

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 18862 - L2 Version 1  
Chandra X-Ray Center

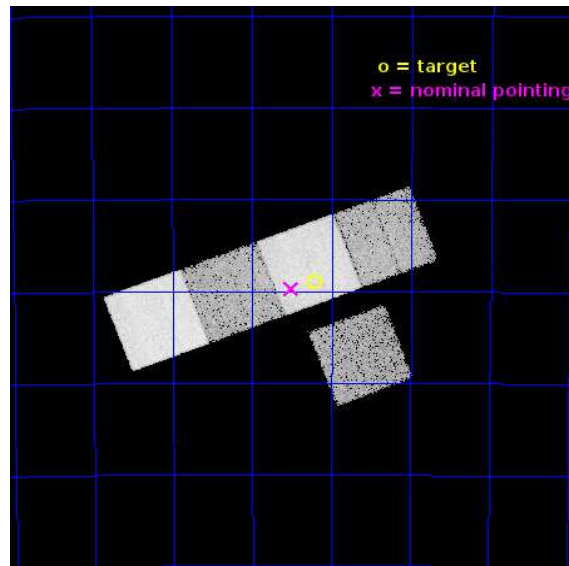
L2 Processing Date : May 30 2016

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# 1 Front

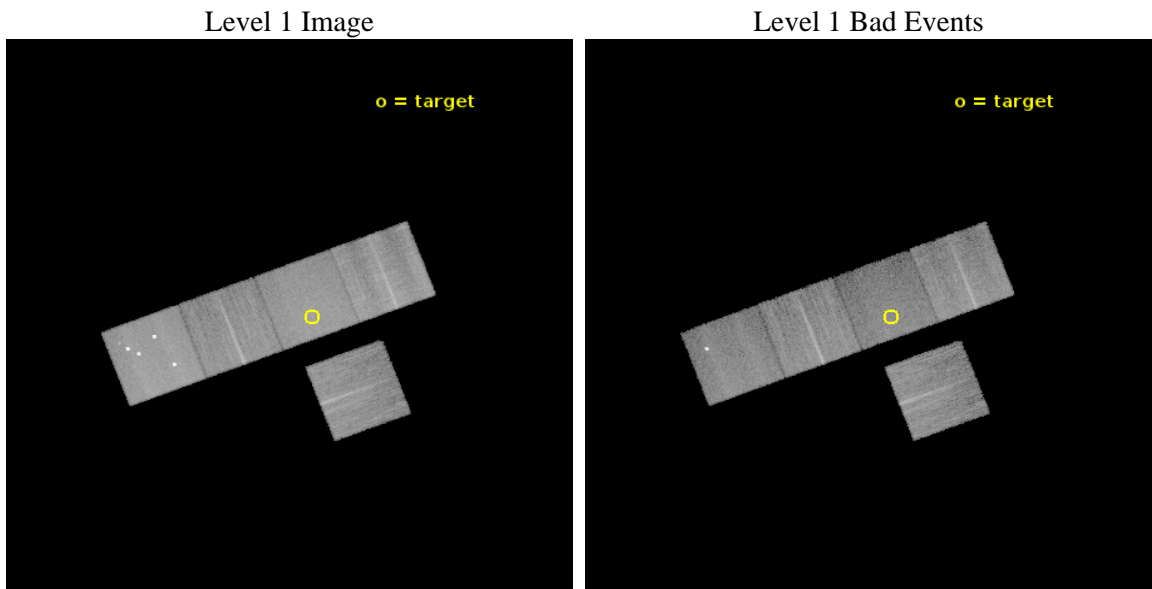
seq_num	502516	Sequence number
obs_id	18862	Observation id
title	Chandra Observation of the Composite SNR MSH 15-56	Proposal title
observer	Tea Temim	Principal investigator
object	MSH 15-56	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	238.053	Observer's specified target RA [deg]
dec_targ	-56.316	Observer's specified target Dec [deg]
ra_nom	238.12651209357	Nominal RA [deg]
dec_nom	-56.328920584958	Nominal Dec [deg]
roll_nom	339.21781617655	Nominal Roll [deg]
revision	1	Processing version of data
ontime	18031.25413096	Sum of GTIs [s]
livetime	17795.662521322	Livetime [s]
ontime3	18027.989930749	Sum of GTIs [s]
ontime5	18031.213091016	Sum of GTIs [s]
ontime6	18028.030960679	Sum of GTIs [s]
ontime7	18031.25413096	Sum of GTIs [s]
ontime8	18024.807830572	Sum of GTIs [s]
l2events	177073	Number of level 2 events



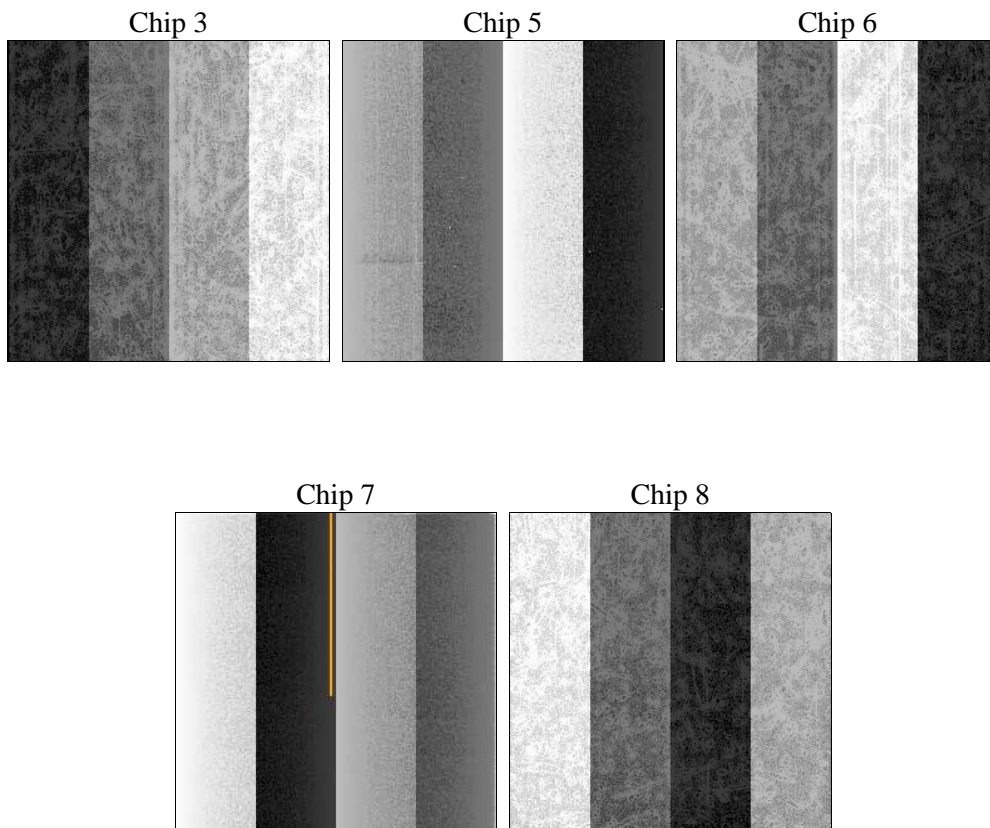
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	18000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	18031.25413096	Sum of GTIs [s]
caldbver	4.7.1	&#160	ontime3	18027.989930749	Sum of GTIs [s]
date	2016-05-30T23:12:59	Date and time of file creation	ontime5	18031.213091016	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	18028.030960679	Sum of GTIs [s]
			ontime7	18031.25413096	Sum of GTIs [s]
			ontime8	18024.807830572	Sum of GTIs [s]
			l1events	658050	Number of level 1 events

### 2.1.4 Events

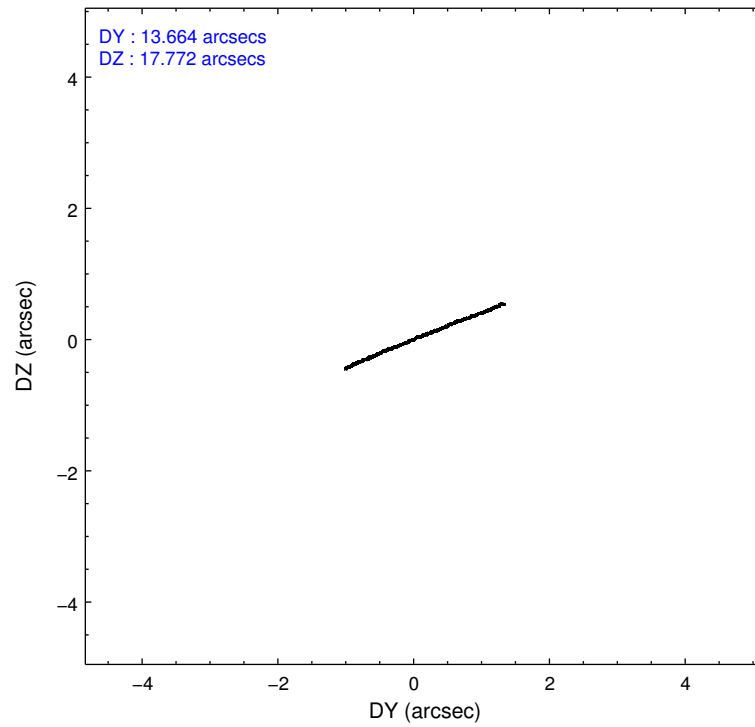
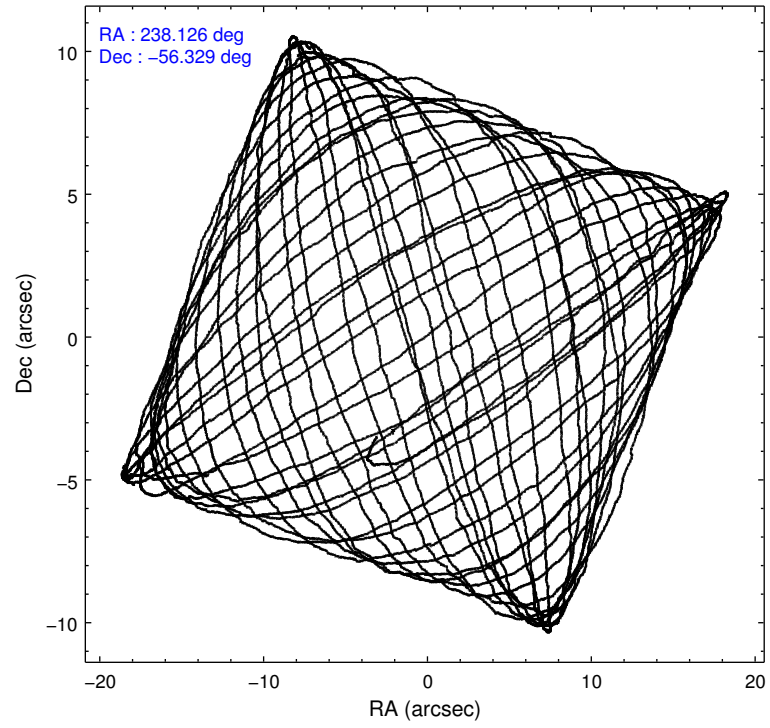
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	104868	175986	111812	129260	136124
rejected events	93593	81201	95278	65144	96719
rejected %	89%	46%	85%	50%	71%

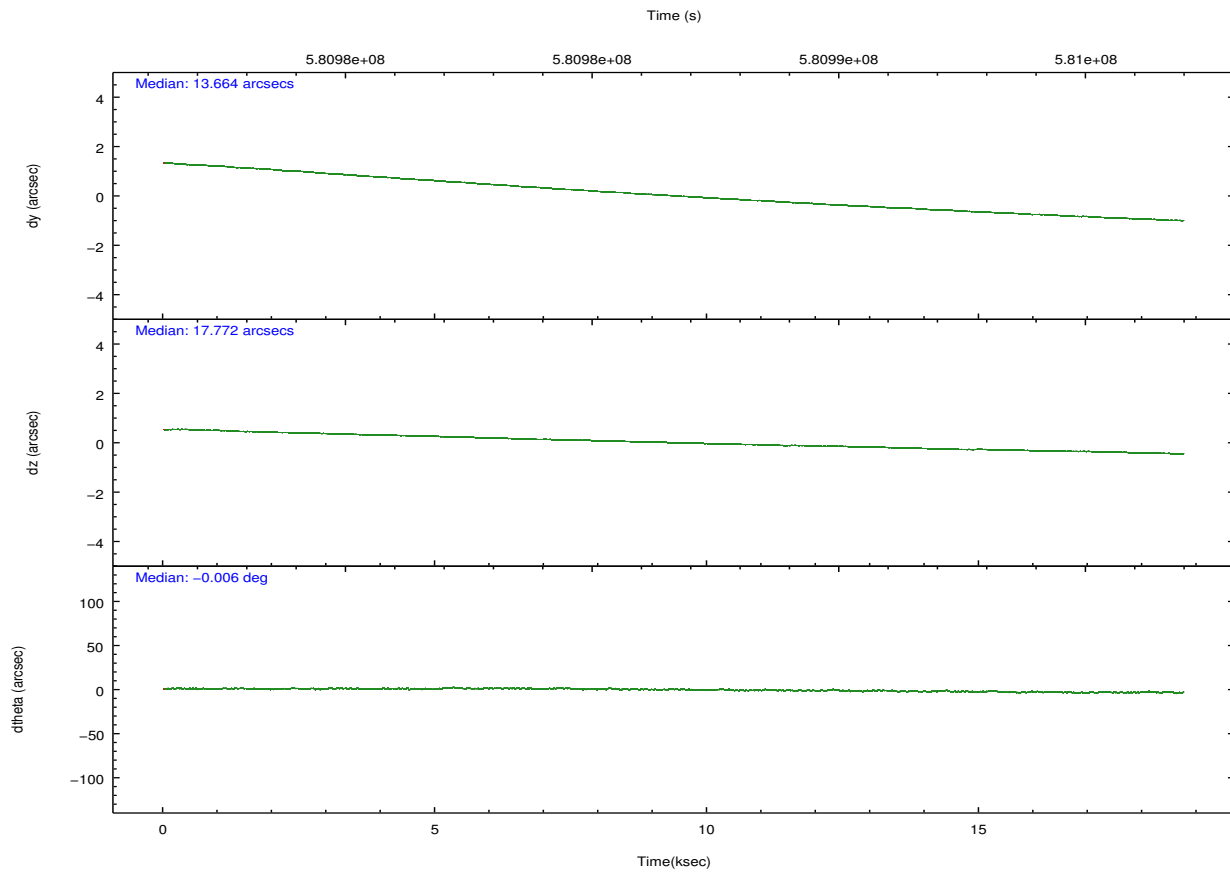
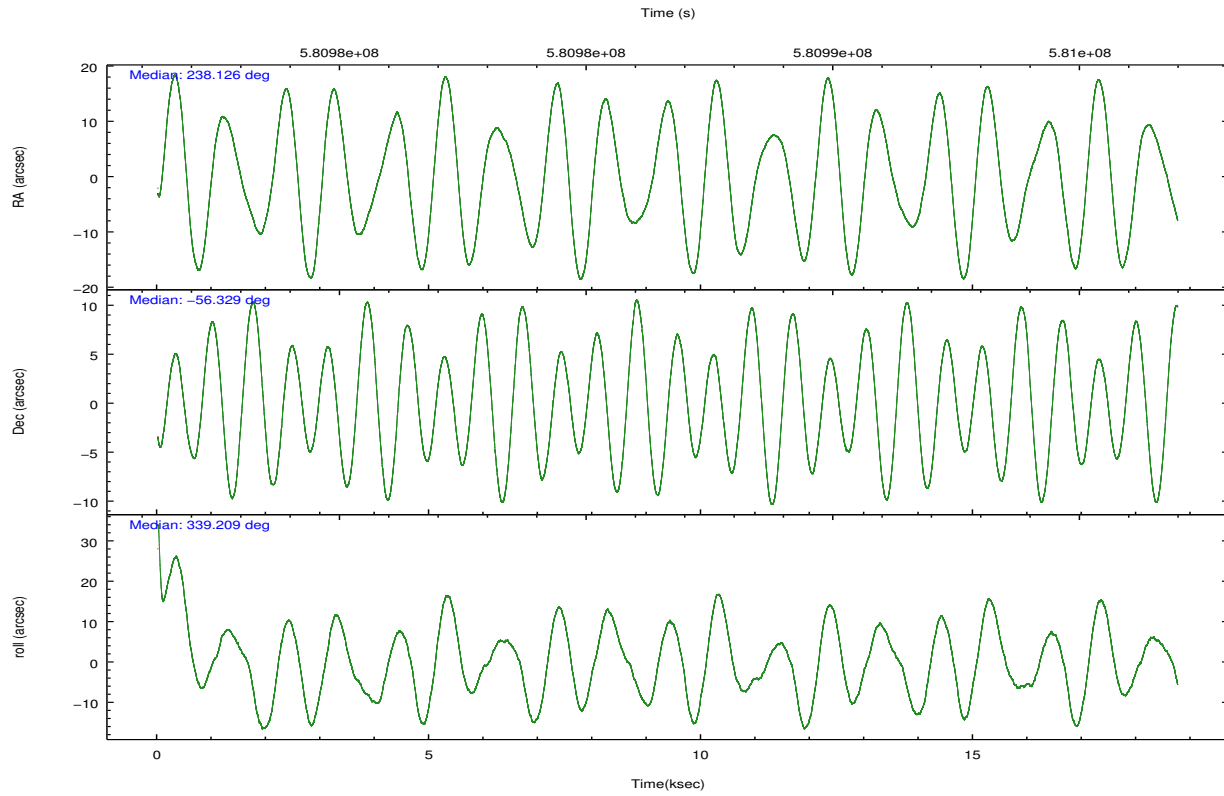
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	4361	18293	7881	7636	13337
	4%	10%	7%	5%	9%
grade 1 events	50	414	55	179	96
	0%	0%	0%	0%	0%
grade 2 events	2431	28834	3408	14725	9013
	2%	16%	3%	11%	6%
grade 3 events	1171	2677	1207	5325	3734
	1%	1%	1%	4%	2%
grade 4 events	1143	2410	1189	5185	3519
	1%	1%	1%	4%	2%
grade 5 events	4334	10849	4198	11604	6602
	4%	6%	3%	8%	4%
grade 6 events	2172	42609	2857	31266	9809
	2%	24%	2%	24%	7%
grade 7 events	89206	69900	91017	53340	90014
	85%	39%	81%	41%	66%

## 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	238.077701	238.1265120935658	CCD I2 on	N	N
[deg] Pointing Dec	-56.333668	-56.32892058495774	CCD I3 on	O1	Y
[deg] Pointing Roll	339.020554	339.2178161765453	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	-195.982523	-195.9783061800942	CCD S3 on	Y	Y
[mm] SIM translation stage offset	5.85	5.845783597086381	CCD S4 on	Y	Y
[s] Observation start time (MET)	580978053.184000	580976831.90318	CCD S5 on	N	N
Observation start date	2016-05-30T06:46:25	2016-05-30T06:27:11	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	580996053.184000	580997009.02933	On-chip summing requested	N	N
Observation end date	2016-05-30T11:46:25	2016-05-30T12:03:29	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





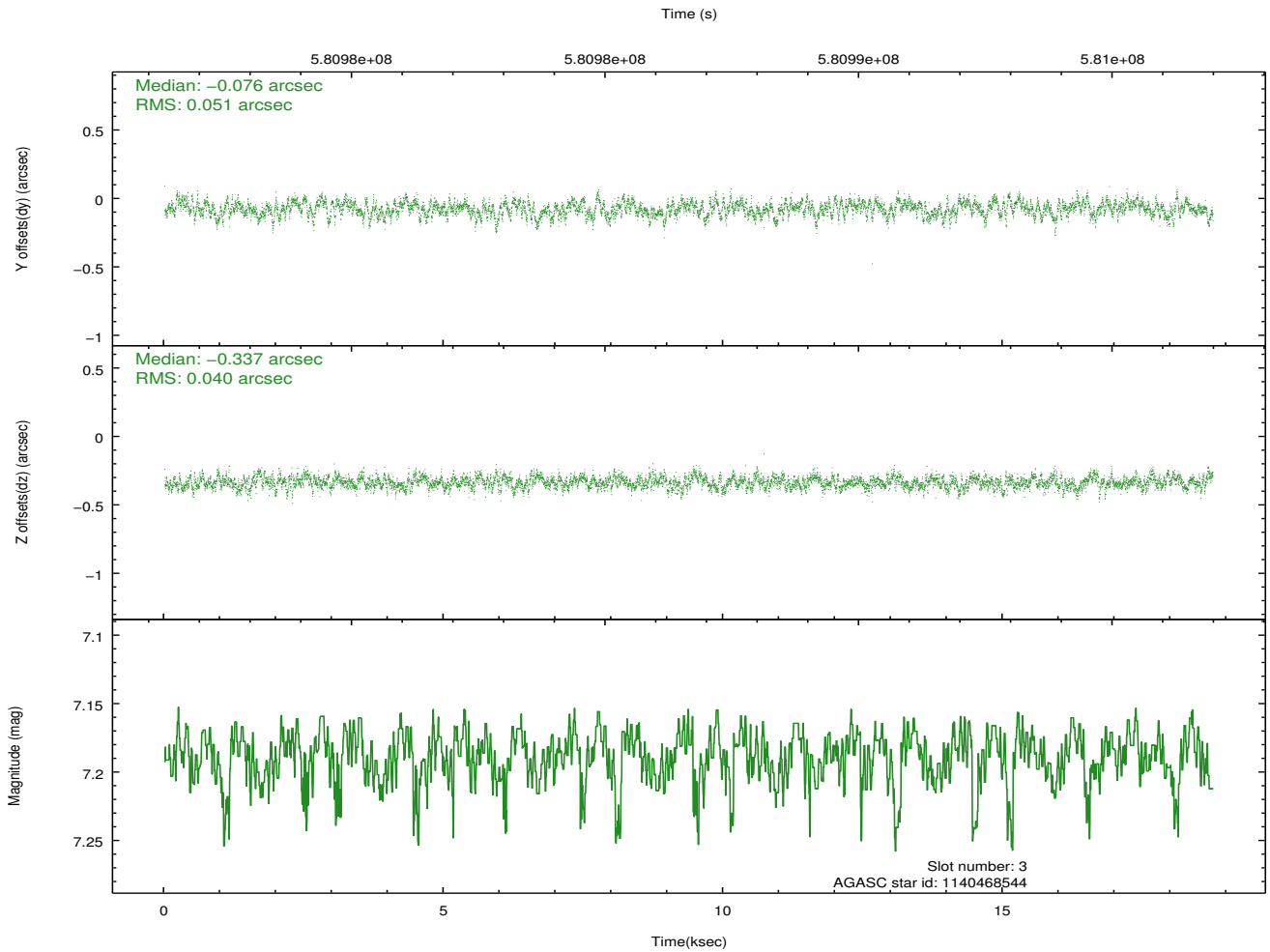
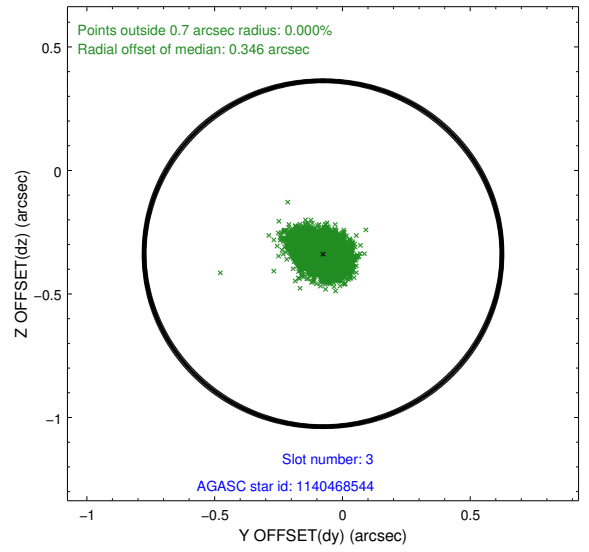
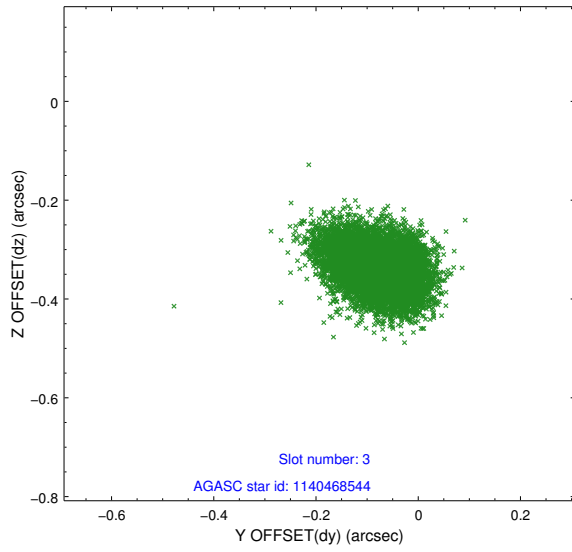
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.23	4574	0.091	-0.157	0.026	0.043	0.000000	0.000000	929.10	-1614.65
1	FID		ACIS-S-5	7.27	4573	-0.220	0.015	0.018	0.038	0.000000	0.000000	-1820.09	282.87
2	FID		ACIS-S-6	7.32	4572	0.106	0.154	0.017	0.032	0.000000	0.000000	394.43	927.21
3	GUIDE	used	1140468544	7.19	9146	-0.076	-0.337	0.068	0.113	237.524626	-55.920475	-1572.71	984.99
4	GUIDE	used	1141004216	8.14	9144	0.088	0.322	0.103	0.161	237.245988	-56.471011	-1363.40	-1062.97
5	GUIDE	used	1141010952	7.99	9143	0.042	-0.027	0.101	0.172	238.848370	-56.997192	2269.73	-1697.80
6	GUIDE	used	1140467912	8.82	9142	0.014	0.052	0.110	0.227	237.351144	-55.585312	-2342.15	1978.56
7	GUIDE	used	1140999568	8.34	9140	-0.059	-0.017	0.095	0.158	238.959271	-56.938917	2400.50	-1424.18

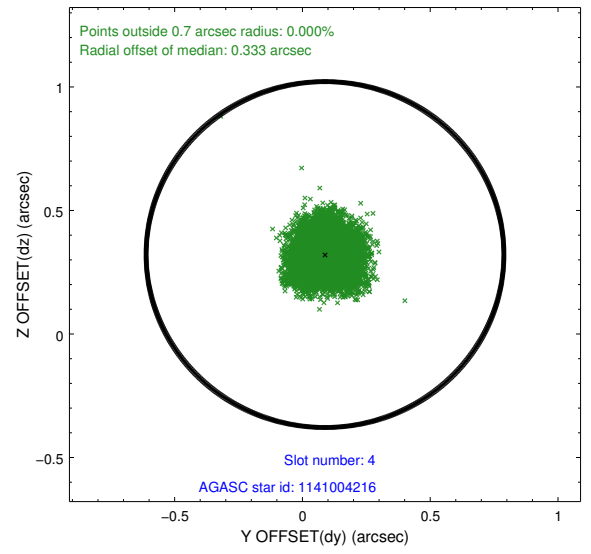
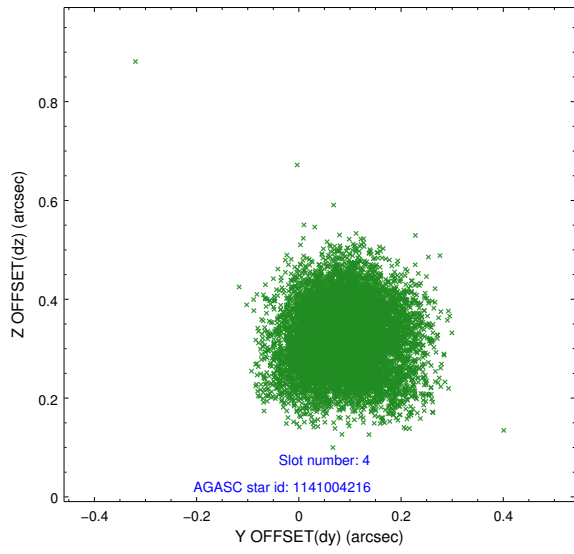
∞

## 2.4 Star Slots

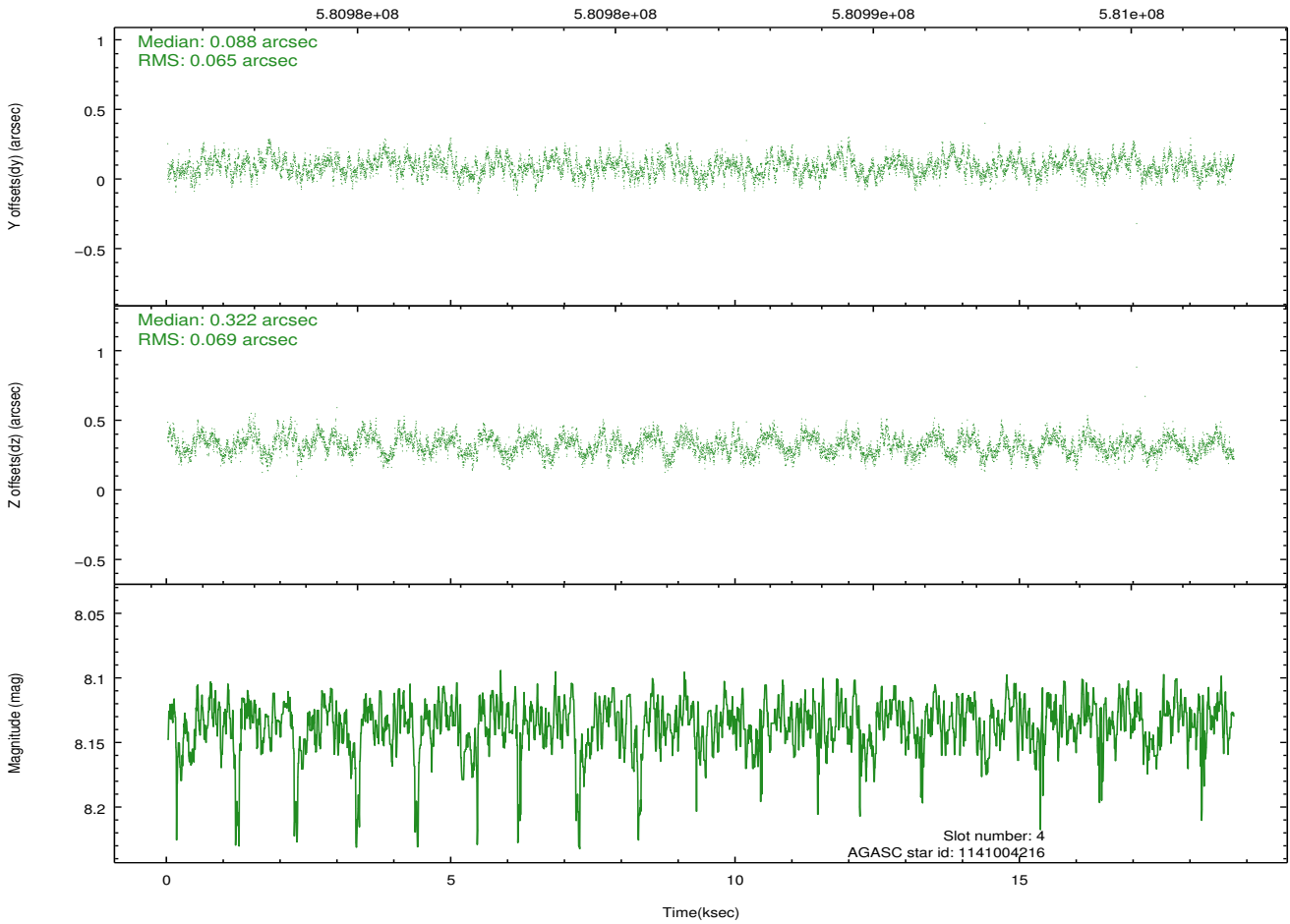
### 2.4.1 Slot 3



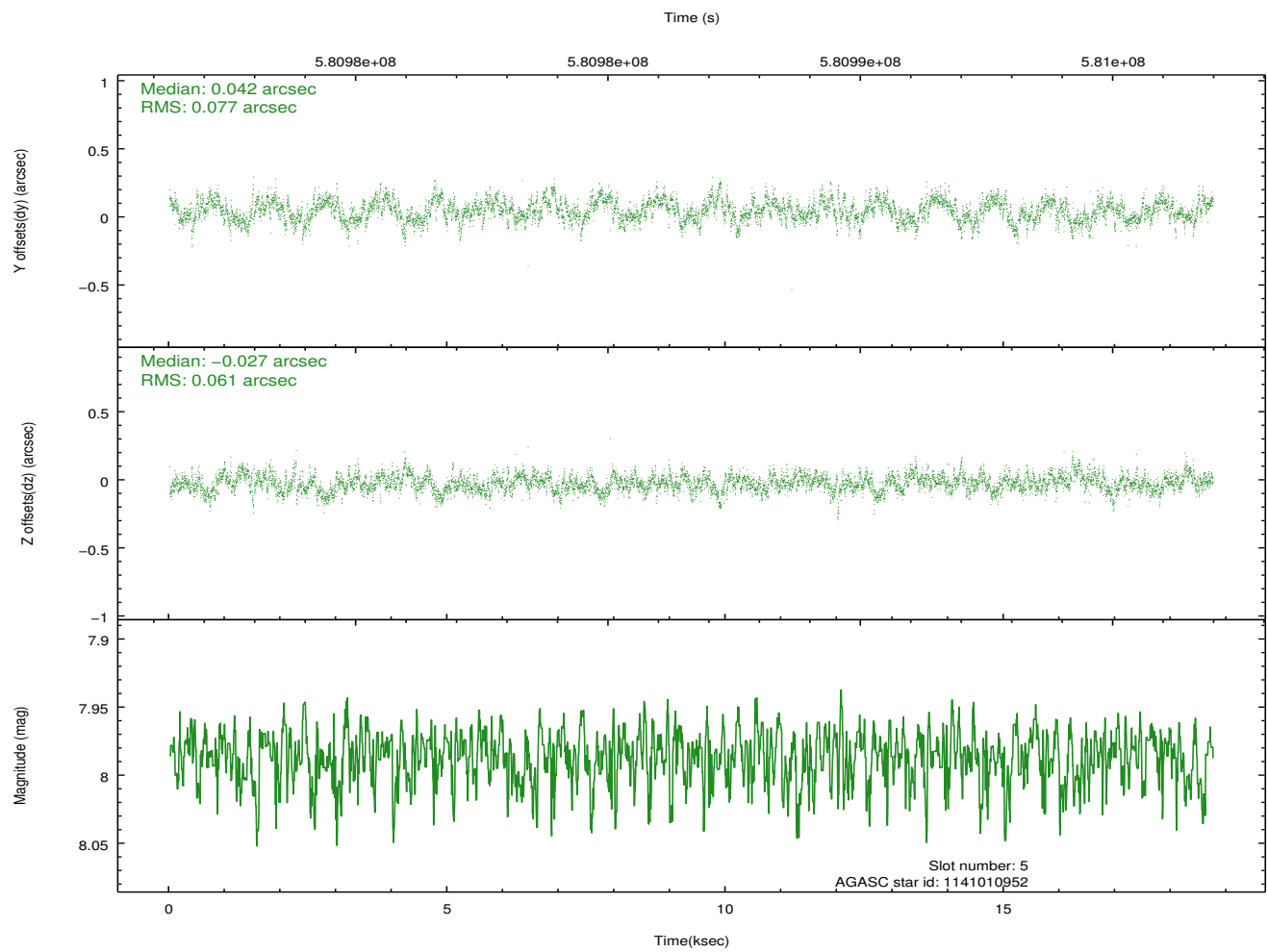
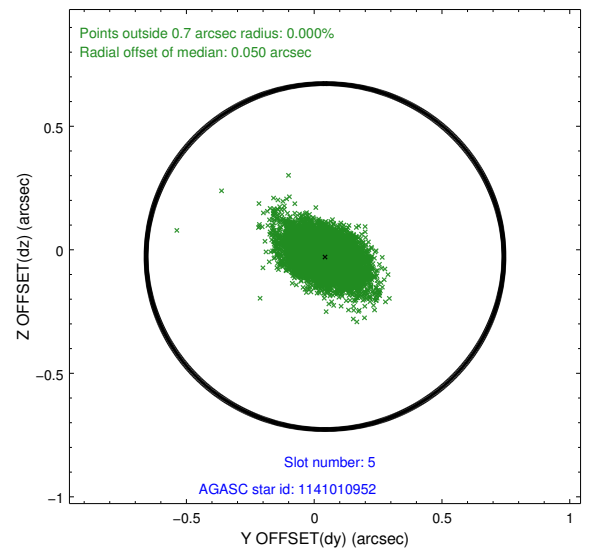
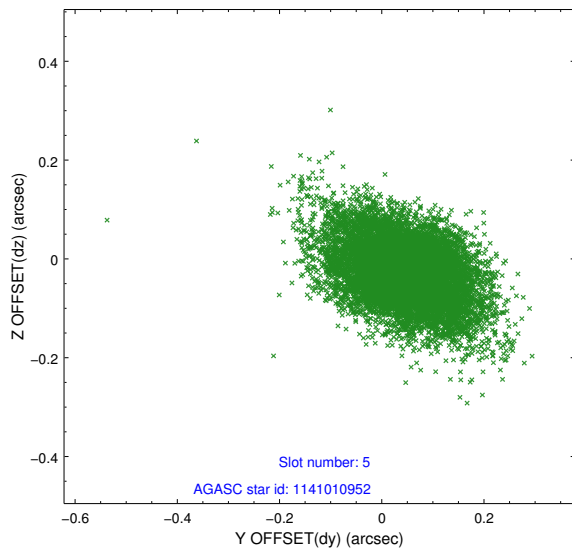
## 2.4.2 Slot 4



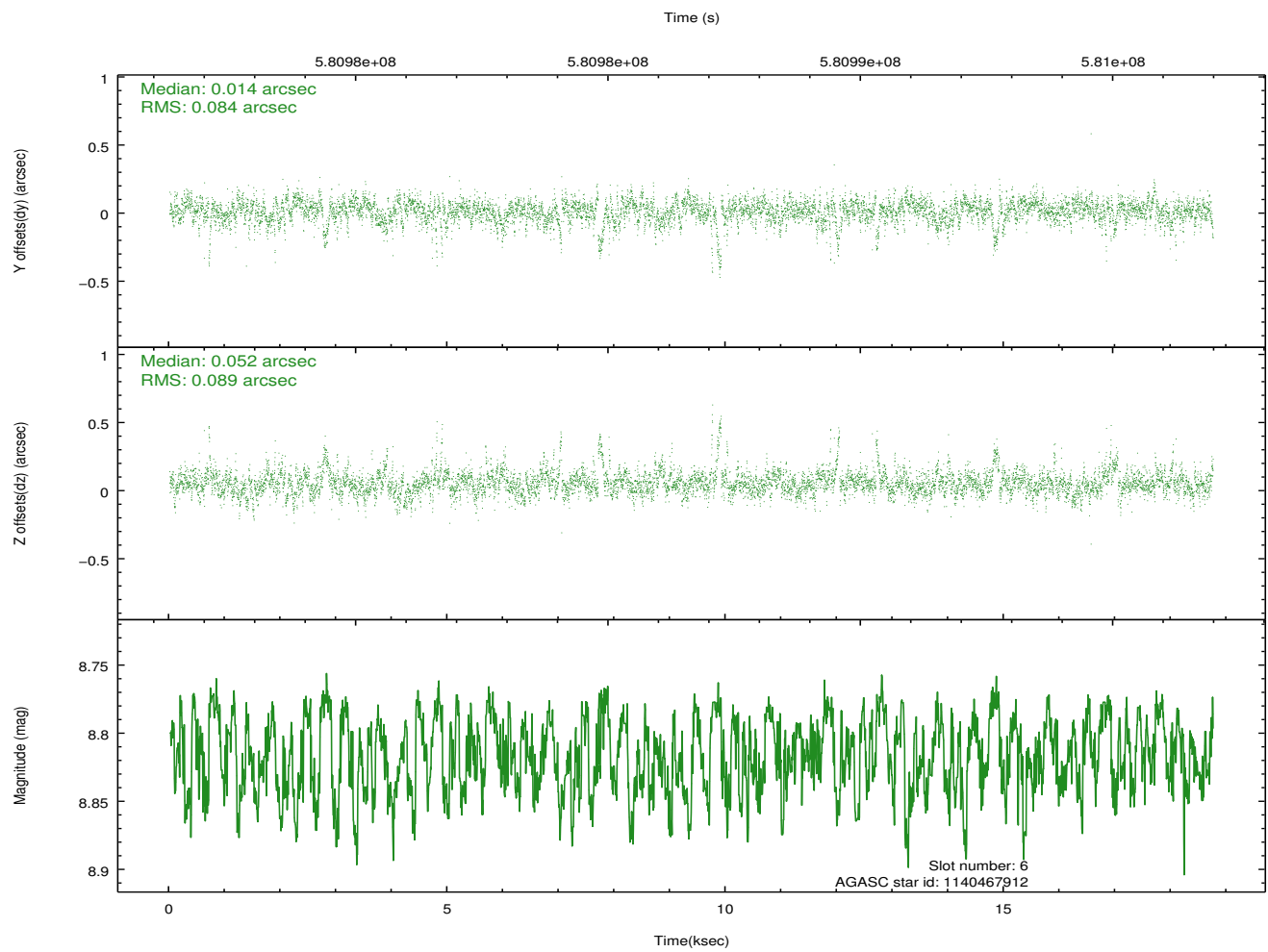
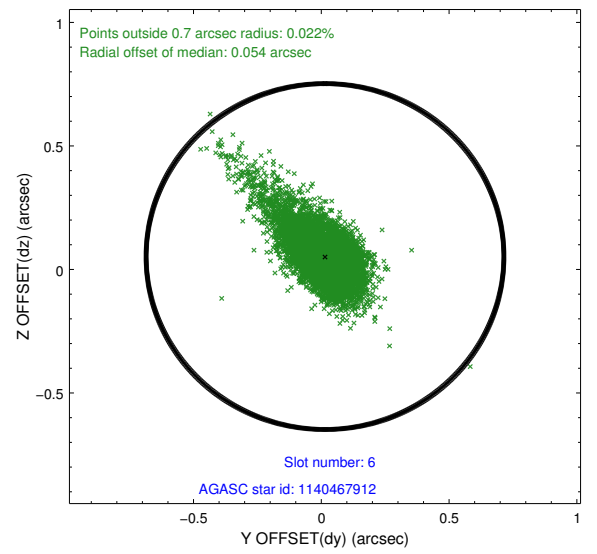
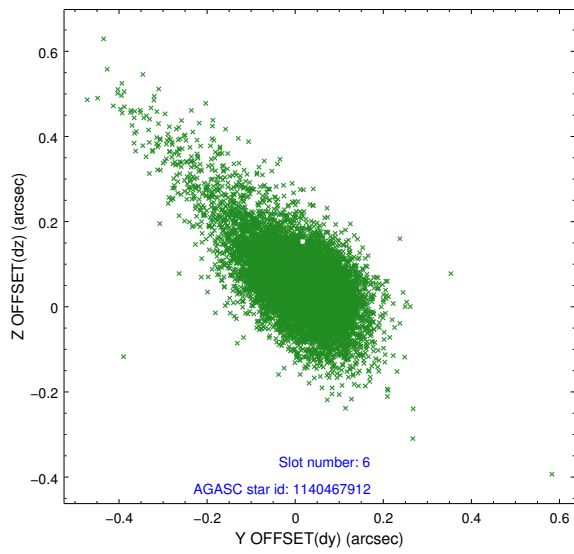
Time (s)



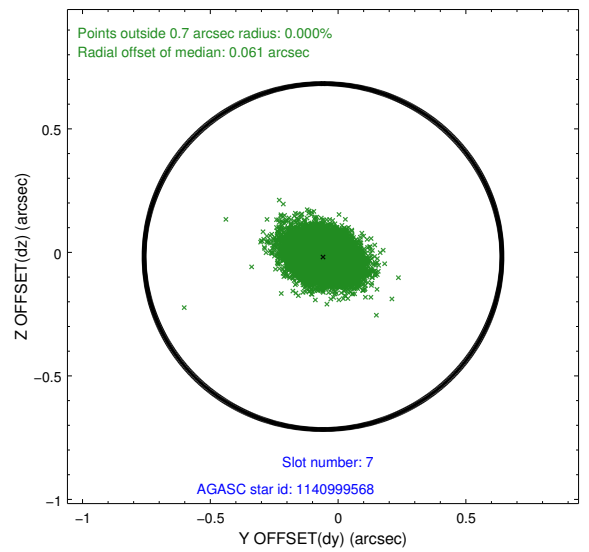
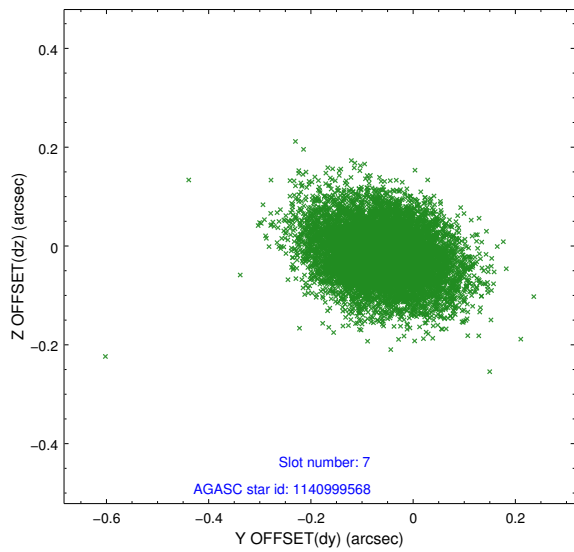
### 2.4.3 Slot 5



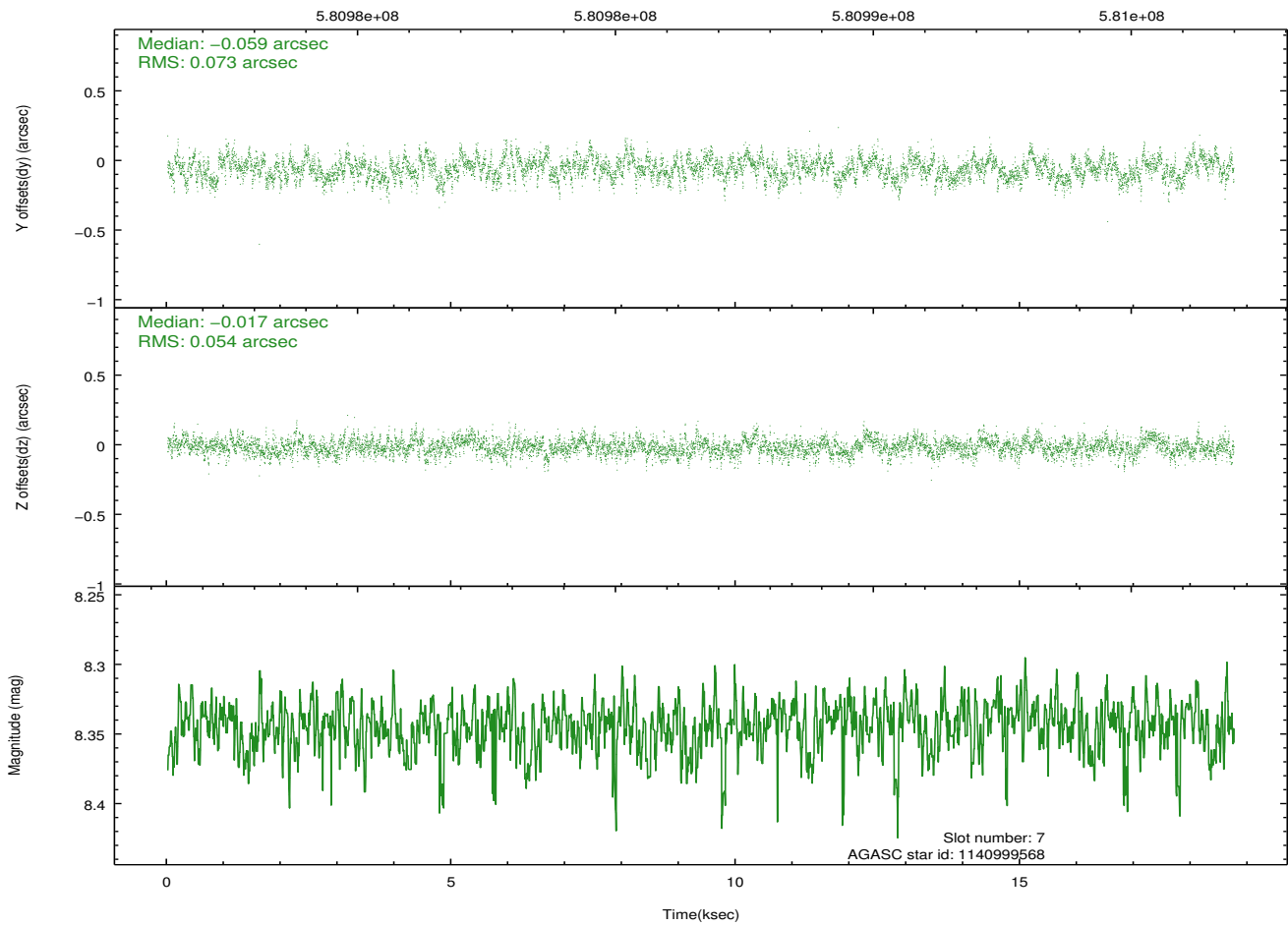
## 2.4.4 Slot 6



## 2.4.5 Slot 7

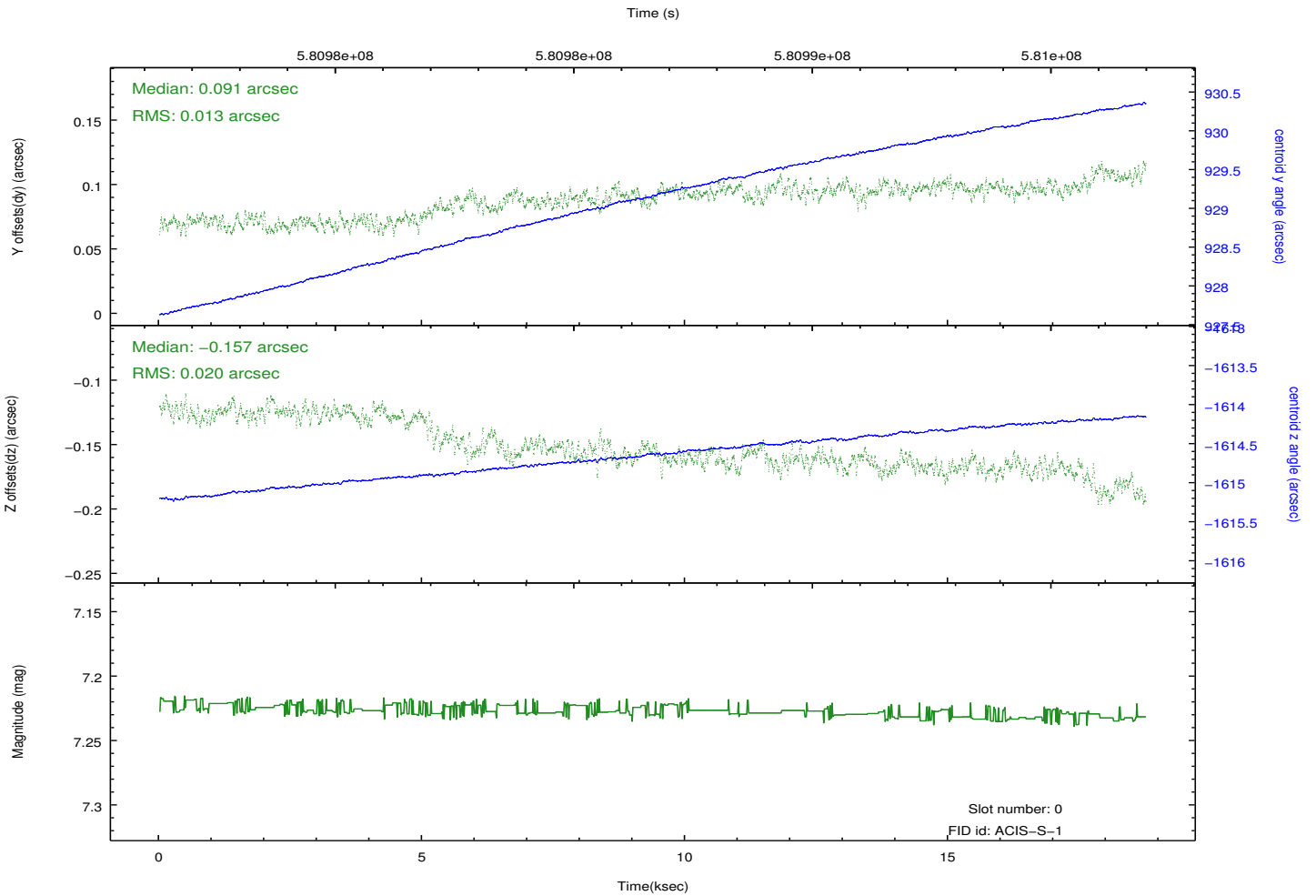
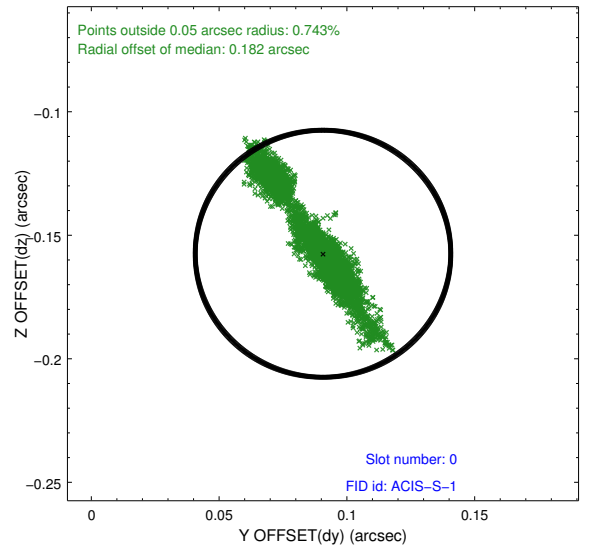
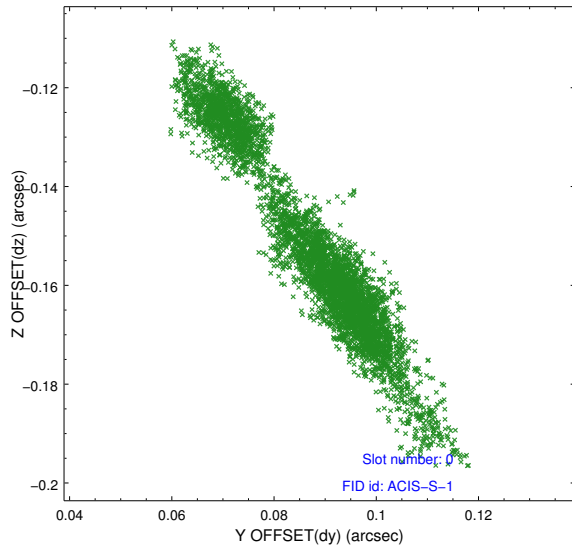


Time (s)

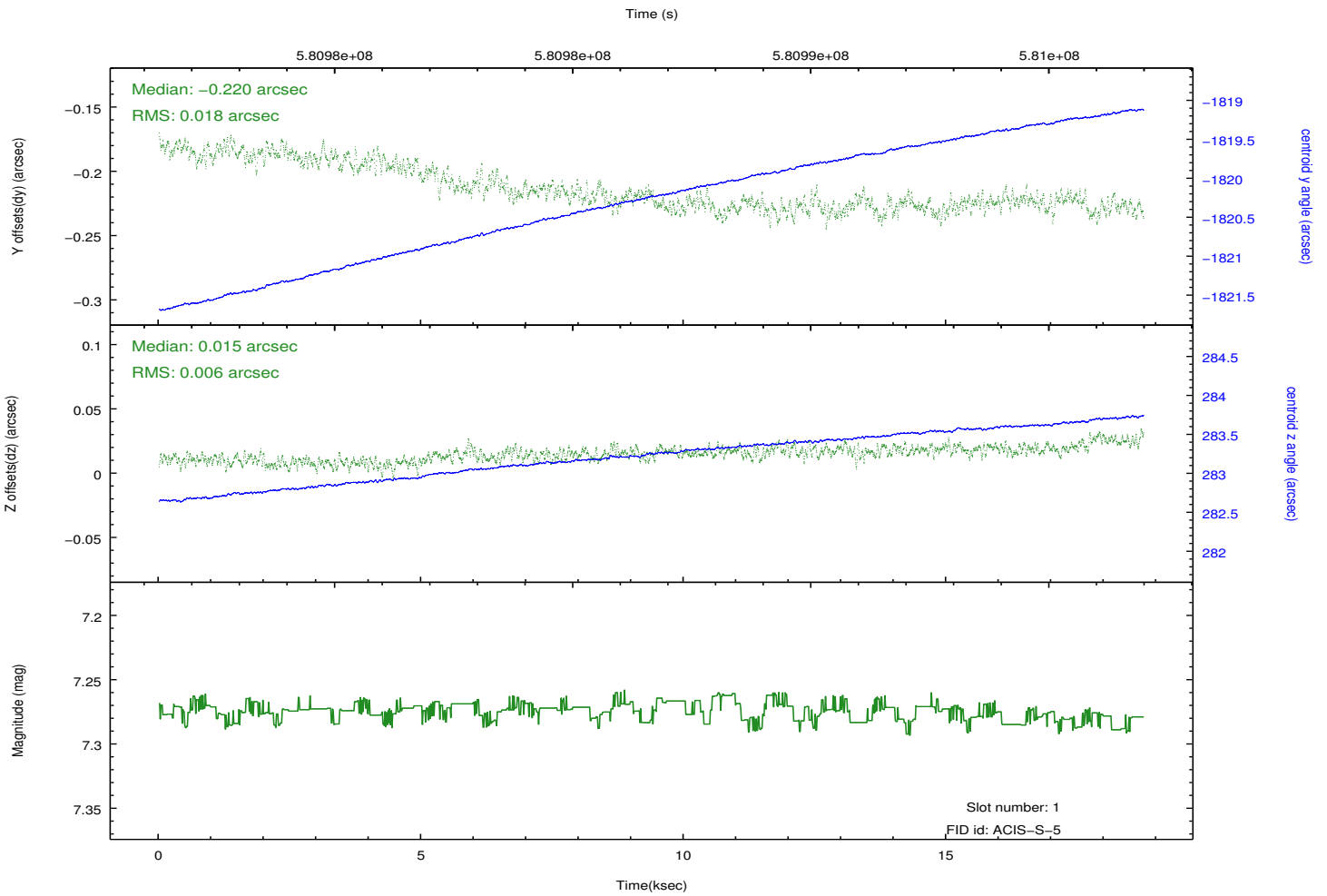
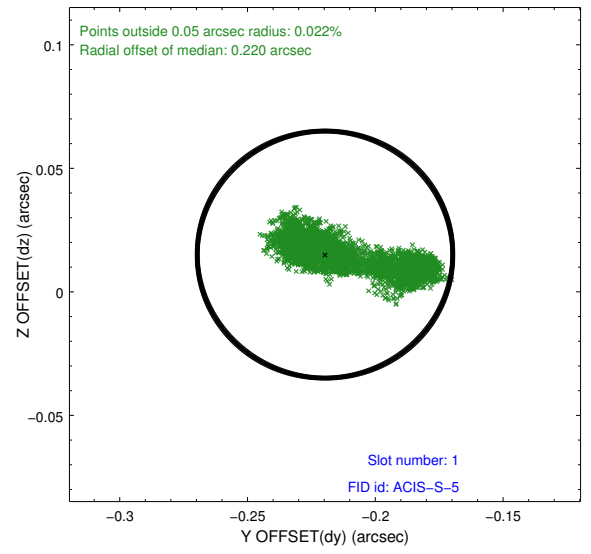
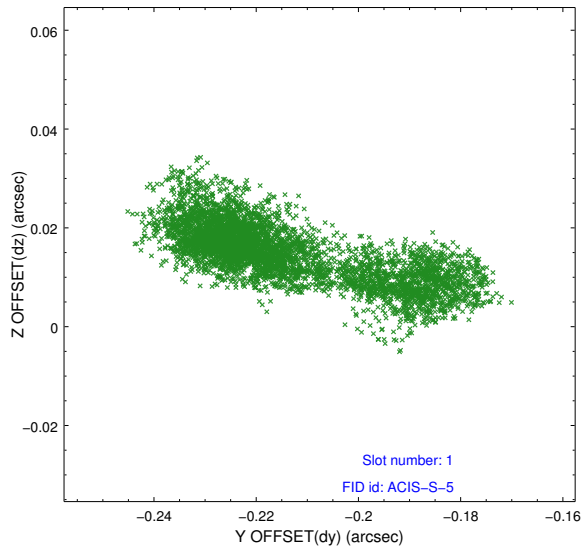


## 2.5 FID Slots

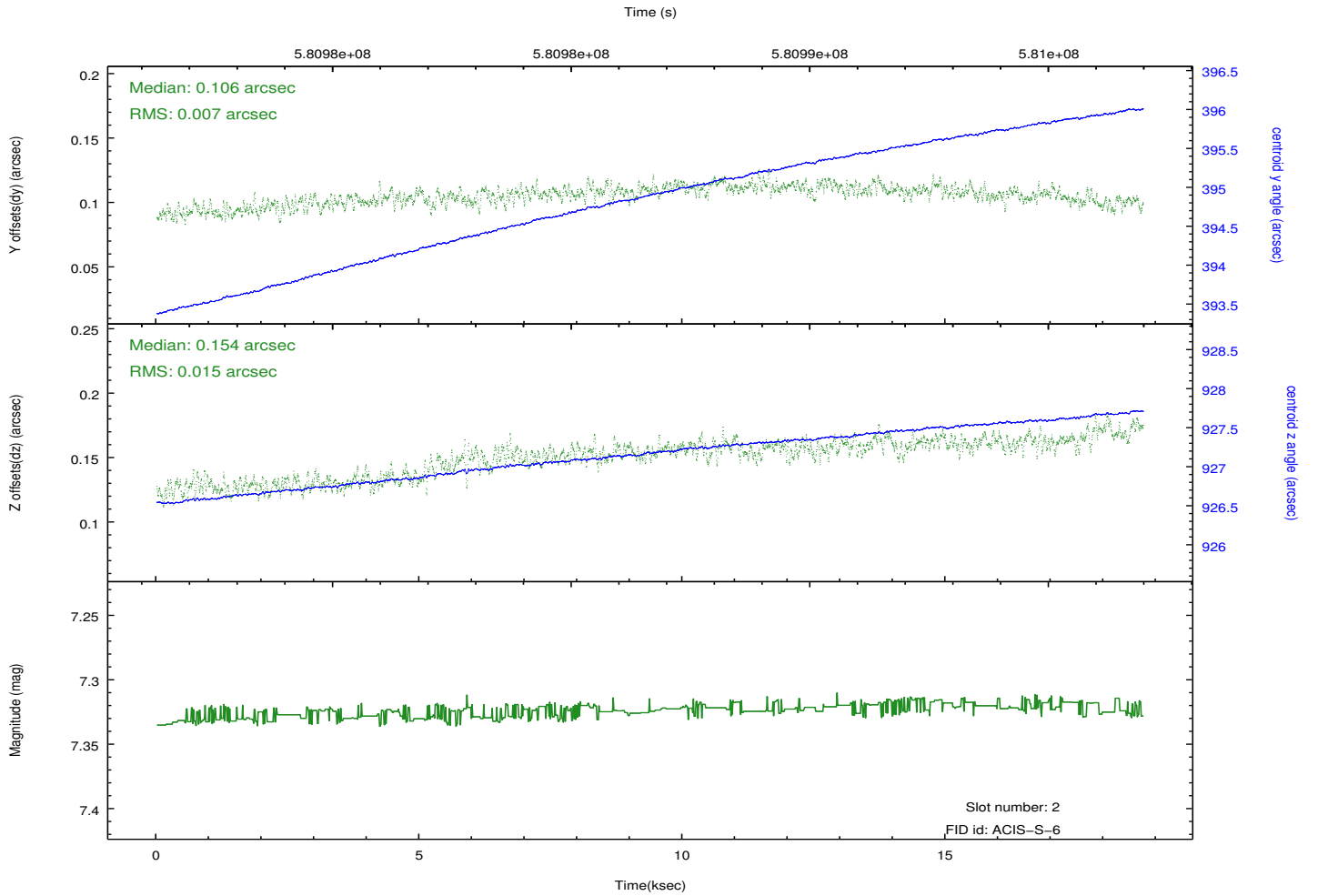
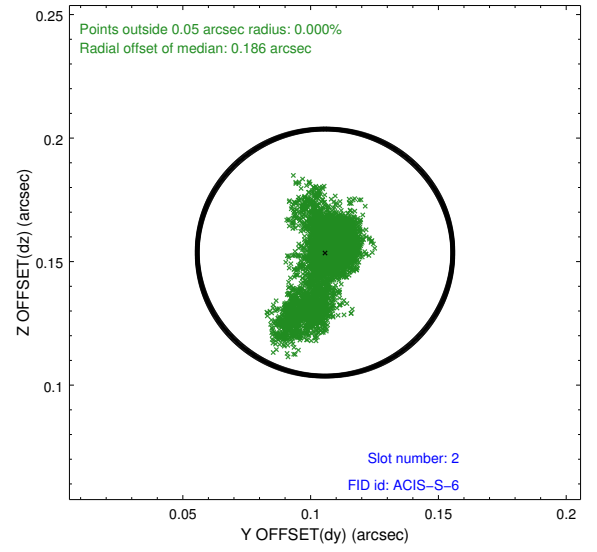
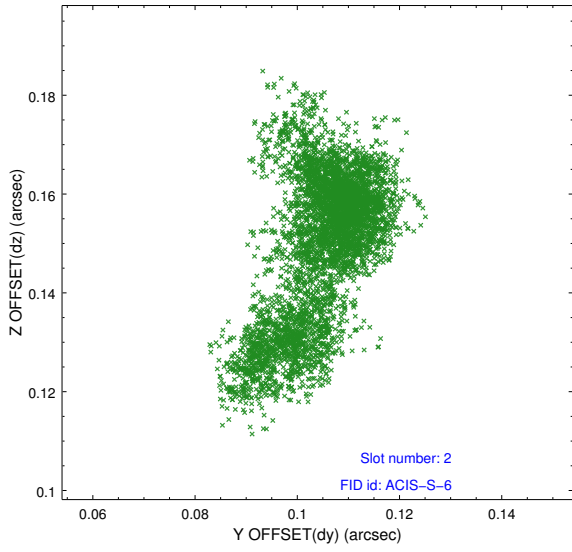
### 2.5.1 Slot 0



## 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)	2016.05.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.03125413096

## A.2 Comments

Roll preference met.