

# **Mechanical & Aerospace Engineering Department Seminar**

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## **"The Hy-V Scramjet Flight Experiment"**

### **ABSTRACT:**

The Hy-V Program is a university effort that has recently been initiated with the goal of flying a scramjet engine at Mach 5 using a sounding rocket launched from NASA Wallops Flight Facility. The experiment will be focused on isolating the effects on scramjet combustion that are introduced by wind tunnels. Based on undergraduate and graduate student involvement in the research, NASA Wallops is supplying a sounding rocket and launch range support. The program is being conducted in collaboration with universities from across the Commonwealth of Virginia and with various industrial and government organizations. The supporting wind tunnel research will include experiments that are performed in a range of facilities. The combined flight and wind tunnel database will enable wind tunnel effects to be fully isolated and the database will be used for numerical model development. This paper presents an overview of the program, current status and future plans, as well as opportunities for student and faculty participation.