

FIRST RESULTS FROM THE AUTOMATIC WEATHER STATION (AWS) ON THE ABLATION TONGUE OF FORNI GLACIER (UPPER VALTELLINA, ITALY)

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The first AWS on the melting surface of an Italian glacier has been set up on September 26th, 2005 at the Forni Glacier (Upper Valtellina, Stelvio National Park, Lombardy Alps). The AWS (named AWS1 Forni) is equipped with 12 different sensors to collect the main atmospheric parameters for describing the glacier boundary layer. In this contribution the data acquired during the first year are shown together with some preliminary comments. The AWS data result in good agreement with those ones from other AWSs located all around the world on the melting surface of glaciers, thus underling the successful choice of the AWS location and the proper operation of the instruments. Among the others particularly interesting the radiation analysis which permitted to quantify for the entire year the albedo values resulted ~ 0.7 for snow and ~ 0.3 for ice with an annual value of 0.417 thus making that only c. 21% of the solar radiation available at the top of the atmosphere is absorbed at the Forni glacier surface. The snow pit stratigraphy has been found to match very well the instrumental snow level record.