

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8099 - L2 Version 3
Chandra X-Ray Center

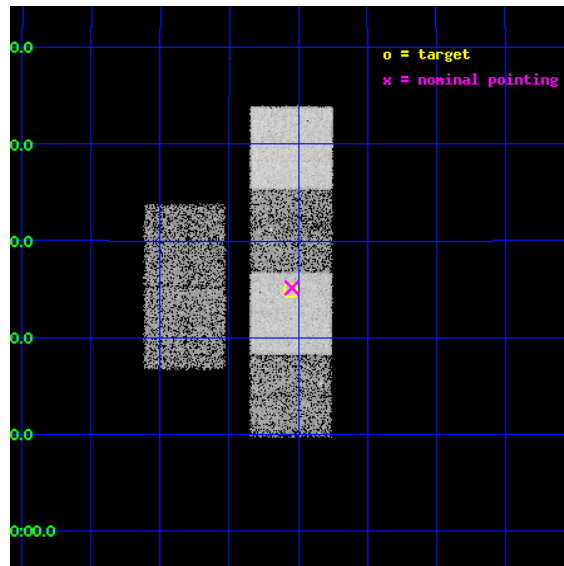
L2 Processing Date : May 10 2012

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1 Front

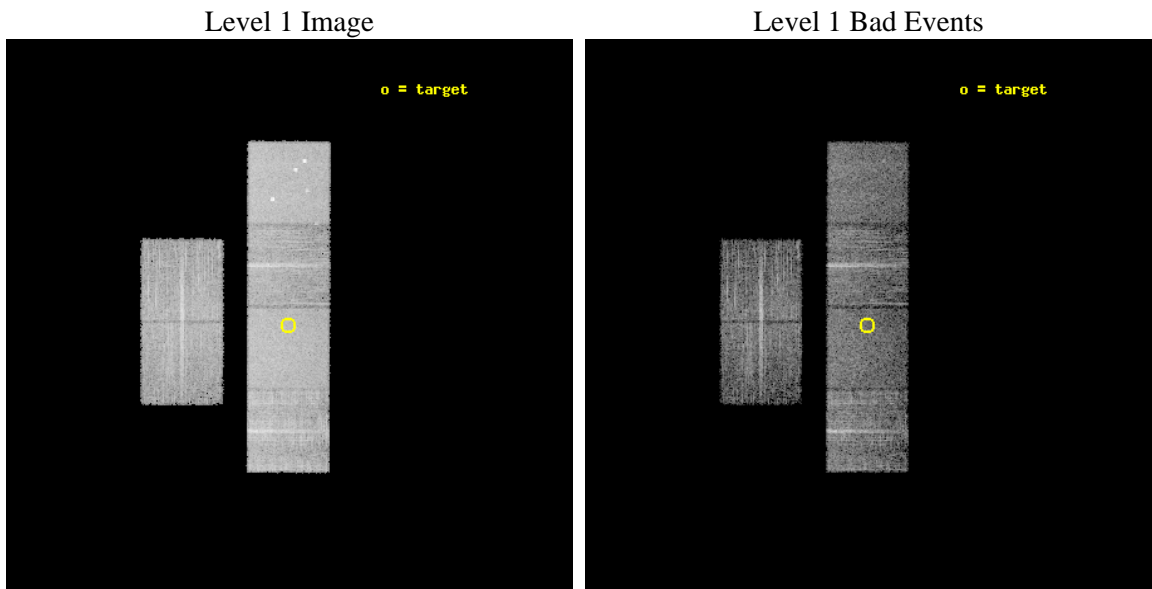
seq_num	900640	Sequence number
obs_id	8099	Observation id
title	The Duty Cycle of Supermassive Black Holes: X-raying Virgo	Proposa
observer	Prof Tommaso Treu	Principal investigator
object	1440	Source name
dtycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	188.139167	Observer's specified target RA [deg]
dec_targ	15.415333	Observer's specified target Dec [deg]
ra_nom	188.13644983727	Nominal RA [deg]
dec_nom	15.419321336079	Nominal Dec [deg]
roll_nom	90.157381964578	Nominal Roll [deg]
revision	3	Processing version of data
ontime	5567.9999793172	Sum of GTIs [s]
livetime	5497.494610932	Livetime [s]
ontime2	5567.9999793172	Sum of GTIs [s]
ontime3	5567.9999793172	Sum of GTIs [s]
ontime5	5567.9999793172	Sum of GTIs [s]
ontime6	5567.9999793172	Sum of GTIs [s]
ontime7	5567.9999793172	Sum of GTIs [s]
ontime8	5567.9999793172	Sum of GTIs [s]
l2events	89394	Number of level 2 events



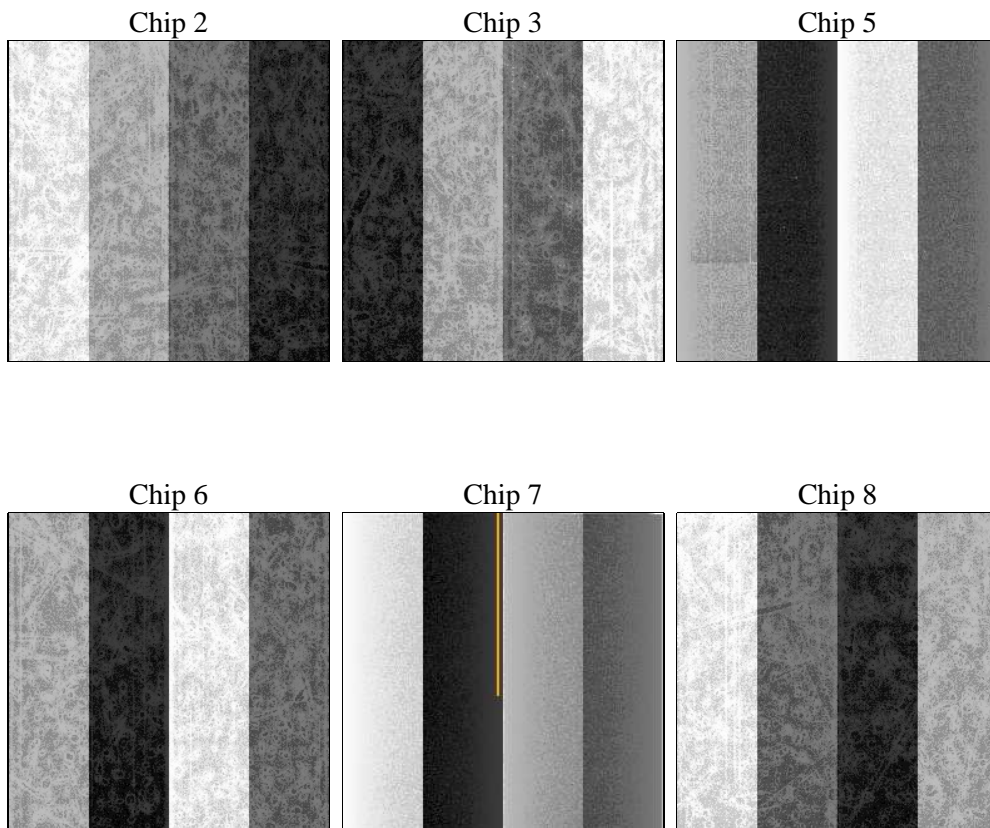
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	5400.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	5567.9999793172	Sum of GTIs [s]
caldsver	4.4.9	 	ontime2	5567.9999793172	Sum of GTIs [s]
date	2012-05-10T22:59:46	Date and time of file creation	ontime3	5567.9999793172	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	5567.9999793172	Sum of GTIs [s]
			ontime6	5567.9999793172	Sum of GTIs [s]
			ontime7	5567.9999793172	Sum of GTIs [s]
			ontime8	5567.9999793172	Sum of GTIs [s]
			l1events	393348	Number of level 1 events

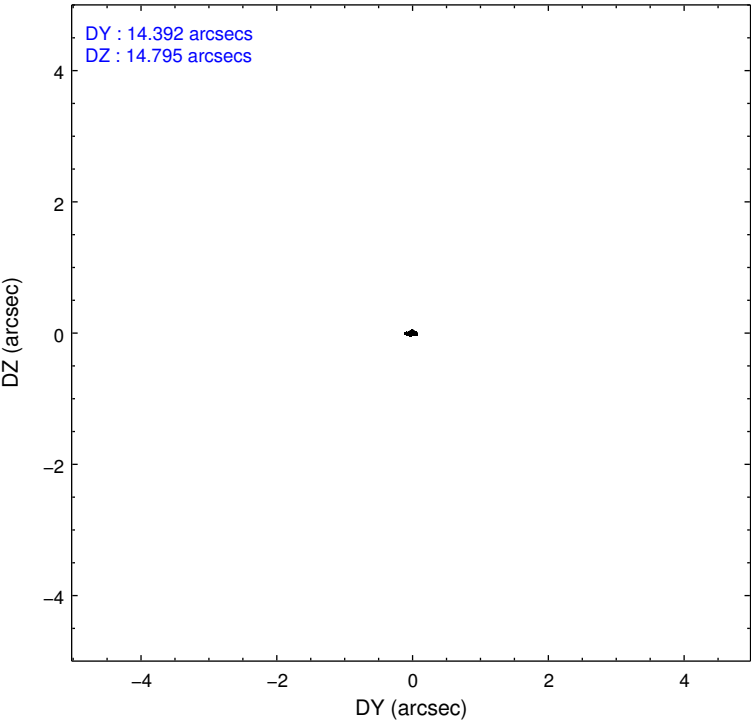
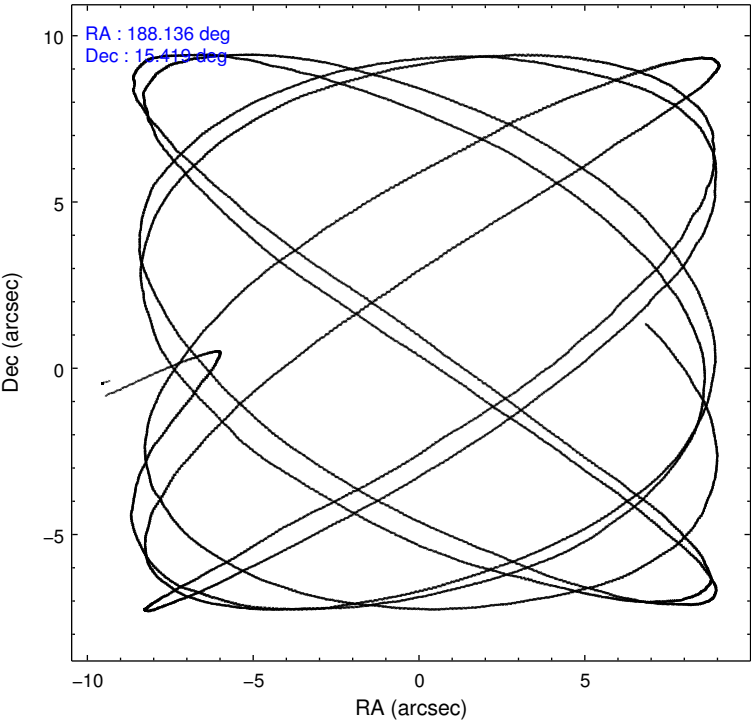
2.1.4 Events

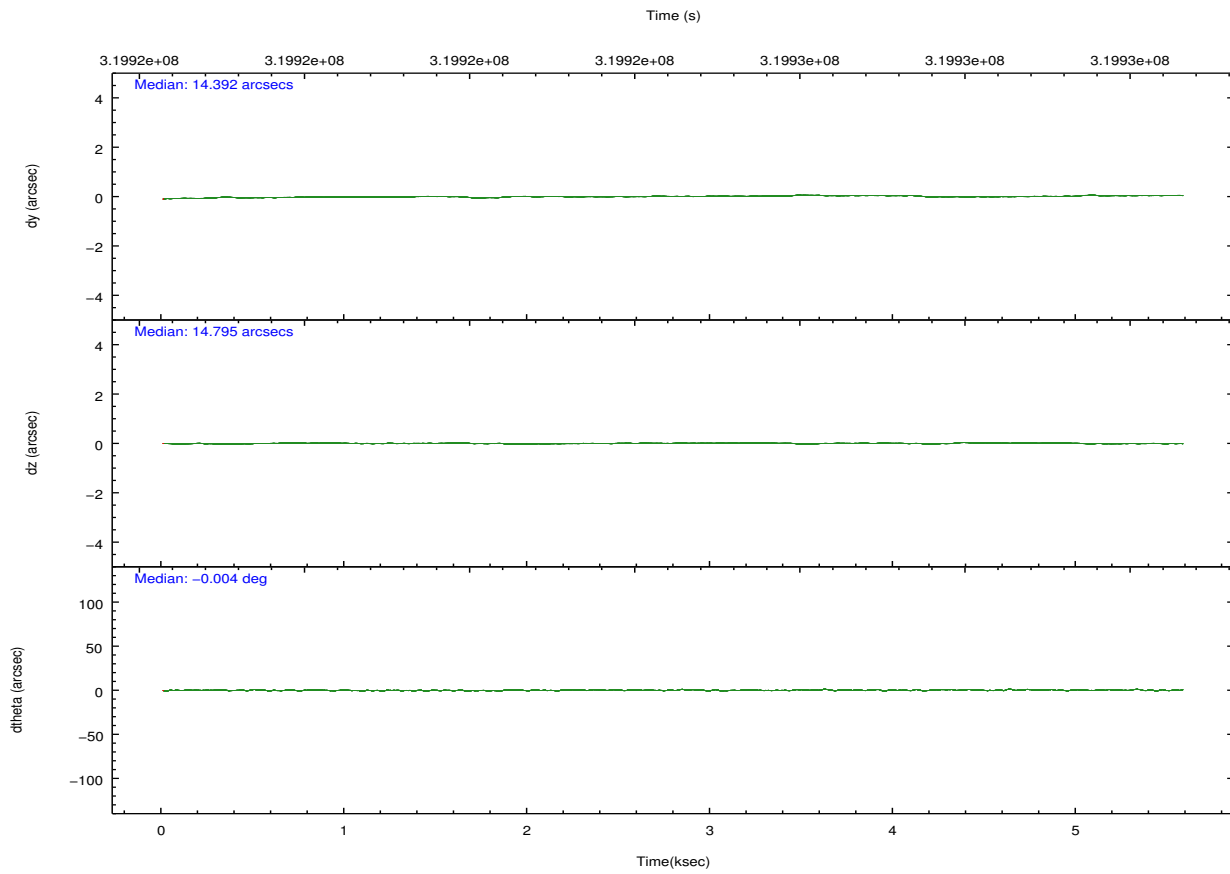
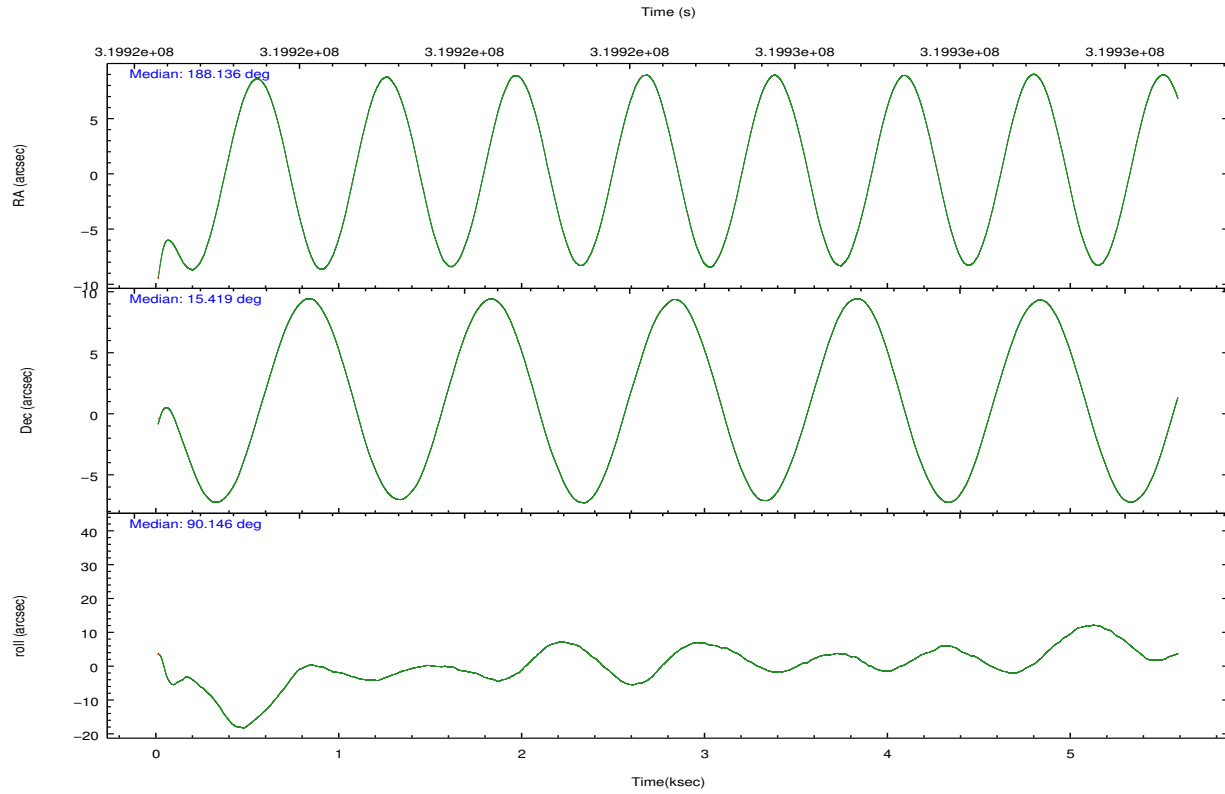
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	55715	50639	84528	56201	74761	71504	grade 0 events	2799	2813	4443	2736	2738	5102
rejected events	49431	44277	45437	49488	43803	55996		5%	5%	5%	4%	3%	7%
rejected %	88%	87%	53%	88%	58%	78%	grade 1 events	37	39	128	35	89	39
								0%	0%	0%	0%	0%	0%
							grade 2 events	1317	1293	11777	1449	6351	3520
								2%	2%	13%	2%	8%	4%
							grade 3 events	558	597	1346	596	2719	1619
								1%	1%	1%	1%	3%	2%
							grade 4 events	588	577	1346	612	2549	1573
								1%	1%	1%	1%	3%	2%
							grade 5 events	2167	2433	5835	2534	6949	3540
								3%	4%	6%	4%	9%	4%
							grade 6 events	1098	1168	20658	1400	16956	3976
								1%	2%	24%	2%	22%	5%
							grade 7 events	47151	41719	38995	46839	36410	52135
								84%	82%	46%	83%	48%	72%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	188.151094	188.1364498372706	CCD I2 on	O1	Y
[deg] Pointing Dec	15.395994	15.41932133607943	CCD I3 on	O2	Y
[deg] Pointing Roll	89.996840	90.15738196457843	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O4	Y
[s] Observation start time (MET)	319922620.184000	319921518.22819	CCD S5 on	N	N
Observation start date	2008-02-20T19:22:35	2008-02-20T19:05:18	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	319928020.184000	319928204.81602	On-chip summing requested	N	N
Observation end date	2008-02-20T20:52:35	2008-02-20T20:56:44	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



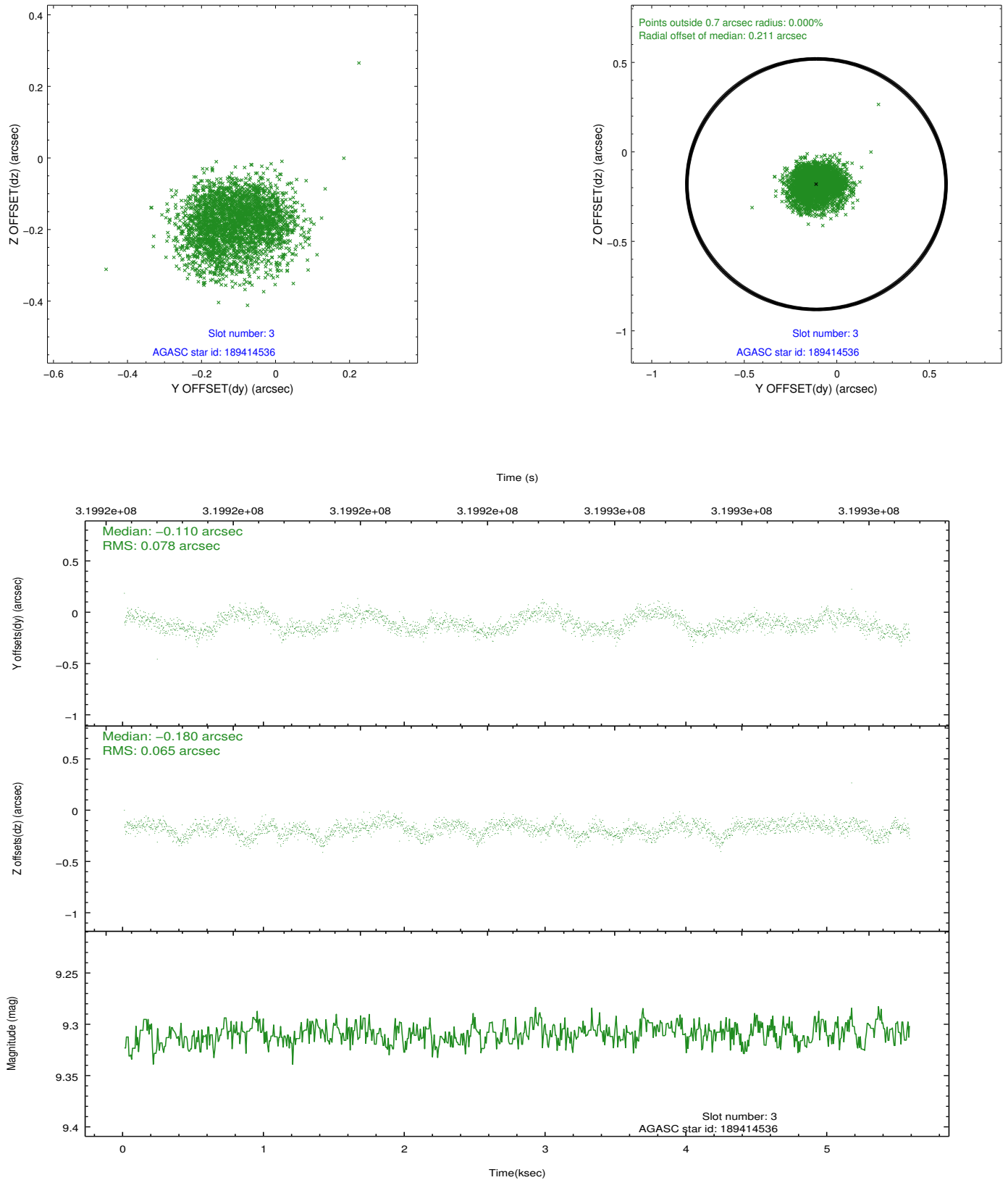


Slot Statistics

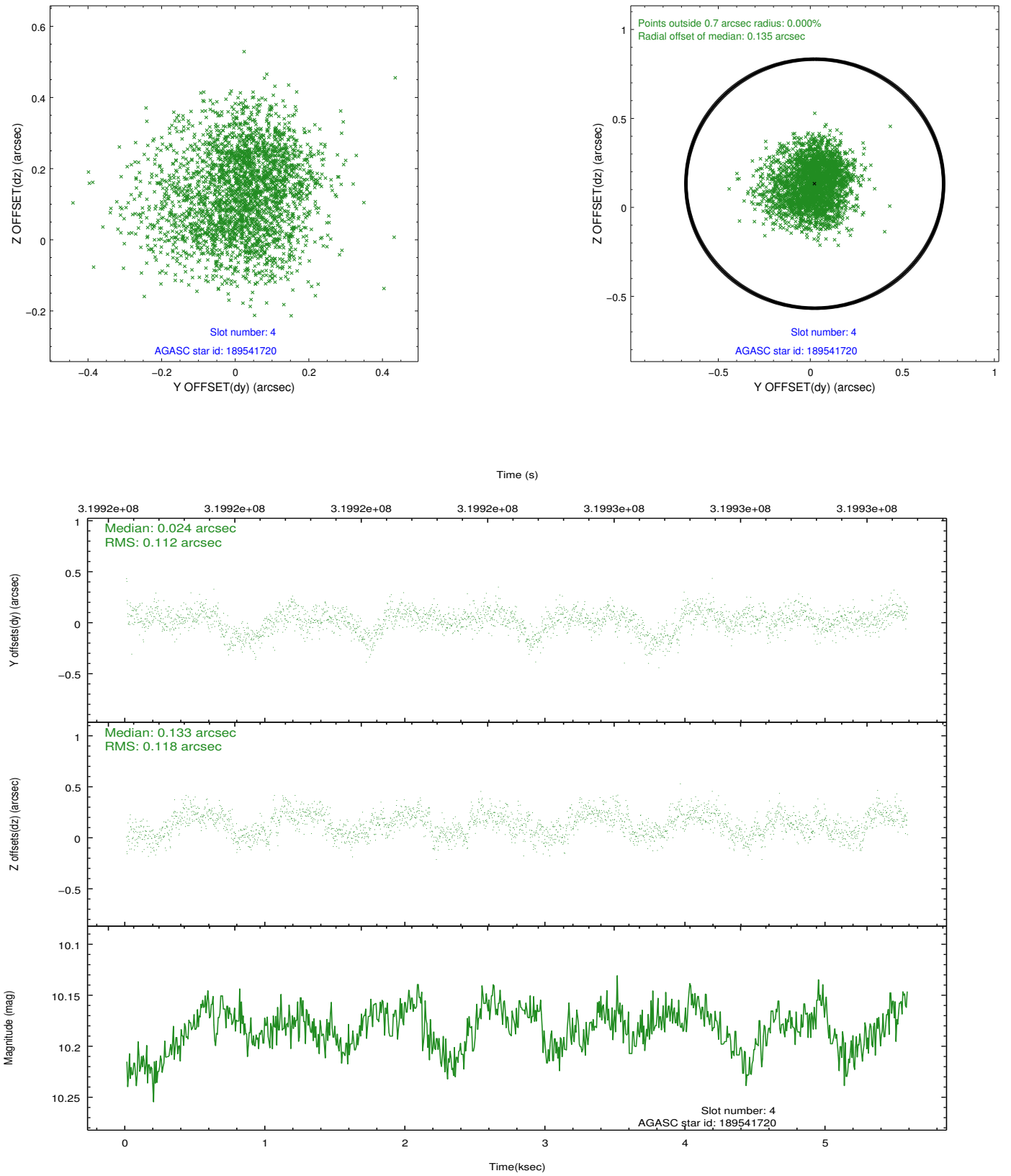
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	1361	-0.085	-0.040	0.007	0.011	0.000000	0.000000	-767.41	-1736.16
1	FID	ACIS-S-4	7.19	1361	0.208	0.052	0.006	0.011	0.000000	0.000000	2145.65	171.32
2	FID	ACIS-S-5	7.22	1361	-0.154	-0.003	0.006	0.011	0.000000	0.000000	-1818.96	166.13
3	GUIDE	189414536	9.31	2720	-0.110	-0.180	0.109	0.171	187.941558	15.891419	1784.46	725.56
4	GUIDE	189541720	10.18	2718	0.024	0.133	0.173	0.274	188.191777	15.591807	706.16	-141.00
5	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	GUIDE	189544160	9.84	2718	0.071	0.125	0.198	0.296	188.849376	15.785595	1408.01	-2418.57
7	GUIDE	189412184	9.70	2719	0.017	-0.077	0.140	0.221	187.785414	16.054387	2372.18	1264.52

2.4 Star Slots

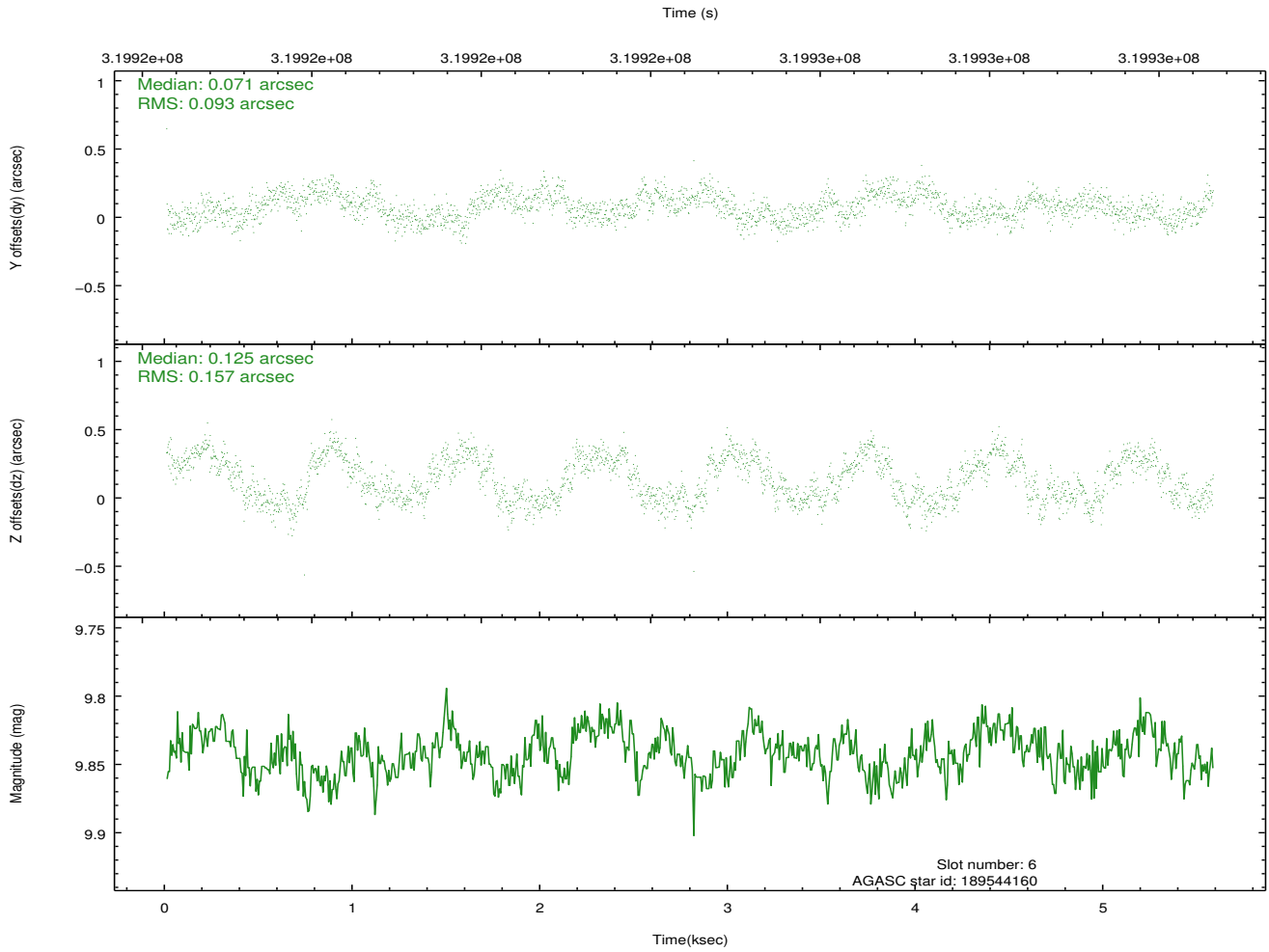
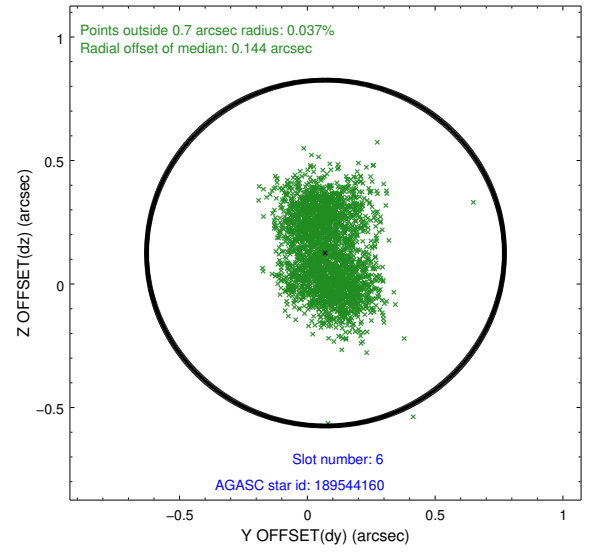
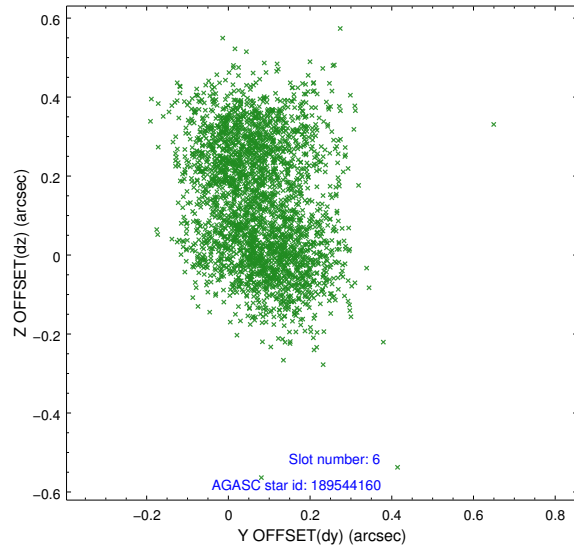
2.4.1 Slot 3



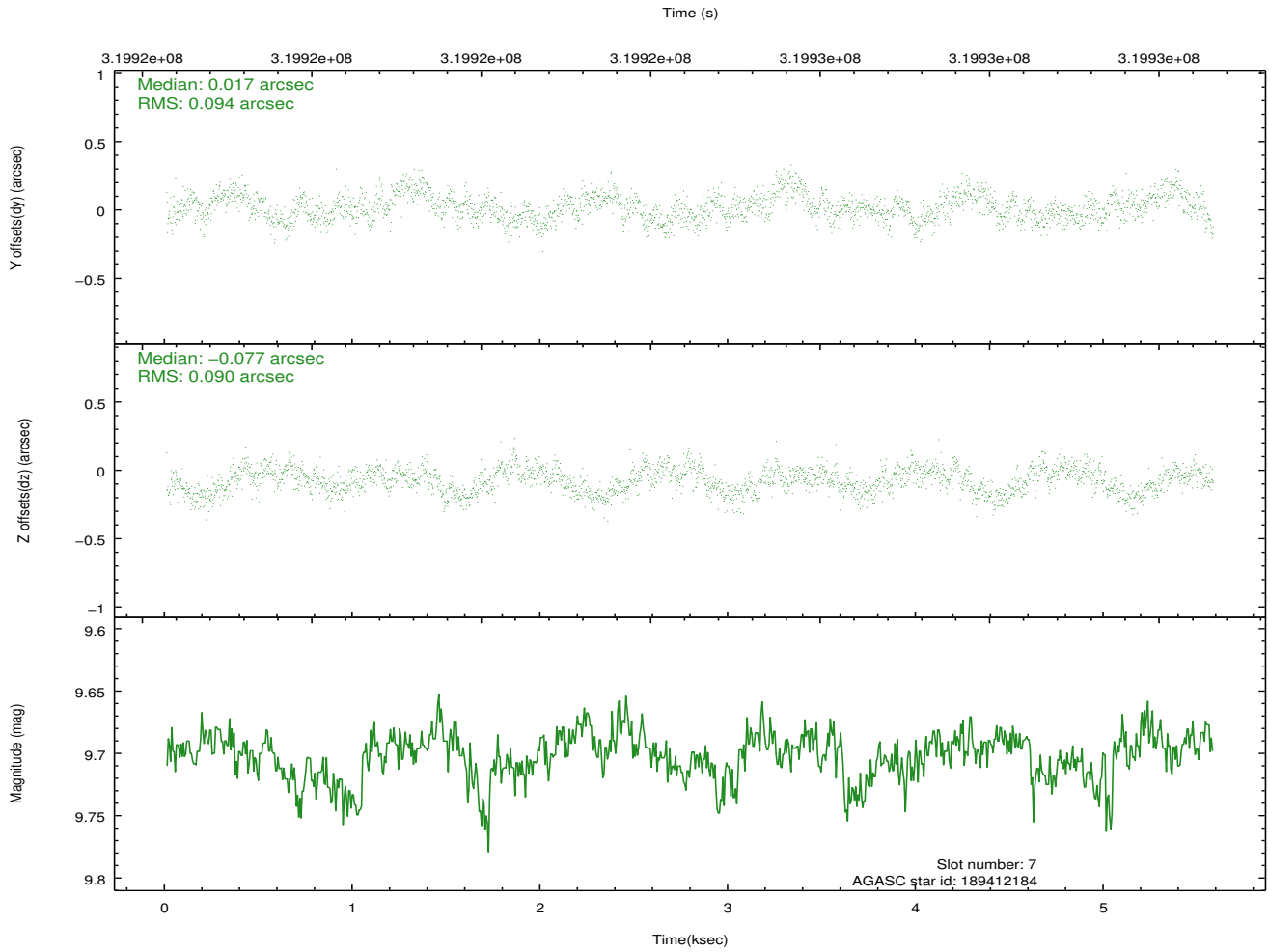
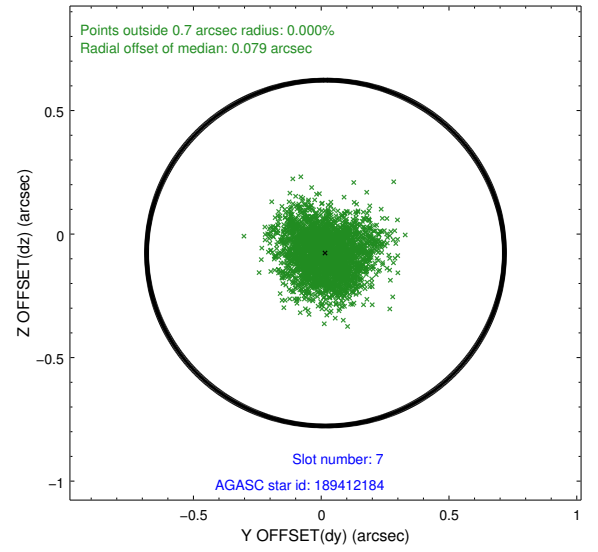
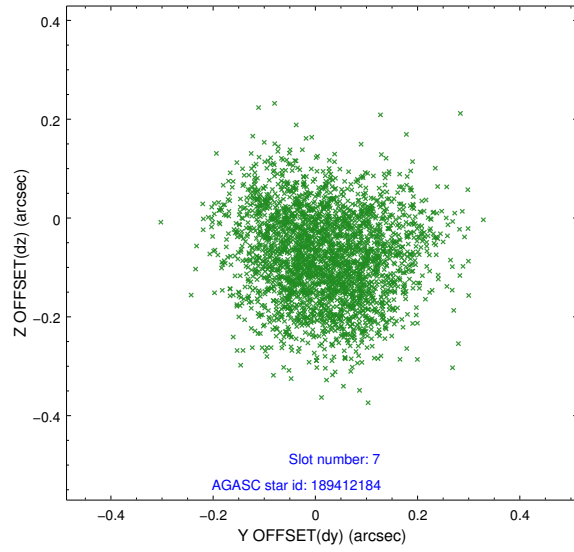
2.4.2 Slot 4



2.4.3 Slot 6

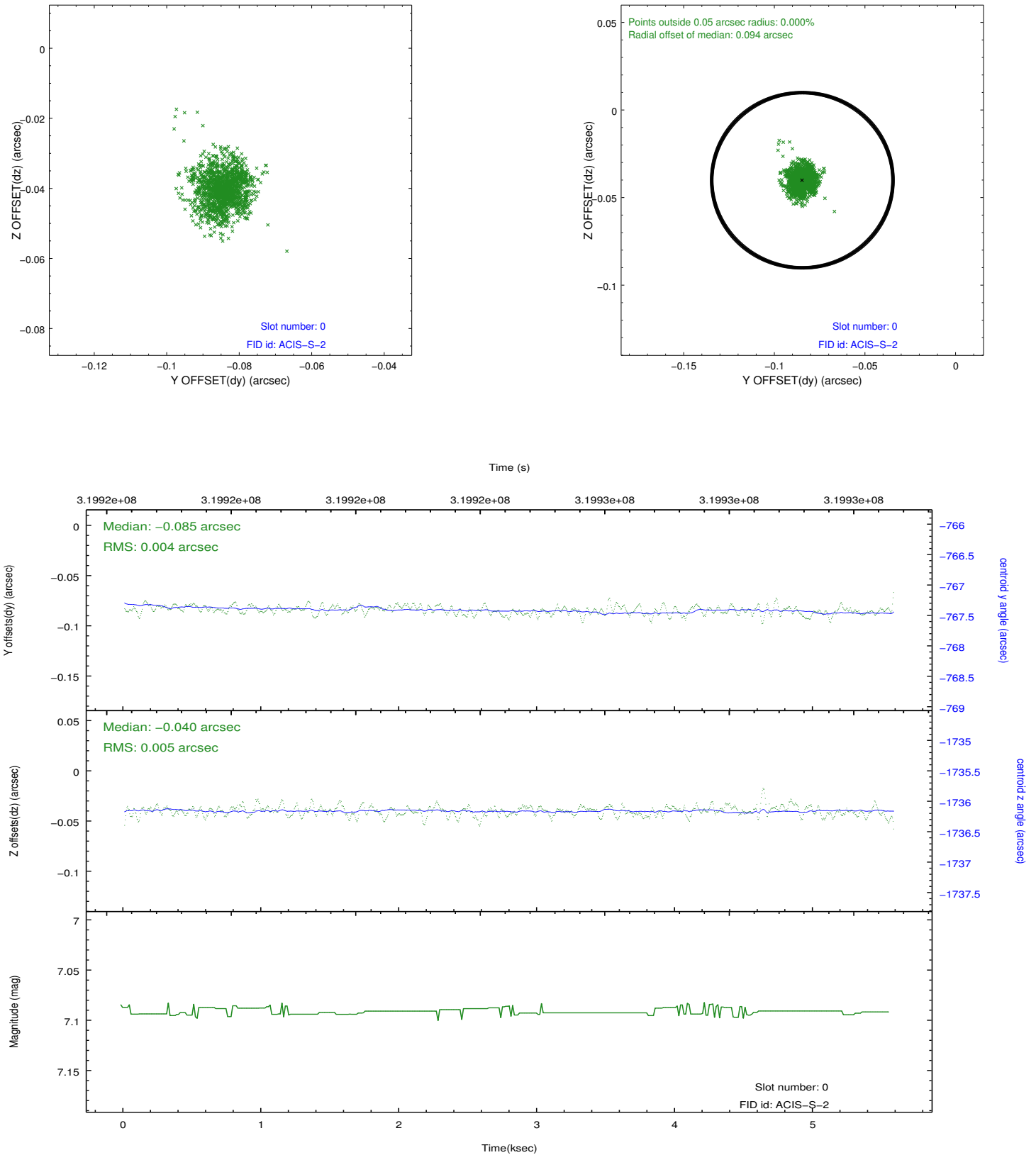


2.4.4 Slot 7

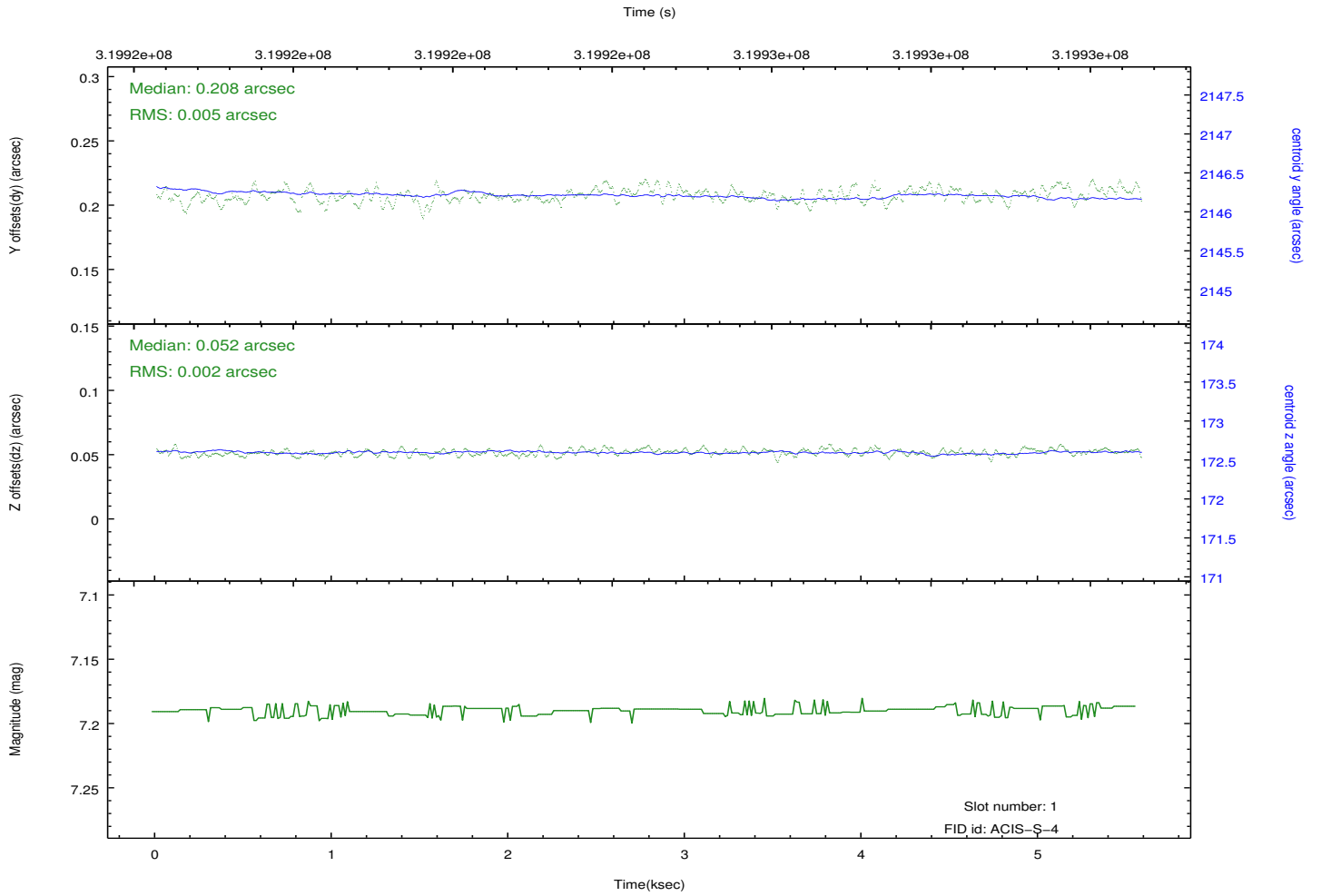
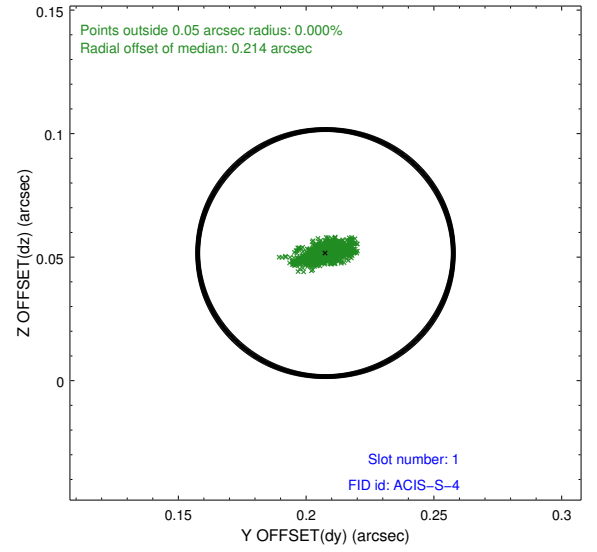
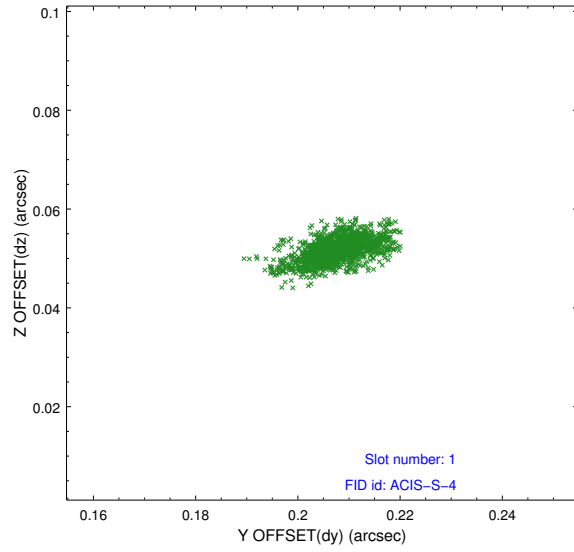


2.5 FID Slots

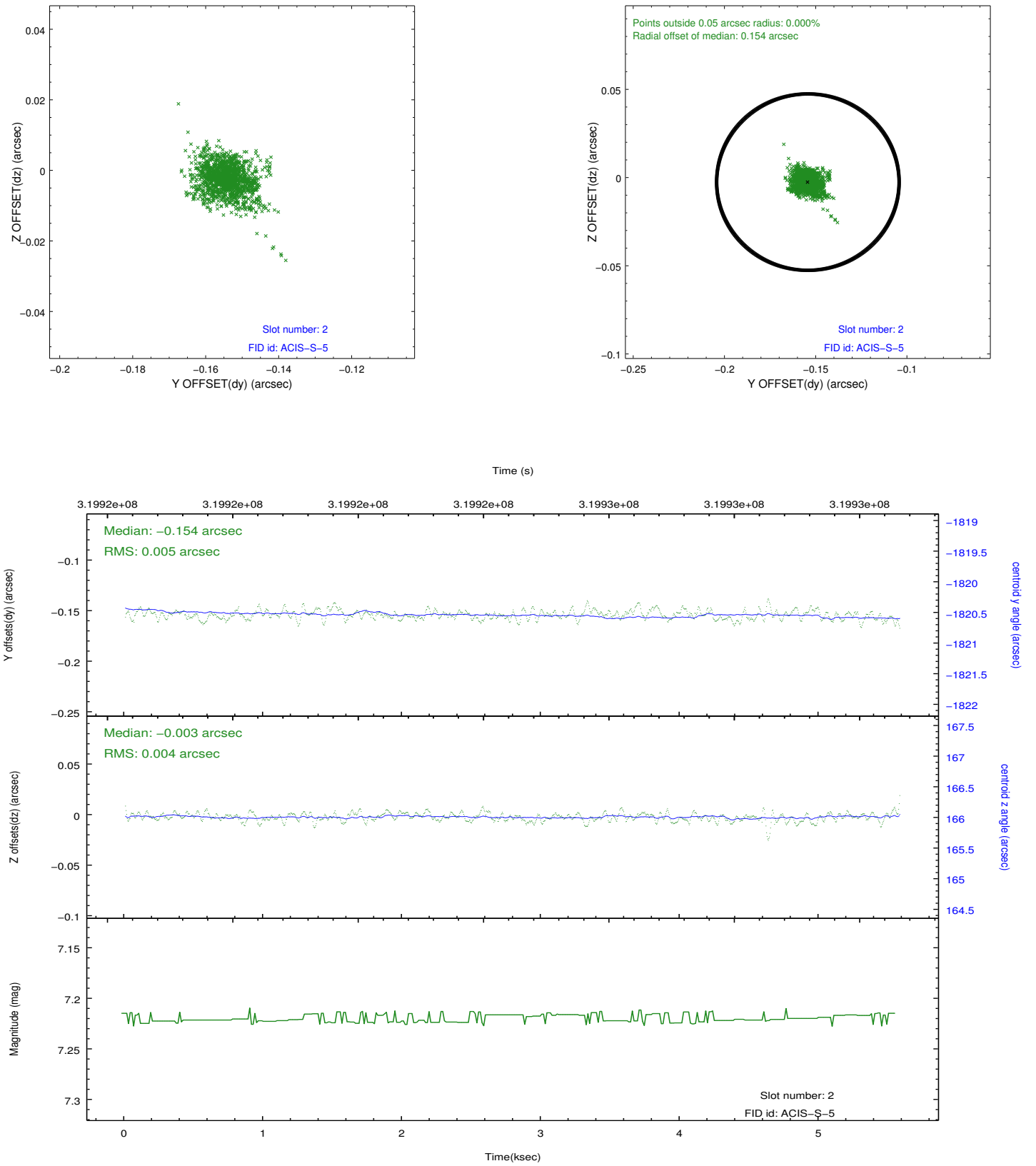
2.5.1 Slot 0



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)	2012.05.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.56799997

A.2 Comments

Joint proposal with Spitzer.

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 star from the solution.