

V&V Reference Report

L2 ASCDS Version : 10.5.1.1

Observation 19697 - L2 Version 2
Chandra X-Ray Center

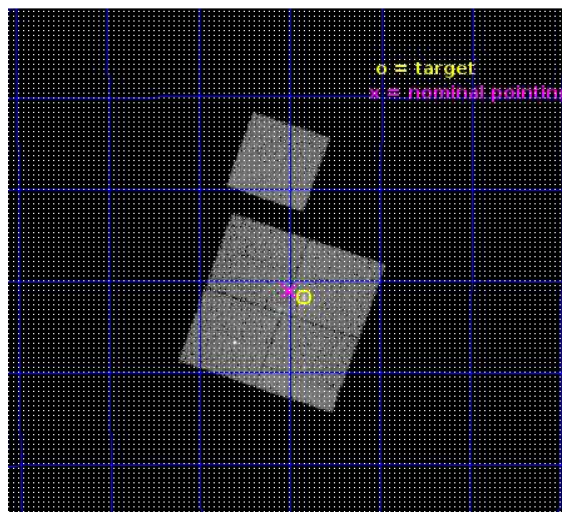
L2 Processing Date : Sep 6 2016

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 6	11
2.4.4	Slot 7	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

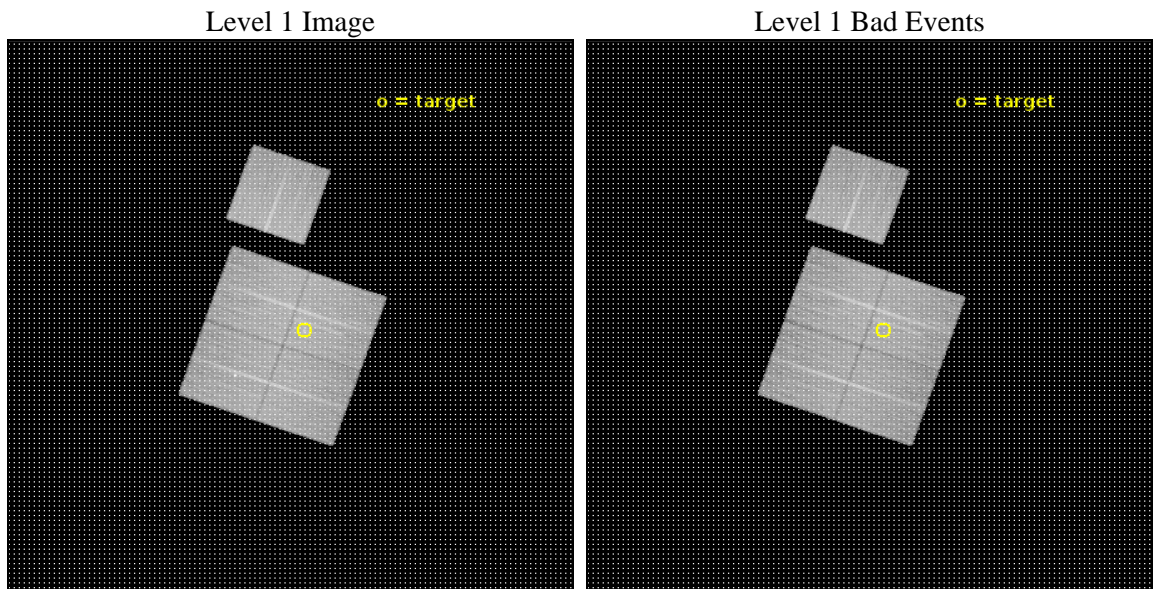
seq_num	801567	Sequence number
obs_id	19697	Observation id
title	Deep X-ray Observations of 3 exceptional high-z clusters of galaxies	
observer	Julie Hlavacek-Larrondo	Principal investigator
object	SPT-CLJ2331-5051	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	352.963333	Observer's specified target RA [deg]
dec_targ	-50.864694	Observer's specified target Dec [deg]
ra_nom	353.00167675873	Nominal RA [deg]
dec_nom	-50.852387014196	Nominal Dec [deg]
roll_nom	19.238465169626	Nominal Roll [deg]
revision	2	Processing version of data
ontime	31089.859218836	Sum of GTIs [s]
livetime	30683.64732012	Livetime [s]
ontime0	31093.000239253	Sum of GTIs [s]
ontime1	31083.577078462	Sum of GTIs [s]
ontime2	31086.718118668	Sum of GTIs [s]
ontime3	31089.859218836	Sum of GTIs [s]
ontime6	31089.859239101	Sum of GTIs [s]
l2events	101601	Number of level 2 events



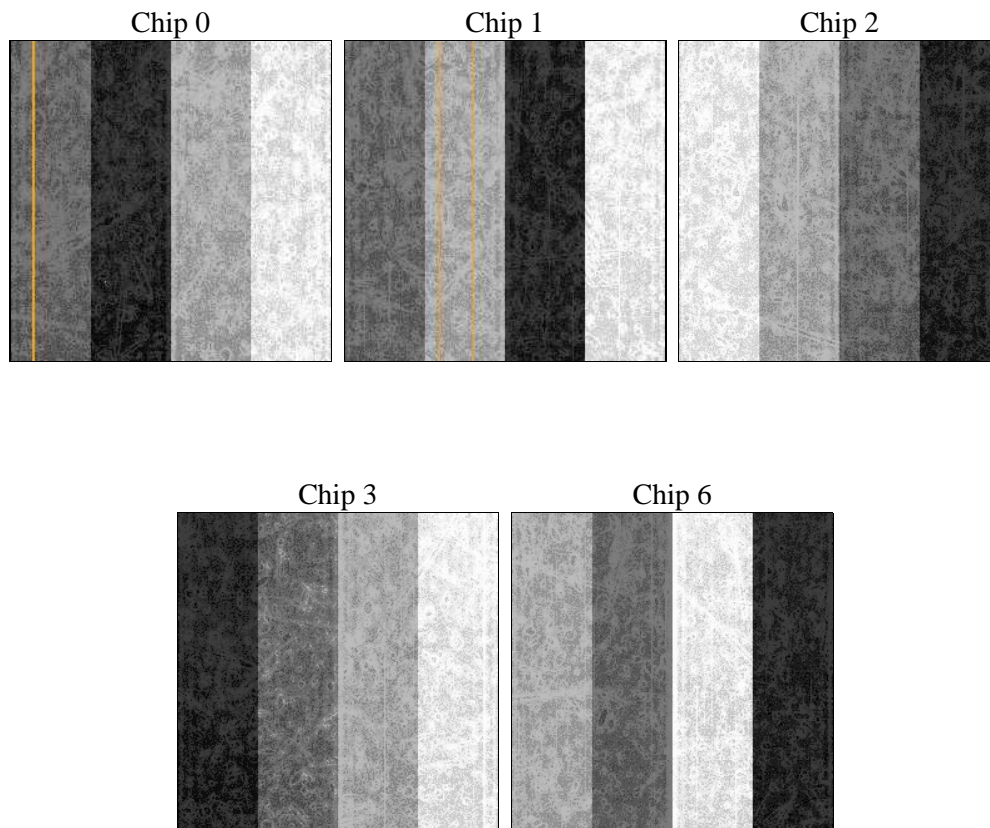
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	31032.296000	[s] Scheduled observation exposure time
ascdsver	10.5.1.1	Processing system revision	ontime	31089.859218836	Sum of GTIs [s]
caldbver	4.7.2	 	ontime0	31093.000239253	Sum of GTIs [s]
date	2016-09-06T19:57:41	Date and time of file creation	ontime1	31083.577078462	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	31086.718118668	Sum of GTIs [s]
			ontime3	31089.859218836	Sum of GTIs [s]
			ontime6	31089.859239101	Sum of GTIs [s]
			l1events	981914	Number of level 1 events

2.1.4 Events

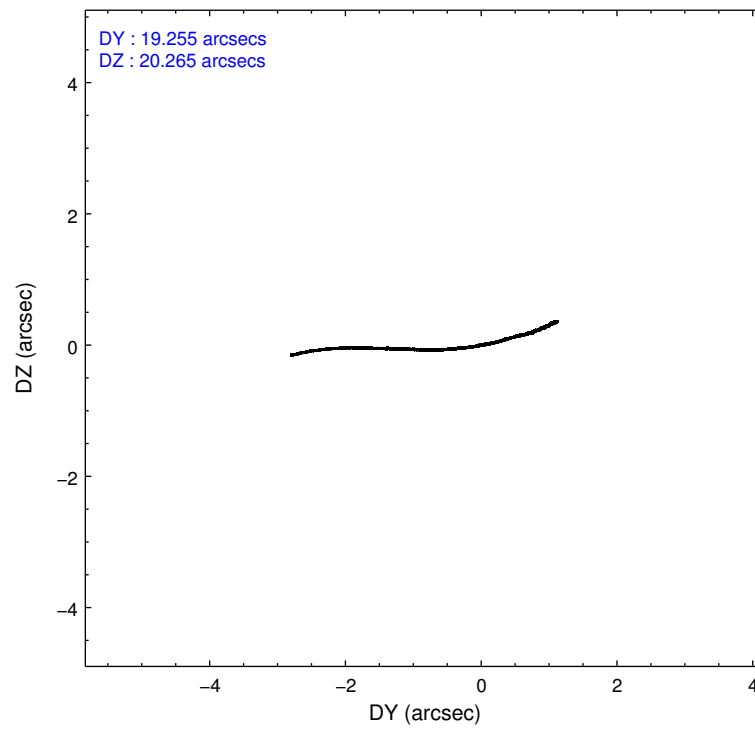
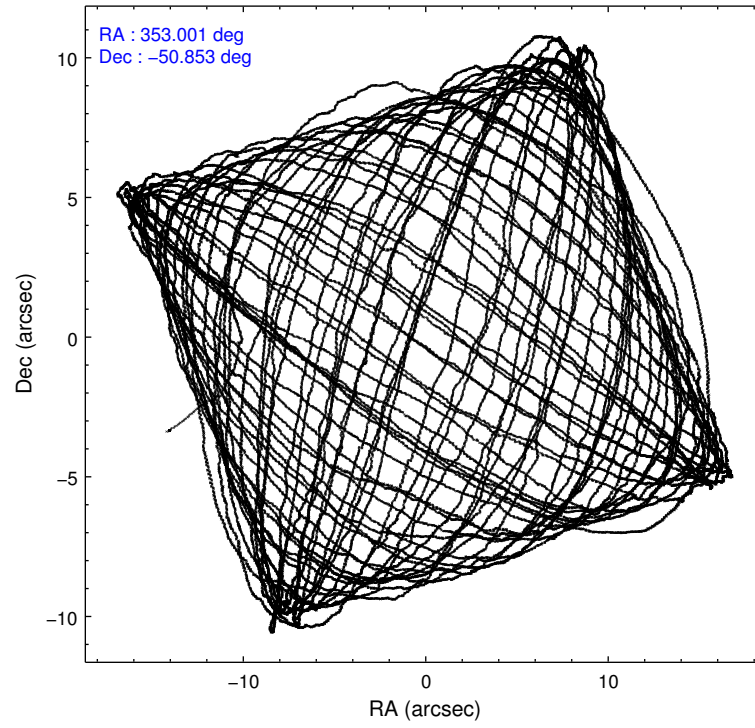
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	187952	185726	204573	203707	199956
rejected events	162749	160111	182154	179749	176968
rejected %	86%	86%	89%	88%	88%

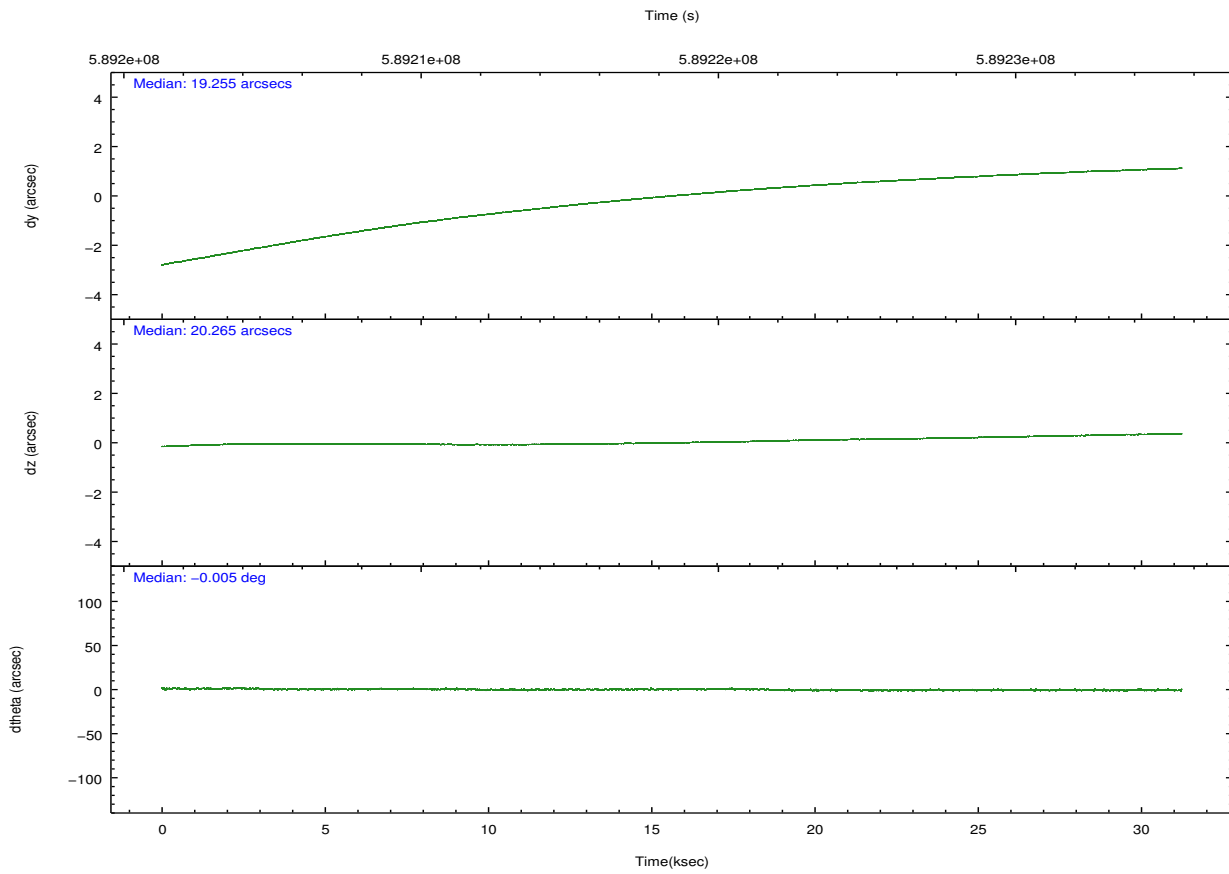
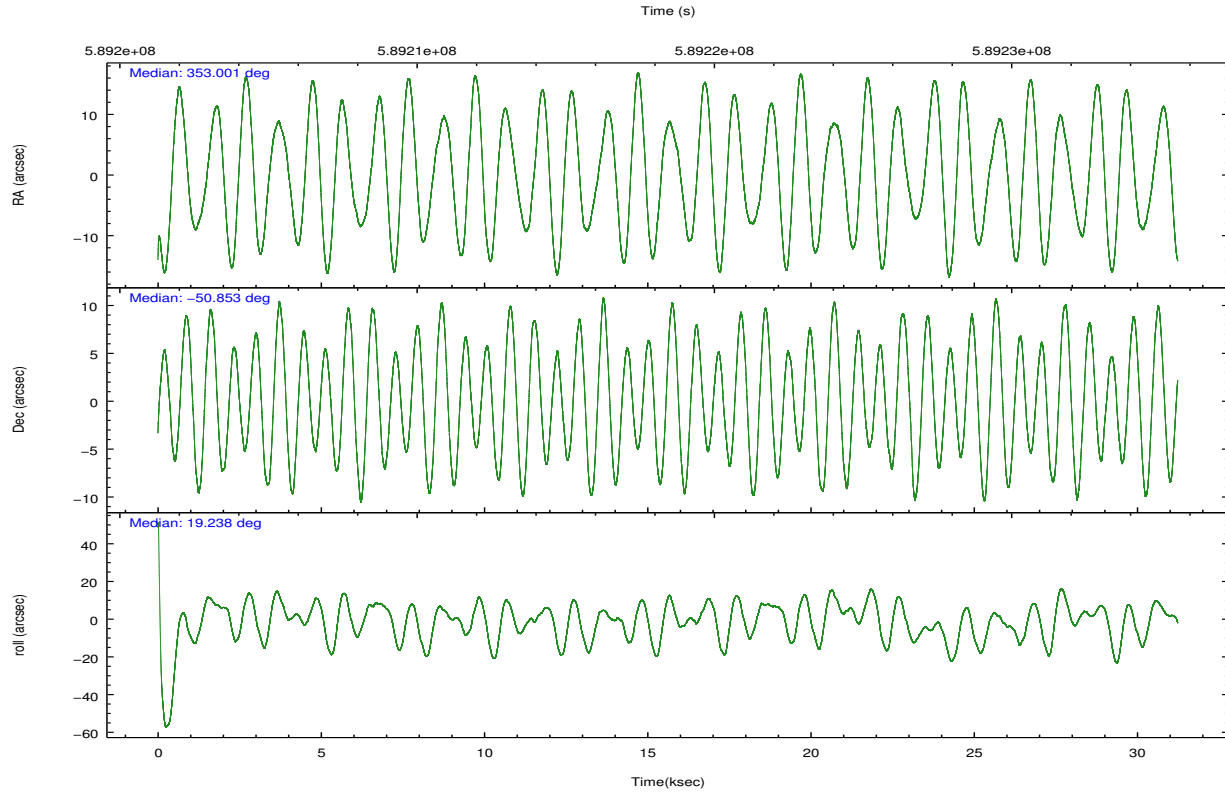
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	9665	9062	8138	9432	7715
	5%	4%	3%	4%	3%
grade 1 events	139	112	131	142	85
	0%	0%	0%	0%	0%
grade 2 events	5913	6272	5546	5086	5269
	3%	3%	2%	2%	2%
grade 3 events	2451	2398	2125	2331	2283
	1%	1%	1%	1%	1%
grade 4 events	2299	2446	2270	2356	2377
	1%	1%	1%	1%	1%
grade 5 events	8665	9291	7995	9920	9554
	4%	5%	3%	4%	4%
grade 6 events	4879	5442	4345	4761	5347
	2%	2%	2%	2%	2%
grade 7 events	153941	150703	174023	169679	167326
	81%	81%	85%	83%	83%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	352.973259	353.0016767587274	CCD I2 on	Y	Y
[deg] Pointing Dec	-50.873354	-50.85238701419609	CCD I3 on	Y	Y
[deg] Pointing Roll	19.007698	19.23846516962622	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-228.472463	-228.4808600833603	CCD S3 on	N	N
[mm] SIM translation stage offset	-5.12	-5.111592919569347	CCD S4 on	N	N
[s] Observation start time (MET)	589203014.184000	589202036.10016	CCD S5 on	N	N
Observation start date	2016-09-02T11:29:06	2016-09-02T11:13:56	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	589234046.184000	589234271.83951	On-chip summing requested	N	N
Observation end date	2016-09-02T20:06:18	2016-09-02T20:11:11	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



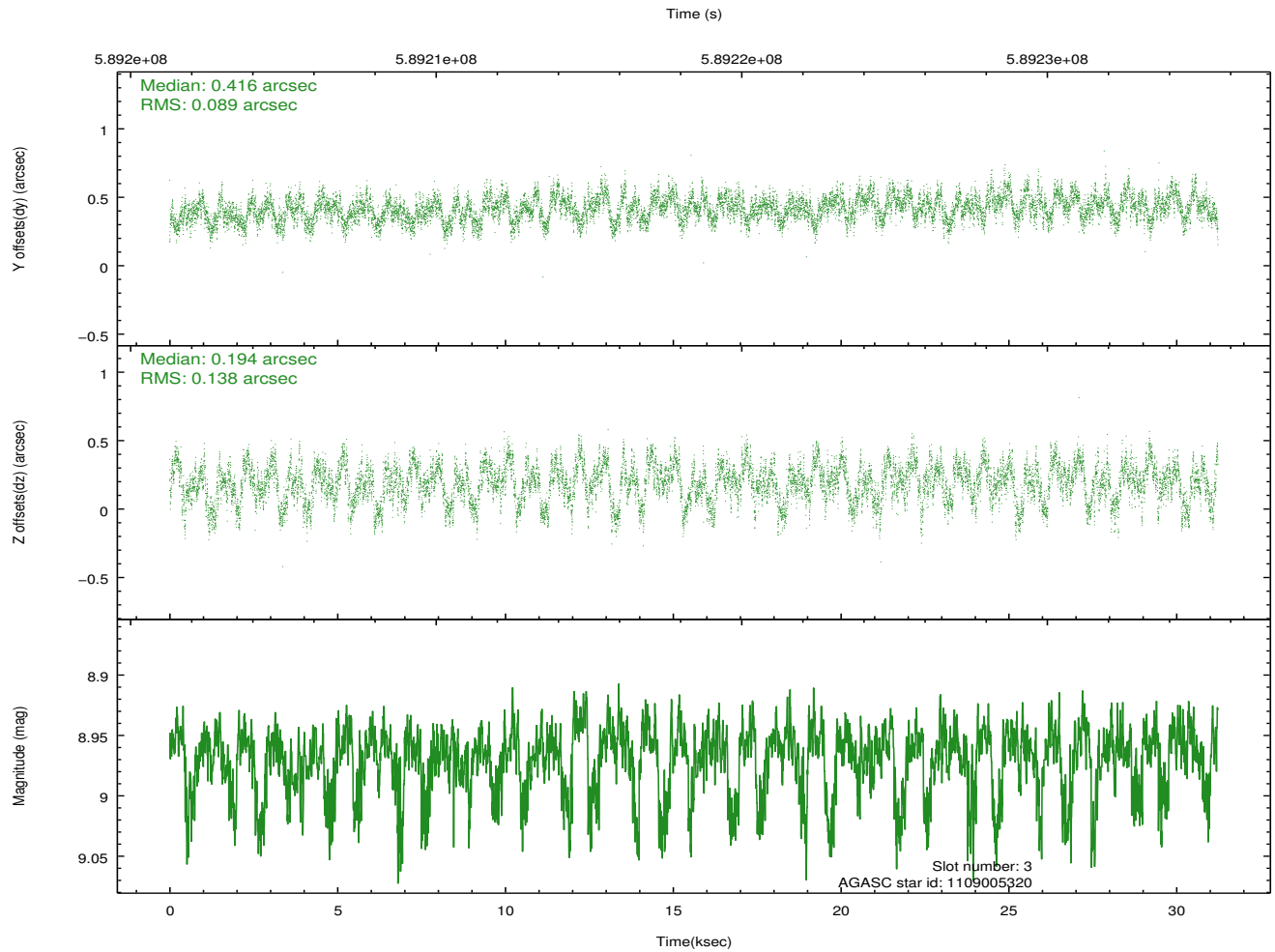
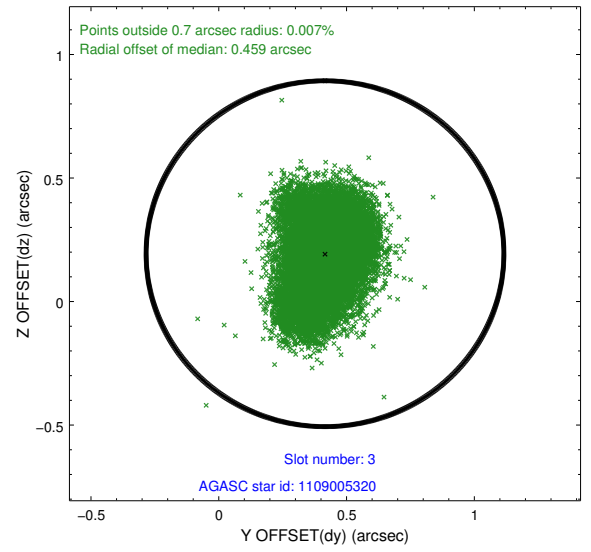
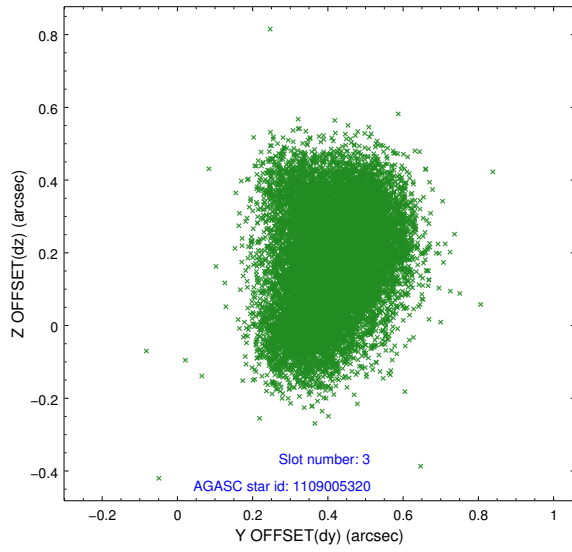


Slot Statistics

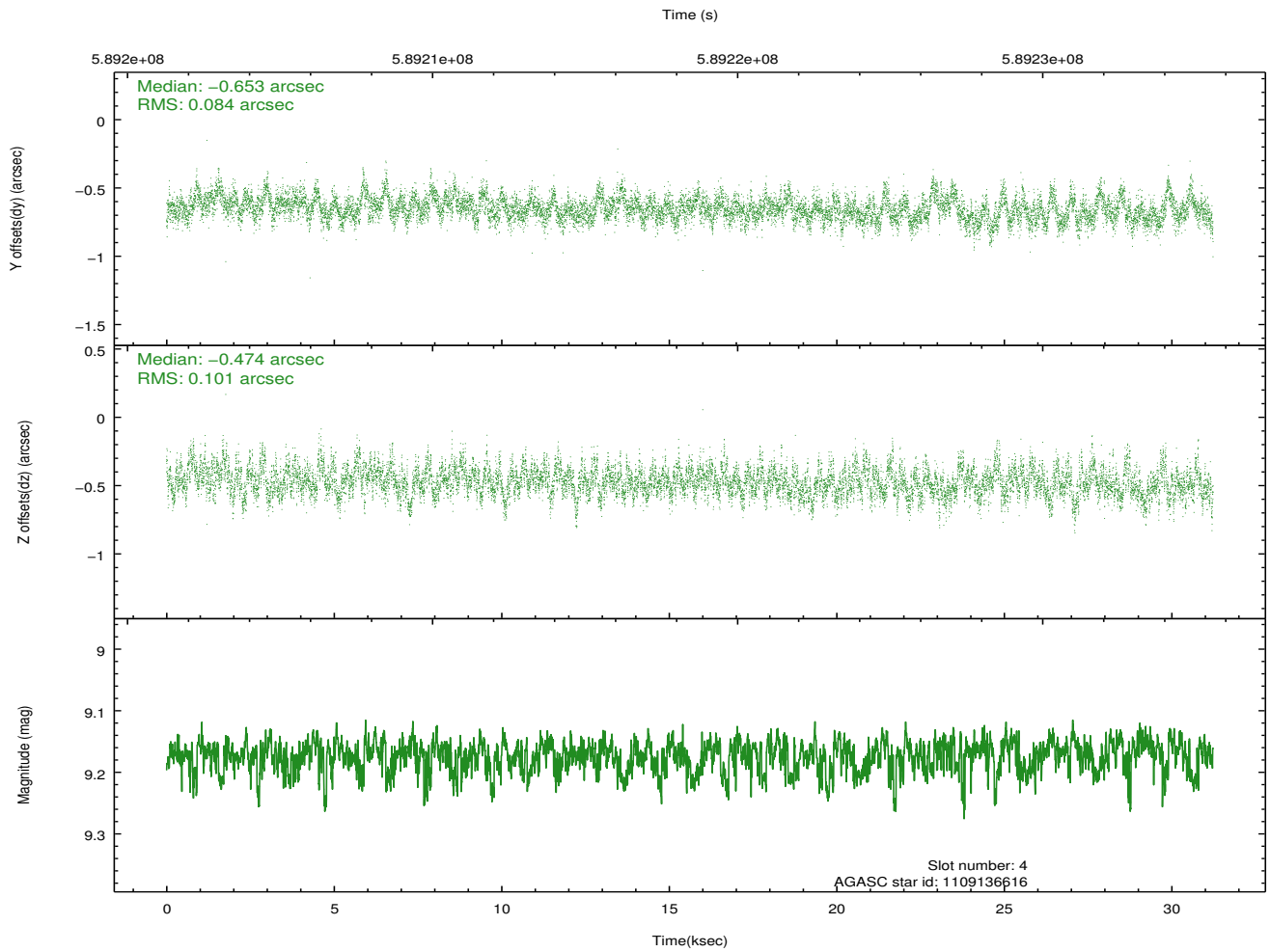
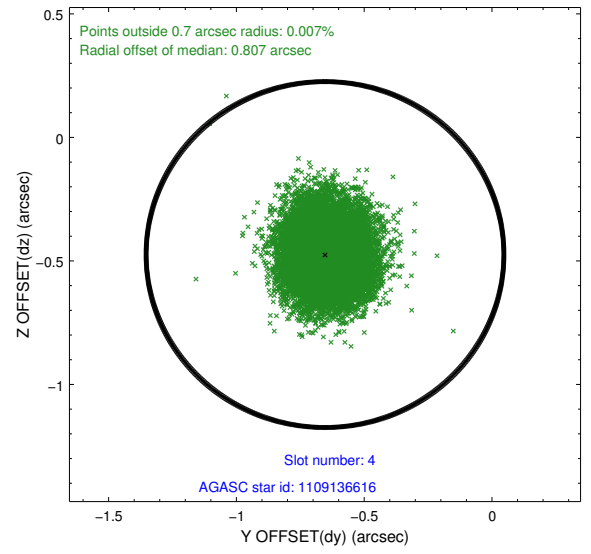
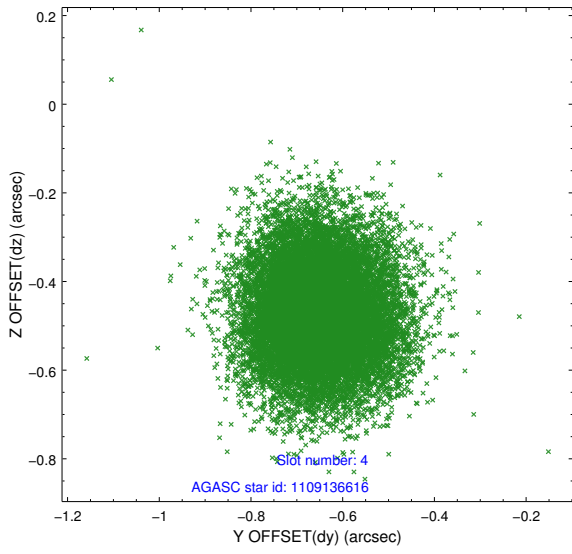
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.11	7618	0.141	-0.145	0.008	0.015	0.000000	0.000000	920.47	-949.06
1	FID		ACIS-I-5	7.10	7619	-0.432	0.066	0.015	0.049	0.000000	0.000000	-1828.26	948.45
2	FID		ACIS-I-6	7.11	7619	0.200	0.150	0.015	0.048	0.000000	0.000000	385.86	1593.23
3	GUIDE	used	1109005320	8.97	15228	0.416	0.194	0.177	0.288	352.318268	-51.588018	-2224.26	-1960.64
4	GUIDE	used	1109136616	9.17	15206	-0.653	-0.474	0.140	0.230	353.560887	-50.553400	1643.98	645.90
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	GUIDE	used	1109140000	9.72	15213	-0.072	0.056	0.232	0.372	353.643260	-50.847199	1468.90	-413.16
7	GUIDE	used	1109006064	9.20	15226	0.324	0.227	0.153	0.240	352.185536	-51.436354	-2333.59	-1349.11

2.4 Star Slots

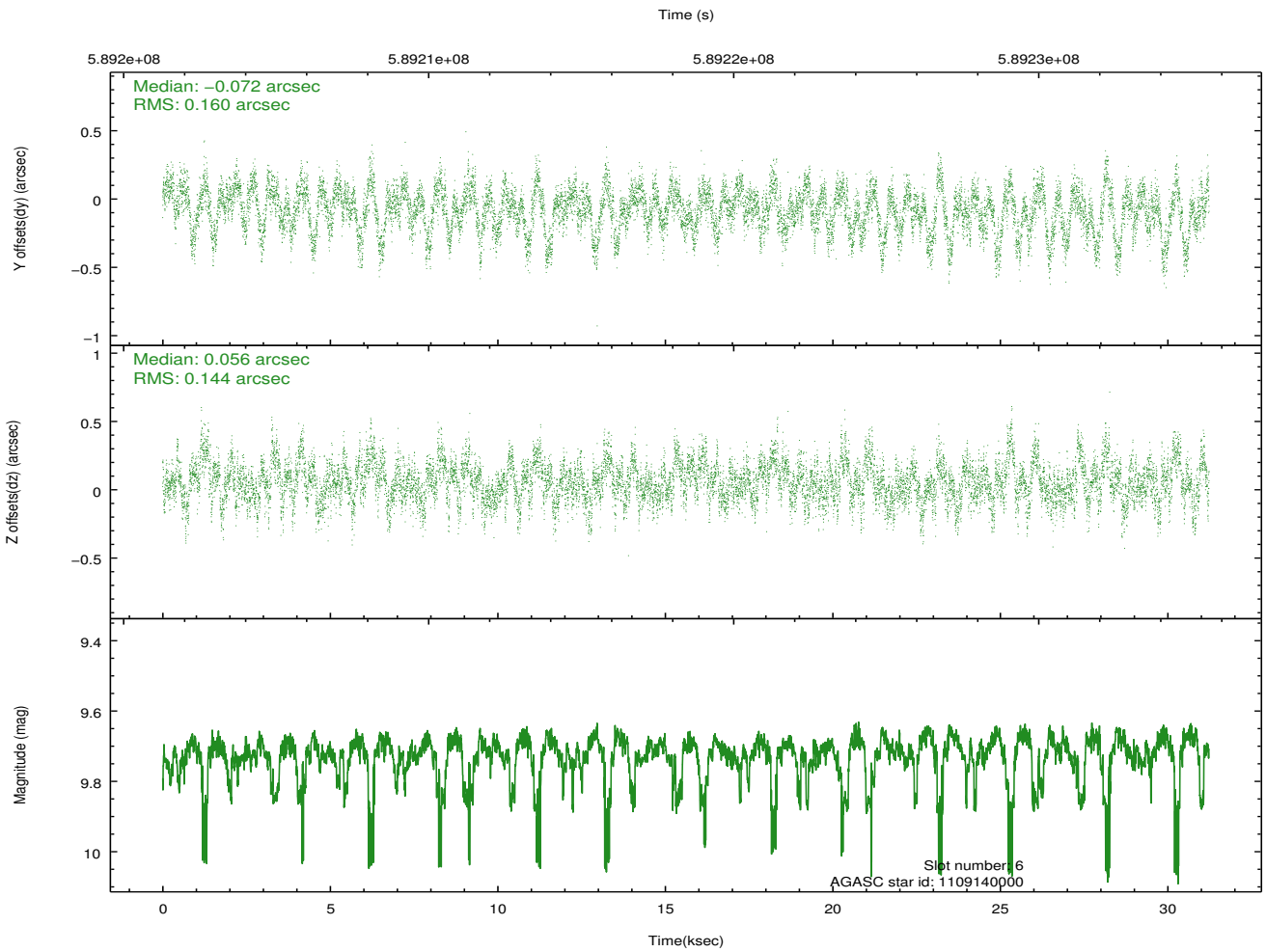
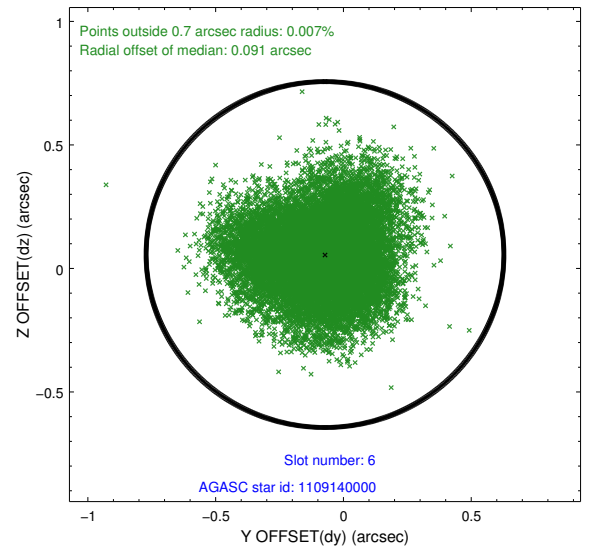
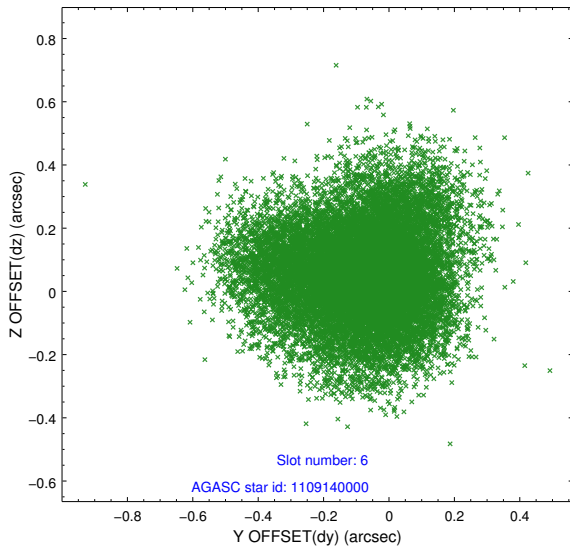
2.4.1 Slot 3



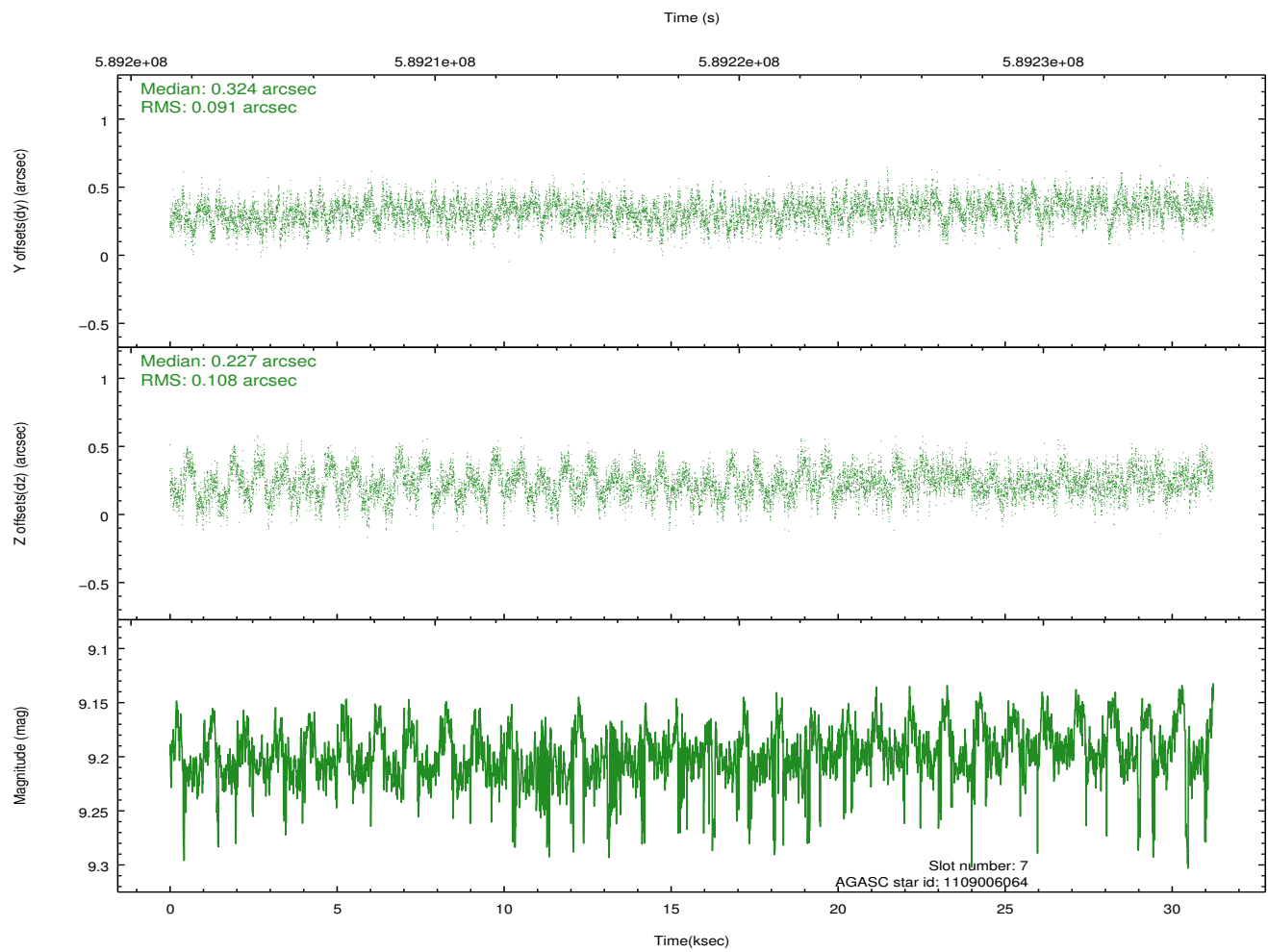
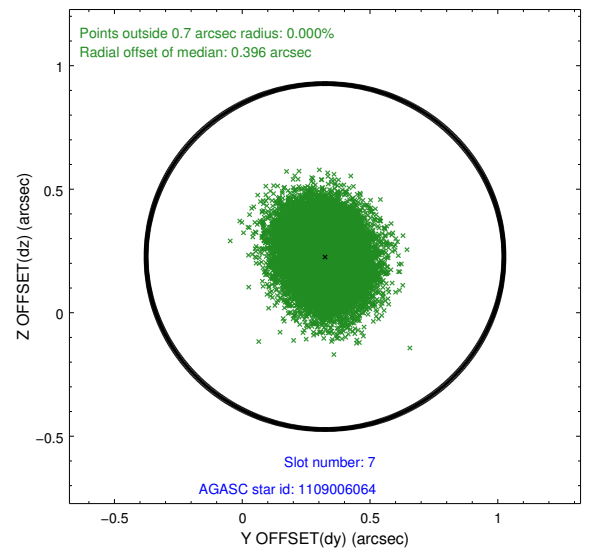
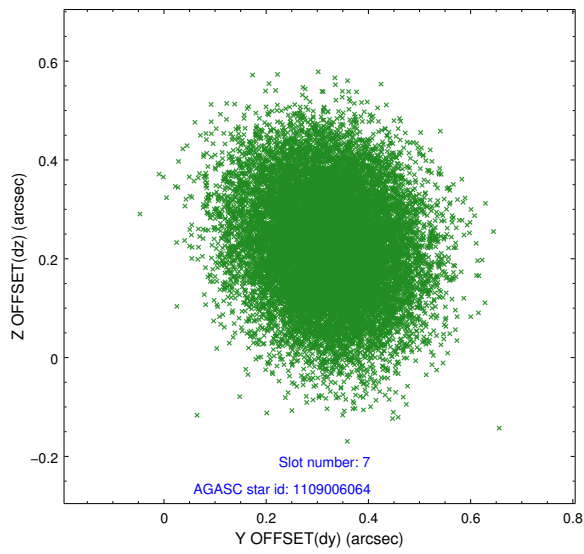
2.4.2 Slot 4



2.4.3 Slot 6

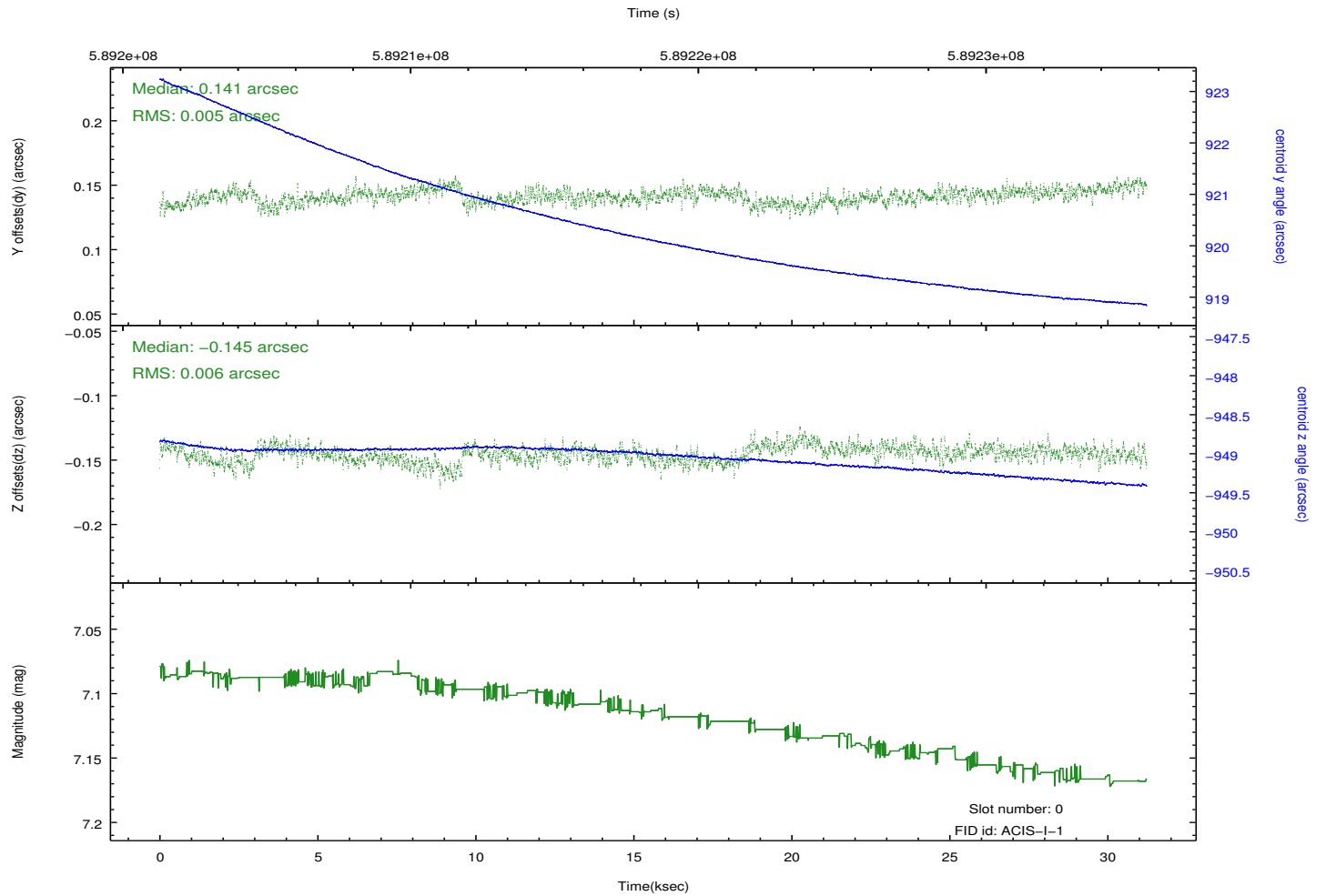
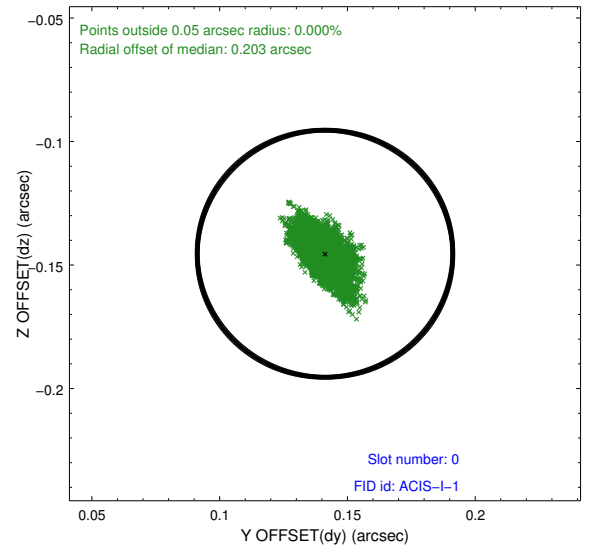
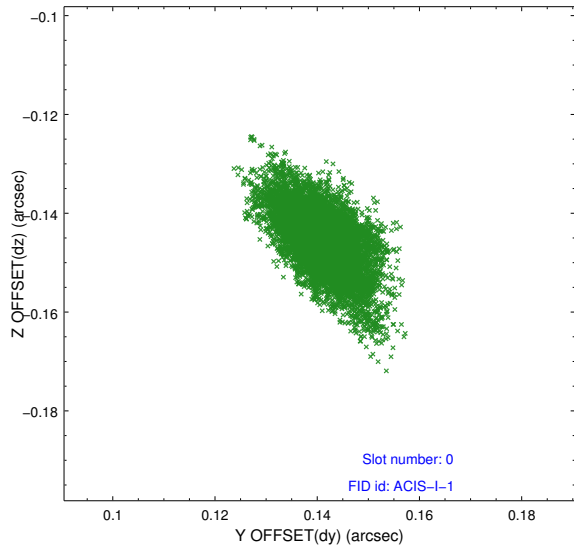


2.4.4 Slot 7

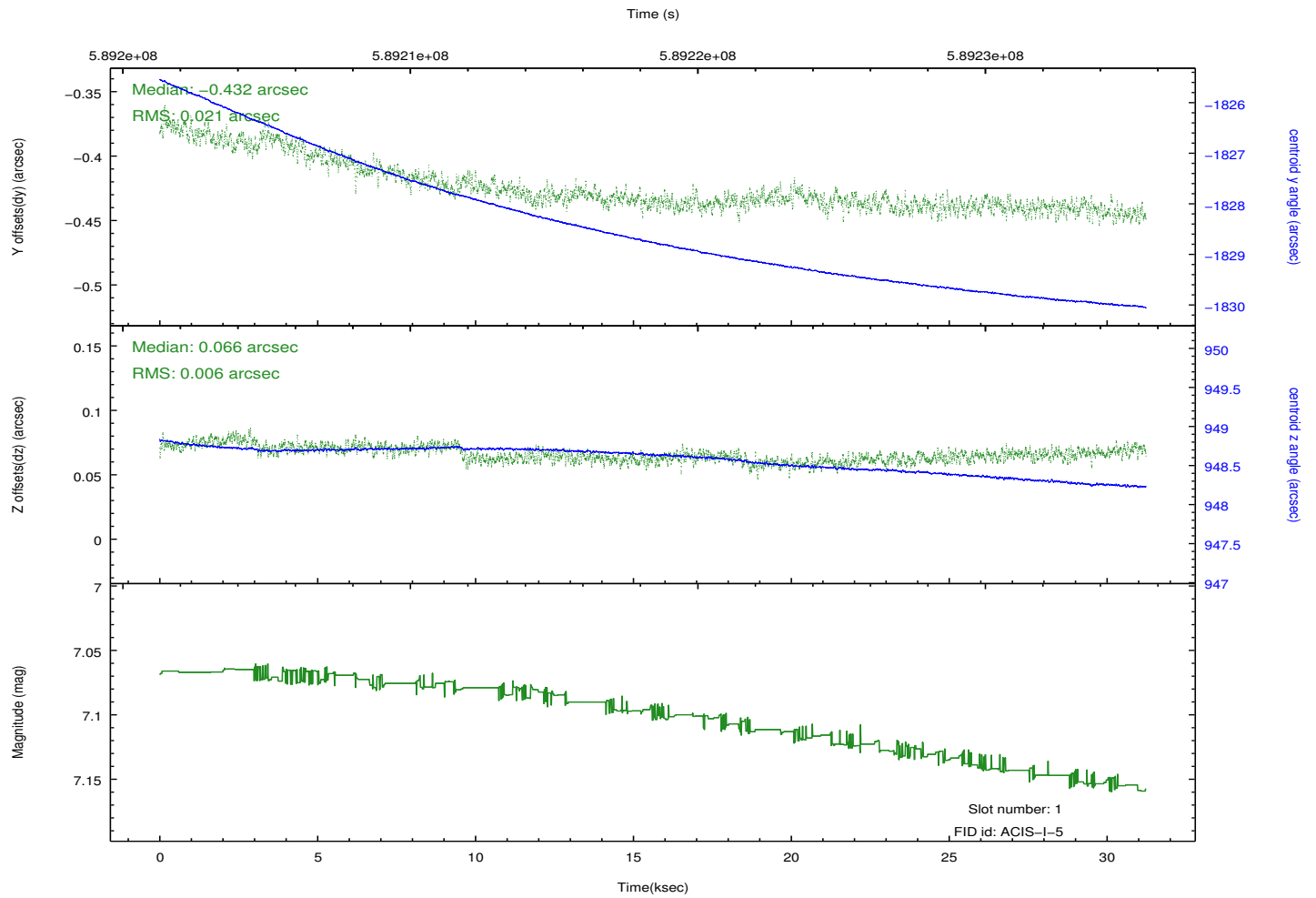
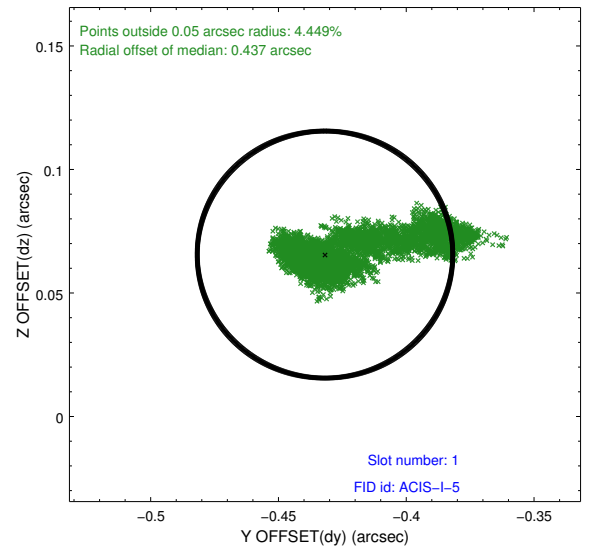
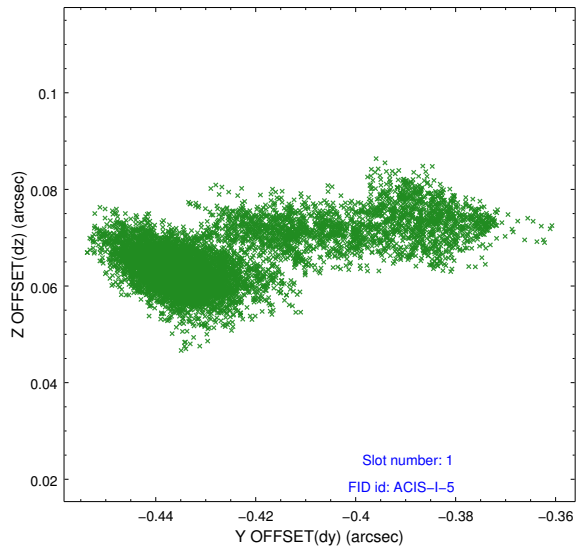


2.5 FID Slots

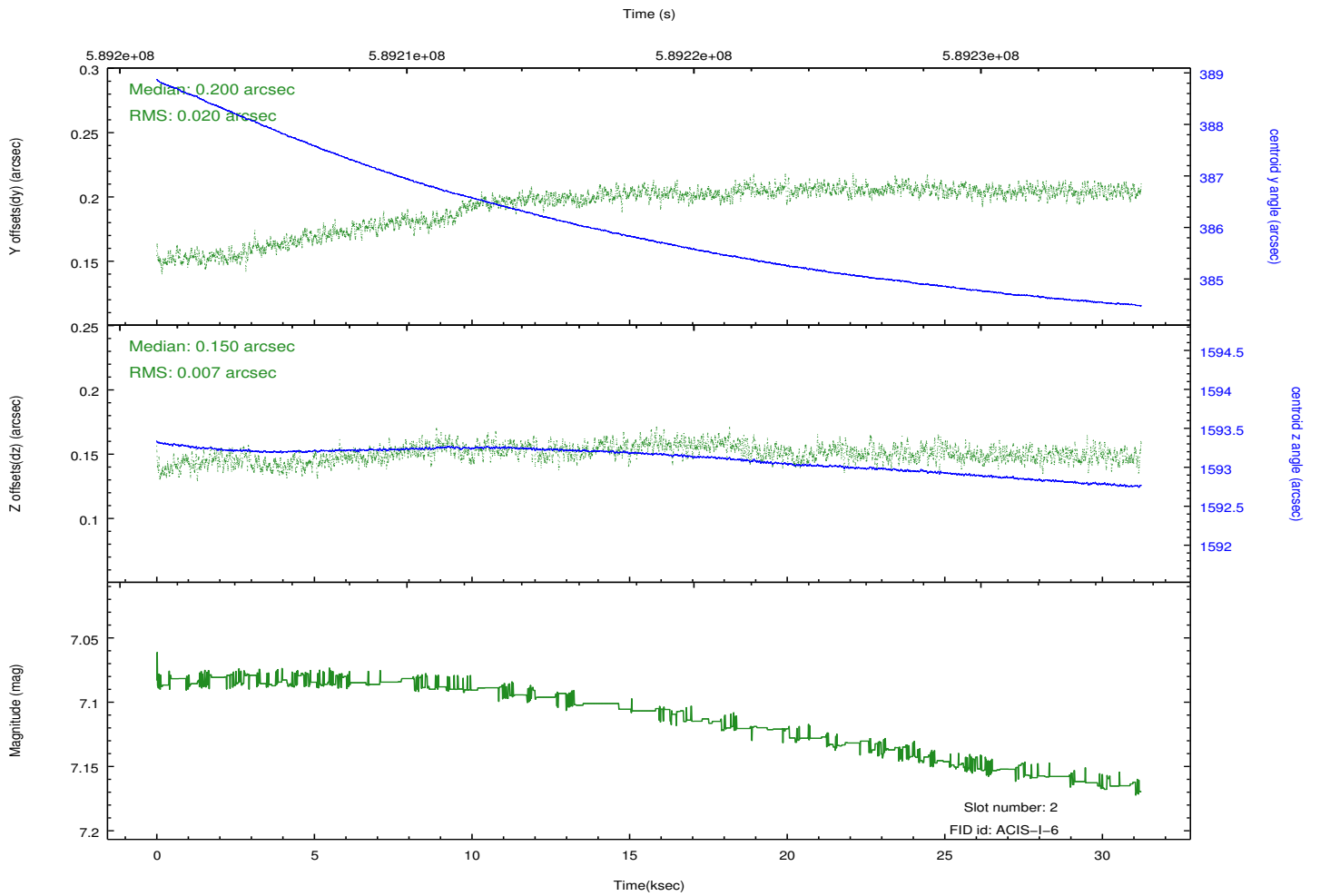
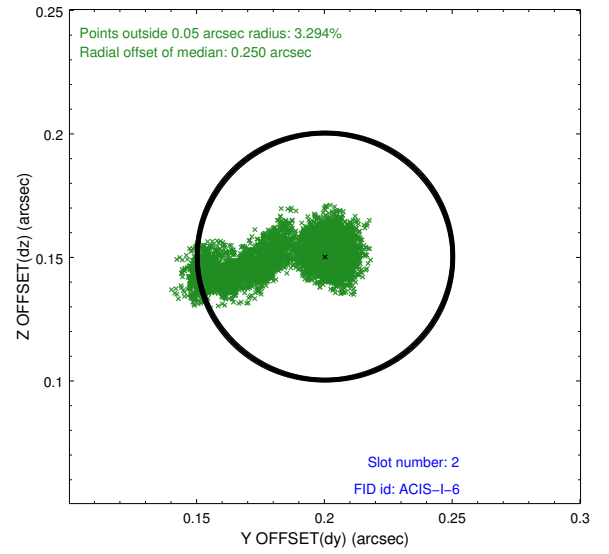
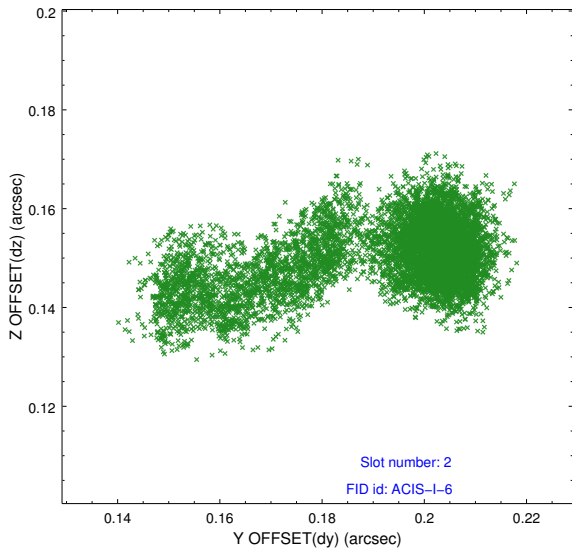
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.09.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	31.089859218836

A.2 Comments

The guide star in slot 5 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.