Forward Engineer Support Team (FEST) Training

The FEST training consists of four days of classroom training, Tuesday – Friday, in one of the group choices below. The following Monday is common core instruction for Contingency Contracting. Tuesday, Wednesday, and Thursday involves team field exercises based on scenario provided, along with development of presentations based on the exercises conducted. The final day, Thursday afternoon, is for delivering presentations / briefings of outcomes to a panel of FEST Leaders/Mil Planners/Commanders. Students will choose one of the four groups below that they will attend throughout the Mon-Fri classroom training.

Group 1

(Day 1-4) BCDP – Base Camp Development Planning – This course focuses on base camp planning processes using the military decision-making process (MDMP), operational variables, and mission variables, as a way to focus the course on supporting the Warfighter and the operational impacts of base camp planning. Topics include: preliminary planning; location selection; land use planning; facilities requirements development; base camp infrastructure; base camp cleanup and closure.

Group 2

(Day 1-2) IKE w/GATER – IKE is a physical handheld device from which users can collect data. It stands for It Knows Everything. It utilizes instruments such as GPS, laser, compass, inclinometer, camera, and voice recorder to add value to data collected. GATER (Geospatial Assessment Tool for Engineering Reachback) is the software from which allows customized data collection on the mobile device, and then provides seamless migration of the collected data to the desktop and online platforms for analysis and reporting. It also provides for downloading maps and legacy data pertinent to a specific collection interest.

(Day 3-4) Bridge Recon – Focuses on methods for conducting bridge reconnaissance by collecting necessary information regarding load class, width, overhead clearances, and traffic control measures. Practical exercise allows students hands-on experience.

Group 3

(Day 1-3) TETK/ARRK – The TeleEngineering Toolkit (TETK) is the GIS software that collects the route data during a reconnaissance. The software provides a valuable analysis tool to personnel on the ground or going into an area of operation. The Toolkit was developed to assist personnel in collecting requisite field data and background information for improving SME analyses, organizing requests for information (RFIs), tracking previously conducted analyses, maintaining interoperability with selected software currently being used by deployed personnel, and providing the requestor a more efficient means to display resulting SME analyses.

The Toolkit Software is an essential piece of the ARRK equipment. It collects and processes the route data and provides the user with tools for editing and exporting the data into a sharable format. The Automated Route Reconnaissance Kit (ARRK) uses a ruggedized laptop computer to continuously collect route reconnaissance information without stopping or leaving the vehicle for routine calculations, greatly reducing time, security risk, and accuracy issues. The ARRK provides a

chronological picture replay of the route and a geo-referenced display of major features that affect the classification and usage of the route for vehicle mounted applications, and when used in its airborne configuration, provides an overview of damage in impacted areas due to a natural disaster. The ARRK allows an operator with minimal training to collect, process and export the route information.

(Day 4) TCED-BGAN – The TeleEngineering Communications Equipment consists of a deployable version (TCED). Training provides lecture and demonstration of how to communicate point-to-point or connect through a multipoint video tele-conference (VTC) bridge in both secure and non-secure settings, enabling a link between deployed personnel, their Headquarters, engineer units and subject matter experts (SMEs) to meet mission requirements. Broadband Global Area Network (BGAN) system maximizes the use of satellite capacity by ensuring availability with the highest capability.

Group 4

(Day 1–3) TCMS – The Theatre Construction Management System is a Microsoft Windows-based construction planning, design, management, and reporting system software application used by military engineers for initial and temporary contingency construction activities primarily located in a theatre of operations outside the continental United States (OCONUS). It provides sophisticated access to Army Facilities Components System (AFCS) designs in AFCS databases while also providing support interfaces to relevant commercial applications.

(Day 4) ATFP – Anti-Terrorism Force Protection – The course provides attendees an awareness of protective measures for building and site construction measures used to reduce the vulnerability of individuals and property to terrorist acts. This course covers the information contained in Unified Facilities Criteria (UFC) 4-010-01, "DoD Minimum Antiterrorism Standards for Buildings;" UFC 4-010-02, "DoD Minimum Antiterrorism Standoff Distances for Buildings;" and UFC 4-020-01, “DoD Security Engineering Facilities Planning Manual” as well as other resources such as the JFOB Handbook and Combatant Command Standards. Security Engineering concepts including: Risk Analysis, Design Basis Threat and Level of Protection are introduced. The minimum building and site work standards in UFC 4-010-01 are reviewed. Terrorist tactics including vehicle bombs, placed explosives, and direct and indirect fire weapons, along with the associated hazards and building response are reviewed. Primary design strategies to mitigate these terrorist tactics are described with an emphasis on their application in expeditionary environments as appropriate.

Course Objectives for students are to identify the references that provide site planning and building criteria for antiterrorism/force protection (AT/FP); be able to identify resources for site planning and building AT/FP design and construction; be aware of the Security Engineering Design Process; understand “Design Basis Threat” and “Level of Protection;” understand the minimum AT/FP standards for buildings, including expeditionary and temporary construction; be able to describe the 4 primary terrorist threat tactics and the primary design strategies to mitigate these threats; understand differences in application of the strategies between permanent and expeditionary construction.

Capstone Exercise Summary (Week 2)

The Capstone Exercise is a culminating training event that takes place during the second week of training. The Capstone provides USACE Forward Engineer Support Teams (FESTs) and students of this course an exclusive environment for individual and collective training. The purpose is to reinforce the training received during the first week and provide exercise participants with the opportunity to train on FEST Mission Essential Task List items to include: conduct command and control, provide sustainment, protect the force, provide technical engineering support, and conduct stability operations. More specifically, given an exercise scenario, participants will exercise individual skills learned during the RSC training by working as part of a team, employing FFE equipment/software, and generating a final product to brief. Performance will be evaluated and feedback provided. The teams will exercise engineer reconnaissance, Base Camp Development Planning, communications/reporting, reachback capability, construction management, design and cost analysis, engineer reconnaissance, and hone briefing skills.