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We understand Competitive Advantage and have worked with diverse clients to give them the practical tools they need to continuously improve and evolve to be contenders in the global marketplace.

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www.cesdservices.ca

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MESSAGE FROM THE CEO

Wendell Wiebe

t has been a very busy year for the staff and Board of Manitoba Aerospace. I want to highlight a few key areas from this past fiscal year April 1, 2017 - March 31, 2018.

In February 2017, we hosted a networking breakfast to help our small to medium sized businesses (SMBs) in the aerospace & defence industries understand the quality standards/requirements of Boeing, Magellan and StandardAero. Then, in April 2017, procurement representatives from those three companies gave presentations on what each company could acquire from local suppliers. This culminated in Business to Business (B2B) sessions in June where SMBs met with Boeing, Magellan and StandardAero. This was a good start and we will be building on this momentum.

Over the summer, the Board of Directors decided to explore the feasibility of establishing an aerospace manufacturing operation with a First Nation's community in Manitoba. Opaskwayak Cree Nation (OCN) indicated an interest in working with Manitoba Aerospace to investigate the feasibility of such an entity. In late October, Minister Wishart announced funding to Manitoba Aerospace for the OCN Feasibility Project. Manitoba Aerospace hired a consultant on December 1 to be responsible to complete the feasibility study. On December 7, representatives from OCN came to Winnipeg for our initial project meeting. On December 21, the consultant and representatives from Boeing and Manitoba Aerospace flew to The Pas for meetings with OCN as well as other key community stakeholders. The consultant has been working with the Sector, which includes Boeing, Magellan, StandardAero, Cormer Group and Rockwell Collins as well as OCN, to determine the viability of this venture. While we have completed the Project's activities as outlined in our funding proposal, this has not provided the level of detail required to develop either a Business Plan or an Implementation Plan. As a result, an additional Phase 2 will be required

to complete a Business Plan corresponding Implementation Plan to establish the enterprise. The funding request



for Phase 2 has been submitted and we hope to compete this phase by the end of October 2018.

These two (2) projects illustrate that Manitoba Aerospace is seeking to develop the local supply chain within the aerospace and defence industries. These activities build on the work that has been done through our Competitive Edge Supplier Development program (January 2010 - December 2017) as well as the Industrial and Technological Benefit (ITB) project (April 2015 - December 2017).

The Manitoba Aerospace industry has a legacy of working with the local Indigenous community in a variety of ways. We have been working with the Centre for Aboriginal Human Resource Development (CAHRD) since 1999 to develop training initiatives which have helped Indigenous people get the skills needed for careers in the aerospace industry. In 2008, Manitoba Aerospace partnered with CAHRD to develop the Aboriginal Aerospace Initiative which led to the establishment of permanent aerospace programs at Neeginan College of Applied Technology. Since then, Neeginan students have participated in aerospace related training and over 130 individuals have successfully integrated into careers.

Manitoba Aerospace also has strong ties with the Engineering Access Program (ENGAP) at the University of Manitoba. In partnership with ENGAP and Birch Bark Productions, Manitoba Aerospace has been on the committee which has focused on developing videos and teachers' guides: The Birch Bark Canoe:

Navigating a New World, and The Three Sisters – Renewing the World. In October, Manitoba Aerospace, in partnership with Randy Hermann, Director of ENGAP and Peter Jordan of Birch Bark Productions, premiered The Three Sisters package and teachers' guide. The Three Sisters is the second Video and Teachers' Guide to help teachers incorporate Indigenous perspectives into the curriculum. These classroom aids help to demonstrate that math, engineering and science were used every day by the Indigenous people of this land. It is hoped that more Indigenous youth will be inspired to seek out careers in science, technology, engineering and mathematics.

Manitoba Aerospace hosted the Golf Tournament in September and the All-Stars Awards Dinner in November. This year's All-Stars Awards winners were:

- Don MacDonald (Red River College (retired)) Award of Excellence for Education & Training
- 737 MAX Automated Drill & Countersink Team (Boeing Winnipeg) Award of Excellence for Innovation
- MDS AeroTest Team at Glacier Facility (Thompson) with the NRC Icing Support Team Award of Excellence for Technology Development
- Ken Webb (Manitoba Aerospace Association (retired)) Award of Excellence for Builder

Manitoba Aerospace was able to place \$32,000 in the Student Endowment Funds from the combined proceeds of the 2017 Golf Tournament and the 2017 All-Stars Awards Dinner.







INDIGENOUS INCLUSION WORKSHOP



ANNOUNCEMENT AT CAHRD RE OCN AEROSPACE STUDY



MINISTER OF GROWTH, ENTERPRISE & TRADE, HON. BLAINE PEDERSEN,
MANITOBA AEROSPACE CEO, WENDELL WIEBE,
AND MINISTER OF EDUCATION AND TRAINING, HON. IAN WISHART



LAUNCH OF 3 SISTERS



TAKE OUR KIDS TO WORK DAY



ENGAP STUDENTS VISITING BOEING







MITT STUDENTS VISITING CAHRD



Soar with the best in the largest aerospace

centre in Western Canada and the third largest in the country. Accelerate your growth with Manitoba Aerospace Inc., which, as a sector council, works to connect the local aerospace, aviation and defence industries with national and international markets and is also aimed at developing a world-class workforce to meet our members' needs.

Why should you choose to grow your business in Manitoba?

Competitive Operating Costs

Winnipeg is the most cost-effective city for aerospace manufacturing among major Canadian and U.S. cities.

Winnipeg has experienced more than **\$900 million** in aerospace and aviation-related investment in recent years, and revenues of Manitoba's aerospace manufacturers increased by **44**% between 2007 - 2013.

Enhanced Productivity

More than 40 aerospace firms are either headquartered or have major centres of operation in Manitoba, including Boeing Canada, StandardAero and Magellan Aerospace. The sector encompasses a diverse supply chain that produce and sell products and services valued in excess of \$2.15 billion per year.

The industry is supported by a large number of aerospace suppliers including precision machine shops, told and die makers, precision sheet metal fabricators, plating and coating operations, and electronics companies.

Source: 2016 LMI / Economic Development Winnipeg

World Class Workforce

Winnipeg's aerospace sector is competitive on a global level, producing world-class products for customers on six continents. Over the last 10 years, Manitoba aerospace companies have shipped billions of dollars in product exports, including **over \$400 million** in exports to emerging markets.

Currently, the industry employs a labour force of **over 5,000** highly skilled workers.



Benefits of Membership

We want to work with you and your business to strengthen your competitive advantage in the local, national and global aerospace and defence sectors. Manitoba Aerospace is a not-for-profit sector council that supports and promotes our membership through incentives in business development, research and innovation, and human resource initiatives.



Full Members



international events.



Manitoba Aerospace Directory, on the Manitoba Aerospace

website (and social media platforms) as well as at national and



Full Members are companies and organizations with direct involvement in: research and development, product development, manufacturing, service support, training, maintenance, repair and overhaul and/or information technology support of the aerospace, aviation and defence industries and related sectors in Manitoba.

Only full members are eligible to have presentation on the Manitoba Aerospace Board of Directors. Board of Directors and all Committees as well as access to funding dollars for education and training initiatives. Other benefits include opportunities to promote your company or organization through sponsorship of Manitoba Aerospace events in order to showcase your services and products.

Associate Members

Associate Members are companies and organizations that wish to support the objectives of Manitoba Aerospace Inc. and/or want to do business with its members. Representatives of associate members are not eligible to be nominated or to sit on the Board of Directors or Committees.

facilitate collaborative local R&D activities.

• participate in the annual Research Forum which brings together

researchers in Academia, Institutions and Industry in Manitoba to

• opportunities to participate in Manitoba's Technology Roadmap

An Associate member is not entitled to receive notice of, attend or vote at any member meetings. Manitoba Aerospace may extend an invitation to representatives of Associate members to attend a members' meeting, but such persons shall have no vote. Other benefits include opportunities to promote your company or organization through sponsorship of Manitoba Aerospace events in order to showcase your company's services and



ManitobaAerospace /Manitoba-Aerospace @mbaerospace



AAIM DAY 2017

BOEING DREAMLINER STOP OVER



2017 GIRLS IN AVIATION DAY



2017 GIRLS IN AVIATION DAY

AMMOP OPEN HOUSE AT TEC VOC



AAIM DAY VOLUNTEERS

2017 H.I.R.E.D AND MEET & GREET AT U OF M

SUMMARY OF ACTIVITIES

PILLAR #1 CAREER & WORKFORCE DEVELOPMENT

CAREER DEVELOPMENT

Manitoba Aerospace partners with educational institutions at the secondary and post-secondary levels in order to ensure the continued flow of industry ready graduates from local educational programs to support the aerospace and defence sectors. We have long-standing partnerships with the Faculty of Engineering and the Engineering Access Program at the University of Manitoba, the Faculty of Business and Economics at the University of Winnipeg, Red River College – Stevenson Campus, Neeginan College of Applied Technology, and Tec Voc High School.

CARFFR AWARENESS

Part of the mandate of Manitoba Aerospace is to ensure youth, parents, and educators are aware of the local aerospace industry and the great careers available in the sector. Manitoba Aerospace collaborates with a variety of community partners to ensure that Manitobans become more aware of aerospace careers and the established educational pathways to those careers. In 2017 - 2018, we interacted with 8,802 individuals, 3,316 more than our target of 5,486.



Participating students at AAiM Day 2017

2017-2018 Key Accomplishments of both Career Awareness and Career **Development:**

- · AMMOP at Tec Voc has 31 students expected to graduate in June 2018.
- The Tec Voc High School program, Aviation and Aerospace Technologies, has 30 students in Grade 12, 19 students in Grade 11 and 40 students in Grade 10.
- Neeginan College of Applied Technology offers Gas Turbine Repair & Overhaul, CNC Machine Operators and TIG welding courses. 5 people graduated from the GTR&O program and were hired at StandardAero. Boeing is currently partnering with Neeginan on an AMT program and 12 people are in training with expected hiring at the end of June.
- The Executive BBA program continues at the University of Winnipeg which gives prior learning credits to graduates from the Certificate in Management program towards a Bachelor of Business Administration.
- Manitoba Aerospace continues to work with other sector councils and other community partners related to Career Prospects Manitoba during Career and Workforce Development Month (November). We attended three different events and interacted with approximately 614 people.
- · Approximately 250 participants with Career Trek took part in aerospace/aviation related activities between October 2017 and March 31, 2018.
- The University of Winnipeg has launched a unique, industry-driven

- graduate program, Masters in Management (MIM). The MIM, with a specialization in Technology, Innovation, and Operations, is a graduate level degree that focuses on developing innovative, critical thinkers at a senior management level. It is aimed at those with an undergraduate business degree who are seeking additional management credentials, including those already working in the managerial field.
- Manitoba Aerospace hosted a HIRED event and Meet and Greet at the Faculty of Engineering in November 2017. Over 200 students were involved in the two events and various company representatives were in attendance.
- There are 22 engineering students enrolled in the Aerospace Option as part of the Bachelor of Science in Engineering (Mechanical) at the University of Manitoba.
- 14 first year ENGAP students were hosted at Boeing Winnipeg in August 2017 and 32 ENGAP students attended the annual Information Session in March.
- Since April 2017, Manitoba Aerospace representatives attended various career fairs or facilitated information sessions and interacted with over 5,030 students, teachers and parents.
- The 12th annual AAiM Day was held at RRC – Stevenson Campus on June 1, 2018.
- The 4th Annual Girls in Aviation Day will be held at the Royal Aviation Museum of Western Canada on October 13, 2018.

WORKFORCE DEVELOPMENT

Training of Existing Employees (TEE)

Manitoba Aerospace supported the training of existing employees (TEE) in FY 2017-18. Manitoba Aerospace had very positive results in several activities related to the Training of Existing Employees component of this Pillar. Of particular note are:

- A well received Instructional Techniques Course (Train the Trainer).
- · A highly successful Leadership Infrastructure Assessment and Action Plan Development.
- Two (2) engaging workshops regarding Indigenous Inclusion in the workplace.



- The successful development and delivery of an Innovation Strategy Workshop.
- · A successful Webinar in regards to the Offset Market Exchange (OMX) Web Platform/Tool.

Key Accomplishments:

- Six (6) Manitoba Aerospace industry training initiatives supported
- 93 personnel received Manitoba Aerospace supported training, exceeding our goal by 49 persons

PILLAR #2 SUPPLIER AND **ECONOMIC DEVELOPMENT**

Initiated in 2010, the Competitive Edge Supplier Development Program (CESDP) provides a framework to develop the systems and processes which are considered "world class". The systems and processes that CESDP supports are those which OEMS, Primes, and Tier 1 & 2 companies consider as critical differentiators of potential suppliers. Competence in these critical differentiators allows suppliers to integrate with great success with their customers and allows for Manitoba to compete and win against the best in the world.

Key Accomplishments:

- One (1) organization completed a full review (Benchmarking) of its organization capabilities. The organization demonstrated ongoing improvement, achieving the Contender Category in two of the eleven business elements.
- 10 Personnel from Manitoba Aerospace organizations participated in CESDP organization improvement activities. This met our planned target of participants.



Supplier Engagement Event



Launch of the 2017 Career and Workforce Development Month



PNAA 2018

Research & **Technology** Committee Members

PILLAR #3 INNOVATION, RESEARCH AND **TECHNOLOGY**

Chair John Bagan Magellan Aerospace

Deputy Chair Loren Hendrickson CARIC

Secretariat Alfonz Koncan Envirotrec

Dele Ola **Red River College**

David Simpson Envirotrec

Bob Hastings WestCaRD

Gene Manchur **Composites Innovation Centre**

Gagan Thable **Boeing Canada Winnipeg**

Shane Zakaluk Cadorath

Ray Woodason Standard Aero Ltd

Myron Semegen Industrial Technology Centre

Cyrus Shafai U of Manitoba

Martin Petrak Precision ADM

Sandra Unik **Cormer Aerospace**

Jeff Thomas Argus Industries In collaboration with the Consortium for Aerospace Research and Innovation in Canada (CARIC), the Manitoba Aerospace Research and Technology Committee's (MARTC) mandate is to advance the innovation, research and technology agenda in the Manitoba Aerospace community.

A significant area of interest for Manitoba Aerospace companies is in advanced manufacturing. Building on the Manitoba Aerospace Technology Road Map (TRM), Manitoba Aerospace members clearly indicated this interest with the top 10 research interests all being in the advanced manufacturing area. During the CARIC MB Regional Research Forum on June 6th, 2017, a common theme in Inspection Technologies was developed and a collaborative project in high speed visual and dimensional inspection was proposed.

These interests in aerospace advanced manufacturing were presented to the National Research Council (NRC) at the Industry Consultation workshop in Winnipeg on June 13th, 2017. These provided guidance to the NRC's Future of Manufacturing study and are key to supporting the imminent NRC Advanced Manufacturing Centre in Winnipeg. Additional input for advanced manufacturing in Manitoba Aerospace was collected in the Advanced Manufacturing session at the CARIC National Forum in Vancouver in August 2017 and was captured as one of the five technology focus areas in the MOST 21 Aerospace and Transportation

supercluster proposal. While MOST 21 was unsuccessful, the significant level of support identified by Manitoba Aerospace organizations provides a strong endorsement for research and technology in advanced manufacturing.

An Innovation Workshop was facilitated in April 2018 by Manitoba Aerospace. Primarily targeted towards SME's, it contrasted technologies and business strategies and provided a synopsis of supports available to facilitate innovation as well as to measure and manage it. A collaborative CARIC / NRC-IRAP pilot program (Acceleration - Innovation) was made available to SME's (at no cost) in April 2018 also. This will be expanded in the coming year to facilitate innovation, likely in collaboration with the Innovation Workshop and Manitoba Aerospace's Competitive Edge supplier development program.

With currently funded large research and technology projects wrapping up, CARIC and MARTC continue to look for additional opportunities to facilitate Manitoba Aerospace Research & Development, primarily in Advanced Manufacturing.





MANITOBA AEROSPACE 25 YEARS ANNIVERSARY



2017 ALL STAR AWARDS



AEROSPACE

MANITOBA AFROSPACE

AEROSPACE



2017 MANITOBA AEROSPACE GOLF TOURNAMENT



MARKETING & COMMUNICATIONS COMMITTEE



The committee is made up of Marketing and Communications experts from industry as well as staff from Manitoba Aerospace. The current members of the Committee are: Committee Chair - Leslie Yakimishyn, Magellan Aerospace; Terry Trupp, Boeing Canada; Don Fowler, StandardAero; from Manitoba Aerospace: Wendell Wiebe, Ellice Gan, Barbara Bowen and Heidi Abraham. We are delighted to note that Ken Webb, retired Executive Director of Manitoba Aerospace Association also sits on the Committee to continue to contribute to Manitoba Aerospace activities and events.

The mandate of the Marketing and Communications Committee is to support Manitoba Aerospace as it delivers its mission of promoting the growth of the aerospace industry in Manitoba through business development activities and workforce development initiatives.

PILLAR #4 PROMOTION, BRANDING, AND ADVOCACY

Networking Meetings: Manitoba Aerospace organized five (5) Networking events between April 2017 and March 2018.

April 2017: representatives of the procurement teams from Boeing Winnipeg, Magellan Aerospace and StandardAero each gave a presentation on their company, its capabilities and local supplier possibilities.

June 2017: B2B meetings took place between interested SMBs and the larger companies as a follow up from the April meeting.

October 2017: Brigadier General David Cochrane, Commander 2nd Air Division presented on Canada's new defence policy and its implications for the aerospace and defence industry. As well, there was a presentation on the Military Employment Transition Spouse Program and how our local industry can get involved.

January 2018: Nicole Verkindt, CEO of OMX presented on where she sees the Canadian aerospace and defence industries in the next 3 to 5 years.

March 2018: representatives from PAL Aerospace presented on their plans for a Winnipeg facility to support the DND.

Contrails Newsletter

Contrails, the electronic newsletter, was published twice in 2017-2018 and the next issue is completed in June 2018.

AAiM Day

The 11th anniversary of AAiM Day was held at Red River College - Stevenson Campus on May 26, 2017. The 2017 event was attended by over 750 Grade 6 students and teachers and was supported by 150 volunteers.

Manitoba Aerospace Social Media in 2017-2018

Manitoba Aerospace's Facebook page, which is our most popular platform, increased followers by more than 30% and we had over 200,000 engagements with various people. On Twitter, we had a 70% increase in followers over last year; and for LinkedIn, we have a 10% increase in followers from 1673 to 1842.

Manitoba Aerospace Golf Tournament

The 2018 Golf Tournament will be held on Sept 13, 2018. The 2017 Tournament raised over \$15,000 for the Manitoba Aerospace Student Endowment Fund.

Girls in Aviation Day 2017

120 girls between ages 8 to 16 attended the third annual Girls in Aviation Day on Sept 23, 2017 at the Red River College - Stevenson Campus. The event was hosted by Northern Spirit YWG - the Manitoba Chapter of Women in Aviation International. The girls and their parents were introduced to 8 different careers in aviation and aerospace. Plans are in place to hold the 2018 event at Royal Aviation Museum of Western Canada on October 13th.

All-Stars Dinner and Awards Gala

The 2017 Manitoba Aerospace All-Stars Dinner and Awards Gala was held on November 17 at the Victoria Inn. Over 180 people attended, and more than \$16,000 was raised for the Manitoba Aerospace Student Endowment Fund. Special thanks to the committee and our valued volunteer, Charlotte (Charlie) Rosen, who always helps to make this annual event a success. Mark your calendars for the 17th annual Manitoba Aerospace All-Stars Awards Dinner and Gala which will be held on November 22, 2018 at the Victoria Inn.

Manitoba Aerospace Website

The redesigned Manitoba Aerospace website was launched in March 2018. The new website is designed to be fully adaptable to tablets, desktop computers, smart phones and to provide an easy navigation experience for our visitors when they are roaming through different pages quickly. Please visit www.mbaerospace.ca to experience our website.

Aerospace Week 2017 (June 5 - June 9)

2017 marked the 25th anniversary of Manitoba Aerospace. We had a very busy week of activities including supporting Boeing who hosted a Girls Learning to Code event at RRC - Stevenson Campus on Monday, June 5. On June 6, the CARIC research forum was held

at Hilton Winnipeg Airport with representatives from industry and academia. On June 7, we hosted B2B meetings to encourage local supplier development between member company SMBs and the Big 3 companies. The AGM was held on June 8 at the Royal Aviation Museum of Western Canada, and culminated in an evening reception to celebrate our 25th anniversary. Past Directors of MAA and MAHRC were invited to this special event. Local provincial government representatives and delegates from the Royal Canadian Air Force attended the event as well.

PROMOTION

We attended various national and international trade events to promote our local aerospace companies and highlight the varied capabilities of the sector.

2017

April 3 – 7: AeroMontreal International Aerospace Week

April 11 – 13: Canadian Armed Force Outlook Days- Army, Navy, Air Force by CADSI

May 31 - Jun 1: Canada's Global Defence & Security Trade Show (CANSEC) by CADSI

Jun 19 – 22: Paris Airshow

Aug 8 – 9 : CARIC Research Forum (Vancouver)

Aug 10 – 11: ADSE (Abbotsford) Conference & Airshow

Nov 7 – 8: AIAC Summit

2018

Jan 22: Future Fighter Industry Day (Ottawa)

Feb 13 - 15: Pacific Northwest Aerospace Alliance (PNAA)



Manitoba Aerospace Dinner & Awards Evening

NOV-22-2018

Reception 5:00 PM · Dinner 6:15 PM

Victoria Inn | 1808 Wellington Ave. Winnipeg

RSVP at 204-272-2957 info@mbaerospace.ca

The All-Stars Awards event celebrates the aerospace industry in Manitoba and recognizes excellence in our aerospace community. Manitoba Aerospace encourages members to nominate individuals or organizations whose achievements they believe exemplify excellence and who are deserving of recognition by the aerospace community.

For more info: mbaerospace.ca

f ManitobaAerospace

2018 MEMBER COMPANIES









































2018 ASSOCIATE MEMBER COMPANIES -









































Welcome to our newest Associate Member:

Commissionaires is a private, not-for-profit Canadian company with more than 21,000 employees across Canada protecting people and property in both private and public sectors. Commissionaires is made up of a well-trained, diverse team of all ages, primarily composed of former military and RCMP. Its services include guarding, consulting, investigations, fingerprinting, criminal record checks, record suspensions, US entry waivers, employee background screening, non-core police services and a wide range of comprehensive training programs.

anitoba is home to a host of complementary world class aerospace companies that play a vital role in the global aerospace industry. Manitoba provides strategic advantages to the aerospace industry: a network of collaborating companies, a solid workforce, tailored education programs, international R&D capabilities, supportive governments, and an ideal geographic location. Together, these factors create a thriving and globally competitive business environment.

If your company is looking for a partner with access to North American markets and advanced aerospace technology, look to the Manitoba aerospace industry. If you are seeking a cost-competitive site to do business, look to Manitoba, Canada. If you need a source of aerospace component manufacturing or engine maintenance services, engine icing and other environmental testing, or composite materials manufacturing or R&D, look to Manitoba companies.



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