

Simplified Vehicle Operation

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Short bio

Kyle manages the European office of the General Aviation Manufacturers Association, based in Brussels, Belgium. He is responsible for GAMA's activities in Europe including safety, airworthiness, maintenance, operations and sustainability. He works closely with the European Union Aviation Safety Agency (EASA) and serves on several of the Agency's advisory groups, as well as working with other leading international regulators. He also serves on the European Commission's Drone Leaders Group and the UK's Jet Zero Council. A native of Northern Ireland, he received his master's degree with honours in aeronautical engineering from the University of Bristol and is a Chartered Engineer (CEng).

Abstract

General Aviation has long been at the vanguard of bringing new aviation technologies to market, from winglets on business jets to automatic emergency landing systems on turboprop aircraft to electric propulsion on training aircraft. In 2015, GAMA established a new committee, the Electric Propulsion & Innovation Committee (EPIC), bringing together 11 member companies from across its global membership to develop policy on electric propulsion systems and increased automation. Since then GAMA's EPIC has grown to over 120 member companies in 2022 and engages regularly with leading global regulators such as EASA and FAA on all matter of policy areas related to innovative aviation technologies including electric/hybrid propulsion, hydrogen propulsion, electrical vertical take-off and landing (eVTOL) aircraft, infrastructure and automation.

In May 2019, one of the sub-committees of GAMA's EPIC published a provocative white paper titled: "A Rational Construct for Simplified Vehicle Operations (SVO)", based on several years of member companies from around the world analysing and discussing the future of automation across the aviation industry. According to the White Paper, Simplified Vehicle Operations (SVO) is the use of automation coupled with human factors best practices to reduce the quantity of trained skills and knowledge that the pilot or operator of an aircraft must acquire to operate the system at the required level of operational safety. SVO presupposes the application of human systems integration approaches and techniques to ensure seamless coordination and execution of both independent and joint pilot and automation functions.

This presentation will provide an overview of the SVO concept and the evolving spectrum of fully manual to fully automated flight, its potential benefits, use cases and challenges that lie ahead.