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Vertical winds in the atmosphere of Titan

J.T.T. Mäkinen (1), A.-M. Harri (1), H. Savijärvi (2), T. Siili (1), F. Ferri (3)

(1) Finnish Meteorological Institute, Finland, (2) University of Helsinki, Finland, (3) Università di Padova, Italy (teemu.makinen@fmi.fi / Phone: +358-9-1929-4647)

During the two and a half hour descent of the Huygens probe through the atmosphere of Titan on January 14, 2005, the HASI instrument measured, among other quantities, the local atmospheric pressure and temperature. From these measurements we have been able to derive the vertical component of the local atmospheric flow along the trajectory of the probe. Complementing the horizontal component derived from radio telemetry, this profile increases our understanding of the global circulation in the atmosphere of Titan. We discuss the features of the profile and compare it to the horizontal profile and GCM models.