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Jennifer A. Everson* (s-jeverso2@math.unl.edu), Department of Mathematics, University of Nebraska-Lincoln, 203 Avery Hall, Lincoln, NE 68521. *Algebraic Geometric Codes on Anticanonical Surfaces.*

In 1981, V.D. Goppa introduced algebraic geometric (AG) codes. These codes are obtained by evaluating functions at points on algebraic curves. The construction is easily generalized to points on other varieties. In 1998, J. Hansen used toric surfaces to create AG codes and found some exact results and bounds on the code parameters. Anticanonical surfaces are a natural generalization of toric surfaces. We study codes coming from anticanonical surfaces given by blow-ups of \mathbb{P}^2 at points on a conic. (Received September 26, 2006)