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Harold N. Ward* (hnw@virginia.edu), Department of Mathematics, University of Virginia,
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The truth of Euler's famous 36 officers conjecture is equivalent to the nonexistence of a (6,4) net. Steven Dougherty proved the nonexistence by a dimension argument for the binary code of the net [Des. Codes Cryptography 4 (1996), 123–128]. The proof involved a configuration of eight lines, two in each parallel class, supported on 24 points. This he showed to be impossible, paralleling a combinatorial argument of Douglas Stinson [J. Combin. Theory A 36 (1984), 373–376].

In this talk we shall use the ternary code of the net in the presence of that configuration to derive a contradiction. The projection of the code on the 24 points does exist as a code in its own right. It is only the lift to the 36 points and 24 lines of the net that cannot be done. (Received August 03, 2015)