

## Open Jet Testing for Buoyant and Hybrid Buoyant Aerial Vehicles

**Authors :** A. U. Haque, W. Asrar, A. A. Omar, E. Sulaeman, J. S Mohamed Ali

**Abstract :** Open jet testing is a valuable testing technique which provides the desired results with reasonable accuracy. It has been used in past for the airships and now has recently been applied for the hybrid ones, having more non-buoyant force coming from the wings, empennage and the fuselage. In the present review work, an effort has been done to review the challenges involved in open jet testing. In order to shed light on the application of this technique, the experimental results of two different configurations are presented. Although, the aerodynamic results of such vehicles are unique to its own design; however, it will provide a starting point for planning any future testing. Few important testing areas which need more attention are also highlighted. Most of the hybrid buoyant aerial vehicles are unconventional in shape and there experimental data is generated, which is unique to its own design.

**Keywords :** open jet testing, aerodynamics, hybrid buoyant aerial vehicles, airships

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