Global EOD Symposium
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Mr. Tom Dee
DASN ELM
Thomas.dee@navy.mil
Pentagon 4C746

Unclassified
The Asymmetric Threat

“Today’s global security environment is the most unpredictable I have seen in 40 years of service. Since the last National Military Strategy was published in 2011, global disorder has significantly increased while some of our comparative military advantage has begun to erode. We now face multiple, simultaneous security challenges from traditional state actors and transregional networks of sub-state groups – all taking advantage of rapid technological change. Future conflicts will come more rapidly, last longer, and take place on a much more technically challenging battlefield. They will have increasing implications to the U.S. homeland.”

Gen Martin Dempsey, CJCS

“As the United States completes its transition in Afghanistan and looks to the future, the international security environment remains uncertain and complicated. The United States will likely face a broad array of threats and opportunities and must prepare to address both effectively in the coming years... At the same time, the technology-enabled 21st century operational environment offers new tools for state and non-state adversaries such as terrorists to pursue asymmetric approaches, exploiting where we are weakest. In the coming years, countries such as China will continue seeking to counter U.S. strengths using anti-access and area-denial (A2/AD) approaches and by employing other new cyber and space control technologies.

2014 QDR, 4 Mar 2014
Rebalancing for a broad spectrum of conflict.

Future conflicts could range from hybrid contingencies against non-state actors to high-end conflicts against states armed with weapons of mass destruction and/or advanced anti-access and area-denial capabilities. To address this diverse range of challenges, the U.S. military will broaden its capabilities to the full spectrum of possible operations. While preserving hard-won expertise in counterinsurgency and stability operations, the Joint Force must also be prepared to battle sophisticated adversaries employing advanced warfighting capabilities, to include space and cyber capabilities. The Department will sustain robust investments in science, technology, research, and development in areas most critical to meeting future challenges or where there is greatest potential for game-changing advances.
“A good hockey player plays where the puck is. A great hockey player plays where the puck is going to be.”

Wayne Gretzky

So… Where will be playing in the future?

It’s not a game plan; it’s an instinct – Embedded in our culture…

Envisioning the Future
The World is a Messy Place…

Locations of ongoing conflicts worldwide, May 2015

- Major wars, 10,000+ deaths in current or past years
- Wars, 1,000–9,999 deaths in current or past year
- Minor conflicts, 100-999 deaths in current or past year
- Skirmishes and clashes, fewer than 100 deaths in current or past year

From setting global norms to defeating terrorist threats and providing humanitarian assistance, the United States collaborates with allies and partners to accomplish a wide range of strategic, operational, and tactical goals. 2014 QDR
Interplay between geopolitics and economics: The interconnections between geopolitics and economics are intensifying because states are making greater use of economic tools, from regional integration and trade treaties to protectionist policies and cross-border investments, to establish relative geopolitical power. This threatens to undermine the logic of global economic cooperation and potentially the entire international rule-based system.

Governance of emerging technologies: The pace of technological change is faster than ever. Disciplines such as synthetic biology and artificial intelligence are creating new fundamental capabilities… At the same time, they present hard-to-foresee risks. Oversight mechanisms need to more effectively balance likely benefits and commercial demands with a deeper consideration of ethical questions and medium to long-term risks.
Strategic Trends and Operational Environment

- **Operational issues will be more complex**
  - Need to support multiple mission needs
  - A2/AD
  - Violent Extremism
  - Territorial Disputes

- **U.S. military forces will be rebalanced.**
  - Rising importance of Asia/Pacific

- **Pressure for reductions in federal budgets**
  - Will continue to increase; therefore, DoD cannot afford to acquire capabilities exceeding military needs.

- **Unmanned technologies**
  - Will continue to improve in many different capability areas.
  - Enemy systems will complicate operations

- **Cyber domain**
  - Will be a conflict environment as readily as land, sea, or air and space.

- **Pace of technology change**
  - Commercialization, information agility, collaboration

Adaptable, Expeditionary Forces To Meet An Unknown Future
The Threat

• The Explosive Device itself:
  • Conventional
  • Improvised
  • Chem / Bio / Nuclear

• Supporting technologies
  • The “kill chain”

• The Environment
  • Physical
    • Land / Sea / Air / Underwater
    • Desert / Jungle / Arctic
    • Urban / Remote
  • Cultural
    • Sensitive ?
  • Political
    • Economic

• Tactical
  • Permissive / Semi- / Non-permissive
    • The full range of military ops (ROMO)
  • Enemy TTP

It’s more than the OOB

Unclassified
The Christian Science Monitor - CSMonitor.com

Iraq awash in military weapons

An attack on a US convoy Sunday highlights concern over Iraq's 50 unsecured arms depots.

By Dan Murphy, Special to The Christian Science Monitor / October 20, 2003 at 12:10 pm EDT

KARBALA, IRAQ

A roadside attack on US military convoy Sunday in Fallujah, Iraq left an American armored car and munitions truck burning wrecks. No one was reported killed, but some Iraqis nearby were cheering.

The Fallujah attack typifies one of an emerging series of threats apparent since September due to the wide availability of guns and military equipment. The result has been a steady supply of explosives to use against coalition soldiers, more Iraqi vigilante justice, and a rise in local militia groups.

One coalition official says that up to 50 major weapons sites across Iraq with bombs, ammunition, and rifles in them are improperly secured and have probably served as a source for the home-made bombs - improvised explosive devices (IEDs) - in military parlance - that have become the single biggest security threat to the coalition.

New militia are also being spawned across the country and are increasingly coming into conflict either with the coalition or with other Iraqis.

The most visible militias in recent weeks have been ones aligned to extremist Shi'ite clerics. Shi'ite Muslims make up about 60 percent of Iraq's people, and were literally second-class citizens in Saddam Hussein's Iraq. At least seven coalition soldiers - 5 of them Americans - have been killed in clashes with these militias this month.

The availability of weapons to ordinary Iraqis, not just militias, is also a concern. In May, Paul Bremer, the top coalition official here, decided to allow Iraqis to keep AK-47's, with the stipulation that they confine them to their home. But that provision has proven almost impossible to enforce, and gun-toting youths are now a regular feature on the streets near most of Iraq's cities.

"In my opinion, we'd be a lot better off if we didn't let people keep AK-47's in their homes," says Gen. Kadhern Abdul Khalil, the chief of police for Al-Risala district, which encompasses about half of Baghdad. "Under the old regime, there were a lot fewer guns in private hands, and that made our job easier and safer."

Some observers speculate that much of the munitions for constructing IEDs in Iraq may have come from large Iraqi military ordnance deposits looted by insurgents, or from stockpiles scattered in secret locations throughout that country before the war.

CRS Report for Congress RS 22330 Aug 2007

Integration into the Joint Force?
Joint Exercises and Doctrine?
Operational Planning?
Threat assessments?
TECHINT?
The expeditionary mind-set is... derived from discipline, training, and an overwhelming need to accomplish the mission regardless of the situation. An expeditionary force is built on several key principles:

- Solving problems with minimal support and broad guidance...

- Expeditionary “Knowledge Workers”
- Agile and resilient
- Global reachback
And Relationships…

Operators – Acquisition – Intel – Requirements – Resources - Technology
We’re here to help…

Open, Honest, and Complete Communication Across all Levels
Balancing Capability, Capacity, & Readiness

Better Buying Power 3.0
Achieving Dominant Capabilities through Technical Excellence and Innovation

- Get the Requirements Right
- Make Every Dollar Count
- Perform to Plan
- Mind a Healthy Industrial base
- Rebuild our Acquisition Workforce

"Perform to Plan"

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So What’s Our Next Threat?

We may not know, but we need to be prepared.

The specifics matter less than our ability to rapidly adapt...

Initiative, Innovation, Expeditionary Culture, Competence, and Relationships
The “Black Swan” Syndrome

Cognitive biases create false expectations of predictability. Acknowledging uncertainty may allow us to adapt better to unforeseen events.

- “Black Swans”: large-impact, impossible to predict, and rare event beyond the realm of normal expectations
  - 9/11, Google, internet bubble

- “Outside context problem”: Problem outside a given groups experience, with an immediate, ubiquitous and lasting impact upon it
  - Perry’s Black Ships arriving in Japan

- “Accelerating change”: increase in rate of technological/cultural/social progress in history (contrast to linear view)
  - Accumulation of knowledge, access to knowledge and lowering of transactional barriers to knowledge

The improbable, high impact, unforeseen occurrence:

“Addressing Asymmetric Threat Challenges and the Fiscal Environment”
Discussion...
The future will not be like today. As we look ahead, we see a world of increasing instability and conflict... Failed states or those that can not adequately govern their territory can become safe havens for terrorist, insurgent and criminal groups that threaten the U.S. and our allies... (former) Secretary of Defense Robert Gates described this resulting hybrid warfare as the “lethality of state conflict with the fanatical and protracted fervor of irregular warfare, where Microsoft coexists with machetes, and stealth is met by suicide bombers.” This is the world in which we will live....this is where we will operate!

Commandant’s Planning Guidance 2010

― Potential adversaries… compensate for U.S. conventional military superiority by developing asymmetric approaches and capabilities.‖

SECDEF Transformation Planning Guidance, Apr 2003

―As the United States completes its transition in Afghanistan and looks to the future, the international security environment remains uncertain and complicated. The United States will likely face a broad array of threats and opportunities and must prepare to address both effectively in the coming years... At the same time, the technology-enabled 21st century operational environment offers new tools for state and non-state adversaries such as terrorists to pursue asymmetric approaches, exploiting where we are weakest. In the coming years, countries such as China will continue seeking to counter U.S. strengths using anti-access and area-denial (A2/AD) approaches and by employing other new cyber and space control technologies.

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