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Andrei Tarfulea* (tarfulea@math.princeton.edu), Fine Hall, Washington Road, Princeton, NJ 08544, and **Peter Constantin** and **Vlad Vicol**. *Long Time Dynamics of the Forced Critical Surface Quasi-geostrophic Equation*.

We prove the existence of a compact global attractor in H^1 for the dynamics of the forced critical surface quasi-geostrophic equation (SQG) by bounding the solution (after a transient time) independently of the initial data. We also prove the attractor has finite fractal (box-counting) dimension. (Received January 27, 2014)