Wrap Up and What’s Next

- 2018-May: Uber Elevate Summit #2
- 2018-May: AHS Forum in Phoenix, AZ
  - 3 eVTOL sessions
- 2018-June: AIAA Aviation in Atlanta, GA
  - 2 UAM sessions, Autonomy, UAS
Observations: Day 1

- Many companies are investing and doing engineering work
  - Dedicated staff assigned to projects
  - Proprietary and publicly disclosed plans
- Many companies are actively recruiting to hire staff
- Working groups
  - All 4 groups want your help participating
  - Roadmap documents will be available
    - Technology: identifying needs, sharing discoveries
    - Work to coordinate standards and policy definition
  - “Recreational” -> Personal/shared ownership
  - Public services may make requests of other sectors
Observations: Day 2, part 1

- Tools for design of transformative aircraft coming together
  - NASA Technical Reports Server
  - Uber is pulling together a tool suite, others can use
- Air Traffic Management has real challenges, progress
  - Voom operations limited by shifting rules
  - Weather is a real limitation for weather
  - Unmanned operators working to take human limitations out of the traffic management
  - Today’s VFR operations have lessons for us (M. Scott)
- The design of vertiports is an opportunity to help acceptance of transformative vertical flight
Observations: Day 2, part 2

- AHS starting Tech Committee (Anubhav Datta)
- SAE efforts on electric aircraft standards (monthly)
  - Mar 20-22 AE-7 Aircraft High Voltage Workshop Everett, WA
- AIAA Tech Committees (Forum 360 @ Aviation 2018)
- GAMA: Want eVTOL more on Part 23 of spectrum
  - Will need to have appropriate consensus standards
- Ground Infrastructure
  - Vertiport siting needs to consider existing margins
  - Local storage worth considering to shave off peaks
  - Standard interfaces should be developed soon
  - Consider datacenters, NYC subway for examples
Observations: Day 2, part 3

- Noise is a big deal
  - Perception varies; need to consider background
  - Noise tools exist
  - Need to consider operating states

- Hybrid propulsion
  - SureFly looking for $200,000 price point
  - ESAero has looked at the installation effects;
    - Heat management is very important for eVTOL
    - Need transient analysis to evaluate electric systems

- Perspectives on potential markets
  - Reliability may be worth a slower trip, green is desirable
  - Focus groups look at this very differently than us
  - Uber modeling 100,000s of passenger flt/day/city; Price/trip low
  - Shaving small % of car trips is huge boost in aviation
AHS Technical Meeting on Aeromechanics Design for Transformative Vertical Flight

Transformative Vertical Flight Workshop #5