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**Probe Measurements in the H-mode Pedestal Region in the Pegasus Toroidal Experiment**[1] G.M. BODNER, M.W. BONGARD, R.J. FONCK, K.E. THOME, D.S. THOMPSON, University of Wisconsin-Madison — In near-unity aspect ratio Pegasus discharges, Ohmic heating and high-field-side fueling together trigger an L-H mode transition in both limited and diverted configurations. H-mode plasmas are predicted to exhibit pedestals in both the pressure and current density profiles. Operation at $A \sim 1$ allows for the use of local magnetic and Langmuir probes in the pedestal region. A current pedestal is routinely observed in Pegasus H-mode plasmas, but not in L-mode plasmas or during ELMs. Conventionally, edge pedestal measurements are observed in the edge pressure profile. A triple Langmuir probe has recently been installed in order to investigate the structure of the edge pressure pedestal in Pegasus H-mode discharges and complement the current density profile measurements. Local density and temperature measurements will be collected using the triple Langmuir probe at varying spatial locations to identify edge pressure profiles. These pressure profiles will be measured in both the L-mode and H-mode regimes. The triple probe will additionally be used to observe the turbulence levels before, during, and after the L-H mode transition. Complete density and temperature profiles including the pedestal will be obtained using a combination of Langmuir probe and Thomson scattering measurements.

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