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Investigation of flows in LAPD and their relation to edge turbulence and intermittency D. SCHAFFNER, T.A. CARTER, B. FRIEDMAN, S. VINCENA, D.W. AUERBACH, P. POPOVICH, UCLA — We report on measurements of spontaneous flows and turbulence in the Large Plasma Device (LAPD) at UCLA. Measurements of perpendicular and parallel flow using a six-sided Mach probe reveal edge-localized perpendicular flows. The source of this flow is under investigation and may be generated by boundary effects or turbulent processes. Particular cases where a plasma depletion zone is created, including inserting a blocking disk within the cathode region and forming a compressed column, are used to analyze the effects on plasma flows. Ultimately, the relationship between the flows, turbulence and intermittency—the formation of blobs—is sought.

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