

# V&V Reference Report

## L2 ASCDS Version : 10.4.2.1

Observation 16695 - L2 Version 1  
Chandra X-Ray Center

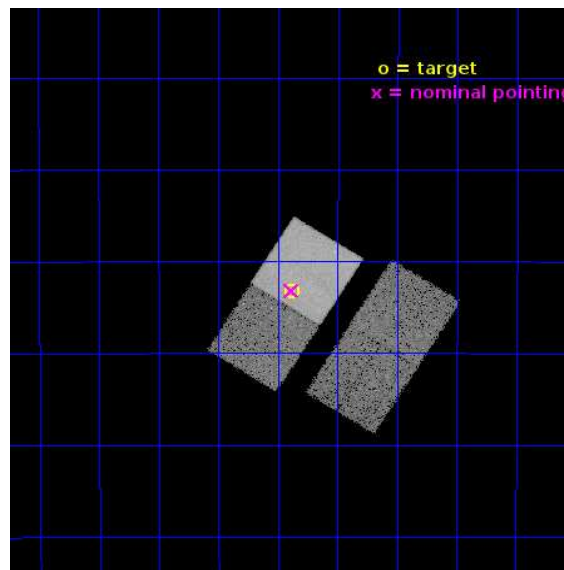
L2 Processing Date : Nov 30 2015

## 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

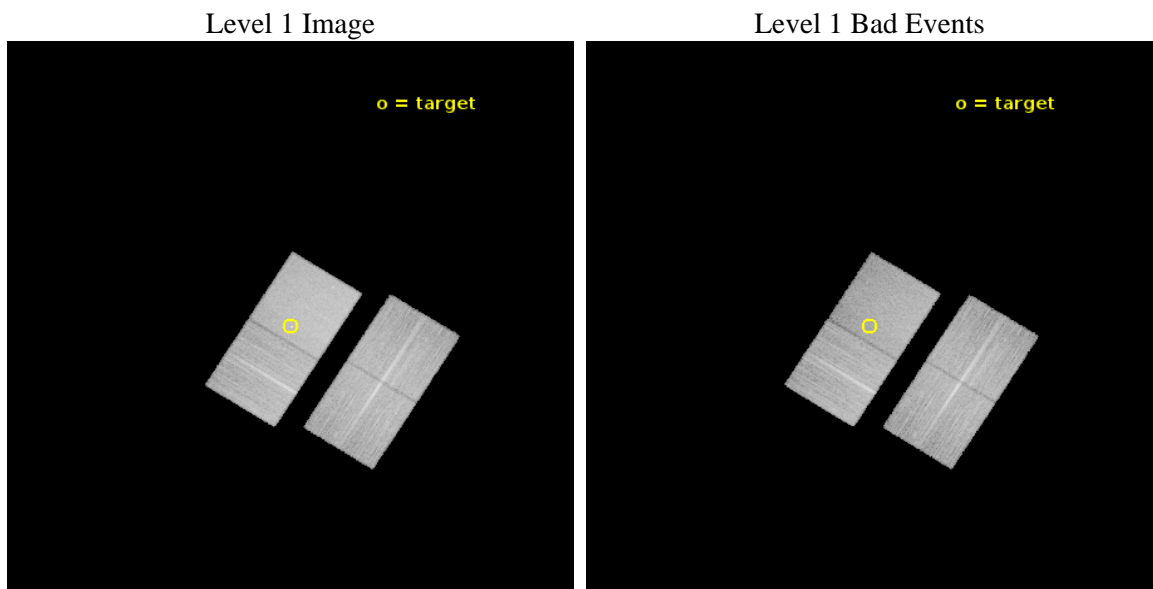
seq_num	401617	Sequence number
obs_id	16695	Observation id
title	Is there an HLX in the Lyman-alpha Galaxy Haro 11?	Proposal title
observer	Dr. Andrea Prestwich	Principal investigator
object	Haro 11	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	9.219583	Observer's specified target RA [deg]
dec_targ	-33.554694	Observer's specified target Dec [deg]
ra_nom	9.2219624538464	Nominal RA [deg]
dec_nom	-33.553357984709	Nominal Dec [deg]
roll_nom	302.15792583509	Nominal Roll [deg]
revision	1	Processing version of data
ontime	25069.700192928	Sum of GTIs [s]
livetime	24742.146103863	Livetime [s]
ontime2	25069.700192928	Sum of GTIs [s]
ontime3	25066.559182644	Sum of GTIs [s]
ontime6	25069.700192928	Sum of GTIs [s]
ontime7	25069.700192928	Sum of GTIs [s]
l2events	121622	Number of level 2 events



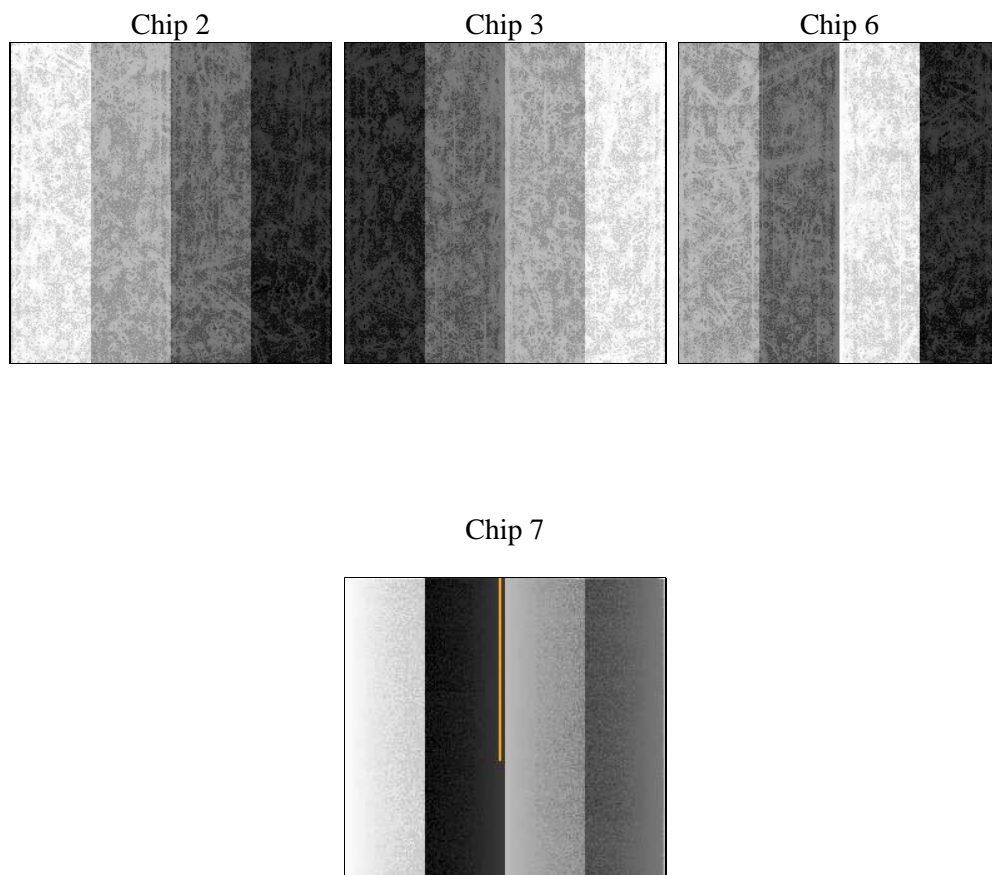
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.2.1	Processing system revision	ontime	25069.700192928	Sum of GTIs [s]
caldsver	4.6.10a	&#160	ontime2	25069.700192928	Sum of GTIs [s]
date	2015-11-30T12:13:22	Date and time of file creation	ontime3	25066.559182644	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	25069.700192928	Sum of GTIs [s]
			ontime7	25069.700192928	Sum of GTIs [s]
			l1events	638186	Number of level 1 events

### 2.1.4 Events

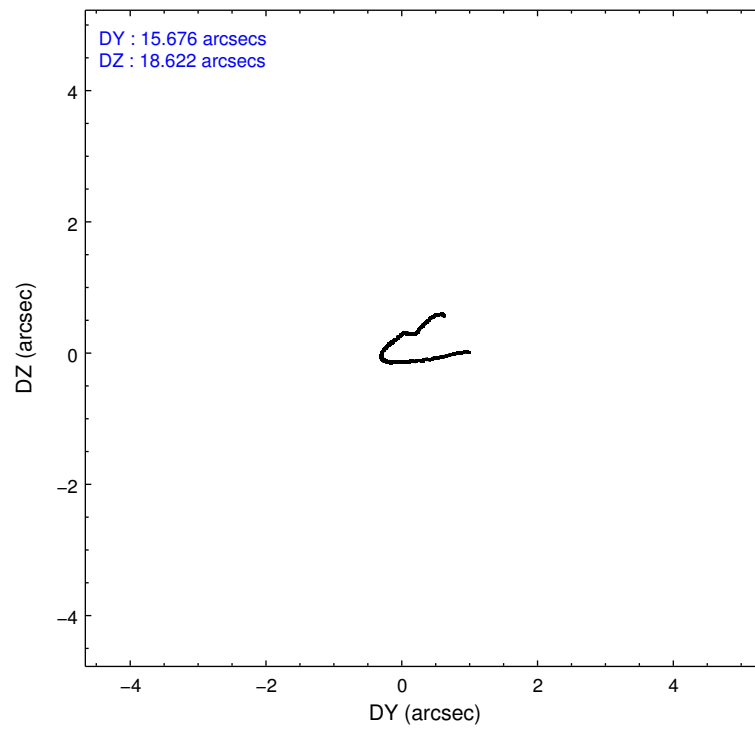
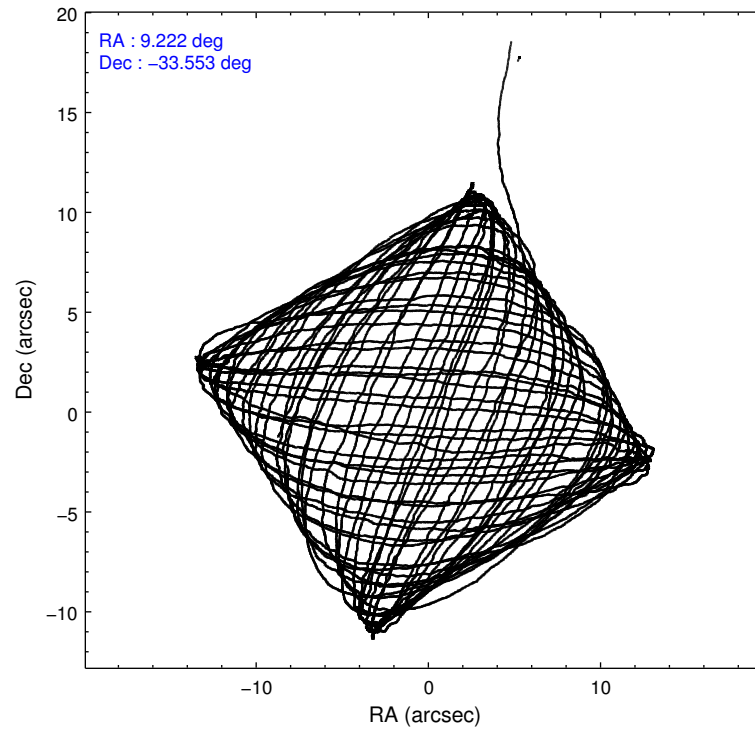
	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	147063	143458	155720	191945
rejected events	131642	128499	138820	109023
rejected %	89%	89%	89%	56%

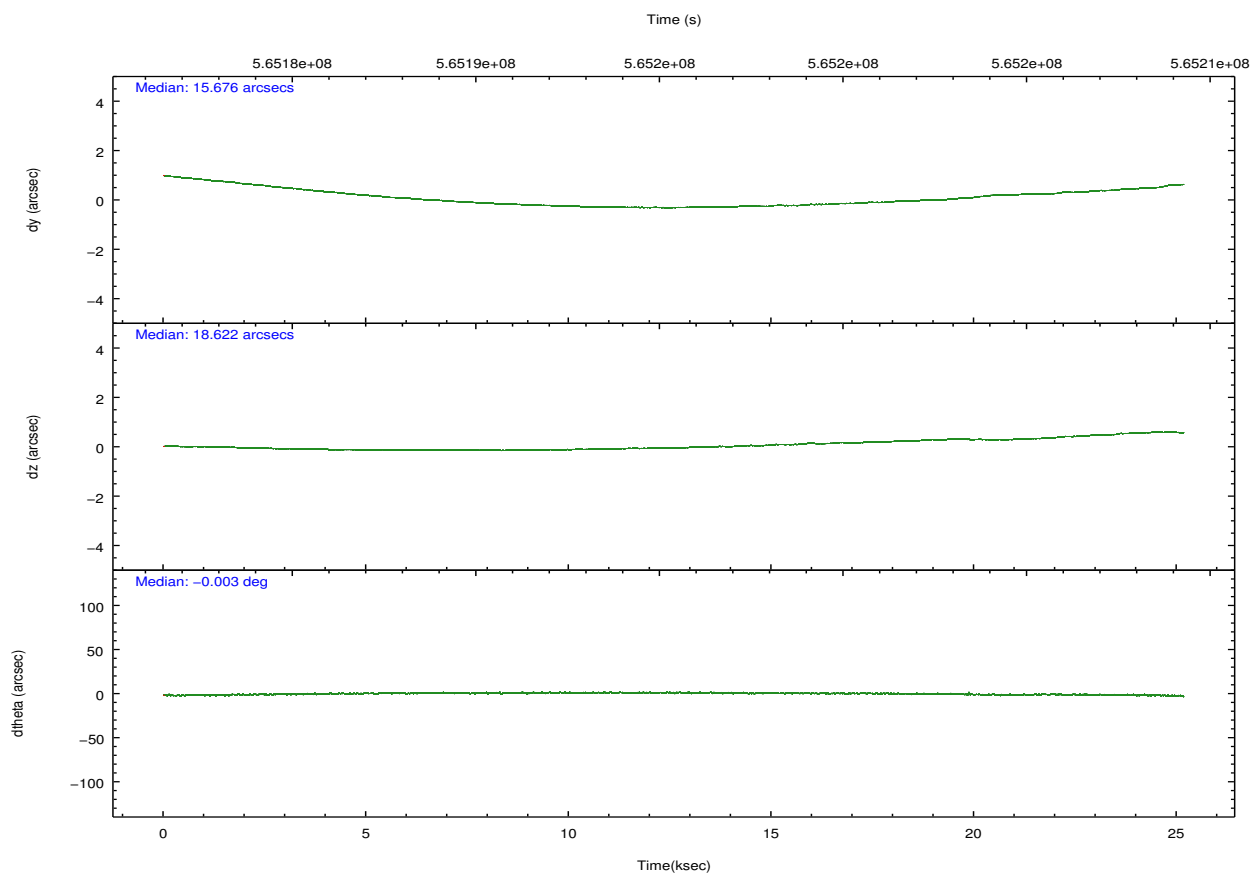
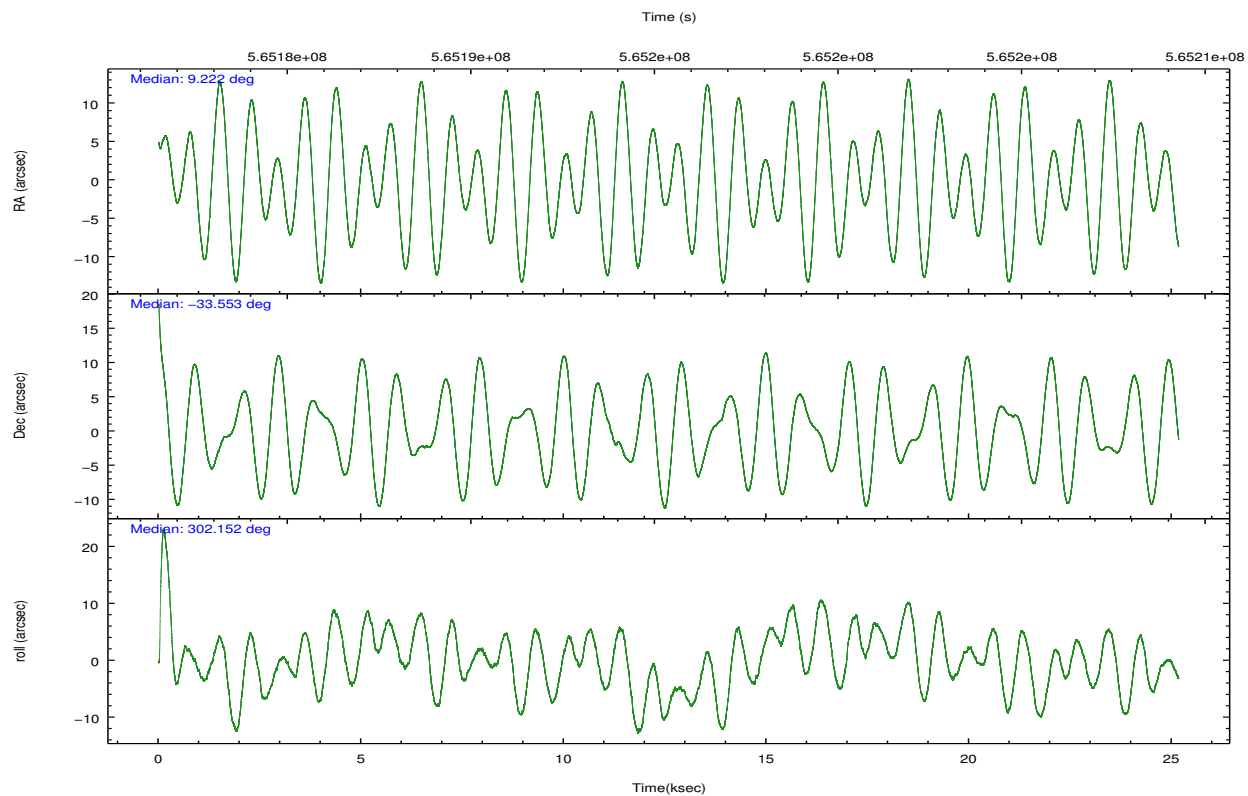
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	5373	4981	5516	7143
	3%	3%	3%	3%
grade 1 events	80	64	65	221
	0%	0%	0%	0%
grade 2 events	3813	3320	4027	17532
	2%	2%	2%	9%
grade 3 events	1486	1657	1689	6411
	1%	1%	1%	3%
grade 4 events	1651	1726	1662	6468
	1%	1%	1%	3%
grade 5 events	5728	7255	7221	18823
	3%	5%	4%	9%
grade 6 events	3102	3276	4006	45381
	2%	2%	2%	23%
grade 7 events	125830	121179	131534	89966
	85%	84%	84%	46%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-2367	ACIS-2367	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	9.192633	9.22196245384642	CCD I2 on	O1	Y
[deg] Pointing Dec	-33.540881	-33.55335798470881	CCD I3 on	O2	Y
[deg] Pointing Roll	301.985112	302.1579258350877	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[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	N	N
[s] Observation start time (MET)	565182970.184000	565182014.13046	CCD S5 on	N	N
Observation start date	2015-11-29T11:15:02	2015-11-29T11:00:14	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	565207970.184000	565208683.09447	On-chip summing requested	N	N
Observation end date	2015-11-29T18:11:42	2015-11-29T18:24:43	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



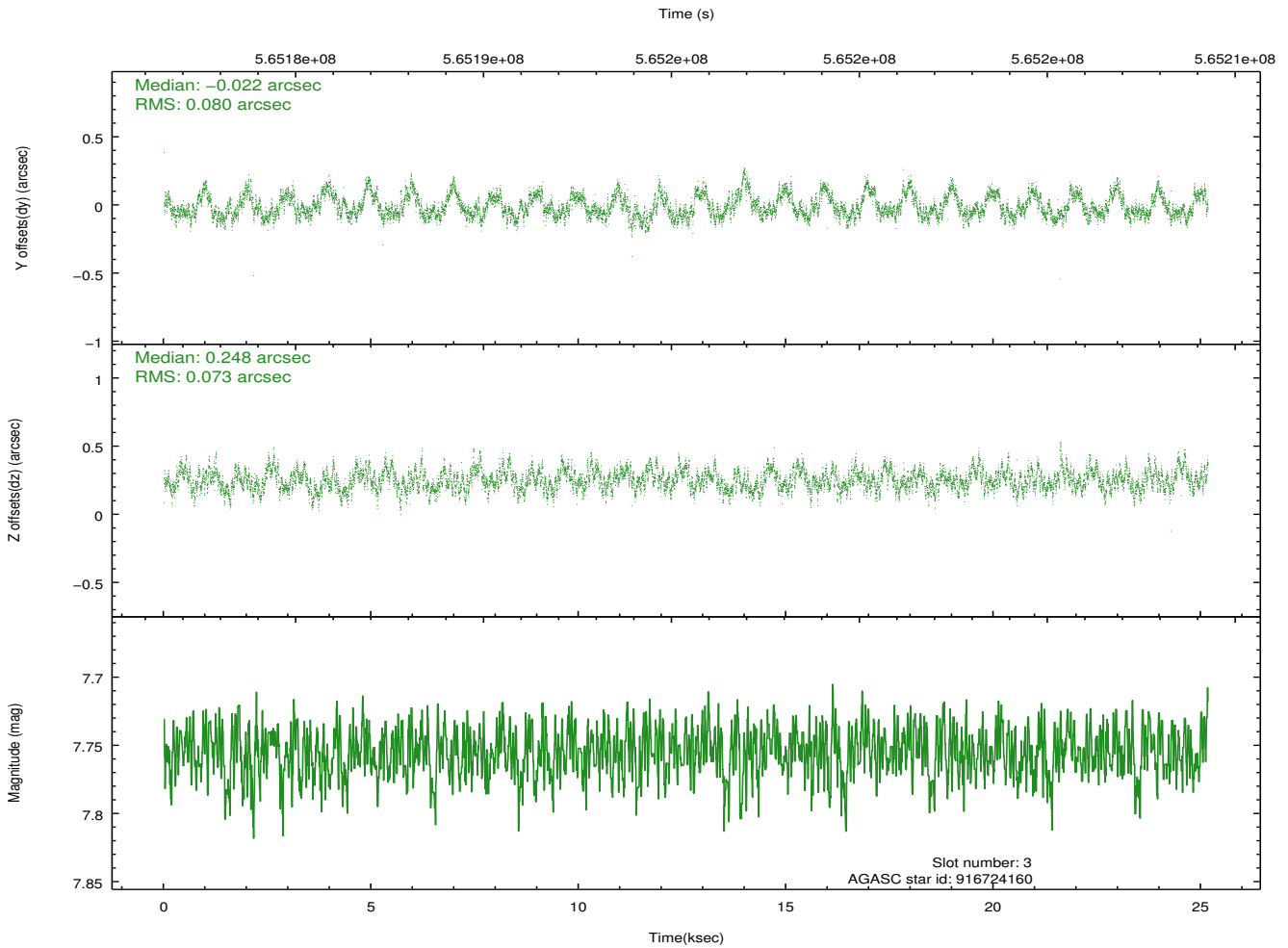
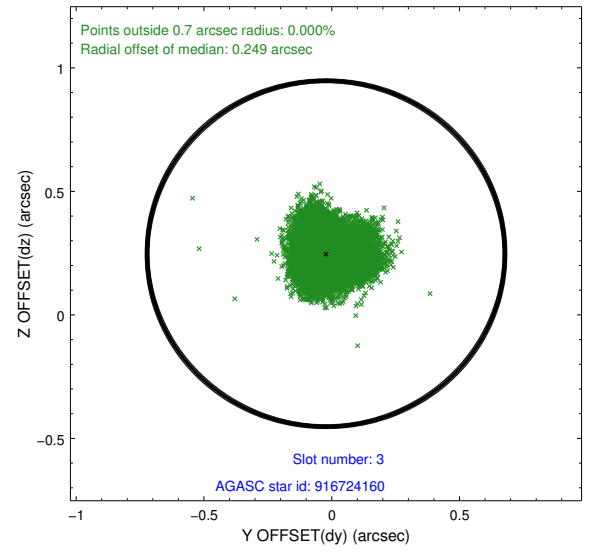
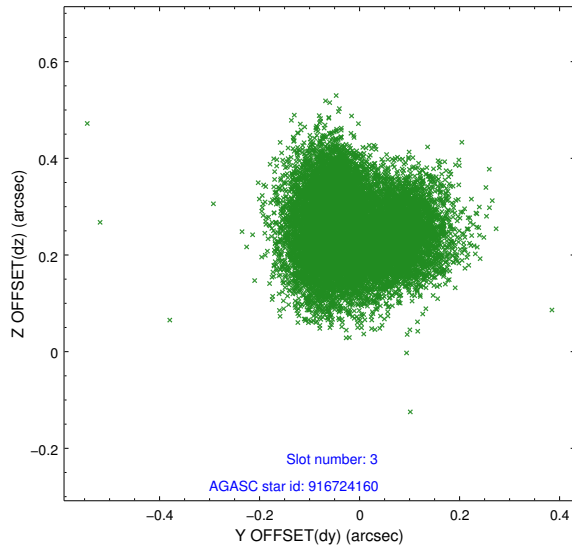


### Slot Statistics

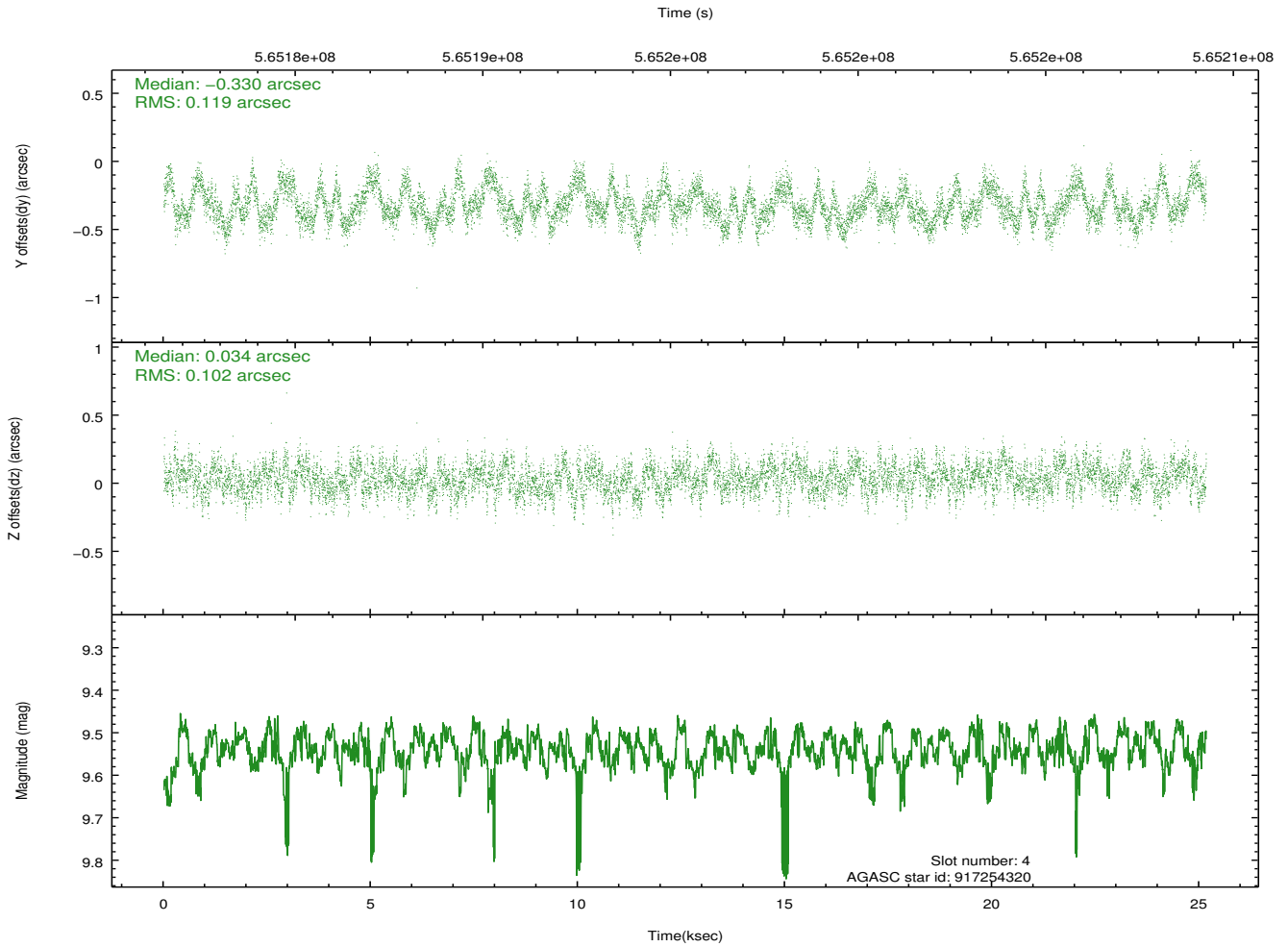
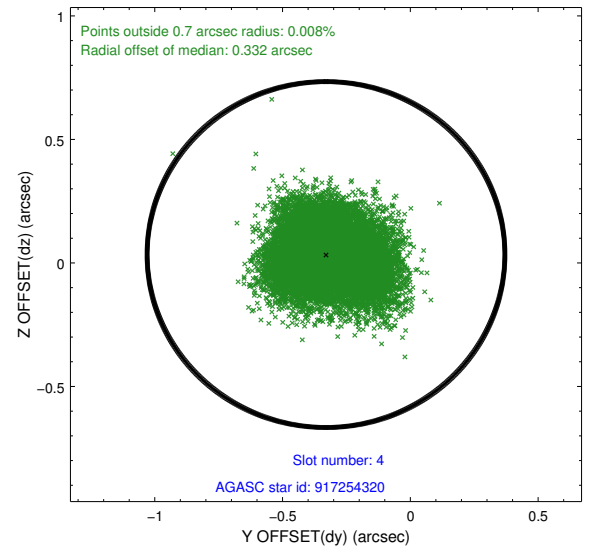
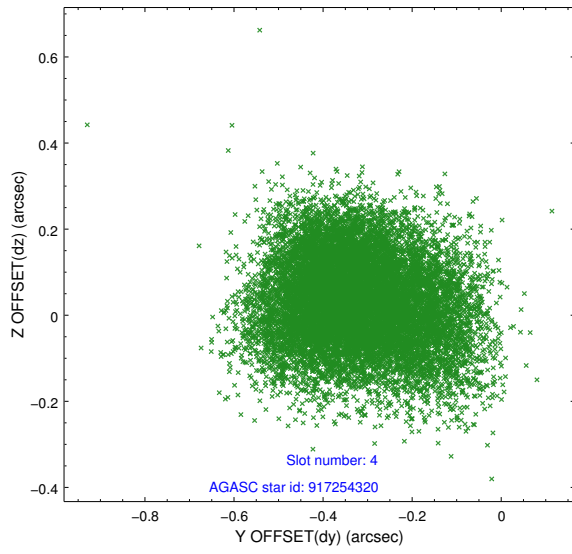
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.12	6138	-0.177	-0.138	0.011	0.019	0.000000	0.000000	-768.95	-1740.26
1	FID		ACIS-S-4	7.22	6138	0.441	0.122	0.008	0.018	0.000000	0.000000	2144.90	168.33
2	FID		ACIS-S-5	7.23	6138	-0.294	0.024	0.010	0.016	0.000000	0.000000	-1821.75	162.07
3	GUIDE	used	916724160	7.76	12275	-0.022	0.248	0.117	0.180	8.470787	-33.411650	-1536.64	-1597.33
4	GUIDE	used	917254320	9.54	12244	-0.330	0.034	0.169	0.268	9.460919	-33.507245	324.66	746.63
5	GUIDE	used	917254864	8.65	12270	-0.355	0.065	0.101	0.163	9.625670	-33.474473	489.74	1228.27
6	GUIDE	used	917255288	9.69	12263	0.458	-0.663	0.194	0.309	9.737859	-33.199627	-167.66	2040.99
7	GUIDE	used	917510464	8.40	12200	0.227	0.317	0.087	0.140	9.054947	-33.896401	868.59	-1026.44

## 2.4 Star Slots

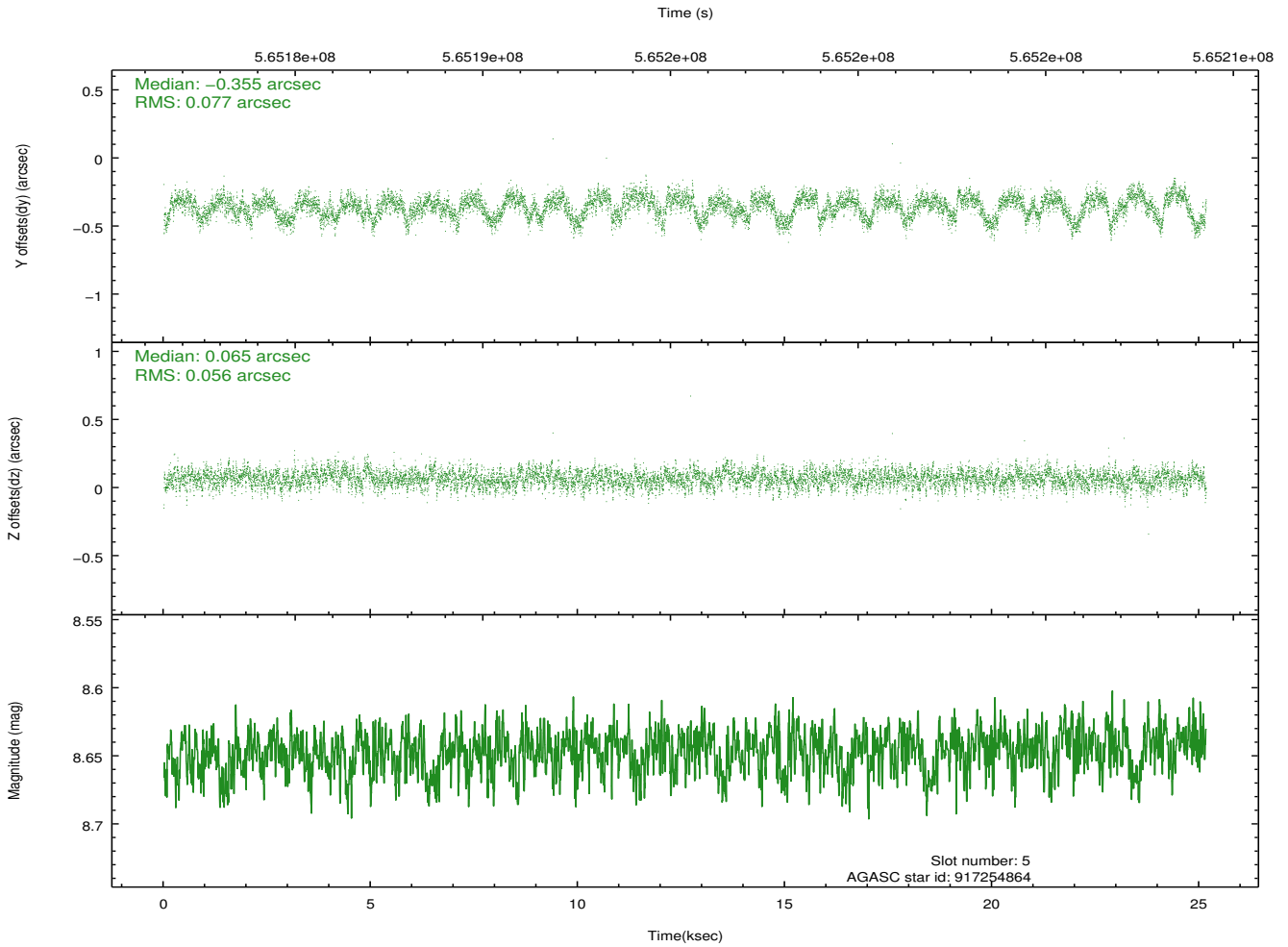
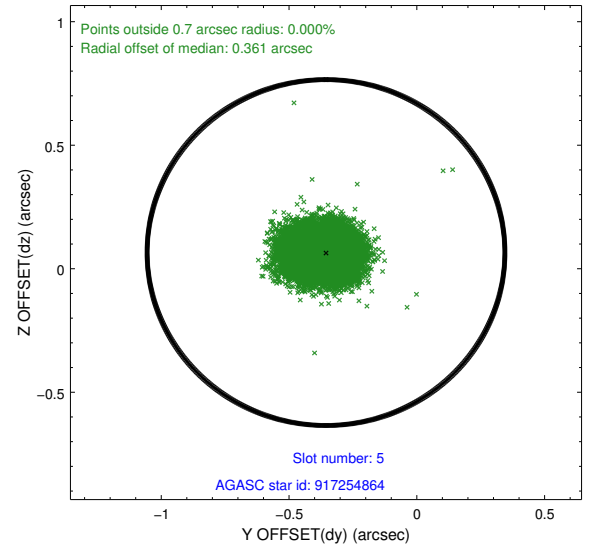
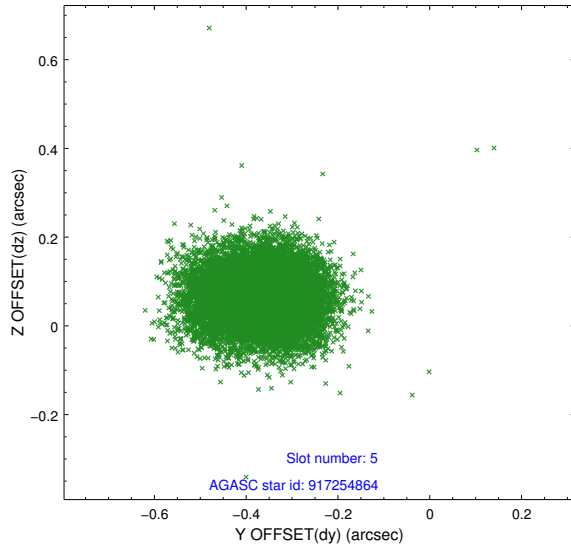
### 2.4.1 Slot 3



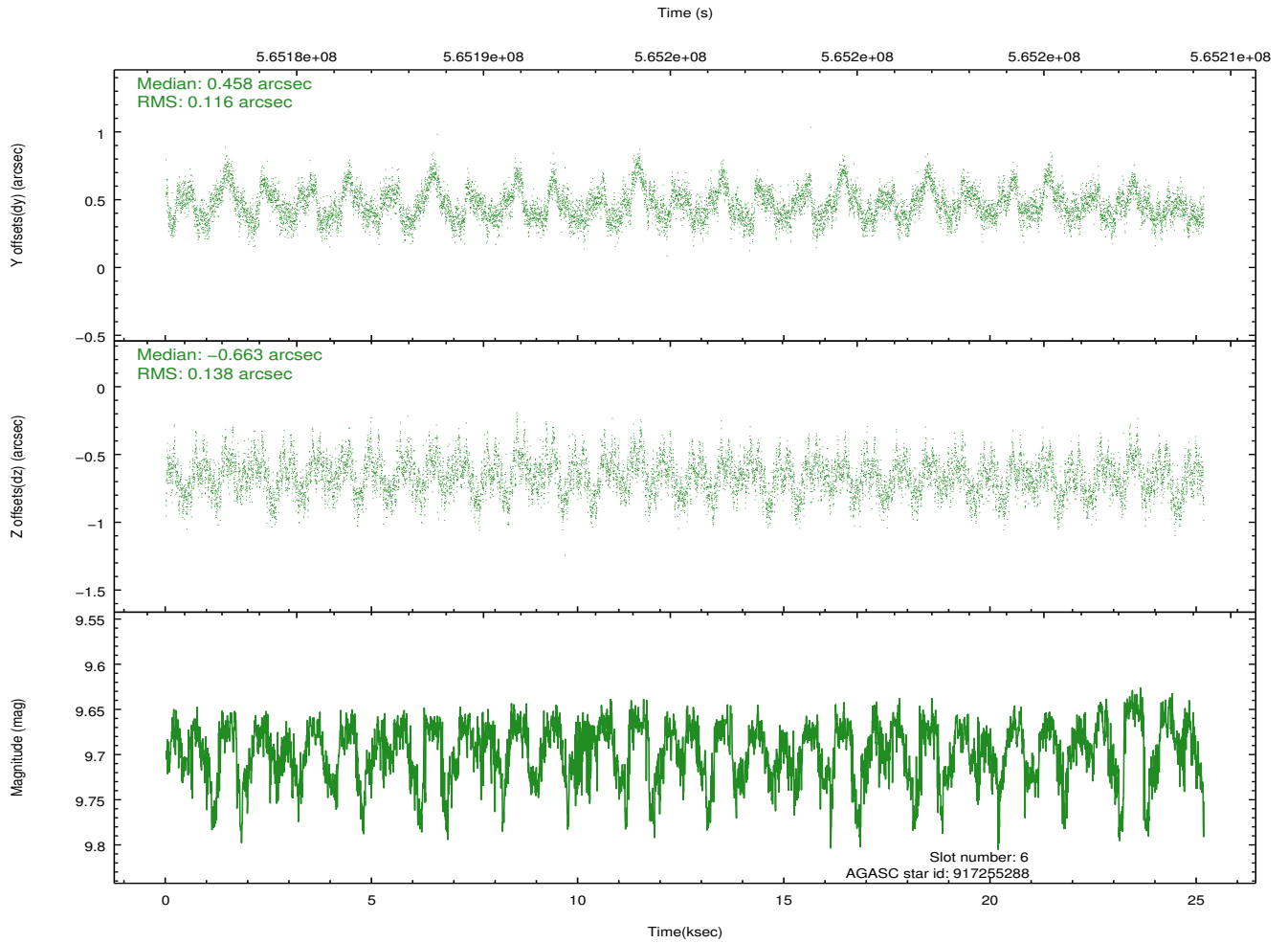
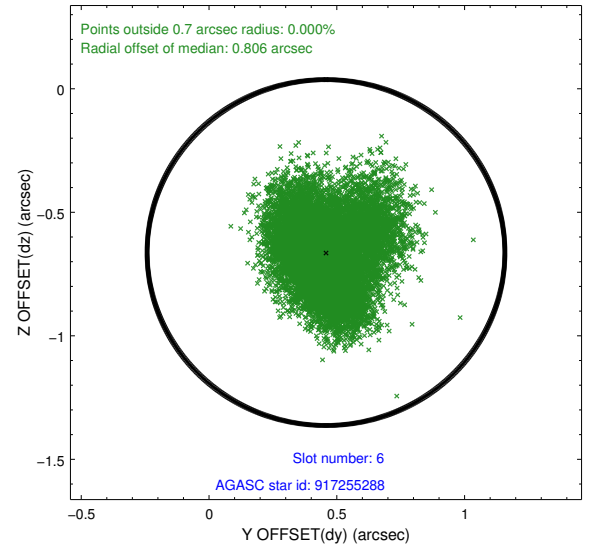
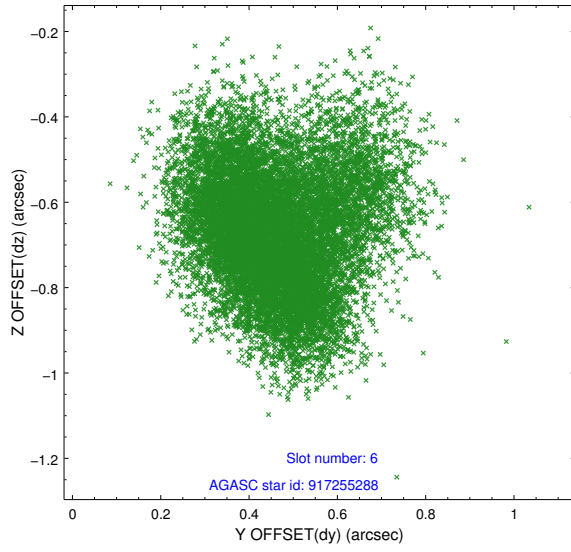
## 2.4.2 Slot 4



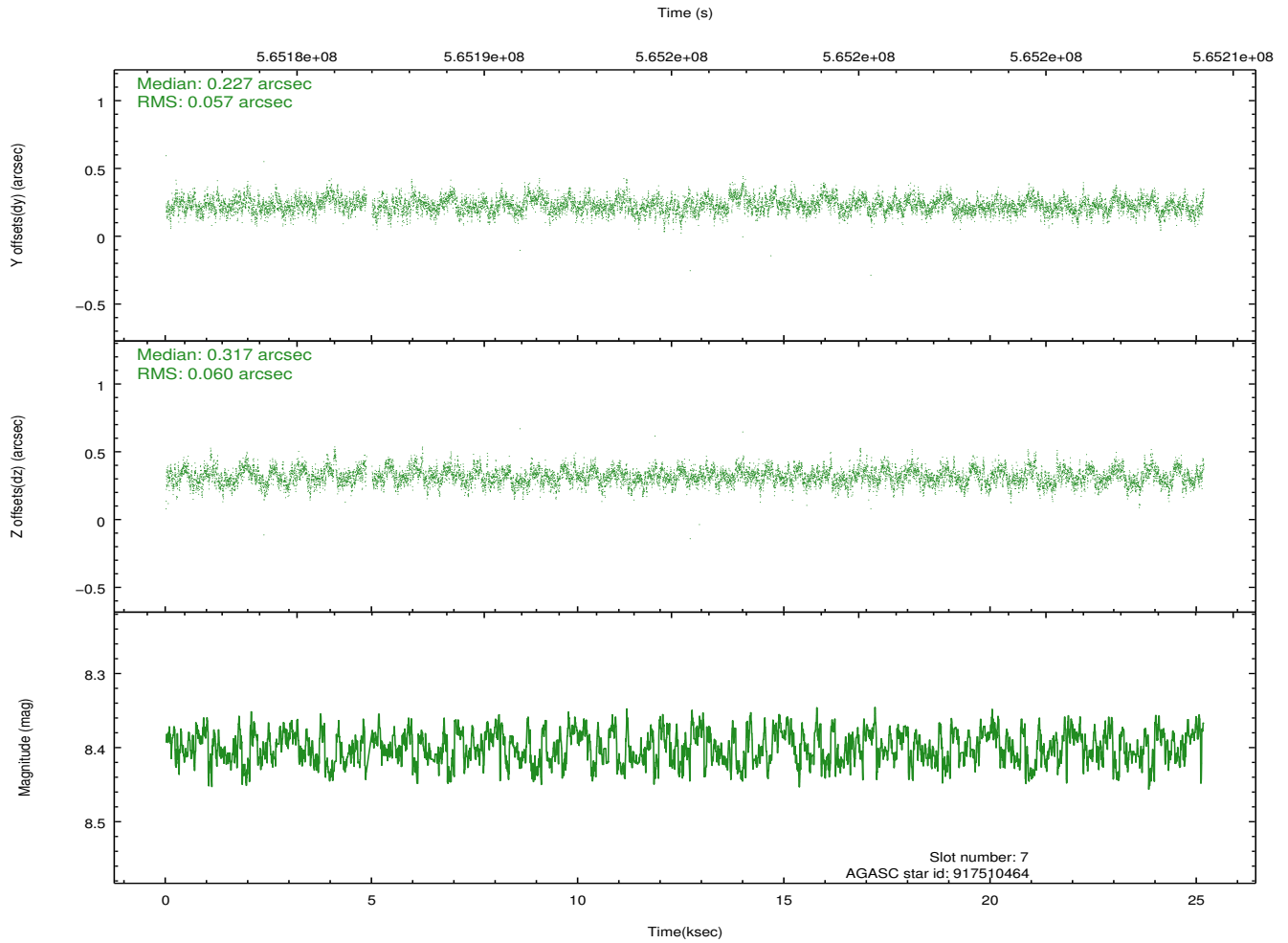
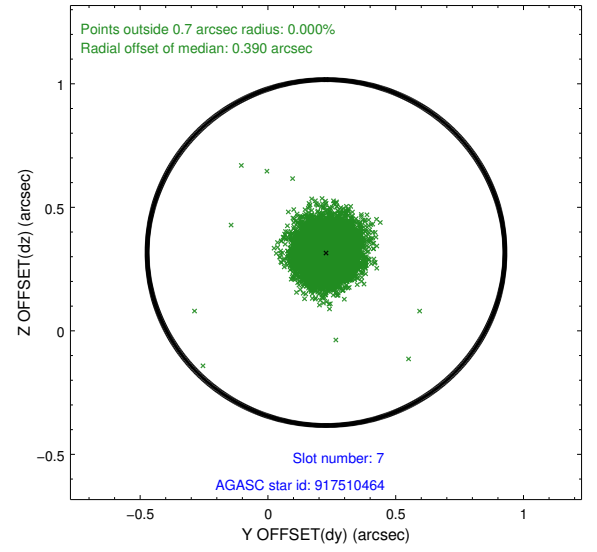
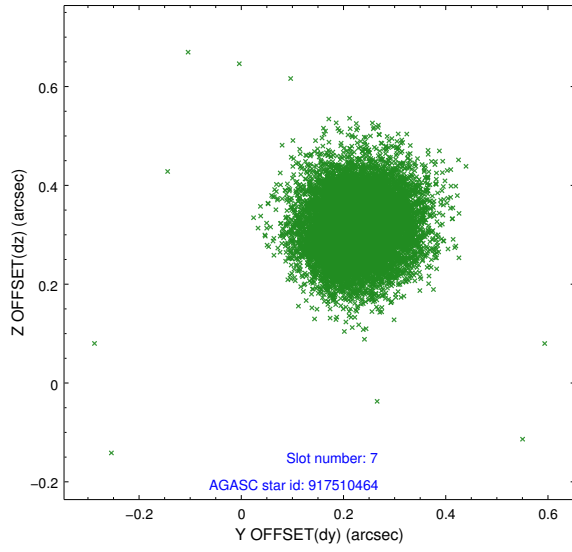
### 2.4.3 Slot 5



## 2.4.4 Slot 6

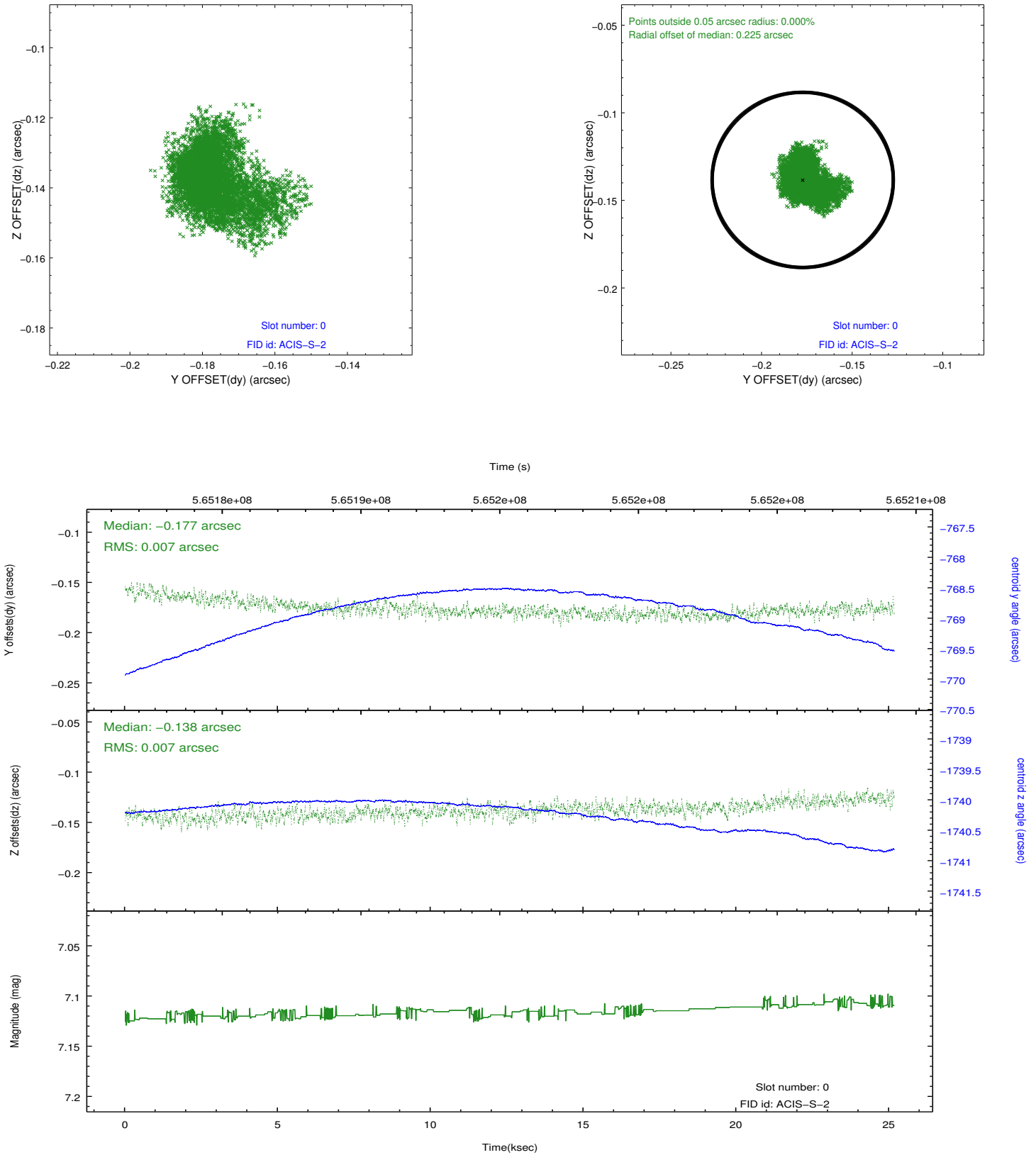


## 2.4.5 Slot 7

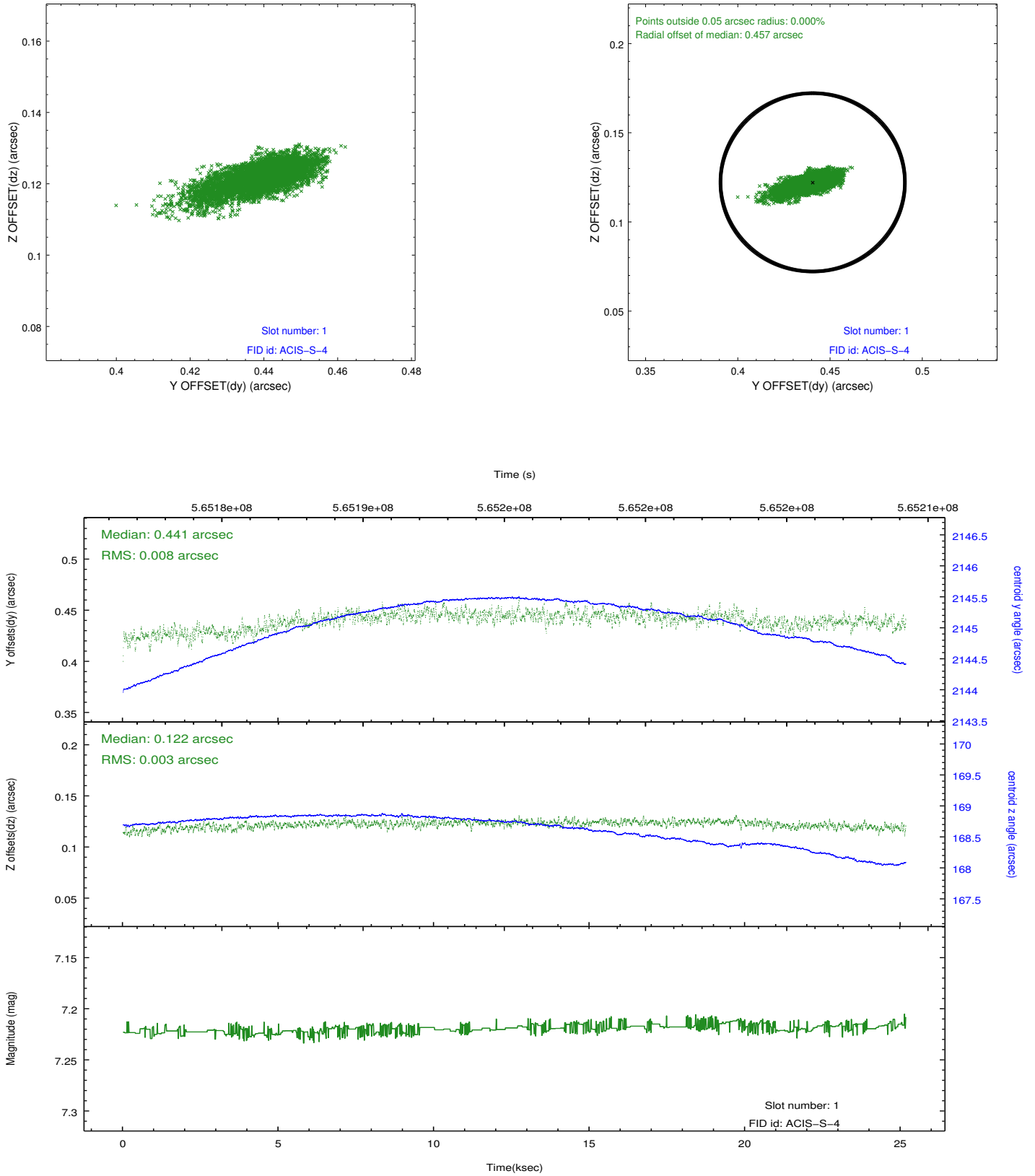


## 2.5 FID Slots

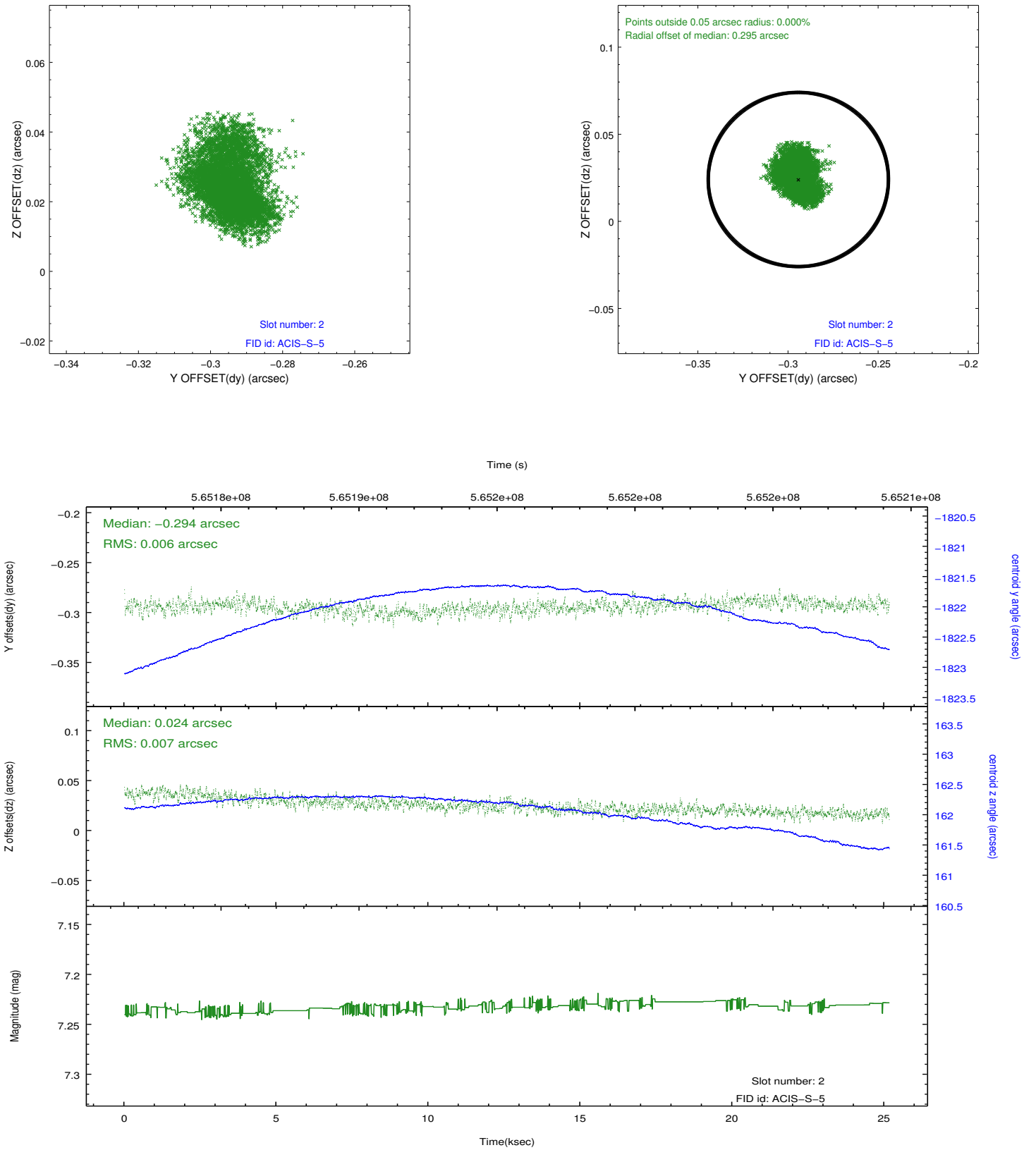
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.11.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.069700192928

### A.2 Comments