

Abstract Submitted  
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**Magnetic Diagnostics on the Maryland Centrifugal Experiment (MCX): Upgrades and Initial Results** A. CASE, R. CLARY, R.F. ELLIS, A. HASSAM, R. LUNSFORD, C. TEODORESCU, S. KING, J. YOUNG, University of Maryland — The magnetic fluctuation diagnostic suite on MCX has recently undergone significant upgrades. A sixteen probe Bz array has been installed near the machine midplane. This array will allow resolution of plasma perturbations up to azimuthal mode number  $m=8$ . In addition we have four x,y,z triplet probes located along the machine centerline which provide information about the longitudinal distribution of Bdot activity. Preliminary data from the Bdot array indicates that the magnetic activity in the plasma varies considerably between the various machine operating modes. We present data showing evidence of global changes in the plasma Bdot activity associated with changes in machine operating modes, along with data on the azimuthal mode number spectrum derived from Bdot array measurements.

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