

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 12459 - L2 Version 2  
Chandra X-Ray Center

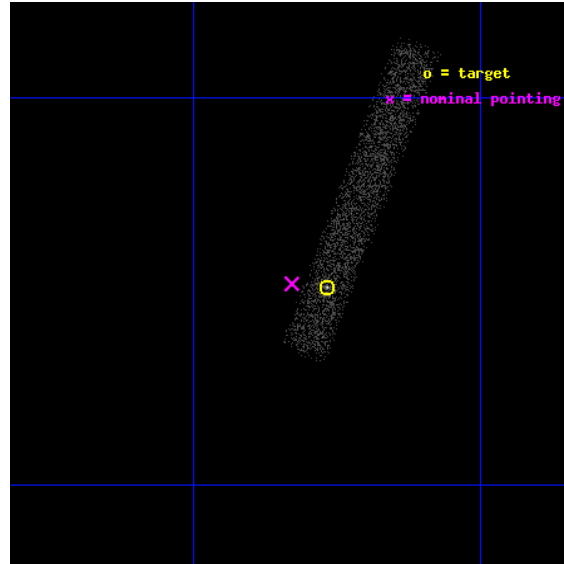
L2 Processing Date : Jul 6 2012

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# 1 Front

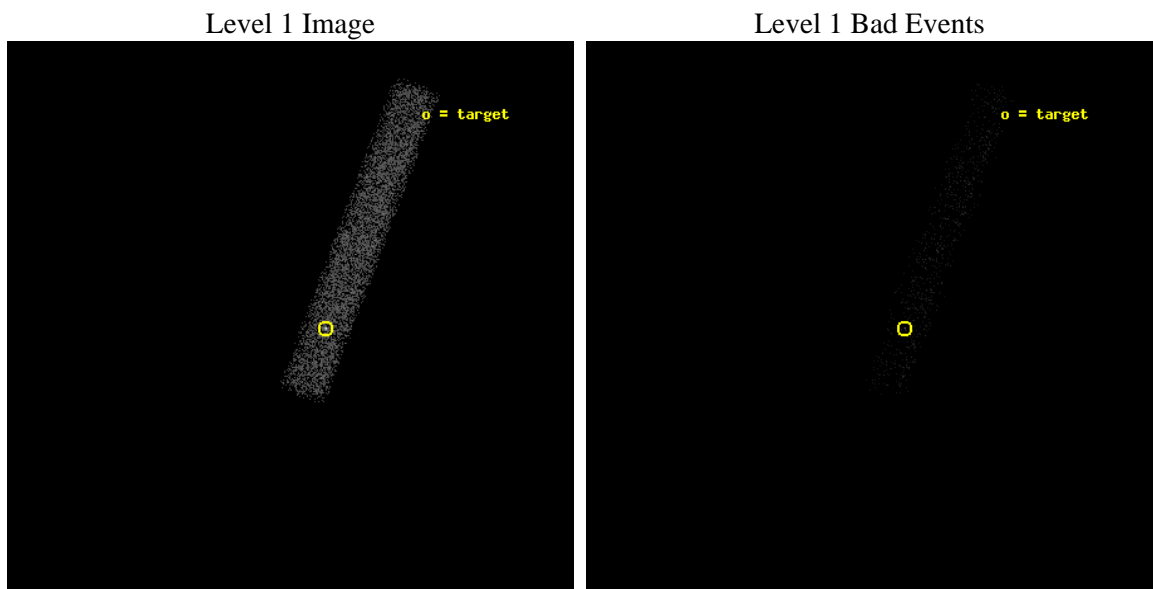
seq_num	401200	Sequence number
obs_id	12459	Observation id
title	Confirmation and Study of a Newly Discovered Nuclear Reaction, Identified in the Neutron Star Crust	Proposal title
observer	Prof. Robert Rutledge	Principal investigator
object	Aql X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	287.816667	Observer's specified target RA [deg]
dec_targ	0.584944	Observer's specified target Dec [deg]
ra_nom	287.83222708653	Nominal RA [deg]
dec_nom	0.58644900838173	Nominal Dec [deg]
roll_nom	290.75550386498	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7010.3809925318	Sum of GTIs [s]
livetime	6358.045521977	Livetime [s]
ontime7	7010.3809925318	Sum of GTIs [s]
l2events	5142	Number of level 2 events



## 2 OBI

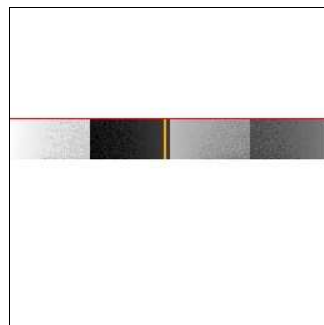
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7010.3809925318	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime7	7010.3809925318	Sum of GTIs [s]
date	2012-07-06T13:17:07	Date and time of file creation	l1events	9644	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	9644
rejected events	4286
rejected %	44%

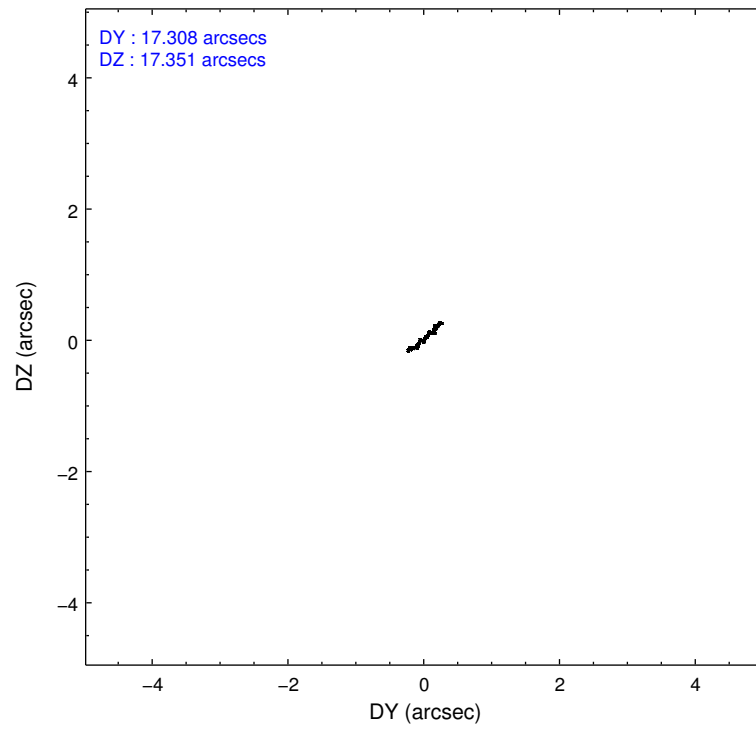
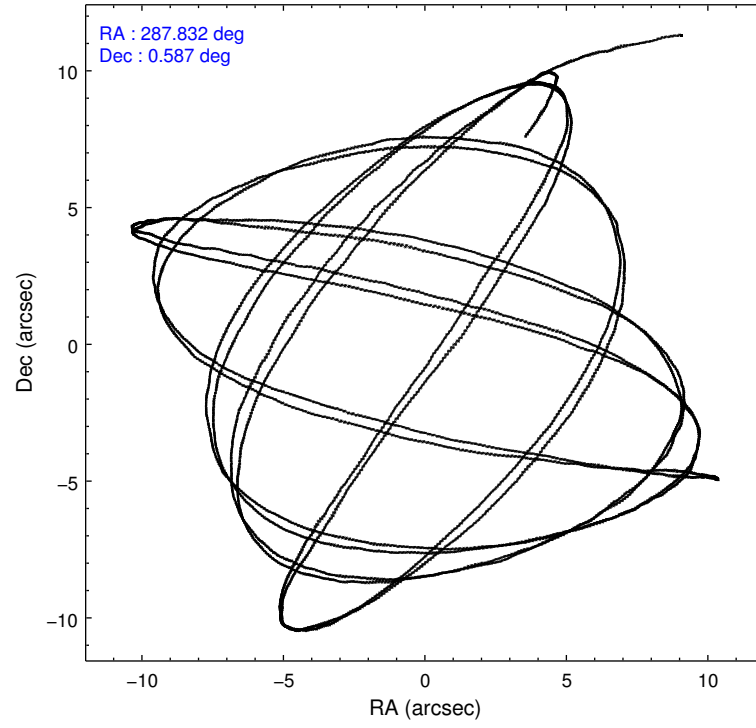
	<b>ccd 7</b>
grade 0 events	735
	7%
grade 1 events	15
	0%
grade 2 events	1122
	11%
grade 3 events	691
	7%
grade 4 events	716
	7%
grade 5 events	901
	9%
grade 6 events	2094
	21%
grade 7 events	3370
	34%

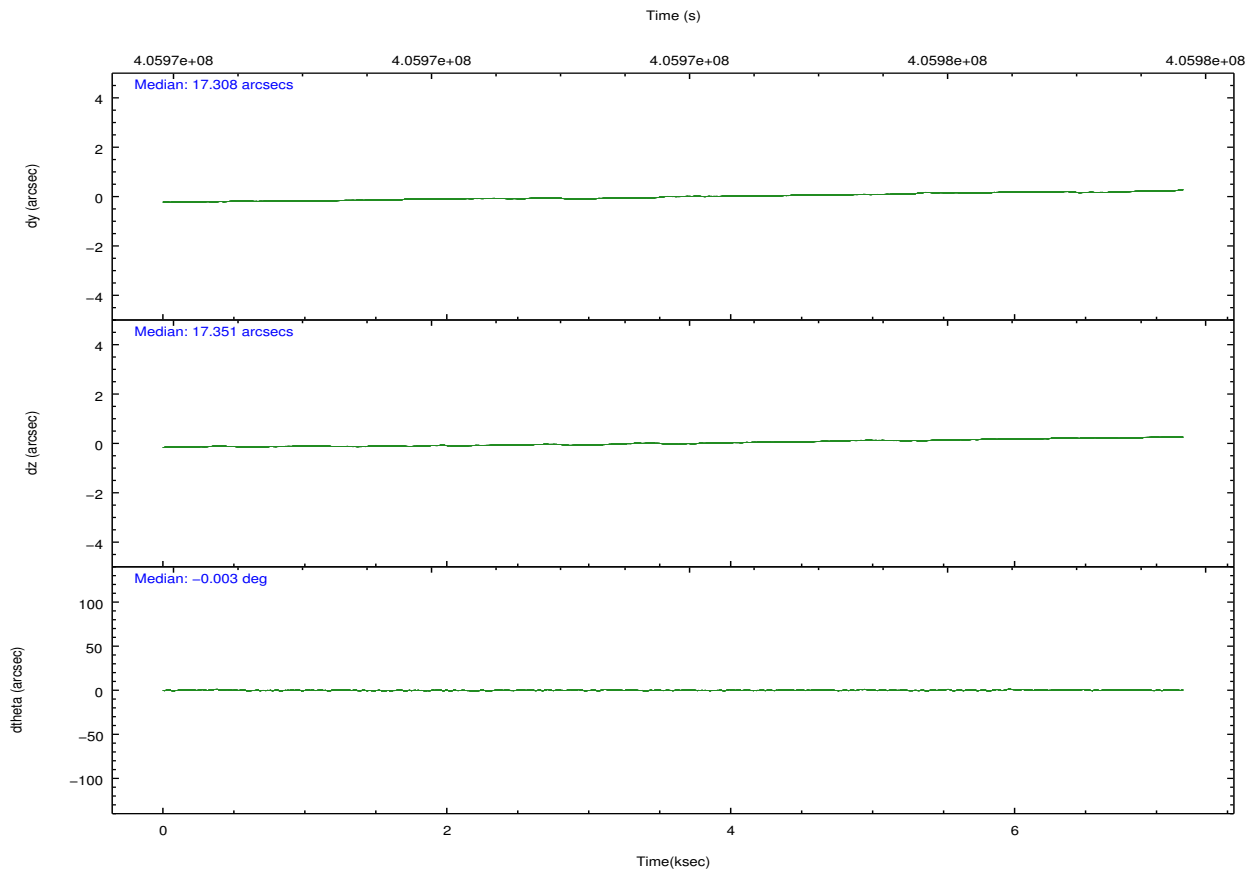
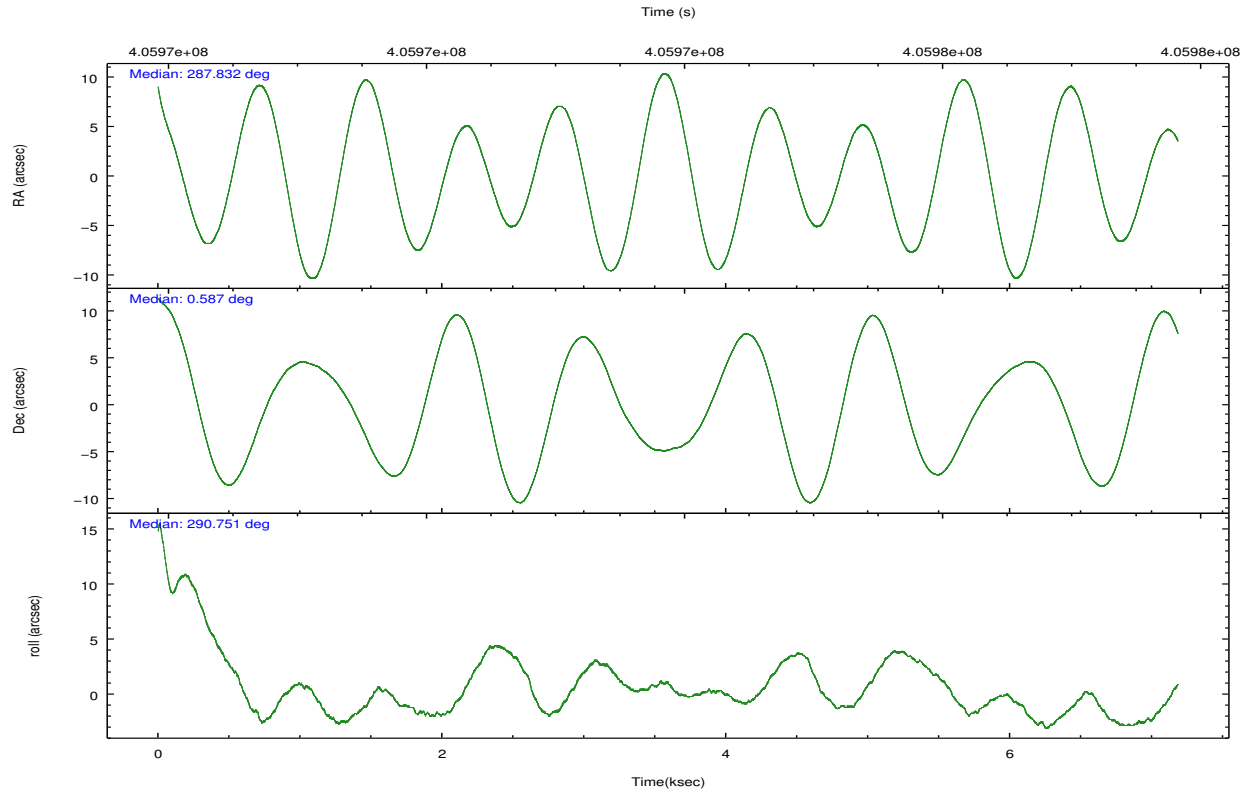


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	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	287.810805	287.8322270865337	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	0.603388	0.5864490083817318	Subarray start row	544	544
[deg] Pointing Roll	290.599098	290.7555038649787	Subarray row count	128	128
[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	0.4
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	405970458.184000	405969526.6155			
Observation start date	2010-11-12T17:33:12	2010-11-12T17:18:46			
[s] Observation end time (MET)	405977458.184000	405978069.99094			
Observation end date	2010-11-12T19:29:52	2010-11-12T19:41:09			
Read mode	TIMED	TIMED			

## 2.3 Aspect



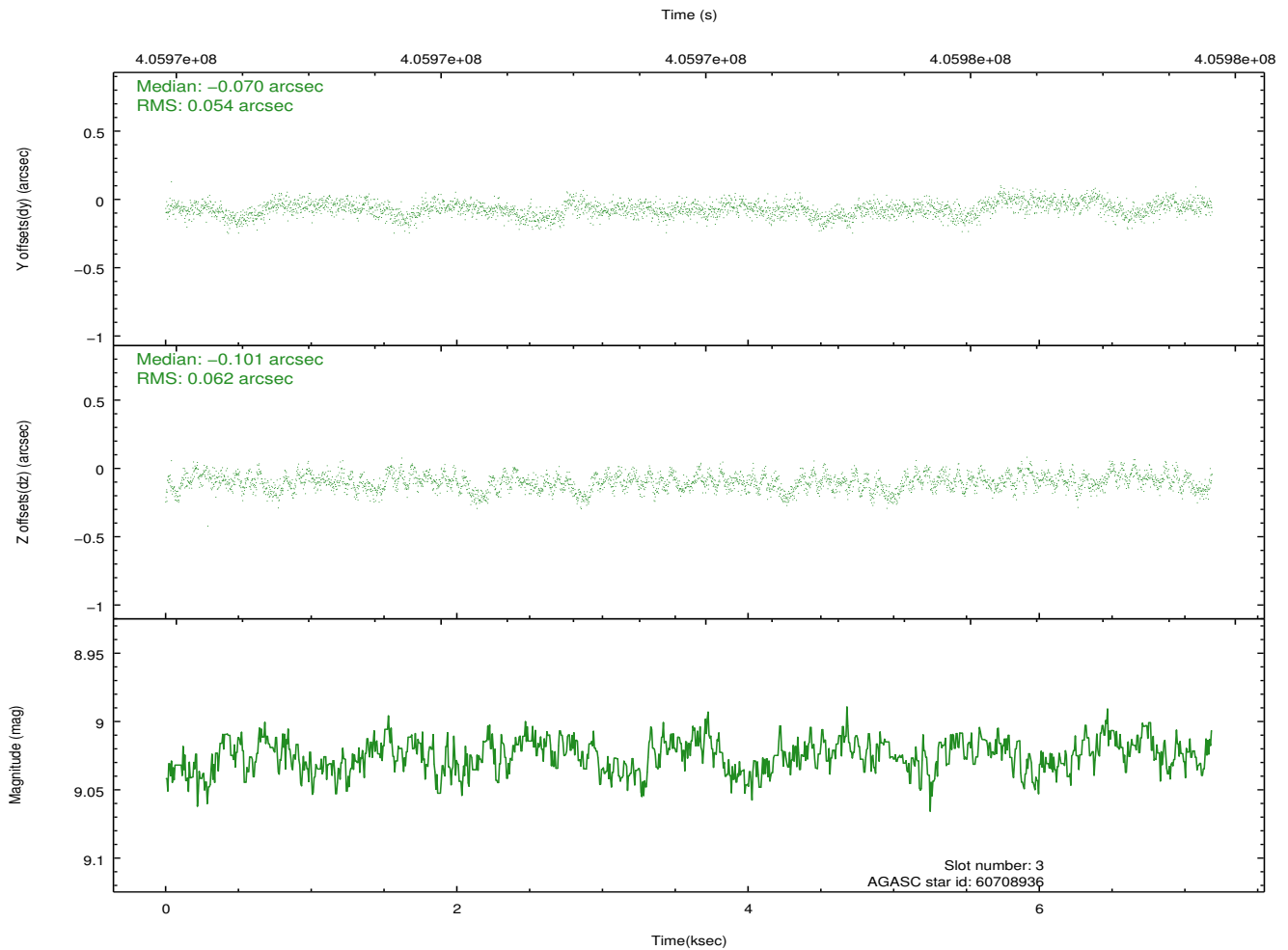
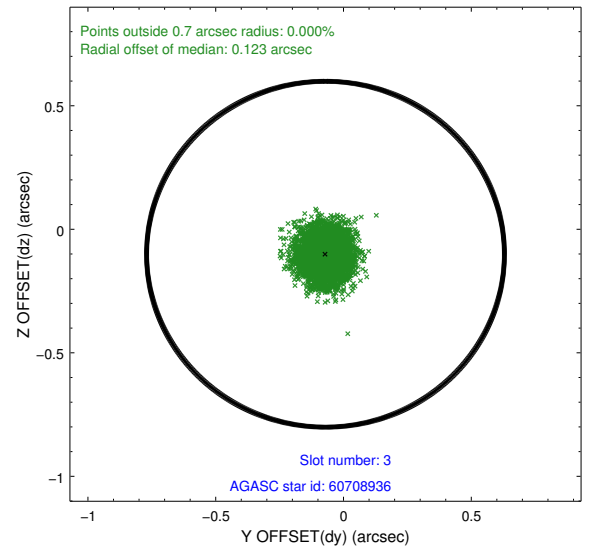
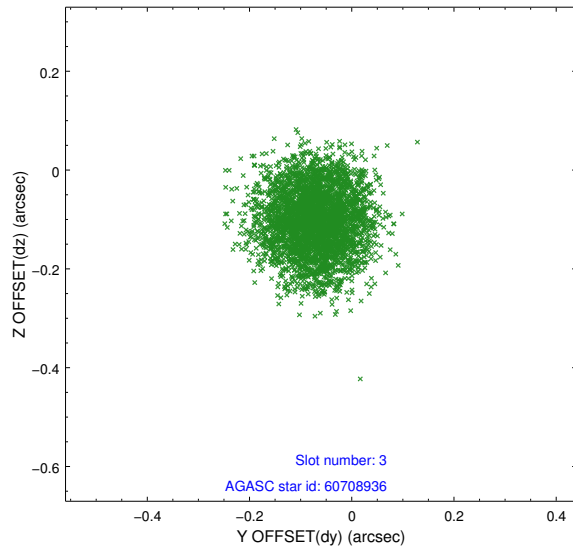


### Slot Statistics

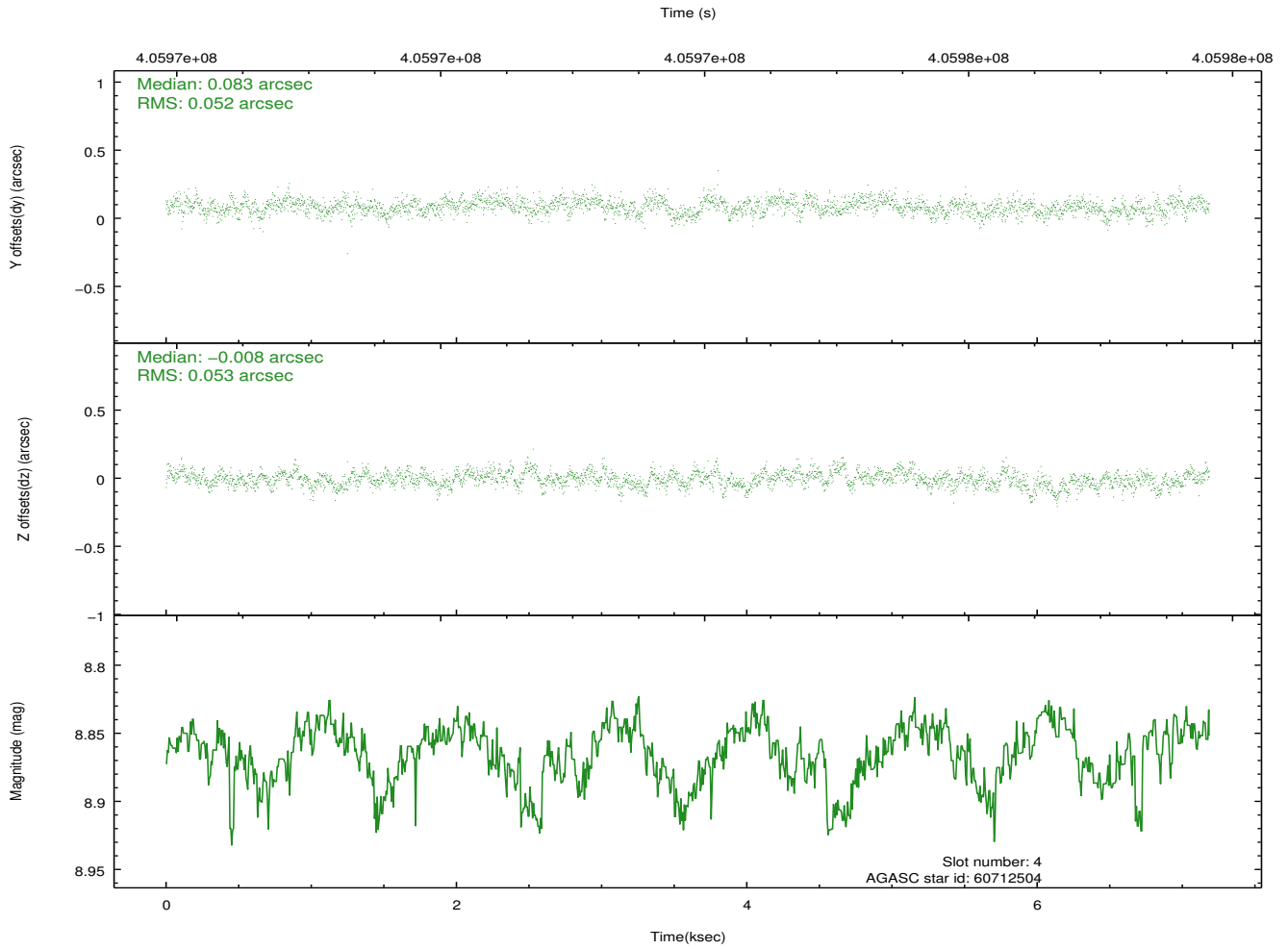
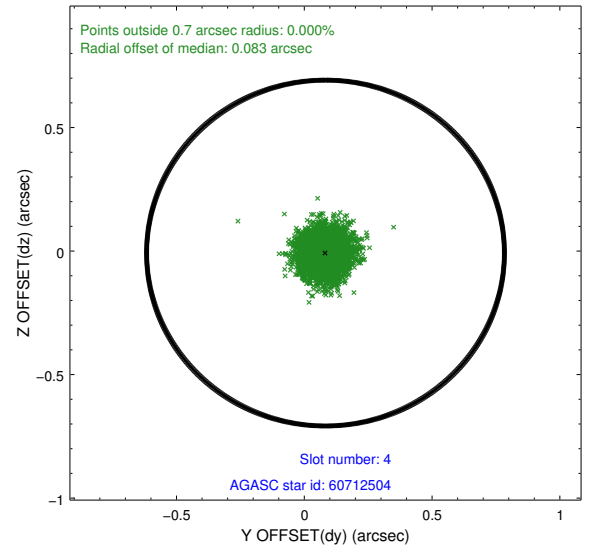
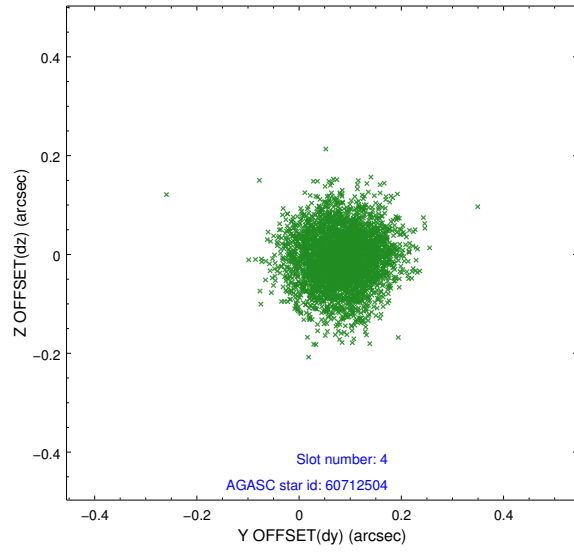
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.84	1753	-0.046	-0.020	0.008	0.012	0.000000	0.000000	-770.42	-1738.82
1	FID	ACIS-S-4	6.92	1753	0.149	0.028	0.006	0.013	0.000000	0.000000	2142.72	168.82
2	FID	ACIS-S-5	6.95	1753	-0.134	0.001	0.008	0.014	0.000000	0.000000	-1822.29	163.46
3	GUIDE	60708936	9.02	3505	-0.070	-0.101	0.090	0.139	287.407925	0.924863	-1593.01	-950.62
4	GUIDE	60712504	8.86	3505	0.083	-0.008	0.080	0.130	288.588609	0.262689	2133.20	2189.47
5	GUIDE	60718872	9.39	3506	-0.062	-0.054	0.088	0.144	287.679270	0.108754	1501.46	-1069.17
6	GUIDE	60714680	9.90	3501	0.047	0.155	0.141	0.226	287.468055	0.176061	1007.10	-1696.42
7	GUIDE	60711088	9.41	3502	0.002	0.013	0.121	0.186	288.583441	0.300705	1999.26	2219.76

## 2.4 Star Slots

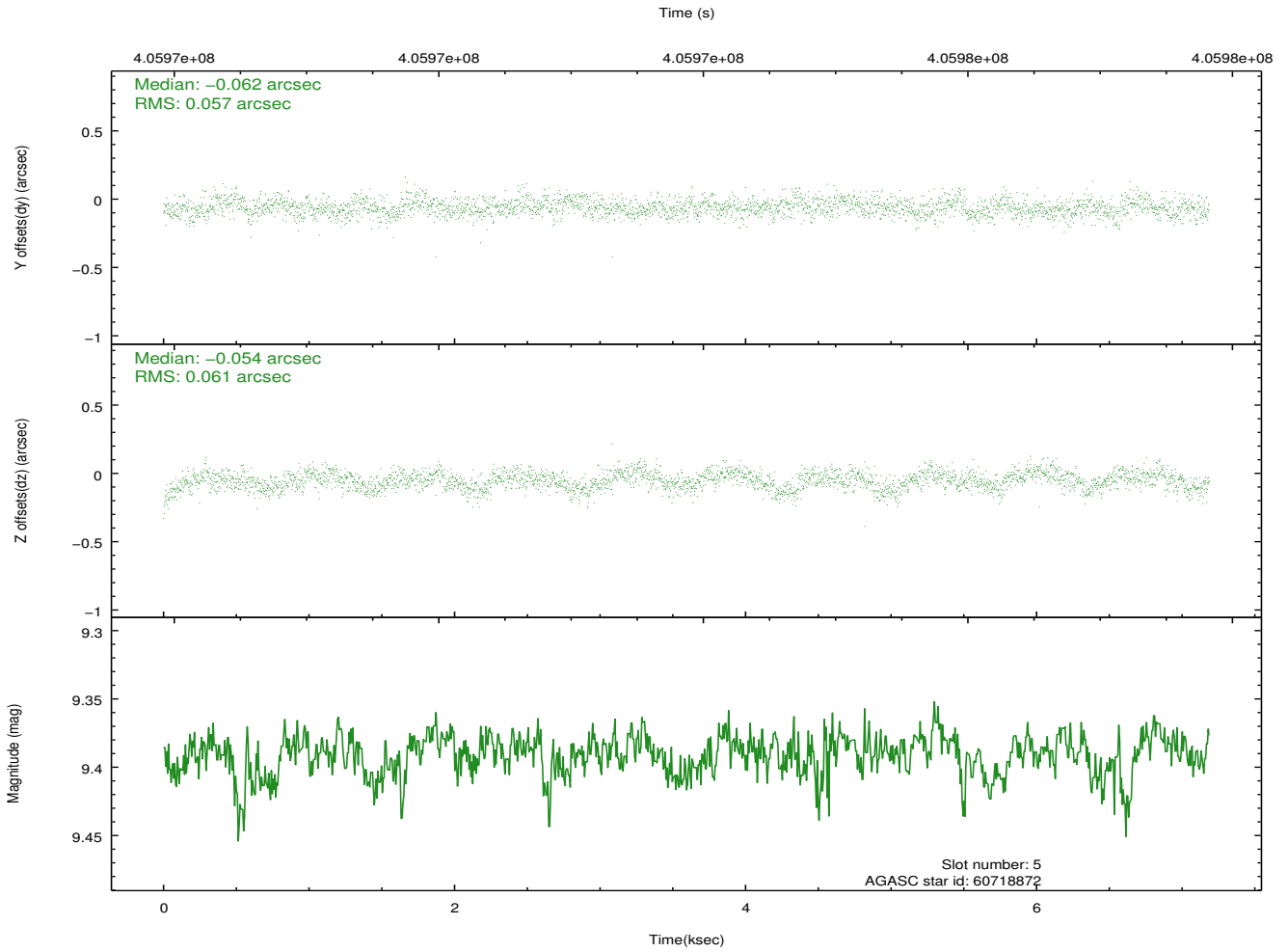
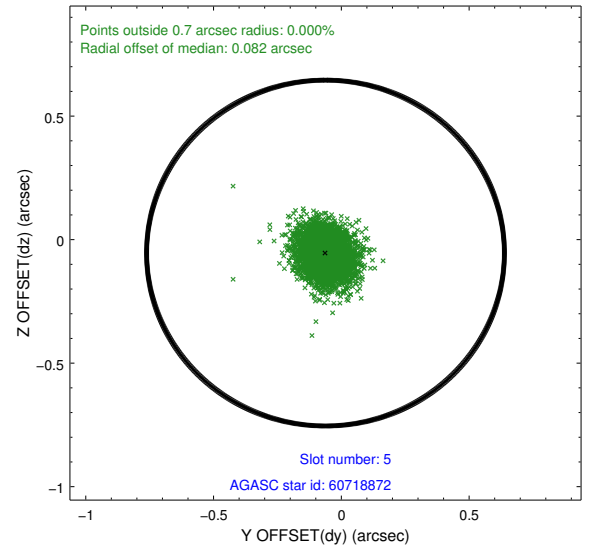
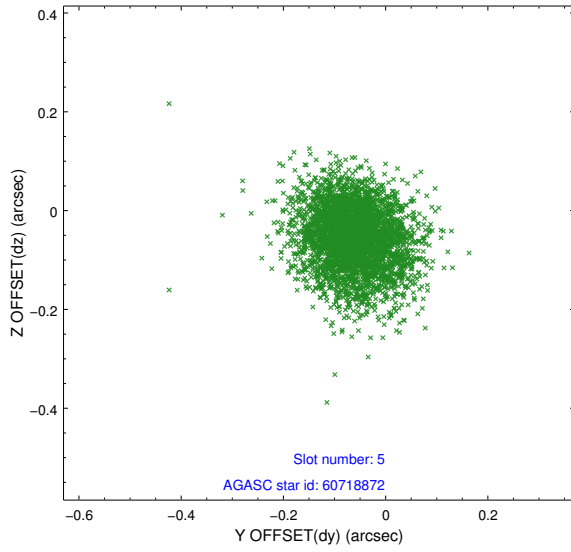
### 2.4.1 Slot 3



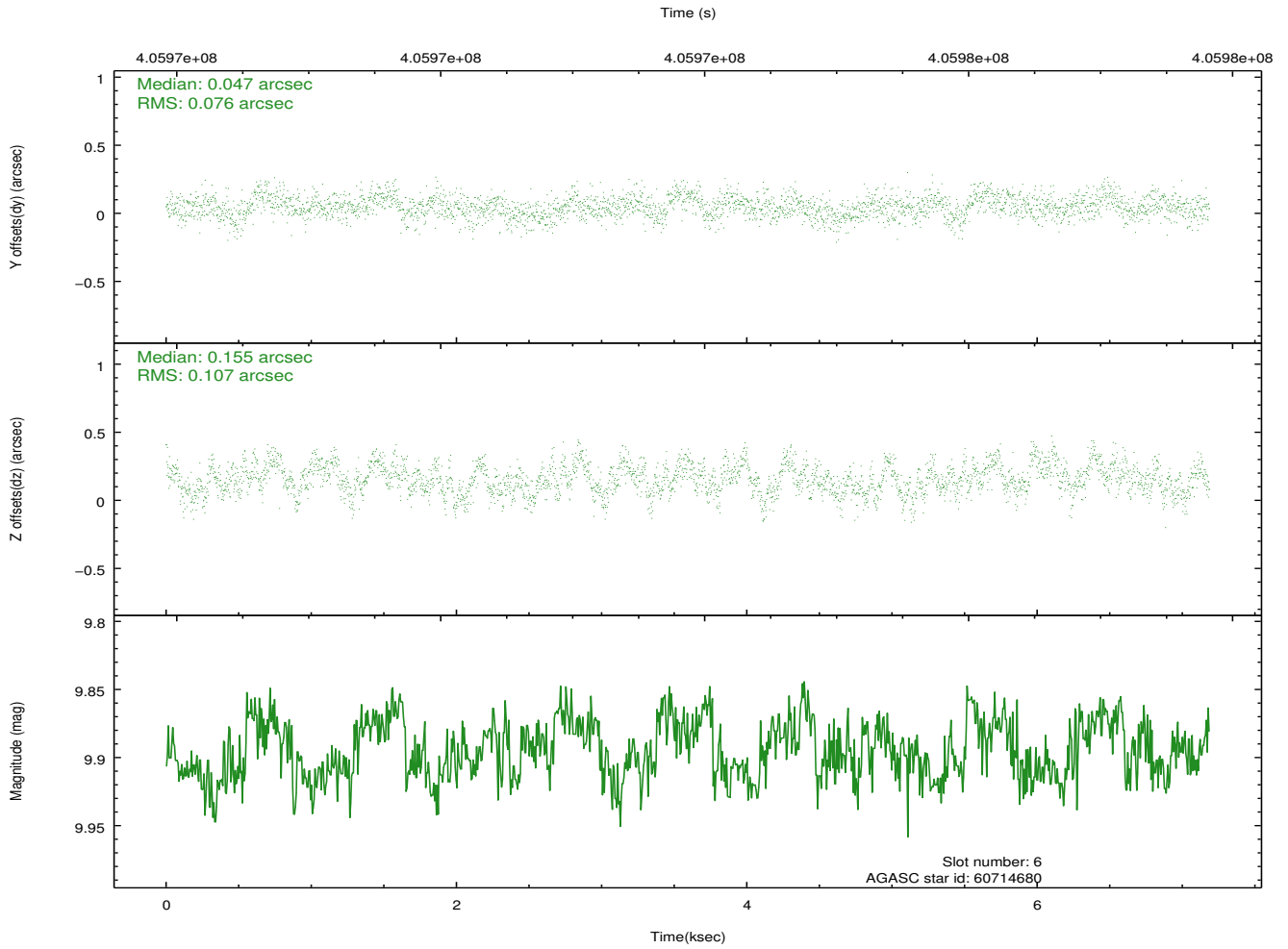
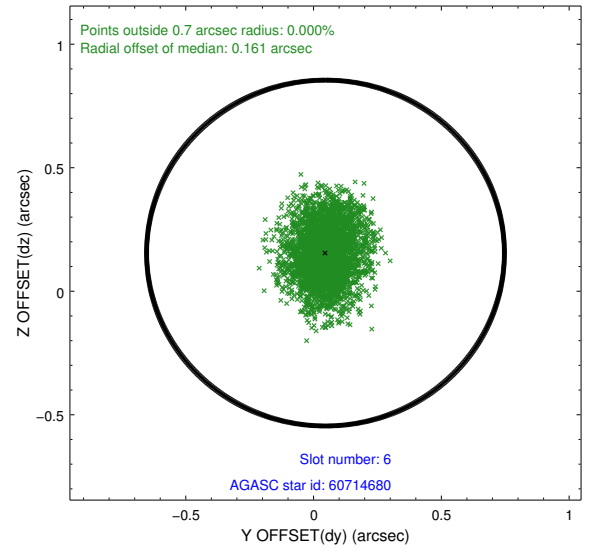
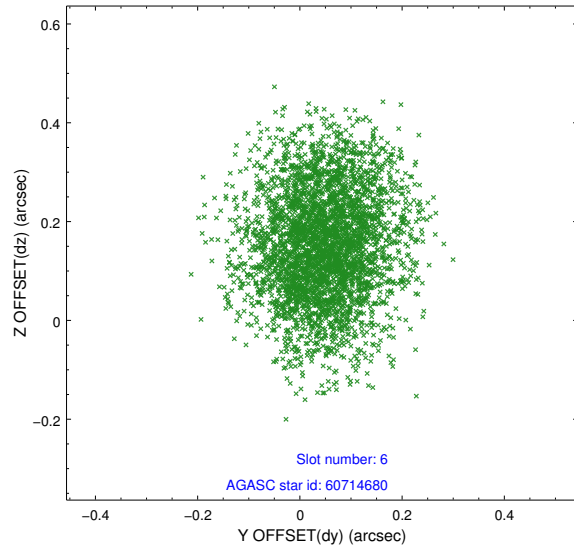
## 2.4.2 Slot 4



### 2.4.3 Slot 5

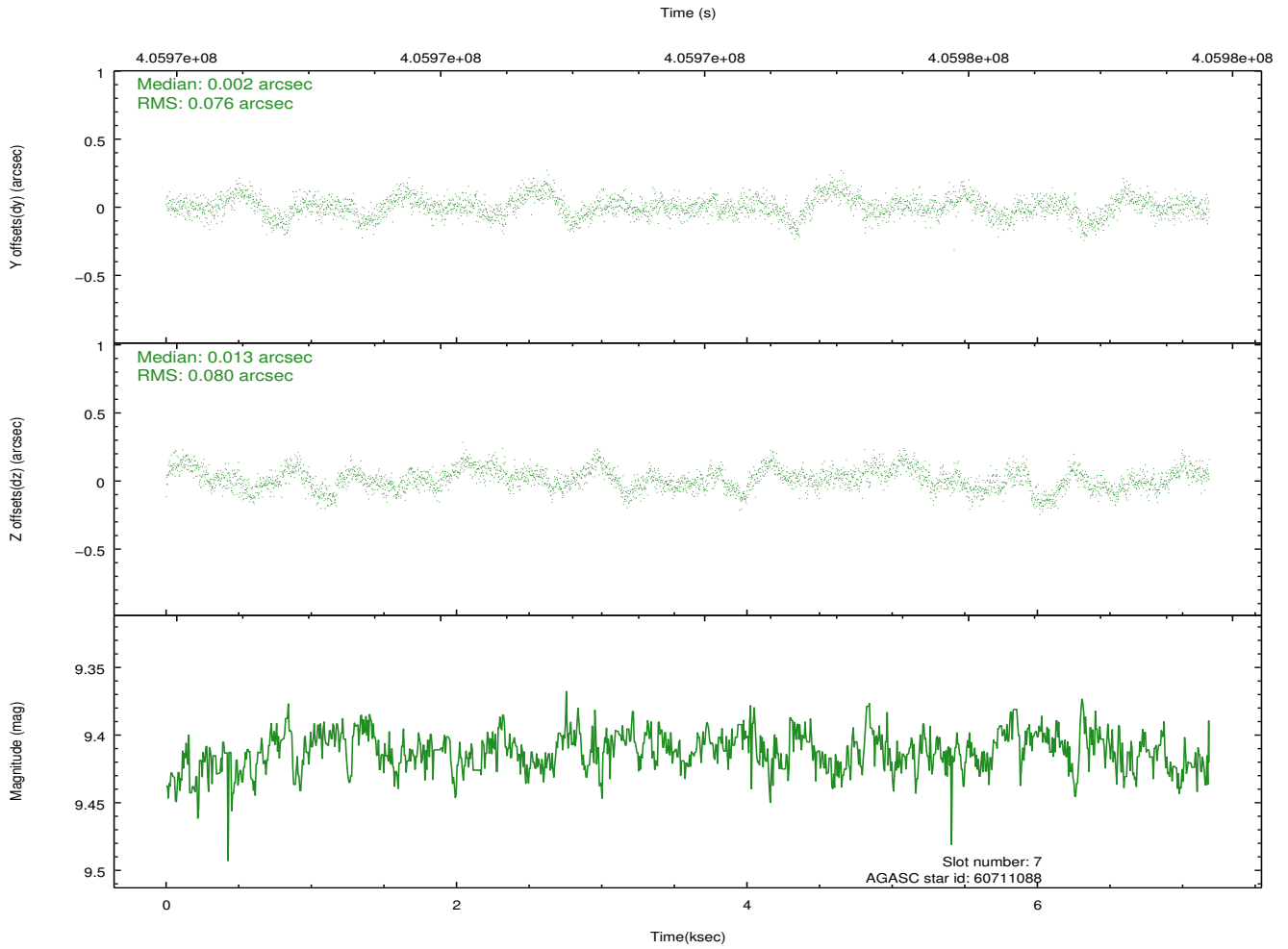
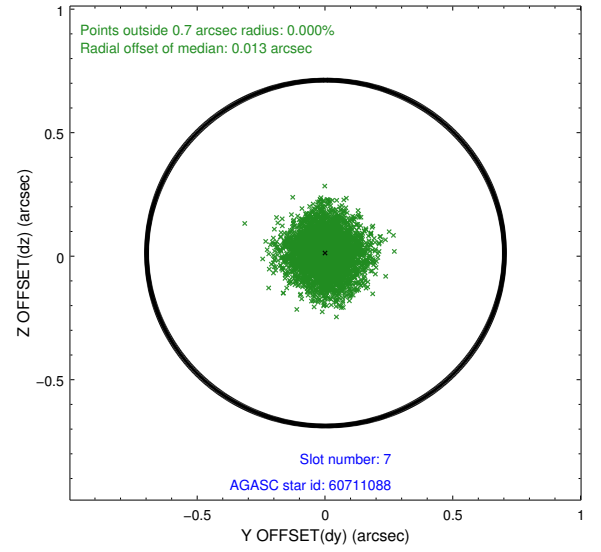
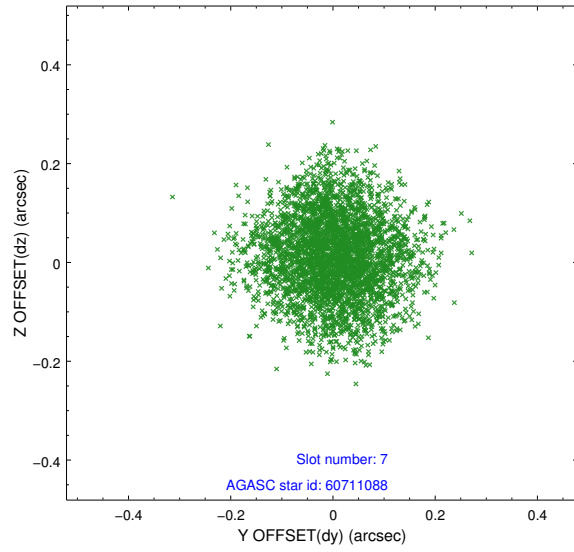


## 2.4.4 Slot 6



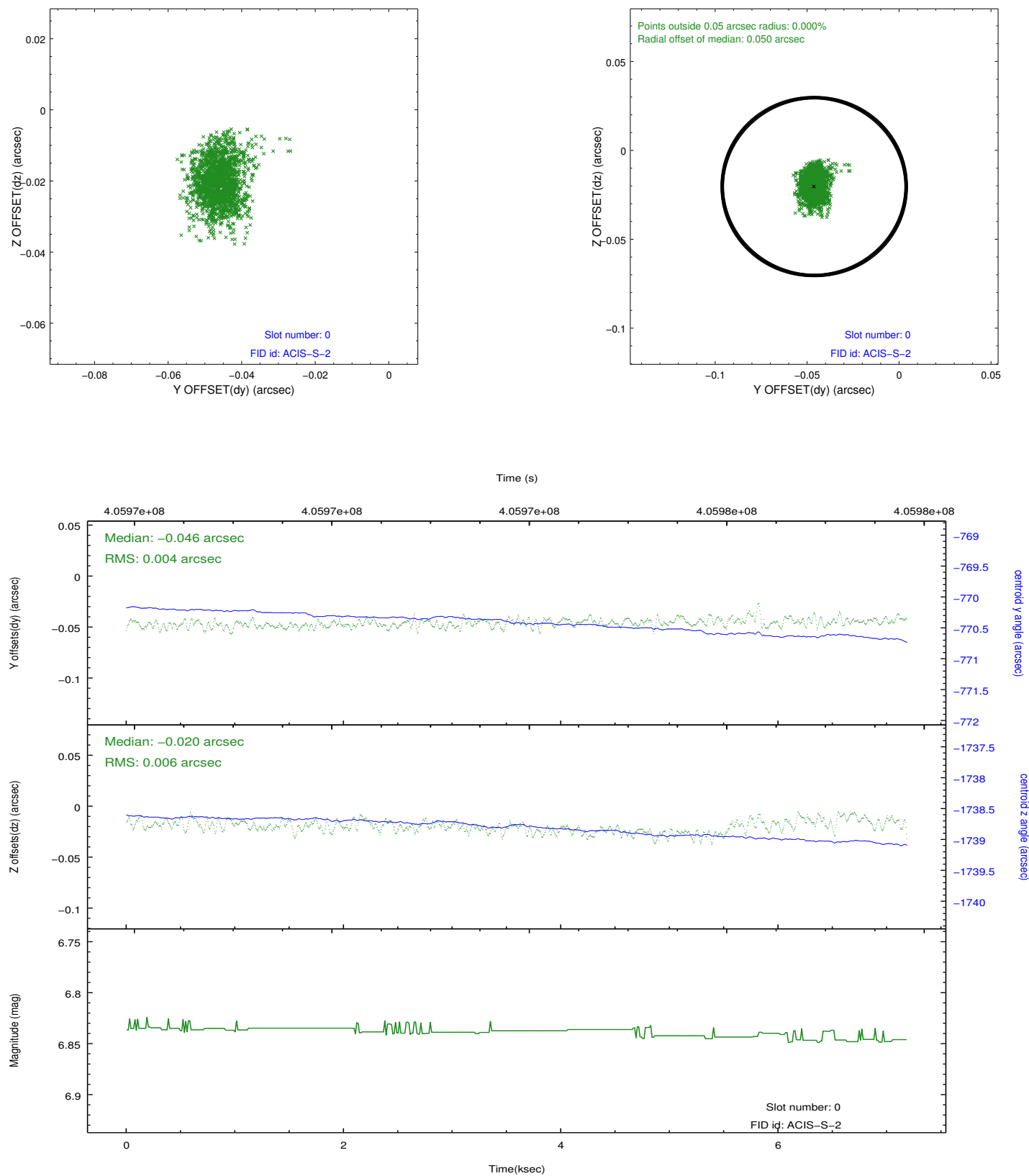


## 2.4.5 Slot 7

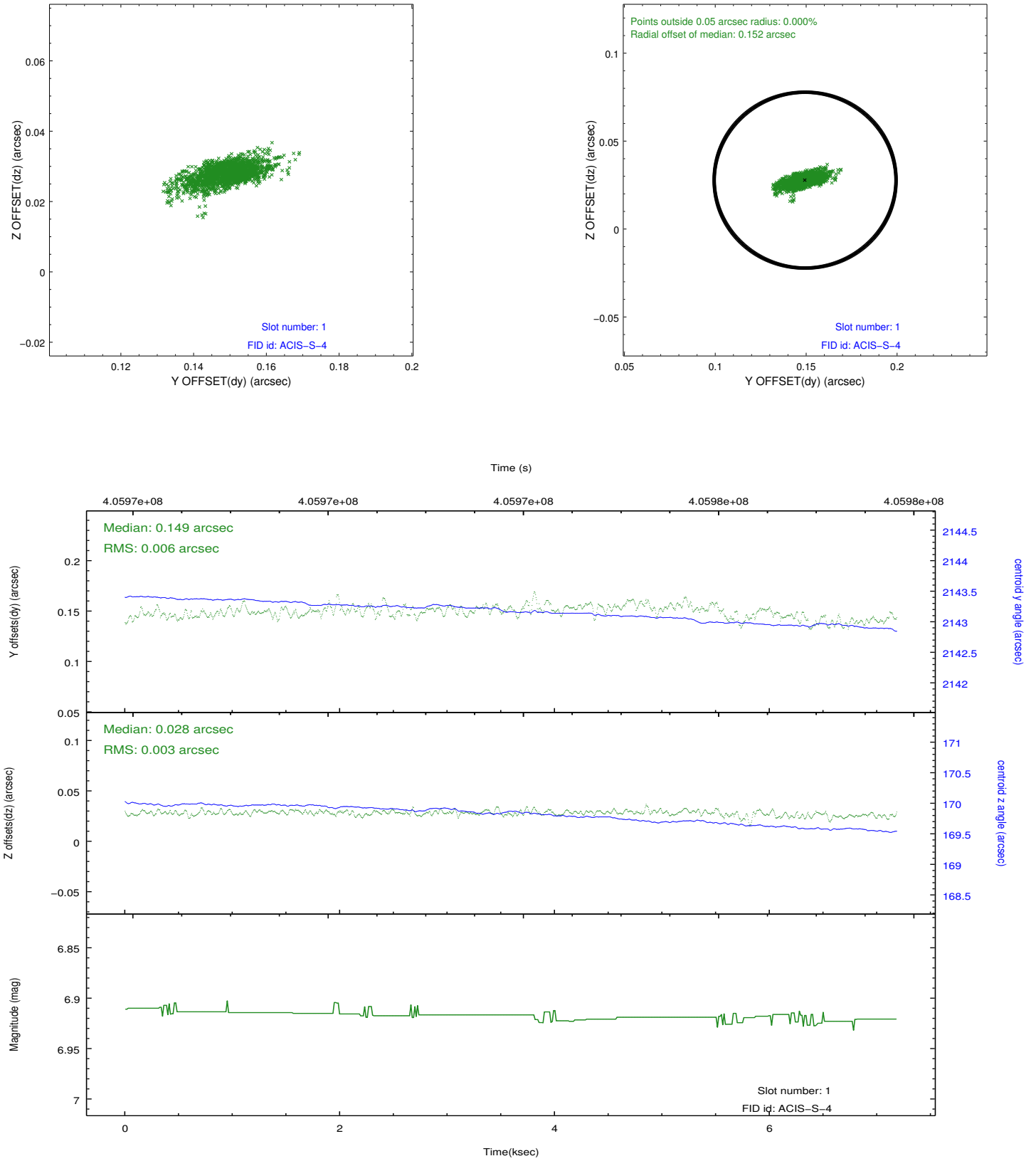


## 2.5 FID Slots

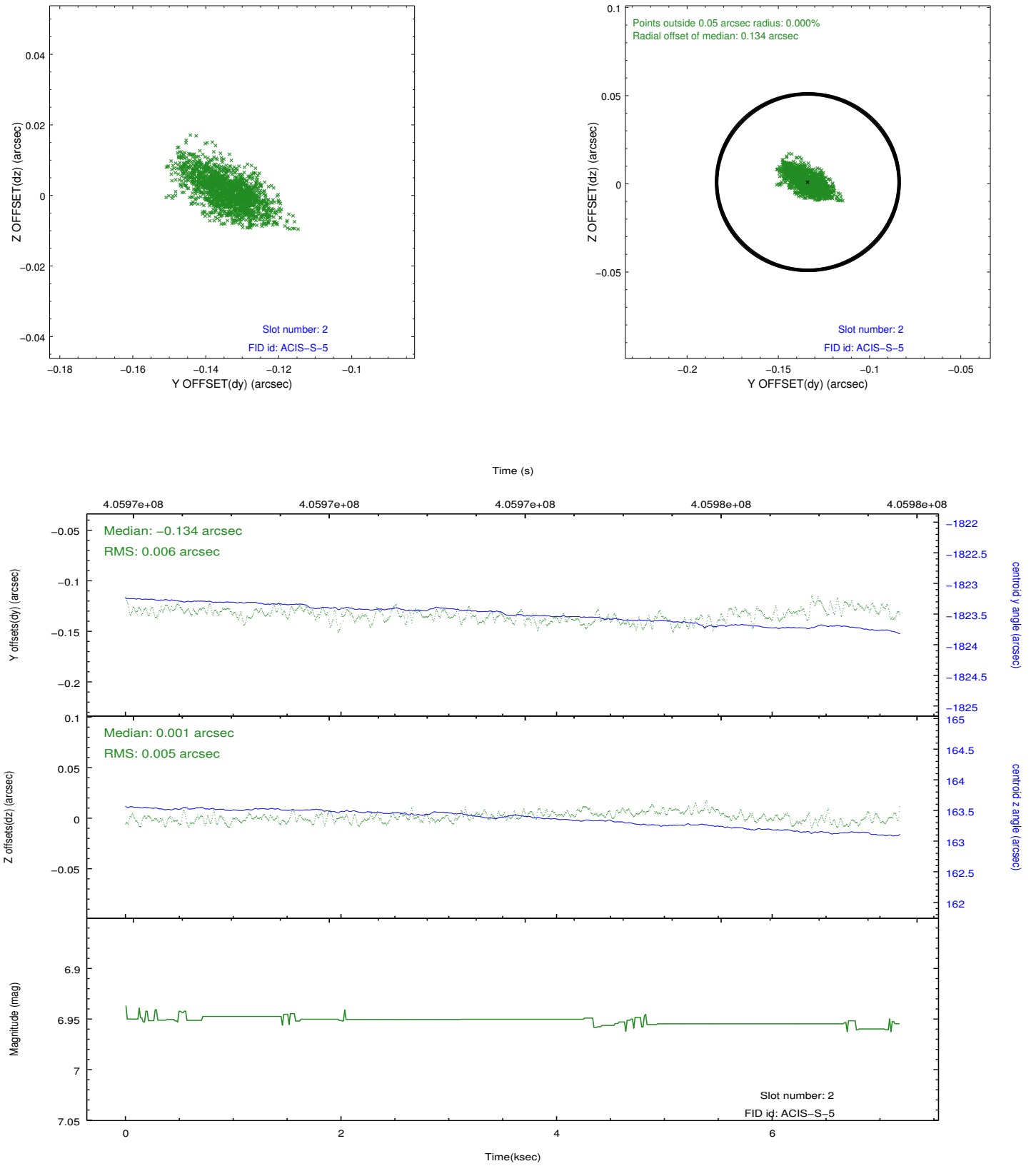
### 2.5.1 Slot 0



## 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)	2012.07.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.0103809852004

### **A.2 Comments**