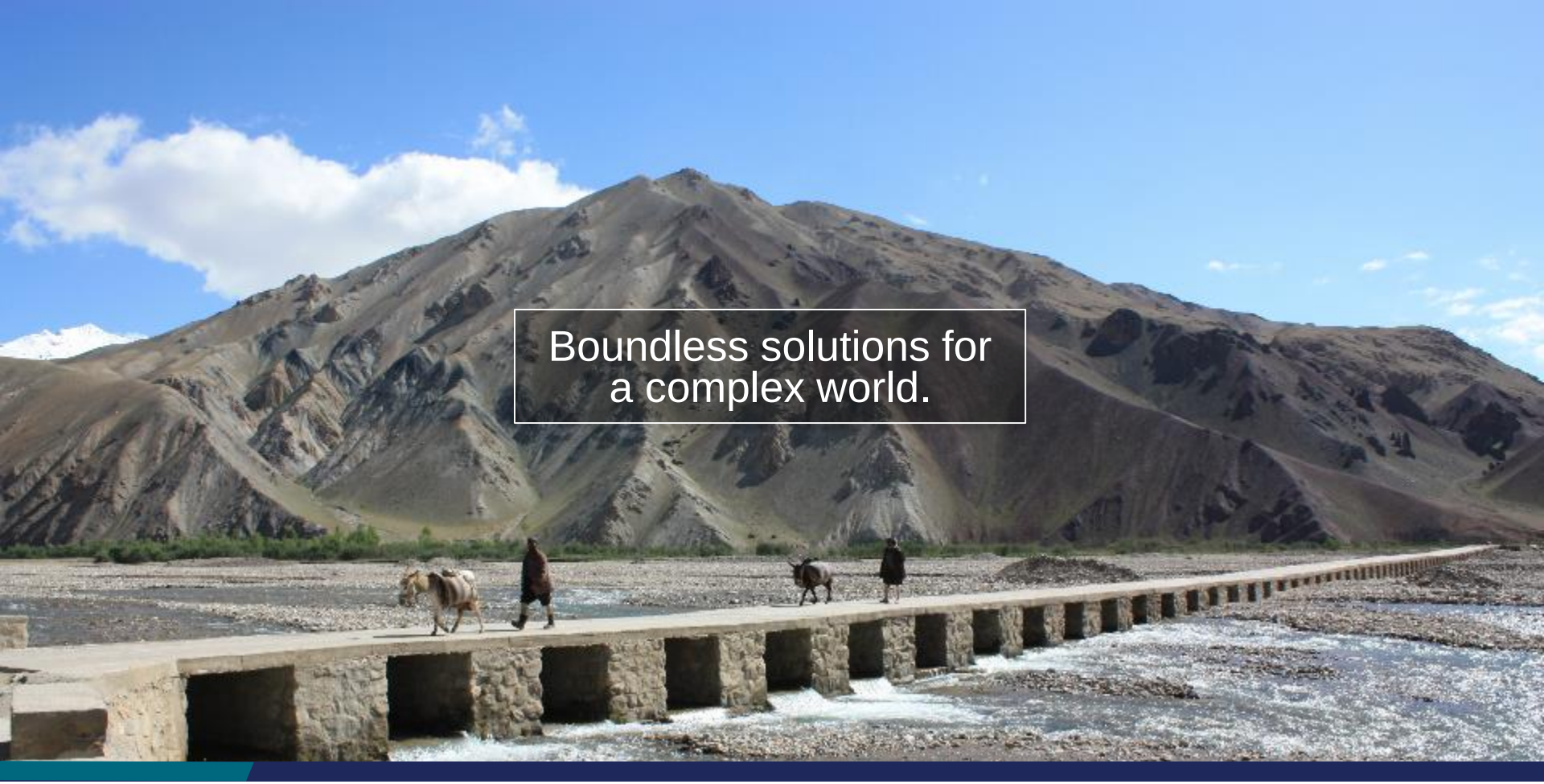


Humanitarian Mine Action and Adapting to the IED Threat (Implementer Perspective)

15 August 2018

JANUS
global operations

Overview

- Introduction
- Current Projects
- Outcomes
- Case Study (Ramadi Medical Center)
- HMA and Hazards in Stabilization Operations
- Challenges and Best Practices
- Looking Forward

For Discussion:

1) IEDD is a necessary capability to enable stabilization.

2) Requirement for rapid hazards identification capability deployable at regional level

3) Hazard release/ clearance standards discussion is necessary

Current Project Descriptions & Operational Areas

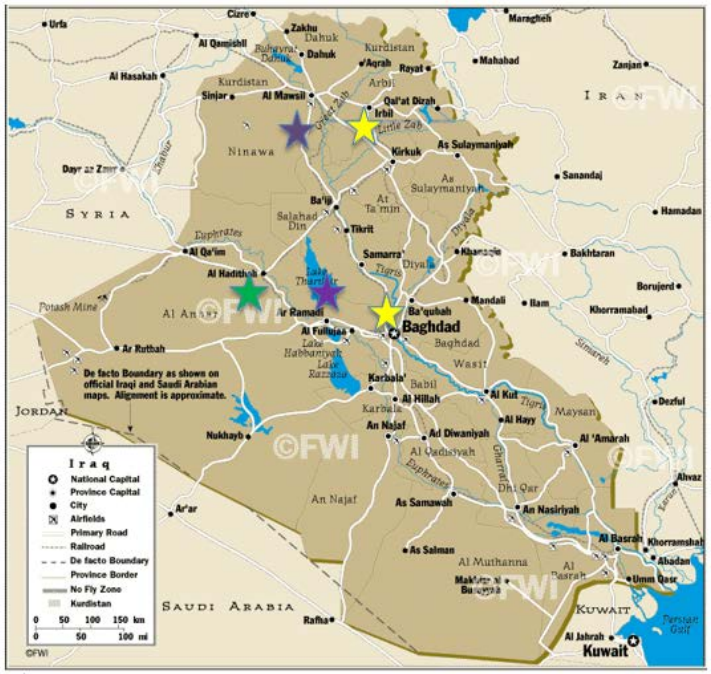
Projects Funded by US DoS PM/WRA:

Rapidly and safely remove the threat of unexploded ordnance (UXO) and abandoned ordnance (AXO), to include Improvised Explosive Devices (IEDs) from liberated areas, with a focus on its infrastructure, in cooperation with local and national authorities, so that displaced citizens can leave their places of refuge and return to their homes.

Libya: Since Late 2017: 7 teams trained and equipped; Mentoring Operations

Regional Office (Tunis, Tripoli, Benghazi)
Operations Hub (Misrata)
Forecasted Operations Hub (Sirte)

Iraq: Since 2016 – 13 Teams Directly Implementing



Regional Headquarters (Erbil, Baghdad)
Operations Hub (Q West, Ameriyah)
Forecasted Operations Hub (Al Asaad)

Hazard Identification and Mitigation and HMA contributing to Stabilization

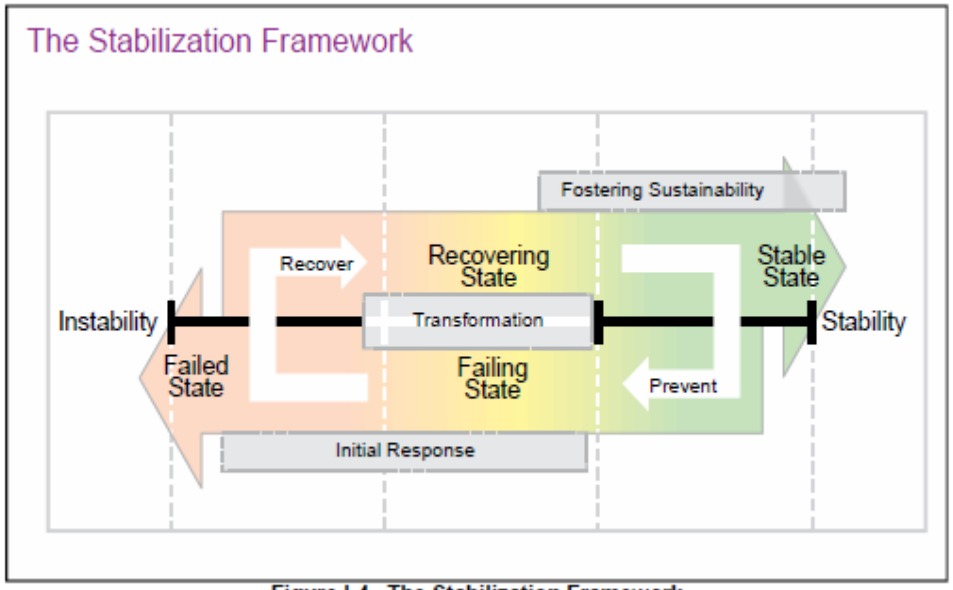


Figure I-4. The Stabilization Framework

Source:
JP 3-07, *Stability.*

Security

Frees critical assets for the fight
Controlling/Eliminating Weapon Materials

Foreign Humanitarian Assistance

In line with political LOEs
Humanitarian – no political agenda

Economic Stabilization and Infrastructure

Livelihood and critical infrastructure repair
Victims Assistance, returning land to use

Rule of Law

Counter Proliferation; forensics
National Mine Action Centers; Civil Authorities

Governance and Participation

Election Support, Key Service provision
Long Term Capacity
Advancing underrepresented demographics

Illustrative Outcomes from Stabilization Enabling Clearance

GOVERNANCE

- **More than 1 million IDPs returned to Anbar/ Ramadi since clearance commenced in April 2016, according to Ramadi's Mayor.**
- Regional Water Treatment Plant and 40 Generator Sites Cleared, providing more than 10 megawatts of power for Ramadi's critical infrastructure and potable water for 350,000 people. Waste treatment plant will serve 500k people
- Low cost, community housing clearance has supported repopulation – "Special City" In Ramadi will house 1000 families
- Water pipeline will serve thousands in KRG when repaired after IED clearance
- Anbar University: Clearance allowed classes to resume October 16 for 10,000 students; Mosul University: clearance allowed reopening of dormitories, classroom space, labs and allow for 11,000 students to safely traverse campus

LIVELIHOODS

Hamam Al Alil Cement Factory – 570 Employees, 1500 ton/day of concrete produced

Anbar Ceramics Factory – 700 Employees, Projected 5m USD monthly generated, 50m USD in international investment

Mosul Supergrid – Power to 664,000 people

SECURITY

- Clearance efforts removed and disposed of more than 52000kg of explosive material, ensuring it cannot be repurposed into weapons or IEDs.
- Clearance teams searched and cleared multiple IED production facilities including Uparmored VBIED assembling facility in Ninewa.
- Device information, samples, and employment trends have been shared with CFLCC and IA counterparts to enhance security and safety for final ISIS confrontations and clearance

Case Study: Ramadi Medical Center

Initial and Transformation Phase Implementer Challenges

Challenge	Best Practice
1) Low Risk Acceptance but resource constrained	Low Tech/ Cost Innovations (disruptor, COTs) Using time/daylight to advantage Integrate with traditional HMA assets when able
2) Complete Area Clearance and Rubble	Share/discuss lexicon with kinetic units Uparmored Heavy Equipment
3) Lack of Universally Recognized Standards for implementers	Skills validation for all operators Contribution to NATO, UN, National Standards Mentoring on incidents
4) Site Security (on operations and while unattended)	Utilize local authorities for outer cordon Training with security on scene protocols Low tech ground disturbance detection; UAVs
5) CBR and TIC/TIM Hazards	Integrating CBR survey, emergency decon capability Human Remains protocols
6) Structural Clearance and Confined Spaces/ Tunnels	Structural Assessments/engineers SbT Technologies/TTPs
7) Tasking flow	Integrate early with Stabilization Planners Use beneficiary demographics to avoid playing politics Media and messaging
8) Mission Creep	Tie in with stability planners Include ‘hazards’ language in agreements

Explosive Hazards

Complex design

Anti- Lift in main charge

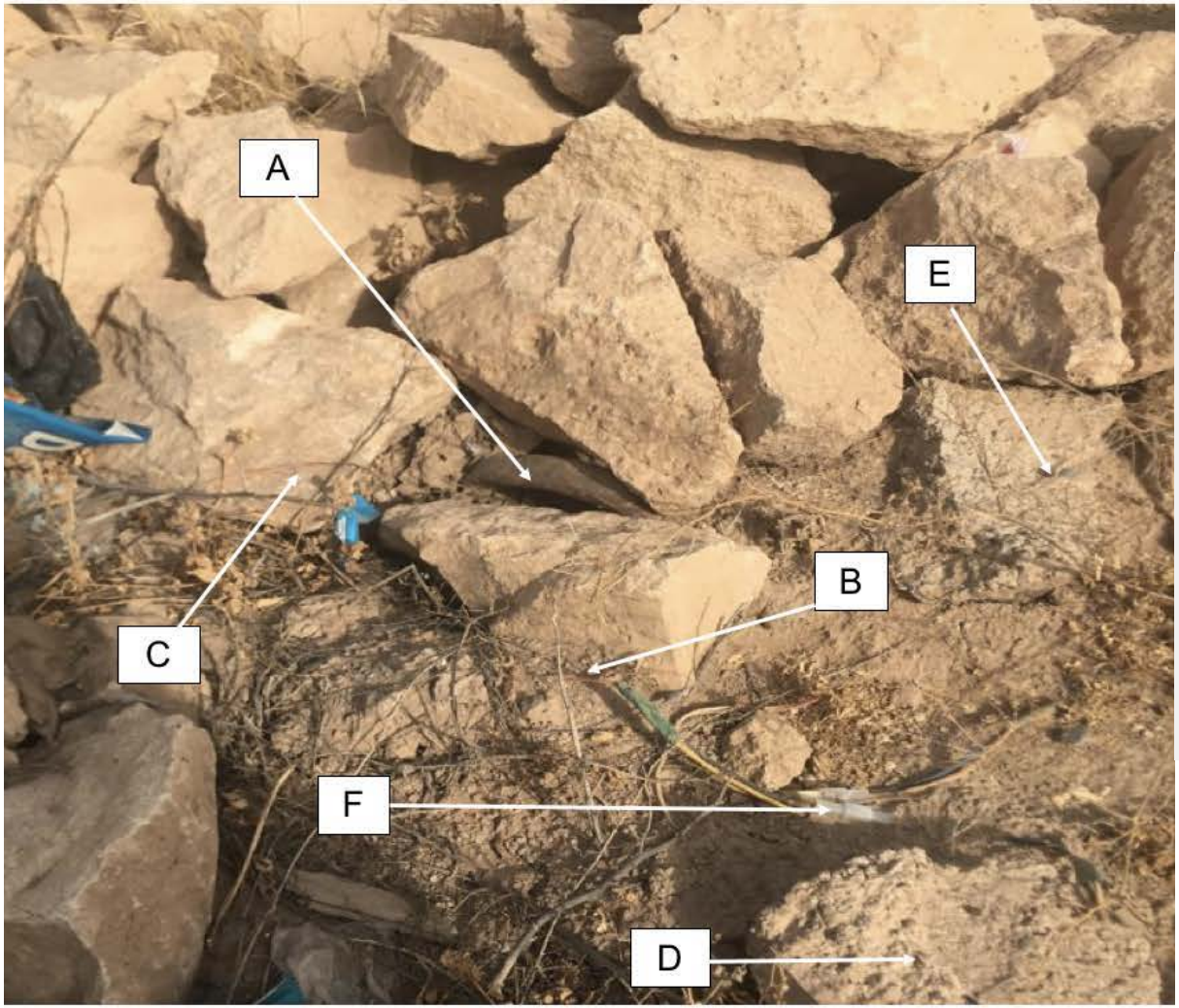
Crush wire switch

Variety of Sizes

Pre-Packaged with Instructions

Indiscriminate (Vacuum w/anti-lift)

Placement and Complexity



KEY – RAM_123 IED IN SITU

A 30Kg GAS CANISTER MAIN CHARGE

B VOIED DETONATOR LEADS

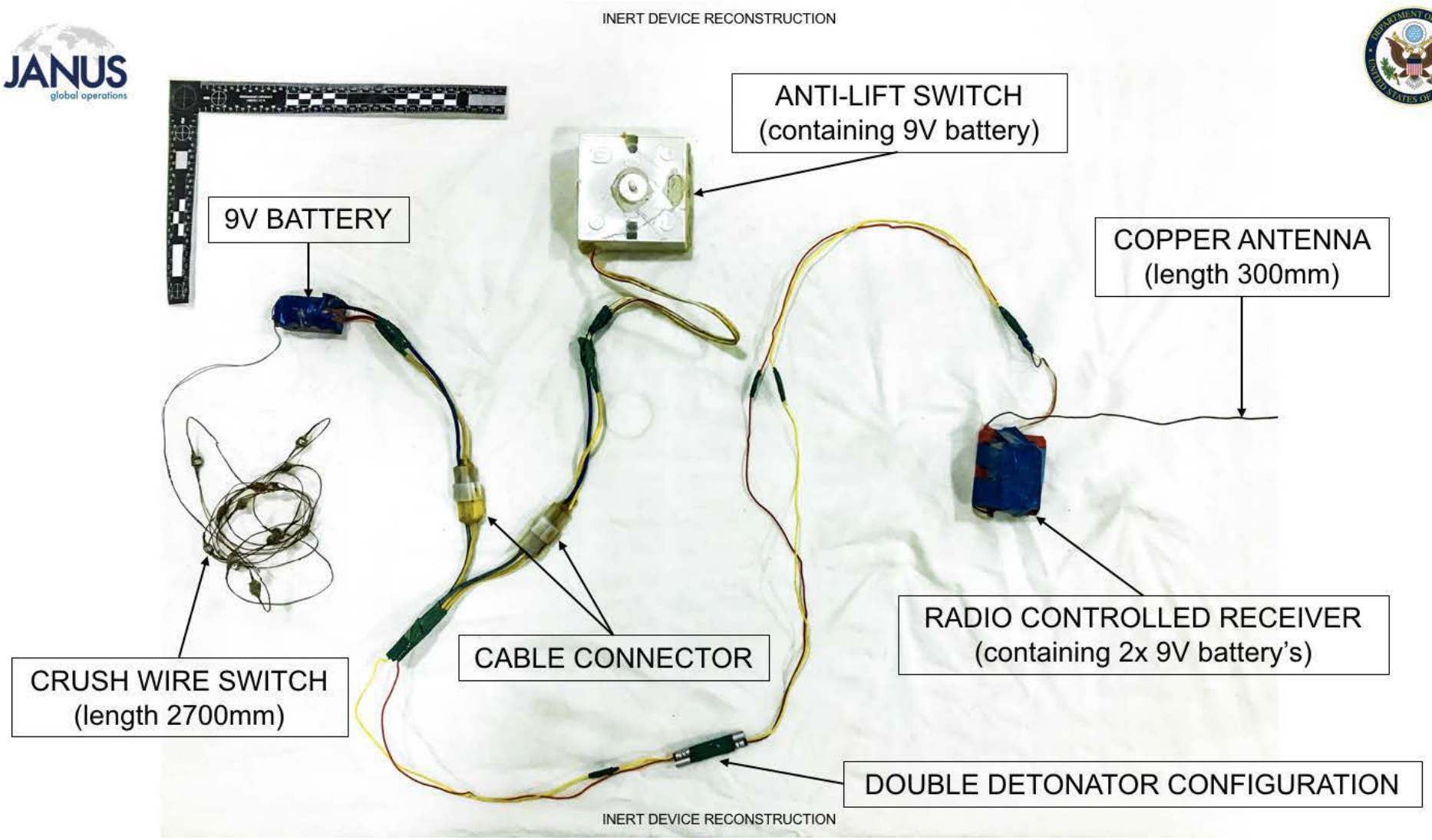
C 300mm COPPER ANTENNA (Ae)

D ANTI-LIFT SWITCH (BENEATH ROCK)

E CRUSH WIRE BEAD

F VOIED CABLE CONNECTORS

Placement and Complexity



Looking Forward

- Standards (DDESB, UN, NATO, IATGs)
- CBR Hazard mapping, security, mitigation
- Technical Exploitation Capacity Building (for IEDD)
- Advanced UAV/Robotics and life cycle support
- Tunnels/ SbT (Airport, etc)
- HN Capacity/ Civil Authorities
- PSSM

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