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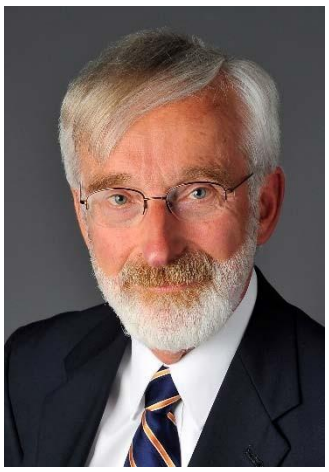

UAA Professional
Development Seminar Series

Broadband Satellite Technology for Alaska and the World

Presented by Dr. Alex Hills (Distinguished Service Professor, Carnegie Mellon University) and Dr. Jens Munk (Professor, UAA)

ABSTRACT: New satellite technology promises to provide broadband service anywhere in the world. The new technology uses low-Earth orbiting (LEO) satellites in different orbits than the more conventional geosynchronous Earth-orbiting (GEO) satellites. Companies like Starlink and OneWeb are already using LEO satellites to provide broadband service here in Alaska. But a challenge for current and future constellations of LEO satellites is that they must share the radio spectrum with GEO satellites. The International Telecommunications Union (ITU) and the Federal Communications Commission (FCC) require that LEO satellite operators avoid interfering with GEO systems and with each other. In this seminar we explain how the new satellites are different, how radio interference can occur, and how it can be prevented.

Dr.Alex Hills is Distinguished Service Professor of Engineering & Public Policy at Carnegie Mellon University. At Carnegie Mellon, Professor Hills conceived and built the world's first Wi-Fi network. He tells that story in his book *Wi-Fi and the Bad Boys of Radio*. In Alaska Alex is well known for his role in developing the state's broadcast and telecommunications systems. He worked in the 1970s and 1980s to build public radio stations across Alaska and to develop the state's telecommunications networks so that even small villages could receive television and telephone service. This story is in his book *Finding Alaska's Villages: And Connecting Them.*

In his 50 years in Alaska, Alex had time to do a few other things, too. He was the founding general manager of KSKA, Anchorage 's first public radio station, a professor at UAF, a University of Alaska vice president, and a distinguished visiting professor in Singapore, New Zealand, and Chile. An inventor with 17 patents, he is a Fellow of the IEEE, a member of the Alaska Innovators Hall of Fame, and he has been named Alaska's Engineer of the Year. In 2014 he was awarded an honorary doctorate by the University of Alaska Anchorage.

Friday, September 29, 2023

11:45 am - 12:45 pm

Online Via YouTube Live