

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 354 - L2 Version 4  
Chandra X-Ray Center

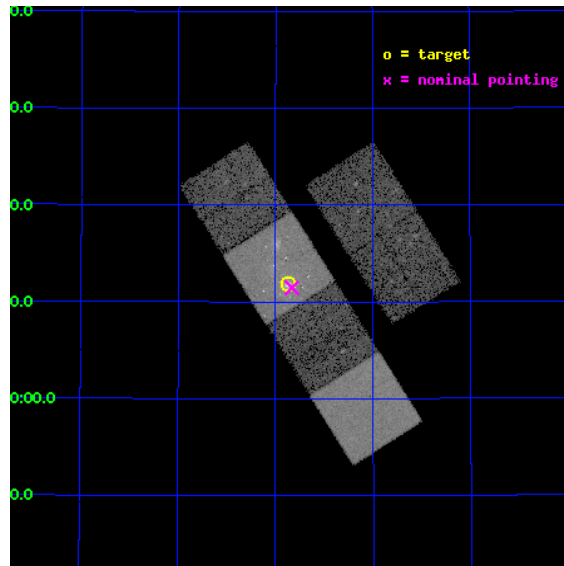
L2 Processing Date : Aug 29 2012

## 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

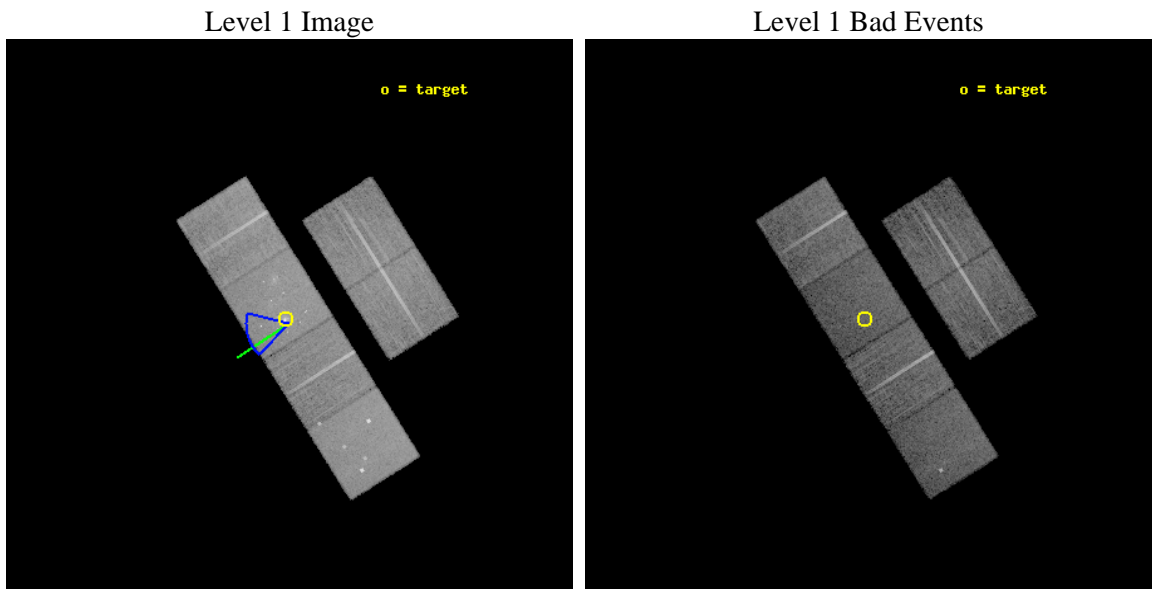
seq_num	700026	Sequence number
obs_id	354	Observation id
title	STUDIES OF RADIO JETS AND THE NARROW LINE REGIONS	Proposal title
observer	Professor Andrew Wilson	Principal investigator
object	M51	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	202.467917	Observer's specified target RA [deg]
dec_targ	47.198333	Observer's specified target Dec [deg]
ra_nom	202.45796913271	Nominal RA [deg]
dec_nom	47.191008231584	Nominal Dec [deg]
roll_nom	237.75806065907	Nominal Roll [deg]
revision	4	Processing version of data
ontime	15052.800014004	Sum of GTIs [s]
livetime	14862.192396519	Livetime [s]
ontime2	15049.559053779	Sum of GTIs [s]
ontime3	15052.800014004	Sum of GTIs [s]
ontime5	15052.800014004	Sum of GTIs [s]
ontime6	15052.800014004	Sum of GTIs [s]
ontime7	15052.800014004	Sum of GTIs [s]
ontime8	15052.800014004	Sum of GTIs [s]
l2events	152813	Number of level 2 events



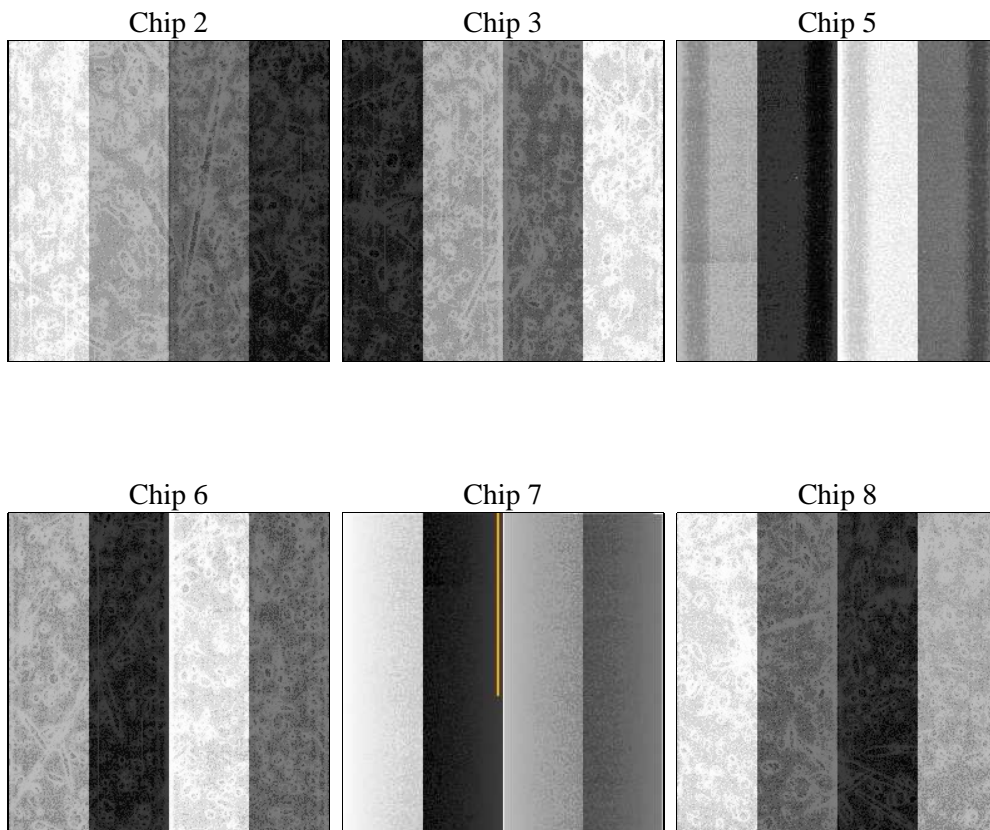
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15101.173000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	15052.800014004	Sum of GTIs [s]
caldbver	4.5.1.1	&#160	ontime2	15049.559053779	Sum of GTIs [s]
date	2012-08-29T07:56:08	Date and time of file creation	ontime3	15052.800014004	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	15052.800014004	Sum of GTIs [s]
			ontime6	15052.800014004	Sum of GTIs [s]
			ontime7	15052.800014004	Sum of GTIs [s]
			ontime8	15052.800014004	Sum of GTIs [s]
			l1events	665145	Number of level 1 events

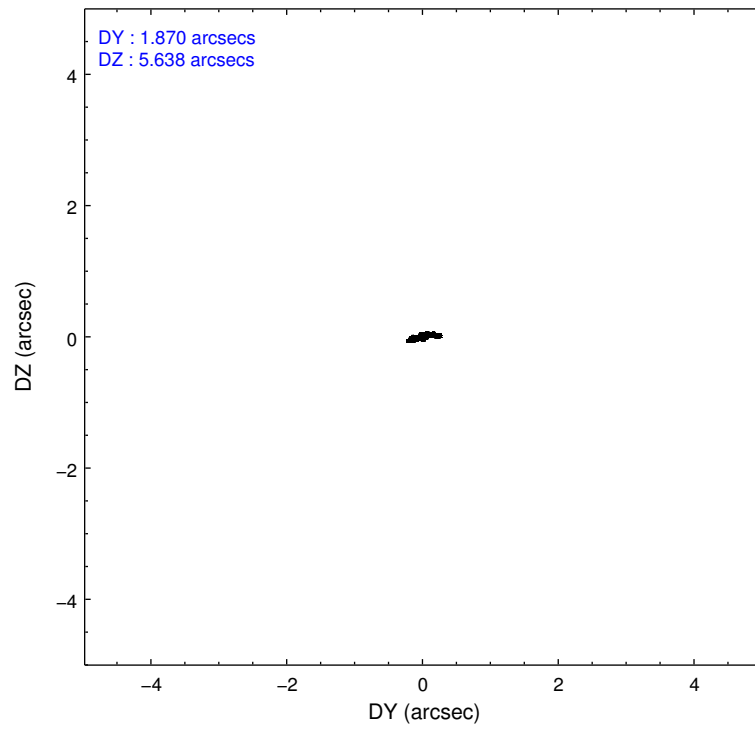
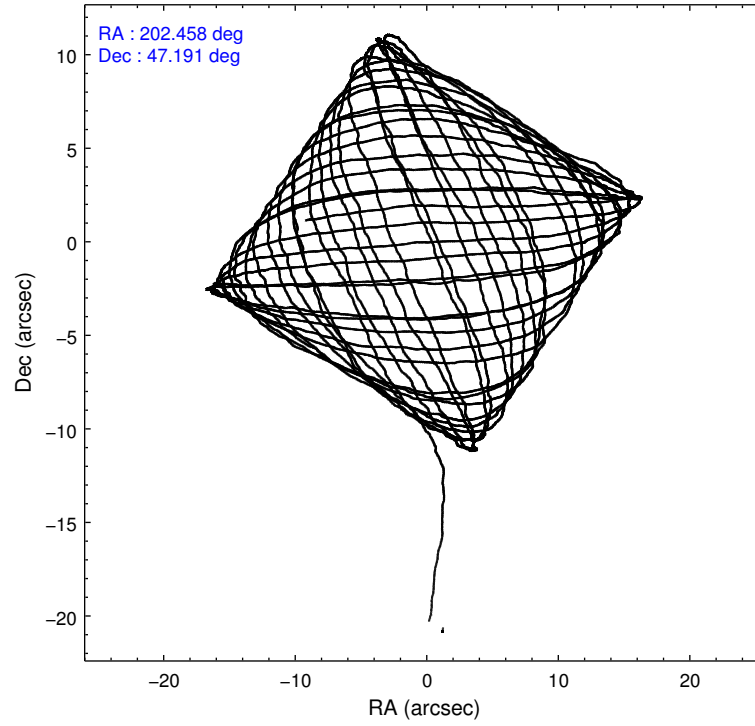
### 2.1.4 Events

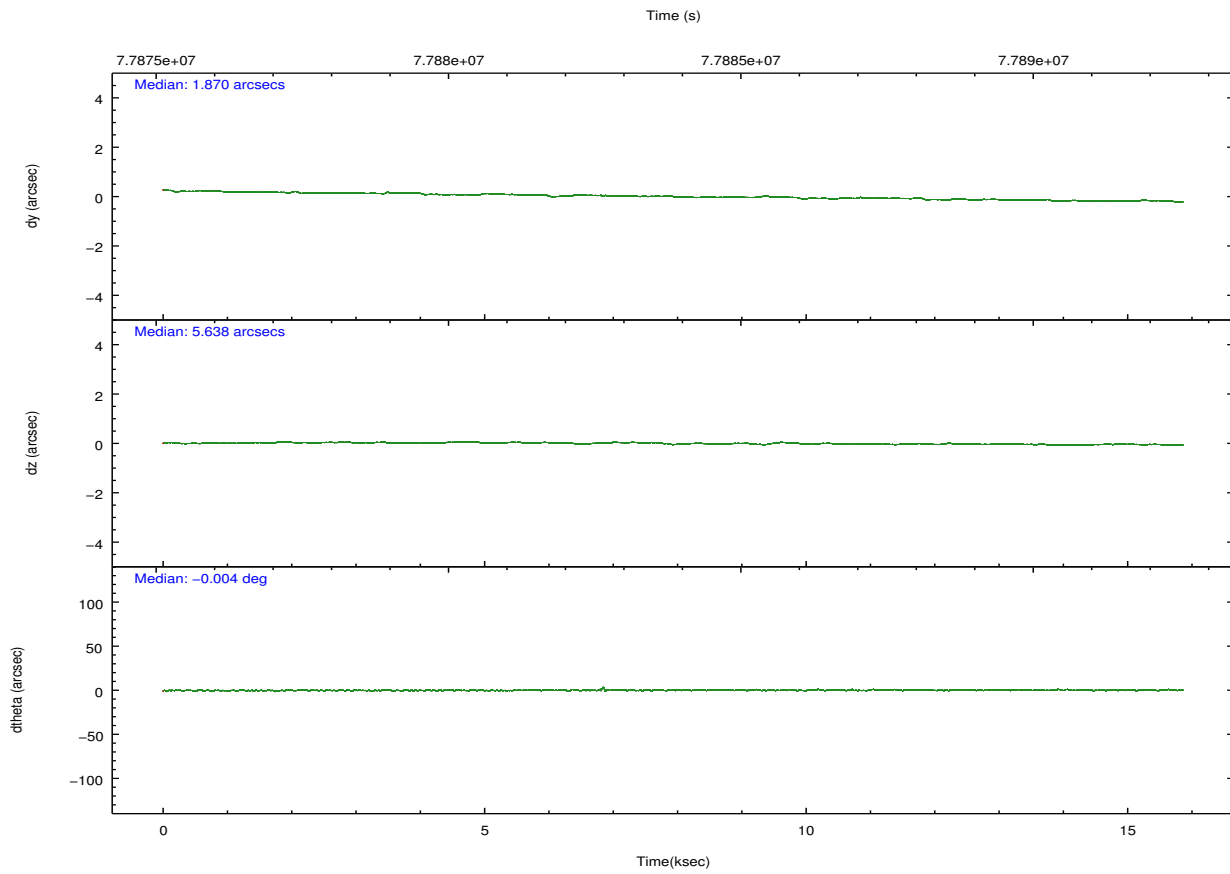
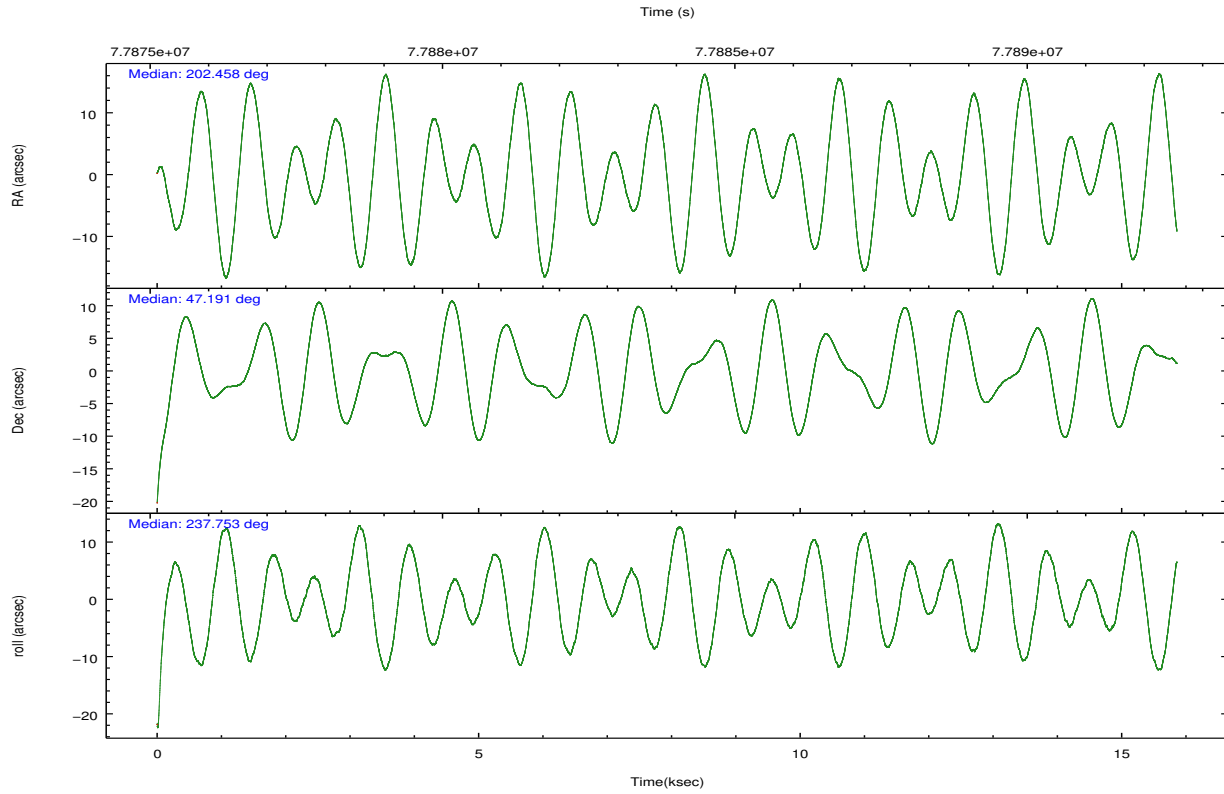
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	98008	95193	129073	95023	128935	118913	grade 0 events	4474	4624	9514	4490	10790	7480
rejected events	87608	84932	67694	84543	65337	96480		4%	4%	7%	4%	8%	6%
rejected %	89%	89%	52%	88%	50%	81%	grade 1 events	41	35	141	39	135	53
								0%	0%	0%	0%	0%	0%
							grade 2 events	2137	1964	17325	1946	13291	4506
								2%	2%	13%	2%	10%	3%
							grade 3 events	993	1004	2561	1077	6274	2558
								1%	1%	1%	1%	4%	2%
							grade 4 events	1045	933	2521	965	6169	2362
								1%	0%	1%	1%	4%	1%
							grade 5 events	3011	3145	9637	3731	10925	4508
								3%	3%	7%	3%	8%	3%
							grade 6 events	1754	1739	29473	2002	27085	5529
								1%	1%	22%	2%	21%	4%
							grade 7 events	84553	81749	57901	80773	54266	91917
								86%	85%	44%	85%	42%	77%

## 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	202.459352	202.4579691327123	Subarray requested	NONE	NONE
[deg] Pointing Dec	47.218409	47.1910082315841	Alternating exposures requested	N	N
[deg] Pointing Roll	237.600429	237.7580606590716	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	253.000000	253.000000			
[deg] Roll tolerance	30.000000	30.000000			
Roll constraint allows 180D rotation	N	N			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	77876676.184000	77875431.34328			
Observation start date	2000-06-20T08:23:32	2000-06-20T08:03:51			
[s] Observation end time (MET)	77891777.184000	77892086.568894			
Observation end date	2000-06-20T12:35:13	2000-06-20T12:41:26			
Read mode	TIMED	TIMED			

## 2.3 Aspect



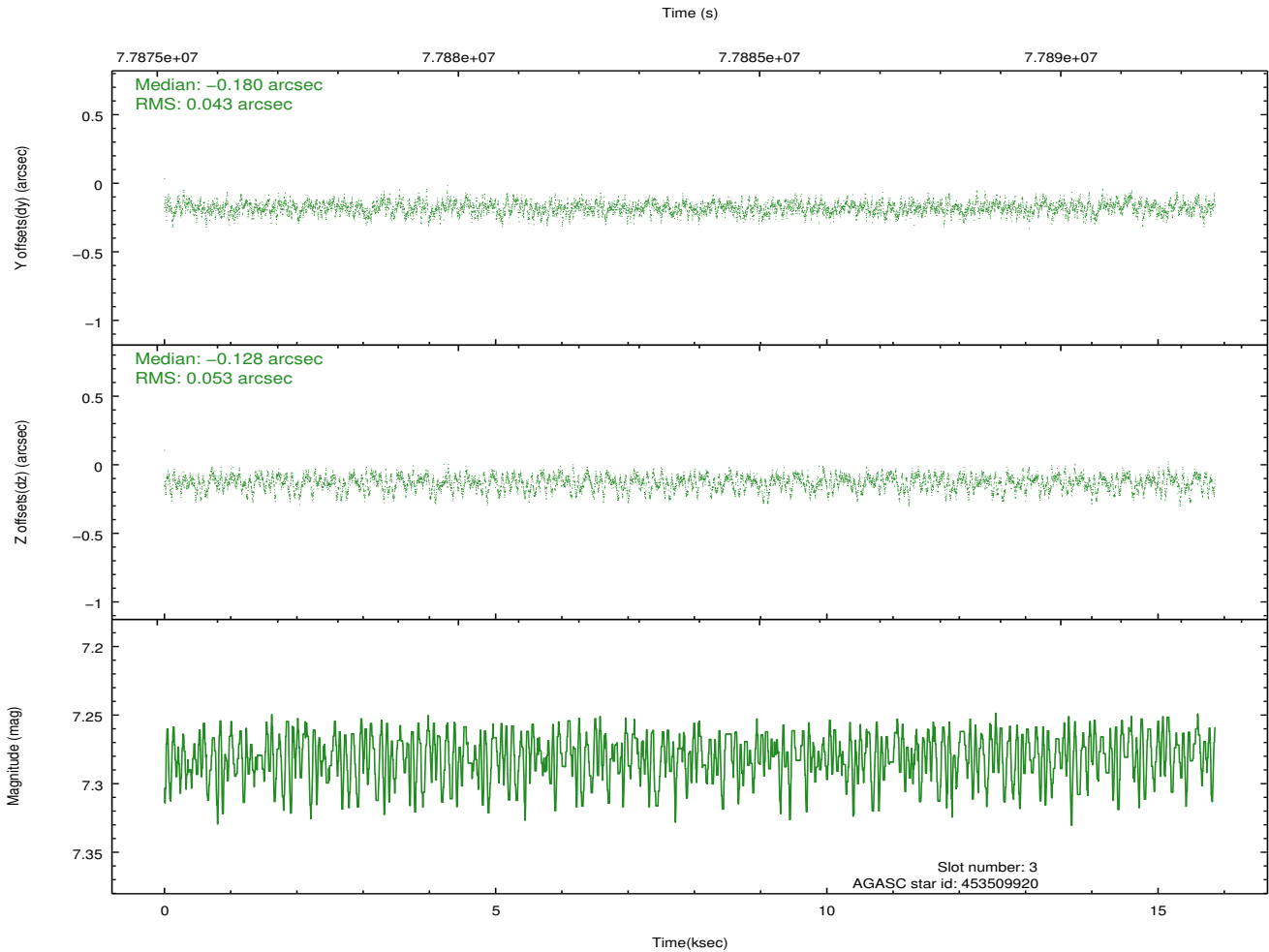
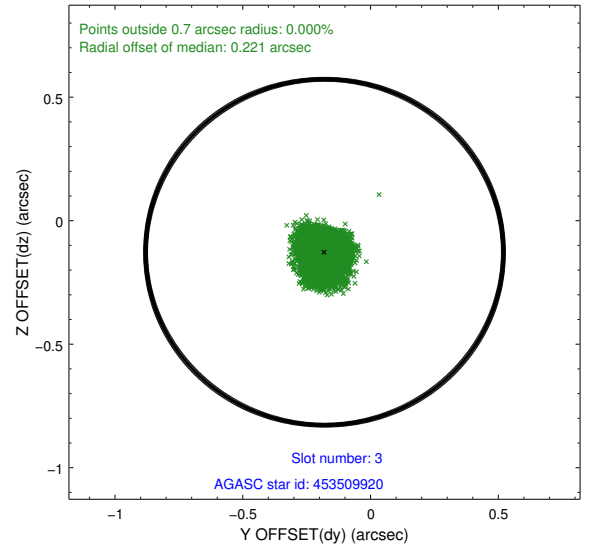
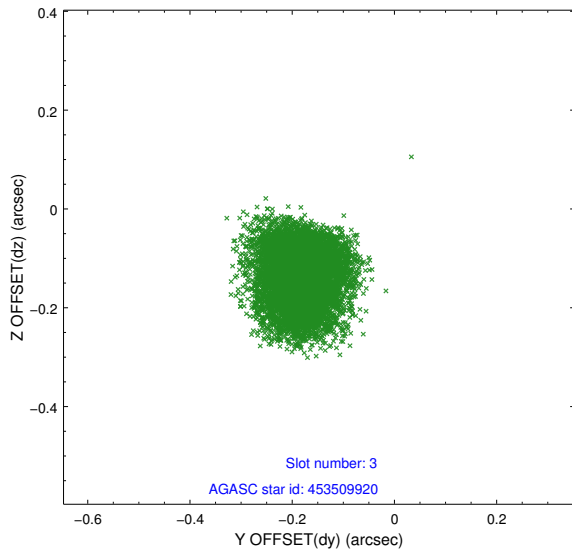


### Slot Statistics

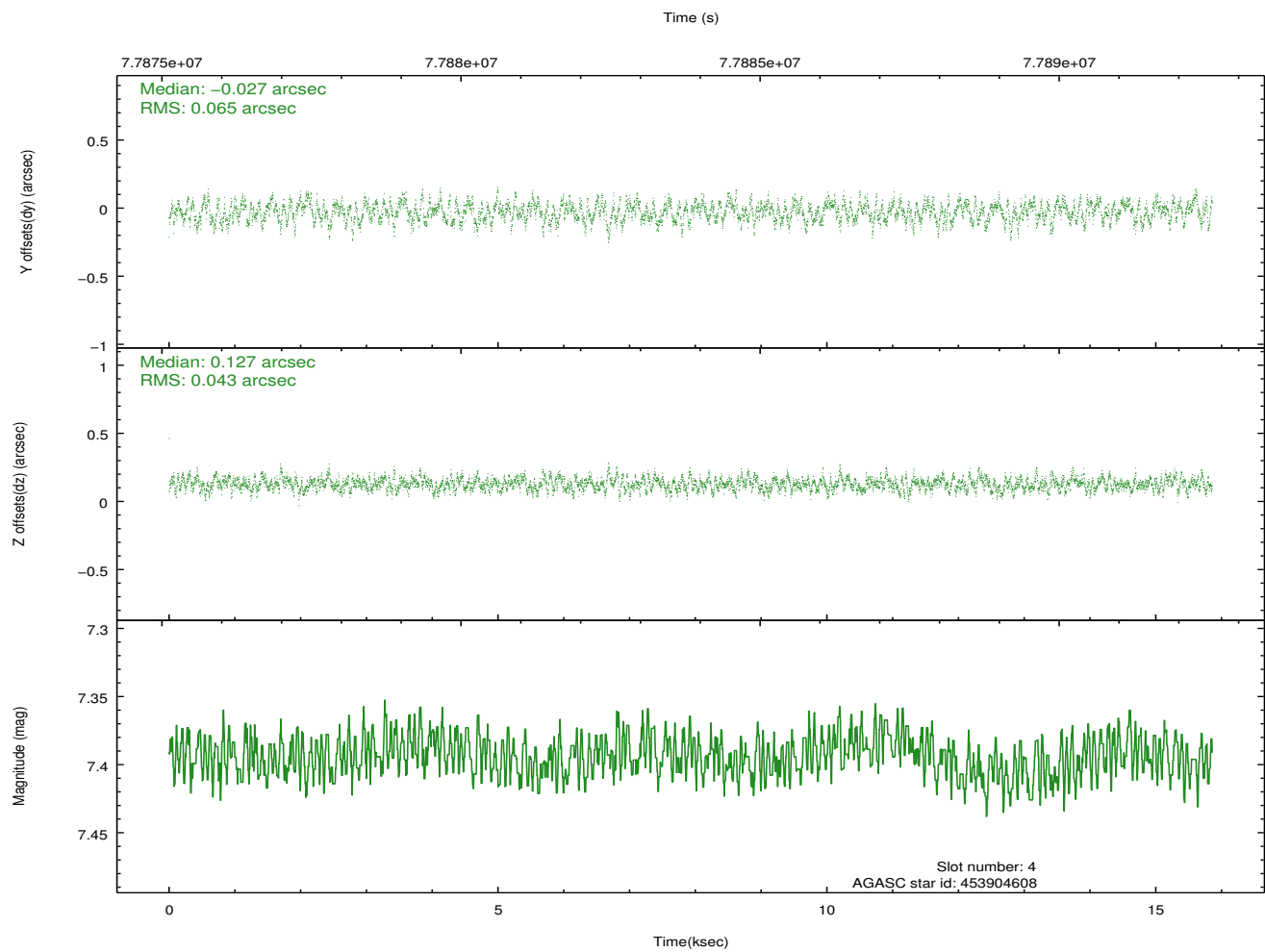
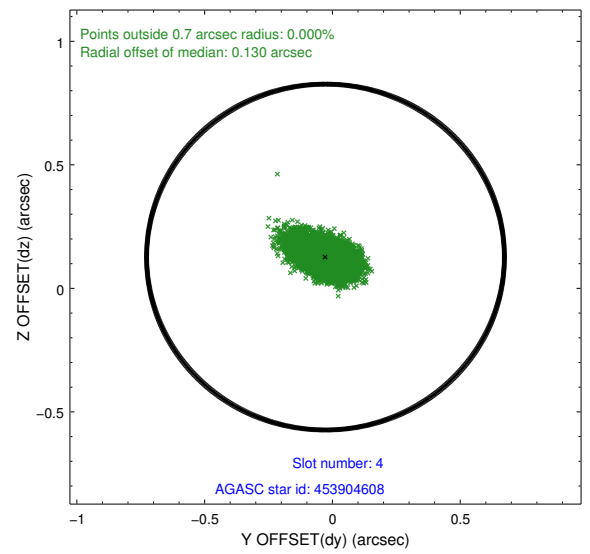
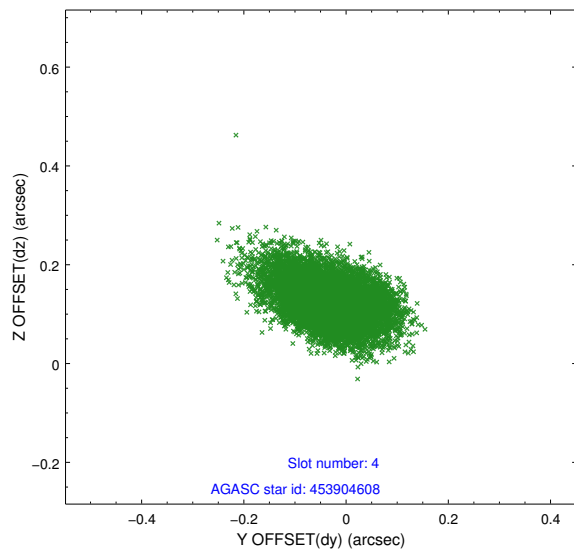
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	3869	-0.039	0.002	0.007	0.011	0.000000	0.000000	-754.51	-1726.77
1	FID	ACIS-S-4	7.21	3868	-0.005	0.018	0.005	0.010	0.000000	0.000000	2158.66	181.47
2	FID	ACIS-S-5	7.23	3869	0.013	-0.012	0.006	0.011	0.000000	0.000000	-1806.96	175.40
3	GUIDE	453509920	7.28	7737	-0.180	-0.128	0.074	0.119	202.256826	47.847140	-1648.57	-1627.20
4	GUIDE	453904608	7.39	7734	-0.027	0.127	0.081	0.136	202.983748	47.234418	-738.53	1048.34
5	GUIDE	453511800	9.16	7734	0.240	0.025	0.086	0.142	201.825327	46.820165	2043.19	-554.27
6	GUIDE	453511320	9.74	7730	0.025	-0.103	0.109	0.177	201.652270	47.423457	422.88	-2061.45
7	GUIDE	453911496	9.91	7727	-0.056	0.081	0.128	0.214	203.707485	47.376216	-2129.78	2250.51

## 2.4 Star Slots

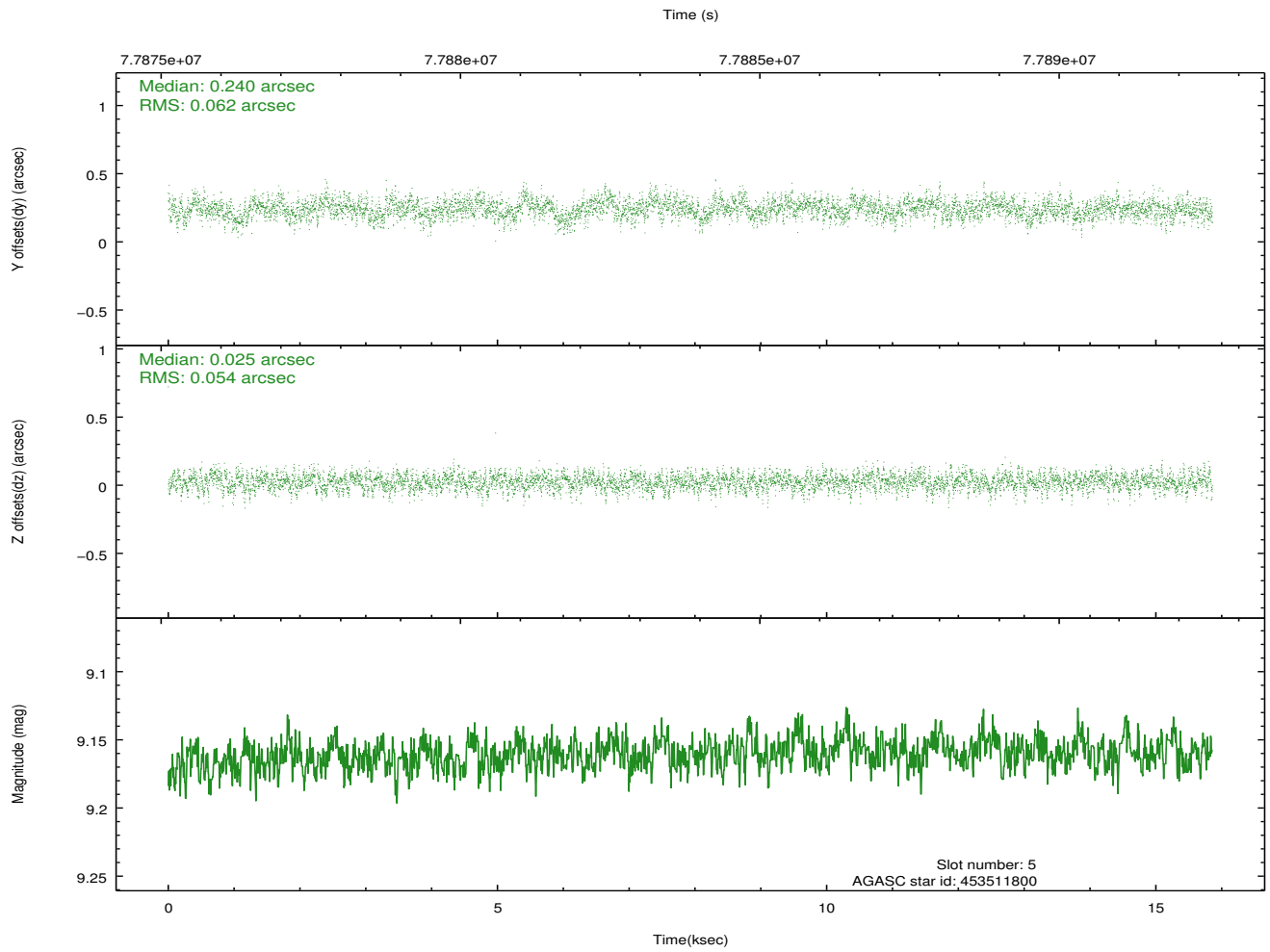
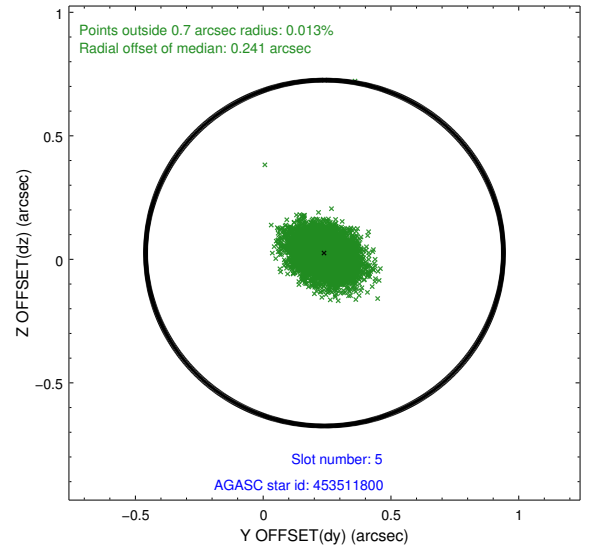
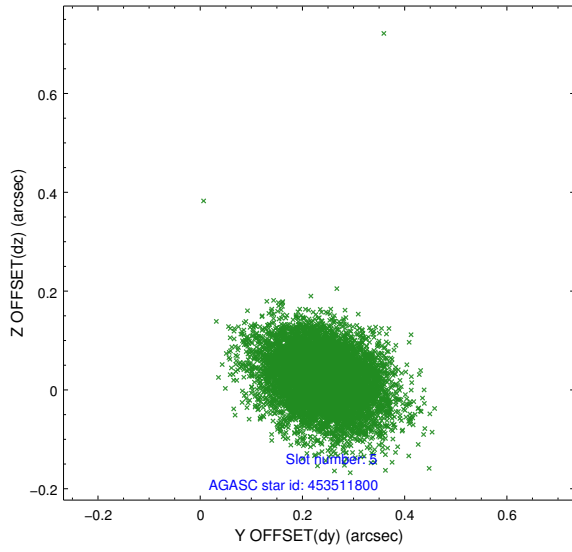
### 2.4.1 Slot 3



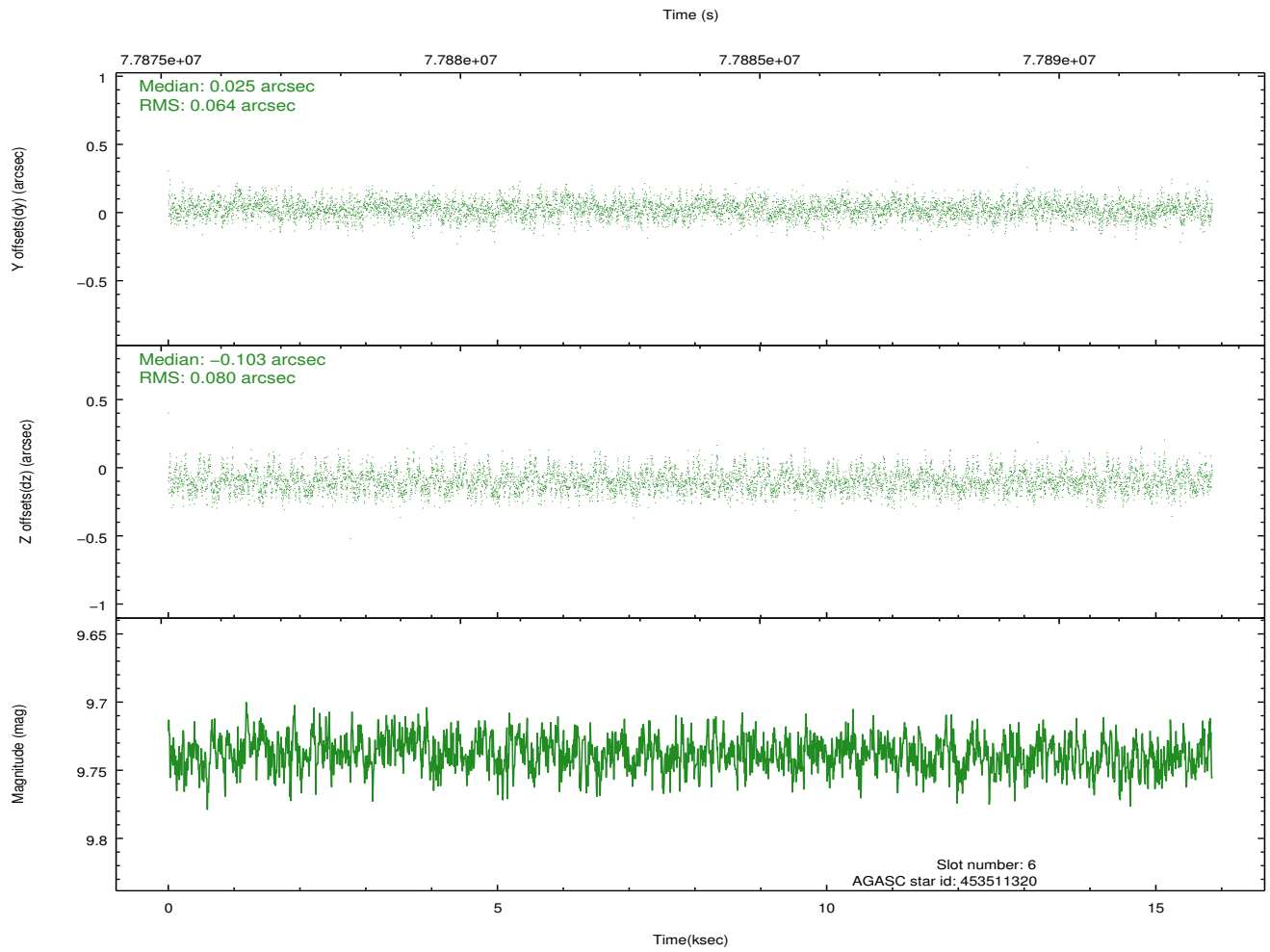
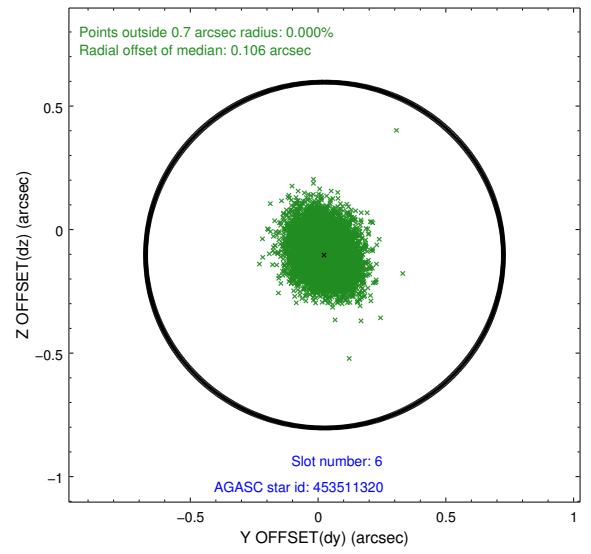
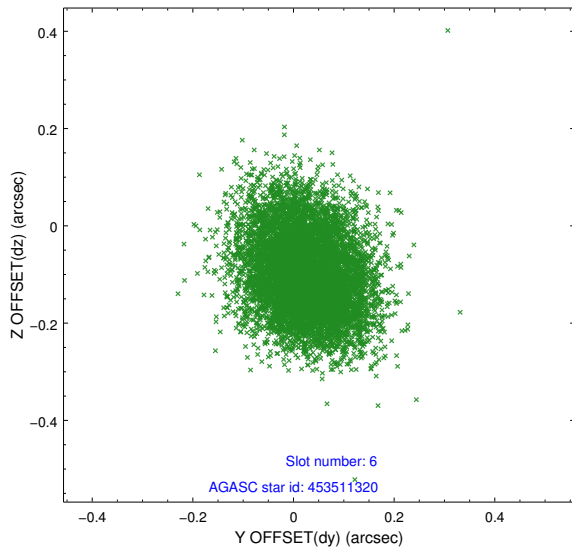
## 2.4.2 Slot 4



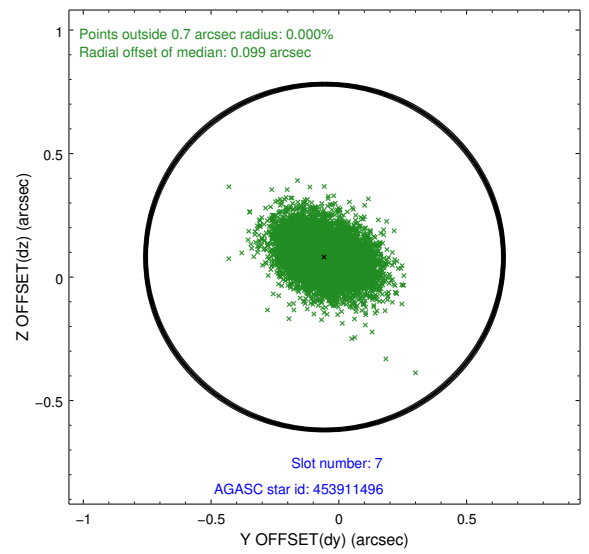
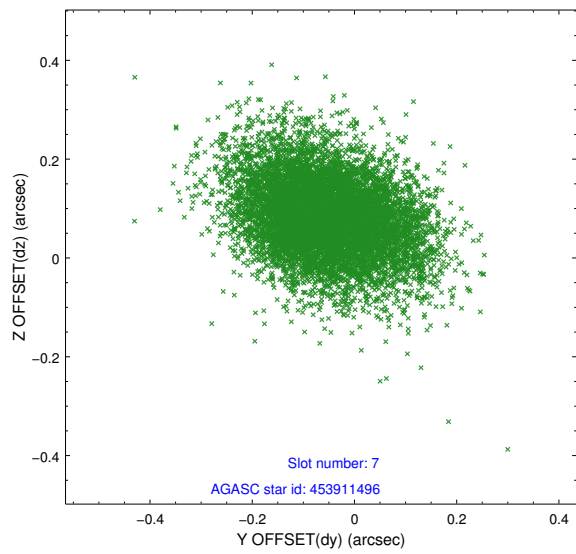
### 2.4.3 Slot 5



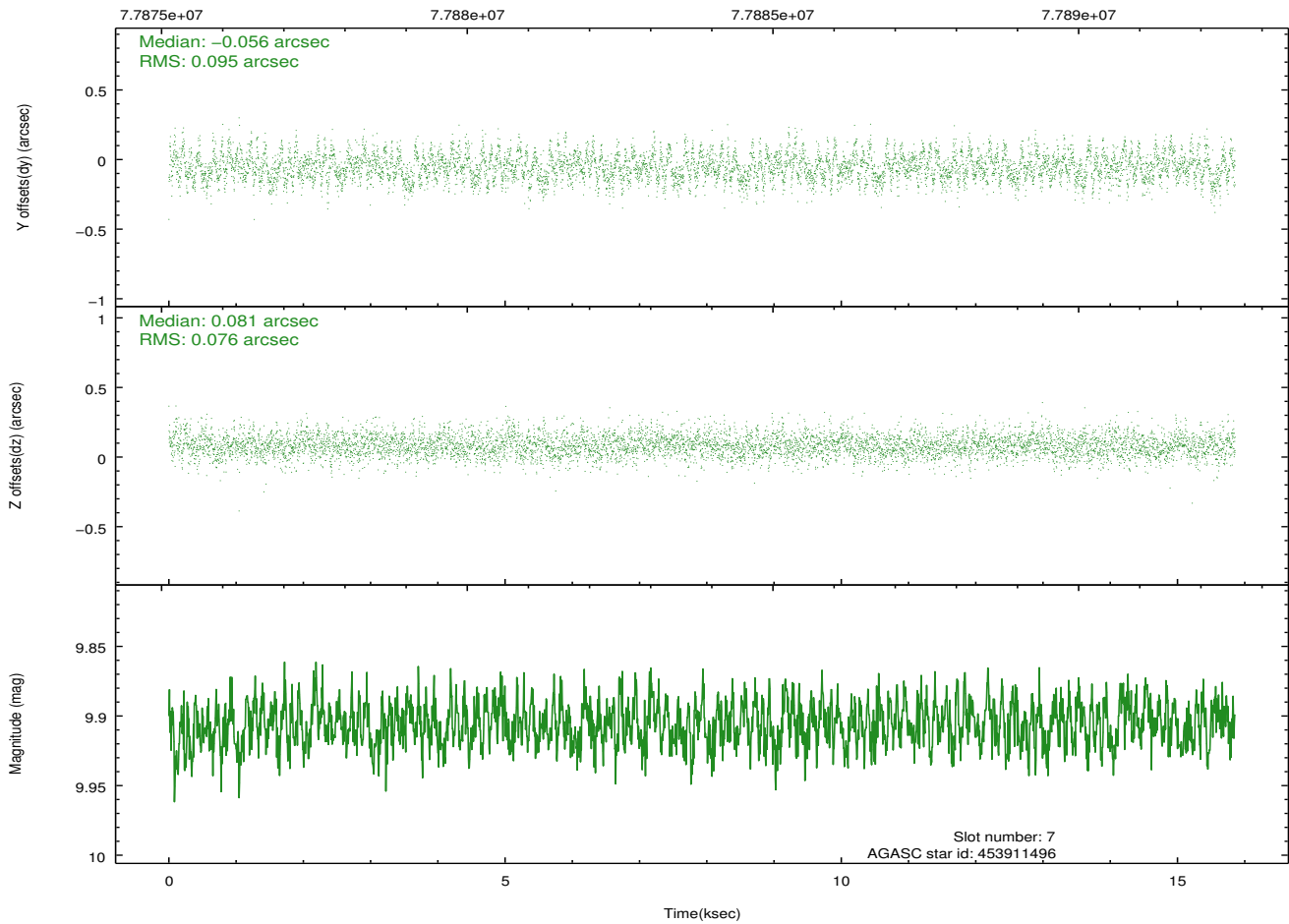
### 2.4.4 Slot 6



## 2.4.5 Slot 7

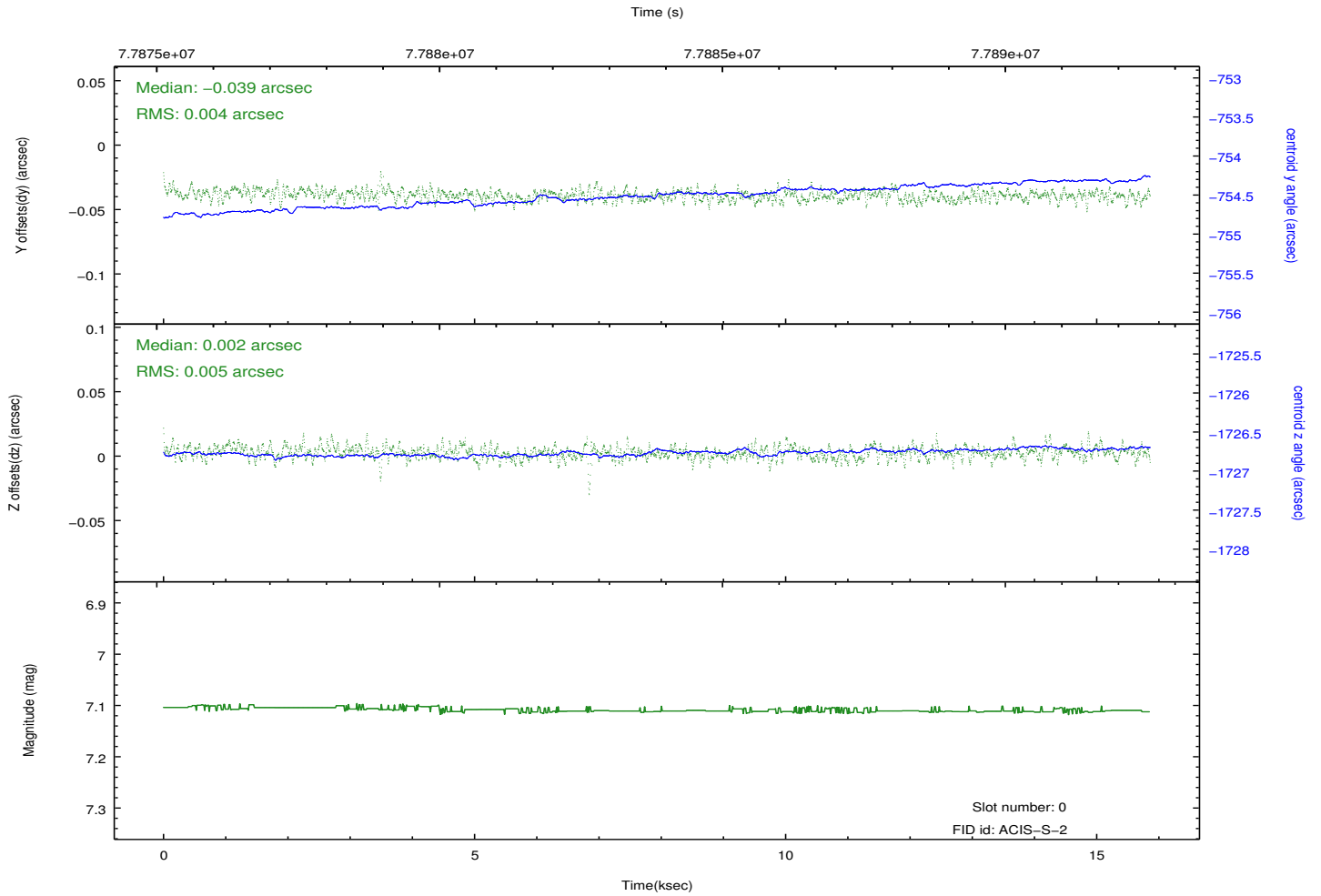
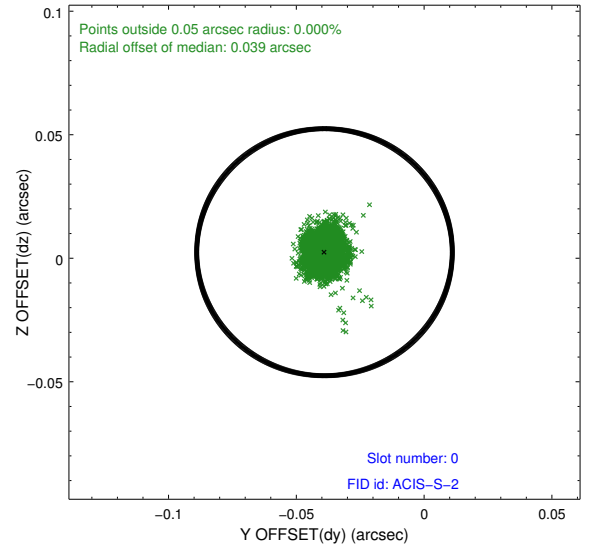
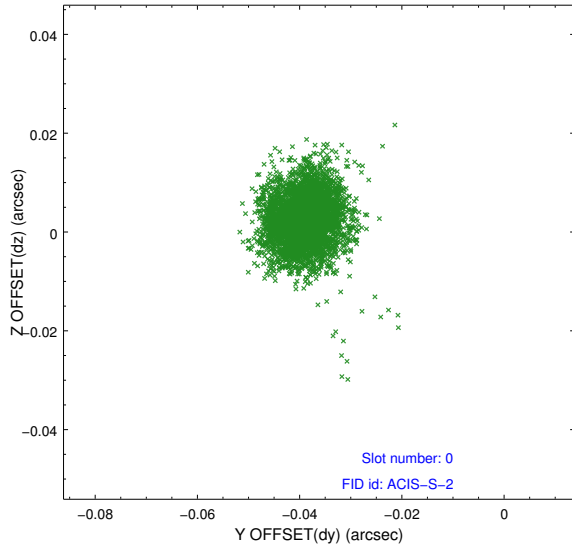


Time (s)

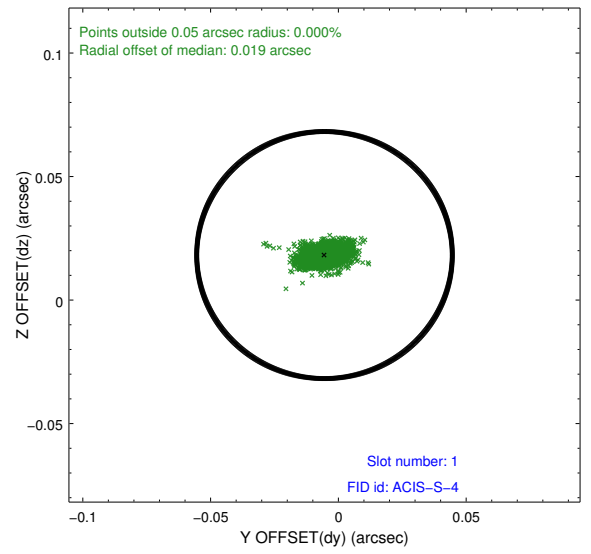
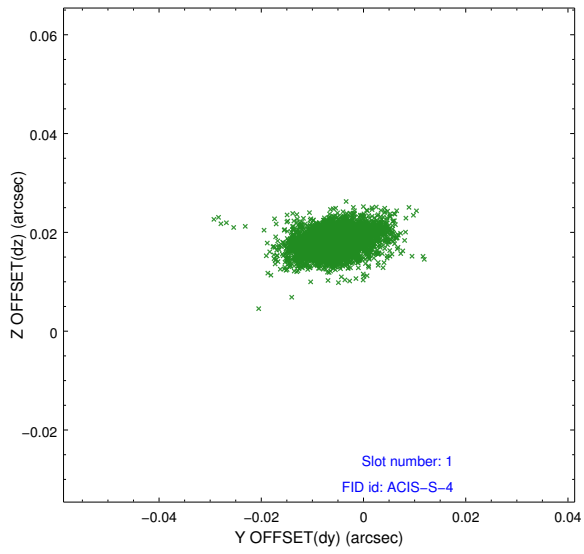


## 2.5 FID Slots

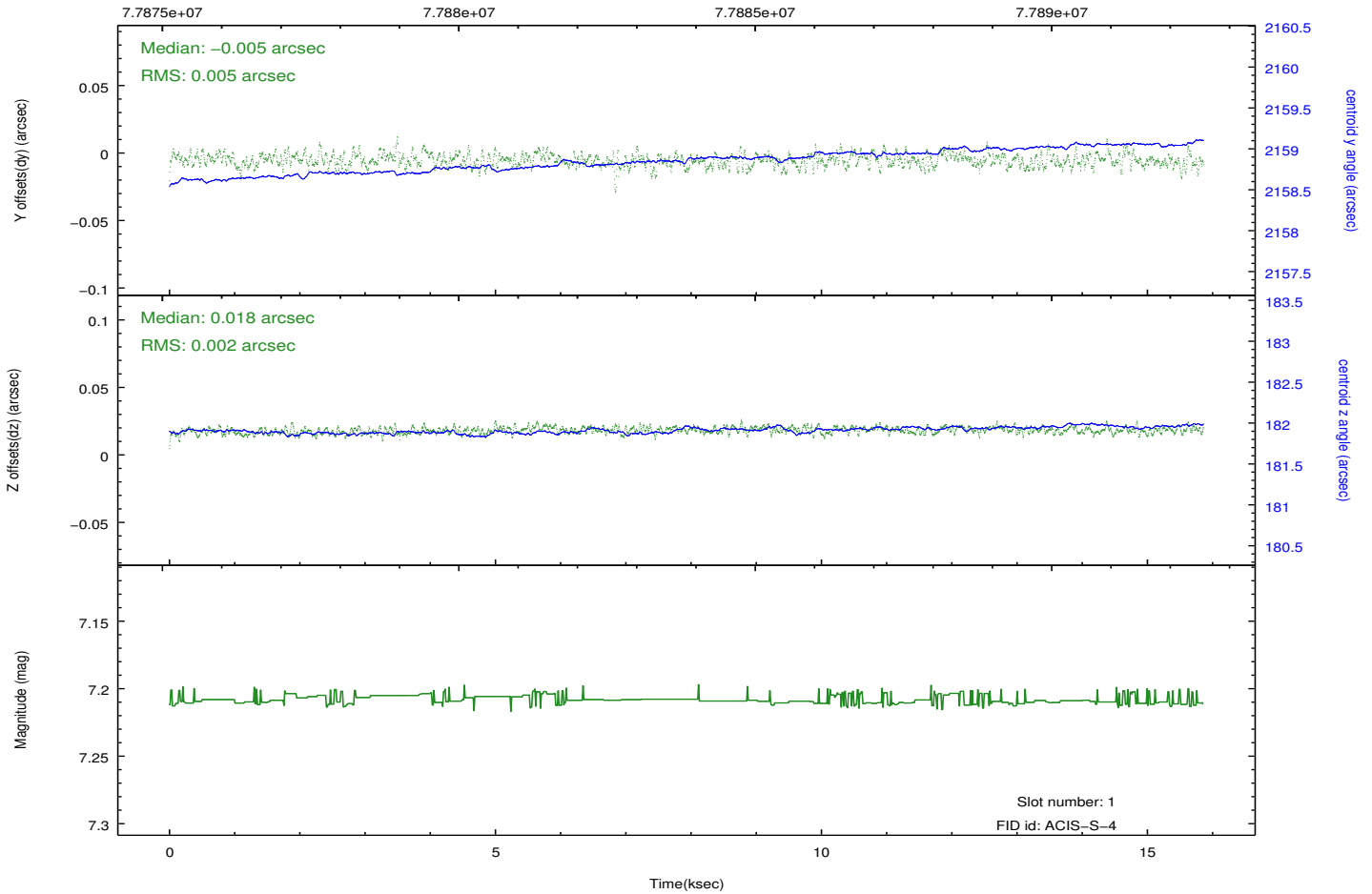
### 2.5.1 Slot 0



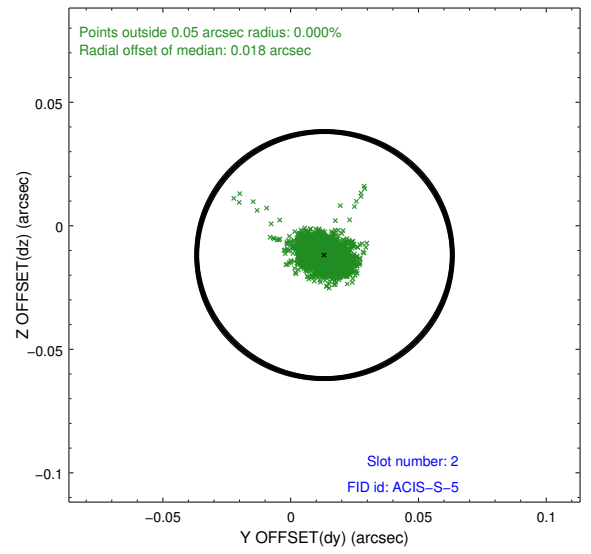
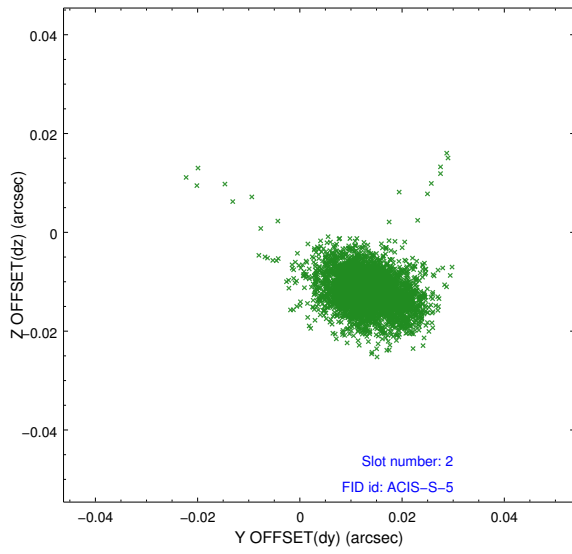
## 2.5.2 Slot 1



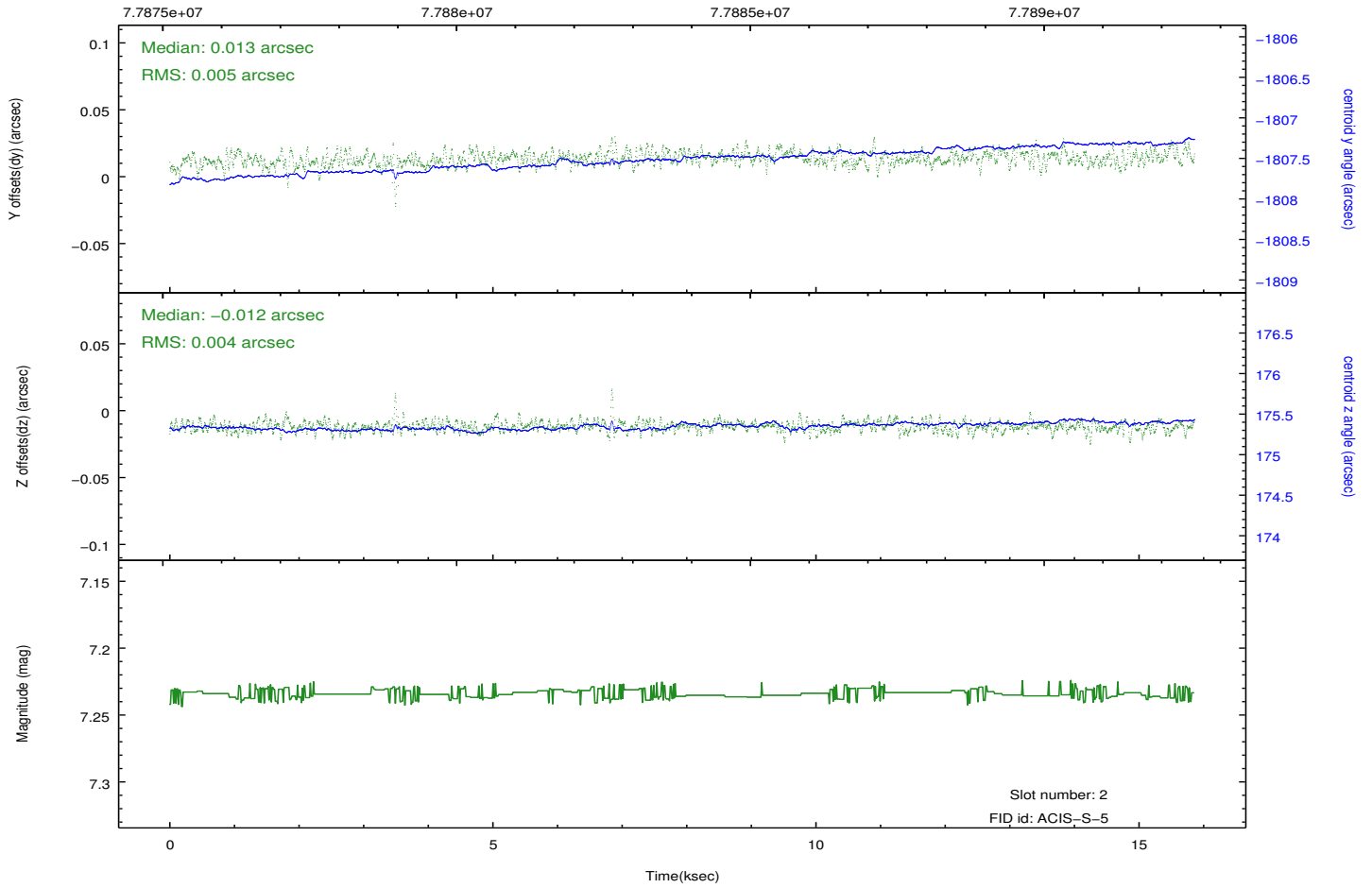
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.08.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.056

## A.2 Comments

Roll constraint met. Monitor constraint not met: follows obs353 by 91 days instead of 60 - 90 days.