



USAMRMC

STRATEGIC COMMUNICATION PLAN

U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND



Joint Trauma Analysis and Prevention of Injury in Combat (JTAPIC)

Mission: The Joint Trauma Analysis and Prevention of Injury in Combat program analyzes data and information to address Warfighter vulnerabilities and increase survival rates. The chief goal is to develop better tactics, techniques, and procedures and materiel solutions that will prevent or mitigate traumatic injuries.

Background

Through a partnership among the intelligence, operational, materiel, and medical communities, the JTAPIC program collects, integrates, and analyzes injury and operational data. Incident, injury, and autopsy data are used to identify potential vulnerabilities in operational procedures and to rapidly convey those vulnerabilities to commanders in theater. Performance-related data for specific vehicle modifications are analyzed to evaluate effectiveness. Damaged personal protective equipment (PPE) (body armor, combat helmets, etc.) are collected for analyses to help improve protection systems.

JTAPIC helps evaluate weapons systems (design, capabilities, and force protections) and provides analyses that help program managers make sound acquisition decisions. JTAPIC has also provided actionable information to combat vehicle program managers that has led to modifying vehicle equipment, such as seats to prevent or mitigate blast-related injuries.

Finally, JTAPIC evaluates autopsy information, after-action reports, and medical injuries; assesses vehicle damage reports and ballistic studies; and conducts computer models and simulations to replicate and confirm operational events.

JTAPIC's analysis improves the military's understanding of its vulnerabilities to threats and enables it to improve tactics, techniques, and procedures and materiel solutions to prevent or mitigate blast-related injuries. Analyses lead to longer-term changes that impact the broader military community, such as doctrinal changes that guide military operations or Warfighter training programs.

Key Themes & Messages

- The Army's ability to assess and improve Warfighter survivability is a top priority.
- The JTAPIC program is a partnership among medical, intelligence, operational, and materiel development communities to improve strategies to prevent or mitigate traumatic injuries.
- The JTAPIC program provides actionable information and recommendations to combatant commanders, combat and materiel developers, and other stakeholders.



Q & A

Q: What is JTAPIC?

A: JTAPIC is a partnership among DoD intelligence, operational, medical, and materiel development communities that collects, integrates, and analyzes injury and operational data. The goal is to better understand vulnerabilities to threats and to improve tactics, techniques, and procedures and materiel solutions to prevent or mitigate traumatic injuries.

Q: JTAPIC is relatively new. What did the military do in the past to improve Warfighter survivability?

A: Before JTAPIC, military organizations focused on improving Warfighter survivability from their individual perspectives. The medical community focused on battlefield medicine. The individual body armor testers focused on performance specifications and development of process improvements under testing conditions because few articles were returned for analysis. Vehicle developers had no interpretive medical information regarding combat injuries to guide or evaluate modifications made to fielded vehicles. Likewise, combatant commander, materiel developers, or the capability generators at the centers and schools had no formal process for obtaining specific medical injury data to guide their decisions.

Q: When was JTAPIC launched?

A: JTAPIC was established at USAMRMC at Fort Detrick in July 2006 to fulfill the joint database and information-sharing intent outlined in the 2006 National Defense Authorization Act and in the DoD Directive "Medical Research for Prevention, Mitigation and Treatment of Blast Injuries."

Q: What are some of JTAPIC's accomplishments?

A: The JTAPIC program has already made a difference in the way the Army protects Warfighters from blast-related injuries. For example, the program has established an effective, near real-time process for collecting and analyzing data from blast-related combat incidents. Using this process and sophisticated fragment analysis procedures, the program was able to confirm the presence of prominent threat weapons of interest to the intelligence community.

As our Army continues to conduct full-spectrum operations, it is important to capitalize on opportunities to quickly identify weaknesses and vulnerabilities through incident analysis and pattern analysis to adjust our tactics, techniques, and procedures and upgrade vehicles and protective equipment to reduce injury and save lives. Enhancing the Army's ability to adapt more quickly will maintain a tactical advantage on the battlefield.

Q: How specifically does JTAPIC help the Warfighter?

A: The Army has used the actionable information provided by JTAPIC to change the way it protects Warfighters from combat injuries. Modifications and upgrades have been made to vehicle equipment and protection systems, such as seat design, blast mitigating armor, and fire suppression systems. Combatant commanders have altered their tactics, techniques, and procedures in the field as a result to the incident analyses and near real-time feedback on threats provided by the JTAPIC program.





Joint Trauma Analysis and Prevention of Injury in Combat (JTAPIC)

Q: Who are some of your partners? And in what ways do they assist JTAPIC?

A: Partners include the following:

- Office of the Armed Forces Medical Examiner: Provides information, analysis, and subject matter expertise on Killed in Action.
- U.S. Army Maneuver Center of Excellence – Dismounted Incident Analysis Team: Provides operational and intelligence information and analysis of dismounted casualty causing combat events.
- U.S. Army National Ground Intelligence Center: Provides operational and intelligence information and analysis of mounted casualty causing combat events.
- U.S. Army PEO Soldier: Provides analysis of combat-damaged PPE.
- U.S. Army Research Laboratory, Survivability and Lethality Analysis Directorate: Provides modeling and simulation expertise and analytic support.
- U.S. Army Institute of Surgical Research: Provides information, analysis, and subject matter expertise on Wounded In Action (WIA).
- U.S. Army Aeromedical Research Laboratory: Provides analytic support.
- Naval Health Research Center: Provides information, analysis, and subject matter expertise on WIA.

Q: JTAPIC's analyses sound complex. What is your process for collecting and analyzing such a wide range of data?

A: JTAPIC has established a scientific discipline, process, and policy to systematically investigate combat-related trauma events to discover positive and negative attributes of equipment and vehicles in Soldier survivability.

There are three key phases of JTAPIC research: cause, effects, and remediation. In the cause phase, JTAPIC gathers all the operational and intelligence data from casualty causing combat events. In the effects phase, JTAPIC marries the operational data with its respective vehicle damage and protective equipment data and the medical data. In the remediation phase, JTAPIC integrates data into a collaborative work environment, and it establishes a framework for integrated multi-community analysis. In the final remediation phase, the analysis products are shared with service materiel developers, surgeons, and general Training and Doctrine Command (TRADOC).

Q: Has JTAPIC won any recognition for its work protecting the Warfighter?

A: Yes. In 2008, JTAPIC and its partners received the Department of the Army R&D Laboratory of the Year Award for Collaboration Team of the Year. In addition, in fall 2010 the National Museum of Civil War Medicine honored JTAPIC with the Major Jonathan Letterman Medical Excellence Award for its innovative contributions to military medicine.

Q: What's on the horizon?

A: The JTAPIC partnership will continue to collaborate with and provide actionable information to vehicle program managers and TRADOC capability managers to assist with force modernization decisions. In addition, JTAPIC will continue to provide targeted analysis and information in response to specific requests for information from DoD customers to help guide decisions.

