V&V Reference Report
L2 ASCDS Version : 10.3.3

Observation 16266 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : Feb 8 2015

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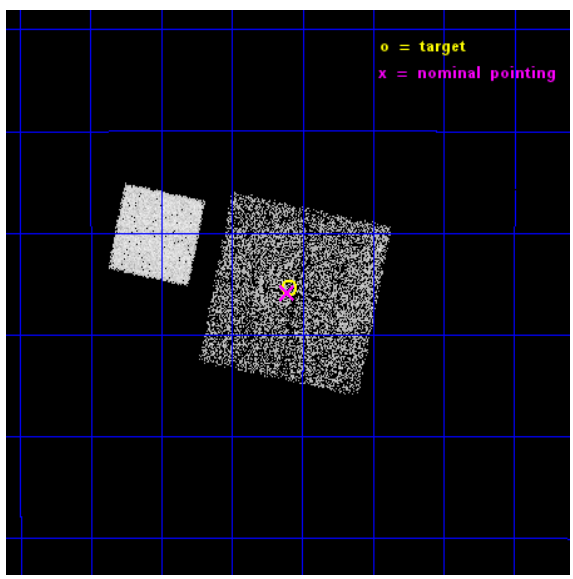
1 Front

seq_num	703010	Sequence number
obs_id	16266	Observation id
title	X-ray Properties of Selected SDSS Stripe 82 Red Quasars	Proposal t
observer	Dr. Stephen Murray	Principal investigator
object	J010335.34-005527.1	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	15.8975	Observer's specified target RA [deg]
dec_targ	-9.924222	Observer's specified target Dec [deg]
ra_nom	15.901645964287	Nominal RA [deg]
dec_nom	-9.9313805861585	Nominal Dec [deg]
roll_nom	281.8088145692	Nominal Roll [deg]
revision	1	Processing version of data
ontime	6054.2590065002	Sum of GTIs [s]
livetime	5975.1556554997	Livetime [s]
ontime0	6057.4000467062	Sum of GTIs [s]
ontime1	6057.4000467062	Sum of GTIs [s]
ontime2	6057.4000467062	Sum of GTIs [s]
ontime3	6054.2590065002	Sum of GTIs [s]
ontime7	6057.4000467062	Sum of GTIs [s]
l2events	29067	Number of level 2 events

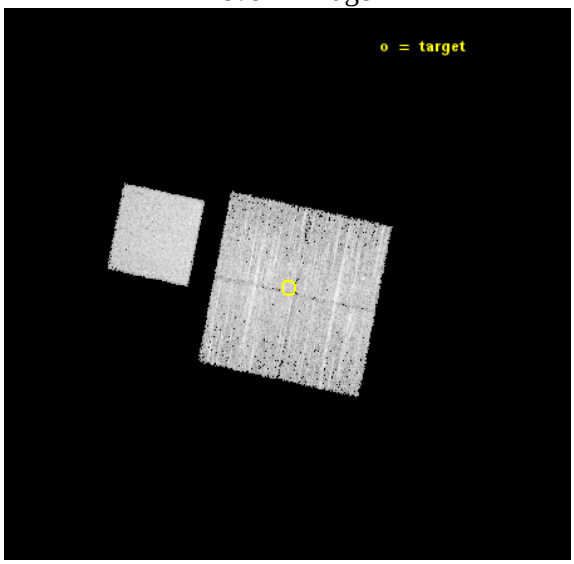


2 OBI

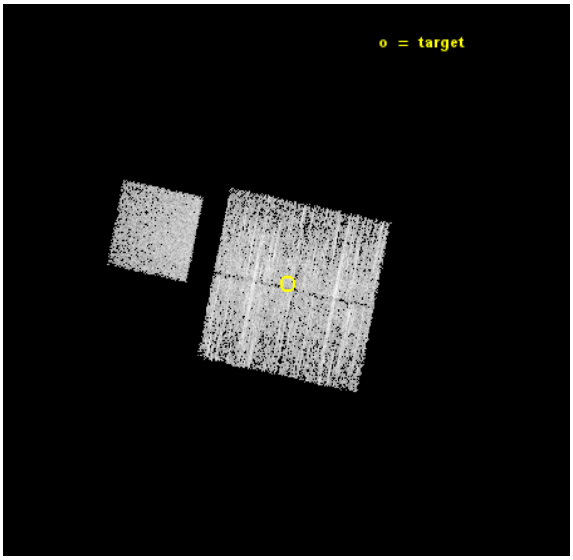
2.1 OBI

2.1.1 Images

Level 1 Image

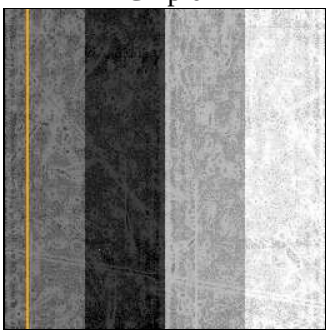


Level 1 Bad Events

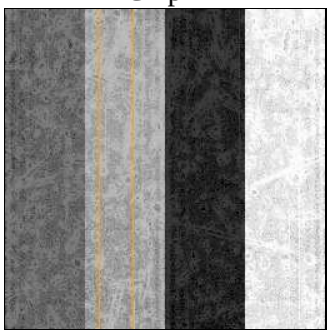


2.1.2 Bias

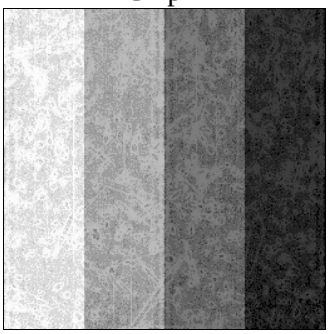
Chip 0



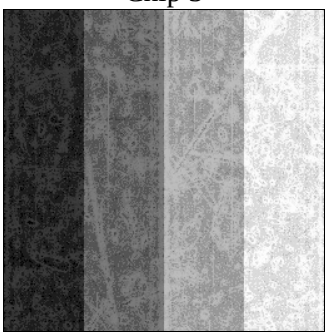
Chip 1



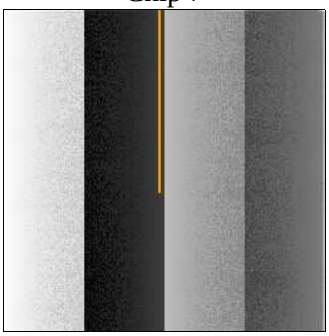
Chip 2



Chip 3



Chip 7



2.1.3 Parameters

obi_num	0	Obi number
ascdsver	10.3.3	Processing system revision
caldbver	4.6.6	
date	2015-02-08T16:59:27	Date and time of file creation
revision	1	Processing version of data

sched_exp_time	6000.000000	[s] Scheduled observation exposure time
ontime	6054.2590065002	Sum of GTIs [s]
ontime0	6057.4000467062	Sum of GTIs [s]
ontime1	6057.4000467062	Sum of GTIs [s]
ontime2	6057.4000467062	Sum of GTIs [s]
ontime3	6054.2590065002	Sum of GTIs [s]
ontime7	6057.4000467062	Sum of GTIs [s]
l1events	160864	Number of level 1 events

2.1.4 Events

	ccd 0	**ccd 1**	**ccd 2**	**ccd 3**	**ccd 7**
level 1 events	27826	31217	30566	30594	40661
rejected events	24168	27152	27285	27309	23046
rejected %	86%	86%	89%	89%	56%

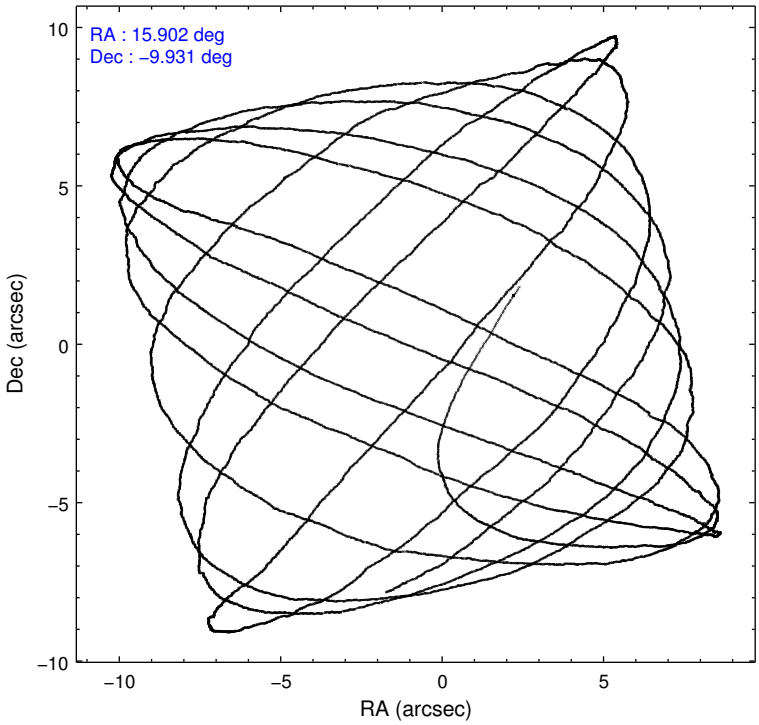
	ccd 0	**ccd 1**	**ccd 2**	**ccd 3**	**ccd 7**
grade 0 events	1238	1479	1172	1054	1471
	4%	4%	3%	3%	3%
grade 1 events	9	15	15	20	47
	0%	0%	0%	0%	0%
grade 2 events	895	934	769	748	3617
	3%	2%	2%	2%	8%
grade 3 events	393	341	325	365	1489
	1%	1%	1%	1%	3%
grade 4 events	351	388	357	345	1500
	1%	1%	1%	1%	3%
grade 5 events	1393	1509	1373	1601	4147
	5%	4%	4%	5%	10%
grade 6 events	781	924	660	776	9548
	2%	2%	2%	2%	23%
grade 7 events	22766	25627	25895	25685	18842
	81%	82%	84%	83%	46%

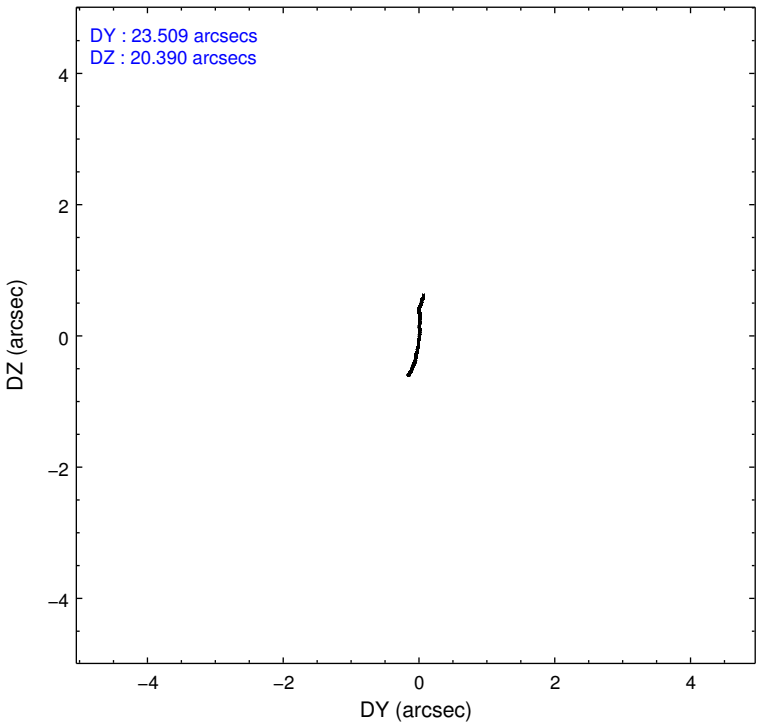
2.2 Compared Parameters

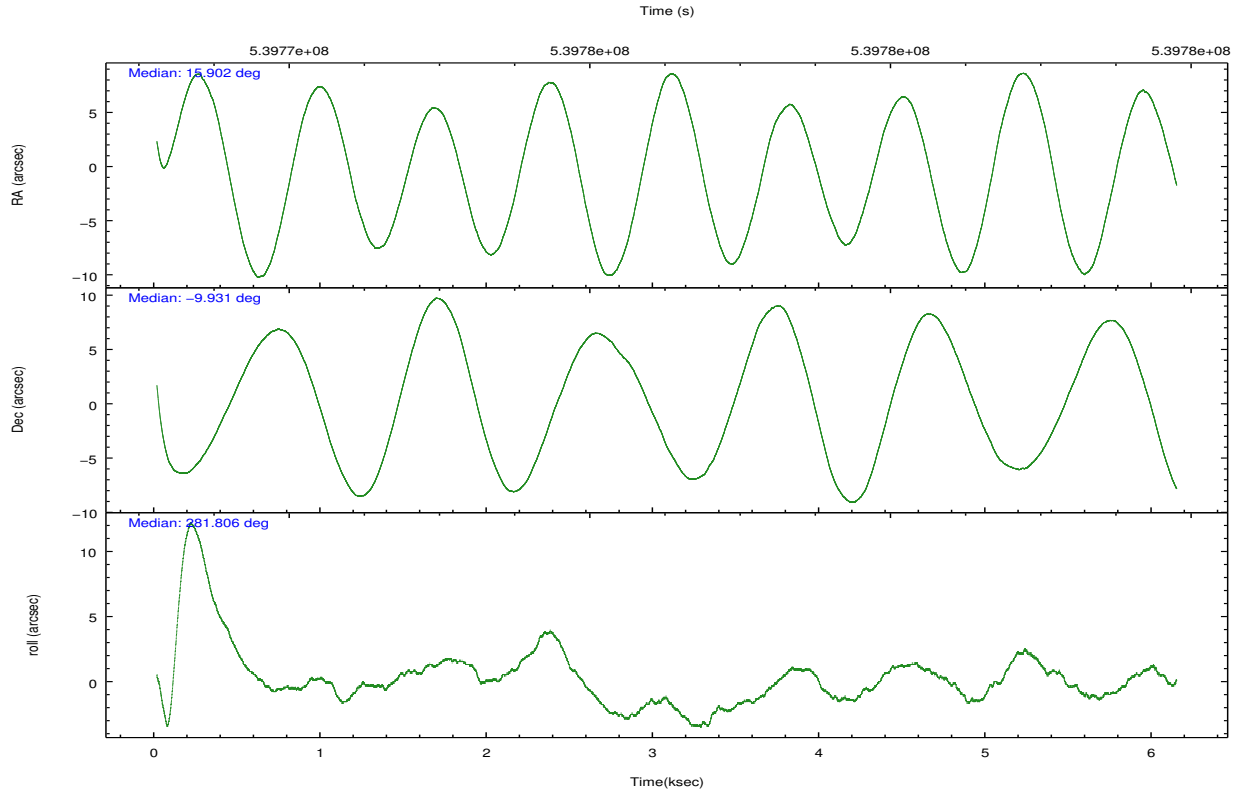
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01237	ACIS-01237
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	15.882801	15.90164596428698
[deg] Pointing Dec	-9.910867	-9.931380586158479
[deg] Pointing Roll	281.596886	281.8088145691958
[mm] SIM 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)	539773594.184000	539772412.07455
Observation start date	2015-02-08T09:05:27	2015-02-08T08:46:52
[s] Observation end time (MET)	539779594.184000	539781034.3750401
Observation end date	2015-02-08T10:45:27	2015-02-08T11:10:34
Read mode	TIMED	TIMED

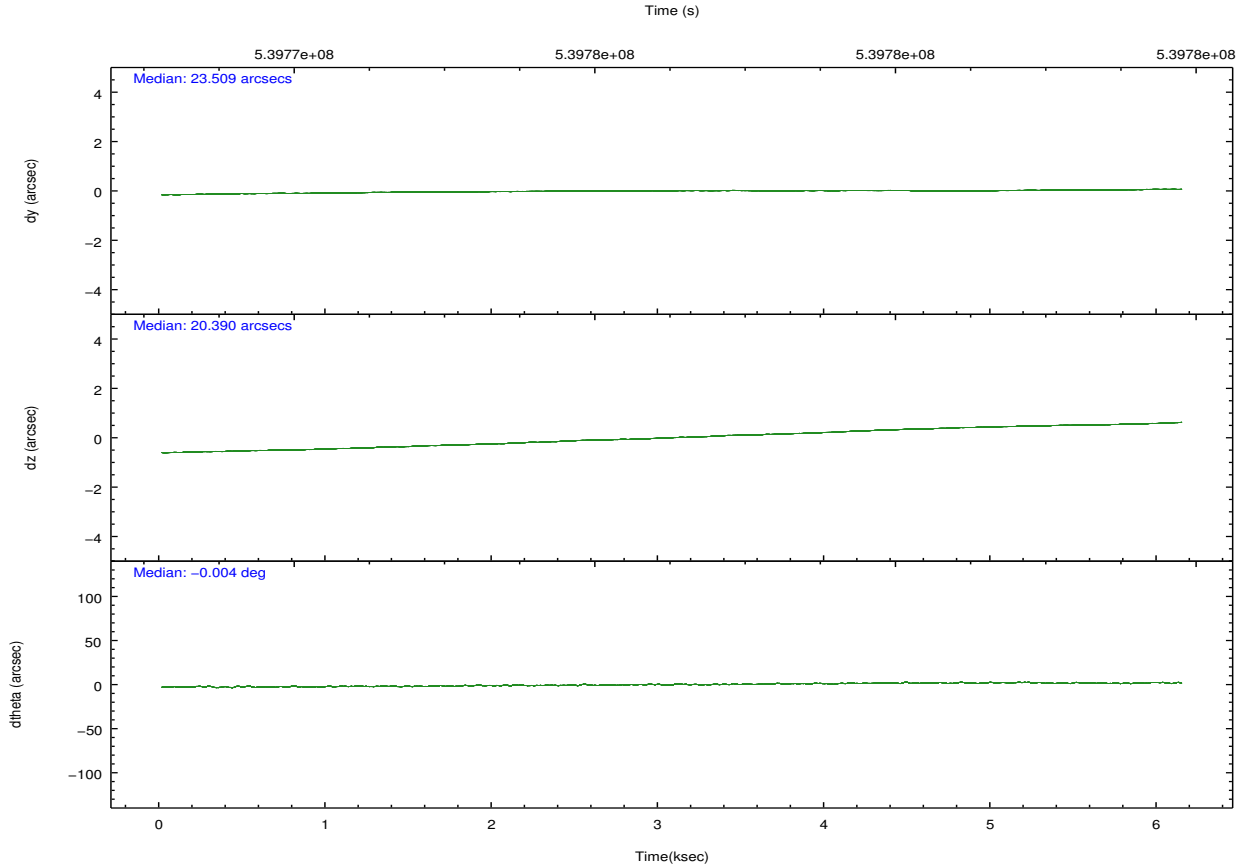
Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	N	N
CCD S3 on	O1	Y
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect


RA : 15.902 deg
Dec : −9.931 deg
Dec (arcsec)
RA (arcsec)
10
5
0
−5
−10
−10
−5
0
5


DY : 23.509 arcsecs
DZ : 20.390 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
5.3977e+08
5.3978e+08
5.3978e+08
5.3978e+08
Median: 15.902 deg
RA (arcsec)
Median: −9.931 deg
Dec (arcsec)
Median: 281.806 deg
roll (arcsec)
Time(ksec)

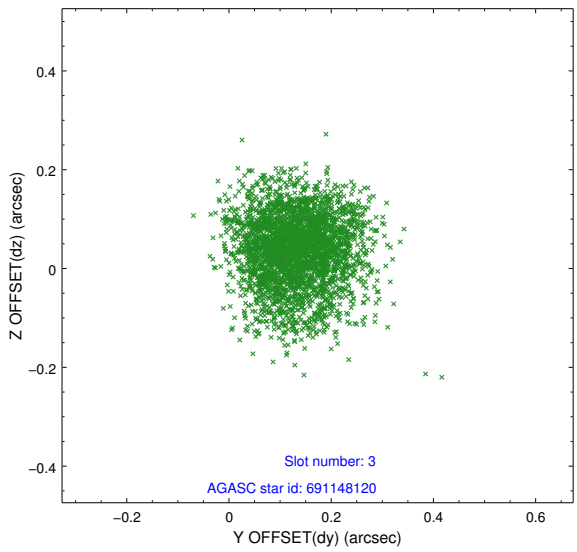

Time (s)
5.3977e+08
5.3978e+08
5.3978e+08
5.3978e+08
Median: 23.509 arcsecs
dy (arcsec)
Median: 20.390 arcsecs
dz (arcsec)
Median: −0.004 deg
dtheta (arcsec)
Time(ksec)

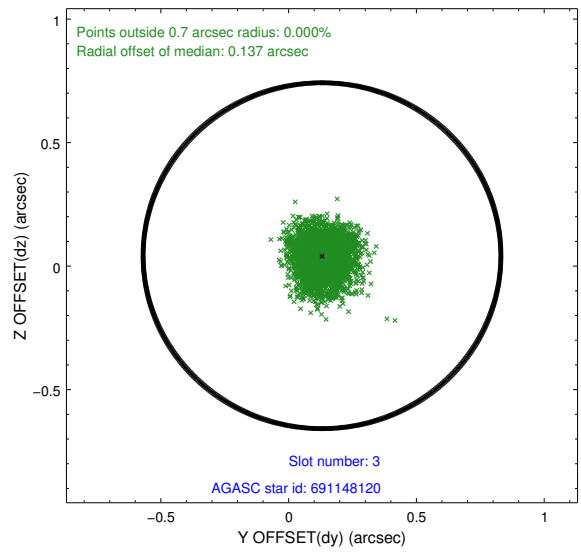
Slot Statistics

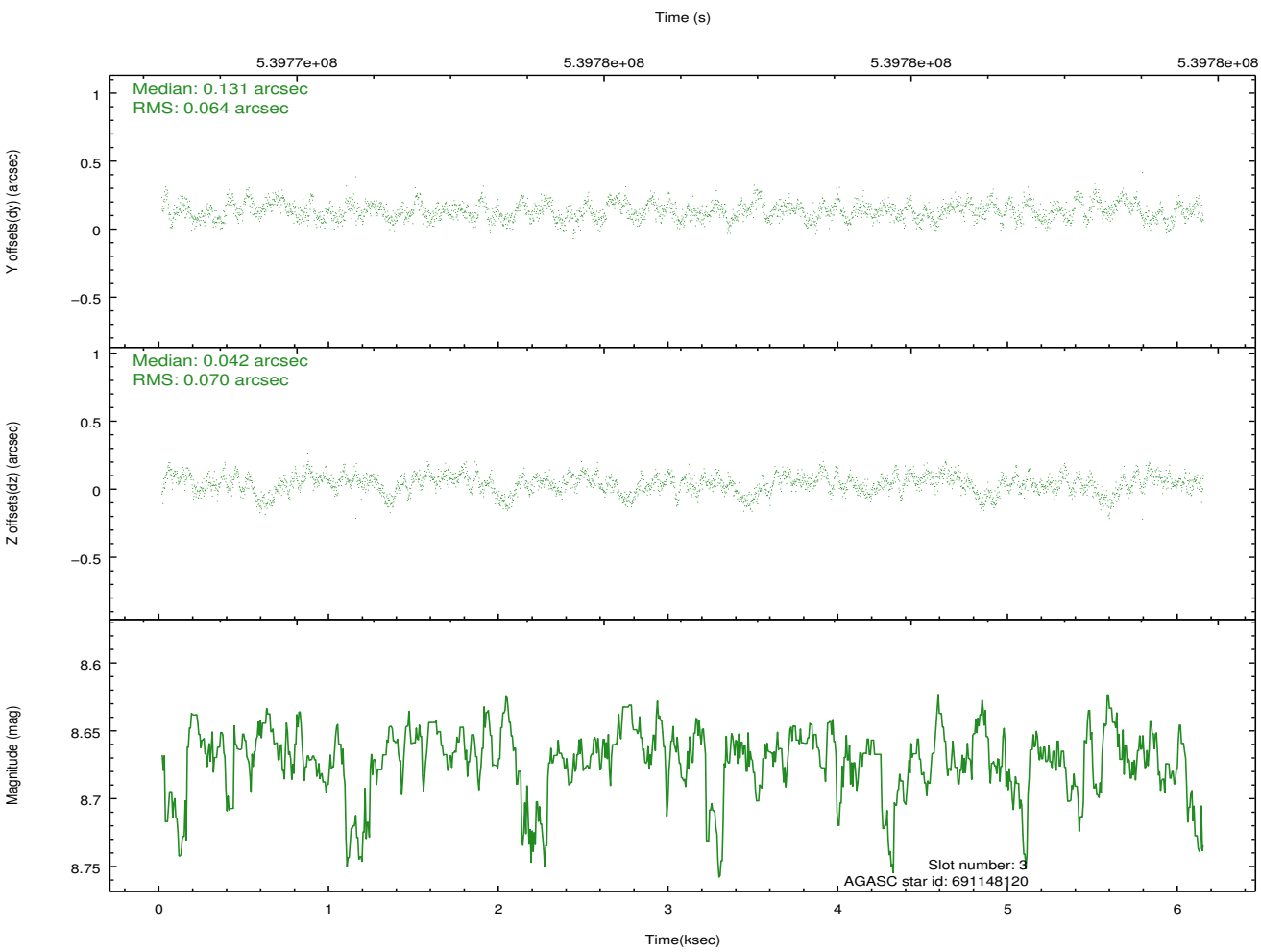
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.18	1497	0.074	-0.048	0.027	0.041	0.000000	0.000000	915.85	-844.14
1	FID		ACIS-I-5	7.17	1497	-0.334	0.038	0.012	0.017	0.000000	0.000000	-1832.23	1052.83
2	FID		ACIS-I-6	7.18	1497	0.170	0.080	0.017	0.029	0.000000	0.000000	380.32	1698.56
3	GUIDE	used	691148120	8.67	2993	0.131	0.042	0.100	0.163	15.796360	-10.460295	1877.09	-697.29
4	GUIDE	used	691151640	9.03	2982	0.044	0.122	0.124	0.190	15.368538	-9.430104	-2059.81	-1442.16
5	GUIDE	used	691154072	9.01	2988	-0.200	-0.164	0.167	0.257	16.184339	-10.058179	735.21	939.15
6	GUIDE	used	690757584	7.74	2993	-0.060	0.022	0.082	0.127	15.208728	-9.373544	-2373.56	-1956.92
7	GUIDE	used	691150360	7.47	2991	0.093	-0.024	0.154	0.216	15.573249	-10.664293	2437.30	-1618.54

2.4 Star Slots

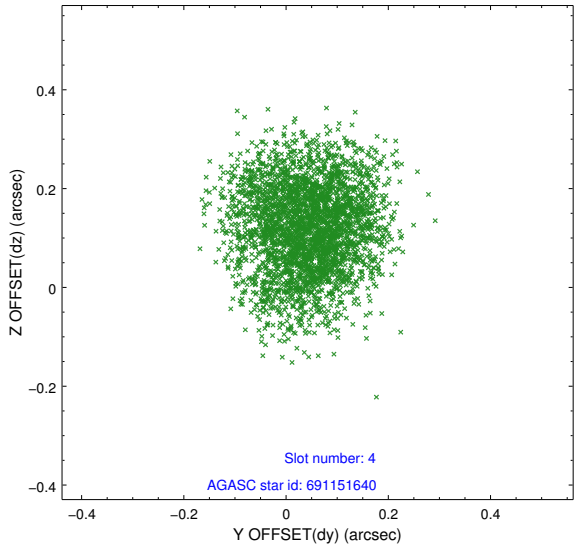
2.4.1 Slot 3

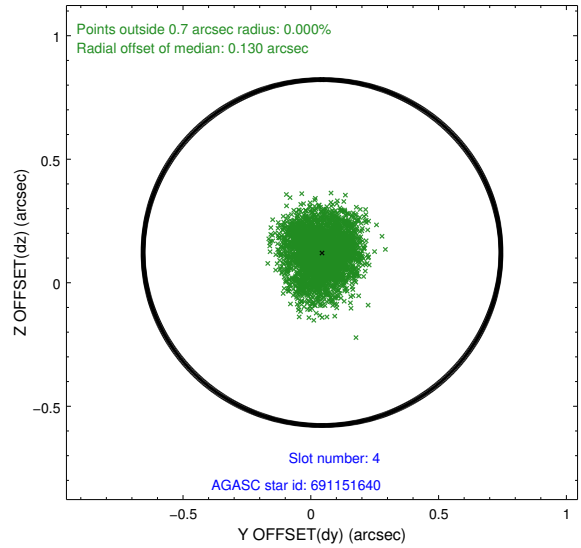


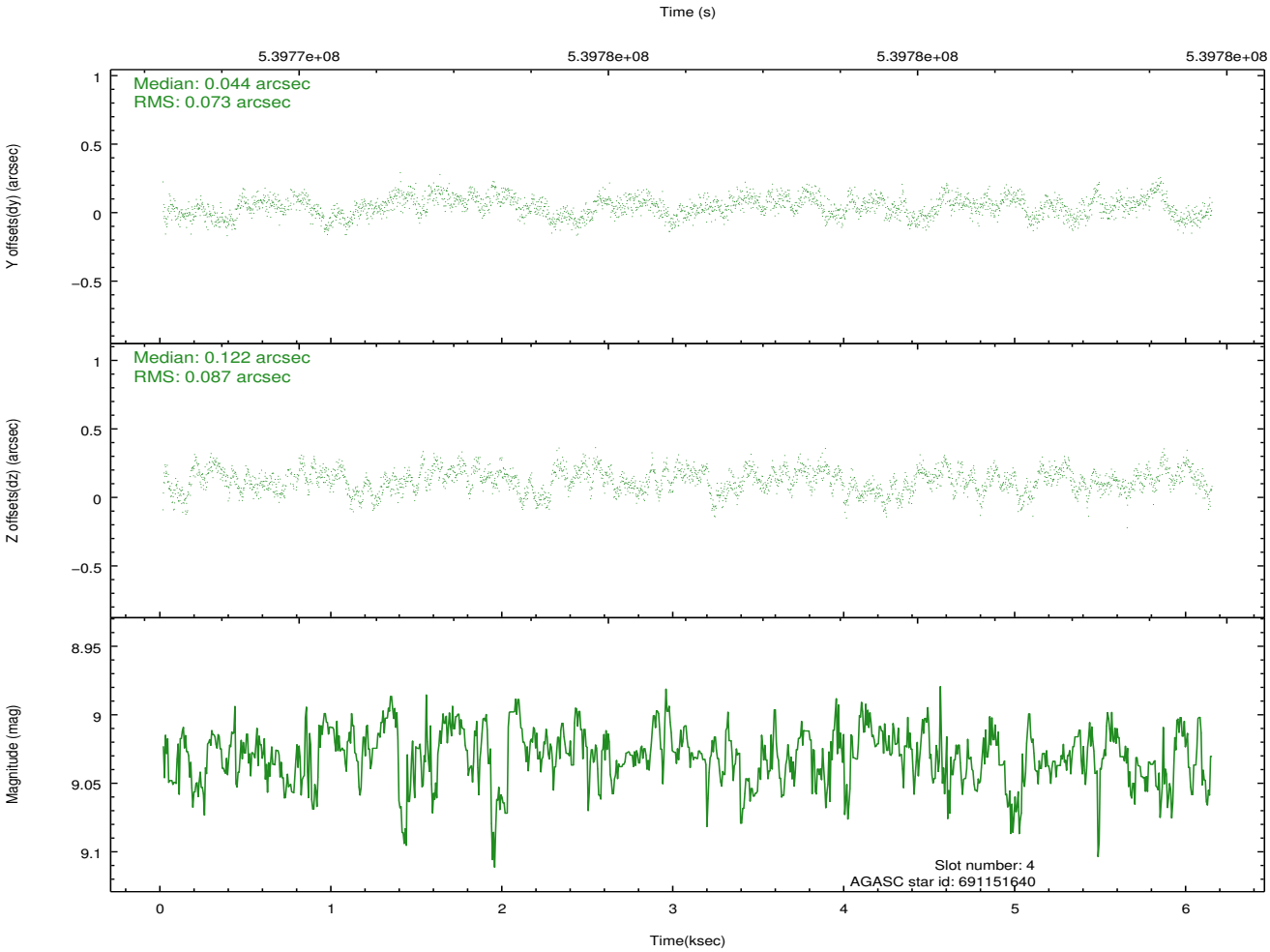




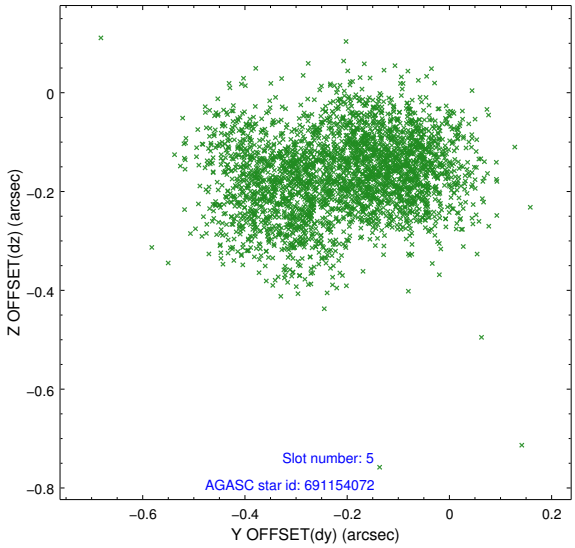
2.4.2 Slot 4

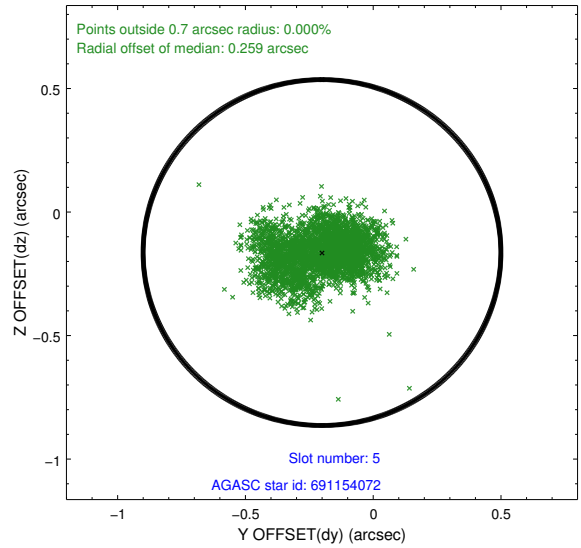

Slot number: 4
AGASC star id: 691151640
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

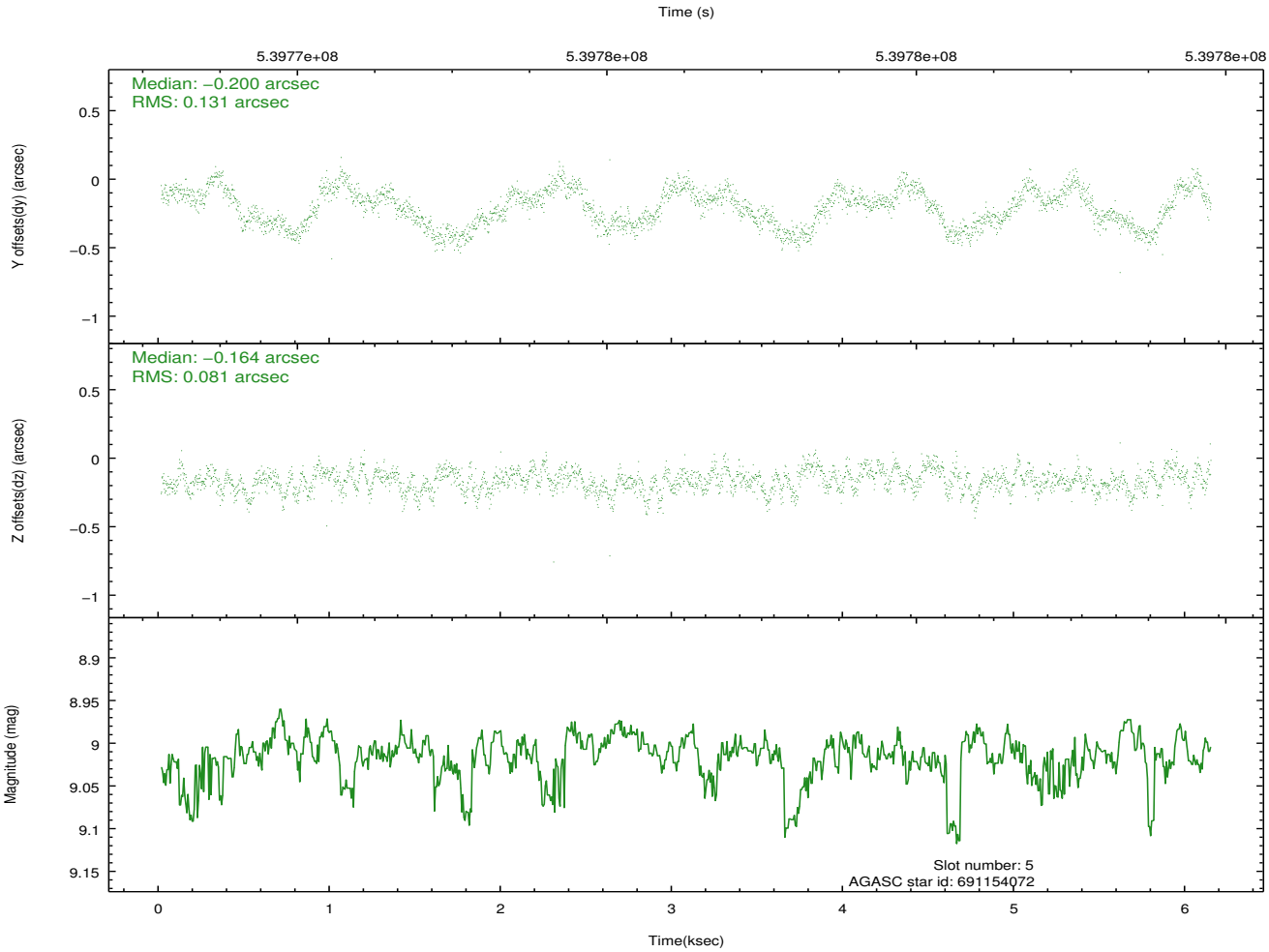

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.130 arcsec
Slot number: 4
AGASC star id: 691151640
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Time (s)
5.3977e+08
5.3978e+08
5.3978e+08
5.3978e+08
Median: 0.044 arcsec
RMS: 0.073 arcsec
Y offsets(dy) (arcsec)
Median: 0.122 arcsec
RMS: 0.087 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 4
AGASC star id: 691151640
Time(ksec)

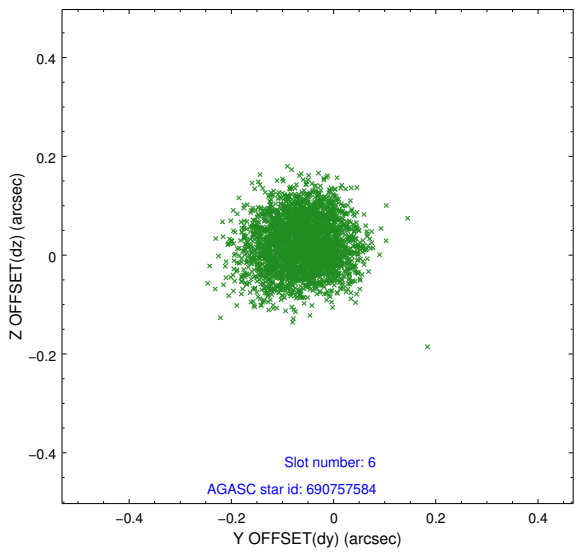
2.4.3 Slot 5

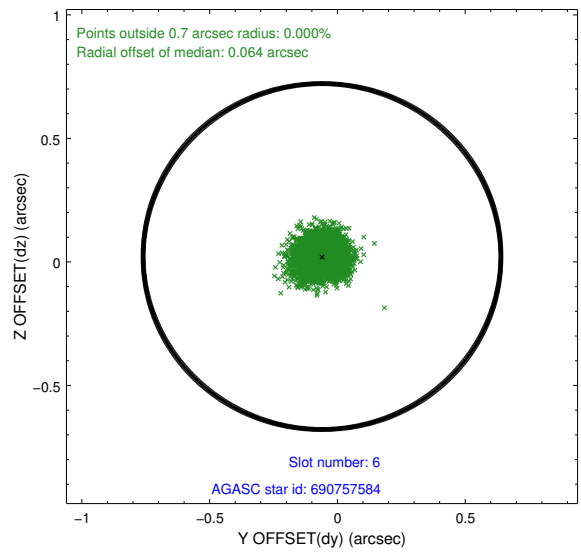

Slot number: 5
AGASC star id: 691154072
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

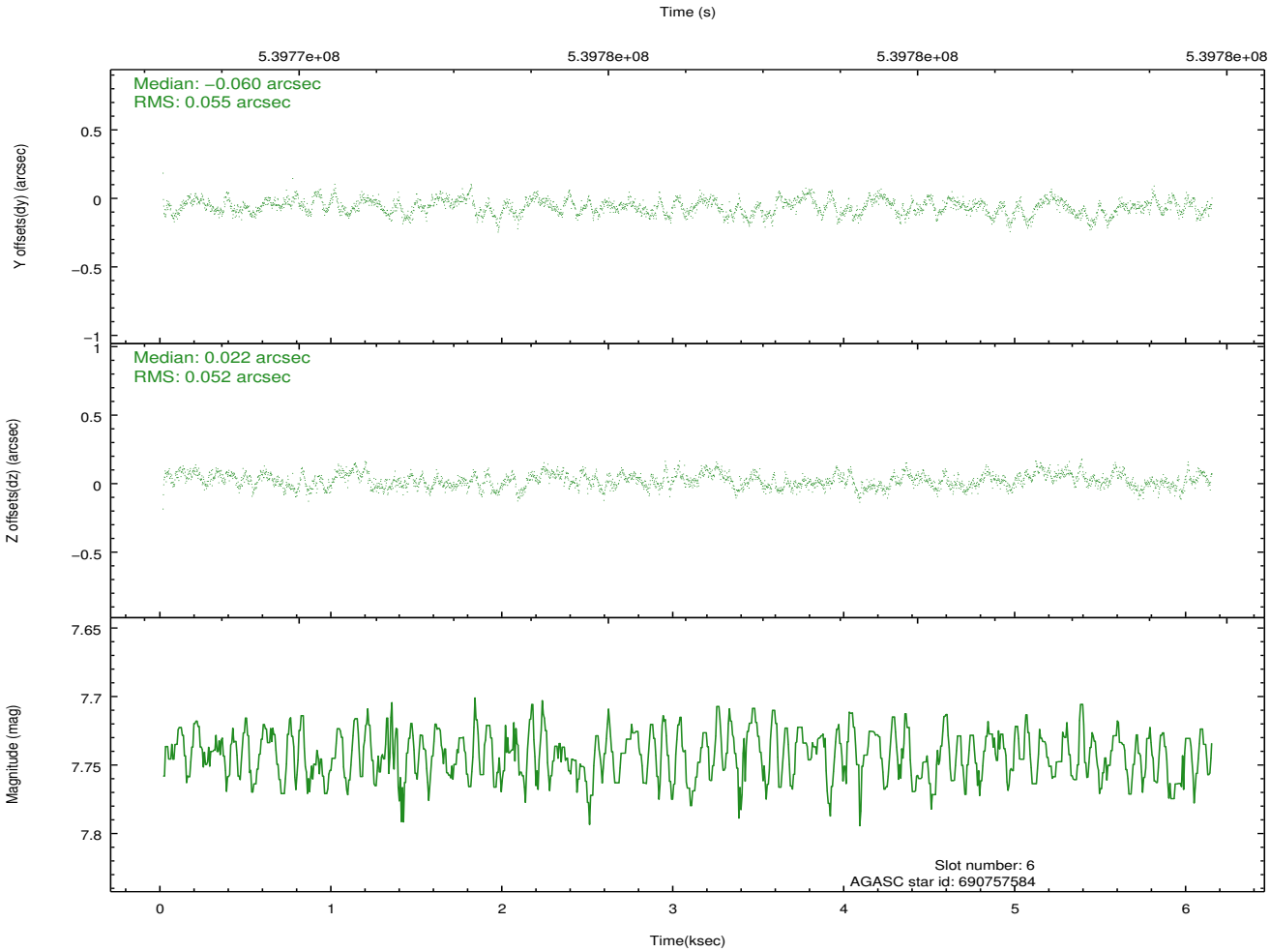

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.259 arcsec
Slot number: 5
AGASC star id: 691154072
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Time (s)
5.3977e+08
5.3978e+08
5.3978e+08
5.3978e+08
Median: −0.200 arcsec
RMS: 0.131 arcsec
Y offsets(dy) (arcsec)
Median: −0.164 arcsec
RMS: 0.081 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 5
AGASC star id: 691154072
Time(ksec)

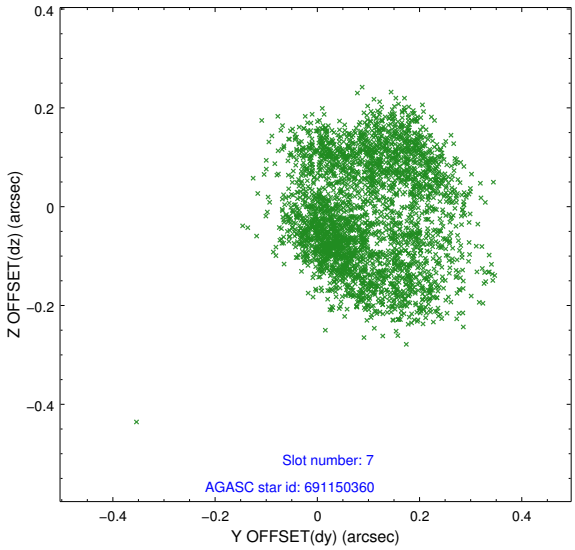
2.4.4 Slot 6

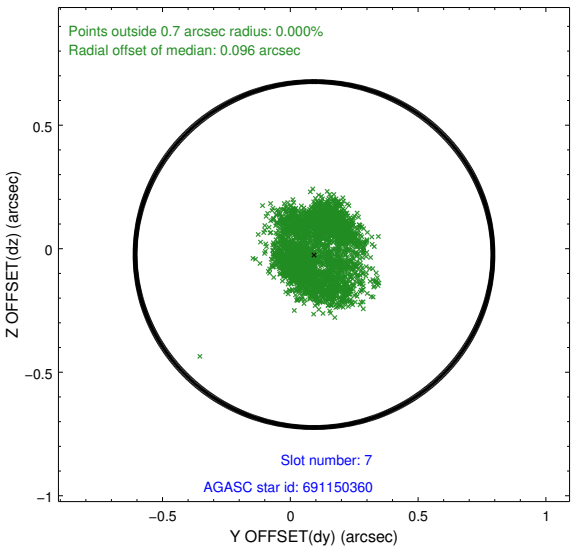

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 690757584

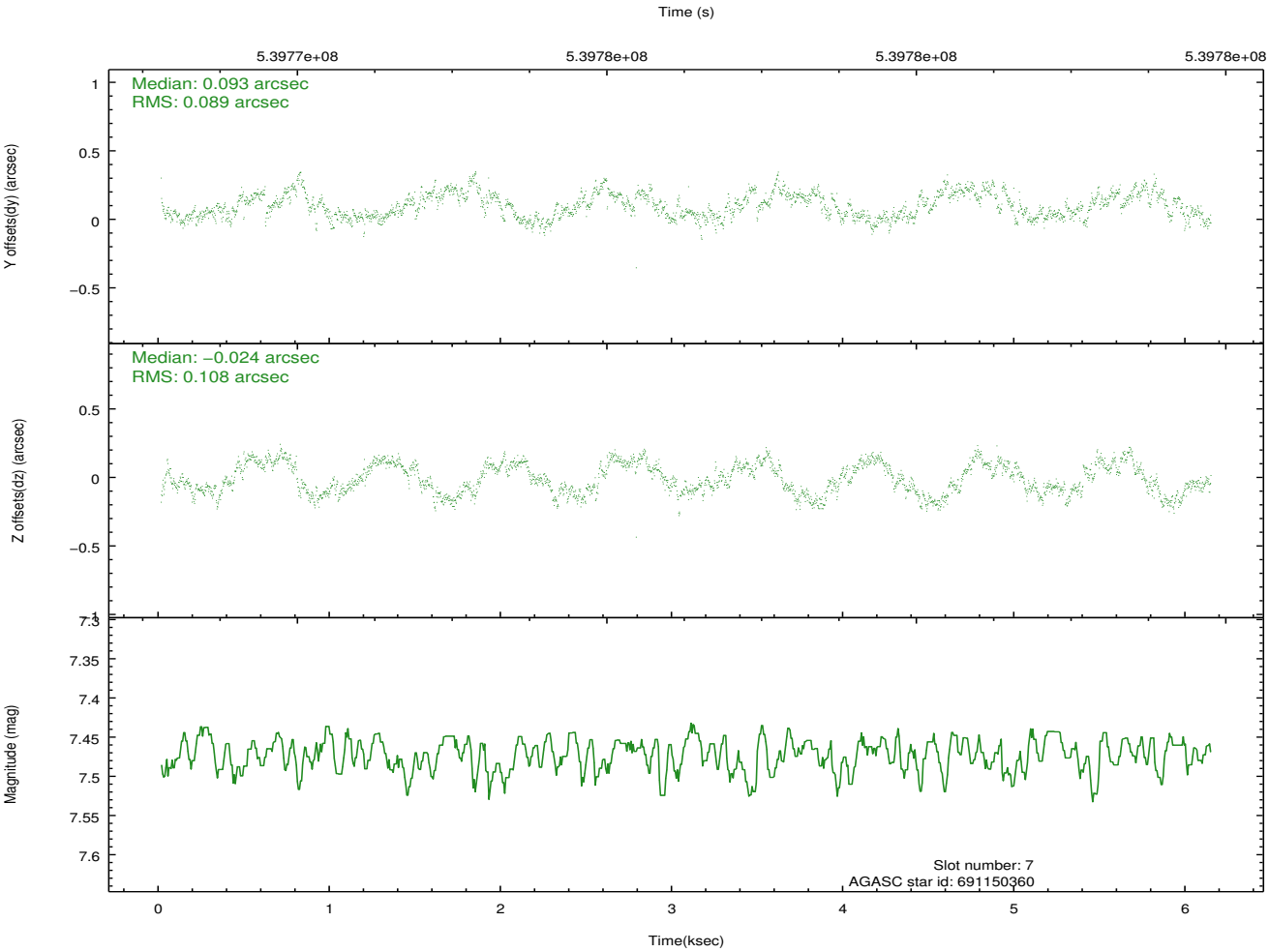

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.064 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 690757584


Time (s)
5.3977e+08
5.3978e+08
5.3978e+08
5.3978e+08
Median: −0.060 arcsec
RMS: 0.055 arcsec
Y offsets(dy) (arcsec)
Median: 0.022 arcsec
RMS: 0.052 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 6
AGASC star id: 690757584
Time(ksec)

2.4.5 Slot 7

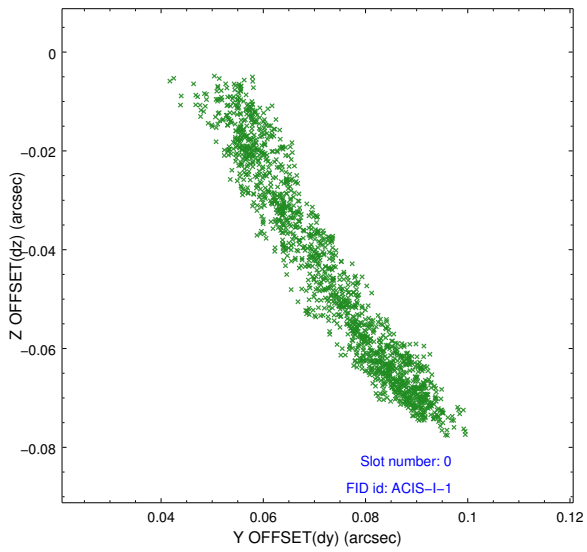

Slot number: 7
AGASC star id: 691150360
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

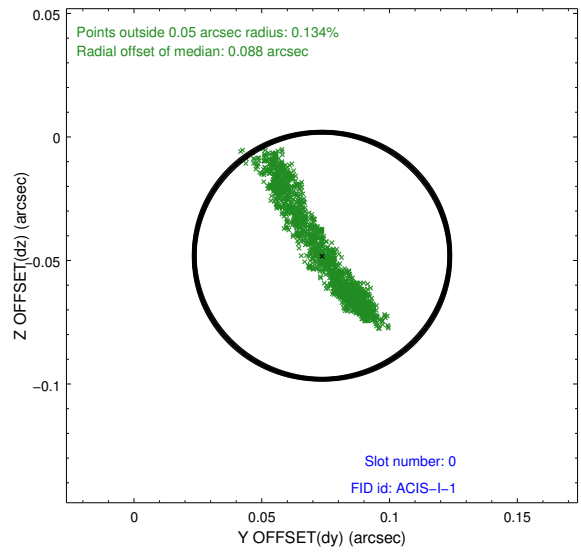

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.096 arcsec
Slot number: 7
AGASC star id: 691150360
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

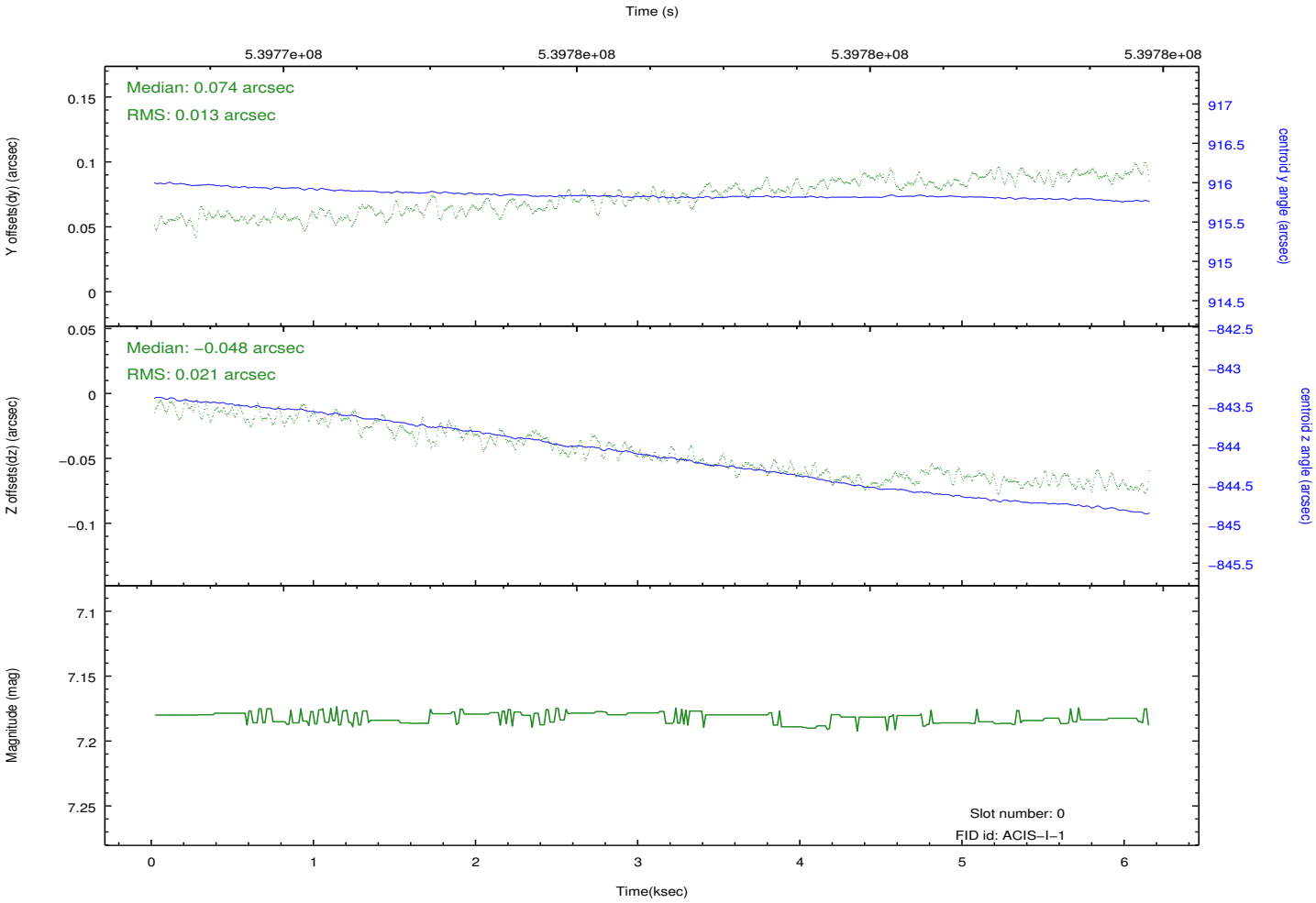

Time (s)
5.3977e+08
5.3978e+08
5.3978e+08
5.3978e+08
Median: 0.093 arcsec
RMS: 0.089 arcsec
Y offsets(dy) (arcsec)
Median: −0.024 arcsec
RMS: 0.108 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 7
AGASC star id: 691150360
Time(ksec)

2.5 FID Slots

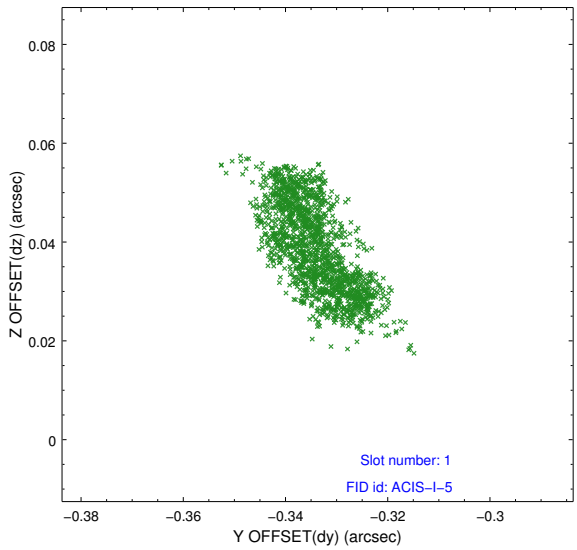
2.5.1 Slot 0

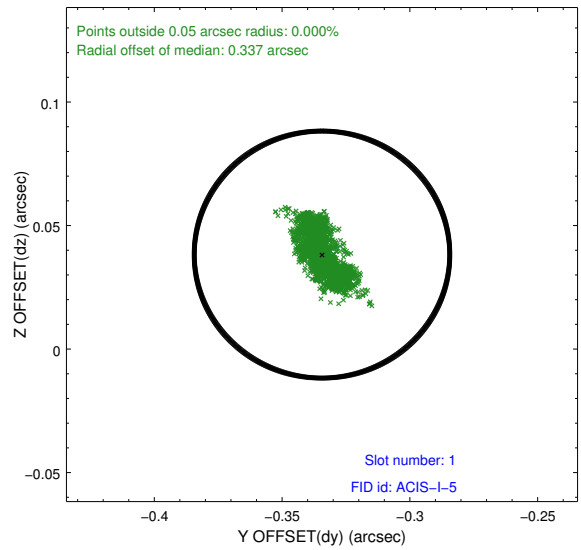


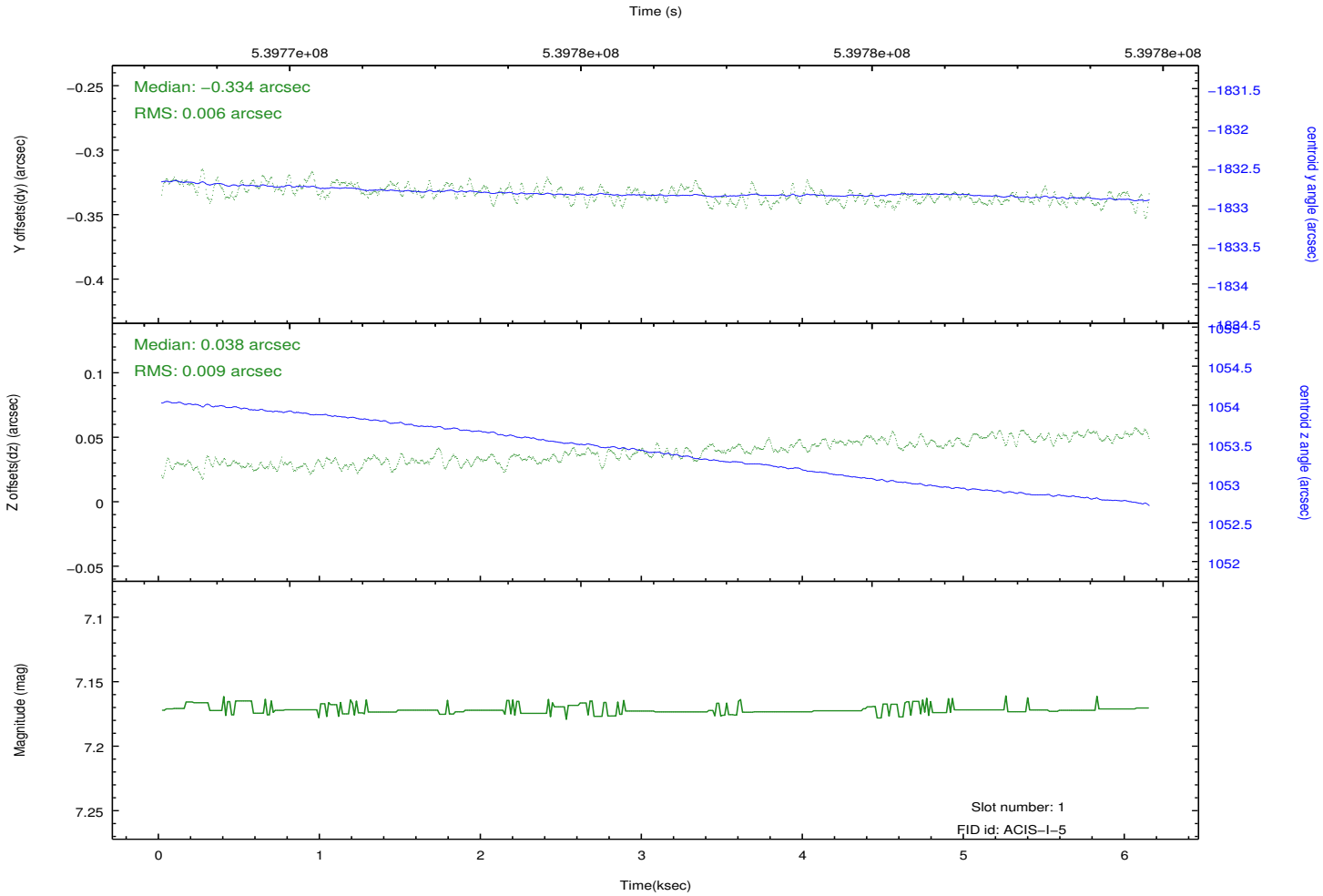




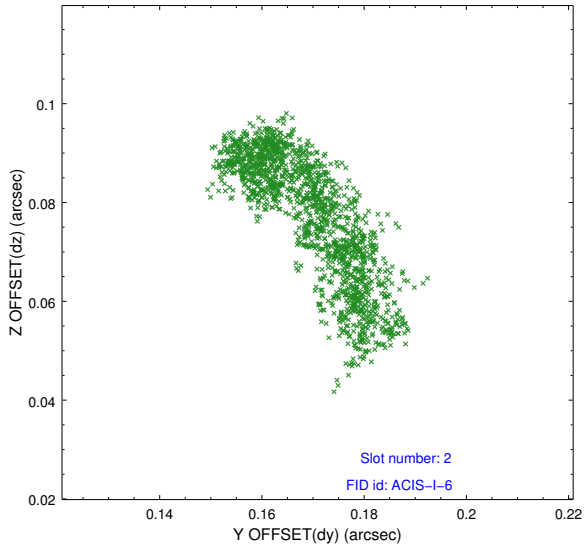
2.5.2 Slot 1

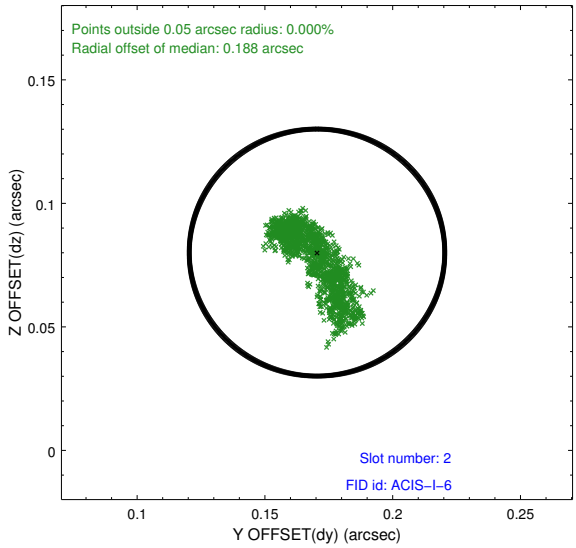

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−I−5

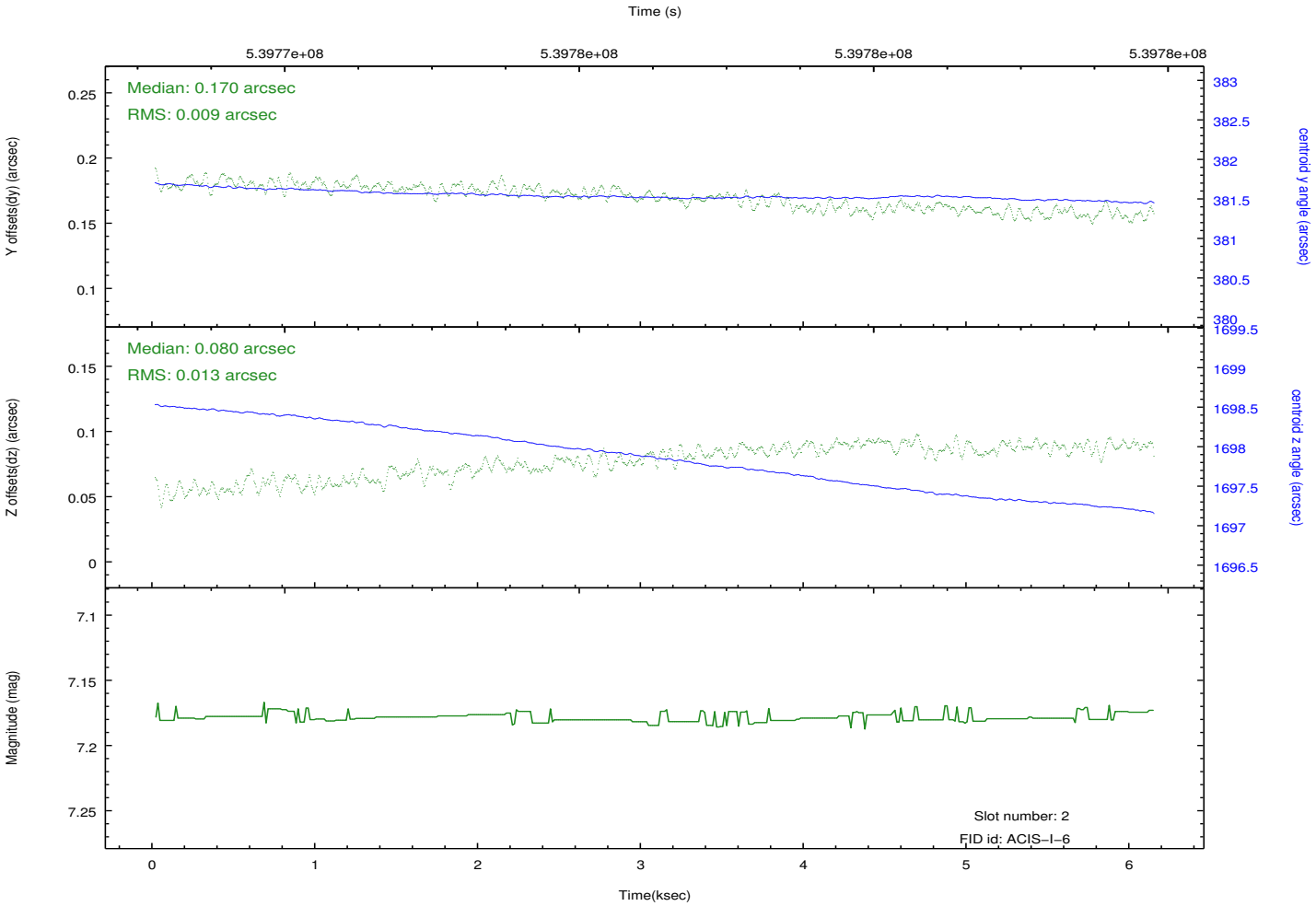

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.337 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS−I−5


Time (s)
Median: −0.334 arcsec
RMS: 0.006 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.038 arcsec
RMS: 0.009 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: 0.188 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS−I−6


Time (s)
Median: 0.170 arcsec
RMS: 0.009 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.080 arcsec
RMS: 0.013 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)	2015.02.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.0542590065002

A.2 Comments