

OSFS Statement

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The Spherical Aperture radio Telescope (FAST; Chinese: 天眼, nicknamed Tianyan ("Sky/Heaven Eye")), is a radio telescope located in the Dawodang depression in southwest China. FAST has a fixed 500m (1,600ft) diameter dish constructed in a natural depression in the landscape. It is the world's largest filled-aperture radio telescope[2] and the second-largest single-dish aperture, after the sparsely-filled RATAN-600 in Russia.

It has a novel design, using an active surface made of metal panels that can be automatically tilted to help change the focus to different areas of the sky.[5] The cabin containing the feed antenna, suspended on cables above the dish, can move automatically by using winches to steer the instrument to receive signals from different directions. It observes at wavelengths of 10 cm to 4.3 m.

Event Coordinator – no events. We have a monthly OSFS newsletter called The Statement. If you would like to be on the e-mail list contact the editor@ottawasfs.ca

Editor's Blather: From a CISI press release Dec 16.

A Canadian astronaut will fly to the Moon. The Canadian Space Agency (CSA) and NASA have signed the Gateway Treaty, a historic agreement that confirms that a Canadian will be part of the Artemis II mission, the first crewed mission to the Moon since 1972 and second flight for a Canadian astronaut to the Lunar Gateway. Planned to launch in 2023.

The Lunar Gateway is a planned space station in lunar orbit. About one-sixth of the size of the ISS it will be a science laboratory; a rendezvous location for exploration of the surface of the Moon; a mission control centre for operations on the Moon; and one day, a stepping stone for voyages to Mars.

Canadarm3 is a highly autonomous robotic system that will be critical to Artemis missions, from maintaining, repairing and inspecting the Gateway, to capturing visiting vehicles, helping astronauts during spacewalks <https://asc-csa.gc.ca/eng/astronauts/about-the-job/spacewalks.asp>.

Information kit - Canada's role in lunar exploration <<https://asc-csa.gc.ca/eng/astronomy/moon-exploration/information-kit.asp>>. The Lunar Gateway Canadarm3 <<https://asc-csa.gc.ca/eng/canadarm3/about.asp>>

The Artemis missions: humanity's return to the Moon <<https://asc-csa.gc.ca/eng/astronomy/moon-exploration/artemis-missions.asp>>

Space Strategy for Canada <<http://asc-csa.gc.ca/eng/publications/space-strategy-for-canada/default.asp>>

OBITUARY

Actor **Jeremy Bulloch**, who played **Boba Fett** in the original Star Wars trilogy died aged 75 from health complications after living with Parkinson's disease for many years.

Bulloch was best known for playing bounty hunter Boba Fett in *The Empire Strikes Back* and *Return of the Jedi*.

The **Spitzer Space Telescope**, formerly the Space Infrared Telescope Facility (SIRTF), was an infrared space telescope launched in 2003 and retired on 30 January 2020. ... Without liquid helium to cool the telescope to the very low temperatures needed to operate, most of the instruments were no longer usable. It is slowly drifting further behind earth until earth catches up to it in about fifty years.

The **Arecibo Observatory**, suspended by cables connected to three towers over a sinkhole in Puerto Rico, collapsed on December 1. The telescope's 900-ton instrument platform fell onto the reflector dish more than 400 feet below. It had been the world's largest, single-aperture radio telescope for 53 years until 2016 when China installed FAST in southwestern Guizhou province. Pierce Brosnan clambered around its ladders in the James Bond film *GoldenEye*. Jodie Foster marveled at its otherworldly promise in *Contact*. In 1974, it was used to beam a "Hello" message into space.

COMING EVENTS

The Quadrantid meteor shower is active between December 27, 2020 and January 10, 2021 peaking late at night on Saturday, January 2, and into early Sunday morning in 2021. The moon will be 84 percent full and potentially poor weather. Under the best conditions an average of 25 meteors per hour makes it one of the stronger showers of the year.

LOC

Dear OSFen:

It's getting close to Christmas, so a fast letter on...issue 500 of the OSFS Statement. Congratulations to the club, this is a milestone!

I didn't see much of the Geminids, but then, we've had extremely cloudy and cold weather here. Tonight is the conjunction of Jupiter and Saturn, the return of the Christmas Star, and given the current weather, I will have to go online to see if there is any good footage of the conjunction.

Our condolences on the loss of Charles Saunders and Thomas Wray. It's been a long time since we'd seen either of them...there's too many people who we see again, but only in an obituary. COVID-19 has made that situation only worse. Ah, too many friends going away.

My letter... There are books available on Amazon...*Lamia's Children* by Shirley Meier, *Ambient Conditions* by Sharon Lee & Steve Miller, plus the following *Amazing Selects* books... *Captain Future in Love*, *Captain Future: The Guns of Pluto*, and *Captain Future: 1,500 Light Years from Home*, all by Allen Steele, *Adrift in the Sea of Souls* by David Gerrold, *The Tiny Time Machine* by John E. Stith, and *No Police = Know Future*, edited by James Beamon. I edited, copyedited and proofread all of these books. In the Beamon book, I am listed as associate editor. New career for me? I hope so, but I will continue to work on the books and *Amazing Stories* magazine, and hope for the best.

Yvonne and I wish you all a wonderful Christmas and a Happy New Year. 2021 will be great, mostly because it won't be 2020. Take care, stay safe, and hold each other in your hearts until we can hold each other for real. See you next year.

Yours, Lloyd Penney.

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