



New aerospace medicine program takes off

Barbara Sibbald

For the first time, Canadian physicians can pursue a career in aviation and aerospace medicine at a Canadian university. The first 2 physicians enrolled in the 2-year University of Toronto Fellowship in Aerospace Medicine course this summer. But it's not all dogged classroom work for Major Karen Breeck, a military flight surgeon, and Dr. Siraj Hameed, a civilian from Saudi Arabia. The work involves on-the-job training, travel to meetings and other training centres, and flight training. All aspects of the course are geared to the specific needs of physicians.

Dr. Gary Gray, codirector of the program, which is based at the Defence and Civilian Institute of Environmental Medicine (DCIEM) in north Toronto, says first-year students will spend time at US Air Force training centres, the Air Canada medical clinic and elsewhere, and earn a private pilot's licence. "To understand the environment you have to get a taste of it yourself," he explains. "What is it like to fly, to be alone up there?"

Breeck recently completed her first solo cross-country flight in a Cessna 150 after cramming a year's worth of training into a month. She has also flown the same plane, the Tutor, that is used to give Canada's fighter pilots their initial jet training. "I have a lot more respect for pilots now," she says. "It's more work and requires more background knowledge than I knew." She expects to earn her pilot's licence this fall.

As a military physician, Breeck also has to take courses in being a flight surgeon, diving medicine, survival, aviation medicine and flight safety. She will spend about 6 months with the US Air Force, acquiring specific training in operational aerospace medicine.

Students spend more time in the classroom during their second year, when they will complete a master's of health science in occupational and environmental medicine at the U of T. Dr. Linn Holness, a professor of occupational health medicine, is codirector of that program.

Breeck, 35, likes the work for 3 reasons: it includes environmental factors such as extreme temperatures as well as medical training, it lasts only 2 years and it will provide "a focus to the rest of my career." Within the military, aviation and aerospace medicine is a recognized specialty, with positions available in research, policy direction, teaching and the DCIEM Central Medical Board. Eventually, Breeck's work could include advising air commanders on issues such as drug side effects, or providing medical advice at military headquarters or overseeing developments in aircrew life-support equipment.

She's crossing her fingers that Canada's military mandate will expand to include space medicine. First thing after



Courtesy Karen Breeck

Dr. Karen Breeck with her flight instructor

she graduates, though, she'll have to take some French-language training and then work as a wing surgeon in charge of a military hospital.

In Canada, civilian graduates might work at an airline or in Transport Canada's licensing department. A few also practise clinical aerospace medicine with pilot clients, though Gray says this is more common in the US because Canada does not have the pilot population base to support full-time aerospace physicians.

Enrolment at the U of T is now limited to 2 students, with tuition costing between \$30 000 and \$40 000 annually, depending on course configuration. Gray says the university is trying to get funding to support civilian physicians who want to enrol. However, the course is a bargain for the Canadian Forces, which used to spend much more to send trainees to the US Air Force training centre in Texas or the US Navy program in Florida. The new Canadian program is the fifth of its type in North America.

When they graduate in July 2001, the 2 physicians can opt to take the exam for accreditation — in the US. There is no accreditation in Canada because there aren't enough doctors requiring it, but the American Board of Preventive Medicine provides it.

Breeck is enthusiastic. "It's wonderful and certainly better than being in an office."

Another sign of growing interest in the field is the Association for the Development of Aerospace Medicine. It was recently launched at McGill University and is open to anyone with an interest in the field. Contact greno00@med.mcgill.ca.

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