

August 2000

# Cosmonotes

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The Newsletter of the Canadian Alumni of the International Space University

Le Bulletin des Anciens Etudiants Canadiens de l'Université Internationale de l'Espace

Welcome to the summer edition of your CAISU Cosmonotes! This issue is again jam-packed with alumni events, mayhem, and serious stuff too. You'll find articles from the on-going SSP 2000 summer/winter programme, an update on the International Mars Society convention in Toronto this summer, an invitation to a Toronto summer TOGA, a report on the CFISU student send-off, SSP 2000 design project descriptions, a Radarsat 2 update, an opinion article on managing an ISU design project, an article on a possible future SSP in Canada, a personal article from our own CAISU President, more CAISU membership news, a message from CFISU, the unveiling of the CAISU 2000 T-shirt, and many alumni updates. Also included are articles from ISU in general, such as May activities at ISU central in Strasbourg, the establishment of a North American ISU office, and an update on this year's ISU alumni conference. You'll also find in this Cosmonotes issue several articles describing the various gatherings of alumni across the country or internationally. Please do consider participating in the gatherings, they are for everyone, and also a great way to network! For CAISU members only, included with this issue is the long awaited yearly CAISU Contacts List!

Your contributions keep making this newsletter great, so please keep them coming. Although I work on this newsletter alone, and a lot of effort goes into each edition, it couldn't be published without the help of you, the alumni, staff, faculty and friends of CAISU. I always try to find new and interesting articles to suggest, but having articles plopped in your lap is always oh so more pleasing to an editor. Thank you to everyone who submitted an article for this issue – your contributions are greatly appreciated. Enjoy the issue! And again, feedback is more than welcome.

Chantal Lamontagne SSP 95  
2000 CAISU Membership Director  
Editor, Cosmonotes

## TOGA Sept 16th Toronto Come Fly a Kite!

by Chantal Lamontagne (SSP 95, CAISU  
Membership Director)

The Toronto alumni are meeting once again! CAISU and the local Toronto alumni invite you one and all to gather at Milliken Park on Saturday, September 16th, to enjoy a day out in the sunshine at the Air Canada International Kite Festival. Beverages and a picnic lunch (sandwiches, salads, fruit drinks/pop and watermelon) will be provided by CAISU for the TOGA. There will also be food available at the festival, mostly of Asian influence.

There will be two large demonstration fields where kite events will be held throughout the weekend for the crowd to enjoy, as well as an ample flying area for people to bring their own kites to fill the sky with colour. There will even be kite making workshops for kids.

This 6th annual international kite festival is a free Toronto summer event which brings in international guests, as well as our own Toronto Kite Fliers (TKF), to show off their one-of-a-kind kite creations. Giant kites, I mean GIANT kites, such as a Cobra kite more than 200 feet long and 20 feet wide, will make you crane your neck up to the sky. Colourful 6 foot tall hexagonal Rokaku kites will battle it out for sky supremacy, where the winner is the last kite still flying. Dual-line and quad-line sportkite demonstrations, both solo and in teams, will also be featured, along with traction kite demonstrations and traditional Hong Kong style fighting kite challenges. Always popular with kids are the Teddy Bear drops, where brave Teddy Bears and Moose (or other brave stuffed animals) parachute down from the soaring kites into the crowd below.

As the kites are all high up in the air peeking around the sun, please remember to bring your sunscreen, sunglasses and a hat. Bring your lawn

chairs or a blanket, so you can sit comfortably and relax and just watch the show, and your camera as you're sure to see some great kites you'll want to remember. If you have a kite, bring it along, and if you want a kite, plenty will be available for purchase on-site. (A few years ago I bought a funky black bat which I consistently managed to crashland on unsuspecting people's heads!)

To see some examples of the colourful kites which may show up at the festival, please visit the Toronto Kite Fliers' website, [www.tkf.toronto.on.ca](http://www.tkf.toronto.on.ca)

We will plan to meet at 10 am, but please feel free to spend the day enjoying the festival. In case of rain, the TOGA will be moved to Sunday the 17th, the second day of the festival. Details of a meeting location at the festival will be forwarded later by email, as well as details of the day's kite demonstrations when they are finalised by the festival organisers.

Come and join fellow CAISU alumni for an afternoon in the sun! Everyone is invited – please rsvp to me at [clamont@utias.utoronto](mailto:clamont@utias.utoronto) so we know how many people to feed. If you'd like to help with the organisation of the TOGA, please also let me know.

(Milliken District Park is located at the corner of McCowan Road and Steeles Avenue in Scarborough. A map with directions will soon be placed on the CAISU website.)

## Who's Going to MARS?!

by Brian Rishikof (SSP 90, CAISU Vice  
President, Alumni BOT Representative)

Who IS going to Mars? That's anybody's guess . . . or is it? One day and we hope it is soon, humankind will garner the resources, technology and commitment to send some representatives of this planet to the neighbouring red one. But who will go? What skills will they need? From which nations will they hail? How many are needed? How will they be chosen, and by whom?

These are just some of the complex questions that will be posed as part of the CAISU day at the CASI Astro 2000 conference (<http://casi.ca/confers.htm>).

As I reported in the last edition of this splendid newsletter, CAISU will be hosting a one day event in conjunction with the biannual CASI conference dedicated to space. It is going to be held on November 7, 8, 9 in Ottawa, with the CAISU day preceding it on Monday, November 6. The overall concept is a "mini-ISU" day. Yes, that means an ambitious day packed full of activities, starting early in the morning and ending late in the evening. The theme we've selected is, as you have undoubtedly guessed, Mars! And even more specifically, all the aspects related to selecting a crew for a human mission to Mars. We will certainly leverage the enthusiasm being generated for the big Mars Society conference to be held August 10-13, 2000 at Ryerson Polytechnic University in Toronto (see the last issue of *Cosmonotes* or try <http://www.marssociety.org/convention/2000/> for more information).

Following registration, the morning program will consist of lectures in as many of the ISU core disciplines as time will allow. Currently we're looking at 6 half-hour slots. Each lecturer will present a subject focusing on its general relationship and importance to space, and then discussing its application and relevance to a Mars mission and possibly crew selection. Lunch will be served at the conference hotel (Crowne Plaza) and will feature a motivational keynote speaker (we're still working this one).

The afternoon will feature a project activity where the participants will split into smaller groups facilitated by a moderator, each addressing a specific aspect of a Mars mission crew selection. While not all the details have been worked out, this will be a unique opportunity for the youth of Canada to participate in such an exercise. CASI has agreed to publish the results, and the ever forward-thinking group of volunteers is considering additional publication and presentation options beyond that!

The evening then transitions into a combined event with our gracious CASI hosts and the conference attendees. We will "mix it up" at the traditional CASI mixer, but will make it anything but traditional. This year, the event will double as a showcase for the ISU design projects. A poster session will be set up to allow not only the CAISU day participants, but also the general CASI audience to peruse, ask questions, and generally see firsthand the product of the ISU programs. Since the last CASI Astro conference was 2 years ago, we are hoping to present (at least) the projects from the last 2 years - from both the MSS and SSP sessions. Of course, we will include an information booth on ISU as well to distribute applications, etc.

And that's it!

Wait a minute, of course that's NOT it! Following the mixer event, there will be another CAISU social event for all the participants! Again, the details need to be refined, but this will serve as an opportunity to solidify the network, relive the highlights of the day, and generally decompress, relax and have a good time!

We hope to see as many of you there as possible at the CAISU day, the CASI conference or both!

Gratuitous solicitation: We have a strong team of volunteers and are well on our way. The momentum is building and the excitement is contagious! Please write to me ([brishikof@aol.com](mailto:brishikof@aol.com)) or Deana Smith ([cdsmith@lincom-asg.com](mailto:cdsmith@lincom-asg.com)) if you're interested in participating. We need help in a number of areas, especially in the recruitment of participants and publicity!

## A Future SSP in Canada?

by **Sebastien Drouin (Staff 94, CAISU Ontario Director)**

It seems only yesterday we had over 100 students from over 20 countries attending the summer session program (SSP) in Toronto in 1990. Yesterday to some but an eternity to others! Do not despair because talks have been initiated with ISU and a group of Canadian alumni have already started

planning for the coming of an SSP in Canada. I have volunteered to be the point of contact for an upcoming SSP in our fabulous country and so far there are three propositions: one from Vancouver, one from Montréal, and one from Ottawa.

Larry Reeves (MSS2) is currently leading the proposal from the west coast. He is actually the one with the strongest proposal yet. He has already spoken to ISU about trying to get them to come as early as 2002. This is wonderful, and the way we see it at the Board of Directors is that we're just trying to help coordinate things. As great as it would be to have everyone concentrate on a single proposal, we know that a lot of people would like to see it come to their home town. The two other proposals have only been vaguely mentioned: John Criswick (SSP91) would be heading the Ottawa contingent and Valery Tessier (current MSS) the Montréal one.

At this stage it is still unclear as to which year would give us the best chances but we know for sure that a lot of politics will be involved in the decision process. As ISU puts it, they need the money to sustain their operations and the way things have been going since NASA pulled funding from the SSP it is to be expected that another session in the US will come very soon. We know that 2001 will be in Germany. Now there has been some talks about Australia, Turkey and the US (California, Caltech/JPL) in 2002. The first and the last are the most likely, and based on the politics above, it is most likely that it will be held in the US in 2002. However, while talking to ISU HQ, it was mentioned that a proposal from Canada would be very welcomed from everyone there. The fact that we have not seen a session since 1990 plays a big role in our favor. However, let's say the bid from Reeves to the ISU RFP goes through in 2002, on a comparable proposal (based on economics, facilities, etc) with the US bid, the latter would win it - again because of the reasons mentioned above.

Then there is the ISU permanent campus with its new facilities. This is slated to open its doors in 2002 and

ISU would very much like to hold an SSP in 2003 in Strasbourg to help inaugurate the place. However, some parts are uncertain in the development and the rest of the planning. Again based on some analysis of the above and internal talks, the best chances that Canada would have to hold an SSP would be in 2003. Application-wise, there is a procedure to follow (however not always very strict knowing that plans may change quickly before an SSP) and the main point is that for a said year of an SSP (say year X), the proposal would have to come 3 years before (or X-3).

So currently, Mr. Reeves has a good proposal for 2002 and I know the BOD and I will do everything to help them win the bid. As far as we know, the Montreal and Ottawa bid would be for 2003. We wish them the best of luck and we will keep the Canadian alumni community informed. We encourage anyone interested to get involved with any of those proposals by contacting the individuals directly:

John Criswick (Ottawa):

criswick@conveyor.com

Lawrence (Larry) Reeves (Vancouver):

lreeves@mda.com

Valery Tessier (Montréal):

tessier@mss.isunet.edu

If you have any questions, please do not hesitate to contact me at [drouin@conveyor.com](mailto:drouin@conveyor.com).

## CFISU Student Send-off

by Chantal Lamontagne (SSP 95, CAISU Membership Director)

The SSP 2000 bound students trickled into the Holiday Inn in Cambridge throughout the afternoon, and the soon-to-be alumni that had arrived then assembled for the CFISU student briefing conducted by Ron Freedman. A few of the students were delayed in getting to Cambridge due to the massive storm in Toronto and parts of Ontario. Air Canada, once again, seemed to be having a tough day of it, with 30 aircraft full of luggage lying strewn about in Toronto's Pearson airport. We hope all SSP 2000 students left Canada with luggage intact! CAISU also participated in the student briefing, with a slideshow describing Canada's participation in the SSP, and the expectations placed upon the students by the previous 12 years of Canadian experience at ISU. Traditions that needed to be upheld were indeed described – can anyone say canoe?!

The students were allowed to get gussied up, and the evening proceeded

with the send-off dinner, where the new students mingled with Directors from the CFISU Board (fresh from their lengthy meeting that same afternoon), CFISU sponsors, and Canadian alumni from the region who had braved the stormy weather. Throughout dinner, the students were tortured with the usual send-off tradition by CFISU President Rod Tennyson – each student, picked at random throughout the evening, was to get up and address the assembled guests to describe, in 15 to 20 minutes, their life, goals and inspirations, and what going to ISU meant to them. Of course Dr. Tennyson was kidding in the length of the required introductions, but some students actually took on the challenge!! Those students that spoke early must have managed to enjoy the rest of their meal, while those that were left lingering to the end were seen to squirm like worms on a hook – a fine and proper tradition that most of us remember (fondly?) from our own SSP send-offs. One student who unfortunately had to step out for a minute was horrified to be found at the end of the introduction line upon returning to the table after her name was called while she was away...every minute is accounted for in ISU, starting with the send-off!



Canadian students at the CFISU send-off. From left to right: Barry Cayen, Frédéric Bourgault, Martin Gascon, Arif Janjua, Laura Sie, Raffi Kuyumjian, Fahreen Dossa, Marius Ochisor, Carol Chahine, Rémi Duquette, Katia Dyrda, Liara Covert

After their introductions, each student was congratulated by Dr. Tennyson, and presented with a personally dedicated and signed photograph from astronaut Bob Thirsk, who could not be there for the evening and whose letter to the students was read by Dr. Tennyson. For being our Canadian ambassadors at SSP 2000 in Valparaiso, Chile, the students were presented with a CAISU pin, and fresh-off-the-press SSP 2000 CAISU T-shirts.

Following the presentations, John Keating, President of Comdev (whom I met earlier in the morning sporting a t-shirt and full Canadian regalia for the company's impromptu Canada Day celebrations), gave the assembled students and guests a very inspiring and quite moving speech on Comdev's space activities in Canada, and what it meant to him to become Canadian. David Kendall, coming off last year's stint as summer session director, followed with an amazing slideshow of atmospheric phenomena. And then it was our turn...with a double powerpoint slideshow packed with memories and photos of past summer sessions, accompanied by the rousing music of the Apollo 13 soundtrack. Thank you to Sebastien Drouin (Staff 94) and Josée Adamson (SSP 99) for organising CAISU's slideshow, and to all the alumni for submitting hundreds of photos. We hope that this new CAISU tradition at the send-off continues each year to inspire the students as they head off for their own ISU experience.

After speeches and dessert, the students were bombarded with even more Canadian paraphernalia, in the hopes that they wouldn't have to do laundry during their first weeks in Valparaiso! We managed to round them up and have them stand still long enough to take a group photo before the send-off activities concluded, and they already seemed to be enthused with the ISU spirit. We wish them well at SSP 2000, and hope their memories of their summer (uh, winter) at ISU will be just as amazing as our own.

Thank you to Ron Freedman, Dr. Tennyson and CFISU for a wonderful evening, and for getting this year's

group of SSP students off to a great start!

## Canada Day Activities at SSP 2000, and the First Two Weeks

by the SSP Canadian Delegation 2000

After an invigorating twelve hours in airplanes, not-to-mention a brief stopover in Miami where we played hacky sac and frisbee in the international airport, a stampede of fourteen enthusiastic Canadians arrived in brisk, Santiago, Chile into the welcoming arms of ISU staff and SSP 2000 participants. While awaiting the departure of the bus for nearby Vina del Mar, we Canadians hauled out our patriotic frisbee, and recruited other new ISU students to play in the nearby parking lot. Nobody got run over (though the mud did fly)!

Our July 1st arrival prompted the launch of our first Chilean fiesta: a "spacey" celebration to recognize Canada's national holiday and a toast to the beginning of ISU SSP 2000. We happily plastered interested people with "Fête du Canada" stickers, pins and national flags. During the welcome dinner, we distributed even more colorful paraphernalia. For non-Canadians, it was an excellent opportunity to learn about the Great White North. It was fun to answer questions which sometimes even taught us about ourselves! Other than the ISU student participants, a large contingent of the ISU staff also "claim" Canadian citizenship. Before the welcome dinner was over, the Canadian ISU student delegation provided some lively impromptu entertainment: a "slightly" off key rendition of "O Canada". It was a memorable musical event that nobody apparently recorded... (Cultural night may well give us the opportunity for an encore). Later that same evening, Canada Day was celebrated at a night club in downtown Vina del Mar. For certain jet-lagged participants, a scenic walk along the Pacific Coast helped ease them into the party. There was later lots of animated discussion with new friends. Being in this particular

location even gave us the chance to practice our evolving Spanish language skills.

The first two weeks of SSP have not only been a comprehensive, multi-disciplinary crash course on space-related issues. These two weeks have also provided frequent (okay, nightly) "optional" celebrations, weekend excursions, harbor boat tours, and local exploring. This tends to leave individuals who want to participate in everything with precious little time for sleep. Intense academic sessions (especially those in early mornings) have nonetheless left memorable impressions. Our lectures so far have included diverse issues such as space policy, space transportation, plasma physics, space informatics and a host of other useful subjects. The two design projects to be explored this summer will deal with strategy for space tourism and space systems approaches to ENSO (El Nino and Southern Oscillations). Just last week, preliminary mission statements for each group were established. Much is yet to come! And we all look forward to it!

## SSP 2000 Design Projects - Summary

by Sebastien Drouin (Staff 94, CAISU Ontario Director)

This little column is in fact a small summary with excerpts taken from the ISU web site about the SSP2000 design projects. You can access the full blurb at:

<http://www.isunet.edu/Programs/SSP/SP.CURRENT/2000/Design%20Project.htm>

### *Space Tourism - The Next Great Adventure*

In this Design Project (DP), the current and future possibilities of Space Tourism as a viable endeavor will be examined for the 2005-2020 timeframe. The project will cover the vast number of issues and factors that must be considered when anticipating the advent of civilian space travel. Options such type of flight, duration, destination will be covered. The economics and

availability of resources will be considered as well as a significant number of non-technical issues such as business potential, the customers, marketing, costs, legal and liability. The risk factors, human safety and policy with regards to those issues will be identified and evaluated. The primary focus of this DP will be on the identification, analysis, and preliminary design of the various excursion options from which future space tourists might have to choose.

## **Space Systems and ENSO**

Countries on the Pacific Coast of South America face serious environmental challenges, many of which could be assessed and mitigated by the use of space technologies. Those environmental challenges result from the effects of El Niño and the Southern Oscillation (ENSO). This design project will assess how space assets could assist in monitoring, assessing, and responding to environmental changes of the Pacific coastal zone of South America under ENSO disturbances, basically designing an Environmental Strategic Framework for the South American Pacific Coast. Strategies will have to be developed to use the data from existing and planned space platforms and instruments in order to monitor the changes in not only climate but also on the social, economic and culture of the affected countries. Legal issues and policies will also take part in the final report, which will be present local Governments with a series of recommendations to achieve their environmental management goals.

## **Canadians Invade Chile!!!**

**by Morla Milne (SSP 99)**

The SSP2000 students arrived on July 1 and brought great weather with them. The staff had been trudging through rain for two weeks and the first day we saw sun we were in a windowless room registering 82 students from 26 countries! Fortunately, the sunny weather has continued.

As usual there is a major Canadian presence at ISU both in the staff and the students. There are nine staff from Canada - Marc Abela, (SSP 96 and

recently of Tokyo), Maxim Roy (SSP 97) and his wife Marleen van Mierlo (SSP 97 Netherlands), Li-Te Cheng (SSP 96 and all since then), Morla Milne (SSP 99), Noemi Nagy (SSP 93) and three students from the Royal Military College, Kevin Kozak, Richard Hough and Wesley Oke. There are also 14 students from Canada, the largest country contingent at SSP2000.

Since the students arrived \*ON\* July 1st, there was no Canada Day blowout but a large group of students and staff trooped through the streets of Viña del Mar, where the hotel is, wearing Canadian flags, pins and stickers. That night we learned several things: the Chileans pour wonderful drinks (tall glasses with half tequila and half mix), the SSP200 students are definitely up to ISU party standards, and everyone is willing to celebrate Canada Day if there are drinks involved. The Canadian students will simply have to go on the canoe quest and outdo themselves for their Cultural Night in August.

The Universidad Técnica de Federico Santa Maria is absolutely beautiful. The campus is perched on the face of a cliff overlooking the Pacific Ocean. We take the train and then walk up over 120 steps to the campus! The buildings are gabled grey stucco with vines crawling all over them. Even though it's winter here in the Southern Hemisphere, there are flowers everywhere - including roses, magnolias, pansies and many I don't recognize at all - and the grass is a lush green. The Faculty/TA office has the most amazing view of the ocean and we are treated to the most delicately coloured sunsets. We will have pictures posted on the Web soon.

The food at UTFSM is a bit interesting. The most striking thing about it is the presentation. If you've ever seen the TV show *M\*A\*S\*H*, you'll understand. Dinners and lunches are on divided metal trays, like the kind you have in prison. It makes eating a real adventure.

We were able to use the Chilean Congreso (Senate) for the Opening Ceremony. It's a very impressive building with a red carpet leading up the stairs to a white marble chamber filled with oxblood leather chairs.

There is a frieze with the Chilean emblem carved in relief and two massive Chilean flags hanging on either side. We were graced with the presence of the regional governor, a Chilean senator and the ambassador of Peru. After the event the students were pinned by Peter Diamandis, making them part of the ISU family. A reception with Chilean wine and empanadas followed. We chatted, drank wine, milled around, drank wine, ate and drank wine. Did I mention there was wine?

Maria Perino worked with John Bergstrom (new to ISU for team building with the design projects) for the cultural orientation. She did the traditional 'sitting on laps' to sensitize everyone to different cultural space bubbles, with the usual hilarious results.

Lectures have started in earnest with John Connolly, Christian Sallaberger, Ray Williamson, Siamak Khorram, Patrick Cohendet, John Logsdon, Victor Bensimhon, Mikhail Marov, Giovanni Fazio, Nikolai Tolyarenko, Lucy Stojak, Angie Buckley, Ben Finney, Vladimir Lytkin, Doug Hamilton, Gilles Clement, Janis Conolly and Jim Green - to name just a few - entertaining the students. The class of SSP200 has definitely been overwhelmed with information.

The departmental workshops have also started with a vengeance. Students were building radios in Physical Sciences, talking to a Chilean senator in Business and Management and Policy and Law, building rockets in Space Systems Analysis and Design and learning to interpret satellite images in SatApps. Life Sciences and Space and Society combined and did a tour of two wineries, one that makes red and white wine and one that makes champagne. They studied the effect of various blood alcohol levels on creative thinking processes, motor dexterity, neurovestibular responses and vinscocity (one's ability to resist buying wine!) It was all very scientific.

At the end of the first week ISU started what will hopefully be a new tradition. John Bergstrom led the students and staff in teambuilding. His talk and exercises included ways to effectively

hold meetings, different ways you can make decisions for different situations and how to listen carefully and respect other peoples' points of view. There was some rock and roll played, video clips shown and group discussions. The morning ended with Dire Straits' song Brothers in Arms, which has a lot of lyrics that apply to the ISU experience. Some of the students said afterward, only half joking, that in Germany there should be white doves to release after John's presentation because he really grabbed their attention and imagination.

The students were given a little relief from lectures last week. We held the Summer Session Staff Extravaganza and Freak Show to further introduce ourselves to the students. Five of the Chilean students on staff did a dance from Easter Island, the girls with colourful wrap dresses and the guys with painted chests. Then they dragged the students up to teach them this 'native' dance. There was a hula hoop competition starring Lisette Lyne (SSP 99) and Kirsten Busteed (MSS3). Lisette had to do it after making the claim 'I have a natural talent that I can do for four hours at a time.'

Kevin Kozak, one of the Canadian staff from the Royal Military College, challenged three students to a blindfolded, hands-tied, whole banana-eating contest. Kevin paraded in to 'Eye of the Tiger' wearing a fabulous housecoat, with his belt bearer, Marc Abela (SSP 96), dressed in a headscarf, muscle shirt and sunglasses, a la Macho Man Randy Savage of the WWF (that's the World Wrestling Federation, not the World Wildlife Fund). His trainer, Maxime Roy (SSP 97), sported a toque and sunglasses. Kevin retained his world champion belt (an attractive accessory made entirely of tin foil) - the students had barely taken a bite by the time Kevin was raising his arms in victory!

One of the highlights of the evening was the Trio in F Minor presenting 'Besame Mucho' (Kiss me very much). The original plan was to have Li-Te Cheng (SSP 95, and every one since) play piano, Marleen van Mierlo (SSP 97) on violin and Mantana 'Pin' Thammachoti doing vocals. We

weren't able to get a piano or keyboard so Li-Te hummed the part of the piano and did the appropriate hand movements. Marleen, who just started violin a year ago, gamely sawed away with her horsehair and Pin sang - at least we think it was singing, the jury is still debating. The students and staff were practically rolling on the floor, we were laughing so hard.

The grand finale was definitely a showstopper. All the staff did 'Summer Nights' from Grease. Mathieu Gruber (the new Assistant Director - Logistics) played John Travolta and Isabelle Bouvet (SSP99, now AD - Academic) played Olivia Newton John. The guys wore jeans, t-shirts and had their hair slicked back with gel; the girls had ponytails or flips in their hair and wore high boots, short skirts and v-necked t-shirts. Even Roy Nakagawa (SSP95, now SSP Director) got into the act and looked very cool as a greaser!

On Wednesday the tone changed a little with the Distinguished Lecture by Malcolm Phelps, with the Education Department of NASA. He had brought NASA pins to reward good questions so the interrogation at the end went on forever.

We have had the first cultural night and were treated to the cultural stylings of the UK, Colombia, Sweden, the Netherlands, France and Turkey. The UK presentation included Cockney rhyming slang, a message from the Queen and a performance by the Spice Girls. The Dutch followed a simple young farm boy through a weekend as he went to Amsterdam for a football (soccer) game and traveled through the Red Light District and the marijuana cafes - all in wooden shoes. They finished up with a soccer shoot out where 'volunteers' from the audience put on wooden shoes and had to fire on an Italian goalie. No serious injuries occurred, the shoes only flew across the room three times. The French rounded out the evening with a star-studded performance. They opened with the can-can, had a session of French trivia (where the losers had to eat really smelly cheese) and the piece de resistance - a distinguished lecture by Pierre 'Humble' Diamante about his

Z-Prize. This hilarious send up of Peter Diamandis had people howling.

The students had their only two-day weekend at the end of the second week. A big group went skiing at Portillo and had perfect weather for trying the snow in the Andes. Others lazed on the beach, drove North to La Serena and the mystical Elqui Valley or checked out Vina del Mar and Valparaiso.

Chile is an absolutely beautiful country - Hope some of you will be able to see it during the Alumni Weekend in September!

## Closing the Loop

by Alain Berinstain (SSP 91, MSS1, CAISU President)

In an earlier issue of Cosmonotes (A Nice Story, Cosmonotes December 1999 issue), I told you the story of me finding some long-lost family on my father's side in France thanks to the Internet. Since that time, there have been lots of developments. I continued to correspond with different cousins, mostly with the first cousin I had come in contact with, Marc Berinstain, who lives in Strasbourg. It turns out that Marc came to Canada on June 23 to spend some time with me. It was an emotional and wonderful moment when we met in real life for the first time. We spent the next two weeks together, he was my ground crew for the Canadian National Gliding Competition. By the way, I got clobbered at the contest but I learned a lot and had lots of fun. Marc got a lot of practice taking apart gliders in the middle of farm fields!

At the end of the contest, Marc and I traveled back to France together. He went home to Strasbourg and I spent a few days in Paris where my cousin Didier (from Mom's side of the family) was getting married. Wonderful, fairy-tale like wedding in a castle in Normandie. Also attended the Paris (PAGA) ISU gathering (described by Mark Dejmek in this issue).

I then spent a few days in Strasbourg with Marc and his parents (Marc's father was my father's first cousin). I also spent a bit of time at ISU meeting the MSS students and staff, talking

about serious stuff and also having fun. I have to say that this year's MSS class looked a little too relaxed so close to the submission of their report!

Then came the highlight of my vacation - the big Berinstain reunion in a little town called Lestiou near Orleans. The entire Canadian Berinstain clan was there (myself, Mom, both sisters, and big sister's husband and 2 kids). We spent a couple of days, about 30 of us renewing ties that had been lost over 40 years ago. I was told stories about Dad when he was young, about the difficulties of growing up during the war in France. The whole thing was very emotional and difficult but wonderful at the same time. I have a better understanding of my roots, the family history, and also of Dad who passed away 11 years ago and who was obviously missing from the proceedings.

I was also given some very precious articles that belonged to my father and to his parents including photos, documents, and letters. Some of these letters are actually very significant historical documents all too graphically describing life in France during the war, including from within concentration camps. Very difficult stuff to read but important things to know for everyone, but hitting especially close to home with me since this concerns members of my own family.

This whole experience, I believe, has changed me a little bit and has enriched my life in a way that is really indescribable, but I try to share it with my friends when I can. All thanks to luck, the Internet, or maybe even destiny.

## Managing an ISU Design Project - Bringing Order to Chaos

by Eric Lanoix (SSP 99)

This article summarizes an open discussion regarding various DP issues that took place on *isu-talk* last April and May. The main subject of the discussion was to identify and propose solutions to the problems faced by ISU students during the DP. Contributors

included several alumni (including myself), and Jim Burke. To give the punch line away, the discussion group did not reach a consensus on the actions to be taken - just like any DP group... This article represents the point of view of the author.

### The Problems

ISU DP=s have always been plagued by the same problems. And these problems just never seem to go away, no matter how much effort ISU students, TA=s, faculty, alumni, and HQ put into it. These difficulties include a terrible lack of organization among students, the loss of interest in the project on the part of some very skilled students, difficulties in integrating non-native English speakers, and the difficulty of producing a report with significant scientific, sociological, and political importance.

### The Causes

The causes of this situation vary from the management/organizational structure to the purpose and definition of the DP.

Most DP=s have a free, unimposed management/organizational structure. Students are free to organize themselves as they see fit. Jim Burke=s position is that this allows students to work by consensus, and to discover innovative ways to get the work done without pre-established barriers. This is a very admirable method, but it simply has not worked so far. The problem with this approach is that due to the international nature of ISU and to the fact that most, if not all ISU=ers are natural born leaders, students spend way too much time trying to agree on some organizational structure. Students end up splitting into conflicting clans, holding votes on whether or not they should vote on something, etc... Such infantile debates can only contribute to confusing non-native English speakers, and to cause very talented students to totally lose interest in the entire DP. This leaves fewer people and hours to produce a meaningful report.

The second problem is the purpose of the DP itself. Somehow, faculty

members carefully avoid answering questions pertaining to the actual purpose of the report: Ais it a learning experience or are we trying to influence the future of humankind in space?@ Jim Burke answers that the DP is both! Once again, that is a very admirable answer, but with only two months, students cannot produce a high quality document without a single clear purpose.

The third problem regards the definition of DP=s. Students refer to their ISU handbook to figure out what they are supposed to do. However, clear requirements seem to be carefully avoided in all ISU project statements I have read. Some say that this gives more freedom to the students. However, I cannot help but think that this can only add to the confusion that reigns as students desperately attempt to figure out what they are going to do and how they are going to organize themselves to get the work done. From personal experience, I would say that without good and clear requirements, any DP is doomed to fail.

These three factors (organization, DP purpose, and DP definition) feed on each other in a vicious circle. If the students are not clearly told what is expected of them, how can they organize themselves efficiently, and produce a high quality report? To this day, no one DP group that I know of has made it all work.

### The Solutions?

The aforementioned discussion group has identified several possible solutions dealing mainly with the organizational structure of the DP. Some suggested an imposed, but student-led organizational structure for all DP=s; others privileged the inclusion of an outside project manager with significant experience in the topic of the DP; others still proposed team-building activities to help students organize themselves more efficiently.

### What ISU is Doing

The current SSP in Valparaiso, Chile, features team building activities (similar to those used in the very successful SGF last year in Vienna) led by John

Bergstrom and Kelly Snook (SSP 96 USA), and designed to assist students in DP affairs. I totally endorse this initiative and really hope this will help the current group of ISU=ers deliver a quality product. We will know whether or not this effort was fruitful by the time we read the WSP (Winter Session Program) >00 DP reports.

### **Personal Recommendations**

I fully endorse the idea of team building workshops, but I believe it may not be enough to overcome all problems. If it does, I shall be more than happy, but if it does not, I recommend the following:

- Impose an organizational structure to all future DP=s;
- Clearly define DP objectives;
- Clearly define DP requirements;
- Clearly define design reviews requirements;
- Clearly define final report requirements.

By AClearly define... requirements@, I do not simply mean number of pages, etc. AI mean what do you want the students to do?@; Awhat questions are the students required to answer?@ Otherwise, students may be left to argue on voting on whether or not to vote on some proposal for years to come...

## **May Activities at ISU Central in Strasbourg**

by Eric Doré (MSS3) and Claude Rousseau (MSS4)

This time when Chantal Lamontagne requested an article for the new campus Groundbreaking Ceremony, which happened on May 21, 2000, I said to myself: "I can't turn her down". This event was so exciting that I thought it important to share it with all the Canadian Alumni.

Being an MSS 3 Alumnus, and working as the Assistant Director for Student and Alumni Affairs, that day was very special for me and for more than 300 people who showed up that morning for the event. But before I start writing details on the "Birth of ISU, Phase Two", I thought I would share also some moments on the Strasbourg

Alumni Gathering 2000 (STRAGA 2000).

Boy, was STRAGA 2000 fun to organize. It's through the efforts of the Alumni at Central Campus who working as full time ISU staff members, that we were able to turn this event into one that reflected the true ISU spirit. Isabelle Bouvet, SSP '99 and now Assistant Director SSP, Claude Rousseau, MSS 4 and now Manager of Professional Development Programs, Jill Ferrier, SSP '94 and Placement Coordinator for more then 5 years, Henry Schniewind, SSP 99 and now Assistant director Corporate Relations and myself worked together to greet more then 90 people over the weekend before the groundbreaking.

On Saturday, Claude had organized a Go-Karting session which turn out to be a lot of fun. I surprised myself since I came third out of a group of 10 racers on the track. I'm the king of drivers who usually respect all speed limitations but go-karting with the alumni, sensing the competition, made me break the rules and I guess it worked. The winner was Claude.

The highlight of the weekend was the dinner at the Strasbourg Museum of Contemporary and Modern Arts. Isabelle managed most of the event and we ought to thank her for such a great job. The evening started with a cocktail on the museum's terrace, overlooking the River and in the far back, the Strasbourg Cathedral, which changed colors as the sun went down. We then sat down in the "Arts Cafe" where a dinner was served "a la française" since we ate for almost three hours and drank great wines. During desert, Dr. Doetsch, ISU President, took the opportunity to honour Pr. Francois Becker, ISU Dean, for his many years of support to the institution and its programs. Dr. Becker will be leaving ISU in August to retire and continue to write books in remote sensing. The night ended late with great dancing until 3:00 Am in the morning. The next day, despite the evening's celebration, most of the people showed up for brunch at the Irish Times.

Alumni as far as Australia and Houston flew to participate in this event as well

as the Groundbreaking the next day. Also alumni from Amsterdam, Paris, Toulouse and Cannes were well represent at STRAGA.

On Monday morning, the ISU staff were running around as early as 7:00 AM to take care of last minute logistics before the Groundbreaking Ceremony which was scheduled at 11:00. Henry and I were blowing balloons at 7:30 with both our feet in the mud since it had rained all night on the construction site. We ended up cleaning our shoes in the staff cafeteria's sink. The good news though is that the sun started shining at 9:00 and all of a sudden Caroline Vignard, ISU head of External Relations and leader in the organization of the Groundbreaking Ceremony, was smiling and happy again.

At little past 11:00 AM, the official ceremony started with the description of the new building by the architect and was then followed by the Strasbourg partners including Karl Doestch and Johannes Oortner, Chairman of the Board of Trustees digging shovels in the future ISU Central Campus site, an important step in the fulfillment of the vision of the ISU Founders. Guests were then invited to the big amphitheater in the Pole API building, where Mme Catherine Trautmann, President of the Communauté urbaine de Strasbourg (CUS) and former Minister of Culture and Communications of France, gave an uplifting speech on the importance the presence of the ISU Central Campus in Strasbourg, the capital of Europe. The Strasbourg Academy Rector, the Prefect of the Alsace Region, the President of the Alsace Regional Council, and the President of the Bas-Rhin Department Council made speeches in support of the ISU and talked about how its programs were innovative and probably reflected future education in France.

After the speeches, Madame Trautmann invited everyone for a great buffet lunch. It was a unique opportunity for ISU staff and guests to network and meet many Strasbourg partners with whom work relations have been going on for years, sometimes at a distance. We all could see the history

of the set-up of the ISU on a poster board designed and produced by MSS 5 students and former ISU staff Patrick French (SSP '99).

As soon as the buffet dinner ended, Henry, Claude and Lindsay Chestnutt (Symposium Coordinator) started running around to set up and clean the "Salle Polyvalente" where, starting on Wednesday morning, ISU would be occupying for the rest of the week for the Symposium posters' session, registration desk, publication displays, coffee breaks and lunches. Again, the ISU spirit was present with staff members staying late at night to make sure the room was ready for registration day.

It's time for me to turn over this article to Claude who I'm sure has stories to tell you about ISU Symposium 2000.

Well, Eric, the 3day Symposium was attended by 151 participants (including MSS 5 students and Resident Faculty) from 23 different countries to discuss the issues facing the space transportation market today. ISU Alumni, ISU Board of Trustees members, and ISU guest lecturers' participated in high number, proving once again the quality and excellence of the people that make the ISU network. For newcomers to ISU, it offered them a glimpse of the diversity of opinions, cultures and disciplines that make the ISU programs unique.

Thanks to the hard work of the program committee, chaired by Prof. Fujimori (ISU Faculty), and with the help of the American Astronautical Society (AAS), ISU drew together many high-level representatives from industry, government, and academia. Dr. Karl Doetsch welcomed the crowd assembled in the Amphitheater of the Pole API and introduced the keynote speaker, Pr. Ryojiro Akiba, of the Space Activities Commission of Japan. Altogether, over 50 oral and poster papers were presented, and the feedback received from the participants proved that they like the idea of discussions and presentations on all aspects of a particular subject of space activities from an international, interdisciplinary perspective and in an intercultural context. The ISU staff also worked hard to obtain sponsorship from

six major space organizations that helped make the social events a ringing success.

On the first day, the reception at the poster session offered participants an opportunity to network and to get to know each other. It was so successful that we almost pushed people out the door to get them onboard the bus headed for downtown Strasbourg. That night, some of my former classmates and I met a group of Symposium participants and MSS students at the Irish Times, for quiz night! On the second day, the reception set in the beautiful historical part of Strasbourg called La Petite France, lasted well into the evening. Some of the participants and Alumni continued the celebration at Rimini's, a favourite hangout of the ISU crowd in downtown Strasbourg.

After three days of presentations, we thanked our guest, bid them farewell until next year, and started cleaning up the Salle Polyvalente and the Amphitheater. We were all pretty tired but we will always remember that crazy week in May 2000 was one of the busiest and most exhilarating in the short history of ISU's Central Campus. I hope that you will join us for STRAGA 2001 and attend the 6<sup>th</sup> ISU Annual International Symposium which will be on *Smaller Satellites: Bigger Business? Concepts, Applications and Markets for Micro and Nano Satellites in a New Information World*. Salut!

## ISU Establishes North American Office

by Peggy Finarelli, ISU Vice President for North American Affairs

Hello! Let me introduce myself. I'm Peggy Finarelli, the new ISU Vice President for North American Operations. The bulk of my job is to increase awareness of ISU among North American government agencies and companies from aerospace and related industries. I'm also interested, obviously, in developing support for ISU from these organizations, and from non-profit foundations. Because the operations of CFISU and CAISU are in such good shape in Canada, however, I will be focusing most of my efforts further south, in the USA, but I am still

interested in what's going on in Canada (in large part as a model to learn from!).

I've been involved with ISU since its very early days. I was at NASA working on the International Space Station at the time and was able to help secure NASA support in the form of seed money for SSP 88. In the following years, I served on the ISU Board of Trustees, and I've also visited various Summer Session sites and Strasbourg a number of times. I am intellectually committed to the 3Is approach of ISU, and I am passionate about the importance of international education based on my own personal experience as an AFS exchange student to Turkey while I was in high school.

My experience in the space field has been in the areas of international relations and space policy. I led the international negotiations establishing NASA's ISS partnerships with Canada, Europe and Japan in the mid-80's, and thus became friends with many Canadians (and Europeans and Japanese also!) in the space arena. I also represented NASA in many of the interagency space policy "battles" that are the mechanism for resolving such issues in the US Government. For the past five years, I was detailed to the White House to work on a Vice Presidential environmental education initiative co-sponsored by NASA, NOAA and NSF. Called GLOBE, it provides opportunities for school children all over the world to take environmental measurements for use by scientists in research (including ground-truthing Earth observation satellite measurements, hence the NASA interest). (Canada, by the way, has recently joined the GLOBE program and so you may be hearing more about it.)

I visited Toronto in March and had the opportunity to meet with Rod Tennyson and Ron Freedman of CFISU, and met with a number of Toronto alumni at a dinner along with ISU President Karl Doetsch. I've also bumped into a number of Canadian alums who have moved to or visited Washington. I hope to visit Canada again, but in the meantime, if there is anything I can do for you, please let me know. The North

American Office of ISU resides in space provided by the Washington Office of the Canadian Space Agency. (Thank you, CSA!) You can reach me at 703-522-6731 or [finarelli@isu.isunet.edu](mailto:finarelli@isu.isunet.edu).

## ISU Alumni Conference 2000

by Ken and Gretchen Davidian

After getting off to a late start, the organization for the ISU Alumni Conference 2000 is underway!

The ISU Alumni Conference 2000 will take place between the dates of August 29 - September 1, 2000 at the SSP2000 host site, Universidad Technica Federico Santa Maria (UTFSM) in Viña del Mar/Valparaiso, Chile, and is open to all ISU alumni.

The theme and agenda for the conference are taking shape, despite the late start in detailed planning activities. There is a need for alumni to present posters and to give presentations during the conference itself. Alumni interested in giving a presentation or a poster are encouraged to register today to do so.

Up-to-date information and schedules are posted on the world wide web at <http://kdavidian.home.mindspring.com/AC>. These web pages include the current conference agenda, conference registration information and forms, and a Frequently Asked Questions list. Questions and comments can be sent to [alumniconf@yahoo.com](mailto:alumniconf@yahoo.com) or [isualu2000@isu.isunet.edu](mailto:isualu2000@isu.isunet.edu).

The timing of this year's conference has changed from previous years. A "brainstorming" session with faculty and the SSP team was held during last year's SSP in Thailand. Out of that session came a recommendation to move the Alumni Conference to the end of the SSP. A decision to try this for the ISU 2000 Alumni Conference and Poster Session was made by the ISU Dean, the SSP2000 co-chairs, and the SSP staff at the Curriculum Planning Meeting held in November 1999. The reasons for this change were as follows: 1) so that the people coming into town could be present for

the Design Project Final Presentations; 2) to engage the current class in thinking about becoming alumni, thereby increasing their interest in getting to know other alumni rather than just mingling with their own classmates; 3) to increase the number of people giving presentations/poster (and having the time to do it).

The organizers for this year's conference are Ken (SSP 89) and Gretchen Davidian, both former Assistant Directors for the Summer Session Program between 1997 and 1999.

## Message from Prof. Rod Tennyson, President, CFISU

Thanks to the generous support of our many sponsors, CFISU was able to send 11 students to SSP 2000 in Valparaiso. A 12th Canadian student was sponsored by the Canadian Space Agency, and a 13th, by the Canada Centre for Remote Sensing. All together, an excellent showing! We had a chance to meet the new students at our send-off event at COM DEV, at the end of June. Once again we were impressed by the talent and commitment of our award winners. Plans are proceeding to transfer the administration of CFISU to the Canadian Aeronautics and Space Institute, starting this Fall. The CFISU believes that a strong link with CASI will help both organizations. Time to begin planning for SSP 2001! Best regards to all for a happy and safe summer.

Rod Tennyson  
President CFISU

## Let's Do Launch!

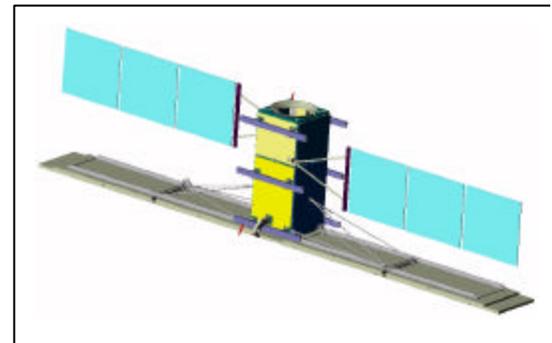
by Larry Reeves (MSS2)

Standard disclaimer: These are my opinions, and should not be considered legally binding or having any influence upon the performance of our stock (MDA.TO).

The long-awaited RADARSAT-2 launch decision was made (and made public) at the end of June. We'll be launching from Vandenberg Air Force Base in California (about 200 km north of Los

Angeles) on a Boeing Delta-II 7920-10C.

OK, you're asking yourself - just what do all those numbers mean? Or perhaps you're not asking and would prefer to skip to the next paragraph. The Delta-II means it's the second model in their family of rockets - each model being able to launch bigger satellites than the previous. The '7' means that the first stage of the rocket is supplemented by strap-on solid propellant boosters (I don't know why they have this, because it's the only option available); the '9' means that we will have 9 of the strap-on solid boosters attached (they can add 3, 4,



or 9); the '2' refers to the type of second-stage that the rocket uses (again, it's the only option); the '0' means that we won't have a third-stage; and finally, the '10C' means that we will be using a 10-foot diameter composite structure fairing (there are a couple of other options for the fairing).

Along with RADARSAT-2, we'll be co-launching the Microvariability and Oscillation of Stars / Microvariation et Oscillation Stellaire satellite, known as MOST (also nick-named the Humble telescope). MOST is a science/astronomy satellite, which is the size of a small suitcase, weighs about 57 kg, and will be attached to the upper-stage of the Delta-II. It's being created by the University of British Columbia, University of Toronto Institute for Aerospace Studies, and Dynacon Enterprises, in Mississauga.

The launch date has now been officially re-scheduled for April of 2003. For anyone who would like to come and watch it can write that date into your calendars. Use *pencil* though - as I'm sure you're all aware, launch dates are subject to change, and are generally

only stated with certainty *after* they've occurred.

In my previous article, I mentioned that Alenia Aerospazio of Rome is the new bus sub-contractor. Additionally, MacDonald Dettwiler Robotics in Brampton (formerly Spar, who make the Canadarm & SSRMS) will be constructing the Extendible Support Structure, or ESS, which deploys and supports the SAR antenna. I've included a picture of RADARSAT-2's new design.

In other news, I'll be attending the Canadian Remote Sensing Society conference in Victoria in August. Are any other of you alums going to attend? Please let me know if you are. Also, I'm, hoping to get to the CASI/CAISU conference in Ottawa in November, but that's not for certain yet.

Regards to all, and bye for now!

## Third International Mars Society Convention to be Held in Toronto in August 2000

by Audrey Robinson-Seurig (SSP 91 USA)

On August 10-13, 2000, over 1,000 aerospace experts and enthusiasts from about 40 countries will gather at Ryerson Polytechnic University in Toronto for the Third International Mars Society Convention. They will discuss various technical, scientific, and social aspects of Mars exploration and settlement. For the first time, the annual Convention will be held outside the Mars Society's cradle of Boulder, Colorado, U.S.A. This move symbolizes the Mars Society's goal of promoting human exploration of worlds beyond humanity's own cradle, Earth.

The Toronto Convention will showcase the Mars Society's first major project, the "Flashline" Mars Arctic Research Station (FMARS). The station is a field research laboratory and simulated Mars habitat which is currently being established at Houghton Crater on Devon Island in Nunavut. This base will allow scientists, engineers, and even astronauts to test Mars exploration

equipment and procedures under the analogous conditions of the cold and dry Arctic climate.

The 1998 Founding Convention of the Mars Society attracted 700 participants from 40 countries, featured over 180 papers and presentations, and received extensive press coverage worldwide. The 1999 Convention drew over 1,000 attendees. This year's Convention is expected to be the largest gathering of space pioneers in history.

### Convention Tracks and Panel Discussions

Papers will be presented in five different tracks, covering a variety of subjects. On August 10, the tracks include "The Economics of Mars Exploration/Funding," "Systems for Mars Exploration/Colonization," "Advanced Propulsion and Launch Options/Long-Range Mobility," "Mars and Education," and "Philosophical Impacts of Mars Exploration/The Significance of the Martian Frontier." The tracks on August 11 focus on "Mars Exploration and Public Policy/International Collaboration," "Social Aspects and Human Factors," "The FMARS and other Mars Society Research Projects," "Terraforming Mars/Concepts for a Permanent Colony," and "Robotic Missions, Current and Prospective." On August 12, the tracks address "Use of Local Resources/Accessing the Hydrosphere," "Biomedical Issues and Life Support Technology," "Mars and the Arts," "Methods of Public Outreach," and "Mars Education Teacher Workshop." Finally, the tracks on August 13 encompass "Technologies and Systems for Mars Exploration," "Strategies and Tactics for the Mars Society," "The Search for Life on Mars/Research Findings," "The Need for Law on Mars," and "Workshop on Analog Rover Design." A more detailed Convention schedule is posted on the Mars Society's website, <http://www.marssociety.org/convention/2000/>.

The Convention will also feature exciting panel discussions, debates, and talks given by those on the forefront of Mars research and exploration. An open panel discussion

entitled "Finding the Way to Mars" will be held on Thursday, August 10, at 8:00 p.m. in the Ryerson Theatre, 43 Gerrard Street East. The public is welcome to attend this free session.

### Registration

The Convention registration fees are: Student \$90 CDN, Regular \$360 CDN. On-line registration is available on the Mars Society's website, <http://www.marssociety.org/convention/2000/>. Ryerson offers rooms at a discount rate.

### About the Mars Society

Founded in August 1998, the Mars Society is a non-profit organization with over 3,000 members representing about 40 countries. Its purpose is to further the goal of the exploration and settlement of the Red Planet via both public and political outreach, and private research. For more information, visit the Mars Society website at <http://www.marssociety.org>.

### ISU Involvement

Plans are being discussed for establishing an ISU presence at the Mars Society Convention. Volunteers will be needed to set up and staff an exhibit/vendors table providing literature about ISU and possibly also selling the CD-ROMS featuring ISU design projects. If you are available to help, please contact Audrey Robinson-Seurig (SSP 91), the liaison between the Toronto Chapter of the Mars Society and ISU (e-mail: [aarobins@alumni.Princeton.EDU](mailto:aarobins@alumni.Princeton.EDU)).

### CAISU PINS

We are trying to determine which years of SSP and MSS did not receive a CAISU pin. If you or your SSP/MSS year did not receive a CAISU pin, please contact the board at [bod@caisu.ca](mailto:bod@caisu.ca) and let us know.

### Membership News

by Chantal Lamontagne (SSP 95, CAISU Membership Director)

Welcome to new CAISU member **Jonas Spaak** (SSP 95 Sweden) who has recently moved to Canada with his

wife Yifang Ban (SSP 94) and their daughter. We at CAISU are always happy to accept new members and hope that Jonas quickly learns to love poutine as all the rest of us do ☺

### ***New Alumni-to-be!***

We welcome to the growing CAISU family **Shannon Ross** and **Elaine Tan**, 2 new students who are helping to represent Canada at SSP 2000 in Valparaiso, Chile, along with the 12 students introduced in the previous Cosmonotes. Please read Shannon and Elaine's biographies in the CAISU Updates section.

### ***Moving?***

After the last mailing of the Cosmonotes, a few envelopes bounced back, and I had to go chasing after a few alumni who has *obviously* forgotten to pass on their new addresses ☺ Please contact me, the Membership Director, at the following address for any changes to your address (either home or work/office), telephone numbers, fax numbers, or emails...

Chantal Lamontagne  
 UTIAS, 4925 Dufferin Street  
 Downsview, Ontario  
 Canada, M3H 5T6  
 Tel: (416) 667-7701  
 Fax: (416) 667-7799  
 Email: clamont@utias.utoronto.ca

### ***Questions? How to contact us***

If you have any questions, or need to reach anyone on the CAISU Board of Directors, please email bod@caisu.ca. If you wish to reach every alumni on our email distribution list, please direct your email to alumni@caisu.ca.

### ***Lost in Space Alumni***

Every effort is made to keep the CAISU address database up to date, but several alumni still remain "lost in space", with no current contact information. I am now down to THE FINAL FOUR!!!

Céline Lévesque (SSP 91)  
 Kathy McCuaig (SSP 89)  
 Bill Unger (SSP 88)  
 Jesko Von Windheim (SSP 89)

If you have any information on the whereabouts of these alumni, please let me know as soon as possible at

clamont@utias.utoronto.ca so we can quickly get them back in touch with the rest of CAISU.

### ***Mailing of CAISU Contacts List***

With this issue of Cosmonotes is included the CAISU Contacts List. This list is published and distributed to CAISU members once a year, and includes addresses and contact information on all alumni and staff. Please respect the privacy of our members by not distributing the list to outside agencies. If you wish a copy of the Contacts List between publications, please let me know and I can provide you with an electronic copy.

If there are any mistakes in your entry, or if you have more information to pass along, please let me know so that I can modify your database entry.

### ***Paper or Electronic?***

Thank you for the wonderful responses to this initiative! And also for the wonderful comments I have received on the great job this year's CAISU Board is doing. Votes are still being taken online at the CAISU website, www.caisu.ca, whether you want to receive either the Cosmonotes or the Contacts List via electronic or paper medium for the next issues. Please note that votes can always be changed, and that this is also another way to get your address changes to me, or to contact the Board with comments or suggestions.

### ***Congratulations MSS5!!!***

Congratulations to the Canadian students in the MSS5 programme!! After long months of very hard work, Kamran, Rocco, Simon and Valéry (the four Canadian students at MSS5) graduated on July 27th, 2000. We wish them luck in their future endeavours, and congratulate them on their achievement. We can't wait to hear all the stories from MSS5 in future Cosmonotes... ☺

### ***SSP 95 – five years!!!***

A personal hello goes out to my fellow Canadian alumni from SSP 95 in Stockholm, Sweden. It's been five

years already, but the fish and rice I remember like it was yesterday... I'm still horrified I ate Rudolph!

### ***Alumni Gatherings***

Alumni across the country have been busy gathering and exchanging ISU memories. We are happy to publicize upcoming gatherings if given enough notice (see the Toronto TOGA invitation article elsewhere in this issue), and to include in Cosmonotes cub scout reportings of any alumni gatherings. Read on for the fun – next time, send photos! (Especially if it includes our own CAISU President in a compromising situation!)

### ***EAA 2000 Ski Trip***

**by Sebastien Drouin (Staff 94, CAISU Ontario Director)**

Way back in February (yes I know I am late – did not make the cut for the last Cosmonotes!), a group of alumni from around the world gathered in northern Italy, in the Italian Alps at Monte Rosa for what is now known as the Annual European Alumni Association Ski Trip. This year (again), Maria Perino (Italy '89) organized the trip, and it was just amazing. Since I was the only Canadian there (a friend of mine was there too but he has not gone through ISU – yet!), I felt privileged and really showed my red and white colors.

We first arrived in Torino, after a week of traveling through Napoli / Pompei, Roma, Firenze, Pisa, and San Gimignano / Sienna. I teamed up with Jeff Hoffman and his wife that had traveled down from France (not that far away indeed). We jumped on a bus that took us way deep into the mountains. It was fabulous to see this abrupt transition from plains to, literally, a mountain wall. We wandered in deep valleys for about an hour until we reached Monte Rosa and our hotel Montbosco. The week was fabulous despite some unpredictable weather, for example: we left one morning on the lift that took us to something like 3800m altitude and it was bright sunshine. On the way down, a blizzard had risen and caught us with our guards down. We had to go at about 1km/hr downhill, on the radar, to be able to go down safely.

We could not see a thing past 1m and had to stay alongside the trail, one marking stake at a time. Once, I was even on the wrong side of the stake and ran into a sign. The description of the sign? Basically a guy falling off a cliff, on a yellow warning sign... That was it for the day.

Other days were great too. We took a lot of pictures, especially when we went for our off-piste adventures. The week was also marked with the annual general meeting of the EAA. All in all it was a great experience and for sure I am going to be there again next year. Talks are underway for the planning in either Switzerland or Austria, both of which I am sure will be awesome.

## Kingston - KAGA2

by **Sebastien Drouin (Staff 94, CAISU Ontario Director)**

On June 3<sup>rd</sup>, there was another big party, right in the ISU tradition. At my home in Kingston, the second KAGA lived up to its expectations. We had 11 people present and most of them slept over, in any corner of the house that they could find!!!

Present were: Dave Kendall and wife Toni, Bill Stewart (99) and Heather, George Tyc (95), Dave McCabe (works with George at Bristol), Angelina Guzzo (99), Rachel Zimmermann (MSS3), Isabelle Tremblay (98), and Louis-Paul Bédard (MSS3).

We had live music, great food, and of course amazing discussions in all subjects of space sciences! Truly this was an outstanding event and again is setting the standard for the next party in the fall after the SSP in Chile!

## The Québec Area ISU Gathering - June 17

by **Jonathan Knaul (SSP 98, CAISU Director Québec)**

Another wonderful ISU gathering was held this year at Louise and Alain Poirier's house in Montréal. The festivities started around five in the afternoon and continued until just after midnight (an unusually early retire for ISU folks). The start of the day arrived with grey and rainy weather. However,

by mid-afternoon the sun was shining and a beautiful evening was ushered in. Alain and Louise were terrific hosts yet again this year – there was lots of food, two BBQ's were cooking, and the backyard swimming pool was at 85 degrees C. One of the CAISU board members also remembered to bring syringes to the party in order to spike the watermelon. One mickey later of brandy (we forgot to bring vodka) and it did not matter how many band-aids we placed on the watermelon, the leaks were unstoppable!!!

There were close to 40 people in attendance. We had guests from as far as Vermont (Patrick French – several SSP and MSS affiliations over the years), Washington D.C. (Eric Choi, SSP '99), and from Portugal in what has now become a traditional phone call from Paulo Alfonso (SSP '98) - it was great to hear from you my friend!!!

The evening finished with three exciting slideshows. There were about 30 of us left, and we huddled closely in Alain and Louise's family room. Sebastien Drouin (Staff SSP '94, '95, '96, '99) and Josée Adamson (SSP '99) displayed two separate shows that they had prepared for the year 2000 Canadian student send-off, complete with the music from Apollo 13 – it was very kool! Alain Poirier finished the evening with a slide presentation on the International Space Station (ISS) and Canada's involvement. It was indeed inspiring to hear a personal presentation on this subject from Canada's Director General, Space Systems.

So...thank you to Alain and Louise Poirier for being such wonderful hosts. Thank you also to all ISU affiliates, spouses, children, and friends who attended and made the party such a success. See you again next year!!!!

## Paris Alumni Gathering

by **Marcus Dejmek (SSP 97)**

With warm regards from Jim/Lin Burke, Susan Rose, and Mark/Marianne Tantillo, the Paris Alumni Gathering (PAGA) began another charming evening in the city of lights and love at LA TABLE MAROCAINE DU XV. The seven of us (Christophe Belleval, Ivan Benilan, Alain Berinstain, Gianni Carra,

Iole De Angelis, Olivier Ferrandon, and your truly) were presented with a feast of vegetable couscous, chick peas, and a variety of spiced meats and grills that only Paris-born Moroccans know how to prepare. After two hours of enjoyable relaxation the seven of us realized that we simply couldn't finish the food alone. Only then did we realize that two of our confirmed French guests didn't arrive. (Don't worry about feeling guilty: you'll know who you are when you receive the dinner bill shipped to your doorstep!) Over Moroccan mint tea, the light intensity in the establishment was reduced to that of a dimly-lit romantic French bistro, and suddenly with background ethnic music playing louder and louder, we were pleasantly enchanted by a Moroccan belly-dancer. Dressed in traditional revealing belly-dancing garments, we were almost fooled by her own ethnic origin. (Her long blond hair and pale-coloured skin gave away the fact that she was from Grenoble and learned to dance in various French cities, including Paris.) As she dangerously glanced at our group, passing through the dinner tables on her search for hip - I mean, dance - partners, many of us were happy to have been seated on the opposite side of the table (sorry Alain!). Someone might have mentioned, however, that Gerome "hip-gyrator" Rives could have been hiding in the back of the restaurant. As most of us initially feared, by the time she had her way with our group, we ended on our feed and began the latter part the evening with an impromptu mini-ISU culture night party. Many walked away from the event with the glare of sheer joy embodied with fear, as if to be saying: "you with the camera, give me that film so that I may destroy any evidence of being in that revealing hip-gyrating, belly-dancing, position with a stranger that I know my significant other simply will NOT appreciate, particularly since it's a week-night!!!!". Many warm thanks are presented to Iole for having organized the after-hours session and for the most enjoyable mint-tea experience many of us have ever had (outside of ISU, that is). Make sure Paris is on your fall work agenda as Iole organizes the next gathering, complete with "surprise". A la prochaine, Mark.

## SSP 2000 T-Shirts

by **Chantal Lamontagne (SSP 95, CAISU Membership Director)**

The 2000 edition of the CAISU T-shirt was unveiled at the CFISU send-off, much to the delight of the students. The front of the t-shirt has the usual CAISU logo, with Valparaiso 2000 in red letters underneath, and a red maple leaf dotting the CAISU 'i'. The back of the t-shirt, shown below in black and white, has a cheeky-looking beaver aiming to remove the head off a horrified snowman with a knawed off SSRMS arm. A large red maple leaf, and Canada in red letters complete the design. (The full-colour t-shirt design should soon be on the CAISU website.)

The t-shirts come in sizes L or XL, and are \$15 each, which includes postage. If you would like to order one of these limited edition CAISU t-shirts, please email the Board at [bod@caisu.ca](mailto:bod@caisu.ca) and we will ship you one right away.

## Update on ISU Alumni

Is your name missing from this column? Send in your updates to Chantal at [clamont@utias.utoronto.ca](mailto:clamont@utias.utoronto.ca)

### SSP 1988 Cambridge

**Chris Sallaberger (SSP 88)** I have

accepted a new position as Director, Space Exploration at MacDonald Dettwiler Space and Advanced Robotics Ltd. (This company, also known as MD Robotics, or MDR, is the space robotic half of the former Spar Aerospace). MDR designs and builds the robotic arms for the Space Shuttle, and the main robotic system for the International Space Station. They have recently started expanding into the area of space exploration robotics for interplanetary space (Mars, Moon, asteroid missions, etc). I will be heading this effort in my new job at MDR. I started work at MDR on June 5.

### SSP 1992 Kitakyushu

**Mauricio Siciliano (SSP 92)** No job, no wife, no kids, no worries!!!

### SSP 1994 Barcelona

**Yifang Ban (SSP 94)** My husband Jonas Spaak (SSP 95 Sweden), my daughter and I are moving back to Toronto! I have accepted a faculty position at York University from July 1, and Jonas will try to start a career in Toronto while finishing up his Ph.D. in distance. We are all very excited!

**Catherine Beaudry (SSP 94)** Juste un petit mot pour annoncer la naissance de mon fils Pierre Beaudry-Ogden, né le 13 juin 2000, à 14h10 GMT à Chester, Angleterre... 5 semaines d'avance, ce qui fut toute une surprise pour papa et maman!!! Pour l'instant, il dors toute la journée et se réveille de 23h00 à 05h00... Une chance

que j'ai eu un bon entrainement à l'ISU pour ce qui est du manque de sommeil! Un beau bonjour au Canada de notre part.

**Michele Shemie (SSP 94)** I just returned from a six-month stint in Wichita, Kansas. Still working for Pratt & Whitney Canada in Montreal, I was temporarily supporting Cessna Aircraft. Wichita was surprisingly fun and welcoming. I learned a lot about the American Mid West, as well as about the aviation business, which in Wichita includes Cessna, Boeing, Raytheon and Bombardier.

### SSP 1995 Stockholm

**Chantal Lamontagne (SSP 95)** I am spending the summer travelling between two cottages, that of my family's in Notre Dame du Laus (Lac Bigelow), Québec, and the cottage that my husband and I bought two years ago in Sundridge (Lake Bernard), Ontario. We've been spending a lot of time renovating the cottage, plugging up many, many holes after mosquito infestations, and trying to figure out how one sneaky little mouse keeps evading our traps – even our cat! We're hoping the weather heats the lake waters up a bit, so we can enjoy more swimming and sailing (in which you sometimes go swimming...but not voluntarily!), but in the meantime we're enjoying the fishing season. My husband has finally been convinced that trout does indeed exist in the lake after catching his first one! The rest of the summer includes attending four weddings (but hopefully no funerals), and making final color selections



for the interior of our house. Only six more months to go! As always, I'm busy with the Phd, editing the Cosmonotes, assembling the Contacts Directory, planning TOGAs and this year designing the CAISU t-shirt.

**Greg Mallory** (SSP 95) Yep, the rumours are true: after camping out in my office for about 13 months I finished my degree in mid-April. I'm currently wrapping up a post-doc and I will soon be moving to Washington D.C. to begin working for a consulting company.

**Isabelle Plante** (SSP 95) Je suis présentement en congé de maternité. Eh oui, j'ai accouché de jumeaux non-identiques, 2 petits garçons Charles et Emile. Ils sont très mignons. Je serai de retour à Ericsson en 2001.

### **SSP 1996 Vienna**

**Marc Abela** (SSP 96) I just quit my job in Tokyo in order to join the session in Chili - ended up becoming the TA for the Engineering department. I will be back however in Japan around the month of October, right after the session and after a bit of travelling. My e-mail hasn't changed <Marc\_Abela@hotmail.com> so make sure you all stay in touch.

**Kevin Forkheim** (SSP 96) got engaged to Sarah Laing. A Summer 2001 wedding is planned.

**Christopher Paul Barrington-Leigh** (SSP 96) I plan to finish my work at Stanford University studying upper-atmospheric lightning-related discharges in August. Graduate school has been more fun than I even dreamed. After a bit of travel, I will be starting a postdoc at Berkeley Space Sciences Lab (not far away) studying solar x-ray data from a new satellite, HESSI. Yes -- I am going to pursue an interest in solar physics which was sparked at ... SSP '96 in Vienna.

**Lara Srivastava** (SSP 96) is now living near Geneva, and working for the United Nations' International Telecommunications Union (ITU), an organization responsible for the coordination of global telecommunications networks and services.

### **SSP 1997 Houston**

**Catherine Laurin** (Staff 97) demeure maintenant à St-Bruno, et elle travaille à l'Agence Spatiale Canadienne à St-Hubert.

**Marleen van Mierlo** (SSP 97) is working this summer as a Teaching Assistant for the International Space University (ISU)

Summer Session Program 2000 in Valparaiso, Chile.

### **SSP 1998 Cleveland**

**Morla Milne** (SSP 99) is currently at SSP 2000 in Chile, working as TA for the Space and Society department and also acting as ISU cub reporter for the summer. Please see her article elsewhere in this issue.

**Claude de Passillé** (SSP 98) est encore à Montréal, mais il change toujours d'adresse! Il travaille chez Daniel Arbour Architectes et Urbanistes dans le vieux Montréal, et cherche à contacter d'autres architectes ou designers industriels qui seraient diplômés de ISU, intéressés par la très hypothétique architecture spatiale.

**Jonathan Knaul** (SSP 98, CAISU Québec Director) has returned to Canada from his tour of duty in Kosovo. Upon his return, he was put right to work organising the Québec Area ISU Gathering (QAIG) in Montréal on June 17th - please see his article elsewhere in this issue.

Dr. Bob (**Rob Tarzwell** SSP 98, CAISU Director NSEW) is chipping away at his medical degree, eagerly anticipating graduation in May 2001. He is currently trying to spark interest on the board about an effort to bring SSP 2002 to UBC and Vancouver. Interested in seeing the SSP come to Canada? He's only a letter away: doctorbob@sprint.ca. Other recent spacey activities include publishing a paper called, "The Medical Implications of Space Tourism," in the June issue of "Aviation, Space, and Environmental Medicine." In May, Dr. Bob presented that same paper as a poster at the Space Bound 2000 conference in Vancouver. At the Space Generation Forum way back in summer of 1999, he was the forum Rapporteur. This is a fancy United Nations term for the guy who gets to stay up long after everyone else has gone to bed, collating the exciting, simmering ideas of the candidates into unified documents for presentation to the United Nations and subsequent distribution to the national delegations at UNISPACE III. Dr Bob is in his second year as the NSEW Director (North South East West) on the CAISU board of directors, meaning he is vaguely responsible for Canadian alumni affairs in the entire universe, excluding Quebec and Ontario.

### **SSP 1999 Nakhon Ratchasima**

**Thierry Fontaine** (SSP 99) Presently working at Bombardier Aerospace in Montreal. Involved in development of a fly-by-wire flight control system for regional aircraft, as a systems/project engineer. Also

coming to the last stretch of my aerospace master at école Polytechnique de Montreal. Specialization in requirements management for complex systems. It'll be over in December, enfin j'espère!

**Eric Lanoix** (SSP 99) Hello everyone, I hope everyone is enjoying their Summer. As far as I am concerned, I now work in Houston, TX for a NASA contractor called OSS (Oceanering Space Systems). I am working on the NGTC (Next Generation Thermal Carrier), an incubator to be flown on the EXPRESS Rack of the ISS. So now, both Canadian Eric=s from SSP >99 live in AmERiCa. Life is pretty good here. I just moved in late June from Montreal. I immediately joined the Argentine Tango community of Houston. So you can tell I=m doing well. I wish the best to our contingent of crazy Canuck=s currently participating in the WSP >00 in Chile.

**Nicholas Svensson** (SSP 99) is now Senior Manager, CDMA Test Engineering, at Nortel Networks, Wireless Solutions, in Calgary. He is hiring communications engineers like mad out there, so if you know of anyone who loves clean air, skiing and basically a great place to live and work, please give him a call.

### **SSP 2000 Valparaiso**

**Martin Gascon** (SSP 00) has just completed his Master Degree in Aerospace Engineering from the Ecole Polytechnique Montréal. Previously, he obtained a B.Eng. in Mechanical Engineering with a concentration in Aeronautics, also from the Ecole Polytechnique Montréal. He is the recipient of the Da Vinci Laureate (1999) and NSERC Scholarship and Scholarship for Excellence (1995-1998). He was the Vice President External, Association of Graduate Students, Member of the Legislative Council of the Federation of Québec University Students and Coordinator responsible for recruiting students at the Ecole Polytechnique Montréal. For the past few months, Martin has been a Trainee in Aerospace Engineering with Bombardier - Canadair. Last year Martin worked as a Teaching Assistant at Ecole Polytechnique Montréal. Previous to that he worked at Hydro-Québec Research Institute, where he completed his Master's project. Martin is fluently bilingual in English and French. He enjoys many different sports such as badminton, soccer, skiing and snowboarding.

**Richard Hough** (Staff 00) I grew up on a dairy farm just west of Kingston Ontario. While attending high school, I studied in the

electronics department and got the chance to compete at the Canadian Skills competition in the electronics division for four years. I am currently attending RMC studying in my final year of a Honours Space Science degree. Upon graduation I will work for the Canadian forces as an air navigator. After my mandatory service, I hope to find some work in a space or electronics related field.

**Wesley Oke** (Staff 00) I was born in Ottawa, Canada, where I have lived most of my life. In September, I will start my final year of a 4-year electrical engineering degree at the Royal Military College (RMC) in Kingston, Canada. After graduating, I will work for the Royal Canadian Air Force as an aerospace engineer. In May, I am to be married to my girlfriend of 2 years, Amy. When I am not with Amy or studying, I enjoy staying fit by playing squash, soccer, volleyball, jogging, or skiing. I also enjoy listening to many kinds of music, although my favourite is jazz.

**Shannon Ross** (SSP 00) I was born in Ottawa, Ontario, Canada in 1973. I am currently employed as an Environmental Scientist in the Applications Development Section of the Canada Centre for Remote Sensing. Professional research areas have focused on the uses of radar remote sensing for land applications, including agriculture and hydrology, in both domestic and international markets. In addition, I have been involved in applications development for the upcoming RADARSAT-2 satellite. I have a multi-disciplinary background, including geography, aviation, international development and remote sensing. I graduated from Carleton University in 1996 with an undergraduate honours degree in Geography, and am currently completing my Masters degree in the same faculty. My academic research goals have focused on the use of space technology, radar remote sensing in particular, for monitoring and mapping vector-borne disease. Personal interests include flying, travelling, kayaking and dancing.

**Elaine Tan** (SSP 00) A resident of London, Ontario, Elaine has attended various universities all within Southwestern Ontario in Canada. Being a recipient of the Canada Scholarship for Excellence in the studies of Science and Engineering, she chose to diversify her Bachelor of Science degree [from University of Western Ontario] to incorporate balanced studies in physical/life sciences, health/psychology, and environmental science. She has earned a Bachelor of Laws degree from Osgoode Hall Law School, and will soon be graduating with a Master of Business

Administration from McMaster University this coming December. In addition to her penchant for continuous learning, Elaine enjoys playing various sports, and most of all - seeking adventure, encountering new challenges, and having fun! Having always been fascinated with the future of space exploration and its impact upon both the environment and humanity, she knew that the ISU would provide the perfect opportunity to combine her educational background of sciences and social sciences into the launching pad for her future career in the space industry.

Please see the SSP 2000 article written by the students elsewhere in this issue.

### **MSS-1 1995-96**

**Alain Berinstain** (SSP 90, MSS3, CAISU President) Please see Alain's update under the article "Closing the Loop" elsewhere in this issue.

### **MSS-3 1997-98**

**Rachel Zimmerman** (MSS3, CAISU Secretary) I've recently started a new job in space education at The Planetary Society, and moved from Montreal to the Los Angeles area. I can't believe I'm getting paid to meet my heroes, learn as much as I can about Mars, and teach kids about space. We're developing a contest for elementary and high school students to choose a landing site on Mars for a (simulated/future) Mars sample return mission. I met Matt Golombek at JPL within my first week of working at The Planetary Society. I've already met some ISU alumni in the Los Angeles area. If any CAISUers are planning trips to southern California, come visit me.

### **MSS-4 1998-99**

**Simone Garneau** (MSS4) I will be finishing my contract position as Program Officer, Space Exploration at the Canadian Space Agency in Ottawa, at the end of July. I have really enjoyed this past year at the Agency! In September, I will be in Montreal where I will be starting my PhD in Planetary Geology at McGill University.

**Vaios Lappas** (MSS4) I would just like to share with you some recent news we have had. On June 26, our nanosatellite (the UK's 1st) was launched on a Cosmos launcher from the Plesetsk cosmodrome in Russia together with the Surrey built Tsinghua-1 (Chinese) microsat as secondary payloads. Launch was a success. SNAP-1 (only 6.6 kg !) is in a 704 sun-synchronous orbit and has been fully

commissioned. SNAP-1 has been detumbled and stabilized via its ADCS system. All systems have been tested and are working without any problems. SNAP-1 has for its primary mission 4 miniature cameras for satellite inspection and earth observation, a commercial telecommunications payload, and will demonstrate our nanosat platform, satellite inspection and formation flying. Further information, pictures of the launch can be found at: [http://www.sstl.co.uk/missions/subpage\\_missions.html](http://www.sstl.co.uk/missions/subpage_missions.html) click on SNAP-1. and <http://www.spacedaily.com/news/microsat-00h.html> <http://www.spacedaily.com/news/nanosat-00f.html> <http://www.spacedaily.com/news/china-00zk.html> This is a big success for Surrey since the spacecraft was built in less than 6 months (!!!) and its capabilities make it the most sophisticated nanosat to date and for the near future.

## **Next Issue...**

Look for more fascinating articles from CAISU in the next issue of the Cosmonotes in the fall. It will include a complete update on SSP 2000 and the two design projects, some words from MSS5 graduates and an introduction to MSS6 Canadian students, coverage of the Toronto Mars Society convention, of course a recap of our own CAISU one-day Mars seminar at the CASI conference, CAISU roadshow 2000 developments, and much, much more. On behalf of the CAISU Board of Directors 2000, I wish you all a great end of summer! Until next time...

Chantal Lamontagne SSP 95  
2000 CAISU Membership Director  
Editor, Cosmonotes

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