

Contrails

MANITOBA AEROSPACE

A PUBLICATION OF THE
MANITOBA AEROSPACE ASSOCIATION
MARKETING COMMITTEE

DECEMBER 2013

NEWS • EVENTS • INFORMATION



MESSAGE FROM THE EXECUTIVE DIRECTOR - KEN WEBB



"It may not be the largest aerospace cluster in Canada, but there's no denying that Manitoba's burgeoning aerospace hub is one of the nation's most impressive and diverse. And with its universal commitment to innovation, grassroots education and industry collaboration, the sky is truly the limit for its future success and growth."

So says Wings magazine editor Matt Nicholls in his review of the Manitoba aerospace industry in the November/December issue of the national aviation and aerospace magazine. While it takes a lot more than a good headline to drive business, it's good to see quality, excellence and innovation being recognized.

Innovation drives our industry and it was a prominent theme for Manitoba Aerospace Week in September and at our All Star Awards gala event in November.

Aerospace Week (Sept. 9-13) was kicked off with the launch of the Black Brant gallery at the Manitoba Museum, a permanent exhibit highlighting Manitoba's aerospace industry. First launched in 1962, more than 1,000 Black Brants have been launched worldwide for scientific research.

Other events during Aerospace Week included a keynote presentation by Maria Nickel, the maths and science teacher from the Interlake School Division whose grade 5 and 6 students are sending an experiment to the International Space Station in December, the publication of an Aerospace Supplement in the Winnipeg Free Press, the annual Aerospace Student Endowment golf tournament and a site-visit to a number of Winnipeg aerospace facilities by five MPs and two senators from the all-party parliamentary Aerospace Caucus.

At the All Stars gala dinner evening we recognized the Boeing 787 Main Landing Gear Door Team, the GE Aviation / StandardAero / WestCaRD Test, Research and Development Centre (TRDC) and retired Red River College educator Bill Fraser for their outstanding achievements and contributions to our industry.

Innovation is also the focus of Western Diversification's (WD) new Western Innovation (WINN) program which was announced in November by the new WD Minister Michelle Rempel. WD will provide interest free repayable loans for up to 50% of eligible costs to help SMEs bring new technologies to market.

Education was the second key to the strength of the Manitoba aerospace hub.

Led by a strong Manitoba Aerospace Human Resources Council (MAHRC) and supported by collaborative secondary and post-secondary educational institutions, Manitoba has a highly coordinated approach to servicing the aerospace labour market needs.

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MESSAGE FROM THE EXECUTIVE DIRECTOR - KEN WEBB



Unique to Manitoba's aerospace industry are the Engineer in Residence program, U of M's new Aerospace Program Management Program, RRC's industrial campuses hosted by StandardAero and Magellan Aerospace, apprenticeship Gas Turbine and AME programs, aerospace programs for Aboriginal learners at Neeginan College of Applied Technology and high school collaborations and partnership such as the Aerospace Manufacturing and Maintenance Orientation Program (AMMOP).

All these initiatives are strongly supported by industry, including six bursaries awarded annually from the Aerospace Student Endowment Fund. Launched in 2007, more than \$75,000 has been raised from the net proceeds of the annual All Star dinner and golf tournaments. This year the two events raised a further \$20,000 thanks to the generous support from both companies and individuals.

The third pillar identified was collaboration, and this is one characteristic that visitors to Manitoba often comment on - the ability of industry, government, education and the research community to come together to get things done.

A recent example of collaboration is the Manitoba Aerospace Technology Road Map (TRM) project that industry is leading. With a steering committee chaired by Kim Olson from StandardAero, over 50 representatives from across Manitoba's aerospace community have been working with the National Research Council to identify the critical technologies that need to be developed to ensure our competitiveness going forward. This strategic technology planning initiative is part of Manitoba's response to the Emerson Review and we will report out early in the new-year.

Looking forward to 2014, we have a new Minister of Jobs and the Economy (Theresa Oswald), a new Minister of State for Western Diversification (Michelle Rempel), a new parliamentary secretary to the minister of National Defence (James Bezan - Selkirk Interlake), a new national space policy,

four new associate member companies (MDS Aero, Iders, PointMan Canada Ltd. and Capitol Steel), and a new MAA Board Member (Michael Easton from Argus Industries).

In addition to moving forward with the Technology Road Map, we also hope to take on a number of new initiatives looking at IRB and applied research opportunities for SMEs, development of the aerospace supply chain in Manitoba, and the development of a long term aerospace cluster strategy for the province.

We plan to kick off the new-year with a briefing to Minister Oswald in January and with some new players and some new initiatives it looks to be another active year for Manitoba's aerospace industry.

With snow on the ground and our colleagues at the engine testing centres celebrating the arrival of cold temperatures it is time for us all to look forward to celebrating the holiday season.

May everyone enjoy the warmth of family and friends through the holidays, and may the new-year bring prosperity to your business, good health to your family, and peace to us all.

Cheers!

**Congratulations to
Boeing Canada; Magellan
Aerospace, Winnipeg;
and StandardAero for all
being selected as part
of Manitoba's Top 25
Employers for 2014.**

**This prestigious award
given to these companies
shows the strength of
Manitoba's aerospace
community.**





MEET MEENA BHULLAR

Meena Bhullar is a Trade Commissioner with Foreign Affairs, Trade and Development Canada (DFATD). As part of the reorganization of the DFATD's Trade Commissioner Service, Meena will be responsible for the Aerospace and Defence sector in the Prairies and Northwest Territories Region and is co-located in the Western Economic Diversification office in Winnipeg.

Meena was born and raised in Winnipeg and is looking forward to living and working in her hometown again. With a Bachelor of Commerce in International Business from the University of Manitoba, Meena is returning to Winnipeg following her first posting at the Consulate General of Canada in Rio de Janeiro, Brazil where she worked on the Ocean Technologies and Sporting Events files.

The Canadian Trade Commissioner Service (TCS) helps companies navigate the complexities of international markets and make better business decisions. The TCS is on the ground in more than 150 cities worldwide, gaining market intelligence, uncovering opportunities for Canadian companies and helping reduce business costs and risks. The TCS is a free service of the Government of Canada, helping companies prepare for international markets, assess market potential, find qualified contacts and resolve business problems.

The TCS network of international contacts is unbeatable. As part of DFATD, and Canada's network of embassies, the TCS has access to local governments and key business leaders and decision makers. It can help increase the credibility of Canadian companies in foreign markets, helping them gain access to local contacts not readily available to outside businesses.

The regional network is the domestic arm of the TCS and consists of five regional offices in Vancouver, Calgary, Toronto, Montreal, and Halifax, plus an expanded network of single-person client service satellites. The TCS's new regional business model places an emphasis on providing Canadian companies with customized and sustained service for the benefit of clients and

the Canadian economy.

TCS insights can help Canadian companies save time and money by avoiding costly mistakes that can result from trial and error. Trade commissioners often know what questions businesses need to ask but may be unaware of. Research shows that companies that use TCS services are more successful than those that don't: the value of their exports is 18 percent higher, and they access 36 percent more markets.

The TCS has hands-on knowledge that comes from helping thousands of companies each year pursue opportunities in foreign markets. Trade commissioners understand the sensitivity of your business information and respect its confidentiality. Whether you're looking to export, invest abroad, attract investment or develop innovation and R & D partnerships, TCS international business professionals can help.

Learn more at www.tradecommissioner.gc.ca.

Access free TCS market reports:

www.tradecommissioner.gc.ca/eng/market-report-access.jsp



Meena Bhullar

MANITOBA AEROSPACE ALL-STARS AWARDS OF EXCELLENCE DINNER



The 12th Annual Manitoba Aerospace All-Stars Awards of Excellence Dinner took place on Thursday, November 21 at the Victoria Inn in Winnipeg.

The dinner was a great success and raised more than \$15,000 for the Manitoba Aerospace Students Awards Endowment Fund.

Congratulations to all of the award recipients. Listed are this year's winners.

Bill Fraser

(Retired) Chair
of Aviation &
Aerospace at Red
River College
- Stevenson
Campus

***Award of
Excellence for
Education and
Training***



(L-R): Vic Gerden, WestCaRD; Brent Ostermann, StandardAero; Kevin Kanter, GE Aviation; Daniel Verreault, GE Canada

Testing, Research and Development Centre -
GE/StandardAero/WestCaRD

***Award of Excellence for Teamwork and
Technology Development***



Boeing 787 Main Landing Gear Door Integrated
Material Handling System

***Award of Excellence for Teamwork and
Innovation***

(L-R): Sandra Reich, Patrick Lestition, Todd Dobson, Anthony Cerasani, Mark Winston, Shawna Kulbaski, Troy Morin, John Stefansson, Christian Fay, Jeremy Solodky, Brad Nerbas, Andrew Murtomaki, Antonio Ferreira

Missing from photo: Kevin Jaworenko, John Yestrau, Donald Girard, Renato Santos, Darryl Kehler, Darcy Messner, Bryan Sprange, Richard Nakka, Deepak Bali, Ola Adegunju, Richard Campbell, Deepak Bali, Olasunmisi Adegunju, Garth Kummen, Dave Boonstra



TECHNOLOGY GROWTH IN MANITOBA VIA THE GE AVIATION TESTING RESEARCH AND DEVELOPMENT CENTRE IN WINNIPEG

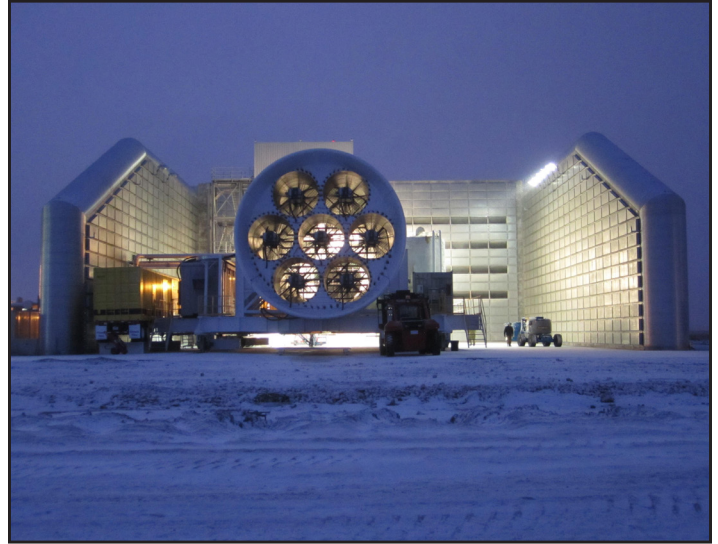
Less than three years ago it was a barren, open piece of land at the north end of the James A. Richardson International Airport in-field. And now it is a world-class GE Aviation Engine Testing Research and Development Centre that is in its third season of testing the world's newest, greenest, high technology engines for the world's largest aircraft engine manufacturer, GE Aviation.

And the successes to date reflect the capabilities, dedication and efforts of the talented folks at one of the largest maintenance repair and overhaul (MRO) companies in the world - StandardAero – a company that has brought economic benefits to Winnipeg for over 100 years. The third entity in this story is WestCaRD, a Non-Profit-Organization that has become a key facilitator of the continued growth of GE's footprint in Manitoba.

This is an impressive success story that has already garnered a prestigious award from the Canadian-American Business Council in 2012 and recently received an All-Star Award of Excellence for 'Teamwork and Technology Growth' from the Manitoba Aerospace Association.

So, here is a brief update and overview of this 'good-news' story so far. The project began when GE and StandardAero came to an agreement in early 2011 with the understanding that it would be a win-win arrangement for both companies to collaborate in building and operating an engine testing facility in Winnipeg that would reliably provide engine icing certification capabilities for GE's newest engine families.

From the outset of this project, StandardAero engineers and technicians demonstrated why the StandardAero company has been in business for over 100 years – talented, knowledgeable, and dedicated people. StandardAero engineers, with guidance from very experienced and talented GE engineers, project managed the construction of this amazing engine testing facility in an incredibly short time - from April to December 2011 – an impressive feat. And when the test Centre was



GE Aviation Engine Testing Research and Development Centre

'turned on' in January 2012, everything worked as advertised! Since then, development and certifications test are being performed on the world's newest aircraft engines, such as the GENx-1B, GENx-2B and GE-Honda engines.

And now the new icing testing season is upon us. Who would have anticipated a couple of years ago, the exciting reality that the GE's newest engine – the LEAP-X that is destined for the future 737 Max and 320neo aircraft, would be coming to Manitoba for development and certification testing. As well, the new GE Passport engine destined for the new Bombardier business aircraft, will soon come to Winnipeg for testing. These are important new engine models incorporating the newest available weight and fuel-saving technologies. All of these engines will require repair and overhaul in the future – and StandardAero in Winnipeg will be well positioned to do that MRO work.

So where does WestCaRD come into this picture? WestCaRD, with equipment funding contributions from Western Economic Diversification Canada (WD) has invested in additional specialized equipment at the TRDC that brings new technologies to Manitoba and maximizes year-round usage of the Testing Research and Development Centre (TRDC), The WestCaRD equipment will support

TECHNOLOGY GROWTH IN MANITOBA VIA THE GE AVIATION TESTING RESEARCH AND DEVELOPMENT CENTRE IN WINNIPEG



developmental and certification testing such as ingestion testing including hail and bird ingestion, performance testing, and endurance testing.

Within the next few months, special engine handling equipment and an advanced lighting system will be added to facilitate even greater year-round utilization of the facility.

The latest project also involves creation of a new CFM56 Engine Development and Evaluation facility within StandardAero to enable engine development work as well as new repair technique development on one of the most prevalent engines in the business. StandardAero's investment in this new Engine Development and Evaluation facility will raise StandardAero's already impressive engine repair technical capabilities to yet another higher level of engine development and repair and will create even more growth opportunities for StandardAero in Manitoba.

WestCaRD is also fostering the development of the specialized workforce needed in the testing and propulsion sector, by supporting the Engineer-in-Residence program at the University of Manitoba in collaboration with the government of

Manitoba and our colleagues from EnviroTREC. WestCaRD is also facilitating R&D projects involving researchers at the University and Red River College.

WestCaRD will continue to work closely with the Manitoba Aerospace Association, industry, educational partners, and all levels of government to foster economic growth through technology development in Manitoba - in true collaborative fashion so indicative of our collegial Manitoba environment.



Icing Tunnel in Action

CORMER GROUP INDUSTRIES IS EXPANDING IN MORE WAYS THAN ONE

As part of their Blue Sky growth and diversification strategy, Cormer Group Industries is expanding with new clients, new contracts and new facilities.

A new facility in Miramichi, New Brunswick will support defence production while the Queretaro, Mexico expansion will focus on aerospace. Leading and supporting these new operations will help grow the workforce in Winnipeg, where the company is also developing new composites manufacturing capabilities. A number of milestones were reached in November, including successful Airbus and FACC certification audits.

Along with all this development have come new and renewed aerospace contracts and clients, including Magellan Aerospace (Wire Strike Protection System), Boeing (767, 747, F18), FACC, Latecoere and Bombardier.

With two new locations, five new customers, and 12 new contracts, there is much challenging work ahead for Cormer, but the future has never looked brighter.



MANITOBA AEROSPACE ASSOCIATION GOLF TOURNAMENT

The Manitoba Aerospace Association held its 3rd annual golf tournament on Thursday, September 12, 2013. It took place on a sunny afternoon at Larters at St. Andrews Golf and Country Club.

The tournament was a Texas scramble and raised over \$10,000. The money raised will be put towards the Aerospace Student Awards Endowment Fund.

The following photos are some of the teams who participated in the day's tournament.



MAGELLAN AEROSPACE, WINNIPEG CELEBRATES TWO MILESTONES



'Reach for the stars' is often used as a saying to motivate and encourage. However, for the Space department at Magellan Aerospace, Winnipeg, this is simply 'business as usual'. Over the past year, Magellan Aerospace, Winnipeg has celebrated two important milestones in its Space division.

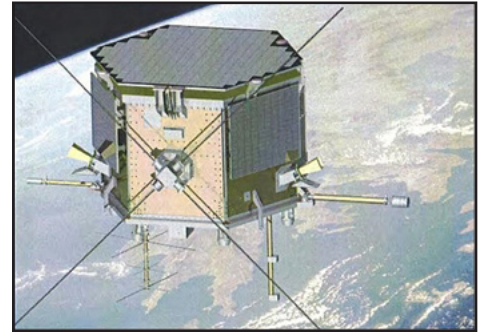
On September 29th, 2013 a Space Exploration Technologies [SpaceX] Falcon 9 launch vehicle departed its sea-side launch pad at Vandenberg Air Force Base in California and carried the CASSIOPE (CAscade SmallSAT IOnospheric Polar Explorer) spacecraft into orbit. This successful launch marks the culmination of a decade-long program for Magellan.

CASSIOPE is the second satellite designed and built by Magellan, and constitutes the first flight of the MAC-200 Small Satellite [SmallSAT] Bus platform. CASSIOPE builds upon the heritage established from Magellan's SCISAT spacecraft, which remains fully-operational after 10 years in orbit, and the many Black Brant payloads that Magellan designed and built during its three decades of supporting Canadian space science and research.

The Magellan MAC-200 spacecraft bus provides the infrastructure required to support payload operations in space. This includes the physical structure, power generation and control, a custom-

designed computer and associated software to control the spacecraft in flight, thermal control, communications, and the sensors, actuators and algorithms required to steer the spacecraft so that the various science instruments see what they are interested in.

ments from an international team of scientists lead by Dr. Andrew Yau at the University of Calgary. These instruments are collectively known as ePOP (Enhanced Polar Outflow Probe) are already providing data from orbit that allow scientists to study the interaction of the solar wind with the Earth's magnetic field and upper atmosphere.



CASSIOPE In-Flight (Artist's Rendition)

The CASSIOPE orbit varies in altitude from 318 to 1500 km. In comparison, the International Space Station flies at 400 km. CASSIOPE makes 14 orbits a day, and flies over Winnipeg on a regular basis. Engineers from Magellan's space group have already spotted it in the late evening sky (no telescope required).

CASSIOPE flight telemetry has confirmed the spacecraft bus to be performing flawlessly; a testament to the dedication, professionalism, and skill of the entire Magellan team (past and present) who have contributed to making the mission possible, and ultimately successful. We are now looking forward to the first scientific discoveries that can be attributed to CASSIOPE!

Also this year, Magellan Aerospace was awarded a \$110M contract, its largest Space contract in history, for the manufacture, integration and test of three spacecraft buses for the Canadian Space Agency's RADARSAT Constellation Mission (RCM) program. This contract with MacDonald, Dettwiler and Associates Ltd (MDA) calls for delivery of the three buses at T0 + 28, 40 and 48 months. This is the largest and most elaborate space program undertaken to date by Magellan, and will present numerous challenges for our team.

The RCM spacecraft will provide Synthetic Aperture Radar (SAR) data and imagery to support maritime surveillance (ice, wind, oil pollution and



First launch of the SpaceX Falcon 9 v.1.1 Rocket – Credit SpaceX

CASSIOPE carries 8 scientific instru-



MAGELLAN AEROSPACE, WINNIPEG CELEBRATES TWO MILESTONES

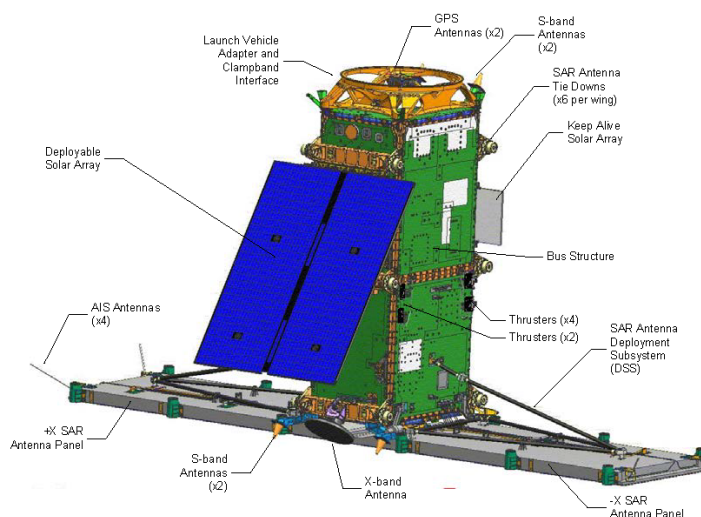
management (mitigation, warning, response and recovery); and ecosystem monitoring (forestry, agriculture, wetlands and coastal change monitoring).

To augment the surveillance of maritime traffic in Canada's coastal regions, RCM will also include an Automatic Identification System (AIS) instrument for ship identification and detection.

Magellan's role in this major CSA program is to design and build the three buses which will support the SAR payloads in a low earth orbit of 600 km. The Magellan bus will provide SAR payloads with everything they need to perform their seven-year mission including electrical power, command and control, attitude and orbit control, thermal control and a structure that will survive launch shock, vibration and acoustic loads.

The RCM is considered an "operational" mission, meaning that on-orbit system availability and over all system reliability are extremely high. These requirements flow down into Product and Quality Assurance, and generally imply a significant level of customer oversight and documentation.

In addition to the technical challenges faced by the engineering team, there will be purchasing, manufacturing, project management and product assurance challenges faced by all members of the Magellan team as RCM relies on products and services to be supplied from around the world to meet the mission cost, schedule and performance requirements. The RCM program is another step towards firmly establishing Magellan as a world class supplier of space products and services.



The RCM spacecraft with deployed SAR antenna and solar panels

Frequently Asked Question:

WHAT IS A SATELLITE BUS?

From Wikipedia, the free encyclopedia

A satellite bus or spacecraft bus is the general model on which multiple-production satellite spacecraft are often based. The bus is the infrastructure of a spacecraft, usually providing locations for the payload (typically space experiments or instruments).

They are commonly used for geosynchronous satellites, particularly communications satellites, but are also used in spacecraft which occupy lower orbits, occasionally including low earth orbit missions.

A bus-derived satellite would be used as opposed to a one-off, or specially produced satellite. Bus-derived satellites are usually customized to customer requirements, for example with specialized sensors or transponders, in order to achieve a specific mission.

A bus typically consists of the following subsystems:

- Command and Data Handling (C&DH) System
- Communications system and antennas
- Electrical Power System (EPS)
- Propulsion
- Thermal control
- Attitude Control System (ACS)
- Guidance, Navigation and Control (GNC) System
- Structures and trusses
- Life support (for crewed missions)



NEW! Earn a Post Baccalaureate Certificate in **AEROSPACE PROGRAM MANAGEMENT.**

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- Learn how to manage complex projects from analysis through to contract and implementation.
- Develop skills in aerospace production and operations including managing a product's life cycle, program management and systems engineering.

Call **204-474-6400** for details and information on the next start date.



SINGAPORE AIR SHOW



Serving as a portal to Asia, the Singapore Air Show (SAS) has become the region's largest and most important aerospace and defence exhibition. Held biannually at Changi Exhibition Centre, adjacent to Singapore International Airport, the show attracts approximately 900 exhibitors and 45,000 business visitors from around the world.

The Provincial Department of Jobs and the Economy has reserved a six square meter booth in the Canadian Pavilion for the 2014 show and is offering to share this space at no charge with Mani-

toba companies attending the show. A limited number of daily show passes are also available free of charge.

Qualifying companies with less than 50 employees can apply for financial support of 50% of airfare and eligible marketing costs up to \$5,000 under the 'Stream 4 – Market Access' component of the Manitoba Commercialization Support for Business (CSB) Program. See the online program guide at http://www.gov.mb.ca/ctt/busdev/financial/csb/csb_guidelines.pdf.

Interested companies should contact Robert Manson at 204 945-8741 or via email (robert.manson@gov.mb.ca).



SINGAPORE AIR SHOW

Companies registering for the show are entitled to access meeting rooms and the reception area in the Canadian pavilion. The Department of Foreign Affairs, Trade Development Canada (DFATD) is coordinating a program at the show as follows:

- a) Sunday Feb 09 – Reception at the Official Residence for all Canadian companies and targeted foreign companies;
- b) Monday Feb 10 – Meet the Trade Commissioner event– opportunity for Canadian companies to meet one on one with our participating trade commissioners;
- c) Tuesday Feb 11 – Best Practices Discussion Panel – Canadian Consulate;
- d) Tuesday Feb 11- Friday Feb 14 - Targeted, pre-arranged 20 min B2B meetings.

Canadian clients must register with DFATD to participate in these DFATD programs and to join the Canadian aerospace delegation to SAS 2014. Once registered, you will receive email updates on planned activities, market information and key Canadian anchor events.

Registration is now live through the Trade Commissioner Events Page Website at <http://www.tradecommissioner.gc.ca/eng/document.jsp?did=146341>

For additional information, contact Lynn Cranston, Trade Commissioner Aerospace Practices, lynne.cranston@international.gc.ca, 613-944-2995.

MAA WELCOMES NEW ASSOCIATE MEMBER - POINTMAN CANADA LTD.

Federally incorporated in 1999, PointMan Canada Ltd has delivered outstanding and wide-ranging services to a broad range of public and private sector clients. Recent growth initiatives have included business strategies developed for the India marketplace including strategic investment planning and aviation vocational training initiatives. PointMan services include strategic/investment planning; market research, analysis and capture strategy development, and relationship building.

With extensive experience in government and business strategic planning, market research and competitive analysis PointMan works with clients through a structured process to develop and then assist in the implementation of investment plans or to develop winning capture strategies within existing, or in new product areas or segments. Implementation of investment plans or capture strategies typically requires extensive and effective relationship building, an area in which PointMan has over thirty years of demonstrated suc-

cess within private and public sector environments and in joint industry/government initiatives. Strong, focused and productive internal, multi-organizational and government/industry teams have been established and energized to produce outstanding results.

Building relationships and motivating teams requires facilitation skills that have been proven in national and international forums by PointMan as a representative of Canada, DND, or private firms in a variety of R&D, advanced technology, and business development environments. PointMan has organized, as well as developed and delivered promotional presentations in formal aerospace and defence user group communities and in government sponsored symposia and workshops in North America, Europe, India and the Far East.



PointMan Canada Ltd

MAA WELCOMES NEW ASSOCIATE MEMBER - CAPITOL STEEL



Capitol Steel is a structural steel fabricator and installer for buildings, bridges and other civil infrastructure. Located in Winnipeg, Manitoba, Capitol Steel serves a diverse Canadian and US customer base.

From its beginnings in 1998 as Capitol Welding, Jeff Ganczar, President, and his team have built this company into Capitol Steel Corporation. During this time they moved from mobile welding to the current 65,000 square foot plant.

Capitol Steel Corporation is a modern company with good old fashioned work ethics, and a strong

vision to be the most respected company in their industry, renowned for Excellence, Leadership and Unsurpassed Value.



MAA WELCOMES NEW BOARD MEMBER - MIKE EASTON

Kevin Bartelson, GM Boeing Canada Winnipeg and President of the Manitoba Aerospace Association (MAA) would like to welcome Michael (Mike) Easton, President and CEO of Argus Industries Ltd. to the board of the MAA. Mike was elected to the Board for a two year term at the MAA/MAHRC Annual General Meeting on October 3rd.

Mike has been with Argus for 16 years and is a strong believer in LEAN. Recently he travelled to Liverpool, UK to spend two weeks working with Jaguar / Land Rover at the world class "LEAN Learning Academy". Mike also holds a Bachelor of Science degree in Environmental Science from the University of Winnipeg.

As a life-long-learner and industry leader, he is a member of YPO (Young Presidents' Organization), an international organization of CEO's that helps grow and expand member's skills in business and life, and he has been a member of TEC Canada (The Executive Committee) for over 12 years. Mike also belongs to the Manufacturers Executive Council (MEC), and he has recently joined the board of directors for the Canadian Manufacturers & Exporters (CME).

Mike is also very involved with the community and has been serving on the Board of Directors of YFC (Youth for Christ) Winnipeg, a non-profit organization responsible for the "Centre for Youth Excellence" on Main & Higgins, for the past eight years.



Mike Easton

Argus Industries is a manufacturing company with an exciting edge. Based in Winnipeg, Argus has been providing quality elastomeric products since 1962. Today, among other things, they manufacture a variety of high-tech injection molded rubber and plastic products, custom die-cut gasket seals, and CNC machined metal parts for aerospace, military, and industrial customers around the world.

In 2007 Argus received an MAA All-Star Award for Excellence in Quality and Teamwork and in 2008 they received the Manitoba Business Quality, Best Practices Award.



COMMERCIALIZATION SUPPORT FOR SMEs

Western Economic Diversification Canada recently announced an initiative to support small and medium-sized enterprises (SMEs) in western Canada to commercialize innovative technology-based products, processes and services.

The Western Innovation Initiative (WINN) is a \$100 million five-year federal initiative that offers repayable contributions for SMEs with operations in Western Canada to move their new and innovative technologies from the later stages of research and development to the marketplace.

Repayable contributions will be available to SMEs that meet the following mandatory criteria:

- Businesses incorporated to conduct business in Canada;
- Less than 500 full-time equivalent employees;
- Have been in operation for at least one year;

- Have operating facilities located in Western Canada (defined as British Columbia, Alberta, Saskatchewan or Manitoba);
- Have a viable plan to commercialize (i.e., generate revenues from sales) an innovative, technology-driven, new or improved product, service or process within three years of project commencement;
- Have sufficient intellectual property rights to carry out the proposed project and to commercially exploit the results of the project; and
- Have confirmed, at the time of application, funding from all other sources, including government and non-government (non-government funding must represent at least 50 percent of the proposed project costs).

For more information please visit www.wd-deo.gc.ca or call 1-888-338-WEST (9378).

WELCOME ABOARD CRYSTAL

We want to extend a warm welcome to Crystal Johnston who joined the MAHRC Executive in September 2013. Crystal brings the knowledge and expertise of a Small to Medium Sized Enterprise (SME) to our table and we are pleased to have her as part of our team.

In 2001, Crystal started with Standard Manufacturers Services Limited in accounting and then, in 2006, she also took on the responsibility of Human Resources for the company.

Crystal is the mother of two young children and her husband teaches welding at R.B. Russell High School.

We look forward to working with Crystal as MAHRC enters the third decade of providing training and development services to the Aerospace and Defence sectors in Manitoba.



Crystal Johnston

MAGELLAN WINS ENGINEERING AWARD FOR CASSIOPE



On Friday, October 25, 2013, at a gala event in Winnipeg, Magellan was selected as the winner for the Team Achievement Award by the Association of Professional Engineers and Geoscientists of Manitoba (APEGM) for the CASSIOPE Spacecraft Bus Design, Manufacturing and Delivery.

This award recognizes engineering or geoscience excellence in, and major contributions to, the concept, design, and implementation of an engineering or geoscience work by a member, or group of members, of the Association.

The CASSIOPE project was groundbreaking in that it is Canada's first, fully redundant, scientific small satellite, and likely one of the most capable fully-redundant small satellites in the world. The project pushed the boundaries of what was thought to be possible in a small satellite and has dawned a new era in spacecraft performance and reliability in a small spacecraft package for Canada.

Congratulations to Magellan's CASSIOPE team!



First Row (L-R): Walter Czyrnyj, David O'Connor, Corey Mack, Don McNabb

Second Row (L-R): Marcia Friesen (APEGM President, 2013-14), Dawn Nedohin-Macek (APEGM President, 2012-13), Courtney Skene-Hamilton, Andrea Legary, Ian Walkty, Diane Kotelko, Julia Wiebe, Ganpat Lodha (Awards Committee Chair at APEGM)

Third Row (L-R): Raymond Harris, Steve Page, Mike Fox, Grant Koropatnick (APEGM Executive Director & Registrar)

Fourth Row (L-R): Philip Ferguson, Dale Oleschuk, Brent Parker, Vojtech Balaban

Fifth Row (L-R): Harold Dahl, Dave Beattie, Greg Zajac, Erick Furst, Orville Desjarlais, Ray Linao, Larry Beaucage

HUMAN RESOURCES MANAGEMENT ASSOCIATION OF MANITOBA'S ANNUAL EXCELLENCE IN LEADERSHIP AWARDS

Human Resources Management Association of Manitoba's (HRMAM) presents the Excellence in Leadership Awards Gala on April 9, 2014 in Winnipeg showcasing outstanding Human Resource achievements.

Know someone you would like to nominate?

Deadline for submissions is **January 17, 2014**

Visit www.hrmam.org for details or contact Laura Haines at lhaines@hrmam.org or phone 204.943.0882.





MANITOBA AEROSPACE EVENTS 2014

Mission to Japan (AIAC/DFATD)

Japan

January 25-February 1, 2014

MRO Mission to Indonesia (DFATD)

Indonesia

February 6-7, 2014

Aerospace Trade Mission to Singapore and China (AIAC/DFATD)

Singapore, Hong Kong, Beijing, Tianjin, Shanghai

February 9-21, 2014

Singapore Air Show

Singapore

February 11-16, 2014

SME Day – Navigating Defence Procurement in Canada (CADSI)

Ottawa, Ontario

February 18, 2014

PNAA 2014 Aerospace Conference (Pacific Northwest Aerospace Alliance)

Lynwood, Washington

February 4-6, 2014

Commercial Aviation Suppliers Conference

Beverly Hills, CA

March 3-5, 2014

Aerospace and Defense Supplier Summit

Seattle, Washington

March 11-13, 2014

Space Tech Expo

Long Beach, California

April 1-3, 2014

Sea-Air-Space 2014

Washington, DC

April 7-9, 2014

Destination 2022 – 7th CRIAQ Research Forum

Montreal, Quebec

April 16-17, 2014

Aerospace and Aviation in Manitoba Day (AAiM Day)

Stevenson Campus, Winnipeg, Manitoba

May 23, 2014

Manitoba Aerospace Week 2014

Manitoba

May 26-29, 2014

CANSEC

Ottawa, Ontario

May 28-29, 2014

Farnborough International Air Show

Farnborough, UK

July 14-20, 2014

Aerospace, Defence and Security EXPO

Abbotsford, BC

August 7-8, 2014

MAA Golf Tournament

Larters at St. Andrews Golf & Country Club

September 11, 2014

LandForces 2014

Brisbane, Australia

September 22-25, 2014

International Astronautical Congress

Toronto, Ontario

September 29-October 3, 2014

2014 Canadian Aerospace Summit

Ottawa, Ontario

November 18-19, 2014

*Wishing you and yours a safe
and happy holiday season!*