

## **The HyShot Flight Program**

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At the University of Queensland (UQ), research into the performance of high-speed (in excess of 7000km/hr) air-breathing engines in the form of supersonic combustion ramjets (or scramjets) has been made for almost 20 years. This has been possible because the T3 and T4 shock tunnels, located at the ANU and UQ, respectively can simulate these conditions. However, like all facilities, there are differences between the flow generated in these facilities and that, which occurs in flight. The correlation between the two has not been determined for these facilities, or indeed for any shock tunnel performing supersonic combustion experiments. The aim of the HyShot flight program is to obtain this correlation by undertaking a sounding rocket program based at Woomera in South Australia. The seminar will discuss new approach taken by the UQ researches in developing this cost effective flight program, as well as the triumphs and disappointments which have been encountered so far in completing this somewhat ambitious program.