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The evolution of the methodologies used to determine the FOS of ACB revetment systems is examined in this paper. The first FOS methodology developed in 1989 has undergone numerous modifications in the geometric analysis that led to improvements in the reliability of the FOS calculated. Several of the assumptions used in developing the NCMA methodology have been further examined and eliminated, leading to a new set of FOS equations developed in 2010 at Colorado State University. Elimination of these assumptions has led to an improved set of equations to determine the FOS of an ACB revetment system in which lift and drag forces acting upon the ACBs are independently evaluated for the design flow conditions. In this paper we will show calculated FOS results for a variety of design conditions commonly encountered in practice for both of the current FOS methodologies, leading to the conclusion that the new FOS methodology can be implemented for all ACB designs thus improving on the reliability of the ACB revetment applications.