As part of the Expedition 34/35 mission, Canadian astronaut Chris Hadfield launched aboard a Soyuz spacecraft to the International Space Station (ISS) on December 19, 2012. In March 2013, he became the first Canadian Commander of the ISS.

A series of video conferences live-from-space were organized between the ISS and schools based in Canada. To ensure a successful event, Eclipse Solutions AV was chosen to assist the Canadian Space Agency, the International Space Station and NASA. Analog Way’s Tetra-VIO was used as the main converter for these incredible conferences.

The Canadian Space Agency connects students to the International Space Station
To raise and attract interest in the Expedition 34/35 mission with Canadian astronaut Chris Hadfield aboard, the Canadian Space Agency decided to conduct a series of video conferences with Hadfield, new Commander of the International Space Station, and different groups on Earth.

This communications activity was established to engage Canadians to learn more about the mission and the Canadian Space Program.

Relying on the fascination of space, the Canadian Space Agency also aims to inspire Canadian youth to pursue studies in science and technology.

In this context, a live chat was organized on January 2013 with Chris Hadfield in space, and 800 elementary students from Chris Hadfield Public School in Milton, Ontario, Hadfield’s home town.
Eclipse Solutions AV manages the live-from-space conference with Analog Way’s Tetra-VIO

As a solid and professional AV company, Eclipse Solutions AV was chosen for the first live audio/video communication event in Canada with the International Space Station, handled from remote venues. Live feed from Chris Hadfield was broadcast at the venue, and students were able to ask questions live, while the astronaut was answering them on the spot.

Yannick Provencher, Founder and Technical Director at Eclipse Solutions AV, explains the complexity of such a communication system: “Technical requirements are considerable in downlinking events from space as the Canadian Space Agency needs to work with NASA to get the audio / video feed. There is no tolerance for mistakes when it is time to go live”.

To make sure everything was up to top quality level, Eclipse Solutions AV put lot of efforts from pre-production to show delivery to achieve a seamless event.

To convert and deliver different audio and video signals, Yannick Provencher selected Analog Way’s Tetra-VIO as the main video processor for the event. The video and audio coming from Chris Hadfield in the ISS was broadcast from the NASA channel on a satellite feed. The component HD 1080i signal from the satellite box was fed into the Tetra-VIO together with the audio mix coming from the main soundboard.

Thanks to the Tetra-VIO, Eclipse Solutions AV had a HD-SDI output in 1080i with embedded audio. From there, the media was delivered with a single BNC containing high resolution digital video, plus audio mix of the room. The signal outputted from the Tetra-VIO was also feeding an HD 8K projector.

In addition, a computer was added among the sources to deliver PowerPoint presentations. “With the VGA input of the Tetra-VIO, there was no problem to share the images to the screen and media. Signal quality was very good, even with cable distances”, says Provencher.

For this unique event, meticulous preparation was a must. “All details and chosen AV equipment were important. For the kids present, this was a chance of a lifetime to speak with an astronaut, direct from space. As we often say, “the sky is the limit”, from Eclipse Solutions AV and Analog Way, it is now “Space is the limit!””, concludes Provencher.

Eclipse Solutions AV

Eclipse Solutions AV specializes in audio visual and offers all the products, services and advice for the realization of an event. Whether for training, a congress, a gala evening or any other activities, the company will assist in choosing the right audio visual solution for your needs. www.eclipsesav.com

Analog Way is a leading designer and manufacturer of presentation switchers and image converters. The company designs a wide range of seamless switchers, computer to video scan converters, scalers, and up/down converters. The products provide the most advanced solutions in the, AV, Rental & Staging, Education, Houses Of Worship, Corporate, Broadcast and Industrial markets.