V&V Reference Report
L2 ASCDS Version : 8.4.5

Observation 2829 - L2 Version 3
Chandra X-Ray Center

L2 Processing Date : Oct 12 2012

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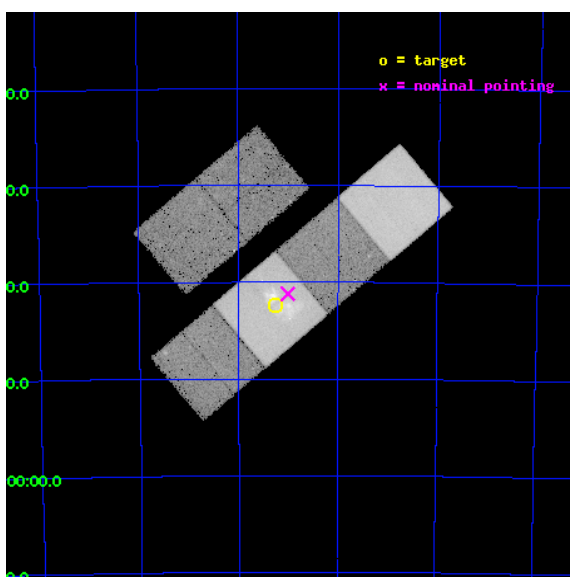
1 Front

seq_num	500279	Sequence number
obs_id	2829	Observation id
title	THE TWO SHELLS OF DEM L 316	Proposal title
observer	Dr. Rosa Williams	Principal investigator
object	DEM L 316	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	86.8125	Observer's specified target RA [deg]
dec_targ	-69.706944	Observer's specified target Dec [deg]
ra_nom	86.751930622713	Nominal RA [deg]
dec_nom	-69.686836093924	Nominal Dec [deg]
roll_nom	139.6998161297	Nominal Roll [deg]
revision	3	Processing version of data
ontime	36038.399865746	Sum of GTIs [s]
livetime	35582.059946927	Livetime [s]
ontime2	35753.443183959	Sum of GTIs [s]
ontime3	35763.330384254	Sum of GTIs [s]
ontime5	36022.195074409	Sum of GTIs [s]
ontime6	35776.253265053	Sum of GTIs [s]
ontime7	36038.399865746	Sum of GTIs [s]
ontime8	35779.121619284	Sum of GTIs [s]
l2events	375371	Number of level 2 events

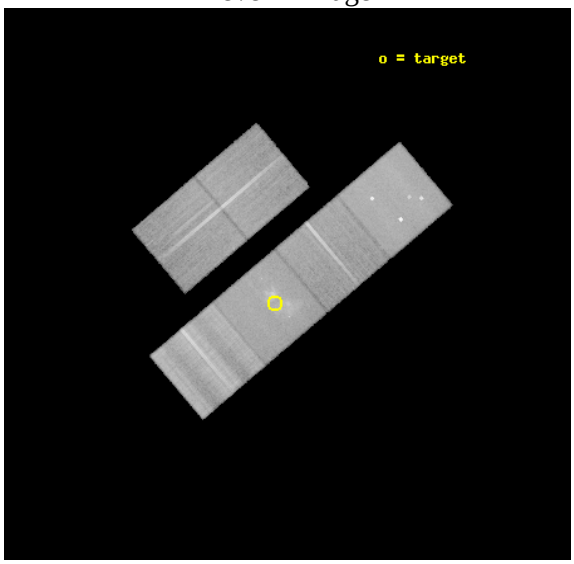


2 OBI

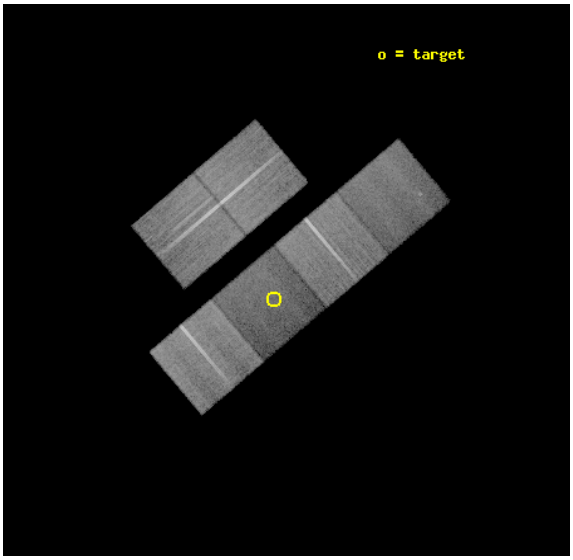
2.1 OBI

2.1.1 Images

Level 1 Image

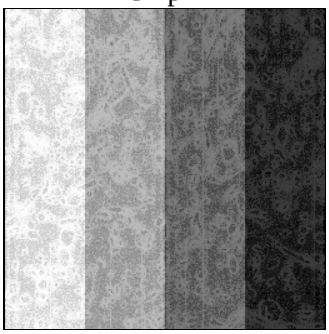


Level 1 Bad Events

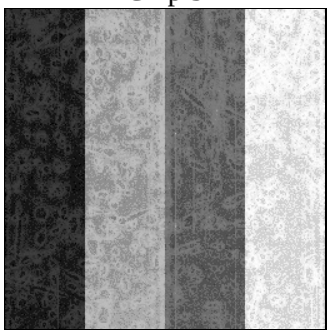


2.1.2 Bias

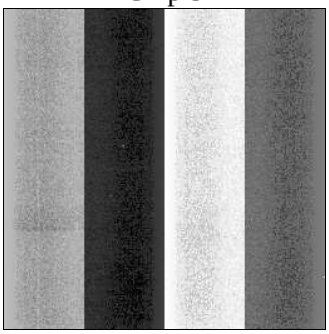
Chip 2



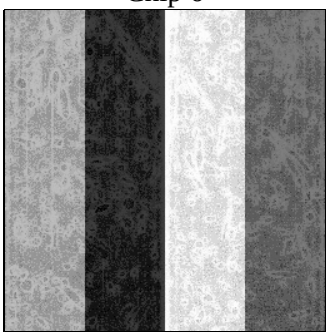
Chip 3



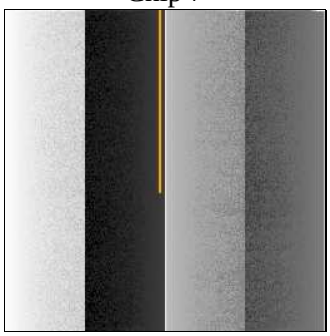
Chip 5



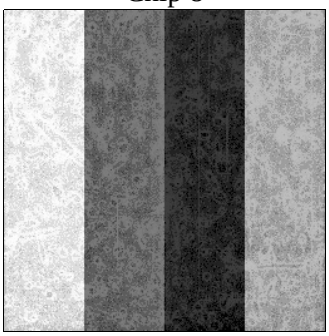
Chip 6



Chip 7



Chip 8



2.1.3 Parameters

obi_num	1	Obi number
ascdsver	8.4.5	Processing system revision
caldbver	4.5.2	
date	2012-10-11T21:53:12	Date and time of file creation
revision	3	Processing version of data

sched_exp_time	36034.226000	[s] Scheduled observation exposure time
ontime	36038.399865746	Sum of GTIs [s]
ontime2	35753.443183959	Sum of GTIs [s]
ontime3	35763.330384254	Sum of GTIs [s]
ontime5	36022.195074409	Sum of GTIs [s]
ontime6	35776.253265053	Sum of GTIs [s]
ontime7	36038.399865746	Sum of GTIs [s]
ontime8	35779.121619284	Sum of GTIs [s]
l1events	1353819	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	198609	183542	270529	191006	224968	285165
rejected events	175001	163414	100878	163656	80708	175520
rejected %	88%	89%	37%	85%	35%	61%

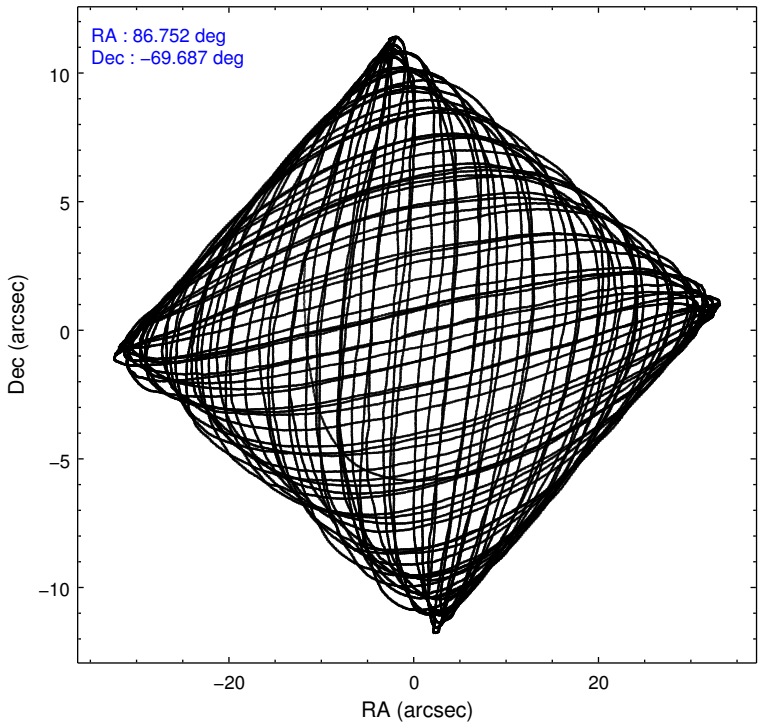
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	10645	8876	31850	13797	19048	33381
	5%	4%	11%	7%	8%	11%
grade 1 events	105	98	483	117	193	278
	0%	0%	0%	0%	0%	0%
grade 2 events	5267	4013	46879	5165	30413	18605
	2%	2%	17%	2%	13%	6%
grade 3 events	1969	1946	9498	2257	13618	16735
	0%	1%	3%	1%	6%	5%
grade 4 events	2153	1891	9368	2171	13435	14898
	1%	1%	3%	1%	5%	5%
grade 5 events	4594	5034	17937	5612	17254	8807
	2%	2%	6%	2%	7%	3%
grade 6 events	3589	3402	72159	3976	67852	26026
	1%	1%	26%	2%	30%	9%
grade 7 events	170287	158282	82355	157911	63155	166435
	85%	86%	30%	82%	28%	58%

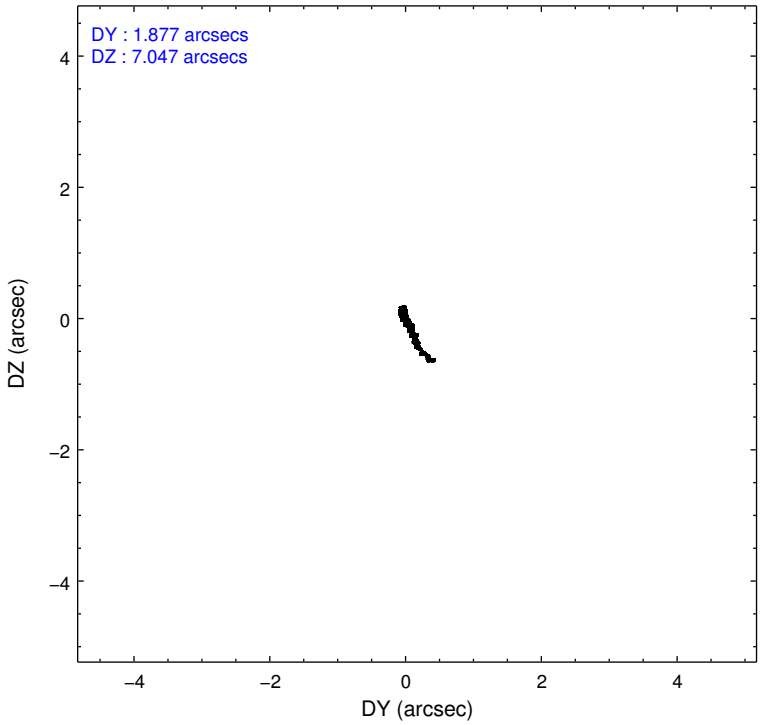
2.2 Compared Parameters

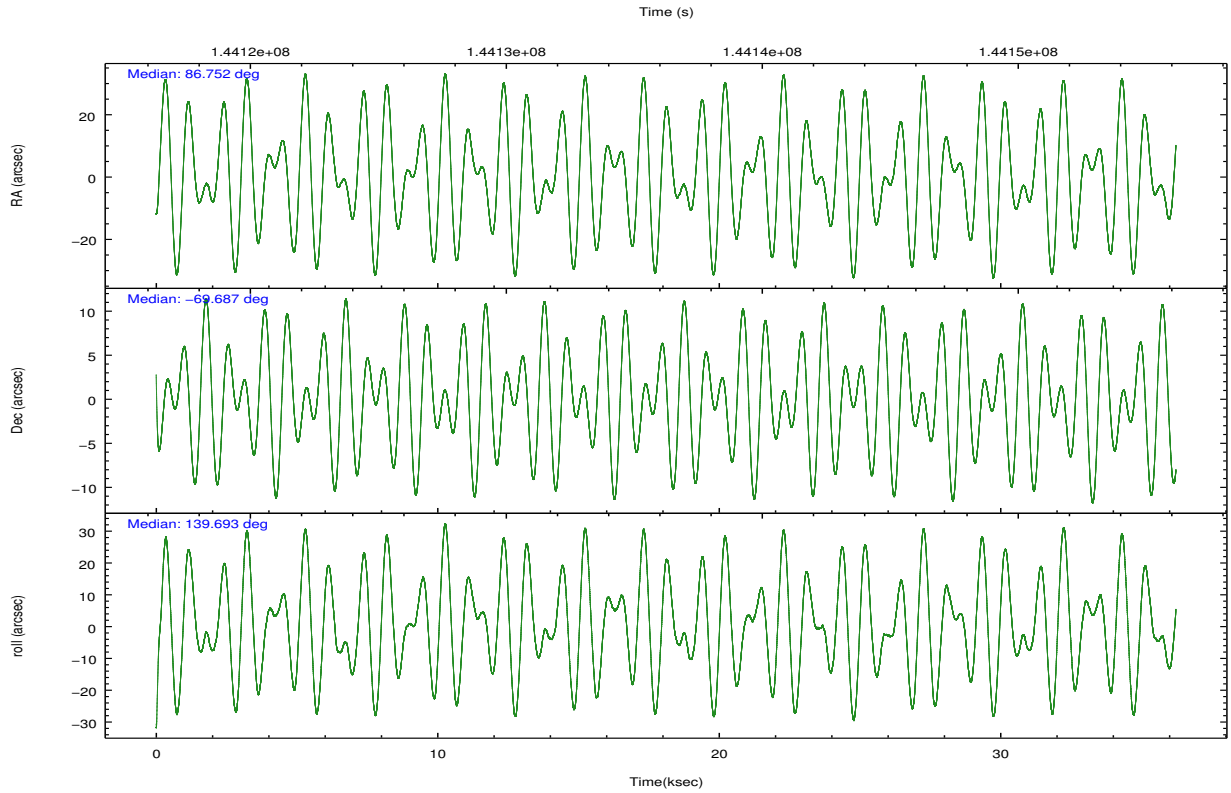
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-235678	ACIS-235678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	86.829331	86.7519306227133
[deg] Pointing Dec	-69.691336	-69.68683609392434
[deg] Pointing Roll	139.615785	139.6998161297016
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	144118318.184000	144117334.55131
Observation start date	2002-07-27T00:50:54	2002-07-27T00:35:34
[s] Observation end time (MET)	144154352.184000	144154666.59034
Observation end date	2002-07-27T10:51:28	2002-07-27T10:57:46
Read mode	TIMED	TIMED

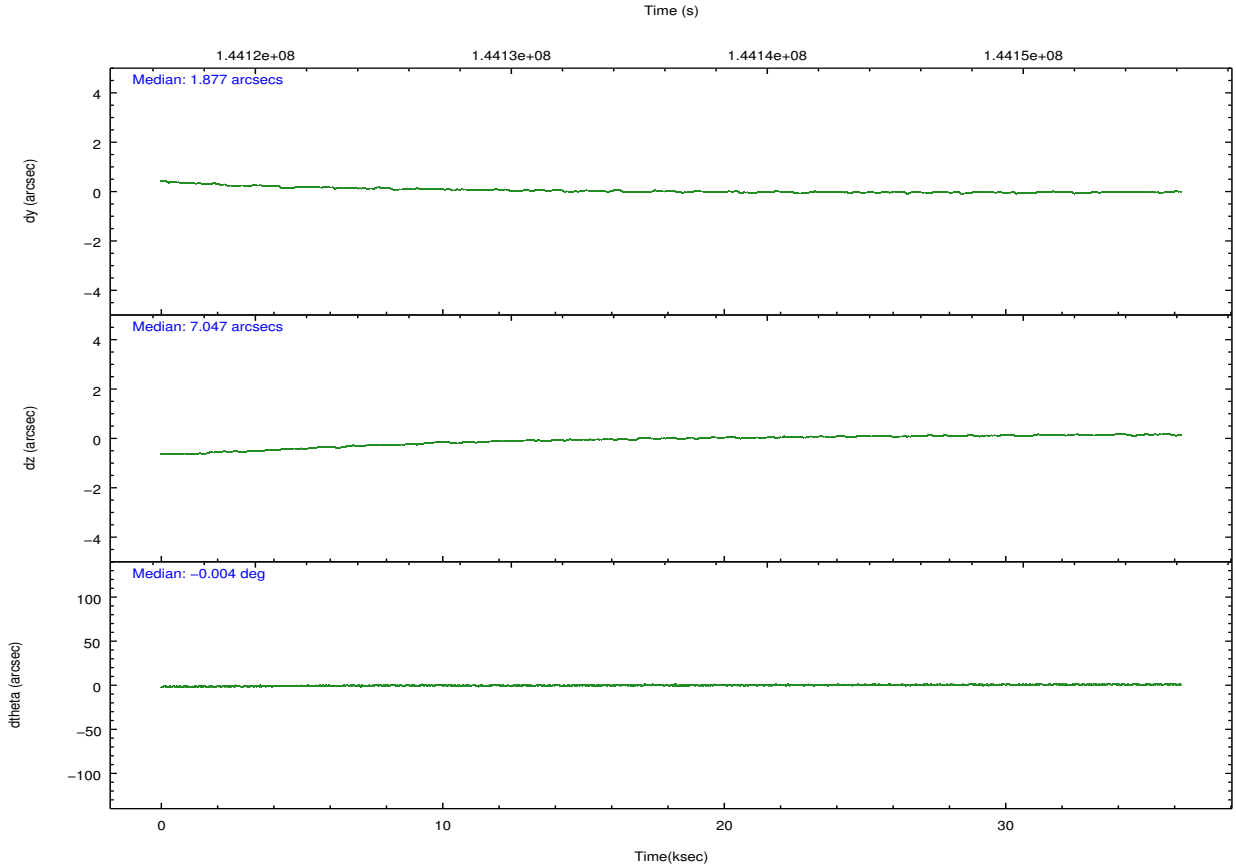
Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

2.3 Aspect


RA : 86.752 deg
Dec : −69.687 deg
Dec (arcsec)
RA (arcsec)
10
5
0
−5
−10
−20
0
20


DY : 1.877 arcsecs
DZ : 7.047 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
1.4412e+08
1.4413e+08
1.4414e+08
1.4415e+08
Median: 86.752 deg
RA (arcsec)
Median: −69.687 deg
Dec (arcsec)
Median: 139.693 deg
roll (arcsec)
Time(ksec)

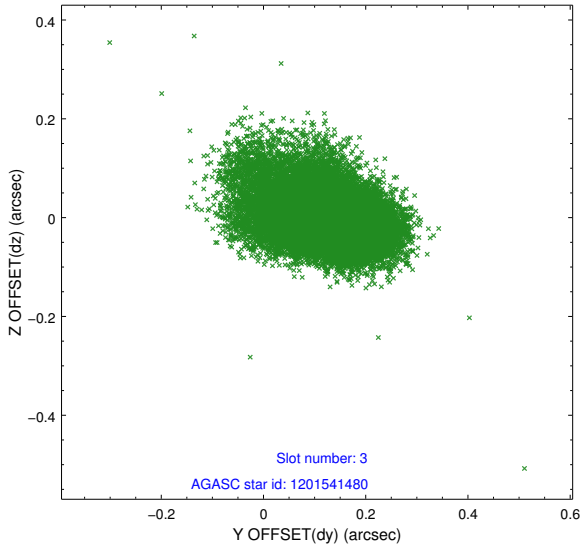

Time (s)
1.4412e+08
1.4413e+08
1.4414e+08
1.4415e+08
Median: 1.877 arcsecs
dy (arcsec)
Median: 7.047 arcsecs
dz (arcsec)
Median: −0.004 deg
dtheta (arcsec)
Time(ksec)

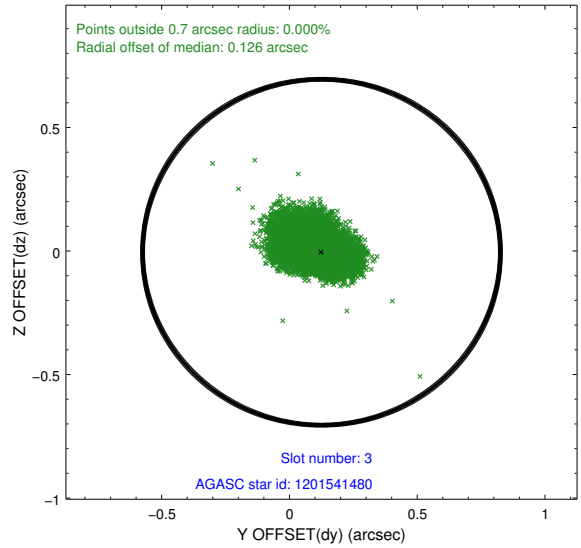
Slot Statistics

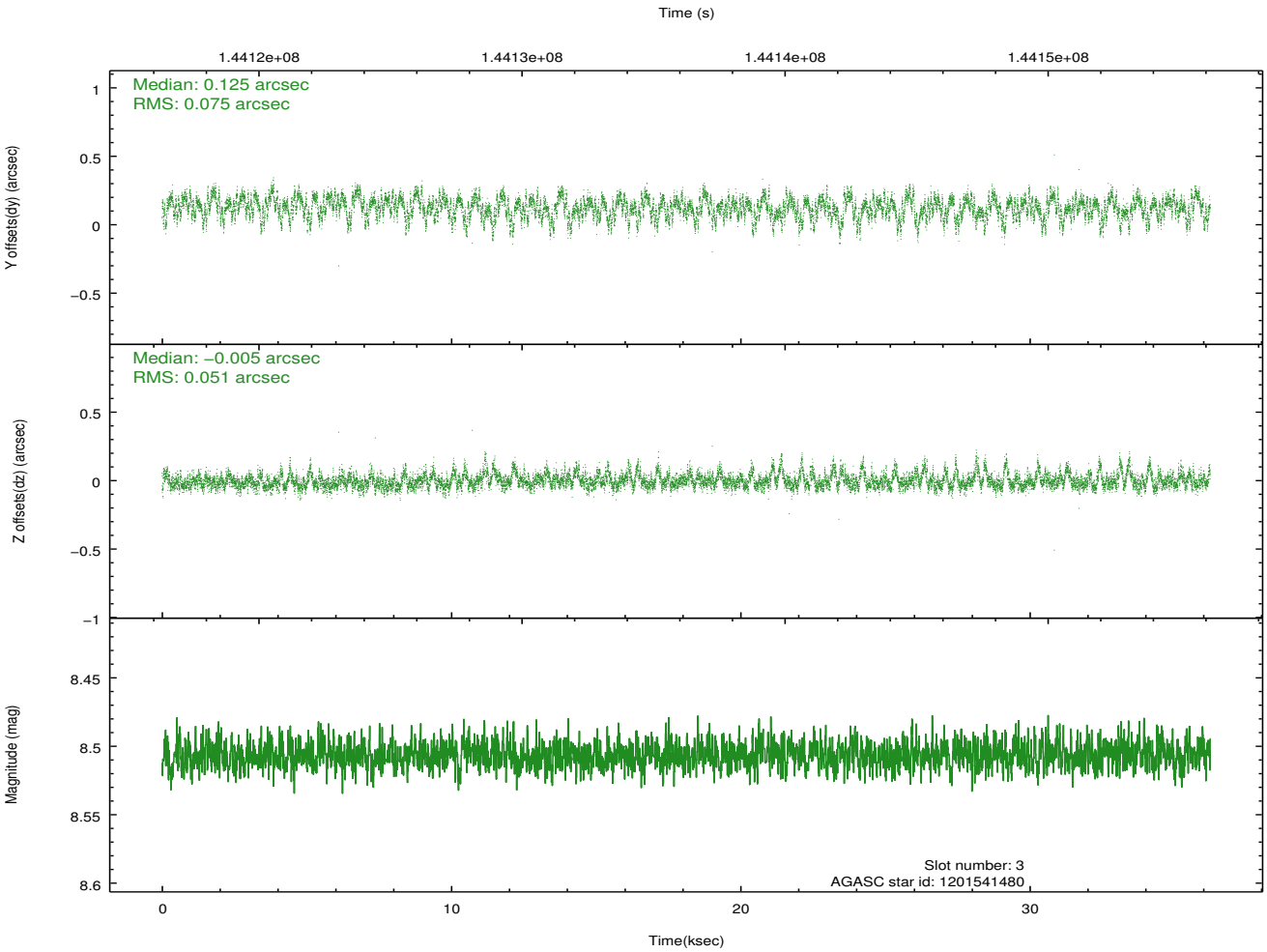
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-3	7.35	8836	-0.077	-0.085	0.014	0.036	0.000000	0.000000	58.57	-1857.22
1	FID	ACIS-S-4	7.20	8837	0.017	0.079	0.010	0.024	0.000000	0.000000	2158.83	180.43
2	FID	ACIS-S-5	7.24	8837	0.029	0.015	0.015	0.046	0.000000	0.000000	-1807.30	174.11
3	GUIDE	1201541480	8.51	17663	0.125	-0.005	0.092	0.164	87.080483	-70.345903	-1758.41	1598.03
4	GUIDE	1201541752	7.32	17672	-0.188	-0.218	0.072	0.115	85.373891	-70.033762	550.27	2114.08
5	GUIDE	1201018312	9.60	17666	0.078	0.068	0.111	0.178	86.298231	-69.115627	1860.97	-1134.66
6	GUIDE	1201540736	9.53	17663	-0.136	0.141	0.137	0.227	88.890441	-69.433702	-1412.06	-2361.89
7	GUIDE	1201020088	10.63	17485	0.124	0.012	0.219	0.362	86.319248	-68.997756	2118.13	-1473.54

2.4 Star Slots

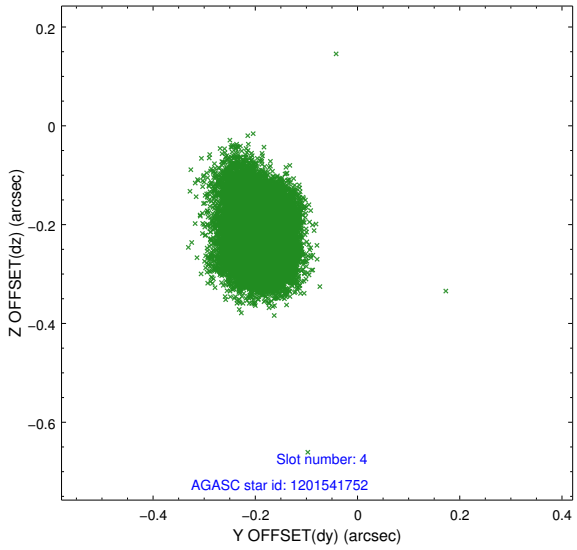
2.4.1 Slot 3

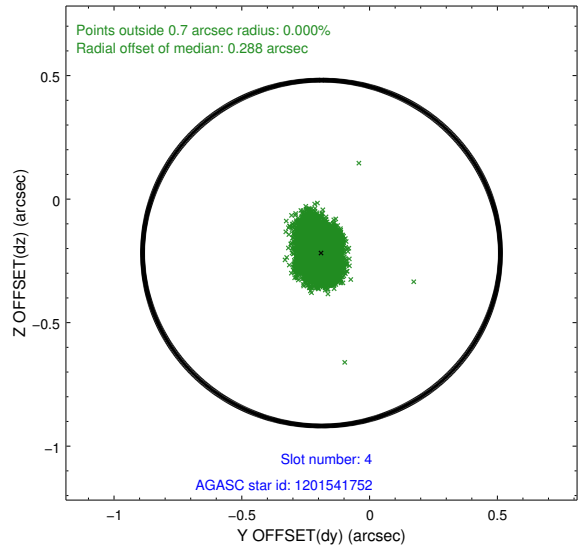


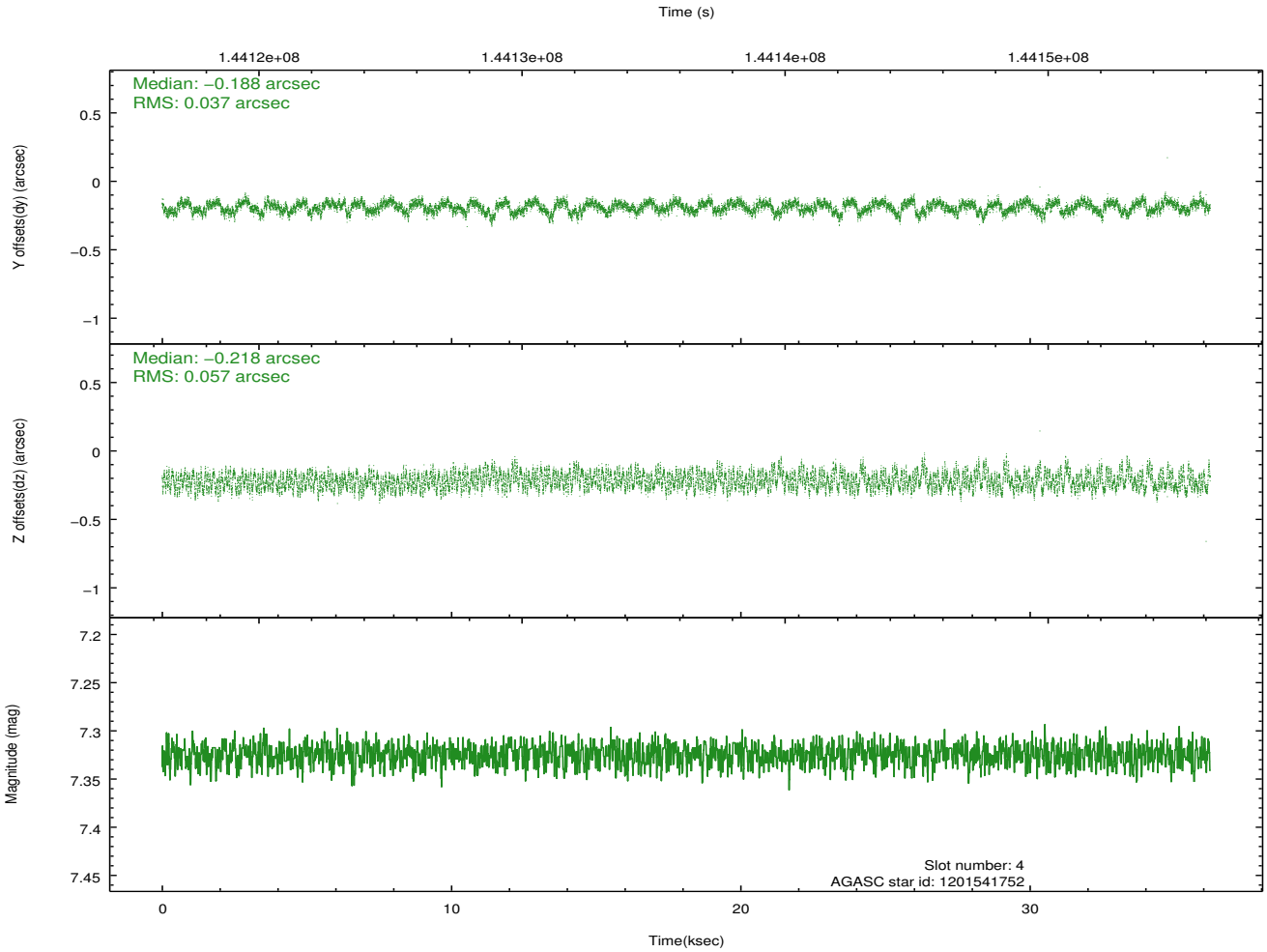




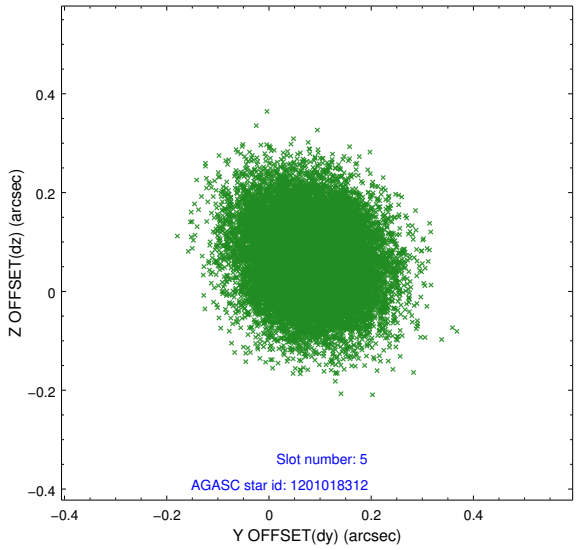
2.4.2 Slot 4

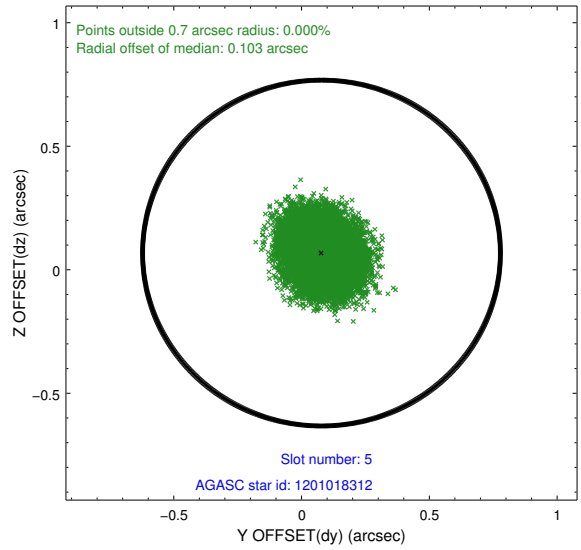

Slot number: 4
AGASC star id: 1201541752
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

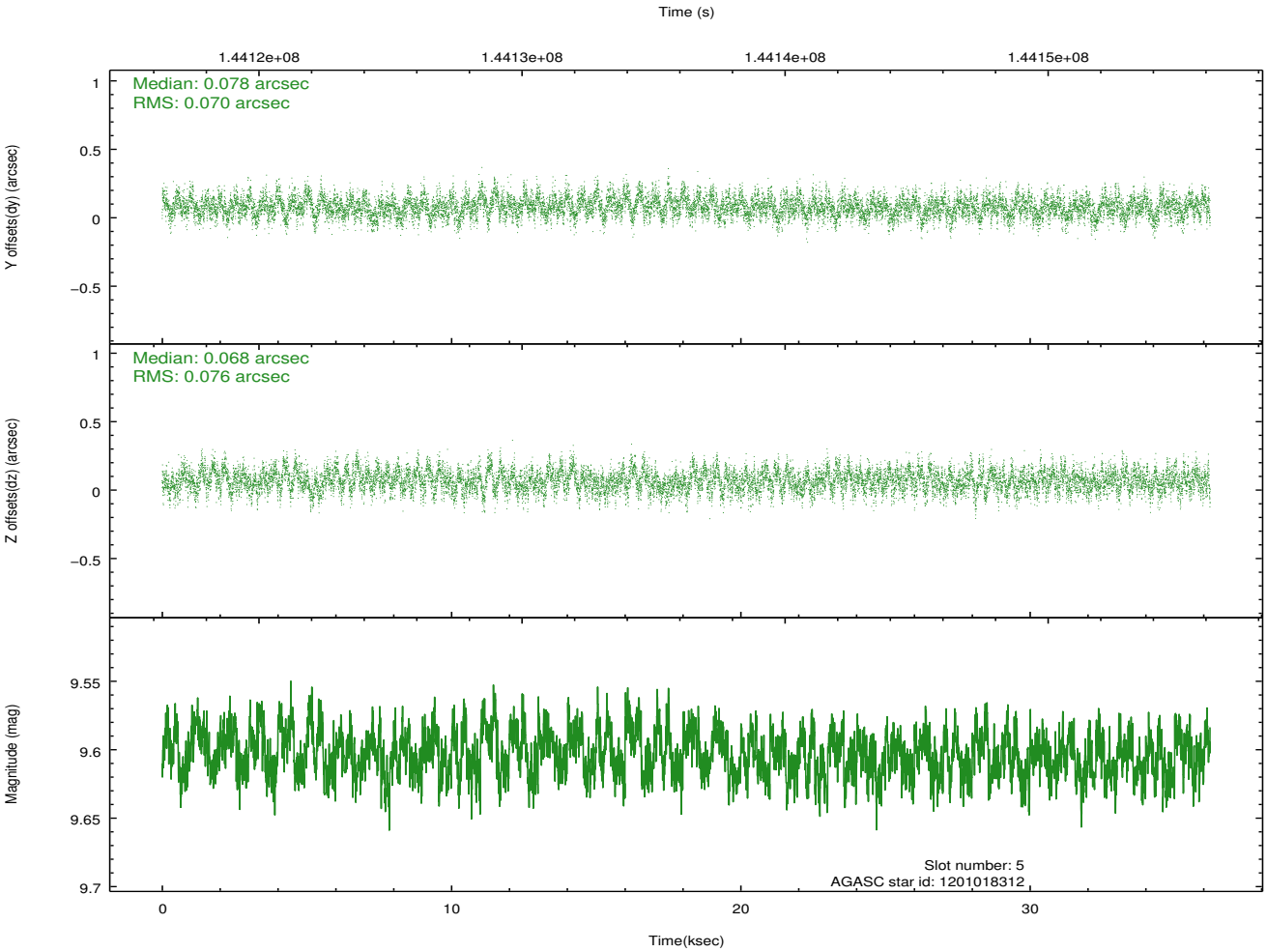

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.288 arcsec
Slot number: 4
AGASC star id: 1201541752
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Time (s)
Median: −0.188 arcsec
RMS: 0.037 arcsec
Y offsets(dy) (arcsec)
Median: −0.218 arcsec
RMS: 0.057 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 4
AGASC star id: 1201541752
Time(ksec)

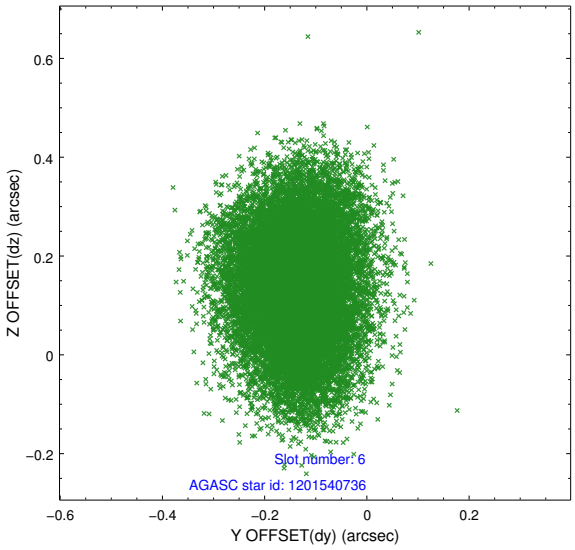
2.4.3 Slot 5

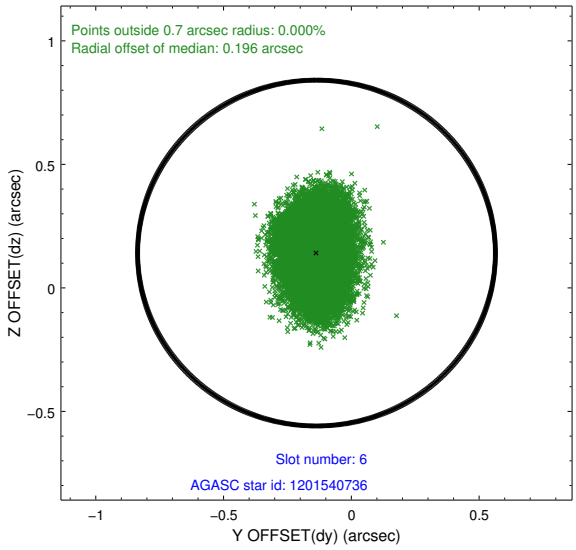

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 1201018312

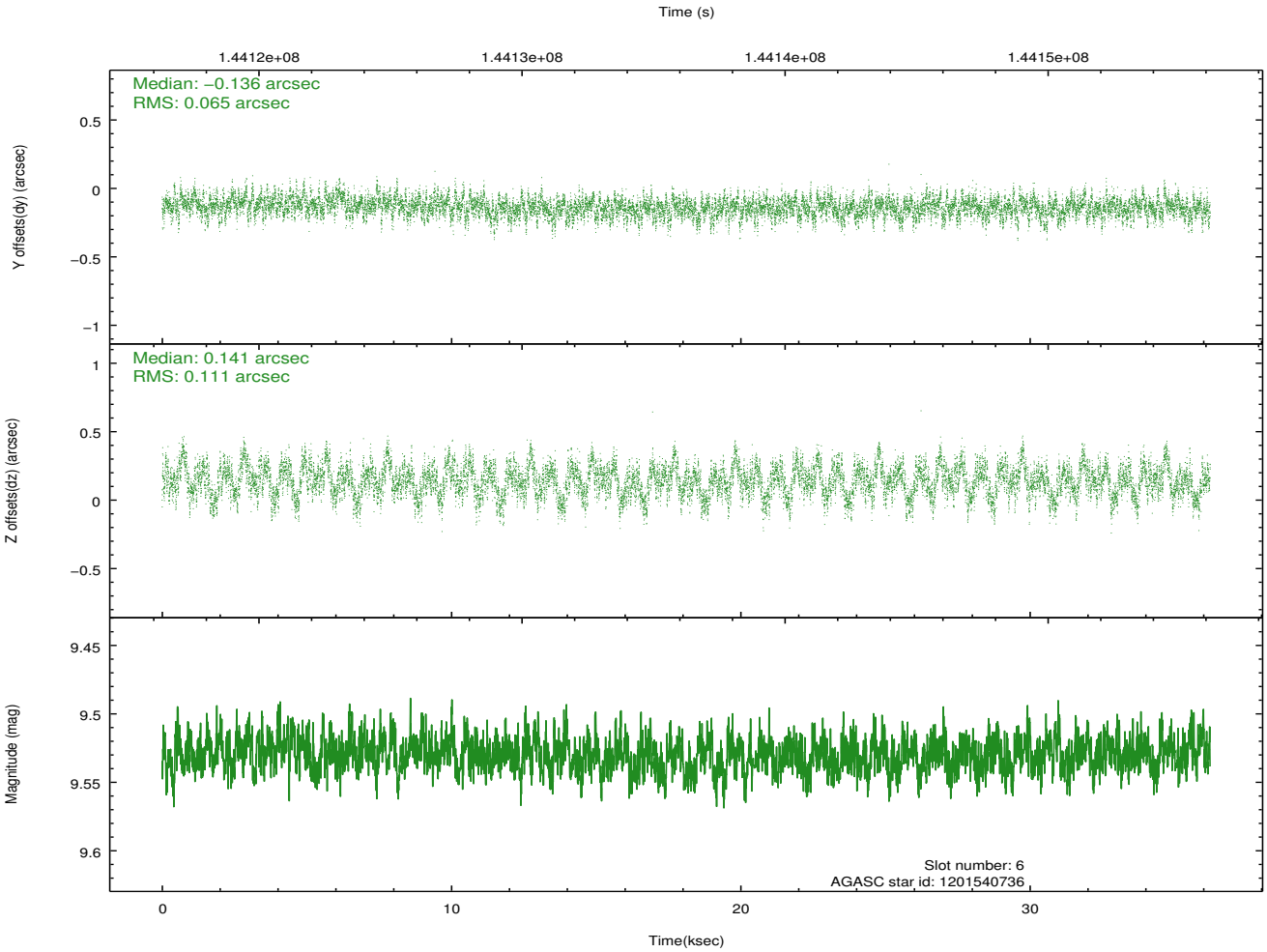

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.103 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 1201018312


Time (s)
1.4412e+08
1.4413e+08
1.4414e+08
1.4415e+08
Median: 0.078 arcsec
RMS: 0.070 arcsec
Y offsets(dy) (arcsec)
Median: 0.068 arcsec
RMS: 0.076 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 5
AGASC star id: 1201018312
Time(ksec)

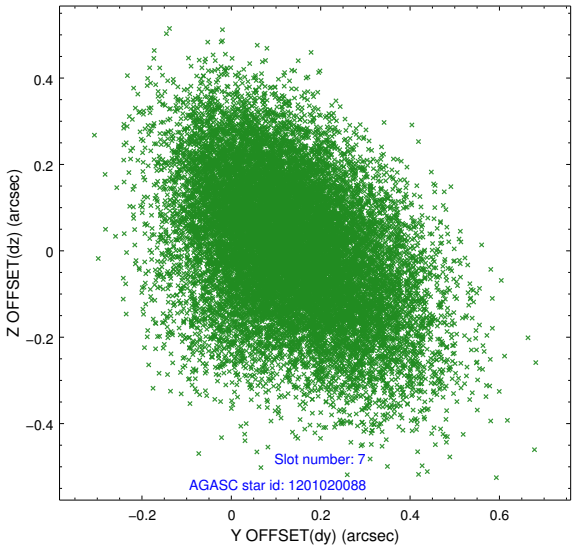
2.4.4 Slot 6

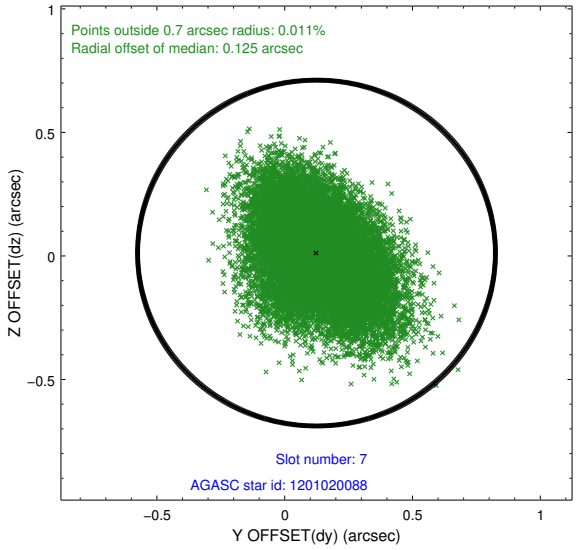

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 1201540736

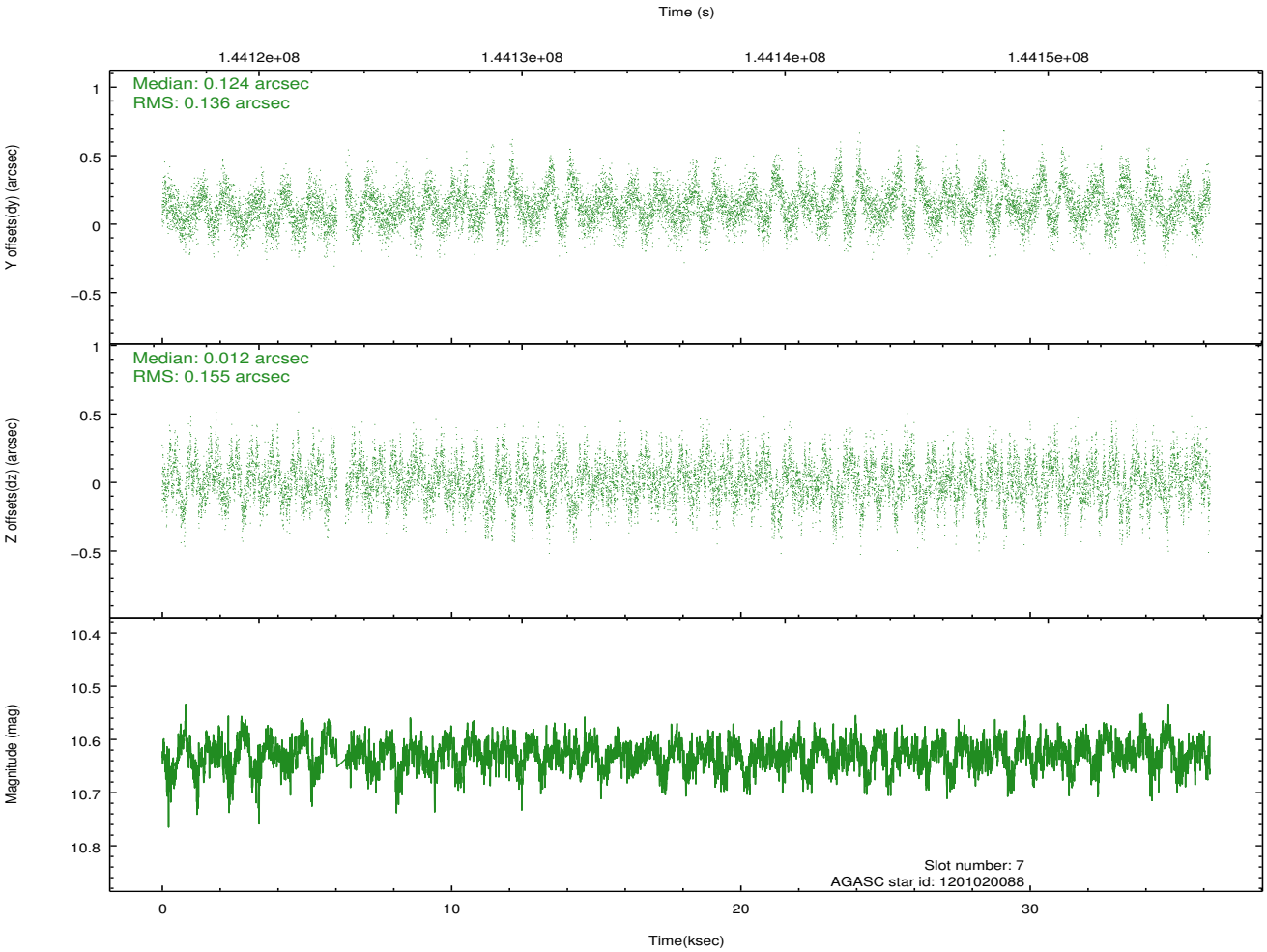

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.196 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 1201540736


Time (s)
1.4412e+08
1.4413e+08
1.4414e+08
1.4415e+08
Median: −0.136 arcsec
RMS: 0.065 arcsec
Y offsets(dy) (arcsec)
Median: 0.141 arcsec
RMS: 0.111 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 6
AGASC star id: 1201540736
Time(ksec)

2.4.5 Slot 7

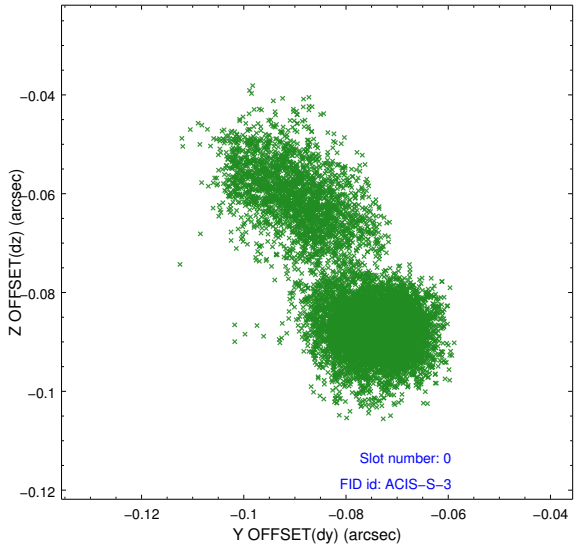

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 1201020088

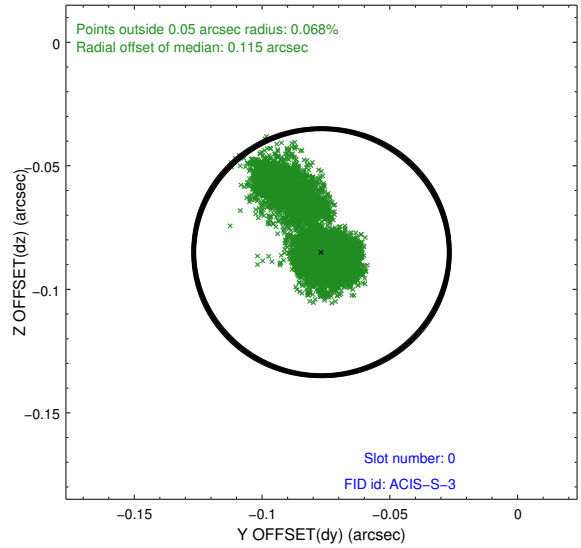

Points outside 0.7 arcsec radius: 0.011%
Radial offset of median: 0.125 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 1201020088

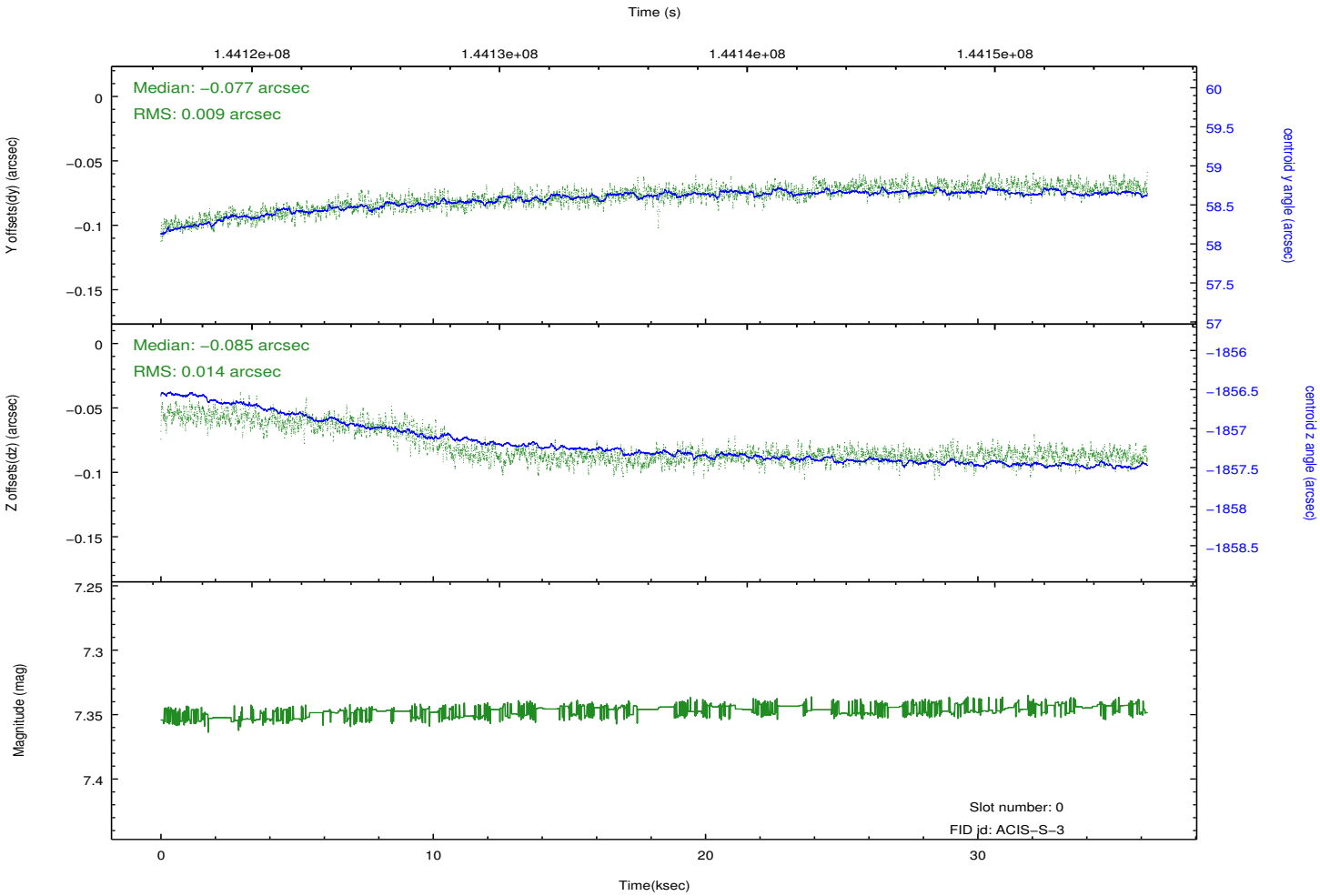

Time (s)
1.4412e+08
1.4413e+08
1.4414e+08
1.4415e+08
Median: 0.124 arcsec
RMS: 0.136 arcsec
Y offsets(dy) (arcsec)
Median: 0.012 arcsec
RMS: 0.155 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 7
AGASC star id: 1201020088
Time(ksec)

2.5 FID Slots

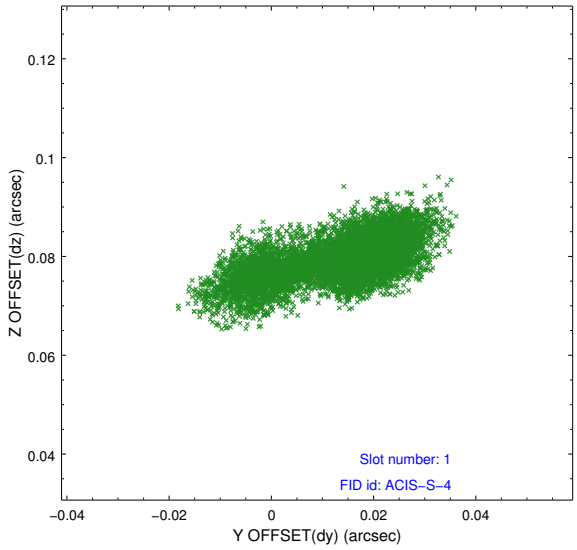
2.5.1 Slot 0

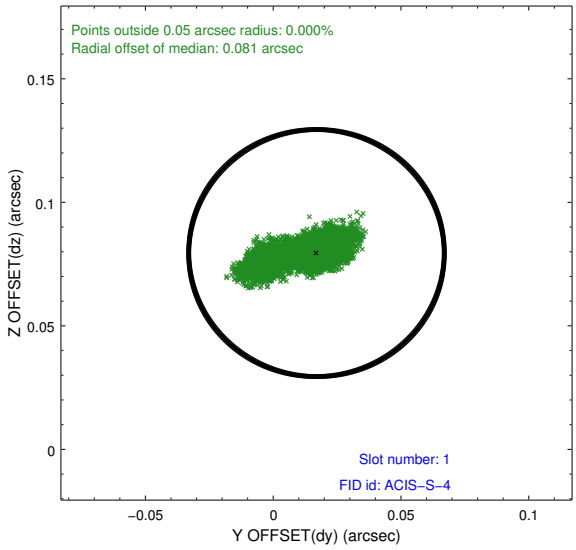


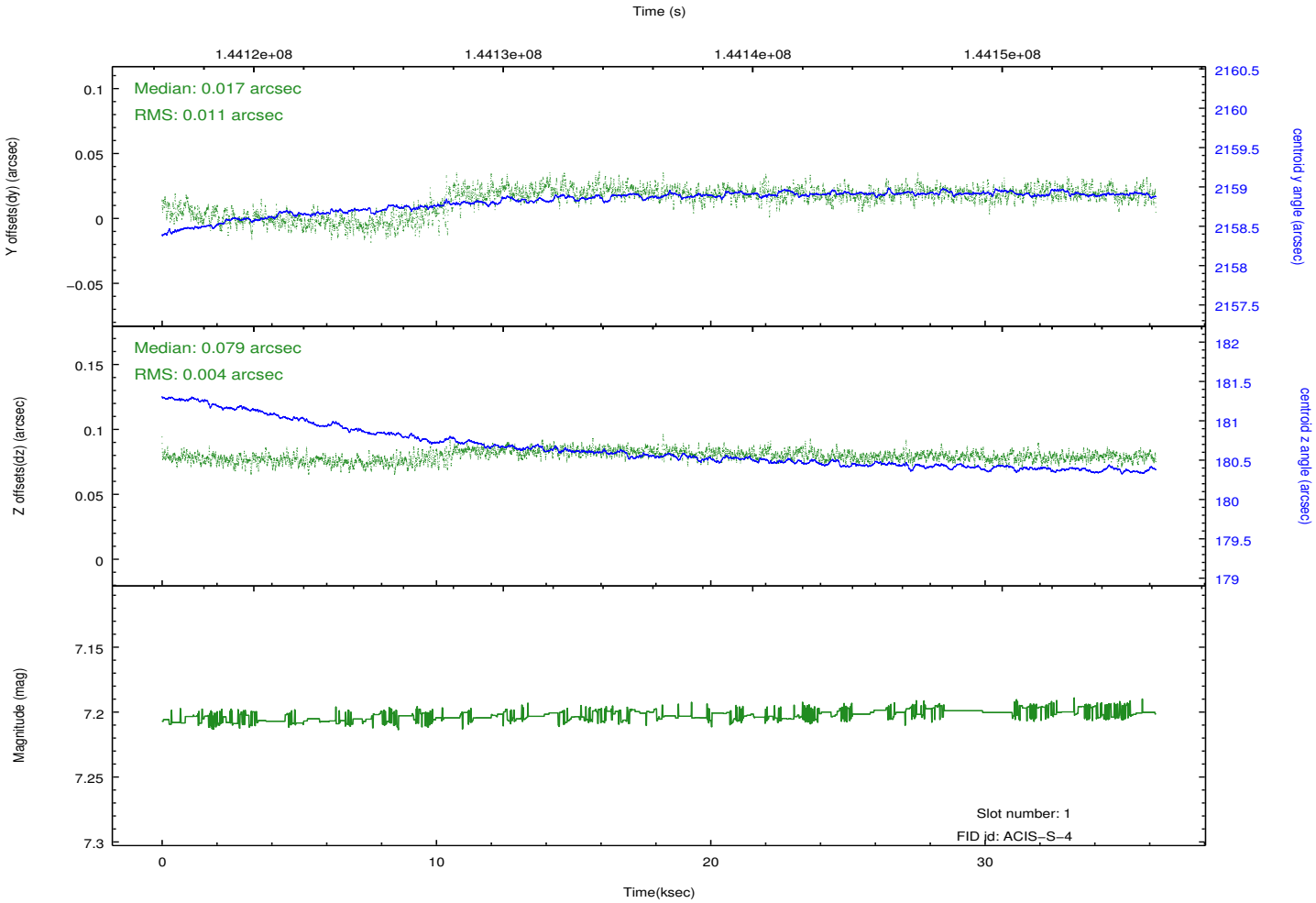




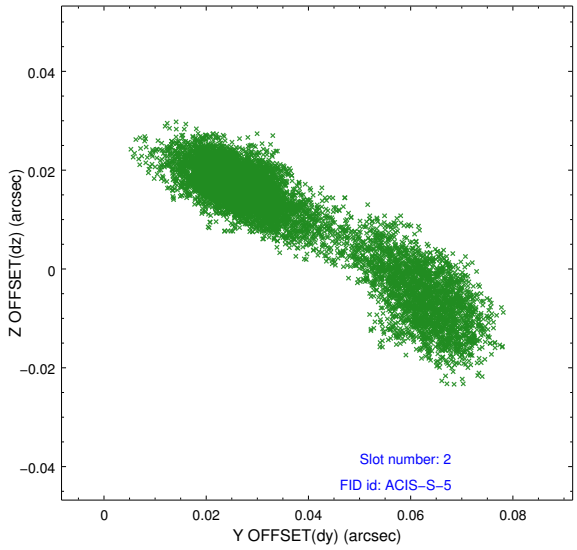
2.5.2 Slot 1

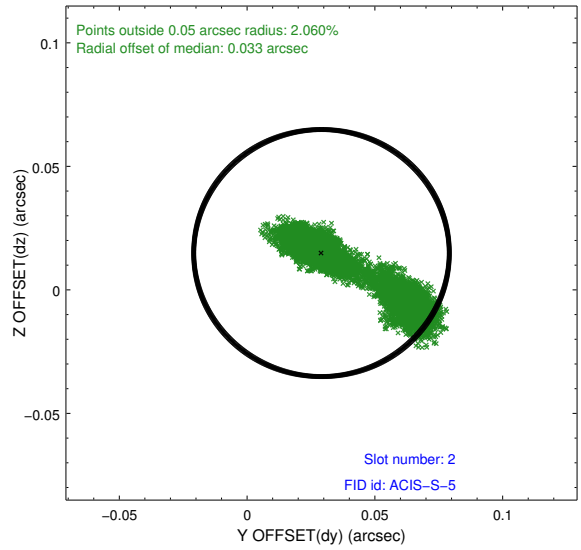

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4

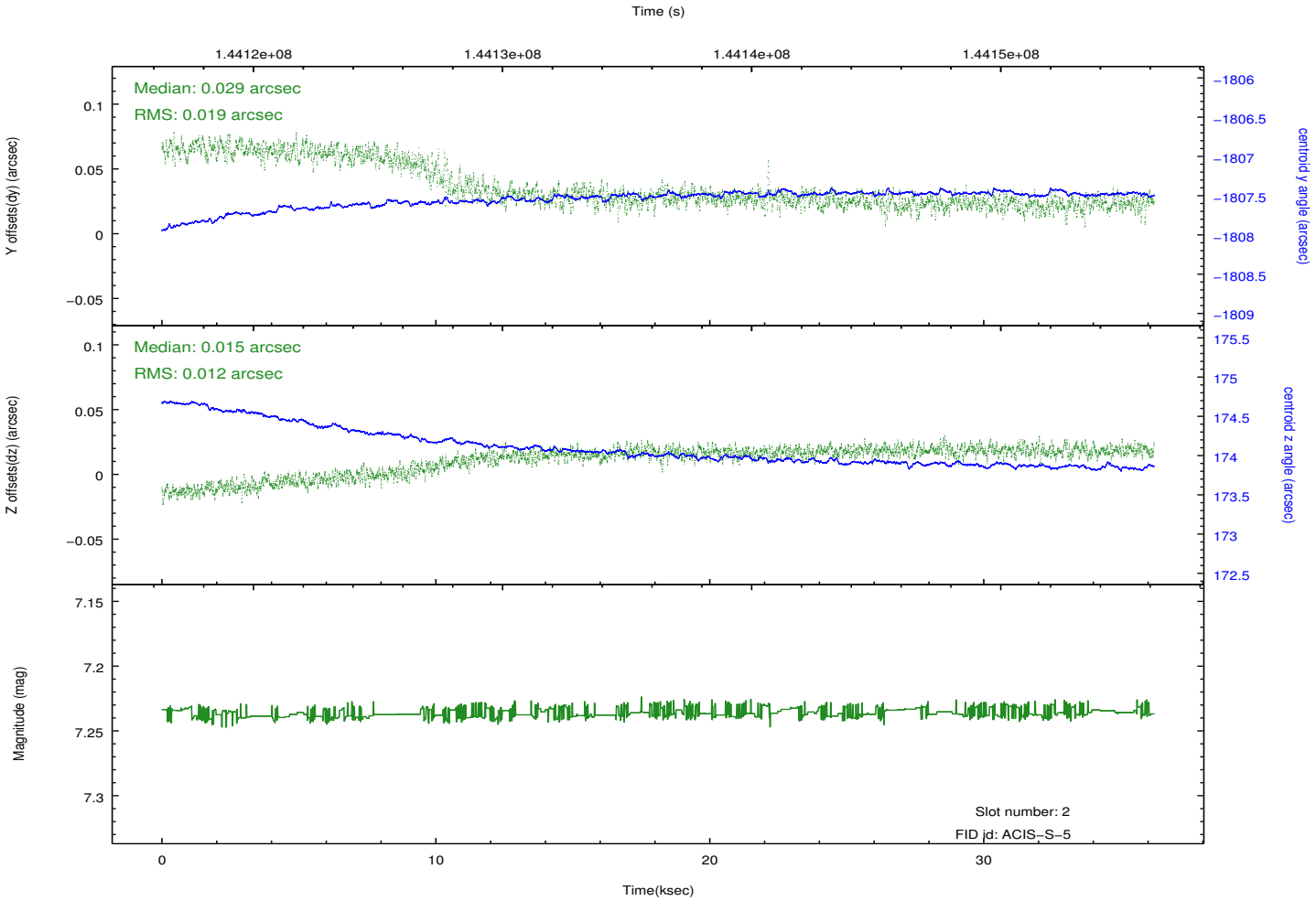

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.081 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4


Time (s)
Median: 0.017 arcsec
RMS: 0.011 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.079 arcsec
RMS: 0.004 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 1
FID jd: ACIS−S−4
Time(ksec)

2.5.3 Slot 2


Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−S−5


Points outside 0.05 arcsec radius: 2.060%
Radial offset of median: 0.033 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−S−5


Time (s)
Median: 0.029 arcsec
RMS: 0.019 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.015 arcsec
RMS: 0.012 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 2
FID jd: ACIS−S−5
Time(ksec)

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.10.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.041

A.2 Comments

`Roll preference met.`