

Abstract Submitted
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The scientific prototype, the only reasonable next step for the American MFE program; or why FESAC will never solicit my advice again WALLACE MANHEIMER, Retired — The scientific prototype [1] is a tokamak which builds on what has been accomplished in TFTR, JET and JT-60. Instead of attempting to advance the plasma parameters, or investigate a new confinement configuration, it takes the tokamak plasma parameters already achieved (or actually nearly already achieved), Q about 1 and run it at steady state or high duty cycle in a DT plasma. It is very much a nuclear device requiring all of the safeguards of any nuclear device. It is an important step forward for either pure fusion or fusion breeding, and it is difficult to see how fusion can advance very far with out the knowledge the scientific prototype would provide. The poster will be divided into two parts. The first part examines options other than the scientific prototype and shows why they should be rejected. The second part explains the scientific prototype in somewhat more detail.

[1] W. Manheimer, J. Fusion Energy, 32, 419, (2013)

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