V&V Reference Report
L2 ASCDS Version : 8.4.5

Observation 4228 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Oct 26 2012

Contents

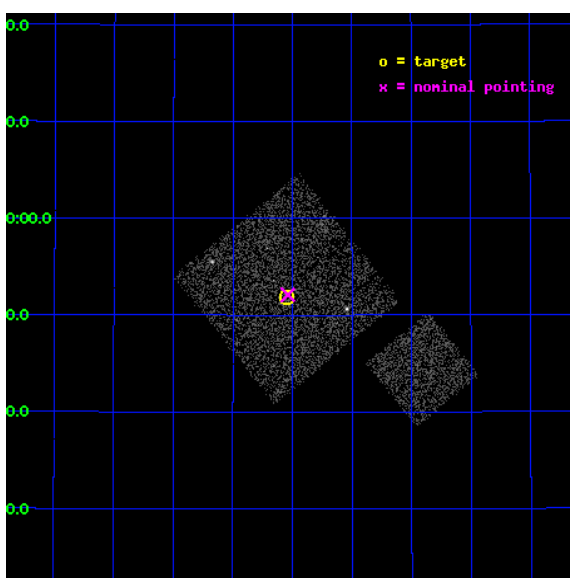
1 Front **2**

2 OBI **3**
- 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

A Summary **17**
- A.1 Status . . . 17
- A.2 Comments . . . 17

1 Front

seq_num	900271	Sequence number
obs_id	4228	Observation id
title	A CHANDRA WIDE-FIELD SURVEY TO MAP THE COSMIC WEB AND INVESTIGATE THE EVOLUTION OF NUCLEAR ACCRETION	Proposal title
observer	Dr. Christine Jones	Principal investigator
object	SS47	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	217.38708	Observer's specified target RA [deg]
dec_targ	33.864306	Observer's specified target Dec [deg]
ra_nom	217.38442996674	Nominal RA [deg]
dec_nom	33.868361721756	Nominal Dec [deg]
roll_nom	141.01017765285	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4578.5360432267	Sum of GTIs [s]
livetime	4518.7140991528	Livetime [s]
ontime0	4575.2719529867	Sum of GTIs [s]
ontime1	4578.4539632201	Sum of GTIs [s]
ontime2	4575.3540329933	Sum of GTIs [s]
ontime3	4578.5360432267	Sum of GTIs [s]
ontime6	4578.3718832135	Sum of GTIs [s]
l2events	13207	Number of level 2 events

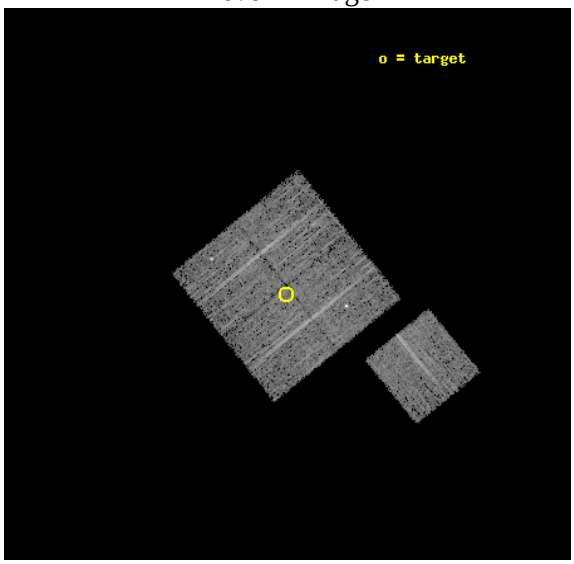


2 OBI

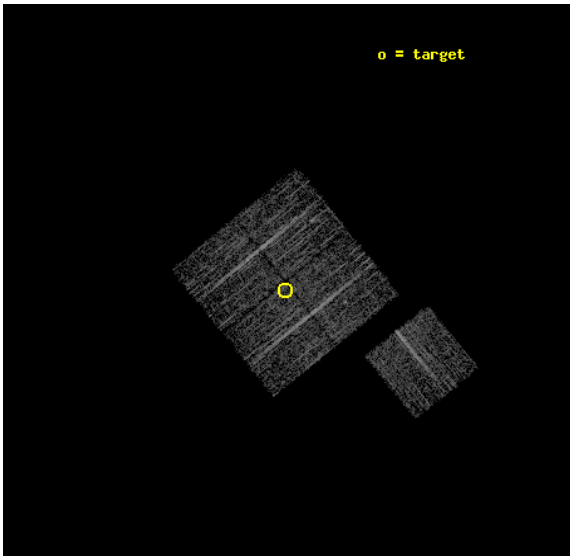
2.1 OBI

2.1.1 Images

Level 1 Image

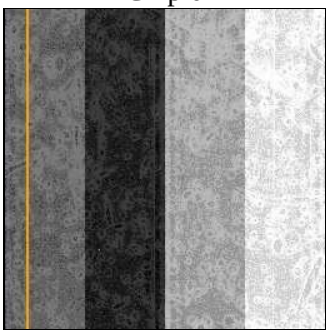


Level 1 Bad Events

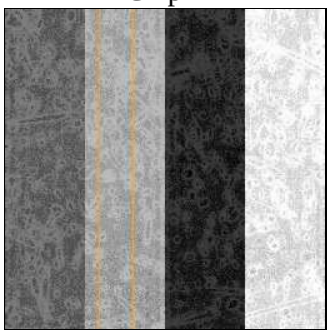


2.1.2 Bias

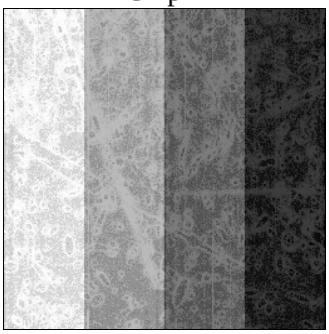
Chip 0



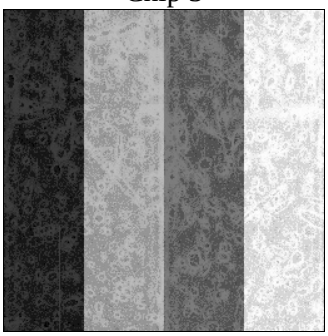
Chip 1



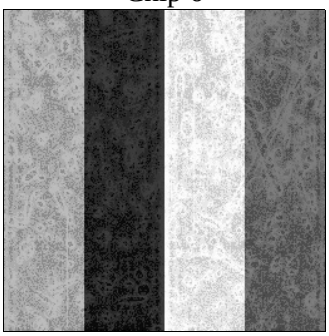
Chip 2



Chip 3



Chip 6



2.1.3 Parameters

obi_num	1	Obi number
ascdsver	8.4.5	Processing system revision
caldbver	4.5.2	
date	2012-10-26T00:16:59	Date and time of file creation
revision	3	Processing version of data

sched_exp_time	4800.000000	[s] Scheduled observation exposure time
ontime	4578.5360432267	Sum of GTIs [s]
ontime0	4575.2719529867	Sum of GTIs [s]
ontime1	4578.4539632201	Sum of GTIs [s]
ontime2	4575.3540329933	Sum of GTIs [s]
ontime3	4578.5360432267	Sum of GTIs [s]
ontime6	4578.3718832135	Sum of GTIs [s]
l1events	120084	Number of level 1 events

2.1.4 Events

	ccd 0	**ccd 1**	**ccd 2**	**ccd 3**	**ccd 6**
level 1 events	23684	22778	25945	24000	23677
rejected events	20861	19461	21745	21526	20981
rejected %	88%	85%	83%	89%	88%

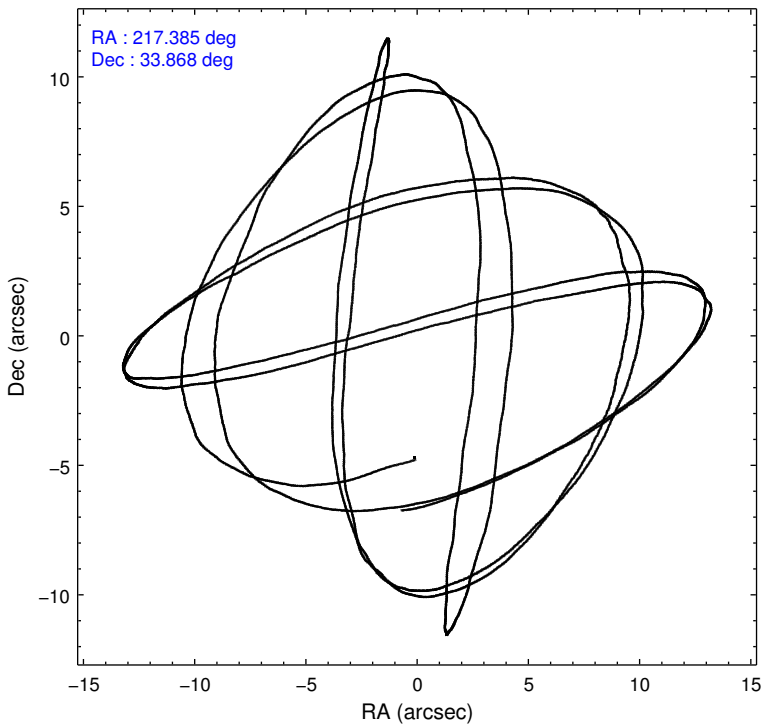
	ccd 0	**ccd 1**	**ccd 2**	**ccd 3**	**ccd 6**
grade 0 events	1231	1557	2524	975	1092
	5%	6%	9%	4%	4%
grade 1 events	14	13	46	15	5
	0%	0%	0%	0%	0%
grade 2 events	569	603	651	497	524
	2%	2%	2%	2%	2%
grade 3 events	262	318	324	280	286
	1%	1%	1%	1%	1%
grade 4 events	264	307	307	268	268
	1%	1%	1%	1%	1%
grade 5 events	683	743	639	814	772
	2%	3%	2%	3%	3%
grade 6 events	497	534	396	455	527
	2%	2%	1%	1%	2%
grade 7 events	20164	18703	21058	20696	20203
	85%	82%	81%	86%	85%

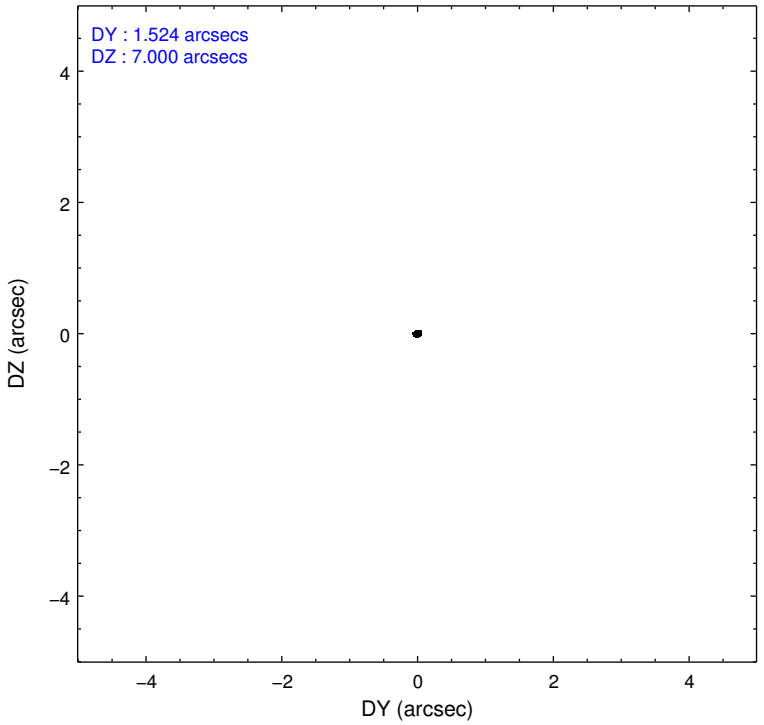
2.2 Compared Parameters

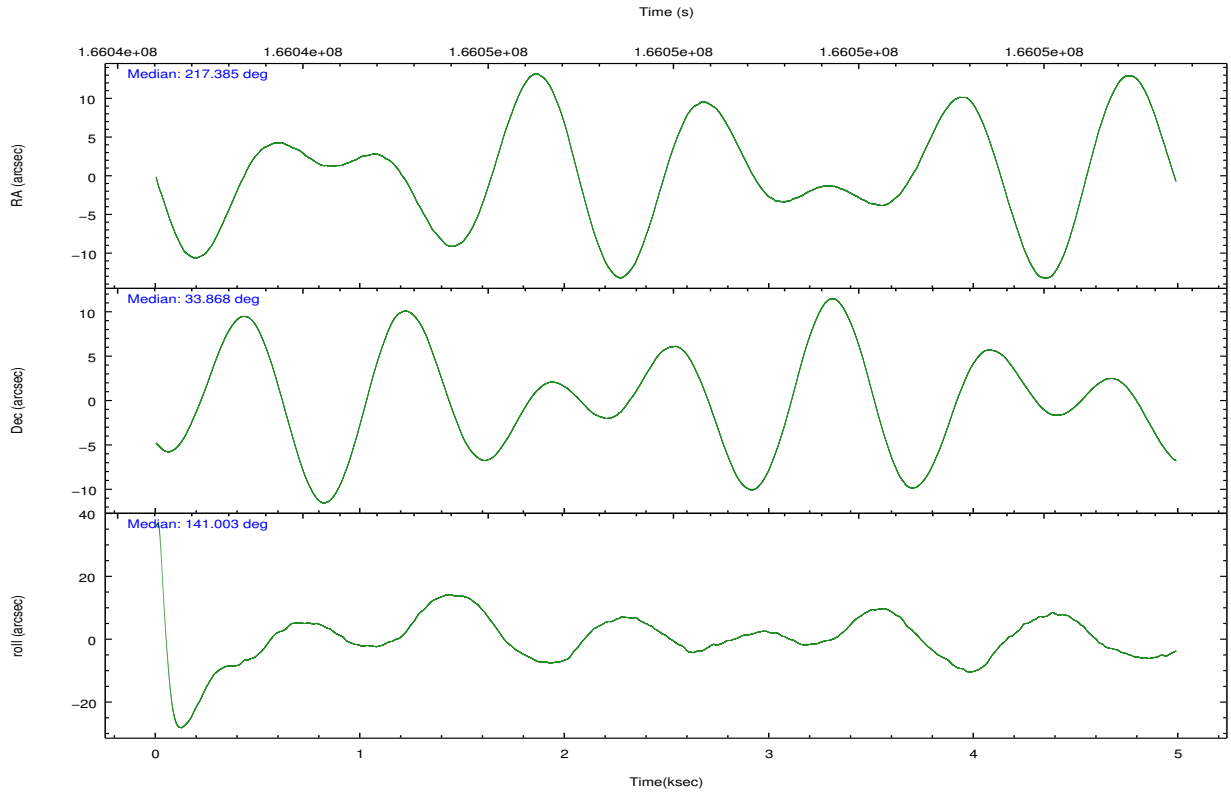
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01236	ACIS-01236
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	217.417046	217.3844299667428
[deg] Pointing Dec	33.864224	33.86836172175563
[deg] Pointing Roll	140.783302	141.0101776528455
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	166044655.184000	166044279.47752
Observation start date	2003-04-06T19:29:51	2003-04-06T19:24:39
[s] Observation end time (MET)	166049455.184000	166049589.49025
Observation end date	2003-04-06T20:49:51	2003-04-06T20:53:09
Read mode	TIMED	TIMED

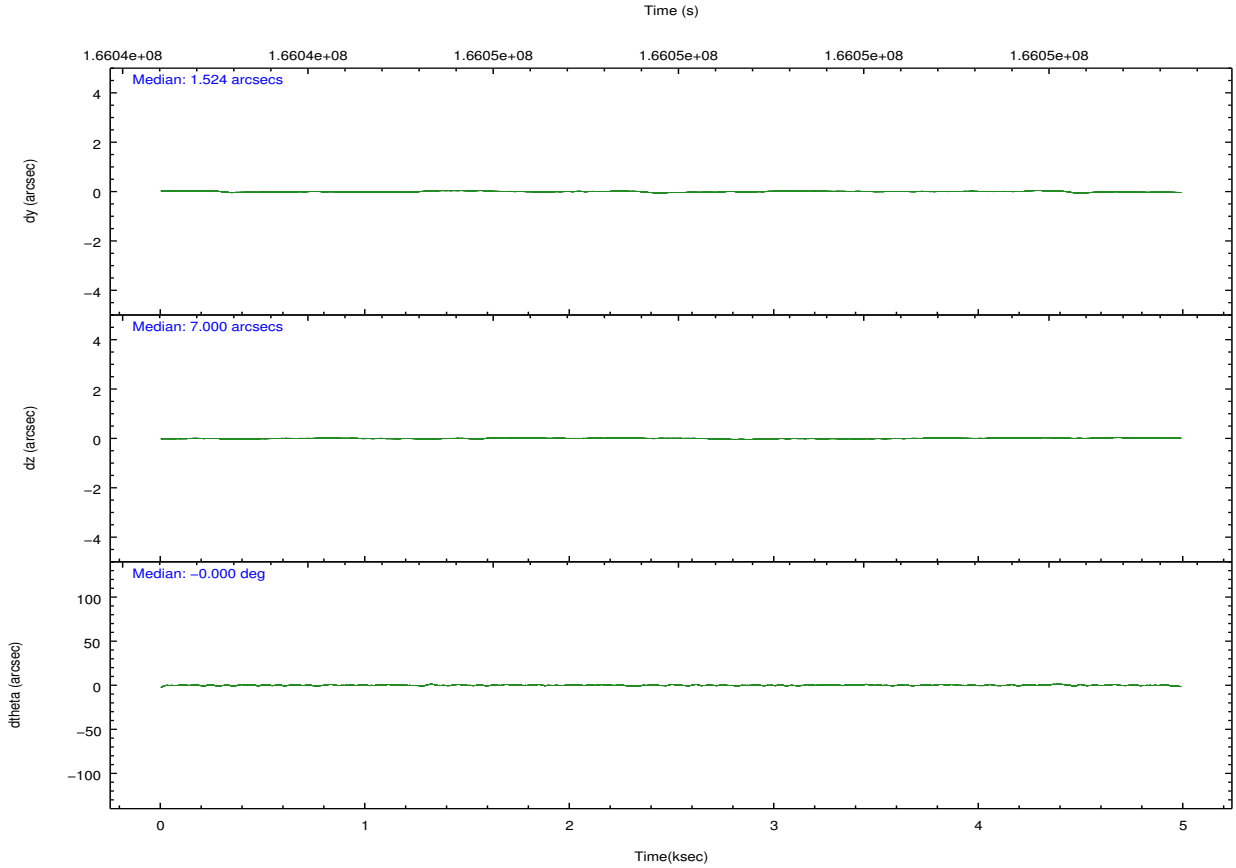
Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect


RA : 217.385 deg
Dec : 33.868 deg
Dec (arcsec)
RA (arcsec)
10
5
0
−5
−10
−15
−10
−5
0
5
10
15


DY : 1.524 arcsecs
DZ : 7.000 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
1.6604e+08
1.6604e+08
1.6605e+08
1.6605e+08
1.6605e+08
1.6605e+08
Median: 217.385 deg
RA (arcsec)
Median: 33.868 deg
Dec (arcsec)
Median: 141.003 deg
roll (arcsec)
Time(ksec)

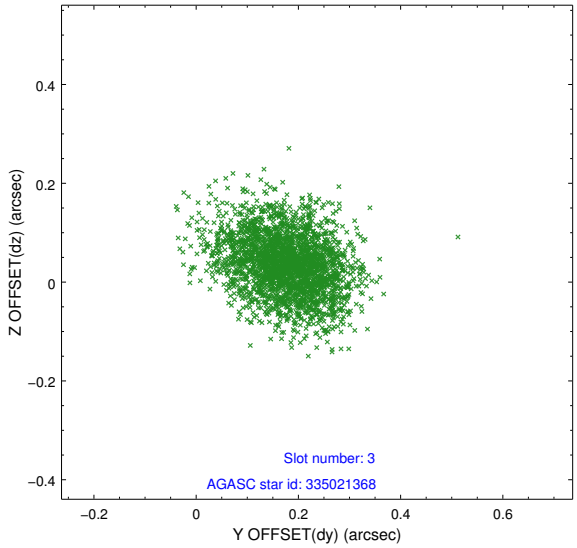

Time (s)
1.6604e+08
1.6604e+08
1.6605e+08
1.6605e+08
1.6605e+08
1.6605e+08
Median: 1.524 arcsecs
dy (arcsec)
Median: 7.000 arcsecs
dz (arcsec)
Median: −0.000 deg
dtheta (arcsec)
Time(ksec)

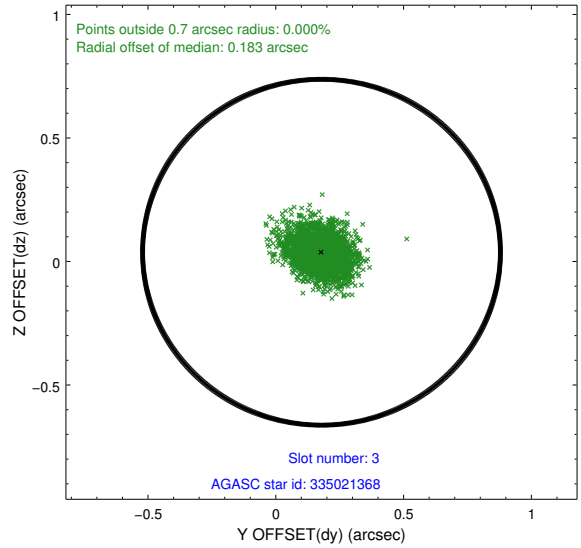
Slot Statistics

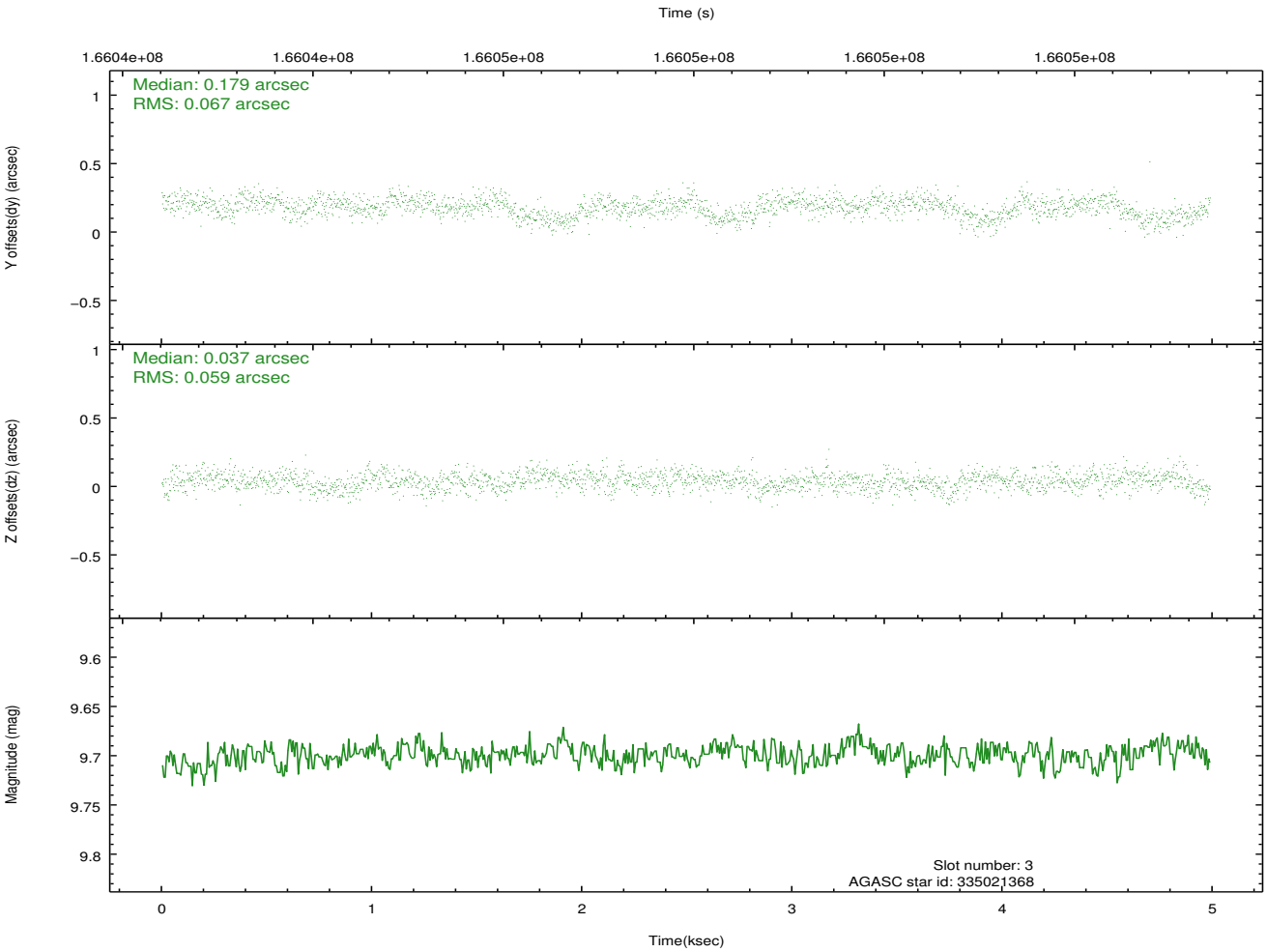
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.25	1217	0.009	0.011	0.006	0.010	0.000000	0.000000	938.30	-830.40
1	FID	ACIS-I-5	7.24	1217	-0.077	0.053	0.006	0.010	0.000000	0.000000	-1809.16	1066.59
2	FID	ACIS-I-6	7.26	1217	-0.023	0.007	0.007	0.012	0.000000	0.000000	402.56	1712.37
3	GUIDE	335021368	9.70	2432	0.179	0.037	0.096	0.155	217.529643	33.934817	-99.16	-409.50
4	GUIDE	335023288	9.86	2429	-0.311	0.417	0.128	0.205	217.791365	34.425735	418.50	-2270.04
5	GUIDE	335025848	9.72	2434	-0.002	-0.403	0.088	0.143	217.530531	33.778292	-458.02	23.58
6	GUIDE	335028336	9.49	2364	0.136	0.029	0.126	0.198	217.189840	34.665629	2346.22	-1810.18
7	GUIDE	335028696	9.16	2432	-0.001	-0.075	0.095	0.168	217.260519	33.844112	318.35	351.09

2.4 Star Slots

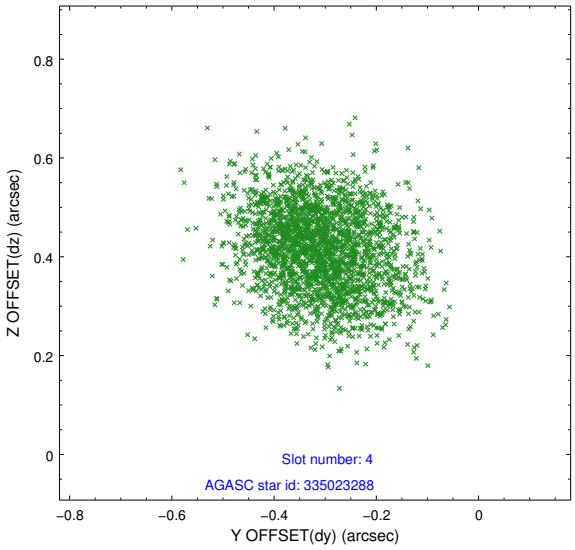
2.4.1 Slot 3

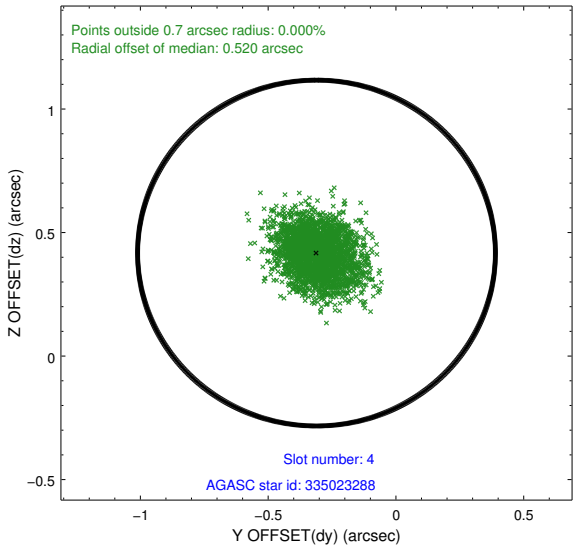


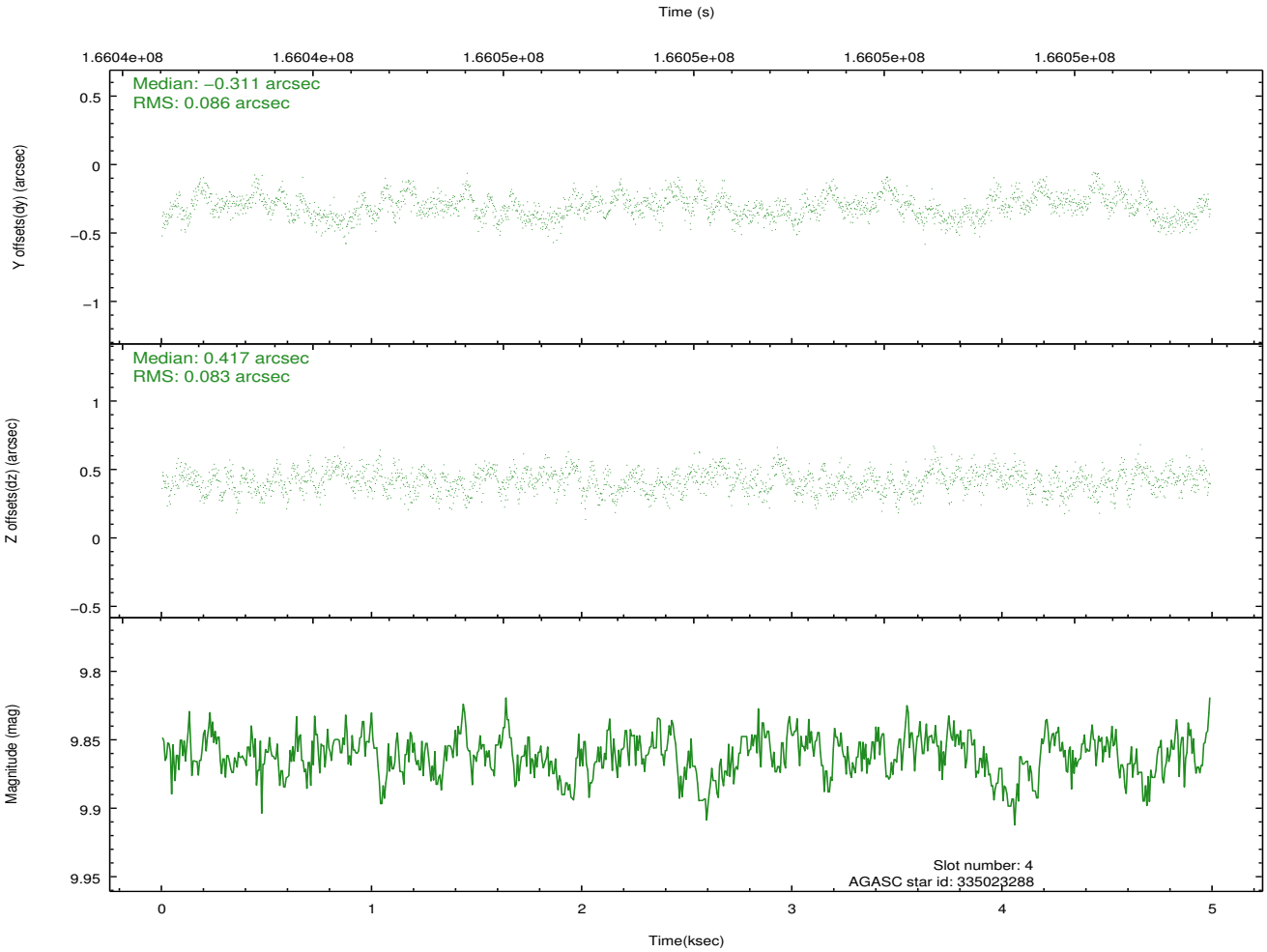




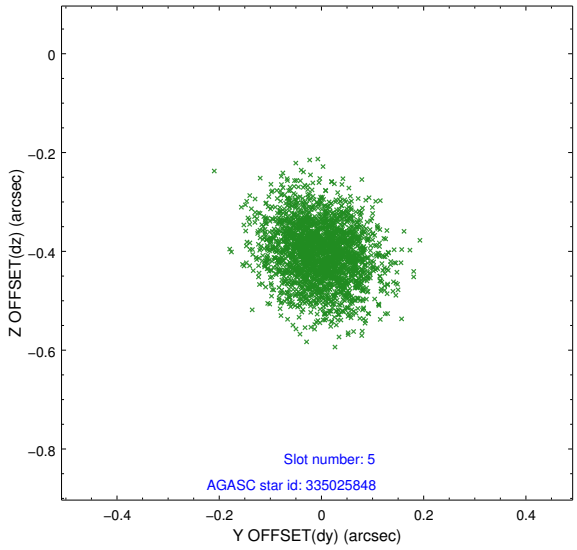
2.4.2 Slot 4

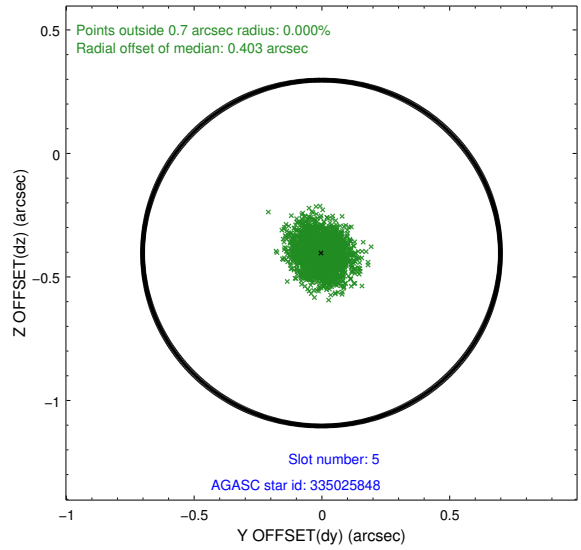

Slot number: 4
AGASC star id: 335023288
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

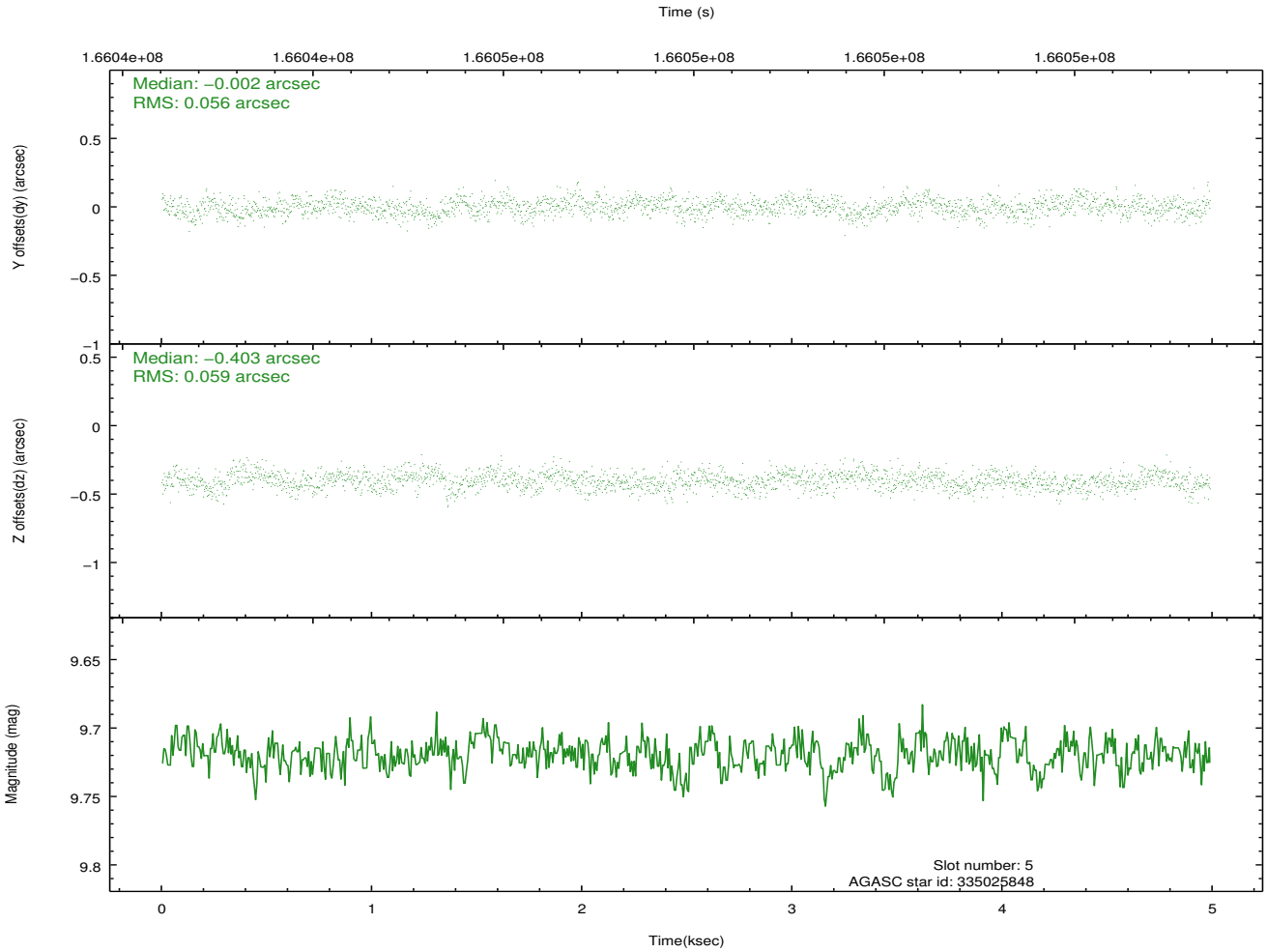

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.520 arcsec
Slot number: 4
AGASC star id: 335023288
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Time (s)
Median: −0.311 arcsec
RMS: 0.086 arcsec
Y offsets(dy) (arcsec)
Median: 0.417 arcsec
RMS: 0.083 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 4
AGASC star id: 335023288
Time(ksec)

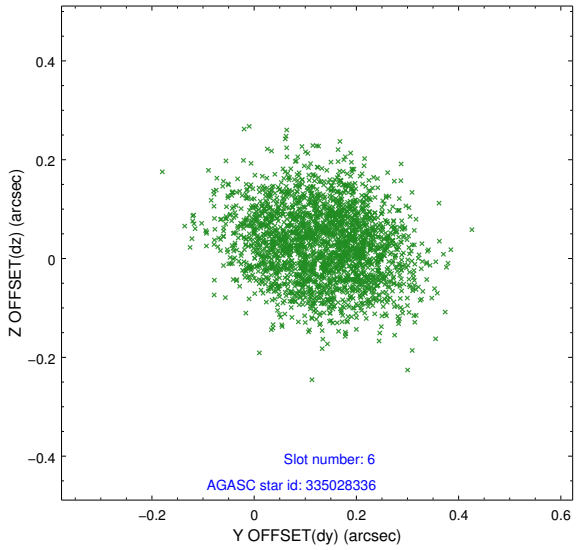
2.4.3 Slot 5

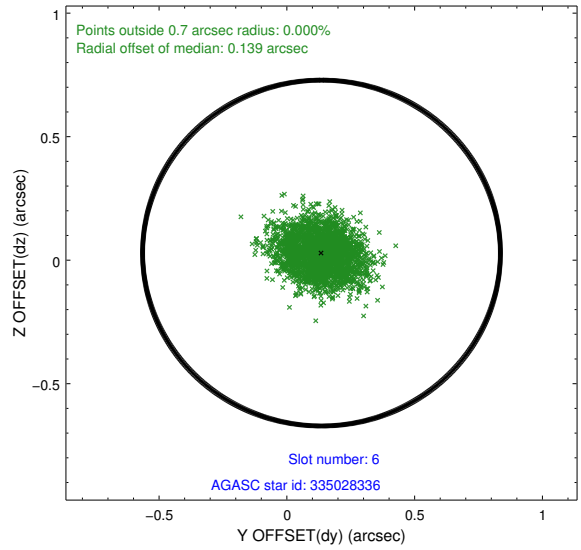

Slot number: 5
AGASC star id: 335025848
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

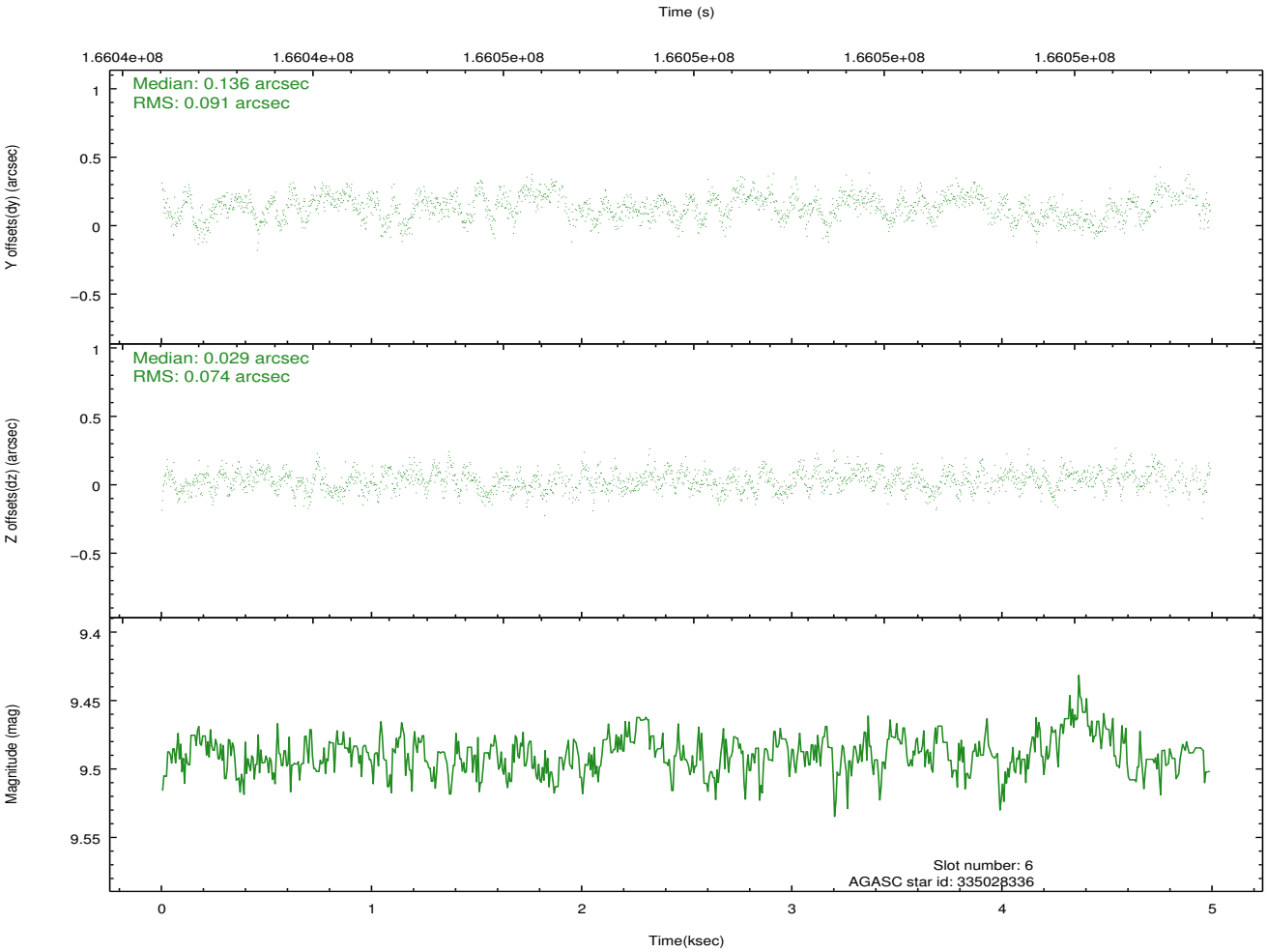

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.403 arcsec
Slot number: 5
AGASC star id: 335025848
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Time (s)
Median: −0.002 arcsec
RMS: 0.056 arcsec
Y offsets(dy) (arcsec)
Median: −0.403 arcsec
RMS: 0.059 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 5
AGASC star id: 335025848
Time(ksec)

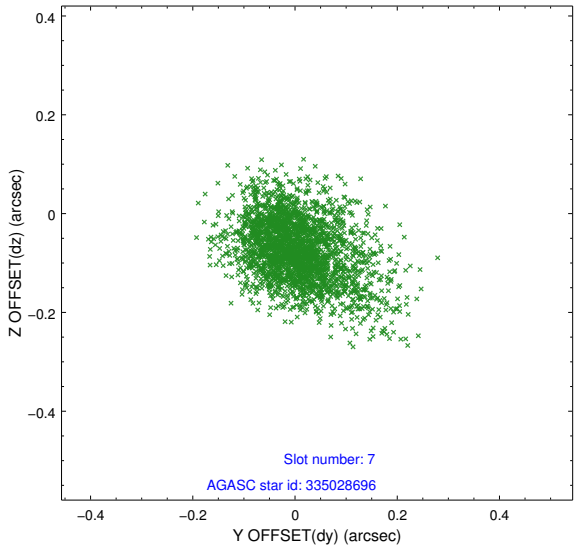
2.4.4 Slot 6

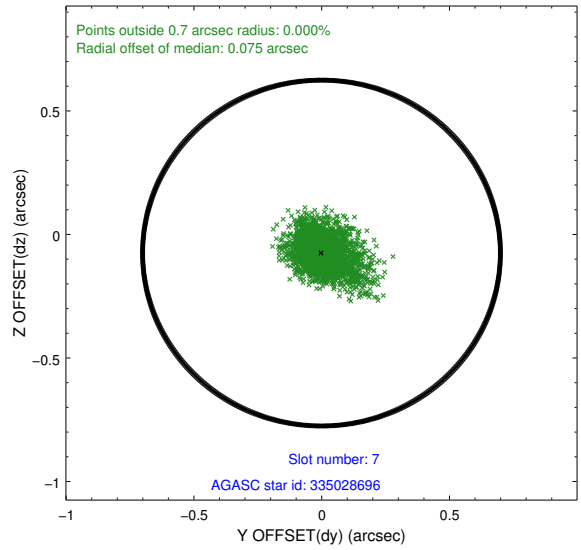

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 335028336

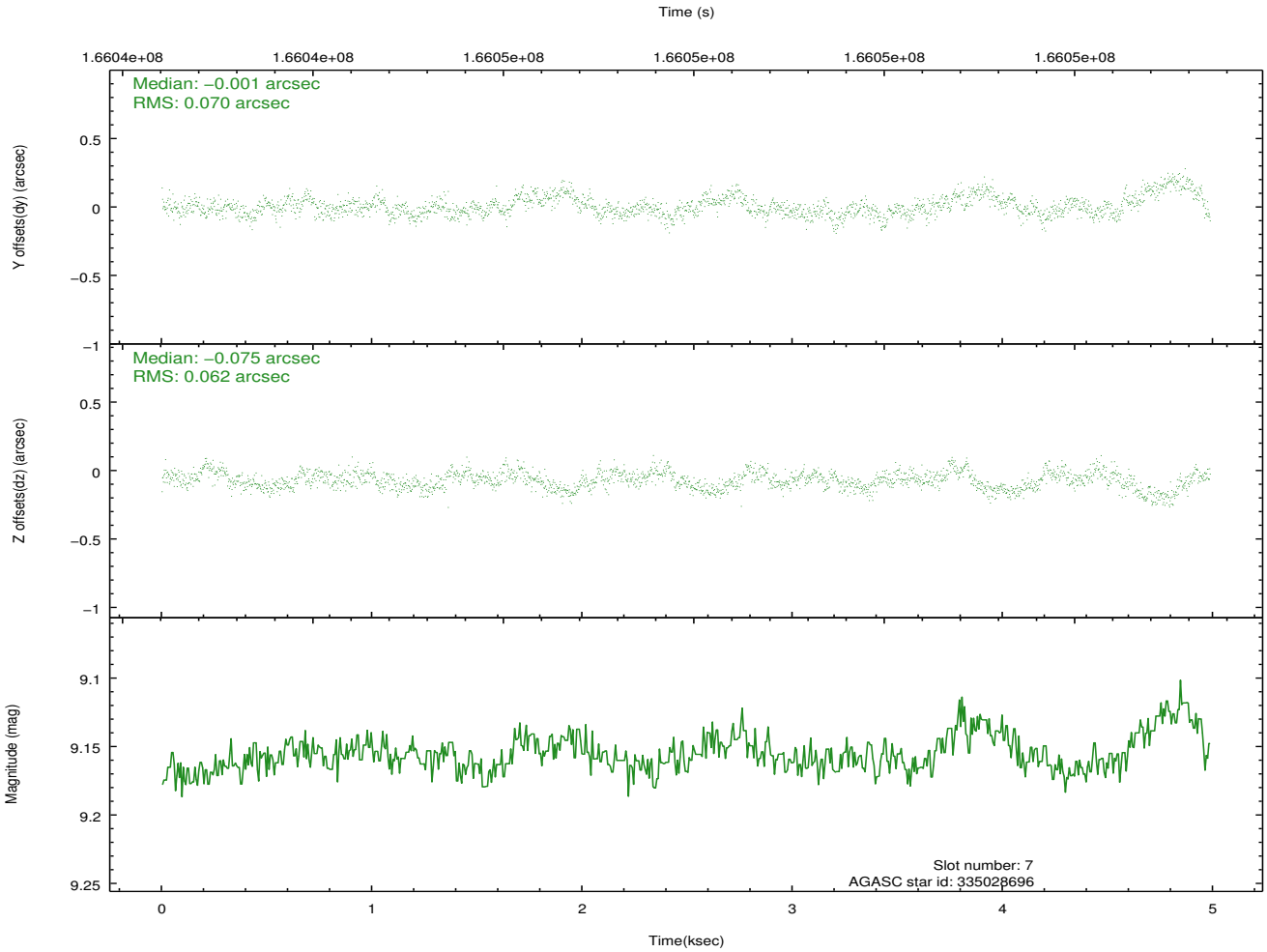

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.139 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 335028336


Time (s)
Median: 0.136 arcsec
RMS: 0.091 arcsec
Y offsets(dy) (arcsec)
Median: 0.029 arcsec
RMS: 0.074 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 6
AGASC star id: 335028336
Time(ksec)

2.4.5 Slot 7

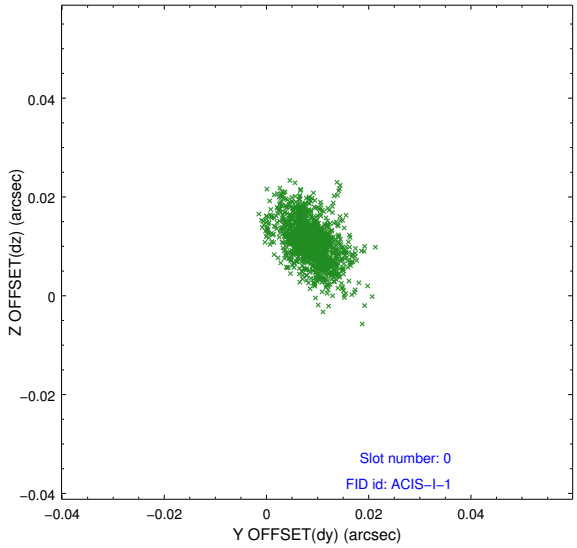

Slot number: 7
AGASC star id: 335028696
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

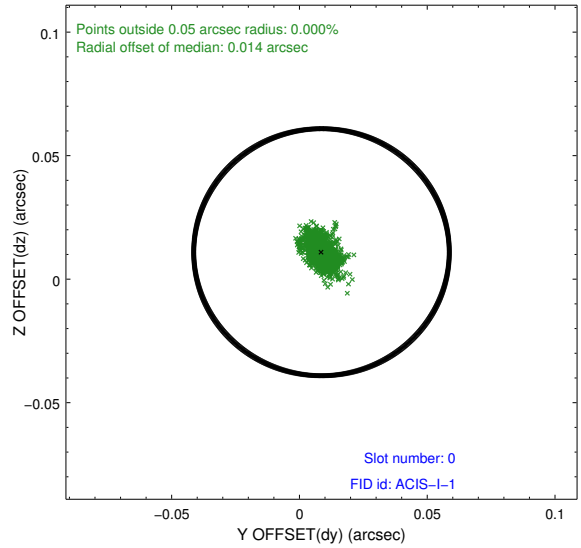

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.075 arcsec
Slot number: 7
AGASC star id: 335028696
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

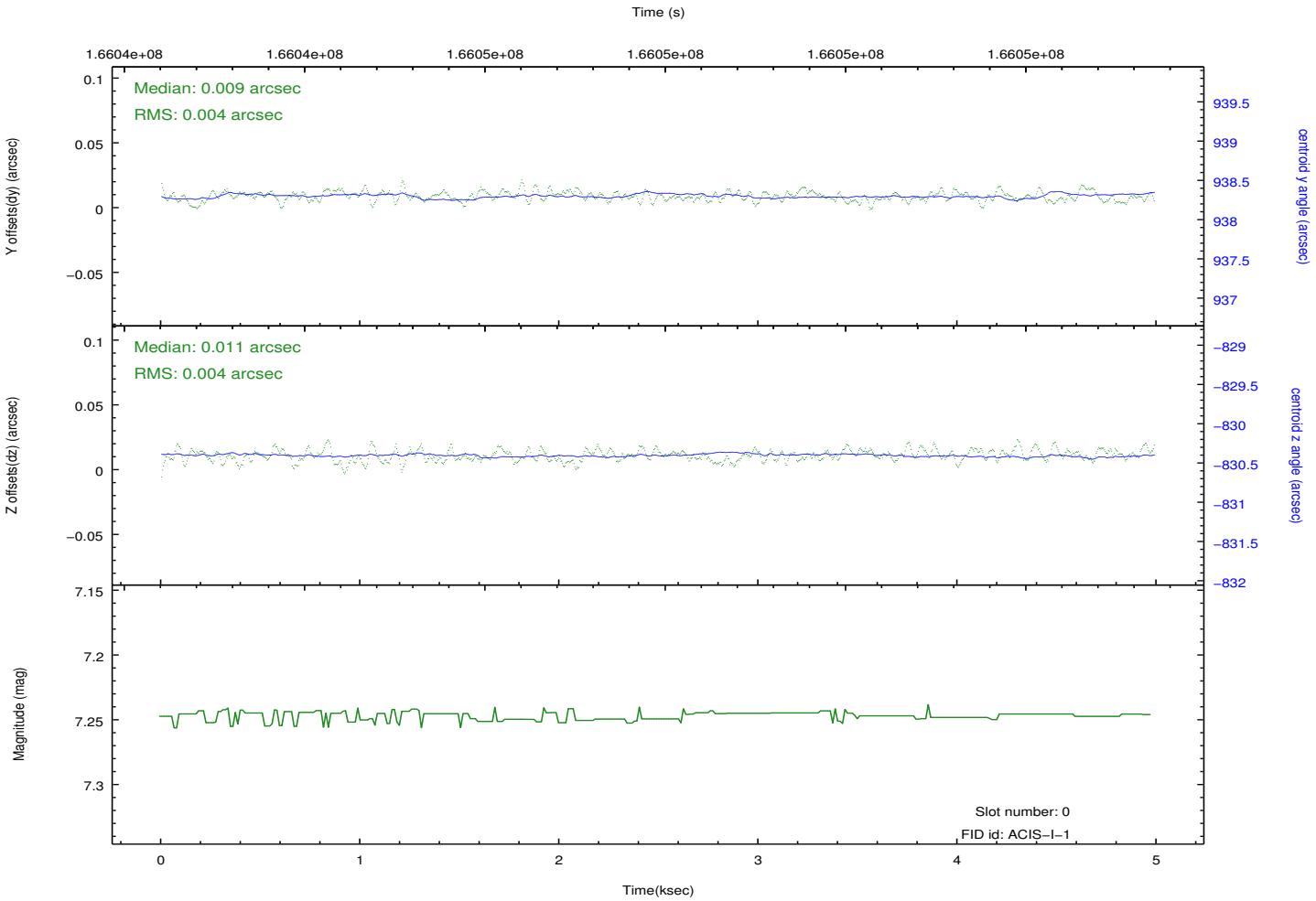

Time (s)
Median: −0.001 arcsec
RMS: 0.070 arcsec
Y offsets(dy) (arcsec)
Median: −0.075 arcsec
RMS: 0.062 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 7
AGASC star id: 335028696
Time(ksec)

2.5 FID Slots

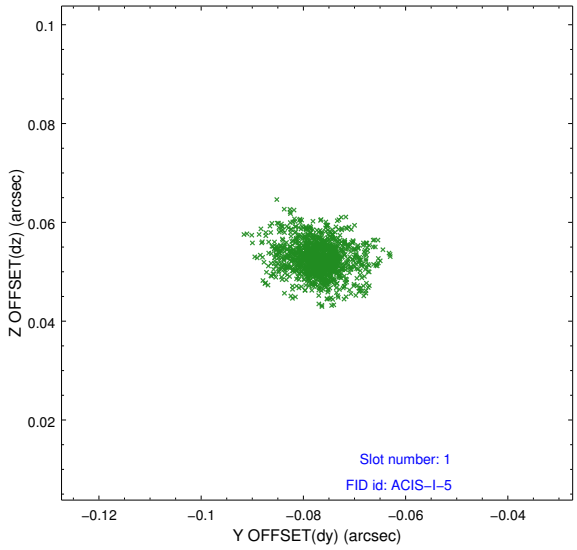
2.5.1 Slot 0

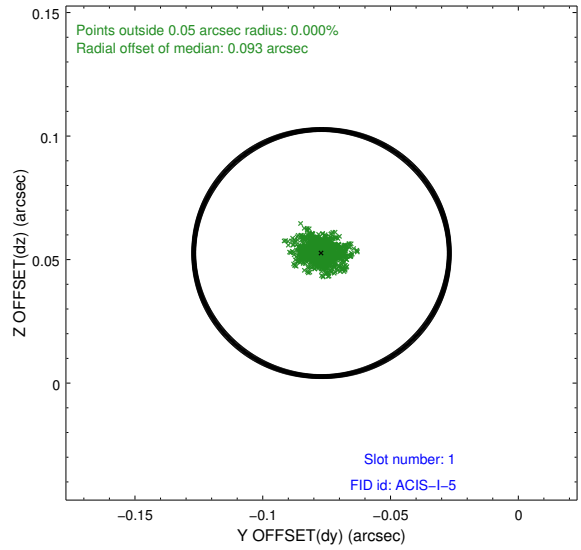


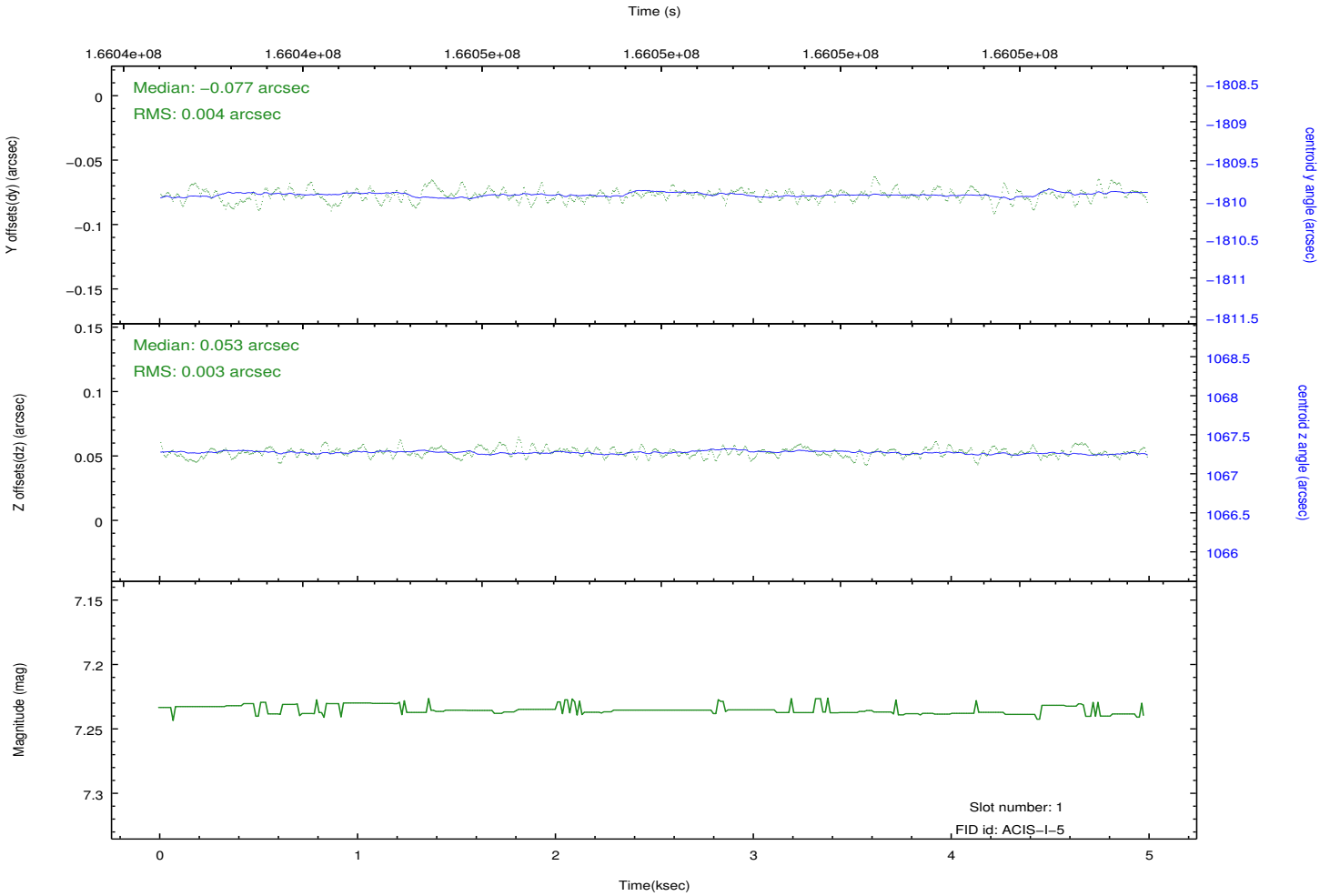




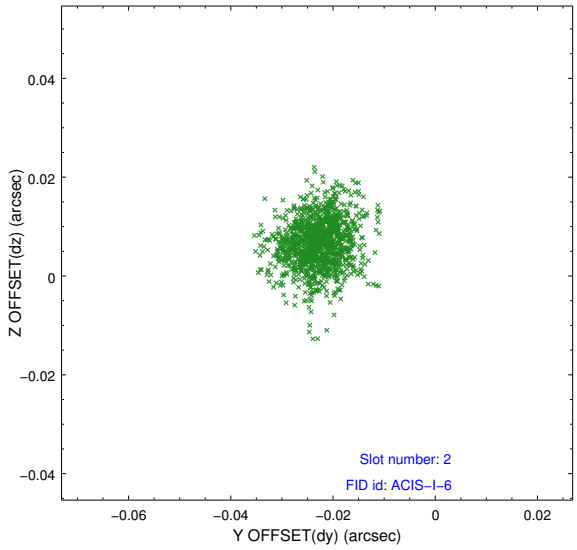
2.5.2 Slot 1

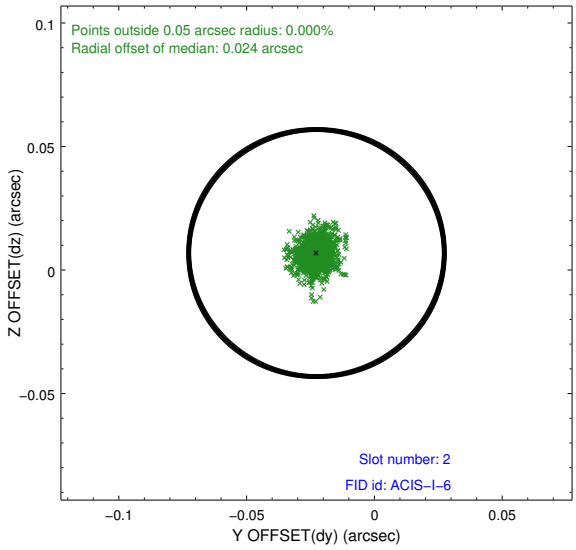

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−I−5

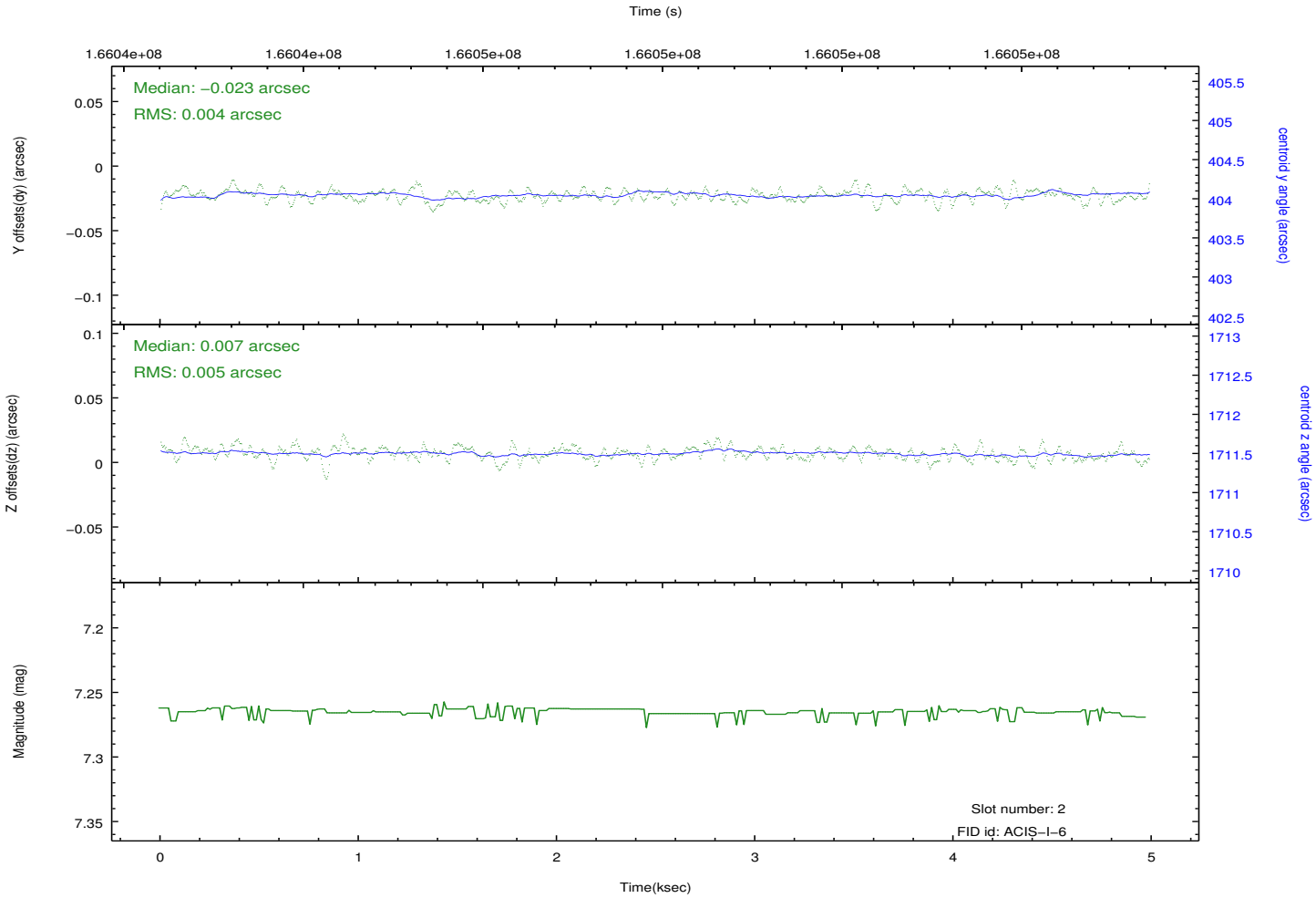

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.093 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−I−5


Time (s)
Median: −0.077 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.053 arcsec
RMS: 0.003 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 1
FID id: ACIS−I−5
Time(ksec)

2.5.3 Slot 2


Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−I−6


Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.024 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−I−6


Time (s)
Median: −0.023 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.007 arcsec
RMS: 0.005 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 2
FID id: ACIS−I−6
Time(ksec)

A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.11.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.572

A.2 Comments

```
Charge time for this observation remains at previous value of 4.572
ksec.
```