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Innovative Solutions for a Safer, Better World

# TeleEngineering Communications Equipment (TCE)

## Assured Reachback Communications

TeleEngineering Communications Equipment (TCE) provides secure and non-secure communications capabilities, linking deployed USACE personnel, their higher headquarters, engineer units and subject matter experts (SMEs) to meet mission objectives. USACE personnel and engineer units often deploy to areas where the communications infrastructure is unreliable or nonexistent. To overcome this deficiency, the U.S. Army Engineer Research and Development Center (ERDC) developed a satellite-based system to allow deployed personnel the capability to send and receive data and to conduct video teleconferences (VTCs) in a secure or non-secure manner.

## Portable, Secure, Flexible, & Reliable

TCE-Deployable components are packaged in two wheeled pelican cases for easy handling. If Type 1 encryption is required, a third smaller size case is used. The encryptor provides NSA-approved Type 1 encryption, ensuring deployed personnel can securely send and receive classified information and correspond with colleagues and SMEs.

Three geosynchronous satellites provide virtually global coverage, enabling deployed personnel to make phone calls, access the internet, send and receive data, and conduct video conferences (VTCs) in a secure or non-secure manner.

- Wide range of transports supported (satellite, IP, ISDN, etc.)
- Image Capture/Broadcast (PowerPoint, document camera, camcorder, DVD, computer display, etc.)
- Modified Cots equipment for wide range of operating voltage
- Powered through available AC power or DC vehicle power
- Link Redundancy (VTC and Data links employ separate processors)
- Auxiliary video inputs, store and forward video
- UROC supports multiple users in concurrent calls (30-50 nodes)



Deployed personnel communicate via satellite to leverage subject matter experts for engineering solutions.

## Specialized resources supporting the entire Engineer Regiment

- Capability is doctrinally referenced in FM 3-34, "Engineer Operations"; Army G4 assigned NSLIN-FA9577
- Bridging resources certified & accredited with Army CIO/G6 Army, Cybersecurity Directorate, and with DISA, Defense Video Services
- Provides deployed users low bandwidth access to high bandwidth DoD video networks
- Over 275 deployable kits fielded since inception (1999)
- UROC hosts 50-60 VTCs per week



UROC personnel employ unique video conferencing resources to bridge a wide array of users

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