

## **Industrial Control Systems (ICS)**

### **Proficiency Code: A**

The Air Force depends upon the US's critical infrastructure and key resources for many of its activities, including force deployment, training, transportation, and normal operations. Physical protection of these is no longer sufficient as most critical infrastructure is under the control of networked and interdependent supervisory control and data acquisition (SCADA) or distributed control systems (DCS).

The term SCADA refers to centralized network control systems, which monitor and control industrial sites or complexes of systems spread out over large areas. You may be asking yourself "why do I need to know about SCADA, and how does it apply to the military?" Some of the systems implemented by Civil Engineering may utilize SCADA. Additionally, we outsource many services from civilian corporations that utilize SCADA, such as power and water.

Most control actions occur automatically by remote terminal units or by programmable logic controllers. Host control functions are usually restricted to basic overriding or supervisory level intervention. SCADA systems are in use in industrial control systems such as computer systems that monitor and control industrial infrastructure. SCADA is data-acquisition oriented, event driven, expected to operate despite failure of field communications, and is preferred for applications that are spread over a wide geographic location. SCADA systems unlike DCS, coordinates but does not control processes in real-time.