

FORUM⁸²

THE FUTURE OF VERTICAL FLIGHT
MAY 5-7, 2026 | WEST PALM BEACH, FL, USA

Vertical Flight Infrastructure – Short Course (*One-Day*)

Instructor: Rex J. Alexander, FRAeS – VFS Infrastructure Advisor
Location: West Palm Beach, Florida
Event: Vertical Flight Society Forum82
Date: May 4, 2026 (8:00 am – 5:00 pm)

COURSE OVERVIEW

From traditional helicopters to next-generation Advanced Air Mobility (AAM) aircraft, infrastructure is the foundation upon which safe, efficient, and scalable vertical flight operations depend. Yet it remains one of the most complex—and often misunderstood—elements of the aviation ecosystem. This intensive one-day course provides a comprehensive introduction to vertical flight infrastructure, combining regulatory insight, engineering principles, operational considerations, and real-world lessons learned. Participants will gain a clear understanding of the critical factors that influence infrastructure design, safety, performance, and long-term economic viability. Drawing on decades of industry leadership and practical experience, this course highlights both established best practices and emerging challenges shaping the future of vertical flight.

LEARNING OBJECTIVES

At the end of this course, participants will develop a foundational and practical understanding of:

- Core infrastructure terminology and concepts
- Heliport and vertiport design fundamentals
- Applicable U.S. regulations, codes, and standards
- International standards and global considerations
- Selection of appropriate design aircraft
- Landing area size calculations
- Airspace design and obstacle evaluation criteria
- Traverseway considerations
- Human factors and physiological impacts
- Structural loading classifications and design implications
- Downwash and outwash effects on operations and safety
- Aircraft performance considerations
- Wind data analysis and climate impacts on infrastructure siting and design
- Elevated and rooftop infrastructure challenges
- Hydrogen and alternative energy infrastructure considerations
- Wind tunnel testing and validation methodologies
- Architecturally induced turbulence and urban airwake hazards
- Wind turbine interactions and risk considerations
- Case studies of accidents and incidents involving infrastructure
- Legal, regulatory, and litigation considerations for infrastructure development

WHO SHOULD ATTEND

This course is designed for both newcomers and experienced professionals seeking to deepen their understanding of vertical flight infrastructure. Whether you are entering the field or advancing an established career, this course provides critical insights that are directly applicable to real-world operations and decision-making.

REGISTRATION

Registration is available through the Vertical Flight Society website:

Please visit www.vtol.org and navigate to Forum82 for additional details and enrollment.

“Space is limited. Early registration is strongly encouraged.”

