



## TEST AND EVALUATION (T&E)

### BACKGROUND

Within the Department of Defense (DoD), test and evaluation (T&E) is the process by which a system is assessed for its capabilities and limitations and evaluated for its effectiveness, suitability and survivability in a mission context through testing and other data-producing events.

The SURVICE Engineering Company uses a systems engineering approach to T&E, providing survivability, safety, suitability, and effectiveness test planning, analysis, and documentation support for operational test activities (OTAs), program managers (PMs), and system developers. Our skilled workforce has participated in the T&E of various DoD systems—munitions, aircraft platforms, combat vehicles, and support equipment—and has provided technical expertise in a wide-range of effectiveness, suitability, and survivability disciplines, including ballistic vulnerability and survivability; ballistic lethality; chemical, biological, and radiological contamination survivability; nuclear weapons effects; electromagnetic environmental effects; information assurance; electronic warfare; cyber security and electromagnetic activities; systems safety; and reliability, availability, and maintainability.

### CUSTOMIZED TESTING SERVICES

SURVICE understands how to structure testing to complement and provide building blocks for independent T&E. We use a variety of analytical techniques—statistical, engineering, and modeling and simulation (M&S)—to analyze data and information that are critical for the decision-maker and the warfighter. Our



use of M&S to provide analytical information is supported by our expertise and knowledge in verification, validation, and accreditation (VV&A) and the requirements for M&S use throughout the DoD. When the need has arisen, SURVICE has also developed methodologies to assess the operational context of seemingly disparate information. Specifically, the integrated survivability assessment (ISA) methodology was developed to integrate survivability operational test results with Live Fire Test and Evaluation (LFT&E). The survivability of networked systems methodology was developed to assess the effect that a dynamic network has on the effectiveness, survivability, and suitability of the networked force, as well as the ability to assess the contributions of new technologies to individual weapons platforms. (For additional information, see SURVICE's ISA and survivability of networked systems fact sheets).

### TESTING OUR WEAPONS SYSTEMS BEFORE THEY ARE TESTED IN BATTLE

SURVICE is providing T&E support to customers in all four military branches and in industry and has supported test activities on a wide variety of systems, including:



- CH-47F
- F/A-18
- UH-60M
- SH-60R
- EFV
- LAV
- M1A2
- MRM
- JSFDS
- JSLSCAD
- WIN-T
- FCS
- LTAS
- CF-6 (engine)
- F135 (engine)
- A2C2S
- HIMARS
- ABL
- C-5
- Predator
- V-22
- JSF
- MMA
- BAMS UAV
- Stryker Family of Vehicles
- Common Missile
- JTRS
- MRAP
- JCAD
- JIEDDO
- M2A3
- M109
- JSGPM
- HMMWV
  - » JLTV
  - » NGCD
  - » Abrams
  - » CIDAS