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Fluid mechanics films in the 21st century GARY SETTLES, GABRIELLE TREMBLAY, JOHN CIMBALA, LORI DODSON, J. D. MILLER, Mechanical and Nuclear Engineering Dept., Penn State University — The 1960's-era National Committee for Fluid Mechanics Films produced 39 famous 16mm films - dated but still in use - with 3 million dollars of NSF funding. Here we examine the nature of new fluid mechanics films, goals, media changes, and practicality. Examples are given of new narrated videos produced to illustrate chapters of a basic fluids text and provide a “glimpse through the laboratory window.” Both experiments and CFD are featured, though the facilities needed for the former are declining. The fundamentally-visual nature of the topic is emphasized with no repetition of text or equations. We believe this visual nature of fluid mechanics is the key to its role in renewed efforts to bolster US science education. This is one - not the only - paradigm for new fluid mechanics films. While inflation makes such film production perhaps 6 times more expensive than in the 1960's, there are offsetting economies based on consumer video technology and digital desktop production. Nonetheless, funding new educational fluid mechanics videos in the 21st century remains a daunting prospect.

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