

# V&V Reference Report

## L2 ASCDS Version : 10.3.1

Observation 17107 - L2 Version 1  
Chandra X-Ray Center

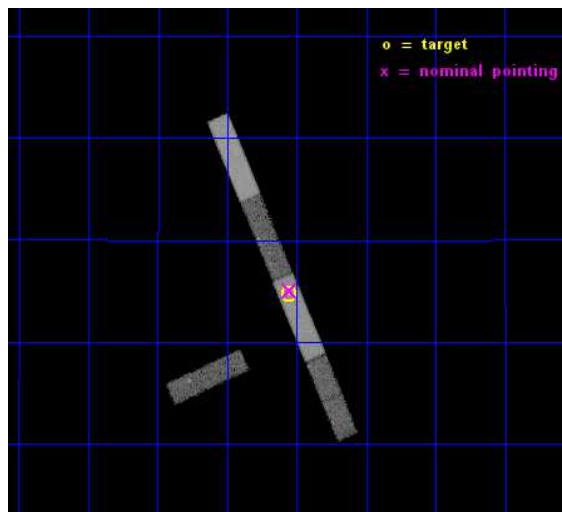
L2 Processing Date : Dec 25 2014

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# 1 Front

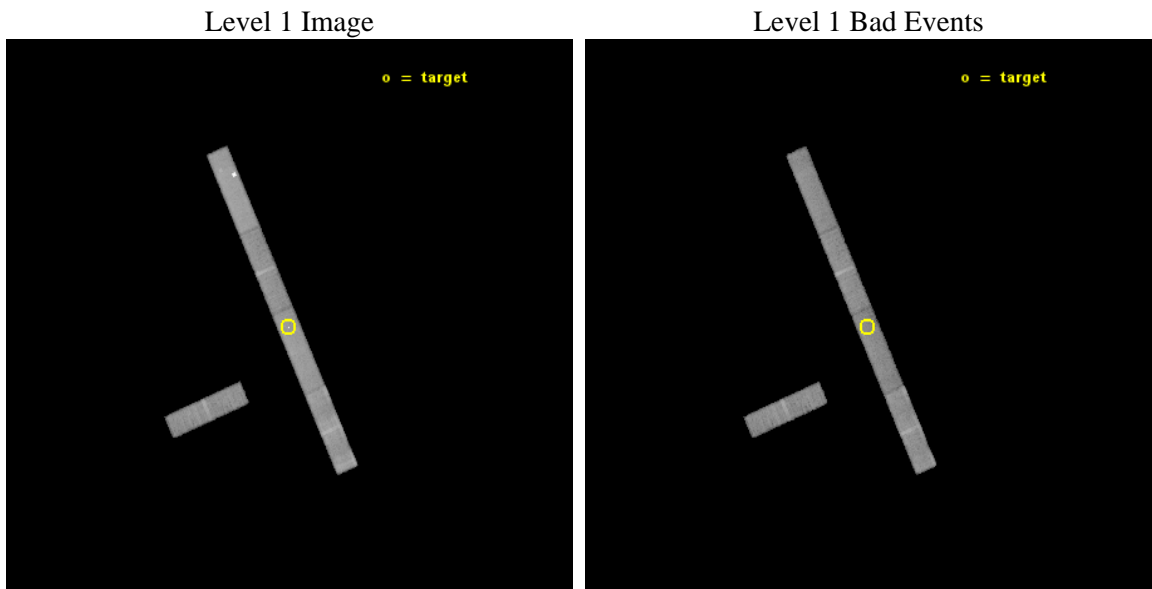
seq_num	703108	Sequence number
obs_id	17107	Observation id
title	3C190: Probing the extreme AGN blowout phase of galaxy evolution	P
observer	Dr Andy Goulding	Principal investigator
object	3C190	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	120.389583	Observer's specified target RA [deg]
dec_targ	14.24525	Observer's specified target Dec [deg]
ra_nom	120.38807479069	Nominal RA [deg]
dec_nom	14.250489242181	Nominal Dec [deg]
roll_nom	66.479539143143	Nominal Roll [deg]
revision	1	Processing version of data
ontime	44072.0	Sum of GTIs [s]
livetime	42334.588488435	Livetime [s]
ontime3	44069.917949796	Sum of GTIs [s]
ontime5	44072.0	Sum of GTIs [s]
ontime6	44072.0	Sum of GTIs [s]
ontime7	44072.0	Sum of GTIs [s]
ontime8	44072.0	Sum of GTIs [s]
l2events	93789	Number of level 2 events



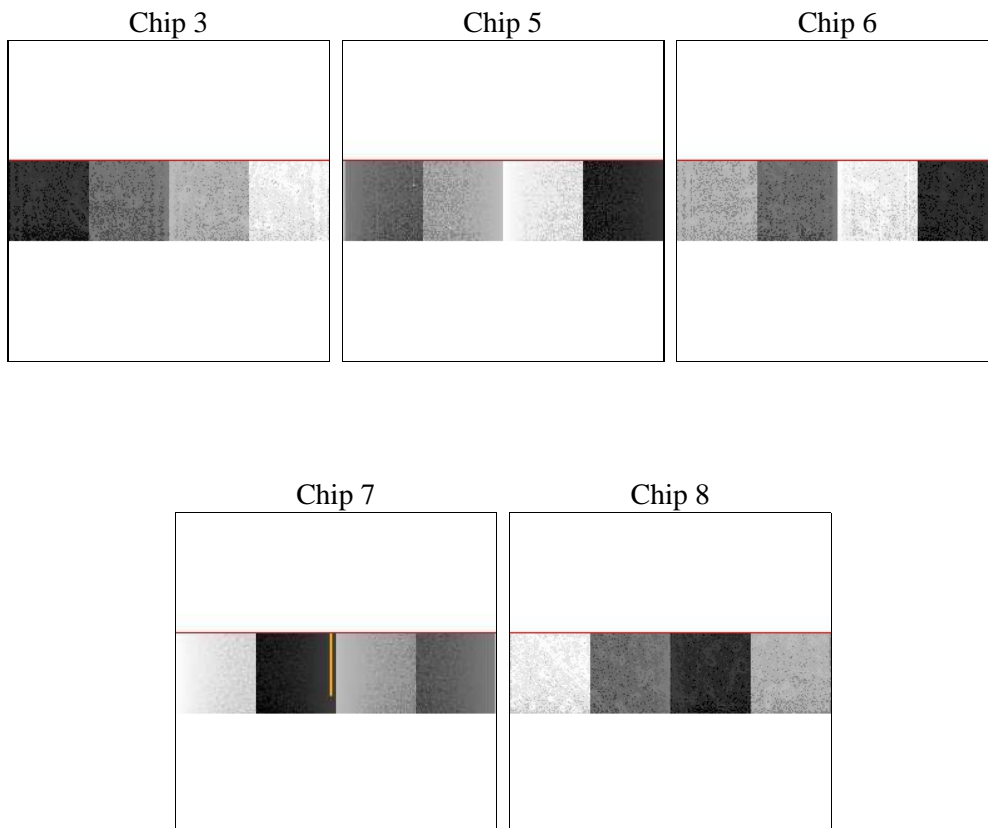
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	44000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	44072.0	Sum of GTIs [s]
caldbver	4.6.5	&#160	ontime3	44069.917949796	Sum of GTIs [s]
date	2014-12-25T17:45:36	Date and time of file creation	ontime5	44072.0	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	44072.0	Sum of GTIs [s]
			ontime7	44072.0	Sum of GTIs [s]
			ontime8	44072.0	Sum of GTIs [s]
			l1events	379374	Number of level 1 events

### 2.1.4 Events

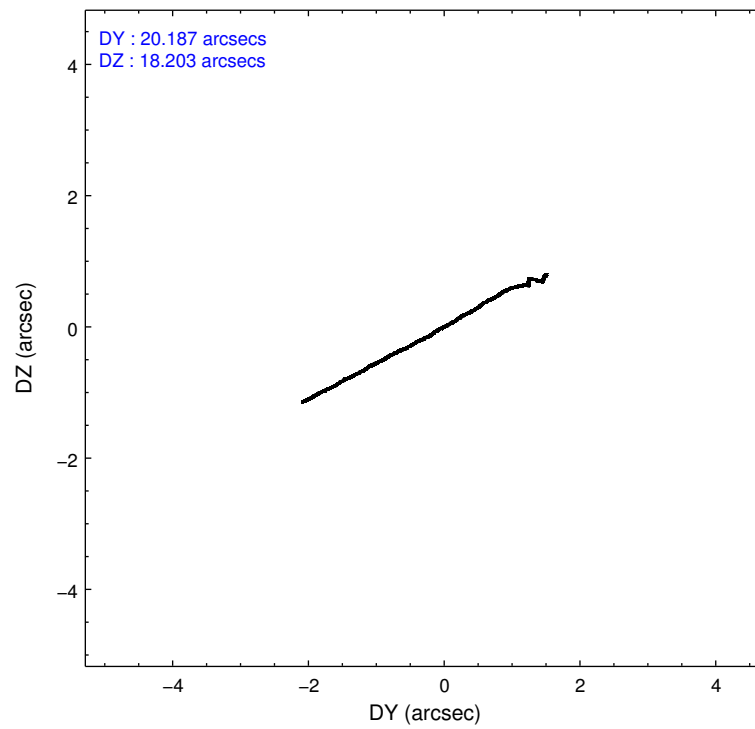
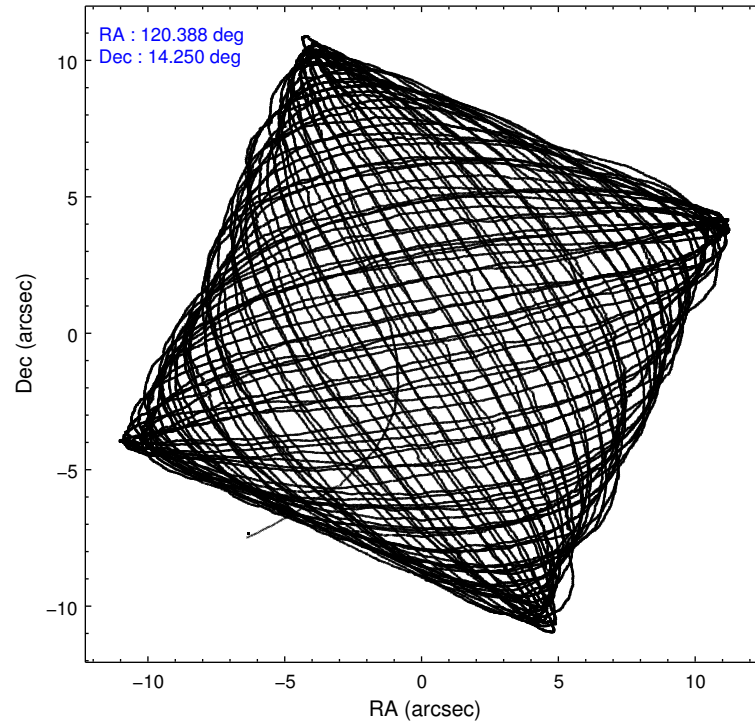
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	55589	105193	60123	76348	82121
rejected events	49201	46282	52353	41033	59850
rejected %	88%	43%	87%	53%	72%

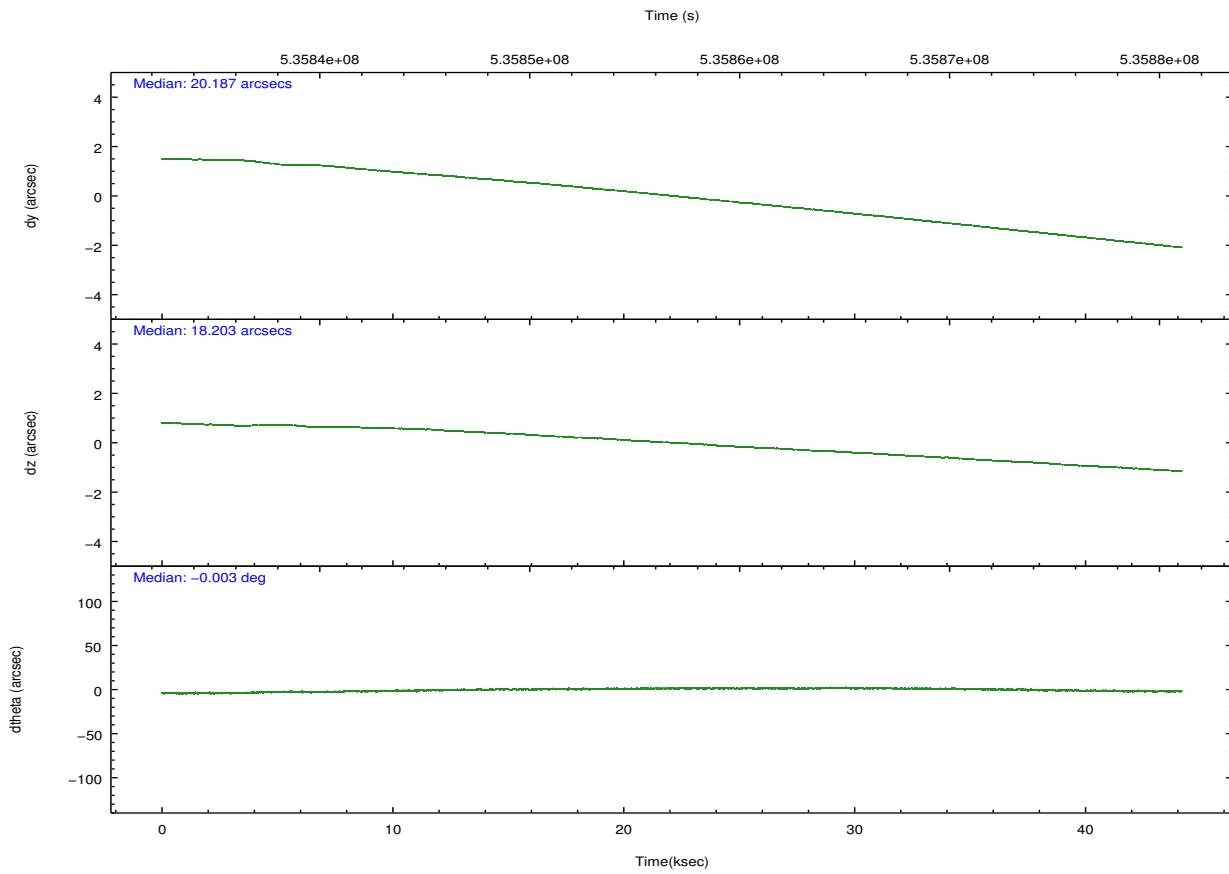
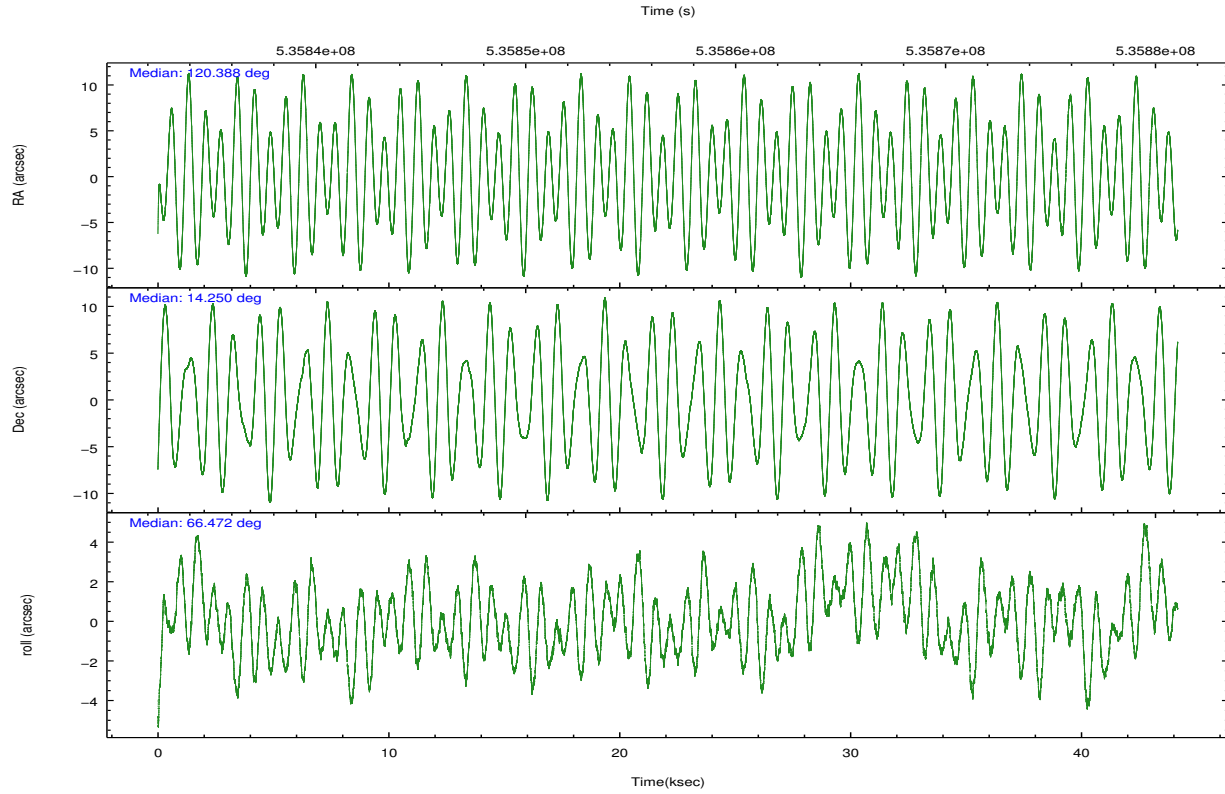
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	2102	19674	2523	3753	6130
	3%	18%	4%	4%	7%
grade 1 events	20	196	17	100	42
	0%	0%	0%	0%	0%
grade 2 events	1237	13217	1565	7351	4915
	2%	12%	2%	9%	5%
grade 3 events	917	2087	1033	3696	2643
	1%	1%	1%	4%	3%
grade 4 events	887	1957	1016	3613	2501
	1%	1%	1%	4%	3%
grade 5 events	2700	7109	2700	7664	3751
	4%	6%	4%	10%	4%
grade 6 events	1245	21978	1633	16905	6083
	2%	20%	2%	22%	7%
grade 7 events	46481	38975	49636	33266	56056
	83%	37%	82%	43%	68%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	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	120.391652	120.3880747906868	CCD I2 on	O1	N
[deg] Pointing Dec	14.223264	14.25048924218136	CCD I3 on	O2	Y
[deg] Pointing Roll	66.322034	66.4795391431435	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)	535834852.184000	535833929.81719	CCD S5 on	N	N
Observation start date	2014-12-24T18:59:45	2014-12-24T18:45:29	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	535878852.184000	535879657.11974	On-chip summing requested	N	N
Observation end date	2014-12-25T07:13:05	2014-12-25T07:27:37	Subarray requested	CUSTOM	1/4
Read mode	TIMED	TIMED	Subarray start row	385	385
			Subarray row count	256	256
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1

## 2.3 Aspect





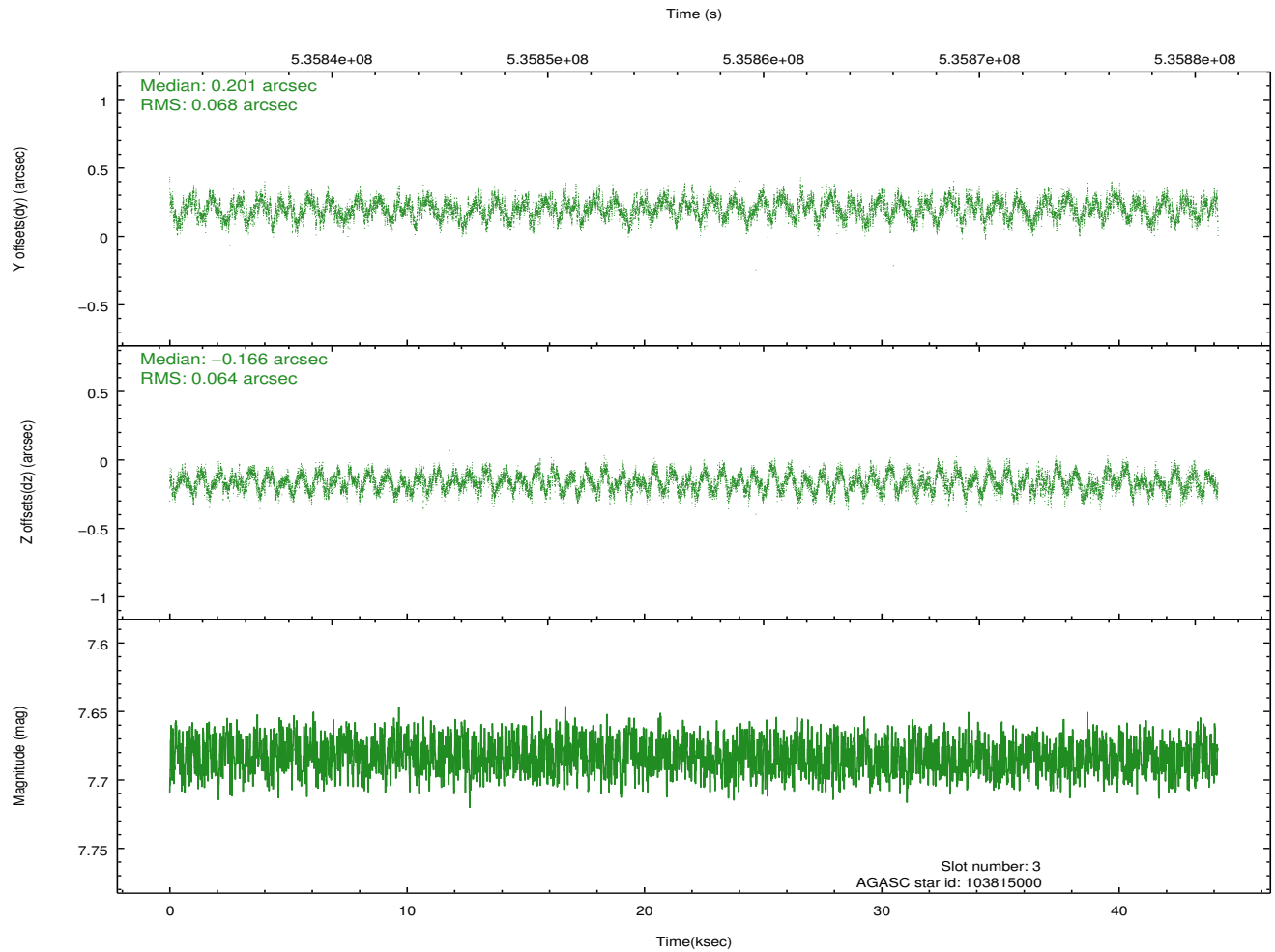
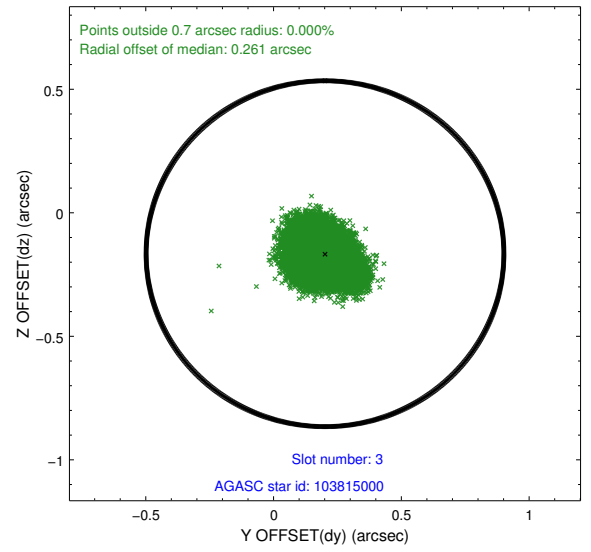
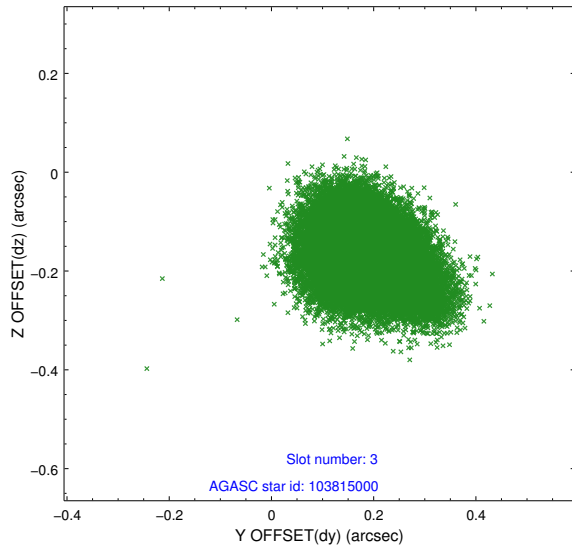
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.99	10773	-0.113	-0.067	0.018	0.046	0.000000	0.000000	-773.36	-1739.67
1	FID		ACIS-S-4	7.09	10773	0.287	0.073	0.015	0.029	0.000000	0.000000	2140.35	168.89
2	FID		ACIS-S-5	7.09	10772	-0.208	0.007	0.022	0.032	0.000000	0.000000	-1826.27	162.57
3	GUIDE	used	103815000	7.68	21543	0.201	-0.166	0.102	0.155	119.850457	13.827567	-2062.33	1160.95
4	GUIDE	used	103815984	8.68	21541	-0.258	-0.405	0.099	0.162	120.197483	14.646954	1125.58	1232.50
5	GUIDE	used	103945200	7.43	21545	0.059	0.159	0.081	0.128	120.891074	14.090297	263.94	-1788.01
6	GUIDE	used	103952664	7.74	21542	0.168	0.331	0.071	0.115	120.852413	13.669174	-1177.44	-2276.40
7	GUIDE	used	103950880	9.10	21535	-0.176	0.085	0.120	0.198	120.891052	14.404478	1298.81	-1331.64

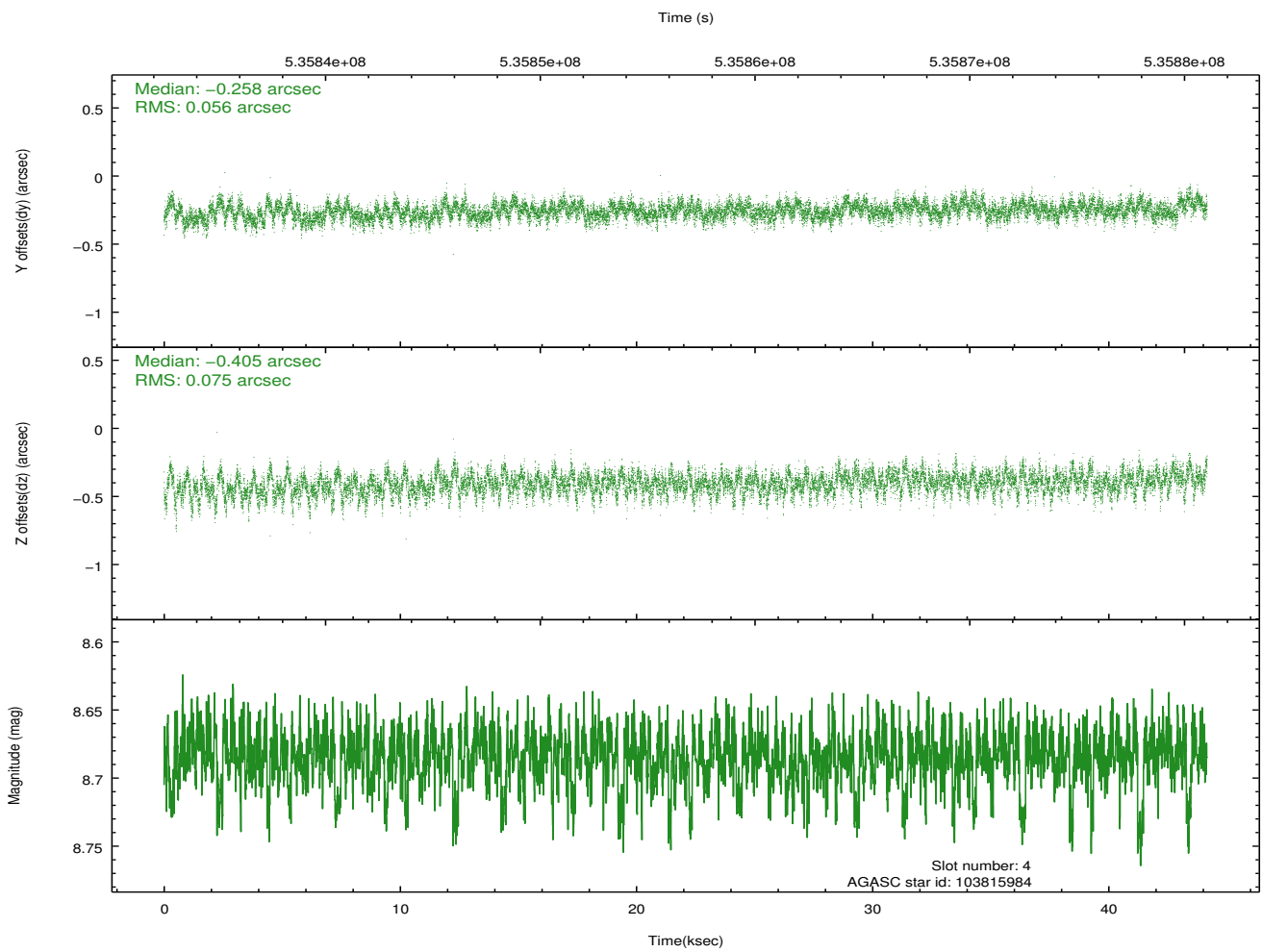
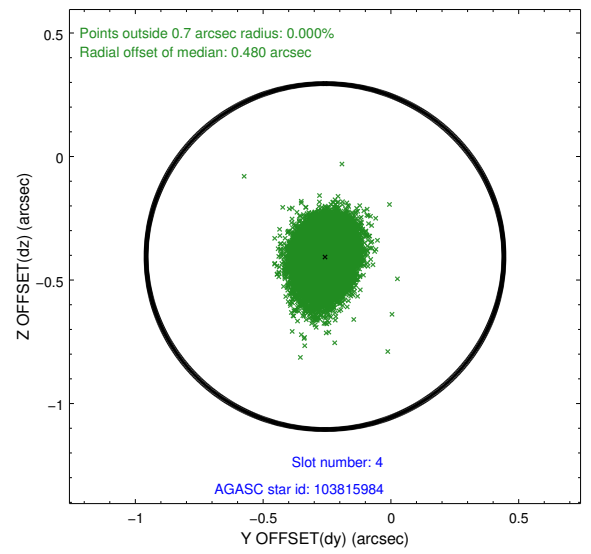
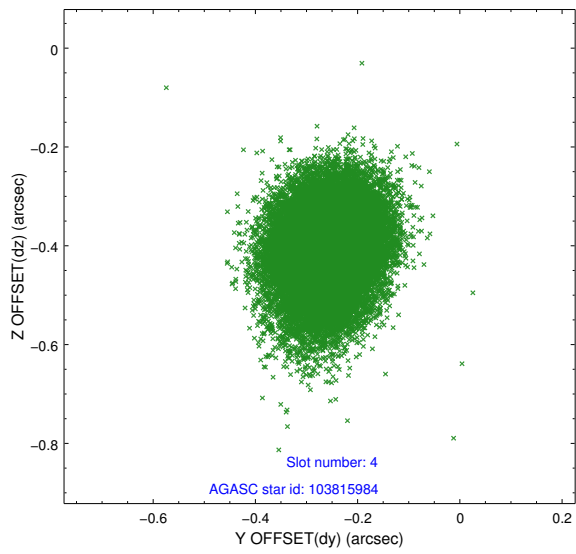
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## 2.4 Star Slots

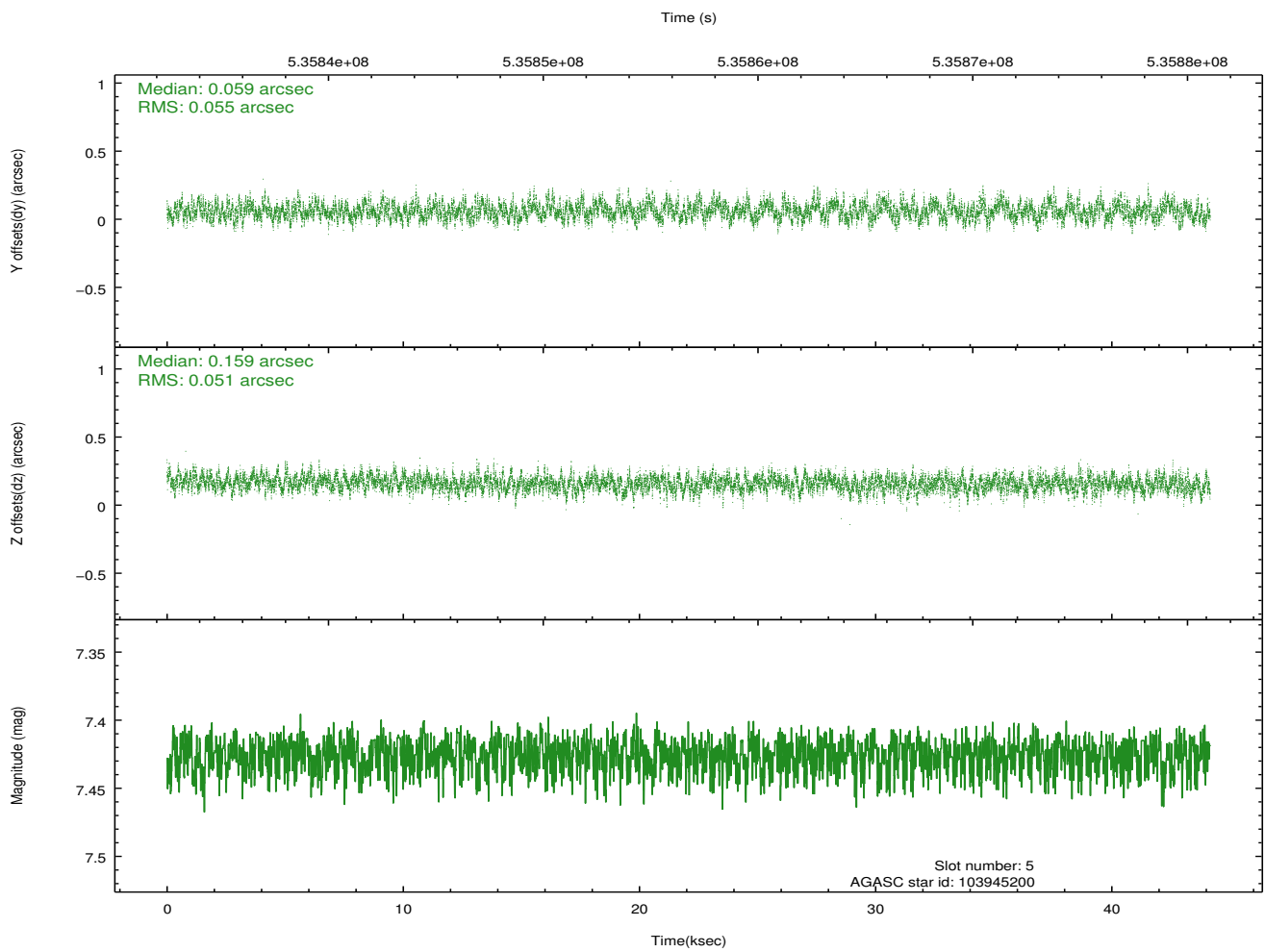
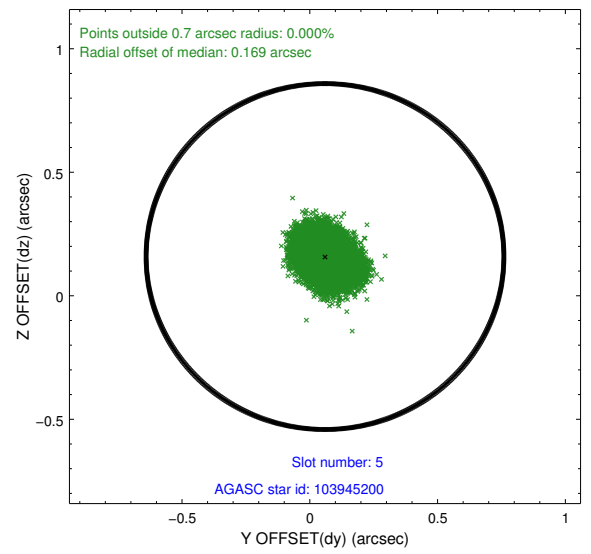
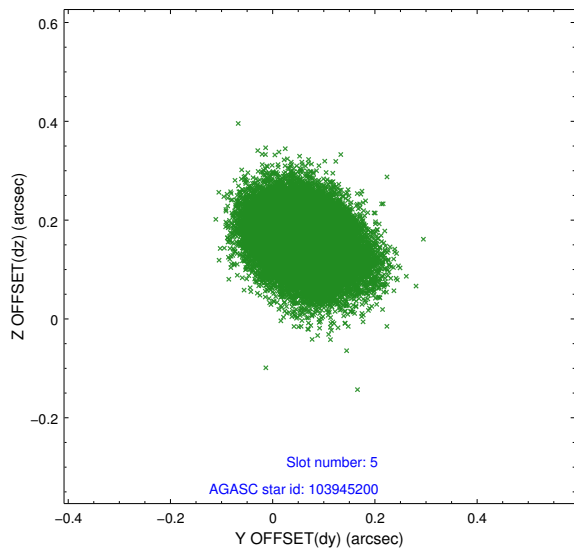
### 2.4.1 Slot 3



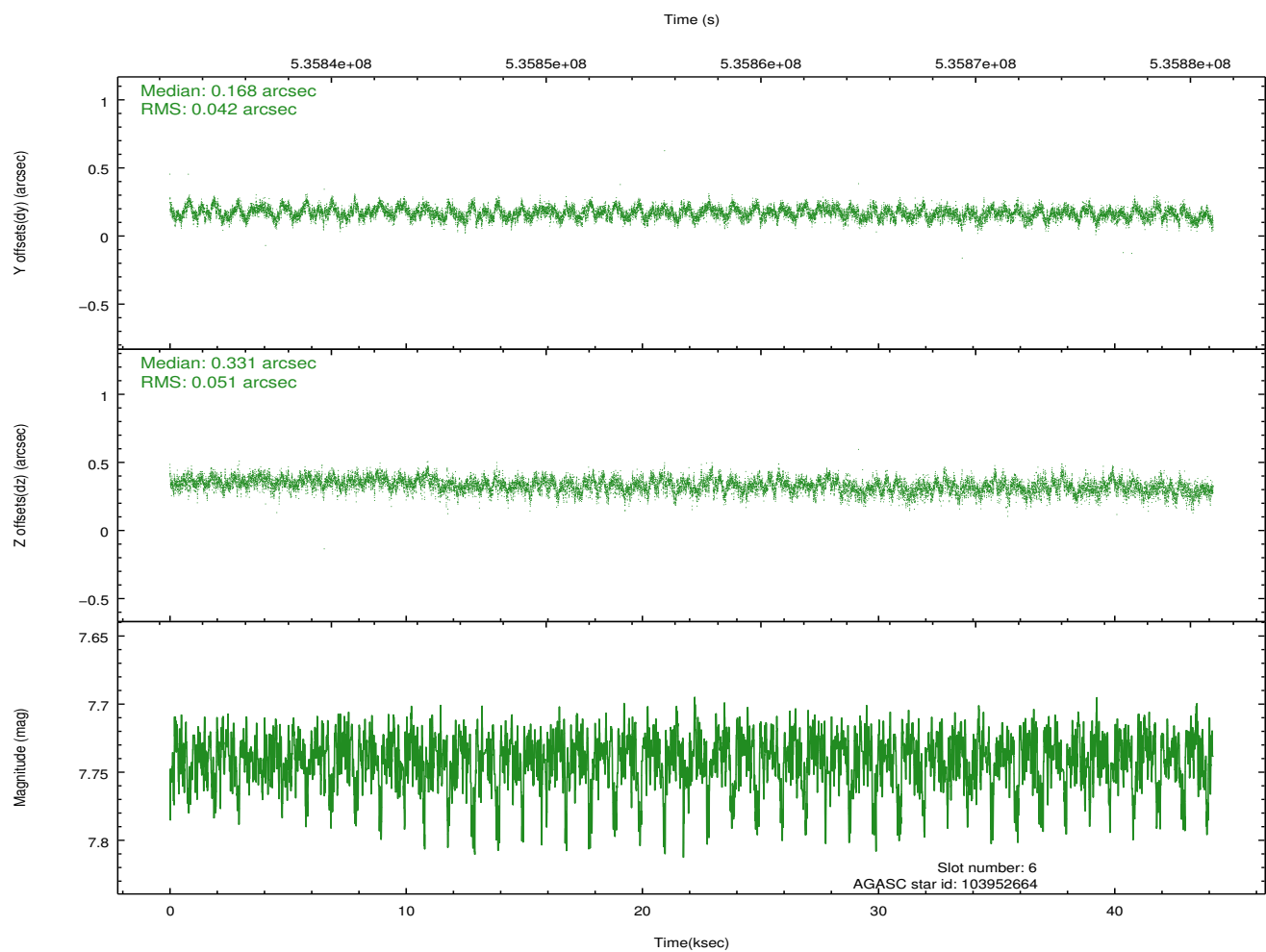
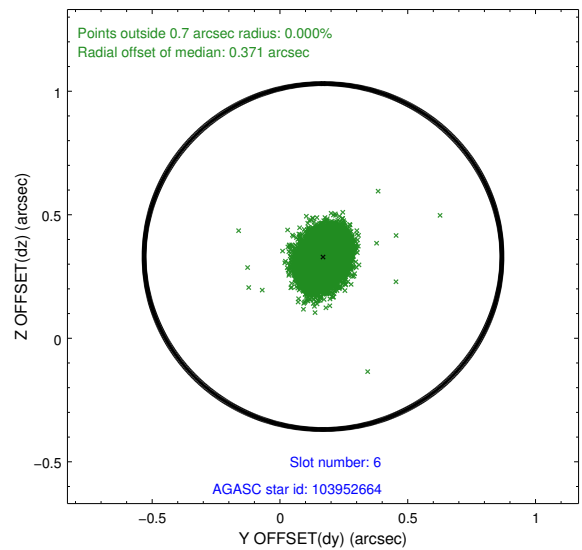
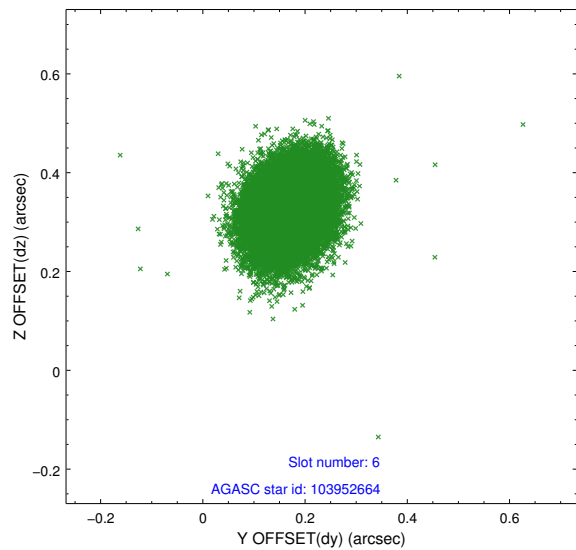
## 2.4.2 Slot 4



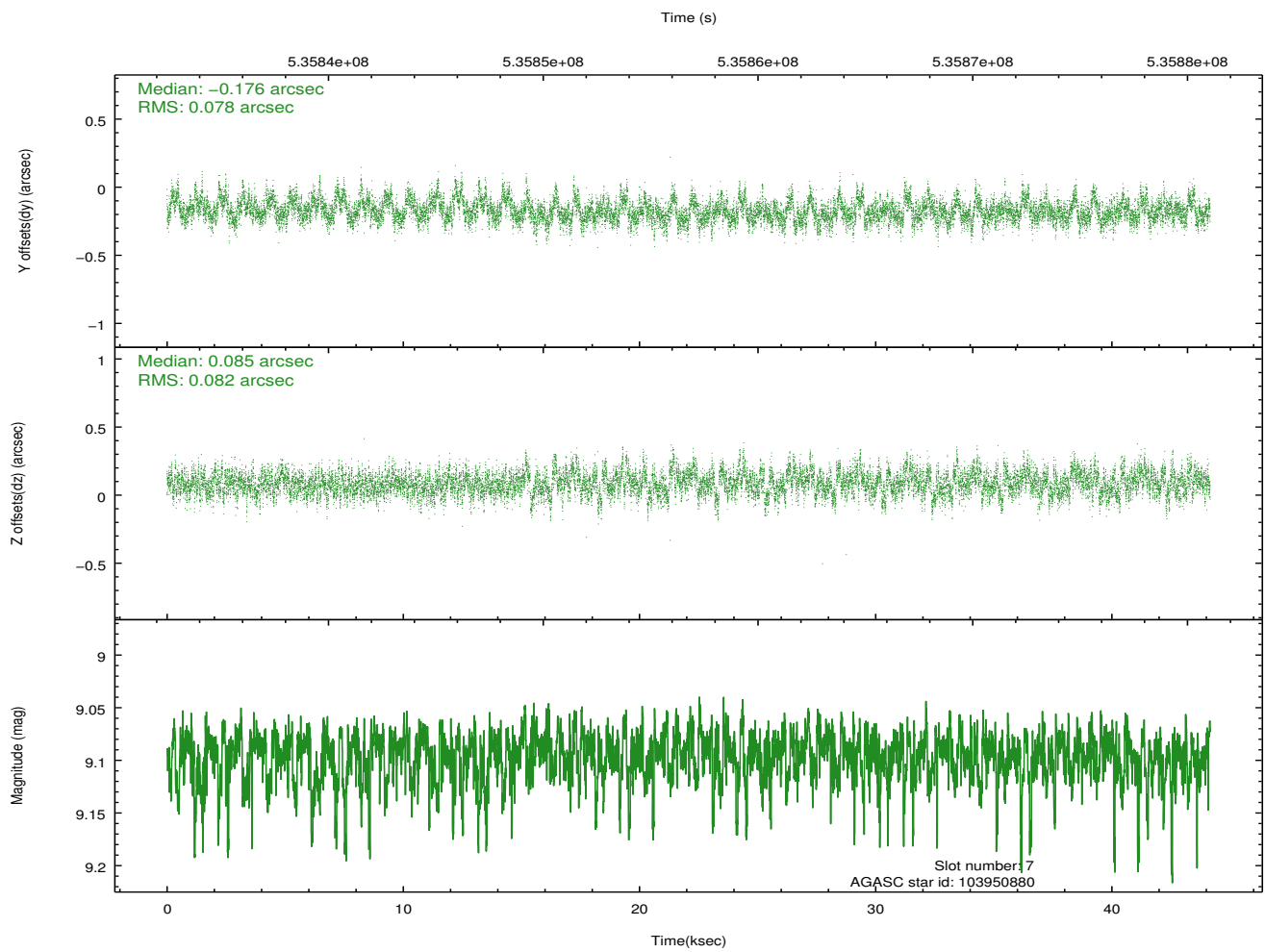
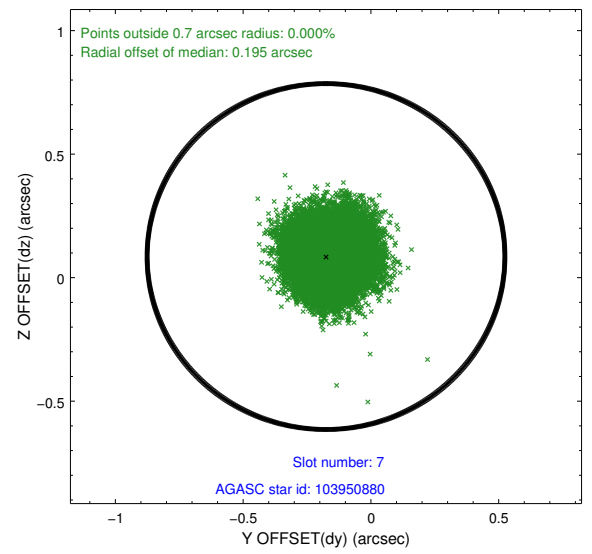
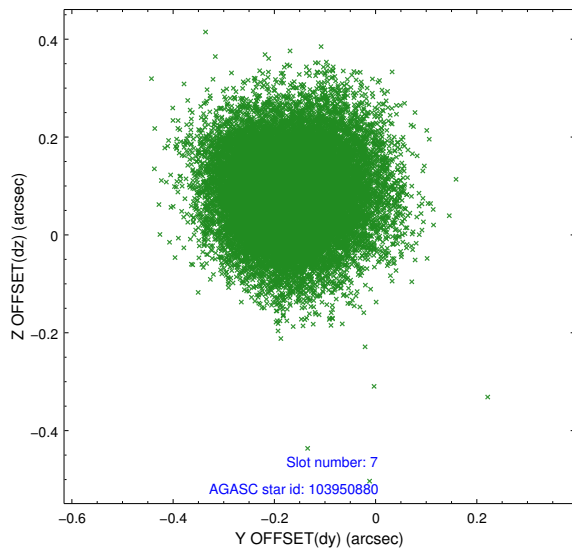
### 2.4.3 Slot 5



## 2.4.4 Slot 6

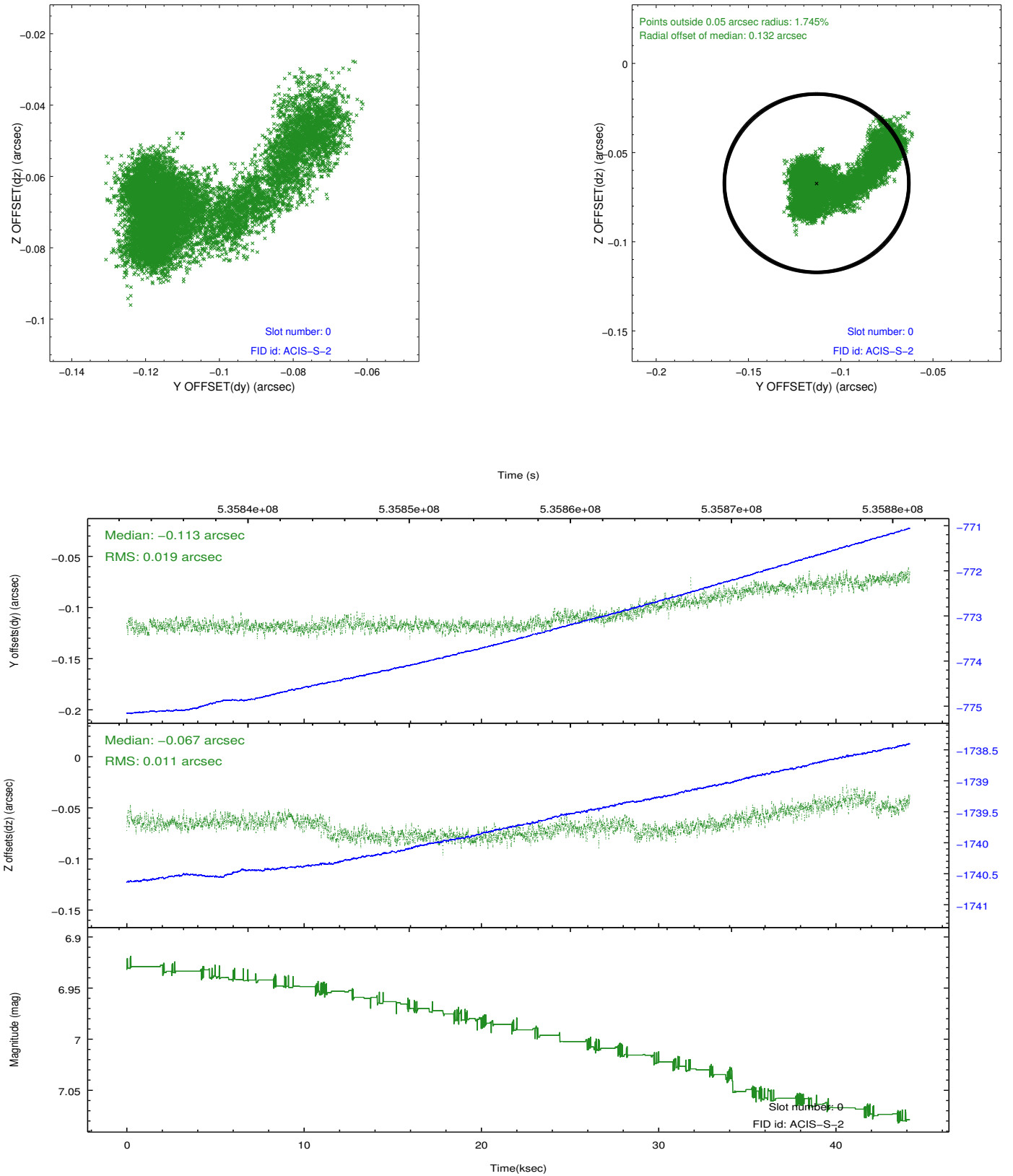


## 2.4.5 Slot 7

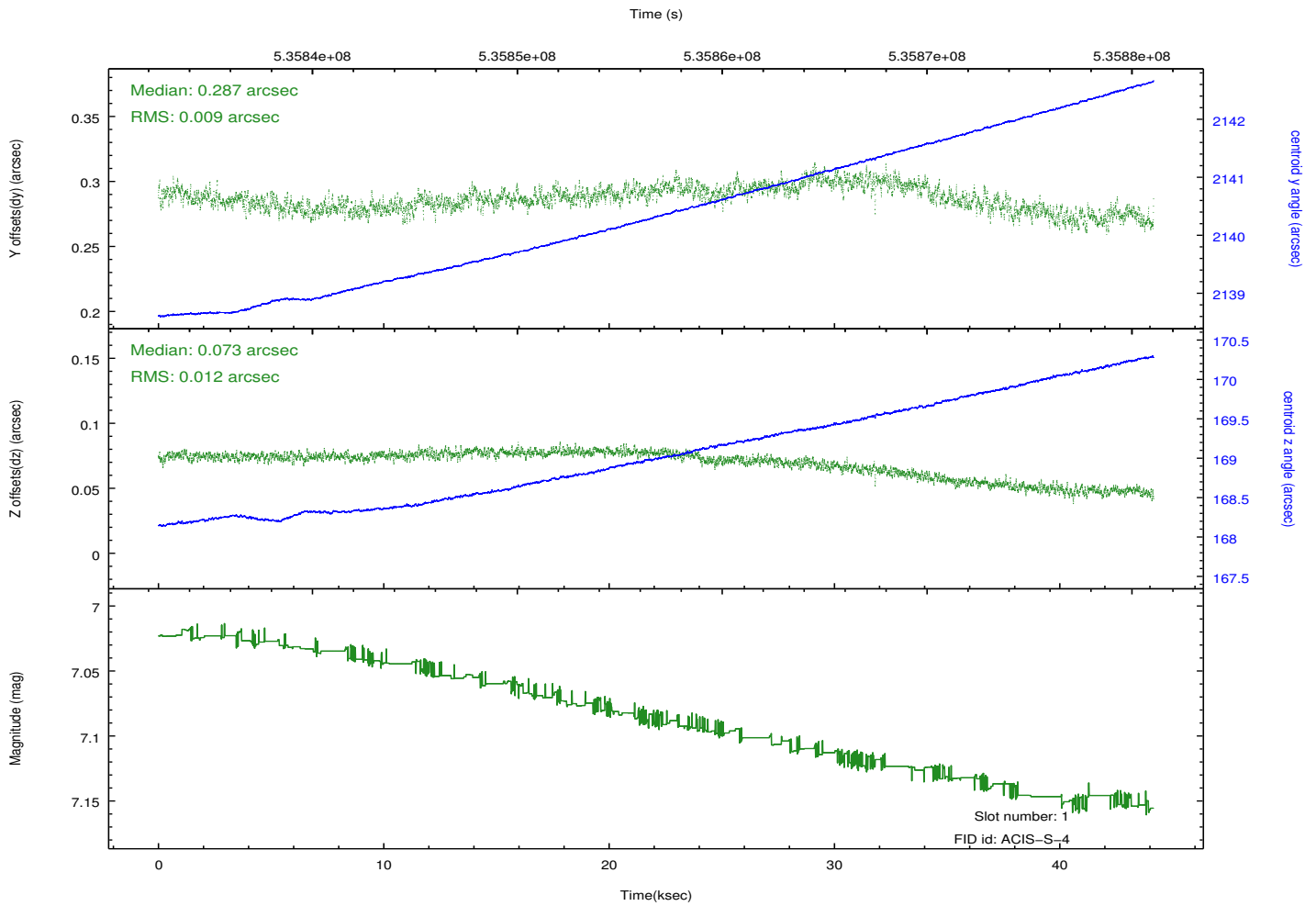
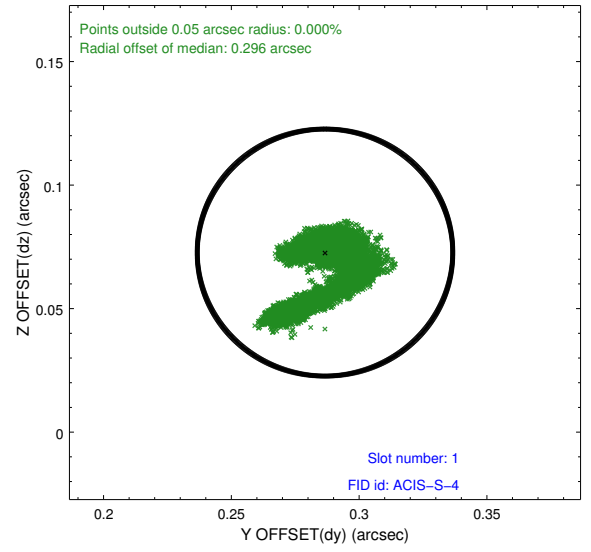
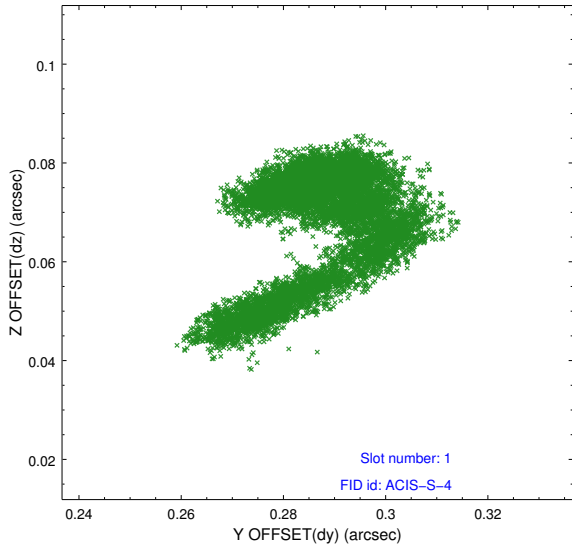


## 2.5 FID Slots

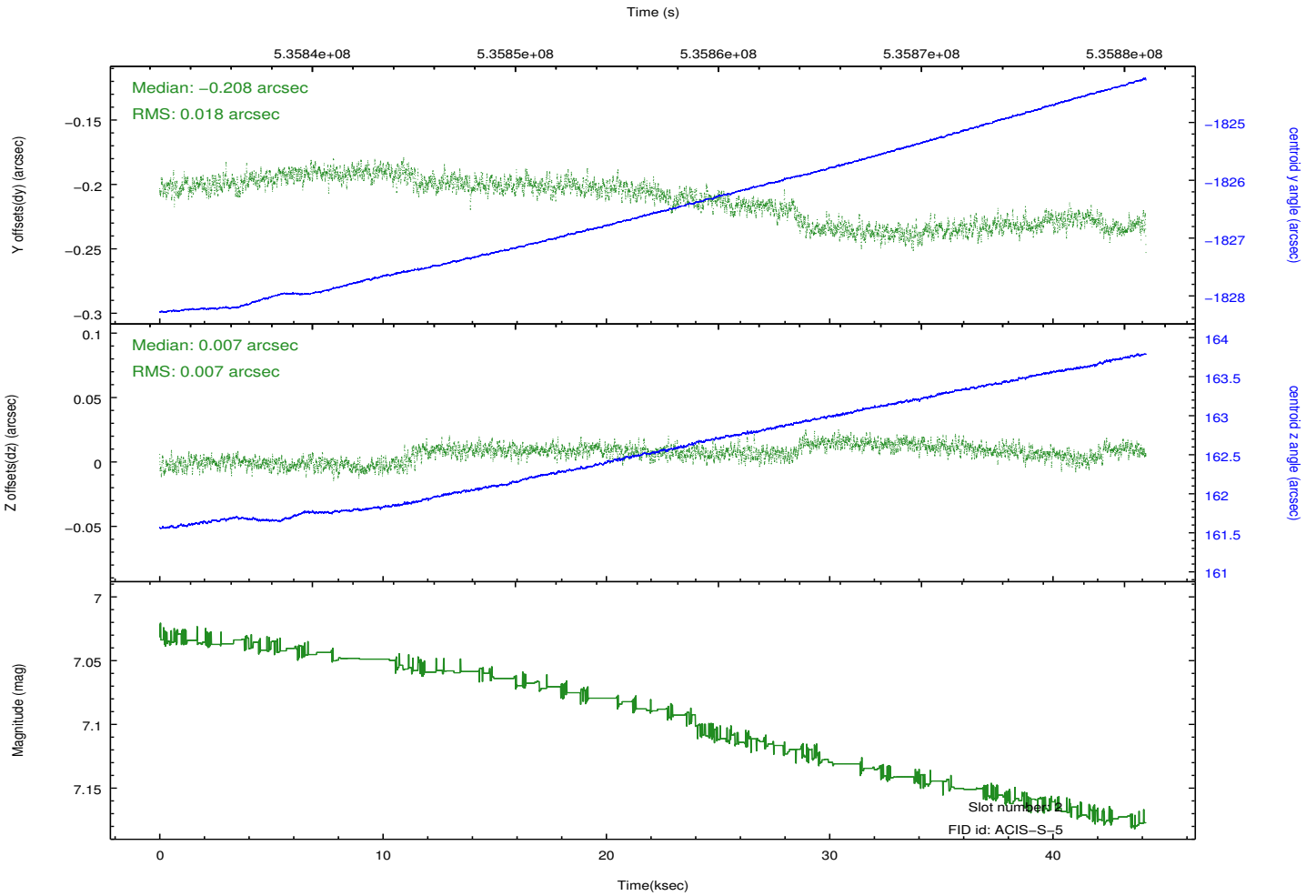
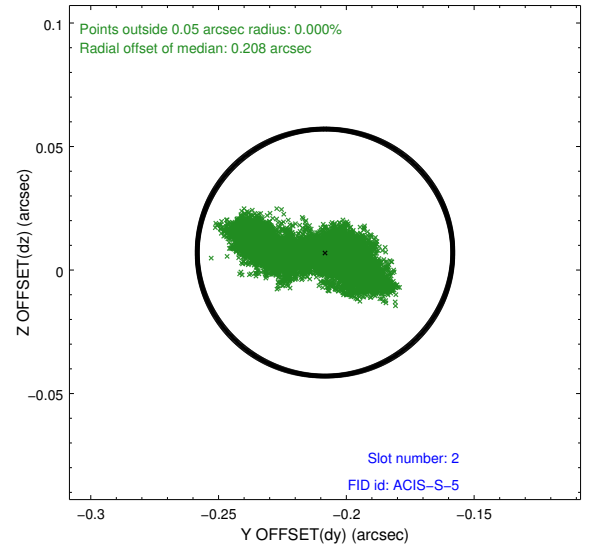
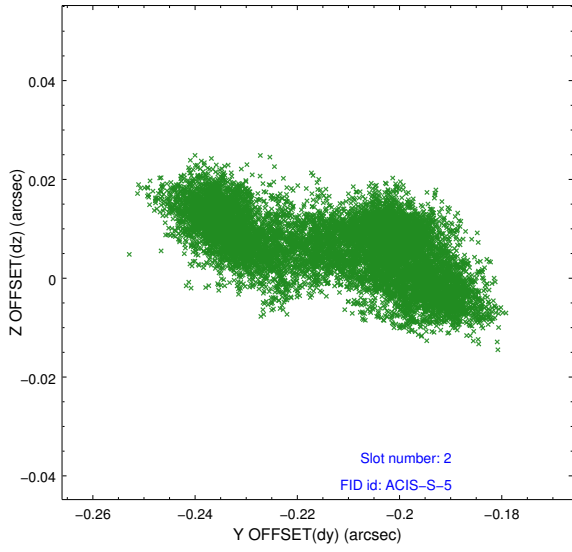
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2014.12.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	44.072

## A.2 Comments