Improving communications networks in the Falkland Islands

CH2M HILL's Enterprise Management Solutions Business Group has been awarded a project by Cable & Wireless South Atlantic Ltd. to help enhance the communications network for residents in rural areas of the Falkland Islands.

The Falkland Islands, an overseas territory of the United Kingdom, are located 563 kilometers (350 miles) off the South American mainland and 1,368 kilometers (850 miles) north of the Antarctic Circle. The Falklands consist of two main islands—East and West Falklands—and 700 smaller islands. The capital, Stanley, is the southernmost national capital in the world. The islands host a population of 2,400, of which 2,100 live in Stanley. The remaining inhabitants live in rural settlements and farms in an area known as “The Camp” covering almost 12,170 square kilometers (4,700 square miles).

The EMS group from the U.K. will provide project management services for the rollout of a new network to upgrade telephony (replacing an outdated rural radio telephony system) and provide broadband connectivity to the rural communities for the first time. CH2M HILL's project manager is Paul Shelswell, who moved from London to the Falklands for this 12-month project at the end of March.

The project scope includes:

- Design and rollout of a new SDH/IP backhaul radio network to link the rural subscribers back to the main core network in Stanley
- Introduction of Ericsson Multi Service Access Node (MSAN) technology to the settlements where existing copper infrastructure exists. This will replicate the services offered to the residents of Stanley
- Design and deployment of an industry standard WiMax network from Alvarion, providing high-speed wireless broadband and voice-over IP connectivity to the more remote single dwellings on the main islands as well as a number of houses on the smaller offshore islands.

Because no main power is available outside of Stanley, the telecom sites will be powered primarily by renewable energy sources such as wind turbines and solar panels.

The project will be particularly beneficial for residents of outlying settlements, providing reliable telephone service and high-speed broadband services that will allow more businesses to be located in The Camp. Many hope that this will stem the decline in the population of The Camp in recent years.

The new network will also provide an important improvement in the quality of “Camp Education” for children by giving them electronic tools such as webcams and Net Meeting capability to replace lessons that are currently delivered via telephone and radio broadcasts.