

Abstract Submitted  
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**Overview of FRC Translation Experiments for Magnetized Target Fusion**<sup>1</sup> T.P. INTRATOR, G.A. WURDEN, P.E. SIECK, W.A. WAGANAAR, X. SUN, Los Alamos National Laboratory, A. LYNN, M. GILMORE, Univ. New Mexico, T. AWE, R.E. SIEMON, Univ. Nevada-Reno, J. DEGNAN, E.L. RUDEN, M. DOMONKOS, P. ADAMSON, AFRL-Kirtland, T.C. GRABOWSKI, D. GALE, SAIC-AFRL, M.H. FRESE, S.D. FRESE, J.F. CAMACHO, S.K. COFFEY, N.F. RODERICK, D.J. AMDAHL, Numerex, P. PARKS, GA — We present and overview the experimental high density Field Reversed Configuration (FRC) approach for application to a physics demonstration of magnetized target fusion (MTF). This MTF target plasma continues to be developed at the Los Alamos FRC experiment FRXL. The first translated FRXL FRC data will be shown, where the translation speeds exceed 15cm/usec, which yields a translation time substantially shorter than the FRC lifetimes. The conical theta coil is expected to generate toroidal magnetic field and helicity and increase stability and lifetime. The implications of the present data for MTF experiments will be discussed, along with the hardware, diagnostics, and pre-compression plasma formation and trapping experiments.

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