

V&V Reference Report

L2 ASCDS Version : 10

Observation 15129 - L2 Version 3
Chandra X-Ray Center

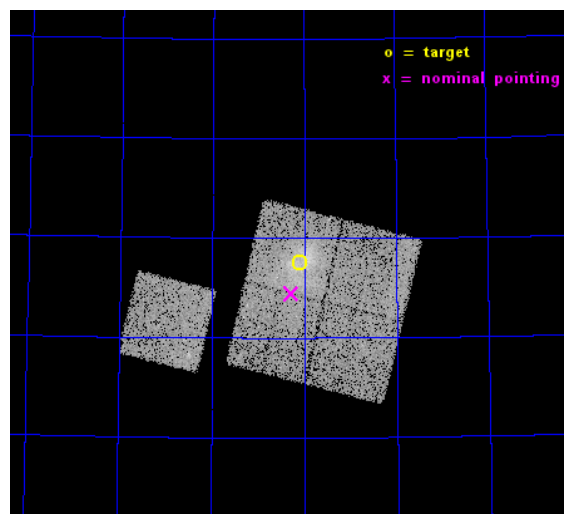
L2 Processing Date : Dec 6 2014

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1 Front

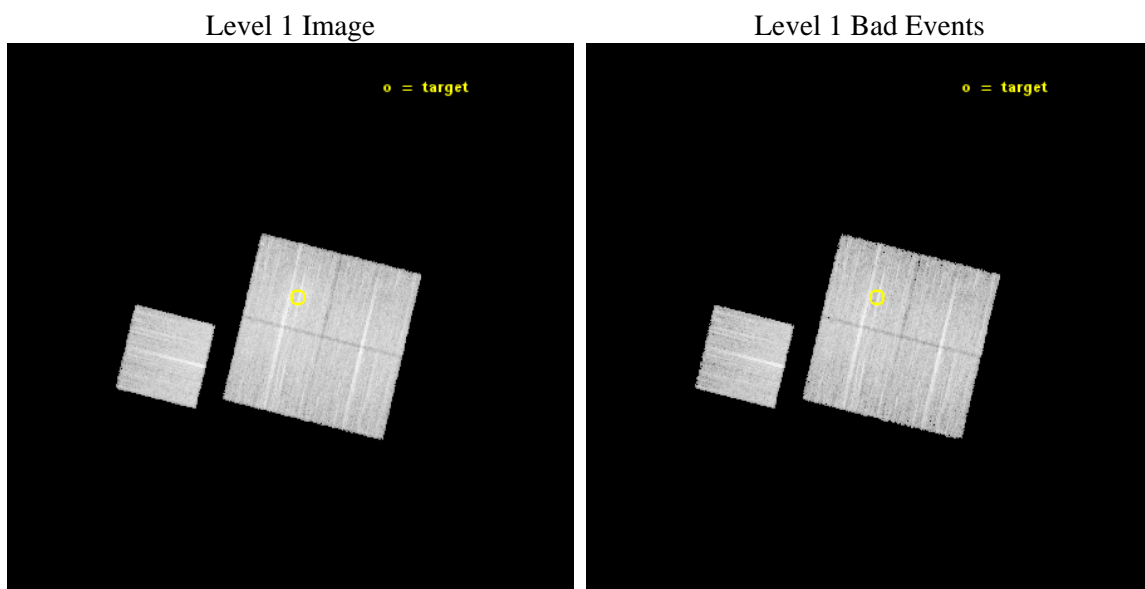
seq_num	801258	Sequence number
obs_id	15129	Observation id
title	A Chandra-Planck Legacy Program for Massive Clusters of Galaxies	P
observer	Dr. Christine Jones	Principal investigator
object	G113.82+44.35	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	213.522083	Observer's specified target RA [deg]
dec_targ	71.293472	Observer's specified target Dec [deg]
ra_nom	213.56924125096	Nominal RA [deg]
dec_nom	71.241165148553	Nominal Dec [deg]
roll_nom	283.77812985674	Nominal Roll [deg]
revision	3	Processing version of data
ontime	18961.958224773	Sum of GTIs [s]
livetime	18714.206280976	Livetime [s]
ontime0	18958.694233894	Sum of GTIs [s]
ontime1	18961.876144767	Sum of GTIs [s]
ontime2	18961.91718477	Sum of GTIs [s]
ontime3	18961.958224773	Sum of GTIs [s]
ontime6	18961.79406476	Sum of GTIs [s]
l2events	52905	Number of level 2 events



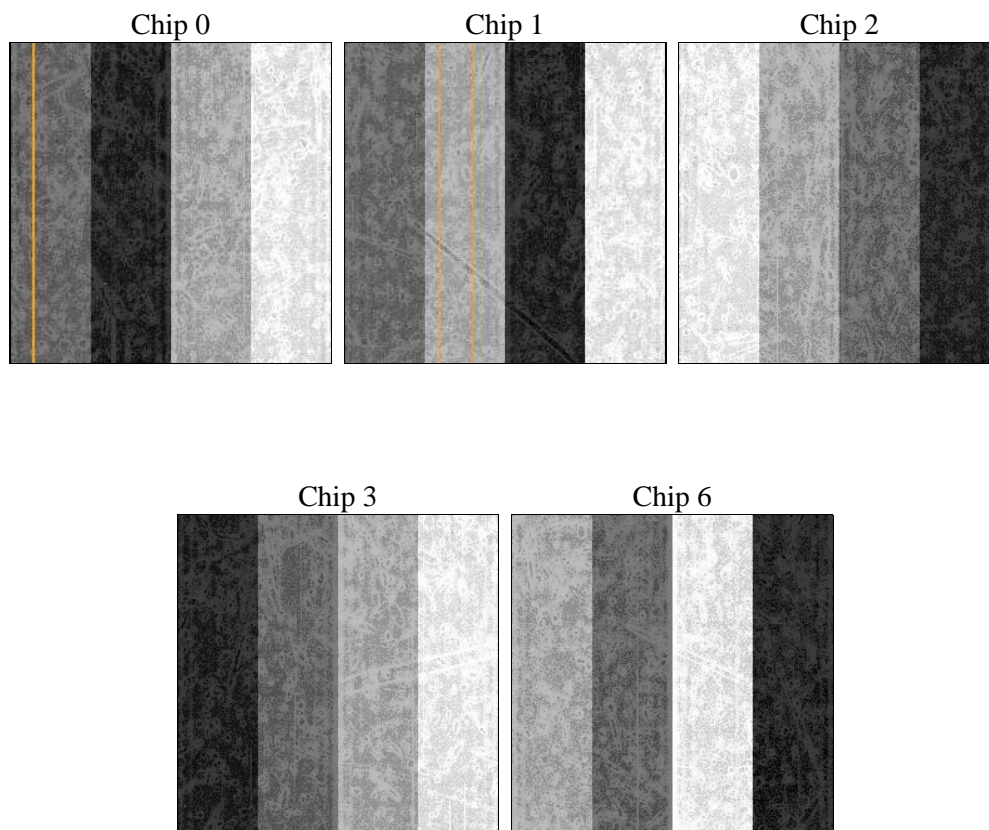
2 OBI

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	18961.958224773	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	18958.694233894	Sum of GTIs [s]
date	2014-12-06T12:13:12	Date and time of file creation	ontime1	18961.876144767	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	18961.91718477	Sum of GTIs [s]
			ontime3	18961.958224773	Sum of GTIs [s]
			ontime6	18961.79406476	Sum of GTIs [s]
			l1events	450239	Number of level 1 events

2.1.4 Events

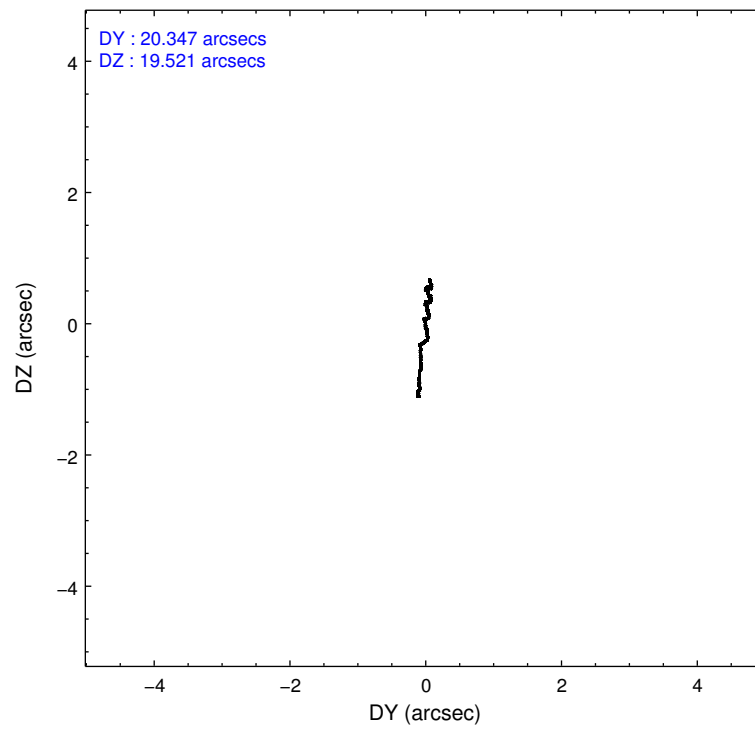
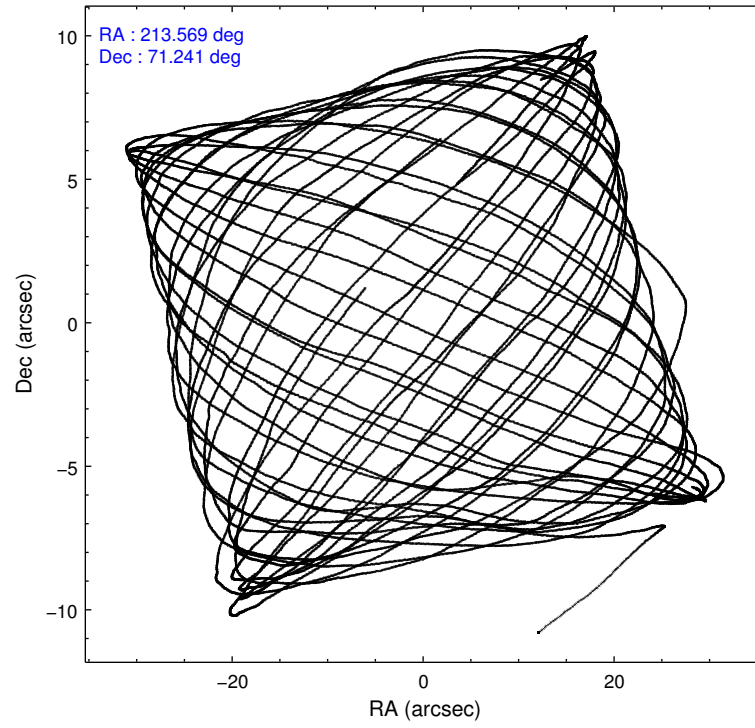
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	83500	84777	93081	97254	91627
rejected events	72824	72818	81666	81083	80333
rejected %	87%	85%	87%	83%	87%

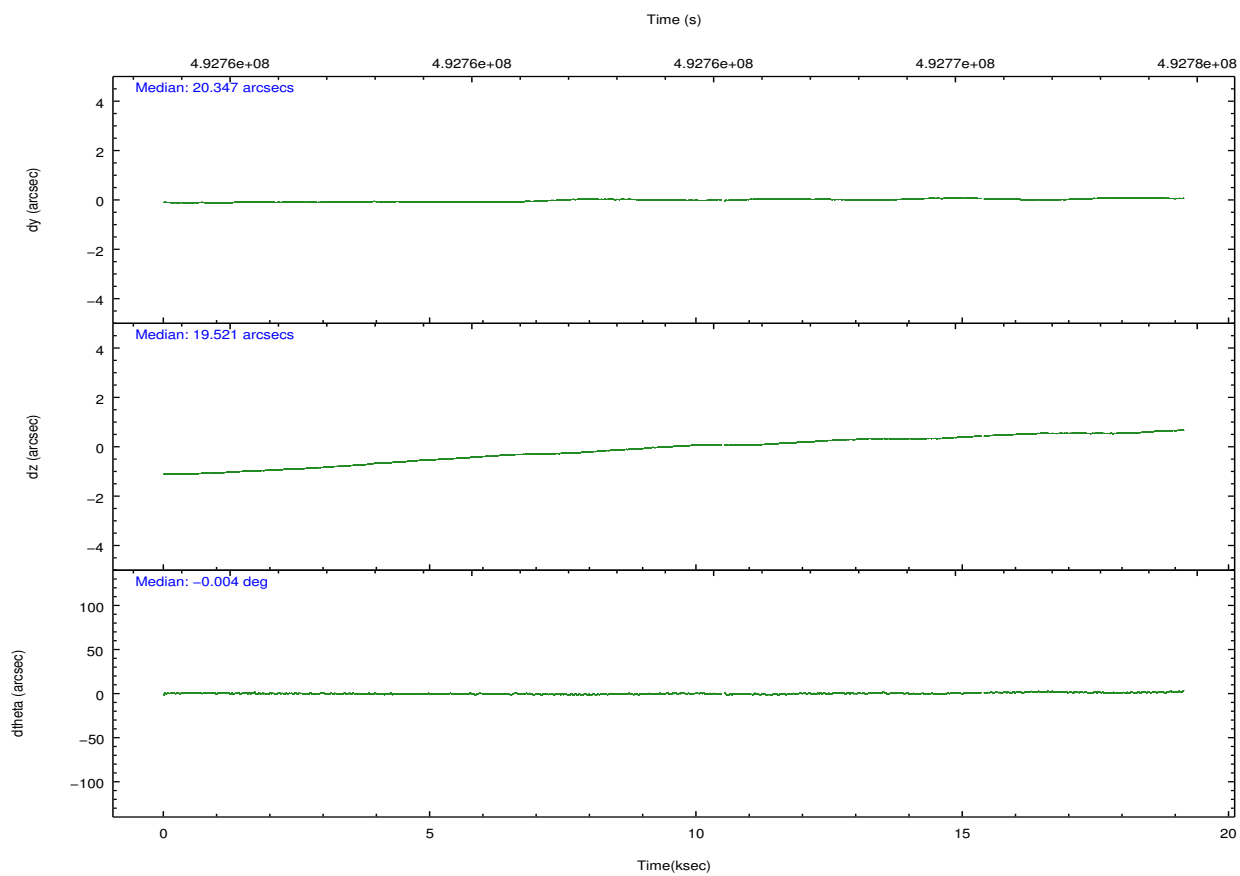
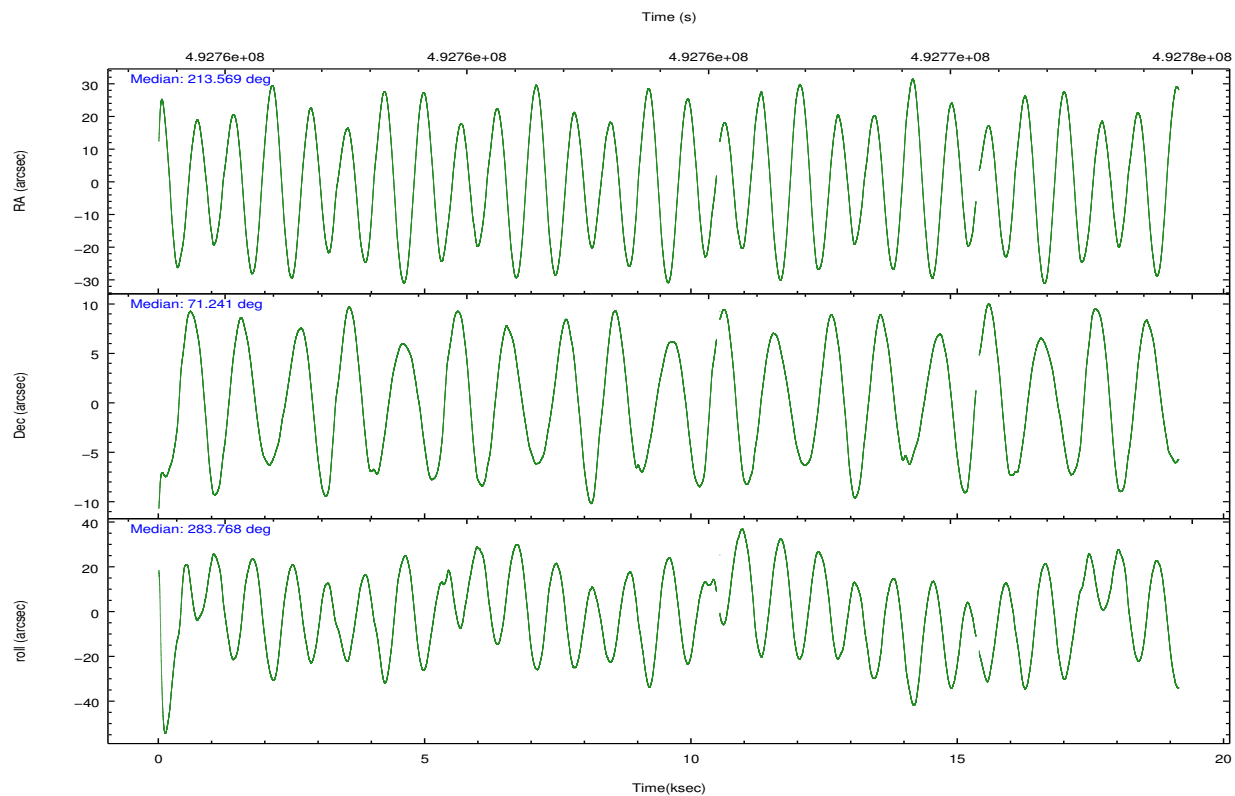
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3547	4140	4556	8567	3760
	4%	4%	4%	8%	4%
grade 1 events	41	37	52	75	49
	0%	0%	0%	0%	0%
grade 2 events	2764	2944	2630	2831	2520
	3%	3%	2%	2%	2%
grade 3 events	1158	1146	1135	1276	1230
	1%	1%	1%	1%	1%
grade 4 events	1070	1194	1088	1290	1178
	1%	1%	1%	1%	1%
grade 5 events	4455	4598	4186	5002	4724
	5%	5%	4%	5%	5%
grade 6 events	2204	2601	2074	2317	2678
	2%	3%	2%	2%	2%
grade 7 events	68261	68117	77360	75896	75488
	81%	80%	83%	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	213.509759	213.5692412509621	CCD I2 on	Y	Y
[deg] Pointing Dec	71.260944	71.24116514855343	CCD I3 on	Y	Y
[deg] Pointing Roll	283.625729	283.7781298567434	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	-225.8458576473255	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.746595355604228	CCD S4 on	N	N
[s] Observation start time (MET)	492754751.184000	492753613.57816	CCD S5 on	N	N
Observation start date	2013-08-13T04:18:04	2013-08-13T04:00:13	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	492773751.184000	492774704.49181	On-chip summing requested	N	N
Observation end date	2013-08-13T09:34:44	2013-08-13T09:51:44	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



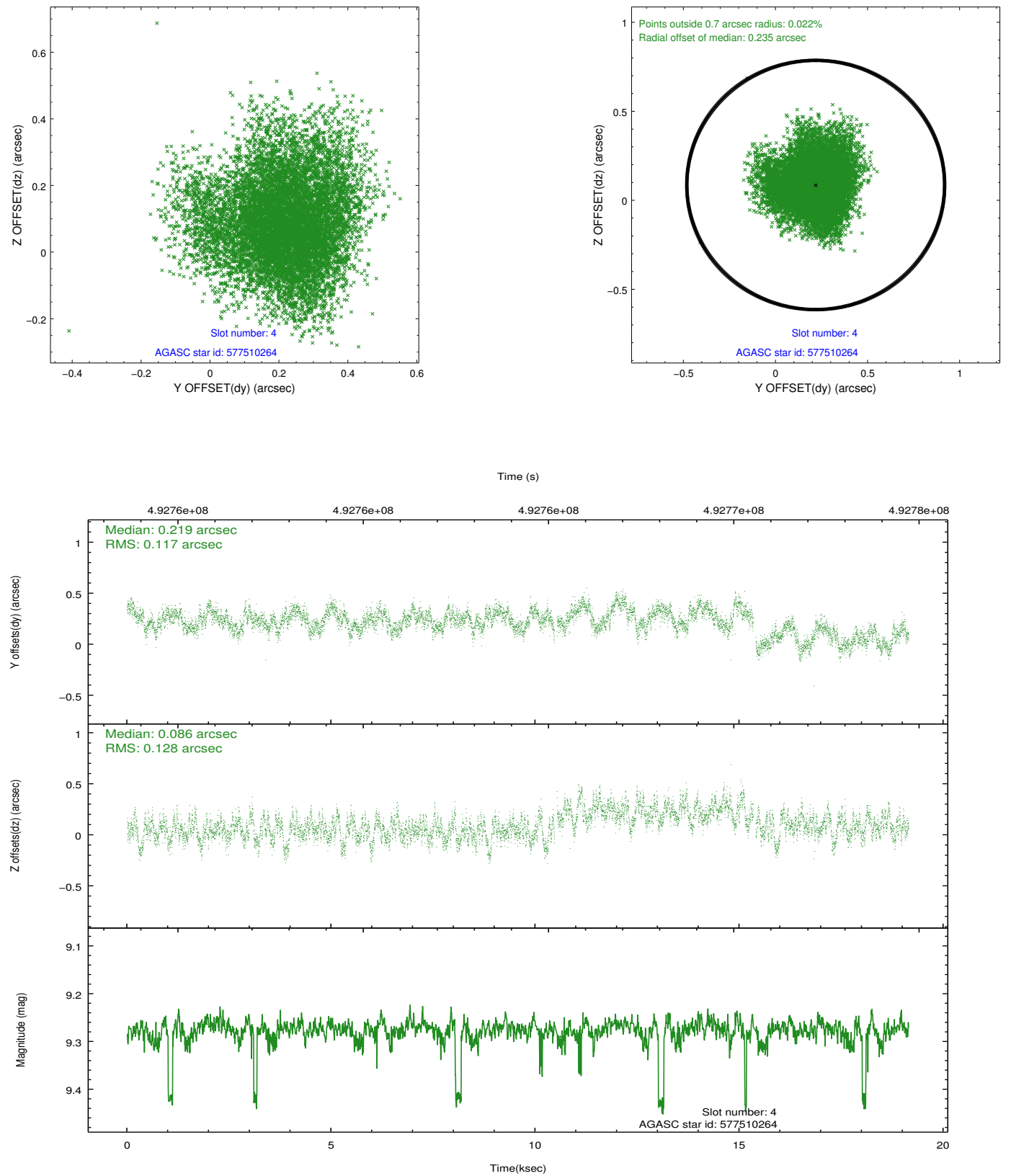


Slot Statistics

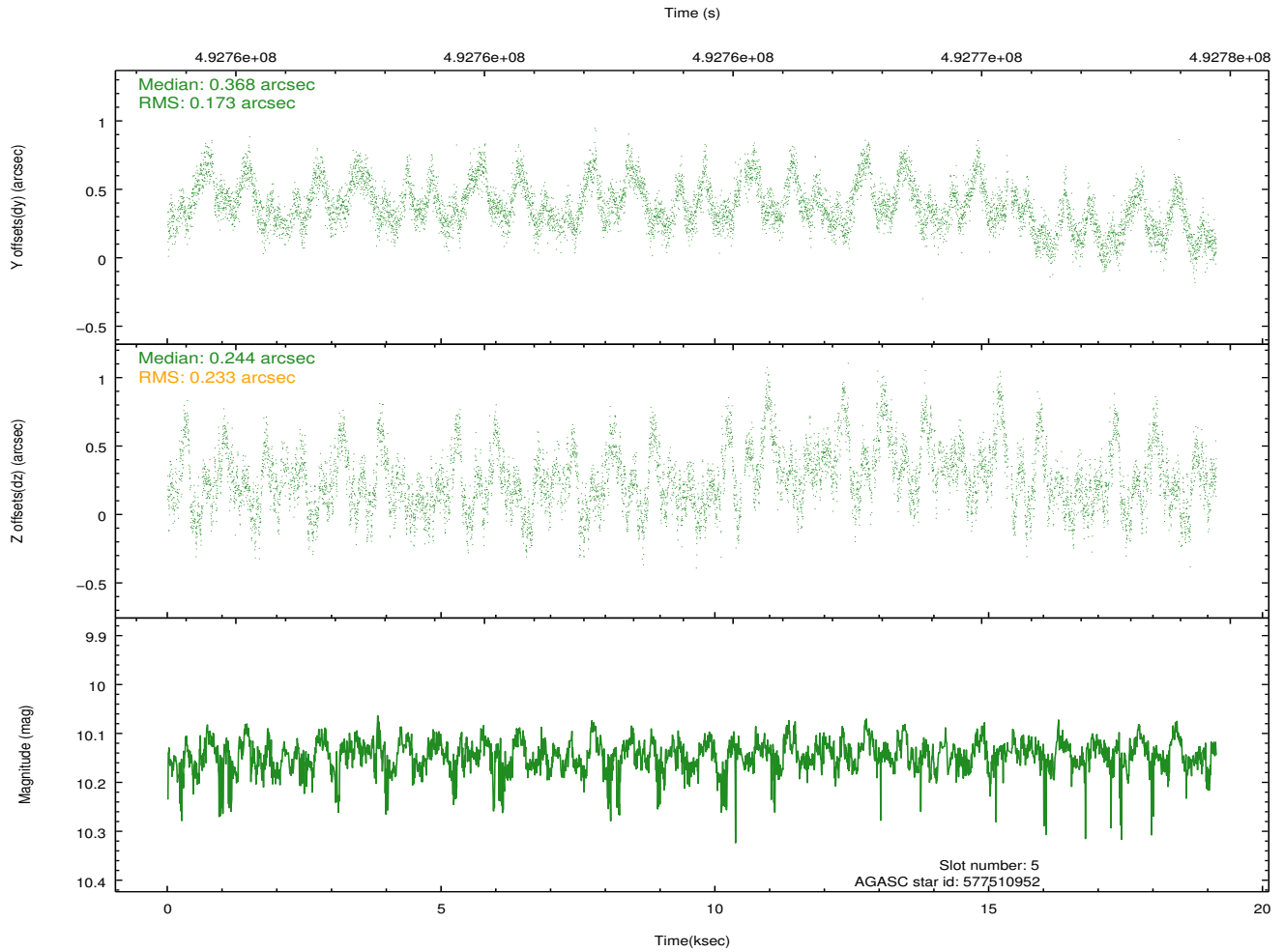
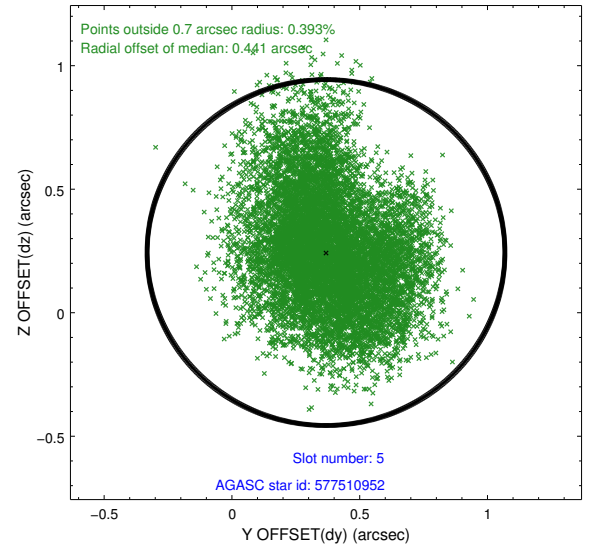
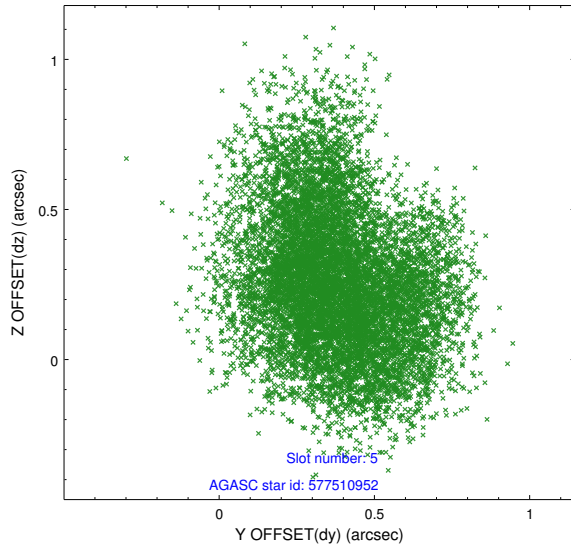
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.16	4640	0.138	-0.103	0.011	0.017	0.000000	0.000000	919.02	-1002.21
1	FID		ACIS-I-5	7.15	4641	-0.346	0.096	0.017	0.032	0.000000	0.000000	-1829.54	895.23
2	FID		ACIS-I-6	7.16	4637	0.114	0.079	0.015	0.021	0.000000	0.000000	384.20	1540.04
3	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
4	GUIDE	used	577510264	9.28	9253	0.219	0.086	0.187	0.299	211.923227	71.222494	-321.13	-1813.29
5	GUIDE	used	577510952	10.14	8910	0.368	0.244	0.312	0.493	212.163729	71.217106	-230.32	-1549.08
6	GUIDE	used	577507376	9.80	9052	-0.026	0.006	0.270	0.442	211.945293	70.586588	1895.60	-2385.05
7	GUIDE	used	577510712	10.15	8956	0.011	-0.270	0.250	0.427	215.411748	71.460359	-218.27	2292.11

2.4 Star Slots

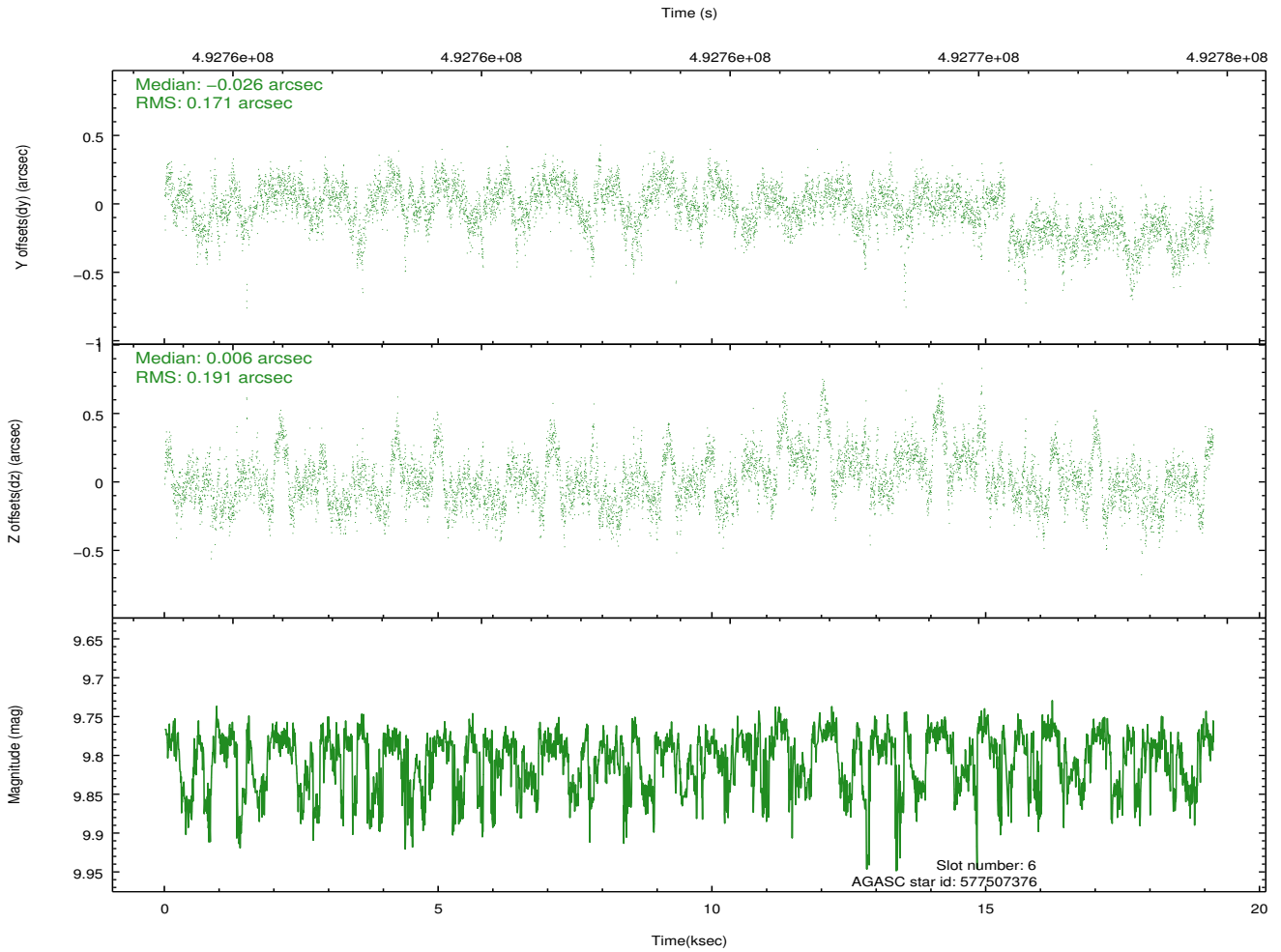
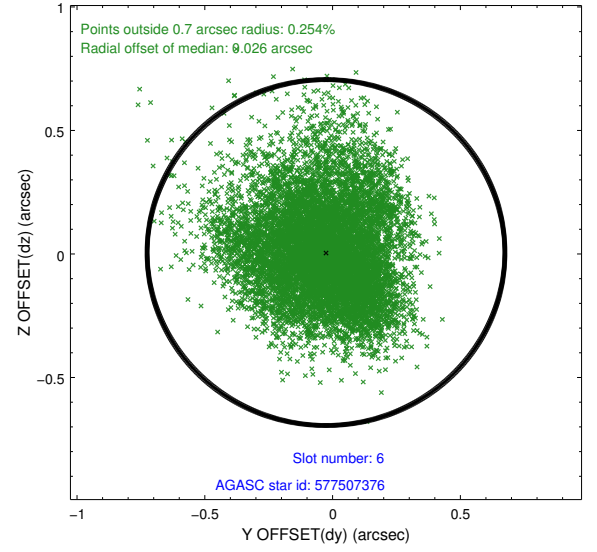
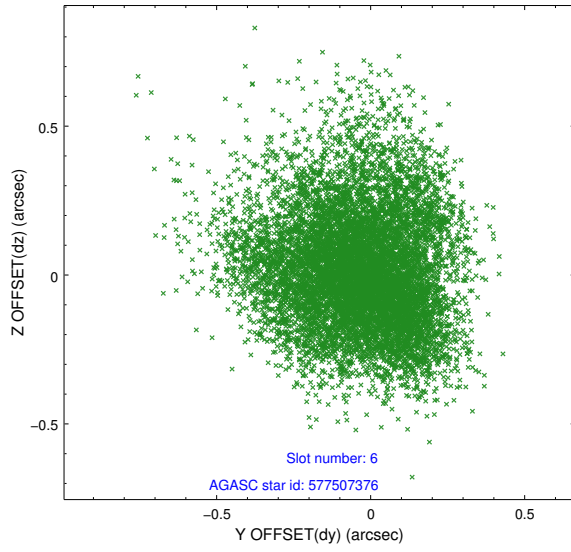
2.4.1 Slot 4



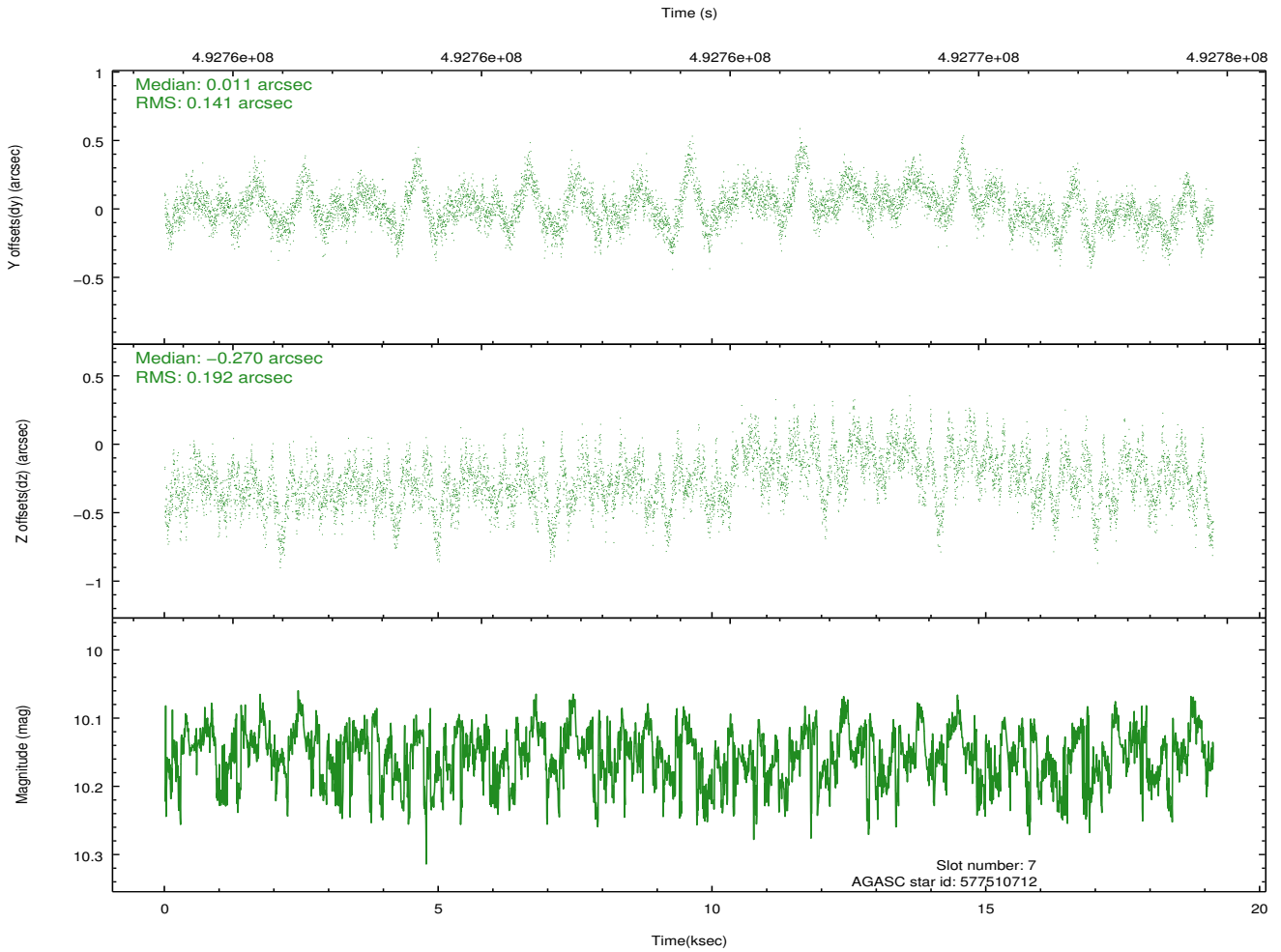
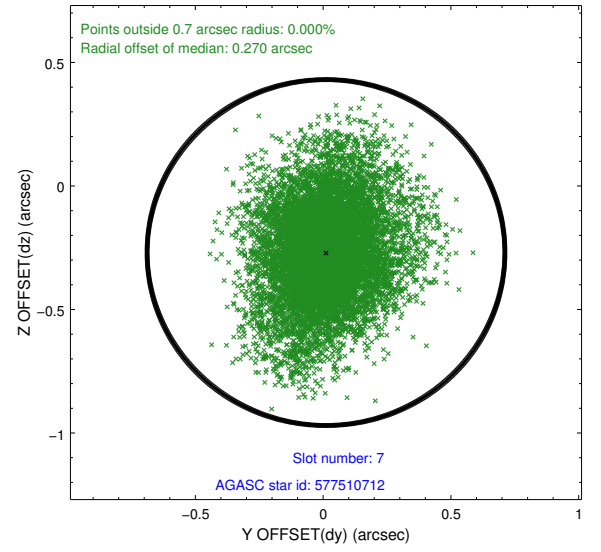
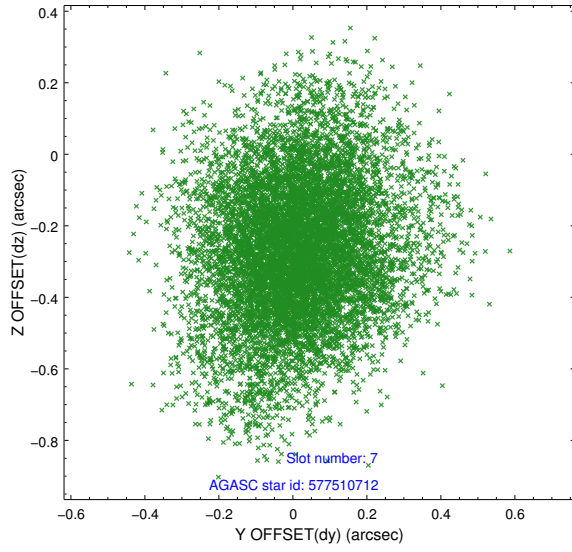
2.4.2 Slot 5



2.4.3 Slot 6

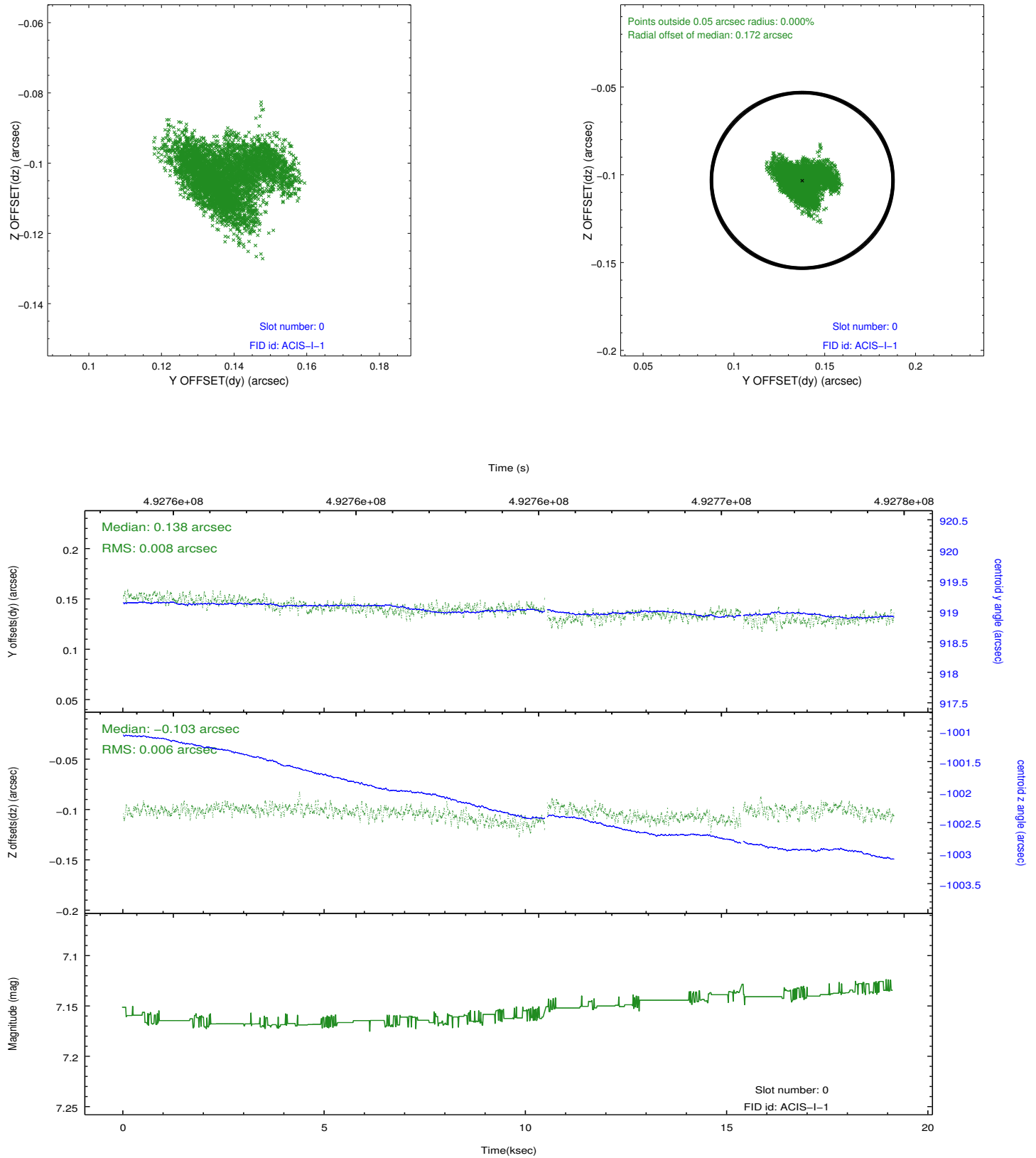


2.4.4 Slot 7

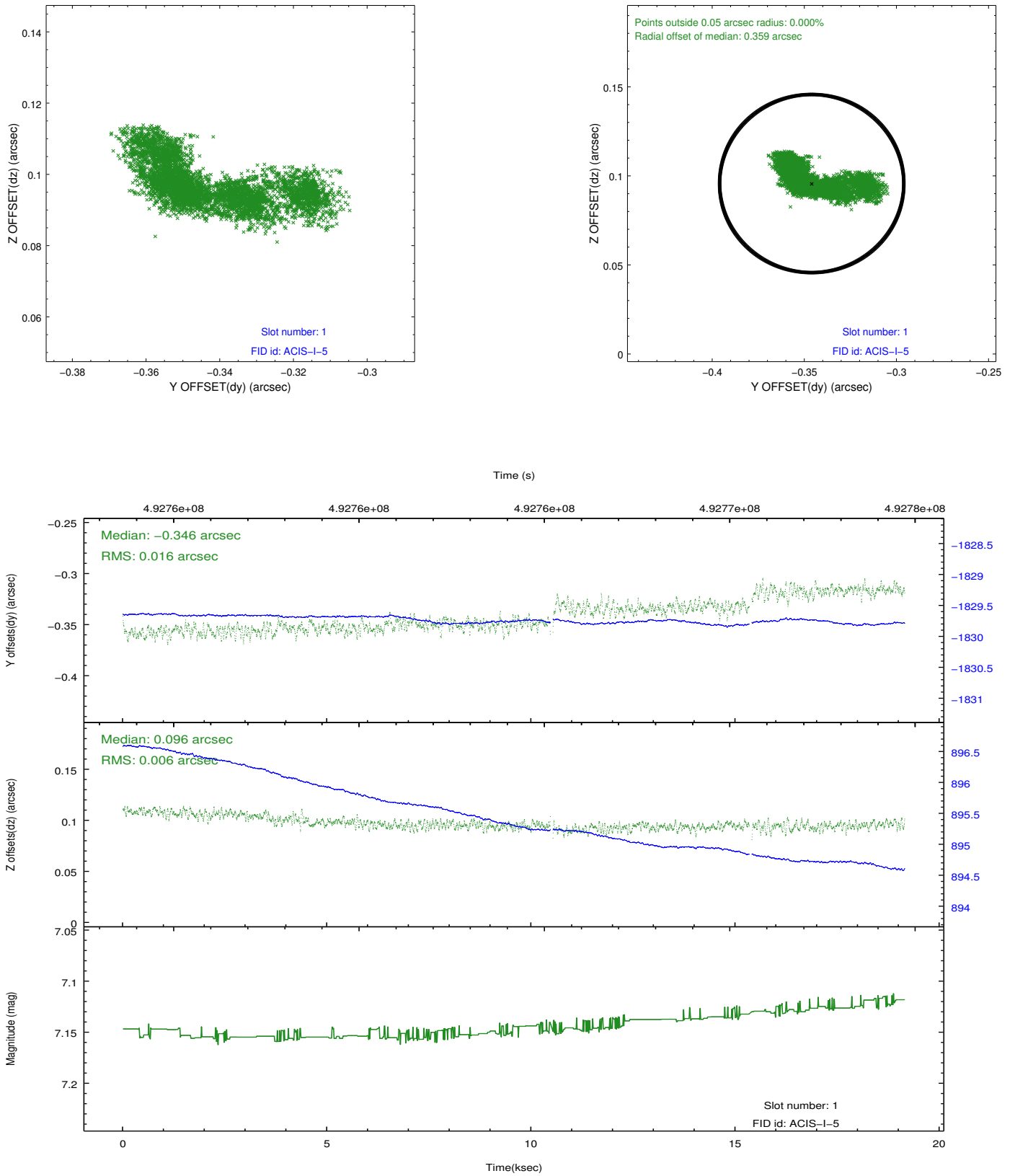


2.5 FID Slots

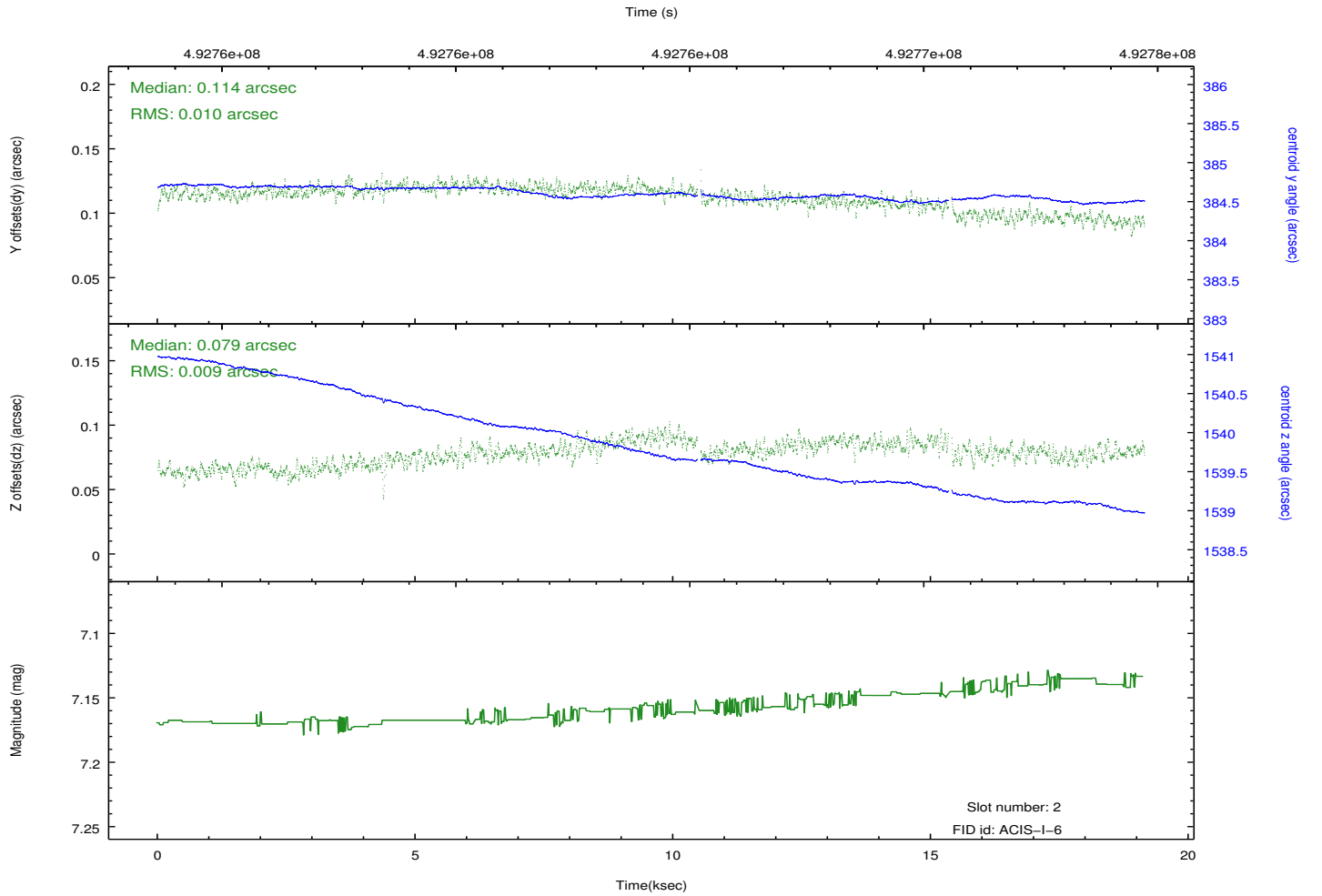
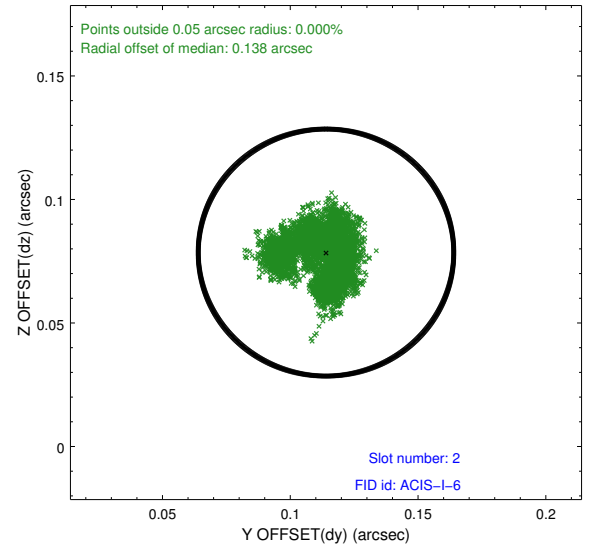
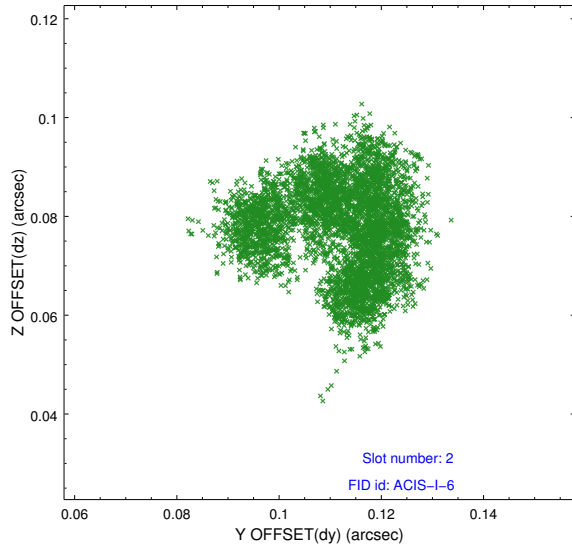
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.961958224773

A.2 Comments

The guide star in slot 3 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.

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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.