



# Surface Oil Flow Visualization of a Symmetrical Airfoil at Low-Reynolds Regimes

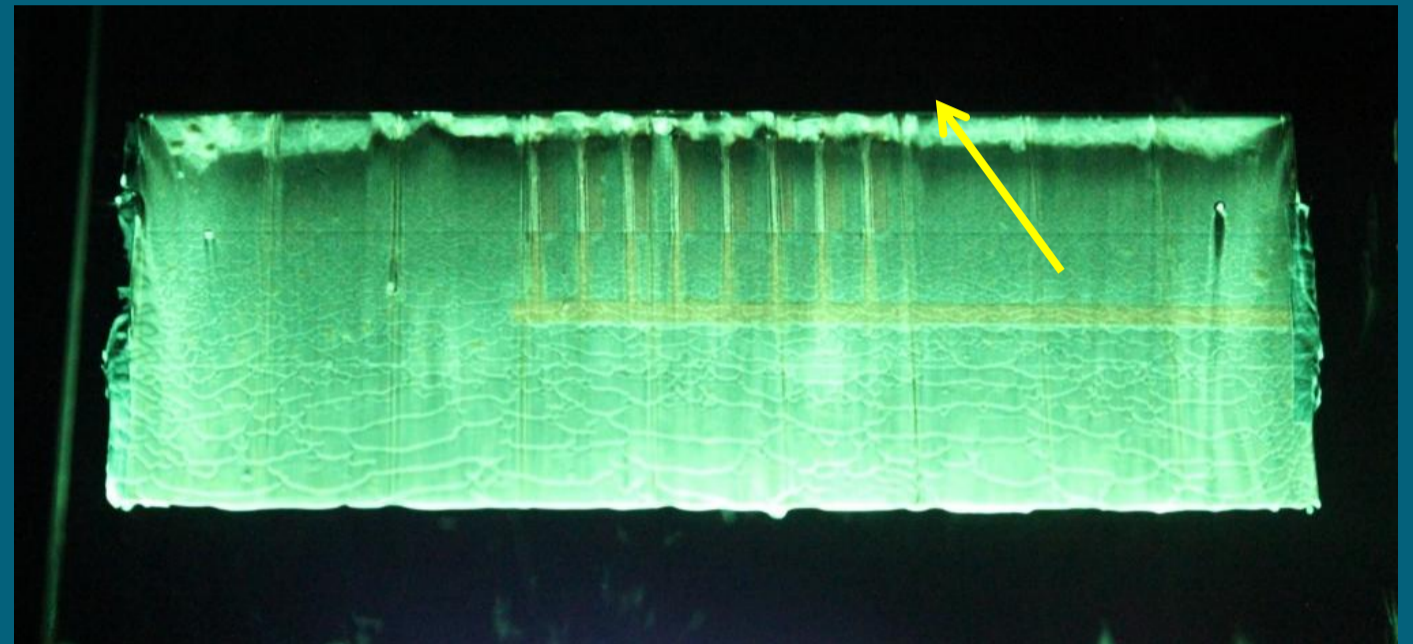
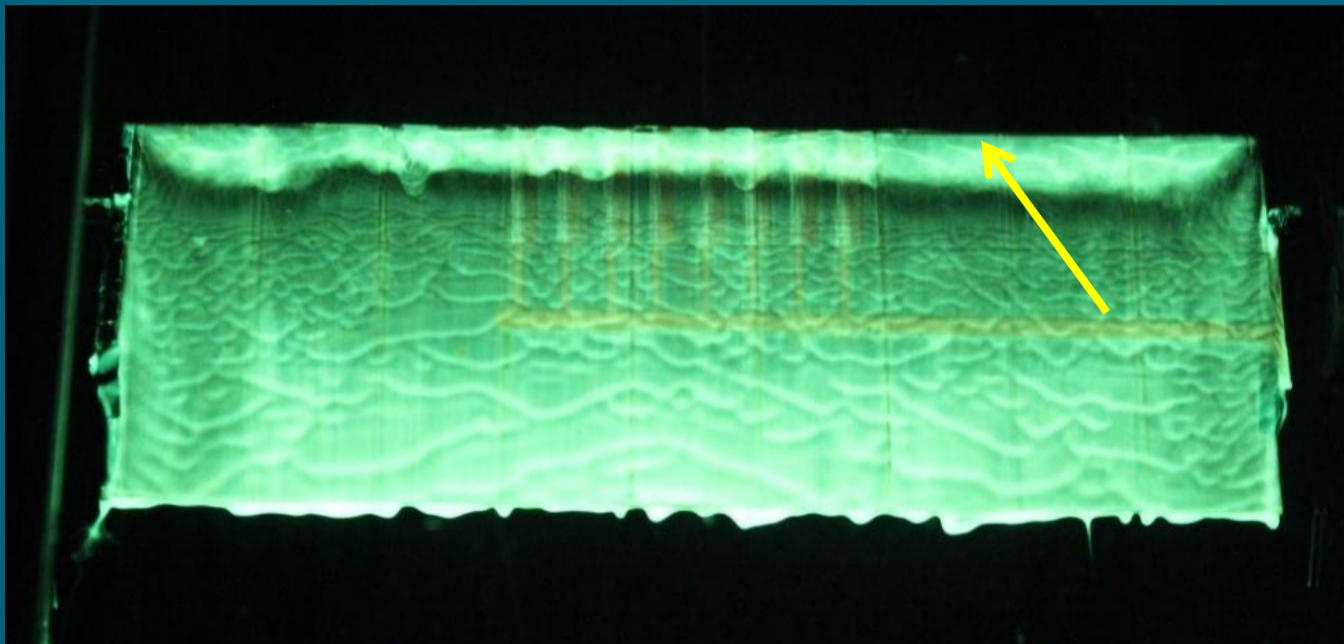


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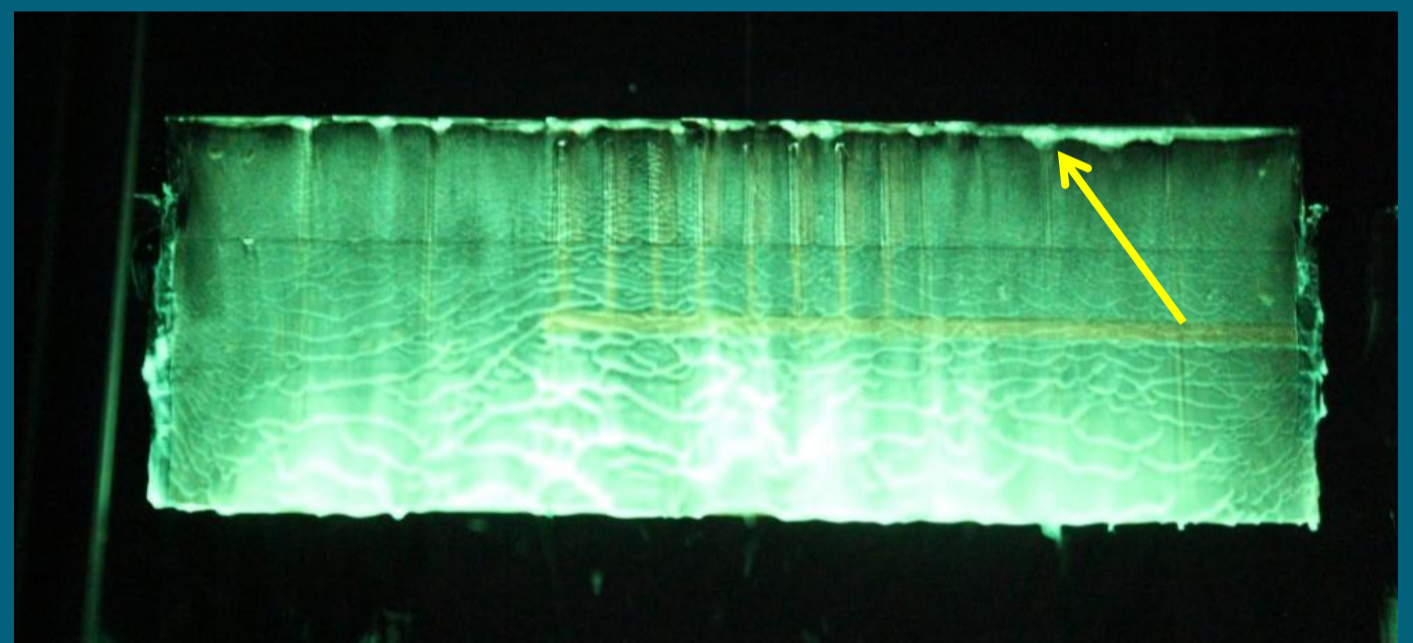
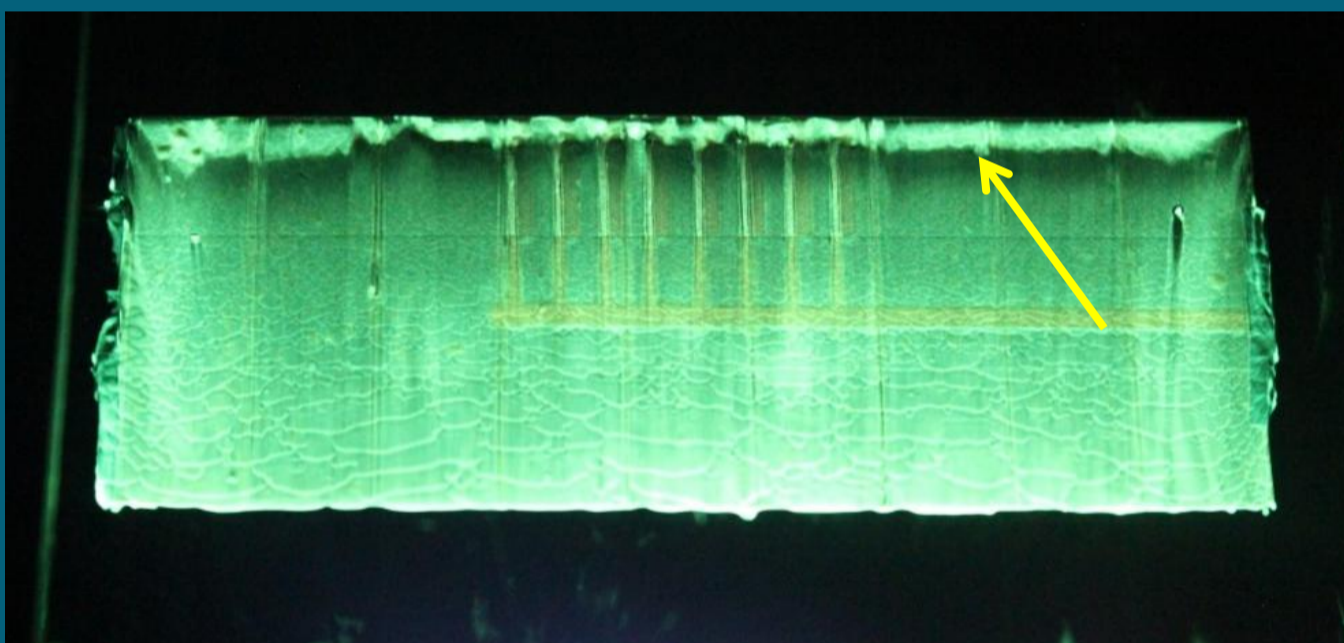
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## Goal:

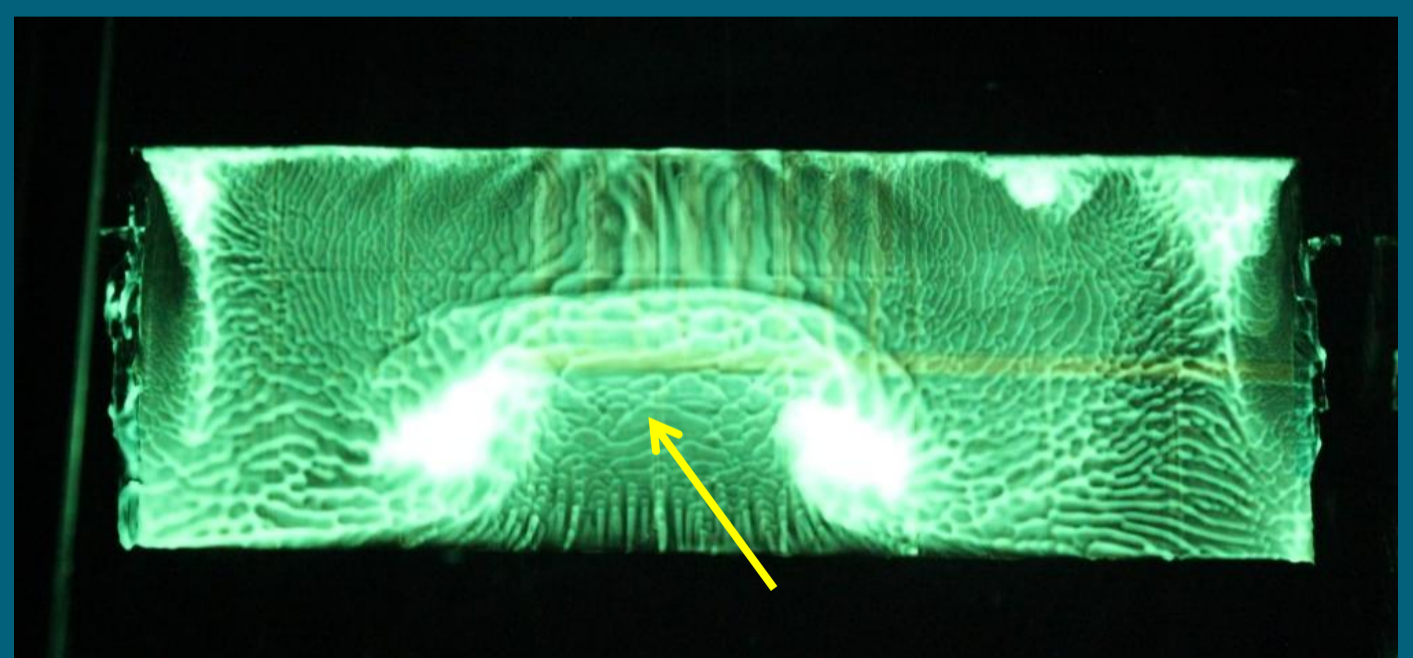
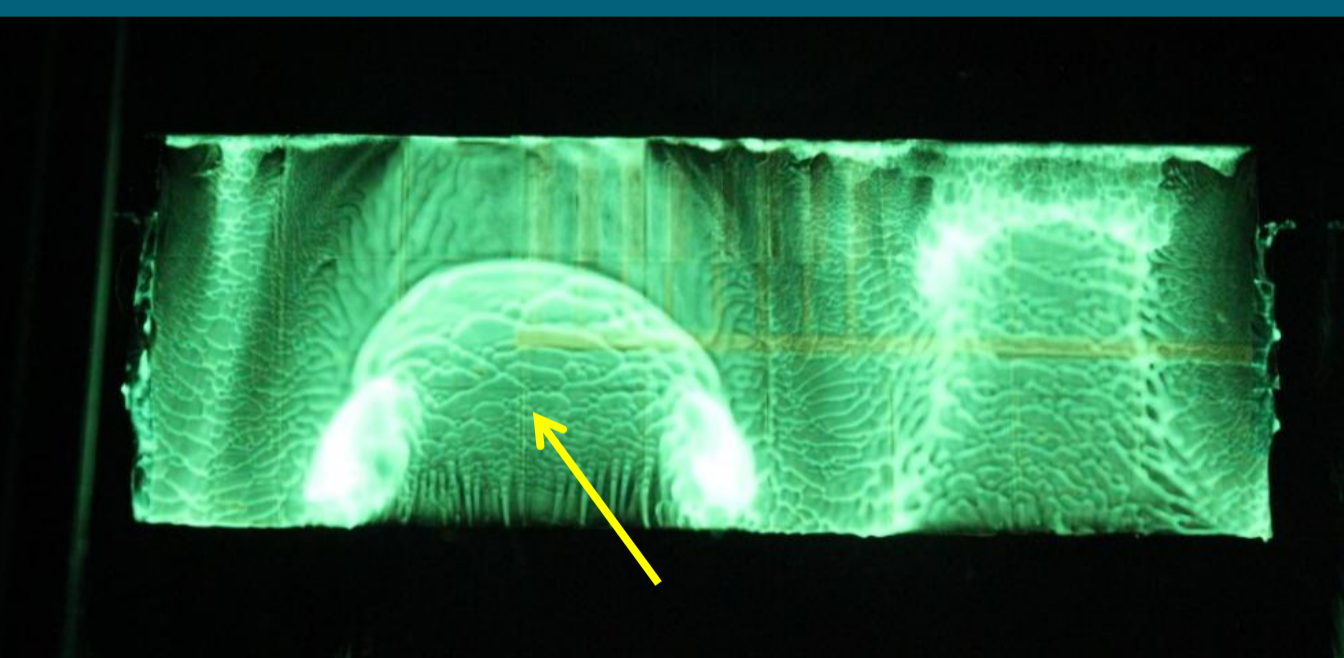
Study of flow structures (laminar separation bubbles, 3D separation lines, growth of instabilities as a result of bypass transition) and surface topology at low-Reynolds regimes



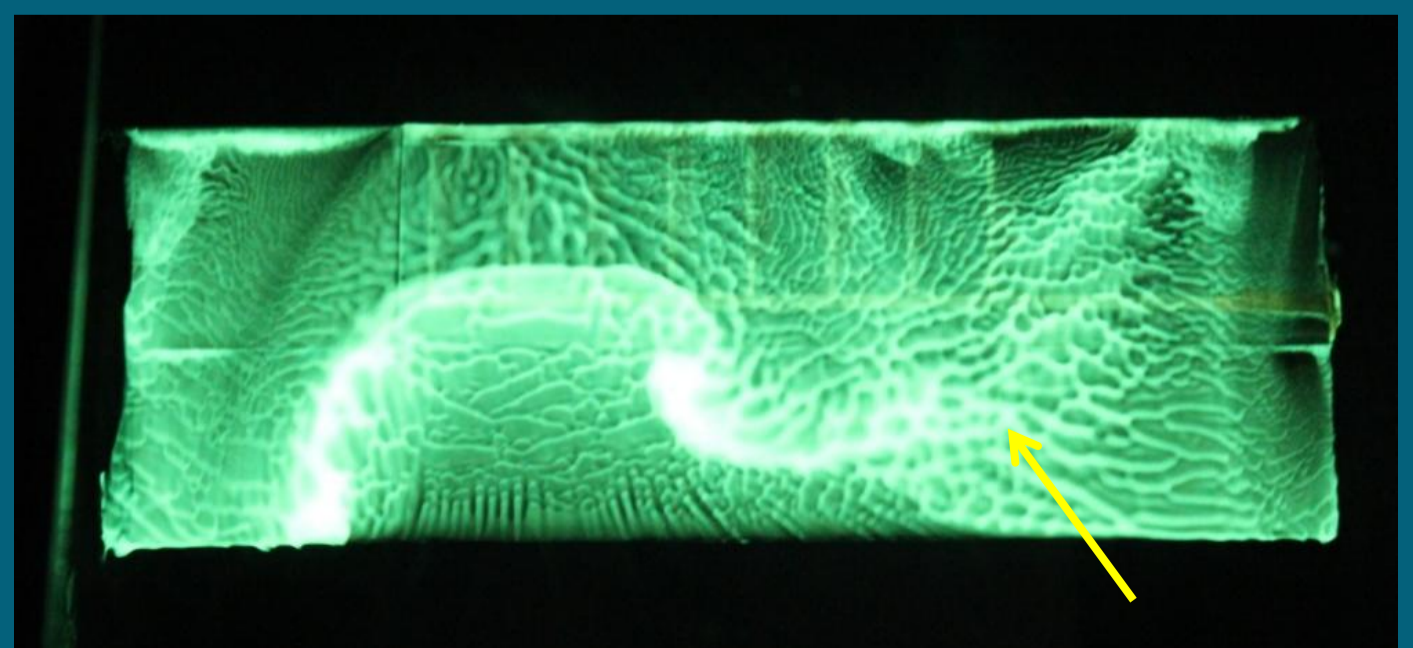
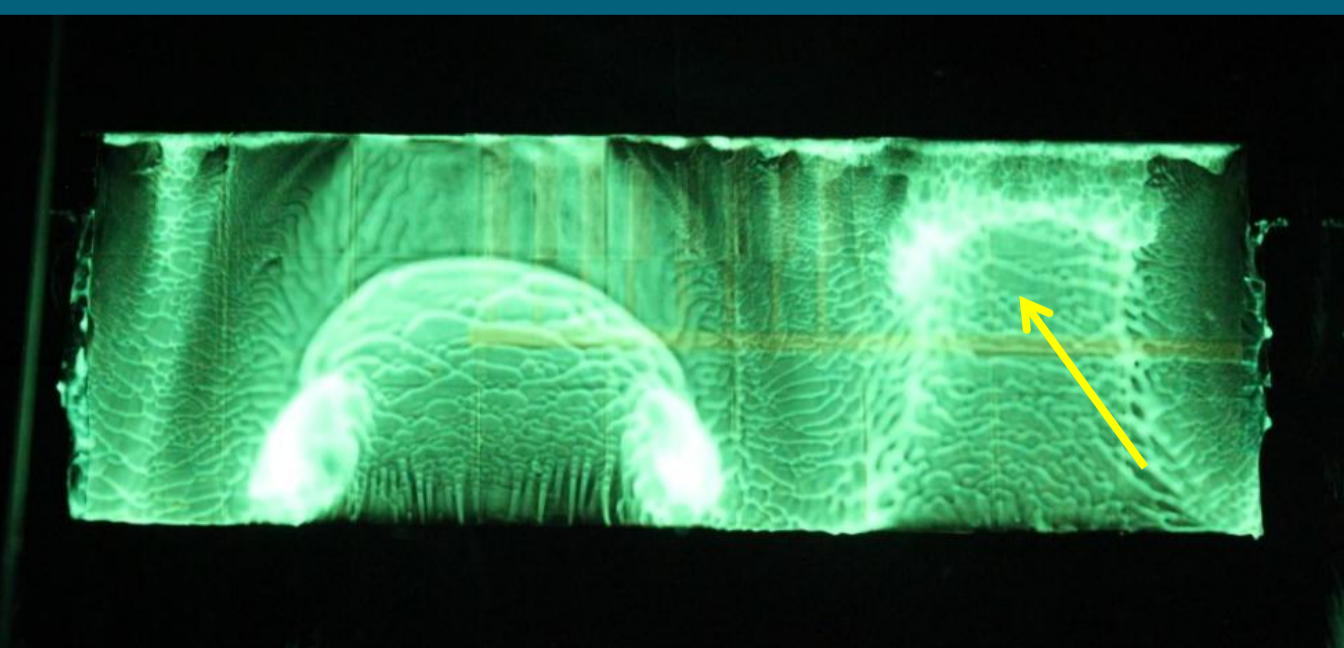
**Fig. 1 Velocity effect on LSB left:  $U=15$  m/s,  $AOA=7$  right:  $U=35$  m/s,  $AOA=7$  (2D airfoil)**



**Fig. 2 AOA effect on LSB left:  $U=35$  m/s,  $AOA=7$  right:  $U=35$  m/s,  $AOA=12$  (2D airfoil)**



**Fig. 3 Massive separation left:  $U=35$  m/s,  $AOA=15$  right:  $U=35$  m/s,  $AOA=17$  (2D airfoil)**



**Fig. 4 Configuration effects left:  $U=35$  m/s,  $AOA=15$  2D airfoil right:  $U=35$  m/s,  $AOA=15$  half span airfoil**