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Ralph Saxton* (rsaxton@math.uno.edu), Department of Mathematics, University of New Orleans, New Orleans, LA 70122. *Some Infinite Energy Solutions to the Euler Equations*. Preliminary report.

We present three classes of solutions to the n -dimensional incompressible Euler equations. Both are defined on a half-space but grow in one or more directions at infinity. The first class is initially smooth and remains smooth until blowup occurs after a finite time. The second is piecewise affine, spatially periodic, and remains bounded in time. The third is smooth and spatially periodic. (Received February 15, 2006)