



Disappearing and shrinking dunes on Mars

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Recent Lander and satellite observations suggest that the saltation threshold for sand is exceeded on Mars, however published reports indicate that dunes have not moved. Indeed evidence is growing that dunes may be stabilized, indurated and/or lithified. More than 80 dune sites were repeatedly imaged by the Mars Orbiter Camera between 1997 and 2006 for the purpose of documenting dune movement. Three small dunes (20-70 m wide) at a target site in the North Polar Region exhibited change. The two smallest domes disappeared, while the third was reduced in volume by ~15%. The estimated sediment movement rate is similar to that of dome dunes on Earth. Sand transport may be an active part of the sediment transport regime in areas of sand availability on Mars.