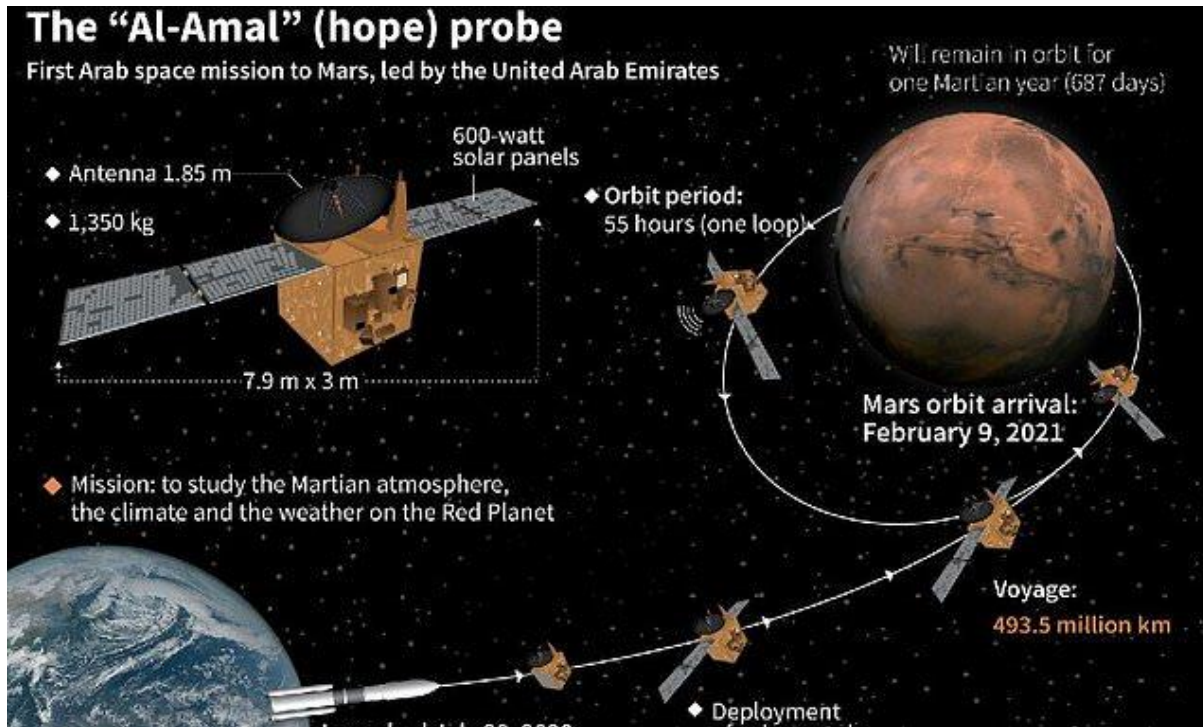


## MISSION HOPE: UNITED ARAB EMIRATES SPACECRAFT ENTERS ORBIT AROUND MARS

**TAGS:** GS-3: Science & Technology

**CONTEXT:**

- A spacecraft from the United Arab Emirates swung into orbit around Mars on Tuesday in a triumph for the Arab world's first interplanetary mission.



**NEWS IN DETAILS:**

- Unmanned craft, called **Amal, Arabic for Hope**, had reached the end of its **nearly seven-month, 300-million-mile journey** and had begun circling the red planet, where it will gather detailed **data on Mars' atmosphere**.
- To a standing ovation, a visibly relieved Omran Sharaf, the mission's director, **declared, "To the people of the UAE and Arab and Islamic nations, we announce the success of the UAE reaching Mars."**
- **League of five space agencies:** Amal's arrival puts the UAE in a league of just five space agencies in history that have pulled off a functioning Mars mission.
- About **60% of all Mars missions** have **ended in failure**, crashing, burning up or otherwise falling short in a testament to the complexity of interplanetary travel and the difficulty of making a descent through Mars' thin atmosphere.

**OTHER MISSION IN PIPELINE:**

- **Two more in row:** Unmanned spacecraft **from the U.S. and China** are following close behind, **set to arrive at Mars over the next several days**.
  - **All three missions** were **launched in July**.
  - **Why:** To take advantage of the close alignment of Earth and Mars.

- **USA's Perseverance:** A rover from the **U.S. named Perseverance** is set to join the crowd next week, aiming for a **landing Feb. 18.**
  - **Aim: To bring Mars rocks back to Earth** to examine **microscopic life.**
- **China:** A combination orbiter and lander from China is scheduled to reach the planet on Wednesday.
  - **Aim: To look for signs of ancient life.**
- If it pulls this off, **China will become only the second** country to land successfully on Mars. The **U.S. has done it eight times**, the first almost 45 years ago. A NASA rover and lander are still working on the surface.

### **UAE'S HOPE MISSION TO MARS:**

It is the **first interplanetary mission** for the **Arab World.**

It is a Mars orbiter spacecraft, which will study the thin atmosphere of Mars.

**Announced:** In 2015

**Launched:** In 2016

It was launched from **Tanegashima Island in Japan.**

**Aim:** Creating mankind's first integrated model of the Red planet's (Mars) atmosphere.

**Commemorate:** To reach Mars in February 2021 (**50th anniversary of UAE's founding**).

**Cost:** USD 200 million

**Three Scientific Instruments attached:**

1. **Emirates eXploration Imager (EXI):** A high-resolution camera.
2. **Emirates Mars Ultraviolet Spectrometer (EMUS):** A far-UV imaging spectrograph.
3. **Emirates Mars InfraRed Spectrometer (EMIRS):** It will examine temperature profiles, ice, water vapor and dust in the atmosphere of Mars.

**MCQs:**

**Q. Which of the following statements is/are correct regarding Mission Hope of UAE?**

1. It is the first interplanetary mission for the Arab World.
2. It was launched from Japan.
3. It is a Lunar orbiter spacecraft, which will study the thin atmosphere of Lunar.

Select the correct answer using the code below.

**a) 1 and 2 Only**

b) 2 and 3 only



- c) 1 only
- d) 1, 2 and 3

**ANS: A**