

# Geomines: Exploring Manual Demining Techniques

Since its creation, Geomines has assumed an active role in the demining community. Accredited by the United Nations, the European Commission and the BHMIC of Sarajevo, Geomines is the result of the combined efforts of marine-oriented Geocan Solmarine and the mine clearance-oriented E.O.D. New Technologies.

Together, these two companies have established a competent organization capable of neutralizing all types of UXO in all potential situations. Geomines has successfully completed missions in Bosnia, Cambodia, El Salvador and Egypt, among other places.



Many countries utilize Geomine's deminers, as they possess the technology and skill to neutralize UXO in all situations.

Photo c/o Geomines

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Geomines' expertise extends to these areas:

- Atmospheric and Underwater Mine Clearance Operations,
- Ammunitions Retrogrades Demolition,
- Toxic Ammunition Clearance Operations,
- Rock Blasting Operations, and
- Pyrotechnic Safety Regulations.

Confident of its technical abilities, Geomines offers its services regardless of the environment. It has successfully dismantled UXO on all-terrain surfaces, such as urban regions, jungles and deserts, in addition to aquatic areas, such as seas, rivers and swamps. This ability accentuates its appeal and emphasizes its uniqueness, as many mine clearance organizations focus largely on landmines.

### EOD and IEDD Missions

Primarily, Geomines contends with Explosive Ordnance Disposal (EOD) Missions and Improvised Explosive Device Disposal (IEDD) Missions, both of which consist of the detection, neutralization and/or removal of UXO. These munitions are typical manifestations resulting from two situations: war and/or terrorist (guerilla) warfare. While warring parties might target a specific sector, their actions affect the total population of a given area, rendering the entire area unsafe. As it is impossible to guarantee all ordnance will explode during combat, ordnance planted under war or terrorist pretenses possess the potential to remain dormant and invisible during conflict, patiently waiting for an innocent civilian to unsuspectingly trigger them.

Regardless of the individual, exploding ordnance causes indescribable injury to its victim and restricts a

community's free movement; consequently, Geomines enters the picture, hoping to serve as an effective vehicle of assistance. Geomines operates "to preserve the safety of civilian populations and to protect and ensure free circulation within [the] most sensitive zones, such as: [sic] airports, ports, ..., railway stations, ..., communication centers. ..." Geomines attempts to neutralize mine-affected areas to support and promote the uninhibited movement of community members.

### Methodology and Training

Geomines firmly believes in applying a methodology based on performance, cost and lead times to its demining efforts to ensure civilian and team members' safety. To successfully demine a specified area, the ensuing measures must be organized and methodical, protecting all involved people. Geomines initiates each individual demining mission with an active management selecting a qualified team. Geomines demands each team member be a motivated, competent individual alert of the safety hazards and environmental constraints involved in demining. They also require each member's absolute compliance with its regulations in an effort to reduce the risks involved.

To perform the EOD and IEDD missions, Geomines insists each crew member attend and complete training courses tailored to not only their particular mine clearance skill but also to fundamental demining knowledge and interpersonal relationship skills. Subsequently, all Geomines' personnel are trained to

- Take preventive measures in the case of discovery of ordnance;
- Manage/control a crisis situation;
- Intervene on all conventional ordnance; and
- Intervene in actions against IED.

Additionally, in an attempt to further the team members' demining education, experienced instructors conduct the next phase of the training. These sessions concentrate on the level of security associated with each mission and the specific methods and equipment the future deminers will soon employ in the field. The instructors incorporate accepted pedagogical techniques with personal experiences to educate the team members of the dangers involved in demining and methods to avoid these risks.

### EOD Training

Geomines structured the EOD training around several key features. Its first teaching objective focuses on the prevention and the appropriate reconnaissance course of action when handling ordnance. Next, the trainers instruct the future teams on modern ordnance and ammunition interventions, which is followed by a course on underwater reconnaissance and interventions on ordnance. The last covered topic outlines the handling of pyrotechnic devices and the necessary safety precautions involved in this type of mission.

### IED Training

This training emphasizes the threat of terrorism more than the act of war (IED ordnance typically results from terrorist actions) and the degree of sensitivity required to successfully detect, neutralize and dispose of all IED. Team members are instructed in areas of surveillance and protection of highly trafficked zones. Lastly, team members are instructed in IED intervention.

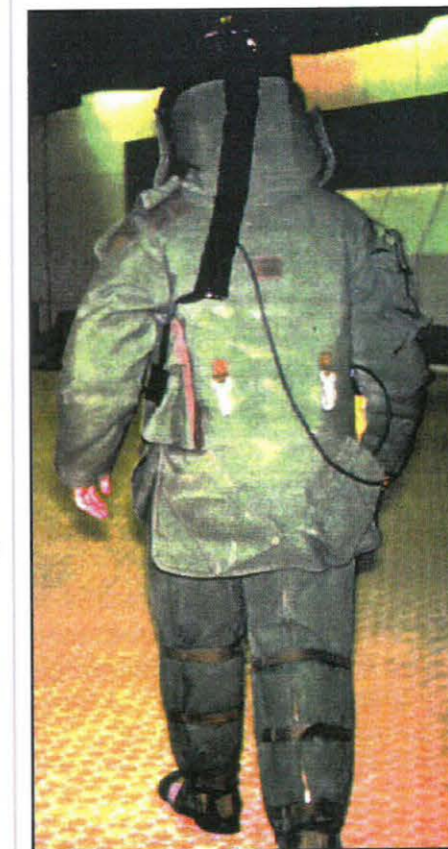
Geomines requires all personnel to repeat refresher courses to guarantee its teams are knowledgeable of current technology and methods to successfully demine affected areas. Geomines strives to establish cooperative relationships with local experts and aid agencies, thus

modifying present resources to increase the demining efforts and to provide effective assistance to those in need.

### Equipment

Currently, Geomines strives to utilize innovative demining technology in its missions. With present technology, it is able to detect PMN, US M42, V69, POMZ-2 and A/T bombs at a maximum depth of 33cm. It also possesses sophisticated technology to detect mines at a greater depth, such as six meters and lower.

As one of Geomines foremost concerns involves the safety of its deminers, the



With the wide range of protective clothing and equipment Geomines supplies, its deminers feel secure in their missions and subsequently provide effective service to mine-affected countries.

Photo c/o Geomines

organization supplies its employees with state-of-the-art Personal Protective Equipment (PPE). Once the deminers are appropriately outfitted, they have a selection of detecting equipment to choose from in accordance with their mission. To fully supply its deminers' needs, Geomines provides artificer's equipment. Geomines also possesses a wide range of neutralization equipment to fulfill the requirements of each mission in addition to intervention equipment for IED missions.

With this pioneering technology, Geomines eases into the 21<sup>st</sup> century, possessing the knowledge, skill and equipment to effectively assist mine-affected countries and helping to eradicate the world of this disastrous problem.

### Contact Information

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