

# V&V Reference Report

## L2 ASCDS Version : 10.6.4.1

Observation 21862 - L2 Version 1  
Chandra X-Ray Center

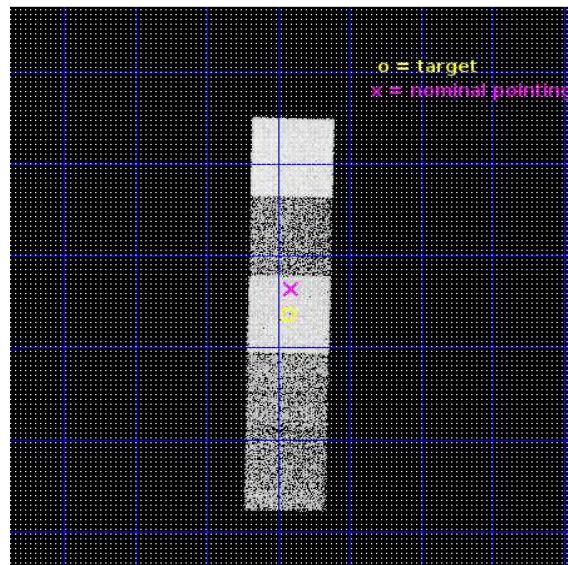
L2 Processing Date : Oct 4 2018

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# 1 Front

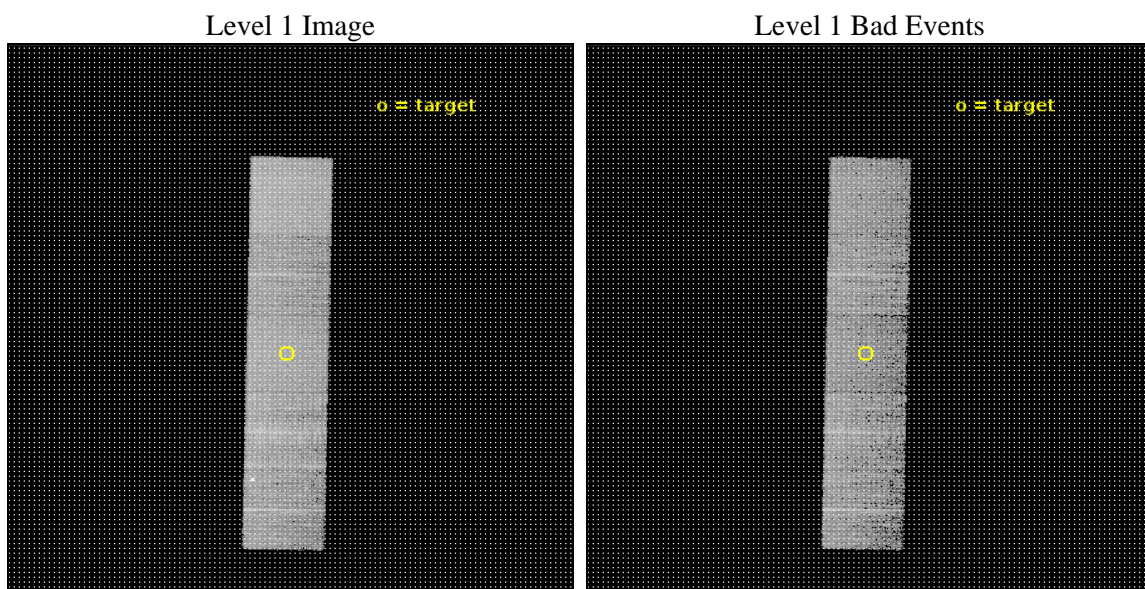
seq_num	100174	Sequence number
obs_id	21862	Observation id
title	Chandra Observations of the High-Heliospheric Latitude Comet 21P/Giacobini-Zinner	Proposal title
observer	Bradford Snios	Principal investigator
object	21P/Giacobini-Zinner	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	104.607883	Observer's specified target RA [deg]
dec_targ	-4.439426	Observer's specified target Dec [deg]
ra_nom	104.60203653665	Nominal RA [deg]
dec_nom	-4.3930253814303	Nominal Dec [deg]
roll_nom	91.156176179326	Nominal Roll [deg]
revision	1	Processing version of data
ontime	5890.0000454187	Sum of GTIs [s]
livetime	5813.0428586704	Livetime [s]
ontime5	5890.0000454187	Sum of GTIs [s]
ontime6	5890.0000454187	Sum of GTIs [s]
ontime7	5890.0000454187	Sum of GTIs [s]
ontime8	5890.0000454187	Sum of GTIs [s]
ontime9	5890.0000454187	Sum of GTIs [s]
l2events	72588	Number of level 2 events



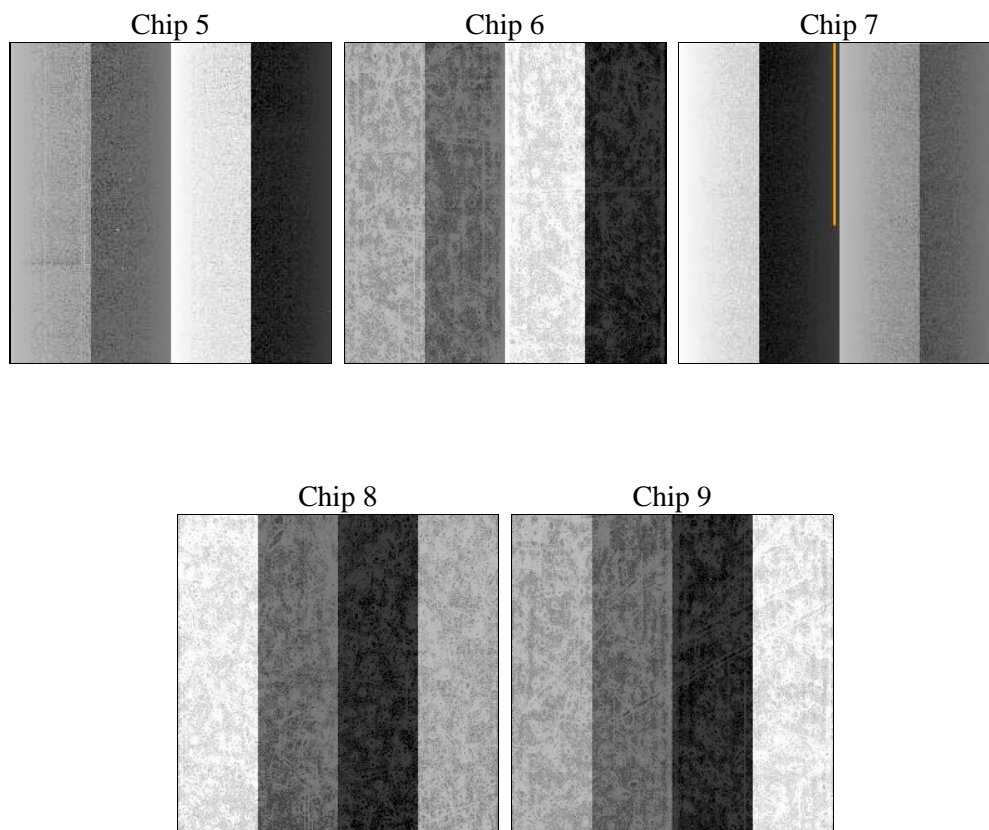
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5719.355000	[s] Scheduled observation exposure time
ascdsver	10.6.4.1	Processing system revision	ontime	5890.0000454187	Sum of GTIs [s]
caldsver	4.8.0	&#160	ontime5	5890.0000454187	Sum of GTIs [s]
date	2018-10-04T18:55:32	Date and time of file creation	ontime6	5890.0000454187	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	5890.0000454187	Sum of GTIs [s]
			ontime8	5890.0000454187	Sum of GTIs [s]
			ontime9	5890.0000454187	Sum of GTIs [s]
			l1events	290682	Number of level 1 events

### 2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	72622	48837	59215	62547	47461
rejected events	38767	43845	33940	45189	40333
rejected %	53%	89%	57%	72%	84%

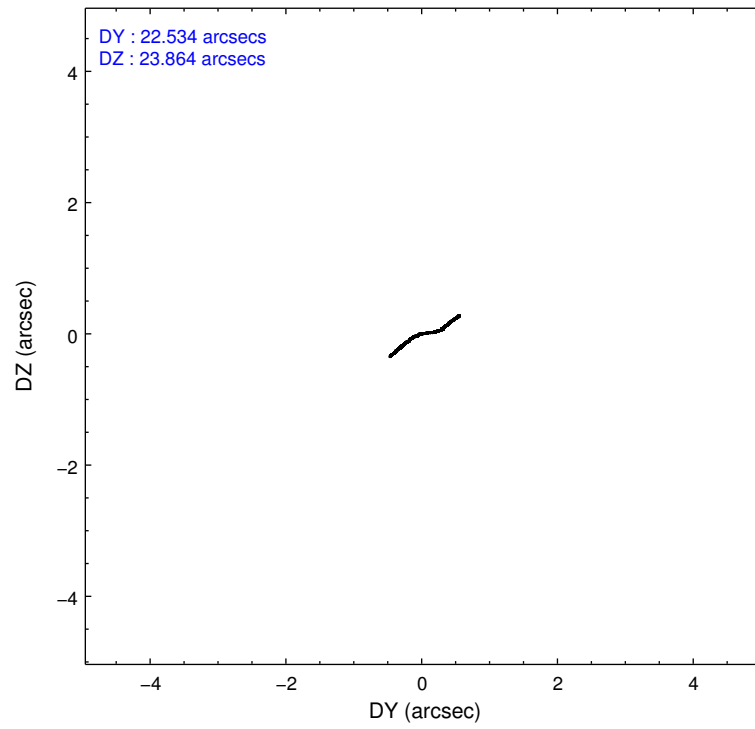
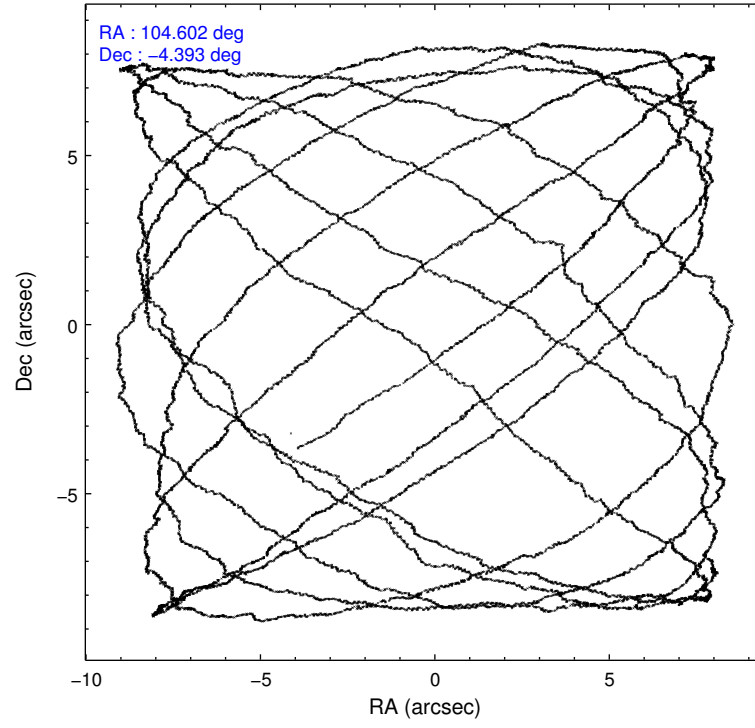
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	1871	1730	2221	5260	3731
	2%	3%	3%	8%	7%
grade 1 events	142	23	89	48	50
	0%	0%	0%	0%	0%
grade 2 events	11256	1244	5556	4374	1307
	15%	2%	9%	6%	2%
grade 3 events	1220	503	2110	1811	550
	1%	1%	3%	2%	1%
grade 4 events	1162	526	2075	1739	557
	1%	1%	3%	2%	1%
grade 5 events	5284	2199	5928	3320	2511
	7%	4%	10%	5%	5%
grade 6 events	19494	1177	14133	4736	1238
	26%	2%	23%	7%	2%
grade 7 events	32193	41435	27103	41259	37517
	44%	84%	45%	65%	79%

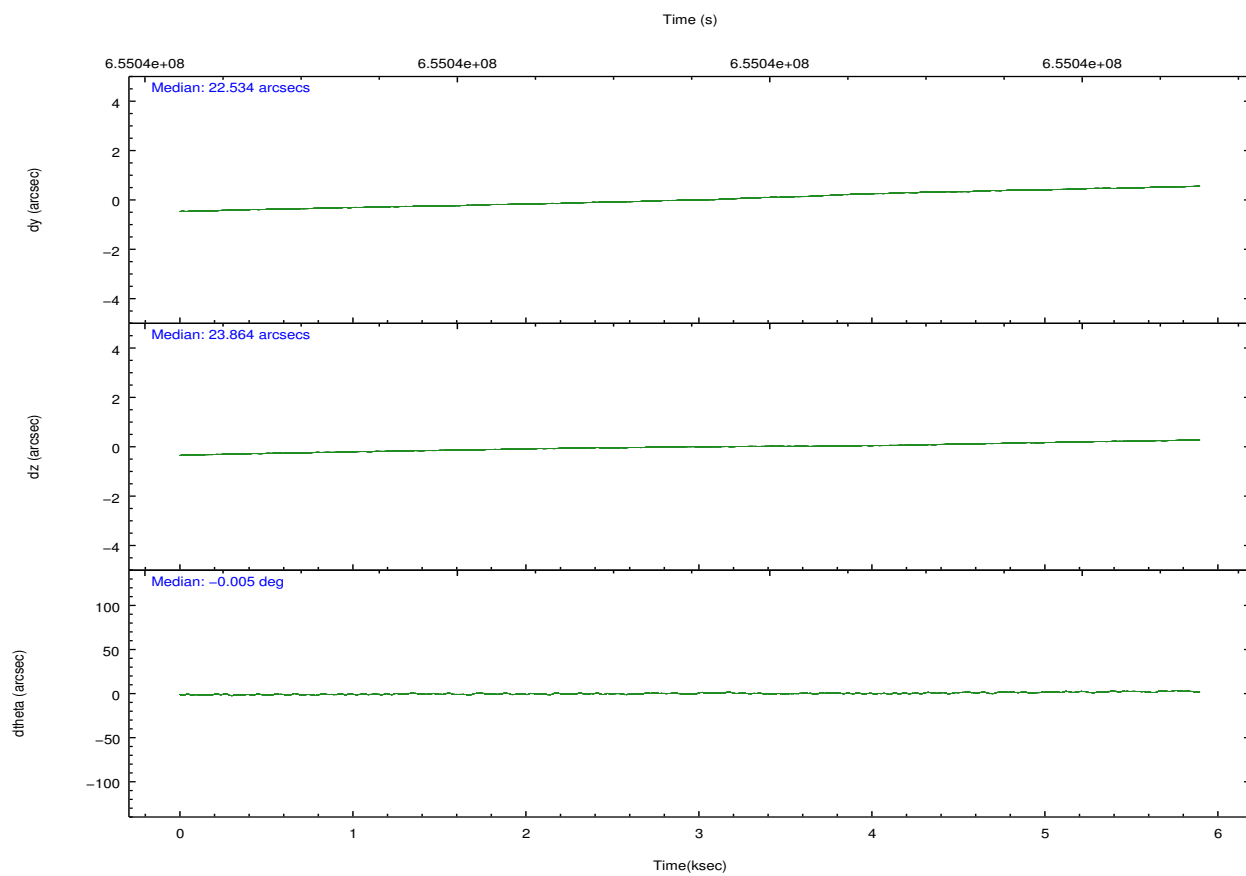
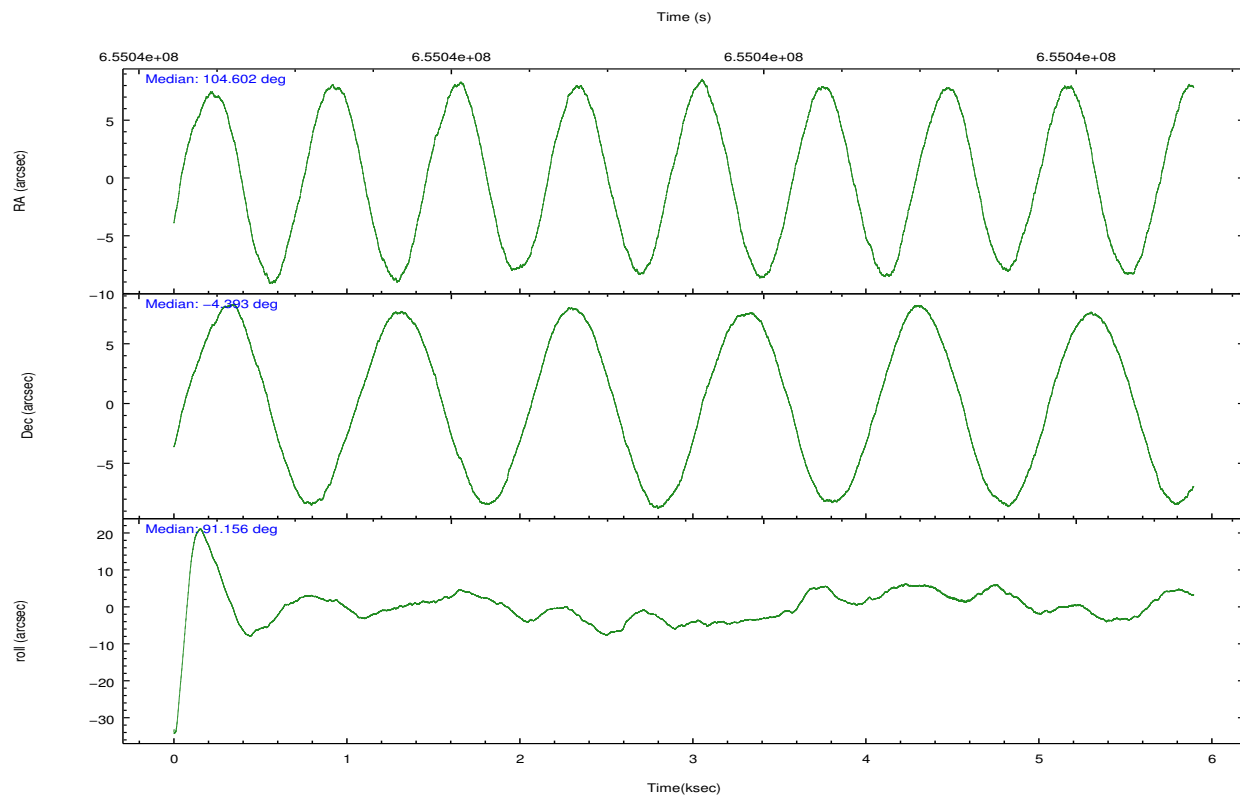


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	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	104.616552	104.6020365366473	CCD I2 on	N	N
[deg] Pointing Dec	-4.416344	-4.393025381430276	CCD I3 on	N	N
[deg] Pointing Roll	91.000660	91.15617617932568	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[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	Y	Y
[s] Observation start time (MET)	655036723.184000	655036347.2641	CCD S5 on	O2	Y
Observation start date	2018-10-04T10:37:34	2018-10-04T10:32:27	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	655042442.184000	655043324.95201	On-chip summing requested	N	N
Observation end date	2018-10-04T12:12:53	2018-10-04T12:28:44	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



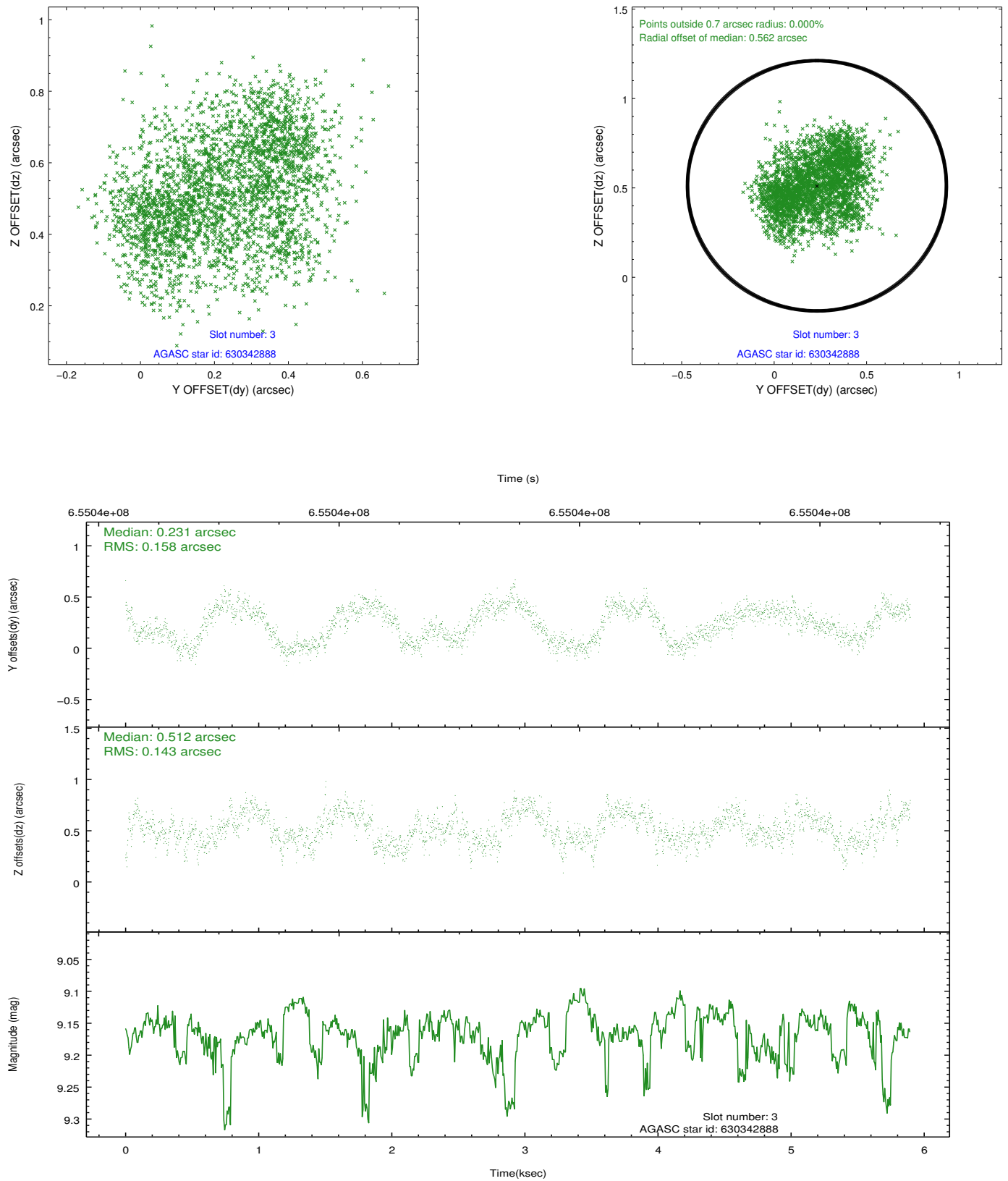


Slot Statistics

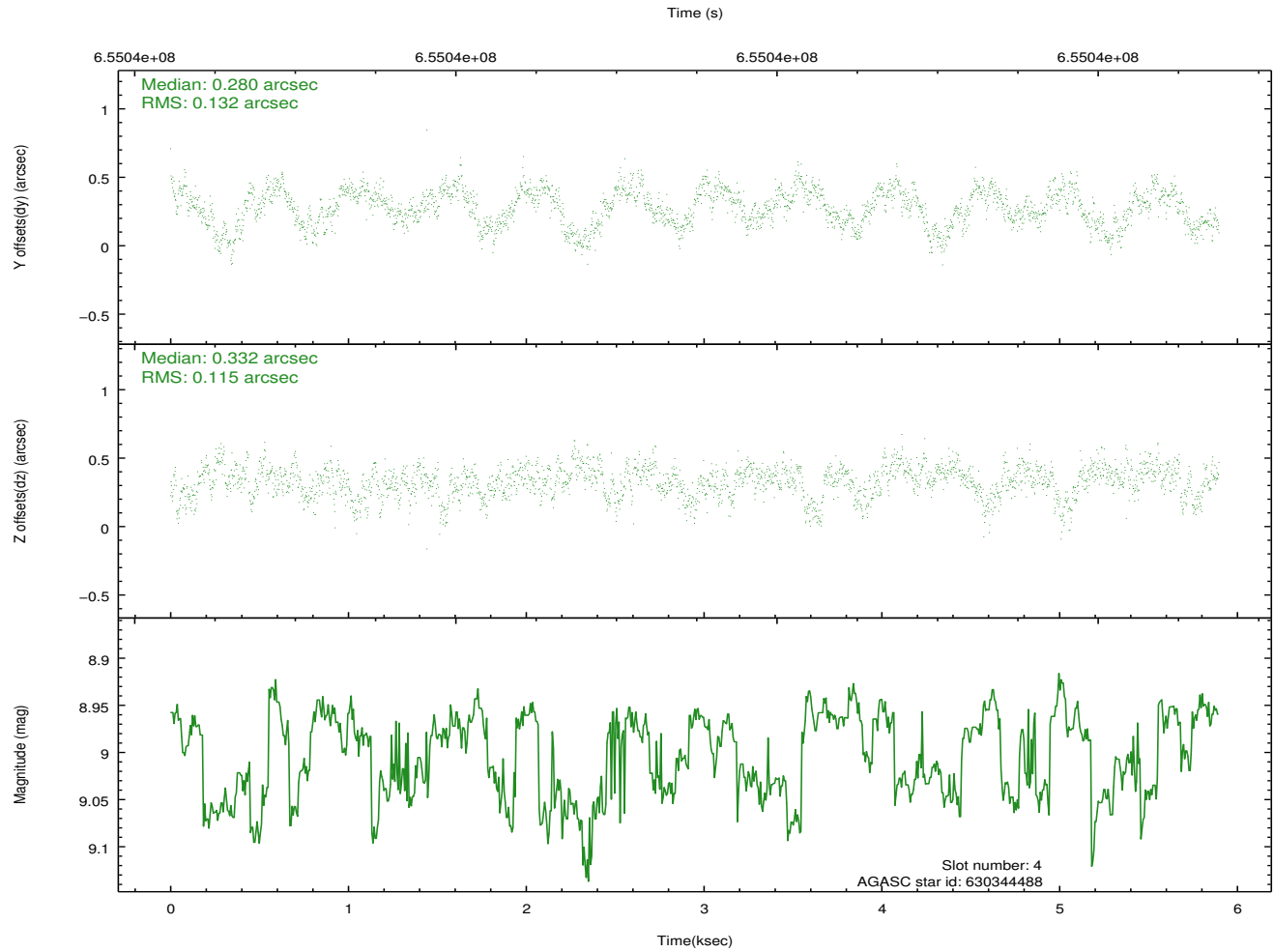
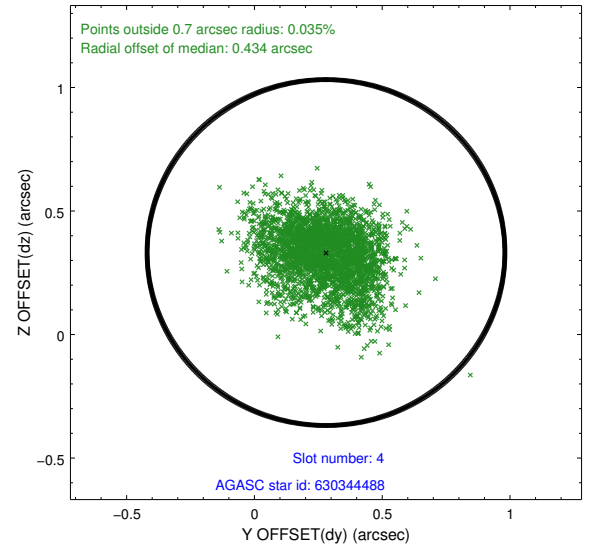
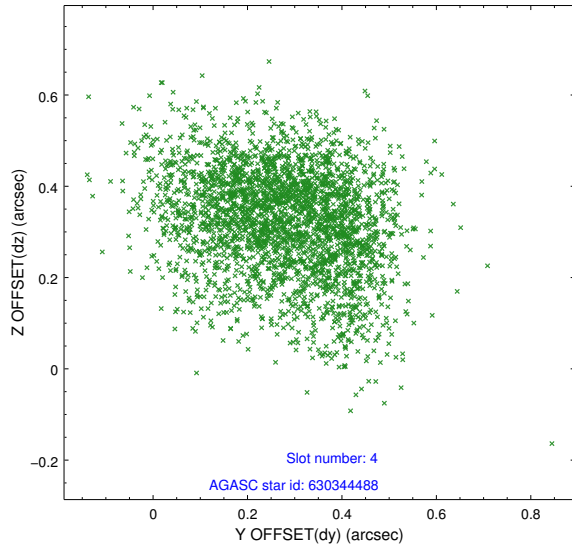
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.11	1438	1.000	0.197	0.085	0.008	0.013	0.000000	0.000000	920.46	-1740
1	FID		ACIS-S-2	7.03	1439	1.000	-0.293	-0.145	0.007	0.011	0.000000	0.000000	-775.38	-1746
2	FID		ACIS-S-6	7.30	1438	1.000	0.076	0.065	0.007	0.012	0.000000	0.000000	385.57	799
3	GUIDE	used	630342888	9.16	2873	1.000	0.231	0.512	0.237	0.334	104.990132	-4.781929	-1338.96	-1316
4	GUIDE	used	630344488	9.00	2876	1.000	0.280	0.332	0.185	0.302	104.898885	-4.799677	-1397.56	-988
5	GUIDE	used	630346192	9.10	2877	1.000	-0.359	-0.038	0.217	0.324	104.652830	-4.327673	316.53	-135
6	GUIDE	used	630341920	9.30	2875	1.000	-0.260	-0.992	0.197	0.308	103.979848	-4.428340	-3.77	2285
7	GUIDE	used	632039320	7.98	2876	1.000	0.105	0.188	0.132	0.212	105.061225	-4.610052	-725.02	-1582

## 2.4 Star Slots

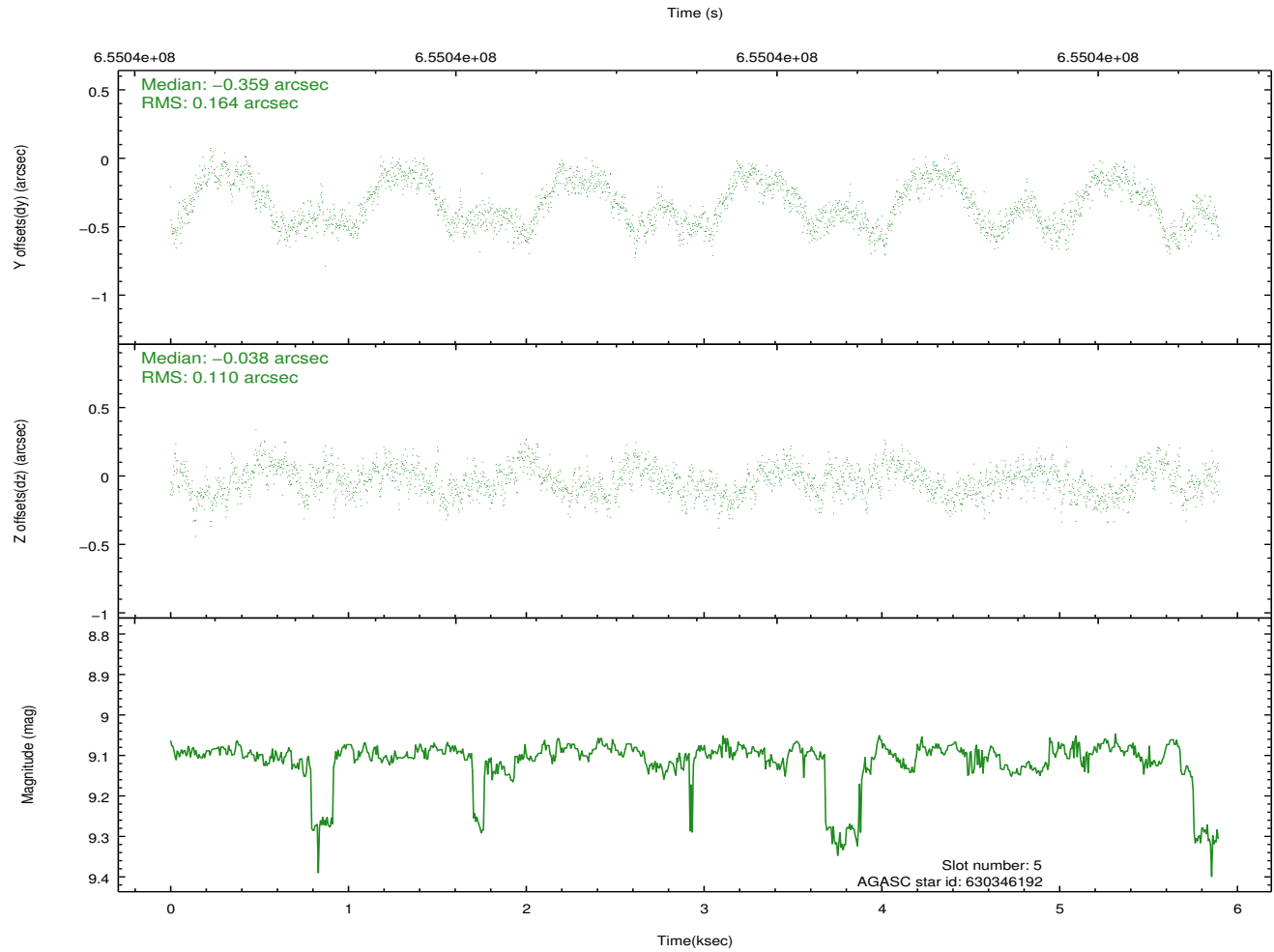
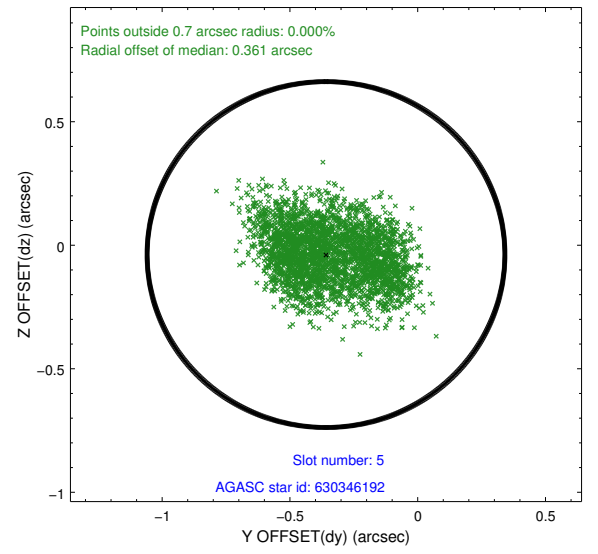
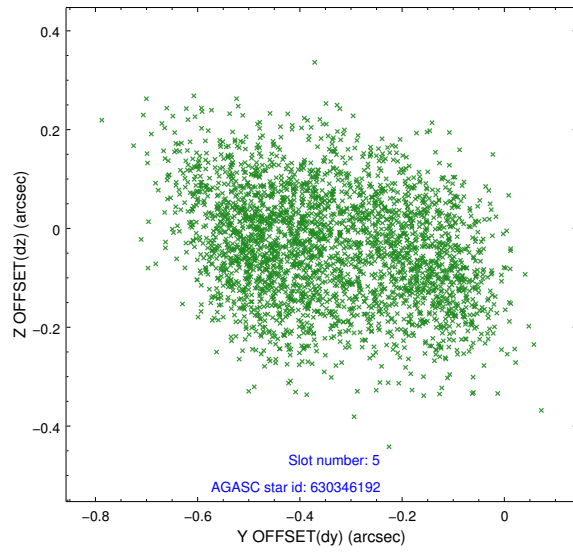
### 2.4.1 Slot 3



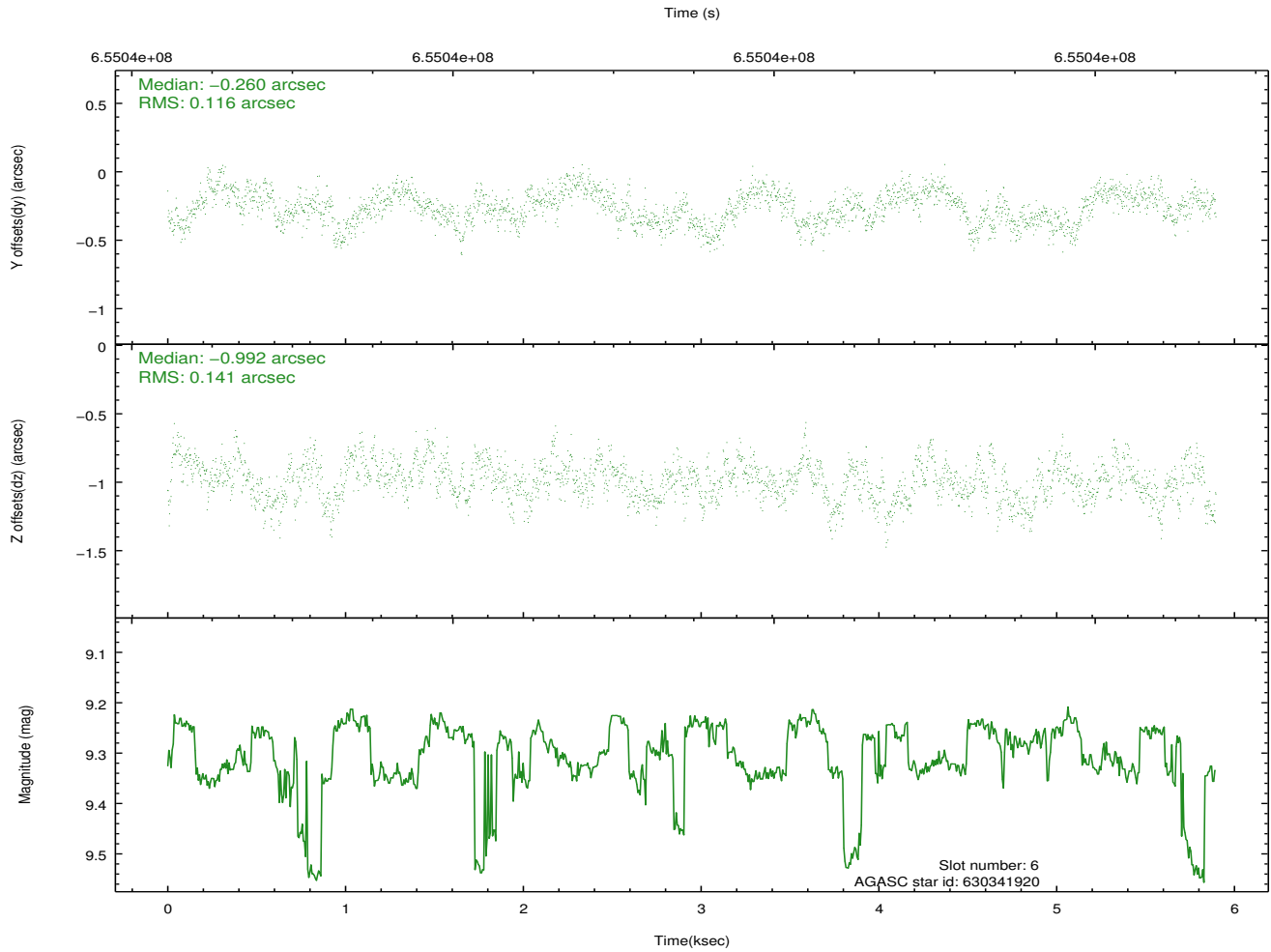
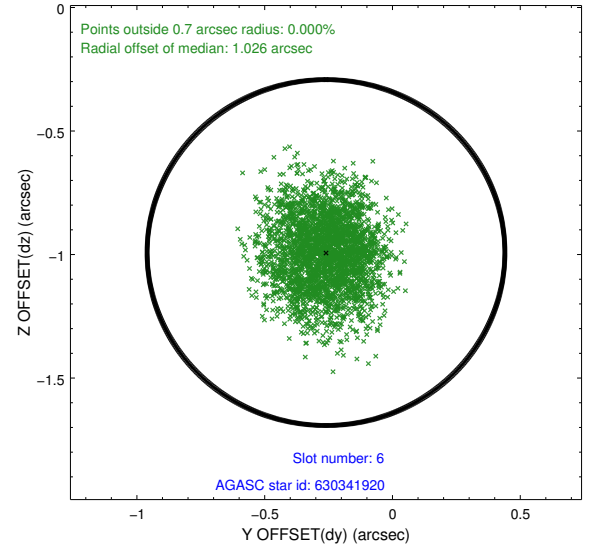
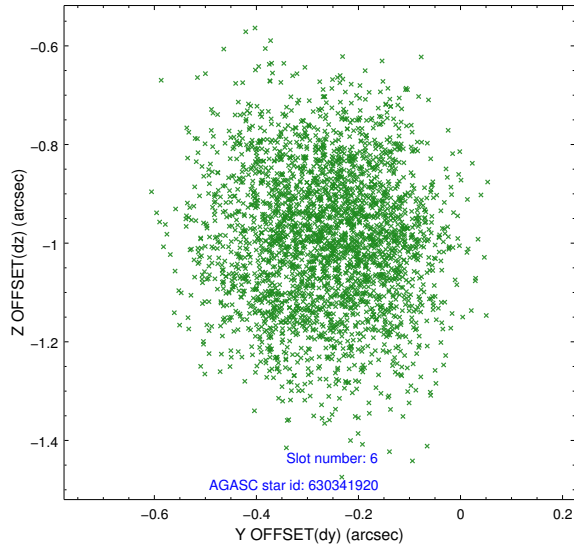
## 2.4.2 Slot 4



### 2.4.3 Slot 5

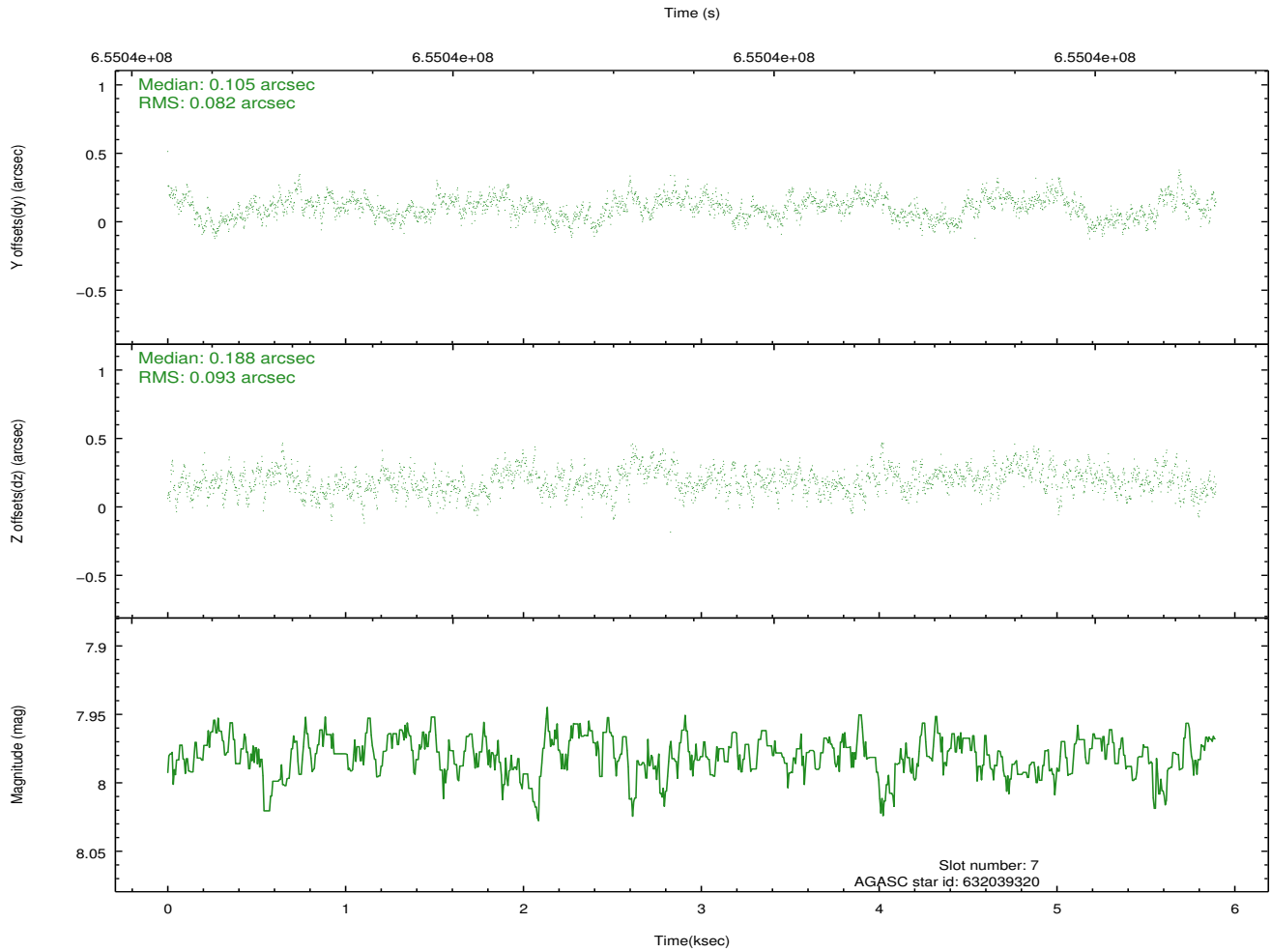
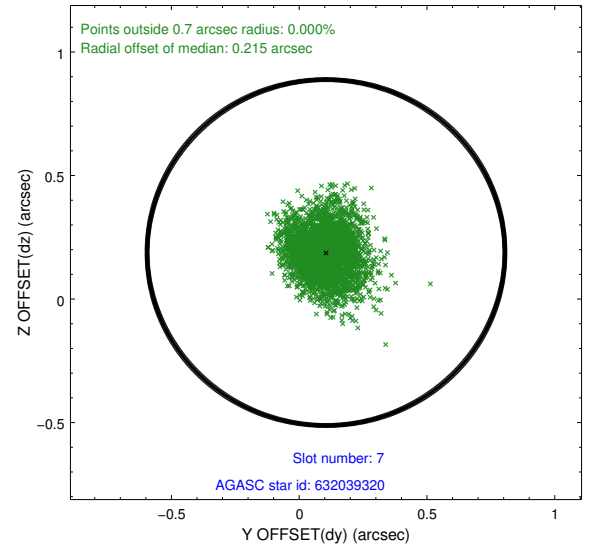
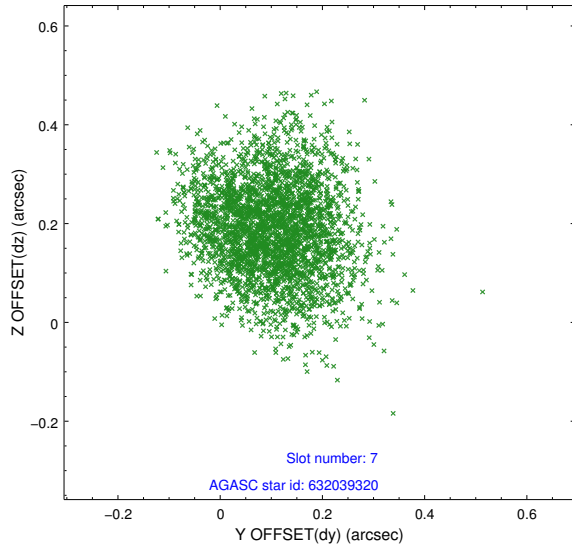


## 2.4.4 Slot 6



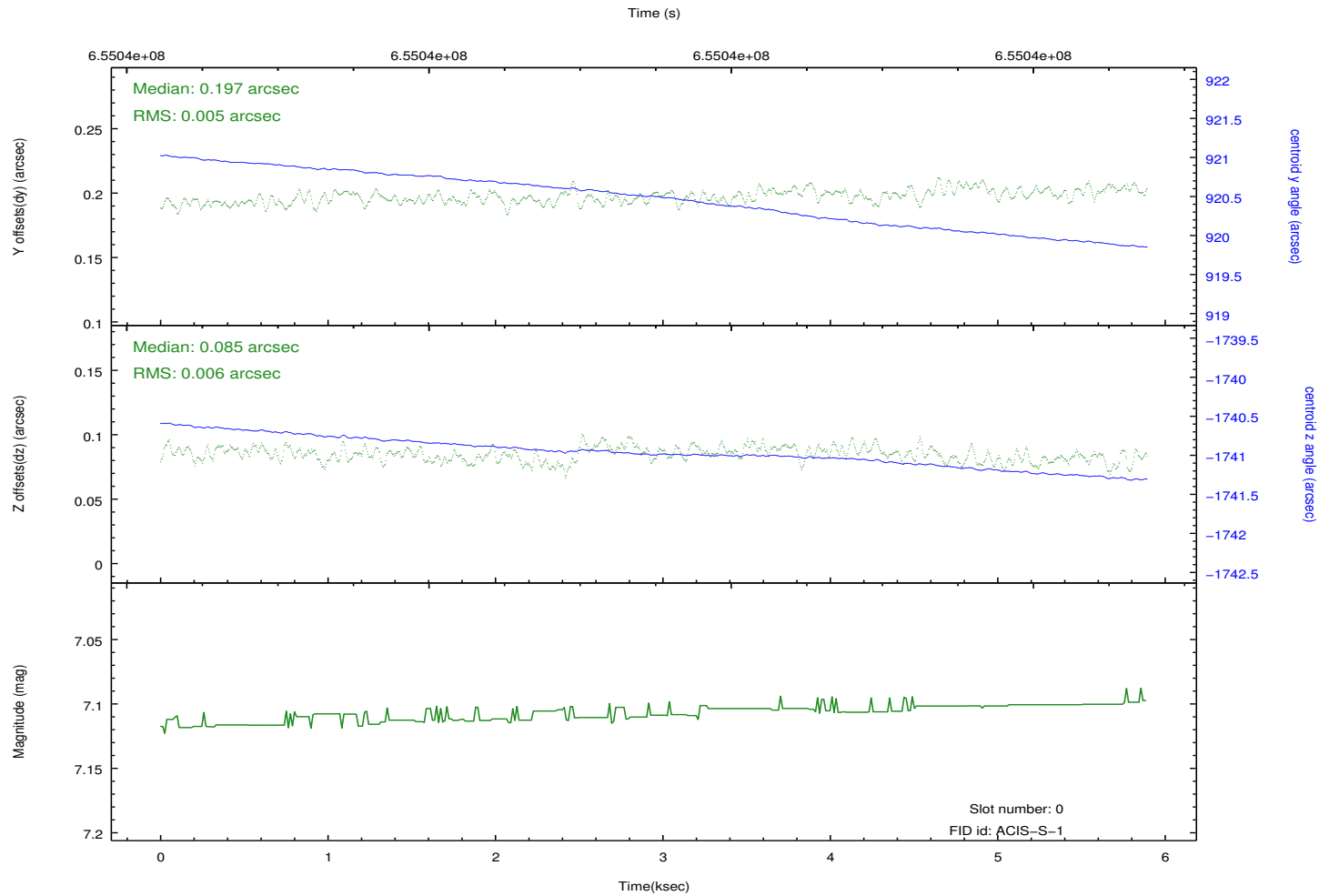
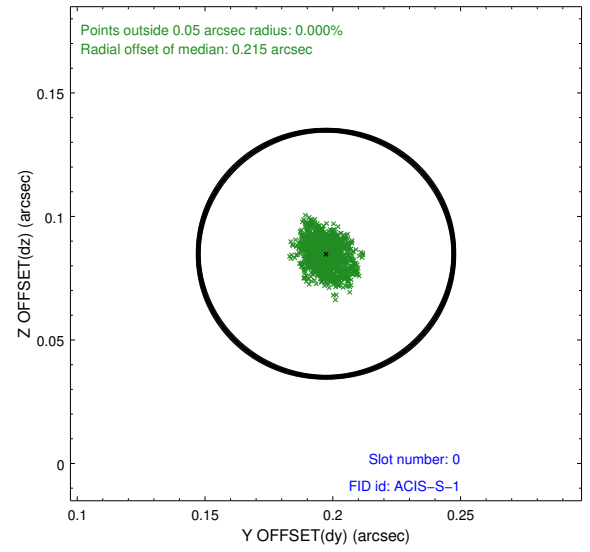
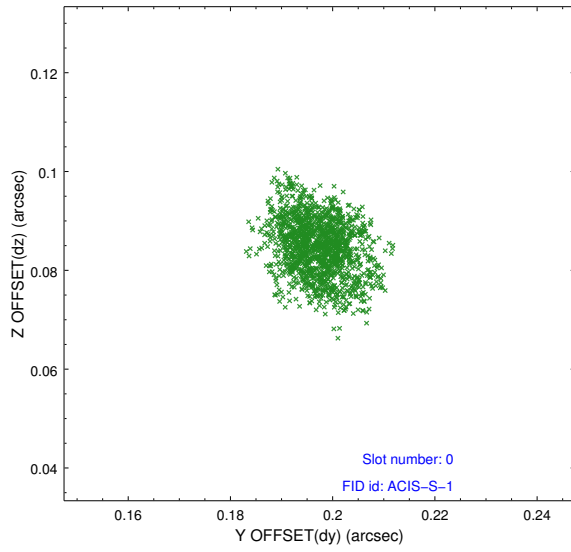


## 2.4.5 Slot 7

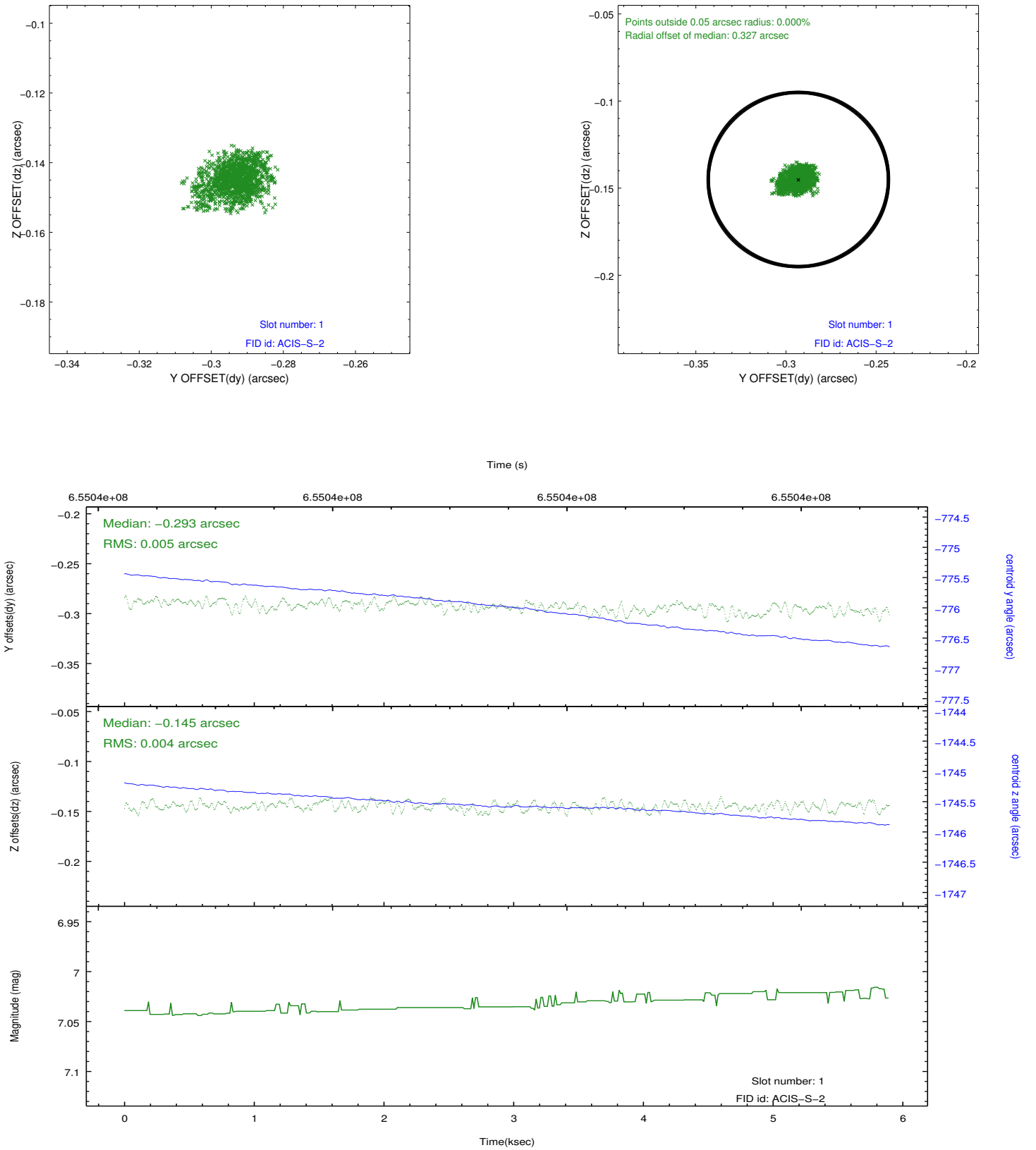


## 2.5 FID Slots

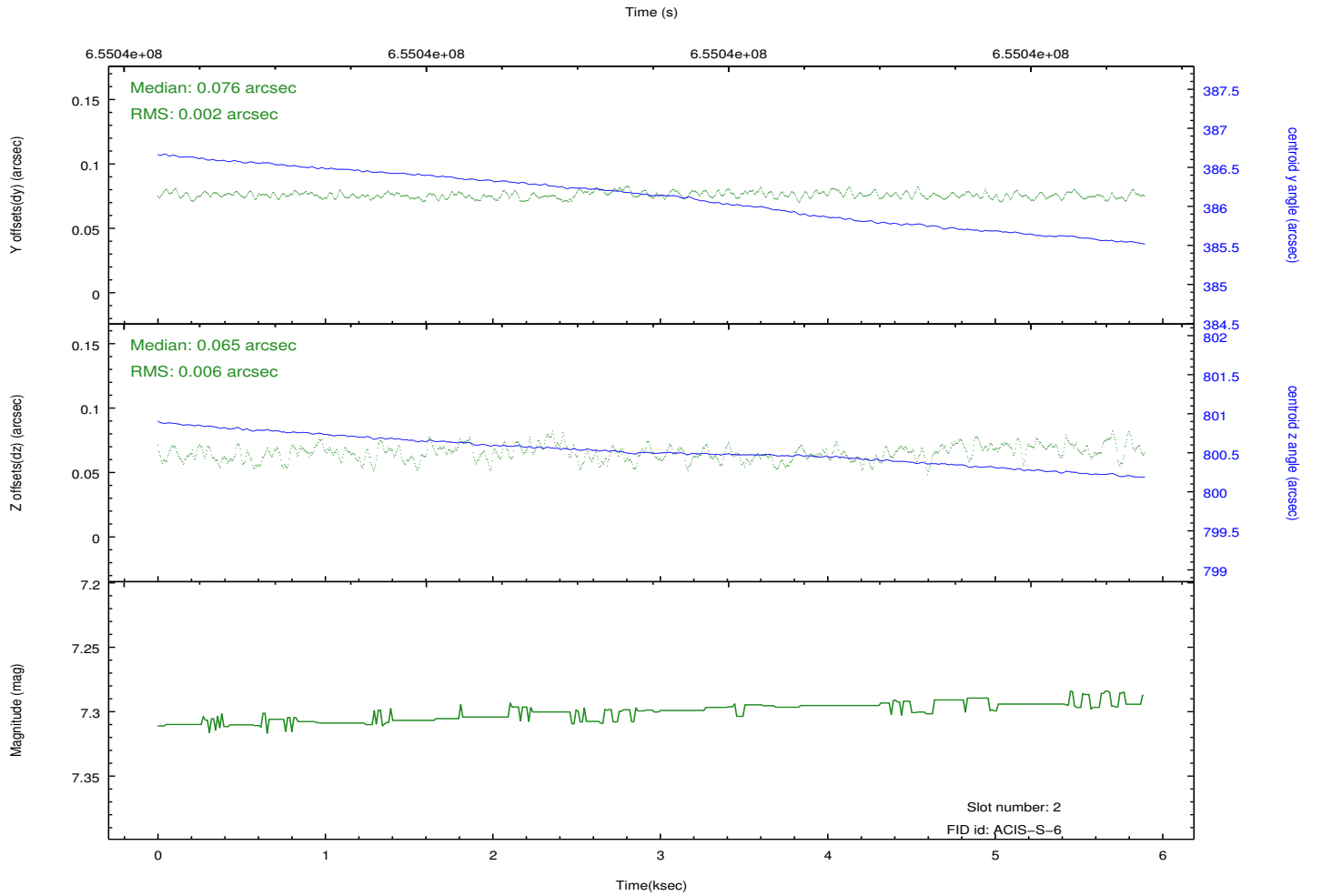
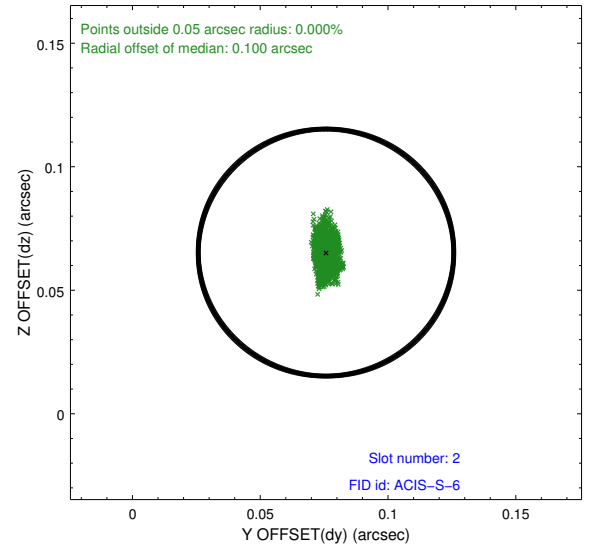
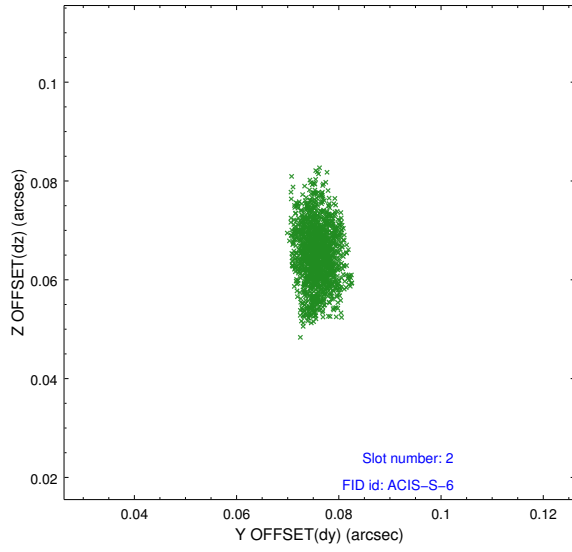
### 2.5.1 Slot 0



## 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	5.8900000454187

## 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.