

Voyage to Mars

Mission Overview

In Earth years, it is 2076, and a now routine Voyage to Mars has brought the latest human crew into Martian orbit. Control of the incoming flight has been transferred from Houston's Mission Control to Mars Control at Chryse Station. The crew arriving from Earth on the Mars Transport Vehicle has been specially trained to replace the existing crew of astronauts, which has manned Mars Control for the past two years, and to continue their scientific explorations.

It was over 100 years ago when Viking 1 & 2 made the first United States' robotic landings on Mars in the late 1970's giving humans their first up-close look at the Martian surface.

The success of Pathfinder and its little hitchhiker set the stage for an armada of robotic spacecraft that over the next four decades paved the way for the first human landings on Mars. The data collected during the early years of the new Millennium by robotic explorations and spacecraft in Martian orbit have directed the human explorations.

A renewed interest in Earth's planetary neighbor was spurred by the successful landing of the rover, Curiosity, in August of 2012. This car-sized rover rekindled the human spirit of exploration as it toured Mars with its own science laboratory. Curiosity was able to examine rocks, search for traces of carbon-based

elements and snap pictures that provided the most detailed look ever at the Red Planet's surface.

Studies of the ancient flood plains and incredible canyons are part of an effort to find out what happened to the water that once flowed across Mars, to find out if the planet once had a more Earth-like environment, and if so, to find out why it changed and if this change could happen on Earth. The crew on the Martian surface has collected and analyzed a great number of geologic and soil samples, as well as data gathered by moon-bound probes.

The Mars Control team is charged with the selection of entry and departure trajectories before the landing and subsequent lift-off of the Mars Transport Vehicle can occur.

The crew on the Mars Transport Vehicle is tasked with the launching of probes targeted at the Martian moons. A probe will be launched to Phobos prior to landing and then another to Deimos before the flight back to Earth.

Both the relief crew and the planet-based crew will be under tight deadlines to gather important data and communicate information to the teams, the spacecraft, and the Mars base. The crews also will gain an appreciation for "luxuries" of planet Earth—such as air, water and food—as compared to a barren planet such as Mars.

