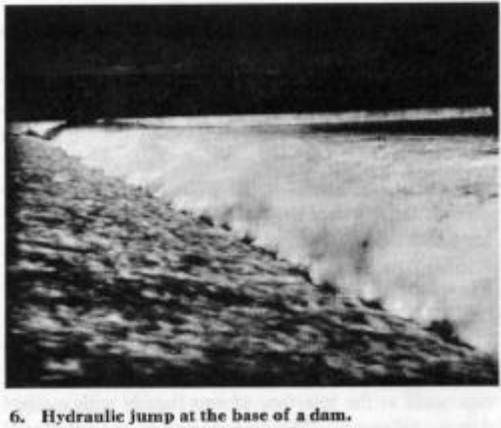
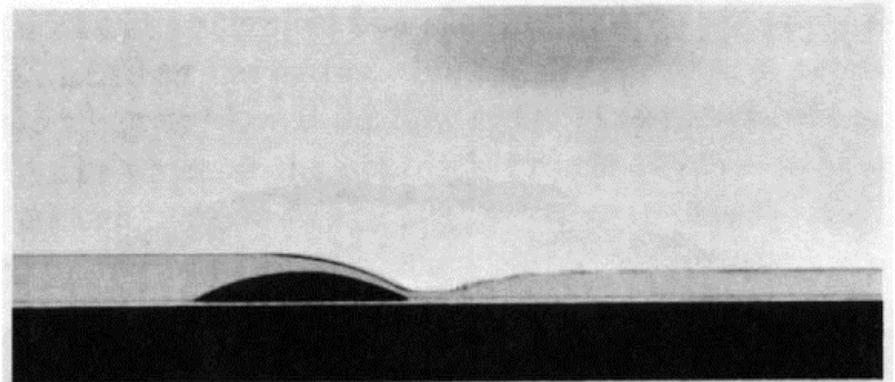


A Hydraulic Jumps I: 1-Layer Flow@

Standing hydraulic jump

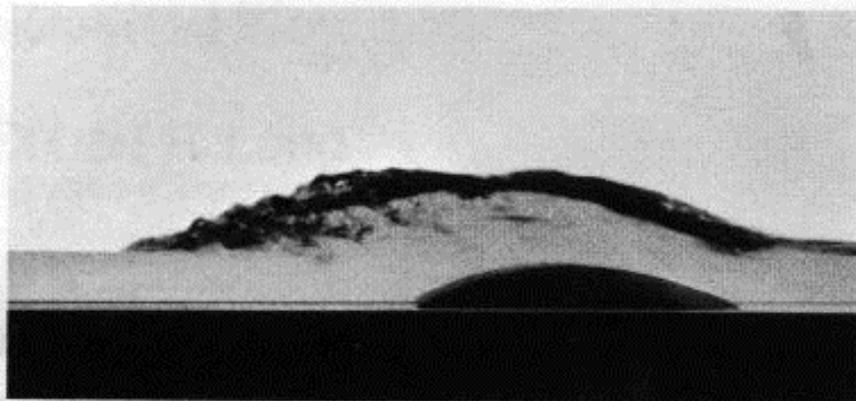


6. Hydraulic jump at the base of a dam.



5. Hydraulic jump at a water surface. The approach Froude number is less than one.

Travelling hydraulic jump



7. Upstream hydraulic jump. The upstream Froude number is greater than one.

If the obstacle is tall enough, a hydraulic jump occurs: fluid depth increases over a localised turbulent region. *Kinetic energy is lost; potential energy is gained; momentum is conserved.*