

## **Atmospheric and Variable Features Phenomena with HRSC on Mars Express**

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Since January 2004 the High Resolution Stereo Camera (HRSC) onboard the Mars Express orbiter has been mapping Mars. In this talk we will report on the HRSC science results related to the atmospheric and surface variable features phenomena. During the early part of the mission Mars atmosphere was rather dusty with optical depth equal to approximately one. Limb images show rich layer structure which will be analyzed for the vertical distribution of the aerosols. Some of the images show details of thin clouds and fogs. Wavelengths of the observed Lee clouds have been used to infer wind velocity. The stereo capability of HRSC allows also for estimates of wind speed from images of dust devils taken at slightly different times. Other phenomena related to the Martian atmosphere and surface variable features will also be discussed.