**Three Countries Send Spacecraft to Mars**

**中美阿联酋均计划向火星发射宇宙飞船**

China, the United Arab Emirates and the United States plan to launch unpiloted spaceships in the next few weeks to fly to Mars. The operations are aimed at searching for signs of ancient, microscopic life. Each country hopes the research will help them learn if astronauts could someday visit the red planet.

中国、阿拉伯联合酋长国和美国计划在未来几周内发射无人驾驶宇宙飞船飞往火星。此举旨在寻找火星上的古代微生物的迹象。各个国家都希望这项研究能帮助他们揭秘未来宇航员能否造访这颗红色星球。

The spaceships are expected to reach Mars in February after traveling about 485 million kilometers. Scientists want to find out what Mars was like billions of years ago, when it had rivers, lakes, and oceans.

这些太空船预计在飞行约4.85亿公里后于明年2月抵达火星。科学家们希望查明数十亿年前火星的真实状态——那时它有河流、湖泊和海洋。

Ken Farley is a professor at California Institute of Technology and a project scientist for Perseverance, the U.S. rover that will go to Mars. He noted how hard it is to confirm that life existed on another planet. There is “a very big burden of proof,” he said.

肯·法利是加州理工学院的教授，也是负责将要去火星的美国探测器“毅力号”项目的科学家。他指出，要确认另一个星球上存在生命非常困难，且“举证难度非常大”。

It is not by chance that the three launches are taking place soon. Mars and Earth are currently in positions that favor such travel, permitting shorter travel time and less fuel use. The positioning happens about every two years.

三国都将很快发射探测器并非偶然。目前火星和地球所处的位置有利于实现这一旅行，此时到达火星花费的旅程时间更短，燃料消耗也更少。而此种定位大约每两年才有一次。

The United Arab Emirates spacecraft is named Amal, which is an Arabic word for hope. It is set to leave from Japan on Friday.

阿拉伯联合酋长国的太空船被命名为阿马尔（Amal）——在阿拉伯语中意为“希望”。它定于周五从日本发射。

The spacecraft, built in partnership with the University of Colorado Boulder, will arrive at Mars in the year that the UAE marks the 50th anniversary of its founding.

这艘太空船是与科罗拉多大学博尔德分校合作建造的，它将在阿联酋成立50周年之际抵达火星。

Omran Sharif is the project manager for the launch. “The UAE wants to send a strong message to the Arab youth,” he said. “The message here is that if the UAE can reach Mars in less than 50 years, then you can do much more.”

欧姆兰·谢里夫是此次飞船发射的项目经理。他说：“阿联酋希望向阿拉伯年轻人发出一个强有力的信息，即——如果阿联酋能在50年内抵达火星，那么你们也可以创造更多可能。”

Controlled from Dubai, the spaceship – a kind of weather station – will study the upper atmosphere of Mars and follow changes in its climate.

这艘太空船由迪拜的某个气象站控制，将研究火星的高层大气，并追踪其气候变化。

China will launch a rover and an orbiter sometime around July 23. Chinese officials have not released much information about the operation, which is called Tianwen, or Questions for Heaven.

中国将在7月23日左右发射一个火星车和一个轨道飞行器。中国官方并没有公布太多有关“天问”行动的信息。

NASA plans to launch on July 30 from Cape Canaveral, Florida. Perseverance, the NASA spaceship, will land in Jezero Crater, the site of an ancient river and lake. The area is full of large rocks, cliffs and sand dunes – all possible threats to Perseverance.

美国宇航局计划于7月30日从佛罗里达州卡纳维拉尔角发射升空。美国宇航局的太空船“毅力号”将降落在耶泽洛陨石坑——火星上一处古河流和湖泊所在地。该地区到处都是大石头、悬崖和沙丘——而所有这些都可能威胁到“毅力号”。

New technology will help keep the craft away from such dangers. Ground controllers will not be able to help because it takes ten minutes for radio signals to travel between Earth and Mars.

新技术将有助于帮助飞船远离这些危险。由于无线电信号在地球和火星之间传输需要长达10分钟时间 ，因此地面控制人员届时将无法为探测器提供帮助。

But Jezero Crater is worth the risks, scientists say. About 3.5 billion years ago, the area had a lot of water, they say, and maybe some living organisms. Perseverance will look for rocks that show signs of past life in the area.

但是科学家们表示，耶泽洛陨石坑值得这次冒险。他们说，大约35亿年前该地区水源丰沛，也许会有一些生物生存过。“毅力号”会在该地区寻找有古生物迹象的岩石。

The NASA operation will also test some of the technology that will be needed to send humans to the red planet -- and bring them home safely.

此次美国航天局的行动还将测试一些新科技——将人类送上火星并能将他们安全带回家所需的技术。

Farley said that it might seem strange for him to call the operation low risk because it took a lot hard work and costed billions of dollars. But, he noted, “if something goes wrong” everyone will be glad the operation did not involve astronauts.

法利说，他感觉称此次行动为低风险行动似乎不妥，因为这一行动花费了数十亿美元，而且很多人为此付出了很艰辛的努力。但他也指出，“如果出了问题”大家都会为这次行动没有让宇航员参与而感到高兴。

I'm John Russell.

约翰·拉塞尔报道。

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