

Abstract Submitted  
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**Development of Roughness Scaling Parameters** KAREN FLACK, MICHAEL SCHULTZ, RALPH VOLINO, United States Naval Academy — The most important unresolved question regarding surface roughness is to identify suitable roughness length scales that can be used to predict the frictional drag of a body covered with any generic roughness. Parameters such as the density, the mean slope, and the texture of the roughness elements have all been identified as important parameters; however, correlations using these parameters have not proved useful for a wide range of surface roughness. The focus of this research is to identify length scales of the surface topography, obtained from laser profilometry, that correlate with the roughness functions, obtained from detailed boundary layer velocity profiles and towing tank tests.

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