Demining in Iran

Eddie Banks

Follow this and additional works at: https://commons.lib.jmu.edu/cisr-journal

Part of the Defense and Security Studies Commons, Emergency and Disaster Management Commons, Other Public Affairs, Public Policy and Public Administration Commons, and the Peace and Conflict Studies Commons

Recommended Citation


This Article is brought to you for free and open access by the Center for International Stabilization and Recovery at JMU Scholarly Commons. It has been accepted for inclusion in Journal of Conventional Weapons Destruction by an authorized editor of JMU Scholarly Commons. For more information, please contact dc_admin@jmu.edu.
Demining in Iran

Demining in any country has its challenges. Here, the author discusses those faced in Iran, how the deminers overcame the problems and what equipment was used to accomplish demining goals.

by Eddie Banks | EOD World Services

The Islamic Republic of Iran

The United Nations classification of mine-affected countries names the Islamic Republic of Iran as one of the world’s most affected countries. Historically Iran has been called the “cradle of civilization,” and it contains a number of important historical sites, including the ancient city of Persepolis (or Takht-e-Jamshid), which was destroyed by Alexander the Great in 330 B.C.

There are also many beautiful natural sites like the caves at Ali-Sadr, unusual wildlife and, for many of us, the famous poets, the most well-known in the western world being Hafez and Omar Khayyam.

Mine-Affected Areas

The mine-affected areas are primarily in the western border regions, the area that saw most action in the 1980–1988 war with Iraq. The hazardous residue of that war stretches from Abadan on the Persian Gulf to the Turkish border some 600 kilometers (373 miles) north. These contaminated areas incorporate a wide variety of ground types, including swamps, wetlands, marsh, deserts, fertile agricultural lands and mountain ranges.

The munitions found are common to most mine-affected countries—anti-personnel and anti-tank mines, grenades, mortars, shells, bombs and scatterable munitions—but chemical weapons were also used and their remnants can still be found in some areas.

The southwestern region contains some of the world’s richest oil and gas fields, and therefore the removal of mines and munitions to allow oil and gas exploration is one of Iran’s top priorities. The vast majority of clearance programs are in support of national and international organizations involved in oil and gas exploration, or in support of the various ministries. Much of the work has been undertaken by the army and the Revolutionary Guard (SEPAH), and in the last few years by MAI1, the mine action arm of E&I International. These forces have involved two- and three-dimensional seismic tasks, as well as mine and unexploded ordnance clearance operations around wellheads, pipelines, gathering centers and construction sites.

Azadegan Project

One of the largest projects recently was the clearance, to very exacting standards, of the Azadegan development fields—a massive mine and UXO clearance operation involving three separate contractors. This project also involved an international client2 and an independent organization (MACC International Ltd.) to conduct quality control (monitoring and inspections) to the International Mine Action Standards.

One six-month MAI task was to clear a large complex (5 square kilometers [2 square miles]), known as the CTGP (a location that contains the gathering center, construction sites and accommodation areas) that would contain an oil- and gas-gathering center, a construction site and the two accommodation areas. In addition, MAI needed to clear more than 48 kilometers (30 miles) of routes for oil, water and gas pipelines. The contract presented a number of challenges:

1. Establishing a local workforce that could work to IMAS.
2. Selecting high-performance equipment.
3. Clearing, and flattening defensive structures, which required the removal of more than 700,000 cubic meters (915,565 cubic yards) of uncompact soil.
4. Completing the contract in six months, most of which would be during the winter periods, when the site is subject to periodic flooding.

Never before has demining in Iran had to operate to the strict specifications of IMAS, but it has. This, while MAI has operated to these standards, no work in Iran has previously been monitored and inspected by an external (international) organization to the strict specifications of IMAS.

Removal of Defensive Positions

It was also necessary to remove more than 100 kilometers (62 miles) of defensive positions, all of which had to be searched with both the loop and the bomb locator in a layered removal system. These defensive positions were contained by large perimeter bunds 3 to 4 meters (10 to 13 feet) in height, with separate bunds protecting the various vehicles and operational locations. Each of the large compounds contained bunds for clearing the anti-aircraft equipment.

As each layer of soil was checked with detectors, the top meter (3 feet) of soil was removed, and the new surface would be searched again and soil removed until the entire site was flattened. Banks-men (see picture on previous page) were utilized to ensure that, during the mechanical removal process, any hazardous munitions could be detected, prior to being moved or blown in site.

Like all project work, this task was not without its frustrations and problems. The local residents included numerous poisonous snakes and scorpions; fortunately, the only snakebite was from a nonpoisonous species—not that we knew at the time, so casualty evacuation was done with some urgency. Bedouins, with their flocks of sheep, cattle and goats, also crossed the area with little regard for our warnings, signs, or instructions and no regard at all for IMAS. Sheep knocked over the posts and ate the tape and string; their owners took the wooden guard at all for IMAS. Sheep knocked over the posts and ate the tape and string; their owners took the wooden guards for firewood and left behind metal residue, often in areas that had been cleared and were awaiting quality-control inspections. Added to that were winter rains and site flooding.

Other Activities

Fisher men, MAI has recently completed a number of seismic clearance operations, requiring the clearance of seismic lines in what the oil industry refers to as...
a “transition zone.” The transition zone contains desert land, swamps with massive reed beds, and tidal areas—a challenge to any mine and UXO clearance operation. The various channels, streams and reed beds create not only clearance problems but also a variety of additional hazards, such as snakes, leeches and insects, plus rapidly rising tides and waves from passing craft.

Clearance and Cutting of Reed Beds in the Abadan Swamps
In the north, work has involved clearance of construction and wellhead locations, flare pits and pipeline routes, and a range of quality-control and/or clearance tasks in support of seismic exploration. This is generally fairly standard clearance work, requiring clearance to varying depths in areas that will eventually support sites for oil and gas extraction, as well as work in support of 2D and 3D seismic operations, requiring battle area clearance and shot point checks.

QC for Seismic Operations Summary
Over the last few years, the gradual increase in the availability of high-tech equipment and the training of company management has created a firm foundation for future projects. MAI operational staff has also assisted both the army and SEPAH by conducting specialist training on Ebinger’s high-tech equipment. Over the last few years, MAI has conducted Technical Surveys (which are primarily a simple version of the Environmental Impact Assessments, one of the functions of the environmental side of the company), threat assessments, risk analysis, mine and UXO clearance, quality assurance and QC. Mines and UXO will continue to be a factor for some years to come in the western border regions, and in conjunction with the army and SEPAH, MAI hopes to continue working to rid the country of these remnants of war.

See “References and Endnotes,” page 104

Assisting Landmine Accident Survivors in the Thai-Burmese Border Region

Clear Path International is working with Prosthetic Research Study of Seattle to help Burmese landmine survivors obtain prostheses from afar by using a new fitting process.

by Imbert Matthee | Clear Path International

Mordecai has a problem. Or, better stated, the landmine accident survivors his small organization is trying to assist have a problem. The survivors live in the mountainous Karen state, partly controlled by Burmese troops and partly by the separatist Karen National Union. Most of the amputees cannot or will not escape east to Thailand to get access to physical mobility devices from international aid groups there. Neither can they cross the military front to the west to seek support from the limited medical services available in Burma. To make matters worse, many of the Karen mine survivors are homeless, displaced by the fighting or the presence of landmines in their villages, which are often considered rebel support bases by government troops.

So how is Mordecai, head of the Karen Handicap Welfare Association and himself a mine amputee, going to get his beneficiaries the mobility- and hope-restoring prostheses they need?

At Clear Path International, we have been talking to Prosthetic Research Study of Seattle about a portable device that could solve Mordecai’s problem. Our effort to help PRS finalize its device and get Mordecai’s group trained on it in the field provides some insight into this...
A Regional Approach: Mine and UXO Risk Reduction in Vietnam, Laos, and Cambodia, Wells-Dang [from page 14]

Further Reading


底线

4. The War Goes On, Vosburgh

The War Goes On, Vosburgh [from page 27]

1. In the United States, this conflict is referred to as the Vietnam War.


3. trumpet: Deliberate Handling and Use of Live Ordnance in Cambodia (MACG, Handicap International-Belgium, Norwegian People’s Aid), 2004.

4. These individuals are often called landmine survivors. For a complete definition, see http://www.icbl.org/lm/2004/intro/survivor, accessed Dec. 2, 2005.

5. While only governments can sign the convention, non-state actors can sign the Deed of Commitment for Adherence to a Total Ban on Anti-Personnel Mines and for Cooperation in Mine Action through an organization called Geneva Call. Geneva Call’s NGO networks help to respect and adhere to humanitarian norms, starting with the anti-personnel mine ban.

6. Simple plumb methods use a plumb line, which is a reference line guided by a string or cord weighted at the end with a large weight known as a plumb bob. It is used to create a reference line for creating vertical lines.

Designing in Iran, Banks [from page 8]

Banks: Demining in Iran [from page 8]

1. EROI World Services is the service arm of EROI International. EROI is the main action-chamber presently operating with several other EROI companions in the Islamic Republic of Iran.

2. Most work in Iran is for a national client. International clients demand ISMAS standards and international quality assurance/quality control companies to inspect work.


8. 1 hectare equals approximately 2.5 acres.

9. While only governments can sign the convention, non-state actors can sign the Deed of Commitment for Adherence to a Total Ban on Anti-Personnel Mines and for Cooperation in Mine Action through an organization called Geneva Call. Geneva Call’s NGO networks help to respect and adhere to humanitarian norms, starting with the anti-personnel mine ban.


11. The Safe Path Forward 2003–2013


14. 1 square kilometre is equal to about 0.386 square mile.

15. While only governments can sign the convention, non-state actors can sign the Deed of Commitment for Adherence to a Total Ban on Anti-Personnel Mines and for Cooperation in Mine Action through an organization called Geneva Call. Geneva Call’s NGO networks help to respect and adhere to humanitarian norms, starting with the anti-personnel mine ban.


