



UAA College of Engineering
UNIVERSITY of ALASKA ANCHORAGE



UAA Professional
Development Seminar Series

Satellite Broadband- A New Service that Comes with Challenges

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

ABSTRACT: Folks all across Alaska have discovered Starlink, and they now have broadband service for the first time. OneWeb is another company now providing broadband to Alaskans. Using satellites in different orbits than the more conventional geosynchronous Earth orbiting (GEO) satellites, Starlink and OneWeb are using low Earth orbiting (LEO) satellites to provide broadband service, and the new technology can do the same in other previously unserved parts of the world. The change is dramatic, but there are clouds on the horizon, problems of space debris — congestion in space — and radio interference — spectrum congestion. Alex and Jens will explain how these new satellite systems work, why they are successful, and the problems they face.

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 13, 2024

11:45 am - 12:45 pm

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