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Variable speed wind generator control in Antarctica.

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Small wind generators are an obvious choice for powering remote instrumentation in polar regions, especially if the power is required year round. However, there are very few examples of successful implementation in the Antarctic. The challenges of operating wind generators in the Antarctic will be explained - solving these problems has considerable implications for overall system design. The philosophy of a modular, extendable, multiple redundant system being pursued by British Antarctic Survey will be presented; paying particular attention to the control of variable speed wind generators. The system has been designed to supply up to 100W of continuous power but variants would be possible that would supply many times more than this.