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UAE marks first anniversary of **Hope Probe today**



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Mars mission: UAE celebrates first Hope Probe anniversary

ONE YEAR ON, FIRST ARAB INTERPLANETARY VENTURE YIELDS RARE DATA, IMAGES

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Gulf News Report

Emirates Mars Mission, the first Arab interplanetary mis-sion, today celebrates the first anniversa-ry of its successful entry into Mars' orbit and the gathering of a unique trove of Mars observations by the Hope Probe.

One year on, the autono-mous spacecraft has achieved historic milestones as part of its mandate to expand our understanding of the Martian planet.
The Hope Probe is scheduled

to continue its scientific mission to explore Mars until the middle of 2023, with the possibility

de of 2023, with the possibility of extending it for an additional Martian year (two Earth years).

The Hope Probe successfully reached Mars' orbit at 19:42 on February 9, 2021, completing one of the most complex and interests extracted its relicion efforts. tricate stages of its mission, after a 493 million kilometre, sevenmonth journey through space. The Probe's arrival marked a historic achievement for the Emirates and the Arab world and has resulted in unique and challenging observations of the Red Planet that have "not only confounded our understanding of the Red Planet, but added immeasurably to our knowledge of Mars' complex and fascinating atmospheric dynamics".

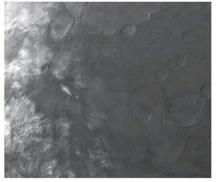
'Inspiring story'

Sarah Bint Yousef Al Amiri, Minister of State for Advanced Technology and Chairwoman of the UAE Space Agency, said: "Tuesday, February 9, 2021 has become a historic occasion for the emirates, marking a unique achievement for our young nation. The Hope Probe is an inspiring success story for the youth of the Emirates and the Arab world in general and comes as the culmination of a multinational effort to drive the development of our space sector, contribute to our grow-ing space sector and bring new insights into our human under standing of our nearest plan-

etary neighbour – Mars." Omran Sharaf, Director of the Emirates Mars Mission (Hope Probe), said that the celebration of the first anniversary of the spacecraft's successful arrival is the culmination of years of tireless and dedi-cated work by the Emirati project team together with their knowledge partners at the University of Boulder, Colorado. It reflects the UAE's significant contribution to the scientific



An event in Dubai marking the Hope Probe's entry into Mars' orbit on February 9, 2021





Close-up Images of Mars captured by Hope Probe. Left: Water-Ice clouds during early spring on Mars. Right: Early morning haze (blue) blanketing the surface.

times Hope Probe has circled Mars till

progress of humanity, as it provides unprecedented data about the Red Planet, he added.

Uncovering phenomena

Sharaf said the Probe has registered numerous scientific achievements by observing previously-unknown phenom-ena. It will continue its scientific mission, which aims to provide the first comprehensive picture of the Red Planet's cli-



mate and atmosphere, benefiting from its unique 25-degree elliptical orbit, which enables it to collect data and high-resolution images of the planet's atmosphere every 225 hours, or 9.5 days. Since its arrival, Hope Probe has circled the Red Planet over 170 times, at a rate of one cycle every 55 hours.

Making data available

So far, the data captured by Hope Probe has been made available in two tranches, with a commitment to continue publishing and making new batches

available every three months.

The first two batches of scientific data were published in October 2021 and January 2022, respectively. The first batch in-cluded scientific data gathered during 2021 (February 9 to May 22) and totalled 110GB. Almost 2 terabytes (TB) of data has been downloaded from the Emirates Mars Mission Science Data Centre, including 1.5TB in the form of data from the Emirates Explo-

ration Imager (EXI) camera.

The second tranche of data released included 76.5GB of un-adjusted data from May 23 to August 31, 2021. The volume of data that has been shared with the global scientific community totals 312 GB, while the total size of downloaded files totals 6.1 TB.