

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16582 - L2 Version 2
Chandra X-Ray Center

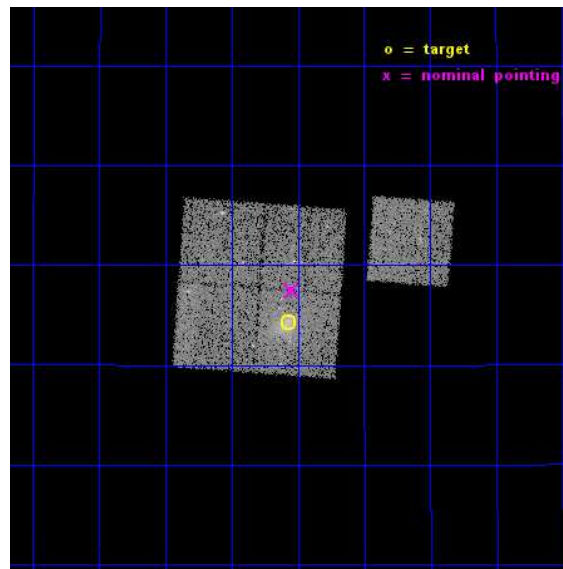
L2 Processing Date : Dec 10 2014

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1 Front

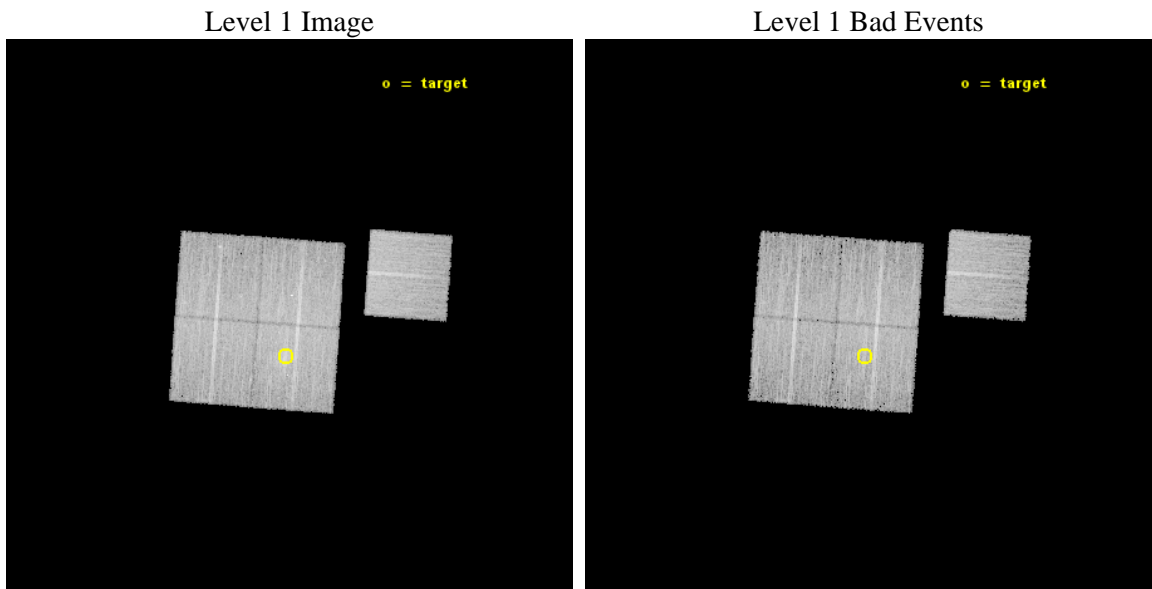
seq_num	801433	Sequence number
obs_id	16582	Observation id
title	HST Frontier Fields Cluster Study	Proposal title
observer	Dr Stephen Murray	Principal investigator
object	MACSJ1149.5+2223	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	177.39375	Observer's specified target RA [deg]
dec_targ	22.404278	Observer's specified target Dec [deg]
ra_nom	177.38701176023	Nominal RA [deg]
dec_nom	22.458347157708	Nominal Dec [deg]
roll_nom	94.21124933765	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19083.111948073	Sum of GTIs [s]
livelime	18833.777041689	Livetime [s]
ontime0	19086.129828393	Sum of GTIs [s]
ontime1	19083.029867947	Sum of GTIs [s]
ontime2	19086.2119084	Sum of GTIs [s]
ontime3	19083.111948073	Sum of GTIs [s]
ontime6	19086.08878839	Sum of GTIs [s]
l2events	51131	Number of level 2 events



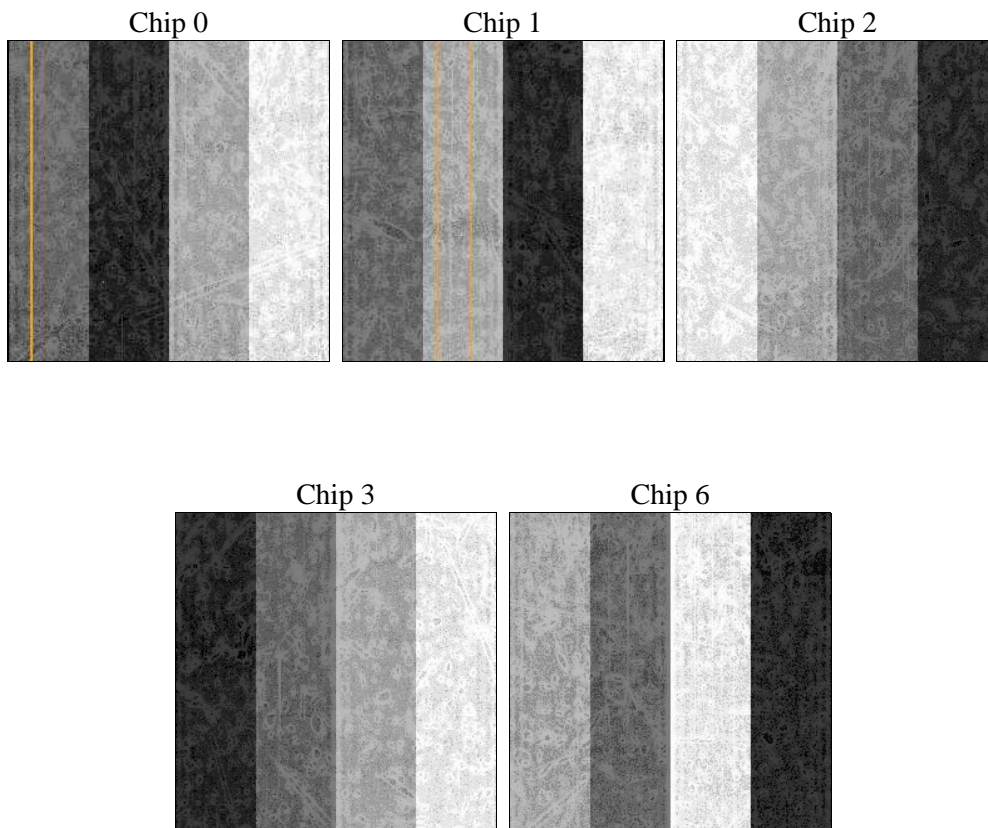
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	19083.111948073	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	19086.129828393	Sum of GTIs [s]
date	2014-12-10T04:45:03	Date and time of file creation	ontime1	19083.029867947	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	19086.2119084	Sum of GTIs [s]
			ontime3	19083.111948073	Sum of GTIs [s]
			ontime6	19086.08878839	Sum of GTIs [s]
			l1events	428933	Number of level 1 events

2.1.4 Events

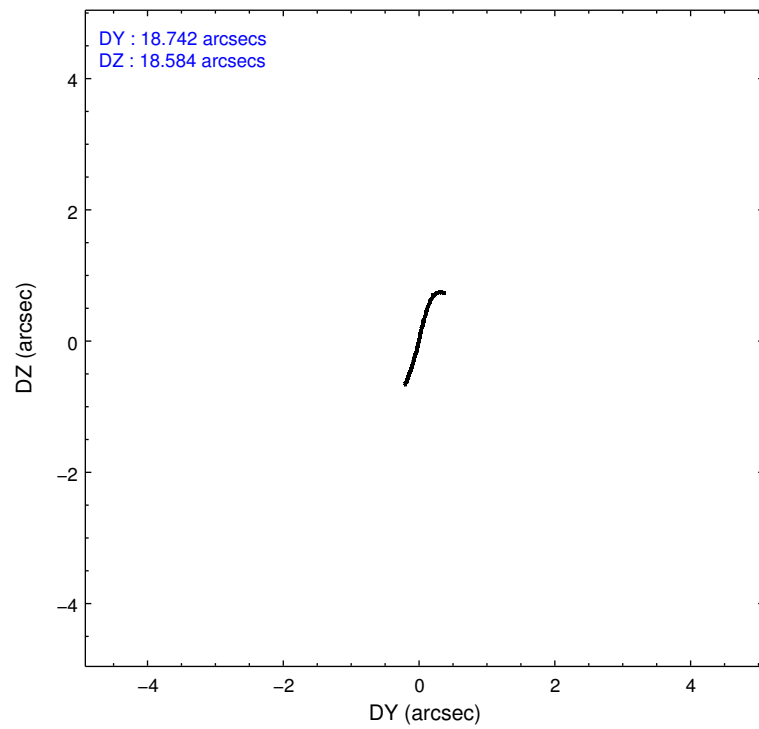
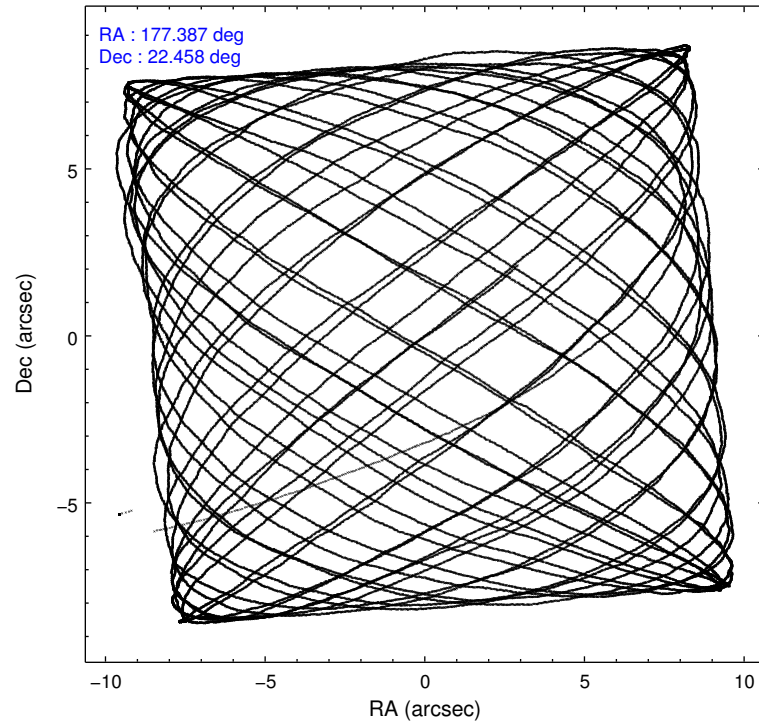
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	79785	82630	87674	90827	88017
rejected events	69095	70833	76719	76041	76918
rejected %	86%	85%	87%	83%	87%

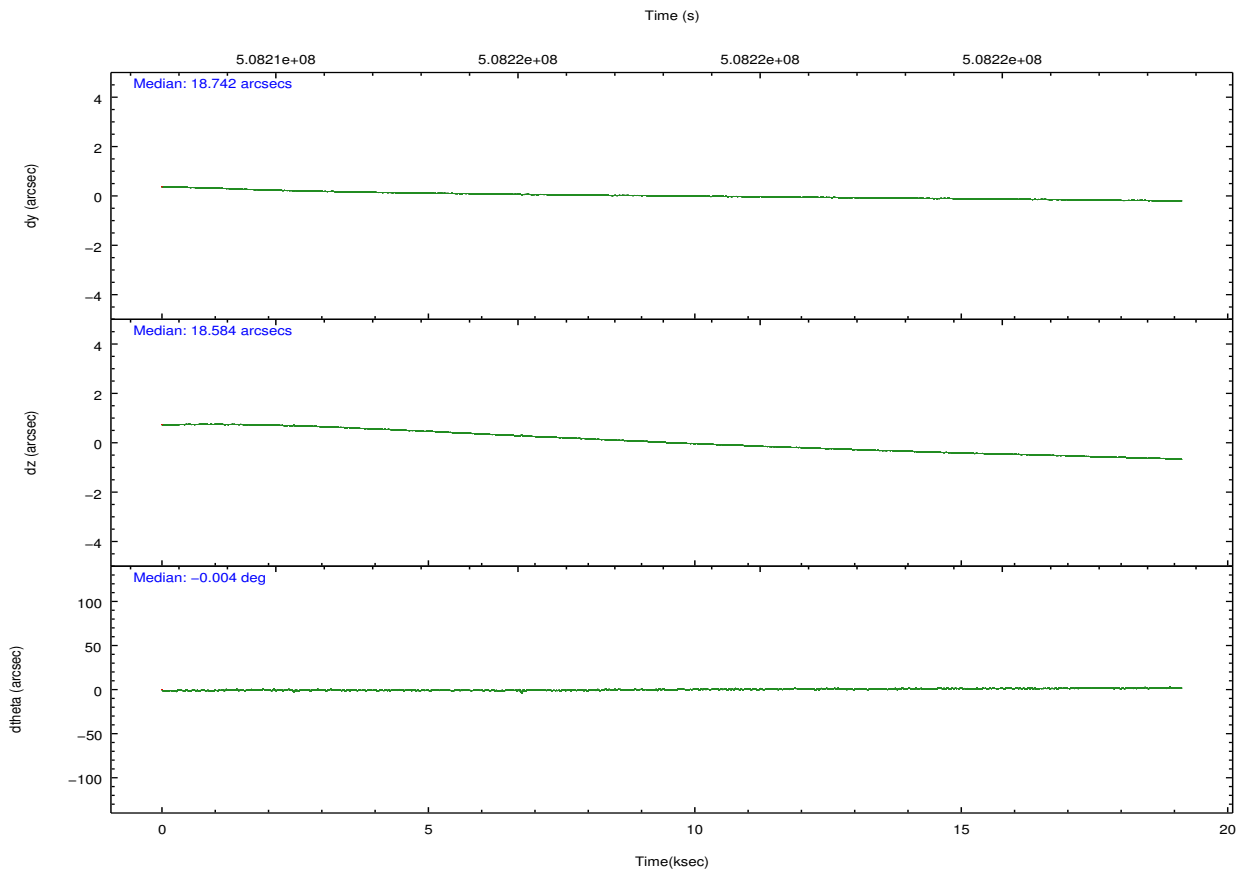
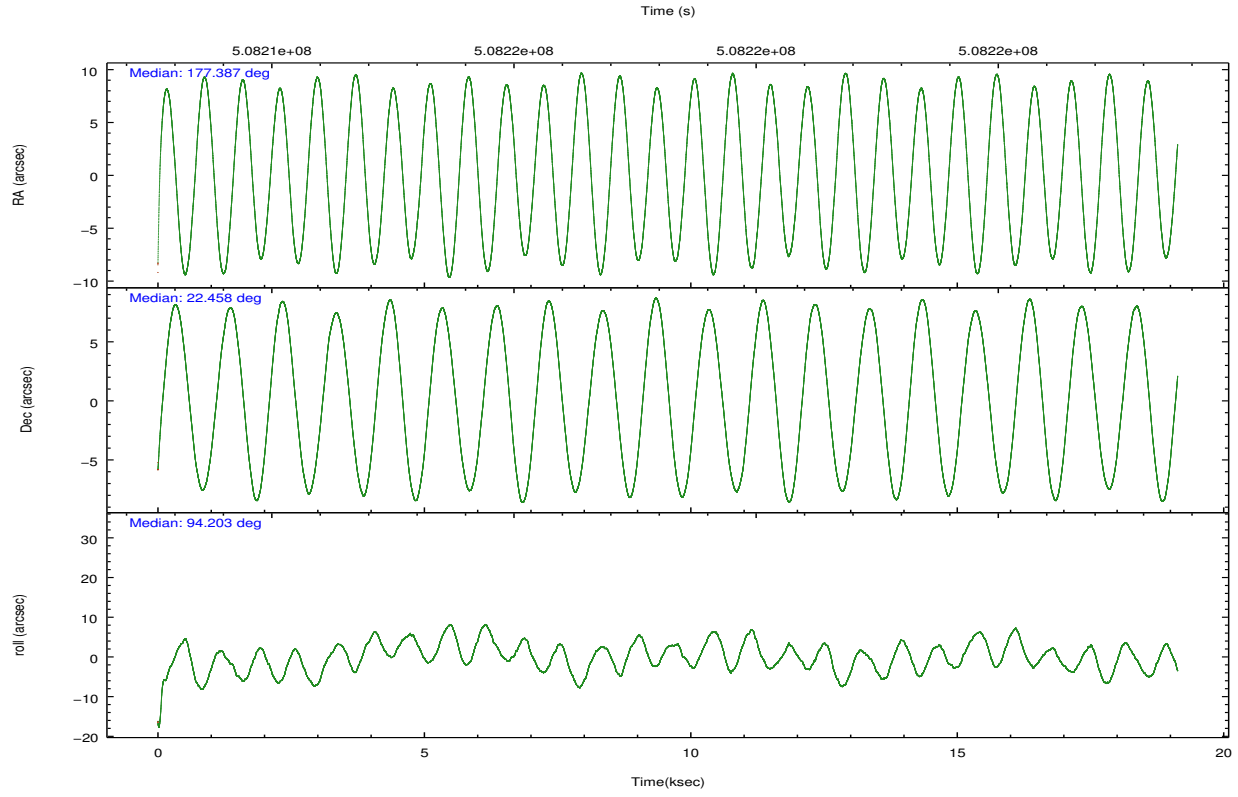
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3839	4193	4057	7370	3870
	4%	5%	4%	8%	4%
grade 1 events	52	49	43	72	52
	0%	0%	0%	0%	0%
grade 2 events	2656	2784	2647	2752	2499
	3%	3%	3%	3%	2%
grade 3 events	1029	1120	1084	1165	1071
	1%	1%	1%	1%	1%
grade 4 events	1004	1168	1086	1237	1093
	1%	1%	1%	1%	1%
grade 5 events	4310	4530	4079	4837	4655
	5%	5%	4%	5%	5%
grade 6 events	2164	2539	2084	2266	2569
	2%	3%	2%	2%	2%
grade 7 events	64731	66247	72594	71128	72208
	81%	80%	82%	78%	82%

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	177.403848	177.3870117602339	CCD I2 on	Y	Y
[deg] Pointing Dec	22.435678	22.45834715770751	CCD I3 on	Y	Y
[deg] Pointing Roll	93.996144	94.21124933765029	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)	508208744.184000	508207548.13711	CCD S5 on	N	N
Observation start date	2014-02-08T01:04:37	2014-02-08T00:45:48	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	508227744.184000	508228178.82574	On-chip summing requested	N	N
Observation end date	2014-02-08T06:21:17	2014-02-08T06:29:38	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





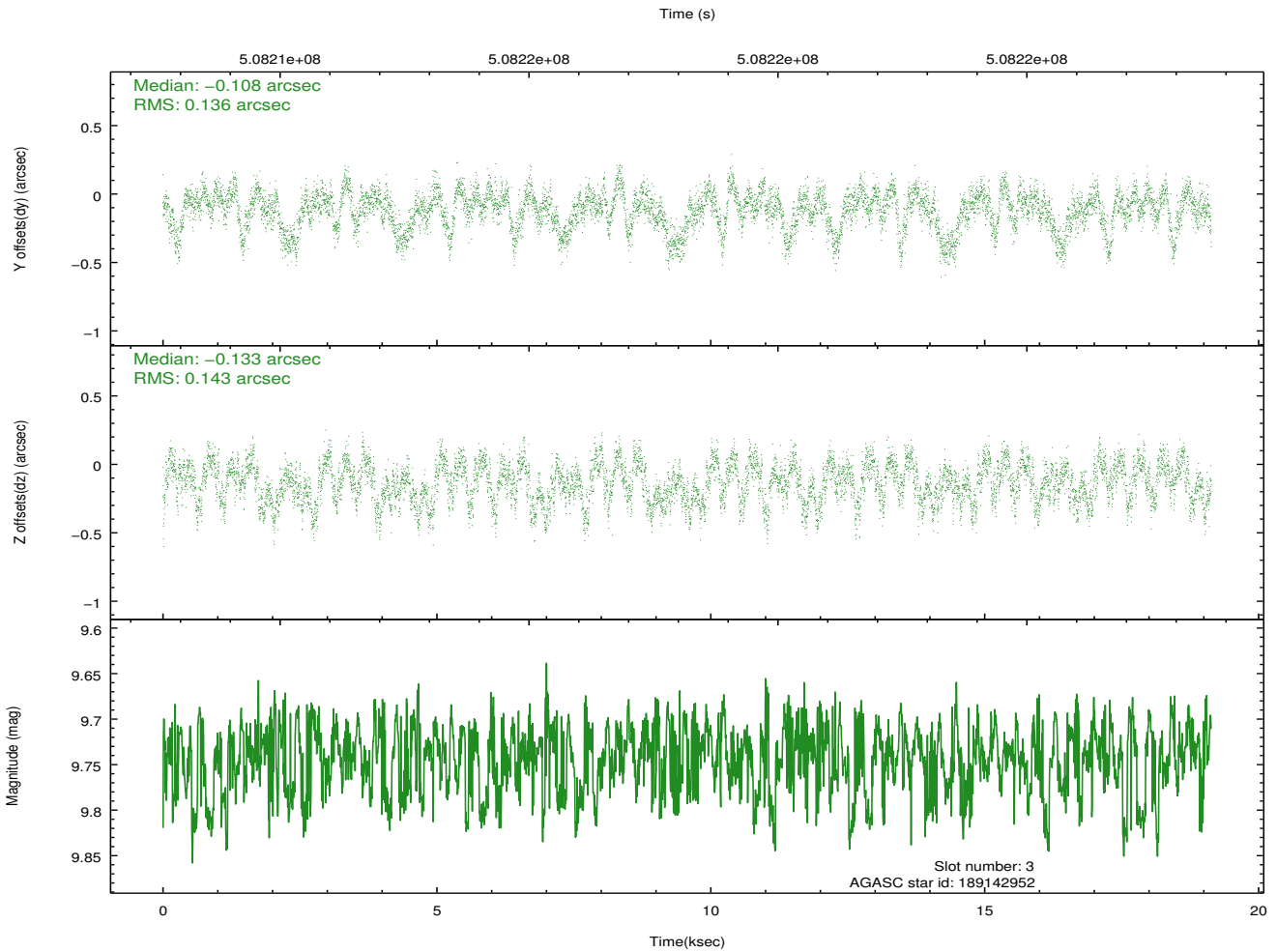
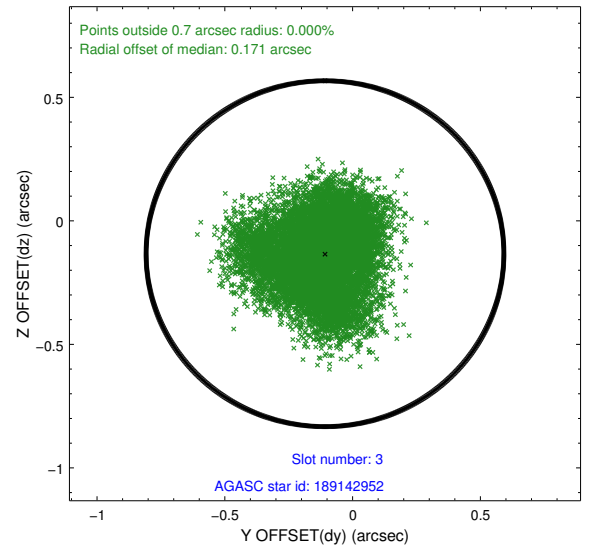
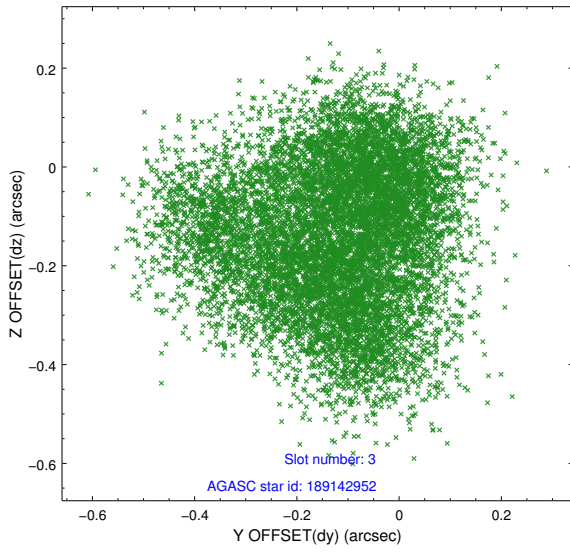
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.16	4668	0.144	-0.104	0.016	0.025	0.000000	0.000000	920.63	-1001.47
1	FID		ACIS-I-5	7.15	4667	-0.344	0.103	0.014	0.020	0.000000	0.000000	-1827.93	895.98
2	FID		ACIS-I-6	7.17	4667	0.110	0.071	0.012	0.018	0.000000	0.000000	385.82	1540.77
3	GUIDE	used	189142952	9.74	9325	-0.108	-0.133	0.216	0.327	177.368318	22.496408	226.40	103.95
4	GUIDE	used	189143696	9.55	9331	0.184	0.358	0.206	0.332	178.041363	22.456622	-67.47	-2120.36
5	GUIDE	used	189147384	9.76	9330	0.203	0.434	0.159	0.278	177.889709	22.114499	-1263.18	-1535.80
6	GUIDE	used	260186640	9.80	9325	-0.144	-0.255	0.172	0.269	176.898277	22.985190	2092.95	1533.51
7	GUIDE	used	189148400	9.54	9328	-0.129	-0.388	0.174	0.260	176.690054	22.445682	207.77	2366.47

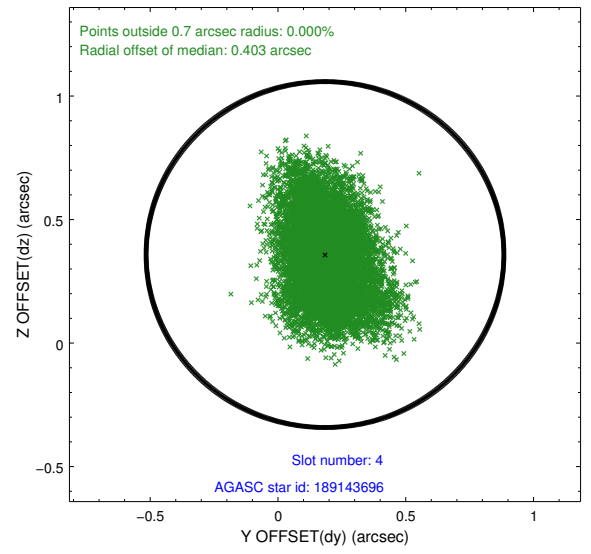
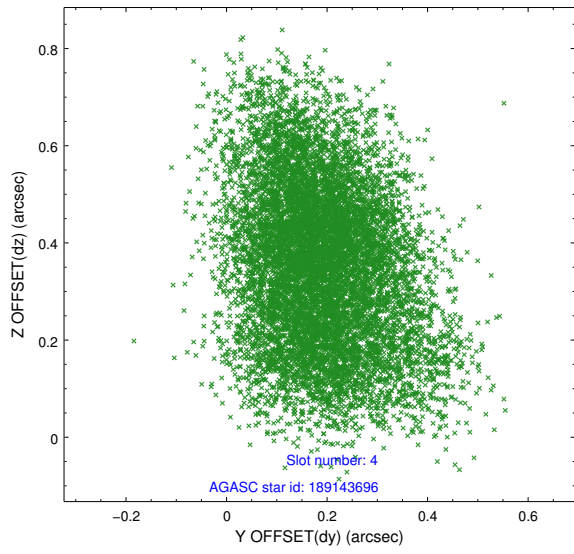
∞

2.4 Star Slots

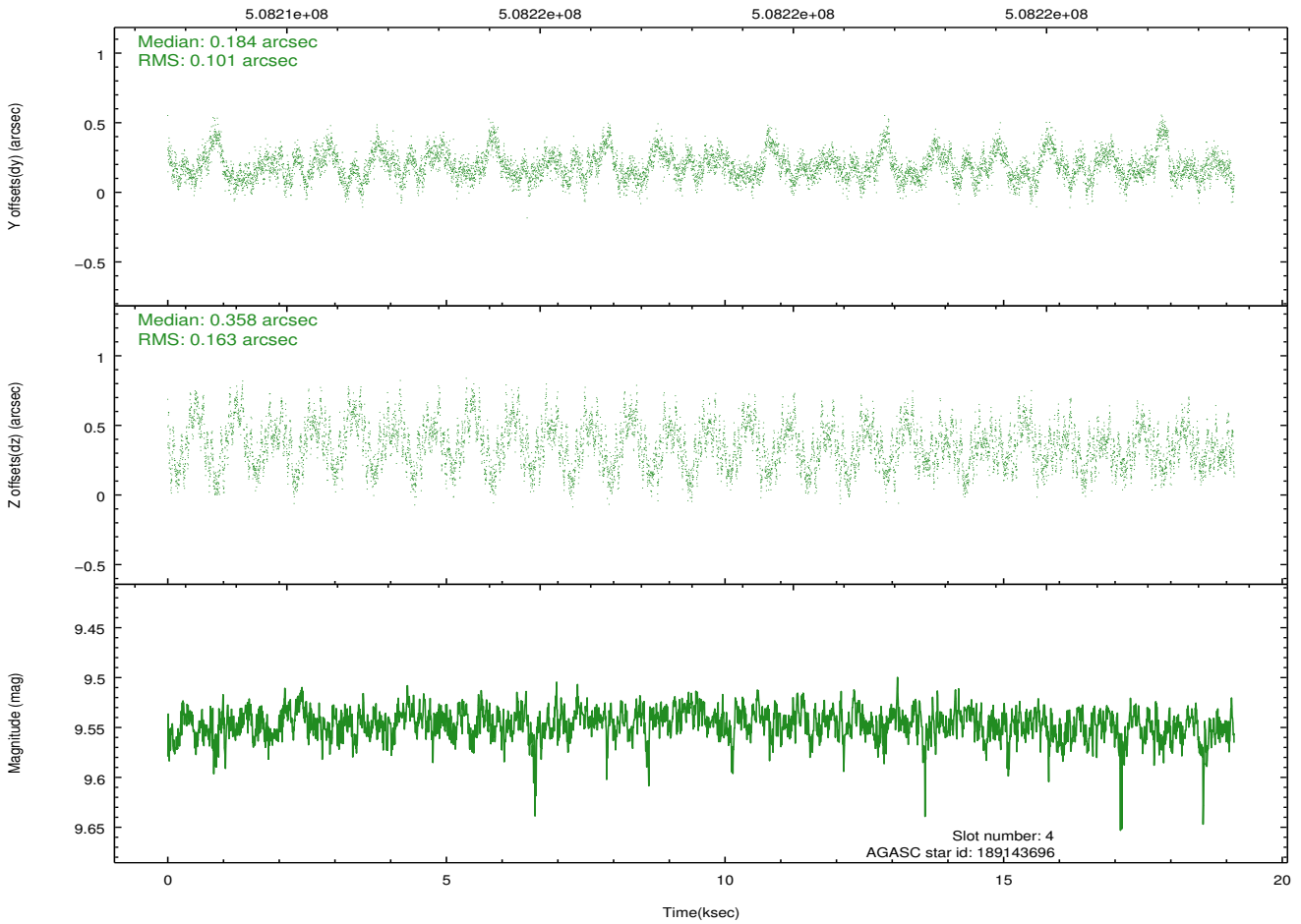
2.4.1 Slot 3



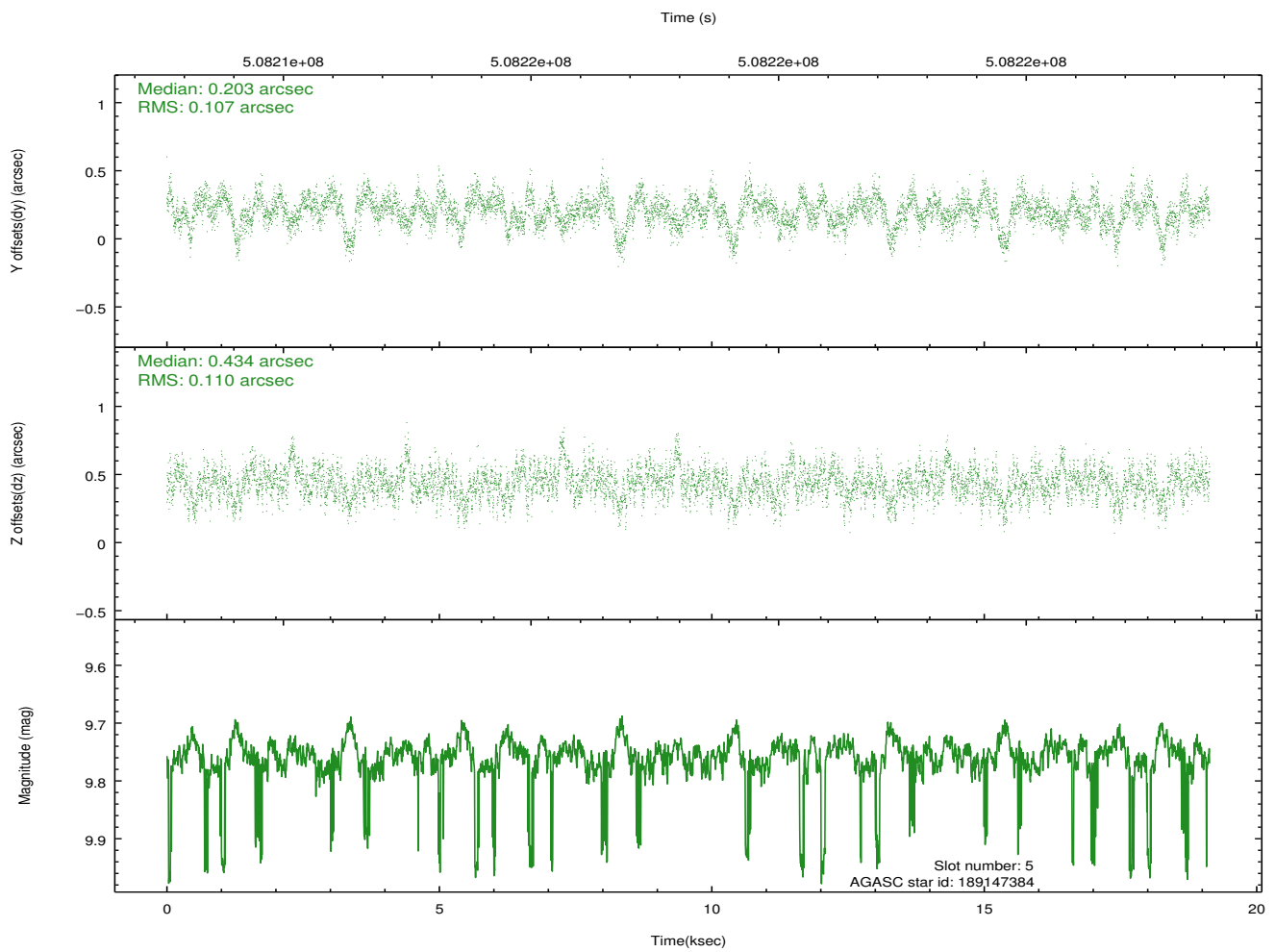
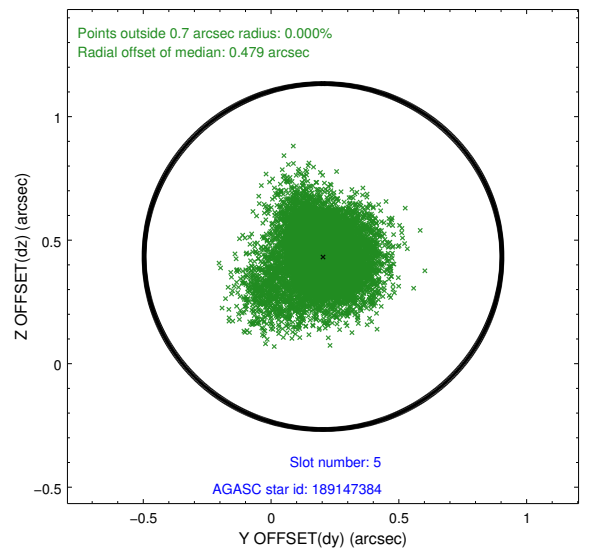
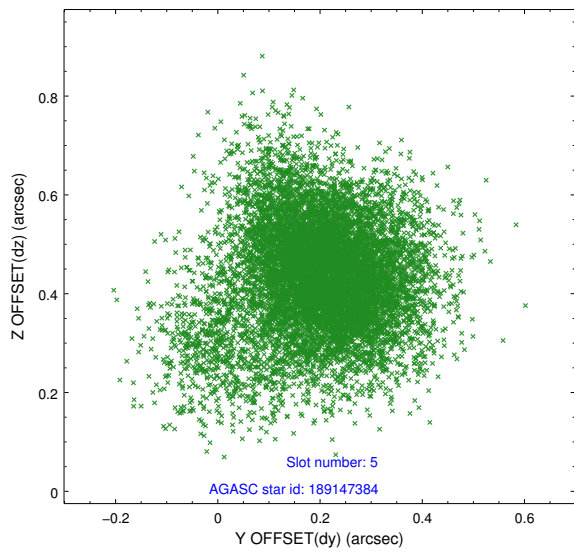
2.4.2 Slot 4



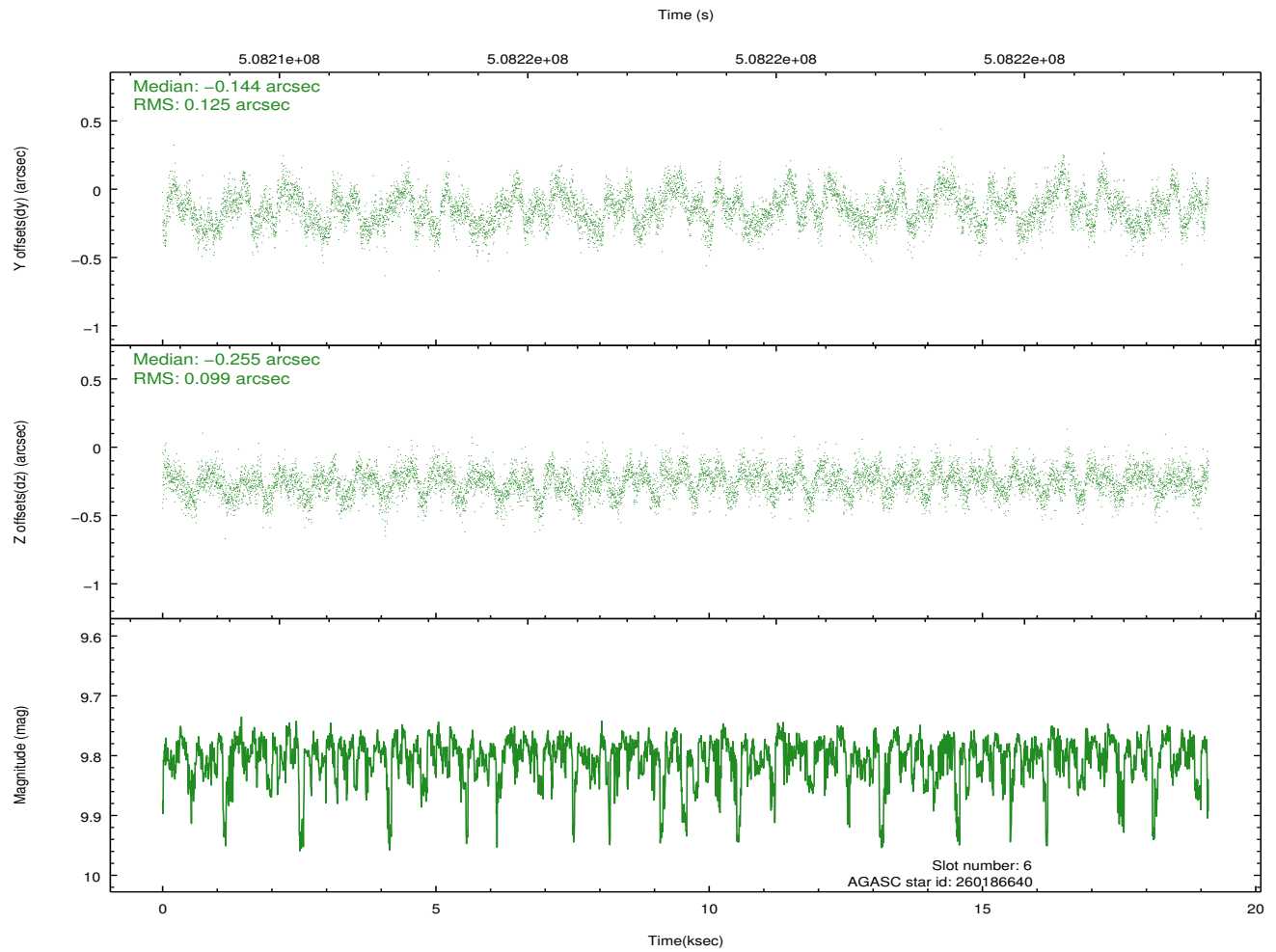
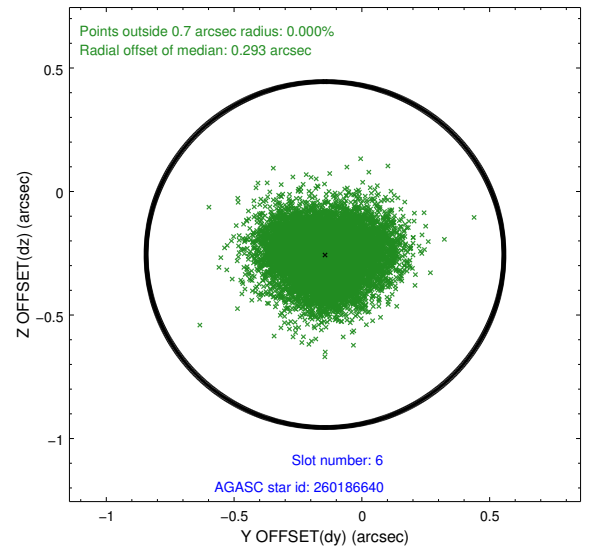
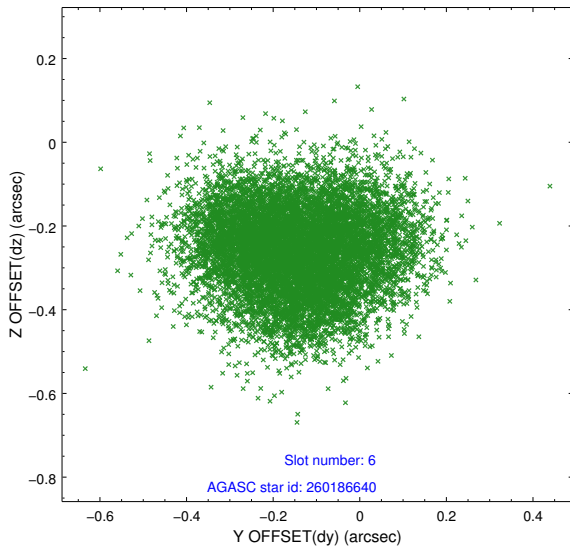
Time (s)



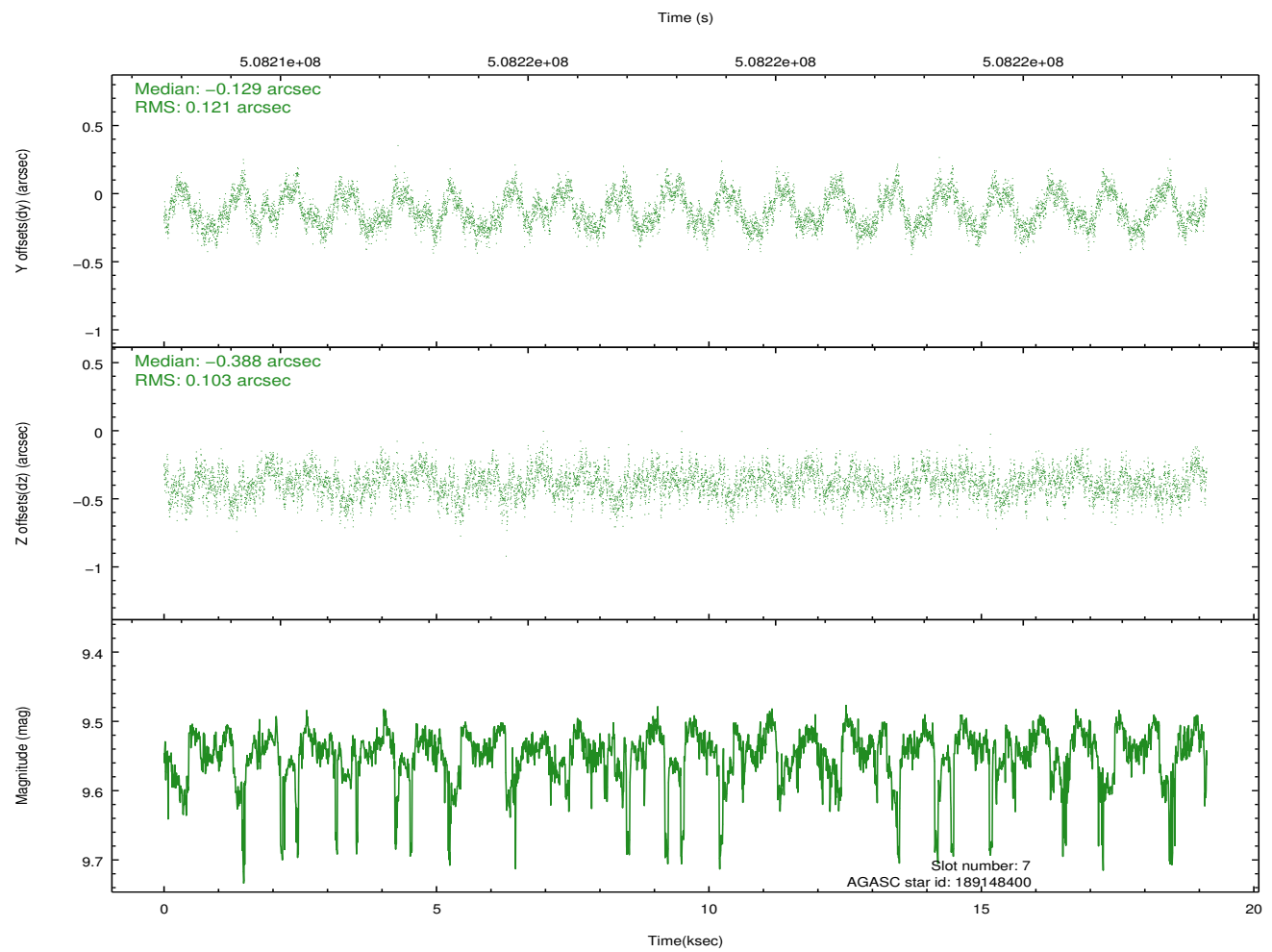
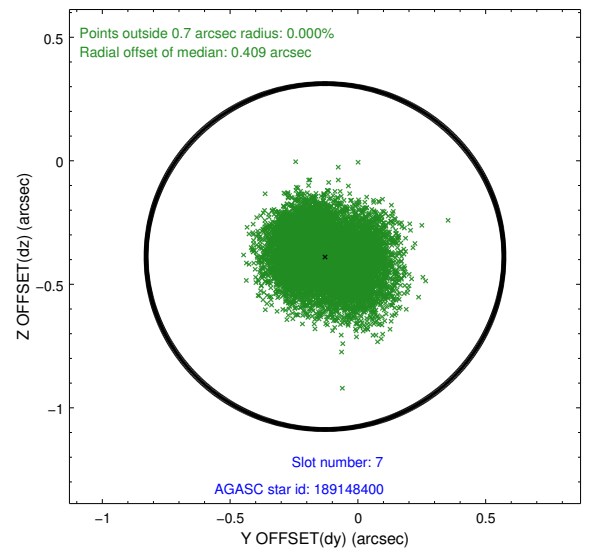
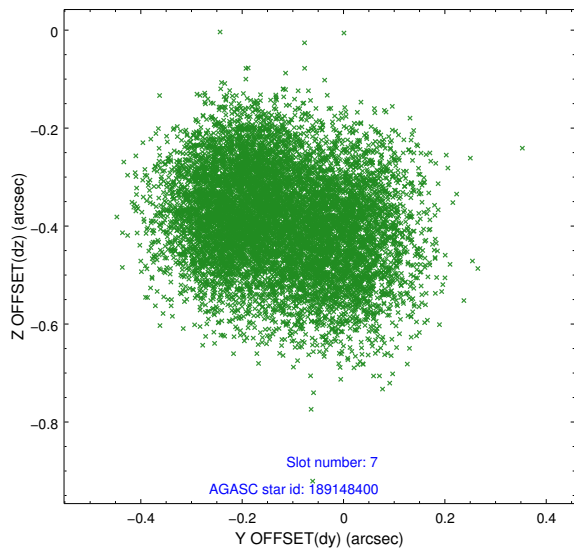
2.4.3 Slot 5



2.4.4 Slot 6

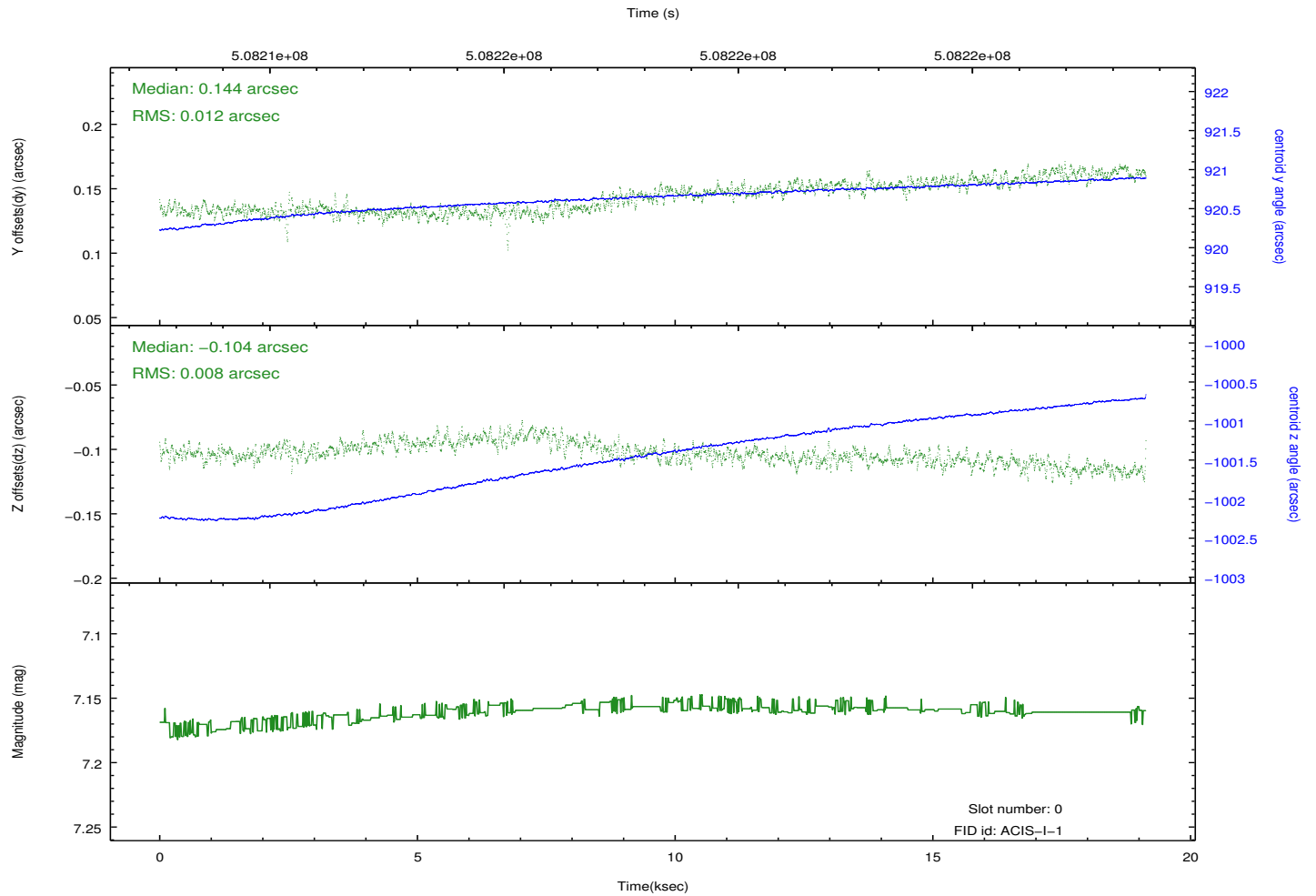
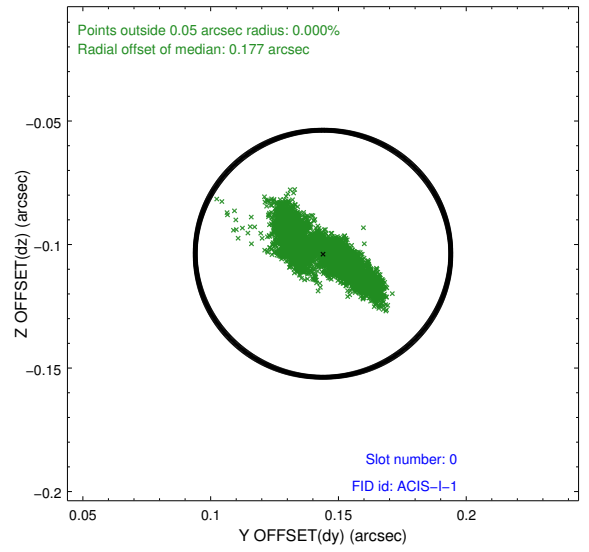
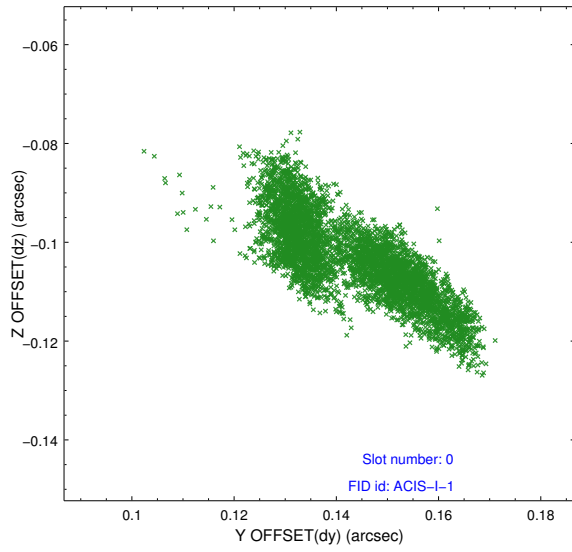


2.4.5 Slot 7

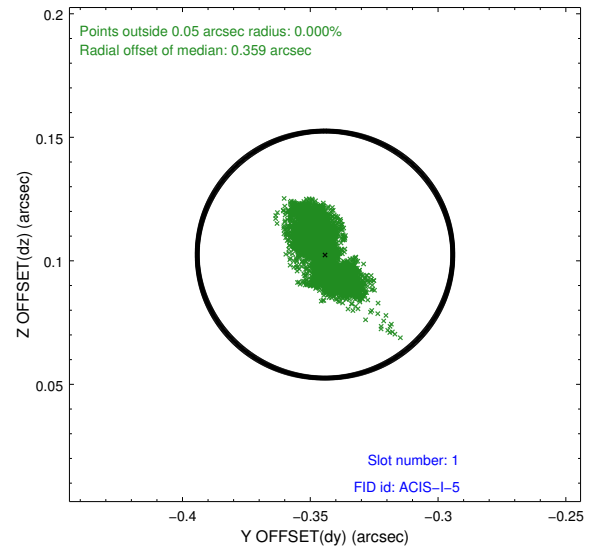
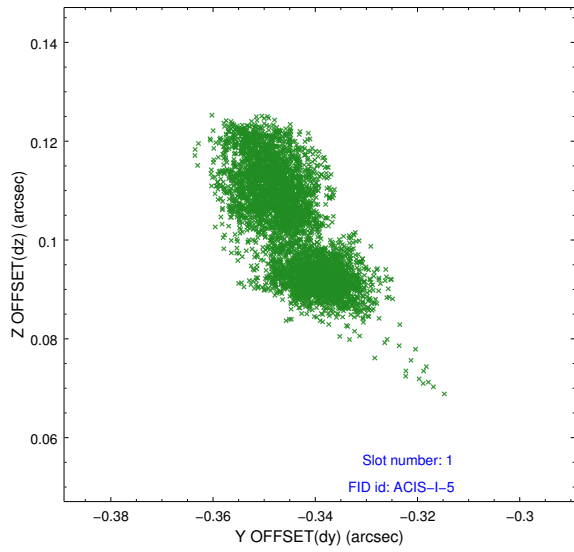


2.5 FID Slots

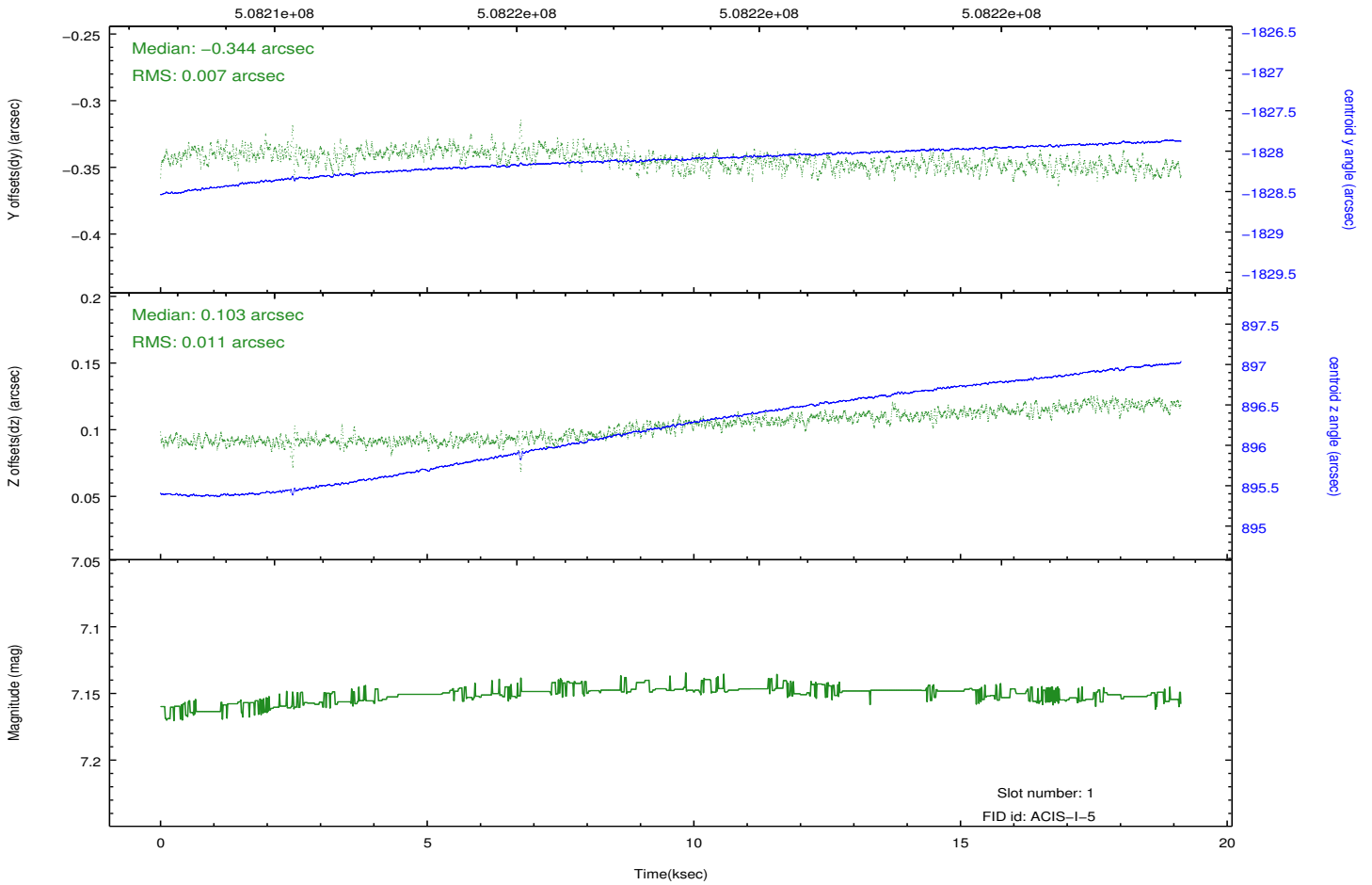
2.5.1 Slot 0



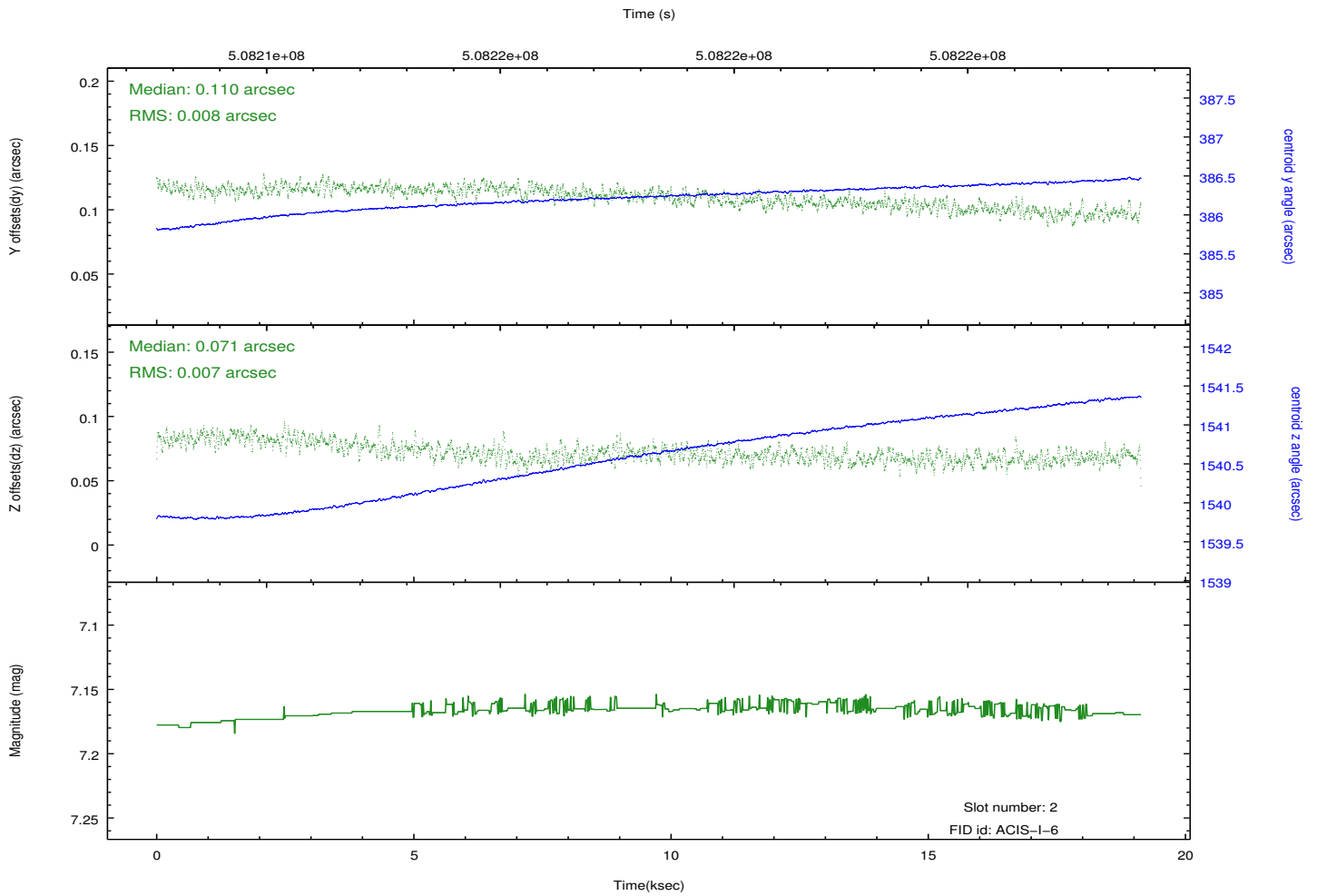
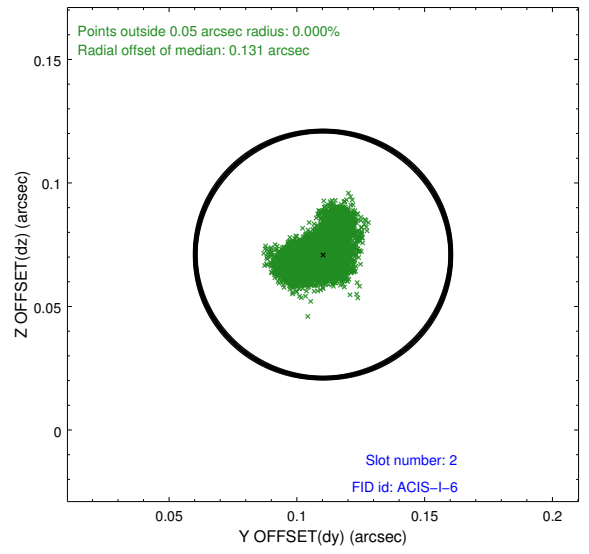
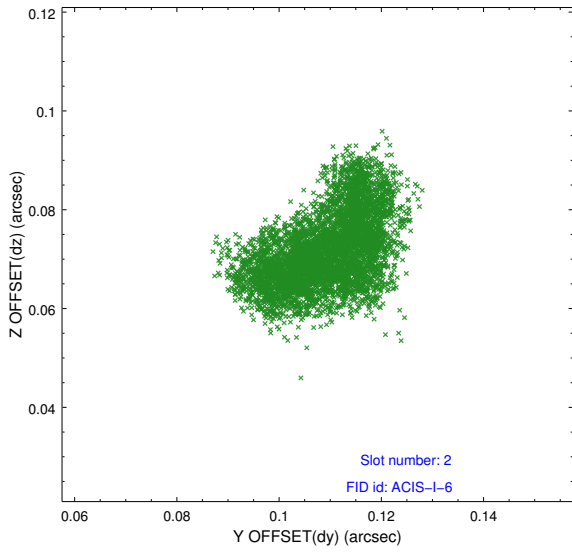
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.083111948073

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.