Assisting Landmine Accident Survivors in the Thai-Burmese Border Region

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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

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**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
troubled and heavily mine-contaminated part of Asia that gets very little media attention. It also shows the troubled and heavily mine-contaminated part of Asia that would get plenty of attention in most other parts of the world. The fighting has created a constant state of war that is the cause of thousands of deaths and injuries each year, as well as the creation of a humanitarian disaster that is difficult to measure and fit amputees for orthotic professional from PRS traveled to the Mae Tao Clinic to introduce the first TTAS and thermoplastic limb production at Maw Ke’s prosthetics department. More than a dozen techniques from three fabrication shops supported by Clear Path along the Thai-Burmese border participated in the training, including Mordecai’s team.

On a visit to the Mae Tao Clinic this spring, Mordecai presented a plan to put TTAS to the test inside Burma, and Clear Path agreed to support it. Mordecai is putting together a team of six backpackers who will travel to the villages in the portion of the Pa An district controlled by the Karen National Union. They will go 50 kilometers (31 miles) into Burma, survey each of the district’s five townships for landmine amputees, and measure them for prosthetic socket. On a visit to the Mae Tao Clinic this spring, Mordecai presented a plan to put TTAS to the test inside Burma, and Clear Path agreed to support it. Mordecai is putting together a team of six backpackers who will travel to the villages in the portion of the Pa An district controlled by the Karen National Union. They will go 50 kilometers (31 miles) into Burma, survey each of the district’s five townships for landmine amputees, and measure them for prosthetic socket.

The end result is a random use of explosives and a haphazard application of protective devices, often without the benefit of any kind of pros-thesis sock. A trained and seasoned technician can do a lot through intuition and experience acquired over many years, using simple plumb methods. Sadly, these skills are rare on the Thai-Burmese border. TTAS takes the guesswork out of this challenge, allowing minimal trained medics to cast and capture the residual limb in alignment with the patient’s skeleton. One of its components consists of a canvas grid of the human body on which the amputee lies. After a plaster cast is made of the residual limb, transpar-ent frames are placed over the hips and the heels (the base of which is aligned with the remaining foot). The braces are connected above the lower body by two metal shafts along which the technician can make intersecting pencil marks on the plaster cast. This will become the center of the shaft connecting the pros-thesis’ socket to the rubber foot. A corresponding jig set up at the fabrication shop allows the technician to recreate the same customized skeletal alignment without the patient present.

Although many amputees who flee Burma and cross the border to Thailand have fled from Burma to Thailand—a large-scale humanitarian catastrophe that would get plenty of attention in most other parts of the world. The fighting has created a constant state of war that is the cause of thousands of deaths and injuries each year, as well as the creation of a humanitarian disaster that is difficult to measure and fit amputees for orthotic professional from PRS traveled to the Mae Tao Clinic to introduce the first TTAS and thermoplastic limb production at Maw Ke’s prosthetics department.

In the Thai-Burmese border region, Clear Path takes this outreach approach to a step further with its sustainable development program, which seeks to work with local groups such as Mordecai’s to help them build their own humanitarian infrastructure and programs. For instance, a significant portion of Clear Path International’s program costs go towards transportation and logistics, often an insurmountable hurdle for marginalized survivor families. As a result, the organization continues to work with local groups at home or arranges their travel to medical and social services providers. Officials at Clear Path International say they would like to see how we can build a program that allows local groups such as Mordecai’s to reach out to local humanitarian endeavors.

http://www.cpi.org

Introduction and background

Many amputees who flee Burma and cross the border to Thailand are the authorities and the refugee camps from which they cannot leave once accepted inside. They end up getting their prostheses from the prosthesis department at the Mae Tao Clinic, an unofficial medical facility started by Dr. Cynthia Maung. Maung is an ethnic Karen doctor who fled Burma after the 1988 pro-democracy student uprising and has been nominated for the Nobel Peace Prize for her tireless work on behalf of Karen refugees, whom her clinic sees by the hundreds each day.

Clear Path has been supporting the clinic’s prosthetics department since 2001 with funding for materials, equipment, training, technical assistance and the construction of a new fabrication shop. The department’s director, Maw Ke, himself an amputee who worked as a master prosthetist technician for Handicapped International in the camps for many years, introduced Clear Path to Mordecai and his dilemma. That was the inspiration for helping PRS in Seattle with the completion of its Transitional Alignment System (TTAS). This system was the closest thing to a silver bullet we could find to address the need for a transition amputee popula-tion in an active conflict zone. PRS, the brandchild of the late Dr. Ernest Burgess, is known for a number of innovations in prosthetics and has done extensive development research for the United States Veterans Affairs Administration. PRS developed TTAS with its own resources and substantial funding from Physicians Against Landmines and the Center for International Rehabilitation. It needed just a bit more support to get the prototype across the finish line. Clear Path and several local organizations, including Rotary Club of Bainbridge Island, saw potential and paid for its completion.

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To understand this potential, it is important to real-ize how challenging it is to measure and fit amputees for prostheses without having them available to a technician in the fabrication shop. The challenge is capturing the prospective position of a yet-to-be-made artificial leg in a vacant three-dimensional space underneath the resid-ual limb and ensuring that the final product is in proper alignment with the rest of the patient’s body. A trained and seasoned technician can do a lot through intuition and experience acquired over many years, using simple plumb methods. Sadly, these skills are rare on the Thai-Burmese border. TTAS takes the guesswork out of this challenge, allowing minimal trained medics to cast and capture the residual limb in alignment with the patient’s skeleton. One of its components consists of a canvas grid of the human body on which the amputee lies. After a plaster cast is made of the residual limb, transpar-ent frames are placed over the hips and the heels (the base of which is aligned with the remaining foot). The braces are connected above the lower body by two metal shafts along which the technician can make intersecting pencil marks on the plaster cast. This will become the center of the shaft connecting the pros-thesis’ socket to the rubber foot. A corresponding jig set up at the fabrication shop allows the technician to recreate the same customized skeletal alignment without the patient present.

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4. Assisting Landmine Accident Survivors in the Thai-Burmese Border Region, Matthee [from page 11]

Endnotes

2. hand-planted landmines in Cambodia. This is not to be confused with LIS (Landmine Impact Survey), which is in common use in

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

A Regional Approach: Mine and UXO Risk Reduction in Vietnam, Laos, and Cambodia, Wells-Dang [from page 14]

Further Reading


10. USAID’s Perspective: The Importance of Social and Economic Development Strategies for Humanitarian Mine Action, Feinberg [from page 41]

Endnotes


3. Information on the Geneva Conventions can be found at www.icrc.org/files/.


5. Integrated Mine Action: A Rights-Based Approach in Cambodia, Campbell [from page 45]

Endnotes

6. Tampering: Deliberate Handling of Live Ordnance in Cambodia (MAG, Handicap International-International, Norwegian People’s Aid, 2004), recognizes that deliberate handling occurs amongst the most vulnerable families with the least traditional economic opportunities such as generation of income through livestock or land ownership. For online text of this report see http://www.icbl.org/mag/tampering.pdf. Accessed Nov. 4, 2005.


11. UXO Lao. P.O. Box 345, Viéitiane, Lao PDR, Tel: (856-21) 414896; Fax: (856-21) 415766, E-mail: uxolao@laotel.com. Accessed Oct. 24, 2005.


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