



#### Overview

- 1. Fundamentals of IED Threat Mitigation
- 2. Threats and Trends
- 3. EH Threats Associated with EOD, ERW, and IED
- 4. Issuing a Threat Assessment to a Tactical Force
- 5. IED Impact



#### Overview

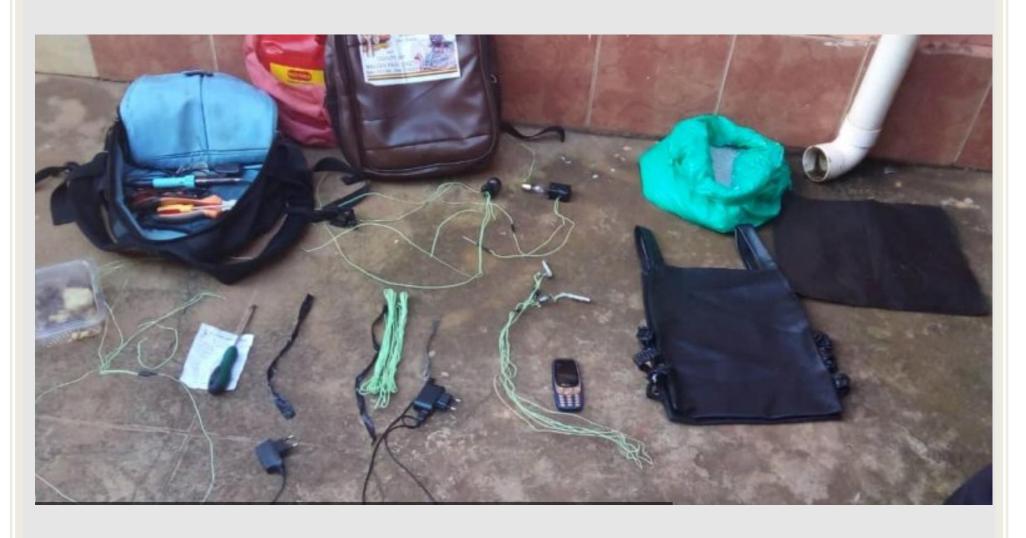
6. Common Incident Management Requirements

7. Roles and Training

8. Operating in IED Environments



#### Aug 2021 – Bomb Maker Arrested





## 1. Fundamentals of IED Threat Mitigation



#### Aim

- 1. Identify the threat of Improvised Explosive Devices (IEDs) and other Explosive Ordnance (EO), thus supporting prevention of IED attacks.
- 2. Develop and organize IED Threat Mitigation (TM) capabilities to support protection from IEDs.

IED Threat Mitigation
Outputs

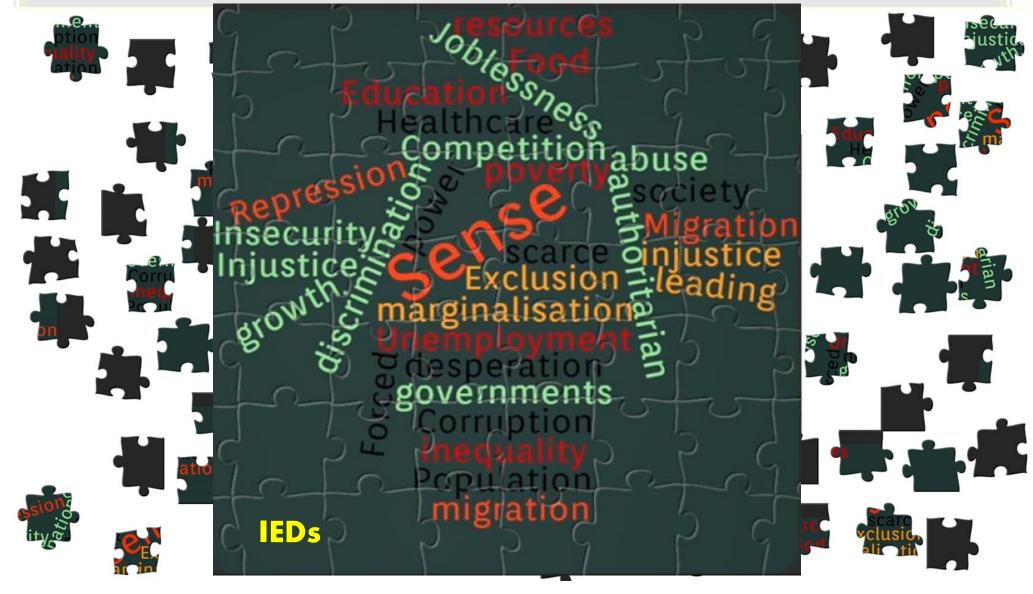
## Recommendations to Mission Leadership

(e.g. resource requirements, future operations or courses of action, adjustment to mission processes)

# Triggers & Longer-term drivers of conflict

- Corruption corrupt, abuse of power, authoritarian or repressive governments / officials
- Sense of Injustice / Repression
  - Rigged Elections
  - Bias Leaders
  - Exclusion, discrimination or marginalisation within society
  - Lack of fair and equal representation / power sharing
- Overpopulation
  - Population growth leading to migration and poverty
- Climate change
  - Forced Migration
  - Competition for scarce resources
  - Food Insecurity
- Unemployment / Joblessness
  - Poverty
  - Lack of hope and bleak outlook leading to desperation

## Triggers & Longer-term drivers





#### IED-TM Objectives

IED-TM Objectives (Secure Environment)



**Force Protection** 



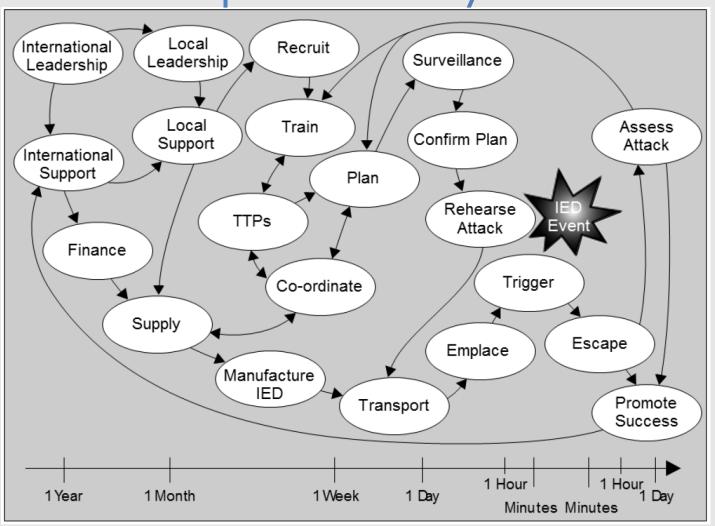
**Protection of Civilians** 



IED Threat Reduction

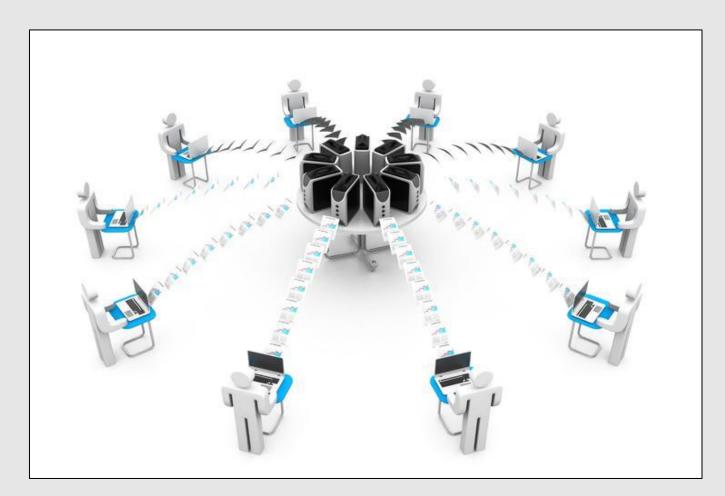


#### Example IED System





#### **Predict:**





#### **Prevent:**



Afghan policemen escort captured aggressors



Mitigate:

30% Technology

60% Training



#### **Detect:**





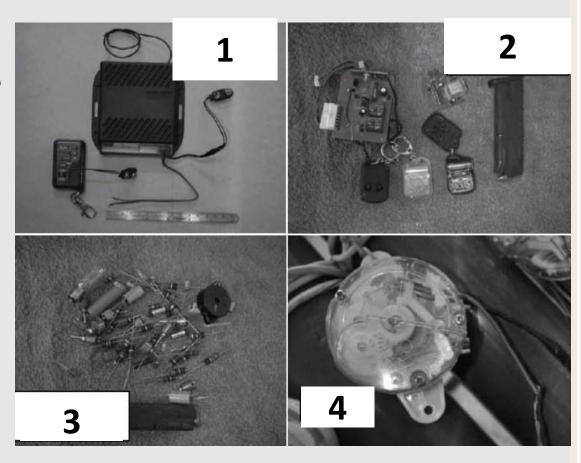
#### **Neutralize:**





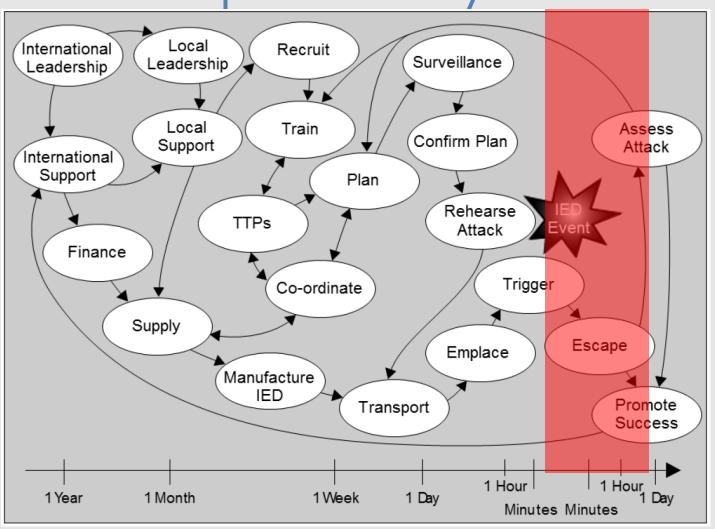
#### **Exploit**:

- Record and analyze materials
- Methods of operation
- Relationships
- Capabilities





#### Example IED System





#### 2. Threats and Trends



#### 3rd Law of Motion

# ...for every action there is an equal but opposite reaction...

Isaac Newton, 1686



#### Threats & Trends

#### **Threats & Trends**

- IED threat is an evolutionary threat.
- Retains relevance through ingenuity in manufacturing and deployment methods.
- Easy access to IED making methods (mainly online), low tech IEDs can transcend into high-tech.
- Varies regionally.

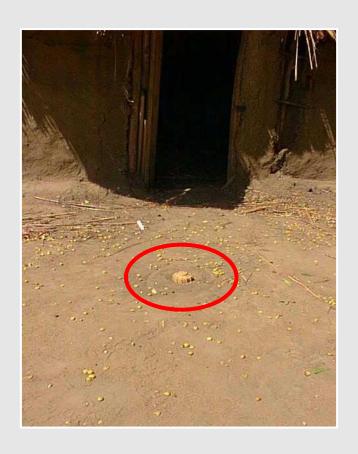


## Peacekeeping Operations





## Can you see any risk?







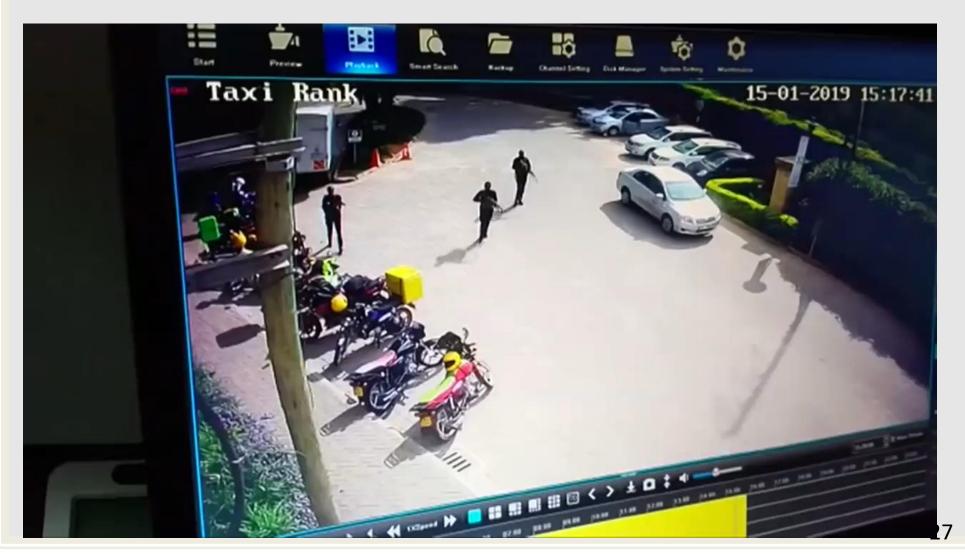
#### 14 Oct 2017







#### Jan 2019







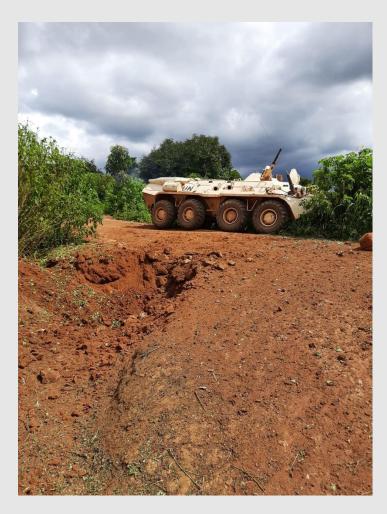
## 2019 Benghazi

africanews.





## 30 June 2020 - CAR, Yadee







## 07 July 2020 - CAR







#### **Protests**

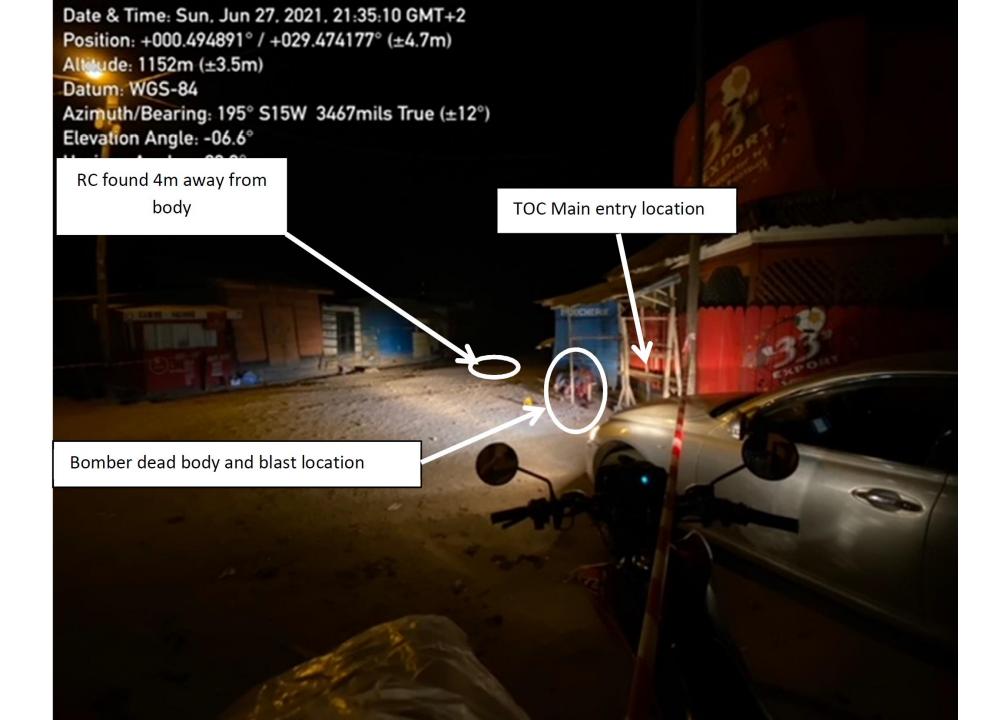




#### 16 Feb 2021 - CAR











## 2011 – Nigeria UN Offices





### 12 Oct 2013 Nigeria







#### Lebanon – Post 2006

- RC VBIED 24 June 2007 Spanish
- IED 16 July 2007 Tanzanian
- RCIED 08 Jan 2008 Irish
- RCIED May 2011 Italian
- CWIED 26 Jul 2011 French









#### Lebanon



Italian UNIFIL, Saida, Lebanon 26 May 11



French UNIFIL, Saida, Lebanon 26 July 11

\*\*\* ALL ROAD SIDE \*\*\*



#### Can you spot anything?









- Foot Patrol
- Previously
   Cleared Area



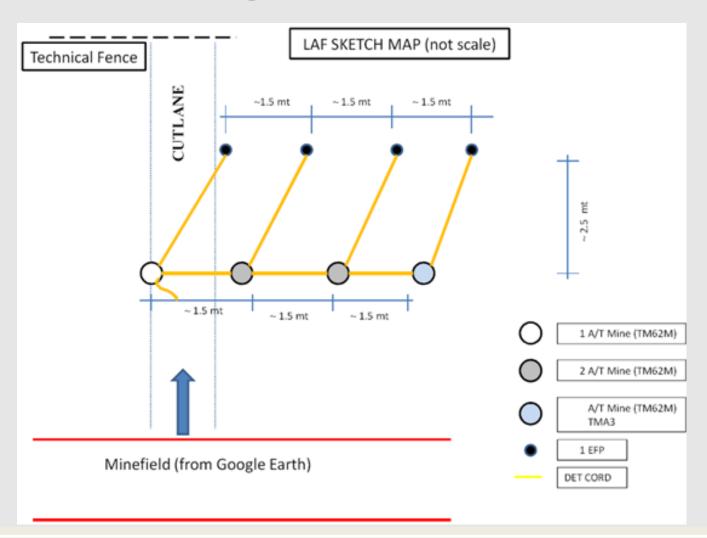












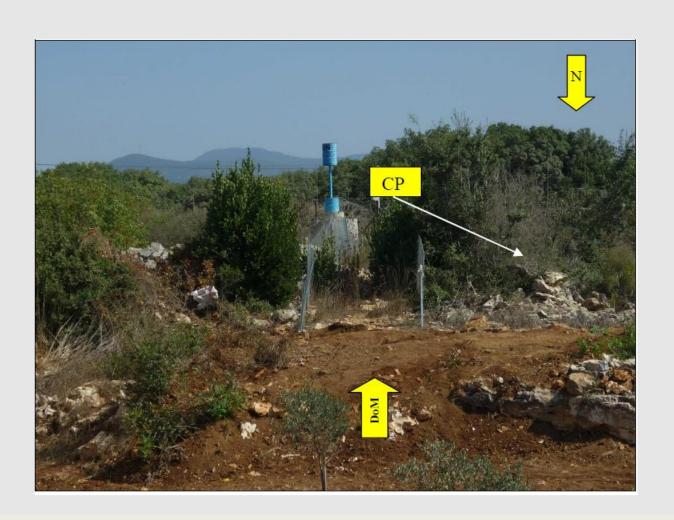
#### Can you spot the odd one out?



#### Can you spot the odd one out?







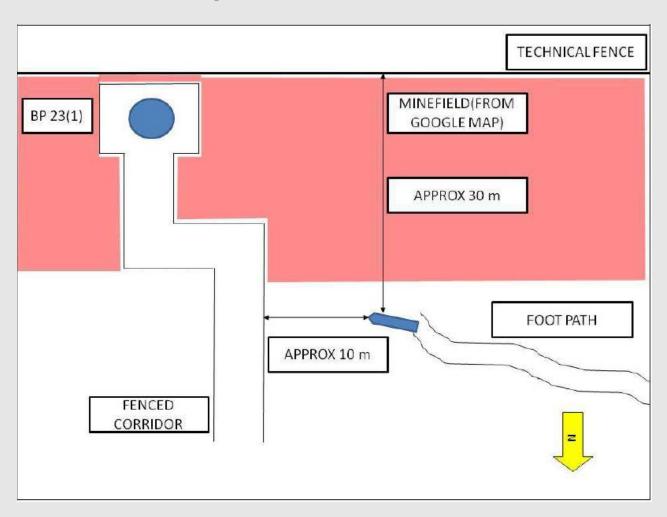




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Picture 4 - Device from the corridor









Picture 5 - Device







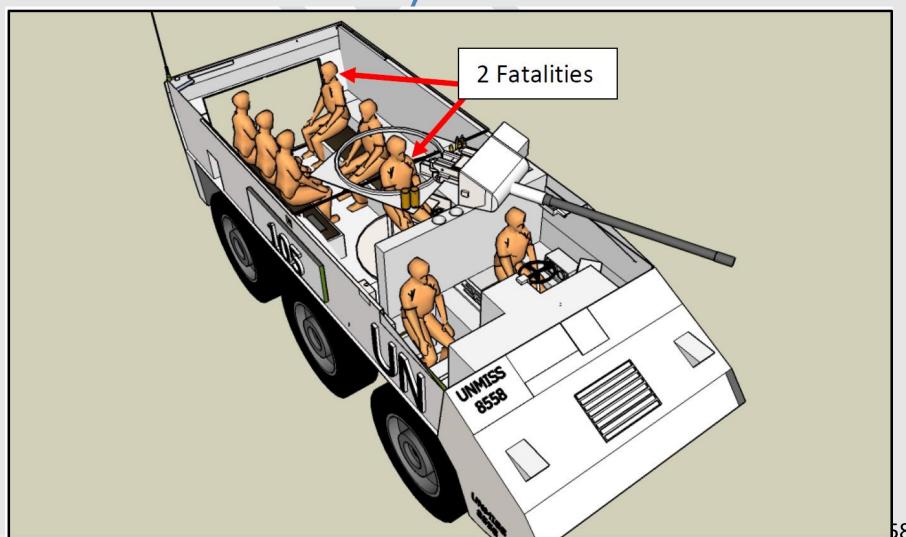




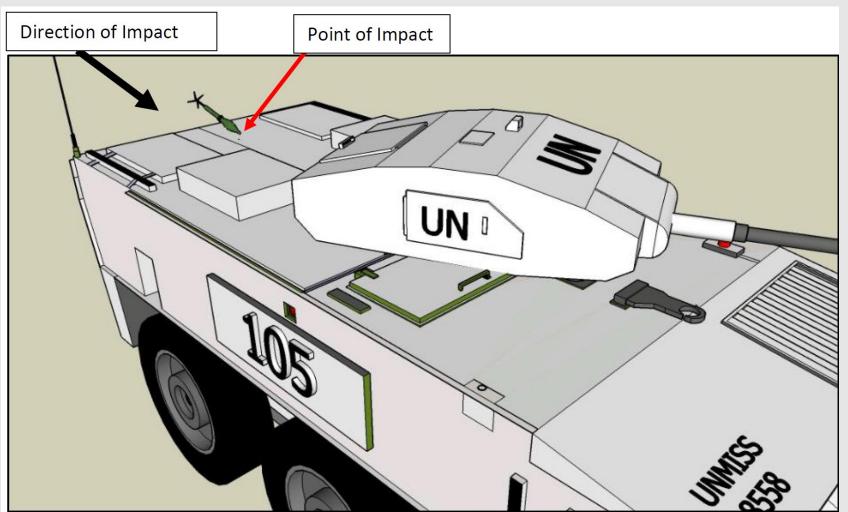


Figure 1 - Area in general





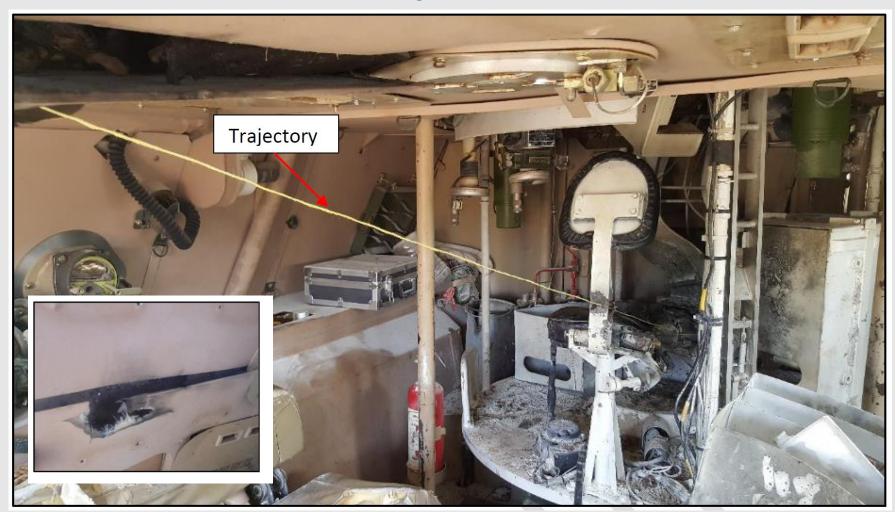












#### Confirmed or Potential IED attacks since 1997





#### Threats & Trends Info

- U2 Branch
- UNDSS
- Joint Mission Analysis Cell



#### 3. Explosive Hazard Threats



## Types of Hazards

- Explosive Ordnance (EO)
- Explosive Remnants of War (ERW)
  - Unexploded Ordnance (UXO)
  - Abandoned Explosive Ordnance (AXO)
- Improvised Explosive Devices (IEDs)



#### **ERW Hazards**

- Include UXO and AXO
- Wide variety of types
- Inhibit freedom of movement
- Explosive and mechanical hazards
- Use in IEDs
- Threat to all

















#### IED Threats











#### IED Threat Mitigation



- Comprehensive

   approach applied to
   physical, procedures,
   and training measures
- Reduce impact of IED use and incidents



# 4. Issuing a Threat Assessment to a Tactical Force



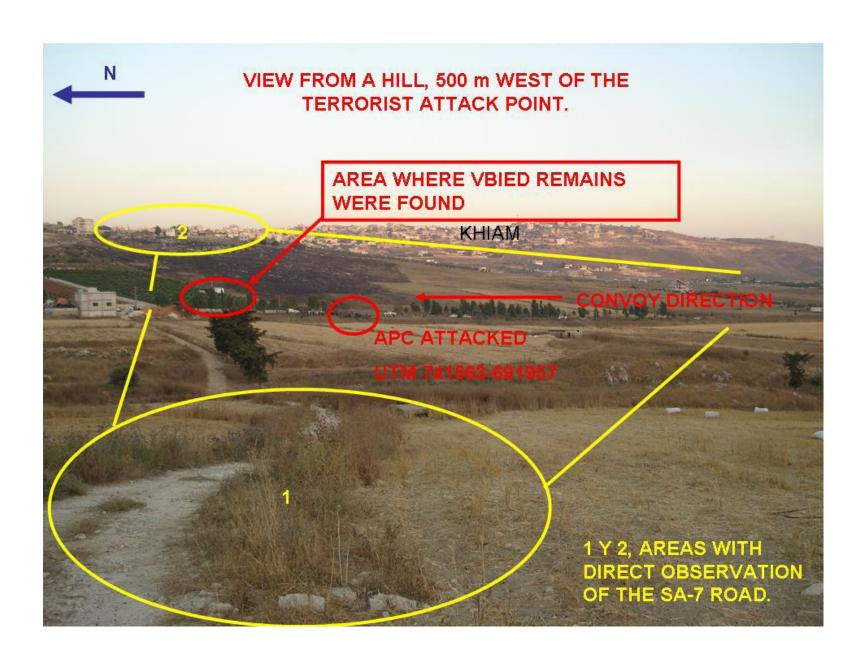
#### 5. IED Impact





#### 24 June 2007









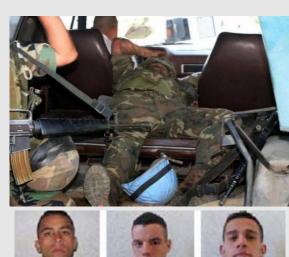






#### Impact of the Attack

- 3 died at the scene,
- Another 3 were evacuated and died later of their injuries





Yeison Castaño



Manuel **Portas** 



Yhon Posada



Jeferson **Vargas** 



Juan Carlos Villoria



**Jhonatan** Galea



**ECM** 

**Jammers** 

## Tactical Impact





7 Civilians Killed



Remotely Control Armed
Pressure Plate 3
AMISOM Casualties



August 2016

**Pressure Plate** 

**IED** 

kills 3 AMISOM

April 2017

16 Civilians

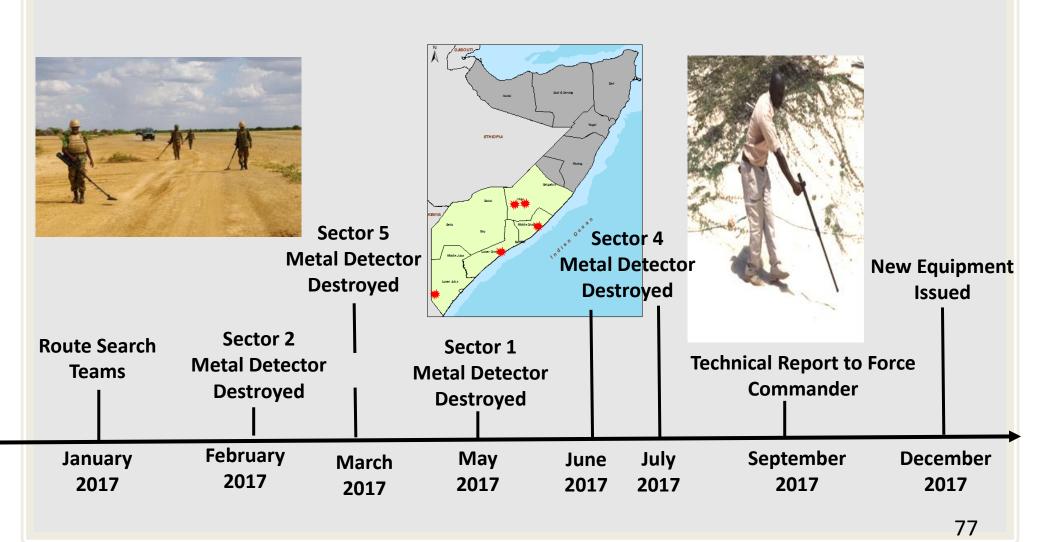
Killed

Aug 2017

Aug 2017



## Operational Impact





## Strategic Impact

#### REPUBLIC OF KENYA

IN THE PRINCIPAL MAGISTRATE'S COURT AT WAJIR

MISC APPLICATIN

PLAINTIFF

#### VERSUS

C/C Aisha

dients do not intend to pursue any other claim against the government. We have a report that the items are not drugs.

investigate some samples. Results of the report were availed on 4th July 2013 by government chemist. It confirmed all the six samples were sodium sulphate, sodium bicarbonate etc. In view of that conclusion the items are not explosives as earlier believed. In view of this the state does not have a basis to withhold the said motor vehicle. We pray that since the exhibits were not prayed for, they should be removed and kept.

Report is very clear. I pray for both the exhibit and motor vehicle be released because no offence has been proved.

Court: There is no objection to the government analyst report. The items contained have not been indicated to be the ones used to manufacture explosives. The police have been in custody of the lorry and the items for more than one month. The plaintiff has given an indication that they would not sue the government for compensation. On the hours had that the lorry and the preleased forthwith the lorry and the preleased forthwith the lorry and the state of the lorry and the preleased forthwith the lorry and the lorry

Certified trial blow of the orthogs

Court case- July 2013

**KBQ 133U** 



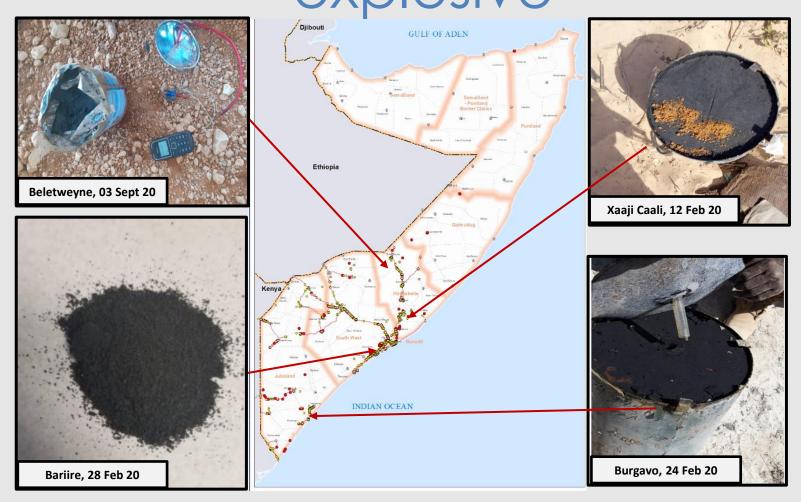


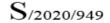


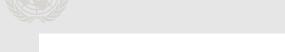
Sulphuric acid intercepted

Other chemicals procured: Potassium nitrate,
Ammonium nitrate, Hydrochloric acid, sorbital (fine sugar), Ethanol and Acetone

Sample of Improvised Black explosive









#### **Security Council**

United Nations

Distr.: General 28 September 2020

Original: English

#### Al-Shabaab's sourcing of improvised explosive device components

Chemical analysis of improvised explosive device components

116. In 2019, the Panel reported that Al-Shabaab was manufacturing its own homemade explosives, having at its disposal a readily available supply of improvised explosive device components (S/2019/858, para. 10). Analyses received during the reporting period confirmed Al-Shabaab's use of nitroglycerine as an explosive, potassium nitrate as oxidizer and charcoal as fuel in its manufacture of certain improvised explosive devices. 121

117. Nitroglycerine is produced from glycerol and a mixture of sulfuric and nitric acids. According to improvised explosive device disposal and Terrorist Explosive Device Analytical Center experts interviewed by the Panel in August 2020, Al-Shabaab is likely to have the technical skills to manufacture its own nitroglycerine, which is not listed in annex C to resolution 2498 (2019). The Panel recommends that annex C should be amended to include nitroglycerine in its part I (see annex 5.1 (strictly confidential)).



## 6. Common Incident Management Requirements



## Incident Management

- EOD task
- EOD/IEDD advises on scene commander



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#### Incident Management

- Command and control (C2) considerations
- EOD operates in conjunction with:
  - Security
  - Search
  - Force Protection (FP)

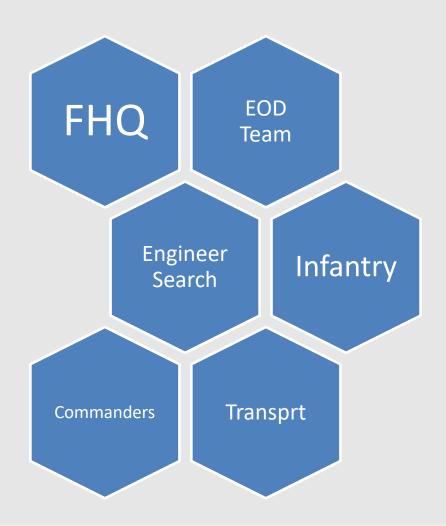




#### 7. Roles and Training



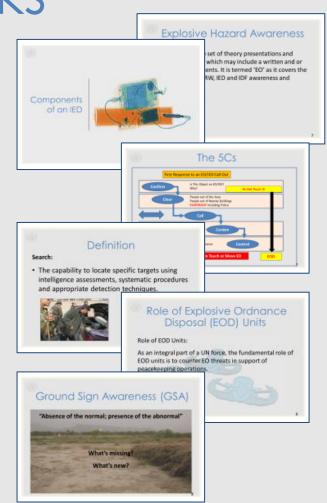
#### All Arms Responsibility





# Explosive Hazard Awareness Training Blocks

- Module 1 EHAT Overview
- Module 2 IED Types
- Module 3 5Cs
- Module 4 Search & Threat Assessment
- Module 5 EOD/IEDD Roles
- Module 6 Ground Sign Awareness





#### EOD

#### **EOD Core Capabilities:**

- CMD activities
- IEDD activities
- Support mission partners
- Operate in concert with other capabilities







#### CMD

- Basic EOD mission; disposal of ERW UXO/AXO
- CMD operations do not include IEDD
- CMD operations remove explosive hazards in AO
- Key enabler in IED threat mitigation; disposing of key components used in IEDs



#### **IEDD**

- Process of preventing an IED functioning as intended.
- IEDD is a component of EOD
- Operate within their capabilities
- Operator specific selection and training
- IEDD capabilities driven by assessed threat





#### First Responders

- Finding unit, fire, medical, police
- May be target of secondary devices
  - Train all on IED awareness





## 8. Operating in IED Environments



#### IED-TM in Mali





## Route Clearance Package

- Identify and remove IED and explosive hazards
  - Freedom of movement
- Specifically Equipped
- Capability varies based on contributing countries



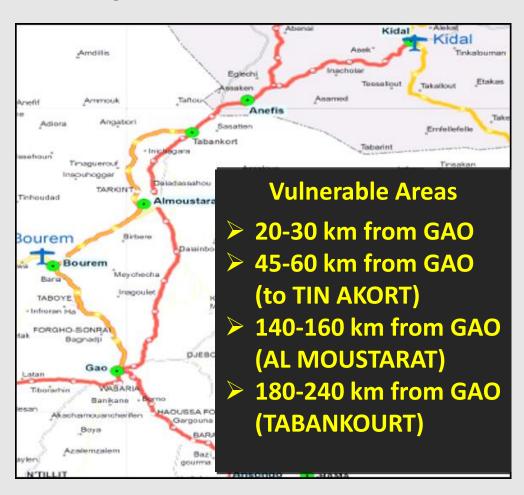
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## Route Analysis Criteria

#### **Considerations:**

- Safe havens
- Check points
- Phase lines
- Danger zones





## Mitigation Measures



- Avoid routine behaviour
- Vary routes and timing
- Maintain a high level of alertness



#### Mitigation Measures

- Plan check posts and patrols
- Conduct training on response procedures
- Maintain a quick response capability





#### Mitigation Measures



- Maintain vigilance
- Report any suspicious activity
- Assume follow-on attacks
- Vehicle spacing



## TTP Development

Effective TTP development should include:

Convoy reactions to:

- IED events
- Ambush
- Medical emergencies





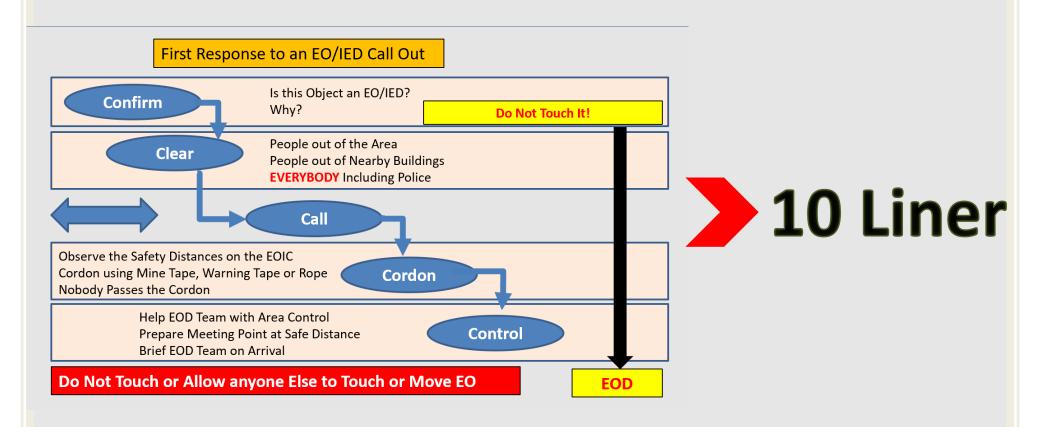
#### TTP Development



- Plan routes
- Establish premission procedures
- Assess risks during pre-operation planning
- Manage risks



#### IED Response Requirements





#### Notional HQ Support

- Establish policy and distribution of IED-TM assets
- Monitor workloads and priorities
- Act as POC for intelligence coordination
- Establish communication guidelines for all assets
- Coordinate supporting activities



## Questions?



#### Summary

The situation will continue to evolve, so too must the response.

Every Action has a reaction

Over simplifying the problem fails to acknowledge the challenge.

All Arms responsibility

Training can provide the request skills to plan, operate and react.



