

# V&V Reference Report

## L2 ASCDS Version : 7.6.9

Observation 3131 - L2 Version 001  
Chandra X-Ray Center

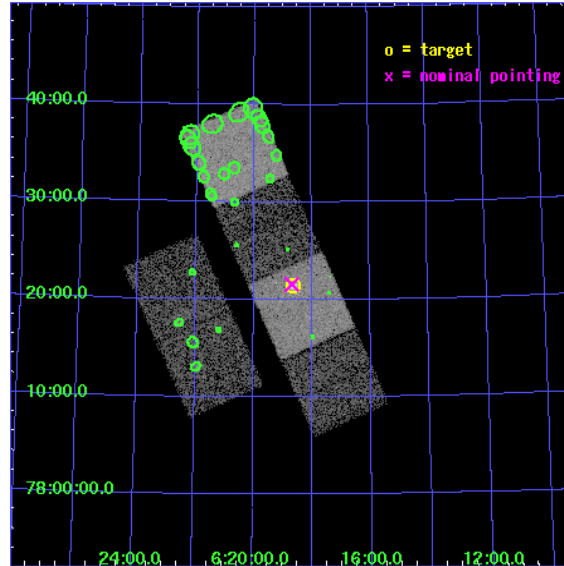
L2 Processing Date : Oct 2 2006

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# 1 Front

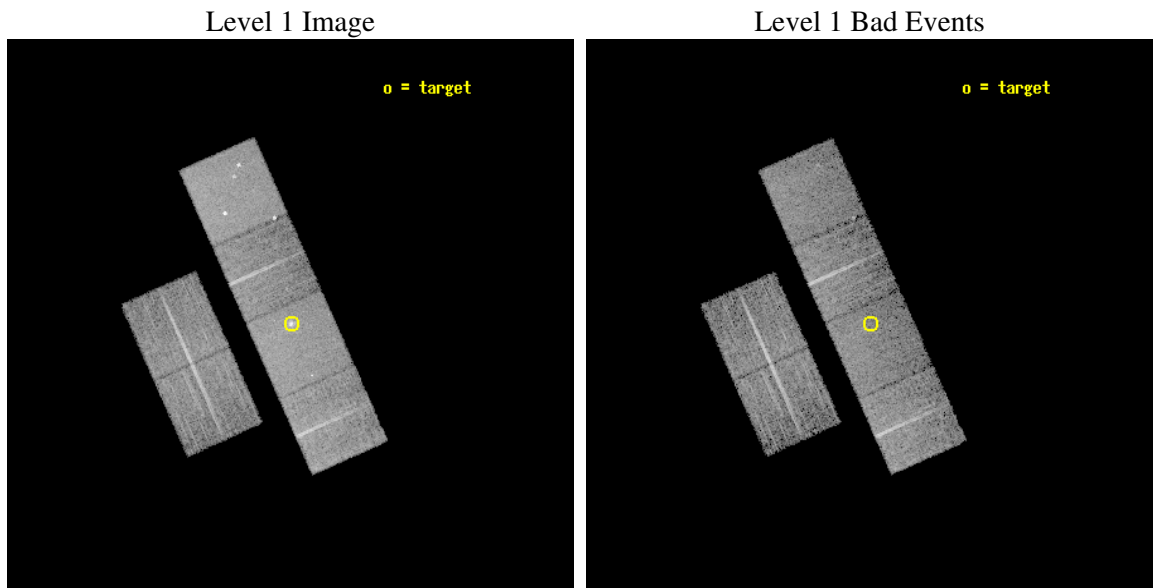
seq_num	700570
obs_id	3131
title	SEARCH FOR AN INTERMEDIATE MASS BLACK HOLE IN THE STARBURST GALAXY NGC2146
observer	Dr Hironori Matsumoto
object	NGC2146
dtcycle	0
cycle	P
ra_targ	94.655417
dec_targ	78.356556
ra_nom	94.671228627123
dec_nom	78.359543868307
roll_nom	66.009093563299
revision	2
ontime	9395.1999650002
livetime	9276.2322859331
ontime2	9395.1999650002
ontime3	9395.1999650002
ontime5	9395.1999650002
ontime6	9395.1999650002
ontime7	9395.1999650002
ontime8	9391.9589947462
l2events	85746



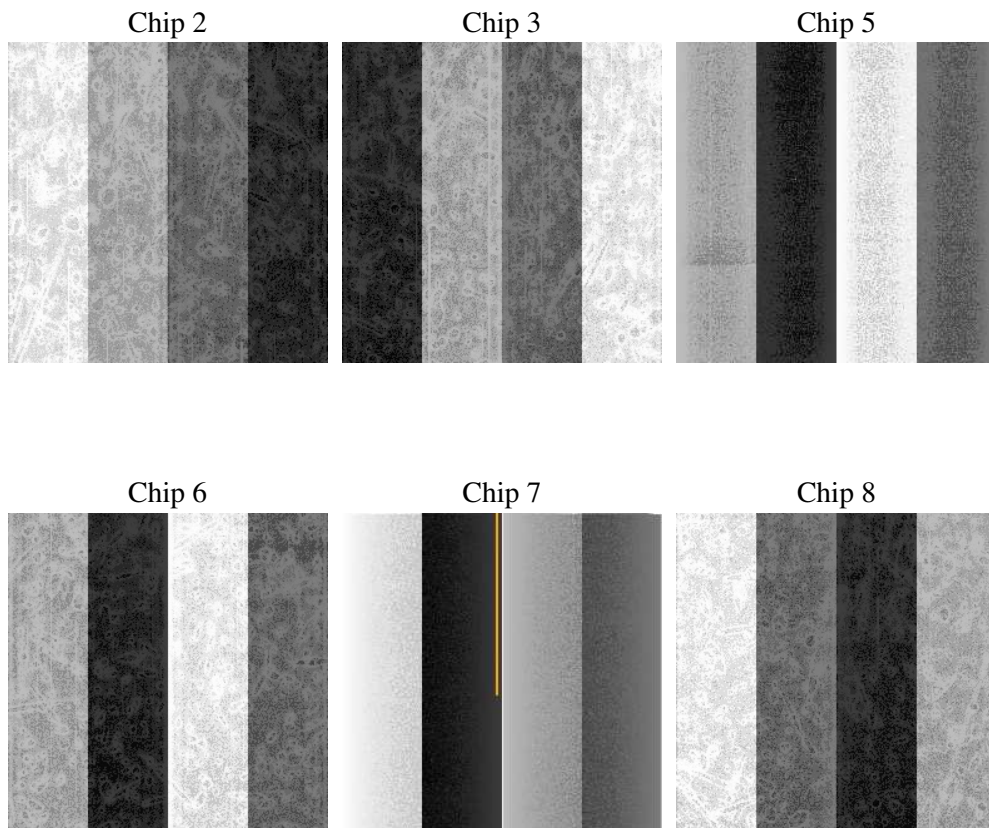
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1
ascdsver	7.6.9
caldbver	3.2.3
date	2006-10-02T18:26:28
revision	2

sched_exp_time	9640.000000
ontime	9398.8990875185
ontime2	9398.8990875185
ontime3	9398.8990875185
ontime5	9398.8990875185
ontime6	9398.8990875185
ontime7	9398.8990875185
ontime8	9395.657987684
l1events	395134

### 2.1.4 Events

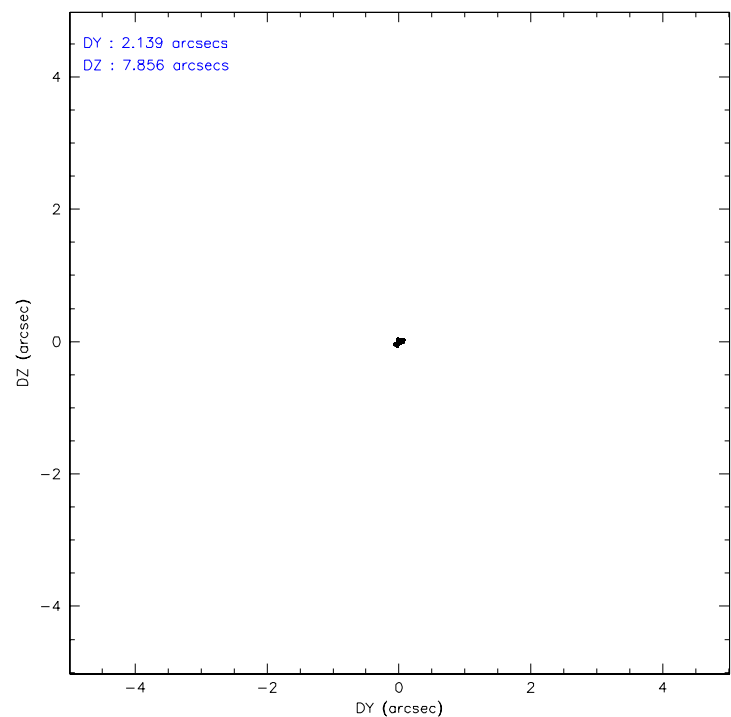
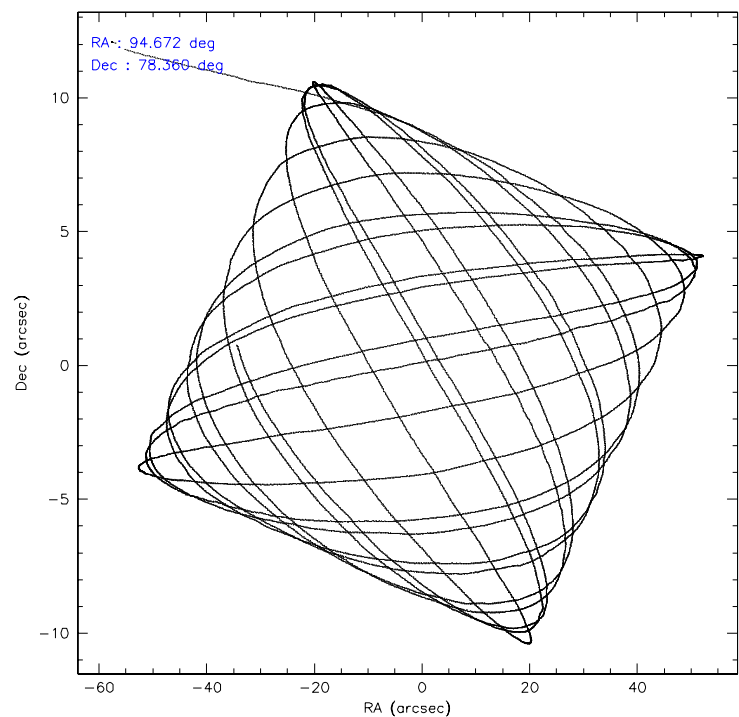
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	55350	54075	80730	56975	75291	72713
rejected events	48507	47642	44597	50522	44689	58718
rejected %	87%	88%	55%	88%	59%	80%

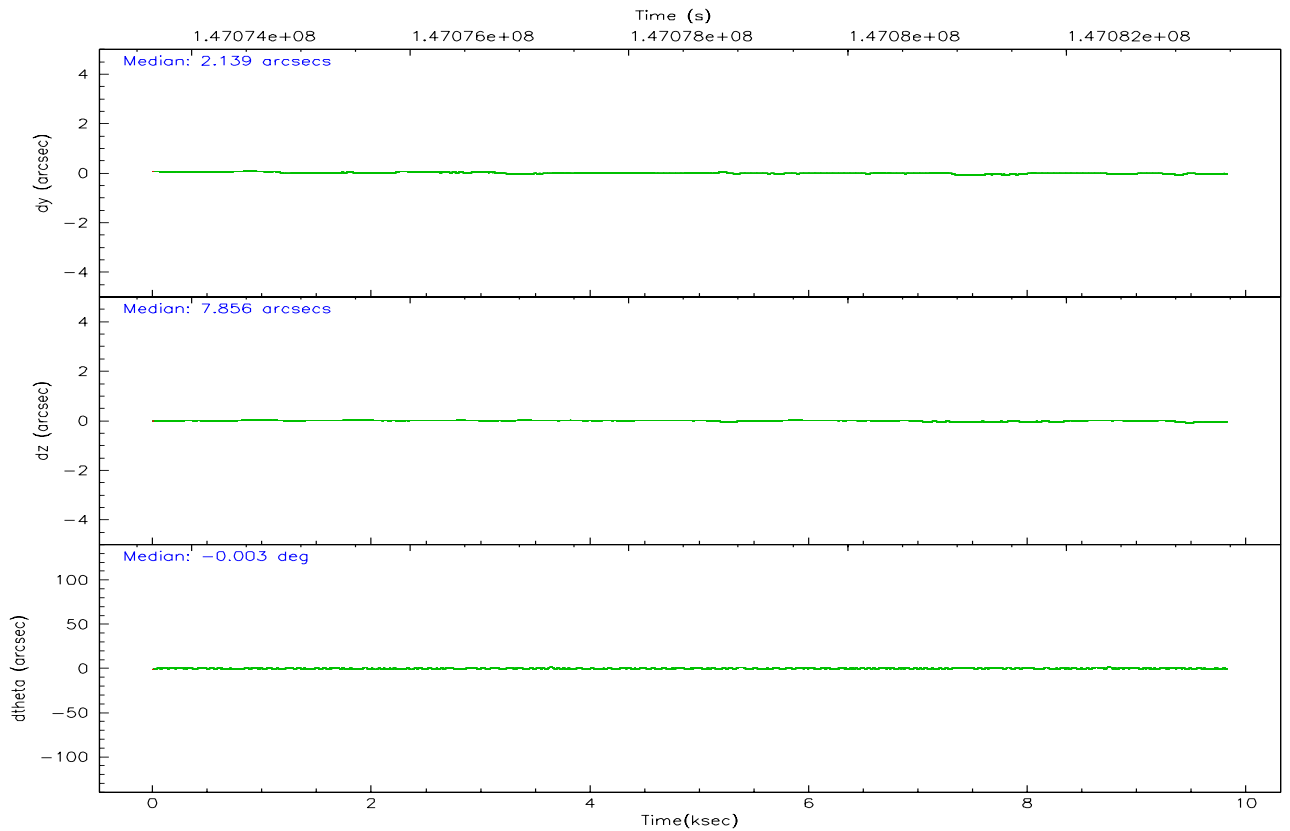
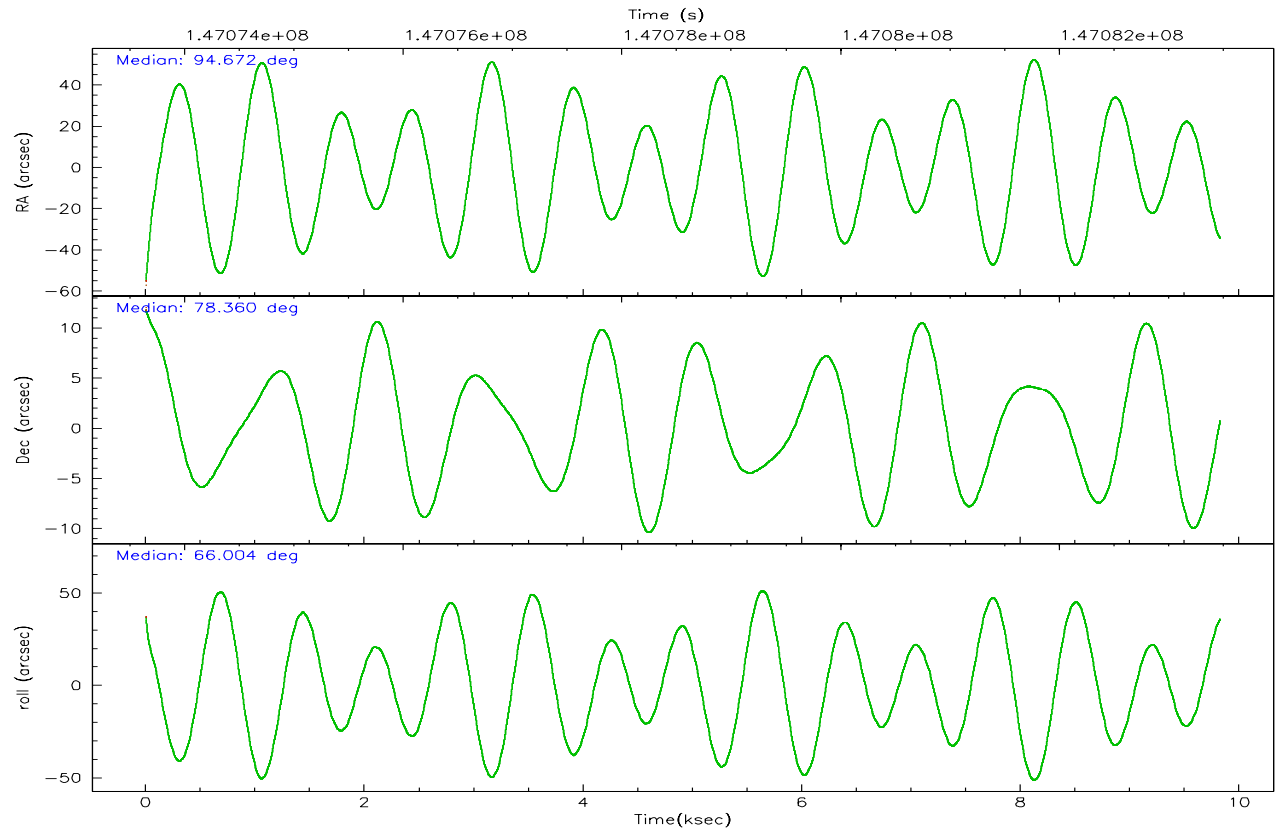
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	3250	2937	3402	2607	2334	4427
	5%	5%	4%	4%	3%	6%
grade 1 events	46	31	101	24	47	40
	0%	0%	0%	0%	0%	0%
grade 2 events	1277	1149	11038	1294	7575	3003
	2%	2%	13%	2%	10%	4%
grade 3 events	623	649	846	612	1761	1450
	1%	1%	1%	1%	2%	1%
grade 4 events	589	636	807	674	1732	1401
	1%	1%	0%	1%	2%	1%
grade 5 events	2100	2288	3999	2444	4938	3150
	3%	4%	4%	4%	6%	4%
grade 6 events	1104	1065	20047	1270	17212	3718
	1%	1%	24%	2%	22%	5%
grade 7 events	46361	45320	40490	48050	39692	55524
	83%	83%	50%	84%	52%	76%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	94.687060	94.67122862712341	Subarray requested	NONE	NONE
Pointing Dec	78.332503	78.3595438683067	Alternating exposures requested	N	N
Pointing Roll	65.836982	66.00909356329907	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	147073837.184000	147073160.48556			
Observation start date	2002-08-30T05:49:33	2002-08-30T05:39:20			
Observation end time	147083477.184000	147084295.57352			
Observation end date	2002-08-30T08:30:13	2002-08-30T08:44:55			
Read mode	TIMED	TIMED			

### 2.3 Aspect





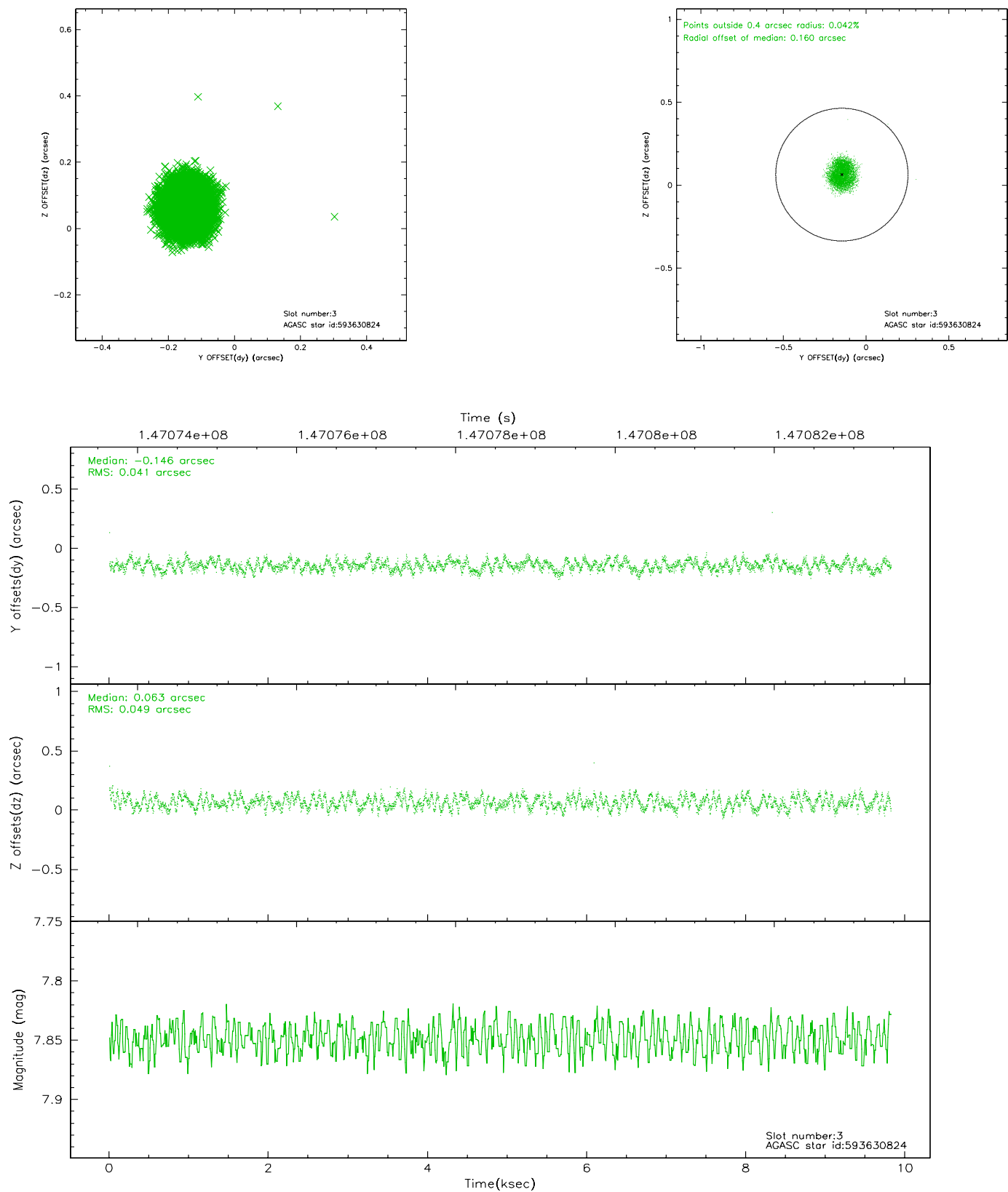
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	2397	-0.011	0.010	0.006	0.010	0.000000	0.000000	-754.79	-1729.02
1	FID	ACIS-S-4	7.20	2397	-0.056	0.003	0.005	0.009	0.000000	0.000000	2158.22	178.86
2	FID	ACIS-S-5	7.24	2396	0.036	-0.004	0.006	0.010	0.000000	0.000000	-1806.86	173.19
3	GUIDE	593630824	7.85	4792	-0.146	0.063	0.070	0.100	97.139560	77.959365	-436.93	-2213.53
4	GUIDE	594160696	7.97	4791	-0.178	0.065	0.054	0.086	96.554720	78.795378	2073.57	-500.99
5	GUIDE	593628560	8.24	4792	0.119	-0.118	0.064	0.101	92.260818	78.027017	-1710.40	1218.07
6	GUIDE	593631272	8.36	4790	0.221	0.131	0.072	0.121	97.229274	77.907214	-574.65	-2357.80
7	GUIDE	594159216	8.61	4791	-0.011	-0.135	0.057	0.091	93.921009	78.896665	1638.29	1317.15

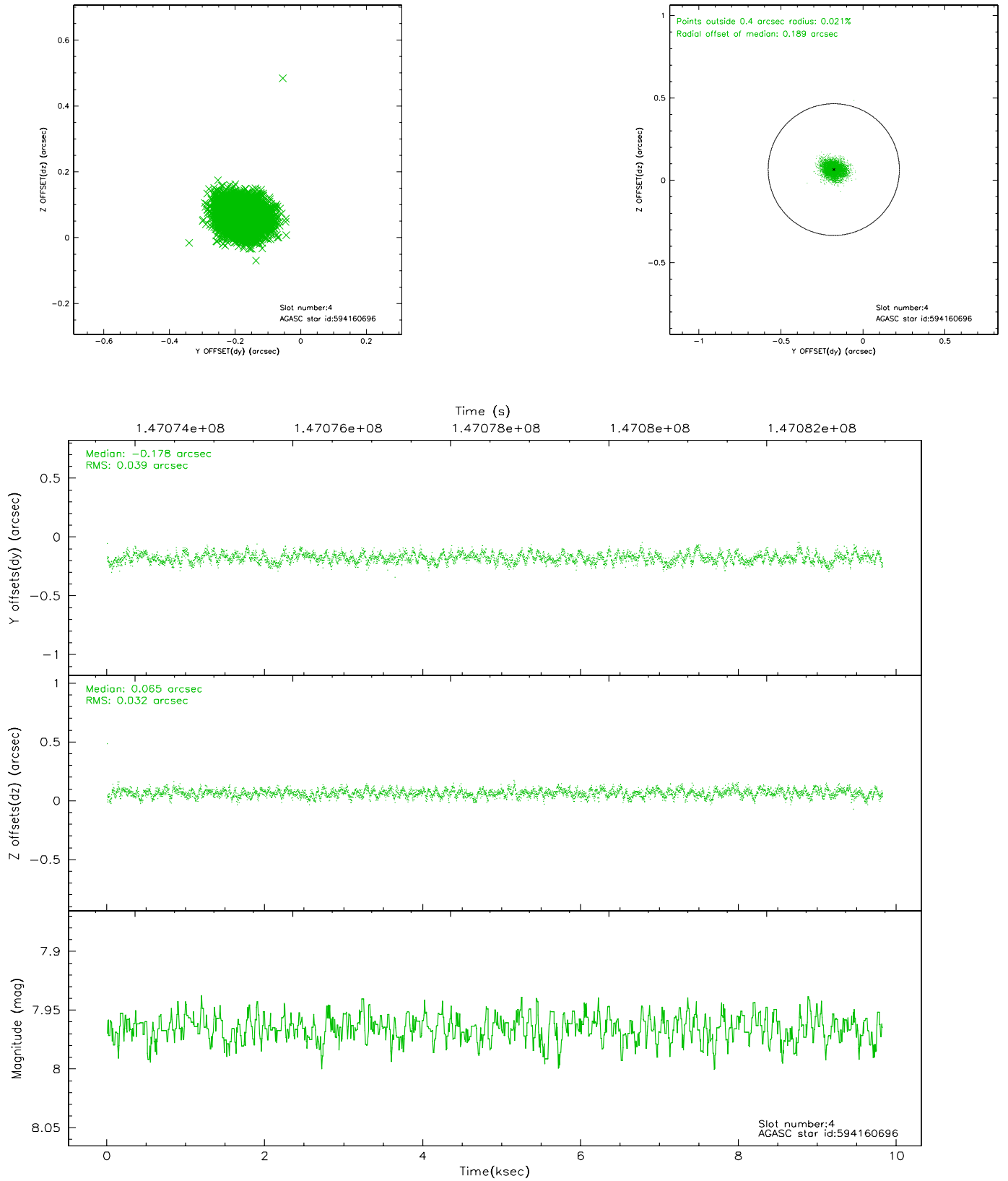


## 2.4 Star Slots

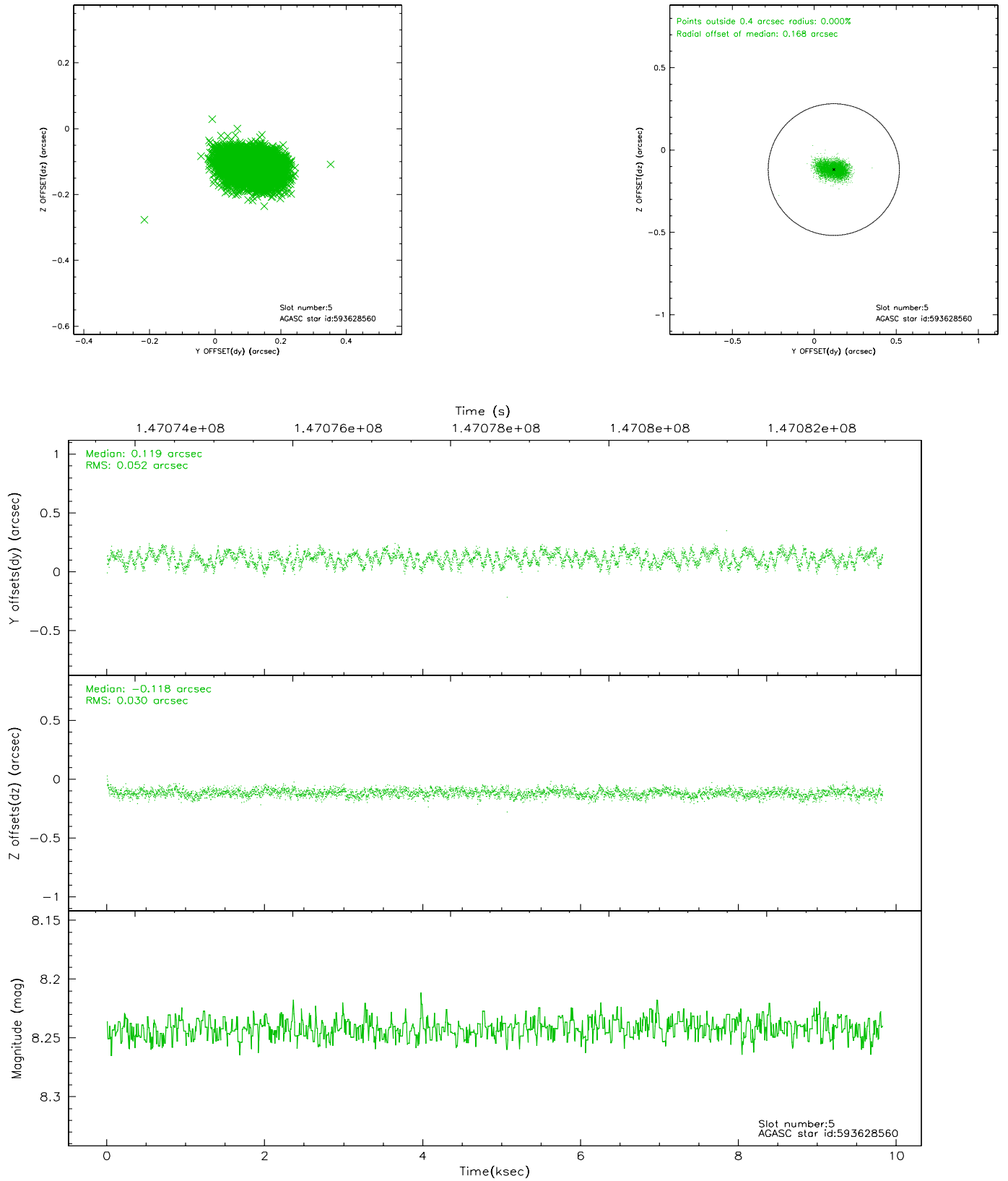
### 2.4.1 Slot 3



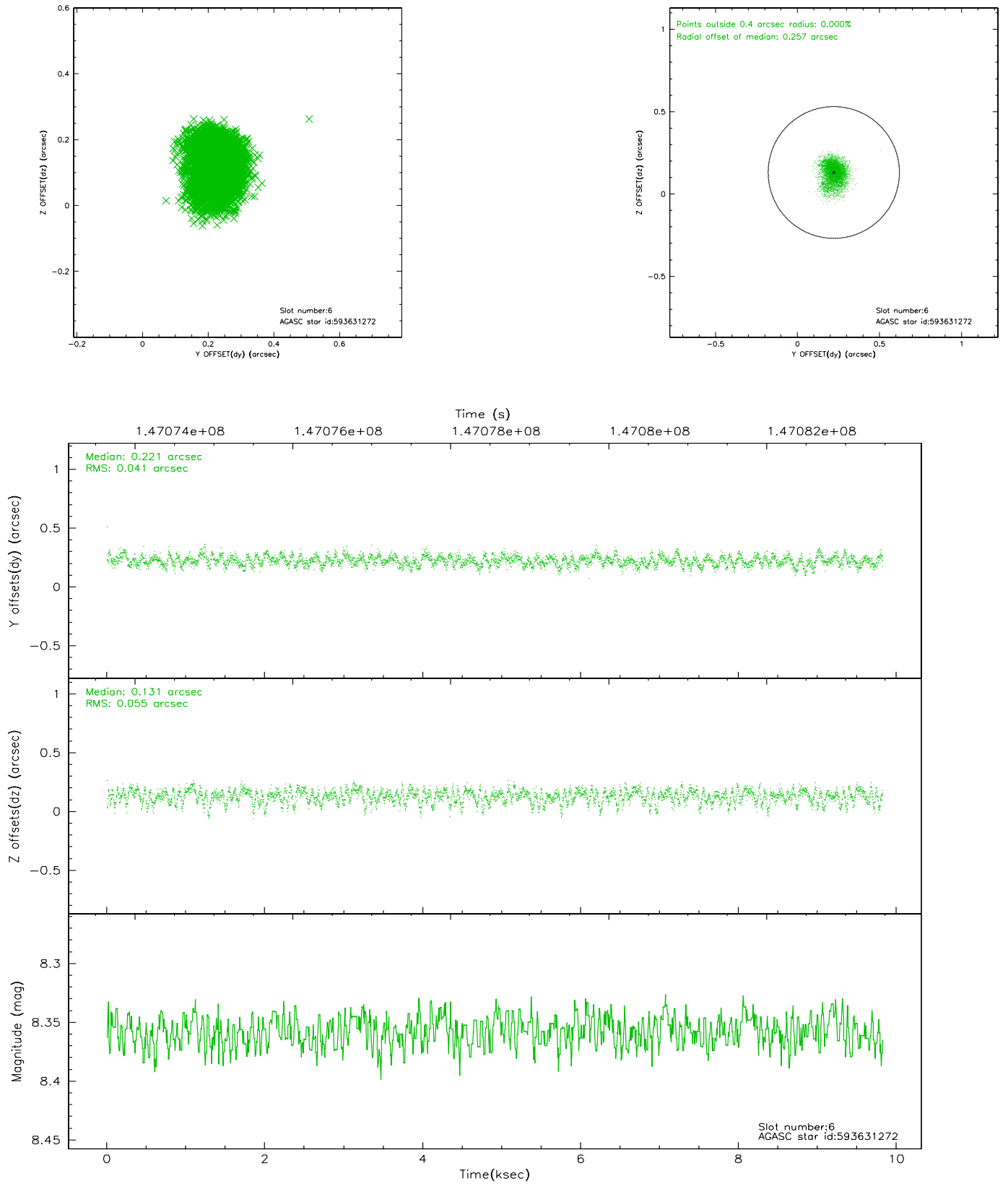
## 2.4.2 Slot 4



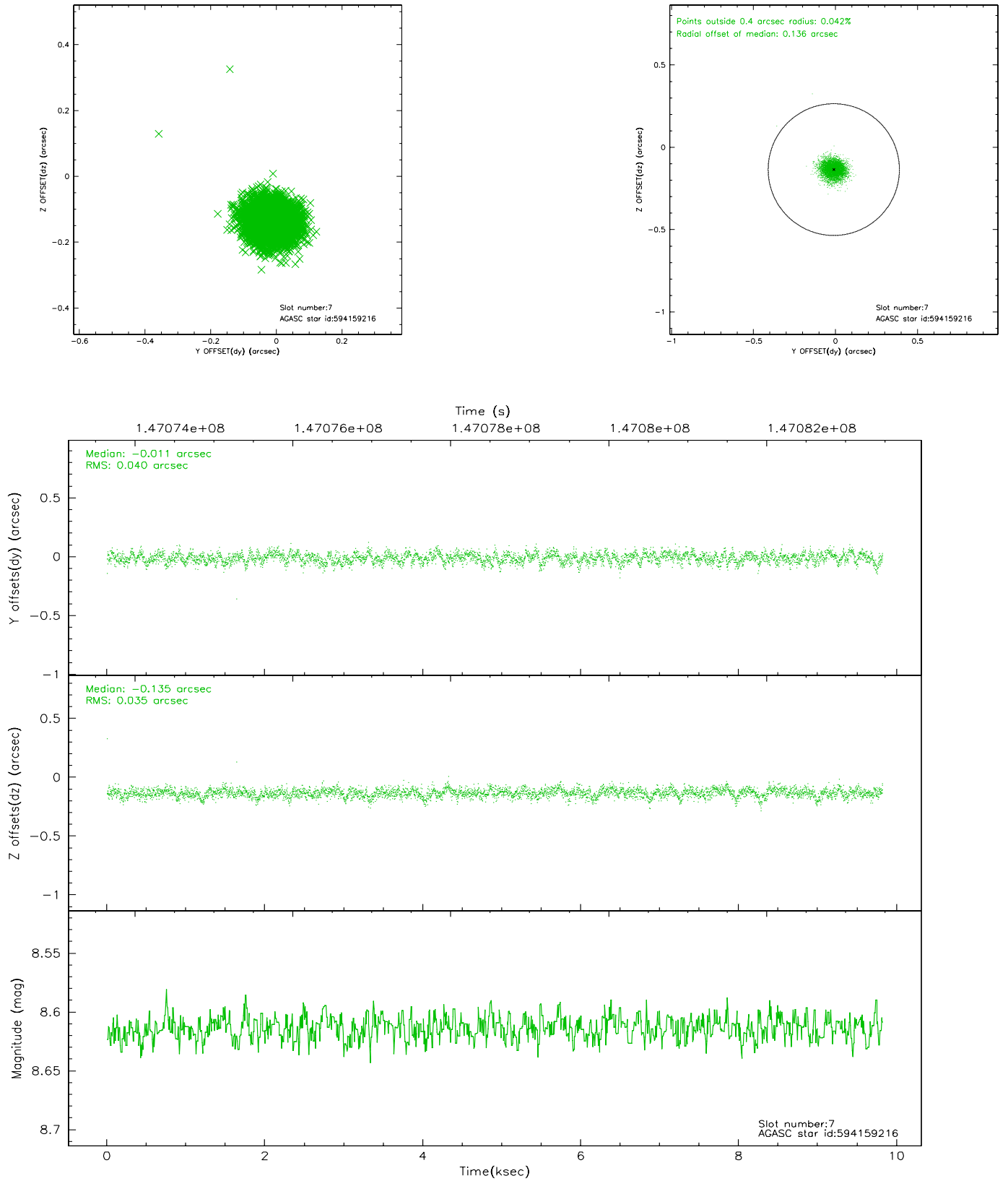
### 2.4.3 Slot 5



## 2.4.4 Slot 6

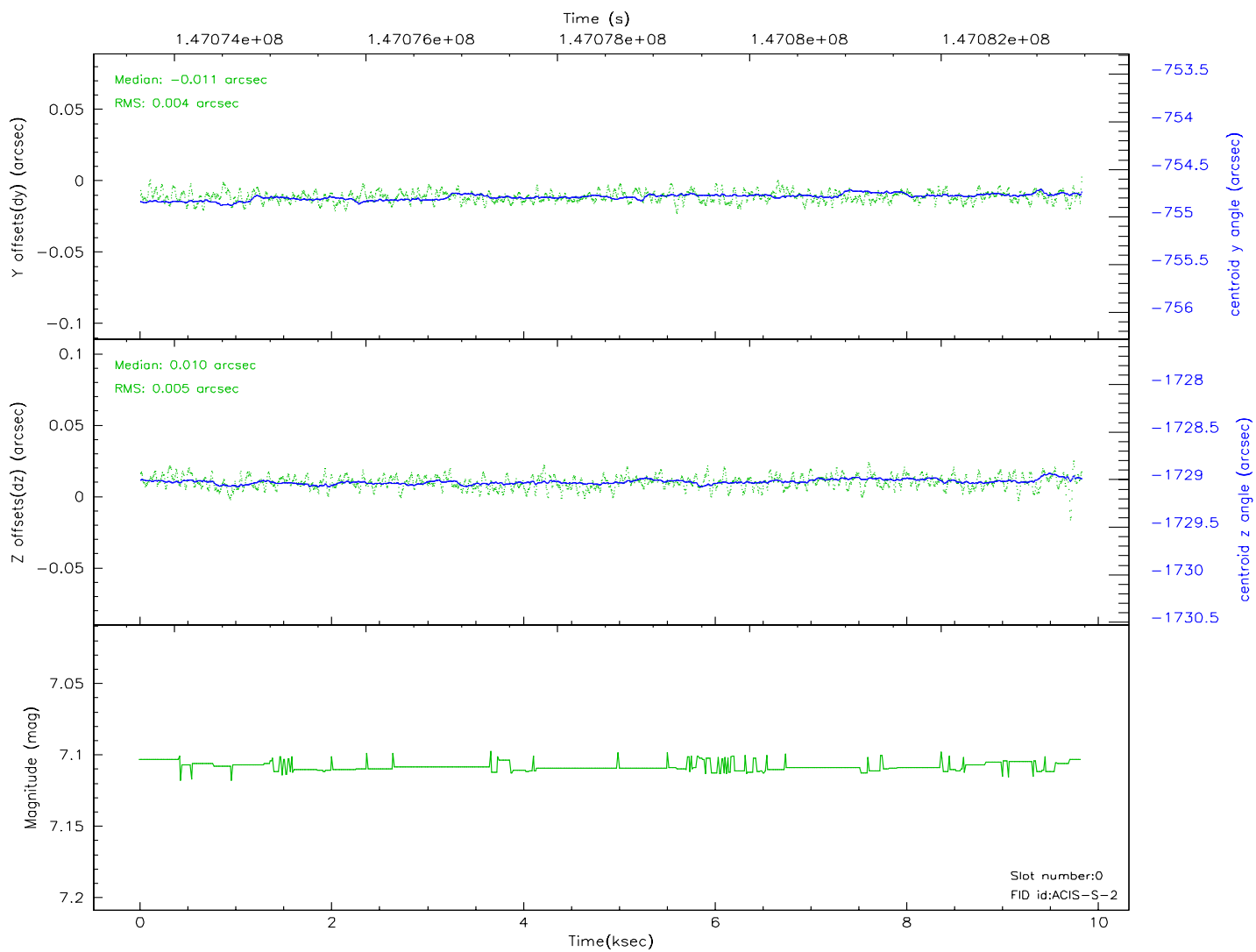
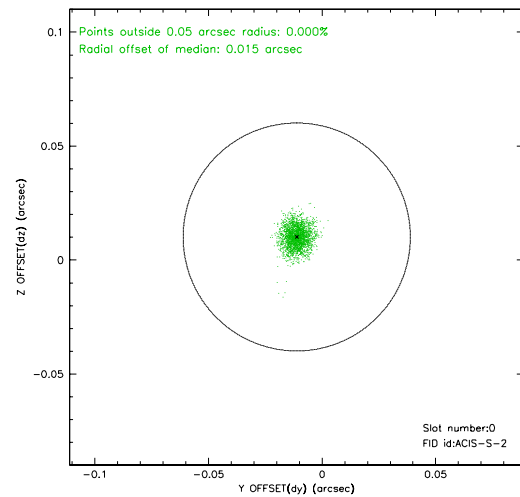
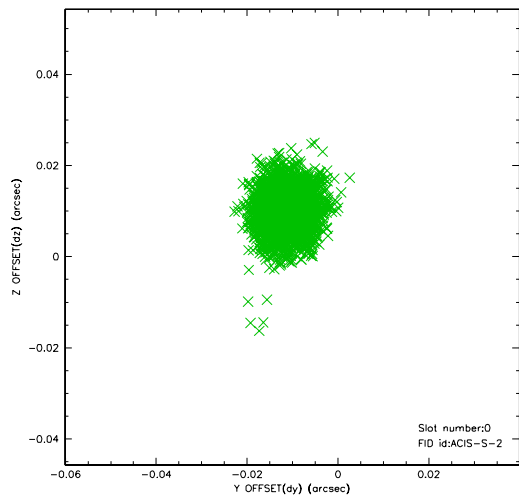


## 2.4.5 Slot 7

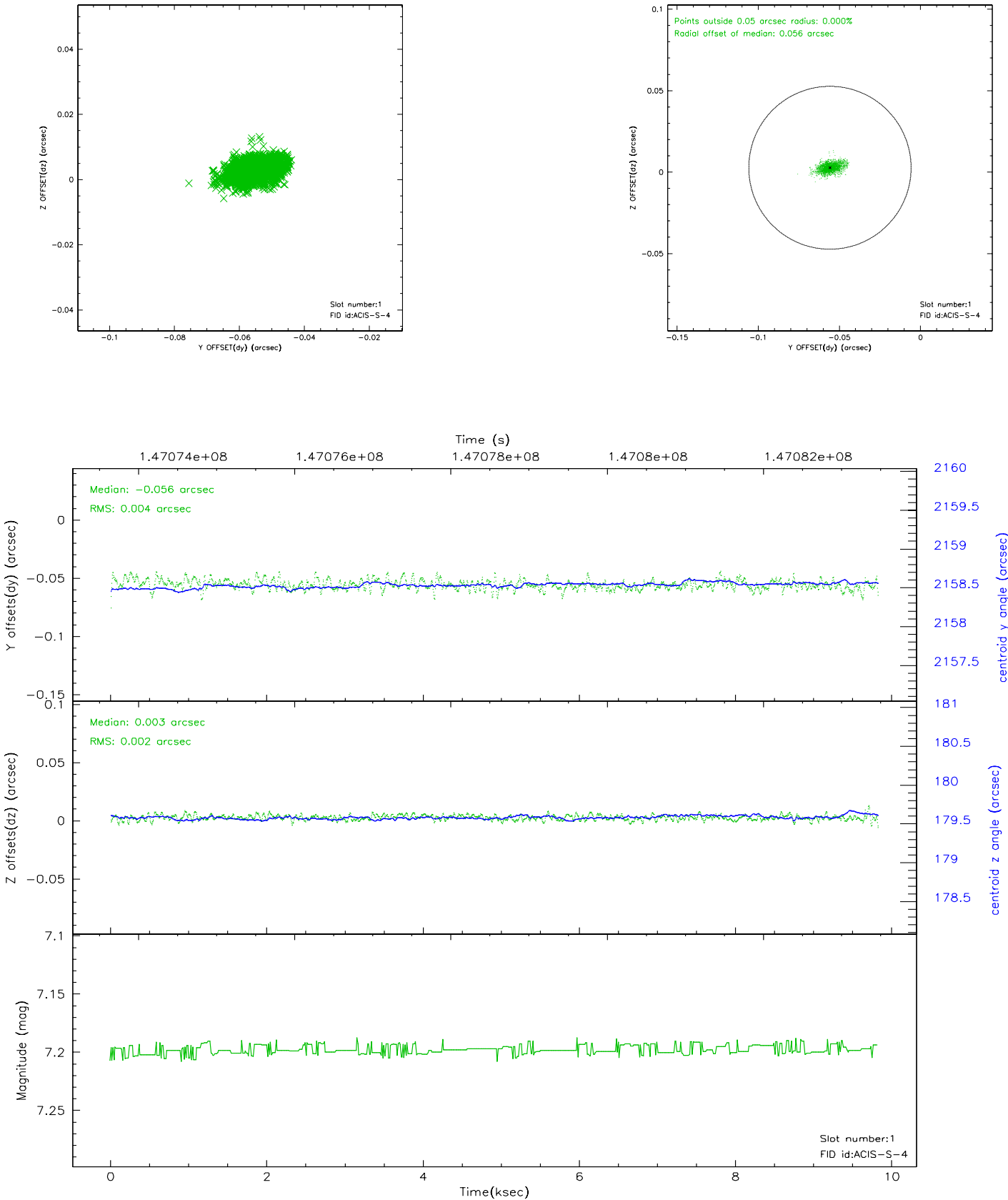


## 2.5 FID Slots

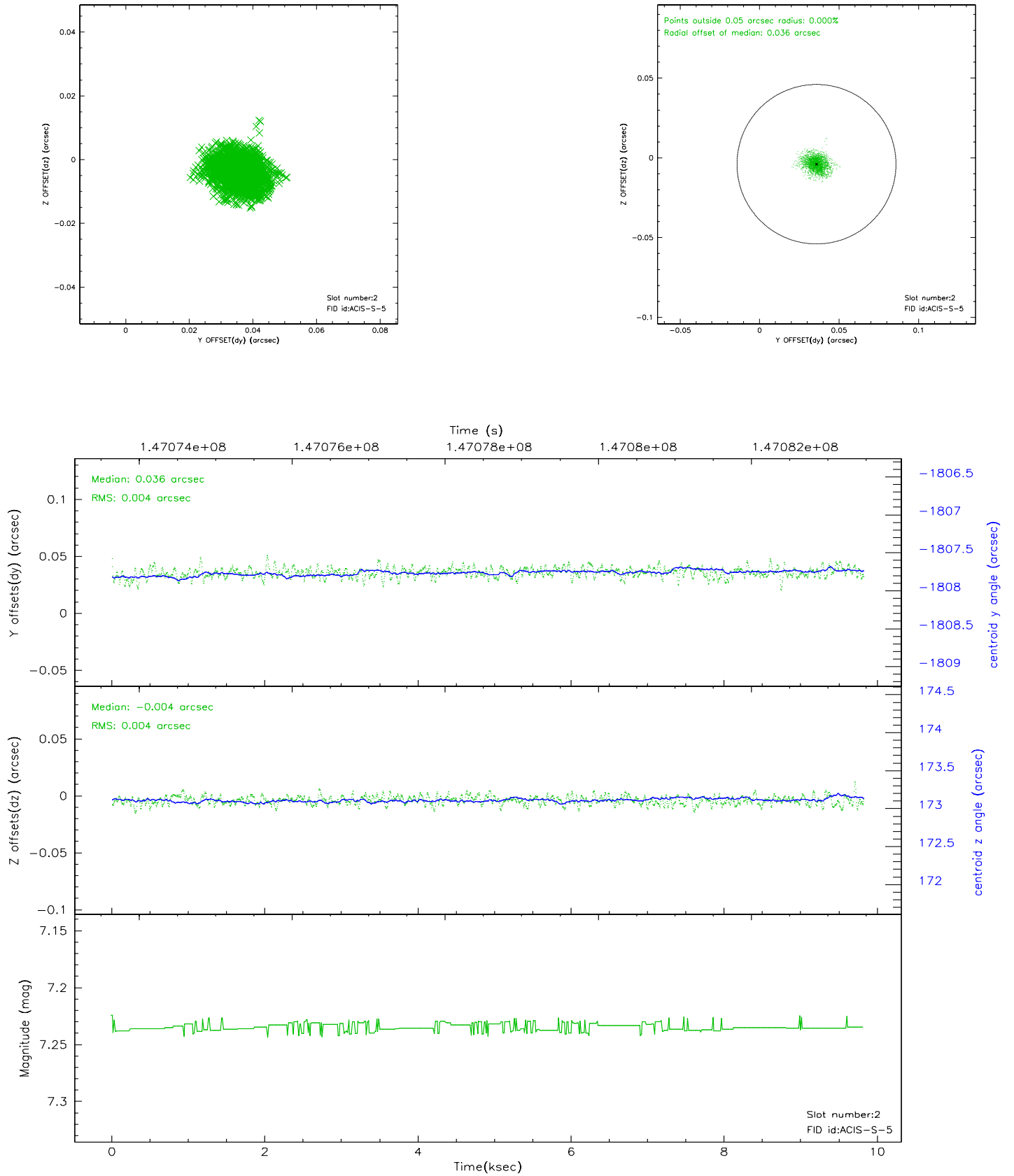
### 2.5.1 Slot 0



2.5.2 Slot 1

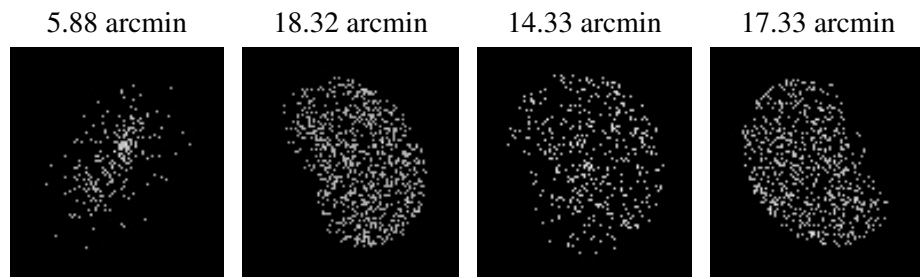


### 2.5.3 Slot 2





### 3 Point Sources



## A Summary

### A.1 Status

V&V Scientist	Doug Morgan
V&V Date (YYYY-MM-DD)	2006.10.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.395

### A.2 Comments