

Technology In Our Lives

Wireless Broadband Overcomes Seemingly Impossible Challenges To Better Connect And Educate

(NAPSA)—Global communications leader Motorola has developed wireless broadband networks throughout the world that thrive in the most extreme places on Earth and under the harshest of conditions. Wireless broadband provides reliable high-speed Internet and data network access over a wide area.

From mountain resorts in Washington to data feeds from the ocean's floor to withstanding extreme conditions like subzero Antarctic temperatures, on a daily basis, the reliability of these broadband networks is routinely put to the test. Providing broadband over water or in icy environments is no easy feat.

There are many challenges for wireless broadband in rough geographies and severe climates. Obstacles include radio interference, environmental factors and the need for coverage both indoors and out. Motorola's purpose-built wireless networks provide connectivity in the most remote locations under the most challenging circumstances.

- Nestled in the canyon of the Columbia River, Crescent Bar Resort is a remote vacation community in central Washington state. For years, its secluded location has prevented the resort town from providing residents and visitors with Internet access or cell phone service. Today, with Motorola's innovative wireless broadband technologies, Spectrum Communications, a full-service radio, Internet and computer provider, is able to deliver carrier-grade connectivity for the community using a series of radio links



A new kind of network offers reliable communication in virtually any situation.

spanning distances of three and eight miles. Situated on the bluffs above the river canyon, these radios have to withstand the harsh winter climate in this mountainous region and have the ability to maintain a reliable connection despite difficult terrain or signal-blocking obstacles like trees.

- The National Oceanic and Atmospheric Administration (NOAA) conducts oceanic and atmospheric research as well as works to keep Americans informed of our ever-changing environment. NOAA's Aquarius is the world's only operational undersea laboratory, located 10 miles offshore near

the coral reef at the Florida Keys National Marine Sanctuary in Key Largo. Motorola's point-to-point broadband network—wireless data communications between two end points—allows NOAA to stream voice, data and live video from inside the Aquarius. Video footage from the ocean floor is transmitted over water for placement on the Internet for the world to see. The Aquarius also serves as a training site for NASA's astronauts and Motorola's point-to-point network has even enabled videoconferencing between the Aquarius and the International Space Station.

- Some climates are so harsh that they only permit local wildlife and scientific exploration. Antarctica, where temperatures average only -58°F and winds continually whip across the ice-covered land, is a perfect example. These adverse conditions are home to scientists from the Columbia Scientific Balloon Facility, located on the Ross Ice Shelf, which provides support for large, unmanned, high-altitude research balloons for scientific space study. Motorola's wireless broadband point-to-point network connects this remote outpost with the McMurdo Station, the largest research station in Antarctica, enabling the scientists to collect and transmit valuable data within the rigors of the South Pole.

Wireless broadband overcomes seemingly impossible communications challenges to better connect, protect and educate people around the world. For more information, visit www.motorola.com/wirelessbroadband.