Volume 2015-2016 Edition 2

October 2015



#### **BACK BY POPULAR DEMAND**

# UPCOMING EVENT: 'DEFECTS IN AIRCRAFT DESIGN AND MATERIALS' PRESENTED BY: LARRY RINEK

**WHEN:** November 2, 2015: 6:00-8:00 pm



- WHERE: The University of British Columbia, Kaiser Building, Room 2020/2030, see pg. 3 for a map of the location
- **WHAT:** In case you missed it last year, we've invited Larry Rinek back to give his talk titled 'Defects in aircraft design and materials'.

**Abstract:** Why have preventable mishaps in aircraft occurred (which are not the fault of pilots), resulting in loss of life and property? How are aircraft put into service with potentially fatal control and stability issues? Many of these incidents are directly attributed to human error and negligence in aircraft design as well as processing of materials (manufacturing issues). How can engineers prevent or at least minimize such unpleasant events, thus improving aircraft safety? What lessons can we learn from historical mishaps so that they might be avoided in the future? Answers to these questions will be addressed, in the course of exploring 12 case studies, involving both civil and military famous aircraft programs. We will see in these cases how engineers recovered from hidden defects (discovered downstream via aircraft mishaps), and developed workable solutions.

**RSVP:** Please RSVP via this link: <u>RSVP</u>

**COST:** Free for all students, and SAE BC members, \$10 for non-members



Refreshments will be provided.

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- Colin Keddie
- Treasurer: • Stuart Evans

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# SUMMARY OF LAST EVENT: 2015 SAE BC Student Night

On October 5, 2015 SAE BC hosted the annual Student Night at the new SFU Surrey Campus. It gave the student teams from across BC a chance to show off their projects and discuss plans for the future. Each team was entered into a chance to win up to \$2000 from SAE BC. The event started with a chance to chat with attendees and enjoy the complimentary refreshments followed by presentations from the student teams.

The first team to present was BCIT's Baja team. Jeff and Sanesh presented the results from their first ever event, which was held in Portland, Oregon. Some of their highlights included their custom designed and built gearbox and 'in the field' repair to keep their car in the competition. Their goals include improving their existing car for the upcoming 2016 competition and designing and building a new car for the 2017 competition.



Formula SAE from UBC was up next. Scott Bennett presented for their team. They did quite well last year, placing 11<sup>th</sup> out of 79 teams, the best UBC has done since 1995. Their highlights included finishing all their dynamic events and placing in the 'Top 10' engineering drawings category. Their goals include maintaining reliability and reducing the weight of their existing car, and designing a new car for 2017.



Arthi, Yasaman, and Jeff presented for the UBC Aerodesign team. The goal of their competition is to lift as much weight as possible within the design constraints. They completed three out of four flights in their last competition with 12.47 lb being their heaviest payload. They placed 22 overall. They currently compete in the 'Regular Class' but plan to compete in the 'Advanced Class' in 2017.

Last but not least was SFU's Formula SAE team presented by Geordie and Perry. They recently acquired a new workspace on SFU's Burnaby campus, which will help them considerably. Their team has slimmed down from 35 to 10 members since last year. Their upcoming goals are to do more Capstone projects related to their car and prepare for Formula North in 2016.



A big THANK YOU from SAE BC to all those students who dedicated their night to sharing their challenges and successes from each of their teams. Sharing lessons learned between teams (and schools!) is important to keep competitive, to advance the designs, and to foster collaboration with fellow West Coast students.

The student teams are always looking for feedback, support, and sponsorship, which may come in many forms. Any industry members who would like to give back to the engineering community, please contact us at info@saebritishcolumbia.org and we will do our best to match you with a team. Teams, as mentioned at the event, please contact us if you are looking for specific support and we can include it in our next newsletter.



# **PHOTO CONTEST**

This season we're hosting a photo contest! Every month we'll announce a theme and encourage members to post photos that exemplify this theme our Facebook page:

https://www.facebook.com/SAEBritishColumbia?ref=bookmarks and tag them with #SAEBC, or email them to: info@saebritishcolumbia.org

Each month a winner will be selected and announced in the newsletter. Each month's winner will receive a \$10 gift card for Starbucks.

#### This month's theme:

#### Advanced materials in mobility

## **UPCOMING EVENT LOCATION**

The upcoming event will be held in room 2020 in the Kaiser Building at the University of British Columbia, 2332 Main Mall, Vancouver, V6T 1Z4

Parking is available in the Heath Sciences parkade enter parkade off of East Mall. The Kaiser Building is directly west (see arrow). You may enter and pass through the Civil Eng./Mechanical Eng. Building (Applied Science/CEME) on the lower floor to reach the Kaiser building.

Click here for a Google Map of the location



# 2015-16 SEASON'S TENTATIVE SCHEDULE

Below is a list of the upcoming events for this season. *Please mark your calendars!* Events are held on Mondays unless stated otherwise. Please note that the Board Meetings are open to anyone. Please let one of the board members know if you are interested in attending and/or getting involved!

2015 October 26	Board Meeting
2015 November 2	Event – 'Larry Rinek: Defects in Aircraft Design and Materials'
2015 November 23	Board Meeting
2015 December 7	Winter Social/Networking Event
2016 January 11	Board Meeting
2016 February 1	Event – Tour of SeaStar Solutions, Richmond, B.C.
2016 February 15	Board Meeting
2016 February 29	Event – 'Jeff Dix: Working Towards 'Virtually Zero' Motor Vehicle Fatalities'
2016 March 21	Board Meeting
2016 April 11	Event
2016 April 25	Board Meeting
2016 May 14	Event – 'LNG: State of Affairs'
2016 June 6	Year-End Social Event

## WELCOME NEW MEMBERS

Let's welcome the following new members to the SAE BC Section for the 2015/16 season:

Trevor Lynch-Staunton Justin Armstrong Alex Pizniur Joseph Bantugon Inderjit Panesar Vaughn Richards Lee Ellis Adam Fishman Victor de la Torre Fe



The BC Section of SAE International is now entering its 60th year, since being officially designated as the SAE British Columbia Group on June 12, 1946. The Section has about 250 regular members with additional student chapter members at UBC, UVic, SFU and BCIT.

The majority of our Members live and work in the Lower Mainland, and represent a wide spectrum of technical interests. We have a regular program of local events, mostly centered in the Vancouver area, although we have had meetings elsewhere in BC on occasion.

## **PROFESSIONAL DEVELOPMENT SEMINARS**

SAE BC has the potential to host professional development seminars locally through SAE International. We are gaging interest in a variety of topics. Please have a look at the link below to see which courses are being considered: <u>https://www.surveymonkey.com/s/XX5NSJ2</u>

## **VISION STATEMENT**

SAE BC will be the active resource to the professional and student community for advancing the level of mobility engineering in the province of British Columbia.

# **MISSION STATEMENT**

To enrich the professional life of the membership by:

- 1. Providing recognized leadership for mobility in British Columbia.
- 2. Creating opportunities for technical meetings, tours, events and continuing professional career development.
- 3. Supporting young membership through mentorship and funding of student activities.
- 4. Communicating through the newsletter, website and timely responses to members.
- 5. Striving for membership satisfaction at every opportunity.