

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 19649 - L2 Version 2
Chandra X-Ray Center

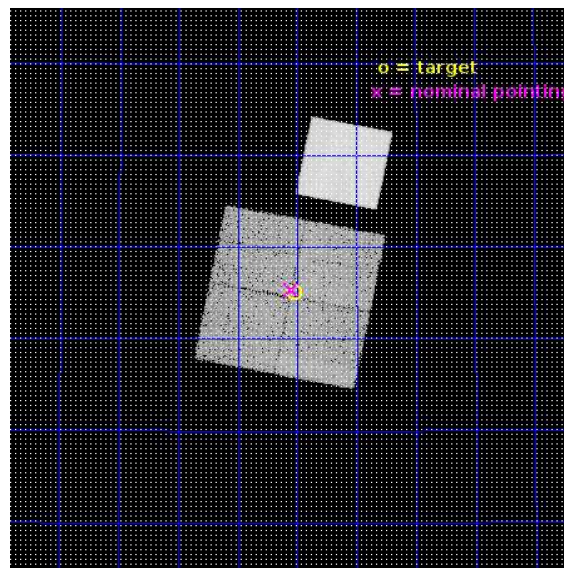
L2 Processing Date : Nov 13 2017

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1 Front

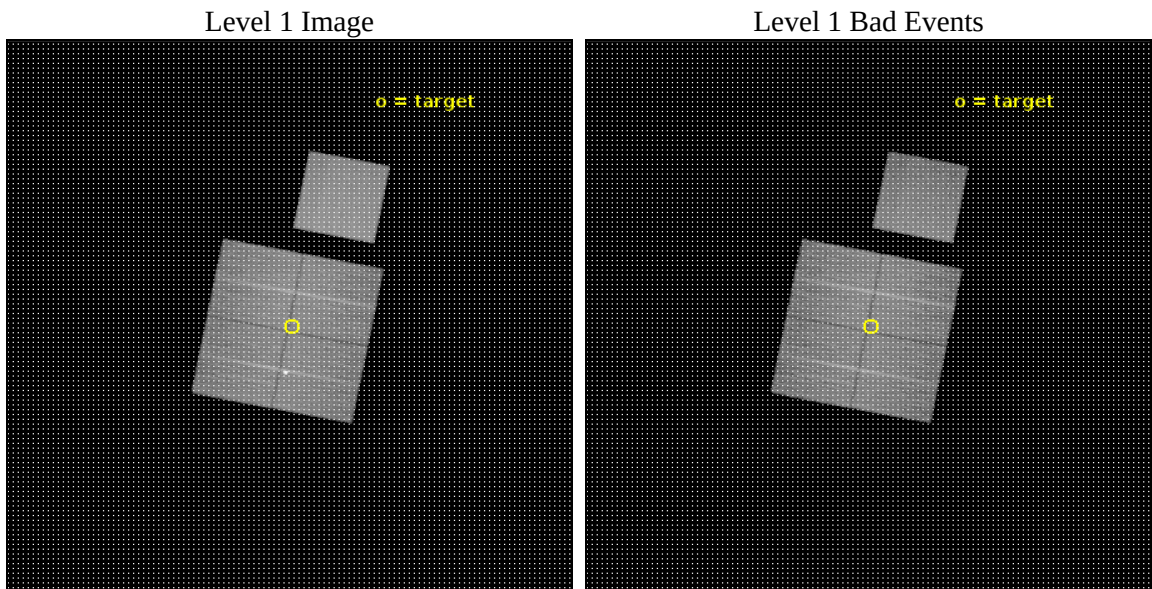
seq_num	901356	Sequence number
obs_id	19649	Observation id
title	The Chandra Deep Wide-Field Survey: Completing the new generation of Chandra extragalactic surveys	Proposal title
observer	Ryan Hickox	Principal investigator
object	CDWFS	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	218.87925	Observer's specified target RA [deg]
dec_targ	34.084322	Observer's specified target Dec [deg]
ra_nom	218.88725027996	Nominal RA [deg]
dec_nom	34.089561931032	Nominal Dec [deg]
roll_nom	11.204217746822	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25055.960233212	Sum of GTIs [s]
livetime	24728.585666835	Livetime [s]
ontime0	25052.696102977	Sum of GTIs [s]
ontime1	25055.878153205	Sum of GTIs [s]
ontime2	25055.919193149	Sum of GTIs [s]
ontime3	25055.960233212	Sum of GTIs [s]
ontime7	25056.001273155	Sum of GTIs [s]
l2events	160964	Number of level 2 events



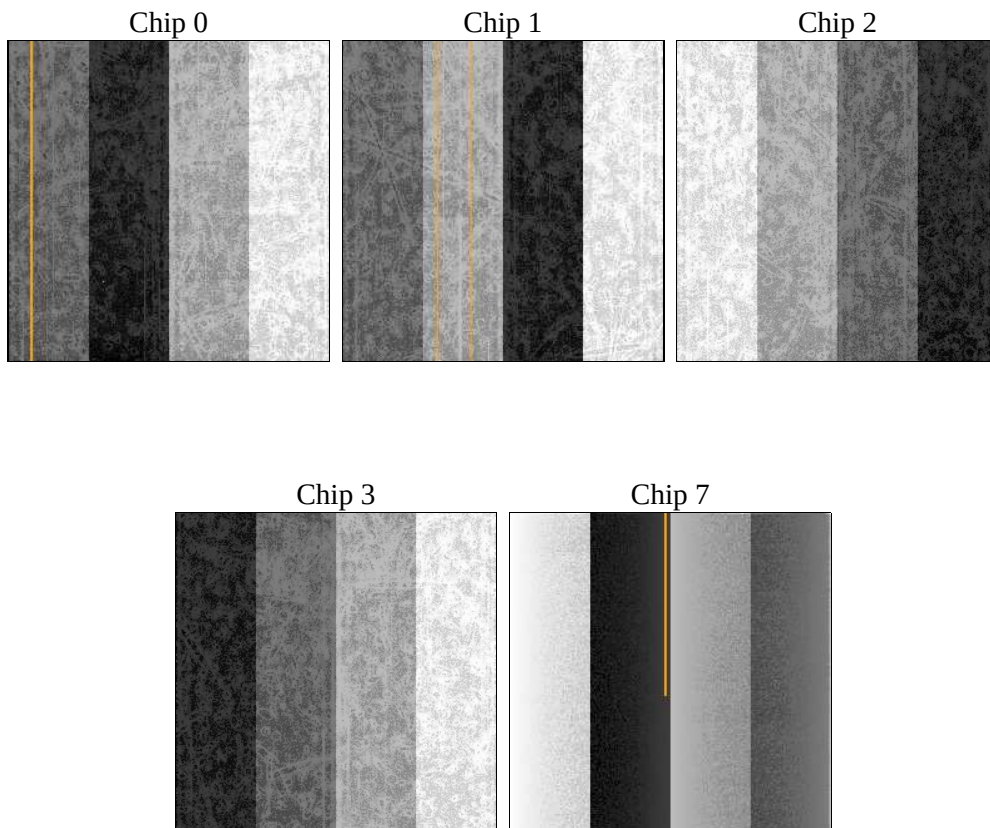
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	25055.960233212	Sum of GTIs [s]
caldsver	4.7.6	 	ontime0	25052.696102977	Sum of GTIs [s]
date	2017-11-13T21:58:22	Date and time of file creation	ontime1	25055.878153205	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	25055.919193149	Sum of GTIs [s]
			ontime3	25055.960233212	Sum of GTIs [s]
			ontime7	25056.001273155	Sum of GTIs [s]
			l1events	893409	Number of level 1 events

2.1.4 Events

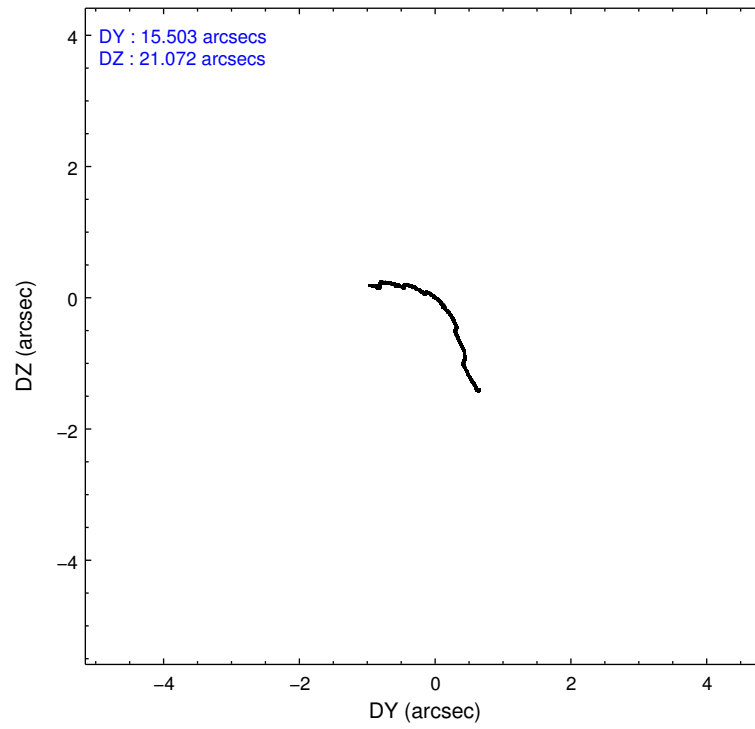
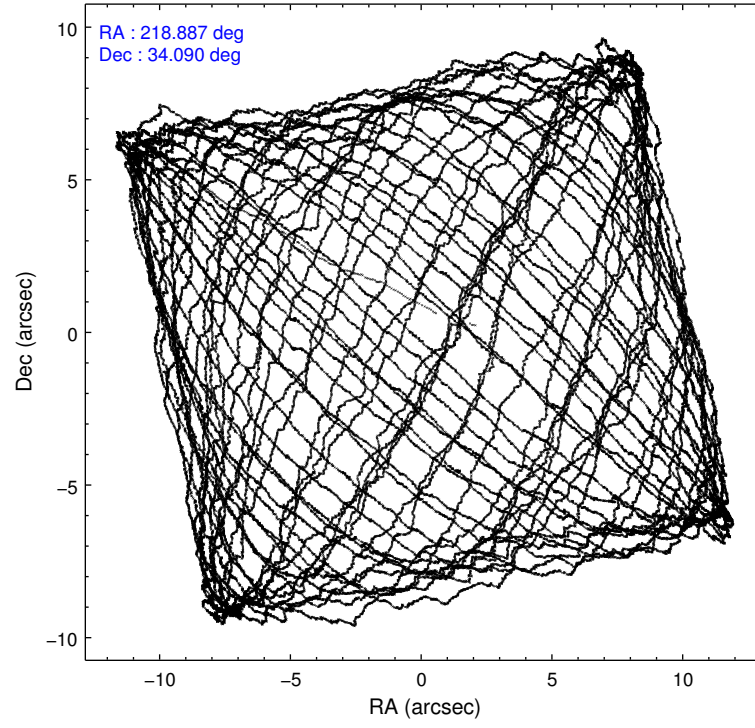
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	154617	174591	169780	170561	223860
rejected events	135237	137811	150741	151643	126159
rejected %	87%	78%	88%	88%	56%

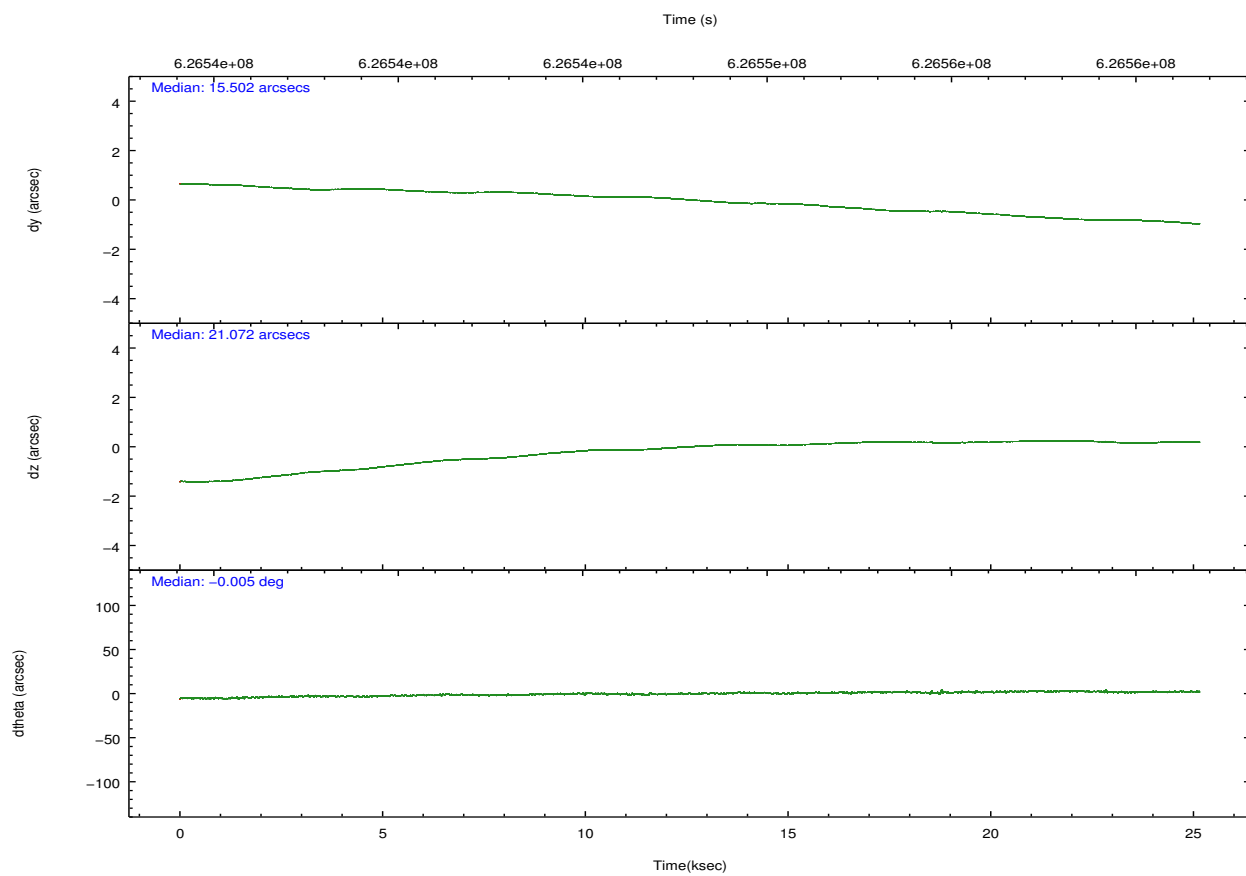
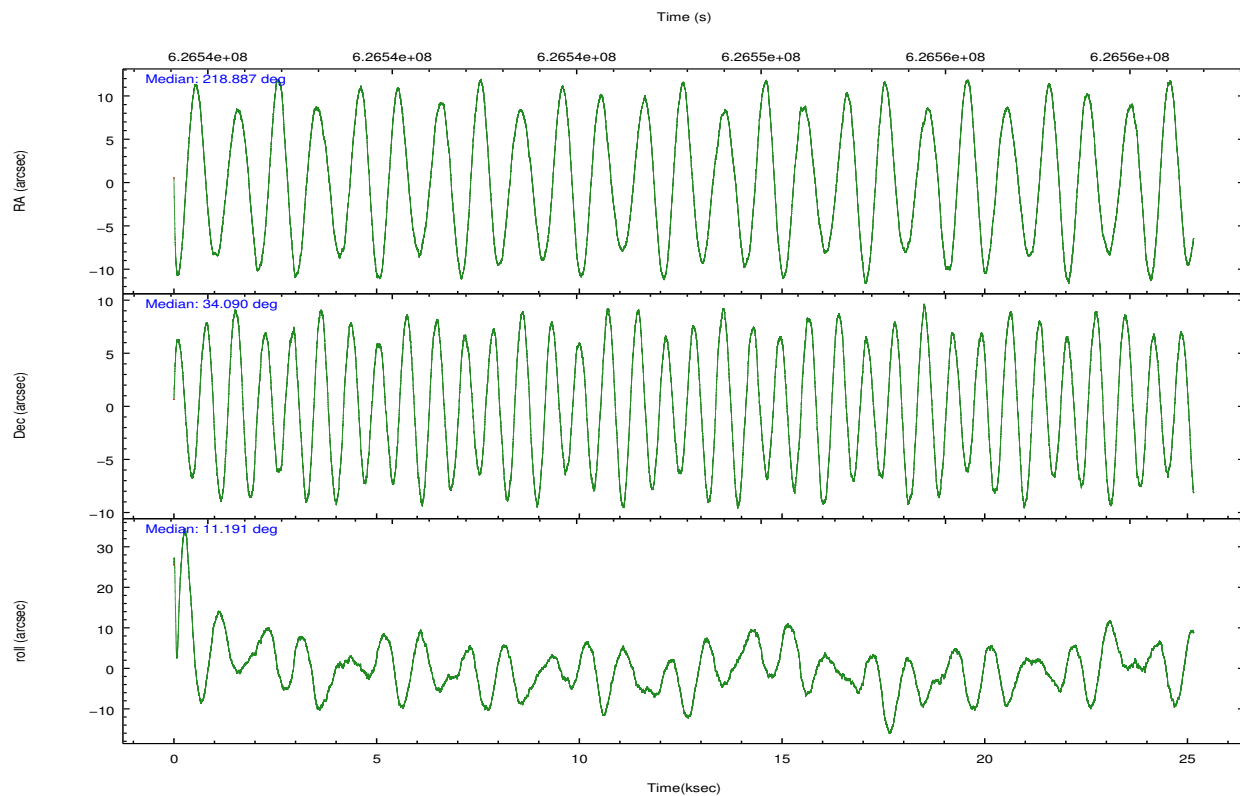
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	6670	22334	6699	7081	8384
	4%	12%	3%	4%	3%
grade 1 events	80	159	89	108	326
	0%	0%	0%	0%	0%
grade 2 events	4933	5624	4875	4146	20630
	3%	3%	2%	2%	9%
grade 3 events	1895	2078	1790	1978	7852
	1%	1%	1%	1%	3%
grade 4 events	1888	1995	1863	1996	7770
	1%	1%	1%	1%	3%
grade 5 events	7371	7704	7014	8325	22209
	4%	4%	4%	4%	9%
grade 6 events	3998	4760	3820	3724	53088
	2%	2%	2%	2%	23%
grade 7 events	127782	129937	143630	143203	103601
	82%	74%	84%	83%	46%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	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	218.862269	218.8872502799606	CCD I2 on	Y	Y
[deg] Pointing Dec	34.071296	34.08956193103192	CCD I3 on	Y	Y
[deg] Pointing Roll	11.009518	11.20421774682223	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	N	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	626535472.184000	626534188.00585	CCD S5 on	N	N
Observation start date	2017-11-08T13:36:43	2017-11-08T13:16:28	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	626560472.184000	626560929.23242	On-chip summing requested	N	N
Observation end date	2017-11-08T20:33:23	2017-11-08T20:42:09	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



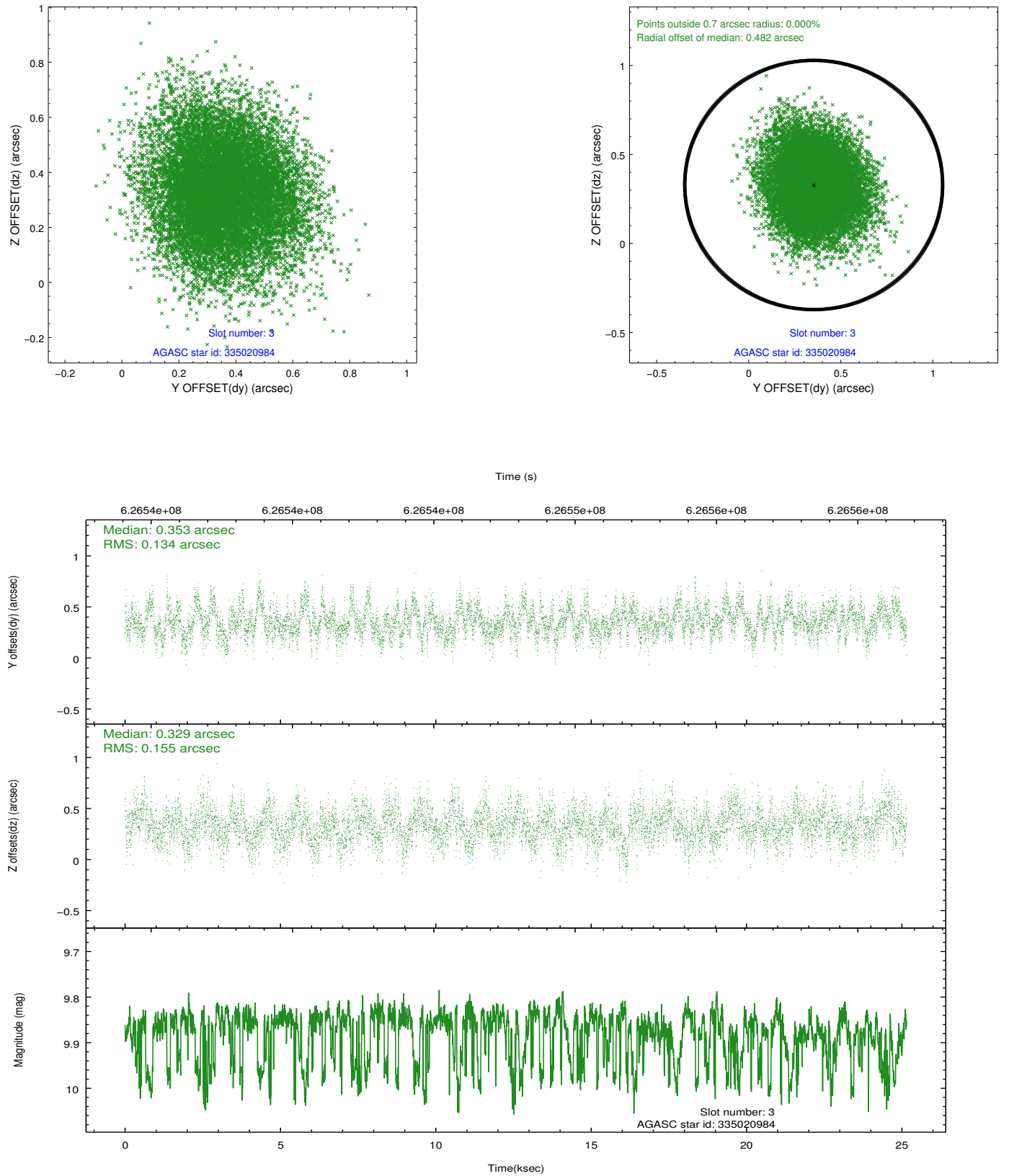


Slot Statistics

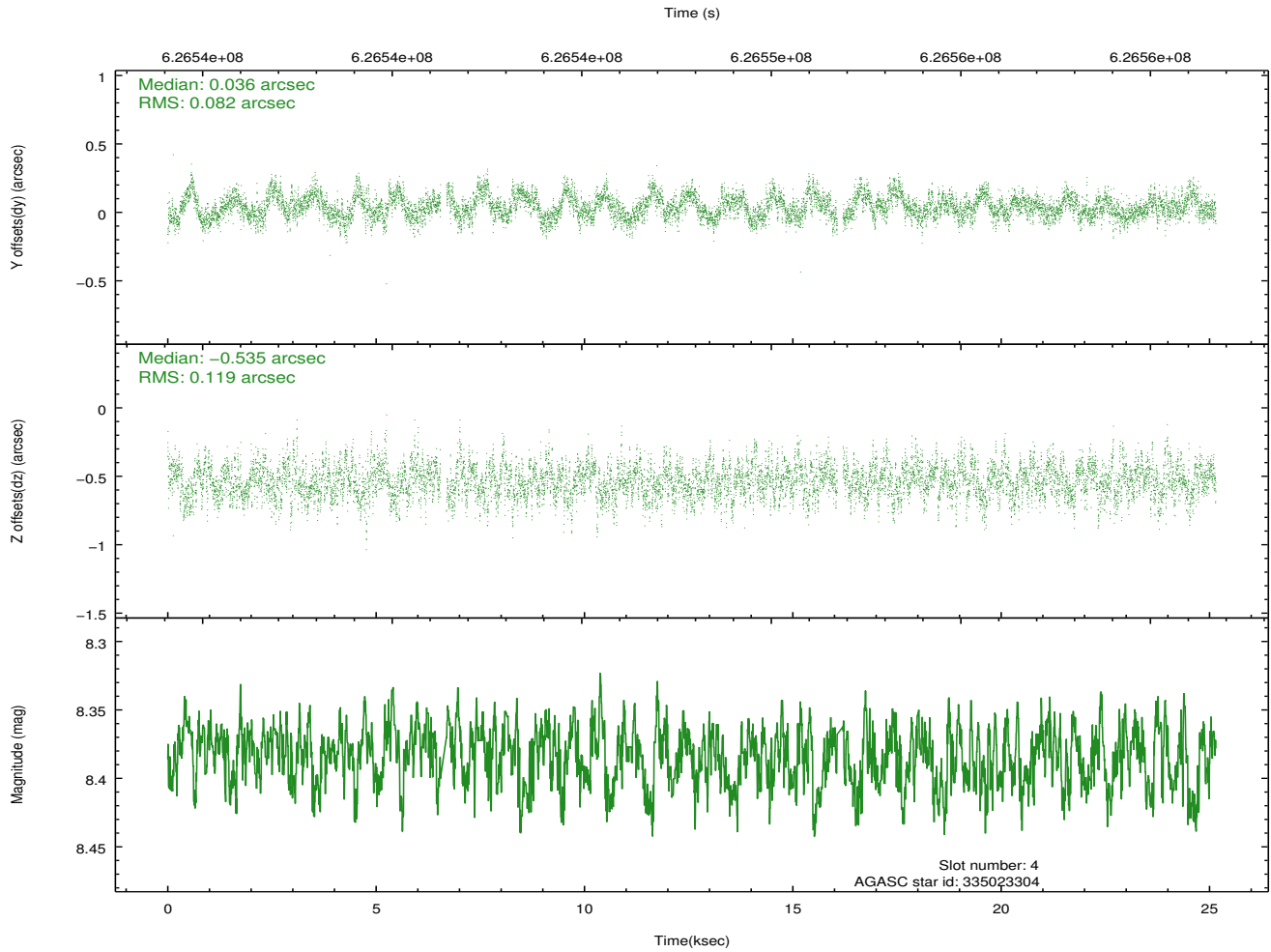
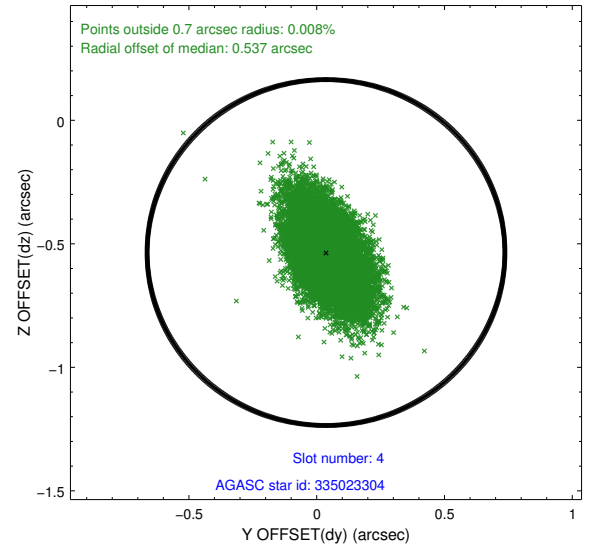
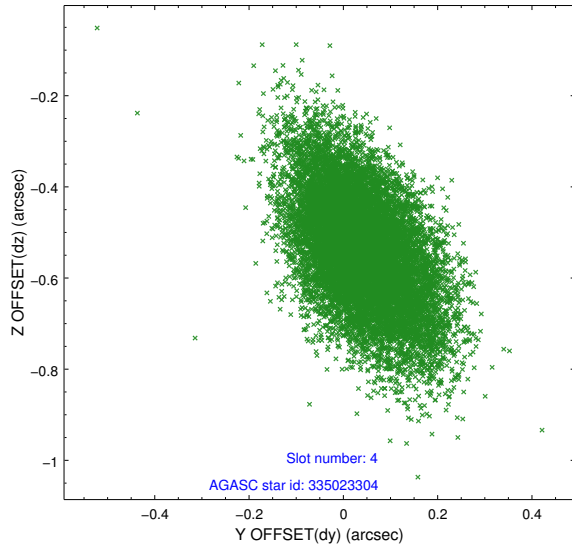
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.15	6136	0.081	-0.066	0.014	0.033	0.000000	0.000000	924.14	-844.59
1	FID		ACIS-I-5	7.14	6135	-0.363	0.034	0.014	0.023	0.000000	0.000000	-1824.44	1052.80
2	FID		ACIS-I-6	7.16	6136	0.190	0.102	0.017	0.029	0.000000	0.000000	389.55	1697.61
3	GUIDE	used	335020984	9.87	12243	0.353	0.329	0.219	0.353	218.841668	33.815112	-236.65	-890.97
4	GUIDE	used	335023304	8.38	12119	0.036	-0.535	0.148	0.261	218.883608	34.686545	485.05	2161.43
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	GUIDE	used	335157088	9.04	12256	-0.146	0.016	0.158	0.265	219.274029	33.726909	974.86	-1450.05
7	GUIDE	used	335155824	8.92	12252	-0.256	0.186	0.161	0.260	219.689900	34.035435	2401.35	-587.96

2.4 Star Slots

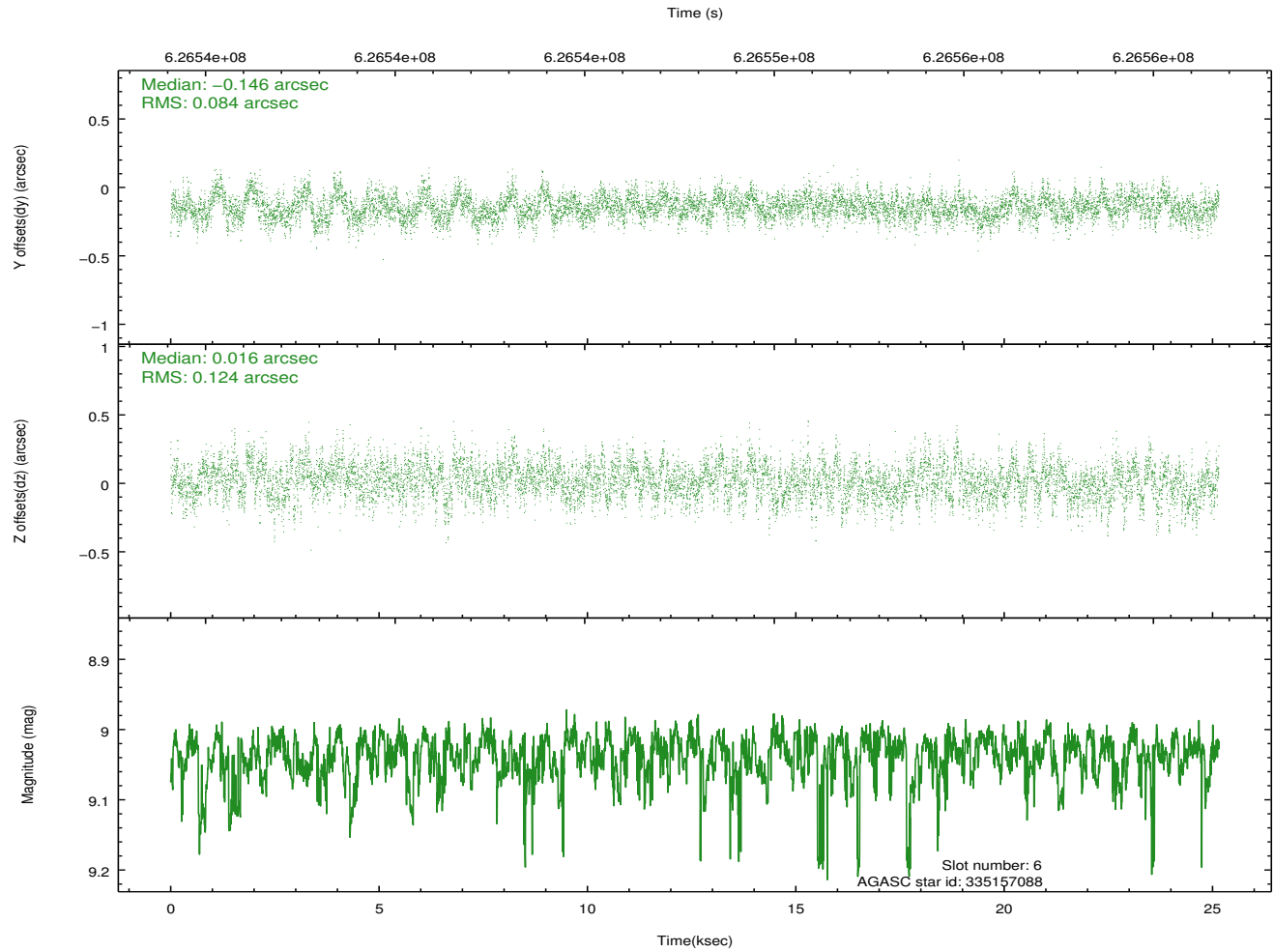
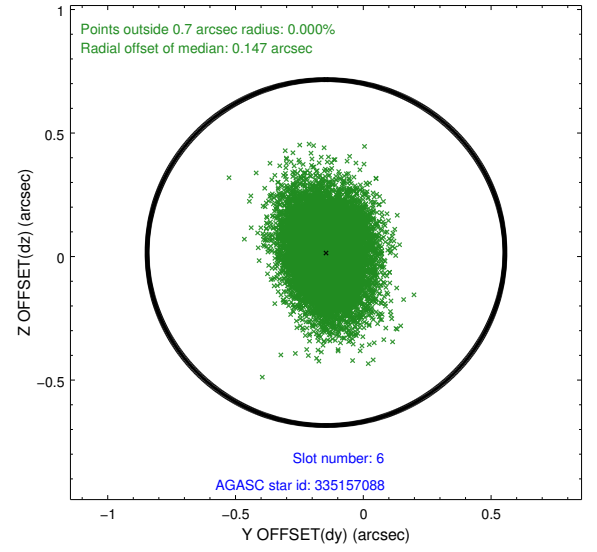
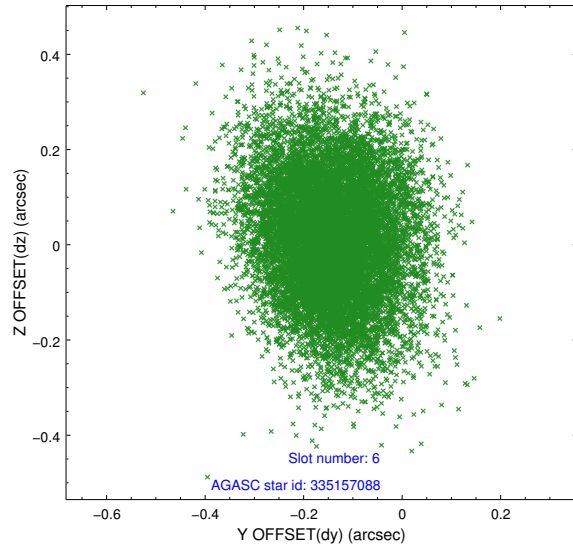
2.4.1 Slot 3



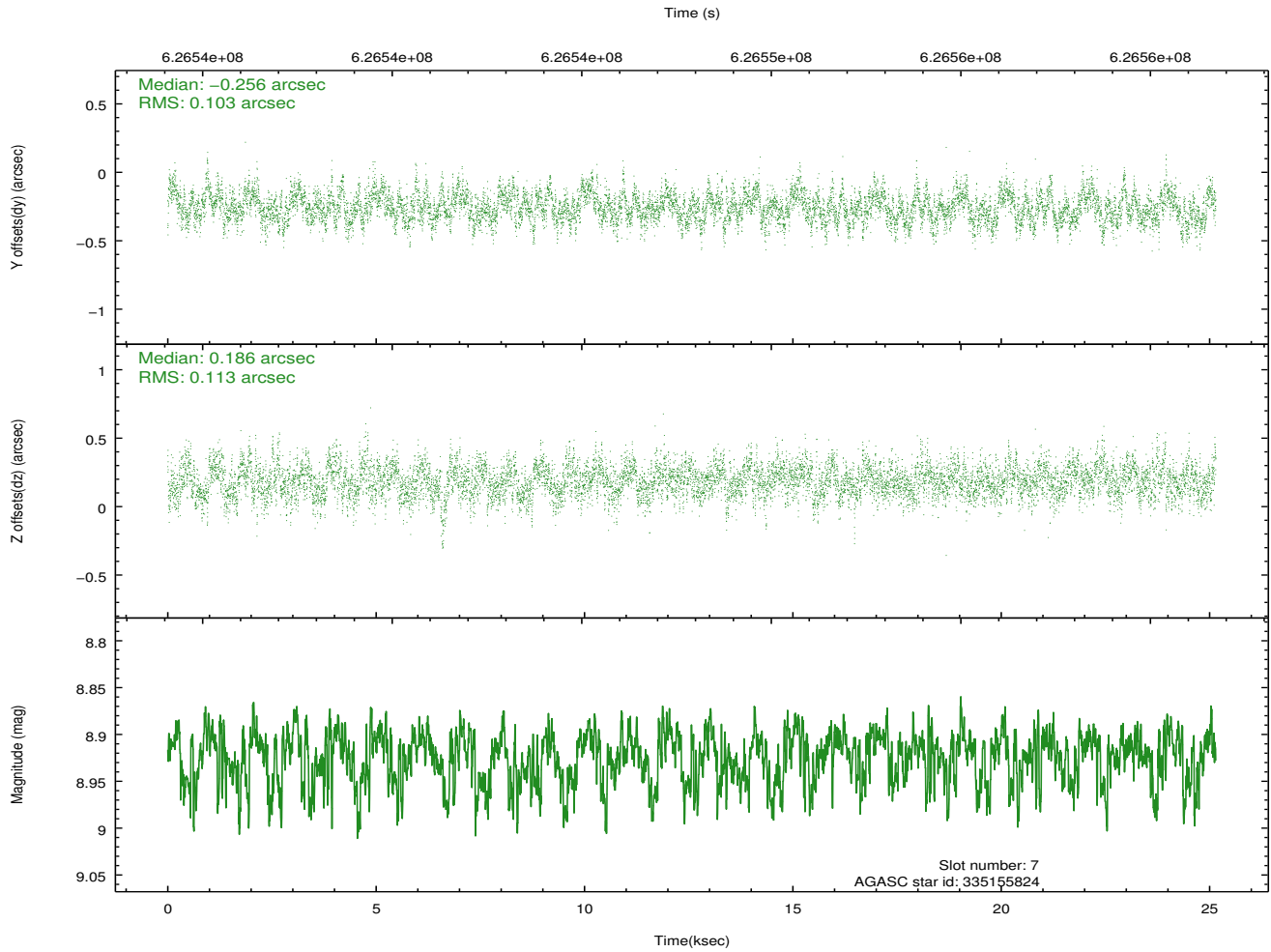
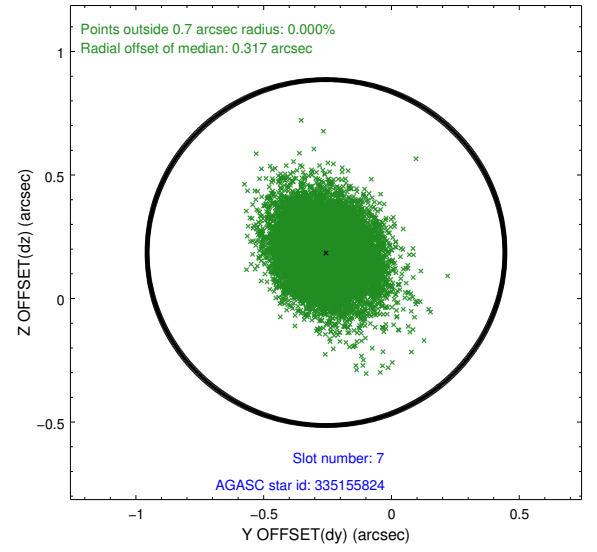
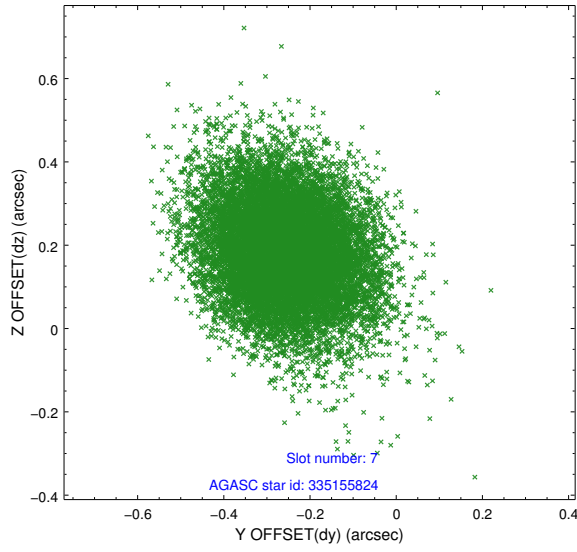
2.4.2 Slot 4



2.4.3 Slot 6

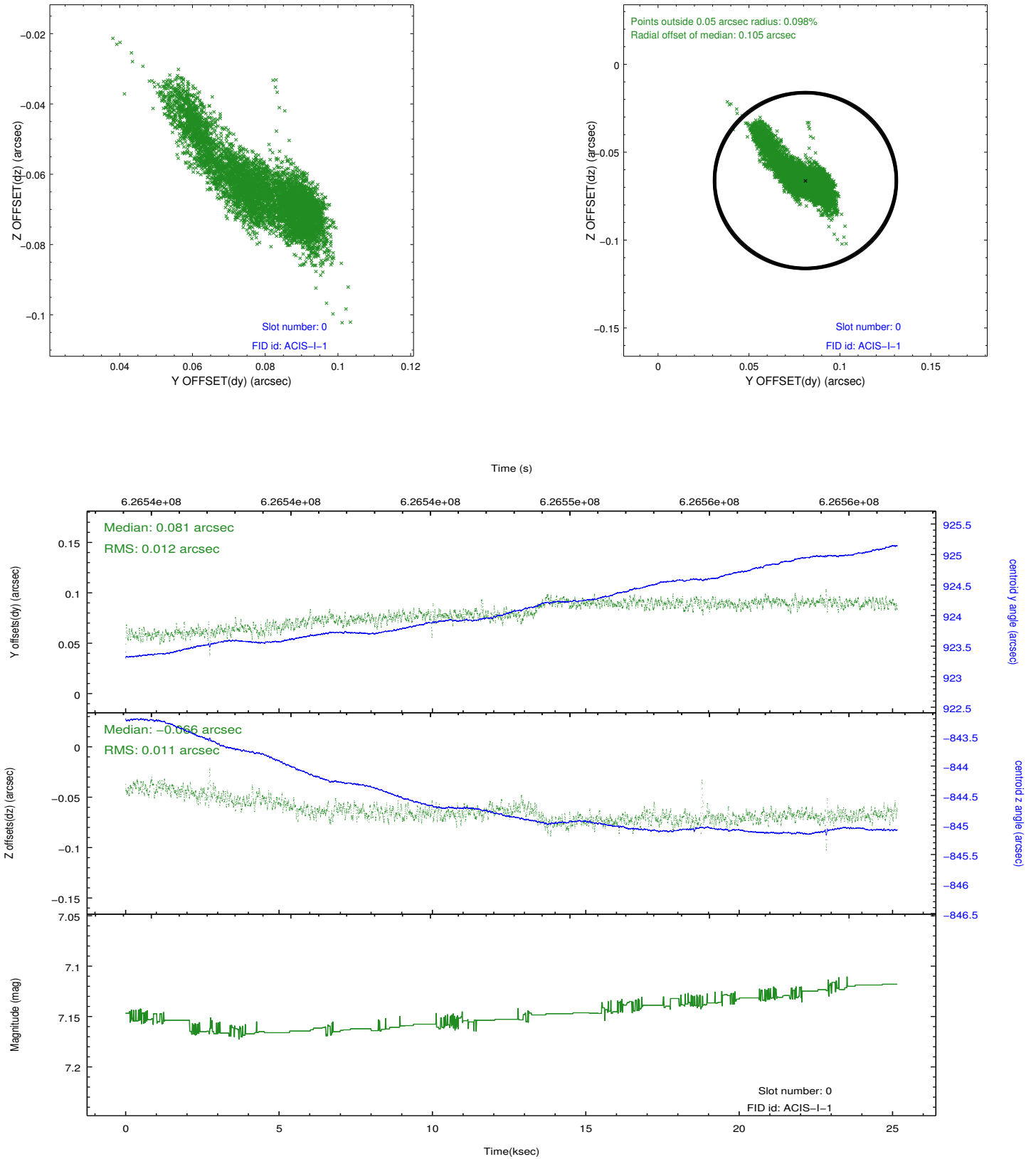


2.4.4 Slot 7

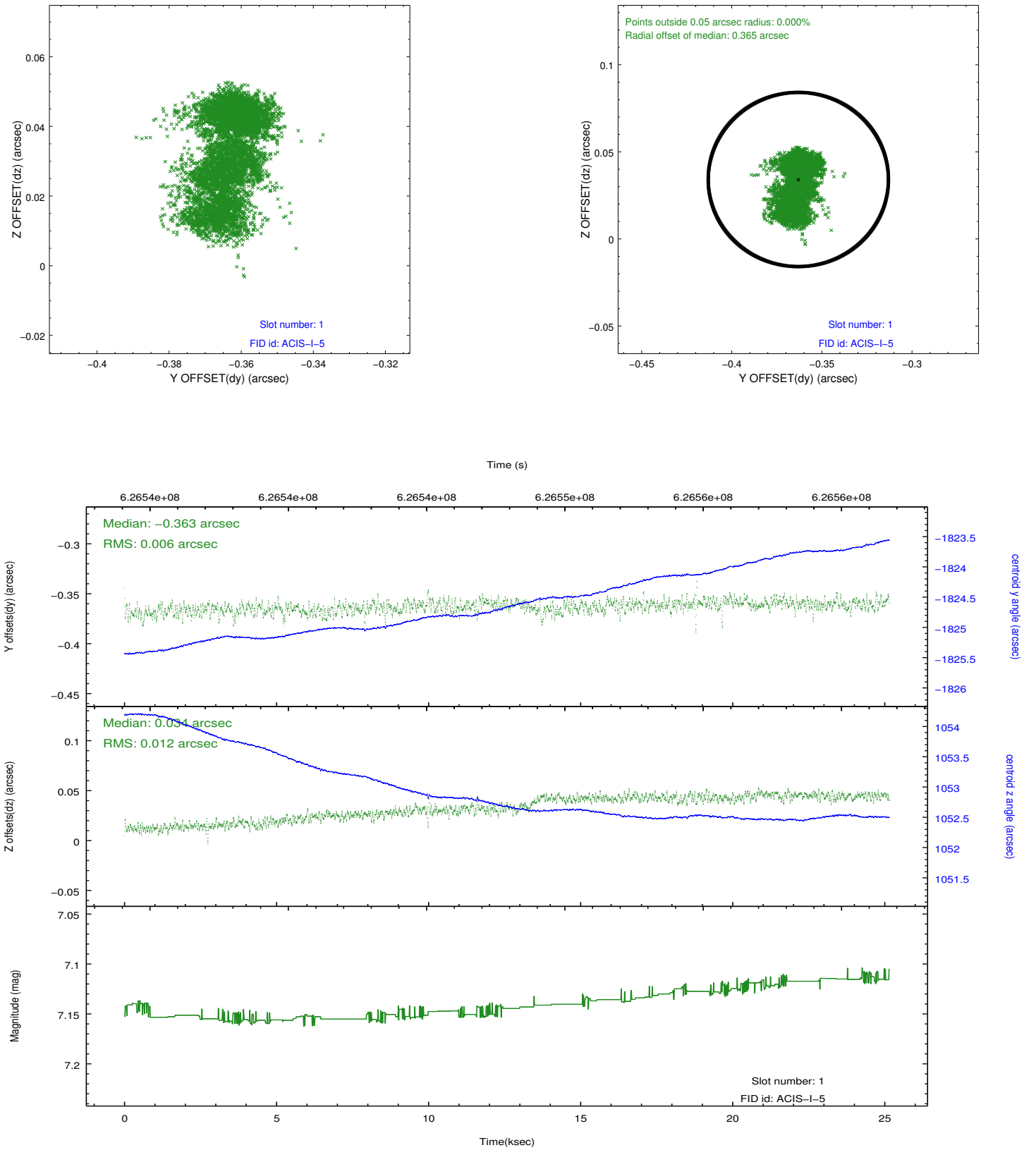


2.5 FID Slots

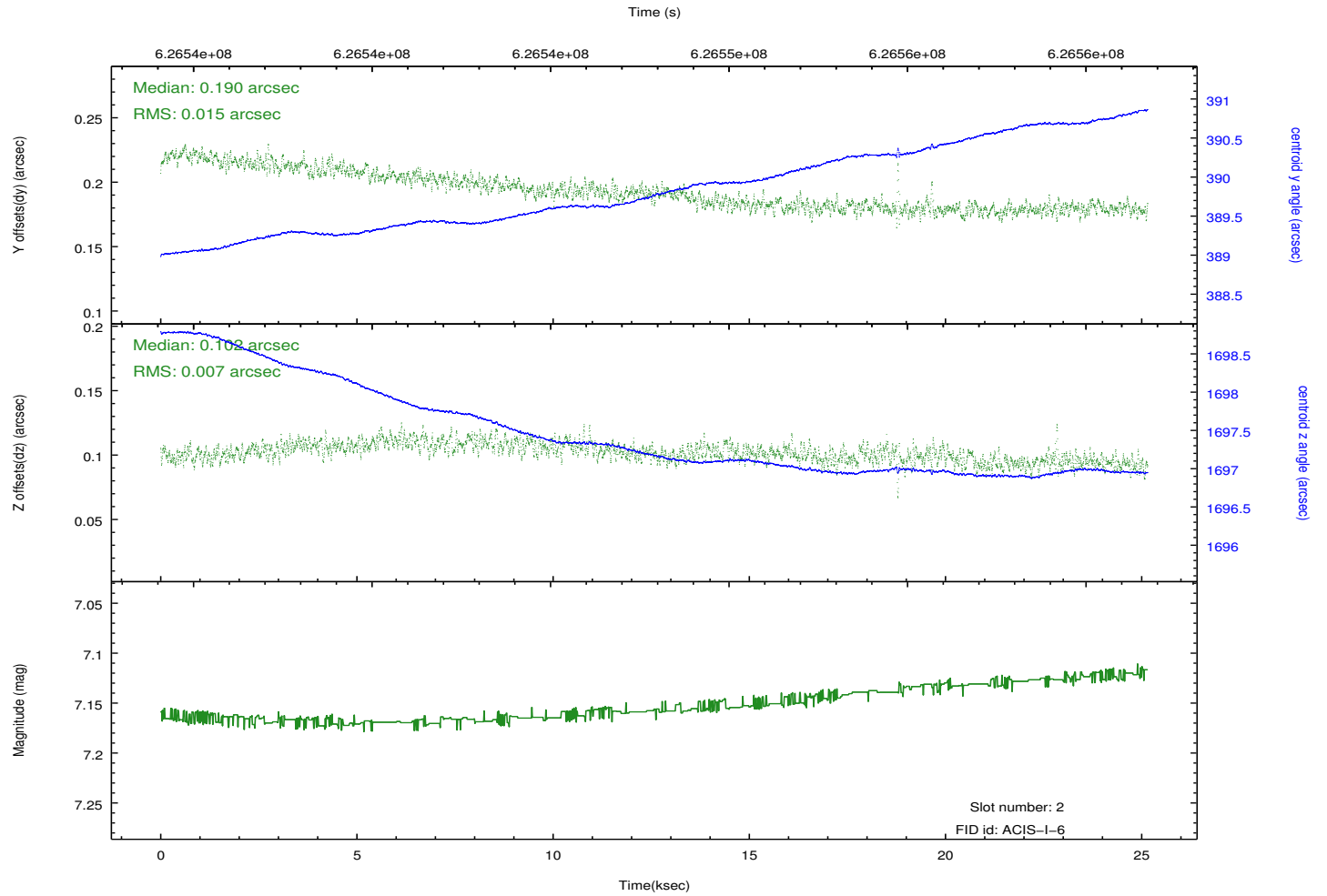
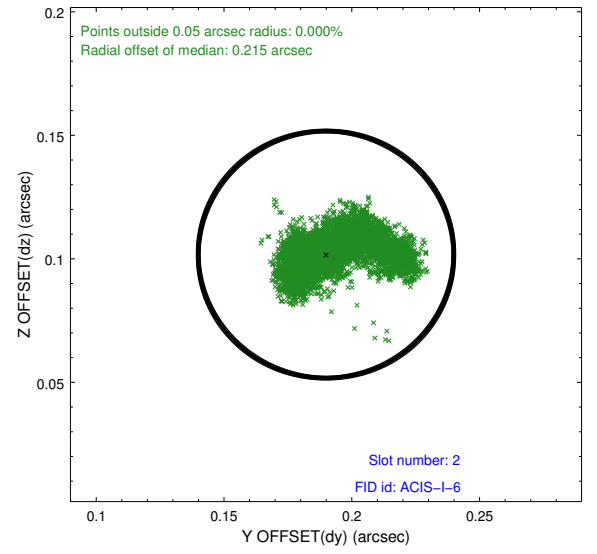
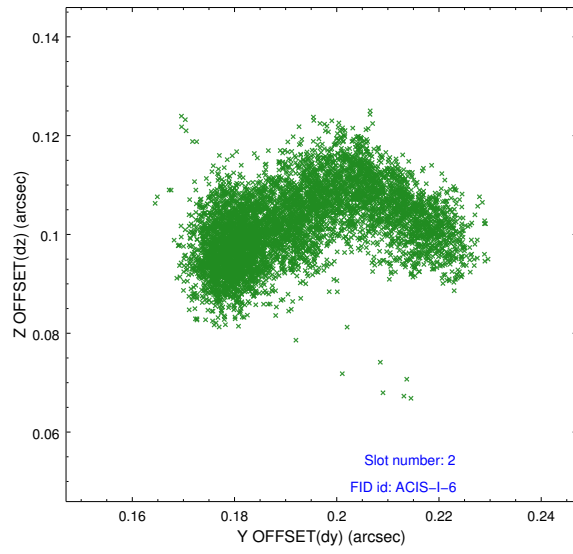
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2017.11.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.055960233212

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 slot from the solution.

A spatial region of the original bias map for CCD = 0 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 0 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords: (218.97933,34.08117), (218.97817,34.08612), (218.89486,34.07248), (218.89602,34.06753).