

## **Image: Martian Morse code**

July 11 2016



Credit: NASA/JPL/University of Arizona

This image of dark dunes on Mars was taken on Feb. 6, 2016, at 15:16 local Mars time by the High Resolution Imaging Science Experiment (HiRISE) camera on NASA's Mars Reconnaissance Orbiter. These dunes are influenced by local topography. The shape and orientation of dunes can usually tell us about wind direction, but in this image, the duneforms are very complex, so it's difficult to know the wind direction.



However, a circular depression (probably an old and infilled impact crater) has limited the amount of sand available for dune formation and influenced local winds. As a result, the <u>dunes</u> here form distinct dots and dashes.

The "dashes" are linear dunes formed by bi-directional winds, which are not traveling parallel to the dune. Instead, the combined effect of winds from two directions at right angles to the dunes, funnels material into a linear shape.

The smaller "dots" (called "barchanoid dunes") occur where there is some interruption to the process forming those linear dunes. This process is not well understood at present and is one motivation for HiRISE to image this area.

Provided by NASA

Citation: Image: Martian Morse code (2016, July 11) retrieved 2 May 2024 from <u>https://phys.org/news/2016-07-image-martian-morse-code.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.