

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3461 - L2 Version 3  
Chandra X-Ray Center

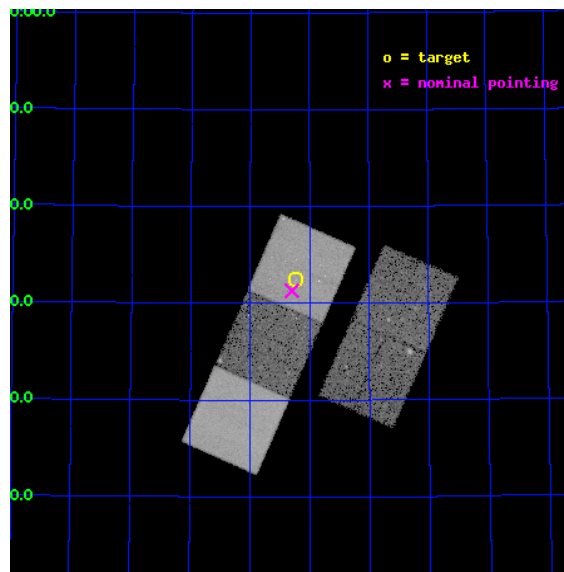
L2 Processing Date : Nov 4 2012

## 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

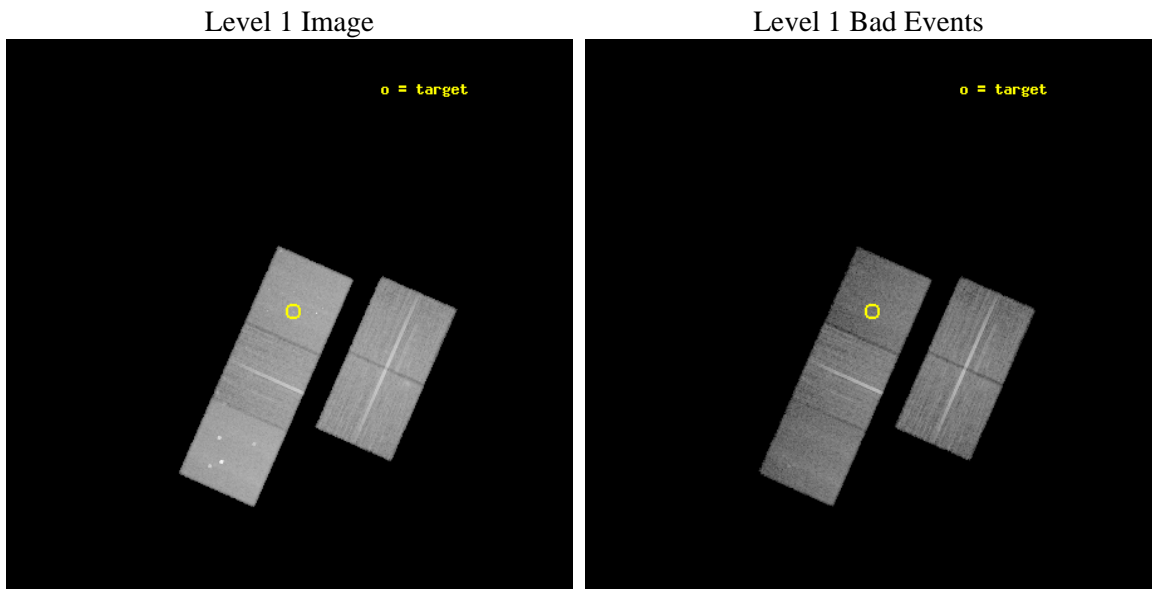
seq_num	800295	Sequence number
obs_id	3461	Observation id
title	THE HOST GALAXIES OF TIME DELAY LENSES: AN INDEPENDENT ROUTE TO THE HUBBLE CONSTANT	Proposal title
observer	Prof. Christopher Kochanek	Principal investigator
object	B1608+656	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	242.308333	Observer's specified target RA [deg]
dec_targ	65.541389	Observer's specified target Dec [deg]
ra_nom	242.32467989455	Nominal RA [deg]
dec_nom	65.521760699578	Nominal Dec [deg]
roll_nom	293.81681499159	Nominal Roll [deg]
revision	3	Processing version of data
ontime	30110.299942076	Sum of GTIs [s]
livetime	29716.886706453	Livetime [s]
ontime2	30100.877151042	Sum of GTIs [s]
ontime3	30094.595080882	Sum of GTIs [s]
ontime5	30110.299942076	Sum of GTIs [s]
ontime6	30107.158971846	Sum of GTIs [s]
ontime7	30110.299942076	Sum of GTIs [s]
l2events	219757	Number of level 2 events



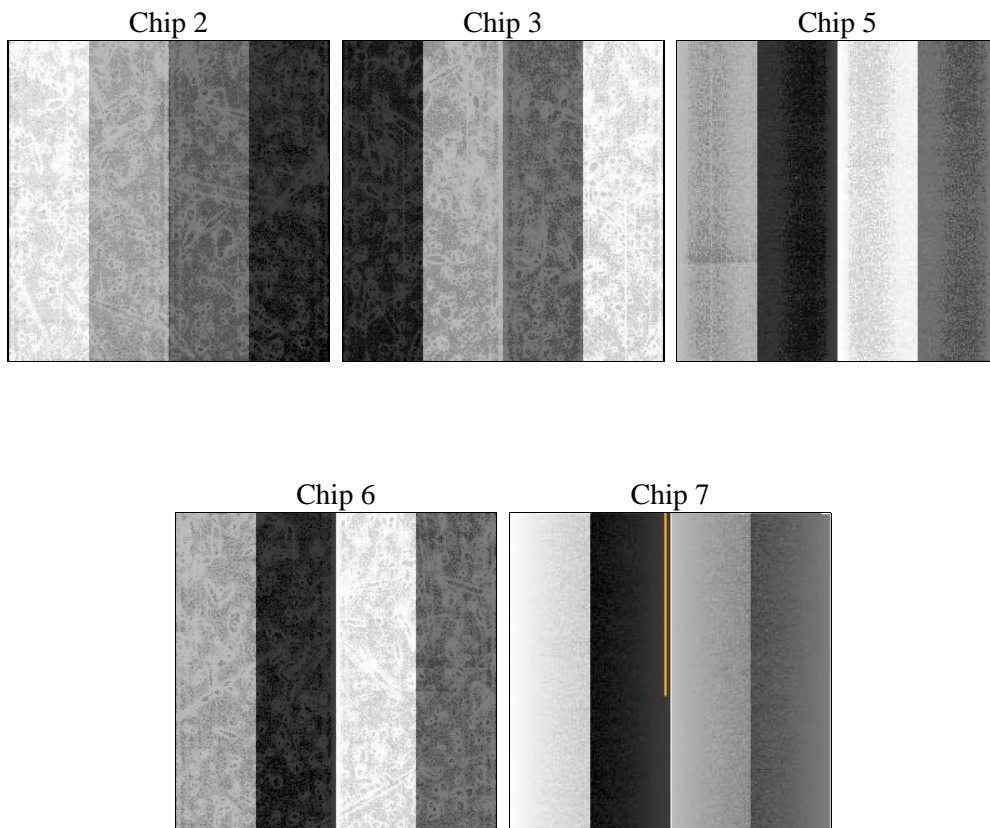
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	30110.299942076	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime2	30100.877151042	Sum of GTIs [s]
date	2012-11-04T11:46:11	Date and time of file creation	ontime3	30094.595080882	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	30110.299942076	Sum of GTIs [s]
			ontime6	30107.158971846	Sum of GTIs [s]
			ontime7	30110.299942076	Sum of GTIs [s]
			l1events	920583	Number of level 1 events

### 2.1.4 Events

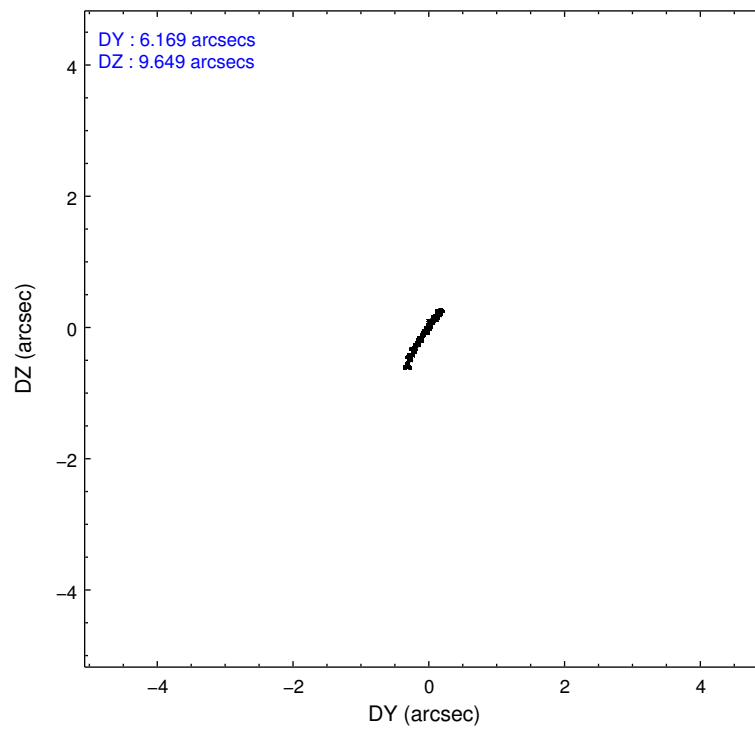
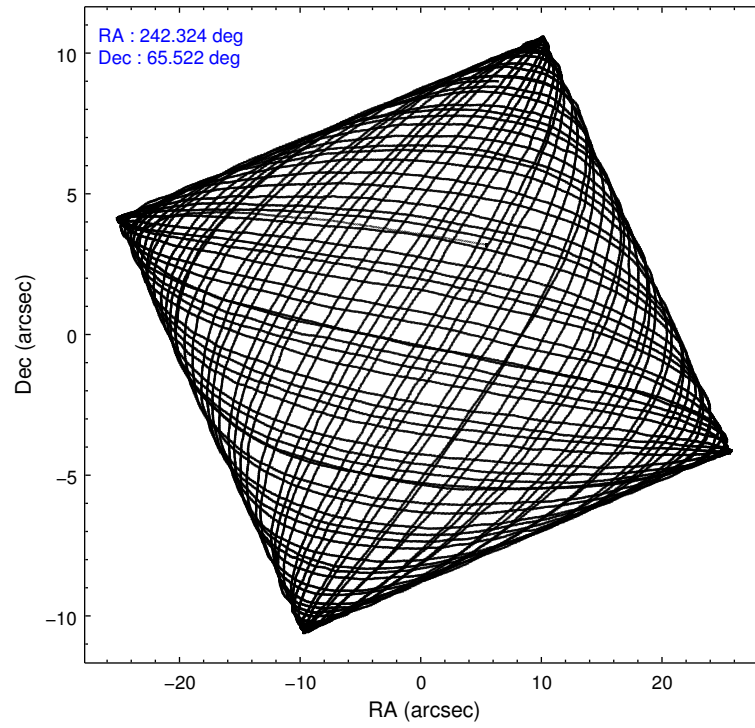
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	171594	165185	230047	168006	185751
rejected events	155826	150195	117258	151351	103158
rejected %	90%	90%	50%	90%	55%

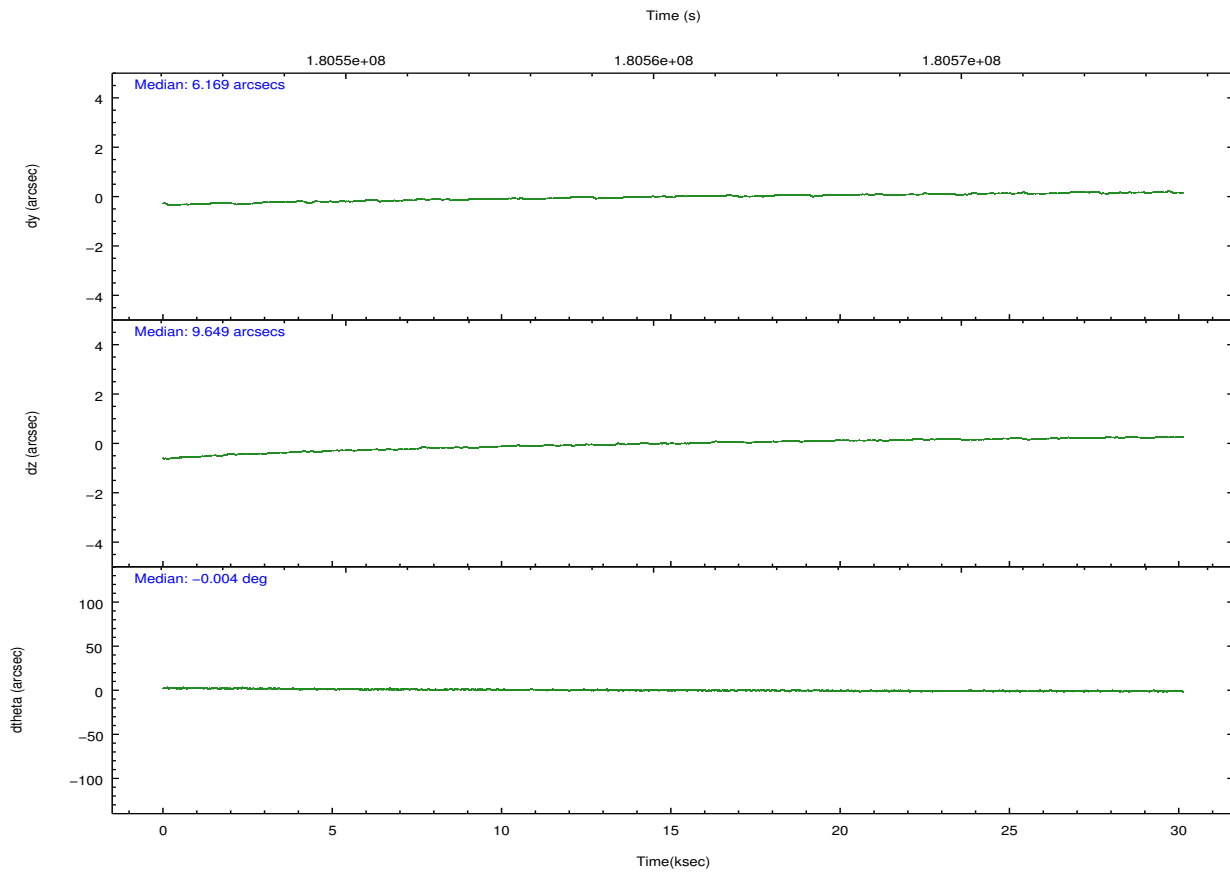
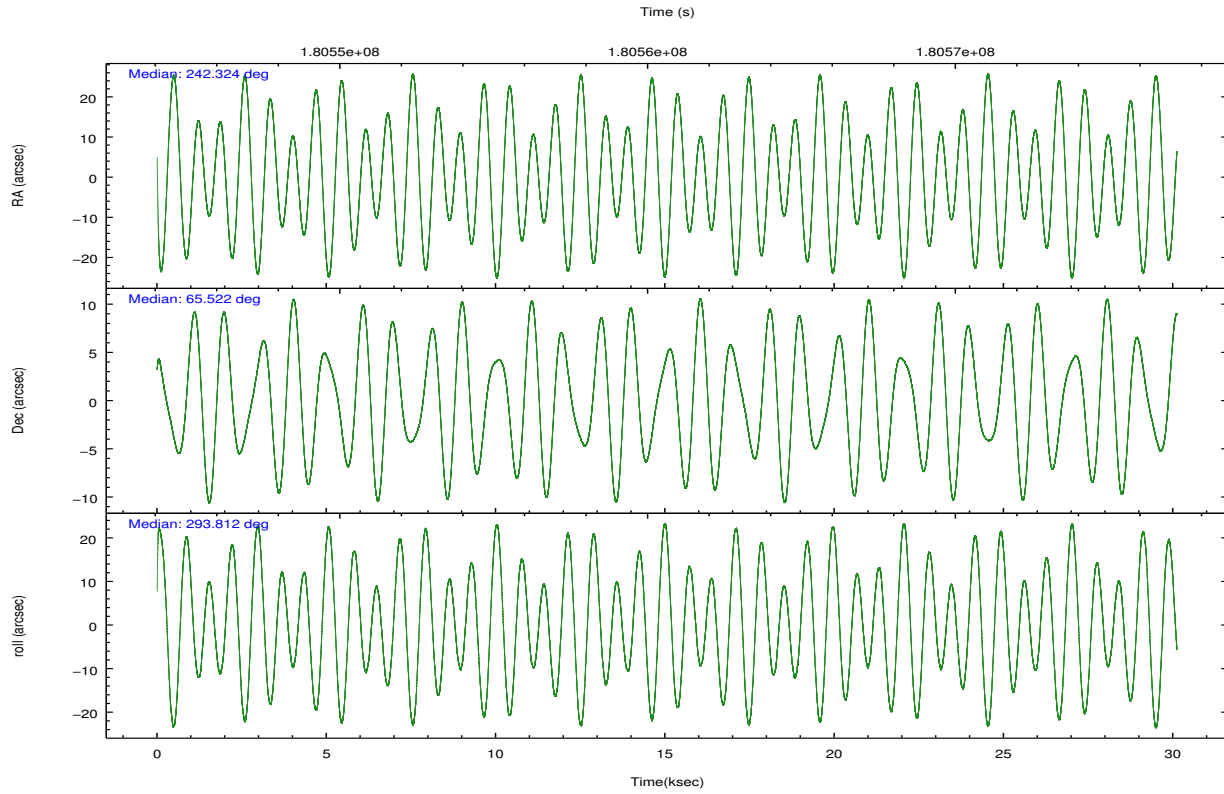
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	5887	5327	17280	6003	8038
	3%	3%	7%	3%	4%
grade 1 events	87	75	270	71	168
	0%	0%	0%	0%	0%
grade 2 events	3784	3249	32213	3640	17104
	2%	1%	14%	2%	9%
grade 3 events	1845	1895	4903	1989	8095
	1%	1%	2%	1%	4%
grade 4 events	1768	1820	4743	1912	8048
	1%	1%	2%	1%	4%
grade 5 events	5321	6405	18081	6546	19163
	3%	3%	7%	3%	10%
grade 6 events	2943	3139	57319	3582	43634
	1%	1%	24%	2%	23%
grade 7 events	149959	143275	95238	144263	81501
	87%	86%	41%	85%	43%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	242.271096	242.3246798945466	Subarray requested	NONE	NONE
[deg] Pointing Dec	65.537547	65.52176069957791	Alternating exposures requested	N	N
[deg] Pointing Roll	293.708961	293.8168149915923	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	180545693.184000	180544297.0444			
Observation start date	2003-09-21T15:33:49	2003-09-21T15:11:37			
[s] Observation end time (MET)	180575693.184000	180576159.68327			
Observation end date	2003-09-21T23:53:49	2003-09-22T00:02:39			
Read mode	TIMED	TIMED			

## 2.3 Aspect



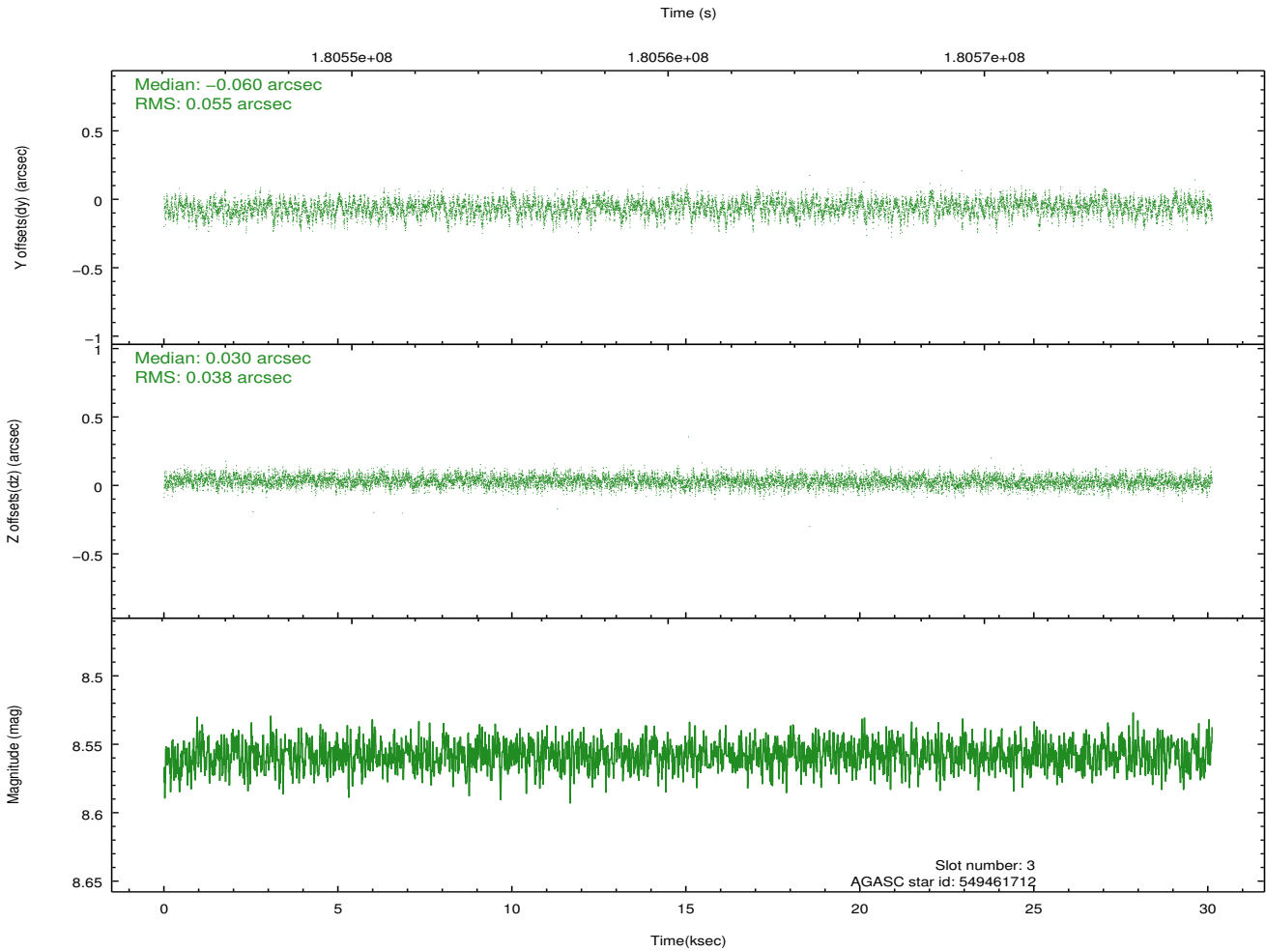
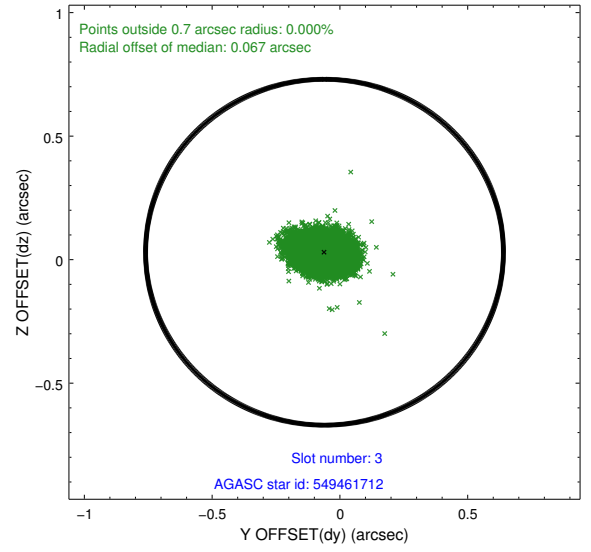
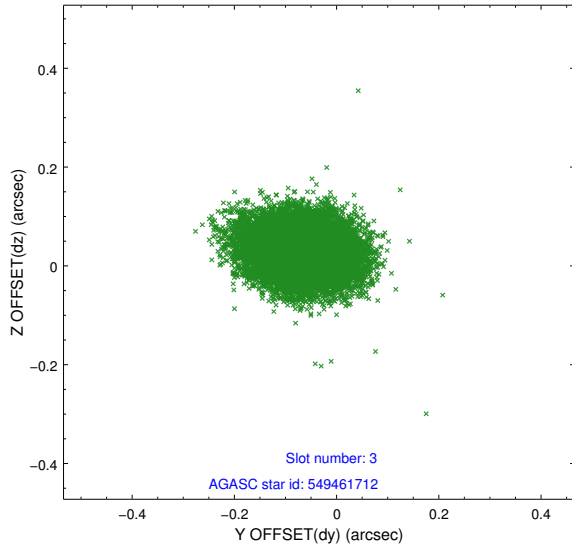


### Slot Statistics

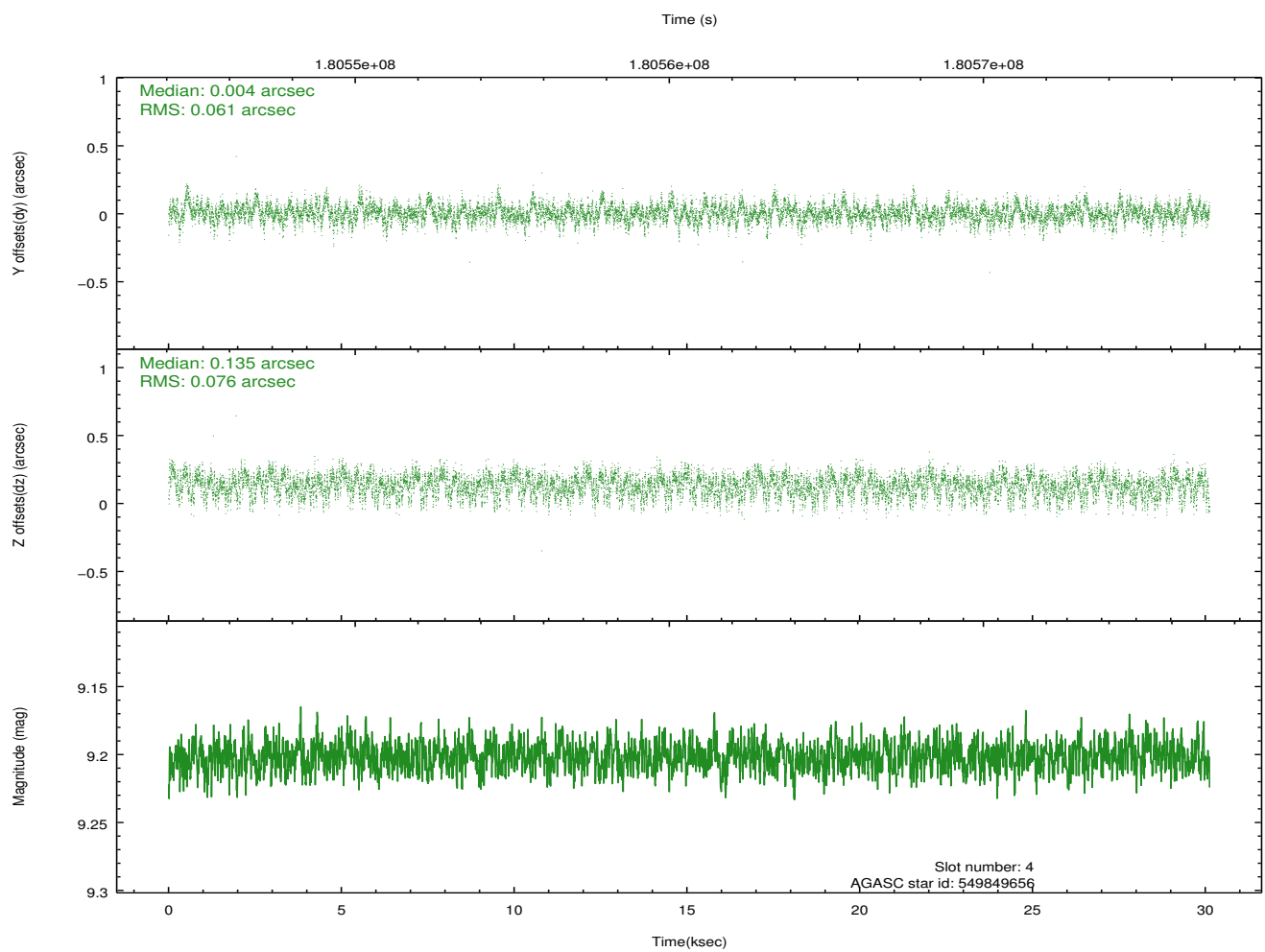
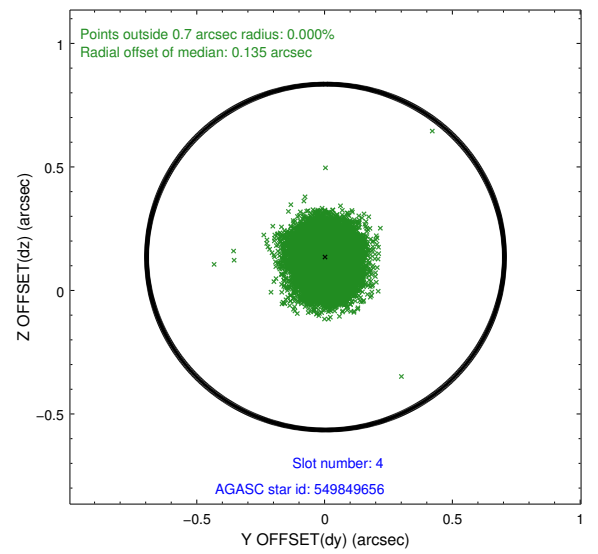
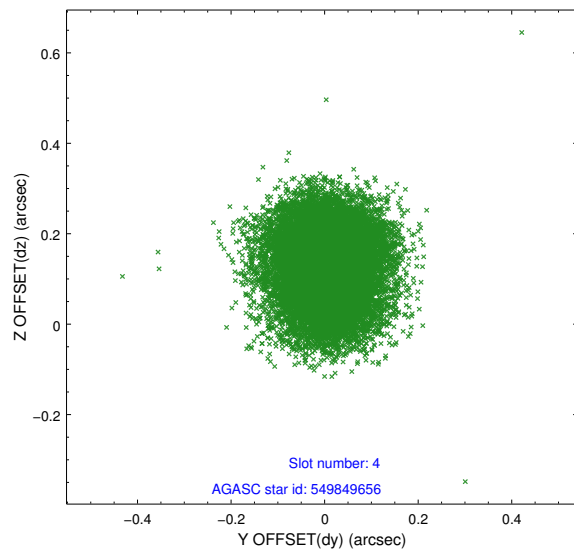
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	7346	-0.053	-0.025	0.008	0.014	0.000000	0.000000	-758.91	-1730.81
1	FID	ACIS-S-4	7.20	7346	0.064	0.032	0.006	0.011	0.000000	0.000000	2154.44	177.66
2	FID	ACIS-S-5	7.23	7346	-0.043	0.001	0.008	0.014	0.000000	0.000000	-1811.66	171.37
3	GUIDE	549461712	8.56	14687	-0.060	0.030	0.070	0.117	242.024311	64.836538	2158.56	-1359.82
4	GUIDE	549849656	9.20	14689	0.004	0.135	0.105	0.167	240.650889	65.694358	-1509.98	-1958.38
5	GUIDE	549855104	9.25	14680	0.115	-0.033	0.082	0.134	242.414078	65.829144	-875.36	615.14
6	GUIDE	549862784	8.90	14684	0.060	-0.146	0.105	0.164	243.335157	66.115006	-1291.73	2261.18
7	GUIDE	549859024	7.85	14692	-0.129	0.019	0.047	0.077	243.777882	65.072262	2427.62	1431.32

## 2.4 Star Slots

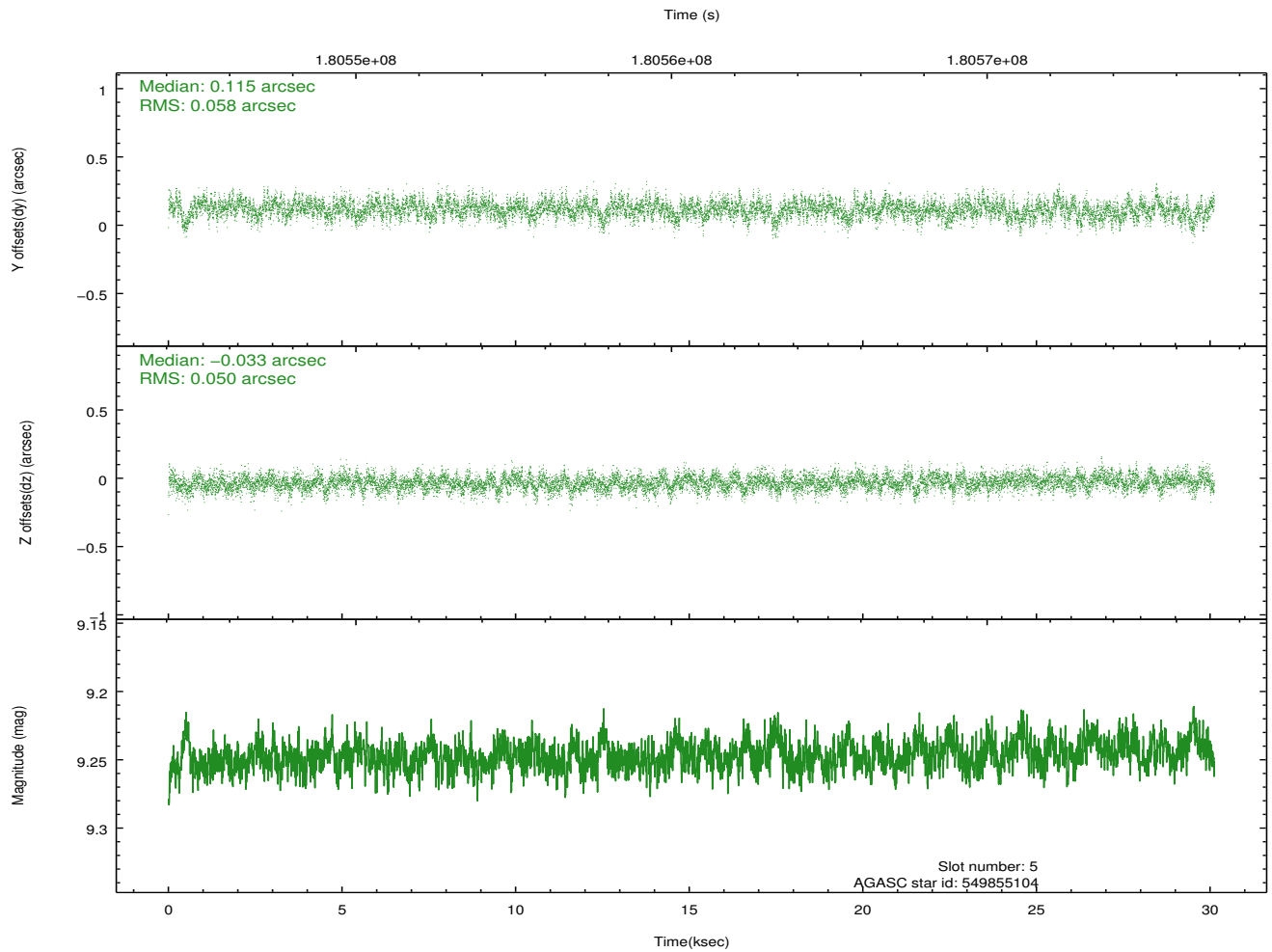
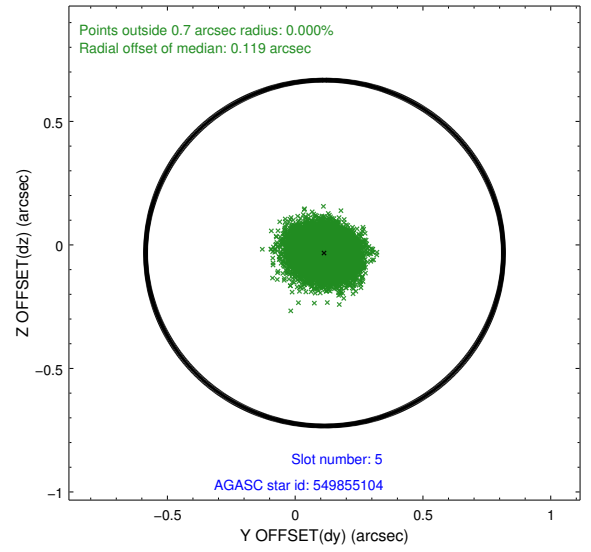
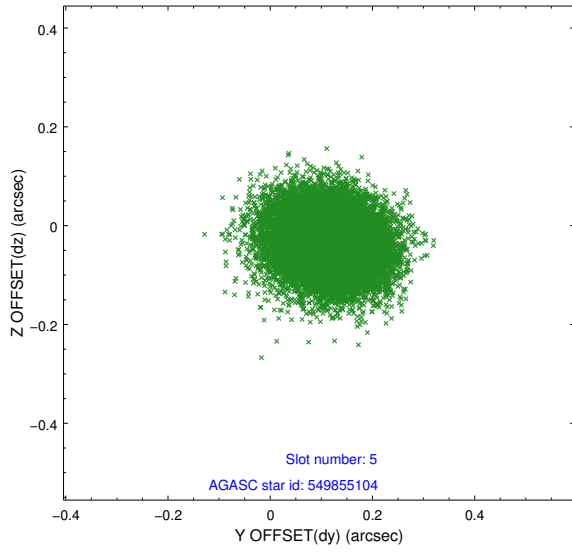
### 2.4.1 Slot 3



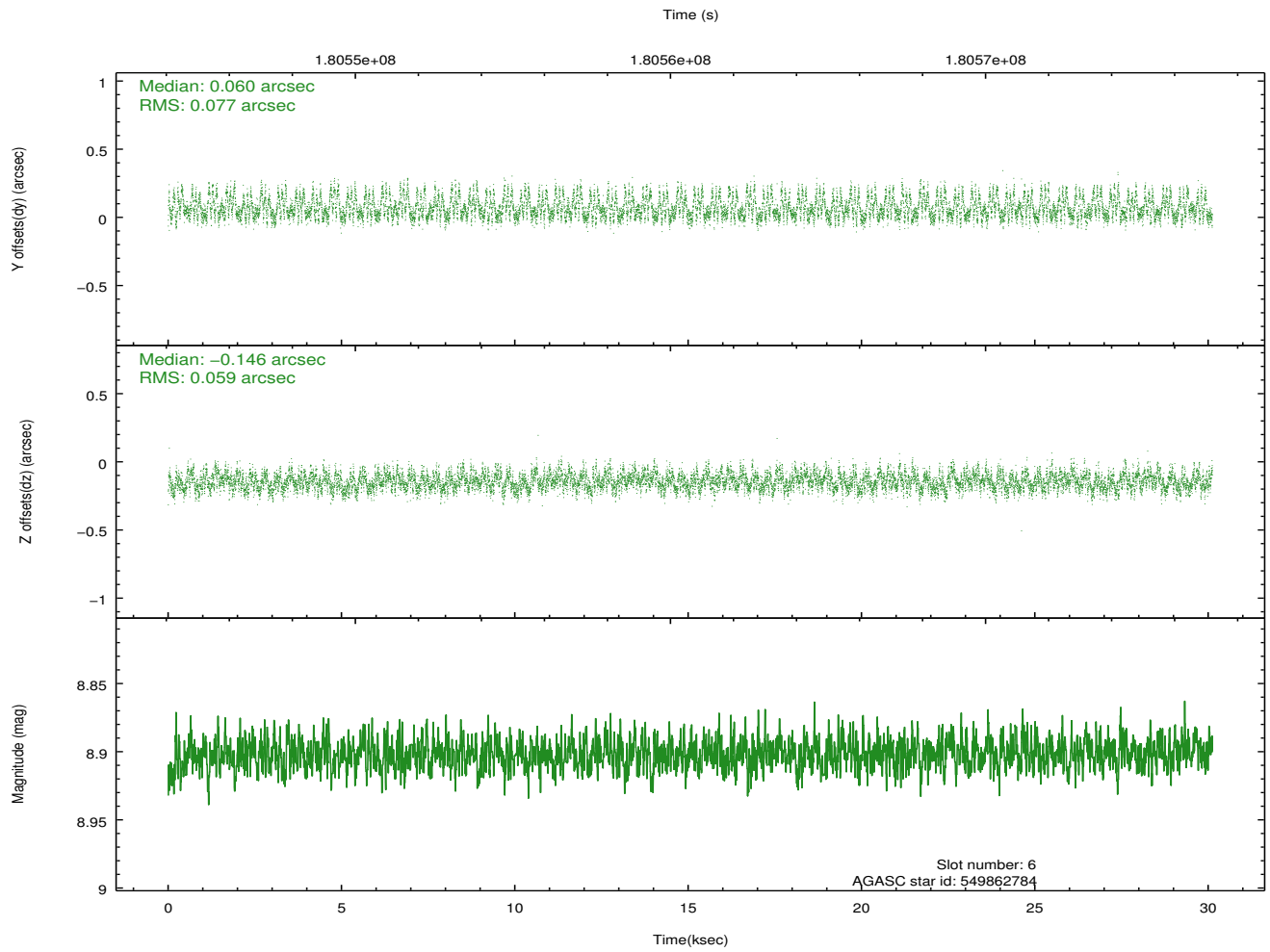
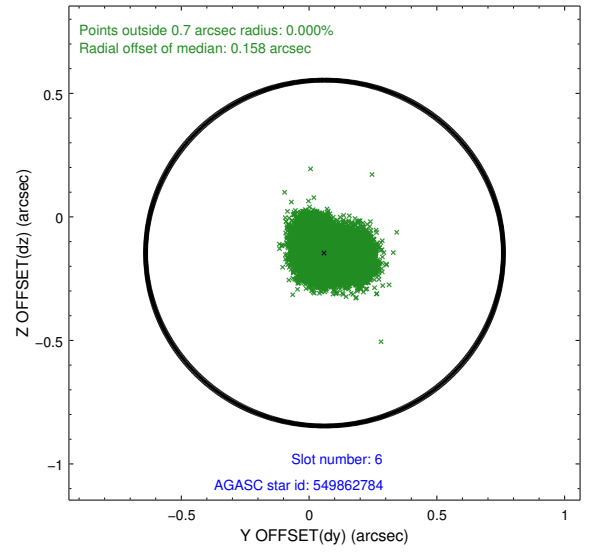
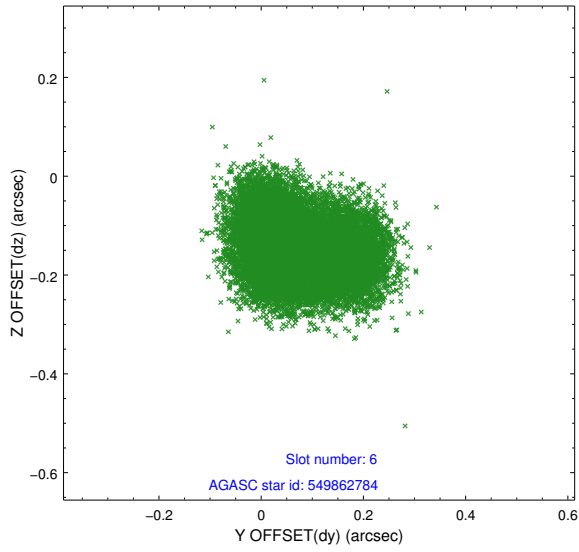
## 2.4.2 Slot 4



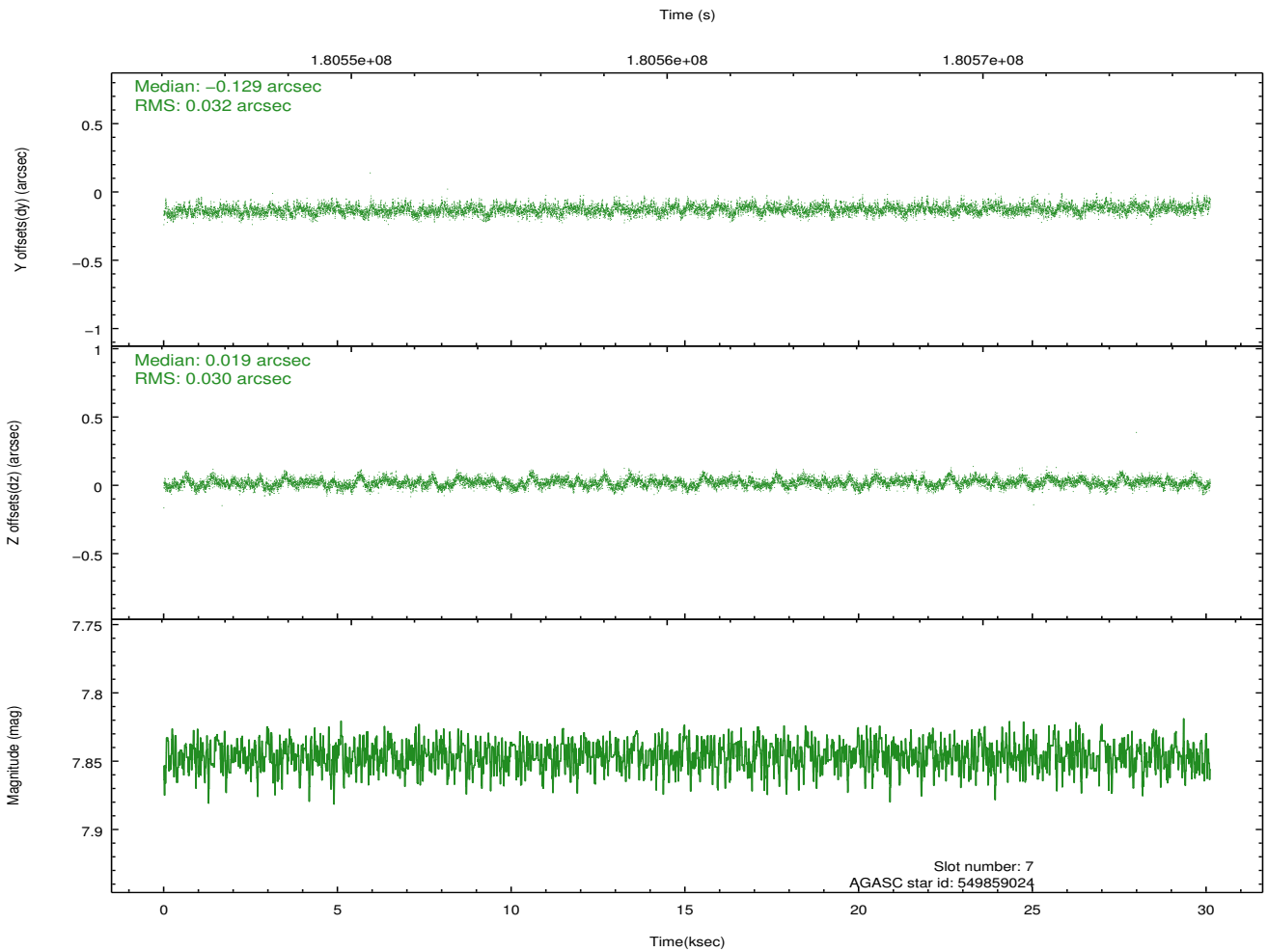
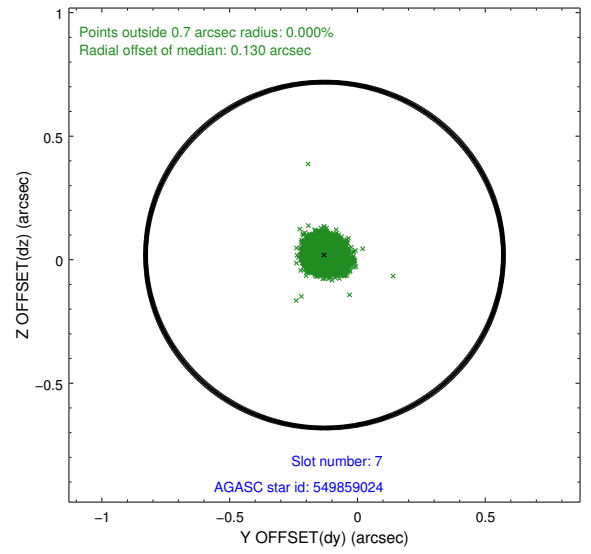
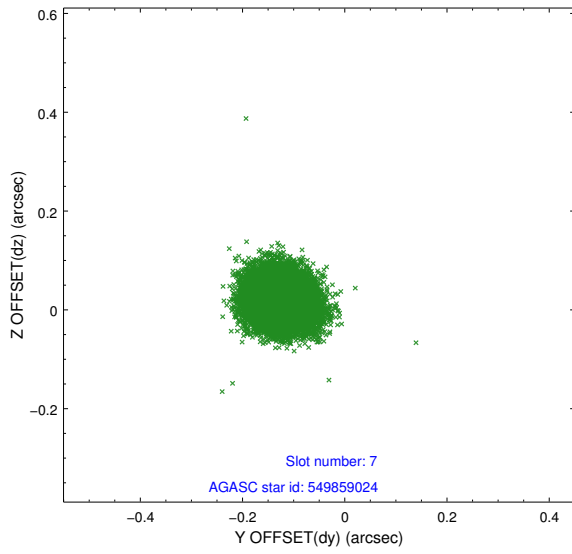
### 2.4.3 Slot 5



### 2.4.4 Slot 6

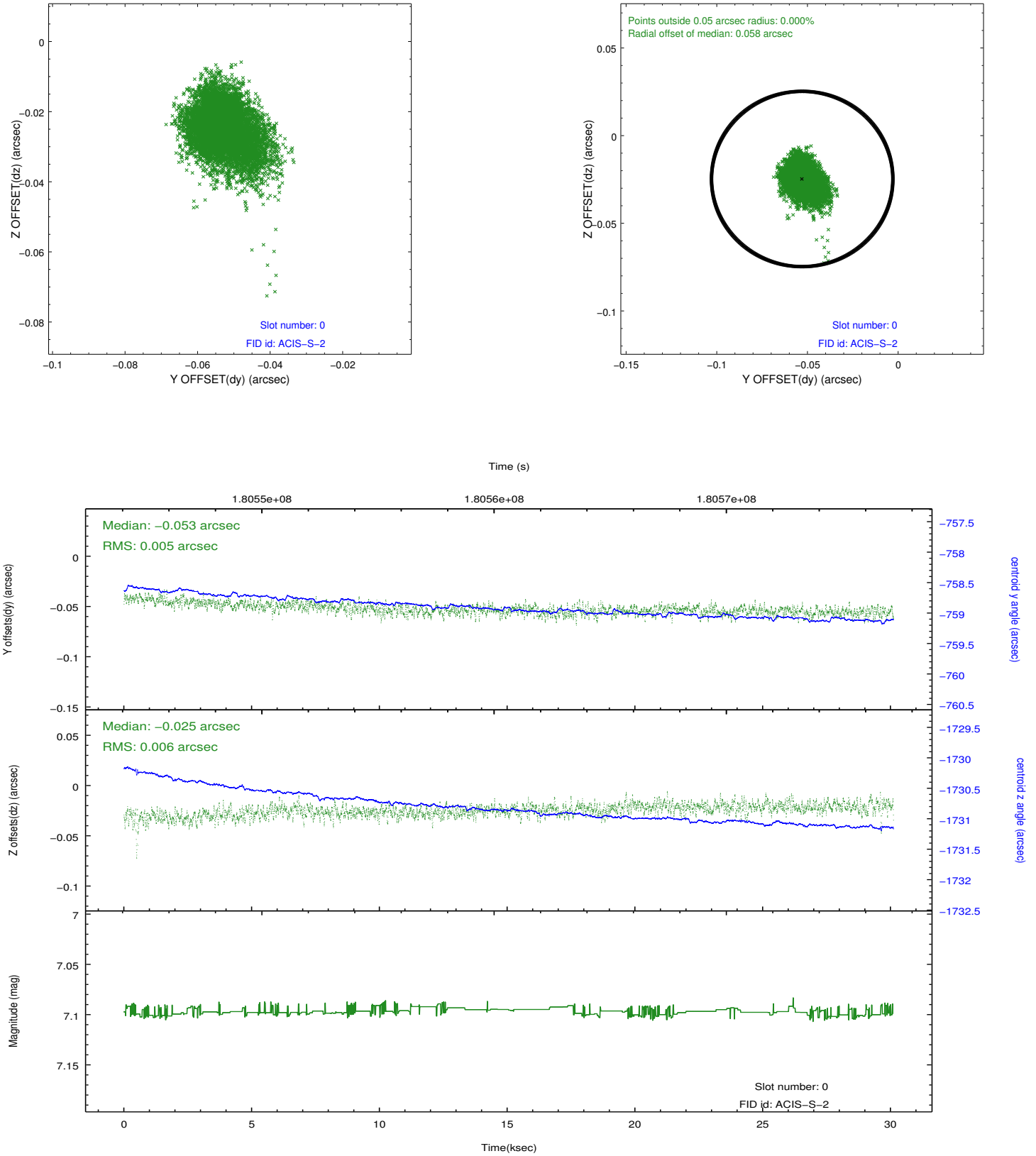


### 2.4.5 Slot 7

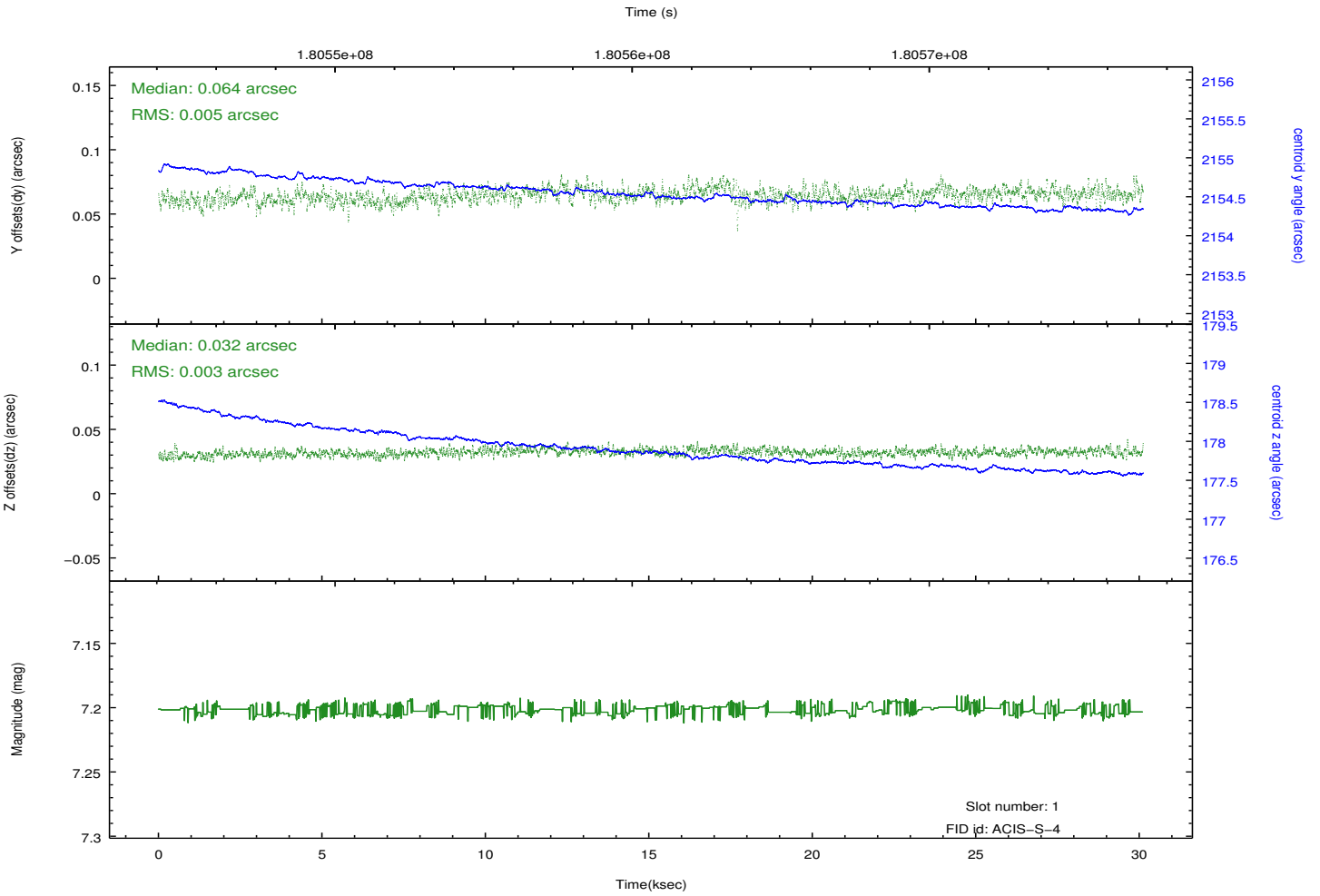
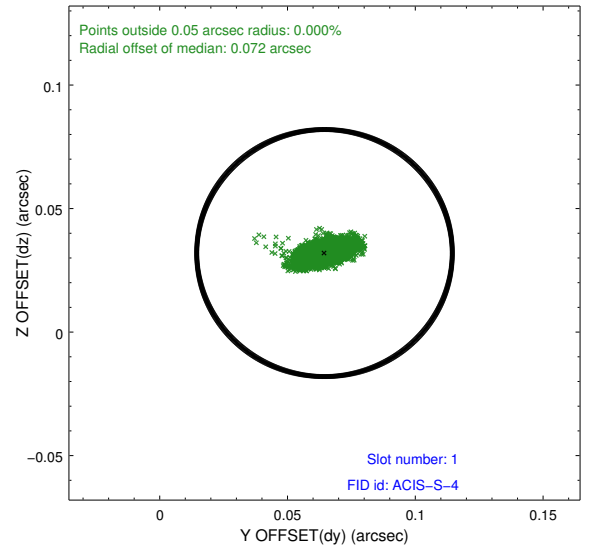
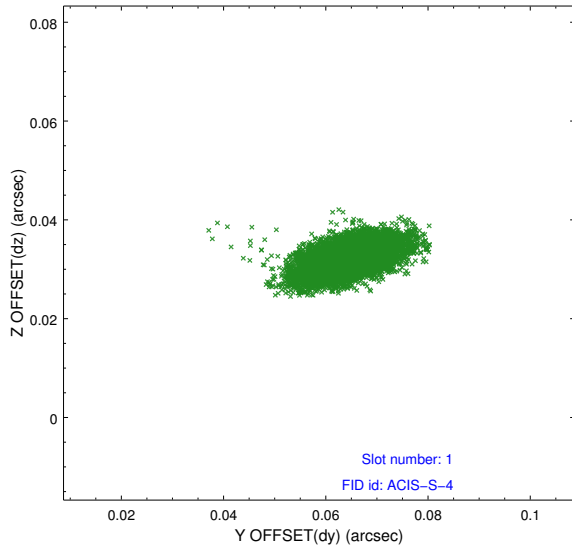


## 2.5 FID Slots

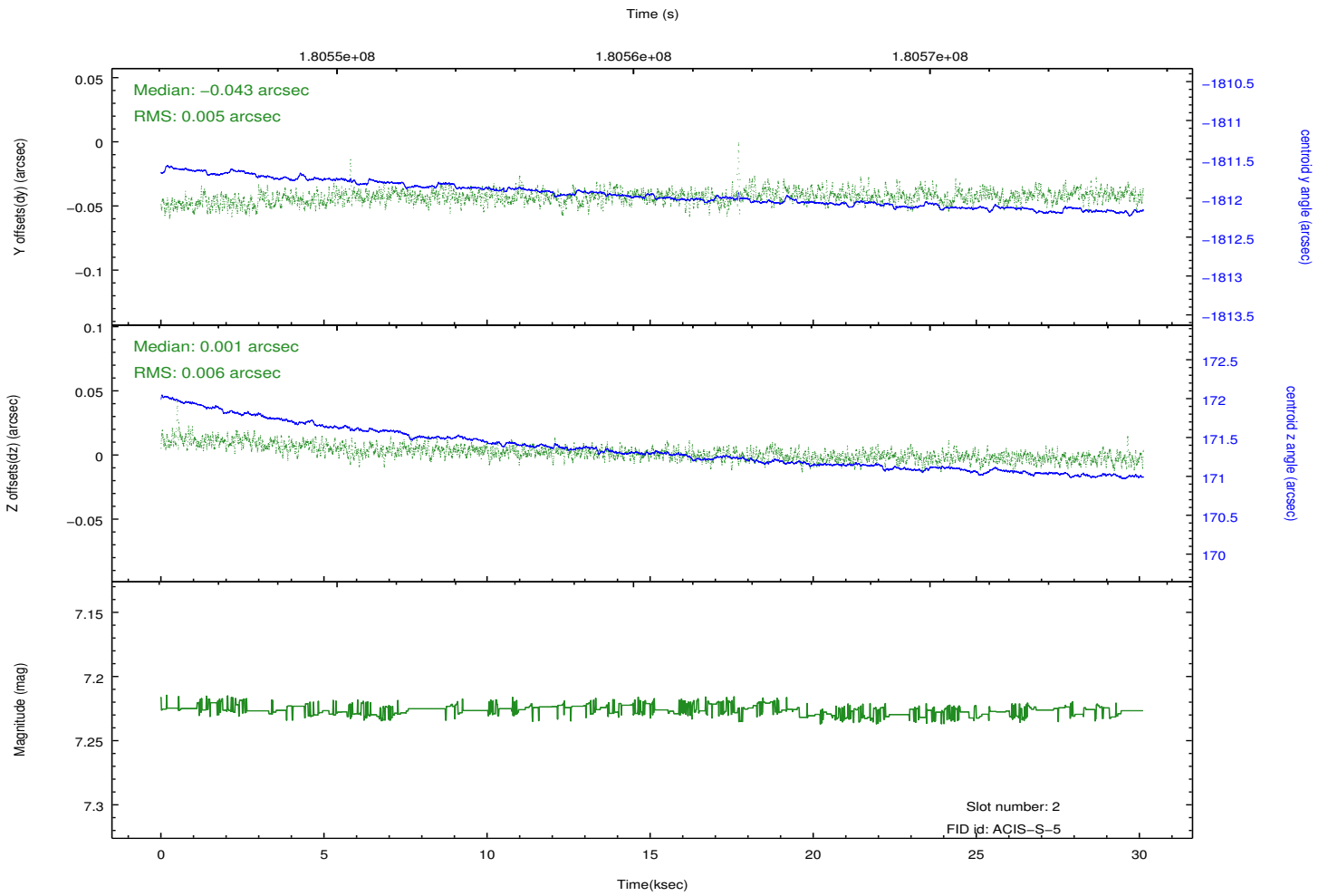
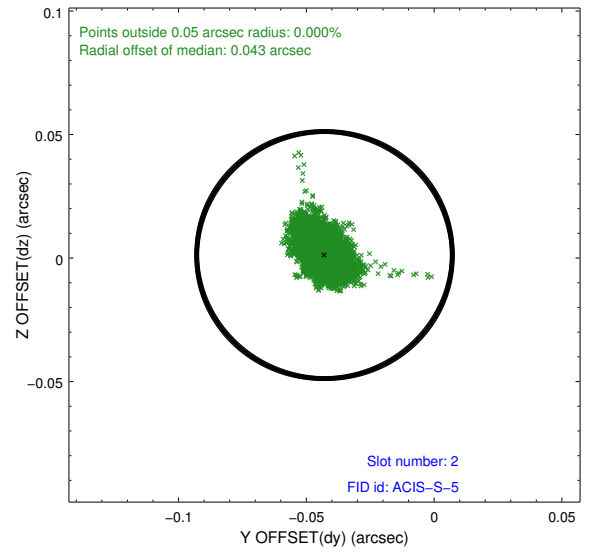
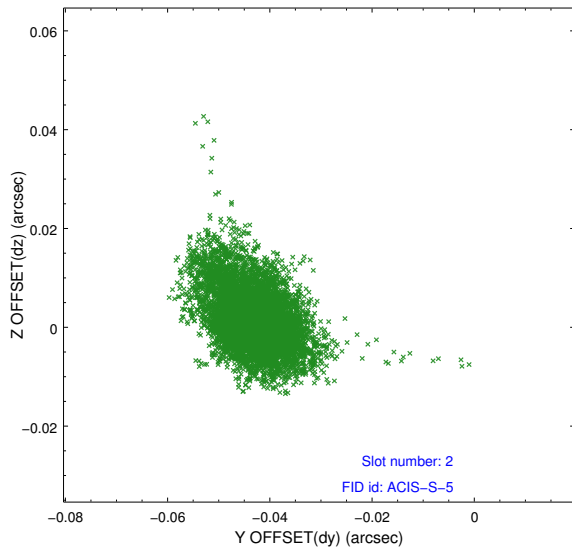
### 2.5.1 Slot 0



## 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)	2012.11.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.11

## A.2 Comments

Joint Proposal: CX0-HST