V&V Reference Report
L2 ASCDS Version : 8.4.5

Observation 875 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Aug 24 2012

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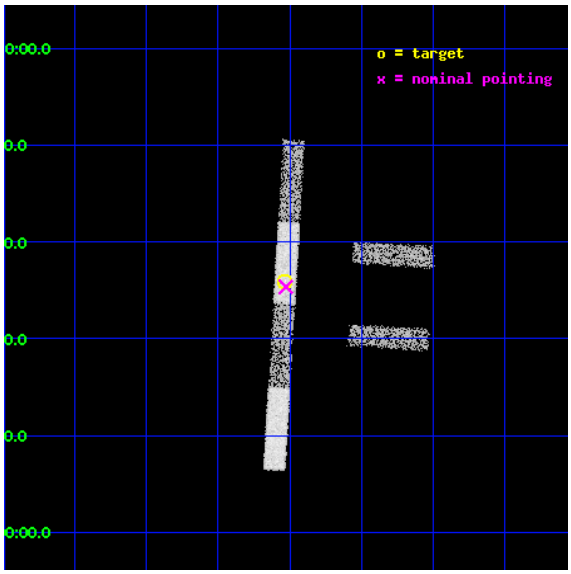
1 Front

seq_num	700180	Sequence number
obs_id	875	Observation id
title	SURVEY OF RADIO QUIET $Z>4$ QUASARS	Proposal title
observer	Dr. Jill Bechtold	Principal investigator
object	BRI 0241-0146	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	41.007917	Observer's specified target RA [deg]
dec_targ	-1.5675	Observer's specified target Dec [deg]
ra_nom	41.006656488952	Nominal RA [deg]
dec_nom	-1.5774143098196	Nominal Dec [deg]
roll_nom	273.42713756433	Nominal Roll [deg]
revision	4	Processing version of data
ontime	7639.4999586046	Sum of GTIs [s]
livetime	7364.7286286765	Livetime [s]
ontime2	7639.4999586046	Sum of GTIs [s]
ontime3	7639.4999586046	Sum of GTIs [s]
ontime5	7639.4999586046	Sum of GTIs [s]
ontime6	7639.4999586046	Sum of GTIs [s]
ontime7	7639.4999586046	Sum of GTIs [s]
ontime8	7639.4999586046	Sum of GTIs [s]
l2events	21103	Number of level 2 events

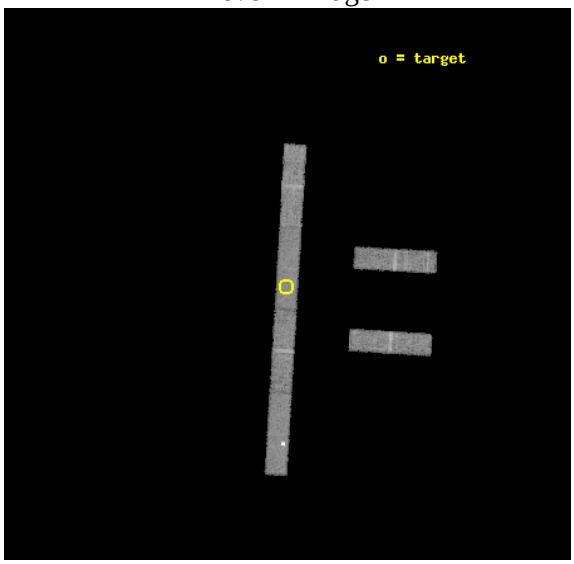


2 OBI

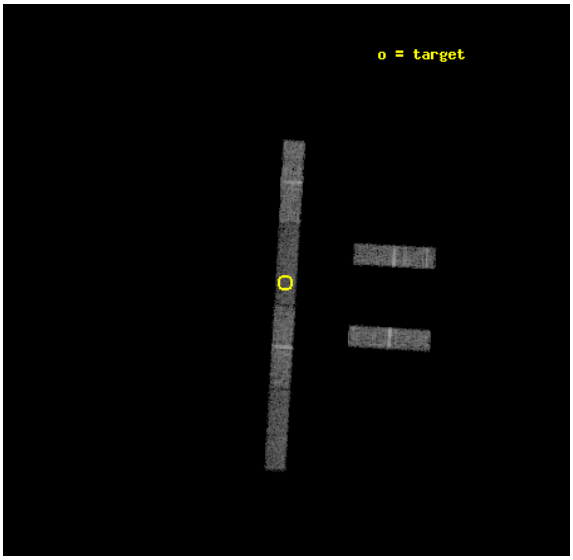
2.1 OBI

2.1.1 Images

Level 1 Image

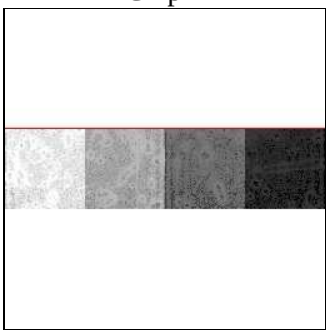


Level 1 Bad Events

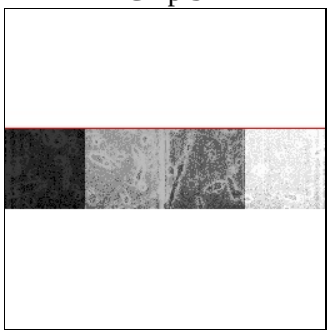


2.1.2 Bias

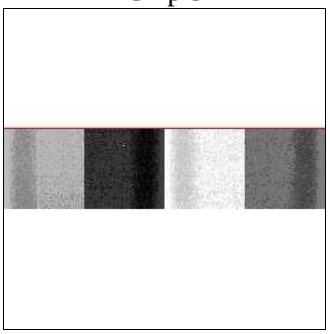
Chip 2



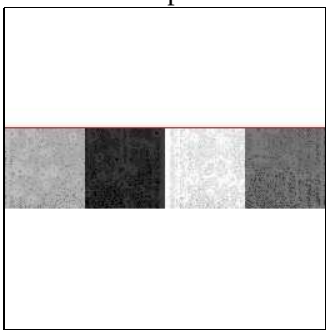
Chip 3



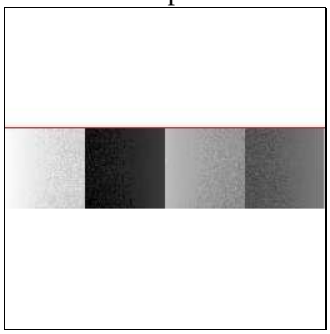
Chip 5



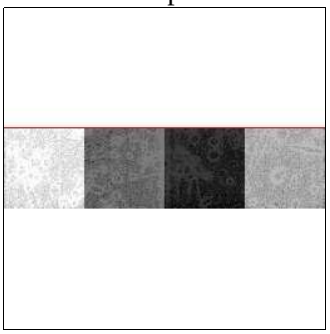
Chip 6



Chip 7



Chip 8



2.1.3 Parameters

obi_num	0	Obi number
ascdsver	8.4.5	Processing system revision
caldbver	4.5.1.1	
date	2012-08-24T04:59:25	Date and time of file creation
revision	4	Processing version of data

sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ontime	7639.4999586046	Sum of GTIs [s]
ontime2	7639.4999586046	Sum of GTIs [s]
ontime3	7639.4999586046	Sum of GTIs [s]
ontime5	7639.4999586046	Sum of GTIs [s]
ontime6	7639.4999586046	Sum of GTIs [s]
ontime7	7639.4999586046	Sum of GTIs [s]
ontime8	7639.4999586046	Sum of GTIs [s]
l1events	120236	Number of level 1 events

2.1.4 Events

	ccd 2	**ccd 3**	**ccd 5**	**ccd 6**	**ccd 7**	**ccd 8**
level 1 events	19504	18233	24396	18425	17223	22455
rejected events	17743	16542	9924	16635	9719	18770
rejected %	90%	90%	40%	90%	56%	83%

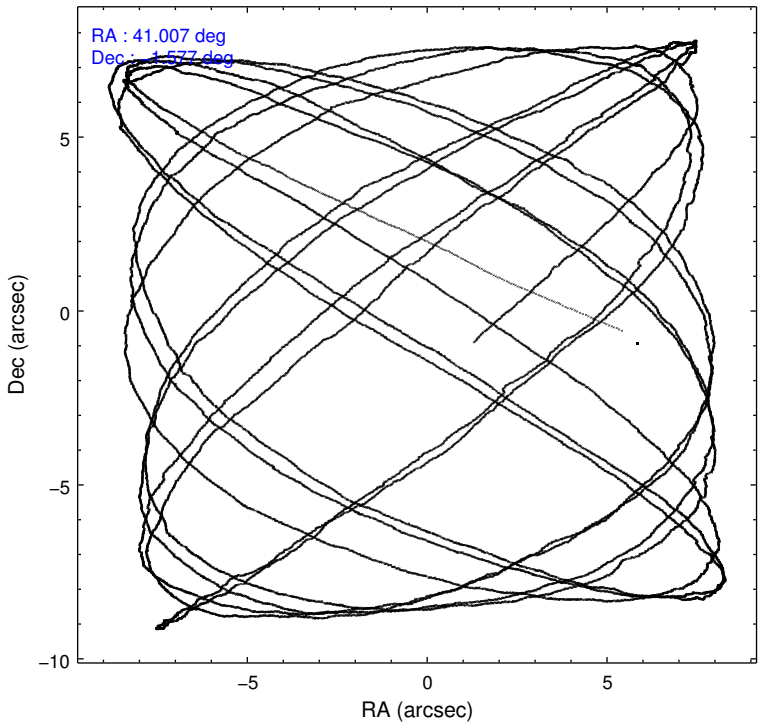
	ccd 2	**ccd 3**	**ccd 5**	**ccd 6**	**ccd 7**	**ccd 8**
grade 0 events	652	656	6147	623	803	1110
	3%	3%	25%	3%	4%	4%
grade 1 events	8	9	31	8	16	9
	0%	0%	0%	0%	0%	0%
grade 2 events	313	271	3045	314	1542	748
	1%	1%	12%	1%	8%	3%
grade 3 events	240	251	559	284	871	442
	1%	1%	2%	1%	5%	1%
grade 4 events	246	249	551	261	764	459
	1%	1%	2%	1%	4%	2%
grade 5 events	463	433	1540	521	1700	619
	2%	2%	6%	2%	9%	2%
grade 6 events	310	264	4172	308	3525	927
	1%	1%	17%	1%	20%	4%
grade 7 events	17272	16100	8351	16106	8002	18141
	88%	88%	34%	87%	46%	80%

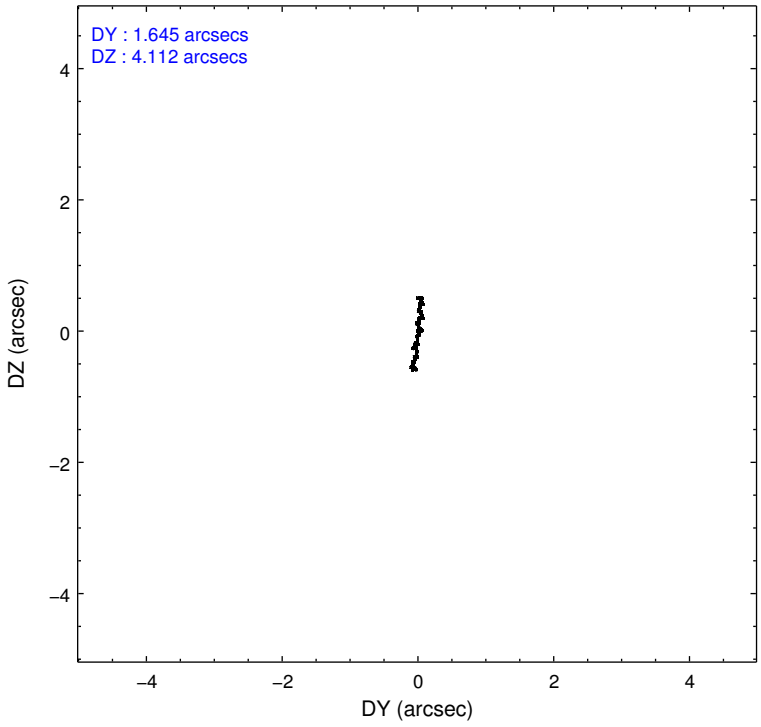
2.2 Compared Parameters

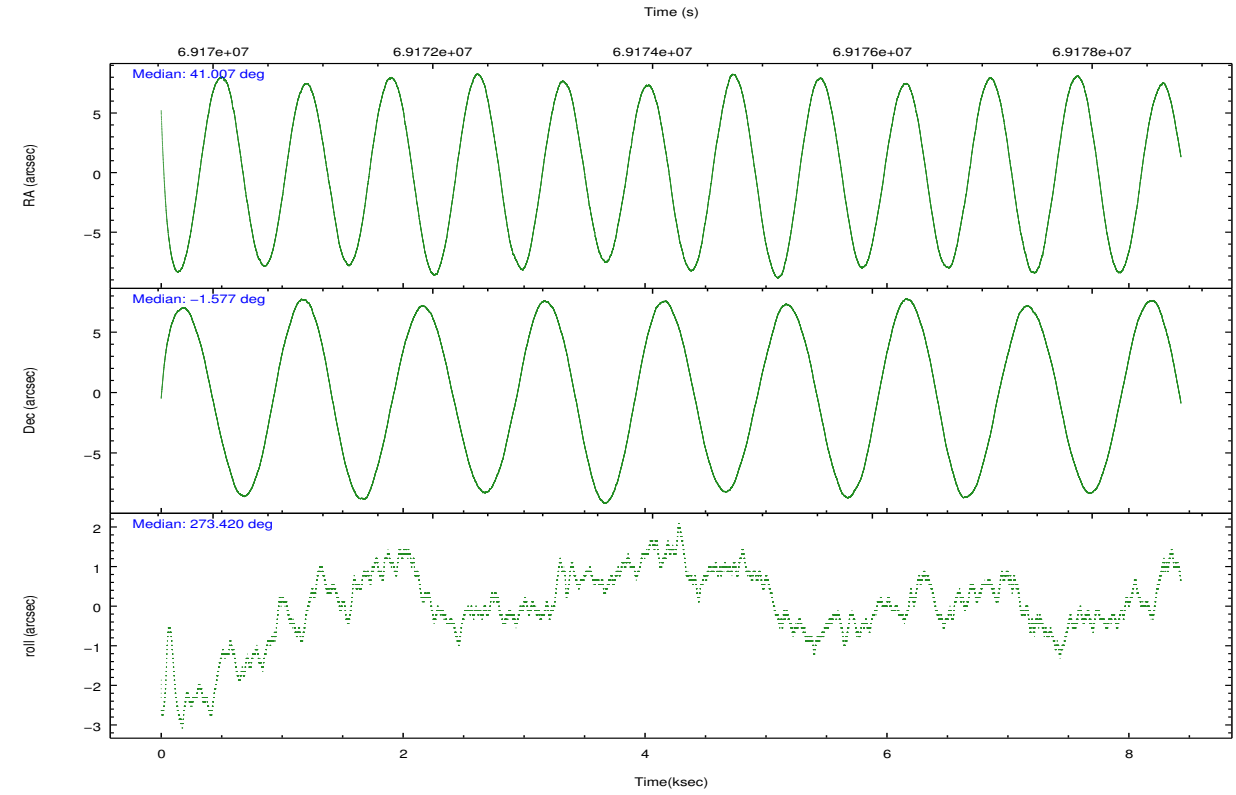
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-235678	ACIS-235678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	40.991479	41.00665648895209
[deg] Pointing Dec	-1.554584	-1.577414309819608
[deg] Pointing Roll	273.270114	273.4271375643271
[mm] 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)	69170383.184000	69168106.761228
Observation start date	2000-03-11T13:58:39	2000-03-11T13:21:46
[s] Observation end time (MET)	69178383.184000	69180160.761669
Observation end date	2000-03-11T16:11:59	2000-03-11T16:42:40
Read mode	TIMED	TIMED

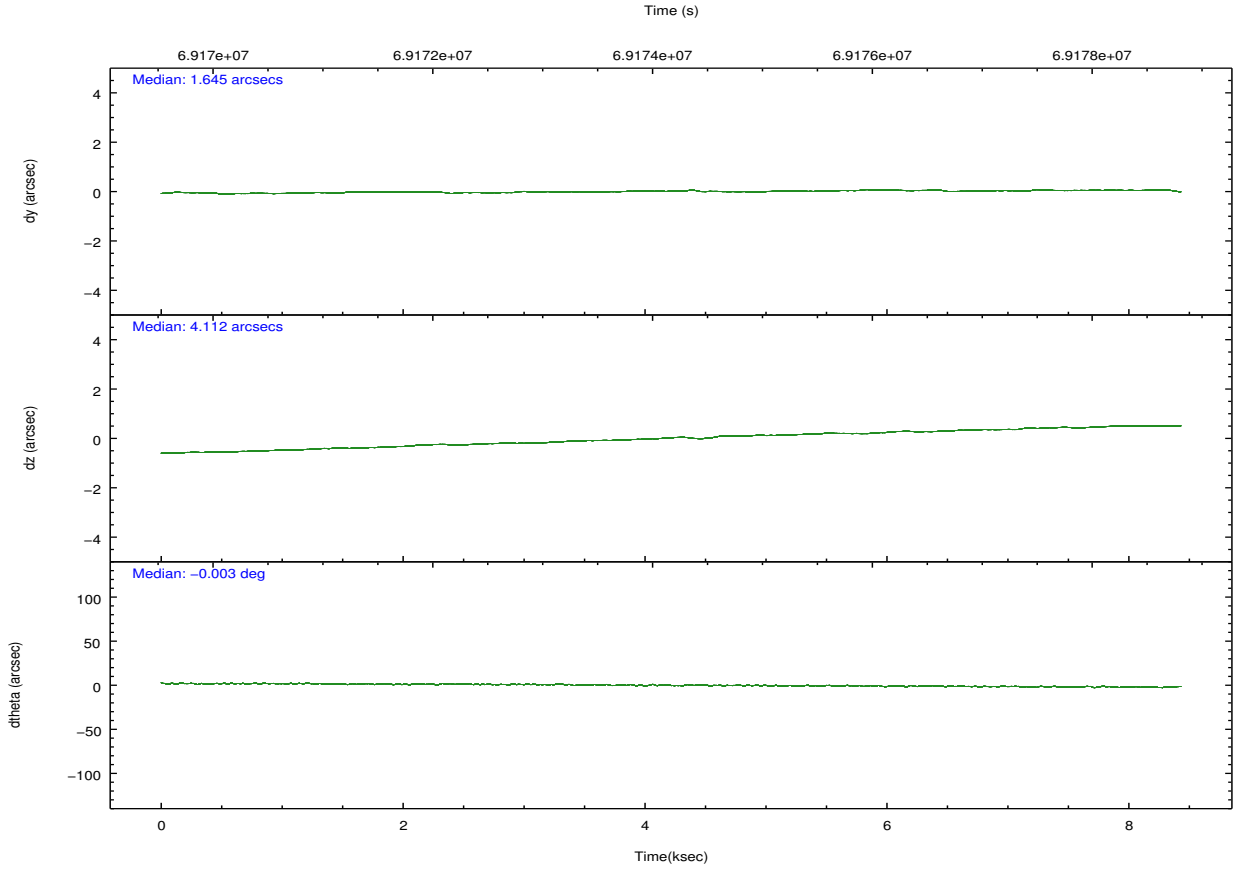
Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/4
Subarray start row	385	385
Subarray row count	256	256
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	1.1

2.3 Aspect


RA : 41.007 deg
Dec : -1.577 deg
Dec (arcsec)
RA (arcsec)
5
0
−5
−10
−5
0
5


DY : 1.645 arcsecs
DZ : 4.112 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
6.917e+07
6.9172e+07
6.9174e+07
6.9176e+07
6.9178e+07
Median: 41.007 deg
RA (arcsec)
Median: −1.577 deg
Dec (arcsec)
Median: 273.420 deg
roll (arcsec)
Time(ksec)

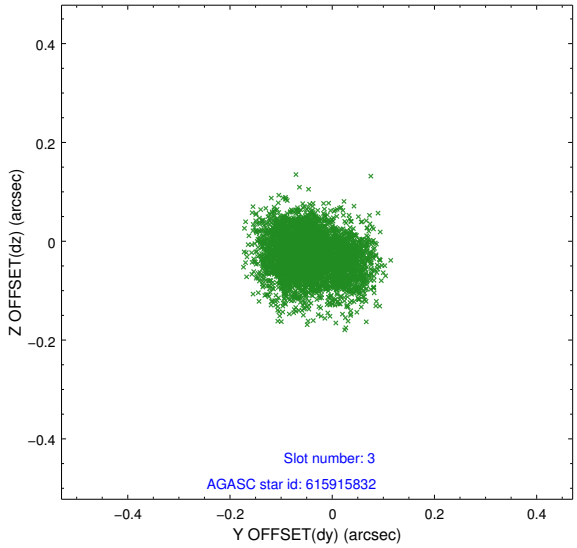

Time (s)
6.917e+07
6.9172e+07
6.9174e+07
6.9176e+07
6.9178e+07
Median: 1.645 arcsecs
dy (arcsec)
Median: 4.112 arcsecs
dz (arcsec)
Median: −0.003 deg
dtheta (arcsec)
Time(ksec)

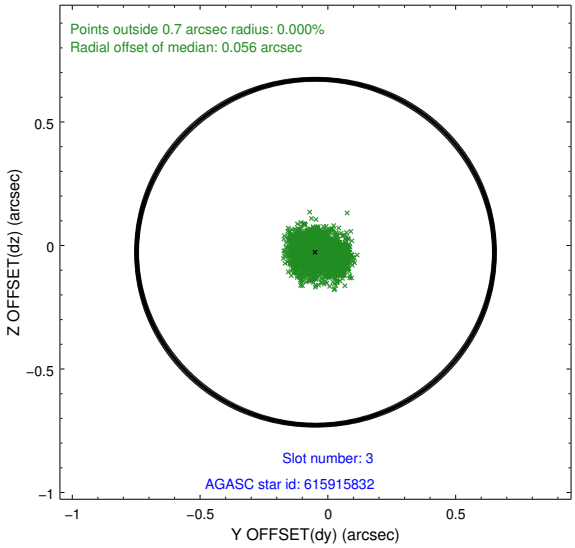
Slot Statistics

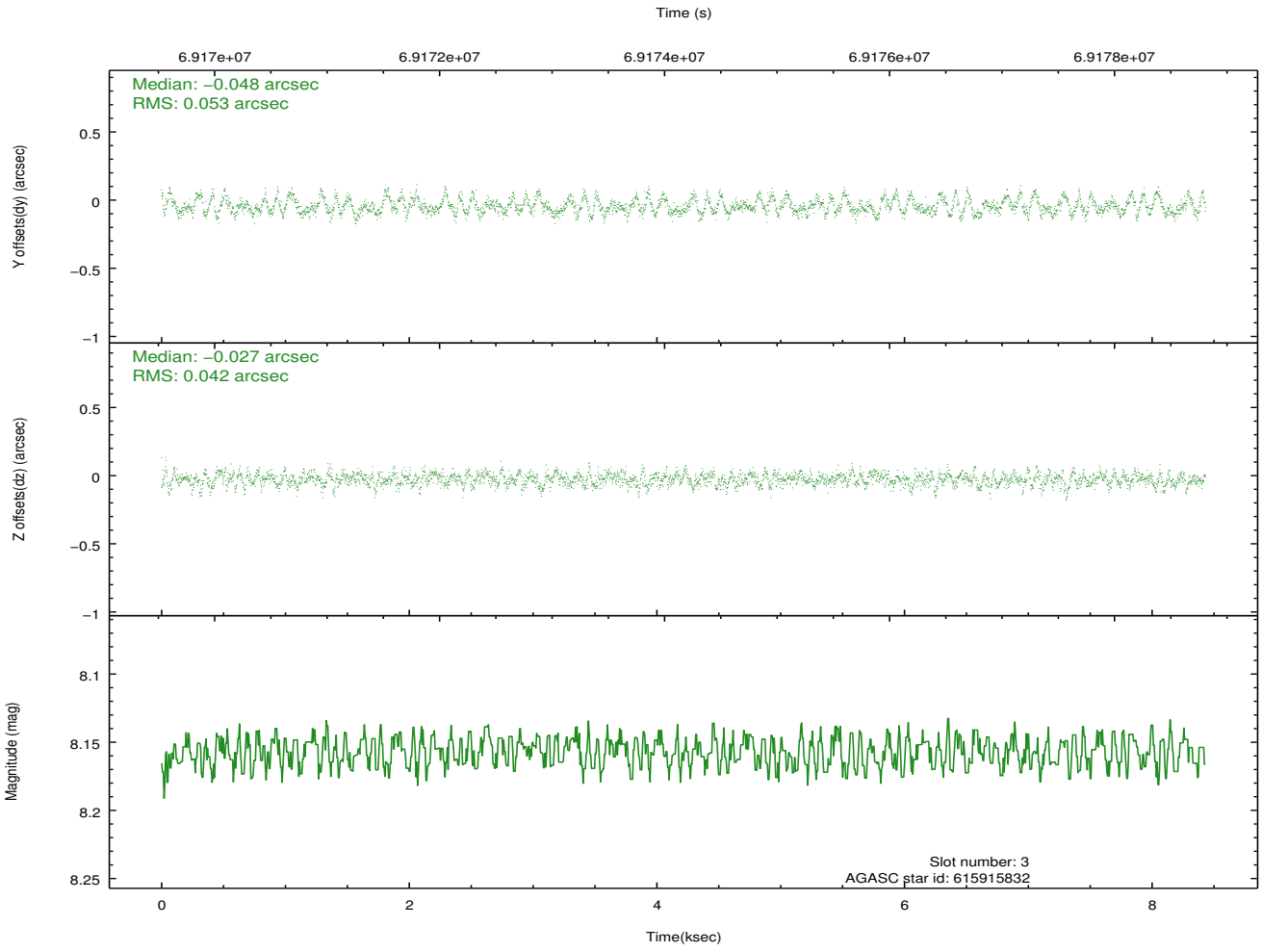
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	2057	-0.014	-0.015	0.010	0.016	0.000000	0.000000	-754.29	-1725.19
1	FID	ACIS-S-4	7.21	2057	-0.002	0.011	0.006	0.012	0.000000	0.000000	2158.73	182.59
2	FID	ACIS-S-5	7.24	2057	-0.015	0.013	0.009	0.015	0.000000	0.000000	-1806.26	177.09
3	GUIDE	615915832	8.16	4110	-0.048	-0.027	0.073	0.118	41.636865	-1.384369	-478.40	2354.26
4	GUIDE	615915072	9.26	4112	0.187	0.107	0.078	0.126	41.305679	-2.021277	1742.79	1034.13
5	GUIDE	615915488	9.26	4110	-0.108	-0.122	0.102	0.169	40.321812	-1.243760	-1252.82	-2342.09
6	GUIDE	615915552	9.60	4114	-0.074	0.064	0.088	0.143	41.134399	-1.049345	-1786.10	617.10
7	GUIDE	615916112	9.90	4108	0.039	-0.026	0.116	0.190	40.345268	-1.736869	523.74	-2358.32

2.4 Star Slots

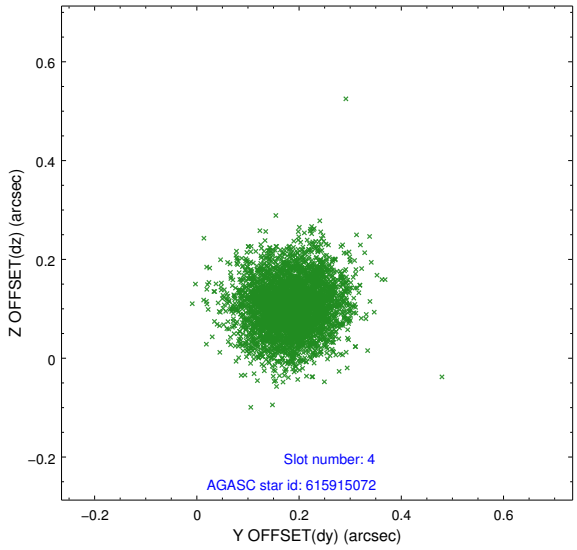
2.4.1 Slot 3

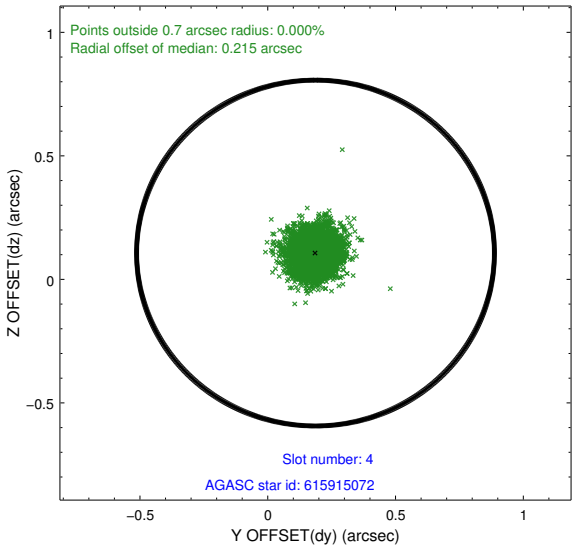


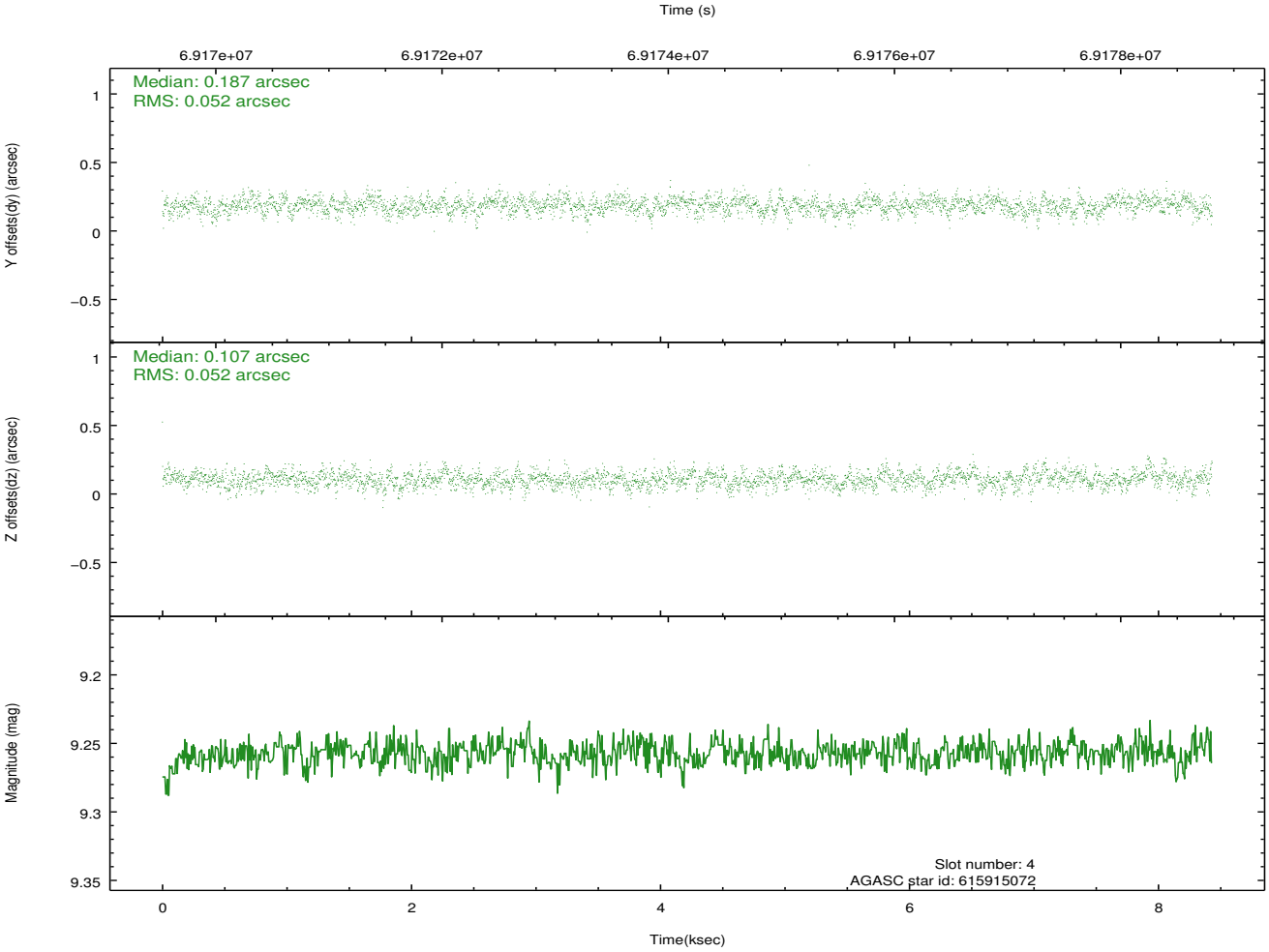




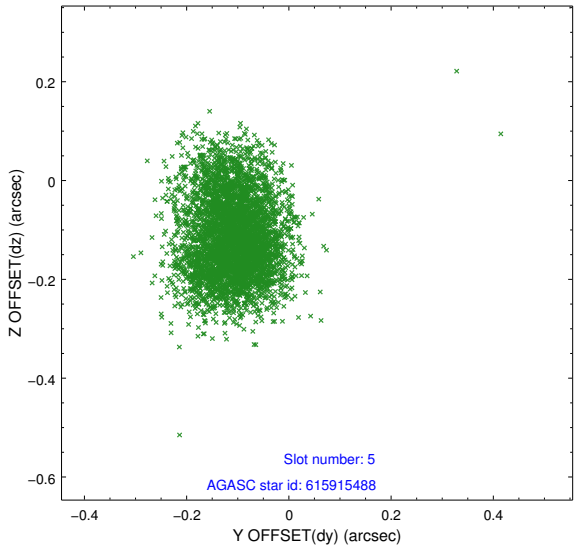
2.4.2 Slot 4

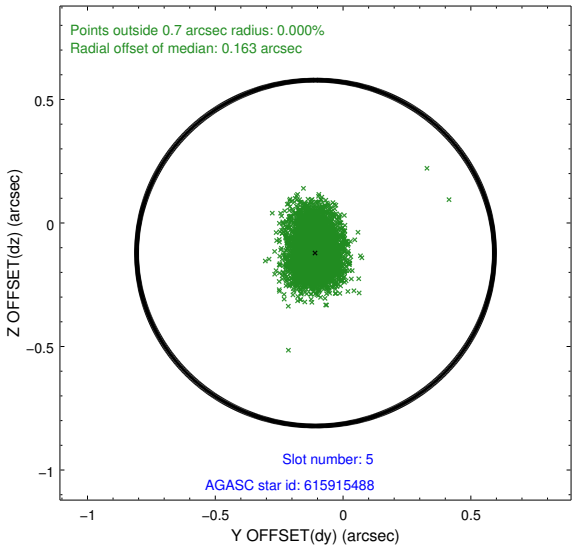

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 615915072

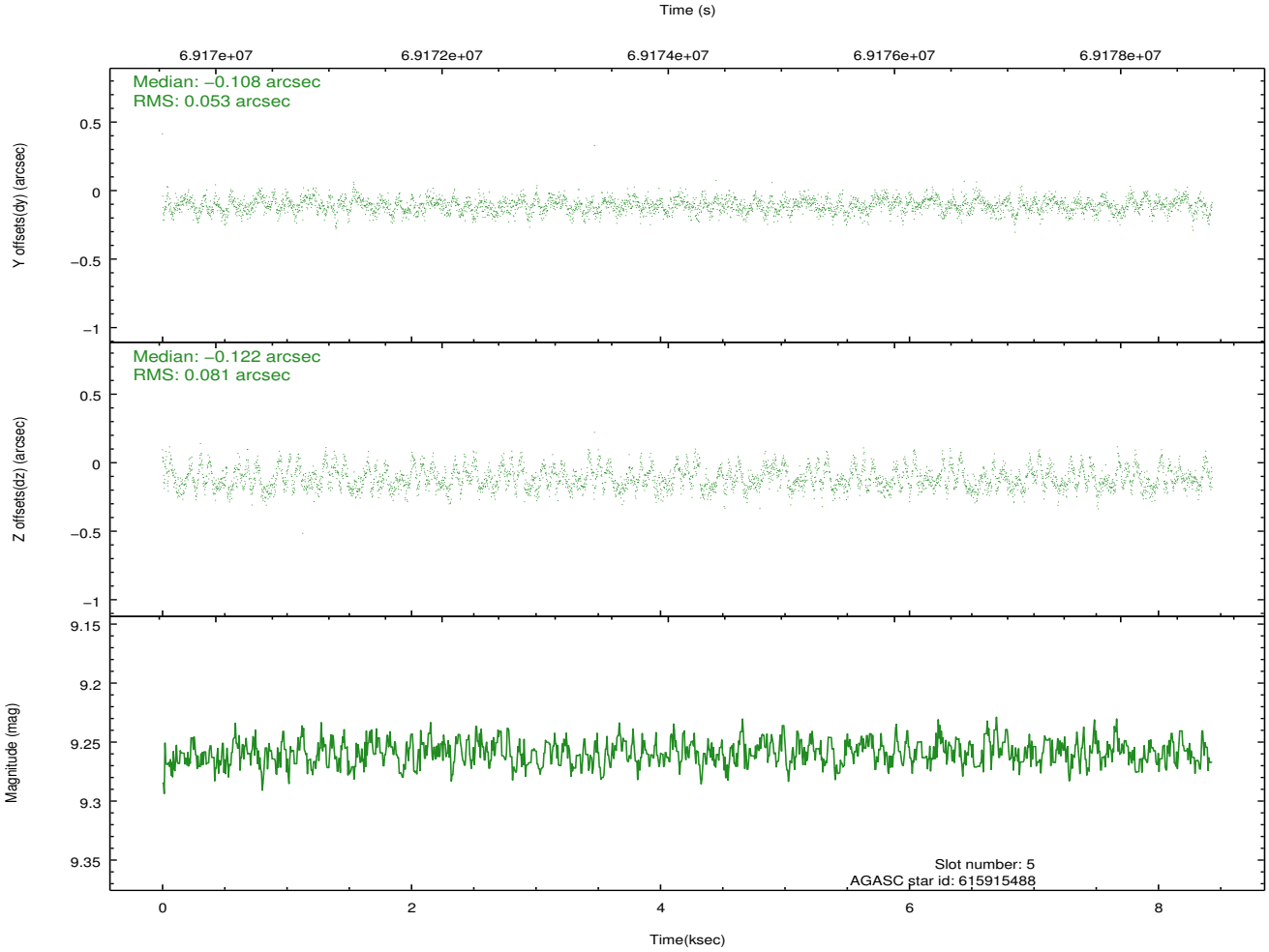

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.215 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 615915072


Time (s)
Median: 0.187 arcsec
RMS: 0.052 arcsec
Y offsets(dy) (arcsec)
Median: 0.107 arcsec
RMS: 0.052 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 4
AGASC star id: 615915072
Time(ksec)

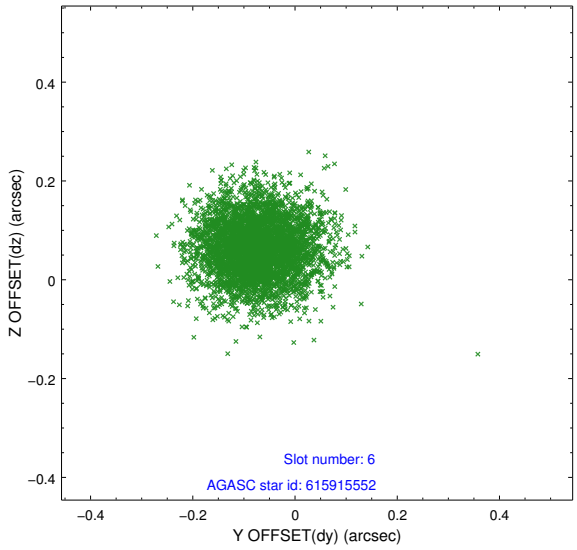
2.4.3 Slot 5

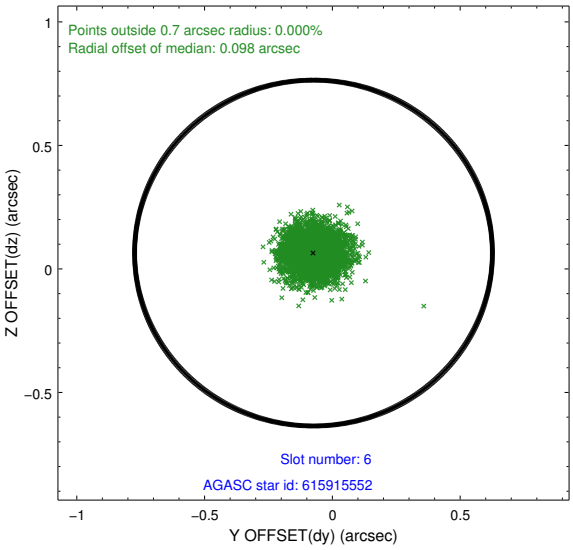

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 615915488

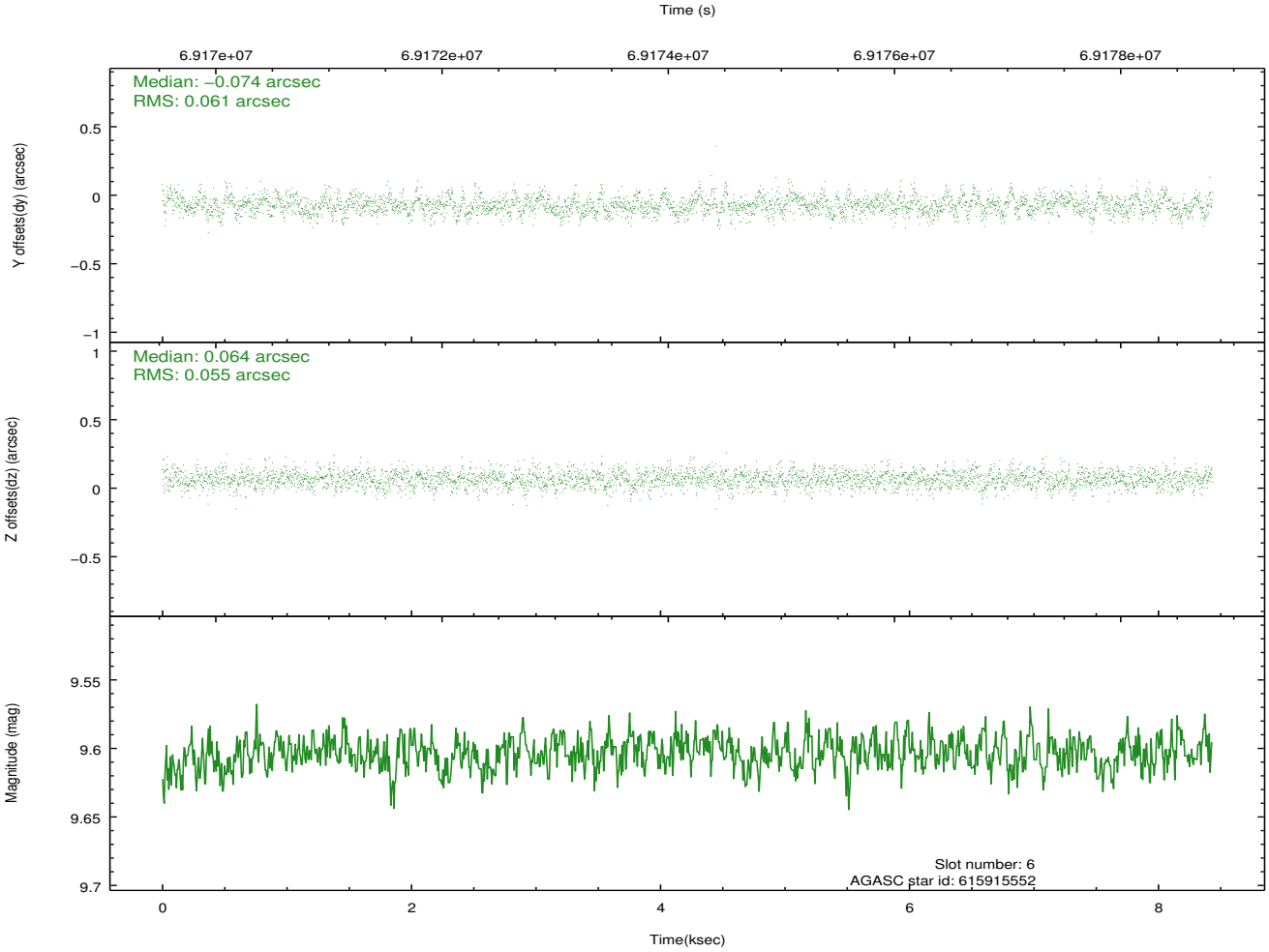

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.163 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 615915488


Time (s)
6.917e+07
6.9172e+07
6.9174e+07
6.9176e+07
6.9178e+07
Median: –0.108 arcsec
RMS: 0.053 arcsec
Y offsets(dy) (arcsec)
Median: –0.122 arcsec
RMS: 0.081 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 5
AGASC star id: 615915488
Time(ksec)

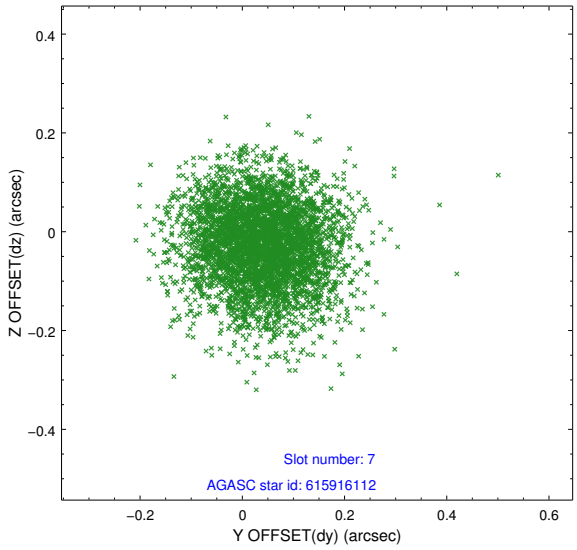
2.4.4 Slot 6

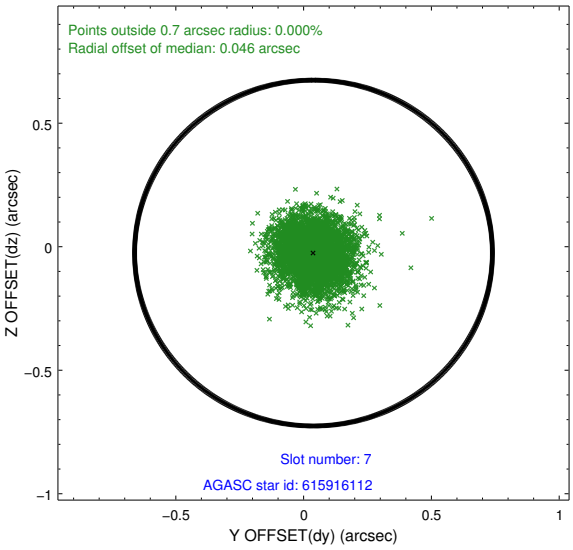

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 615915552

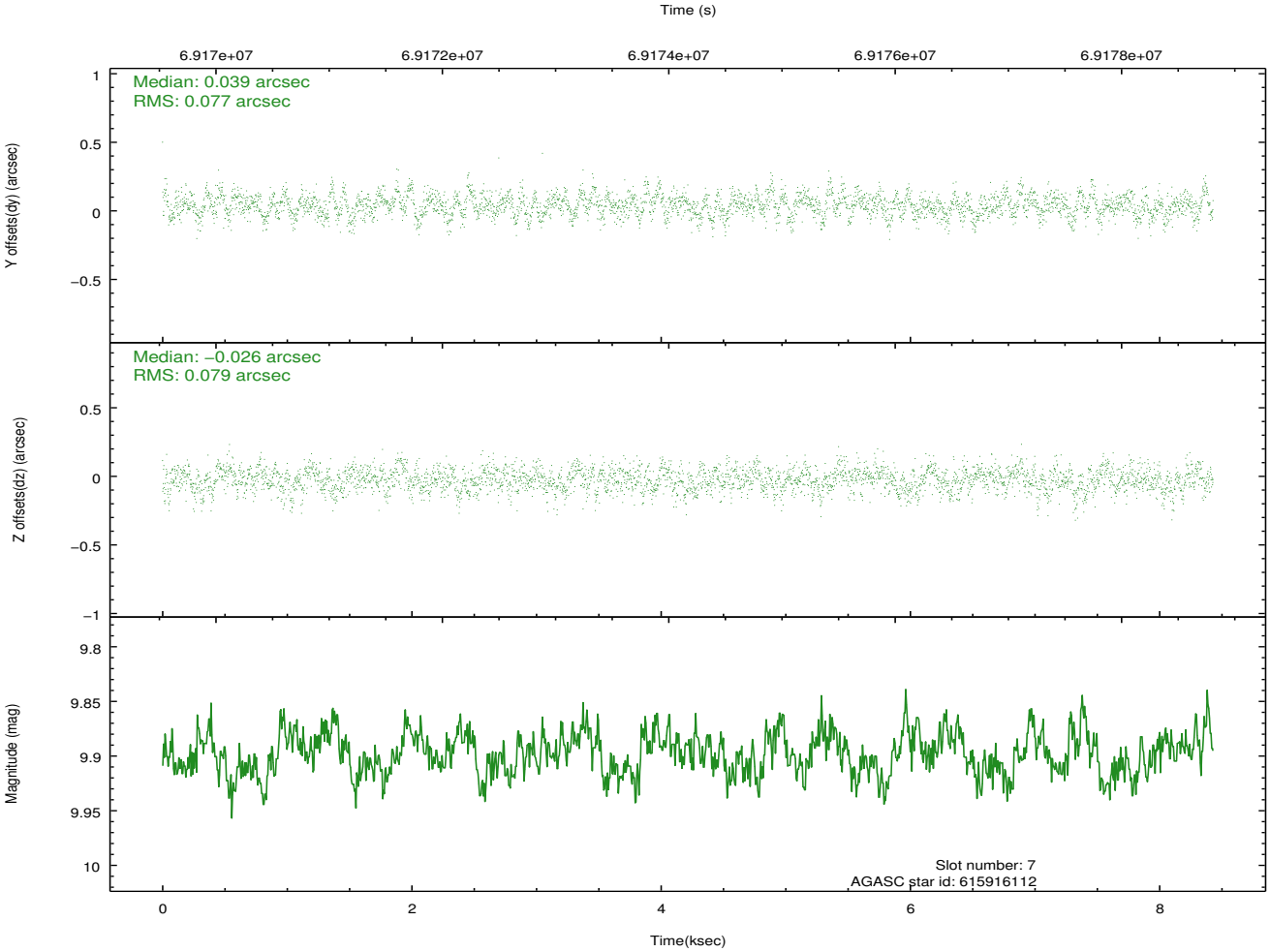

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.098 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 615915552


Time (s)
6.917e+07
6.9172e+07
6.9174e+07
6.9176e+07
6.9178e+07
Median: −0.074 arcsec
RMS: 0.061 arcsec
Y offsets(dy) (arcsec)
Median: 0.064 arcsec
RMS: 0.055 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 6
AGASC star id: 615915552
Time(ksec)

2.4.5 Slot 7

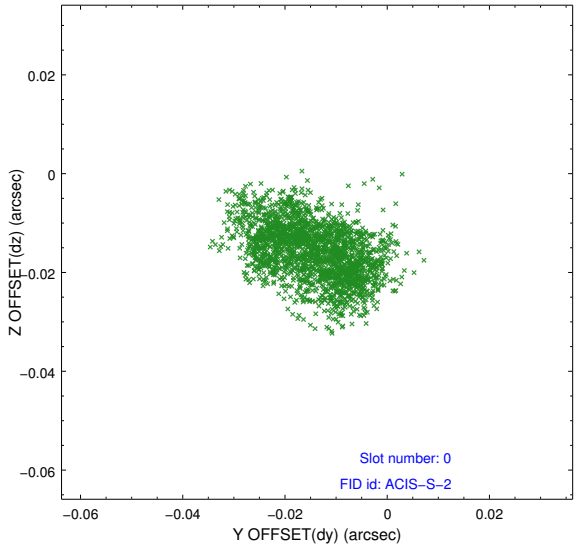

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 615916112

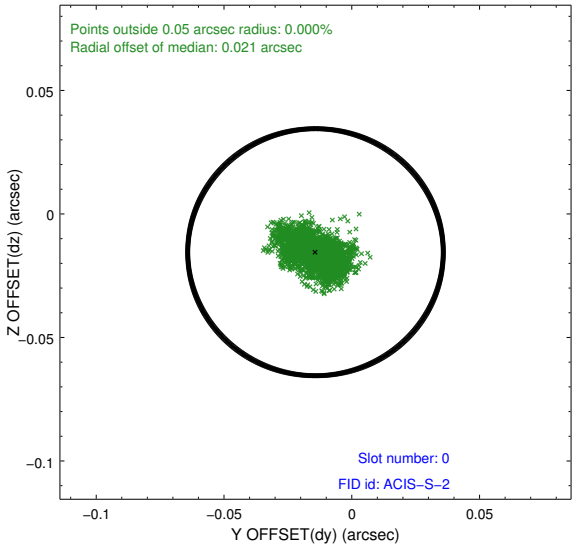

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.046 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 615916112

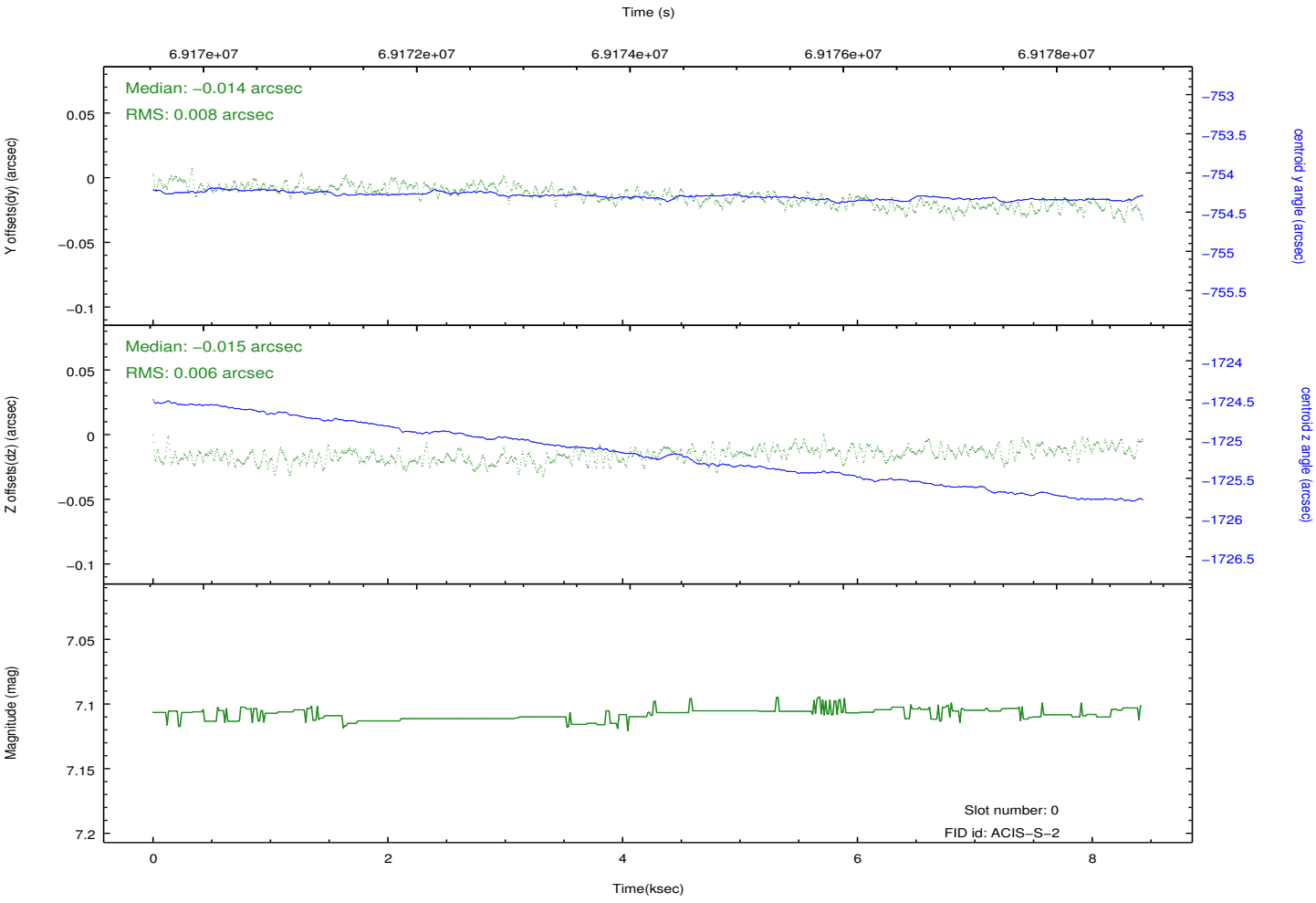

Time (s)
6.917e+07
6.9172e+07
6.9174e+07
6.9176e+07
6.9178e+07
Median: 0.039 arcsec
RMS: 0.077 arcsec
Y offsets(dy) (arcsec)
Median: −0.026 arcsec
RMS: 0.079 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 7
AGASC star id: 615916112
Time(ksec)

2.5 FID Slots

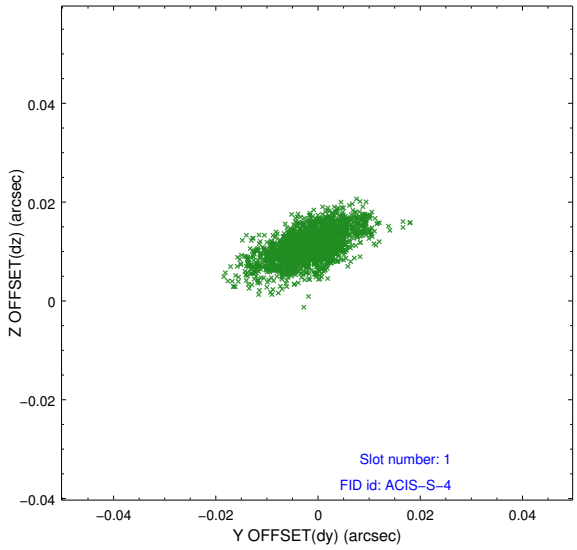
2.5.1 Slot 0

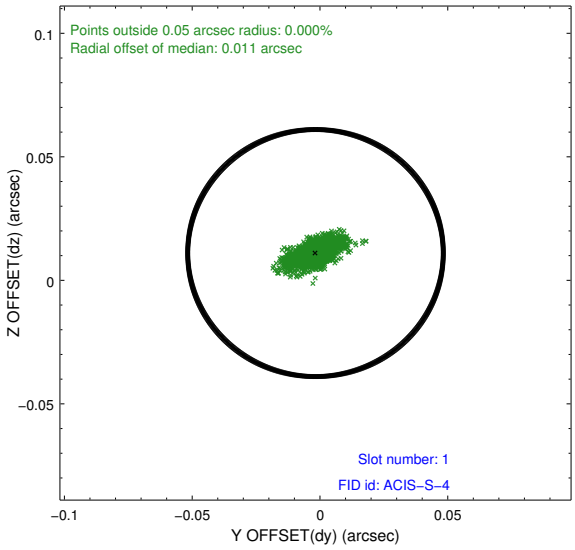


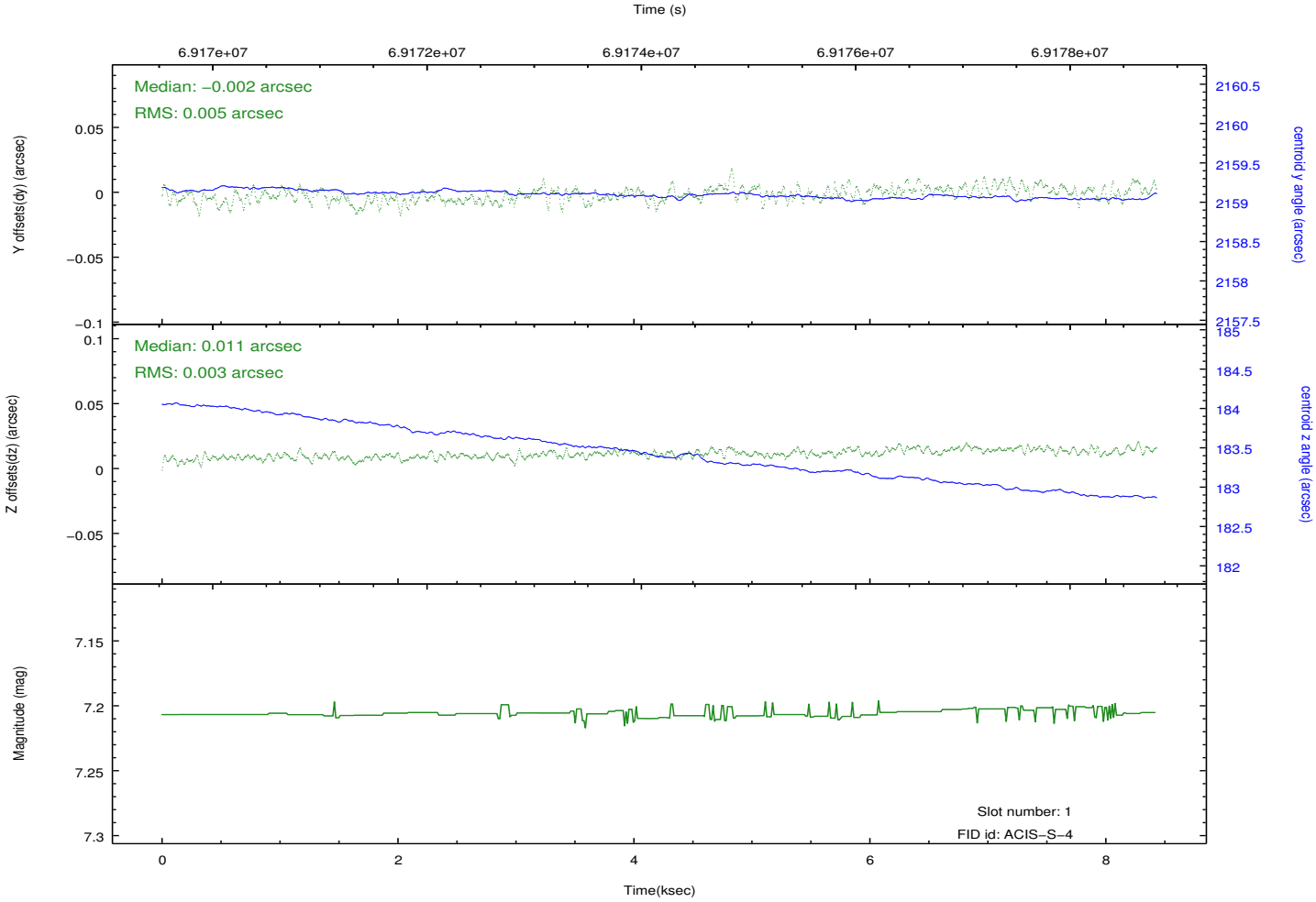




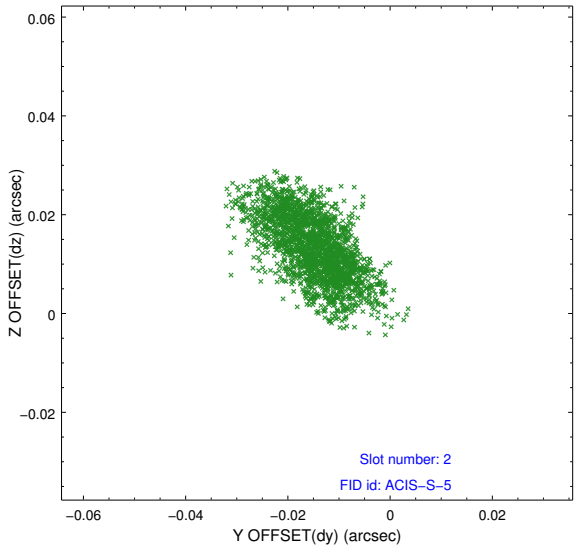
2.5.2 Slot 1

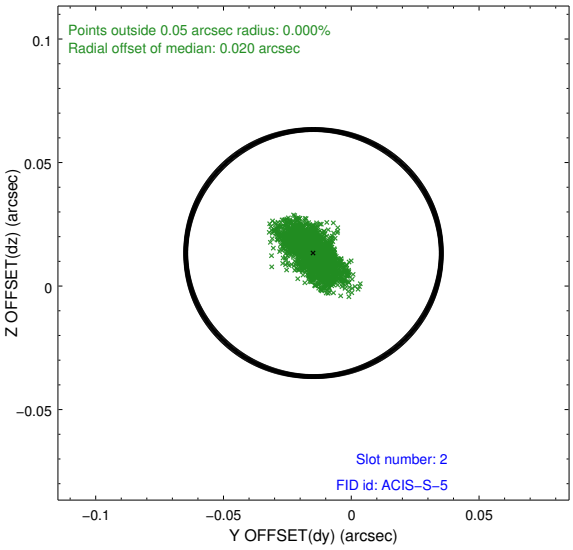

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4

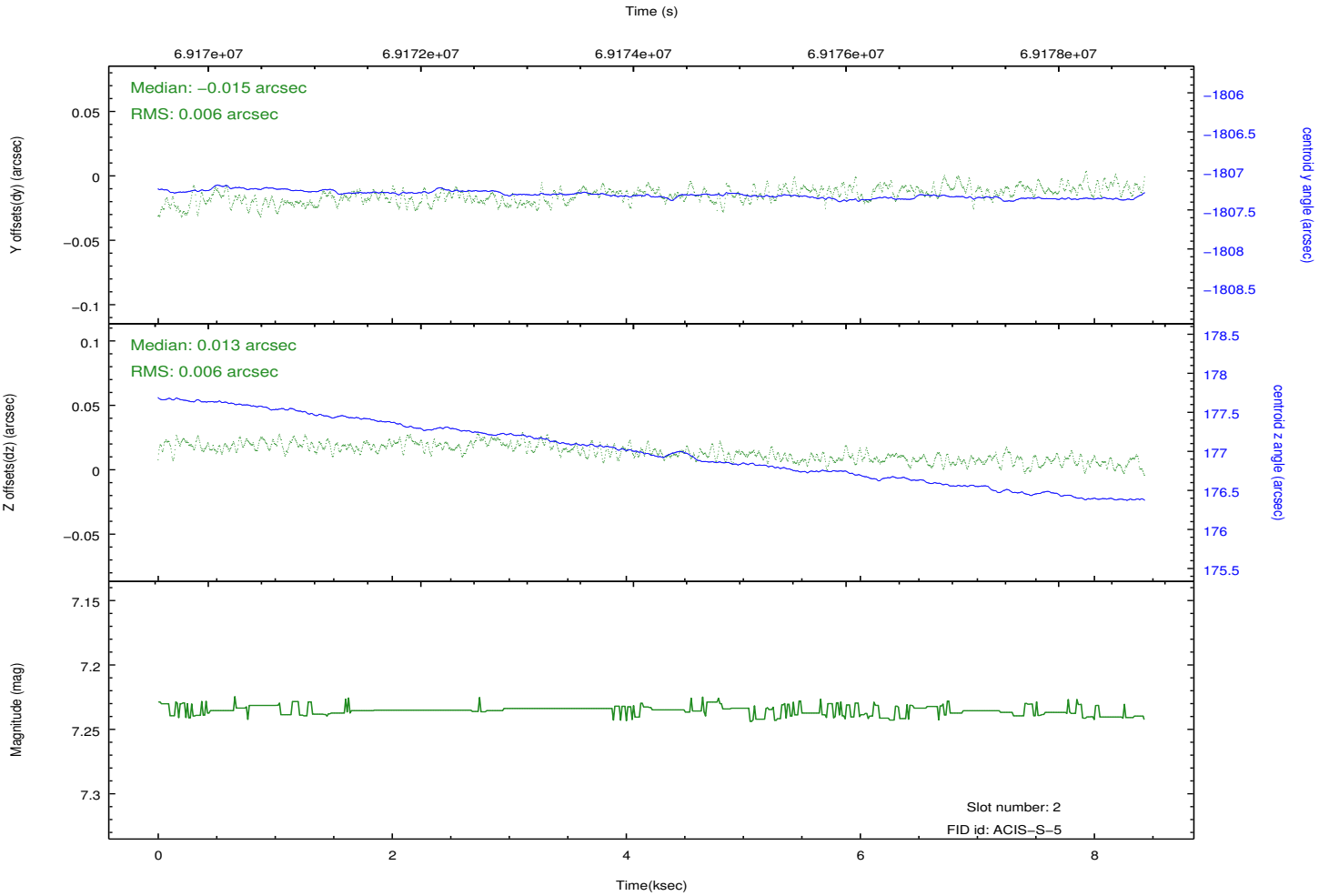

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.011 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−S−4


Time (s)
Median: −0.002 arcsec
RMS: 0.005 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.011 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: 0.020 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−S−5


Time (s)
Median: −0.015 arcsec
RMS: 0.006 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.013 arcsec
RMS: 0.006 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)	2012.08.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.64

A.2 Comments