V&V Reference Report
L2 ASCDS Version : 10.9.1

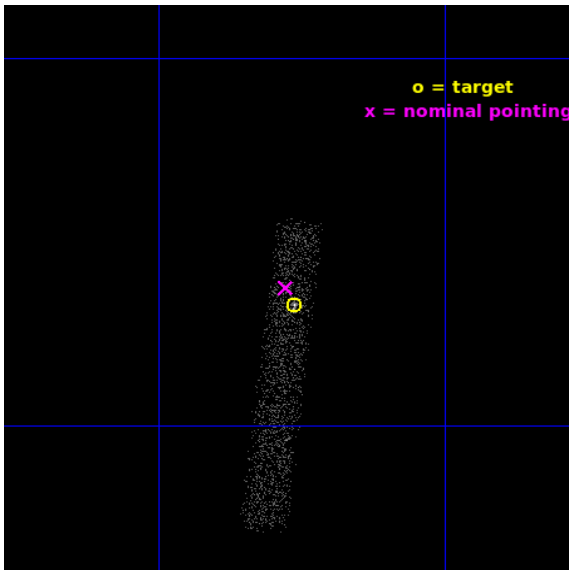
Observation 5671 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Oct 7 2020

Contents

1 Front

seq_num	701094	Sequence number
obs_id	5671	Observation id
title	Gems in the Chandra Deep Fields: The Nature of Optically Passive X-ray Galaxies (aka XBONGs)	Proposal title
observer	Dr. Sally Laurent-Muehleisen	Principal investigator
object	RGB1512+020A	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	228.065833	Observer's specified target RA [deg]
dec_targ	2.054722	Observer's specified target Dec [deg]
ra_nom	228.06925380679	Nominal RA [deg]
dec_nom	2.0624018972066	Nominal Dec [deg]
roll_nom	96.710159017594	Nominal Roll [deg]
revision	4	Processing version of data
ontime	3186.8000474572	Sum of GTIs [s]
livetime	2890.2594299449	Livetime [s]
ontime7	3186.8000474572	Sum of GTIs [s]
l2events	2775	Number of level 2 events

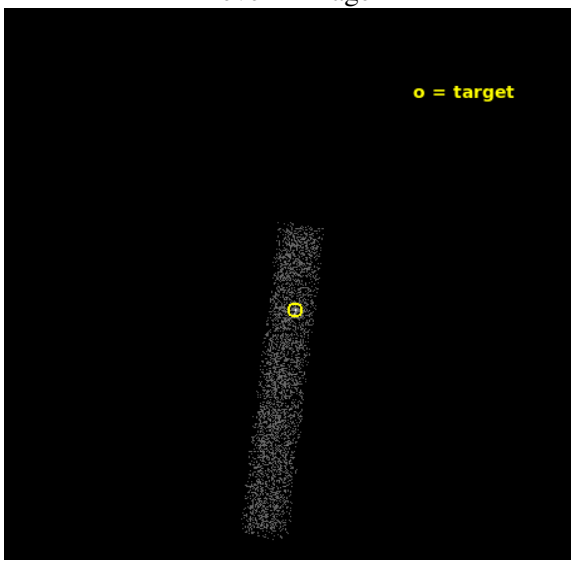


2 OBI

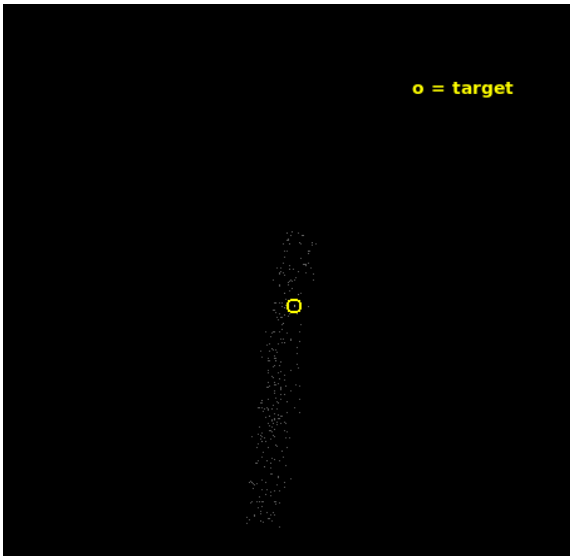
2.1 OBI

2.1.1 Images

Level 1 Image

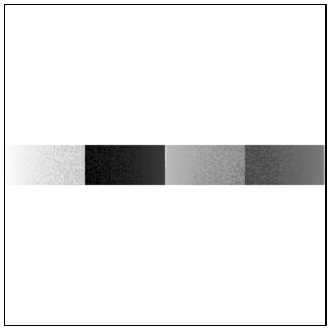


Level 1 Bad Events



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number
ascdsver	10.9.1	Processing system revision
caldbver	4.9.2	
date	2020-10-07T12:16:32	Date and time of file creation
revision	4	Processing version of data

sched_exp_time	3000.000000	[s] Scheduled observation exposure time
ontime	3186.8000474572	Sum of GTIs [s]
ontime7	3186.8000474572	Sum of GTIs [s]
l1events	5889	Number of level 1 events

2.1.4 Events

	ccd 7
level 1 events	5889
rejected events	2987
rejected %	50%

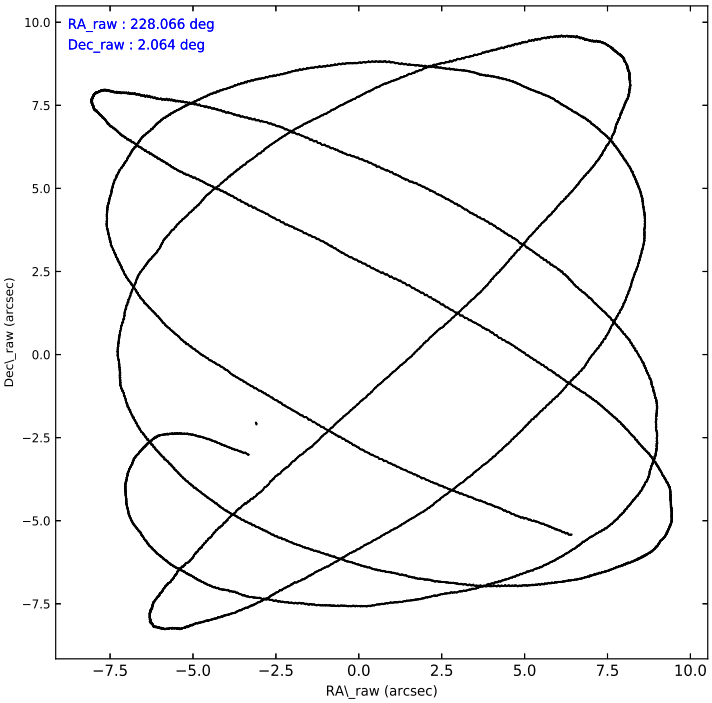
	ccd 7
grade 0 events	535
	9%
grade 1 events	7
	0%
grade 2 events	657
	11%
grade 3 events	418
	7%
grade 4 events	398
	6%
grade 5 events	502
	8%
grade 6 events	1234
	20%
grade 7 events	2138
	36%

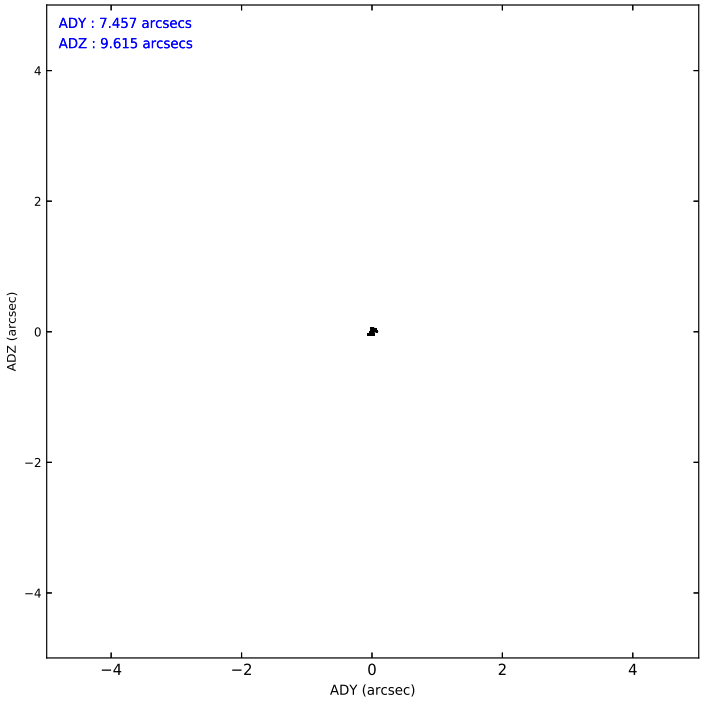
2.2 Compared Parameters

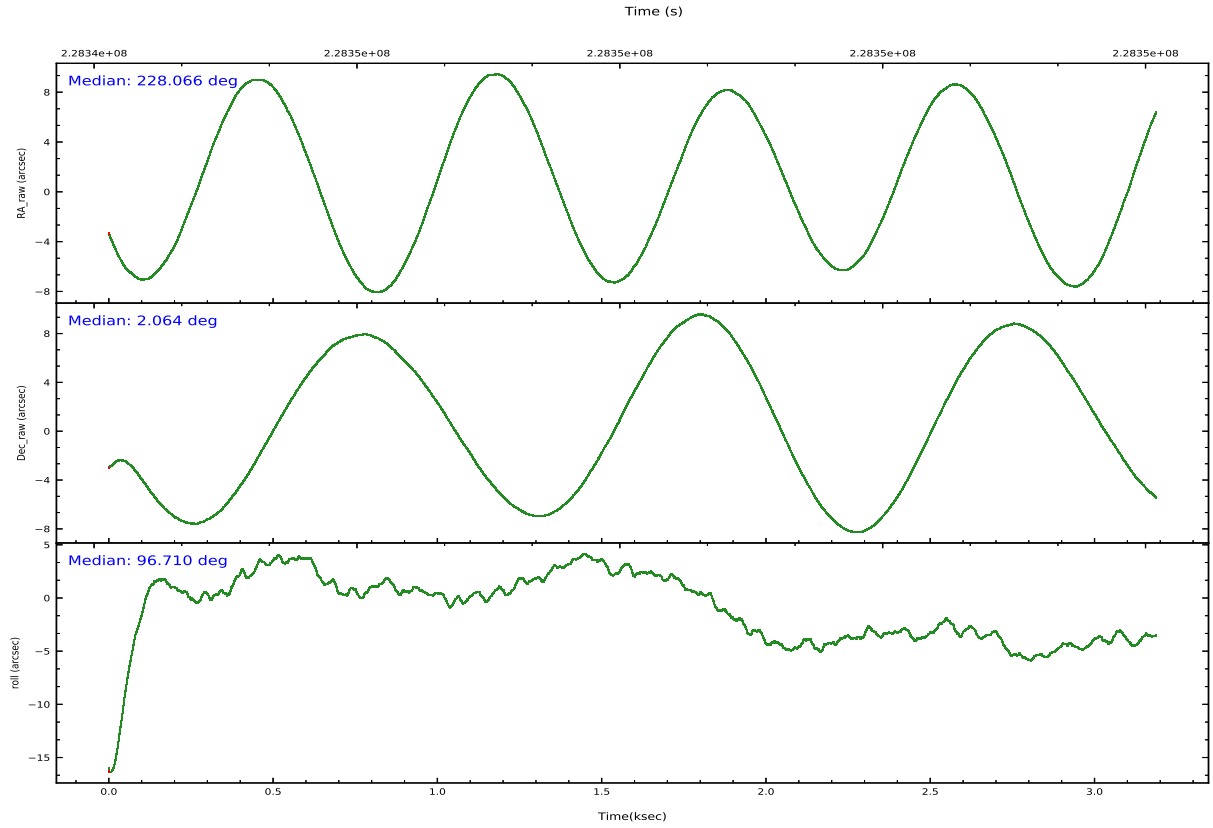
Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	228.082983	228.06925380679
[deg] Pointing Dec	2.042763	2.0624018972066
[deg] Pointing Roll	96.549850	96.71015901759399
[mm] SIM focus pos	-0.684267	-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)	228345032.184000	228344175.81009
Observation start date	2005-03-27T21:09:28	2005-03-27T20:56:15
[s] Observation end time (MET)	228348032.184000	228348593.56029
Observation end date	2005-03-27T21:59:28	2005-03-27T22:09:53
Read mode	TIMED	TIMED

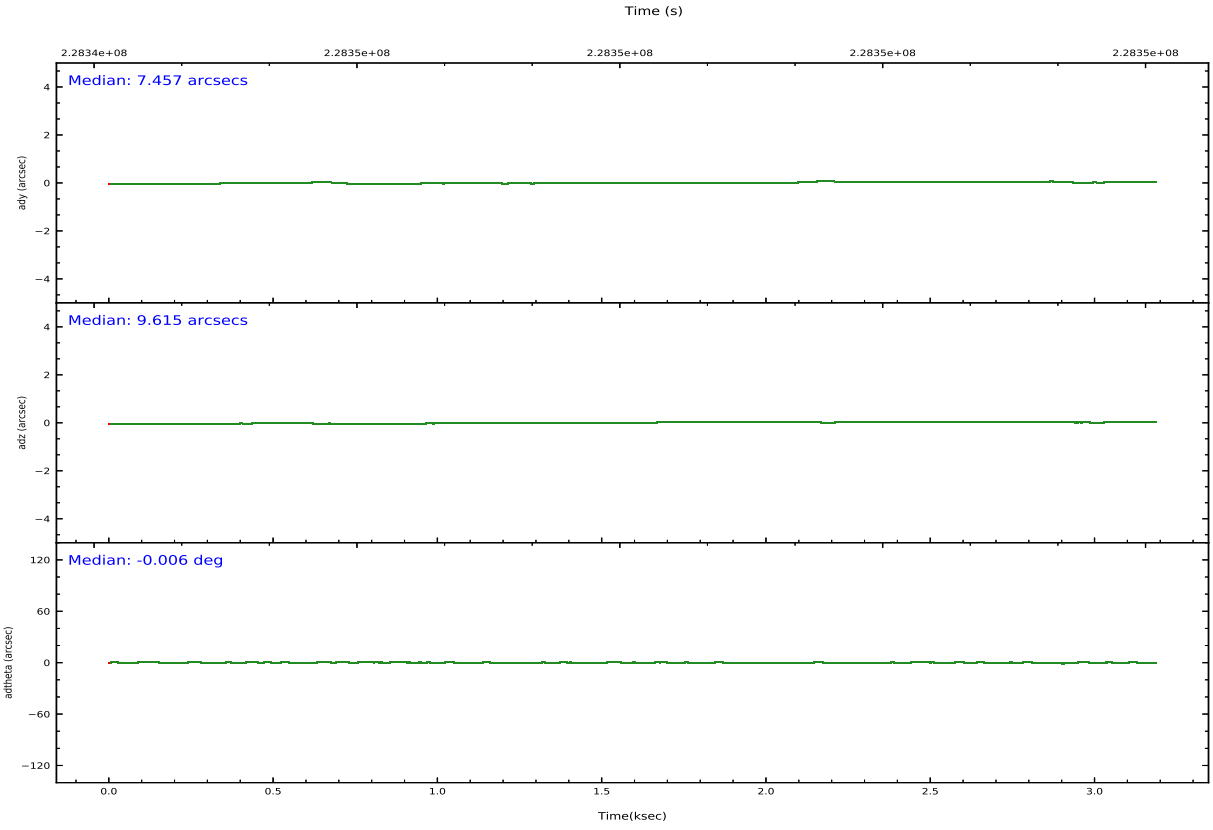
Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/8
Subarray start row	449	449
Subarray row count	128	128
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.4

2.3 Aspect


RA_raw : 228.066 deg
Dec_raw : 2.064 deg
Dec_raw (arcsec)
RA_raw (arcsec)
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−7.5
−5.0
−2.5
0.0
2.5
5.0
7.5
10.0


ADY : 7.457 arcsecs
ADZ : 9.615 arcsecs
ADZ (arcsec)
ADY (arcsec)
4
2
0
−2
−4
−4
−2
0
2
4


Time (s)
2.2834e+08
2.2835e+08
2.2835e+08
2.2835e+08
2.2835e+08
Median: 228.066 deg
RA_raw (arcsec)
Median: 2.064 deg
Dec_raw (arcsec)
Median: 96.710 deg
roll (arcsec)
Time(ksec)

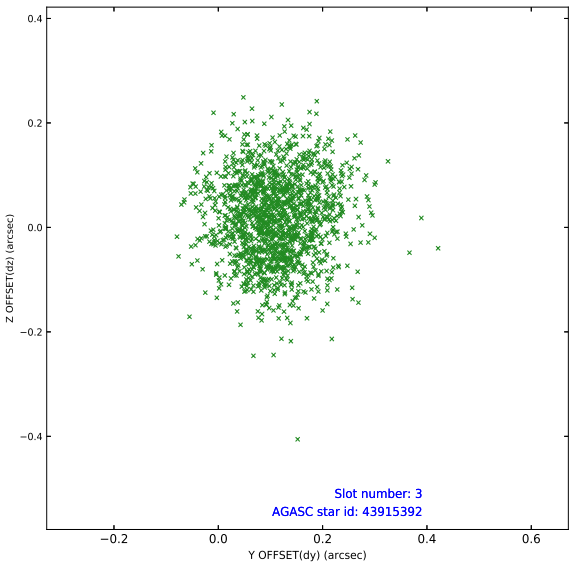

Time (s)
2.2834e+08
2.2835e+08
2.2835e+08
2.2835e+08
2.2835e+08
Median: 7.457 arcsecs
ady (arcsec)
Median: 9.615 arcsecs
adz (arcsec)
Median: -0.006 deg
adtheta (arcsec)
Time(ksec)

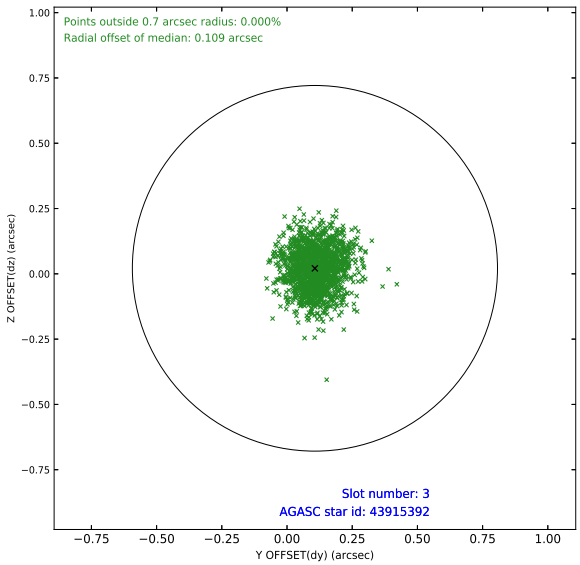
Slot Statistics

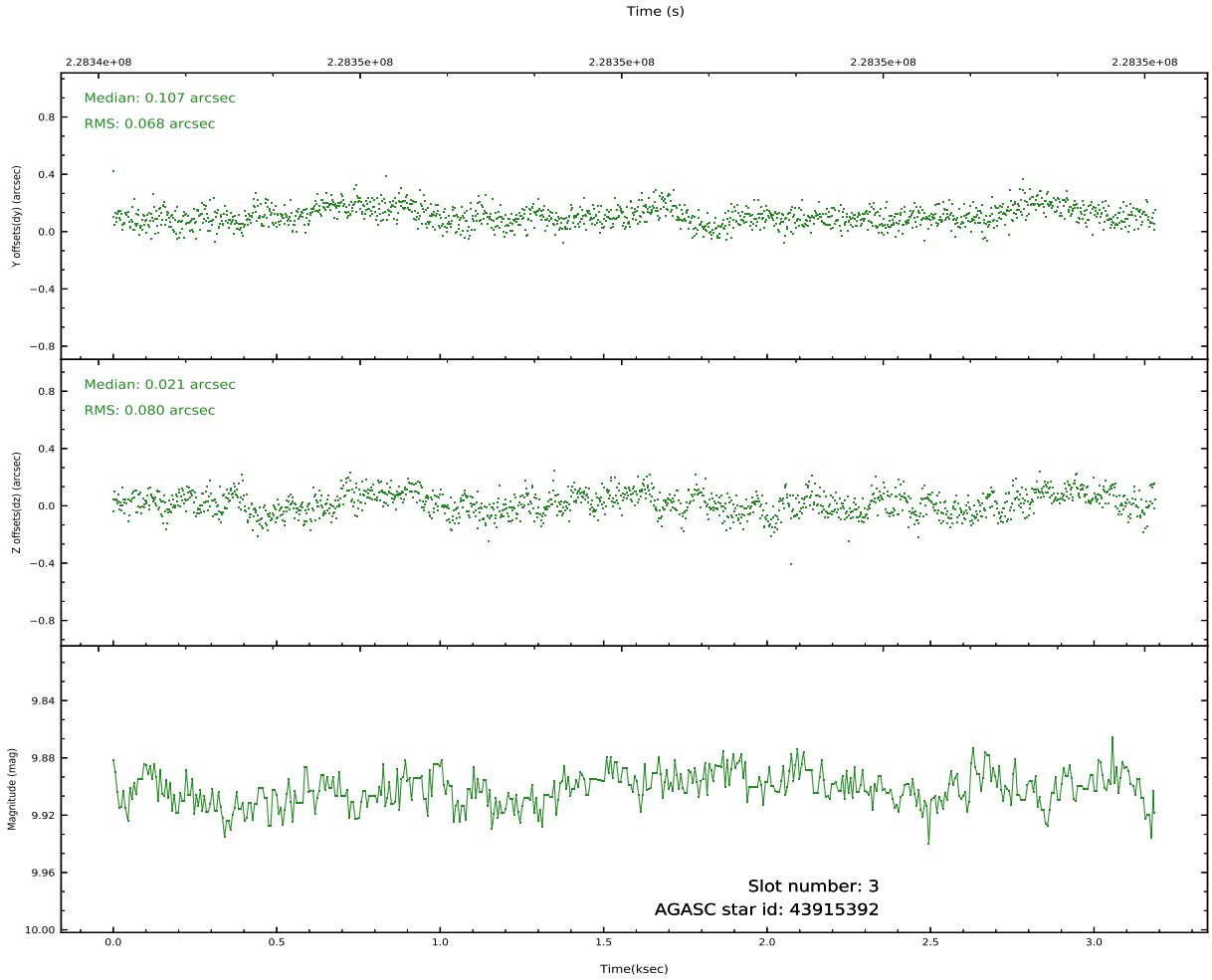
ot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	778	1.000	-0.071	-0.072	0.008	0.013	0.000000	0.000000	-760.23	-1730
1	FID		ACIS-S-4	7.20	778	1.000	0.160	0.054	0.006	0.012	0.000000	0.000000	2152.30	175
2	FID		ACIS-S-5	7.24	778	1.000	-0.120	0.027	0.007	0.012	0.000000	0.000000	-1810.63	171
3	GUIDE	used	43915392	9.90	1552	1.000	0.107	0.021	0.112	0.180	228.358281	1.736508	-1207.69	-859
4	GUIDE	used	44434400	8.73	1546	1.000	-0.128	0.103	0.079	0.129	228.477665	2.695707	2173.45	-1678
5	GUIDE	used	44434736	8.90	1556	1.000	0.150	0.015	0.078	0.121	228.288855	1.879973	-664.43	-670
6	GUIDE	used	44435552	9.37	1554	1.000	-0.123	-0.127	0.088	0.143	227.842357	2.543650	1890.20	653
7	GUIDE	used	44436768	9.18	1554	1.000	-0.010	-0.003	0.083	0.134	228.398067	2.250457	615.48	-1211

2.4 Star Slots

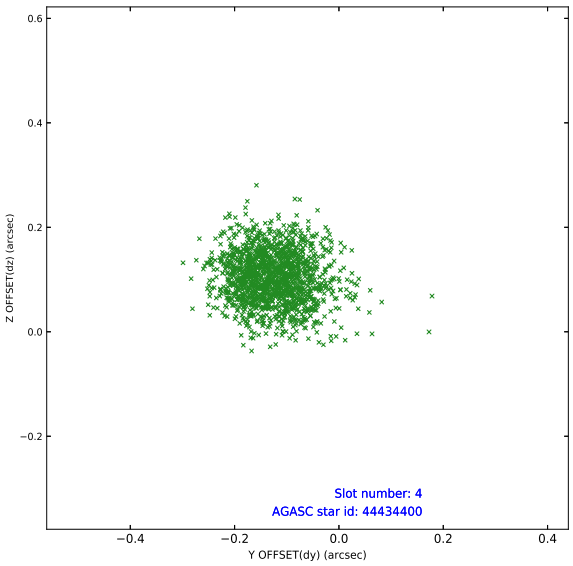
2.4.1 Slot 3

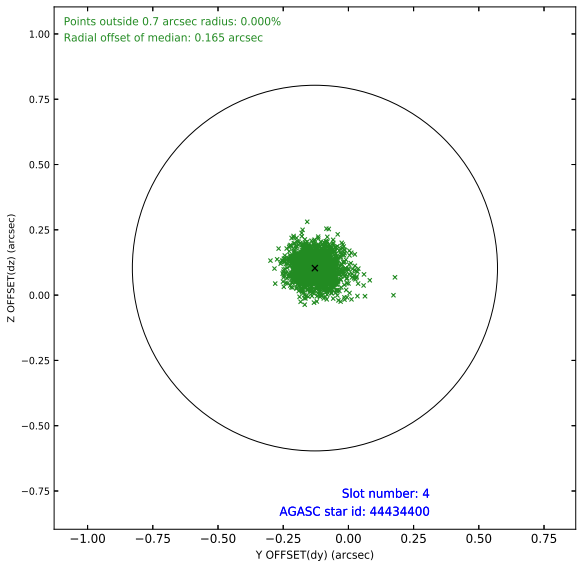


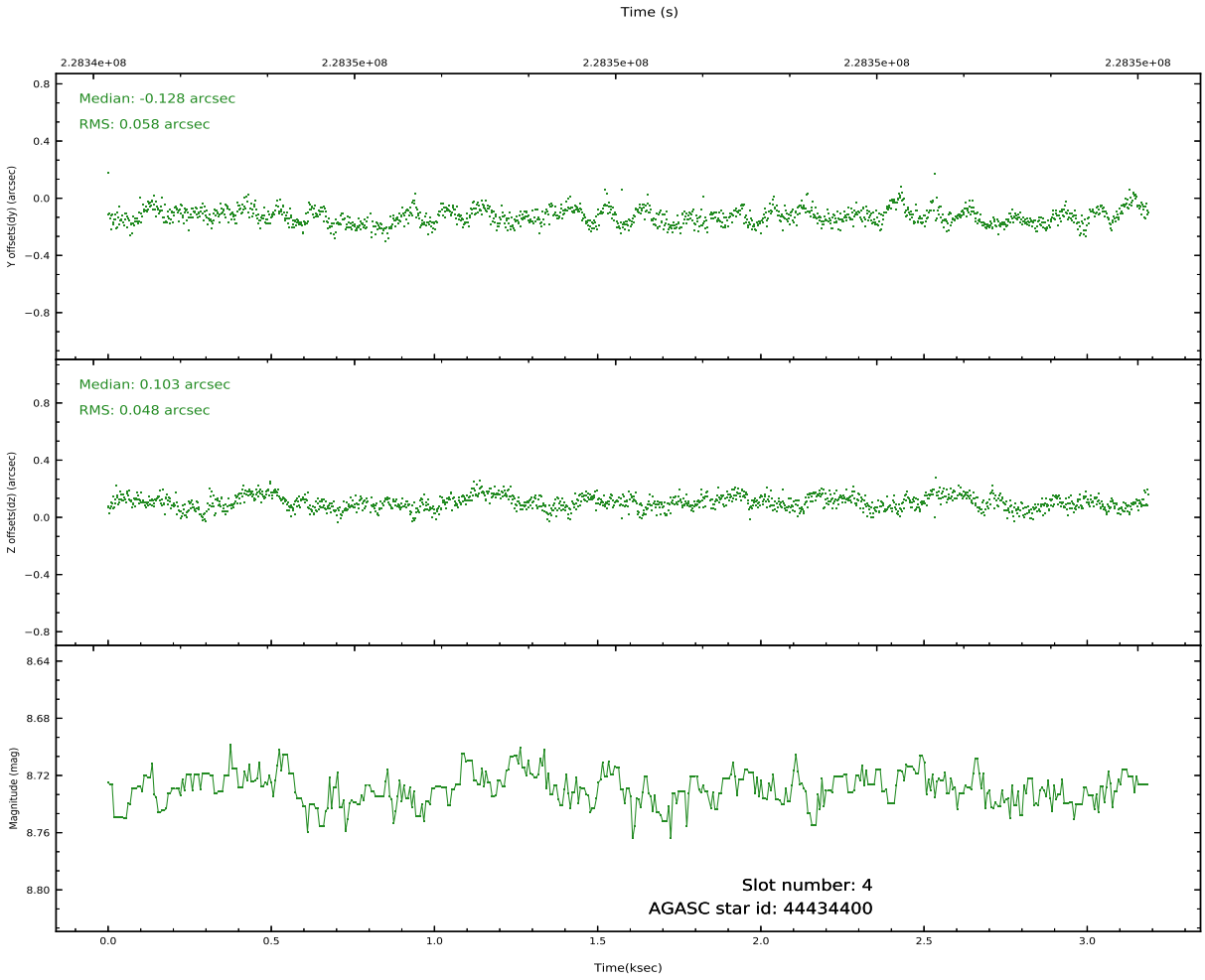




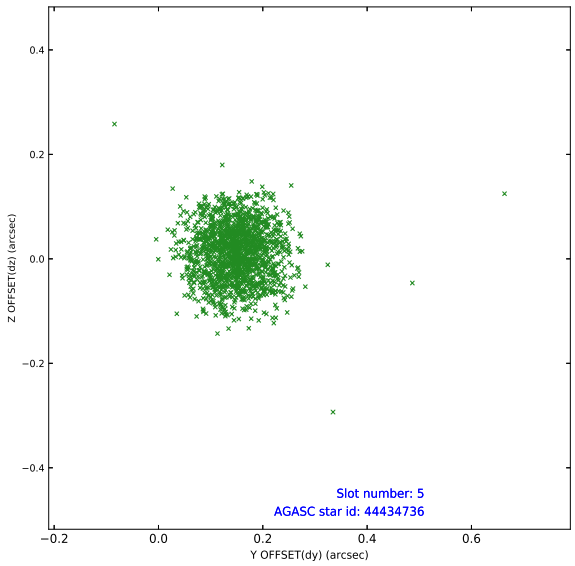
2.4.2 Slot 4

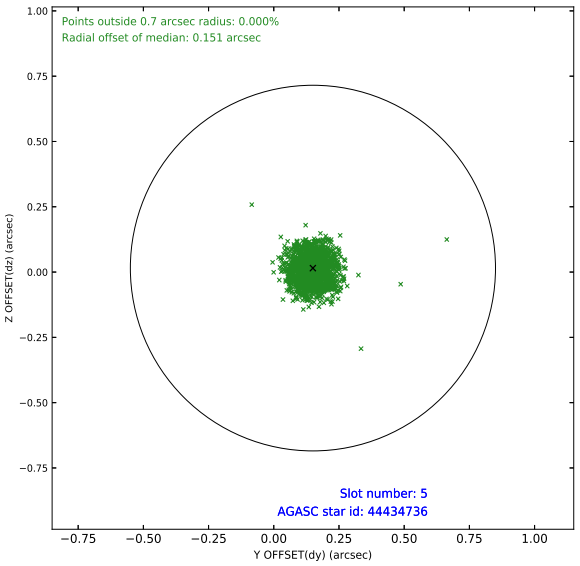

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 44434400

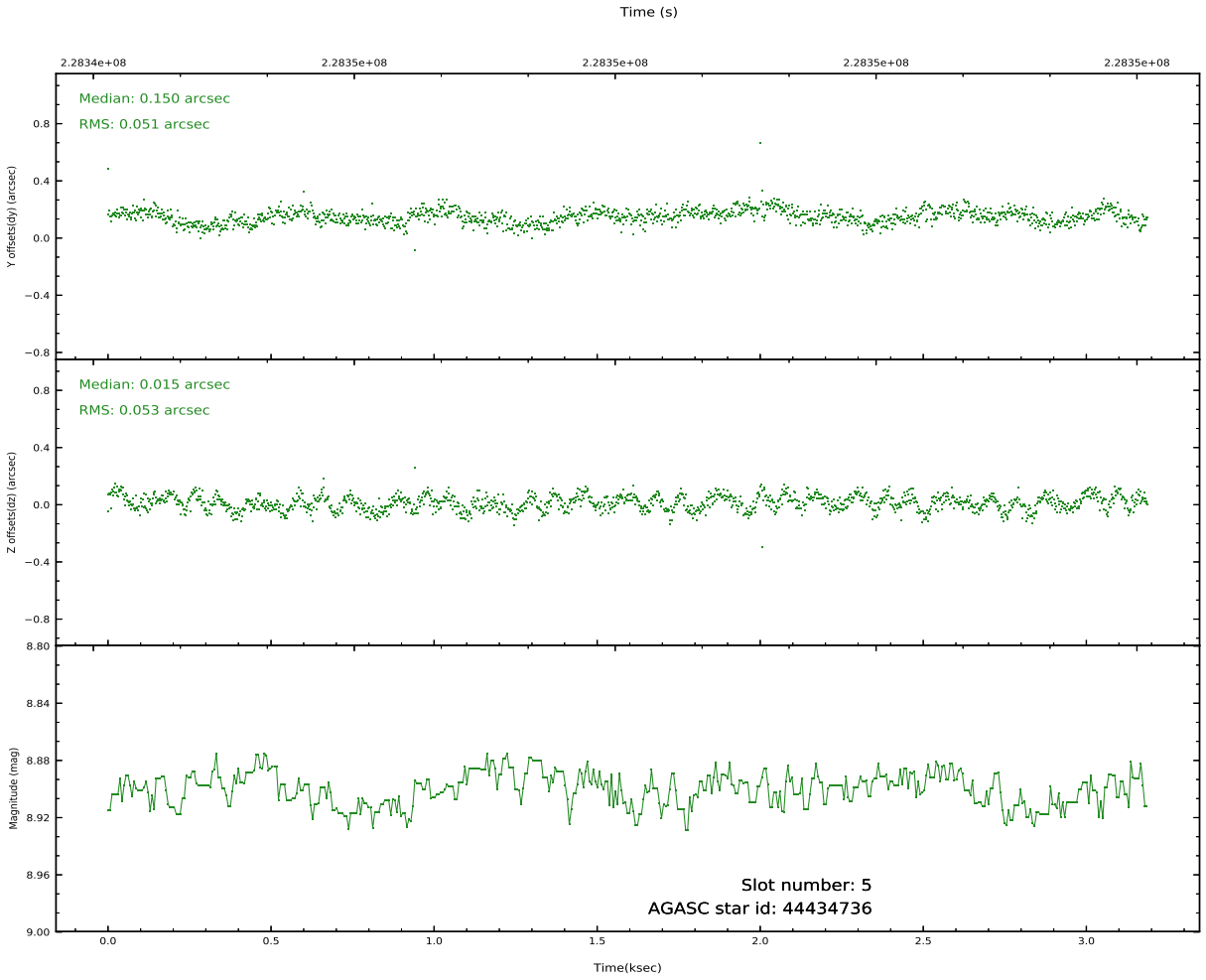

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.165 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 4
AGASC star id: 44434400


Time (s)
Median: -0.128 arcsec
RMS: 0.058 arcsec
Y offsets(dy) (arcsec)
Median: 0.103 arcsec
RMS: 0.048 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 4
AGASC star id: 44434400
Time(ksec)

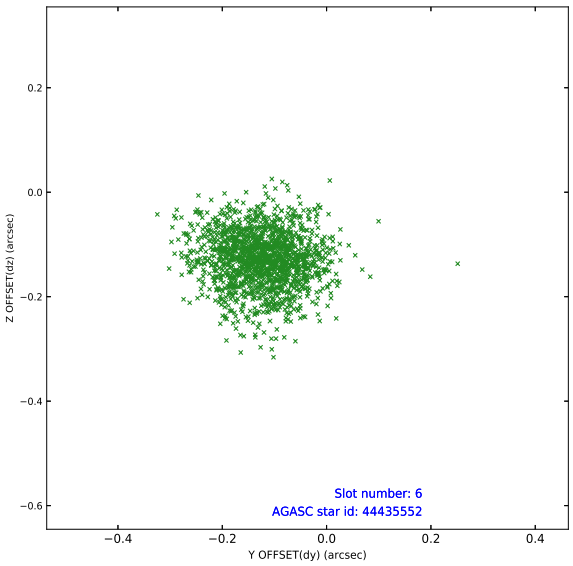
2.4.3 Slot 5

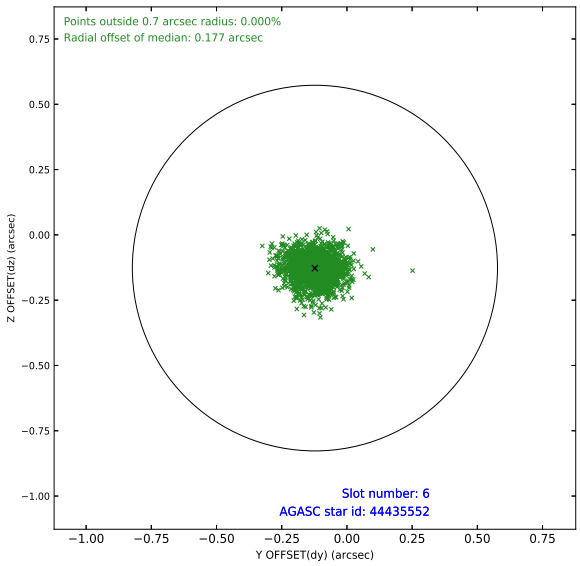

Slot number: 5
AGASC star id: 44434736
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

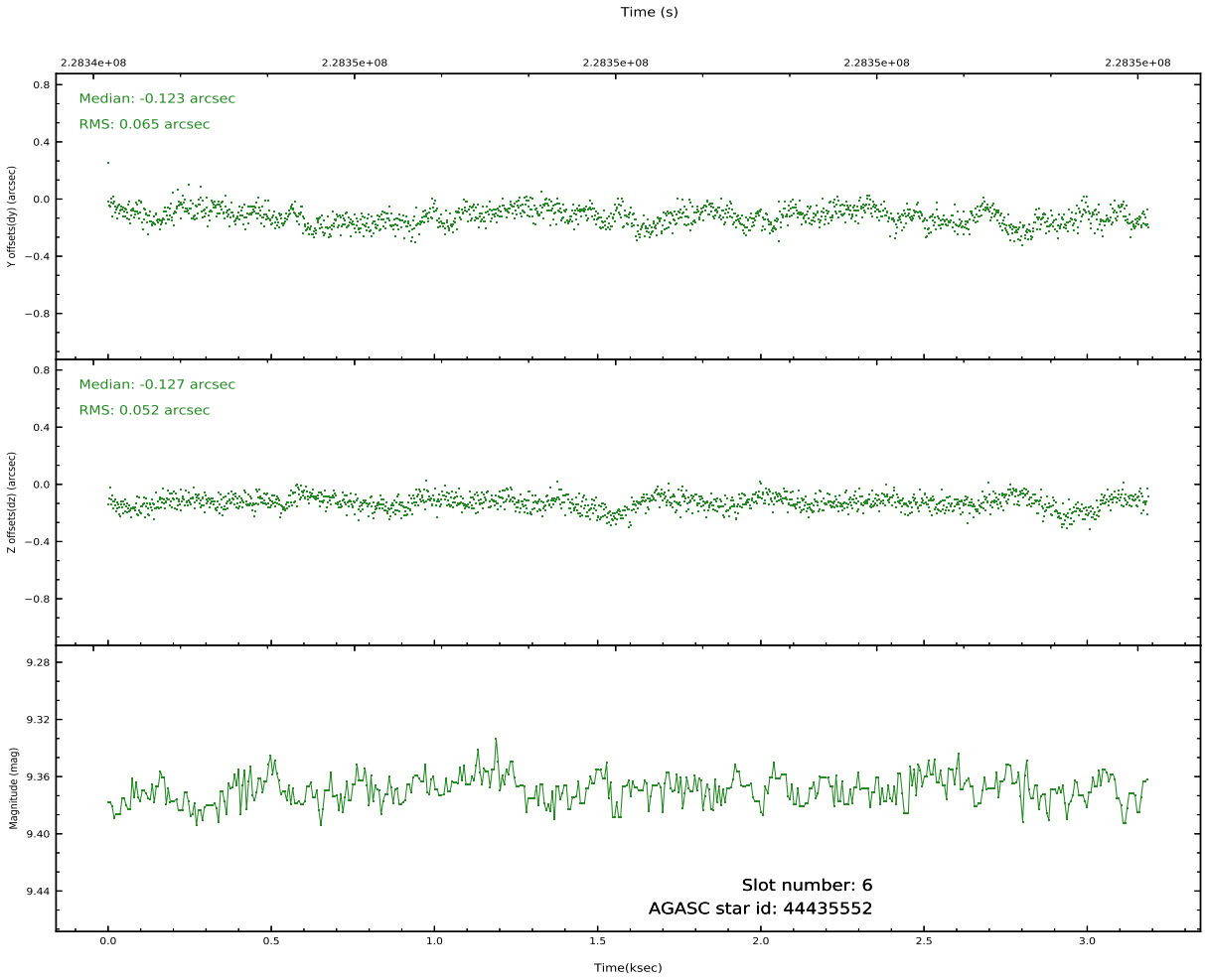

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.151 arcsec
Slot number: 5
AGASC star id: 44434736
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)


Time (s)
Median: 0.150 arcsec
RMS: 0.051 arcsec
Y offsets(dy) (arcsec)
Median: 0.015 arcsec
RMS: 0.053 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 5
AGASC star id: 44434736
Time(ksec)

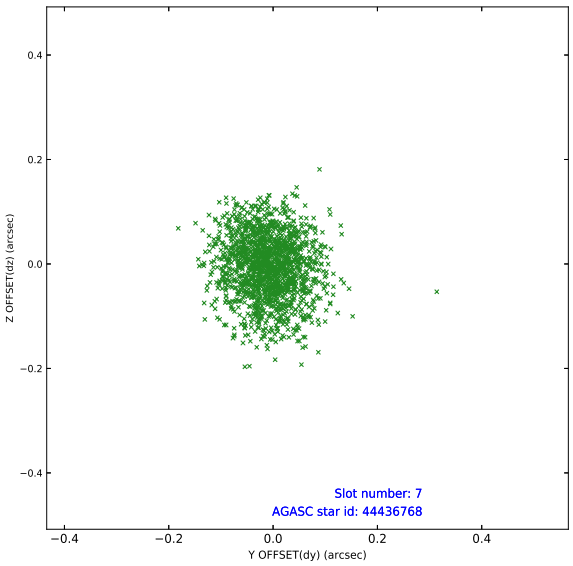
2.4.4 Slot 6

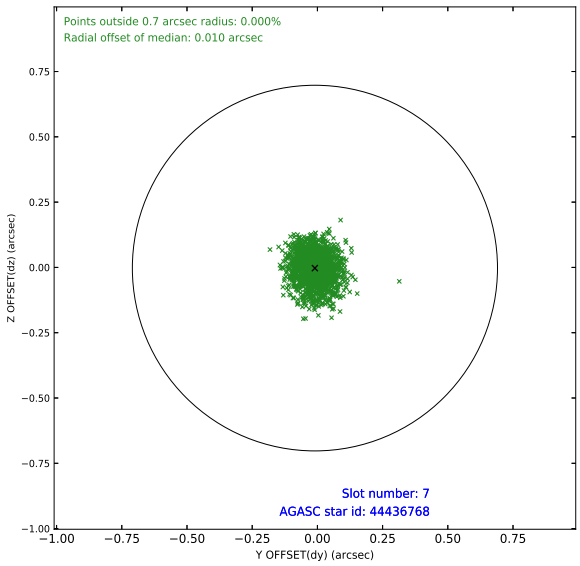

Slot number: 6
AGASC star id: 44435552
Y OFFSET(dy) (arcsec)
Z OFFSET(dz) (arcsec)

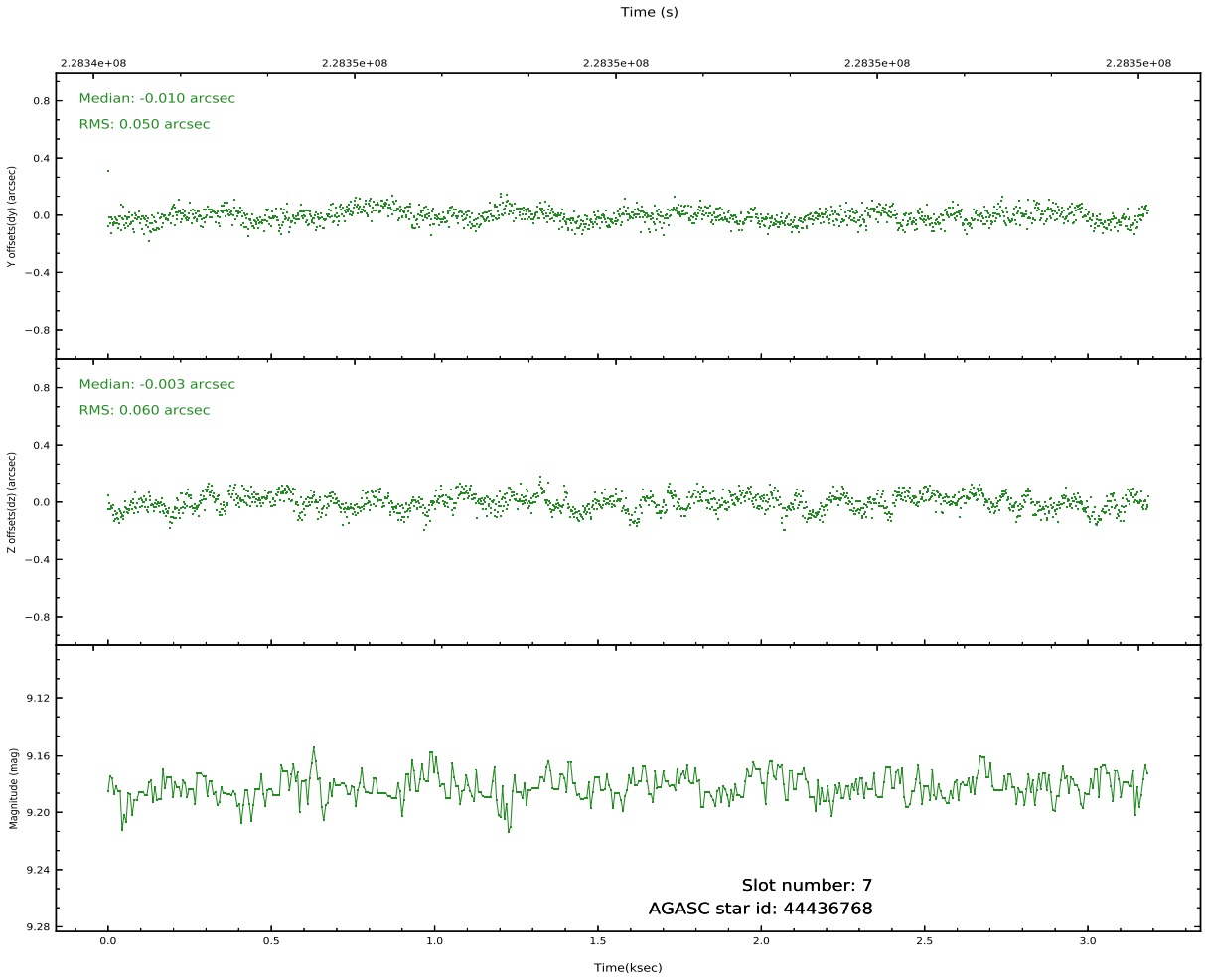

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.177 arcsec
Slot number: 6
AGASC star id: 44435552
Y OFFSET(dy) (arcsec)
Z OFFSET(dz) (arcsec)


Time (s)
Median: -0.123 arcsec
RMS: 0.065 arcsec
Y offsets(dy) (arcsec)
Median: -0.127 arcsec
RMS: 0.052 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 6
AGASC star id: 44435552
Time(ksec)

2.4.5 Slot 7

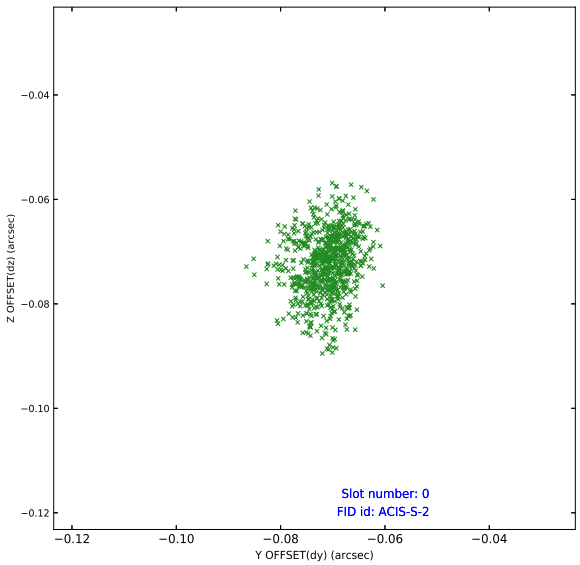

Slot number: 7
AGASC star id: 44436768
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

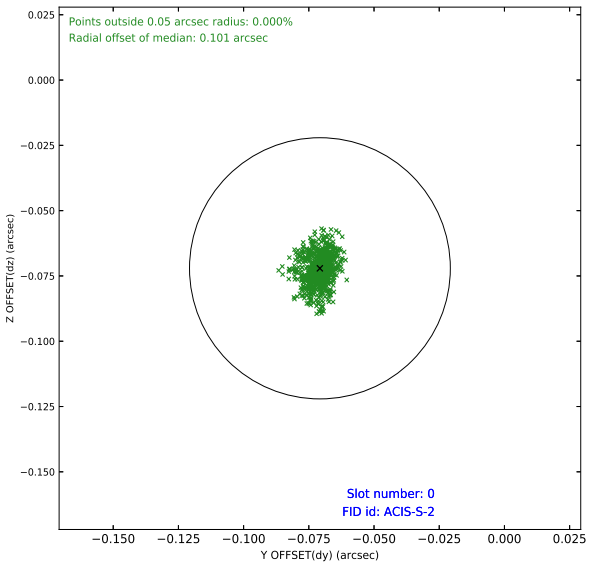

Points outside 0.7 arcsec radius: 0.000%
Radial offset of median: 0.010 arcsec
Slot number: 7
AGASC star id: 44436768
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)

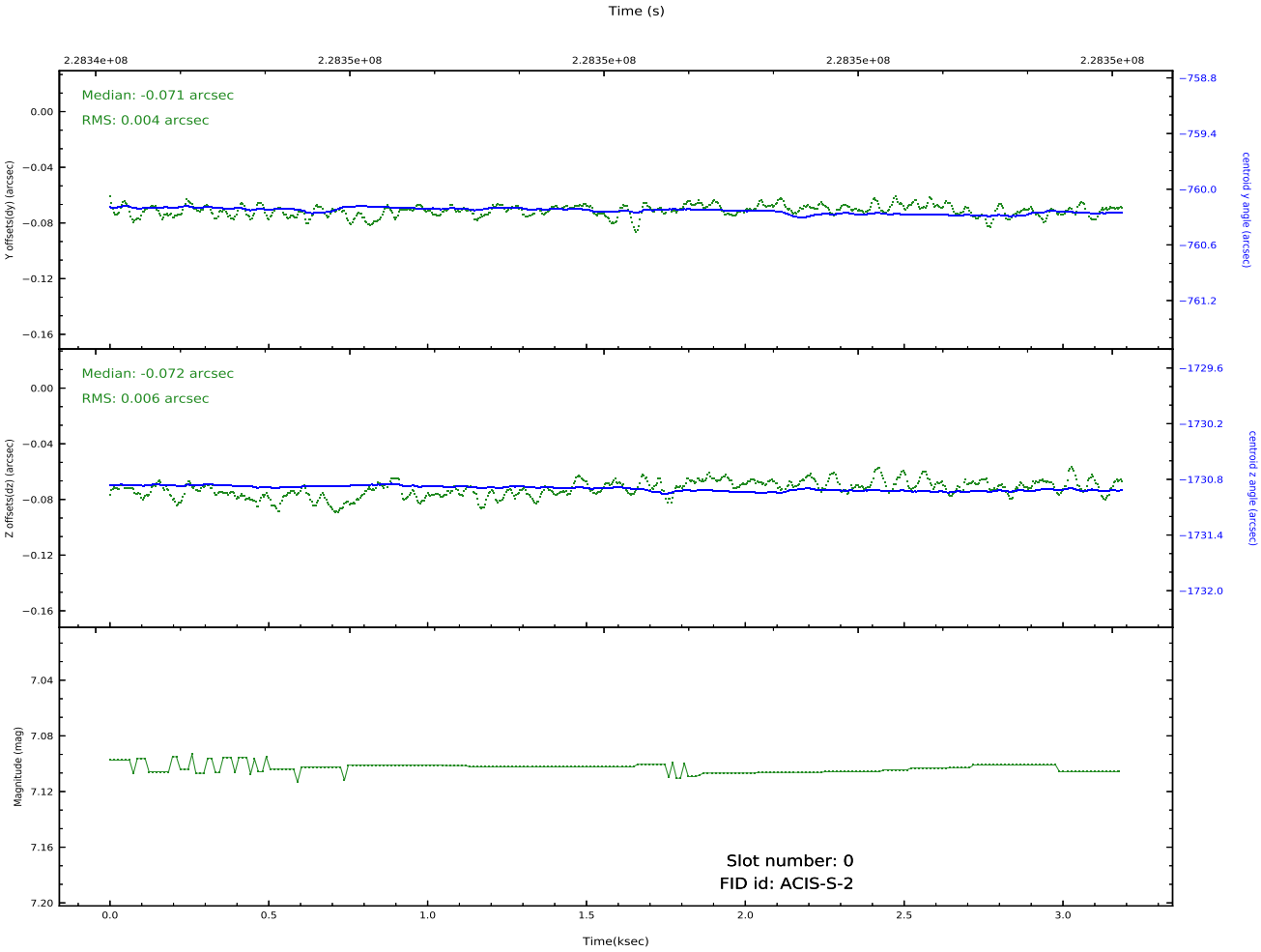

Time (s)
Median: -0.010 arcsec
RMS: 0.050 arcsec
Y offsets(dy) (arcsec)
Median: -0.003 arcsec
RMS: 0.060 arcsec
Z offsets(dz) (arcsec)
Magnitude (mag)
Slot number: 7
AGASC star id: 44436768
Time(ksec)

2.5 FID Slots

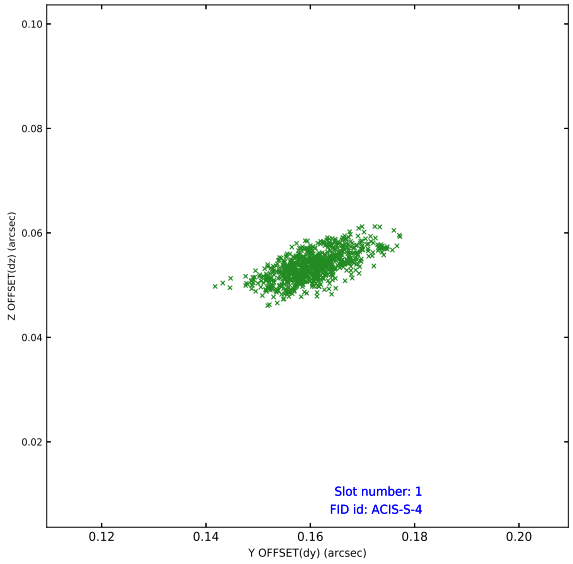
2.5.1 Slot 0

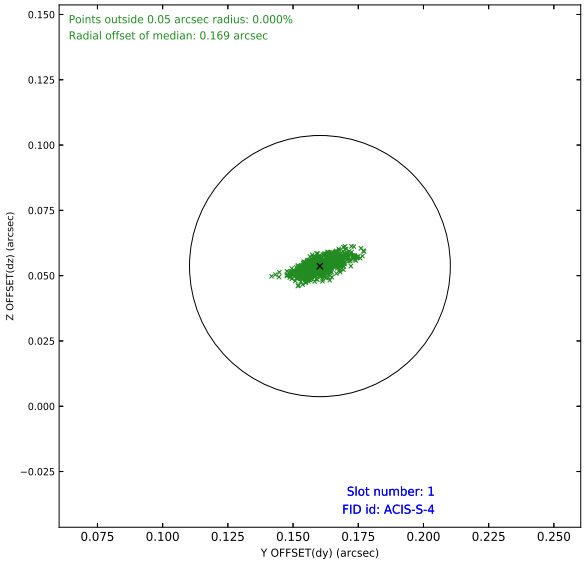


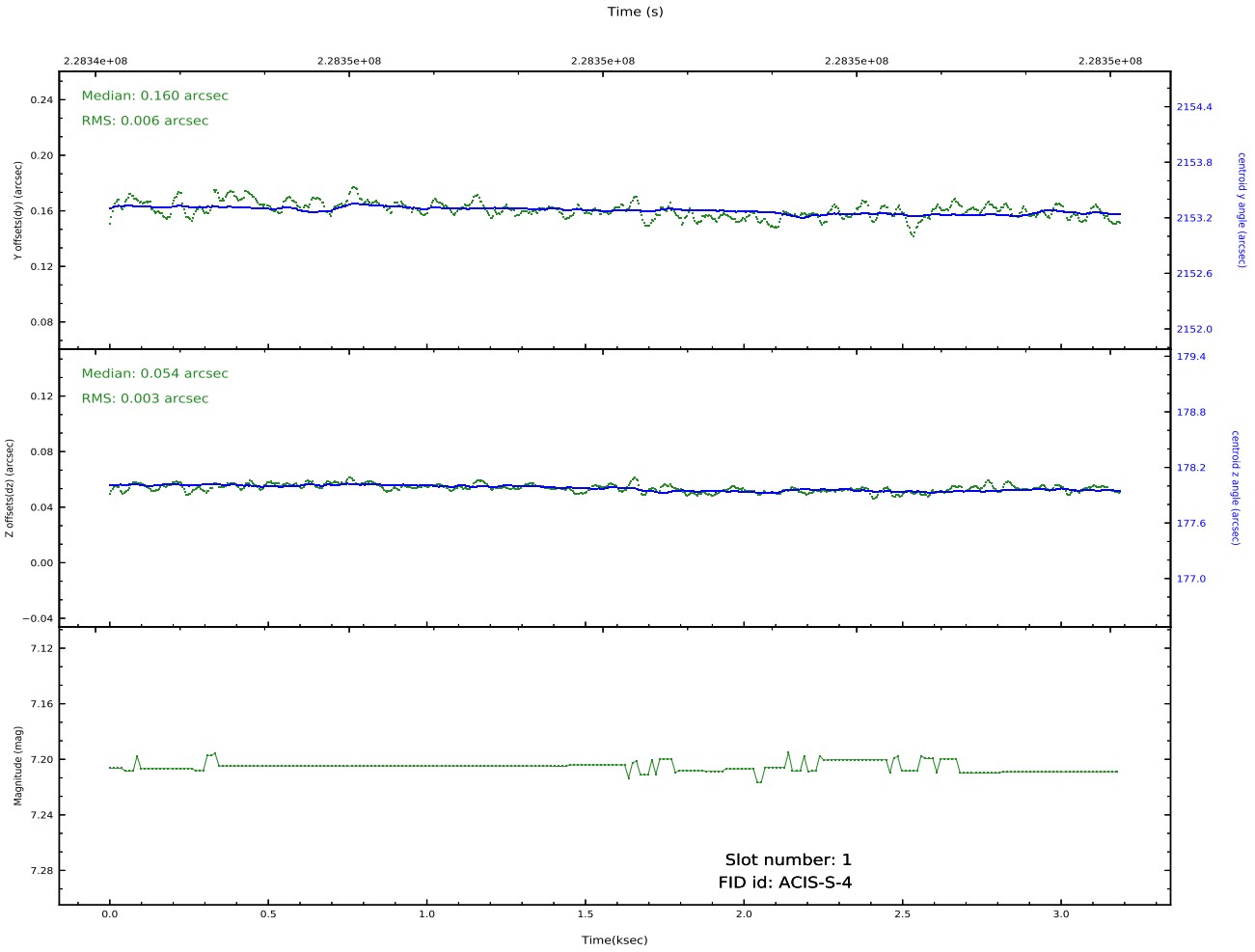




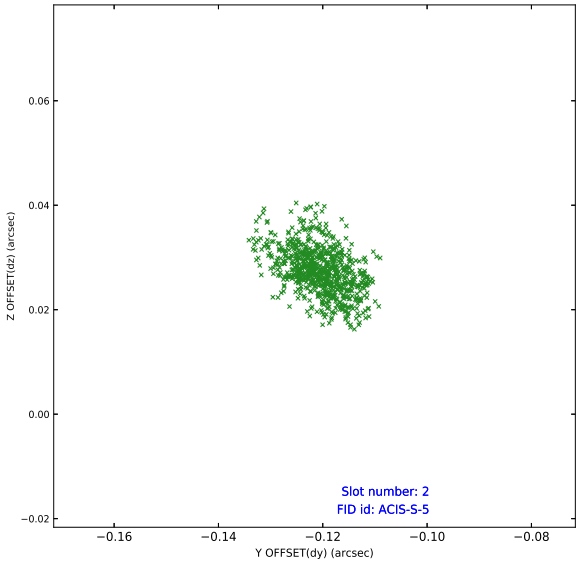
2.5.2 Slot 1

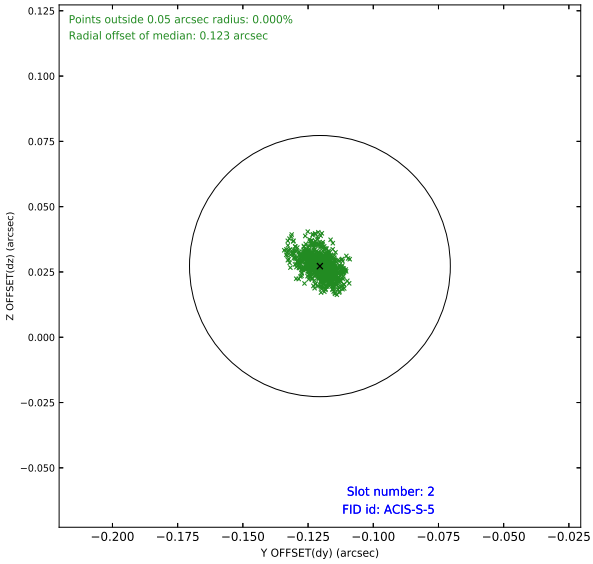

Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS-S-4

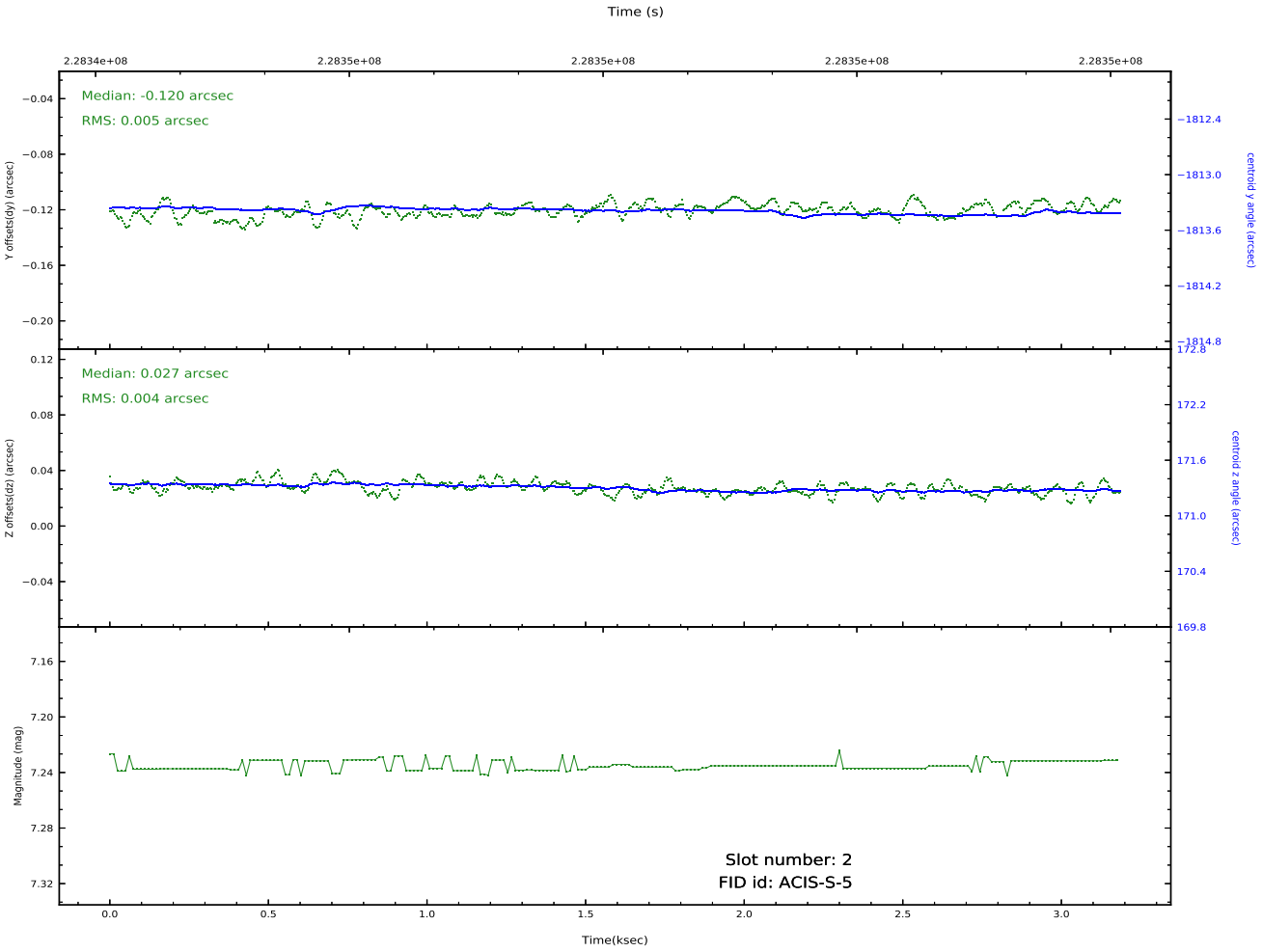

Points outside 0.05 arcsec radius: 0.000%
Radial offset of median: 0.169 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 1
FID id: ACIS-S-4


Time (s)
Median: 0.160 arcsec
RMS: 0.006 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.054 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: 0.123 arcsec
Z OFFSET(dz) (arcsec)
Y OFFSET(dy) (arcsec)
Slot number: 2
FID id: ACIS-S-5


Time (s)
Median: -0.120 arcsec
RMS: 0.005 arcsec
Y offsets(dy) (arcsec)
centroid y angle (arcsec)
Median: 0.027 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)	2020.10.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.1868

A.2 Comments

`Joint Proposal: NRAO`