

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 1435 - L2 Version 4

Chandra X-Ray Center

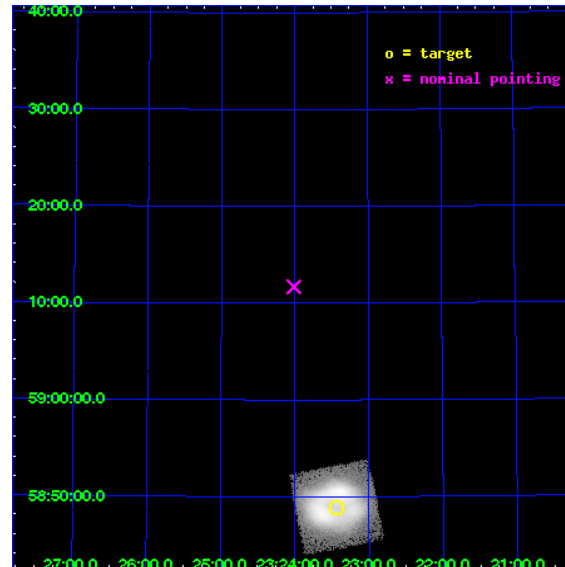
L2 Processing Date : Nov 24 2009

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# 1 Front

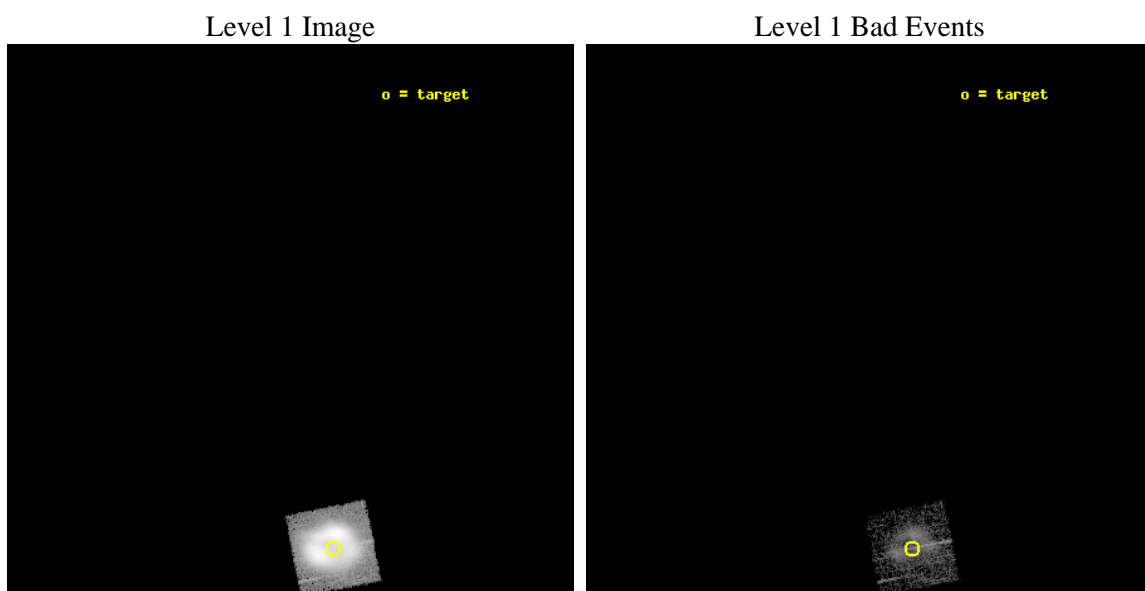
seq_num	580385	Sequence number
obs_id	1435	Observation id
title	ACIS CHIP RESPONSE TO CAS A, JAN. 99	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	CAS A [Chip S0, T=110, Offsets=23,0,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	350.8575	Observer's specified target RA
dec_targ	58.814833	Observer's specified target Dec
ra_nom	351.0028245586	Nominal RA
dec_nom	59.194608635551	Nominal Dec
roll_nom	258.66504158616	Nominal Roll
revision	4	Processing version of data
ontime	1535.9738048241	Sum of GTIs [s]
livetime	1516.524379655	Livetime [s]
ontime4	1535.9738048241	Sum of GTIs [s]
ontime5	1536.0000014305	Sum of GTIs [s]
ontime6	1535.8506848216	Sum of GTIs [s]
ontime7	1536.0000014305	Sum of GTIs [s]
ontime8	1535.9327648208	Sum of GTIs [s]
ontime9	1535.8917248249	Sum of GTIs [s]
l2events	214047	Number of level 2 events



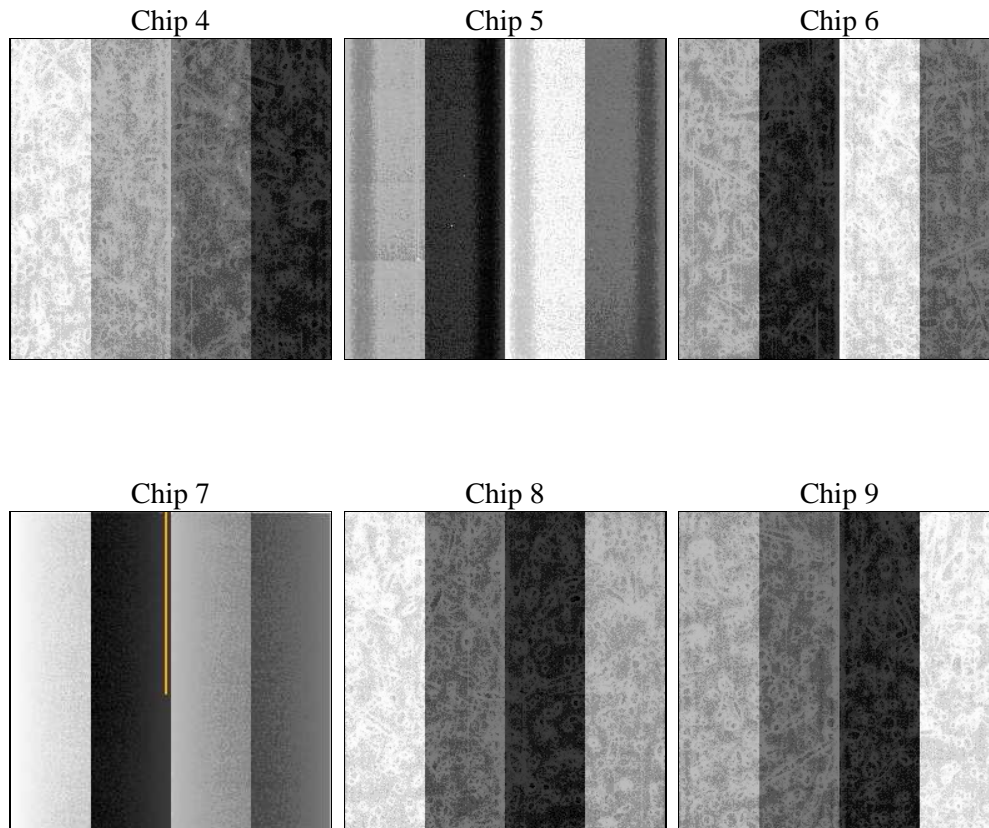
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2500.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	1535.9738048241	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime4	1535.9738048241	Sum of GTIs [s]
date	2009-11-24T12:43:51	Date and time of file creation	ontime5	1536.0000014305	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	1535.8506848216	Sum of GTIs [s]
			ontime7	1536.0000014305	Sum of GTIs [s]
			ontime8	1535.9327648208	Sum of GTIs [s]
			ontime9	1535.8917248249	Sum of GTIs [s]
			l1events	237930	Number of level 1 events

### 2.1.4 Events

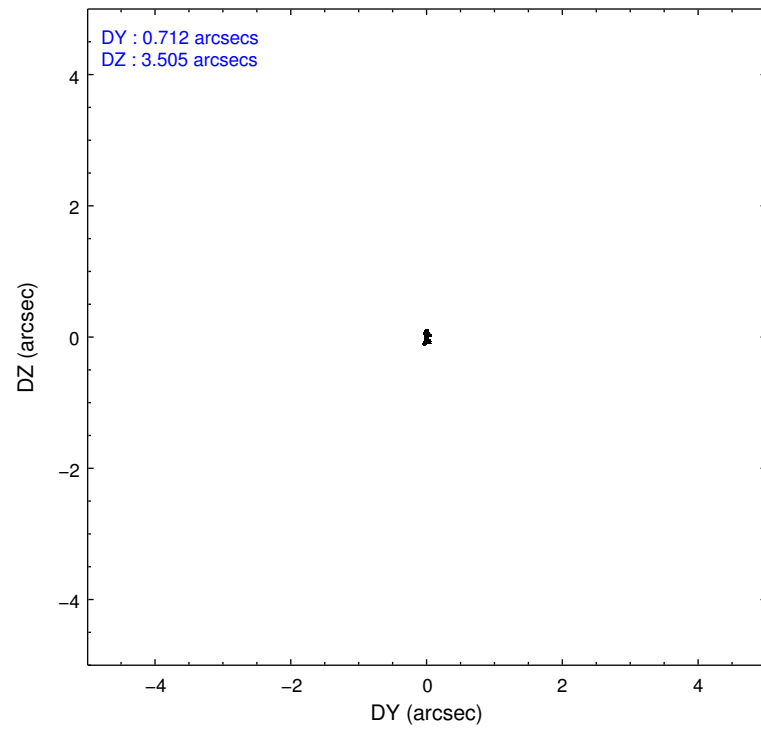
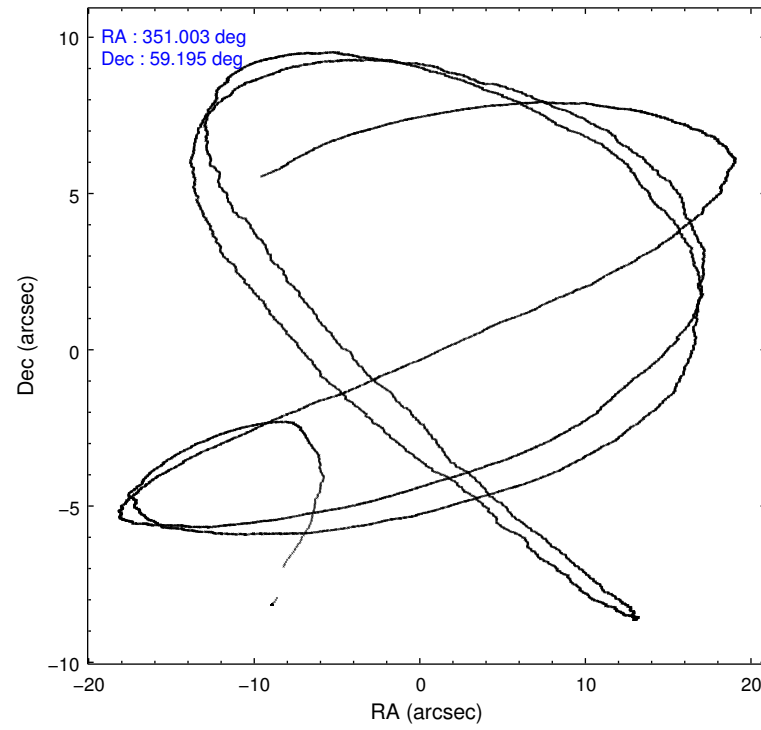
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	237930	0	0	0	0	0
rejected events	22428	0	0	0	0	0
rejected %	9%	0%	0%	0%	0%	0%

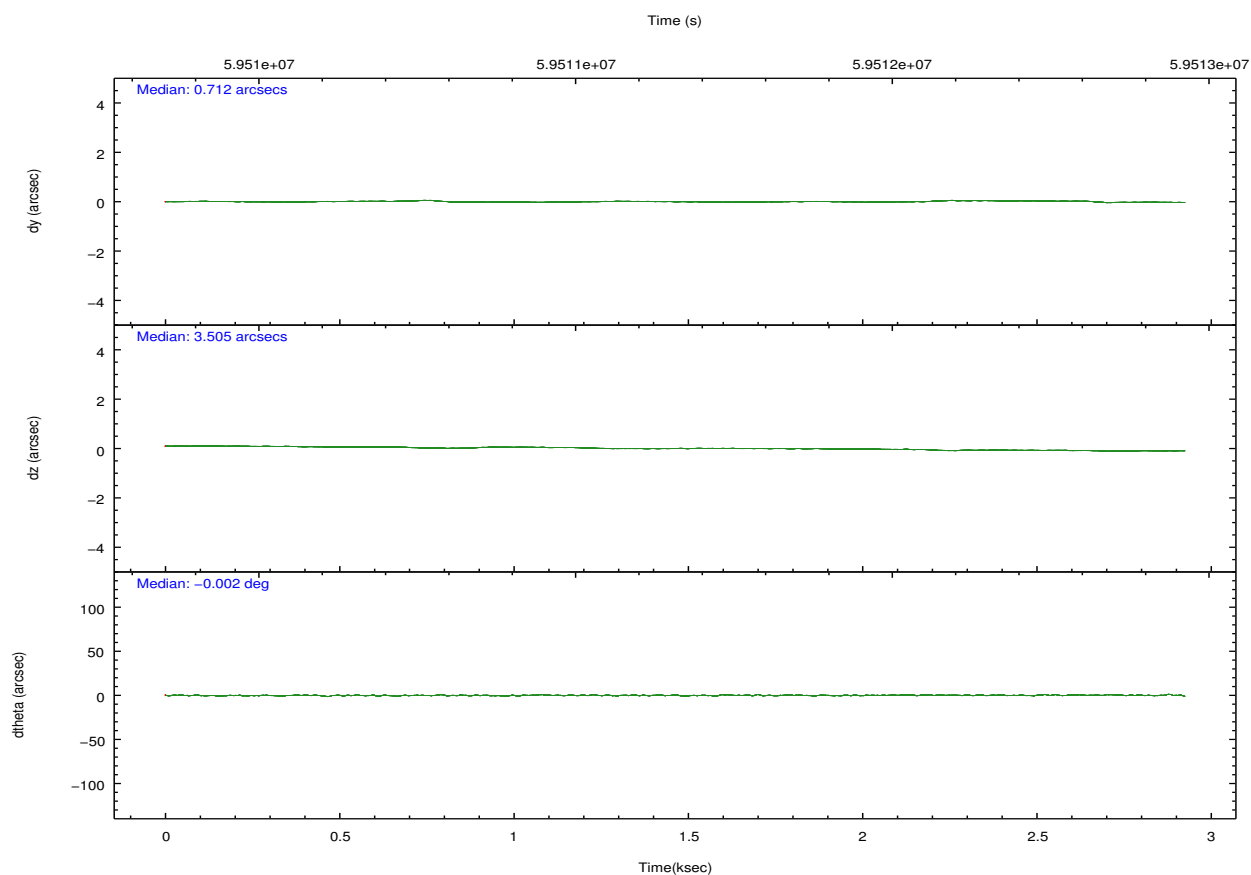
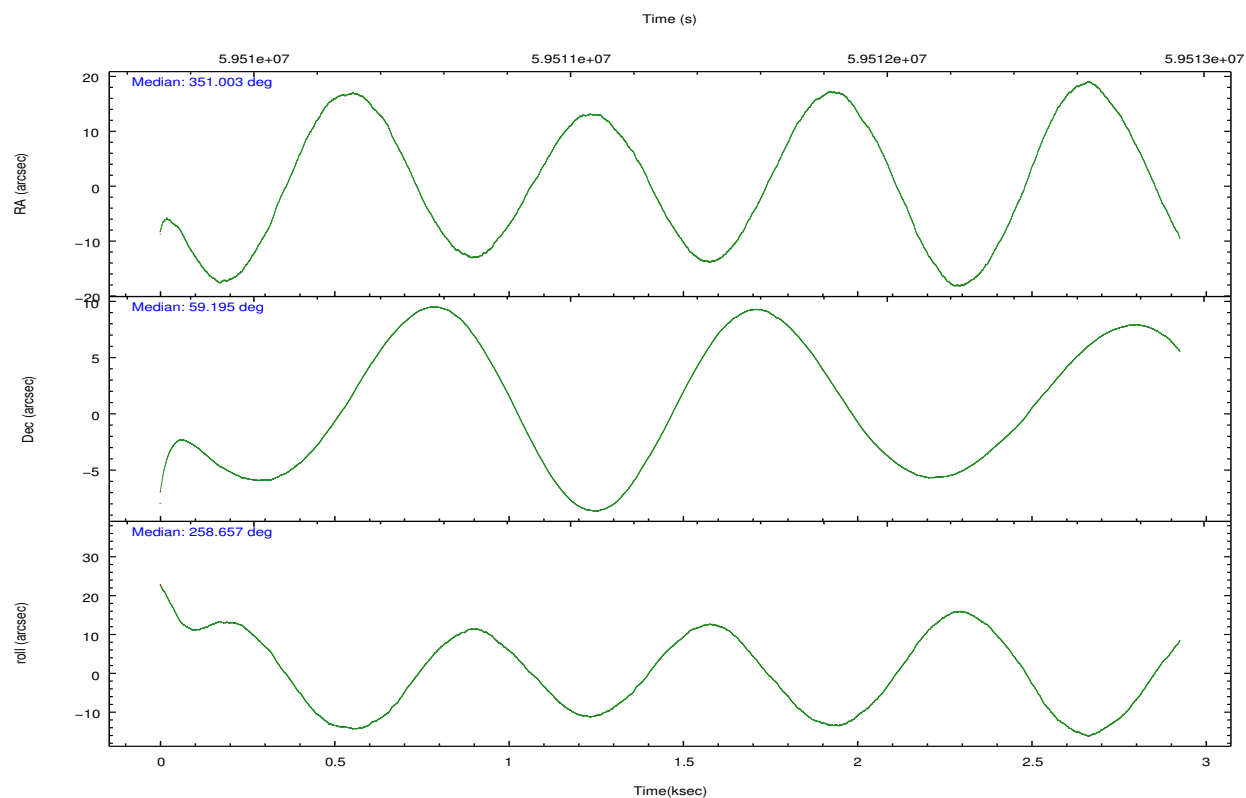
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	109529	0	0	0	0	0
	46%	0%	0%	0%	0%	0%
grade 1 events	772	0	0	0	0	0
	0%	0%	0%	0%	0%	0%
grade 2 events	91366	0	0	0	0	0
	38%	0%	0%	0%	0%	0%
grade 3 events	3827	0	0	0	0	0
	1%	0%	0%	0%	0%	0%
grade 4 events	3877	0	0	0	0	0
	1%	0%	0%	0%	0%	0%
grade 5 events	1790	0	0	0	0	0
	0%	0%	0%	0%	0%	0%
grade 6 events	7342	0	0	0	0	0
	3%	0%	0%	0%	0%	0%
grade 7 events	19427	0	0	0	0	0
	8%	0%	0%	0%	0%	0%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	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	350.985788	351.0028245586047	Subarray requested	NONE	NONE
Pointing Dec	59.220798	59.19460863555064	Alternating exposures requested	N	N
Pointing Roll	258.522978	258.6650415861573	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	59510277.184000	59508776.956431			
Observation start date	1999-11-20T18:36:53	1999-11-20T18:12:56			
Observation end time	59512777.184000	59512911.29408			
Observation end date	1999-11-20T19:18:33	1999-11-20T19:21:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect





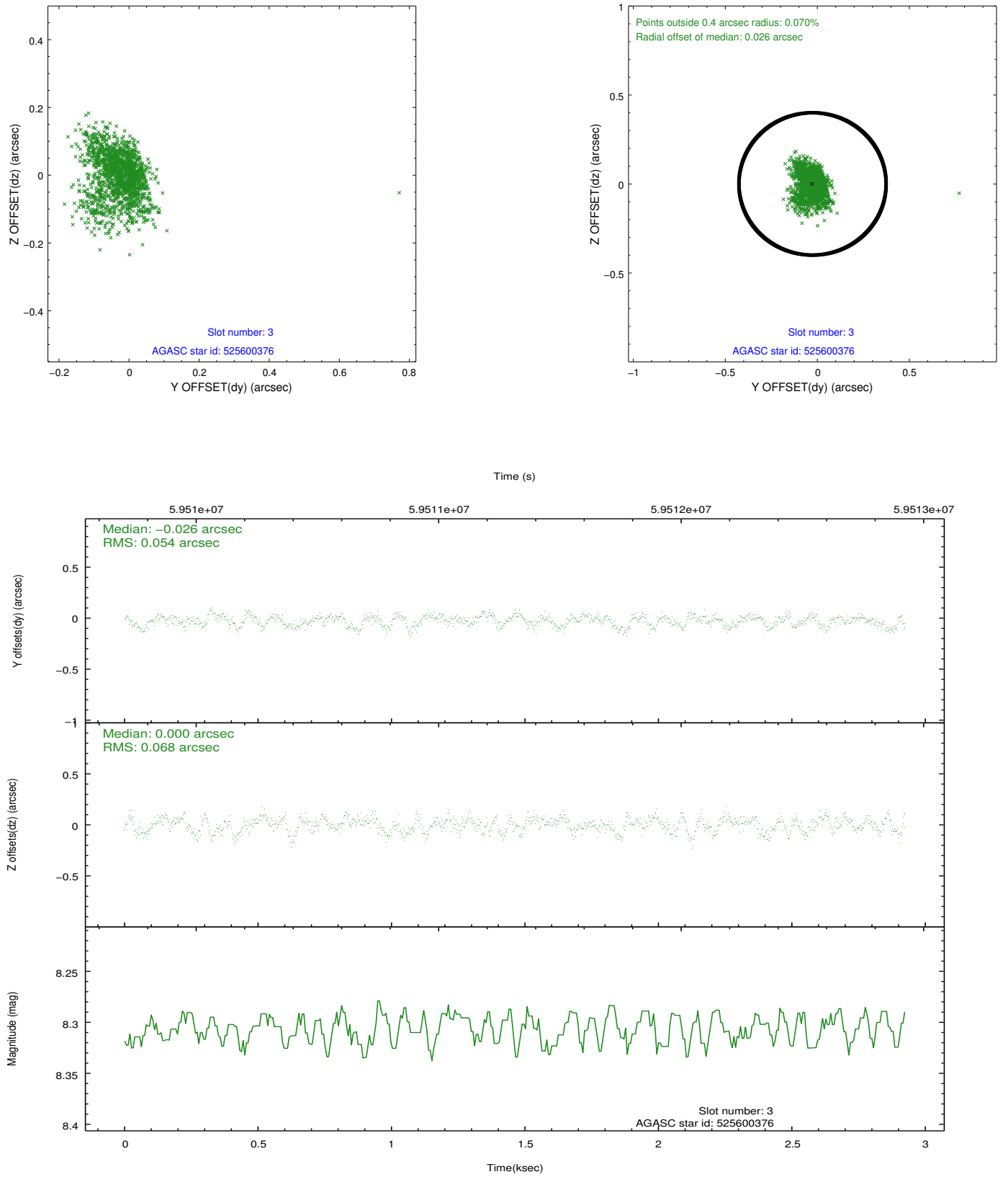
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	1428	0.008	-0.005	0.006	0.011	0.000000	0.000000	-753.35	-1724.55
1	FID	ACIS-S-4	7.21	1428	0.009	-0.002	0.006	0.012	0.000000	0.000000	2159.54	182.78
2	FID	ACIS-S-5	7.24	1428	-0.047	0.016	0.006	0.011	0.000000	0.000000	-1804.87	177.77
3	GUIDE	525600376	8.31	1428	-0.026	0.000	0.088	0.149	349.956653	59.633357	-1096.26	-2133.83
4	GUIDE	525734416	8.61	1428	-0.077	-0.099	0.084	0.142	352.356007	59.408714	-1188.38	2318.69
5	GUIDE	525731480	9.51	1428	0.056	0.077	0.089	0.145	351.647209	58.687294	1629.56	1595.82
6	GUIDE	525601208	9.21	1428	-0.074	0.055	0.088	0.155	349.910779	59.483724	-550.25	-2115.99
7	GUIDE	525739944	9.70	1426	0.121	-0.027	0.102	0.169	351.115137	58.944976	925.31	431.75

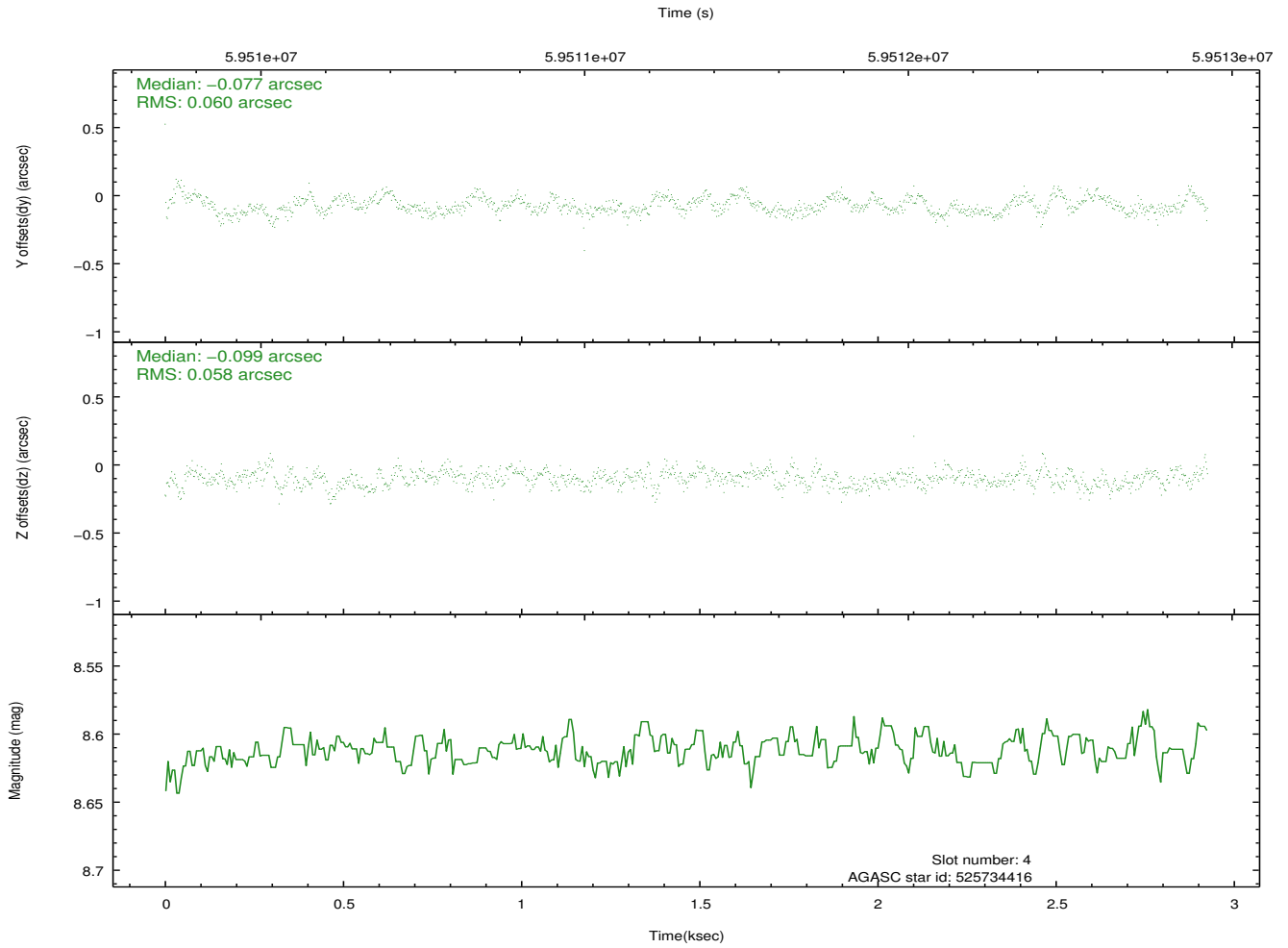
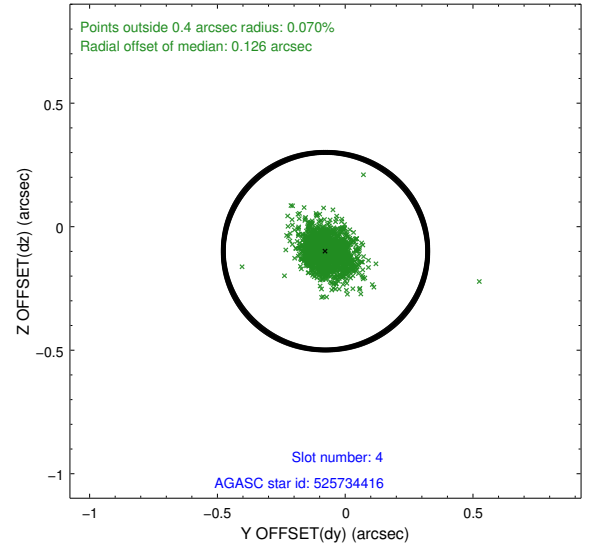
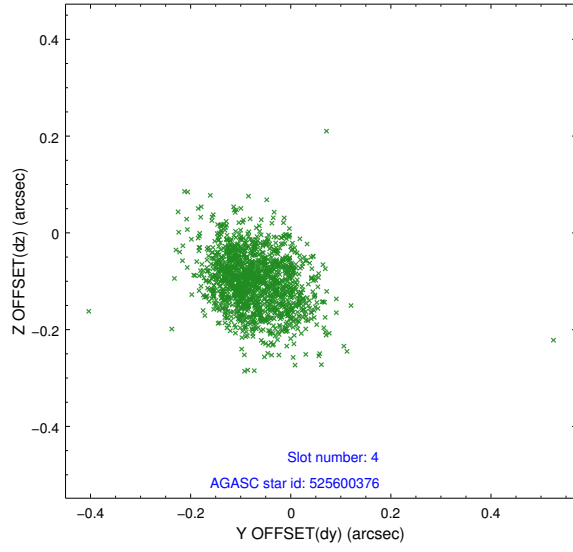


## 2.4 Star Slots

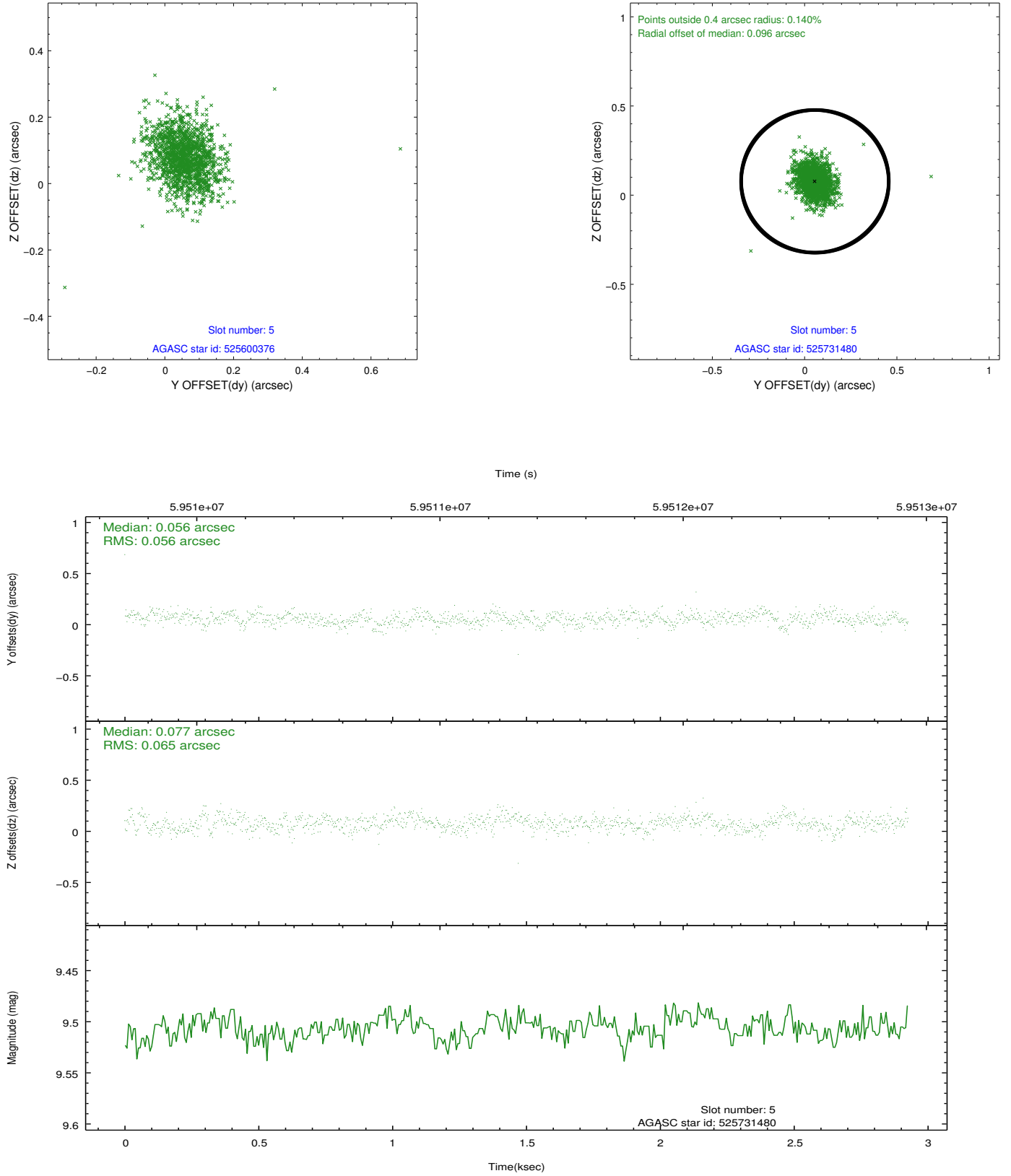
### 2.4.1 Slot 3



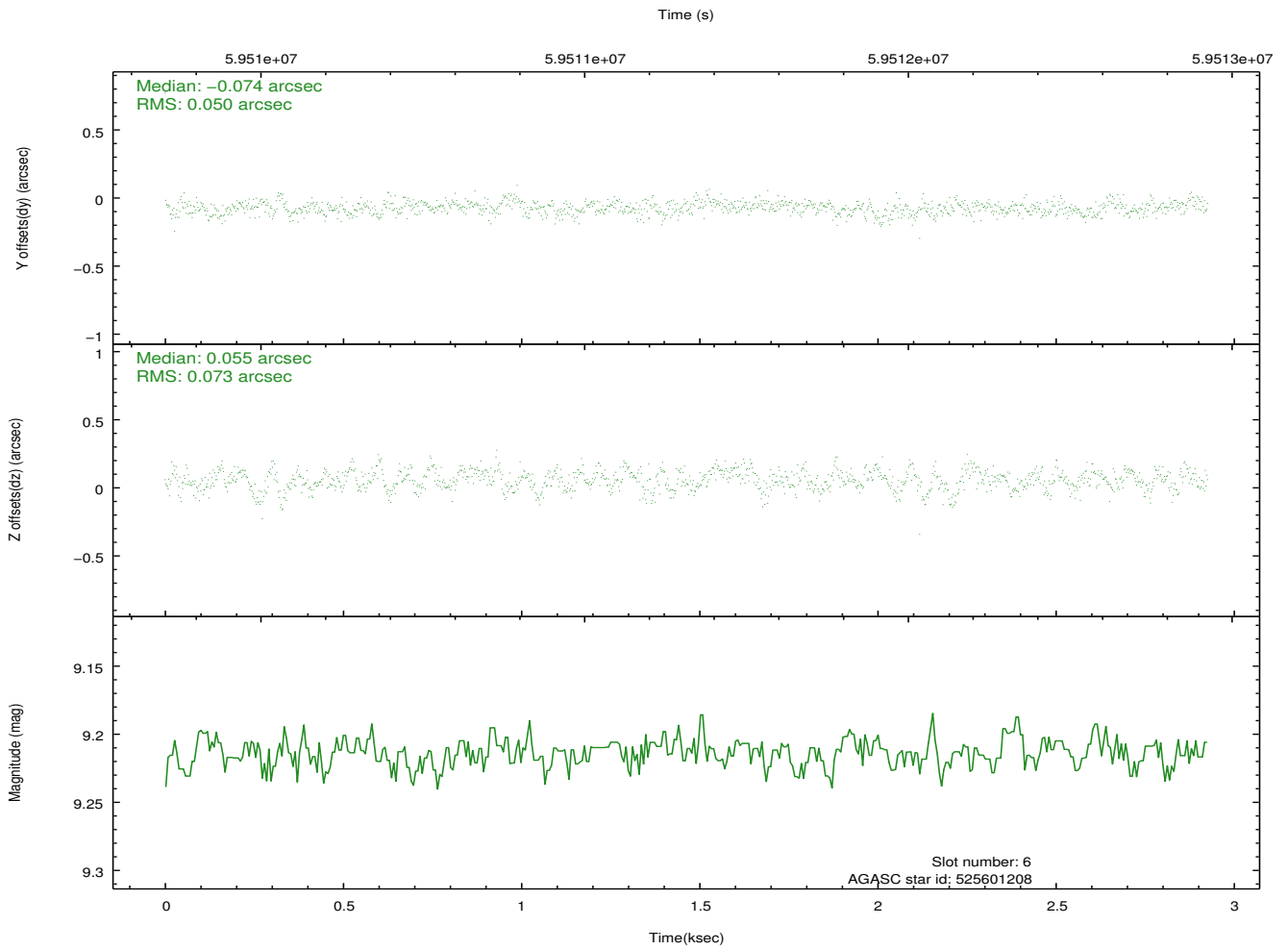
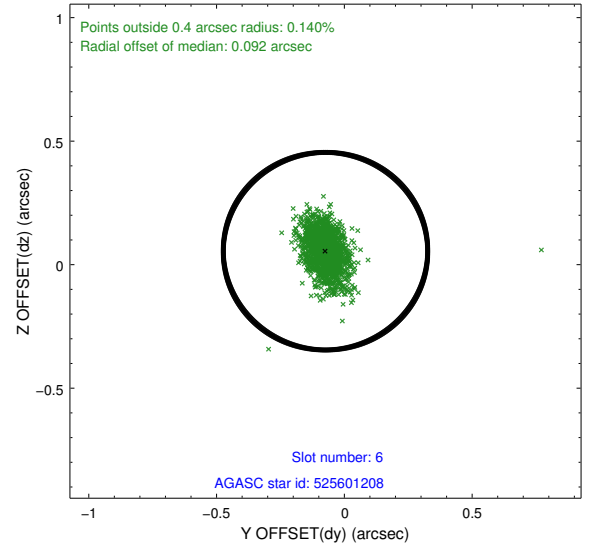
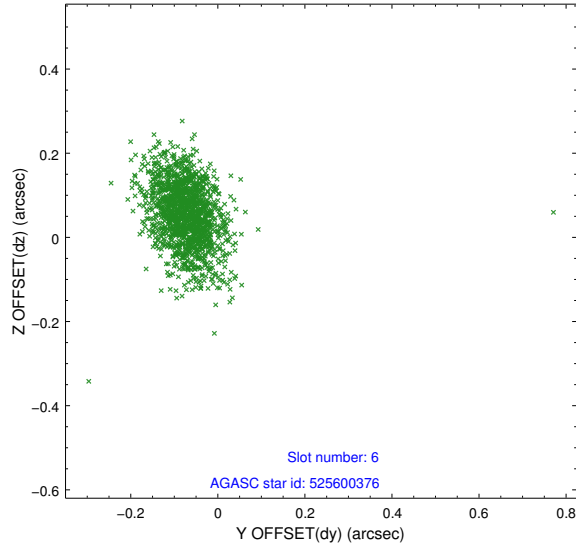
## 2.4.2 Slot 4



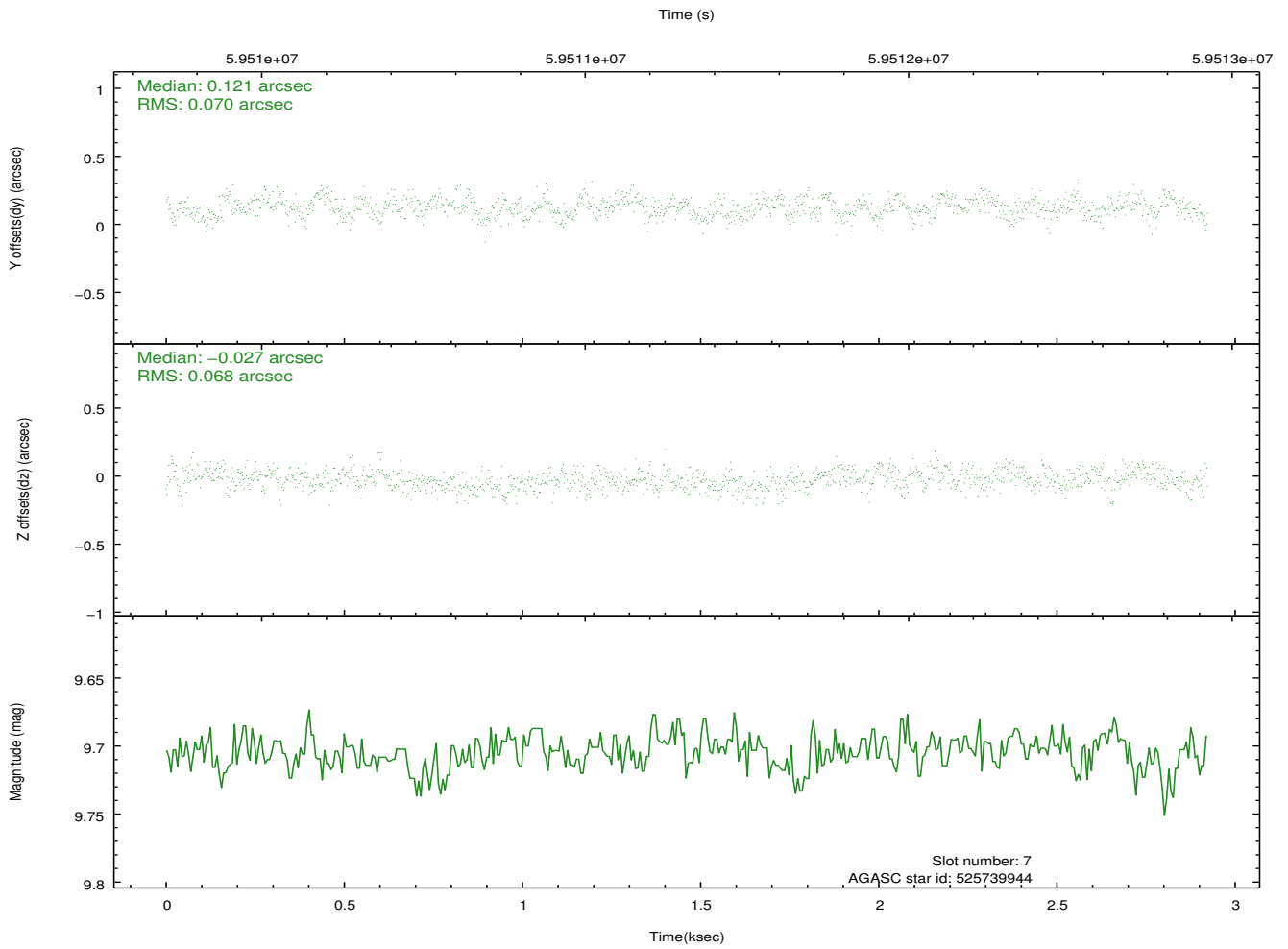
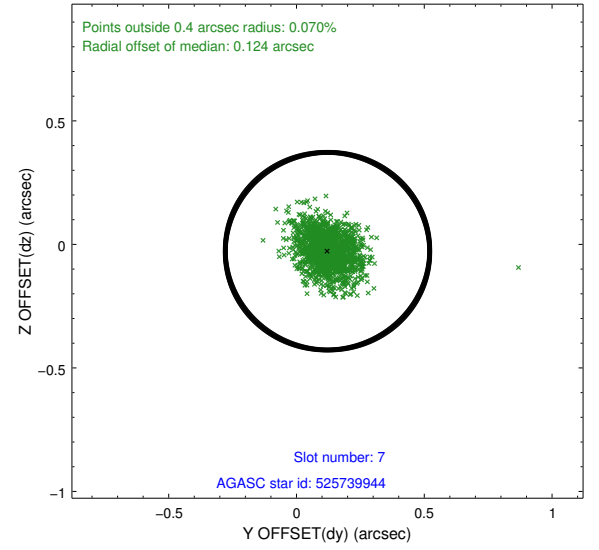
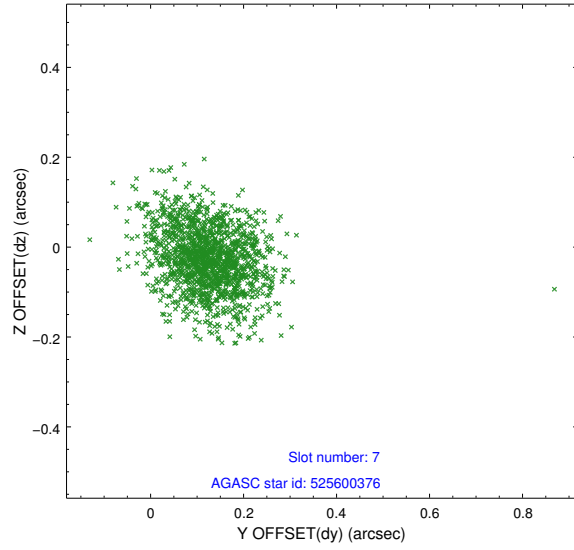
### 2.4.3 Slot 5



## 2.4.4 Slot 6

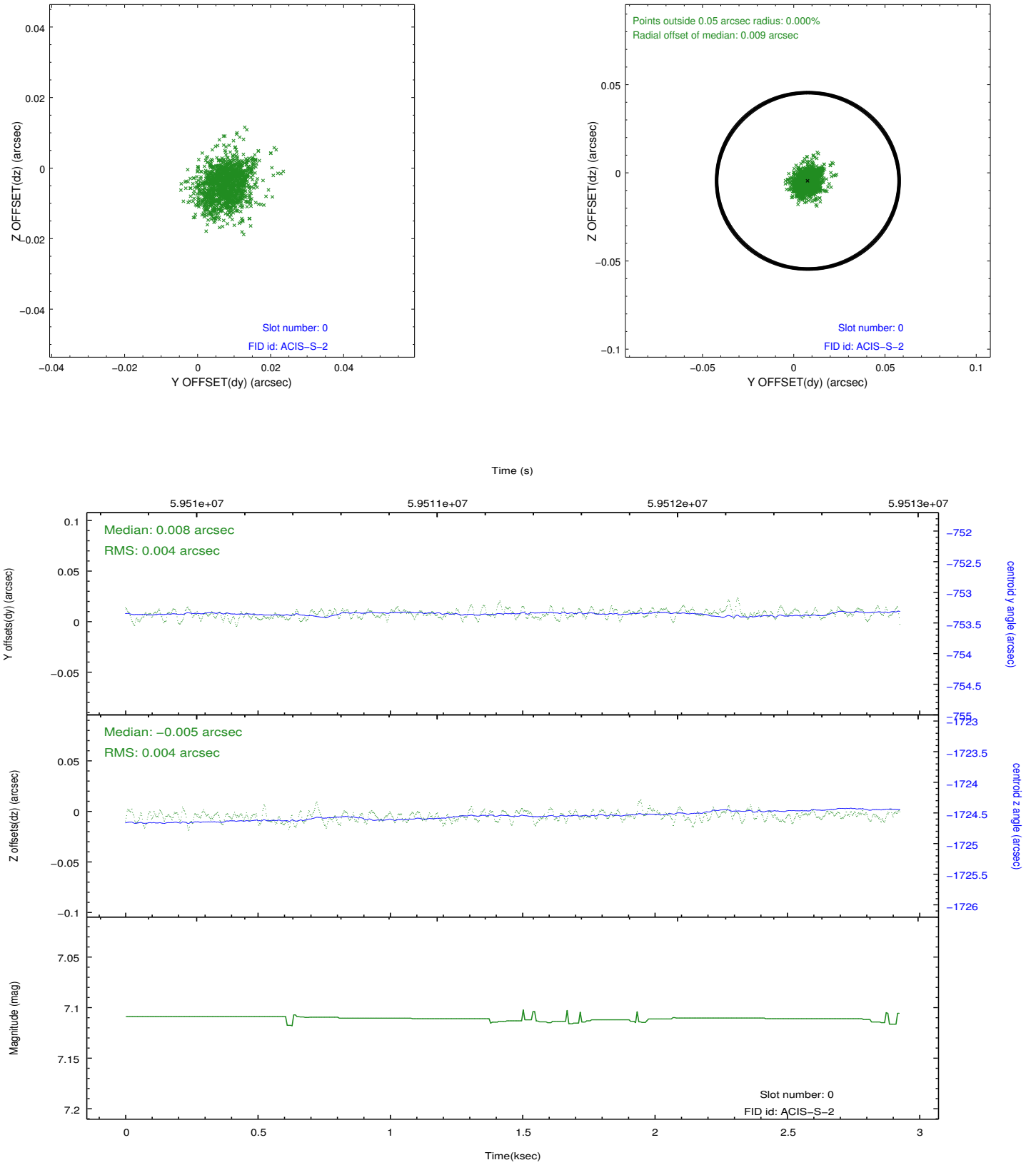


## 2.4.5 Slot 7

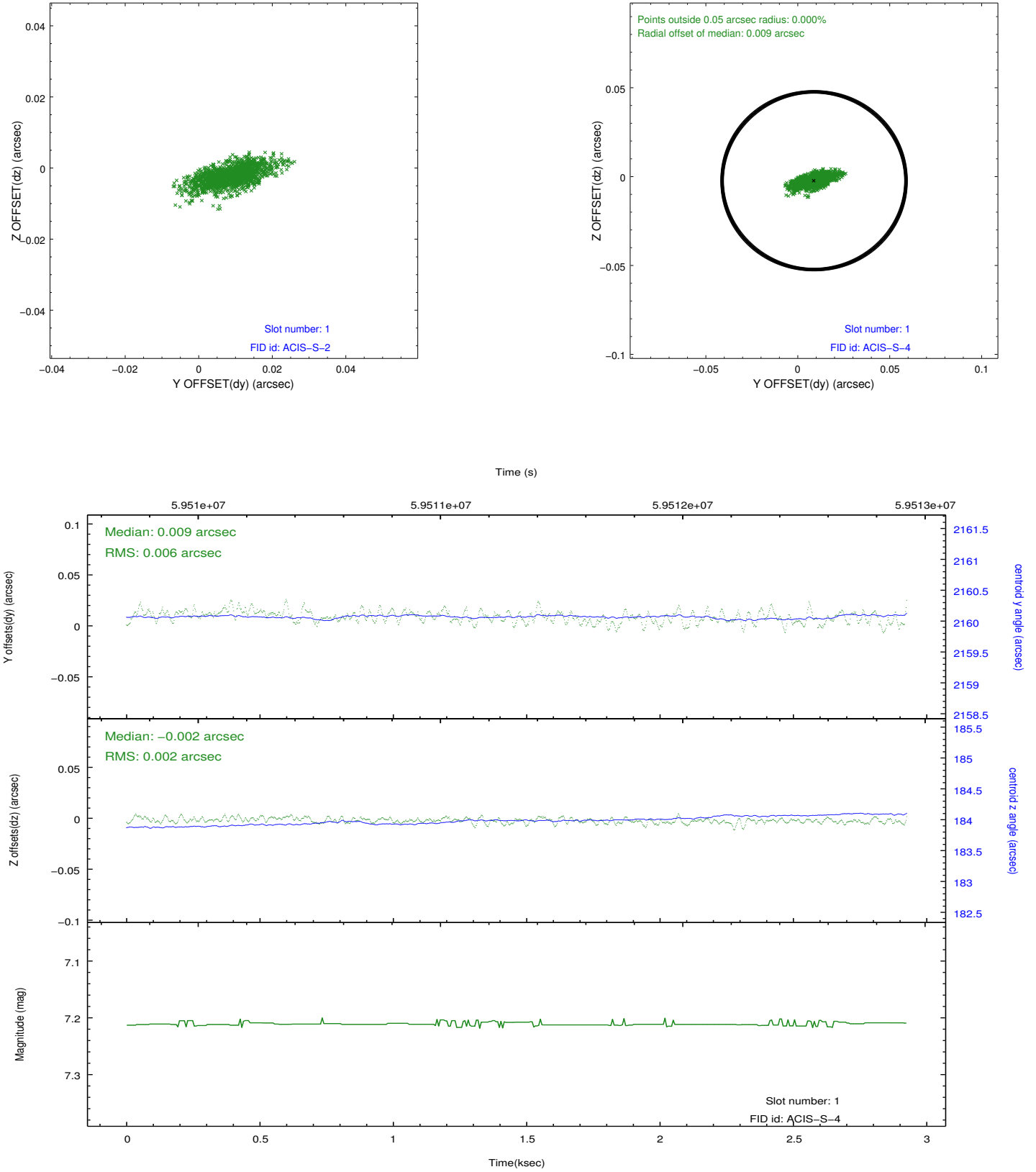


## 2.5 FID Slots

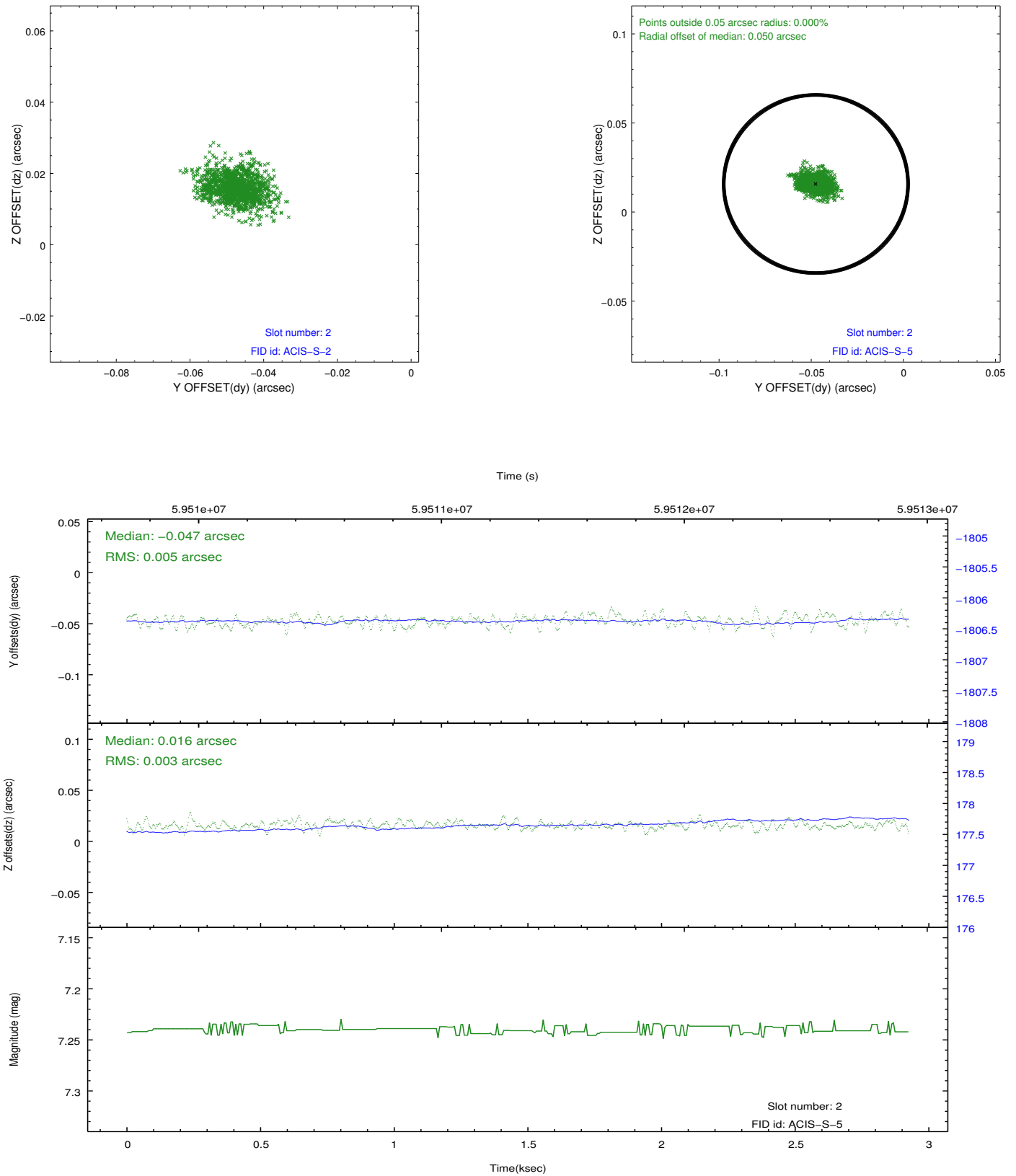
### 2.5.1 Slot 0



## 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)	2010.03.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.539

## A.2 Comments

ACIS response to Cas A on chip S0. Only S0 chip read out.

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Charge time for this ObsId remains at previous value of 1.539 ksec, although with the current processing the charge time would have been 1.535 ksec.

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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.