

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 7307 - L2 Version 3  
Chandra X-Ray Center

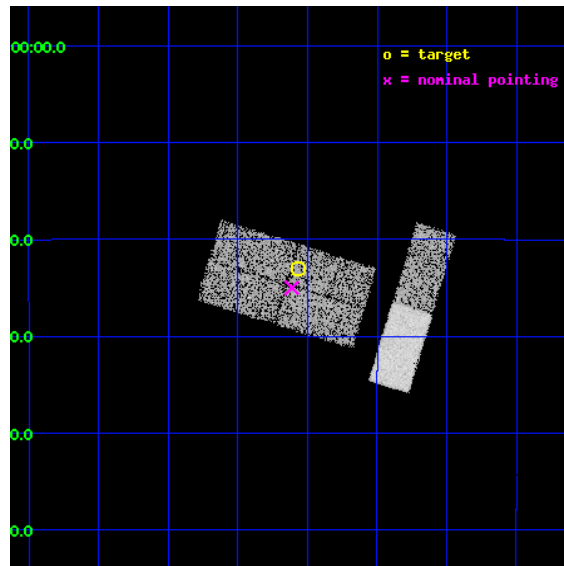
L2 Processing Date : Apr 9 2012

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# 1 Front

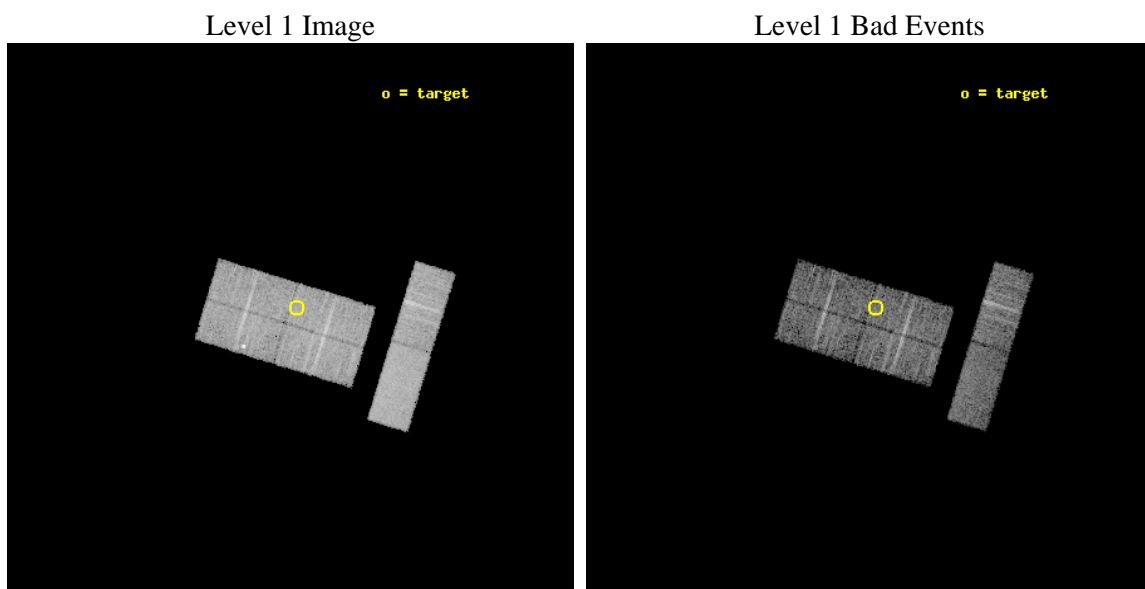
seq_num	100062	Sequence number
obs_id	7307	Observation id
title	Search for charge exchange induced X-ray emission in the Venusian exosphere	Proposal title
observer	Dr. Peter Predehl	Principal investigator
object	Venus	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	321.890997	Observer's specified target RA [deg]
dec_targ	-13.384259	Observer's specified target Dec [deg]
ra_nom	321.90305450443	Nominal RA [deg]
dec_nom	-13.416838558201	Nominal Dec [deg]
roll_nom	107.03930026243	Nominal Roll [deg]
revision	3	Processing version of data
ontime	6393.6000423431	Sum of GTIs [s]
liveltime	6251.0755204763	Livetime [s]
ontime0	6393.6000423431	Sum of GTIs [s]
ontime1	6393.6000423431	Sum of GTIs [s]
ontime2	6393.6000423431	Sum of GTIs [s]
ontime3	6391.7590521872	Sum of GTIs [s]
ontime6	6393.6000423431	Sum of GTIs [s]
ontime7	6393.6000423431	Sum of GTIs [s]
l2events	30799	Number of level 2 events



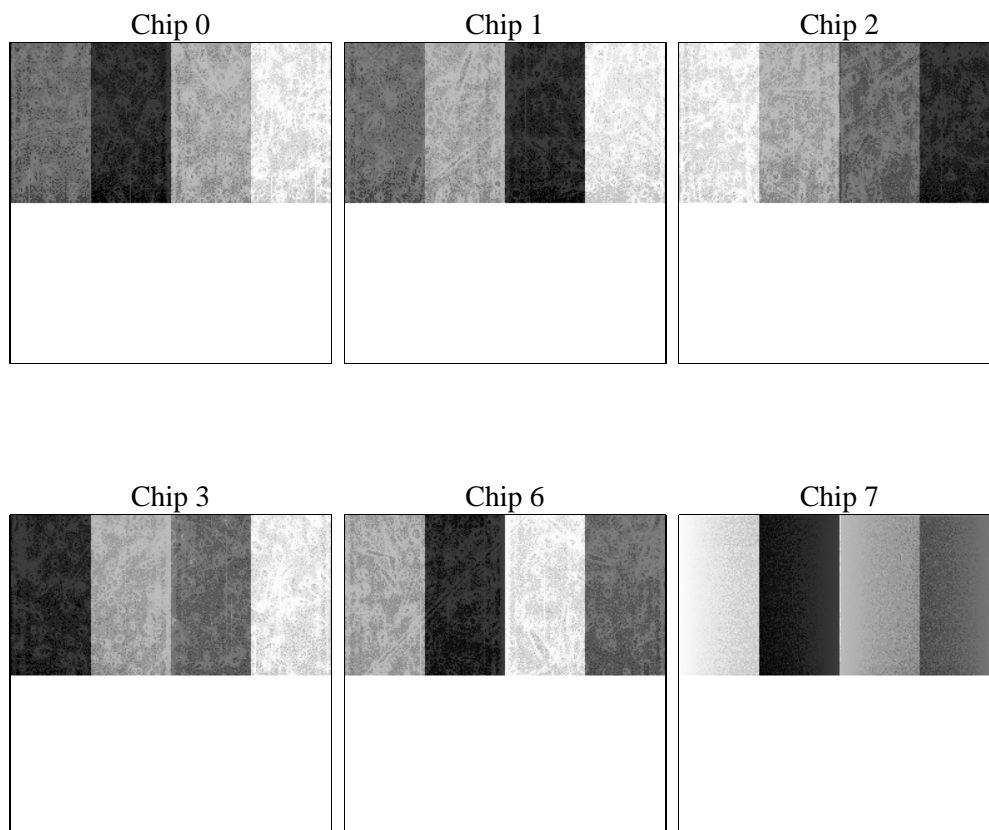
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6200.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3.1	Processing system revision	ontime	6393.6000423431	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	6393.6000423431	Sum of GTIs [s]
date	2012-04-09T20:59:30	Date and time of file creation	ontime1	6393.6000423431	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	6393.6000423431	Sum of GTIs [s]
			ontime3	6391.7590521872	Sum of GTIs [s]
			ontime6	6393.6000423431	Sum of GTIs [s]
			ontime7	6393.6000423431	Sum of GTIs [s]
			l1events	202392	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	29008	31379	32569	33024	34749	41663	grade 0 events	1589	2641	1577	1585	1390	1648
rejected events	25413	26729	29117	29503	31148	25307		5%	8%	4%	4%	4%	3%
rejected %	87%	85%	89%	89%	89%	60%	grade 1 events	27	25	15	24	19	53
								0%	0%	0%	0%	0%	0%
							grade 2 events	759	796	716	631	739	3473
								2%	2%	2%	1%	2%	8%
							grade 3 events	439	364	387	453	425	1602
								1%	1%	1%	1%	1%	3%
							grade 4 events	387	418	417	428	422	1595
								1%	1%	1%	1%	1%	3%
							grade 5 events	1159	1329	1256	1450	1467	4096
								3%	4%	3%	4%	4%	9%
							grade 6 events	588	671	513	599	774	8888
								2%	2%	1%	1%	2%	21%
							grade 7 events	24060	25135	27688	27854	29513	20308
								82%	80%	85%	84%	84%	48%

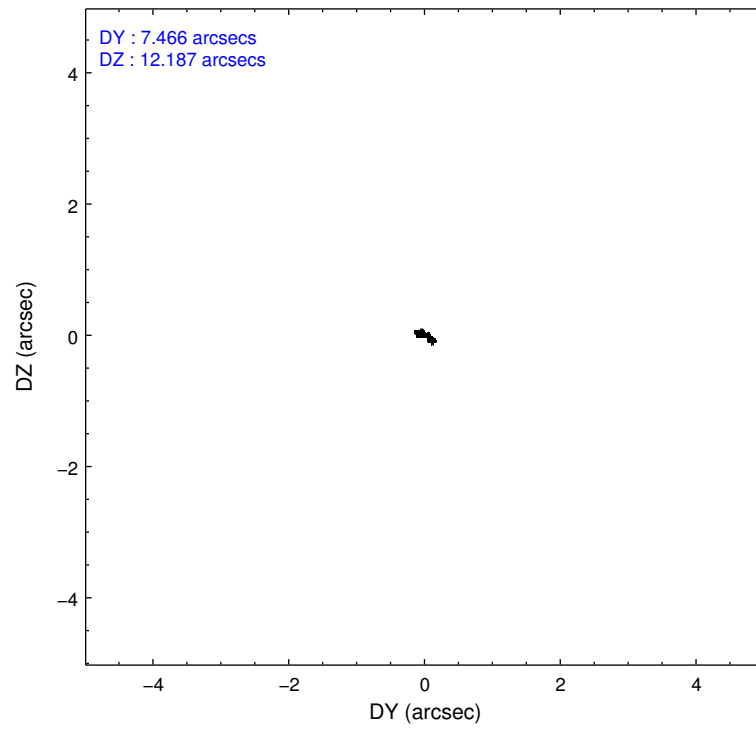
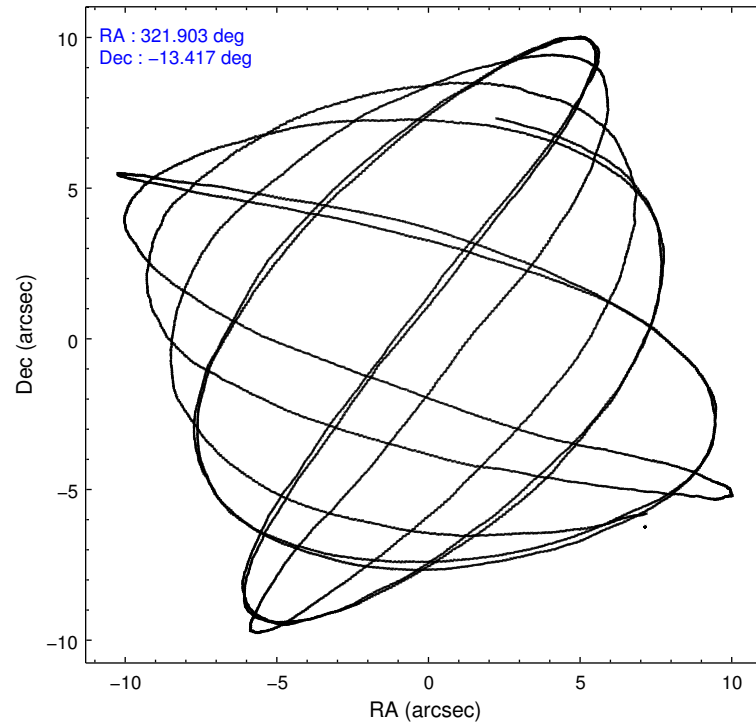


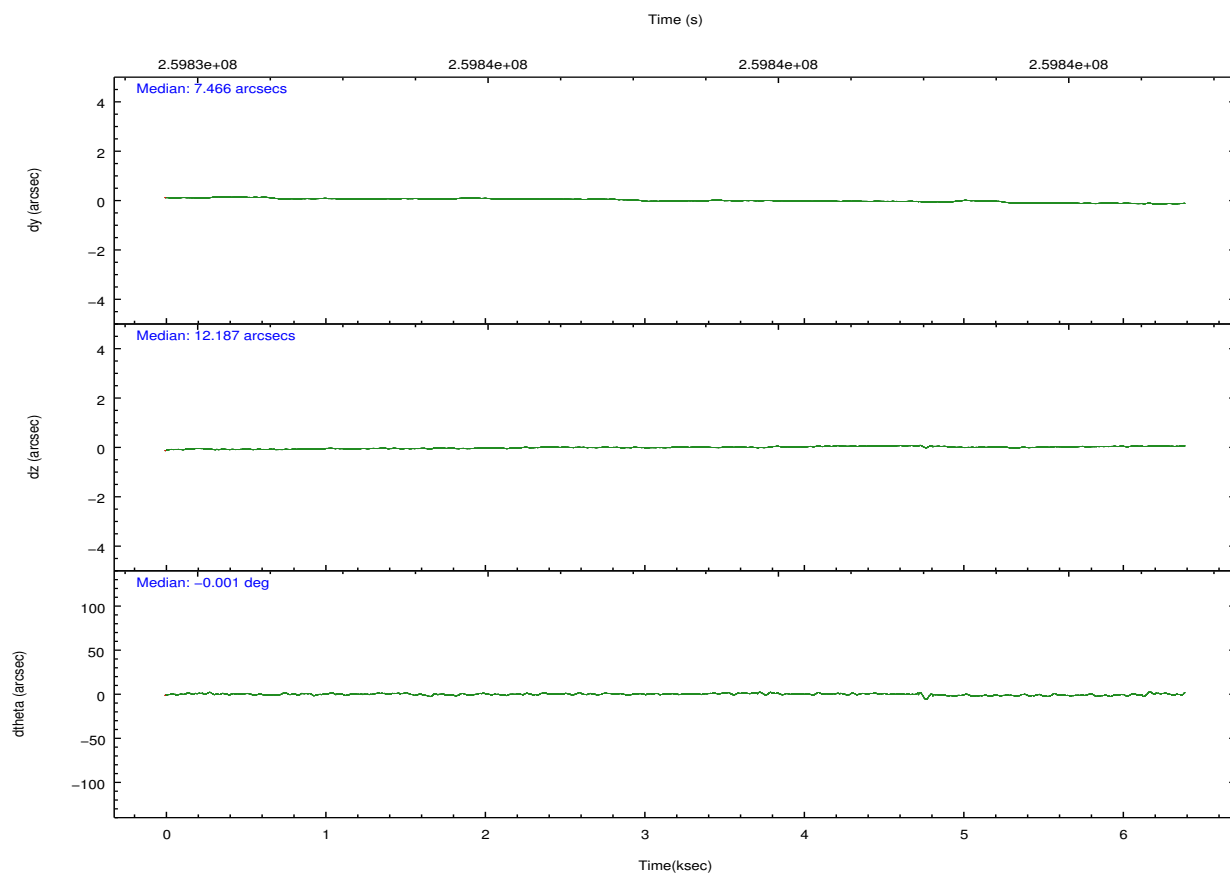
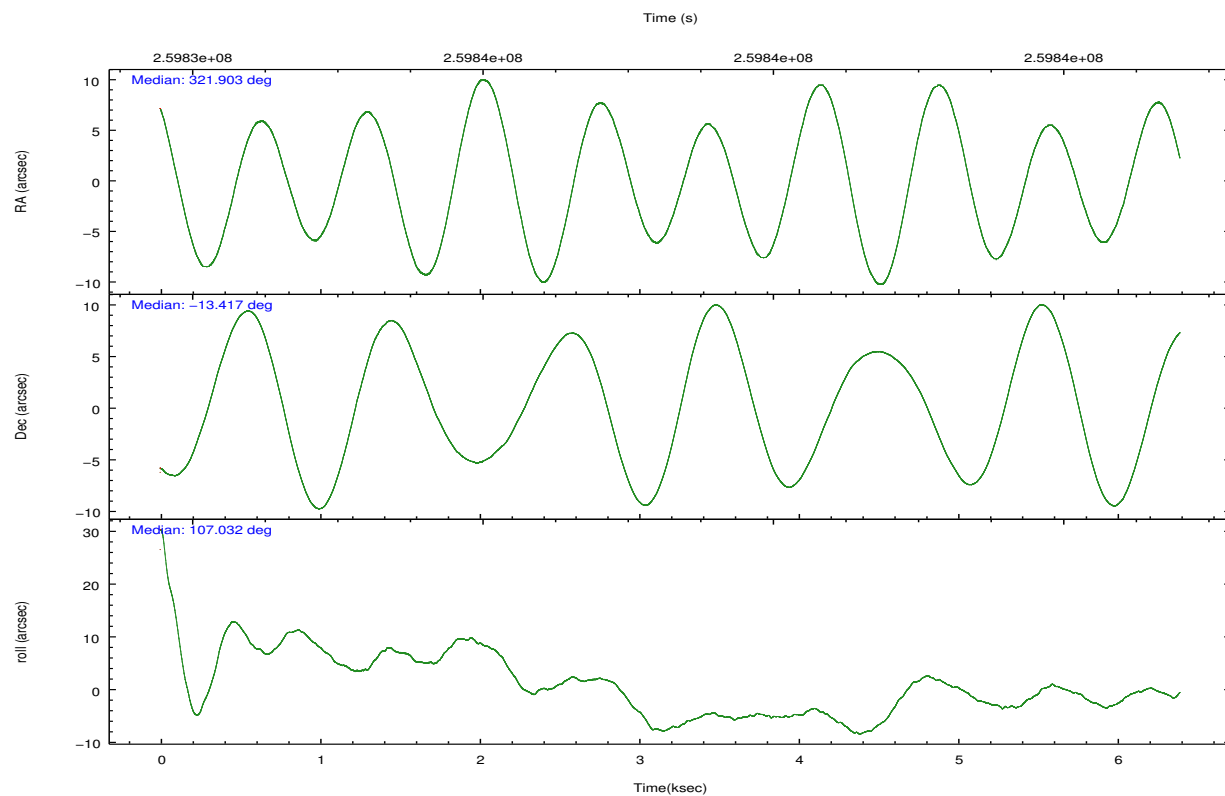
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	321.923725	321.9030545044323
[deg] Pointing Dec	-13.435399	-13.41683855820103
[deg] Pointing Roll	106.835400	107.0393002624262
[s] Window start time (MET)	258076865.184000	258076865.184000
[s] Window stop time (MET)	261705665.184000	261705665.184000
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	259834282.184000	259833906.4333
Observation start date	2006-03-27T08:10:17	2006-03-27T08:05:06
[s] Observation end time (MET)	259840482.184000	259840616.08361
Observation end date	2006-03-27T09:53:37	2006-03-27T09:56:56
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/2
Subarray start row	513	513
Subarray row count	512	512
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	1.8

## 2.3 Aspect



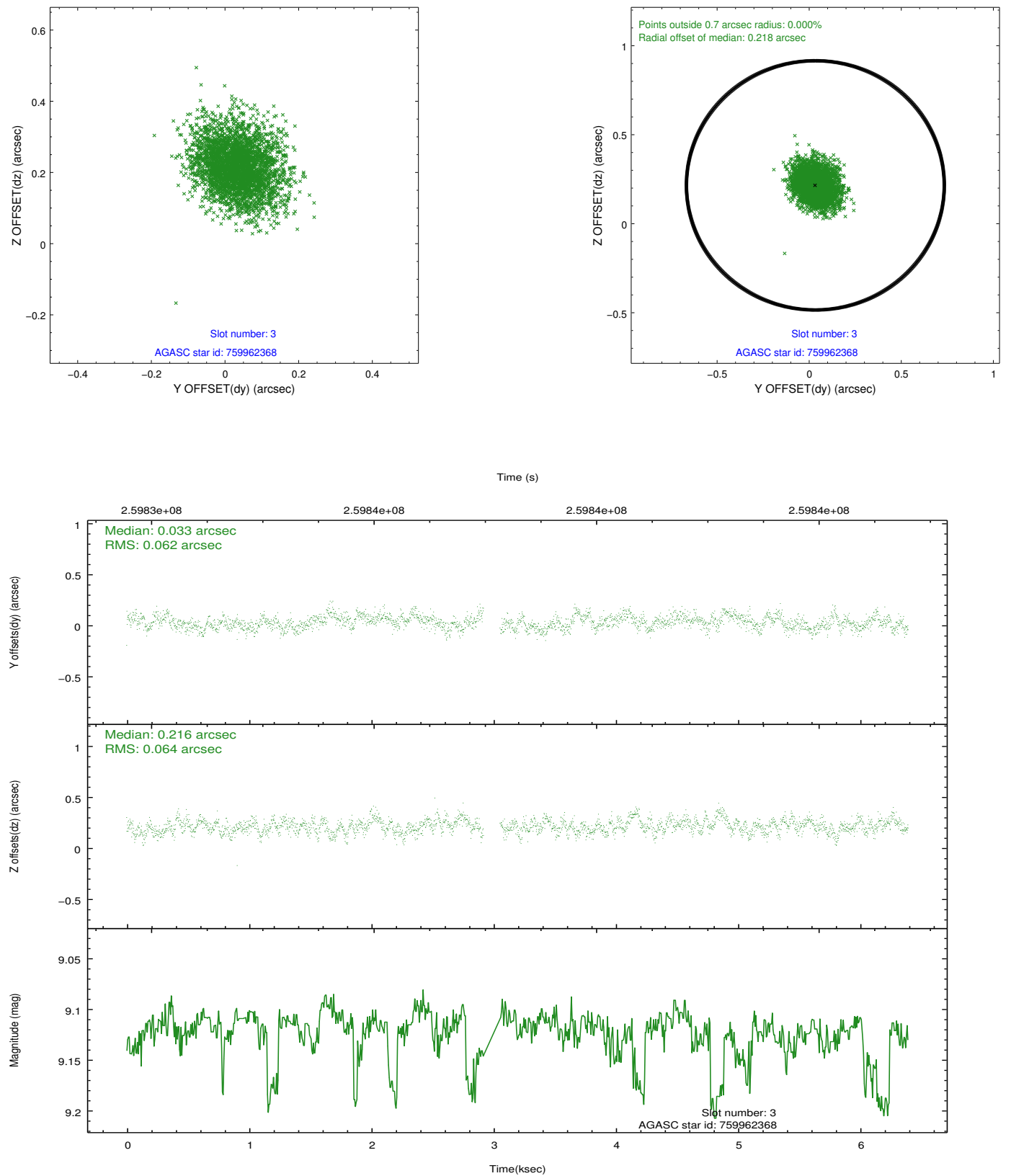


### Slot Statistics

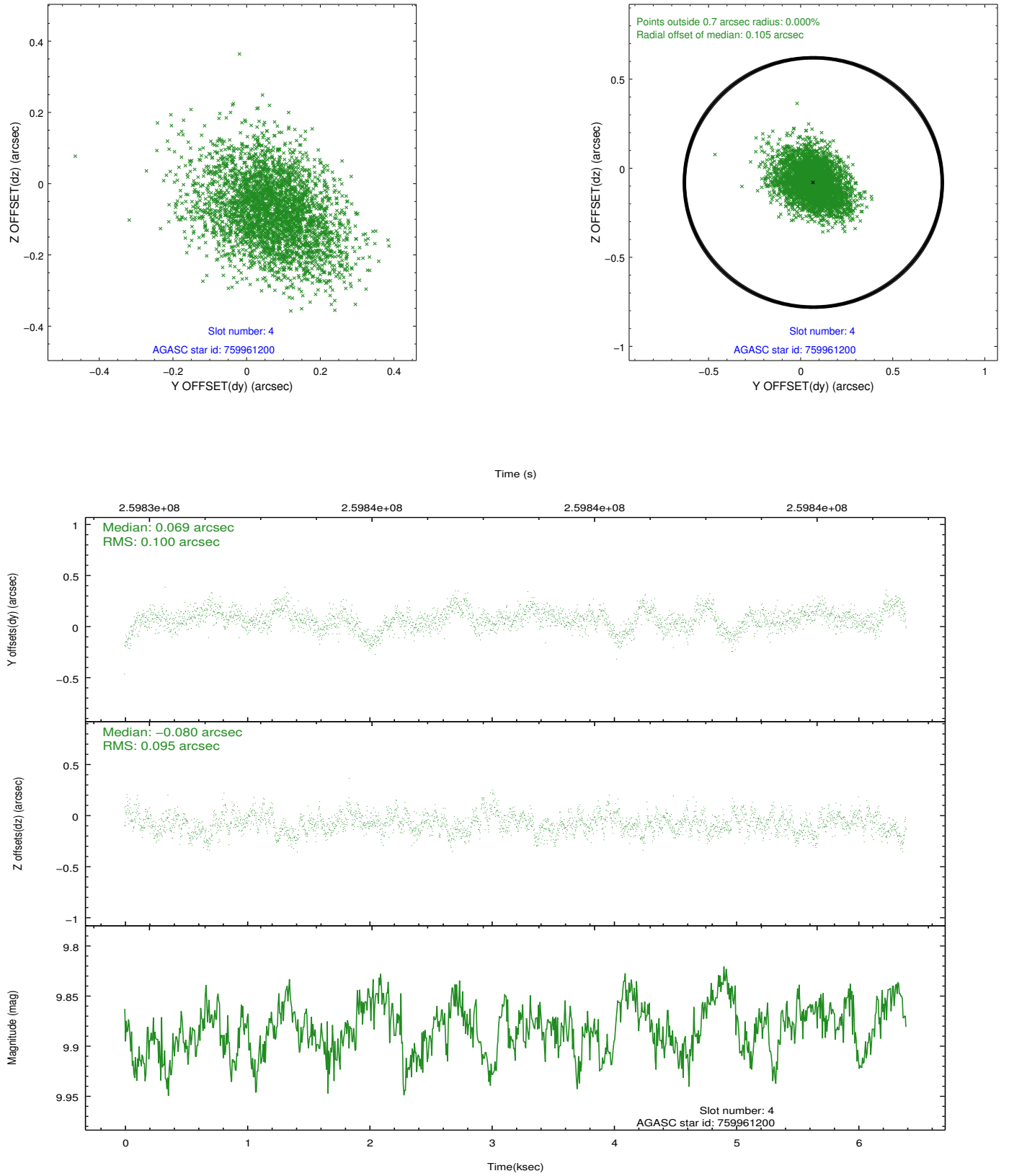
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.14	1560	0.020	-0.071	0.011	0.024	0.000000	0.000000	-761.98	-842.13
1	FID	ACIS-I-5	7.23	1559	-0.084	0.119	0.012	0.024	0.000000	0.000000	-1816.56	1061.47
2	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
3	GUIDE	759962368	9.12	3048	0.033	0.216	0.095	0.154	322.267195	-13.797795	-1597.18	-770.80
4	GUIDE	759961200	9.88	3116	0.069	-0.080	0.146	0.242	321.872560	-14.109246	-2270.45	873.28
5	GUIDE	758253496	9.79	3120	-0.071	-0.159	0.137	0.226	321.358592	-13.614283	-46.64	2079.97
6	GUIDE	758253320	9.63	3118	-0.029	0.023	0.119	0.191	321.577816	-13.572361	-122.09	1302.61
7	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

## 2.4 Star Slots

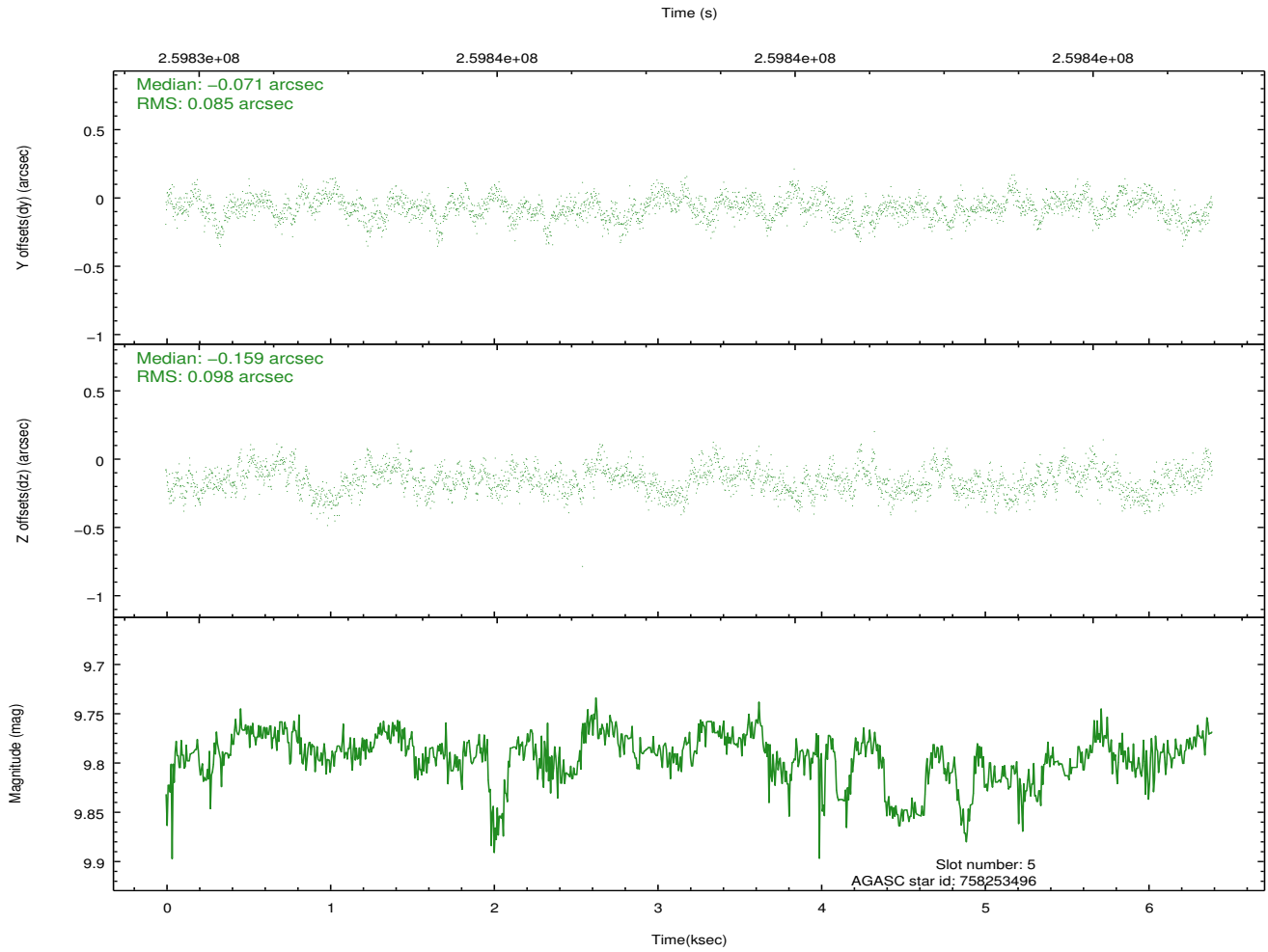
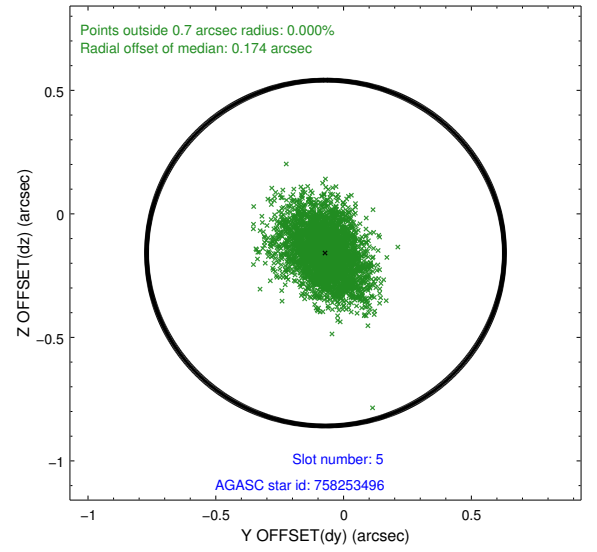
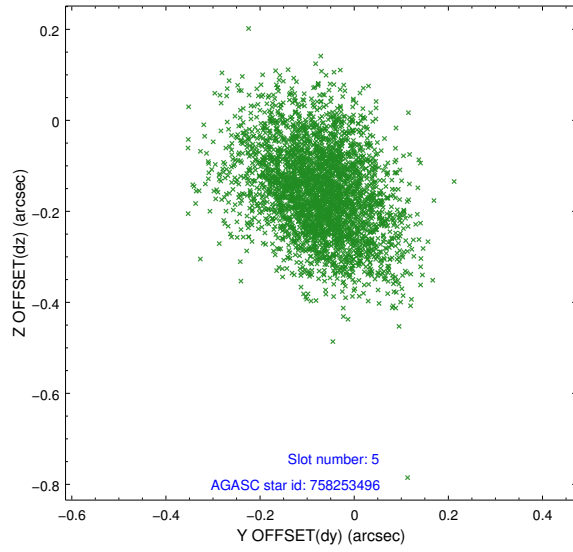
### 2.4.1 Slot 3



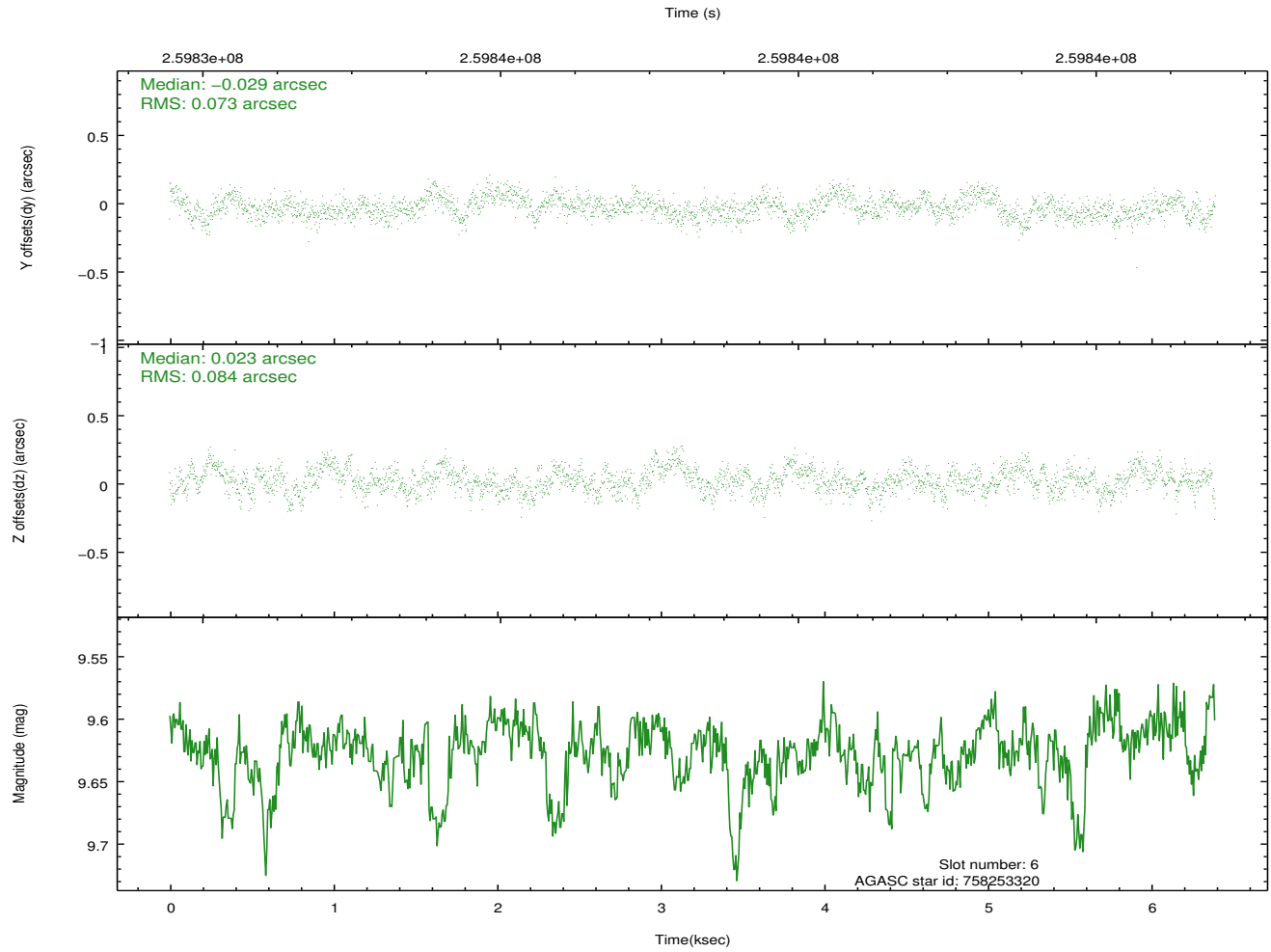
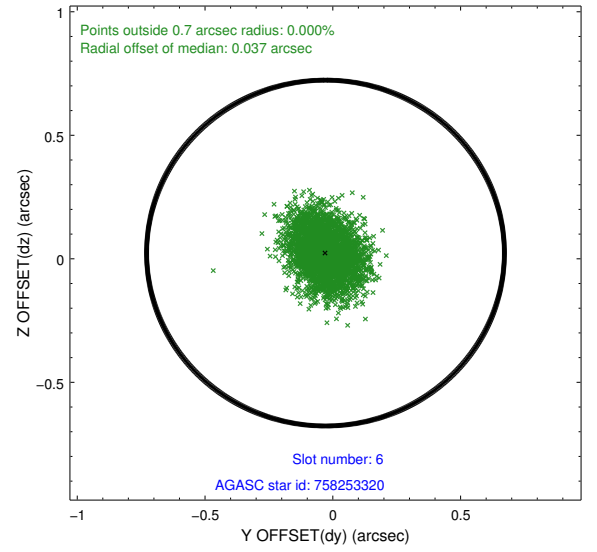
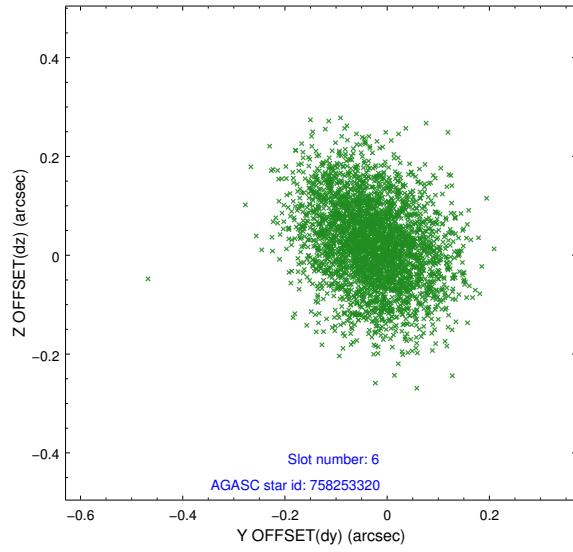
## 2.4.2 Slot 4



### 2.4.3 Slot 5



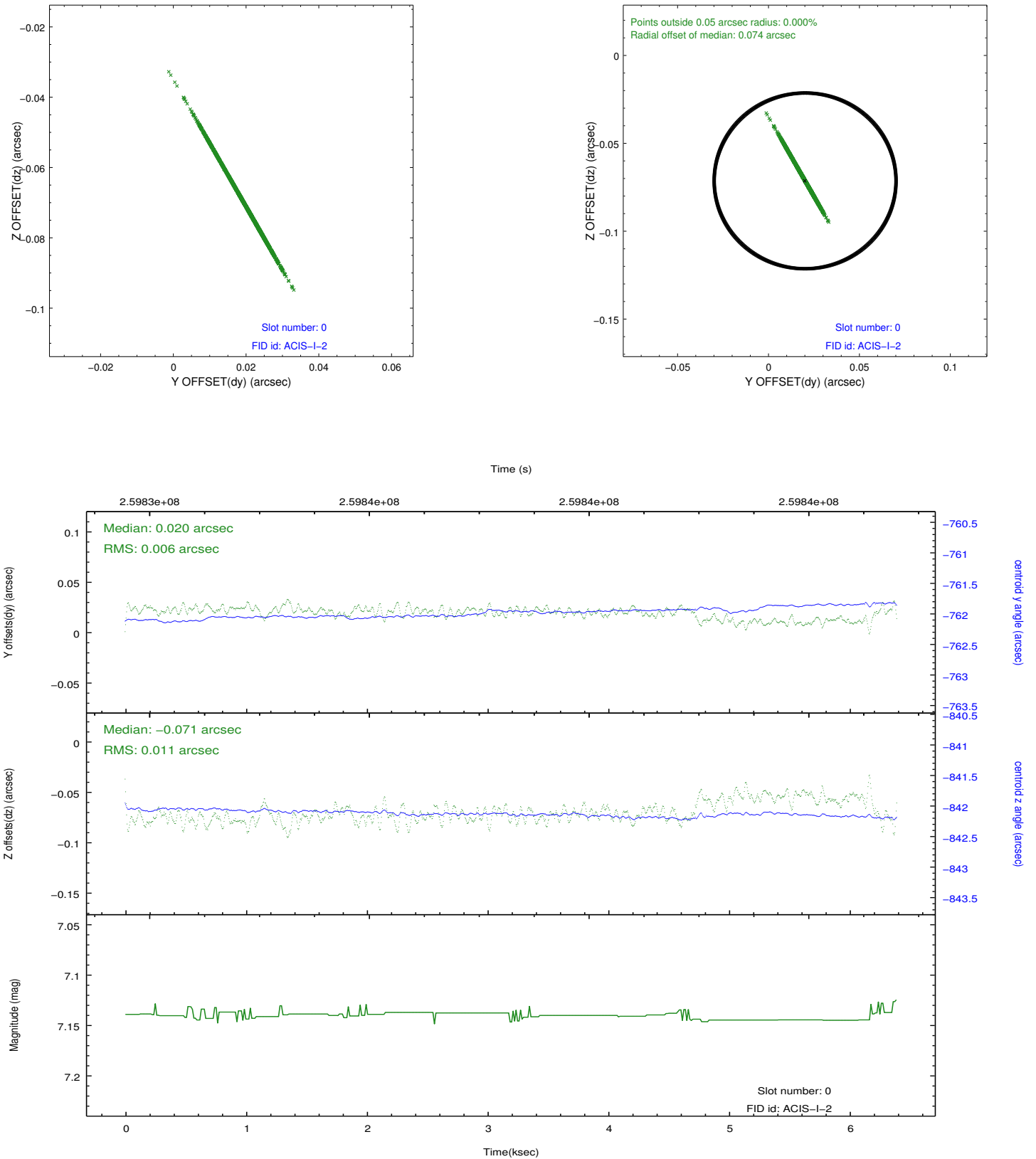
## 2.4.4 Slot 6



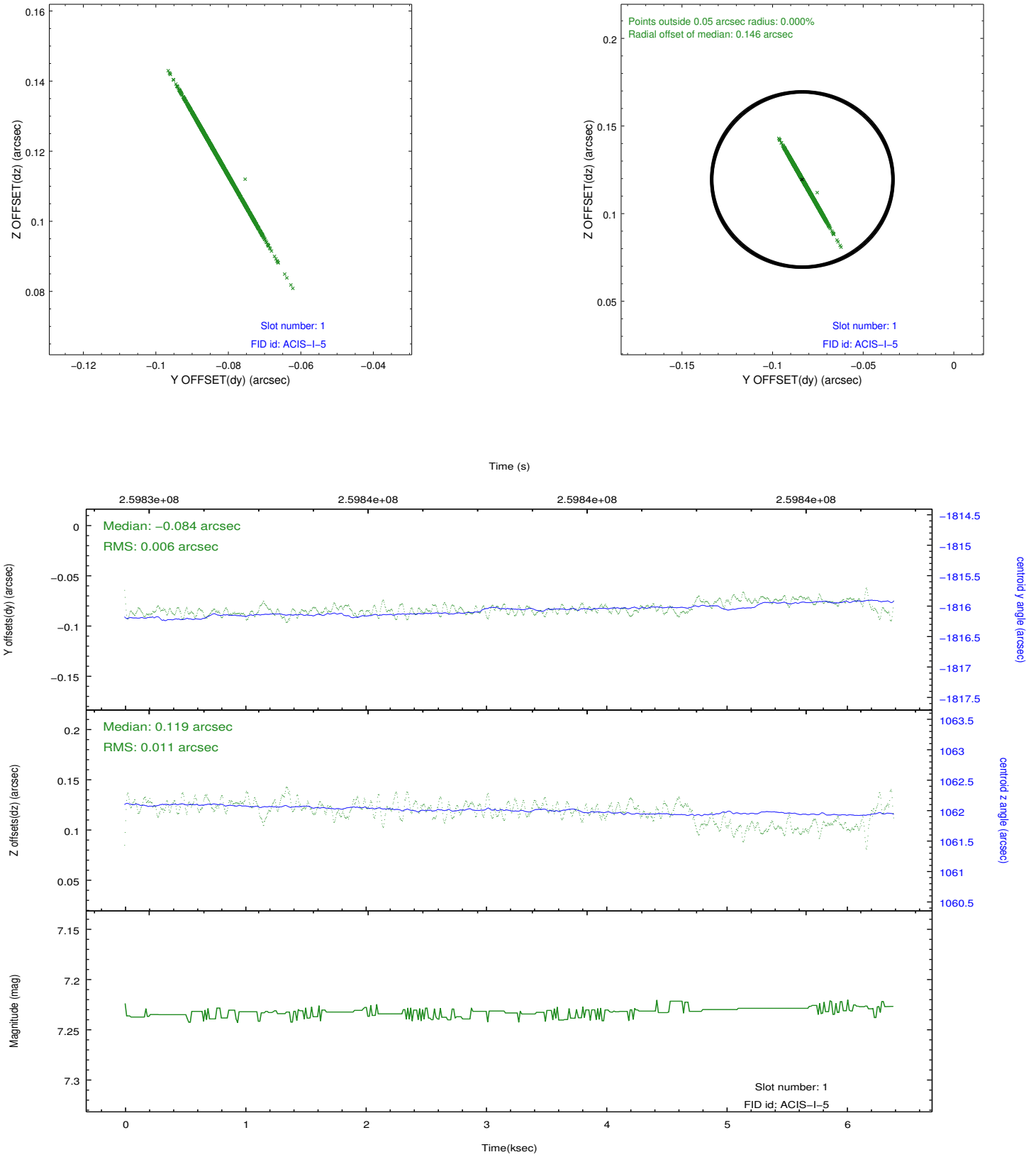


## 2.5 FID Slots

### 2.5.1 Slot 0



## 2.5.2 Slot 1



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.04.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.39360004

## A.2 Comments

Window preference met.

Slots 2 and 7 were removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of these slots from the solution.