

## Future of giant radio telescope in Puerto Rico in limbo

January 25 2017, by Danica Coto



In this March 26, 2003, file photo, the world's largest radio telescope is seen from the air, at the Arecibo Observatory, in Puerto Rico. The future of one of the world's largest single-dish radio telescopes has been called into question after the U.S. National Science Foundation announced it was formally seeking someone to operate the Arecibo Observatory in Puerto Rico. The Wednesday, Jan 25, 2017, announcement comes as the federal agency runs out of funds to support the observatory. (AP Photo/ Tomas van Houtryve, File)

The future of one of the world's largest single-dish radio telescopes is in question after the U.S. National Science Foundation announced



Wednesday it was accepting proposals from those interested in assuming operations at the Arecibo Observatory in Puerto Rico.

The announcement comes as the federal agency runs out of funds to support the observatory, which features a 1,000-foot-wide (305-meterwide) dish used in part to search for gravitational waves and track asteroids that might be on a collision course with Earth.

Officials with the foundation stressed in an interview Wednesday with The Associated Press that the agency prefers that the observatory remain open with the help of collaborators that would provide a funding boost.

"Our (community reviews) have recognized that Arecibo does great science and will continue to do great science," said Ralph Gaume, acting division director for the foundation's Division of Astronomical Sciences.

However, he warned it's possible none of the proposals that have to be submitted by late April will be chosen. This would leave the foundation with alternatives including suspending operations at the observatory, turning it into an educational center or shutting it down.

The first hint that the 53-year-old observatory was at risk came a decade ago, when a panel of experts recommended it be shut down unless other institutions could help the foundation. The agency finances two-thirds of the observatory's \$12 million annual budget, and officials said it could provide some \$20 million over a five-year period to a potential new operator.

Scientists use the observatory in part to detect radio emissions emitted by objects including stars and galaxies, and it has been featured in the Jodie Foster film "Contact" and the James Bond movie "GoldenEye." It attracts about 90,000 visitors and some 200 scientists a year that use the observatory for free to do research, said observatory director Francisco



## Cordova.

However, he told the AP that could change depending on the type of proposals submitted.

"Perhaps in the future, scientists might have to pay to use it," he said, adding that the observatory still plays a key role in research including the study of solar eruptions capable of disrupting electronic equipment.

The observatory has been threatened in recent years by bigger, more powerful telescopes in places like Chile and China, where officials recently unveiled the Five-hundred-meter Aperture Spherical Telescope, or FAST.

The foundation said it expects to make a decision by late 2017 as it awaits completion of a final environmental impact statement, which will outline all alternatives for the <u>observatory</u>'s future.

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