The new IED threat
French Army expertise

Lieutenant-colonel Granger and Captain Boulas

Palais des Nations – Genève le 09/11/2023

RELEASABLE TO UN
French Army involvement

Threat of new IEDs

How to mitigate and clear IED
French Army involvement

Threat of New IED

How to mitigate and clear IED

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• Before FR has developed CNDH and CREG.

• Currently Military Engineering School (École du Génie, EG) is ensuring Humanitarian demining subjects and is following IMAS review boards.

• PIAM within the EG is the Expertise centre of all explosive ordnance threat and belongs the training centre for all the FR armed forces.

• UN missions: ANGOLA, CAMBODIA, LEBANON...

• Regional Humanitarian Centre Support via Defence Cooperation: CPADD, ERDH-L.
• In France, Humanitarian Demining is a mission of the armed forces. Civilian Security Units are more involved on ERW.

• Abroad, permanently armed forces and civilians have to face IEDs because of asymmetric conflicts but not at all.

• Nowadays IED’s use is more a question of opportunity (many ERW, easy supply by internet for example...) than real TTP, excepted the willingness to strike civilian or Deminers.
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Threat of new IEDs

How to mitigate and clear IED
ÉVOLUTION DE LA MENACE EEI
⇒ How Improvised Explosive Devices are made and laid on the field.
⇒ Development of the drone / ammunition
⇒ Increase of minefields and large scale of booby-traps
MAKING PROCESS OF IEDS with HOMEMADE EXPLOSIVES

Rudimentary manufacture,

or sophisticated,

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MAKING IMPROVISED EXPLOSIVE DEVICES (IEDS)

Raw materials available locally

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MAKING IMPROVISED EXPLOSIVE DEVICES (IEDS)

By Internet, hijacking and even theft
HOMEMADE EXPLOSIVES (HME)

Based on AMMONIUM NITRATE: AN

Based on HYDROGEN PEROXIDE:
Tri Acétone Tri Peroxydes « TATP »

Based on HYDROGEN PEROXIDE:
HéxaMéthylène Tripéroxide Diamine « HMTD »

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How IED are laid on the field

- Easy to make: rudimentary and home-made weapons;
- Easy to transport: motorbikes / light vehicles / pick-ups;
- Easy to set up: mastery of the terrain & freedom of movement (desilhouetting);
- Cost/effectiveness ratio: poor man's weapon with high destructive power.
AGILITY AND FORWARD THINKING: planting the IED in conjunction with a network of "sonnets" and following the movements of the force

Dormant IEDs *:
- explosive load set up in advance;
- trigger system or energy source placed at the last moment.

*IED Lexicon 5th Edition_2017_v5
Development of the combination DRONE/AMMUNITION threat

MODERNISATION OF WEAPONS AND AMMUNITION:

- Drones loaded with explosives, carrying and dropping munitions, naval, combat support (adjusting artillery fire);
- Large-scale 3D printing of improvised ammunitions.
Development of MINES and BOOBY TRAPS

The emergence of new, highly dangerous munitions: POM 3 mines, PTKM-1R, thermobaric munitions, munitions equipped with seismic sensors, ballistic missiles, etc.

How the thermobaric system works:
An initial (limited) explosion occurs, spreading a cloud of flammable material in the form of liquid or metallic particles over a wide area. A second explosion ignites the cloud of particles. A gigantic tremor occurs, and a fireball reaches a very high temperature. All the oxygen is sucked out.
Development of MINES and BOOBY TRAPS

DIRECTIONAL AND BOUNCING ANTI-PERSONNEL MINES

SISMIC SENSOR GENERATOR

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Increased landmines density

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ANTI-NEUTRALISATION ANTI-TANK MINE – “Deminer killer”

More examples...

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Development of MINES and BOOBY TRAPS

ANTI-NEUTRALISATION ANTI-PERSONNEL MINES – « Deminer killer »

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Common OBJECTS, BOOBY TRAPPED TOYS!

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AMMUNITION TRAPPING

MS-3 ANTI ANTI-LIFT

ML-7 ANTI-LIFT

HAND GRENADE DELAY TRAPPING
Development of MINES and BOOBY TRAPS

VARIOUS TRAPS WITH GRENADES

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How to mitigate and clear IED

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• **Common settlements on counter IED objectives**
  - Life preservation (Deminer and civilians)
  - Infrastructure and goods preservation (urban area difficulty)
  - Goal: return to a normal situation as soon as possible for civilians

• **Similar TTP’s for IEDD operator**
  - General threat overview
  - Witness questioning and local threat assessment
  - IEDD operator intervention (Destruct on Place or RSP and neutralisation)
  - Information gathering for exploitation (CITHARE database)
• UN Standards and FRENCH skills are quite different
  • UN IEDD skills are divided in 4 levels (1, 2, 3 and 3+)
  • FR IEDD is only 1 level, able to treat all kind of IED
    • Troops can make the reconnaissance
    • Only IEDD operators intervene on IED (a two operators team)

• FR and many Nato countries are following a global C-IED Strategy
  • Attack the Networks (disrupt supply chain)
  • Defeat the Device (DoP, RSP, Neutralization)
  • Prepare the “Force” (awareness and general TTP’s adapt)

• Civilian awareness and threat assessment is a key point

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