

## Test Instrumentation – Examples

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### **Example 1**

**3.4.2.4 Test Instrumentation.** The Instrumented Field Data Collector<sup>1</sup> (IFDC) will be used in the Force XXI Battle Command Brigade and Below (FBCB2) and Early Infantry Brigade Combat Team (E-IBCT) assessments. The instrumentation system is physically attached to the test vehicles to capture and record all of the electronic message traffic that passes through the FBCB2, and is crucial to understanding the volume of message traffic flow between combat units, and the degree of situational awareness subordinate units have as a result of the presence of FBCB2. Other sources of information, such as interviews with unit leaders and system operators, will be used to assess the impact of FBCB2 on unit situational awareness.

### **Example 2**

**3.4.2.4 Test Instrumentation.** On-board instrumentation for the Dakota attack helicopter FOT&E will record aircraft state data (Roll, pitch, yaw, warnings, position, speed, etc), video, and transmit video to the ground-based test control center. By design, the Dakota routinely records and stores mission video, fault detections, aircraft state data, and maintenance data. The OTA will coordinate with the Dakota PM to develop vendor software for the extraction and interpretation of recorded data. Video from the primary EO/IR sensor will be transmitted by the Air-to-Air-to-Ground (AAG) system to the test team to assist in coordination, control, and direction of each test event.

The Dakota uses the Tactical Engagement Simulation System (TESS) for force-on-force testing and training. This hardware and software uses a laser-based scoring system to portray realistic force exchange. TESS will be integrated with a ground-based RTCA system for all Red and Blue forces to adjudicate engagements between Dakota and ground forces.

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<sup>1</sup> IFDCs monitored digital message traffic and provided data on message completion rates.