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## **Advanced Blade Manufacturing Project Final Report**

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### **ABSTRACT**

The original scope of the project was to research improvements to the processes and materials used in the manufacture of wood-epoxy blades, conduct tests to qualify any new material or processes for use in blade design and subsequently build and test six blades using the improved processes and materials. In particular, ABM was interested in reducing blade cost and improving quality. In addition, ABM needed to find a replacement material for the mature Douglas fir used in the manufacturing process. The use of mature Douglas fir is commercially unacceptable because of its limited supply and environmental concerns associated with the use of mature timber. Unfortunately, the bankruptcy of FloWind in June 1997 and a dramatic reduction in AWT sales made it impossible for ABM to complete the full scope of work. However, sufficient research and testing were completed to identify several promising changes in the blade manufacturing process and develop a preliminary design incorporating these changes.