CASESTUDY

ENGINEERING SERVICES

SECURING OUR NATION

CHALLENGE

The Department of Homeland Security (DHS), Customs and Border Protection (CBP), U.S. Border Patrol (USBP) has the mission of protecting our Nation's borders which include nearly 6,000 miles of international land borders with both Mexico and Canada using a variety of sensor technologies to detect illegal entries including electronic sensors, video monitors, and night vision scopes. Through an Interagency Agreement between CBP and the Naval Air Warfare Center Aircraft Division (NAWCAD), The MIL Corporation (MIL) supports the operation of the Remote Video Surveillance System (RVSS) used to conduct surveillance and monitoring of the maritime passageways along the northern border between the U.S. and Canada within the Detroit and Buffalo sectors. CBP has now determined a requirement to expand the deployment of the RVSS further north into the Swanton sector. The Swanton sector encompasses some 24,000 square miles and includes all of Vermont; the counties of Clinton, Essex, Franklin, St. Lawrence, and Herkimer in New York; and Coos, Grafton, and Carroll counties in New Hampshire. The sector has 295 miles of international border with Canada consisting of 203 miles of land border and 92 miles are water boundary, chiefly the St. Lawrence River. MIL's challenge is to work closely with NAWCAD and CBP to expand the proven RVSS technology that is now deployed in largely urban environments and integrate the technology into the more remote northern areas of the Swanton sector.

SOLUTION

The expansion of the RVSS into the Swanton sector consists of a central monitoring station located at the Swanton sector headquarters in Swanton, VT, a Command and Control (C2) Center at the Ogdensburg Border Patrol Station in Ogdensburg, NY, and up to five new surveillance sites located along the border between the U.S. and Canada. The RVSS consists of both optical and infrared camera systems for daytime and night-time surveillance with remote pan and tilt, zoom and focus, and other controls. The communications infrastructure network includes microwave radio frequency and fiber links that relay signals and images between the RVSS sites and the central monitoring station located at Sector Headquarters.

MIL engineers developed an RVSS design that operates from either a fixed tower/structure site or a relocatable tower platform to provide USBP with greater flexibility for targeting designated areas of the border. Installation of the RVSS sensor and communications equipment will be performed at various sites and each system will be integrated with the central monitoring station at Swanton HQ and the C2 Center. Testing has recently been completed in the NAWCAD In-Service Engineering Activity (ISEA) test bed located at the Pax River Webster Field Annex in St. Inigoes, MD. The MIL team is scheduled to begin the installation and integration of the RVSS throughout the Swanton sector in early 2019.

BENEFIT

Using the knowledge gained from supporting the RVSS deployment in the Buffalo and Detroit sectors, the MIL team developed an engineering change proposal that has been approved by CBP for the expansion into the more remote Swanton Sector. Efforts are now underway to procure the materials necessary to install and integrate the multiple RVSS sites, central monitoring station, and C2 Center along the New York, Vermont, and New Hampshire borders to enhance the border surveillance capabilities in support of the USBP mission to protect the homeland.