

Flight School Perceptions of Electric Planes for Training

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Abstract : Flight school members are facing a major disruption in the technologies available for them to fly as electric planes enter the aviation industry. The year 2020 marked a new era in aviation with the first type certification of an electric plane. The Pipistrel Velis Electro is a two-seat electric aircraft (e-plane) designed for flight training. Electric flight training has the potential to deeply reduce emissions, noise, and cost of pilot training. Though these are all attractive features, understanding must be developed on the perceptions of the essential actor of the technology, the pilot. This study asks student pilots, flight instructors, flight center managers, and other members of flight schools about their perceptions of e-planes. The questions were divided into three categories: safety and trust of the technology, expected costs in comparison to conventional planes, and interest in the technology, including their desire to fly electric planes. Participants were recruited from flight schools using a protocol approved by the Office of Research Ethics. None of these flight schools have an e-plane in their fleet so these views are based on perceptions rather than direct experience. The results revealed perceptions that were strongly positive with many qualitative comments indicating great excitement about the potential of the new electric aviation technology. Some concerns were raised regarding battery endurance limits. Overall, the flight school community is clearly in favor of introducing electric propulsion technology and reducing the environmental impacts of their industry.

Keywords : electric planes, flight training, green aircraft, student pilots, sustainable aviation

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