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## TMAC: Conquering Thailand's Unique Mine Problem

Nicole Kreger

*Center for International Stabilization and Recovery at JMU (CISR)*

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# TMAC: Conquering Thailand's Unique Mine Problem

The Thailand Mine Action Center (TMAC) faces a number of challenges in coping with the country's landmine situation, but the organization is making progress, one step at a time. For more insight into TMAC's operations, Mr. Dave McCracken, Chief Technical Adviser of TMAC, recently shared some of his views on demining, including the successes and challenges, the use of personal protective equipment (PPE) and what lies ahead.

by Nicole Kreger, MAIC

## Background: A Unique Mine Situation

Unlike many mine-affected countries, the bulk of Thailand's landmine problem does not stem from a recent civil war or other internal conflict. The country's problem is concentrated on the border areas, mostly on the Thai-Cambodian border. At first, because the problem was

basically limited to these areas, it was thought to be easily manageable using military resources. However, an impact survey conducted in 2001 revealed over 900 contaminated areas that left more than 2,500 square kilometers unusable for fear of mine contamination.

On top of a widespread threat, several other factors make mine clearance in Thailand a daunting task. The country's tropical climate makes working outside for long hours almost unbearable, especially with work as painstaking as demining. Additionally, the terrain often causes problems. Much of the contaminated land is not flat and is dense with jungle vegetation, which means "mechanical demining technology is not an option, but an absolute necessity."<sup>1</sup>

## Tackling the Problem

### TMAC Takes the Reins

Originally, the Royal Thai Armed Forces were solely in charge of managing Thailand's mine problem. After Thailand ratified the Mine Ban Treaty in November 1998, however, the Royal Thai government had to establish a focal point for the country's mine action activities. A National Mine Action Committee was created, which created TMAC in 1999 to act as the country's coordinating body for all mine action efforts. In 2001, TMAC set up three Humanitarian Mine Action Units (HMAUs) along the Thai-Cambodian border with the help of the Thai army and navy. Each unit is composed of approximately 100 people responsible for mine awareness, detection, clearance, victim assistance and support.

### Unique Solutions to Unique Problems

In order to cope with its mine problem, Thailand has had to blend several

techniques used in mine action. As Mr. McCracken puts it, "Thailand has married the use of mechanical assistance, manual clearance and mine dog units."<sup>2</sup> Mechanical methods are necessary for area reduction and especially for vegetation clearance. Once the machines have identified contaminated areas and paved the way, a combination of mine dog teams and manual deminers go to work. This "marriage" helps operations run smoothly and enables more efficient clearance.

### The Role of PPE

PPE is a standard tool in today's demining operations. Using PPE is pretty much a matter of common sense—as Mr. McCracken says, "You don't go into a wood workshop without wearing your safety glasses, just as you don't go into a minefield without protective equipment."<sup>2</sup> Yet, he explains, its value cannot be overstated: "Dampening the effect of the explosion for the deminer who is within one meter of [a] detonation is very, very significant."<sup>2</sup>

TMAC's deminers use visors and body vests in their operations. As Mr. McCracken describes, deminers are introduced to the equipment from day one of their training. "We introduce it in the training cycle. The trainees start to wear it... and that transfers directly to the field, where you wear the equipment, so there's no change."<sup>2</sup> One of the main reasons that it is imperative for demining trainees to get used to wearing PPE as soon as possible is the discomfort associated with wearing the heavy equipment. In Thailand's

tropical conditions, extra weight can make the work that much more arduous. "Working in Thailand, [there are] extremely hot, tropical conditions,"<sup>2</sup> which can lead to discomfort, "even [just] wearing standard clothes in the middle of the day," says Mr. McCracken. "It's extra layers, which [means] it can be greatly uncomfortable."<sup>2</sup>

Overall, Mr. McCracken praises the value of PPE. "When a deminer who survives an incident has only obtained superficial wounds... his eyes are intact, his hands are intact, and his feet—then PPE has paid its dues."<sup>2</sup> Yet he recognizes that there is room for improvement: "We'd obviously like to see lighter, tougher, more durable, flexible PPE—everyone would like to have that."<sup>2</sup> He also recommends minor changes to the visors. Often they tend to fog or get scratches on them while in use, and Mr. McCracken notes, "these affect the visibility of the deminer." While he is aware that these are difficult obstacles to overcome, he feels these improvements would be very useful.

### Where PPE is Headed

So what lies in the future for PPE? In order to improve on the current equipment, "there'd have to be some very interesting new materials coming out [with regards to] the weight and the thickness,"<sup>2</sup> according to Mr. McCracken. Yet other than tweaking what's currently out there, he doesn't see many major changes to PPE on the horizon. "With the technologies that we have today, the materials that are available today, I think the level of

protection of PPE is peaking, or has peaked already."<sup>2</sup>

## Addressing the Biggest Challenges

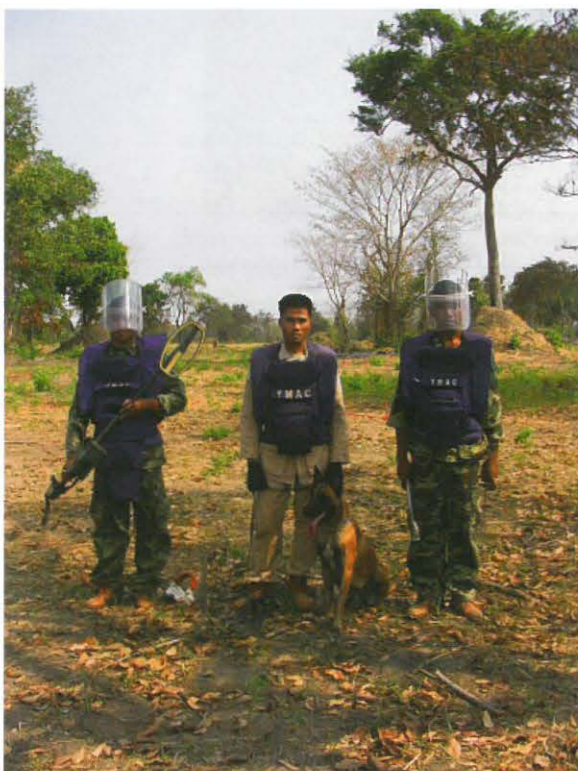
### Location, Location, Location

We all know that the three most important things in real estate are location, location, location. Well, the same can be said of humanitarian demining, and Thailand is no exception. As Mr. McCracken puts it, locating the mines is "90 percent of the activity.... Once they're located, getting rid of the landmines is relatively easy."<sup>2</sup> When minefields are known and documented, this task is not that difficult. Unfortunately, Thailand doesn't have it so easy. "In this particular region, what we have instead of actual minefields is mined areas..., with no particular patterns,"<sup>2</sup> Mr. McCracken explains. "If there is a minefield, then we know its pattern, we know how many mines there are, and we know its dimensions.... If it's a mined area, we don't know any of that."<sup>2</sup>

Thus, Mr. McCracken stresses the need for tools to help with area reduction. Honing in on the actual mined areas within the larger suspected areas is a necessity for efficient clearance operations. Just as important is "eliminating areas that have no indication [of containing] landmines,"<sup>2</sup> says Mr. McCracken, as this then saves time and restores safe land back to productive use much faster. Mechanical methods are one of the best ways of performing area reduction, and as Mr. McCracken indicates, it is also good for "processing the terrain to allow for the follow-up clearance."<sup>2</sup> In his opinion, more efficient area reduction equipment is the most-needed tool in the demining toolbox today.

### So Many Mines, So Little Staff

Mr. McCracken acknowledges that the other major problem TMAC faces is not having enough staff to meet the program's demining needs. "At TMAC we have 300



■ TMAC uses a combination of manual demining, mechanical demining and MDD methods in order to tackle Thailand's mine problem.

## **Deminers, Manual Demining & PPE**

people, but we really need 300,000.... It's going to take a lot of people, a lot of hard effort to get rid of the problem. The biggest difficulty is to ensure the continuing of activities and the creation of [new] demining activities."<sup>2</sup> There are people willing to do the work, but currently, there just aren't enough funds to finance the scope of operations necessary to finish the job quickly. Mr. McCracken explains, "There's never been a shortage of volunteers to do demining, but there's always a shortage of money and support.... There isn't any one country that can tackle the entire problem on their own."<sup>2</sup>

### **Conclusion**

TMAC has many years of hard work ahead of it in order to fully resolve

Thailand's mine problem. In spite of the challenges, the organization is making strides and building on its successes. In its first two years of clearance operations alone, TMAC cleared 4,415,387 square meters of land, ridding the country of over 2,000 mines and more than 22,000 pieces of UXO. While the problem is far from over, TMAC is overcoming hurdles in hopes of making the land safe for the Thai people. ■

*\*All photos courtesy of Dave McCracken.*

### **Endnotes**

1. <http://www.tmac.go.th/Events/Mine%20Action%20Techno-review.htm>
2. Telephone Interview with Dave McCracken. January 28, 2003.

### **Contact Information**

Dave McCracken  
CTA, TMAC  
Phanpit Court Suite #616  
160 Pipat Soi 2, Silom Rd  
Bangrak District  
Bangkok 10500  
Thailand  
Tel: +66-1-805-8108  
Fax: +66-2-266-8032  
E-mail: [ubique@adsl.loxinfo.com](mailto:ubique@adsl.loxinfo.com)  
Website: <http://www.tmac.go.th/>

Nicole Kreger  
Tel: 540-568-2810  
E-mail: [kregernx@jmu.edu](mailto:kregernx@jmu.edu)