

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 1265 - L2 Version 2

Chandra X-Ray Center

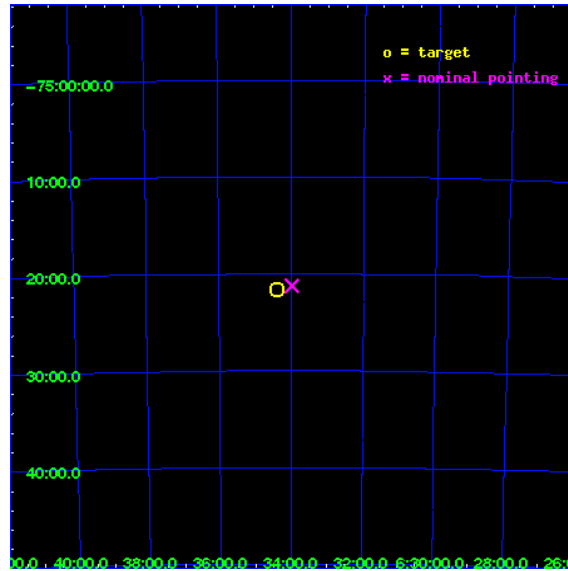
L2 Processing Date : Dec 14 2009

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# 1 Front

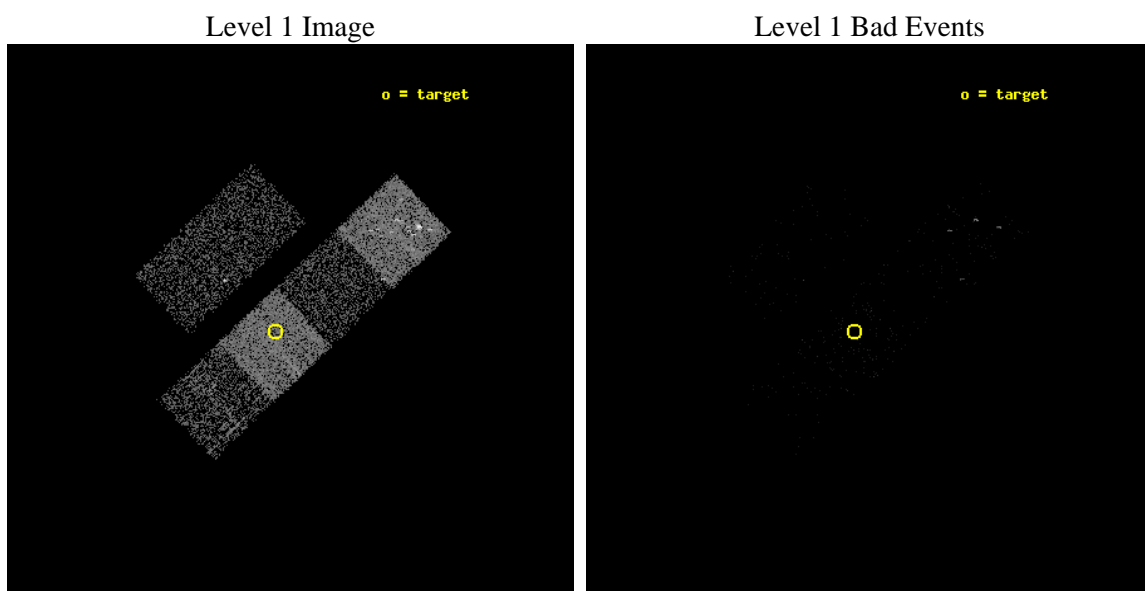
seq_num	780215	Sequence number
obs_id	1265	Observation id
title	&#160	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	PKS0637-752	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	98.602155	Observer's specified target RA
dec_targ	-75.361052	Observer's specified target Dec
ra_nom	98.494578357036	Nominal RA
dec_nom	-75.353842165399	Nominal Dec
roll_nom	136.63987974578	Nominal Roll
revision	2	Processing version of data
ontime	0.0	Sum of GTIs [s]
livetime	0.0	Livetime [s]
ontime2	0.0	Sum of GTIs [s]
ontime3	0.0	Sum of GTIs [s]
ontime5	0.0	Sum of GTIs [s]
ontime6	0.0	Sum of GTIs [s]
ontime7	0.0	Sum of GTIs [s]
ontime8	0.0	Sum of GTIs [s]
l2events	0	Number of level 2 events



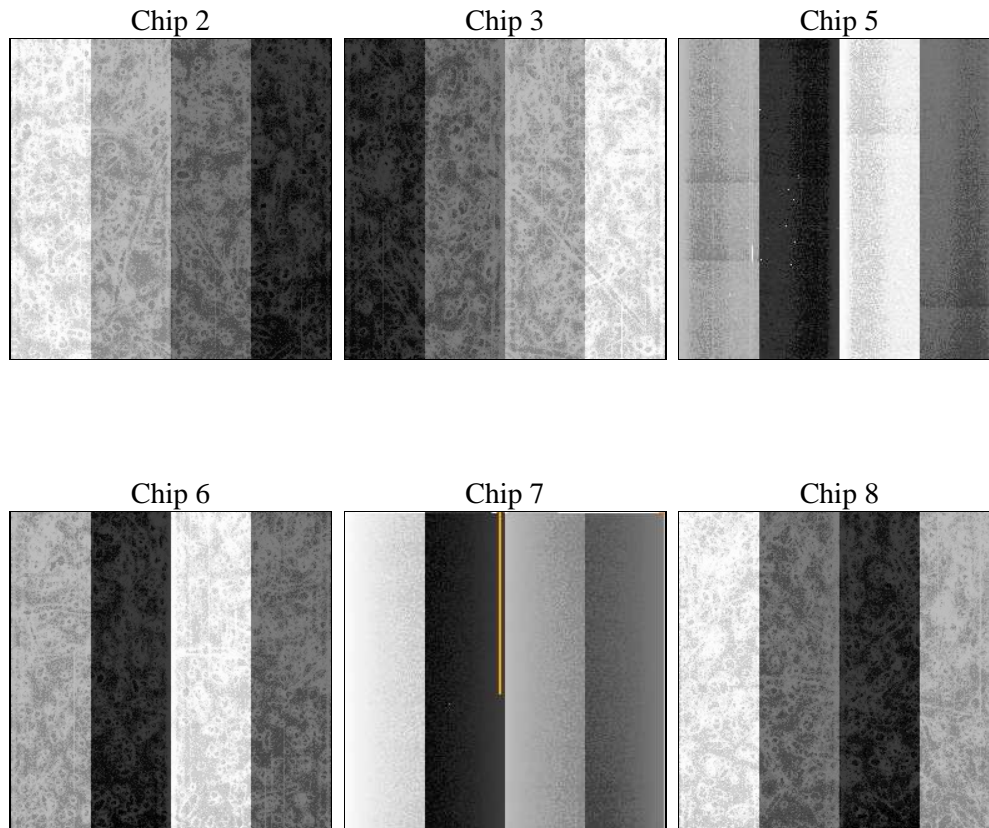
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	0.0	Sum of GTIs [s]
caldsver	4.1.4	&#160	ontime2	764.87515690178	Sum of GTIs [s]
date	2009-12-14T05:37:41	Date and time of file creation	ontime3	764.87513697147	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	764.87517683208	Sum of GTIs [s]
			ontime6	764.87515690178	Sum of GTIs [s]
			ontime7	764.87515690178	Sum of GTIs [s]
			ontime8	764.87517683208	Sum of GTIs [s]
			l1events	28680	Number of level 1 events

### 2.1.4 Events

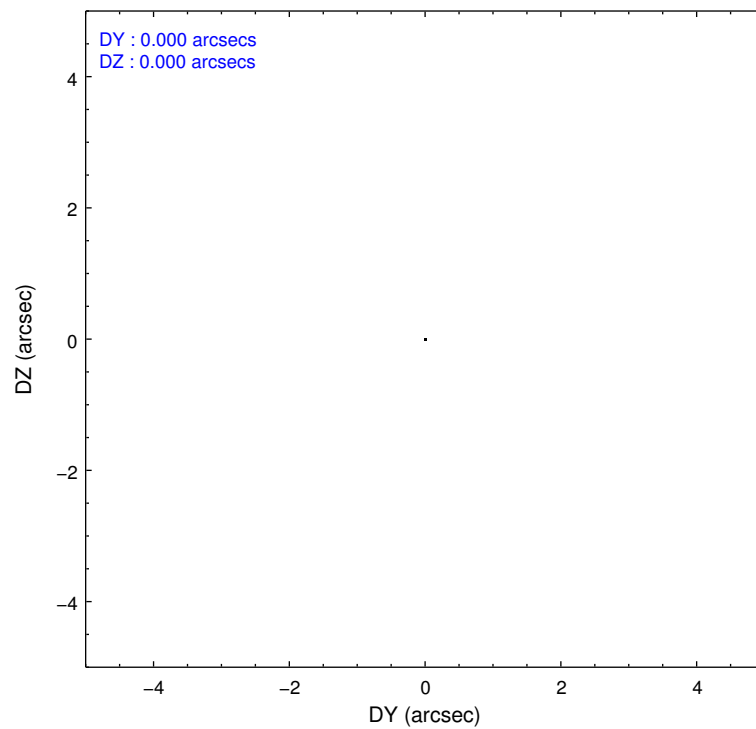
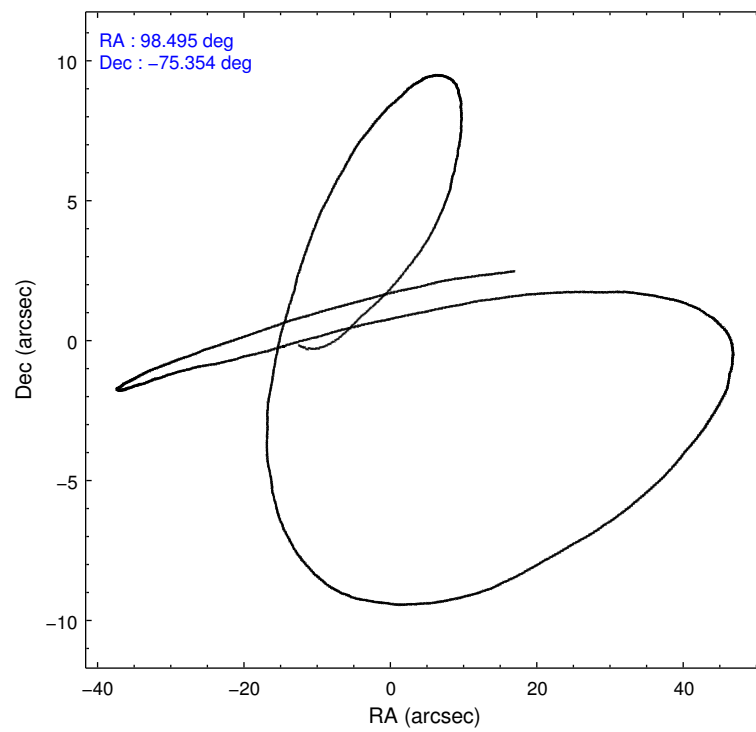
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	1854	2167	11636	2097	8255	2671
rejected events	485	574	947	573	988	592
rejected %	26%	26%	8%	27%	11%	22%

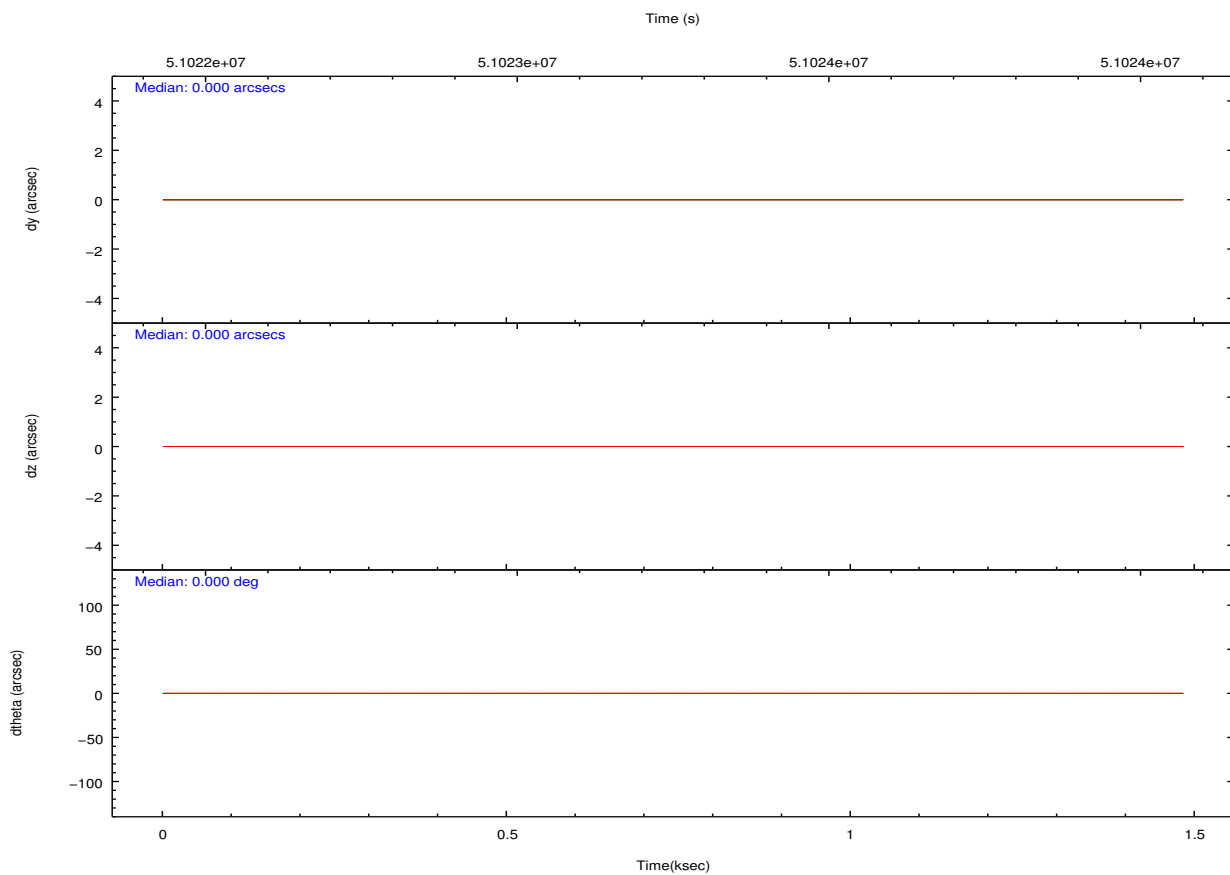
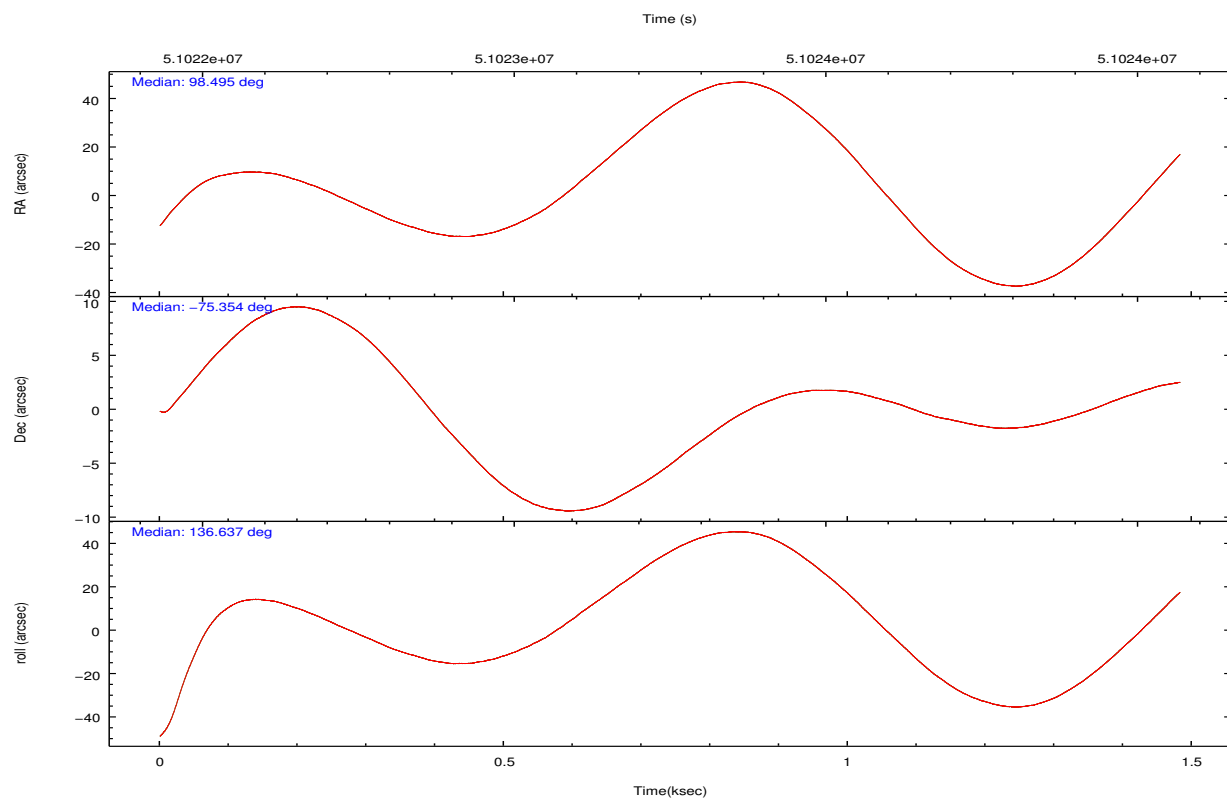
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	370	563	2789	412	491	545
	19%	25%	23%	19%	5%	20%
grade 1 events	3	6	219	2	1	9
	0%	0%	1%	0%	0%	0%
grade 2 events	269	270	1633	285	1018	456
	14%	12%	14%	13%	12%	17%
grade 3 events	147	140	576	161	523	179
	7%	6%	4%	7%	6%	6%
grade 4 events	119	119	542	120	445	197
	6%	5%	4%	5%	5%	7%
grade 5 events	482	568	728	571	987	583
	25%	26%	6%	27%	11%	21%
grade 6 events	464	501	5149	546	4790	702
	25%	23%	44%	26%	58%	26%
grade 7 events	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
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
Pointing RA	98.602147	98.49457835703609	Subarray requested	NONE	NONE
Pointing Dec	-75.361043	-75.353842165399	Alternating exposures requested	N	N
Pointing Roll	136.587633	136.6398797457815	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	0.255451383487682			
SIM defocus (mm)	0	0.9397188447875782			
SIM translation stage pos (mm)	-190.132523	-190.1325231039672			
SIM translation stage offset (mm)	0	5.209593894051068e-07			
Observation start time	51023004.184000	51022337.374657			
Observation start date	1999-08-14T13:02:20	1999-08-14T12:52:17			
Observation end time	51024004.184000	51024117.79972			
Observation end date	1999-08-14T13:19:00	1999-08-14T13:21:57			
Read mode	TIMED	TIMED			

## 2.3 Aspect





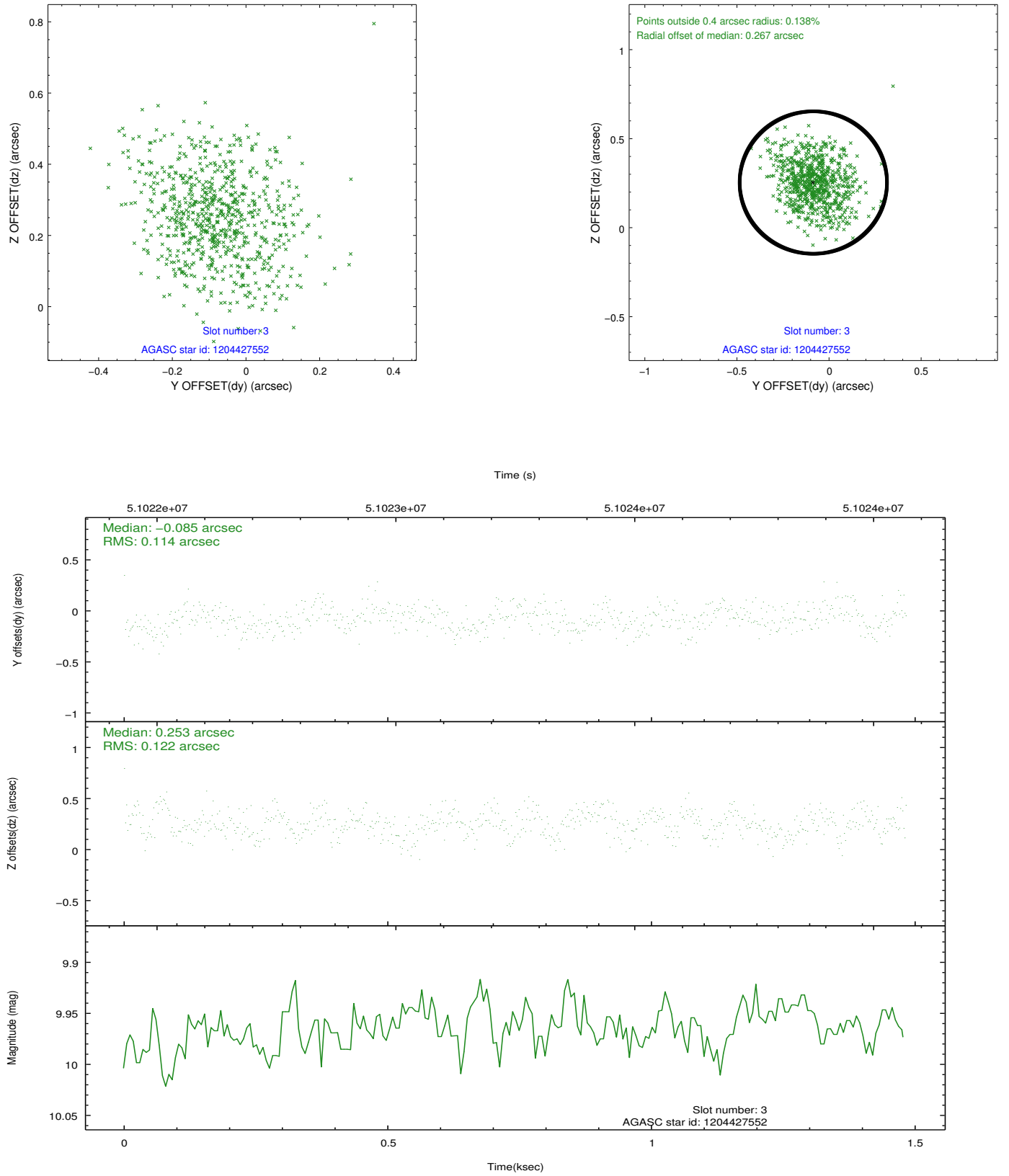
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	drl	dr2	ra	dec	mean_y	mean_z
0	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
1	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
2	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
3	GUIDE	1204427552	9.96	724	-0.085	0.253	0.181	0.283	98.426081	-74.700454	1754.13	-1611.35
4	GUIDE	1229333040	9.79	724	0.038	-0.037	0.154	0.250	99.562583	-75.788185	-1677.31	537.08
5	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	1204427384	9.90	722	0.053	-0.210	0.181	0.296	98.538441	-74.593615	1939.20	-1963.70

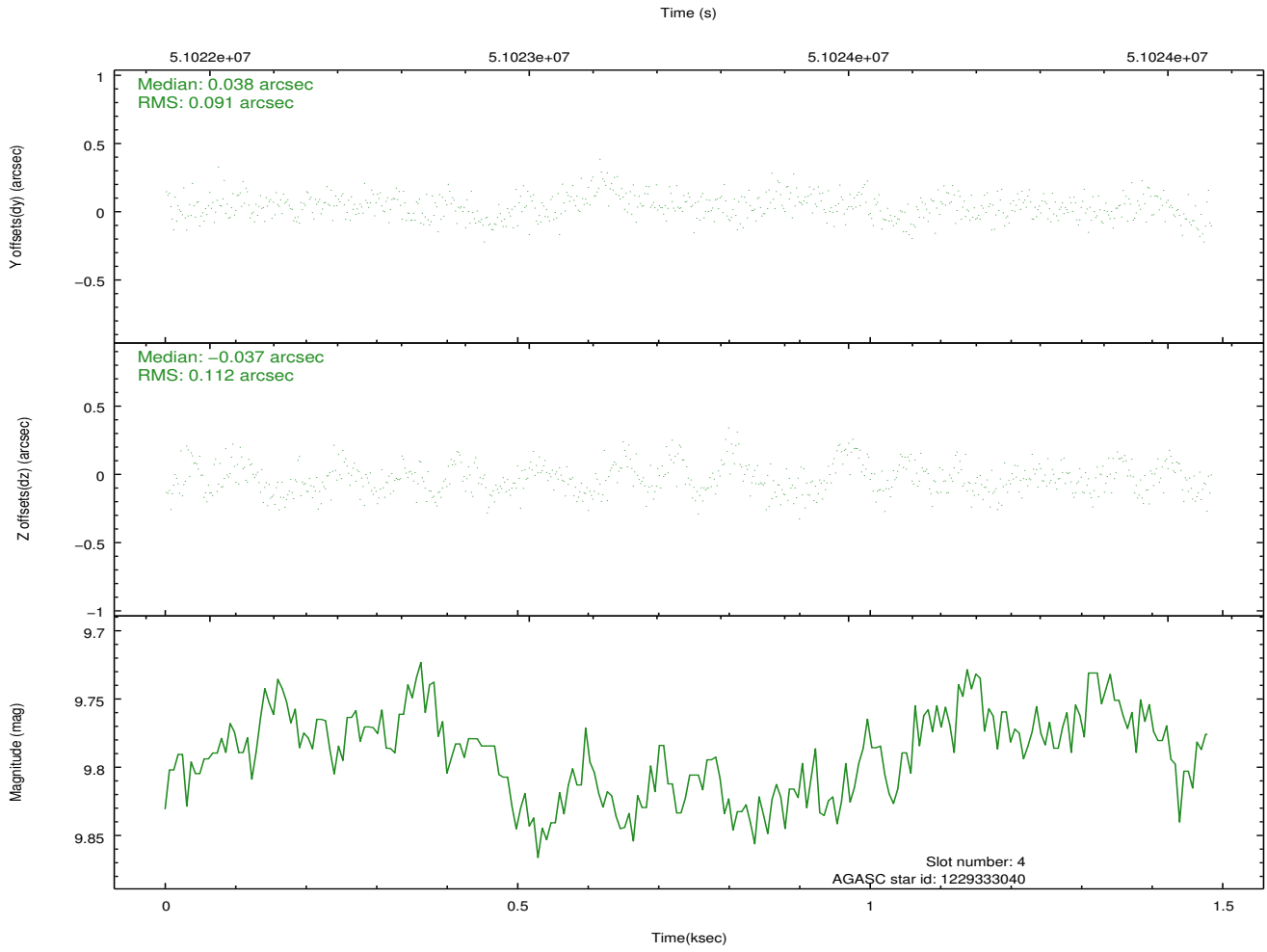
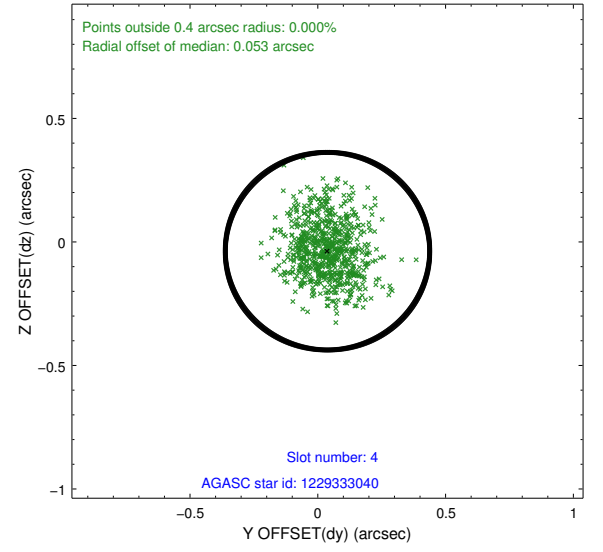
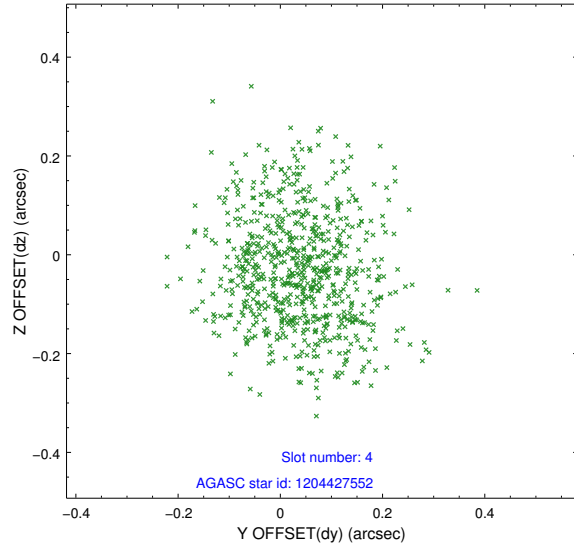


## 2.4 Star Slots

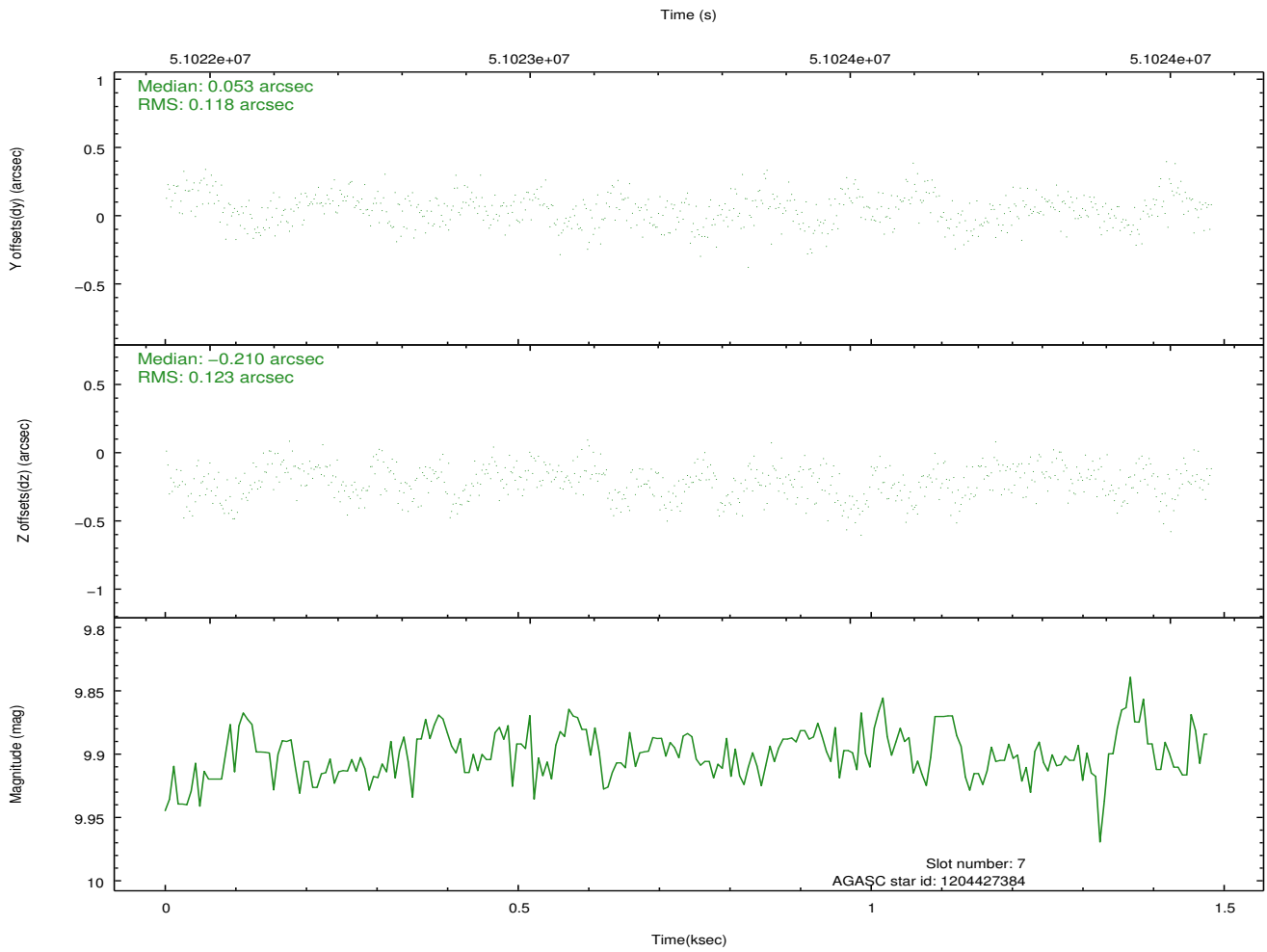
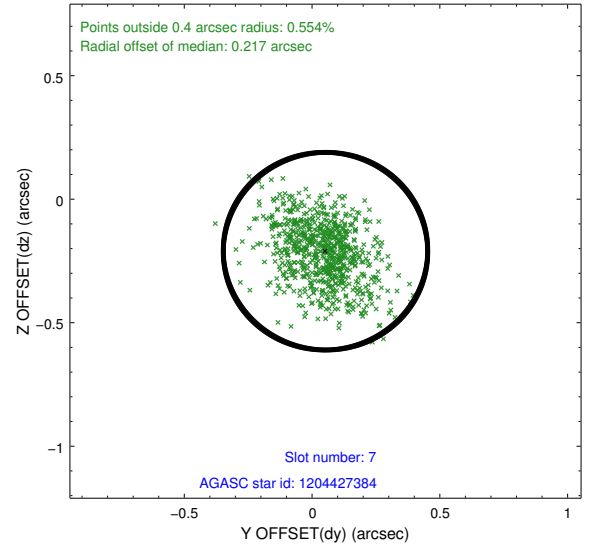
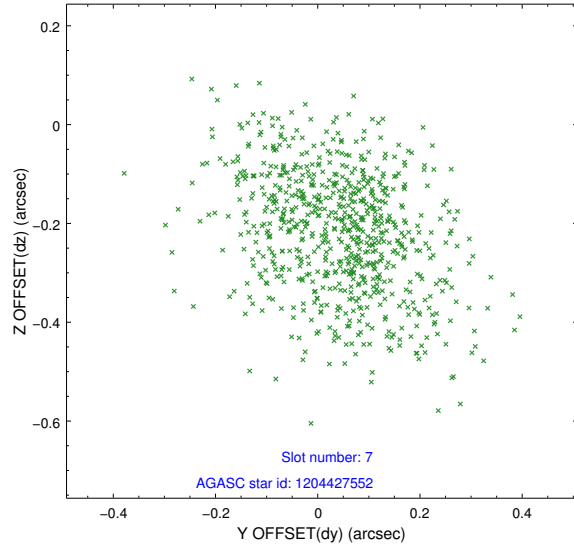
### 2.4.1 Slot 3



## 2.4.2 Slot 4



### 2.4.3 Slot 7



## 2.5 FID Slots

### 3 Point Sources

# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.08.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1

## A.2 Comments

After the maneuver to this target, the guide stars were not acquired and the satellite went to Bright Star Hold. The telescope was in Kalman lock during most of the observation, using whatever bright stars it had acquired for pointing control. Three guide star slots were used during the Bright Star Hold, although the software does not have reliable knowledge of the identity of these stars. No fid lights were acquired. An aspect solution was calculated, but is unreliable.

There is no GTI interval and no Level 2 events. There are events in the Level 1 event file, although artifacts of the dither pattern can be seen in the image.

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It is possible to determine the position and magnitude of each star used for pointing control during a Bright Star Hold by a posterior calculations. It was not deemed worthwhile for this observation, but could be done on request.

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The focal plane temperature is approximately -100 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T\_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.

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Charge time remains at previous value of 1 ksec, although the current processing would give a charge time of 0.0 ksec.