

Conceptron *Associates*

T E C H N I C A L • S E R V I C E S

• Independent Audio-Visual Design Consultants •

1195 Durant Drive, Coquitlam, BC Canada V3B 6R3

Phone: +(1) 604-945-5241

FAX: +(1) 604-941-5562

EMAIL: gmusgrave@conceptron.com

WEB: www.conceptron.com

AV PROJECT PROFILE



Project: “Pacific Passage” Thematic Area – Vancouver International Airport (YVR), Vancouver, BC

Project Type: Themed Area

Dates: March 1999 to March 2000

Summary: Design, specification, tendering, installation review, and acceptance of audio-visual support for the “Pacific Passage” themed area for the **Vancouver International Airport** (YVR) international terminal expansion.

International passengers arriving at YVR now enjoy a unique welcome when they arrive in the new wing of the **International Terminal Building** (ITB). Glass-enclosed passenger boarding bridges to seven new gates (the only ones in North America) lead passengers to “Pacific Passage” – a 40m x 17m (130' x 55') walkway through the beauty of a West Coast landscape. This thematic area welcomed the first international passengers on March 22, 2000.

Conceptron Associates’ portion of this project involved designing the audio environments and show control system.

Site Statistics: In 1999, the **International Air Transport Association** (IATA) ranked YVR as the fifth best international airport in the world, and the second best airport in North America. In addition, **Condé Nast Traveler magazine** ranks YVR among the top 10 airports in the world while **Business Traveller-Asia Pacific magazine** readers rate YVR as the top North American airport.

In 1999, YVR welcomed 15.85 million passengers and 290,362 tonnes of air cargo. Currently, YVR is served by 62 airlines, providing service to 75 destinations in 16 countries. It continues to have the fastest international passenger growth rate on the west coast. The opening of the new wing (stretching the equivalent of a 50-story building lying on its side) comes just four years after the ITB opened in 1996, reflecting YVR’s growth and positioning as the premier global gateway between North America and Asia-Pacific.



Pacific Passage within the new 18,000-square-metre expansion of the ITB continues the airport’s award-winning artistic theme and direction. This thematic area is a unique depiction of a coastal beach – complete with water, sandy shores, and rugged cliffs. It features native artwork against a scenic backdrop with sounds of wildlife amongst live plants and trees. Of all the new native artwork, perhaps most striking is the enormous Raven sculpture crafted by First Nations artist Connie Watts. Inspired by her grandmother, this impressive work is suspended from the ceiling, dwarfing those below. In addition, works by artists Tim Paul, Stephen Bruce, Lyle Wilson, and Stan Wamis are also featured.

Audio Environment

The challenge was to create an ambient soundscape to compliment the natural landscape exhibit in this thematic area. The mandate was to use sound to add realism and motion to "bring to life" an otherwise static artificial environment. This had to be done with subtlety, so as not to overpowering the scene – replicating an outdoor soundscape such that its presence would not be nearly as noticeable as its absence.

An overall stereo soundscape loop is replicated through a distributed overhead system and a number of speakers deliberately aimed at the glass walls running the length of the environment. These combine to create a non-directional, ambient sound for both the ocean and forest halves of the landscape. This soundtrack consists of low-key, non-directional sounds to form a background texture.



Five key First Nation sculptures are provided with dedicated spot sound effects that are triggered at random – the delay between each effect is also randomised. Further spot speakers are concealed across the ocean and forest landscapes, and are also randomly triggered. These feature appropriate environmental effects such as bird and animal sounds to add life to the beach and forest. A dedicated sound loop of waves on rocks (just out of the visitor's sight) adds a dynamic element to the "ocean."

To achieve high-reliability with near-zero maintenance, all audio material is contained in solid-state EEPROM-based playback units with no moving parts.

Show Control

Since passengers arrive in this area in "clumps" at certain portions of the day, it was decided that the soundscape should "sleep" during idle periods. To this end microwave motion detectors are used to detect passengers approaching each of the two entrances to the area.

When triggered by the motion detectors, the solid-state playback units containing the overall ambient soundscape are started in looping mode, and the lighting system is triggered. For each spot effect, one of a number of speaker lines is switched to the output of the associated spot playback amplifier, and one of a number of available audio clips is selected at random. After completion of each spot clip, there is a delay before the next speaker line and clip are randomly selected – this delay is also random. This speaker and clip selection process continues until the controller once again goes idle (i.e.: when no additional motion detector triggers have been received for a pre-defined time-out period).



A programmable logic controller (PLC) is used to accomplish this control. Manual controls are provided for de-bugging and system RESET in the unlikely event of a controller lock-up. The audio is immediately killed when the emergency paging system is activated.