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Overview of Alcator C-Mod Contribution to the 2015 JRT on Off Axis Current Drive[1] G.M. WALLACE, P.T. BONOLI, I.C. FAUST, R.T. MUMGAARD, R.R. PARKER, J.E. RICE, S. SHIRAWIA, MIT Plasma Science and Fusion Center, S.D. SCOTT, A. BHATTACHARJEE, F. EBRAHIMI, F. POLI, S. GERHARDT, M. PODESTA, W. SOLOMON, J.R. WILSON, Princeton Plasma Physics Laboratory, C. HOLCOMB, Lawrence Livermore National Laboratory — The goal of the US Department of Energy FES 2015 Joint Research Target (JRT) is to conduct experiments and analysis to quantify the impact of broadened current and pressure profiles on tokamak plasma confinement and stability. Broadened current profiles are achieved on Alcator C-Mod through the use of Lower Hybrid Current Drive (LHCD). C-Mod experiments from the recent run campaign have focused on several areas, such as MHD stability of discharges with broad current profiles, energy transport barriers and high-Z impurity transport in non-inductive discharges, momentum transport in discharges with altered safety factor profiles, and validation of LHCD actuator models.

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Greg Wallace
MIT Plasma Science and Fusion Center

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