1046-05-2000 **Robert R Rubalcaba*** (r.rubalcaba@gmail.com), United States Department of Defense, 9800 Savage Road, Fort George G. Meade, MD 20755, and **Peter J Slater** (slater@math.uah.edu), Department of Mathematical Sciences, University of Alabama in Huntsville, 201 K Shelby Center, Huntsville, AL 35899. *Dominating Cartesian Products of Petersen and Grötzsch Graphs.*

Let $G\Box H$ denote the Cartesian product of G with H. Let P and C_k denote the Petersen Graph and cycle on k vertices, respectively. We bound the domination number of the Cartesian product of the Petersen Graph with cycles, $\gamma(P\Box C_k)$, by a simple function of k, for all $k \geq 3$. We conjecture that the domination number of $P\Box C_k$ meets this bound. We give a similar bound and conjecture for the Cartesian product of the Grötzsch graph with cycles. (Received September 16, 2008)