

Using The **LCOGT** Faulkes Telescopes

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Las **C**umbres **O**bservatory **G**lobal **T**elescope



The Faulkes Telescope North

2-Meter telescope



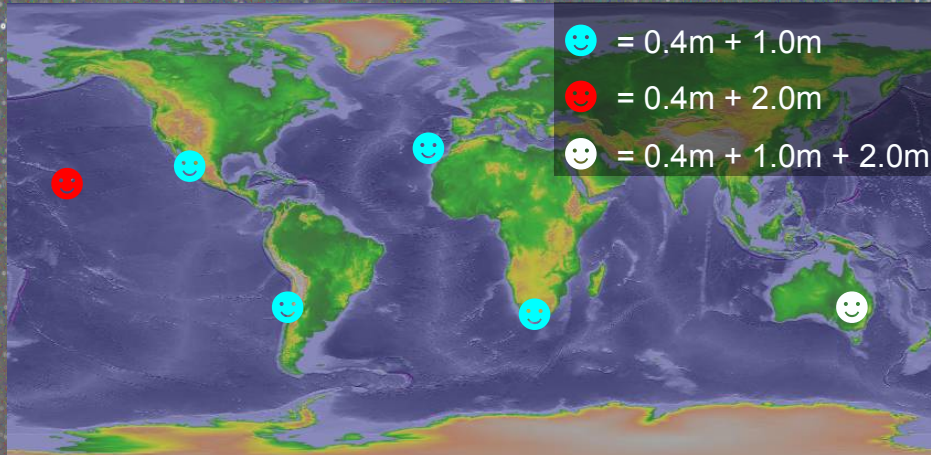
Las Cumbres Observatories Global Telescope

We will always keep you in the dark.

- Faulkes Observatories
 - Halealākā
 - Australia
- 1.0 Meter Telescopes
- 0.4 Meter telescopes
- Create a seamless array of telescopes which can be used 24 hours a day.



The Las Cumbres Observatory Global Telescope Network



😊 = 0.4m + 1.0m

☹️ = 0.4m + 2.0m

☺️ = 0.4m + 1.0m + 2.0m

Steps

- Plan Observations
- Reserve Telescope
- Plan Observations
- Log In Before Session Begins
- When prompted take control of the telescope
- Select “Enter Ra Dec” or “Search For Target”
- Enter the Ra and Dec or find the target

Steps

- Enter the target name
- “Continue”
- Check that the target is in the field of view
- “Move Now”
- Select the filters
- Enter the integration time
- “Make Observation”

Reserving The Telescope

- If you are using a Hawai'i account and wish to use Faulkes South you must make special reservations (6-8 weeks).
- To Use Faulkes North you can watch for time or make special reservations (6-8 weeks).

2-m Faulkes Telescopes
Real-time Control Interface

Powered by **LCOGT**.net

Faulkes Telescope Education LCOGT Education

Status Message: The telescope is closed due to bad weather. Please standby.

Your current bookings

Date	Start	End	Telescope	Peak?
Thu Jul 12 2012	19:00 UTC	19:30 UTC	Australia	Onpeak
Thu Jul 12 2012	19:30 UTC	20:00 UTC	Hawaii	Off peak

Your unused time allocations

Peak: 495 minutes
Off-peak: 0 minutes

Dates with slots available for booking

The dates with available slots are shown below for each telescope.

- Please note that the dates shown are UTC.
- The local date of your booking may differ from the UTC date.
- Please click on the date in the calendar that you would like to make a booking.

Hawaii							Australia						
July							July						
M	T	W	T	F	S	S	M	T	W	T	F	S	S
						1							1
2	3	4	5	6	7	8	2	3	4	5	6	7	8
9	10	11	12	13	14	15	9	10	11	12	13	14	15
16	17	18	19	20	21	22	16	17	18	19	20	21	22
23	24	25	26	27	28	29	23	24	25	26	27	28	29
30	31						30	31					

Log In Before Session Begins

rti.faulkes-telescope.com/control/Status.isa

2-m Faulkes Telescopes
Real-time Control Interface

Powered by **LCOGT**.net

Faulkes Telescope Education LCOGT Education Session starts in: 00:40:00

Status Message: The telescope is closed due to bad weather.

Control Home
Bookings
Request more time
Weather
Status
Control
Your Images
Search Archive
Your Details
Simulator
FAQ
Logout
Help

UT Date: Thu, Jul 12, 2012
UT Time

Telescope: Australia
Next Telescope >

Weather Instrumentation

Local Time: 02:18
Current Weather: **Raining**
Temperature: 11.9°C
Humidity: 115.0%
Dew point: 14.0°C
Windspeed: 4.4 m/s
Wind Direction: 2.0°
Cloud(Sky - Ambient Temp): 999°
Sky Condition: Cloudy
Data Read At: Jul 12, 2012 18:17:57 UTC

Status

Australia Telescope: **CLOSED**

The telescope is closed due to bad weather

Observing Advice:

You can check the weather at FTS by copying the link below into your search engine:
<http://lcoqt.net/weather/coj/> [edit](#)

Weather Map

Copyright: Image by Bureau of Meteorology. For related Warnings, see www.bom.gov.au

White Cliffs, Coonamble, Gunnedah, Tamworth, Cobar, Wilcannia, Coonabarabran

Count Down to observing session!

•When prompted take control of the telescope

The screenshot shows the Faulkes Telescope Project Real-time Control Interface. At the top, it says "Faulkes Telescope Project Real-time Control Interface" and "Powered by LCOGT.net". Below this, there are navigation links for "Faulkes Telescope Education" and "LCOGT Education", and a session timer "Session ends in: 00:58:13".

On the left, there is a "Status Message" section stating "The telescope is operational" and a list of menu items: Control Home, Bookings, Request more time, Weather, Status, Control, Your Images, Search Archive, Your Details, Simulator, FAQ, Logout, and Help. Below this is the "UT Date" (Wed, Nov 11, 2009) and "UT Time" (10:50:06.571). At the bottom left, it says "Hawaii: OPEN".

The main area features a "A map of the current sky over the telescope" which is a circular star map with various constellations and stars labeled. To the right of the map, there is a "What next?" section with instructions for new users and a "More help..." link. Below this are buttons for "Guided Tour", "Search/Browse", "Enter RA and Dec", and "Back to 'Welcome'".

On the far right, there is an "Instructions" box with three sections: "Guided Tour" (explaining the guided tour feature), "Search/Browse" (explaining the search facility), and "RA and DEC" (explaining manual coordinate entry). A "Click on a button to continue..." prompt is at the bottom of this box.

Enter the Ra and Dec Enter the target name

The screenshot shows the Faulkes Telescope Project Real-time Control Interface in a different state. At the top, it says "Faulkes Telescope : RTI Demonstration". Below this, there is a section titled "Move the Telescope into position" with the text "Live Webcam from the Telescope." and a "Live Webcam" button.

The main area features a "Live Webcam" feed showing a dark sky with a few stars. Below the feed, there are input fields for "RA:", "Dec:", and "Name:". The "Dec:" field has a dropdown menu for "DEG:MIN:SEC". There is also an "Img Proc:" dropdown menu with "Galactic" selected.

On the right, there is a "What next?" section with instructions: "Type in your required telescope position in the boxes in the main panel to the left and click 'Continue'." Below this is a "Current Position:" section showing "RA: 8h00m44s", "Dec: 35°22'09\"", "Azimuth: 151.03°", and "Altitude: 69.24°". Below this are buttons for "More help...", "Continue", "New Object", and "Back to 'Welcome'".

At the bottom, there is a prompt: "Please enter the desired values above and click 'Continue' to the".

“Continue” Then “Move Now”


Screen Captures From FT | Las Cumbres Observatory | Minor Planet Ephemeris S | Buie: KBO Astrometric Foll | RTI Derr

← → ↻ icogt.net/files/flash/rti-demo/index.html

Faulkes Telescope : RTI Demonstration

Moving the Telescope into position...

Live Webcam from the Telescope.



Note: Sometimes the telescope slews in the opposite direction to that expected, to prevent the cables getting wrapped up. When this happens, the move will take longer than estimated. While the telescope is still illuminated on the webcam image, it is still slewing, so you should be prepared to allow it extra time.

What next?

Please wait for the telescope to slew to the required position.

Target Position:

Target RA: 0h55'33"
Target Dec: 69°04'00"

More help...
Cancel Move

Instructions

A live webcam will show you the telescope slewing into position. When the telescope is pointing at the object you selected a message will notify you. If you get a time out error, this means that the telescope has taken longer than it thought to slew into position. Just click OK to continue.

Click OK to continue...

Select the filters Enter the integration time

Google | Working with the C-W | WISE - Position | How do I download d... | Screen Captures From | RTI Demo | Las Cumb...

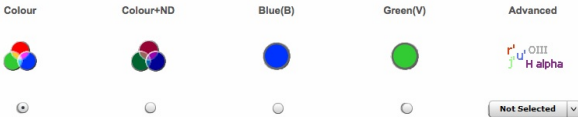
← → ↻ icogt.net/files/flash/rti-demo/index.html

Faulkes Telescope : RTI Demonstration

Enter Exposure Details

1 Filters to use:

Colour Colour+ND Blue(B) Green(V) Advanced



2 Exposure time PER FILTER:

seconds (Colour=3 filters)

3 Image size:

Normal 2 x 2 3 x 3

What next?

Type in your required telescope exposure settings on the main panel and select which filters and mosaic pattern you require by clicking the white "radio" buttons. Then click the "Make Observation" button below.

More help...
Make Observation
New Observation

Instructions

Here you can select the filters you want to use during your exposure and also how long you want your exposure to be. Currently the Mosaic Feature is not available.

For a galaxy, such as M81, a typical exposure would be 30 seconds with colour.

To Continue, select the Colour filter option and enter 30 seconds as the exposure time. Click Make Observation to continue...

“Make Observation”

Controlling The Telescope Is Easy

- Don't be intimidated
- Feel free to schedule me to be available the first few times.
- Practice with the [simulator](#) (there are some minor differences.)
- **PLAN** your observations

Planning Your Observations

- Select Target(s)
 - Find the coordinates (Wikipedia is recommended. Do not use Stellarium).
 - For Asteroids Minor Planet center
 - (FTN is F65 FTS is E10)
 - NASA Horizons Web Interface
 - Verify that your targets will be 30° above the horizon when you plan to observe them
 - Spread sheet calculator
 - Stellarium

} **Check your location!**

Planning Your Observations

- Choose order of targets to reduce slew time, if that is practical.
 - Calculate Timing
 - 120 seconds to slew
 - Exposure time
 - 63 seconds to read image
- } For each image
– colour
- Plan what to do when the plan goes wrong

A Simple Project Minor Planet Followup

Mark Buie has created a nifty list of targets

Go To Mark Buie's Page:

<http://www.boulder.swri.edu/~buie/kbo/kbofollowup.html>

Find a target that is visible and not fainter than magnitude 22

Get the coordinates of the target from the Minor Planet Center

- you need to convert the names.
- 2009 MG10 appears as 09MG10 on Mark's page. Add the "20" and a space between the year and designation.

Observe the target over the span of an hour.

A Simple Project Minor Planet Followup

Observe the target over the span of an hour.

Use Astrometrica to measure the position of the object.

Report your measurements to the Minor Planet Center.

Yes, I'm leaving out a lot of little
details, but this is real science.

