

NASA

Open Advanced Air Mobility Project Vertiport and Route Decision Support Tool

Presenter: David Shapiro (david.l.shapiro@nasa.gov)

Team: Parimal Kopardekar, PhD, Kapil Sheth, PhD, Mike Roberts, Srba Jovic, PhD, Marc Shaw-Lecerf, Jonathan La Plain, Zach Roberts

Objectives

Summary:

NASA is building a decision support tool to help urban and transportation planners with vertiport location and route design.

We will cover:

- Problem – what the tool solves, relevant concerns
- Value Proposition
- Scoring Vertiport Placement
- Prototype Demo



What we are solving...

- Novel mode of transportation – means both challenges and opportunities
- A new tool to help maximize the opportunities and overcome the challenges

Concerns?

Variations on ones you already know...

- Public acceptance
- Noise
- Zoning
- Intermodal Access/Impacts
- Ridership
- Environmental Regulation
- Fire Safety
- Social Equity
- Funding, Zoning, Demographics, Congestion, Econometrics, ...etc. etc.

Concerns?

A lot of new things to think about...

- Vertiport and Operational Certification Requirements
- Terrain and Obstacle Avoidance enroute and during approach/takeoff
- Micro Weather/Winds
- Vehicle Models
- Battery/Charging Models
- Diversion sites, Airspace Restrictions, National Airspace Integration, airspace operations, etc., etc.

Value Proposition



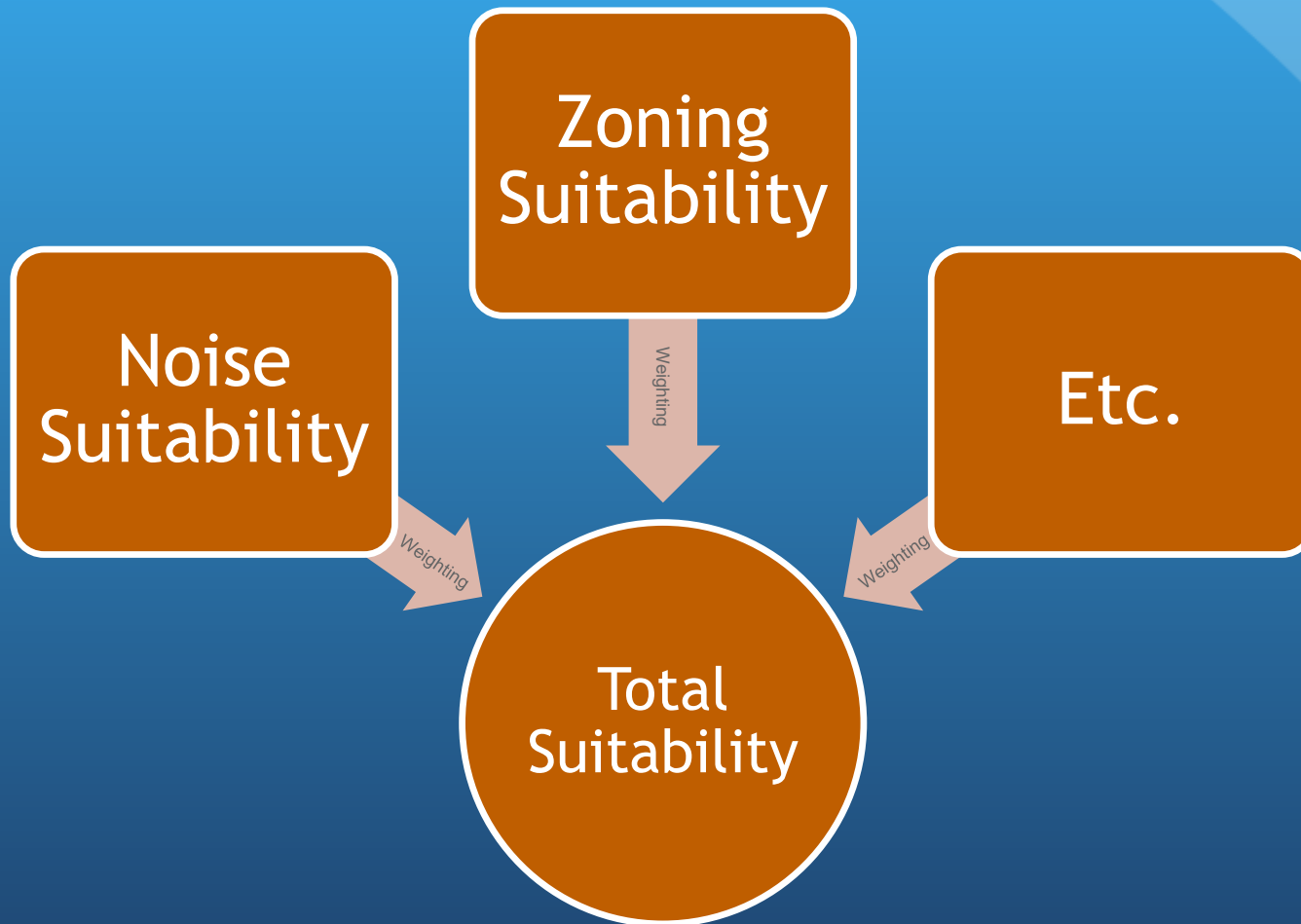
- Decision support for route and vertiport placement
- Map visualization of all the geographic concerns

But my city is unique!

- Open Architecture
- Open Source
- Open to your data, toolsets, and specific requirements



Suitability Scoring



Prototype



Q&A





Interested in working with NASA?

Contact: Kapil.Sheth@nasa.gov, david.l.shapiro@nasa.gov