

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 13020 - L2 Version 2
Chandra X-Ray Center

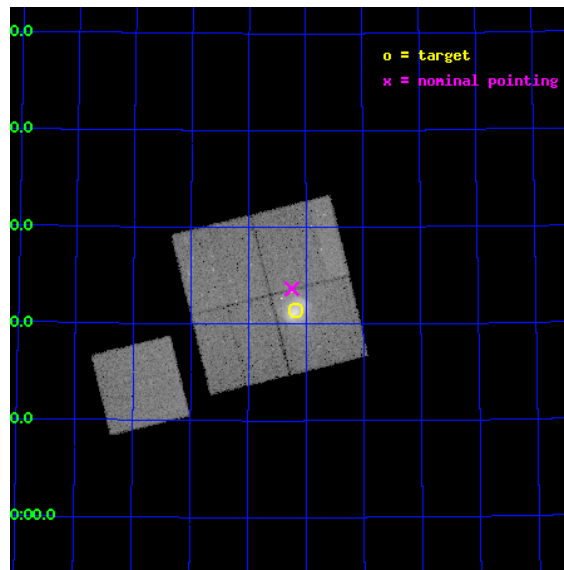
L2 Processing Date : Jul 1 2012

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1 Front

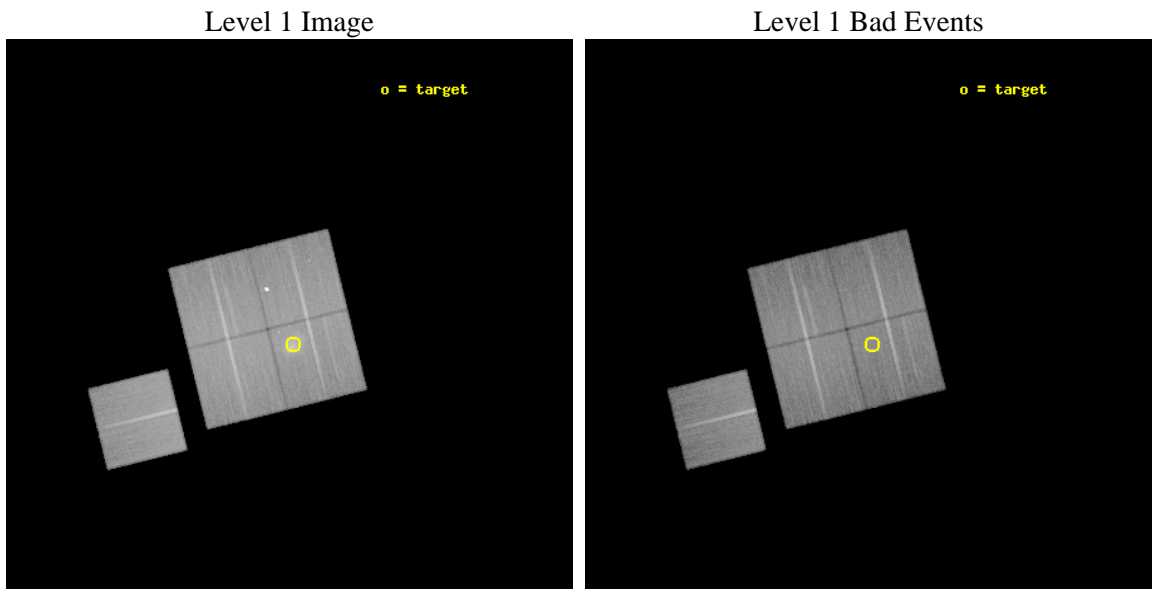
seq_num	801054	Sequence number
obs_id	13020	Observation id
title	Revealing the ICM transport processes with the bow shock, upstream shock and turbulent wake in Abell 2146	Proposal title
observer	Dr Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.04239	Observer's specified target RA [deg]
dec_targ	66.357434	Observer's specified target Dec [deg]
ra_nom	239.0606743904	Nominal RA [deg]
dec_nom	66.394036114157	Nominal Dec [deg]
roll_nom	256.19194556694	Nominal Roll [deg]
revision	2	Processing version of data
ontime	42048.091415882	Sum of GTIs [s]
livetime	41498.702146179	Livetime [s]
ontime0	42048.091415882	Sum of GTIs [s]
ontime1	42051.273456097	Sum of GTIs [s]
ontime2	42045.032495558	Sum of GTIs [s]
ontime3	42048.214545846	Sum of GTIs [s]
ontime6	42051.19137609	Sum of GTIs [s]
l2events	170226	Number of level 2 events



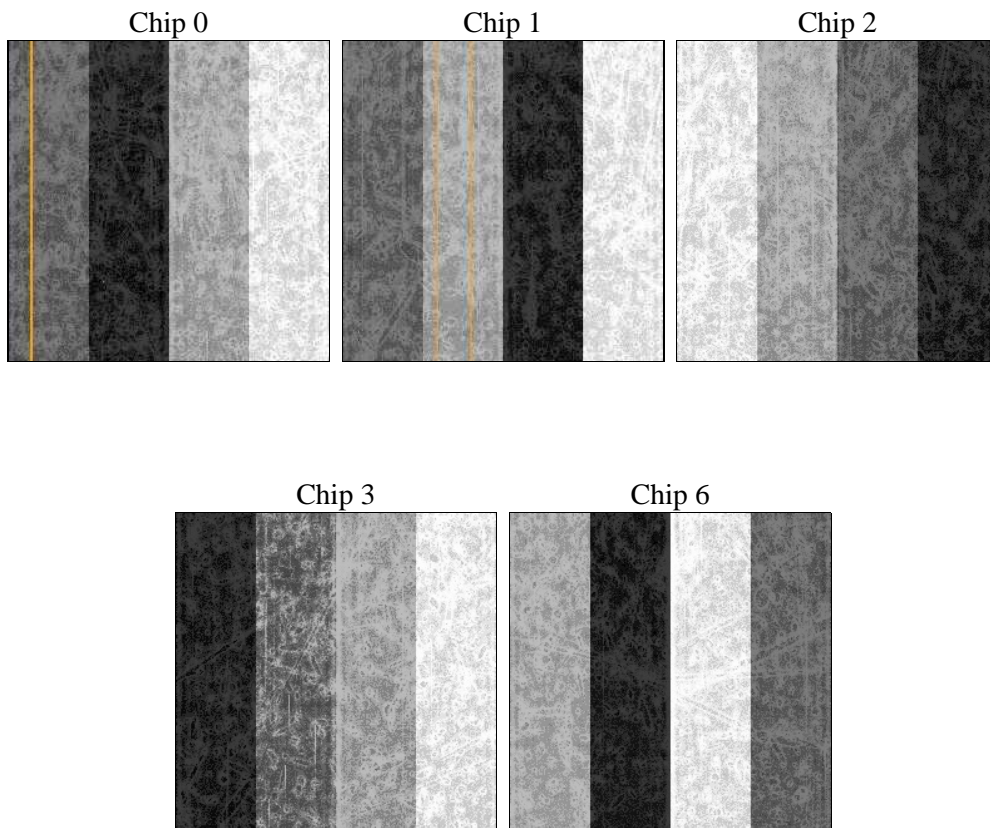
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	42000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	42048.091415882	Sum of GTIs [s]
caldbver	4.5.0	 	ontime0	42048.091415882	Sum of GTIs [s]
date	2012-07-01T17:51:15	Date and time of file creation	ontime1	42051.273456097	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	42045.032495558	Sum of GTIs [s]
			ontime3	42048.214545846	Sum of GTIs [s]
			ontime6	42051.19137609	Sum of GTIs [s]
			l1events	1557889	Number of level 1 events

2.1.4 Events

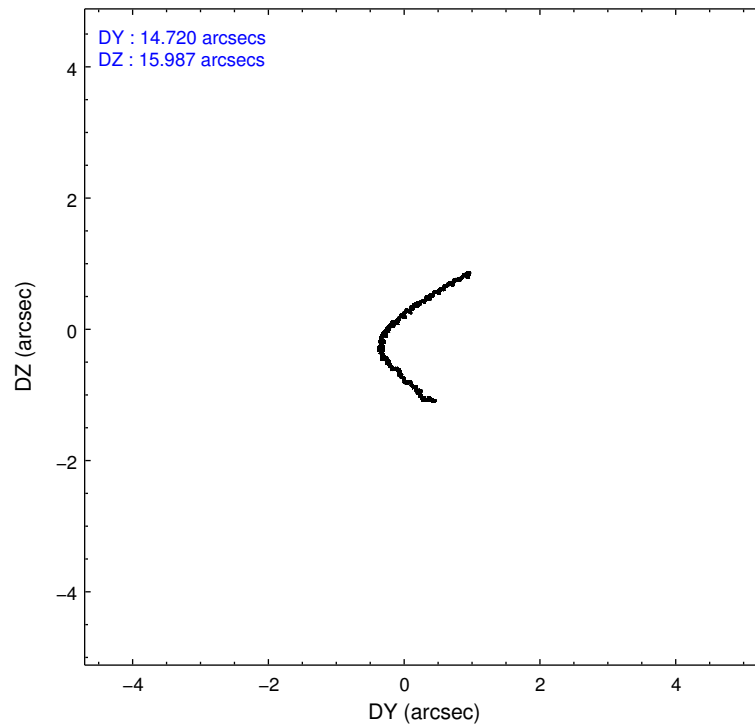
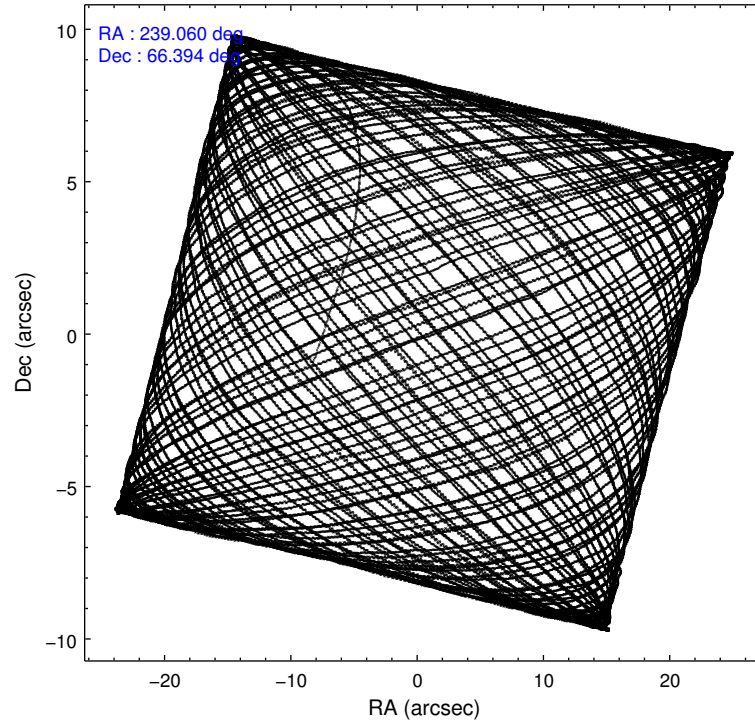
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	315474	306081	319301	306487	310546
rejected events	253952	254701	286065	274898	276413
rejected %	80%	83%	89%	89%	89%

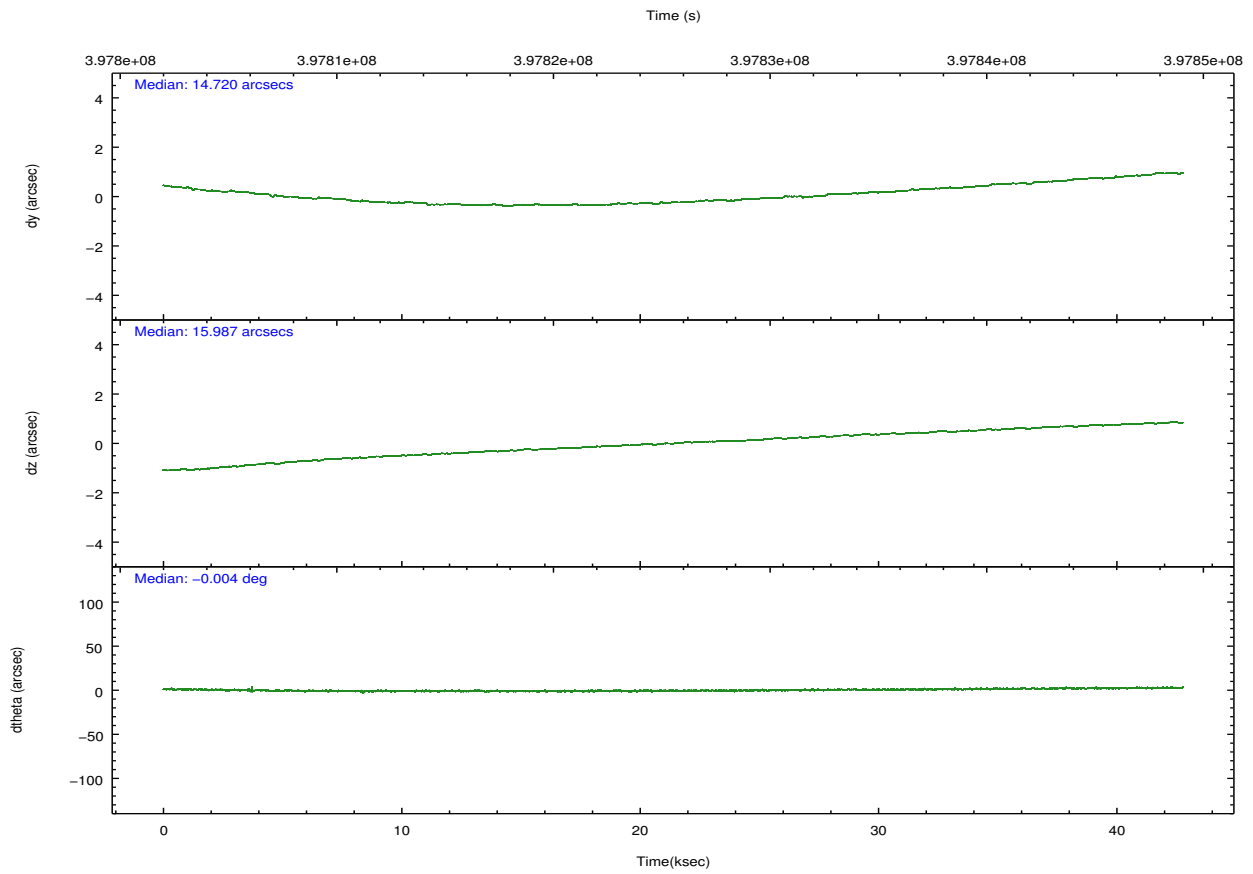
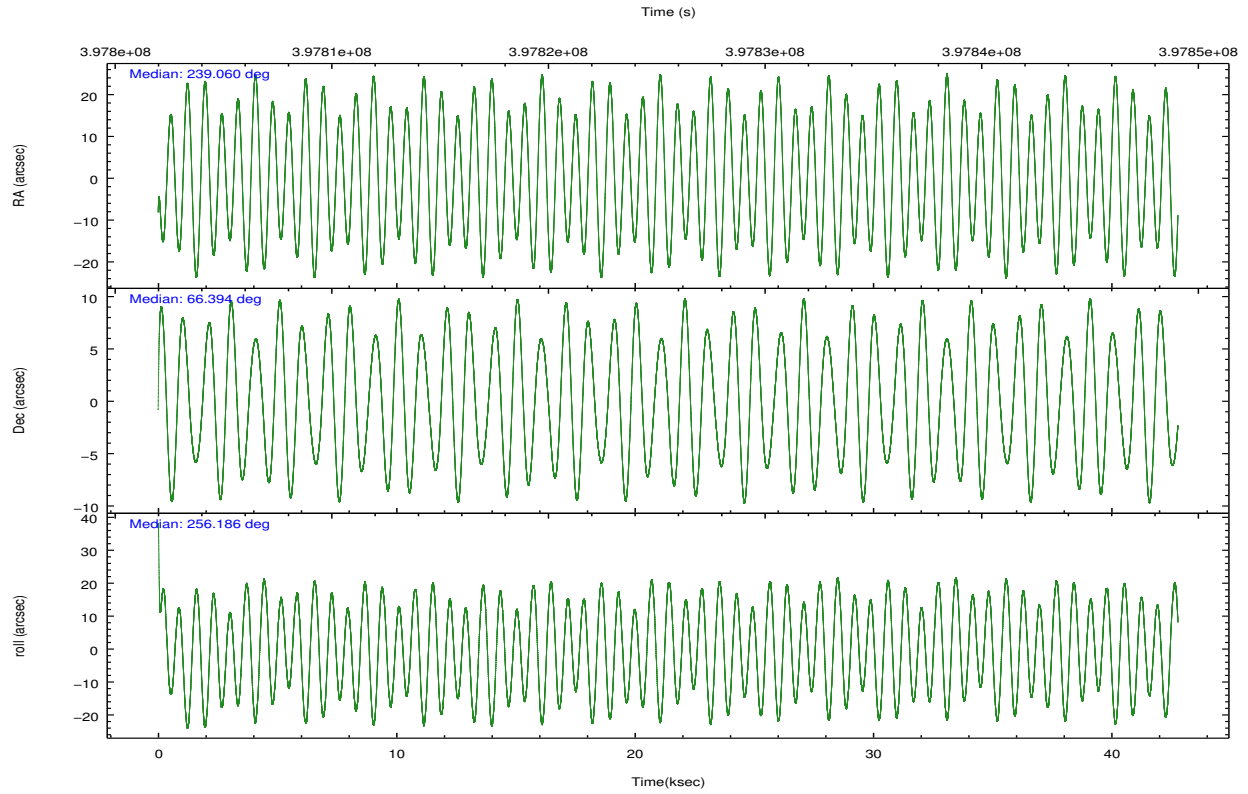
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	34322	26834	11985	11257	11822
	10%	8%	3%	3%	3%
grade 1 events	310	215	205	150	140
	0%	0%	0%	0%	0%
grade 2 events	11080	8947	7999	7122	7710
	3%	2%	2%	2%	2%
grade 3 events	4525	3930	3382	3386	3626
	1%	1%	1%	1%	1%
grade 4 events	4255	3777	3595	3487	3506
	1%	1%	1%	1%	1%
grade 5 events	12817	13577	12052	14029	13643
	4%	4%	3%	4%	4%
grade 6 events	7345	7897	6275	6340	7470
	2%	2%	1%	2%	2%
grade 7 events	240820	240904	273808	260716	262629
	76%	78%	85%	85%	84%

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	239.041279	239.0606743904021	CCD I2 on	Y	Y
[deg] Pointing Dec	66.420424	66.39403611415736	CCD I3 on	Y	Y
[deg] Pointing Roll	256.001028	256.1919455669367	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	-242.592463	-242.5987405016197	CCD S3 on	N	N
[mm] SIM translation stage offset	9	9.006287498690028	CCD S4 on	N	N
[s] Observation start time (MET)	397804898.184000	397803162.59613	CCD S5 on	N	N
Observation start date	2010-08-10T05:20:32	2010-08-10T04:52:42	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	397846898.184000	397848368.68595	On-chip summing requested	N	N
Observation end date	2010-08-10T17:00:32	2010-08-10T17:26:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



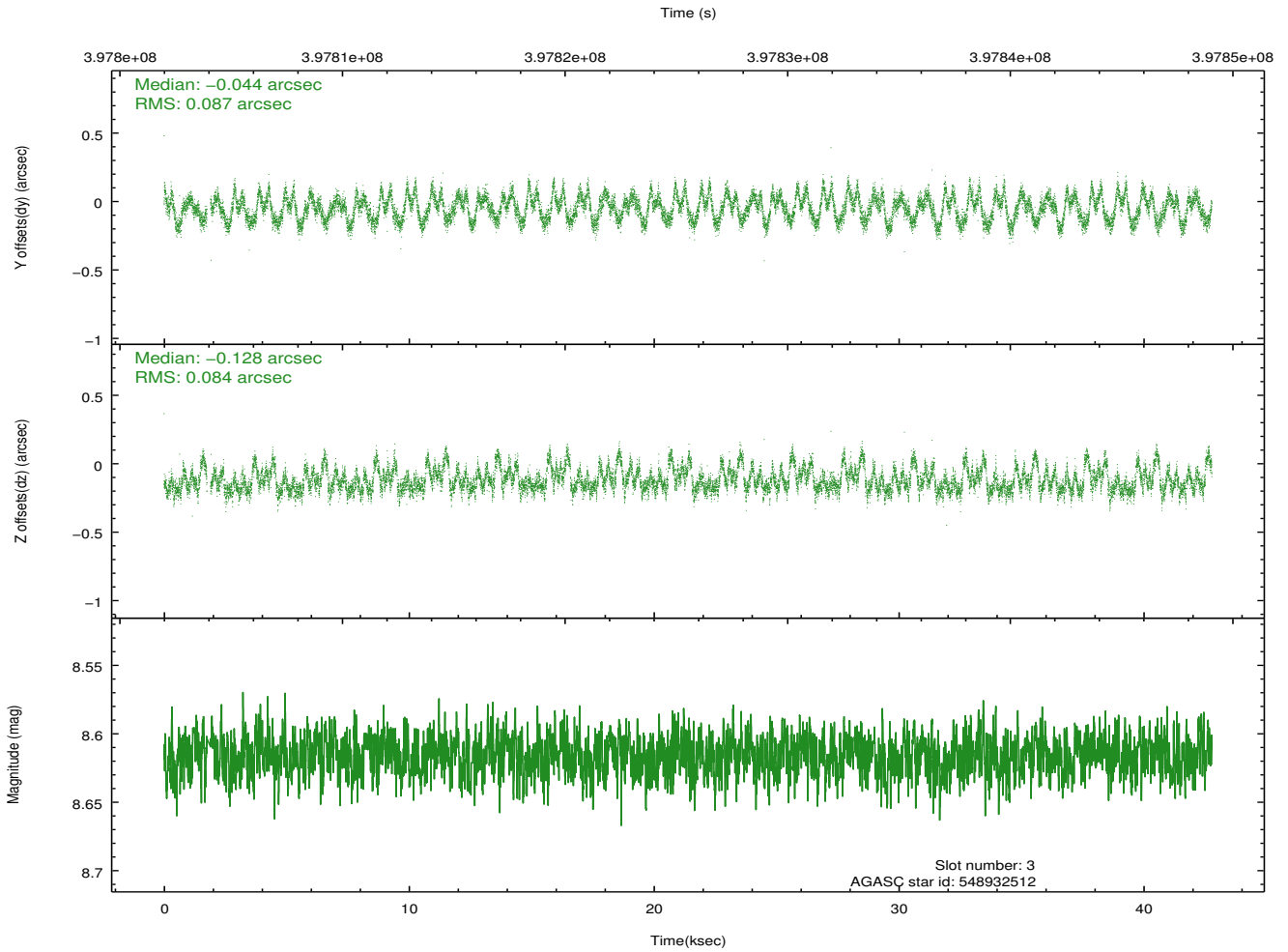
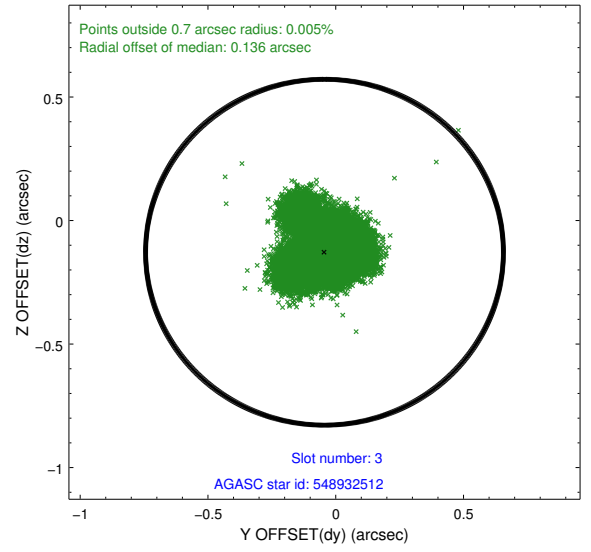
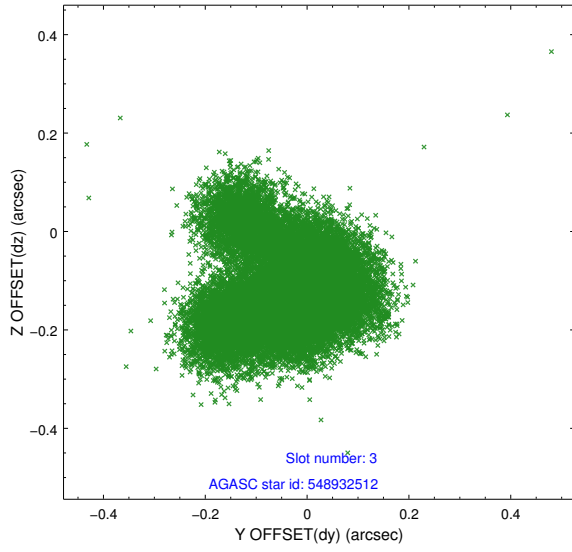


Slot Statistics

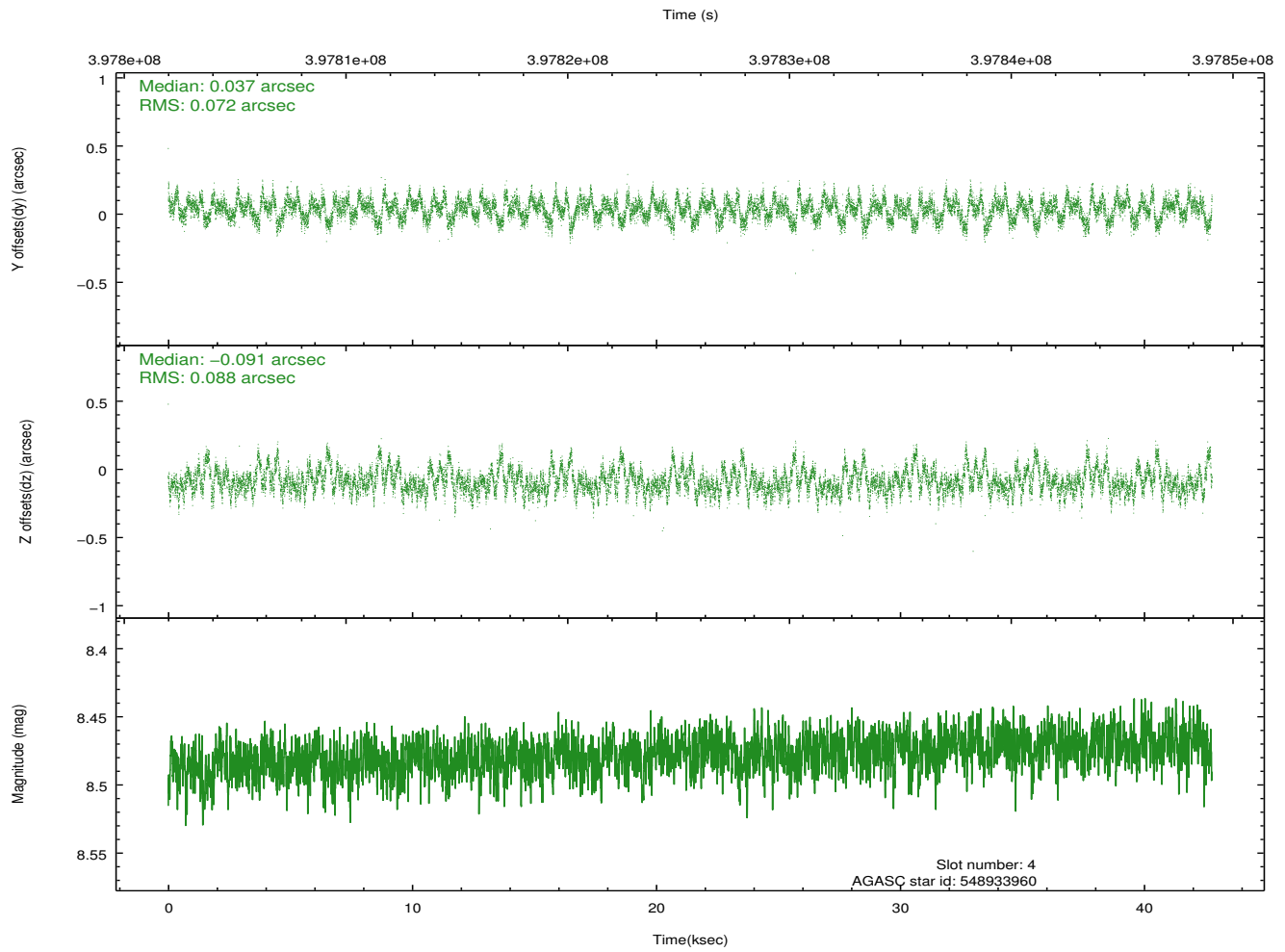
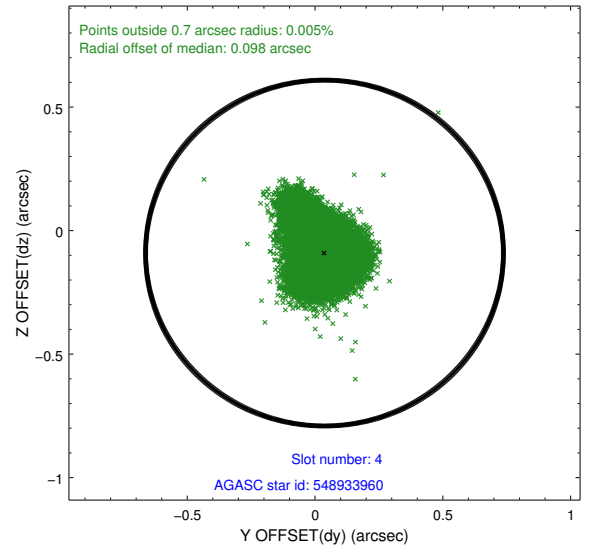
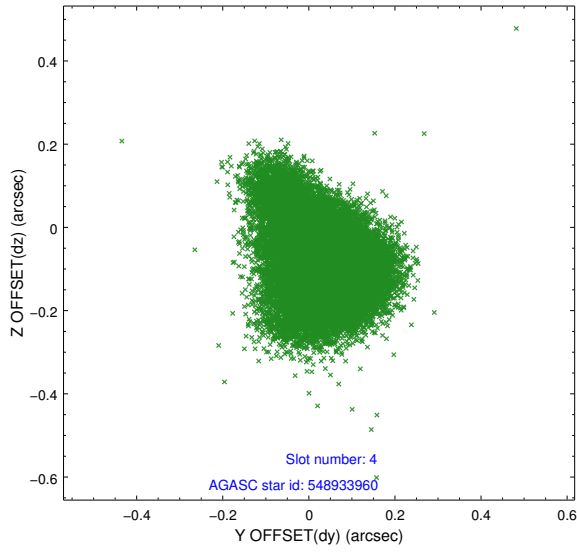
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.06	10434	-0.026	0.078	0.014	0.022	0.000000	0.000000	924.82	-654.36
1	FID	ACIS-I-5	7.02	10433	-0.121	0.018	0.012	0.019	0.000000	0.000000	-1823.45	1242.97
2	FID	ACIS-I-6	7.00	10434	0.056	-0.026	0.016	0.026	0.000000	0.000000	390.35	1887.52
3	GUIDE	548932512	8.62	20793	-0.044	-0.128	0.132	0.205	239.727627	66.054972	1028.52	1290.31
4	GUIDE	548933960	8.48	20862	0.037	-0.091	0.117	0.207	237.671184	66.428675	428.60	-1925.64
5	GUIDE	548937184	9.89	20829	0.172	0.183	0.157	0.278	238.771821	66.565432	-413.46	-500.45
6	GUIDE	548939872	10.31	20708	-0.078	0.142	0.198	0.326	238.964867	66.978384	-1922.81	-590.07
7	GUIDE	549849072	9.19	20844	-0.068	-0.127	0.235	0.352	240.420863	66.802816	-1829.87	1559.78

2.4 Star Slots

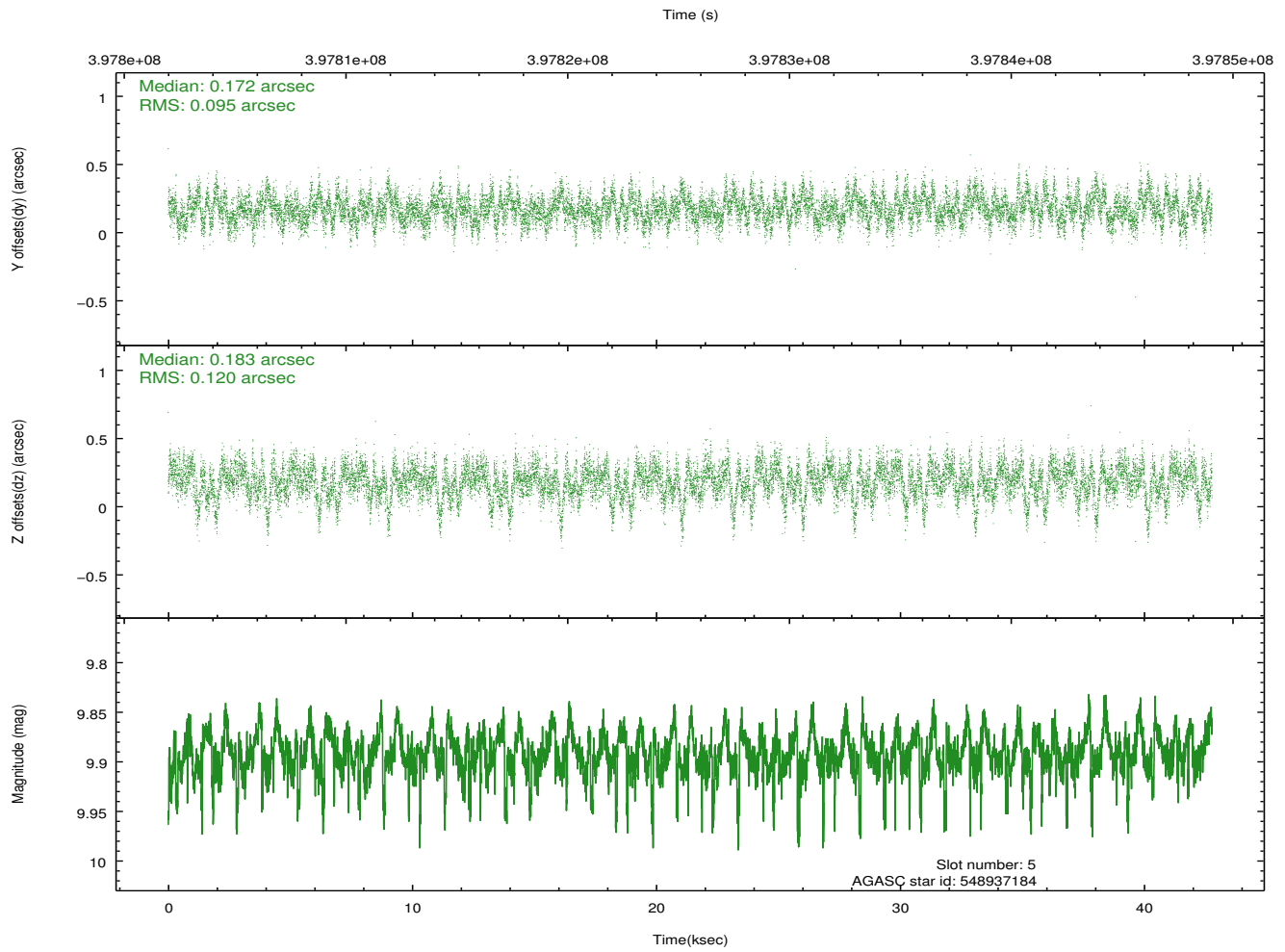
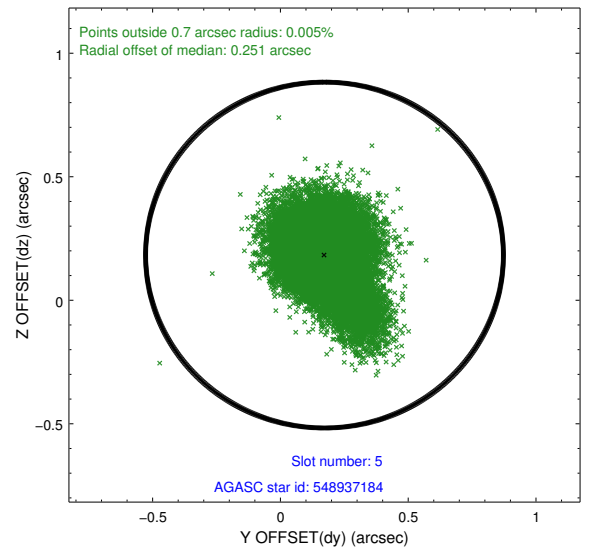
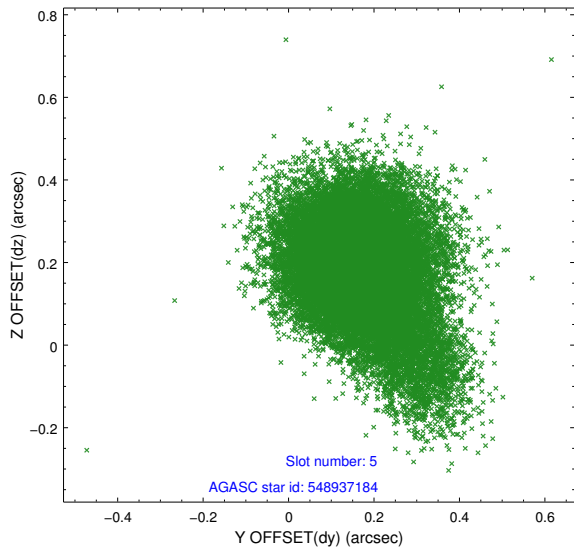
2.4.1 Slot 3



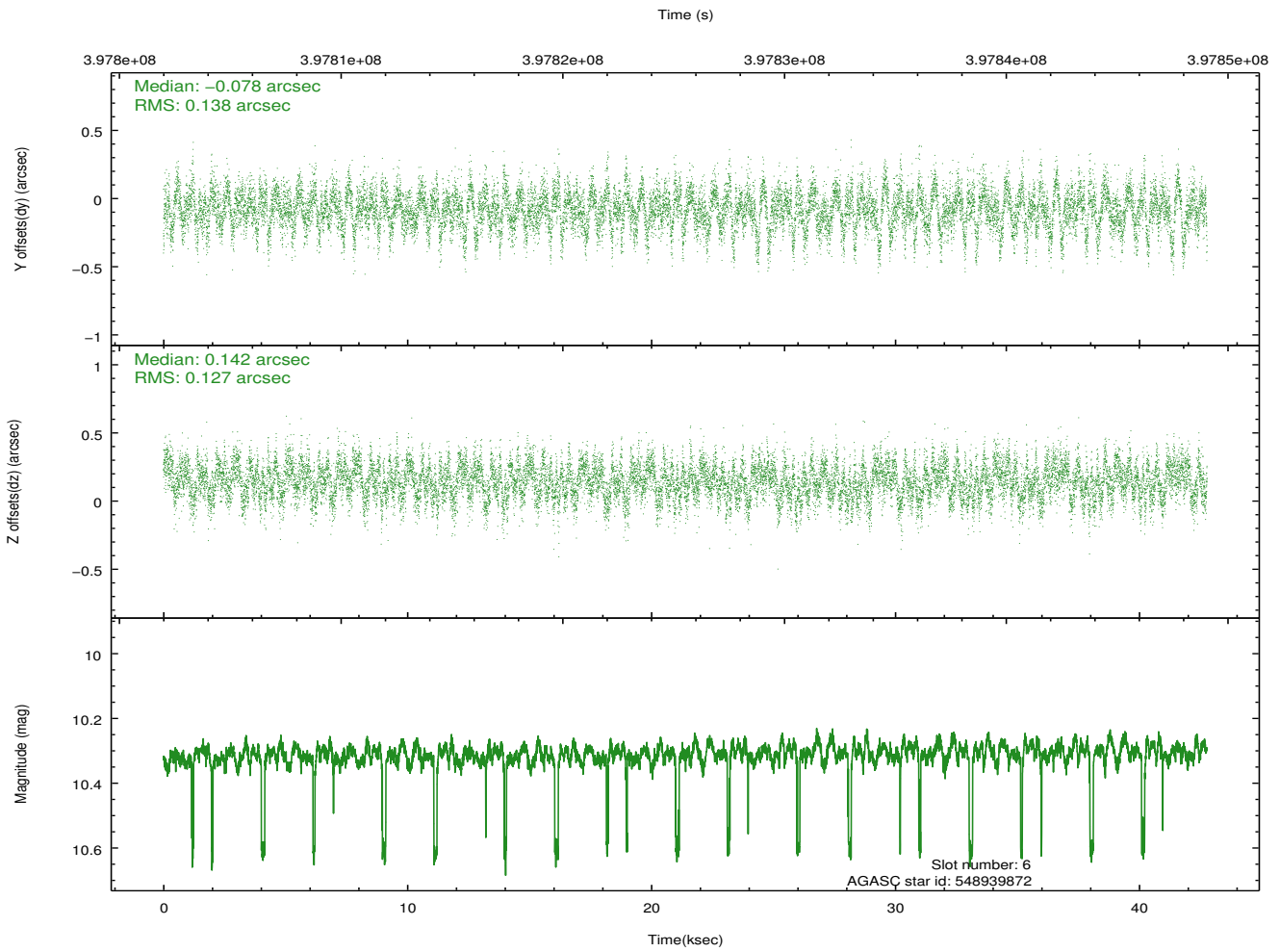
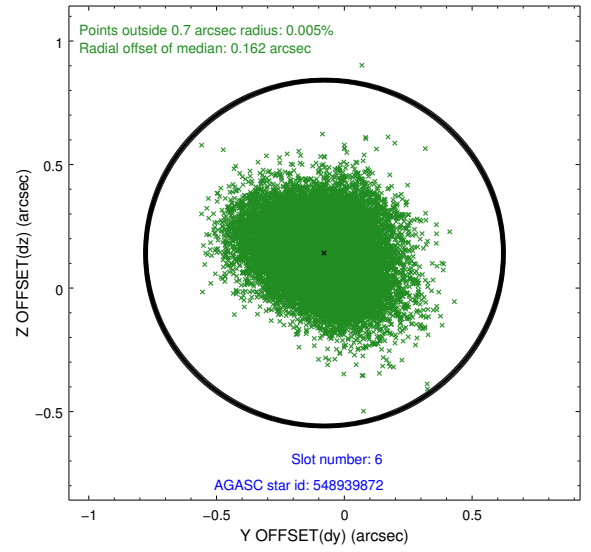
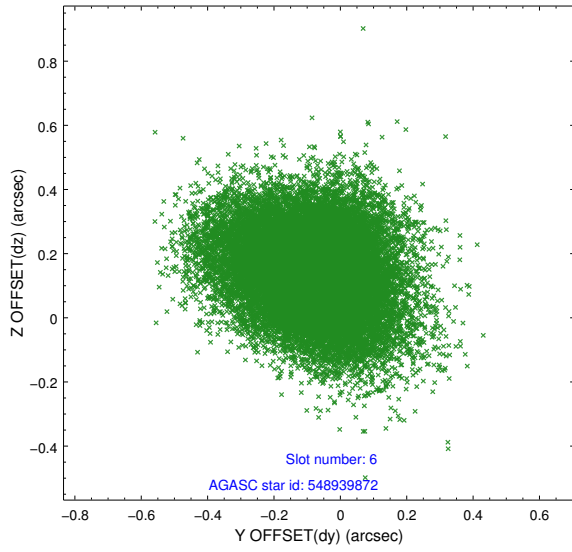
2.4.2 Slot 4



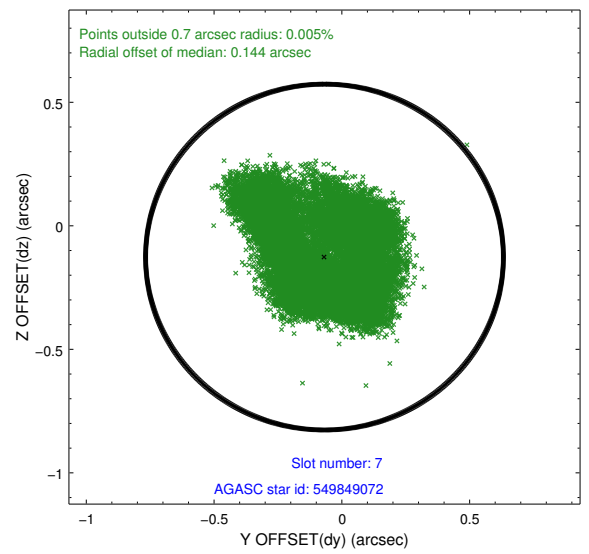
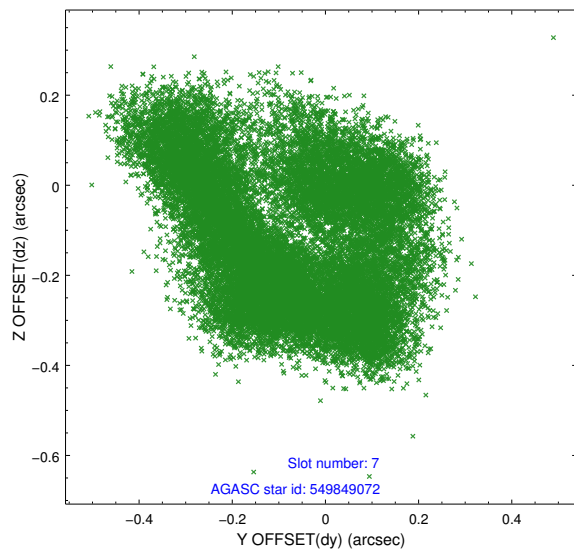
2.4.3 Slot 5



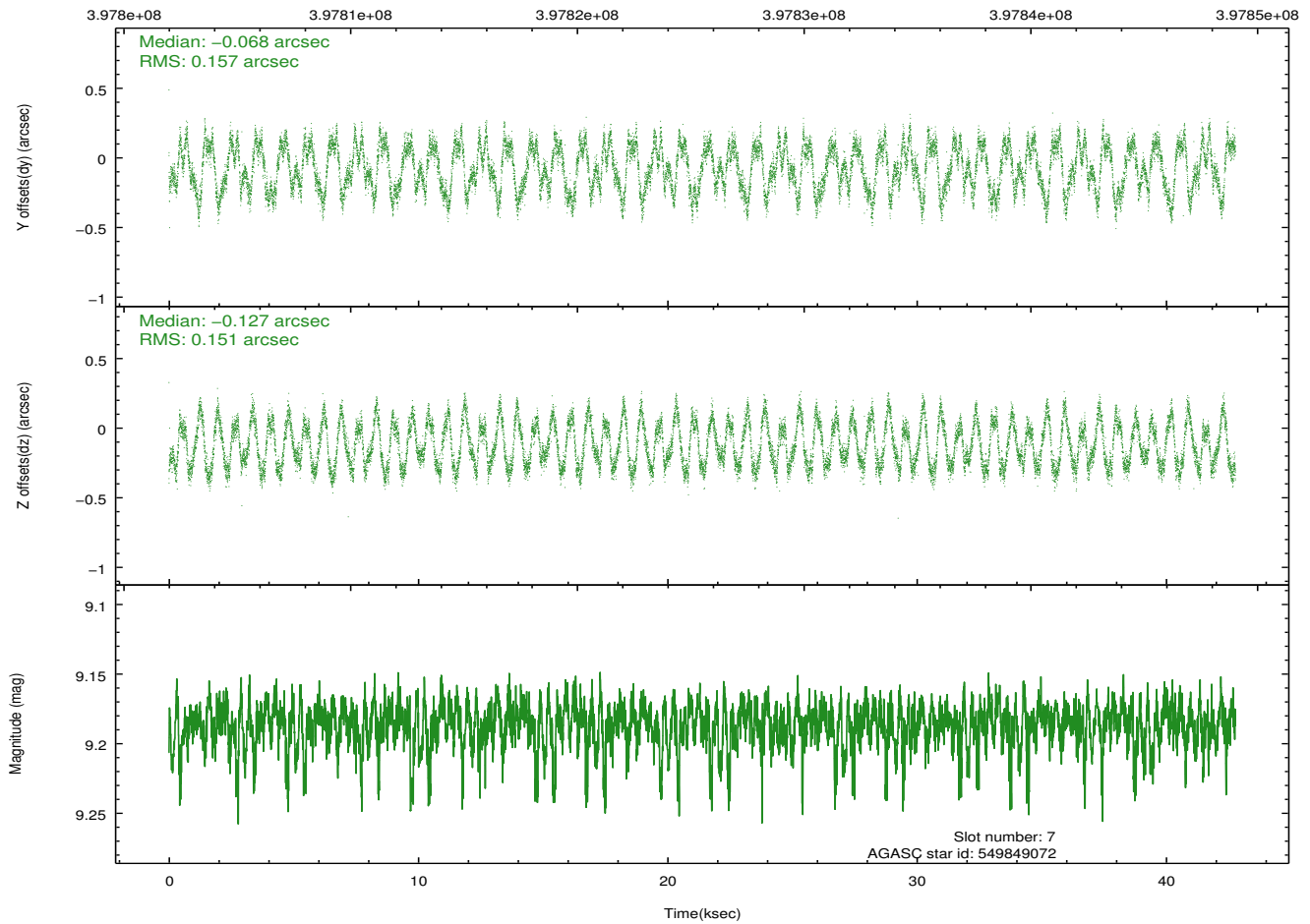
2.4.4 Slot 6



2.4.5 Slot 7

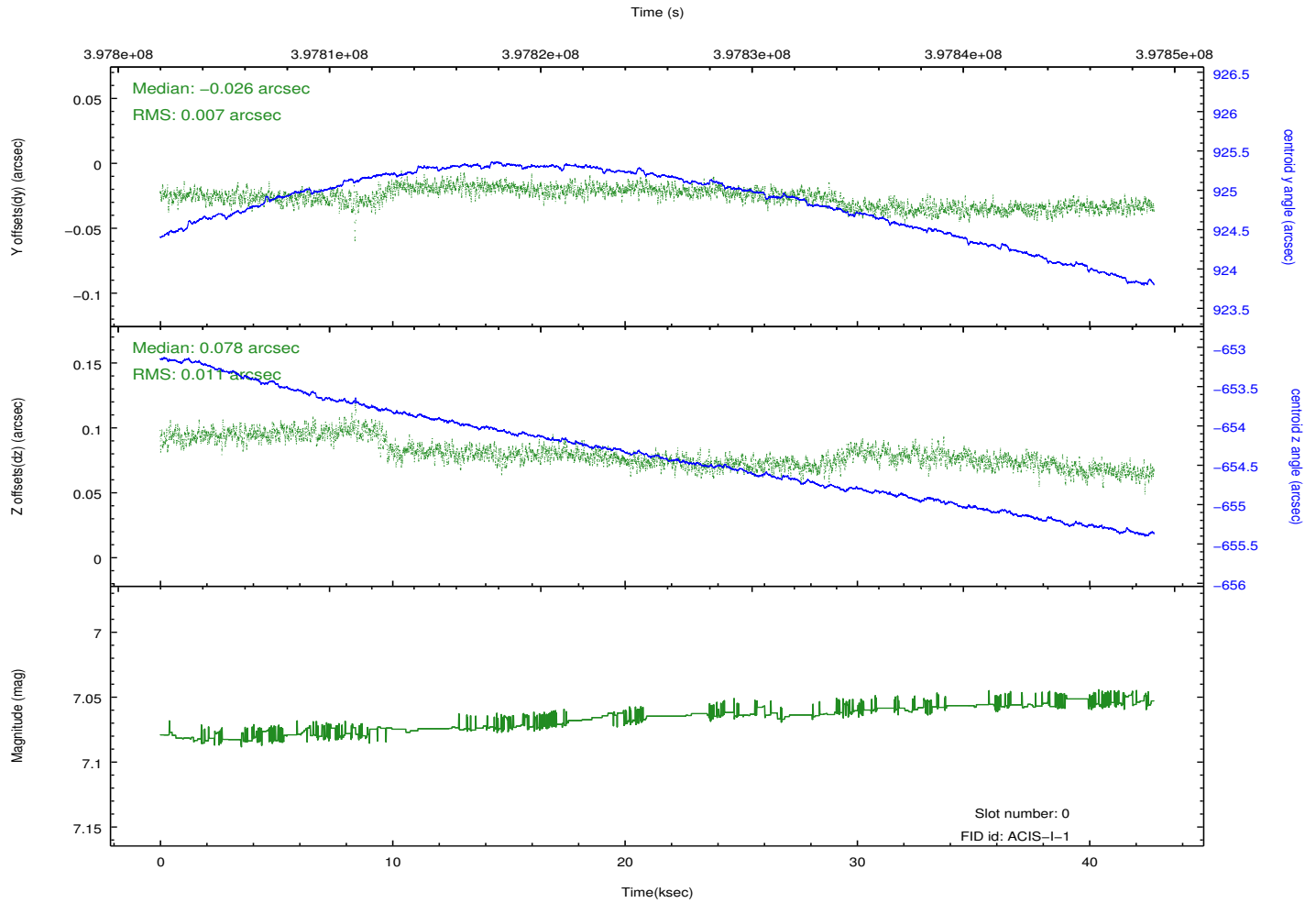
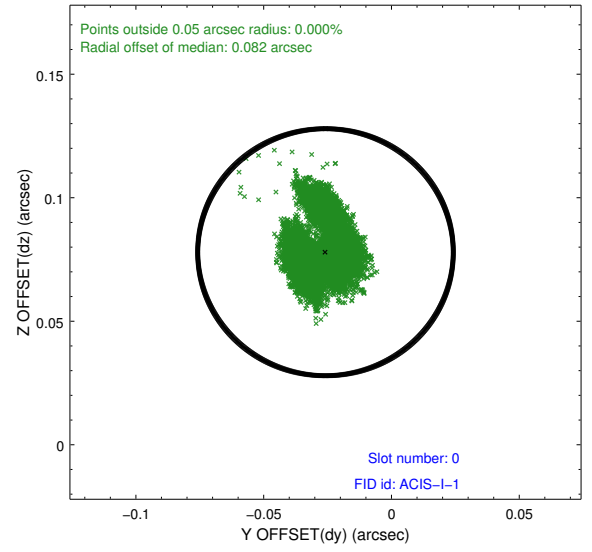
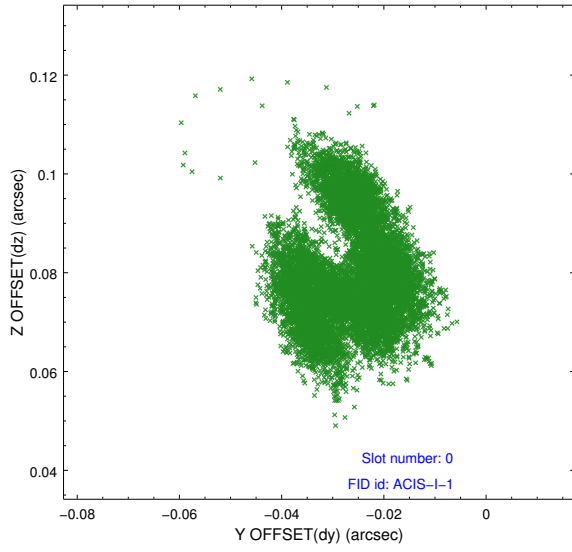


Time (s)

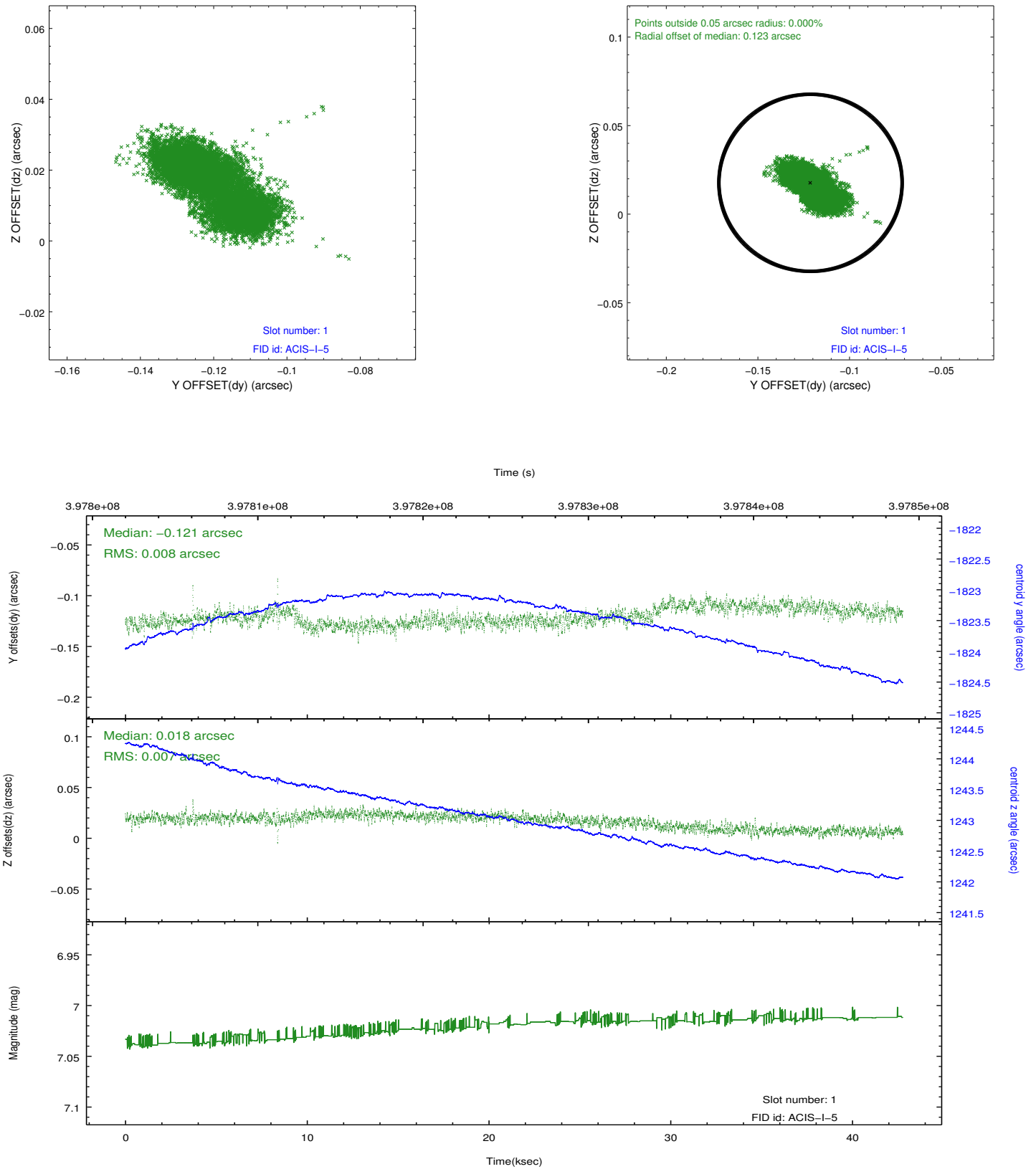


2.5 FID Slots

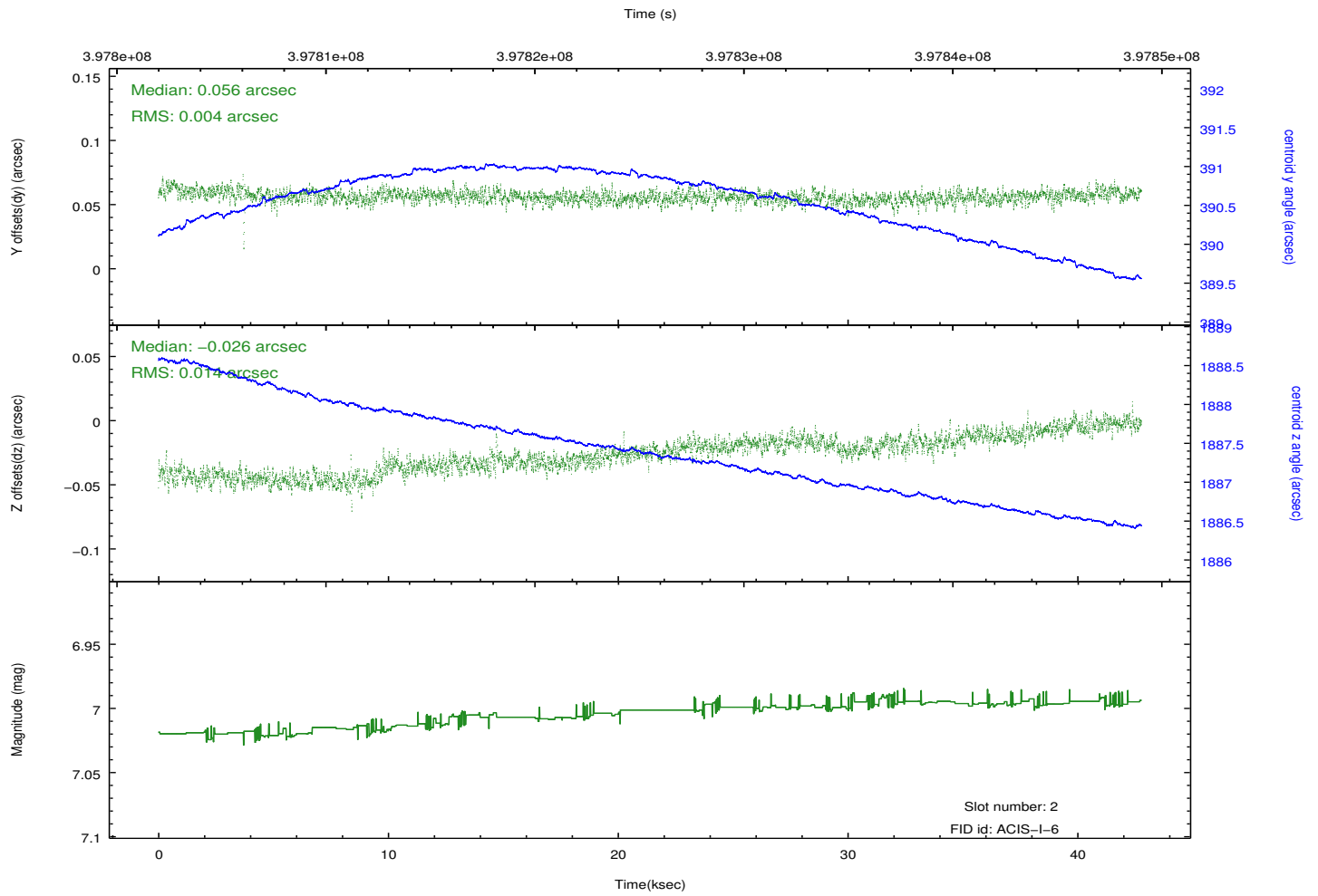
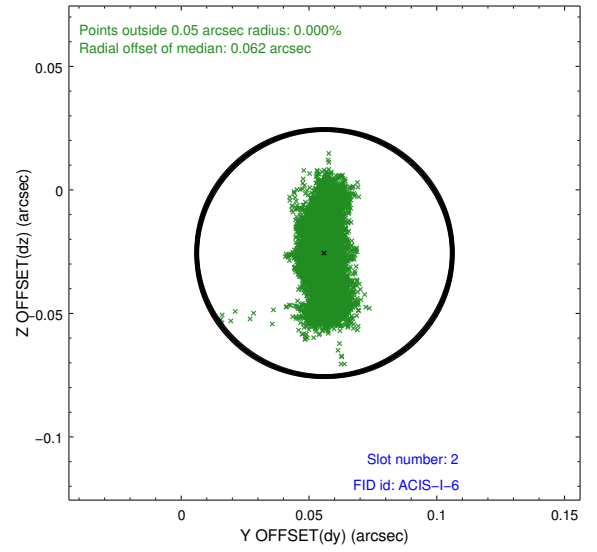
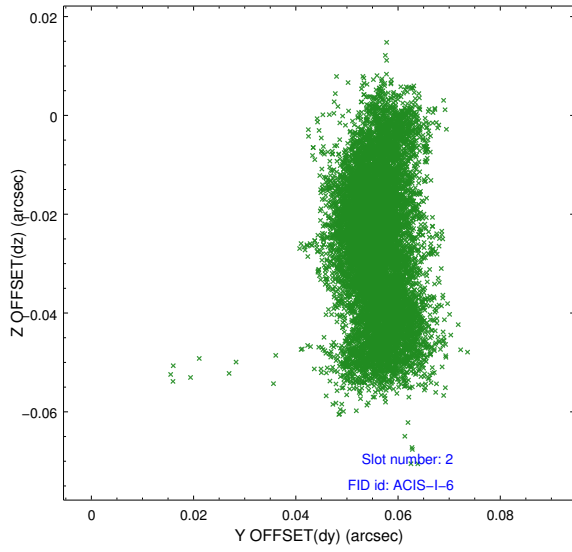
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.07.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	42.048091424704

A.2 Comments