



US DEPARTMENT OF DEFENSE

BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

Data Analysis Studies

Naval Health Research Center Data and Analysis Support to the Joint Trauma Analysis and Prevention of Injury in Combat Program

Researchers at the Naval Health Research Center (NHRC; San Diego, California) are intimately involved in supporting the Joint Trauma Analysis and Prevention of Injury in Combat (JTAPIC) program through the provision of the coded injury information that is associated with each combat event where a Service member is injured. NHRC researchers provide a weekly analysis of all combat casualties occurring in the previous seven days during overseas contingency operations to the JTAPIC Program Office. For each wounded Service member, the medical data obtained from NHRC's Expeditionary Medical Encounter Database is thoroughly reviewed at NHRC and a clinical profile is developed describing a casualty's injury characteristics. Each casualty's injuries are then coded on various diagnostic and injury severity taxonomies by registered nurses. In addition to injury analyses conducted at NHRC, these detailed clinical profiles are often combined with tactical data (e.g., weapon type, explosive weight, strike point). This mapping of medical to tactical data allows vehicle and Personal Protective Equipment (PPE) developers to design targeted modifications to improve vehicles and PPE, thereby reducing the frequency and severity of injury.

Casualty medical data mapped to tactical data allows the DoD vehicle and PPE community to directly target materiel equipment designs and enhancement to those threats and injury types producing the most serious injuries.

Because of the common requirement for medical data, NHRC participates in nearly every JTAPIC partnership analysis. In FY17, there were 14 JTAPIC products that used medical information provided by NHRC. These are listed below:

- Abrams Underbody blast (17-033)
- Analysis support for Behind Armor Blunt Trauma (BABT; 17-015)
- Aircraft Shoot Down Assessment Team (ASDAT) Retrospective Study: Chinook (17-050B)
- Aviation Burn Casualties Military Occupational Specialty (MOS; 17-035)
- Burn Casualties Occupational Specialty (17-003)
- Follow-on to HMMWV Operations Request for Information 15-067 (17-011)
- Green on Blue 2017 Update (17-055)
- Laser Related Threat-Injury Analysis (17-008)
- MaxxPro Case Study (17-045)
- Mounted Burn Casualties MOS (17-025B)
- Nape Pad Injury and Event Analysis (17-009)





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- Overview – Blast Injuries (17-044N)
- Preliminary Analysis - MaxxPro Attack (17-036)
- Stryker Flat Bottom Hull/Double V Hull Injury Analysis (17-012)

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