

Canada funds world's largest telescope

The federal government recently approved a 10-year, \$243-million investment in what will become the world's largest telescope known as "Thirty Meter Telescope (TMT)".

Slated for completion in 2023-2024 at an overall cost of US\$1.5 billion at the summit of Mauna Kea volcano in Hawaii, it is a joint venture with the United States, Japan, India and China. Most of the money came from the National Research Council and Canada Foundation for Innovation.

The scope was designed and constructed by Port Coquitlam, B.C. firm Dynamic Structures Ltd. Touted by the Royal Astronomical Society of Canada as "a success for the Canadian astronomical community, and will pay scientific, cultural, and economic dividends now and in the future" on its website, the overall news of the project is well received across the nation and world.

Regrettably, the TMT title for the world's largest telescope will be short lived. European countries are developing the European Extremely Large Telescope, which boasts mirrors 39 metres in diameter atop a Chilean mountain, Cerro Armazones, in the country's Atacama Desert with a planned activation date of 2024 at the earliest.

No worries though, with technology growing as fast as costs becoming friendlier, innovative Canadians cannot only be proud of all they've done in the past but stand a great chance for the "world's largest scope" title in the next generation.

Sky watch for the next month:

- Canada Day Jupiter and Venus Conjunction — on Wednesday, July 1 if readers had looked NWW after sunset they would have seen a short, but spectacular near conjunction of these two planets before they set at about 11:30 p.m.

- Venus at Brightest — on Thursday, July 9 after sunset look for the brightest object in the sky besides the moon as earth's twin is at its brightest all night long and for a few days after that.

- Rare "Blue Moon" — Friday, July 31 will be the second full moon of the month. The first occurred on July 2 and technically the moon won't turn blue, but the rarity of this event is what earned the name. Seeing the full moon appear blue visually has been historically documented to have occurred worldwide in 1883 after the eruption of Krakatoa. A visually blue moon was also noted following the delay of the monsoon in 1927 (due to suspended dust) in India, and in North



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America in 1951 following widespread forest fires in western Canada, so it's actually happened.

- Delta Aquarids Meteor Shower Peak — on Wednesday July 29 look in the southern sky a few hours before dawn as it expected debris from comet 96P Machholz will fall at a rate of 15-20 per hour. With a near full moon, it will be harder to enjoy.

Public Events for the next month

- Monthly Friday night stargazing at the Trek Center — Mark down Friday, July 10 at 7:30 p.m. on your calendar and join us at the Trek Center for our monthly Star Gazing. Topic is the summer sky. Short indoor presentation followed by scoping the skies with the 11-inch telescope outside and opportunity to snap your own pictures of celestial objects with your smartphone through the scope. Refreshment provided, all welcome and no charge. Held the second Friday monthly at 7:30 p.m.

For further information contact the Trek center at 403-485-2994, www.vulcantourism.com.

- RASC Annual Star-B-Q — Join us for some good times and great viewing under wonderfully dark skies. \$20 per vehicle and Saturday buffet is \$21 per person. July 17 to Sunday, July 19 with all weekend camping at Eccles Ranch Observatory just north of Caroline Alta. For further information contact Roland Dechesne at 403-510-4330 or email: Roland.Dechesne@cnrl.com. The website is: <http://calgary.rasc.ca/starbq.htm>.



Vlad Mihailov brought his family from Calgary to use his binoculars.



Happy long days of summer and keep reaching for the sky.

Neel Roberts is a member of the Calgary chapter of the Royal Astronomical Society of Canada — the nation's leading astronomy club founded in 1849 with more than 4,000 members and 29 centers across Canada.



Photos by Neel Roberts

Above, local Vulcan mechanic Derrick Uly looks at the sky while his son looks through the binoculars. Left, astronomy apps such as Apple's "Puniverse" allows users to not only track the sky, but photograph it as a background shot to real time.

Neel welcomes your questions and comments at 403-560-6574 or e-mail: Neel_Roberts@ptccanada.com. The members meet the second Friday monthly at the Trek Center at 7:30 p.m. and you find out about membership at: www.calgary.rasc.ca.

