

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21852 - L2 Version 1
Chandra X-Ray Center

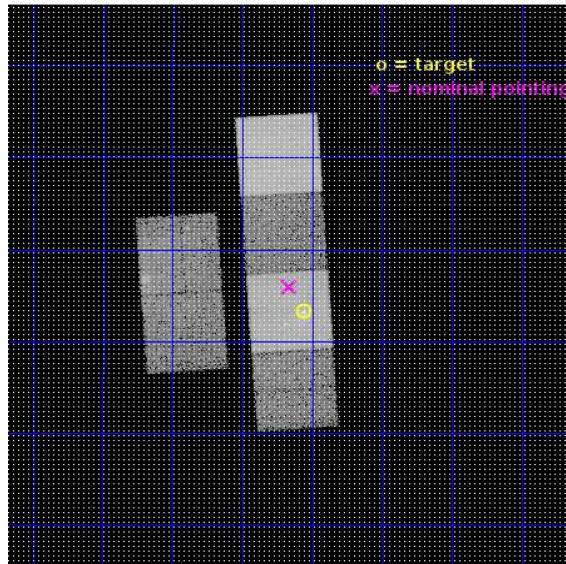
L2 Processing Date : Feb 18 2019

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 5	11
2.4.4	Slot 6	12
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

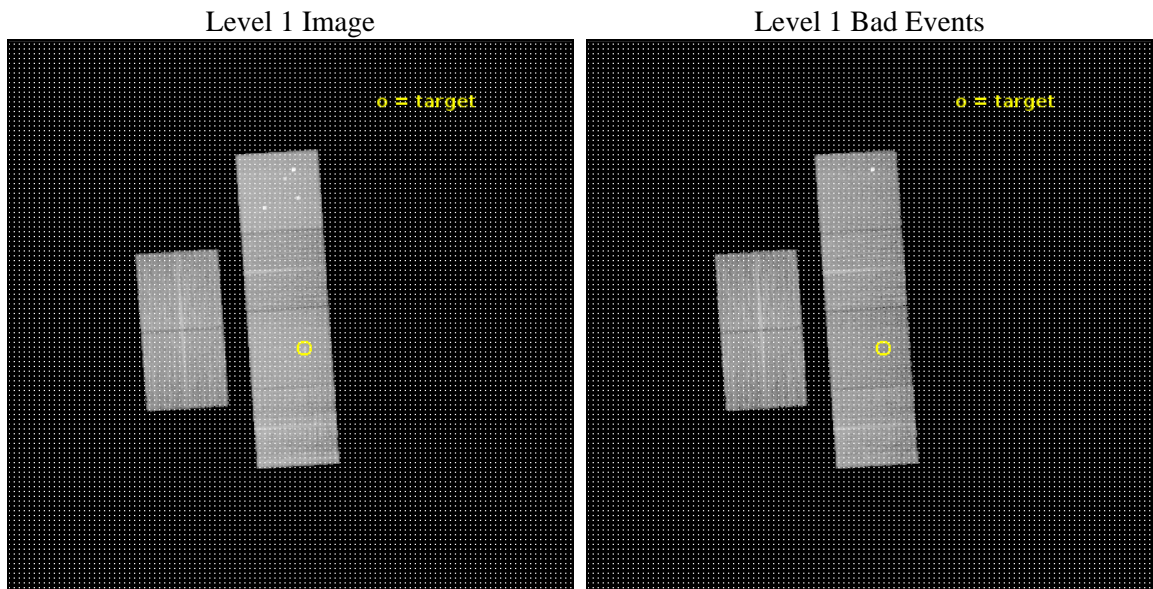
seq_num	801753	Sequence number
obs_id	21852	Observation id
title	Fuelling and self-regulation of AGN feedback at the Bondi radius of M84	Proposal title
observer	Helen Russell	Principal investigator
object	M84	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.265833	Observer's specified target RA [deg]
dec_targ	12.886944	Observer's specified target Dec [deg]
ra_nom	186.29097089864	Nominal RA [deg]
dec_nom	12.932654261029	Nominal Dec [deg]
roll_nom	86.150984146196	Nominal Roll [deg]
revision	1	Processing version of data
ontime	15804.63442111	Sum of GTIs [s]
livetime	15604.506623662	Livetime [s]
ontime2	15801.43441081	Sum of GTIs [s]
ontime3	15804.511301041	Sum of GTIs [s]
ontime5	15804.593381047	Sum of GTIs [s]
ontime6	15804.552341104	Sum of GTIs [s]
ontime7	15804.63442111	Sum of GTIs [s]
ontime8	15804.470261097	Sum of GTIs [s]
l2events	221974	Number of level 2 events



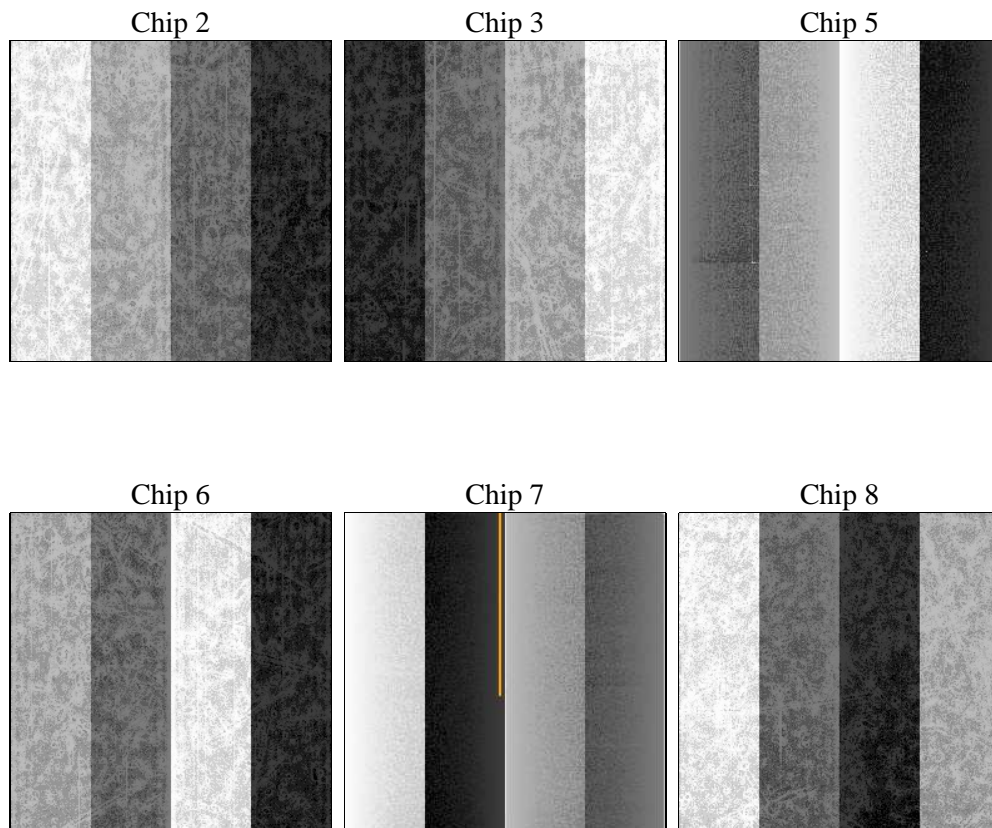
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15860.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	15804.63442111	Sum of GTIs [s]
caldsver	4.8.2	 	ontime2	15801.43441081	Sum of GTIs [s]
date	2019-02-18T16:17:49	Date and time of file creation	ontime3	15804.511301041	Sum of GTIs [s]
revision	1	Processing version of data	ontime5	15804.593381047	Sum of GTIs [s]
			ontime6	15804.552341104	Sum of GTIs [s]
			ontime7	15804.63442111	Sum of GTIs [s]
			ontime8	15804.470261097	Sum of GTIs [s]
			l1events	897446	Number of level 1 events

2.1.4 Events

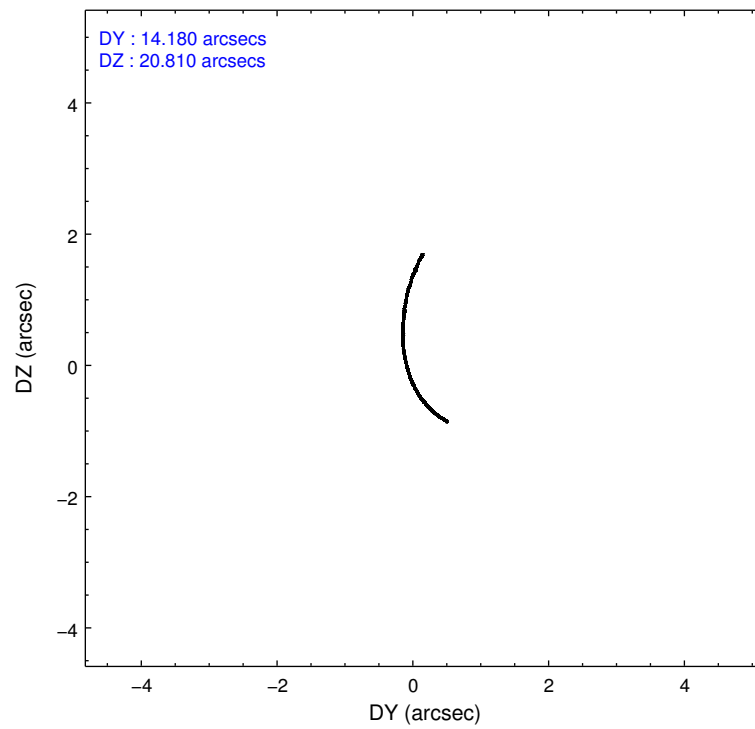
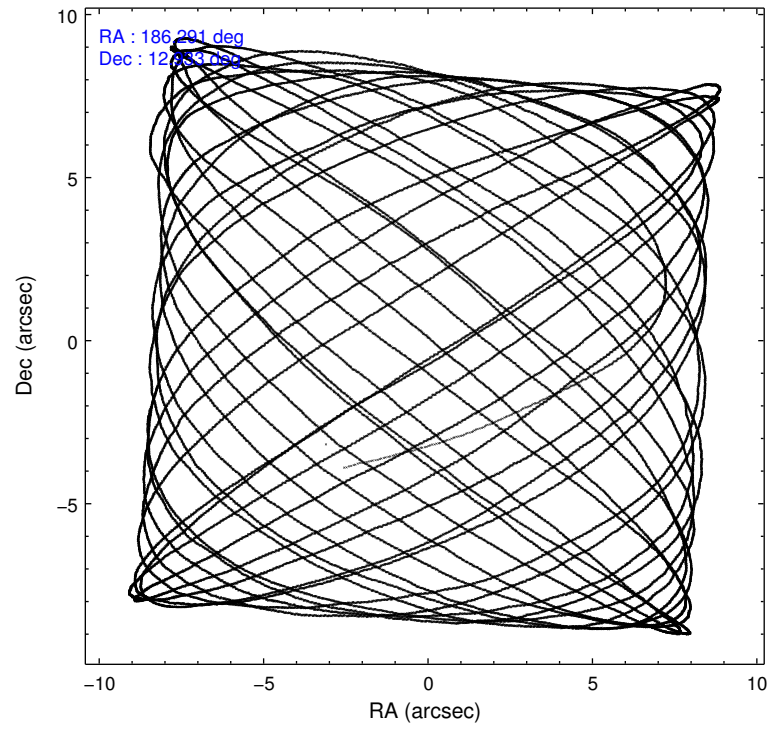
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	129730	115825	205647	122745	161470	162029	grade 0 events	10856	6810	14440	6671	7355	13256
rejected events	109057	100779	104058	106425	88121	115914		8%	5%	7%	5%	4%	8%
rejected %	84%	87%	50%	86%	54%	71%	grade 1 events	107	60	492	75	248	134
								0%	0%	0%	0%	0%	0%
							grade 2 events	4007	2806	30576	3550	16019	11296
								3%	2%	14%	2%	9%	6%
							grade 3 events	1452	1413	2993	1362	6022	4811
								1%	1%	1%	1%	3%	2%
							grade 4 events	1575	1329	2875	1397	5945	4513
								1%	1%	1%	1%	3%	2%
							grade 5 events	5102	5672	13288	5714	15609	8770
								3%	4%	6%	4%	9%	5%
							grade 6 events	2790	2694	50754	3343	38035	12269
								2%	2%	24%	2%	23%	7%
							grade 7 events	103841	95041	90229	100633	72237	106980
								80%	82%	43%	81%	44%	66%

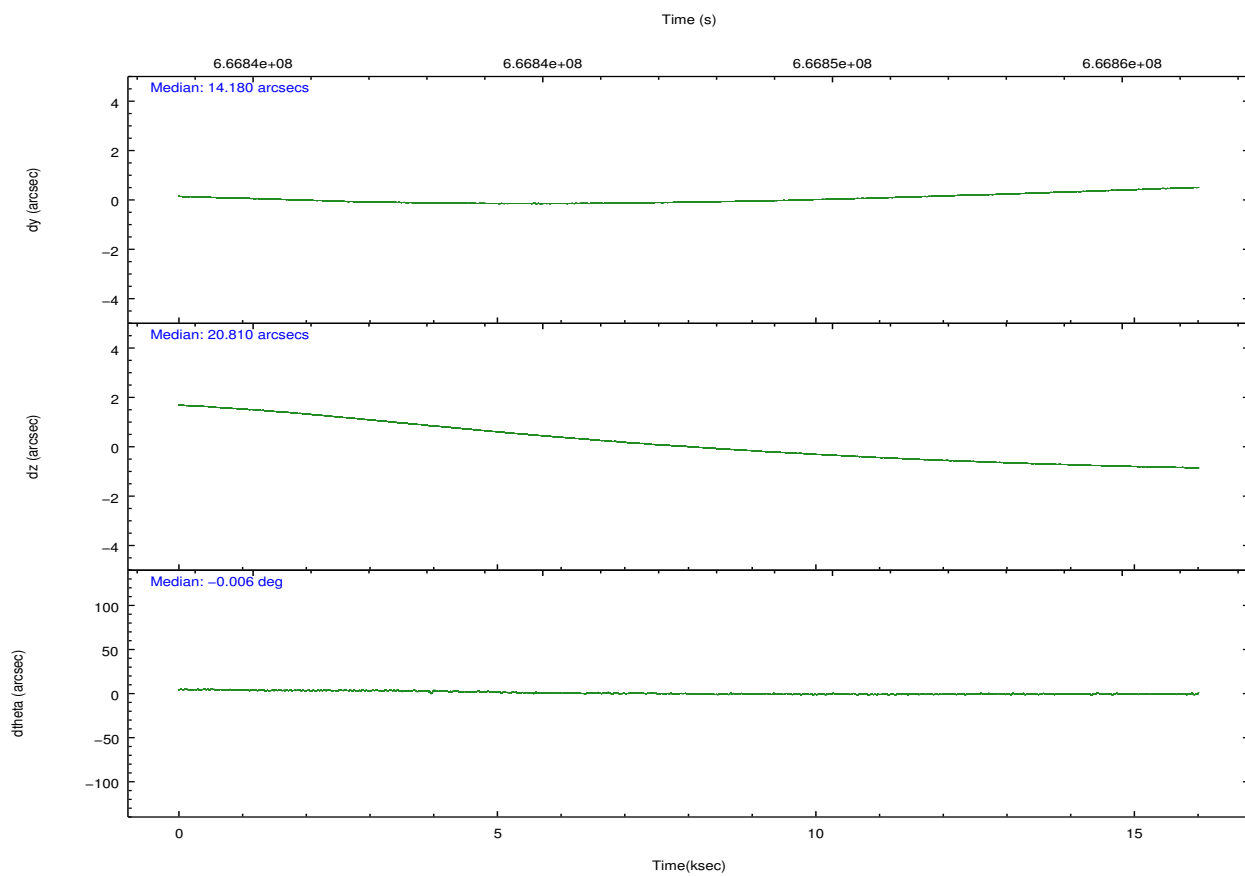
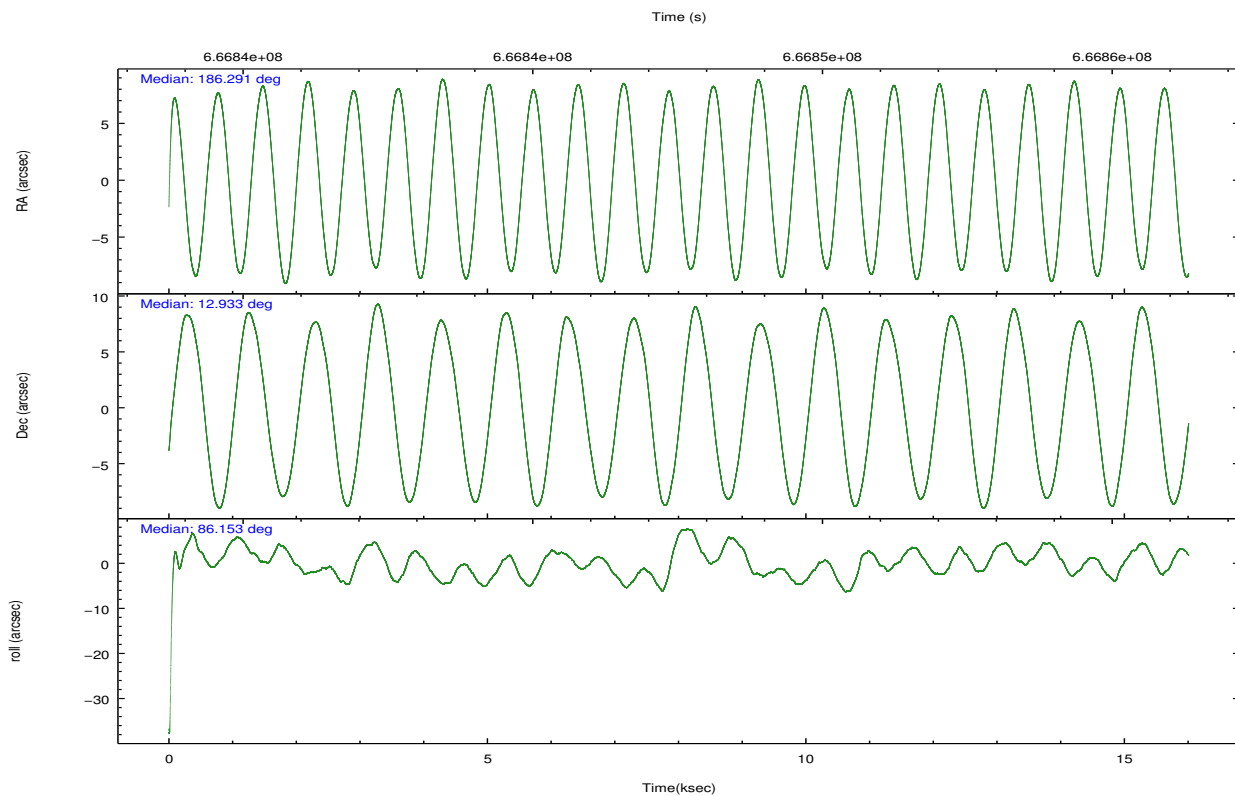
2.2 Compared Parameters

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	186.303716	186.2909708986415
[deg] Pointing Dec	12.908181	12.9326542610294
[deg] Pointing Roll	85.991538	86.15098414619591
[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)	666839660.184000	666838399.46003
Observation start date	2019-02-18T01:13:11	2019-02-18T00:53:19
[s] Observation end time (MET)	666855520.184000	666856359.5111001
Observation end date	2019-02-18T05:37:31	2019-02-18T05:52:39
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	N	N
CCD I1 on	N	N
CCD I2 on	O1	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	Y	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	O2	Y
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	3.2

2.3 Aspect



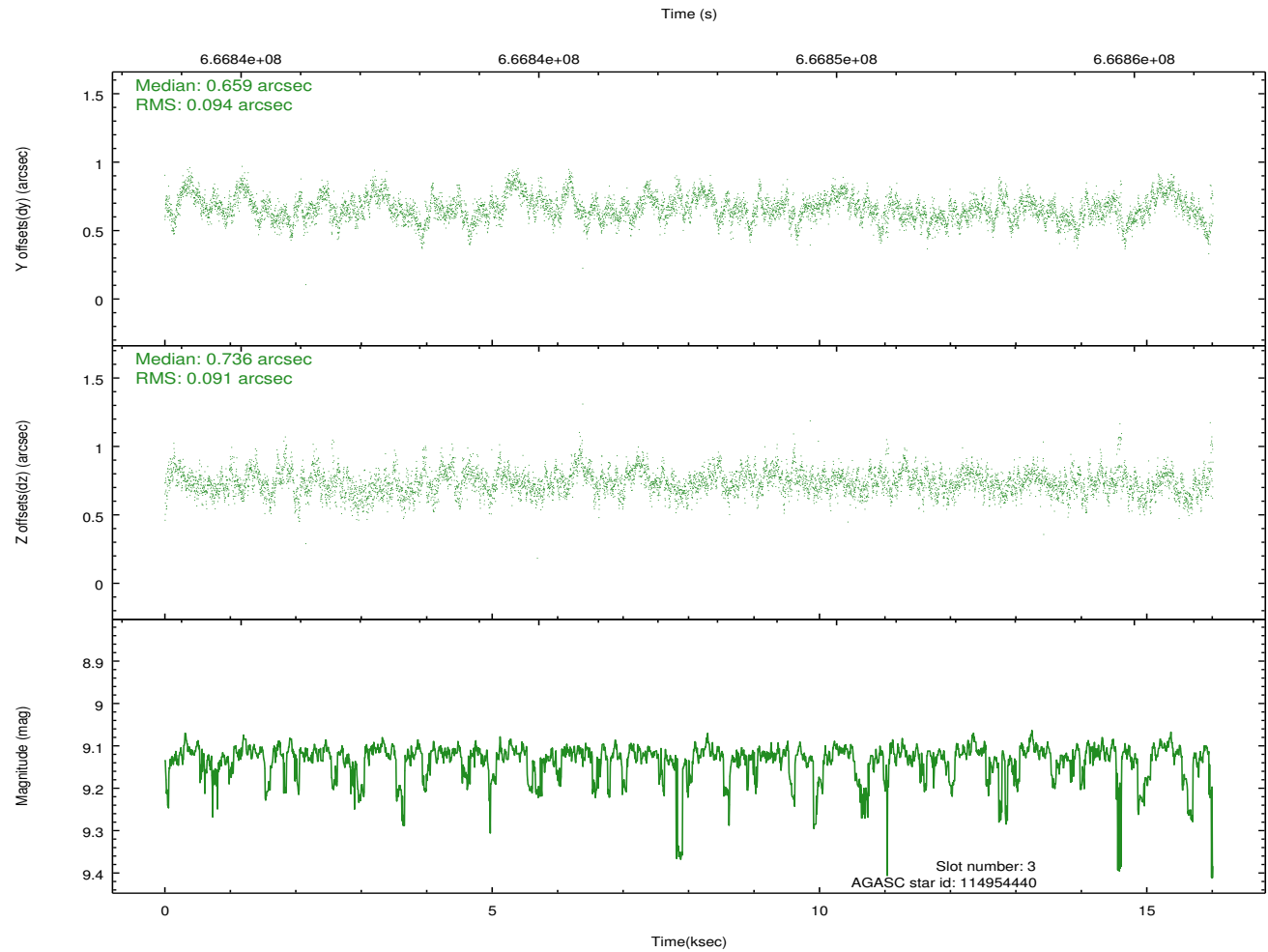
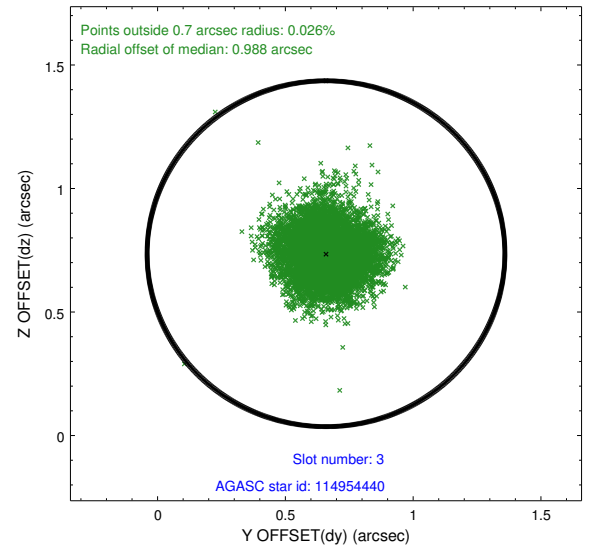
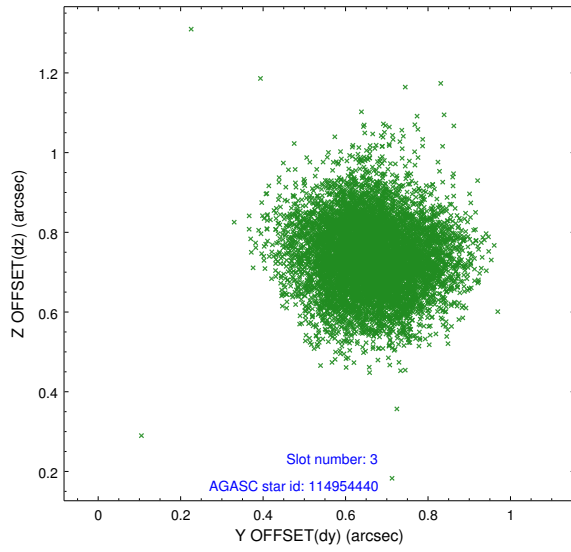


Slot Statistics

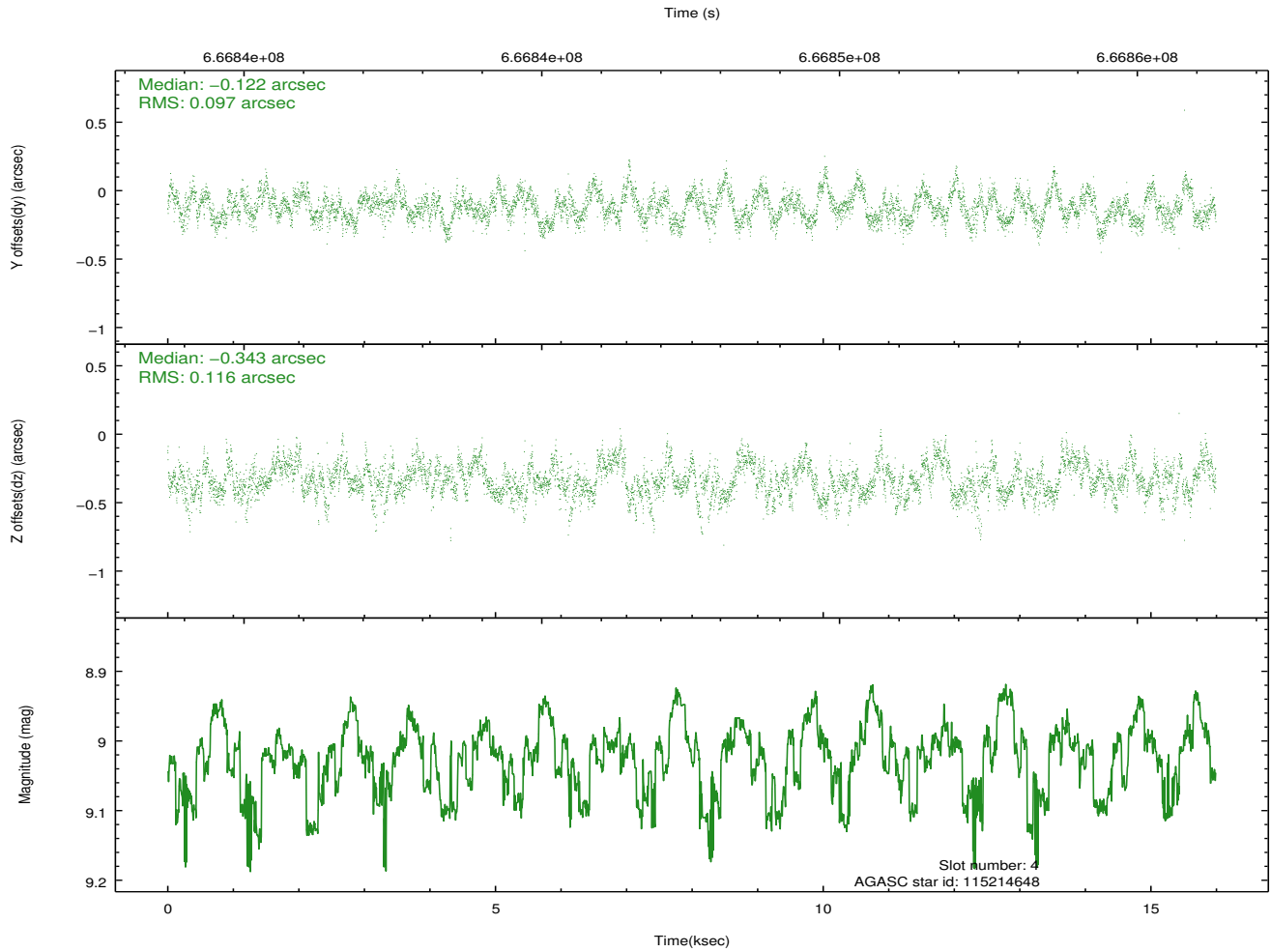
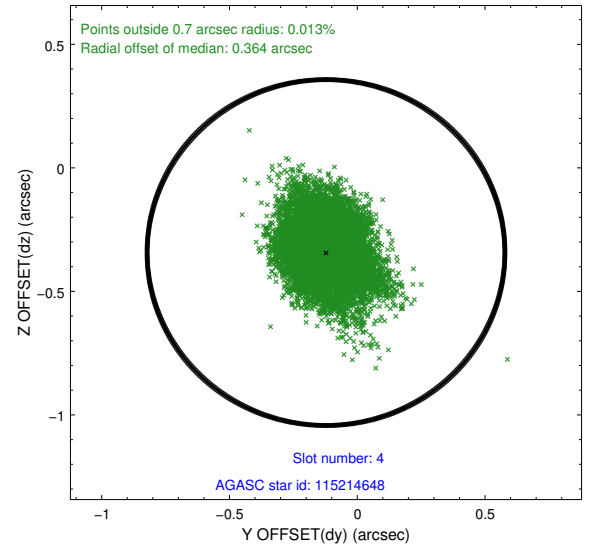
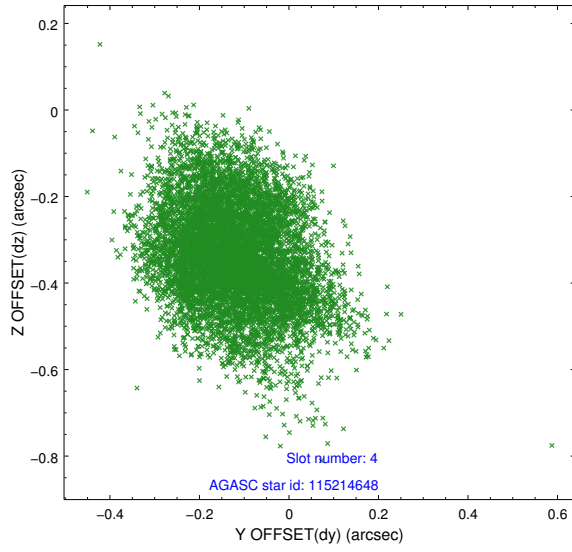
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.99	3905	1.000	-0.322	-0.152	0.019	0.033	0.000000	0.000000	-767.44	-1742
1	FID		ACIS-S-4	7.11	3905	1.000	0.744	0.197	0.020	0.035	0.000000	0.000000	2146.71	165
2	FID		ACIS-S-5	7.10	3905	1.000	-0.453	-0.036	0.016	0.039	0.000000	0.000000	-1820.13	159
3	GUIDE	used	114954440	9.12	7796	1.000	0.659	0.736	0.139	0.223	186.915066	12.219118	-2321.44	-2320
4	GUIDE	used	115214648	9.02	7794	1.000	-0.122	-0.343	0.161	0.260	185.771147	12.685188	-930.02	1810
5	GUIDE	used	115214688	8.71	7807	1.000	-0.464	-0.561	0.125	0.193	185.816167	13.622157	2445.96	1881
6	GUIDE	used	115347480	9.67	7788	1.000	-0.083	0.162	0.175	0.303	186.668576	13.310410	1535.02	-1173
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

2.4 Star Slots

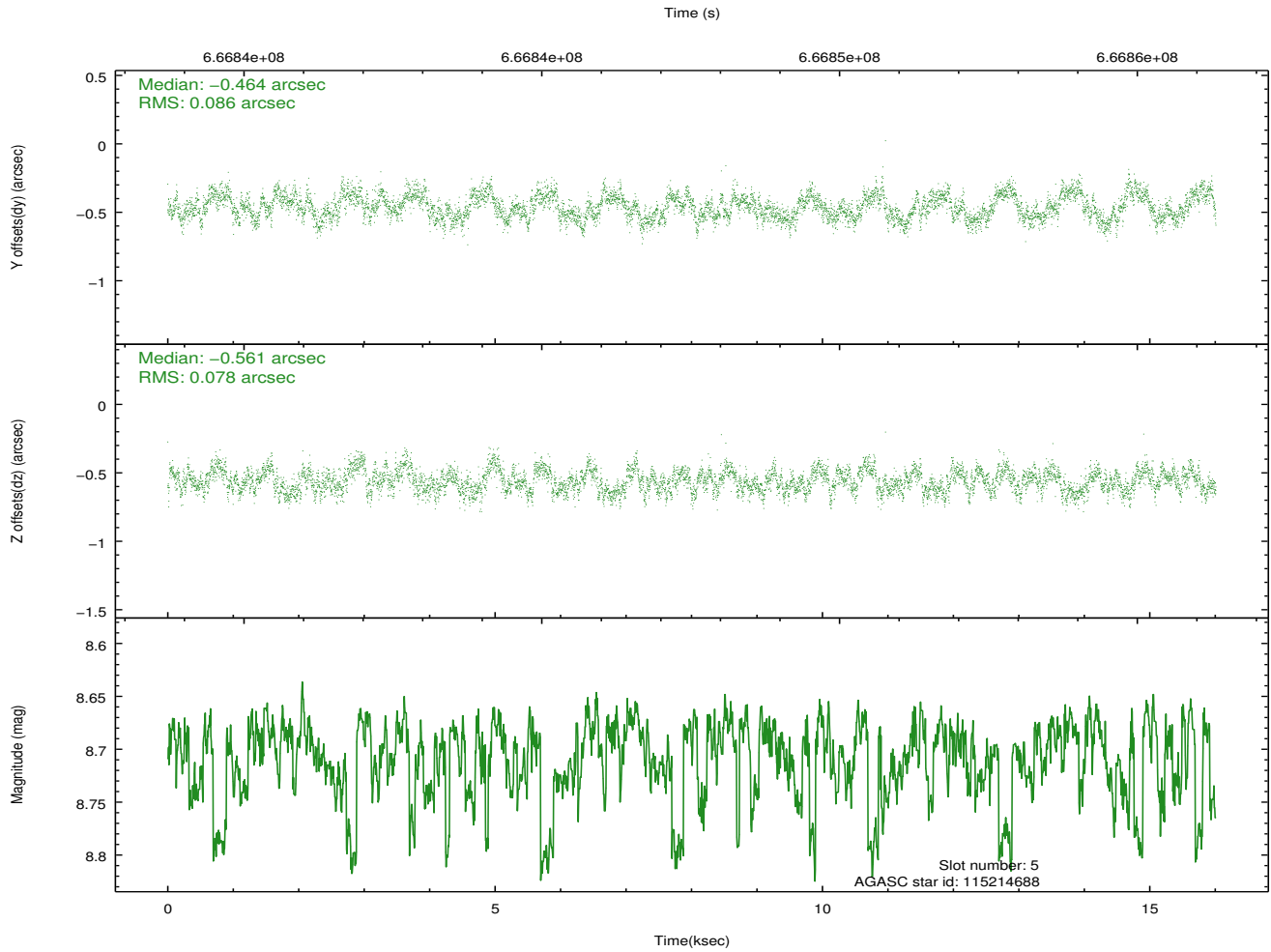
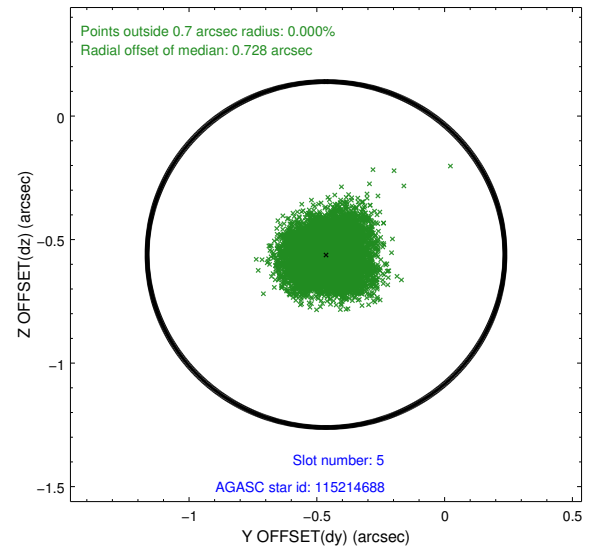
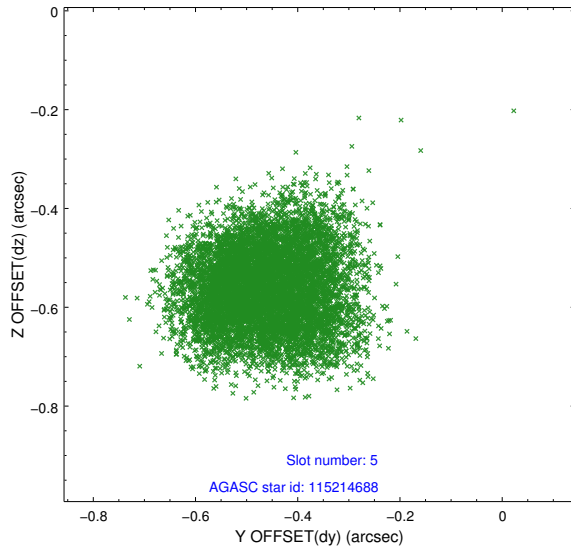
2.4.1 Slot 3



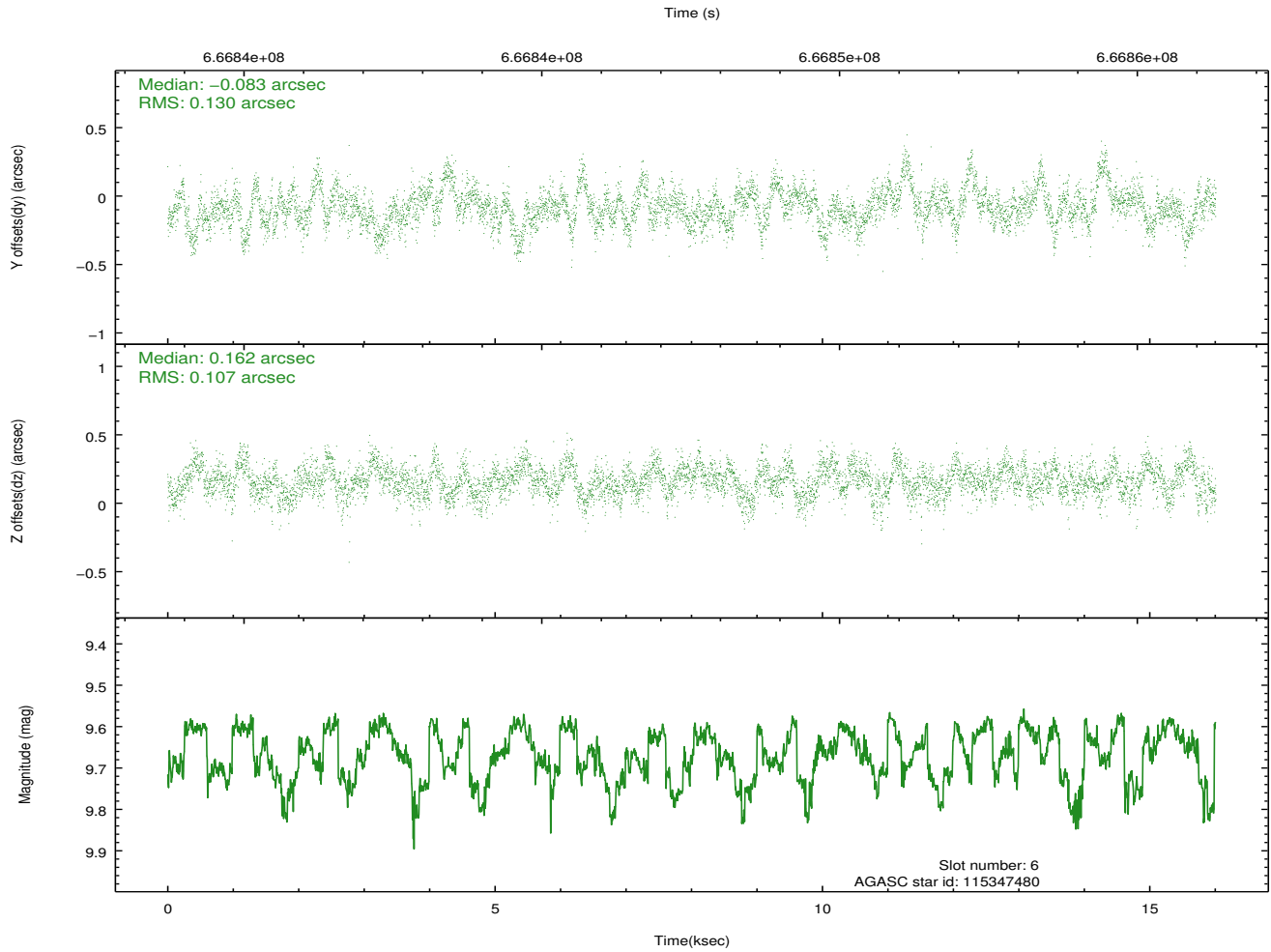
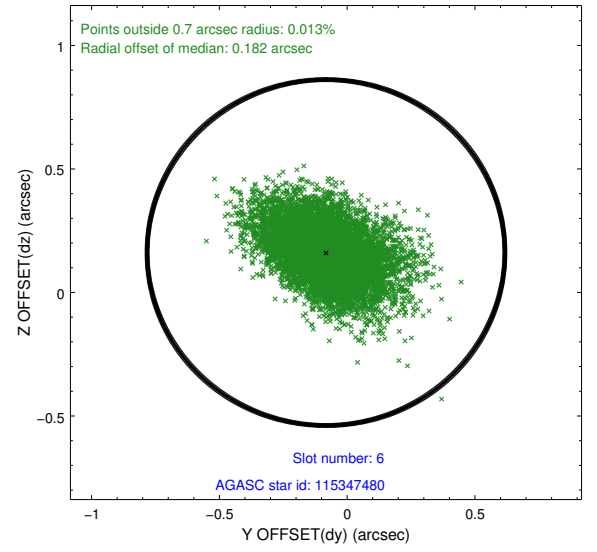
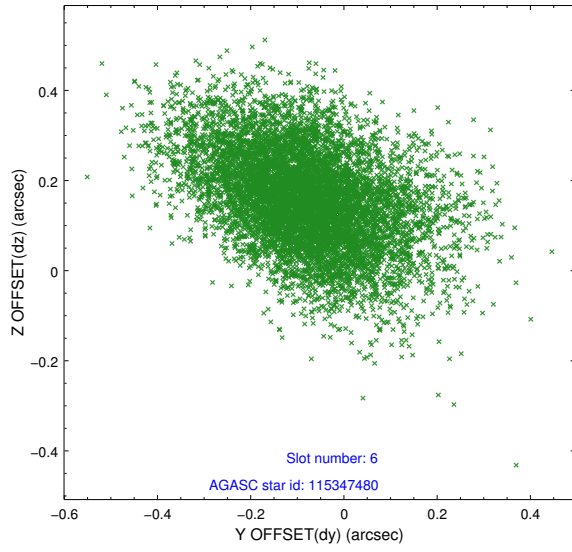
2.4.2 Slot 4



2.4.3 Slot 5

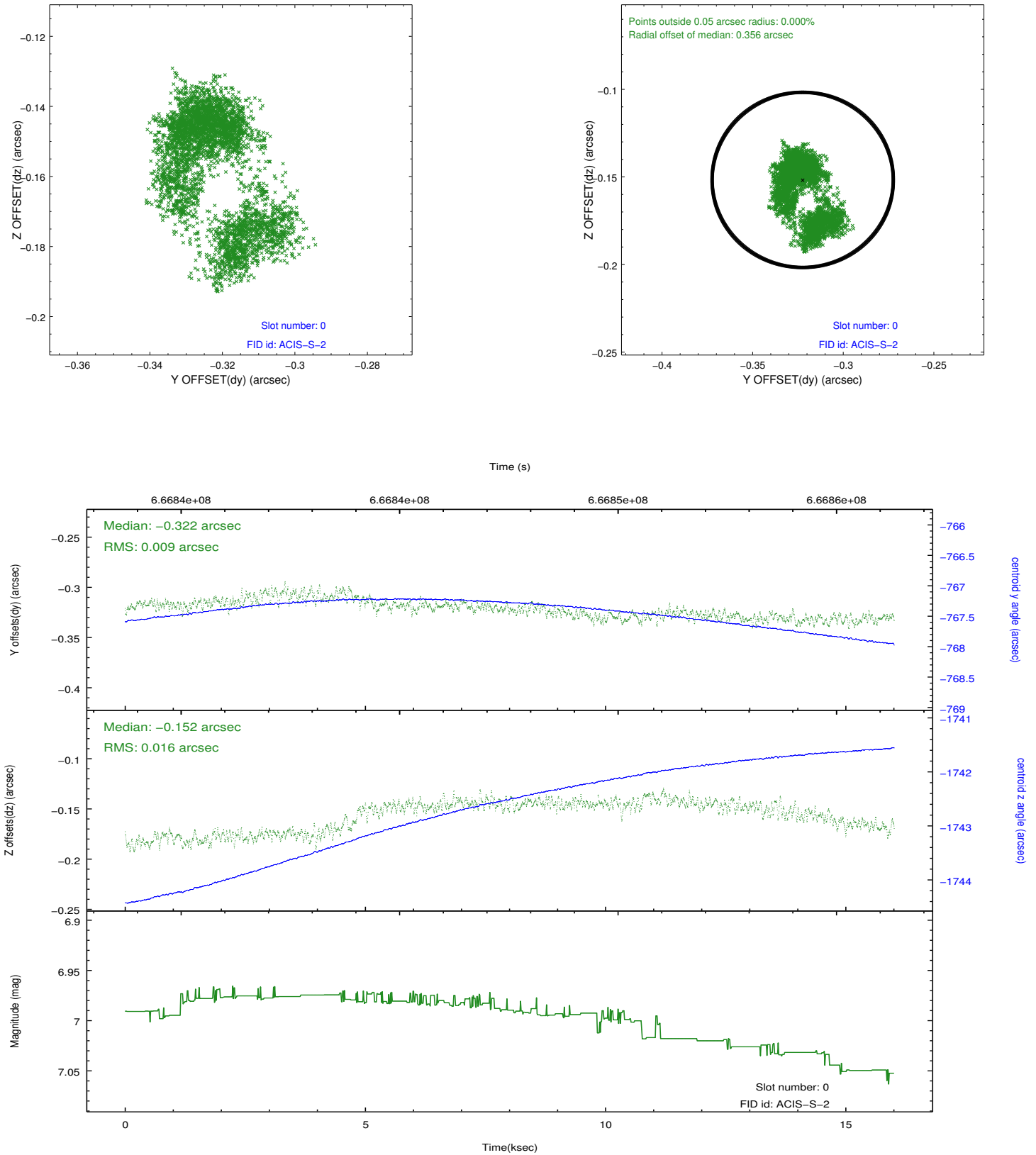


2.4.4 Slot 6

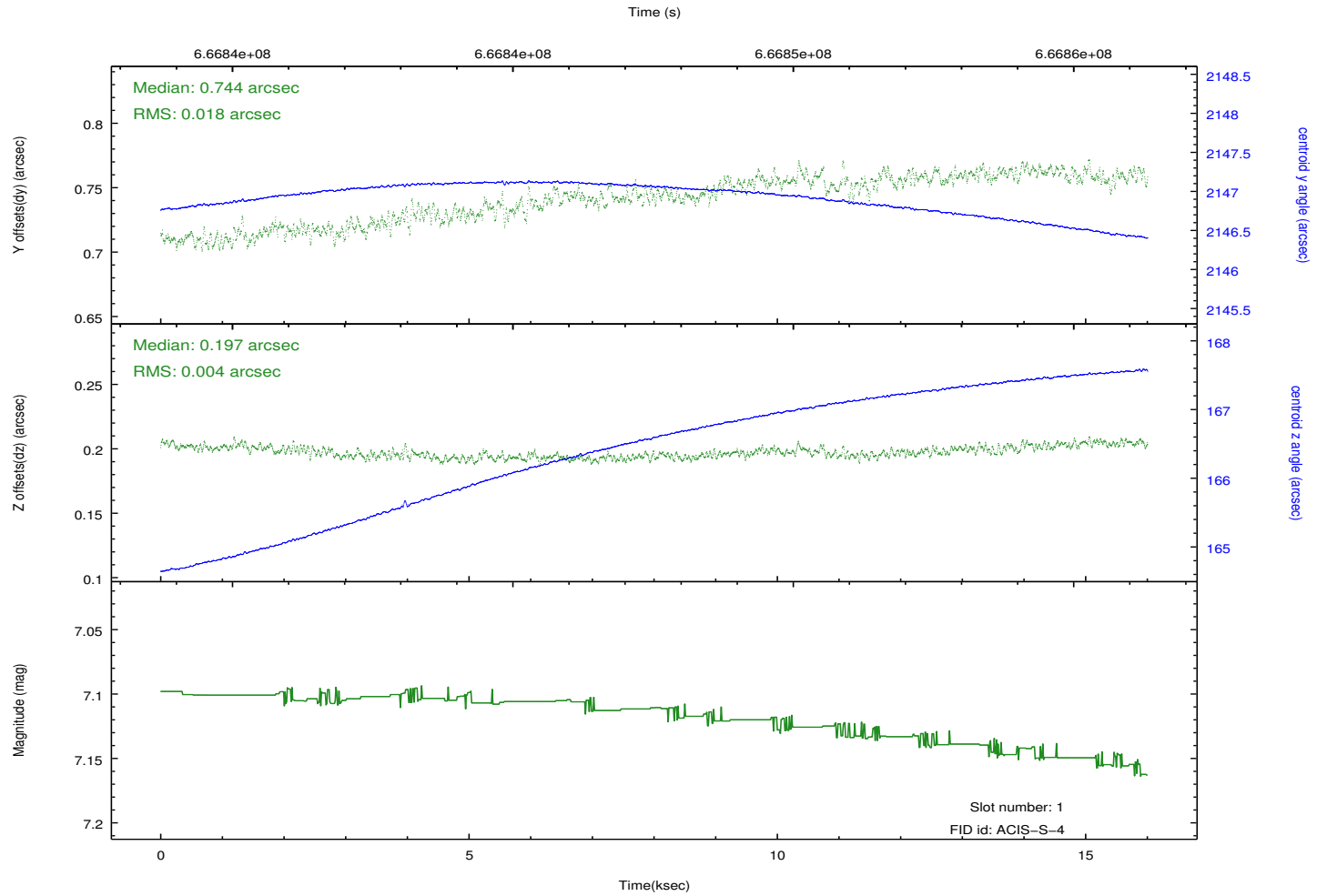
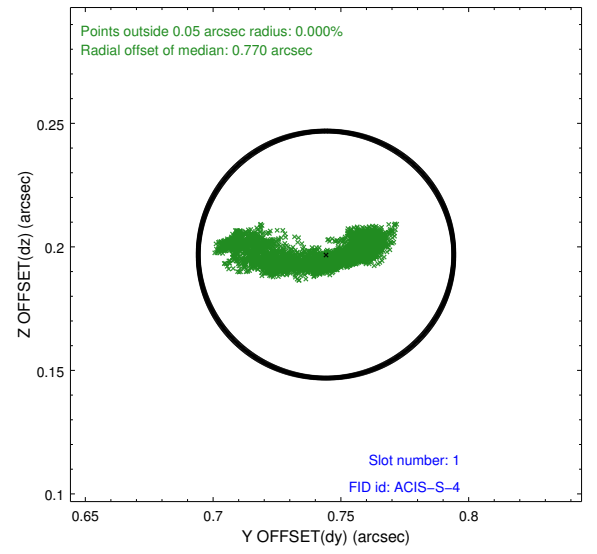
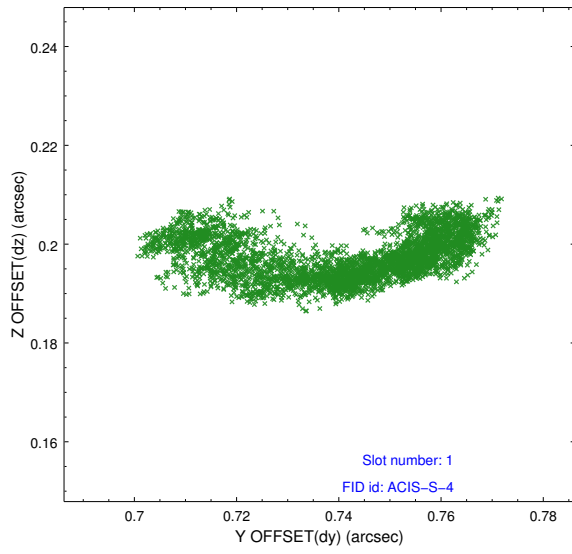


2.5 FID Slots

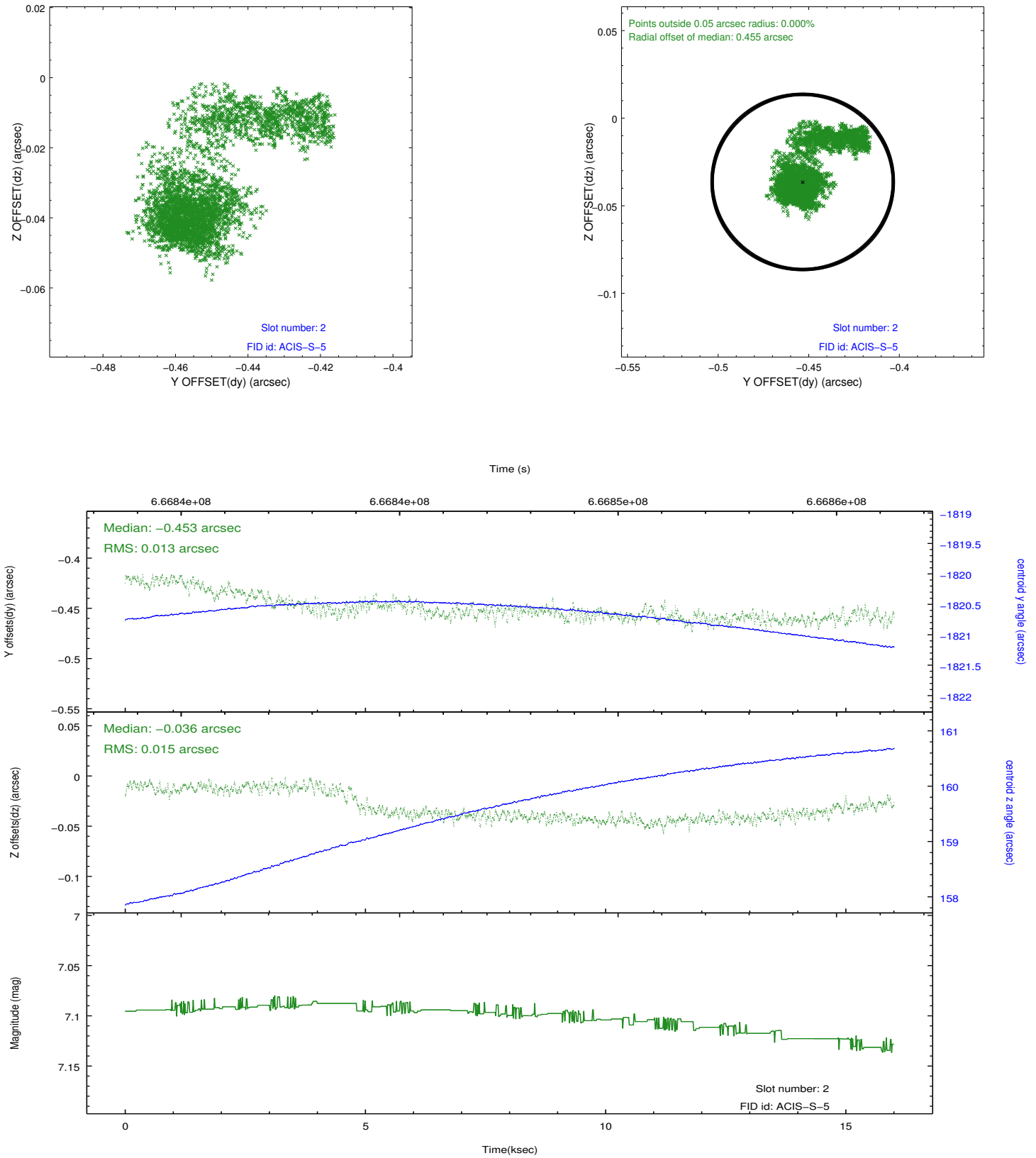
2.5.1 Slot 0



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)	2019.02.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.80463442111

A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.