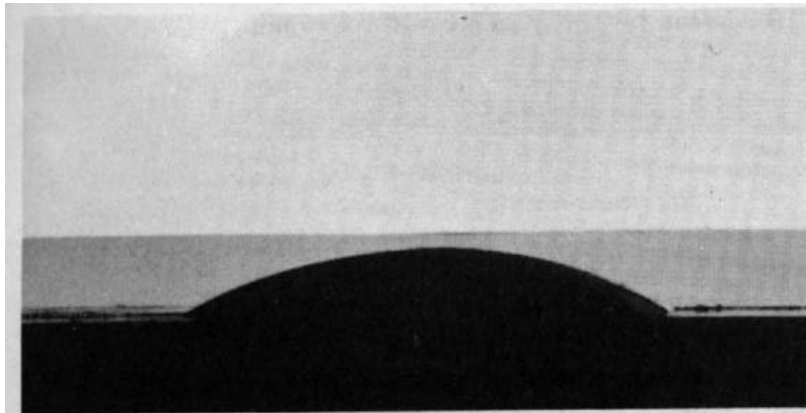
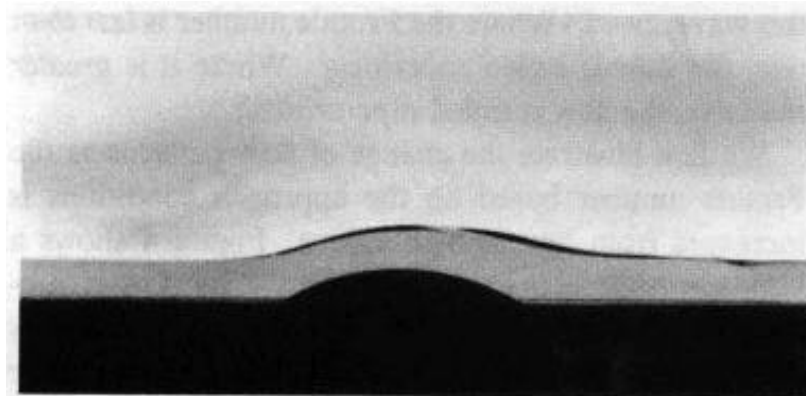


# Flow over Topography I: *1-Layer Flow*



4. Subcritical flow of water over an obstacle; the local Froude number is less than one everywhere.



8. Supercritical flow. The approach Froude number is greater than one. The *local* Froude number exceeds one everywhere.

Water flowing over a hill is *subcritical* [top] if it does not have enough kinetic energy. The flow is *supercritical* [bottom] if it does have enough kinetic energy.