

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 15122 - L2 Version 2
Chandra X-Ray Center

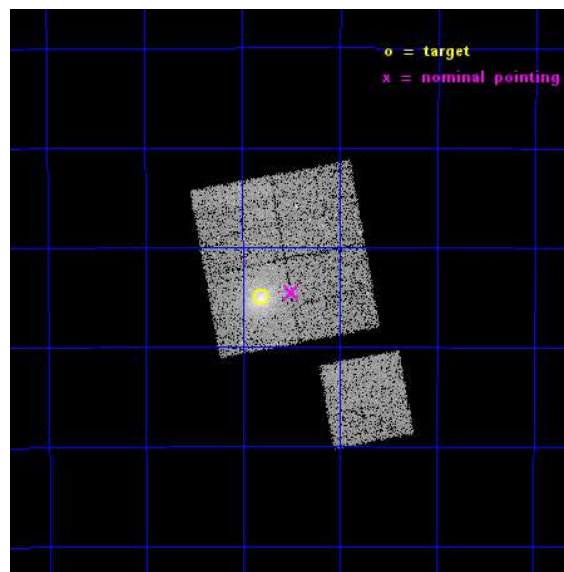
L2 Processing Date : Dec 11 2014

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
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

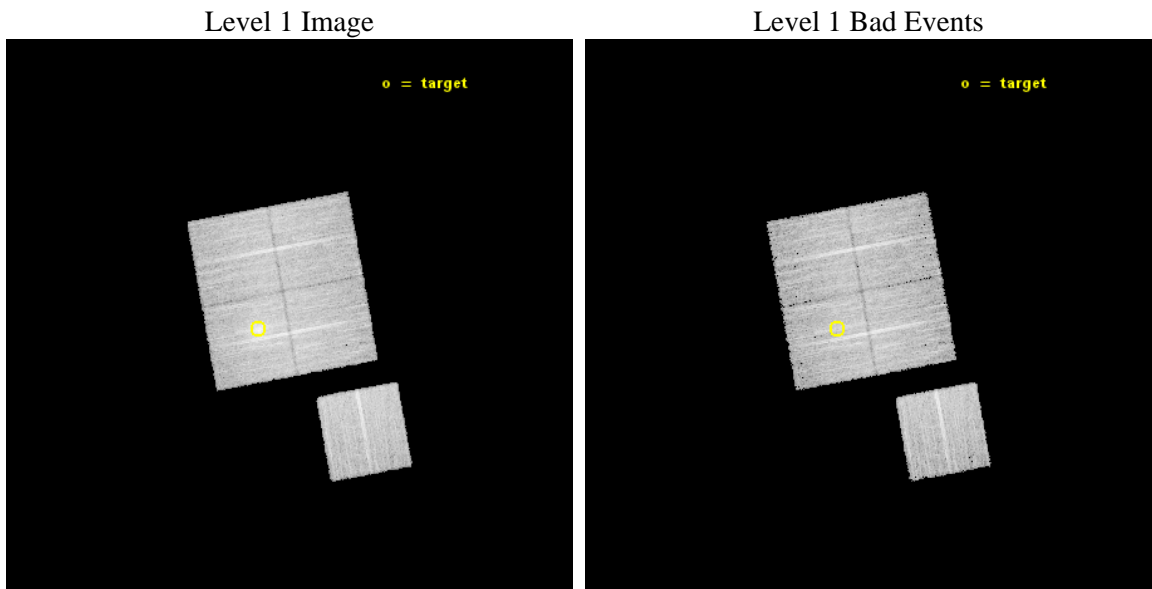
seq_num	801251	Sequence number
obs_id	15122	Observation id
title	A Chandra-Planck Legacy Program for Massive Clusters of Galaxies	P
observer	Dr. Christine Jones	Principal investigator
object	G253.47-33.72	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	81.454	Observer's specified target RA [deg]
dec_targ	-47.25	Observer's specified target Dec [deg]
ra_nom	81.374644715597	Nominal RA [deg]
dec_nom	-47.242334003913	Nominal Dec [deg]
roll_nom	169.54835451941	Nominal Roll [deg]
revision	2	Processing version of data
ontime	18082.30013907	Sum of GTIs [s]
livetime	17846.041575757	Livetime [s]
ontime0	18079.15916872	Sum of GTIs [s]
ontime1	18079.15916872	Sum of GTIs [s]
ontime2	18082.30013907	Sum of GTIs [s]
ontime3	18082.30013907	Sum of GTIs [s]
ontime6	18082.30013907	Sum of GTIs [s]
l2events	50758	Number of level 2 events



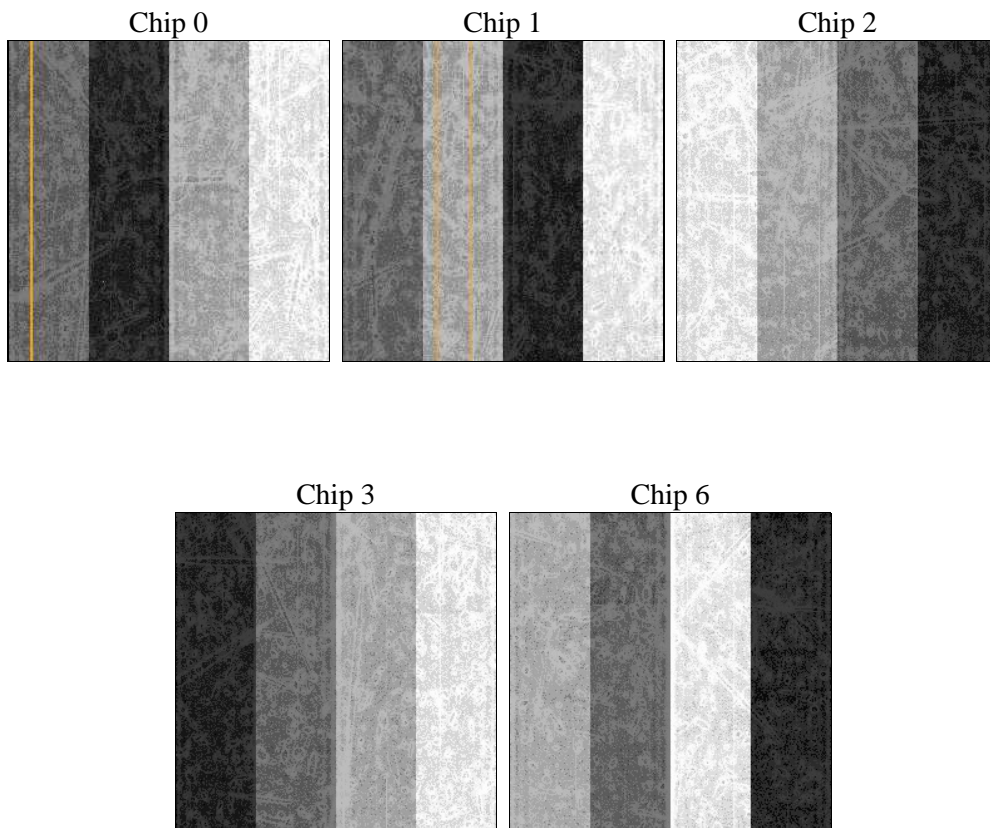
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	18000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	18082.30013907	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	18079.15916872	Sum of GTIs [s]
date	2014-12-12T02:46:39	Date and time of file creation	ontime1	18079.15916872	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	18082.30013907	Sum of GTIs [s]
			ontime3	18082.30013907	Sum of GTIs [s]
			ontime6	18082.30013907	Sum of GTIs [s]
			l1events	397484	Number of level 1 events

2.1.4 Events

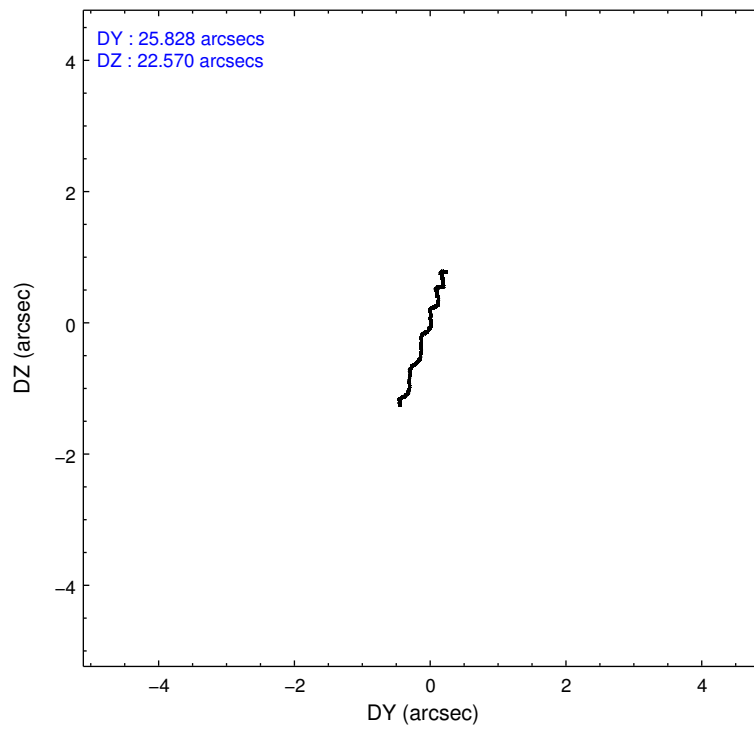
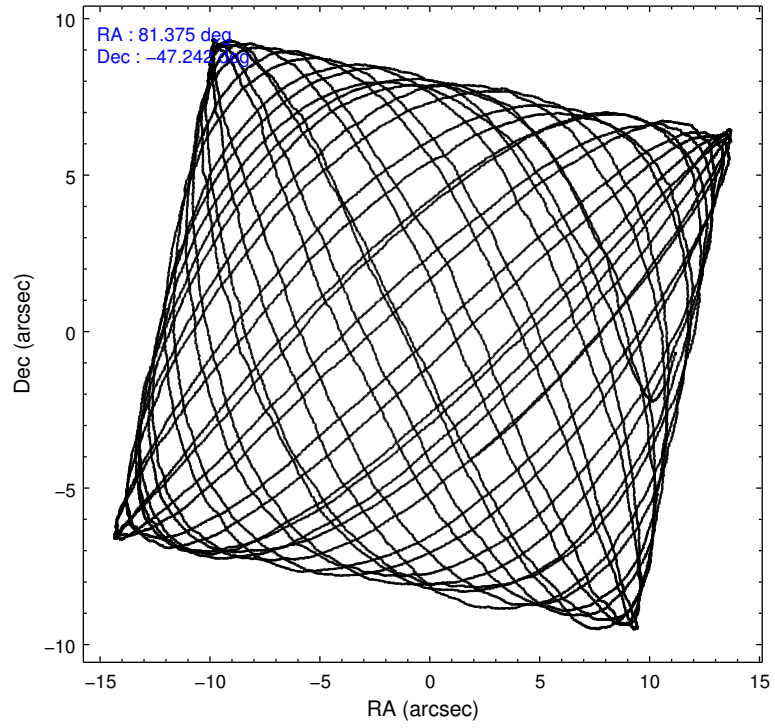
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	73041	75441	78946	87995	82061
rejected events	62964	64484	69109	69902	72397
rejected %	86%	85%	87%	79%	88%

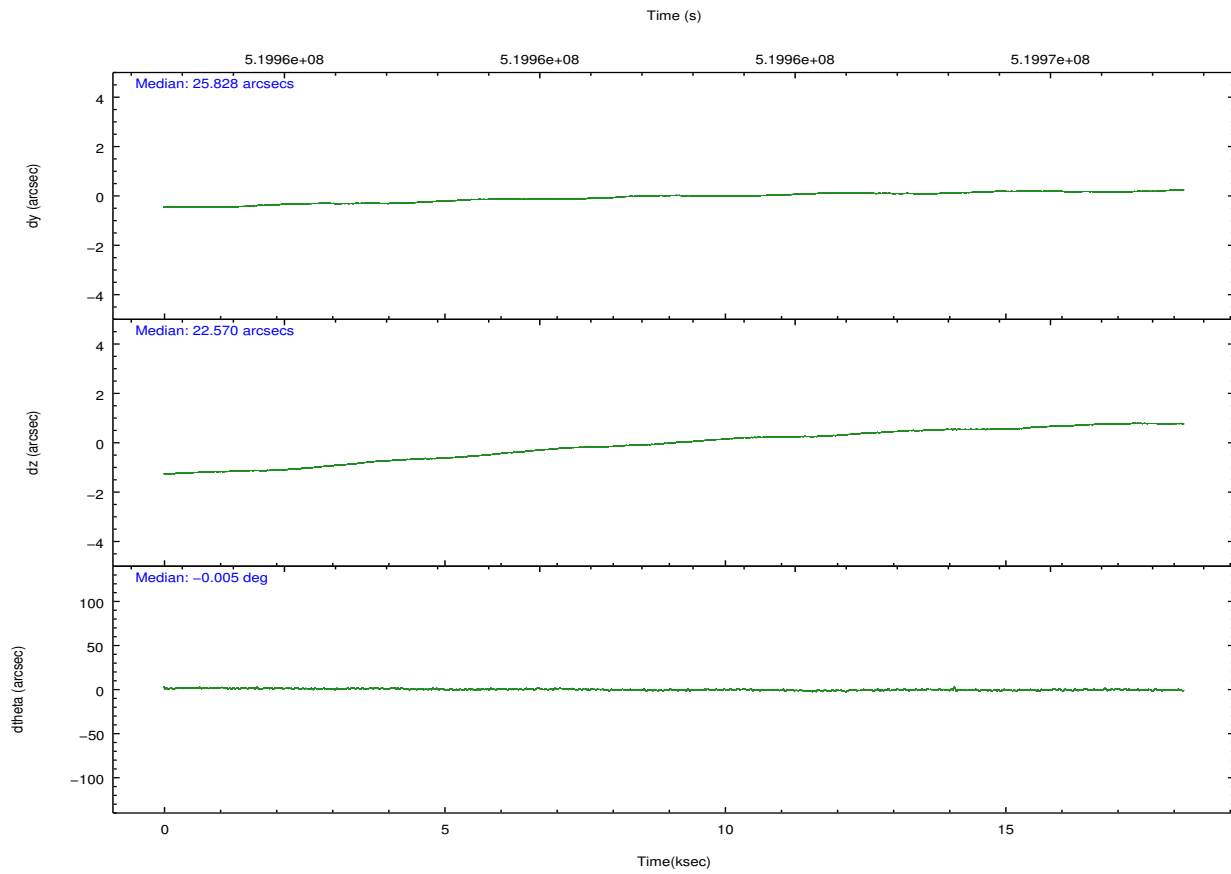
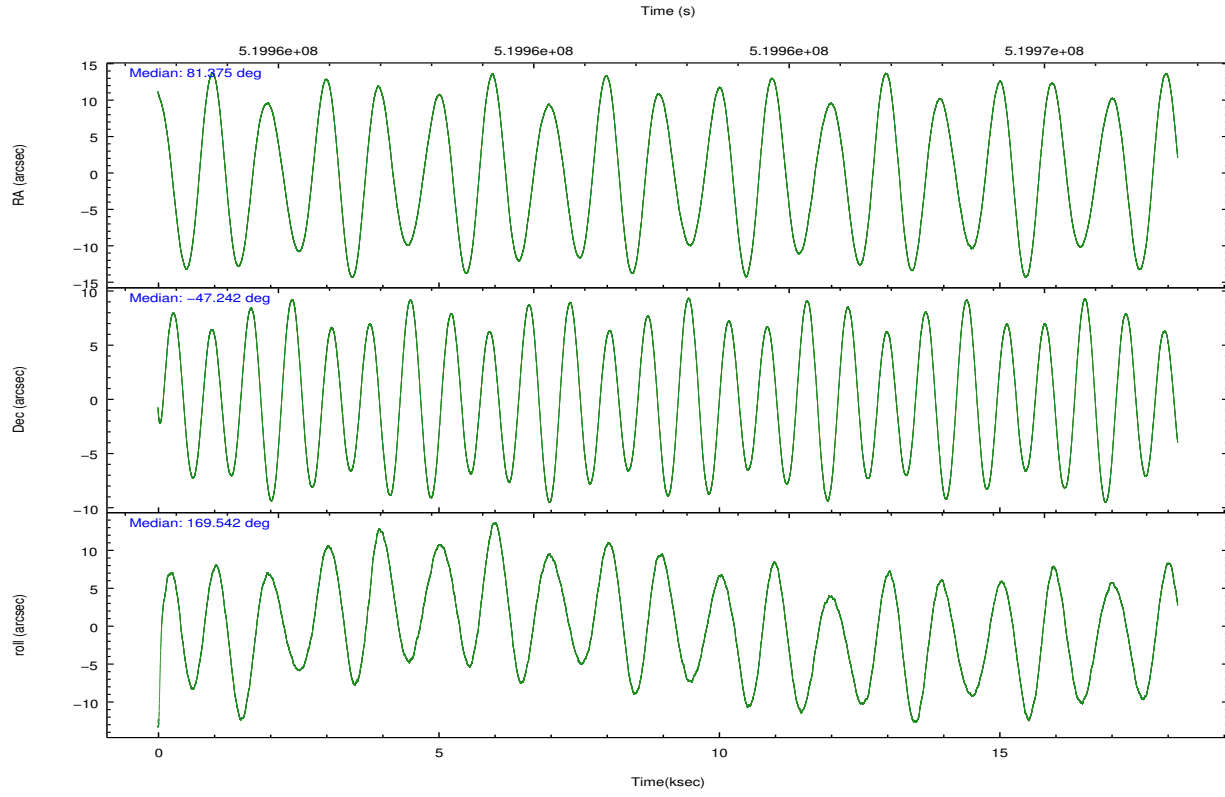
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3428	3929	3656	10308	3121
	4%	5%	4%	11%	3%
grade 1 events	38	47	31	72	37
	0%	0%	0%	0%	0%
grade 2 events	2509	2657	2375	3001	2191
	3%	3%	3%	3%	2%
grade 3 events	1087	1008	964	1297	998
	1%	1%	1%	1%	1%
grade 4 events	1003	1019	948	1281	1039
	1%	1%	1%	1%	1%
grade 5 events	3775	4245	3636	4502	4158
	5%	5%	4%	5%	5%
grade 6 events	2051	2347	1898	2212	2322
	2%	3%	2%	2%	2%
grade 7 events	59150	60189	65438	65322	68195
	80%	79%	82%	74%	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	81.412720	81.37464471559692	CCD I2 on	Y	Y
[deg] Pointing Dec	-47.233042	-47.24233400391317	CCD I3 on	Y	Y
[deg] Pointing Roll	169.367635	169.5483545194075	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	-225.842463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	519953706.184000	519952672.21015	CCD S5 on	N	N
Observation start date	2014-06-23T23:33:59	2014-06-23T23:17:52	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	519971706.184000	519972845.23627	On-chip summing requested	N	N
Observation end date	2014-06-24T04:33:59	2014-06-24T04:54:05	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





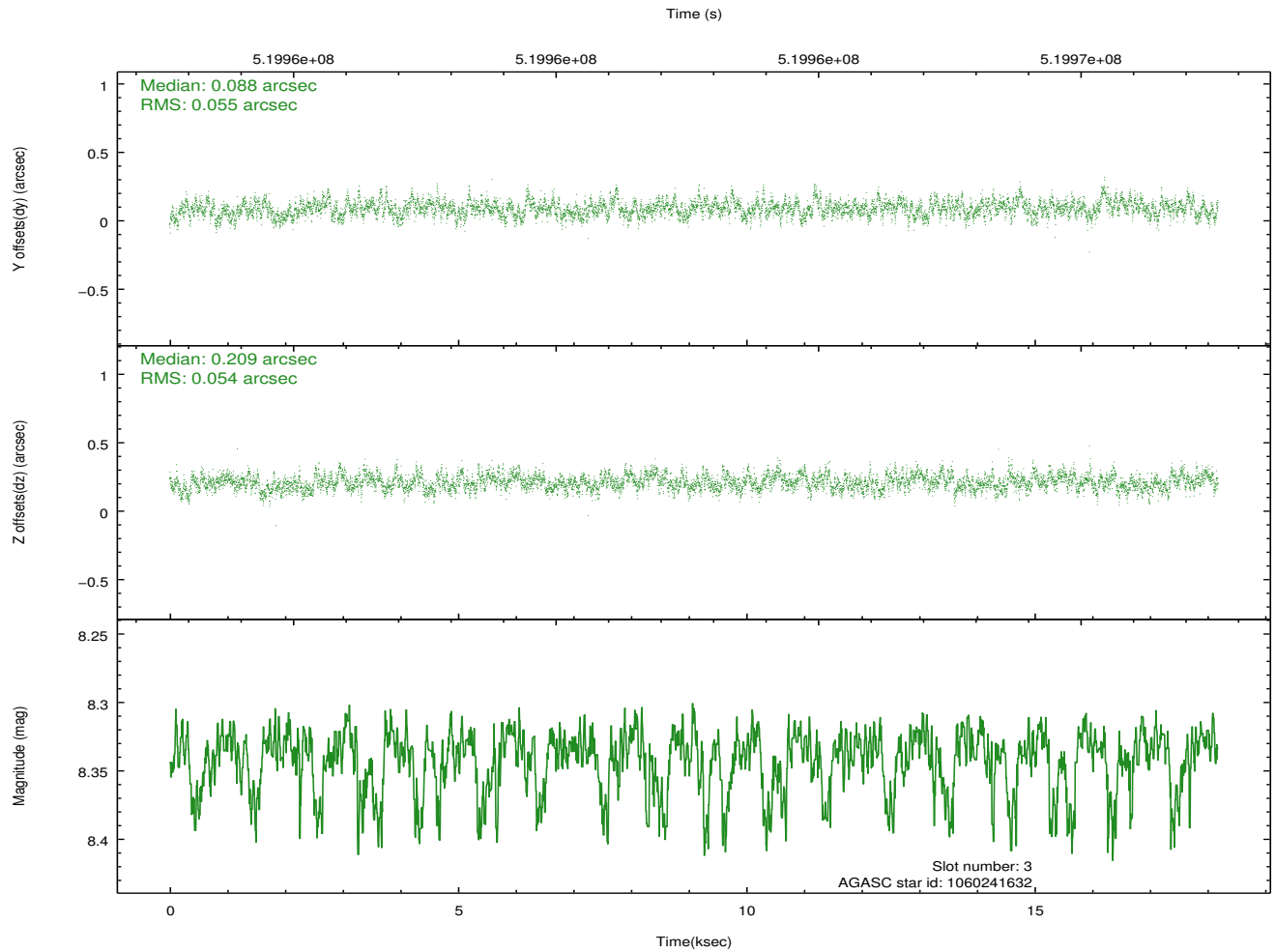
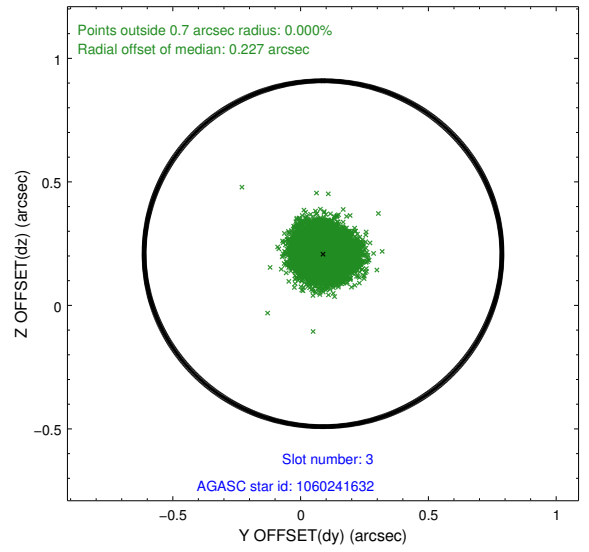
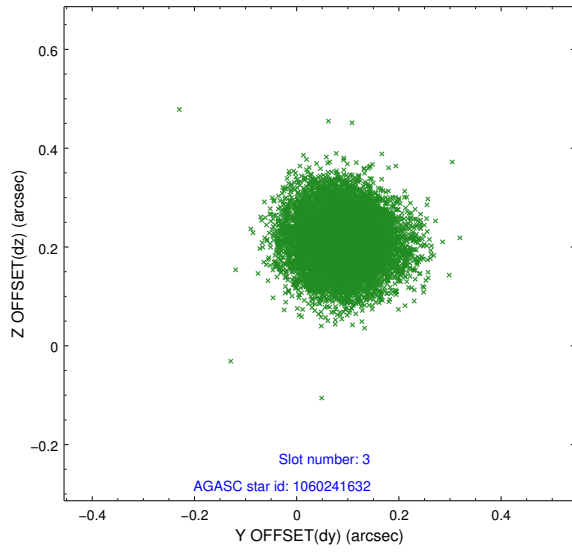
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	4435	0.050	-0.085	0.048	0.074	0.000000	0.000000	913.36	-1005.38
1	FID		ACIS-I-4	6.98	4434	0.274	0.059	0.029	0.042	0.000000	0.000000	2133.21	895.45
2	FID		ACIS-I-5	7.07	4435	-0.421	0.097	0.021	0.036	0.000000	0.000000	-1834.93	892.43
3	GUIDE	used	1060241632	8.34	8869	0.088	0.209	0.083	0.131	81.345996	-47.094202	253.40	-460.48
4	GUIDE	used	1060241920	8.89	8867	-0.092	0.012	0.152	0.232	80.550892	-47.048536	2198.64	-250.70
5	GUIDE	used	1060242680	9.08	8864	0.174	-0.313	0.104	0.173	81.208334	-47.419510	366.01	752.24
6	GUIDE	used	1060243424	8.20	8864	0.034	0.380	0.118	0.174	81.022129	-47.340573	864.98	559.45
7	GUIDE	used	1060243624	7.87	8864	-0.224	-0.294	0.085	0.138	80.433075	-47.646530	2057.79	1916.40

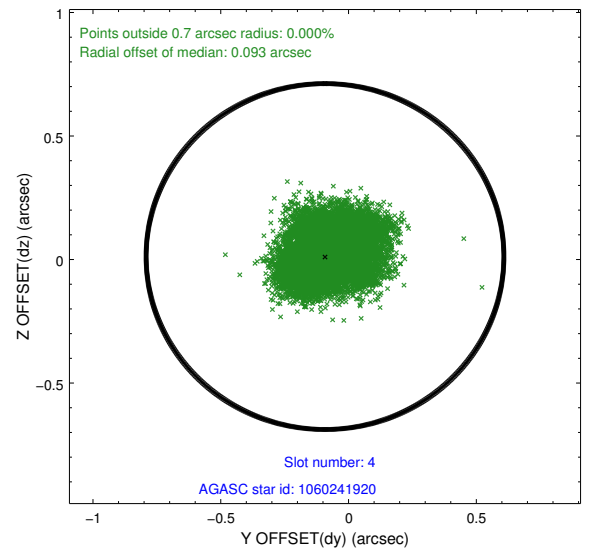
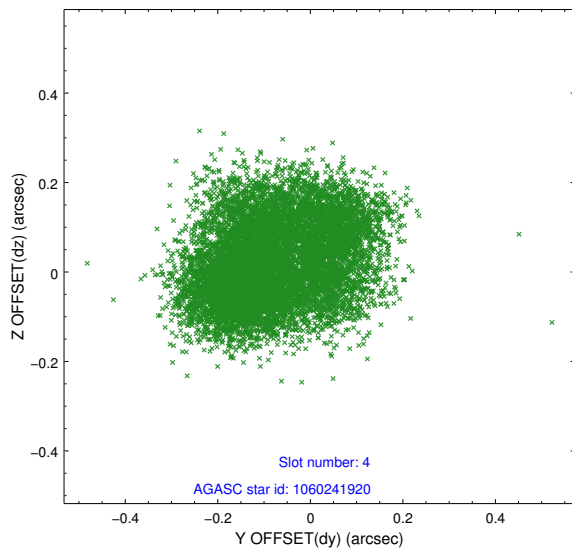
∞

2.4 Star Slots

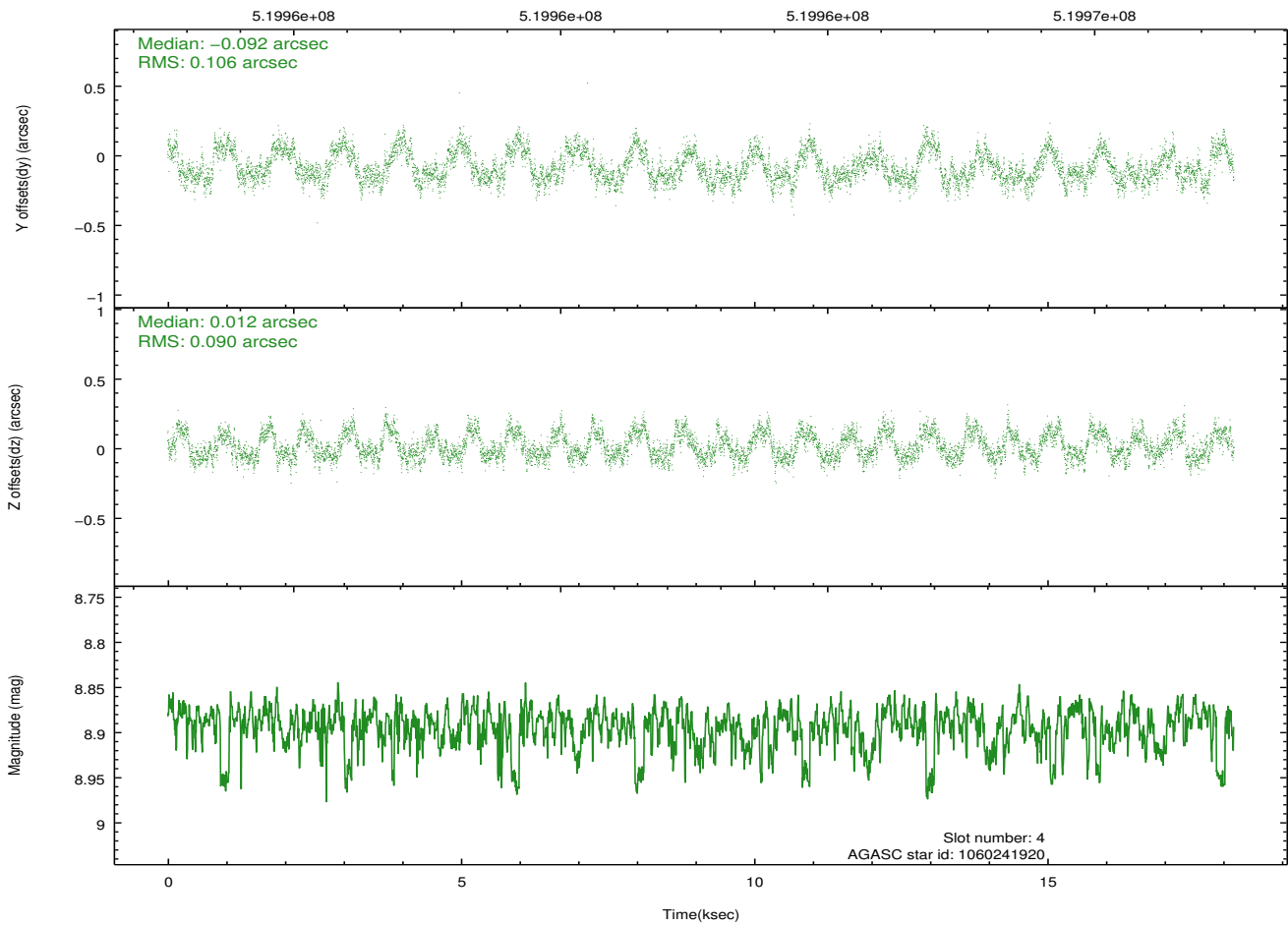
2.4.1 Slot 3



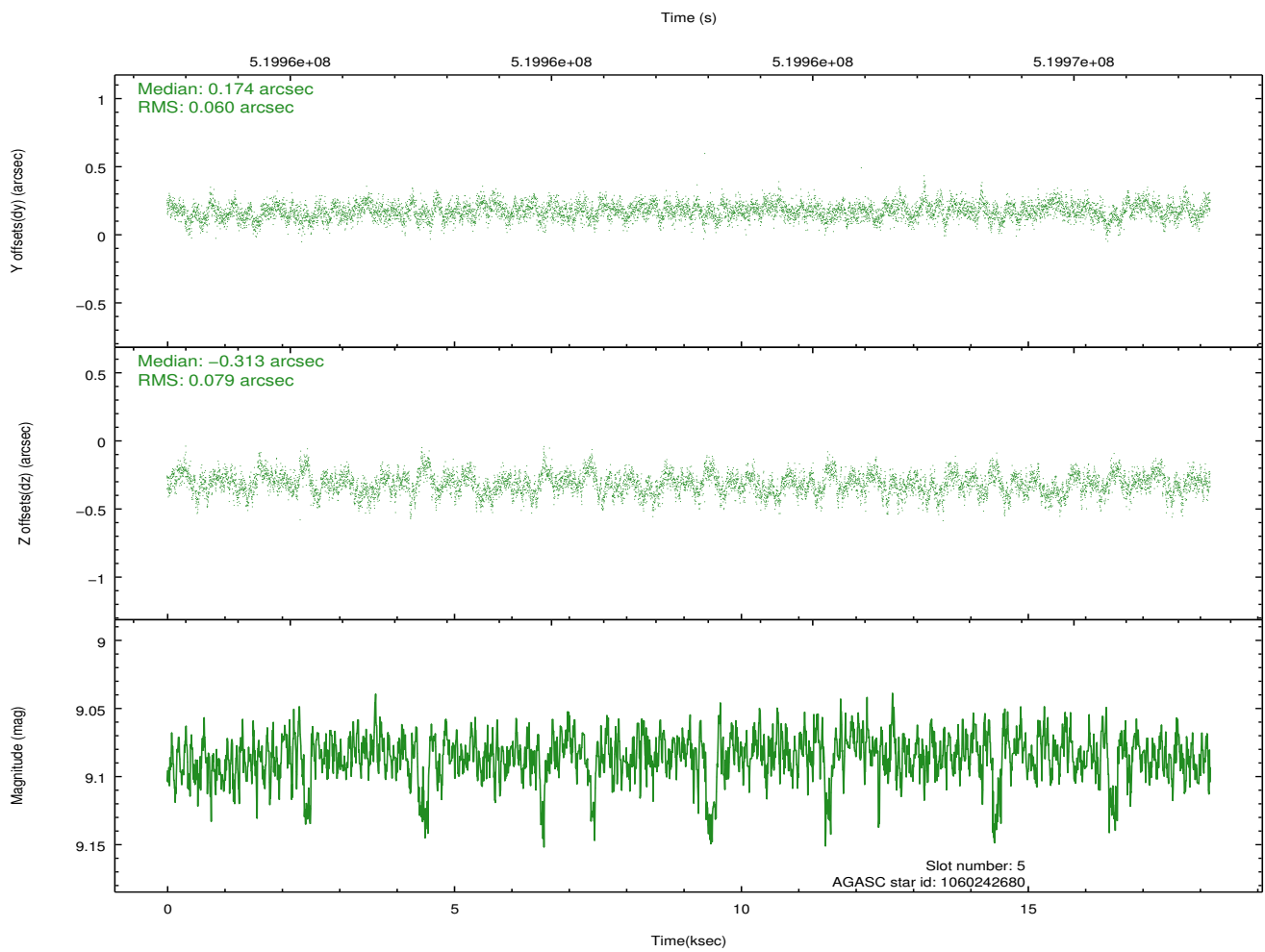
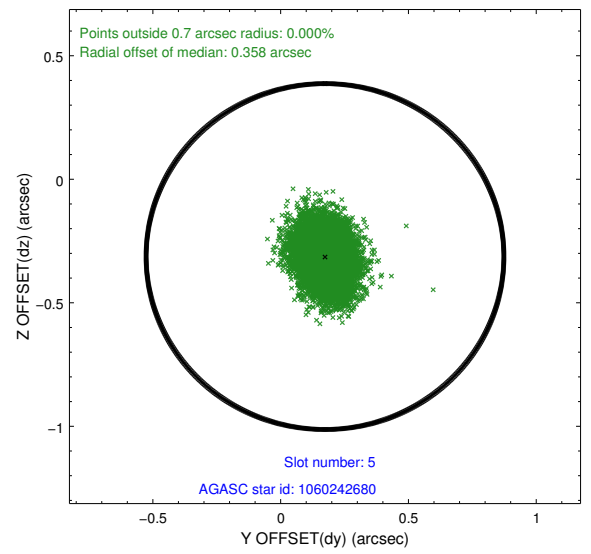
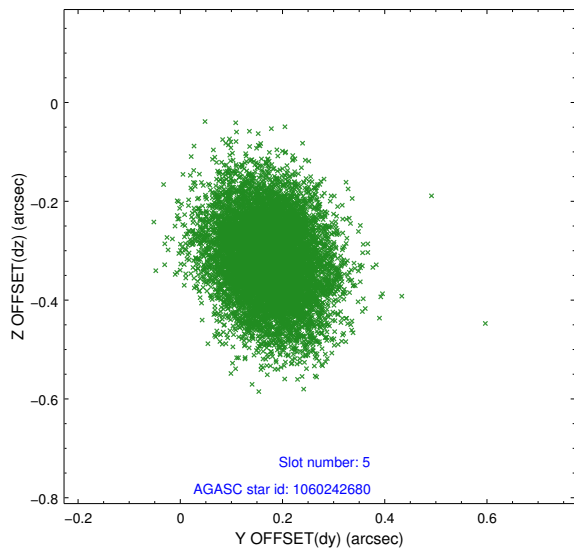
2.4.2 Slot 4



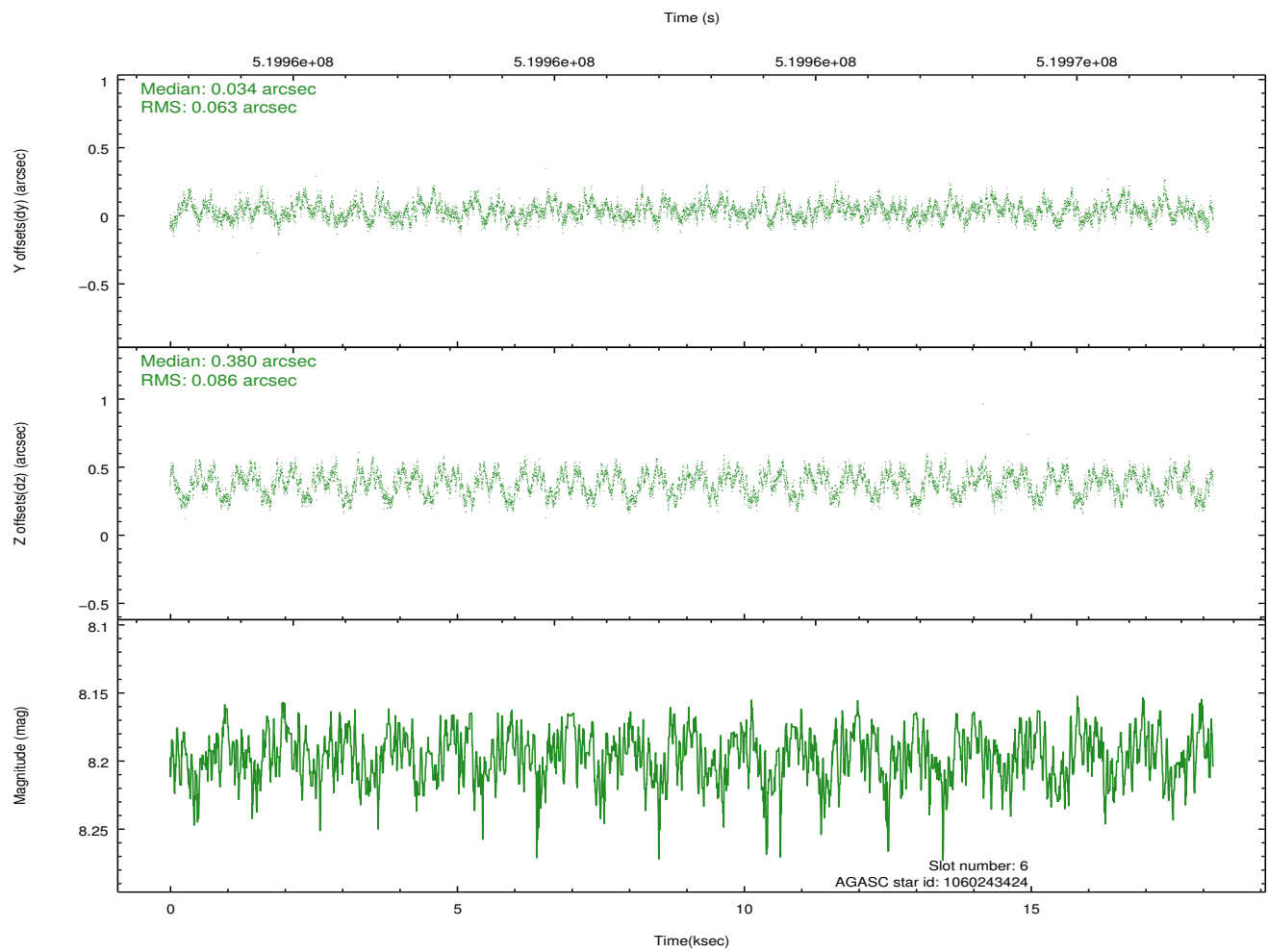
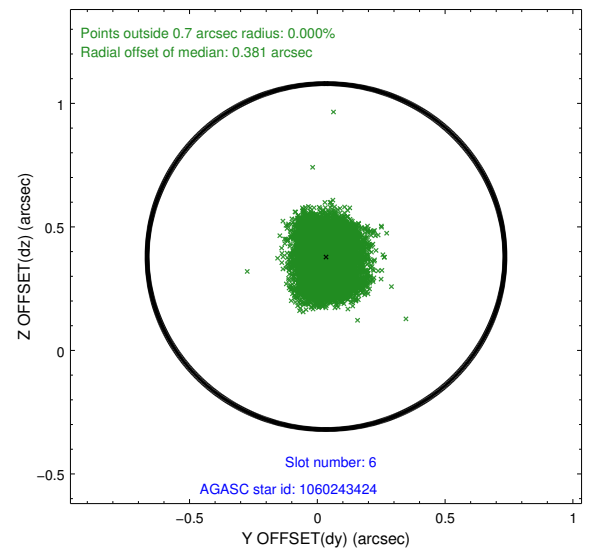
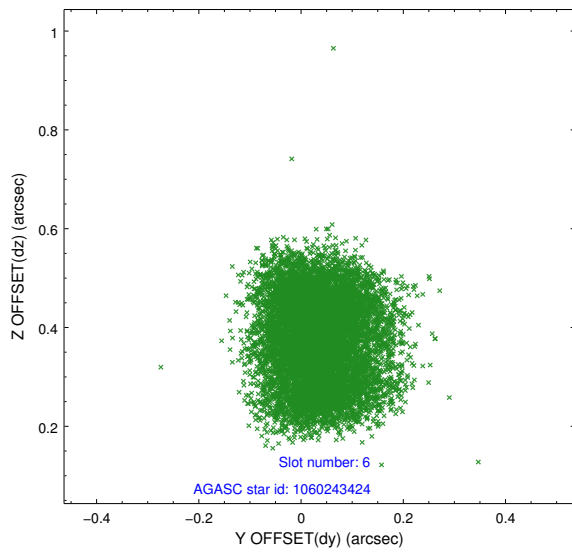
Time (s)



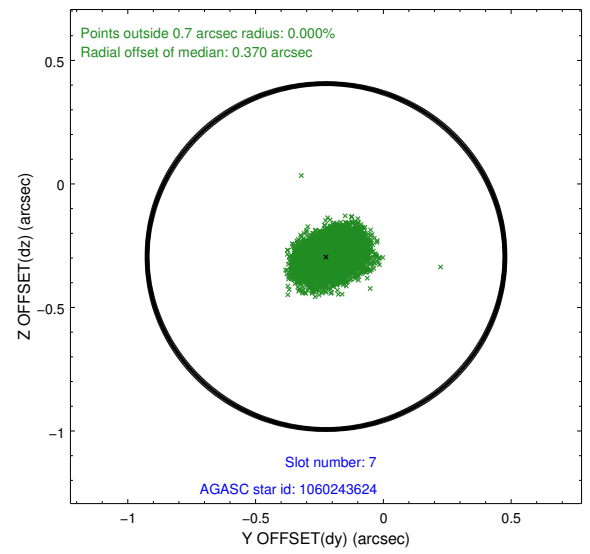
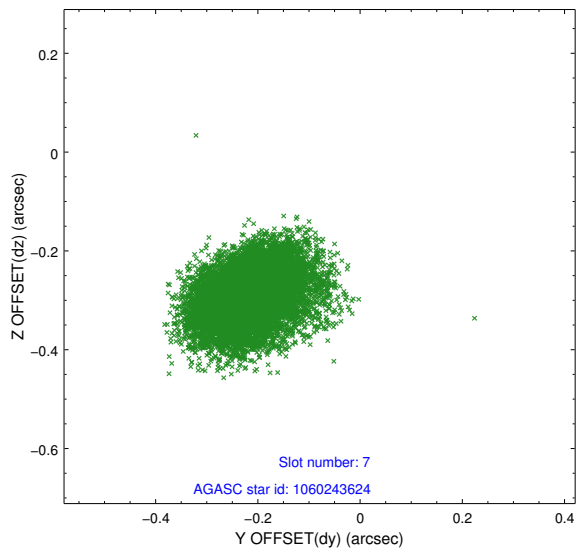
2.4.3 Slot 5



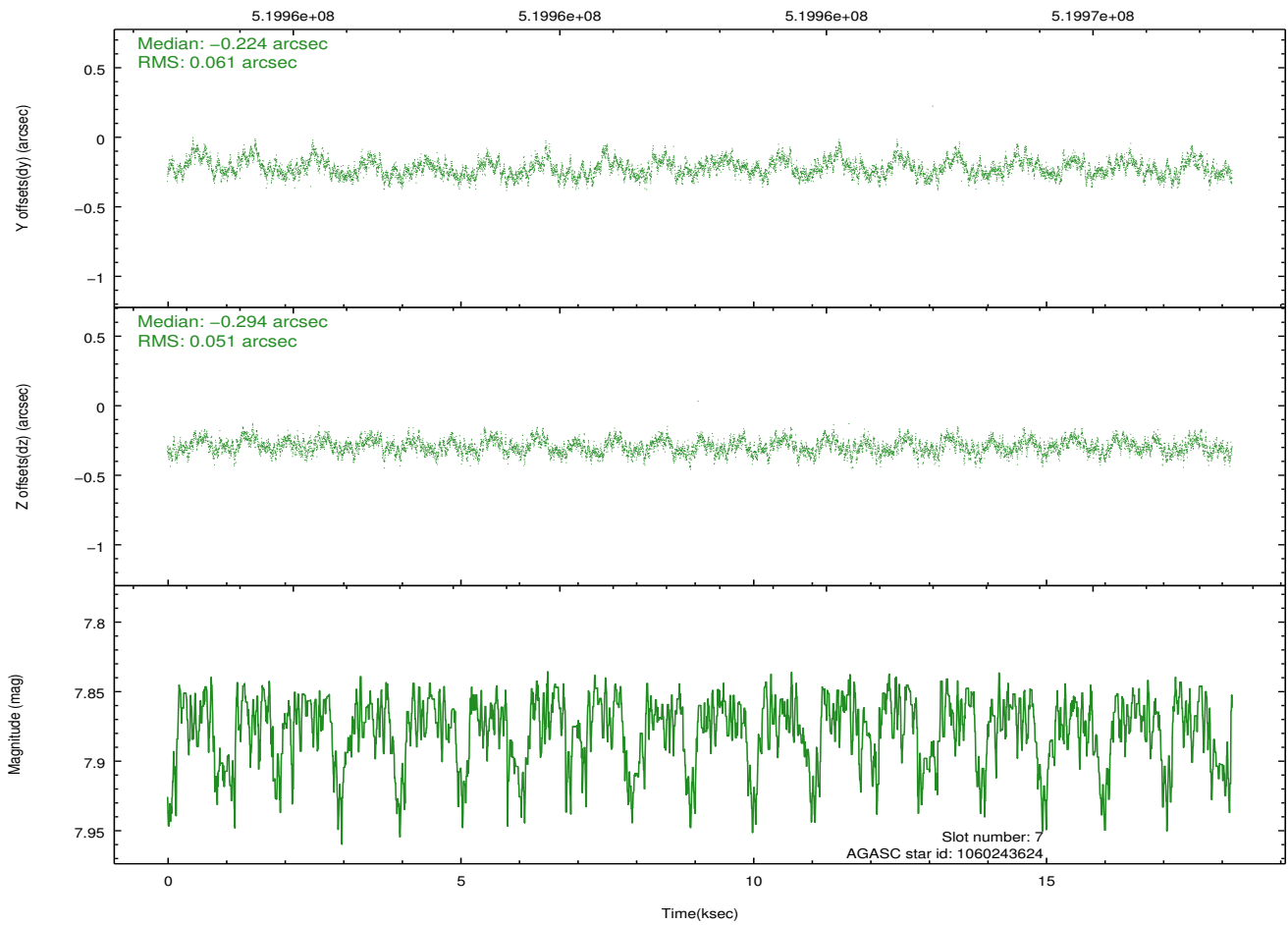
2.4.4 Slot 6



2.4.5 Slot 7

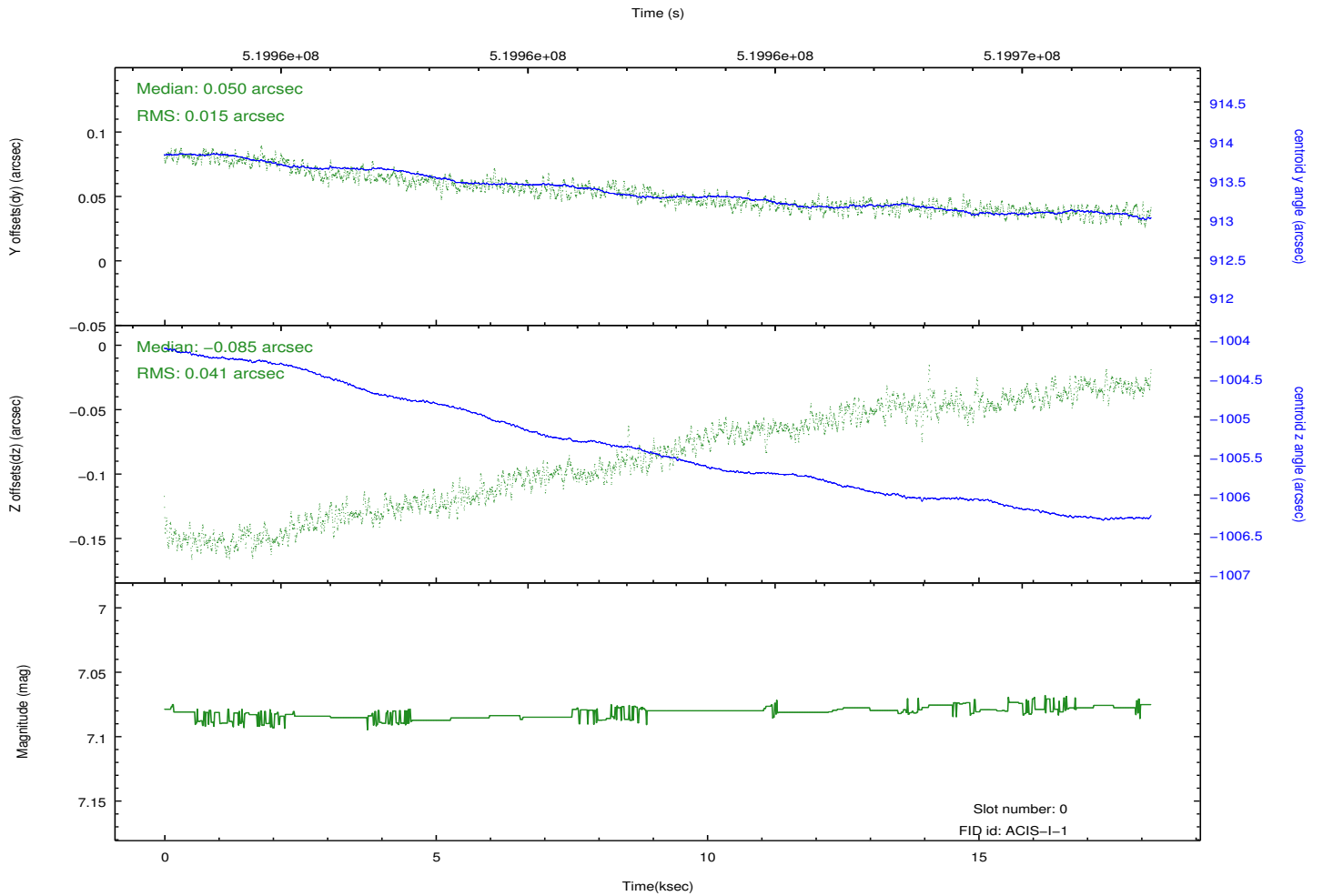
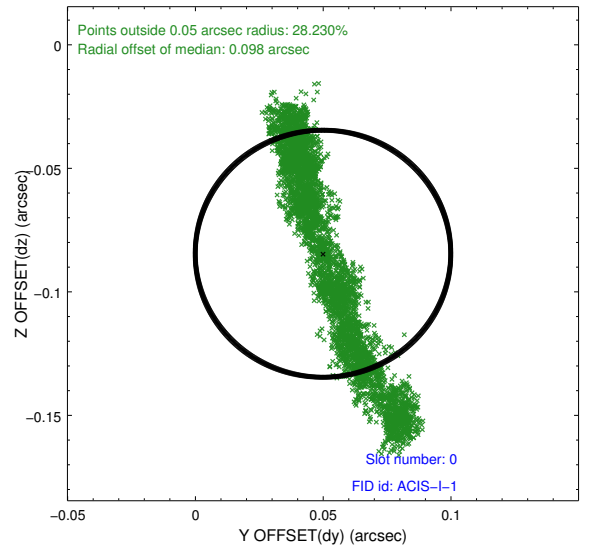
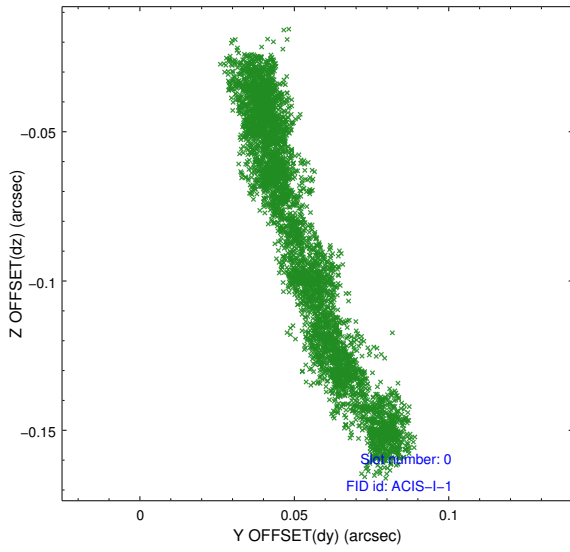


Time (s)

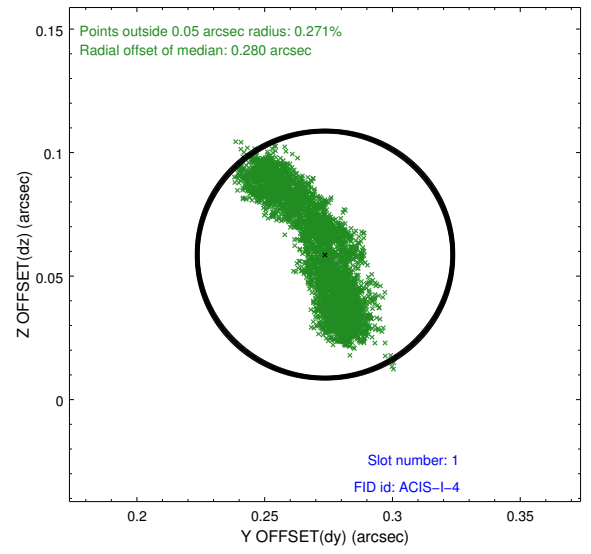
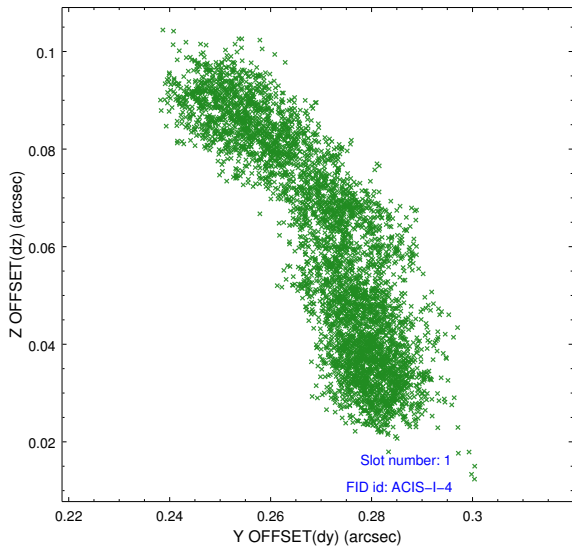


2.5 FID Slots

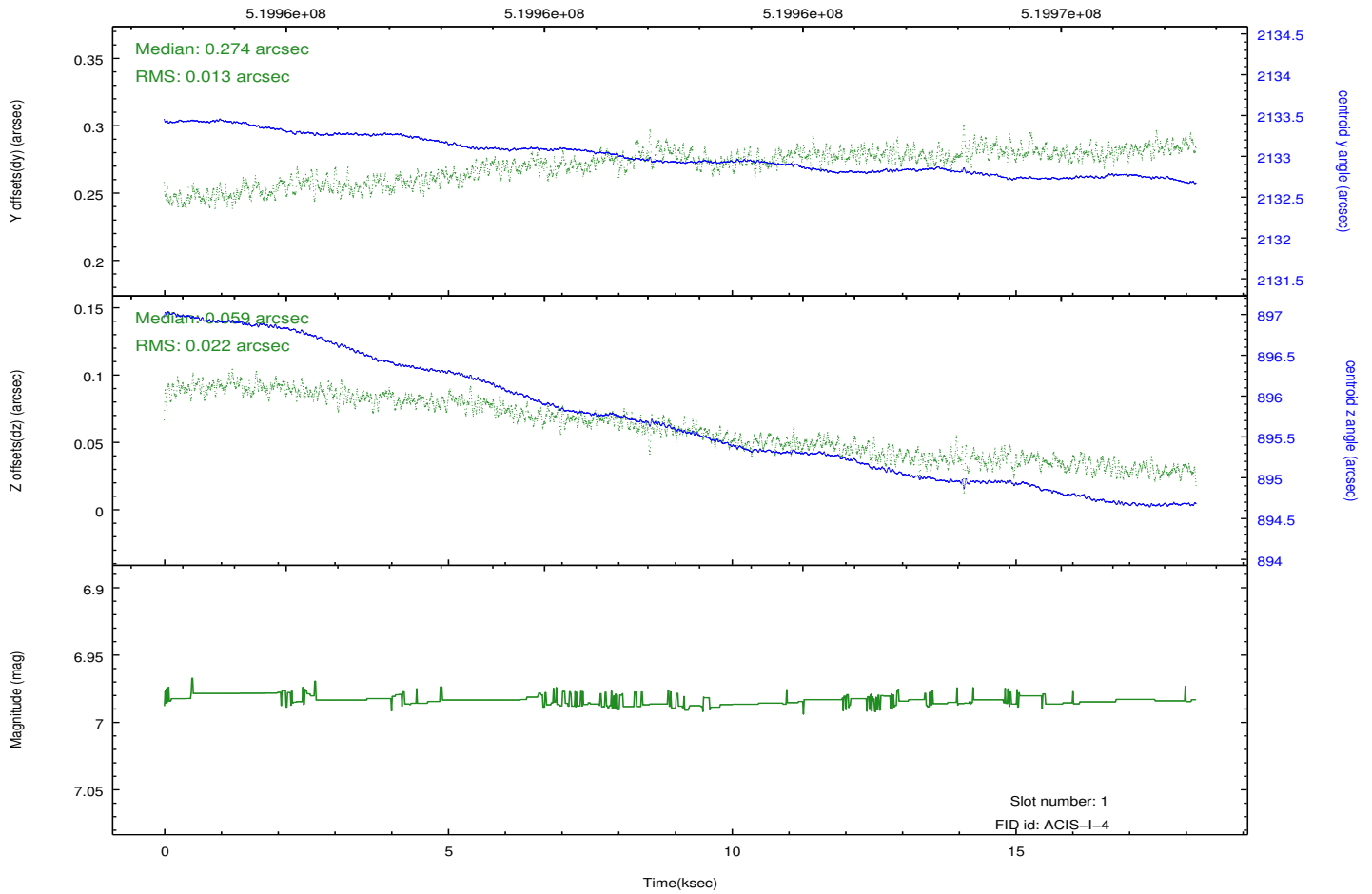
2.5.1 Slot 0



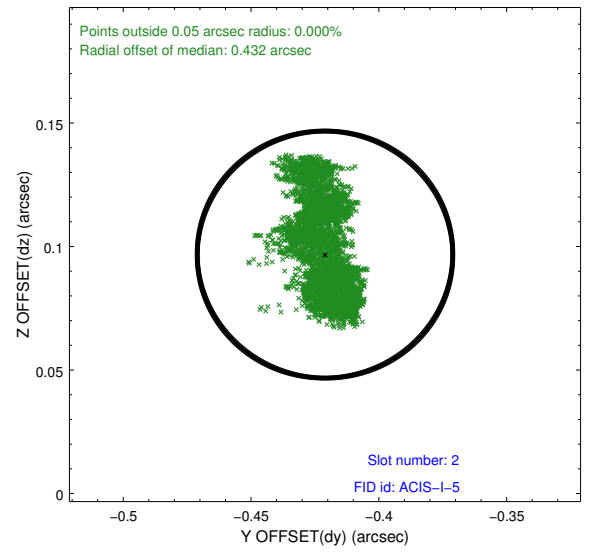
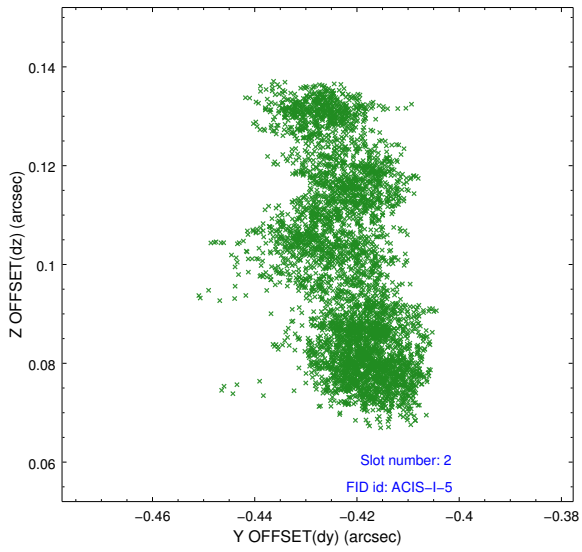
2.5.2 Slot 1



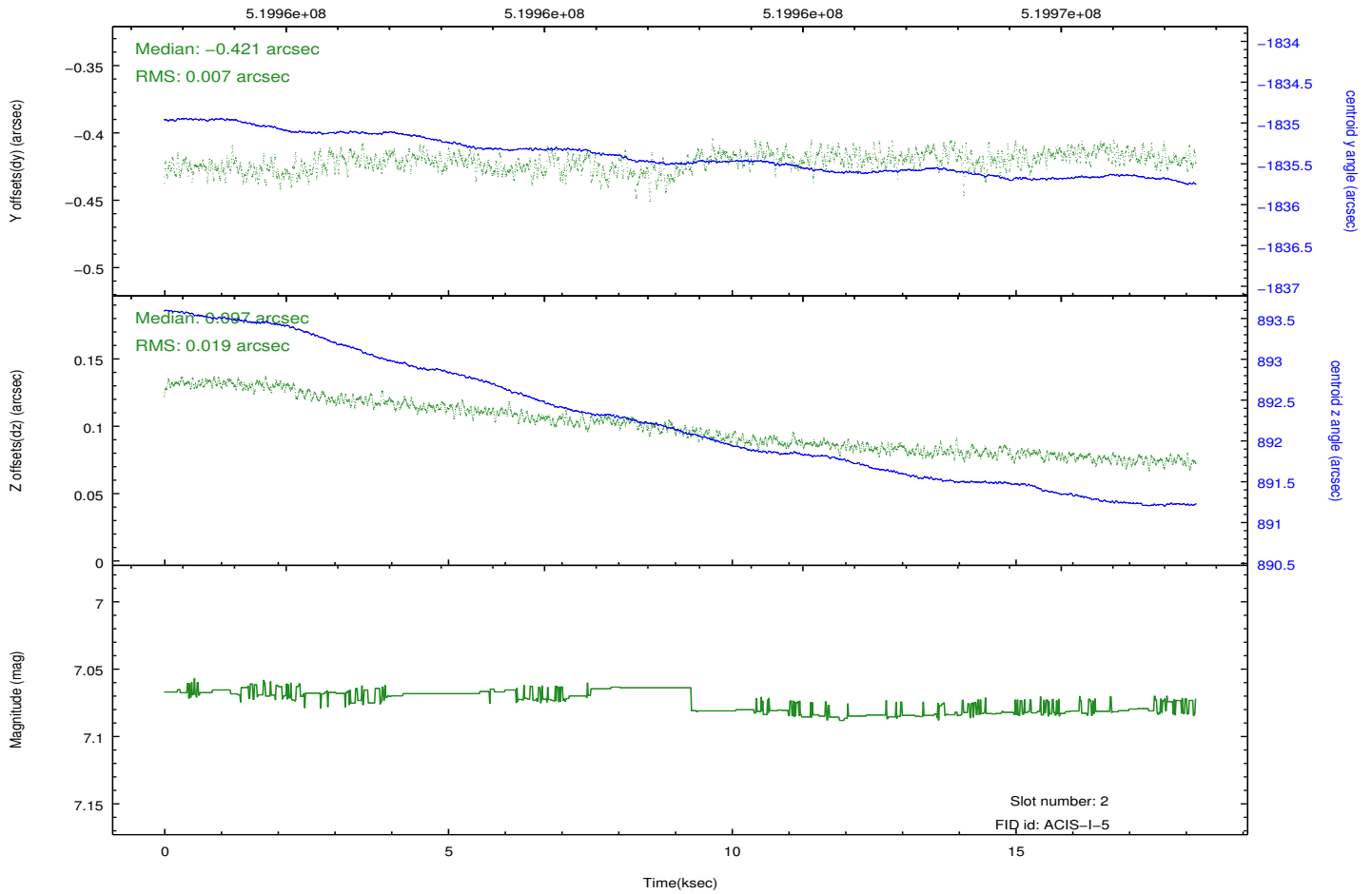
Time (s)



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.08230013907

A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.