

## **BOREAS V: Conference on Wind Energy Production in Cold Climates**

29 November - 1 December 2000  
Spa Hotel Levitunturi, Levi, Finland

Tammelin, Bengt; Finnish Meteorological Institute, Helsinki, Finland

At the end of November 2000, FMI will host the BOREAS conference for the fifth time in Finnish Lapland. Interest in icing problems for wind power production has grown strongly since our first BOREAS meeting in 1992. The ideas and results that emerged from previous meetings and from our EU projects have already been adopted among e.g. users and manufacturers of wind gauges, manufacturers of wind turbines and their components, and wind turbine operators and utilities. Several wind power plants have been established within the last two years in Finland and Sweden, where the technological requirements for operation in cold climates have been fully adopted, and large new farms will be erected this year at mountainous and hilly sites elsewhere in Europe (e.g. in Germany and Austria). There are also numerous sites in Europe and other parts of the world where cold climate problems could have been better accounted for in order to improve the production of wind power and the operational safety of wind turbines. There is now a much greater recognition among national and other meteorological services of the problems posed by severe weather, especially icing effects, for operational meteorological measurements conducted under cold climate conditions.

The aim of the BOREAS V conference is to offer manufacturers, utilities, consultants, scientists and engineers working with wind power and meteorological measurements related to wind energy the opportunity to discuss their evolving ideas and experiences and to present their research and development results. We are also encouraging the active participation at the meeting of representatives from the relevant authorities and certification bodies concerned with wind energy production.

The end of November is usually dark and cold in Lapland with frequent icing events. However, the organisers are confident that they can once again offer a warm and friendly (and for some of the participants, possibly also exotic!) atmosphere, giving rise to fruitful and interesting discussions. As an extra bonus, the participants will also have the opportunity to meet the genuine Father Christmas (Santa Claus) at a time when Christmas is just around the corner. Of course, as is well documented, Santa was one of the first persons to operate a wind turbine in the Arctic.



*Iced leading edge of a rotor blade operating in Switzerland*

## Call for Papers and Subjects of the BOREAS V

Papers are invited on the following topics:

### 1. Icing effects on wind turbine operation

- operational experiences
- safety
- special wind turbines
- economy

### 2. Aerodynamics and loads

- loads due to icing (observations, measurements and models)

### 3. Technical development

- heated blades
- coating of blades
- certifications

### 4. Instrumentation

- wind gauges
- ice detectors

### 5. Ice modelling and simulation

- icing on blades and structures
- in-cloud icing

### 6. Measuring methods and measurement results

- wind velocity
- power performance
- icing data

For further information please contact:

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