



Glenn Research Center



## Fluids and Combustion Facility Concept

- Payload planned for the International Space Station
  - Support the study of fluid physics and combustion in a long-duration, microgravity environment
  - System of on-orbit and ground hardware, software, operations, and plans
  - Designed to accommodate a wide variety of investigations.
  - Majority of on-orbit hardware will be reused
- Goals of the facility
    - At least eighty percent of new experiments can be performed in it
    - Modular to allow upgrades with new hardware and software
    - Perform between 5 and 15 combustion experiments per year over 10 year lifetime
    - Decrease the cost and increase throughput relative to previous ways
    - Develop only a small amount of hardware and software for each investigation