

Mars Polar Exploration and Glaciological Interests

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The Martian Polar Ice Caps(MPIC) have attracted considerable attention to many Glaciologists due to their unique surface topological feature and the possibility that these layered deposits hold a recent climatic record of Mars. The MPICs are considered to be mixtures of water ice and some dust whose volume approaches that of the Greenland Ice Sheet. There are 10's of millions of years of climate record in the layers laid down in these caps and they represent the largest non-terrestrial water resource in the inner system. The First International Conference on Mars Polar Science and Exploration held in Houston brought together Mars specialists and terrestrial glaciologists for the first time. After this meeting, the 2nd and 3d International Conference and other workshops on Martian Polar ice caps have been held and many new findings by NASA's Mars Orbiters were reported. In this meeting, I will review the present common understandings on the MPIC and talk about interesting glaciological topics that should be solved.