**Huge Puerto Rico Telescope Collapses**

**波多黎各超大望远镜坍塌**

A huge, already damaged radio telescope in Puerto Rico collapsed on Tuesday. Its 800-metric-ton receiver stand fell onto the reflector dish more than 120 meters below.

周二波多黎各一个超大的、早已损坏的射电望远镜倒塌。它800公吨的接收器支架掉到了120多米以下的反射盘上。

The collapse at the Arecibo Observatory shocked scientists who had long used one of the world’s largest radio telescopes.

阿雷西博天文台的坍塌震惊了曾长期使用这个全球最大的射电望远镜之一的科学家。

“It sounded like a rumble. I knew exactly what it was,” said Jonathan Friedman, who worked for 26 years as a researcher at the observatory and still lives near it. “I was screaming. Personally, I was out of control.... I don’t have words to express it. It’s a very deep, terrible feeling.”

“我听到了隆隆声，也完全知道它是什么声音，”乔纳森·弗里德曼说，他曾在天文台作为研究员工作过26年，现在仍然住在它附近，“我当时发出尖叫。我本人失去了控制……无法用语言表达出来。这是一种深深的恐惧感。”

Friedman said he saw a cloud of dust hang in the air where the structure once stood.

弗里德曼表示，他看到这座建筑曾经矗立的地方冒出一团烟尘。

Carmen Pantoja is an astronomer and professor at the University of Puerto Rico. She used the telescope for her studies. “It’s a huge loss,” she said.

卡门·潘托贾是一位天文学家，也是波多黎各大学的一名教授。她曾用这个望远镜做过研究。“这是一个巨大的损失，”她说。

The telescope had survived ocean storms and several earthquakes in its 57 years of operation. It was built in the 1960s with money from the U.S. Defense Department.

在57年的运行中，这台望远镜经受住了海洋风暴和几次地震。上世纪60年代它由美国国防部出资建造。

Scientists used it to find and follow asteroids on a path to Earth. They also used it to find an unusual kind of star system, a binary pulsar, in 1967. The discovery earned scientists a Nobel Prize in 1974.

科学家们用它来寻找并跟踪小行星靠近地球的轨径。1967年，他们还用它发现了一种不同寻常的恒星系统——脉冲双星系统。这一发现为科学家们赢得了1974年的诺贝尔奖。

The U.S. National Science Foundation announced on November 19 that the Arecibo Observatory would close permanently. The 305-meter-wide dish was severely damaged in August. NSF scientists believed the cables could deal with the added pressure and weight they were carrying. But on November 6, the main cable broke.

美国国家科学基金会11月19日宣布阿雷西博天文台将永久关闭。这个305米宽的大盘子在8月份严重受损。美国国家科学基金会的科学家认为，这些电缆能够应对它们所承受的额外压力和重量。但11月6日，主电缆断了。

The NSF said at the time that it wanted to one day reopen the visitor center and repair some of the operations. The observatory served as a training area for university students and received about 90,000 visitors a year.

美国国家科学基金会当时表示，希望有朝一日能重新开放游客中心，修复部分运营系统。这座天文台曾是大学生接受训练的地方，每年接待约9万名游客。

 “I am one of those students who visited it when young and got inspired,” said Abel Méndez, a professor at the University of Puerto Rico at Arecibo who used the telescope for research. “The world without the observatory loses, but Puerto Rico loses even more.”

阿雷西博波多黎各大学的教授阿贝尔•梅德斯曾用这台望远镜进行研究，他说：“我曾是那些参观过它并受到启发的年轻学生之一。世界损失了这座天文台，但波多黎各的损失更大。”

About 250 scientists around the world, including Mendez, were using the observatory when it closed in August. They had used the telescope to study radio waves from distant planets. They had also used it to search for neutral hydrogen, which can help show how some cosmic structures are formed.

八月份天文台关闭时包括梅德斯在内的全世界约250名科学家在使用该天文台。他们曾用望远镜研究来自遥远星球的无线电波。他们还用它来寻找中性氢——它有助于显示某些宇宙结构是如何形成的。

The Arecibo telescope was the largest radio telescope in the world for most of its existence. In 2016, it was surpassed by China’s 500-meter Aperture Spherical Telescope.

阿雷西博望远镜曾是世界上最大的射电望远镜。2016年，它被中国500米口径的球面望远镜超越。

I’m Jonathan Evans.

乔纳森·埃文斯报道。

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