



Introduction to Manned and Unmanned Operations in the National Airspace (Live Virtual Offering)

- **WHEN: Monday - Thursday, 26-29 Sept 22.** Class will be conducted in a morning and afternoon session each of the four days from 10:00 – 1:00 and 2:00 – 4:00 using MS Teams--all times are Eastern. Computers with an operating microphone and webcam are required. Additional guidance, including instructions for obtaining course materials (see below), will be provided.
- **COURSE DESCRIPTION and MATERIALS:** Those who develop, manage, and operate air vehicles need to be familiar with the aviation regulatory and operating environment. This 4-day (20 hour) live virtual short course introduces the major issues involved—which are even more critical when the air vehicles are unmanned/remotely operated. This course covers the aviation environment, air vehicle capabilities and limitations, the fundamentals of air vehicle operations, and their certification. A group case study helps put the classroom learning in perspective. With clear learning objectives and packed full of examples, the course follows the outline below:

<ul style="list-style-type: none"> ● Introduction and Setting the Stage ● The National Airspace System ● Weather and its Impact on Operations 	}	1 st Day	<ul style="list-style-type: none"> ● Aircraft/UAS Capabilities/limitations ● Air Vehicle Systems Overview ● Flight Avionics ● Navigation/Safety Avionics 	}	2 nd Day
<ul style="list-style-type: none"> ● Automation/Autonomy ● FAA Certification Process ● Vehicle Certification ● Operator Certification 	}	3 rd Day	<ul style="list-style-type: none"> ● Certification - Impact on Operations ● Group Case Study collaboration ● Group Case Study presentations ● Concluding Remarks 	}	4 th Day

Each student is provided a set of course notes, a VFR Sectional Chart, and two textbooks—*Remote Pilot/Small Unmanned Aircraft Systems Study Guide* and the FAA’s *Pilot’s Handbook of Aeronautical Knowledge*. 2.0 Continuing Education Units (CEUs) are awarded.

- **WHO SHOULD ATTEND:** Anyone who can benefit from an understanding of how air vehicles operate in the airspace system - their environment, how their systems are integrated, and how they (and their operators) are certified. Notably, a study of manned and unmanned air vehicle operations is not traditionally incorporated into university curricula--this course provides that foundational knowledge for those in government and industry. Although written for a technical audience, a building-block approach is used -- no prior knowledge is assumed. Here are a few comments from recent offerings of the course:
 - *“The instructors are great! They are knowledgeable and well-organized. They also made the course personable, which is nice in a virtual classroom as it makes the course more interesting”.* – Langley, VA
 - *“Very well thought out in terms of content and real-life examples...instructors were very knowledgeable and enthusiastic.”* - Edwards, CA
 - *“It does help to fit into the larger picture and really piqued my interest in areas that I didn't know before.”* – Langley, VA
 - *“The final case study was a good way to force everyone to think a bit about how complex the situation is and what some of the important factors are.”* – Langley, VA
 - *“It will help me understand and communicate with my colleagues, especially when it comes to aircraft operations.”* - Edwards, CA
- **COST, REGISTRATION, and CANCELLATION POLICY:** \$1450 (\$1400 if registered by 29 Aug 22) \$1375 for Federal Government employees -- Group discounts are available. For more information and to register, visit PracticalAero.com, contact JEllsworth@PracticalAero.com, or call (719) 659-7319. Substitutions may be made at any time. Cancellations must be received two weeks prior to course start date and are subject to a \$50 fee. If you must cancel within the two-week period, and do not have a substitute, you may forfeit the entire fee and are responsible for returning course materials to PAI at your own expense. Refunds of the registration fee (only) are issued if the course is canceled. **NOTE:** This course is an “open enrollment” course and must meet a minimum student count for the offering to be held. If the minimum count is not met, the course will be cancelled not later than two weeks prior to the course start date. Practical Aeronautics will not be responsible for any costs incurred by the student if the course is cancelled.