

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 19550 - L2 Version 2
Chandra X-Ray Center

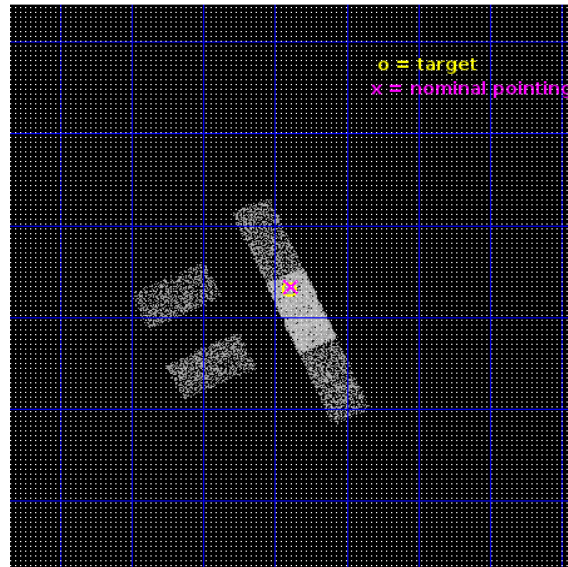
L2 Processing Date : Feb 7 2017

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 7	11
2.5	FID Slots	12
2.5.1	Slot 0	12
2.5.2	Slot 1	13
2.5.3	Slot 2	14
A	Summary	15
A.1	Status	15
A.2	Comments	15

1 Front

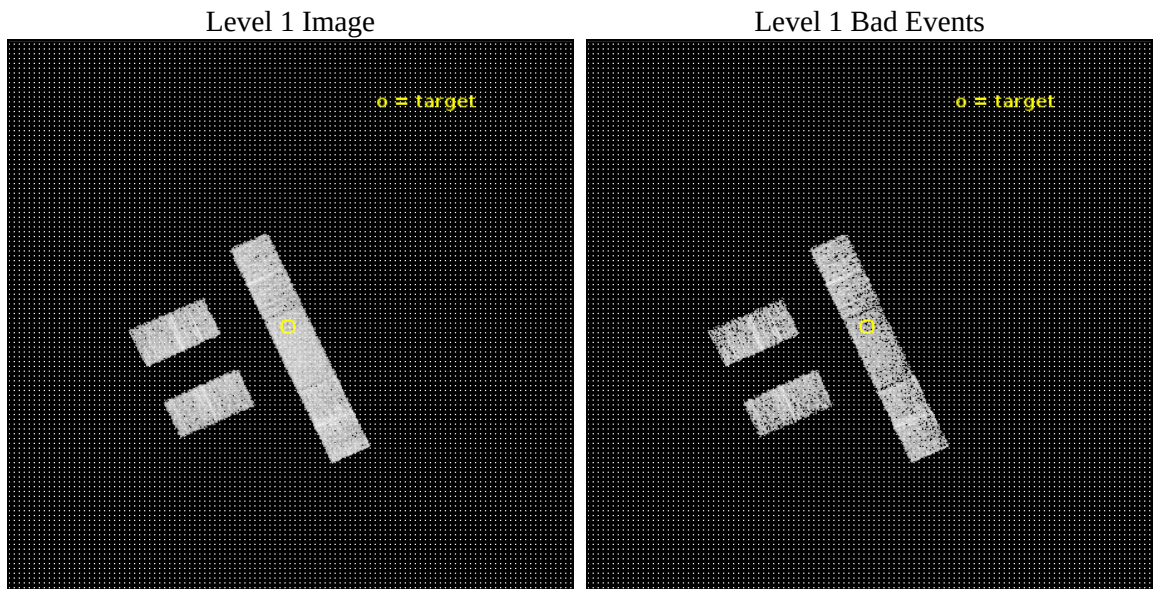
seq_num	703398	Sequence number
obs_id	19550	Observation id
title	Investigating X-ray Bias in Low-L, Low-z Quasars	Proposal title
observer	Gordon Richards	Principal investigator
object	SDSSJ113923.66+002301.6	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	174.84875	Observer's specified target RA [deg]
dec_targ	0.383778	Observer's specified target Dec [deg]
ra_nom	174.84640418599	Nominal RA [deg]
dec_nom	0.38857590463998	Nominal Dec [deg]
roll_nom	65.296100313978	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3583.6001005173	Sum of GTIs [s]
livetime	3499.1270567473	Livetime [s]
ontime2	3583.6001005173	Sum of GTIs [s]
ontime3	3583.6001005173	Sum of GTIs [s]
ontime6	3583.6001005173	Sum of GTIs [s]
ontime7	3583.6001005173	Sum of GTIs [s]
ontime8	3583.6001005173	Sum of GTIs [s]
l2events	12551	Number of level 2 events



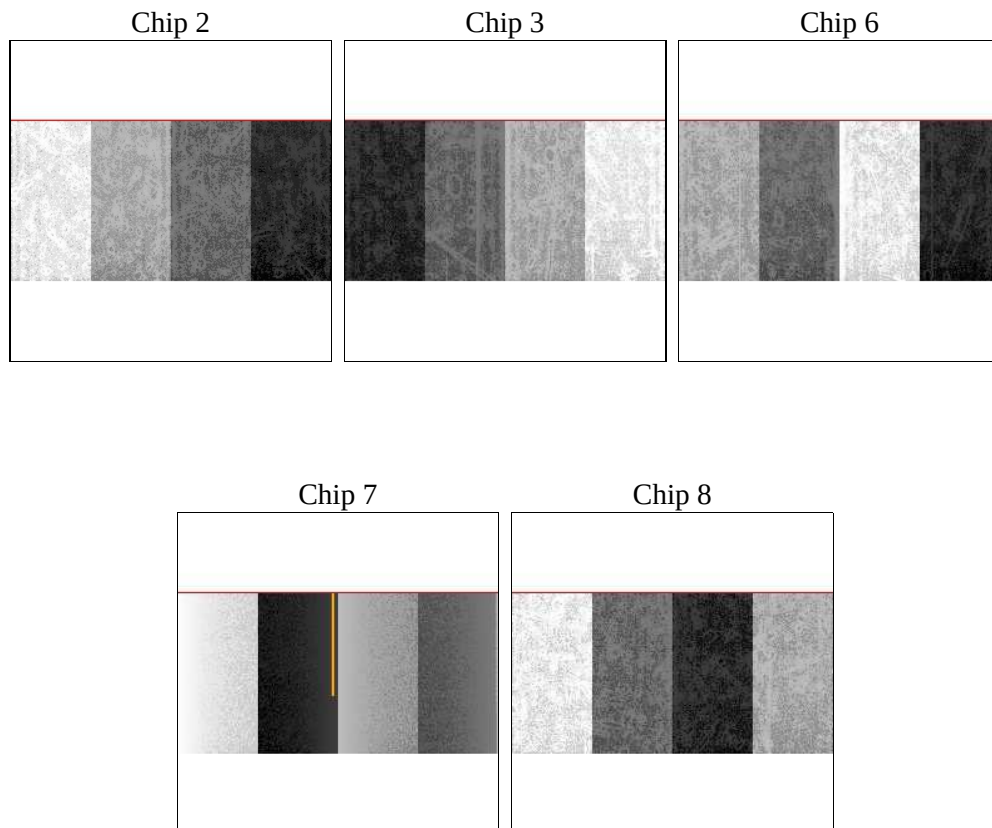
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3500.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	3583.6001005173	Sum of GTIs [s]
caldbver	4.7.3	 	ontime2	3583.6001005173	Sum of GTIs [s]
date	2017-02-07T17:11:06	Date and time of file creation	ontime3	3583.6001005173	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	3583.6001005173	Sum of GTIs [s]
			ontime7	3583.6001005173	Sum of GTIs [s]
			ontime8	3583.6001005173	Sum of GTIs [s]
			l1events	77094	Number of level 1 events

2.1.4 Events

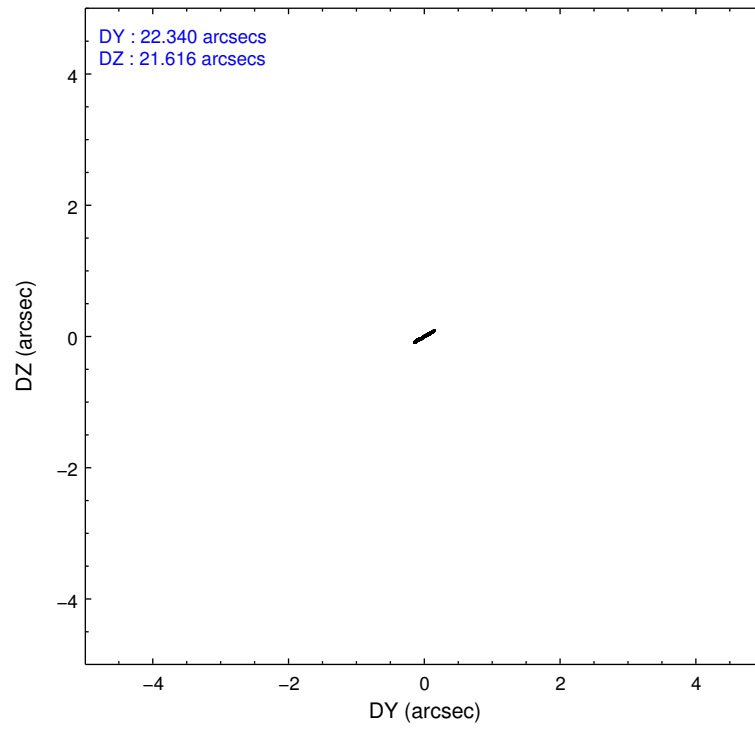
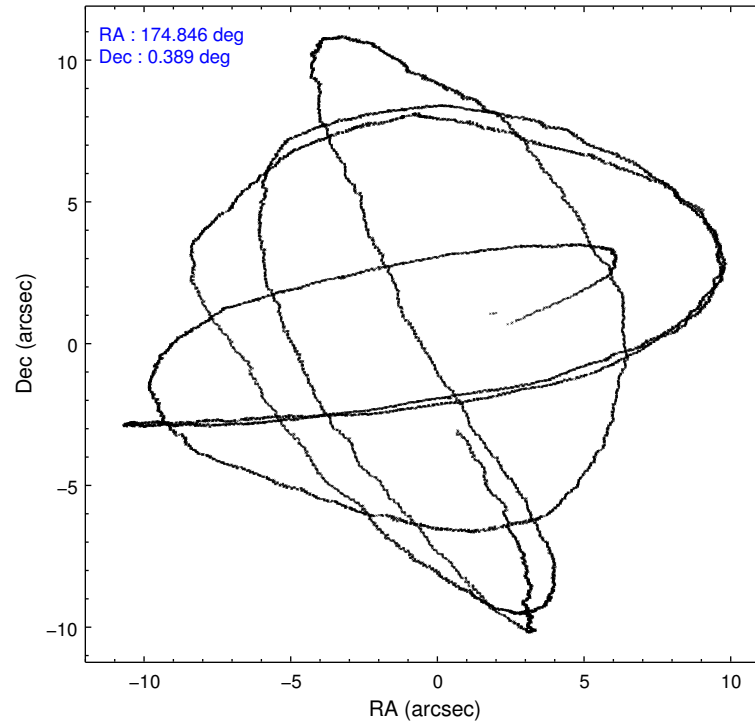
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	13856	12945	14641	17650	18002
rejected events	12475	11530	13066	9988	13840
rejected %	90%	89%	89%	56%	76%

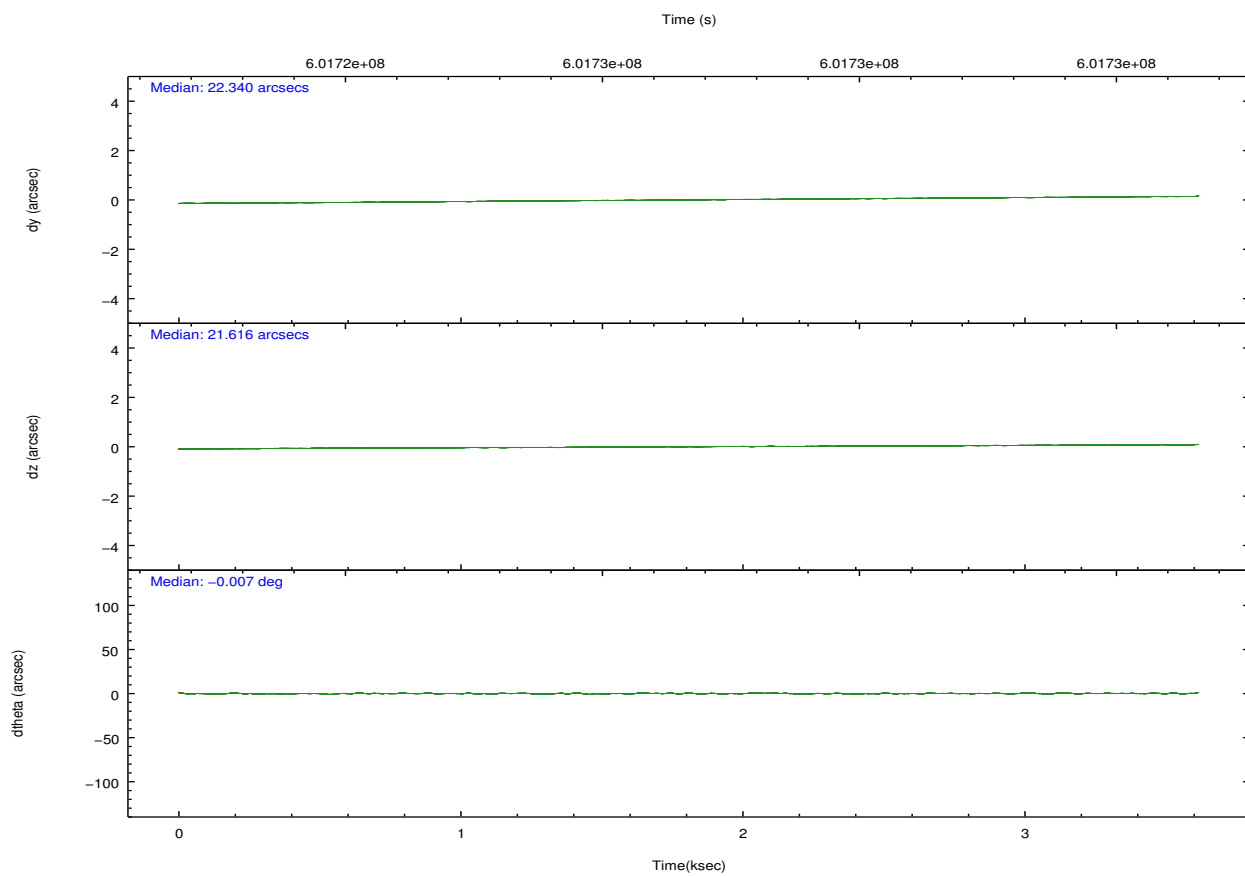
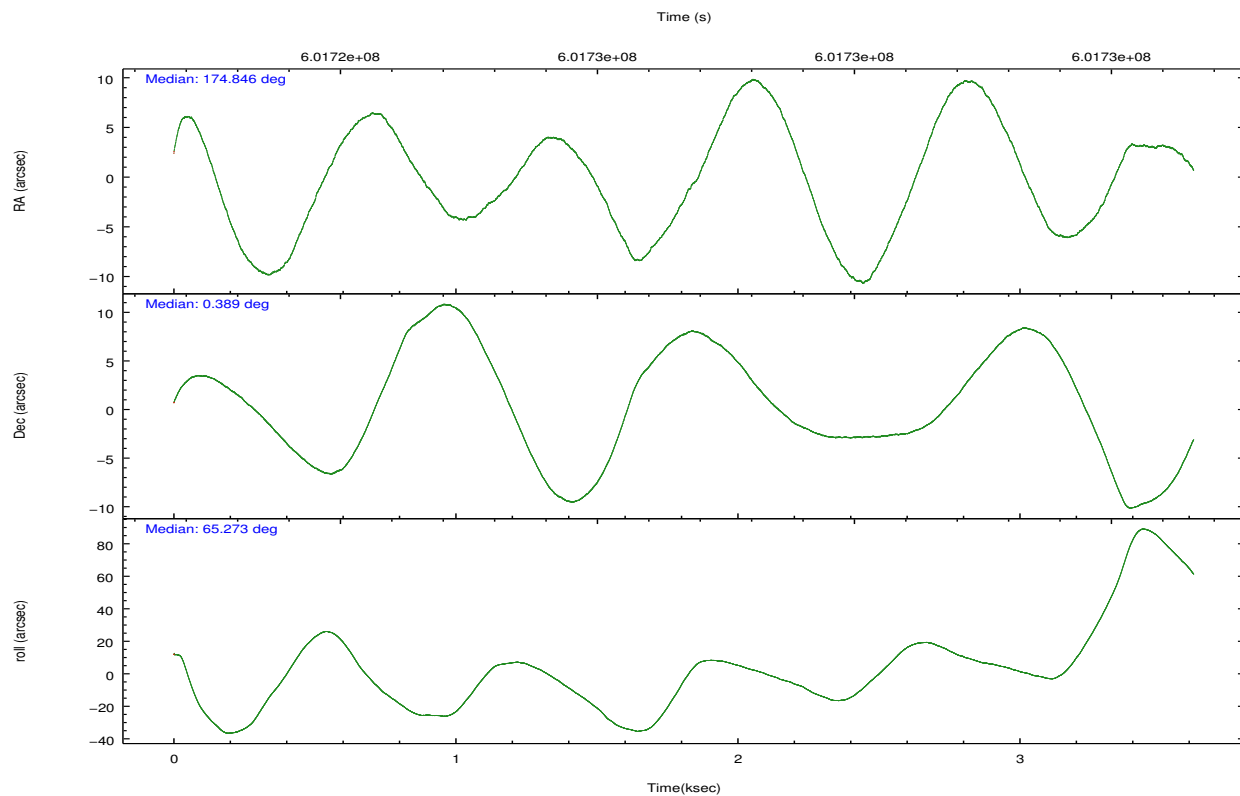
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	460	469	468	701	1023
	3%	3%	3%	3%	5%
grade 1 events	9	4	5	33	15
	0%	0%	0%	0%	0%
grade 2 events	307	290	344	1579	1072
	2%	2%	2%	8%	5%
grade 3 events	151	166	186	661	417
	1%	1%	1%	3%	2%
grade 4 events	173	187	201	621	355
	1%	1%	1%	3%	1%
grade 5 events	478	625	611	1753	865
	3%	4%	4%	9%	4%
grade 6 events	291	303	377	4106	1296
	2%	2%	2%	23%	7%
grade 7 events	11987	10901	12449	8196	12959
	86%	84%	85%	46%	71%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	174.849370	174.8464041859922	CCD I2 on	O1	Y
[deg] Pointing Dec	0.361404	0.3885759046399773	CCD I3 on	Y	Y
[deg] Pointing Roll	65.139413	65.2961003139779	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	601724665.184000	601723433.23537	CCD S5 on	N	N
Observation start date	2017-01-25T09:43:16	2017-01-25T09:23:53	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	601728165.184000	601729064.5857	On-chip summing requested	N	N
Observation end date	2017-01-25T10:41:36	2017-01-25T10:57:44	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

2.3 Aspect



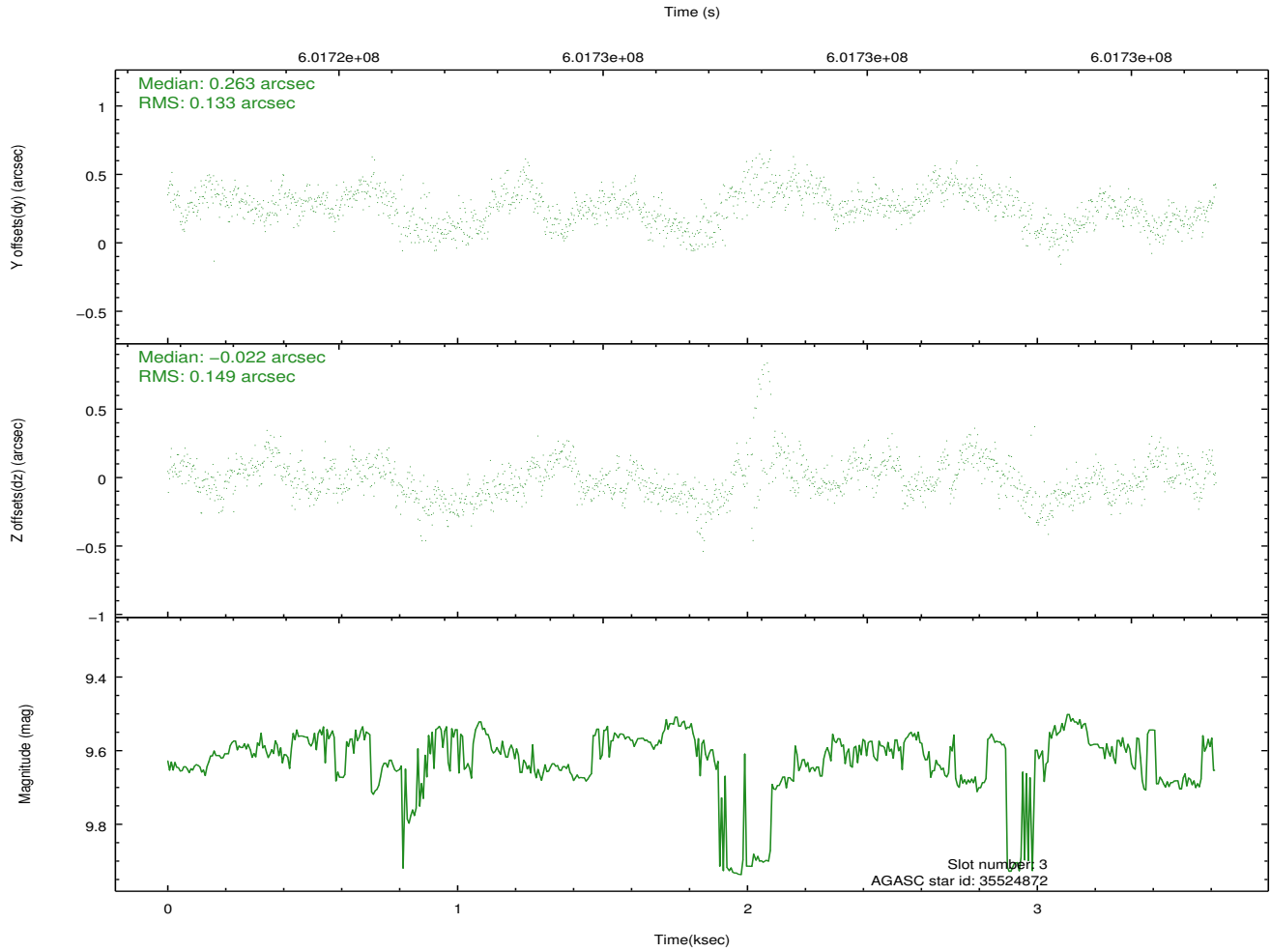
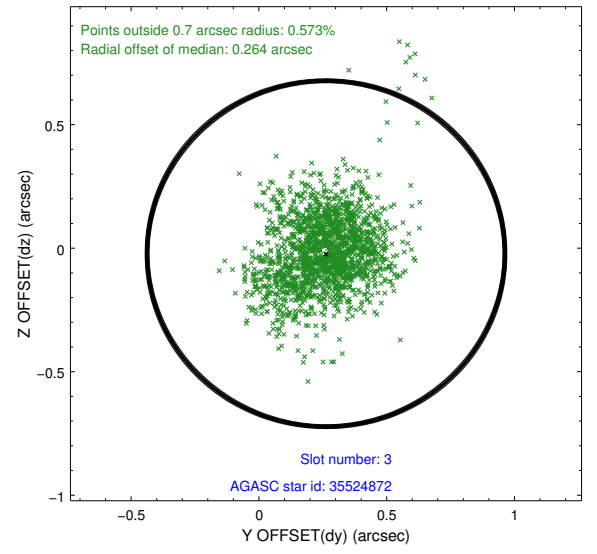
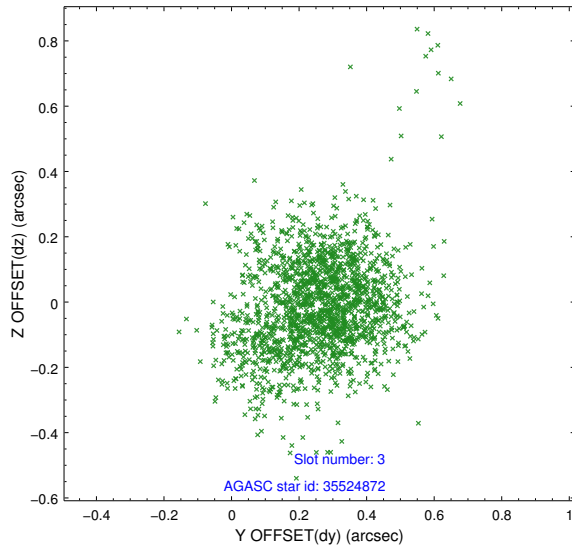


Slot Statistics

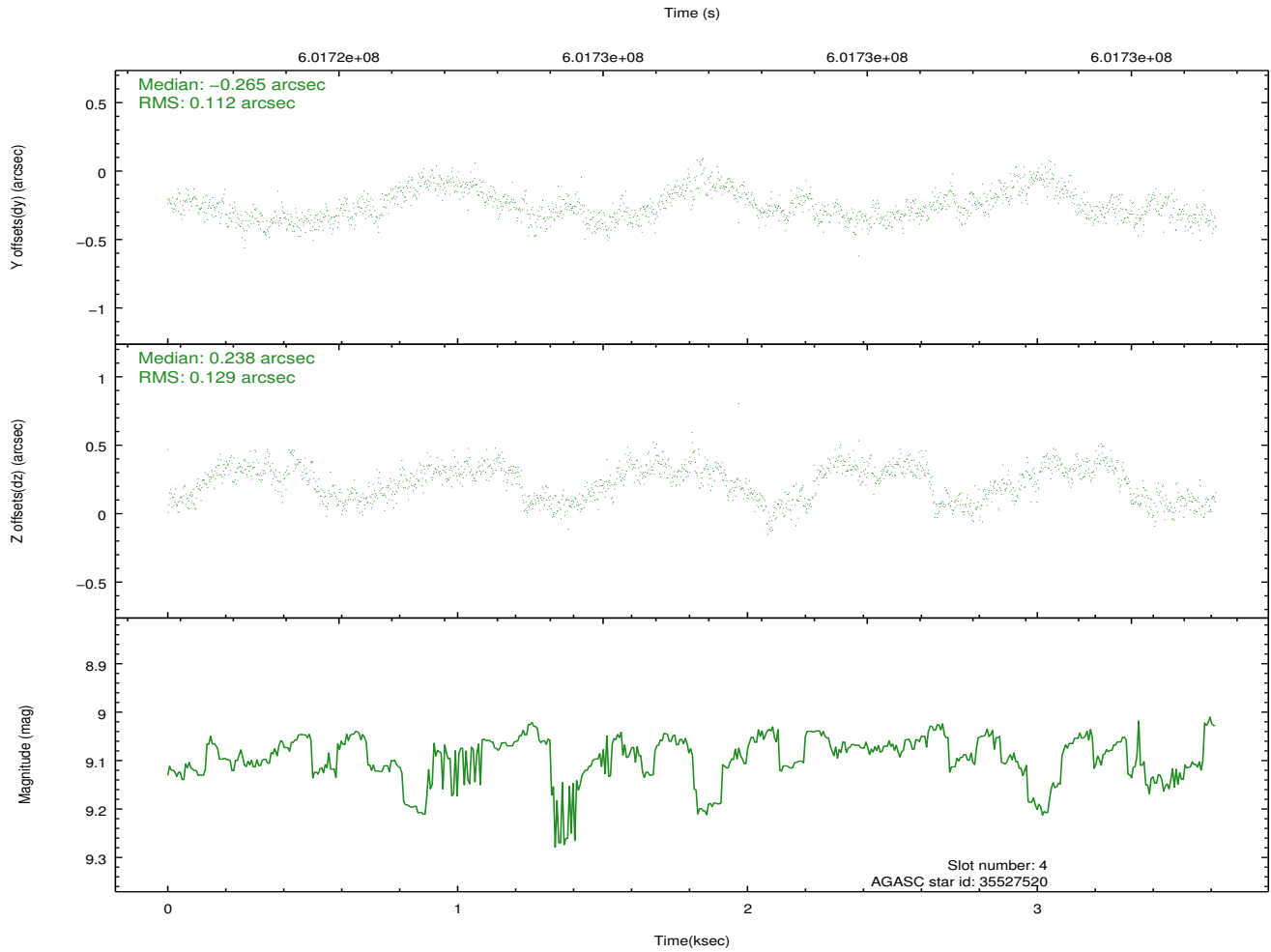
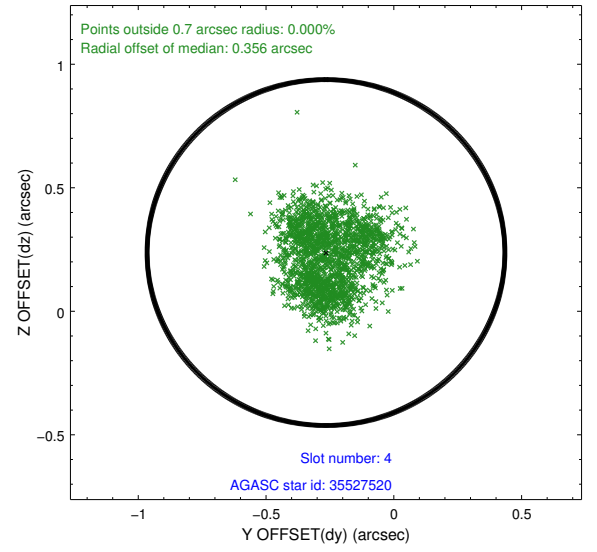
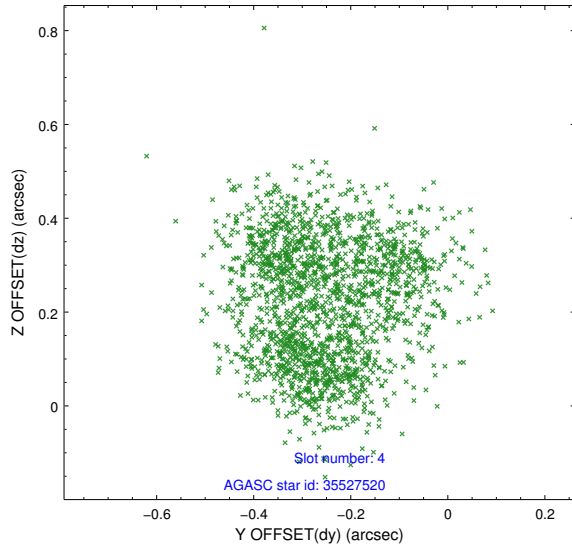
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.22	883	0.046	-0.094	0.008	0.013	0.000000	0.000000	920.62	-1738.82
1	FID		ACIS-S-4	7.25	883	0.397	0.048	0.007	0.010	0.000000	0.000000	2139.27	163.71
2	FID		ACIS-S-5	7.24	883	-0.470	0.059	0.007	0.012	0.000000	0.000000	-1826.60	159.17
3	GUIDE	used	35524872	9.61	1745	0.263	-0.022	0.201	0.332	174.618593	0.517450	161.11	989.72
4	GUIDE	used	35527520	9.09	1760	-0.265	0.238	0.184	0.272	174.817455	0.970580	1941.67	1027.10
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	used	35657680	9.62	1759	0.003	-0.202	0.187	0.306	175.126811	0.867827	2075.92	-139.18

2.4 Star Slots

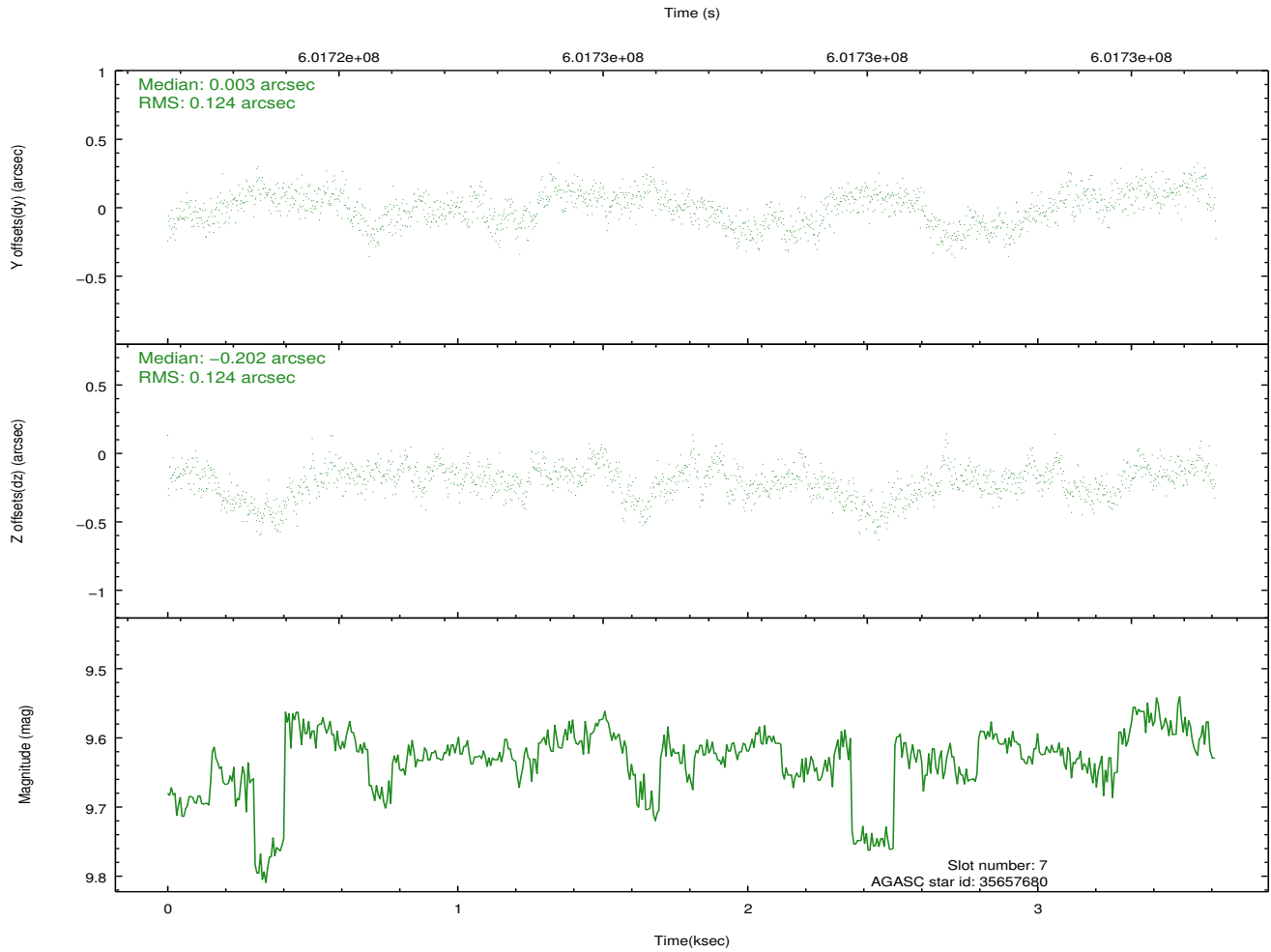
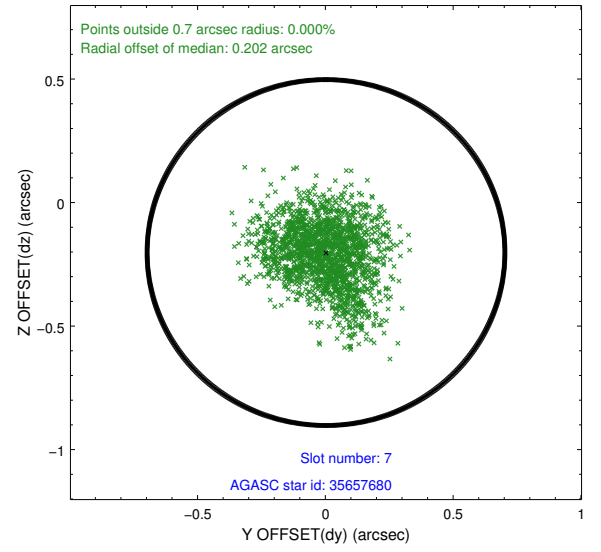
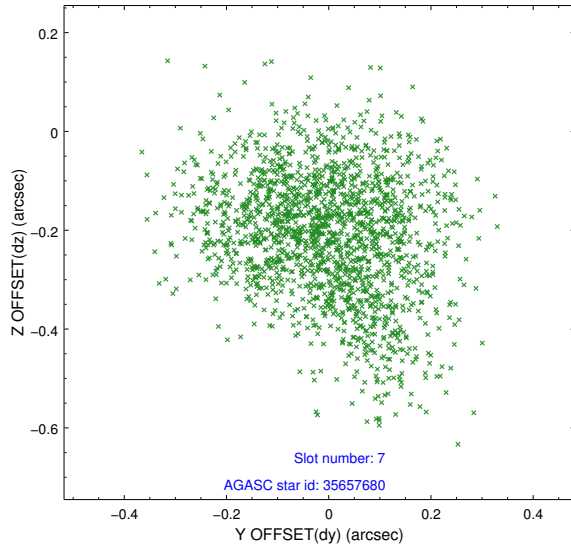
2.4.1 Slot 3



2.4.2 Slot 4

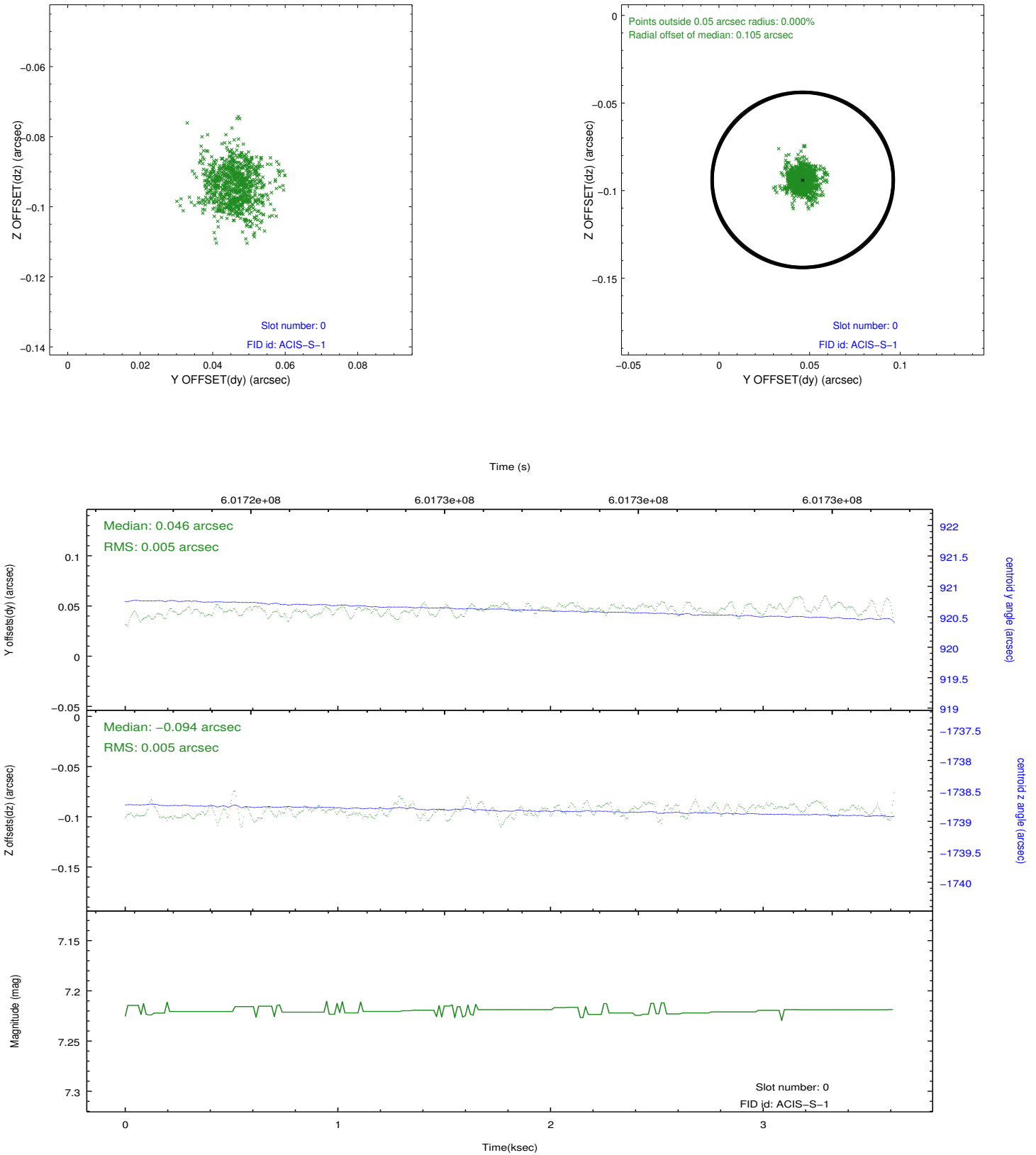


2.4.3 Slot 7

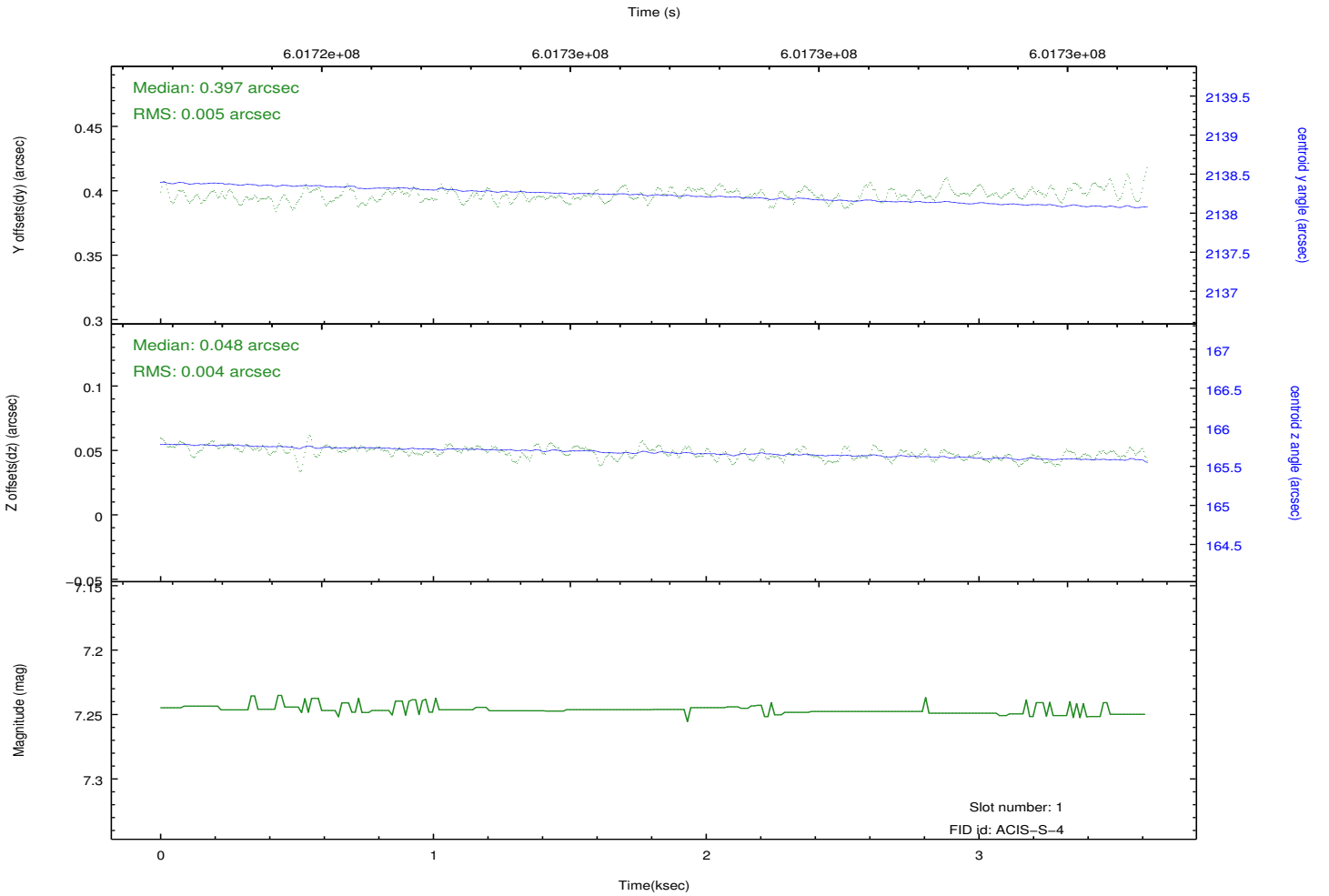
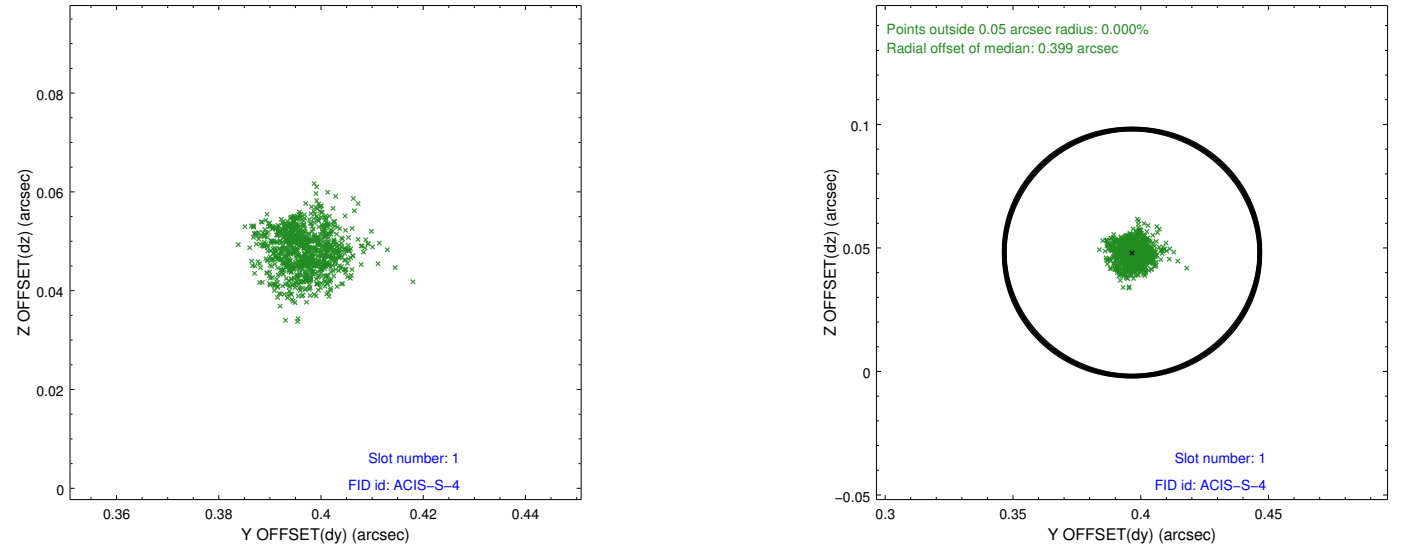


2.5 FID Slots

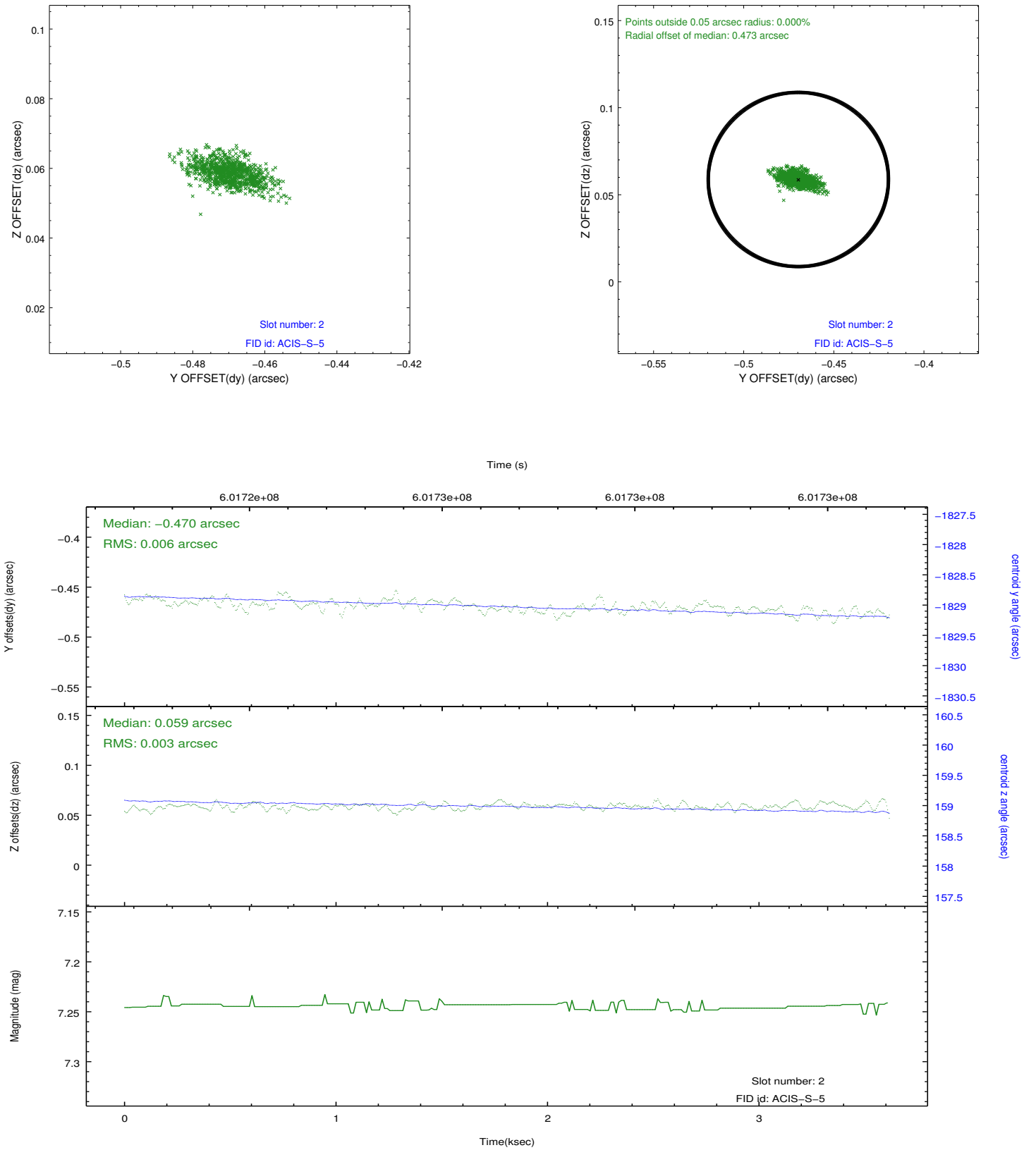
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2017.02.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.5836001005173

A.2 Comments

The guide stars in slots 5 and 6 were removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of these slots from the solution.