

Quintillion Subsea Cable System Project

PRESENTED BY:
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North Pacific Fishery Management Council
226th Plenary Session
Anchorage, Alaska
December 10, 2015



About Quintillion

- Headquartered in Anchorage, Alaska
- Carrier for the local provider – we provide high speed “broadband” capacity to the local providers – ASTAC, ACS, GCI, etc.
- Managed by Elizabeth Pierce, CEO and Founding Partner
- Funded by US private investment group and select Alaska investors including Arctic Slope Regional Corporation (ASRC)



Purpose and Benefit to Community

High-speed Bandwidth stimulates community development:

- Enables extensions to connect more communities
- Carrier neutral: All telecoms can use the networks
- Substantially improve communication/Internet service while reducing costs
- Enables improvements in education, health care, public safety, search and rescue
- Stimulates economic growth

User Pays Business

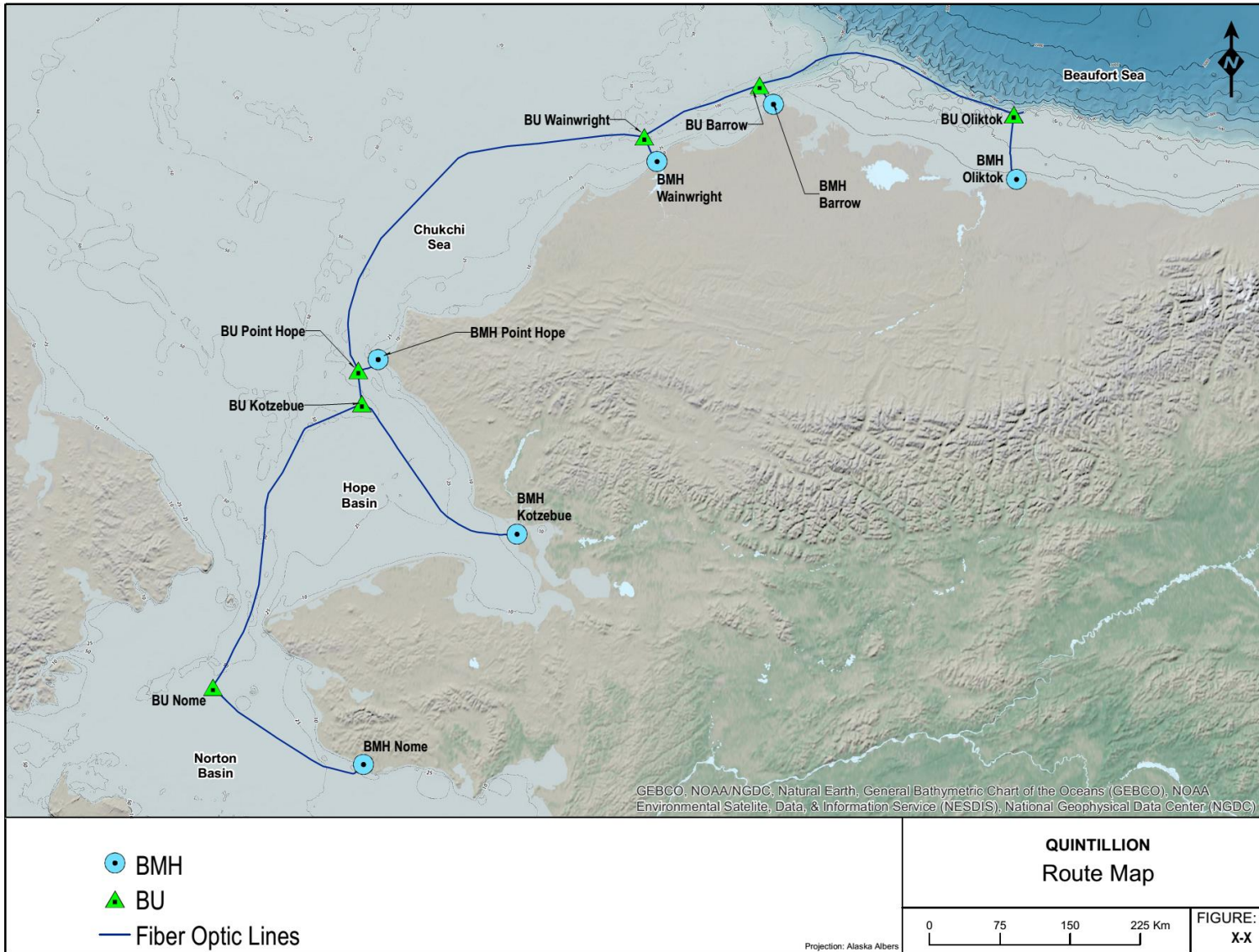
- All costs that go into delivering Broadband are passed on to the users at each landing

Short Term Activity for Long Term Benefit

- One summer to install
- No return work except for damage



Route Map – Phase I Alaska



2015 Project Work

- 1. Marine Survey:** confirms cable route and required burial depth
 - **Geophysical Survey:** map the sea floor using side scan and multi beam sonar
 - Completed July and August 2015
 - **Geotechnical Survey** analyze sea floor soil properties to design the cable burial plan
 - Ongoing through late October/early November
 - **Fugro**, subcontractor to Alcatel Submarine Networks, conducting Marine Survey work

- 2. Horizontal Directional Drilling:** install conduit in shallows near shore to protect cable
 - Drill from shore side with a surface drilling rig: up to 1 mile offshore
 - Bore drilled 60 – 80 feet deep below sea floor and steel casing installed for cable
 - Minimal impact on the surrounding area and shoreline

- 3. Cable Landing Stations:** work continues to install buildings and equipment



Why do we need to bury the cable?

- Human activities present the greatest risk to subsea cables
- In the Arctic, ice gouging presents a serious risk
- Cable must be protected by burying it in the sea floor in the shallow waters

Causes of service-impacting cable breaks	Percentage
Fish trawling	40%
Ship anchorages	28%
Subsea earthquakes or subsidence	8%
Shunt (electrical faults) failures	8%
Amplifier or branching unit failure	4%
Abrasion (wave, seabed, ice)	3%
Other factors, sabotage, etc.	9%
Total	100%

*International Submarine Cable Protection Committee, 2013



2016 Summer Activities: Cable Installation

Details on the cable lay are still being finalized

- Cable laying vessel details to be determined
- Final route of cable to be confirmed
- Target cable lay late June through early September

System Builder: Alcatel Submarine Networks

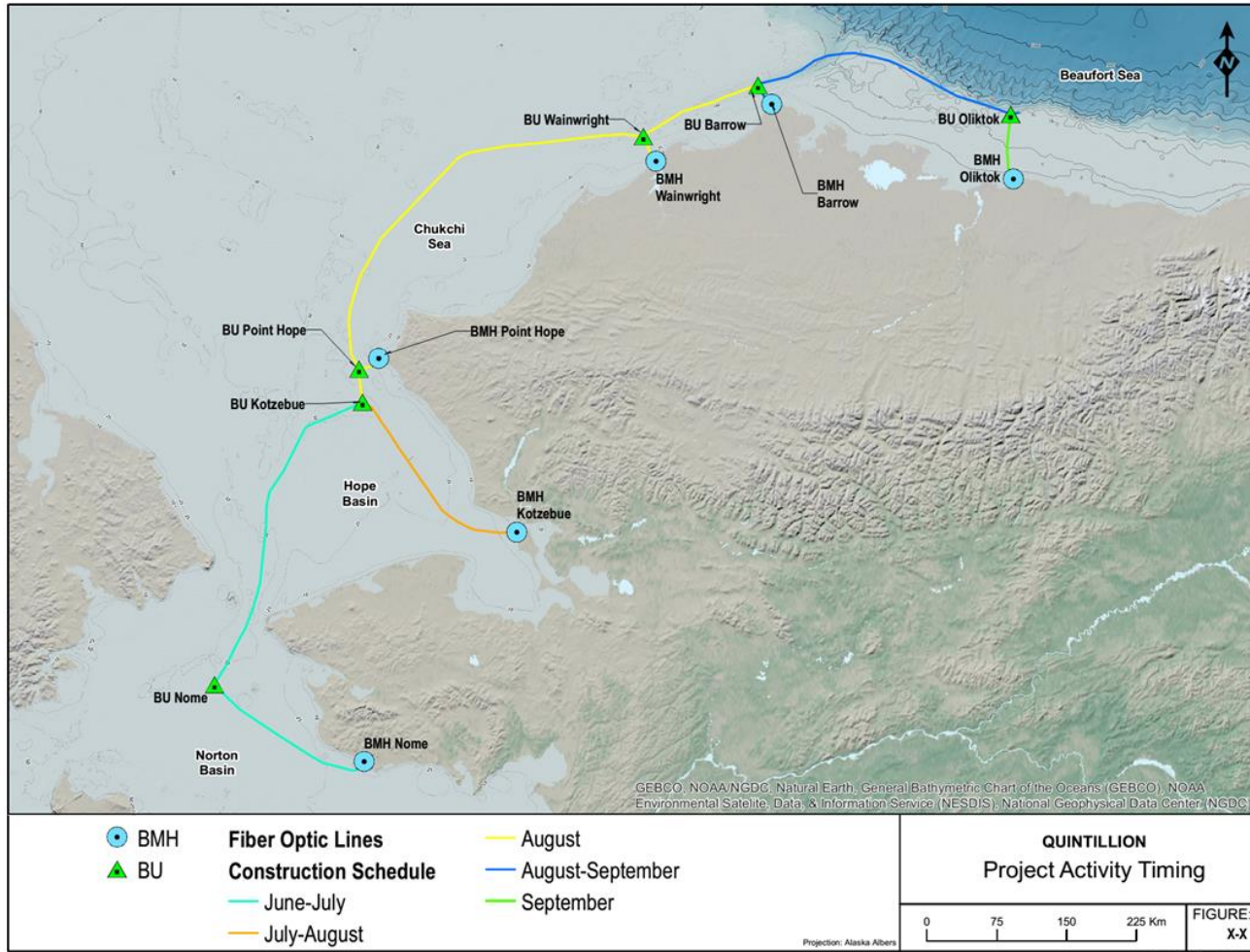
- A leading global supplier of subsea cable systems
- Progress is slow and steady
- Systematic process to be successfully installed
- Must be conducted as a continuous operation

Coordinating our Plan of Cooperation

- Glenn Ruckhaus at Owl Ridge is leading our planning efforts
- Community information meetings starting in March/April 2016



Preliminary 2016 Summer Schedule



For more information

Please contact Quintillion for more information

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Thank You

