

Interactive comment on “Observing desert dust devils with a pressure logger” by R. D. Lorenz

Anonymous Referee #2

Received and published: 29 October 2012

A small, affordable and portable air pressure recording device is assembled of commercial parts and put to test on an arid region. This paper nicely demonstrates how relevant experimental science can be done with inexpensive equipment. I thus recommend its publication in GI. Here are couple of suggestions that surfaced when reading the manuscript:

The paper briefly mentions the connection to measuring and analyzing dust devils on Mars. I would suggest elaborating this a bit further by reviewing the past, present and future situation of martian pressure measurements in an additional paragraph. This would be especially fitting now as there is one sensor currently active on board of the MSL Curiosity on the surface of Mars. Also, there are several plans for network of landers to be delivered on Mars in the future, one plan especially concerned on weather (pressure, temperature, wind) sensor network (Mars MetNet). It would highlight the significance of the comparative meteorology suggestions if the possible current and fu-

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ture martian counterpart measurements would also be cited, not to mention the several years of pressure sensor data obtained by the Viking landers in the 70s.

The author brings up the issue of theft and vandalism and one of the instrumentation packages was indeed lost during the campaign. In Fig. 5 the later lost solar-powered unit is displayed. It can be understood that the instrument might look like lost or discarded item for somebody uninvolved. This leaves me wondering whether an approach where there would be a clearly visible sign on the lines of: "Scientific instrumentation - please leave untouched - If interested in details, contact... ", would give better survival rates for the field instruments. Has this approach been considered?

On a related note, in page 479 there is a sentence that could be mis-interpreted in an unintentionally comical way. To avoid that, I would change the structure of the sentence or simply add a clarification in parenthesis so that it was clear it pointed to dust devils and not on incidents of vandalism: "Sites with high dust devil activity tend to be hot and remote, and long-term unattended operation presents hazards of theft and vandalism (Mars experience suggests of order one DUST DEVIL encounter per day can be expected,..)".

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., 2, 477, 2012.

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