

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

R. D. Lorenz

ralph.lorenz@jhuapl.edu

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C228 (C.F.Wilson) I thank Dr Wilson for his kind comments on the work

C230 (C.F.Wilson, as referee) see above

C240 (Anonymous referee 2)

In fact the Pathfinder and Phoenix Mars measurements were already alluded to (via the Murphy and Nelli 2002 and Ellehoj et al. 2009 references). In fact the Viking pressure data were not recorded frequently enough to reliably detect dust devils although some signatures were noted - most of the Viking dust devil detections are from wind direction records. A few sentences have been added to summarize these results and to note Curiosity's meteorology package (and that of the recently-selected Insight mission) and interest in future missions such as METNET.

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With regard to theft and signage, a controlled experiment on strategies for attrition mitigation, i.e. stealth vs warning, has not been attempted. The signage strategy increases the probability of detection (by a large factor) but decreases the probability of removal if detection occurs (by an indeterminate, but possibly smaller amount). What the reviewer suggests is certainly a (rather obvious) option and has been noted briefly in the text.

The opportunity for (amusing) misinterpretation of the sentences regarding theft and Mars has been noted and the text revised.

C247, C248 (R. Keanani, referee) The reviewer points out that data from pressure drops should relate to other meteorological parameters such as wind and temperature perturbations. This is indeed true (cf Renno's heat engine formalism), and various theoretical and numerical modeling studies have been done in this area. Discussion of these is beyond the scope of the present paper, although we have noted the opportunity for statistical correlation as suggested by the reviewer at the end of the paper.

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

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