

IP501H LTE Transceiver: **Case Study**

LTE-CONNECT

2018 Arctic Winter Games

Icom's LTE-CONNECT Provided Push-to-Talk Instant Wide Area Communication Using Existing LTE Network



A case study prepared by Icom America and Icom Canada.
Manufacturers of high-performance award-winning radios for over 60 years.

2018 Arctic Winter Games

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Hay River, on the Great Slave Lake in Canada's Northwest Territories, along with Fort Smith hosted the 2018 Arctic Winter Games. The distance between them of 274 kilometers (170 miles) coupled with temperatures ranging from -15° to -25° C (5° to -13° F) posed significant challenges for the games' organizers.

Just as challenging was optimizing communication between 250 officials and 2,000 volunteers to keep the nearly 2,000 competitors across 19 sports organized, safe, and secure.

Searching for Solutions

LTE-CONNECT

Icom Canada worked with the Arctic Winter Games to overcome not only the distance and extreme temperatures but also system loading, voice quality, and cost effectiveness. They further needed multiple talk groups and full-duplex communication. They found that nearly twenty different talk groups were needed to cover not only the events themselves, but also transportation, security, medical, and housekeeping.

Featured Products:

- IP501H

They explored setting up a radio system between the two towns but knew it would be both time consuming to install and expensive. That's where Icom's LTE-CONNECT came into the picture.



Icom's LTE-CONNECT Solution

Since both towns have LTE coverage it was decided that the IP501H LTE Transceiver would be a superb fit. Its capability of providing wide area coverage over existing LTE (4G) and 3G networks met all the Games needs and did so in a very cost effective manner.

Its compact and lightweight body, at just 240 grams (8.5 ounces) and 59 x 95 x 32 mm (2.3" x 3.7" x 1.3") size proved very popular. It's also IP67 dust-tight and waterproof to a depth of one meter for 30 minutes.

Even better was the IP501H's multiple user communication including individual, group, talk-group, multiplex talk-group, and All calling. It further provided text messaging and voice message recording. All this worked perfectly to keep everyone informed and to get all the key players on the line at once to address impending issues or emergencies.

The users, many of whom had never used two-way radios before, loved the size of the radio and the superb audio quality. But what stood out the most was the benefit of full-duplex operation. They could talk and listen simultaneously, immediately recognizing when the other user was talking, something not possible with simplex communication. This greatly improved the efficiency of conversations and brought everyone up-to-speed quickly, even those without previous radio experience.

In total, the Arctic Winter Games used 187 IP501H LTE Transceivers across 18 talk groups. It served their needs perfectly and did so efficiently and cost effectively.



"Icom was a great partner and made the 2018 Arctic Winter Games a huge success! The IP501H radios were absolutely exceptional. These radios provided our team with the needed wide-area communications during these games. And thank you Rose Leblanc from Icom Canada for the excellent operational support." – Thorston Gohl - AWG



2018 Arctic Winter Games

Celebrating its 25th Anniversary in 2018, the games were hosted by Canada's Northwest Territories South Slave region. The games provided a venue to allow Northern athletes to compete and build a strong network between communities.

The participating teams were: Alaska, Greenland, Northern Alberta, Northwest Territories, Nunavik, Nunavut, Sapmi (indigenous peoples of Northern Scandinavia), Yamal (one of the subjects within the Russian Federation), and Yukon.

The teams competed across 19 sports: arctic sports, badminton, basketball, biathlon-snowshoe, biathlon-ski, cross country skiing, curling, dene games, dog mushing, figure skating, futsal, gymnastics, hockey, snowboarding, snowshoeing, speed skating, table tennis, volleyball, and wrestling.

The Arctic Winter Games logo, consisting of three interlocking rings, symbolizes athletic competition, cultural exhibition, and social interchange, which is the philosophy behind the Games. Although gold, silver and bronze medals are awarded to the athletes, the only trophy awarded is to the team that displays the best sportsmanship throughout the Games, the Hodgson's trophy.

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