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Mine Detection Dogs in Central America: An Optimum Technology?

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Latin America

Mine Dogs in Central America

Mine Detection Dogs in Central America: An Optimum Technology?

Using mine detection dogs offers many benefits as well as challenges. In the often rough terrain of Central America, dogs can detect mines where machinery is useless, yet climate and disease pose threats to the dogs' effectiveness and sometimes even their survival.

by Jaime Perales, *OAS*

Introduction

The different scenarios in the world in demining have no simple solutions. In countries such as South Africa, heavy machinery has been, on

■ Bonding with handlers is a key aspect for successful mine dog training. *c/o OAS*

some occasions, an optimum technology to solve some of its most sensitive problems. As a general rule, difficult soil and thick vegetation have hampered machine activities in all countries where anti-personnel landmines

exist. In mountainous Central American countries such as Honduras and Nicaragua, the terrain has rendered heavy equipment inadequate. In these countries, the Organization of American States (OAS) has begun to use mine detection dogs to complement existing technology.

According to Ronco Consulting Corporation, a for-profit organization that has provided the canine support to the OAS demining efforts, dogs have a sense of smell 1000 times stronger than that of humans. This keen

sense of smell allows dogs to track and detect mines and unexploded ordnance sown in areas that are inaccessible to mechanized clearance equipment.

Training

Generally, dogs start their training at 18 months of age. This training lasts approximately eight to 10 weeks and takes place in the training academy, located near San Antonio, Texas. Following the initial training, the dogs are shipped to the country where they will work and spend two to three weeks getting acclimated. During the training, special scents are used, and defused mines and explosives are placed in trees and buried in the soil to further develop the dogs' sense of smell. Some general issues for dog selection that ensure quality performance are discipline, control and concentration. The dogs should possess the ability to find even small fragments of explosives and must respond to the commands of their handlers.

The OAS canine demining program in Central America began in 1998. Since that time, 12 Belgian Malinois were trained in Honduras. Upon completion of their training, the OAS distributed four dogs to Honduras, four to Nicaragua and four to Costa Rica. More animals were assigned to Nicaragua since this country has more AP landmines.

The OAS canine operation has cost approximately $1,500,000 (U.S.) for the first two years of operations, which includes transportation, training, food and veterinary attention. The duration of an average dog's effective landmine work is six years. Afterwards, the animal is adopted as a pet.

Benefits of Mine Detection Dogs

Mine detection dogs in Central America are useful for developing specific tasks in low-density minefields, and these tasks can be executed effectively. For instance, dogs are particularly effective in providing quality control in zones previously demined by sapper platoons.

In areas of difficult terrain, dogs also supplement equipment that cannot be used to its full capacity. Such was the case in magnetized areas of Cerro el Variador in Nicaragua. In this zone, dogs detected mines and UXO where the mine detectors could not. Additionally, dogs have assisted in locating plastic anti-personnel landmines with only small metallic parts that are difficult to detect with electronic instruments.

Challenges in Using Demining Dogs

Dogs have to cope with some problems related to locating anti-personnel landmines in Central America. For example, as per international requirements, anti-personnel landmines are exploded in the zone where they are found. After the destruction of the mines, dogs have to wait at least 15 days before re-entering a mine field to ensure that the explosive odor has

cleared and does not contaminate the dog's sense of smell.

Additionally, climate conditions, thick vegetation and terrain are other important variables that affect the work of mine detection canines. Dogs are not effective in extreme weather conditions. In Central America, vegetation and summer's extreme heat of more than 48 degrees Celsius can hamper the dogs' efficiency, especially pertaining to their concentration. Heavy rain during the "wet season" in Central America also impedes the dogs' work, although some studies have shown that rain affects the trainer more than the dog. Mine detection dogs are also less effective when employed on steep slopes, and those in the OAS program are generally not used on inclines of more than 45 degrees.

According to the 1999 seminar "World-Wide Mine Detecting Dogs" celebrated in Ljubljana, Slovenia, extreme weather conditions can alter the chemistry of explosives making it undetectable to dogs. Mine detection dogs may not always be effective in detecting booby traps, although they are relatively proficient in finding tripwires used on mines and other devices.

The mine detecting dog is a more delicate tool and requires more attention than a machine. Heat, insects and local parasites have caused some of them to become seriously ill and even die. In some regions, local culture can also adversely affect canine mine detection operations. People must learn to live peacefully with the animals and prevent their neighbors from harming them.

Conclusion

Canine mine detection has both its advantages and disadvantages. Dogs provide an added dimension and capability to mine clearance operations that should be considered as part of an overall demining system that includes manual, mechanical and canine detection methods. Moreover, a combination of mine detection canines, trainers and sappers, which accounts for the comparative advantages and limitations of dogs, can create an optimum technology for demining in Central America in areas of low-density mine fields and in mine verification activities of previously demined zones. ■

Biography

Since 1995, Jaime Perales has been the Mine Action Consultant with the OAS' Unit for the Promotion of Democracy. He holds a master's degree in Government/Latin American Studies from Georgetown University and is a doctoral candidate of Latin American Literature and Cultural Studies, also at Georgetown. Mr. Perales also dances salsa and enjoys weightlifting.

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