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Counter Improvised Threat Technologies (RD-TT) 101

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Mission



The Defense Threat Reduction Agency enabled DoD, the U.S. Government, and International Partners to counter and deter Weapons of Mass Destruction and Improvised Threat Networks.



Provide research, development, test and evaluation (RDT&E) investments that focus on maintaining the U. S. military's CWMD technological superiority, supporting current readiness, and mitigating the risks of technical surprise for the CWMD mission.

Counter Improvised Threat Technologies

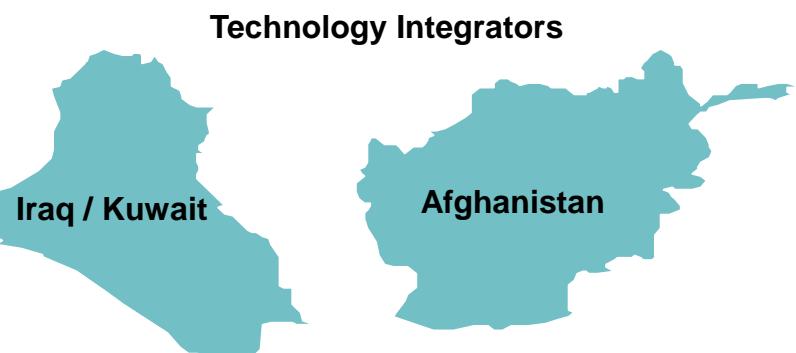
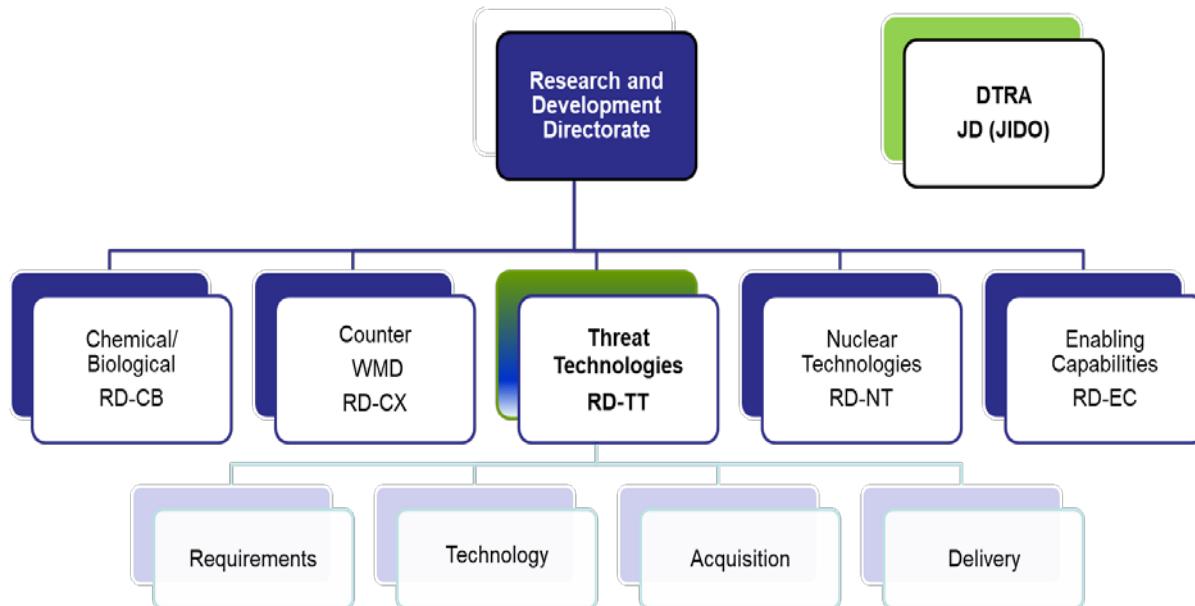
Conduct S&T and rapid development, evaluation, and delivery of capabilities that enable Warfighters to counter Improvised Threats.



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Organization



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SECDEF Lines of Effort/DTRA Strategic Goals – TT Alignment



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RD-TT Overview

Efforts span from S & T to delivery and assessment of prototype solutions

Three lines of Effort

- Counter Network (CN)
- Counter Improvised Explosive Devices (C-IED)
- Counter Unmanned System (C-UxS)





Delivery Division (RD-TTD)

Mission: *Rapidly develop, integrate, and field prototype solutions for improvised threats to the Warfighter to reduce risk to US Forces*

1. Counter Networks

Most cost effective method to disrupt / discourage IED activity. Portfolio supports DoD, SOCOM and OGAs

2. Vehicle Borne IEDs

Potential for highest casualties with strategic impacts, no one technology to detect



3. Radio Controlled IEDs

Advancement on circuit technologies, allow enemy to adapt easily



4. Unmanned Aerial Systems

Increase detect/defeat range; rapidly exploit; miniaturize

5. Anti-Armor IEDs

Threat to freedom of maneuver on battlefield at all levels. Requires advancement in technologies

6. Booby-Trapped Structure

Threat grows with VEO network infiltration progressing autonomous technology

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7. Person-borne IEDs

Major risk to dismounted ops; invest in system of systems development and integration

8. HME Sensor Miniaturization

SWaP reduction for airborne sensors



9. Buried & Pre-Det

Progress standoff detection, increase pre-detonation depth, and enhance probabilities to detect and defeat



Requirements Division (RD-TTR)

Mission: Synchronizes the evaluation, prioritization, and validation of Improvised Threat requirements and plans, programs, and budgets to enable Counter Improvised Threat support across the Joint Force

Requirements Management

Receive, refine and validate improvised threat gap requirements from Combatant Commands, Joint Staffs and DOD Agencies and perform capability gap analysis against Improvised Threats (Improvised Explosive Devices, Unmanned Systems and respective networks).

Planning, Program and Budget (PPB)

Develops plans, programs, and budgets for Research Development Test and Evaluation funding annually to support advanced technologies countering Improvised Threats (Improvised Explosive Devices, Unmanned Systems and respective networks).

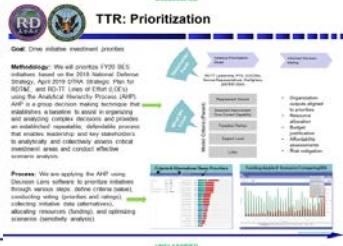
Stakeholders



Requirement Capability Gap Analysis (RCGA)



Prioritization



PPB Cycle



Synchronizes requirements and develops PPB for RD-TT



Acquisition Division (RD-TTA)

Mission: Directs the evaluation of initiatives within AAMP enabling RD-TT to rapidly acquire counter threat capabilities in support of Combatant Commanders

C-IED Evaluation



IRIS-G



UGV



MARVIN

C-UAS Evaluation

Black Dart & CD1

Ninja Gen 2 (Fixed site)



UASX



AMS



AeroGuard

FVEY & Theater Support Efforts



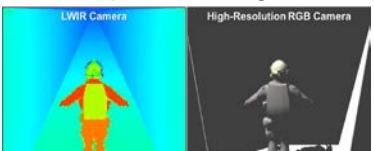
OP SABRE

Man-Portable
C-sUAS

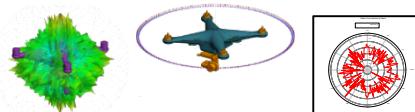
Fixed Site C-IED
and C-sUAS
Configurations

Modeling & Simulation

Hyper/multi-spectral image



Well-characterized system models



Radar cross section (RCS) / signatures



Technology Division (RD-TTT)

Mission: Delivering tomorrow's counter-improvised threat solutions to the warfighter today

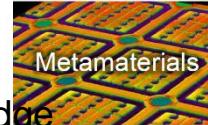
Novel Engineering, Research and Development Solutions



Technology is not the problem; it's defining the problem



Turn data into knowledge



Technical Outreach

Seek new partners and discover new opportunities and engage stakeholders – Government, Academia, Industry, International



Work with experts across the R&D enterprise to rapidly accelerate the right science



Own the science to own the solution

Leading Forward, Inspiring Innovation, Acquiring Wisdom



RD-TTT Portfolio

RD-TTT maintains technological superiority through identifying, analyzing and leveraging scientific and technological innovations:

- We take the fight to the enemy
- We help warfighters adapt
- We are postured to anticipate

We work where nobody else is working, focusing on these initiatives:

- Artificial Intelligence/Machine Learning
- Directed Energy
- Counter Threat Networks (attribution)
- Persistent Sensing
- Partnerships with Service Academies



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QUESTIONS

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