

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4754 - L2 Version 3  
Chandra X-Ray Center

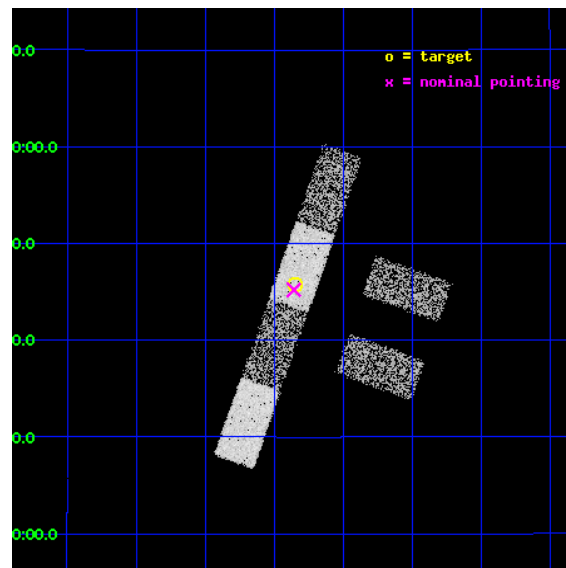
L2 Processing Date : Nov 9 2012

## 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

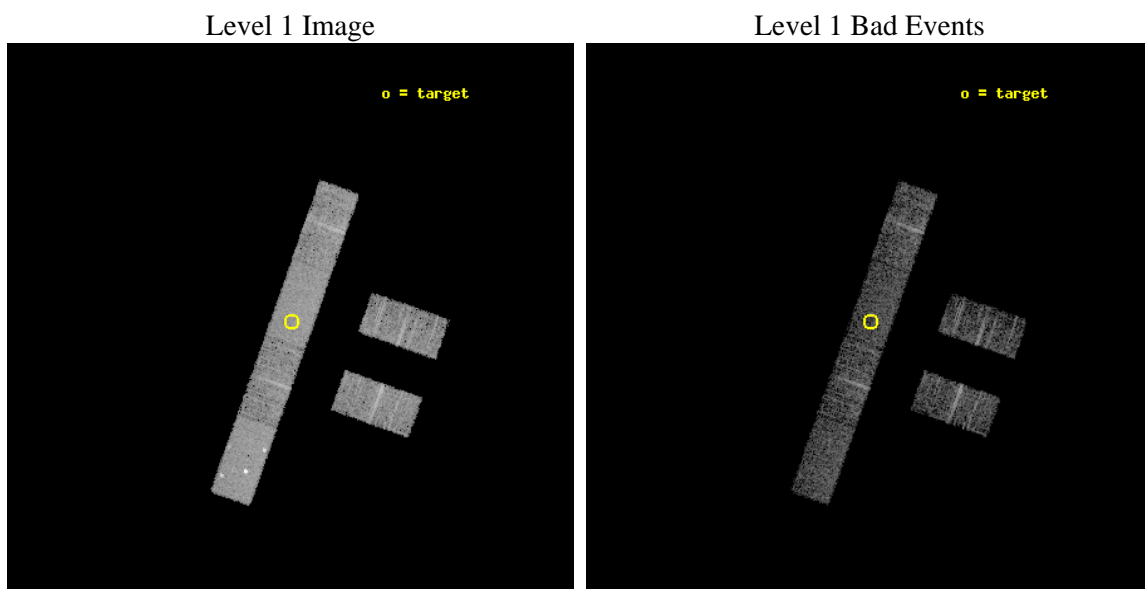
seq_num	600409	Sequence number
obs_id	4754	Observation id
title	Observations of Intermediate Mass Black Hole Candidate Ultra-Luminous X-ray Sources	Proposal title
observer	Dr Jon Miller	Principal investigator
object	M74 X-1 Obs 2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	24.212917	Observer's specified target RA [deg]
dec_targ	15.763056	Observer's specified target Dec [deg]
ra_nom	24.214645926378	Nominal RA [deg]
dec_nom	15.753600751733	Nominal Dec [deg]
roll_nom	289.55132992979	Nominal Roll [deg]
revision	3	Processing version of data
ontime	5158.8000341654	Sum of GTIs [s]
livetime	5043.801363087	Livetime [s]
ontime2	5158.8000341654	Sum of GTIs [s]
ontime3	5158.8000341654	Sum of GTIs [s]
ontime5	5158.8000341654	Sum of GTIs [s]
ontime6	5158.8000341654	Sum of GTIs [s]
ontime7	5158.8000341654	Sum of GTIs [s]
ontime8	5158.8000341654	Sum of GTIs [s]
l2events	26664	Number of level 2 events



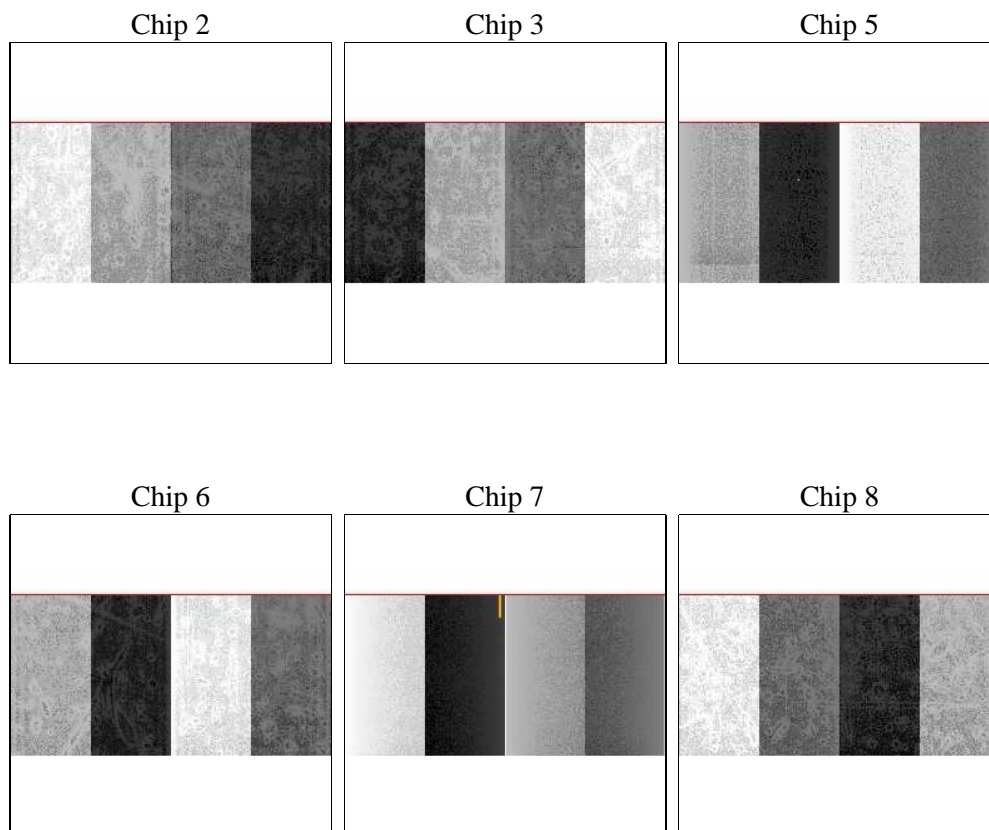
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	5158.8000341654	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime2	5158.8000341654	Sum of GTIs [s]
date	2012-11-09T15:28:13	Date and time of file creation	ontime3	5158.8000341654	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	5158.8000341654	Sum of GTIs [s]
			ontime6	5158.8000341654	Sum of GTIs [s]
			ontime7	5158.8000341654	Sum of GTIs [s]
			ontime8	5158.8000341654	Sum of GTIs [s]
			l1events	134085	Number of level 1 events

### 2.1.4 Events

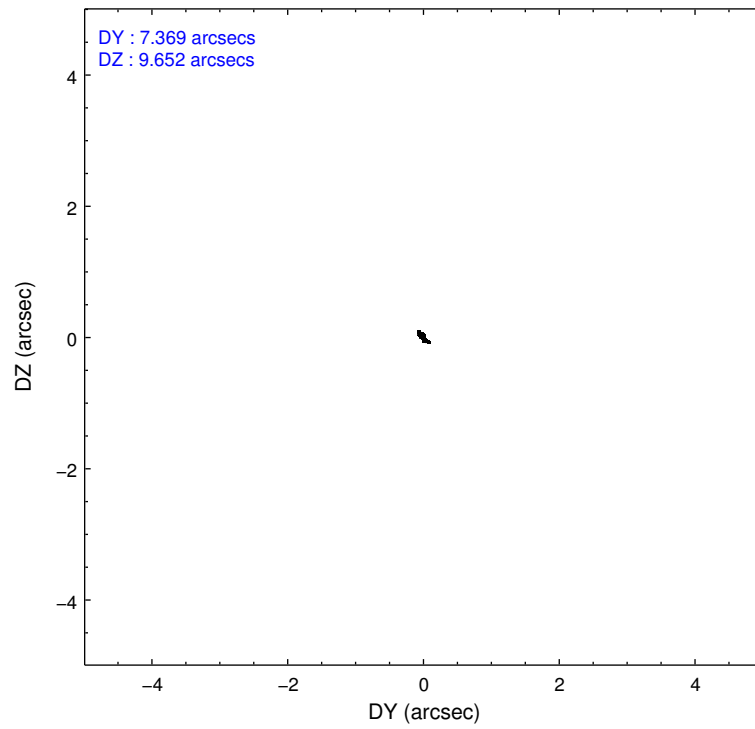
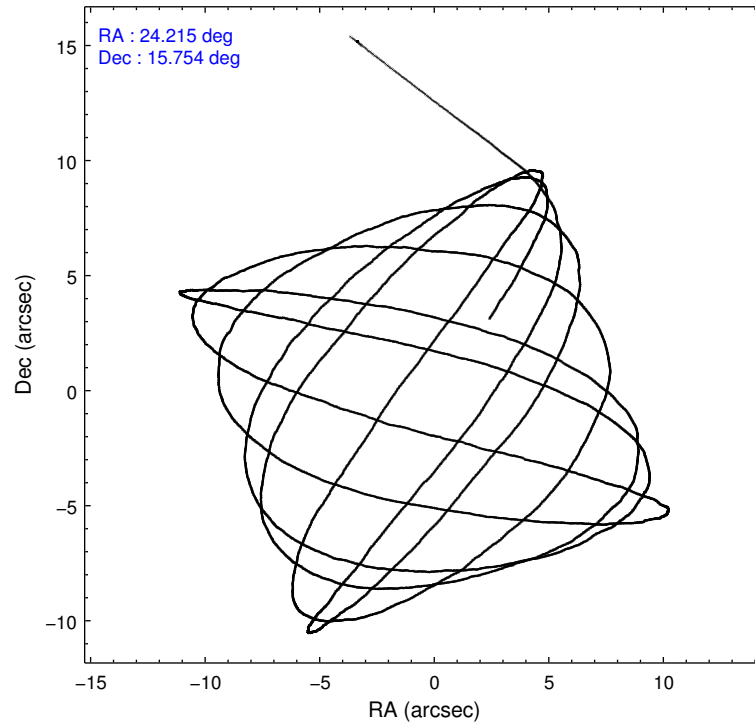
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	19613	17561	30487	18471	24646	23307	grade 0 events	958	878	4957	800	1037	1279
rejected events	17504	15623	15826	16498	15092	19252		4%	4%	16%	4%	4%	5%
rejected %	89%	88%	51%	89%	61%	82%	grade 1 events	9	6	29	8	29	16
								0%	0%	0%	0%	0%	0%
							grade 2 events	434	369	3780	428	2099	1074
								2%	2%	12%	2%	8%	4%
							grade 3 events	259	237	615	261	1026	479
								1%	1%	2%	1%	4%	2%
							grade 4 events	233	237	581	271	981	427
								1%	1%	1%	1%	3%	1%
							grade 5 events	678	777	2052	810	2301	1004
								3%	4%	6%	4%	9%	4%
							grade 6 events	398	375	6121	404	5313	1190
								2%	2%	20%	2%	21%	5%
							grade 7 events	16644	14682	12352	15489	11860	17838
								84%	83%	40%	83%	48%	76%

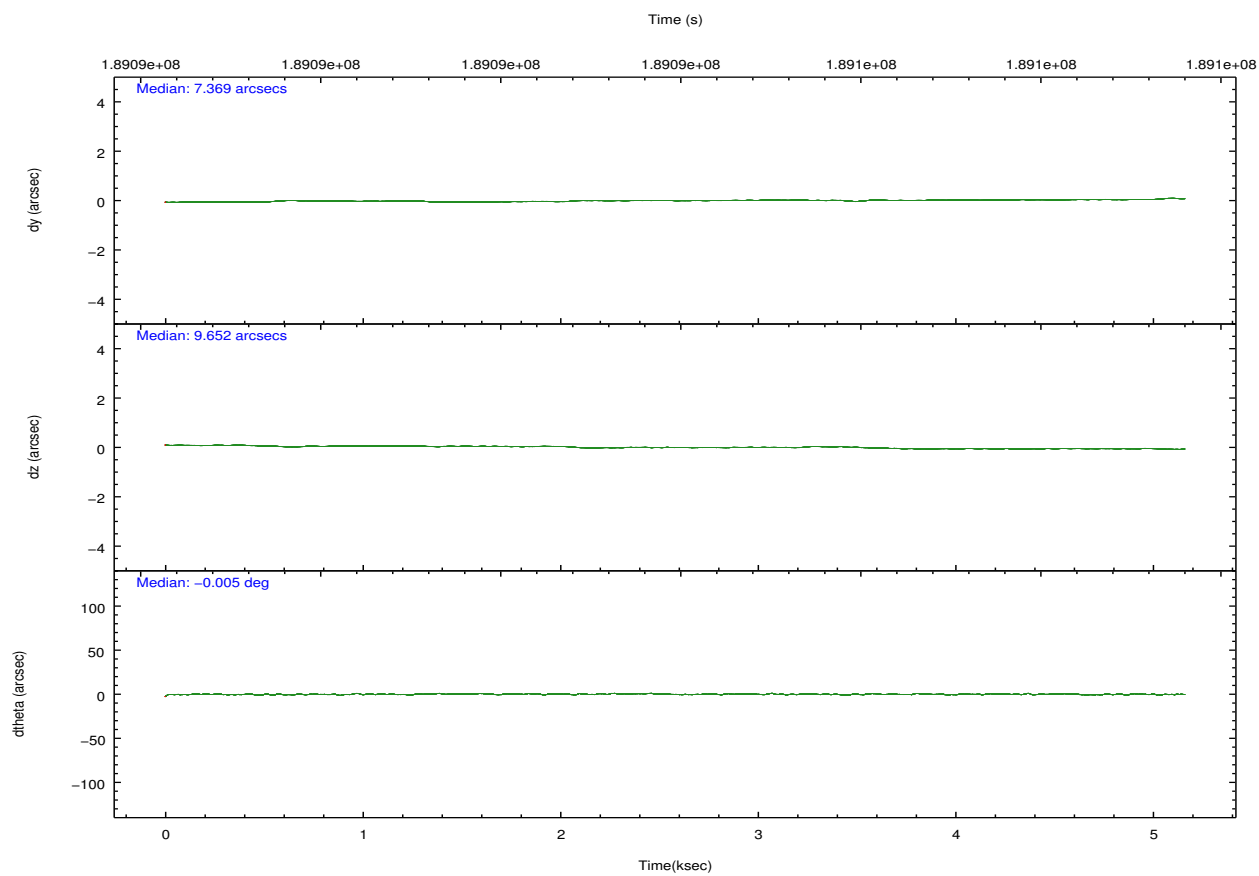
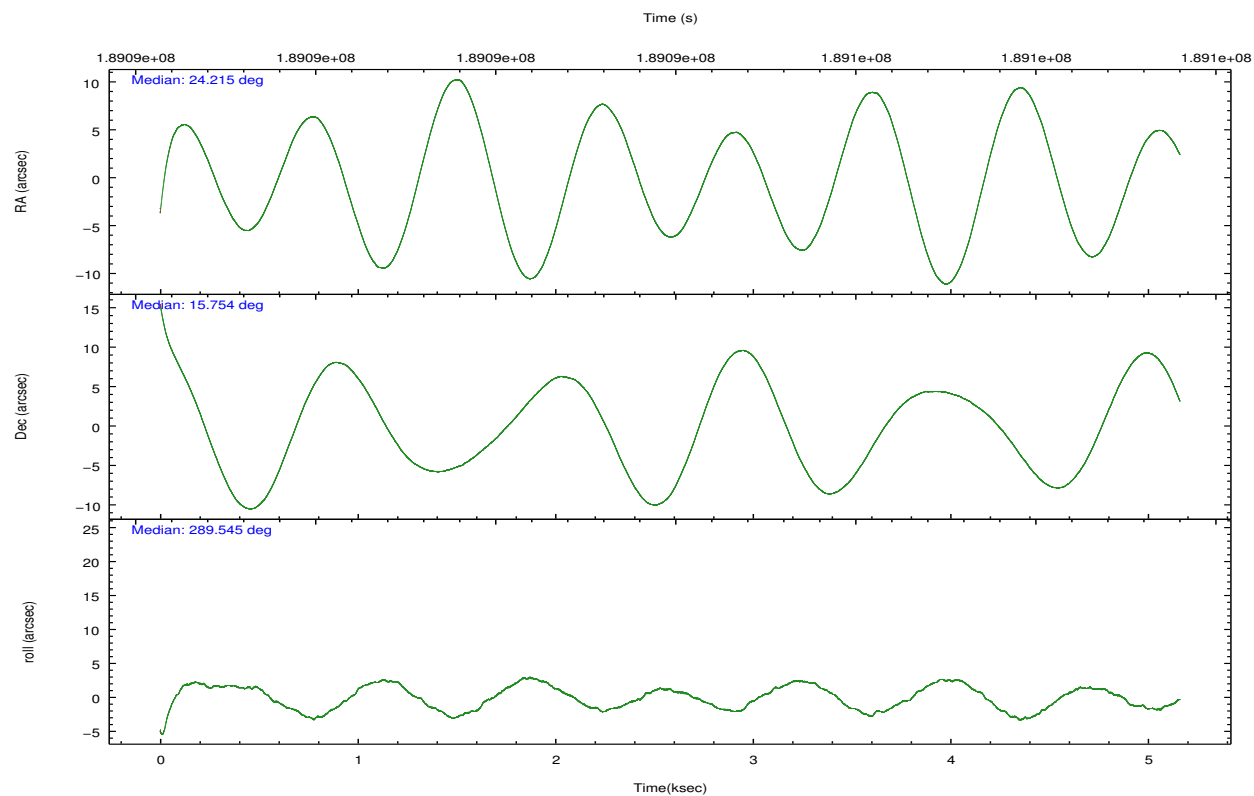


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
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
[deg] Pointing RA	24.192782	24.21464592637813	Subarray requested	CUSTOM	1/2
[deg] Pointing Dec	15.770899	15.75360075173337	Subarray start row	257	257
[deg] Pointing Roll	289.400662	289.5513299297874	Subarray row count	512	512
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	1.8
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	189091551.184000	189090478.35124			
Observation start date	2003-12-29T13:24:47	2003-12-29T13:07:58			
[s] Observation end time (MET)	189096551.184000	189098309.35158			
Observation end date	2003-12-29T14:48:07	2003-12-29T15:18:29			
Read mode	TIMED	TIMED			

## 2.3 Aspect



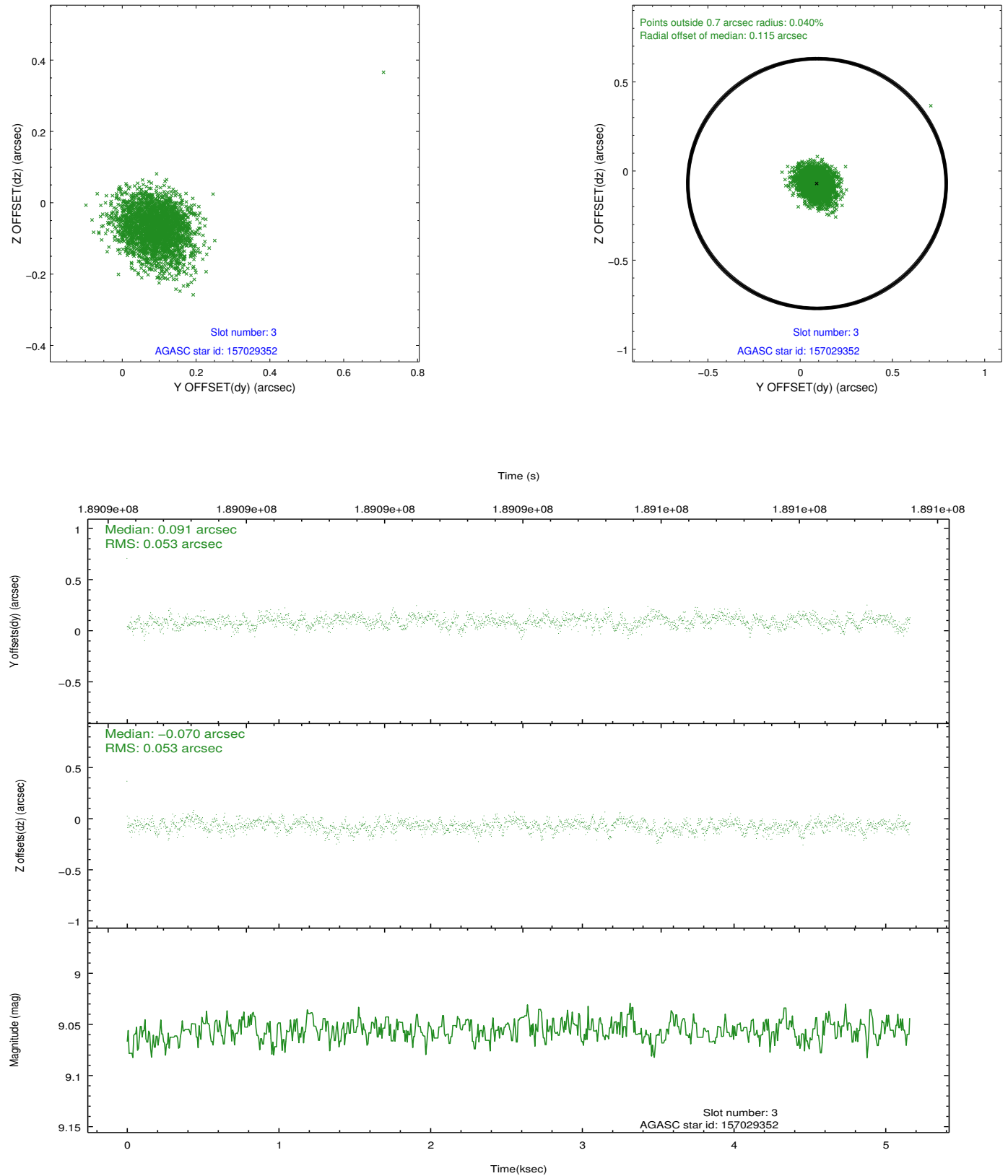


### Slot Statistics

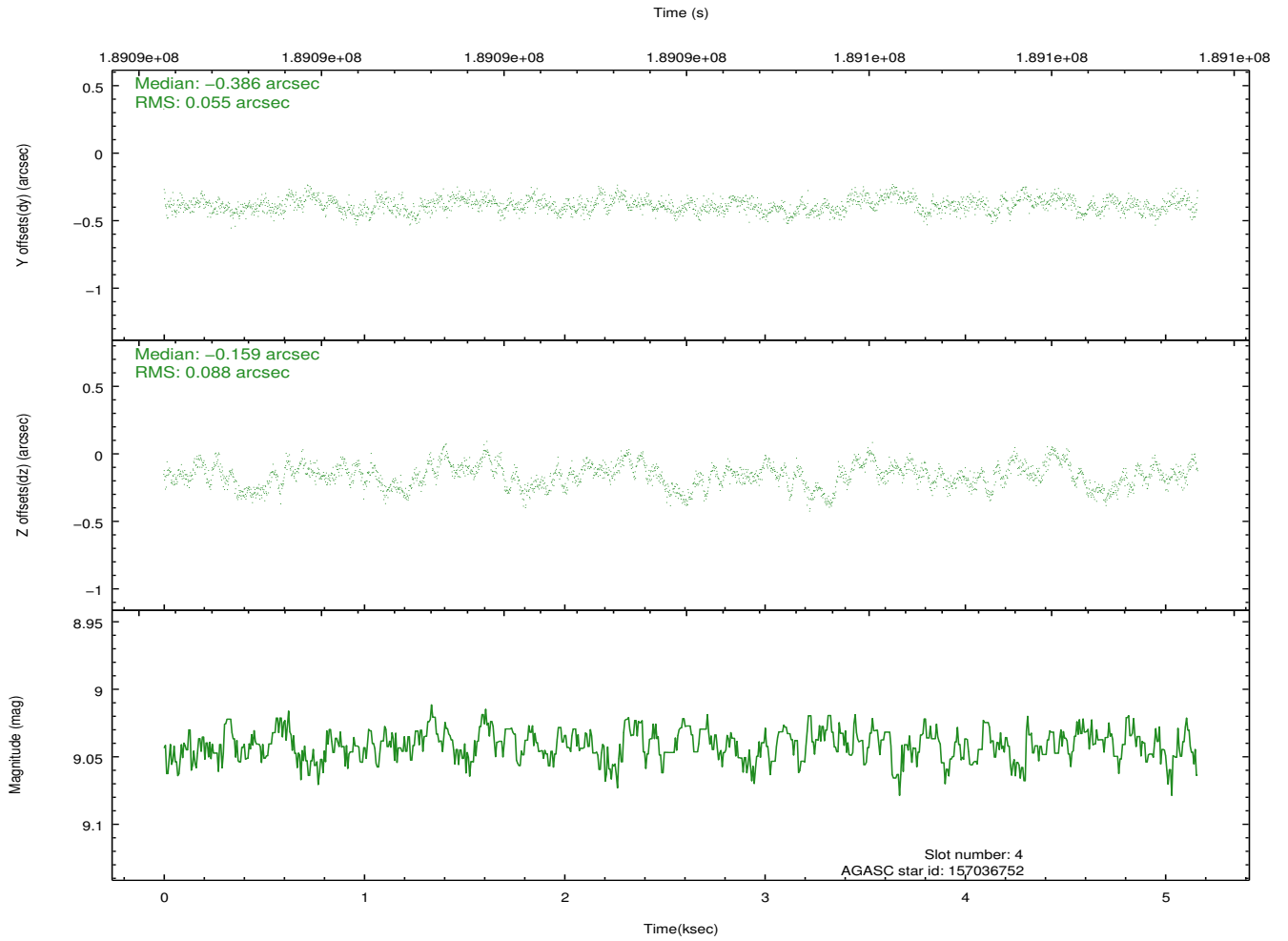
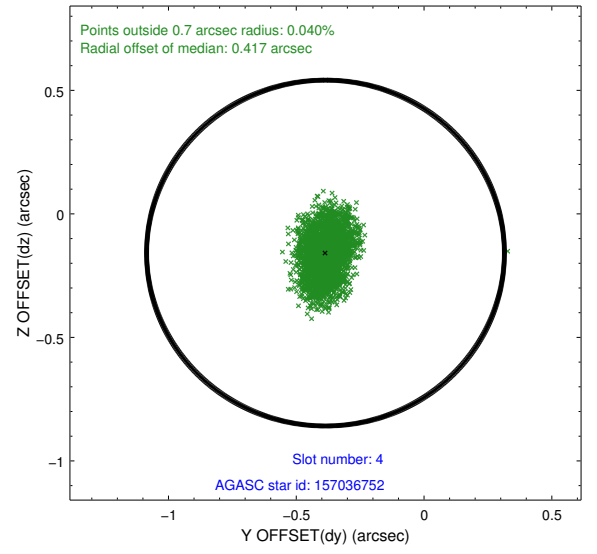
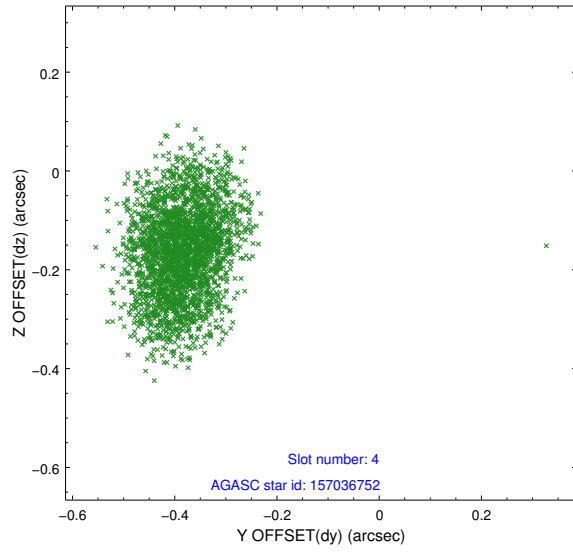
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	1259	-0.041	-0.018	0.005	0.010	0.000000	0.000000	-760.14	-1730.87
1	FID	ACIS-S-4	7.20	1260	0.048	0.018	0.006	0.010	0.000000	0.000000	2152.67	176.48
2	FID	ACIS-S-6	7.34	1260	-0.035	0.006	0.007	0.012	0.000000	0.000000	403.32	815.17
3	GUIDE	157029352	9.06	2519	0.091	-0.070	0.078	0.128	23.764744	15.271289	1202.21	-1999.12
4	GUIDE	157036752	9.04	2519	-0.386	-0.159	0.111	0.180	23.400830	16.130370	-2134.41	-2153.31
5	GUIDE	157943240	8.97	2518	-0.089	0.128	0.082	0.134	24.500363	16.361777	-1654.90	1707.91
6	GUIDE	157954272	8.71	2518	0.129	0.249	0.071	0.113	24.932144	15.423798	2026.59	2007.50
7	GUIDE	82183064	9.15	2518	0.255	-0.140	0.099	0.161	23.866444	14.948729	2415.86	-2052.98

## 2.4 Star Slots

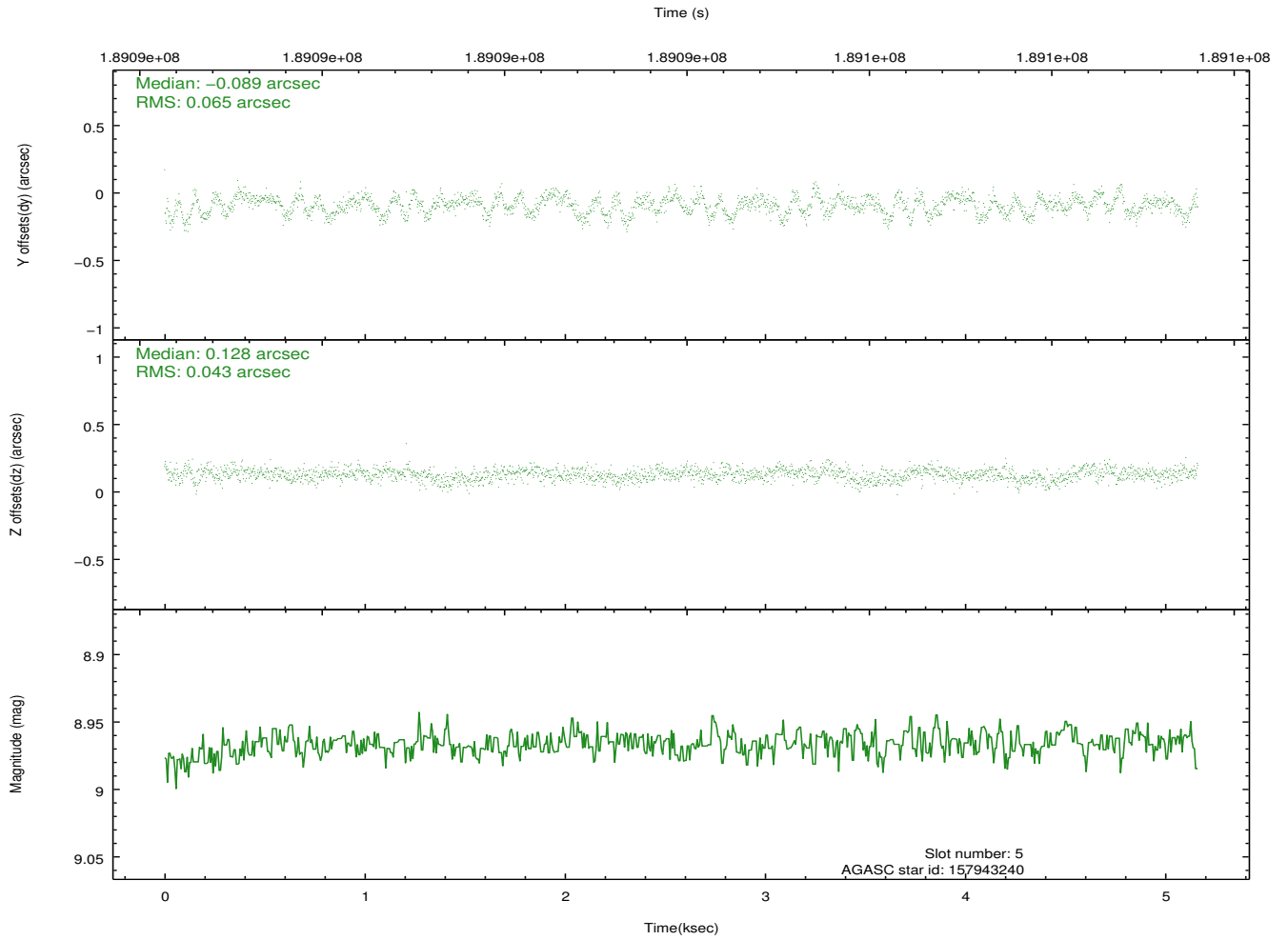
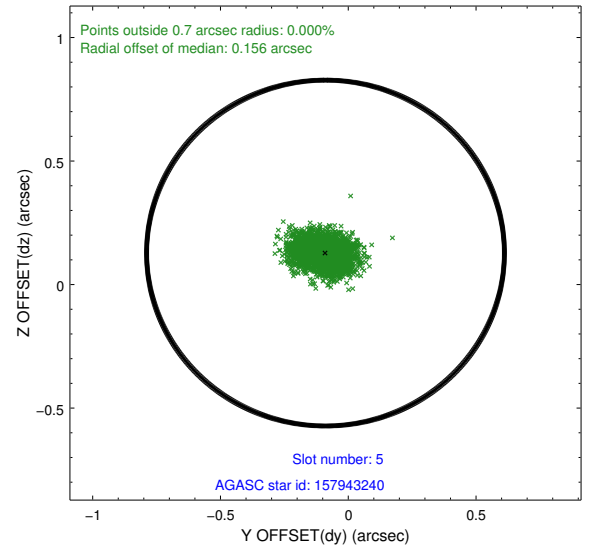
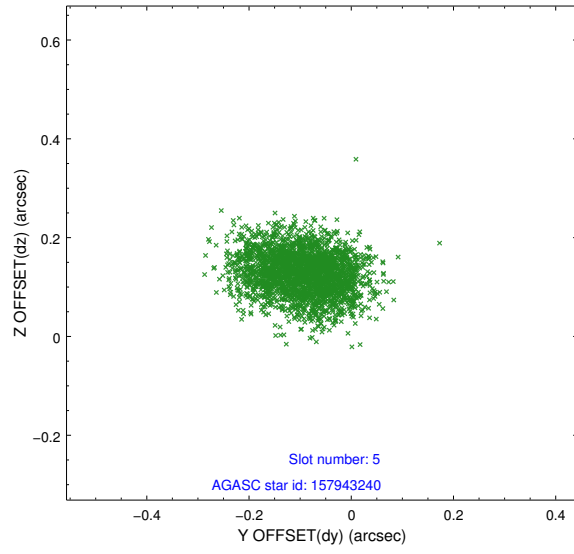
### 2.4.1 Slot 3



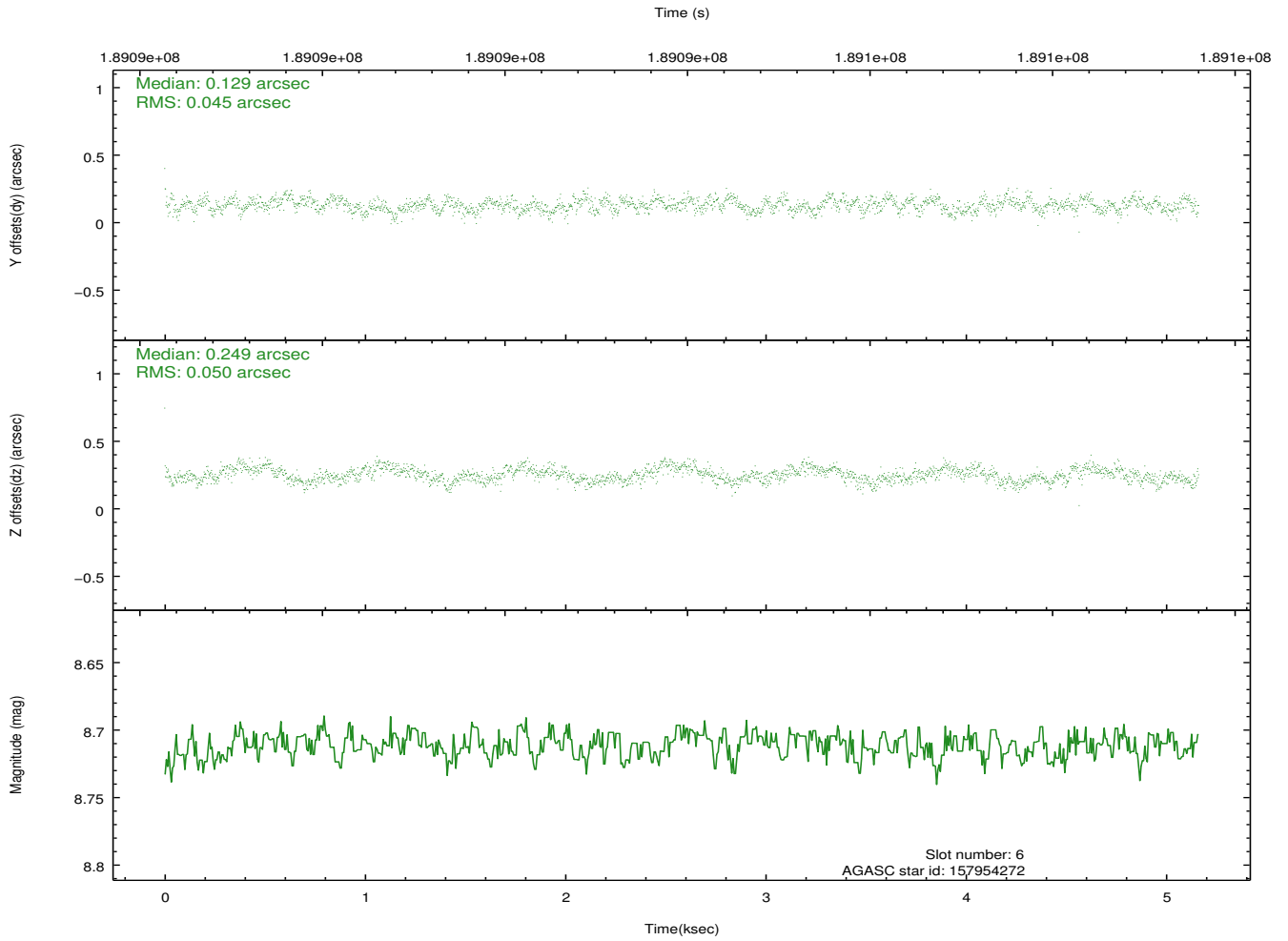
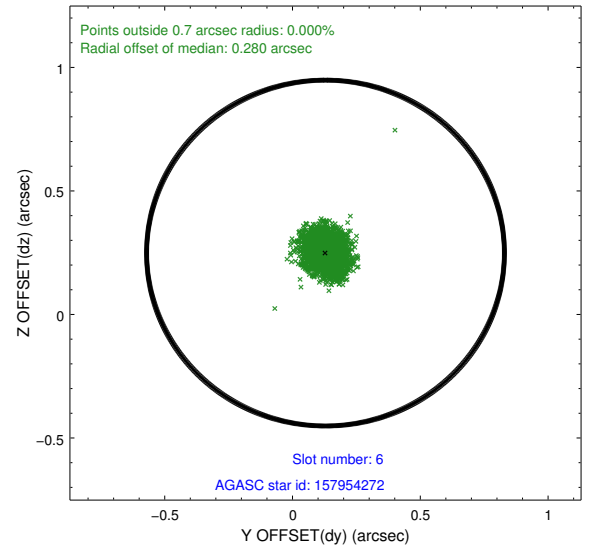
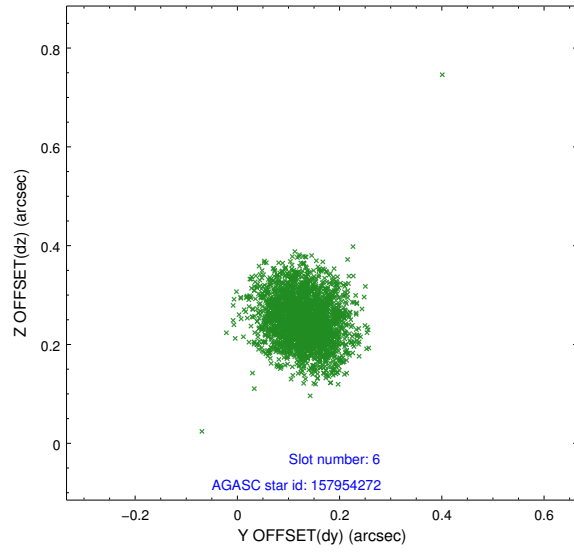
## 2.4.2 Slot 4



### 2.4.3 Slot 5

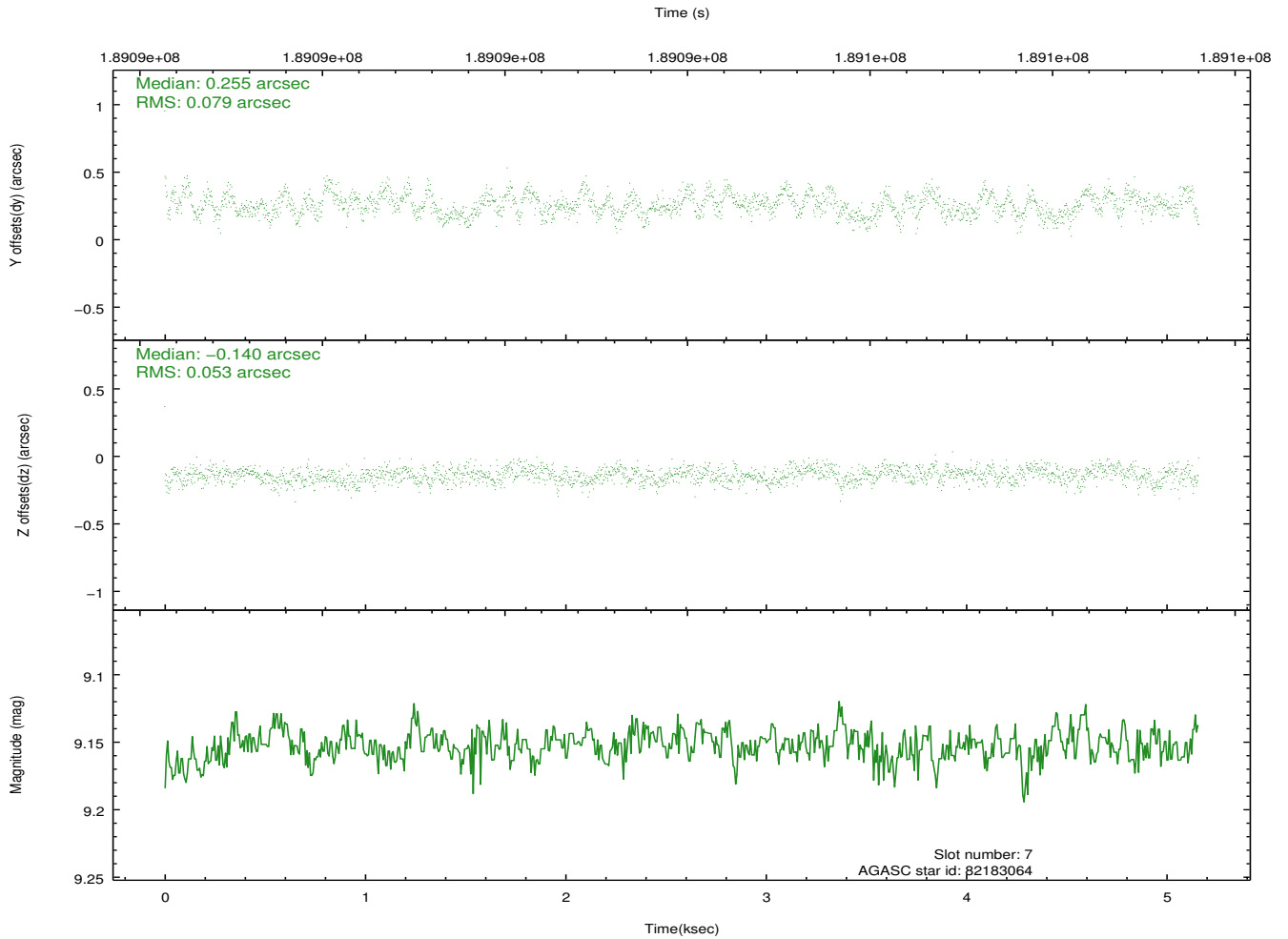
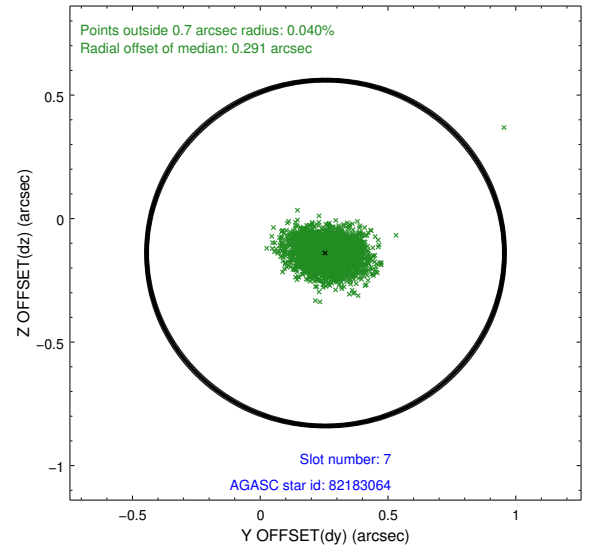
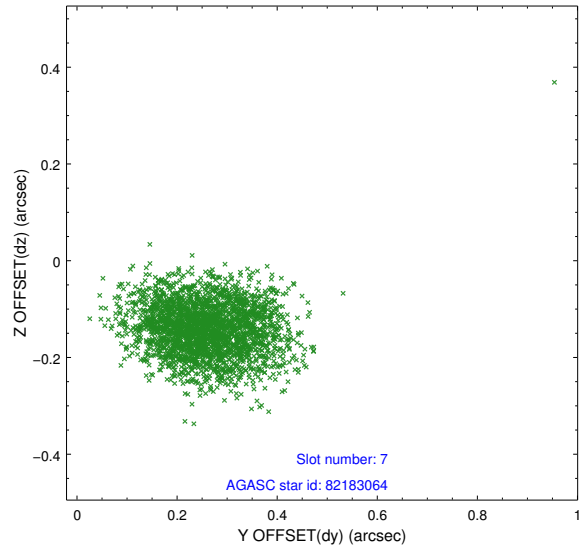


## 2.4.4 Slot 6



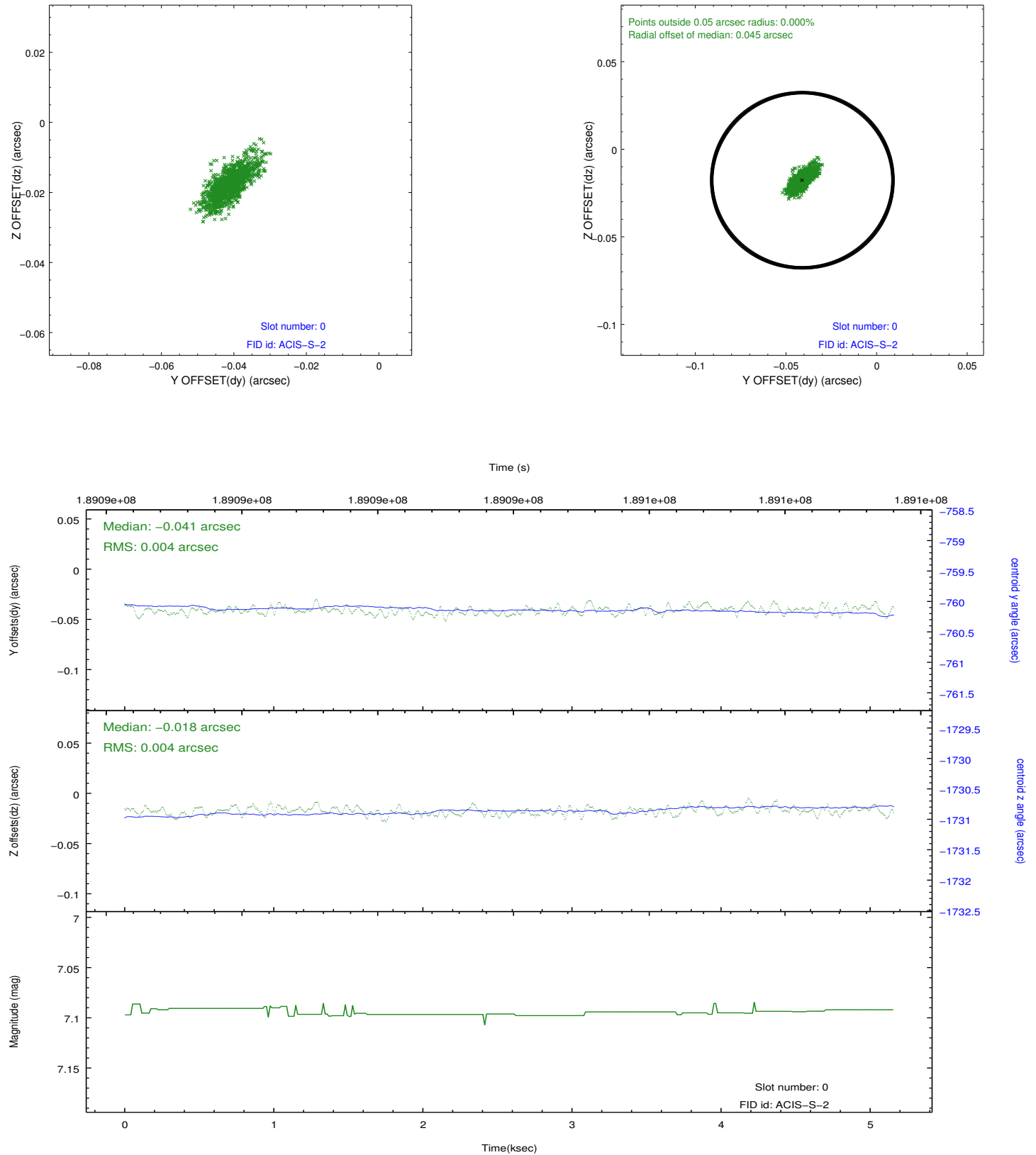


## 2.4.5 Slot 7

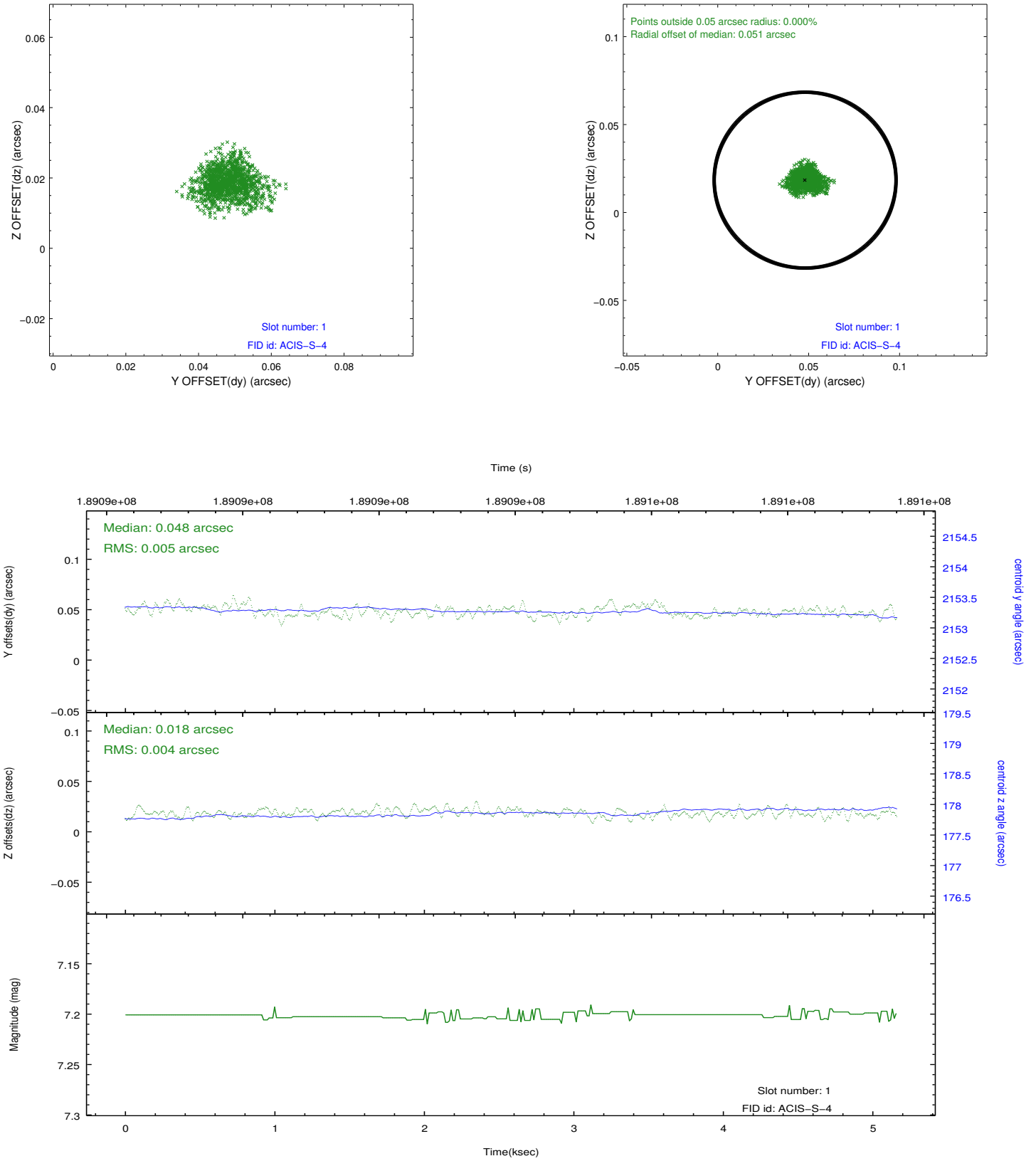


## 2.5 FID Slots

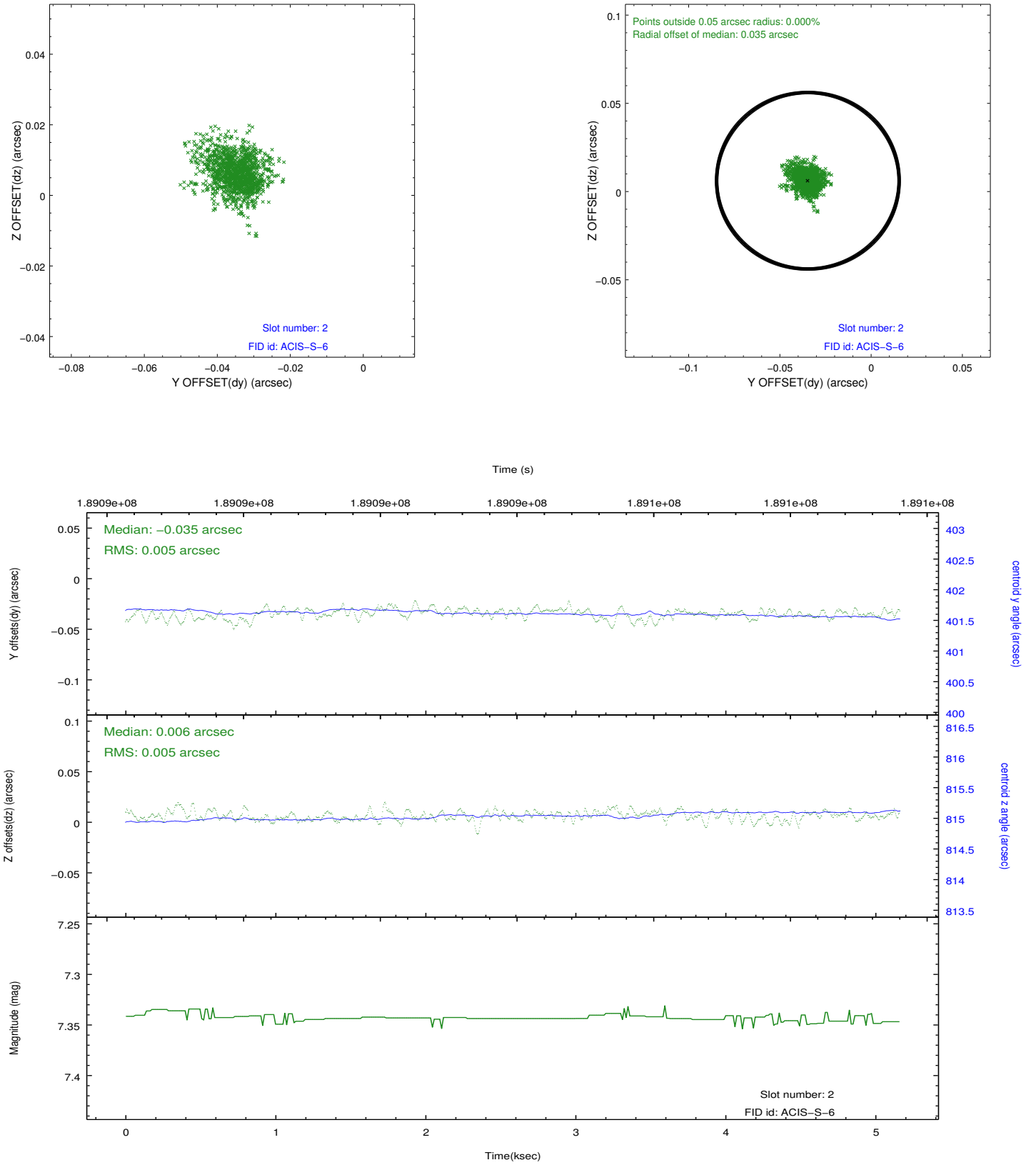
### 2.5.1 Slot 0



## 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)	2012.11.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.158

## A.2 Comments

Joint proposal with HST.