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The turbulent wake of a submarine model at varying pitch and yaw angle ANAND ASHOK, ALEXANDER SMITS, Princeton University — Experiments are reported to examine the effects of pitch and yaw angle on the mean flow and turbulence in the wake of an axisymmetric submarine model (DARPA SUBOFF model). Measurements in the wake were performed at a Reynolds number based on the length of 2.4×10^6. Mean velocity and three-component turbulence measurements were performed using Pitot probes and cross wires in the span-wise plane at three different downstream positions: 5, 7.5 and 10 diameters downstream of the trailing edge. The pitch and yaw angles were in the range 0 and $\pm 10^\circ$. Work supported by ONR Grant N00014-09-1-0263.

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