Technical Highlights from the 2004 Symposium
INCOSE 3rd Annual Conference for Space
Claude Y. Laporte, claporte@ele.etsmtl.ca

The Canadian Space Agency (CSA), in partnership with the Montréal area INCOSE chapter and the Montréal Engineering School ÉTS (École de technologie supérieure) hosted its 3rd Annual System Engineering Conference for Space. Our host and conference manager was Eric White, Director Systems Engineering – Space Technologies, and his staff consisting of Philip Melanson (Organizing Chair) and Nathalie Samson (coordinator and editor). The program chair was Professor Claude Y Laporte from the Engineering School ÉTS. Over 74 people attended the third annual conference held April 30. The ten speakers focused on two themes: optical systems for space, and simulation and modeling.

Whether observing our planet or viewing the far reaches of the universe, optical systems represent the cornerstone technology essential to uncover new scientific breakthroughs, which in turn will bring tremendous benefits to all human kind. One of the presentations, by Dynacon Inc., provided insight to the MOST satellite. MOST is short for “Microvariability and Oscillations of Stars,” and is Canada’s first space science satellite to be launched in 30 years. Also known as Canada’s “Humble Space Telescope,” MOST’s small size (50 kg) and low cost (<$10M) make it Canada’s first micro-satellite mission. Another CSA presentation outlined the Canadian contribution to the James Webb Space Telescope for which CSA is contributing a Fine Guidance Sensor (FGS) and a Tunable Filter Imager (TFI).

The use of modeling and simulation in mission design offers a new set of tools that unite various disciplines and allow accurate representations to be created. This offers a unique environment for stakeholders to resolve all the issues involved in a successful space mission. A presentation by Bristol Aerospace Limited described the various types of spacecraft simulations that are used throughout the program life cycle, and highlighted how simulation can be used to improve the cost effectiveness of delivering small satellite missions. The Mobile Servicing System (MSS) is Canada’s contribution to the International Space Station (ISS). A presentation by MD Robotics demonstrated how a specific simulator has been used in support of MSS dynamics verification and analysis over the last decade.

In addition to the main presentations, two other topics addressed were the program and activities of the International Standardization in Software and Systems Engineering at the ISO/IEC (International Organization for Standardization/International Electrotechnical Commission), and the CSA’s International relations role and supporting activities.

The organizing committee is preparing the 4th Annual Conference that will be held next April at the Canadian Space Agency near Montréal.

Commemoration of Eric White

INCOSE member Eric White passed away suddenly and unexpectedly on September 16. Eric had been battling recently with a malignant form of cancer. He was hospitalized in early September and passed away peacefully in his sleep at the Montréal General Hospital.

Eric was actively involved in promoting the systems engineering discipline at the Canadian Space Agency where he was director of Systems Engineering. He managed a team of system engineers that supported a number of the Agency’s missions, including Canadarm2, Canada’s contribution to the International Space Station.

Eric was a sound believer that INCOSE was key to promoting and improving practices of the systems engineering discipline. He had recently taken the reigns of the Montréal INCOSE startup chapter in an effort to achieve official chapter status in the coming year. In addition, Eric also promoted the discipline by hosting an annual Systems Engineering Conference for Space, which was attracting participants in increasing numbers, and was to begin preparations for the next event.

Eric was one of Agency’s most experienced managers, and he devoted his career and his life to the Canadian Space Program. For this, the Canadian Space Agency remains in his debt. His Agency colleagues and team members will miss his understanding of the demands of the profession and his inspirational guidance.