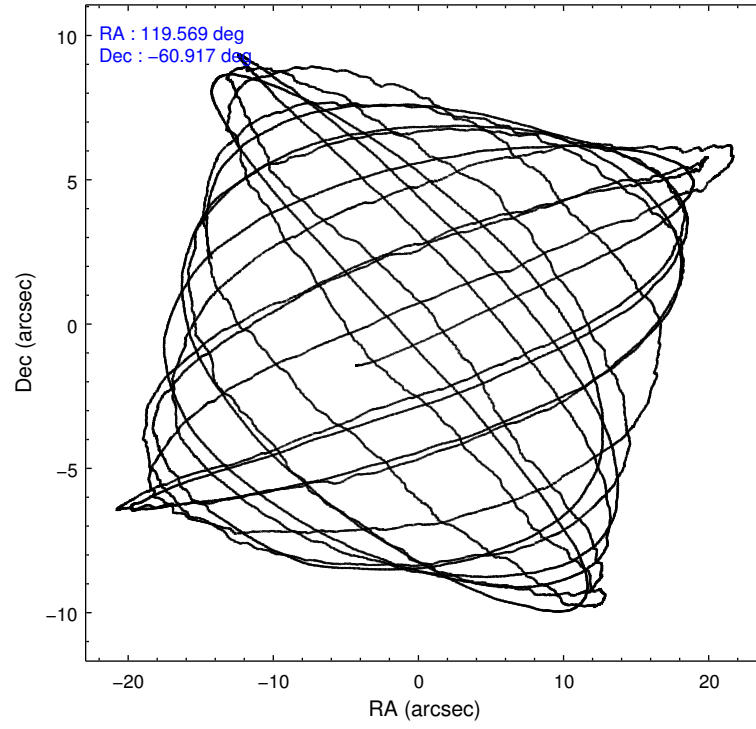
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1937	1857	2475	2719	4284
	2%	2%	2%	2%	4%
grade 1 events	18	15	24	51	33
	0%	0%	0%	0%	0%
grade 2 events	3122	3215	5921	8210	5581
	3%	3%	6%	8%	5%
grade 3 events	526	532	590	2352	1483
	0%	0%	0%	2%	1%
grade 4 events	531	484	525	2090	1380
	0%	0%	0%	2%	1%
grade 5 events	1506	1678	1820	5737	2373
	1%	1%	1%	6%	2%
grade 6 events	1916	2103	2461	22108	4841
	2%	2%	2%	23%	4%
grade 7 events	82418	76800	81000	51206	86865
	89%	88%	85%	54%	81%

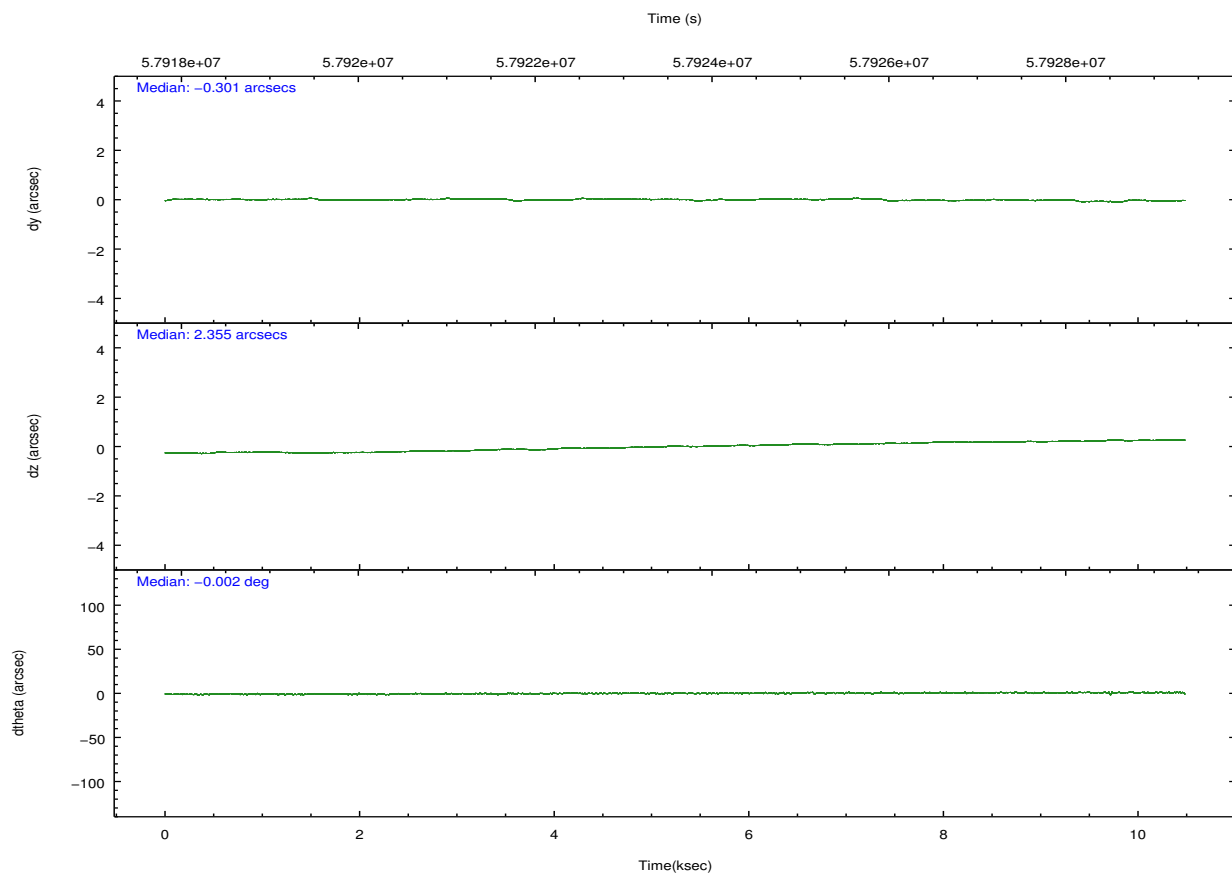
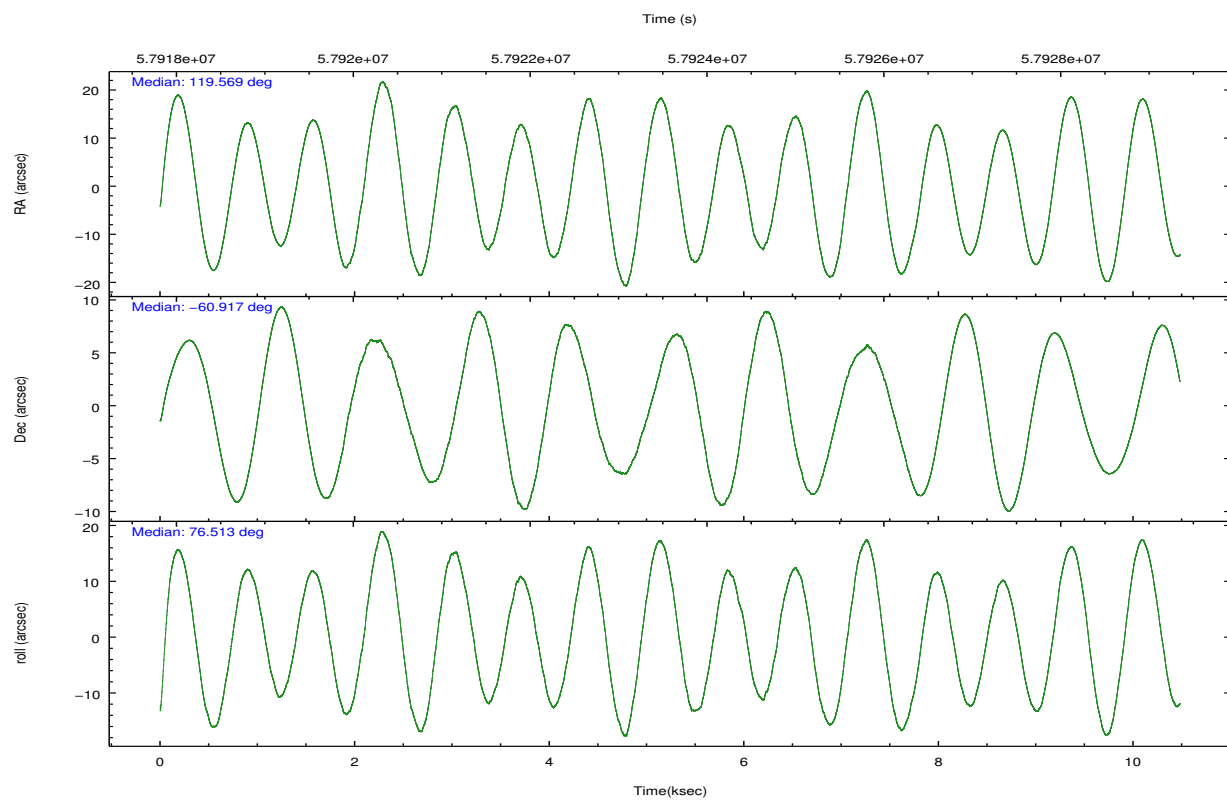


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	119.585171	119.5692834189856	Subarray requested	NONE	NONE
Pointing Dec	-60.943216	-60.91667593421532	Alternating exposures requested	N	N
Pointing Roll	76.377765	76.52050428068391	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	57918823.184000	57917777.023967			
Observation start date	1999-11-02T08:32:39	1999-11-02T08:16:17			
Observation end time	57928823.184000	57929514.29939			
Observation end date	1999-11-02T11:19:19	1999-11-02T11:31:54			
Read mode	TIMED	TIMED			

## 2.3 Aspect



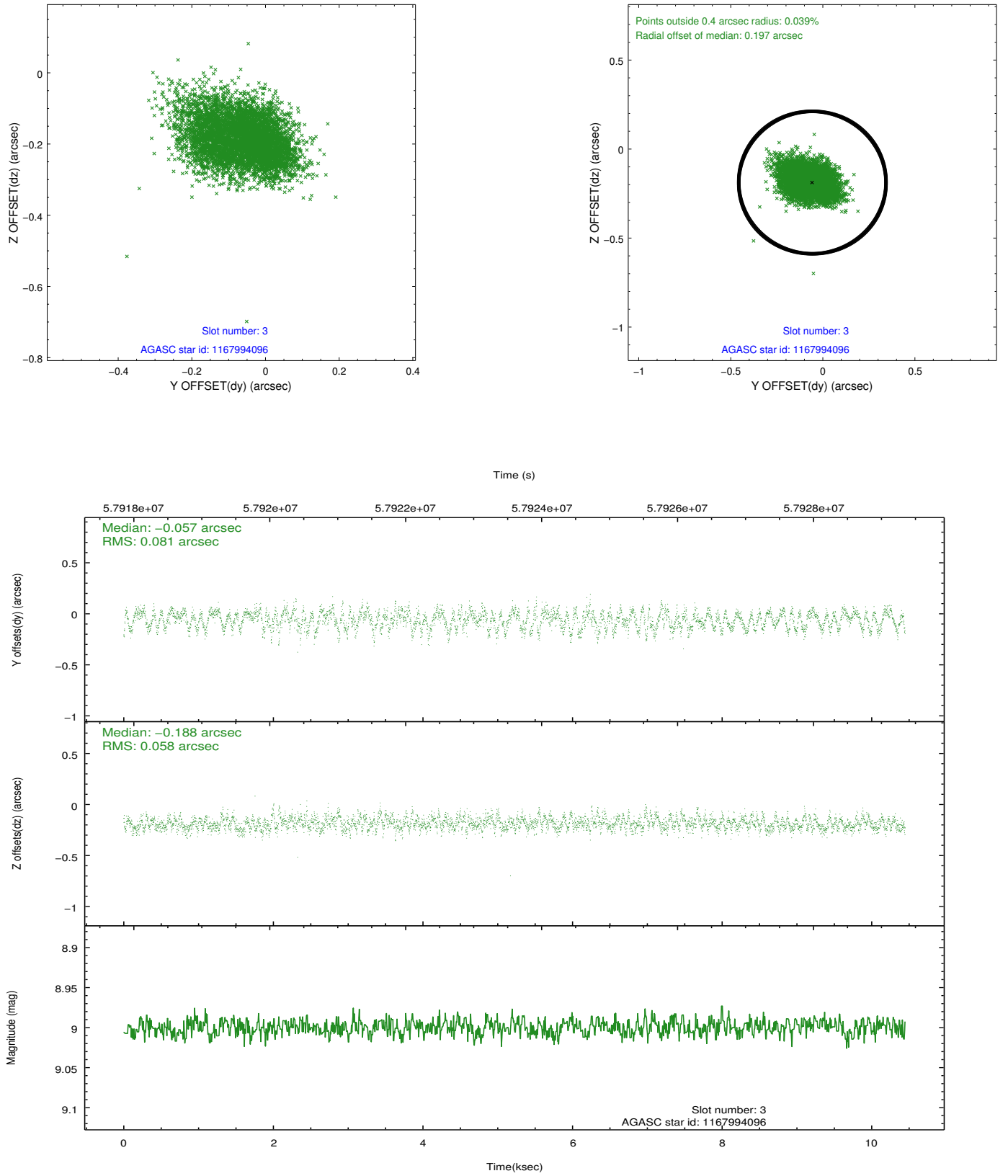


Slot Statistics

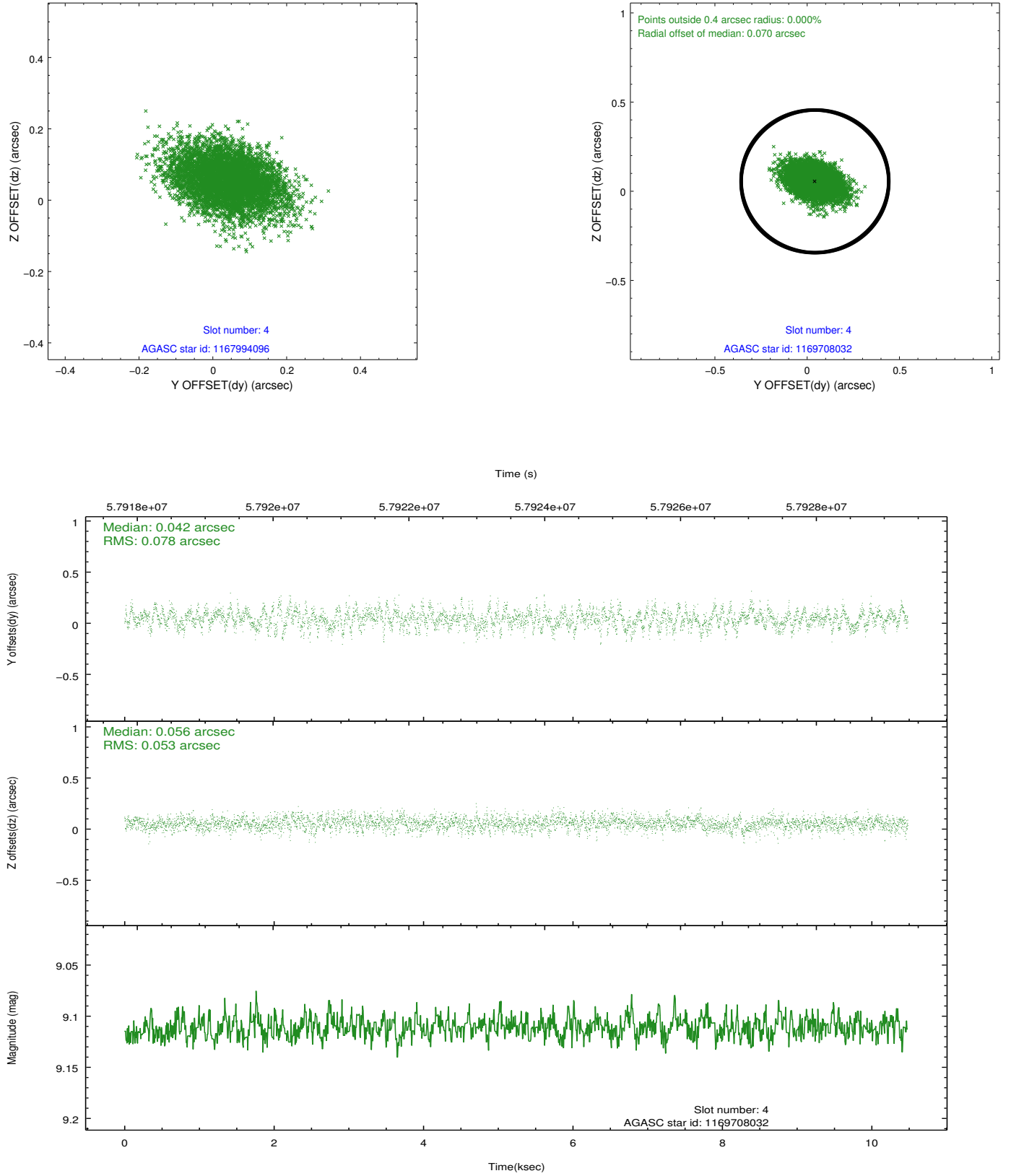
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	5114	0.006	-0.003	0.008	0.013	0.000000	0.000000	-752.29	-1723.36
1	FID	ACIS-S-4	7.21	5113	0.051	-0.002	0.007	0.012	0.000000	0.000000	2161.01	184.87
2	FID	ACIS-S-5	7.24	5112	-0.088	0.013	0.008	0.012	0.000000	0.000000	-1804.95	178.86
3	GUIDE	1167994096	9.00	5093	-0.057	-0.188	0.104	0.171	118.437093	-60.572614	800.18	2283.49
4	GUIDE	1169708032	9.11	5112	0.042	0.056	0.099	0.167	121.148638	-60.486116	2220.17	-2313.99
5	GUIDE	1167995976	9.31	5105	-0.048	-0.101	0.093	0.160	118.304377	-60.935765	-523.24	2177.37
6	GUIDE	1168005096	9.58	5111	0.080	0.145	0.094	0.157	119.552642	-61.434514	-1732.71	-361.76
7	GUIDE	1169703096	9.67	5109	-0.014	0.085	0.095	0.160	120.406076	-61.421761	-1350.72	-1781.85

## 2.4 Star Slots

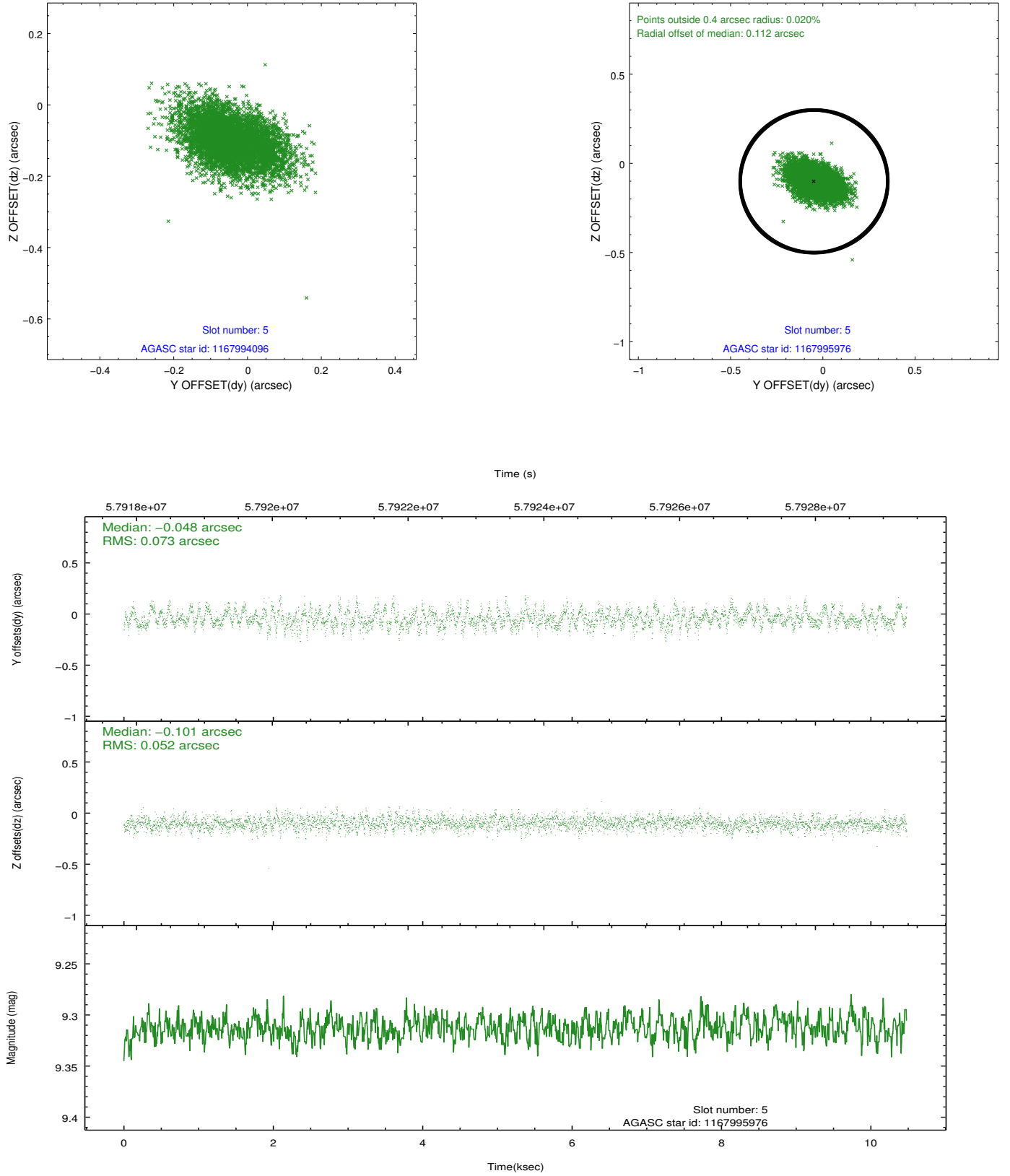
### 2.4.1 Slot 3



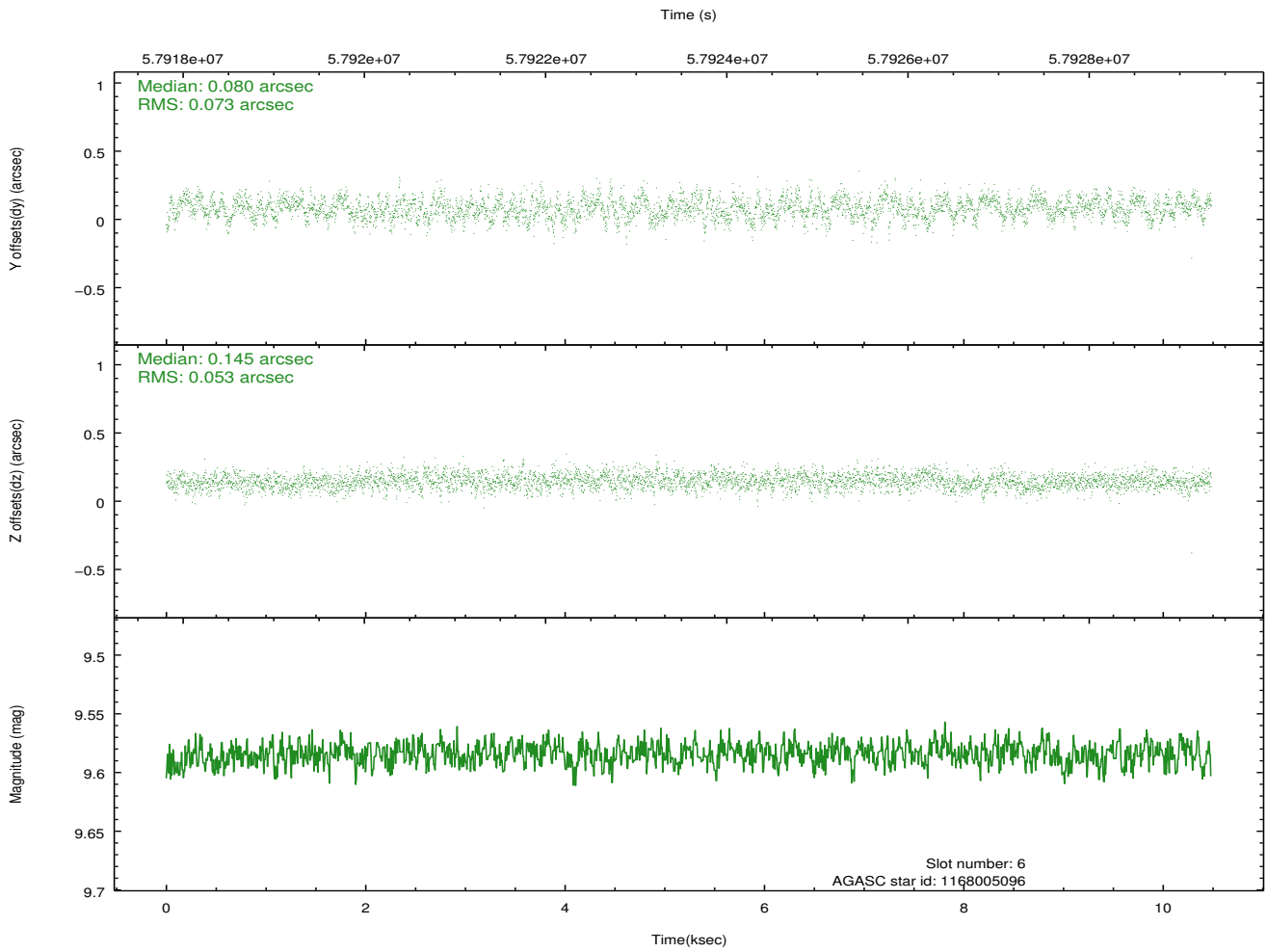
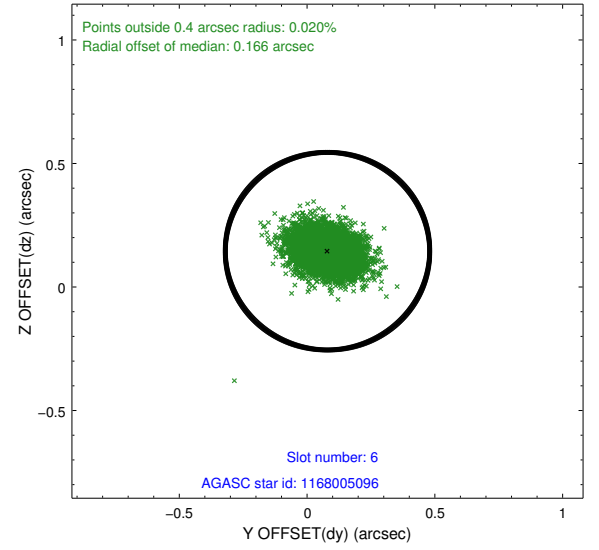
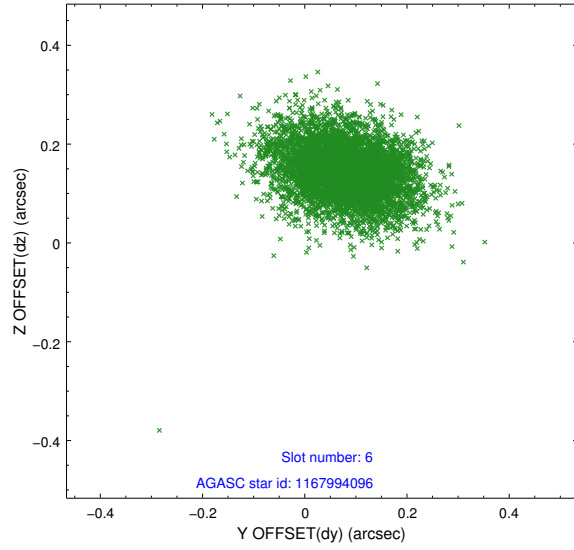
## 2.4.2 Slot 4



## 2.4.3 Slot 5

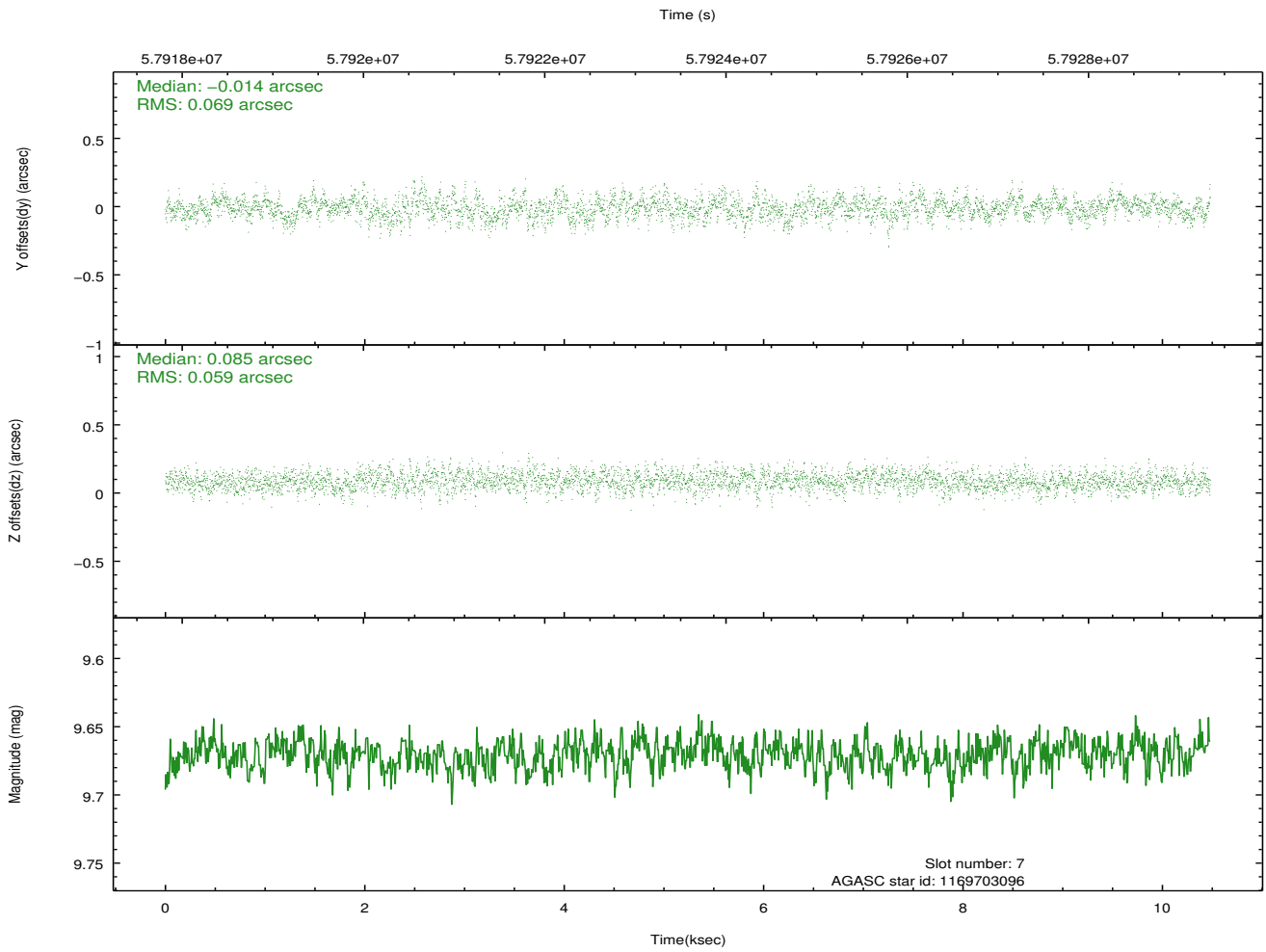
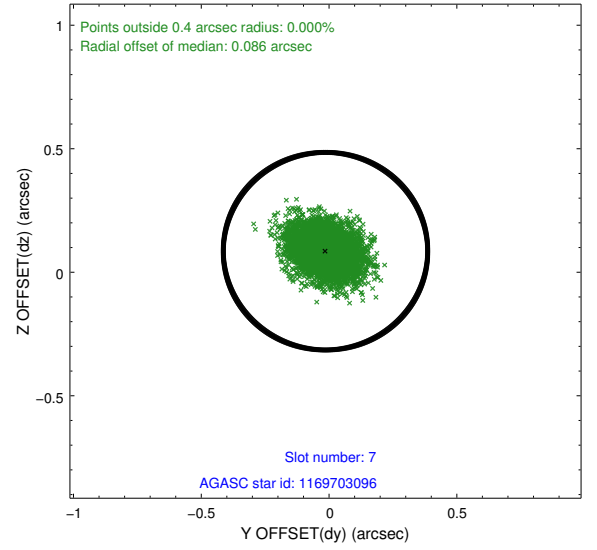
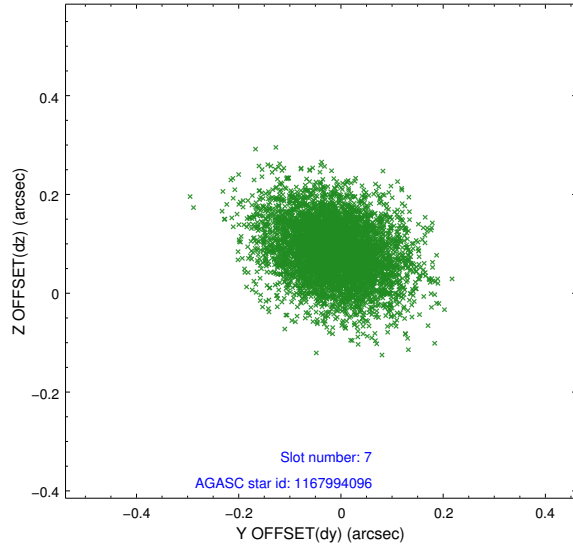


## 2.4.4 Slot 6



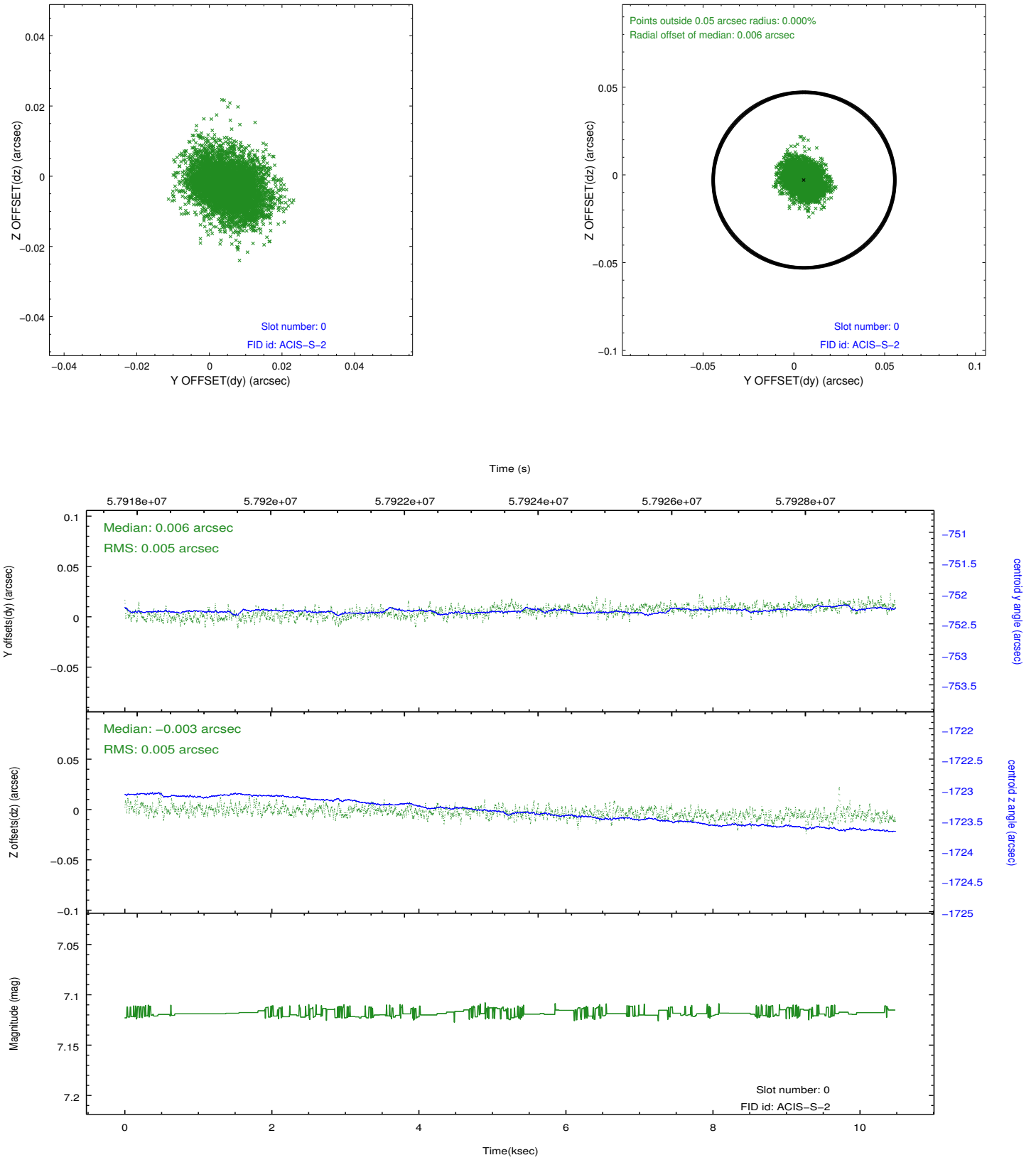


## 2.4.5 Slot 7

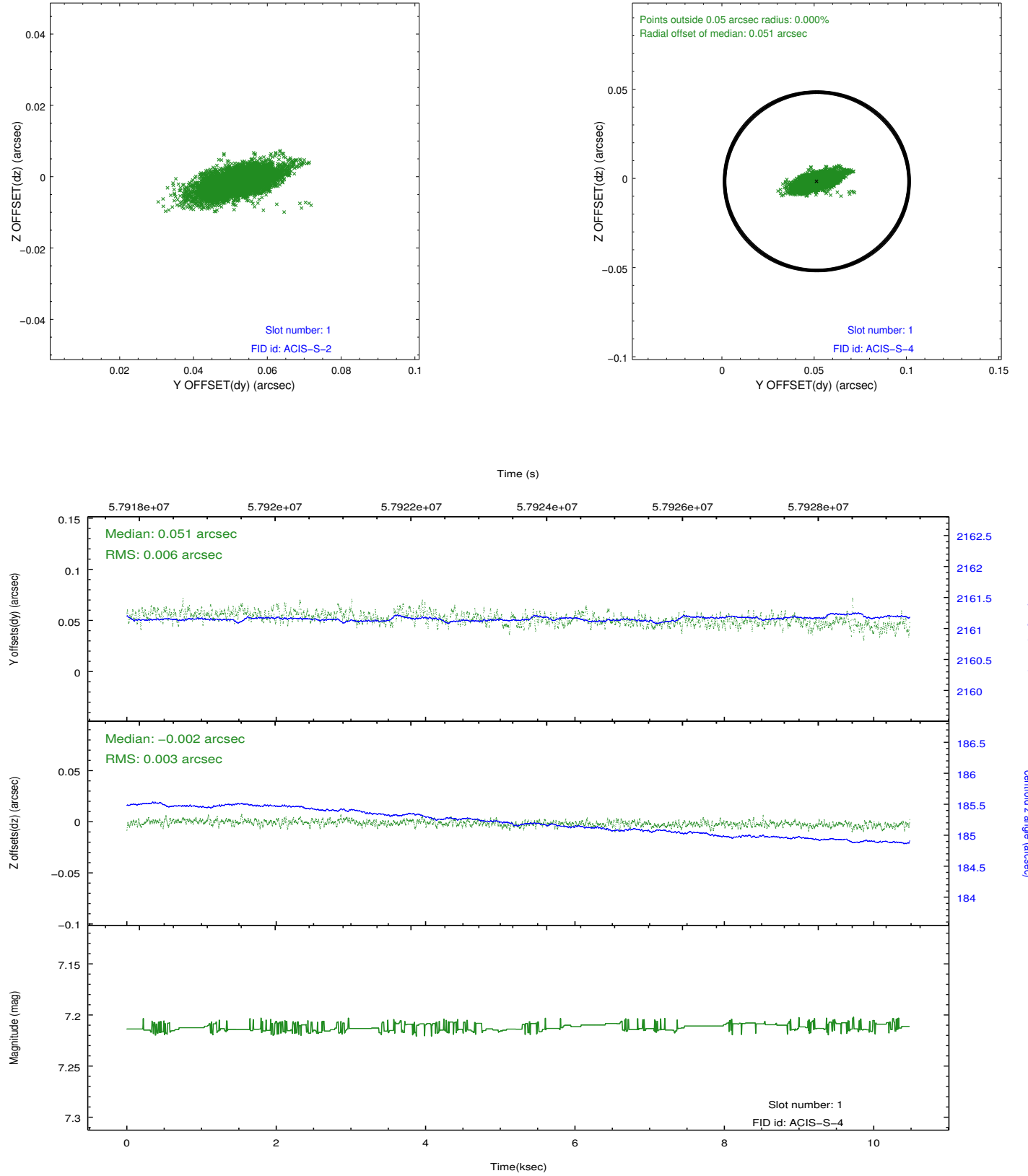


## 2.5 FID Slots

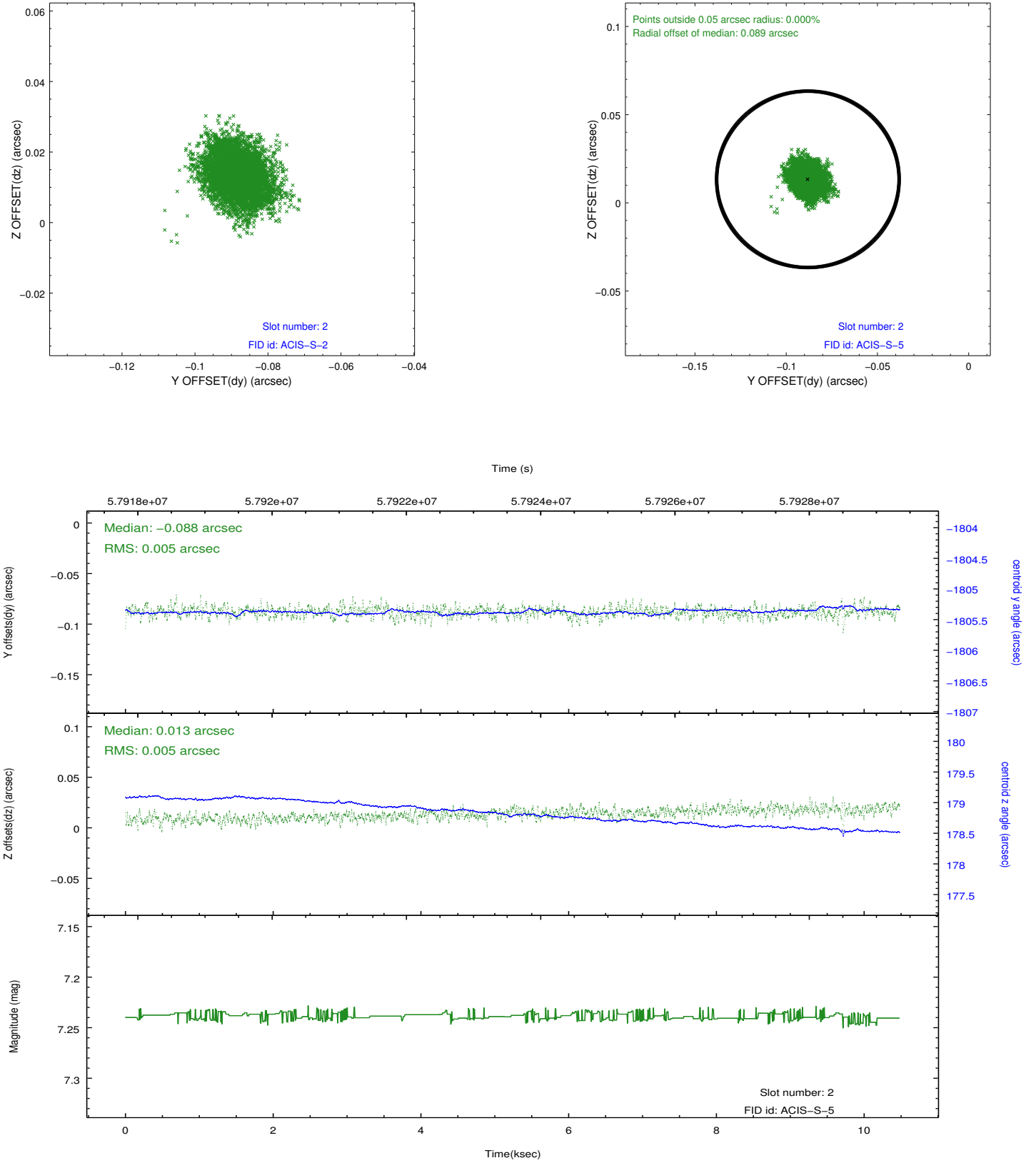
### 2.5.1 Slot 0



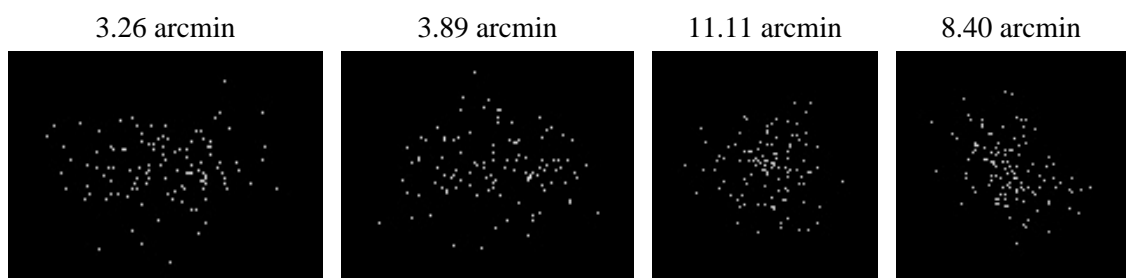
## 2.5.2 Slot 1



## 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.08.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.776

## A.2 Comments

Target is off-axis on chip S2.

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The focal plane temperature is approximately -110 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T\_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.