

# V&V Reference Report

## L2 ASCDS Version : 10.2.2

Observation 16064 - L2 Version 2  
Chandra X-Ray Center

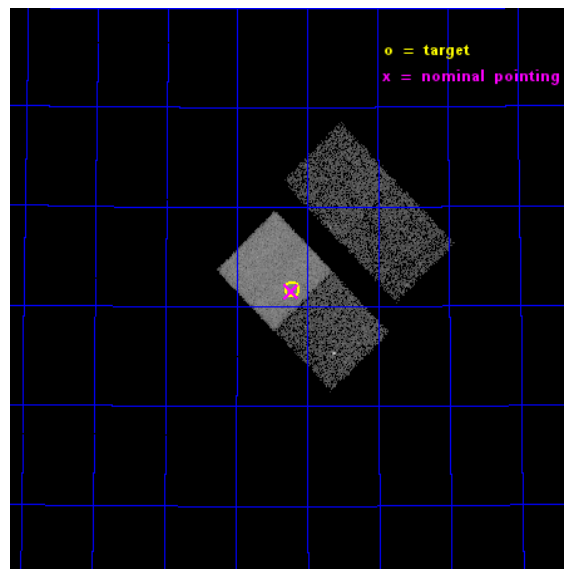
L2 Processing Date : Dec 11 2014

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# 1 Front

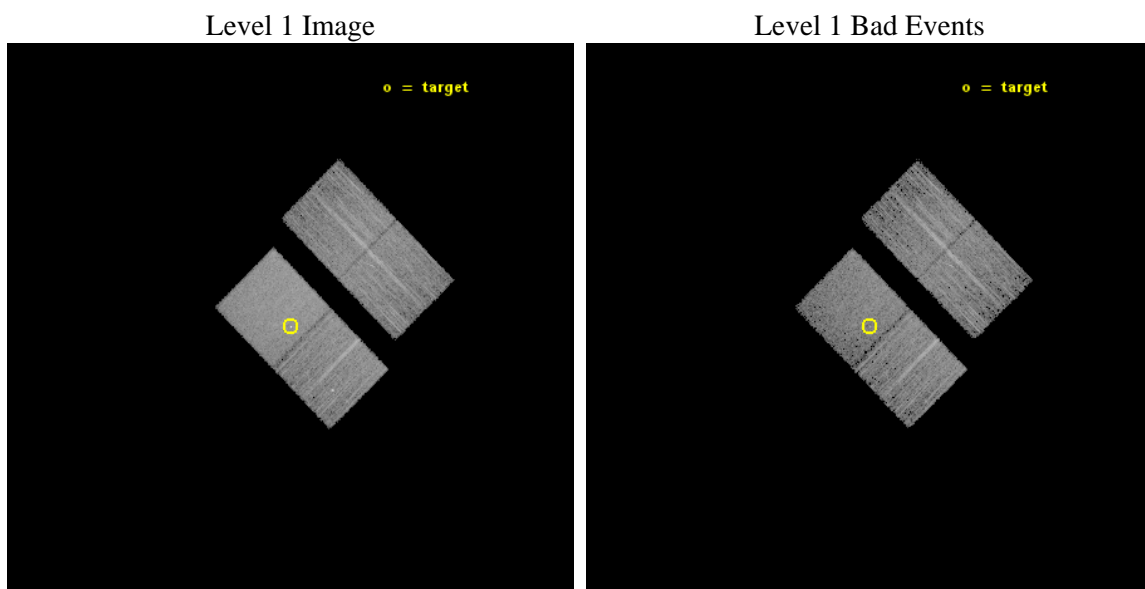
seq_num	702958	Sequence number
obs_id	16064	Observation id
title	Continuing the Chandra 3CR Snapshot Survey: 23 Radio Sources with 0.5	Proposal title
observer	Dr. Francesco Massaro	Principal investigator
object	3C288.1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	205.555417	Observer's specified target RA [deg]
dec_targ	60.361889	Observer's specified target Dec [deg]
ra_nom	205.55681482775	Nominal RA [deg]
dec_nom	60.35892270944	Nominal Dec [deg]
roll_nom	225.51037377498	Nominal Roll [deg]
revision	2	Processing version of data
ontime	12077.600092888	Sum of GTIs [s]
livetime	11919.797356274	Livetime [s]
ontime2	12077.600092888	Sum of GTIs [s]
ontime3	12077.600092888	Sum of GTIs [s]
ontime6	12077.600092888	Sum of GTIs [s]
ontime7	12077.600092888	Sum of GTIs [s]
l2events	51180	Number of level 2 events



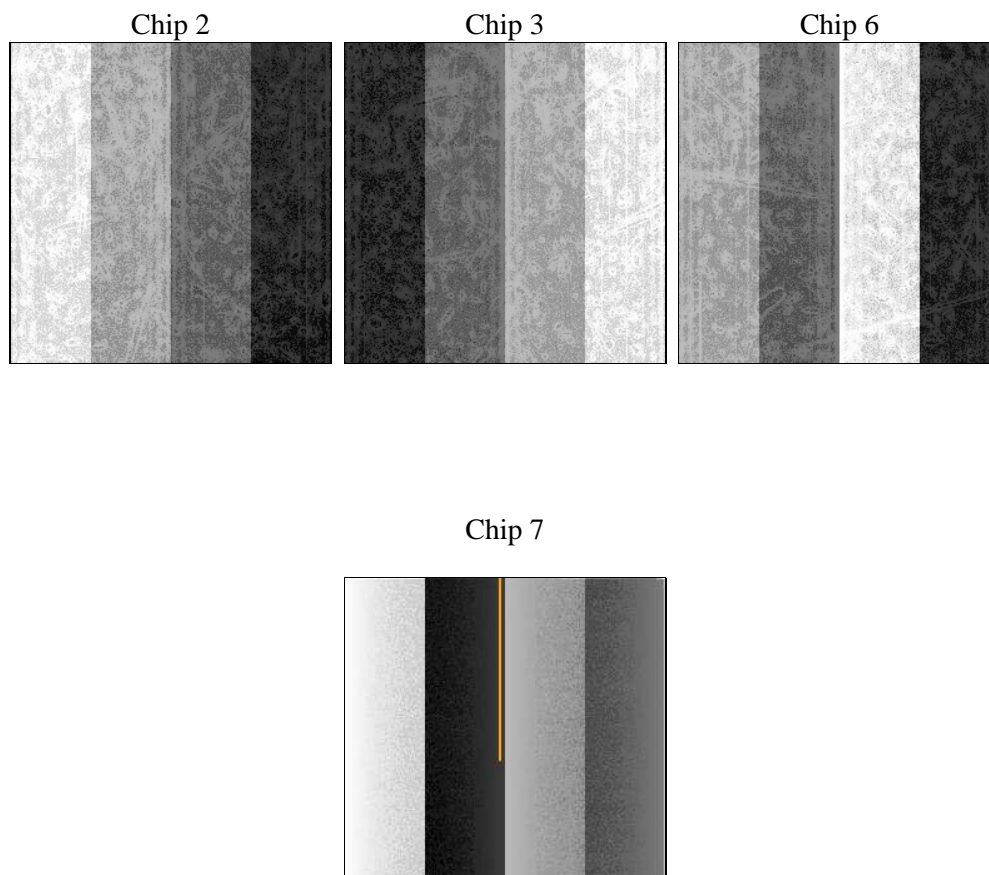
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	12000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	12077.600092888	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime2	12077.600092888	Sum of GTIs [s]
date	2014-12-12T01:23:18	Date and time of file creation	ontime3	12077.600092888	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	12077.600092888	Sum of GTIs [s]
			ontime7	12077.600092888	Sum of GTIs [s]
			l1events	251022	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	56399	55677	60542	78404
rejected events	50092	49362	53034	44027
rejected %	88%	88%	87%	56%

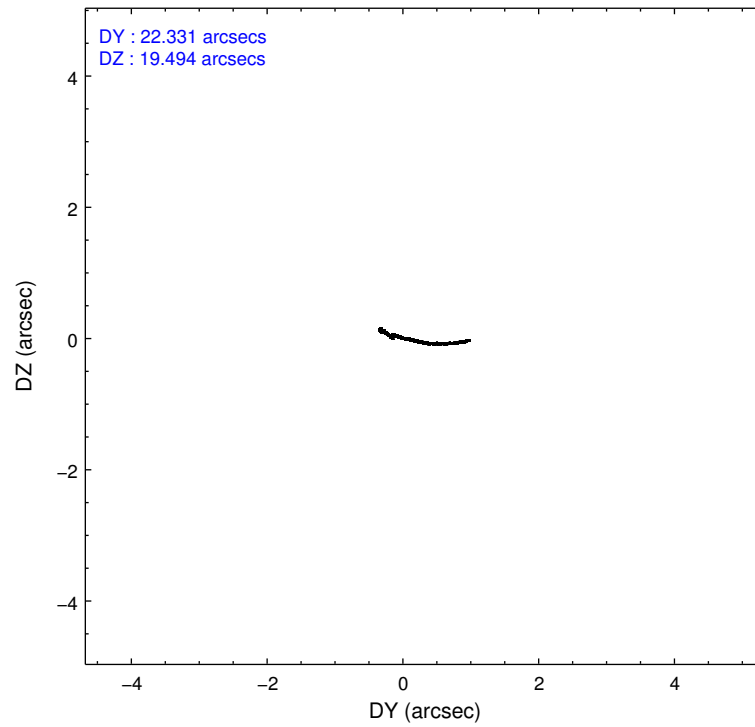
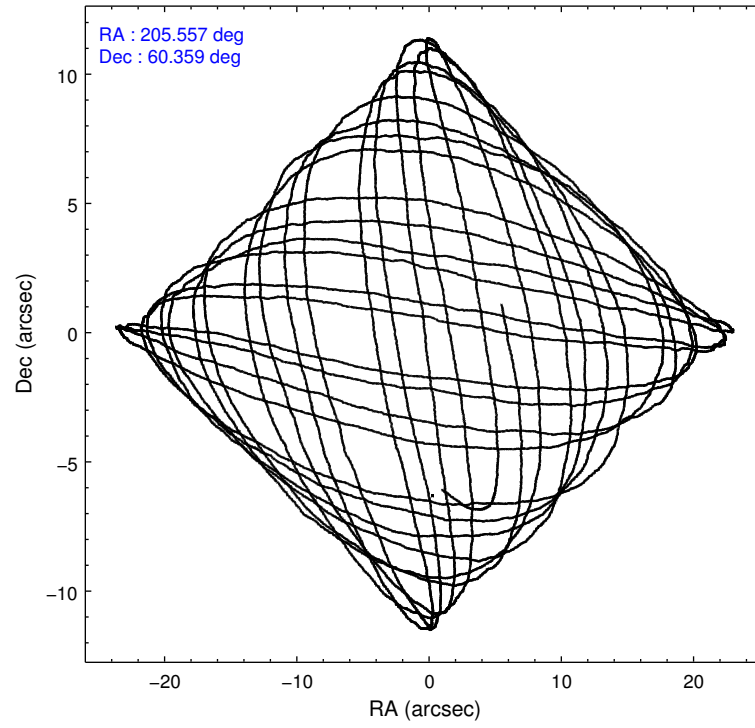
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2338	2228	2783	3110
	4%	4%	4%	3%
grade 1 events	31	31	28	77
	0%	0%	0%	0%
grade 2 events	1438	1363	1637	7136
	2%	2%	2%	9%
grade 3 events	661	697	689	2781
	1%	1%	1%	3%
grade 4 events	661	657	670	2724
	1%	1%	1%	3%
grade 5 events	2367	2948	2875	7616
	4%	5%	4%	9%
grade 6 events	1209	1372	1730	18637
	2%	2%	2%	23%
grade 7 events	47694	46381	50130	36323
	84%	83%	82%	46%

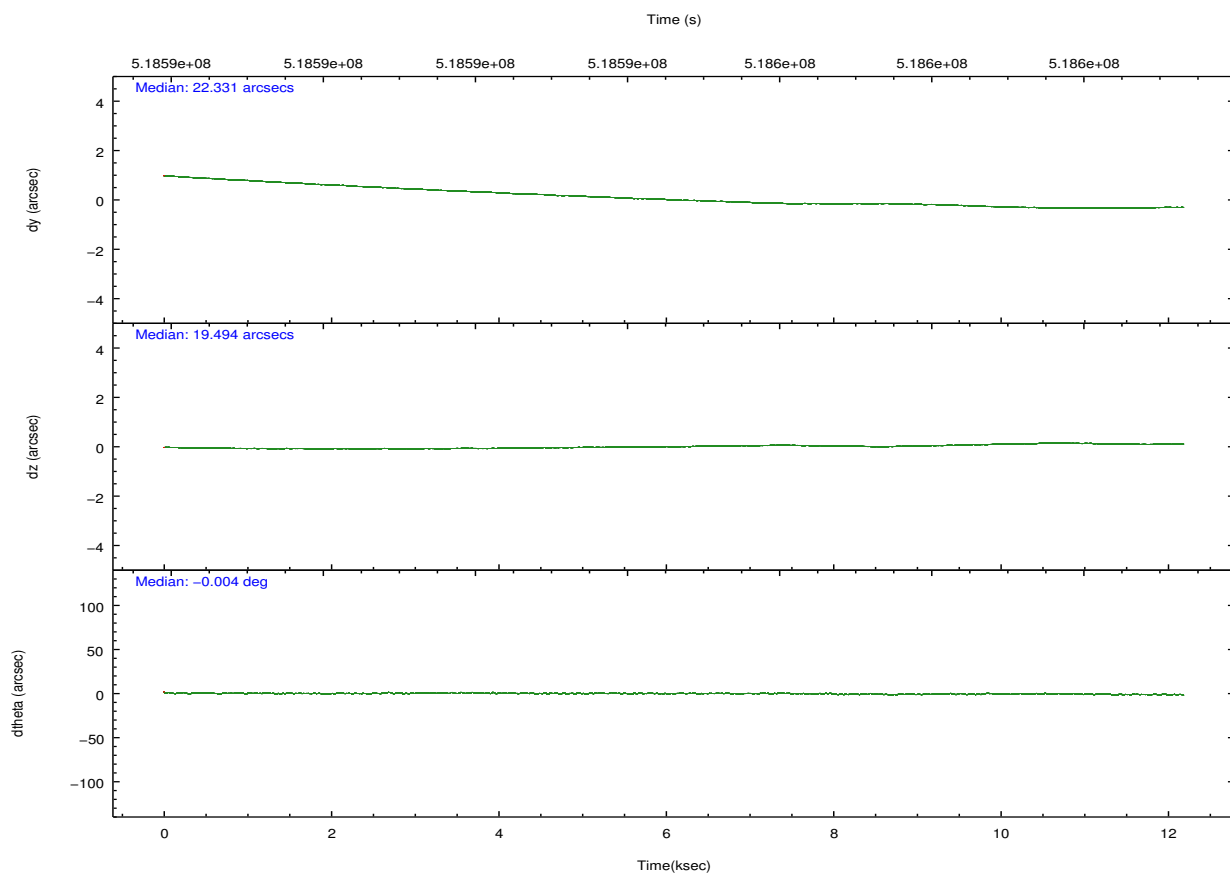
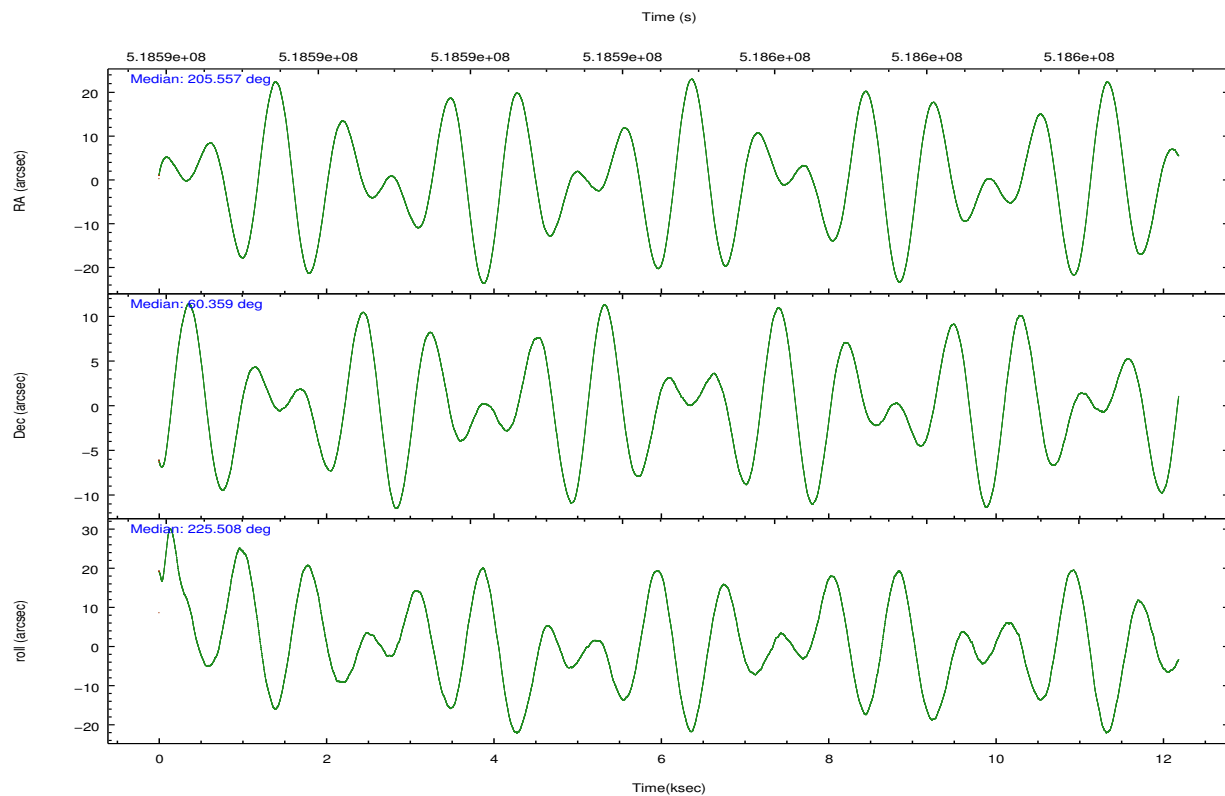


## 2.2 Compared Parameters

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	205.569909	205.5568148277549	CCD I2 on	O1	Y
[deg] Pointing Dec	60.385495	60.35892270943959	CCD I3 on	O2	Y
[deg] Pointing Roll	225.342369	225.510373774976	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)	518588693.184000	518587661.69715	CCD S5 on	N	N
Observation start date	2014-06-08T04:23:46	2014-06-08T04:07:41	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	518600693.184000	518601751.86043	On-chip summing requested	N	N
Observation end date	2014-06-08T07:43:46	2014-06-08T08:02:31	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



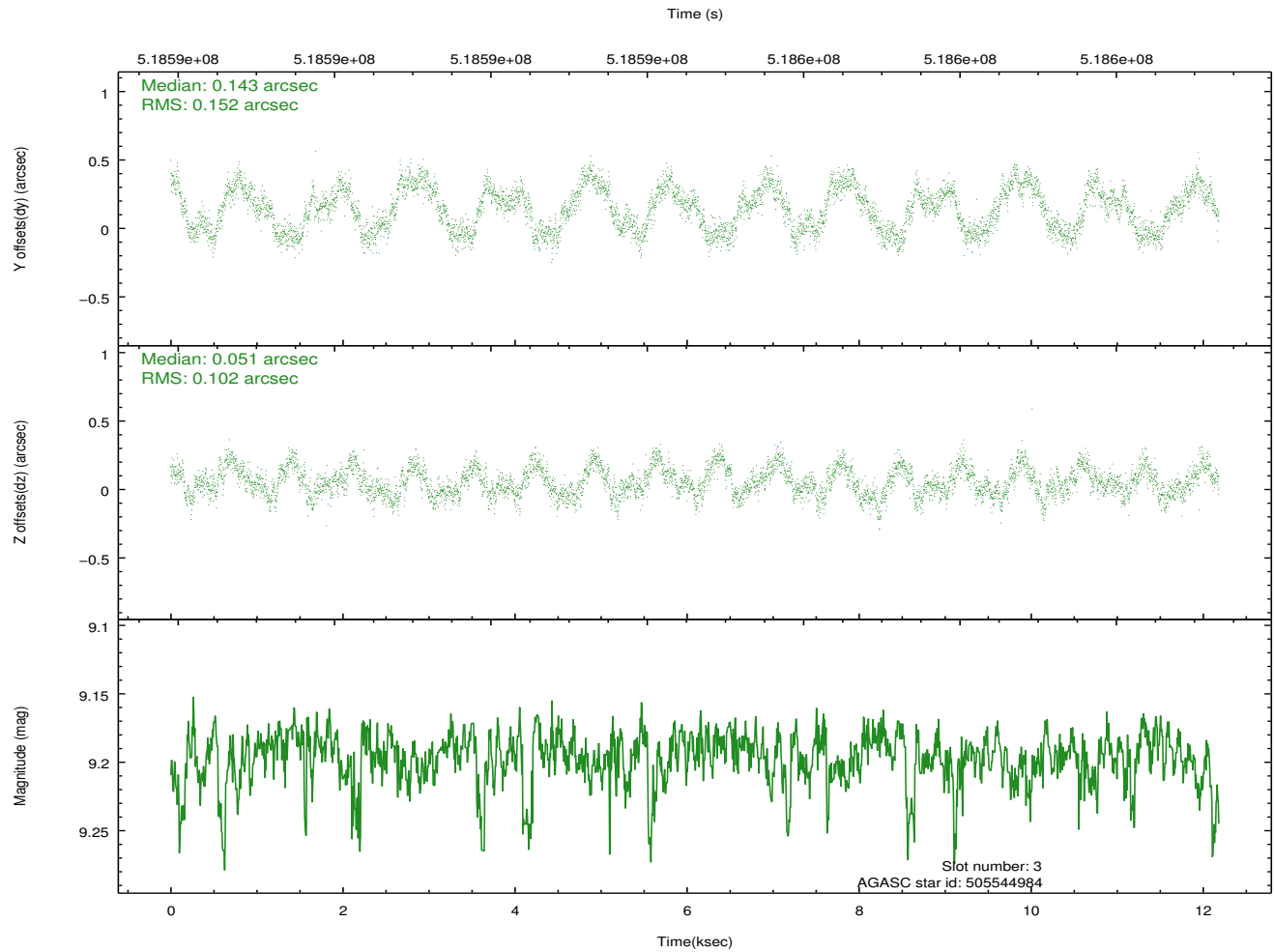
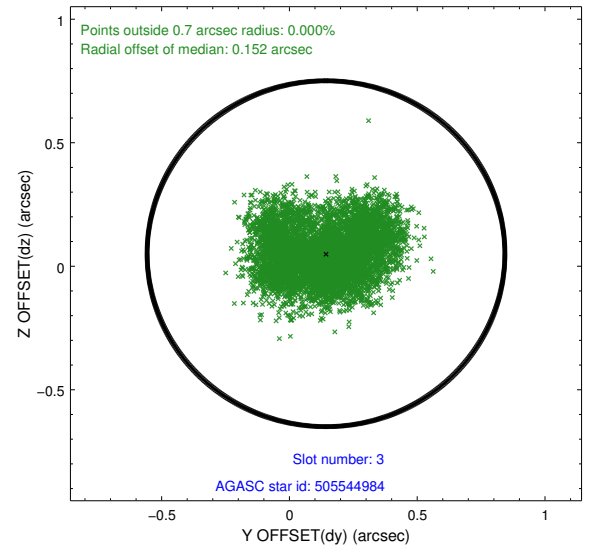
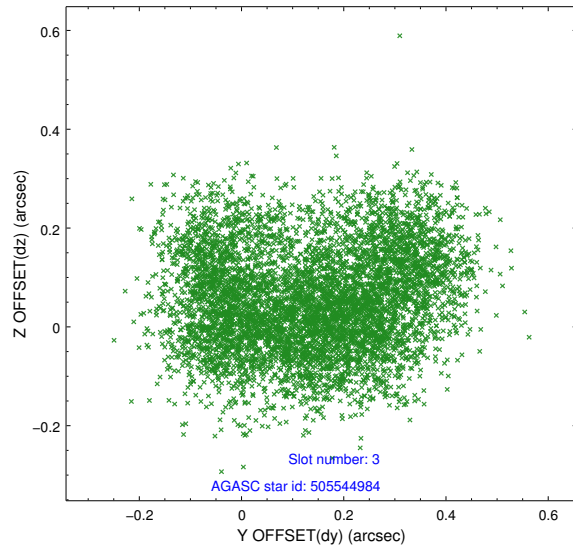


Slot Statistics

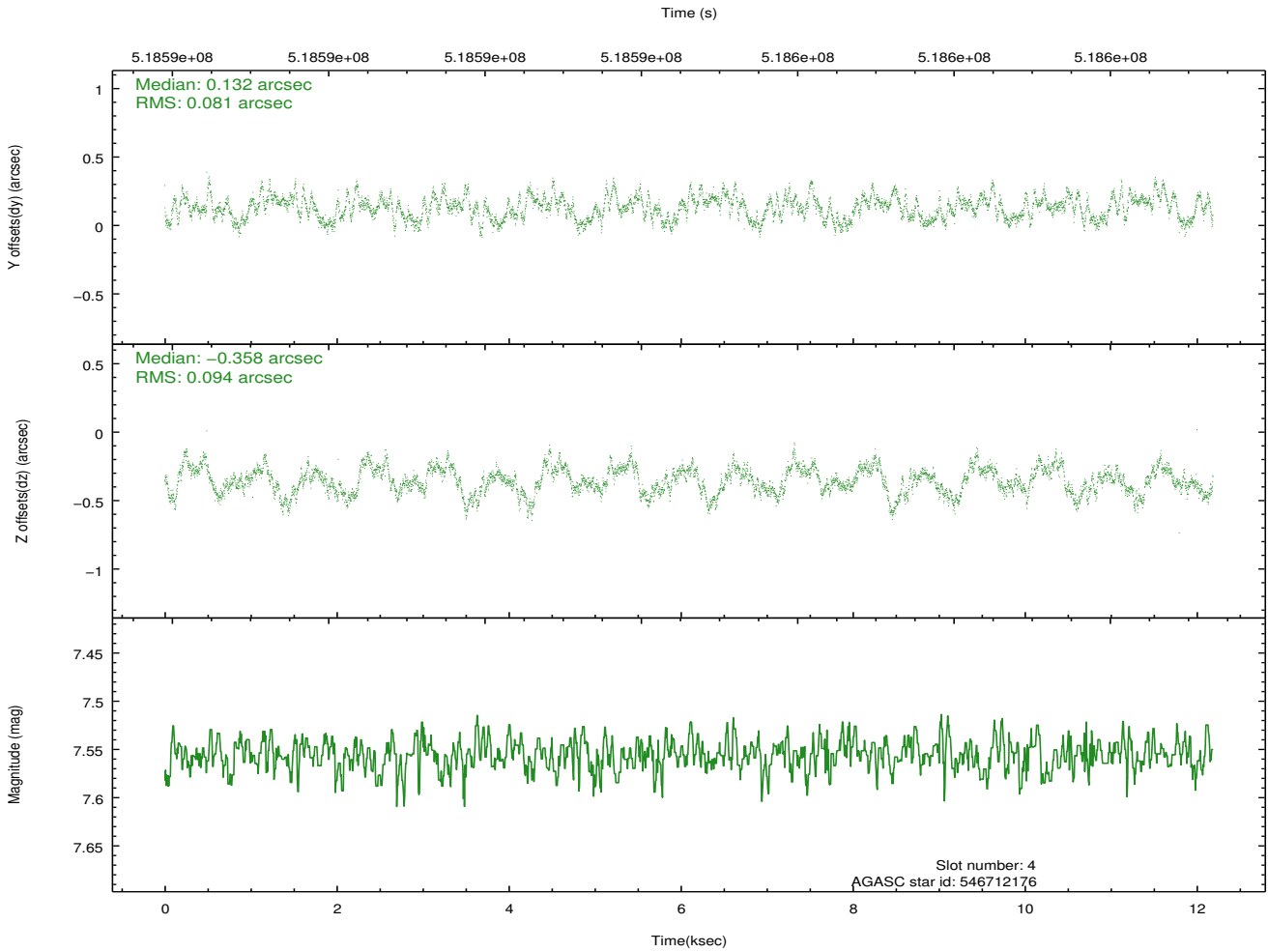
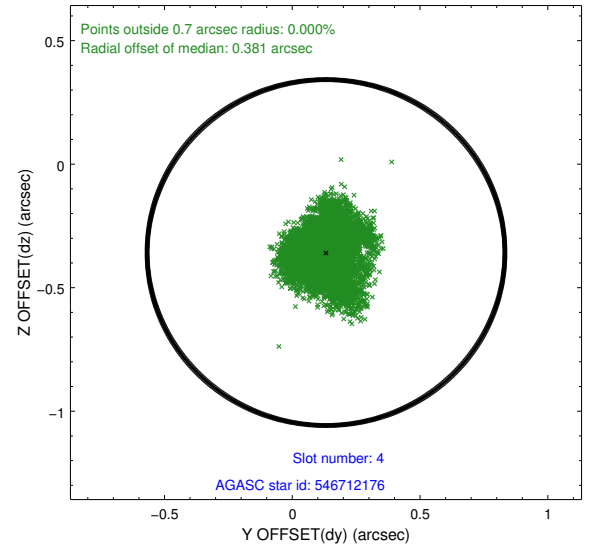
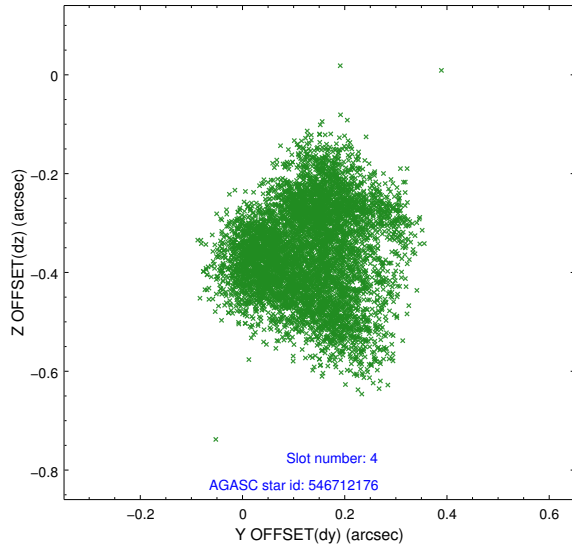
lot	status	used	id	mag	n_pts	med_dy	med_dz	drl	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.09	2973	-0.139	-0.046	0.012	0.021	0.000000	0.000000	-775.75	-1741.00
1	FID		ACIS-S-4	7.18	2973	0.317	0.080	0.023	0.044	0.000000	0.000000	2137.78	167.20
2	FID		ACIS-S-5	7.21	2972	-0.212	-0.025	0.019	0.027	0.000000	0.000000	-1828.16	161.27
3	GUIDE	used	505544984	9.20	5940	0.143	0.051	0.205	0.295	205.182984	59.728581	2174.05	1161.67
4	GUIDE	used	546712176	7.56	5943	0.132	-0.358	0.134	0.201	205.967658	60.145538	112.59	1112.57
5	GUIDE	used	546712240	8.61	5943	-0.259	0.082	0.126	0.197	206.739828	60.167374	-927.39	2029.38
6	GUIDE	used	546712584	9.52	5939	-0.007	0.225	0.166	0.257	206.703539	60.248567	-1085.18	1775.24
7	BAD	unused	505545160	9.26	1	-0.930	0.636	0.000	0.000	205.185725	59.714842	1112.30	2979.57

## 2.4 Star Slots

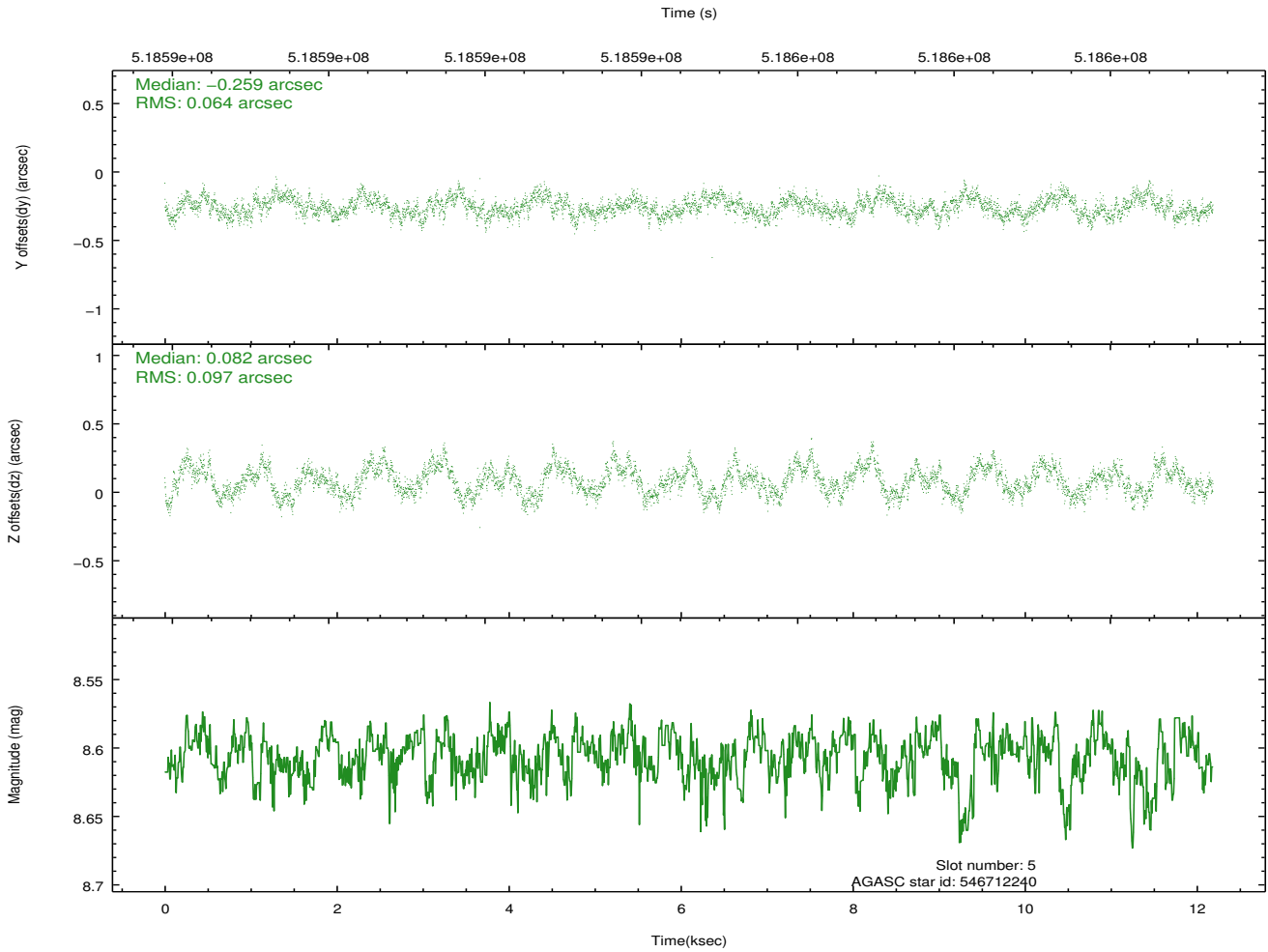
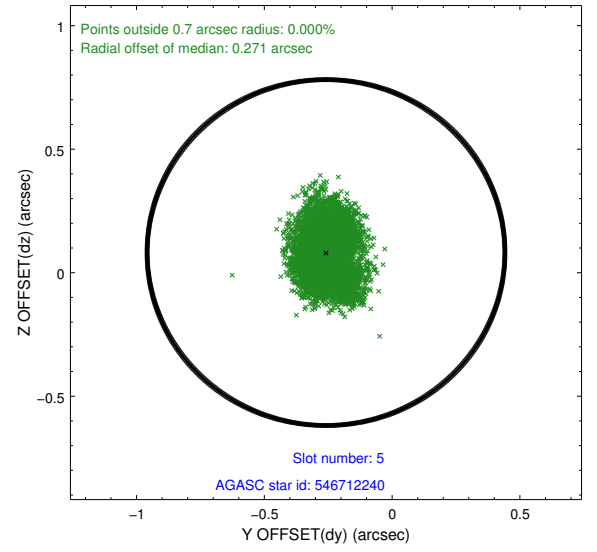
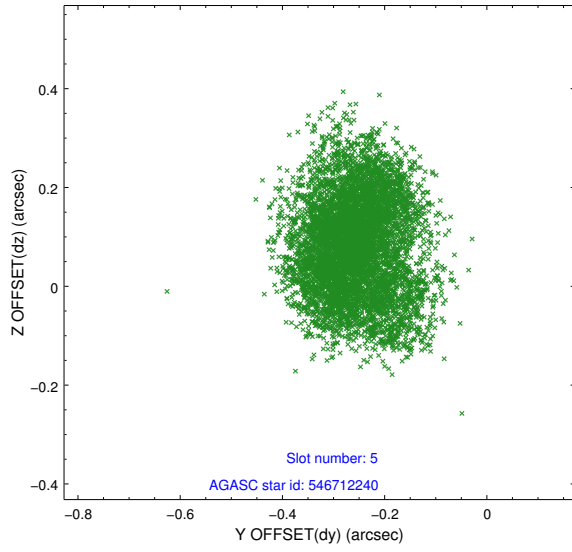
### 2.4.1 Slot 3



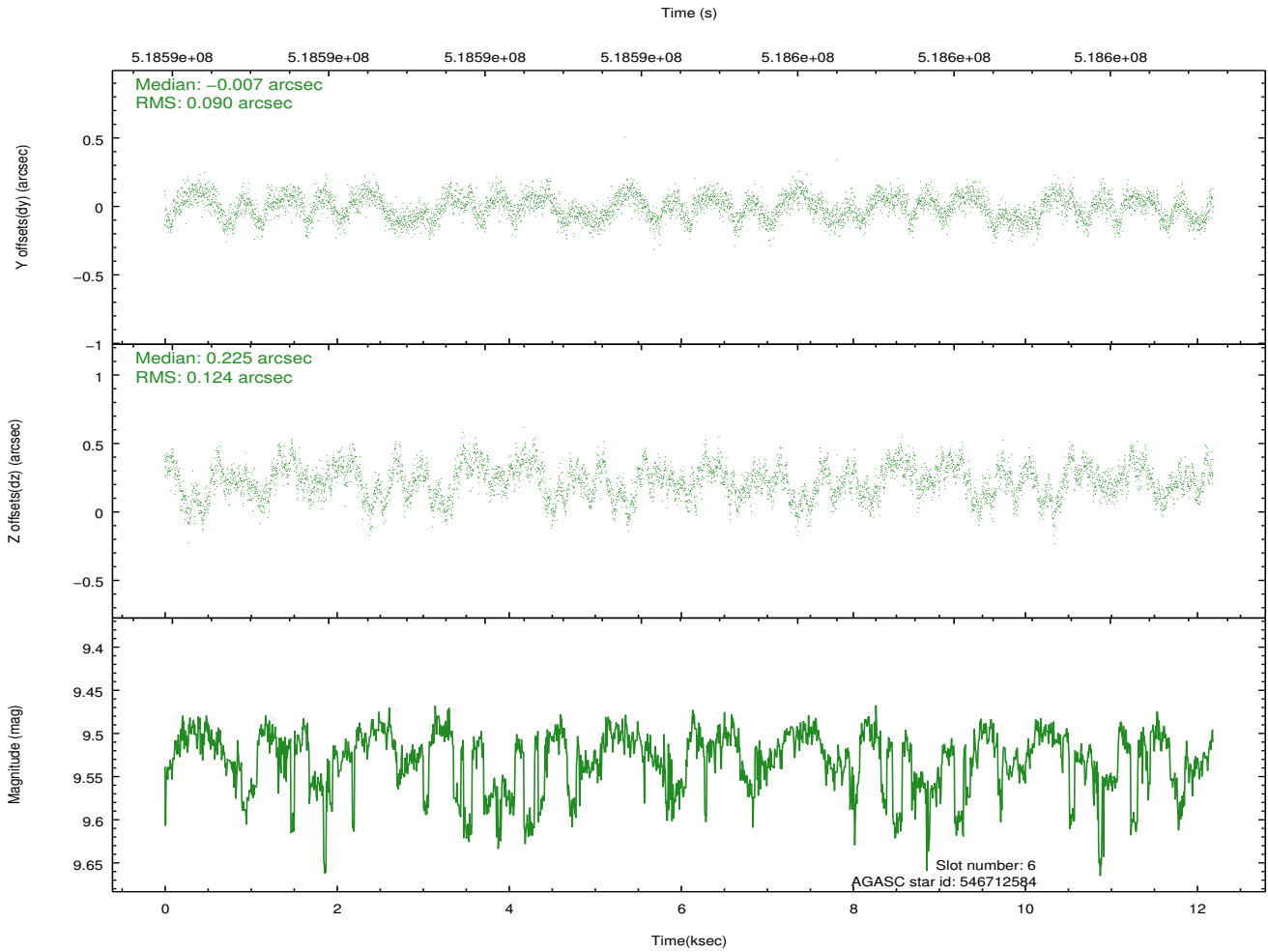
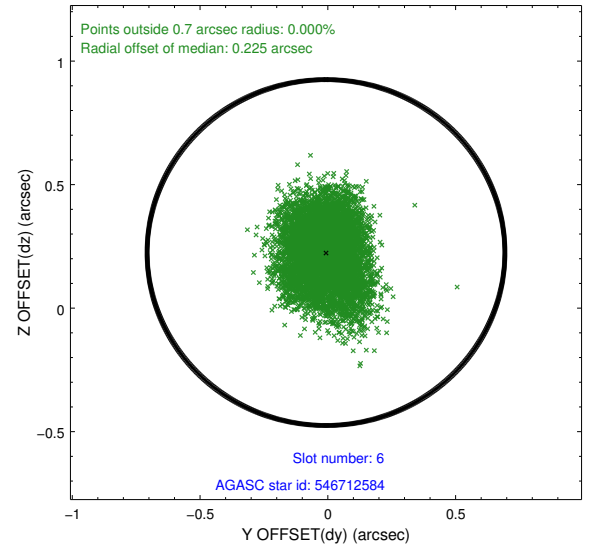
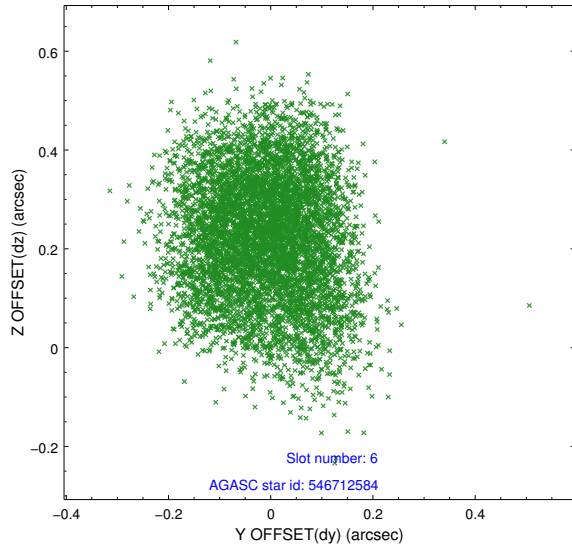
## 2.4.2 Slot 4



### 2.4.3 Slot 5

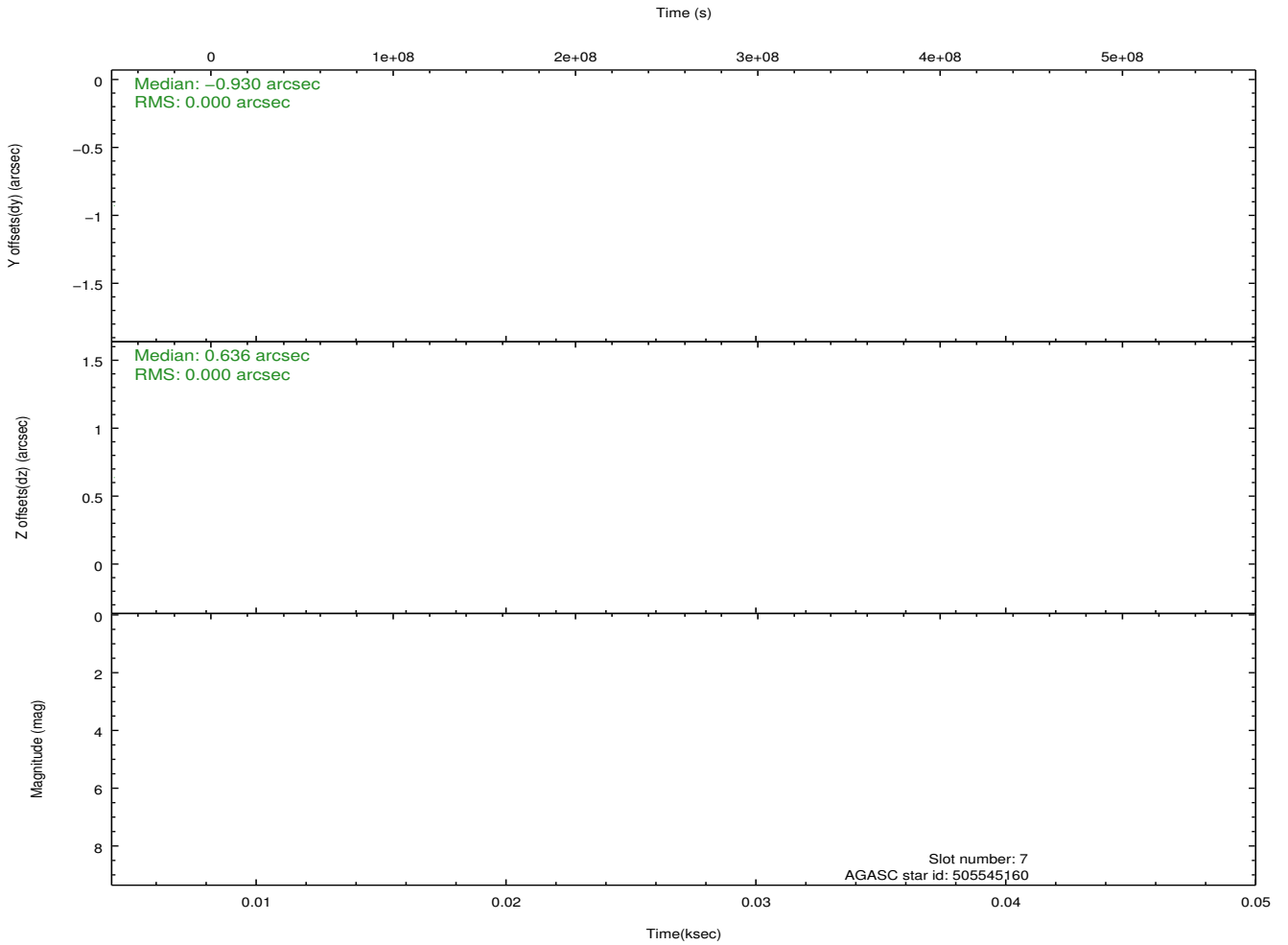
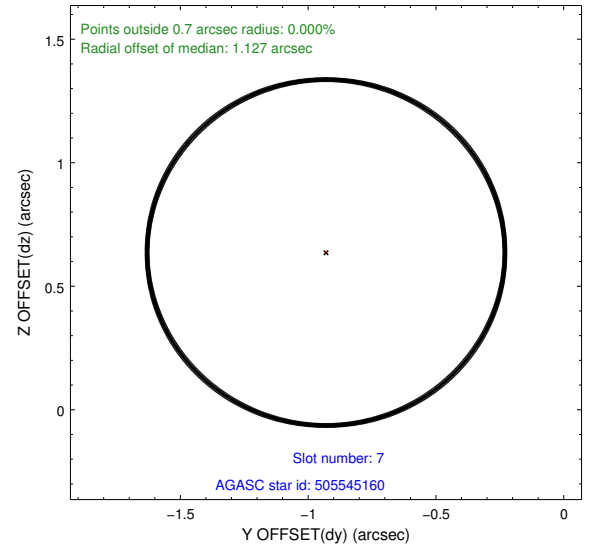
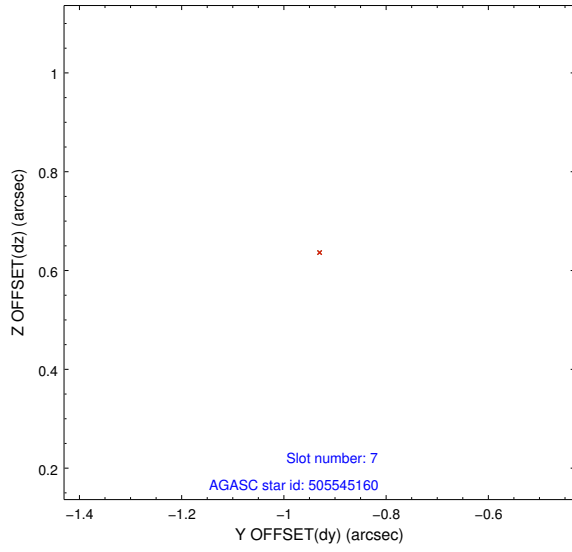


## 2.4.4 Slot 6



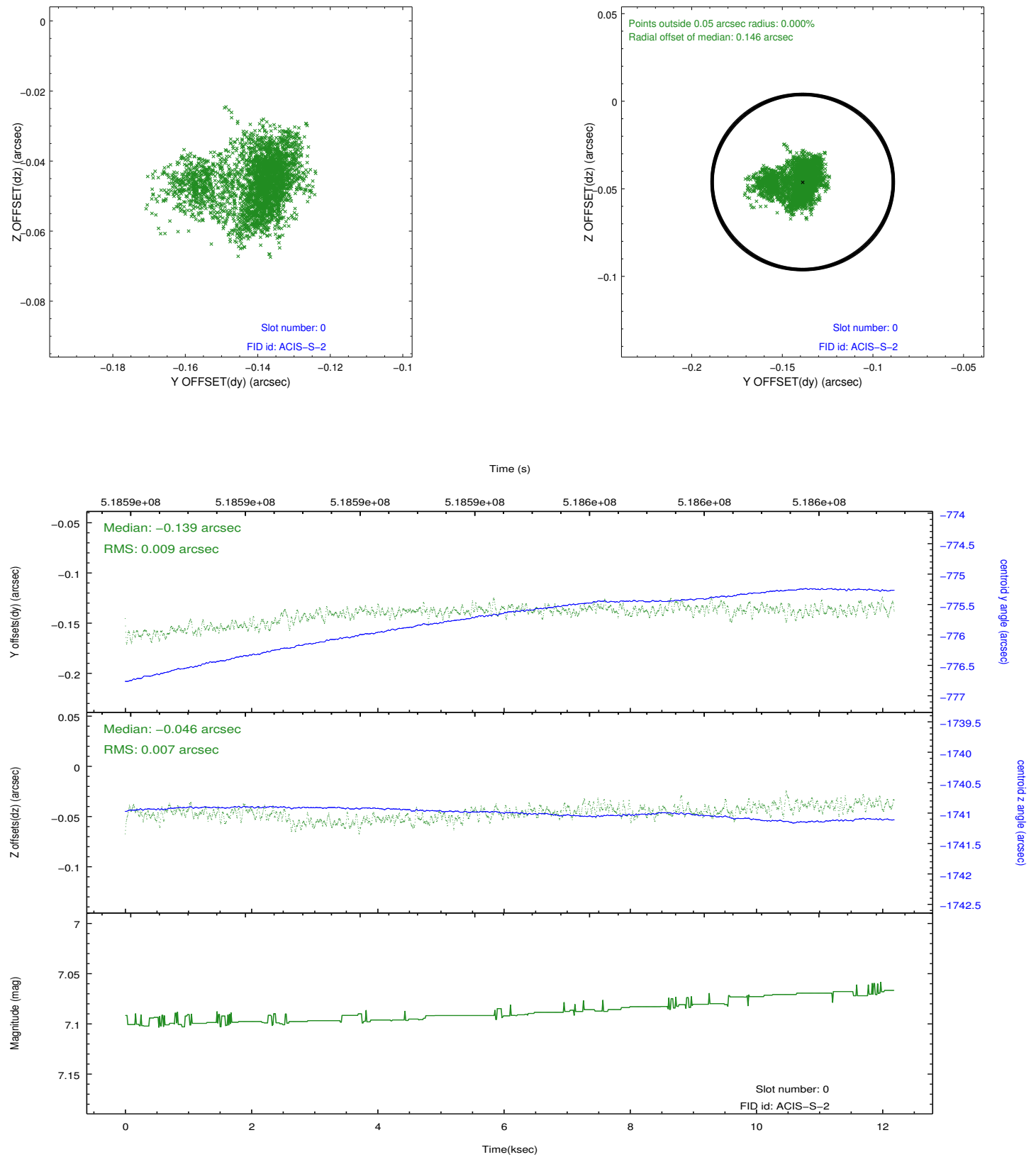


## 2.4.5 Slot 7

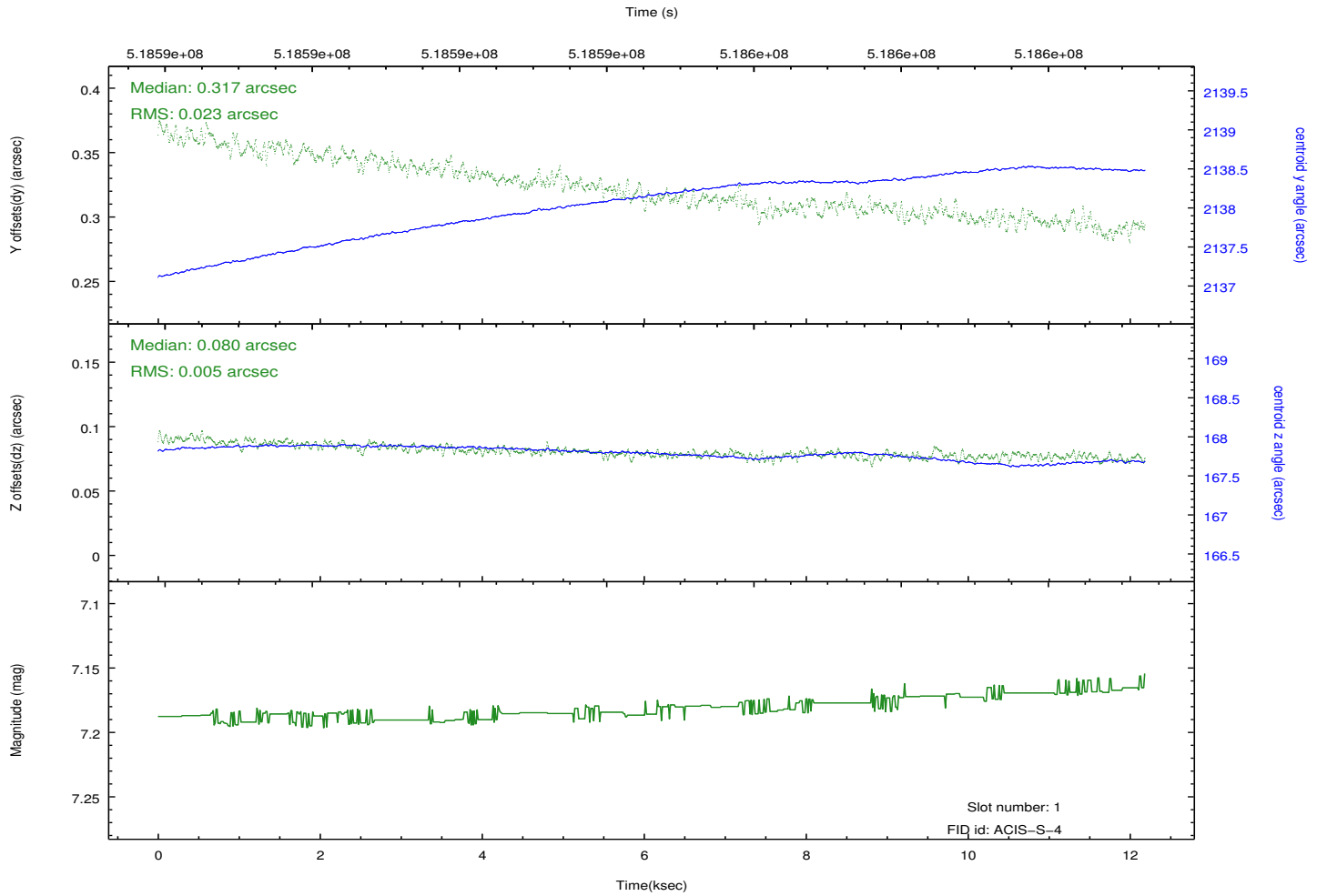
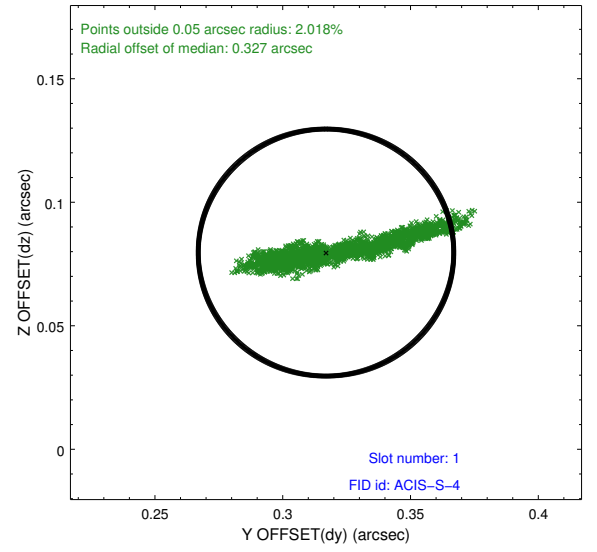
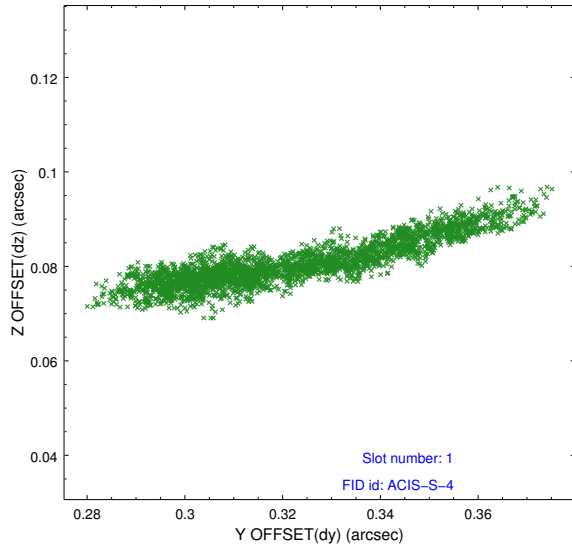


## 2.5 FID Slots

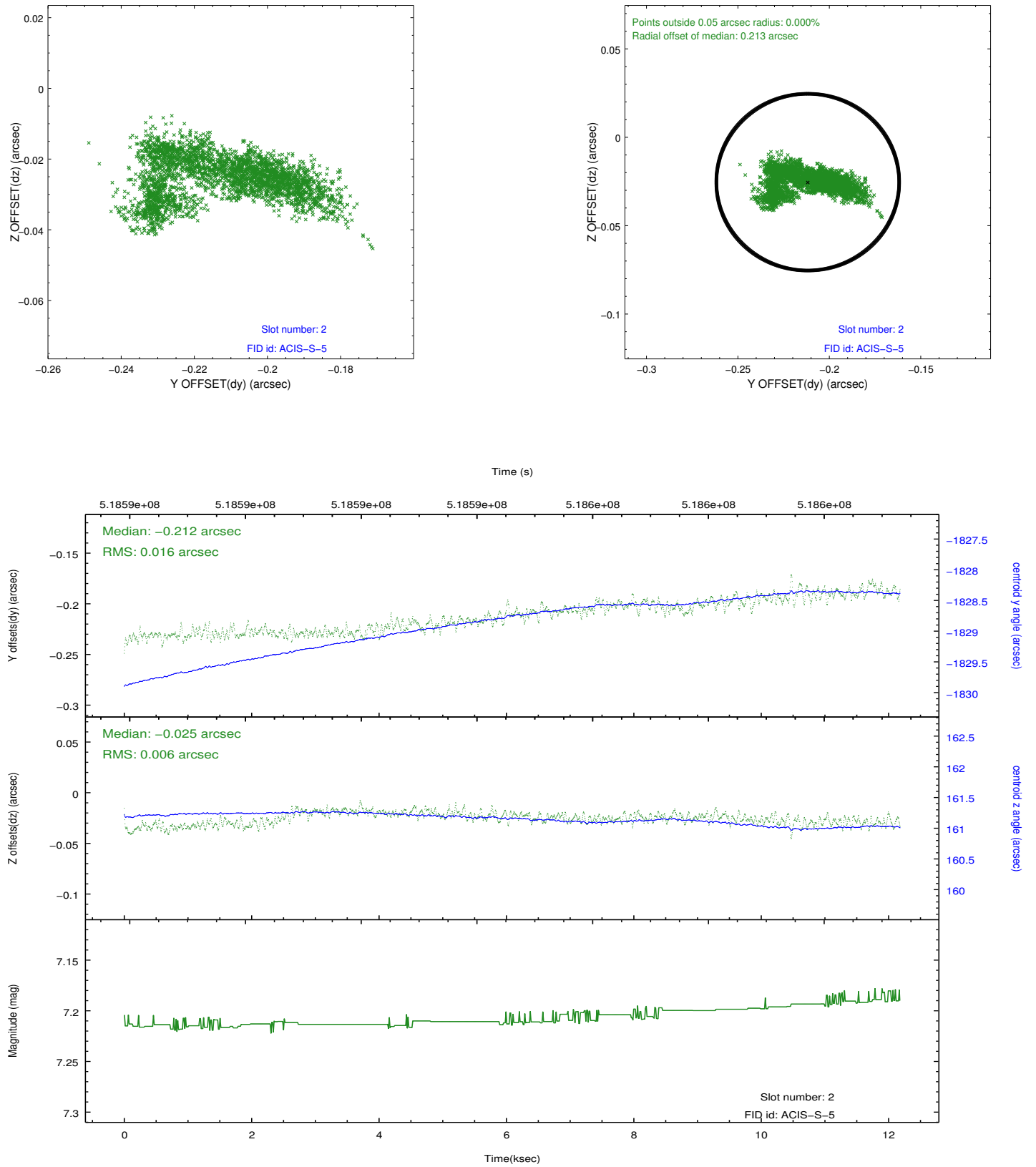
### 2.5.1 Slot 0



## 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)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.077600092888

## A.2 Comments

The guide star in slot 7 was not well tracked and was removed from the aspect solution. The aspect solution is improved by the removal of this guide star from the solution.

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These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.