

# Observer1 Console

(don't be afraid of the phalanx of screens)

# The DECam Support Team



# Observing with DECam



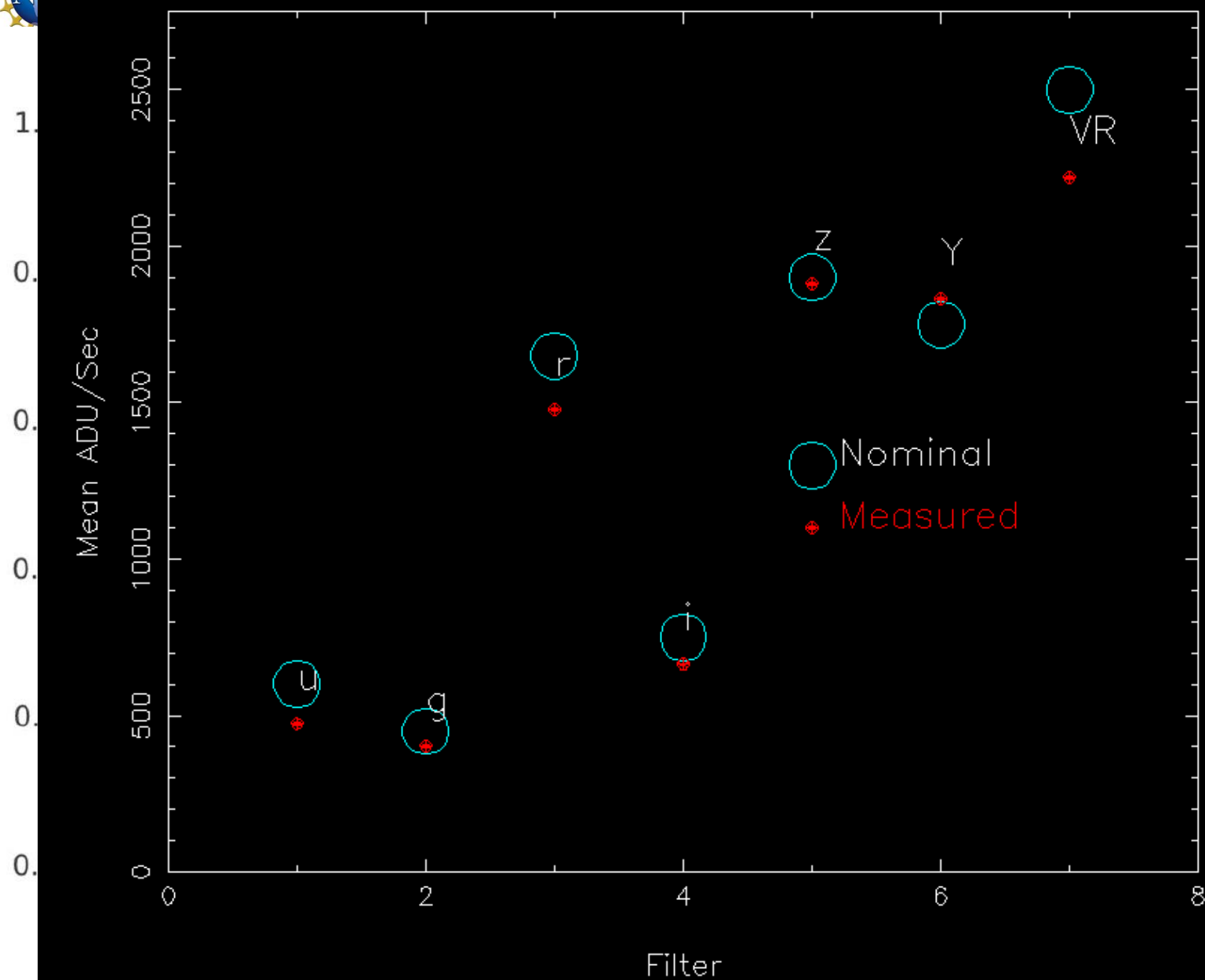
## Survey Image System Process Integration



Setup	<ul style="list-style-type: none"> <li>• SISPI</li> <li>• Prop ID</li> <li>• VSUB ON</li> <li>• Calibrations</li> </ul>
Observe	<ul style="list-style-type: none"> <li>• Pointing</li> <li>• Standard Stars</li> <li>• Manual Observe</li> <li>• Scripting</li> </ul>
Monitor	<ul style="list-style-type: none"> <li>• RASICAM</li> <li>• Environment</li> <li>• Telemetry</li> <li>• Quick Reduce</li> <li>• Kentools</li> </ul>
Problems	<ul style="list-style-type: none"> <li>• System failure(s)</li> <li>• Primary Mirror 4MAP</li> <li>• DECam</li> <li>• Clouds !</li> </ul>
Shutdown	<ul style="list-style-type: none"> <li>• Safe Mode:</li> <li>• VSUB OFF</li> <li>• Blocking Filter</li> <li>• Data Transfer</li> </ul>



# Flatfield check for 20141120, reference data 20140315





# Controlling DECam: SISPI



## Setup

- SISPI
- Prop ID
- VSUB ON
- Calibrations

## Observe

- Pointing
- Standard Stars
- Manual Observe
- Scripting

## Chat Control

Focus:

Sec

Comment:

DEC  
RA

Add

24

Clear

Stop

### Step 1

41.1

100

**Stop**

**Abort**

## Delivered

Time: 100.000, Filter: z, TelRA: 160.8209, TelDec: -37.6418, PropID: 2015A-0631

Time: 110.000, Filter: i, TelRA: 160.8210, TelDec: -37.6418 , PropID: 2015A-0631

Time: 100.000, Filter: z, TelRA: 160.8139, TelDec: -37.8887, PropID: 2015A-0631  
File: pipeline2.ctio.noao.edu:/data\_local/images/DTS/2015A-0631/DECam\_00417525.fits.gz

Time: 110.000, Filter: i, TelRA: 160.8140, TelDec: -37.8888 , PropID: 2015A-0631  
File: pipeline1.ctio.noao.edu:/data\_local/images/DTS/2015A-0631/DECam\_00417524.fits.gz

Time: 100.000, Filter: z, TelRA: 161.0569, TelDec: -37.6827, PropID: 2015A-0631  
File: pipeline4.ctio.noao.edu:/data\_local/images/DTS/2015A-0631/DECam\_00417523.fits.gz

Time: 110.000, Filter: i, TelRA: 161.0569, TelDec: -37.6828 , PropID: 2015A-0631  
File: pipeline5.ctio.noao.edu:/data\_local/images/DTS/2015A-0631/DECam\_00417522.fits.gz

Time: 100.000, Filter: z, TelRA: 160.6499, TelDec: -37.6257, PropID: 2015A-0631  
File: pipeline3.ctio.noao.edu:/data\_local/images/DTS/2015A-0631/DECam\_00417521.fits.gz

DTS

2

Link: ●  
Control: ●  
Track: ●  
Position: ●

## GCS RUNNING

PANG  
IDLE

Position: 

Guide exptime: 600 ms

Reset to Defaults

Show Advanced

2	10694.0	6.3e+4	17.84	8.00
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# Observing History

From: 2015-03-03 To: 2015-03-03 Submit

Download data

1 night(s) found.

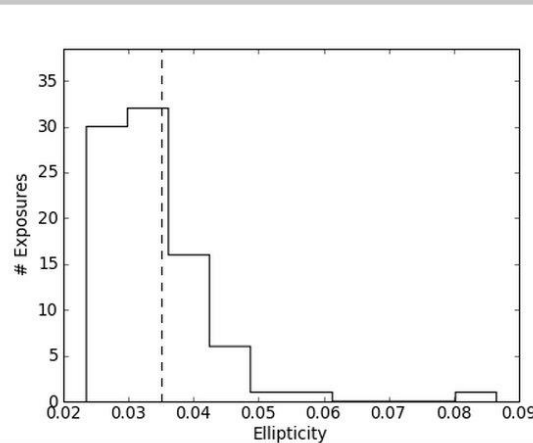
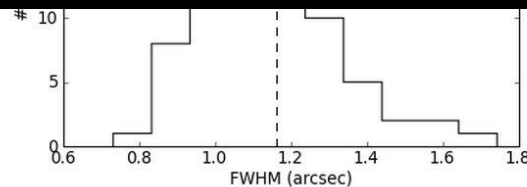


PSF Sky Background Number Counts Footprint Statistics

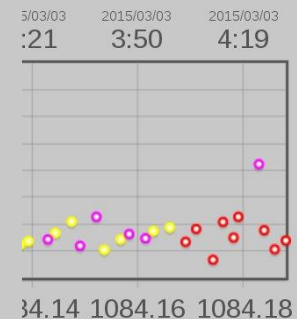
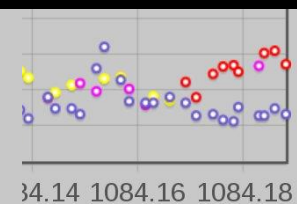
Statistics  
Type Filter Raw Exposures Reduced Exposures

pgtcl> qcInv

#expid	ra	dec	ut	fil	time	secz	psf	sky	cloud	teff	Object
417418	50.0	0.0	23:59	g	15	1.49					SDSSJ0320-0000
417419	50.0	0.0	23:59	i	15	1.49	1.57	4.24	-0.05	0.01	SDSSJ0320-0000
417420	50.0	0.0	00:00	r	15	1.50	1.56	4.85	0.17	0.00	SDSSJ0320-0000
417421	50.0	0.0	00:01	z	15	1.50	1.35	2.48	0.34	0.03	SDSSJ0320-0000
417422	97.5	-58.8	00:04	g	15	1.14	1.25	4.22	0.21	0.01	MaxVis
417423	97.5	-58.8	00:04	r	15	1.14	1.13	3.33	0.17	0.03	MaxVis
417424	97.5	-58.8	00:05	i	15	1.14	1.07	2.44	-0.15	0.07	MaxVis
417425	97.5	-58.8	00:06	z	15	1.14	0.96	1.09	0.11	0.30	MaxVis



Stat	Ellipticity Complete	Clipped
Mean	0.04	0.04
Median	0.04	0.04
RMS	0.01	0.01



☒ Y

Data:

☒ IH

☒ DIMM

Filters:

☒ All

☒ u

☒ g

☒ r

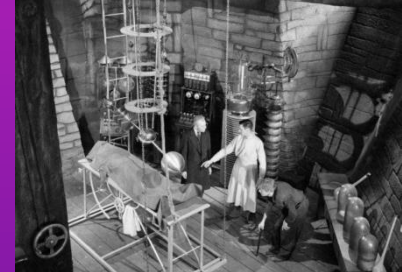
☒ i

☒ z

☒ Y

Background (ADU/s)

# Observing with DECam



## Setup

- SISPI
- Prop ID
- VSUB ON
- Calibrations

## Observe

- Pointing
- Standard Stars
- Manual Observe
- Scripting

## Monitor

- RASICAM
- Environment
- Telemetry
- Quick Reduce
- Kentools

## Problems

- System failure(s)
- Primary Mirror 4MAP
- DECal
- Clouds !





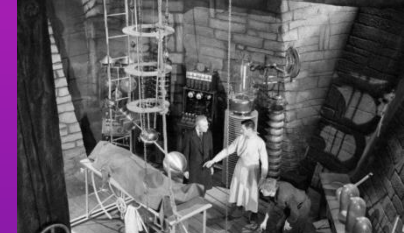
SISPI	PANC_STATUS, DONUT_STATUS, OCS_SETUP, DECAL_STATUS, ALARMMONITOR_STATUS, SHUTTER_APPSTATUS, FCS_STATUS, DHSA_STATUS, PANB_STATUS, TCSINTERFACE_STATUS, PANA_STATUS, FCM_APPSTATUS, HEXAPOD_APPSTATUS, DHSF_STATUS, PSL_STATUS, GCS_STATUS, PANF_STATUS, DHSB_STATUS, DHSC_STATUS, PAND_STATUS, OCS_SUPSTATE, OCS_STATUS, DHSD_STATUS,
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Variable	Value	Unit	Unit	Unit	Unit
PANC_STATUS	Enabled	State	Value: READY	set: READY	
DONUT_STATUS	Enabled	State	Value: READY	set: READY,BUSY,PREPARED	
OCS_SETUP	Enabled	State	Value: true		
DECAL_STATUS	Enabled	State	Value: READY		
ALARMMONITOR_STATUS	Enabled	State	Value: READY		
SHUTTER_APPSTATUS	Enabled	State	Value: READY		
FCS_STATUS	Enabled	State	Value: READY		
DHSA_STATUS	Enabled	State	Value: READY		
PANB_STATUS	Enabled	State	Value: READY		
TCSINTERFACE_STATUS	Enabled	State	Value: READY		
PANA_STATUS	Enabled	State	Value: READY		
FCM_APPSTATUS	Enabled	State	Value: READY		
UCVADD_APPSTATUS	Enabled	State	Value: READY		

[illegible]



# Observing with DECcam



Observer Console

DECam: Ready

Session: dji

Alarms



Logout



System Status

Monitor: LEDs: OFF Setup:   
Interlock: Vsub: OCS: (READY)  
Current Constants: DECAM:CURRENT

System Control

Exposure Control

Dither Control

Runtime Control

Chat Control

Observers: A.Zenteno  
Proposal ID: 2015A-0631  
Program: DD: Confirmation of photon  
Investigator: Zenteno

Edit

DECam Constants

DECAM:CURRENT

Configure

Reset

Turn  
Vsub  
Off



Exposure Queue

28:52

Exposure Loop:   
AutoObs:

Stop

Clear

Step 1

Current Exposure

0

0.0

100

Pause

Stop

Abort

Exposure History

Exposed Digitized Transferred Built Delivered

417525	object						Time: 100.000, Filter: z, TelRA: 160.8139, TelDec: -37.8887, PropID: 2015A-0631
417524	object						Time: 110.000, Filter: i, TelRA: 160.8140, TelDec: -37.8888, PropID: 2015A-0631 File: pipeline1.ctio.noao.edu/data_local/images/DTS/2015A-0631/DECam_00417524.fits.fz
417523	object						Time: 100.000, Filter: z, TelRA: 161.0569, TelDec: -37.6827, PropID: 2015A-0631 File: pipeline4.ctio.noao.edu/data_local/images/DTS/2015A-0631/DECam_00417523.fits.fz
417522	object						Time: 110.000, Filter: i, TelRA: 161.0569, TelDec: -37.6828, PropID: 2015A-0631 File: pipeline5.ctio.noao.edu/data_local/images/DTS/2015A-0631/DECam_00417522.fits.fz
417521	object						Time: 100.000, Filter: z, TelRA: 160.6499, TelDec: -37.6257, PropID: 2015A-0631 File: pipeline3.ctio.noao.edu/data_local/images/DTS/2015A-0631/DECam_00417521.fits.fz
417520	object						Time: 110.000, Filter: i, TelRA: 160.6499, TelDec: -37.6258, PropID: 2015A-0631 File: pipeline2.ctio.noao.edu/data_local/images/DTS/2015A-0631/DECam_00417520.fits.fz
0511,	Focus: [-,-,-,-,-], Object: cand169-13, Seq.						File: pipeline2.ctio.noao.edu/data_local/images/DTS/2015A-0631/DECam_00417520.fits.fz
D: 2015A-0631, Program: DD: Confirmation of							Time: 100.000, Filter: z, TelRA: 160.9448, TelDec: -38.0658, PropID: 2015A-0631 File: pipeline1.ctio.noao.edu/data_local/images/DTS/2015A-0631/DECam_00417519.fits.fz
er: Zenteno							

Collapse

Blanco TCS  
READY

RA: 10:43:15.337  
DEC: -37:53:19.396

Filters  
READY

z



GCS  
RUNNING

PANG  
READING

BCAM  
OFFLINE

Hexapod  
READY

FCS  
READY

PANA	DHSA
IDLE	READY
PANB	DHSB
IDLE	READY
PANC	DHSC
IDLE	READY
PAND	DHSD
IDLE	READY
PANF	DHSF
IDLE	READY

IB1
WAITING
IB2
WAITING
IB3
WAITING
IB4
WAITING
IB5
WAITING

DTS

SISPI at 22:48: Starting exposure 417525. (thread: 1)