

# V&V Reference Report

## L2 ASCDS Version : 10.6.4.1

Observation 21859 - L2 Version 1  
Chandra X-Ray Center

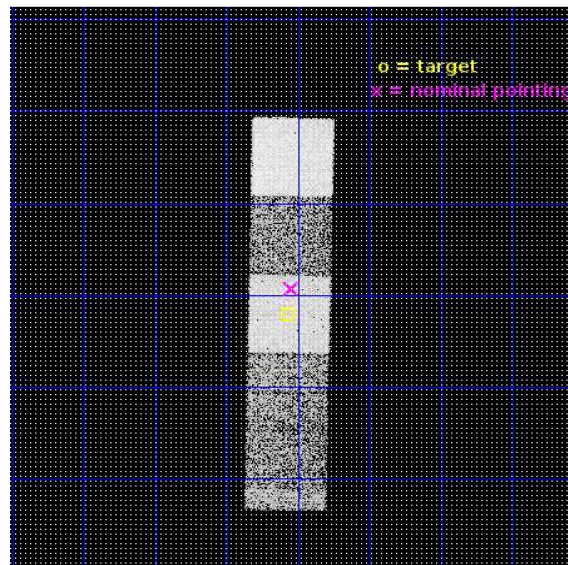
L2 Processing Date : Oct 4 2018

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# 1 Front

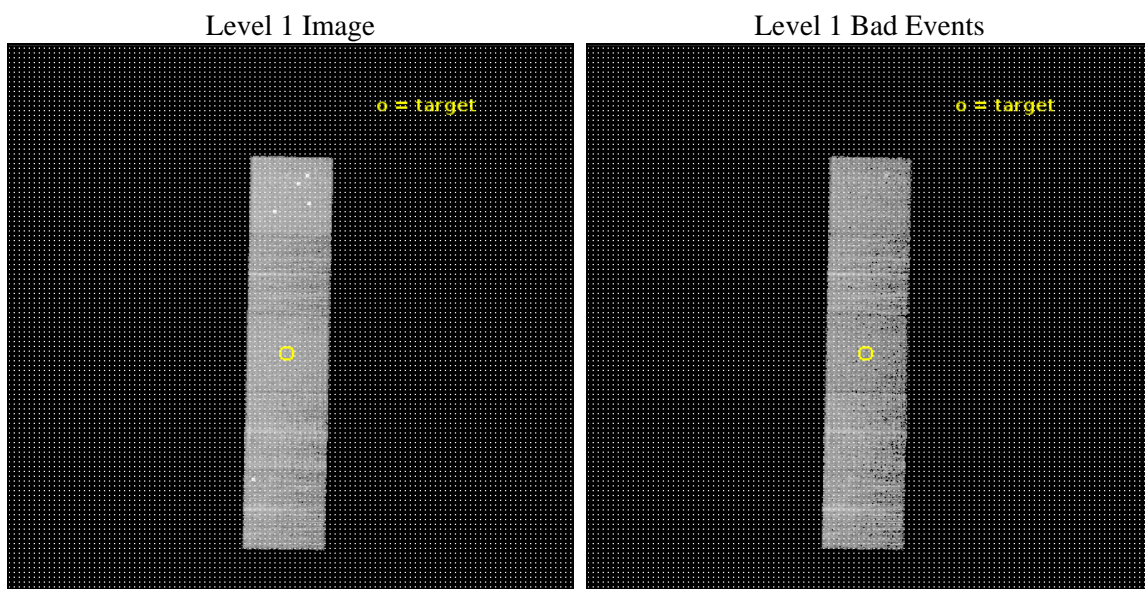
seq_num	100174	Sequence number
obs_id	21859	Observation id
title	Chandra Observations of the High-Heliospheric Latitude Comet 21P/Giacobini-Zinner	Proposal title
observer	Bradford Snios	Principal investigator
object	21P/Giacobini-Zinner	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	104.518084	Observer's specified target RA [deg]
dec_targ	-4.20087	Observer's specified target Dec [deg]
ra_nom	104.51249322596	Nominal RA [deg]
dec_nom	-4.1549853973211	Nominal Dec [deg]
roll_nom	91.156271928872	Nominal Roll [deg]
revision	1	Processing version of data
ontime	5976.8000460863	Sum of GTIs [s]
livetime	5898.708753428	Livetime [s]
ontime5	5976.8000460863	Sum of GTIs [s]
ontime6	5973.6590256691	Sum of GTIs [s]
ontime7	5976.8000460863	Sum of GTIs [s]
ontime8	5976.8000460863	Sum of GTIs [s]
ontime9	5976.8000460863	Sum of GTIs [s]
l2events	71941	Number of level 2 events



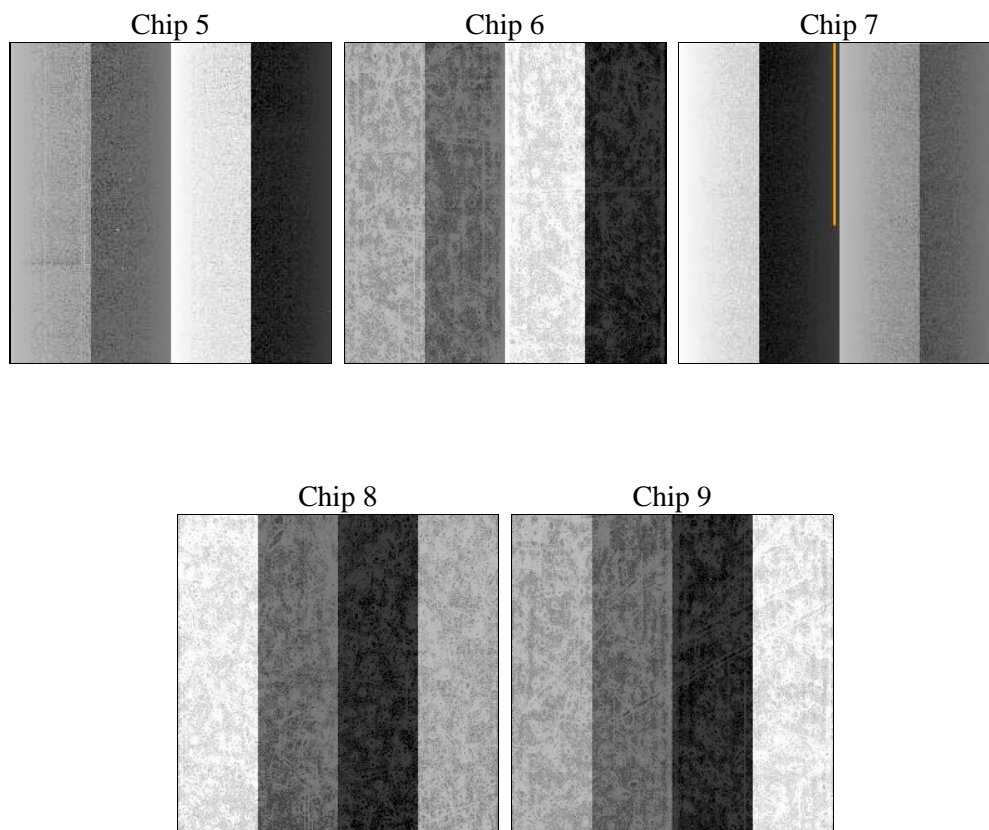
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5800.000000	[s] Scheduled observation exposure time
ascdsver	10.6.4.1	Processing system revision	ontime	5976.8000460863	Sum of GTIs [s]
caldsver	4.8.0	&#160	ontime5	5976.8000460863	Sum of GTIs [s]
date	2018-10-04T18:44:23	Date and time of file creation	ontime6	5973.6590256691	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	5976.8000460863	Sum of GTIs [s]
			ontime8	5976.8000460863	Sum of GTIs [s]
			ontime9	5976.8000460863	Sum of GTIs [s]
			l1events	314187	Number of level 1 events

### 2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	83411	51269	61939	64491	53077
rejected events	42582	46015	36912	48905	45948
rejected %	51%	89%	59%	75%	86%

	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	8639	1810	2195	4687	3830
	10%	3%	3%	7%	7%
grade 1 events	500	16	81	52	54
	0%	0%	0%	0%	0%
grade 2 events	12060	1371	5664	3876	1314
	14%	2%	9%	6%	2%
grade 3 events	1106	515	2073	1690	589
	1%	1%	3%	2%	1%
grade 4 events	1057	476	2070	1618	549
	1%	0%	3%	2%	1%
grade 5 events	5082	2103	6067	3391	2413
	6%	4%	9%	5%	4%
grade 6 events	20160	1360	14497	4682	1262
	24%	2%	23%	7%	2%
grade 7 events	34807	43618	29292	44495	43066
	41%	85%	47%	68%	81%

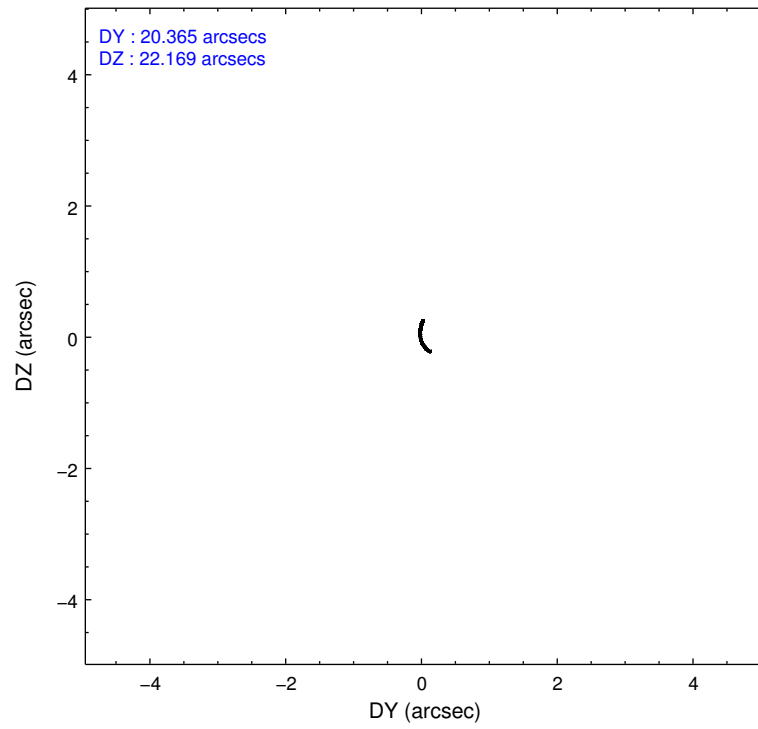
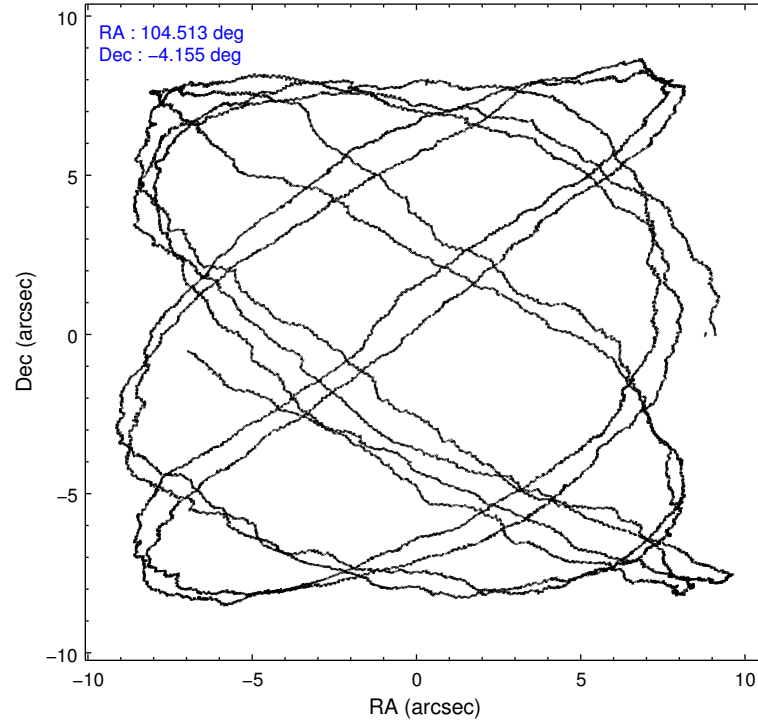


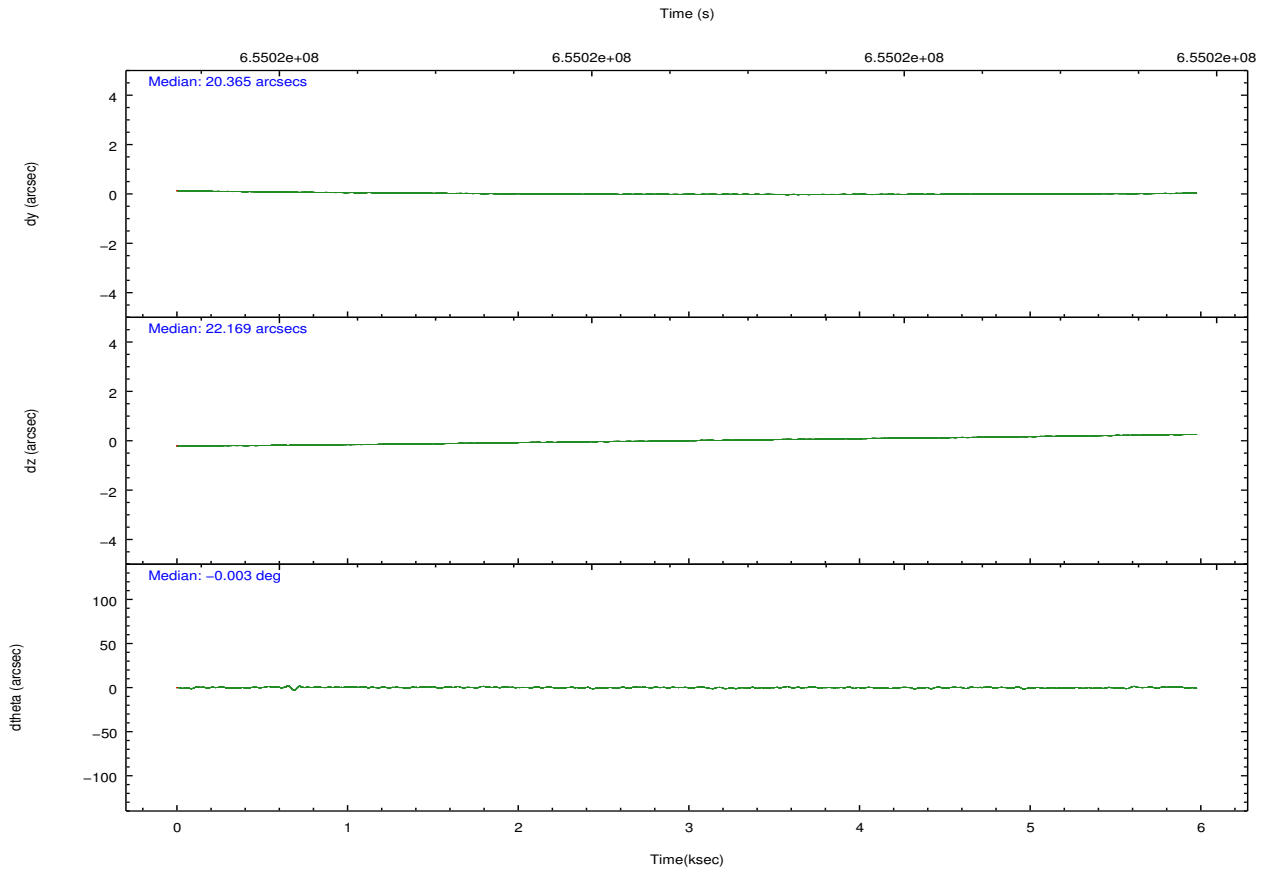
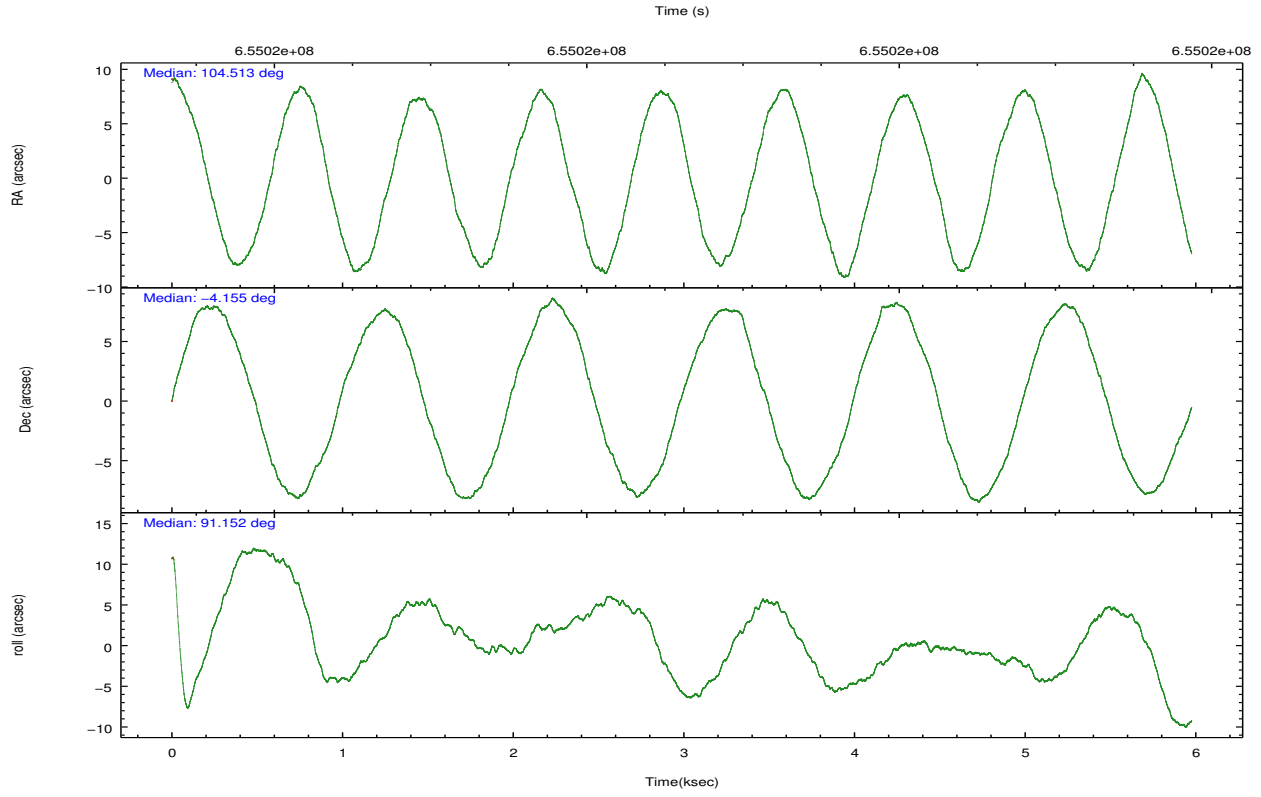
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-56789	ACIS-56789
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	104.527003	104.5124932259649
[deg] Pointing Dec	-4.178283	-4.15498539732106
[deg] Pointing Roll	91.000646	91.15627192887173
[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)	655017793.184000	655017417.56297
Observation start date	2018-10-04T05:22:04	2018-10-04T05:16:57
[s] Observation end time (MET)	655023593.184000	655023727.4633501
Observation end date	2018-10-04T06:58:44	2018-10-04T07:02:07
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	Y	Y
CCD S5 on	O2	Y
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



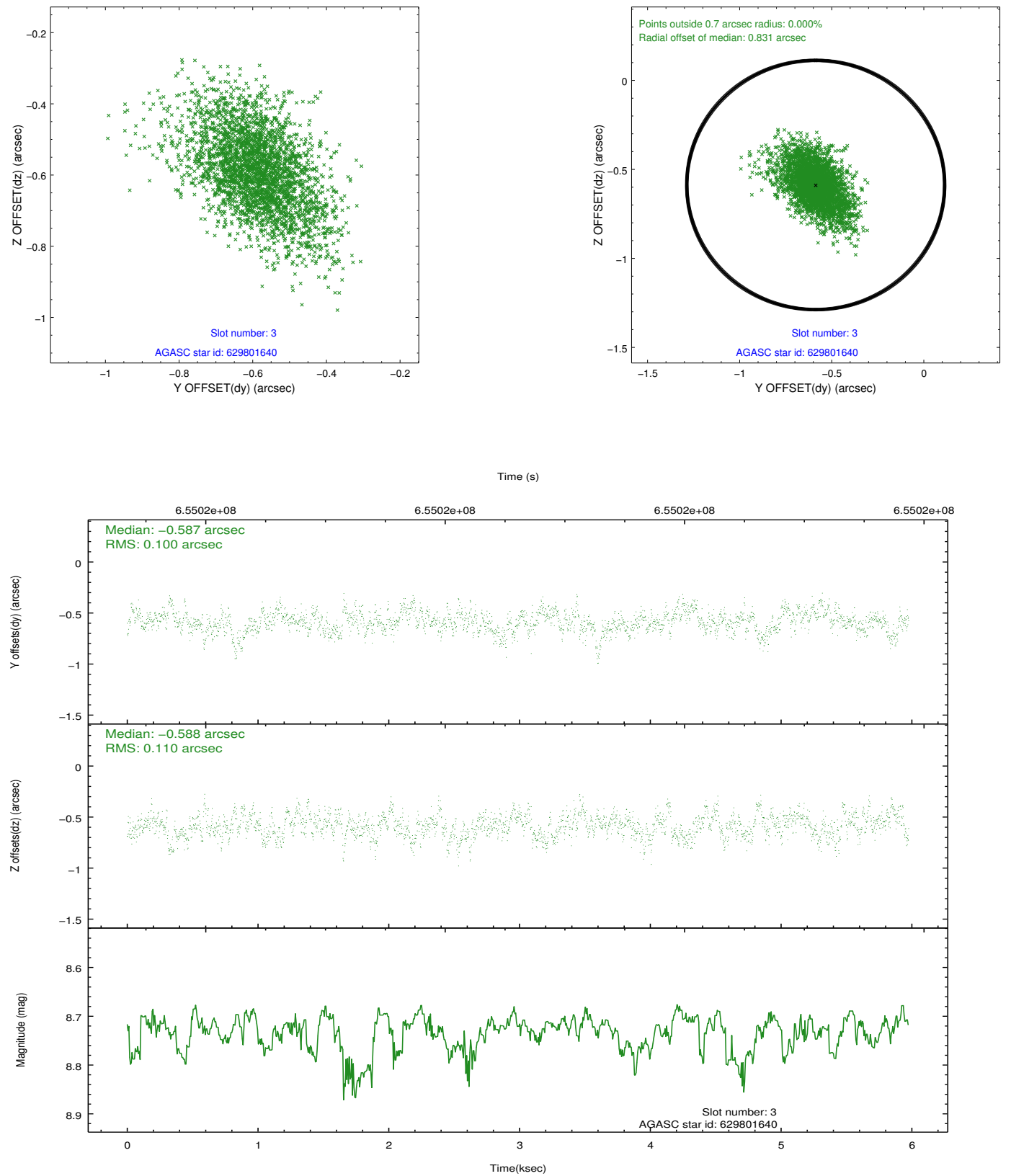


Slot Statistics

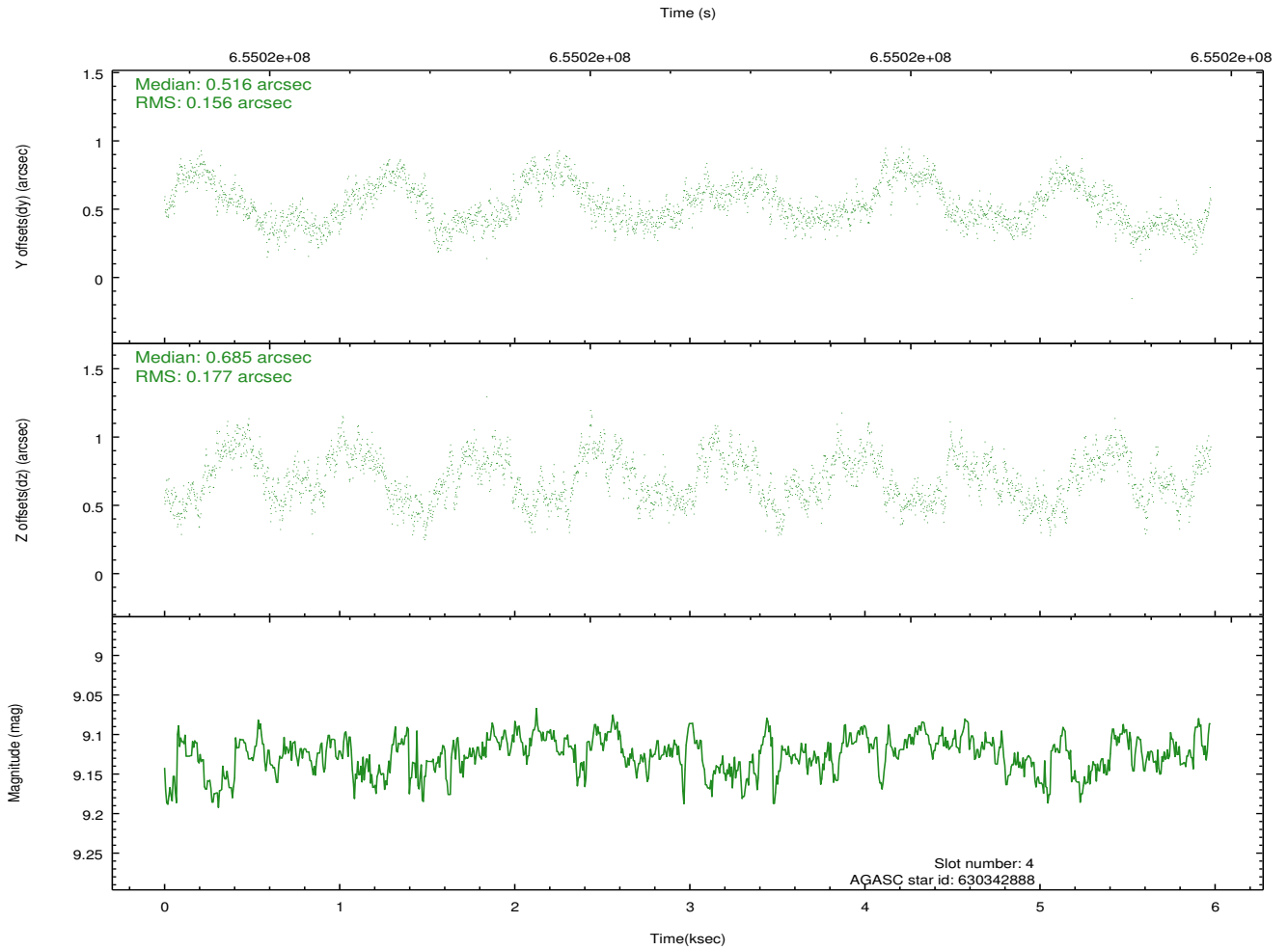
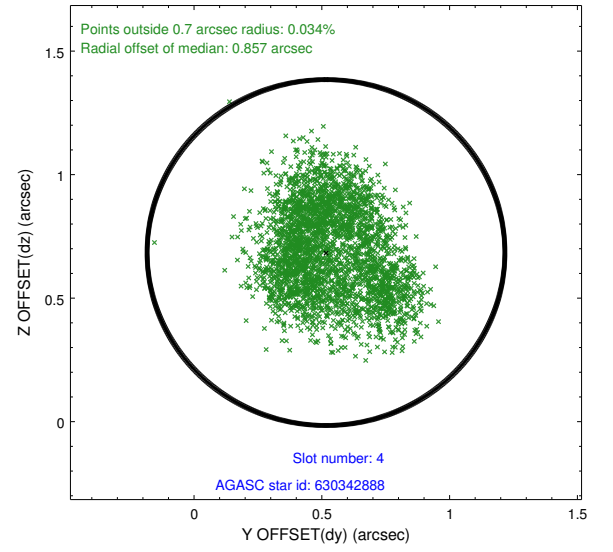
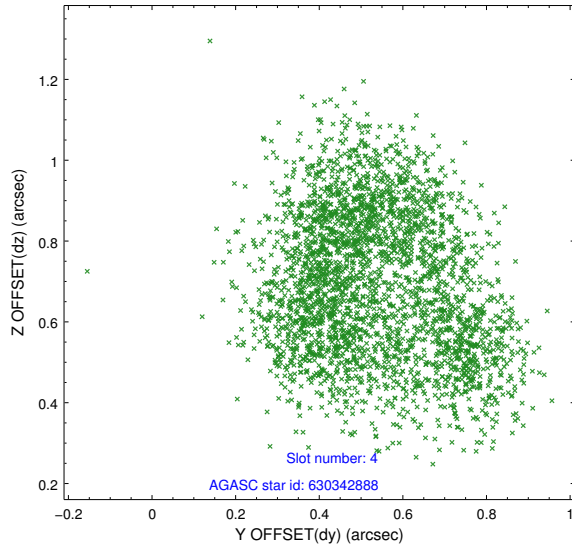
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.17	1458	1.000	0.201	0.065	0.011	0.018	0.000000	0.000000	922.67	-1739
1	FID		ACIS-S-2	7.08	1458	1.000	-0.304	-0.170	0.006	0.011	0.000000	0.000000	-773.20	-1745
2	FID		ACIS-S-6	7.37	1457	1.000	0.083	0.110	0.009	0.016	0.000000	0.000000	387.85	801
3	GUIDE	used	629801640	8.73	2913	1.000	-0.587	-0.588	0.154	0.268	104.374048	-3.697266	1740.66	518
4	GUIDE	used	630342888	9.12	2915	1.000	0.516	0.685	0.257	0.384	104.990132	-4.781929	-2200.80	-1622
5	GUIDE	used	632039320	7.97	2916	1.000	0.389	0.390	0.139	0.229	105.061225	-4.610052	-1588.24	-1889
6	GUIDE	used	630341920	9.29	2912	1.000	-0.254	-0.699	0.205	0.337	103.979848	-4.428340	-866.91	1978
7	GUIDE	used	631504920	9.21	2912	1.000	-0.079	0.198	0.197	0.331	105.178942	-3.698587	1684.88	-2370

## 2.4 Star Slots

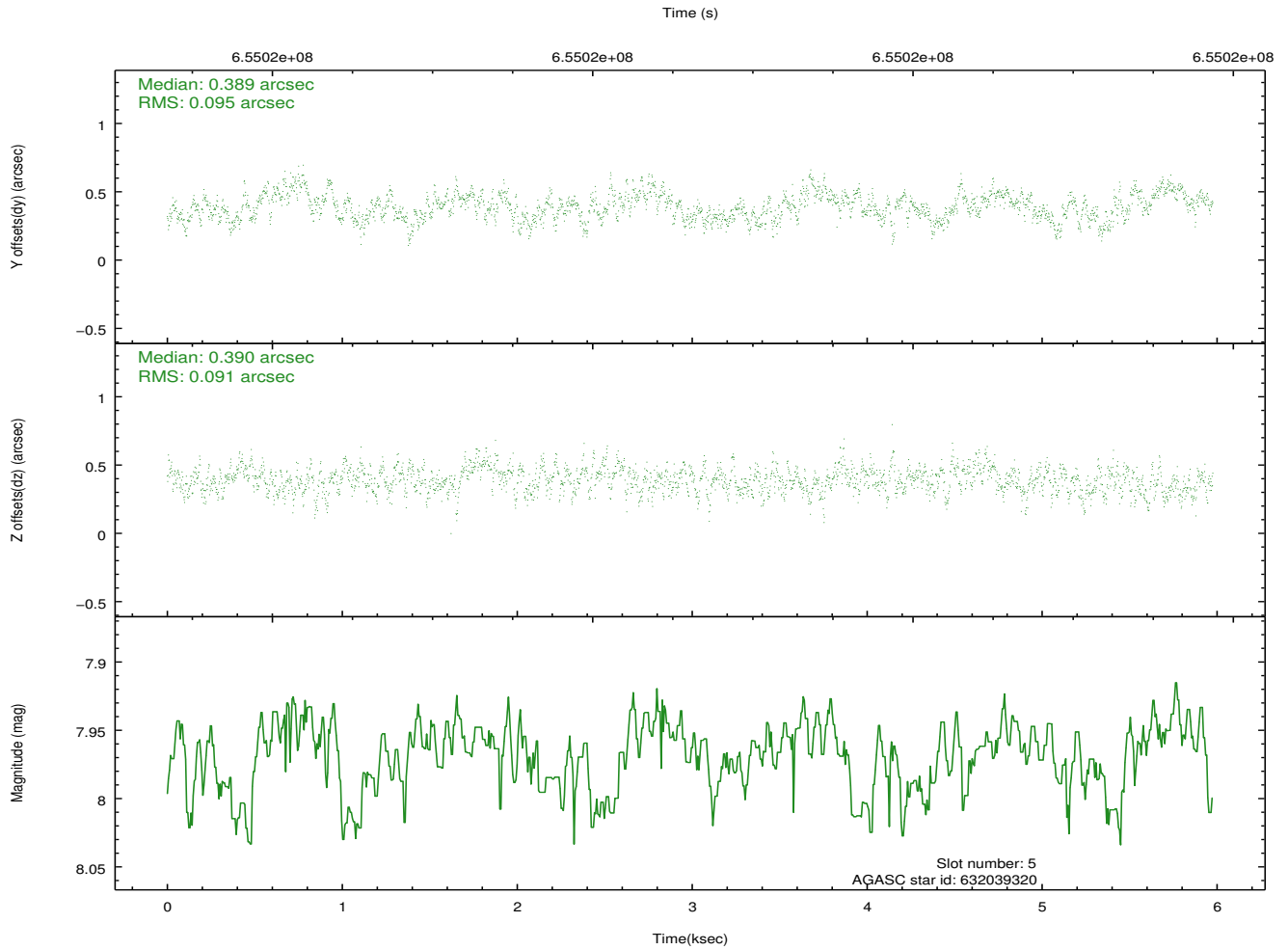
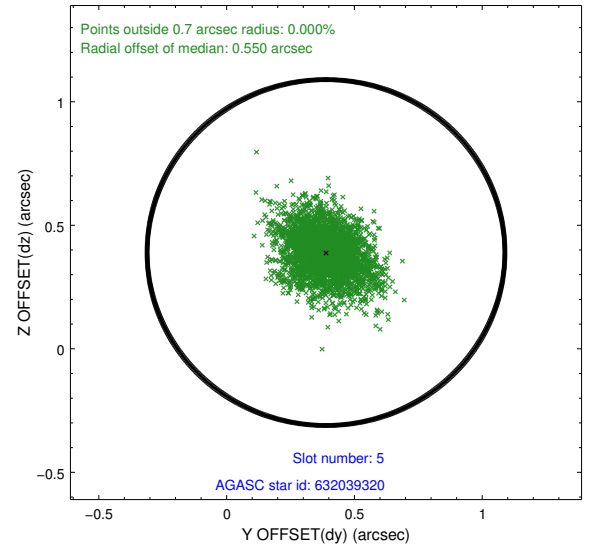
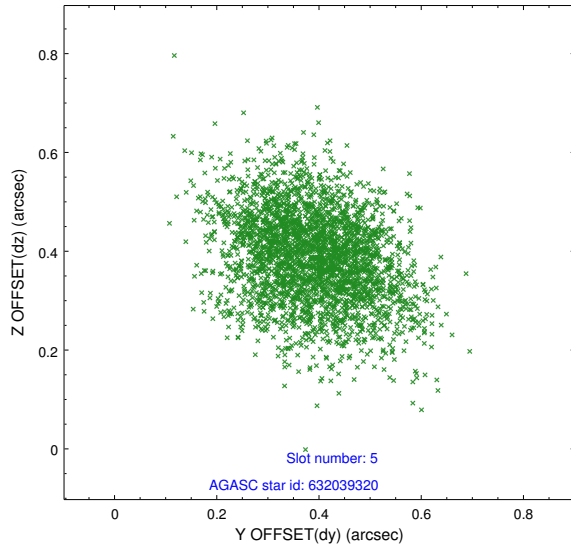
### 2.4.1 Slot 3



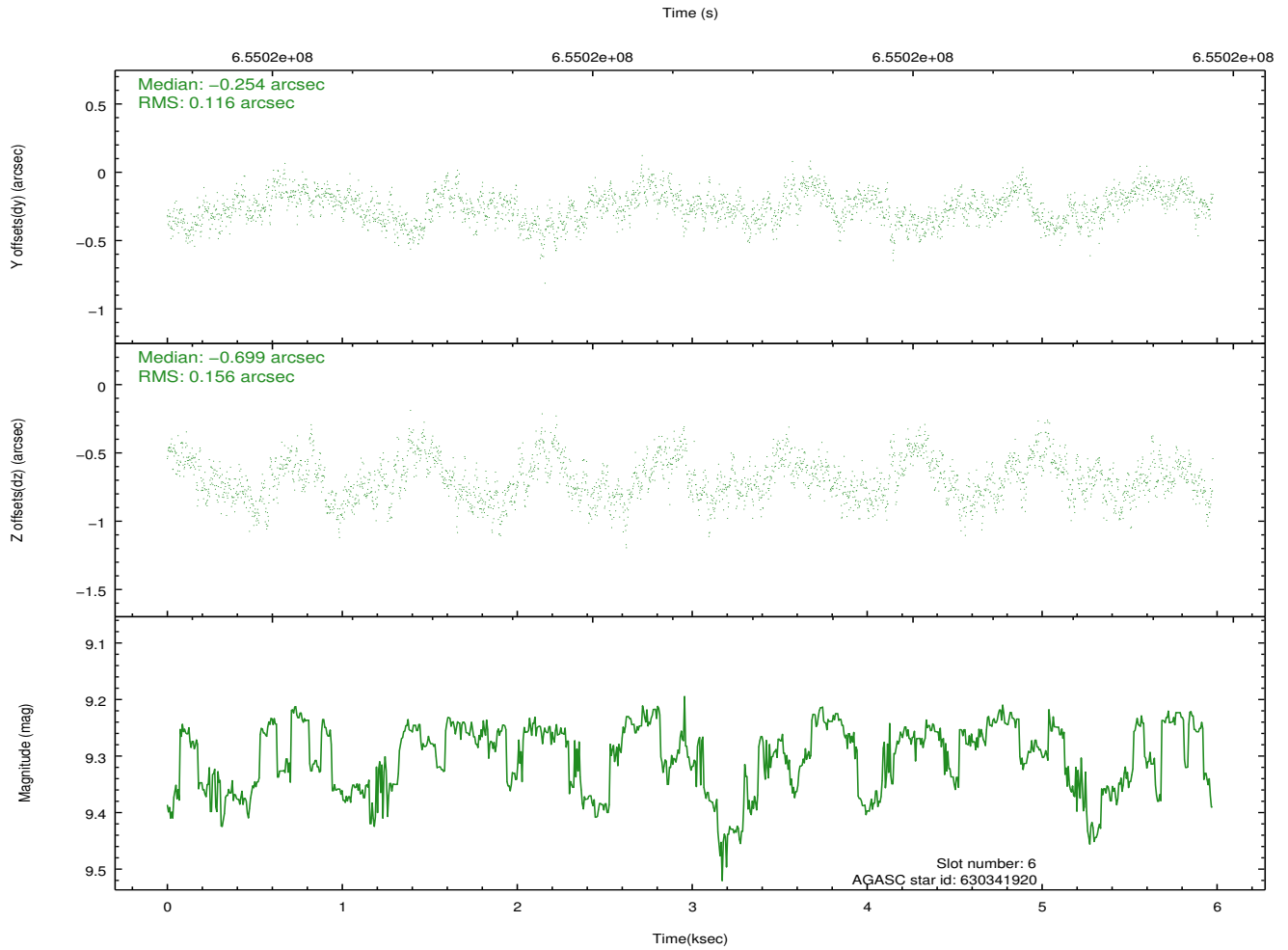
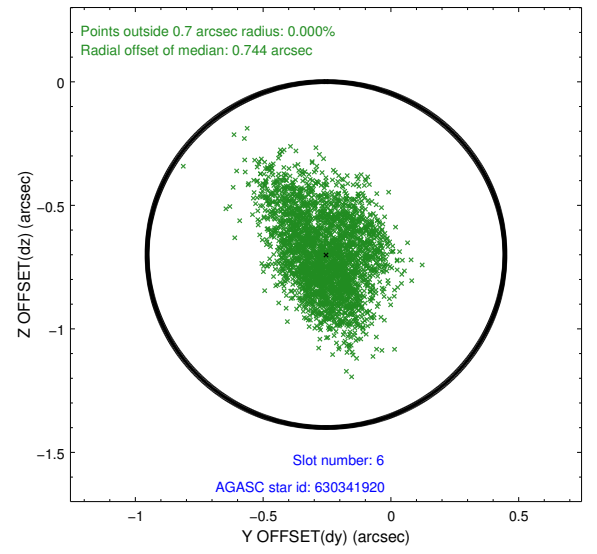
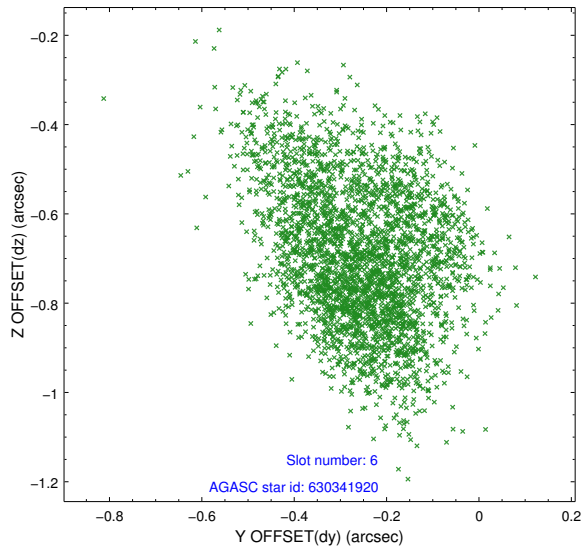
## 2.4.2 Slot 4



### 2.4.3 Slot 5

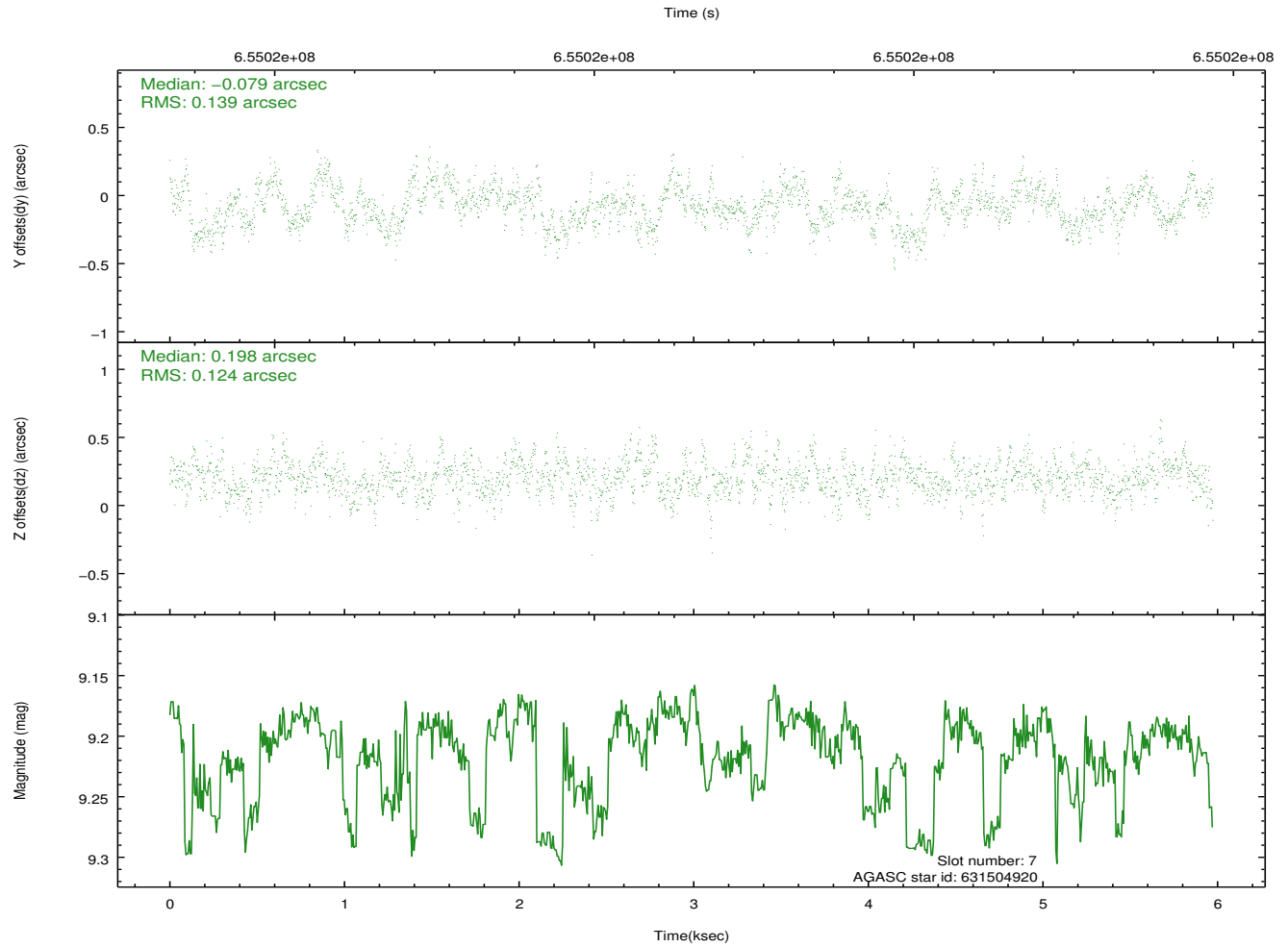
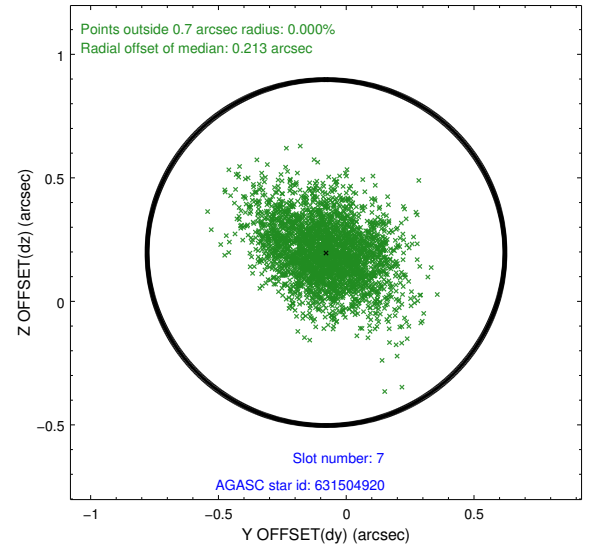
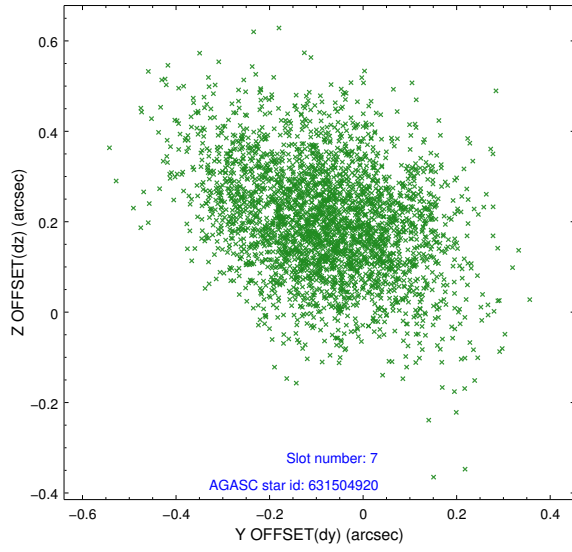


## 2.4.4 Slot 6



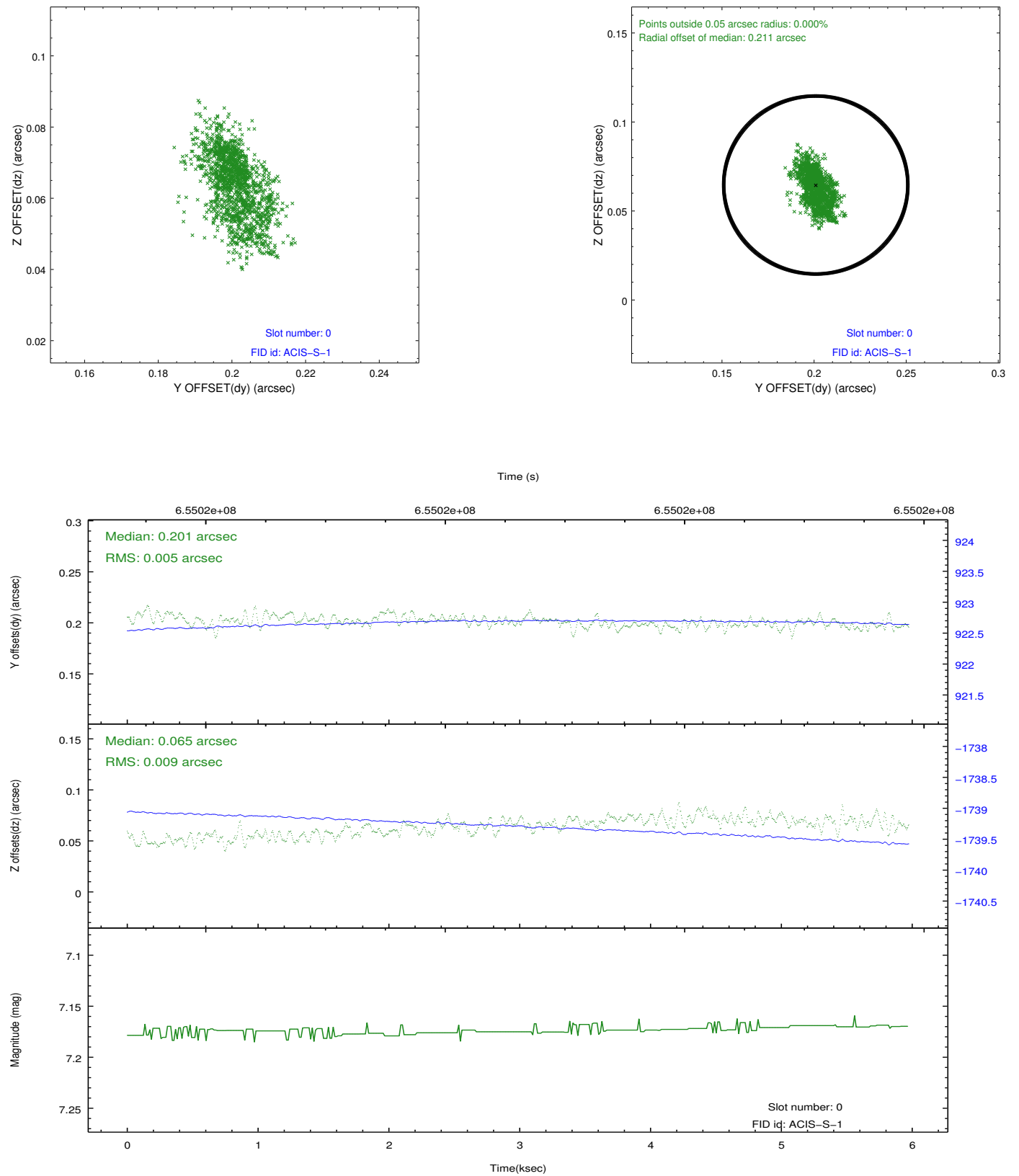


## 2.4.5 Slot 7

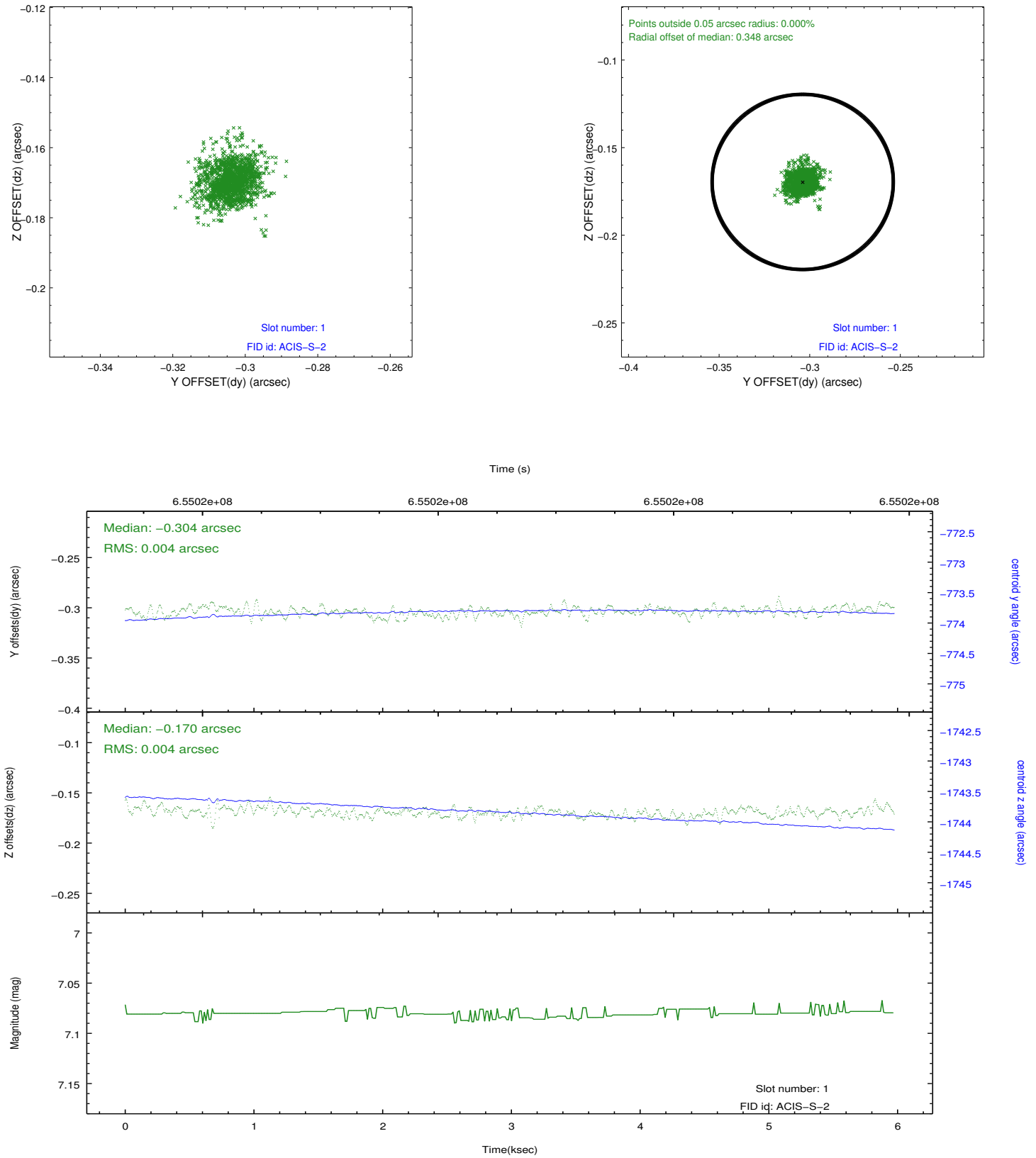


## 2.5 FID Slots

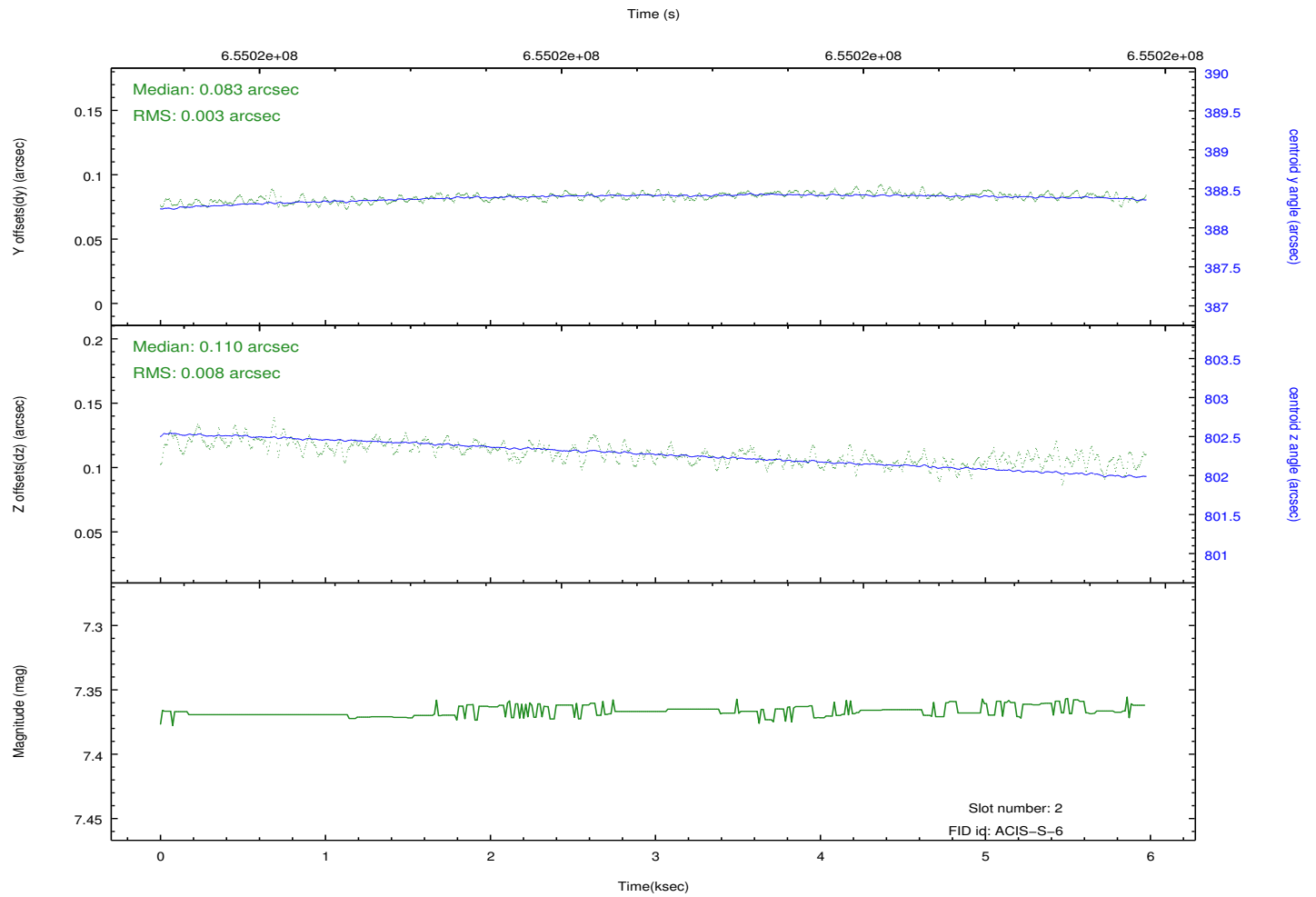
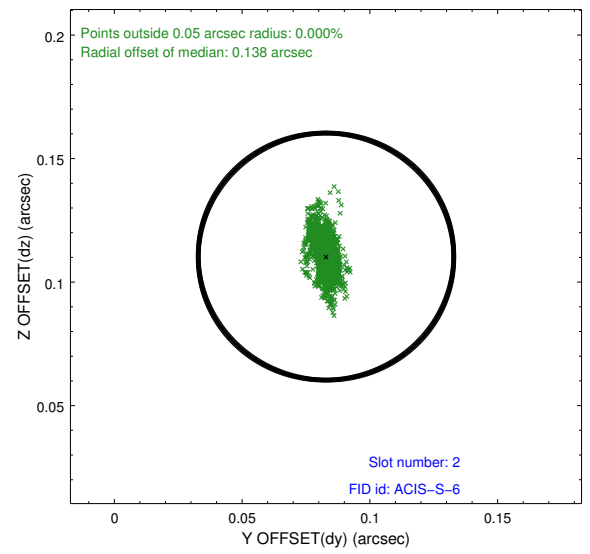
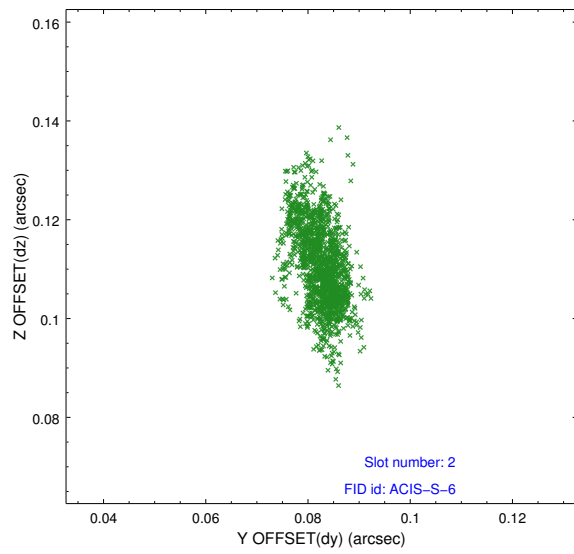
### 2.5.1 Slot 0



## 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)	2018.10.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.9768000460863

## A.2 Comments

This is an observation of a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the target.