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THE STEREO MAPPING PERFORMANCE OF THE HRSC IN MARS ORBIT

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Mars Express was successfully launched from Baikonur on June 2, 2003, and has begun its mapping of Mars early this year (Neukum et al., this conference). The spacecraft is equipped with HRSC (High-Resolution Stereo Camera), a multiple line scanner operated in the pushbroom mode, specifically designed for 3-D-mapping of the planet with high precision. Over the past years, we have developed a comprehensive system of software for processing, analysis, and interpretation of the HRSC three-line stereo images. By the time of the conference, we expect to show sample photogrammetric products, derived from HRSC images, and to assess the camera`s potential for cartographic mapping of the planet. We expect that the map products from HRSC will stimulate major advancements in the geology and geophysics of Mars.