



Deployable Forensic C-IED Laboratories

Our Laboratories are available in a number of different configurations depending on the customer 's precise requirements

IEDs are the major source of casualties on current operations and are likely to remain the weapon of choice for adversaries in asymmetric warfare. Preventing IED attacks is a major priority for Armed and Security Forces, additionally being able to protect population, first responders and military forces against IED attacks is essential. One of the key elements to defeat the IED system (IED supply chain) is the intelligence and evidence gathered at the scene of a terrorist attack.

Deployable Forensic C-IED Laboratories are intended to analyze the intelligence and evidence gathered at the scene of an IED event quickly, but in a judicially clean manner to both give a commander quick actionable intelligence and support subsequent exploitation.

Deployable configurations

Depending on the concept of use established by the users two deployable configurations are available.

- **Modular configuration.** This solution is based on a semi-permanent infrastructure approach. The modular configuration is composed by eight fielded ISO 20 feet containers linked to each other through

tunnel tents. This configuration has been devised to provide flexibility and can be adjusted to meet precise requirements.

- **Mobile configuration.** This configuration is based on a containerized solution. The housing is composed of a ruggedized ISO 20 feet Shelter ready to be fitted onto any standard logistic mobile platform. This solution is suitable for applications demanding an immediate on site response across a wide area.

Applications

IED exploitation is the investigation of IED incidents to establish; the technical and tactical information from the attack and identify the IED supply chain. All exploitation related activities are designed to contribute to the other key operational activities of the C-IED effort of predicting the activity of the IED network, preventing further IED incidents, detecting IEDs when they are emplaced, being able to effectively and safely neutralize them and mitigating the effects of those IED. These solutions are devised to be operated in both civil and military environments. Some typical users for such systems are:

- C-IED/ EOD Military special units.
- C-IED Security forces (Bomb squads).

Concept of Use

IED exploitation is the investigation of IED incidents to establish; the technical and tactical information from the attack and identify the IED supply chain.

IED exploitation is achieved through a number of activities which try to technically, tactically and forensically characterize the components involved and recover trace material of involved with the construction of IEDs.

Deployable CIED exploitation laboratories provide the commander at a local level with quick actionable intelligence concerning the IED incident which can be quickly followed up to allow a local commander to get inside their adversaries attack cycle. The deployable exploitation process is intrusive but nondestructive and supports follow-on deeper exploitation. Exploitation labs can also be used to investigate other crimes and will allow local commanders to act quickly and seize the initiative from their adversaries. Initial triage is executed to ensure safety of personnel and facilities (Small CBR & Explosive samples could be handled). After investigation a deployable exploitation report is released to inform of any new enemy TTPs and identify links to other incidents.

System Safety approved by NATO Level 2 Analytical Lab Capabilities

Triage Devices, Materials, Artifacts and Traces (DMAT) on receipt where they can be initially inspected (CBRNe, X-ray) and prioritized.

- Detailed visual examination and high quality image capture and processing.
- Latent fingerprint recovery and matching.
- Recovery of biometric material.
- Chemical/ Explosive analysis (extract trace chemical/ explosive samples).
- Media Data Recovery and Electronic components assessment.
- Characterization of weapon systems and explosive charges.
- Tool-mark identification.
- DNA Analysis.

IT Solutions

- Lab Information Management System (LIMS): Inter-comparison across incidents, Custodian chain guaranteed, no data missing, holistic DMAT tracking, automated reporting.
- Full IT network connectivity (Int. LAN/Ext. Secure WANs).
- Fire fighting system.

Environmental Performance

- Extreme climate proof (A1 to C1).
- CBRNe Protected (COLPRO).
- Fire resistant (EI60).
- EMI/ RFI compliant.

System Throughput

Capable of supporting of up to:

- 2 cases a day (mobile configuration).
- 5 cases a day (modular configuration).

Capable to host up to:

- 10 people working simultaneously (modular configuration).
- 3 people working simultaneously (mobile configuration).

Standards

- Laboratory environment ISO17025.
- Extreme climatic conditions STANAG 2895.
- CBRNe filtration (AEP-54).

Modular CIED Laboratories

- Fully deployable on site in 1 week (requested emplacement inside hosting camp or protected area).
- Housing based on ISO 20 feet containers (sea/ air/ terrestrial freight).

- Built-in CBRNe air filtration.
- Integrated HVAC cooling / heating.
- Integrated power conversion system (UK/USA/EU) and Back-up power supply (UPS).
- Water handling systems:
 - Clean water (cool/ hot).
 - Waste water management system (Hazardous, Grey & Black).
- Analytical instruments and sampling tools.
- Personnel protection equipment.
- Integral Security System (Control access, Firing System).
- Administrative office space.
- Holistic data handling throughout the lab by Lab Information Management System (LIMS).
- Full IT network connectivity (Int. LAN/Ext. Secure WANs).

The CBRNe filtering systems guarantee a clean and safe working environment and prevent any leaks to or from the surrounding environment.

Main Capabilities

- Hazard triage.
- Triage
- X-Ray equipment.
- Explosive/ chemical detector.
- Radiological detector.
- Dismantling tools & workbench.
- Biometric analysis.
- DNA analysis.
- DVE.
- Electronic analysis.

- Electronic Data Recovery.
- Media analysis.
- Document analysis.
- Technology analysis.
- Chemical analysis.
- SEA.
- Dangerous goods area.
- Command area.
- Meeting room.
- Entry control area.

Mobile CIED Laboratories

- Fully deployable in 3 h. from arrival at site. Deployable in 3 h. from arrival at site. Built in lifting legs make deployment anonymous negating the requirement for a crane.
- Housing based on ISO 20 feet containers (sea/ air/ terrestrial freight).
- Same feature to the Modular CIED Laboratory.

Main Technologies

- Triage
- Biometric Analysis
- DVE Detailed Visual Examination
- Electronic Analysis
- Electronics Data Recovery
- Chemical Analysis
- SEA Secure Storage Area
- Platform management & Control
 - Connectivity to secure.
 - IT Networks LIMS application.
 - Fire fighting control application.
 - Security control application.
 - Power generator & backup.



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