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New and improved CH implosions at the National Ignition Facility[1] D. E. HINKEL, T. DOEPPNER, A. L. KRITCHER, J. E. RALPH, L. C. JARROTT, F. ALBERT, L. R. BENEDETTI, J. E. FIELD, C. S. GOYON, M. HOHENBERGER, N. IZUMI, J. L. MILOVICH, B. BACHMANN, D. T CASEY, C. B. YEAMANS, D. A. CALLAHAN, O. A. HURRICANE, Lawrence Livermore Natl Lab — Improvements to the hohlraum for CH implosions [1] have resulted in near-record hot spot pressures, ˜225 Gbar. Implosion symmetry and laser energy coupling are improved by using a hohlraum that, compared to the previous high gas-fill hohlraum [2], is longer, larger, at lower gas fill density, and is fielded at zero wavelength separation to minimize cross-beam energy transfer [3]. With a capsule at 90% of its original size in this hohlraum, implosion symmetry changes from oblate to prolate, at 33% cone fraction. Simulations highlight improved inner beam propagation as the cause of this symmetry change. These implosions have produced the highest yield for CH ablators at modest power and energy, i.e., 360 TW and 1.4 MJ. Upcoming experiments focus on continued improvement in shape as well as an increase in implosion velocity. Further, results and future plans on an increase in capsule size to improve margin will also be presented. [1] D. E. Hinkel *et al.*, *Phys. Rev. Lett.* **118**, 089902 (2017). [2] O. A. Hurricane *et al., Nature* **506**, 342, (2014). [3] P. Michel *et al., Phys. Rev. Lett.* **102**, 025004 (2009).

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