

Society of Allied Weight Engineers, Incorporated

Serving the Aerospace • Marine • Offshore • Land Vehicle • Allied Industries



The Canada Chapter of SAWE welcomes members, industry, and academia to the

2016 Canadian Regional Conference on Mass Properties Engineering

November 4-5, 2016

*Hotel Omni Mont-Royal
Montreal, Quebec, Canada*



Guest Speaker

**Marc-Andre
Valiquette**

Author & Publisher of:

*"Destruction of a Dream, the tragedy of
Avro Canada and the CF-105"*



2016 Canadian Regional Sponsors and Exhibitors

GOLD LEVEL SPONSOR



SILVER LEVEL SPONSOR



BRONZE LEVEL SPONSORS



META MPE LLC

EXHIBITORS



Schedule

Thursday Nov.3	Friday Nov.4	Saturday Nov.5
SAWE Board Meeting	Technical Session	Mass Properties Training
<ul style="list-style-type: none"> - International Board members and 2016/2017 Conference Planning Team (<i>by invitation only</i>) 	<ul style="list-style-type: none"> - Attendee Registration - Guest Speaker - Technical Papers/Presentations - Vendor Exhibits/Presentations 	<ul style="list-style-type: none"> - Mass Balancing of Flight Control Surfaces (2 hr.) - Basic Mass Properties Measurement (2 hr.) - Aircraft Fuel Calibration (4 hr.)

Registration & Fees (\$US dollars)

On-line registration and credit card payment option will be available through **RegOnline**. (click on “**REGISTER NOW**” button below)

The last day for early registration for the conference and to guarantee the special hotel rate is October 12, 2016.

• **Conference Technical Session fee (no fee for presenters):**

SAWE members = \$60 (\$30 for retired members)

Non-members = \$140

Students = \$10

• **Full Day Mass Properties Training fee:**

SAWE members/retirees = \$50

Students = \$10

SAWE Membership and renewal is available on-line through SAWE store.

- Additional \$20 late fee for all registrations after October 12, 2016

REGISTER NOW

Registration Coordinator: Jerry Ramos (jean.jewry.amos@aero.bombardier.com)

Hotel and Transportation

Hotel Reservations:

The regional conference will be held at the Hotel Omni Mont-Royal, located on Sherbrooke Street in downtown Montreal.

The hotel is only steps away from some of the best dining in the city of Montreal, fabulous night life, and gift shopping. This hotel reflects a chic, casually elegant ambience from plush beds and soft colors, to marble bathroom counters and modern desk chairs as well as bold styling in all guest rooms. SAWE guests will enjoy free internet service in their guest room with enrollment to the Omni Select Guest program. *(This can be done prior to arrival via the omnihotels.com website or done at check in...a valid email address is required)*

The hotel has an outdoor pool, a spa, and fitness center.

We have provided special rates during your stay. All bookings may be made online to receive your special negotiated rate by clicking the "**BOOK NOW**" button below.

Dates:	November 3 - 5, 2016
Additional Dates:	October 30 - November 8, 2016
Group Rate:	Deluxe Rooms: \$169.00 CDN + applicable taxes
Parking:	Self-Parking: \$17.75 CDN/day Valet Parking: \$29.00 CDN/24hr period incl. in/out privileges
Book By:	October 12, 2016

[**BOOK NOW**](#)



Hotel Omni Mont-Royal
1050 Sherbrooke Street West.
Montreal, Quebec, Canada H3A-2R6



Hotel Coordinator: Kathy Lacroix (kathy.lacroix@aero.bombardier.com)

Transportation Options: from the airport to hotel

<http://www.admtl.com/en/access/taxis-limousines>

- Taxi service: approximately \$40 CAD, flat fee, one way
- Limousine service: approximately \$55 CAD + taxes, one way

Be sure to ask the driver for the fixed rate to downtown. Warning: If they turn on the meter, they may expect you to pay that instead at the end of the trip. Just check to be sure that the meter is off. Taxis are now required by law to accommodate electronic payments. This may sound funny, but some taxi drivers may still refuse anything but cash, so be sure to check when you get in that payment by credit card is ok. They are also not allowed to ask for any additional fees for accepting an electronic payment.

- Public transportation: **Express bus 747** - \$10 CAD, one way, includes a 24hr pass on the metro system (STM)



The 747 bus runs 24 hr per day on a set schedule between the airport and the bus station downtown, with a number of stops along the route.

If there are just one or two of you and don't mind a short walk when you arrive at the right stop, this is certainly the cheaper of the travel options.

The map of the 747 route is on the inside sides of the bus above the windows, and lists all the hotels and the recommended stations for each one.

Rue Peel is the correct stop for the Omni.

Follow the signs hanging on the ceiling, or the ones all over the floor to where the 747 bus stop is. There are automated machines close to the door to outside for buying the 747 pass. The STM (Montreal's public transit system) has a booth at the airport with people to help visitors pick the right fare and help them with any questions, using the STM machines, etc.

Transportation options: at the hotel

- Car rental: available through hotel concierge service
- 3-minute walk to the Montreal Metro System (Peel station)
<http://www.stm.info/en/info/networks/metro>

Transportation Coordinator: Paul Newsham (paul.newsham@aero.bombardier.com)

Technical Session (Friday, Nov.4)

Please contact Whidy Kiskunas (Chapter Director & Technical Program Chairman) at vidas.kiskunas@utas.utc.com if you interested in making a 30 minute technical presentation during the technical session or to refer others.

Please note there will be no training on Friday.

2016 SAWE Canada Regional Conference Technical Presentations (as of 8/17/2016)

A Recommended Weight Margin Approach for Wet Undersea Vehicles

(Presented by: William Boze, Newport News Shipbuilding)

Abstract: Small “wet” undersea vehicles are very sensitive to weight and buoyancy changes. Thus, wet vehicles need the application of both an uncertainty margin for both weight and buoyancy prediction during the design development phase. Classical margin approaches for large dry submersibles vehicles do not address buoyancy uncertainty since the pressure hull (which provides the majority of the buoyancy) is established early in the design. Therefore, margin approaches that address both weight and buoyancy uncertainties are needed.

Building a Team to Drive Innovation – A Hyperloop Example

(Presented by: Graeme Klim, Masters Engineering Candidate, Ryerson University)

Abstract: A number of student and non-student teams participated in a [Hyperloop pod competition](#) on Jan-2016, and at least 22 of them will build hardware to compete on a sponsored hyperloop test track in Jan-2017.

One of these teams, **Ryerson’s International Hyperloop Team (RIHT)** won the sub-system Innovation Award for their **Hyperloop Deployable Wheel System (HDWS)**.

This RIHT presentation will focus on the design evolution of the HDWS and how the team benefited from various company sponsorships to build on its already innovative project. It will also provide some general information about the potential use of this “fifth mode of transportation”, theoretical basis, and technical hurdles that need to be overcome.

You can learn more about Ryerson’s team at their website: www.ryersonhyperloop.ca

This page will be updated as presentation titles and abstracts are received...please check the website (www.sawe.org or www.sawe.ca) for updates!

Technical Program Chairman: Whidy Kiskunas (vidas.kiskunas@utas.utc.com)

Training Day (Saturday, Nov.5)

Mass Balancing of Flight Control Surfaces (8am - 10am)

(Instructor: Cviko Vidakovic)

This short course will provide the basic theory behind the balancing of moving surfaces, flutter, and aeroelasticity. Discussion and demonstration of moving surface moment theory, requirements, suggested forms/log sheets, and review of existing SAWE reference material.

Basic Mass Properties Measurement (10:15am – 12:00noon)

(Instructor: Jerry Pierson)

This session will feature weight and balance topics and is intended to be mostly a hands-on class demonstrating basic mass properties measurements. This class is geared for new Engineers or students who have never:

- Measured density of solids and liquids
- Measured center of gravity of vehicles
- Measured moments of inertia
- Measured ship center of gravity and had stability explained

Aircraft Fuel Calibration (1:00 pm – 5:00 pm)

(Instructor: Jerry Pierson)

This class will cover the basic fuel usage process; including fuel quantity per tank measurement, fuel gauge calibration, usable and unusable fuel, and all aspects of fuel usage determined on the ground.

REGISTER NOW

Training Coordinator: Tony Lyczko (anthony.lyczko@aero.bombardier.com)

Vendor Registration

Vendors and suppliers are invited to participate in our conference. Exhibit space is available on Friday, November 4th to showcase your products, services and new technologies. Time will be allocated during the technical sessions for each vendor to give a brief presentation. Longer presentations may be coordinated through our technical coordinators. Vendor provided training in the use of a particular service or product can also be arranged. Please contact Rod vanDyk for information or to sign up as a vendor and/or sponsor.

Exhibitors:

A **\$500 (US\$)** Exhibitor fee is required to have a vendor display table at our conference. As an Exhibitor your company's name and logo will be included in our advertisements and Program. You will be provided sufficient space within our Exhibit Area to display your products and/or literature.

Sponsorships:

As a Sponsor, your company's name and logo will be included in our advertisements and Program. Announcements will be made at the conference recognizing your company's sponsorship. Sponsorship opportunities include:

- **Platinum: Conference level sponsorship @ \$1,500 (US\$)**

Your company's name and logo will be prominently displayed at the entrance to the Conference. Advertisements will include the statement, "2016 Canada Chapter Regional Conference Sponsored By <Your Company Name>." Recognition will be given at the conference opening, including the opportunity to give the keynote address.

- **Gold: Friday hosted luncheon @ \$1,000 (US\$)**

As the Gold Sponsor, your company will be the sole sponsor of the conference luncheon. Your representative will be publicly recognized and thanked at the beginning of the luncheon. Your company's name and logo will be prominently displayed in the luncheon area.

- **Silver: Friday morning & afternoon breaks @ \$500 (US\$)**

Your company's name and logo will be prominently displayed in the break areas.

- **Bronze: Saturday Training breaks @ \$300 (US\$)**

Your company's name and logo will be prominently displayed in the break areas.

VENDOR/SPONSOR = [REGISTER NOW](#)

Vendor Coordinator: Rod vanDyk (rod.van-dyk@safrangroup.com)