

## **How to approve autonomous aircraft operations**

As the size, weight, and range of RPAS continues to increase, manufacturers and operators must consider the different approval mechanisms available to them under the Canadian Aviation Regulations. In particular, the operation of autonomous fixed-wing RPAS in shared airspace and airport environments introduces unique risks with overlapping requirements from CARs V (Airworthiness, i.e. traditional aircraft certification) versus CARs IX (RPAS) and the specific operational risk assessment (SORA). This talk will explore the pros and cons of different approval pathways depending on the size of RPAS, the scope and risks of RPAS operations, and one's intended business or engineering outcomes. Although regulatory guidance is still in its early stages of development, it is precisely during those bleak and overwhelming moments of regulatory analysis that engineers are uniquely poised to forge new pathways and create a competitive advantage in such a highly regulated industry.