V&V Reference Report
L2 ASCDS Version : 8.1.1

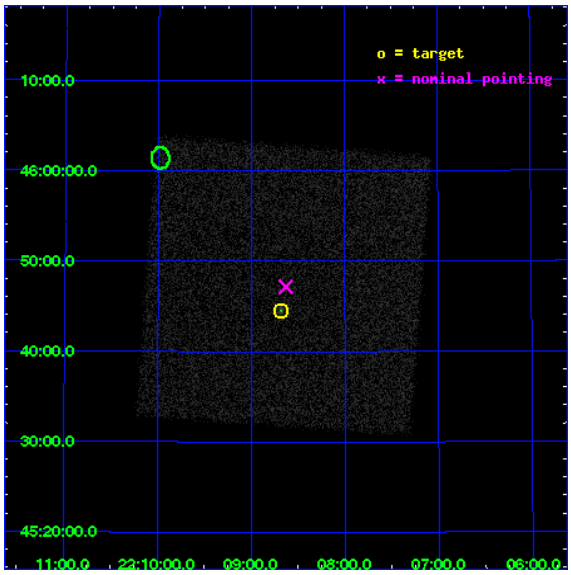
Observation 1343 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Nov 19 2009

Contents

1 Front

seq_num	280293	Sequence number
obs_id	1343	Observation id
title		Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.1701	Observer's specified target RA
dec_targ	45.7423	Observer's specified target Dec
ra_nom	332.15765415707	Nominal RA
dec_nom	45.786449170698	Nominal Dec
roll_nom	229.31677921697	Nominal Roll
revision	4	Processing version of data
ontime	1276.3812959865	[s]
livetime	1267.2670822468	Ontime multiplied by DTCOR
l2events	40062	Number of level 2 events

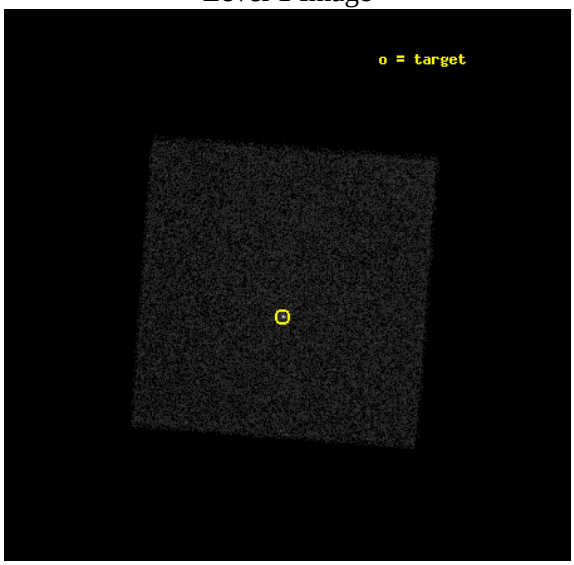


2 OBI

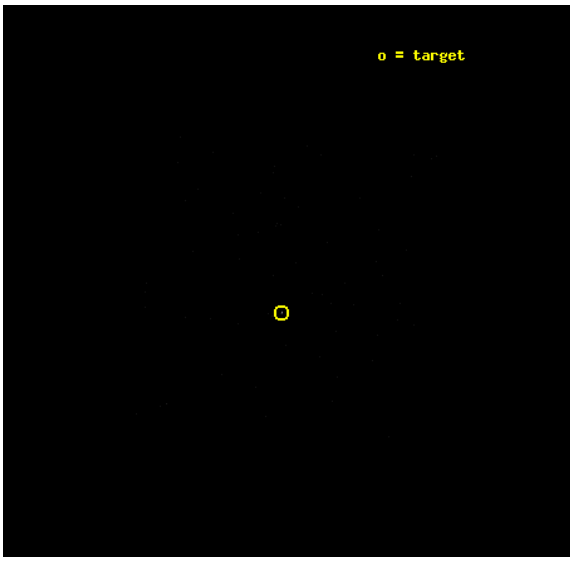
2.1 OBI

2.1.1 Images

Level 1 Image



Level 1 Bad Events



2.1.2 Parameters

obi_num	0	Obi number
ascdsver	8.1.1	Processing system revision
caldbver	4.1.4	
date	2009-11-19T05:09:18	Date and time of file creation
revision	4	Processing version of data

sched_exp_time	1000.000000	Scheduled observation exposure time
ontime	1276.3812959865	[s]
l1events	69955	Number of level 1 events

2.1.3 Events

Level 1 Events

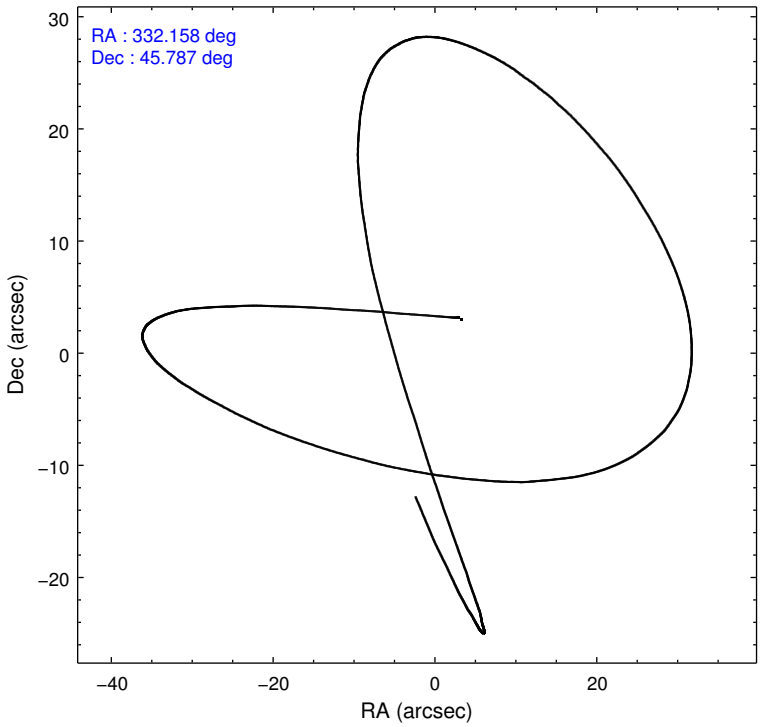
	segment 0
level 1 events	69955
rejected events	2646
rejected %	3%

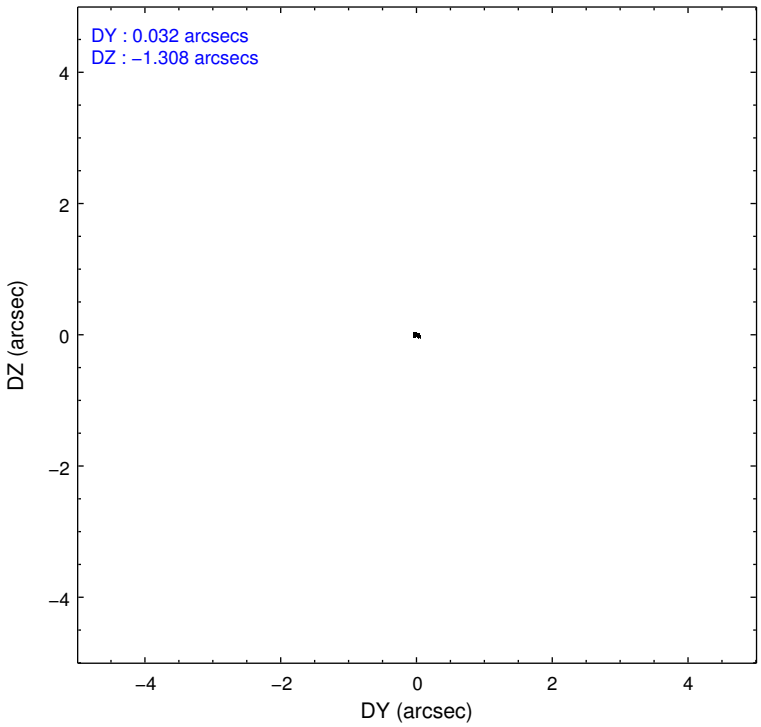
2.2 Compared Parameters

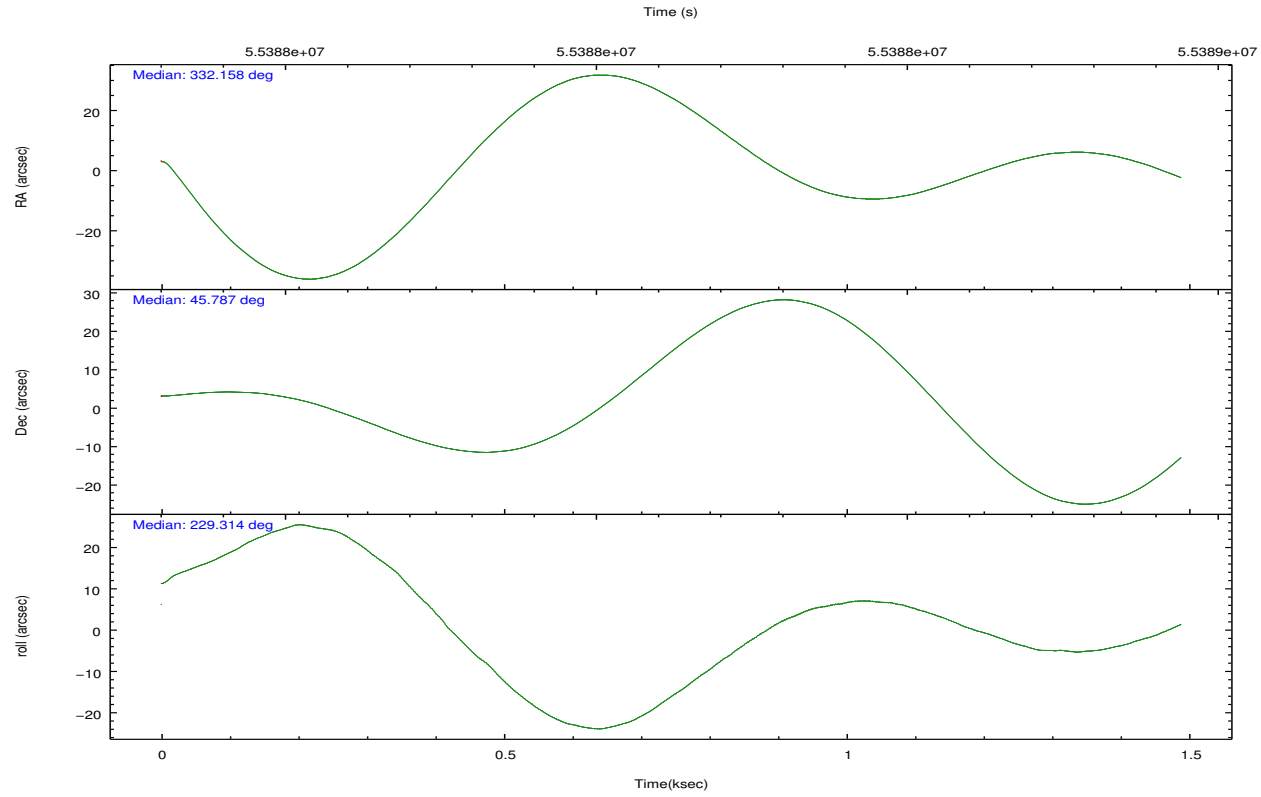
Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	332.165896	332.1576541570717
Pointing Dec	45.814181	45.78644917069818
Pointing Roll	229.406300	229.3167792169744
SIM focus pos (mm)	-0.040293	-0.2342646132009995
SIM defocus (mm)	1	0.806028007457875
SIM translation stage pos (mm)	126.985494	126.9854943052878
SIM translation stage offset (mm)	0	-5.413686238853188e-06
Observation start time	55387864.184000	55387197.99527
Observation start date	1999-10-04T01:30:00	1999-10-04T01:19:57
Observation end time	55388864.184000	55388997.895335
Observation end date	1999-10-04T01:46:40	1999-10-04T01:49:57

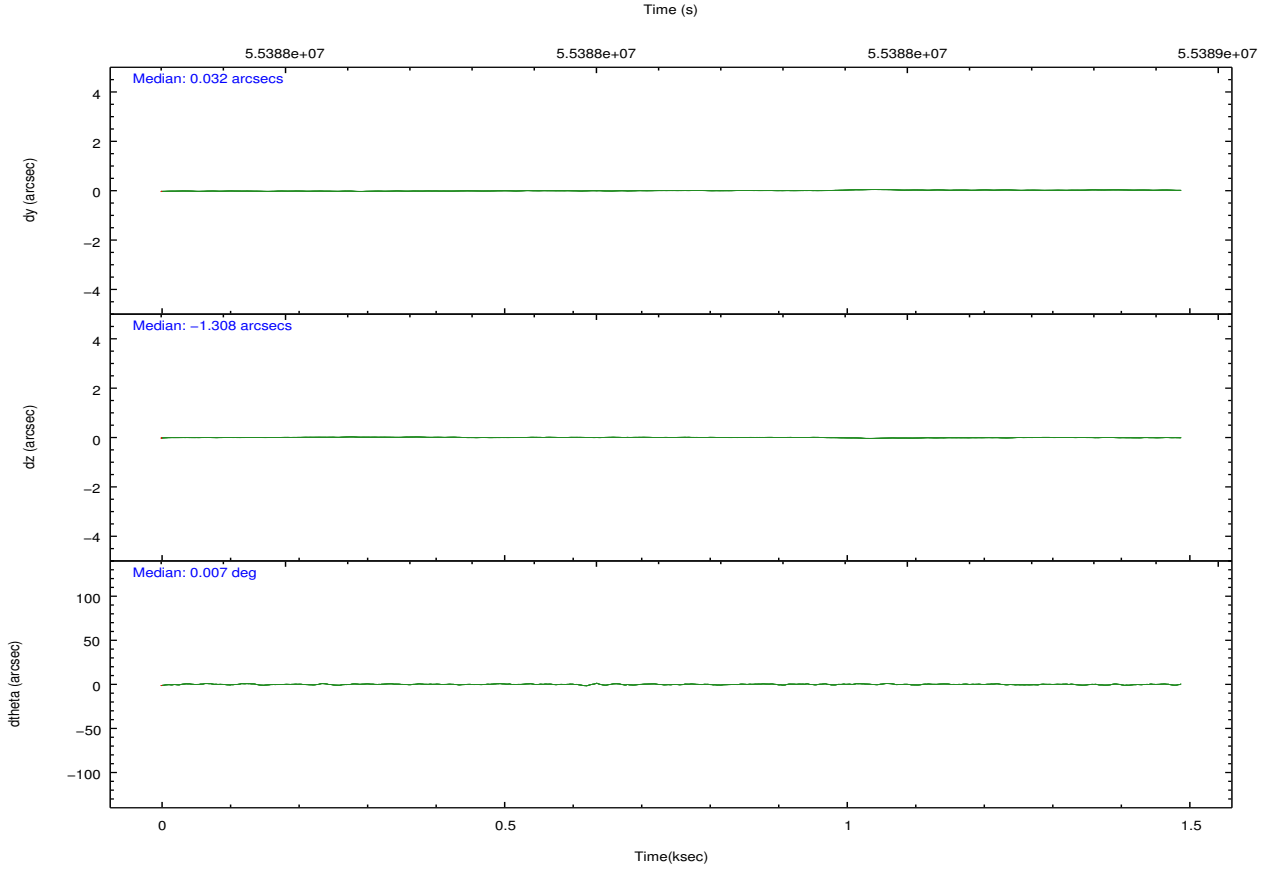
Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

2.3 Aspect


RA : 332.158 deg
Dec : 45.787 deg
Dec (arcsec)
RA (arcsec)
30
20
10
0
−10
−20
−40
−20
0
20


DY : 0.032 arcsecs
DZ : −1.308 arcsecs
DZ (arcsec)
DY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
5.5388e+07
5.5388e+07
5.5388e+07
5.5389e+07
Median: 332.158 deg
RA (arcsec)
Median: 45.787 deg
Dec (arcsec)
Median: 229.314 deg
roll (arcsec)
Time(ksec)

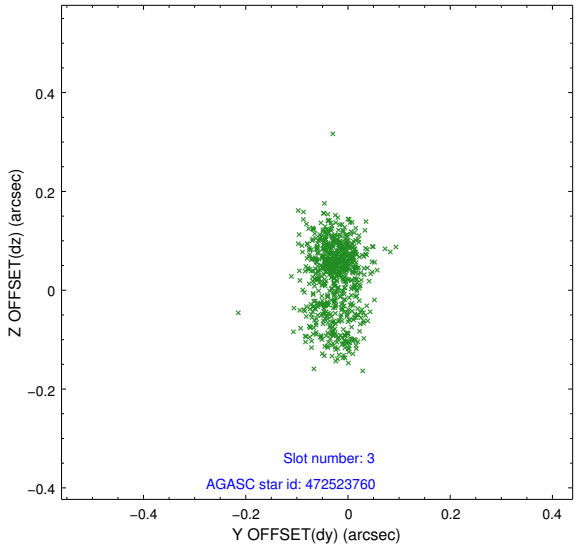

Time (s)
5.5388e+07
5.5388e+07
5.5388e+07
5.5389e+07
Median: 0.032 arcsecs
dy (arcsec)
Median: −1.308 arcsecs
dz (arcsec)
Median: 0.007 deg
dtheta (arcsec)
Time(ksec)

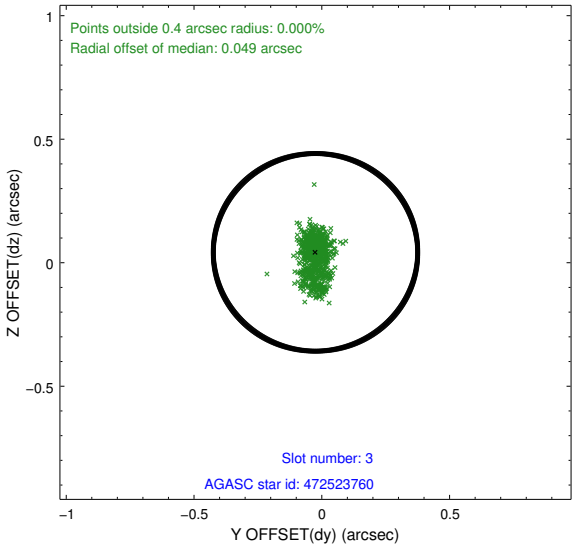
Slot Statistics

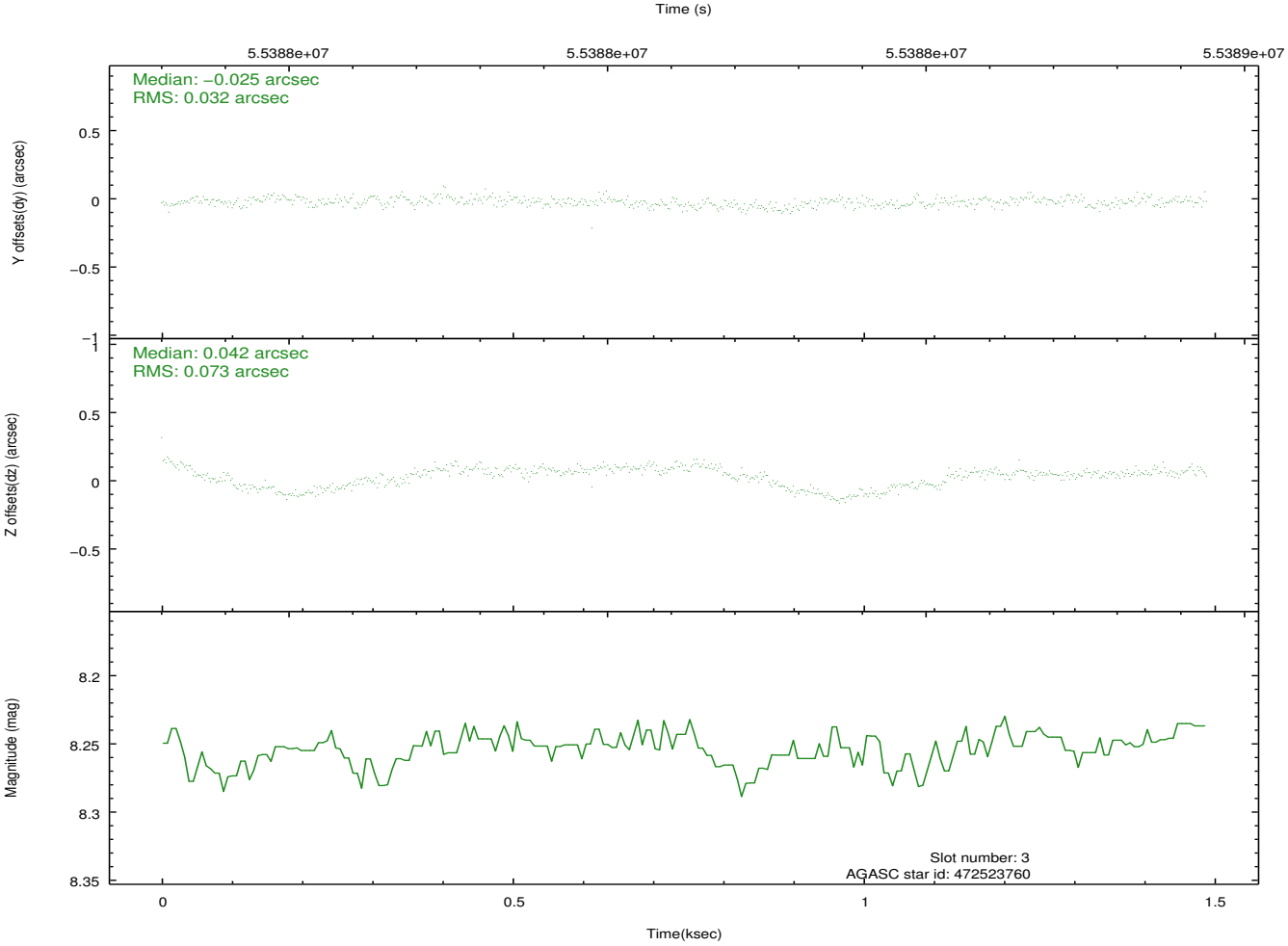
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.96	727	0.059	-0.003	0.005	0.009	0.000000	0.000000	-755.41	-1286.48
1	FID	HRC-I-3	7.04	727	0.059	-0.031	0.006	0.010	0.000000	0.000000	-1185.02	1016.46
2	FID	HRC-I-4	6.98	727	-0.004	-0.055	0.005	0.008	0.000000	0.000000	1285.80	1017.26
3	GUIDE	472523760	8.25	727	-0.025	0.042	0.078	0.151	331.645363	45.403260	1972.72	-39.10
4	GUIDE	472665256	9.00	727	-0.007	-0.048	0.065	0.117	332.808125	46.195041	-2088.12	318.79
5	GUIDE	472659832	9.46	727	-0.024	0.064	0.090	0.144	332.780399	46.098139	-1785.22	496.33
6	GUIDE	472655152	9.43	725	0.015	0.020	0.093	0.144	332.504239	45.862991	-692.57	529.38
7	GUIDE	472646552	9.64	726	0.038	-0.058	0.137	0.211	333.120915	45.571877	-918.99	2386.45

2.4 Star Slots

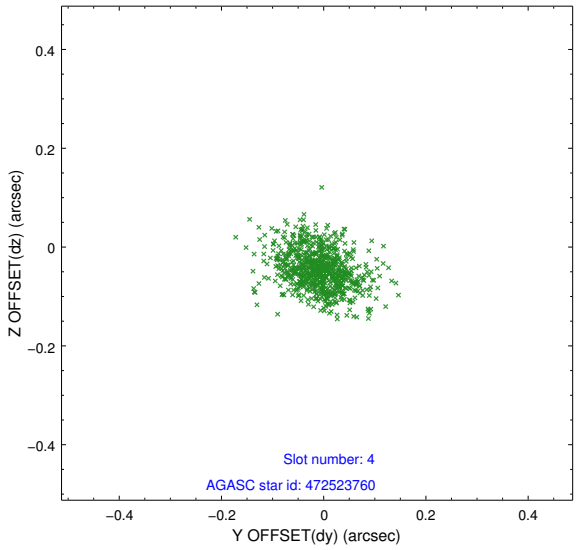
2.4.1 Slot 3

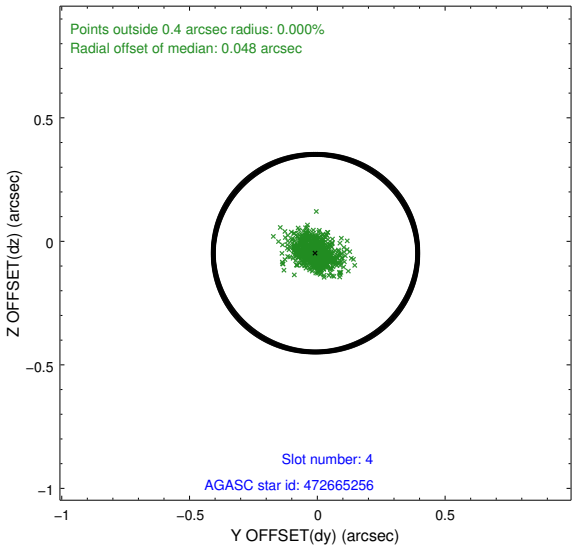


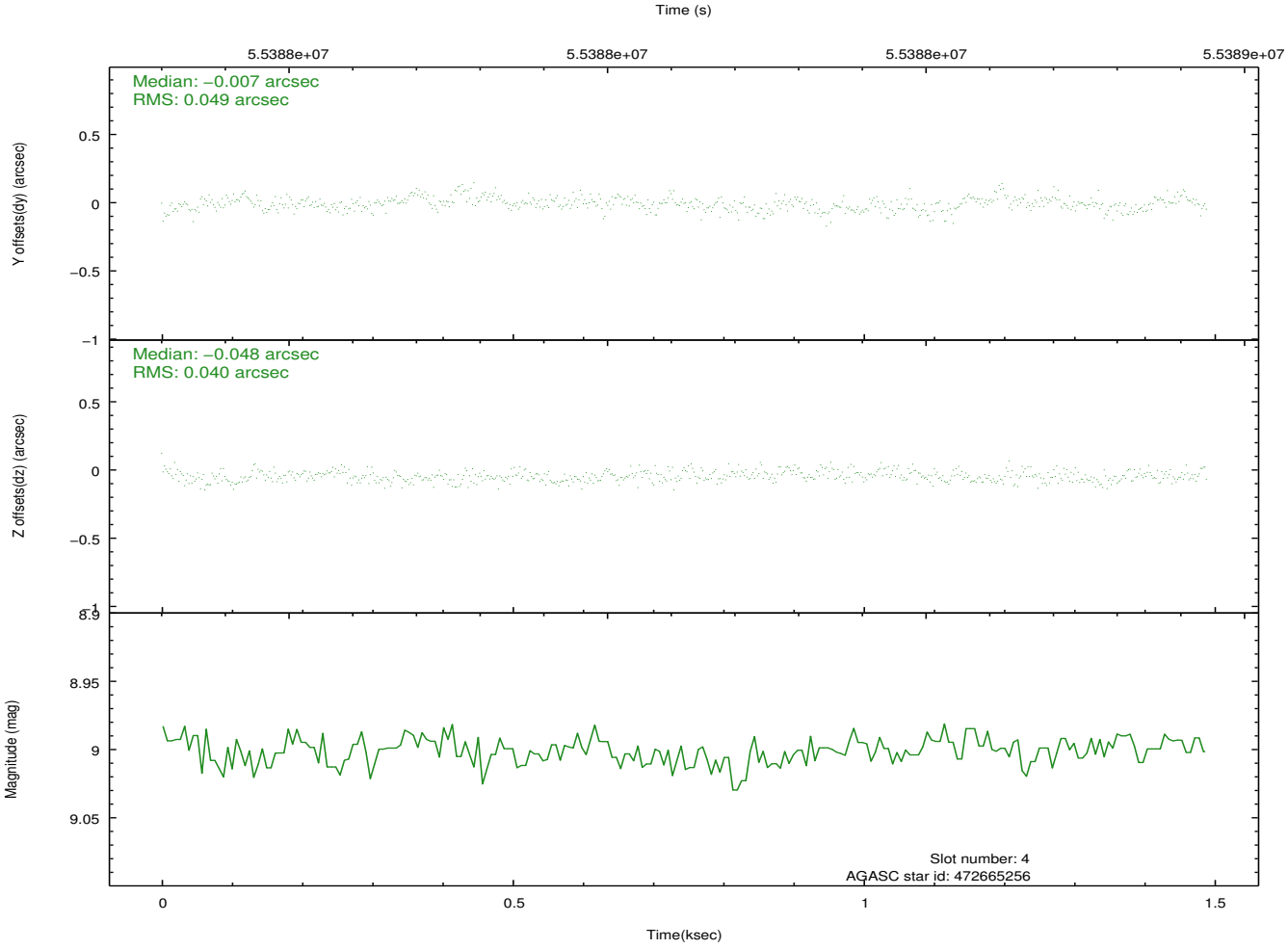




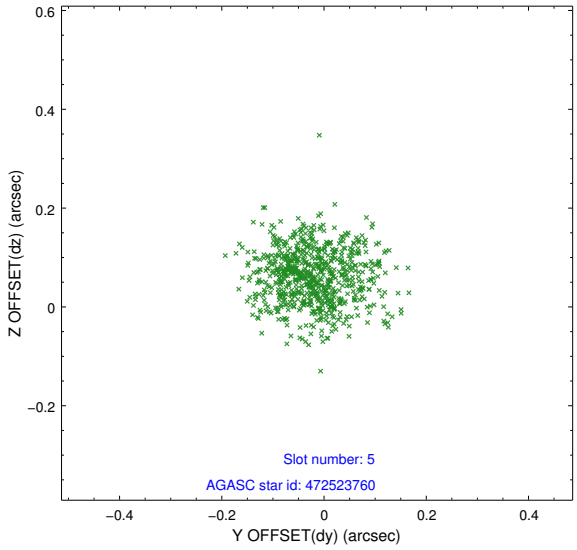
2.4.2 Slot 4

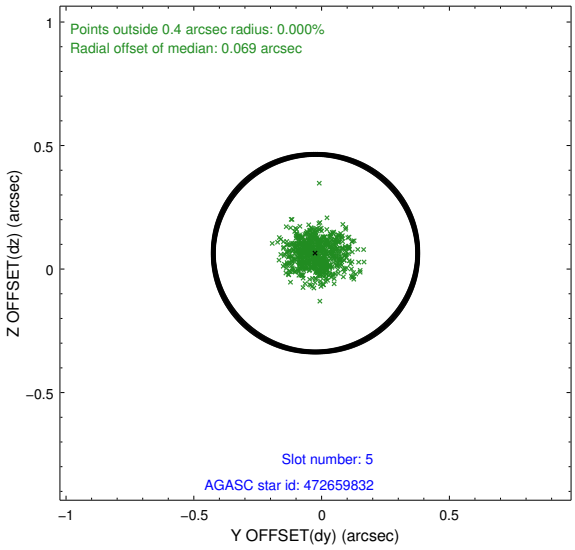

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 472523760

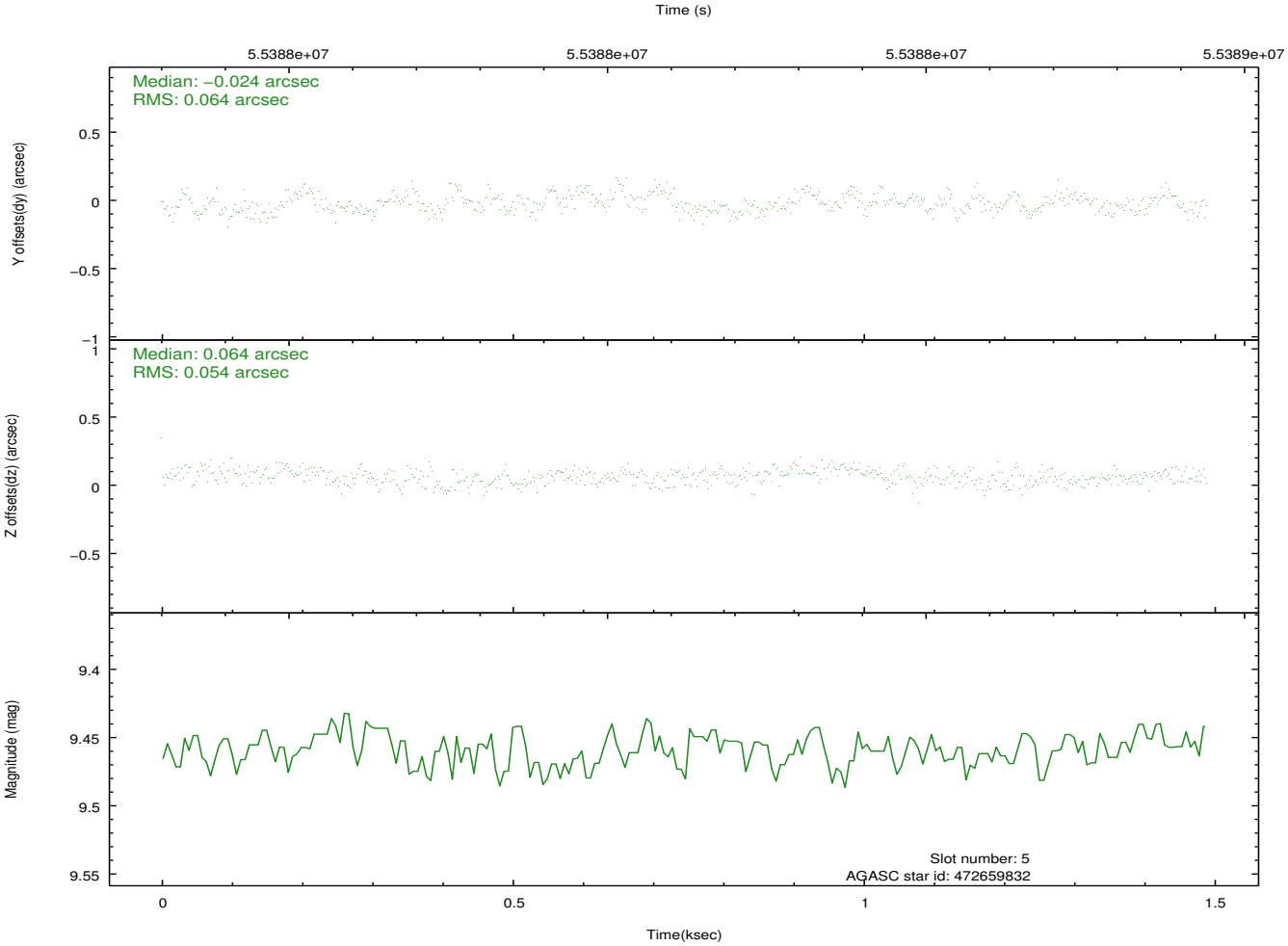

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.048 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 472665256


Time (s)
5.5388e+07
5.5388e+07
5.5388e+07
5.5389e+07
Median: −0.007 arcsec
RMS: 0.049 arcsec
Y offsets(dy) (arcsec)
Median: −0.048 arcsec
RMS: 0.040 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 4
AGASC star id: 472665256
Time(ksec)

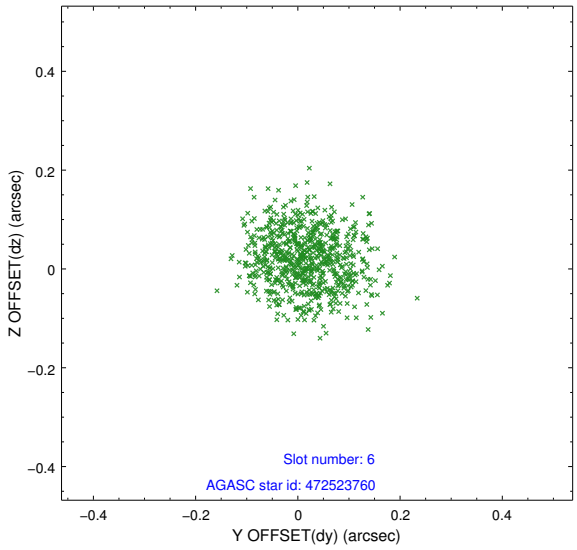
2.4.3 Slot 5

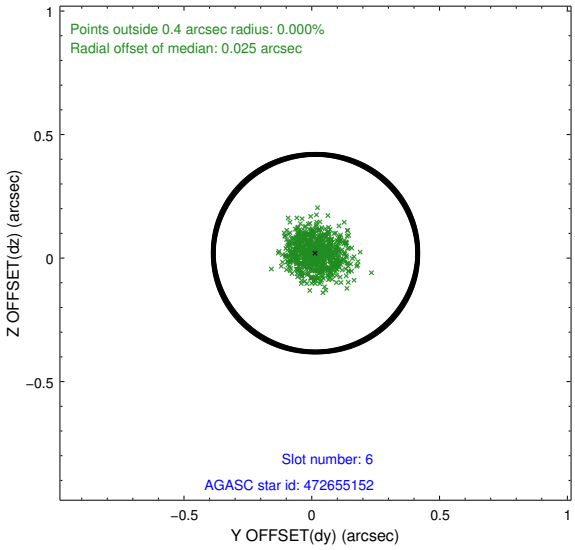

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 472523760

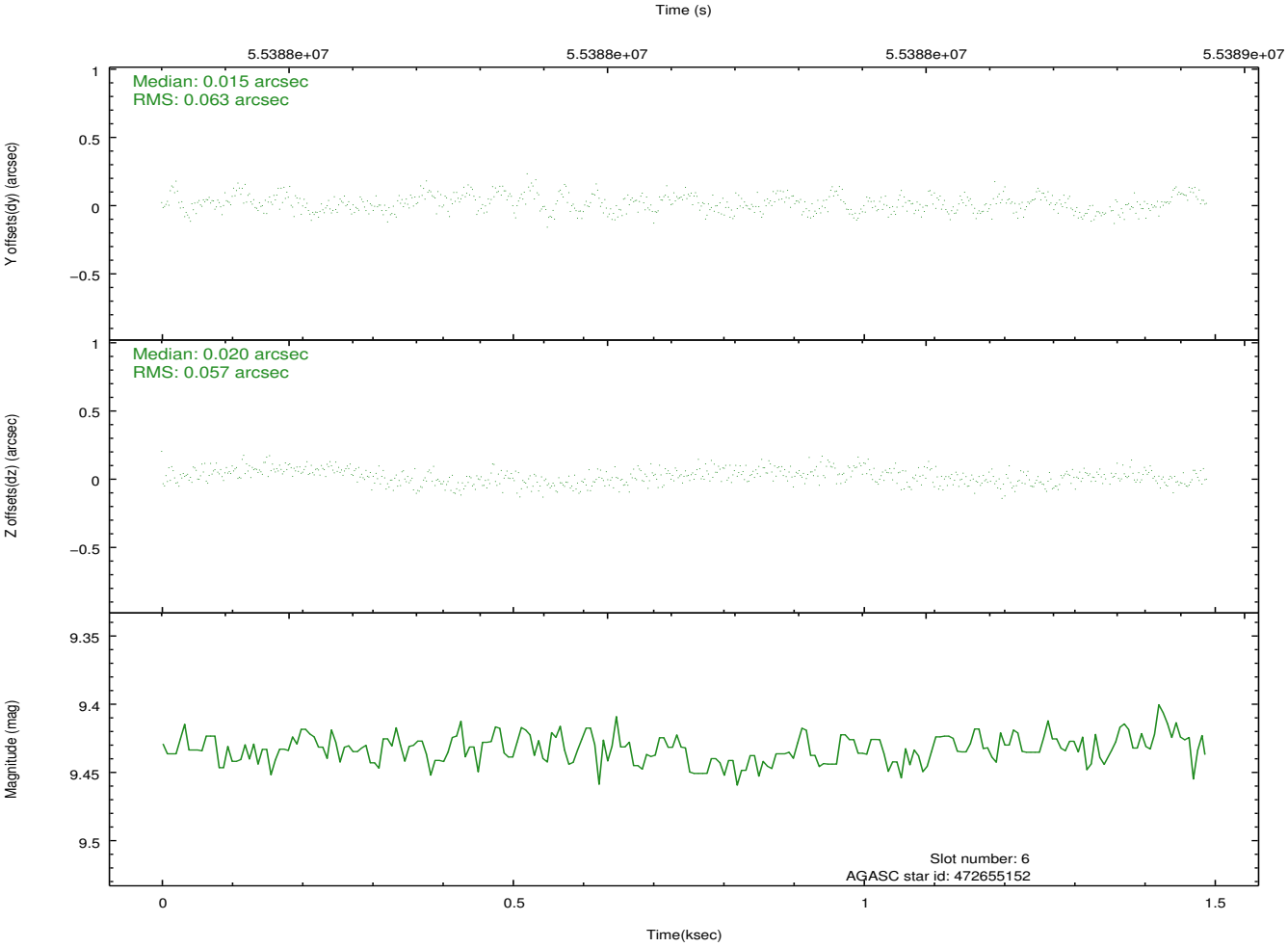

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.069 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 5
AGASC star id: 472659832


Time (s)
Median: −0.024 arcsec
RMS: 0.064 arcsec
Y offsets(dy) (arcsec)
Median: 0.064 arcsec
RMS: 0.054 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 5
AGASC star id: 472659832
Time(ksec)

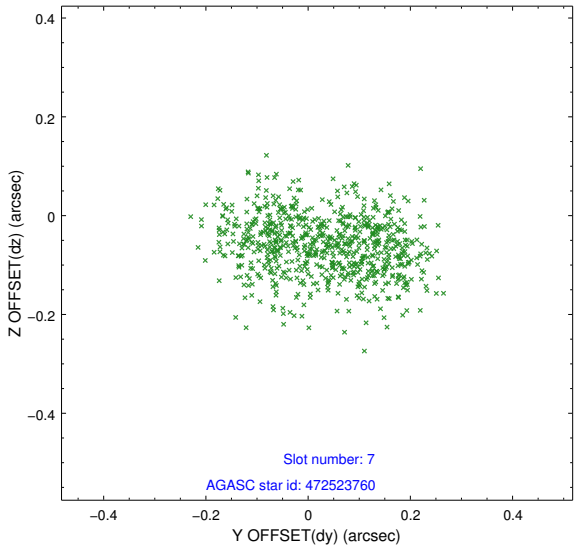
2.4.4 Slot 6

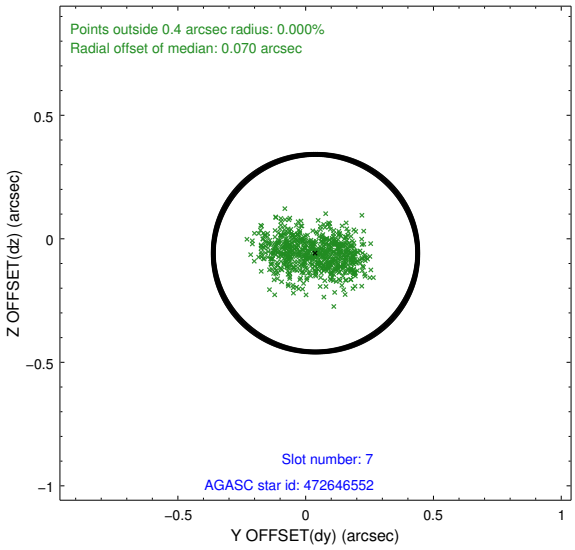

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 472523760

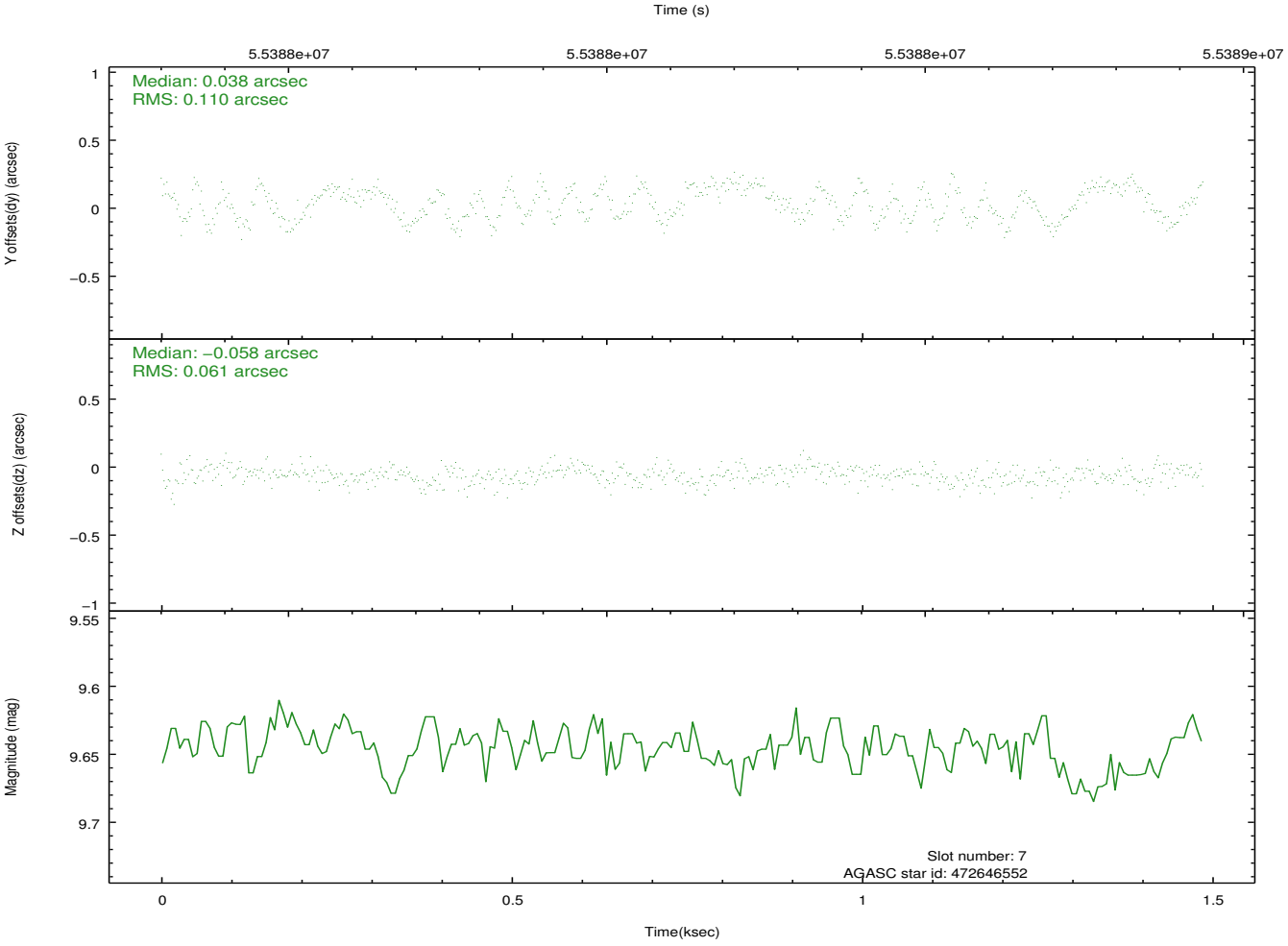

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.025 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 6
AGASC star id: 472655152


Time (s)
5.5388e+07
5.5388e+07
5.5388e+07
5.5389e+07
Median: 0.015 arcsec
RMS: 0.063 arcsec
Y offsets(dy) (arcsec)
Median: 0.020 arcsec
RMS: 0.057 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 6
AGASC star id: 472655152
Time(ksec)

2.4.5 Slot 7

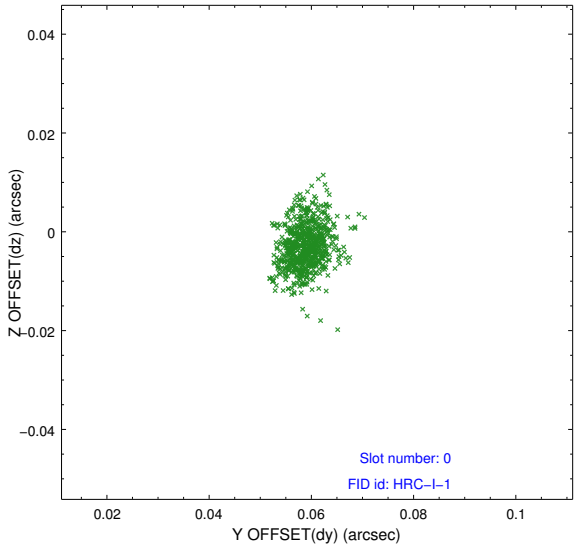

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 472523760

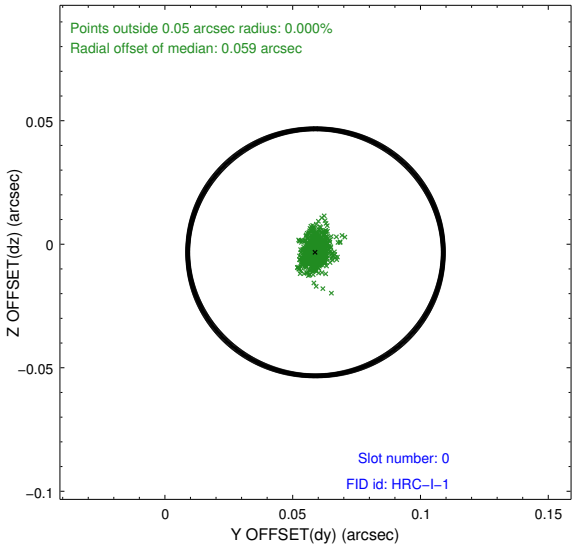

Points outside 0.4 arcsec radius: 0.000%
Radial offset of median: 0.070 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 7
AGASC star id: 472646552

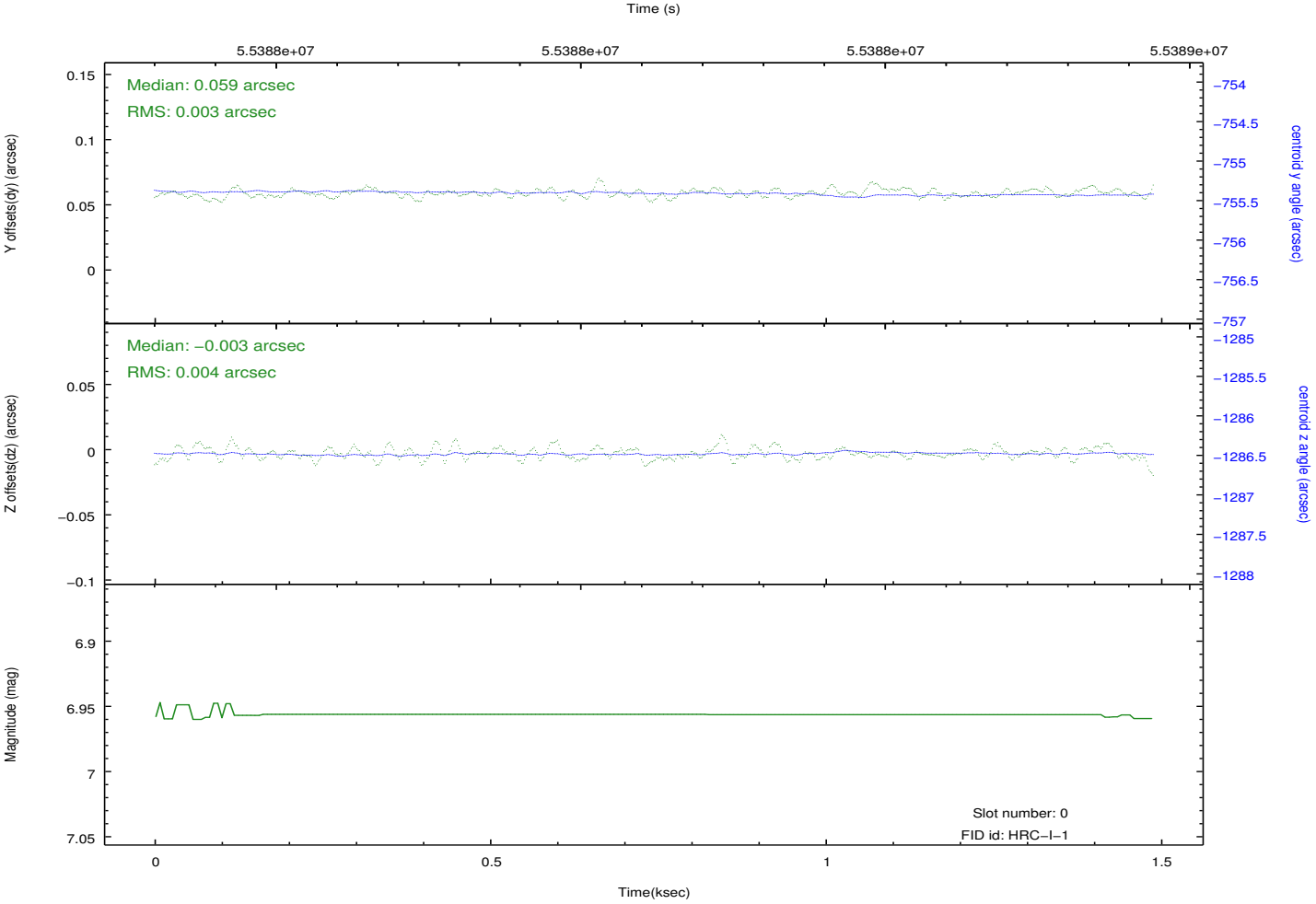

Time (s)
Median: 0.038 arcsec
RMS: 0.110 arcsec
Y offsets(dy) (arcsec)
Median: −0.058 arcsec
RMS: 0.061 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 7
AGASC star id: 472646552
Time(ksec)

2.5 FID Slots

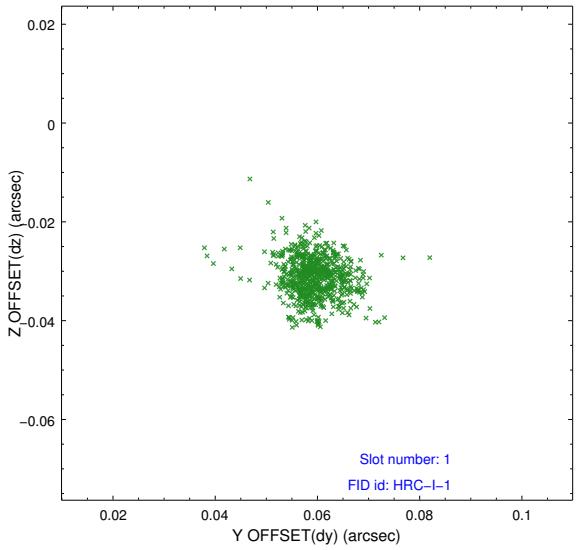
2.5.1 Slot 0

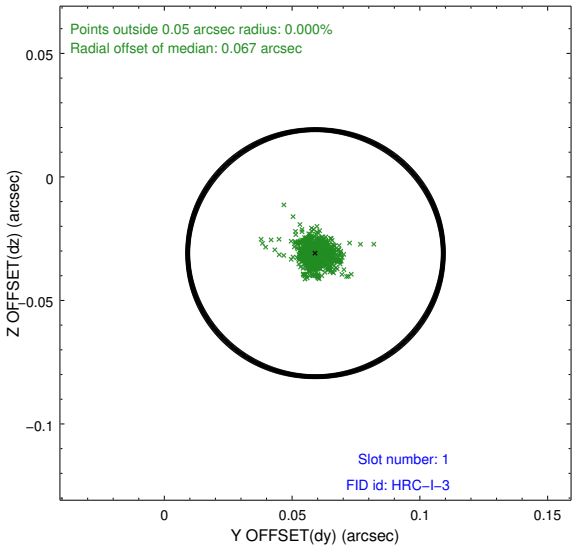


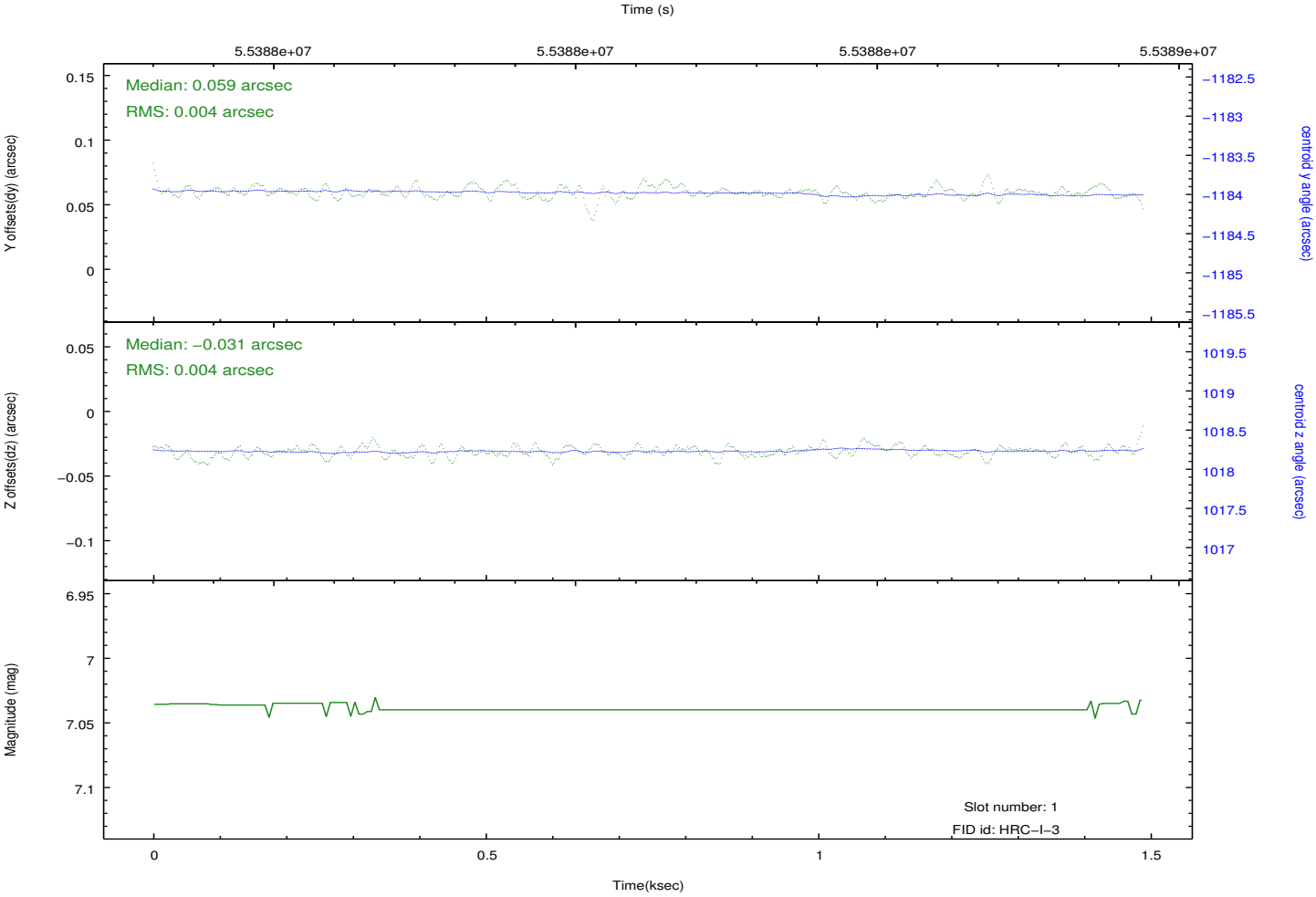




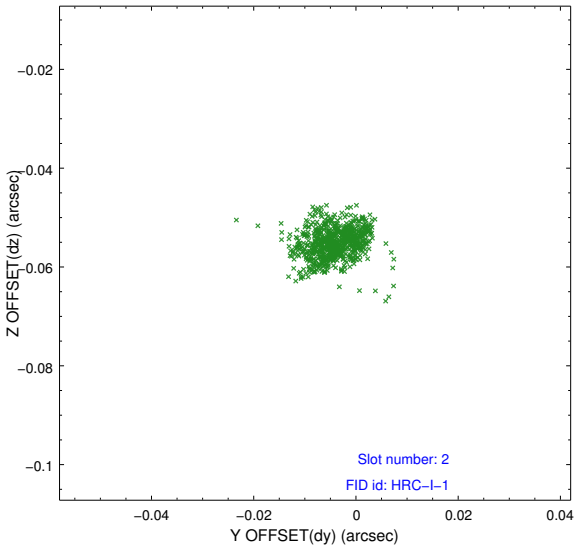
2.5.2 Slot 1

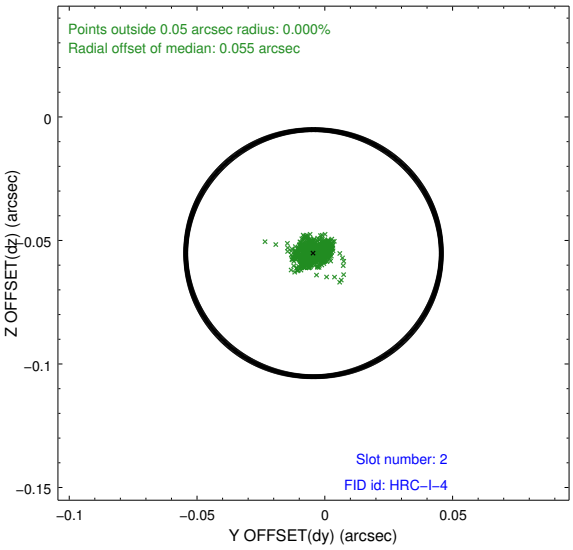

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: HRC−I−1

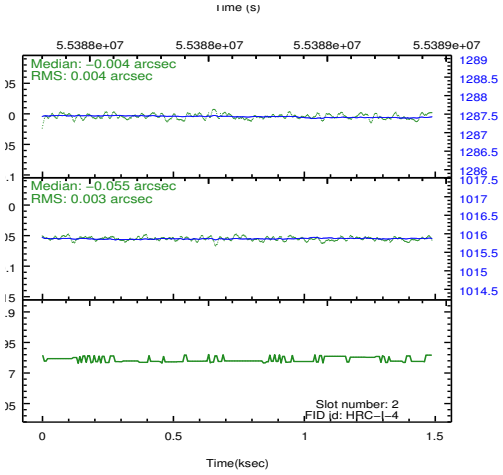

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.067 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: HRC−I−3


Time (s)
Median: 0.059 arcsec
RMS: 0.004 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: −0.031 arcsec
RMS: 0.004 arcsec
Z offsets(dz) (arcsec)
centroid z angle (arcsec)
Magnitude (mag)
Slot number: 1
FID id: HRC−I−3
Time(ksec)

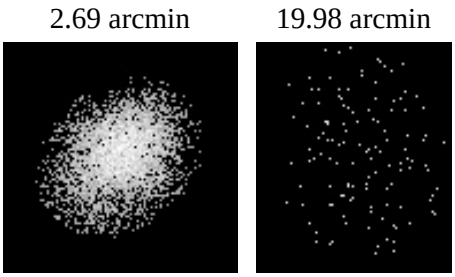
2.5.3 Slot 2


Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: HRC−I−1


Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.055 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: HRC−I−4


Time (s)
Median: −0.004 arcsec
RMS: 0.004 arcsec
Median: −0.055 arcsec
RMS: 0.003 arcsec
Slot number: 2
FID id: HRC−I−4
Time(ksec)

3 Point Sources



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2009.11.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.276

A.2 Comments

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The ObsiD series 1319-1382 were intended to access the HRC-I gain
variation across
the detector as a function of MCP HV. They were performed as triples
(3 different HV settings at each Y-/Z-offset). The best HRC-I focus was
not
determined at the time the observations were performed (the
data to determine that were being analyzed during this series).
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