Editorial

Welcome to the first issue of Volume 5 of the *Journal of Aviation Technology and Engineering* (JATE). As we celebrate five years of open-access online publication, the global impact of the JATE is evident. All-time readership has exceeded 51,000 full-text article impressions that have been downloaded globally. A real-time readership map, available on our website, provides a visual of JATE impact factor.

Volume 5, Issue 1 contains six peer-reviewed manuscripts spanning a variety of disciplines pertaining to aviation technology and engineering. The articles in this issue focus heavily upon safety and pilot training. Research results presented explore many facets of aviation safety, particularly as they pertain to Unmanned Aerial Systems (UAS), general aviation, maintenance, Safety Management Systems (SMS), and human factors. Pilot performance pertaining to first officer initial training is also explored.

Leading off this issue is "Synthesis of Unmanned Aircraft Systems Safety Reports" by Robert Joslin. Dr. Joslin's expertise is evident given his extensive experience with the FAA, military, and higher education, as well as his involvement in professional organizations. This study examined UAS safety reports and how this information will influence the future for Unmanned Aircraft Systems.

Jeff Edwards of St. Louis University follows with "The Efficacy of Aircraft Type Club Safety." This research study utilized a mixed methods approach, quantifying accident data from three aircraft type clubs, comparing the safety of members with that of nonmembers. Qualitative research methods were also employed.

Next, researchers Douglas Boyd of the University of Texas at Houston and Alan Stolzer of Embry Riddle Aeronautical University authored "Causes and Trends in Maintenance-Related Accidents in FAA-Certified Single Engine Piston Aircraft." Statistical analyses were conducted utilizing Pearson Chi-Square, Fisher's Exact Test, and Poisson probability on 24 years' worth of general aviation accident data. The authors encouraged further study regarding whether or not a maintenance error decision aid plan would benefit general aviation.

"The Impact of the First Officer Qualification (FOQ) Ruling: Pilot Performance in Initial Training" is the result of a study at a regional airline, comparing pilots hired prior to and following the FOQ ruling. Pilots were examined in three flight areas: total flight hours, training completion, and extra training events. University of North Dakota's Nancy Shane concluded that there have been some unintended outcomes of the FOQ ruling.

A team of seven researchers from Embry Riddle Aeronautical University applied Input-Output (IO) Analysis to Safety Management Systems. A unique aspect of this study is that this research method is used almost exclusively in the field of economics. In "Marbles: The Application of Input-Output Concepts to Safety Management Systems," IO Analysis has been applied to the field of aviation safety. The interrelationships between the four components of SMS are studied.

Finally, Purdue University's Sarah Hubbard and Denver Lopp author the concept paper, "An Integrated Framework for Fostering Human Factors Sustainability and Increased Safety in Aviation Ramp Operations," which details best practices resulting from previous studies related to safety and human factors. Organizational infrastructure, systematic process, measurement, and education are the four key components of this research. The resulting framework has been instrumental in the outcome of human factors sustainability.

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On behalf of the JATE Associate Editors and members of the Editorial Board, we thank you for your readership.

Best regards,

John H. Mott, Executive Editor
Mary M. Fink, Managing Editor
Journal of Aviation Technology and Engineering

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