THE GATEWAY, Thursday, September 23, 1976.

Can you tell which side is up?

wer an arrow shape. With exact ot timing, and precise manipulation

of the control stick and the jvre throttle, they executed a giant kill loop while changing to a 'T' formation. Then the solos rejoin-CO pilo ed the group for a "Palm Tree s ar Split". This is where they all climb. rce vertically together, then branch a fe out in various directions - the rnt smoke trails leaving a palm tree. A few more equally spectacular !S usin displays were performed by the on seven plane formations with the solos filling the breaks resulting atir in a continuously action packed pos exhibition. The Wright Brothers would have enjoyed this.

stt After landing and parking, t the men in their flashing red nta flying suits greeted an awaiting 'g's group of air cadets that had our watched the practice. These boys in t were enthusiastic about meeting the team.

rat The men of the Snowbirds irrat are a friendly group of guys. They we spent a few minutes signing t ar autographs and answering ner questions. This is a standard ega procedure after every show. Also oos standard after every show are the nde debriefings.

It was an informal meeting. nau The team sat around a lounge oun with Major Gauthier at the front of the room sitting on a table. He we led the discussion as they went che through every step of the show. They strive for perfection. Лаj Detailed analysis is given to even ea the slightest error such as a plane at a few feet out of place. the

nor "Hey boss, you seemed to be d t going a little slow over the top of on the first loop," one of the men see pointed out. "Yes. I throttled back about

d th five percent," Major Gauthier fe recalled. "How did it look from

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Six-month absences hard on wives and children

the ground?" he asked Capt. Girard.

"Not bad, but the right side seemed to be a bit high," he noted — recalling slight deviations that go unnoticed by the audience.

Since they fly the same show every time, they remember exactly what happened. Yet, after this discussion they usually watch a video recording of the show to further analyse.

"Solos — how was it?" Major Gauthier asks. "Good," Ken replies.

"So do we need a practice tomorrow?"

"No," came the responses. "Looks good enough to me, boss."

"But we're not flying on Wednesday or Thursday, so we should practice tomorrow, and take Wednesday off," one of the men remarks. "Right." "Might as well."

"All agreed?" Major Gauthier asks. "O.K. then, 1400 tomorrow."

This 24 hour clock is part of the Snowbird language. For them it is a necessity because of their rigid schedule. They don't have much spare time, and when they do, it is usually spent preparing to move.

This season, they are planning to complete 74 performances at 56 locations. They travel back and forth across Canada and the northern U.S. in order to link their show with air shows, Bicentennial celebrations in the U.S., and various other events.

Capt. Girard is the Team Coordinator. Accordingly, he spent all last winter arranging these shows. This was a big job because he had to check out all locations to ensure there were no obstacles, and that there was enough room to park the Tutors. Also each site must have sufficient runways, and a large viewing area. He also arranges crowd control, accommodations for the team, and publicity for the shows. Fortunately, the Tutor does not require very long runways, so small towns can be included in the Snowbird's itinerary.

There are many other reasons why the Tutor is a very good aircraft for the team. It is easy to maintain; easy to fly. And, if the clouds are low, the Snowbirds can put on a "flat show", where the Tutor performs loops with very little altitude. Also, since the Tutors have two seats, the team can take along the entire support crew when travelling to a new location.

There are ten technicians on this support crew. They are the best in their respective fields, and can affect quick repairs to the aircraft. This is very important because of the rigid schedule of the team. Each member of the crew is specialized in one type of maintenance, but they all know the aircraft well, and can help each other.

This was all explained by

Capt. Girard and Major Gauthier, during an open discussion they had with me about the team. In addition to answering all my questions about the technical aspects, they also explained the human aspects. Travelling for six consecutive months is very hard on the families of the married men. Their wives get together and help each other to overcome such difficulties as coping with loneliness, and managing families alone.

Also, the men are effectively working all the time while on tour. Because of these hardships, they are assigned to the team for only two years. After all, working for the team would become just a job. They carry on as instructor pilots, or take on other new jobs at a base they can call "home".

Despite the hard work, it is a very exciting job, with many rewards. One of their biggest rewards is an excited audience. When someone tells them that it was a great show, they are highly gratified to be a member of the team. It's as much fun flying with the team as it is to watch the show.

So, if you have the opportunity, be sure to see the show: a guaranteed thriller.

Freeze: this is a cold-up!

by Garth Mihalcheon

When the word "cryobiology" is mentioned, one immediately conjures up images of frozen humans winging their way through deep space, or the carefully-preserved bodies of cancer-ridden millionaires who had hoped for a second chance at immortality.

However, given the present state of cryobiology (the study of life at lower temperatures), the prospect of turning the family plot into a coldstorage vault is dim indeed.

Actually, researchers in this fledgling scientific discipline are interested in more immediate and pressing problems such as organ and embryo preservation. This interest is reflected in the new cryobiology course (BEAS 510) offered this term by the Division of Biomedical Engineering and Applied Sciences of this university.

Course instructor Dr. Lackley McGann says he believes it to be the first course of its kind in North America,

According to Dr. McGann the main thrust of current cryobiological research is in organ preservation for transplantation. He suggests that, within the next decade, whole human organs may be successfully cooled and preserved for much longer periods of time than presently possible. In addition to organ preservation, current applications of cryobiology such as cryosurgery, the freezing and storage of red blood cells for transfusions, the freezing of spermatozoa, and newly-developed techniques for embryo preservation will be among the topics for discussion in the course.

The use of "frozen" embryos for implantation into surrogate mothers may prove to be as beneficial to the cattle industry as is the current use of frozen bull spermatozoa for artificial insemination. The moral and social implications in the application of such technology to humans are complex, and will also

be considered in the course.

In response to the inevitable question concerning "suspended animation" and post-mortem freezing of human beings, Dr. McGann makes it clear that, although small mammals have been cooled to zero degrees centigrade and revived after several minutes, today's freezing and revival techniques are far too damaging to human physiology to be successful.

So, before we throw grandma and grandpa in the deep-freeze, we would be wise to let cryobiologists catch up on their homework. For more course information, contact Dr. McGann at 432-4985.