



Winds at the Mars Phoenix landing site

H. P. Gunnlaugsson (1), C. Holstein-Rathlou (1), J. P. Merrison (1), C. F. Lange (2), M. Lemmon (3), P. Nørnberg (1), P. Taylor (4), and P. Smith (5)

(1) Aarhus University, Mars Simulation Laboratory, Aarhus-C, Denmark (hpg@phys.au.dk) Institute for Physics and Astronomy, Aarhus University, Ny Munkegade 120, DK-8000 Aarhus C, Denmark (hpg@phys.au.dk), (2) Dept. of Mechanical Engineering, University of Alberta, Edmonton, Canada, (3) Dept. of Atmospheric Science, Texas A&M, College Station, USA, (4) Dept. of Physics and Astronomy, York University, Toronto, Canada, (5) Lunar & Planetary Laboratory, University of Arizona, USA

The Telltale is a mechanical anemometer consisting of a lightweight cylinder suspended by Kevlar fibers that are deflected under the action of wind. The Telltale is mounted on top of the meteorological (MET) mast at roughly 2 meters height above the surface [1]. Images taken with the Surface Stereo Imager (SSI) of the Telltale deflection allows the local wind speed and direction to be quantified at the Phoenix landing site.

In course of the mission, more than 6000 Telltale observations were made, that allowed for gaining a detailed picture of the wind regime at the landing site. This allows us to assess the accuracy of predictions from global climate models, slope wind effects, midnight temperature turbulence, daily temperature differences and possible temperature inversion arising from frost formation.

[1] H. P. Gunnlaugsson *et al.*, (2008), *J. Geophys. Res.*, **113**, E00A04,