V&V Reference Report
L2 ASCDS Version : 8.4.4

Observation 7816 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Apr 25 2012

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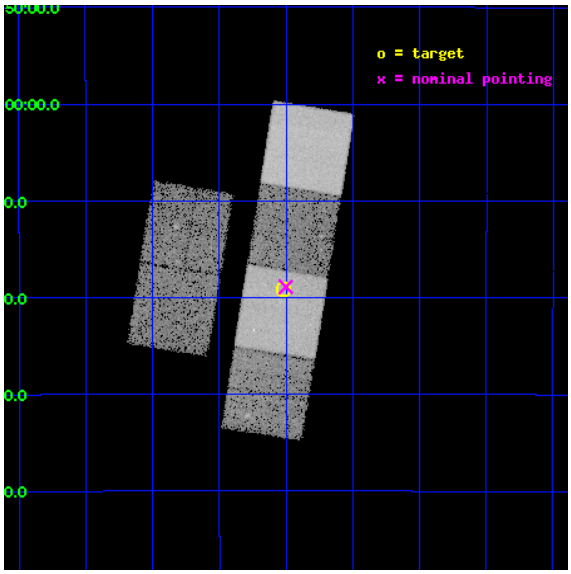
1 Front

seq_num	701480	Sequence number
obs_id	7816	Observation id
title	The Chandra-RBGS Survey of a Complete Sample of Luminous Infrared Galaxies	Proposal title
observer	Professor David Sanders	Principal investigator
object	ESO 593-IG008	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	288.62875	Observer's specified target RA [deg]
dec_targ	-21.318611	Observer's specified target Dec [deg]
ra_nom	288.62529822619	Nominal RA [deg]
dec_nom	-21.314941127551	Nominal Dec [deg]
roll_nom	99.168635434272	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15158.39994359	Sum of GTIs [s]
livetime	14966.455156212	Livetime [s]
ontime2	15158.39994359	Sum of GTIs [s]
ontime3	15158.39994359	Sum of GTIs [s]
ontime5	15158.39994359	Sum of GTIs [s]
ontime6	15158.39994359	Sum of GTIs [s]
ontime7	15158.39994359	Sum of GTIs [s]
ontime8	15151.917972982	Sum of GTIs [s]
l2events	183812	Number of level 2 events

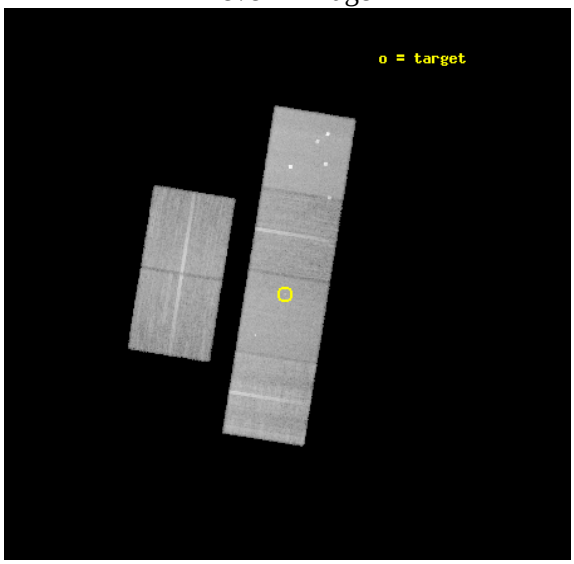


2 OBI

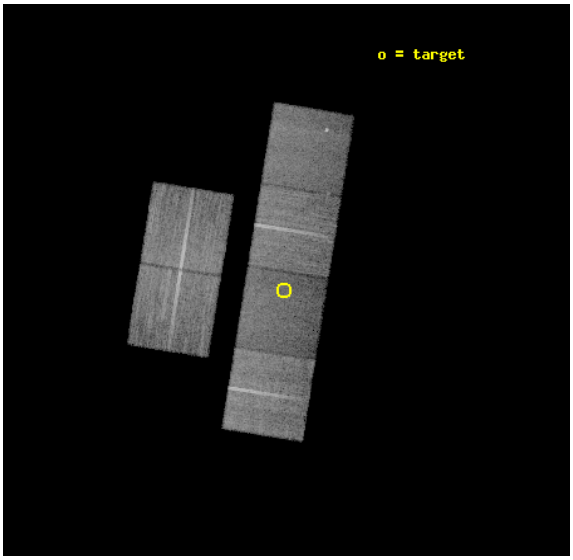
2.1 OBI

2.1.1 Images

Level 1 Image

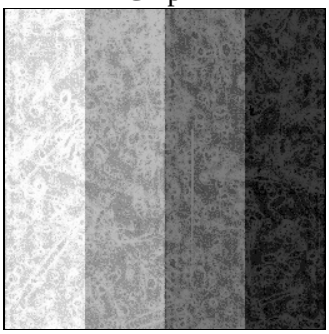


Level 1 Bad Events

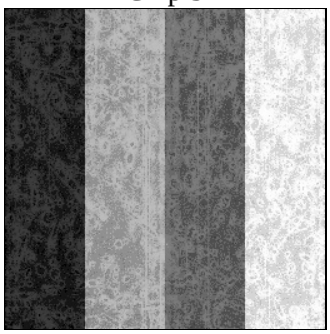


2.1.2 Bias

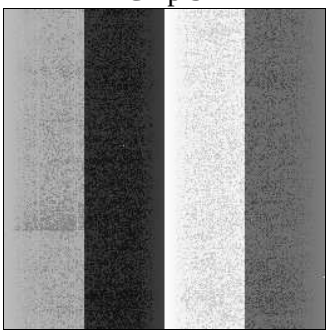
Chip 2



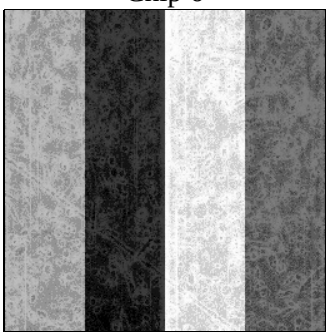
Chip 3



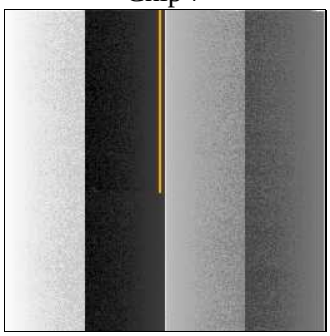
Chip 5



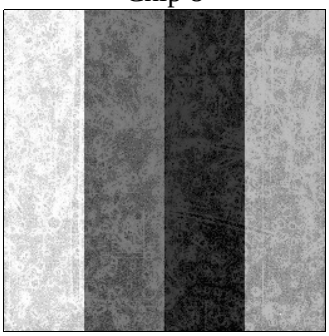
Chip 6



Chip 7



Chip 8



2.1.3 Parameters

obi_num	0	Obi number
ascdsver	8.4.4	Processing system revision
caldbver	4.4.9	
date	2012-04-25T21:19:15	Date and time of file creation
revision	2	Processing version of data

sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ontime	15158.39994359	Sum of GTIs [s]
ontime2	15158.39994359	Sum of GTIs [s]
ontime3	15158.39994359	Sum of GTIs [s]
ontime5	15158.39994359	Sum of GTIs [s]
ontime6	15158.39994359	Sum of GTIs [s]
ontime7	15158.39994359	Sum of GTIs [s]
ontime8	15151.917972982	Sum of GTIs [s]
l1events	851146	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	131086	121594	179158	122206	138129	158973
rejected events	118842	110312	87800	109388	75498	121901
rejected %	90%	90%	49%	89%	54%	76%

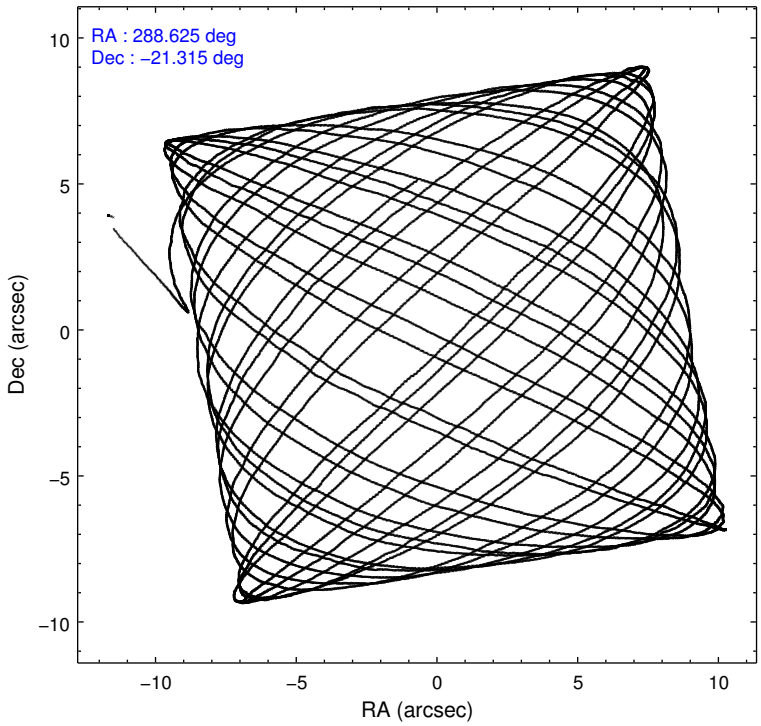
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	4684	4456	14966	4976	6351	11671
	3%	3%	8%	4%	4%	7%
grade 1 events	80	72	391	71	167	138
	0%	0%	0%	0%	0%	0%
grade 2 events	2952	2391	27169	2746	13084	8494
	2%	1%	15%	2%	9%	5%
grade 3 events	1361	1246	3730	1420	6009	4080
	1%	1%	2%	1%	4%	2%
grade 4 events	1371	1272	3563	1355	6146	3706
	1%	1%	1%	1%	4%	2%
grade 5 events	3886	4762	13727	4890	14330	7176
	2%	3%	7%	4%	10%	4%
grade 6 events	2155	2213	44194	2634	32647	10062
	1%	1%	24%	2%	23%	6%
grade 7 events	114597	105182	71418	104114	59395	113646
	87%	86%	39%	85%	42%	71%

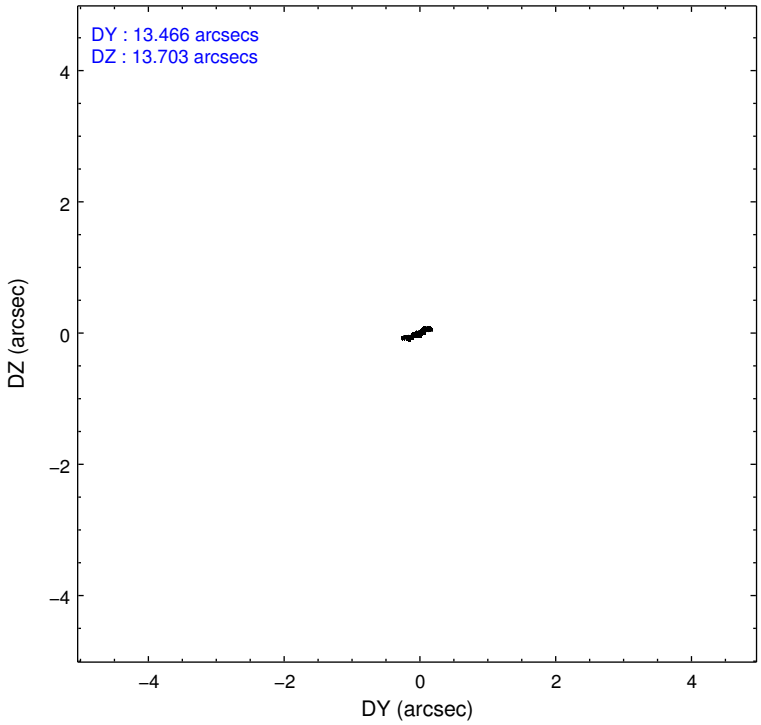
2.2 Compared Parameters

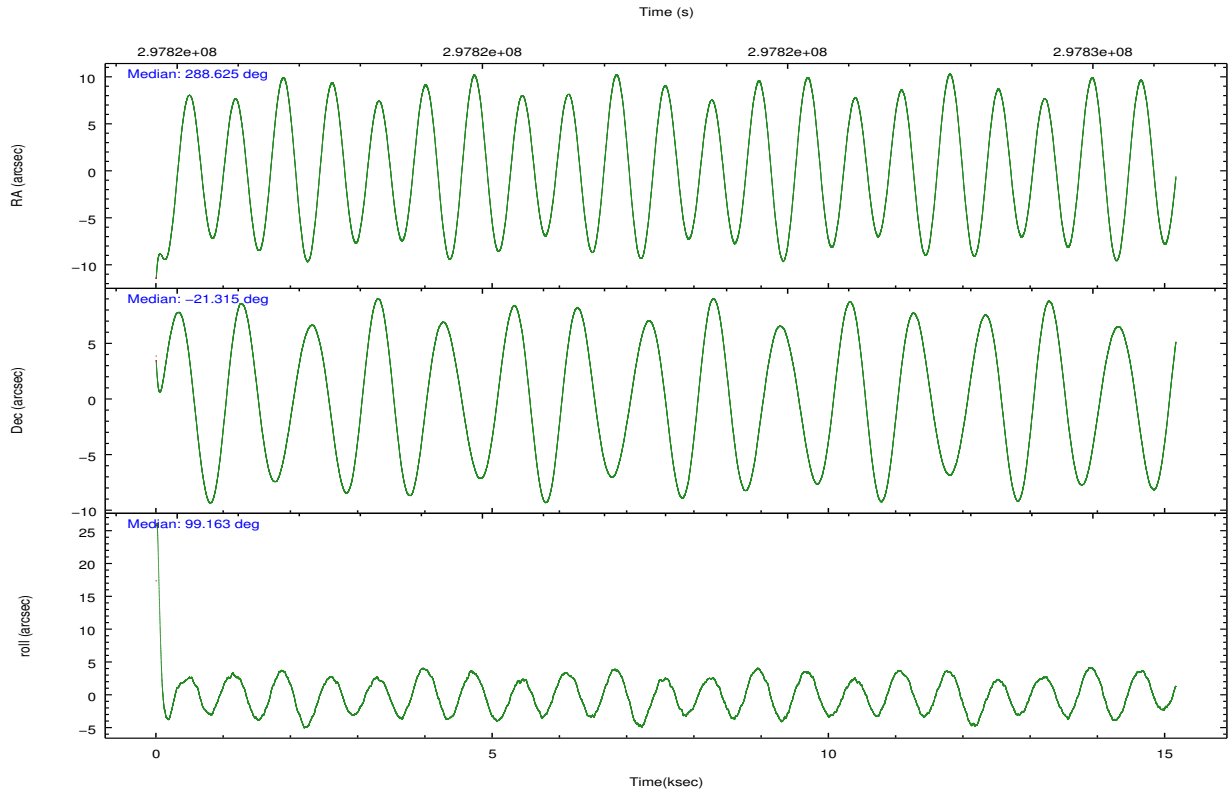
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-235678	ACIS-235678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	288.644191	288.6252982261871
[deg] Pointing Dec	-21.335904	-21.31494112755063
[deg] Pointing Roll	99.018853	99.16863543427181
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1400660498719
[mm] SIM translation stage offset	0	0.00754346686406393
[s] Observation start time (MET)	297815593.184000	297814342.78771
Observation start date	2007-06-09T22:32:08	2007-06-09T22:12:22
[s] Observation end time (MET)	297830593.184000	297831161.50101
Observation end date	2007-06-10T02:42:08	2007-06-10T02:52:41
Read mode	TIMED	TIMED

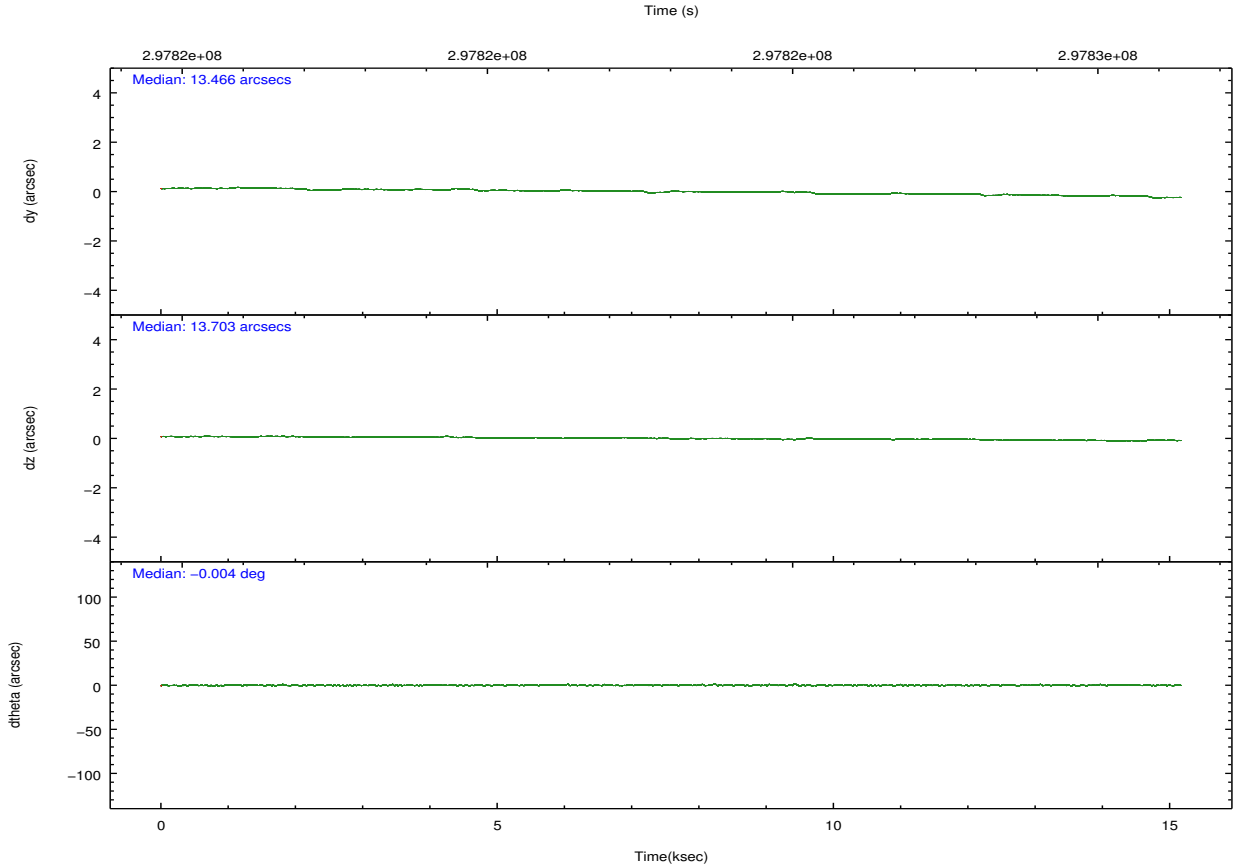
Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	O1	Y
CCD I3 on	O2	Y
CCD S0 on	N	N
CCD S1 on	O3	Y
CCD S2 on	O5	Y
CCD S3 on	Y	Y
CCD S4 on	O4	Y
CCD S5 on	N	N
Number of optional ACIS chips 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 : 288.625 deg
Dec : −21.315 deg
Dec (arcsec)
RA (arcsec)
10
5
0
−5
−10
−10
−5
0
5
10


DY : 13.466 arcsecs
DZ : 13.703 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
2.9782e+08
2.9782e+08
2.9782e+08
2.9783e+08
Median: 288.625 deg
RA (arcsec)
Median: −21.315 deg
Dec (arcsec)
Median: 99.163 deg
roll (arcsec)
Time(ksec)

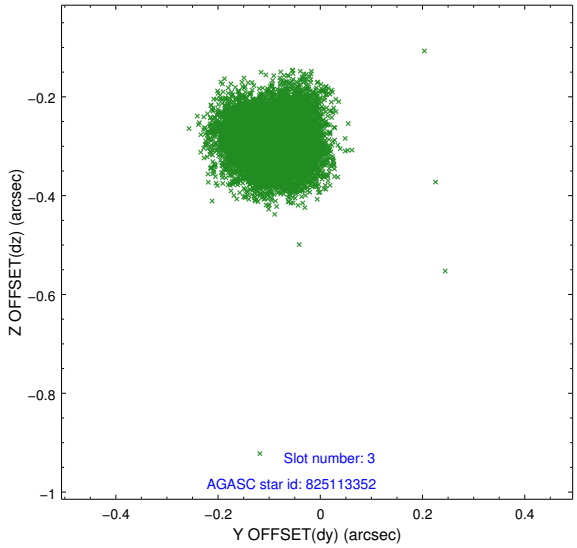

Time (s)
2.9782e+08
2.9782e+08
2.9782e+08
2.9783e+08
Median: 13.466 arcsecs
dy (arcsec)
Median: 13.703 arcsecs
dz (arcsec)
Median: −0.004 deg
dtheta (arcsec)
Time(ksec)

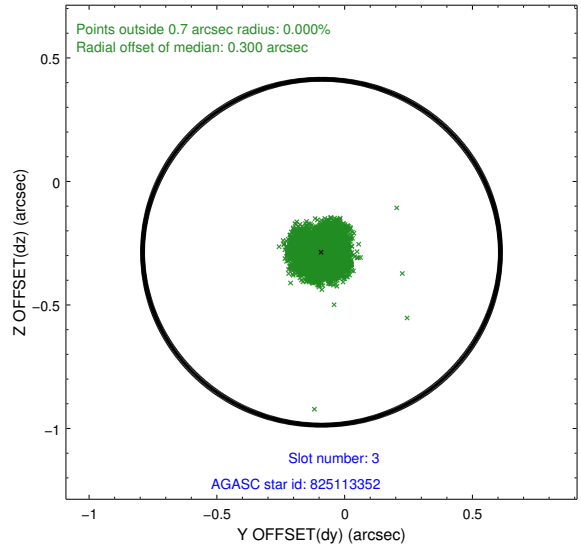
Slot Statistics

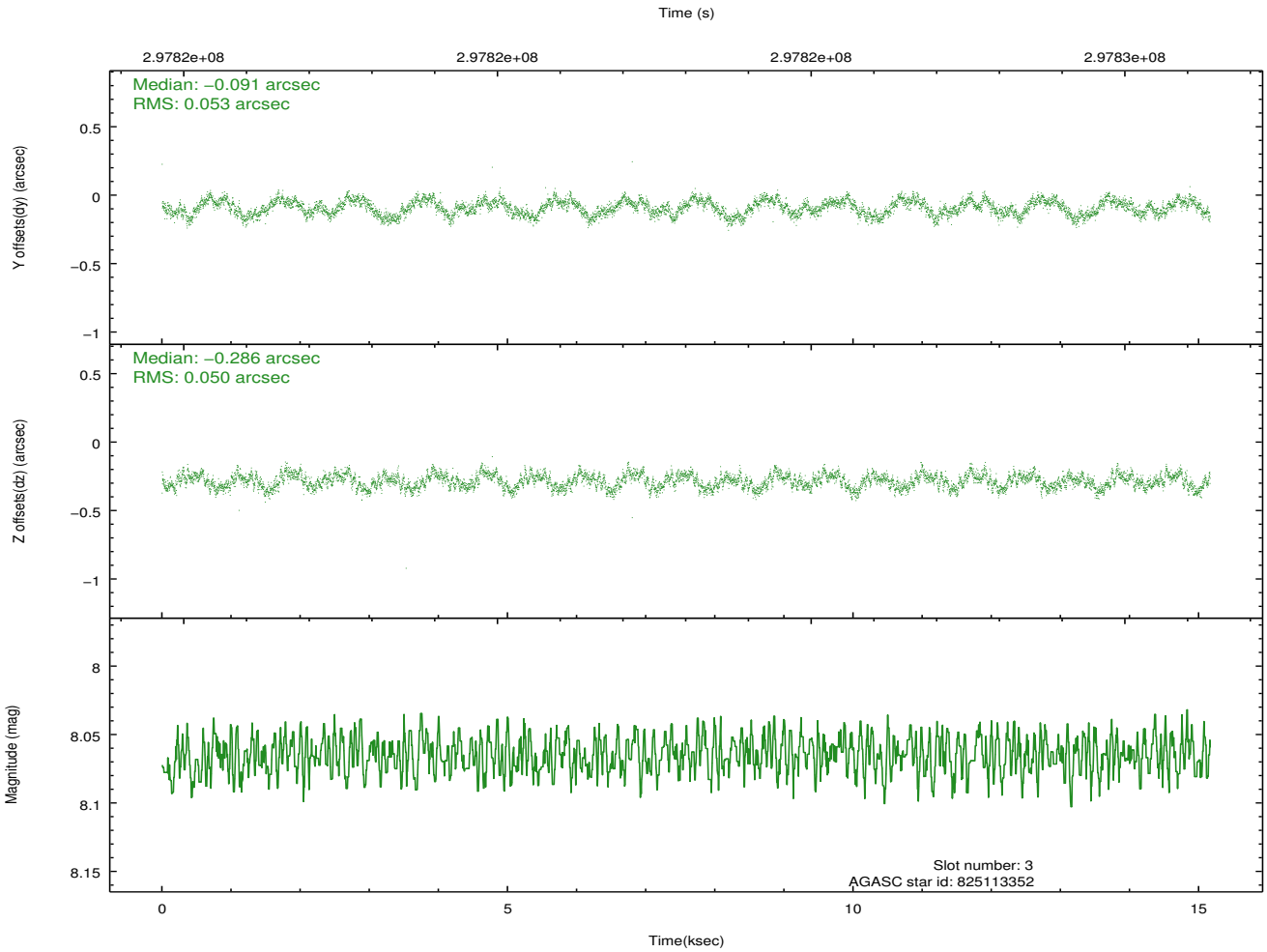
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	3699	-0.045	-0.070	0.008	0.013	0.000000	0.000000	-766.42	-1735.12
1	FID	ACIS-S-4	7.19	3699	0.196	0.041	0.009	0.016	0.000000	0.000000	2146.96	173.17
2	FID	ACIS-S-5	7.23	3699	-0.181	0.038	0.007	0.012	0.000000	0.000000	-1819.02	167.17
3	GUIDE	825113352	8.06	7393	-0.091	-0.286	0.079	0.117	287.998761	-21.086091	1223.52	2000.72
4	GUIDE	826815376	8.94	7389	-0.081	-0.033	0.074	0.121	288.261641	-21.228123	583.05	1207.65
5	GUIDE	826816688	8.35	7390	-0.019	0.181	0.053	0.085	289.416504	-21.616145	-1407.45	-2393.47
6	GUIDE	826817184	8.43	7394	0.048	0.099	0.057	0.093	289.016684	-20.955611	1154.42	-1451.32
7	GUIDE	826817584	8.41	7395	0.146	0.040	0.067	0.105	289.295687	-21.757009	-1843.68	-1914.37

2.4 Star Slots

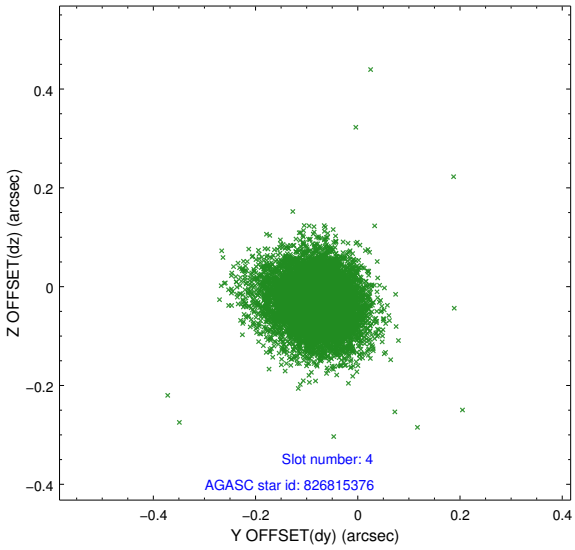
2.4.1 Slot 3

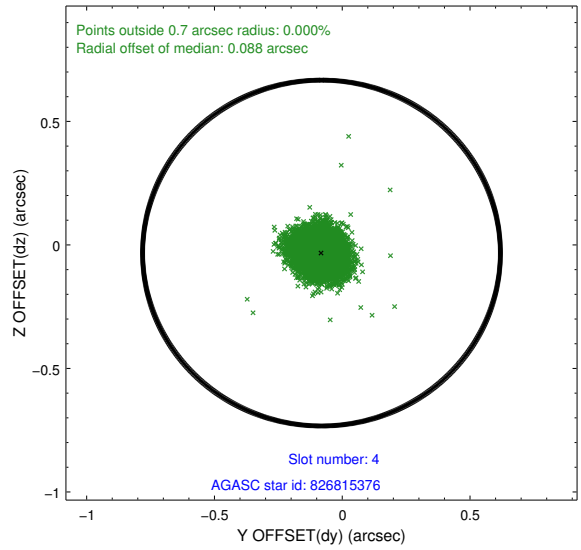


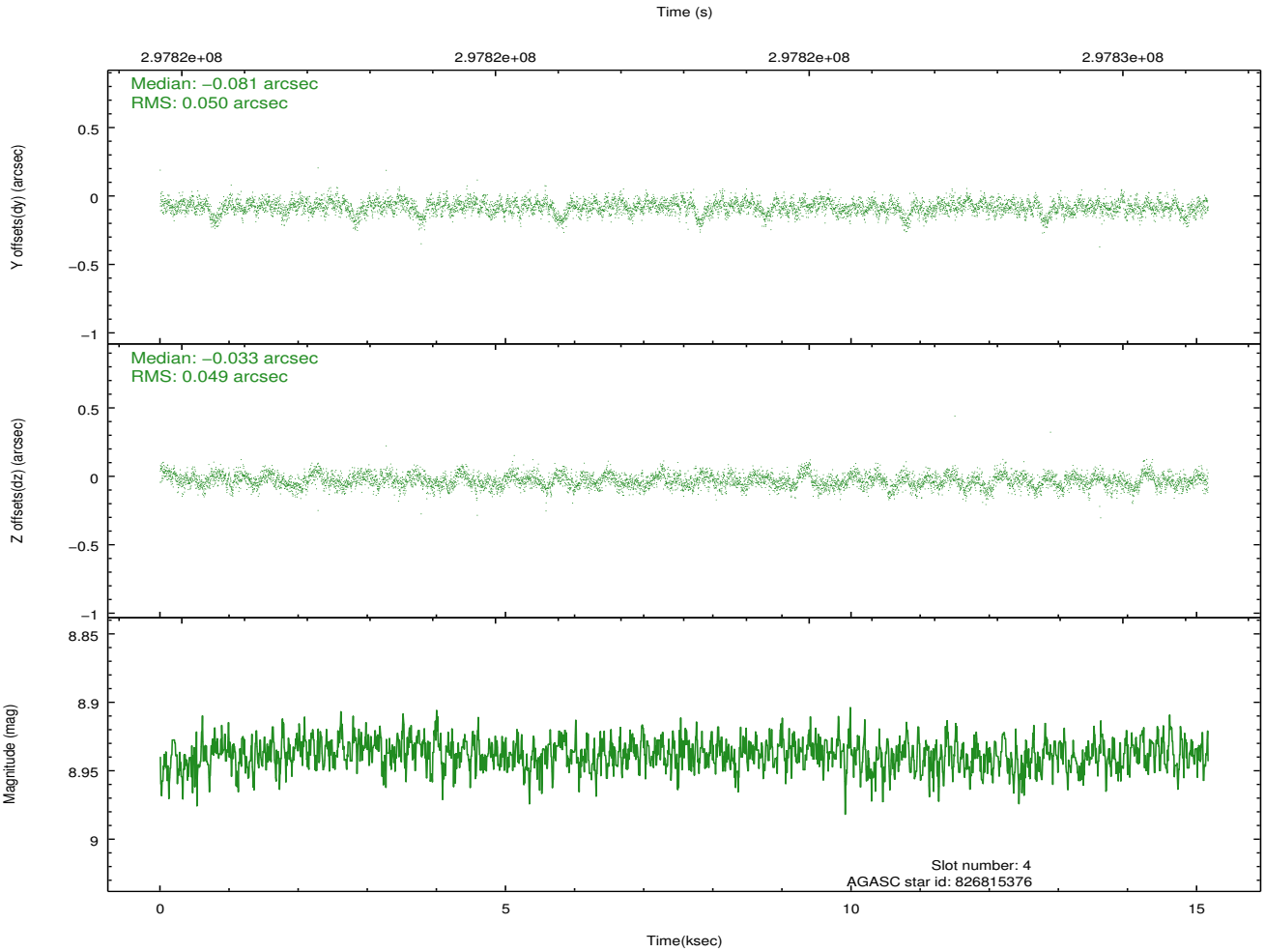




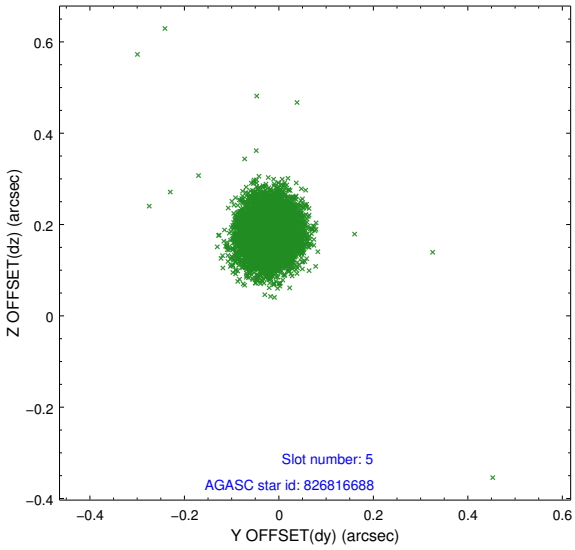
2.4.2 Slot 4

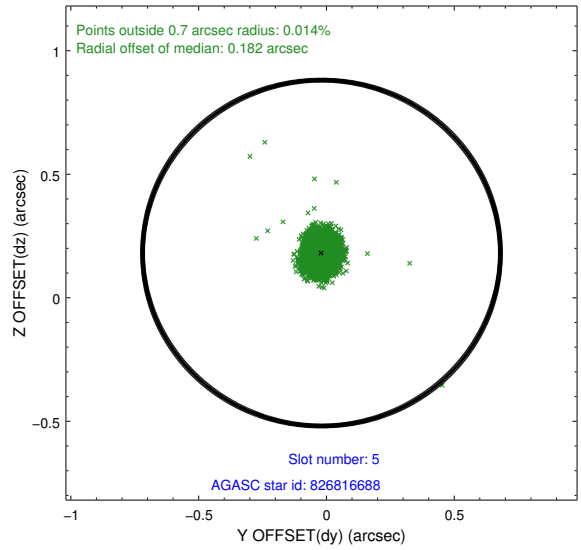

Slot number: 4
AGASC star id: 826815376
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

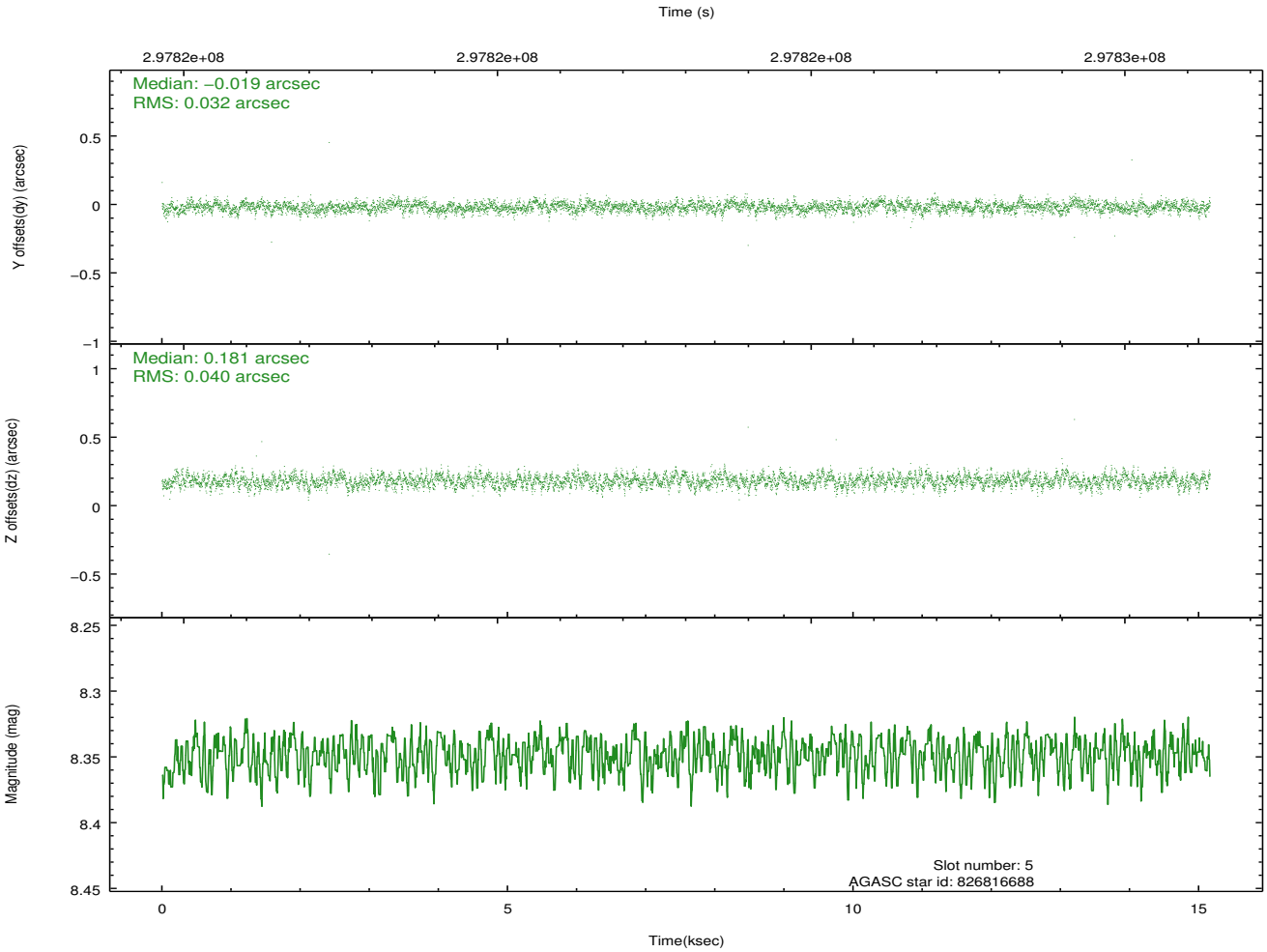

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.088 arcsec
Slot number: 4
AGASC star id: 826815376
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Time (s)
2.9782e+08
2.9782e+08
2.9782e+08
2.9783e+08
Median: −0.081 arcsec
RMS: 0.050 arcsec
Y offsets(dy) (arcsec)
Median: −0.033 arcsec
RMS: 0.049 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 4
AGASC star id: 826815376
Time(ksec)

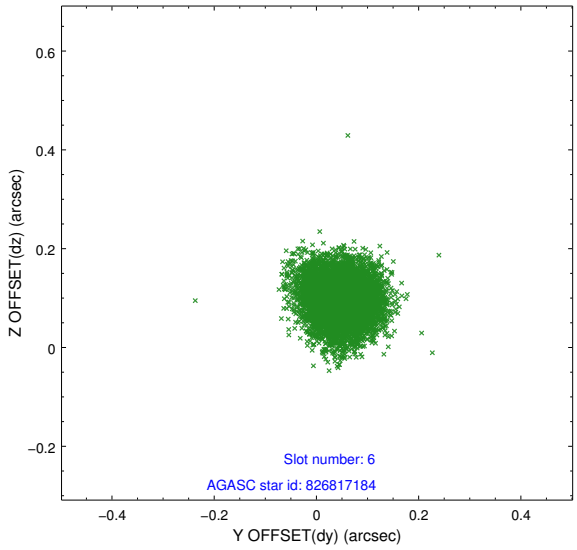
2.4.3 Slot 5

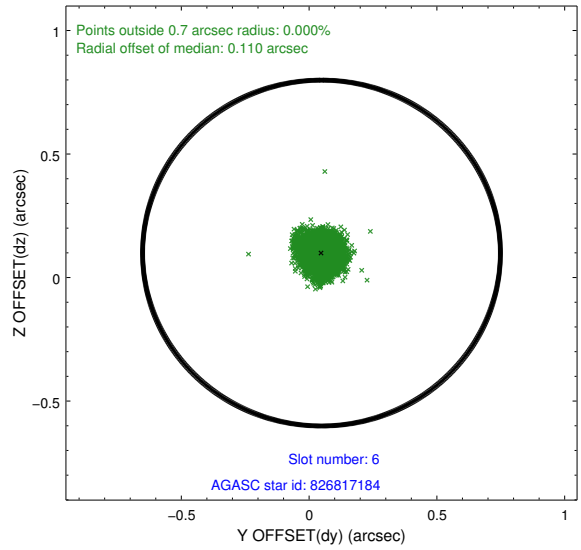

Slot number: 5
AGASC star id: 826816688
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

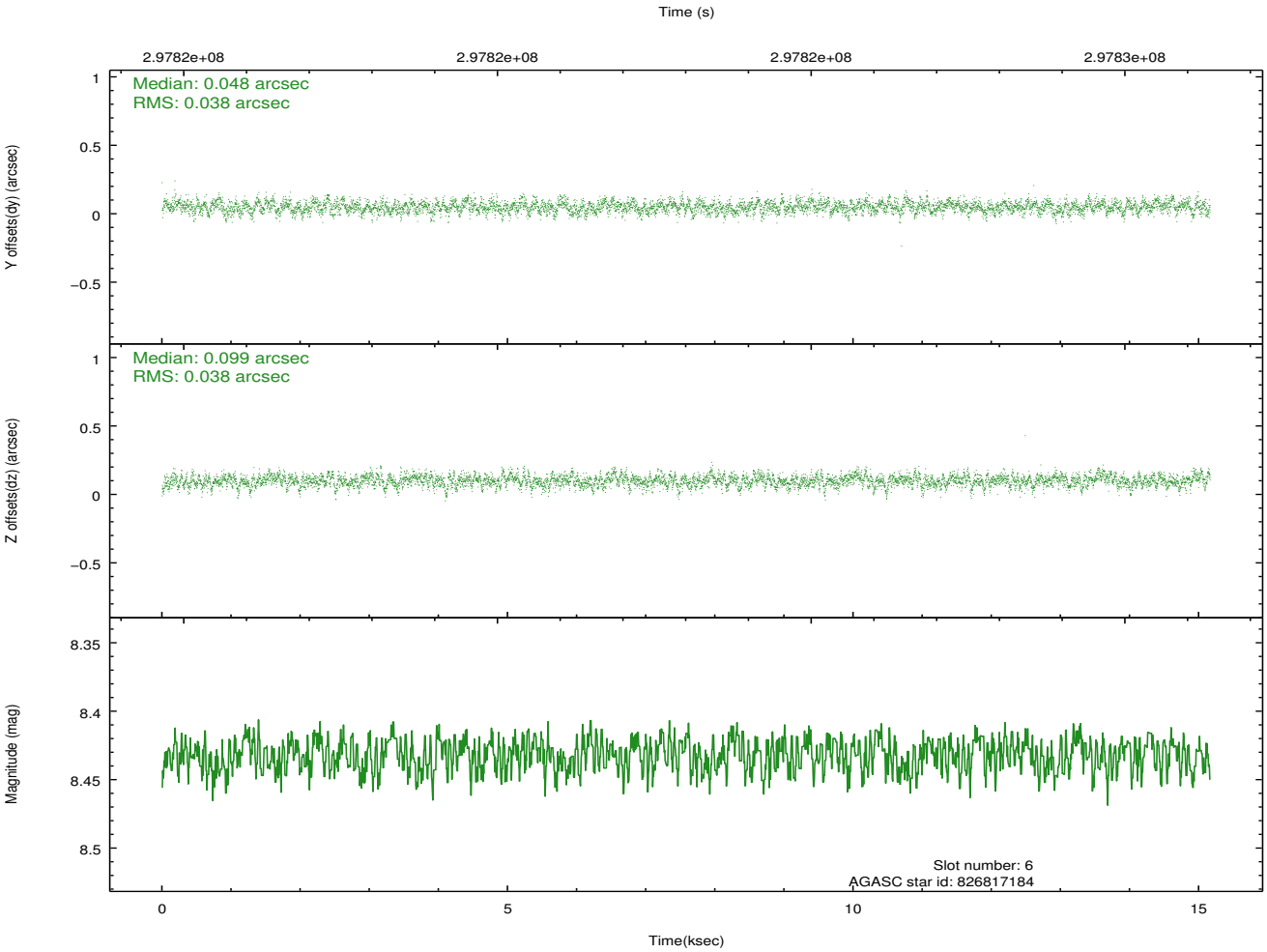

Points outside 0.7 arcsec radius: 0.014%
Radial offset of median: 0.182 arcsec
Slot number: 5
AGASC star id: 826816688
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Time (s)
2.9782e+08
2.9782e+08
2.9782e+08
2.9783e+08
Median: −0.019 arcsec
RMS: 0.032 arcsec
Y offsets(dy) (arcsec)
Median: 0.181 arcsec
RMS: 0.040 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 5
AGASC star id: 826816688
Time(ksec)

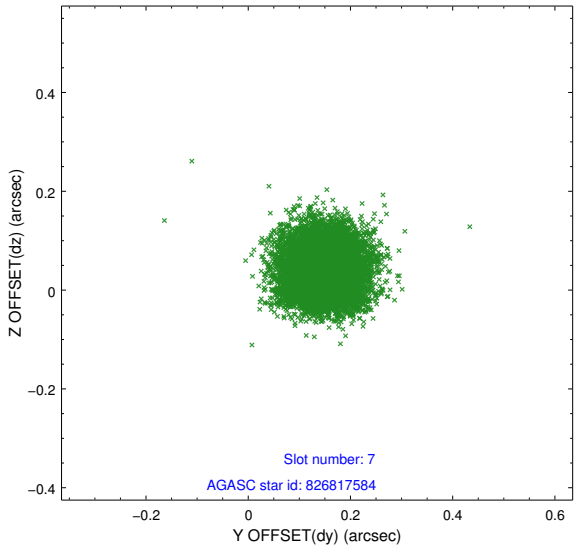
2.4.4 Slot 6

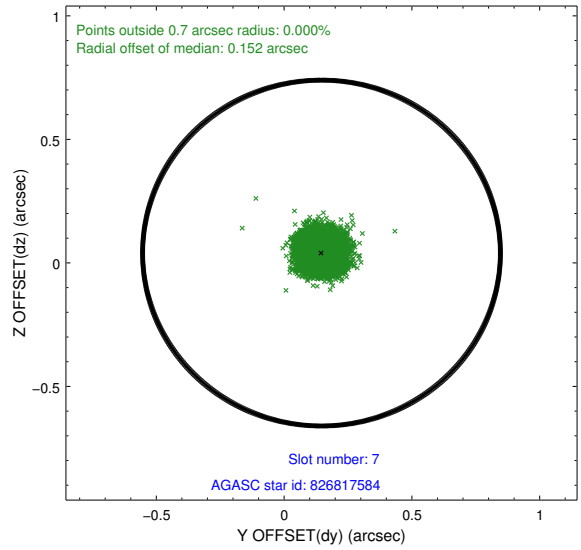

Slot number: 6
AGASC star id: 826817184
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

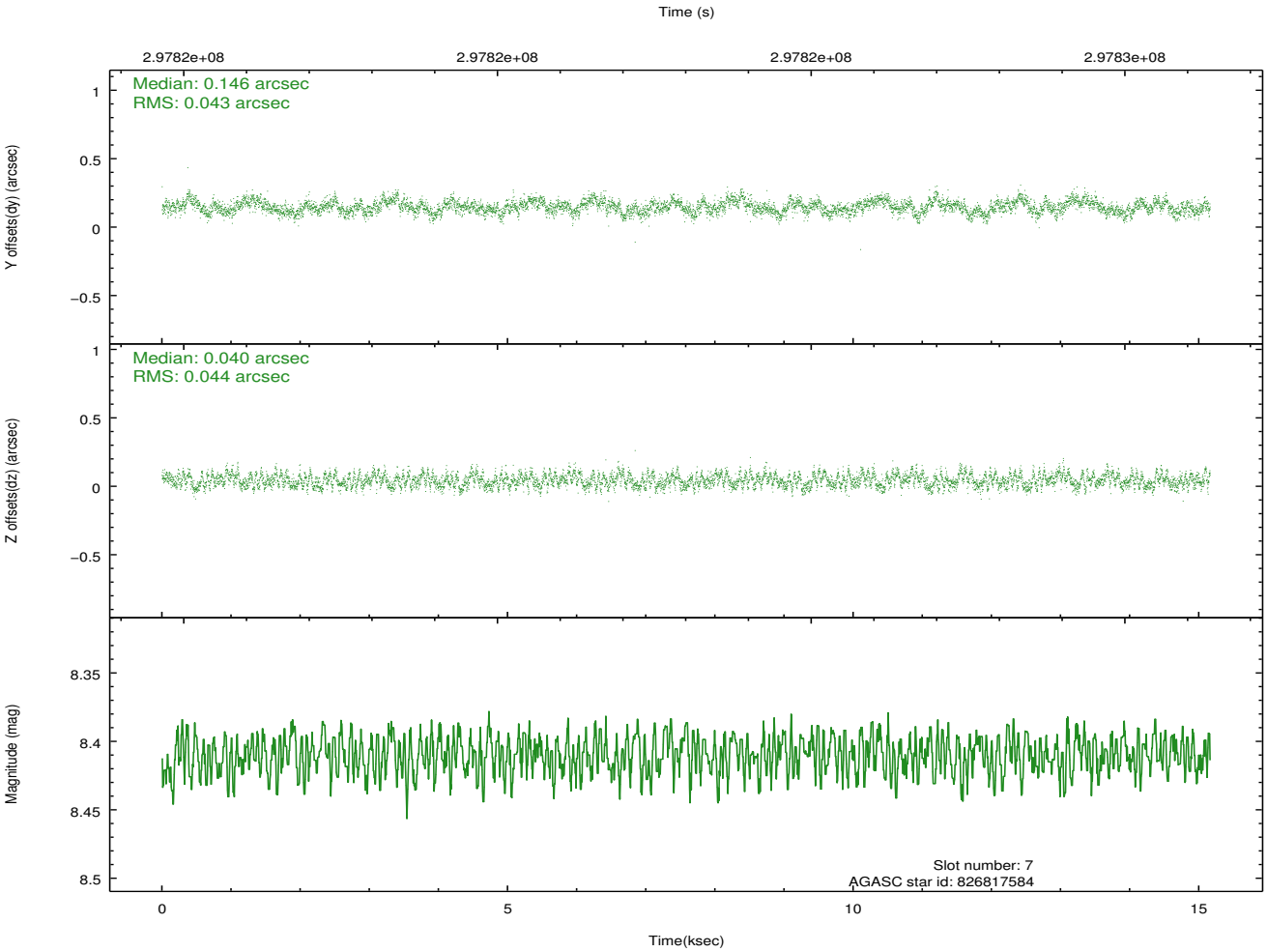

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.110 arcsec
Slot number: 6
AGASC star id: 826817184
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Time (s)
2.9782e+08
2.9782e+08
2.9782e+08
2.9783e+08
Median: 0.048 arcsec
RMS: 0.038 arcsec
Y offsets(dy) (arcsec)
Median: 0.099 arcsec
RMS: 0.038 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 6
AGASC star id: 826817184
Time(ksec)

2.4.5 Slot 7

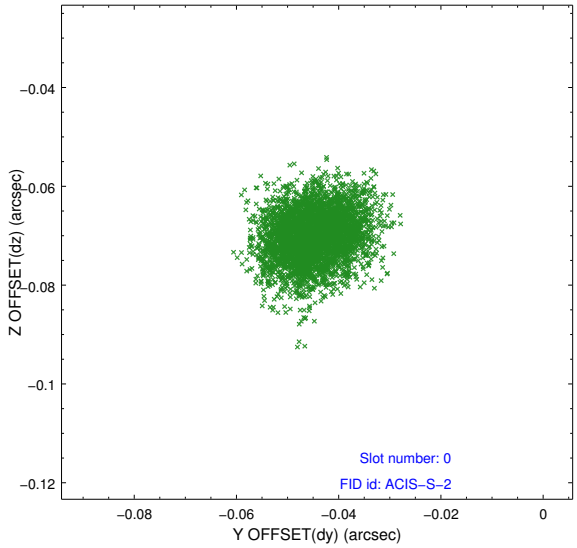

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 826817584

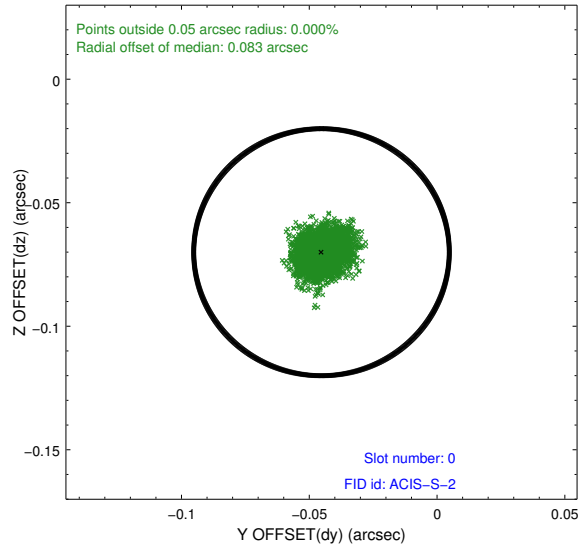

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.152 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 826817584

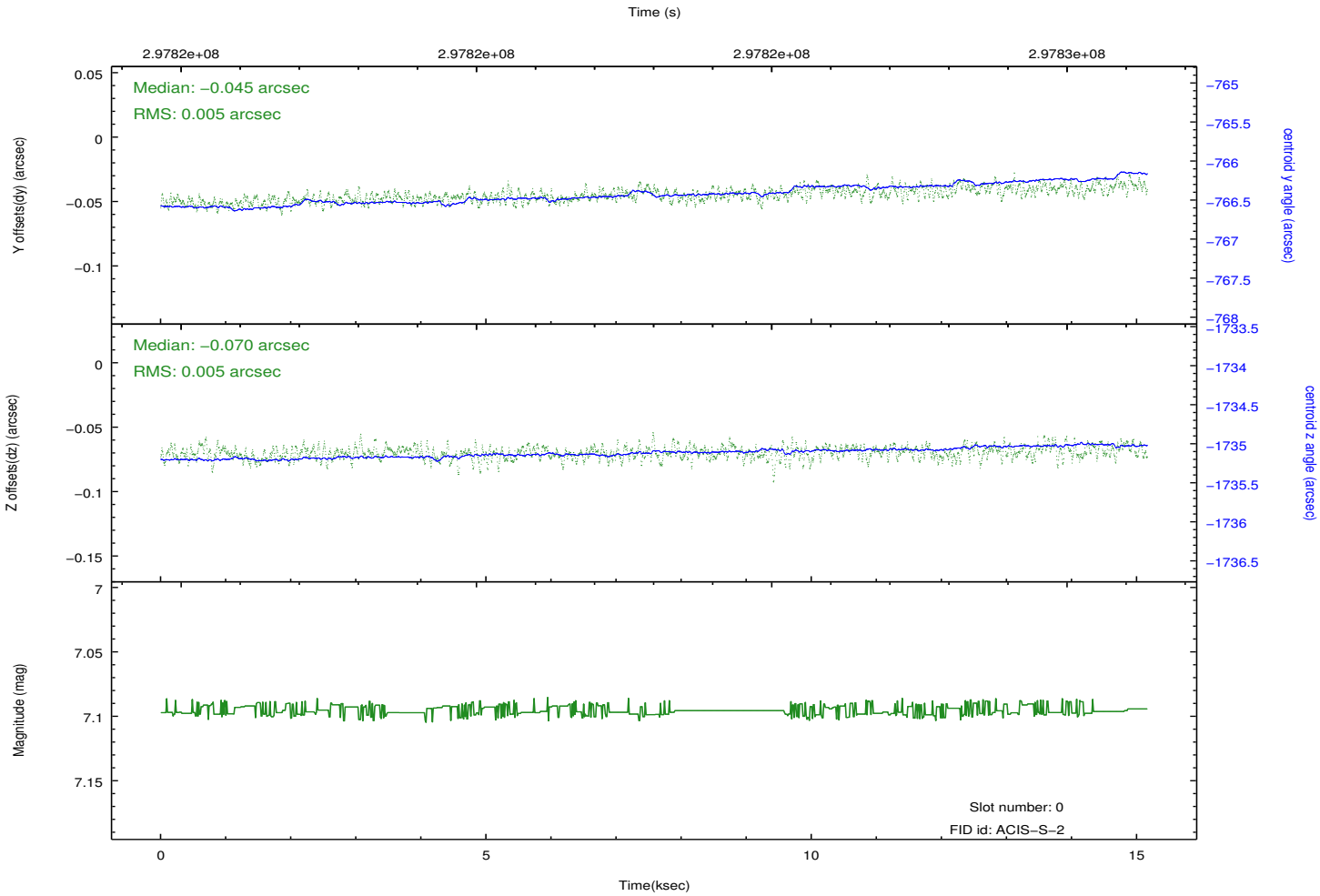

Time (s)
2.9782e+08
2.9782e+08
2.9782e+08
2.9783e+08
Median: 0.146 arcsec
RMS: 0.043 arcsec
Y offsets(dy) (arcsec)
Median: 0.040 arcsec
RMS: 0.044 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 7
AGASC star id: 826817584
Time(ksec)

2.5 FID Slots

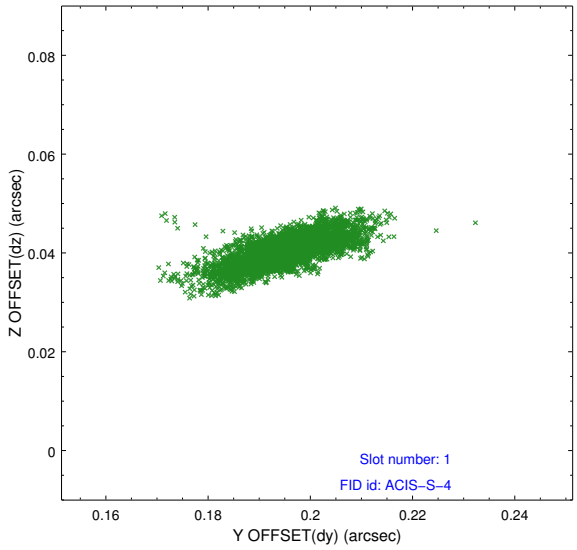
2.5.1 Slot 0

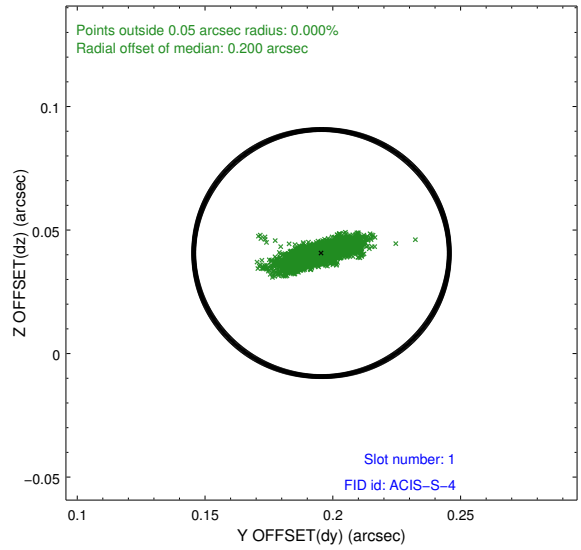


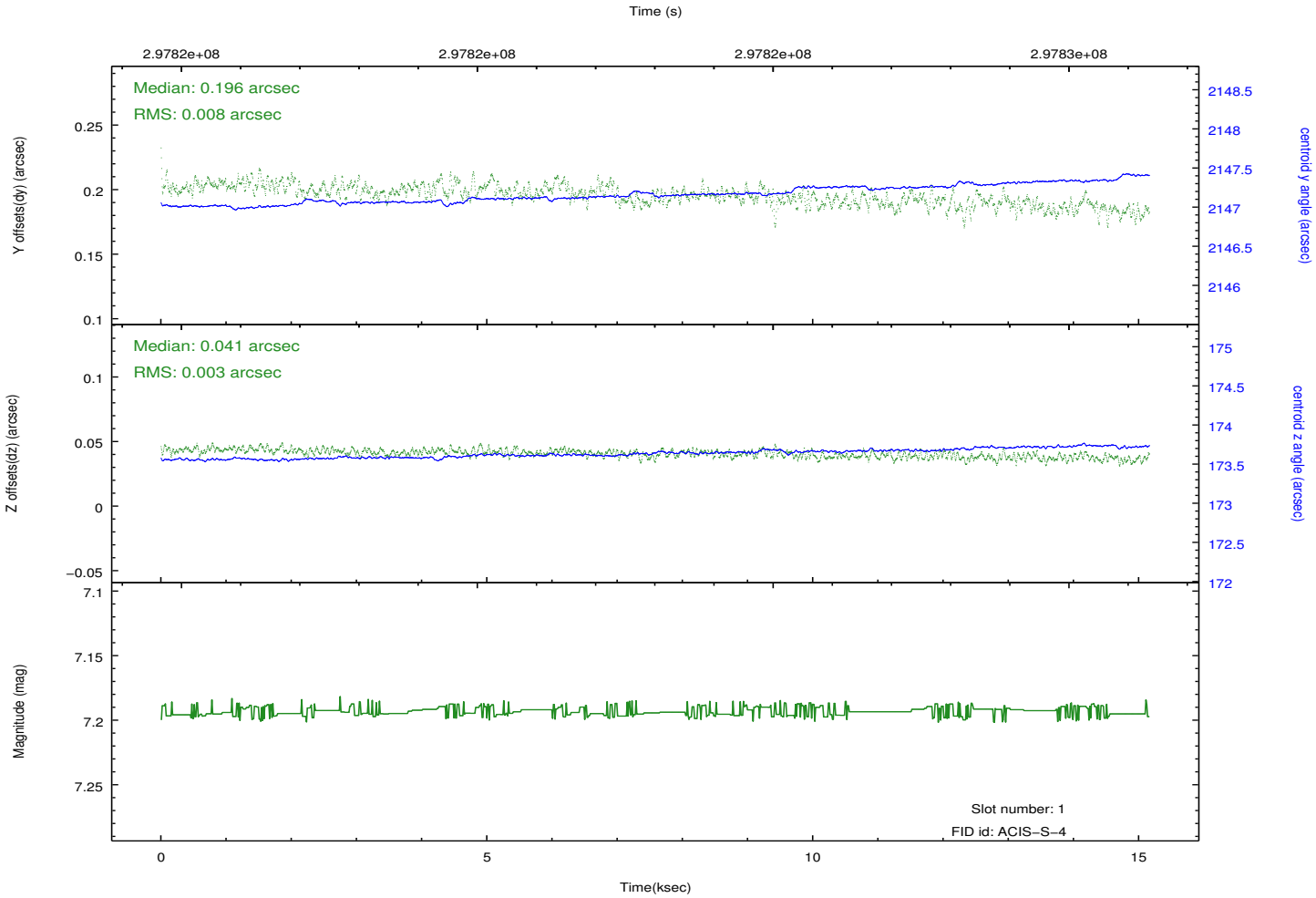




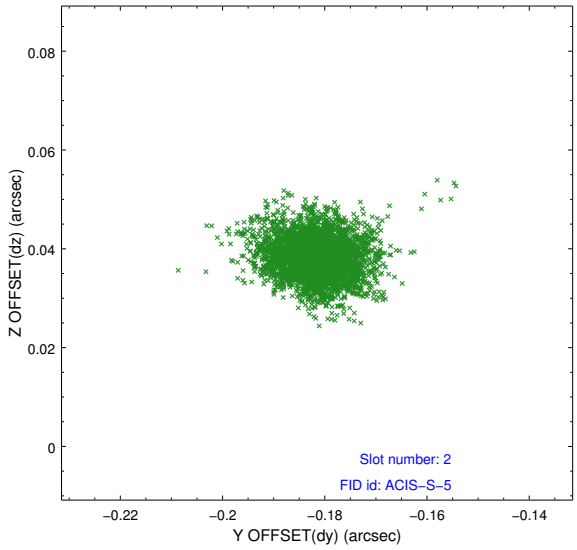
2.5.2 Slot 1

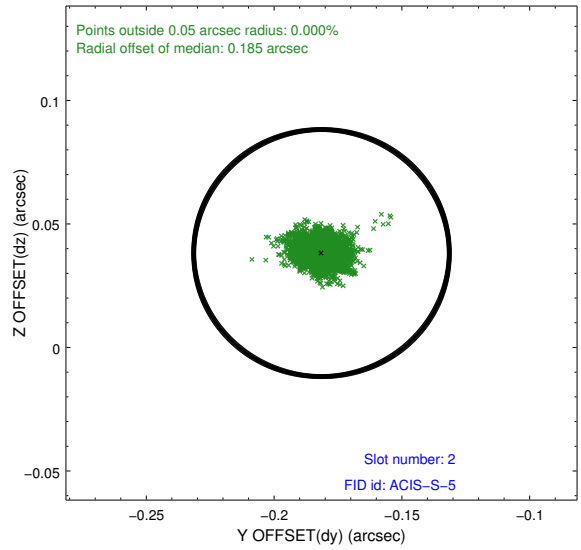

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4

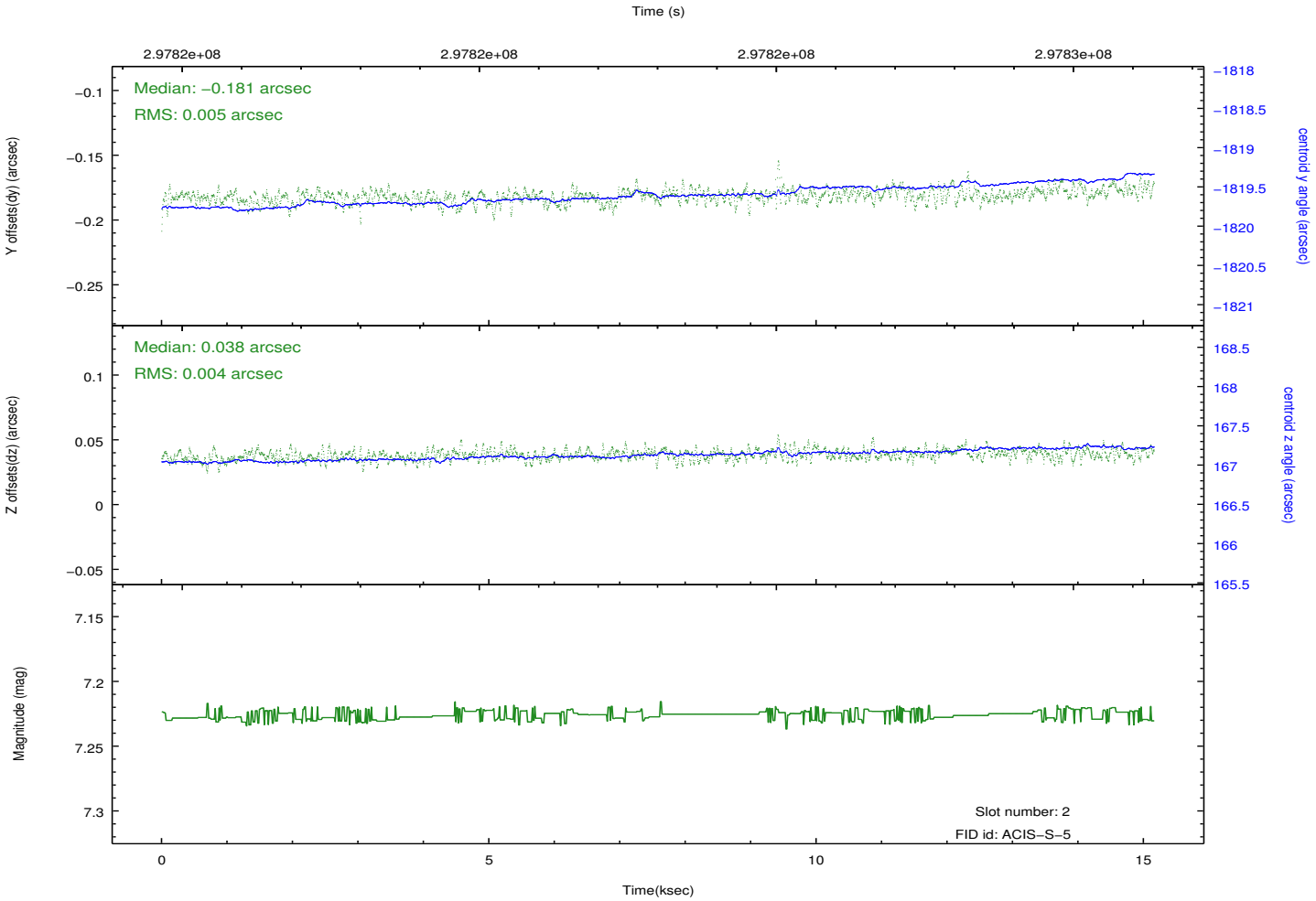

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.200 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4


Time (s)
Median: 0.196 arcsec
RMS: 0.008 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.041 arcsec
RMS: 0.003 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 1
FID id: 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: 0.000%
Radial offset of median: 0.185 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−S−5


Time (s)
Median: −0.181 arcsec
RMS: 0.005 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.038 arcsec
RMS: 0.004 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 2
FID id: ACIS−S−5
Time(ksec)

A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.04.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.1583999

A.2 Comments