

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11513 - L2 Version 2  
Chandra X-Ray Center

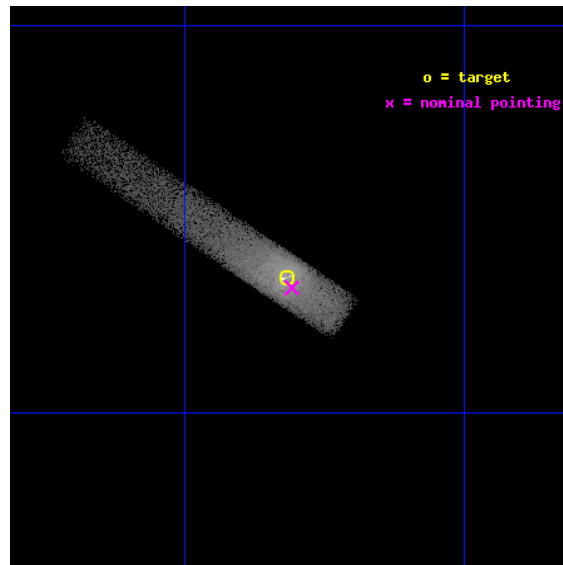
L2 Processing Date : Jun 24 2012

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# 1 Front

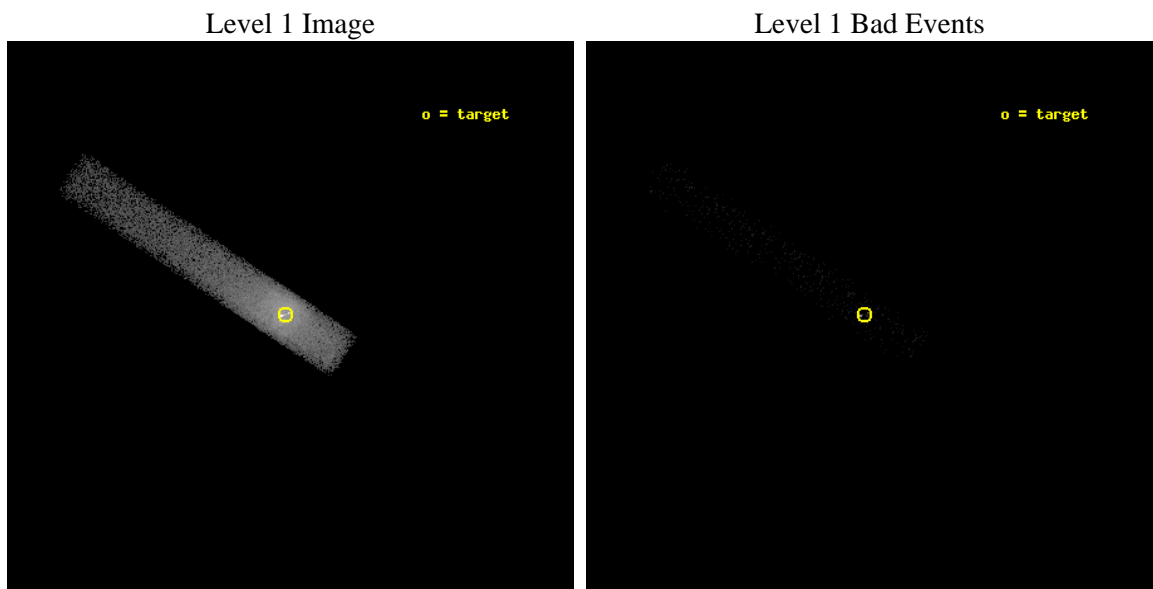
seq_num	702099	Sequence number
obs_id	11513	Observation id
title	The X-ray - TeV Connection in M87	Proposal title
observer	Dr. Daniel Harris	Principal investigator
object	M87	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.704167	Observer's specified target RA [deg]
dec_targ	12.391667	Observer's specified target Dec [deg]
ra_nom	187.70202385697	Nominal RA [deg]
dec_nom	12.387275281203	Nominal Dec [deg]
roll_nom	213.60357952459	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5185.5996909142	Sum of GTIs [s]
livetime	4703.0652012644	Livetime [s]
ontime7	5185.5996909142	Sum of GTIs [s]
l2events	49488	Number of level 2 events



## 2 OBI

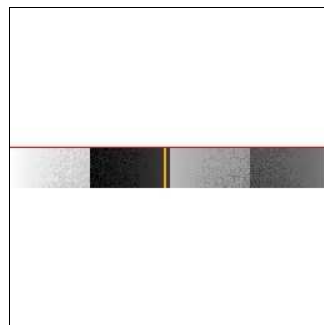
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 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	5185.5996909142	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime7	5185.5996909142	Sum of GTIs [s]
date	2012-06-24T08:04:55	Date and time of file creation	l1events	55676	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	55676
rejected events	5639
rejected %	10%

	<b>ccd 7</b>
grade 0 events	15458
	27%
grade 1 events	71
	0%
grade 2 events	13632
	24%
grade 3 events	6081
	10%
grade 4 events	5985
	10%
grade 5 events	1089
	1%
grade 6 events	10428
	18%
grade 7 events	2932
	5%

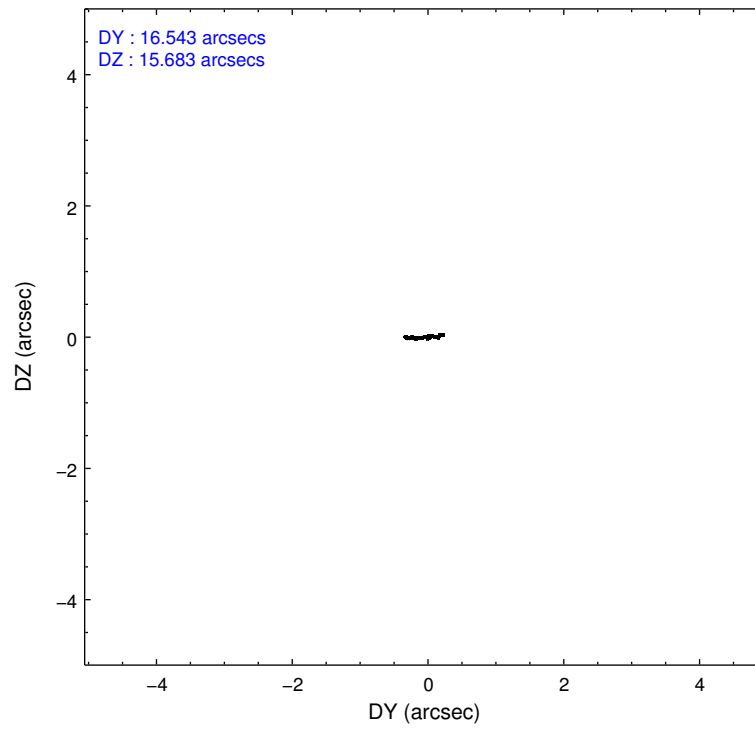
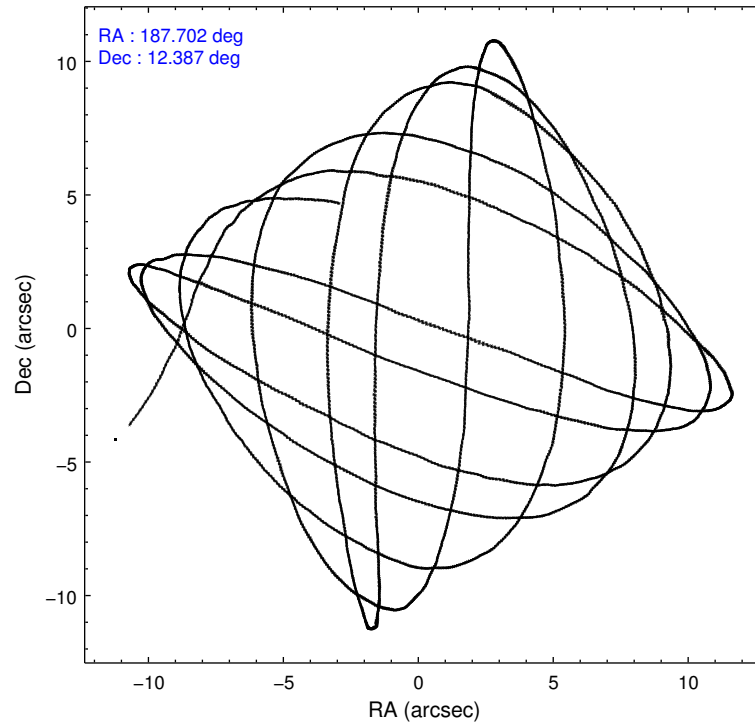


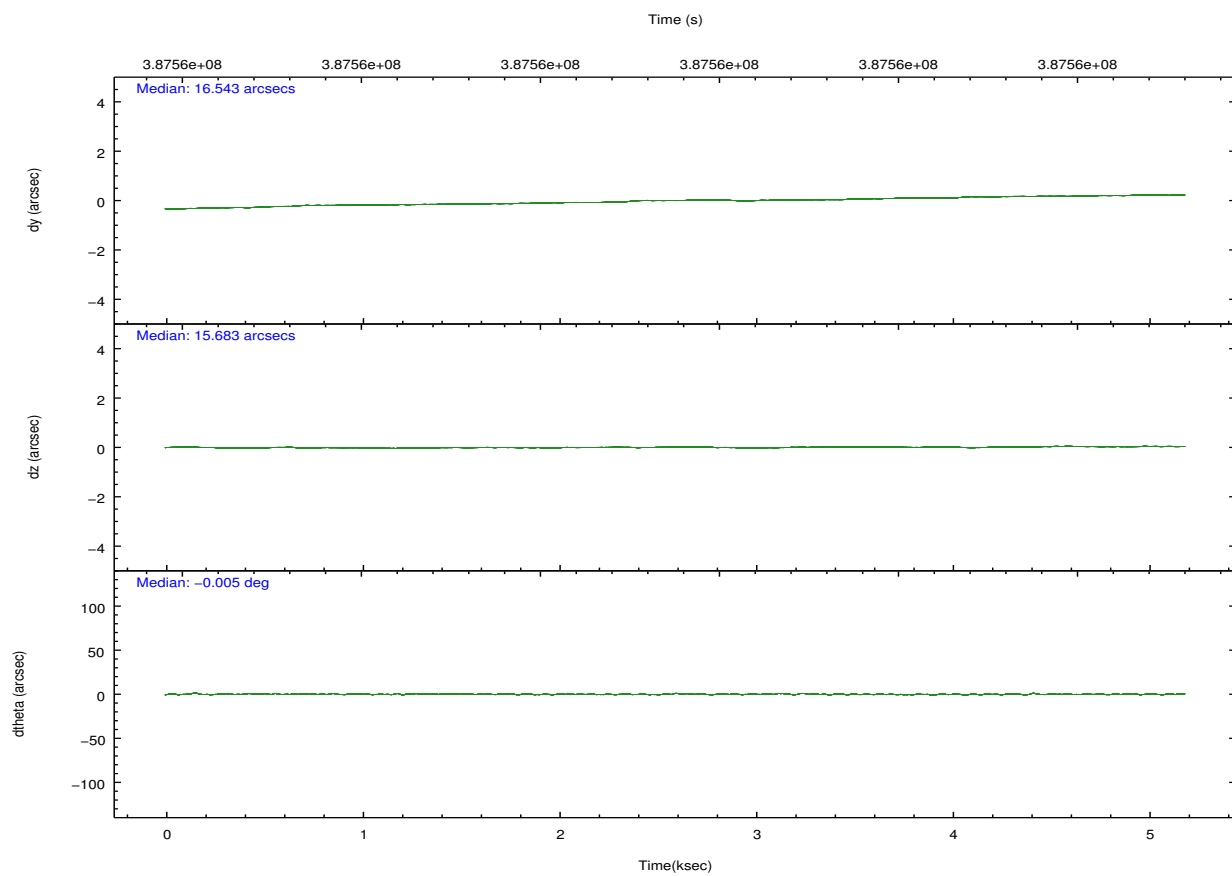
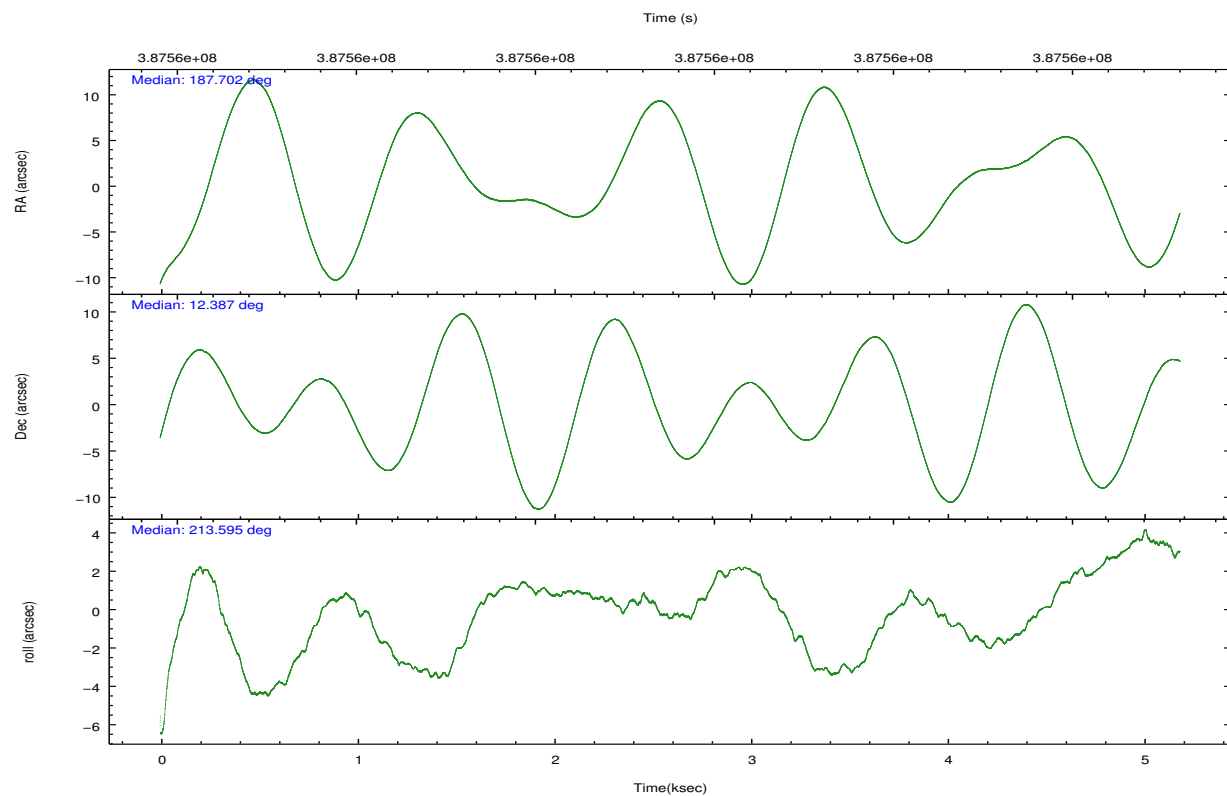
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	187.714199	187.7020238569701
[deg] Pointing Dec	12.411922	12.38727528120255
[deg] Pointing Roll	213.444340	213.6035795245887
[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)	387556338.184000	387555403.7486
Observation start date	2010-04-13T14:31:12	2010-04-13T14:16:43
[s] Observation end time (MET)	387561338.184000	387561593.21141
Observation end date	2010-04-13T15:54:32	2010-04-13T15:59:53
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/8
Subarray start row	449	449
Subarray row count	128	128
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.4

## 2.3 Aspect



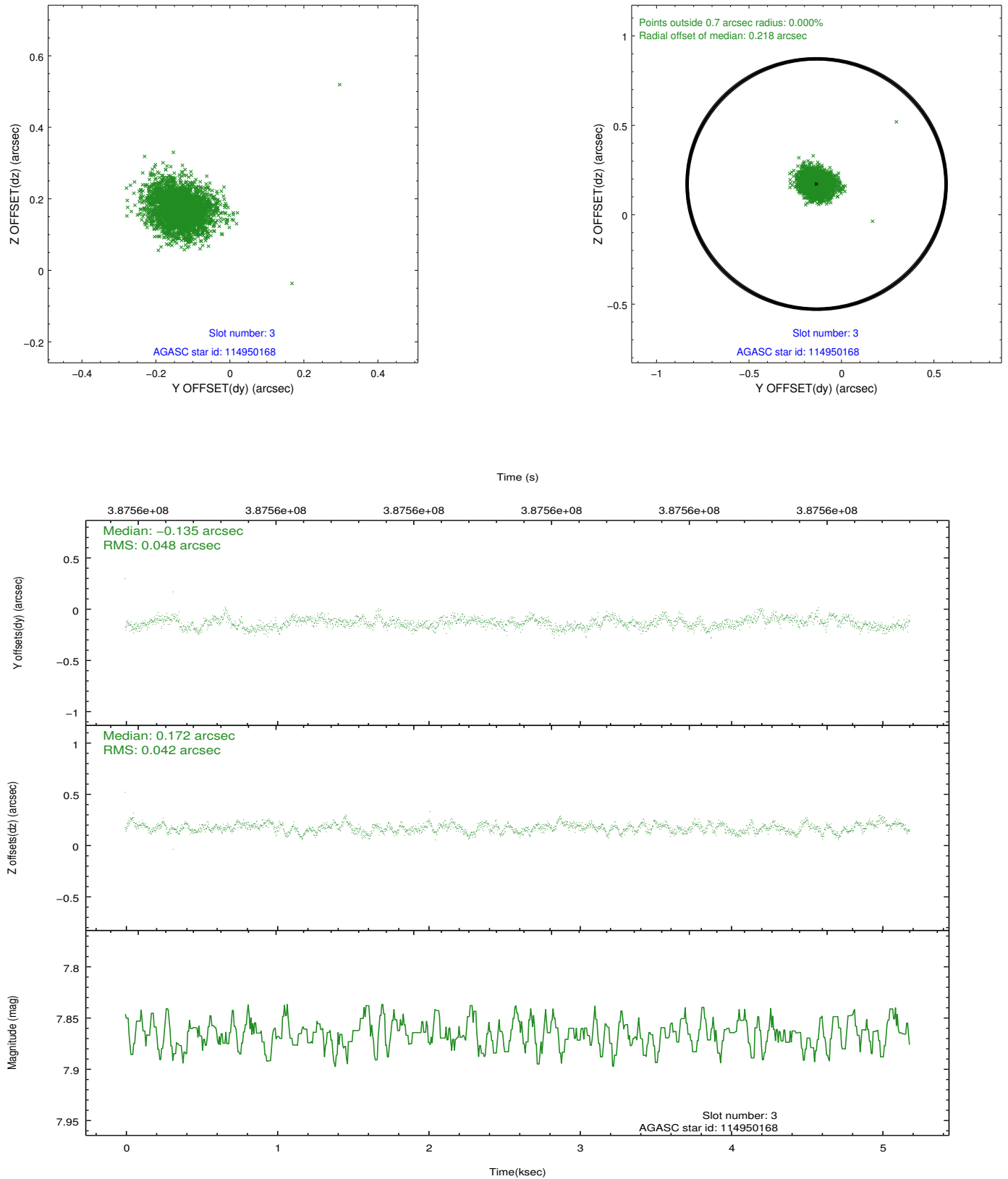


### Slot Statistics

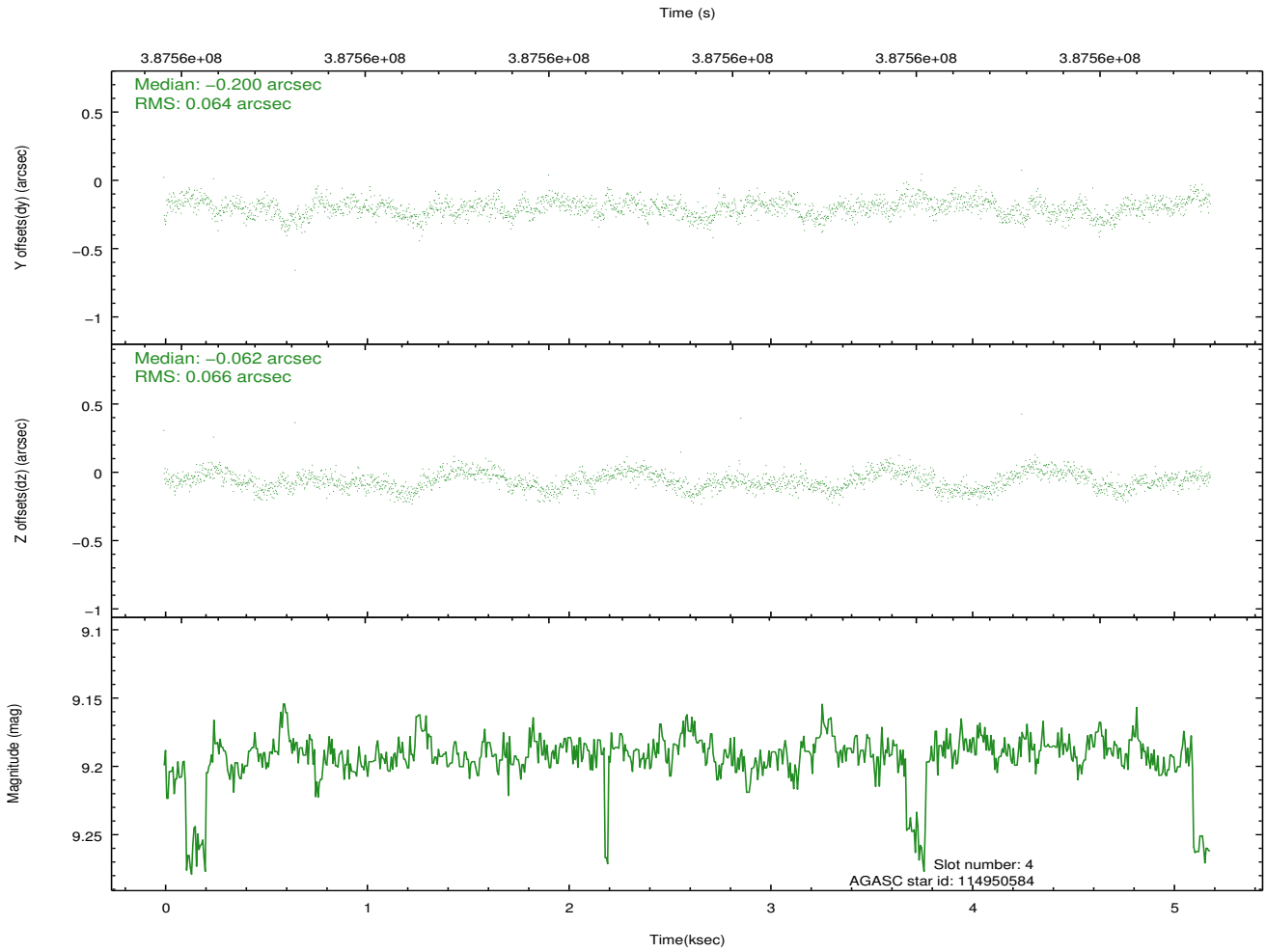
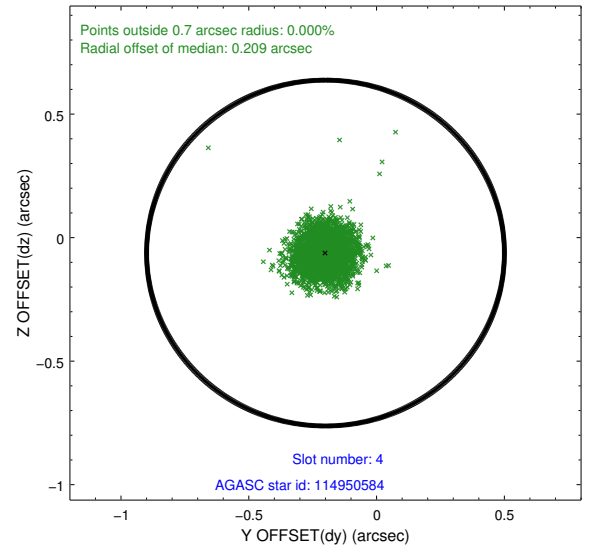
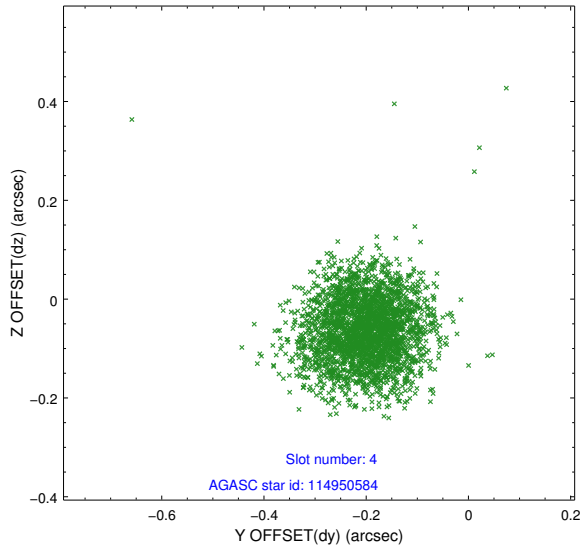
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.91	1265	-0.101	-0.036	0.007	0.012	0.000000	0.000000	-769.61	-1737.13
1	FID	ACIS-S-4	6.99	1265	0.211	0.058	0.005	0.010	0.000000	0.000000	2143.42	170.27
2	FID	ACIS-S-5	7.02	1265	-0.141	-0.013	0.007	0.012	0.000000	0.000000	-1821.01	165.16
3	GUIDE	114950168	7.86	2526	-0.135	0.172	0.067	0.105	187.143398	12.117441	2259.62	-223.60
4	GUIDE	114950584	9.19	2526	-0.200	-0.062	0.098	0.152	187.487323	11.827248	1827.86	1315.64
5	GUIDE	114952792	9.49	2526	-0.106	0.061	0.126	0.206	187.070263	12.344747	2023.33	-1047.67
6	GUIDE	114952824	8.58	2530	0.025	0.140	0.079	0.123	187.703904	12.486727	-116.86	-244.95
7	GUIDE	114955056	8.31	2529	0.417	-0.299	0.080	0.132	187.914001	12.127854	-22.92	1240.34

## 2.4 Star Slots

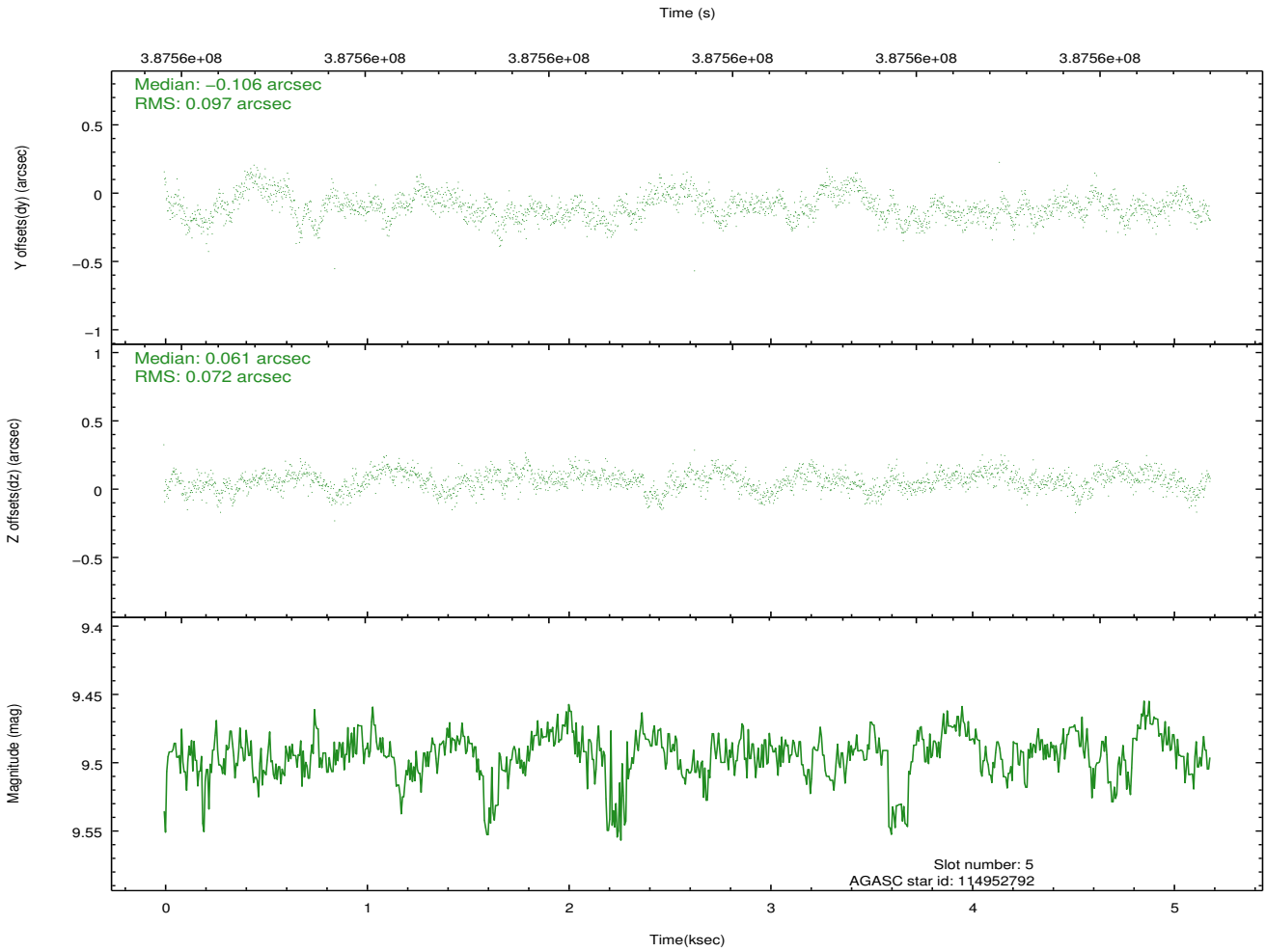
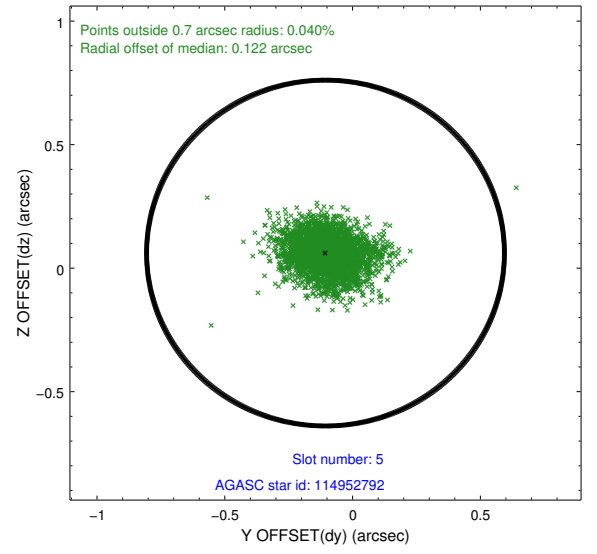
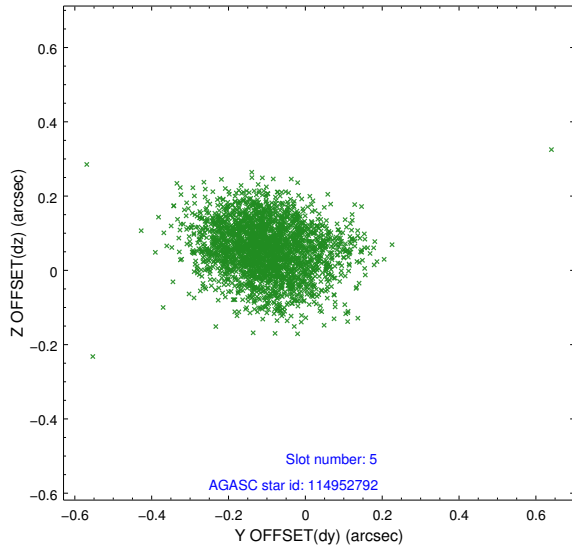
### 2.4.1 Slot 3



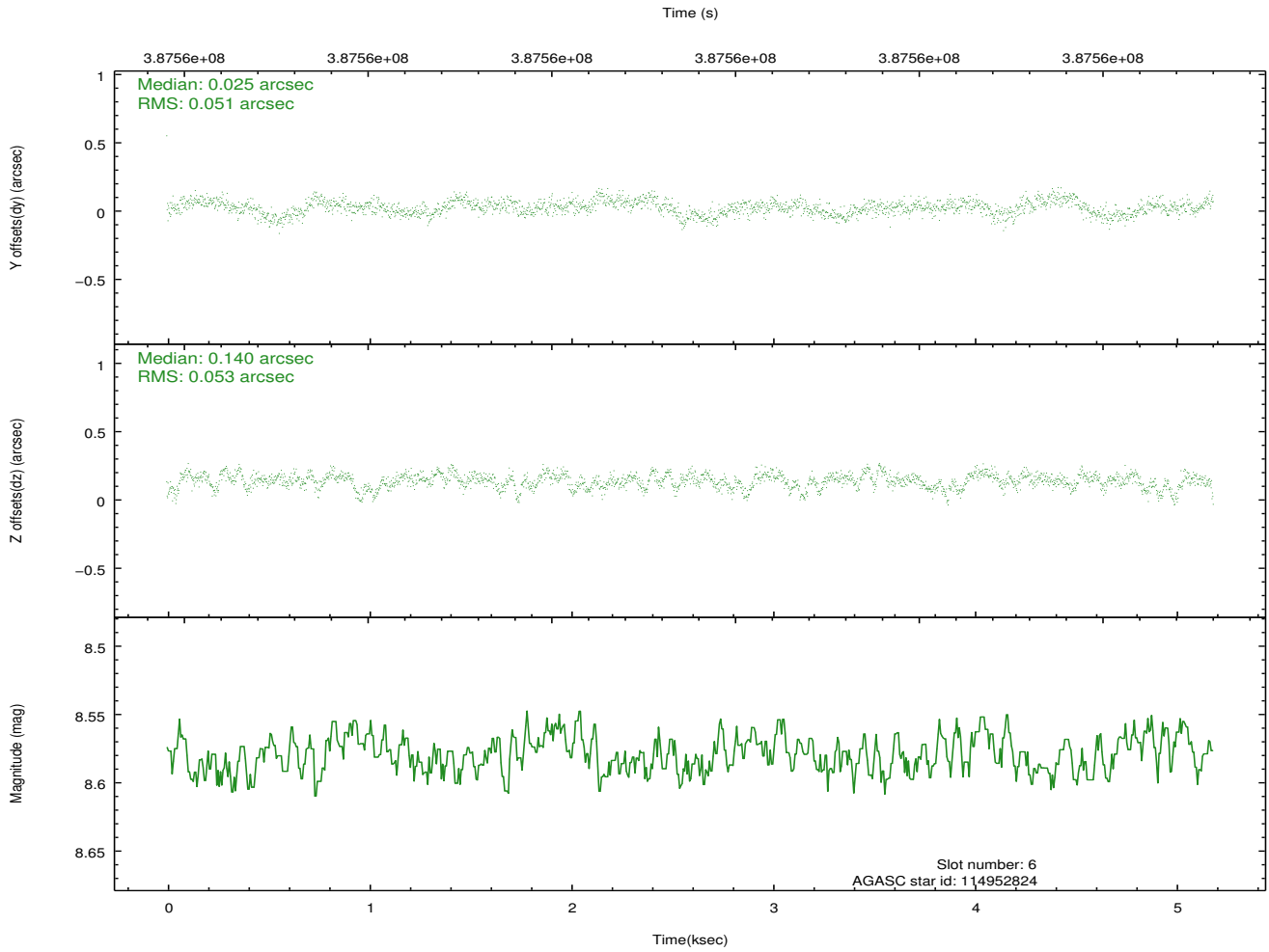
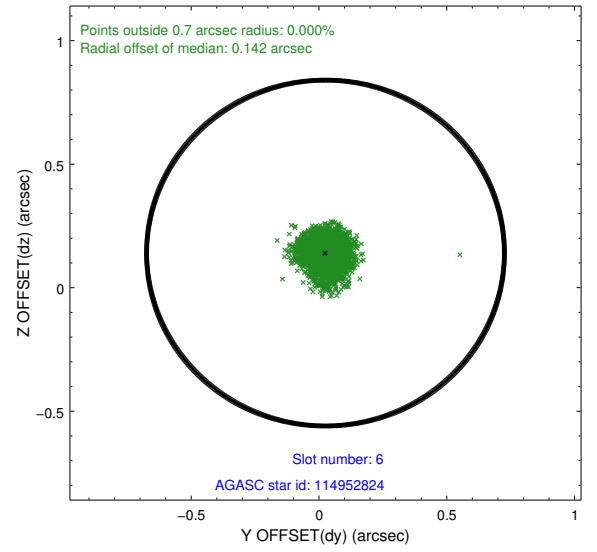
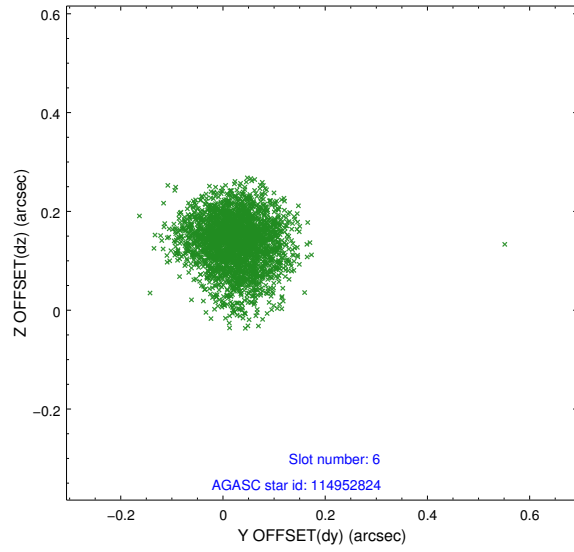
## 2.4.2 Slot 4



### 2.4.3 Slot 5

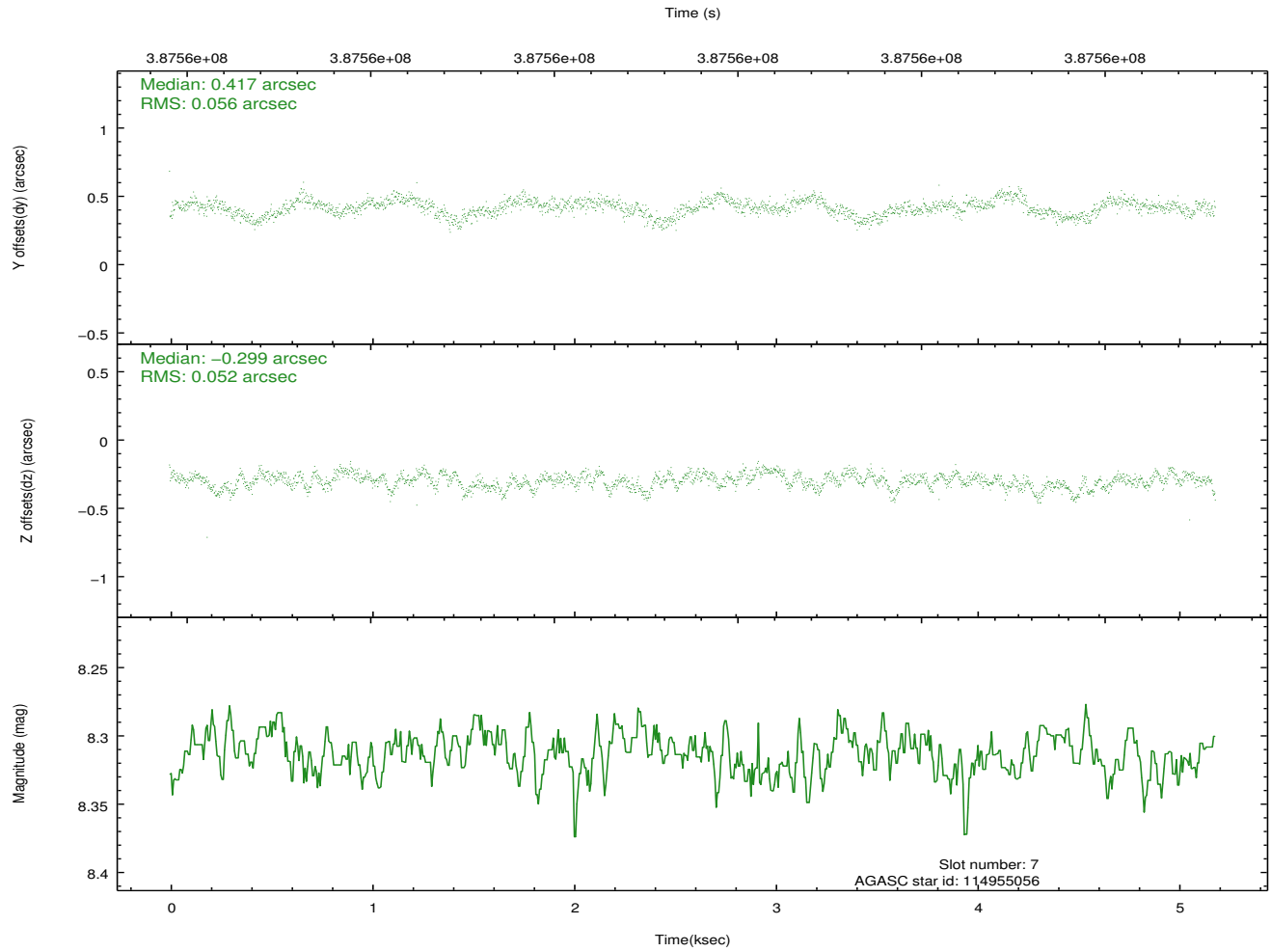
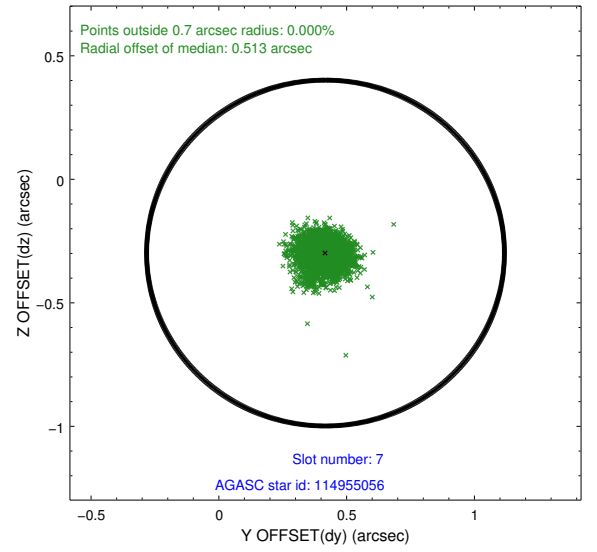
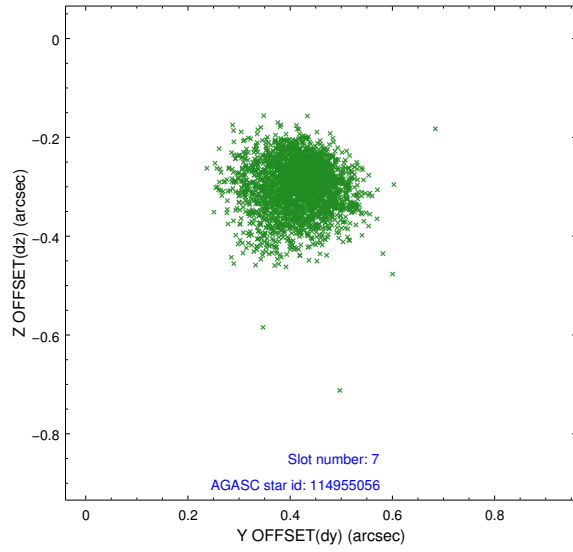


## 2.4.4 Slot 6



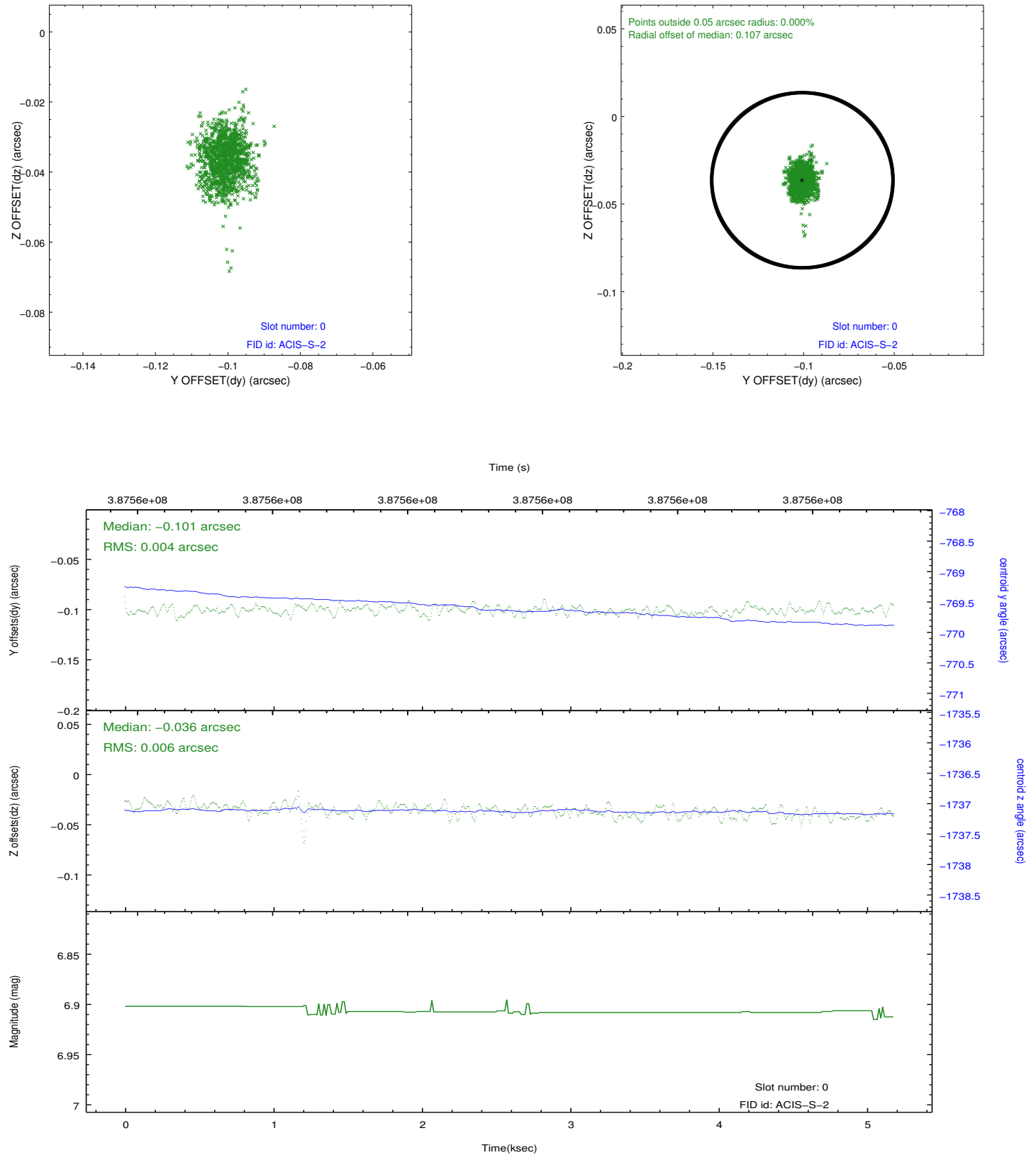


## 2.4.5 Slot 7

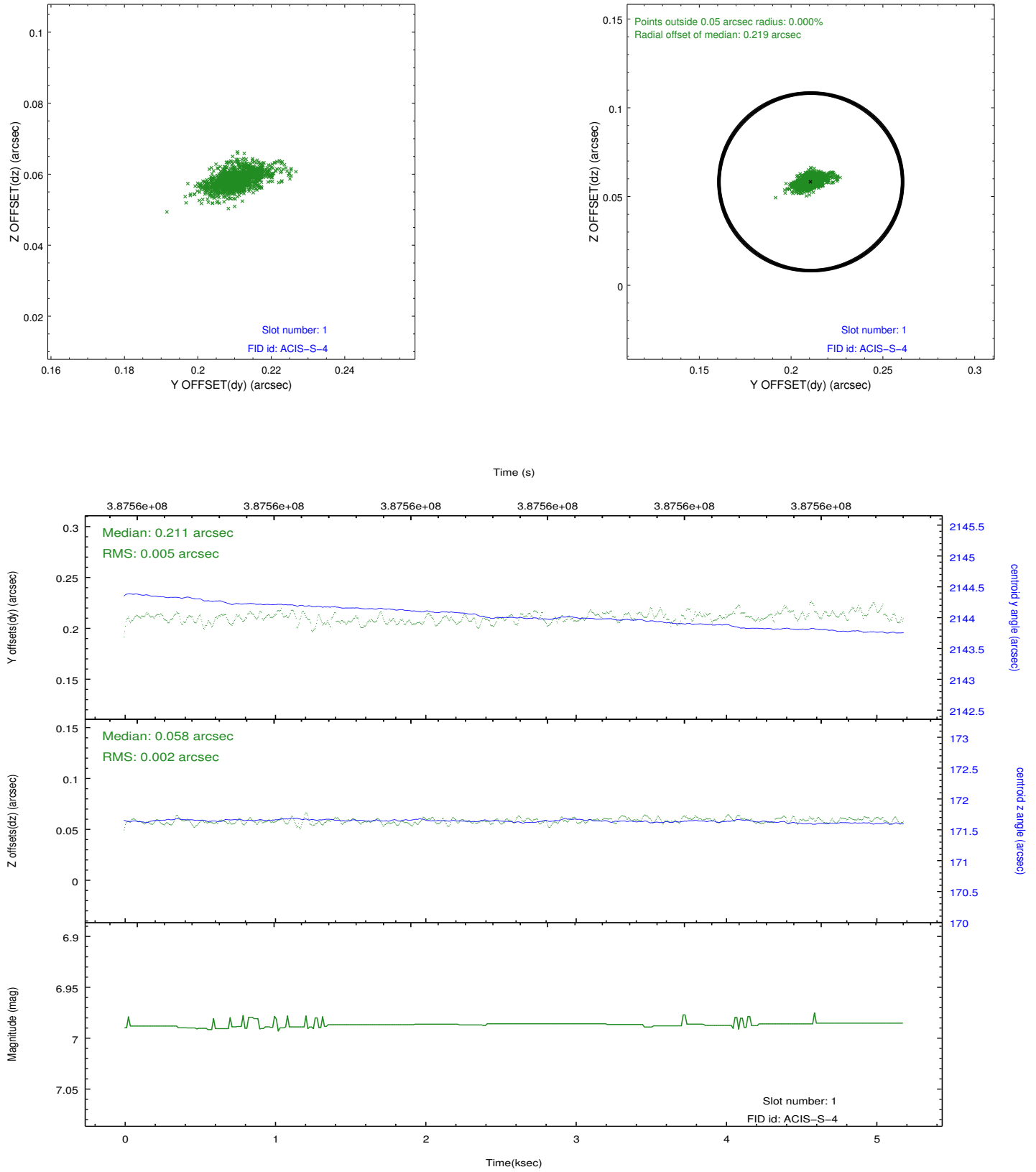


## 2.5 FID Slots

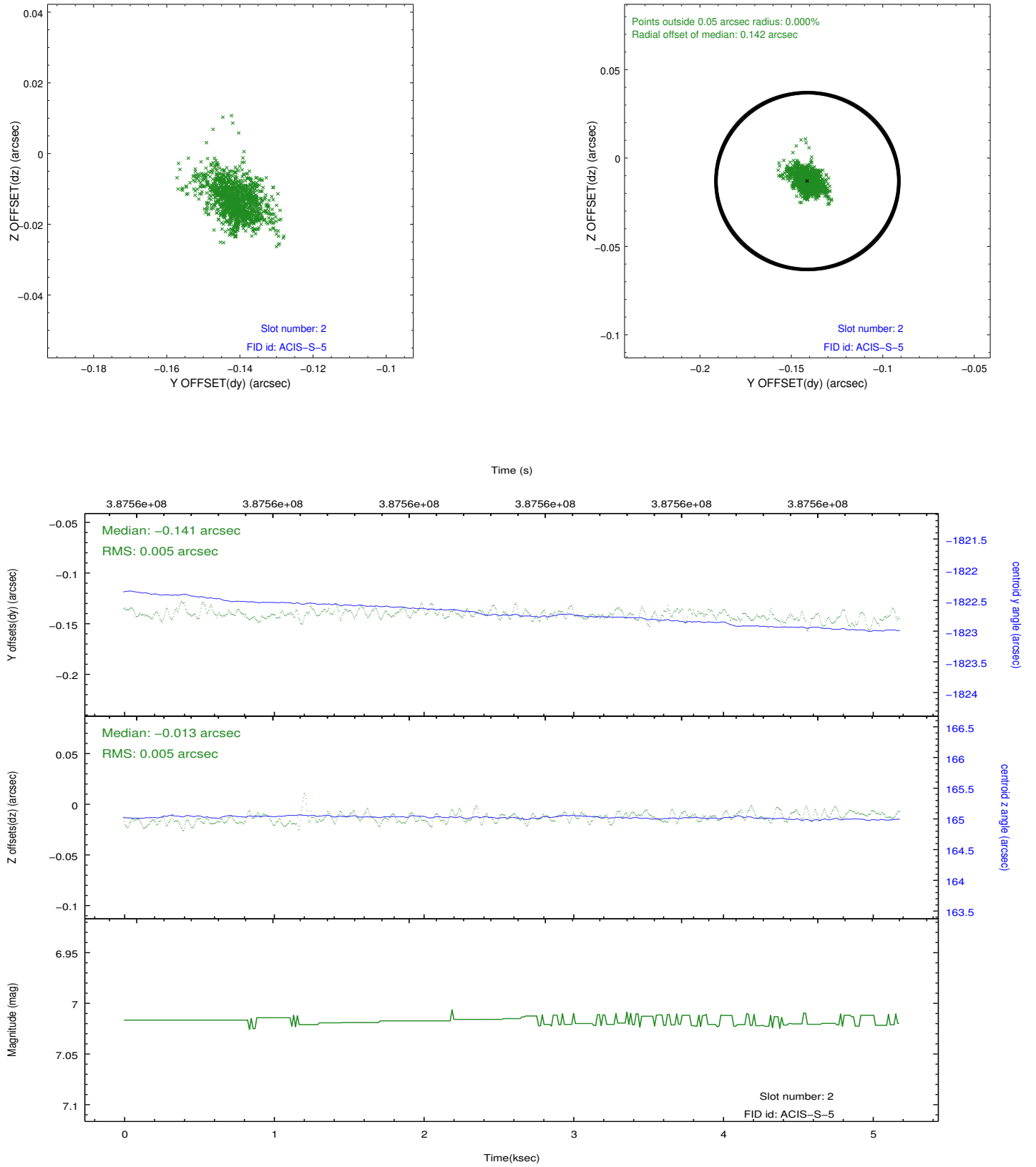
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.1855996909142

### A.2 Comments