



Oooguruk Island Telecommunications System

NSTI was selected to engineer, acquire and install all project telecommunications infrastructure. Built as an offshore drill site, Oooguruk Island is located 5.4 miles off the North Slope of Alaska east of the mouth of the Coleville River. NSTI was chosen as the main telecommunications contractor because of our expertise with the wide range of technologies and systems used in a modern oil field. The experience of the NSTI team allowed the telecommunication component of the project to remain on budget and ahead of schedule even as components of the project struggled with schedule delays and scope change.

Location:

Beaufort Sea, AK

NSTI's Role:

- Engineering
- Design
- Equipment Selection
- Equipment Acquisition
- Installation
- Test & Turnover

Multiple temporary construction camps and work sites were supported with numerous microwave links and temporary communication shelters and towers. Two major facilities were constructed, the Offshore Drill Site (ODS) pictured above, and the Onshore Tie-in Pad. Modules on these facilities were interconnected with fiber and copper outside plant cabling. Fiber and microwave linked the two sites together. Communication modules were installed on each site to house power and telecommunications common equipment.

A wide area radio communications system consisting of three networks for Operations, Maintenance, and Contractors was installed by NSTI. The system spans the breadth of the field and operates independently from all fiber and microwave links to preserve its back-up role for emergency field wide communications. Several permanent camps housing 120 men were wired for network, telephone service, and CATV feeds into every room.

For this project, NSTI engineered, designed and installed the following systems:

- Control room video surveillance system utilizing visible and infrared cameras
- Community antenna television systems for each camp
- Gai-Tronics page party intercom system for the ODC rig and mud plant
- Unique wireless microwave link that carried all network, SCADA data, telephone lines, and GaiTronics audio between the mobile drilling rig and the rest of the fixed infrastructure on the drill site.
- UHF two-way operations radio system and VHF oil spill response radio system
- Outside single and multi mode fiber and copper cable plant
- Antennas and transmission lines and 90' guyed tower at ODS
- Client antennas and associated transmission lines on common carrier 150' tower at OTP
- Inside plant cabling, termination and distribution of CAT6, fiber and copper cable
- Equipped two telecom modules with battery plants to house project telecom equipment, including three 100 line telephone switches
- Two FAA certified automated weather observing systems (AWOS)
- Cellular bi-directional amplifier system to extend ACS and ATBT cell service into all areas of the camp on the offshore island
- Terminated and tested the sub-sea SM fiber optic cable installed by the flow-line bundle contractor

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