

Drop Dune

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Definition

Modified wedge dune extended longitudinally in the resultant transport direction.

Formation

Drop dunes form in areas where sand supply is low and subject to a bimodal wind regime where the directions of the winds differ by $>120^\circ$ (Parteli and Herrmann 2007; Parteli et al. 2009a; Reffet et al. 2010). It originates from a ► [wedge dune](#) whose downwind tail elongates, leading to a longitudinal dune (Parteli et al. 2009a; Fig. 1).

Degradation

They decay into a train of rounded barchans after a decrease of wind divergence angle down to 80° (► [dune convoy](#)) (Parteli and Herrmann 2007; Parteli et al. 2009b).

Studied Locations

Mars

Related Landforms

► [Rectilinear dune](#), ► [wedge dune](#)

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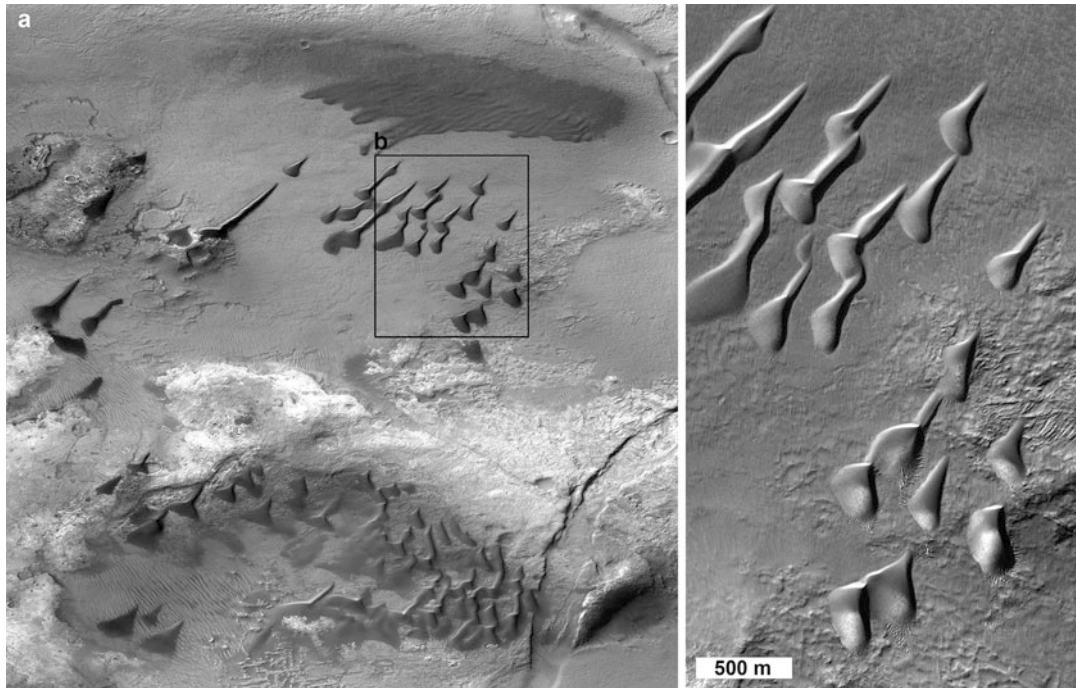


Fig. 1 Drop dunes in a crater in Noachis Terra, Mars, near 49.6°S , 7.1°E . The dunes elongate in the resultant transport direction (Parteli and Herrmann 2007; Parteli et al. 2009a; Reffet et al. 2010). (a) Mosaic of CTX D09_030885_1308_XI_49S353W and P15_007005_1304_XN_49S352W (b) MOC R2001409. (NASA/JPL/MSSS)

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