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**AERODYNAMIC PERFORMANCE OF A 5-METRE-DIAMETER
DARRIEUS TURBINE WITH EXTRUDED ALUMINUM NACA-0015 BLADES**

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ABSTRACT

A 5-metre-diameter vertical-axis wind turbine has undergone continued testing since 1976 at the Sandia Laboratories Wind Turbine site. The latest tests of this machine have been with extruded aluminum blades of NACA-0015 airfoil cross section. The results of these tests at several turbine rotational speeds are presented and compared with earlier test results. A performance comparison is made with a vortex/lifting line computational code. The performance of the turbine with the extruded blades met all expectations.

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