



Drone Exploring: Career Spotlights

Advanced Air Mobility — Post

Overview: This session takes a serious look at Advanced Air Mobility (AAM) as an emerging industry and career field: the roles involved (UAS or UAV systems engineers, eVTOL operations, vertiport and airspace planners), the certification pathways for drones versus passenger-carrying eVTOL aircraft, and realistic pay across engineering and operations roles. Explorers plan a mock urban air mobility route, considering airspace, noise, charging infrastructure, and safety corridors.

OBJECTIVES

- Understand the roles and career pathways within the Advanced Air Mobility industry.
- Learn the difference between FAA Part 107 (drones) and the certification pathways required for passenger-carrying eVTOL aircraft.
- Identify realistic pay ranges across engineering, operations, and piloting roles in this emerging field.
- Practice planning a mock urban air mobility route considering airspace, noise, charging, and safety.

SUPPLIES

- Laptop and projector to show sample AAM or eVTOL aircraft footage or diagrams
- Printed handouts: Career Pathways in Advanced Air Mobility and Vertiport Route Planning Worksheet
- Whiteboard or flip chart and markers
- A local map or aerial image of the meeting area for the route-planning activity

ADVISOR NOTES

- This session is career-focused: Use real company and role examples, real certification pathways, and real pay ranges rather than a hobbyist framing.
- Clarify that flying a delivery drone requires FAA Part 107, while flying a passenger-carrying eVTOL aircraft will require a different, more advanced pilot certification as the FAA finalizes AAM rules.
- Many current AAM career paths are in engineering, operations, and infrastructure planning rather than piloting alone. Highlight this broader range of entry points.
- Consider inviting a guest speaker who works in aerospace engineering, UAS operations, or urban air mobility planning to share their career path. See Optional Extensions.
- If no guest speaker is available, Advisors can run the entire session using this outline, the Career Pathways handout, and the resource links below.

SESSION OUTLINE

- **Welcome and Icebreaker** (10 min)
 - “If air taxis became common in your city, what problem would you want them to solve first?”
- **Regulatory Moment: Drones vs. Passenger eVTOL Certification** (10–15 min)
 - Review FAA Part 107 (drones, minimum age 16) as the baseline commercial drone certification.
 - Explain that passenger-carrying eVTOL aircraft are being certified under separate, more rigorous FAA aircraft and pilot certification processes as the technology matures.
 - Discuss why airspace integration (keeping AAM aircraft safely separated from other air traffic) is one of the industry’s biggest challenges.
- **Mini-Lesson: Careers in Advanced Air Mobility** (15–20 min)
 - Roles: UAV or UAS systems engineer, eVTOL operations specialist, vertiport or infrastructure planner, airspace or traffic management analyst.

- Typical pay: eVTOL industry hourly roles average around \$23/hour for operations-level positions; engineering roles typically range \$100,000-\$150,000/year, with experienced drone pilots in specialized mapping and inspection work earning \$70,000-\$130,000+.
 - Discuss how this industry blends aerospace engineering, urban planning, and traditional drone and aviation skills.
- **Activity: Plan an Urban Air Mobility Route** (25–30 min)
- Using a local map or aerial image, small groups plan a route between two vertiport locations.
 - Use the Vertiport Route Planning Worksheet to note airspace considerations, noise-sensitive areas (schools, hospitals), charging needs, and safety corridors.
- **Wrap-Up Discussion** (10 min)
- Groups present their routes and planning decisions.
 - Discuss what education or experience (engineering, aviation, urban planning) would prepare someone for a career in this field.

REFLECTION SECTION

Advisor Note: Some sample questions are below. They are designed to help the participants apply what they have learned to their own interests. You are welcome to use these questions or develop your own.

Focusing Questions

- What surprised you about the difference between drone certification and passenger aircraft certification?
- Which AAM career path (engineering, operations, infrastructure planning) sounds most interesting to you?

Analysis Questions

- Why does integrating AAM aircraft into existing airspace require more than just building a good aircraft?
- What factors made your route-planning activity harder than it first seemed?

Generalization Questions

- How is planning new infrastructure for AAM like planning any new kind of transportation system?
- What other emerging industries might need a similar mix of engineering and planning skills?

Challenge: This week, research one company developing eVTOL aircraft or vertiport infrastructure and identify what roles they are currently hiring for.

OPTIONAL EXTENSIONS

Guest Speaker: Invite someone who works in aerospace engineering, UAS operations, or urban air mobility and vertiport planning to share their career path and take questions, in person or by video call.

Advisor-Led Option: If no guest speaker is available, Advisors can run the full session using this outline, the Career Pathways handout, and the resource links below — no outside expert is required.

Resource Links: FAA Advanced Air Mobility resources ([faa.gov](https://www.faa.gov)); FAA Part 107 overview ([faa.gov/uas/commercial_operators](https://www.faa.gov/uas/commercial_operators)); company career pages for current AAM or eVTOL job openings.

Extension Project: Explorers who are 16 or older can begin studying for the FAA Part 107 knowledge test using the FAA's free study guide as a starting point into the broader aviation field.

Handout: Career Pathways in Advanced Air Mobility

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AAM careers branch into several different pathways:

Engineering Pathway

Aerospace or UAS and UAV systems engineering; designs and integrates aircraft hardware, firmware, and communication systems; typical pay \$100,000-\$150,000/year.

Operations Pathway

Drone pilot (Part 107) or future eVTOL flight operations roles; entry-level hourly work around \$23/hour, with experienced specialists in mapping and inspection earning \$70,000-\$130,000+.

Infrastructure and Planning Pathway

Vertiport design, urban planning, and airspace and traffic management; blends city planning with aviation knowledge.

Getting Started

Strong math and science coursework, FAA Part 107 certification at 16+, and exposure to engineering or urban planning programs all build toward this field.

Handout: Vertiport Route Planning Worksheet

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Use this worksheet to plan your mock urban air mobility route.

Planning Item	Your Plan	Notes and Risks
Start and end vertiport locations		
Airspace considerations		
Noise-sensitive areas to avoid		
Charging and battery needs		
Safety corridor and emergency landing options		