TATRC TIMES

TATRC Partners with PEO Aviation to Test AeroMednet at Network Integration Exercise 18.2

ATRC's Medical Intelligent Systems Lab (MISL) sent a team of four personnel to participate in the Army's Network Integration Exercise (NIE) 18.2 in partnership with Program Executive Office (PEO) Aviation at Fort Bliss in El Paso, TX this past Fall. TATRC's purpose at the exercise was to perform research data collection of the ability of PEO Aviation's AeroMednet to support off-boarding of medical telemetery. The TATRC team consisted of Mr. Larry Markins, Mr. James Beach, Ms. Teresa Guthrie, and Ms. Tee Dockery. TATRC was able to leverage the AeroMednet capabilities to inform ongoing characterization of tactical radio system's ability to support exchange of medical telemetry, patient documentation, medical imagery, audio, and video. In addition, TATRC performed data collection efforts on the SensoTOUCH mobile medical sensor platforms with combat medics located at the C Company, 82nd Brigade Support Battalion and K Company, 508th Parachute Infantry Regiment.

TATRC personnel provided technical support for the integration of research capabilities into the network, performed Soldier training, and collected research data. Several other systems, such as BATDOK from the U.S. Air Force Research Lab, the Tempus Pro Physiological Status Monitor, and the U.S. Army Medical Materiel Development Activity's MEDHUB program were all integrated into the AeroMednet to conduct network analysis and capability testing of Trellis Ware's TSM Radio Waveform to support bi-directional medical exchanges. TATRC personnel also provided support to the MEDHUB program by providing networking and technical support at the medical company's ground station. These capabilities allowed for the medical personnel to prepare an appropriate response for the incoming casualties with informed medical situational awareness that included treatment performed and medications provided at Role I and during the helicopter flight.

At the medical company's ground station, the C Company, 82nd Brigade



C Company medics offloading a patient from a UH-60 MEDEVAC aircraft at Fort Bliss during NIE 18.2.

Support Battalion's Physician Assistant and senior medics were able to monitor and prepare for incoming casualties with the medical information sent from the helicopter through the AeroMednet. They reviewed the Tactical Combat Casualty Care Cards captured at the Point of Injury on the BATDOK system and sent them through the AeroMednet to an MC4 AHLTA-T laptop. They also monitored the casualties' physiological status sent from the Tempus Pro physiological status monitor. In addition, medical personnel used the MEDHUB's big board casualty notification information to obtain data on the patients' vital signs and ambulatory status.

While performing data collection efforts during the scenario, both Ms. Tee Dockery and Ms. Teresa Guthrie had the opportunity to observe K Company's operations to defend a village from enemy capture attempts. The air and ground operations also involved AH-64 Attack Helicopters and UH-60 Utility Helicopters. During the operations, Ms. Dockery and Ms. Guthrie were able to observe the medics performing simulated tactical combat casualty care and evacuation of the patients. The K Company medics used BATDOK during the operations to perform patient care documentation and exchanged this information with the MEDEVAC flight medics using BATDOK's Near Field Communications and QR (Quick Response) code capabilities. Mr. James Beach, MISL Project Manager, added that "exposure of our personnel without military experience to operations at the tip of the spear is vital to ensuring our personnel understand the pre-hospital environment, which is the major focus of the operational telemedicine research."

Ongoing TATRC participation in military exercises provides unique opportunities to capture information about military utility of various capabilities and to evaluate different capabilities in operational environments that include tactical radio networks. This information is used to help inform and shape research and development efforts with direct input from personnel that will ultimately use the capabilities arising from these efforts. This bottom-up design approach ensures that potential transition and advanced development and program offices have the necessary information (knowledge products) to develop capabilities acceptable to the end-user.