

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 163 - L2 Version 3  
Chandra X-Ray Center

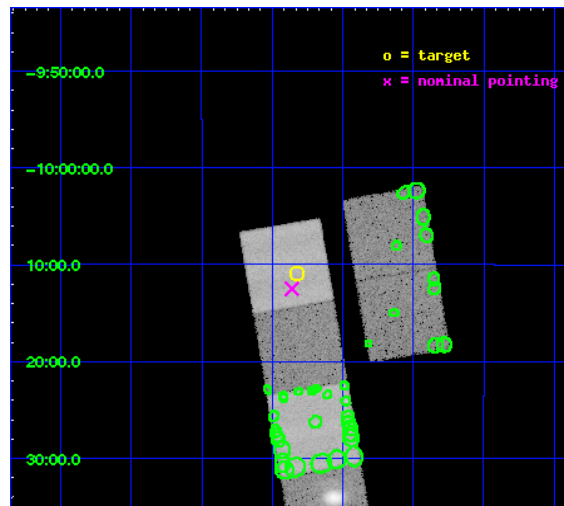
L2 Processing Date : Dec 14 2009

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# 1 Front

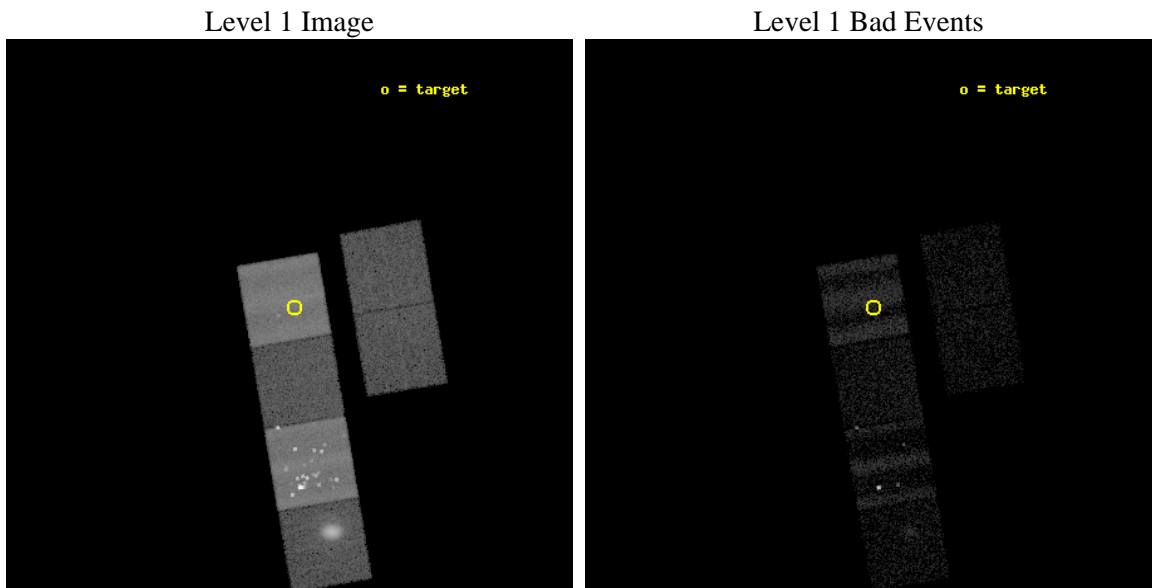
seq_num	590031	Sequence number
obs_id	163	Observation id
title	ACIS CHIP RESPONSE TO A CONTINUUM SOURCE	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	G21.5-0.9 [Chip S0, T=100, Offsets=23,0,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.45598	Observer's specified target RA
dec_targ	-10.182345	Observer's specified target Dec
ra_nom	278.46525175826	Nominal RA
dec_nom	-10.208518117887	Nominal Dec
roll_nom	260.37973200422	Nominal Roll
revision	3	Processing version of data
ontime	10032.000009343	Sum of GTIs [s]
livetime	9904.9687846795	Livetime [s]
ontime2	10032.000009343	Sum of GTIs [s]
ontime3	10032.000009343	Sum of GTIs [s]
ontime4	10028.759049132	Sum of GTIs [s]
ontime5	10032.000009343	Sum of GTIs [s]
ontime6	10032.000009343	Sum of GTIs [s]
ontime7	10032.000009343	Sum of GTIs [s]
l2events	242708	Number of level 2 events



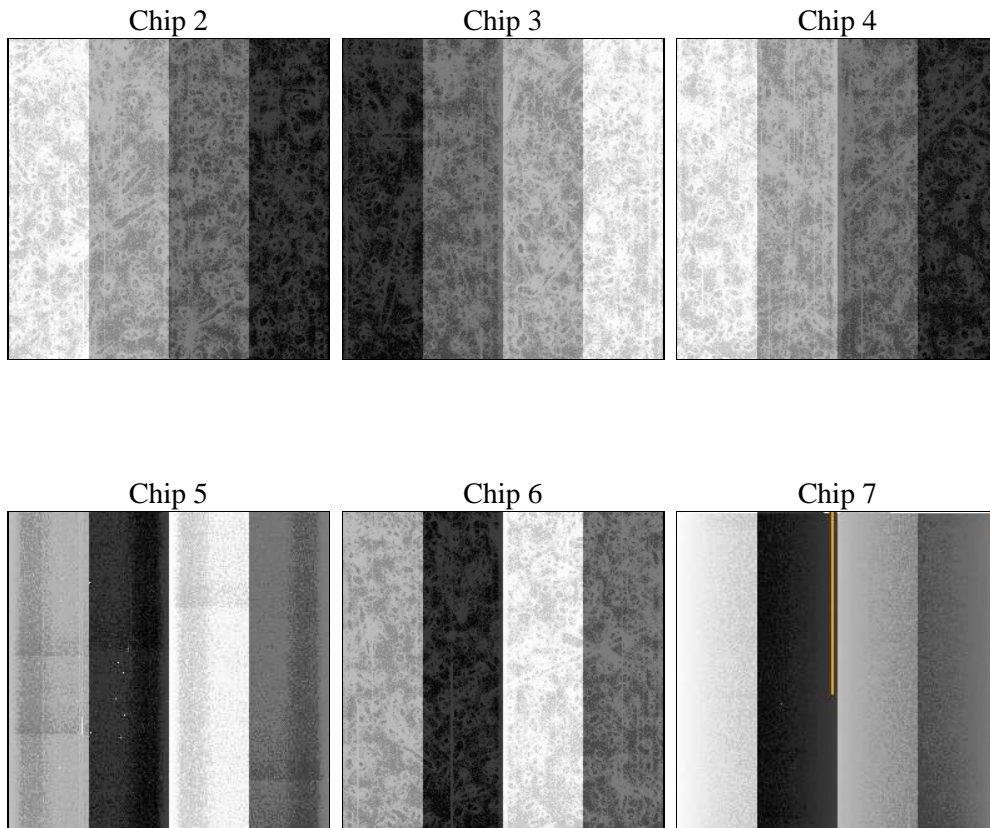
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	11000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	10032.000009343	Sum of GTIs [s]
caldbver	4.1.4	&#160	ontime2	10032.000009343	Sum of GTIs [s]
date	2009-12-14T06:28:43	Date and time of file creation	ontime3	10032.000009343	Sum of GTIs [s]
revision	3	Processing version of data	ontime4	10028.759049132	Sum of GTIs [s]
			ontime5	10032.000009343	Sum of GTIs [s]
			ontime6	10032.000009343	Sum of GTIs [s]
			ontime7	10032.000009343	Sum of GTIs [s]
			l1events	344256	Number of level 1 events

### 2.1.4 Events

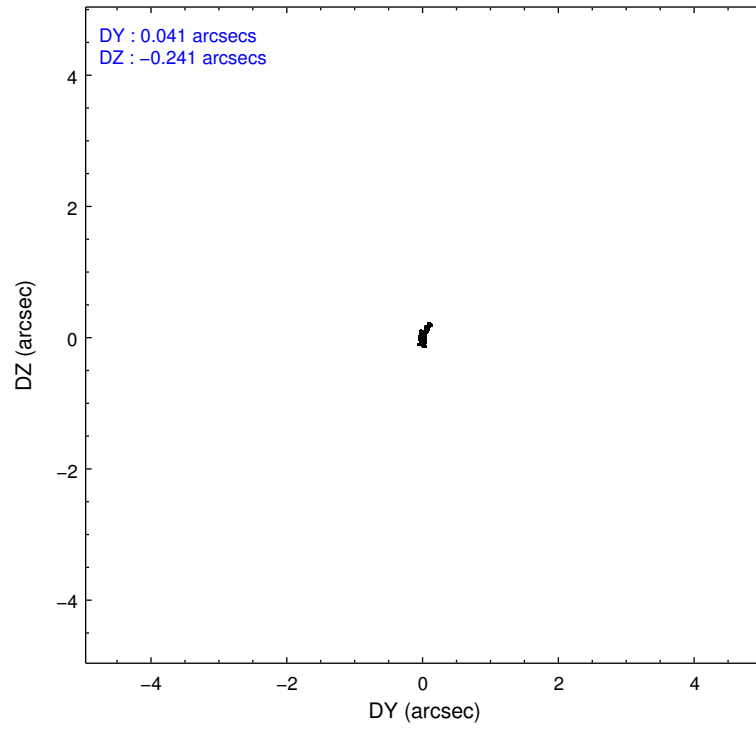
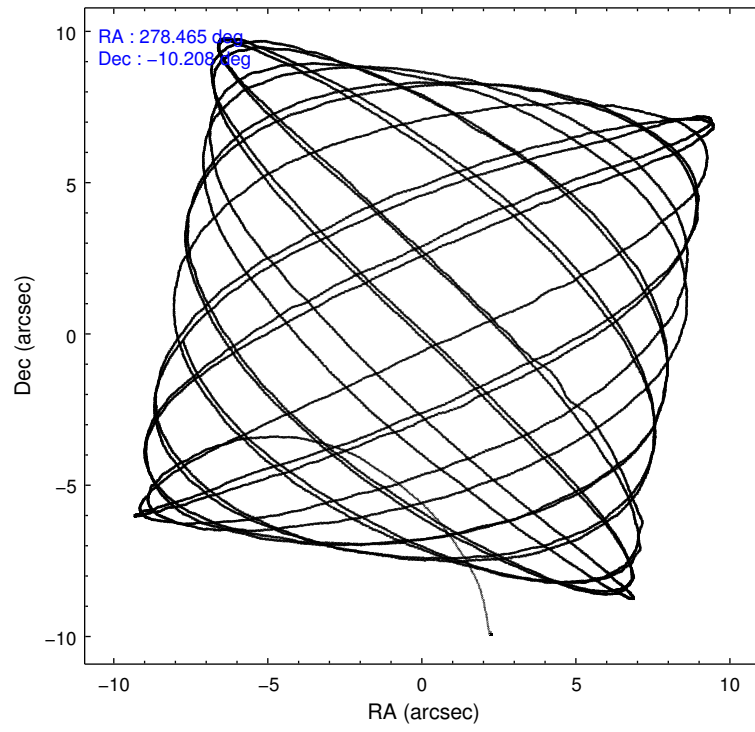
	ccd 2	ccd 3	ccd 4	ccd 5	ccd 6	ccd 7
level 1 events	25254	26756	41053	132158	28867	90168
rejected events	6564	7013	6539	11751	8168	13789
rejected %	25%	26%	15%	8%	28%	15%

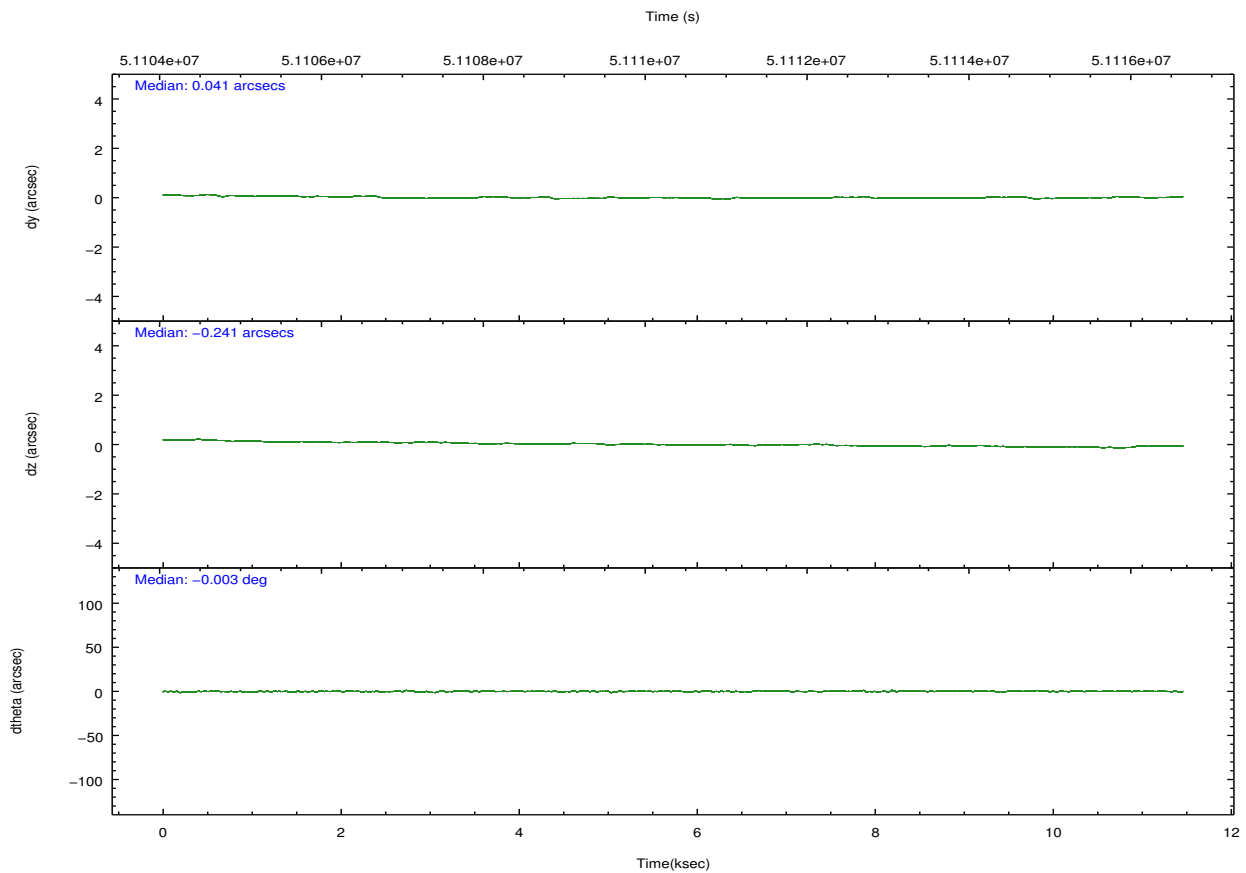
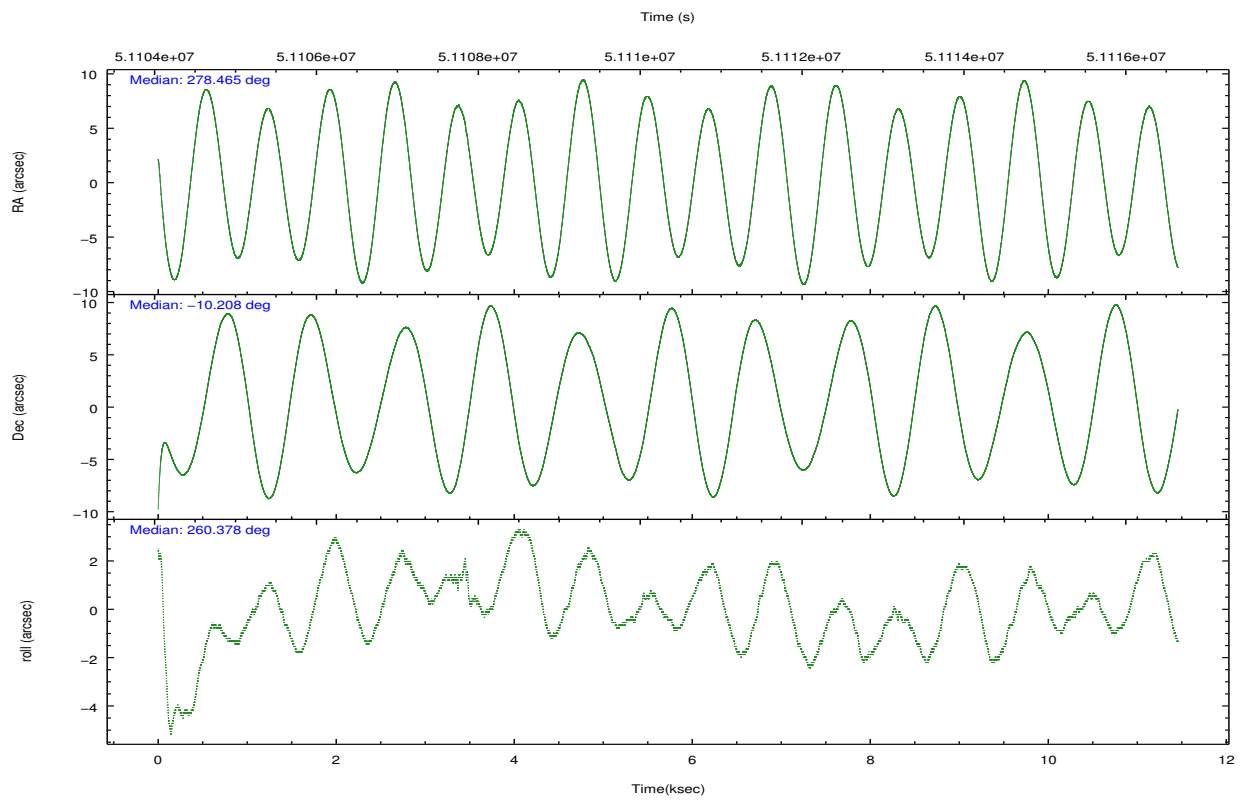
	ccd 2	ccd 3	ccd 4	ccd 5	ccd 6	ccd 7
grade 0 events	5300	5958	17066	29143	5399	3460
	20%	22%	41%	22%	18%	3%
grade 1 events	48	58	187	192	47	70
	0%	0%	0%	0%	0%	0%
grade 2 events	3782	3844	5996	20476	4064	9004
	14%	14%	14%	15%	14%	9%
grade 3 events	1756	1771	2395	5231	1915	5437
	6%	6%	5%	3%	6%	6%
grade 4 events	1581	1673	2218	4624	1739	4547
	6%	6%	5%	3%	6%	5%
grade 5 events	6506	6934	6332	9889	8110	13667
	25%	25%	15%	7%	28%	15%
grade 6 events	6281	6518	6859	61006	7593	53980
	24%	24%	16%	46%	26%	59%
grade 7 events	0	0	0	1597	0	3
	0%	0%	0%	1%	0%	0%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-234567	ACIS-234567	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	278.455980	278.4652517582643	Subarray requested	NONE	NONE
Pointing Dec	-10.182344	-10.20851811788709	Alternating exposures requested	N	N
Pointing Roll	260.221453	260.3797320042158	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	51105073.184000	51103501.49002			
Observation start date	1999-08-15T11:50:09	1999-08-15T11:25:01			
Observation end time	51116073.184000	51116199.190467			
Observation end date	1999-08-15T14:53:29	1999-08-15T14:56:39			
Read mode	TIMED	TIMED			

## 2.3 Aspect



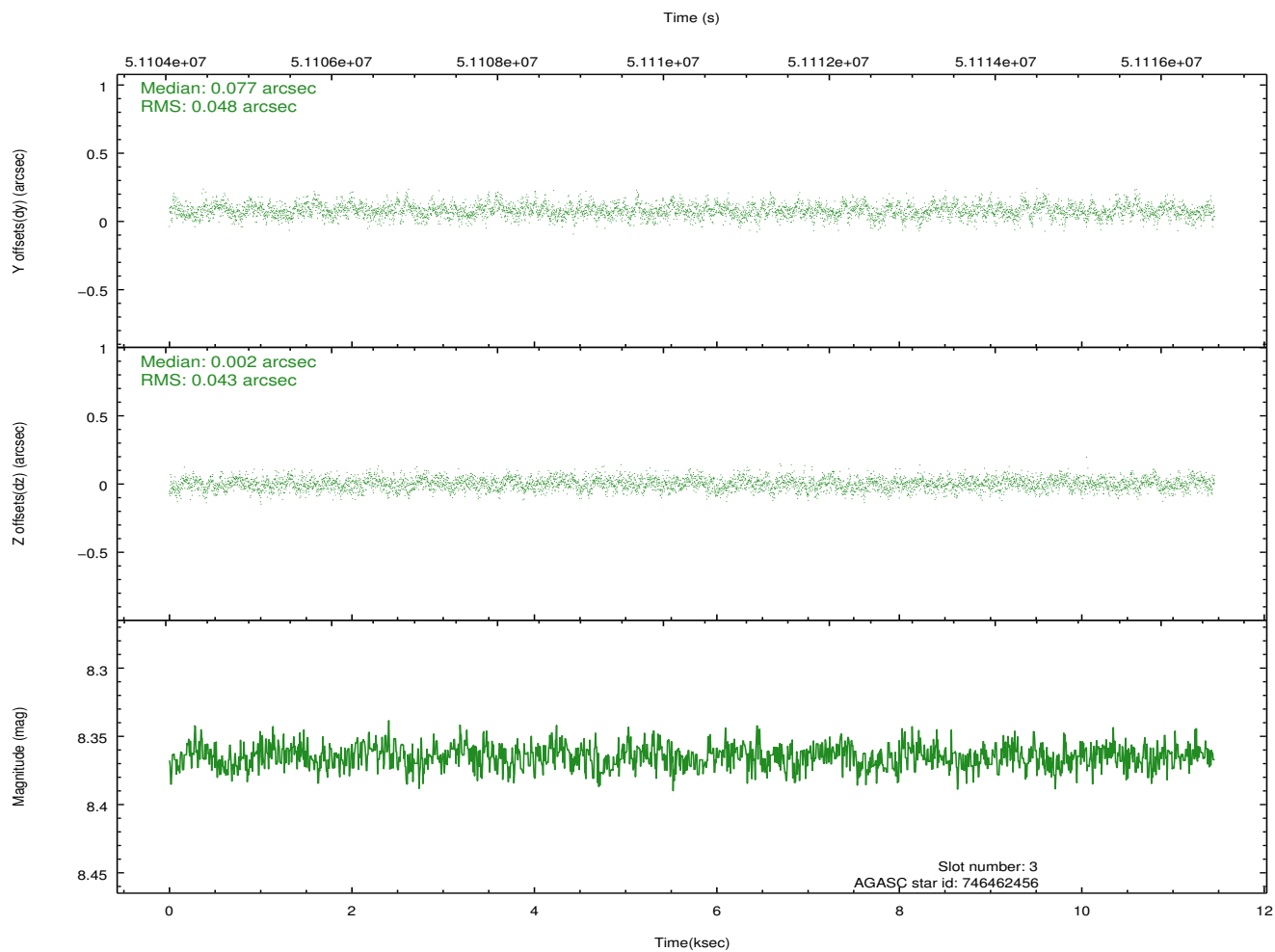
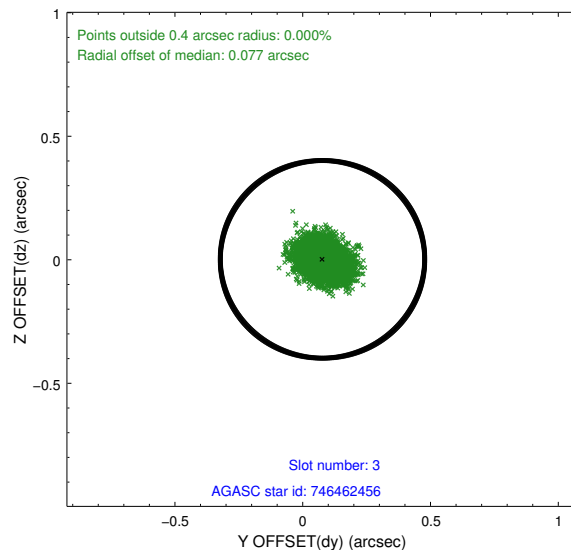
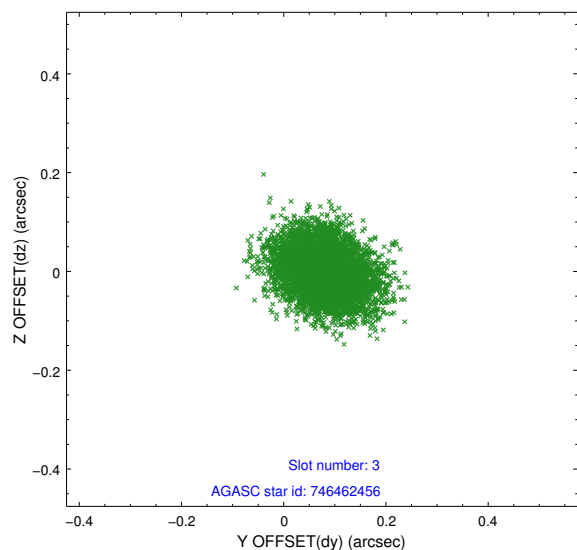


### Slot Statistics

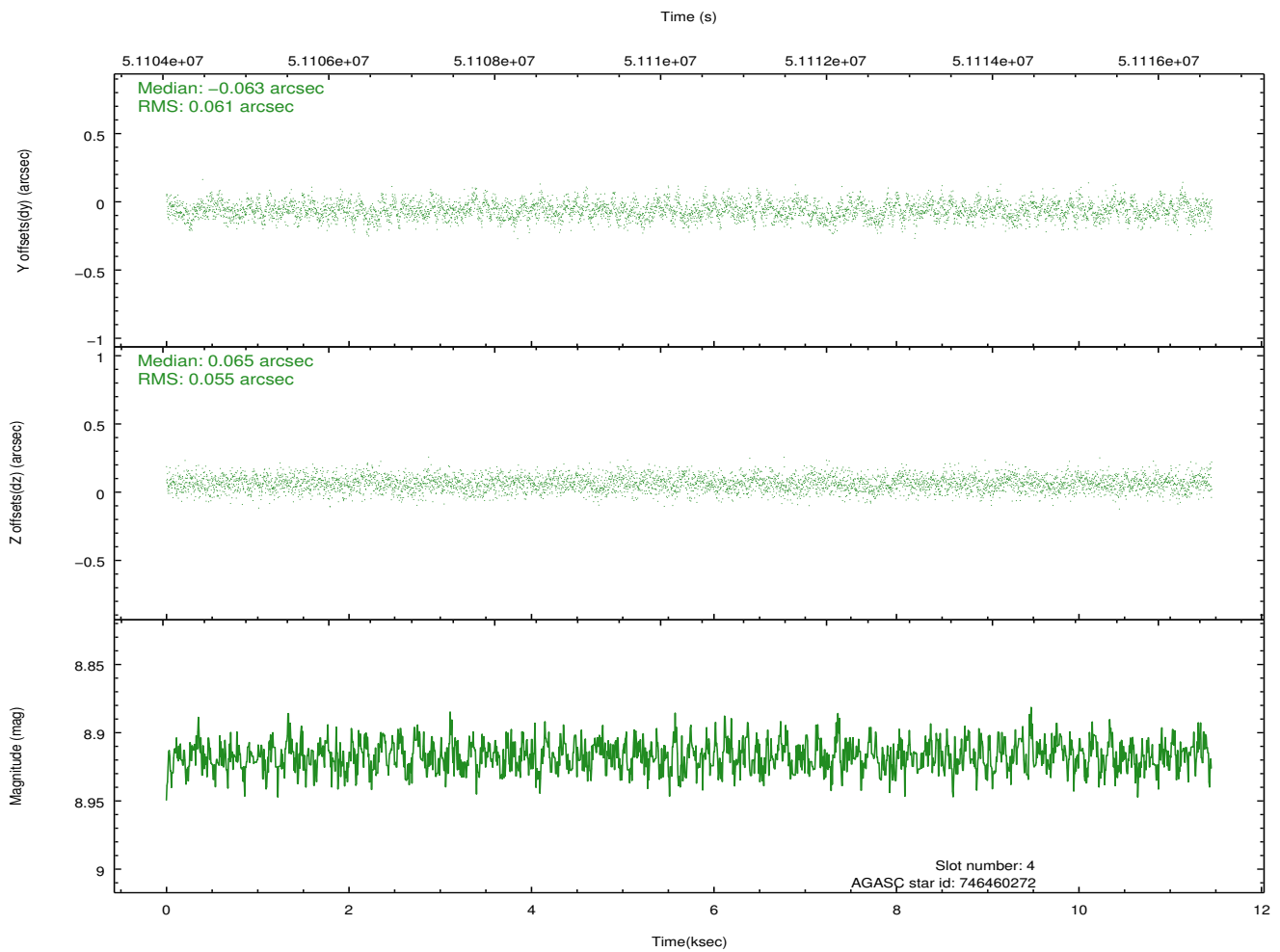
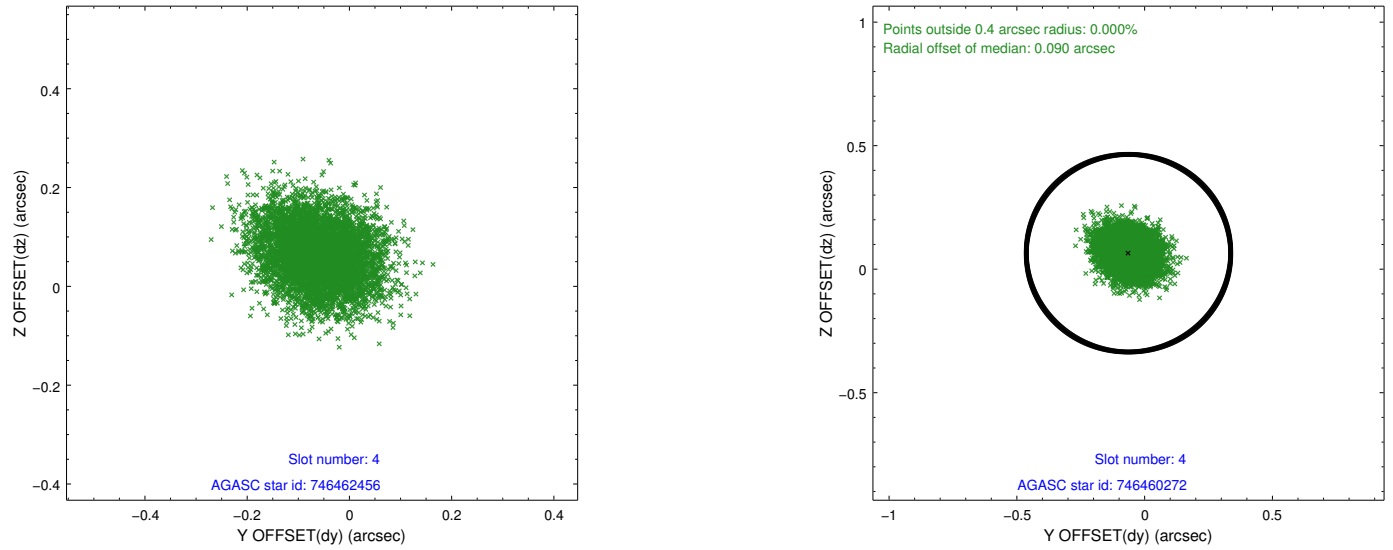
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.14	5589	-0.023	-0.070	0.005	0.010	0.000000	0.000000	-752.74	-1721.12
1	FID	ACIS-S-4	7.23	5589	0.055	-0.044	0.005	0.008	0.000000	0.000000	2160.85	187.37
2	FID	ACIS-S-6	7.37	5590	-0.060	0.121	0.006	0.010	0.000000	0.000000	409.54	825.19
3	GUIDE	746462456	8.36	5580	0.077	0.002	0.069	0.114	278.652171	-10.530173	1116.45	897.57
4	GUIDE	746460272	8.92	5586	-0.063	0.065	0.088	0.141	278.847488	-10.152127	-341.74	1349.63
5	GUIDE	746460328	9.84	5500	-0.080	-0.083	0.142	0.235	278.603974	-9.898096	-1097.57	344.11
6	GUIDE	746461728	9.78	5588	0.070	0.014	0.164	0.265	278.986921	-10.530755	918.43	2065.85
7	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

## 2.4 Star Slots

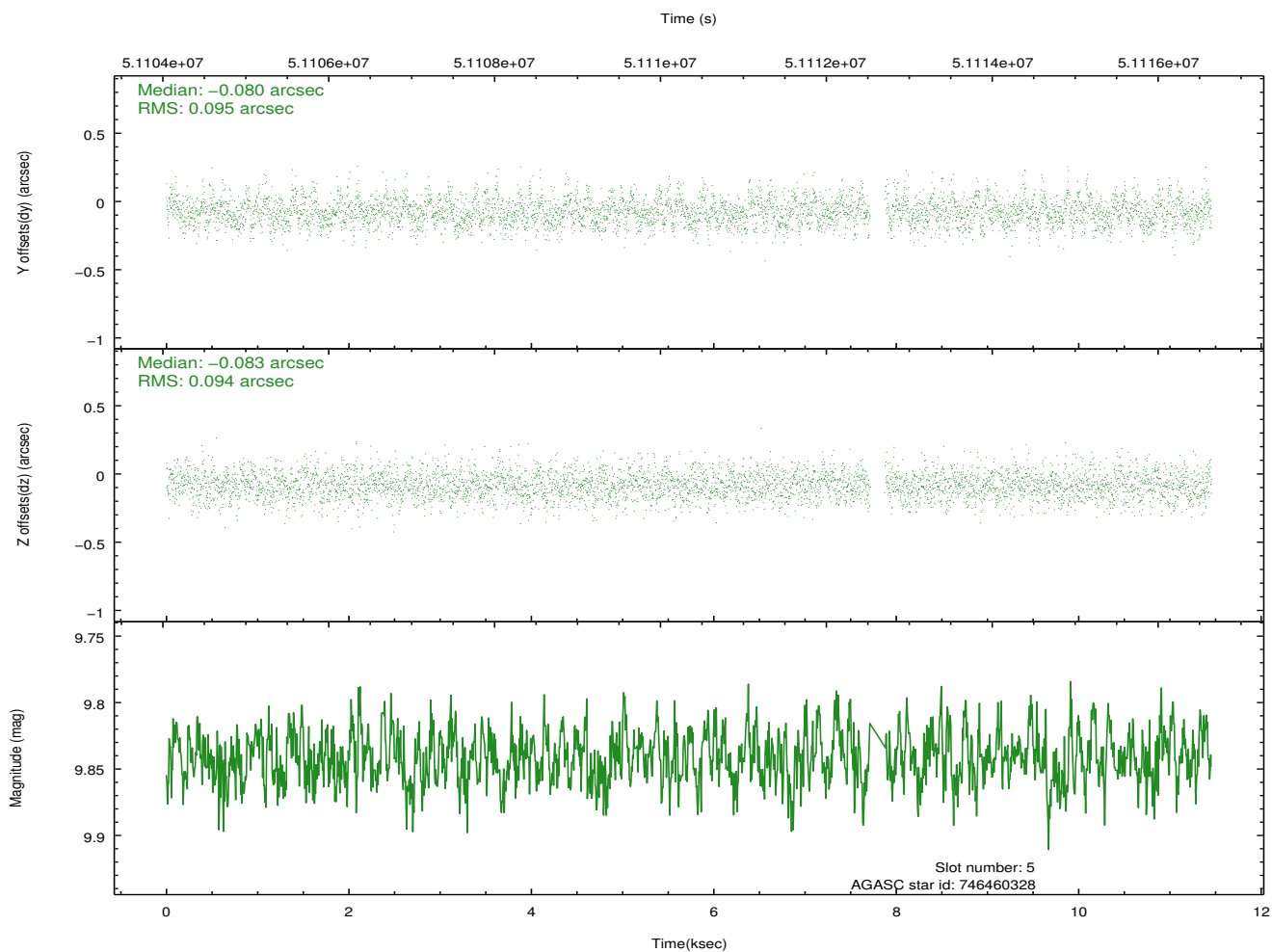
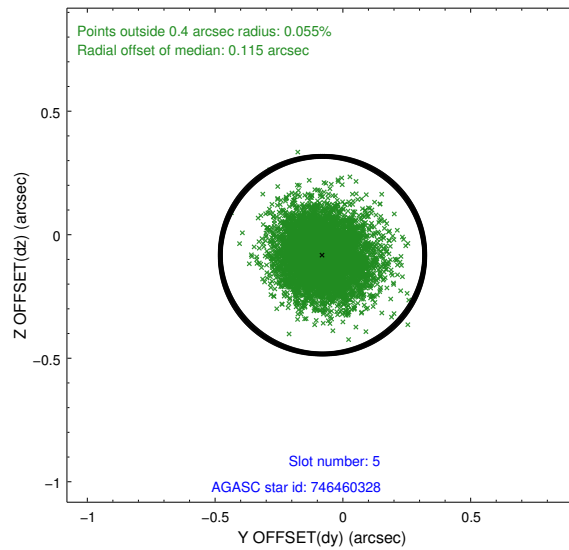
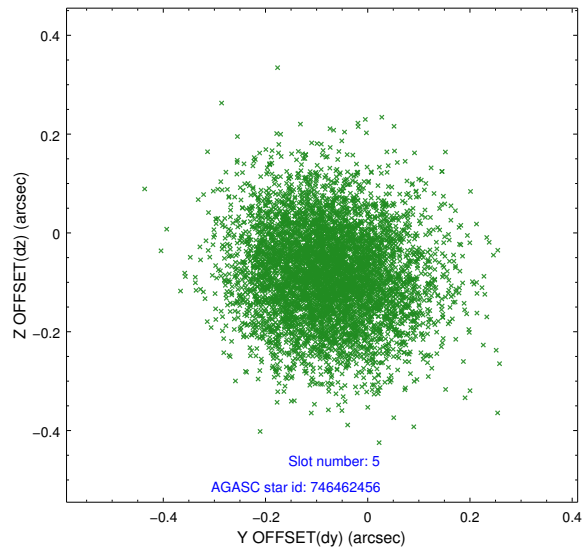
### 2.4.1 Slot 3



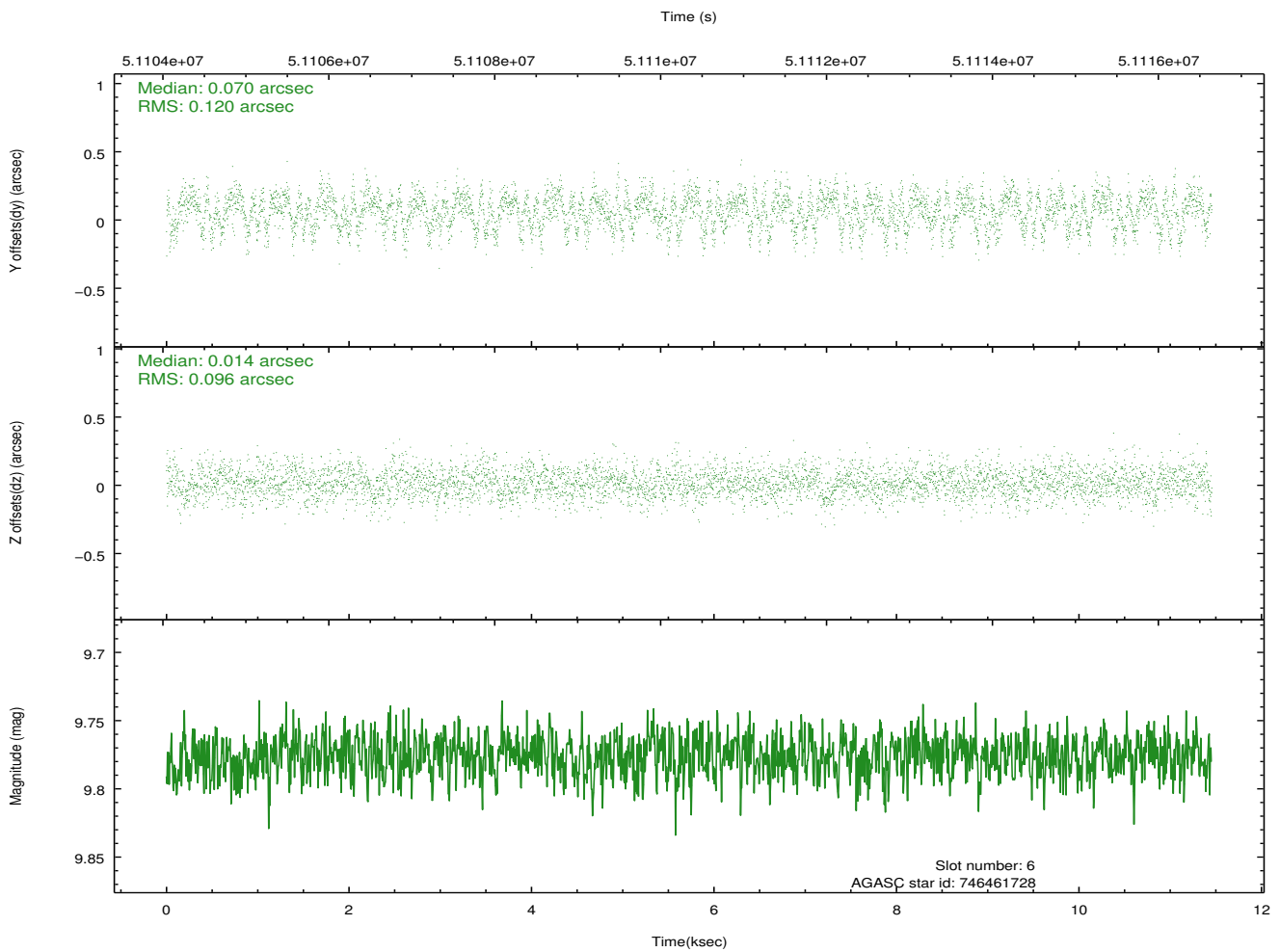
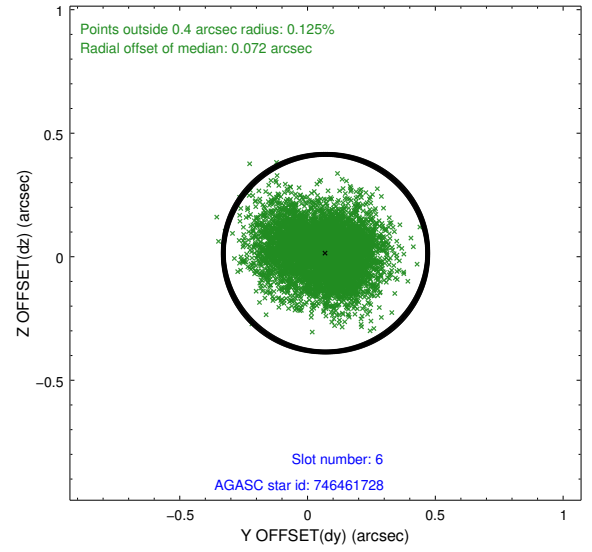
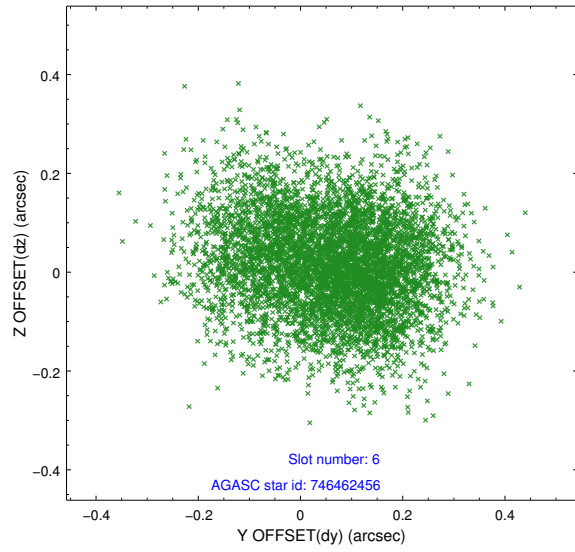
## 2.4.2 Slot 4



### 2.4.3 Slot 5

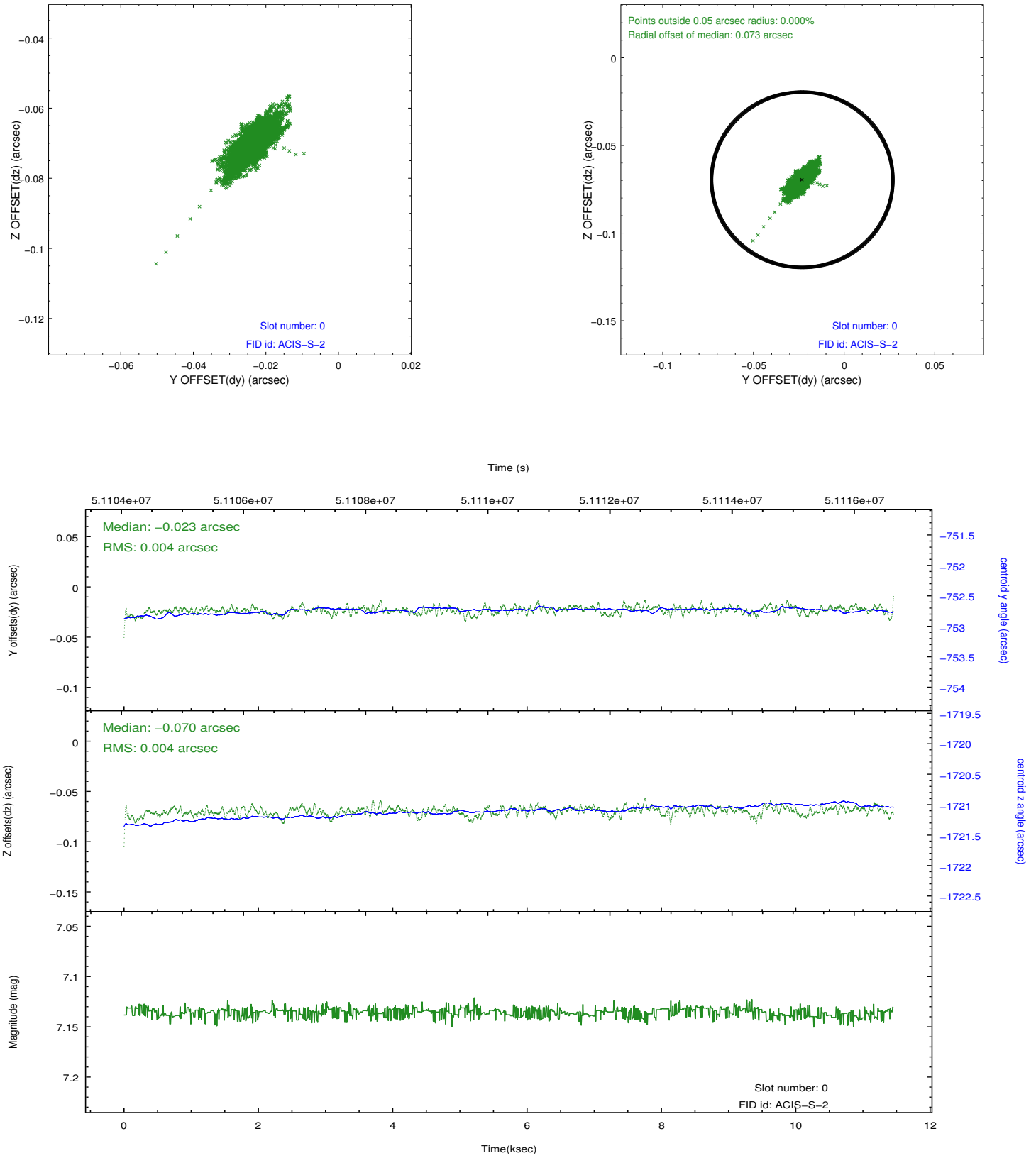


## 2.4.4 Slot 6

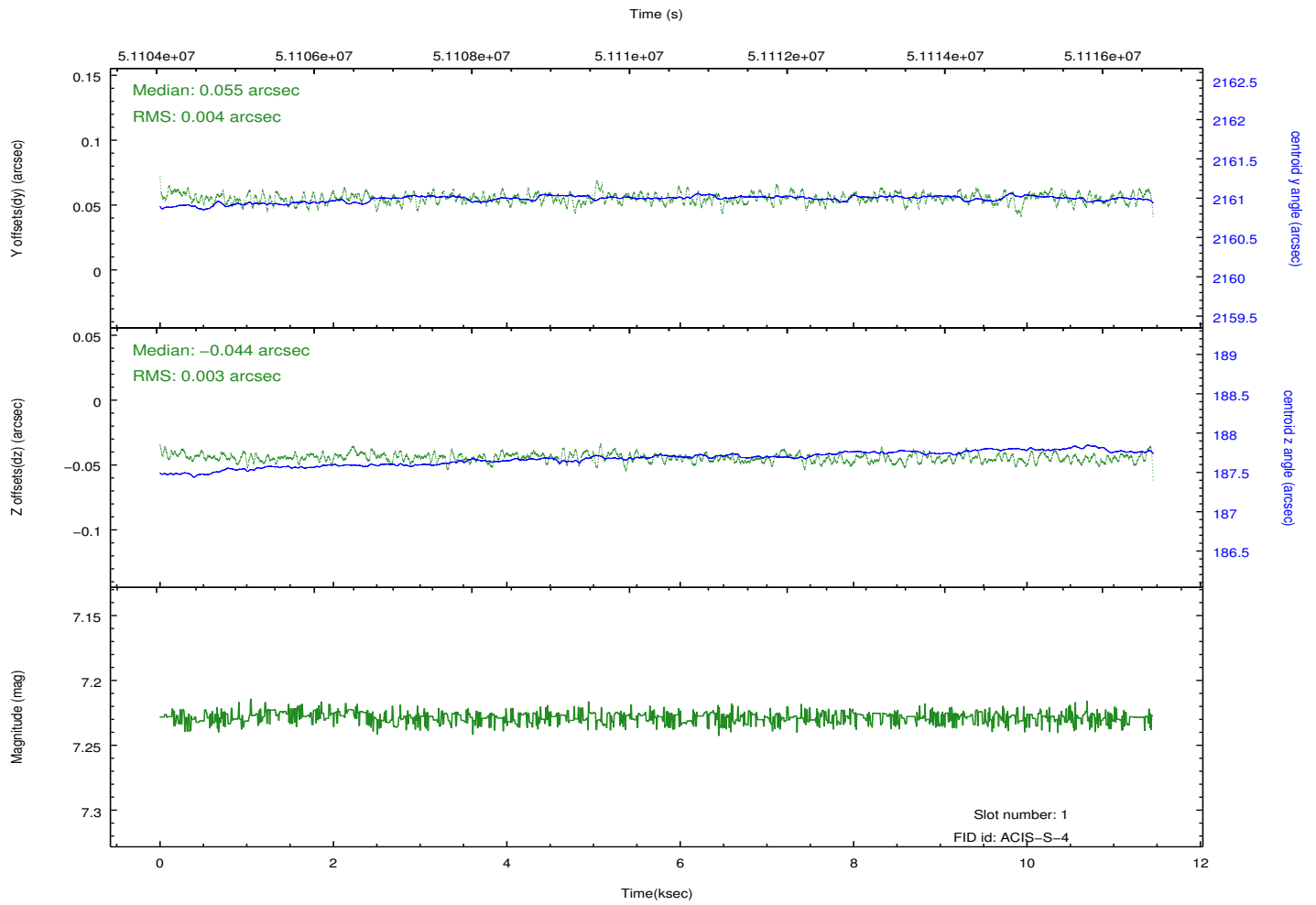
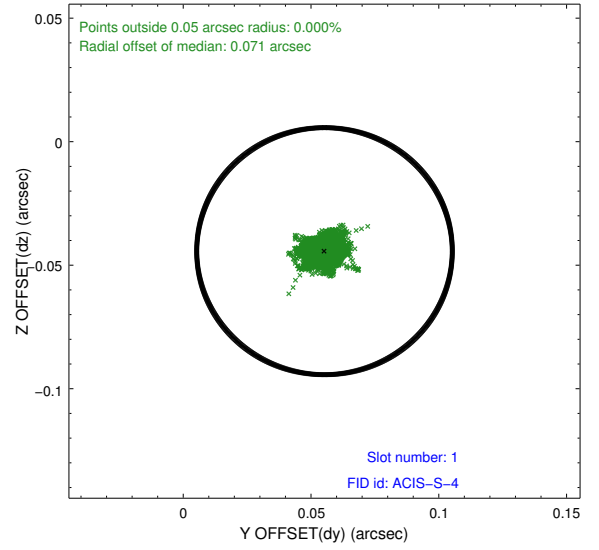
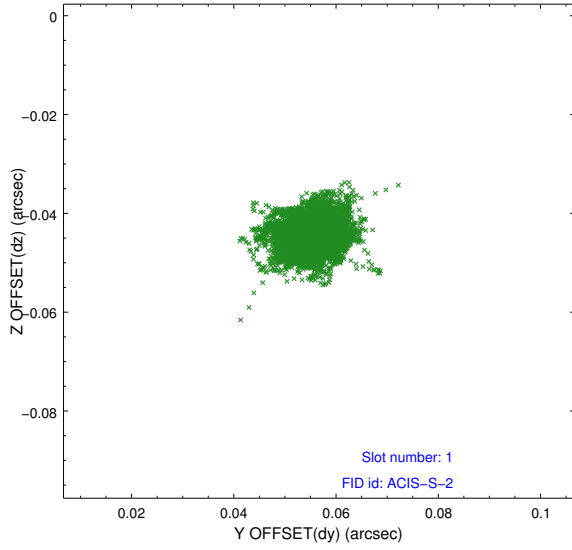


## 2.5 FID Slots

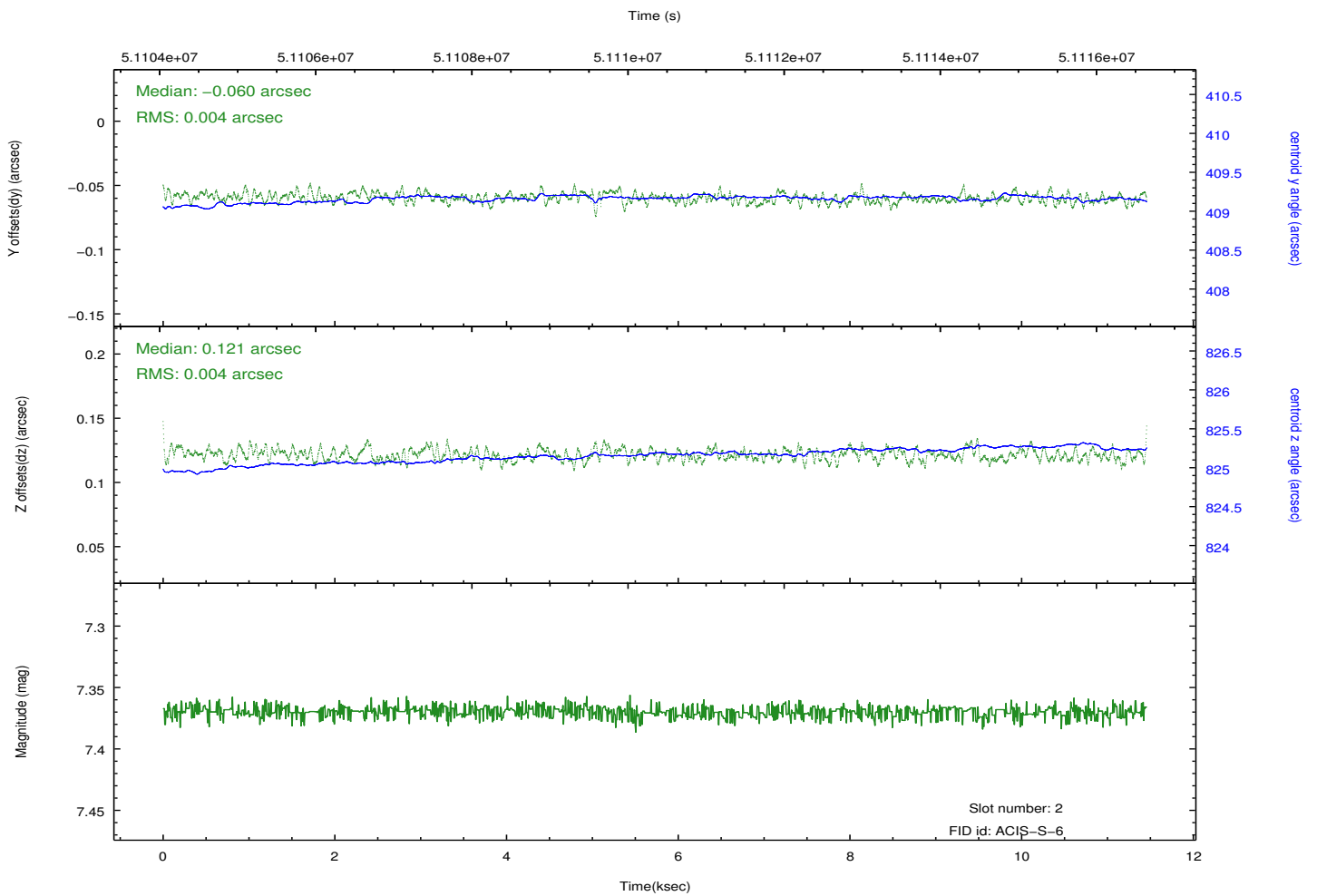
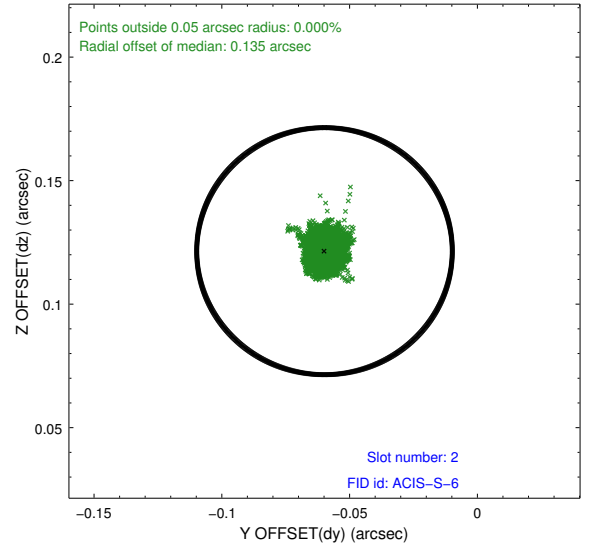
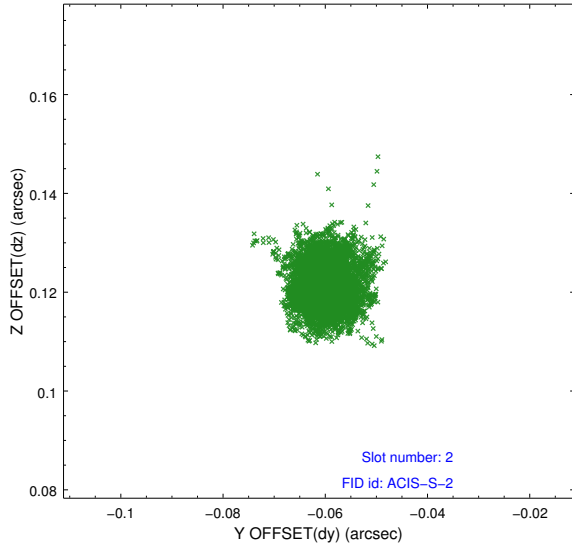
### 2.5.1 Slot 0



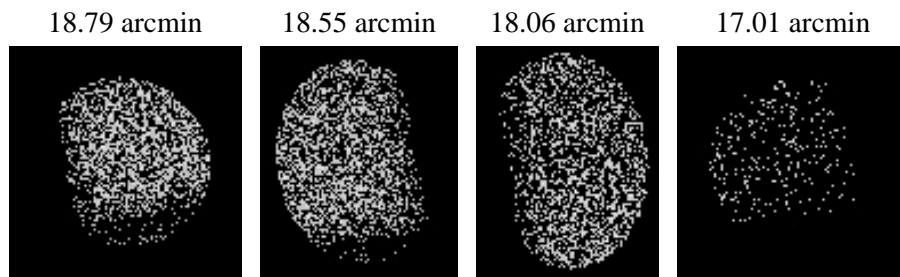
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.03.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.035

## A.2 Comments

Off-axis effective area measurement for S0

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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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Slot 7 was not utilized for a guide star in this observation.