



2021 Manitoba Aerospace Award for Excellence in Industry/Government Collaboration

Babcock Aerial Firefighting team / Manitoba Wildfire Service Program

In 2018, a Wildfire Suppression Services Contract was issued by the Manitoba Department of Sustainable Development to Babcock for a period of ten years and, in 2019, Babcock established its centre for aviation in Winnipeg while assuming operations of three satellite bases across the province - in Gimli, The Pas, and Thompson.

Operationally, in order to provide the full array of aerial firefighting services, various Government of Manitoba departments and Babcock personnel must work together. The Manitoba Government team consists of a myriad of departments such as Manitoba Conservation and Climate Wildfire Service; Manitoba's air attack officers; the Premier's office; Manitoba Shared Services; etc. Babcock's team consists of 10 aircraft (7 Manitoba water bombers), on the 3 remote bases staffed by AMEs and pilots, the Winnipeg base serves all operations in areas such as safety, operational support, purchasing, warehousing and Babcock Shared Services.

This combined government and industry team functions as an interactive unit 24 hours a day, seven days per week from, at least, April 1 - September 30th each year. Due to unprecedented fire activity in the province in 2021, this was the busiest season in 30 years and their collaborative approach successfully met the challenge. The interactions that need to occur to ensure the best services to Manitobans is complex, but these teams make it appear easy. The Manitoba team directs Babcock as to aircraft locations and provides in flight air attack officers who oversee the tanker group during missions. The Babcock team directs all support staff, pilots and ensures aircraft maintenance and flight operations are delivered in a timely and safe way. 2021 was 66% busier than 2020 but the safety record of the flights and on-site crews is impeccable. Thankfully, there was zero loss of life and property damage was minimal. Despite the higher workload of the season, the Babcock team managed to deliver exceptional aircraft availability and located aircraft intuitively to ensure maximum effectiveness. Aircraft maintenance engineers (AMEs) hours of work are, generally, from the time planes land to their take off in the morning (7pm to 8am). This, as well as Covid, presented many challenges for the supply chain and all were met appropriately. As well, the aircraft, when on a remote base, are serviced without shelter, with industrial lighting, and in the northern climate (bugs included). The Wildfire Service program coordinators and personnel in Babcock Operations in Winnipeg also forgo personal time to be on call 24/7. This is not an easy way to spend a beautiful Manitoba summer, but these individuals really do give their all to deliver services to Manitobans. It should also be noted that the delivery of the services was carried out while maintaining regulated Covid-19 protocols.

The Industry / Government collaboration on the Aerial Firefighting program was exceptional to say the least. Congratulations to all involved.

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congratulations!



babcockTM

2021 All-Stars

**AWARD OF EXCELLENCE FOR INDUSTRY-
GOVERNMENT COLLABORATION**

**Babcock Aerial Firefighting Team & Manitoba Wildfire
Service Program**



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2021 Manitoba Aerospace Award for Excellence in Innovation and Technology Development

Precision ADM

Precision ADM used their expertise in advanced manufacturing to pivot their capabilities to serve a vital and timely role in providing Canadian solutions to help mitigate challenges caused by the COVID pandemic. In 2020 and 2021, Precision ADM have developed two products in response to high demands in the medical sector: the CANSWAB™ Nasopharyngeal Swabs and the Precision AIR™ reusable N95-level masks. The Swabs innovation was necessary as this technology was not available in Canada and the need for swabs was ever-pressing at the height of the COVID pandemic. Additionally, Precision ADM's mask technology was more ergonomic and economic than alternatives, as well as providing better protection and allowing the user to communicate with patients and others while keeping their faces cool and comfortable.

Right from the beginning, Precision ADM has been determined to serve both the aerospace and medical sectors. They have worked diligently towards achieving the necessary certifications. In 2017, they became the first Canadian metal additive and subtractive manufacturing services company to receive the ISO 13485:2016 Quality Management System certification. The industry standard represents the comprehensive set of requirements for the design and manufacture of medical devices. This QA standard is difficult to achieve and takes a lot of time and effort to go through the process. Precision ADM was clearly thinking of the long term in pursuing this standard, so when the COVID pandemic arose in 2020, they were well positioned to extend their capabilities and develop innovative products to serve Canada's needs. Similarly, in 2018, Precision ADM received the 2019AS9100 Rev D and ISO 9001:2015 Quality Management System certifications. These industry standards represent the comprehensive set of requirements for the design and manufacture of aerospace parts. In 2020, the company achieved a Health Canada MDEL license for the manufacturing and distribution of Class I medical devices. By acquiring these challenging QA targets, Precision ADM was very quickly able to respond to the COVID challenges and they were able to commit to a Canadian delivery schedule of 8 million swabs a month. This contract led to a rapid onboarding process wherein the company established a manufacturing facility to process their orders in addition to adding several professional managers to their organization. The company has grown quickly in the past 2 years – they have increased their workforce to over 200 people. By achieving these high quality but diverse certifications, Precision ADM is able to support two different sectors with one alignment of technology, namely metal additive manufacturing.

Kudos to the team at Precision ADM and their ability to pivot and provide quality and timely solutions to real challenges faced by the highly over-taxed medical profession.

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PRECISION ADM
ADVANCED DIGITAL MANUFACTURING

2021 All-Stars

**AWARD OF EXCELLENCE FOR INNOVATION AND
TECHNOLOGY DEVELOPMENT**

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2021 Recipient of Manitoba Aerospace Award of Excellence in Education

Jonathan Beddoes

Jonathan Beddoes began his term as Dean of the Price Faculty of Engineering on 1 July 2011 and retired in June 2020. During those nine years, Jonathan's reach was both broad and deep. His vision and tenacious efforts deeply shaped the faculty's student experience, teaching, commitment to increasing diversity, research, industry engagement, and, last but not least, physical facilities.

Jonathan's support and growth of the Engineer-in-Residence Program has brought industry experience to the classroom, provided students with more opportunities for experiential learning, and has helped foster stronger connections between the faculty and industry. Jonathan's leadership and involvement in Friends of Engineering ensured that upwards of 700 students per year participate in extracurricular design competition teams and affinity groups like Engineers Without Borders to support their education and prepare them for their engineering careers. The number of design competition teams and affinity groups and their respective focus areas more than doubled under his tenure. Jonathan's leadership also resulted in re-shaping the Co-op/Industrial Internship Program (IIP) in the Price Faculty of Engineering.

Jonathan demonstrated his commitment to increasing diversity in the engineering profession in a number of ways. His support was instrumental in the successful launch and continued growth of the Engineers Geoscientists Manitoba - Women in Engineering & Geoscience Mentorship Program, which has grown from 65 participants in its first year to over 190 participants in 2020-2021. Jonathan worked to generate a LGBT scholarship at the Price Faculty of Engineering – the first in Canada. Jonathan was also an unwavering advocate of the ENGAP program for Indigenous students in the Price Faculty of Engineering.

Jonathan reached out to industry to extend the research scope of the Price Faculty of Engineering. He was instrumental in facilitating the NSERC / Magellan Aerospace Industrial Research Chair in Satellite Engineering and established a formative partnership between Magellan Aerospace and the University which resulted in the [Advanced Satellite Integration Facility \(ASIF\)](#). He was further instrumental in facilitating the NSERC Chair in Design Engineering, which includes six partners from the aerospace and aero-engine test sectors.

Jonathan was the determined champion of the construction of the Stanley Pauley Engineering Building, a 46,000-square-foot building adjacent to the Engineering Information and Technology Complex. Because of Jonathan's vision and hard work, students and researchers work in state-of-the-art facilities that support experiential education and advance stellar research. Many of the spaces facilitate collaboration between industry partners that will support lifelong learning and skills training.

Jonathan also identified that the University of Manitoba was far below the national average in per capita enrolment in engineering programs. The reason was a known lack of enrolment capacity in the Price Faculty of Engineering, and Jonathan undertook and guided an undergraduate enrollment increase of over 50% during his tenure, from approximately 1150 to 1800 undergraduate students.

Jonathan's tenure as Dean ended during the COVID-19 pandemic, where he guided faculty, staff, and students through the first four months of unprecedented experiences. Here, his leadership style continued to show through: a clear vision, perseverance, and a collaborative and stakeholder-focused approach. His calming presence was appreciated by many. Jonathan never sought the spotlight yet those who worked with him know how significant his impact has been.

Please join us in congratulation Jonathan Beddoes who is truly deserving of the 2021 Manitoba Aerospace Award of Excellence in Education.

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Congratulations!

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AWARDS OF EXCELLENCE

2021 All-Stars
AWARD OF EXCELLENCE
IN EDUCATION

Jonathan Beddoes
Dean (retired)
Price Faculty of Engineering
University of Manitoba

University of Manitoba | Faculty of Engineering

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