The Post-Afghanistan IED Threat Assessment:

Executive Summary

DSI-2013-U-004754-1Rev May 2013



Approved for distribution:

May 2013

Joffy B. Min

Dr. Jeffrey B. Miers Director, Operations Tactics Analysis

This document represents the best opinion of CNA at the time of issue. It does not necessarily represent the opinion of the Department of the Navy.

Approved for Public Release Distribution Unlimited. Specific authority: N00014-11-D-0323 Copies of this document can be obtained through the Defense Technical Information Center at www.dtic.mil or contact CNA Document Control and Distribution Section at 703-824-2123.

Copyright © 2013 CNA

This work was created in the performance of Federal Government Contract Number N00014-11-D-0323. Any copyright in this work is subject to the Government's Unlimited Rights license as defined in DFARS 252.227-7013 and/or DFARS 252.227-7014. The reproduction of this work for commercial purposes is strictly prohibited. Nongovernmental users may copy and distribute this document in any medium, either commercially or noncommercially, provided that this copyright notice is reproduced in all copies. Nongovernmental users may not use technical measures to obstruct or control the reading or further copying of the copies they make or distribute. Nongovernmental users may not accept compensation of any manner in exchange for copies. All other rights reserved.

Executive summary

(U) Improvised explosive devices (IEDs) were used extensively during Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF); however, the trajectory of the IED threat over the 2015-2020 timeframe is uncertain. To address this question, we assessed: 1. The IED threat to deployed forces; 2. The IED threat to the U.S. homeland; 3. Innovations that could enhance the effectiveness of IEDs; and 4. Emergent threats that could develop into favored asymmetric tactics. The analyses of these issues will inform upcoming decisions about the counter-IED capabilities that the United States will need to maintain.

Threat to deployed forces

(U) During future deployments, U.S. forces will encounter those who oppose their presence and purpose. To assess this threat, we compared the conditions that contributed to the development of the OEF and OIF IED campaigns with the operational conditions described in DOD planning guidance. Our analysis indicates that:

- The IED threat to deployed forces will persist. The scenarios outlined in the planning guidance have conditions similar to those that contributed to the emergence of the OEF and OIF IED campaigns.
- Not all deployments will encounter the widespread use of IEDs.
- Current IED intelligence is consistent with the planning guidance.
- IEDs remain a global threat, and the Unified Combatant Commands (UCCs) are concerned that the lessons from OIF and OEF will be used in their AORs to target U.S. interests.

(U) The depth of the IED threat to deployed forces depends in part on choices made by the U.S. government. Dispatching forces to operations that have conditions similar to those encountered in OIF and OEF will enhance the IED threat. Pursuing a more conservative path on future deployments will help mitigate the IED threat to deployed forces.

Threat to the homeland

(U) Unlike in Iraq and Afghanistan, the use of IEDs in the homeland has remained largely stable over the last 25 years; however, the near term outlook is uncertain. Recent trends may continue, or experiences from OIF and OEF could prompt terrorists to apply lessons from these conflicts to the U.S. The analysis of this threat indicates that:

- The IED threat in the homeland is likely to persist; however, historical trends and an analysis of the operational environment in the homeland do not suggest a change in the frequency of IED attacks.
- There are at least three IED lines of operation in the homeland—criminal mischief, isolated terrorist attacks, and the IED campaign. Criminal activity is the most likely IED threat in the U.S., while a campaign is the most problematic. The list of those who might engage in such attacks is long and diverse.
- DOD's role for C-IED efforts in the U.S. homeland is limited by statute and by the presence of an extensive domestic C-IED infrastructure. Nevertheless, DOD can contribute C-IED capabilities, including training, requested response support, intelligence and network analyses, and technical solutions support.

Technical innovation

(U) Near-term innovation will improve the performance of IED components and enhance the IED threat. To assess the impact of innovation, we analyzed three issues: 1. The development of IEDs in OIF and OEF; 2. Improvements to switches/initiators, warheads, and power supplies; 3. The C-IED capabilities needed to address these new technologies. The analysis found that:

- Technical innovation was observed in OEF and OIF; however, it did not drive the campaigns, which generally relied on widely available legacy technologies. The threat persisted regardless of the technical sophistication of the insurgencies.
- Several technological innovations could improve the effectiveness of IEDs, including reactive material fragments, fuel-air explosives, laser initiators, fiber-optics, and the use of communications networks that are difficult to jam.

• Countermeasures are available for several of the IED enhancement technologies; however, their effectiveness is uncertain.

(U) Innovation will continue to increase the effectiveness of IEDs; however, there are no indications that technology will drive the threat.

Emergent threats

(U) IEDs may not retain their distinction as the insurgents' preferred weapon. Emergent threats could supplant or be used in combination with IEDs. The purpose of this final task is to analyze emergent threats that could become a favored asymmetric weapon. This analysis highlighted several findings that inform our understanding of these near-term emergent threats:

- The universe of possible emergent threats is large and diverse. We identified 27 emergent threats, ranging from computer network attacks, to micro air vehicles, to the use of children in combat.
- The operational characteristics of many of the identified emergent threats are similar to the characteristics of IEDs; however, it is not clear that any have the IEDs' combination of low cost, ease of construction and employment, and significant impact.
- Mitigation strategies exist for many of the emergent threats, but these efforts will require additional support, including intelligence, research and development, acquisition, operational support, and training.

(U) While some of these emergent threats are likely to mature in the near term, it is uncertain whether they will be as problematic as IEDs.

Conclusion

(U) The results of our analyses indicate that the United States will continue to face a variety of asymmetric threats and that those threats will continue to evolve; however, it is not clear that technology or emergent threats will have a significant impact on the overall threat. In short, the IED threat observed in Iraq, Afghanistan, and the homeland in recent years will likely persist regardless of technical innovations and the maturation of emergent threats. This page is Unclassified.

DSI-2013-U-004754-1Rev

