

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 14480 - L2 Version 2  
Chandra X-Ray Center

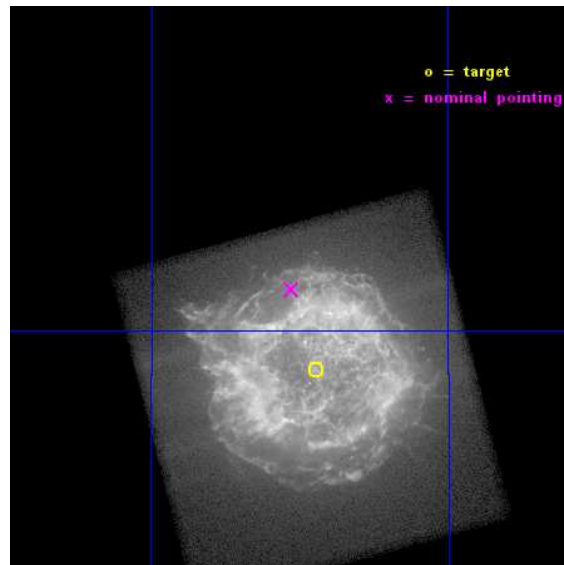
L2 Processing Date : Dec 3 2014

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# 1 Front

seq_num	501801	Sequence number
obs_id	14480	Observation id
title	Multicycle Monitoring of the Young Galactic Supernova Remnant Cassiopeia A	Proposal title
observer	Dr Daniel Patnaude	Principal investigator
object	Cassiopeia A	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	350.86125	Observer's specified target RA [deg]
dec_targ	58.8175	Observer's specified target Dec [deg]
ra_nom	350.88174741141	Nominal RA [deg]
dec_nom	58.850830169584	Nominal Dec [deg]
roll_nom	75.139091312869	Nominal Roll [deg]
revision	2	Processing version of data
ontime	49433.834296644	Sum of GTIs [s]
livetime	48766.705761822	Livetime [s]
ontime7	49433.834296644	Sum of GTIs [s]
l2events	13028299	Number of level 2 events

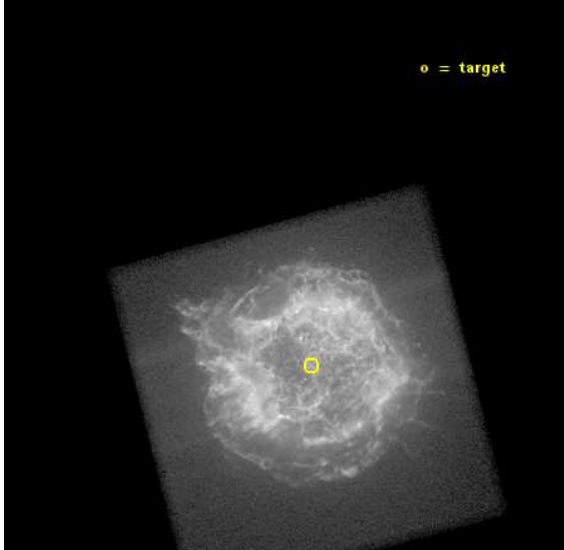


## 2 OBI

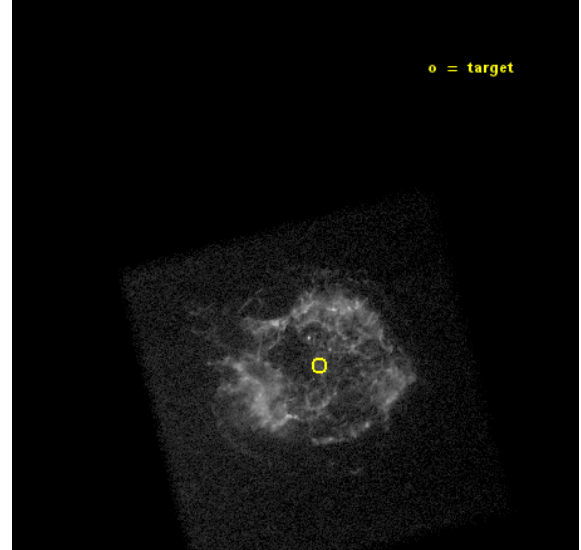
### 2.1 OBI

#### 2.1.1 Images

Level 1 Image



Level 1 Bad Events



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	49340.508000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	49433.834296644	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime7	49433.834296644	Sum of GTIs [s]
date	2014-12-03T10:09:38	Date and time of file creation	l1events	13923702	Number of level 1 events
revision	2	Processing version of data			

### 2.1.3 Events

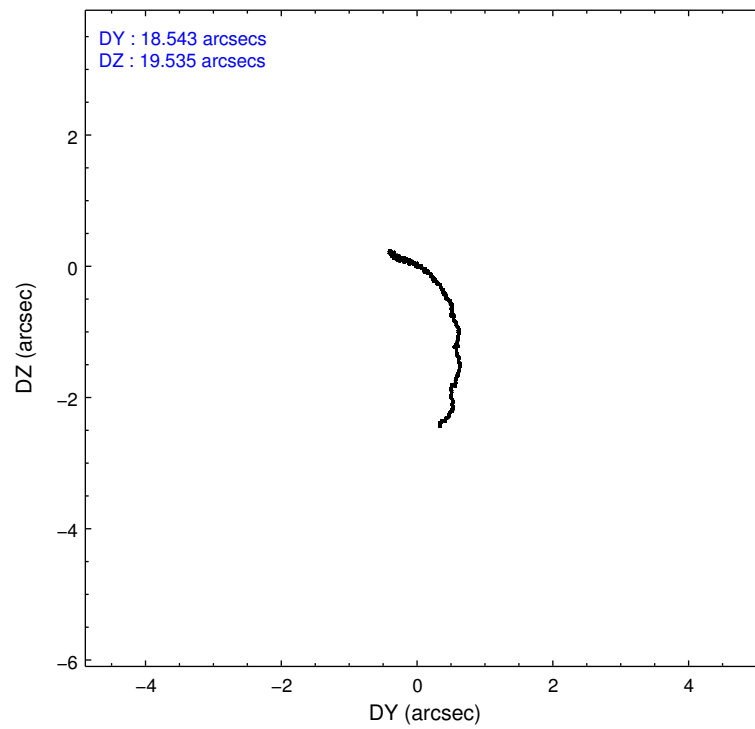
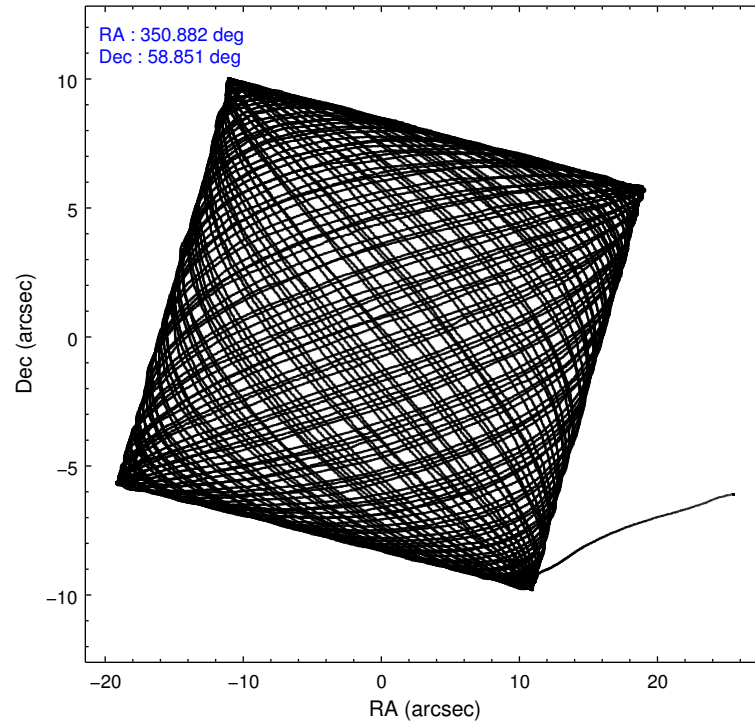
	<b>ccd 7</b>
level 1 events	13923702
rejected events	720982
rejected %	5%

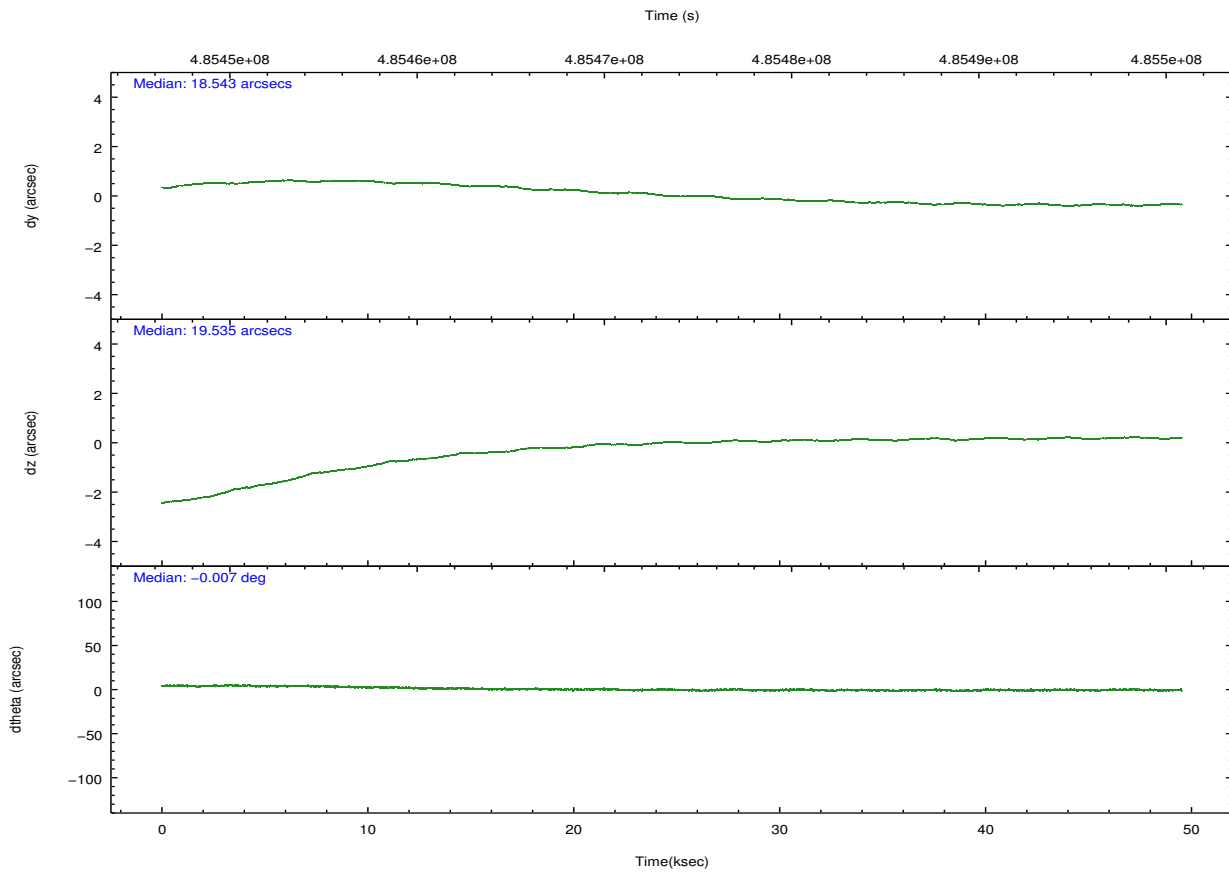
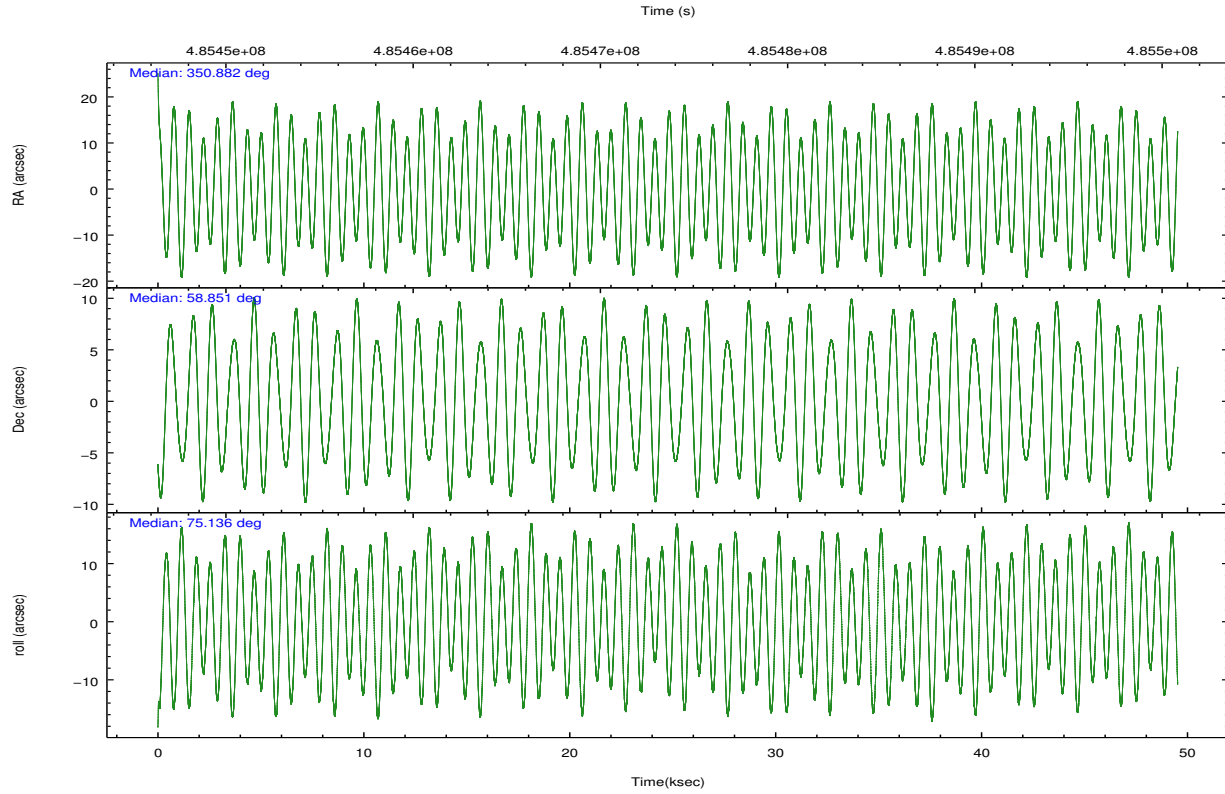
	<b>ccd 7</b>
grade 0 events	2832217
	20%
grade 1 events	44565
	0%
grade 2 events	4011764
	28%
grade 3 events	1369830
	9%
grade 4 events	1339847
	9%
grade 5 events	228126
	1%
grade 6 events	3649878
	26%
grade 7 events	447475
	3%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	GRADED	GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	350.896238	350.8817474114127	Subarray requested	NONE	NONE
[deg] Pointing Dec	58.824555	58.85083016958438	Alternating exposures requested	N	N
[deg] Pointing Roll	74.970060	75.139091312869	[s] Primary exposure time	0.000000	3
[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)	485449015.184000	485447931.83097			
Observation start date	2013-05-20T14:55:48	2013-05-20T14:38:51			
[s] Observation end time (MET)	485498356.184000	485498581.18371			
Observation end date	2013-05-21T04:38:09	2013-05-21T04:43:01			
Read mode	TIMED	TIMED			

## 2.3 Aspect





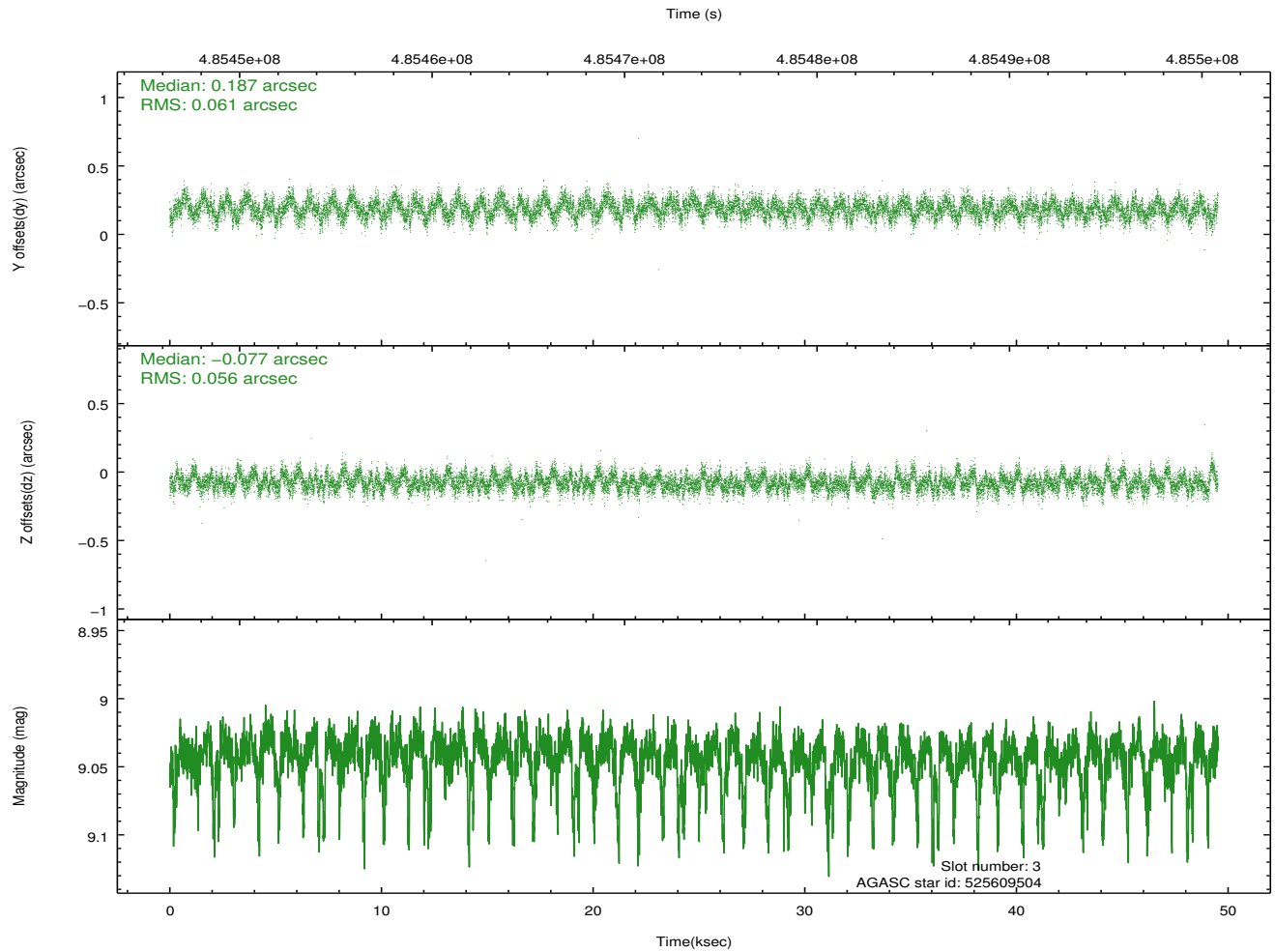
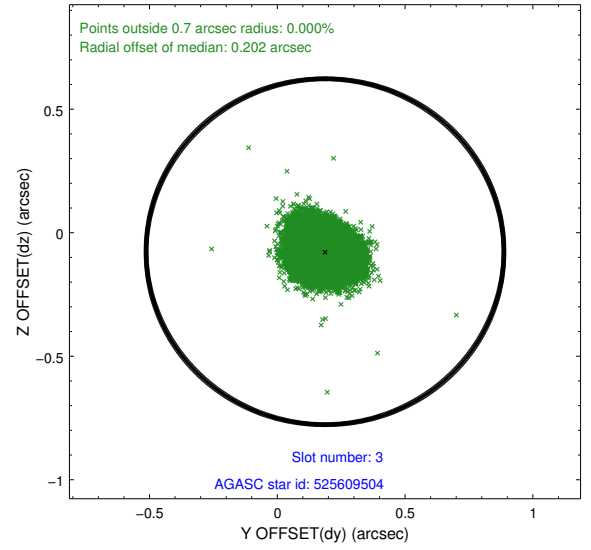
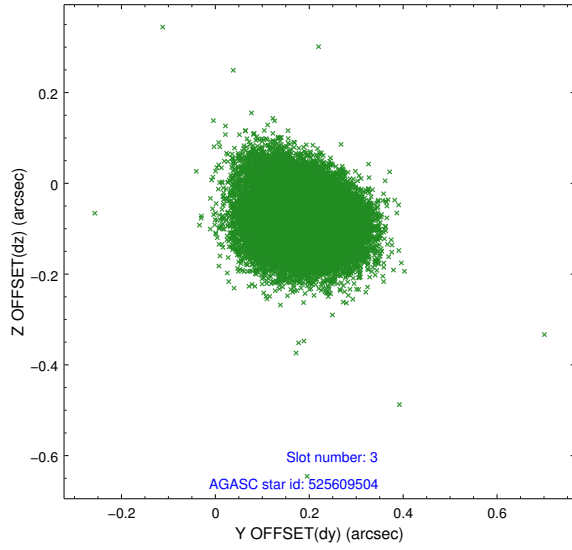
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.01	12080	0.085	-0.042	0.021	0.036	0.000000	0.000000	924.47	-1736.24
1	FID		ACIS-S-5	7.04	12080	-0.186	0.048	0.010	0.019	0.000000	0.000000	-1824.84	161.36
2	FID		ACIS-S-6	7.14	12079	0.078	0.005	0.018	0.032	0.000000	0.000000	389.99	805.30
3	GUIDE	used	525609504	9.04	24146	0.187	-0.077	0.088	0.142	349.896632	58.356658	-2102.59	1390.66
4	GUIDE	used	525735456	6.76	24160	-0.375	-0.186	0.058	0.093	350.628183	59.307249	1551.06	926.91
5	GUIDE	used	525735976	8.78	24153	0.171	0.084	0.078	0.127	350.142956	58.277622	-2263.37	868.94
6	GUIDE	used	525737896	7.03	24150	-0.094	0.238	0.050	0.082	352.012180	59.335036	2322.91	-1497.46
7	GUIDE	used	525732488	8.41	24150	0.115	-0.063	0.097	0.146	350.087090	58.516915	-1454.82	1184.27

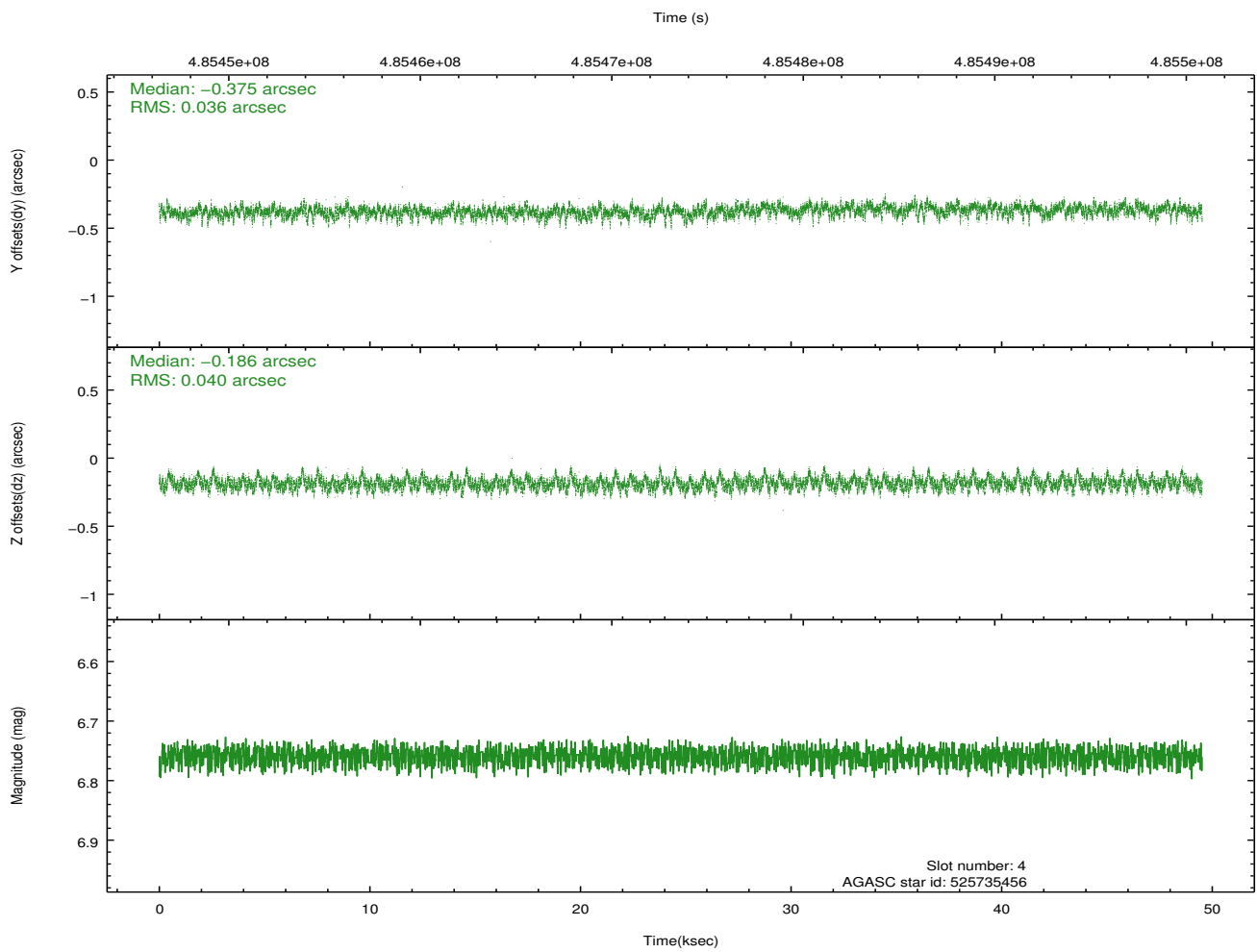
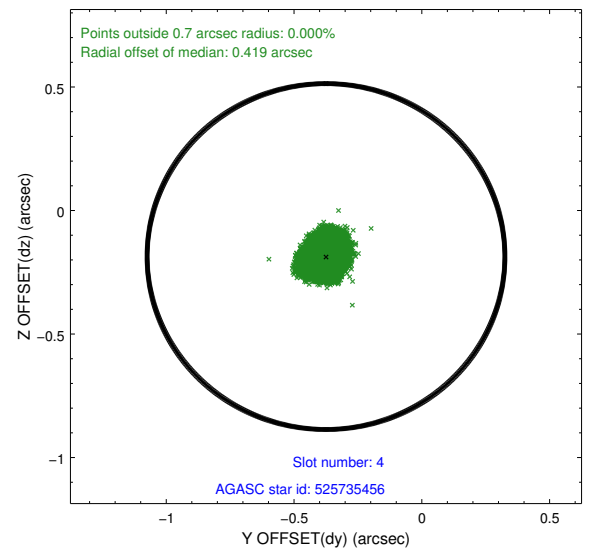
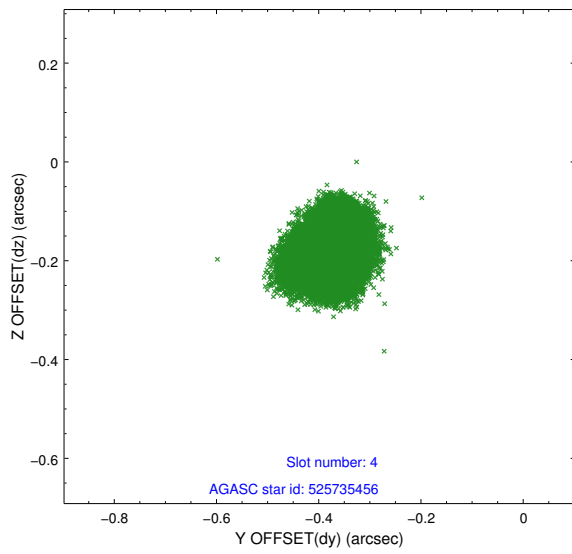
∞

## 2.4 Star Slots

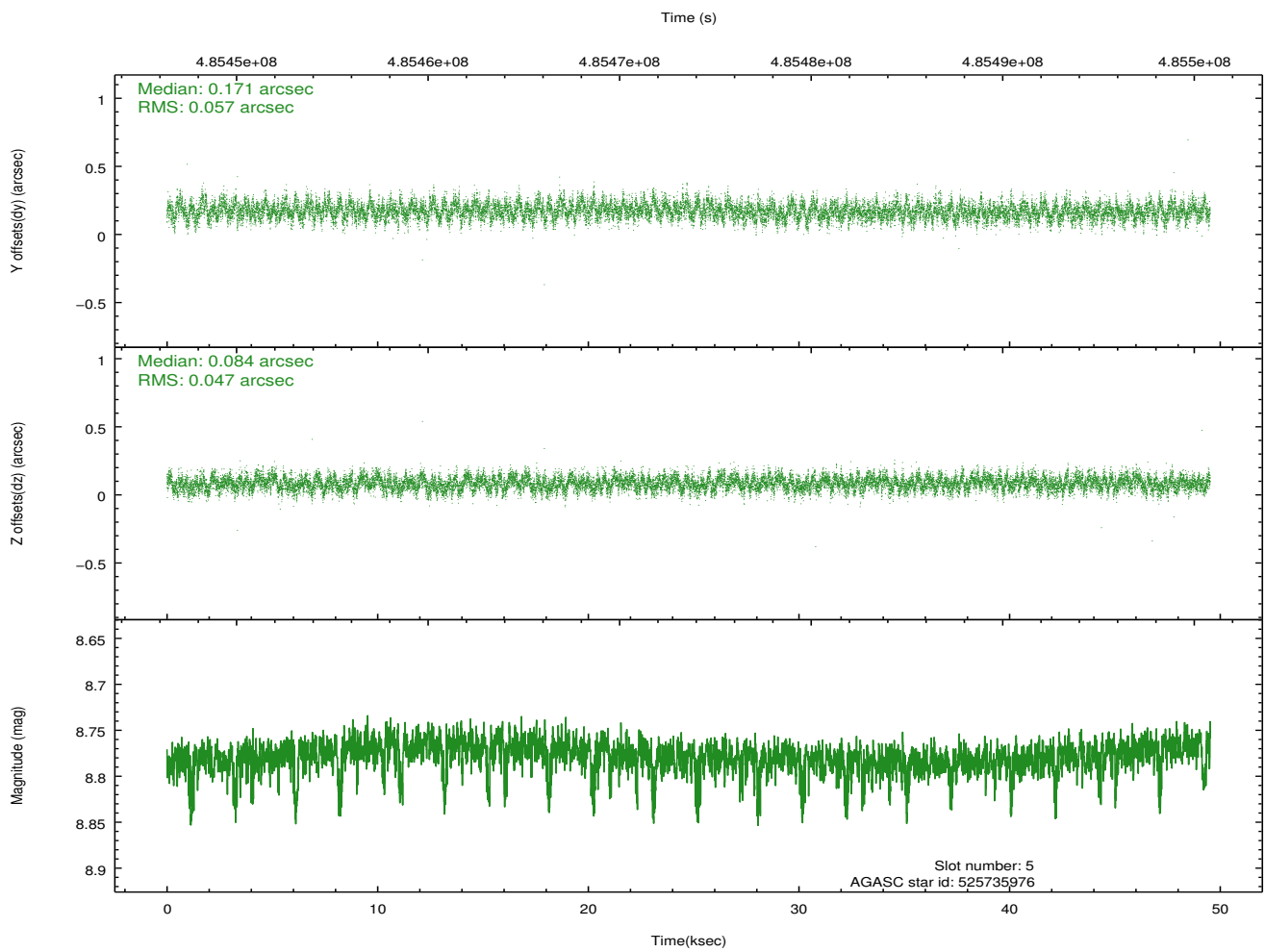
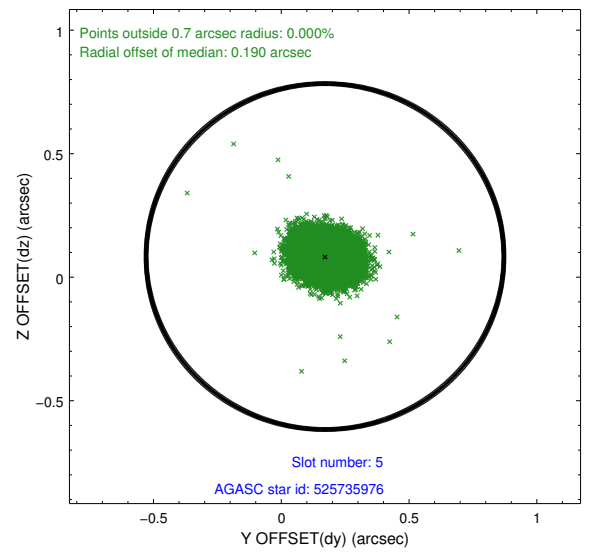
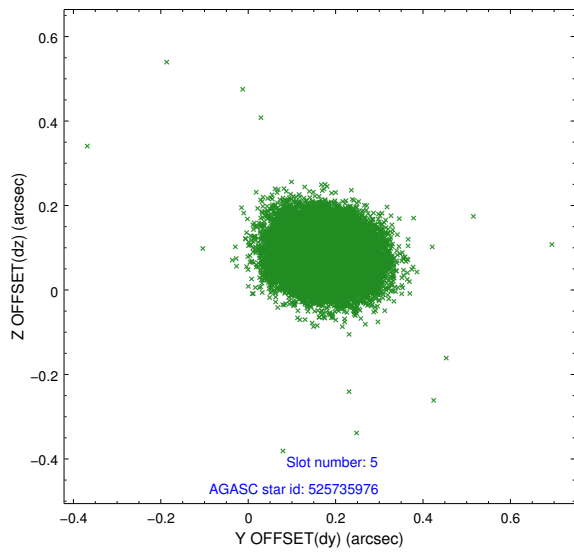
### 2.4.1 Slot 3



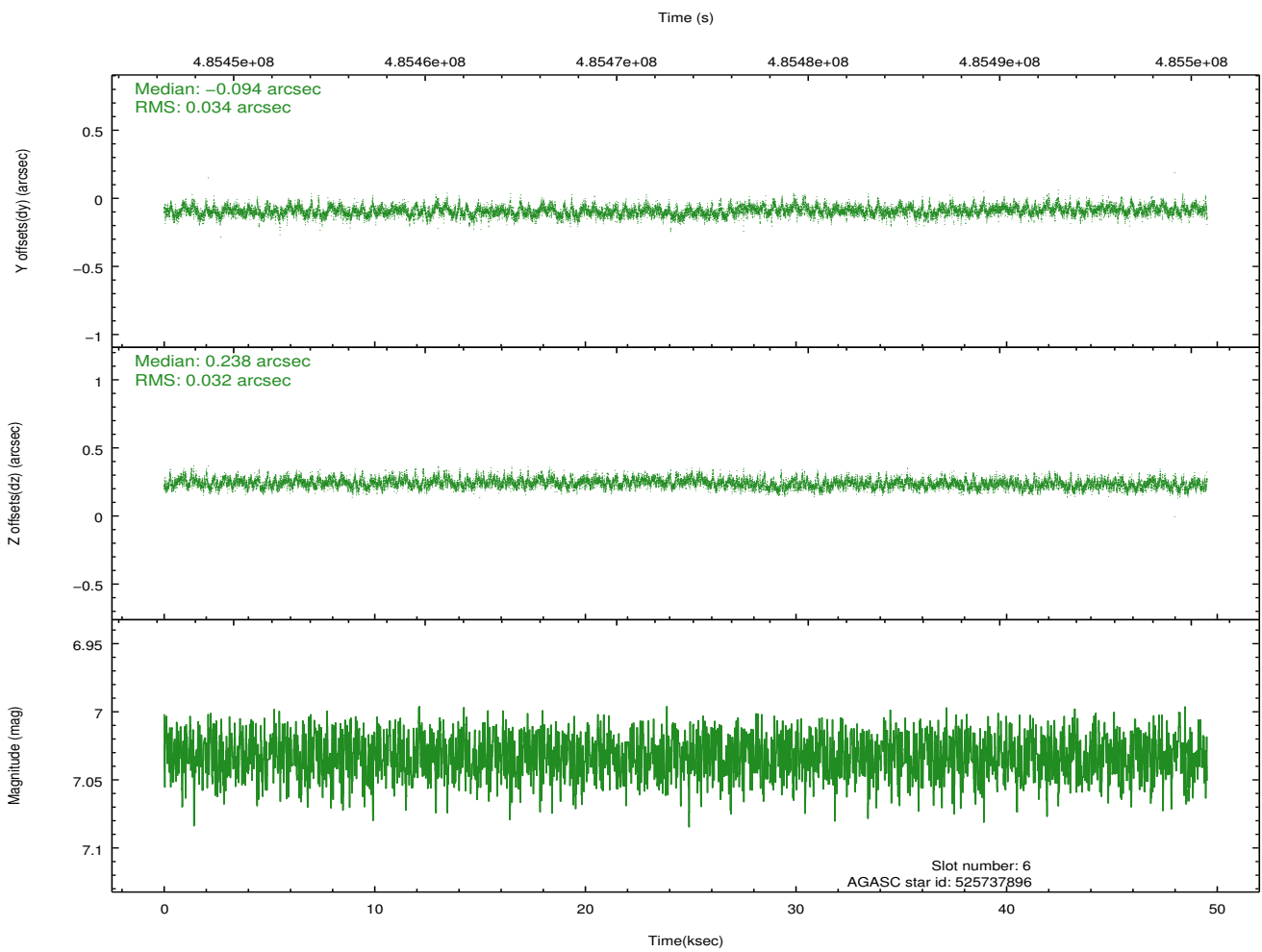
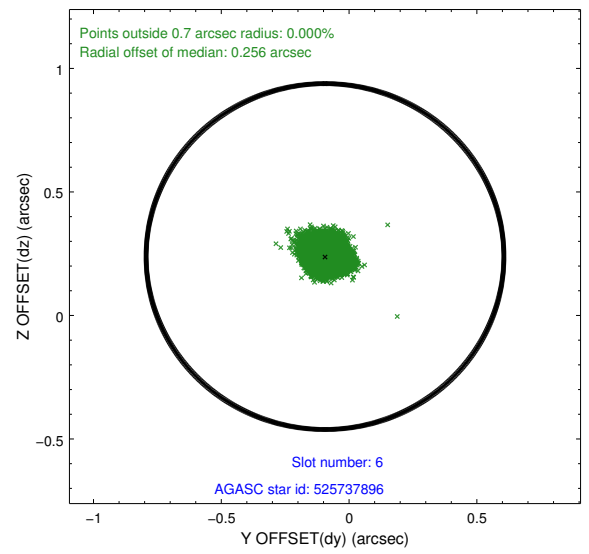
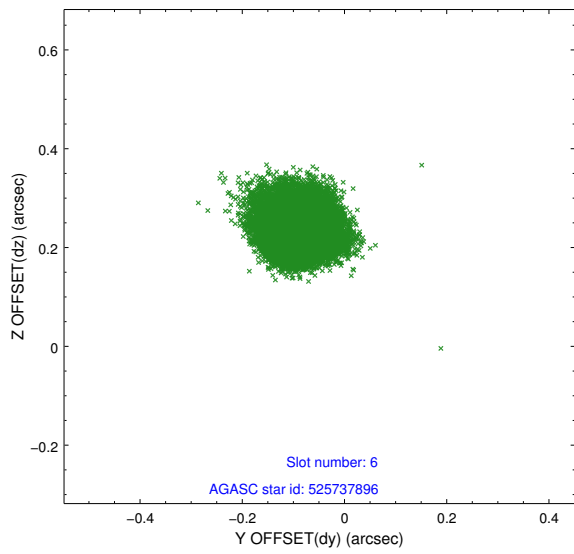
## 2.4.2 Slot 4



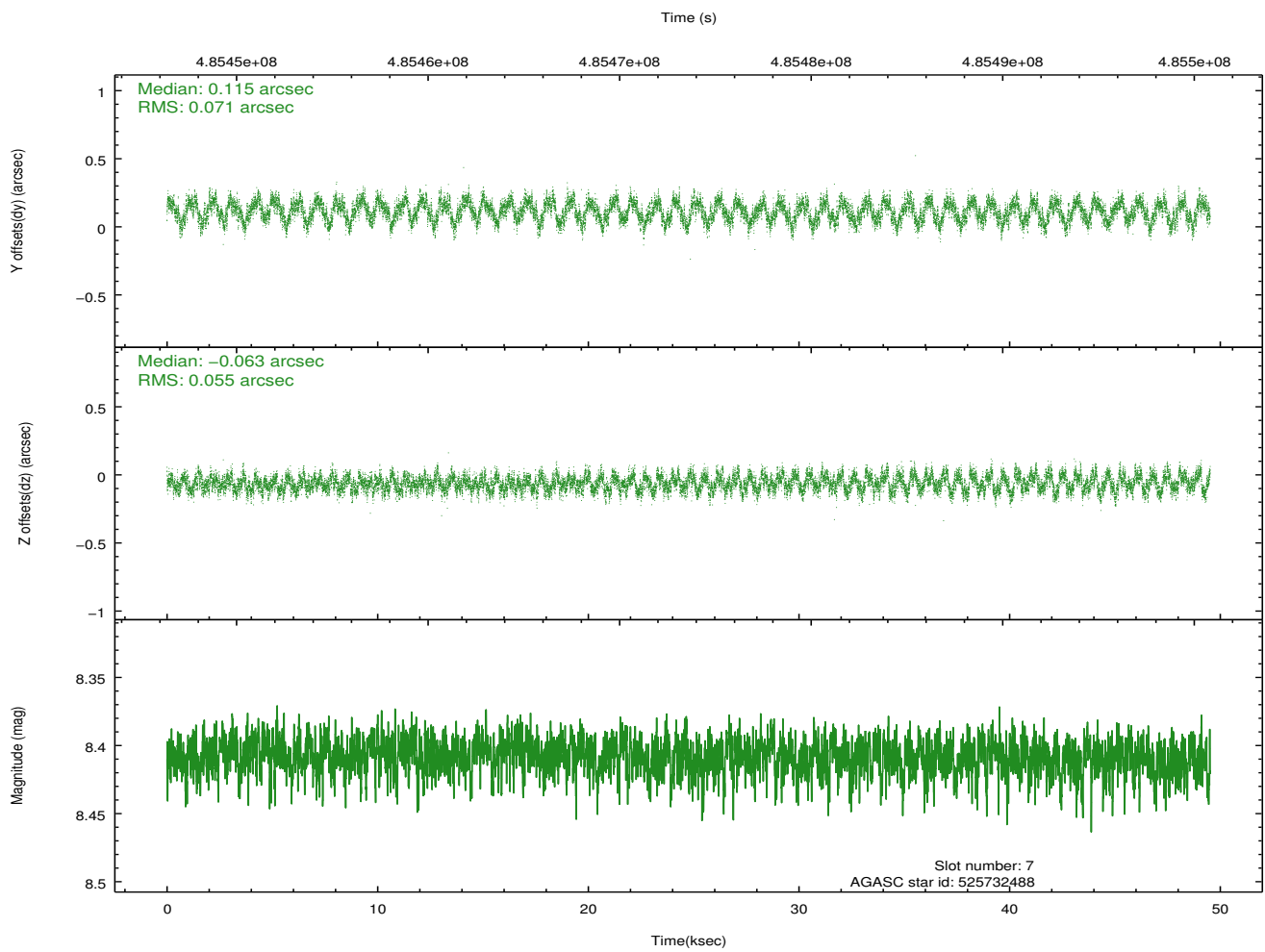
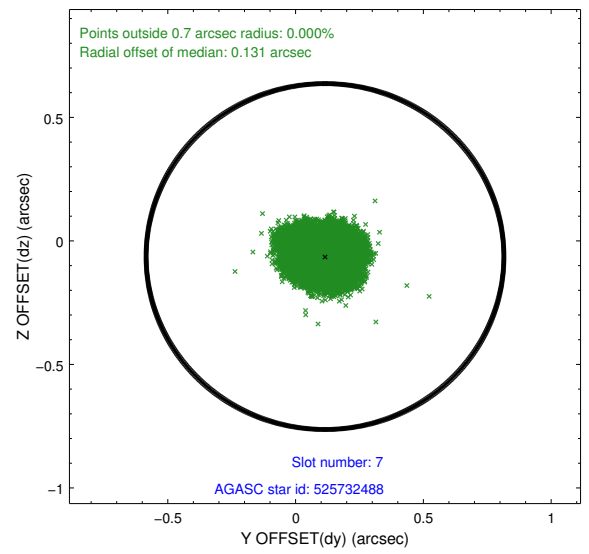
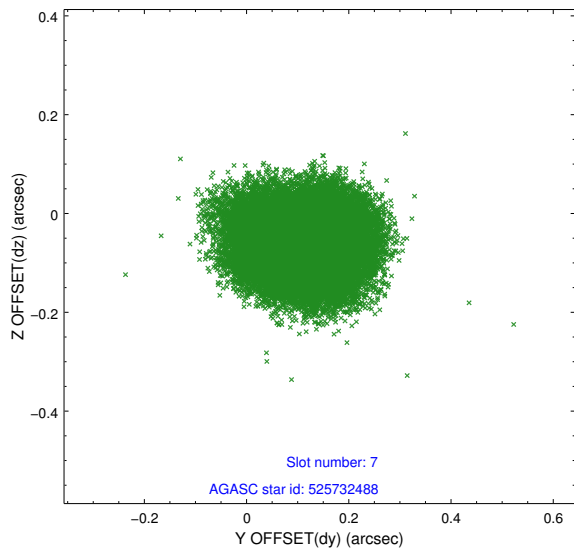
### 2.4.3 Slot 5



## 2.4.4 Slot 6

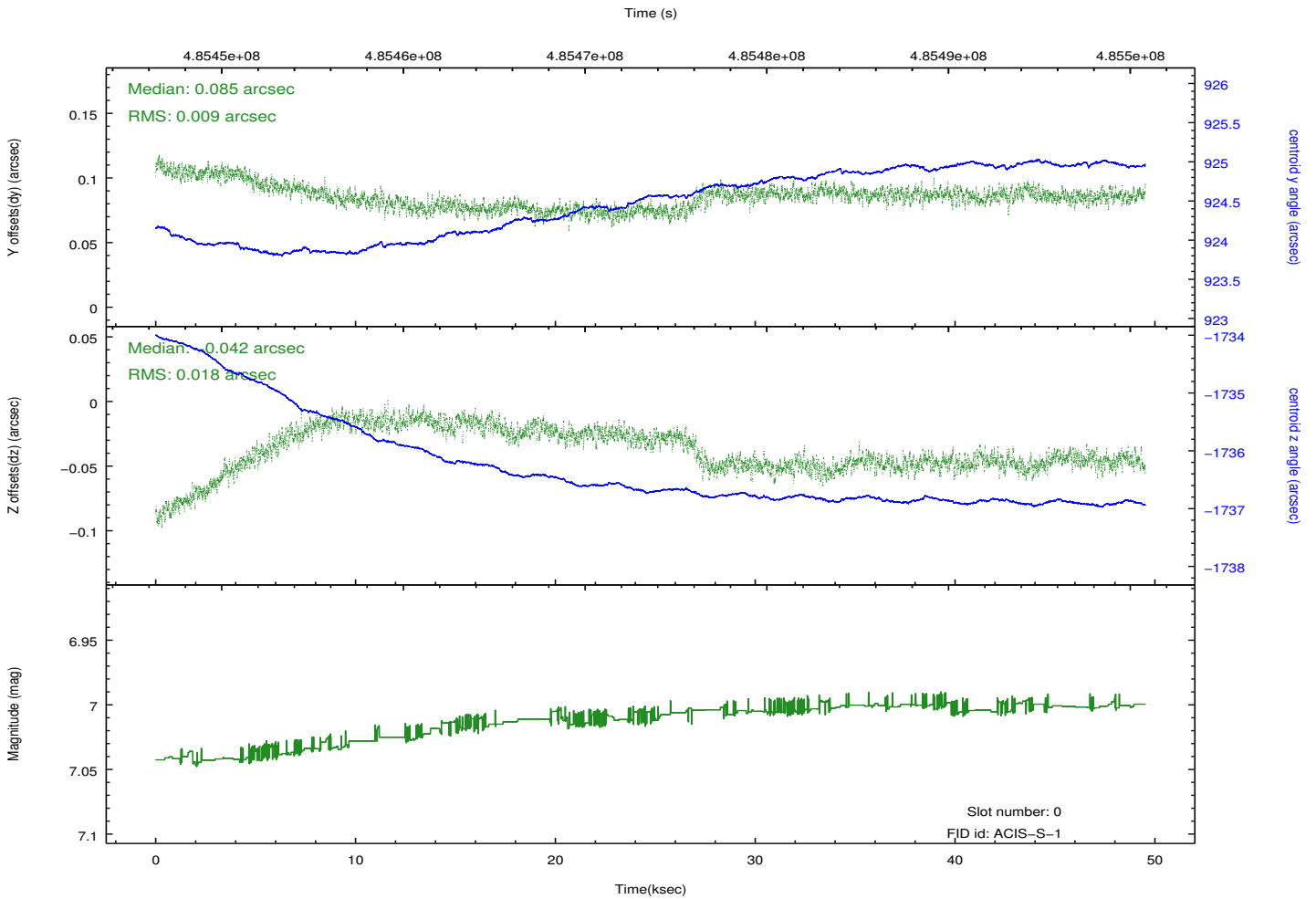
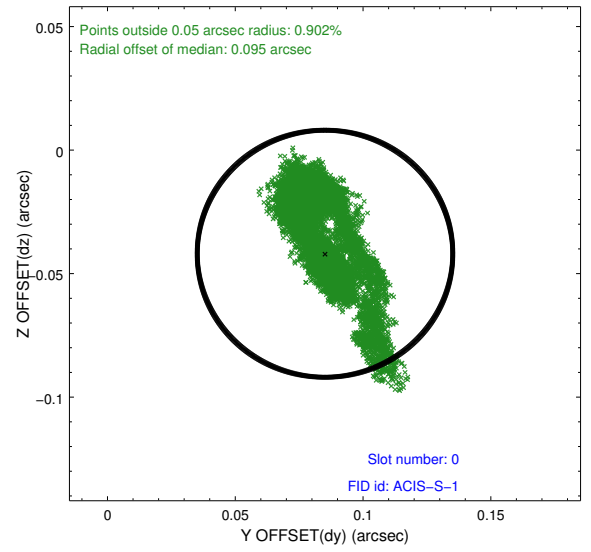
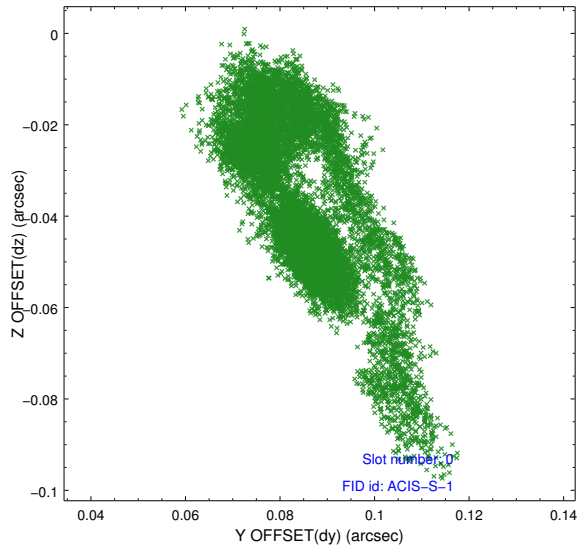


## 2.4.5 Slot 7

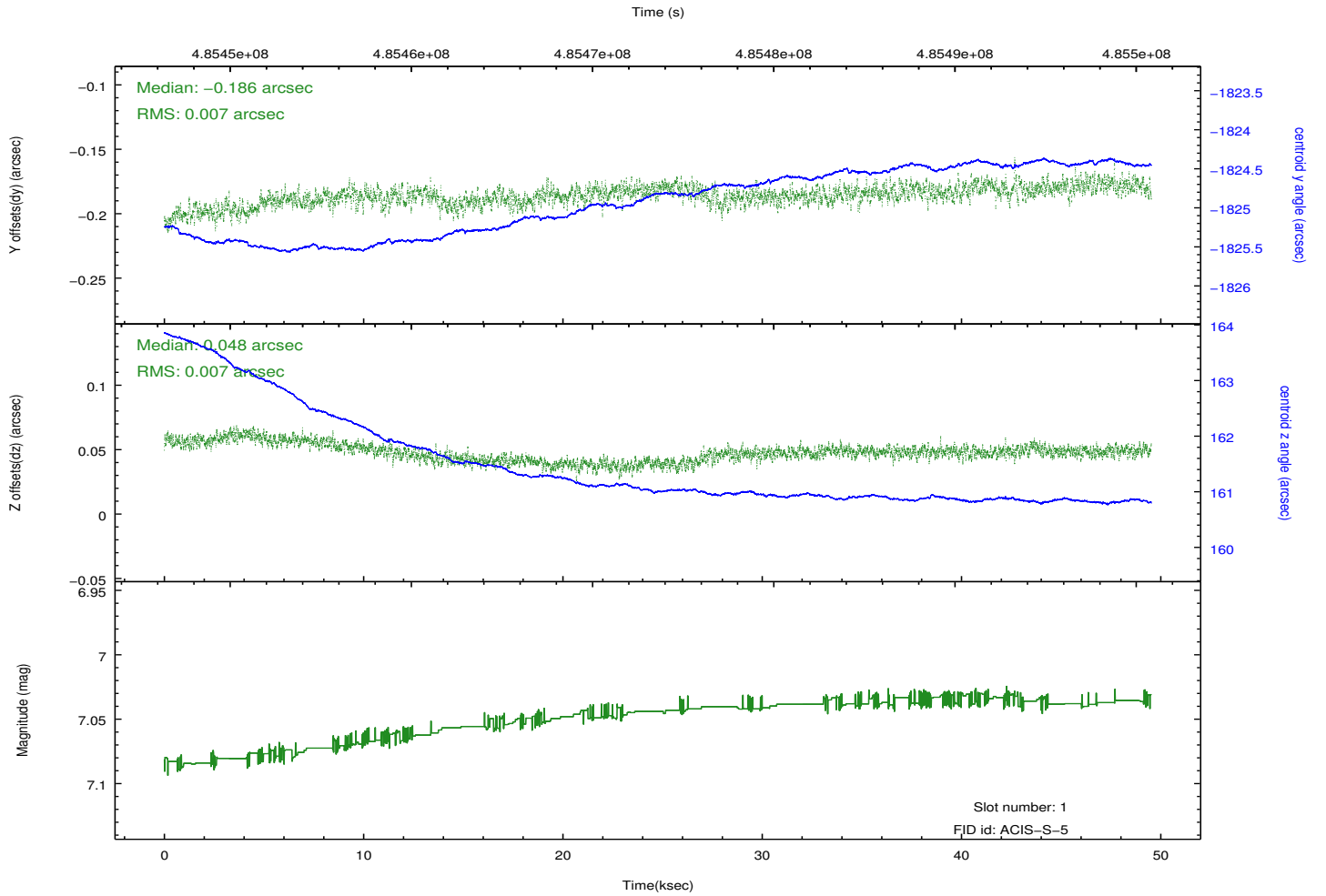
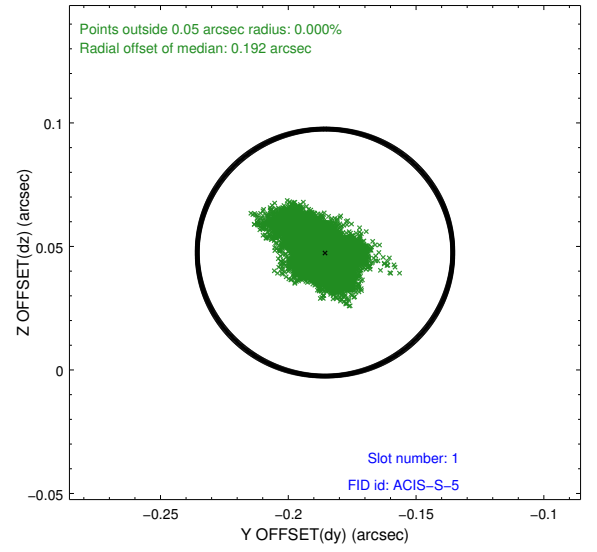
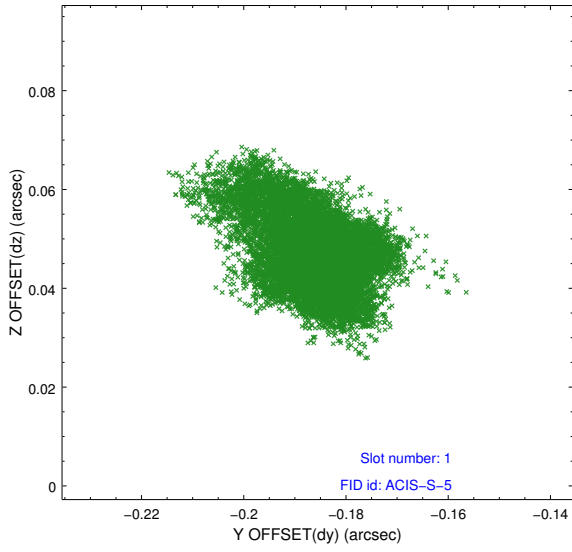


## 2.5 FID Slots

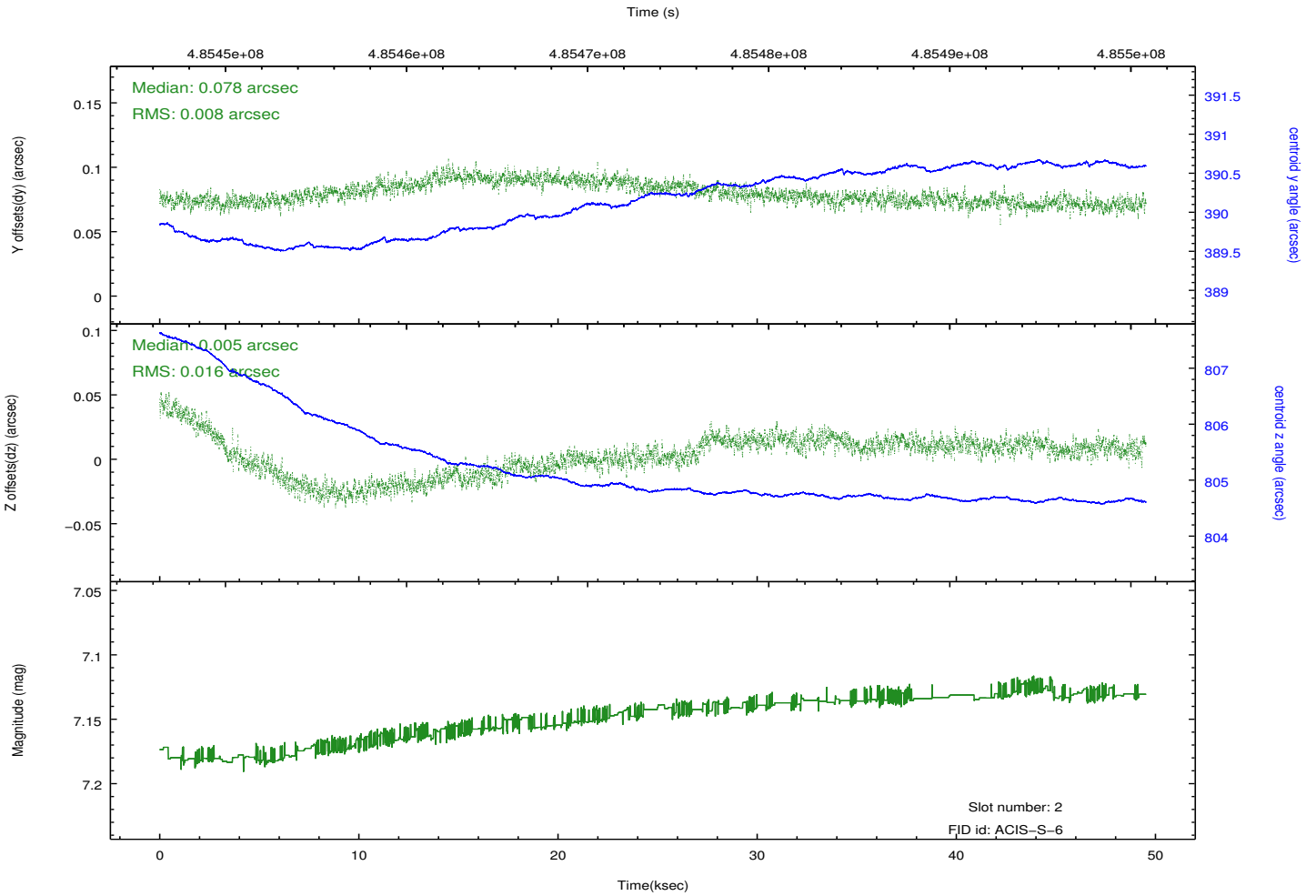
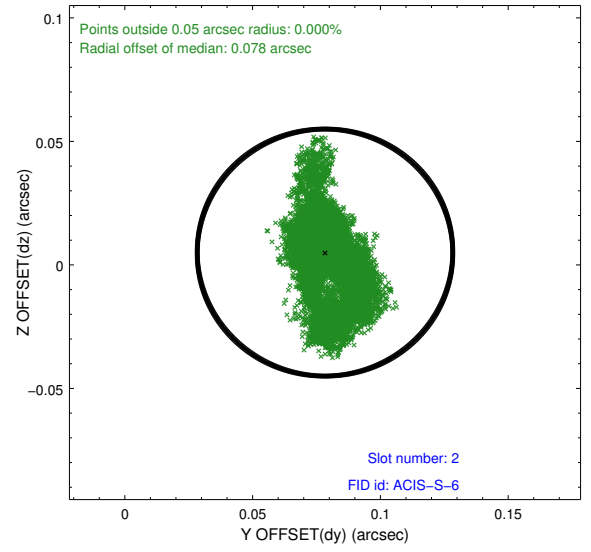
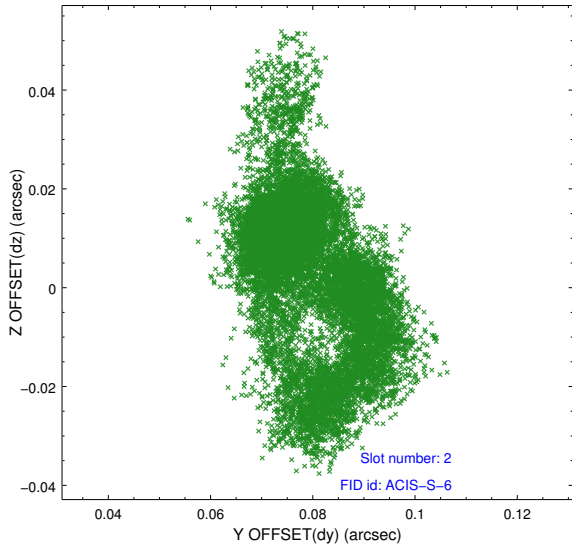
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	49.433834296644

## A.2 Comments

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.