

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1547 - L2 Version 3  
Chandra X-Ray Center

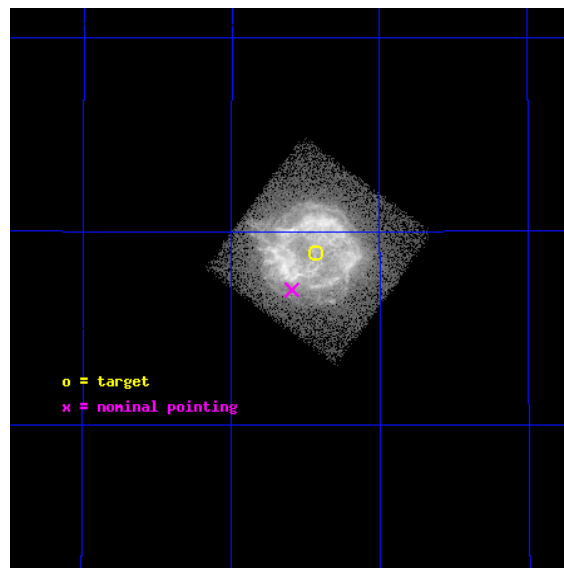
L2 Processing Date : Sep 6 2012

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# 1 Front

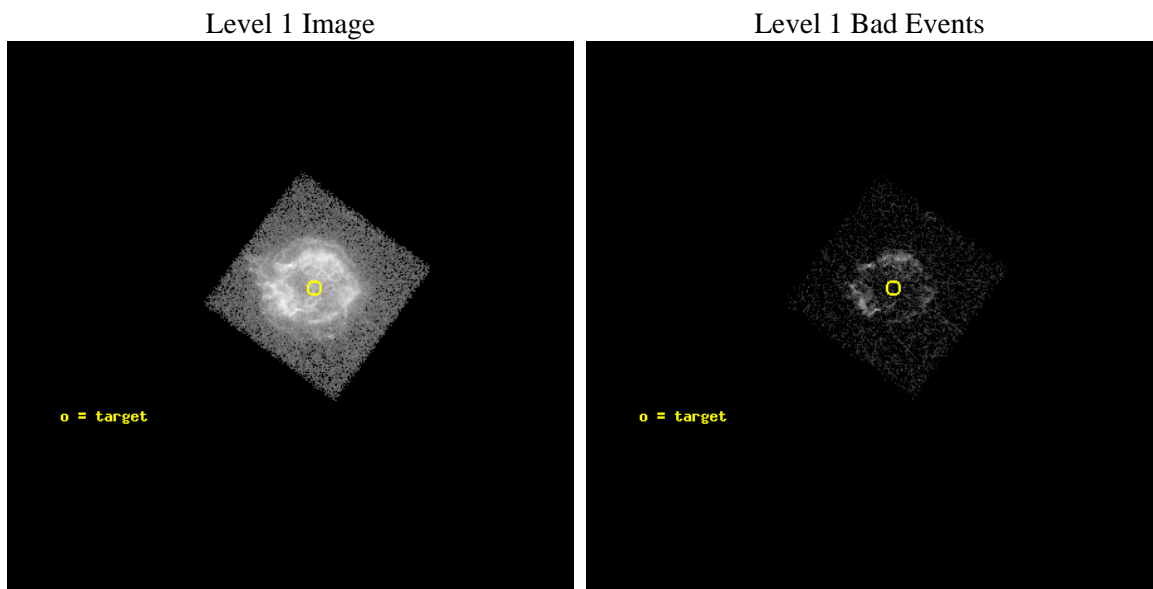
seq_num	590156	Sequence number
obs_id	1547	Observation id
title	CALIBRATION OBSERVATIONS OF THE STANDARD CANDLE CAS A	Proposal tit
observer	Dr. CXC Calibration	Principal investigator
object	CAS A [Chip S3, T=120, Offsets=-2,0,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	350.8575	Observer's specified target RA [deg]
dec_targ	58.814833	Observer's specified target Dec [deg]
ra_nom	350.89821620616	Nominal RA [deg]
dec_nom	58.783455836042	Nominal Dec [deg]
roll_nom	306.42247155757	Nominal Roll [deg]
revision	3	Processing version of data
ontime	1077.1042778045	Sum of GTIs [s]
livetime	1063.4653348846	Livetime [s]
ontime4	1939.2000017911	Sum of GTIs [s]
ontime5	1939.2000017911	Sum of GTIs [s]
ontime6	1939.2000017911	Sum of GTIs [s]
ontime7	1077.1042778045	Sum of GTIs [s]
ontime8	1939.2000017911	Sum of GTIs [s]
ontime9	1939.2000017911	Sum of GTIs [s]
l2events	337175	Number of level 2 events



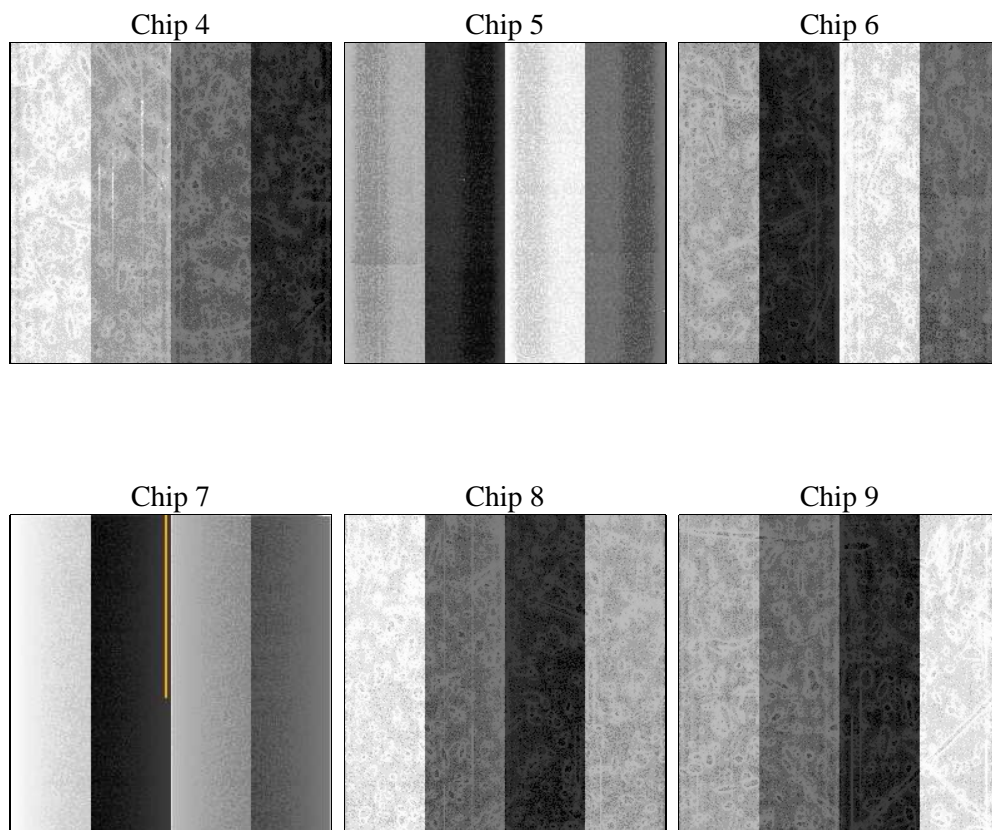
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	1077.1042778045	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime4	1939.2000017911	Sum of GTIs [s]
date	2012-09-06T09:28:38	Date and time of file creation	ontime5	1939.2000017911	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	1939.2000017911	Sum of GTIs [s]
			ontime7	1077.1042778045	Sum of GTIs [s]
			ontime8	1939.2000017911	Sum of GTIs [s]
			ontime9	1939.2000017911	Sum of GTIs [s]
			l1events	375475	Number of level 1 events

### 2.1.4 Events

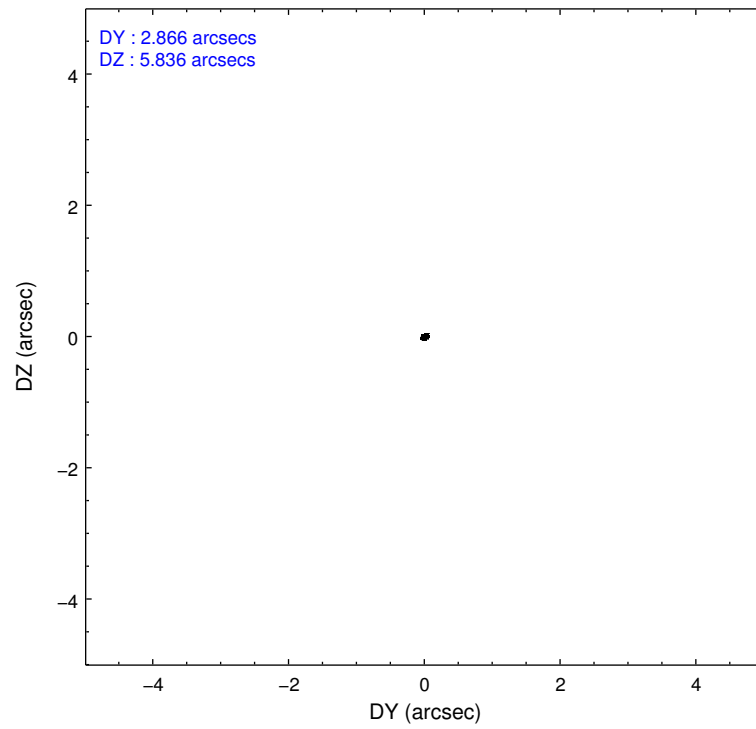
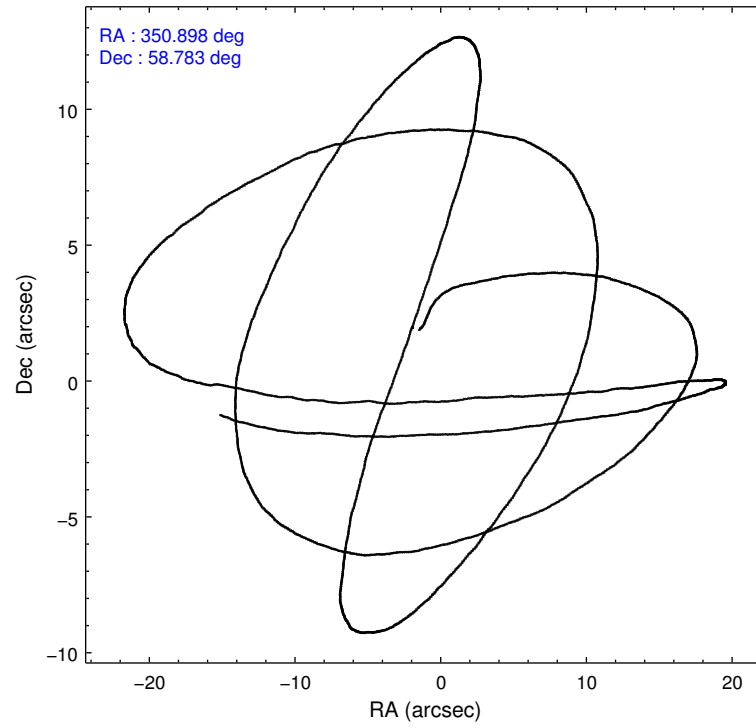
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	0	0	0	375475	0	0
rejected events	0	0	0	35283	0	0
rejected %	0%	0%	0%	9%	0%	0%

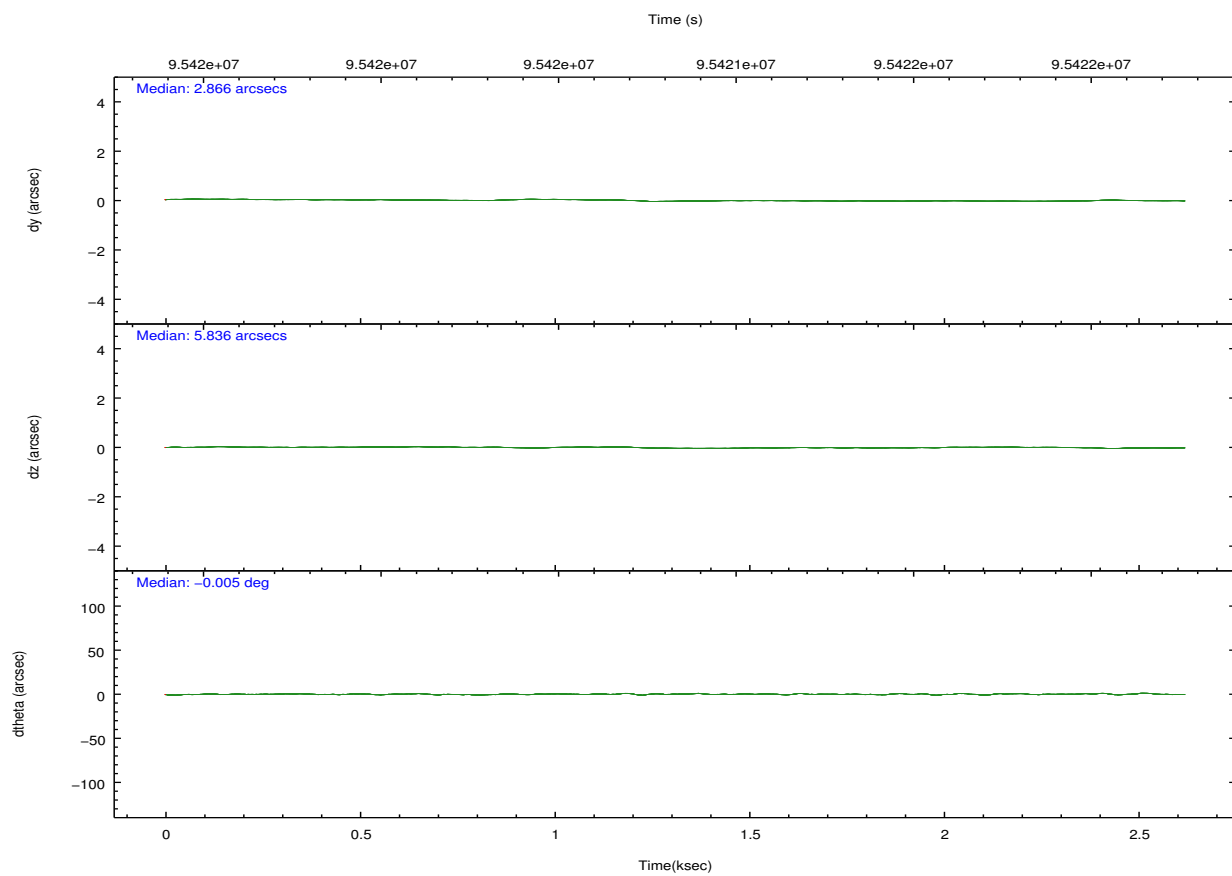
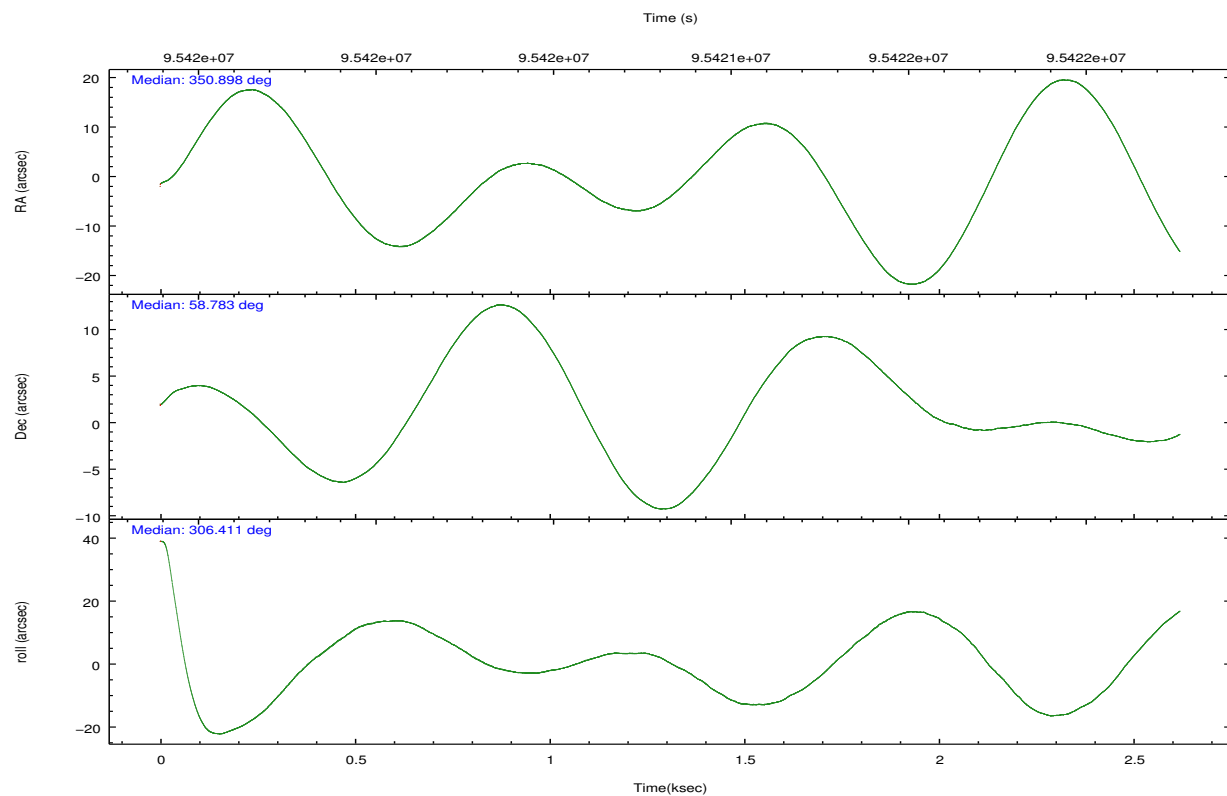
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	0	0	0	87120	0	0
	0%	0%	0%	23%	0%	0%
grade 1 events	0	0	0	2002	0	0
	0%	0%	0%	0%	0%	0%
grade 2 events	0	0	0	91304	0	0
	0%	0%	0%	24%	0%	0%
grade 3 events	0	0	0	40411	0	0
	0%	0%	0%	10%	0%	0%
grade 4 events	0	0	0	40115	0	0
	0%	0%	0%	10%	0%	0%
grade 5 events	0	0	0	6948	0	0
	0%	0%	0%	1%	0%	0%
grade 6 events	0	0	0	83301	0	0
	0%	0%	0%	22%	0%	0%
grade 7 events	0	0	0	24274	0	0
	0%	0%	0%	6%	0%	0%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	350.849118	350.8982162061619	CCD I2 on	Y	N
[deg] Pointing Dec	58.794269	58.78345583604169	CCD I3 on	Y	N
[deg] Pointing Roll	306.307593	306.4224715575693	CCD S0 on	N	Y
[s] Window start time (MET)	94694464.184000	94694464.184000	CCD S1 on	Y	Y
[s] Window stop time (MET)	97286464.184000	97286464.184000	CCD S2 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S5 on	N	Y
[mm] SIM translation stage offset	0	0.01005778216563158	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	95420137.184000	95418965.56655	On-chip summing requested	N	N
Observation start date	2001-01-09T09:34:33	2001-01-09T09:16:05	Subarray requested	NONE	NONE
[s] Observation end time (MET)	95422137.184000	95422809.316697	Alternating exposures requested	N	N
Observation end date	2001-01-09T10:07:53	2001-01-09T10:20:09	[s] Primary exposure time	0.000000	3.2
Read mode	TIMED	TIMED			

## 2.3 Aspect





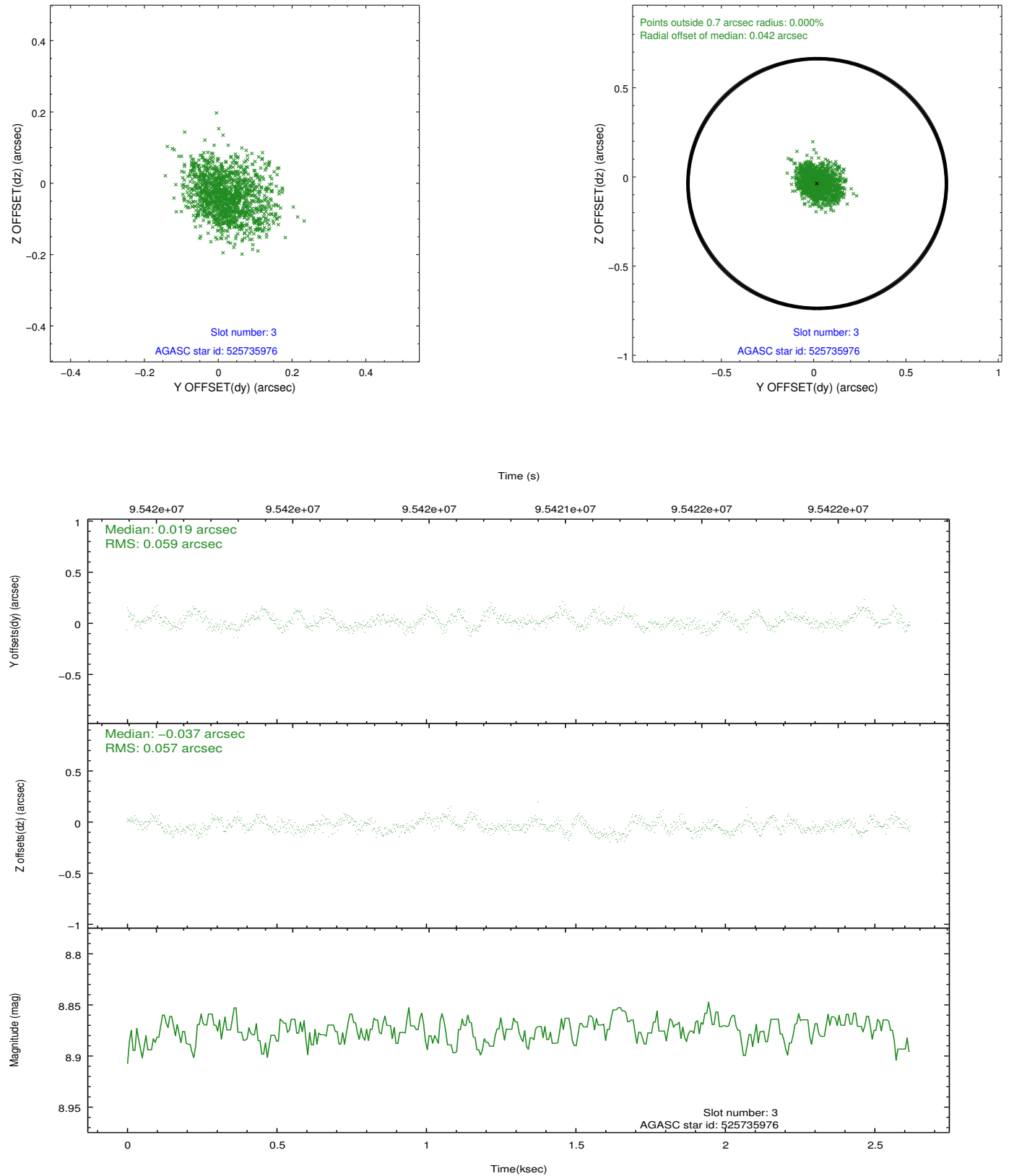
### Slot Statistics

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	640	-0.032	0.010	0.007	0.011	0.000000	0.000000	-755.52	-1726.91
1	FID	ACIS-S-4	7.21	640	-0.021	0.013	0.005	0.009	0.000000	0.000000	2156.63	179.08
2	FID	ACIS-S-5	7.23	640	0.021	-0.014	0.006	0.010	0.000000	0.000000	-1805.17	175.46
3	GUIDE	525735976	8.87	1279	0.019	-0.037	0.087	0.141	350.142956	58.277622	702.06	-2174.70
4	GUIDE	525736400	9.05	1279	0.037	0.040	0.125	0.201	350.974563	59.175145	-967.86	996.14
5	GUIDE	525609504	9.06	1276	-0.017	0.039	0.093	0.144	349.896632	58.356658	193.68	-2374.55
6	GUIDE	525732528	9.39	1279	-0.025	-0.075	0.112	0.178	351.607241	59.298932	-645.83	2200.77
7	GUIDE	525737208	9.38	1278	-0.008	0.033	0.107	0.167	351.154109	59.407897	-1451.37	1760.06

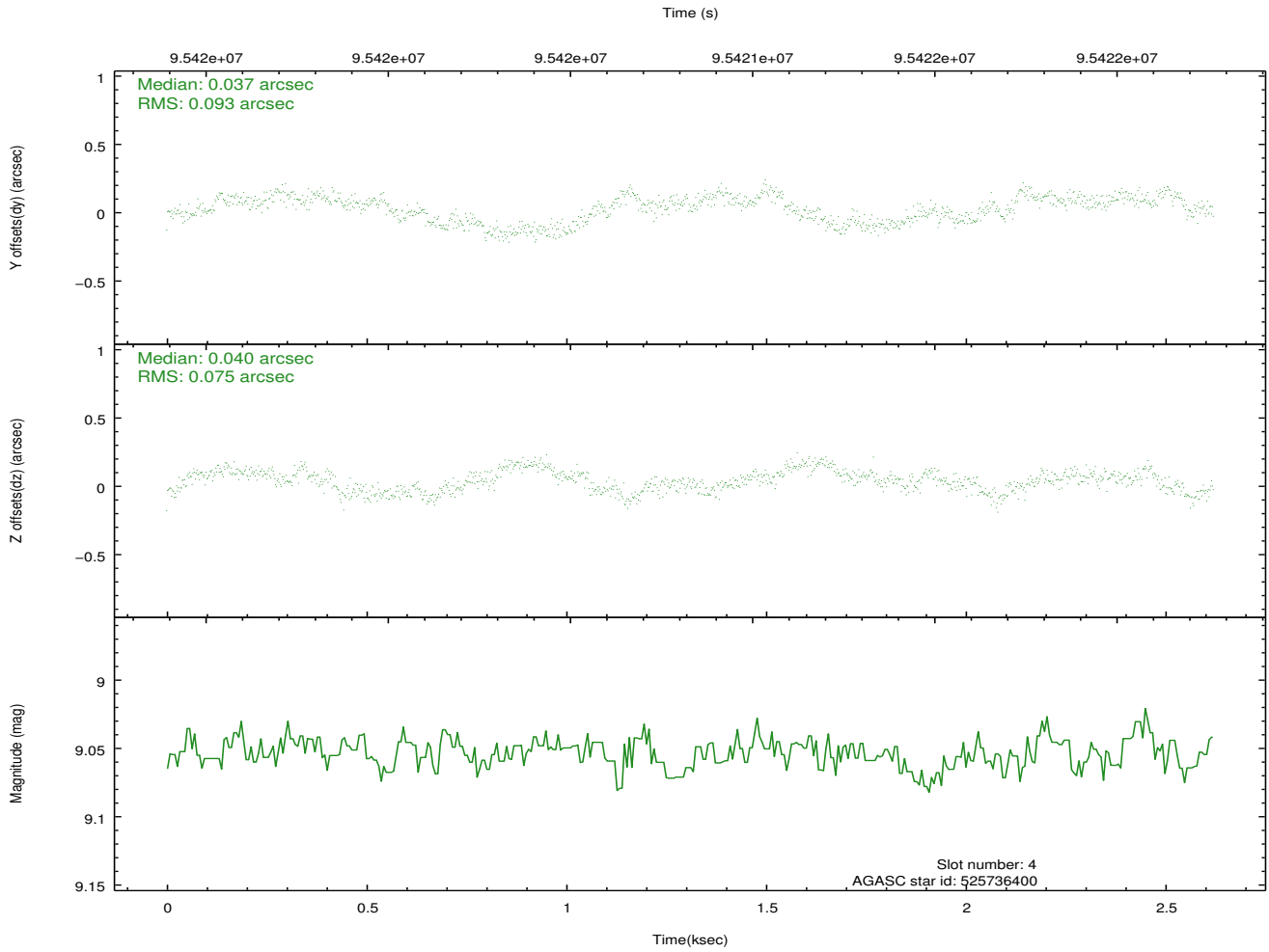
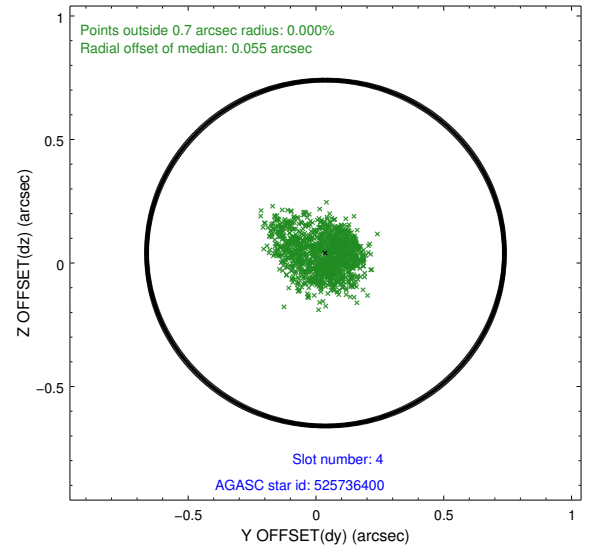
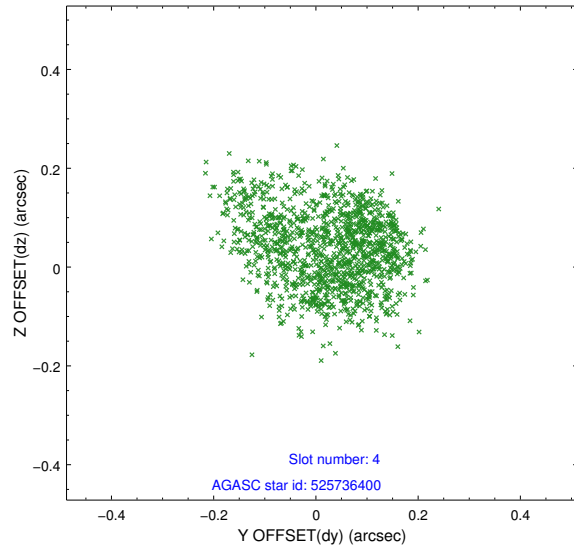


## 2.4 Star Slots

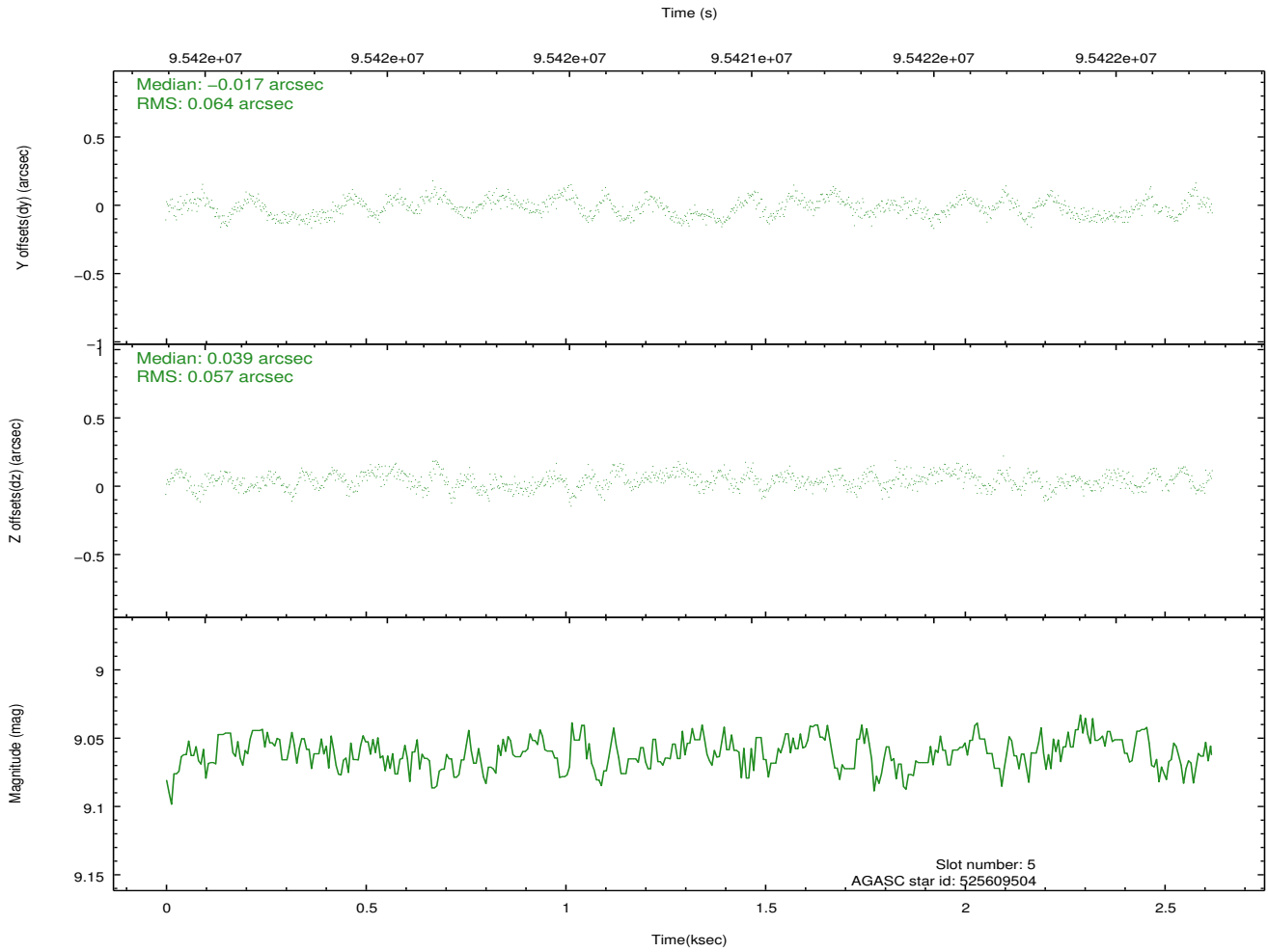
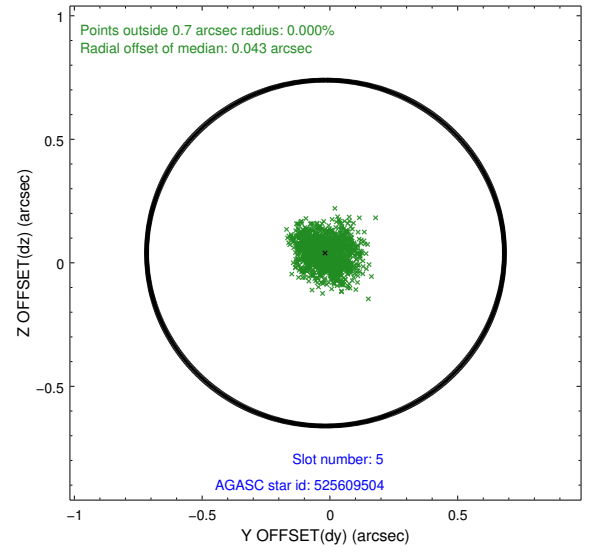
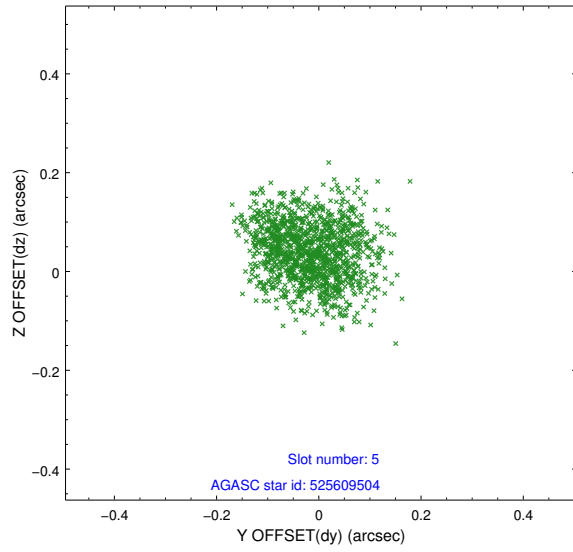
### 2.4.1 Slot 3



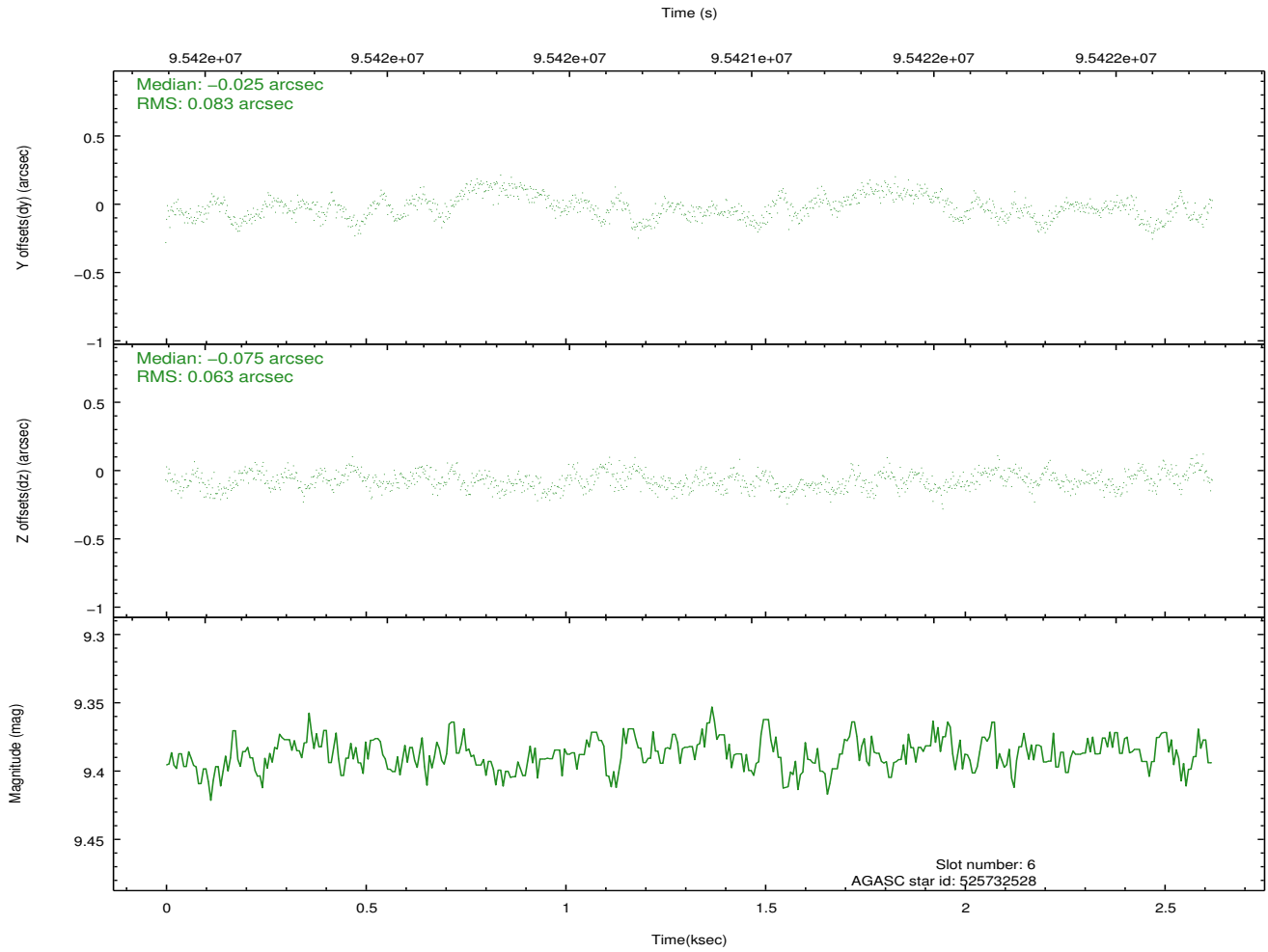
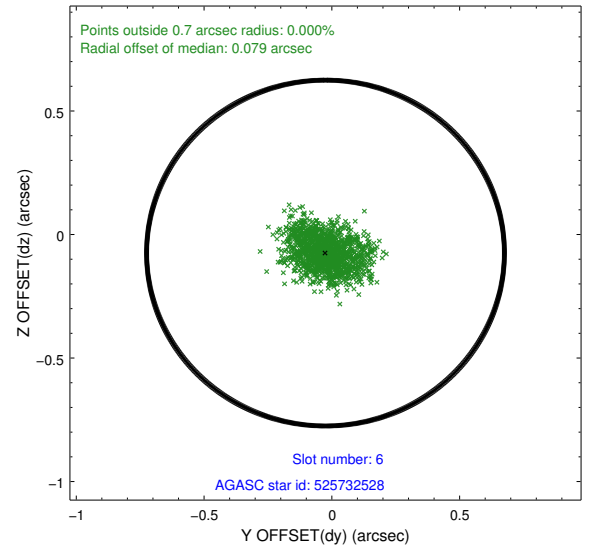
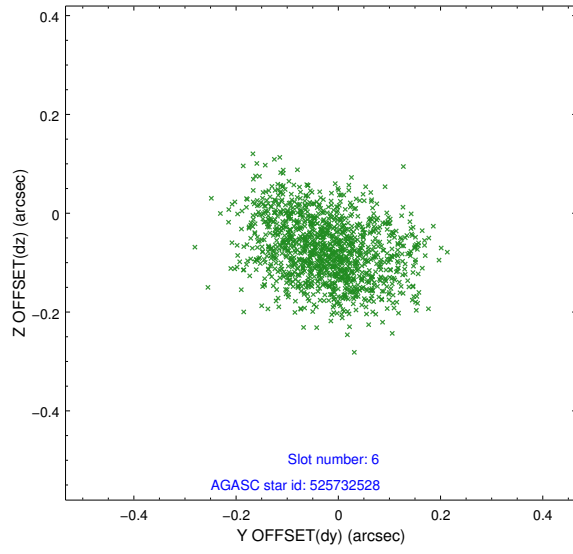
## 2.4.2 Slot 4



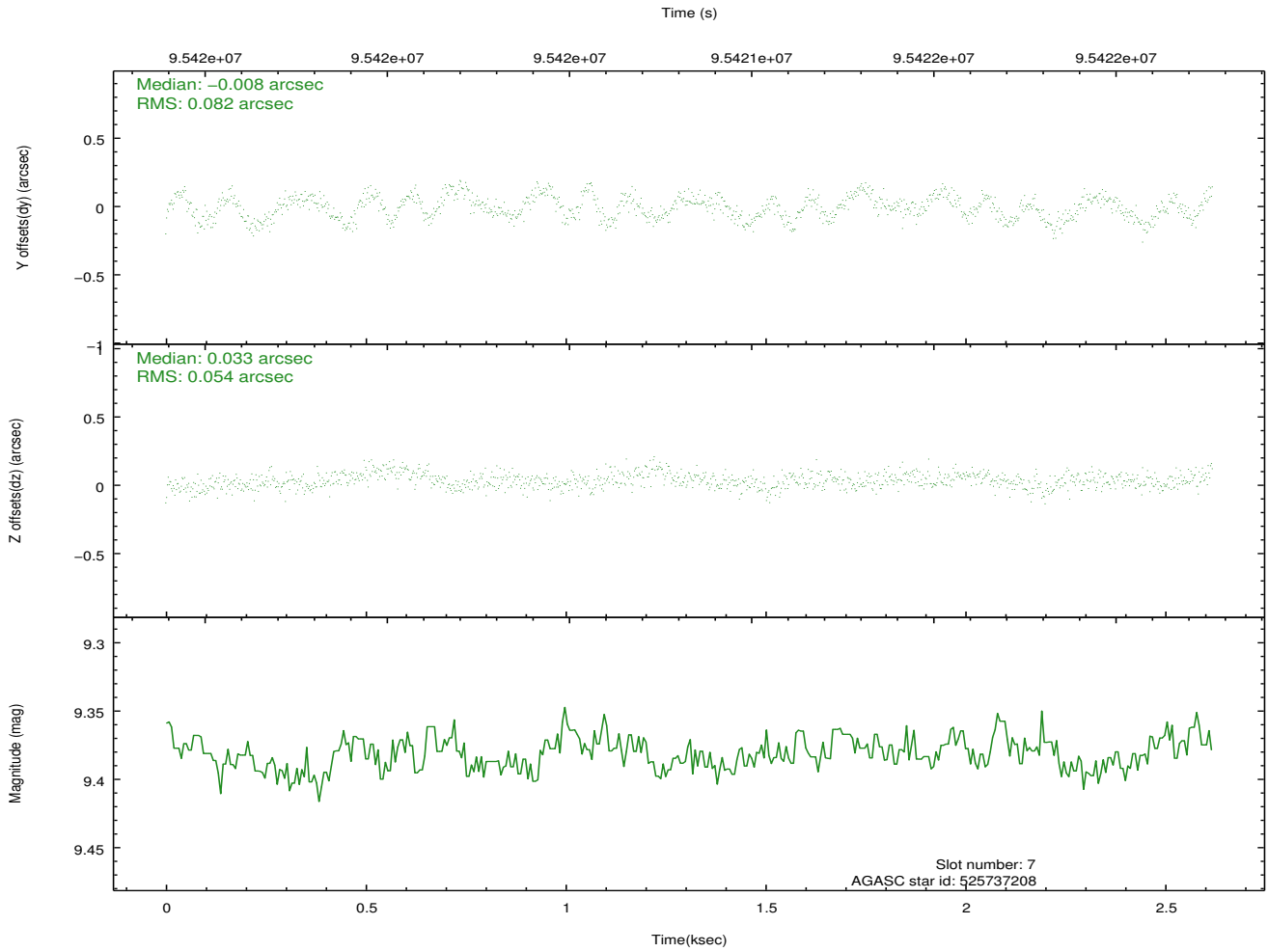
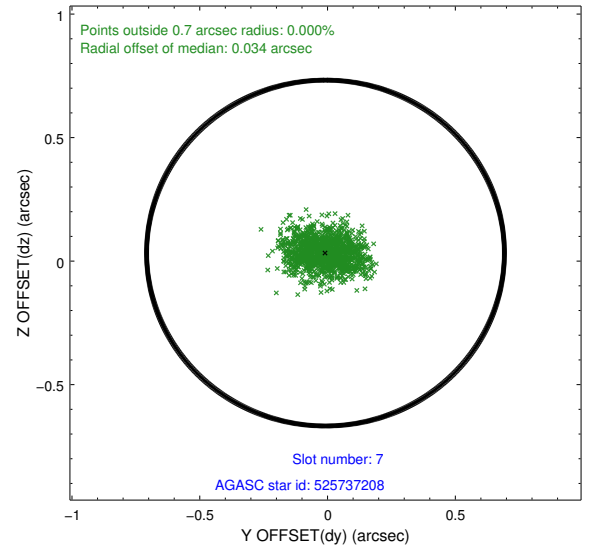
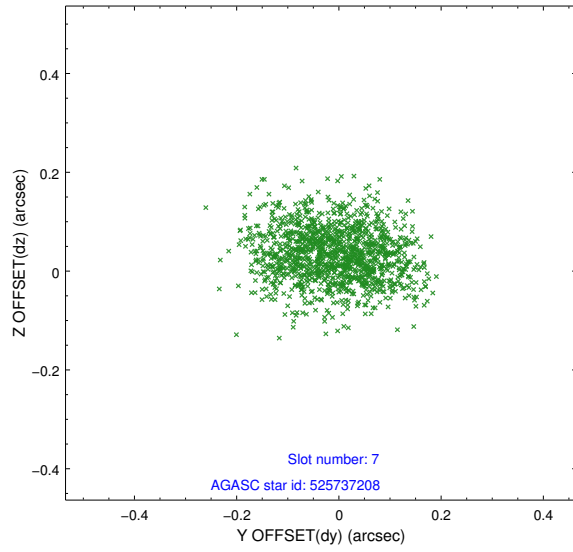
### 2.4.3 Slot 5



## 2.4.4 Slot 6

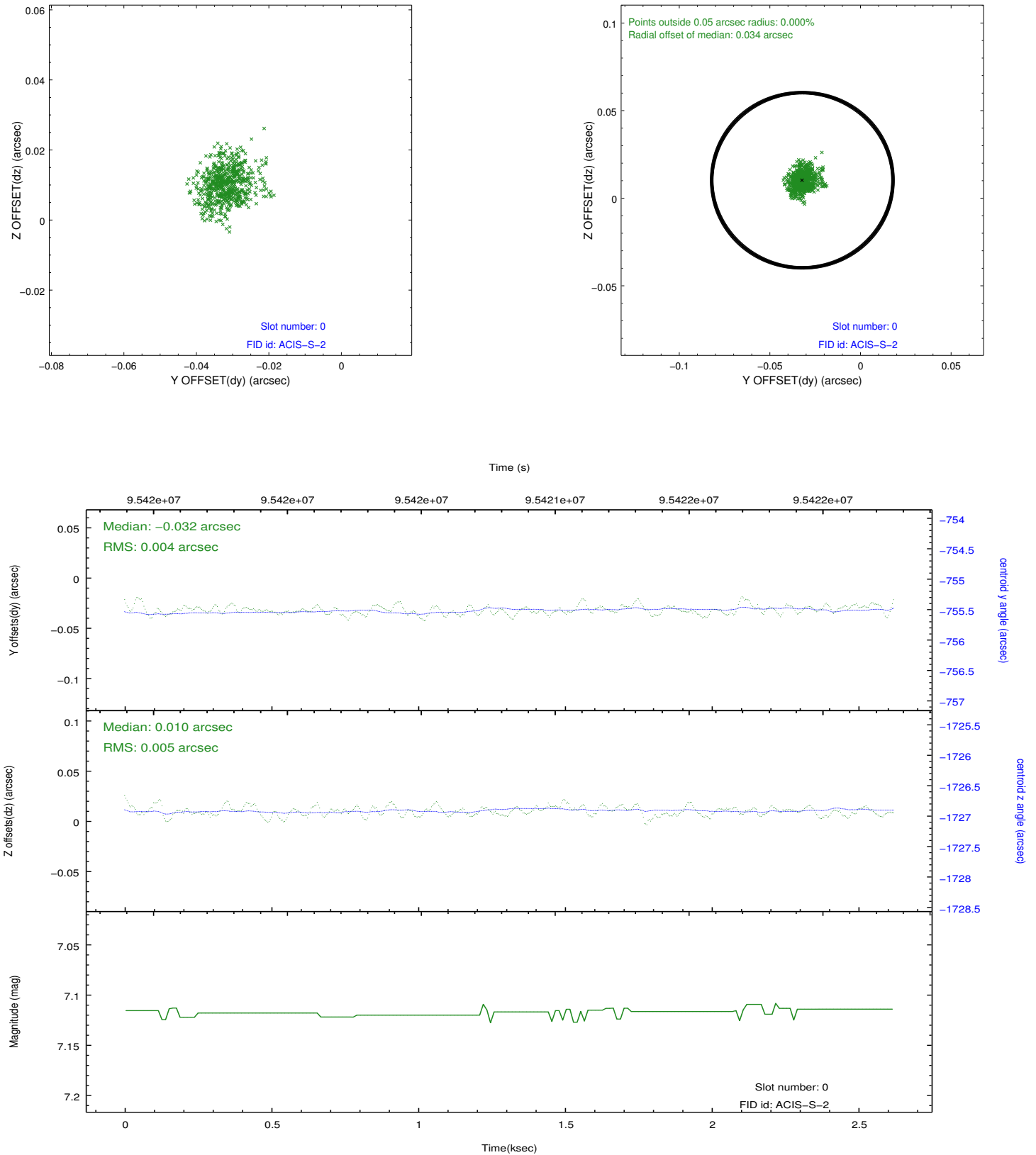


## 2.4.5 Slot 7

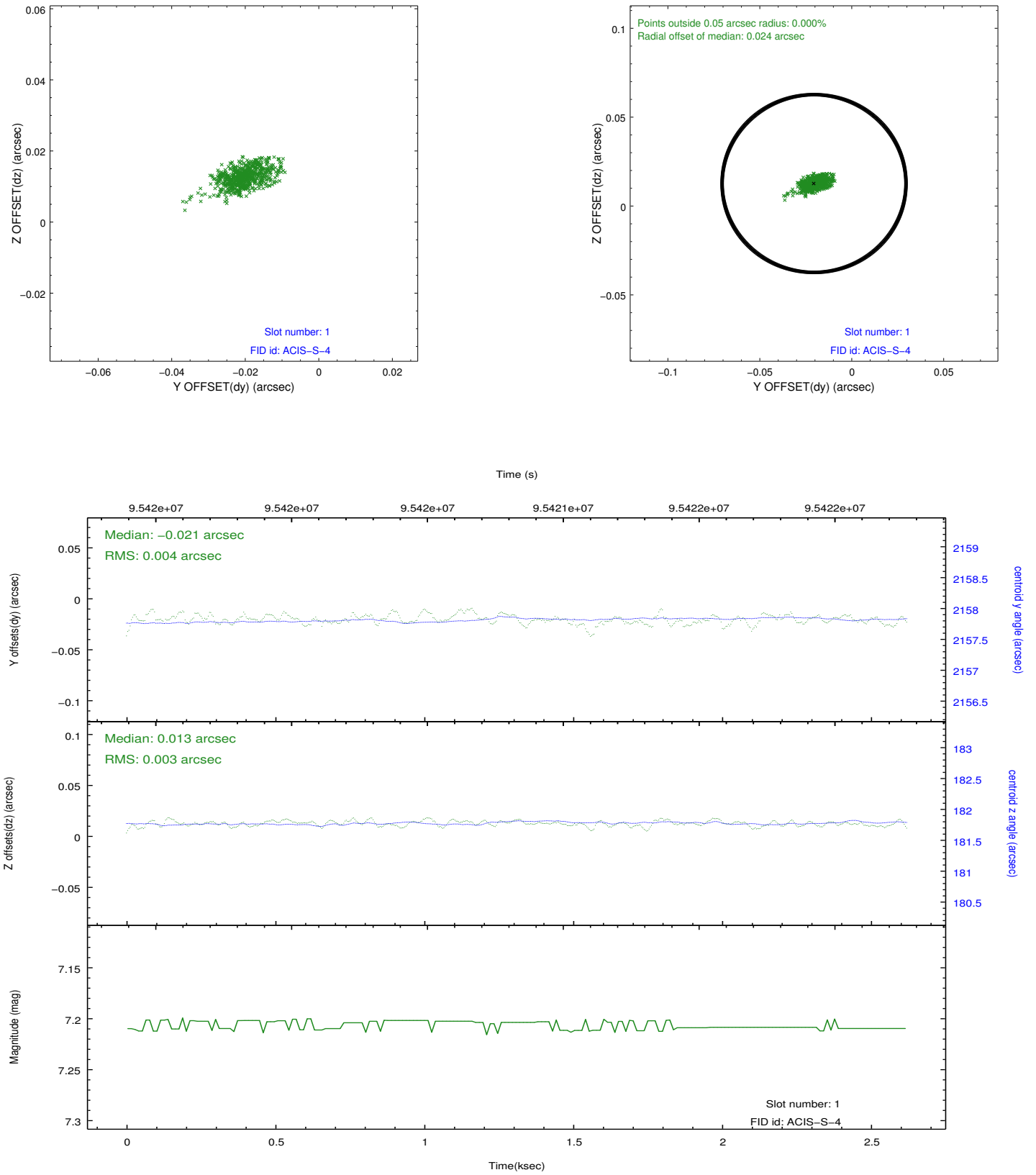


## 2.5 FID Slots

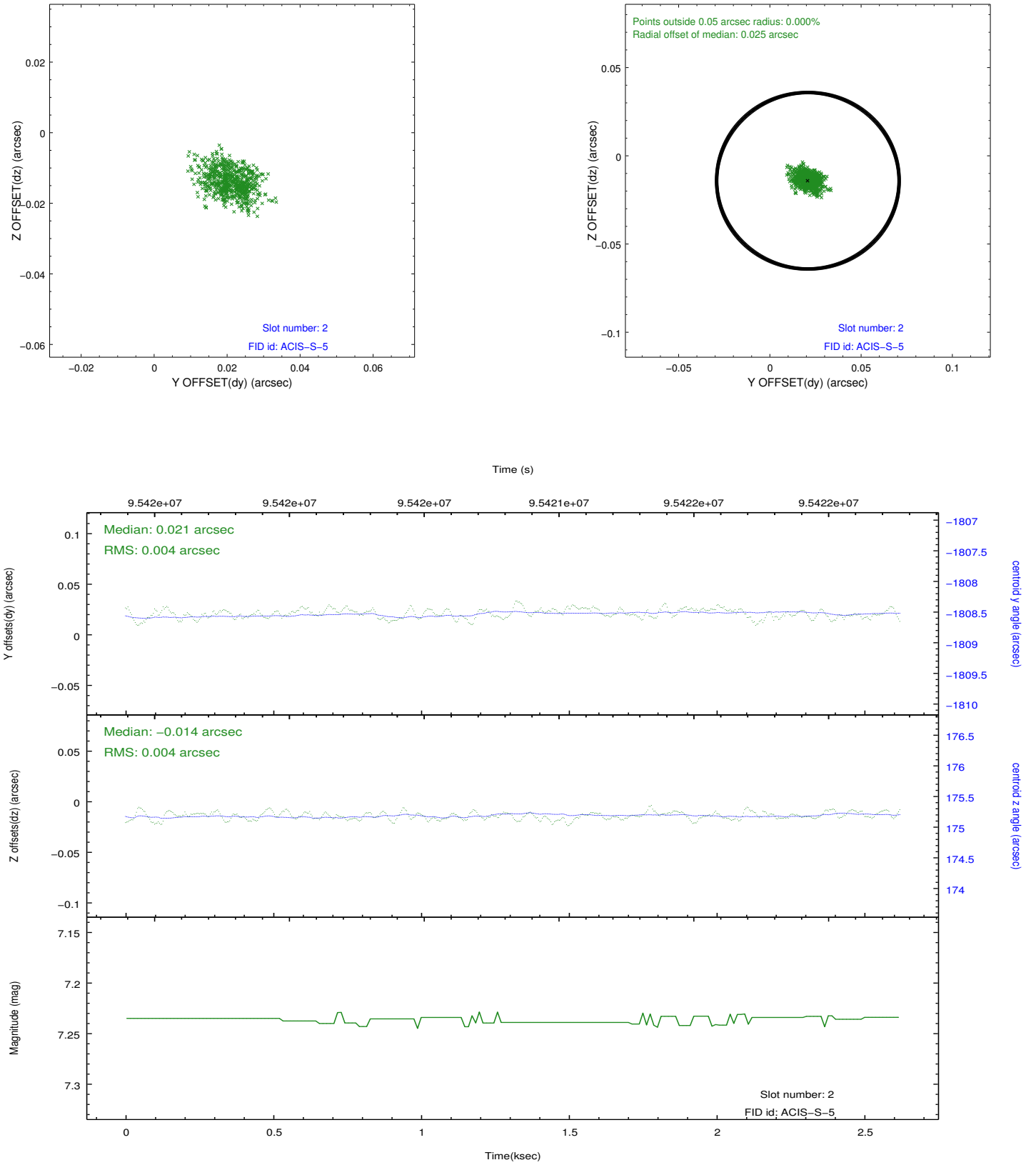
### 2.5.1 Slot 0



## 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)	2012.09.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.091

## A.2 Comments

Charge time for this ObsId remains at previous value of 1.091 ks although with the current processing the charge time would have been 1.077 ksec. Window constraint met. The high count rate resulted in many dropped exposures reducing the good time interval.