

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1771 - L2 Version 5  
Chandra X-Ray Center

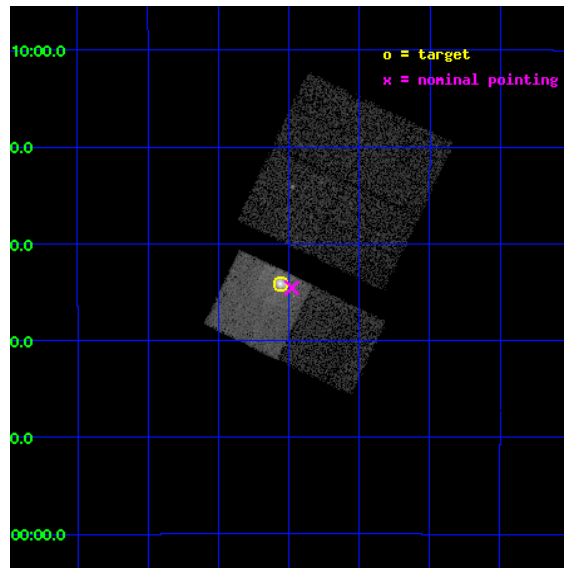
L2 Processing Date : Aug 30 2012

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# 1 Front

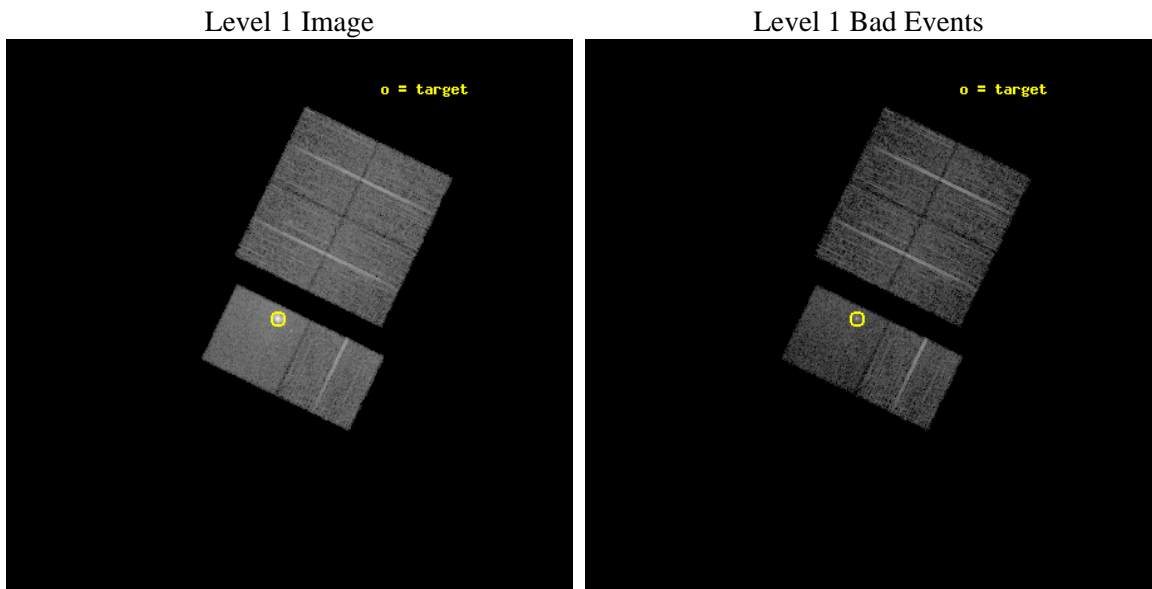
seq_num	590197	Sequence number
obs_id	1771	Observation id
title	HRC RESPONSE TO CONTINUUM SOURCE.	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-0.9 [Chip S3, T=110, Offsets=-1,0,-3]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.36960480332	Nominal RA [deg]
dec_nom	-10.575939084291	Nominal Dec [deg]
roll_nom	205.69267609794	Nominal Roll [deg]
revision	5	Processing version of data
ontime	7318.4000068009	Sum of GTIs [s]
livetime	7225.7300193033	Livetime [s]
ontime0	7318.4000068009	Sum of GTIs [s]
ontime1	7318.4000068009	Sum of GTIs [s]
ontime2	7318.4000068009	Sum of GTIs [s]
ontime3	7318.4000068009	Sum of GTIs [s]
ontime6	7318.4000068009	Sum of GTIs [s]
ontime7	7318.4000068009	Sum of GTIs [s]
l2events	69770	Number of level 2 events



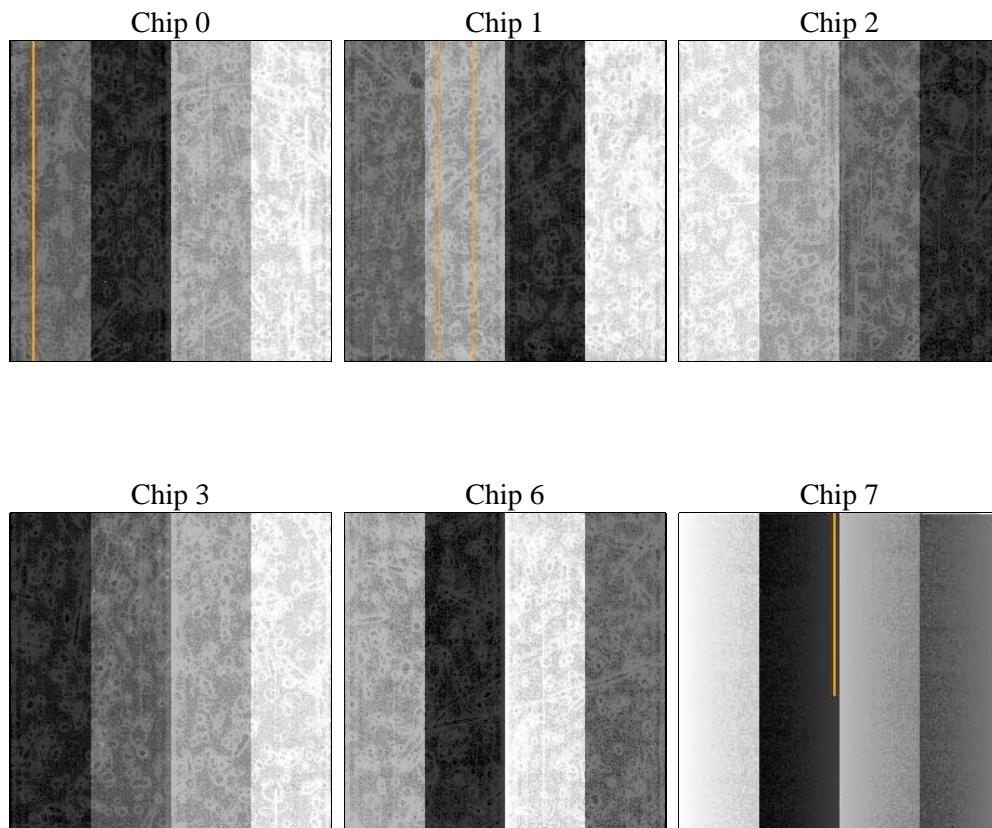
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7560.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7318.4000068009	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime0	7318.4000068009	Sum of GTIs [s]
date	2012-08-30T03:40:06	Date and time of file creation	ontime1	7318.4000068009	Sum of GTIs [s]
revision	5	Processing version of data	ontime2	7318.4000068009	Sum of GTIs [s]
			ontime3	7318.4000068009	Sum of GTIs [s]
			ontime6	7318.4000068009	Sum of GTIs [s]
			ontime7	7318.4000068009	Sum of GTIs [s]
			l1events	333738	Number of level 1 events

### 2.1.4 Events

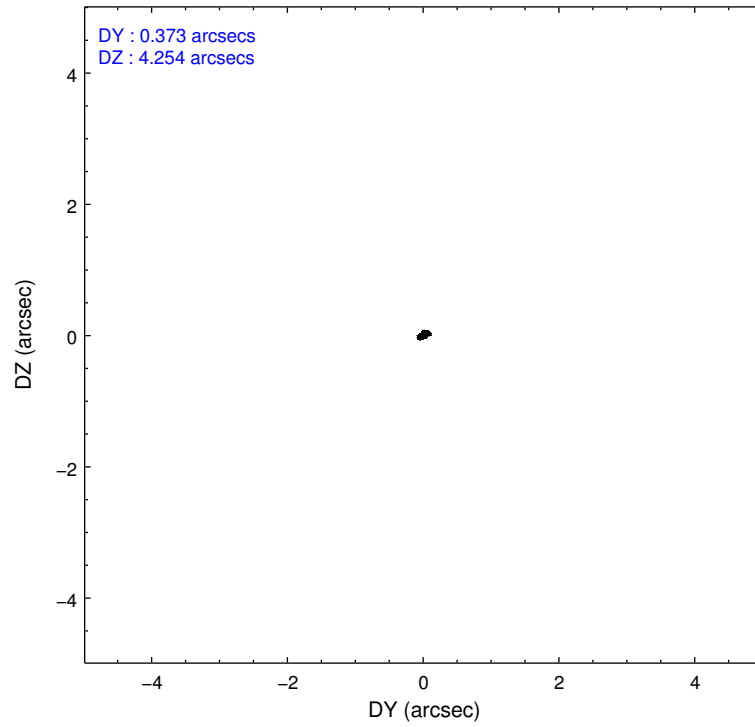
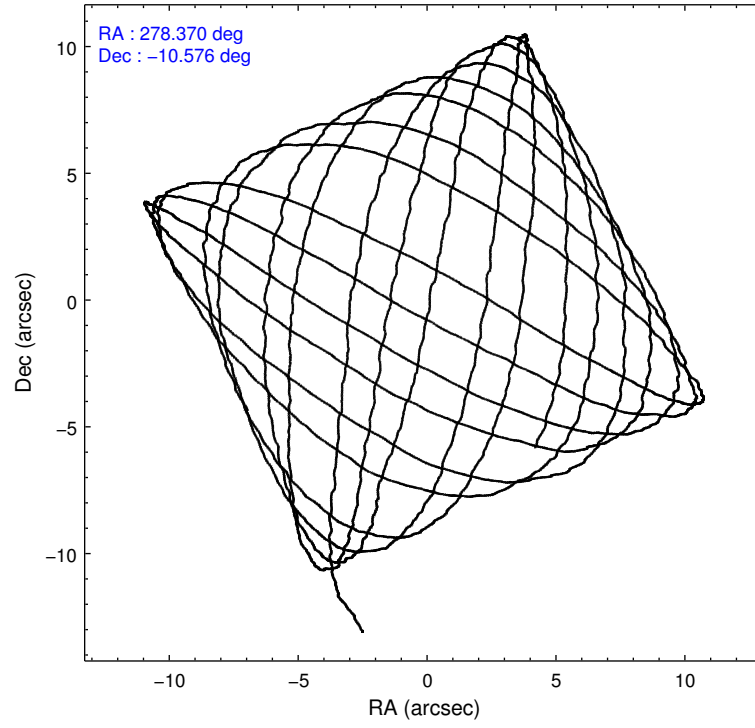
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	49766	45317	50763	51334	53084	83474	grade 0 events	1361	1319	1136	1529	1184	5268
rejected events	44390	39869	45758	45493	47419	36661		2%	2%	2%	2%	2%	6%
rejected %	89%	87%	90%	88%	89%	43%	grade 1 events	18	10	9	8	10	70
								0%	0%	0%	0%	0%	0%
							grade 2 events	2026	1977	2038	2303	2242	11681
								4%	4%	4%	4%	4%	13%
							grade 3 events	375	403	301	351	318	3862
								0%	0%	0%	0%	0%	4%
							grade 4 events	392	379	310	353	337	3231
								0%	0%	0%	0%	0%	3%
							grade 5 events	1043	1010	930	1042	1127	3965
								2%	2%	1%	2%	2%	4%
							grade 6 events	1228	1374	1227	1313	1585	22805
								2%	3%	2%	2%	2%	27%
							grade 7 events	43323	38845	44812	44435	46281	32592
								87%	85%	88%	86%	87%	39%

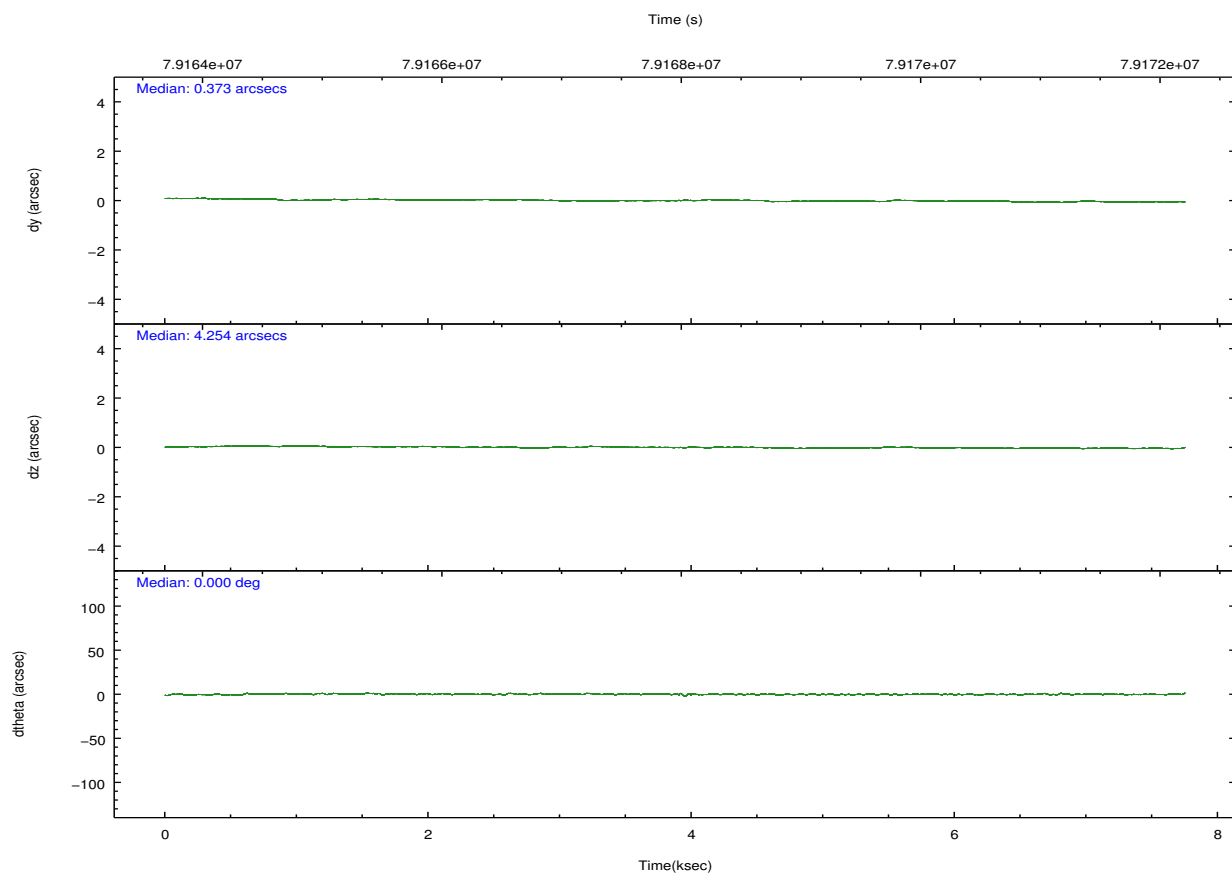
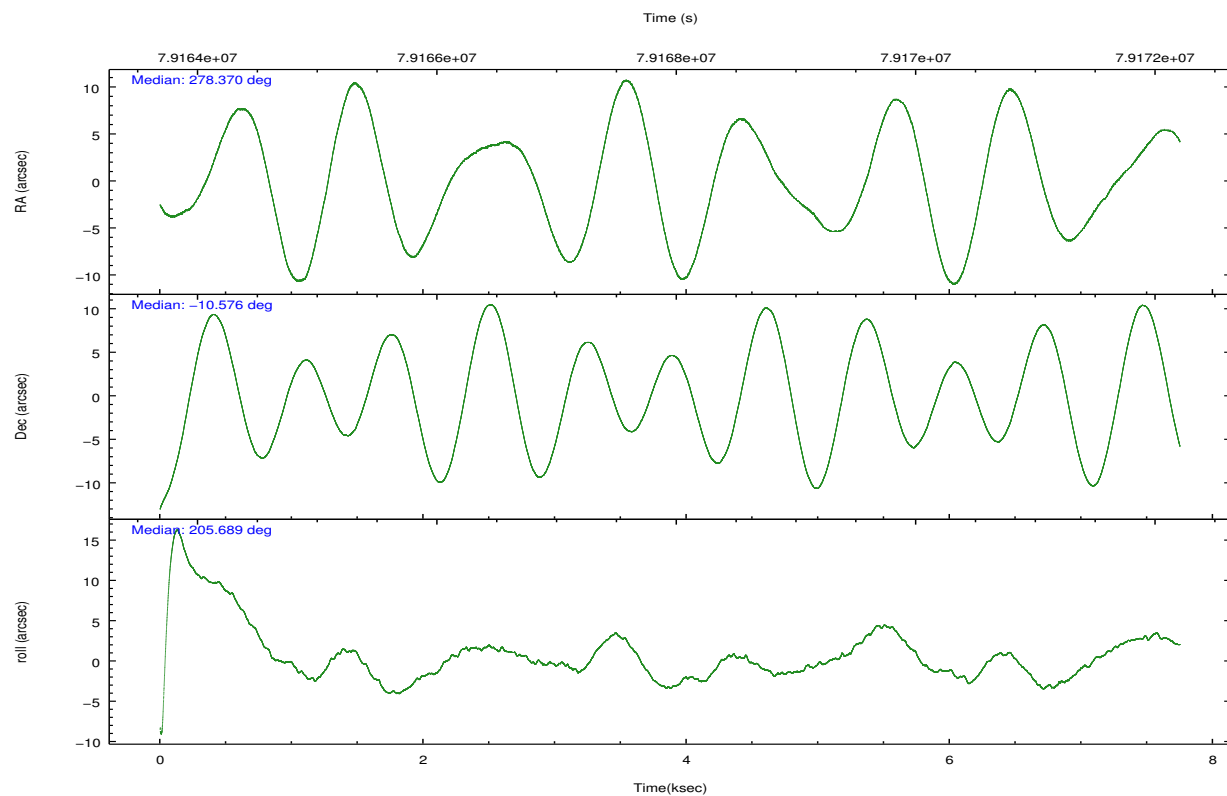


## 2.2 Compared Parameters

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	278.385154	278.3696048033225	Subarray requested	NONE	NONE
[deg] Pointing Dec	-10.553246	-10.57593908429128	Alternating exposures requested	N	N
[deg] Pointing Roll	205.538935	205.6926760979435	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-198.916523	-198.9099978217132			
[mm] SIM translation stage offset	8.784000000000001	8.777475238705364			
[s] Observation start time (MET)	79164266.184000	79163890.215784			
Observation start date	2000-07-05T06:03:22	2000-07-05T05:58:10			
[s] Observation end time (MET)	79171826.184000	79171960.041081			
Observation end date	2000-07-05T08:09:22	2000-07-05T08:12:40			
Read mode	TIMED	TIMED			

## 2.3 Aspect



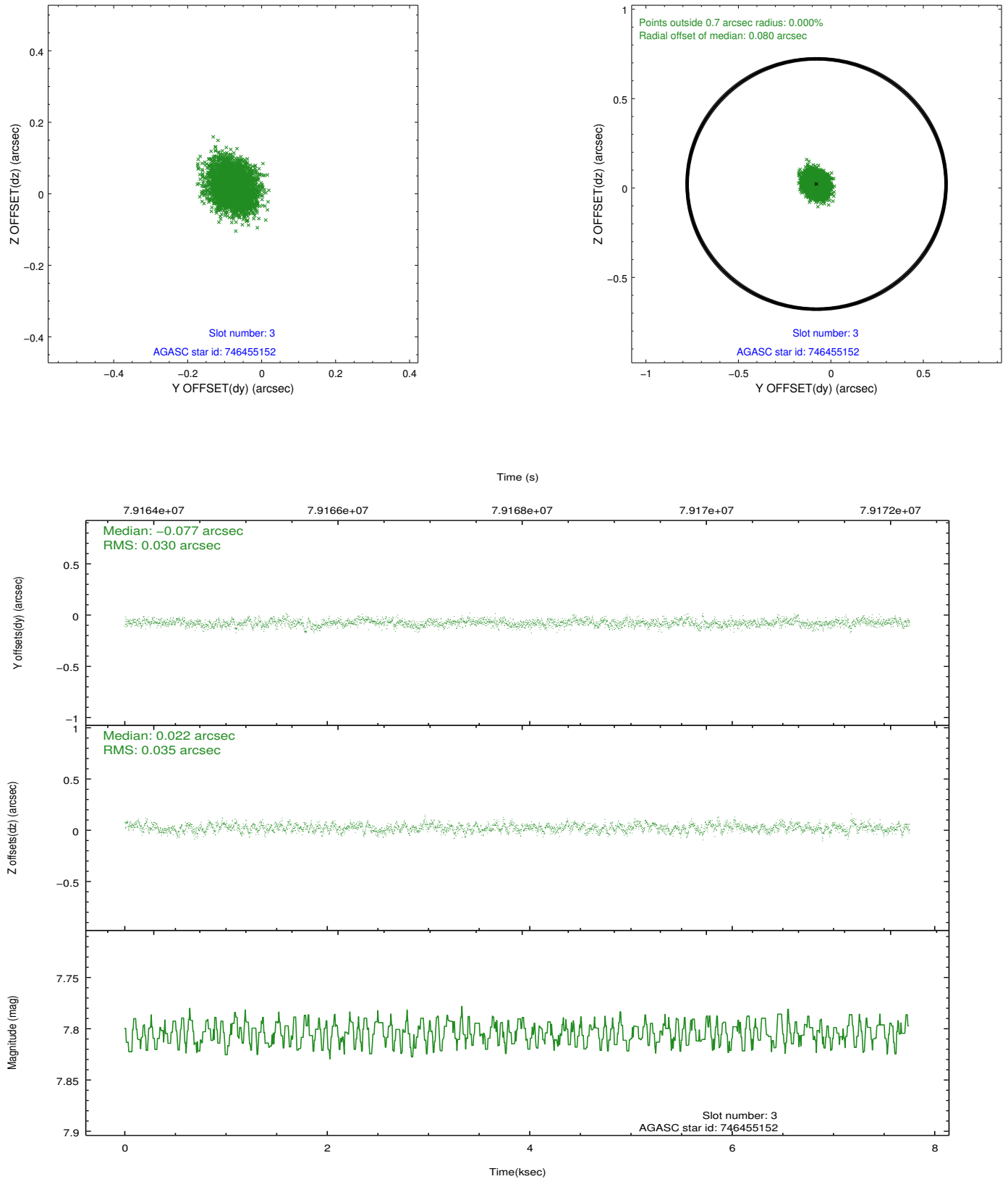


### Slot Statistics

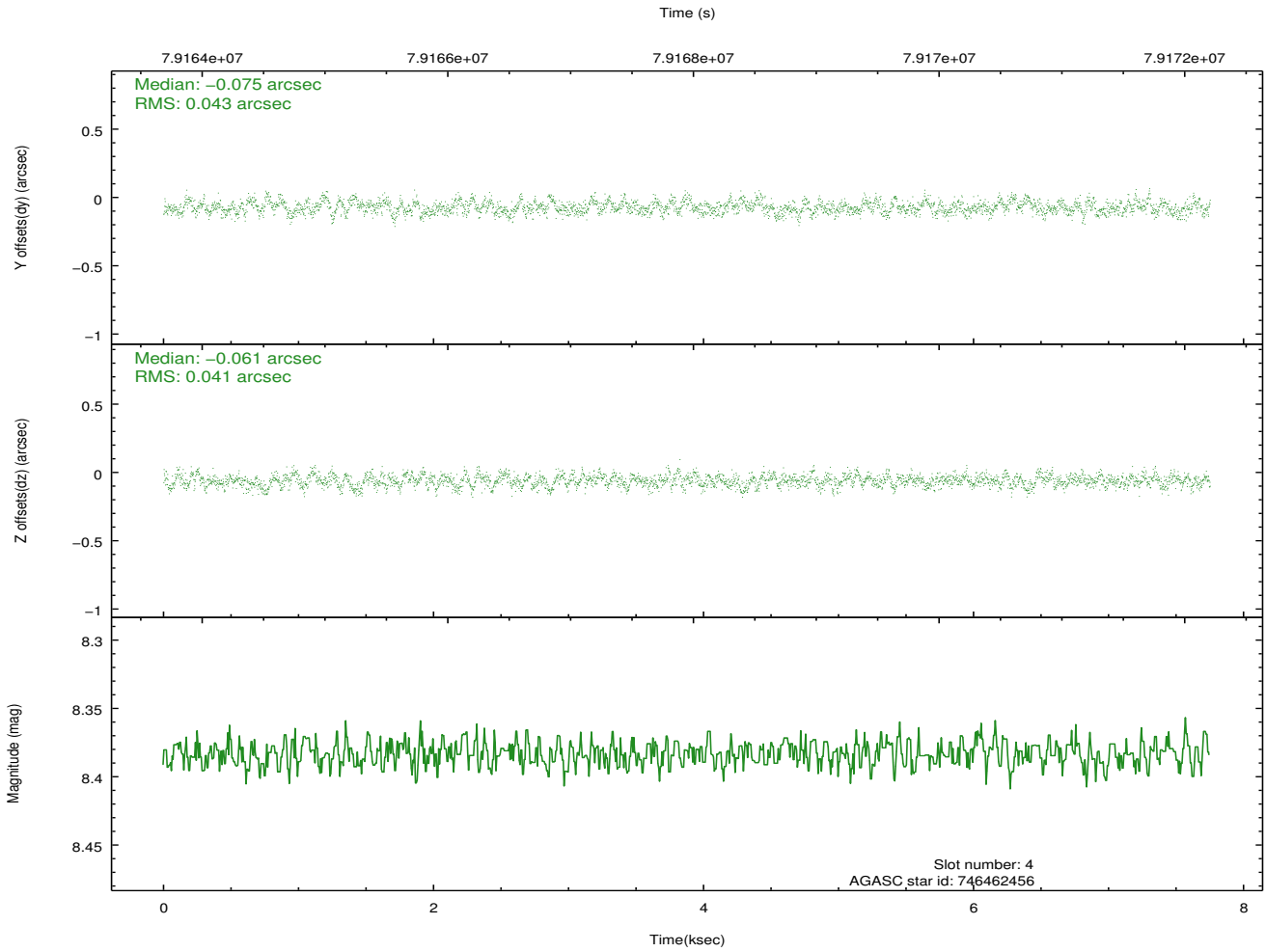
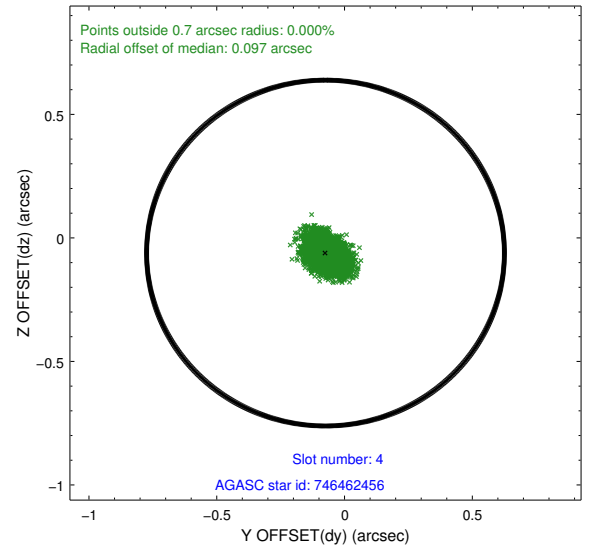
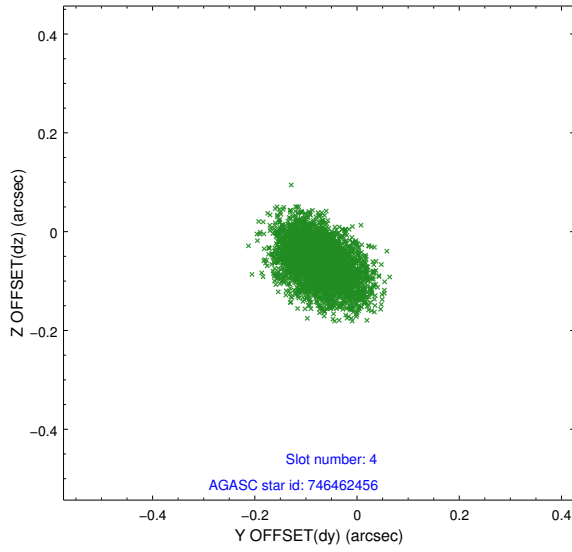
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.15	1891	0.078	0.095	0.008	0.012	0.000000	0.000000	-753.52	-1544.31
1	FID	ACIS-S-4	7.24	1891	-0.032	-0.063	0.008	0.013	0.000000	0.000000	2159.46	363.16
2	FID	ACIS-S-5	7.23	1891	-0.076	-0.023	0.007	0.011	0.000000	0.000000	-1805.43	357.99
3	GUIDE	746455152	7.80	3781	-0.077	0.022	0.049	0.081	278.447893	-9.976732	-1095.46	-1776.49
4	GUIDE	746462456	8.38	3781	-0.075	-0.061	0.062	0.104	278.652171	-10.530173	-888.72	332.66
5	GUIDE	746455112	8.93	3780	0.217	-0.091	0.067	0.111	278.266531	-10.703234	611.38	306.72
6	GUIDE	746460328	9.80	3779	-0.013	0.040	0.102	0.161	278.603974	-9.898096	-1716.68	-1792.96
7	GUIDE	746995400	9.70	3776	-0.052	0.089	0.100	0.162	278.078957	-11.289885	2118.36	1927.36

## 2.4 Star Slots

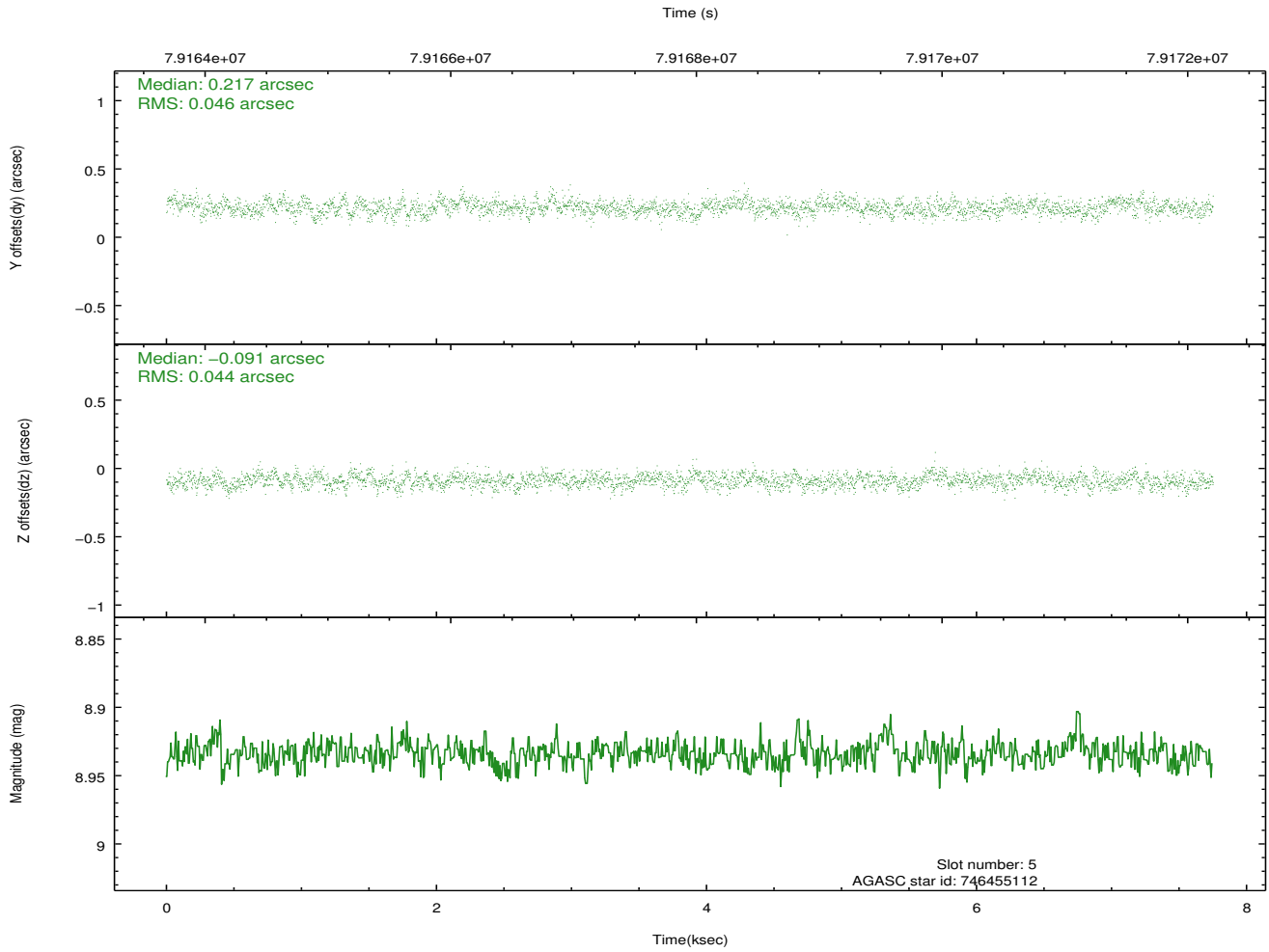
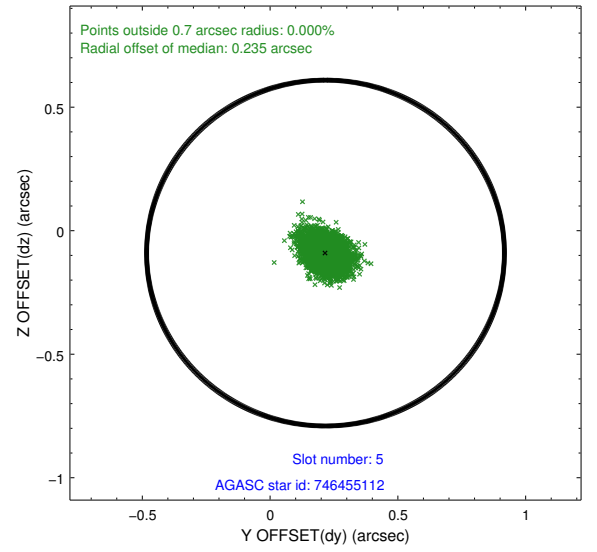
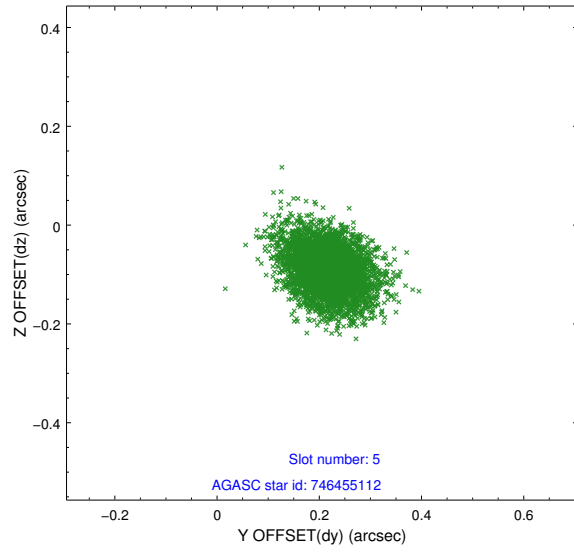
### 2.4.1 Slot 3



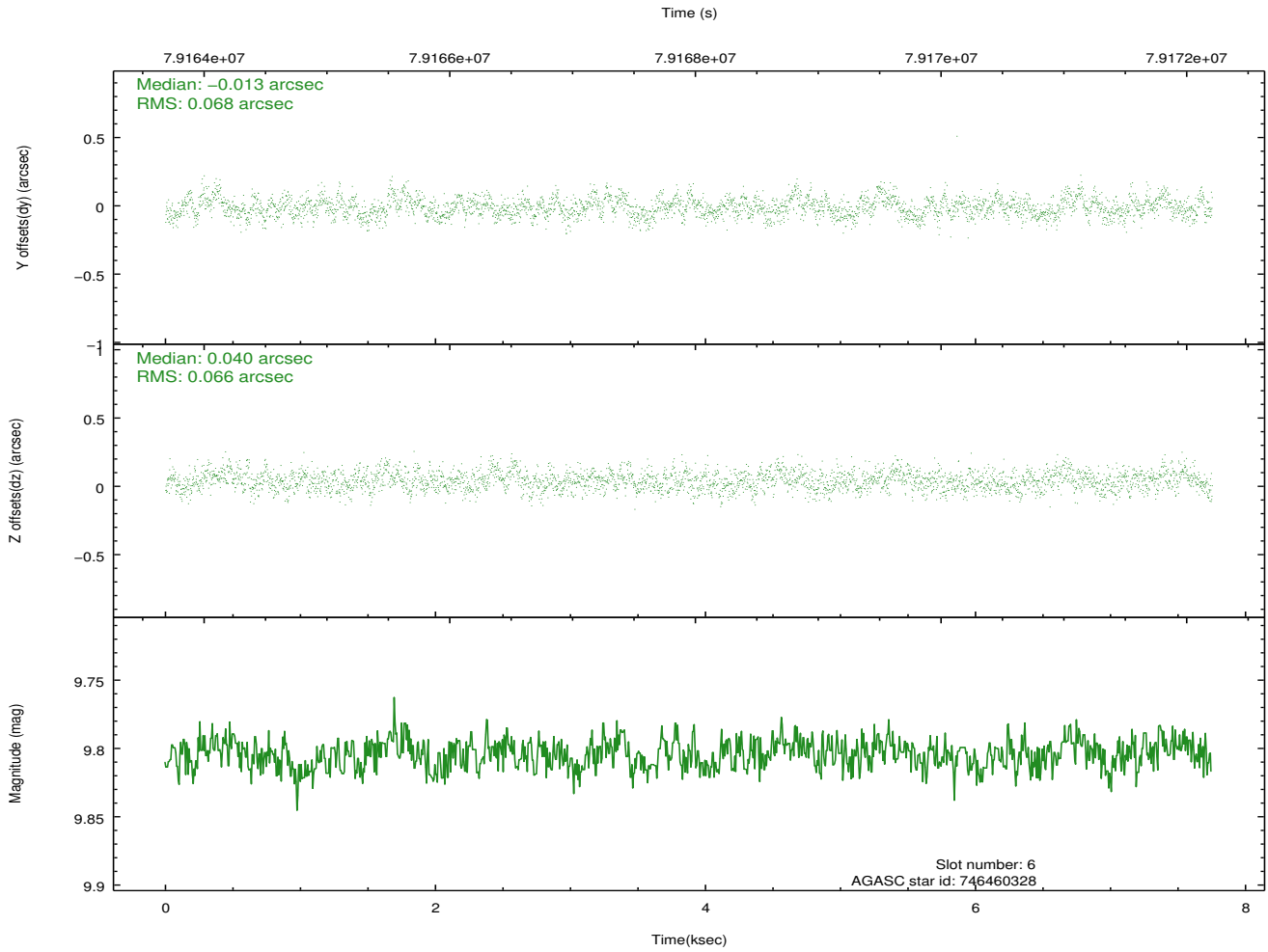
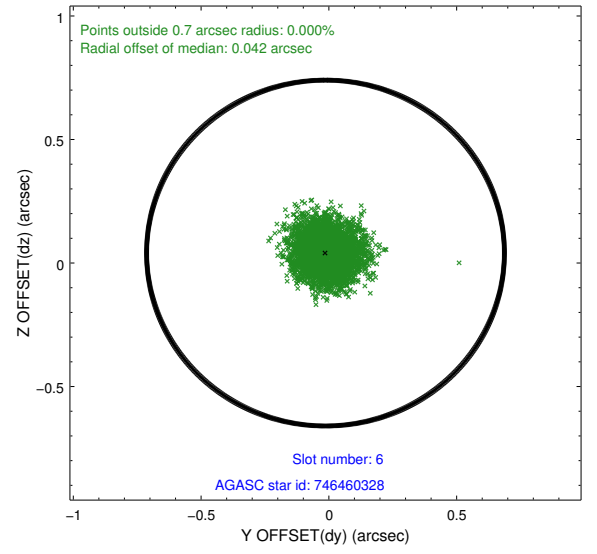
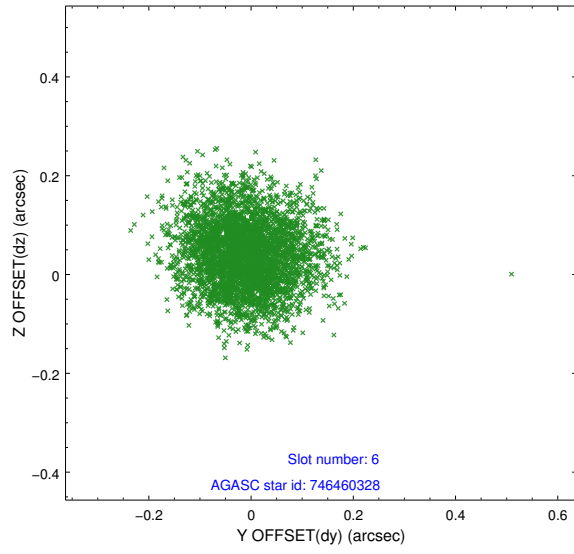
## 2.4.2 Slot 4



### 2.4.3 Slot 5

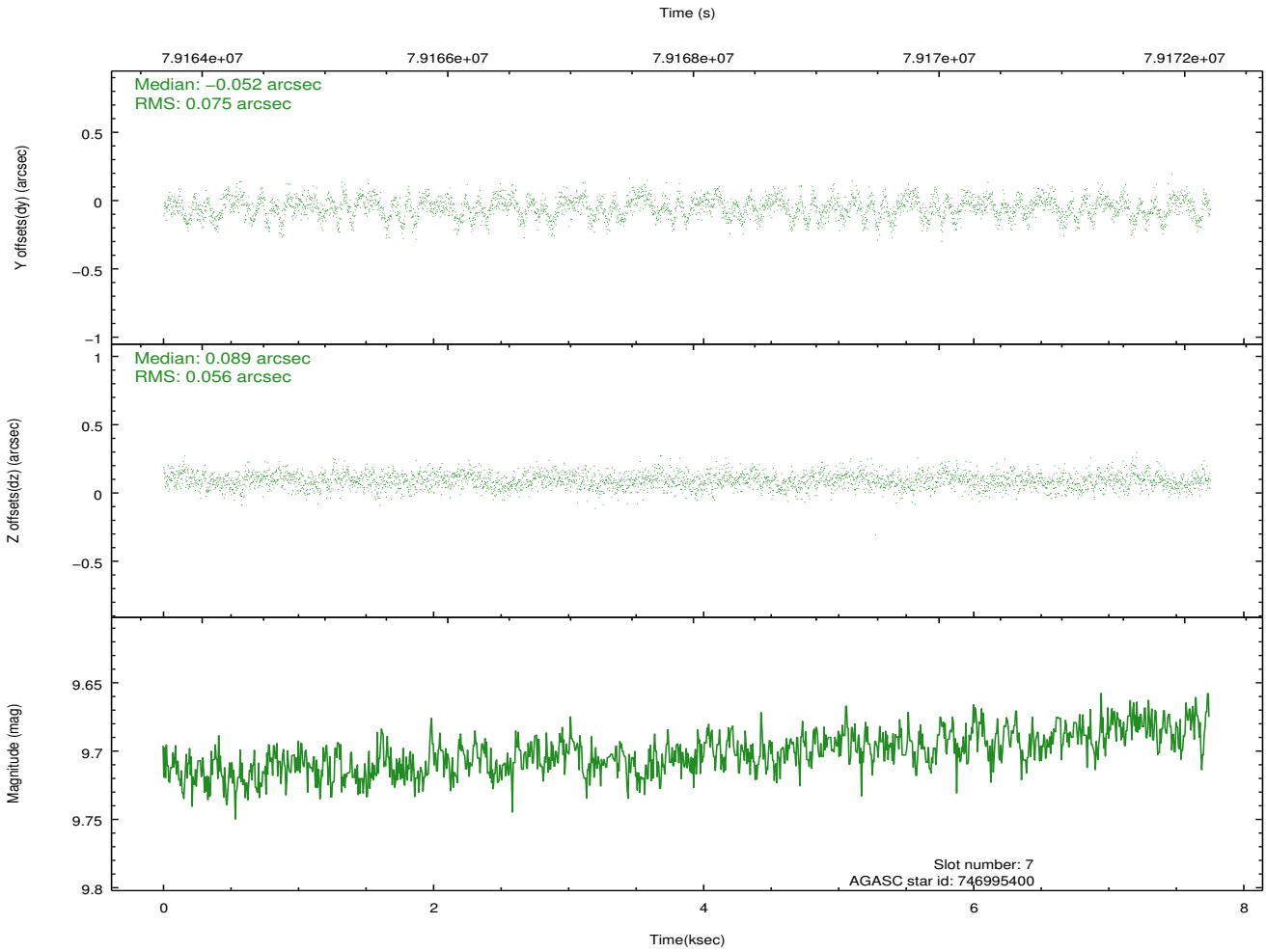
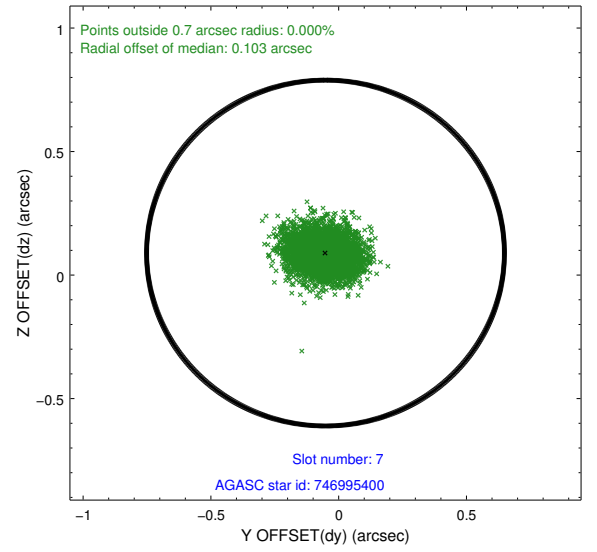
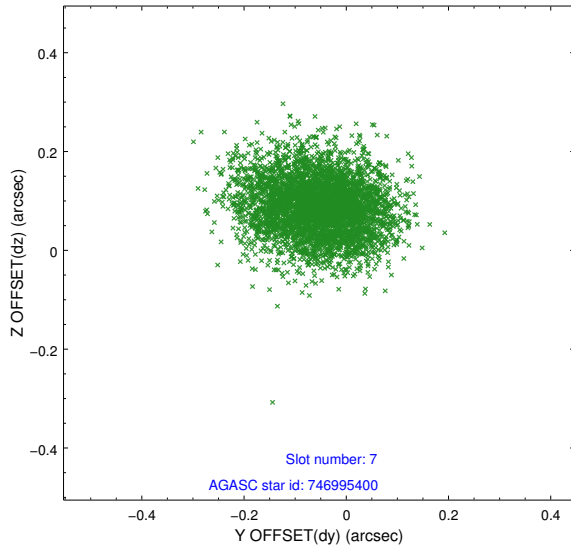


## 2.4.4 Slot 6



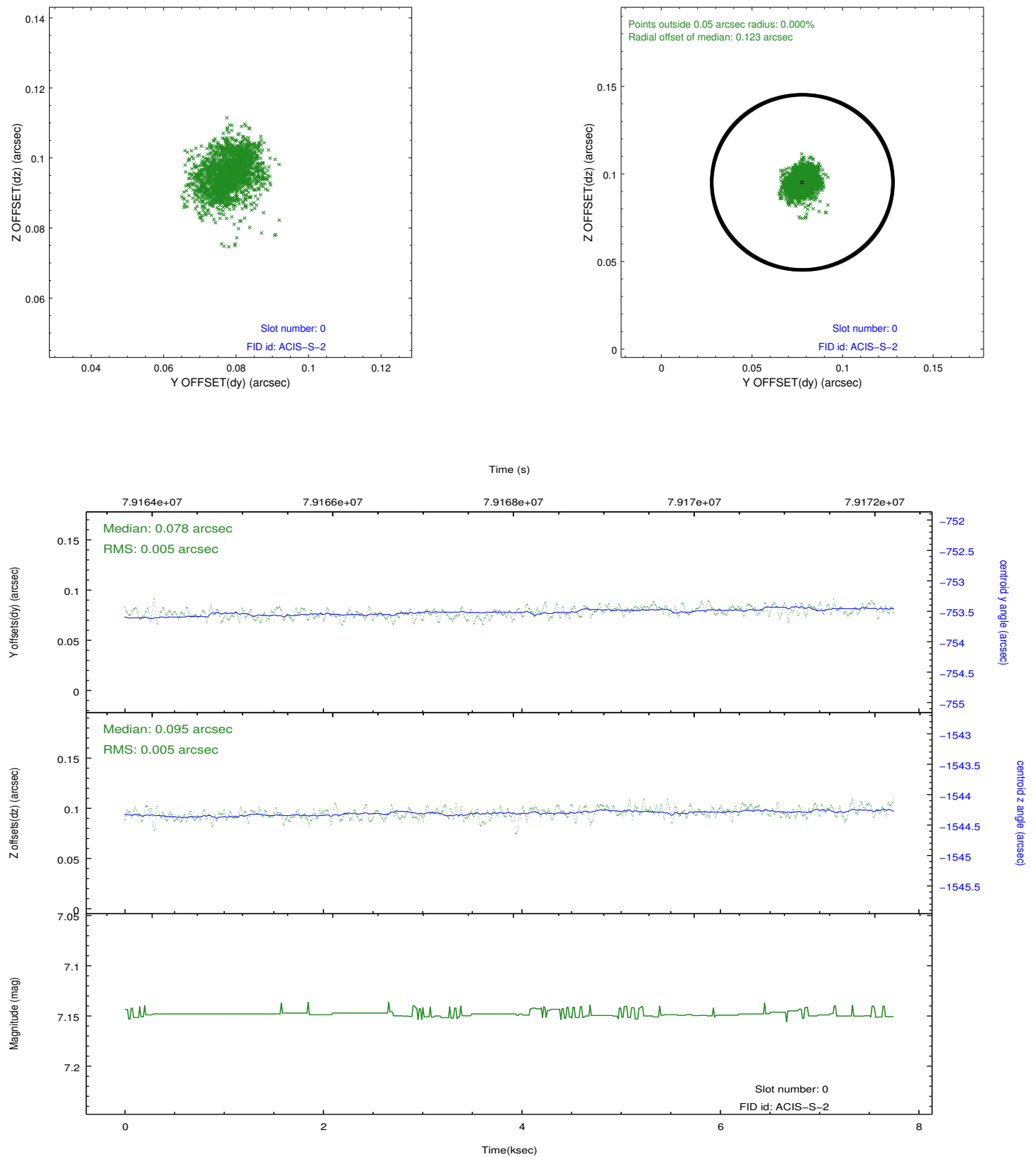


### 2.4.5 Slot 7

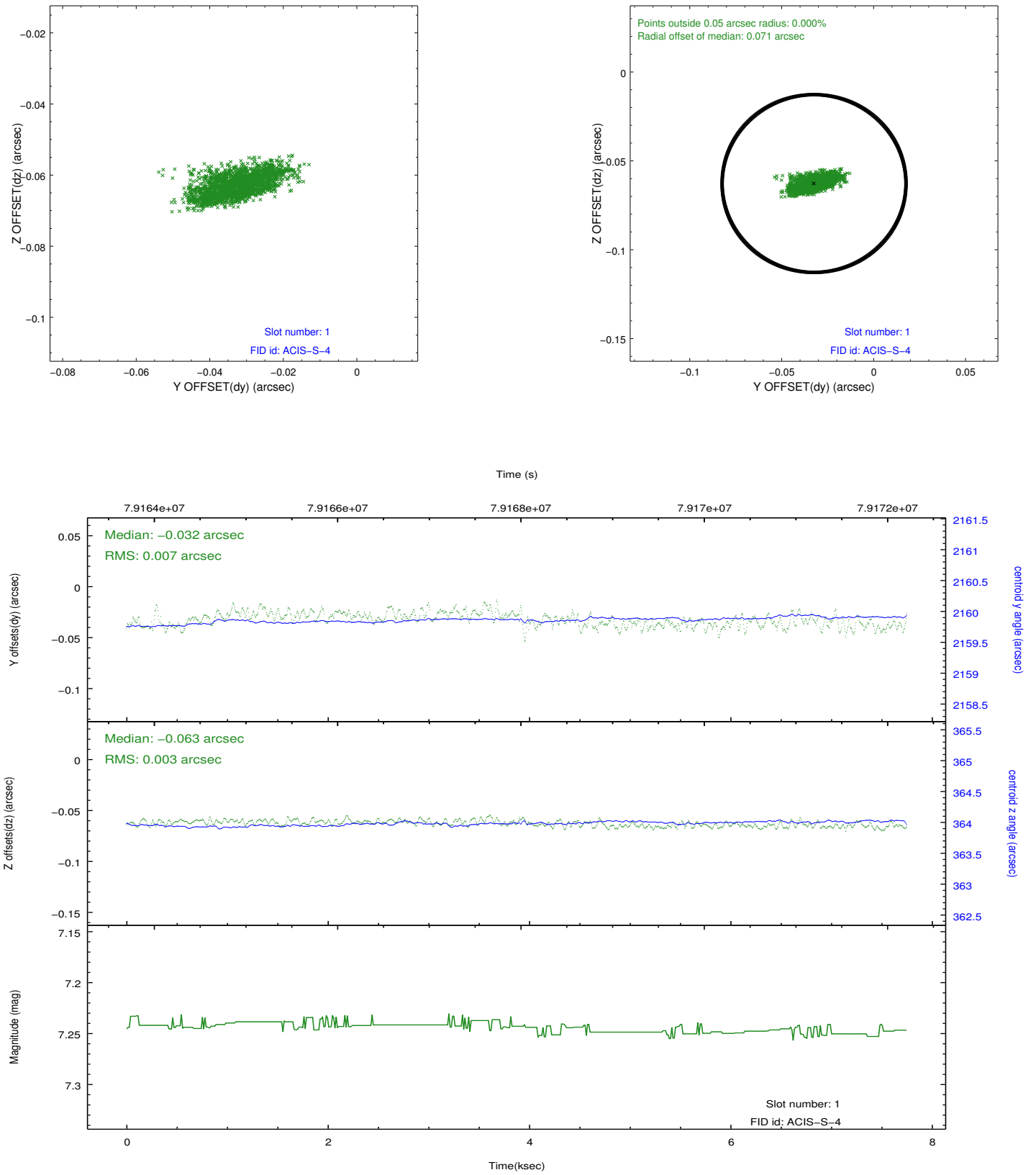


## 2.5 FID Slots

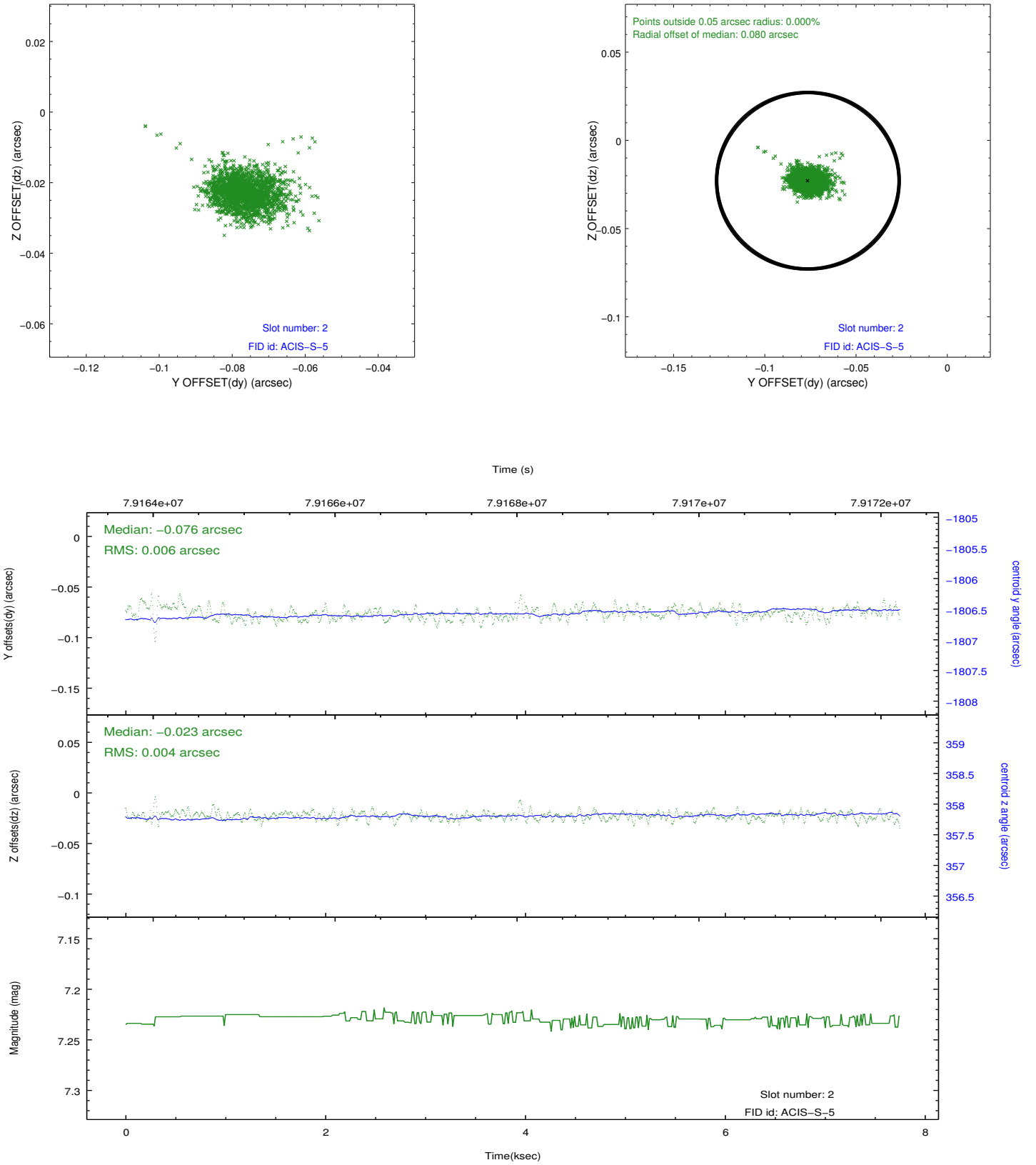
### 2.5.1 Slot 0



## 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)	2012.09.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.324

## A.2 Comments

The focal-plane temperature was set to a temperature of about -109.2 C during this observation and others in the interval from September 17, 1999 to January 29, 2000. The current reprocessing of the data applies no charge-transfer inefficiency (CTI) adjustment to the data because the ACIS CTI adjustment has not been calibrated at this temperature. The CTI adjustment is calibrated for data taken from January 30, 2000 to the present, when the focal-plane temperature is set to -119.7 C. However, if the observation includes one or both back-illuminated CCDs ACIS-S1 and ACIS-S3, then a time-dependent gain adjustment is applied to the data for these CCDs. The ACIS spectral response calibration is less accurate at temperatures of about -109.2 C than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (i.e. fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response (e.g. those interested in imaging or timing analyses) should not notice an effect.