



DSIAC TECHNICAL INQUIRY (TI) RESPONSE REPORT

Small Arms and Explosives Attacks on Commercial Armored Vehicles

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MAIN OFFICE

4695 Millennium Drive
Belcamp, MD 21017-1505
443-360-4600

REPORT PREPARED BY:

Edward Hall

Office: West Virginia University
Innovation Corporation (WVUIC)

Scott Armistead

Office: DSIAC

ABOUT DSIAC

The Defense Systems Information Analysis Center (DSIAC) is a U.S. Department of Defense information analysis center sponsored by the Defense Technical Information Center. DSIAC is operated by SURVICE Engineering Company under contract FA8075-14-D-0001.

DSIAC serves as the national clearinghouse for worldwide scientific and technical information for weapon systems; survivability and vulnerability; reliability, maintainability, quality, supportability, and interoperability; advanced materials; military sensing; autonomous systems; energetics; directed energy; and non-lethal weapons. We collect, analyze, synthesize, and disseminate related technical information and data for each of these focus areas.

A chief service of DSIAC is free technical inquiry (TI) research, limited to 4 research hours per inquiry. This TI response report summarizes the research findings of one such inquiry. For more information about DSIAC and our TI service, please visit www.DSIAC.org.

ABSTRACT

Defense Systems Information Analysis Center (DSIAC) Basic Center of Operations received a technical inquiry (TI) requesting information on the history of attacks with small arms and explosives on nonmilitary commercial armored vehicles. DSIAC staff contacted various pertinent U.S. Government agencies for information and metadata involving "discretely armored vehicles." DSIAC also tasked staff from the West Virginia University Innovation Corporation (WVUIC) to search for unclassified data from original equipment manufacturers, academia, international agencies, the U.S. Departments of State and Defense, and other governmental agencies. DSIAC staff documented responses received from research conglomerates and WVUIC, prepared a bibliography of relevant documents, and compiled the information in a TI response report.

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1.0 TI Request

1.1 INQUIRY

What history is there of attacks with small arms and explosives on non-military commercial armored vehicles?

1.2 DESCRIPTION

The inquirer requested information on the history of attacks with small arms and explosives on commercial armored vehicles worldwide since 2006.

2.0 TI Response

Defense Systems Information Analysis Center (DSIAC) Basic Center of Operations staff contacted several U.S. Government agencies for information relevant to the inquirer's request. The following organizations were contacted:

- The Bureau of Alcohol, Tobacco, Firearms, and Explosives' (ATF) National Center for Explosives Training and Research Post Blast and Bomb Data Center groups.
- National Ground Intelligence Center's Combat Incident Analysis Division Combat Analysis Branch and Technical Forensics Branch.

It was unclear if the organizations' databases included sufficient metadata involving "discretely armored vehicles" to be able to provide the requested information. If the contacted organizations supply additional data or contacts that may help, the TI response will be updated.

DSIAC West Virginia University Innovation Center (WVUIC) staff searched for unclassified data from original equipment manufacturers (OEMs), academia, international agencies, the U.S. Departments of State and Defense, and other governmental agencies. Their pertinent findings were summarized.

2.1 SUMMARY OF FINDINGS

2.1.1 OEMs

OEMs generally are not forthcoming with aggregate data. Therefore, the following resource contains anecdotal evidence of attacks that promote the efficacy of their armored solutions [1].

- "Real-Life Armored Vehicle Attack Case Studies" by Texas Armoring Corporation (TAC) is an example of publicly available anecdotal evidence of commercial armored vehicle effectiveness. For more information, see the following link:
<https://www.texasarmoring.com/about/case-studies/> [1].

2.1.2 U.S. Government Agencies

The following resources are briefings produced for U.S. Government agencies that provide worldwide data related to improvised explosive device (IED) incidents. The reports are relevant, but they fail to differentiate between targets (i.e., data are not limited to armored vehicles) [2, 3, 4].

- "Attacking the IED Network" by Capt. F. Gaghan provides, inter alia, an aggregate account of global IED incidents outside of Iraq and Afghanistan from March 2009 through March 2011. For more information, see the following link:

<https://ndiastorage.blob.core.usgovcloudapi.net/ndia/2011/GlobalExplosive/Gaghan.pdf> [2].

- “Global IED Monthly Summary Report” by the Joint Improvised Explosion Device Defeat Organization Counter-IED Operations Integration Center Military Intelligence Directorate (MID) provides, inter alia, an aggregate account of global IED incidents outside of Iraq and Afghanistan for August 2012. For more information, see the following link: <https://info.publicintelligence.net/JIEDDO-MonthlyIEDs-AUG-2012.pdf> [3].
- “The IED - An Enduring Threat Requires Enduring Capabilities” by LTG M. D. Barbero provides information on more than 500 IED events reported per month outside of Iraq and Afghanistan. For more information, see the following link: <https://www.slideserve.com/patrick-leach/the-ied-an-enduring-threat-requires-enduring-capabilities> [4].

2.1.3 START and GTD

The National Consortium for the Study of Terrorism and Responses to Terrorism (START), with the support of the University of Maryland, hosts the Global Terrorism Database (GTD). GTD is a searchable database that contains information related to over 150,000 terrorist attacks worldwide from 1975 through 2015. GTD terms of use prevent WVUIC from using the GTD to provide a report answering the inquirer’s request, but the following resources provide suggestions for producing such a report via GTD [5, 6].

- The GTD can be downloaded by completing the form on the web page “Download the GTD or Contact the GTD team” at the following link: <http://www.start.umd.edu/gtd/contact> [5].
 - The entire database or one of its three component databases can be filtered or searched using the date ranges: 1970–1991; 1992–2011; or 2012–2015.
- “IEDs A Global Problem: Fact Sheet” by the Global Campaign Against I.E.D. summarizes information from the National Counterterrorism Center’s Worldwide Incident Tracking Systems, which was subsumed by GTD in April 2012. For more information, see the following link: <http://www.campaignagainstieds.org/campaign-documents/75-fact-sheet#end1> [6].

2.1.4 Action on Armed Violence

Action on Armed Violence, a charity based in London, provides a summary of organizations and databases that collect data on IED use and other attacks in the report “Tracking IED Harm: Monitoring Improvised Explosive Device Use and Why We Need the Data” by J. Hunter. The

report concludes that more reliable and comprehensive data are needed, and provides recommendations to meet that goal. For more information, see the following link:

https://aoav.org.uk/wp-content/uploads/2015/03/ied_data.pdf [7].

2.1.5 Additional Resources

The “United States Bomb Data Center (USBDC) Explosives Incident Report (EIR)” by the USBDC “reviews bombing and explosive related incidents and threats from information reported to the United States Bomb Data Center (USBDC) through the Bomb Arson Tracking System (BATS)” [8].

- For more information, see the following link: <https://www.atf.gov/rules-and-regulations/docs/report/2015usbdcexplosiveincidentreportpdf/download> [8].

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