

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11782 - L2 Version 2  
Chandra X-Ray Center

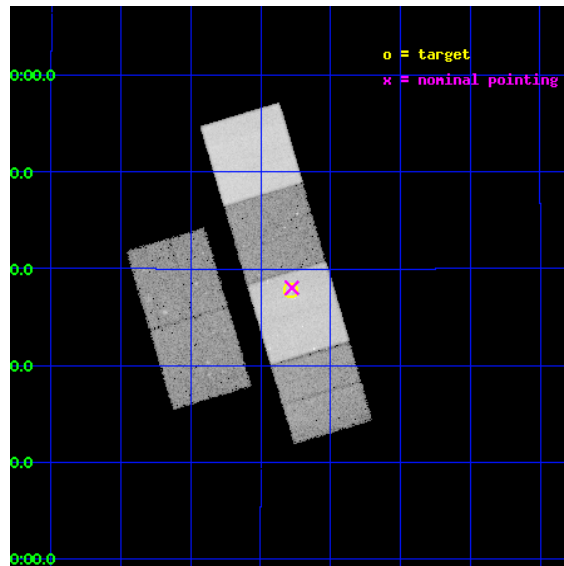
L2 Processing Date : Jun 19 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

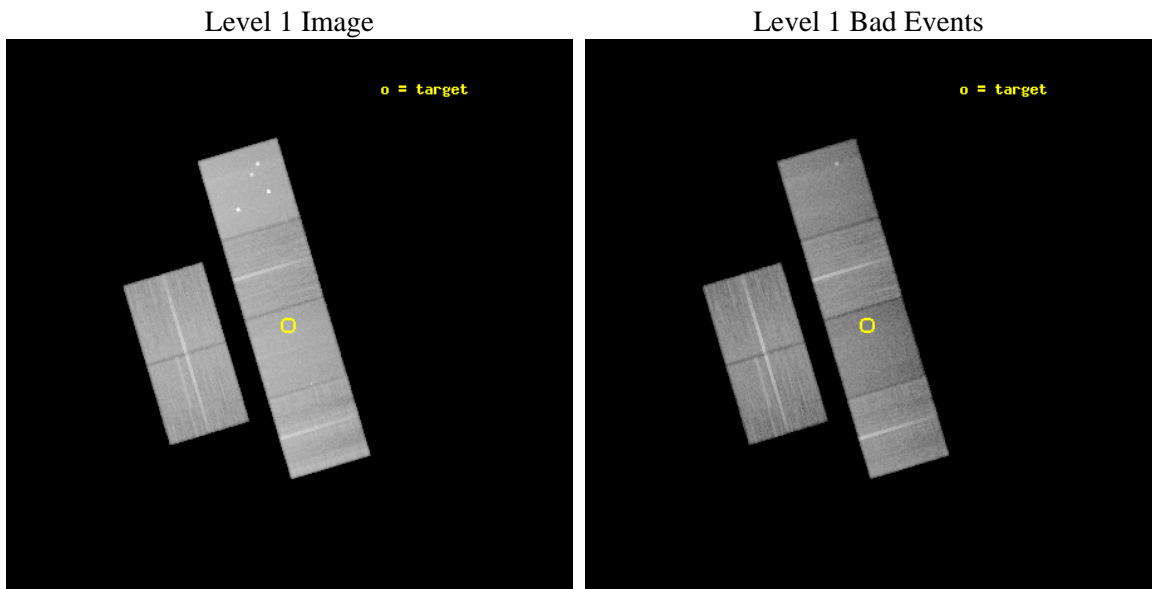
seq_num	900917	Sequence number
obs_id	11782	Observation id
title	COMBH: Chandra Observations of M-sigma Black Holes	Proposal title
observer	Dr. Kayhan Gultekin	Principal investigator
object	NGC3384	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	162.070417	Observer's specified target RA [deg]
dec_targ	12.629278	Observer's specified target Dec [deg]
ra_nom	162.06912560529	Nominal RA [deg]
dec_nom	12.633962105836	Nominal Dec [deg]
roll_nom	73.367320713729	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29039.999891877	Sum of GTIs [s]
livetime	28672.277927458	Livetime [s]
ontime2	29039.999891877	Sum of GTIs [s]
ontime3	29036.758861423	Sum of GTIs [s]
ontime5	29039.999891877	Sum of GTIs [s]
ontime6	29039.999891877	Sum of GTIs [s]
ontime7	29039.999891877	Sum of GTIs [s]
ontime8	29039.999891877	Sum of GTIs [s]
l2events	398885	Number of level 2 events



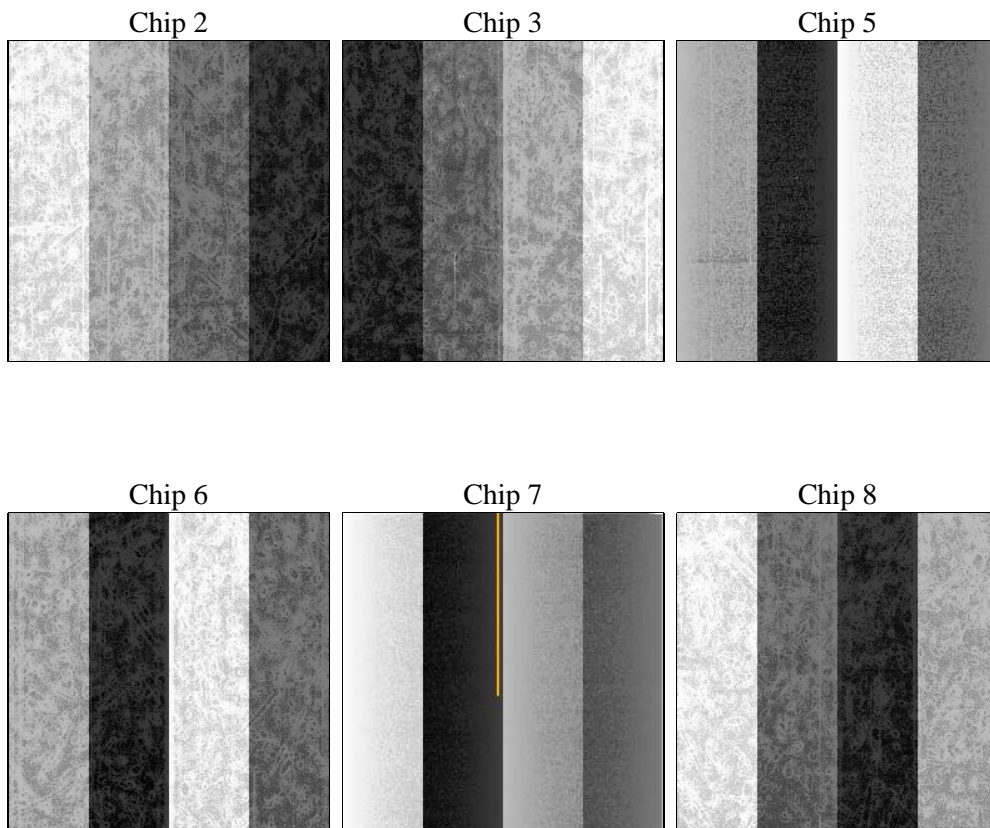
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29039.999891877	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime2	29039.999891877	Sum of GTIs [s]
date	2012-06-19T22:40:48	Date and time of file creation	ontime3	29036.758861423	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	29039.999891877	Sum of GTIs [s]
			ontime6	29039.999891877	Sum of GTIs [s]
			ontime7	29039.999891877	Sum of GTIs [s]
			ontime8	29039.999891877	Sum of GTIs [s]
			l1events	1790918	Number of level 1 events

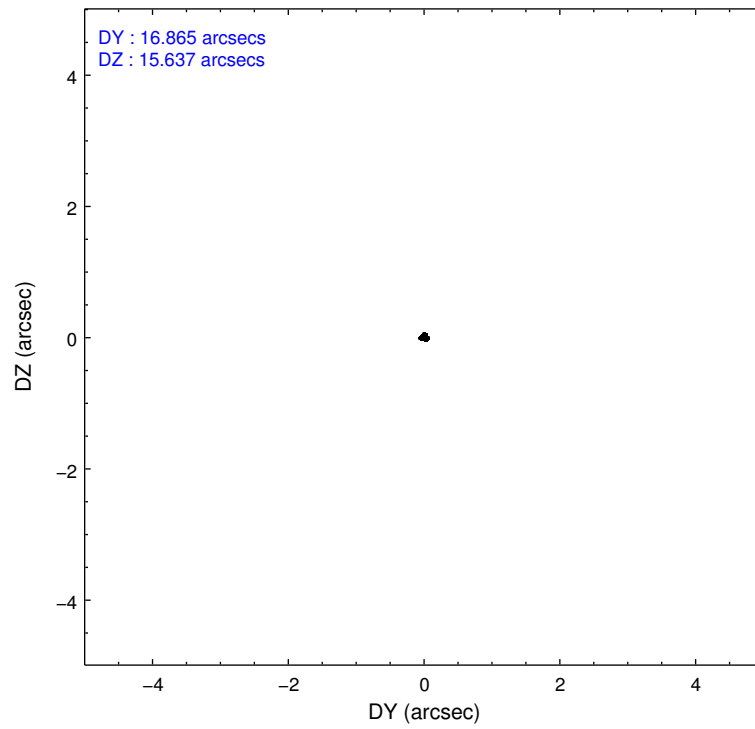
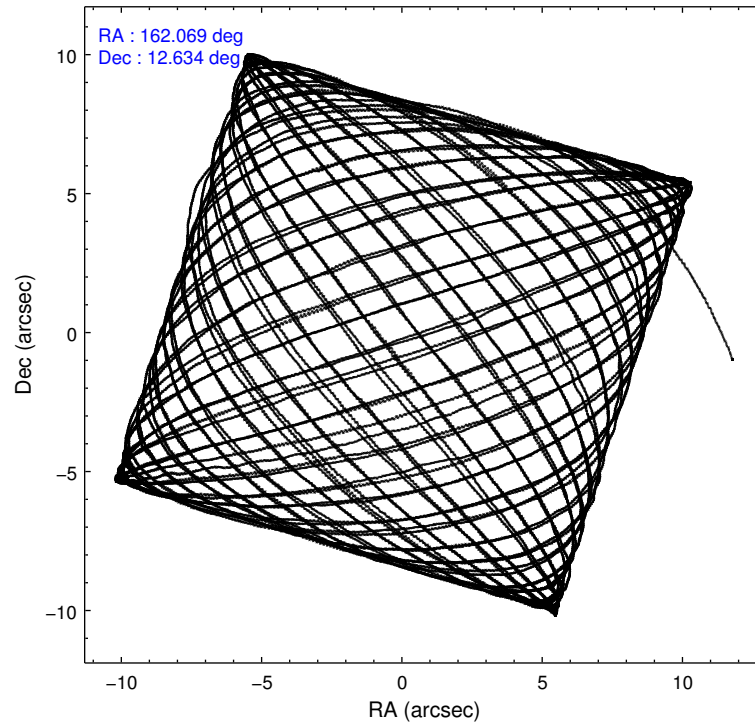
### 2.1.4 Events

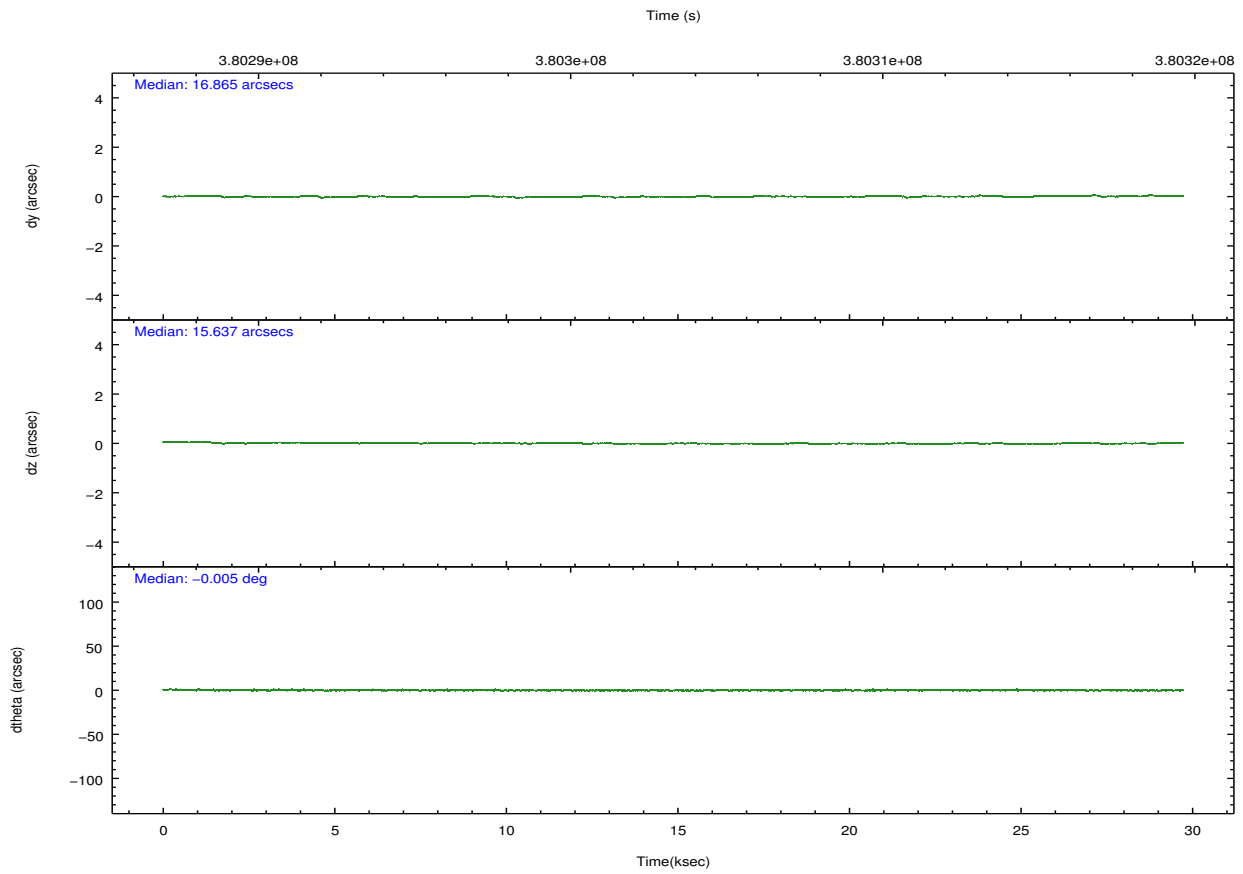
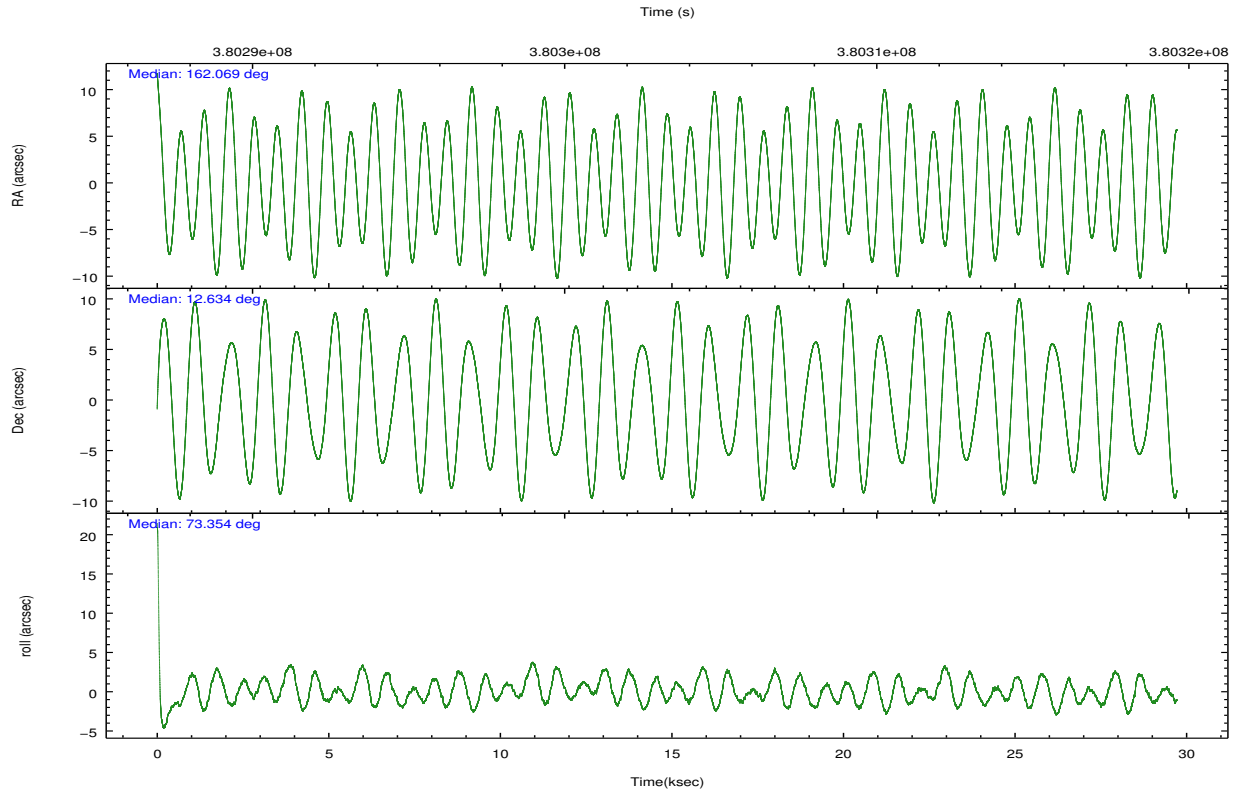
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	266545	253924	381984	265395	298916	324154	grade 0 events	9577	8642	28938	9679	13021	23394
rejected events	240117	229590	186064	237887	162203	242474		3%	3%	7%	3%	4%	7%
rejected %	90%	90%	48%	89%	54%	74%	grade 1 events	145	187	709	157	410	270
								0%	0%	0%	0%	0%	0%
							grade 2 events	6350	5358	57064	6142	28439	19397
								2%	2%	14%	2%	9%	5%
							grade 3 events	2785	2657	7139	2890	12198	8692
								1%	1%	1%	1%	4%	2%
							grade 4 events	2754	2709	6910	2931	12088	7995
								1%	1%	1%	1%	4%	2%
							grade 5 events	9578	10469	28642	10809	30769	15815
								3%	4%	7%	4%	10%	4%
							grade 6 events	4966	4972	95915	5877	70990	22207
								1%	1%	25%	2%	23%	6%
							grade 7 events	230390	218930	156667	226910	131001	226384
								86%	86%	41%	85%	43%	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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	162.075978	162.0691256052885	CCD I2 on	O1	Y
[deg] Pointing Dec	12.607445	12.63396210583609	CCD I3 on	O2	Y
[deg] Pointing Roll	73.209188	73.36732071372877	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	380289133.184000	380287858.69245	CCD S5 on	N	N
Observation start date	2010-01-19T11:51:07	2010-01-19T11:30:58	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	380318133.184000	380318708.63151	On-chip summing requested	N	N
Observation end date	2010-01-19T19:54:27	2010-01-19T20:05:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



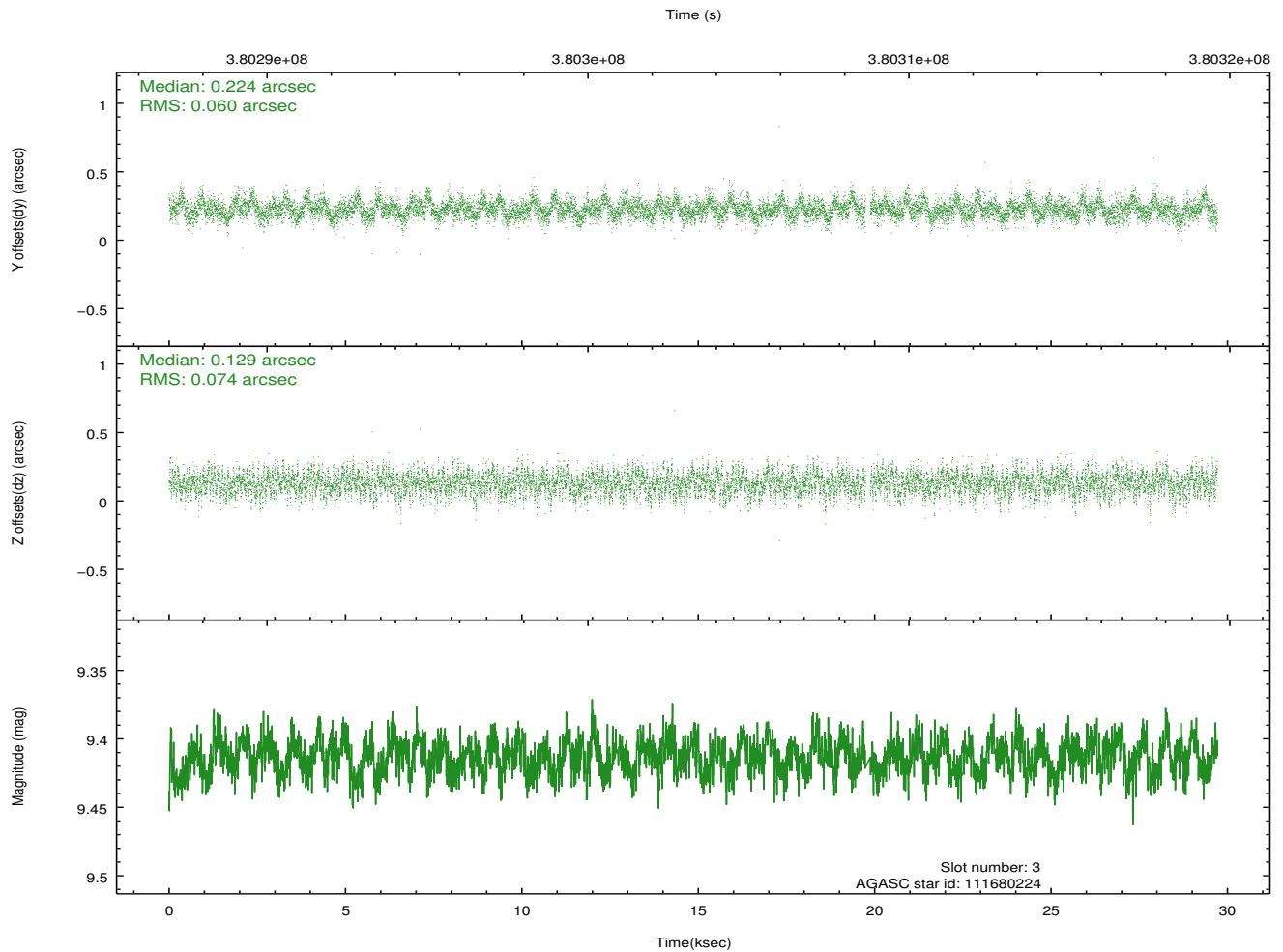
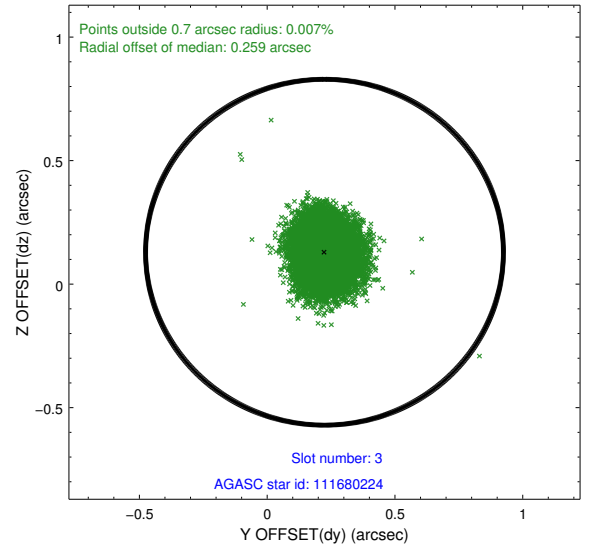
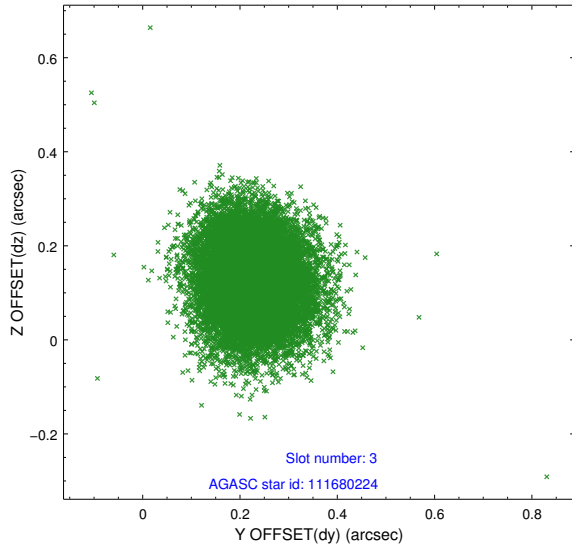


### Slot Statistics

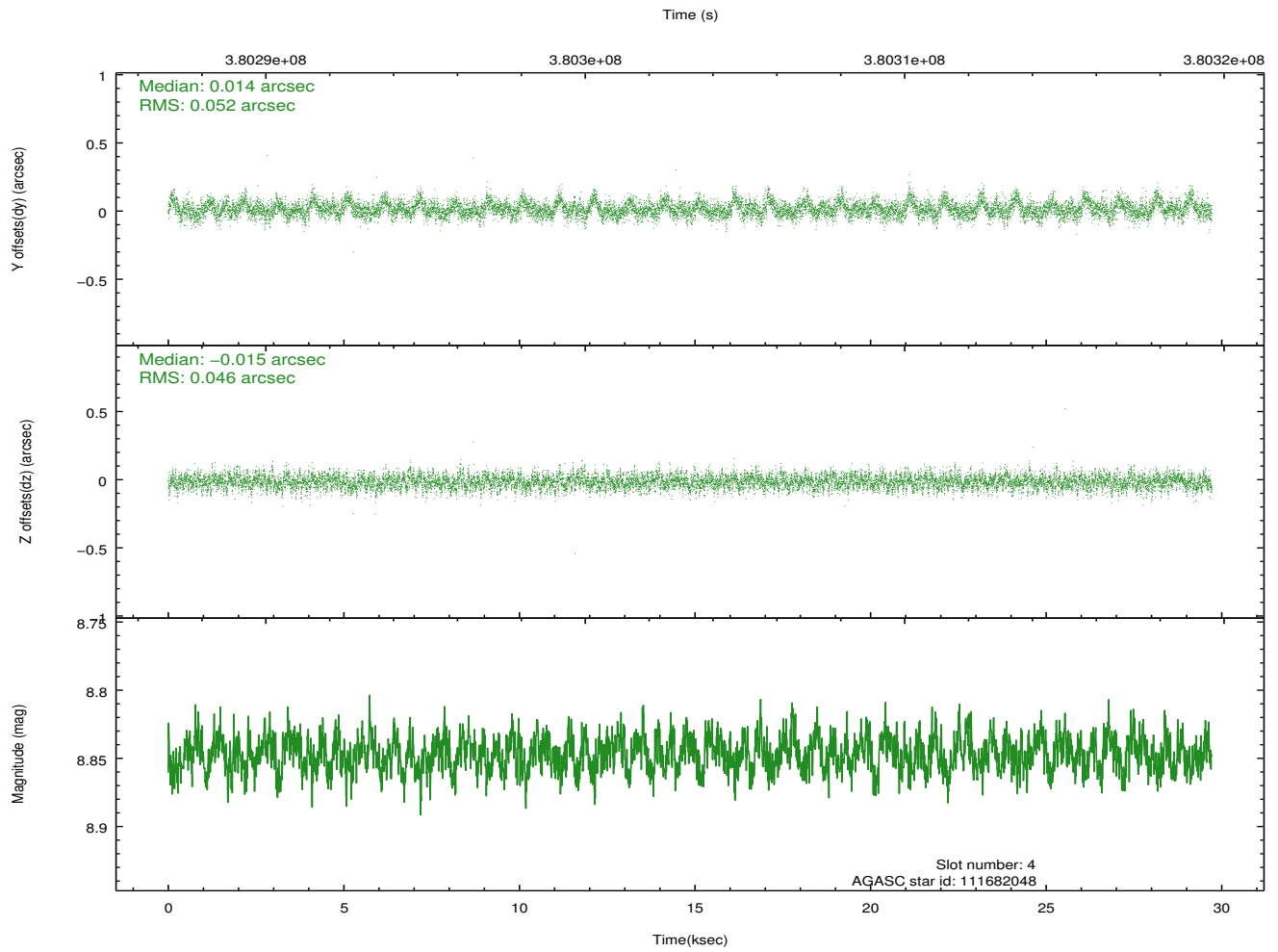
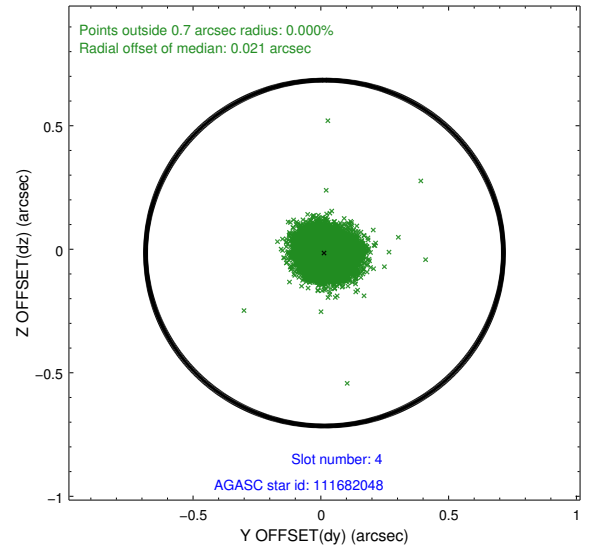
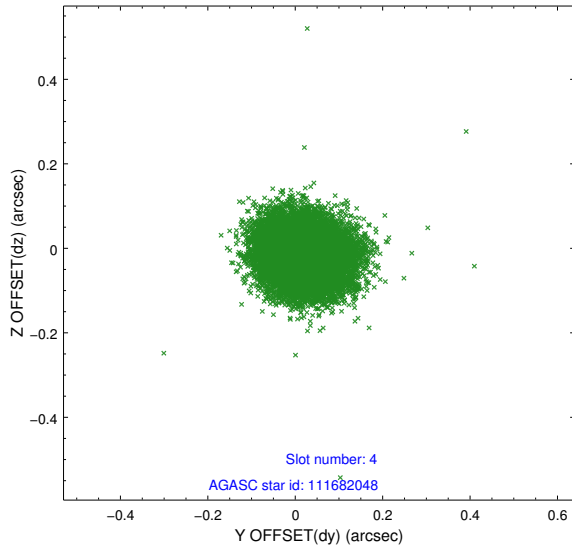
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.93	7246	-0.093	-0.011	0.007	0.011	0.000000	0.000000	-769.95	-1737.06
1	FID	ACIS-S-4	7.02	7248	0.181	0.048	0.007	0.013	0.000000	0.000000	2143.54	171.44
2	FID	ACIS-S-5	7.05	7249	-0.120	-0.028	0.008	0.013	0.000000	0.000000	-1822.75	165.07
3	GUIDE	111680224	9.41	14411	0.224	0.129	0.101	0.163	161.634669	12.601106	-468.44	1478.20
4	GUIDE	111682048	8.85	14483	0.014	-0.015	0.073	0.120	162.332050	12.842718	1070.74	-613.86
5	GUIDE	111683728	7.32	14493	-0.219	-0.446	0.066	0.107	161.580479	12.747846	-17.50	1811.73
6	GUIDE	111684072	8.40	14493	-0.048	0.106	0.069	0.113	162.537547	12.809514	1166.32	-1340.10
7	GUIDE	111290552	8.01	14494	0.024	0.225	0.062	0.097	162.689944	12.267517	-544.59	-2420.70

## 2.4 Star Slots

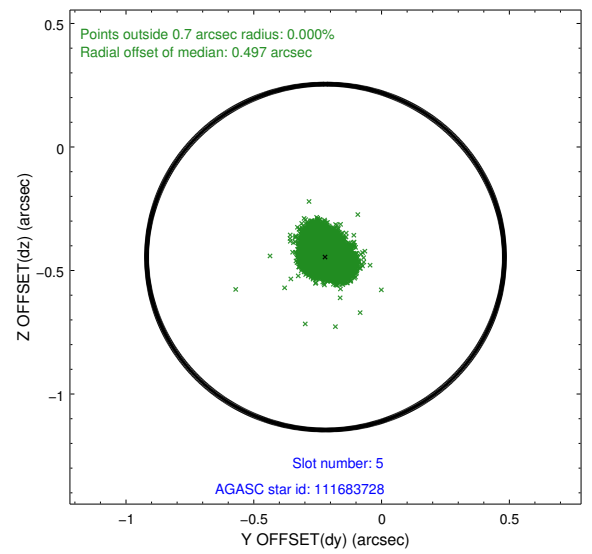
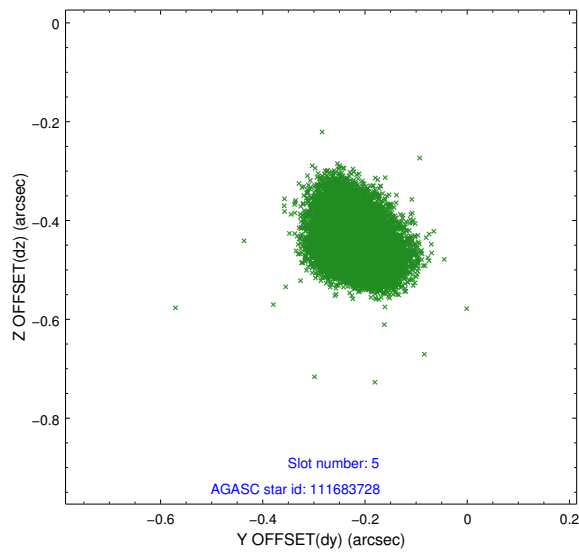
### 2.4.1 Slot 3



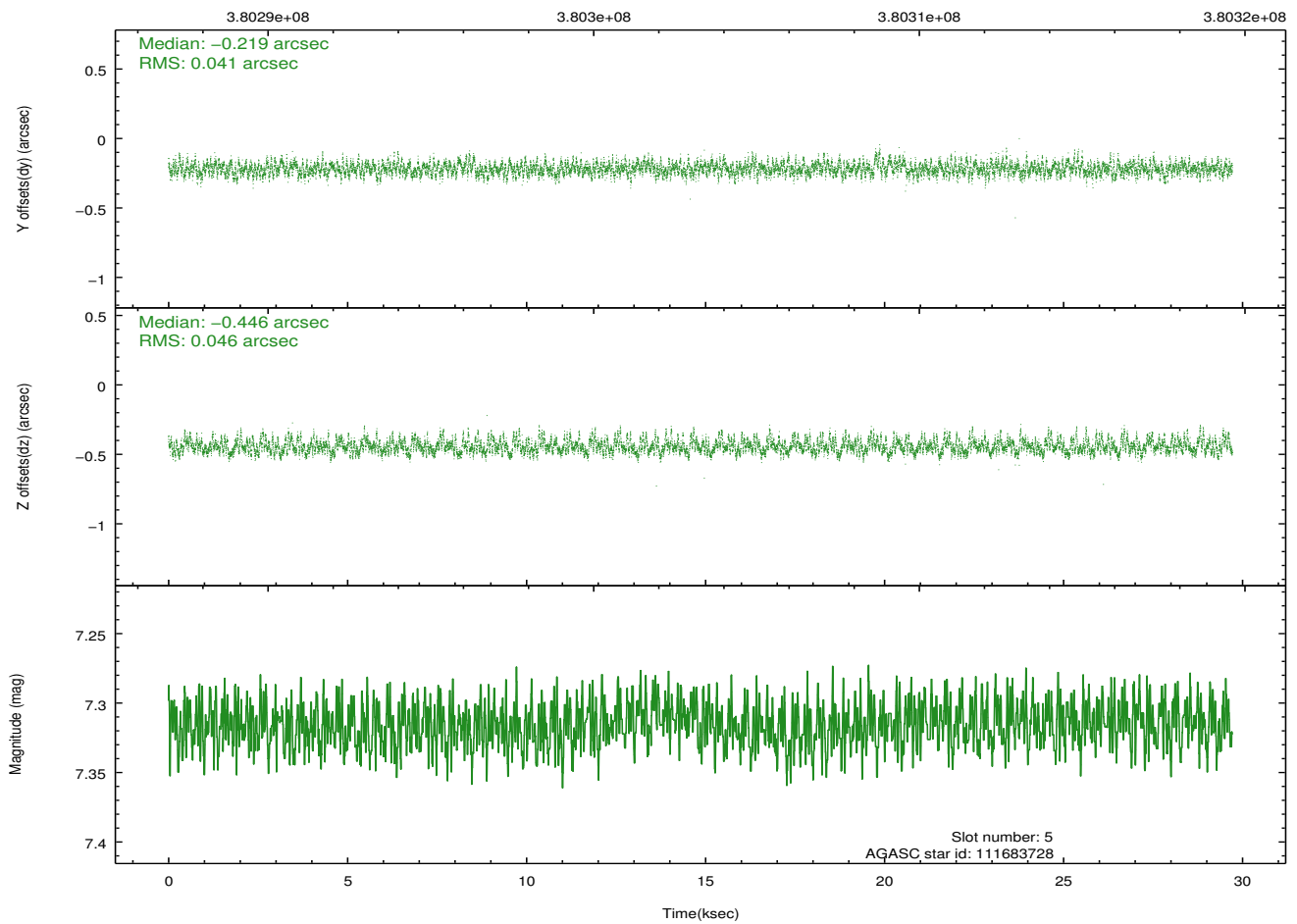
### 2.4.2 Slot 4



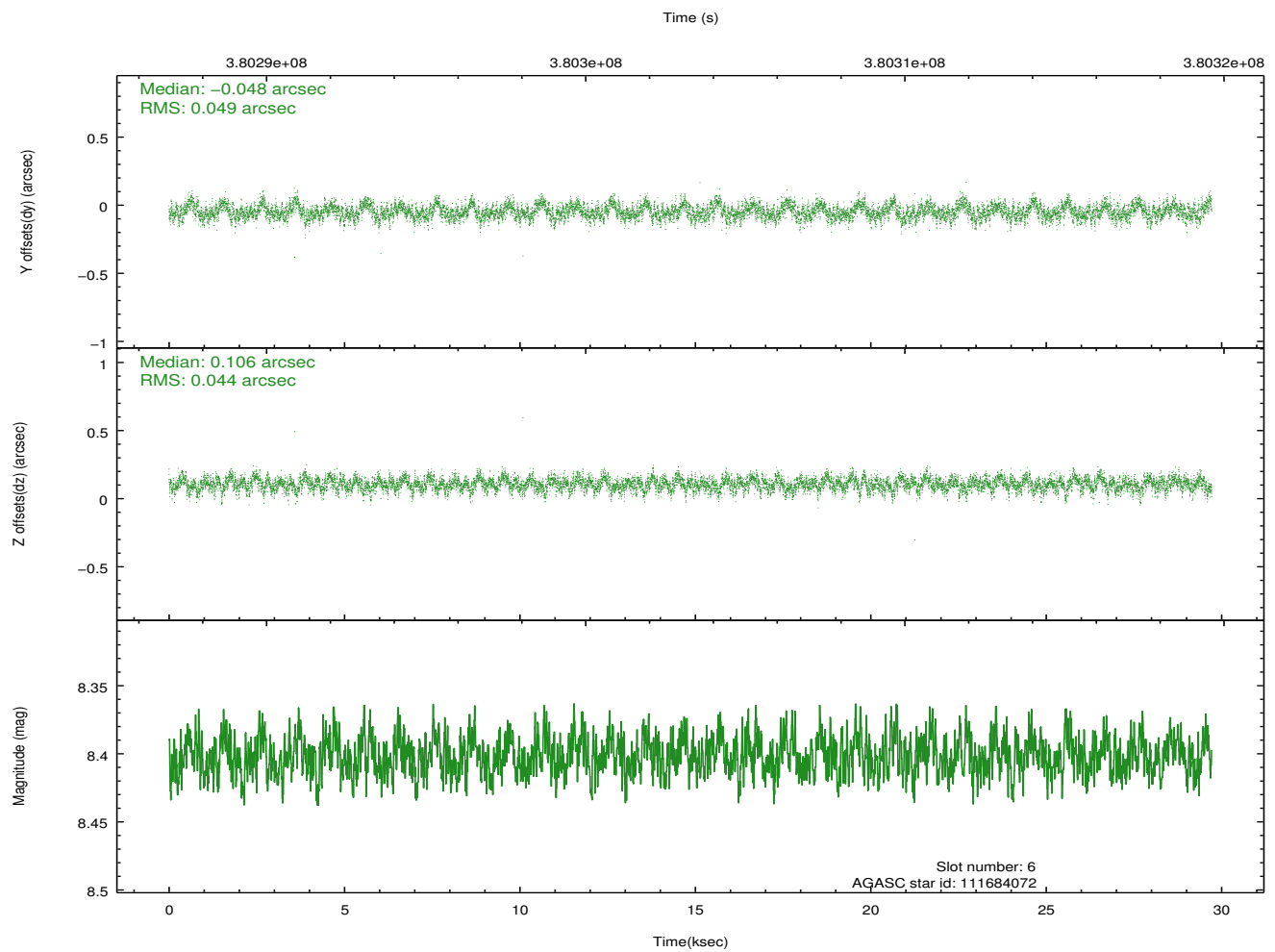
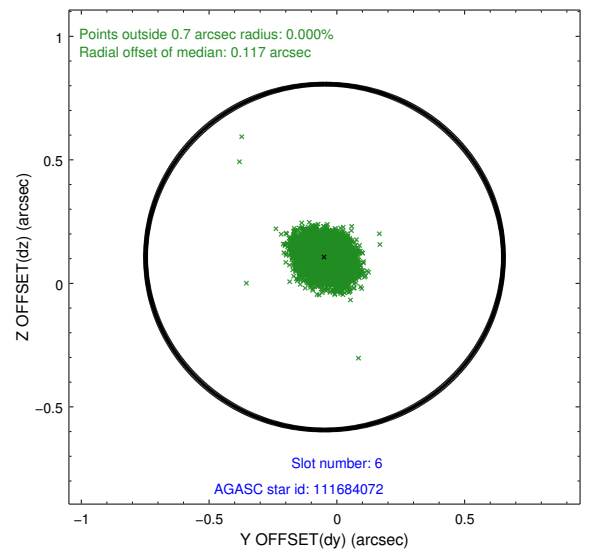
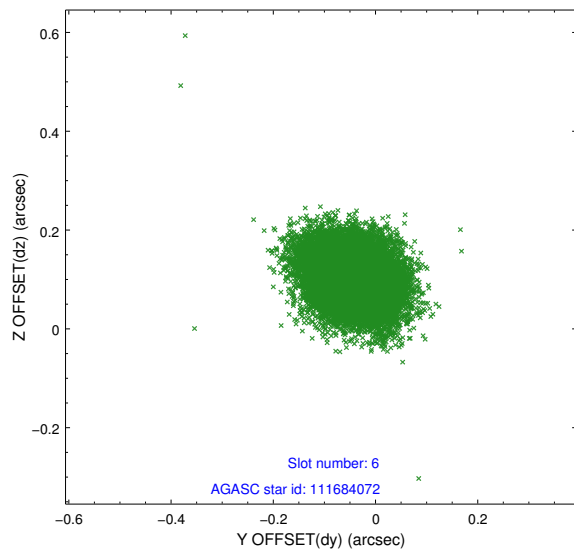
### 2.4.3 Slot 5



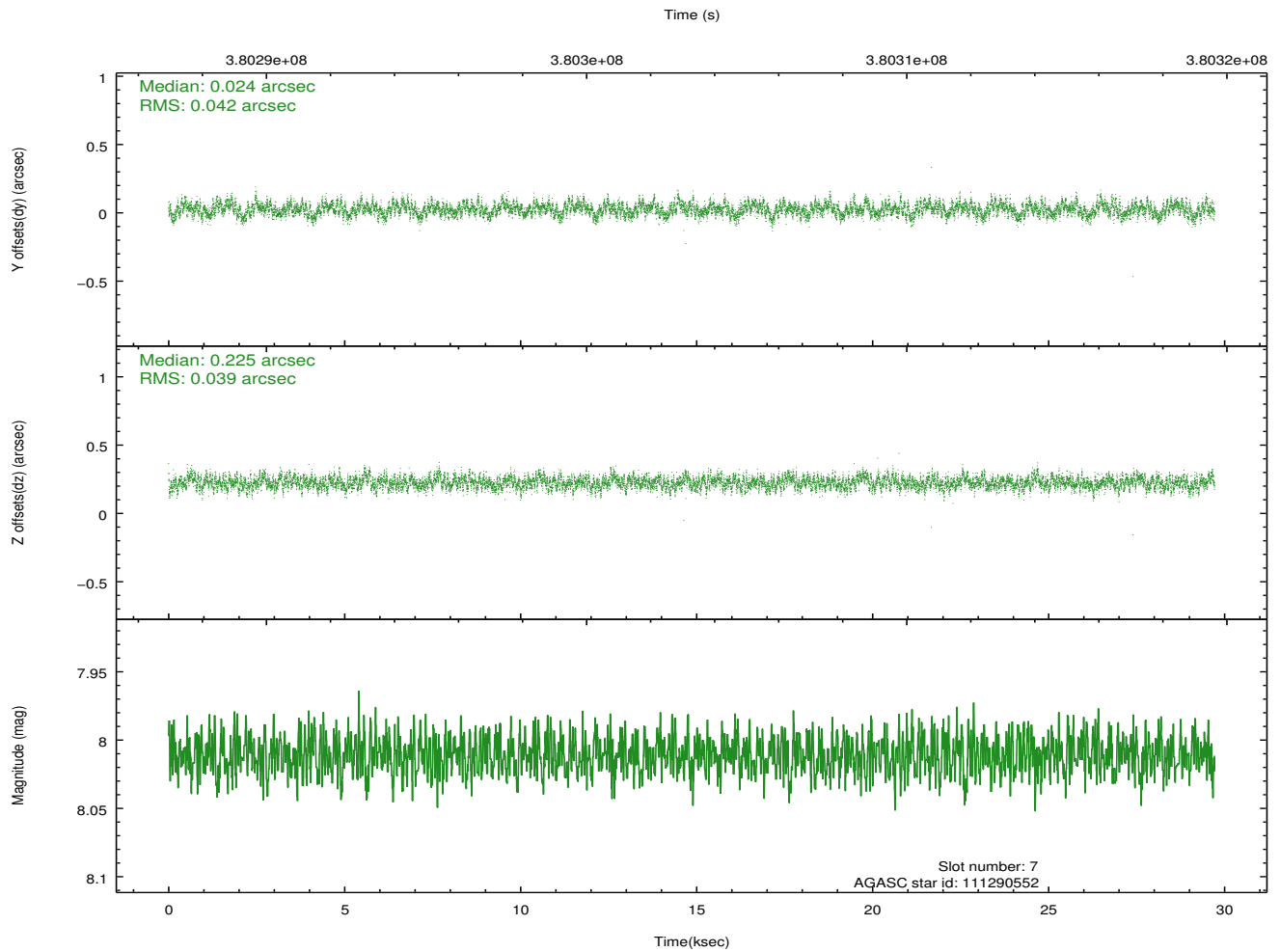
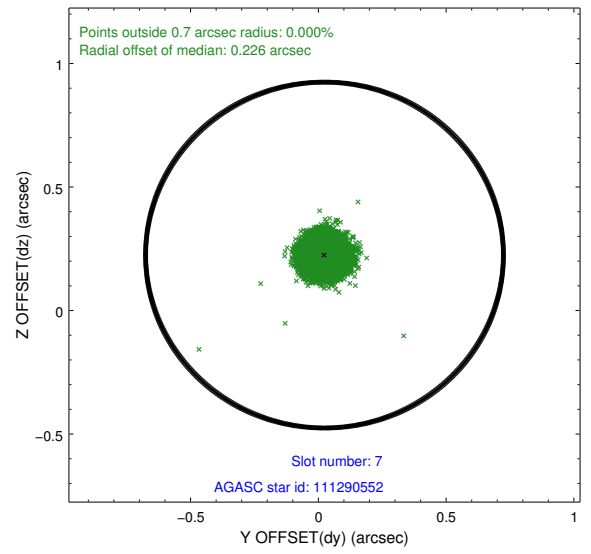
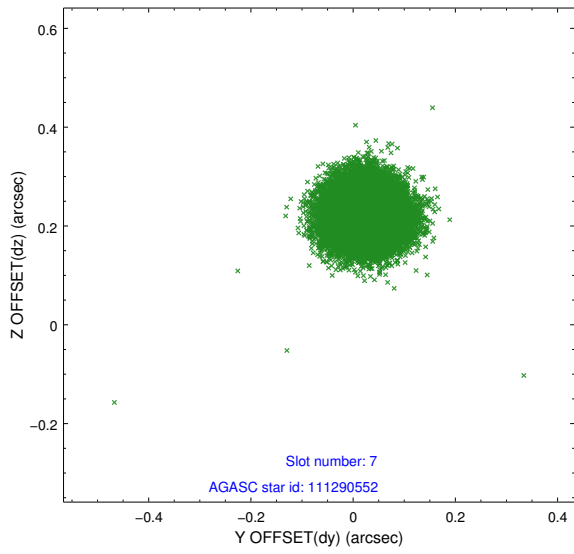
Time (s)



## 2.4.4 Slot 6

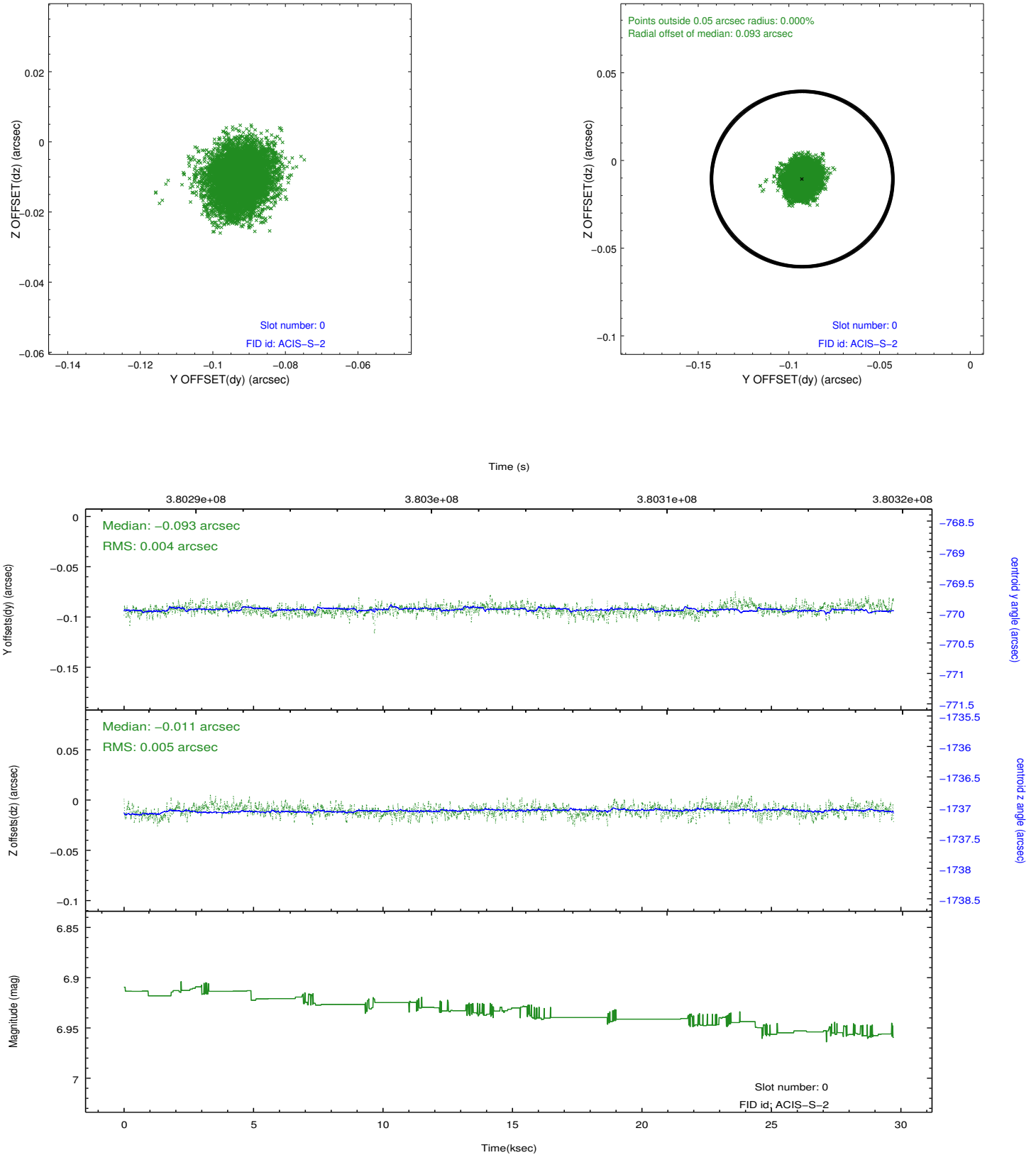


### 2.4.5 Slot 7

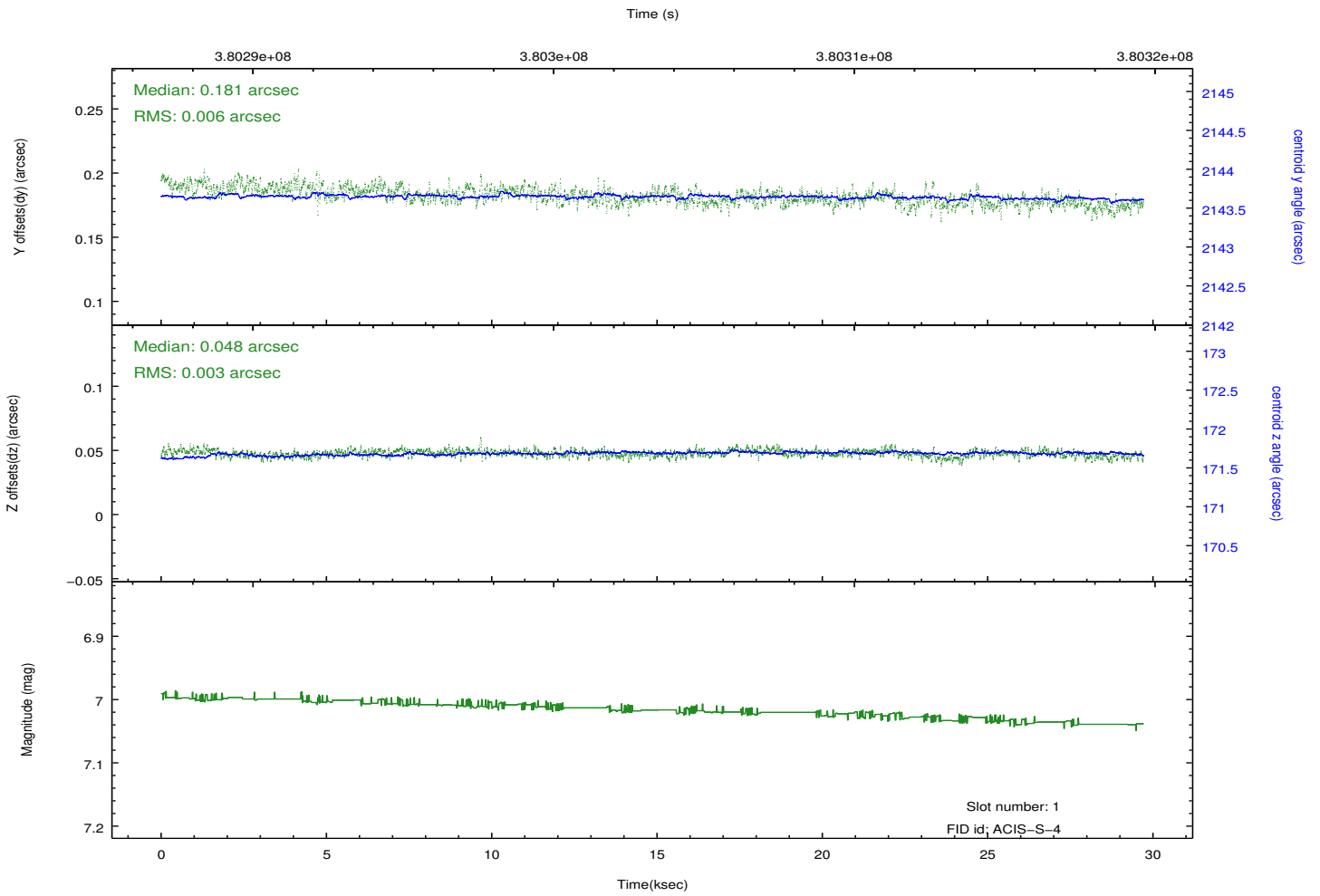
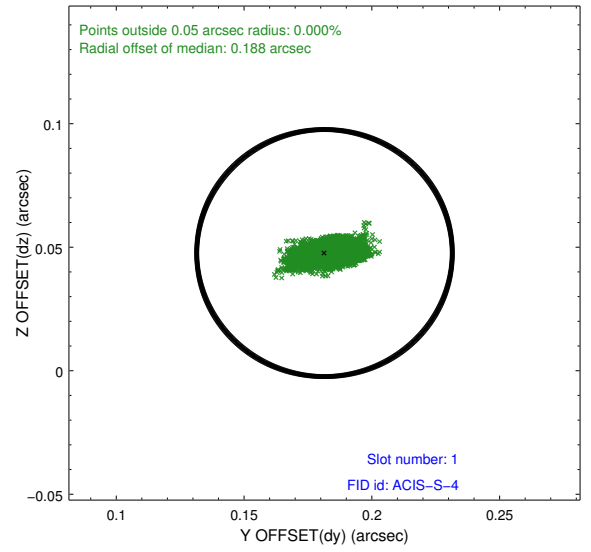
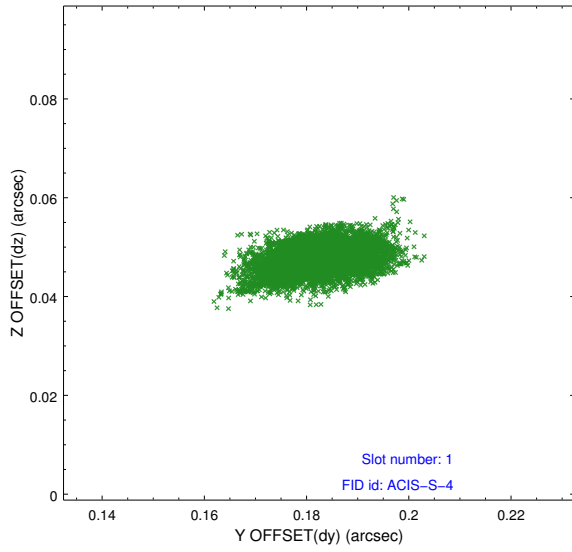


## 2.5 FID Slots

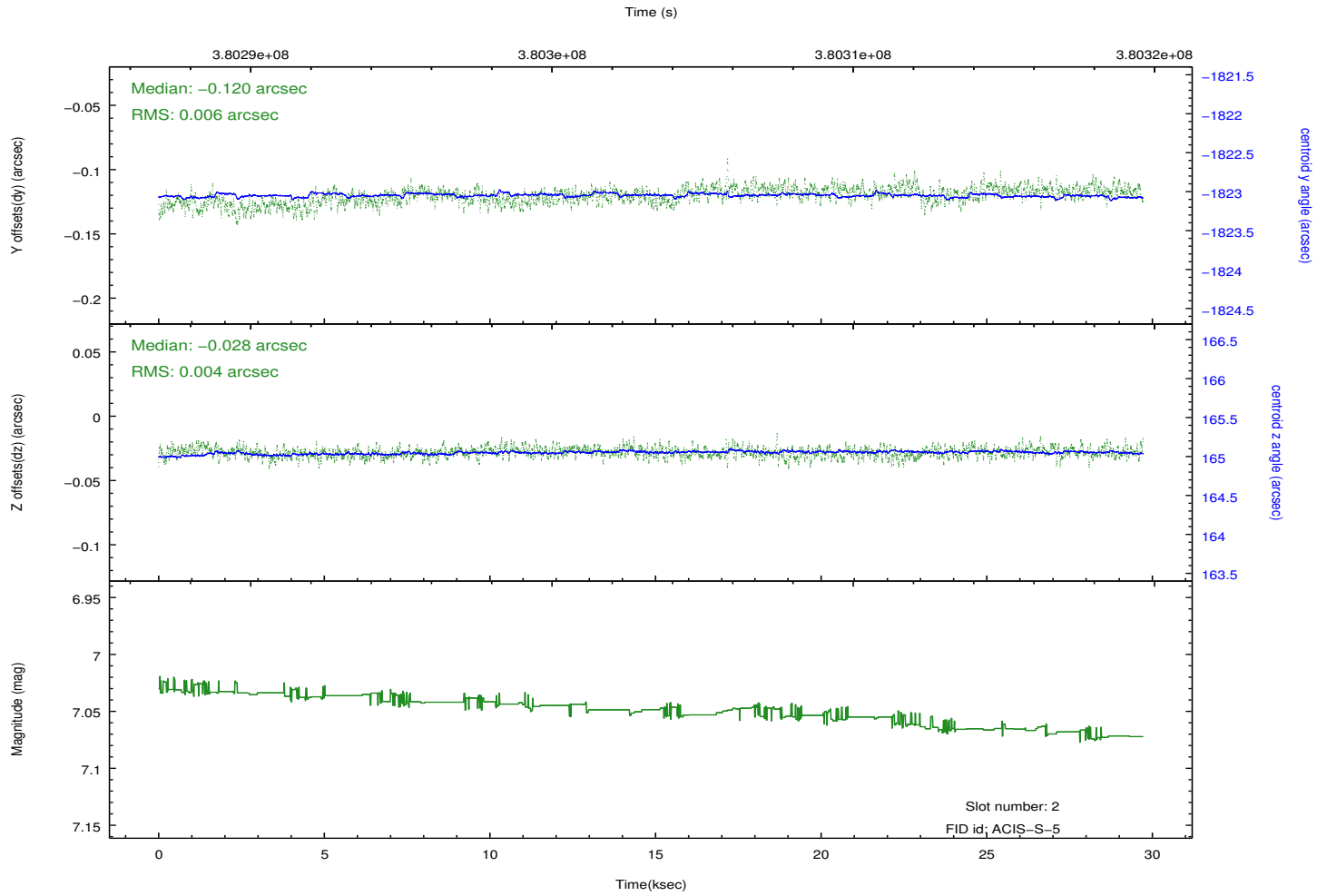
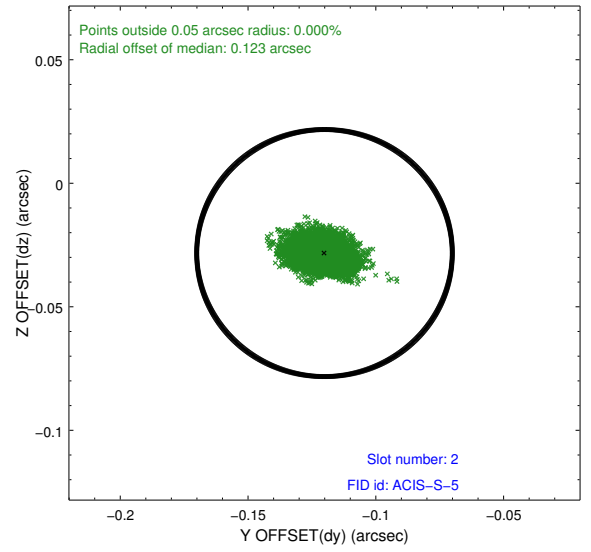
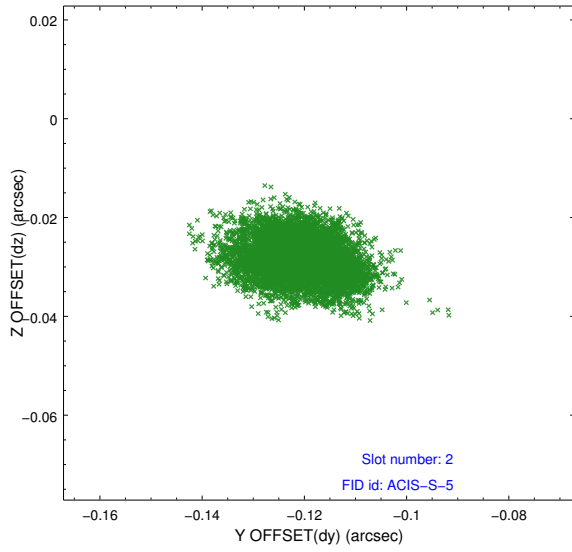
### 2.5.1 Slot 0



## 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)	2012.06.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.039999891877

## A.2 Comments

Joint Proposal: NRAO