

New 2018 NASA scope is seven times better than Hubble

Next year, there's a new scope in space and it plans to deliver sights like we've never seen before.

With a planned launch date of October 2018, it will have the capability of finding a penny 24 miles away.

The James Webb Space Telescope is the next generation in space scopes and it's so massive, it will unfold in space at a distance four times from the Moon (almost a million miles). The giant mirror is made of 18 individual hexagonal, gold-glazed segments composed of lightweight beryllium.

At three times the size of Hubble's mirror, the result is a light-collecting area seven times its predecessor yet with the same weight due to lighter materials used in Hubble. Its goal is to be able to spot liquid surfaces on planets outside our solar system.

With a budget of just under US\$9 billion and more than 20 years in the making, Canada has had the privilege to participate.

It has a life expectancy of 10 years, so its drawback is if it malfunctions in space, there is no current way to recover or fix it.

You can monitor its progress at the following websites: www.jwst.nasa.gov; <http://sci.esa.int/jwst>; www.asc-csa.gc.ca/eng/satellites/jwst; and



<https://jwst.stsci.edu>.

There will be more to come as the launch date approaches and one feature to watch for is live cams from its scope like we have with the International Space Station.

Sky watch for the next month:

- Aldebaran comes out of Lunar hiding — On Saturday, March 4 look to the quarter Moon as Aldebaran will show itself after 11:05 p.m.
- Spring Equinox — Monday, March 20, at 4:29 a.m. The days are getting noticeably longer.
- Daylight Savings here — Set your clock ahead at 2:00 a.m. Sunday, March 12.
- Zodiacal Lights — Did you catch this last month? It's a faint, roughly triangular, whitish glow seen in the night sky extended up from the vicinity of the sun along the ecliptic or zodiac. Best time to observe is from Tuesday, March 14 for two weeks in the west after evening twilight.

Public Events for the next month:

Monthly Public Stargazing at the Trek Center. Check out our stargazing event courtesy of the Royal Astronomical Society of Canada (Calgary) starting at 7:30 p.m. Friday, March 10. Brief indoor presentation on "The Spring Sky" followed by observing through our resident 11-inch Celestron telescope.

All welcome, no charge and refreshments provided. Come early as space fills up by show time. Experts will be on hand the second Friday monthly to explain the heavens, teach scoping skills and help you develop your knowledge of our sky. For further information, contact the Trek Center at 403-485-2994 online at: www.vulcantourism.com.

Happy spring and longer days.

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 5,000 members and 29 centres across Canada. Neel welcomes your questions and comments at 403-560-6574 or email: Neel_Roberts@ptccanada.com. The members meet the second Friday monthly at the Trek Center at 7:30 p.m. and you can find out about membership at <http://calgary.rasc.ca/vulcan2017.htm>.



Karl Ivarson with dual scopes.

Photos by Neel Roberts



Binoculars are a popular option to telescopes as they can also see the rings of Saturn. At right, Roland Dechesne points one way while others go opposite.

