

# Cosmonotes

Summer 1998

The Newsletter of the Canadian Alumni of the International Space University

## President's Message:

Welcome to an exciting summer for CAISU!

Your extremely active board of directors has been busy organizing the biennial CAISU conference October 26 1998, held in conjunction with the CASI conference in Ottawa.

As part of the conference organization, CAISU will be updating its web page at [www.caisu.ca](http://www.caisu.ca). Please check regularly for CAISU updates, ranging from webcasts, information about design projects, the summer session, and the conference planning.

Furthermore, CAISU is involved as an active partner in the Cleveland Alumni conference, July 24-26, 1998.

Finally, the CAISU board, with the help of Li Te Cheng, Adam Mizera and Mark Dejmek will attempt to webcast key events at the Cleveland summer session, including the opening ceremonies, the alumni masquerade ball and the closing ceremonies.

Please join me in welcoming the new Canadian alumni of ISU:

- Marlene Grenon, Medicine, PQ
- Denise Campbell, Medicine, ON
- Thomas McConaghy, Applied Math and Physics, SASK
- Celine Tremblay, Space and Society, PQ
- Jonathan Knaul, Chem Eng., ON
- Isabelle Tremblay, Aerospace Eng., PQ
- Maryam Nikbakht-Sangari, Medicine, BC
- Claude Boulevray de Pasillé, Architecture, PQ

You are welcome (and encouraged!) to attend the **Student Send-Off June 15, 6:30 pm at the Holiday Inn in Cambridge, Ontario**. Please call 416-481-7070 for more information and to RSVP.

Many thanks to all of you for your biographies and updates for the last

version of the Cosmonotes. We plan to publish an exhaustive list of the CAISU alumni once a year in the winter and provide two short update issues (such as this one) in the spring and fall.

Best wishes,

Vivian Welch, M.Sc. ('95)

President 1998

[vwelch@iri.ca](mailto:vwelch@iri.ca)

## CAISU Board of Directors

President	Vivian Welch (95)
Vice Pres	Mark Dejmek (97)
Secretary	Mathias Wuhr (96)
Treasurer	Caroline Goulet (97)
Director CFISU	Matthew Bullock (95)
Director Membership	John Criswick (91)
Dir. Quebec	Adam Mizera (97)
Dir. Ontario	Eric Epstein (94)
Director NSEW	LiTe Cheng (96)

## Design Projects 1998

### Hazards to Spaceflight

The prospect of gaining increased knowledge, wealth, goods and services from space activities is severely threatened by three major hazards to spaceflight: orbital debris, natural meteors, and high energy solar radiation. The hazards to spaceflight design project will focus on producing comprehensive and technically feasible solutions that reduce the threat of these hazards. The co-chairs are Erik Slachmuylders (ESA) and Ray Williamson (Space Policy Institute, George Washington University USA).

### High Orbital Microgravity Environment

Given the recent economic conditions and the environment of doing more with less, space agencies are looking at more radical ways to make space more cost-effective and to favour new

business developments. The HOME design project will challenge ISU students to look beyond the 20<sup>th</sup> century at ways to make access to space economically feasible to space agencies, space industries and space entrepreneurs. The second goal will be to focus the need for more cost-effective access to space for the establishment of low-cost space habitats and platforms, each addressing a specific space application need. The co-chairs are James Burke (NASA JPL) and George Scoon (ESA)

## COMDEV joins as sponsor of CFISU!

CFISU is proud to announce new corporate sponsorship of two summer session students from **COMDEV**. Comdev will sponsor two students per year for the summer session, as well as provide CFISU with an operating budget.

This is an exciting new step in the fundraising activities of CFISU. In addition to sponsoring students, Comdev will host the student send-off, providing students with a firsthand look at their company.

## European Space Agency Young Graduate Trainee Program

Matt Bullock, matthew@yc.estec.esa.nl  
Johanne Heald, johanne@wk.estec.esa.nl  
For any recent graduate who wants to get their feet wet in The Netherlands, the European Space Agency's Young Graduate Trainee (YGT) program may be your diving pad. The program does not involve canals or the North Sea but a one-year contract at one of three European Space Agency locations (ESTEC in Noordwijk, The Netherlands, ESRIN in Frascati, Italy and ESOC in Darmstadt, Germany).

Two Canadian ISU alumni, Johanne Heald (ISU'96) and Matt Bullock (ISU'95), are two of twenty YGTs that began their training period last April at ESTEC (too many acronyms!) The YGTs are selected for projects that cover a wide domain of space-related technological development. At ESTEC, YGTs are involved in projects, but also given time to explore other forms of training. Short training courses in space systems are arranged every year, and there are opportunities to participate in a hands-on way to missions such as the upcoming lunar spacecraft, Euromoon. For the linguistically brave, classes are available in Dutch, as well as a selection of other European languages. Don't worry, though – the official ESA languages are the Canadian standard, English and French.

At ESTEC, Johanne is working on spacecraft guidance, and the deployment of constellations of satellites. Her newly-honed navigation skills are not only handy for space applications, but have been tremendously useful on weekend trips to other European countries. Matt's neurons have been active in the field of life support systems for future space vehicles and stations. He is also taken advantage of his new life support skills on a houseboat in the centre of Leiden.

Most Canadians don't know about the career opportunities at the European Space Agency. Although Canada is not a part of Europe, we have joined the 14 members as a 'collaborative member'. As a result, approximately 20 Canadians are working as full-time staff members for ESA. If you'd like to apply to be a Young Graduate Trainee, contact any ESA centre personnel department for an application form (reminiscent of ISU Summer Session applications. Application deadlines are March 31st and Sept. 30th, since YGT positions are offered twice a year. (If selected, you get a free flight to Europe for the interview!)

Johanne and Matthew not only recommend the YGT program but also the Dutch way of life, including

'stationary' cycling (the winds are very strong), windmill riding, and collecting those really neat Grolsch beer bottles. Dooooo! (Dutch for Good-bye!)

## Revamped [www.caisu.ca](http://www.caisu.ca) Web Site

Thanks to enthusiasm from Li Te Cheng, Mark Dejmek, Adam Mizera and John Criswick, and helped by The Internet Conveyor, CAISU is proud to announce that we will increase our web site server capabilities so that we can place more information on the web.

Eventually, we hope this web site will help spread the word about ISU alumni, as well as provide valuable information for young space enthusiasts. To start, you will be able to find information on previous years design projects, the outline of the CAISU conference, the current board of directors, our governing bylaws and more!

We will be attempting to broadcast key ISU summer session events this summer from the web site- check frequently for updates!

Please get in touch with one of the board members if you can help with the web site or would like to contribute information for young space enthusiasts. Hopefully, the web site will be as dynamic as ISU itself- constantly changing with updated information!

## Collaboration with CASI

As many of you know, the Canadian Astronautics and Space Institute (CASI) has been involved and supportive of ISU for many years. CASI donates the conference space to CAISU for the biennial CAISU student space conference in October. Also, Ian Ross, CASI president, is a member of the Canadian Foundation for ISU board of directors.

CASI would like CAISU members to all consider membership with CASI as another key way to keep in touch with Canadian contributions to space

research and activities. You can check out the CASI web page at: [www.casi.ca](http://www.casi.ca)

## Update on ISU Alumni

**Constance Robinson** (ISU 1988 Boston) and her husband David now have two future ISU students. Linden Olivia Robinson was born on July 20, 1998. A wonderful sister for Eleanor.

**Kristina McConville** has been on Maternity Leave. My husband Kevin and I had a baby girl, Annaliisa Linda McConville on October 2, 1997. She is really delightful. She works for AlliedSignal Aerospace Canada along with several other ISU grads: Eric Epstein, Roland Seurig, Michelle Digiuseppe, Gary Leung. Her responsibility is Space Station electronic controls and sensor design and manufacture for the US modules, JEM and Columbus.

**Lara Srivastava** (ISU 1996) is now in the Netherlands and can be reached at: [laras@sepa.tudelft.nl](mailto:laras@sepa.tudelft.nl)

**Stephen Cheung**, (SSP 94, CAISU pres 1996-98) is completing his post-doc in Aberdeen and has accepted a position as associate professor at Dalhousie University!

## Proposed MSS Scholarship

Most of us were fortunate to receive large scholarships to attend an SSP. As yet, no Canadian assistance has been provided to students attending an MSS session in Strasbourg (some receive partial scholarships from ESA).

Your CAISU Board has agreed in principle to start an Alumni Scholarship fund to assist Canadians who wish to attend the MSS. In answer to the Big Question: yes, we alumni will be asked to consider contributing to this fund's establishment.

More details will follow, as this idea matures. Your feedback would be extremely valuable. Please contact this year's Secretary, Matt Wuhr, with your opinions and ideas on this new initiative at [m.wuhr@telesat.ca](mailto:m.wuhr@telesat.ca).