

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 22019 - L2 Version 2  
Chandra X-Ray Center

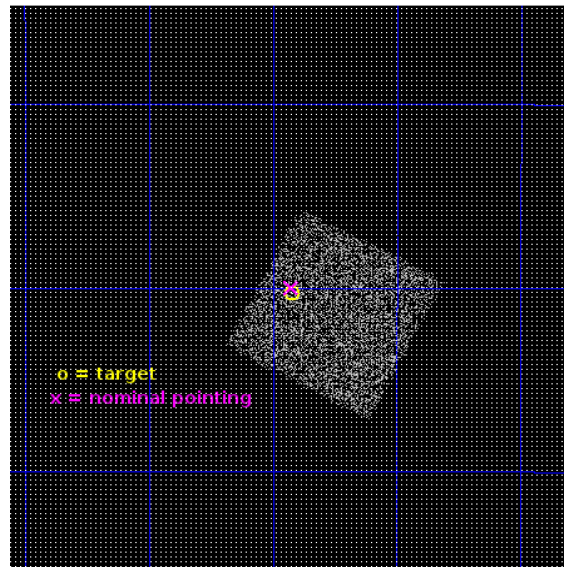
L2 Processing Date : May 15 2019

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# 1 Front

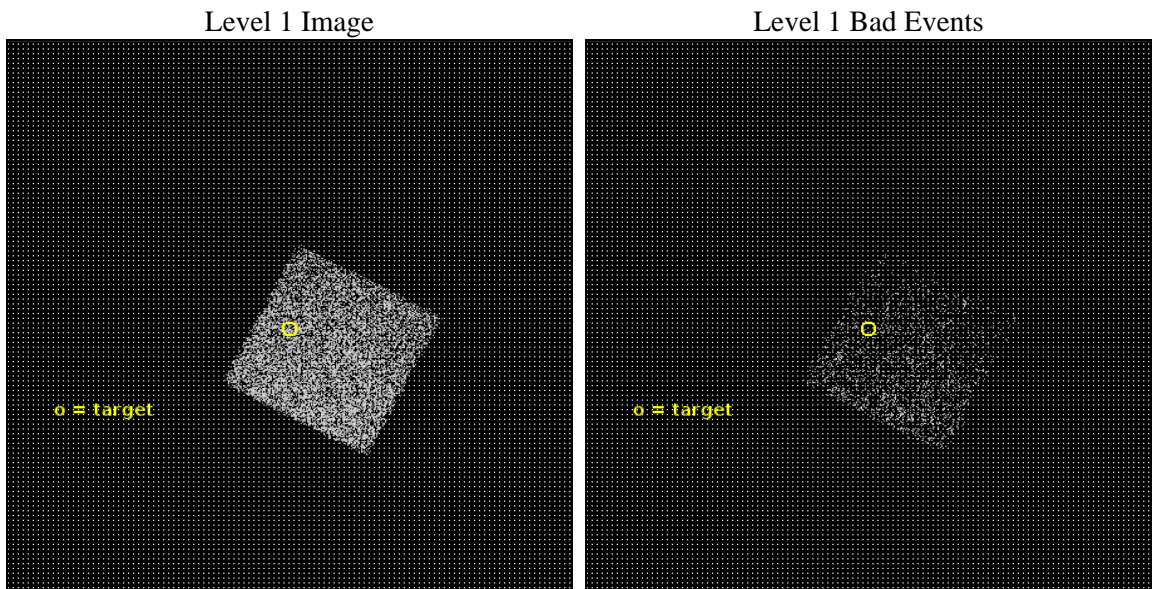
seq_num	703839	Sequence number
obs_id	22019	Observation id
title	Timely Assessment of the X-ray Flux of Newly Discovered Quadruply Lensed Quasars	Proposal title
observer	David Pooley	Principal investigator
object	GraL 1537-30	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	234.355417	Observer's specified target RA [deg]
dec_targ	-30.171417	Observer's specified target Dec [deg]
ra_nom	234.35629329112	Nominal RA [deg]
dec_nom	-30.166413072181	Nominal Dec [deg]
roll_nom	27.643706893594	Nominal Roll [deg]
revision	2	Processing version of data
ontime	1592.8997400999	Sum of GTIs [s]
livetime	1571.4029477744	Livetime [s]
ontime7	1592.8997400999	Sum of GTIs [s]
l2events	6157	Number of level 2 events



## 2 OBI

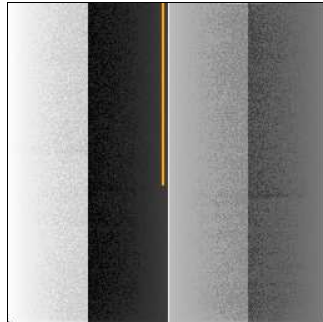
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1500.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	1592.8997400999	Sum of GTIs [s]
caldsver	4.8.2	&#160	ontime7	1592.8997400999	Sum of GTIs [s]
date	2019-05-15T21:27:04	Date and time of file creation	l1events	14511	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

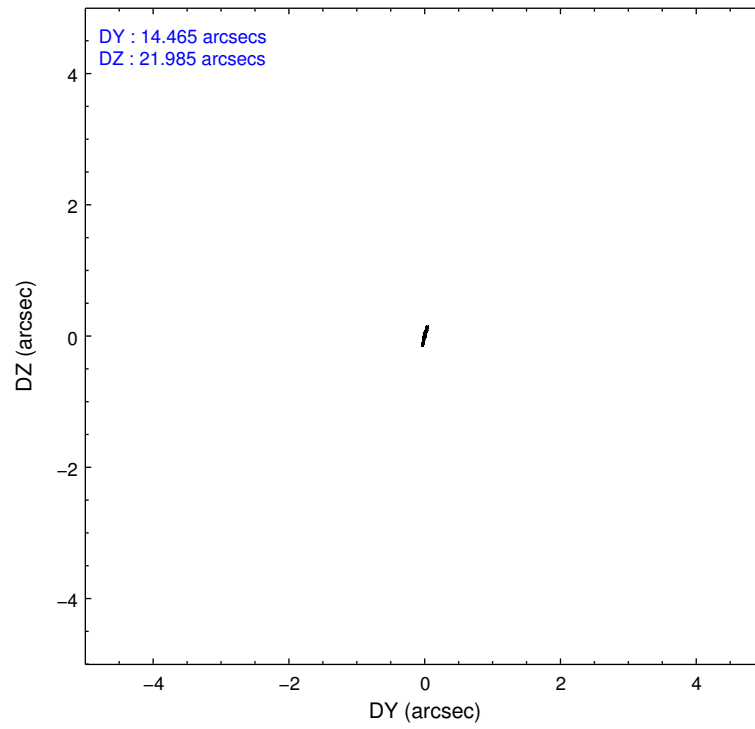
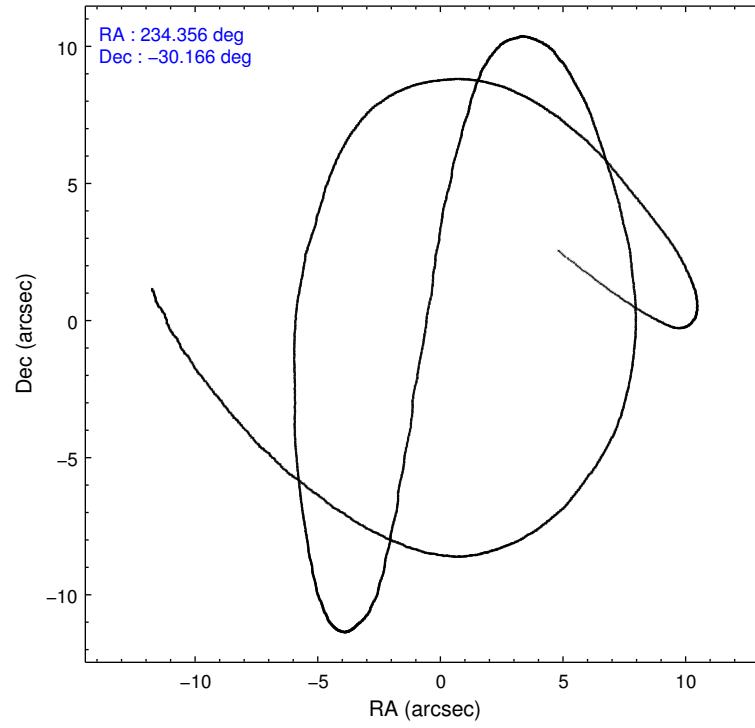
	<b>ccd 7</b>
level 1 events	14511
rejected events	8194
rejected %	56%

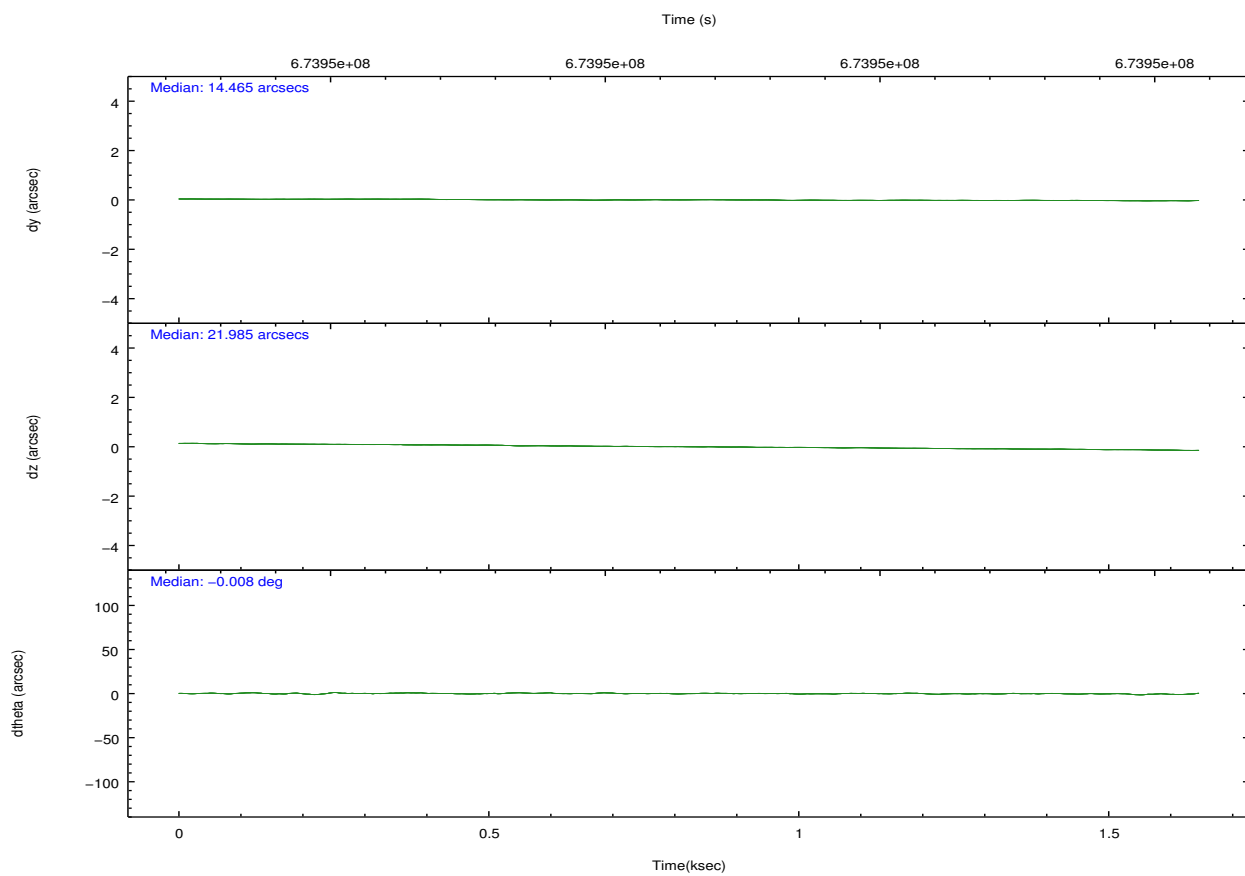
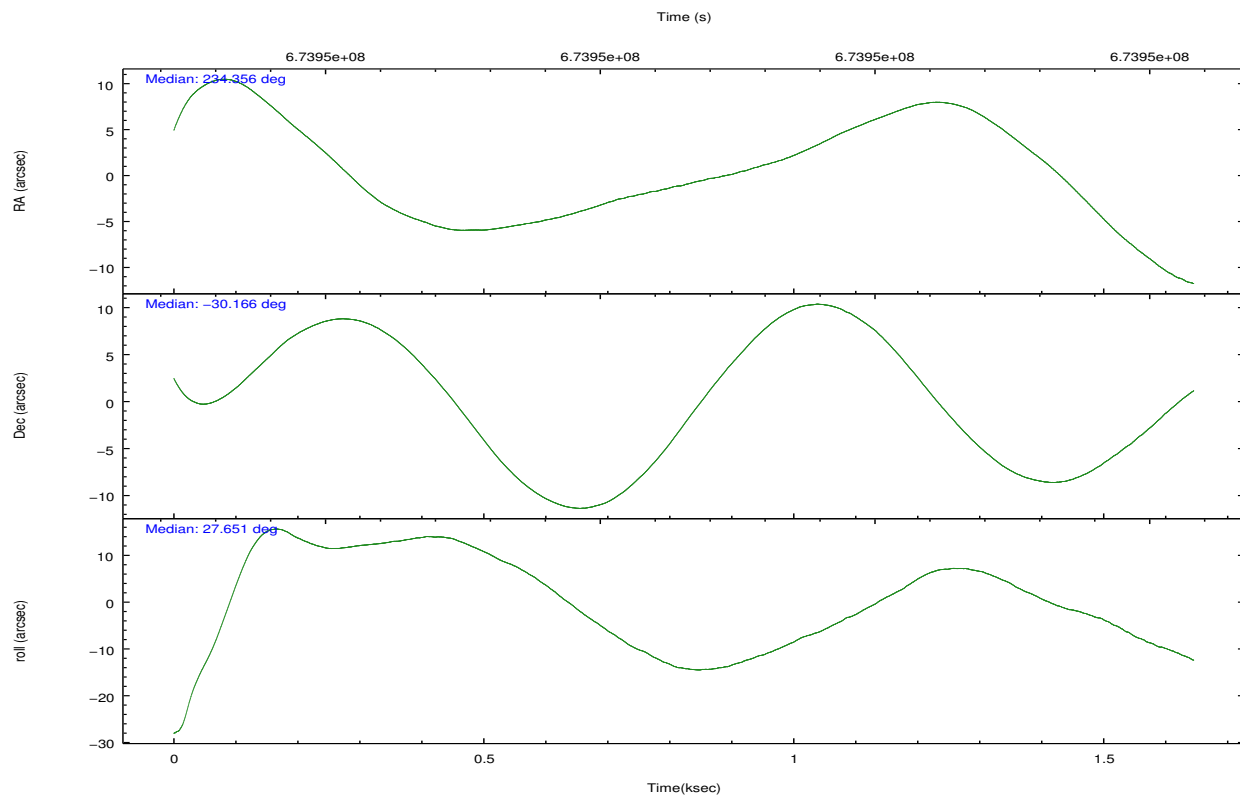
	<b>ccd 7</b>
grade 0 events	530
	3%
grade 1 events	21
	0%
grade 2 events	1343
	9%
grade 3 events	487
	3%
grade 4 events	460
	3%
grade 5 events	1451
	9%
grade 6 events	3510
	24%
grade 7 events	6709
	46%

## 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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	234.339601	234.3562932911167	CCD I2 on	N	N
[deg] Pointing Dec	-30.189869	-30.16641307218092	CCD I3 on	N	N
[deg] Pointing Roll	27.478944	27.64370689359394	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	O2	N
[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	O1	N
[s] Observation start time (MET)	673948482.184000	673947150.54791	CCD S5 on	N	N
Observation start date	2019-05-11T07:53:33	2019-05-11T07:32:30	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	673949982.184000	673951203.39815	On-chip summing requested	N	N
Observation end date	2019-05-11T08:18:33	2019-05-11T08:40:03	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3

## 2.3 Aspect





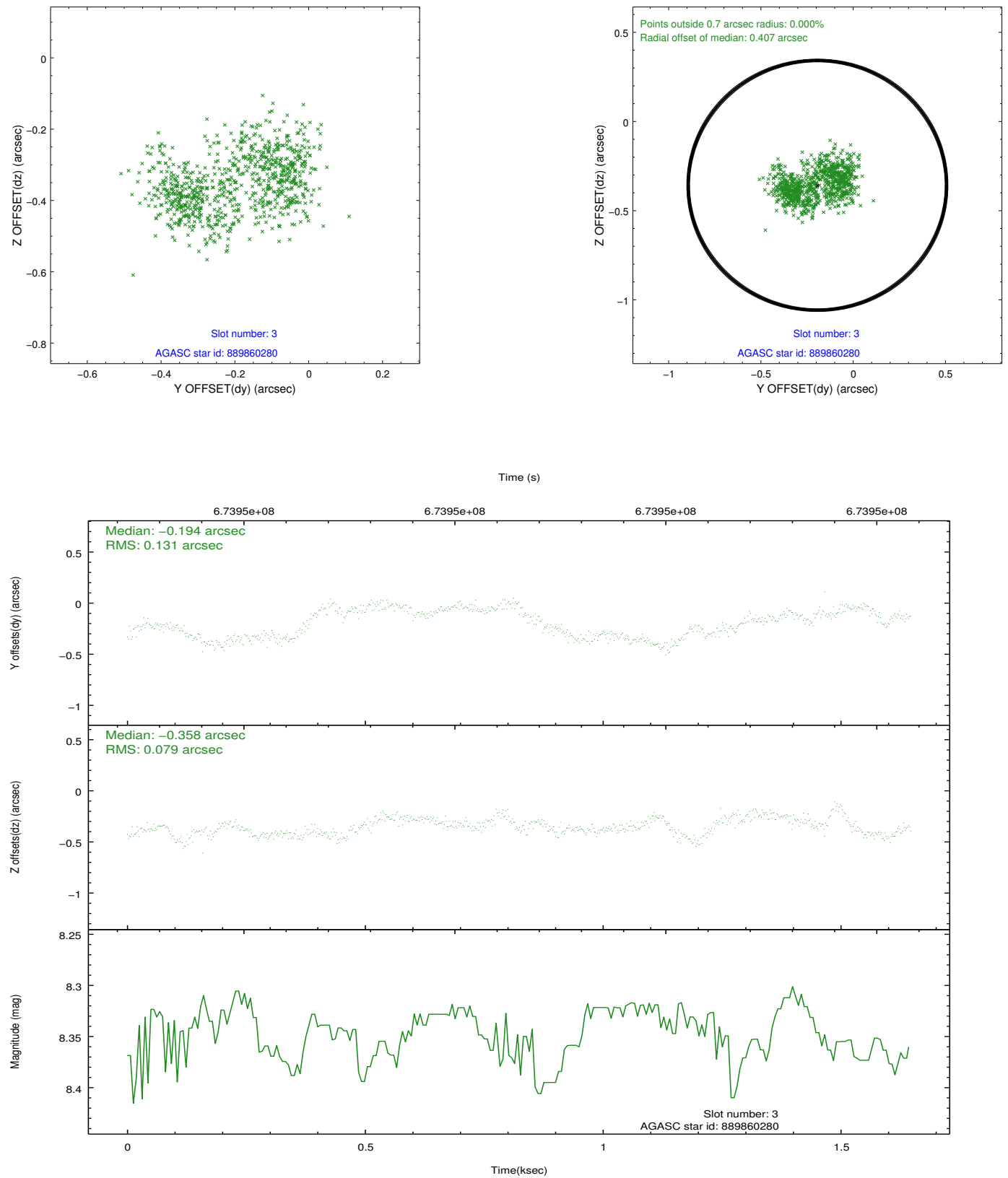
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.12	402	1.000	0.021	-0.083	0.008	0.013	0.000000	0.000000	928.72	-1739
1	FID		ACIS-S-4	7.14	402	1.000	0.580	0.053	0.006	0.013	0.000000	0.000000	2148.81	160
2	FID		ACIS-S-5	7.12	401	1.000	-0.628	0.043	0.008	0.013	0.000000	0.000000	-1815.74	158
3	GUIDE	used	889860280	8.35	803	1.000	-0.194	-0.358	0.166	0.235	234.589463	-29.596256	1678.09	1533
4	GUIDE	used	889860680	8.92	804	1.000	0.188	0.077	0.206	0.329	235.090246	-29.967460	2444.11	-375
5	GUIDE	used	958661120	9.67	802	1.000	-0.025	0.109	0.293	0.499	233.445549	-30.044150	-2231.86	1740
6	GUIDE	used	960368632	9.64	803	1.000	0.034	0.201	0.298	0.451	234.864675	-30.318408	1228.90	-1164
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

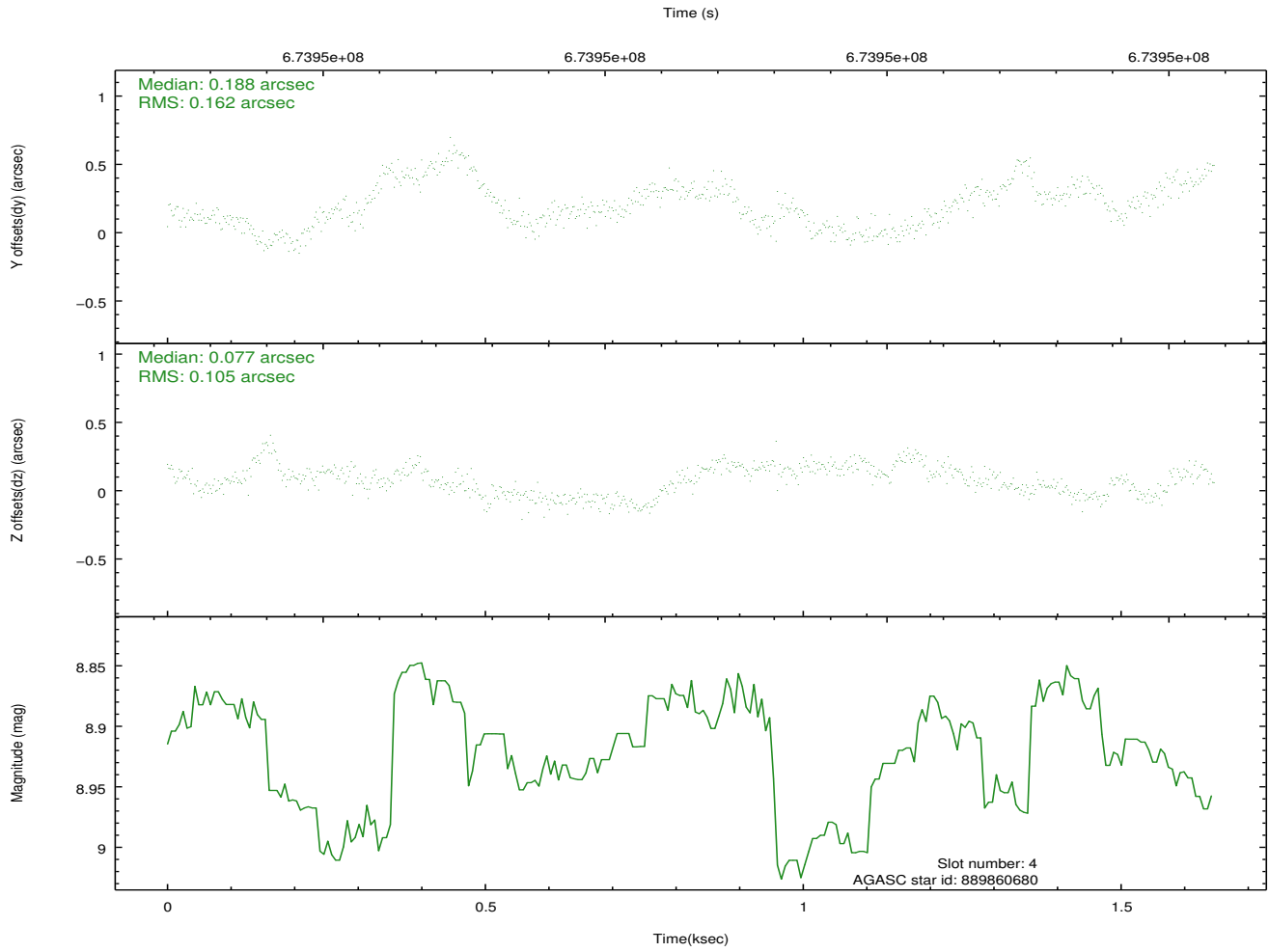
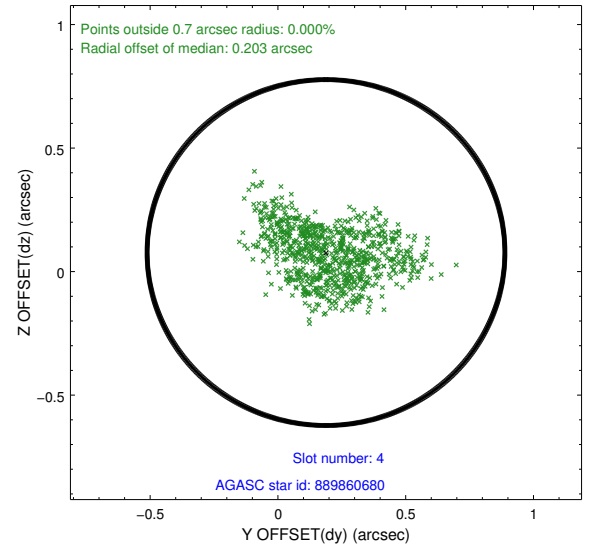
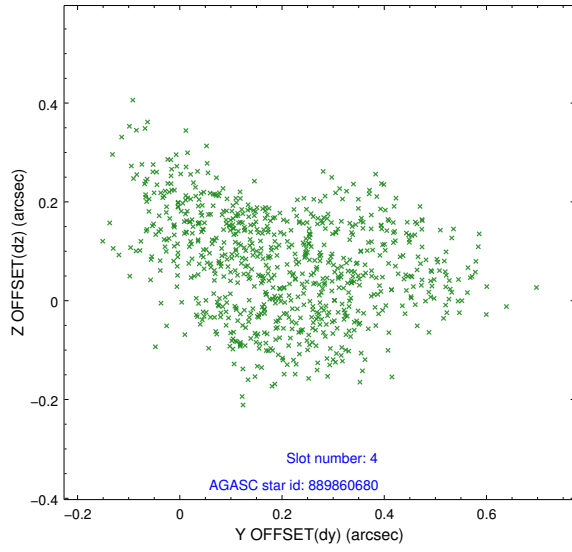


## 2.4 Star Slots

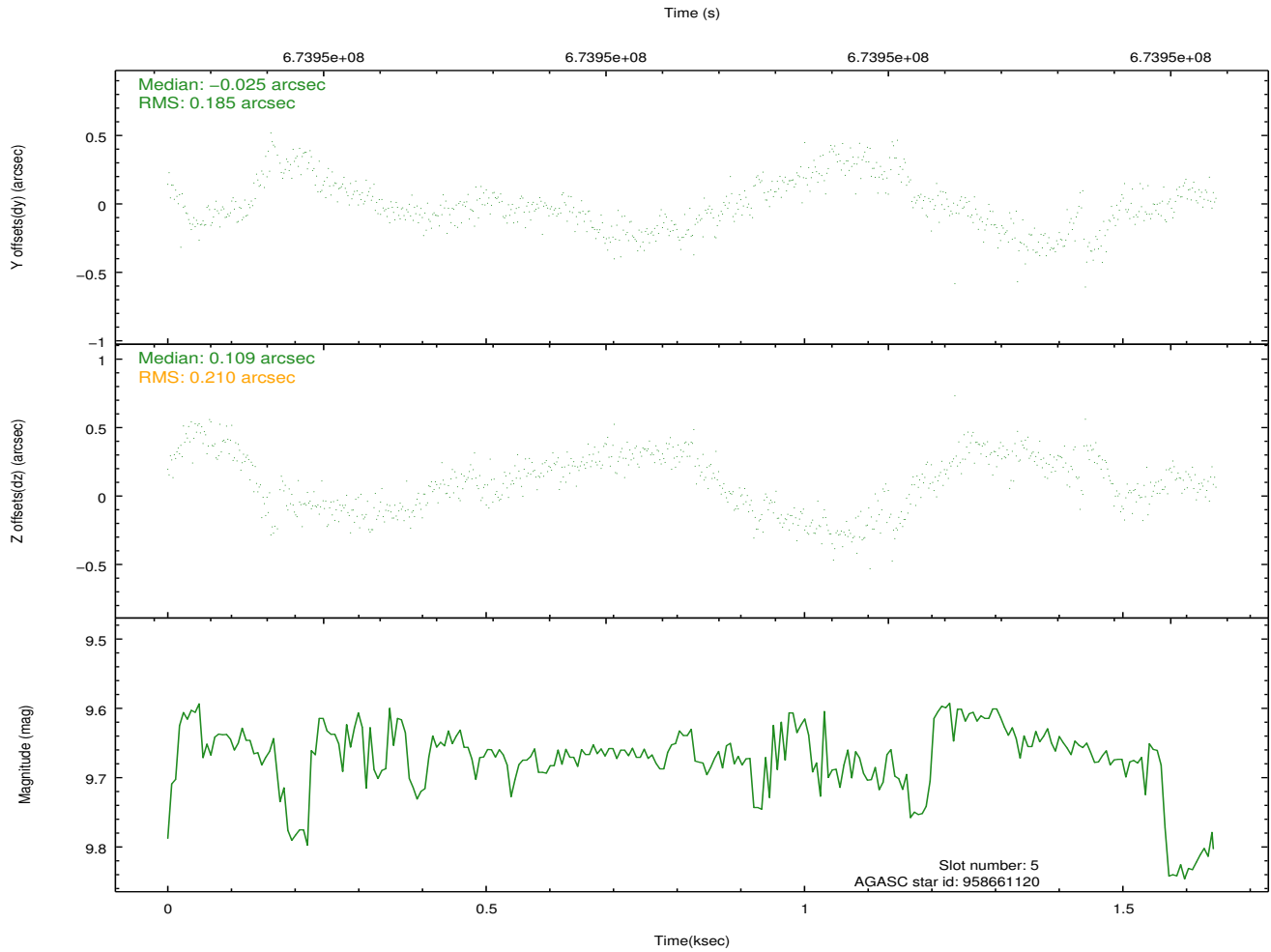
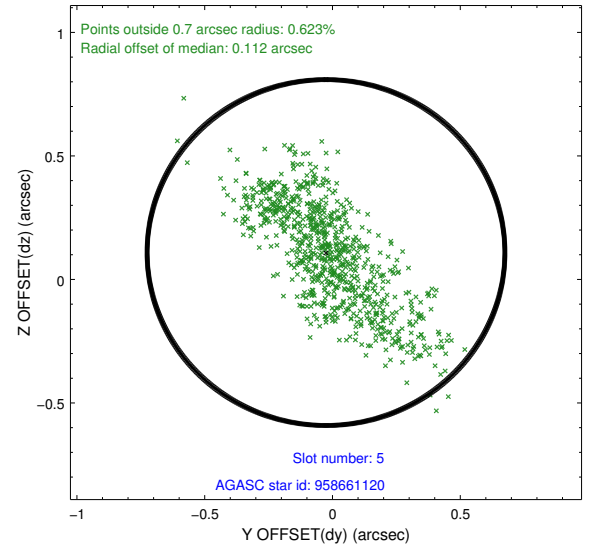
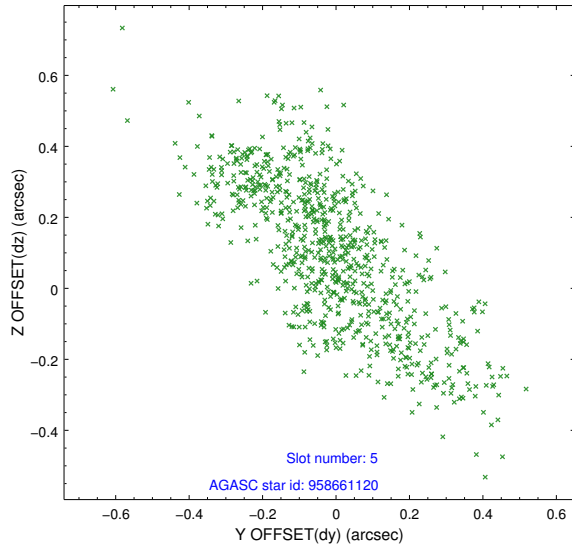
### 2.4.1 Slot 3



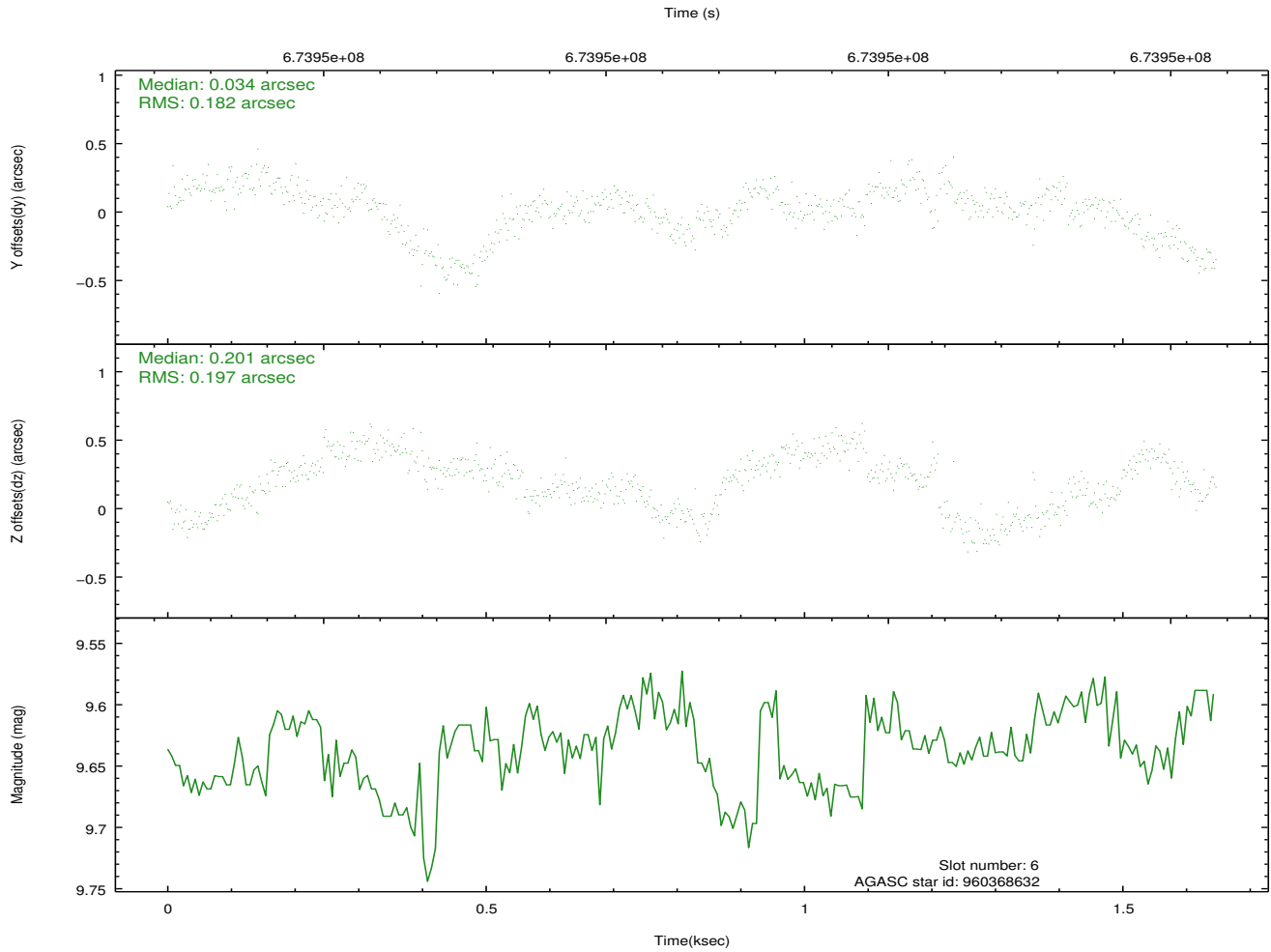
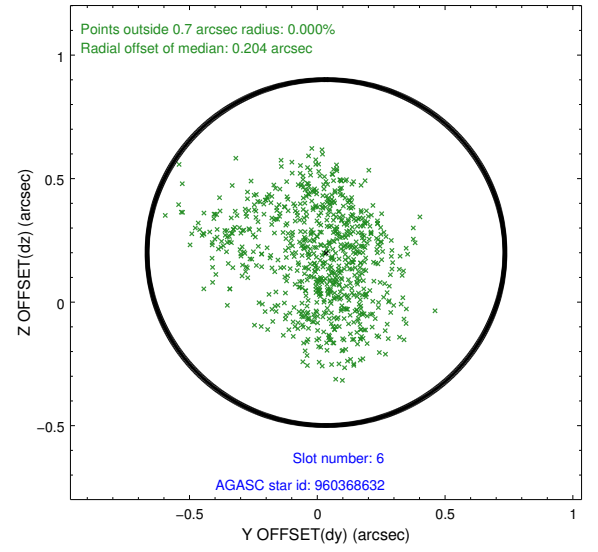
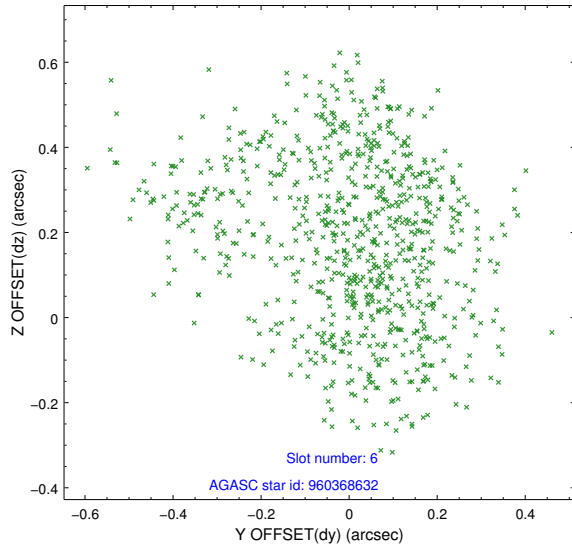
## 2.4.2 Slot 4



### 2.4.3 Slot 5

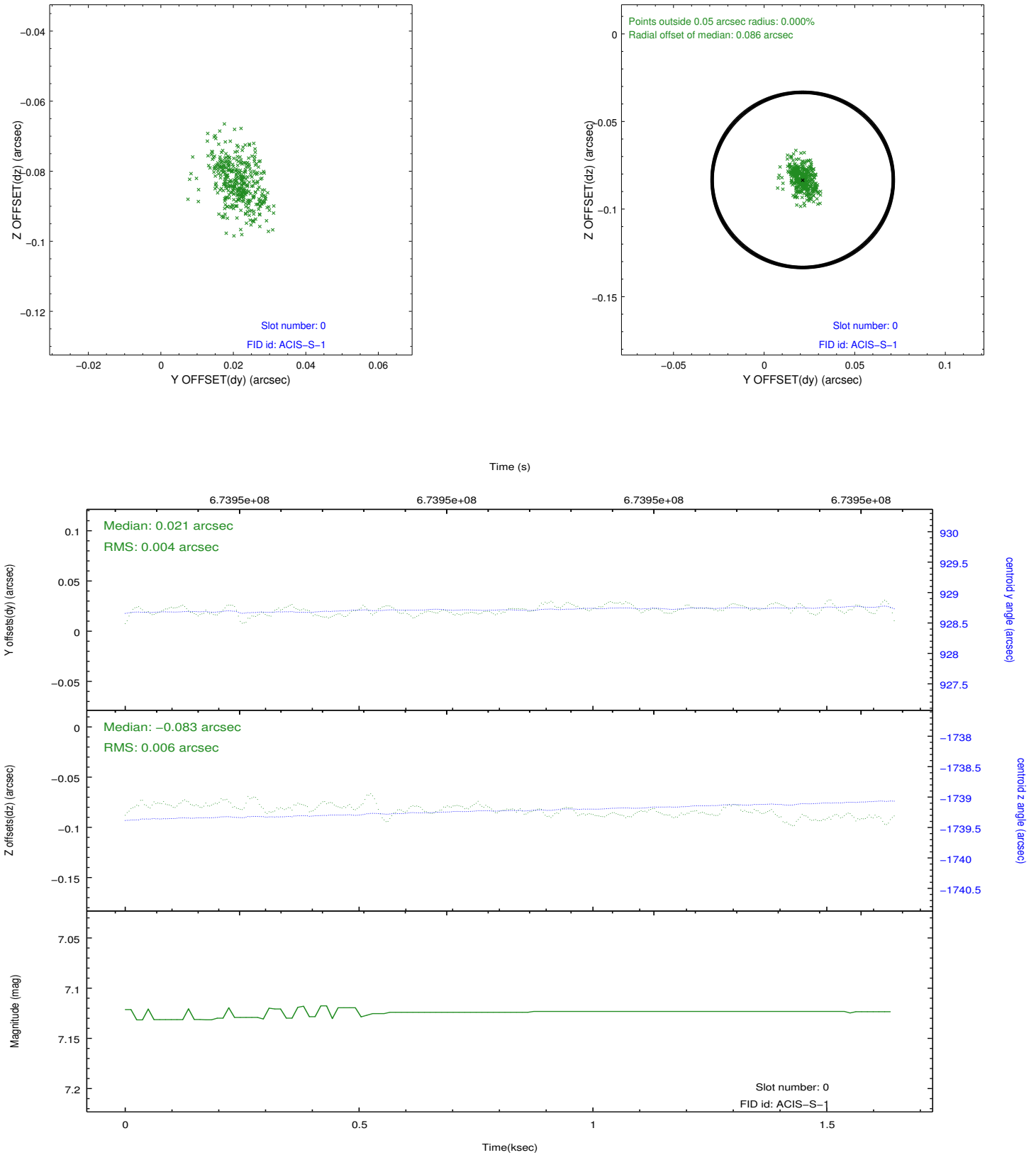


## 2.4.4 Slot 6

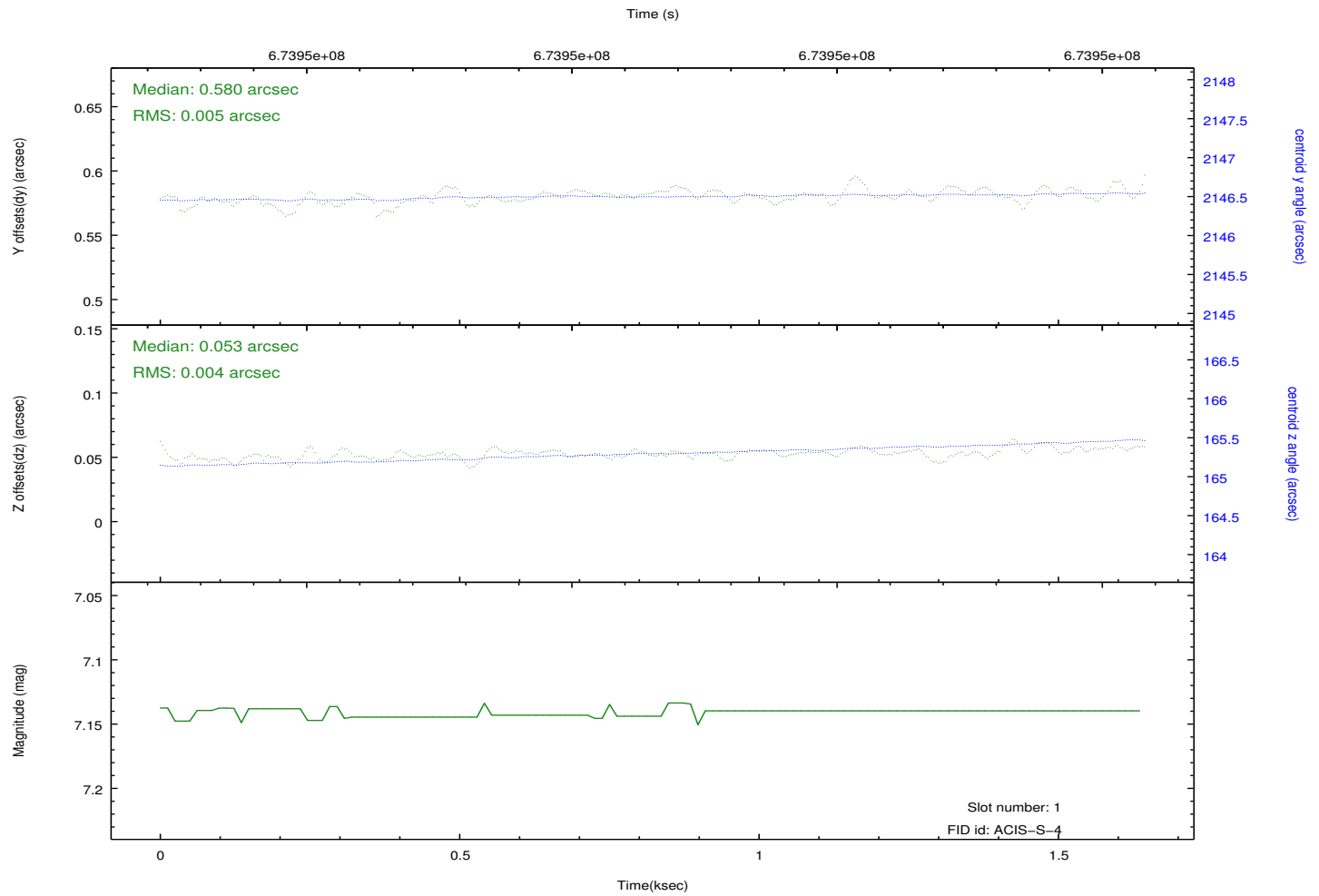
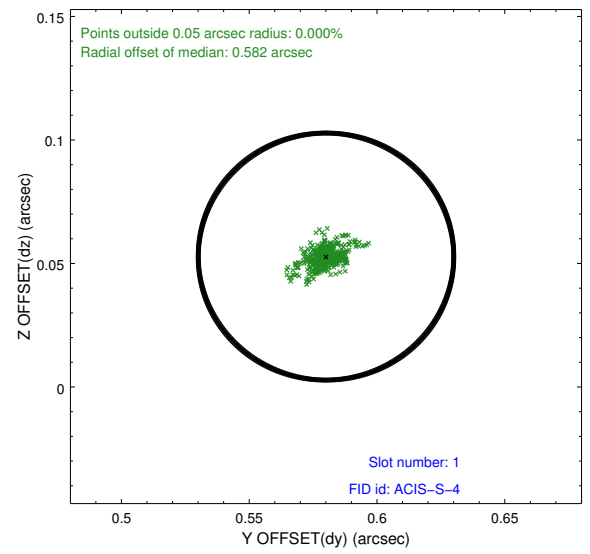
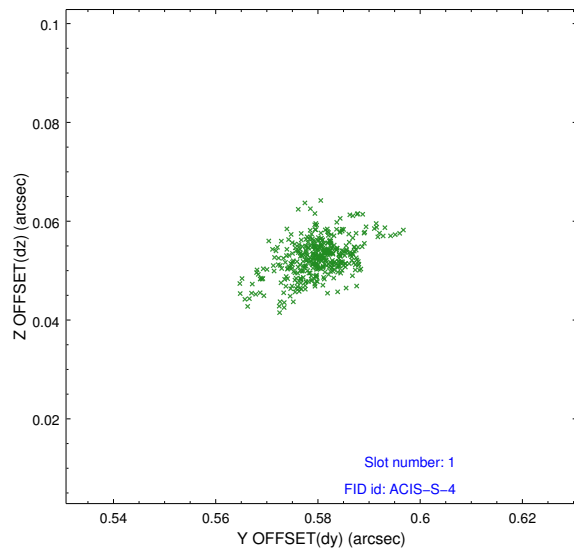


## 2.5 FID Slots

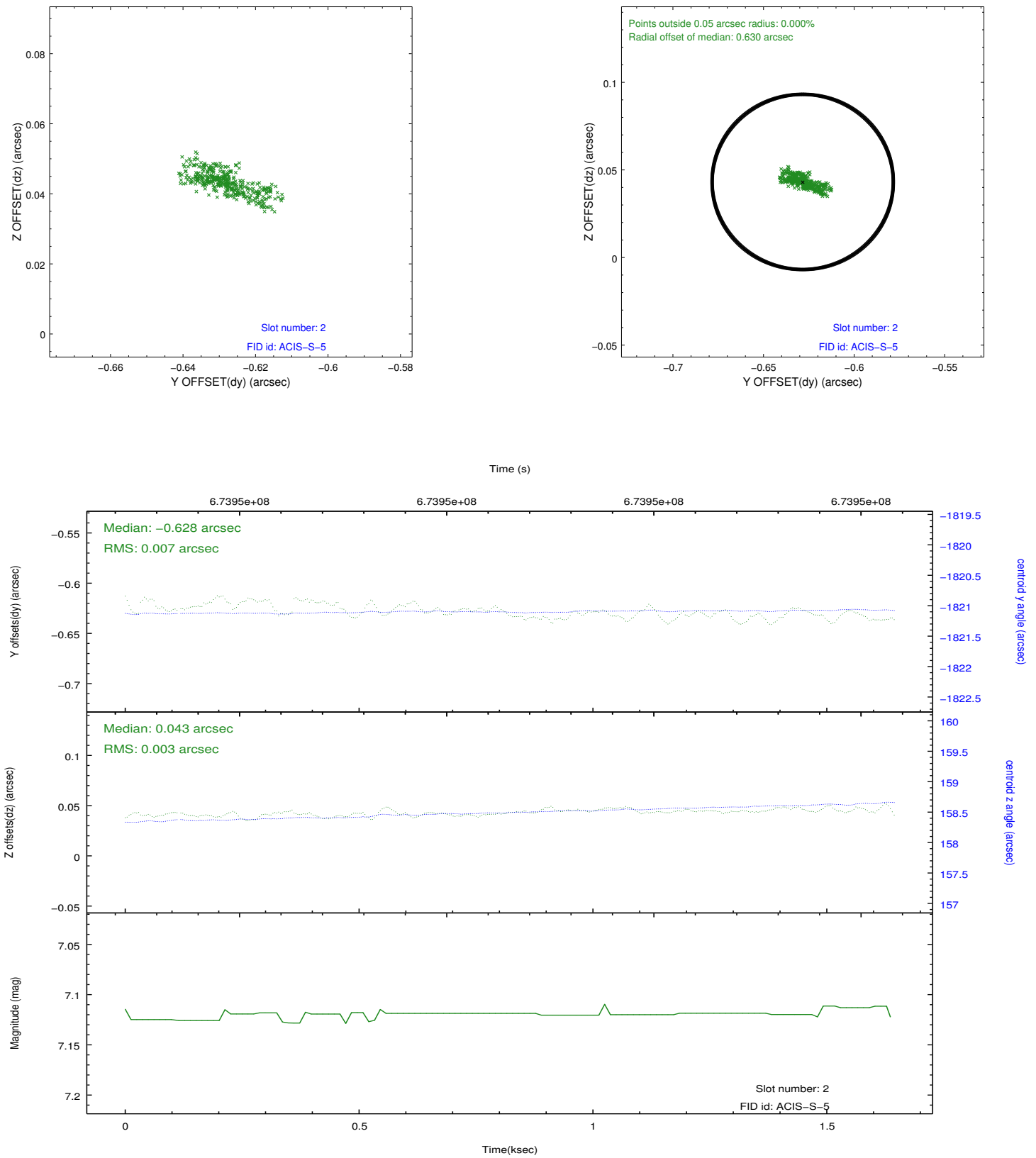
### 2.5.1 Slot 0



## 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)	2019.05.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.5928997400999

## A.2 Comments

Optional chips S4 and S2 not included.

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The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.