

# V&V Reference Report

## L2 ASCDS Version : 8.5.1

Observation 5158 - L2 Version 3  
Chandra X-Ray Center

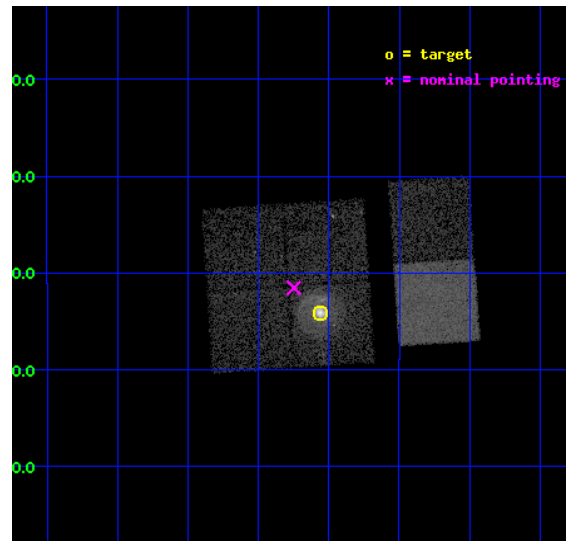
L2 Processing Date : Dec 18 2012

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# 1 Front

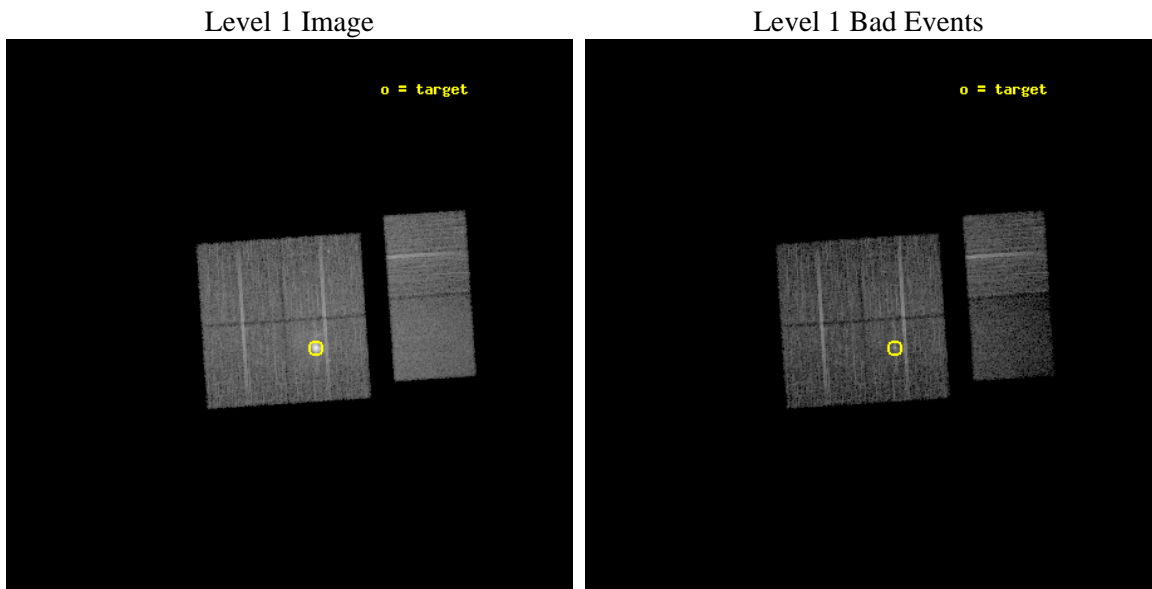
seq_num	590356	Sequence number
obs_id	5158	Observation id
title	AO5B Observations of the Standard Candles Cas A and G21.5-09	Propo
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-09[I3,-120,-2.5,2.5,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.389583	Observer's specified target RA [deg]
dec_targ	-10.568528	Observer's specified target Dec [deg]
ra_nom	278.43696580199	Nominal RA [deg]
dec_nom	-10.525741528853	Nominal Dec [deg]
roll_nom	86.142726506379	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10127.99996227	Sum of GTIs [s]
livetime	9999.7531283986	Livetime [s]
ontime0	10127.99996227	Sum of GTIs [s]
ontime1	10127.99996227	Sum of GTIs [s]
ontime2	10127.99996227	Sum of GTIs [s]
ontime3	10127.99996227	Sum of GTIs [s]
ontime6	10127.99996227	Sum of GTIs [s]
ontime7	10127.99996227	Sum of GTIs [s]
l2events	81793	Number of level 2 events



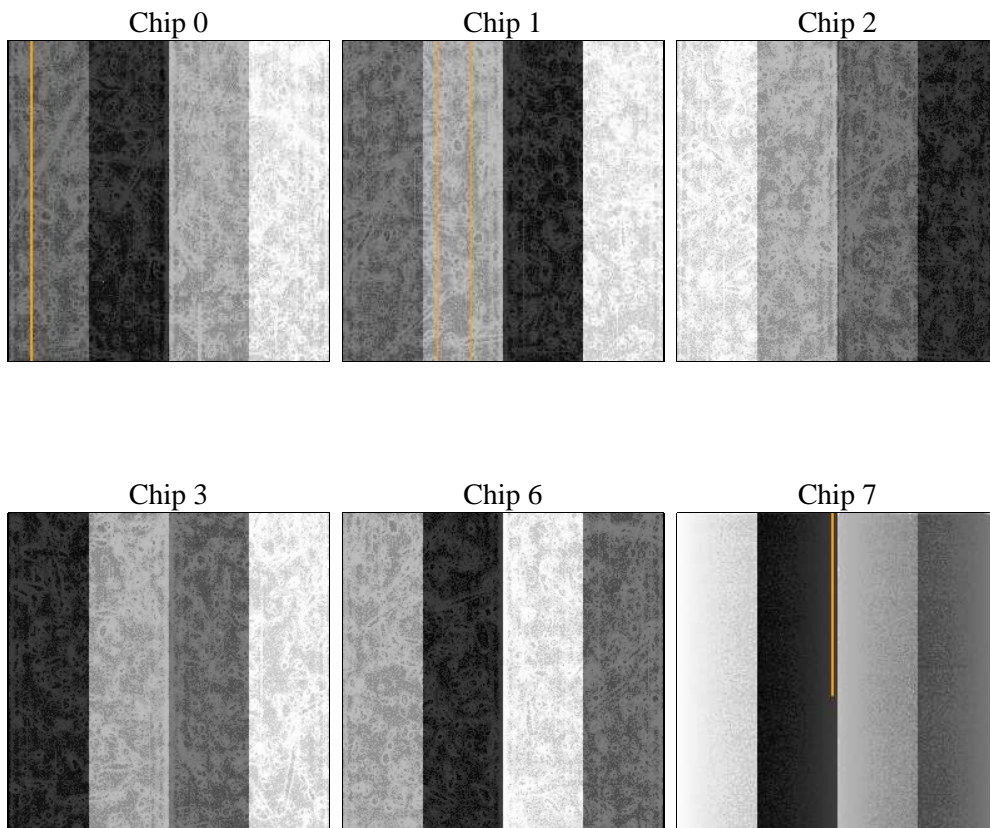
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1	Processing system revision	ontime	10127.99996227	Sum of GTIs [s]
caldsver	4.5.5	&#160	ontime0	10127.99996227	Sum of GTIs [s]
date	2012-12-17T19:10:06	Date and time of file creation	ontime1	10127.99996227	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	10127.99996227	Sum of GTIs [s]
			ontime3	10127.99996227	Sum of GTIs [s]
			ontime6	10127.99996227	Sum of GTIs [s]
			ontime7	10127.99996227	Sum of GTIs [s]
			l1events	397568	Number of level 1 events

### 2.1.4 Events

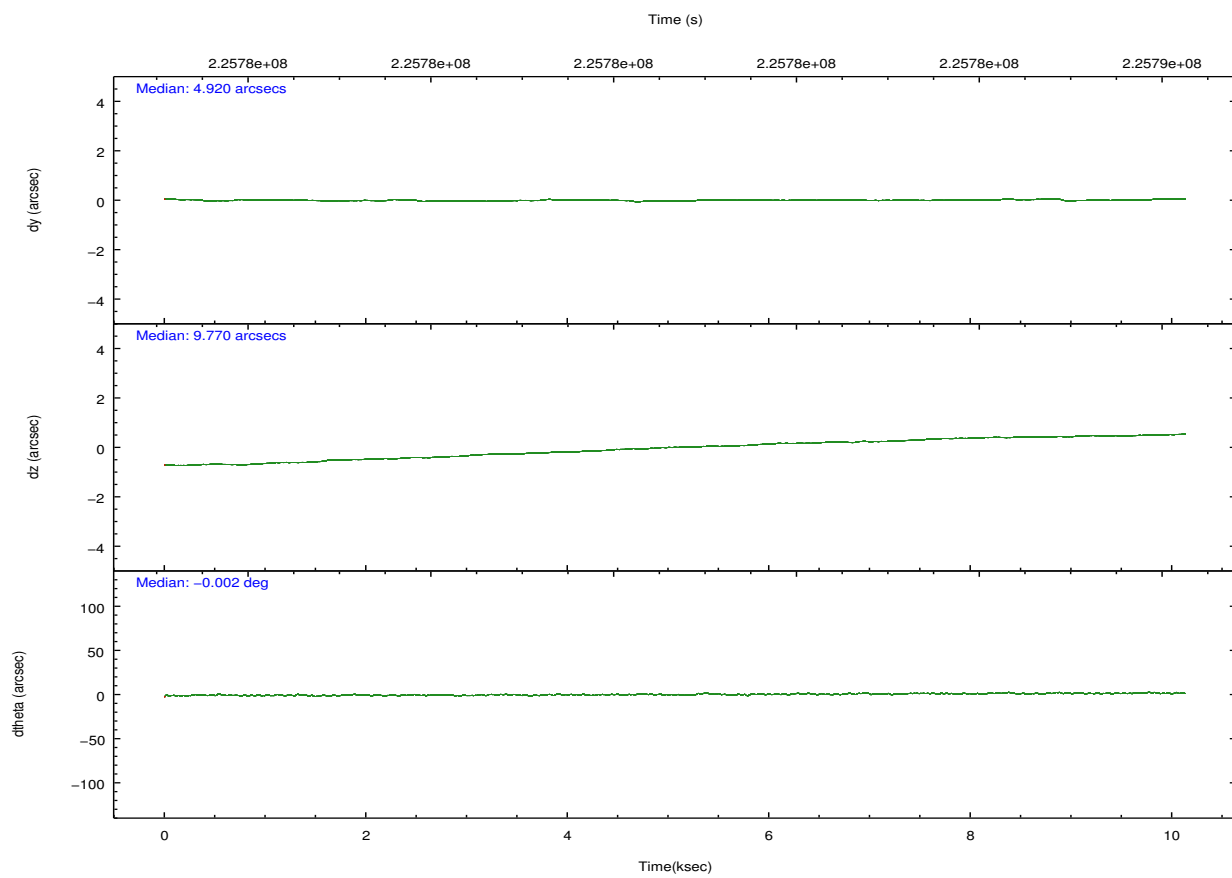
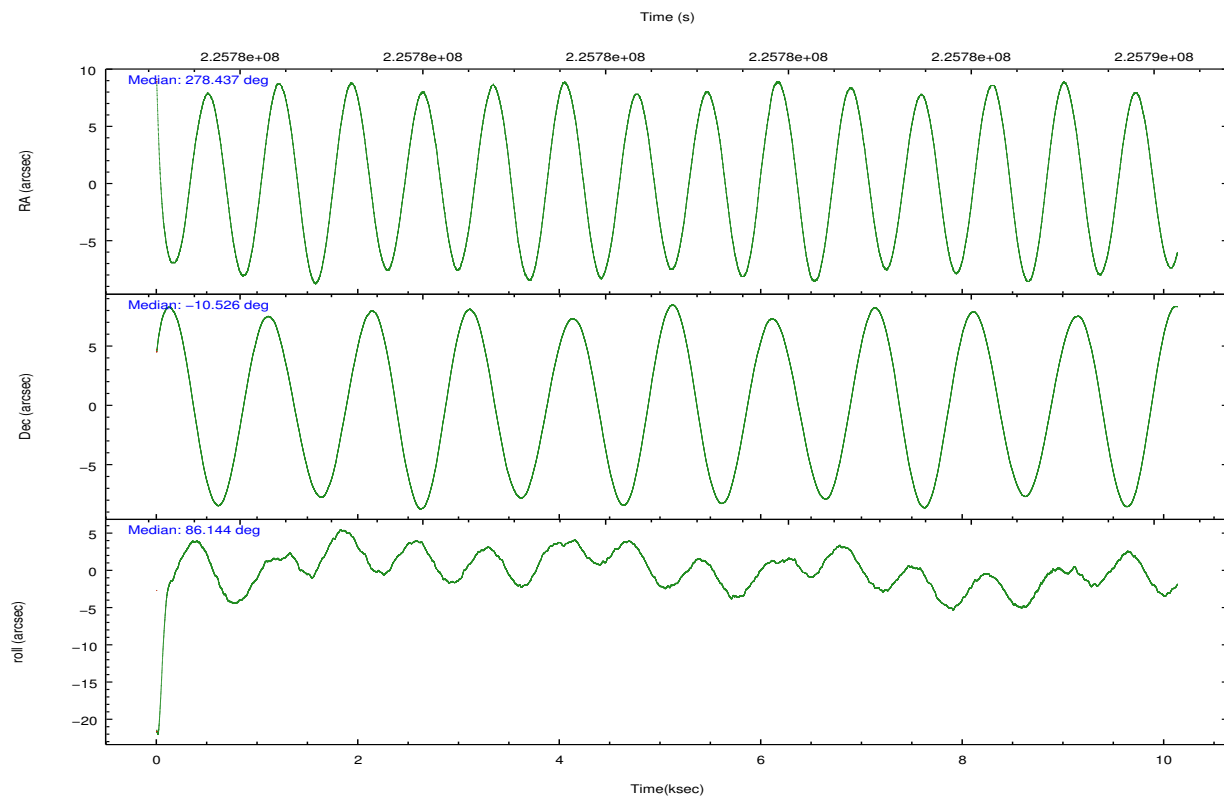
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	59105	58167	66067	90998	64246	58985	grade 0 events	2478	2676	3228	25376	2606	2858
rejected events	52902	51522	59134	55112	57939	31174		4%	4%	4%	27%	4%	4%
rejected %	89%	88%	89%	60%	90%	52%	grade 1 events	22	24	35	286	31	55
								0%	0%	0%	0%	0%	0%
							grade 2 events	1606	1502	1609	5057	1387	6233
								2%	2%	2%	5%	2%	10%
							grade 3 events	697	846	710	1880	748	2922
								1%	1%	1%	2%	1%	4%
							grade 4 events	646	783	725	1961	700	2851
								1%	1%	1%	2%	1%	4%
							grade 5 events	1830	2042	1773	2148	2207	6534
								3%	3%	2%	2%	3%	11%
							grade 6 events	1091	1321	1020	2479	1205	14422
								1%	2%	1%	2%	1%	24%
							grade 7 events	50735	48973	56967	51811	55362	23110
								85%	84%	86%	56%	86%	39%



## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	278.449371	278.4369658019935	Subarray requested	NONE	NONE
[deg] Pointing Dec	-10.550322	-10.52574152885276	Alternating exposures requested	N	N
[deg] Pointing Roll	85.936344	86.14272650637912	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	212976064.184000	212976064.184000			
[s] Window stop time (MET)	228614464.184000	228614464.184000			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	225775737.184000	225774419.71858			
Observation start date	2005-02-26T03:27:53	2005-02-26T03:06:59			
[s] Observation end time (MET)	225785737.184000	225785871.0191			
Observation end date	2005-02-26T06:14:33	2005-02-26T06:17:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect

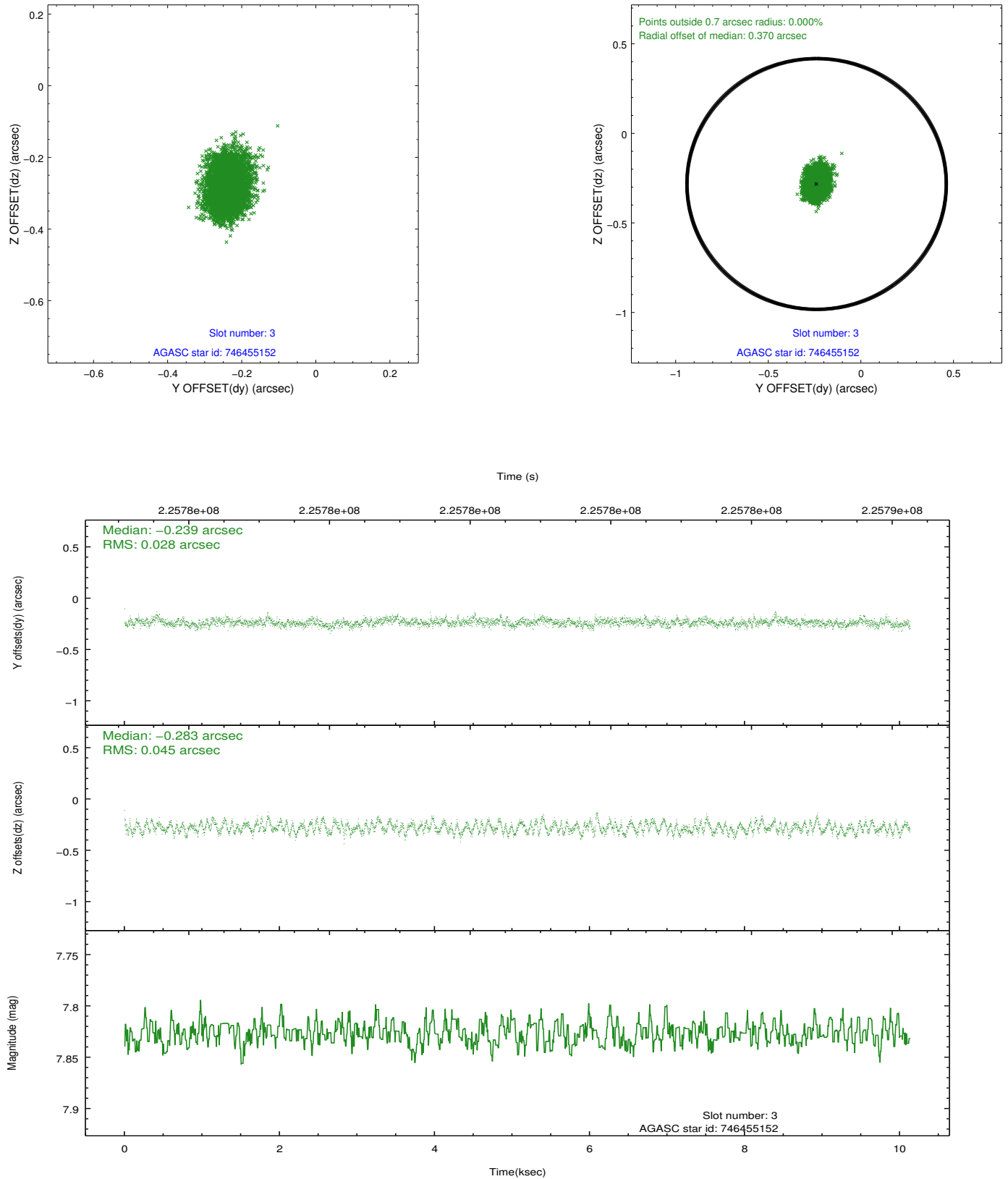


### Slot Statistics

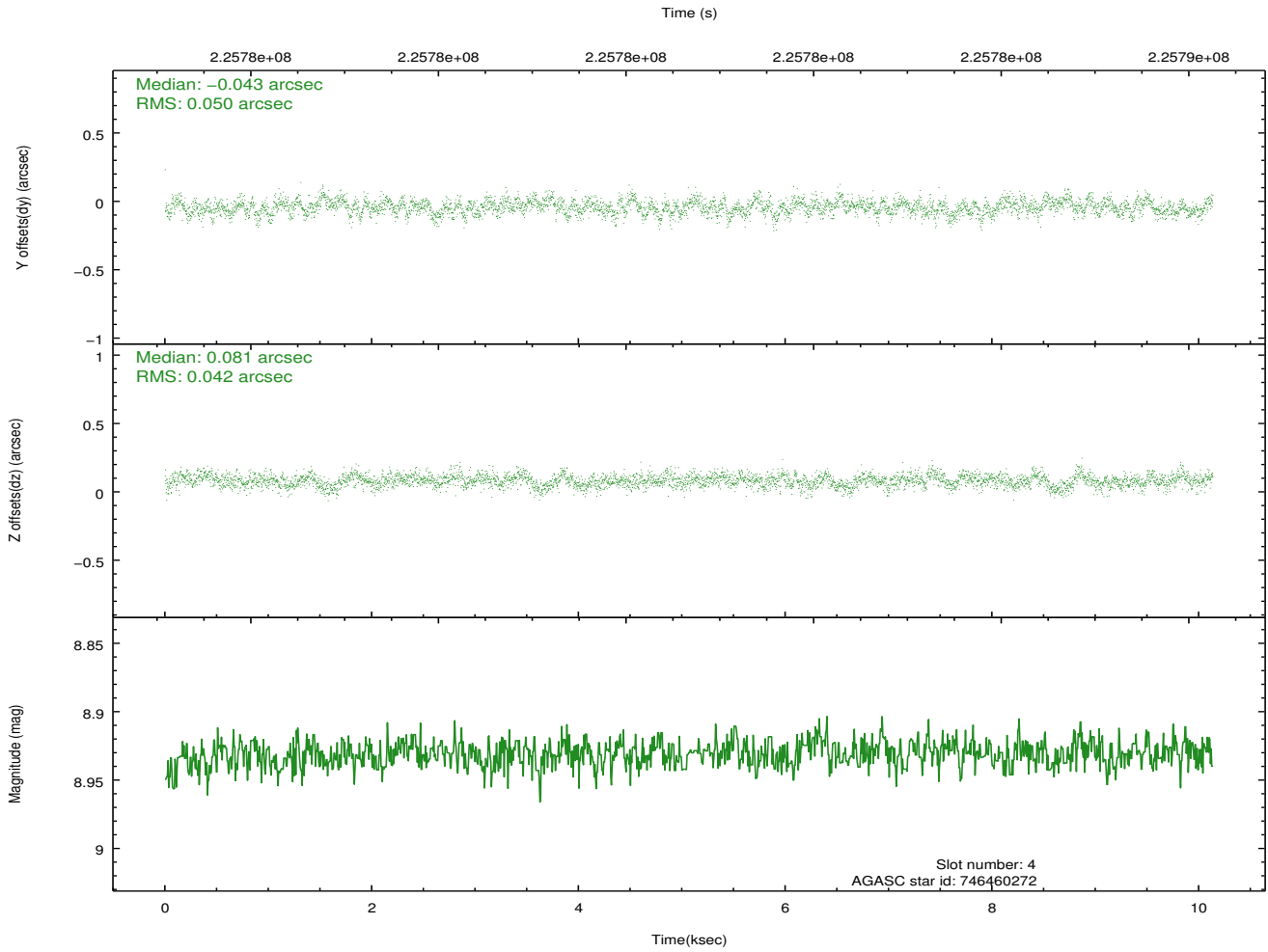
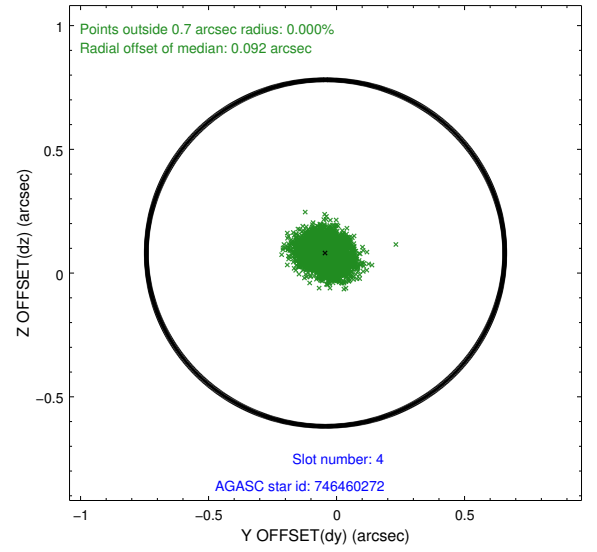
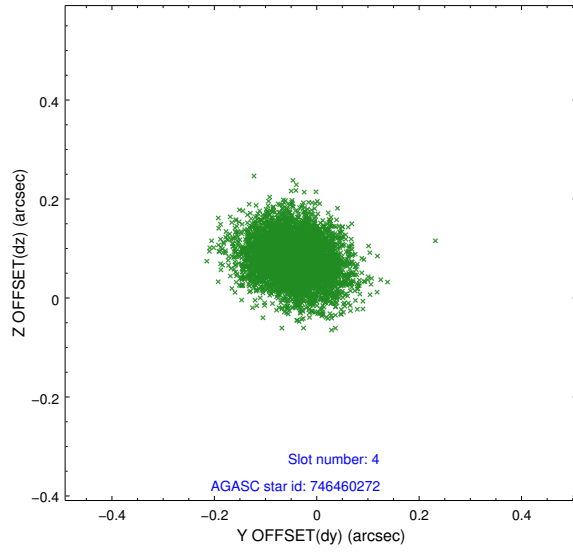
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	2472	0.016	0.024	0.016	0.025	0.000000	0.000000	934.84	-833.16
1	FID	ACIS-I-5	7.22	2472	-0.179	0.034	0.008	0.012	0.000000	0.000000	-1813.17	1064.08
2	FID	ACIS-I-6	7.25	2472	0.071	0.012	0.016	0.027	0.000000	0.000000	399.87	1709.15
3	GUIDE	746455152	7.83	4944	-0.239	-0.283	0.057	0.092	278.447893	-9.976732	2059.51	151.29
4	GUIDE	746460272	8.93	4939	-0.043	0.081	0.069	0.113	278.847488	-10.152127	1529.74	-1305.62
5	GUIDE	746462392	8.52	4943	0.178	0.154	0.075	0.120	279.038421	-10.890715	-1076.90	-2164.93
6	GUIDE	746462456	8.39	4941	0.141	-0.020	0.058	0.094	278.652171	-10.530173	122.60	-711.47
7	GUIDE	746460328	9.83	4940	-0.038	0.074	0.117	0.193	278.603974	-9.898096	2380.79	-380.60

## 2.4 Star Slots

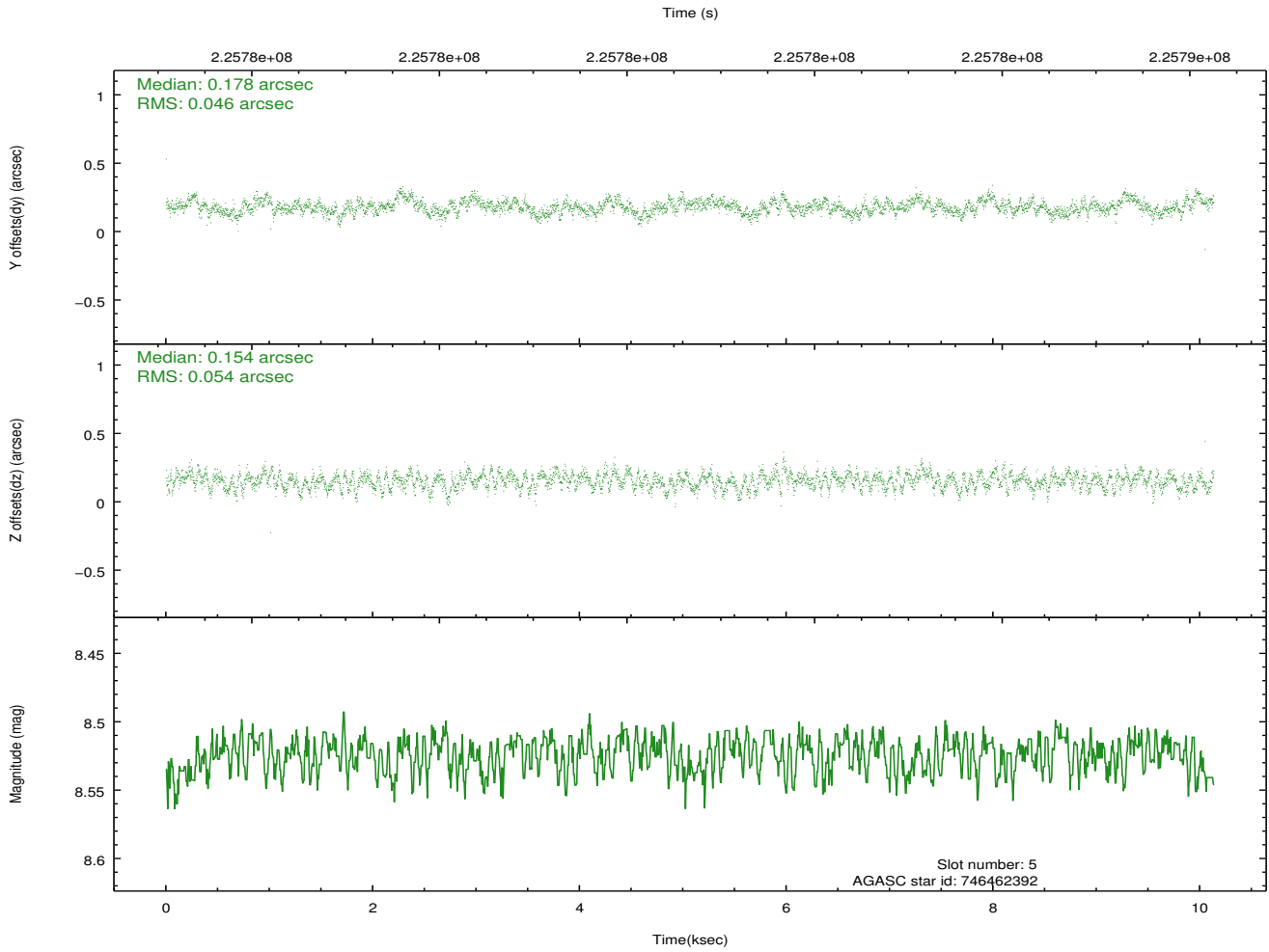
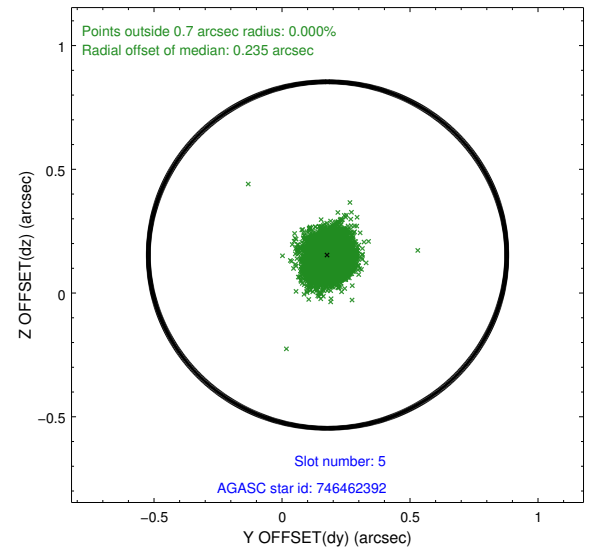
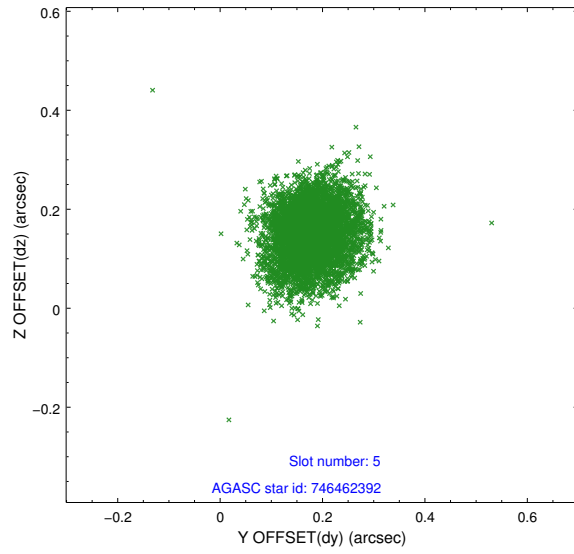
### 2.4.1 Slot 3



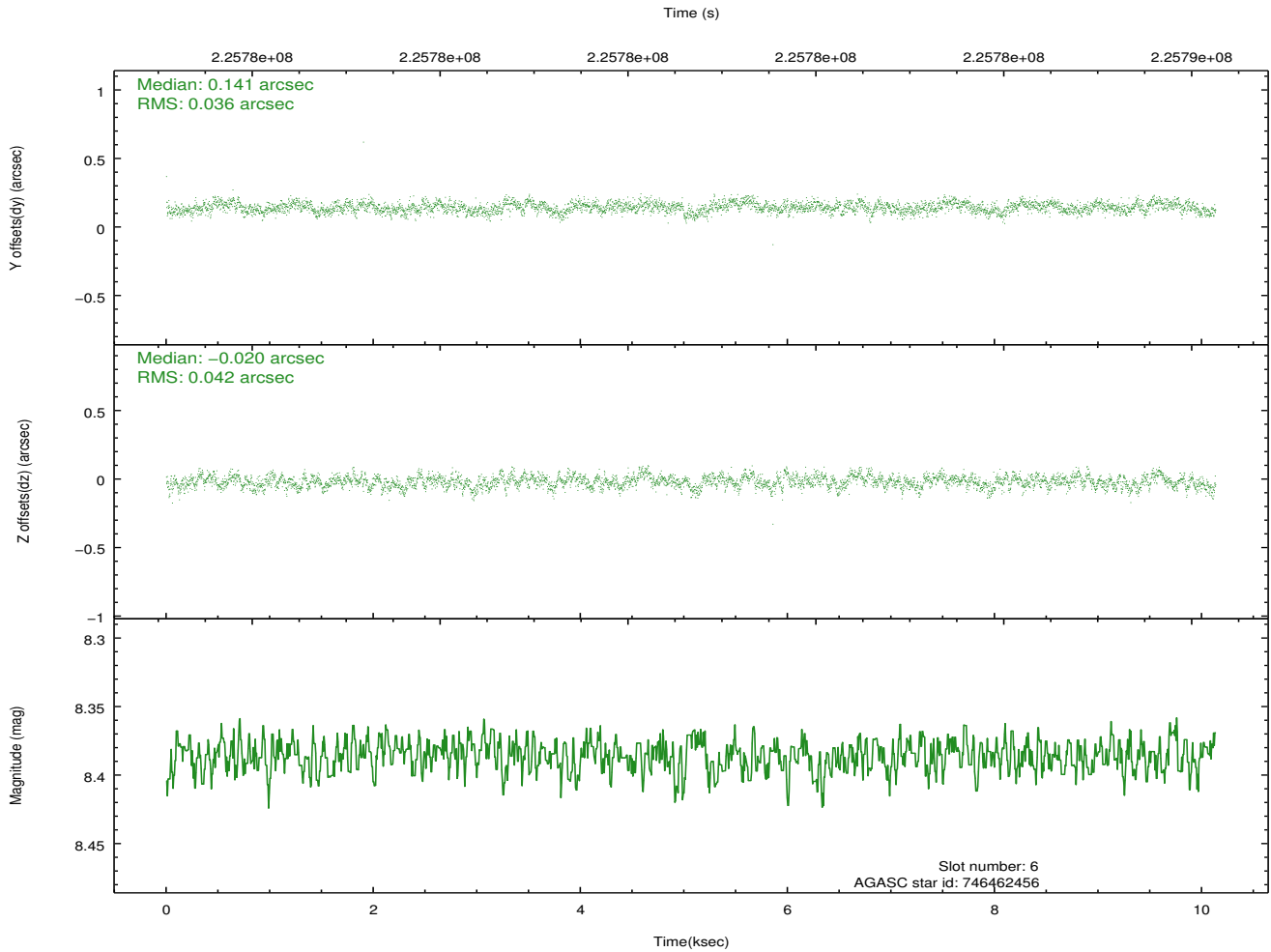
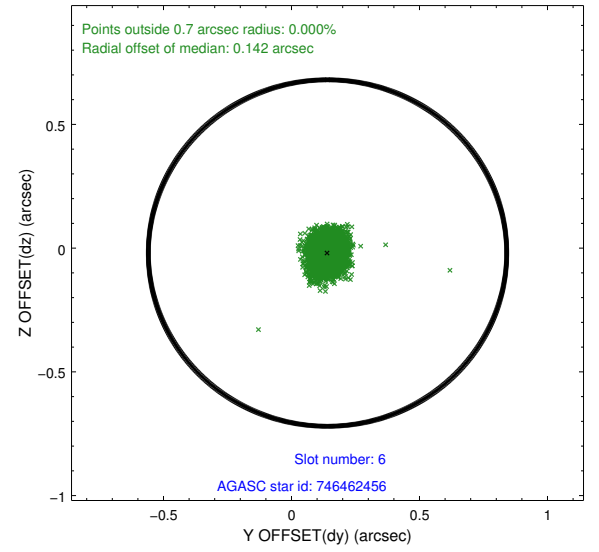
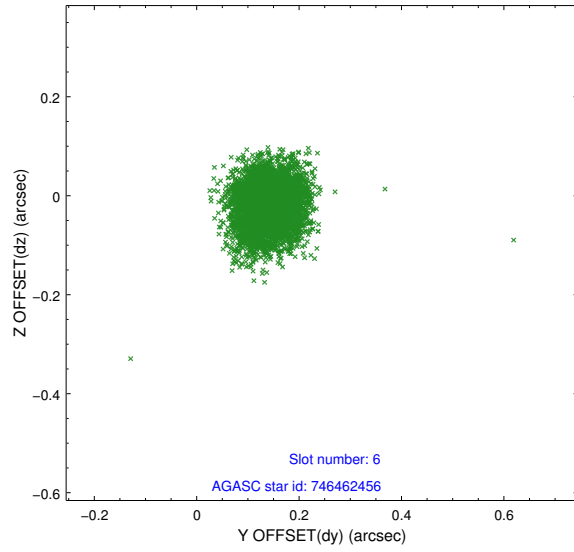
## 2.4.2 Slot 4



### 2.4.3 Slot 5

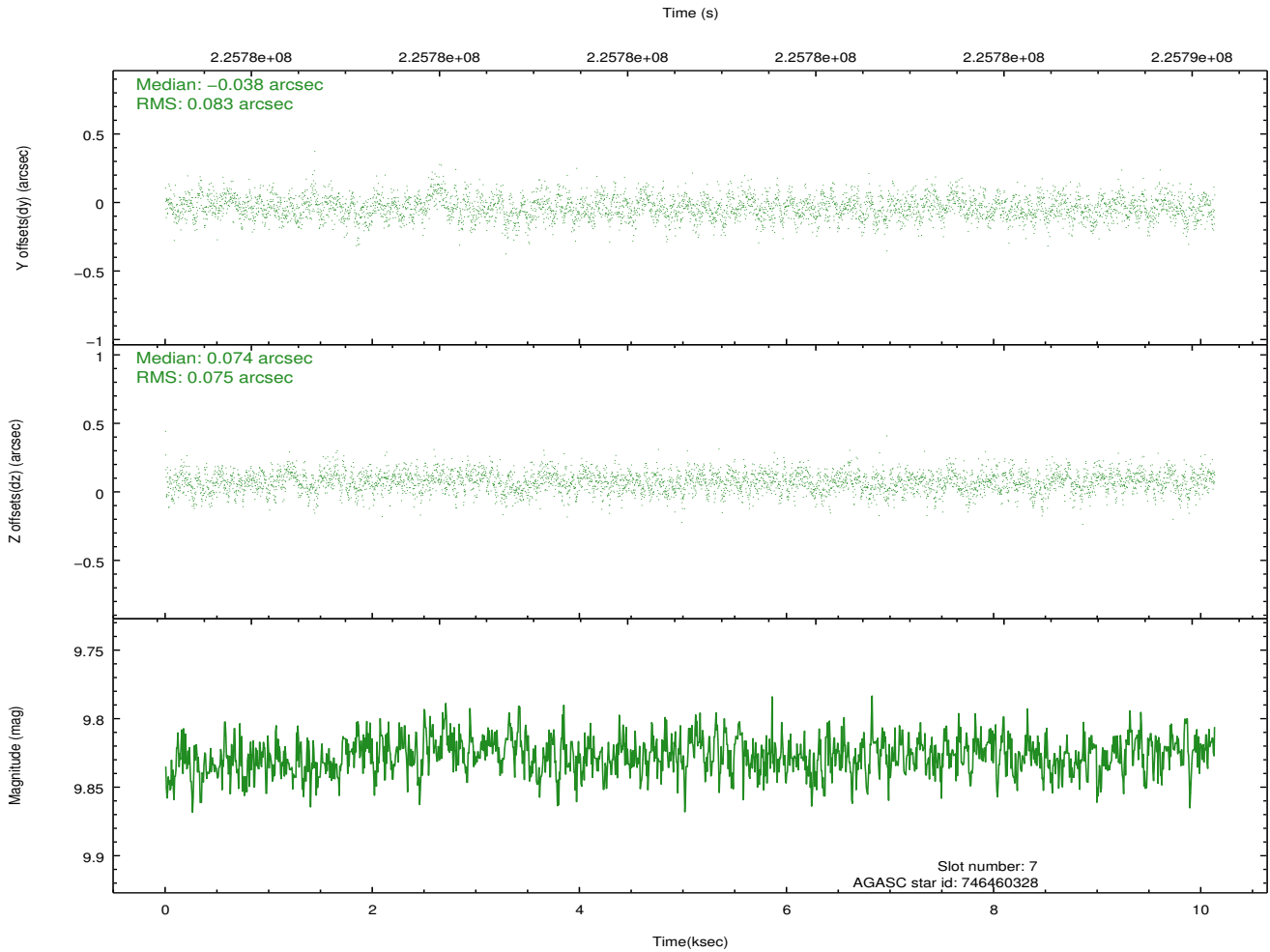
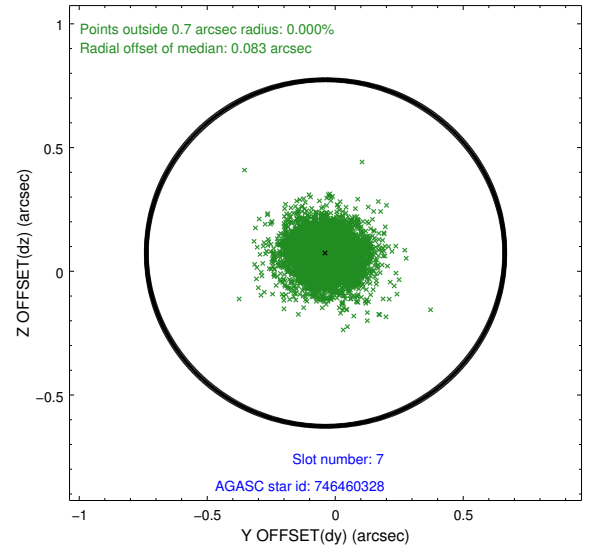
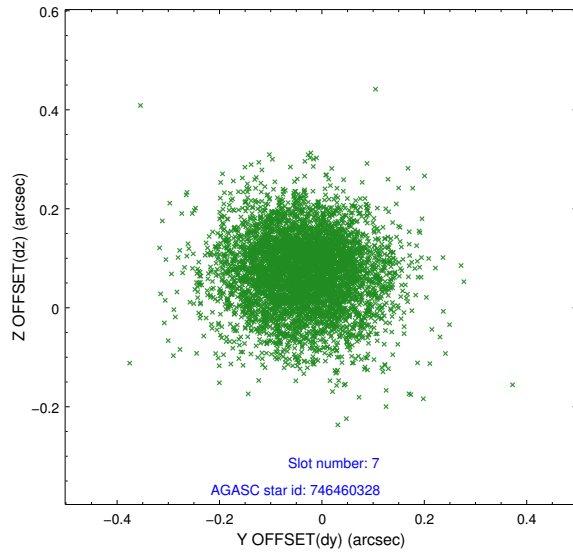


## 2.4.4 Slot 6



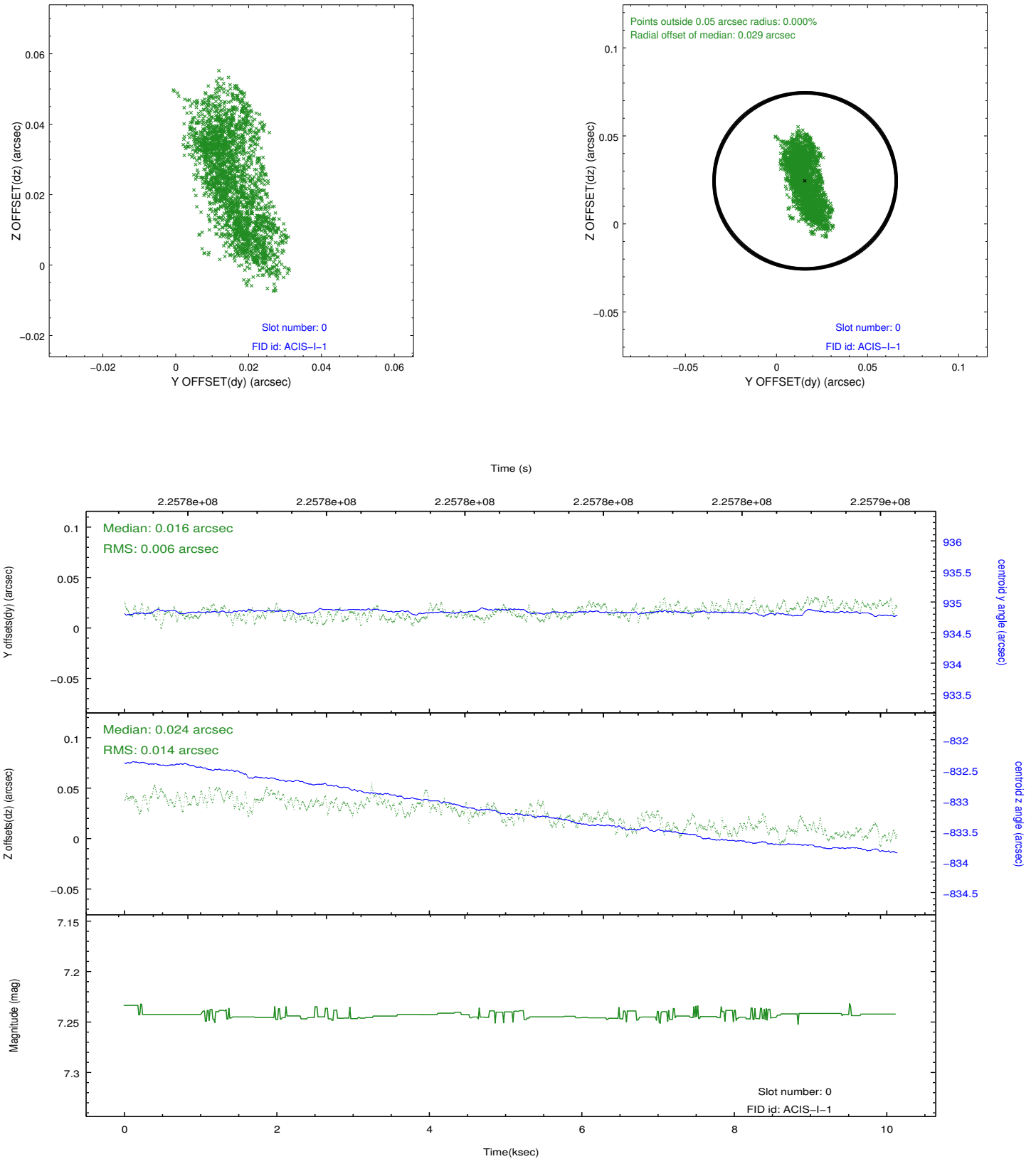


## 2.4.5 Slot 7

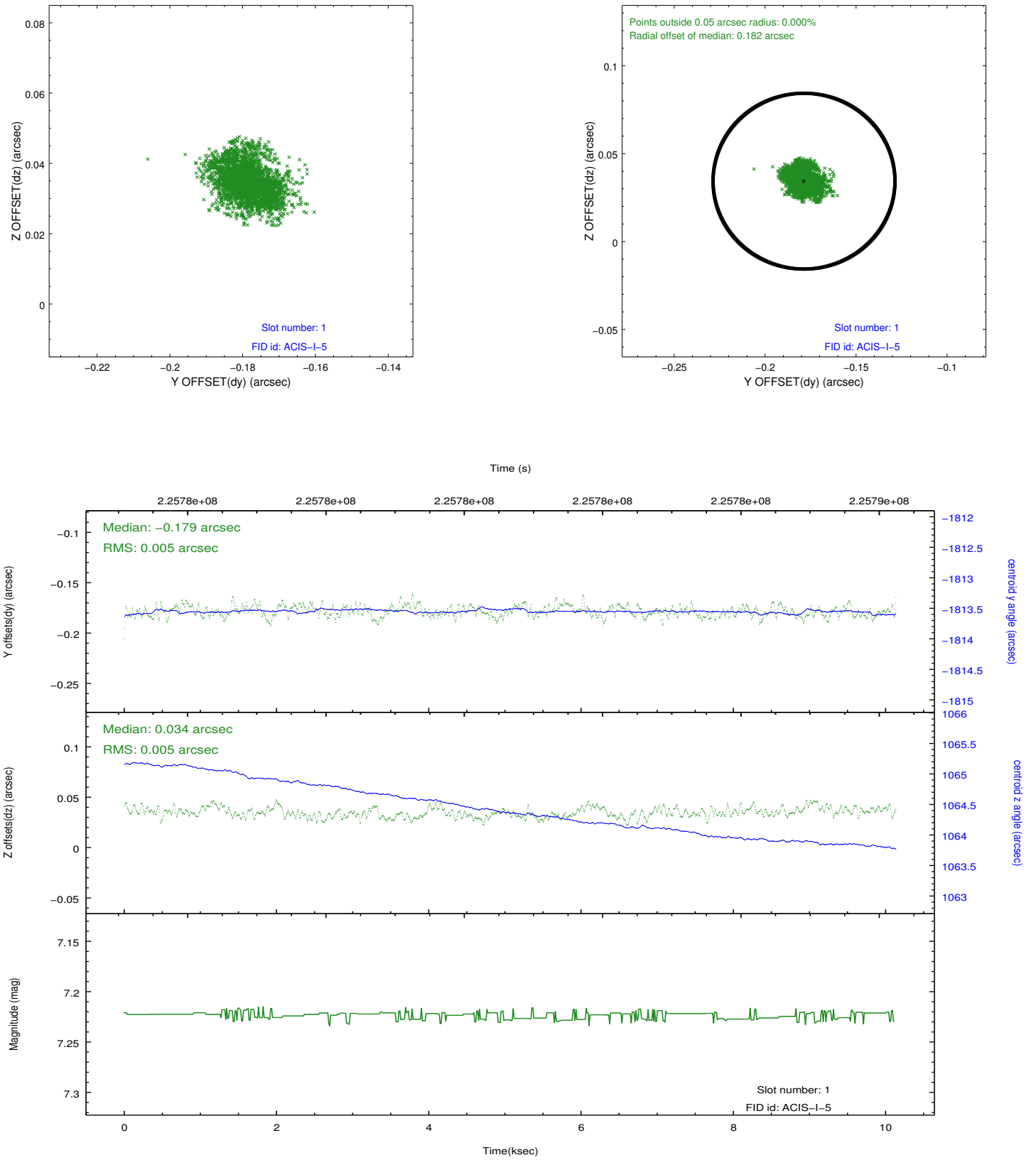


## 2.5 FID Slots

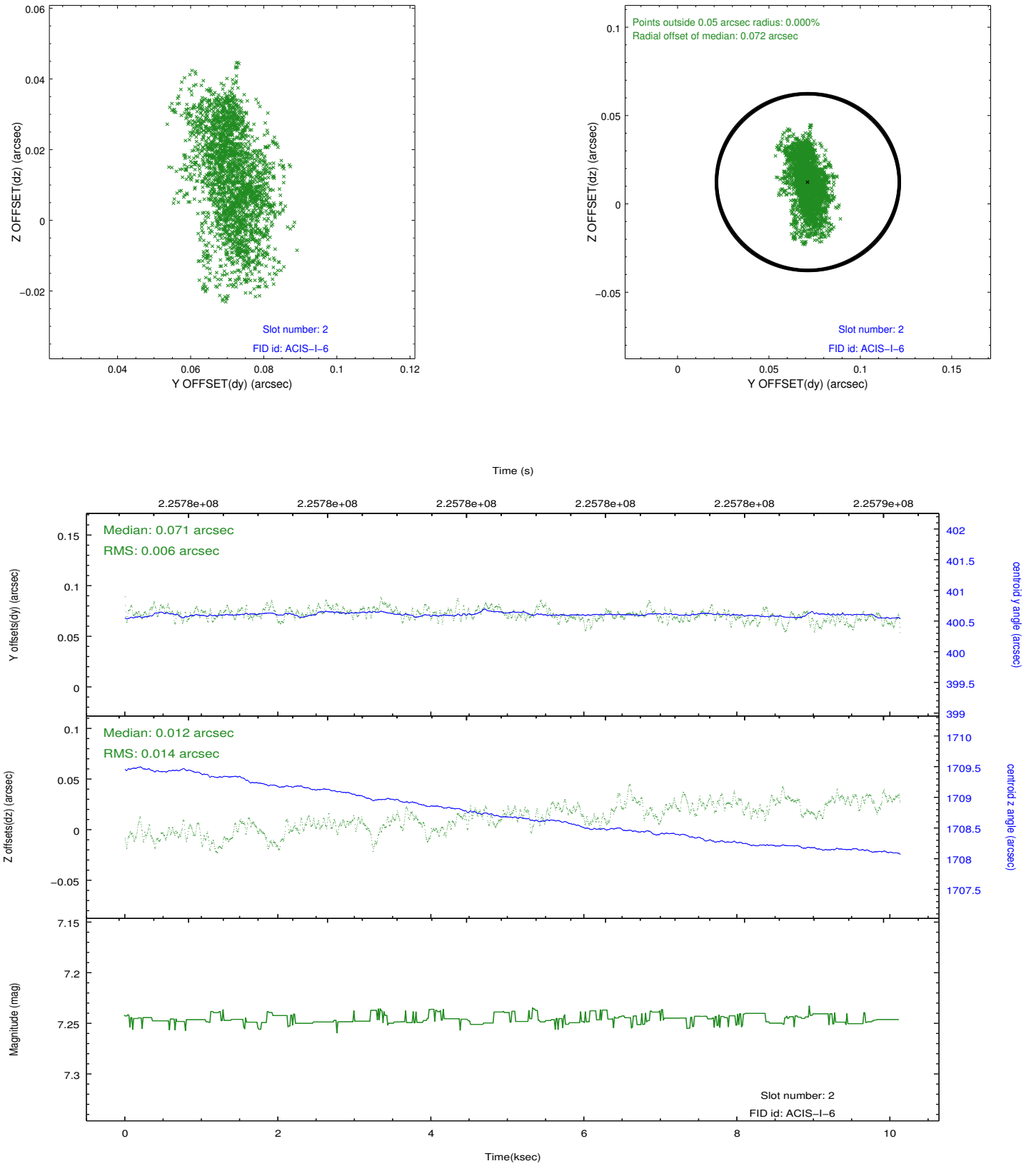
### 2.5.1 Slot 0



## 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)	2013.01.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.12799

### A.2 Comments

Window constraint met.