8.0 Conclusions

This experiment was a successful follow-up to the 2002 RGSFOP campaign. We successfully incorporated numerous design modifications which increased the reliability, ergonomics, and data acquisition capacity for this experiment. This was the first time a student team had attempted to perform a schlieren analysis onboard the KC-135. The addition of the schlieren imaging system in tandem with the luminosity system increased the ability to analyze the flame structure in microgravity. Despite the great difficulty in calibrating, implementing, and refining the schlieren imaging system, the system produced useful flame data which can be used as the basis for comparing similar data performed by other scientists.