

Mars orbiter approaches red planet

After a seven-month journey from Earth, NASA's Mars Reconnaissance Orbiter (MRO) is nearing the critical phase of its mission as it enters orbit around the red planet. The craft aims to study Mars in unprecedented detail, look for evidence of water and identify landing sites for future missions

MISSION

Launch

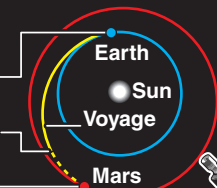
Aug 2005

Approach

Mar-Nov 2006

Main mission

to Dec 2010



SHARAD: Radar seeks water up to 1km below surface

Antenna: Transmits data to Earth and serves as comms relay for future Mars missions

MRO SYSTEMS

CRISM:

Spectrometer maps surface mineralogy

MARCI: Produces global image of Mars weather

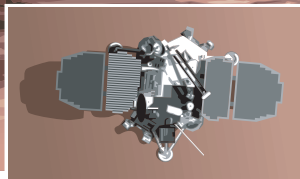
MCS: Observes temperature, humidity and dust in atmosphere

HiRISE: High-resolution telescopic camera

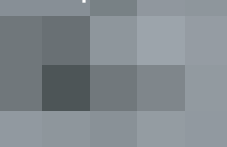
CTX: Wide area camera

Thrusters

IMAGE QUALITY



150cm/pixel



30cm/pixel



Mars Polar Lander (model)

Mars Global Surveyor HiRISE

HiRISE has five times better resolution than Mars Global Surveyor's camera and may even allow scientists to find NASA's Mars Polar Lander, lost in 1999

Sources: NASA / Jet Propulsion Laboratory

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