Prostheses for Pachyderm Landmine Survivors

CISR JOURNAL

Follow this and additional works at: http://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

Available at: http://commons.lib.jmu.edu/cisr-journal/vol13/iss1/39

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.
Looking to the Future

Regional workshops are one aspect of the RASR Initiative, which will develop various coordination mechanisms for governments in the region. The workshops will be held periodically to develop a dialogue among relevant government officials so they can share information, advice and lessons learned, as well as coordinate efforts when and where appropriate. Another RASR workshop is planned for fall 2009.

For more information and announcements, visit http://www.turininteractive.org

See Endnotes, Page 213

Prostheses for Pachyderm Landmine Survivors

by Kathryn Jackson | Center for International Rehabilitation |

Many times the only landmine survivors prosthesis candidates for prostheses are humans; however, pachyderm victims also need assistance. Along the Thai-Burma border, a heavily mined area, elephants are used for logging, as well as wild elephants, often fall victim to landmines. Lacking other options and unable to care for the animals in this condition, their caregivers frequently opt to end the animals’ lives. For the 2004 Landmine Awareness Report,1 in Burma and Thailand it is not uncommon for both domestic and wild animals—including buffalo, dogs, wild pigs, and tigers—to fall victim to landmines. Reports indicate that landmines along the Bangladesh-Burma border have killed at least 20 elephants, and up to 90 have been killed or injured along the Thailand-Burma (Myanmar) border.

was given a new leg and an opportunity to move past the trauma of her injury. Mosha’s right forelimb was severed in a landmine blast two years ago along the Thai-Burma border when she was only seventonimal.

Unlike Motala, who was fitted temporarily with a sawn-off canvas carra leg before being fitted with a permanent prosthesis, Mosha was ftted using the CIR Casing System, providing her with a properly fitted prosthesis in a very short period of time. Mosha was fitted with her prosthesis at the Elephant Hospital of the Thai Elephant Conservation Center.

The CIR Casing System replaces traditional plaster-of-Paris bandages with a specially tailored fabric casing bag filled with polystyrene beads. By placing the casing bag around the residual limb, a negative mold is formed once vacuum suction is applied. The mold can then be removed and used to create a final prosthesis quickly and easily. The technique was developed with funding from the U.S. Department of Education’s National Institute on Disability Rehabilitation Research for the CIR’s Rehabilitation Engineering Research Center on improved technology access for landmine survivors. The fabrication method was taught during World Health Organization-sponsored technology transfer workshops at the Strad- born National Rehabilitation Center in Bang- kok, Thailand; in March 2007. After attending the workshop, Dr. Therdka Jittawat, the Sec- retary-General of the Thailand’s Prostheses Foundation and recipient of the 2008 Ramon Magawas Award, applied a modified version of the system to Mosha.2

The CIR Casting System has been used for several years to create high-quality, low-cost prostheses for human landmine survivors and other people with below-knee amputation. Now, Dr. We hope that using the casting system to craft prostheses may be a viable alter- native to euthanizing animals like elephants injured by landmines. He also thinks the sys- tem might work for escuees in their thin, spindly legs break.

See Endnotes, Page 214

Kathryn Jackson is a Guest Writer for the Center for International Rehabilitation. Jackson previously volunteered at the Columbus AIDS Task Force in Columbus, Ohio, where she participated in training and education programs and helped with outreach. She has a bachelor’s degree in English literature from the University of Michigan–Ann Arbor. Kathryn Jackson

Grant Writer |

The Center for International Rehabilitation

232 Merchandise Mart Plaza Suite 1700

Chicago, IL 60654 USA

Tel: 312 336 4070

E-mail: KJackson@nirnetwork.org

Kathryn Jackson is a Grant Writer for the Center for International Rehabilitation. Jackson previously volunteered at the Columbus AIDS Task Force in Columbus, Ohio, where she participated in training and education programs and helped with outreach. She has a bachelor’s degree in English literature from the University of Michigan–Ann Arbor.

Kathryn Jackson

Grant Writer |

The Center for International Rehabilitation

232 Merchandise Mart Plaza Suite 1700

Chicago, IL 60654 USA

Tel: 312 336 4070

E-mail: KJackson@nirnetwork.org

Masha enjoys a walk with her new prosthesis and Dr. Therdka Jittawat of Thailand’s Prostheses Foundation.

Though the staff of the Friends of the Asian Elephant Hospital in Thailand has treated nine survivors, many more die each year. Thanks to the CIR Casing System developed by Dr. Yongchoo Wu’s team at the Center for International Rehabilitation,3 however, one young elephant is now able to walk again and more may be able to do so in the future.

Masha, a 31-month-old Thai elephant, was fitted with a prosthesis after losing his leg in 1999. Masha’s right forelimb was severed in a landmine blast two years ago along the Thai-Burma border when she was only seven months old. Unlike Motala, who was fitted temporarily with a sawn-off canvas carra leg before being fitted with a permanent prosthesis, Masha was fitted with the CIR Casing System, providing her with a properly fitted prosthesis in a very short period of time. Masha was fitted with her prosthesis at the Elephant Hospital of the Thai Elephant Conservation Center.

The CIR Casing System replaces traditional plaster-of-Paris bandages with a specially tailored fabric casing bag filled with polystyrene beads. By placing the casing bag around the residual limb, a negative mold is formed once vacuum suction is applied. The mold can then be removed and used to create a final prosthesis quickly and easily. The technique was developed with funding from the U.S. Department of Education’s National Institute on Disability Rehabilitation Research for the CIR’s Rehabilitation Engineering Research Center on improved technology access for landmine survivors. The fabrication method was taught during World Health Organization-sponsored technology transfer workshops at the Strad- born National Rehabilitation Center in Bang- kok, Thailand; in March 2007. After attending the workshop, Dr. Therdka Jittawat, the Sec- retary-General of the Thailand’s Prostheses Foundation and recipient of the 2008 Ramon Magawas Award, applied a modified version of the system to Mosha.2

The CIR Casting System has been used for several years to create high-quality, low-cost prostheses for human landmine survivors and other people with below-knee amputation. Now, Dr. We hope that using the casting system to craft prostheses may be a viable alter- native to euthanizing animals like elephants injured by landmines. He also thinks the sys- tem might work for escuees in their thin, spindly legs break.

See Endnotes, Page 214

Kathryn Jackson is a Grant Writer for the Center for International Rehabilitation. Jackson previously volunteered at the Columbus AIDS Task Force in Columbus, Ohio, where she participated in training and education programs and helped with outreach. She has a bachelor’s degree in English literature from the University of Michigan–Ann Arbor.

Kathryn Jackson

Grant Writer |

The Center for International Rehabilitation

232 Merchandise Mart Plaza Suite 1700

Chicago, IL 60654 USA

Tel: 312 336 4070

E-mail: KJackson@nirnetwork.org

Masha enjoys a walk with her new prosthesis and Dr. Therdka Jittawat of Thailand’s Prostheses Foundation.