

Electric Flight and On-Demand Aviation

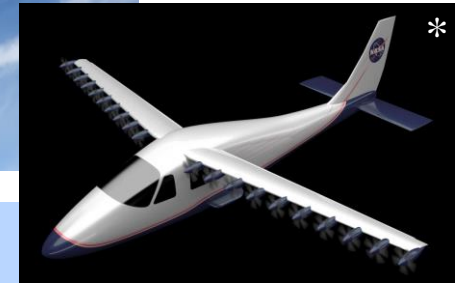
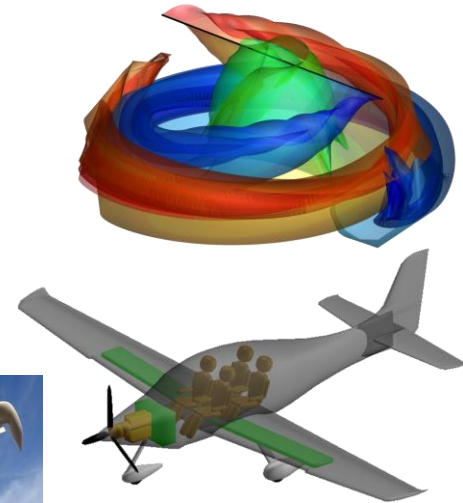
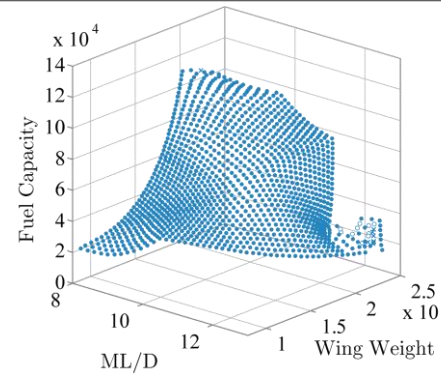
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❖ My research focus is aircraft design

- Multidisciplinary Design Optimization (MDO)
- Multi-objective optimization and trade space exploration methods
- Aerodynamic, propulsion, and performance models for aircraft design
- Analysis of technologies, missions, markets, and economics of innovative aircraft concepts

❖ Current interest is electric propulsion as an enabler for on-demand aviation

- Battery, motor, and electrical system modeling
- “Drone” package delivery
- Autonomous “air taxis”: Google or Uber self-flying aircraft?
- Personal VTOL air vehicles
- Thin-haul aviation for small rural markets



*Credit: NASA

