

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11262 - L2 Version 3  
Chandra X-Ray Center

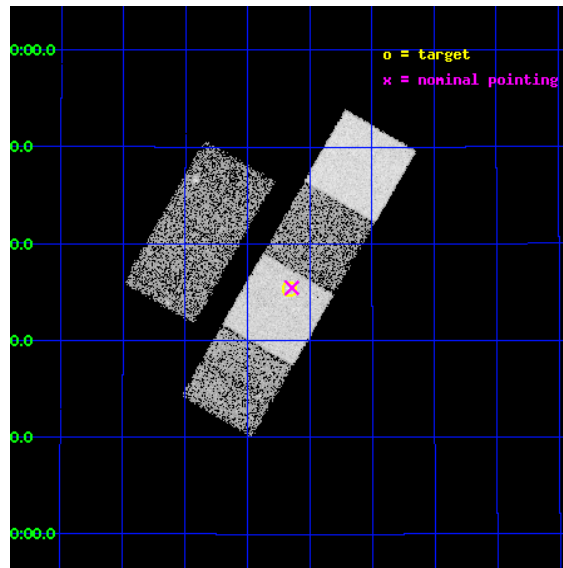
L2 Processing Date : Jul 2 2012

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# 1 Front

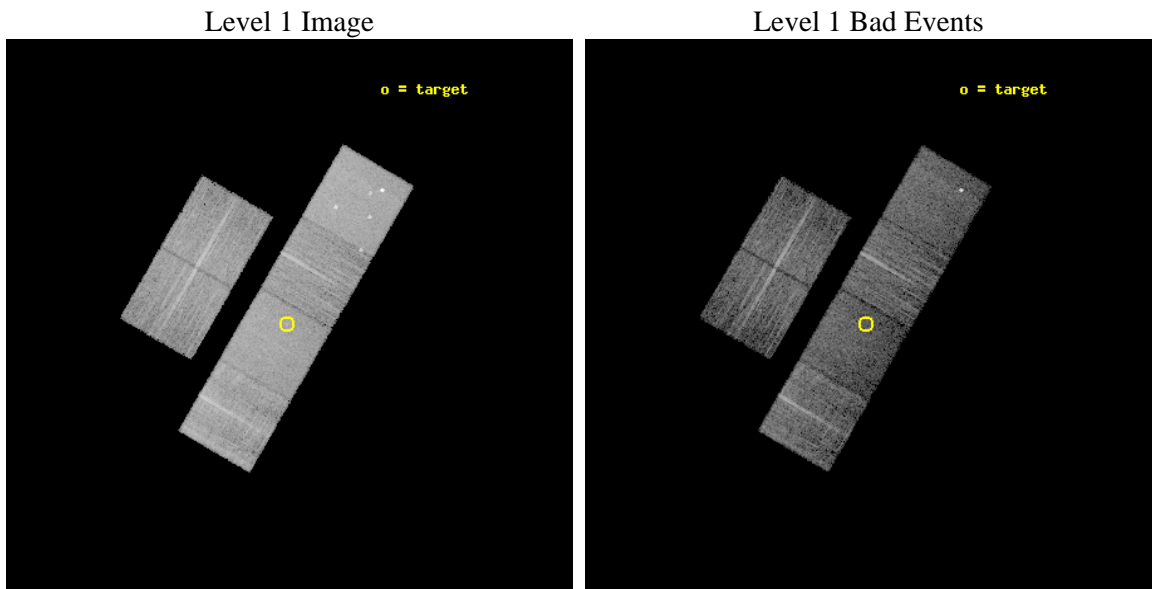
seq_num	600781	Sequence number
obs_id	11262	Observation id
title	Snapshots of Isolated Elliptical Galaxies	Proposal title
observer	Dr. DAVID BUOTE	Principal investigator
object	NGC 953	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	37.790833	Observer's specified target RA [deg]
dec_targ	29.58875	Observer's specified target Dec [deg]
ra_nom	37.785987832264	Nominal RA [deg]
dec_nom	29.590970289325	Nominal Dec [deg]
roll_nom	120.15903299178	Nominal Roll [deg]
revision	3	Processing version of data
ontime	7545.5999719501	Sum of GTIs [s]
liveltime	7450.0530416904	Livetime [s]
ontime2	7539.1181209087	Sum of GTIs [s]
ontime3	7545.5999719501	Sum of GTIs [s]
ontime5	7545.5999719501	Sum of GTIs [s]
ontime6	7545.5999719501	Sum of GTIs [s]
ontime7	7545.5999719501	Sum of GTIs [s]
ontime8	7542.3589916229	Sum of GTIs [s]
l2events	91903	Number of level 2 events



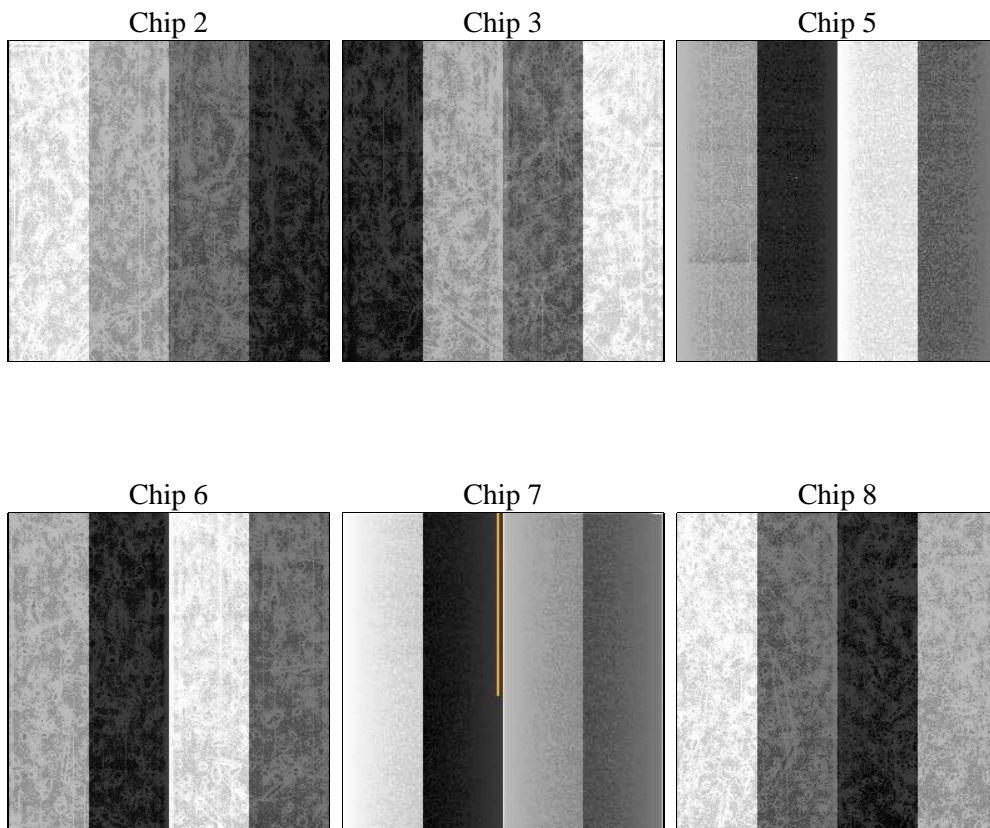
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7545.5999719501	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime2	7539.1181209087	Sum of GTIs [s]
date	2012-07-02T13:01:13	Date and time of file creation	ontime3	7545.5999719501	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	7545.5999719501	Sum of GTIs [s]
			ontime6	7545.5999719501	Sum of GTIs [s]
			ontime7	7545.5999719501	Sum of GTIs [s]
			ontime8	7542.3589916229	Sum of GTIs [s]
			l1events	402313	Number of level 1 events

### 2.1.4 Events

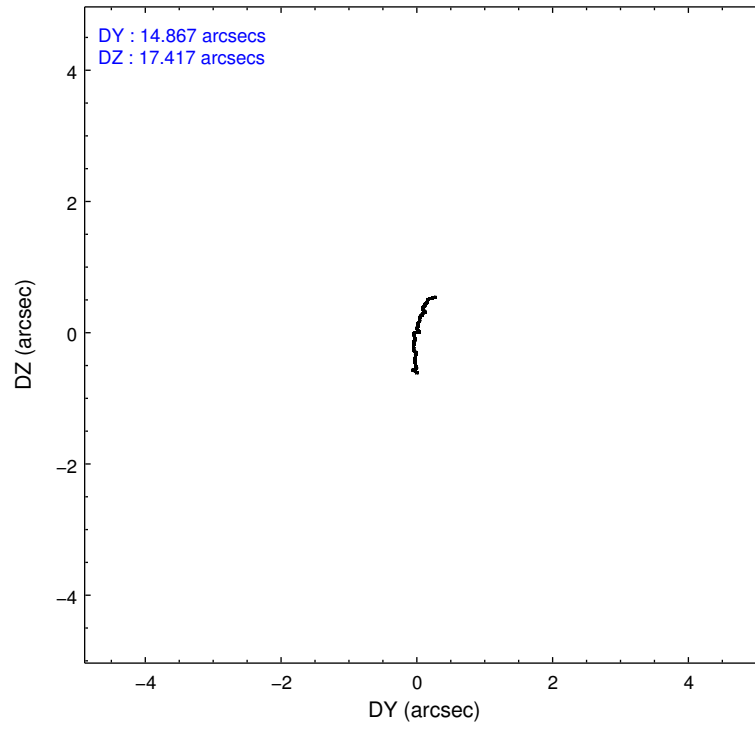
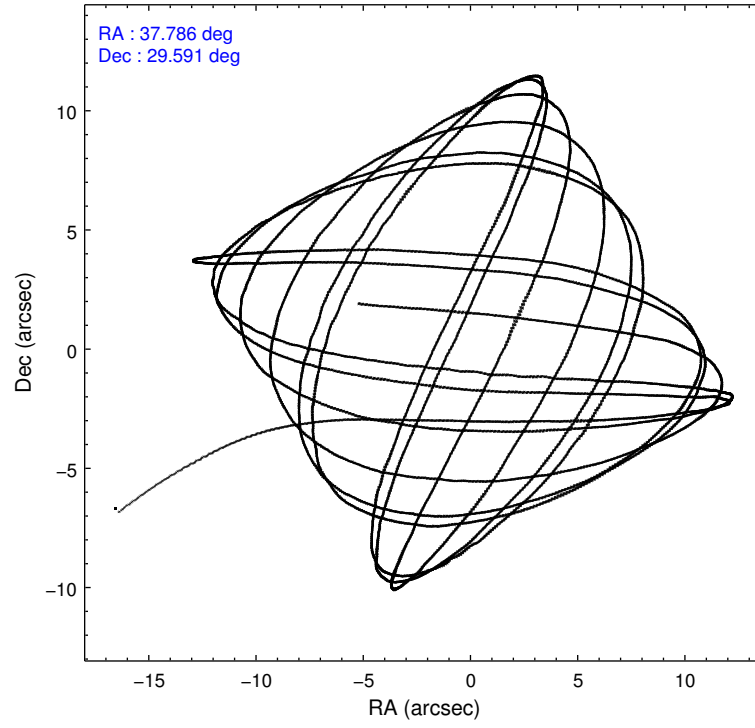
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	58327	54368	88456	57135	69263	74764	grade 0 events	2309	1985	5237	2190	2860	6008
rejected events	52110	48680	44830	50823	37888	55468		3%	3%	5%	3%	4%	8%
rejected %	89%	89%	50%	88%	54%	74%	grade 1 events	36	34	233	28	101	66
								0%	0%	0%	0%	0%	0%
							grade 2 events	1494	1258	13430	1443	6439	4292
								2%	2%	15%	2%	9%	5%
							grade 3 events	623	588	1556	643	2802	2098
								1%	1%	1%	1%	4%	2%
							grade 4 events	665	628	1473	618	2685	2004
								1%	1%	1%	1%	3%	2%
							grade 5 events	2064	2503	6579	2551	7065	3660
								3%	4%	7%	4%	10%	4%
							grade 6 events	1130	1234	21968	1424	16628	4904
								1%	2%	24%	2%	24%	6%
							grade 7 events	50006	46138	37980	48238	30683	51732
								85%	84%	42%	84%	44%	69%

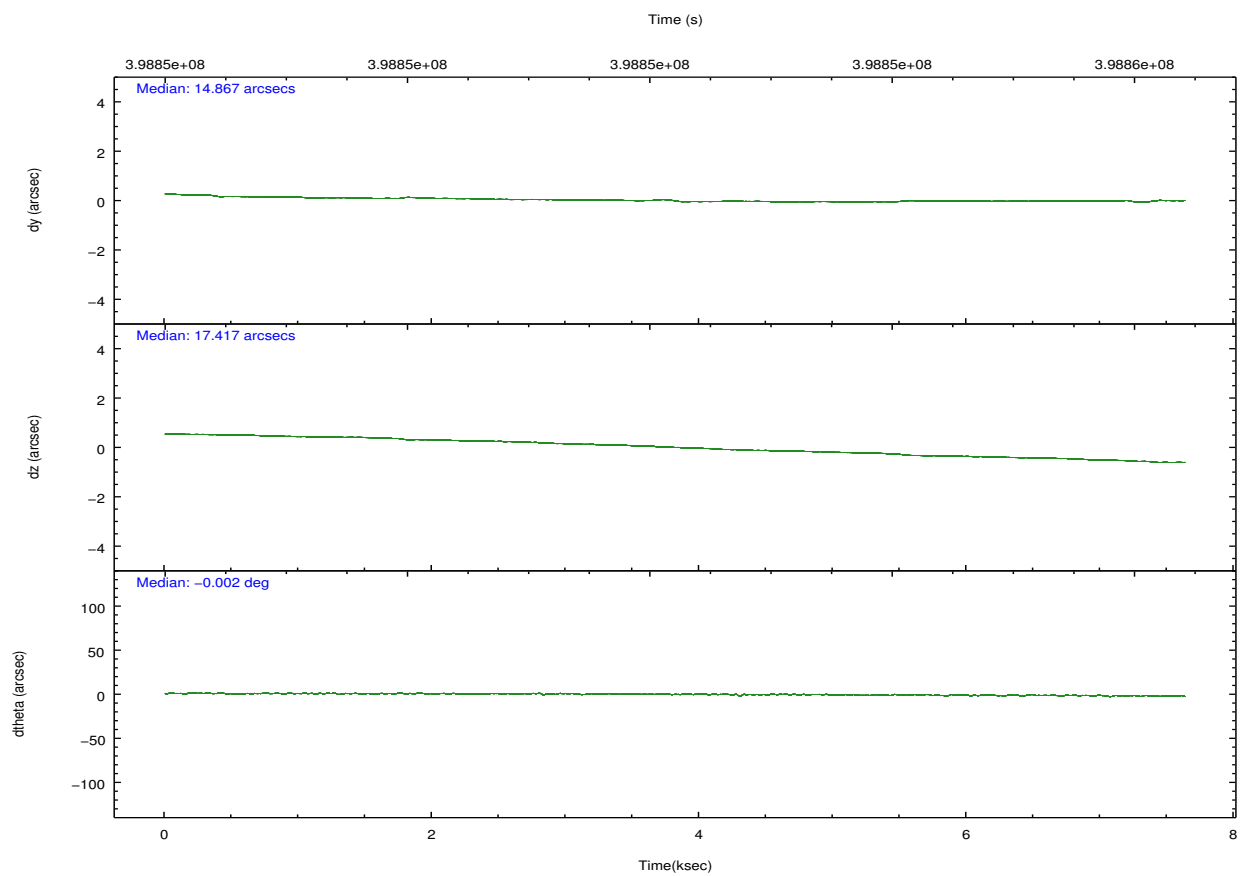
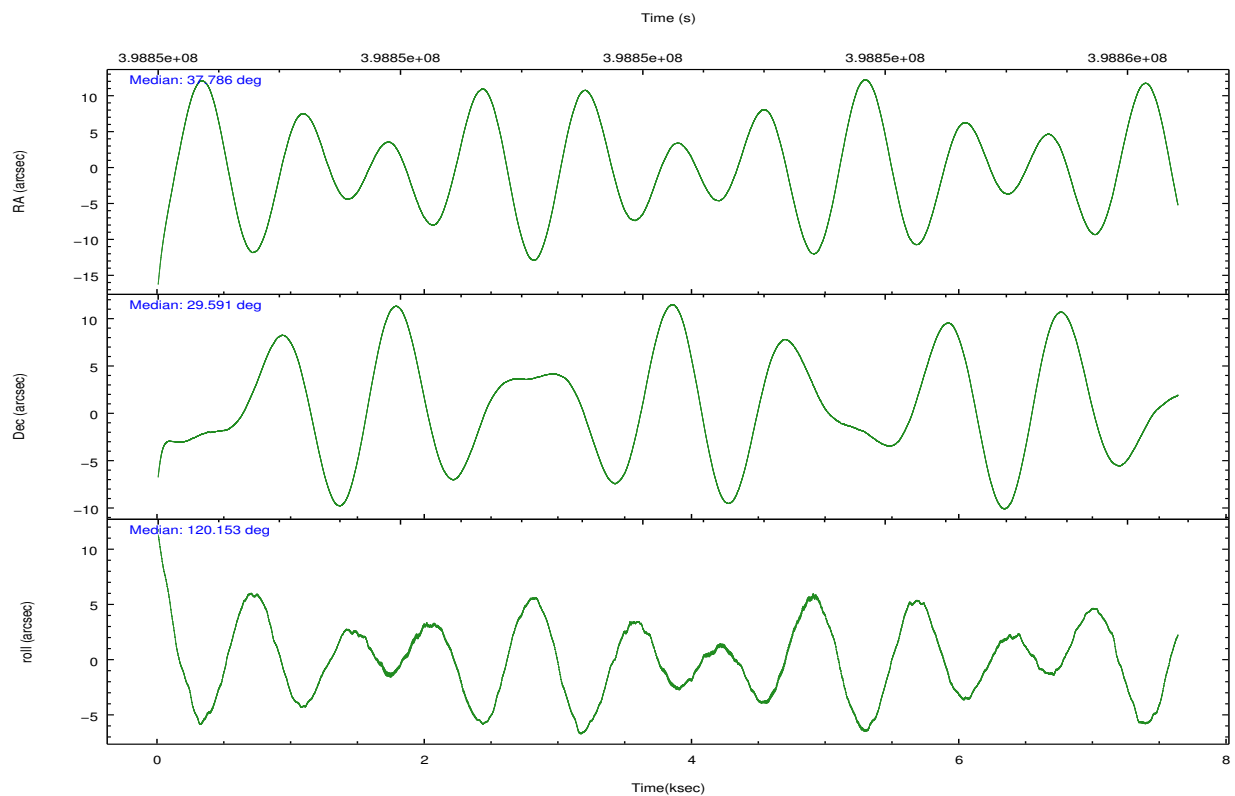


## 2.2 Compared Parameters

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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	37.813393	37.78598783226373	CCD I2 on	O2	Y
[deg] Pointing Dec	29.577753	29.59097028932493	CCD I3 on	Y	Y
[deg] Pointing Roll	119.988868	120.1590329917776	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	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	O1	Y
[s] Observation start time (MET)	398848525.184000	398847273.7746	CCD S5 on	N	N
Observation start date	2010-08-22T07:14:19	2010-08-22T06:54:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	398856025.184000	398857106.60011	On-chip summing requested	N	N
Observation end date	2010-08-22T09:19:19	2010-08-22T09:38:26	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



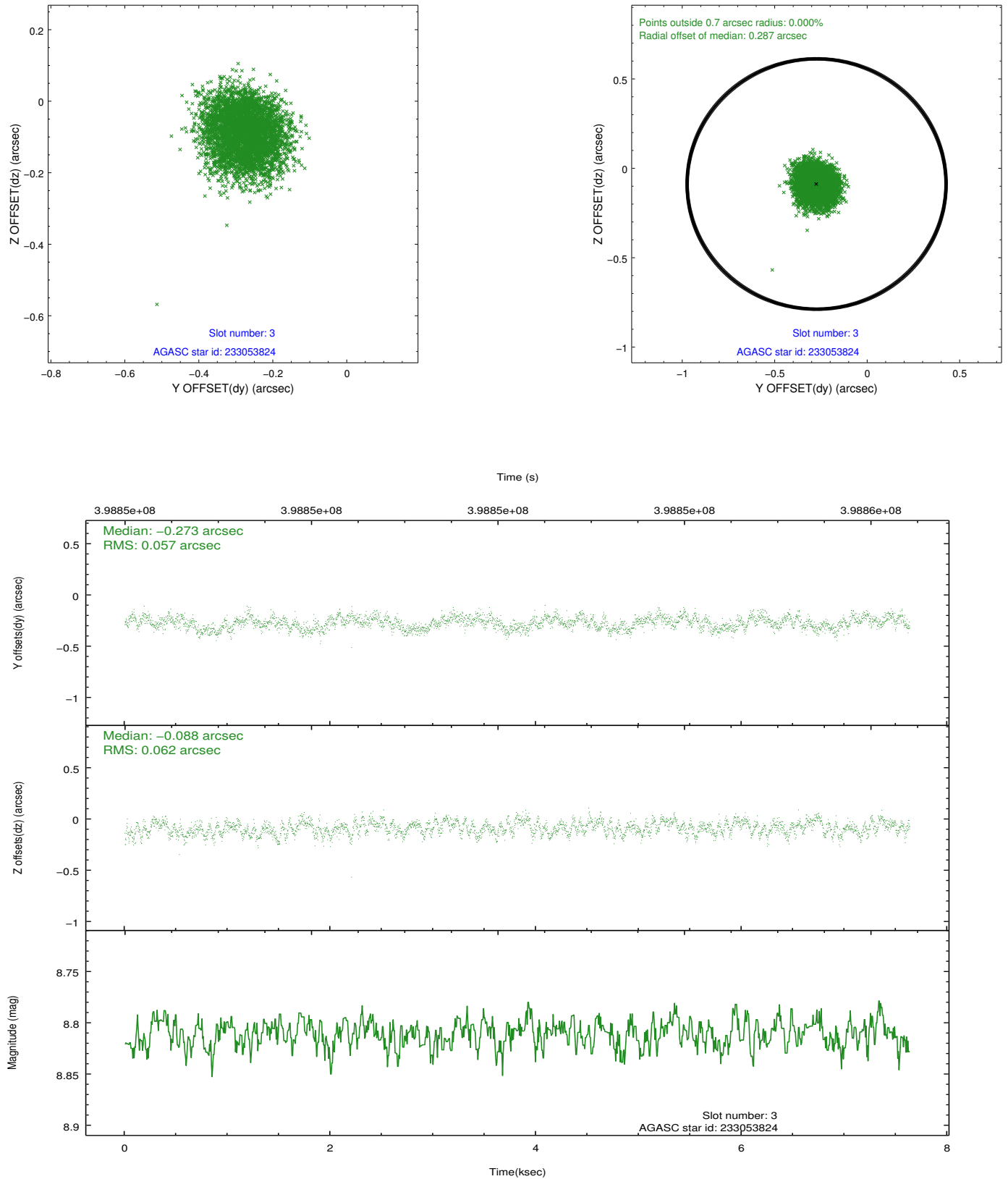


### Slot Statistics

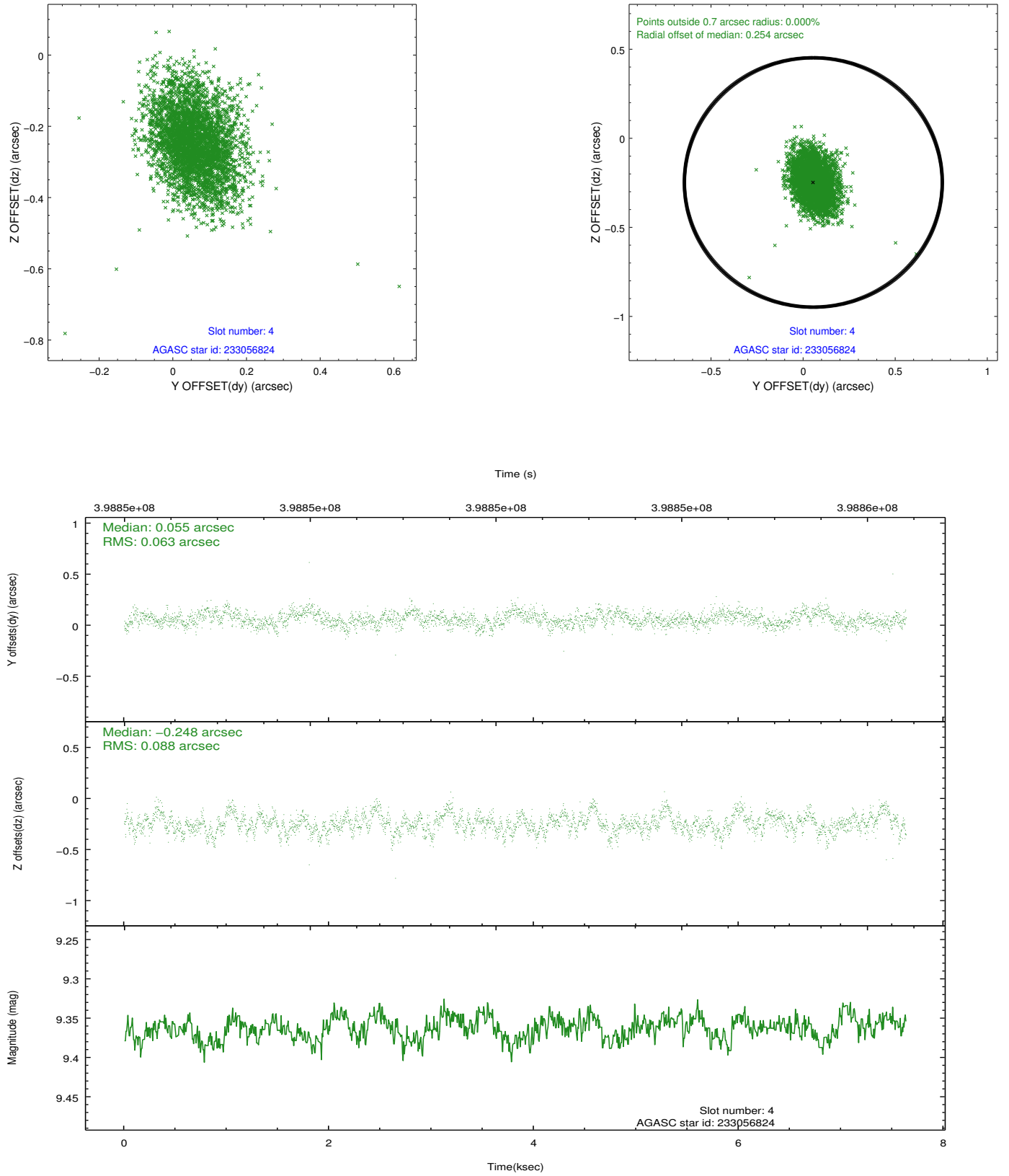
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.87	1862	-0.058	-0.030	0.009	0.016	0.000000	0.000000	-767.97	-1738.82
1	FID	ACIS-S-4	6.95	1862	0.159	0.036	0.009	0.017	0.000000	0.000000	2145.23	168.88
2	FID	ACIS-S-5	6.98	1862	-0.133	0.003	0.011	0.018	0.000000	0.000000	-1819.88	163.47
3	GUIDE	233053824	8.81	3722	-0.273	-0.088	0.091	0.141	36.920885	29.640876	1602.02	2300.01
4	GUIDE	233056824	9.36	3717	0.055	-0.248	0.113	0.191	37.353507	29.176397	-525.71	1973.96
5	GUIDE	233179856	7.10	3724	0.048	0.373	0.069	0.112	38.283309	29.964642	476.74	-1965.97
6	GUIDE	233180352	8.22	3724	0.245	0.329	0.082	0.127	38.136116	29.311534	-1334.25	-399.33
7	GUIDE	233050248	8.77	3720	-0.080	-0.364	0.087	0.134	37.150730	29.736728	1536.16	1504.95

## 2.4 Star Slots

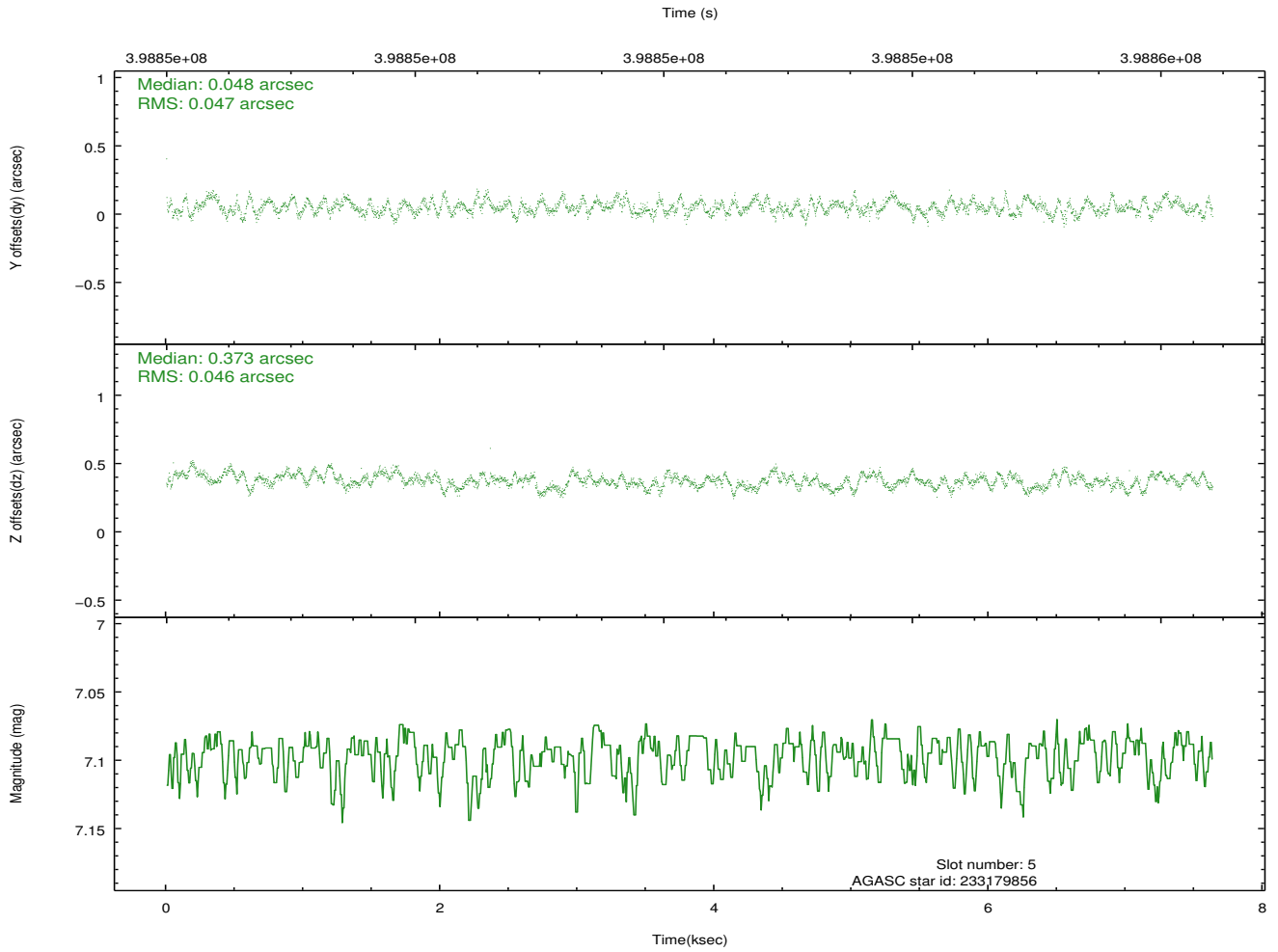
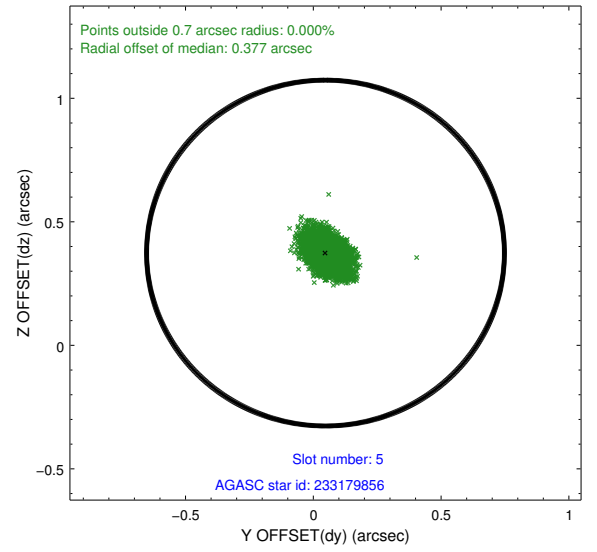
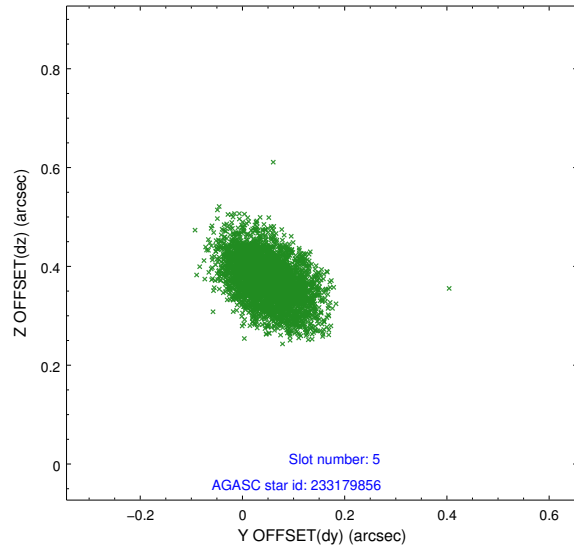
### 2.4.1 Slot 3



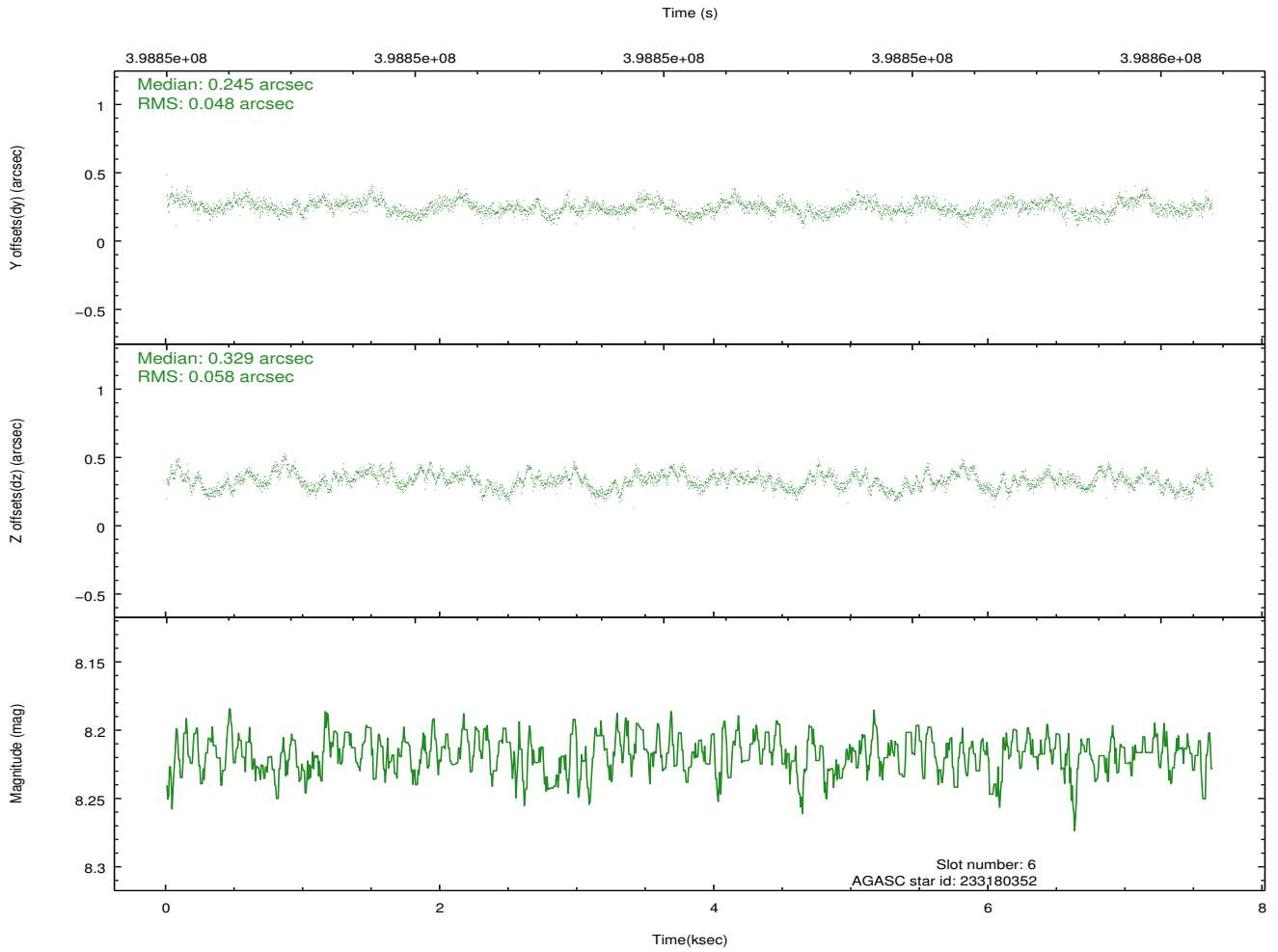
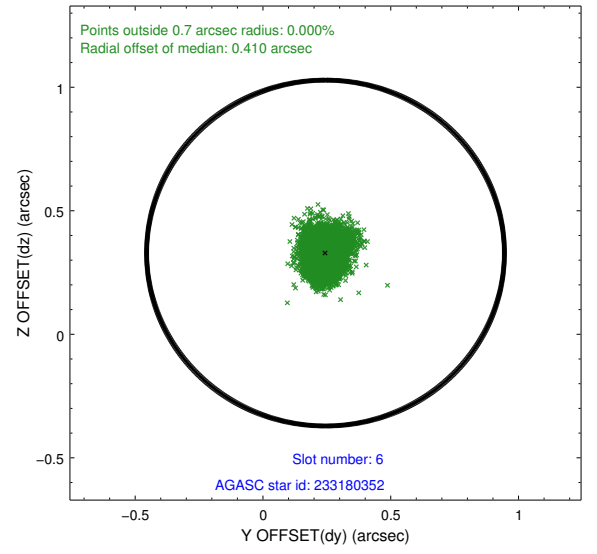
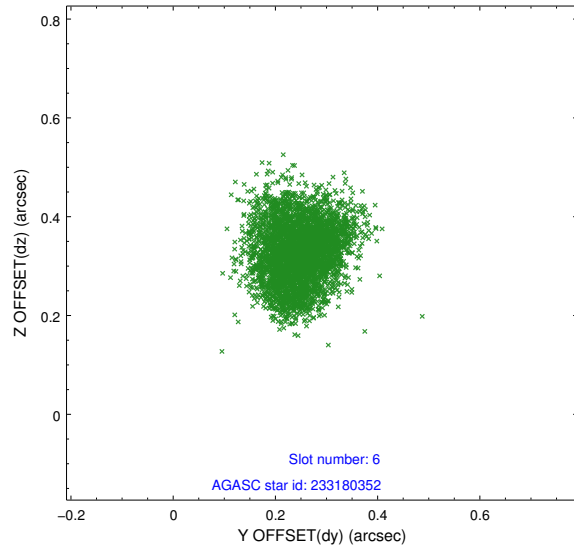
## 2.4.2 Slot 4



### 2.4.3 Slot 5

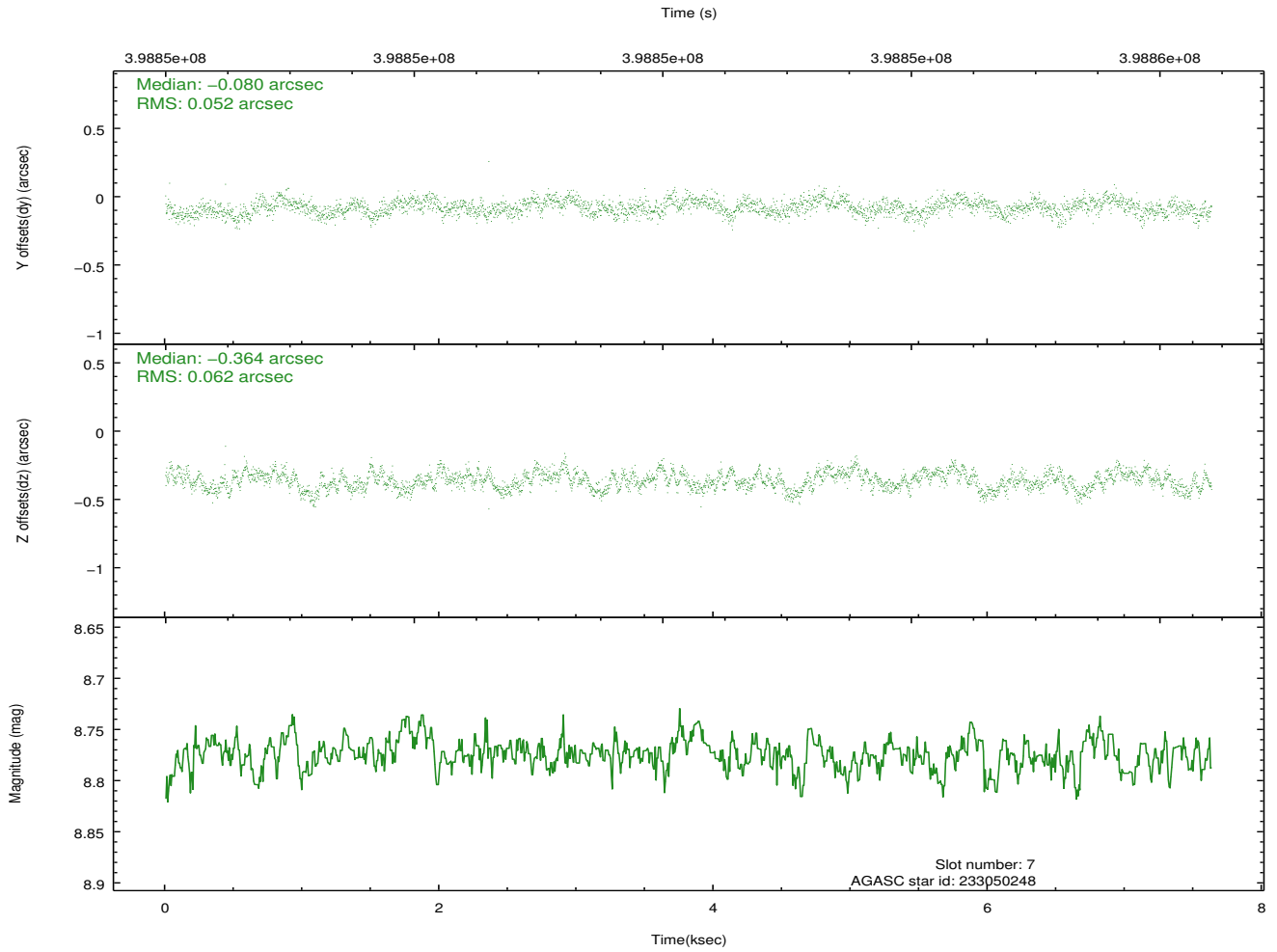
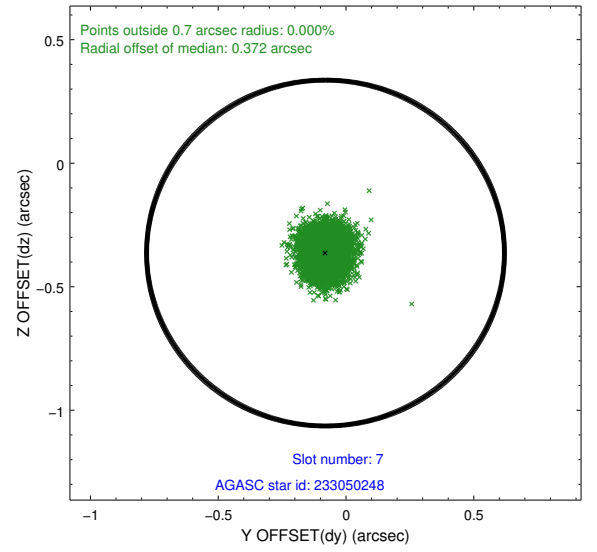
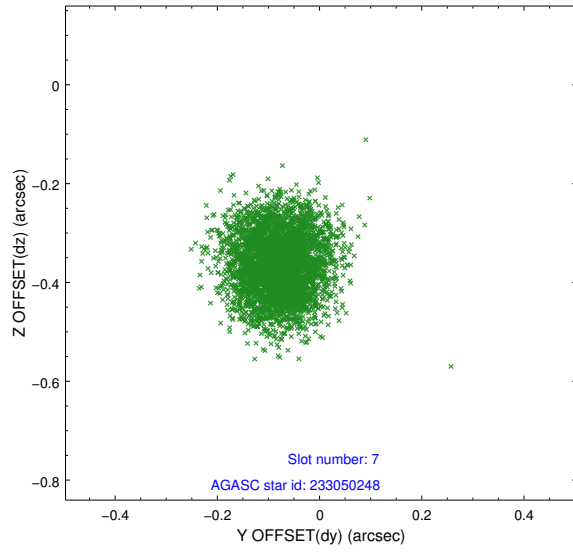


## 2.4.4 Slot 6



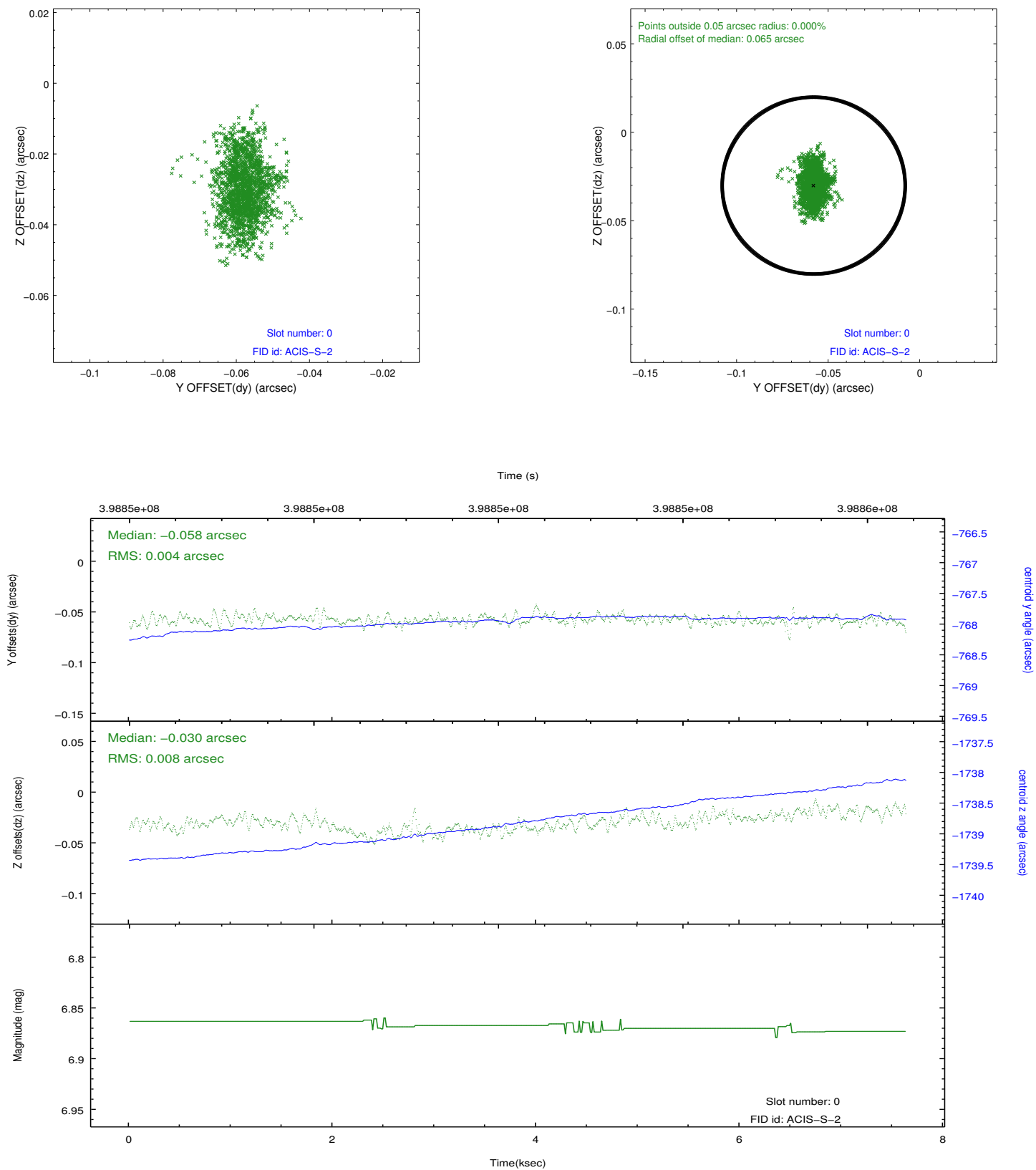


## 2.4.5 Slot 7

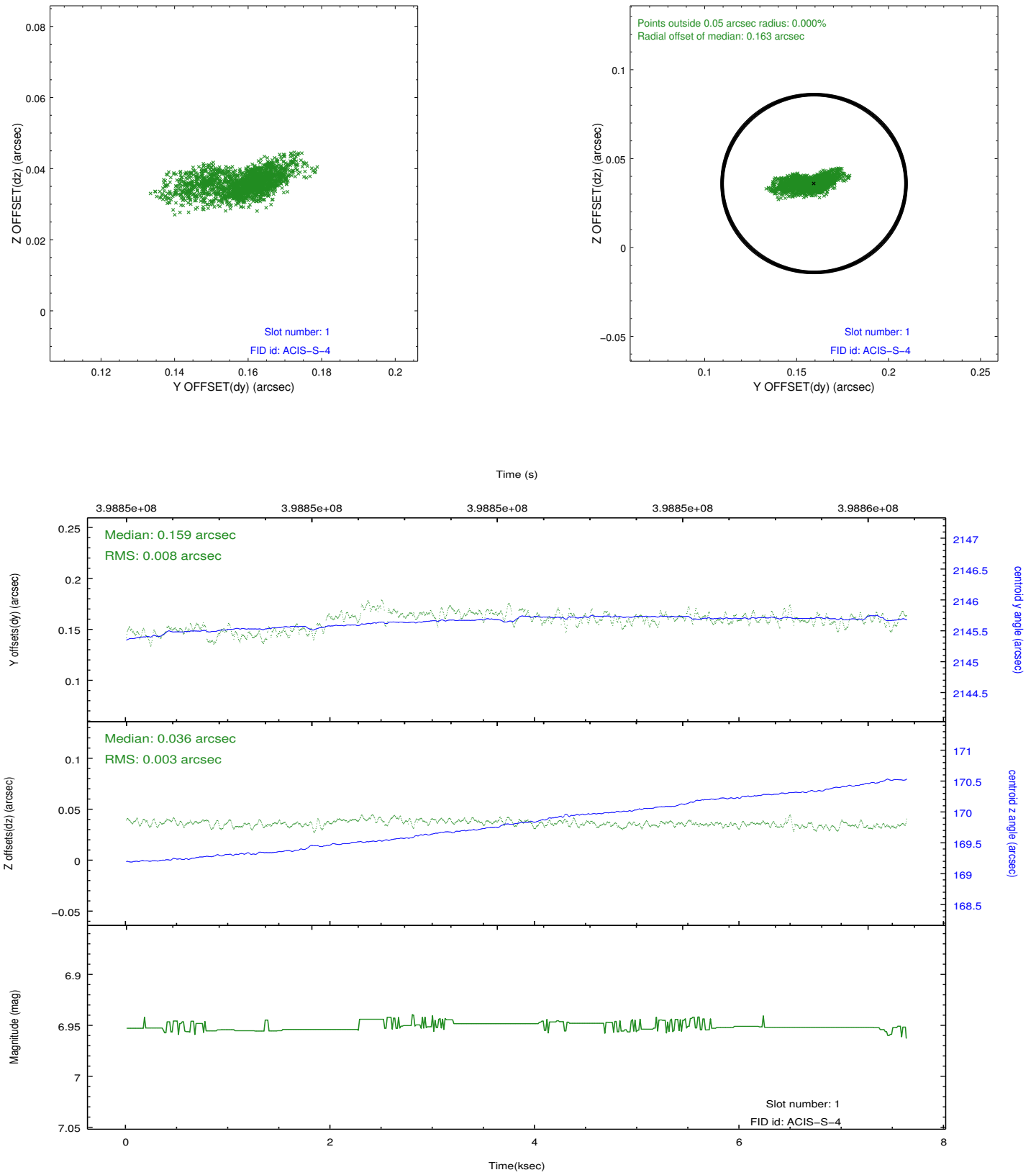


## 2.5 FID Slots

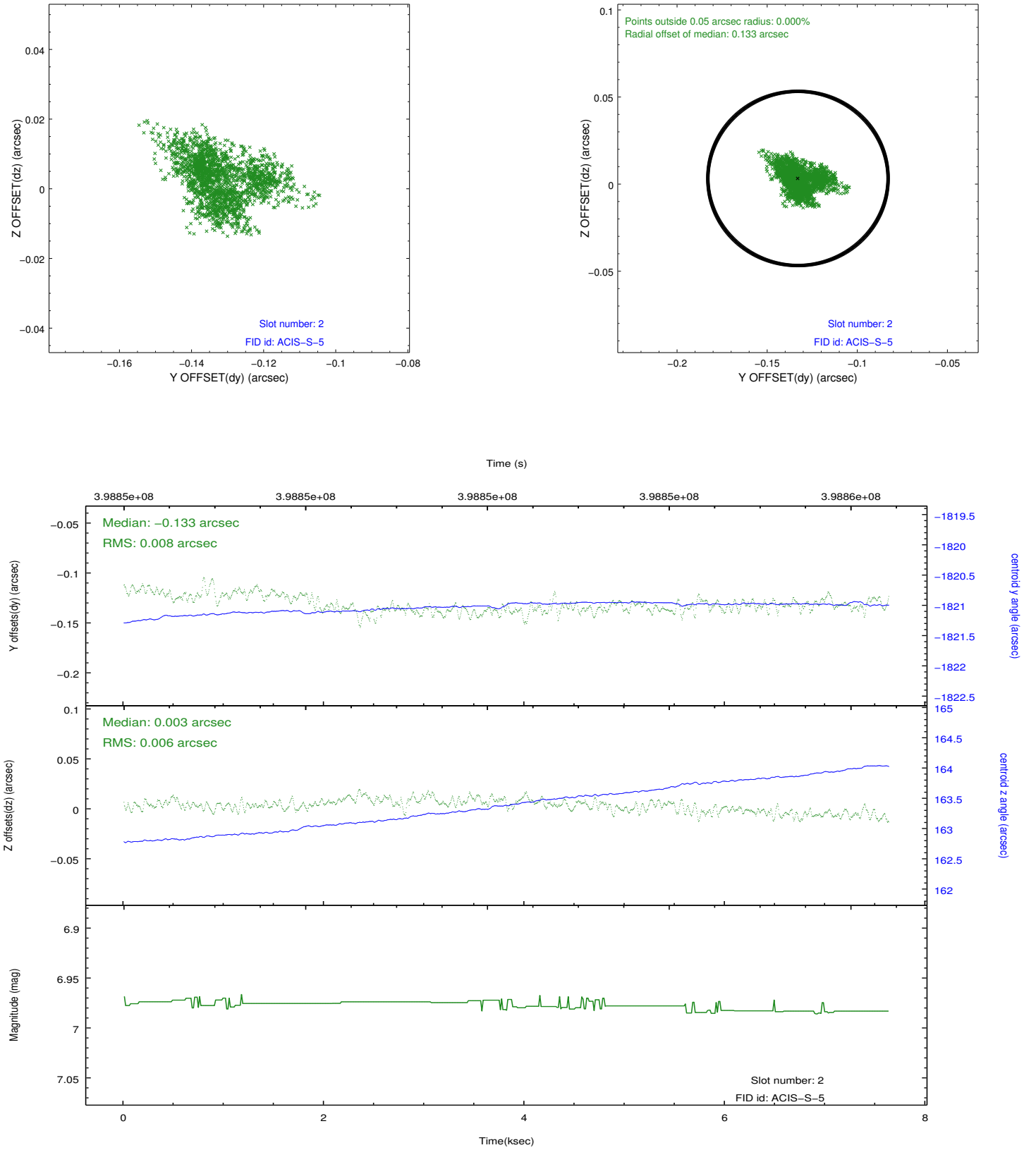
### 2.5.1 Slot 0



## 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)	2012.07.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.5455999719501

## A.2 Comments

A spatial region of the original bias map for CCD = 3 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 ( $\sim 20$  eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 3 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:  
(37.99014,29.53279),(38.00359,29.53953),(37.97633,29.58047),(37.97059,29.56218)