

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 21350 - L2 Version 1  
Chandra X-Ray Center

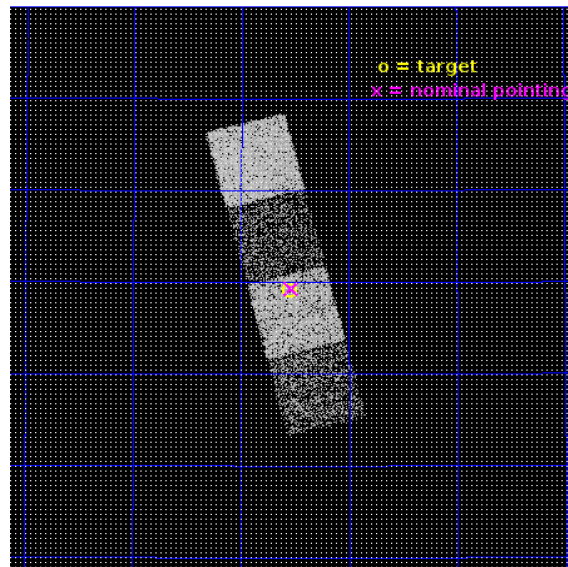
L2 Processing Date : Jan 4 2019

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

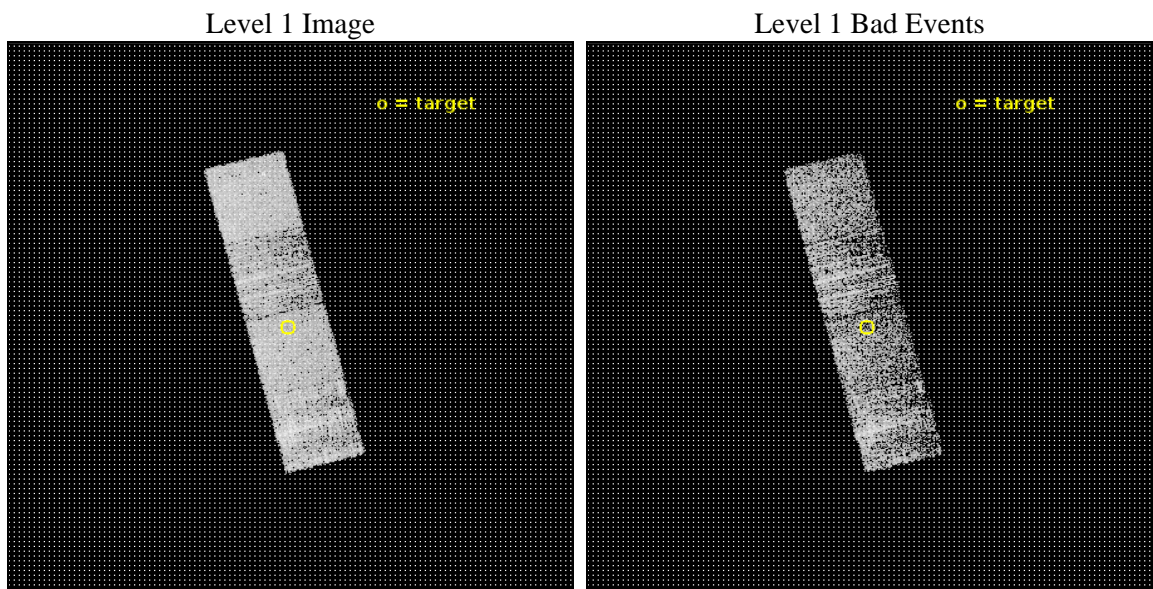
seq_num	503122	Sequence number
obs_id	21350	Observation id
title	Chandra Observations of H-alpha emitting Type I Supernovae	Proposa
observer	David Pooley	Principal investigator
object	SN 1985F	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	190.3875	Observer's specified target RA [deg]
dec_targ	41.151639	Observer's specified target Dec [deg]
ra_nom	190.38335233654	Nominal RA [deg]
dec_nom	41.154934273968	Nominal Dec [deg]
roll_nom	75.379829643918	Nominal Roll [deg]
revision	1	Processing version of data
ontime	2063.3352639675	Sum of GTIs [s]
livetime	2036.3762697385	Livetime [s]
ontime5	2063.2942240238	Sum of GTIs [s]
ontime6	2063.2531839609	Sum of GTIs [s]
ontime7	2063.3352639675	Sum of GTIs [s]
ontime8	2063.2121440172	Sum of GTIs [s]
l2events	23533	Number of level 2 events



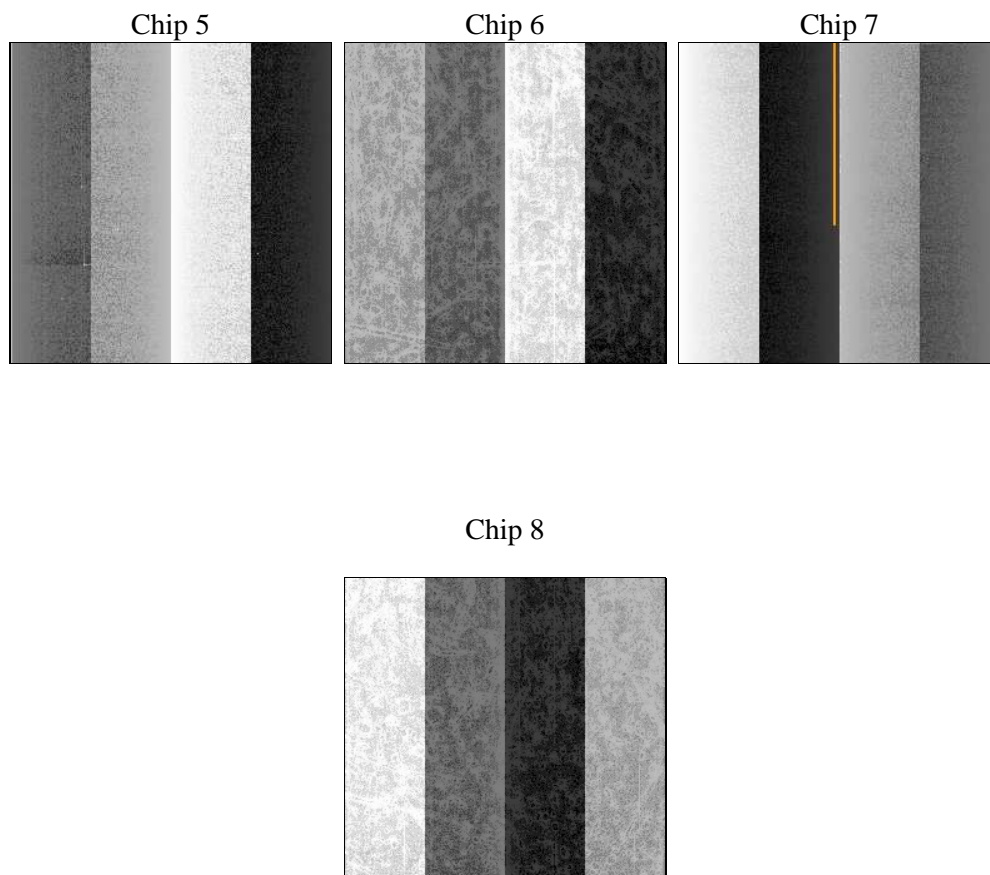
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	2063.3352639675	Sum of GTIs [s]
caldsver	4.8.2	&#160	ontime5	2063.2942240238	Sum of GTIs [s]
date	2019-01-05T01:06:21	Date and time of file creation	ontime6	2063.2531839609	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	2063.3352639675	Sum of GTIs [s]
			ontime8	2063.2121440172	Sum of GTIs [s]
			l1events	82516	Number of level 1 events

### 2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	24621	15978	20175	21742
rejected events	12638	14215	11464	15189
rejected %	51%	88%	56%	69%

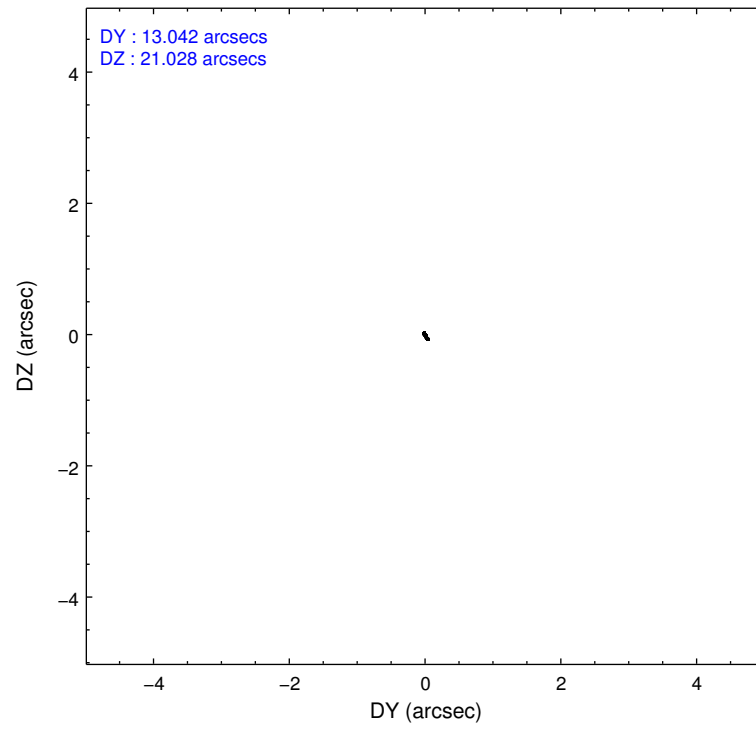
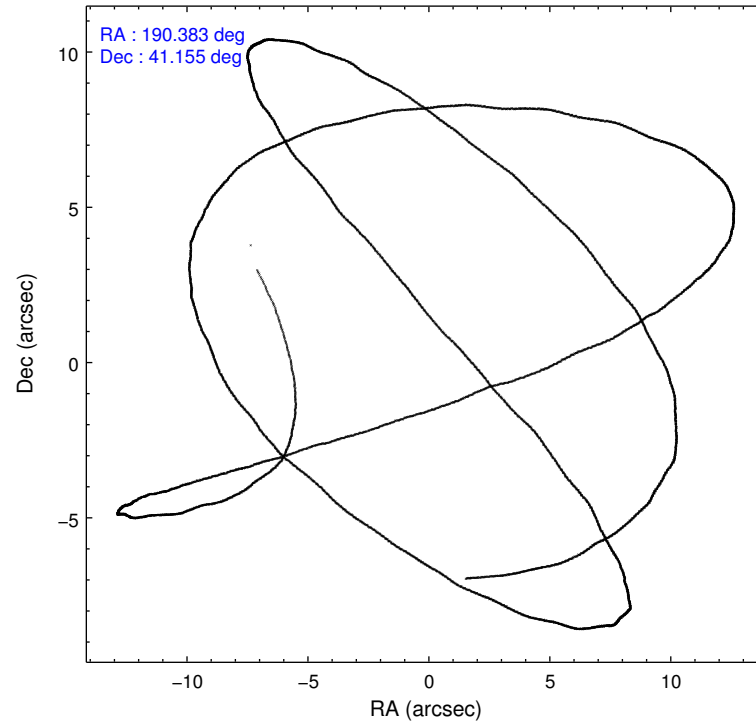
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	689	582	709	1862
	2%	3%	3%	8%
grade 1 events	47	7	31	19
	0%	0%	0%	0%
grade 2 events	3945	427	1867	1585
	16%	2%	9%	7%
grade 3 events	377	178	685	620
	1%	1%	3%	2%
grade 4 events	327	176	667	607
	1%	1%	3%	2%
grade 5 events	1679	721	1968	1163
	6%	4%	9%	5%
grade 6 events	6667	405	4796	1888
	27%	2%	23%	8%
grade 7 events	10890	13482	9452	13998
	44%	84%	46%	64%

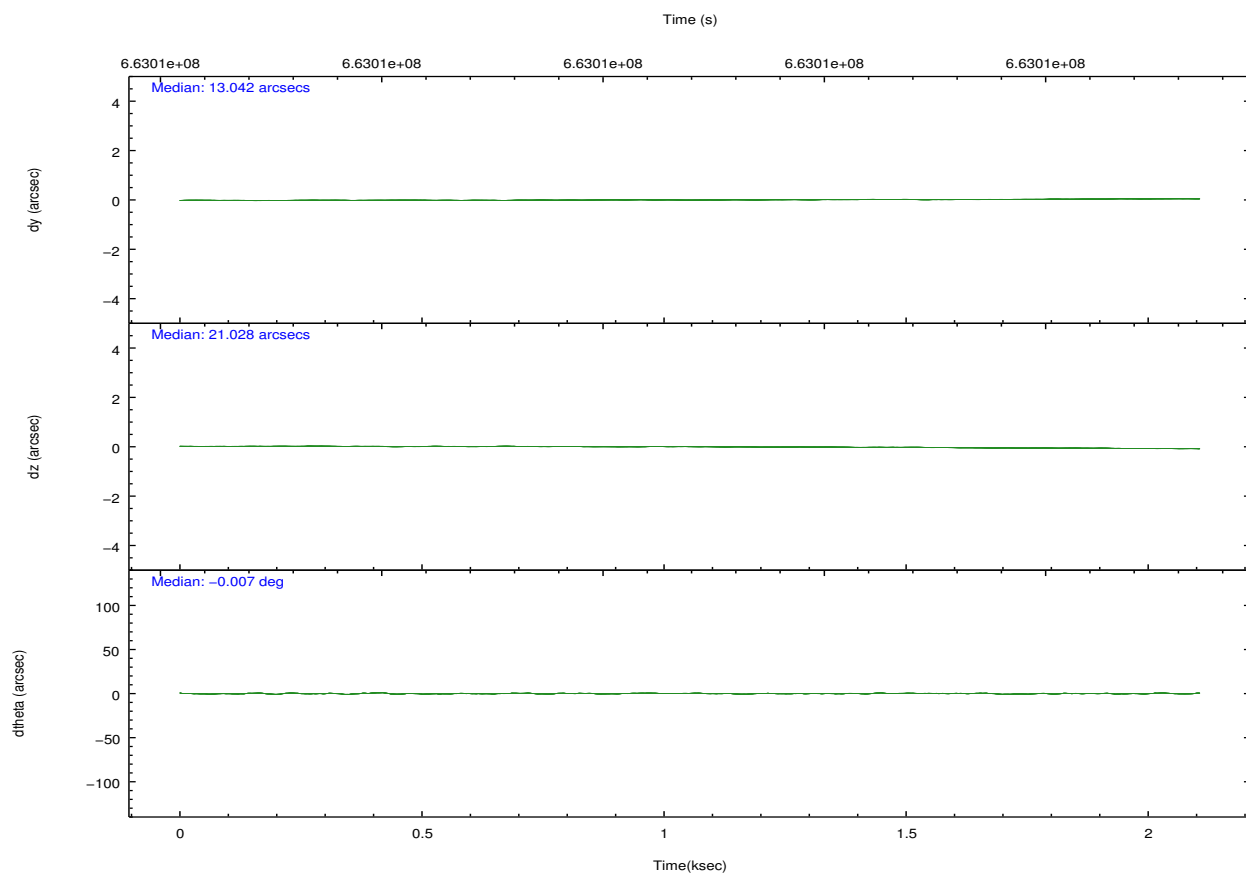
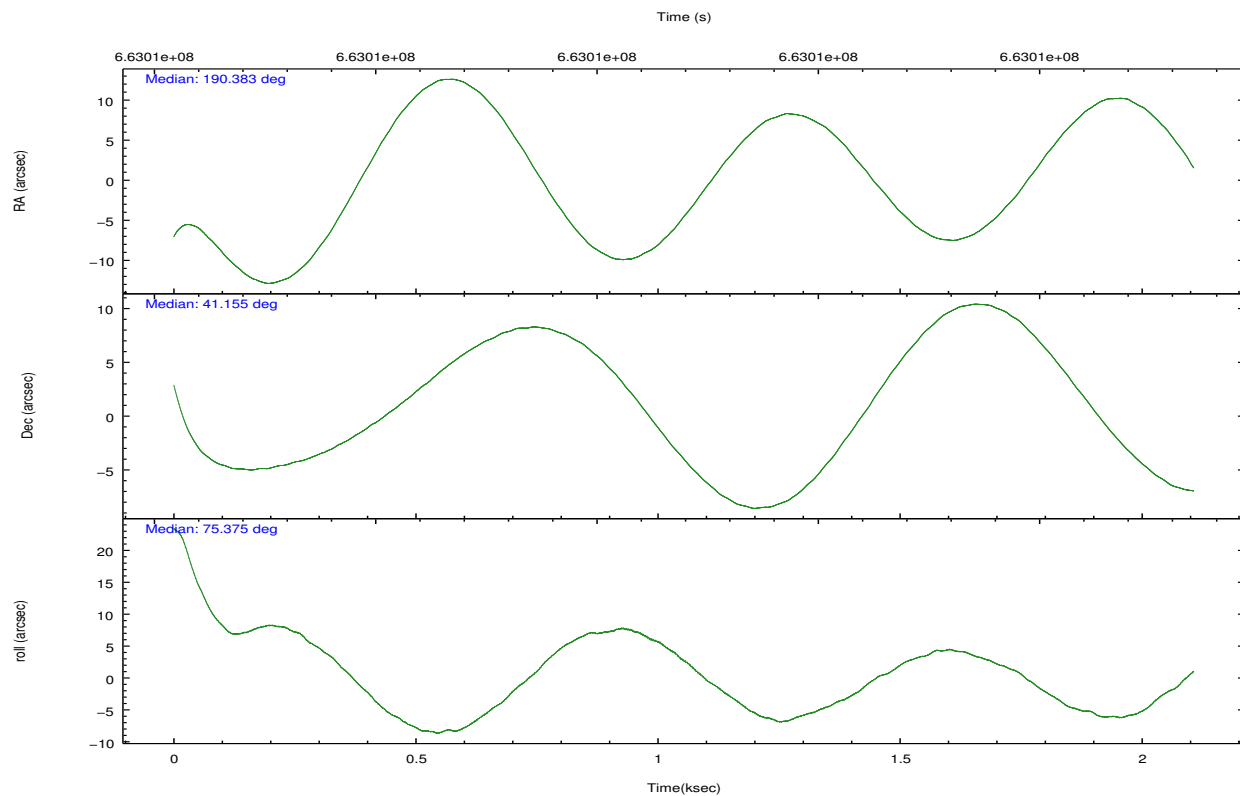
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-5678	ACIS-5678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	190.393586	190.3833523365396
[deg] Pointing Dec	41.128600	41.15493427396777
[deg] Pointing Roll	75.216392	75.37982964391793
[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)	663012746.184000	663011329.5689501
Observation start date	2019-01-04T18:11:17	2019-01-04T17:48:49
[s] Observation end time (MET)	663014746.184000	663015389.08169
Observation end date	2019-01-04T18:44:37	2019-01-04T18:56:29
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	N	N
CCD I3 on	N	N
CCD S0 on	N	N
CCD S1 on	O1	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	O2	Y
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





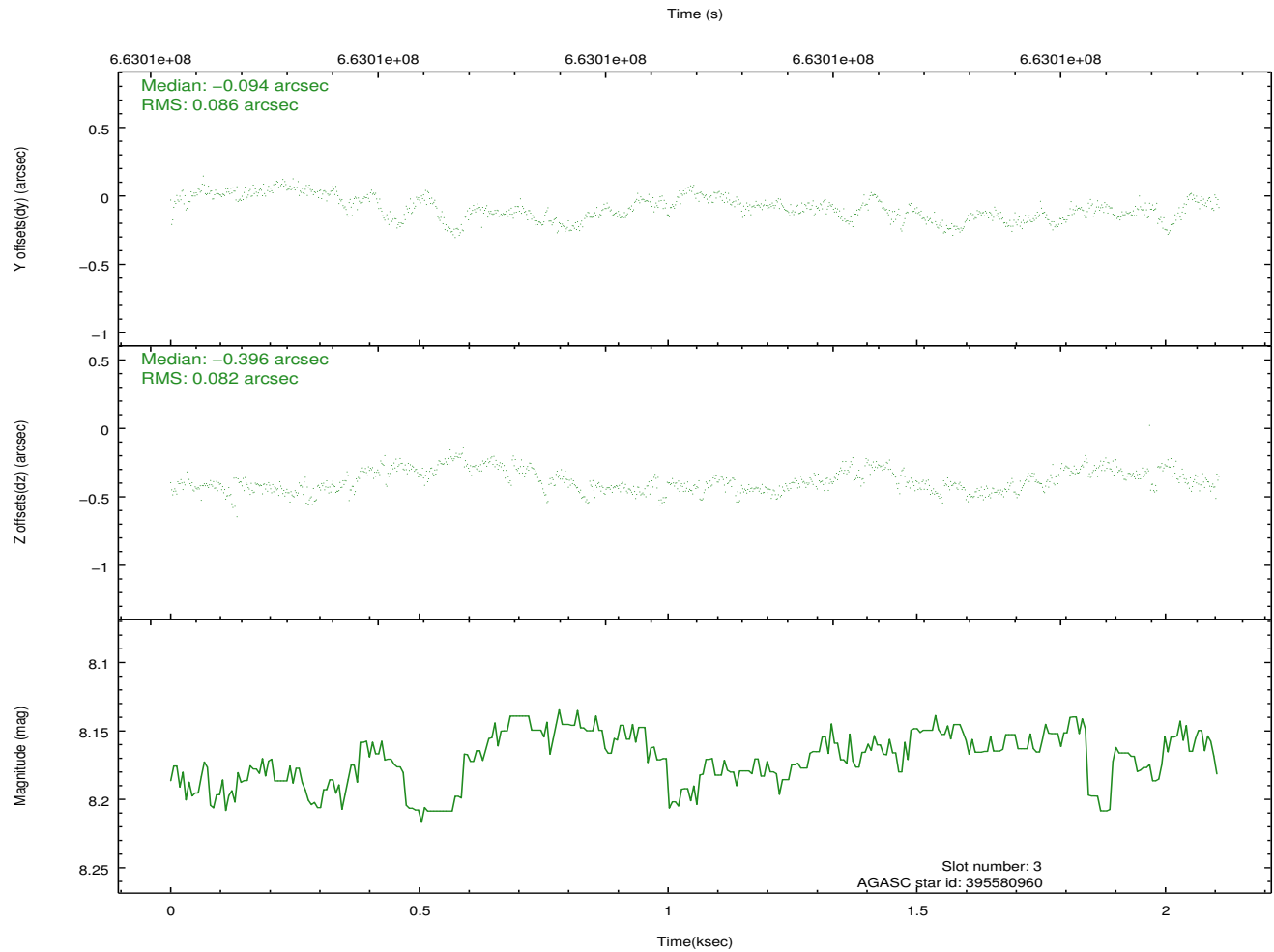
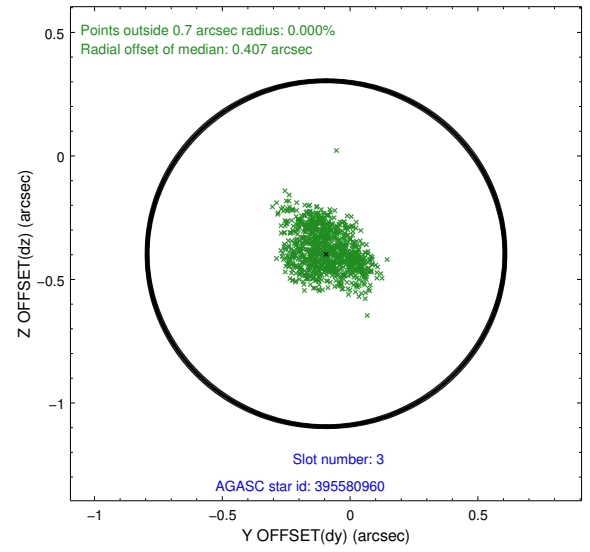
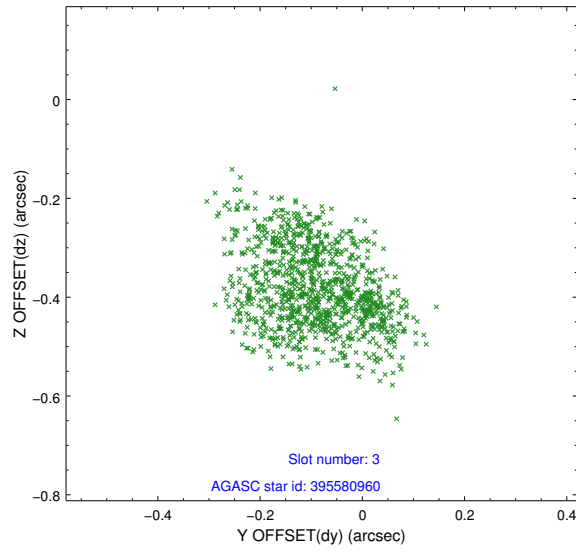
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.06	514	1.000	-0.294	-0.157	0.007	0.011	0.000000	0.000000	-766.18	-1742
1	FID		ACIS-S-4	7.19	514	1.000	0.717	0.184	0.006	0.011	0.000000	0.000000	2146.61	163
2	FID		ACIS-S-5	7.17	514	1.000	-0.454	-0.019	0.007	0.011	0.000000	0.000000	-1815.29	159
3	GUIDE	used	395580960	8.17	1029	1.000	-0.094	-0.396	0.128	0.192	189.782731	40.983502	-923.04	1474
4	GUIDE	used	395975488	7.53	1029	1.000	0.231	0.339	0.085	0.144	190.362345	40.579329	-1934.26	-419
5	GUIDE	used	395979328	8.33	1029	1.000	0.237	0.419	0.098	0.155	190.208900	40.521558	-2243.97	-72
6	GUIDE	used	396234704	6.54	1029	1.000	-0.062	0.026	0.061	0.114	190.890549	41.261557	808.26	-1176
7	GUIDE	used	395581272	6.72	1028	1.000	-0.305	-0.402	0.132	0.201	189.692824	40.874663	-1362.76	1611

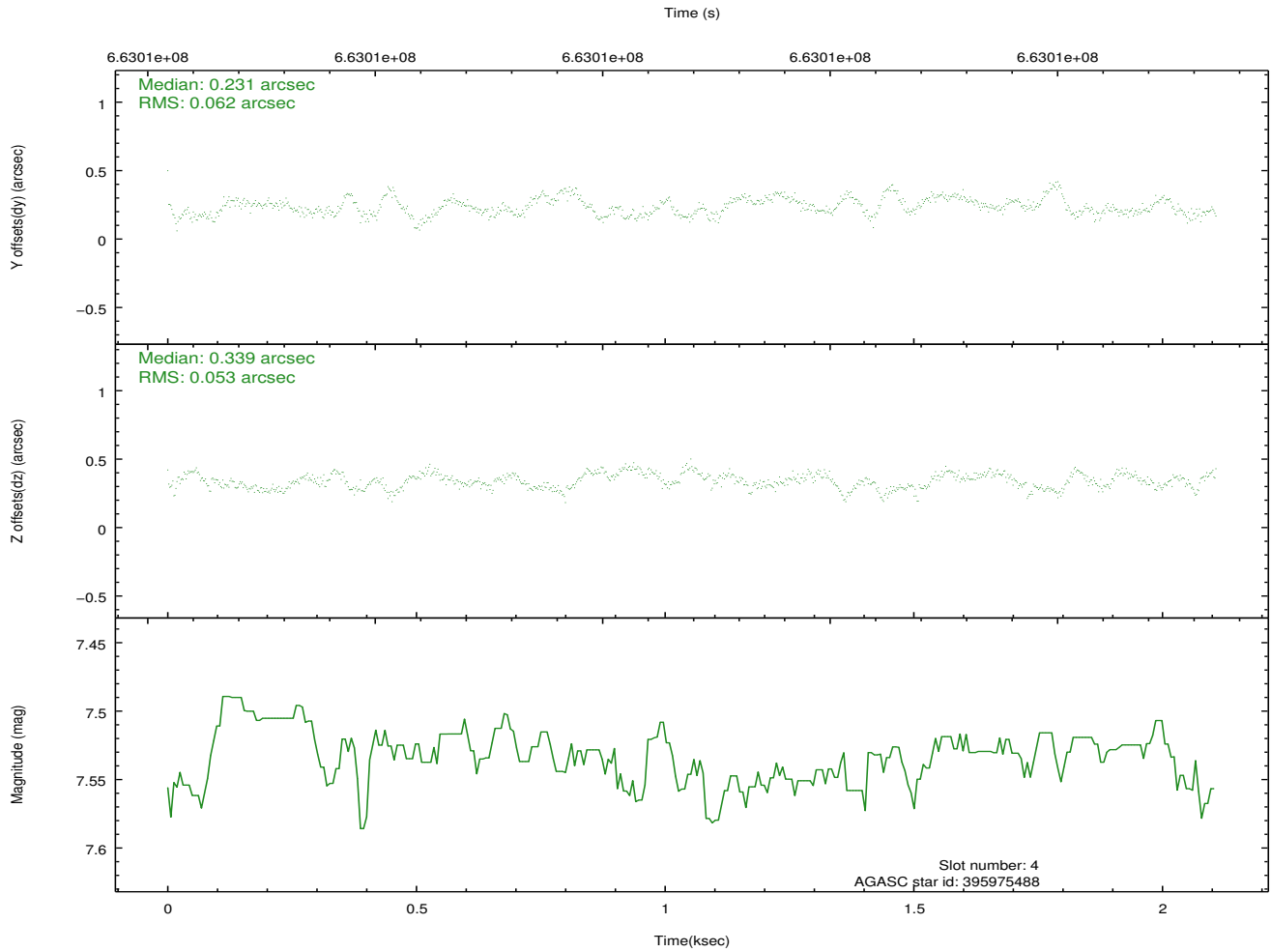
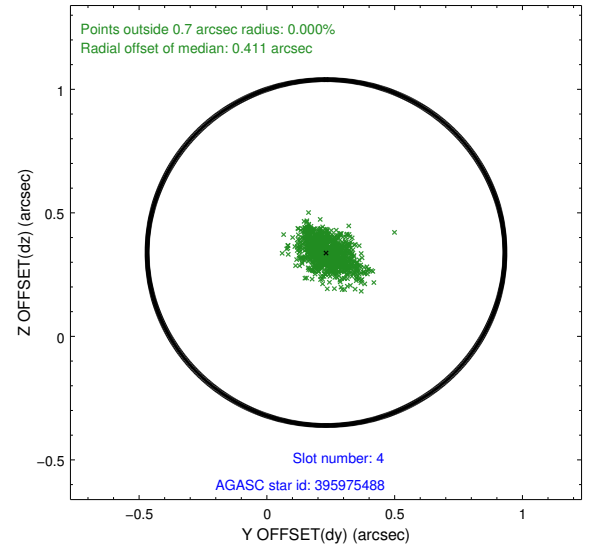
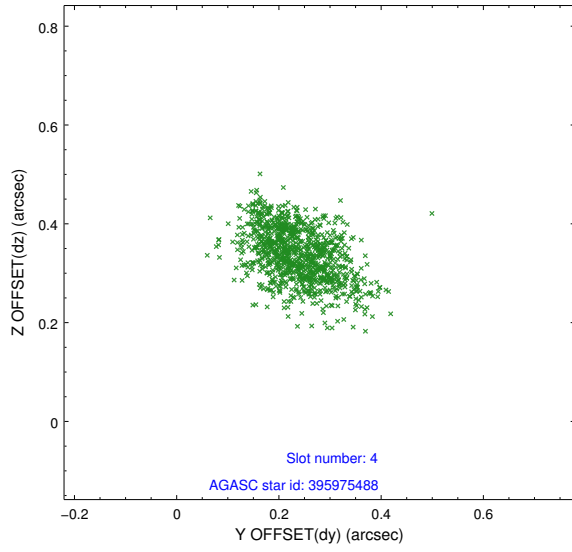


## 2.4 Star Slots

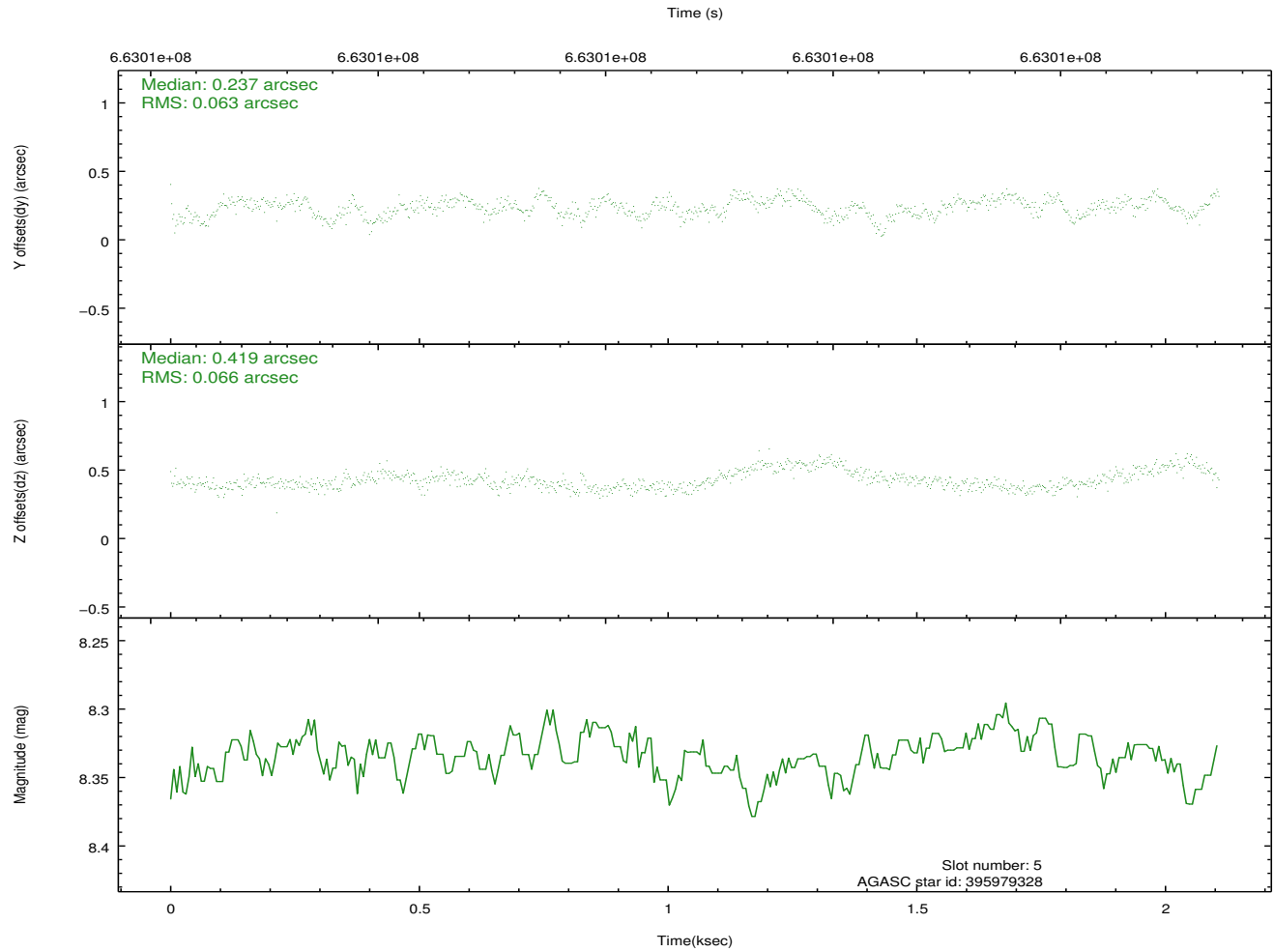
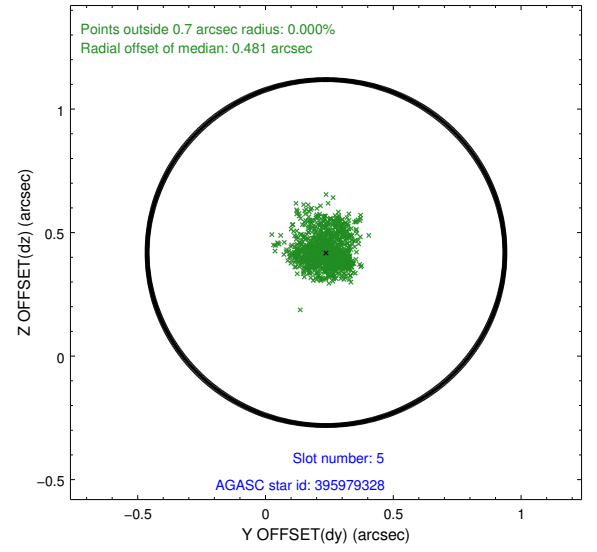
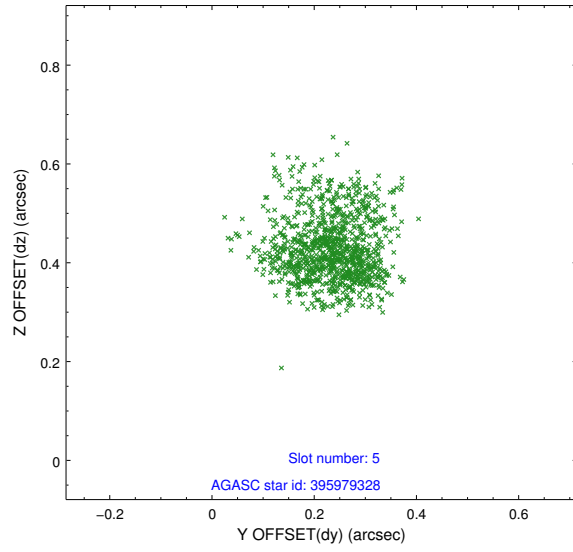
### 2.4.1 Slot 3



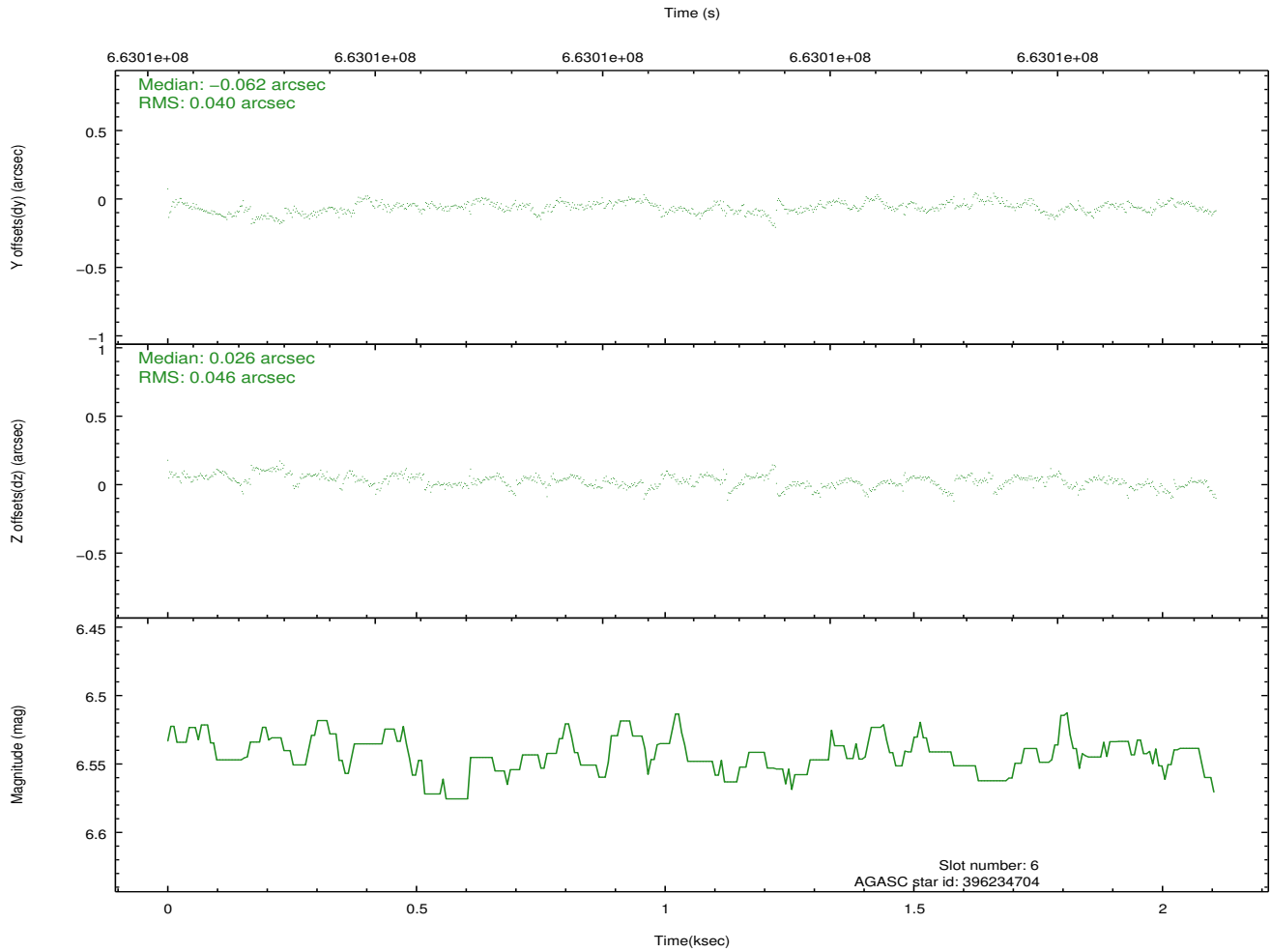
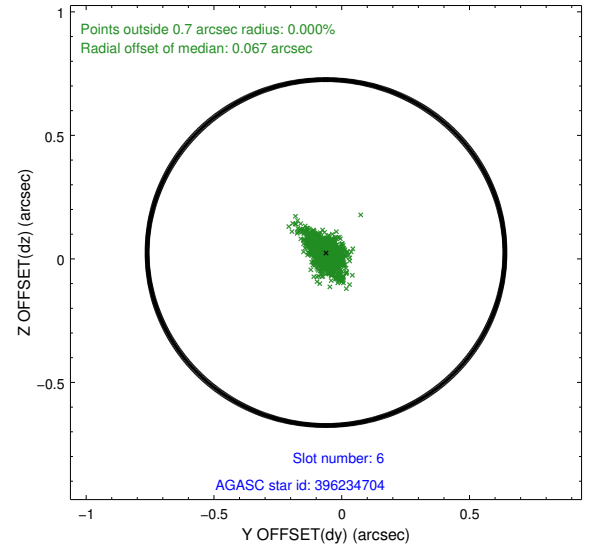
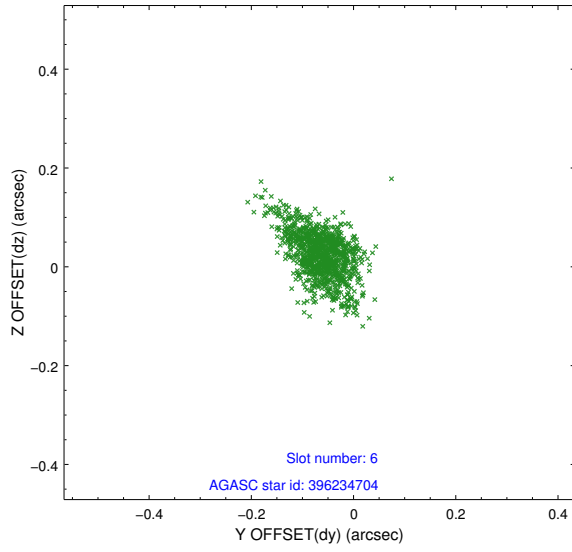
## 2.4.2 Slot 4



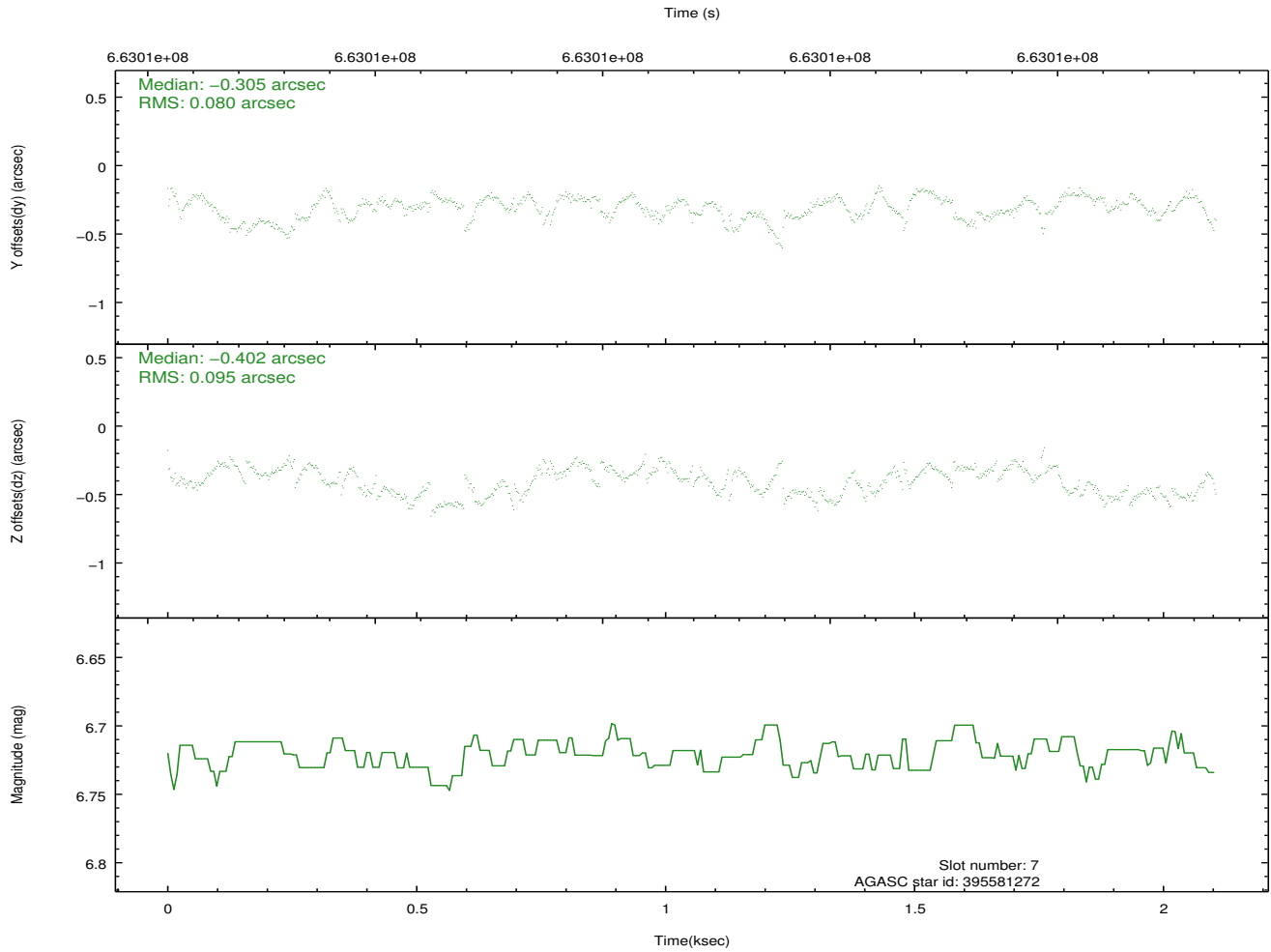
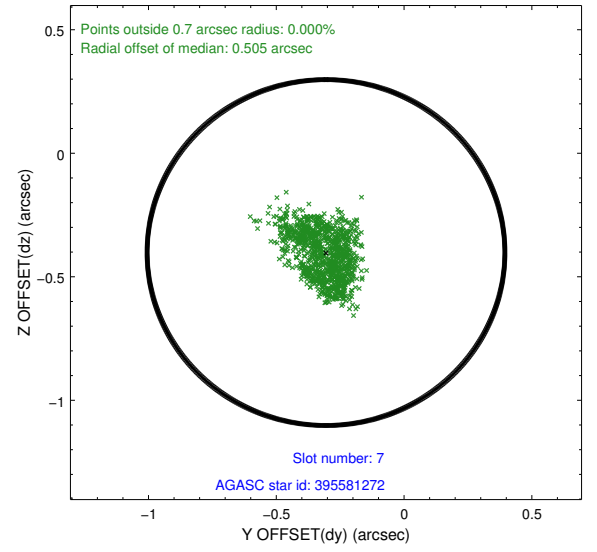
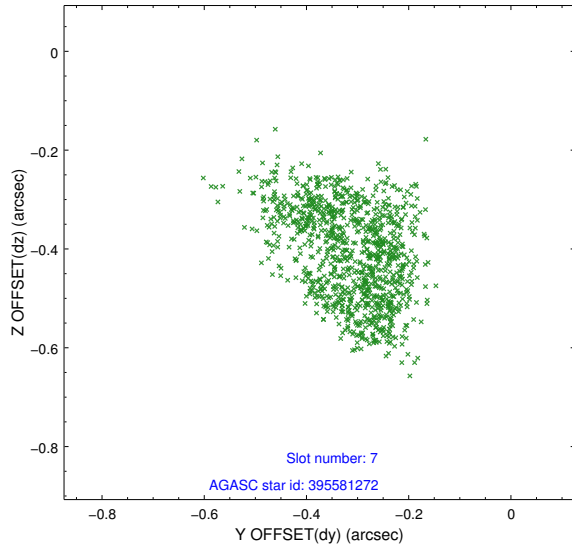
### 2.4.3 Slot 5



## 2.4.4 Slot 6

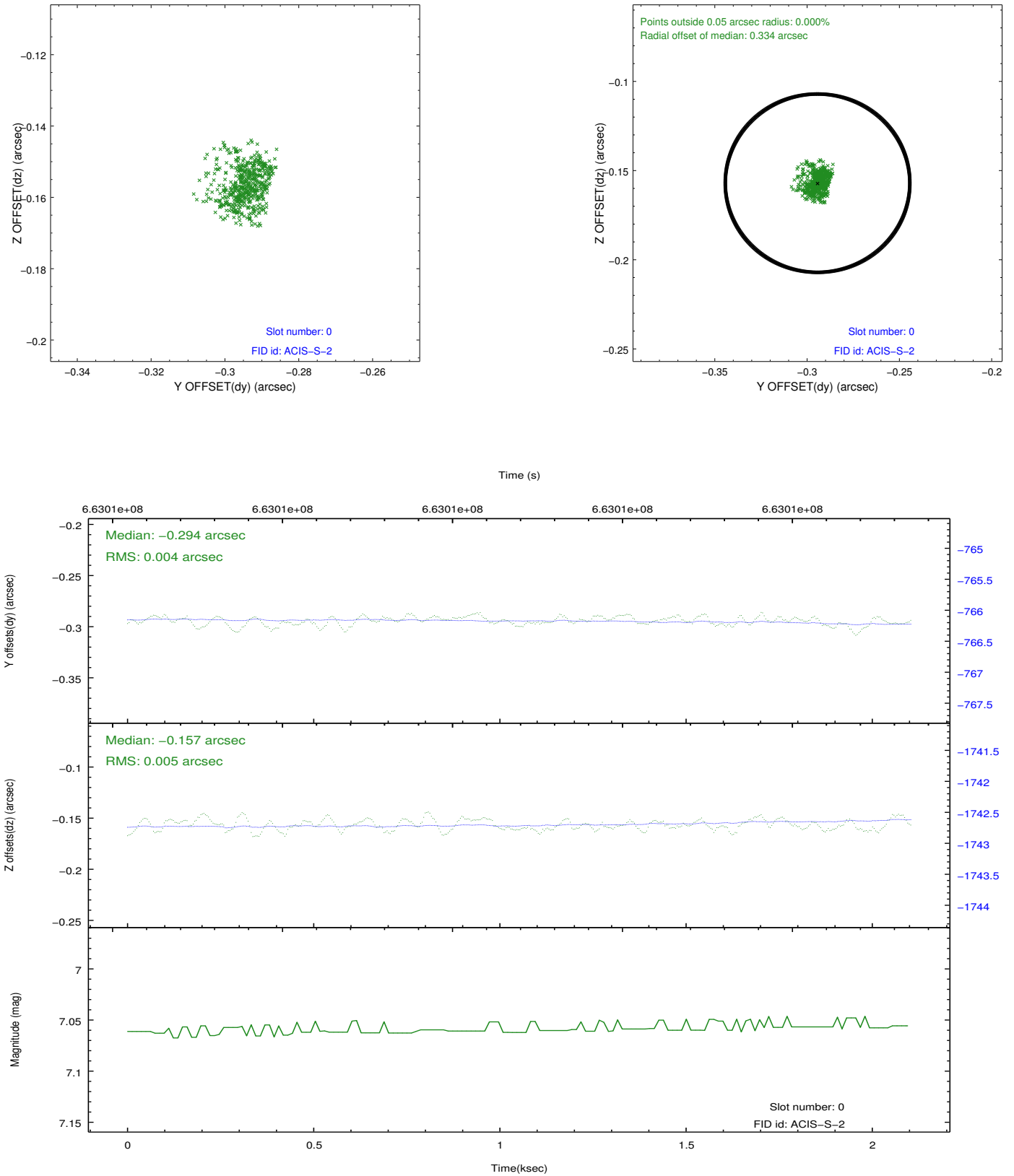


## 2.4.5 Slot 7

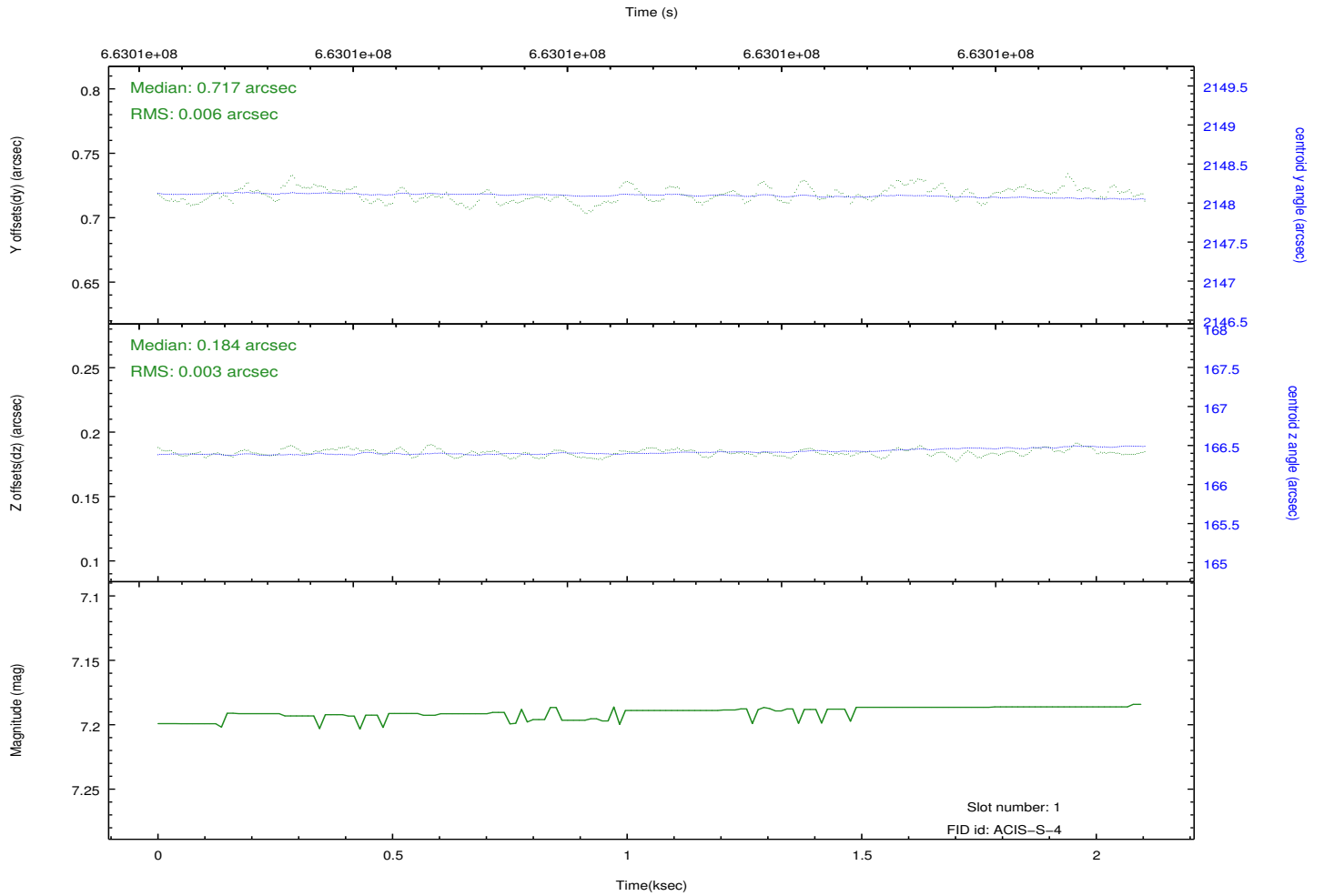
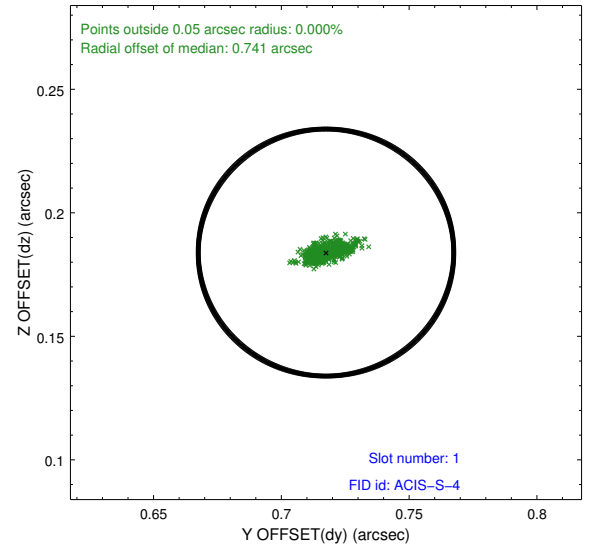
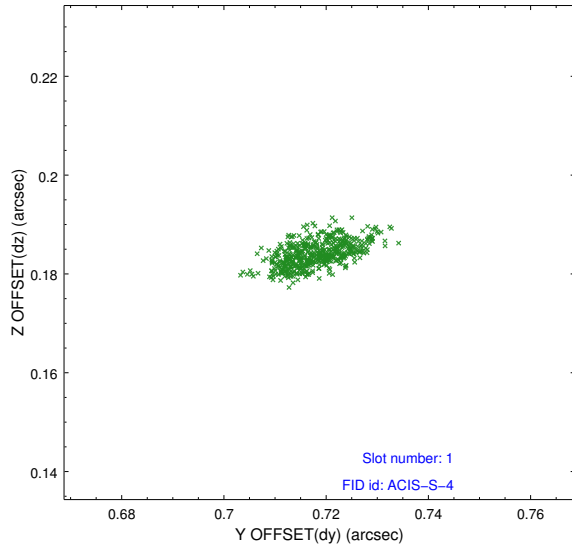


## 2.5 FID Slots

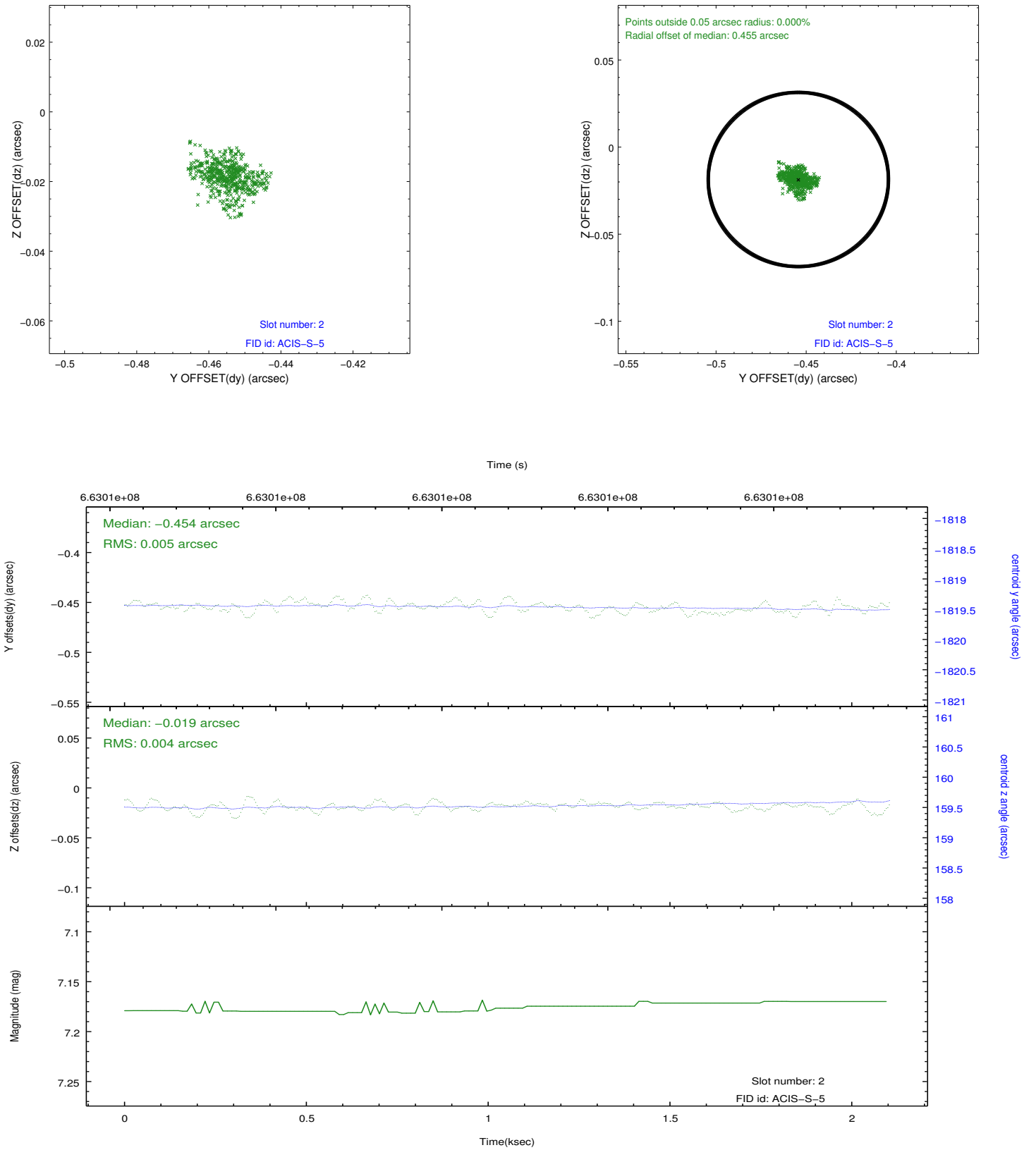
### 2.5.1 Slot 0



## 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)	2019.01.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.0633352639675

### A.2 Comments

Joint proposal with NRAO.