

2025 TECHNICAL EXCELLENCE AWARD

Doug Roberge, P.Eng.

Doug Roberge, M.Sc., P.Eng., is a Senior Airworthiness Engineer and a member of the Technical Airworthiness group at StandardAero. He holds a Master of Science degree in Mechanical Engineering from the University of Manitoba, where his research focused on the Thermomechanical Fatigue of Aluminum. His thesis, Experimental Crack Length Measurement under Variable Temperature using Thin Film AC Potential Difference Technique, advanced methods of fatigue testing in aerospace materials.

At StandardAero, Doug has distinguished himself as a visionary leader where he has held several leadership roles, including serving as Director of Engineering for the Helicopters business for over 12 years. In this position, he became the subject matter expert for maintenance, repair, and overhaul (MRO) of the Rolls-Royce M250 helicopter engine. He played a key role in the development and implementation of numerous repair solutions for aerospace components, including:

- Improved abradable coatings for M250 compressor cases.
- Advanced corrosion-protection coatings for hot-section parts.
- Laser cladding of IN718 engine components.
- Fluoride ion cleaning of nickel-based combustion liners.
- Diffusion brazing of turbine components.

Beyond his technical contributions, Doug has been instrumental in advancing the aerospace sector in Manitoba. He contributed to the creation of the MB Aerospace Technology Roadmap, where he chaired the working group on Simulation, Modelling, and Analysis. He has also been an active member of the Aerospace Engineering Liaison Group (AELG), a collaboration between Manitoba's aerospace industry and the University of Manitoba's Faculty of Engineering. In this capacity, Doug has helped align engineering education with industry needs and continues to serve as co-chair of an AELG subcommittee, providing strategic input on post-graduate education and research directions.

Doug's innovative work has also been recognized internally at StandardAero, where he received the CEO True Blue Award for leading a project that significantly reduced hydrogen embrittlement during electroplating processes. He is also a Transport Canada delegate since March 2016 for the approval of major repairs and supplemental type certificates. Additionally, his expertise is required during investigations in component failure analysis.

In recognition of his outstanding technical expertise, leadership, and visionary contributions to the fields of engineering and geoscience, Engineers Geoscientists Manitoba is proud to present the 2025 Technical Excellence Award to Doug Roberge, M.Sc., P.Eng.