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Planting the Maple Leaf on Mars

Canada will plant the Maple Leaf on the surface of the Red Planet when Phoenix, an international mission to Mars, touches down in 2008.

Mars is a cold, desert-like planet with a thin, carbon-dioxide atmosphere. Its atmospheric pressure is too low for liquid water on its surface. Recently, large amounts of subsurface ice appear to have been detected in the northern plains. Phoenix will investigate this intriguing discovery. The lander's robotic arm will dig into the permafrost, scooping up samples for analysis on board.

Canada is contributing a weather station to record local conditions and will probe clouds, fog and dust in the lower atmosphere with a light detection and ranging (or lidar) instrument. In the long-term, weather reports from the Martian arctic will help scientists accurately model the history and future of climate change on the Red Planet.

York University leads the Canadian science team with participation by the University of Alberta, Dalhousie University, and the Geological Survey of Canada, with international collaboration from the Finnish Meteorological Institute. MDA Space Missions is the prime contractor for the meteorological station, with lidar expertise provided by Optech Inc.

Phoenix is a collaboration between government, industry and academia. The mission is led by the University of Arizona in partnership with NASA's Jet Propulsion Laboratory. The Canadian Space Agency is one of the international partners that includes the University of Neuchatel (Switzerland), the universities of Copenhagen and Aarhus (Denmark), and the Max Planck Institute in Germany.



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