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U.S. Department of State  
PM/WRA

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6<sup>TH</sup>

EDITION

JUNE 2006

UNITED STATES  
DEPARTMENT  
OF STATE

BUREAU OF  
POLITICAL-MILITARY  
AFFAIRS

TO WALK THE  
**EARTH**  
IN  
**SAFETY**



THE UNITED STATES COMMITMENT TO HUMANITARIAN MINE ACTION

**SPECIAL REPORTS**

Quick Reaction  
Demining Force

Controlling Small  
Arms/Light Weapons

The Menace  
of MANPADS







UNITED STATES  
DEPARTMENT OF STATE

BUREAU OF  
POLITICAL—MILITARY AFFAIRS

TO WALK THE EARTH IN SAFETY

6TH EDITION  
JUNE 2006

# TABLE OF CONTENTS

■ Introduction	1
■ U.S. Humanitarian Mine Action Program	2
■ Defining Humanitarian Mine Action	3
■ <b>SPECIAL REPORTS</b>	
Quick Reaction Demining Force	6
Controlling Small Arms/Light Weapons	7
The Menace of MANPADS	8

■ <b>AFRICA</b>	
Angola	10
Chad	11
Eritrea	12
Liberia	13
Mozambique	14
São Tomé and Príncipe	15
Senegal	16
Sudan	16

■ <b>ASIA</b>	
Afghanistan	19
Cambodia	20
Laos	22
Sri Lanka	22
Vietnam	24

■ <b>EUROPE</b>	
Albania	26
Armenia	26
Azerbaijan	26
Bosnia and Herzegovina	28
Croatia	28
Georgia	29
Kazakhstan	30
Serbia and Montenegro	31

■ <b>LATIN AMERICA</b>	
Chile	33
Colombia	33
Nicaragua	33
Peru and Ecuador	35

■ <b>THE MIDDLE EAST</b>	
Iraq	37
Jordan	38
Lebanon	39
Yemen	40

■ Office of Weapons Removal and Abatement	42
■ Humanitarian Demining Training Center	43
■ U.S. Army Night Vision & Electronic Sensors Directorate	44
■ Mine Action Information Center	45
■ Mine Detection Dog Center for South East Europe	46
■ Regional Center for Underwater Demining	47
■ Past Recipients of U.S. Humanitarian Mine Action Assistance	48
■ U.S. Humanitarian Mine Action Program Funding History (FY 1993-2006)	49

# INTRODUCTION

A MESSAGE FROM ASSISTANT SECRETARY JOHN HILLEN

THIS SIXTH EDITION OF *TO WALK THE EARTH IN SAFETY* SUMMARIZES THE ACCOMPLISHMENTS OF THE INTER-AGENCY U.S. HUMANITARIAN MINE ACTION PROGRAM FOR FISCAL YEARS 2004 AND 2005. IN A STRICT SENSE, IT IS A COMBINED ANNUAL REPORT FOR TWO YEARS ON WHAT WAS THEN AND STILL IS THE WORLD'S LARGEST SUCH PROGRAM. BUT IT IS ALSO A CHAPTER IN A REAL-LIFE STORY THAT HAS A BEGINNING, MIDDLE, AND, WE NOW KNOW BECAUSE OF MORE THAN FIFTEEN YEARS OF PRACTICAL EXPERIENCE, AN END.

Public safety and regional stability can be endangered by illegally trafficked small arms and light weapons, abandoned ordnance, and poorly secured munitions as well as by persistent landmines left from past conflicts. Some countries are affected by several of these often-interrelated problems. Therefore, this edition also chronicles the efforts of the Bureau of Political-Military Affairs' Office of Weapons Removal and Abatement to address the adverse effects in all these areas.

The U.S. Humanitarian Mine Action Program envisions assisting mine-affected countries in becoming "mine impact-free," or having the indigenous national capacity to achieve such a condition with little to no further outside assistance. A country that is mine impact-free is one where there is no economic or humanitarian justification for large-scale humanitarian mine clearance.

Achieving that goal entails more than mine clearance alone. For example, one facet of the U.S. Humanitarian Mine Action Program described in this report is training indigenous senior and mid-level national mine action managers so that they may "take ownership" of their countries' programs, run them efficiently, and rationally direct resources to mine-affected areas that have an immediate impact on safety and well-being.

This edition also reflects progress by its omissions. The previous edition of *To Walk the Earth in Safety*, published in 2004, no longer included an entry for Costa Rica. This is because Costa Rica was finally rendered mine impact-free, thanks in large part to the United States. We are also delighted to omit Djibouti, Guatemala and Honduras from this edition for the same reason. Again, thanks largely to the U.S. Humanitarian Mine Action Program, Djibouti became the first mine-affected country in all of Africa to attain mine impact-free status in January 2004. Honduras followed in October 2004 and Guatemala completed demining in December 2005.

Country by country, the United States' humanitarian mine action and small arms/light weapons abatement programs are helping to remove dangerous threats and enabling more people everywhere to be able "to walk the earth in safety."



Dr. John Hillen  
Assistant Secretary of State for Political-Military Affairs

# U.S. HUMANITARIAN MINE ACTION PROGRAM

*TO WALK THE EARTH IN SAFETY* DESCRIBES THE UNITED STATES COMMITMENT TO HELP RID THE WORLD OF PERSISTENT LANDMINES, ABANDONED ORDNANCE (AO), UNEXPLODED ORDNANCE (UXO), AND ILLICITLY TRAFFICKED SMALL ARMS AND LIGHT WEAPONS (SA/LW) THAT THREATEN CIVILIANS.

This effort supports the U.S. goal to advance sustainable development and global interests by providing a humanitarian response to the harmful social and economic effects generated by these munitions, and to advance peace and security by promoting regional stability through the use of humanitarian mine action as a confidence-building measure. Accordingly, the United States helps to reduce the number of civilian landmine casualties, to return refugees and internally displaced persons threatened by landmines to their homes, and to enhance the political and economic stability of countries affected by landmines, AO, UXO and SA/LW.

A U.S. Government Policy Coordinating Committee (PCC) Subgroup on Mine Action, chaired by the National Security Council, with the U.S. Department of State, the U.S. Department of Defense (DoD), the U.S. Agency for International Development (USAID), and the U.S. Centers for Disease Control and Prevention, approves, develops, and coordinates U.S. humanitarian mine action assistance. A typical U.S. program involves assisting a mine-affected country to establish a mine action center (MAC) or a national demining office, set up a mine risk education program and a demining training program, and often includes funding actual mine clearance operations. As the country develops its mine clearance capabilities, the PCC Subgroup periodically evaluates the progress of the program. When the program becomes self-sustaining, the United States relinquishes its active role to the host nation.

The Department of State, through its Office of Weapons Removal and Abatement (PM/WRA) in the Bureau of Political-Military Affairs, is the lead agency in coordinating U.S. humanitarian mine action programs worldwide. The mission of PM/WRA is to develop policy options, implement destruction and mitigation programs, and engage civil society in a synergistic effort to reduce the harmful worldwide effects generated by the indiscriminate use of illicit and abandoned conventional weapons of war. PM/WRA oversees day-to-day management of bilateral mine action assistance programs among its several responsibilities. In addition, PM/WRA encourages the participation of civil society in mine action through a unique public-private partnership program. To learn more about this program, visit [www.state.gov/t/pm/wra/partners](http://www.state.gov/t/pm/wra/partners).

USAID promotes sustainable development by providing humanitarian services in post-conflict situations. Its Bureau of Humanitarian Response, Office of Transition Initiatives, bridges the gap between the emergency assistance and long-term development by supporting organizations and people in emergency transition in conflict-prone countries. In addition, USAID's Senator Patrick J. Leahy War Victims Fund helps to improve the mobility, health, and social integration of the disabled, including landmine survivors. Typically, USAID works through non-governmental organizations to develop a country's capacity for sustainable services for amputees.

In some situations, DoD funds a humanitarian mine action program's start-up costs, and PM/WRA provides subsequent funds to procure the necessary equipment, for training courses (such as for host-nation demining program managers), and for continued support until the program reaches the U.S. Government's end-state. DoD's mine action program includes mine risk education; MAC development; civil-military cooperation; immediate trauma aid for mine accident survivors; and demining training and "Train-the-Trainer" instruction.

The funding history table in *To Walk the Earth in Safety* on pages 49 to 53 charts all U.S.-funded humanitarian mine action since Fiscal Year 1993. PM/WRA-funded SA/LW destruction endeavors through the end of Fiscal Year 2005 are found on page 7.

# DEFINING HUMANITARIAN MINE ACTION

THE THREE MAJOR PILLARS OF HUMANITARIAN MINE ACTION (HMA) ARE: MINE DETECTION AND CLEARANCE; MINE RISK EDUCATION; AND MINE SURVIVORS ASSISTANCE. DEPENDING ON THE NEEDS OF A COUNTRY, THE UNITED STATES MAY ASSIST WITH FINANCIAL SUPPORT IN ONE, TWO, OR ALL THREE PILLARS. RESEARCH AND DEVELOPMENT IN NEW DEMINING TECHNOLOGIES AND ADVOCACY AND DIPLOMACY ARE ALSO CONSIDERED BY SOME TO BE COMPONENTS OF HMA.

## MINE DETECTION AND CLEARANCE

A Landmine Impact Survey (LIS) is the ideal initial step to determine the specific nature and extent of the effect landmines produce in a country. The LIS identifies the broad areas within a country where mines exist and estimates the impact these mines have on local communities. Areas where mines do not exist are also recorded. Although mine clearance and mine risk education often must begin before the survey is complete, the LIS provides mine action authorities an important tool for long-term strategic planning. A technical survey is conducted to document more specific details on the landmine contamination. Mined areas are demarcated, and the number and types of mines or unexploded ordnance (UXO) found are recorded. A technical survey is conducted in preparation for clearance or permanent marking of minefields.

No single technology can be employed in all circumstances, in all terrain and weather conditions, and against all mine types. Metal detectors and hand-held probes are the primary tools to find mines, but these two manual technologies are more than 60 years old. Most deminers recognize the value of mine detecting dogs (MDDs) and are learning how to integrate man, dog, and machine into a combined effort. MDDs can detect the chemical explosives in mines, and they are becoming increasingly important as their success rate increases and their reputation for safe and efficient mine detection spreads. Additionally, various mechanical technologies have greatly assisted mine clearance efforts.

Even with advanced mine-detection methods, the precise location of the majority of landmines in the ground today is unknown. International law requires that those who lay mines must identify the types of landmines emplaced, and make maps of their locations so that they are removed at the conclusion of hostilities. Whether combatants in war between nation-states, or factions in a civil war, hostile parties are increasingly ignoring international law, and placing mines indiscriminately without marking or recording their use or emplacement. Even when maps and other records are available, natural events may, over time, diminish their utility. For example, mines tend to migrate from their original location as a result of shifting desert sands, or from heavy rains in tropical areas that wash away topsoil.

Clearing mines is slow, laborious, tedious, and inherently dangerous. U.S. law states: "... as a matter of policy, U.S. Forces shall not engage in physically detecting, lifting, or destroying landmines, unless it does so for the concurrent purpose of supporting a U.S. military operation; or provides such assistance as part of a military operation that does not involve the armed forces." Therefore, U.S. military personnel use a "Train-the-Trainer" approach to assist a country to clear landmines. These personnel train an initial team of host-nation personnel in mine clearance techniques that include medical evacuation procedures in the event of a demining accident. In turn, this indigenous cadre is then able to train other indigenous groups until an adequate number of the country's nationals are sufficiently competent to independently clear mines safely and efficiently.

Once found, mines are usually not removed from their location. They are normally left in place, marked and destroyed. If the terrain is suitable, specially equipped vehicles are maneuvered through the minefield to destroy multiple mines.



# DEFINING HUMANITARIAN MINE ACTION (CONT.)

For buried landmines and UXO, the United Nations standard is that the depth of clearance should not normally be less than 130 millimeters below the original surface level. In conjunction with mine clearance, a quality assurance program is used to assess the efficacy of these operations, and MDDs are very efficient for this process.

## MINE RISK EDUCATION

Teaching people how to recognize and avoid landmines, and to inform demining authorities of the presence of landmines, helps to reduce casualties significantly. Mine risk education uses a variety of materials and media to convey important messages. The materials, and the manner in which the information is presented, should be sensitive to the cultural mores of the local population.

Mine risk education attempts to encourage people to incorporate safety procedures into their daily lives. Mine risk education teachers discourage children from picking up and playing with mines and UXO. Educating children to the dangers is often difficult because they are fascinated with these metal and plastic objects. However, the majority of mine casualties are young men. Informing adolescents and adults about the types of mines they may encounter, the injuries they inflict, and teaching them the proper procedures to follow if a mine is found helps to save lives and limbs.

U.S. military personnel also conduct mine risk education during "Train-the-Trainer" humanitarian mine action deployments. They are fluent in the language of each mine-affected country to which they deploy, and they undergo country-specific cultural training prior to engaging in this activity.

## SURVIVORS ASSISTANCE

The third mine action pillar is survivors assistance, an endeavor that requires a long-term commitment to both landmine survivors and their family members. Treating the initial injuries is not enough. For example, as children who are landmine survivors grow, new prosthetic limbs are required, and a lifetime of additional operations and related expenses is necessary. Over time, the psychological injury to a landmine survivor also becomes a factor in that person's recovery and for the family members. For these reasons, mine action programs encourage a holistic approach to providing assistance to the survivors of landmine injuries.

As a general rule, the Department of Defense (DoD) does not use humanitarian demining funds for survivors assistance, focusing its aid on the other mine action pillars instead. However, PM/WRA does support some survivors assistance efforts through limited grants and via the Republic of Slovenia's International Trust Fund for Demining and Victims Assistance. DoD, using Overseas Humanitarian, Disaster, and Civic Action and other operations and maintenance funds, and pays for Blast Resuscitation and Victims Assistance. Additionally, the U.S. Agency for International Development (USAID) and the U.S. Department of State's Bureau of Population, Refugees and Migration (PRM) fund programs to alleviate the suffering of mine survivors and their families. USAID uses the Leahy War Victims Fund to provide long-term treatment and prosthetics to these survivors. PRM's programs assist with the resettlement of refugees and internally displaced persons, many of whom are endangered by landmines in the course of flight from their homes and in their subsequent return.

The Department of Health and Human Services, through the U.S. Centers for Disease Control and Prevention (CDC), provides technical and financial support to several non-governmental organizations and UN agencies for public health projects related to survivors assistance. These projects include the provision of direct support to survivors as well as science-based assistance in identifying new survivors and assessing their health needs.

The Department of Education's National Institute on Disability and Rehabilitation Research (NIDRR) supports a Rehabilitation Engineering Research Center on Technology Access for Landmine Survivors at the Center for International Rehabilitation in Chicago, Illinois. The Center strives to improve the quality and availability of

amputee and rehabilitation services for landmine survivors by focusing on the development of "appropriate technology," i.e., technology that is most suitable to the limited technical and human resources available in most mine-affected regions through the application of research methodologies, the development of mobility aids, and the creation of educational materials, all of which are designed specifically for mine-affected populations and disseminated through a network of rehabilitation service-providers in mine-affected regions.

### NOTE

THE UNITED STATES believes that the term "mine impact-free" (i.e., free from the humanitarian impact of landmines) denoting clearance of those landmines that have a humanitarian impact, is a more appropriate term and a more achievable, realistic goal than "mine free." It is impossible to guarantee that every single landmine is cleared from an affected country or region. It is more practically feasible, cost-effective, and morally defensible to clear mines that have a humanitarian impact. Suspected or known mined areas that pose a lesser humanitarian threat or that are less economically critical may be cleared later, while available funds are devoted to clearing other mined areas or countries where landmines and UXO continue to pose a grave menace.

# QUICK REACTION DEMINING FORCE

IN APRIL 2001, THE U.S. DEPARTMENT OF STATE ESTABLISHED THE WORLD'S FIRST AND ONLY STANDING QUICK REACTION DEMINING FORCE THAT CONSISTS OF PROFESSIONAL MOZAMBICAN DEMINERS WORKING UNDER THE SUPERVISION OF RONCO CONSULTING CORPORATION.

The Quick Reaction Demining Force (QRDF) is able to rapidly deploy worldwide, when the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs requests its services. It responds to emergency or crisis situations, such as a cessation of hostilities that results in the rapid return of large numbers of internally displaced persons or refugees to their homes and lands in mine-affected areas. When not deployed, the QRDF keeps its skills sharpened by helping to demine Mozambique's mined areas at the request of Mozambique's National Demining Institute. At the direction of the Office of Weapons Removal and Abatement, the QRDF made its first foreign deployment to Sri Lanka in April 2002 to survey and demine lands from which ethnic Tamil civilians had been displaced, shortly after the ceasefire between the Government of Sri Lanka and the Liberation Tigers of Tamil Eelam.

Almost simultaneously, the QRDF deployed to the Nuba Region in Sudan to support a ceasefire between the Government of Sudan and the Sudan People's Liberation Movement/Army, in order to facilitate the safe return of internally displaced persons and refugees in that region. During May–August 2003, the QRDF deployed to Iraq where it performed invaluable service in clearing mines, cluster munitions, and other unexploded ordnance from heavily populated urban areas, along power lines, and in agricultural fields. Also, from June–August 2003, the QRDF returned to Sri Lanka to clear additional land needed for habitation and farming.



**Ethnic Tamil villagers, displaced by fighting, were able to settle, build homes and safely farm again after the U.S. Department of State's Quick Reaction Demining Force, manned by professional Mozambican deminers, cleared landmines and UXO from arable land on Sri Lanka's Jaffna Peninsula.**

*Deborah Netland, Office of Weapons Removal and Abatement.*

# CONTROLLING SMALL ARMS/LIGHT WEAPONS

THE END OF THE COLD WAR AND THE SUBSEQUENT DOWNSIZING OF A LARGE NUMBER OF NATIONAL ARMIES LEFT THE WORLD WITH A HUGE SURPLUS OF SMALL ARMS AND LIGHT WEAPONS (SA/LW), AS WELL AS SURPLUS PRODUCTION CAPACITY.

Excess stocks of these weapons (including man-portable air-defense systems, or MANPADS), often poorly secured with nothing more than a rusty padlock and vulnerable to theft, are a major source of arms for terrorists, criminals, and insurgent groups. Such stocks exacerbate regional instability, as black-market arms are exported to conflict areas.

OFFICE OF WEAPONS REMOVAL & ABATEMENT SA/LW PROGRAM FUNDING	
FY 2004	FY 2005
\$3.932 Million	\$6.941 Million

The United States is a global leader in combating the illicit trafficking and destabilizing accumulation of SA/LW and ammunition. While acknowledging the legitimacy of the legal trade, manufacture, and ownership of arms, the U.S. works to improve global and national mechanisms for controlling SA/LW, counter indiscriminate SA/LW exports, support sanctions against violators of embargoes, enhance the security of national SA/LW stockpiles, and destroy excess weapons around the world.

The Office of Weapons Removal and Abatement (PM/WRA) in the U.S. Department of State's Bureau of Political-Military Affairs helps to develop and implement U.S. policies regarding SA/LW. These efforts include supporting initiatives at the United Nations and other international organizations to address illicit transnational arms transfers through marking and tracing of SA/LW and strengthened controls on arms brokers. PM/WRA also manages a program to finance security improvements to SA/LW stockpiles, and to destroy excess and loosely secured weapons and associated munitions in countries that ask for this support.

Destruction and enhanced stockpile security programs are established at the request of the host nation government; interested governments must make a formal inquiry through the appropriate U.S. Embassy. An interagency team will make an initial assessment of the size and condition of excess SA/LW stockpiles, storage procedures, and associated infrastructures. After the survey, PM/WRA may establish U.S.-funded destruction operations within the host country, taking into account factors such as regional stability, counter-terrorism and force protection, and mitigation of the humanitarian impact of illicit SA/LW and abandoned ordnance.

Additionally, through a similar process, PM/WRA and the Defense Threat Reduction Agency (DTRA) offer technical assistance on physical security and stockpile management issues to inform weapons custodians and ammunition technicians of U.S. standards and procedures. The U.S. Department of State and DTRA work closely with the host nation to develop and execute projects that meet the needs of the requesting government, are cost-effective, and promote regional security. Since the program's inception in 2001 through the end of 2005, more than 800,000 weapons, 80 million rounds of ammunition, and over 17,000 MANPADS since 2003, have been destroyed. By the end of 2005, PM/WRA had implemented SA/LW destruction programs in the following countries with their cooperation: Afghanistan, Albania, Angola, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Cambodia, Guinea, Lesotho, Liberia, Mozambique, Nicaragua, the Philippines, Romania, São Tomé and Príncipe, Senegal, Serbia and Montenegro, and Sudan.

This edition of *To Walk the Earth in Safety* includes current SA/LW programs funded wholly or in part by the United States through PM/WRA. For more detailed information on the comprehensive U.S. strategy on SA/LW, or for recent updates on all PM/WRA activities, visit [www.state.gov/t/pm/wra](http://www.state.gov/t/pm/wra).

# THE MENACE OF MANPADS

SINCE THE NOVEMBER 2002 ATTEMPTED SHOOT-DOWN OF A CIVILIAN AIRLINER IN KENYA WITH THE USE OF MAN-PORTABLE AIR-DEFENSE SYSTEMS (MANPADS), THE UNITED STATES HAS REDOUBLED ITS EFFORTS TO KEEP THEM FROM FALLING INTO THE WRONG HANDS.

The U.S. Department of State estimates that since the 1970s MANPADS were employed against more than 40 civilian aircraft, resulting in at least 24 crashes and more than 600 deaths worldwide. These attacks have been largely conducted in active conflict zones, clearly demonstrating the threat that MANPADS pose to civilian aircraft. Numerous MANPADS attacks have occurred in Iraq since 2003, but no such attack has yet occurred in the Western Hemisphere.

MANPADS, also referred to as shoulder-fired, surface-to-air weapons, are small, light, and easy to transport and conceal. As highlighted by the January 11, 2005 confiscation of a MANPADS in

Nicaragua, the potential for terrorists to acquire MANPADS is a reality today. Estimates of global MANPADS production range from 750,000 to 1,000,000, with thousands outside government control. The exact quantity of MANPADS remaining in the global inventory is difficult to estimate.

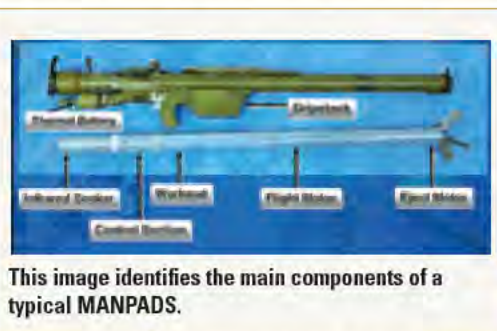
The International Civil Aviation Organization, the United Nations, the G-8, the Wassenaar Arrangement, the Organization for Security and Cooperation in Europe, the Asia Pacific Economic Cooperation, the Organization of American States and many other international and regional fora have recognized this threat and have encouraged steps to reduce the number of MANPADS that could be made available on the black market.

Countering the proliferation of MANPADS is a paramount U.S. national security priority. At the direction of the White House, the U.S. Department of State, supported by the U.S. Department of Defense, leads United States' international efforts on this critical issue. Within the Department of State, the Bureau of Political-Military Affairs and the Bureau for International Security and Nonproliferation have responsibility in this area.

The Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs manages the U.S. program to destroy excess, obsolete, loosely secured, or otherwise at risk MANPADS, and to improve the security of MANPADS stockpiles retained for legitimate defense purposes so that they do not fall into the hands of non-state actors.

The Office of Conventional Arms Threat Reduction in the Bureau for International Security and Nonproliferation works to prevent transfers of MANPADS—and the technology to produce them—to undesirable end-users through bilateral and multilateral engagement, with an emphasis on responsible export controls.

The U.S. Department of Defense supports international negotiations by providing expertise on the proper management and control of MANPADS, and by enforcing stringent physical security and accountability for MANPADS in U.S. possession. In 2001 the Department established the Golden Sentry program to monitor end-use sales of MANPADS through Foreign Military Sales to ensure that they are not diverted to criminal use. The Defense Security and Cooperation Agency administers the Golden Sentry program, and the Defense Threat Reduction Agency and the U.S. Army provide support.



**This image identifies the main components of a typical MANPADS.**



ANGOLA  
CHAD  
ERITREA  
LIBERIA  
MOZAMBIQUE  
SÃO TOMÉ AND PRÍNCIPE  
SENEGAL  
SUDAN



# AFRICA



A decade-long war of independence in the 1960s, followed by nearly 30 years of civil war, left Angola with a severe landmine and unexploded ordnance (UXO) problem as well as excess stockpiles of small arms and light weapons (SA/LW). Landmines were emplaced in areas bordering the Democratic Republic of Congo, the Republic of the Congo, and Namibia, and near roads, health clinics, other public facilities, water access points, and agricultural lands. Demining efforts intensified soon after the 2002 peace agreement, often in conjunction with refugee resettlement. However, a systematic mine and UXO clearance program is still in its initial stages. The Landmine Impact Survey (LIS) data collected to date reflects 75 percent of the settlements in Angola. Completion of the LIS is expected in 2006.

In FY04, the United States allocated over \$6 million to Angola and in FY05 allocated over \$6.8 million for mine action there. The Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) granted over \$2,158,000 to The HALO Trust, \$1,550,000 to Norwegian People's Aid (NPA), and \$1,250,000 to Mines Advisory Group (MAG) for mine and UXO clearance and equipment. \$750,000 was provided to the Survey Action Center for continued support of the LIS and an additional \$265,000 to the HALO Trust and MAG to complete LIS data collection in Cuando Cubango, Moxico, and Lunda Sol provinces. Also, PM/WRA granted \$200,000 to Roots of Peace for a "demine-replant-rebuild"



**Public-Private Partnership Program encourages civil society to support humanitarian mine action around the world. Pictured from left to right: Two Angolan deminers employed by NPA escort Deborah Netland, PM/WRA Program Manager for Angola, and Heidi and Gary Kuhn, President and Executive Director, respectively, of Roots of Peace, on a site visit. Roots of Peace, one of PM/WRA's partner organizations, supports not only the demining of agricultural land, but also backs projects that enable farmers to replant and market their crops once again.**

*Roots of Peace.*



**Demining is not an end in itself. In addition to saving lives, mine action projects should also enable social and economic recovery. This school, now under construction in Chicomba, Huila Province, sits on 33,000 square meters of formerly mined land that NPA cleared in 2003 and 2004 through a PM/WRA grant.**

*Norwegian People's Aid.*

project in Huambo Province. In addition, the U.S. Agency for International Development's Leahy War Victims Fund (USAID/LWVF), in conjunction with the Vietnam Veterans of America Foundation (VVA), extended \$800,000 in landmine survivors assistance to the Angolan people. A USAID/LWVF-funded and VVA-managed Rehabilitation Center provides physiotherapy, HIV awareness and peer education training, and counseling in social and economic reintegration for people with mobility-related injuries. Angola remains a high-priority country in the U.S. Humanitarian Mine Action Program. In terms of reducing the SA/LW stocks collected from demobilized units following the civil war, PM/WRA provided \$684,500 in destruction assistance through a contract with the U.S. firm OrdSafe. A total of 107,400 pieces of SA/LW were destroyed by OrdSafe, and a destruction facility was refurbished for future projects.

U.S.-funded humanitarian mine action (HMA) executed through the aforementioned non-governmental organizations has had a direct and positive impact on Angolan post-war reconstruction. For example, MAG's clearance of the Cassongo Minefield near Luena in Moxico Province allowed Save the Children to start a rice seed replication project leading to the first local rice production since 1998. NPA's activities reopened the Que-Chicomba road, allowing access by humanitarian agencies to assist more than 50,000 people living in the area. The HALO Trust's demining of a bridge in Huambo Province enabled the Swedish Relief Agency to rebuild the crossing and deliver aid from the World Food Program to 20,000 families.

Angola's nascent HMA capability is slowly growing, with the National Inter-Sectoral Commission for Demining and Humanitarian Assistance progressing with a draft medium-range HMA strategy for 2006 to 2010. Although the LIS is not complete, available data provide an effective tool for planning at both strategic and operational task levels and it is now believed that the clearance of high impact areas should be achievable by 2010-2011.



As a result of 30 years of civil war and Libyan military intervention, landmines and unexploded ordnance (UXO) affect 1,081 square kilometers of Chadian land. Heavy concentrations of mines surround communities in the north and east of the country. UXO found in military training areas poses a significant problem for nomadic herders who must pick through munitions to access vital water supplies, while toxins leaking from UXO have poisoned their livestock.



**A mine risk education poster that likens some of the typical landmines and other remnants of war found in Chad to the sting of a deadly scorpion. In those parts of the world where literacy levels are low, it is important that mine risk education incorporate images that convey the necessary message.**

*Deborah Netland, Office of Weapons Removal and Abatement.*

In FY04, the U.S. Department of State and the U.S. Department of Defense contributed nearly \$1,200,000 to humanitarian mine action (HMA) in Chad. A \$350,000 contract provided emergency medical evacuation capabilities for deployed teams. Mines Advisory Group (MAG) received a \$300,000 grant for a rapid assessment and verification survey. In FY05, the United States allocated \$100,000 to conduct a technical survey and spot clearance of mine- and UXO-affected areas in Chad. The U.S. Department of State provided \$300,000 for new 4x4 vehicles to support U.S.-funded MAG operations to clear blocked water access points and landmine/UXO caches. The U.S. European Command (USEUCOM) provided \$243,562 to train Chadian deminers in leadership, management, information systems, and quality-assurance skills.

By early 2007, the Department's Office of Weapons Removal and Abatement plans to complete clearance of all known blocked water access points.



**UXO and caches of abandoned ordnance (AO), not just persistent landmines continue to kill and maim people in Chad who inadvertently encounter them, or who attempt to recycle the metal out of financial need. This unexploded mortar round and other lethal remnants of war pose a threat to anyone who tampers with this heap of scrap metal observed during a recent PM/WRA-DoD Program Management Assessment Visit to Chad. PM/WRA continues to support UXO, abandoned ordnance (AO), and landmine clearance in Chad.**

*Deborah Netland, Office of Weapons Removal and Abatement.*

As an outcome of continuous mine and UXO clearance in the Fada region, date-palm cultivation has returned, along with normalizing access to public buildings, such as schools, markets, and medical facilities. According to the national HMA plan, by 2010 it is expected that demining of all known sites will be completed. In 2005 USEUCOM began to focus its mine action efforts on assisting the Chadian Haut Commissariat National au Déminage to develop a Mine Victims Assistance Program through emphasis on management, immediate medical care, trauma management, evacuation techniques and procedures, and medical care in treatment facilities. The \$800,000 effort began in March 2006 and will be executed by U.S. Military Health Professionals from the Uniformed Services University of the Health Sciences and Center for Disaster and Humanitarian Assistance Medicine.



**This collection of anti-vehicle mines, artillery shells, and other UXO, cleared by Chadian deminers with the support of the U.S. Humanitarian Mine Action Program, is ready for demolition.**

*Deborah Netland, Office of Weapons Removal and Abatement.*



**Job done! This particular batch of anti-vehicle mines, UXO, and AO has been utterly destroyed and will never again pose a danger to anyone.**

*Deborah Netland, Office of Weapons Removal and Abatement.*





Three decades of civil strife, and the conflict with Ethiopia in 1998–2000, left Eritrea with a severe landmine and unexploded ordnance (UXO) problem, particularly near or in populated areas, farmlands, water sources, and along its northern border. Since FY94, the U.S. has given \$17,718,000 in humanitarian mine action assistance to Eritrea including \$1,452,000 in FY04 and \$2,800,000 in FY05 to clear the way for reconstruction and the return of internally displaced persons.

In order to develop a host-nation capability, PM/WRA continues to fund a Senior Explosive Ordnance Disposal (EOD)/Deminer Trainer and a Senior Dog Trainer who have trained 80 Eritrean deminers and 18 mine detecting dogs (MDDs), respectively. PM/WRA also provides spare parts, equipment, and supplies to enable the Eritrean Demining Organization (EDO) and RONCO Consulting Corporation, a PM/WRA contractor that has worked in Eritrea since 2001, to conduct operations in the field. In addition, PM/WRA has improved EDO's mine clearance capabilities by training and certifying UXO disposal staff, adding six MDDs to the original 12, and integrating the three Eritrean manual demining teams with MDD teams. Finally, PM/WRA funds a Mine Risk Education (MRE) project that has established an institutional MRE capacity at the EDO, and an MRE training capacity at the National Training Center.

Having cleared more than 4 million square meters of land with U.S. assistance (1.7 million square meters in 2004, and 2,563,453 square meters in 2005), Eritrea is close to possessing its own demining capacity. In 2005,



The U.S. Humanitarian Mine Action Program provides comprehensive assistance tailored to a mine-affected country's needs and expressed desires, including the development of infrastructure to fully support indigenous capacity. U.S. assistance to Eritrea has included the provision of professional training for its mine action managers and demining personnel, personal protective equipment, mine detecting gear, four-wheel drive vehicles, mine detecting dogs, kennels, food and medicine to properly care for the dogs, medical training and supplies, and even buildings. This is the National Demining Headquarters in Keren that Eritrean workers built in 2000 using local materials purchased with \$165,714 in U.S. funds.

*RONCO Consulting Corporation.*



During their first field visit in 2002, representatives of the Mine Action Support Group (MASG), then chaired by Belgium, observe an Eritrean Demining Agency forward aid station at a minefield in the Temporary Security Zone. Twenty-five donor nations, including the United States, which assumed the chair of the MASG in January 2006, participate in the MASG to coordinate their respective bilateral mine action assistance to affected countries.

*John Stevens, Office of Weapons Removal and Abatement.*

PM/WRA's assistance also enabled Eritrea to clear over 10,000 items of UXO. The United States continued to be the largest mine action donor to Eritrea in 2004 and 2005. It expanded its MRE efforts there, provided new demining equipment and vehicles, and enabled the safe return of 15,000 internally displaced persons and refugees. With host nation, U.S., and international support, Eritrea could develop its own indigenous capacity to conduct humanitarian mine action activities in the near future.



An Eritrean deminer carefully probes for a persistent landmine, found by an MDD, in the Temporary Security Zone. Note the metal detector that lays beside him to his left. After he has cleared the small section of ground immediately ahead of him, he will extend the clearance lane by an increment, and then use the metal detector to sweep another small patch of ground ahead. His supervisor will follow to sweep the same lane with a metal detector to ensure that every landmine and piece of metal that could generate a "false positive" to a metal detector has, indeed, been removed. PM/WRA provided this deminer's metal detector, personal protective equipment, and other gear.

*Matt Murphy, Office of Weapons Removal and Abatement.*



Liberia's surplus of small arms and light weapons (SA/LW) can be attributed to a series of civil conflicts and coups from 1980 to 2003. With the signing of a peace agreement in August 2003, the United Nations Mission in Liberia (UNMIL) deployed 15,000 peacekeepers in the country to, among its many responsibilities, support the disarmament, demobilization, and reintegration program in which former fighters surrendered their weapons to peacekeepers. Given the risk that criminals and arms smugglers might steal from the growing stockpile of SA/LW, Jacques P. Klein, Special Representative of the U.N. Secretary-General and Coordinator of UN Operations in Liberia, accepted an offer from the U.S. Department of State to pay for and manage the SA/LW destruction program.



While accompanying an UNMIL team on a visit to warehouses in Monrovia that contained arms and munitions deemed excess for Liberia's defense needs, a PM/WRA officer noticed these MANPADS casually propped against a wall, and many MANPADS were found in crates. Until then, the warehouses were thought to contain only some anti-tank weapons and other light, conventional arms. With U.S. help, UNMIL destroyed these MANPADS, which will never again be a threat to global aviation.

*Office of Weapons Removal and Abatement.*



This container of small arms and light weapons, excess to Liberia's defense needs, was found during an UNMIL inspection in which a PM/WRA officer participated. Just as persistent landmines can block roads and impede post-conflict recovery, these weapons in the hands of criminals and ill-disciplined soldiers hinder safe movement and destabilize society. This particular batch will not, because with PM/WRA assistance, they were destroyed.

*Office of Weapons Removal and Abatement.*

In December 2003, OrdSAFE, a U.S. firm contracted by the Department of State's Office of Weapons Removal and Abatement, began destroying SA/LW collected by UNMIL. Within three months, OrdSAFE and UNMIL prevented 8,200 SA/LW and some heavy weapons from ever reaching the hands of warlords and black market arms dealers: a Liberian team equipped with gas-powered, hand-held saws, under OrdSAFE supervision, destroyed 33,000 SA/LW. The total cost of the program, which formally ended in FY04, was \$360,000.



Liberian personnel destroy MANPADS and other small arms/light weapons declared excess to Liberia's defense needs. PM/WRA funded this destruction effort.

*Office of Weapons Removal and Abatement.*



Twenty-six years of conflict, including a war for independence and subsequent civil war, left Mozambique littered with landmines and unexploded ordnance (UXO). Although landmines are found in all of Mozambique's provinces, Inhambane has the largest percentage of at-risk population, while Nampula and Cabo Delgado have the most square meters of suspected mined areas.

In FY04, the U.S. Department of State's Office of Weapons Removal and Abatement allocated \$1,492,000 for humanitarian mine action (HMA) in Mozambique. These funds consisted of \$1,372,000 to The HALO Trust for continued demining operations in two provinces, Zambezia and Cabo Delgado, and \$120,000 to improve quality of the skills of the Mozambican Armed Forces' (FADM) humanitarian demining cadre through additional training, equipment and logistical support, ensuring that work is performed according to International Mine Action Standards. The HALO Trust's work in Cabo Delgado in northern Mozambique enabled commerce to resume on the main Pemba-Montepuez road to the provincial capital and recovered farmland bordering the road. Mine clearance allowed local communities to cultivate and develop cashew plantations, which contribute to the provincial economy. The U.S. Centers for Disease Control and Prevention also contributed \$350,000 for landmine survivors programs. In FY05, the United States provided \$2,336,000 more in mine action aid. Of this amount, The HALO Trust received \$676,000 to support seven manual demining teams, one survey team, one mine detecting dog team, and two mechanical teams. \$1,666,000 was provided in training, technical support, and equipment to further develop the FADM humanitarian demining (HD) unit's capability as the sole government HD provider.



Women carry containers of water through a narrow but safe passage in an active minefield that with PM/WRA funding was being cleared by The HALO Trust.

*The HALO Trust.*



The village of Cabo Delgado was still partially infested by persistent landmines when this photograph was taken. Note the little child walking to the left (the safe side) of the wooden stakes. The HALO Trust, with PM/WRA funding, has since cleared the landmines and UXO from this village.

*Deborah Netland, Office of Weapons Removal and Abatement.*

Because of reduced participation by commercial demining firms, 2003 saw a slight drop in total land cleared compared to 2002, although the FADM demining unit's skills improved, having clearing 130,710 square meters in Maputo Province. This is a significant improvement from the 2,000 square meters this unit cleared in 2002. The U.S. Department of State's Quick Reaction Demining Force (QRDF) cleared another 131,305 square meters in 2003. The National Demining Institute (IND) reported 11,842,476 square meters of land cleared by humanitarian and commercial organizations in 2004, a 68 percent increase from 2003. Included in this figure is the work of the QRDF that cleared 299,406 square meters. The revised National Mine Action Plan drafted by the IND has set a goal of impact-free status for the country by 2009, with all high and medium impact areas to be cleared by the end of 2006.



An Atlas Copco tractor with a brush-cutting attachment, provided to The HALO Trust by PM/WRA, clears high grass, brush, and shrubs from a mined area in Mozambique. Next, a deminer can sweep the ground for mines with a metal detector and easily excavate those that are found. When conditions, such as terrain, roads, bridges, and technical support permit, mechanical brush cutters can accomplish in minutes what it takes a manual deminer many hours to do, significantly improving productivity.

*Matt Murphy, Office of Weapons Removal and Abatement.*

# SÃO TOMÉ AND PRÍNCIPE

## A F R I C A



In July 2003, São Tomé and Príncipe, a country composed of two islands in the Gulf of Guinea, was rocked by a military coup backed by civilians armed with illegally-obtained firearms, highlighting the dangers posed to peace and stability by unsecured and illicit small arms and light weapons (SA/LW). After international mediation negotiated a peaceful end to the coup, the Government of São Tomé and Príncipe approached the United States for assistance with SA/LW destruction.

In FY04, the U.S. Department of State's Office of Weapons Removal and Abatement (PM/WRA) granted a \$50,000 contract to RONCO Consulting



**One of many batches of persistent mines, mortar shells and other munitions being readied for destruction in São Tomé and Príncipe.**

*Office of Weapons Removal and Abatement and RONCO Consulting Corporation.*



**BOOOOM! Another batch of munitions not needed for São Tomé and Príncipe's defense needs is completely destroyed. This particular batch, and many others like it, will never pose a threat to anyone again.**

*Office of Weapons Removal and Abatement and RONCO Consulting Corporation.*

Corporation, a U.S. firm, for the destruction of aging sea mines, SA/LW, and related ammunition. With the support of the São Tomé Army, RONCO ordnance technicians safely detonated 1,000 sea mines, 30 rocket-propelled grenades, 105 handheld grenades, and 663,200 rounds of ammunition. PM/WRA and the U.S. Department of Defense also facilitated the removal and destruction of 54 man-portable air-defense systems (MANPADS).



**Workers repair a firing pit at a government demolition range so that arms and munitions excess to the defense needs of São Tomé and Príncipe may be destroyed.**

*Office of Weapons Removal and Abatement and RONCO Consulting Corporation.*

# SENEGAL

## AFRICA



A separatist conflict in Senegal's Casamance region that began in 1982 worsened in the late 1990s with the introduction of anti-personnel and anti-tank mines.

A 2001 peace settlement has allowed significant humanitarian mine action programs to begin, including U.S. Agency for International Development Leahy War Victims Fund (LWVF) support for mine survivors rehabilitation services and mine risk education (MRE). In FY04, the U.S. allocated \$112,000 to Senegal to fund community-based MRE through UNICEF. This program is using a variety of media, including radio programming, music cassettes, and informational materials to raise awareness among tens of thousands of Senegalese in the areas most affected by mines and unexploded ordnance. The LWVF provided \$500,000 in survivors assistance in FY05.



**Senegalese women in a village in the Casamance region receive mine risk education training under a program funded by the USAID/LWVF.**

*Handicap International France.*

# SUDAN

## AFRICA



With the signing of the Burgenstock Cease-fire Agreement in 2002, the U.S. Department of State deployed elements of its Quick Reaction Demining Force (see page 6) to the Nuba

Mountains to restore safe access to mine-affected land and roads in this region. This also permitted cease-fire monitors greater freedom of movement in accomplishing their mission and facilitated the return of refugees. In FY04, the U.S. Department of State's Office of Weapons Removal and Abatement

(PM/WRA) provided \$2,858,000 for humanitarian mine action, including landmine clearance by the World Food Program and RONCO Consulting Corporation, a U.S. firm. Nearly \$500,000 went to Mines Advisory Group (MAG) for mine risk education in communities near Sudan's southern borders. In FY05, PM/WRA granted \$560,000 to MAG to equip and train one nine-person explosives and ordnance disposal team and to identify stockpiles of unsecured or abandoned weapons in the Yei, Morobo, and Juba counties in southern Sudan. Over a thousand pieces of unexploded and abandoned



**During a program management assessment visit, Jennifer Lachman (in the white blouse on the left), PM/WRA, listens to South Sudanese landmine survivors recount the incidents that disabled them and how they are now coping.**

*Jennifer Lachman, Office of Weapons Removal and Abatement.*

munitions were removed before deterioration in the security environment in late 2005 temporarily prevented further operations.

In FY05, PM/WRA provided \$2,500,000 more in mine action assistance. Of this amount, \$700,000 funded a survey by Norwegian People's Aid of suspected mined roads and infrastructure in the Equatorial province of South Sudan. Also, in September 2003, the U.S. Agency for International Development's Leahy War Victims Fund initiated a 28-month project in southern Sudan with Medical Care Development International that

increased local access to orthopedic and physical therapy services in Rumbek and surrounding areas, and assisted civilian victims of war to reintegrate into southern Sudanese society and economy. An additional \$265,000 was given to Landmine Action for mine clearance in Blue Nile State in North Sudan.

In the coming years, PM/WRA plans to expand assistance that will include the destruction of small arms and light weapons, while simultaneously strengthening Sudan's national demining capabilities.



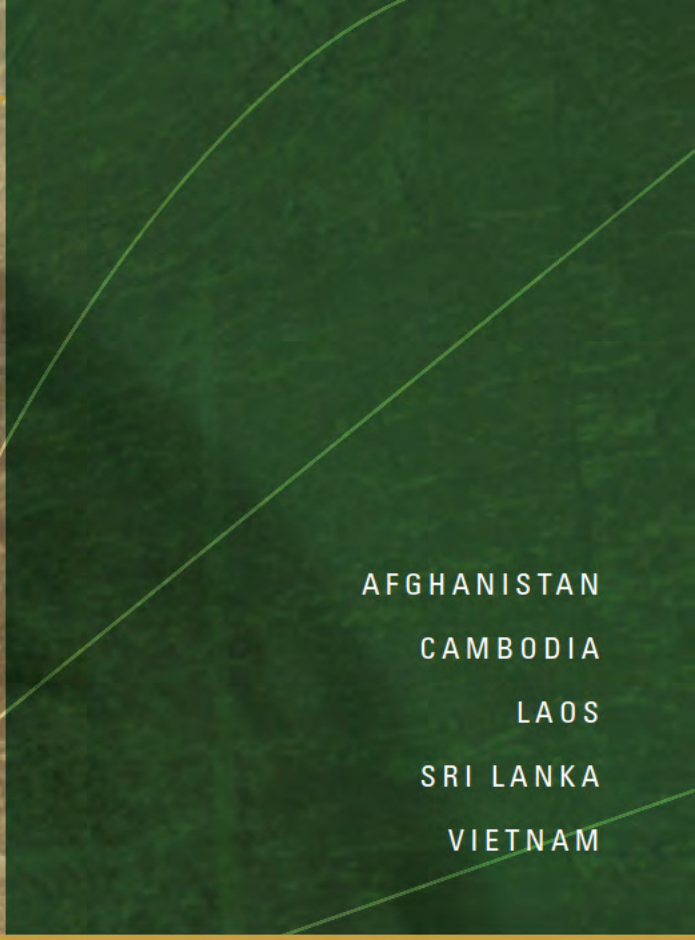
**Villagers in the South Sudanese village of Yei attend a PM/WRA-funded mine risk education class conducted by Mines Advisory Group (MAG). Will the little child gazing solemnly at the photographer reach adulthood and "walk the earth in safety?"**

*Jennifer Lachman, Office of Weapons Removal and Abatement.*



**This vehicle, destroyed by a landmine, was operated by the Swiss Foundation for Mine Action (Fondation Suisse de D minage [FSD]). It is a constant reminder to these South Sudanese from the village of Yei who walk past it of the "hidden killers" that endanger life and limb. FSD continues to conduct humanitarian mine action in South Sudan as well as in Laos, Tajikistan, and Sri Lanka.**

*Jennifer Lachman, Office of Weapons Removal and Abatement.*



AFGHANISTAN

CAMBODIA

LAOS

SRI LANKA

VIETNAM



# ASIA





## CAMBODIA

### ASIA



The impact of three decades of conflict and the brutal rule of the Khmer Rouge regime is still felt in Cambodia today, a country that remains affected by large amounts of landmines and unexploded ordnance (UXO). This tragic legacy of violence was exacerbated in the 1990s by the growth of illicit trafficking in narcotics, weapons, and people, and the dangerous recycling of UXO for its scrap metal value; both activities are driven by economic need.

The U.S., along with other international donors, has endeavored to help Cambodia to recover, partly through the provision of nearly \$44 million in U.S. humanitarian mine action assistance since FY93. Nearly \$4 million in FY05 funding from the U.S. Department of State's Office of Weapons Removal and Abatement in the Bureau of Political-Military Affairs

(PM/WRA) supported mine action by The HALO Trust, Mines Advisory Group (MAG), and the Cambodian Mine Action Center's (CMAC) Demining Unit #3 in the provinces most affected by landmines and UXO. The funds were also used to maintain MAG's three "Tempest" remote-controlled demining machines in Cambodia. In addition, PM/WRA initiated a middle management training program for deminers through Cranfield University (U.K.) and its partner VBNK Institute of Management. The U.S. Department of Defense continued local capacity-building programs in medical, vehicle maintenance, and explosive storage assistance training at a cost of \$86,455. DoD's Humanitarian Demining Research and Development Program supported the development of technology in Cambodia with partnerships with The HALO Trust, CMAC and MAG by providing \$880,000 for the development of sifting technology, the TEMPEST ground-engaging flail, the new multi-sensor

HD-HSTAMIDS handheld system that can detect all metallic and non-metallic landmines, and a unique Explosive Harvesting Program (EHP). The EHP utilizes UXO and landmines slated for destruction and recasts their explosives into detonation charges for use in stockpile reduction and in situ neutralization of UXO and mines. Finally, the U.S. Agency for International Development's Leahy War Victims Fund (LWVF) expended \$865,000 to maintain a training center for orthopedic technicians; mobilize civil society groups on disability and rehabilitation issues through the Disability Action Council and Handicap International-Belgium; and provide prosthetics and rehabilitation services through the Vietnam Veterans of America Foundation (VVAf). In 2005, USAID continued its efforts to strengthen rehabilitation services in Cambodia with an additional \$800,000 investment. In FY05, the United States provided another \$3,920,000 in funding for what remains a high-priority country in the U.S. Humanitarian Mine Action Program. Of this amount, \$129,000 went towards mid-level management training for two classes of 25 Cambodian demining leaders through Cranfield University.

Recognizing the threat to society posed by trafficking in military-grade small arms and light weapons (SA/LW), the Royal Cambodian Armed Forces requested U.S. assistance to secure their stocks of weapons and munitions. PM/WRA successfully completed a new SA/LW destruction and stockpile security program in 2004. With \$250,314 in FY04, PM/WRA enabled the destruction of 233 man-portable air-defense systems (MANPADS) that Cambodia deemed unnecessary for its needs, and upgraded security at K-86, a military base near Phnom Penh, to forestall theft of SA/LW by arms smugglers. PM/WRA began to support destruction of surplus and unstable ammunition at K-68 in FY05 with \$29,000 in assistance.

The U.S. has contributed to Cambodia's mine action efforts since 1993, resulting in total land cleared reaching 259 million square meters during these 12 years. Although international and domestic efforts have managed to reduce landmine casualties by 75 percent since the mid-1990s, Cambodia will remain a high-priority country for U.S. mine action assistance until at least 2008, when the worst mine threats will have been addressed. The increase in deaths and injuries from attempts to recycle metal from UXO poses a difficult challenge. Cambodia may not be free from the humanitarian impact of landmines ("mine impact-free") until 2020.



This is a mechanical vegetation cutter funded by the U.S. Department of State's Office of Weapons Removal and Abatement. An operator of The HALO Trust is clearing small trees, bushes, and brush in a mined area. What this vegetation cutter accomplishes in a few hours saves manual deminers days of strenuous work, enabling them to efficiently focus on clearing landmines and UXO.

*Deborah Netland, Office of Weapons Removal and Abatement.*



A little Cambodian girl who lost a limb to a persistent anti-personnel landmine is taught to walk with crutches at a physical rehabilitation center in Phnom Penh. She faces a lifetime of challenges as she grows and must be regularly refitted with prosthetics. The LWVF, VVAf, Landmine Survivors Network, American Red Cross, Handicap International Belgium, Children's Medical Center (formerly ROSECharities Cambodia), Clear Path International, and others are working to ensure that she and other disabled Cambodians have their hope, dignity and mobility restored. In addition, organizations such as Adopt-A-Minefield, Roots of Peace, Freedom Fields USA, Grapes for Humanity, Landmines Blow!, and Global Care Unlimited, have also generously provided funds to assist these mine survivors, and to demine mine-infested valuable land and infrastructure.

*John McCann, Warner Bros.*



A father and his daughter, both disabled by persistent anti-personnel landmines, were fitted with prosthetic limbs. Life for farmers and other rural dwellers in developing countries is hard, and it is made even more so by landmines, other explosive remnants of war, and by SA/LW wielded by criminals and terrorists. Survivors fortunate enough to receive medical treatment and a prosthetic often struggle to obtain proper post-operative physical rehabilitation, counseling (ideally by peers), vocational

training, and replacements for worn or outgrown prosthetics. The LWVF has programs addressing all these challenges in Cambodia and in other war-torn countries.



Laos suffered extensively from its own civil war and from the spillover of two wars in neighboring Vietnam, one of which was the U.S. air campaign from 1964 to 1973 when the U.S. dropped nearly two million tons of ordnance on North Vietnamese troops transiting through or sheltering in Laos. Due to heavy tropical foliage and soggy terrain, up to 30 percent of these munitions failed to explode, leaving two-thirds of the country littered with unexploded ordnance (UXO). Ground combat during its civil war and the Vietnam War also resulted in the laying of minefields along the country's eastern border.

The United States is the single largest donor to the landmine and UXO clearance program in Laos, having contributed nearly \$25,000,000 since FY95. In FY04, the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) contributed \$1,912,000 in assistance to Laos, including \$724,632 to Norwegian People's Aid, and \$475,403 to Mines Advisory Group (MAG) for UXO and mine clearance in the highly-affected provinces of Saravane, Sekong, and Attapeu. PM/WRA also supplied a \$211,965 grant to the Vietnam Veterans of America Foundation to develop a national mine and UXO accident database. In addition, the U.S. Agency for International Development's Leahy War Victims Fund, along with its implementing partner, The Consortium (World Education and World Learning), granted \$400,000 for medical training and staff, primary education, and school-based UXO risk awareness. In FY05, the United States provided \$3,200,000 more in humanitarian mine action aid. Among other accomplishments, this funding helped restore the Lao demining program's staff to full strength.

In 2004, publication of the National Poverty Eradication Plan (NPEP) was the



**A team of female Mines Advisory Group (MAG) technicians in the process of carefully clearing an unexploded aerial bomb. MAG is one of the organizations that carries out UXO and landmine clearance in Laos for the U.S. Department of State.**

©Sean Sutton/MAG/magclearsmines.org

significant impetus to address the needs of the highest-priority districts. The 2004 Work Plan for the Lao National UXO program (UXO Lao) called for the organization to work in 24 districts that the NPEP identified as very poor, and in 11 districts that the NPEP identified as poor. In the coming years, the major focus of UXO Lao's efforts will be to reclaim farming and grazing land from UXO and mines in these 35 districts. Laos has set a goal of achieving mine impact-free status by 2013. The significant mine action aid that the United States provides may enable the country to become safe from the humanitarian impact of mines and UXO by then.

## SRI LANKA



Nearly two decades of civil war came to a tentative end in February 2002 with a cease-fire agreement between the Government of Sri Lanka and the Liberation Tigers of Tamil Eelam. The cease-fire allowed substantial humanitarian mine action (HMA) operations to begin throughout the areas affected by landmines and unexploded ordnance (UXO). From 1995 to 2001, 3,909 casualties from landmines and UXO were reported in Sri Lanka, or approximately 568 victims per year, on average. In 2003, reported casualties dropped to 102, thanks in large part to mine action assistance from the United States and other donor nations, the UN, non-governmental organizations, and the diligent efforts of Sri Lankan deminers.

Shortly after the ceasefire, the U.S. Department of State deployed its Quick Reaction Demining Force, based in Mozambique (see page 6), to help demine land in order to resettle internally displaced persons and reinforce peace.

In FY04, the United States provided \$2,700,000 in HMA support to Sri Lanka. The Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) awarded a U.S. firm, RONCO Consulting Corporation, a \$1,775,000 contract for national capacity building in mine action. RONCO trained a Sri Lankan Army (SLA) cadre consisting of 280 deminers, 35 medics, 42 senior non-commissioned officers, and 40 commissioned officers. In an innovative public-private partnership between PM/WRA and the Marshall Legacy Institute (MLI), in

close coordination with the SLA, six mine detecting dogs (MDDs), paid for by MLI with funds raised from U.S. citizens and corporations, and their SLA handlers were trained and deployed to Jaffna by June 2004. The successful integration of MDDs into SLA operations resulted in another six MDDs being donated through MLI in 2005. The U.S. Agency for International Development's (USAID) Leahy War Victims Fund, with non-government partner Motivation, implemented a program to enhance opportunities for landmine survivors. In FY04 and FY05, USAID provided over \$1 million in funding towards these efforts. During that time period, nearly 2,000 rehabilitation devices were provided including prostheses, orthoses and wheelchairs. The U.S. Centers for Disease Control and Prevention in collaboration with the World Health Organization continued to fund a post-conflict injury surveillance program. In addition, the U.S. Department of Defense Blast Resuscitation and Victim Analysis Team trained medical staff in the treatment of civilian casualties of mines and UXO. In FY05, PM/WRA allocated \$2,700,000 more for mine action assistance. Of this amount, \$1,220,000 funded the training of three additional demining squadrons, \$1,130,000 was used to purchase equipment

and vehicles, and \$275,000 was used to integrate an additional six mine detecting dogs into the SLA's mine action program.

The U.S. Department of Defense Humanitarian Research and Development Program has provided the SLA with a "MAXX +" mechanical mine action system. The \$250,000 "MAXX +" system is a modified commercial remote-controlled mine excavator capable of performing numerous mechanical tasks of vegetation cutting and soil removal and sifting, significantly increasing the productivity of deminers.

Although lacking a formal and comprehensive national mine impact survey, the Government of Sri Lanka has developed effective priorities for HMA projects and, with cooperation from the UN, has established coordinating bodies at the national and district level. Both the National Steering Committee for Mine Action and the various District Steering Committees have inclusive memberships, drawing upon government officials, non-governmental operators, ethnic minority representatives, and UN technical specialists. The Government of Sri Lanka intends to clear all high-priority areas by 2008.



**A real U.S. Department of State Public-Private Partnership in action! Senior Sri Lankan Army engineer officers and principals from the Sri Lanka Association of Greater Washington, the Sri Lanka-U.S. Business Forum, Marshall Legacy Institute (MLI), Chubb Corporation, the office of Senator Chuck Hagel (R-Nebraska), and a mine detecting dog trainer from RONCO Consulting Corporation, inaugurate the Sri Lankan Army mine detecting dog kennels on the Jaffna Peninsula. PM/WRA funded the kennels, and MLI provided the mine detecting dogs through generous funding from concerned American citizens, non-governmental organizations, and corporations.**

*Deborah Netland, Office of Weapons Removal and Abatement.*



**During a program assessment visit, a PM/WRA team interviewed these ethnic Tamil farmers who were disabled by persistent anti-personnel landmines. The farmer on the left had been blinded, and the other two had suffered multiple limb loss. The farmer on the right also had eye injuries. Although they were fortunate to have received medical treatment and prosthetics, the magnitude of their injuries is such that they are no longer able to farm and provide for their families. They also required new, properly fitted prosthetics. Their plight is a reminder that the needs of landmine survivors must continue to be addressed even after the mines have been cleared.**

*John Stevens, Office of Weapons Removal and Abatement.*



As a result of conflicts between 1945 and 1991, Vietnam has an estimated 350,000 to 800,000 tons of unexploded ordnance (UXO) and persistent landmines that affect all of its provinces to various degrees. A preliminary study in 2003 by Vietnam's Technology Center for Bomb and Mine Disposal (BOMICEN), estimated that, because of the presence of UXO, nearly 4,359 square kilometers of cultivated land is now fallow.

In FY04, the United States contributed \$4,114,000 for humanitarian mine action (HMA) assistance in Vietnam, and in FY05 contributed another \$4,000,000 for HMA. The Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) provided demining equipment to BOMICEN's 100 demining teams, each consisting of 20 to 25 personnel. BOMICEN is primarily engaged in socio-economic development throughout Vietnam, with demining efforts focused on reclamation of roads and other infrastructure components. PM/WRA supported, and continues to support, HMA operations in Quang Binh, Quang Tri, and Ha Tinh Provinces in central Vietnam. PM/WRA granted Mines Advisory Group (MAG) \$499,158 to maintain two mine action teams in Quang Binh, and another \$638,000 for teams in Quang Tri. PM/WRA also granted \$150,000 to the Vietnam Veterans Memorial Fund's (VVMF) Project Renew for a mine risk education program in Quang Tri, and \$272,405 to the Vietnam Veterans of America Foundation (VVAF) to complete the first phase of a Landmine Impact Survey (LIS) covering Quang Binh, Quang Tri, and Ha Tinh Provinces in central Vietnam. The results of the VVAF survey will be critical in designing the Government's national HMA Strategy.


Beginning with modest funding for humanitarian programs for war victims in 1999, the U.S. Agency for International Development (USAID) and its Leahy War Victims Fund (LWVF) have supported an increasingly sophisticated and appropriate response to the needs of Vietnam's population living with disabilities. This work offers a prime example of how small, initial investments can lead to the evolution of a comprehensive national strategy for the rehabilitation of citizens with disabilities and their inclusion in a country's societal and economic transformation. Today, that response incorporates government ministries and departments, donor agencies, international and local non-governmental organizations (NGOs), community-based groups, and professional organizations. This collective response has led to passage of two remarkable national laws regarding disabilities and barrier-free access. Perhaps most significantly, societal and physical barriers in Vietnam are slowly being overcome, and people with disabilities are increasingly contributing to national life and the economy. In FY 2004 and 2005, USAID provided over \$2 million towards these efforts. The LWVF also maintains a regional training center for orthopedic technicians. The U.S. Centers for Disease Control and Prevention has collaborated with the UN Children's Fund to expand injury surveillance and prevention programs at schools and community levels. In FY05, the United States allocated \$2,850,000 in HMA aid. Of this amount, MAG received \$1,046,000 to support its Community-based Explosive Remnants of Wars program in Central Vietnam.



**An expert Mines Advisory Group (MAG) explosive ordnance disposal (EOD) technician teaches Vietnamese EOD trainees how to safely defuse and prepare an unexploded bomb for controlled destruction. The United States assists Vietnam and other countries in Southeast Asia to clear unexploded bombs, landmines, and other explosive remnants of war that originated from all combatants.**

*Sean Sutton, Mines Advisory Group (MAG).*

U.S. assistance, modern equipment for BOMICEN's deminers, and the increasing presence in Vietnam of non-governmental demining organizations, will contribute significantly to reducing the risk from mines and UXO. The LIS, for example, will allow BOMICEN, U.S.-sponsored demining groups, and international donors to identify and focus on those areas that have been most affected by the remnants of war. With continued effort by all parties, it may be possible for Vietnam to become free from the humanitarian impact of landmines and UXO ("mine impact-free") by 2014 or soon thereafter.



ALBANIA  
ARMENIA  
AZERBAIJAN  
BOSNIA AND HERZEGOVINA  
CROATIA  
GEORGIA  
KAZAKHSTAN  
SERBIA AND MONTENEGRO



# EUROPE

## ALBANIA

### EUROPE



Although landmines have been used in Albania since World War I, the most problematic mines and unexploded ordnance (UXO) became a factor during the civil unrest of 1997 and in the Kosovo crisis of 1999. Albanian districts bordering Kosovo and Montenegro are highly affected by the presence of minefields and UXO. Preliminary data from a formal Landmine Impact Survey (LIS) completed in 2003 indicated that up to 17 square kilometers of productive land were infested by mines and UXO.

**“THE ALBANIAN MINE ACTION EXECUTIVE (AMAE) HAS MADE SIGNIFICANT PROGRESS IN THE LAST FEW YEARS TO BUILD A NATIONAL HMA CAPABILITY.”**

Thanks to the efforts of the United States and other donors, the level of infestation has been reduced to an estimated 3 square kilometers. This problem remains compounded by the existence of some 200,000 tons of aging, abandoned ordnance at former military storage depots.

The United States provides humanitarian mine action (HMA) assistance to Albania primarily through the International Trust Fund (ITF) for Demining and Mine Victims Assistance located in Slovenia. In FY04, the Office of Weapons

Removal and Abatement in the U.S. Department of State’s Bureau of Political-Military Affairs (PM/WRA) provided \$1,750,000 to Albania through the ITF. In FY05, the United States provided another \$1.07 million to support continuing mine action programs there. Funding for HMA capacity-building supported the technical operations staff, some of whom were trained by the U.S. European Command, and the integration of up to 20 mine detecting dogs (MDDs) into mine clearance teams. U.S. contributions to the ITF also supported HMA activities of non-governmental organizations, such as Danish Church Aid for mine clearance efforts in northeast Albania, and the Kukes Mine and Weapons Victims Association for mine risk education and survivors assistance. The U.S. Agency for International Development’s Leahy War Victims Fund granted \$387,950 for a three-year project implemented by the Albanian Disability Rights Foundation to improve mobility and access to 108,000 people who are wheelchair-bound, and to train 240 specialists in the treatment and care for wheelchair users and their families.

With increased operational capacity that includes 61 manual deminers, 20 MDDs, 14 UXO operators, and eight paramedics, the Albanian Mine Action Executive (AMAE) has made significant progress in the last few years to build a national HMA capability. AMAE is using the 2003 LIS to develop a more comprehensive national HMA plan so that demining may continue with greater efficiency in reclaiming the land most impacted by mines and UXO. AMAE calculates that Albania will be free from the humanitarian impact of landmines (“mine impact-free”) by 2014.

## ARMENIA

### EUROPE



In FY05, the U.S. European Command provided \$100,000 worth of equipment to the Armenian Humanitarian Demining Center.

## AZERBAIJAN

### EUROPE



The 1988-1994 conflict with Armenia, and the presence of dilapidated former Soviet bases, left Azerbaijan with a landmine, unexploded ordnance (UXO), and abandoned ordnance problem. The Survey Action Center’s Landmine Impact Survey reported in

2003 that 643 communities, mostly in the west near major battlefields, were affected by landmines and/or UXO. The Azerbaijan Agency for National Mine Action (ANAMA) stated that since the first year of war, landmines alone had caused 1,400 casualties, including more than 300 fatalities.

In FY04, the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) contributed \$2,772,190 for mine action to Azerbaijan. In FY05, PM/WRA provided another \$3,500,000. Of these funds, \$2,468,000 was used to continue to develop ANAMA's organization and operational capabilities. ANAMA currently has 61 manual deminers, 16 mine detecting dog (MDD) teams, 14 UXO disposal operators, and eight paramedics.

U.S. assistance helped improve ANAMA's operational explosive ordnance disposal (EOD) capabilities, resulting in twice as much land being cleared in 2003 as was cleared in 2002. With funding from the European Commission, the Governments of Azerbaijan and Italy, and the UN Development Program, ANAMA was able to procure a Bozena-4 flail, and U.S. technical and financial support began integrating mechanical clearance systems into ANAMA's demining teams. In addition, based on the recommendations of the U.S. European Command (USEUCOM), PM/WRA supported inclusion of mine risk education (MRE) into school curricula and began community-based MRE in 2003. USEUCOM continued additional MRE and EOD training in 2004, including an MRE 'Train-the-Trainer' course at the Khanlar Regional



**This freshly planted wheat field on Azerbaijan's verdant plains was once infested with landmines. Thanks to the U.S. Humanitarian Mine Action Program, it is productive again.**

*Hayden Roberts, Office of Weapons Removal and Abatement.*

HMA facility constructed with support from the U.S. Department of Defense and U.S. Department of State. In FY05, the United States provided another \$3,500,000 in mine action aid. Of this amount, \$275,000 went towards training additional MDDs and \$250,000 toward the integration of mechanical demining systems. USEUCOM HMA efforts in FY05 and FY06 continue to focus on developing ANAMA's EOD capacity and technical survey capability. Training 35 new UXO specialists with USEUCOM training support in 2005-2006 is giving ANAMA a dedicated capability to address the NATO Partnership for Peace-funded Explosive Remnant of War (ERW) clearance project at Saloglu. This \$1.3 million project received a \$300,000 U.S. contribution as



**ANAMA deminers return from another productive day of demining. With U.S. Humanitarian Mine Action Program assistance, ANAMA was established and it has subsequently matured into a highly effective organization, a model worthy of emulation.**

*Hayden Roberts, Office of Weapons Removal and Abatement.*

well as USEUCOM training support. USEUCOM and the National Geospatial-Intelligence Agency combined to provide ANAMA technical training and \$137,000 worth of equipment to improve accuracy during the survey process. Additionally, over \$200,000 worth of commercial satellite imagery of mine-affected areas will assist in prioritizing future demining efforts. Furthermore, the U.S. Department of Defense (DoD) Humanitarian Demining Research and Development program has contributed the Rhino Earth tilling system to the ANAMA mechanical clearance program for a 16-month operational field evaluation. The Rhino Earth tilling system, training, and support represent a \$2.3 million investment in terms of equipment, logistics, and operating costs and will augment ANAMA's existing mechanical capability. Also, DoD recently provided a remote controlled EODBOT to assist UXO specialists working at Saloglu to remove dangerous ERW without endangering human lives. This equipment will undergo a one-year operational field evaluation in Azerbaijan. In FY05, PM/WRA contributed \$400,000 to a \$1.3 million NATO Partnership-for-Peace Trust Fund project led by Turkey to clean up hazardous UXO around the former military base at Sologlu and the nearby towns of Agstafa and Poylu. This multilateral effort will allow civilians to reclaim the area for productive use.

Substantial U.S. government aid since late 2001 has added stability to ANAMA's HMA program, enhanced overall donor confidence, and improved the Agency's operational and management capabilities. Direct benefits to national reconstruction include clearance of water pipe and power line routes in the Fizuli District, enabling resettlement of at least 200 internally displaced families. EOD work in Agjabedi allowed 400 people to farm the land again safely. In conclusion, ANAMA has a detailed plan for eliminating the humanitarian impact of landmines and UXO from accessible regions of the country by 2008.



## BOSNIA AND HERZEGOVINA

### EUROPE



Bosnia and Herzegovina has a substantial landmine and unexploded ordnance (UXO) problem, the result of 1992–1995 intrastate ethnic strife. The Bosnia and Herzegovina Mine Action Center (BHMAC) has recorded more than 18,000 minefields, and believes that 670,000 landmines and 650,000 UXO items contaminate more than 2,000 square kilometers of land. A 2002–2003 Landmine Impact Survey (LIS) conducted by Handicap International France and funded by the United States, Canada, and the European Commission, revealed that 1,366 of 2,935 municipalities were affected by minefields and UXO to some degree; 154 municipalities were classified as “high impact,” meaning daily life and reconstruction were significantly restricted by landmines. Refugees from the village of Saobračajni Fakultet in Vogosca Municipality, for example, were unable to return to their homes, because landmines not only impeded repatriation, but also prevented workers from entering the fields to farm or to repair power lines to restore electricity to the area. From November to December 2003, the village was demined with U.S. and local community funding, allowing refugees to return safely for the first time since the war.

The United States has supported humanitarian mine action (HMA) in Bosnia and Herzegovina since FY96. U.S. funding for HMA in the Balkans, including Bosnia and Herzegovina, shifted to the Slovenia-based International Trust Fund (ITF) for Demining and Mine Victims Assistance since the end of 1998. In FY04, the Office of Weapons Removal and Abatement in the U.S. Department of State’s Bureau of Political-Military Affairs (PM/WRA) allocated over \$3.4 million to Bosnia and Herzegovina through the ITF and \$500,000 was provided by the U.S. Centers for Disease Control and Prevention (CDC). The United States invested



**At the edge of a town, Bosnian deminers carefully check lanes in a forested area near a slope littered with debris.**

*Office of Weapons Removal and Abatement.*

\$3.83 million more in FY05, including \$3,000,000 from the ITF, and \$500,000 from the CDC. The ITF finances various non-governmental organizations (NGOs) engaging in HMA activities, and Bosnian government efforts under the direction of BHMAC. Some NGO projects funded by PM/WRA through the ITF include the Landmine Survivors Network’s survivors assistance and peer advocacy programs, Spirit of Soccer’s mine risk education, and diverse mine clearance operations identified and prioritized by BHMAC. CDC contributions were applied to social reintegration of landmine survivors.

The Government of Bosnia and Herzegovina initiated funding for BHMAC in 2004, paying \$240,000 for overhead and maintenance. This demonstrated the Bosnian government’s commitment to HMA and reinforced donor confidence. The United States and private and public donors have sustained the Bosnian HMA program, which is scheduled to enable the country to be free from the humanitarian impact of landmines (“mine impact-free”) by 2010. Significant progress has been made towards this end, with the LIS enhancing BHMAC’s ability to develop very effective mine action plans. In addition, the Mine Detection Dog Center for South East Europe (see page 46), established in cooperation with the Government of Bosnia and Herzegovina with PM/WRA funding, is now self-sustainable and can train new mine detecting dogs for deployment throughout the region.

## CROATIA

### EUROPE



Croatia has a serious landmine and unexploded ordnance (UXO) problem stemming from its 1991–1995 war with the former Yugoslavia. The Croatian Mine Action Center (CROMAC), Croatia’s central mine action coordinating agency, originally estimated that minefields covered approximately 1,355 square kilometers of land in 14 of Croatia’s 21 counties. Thanks to the efforts of the United States and other donors, as well as the Government of Croatia’s own considerable contributions, mine contamination was reduced to 1,174 square kilometers in 2005.

Since late 1998, the U.S. Department of State has contributed to humanitarian mine action in the Balkans region, including Croatia, through the International Trust Fund (ITF) for Demining and Mine Victims Assistance based in Slovenia. In FY04, the Office of Weapons Removal and Abatement in the U.S. Department of State’s Bureau of Political-Military Affairs (PM/WRA) allocated \$2 million

in ITF funds to Croatia to support mine action. In FY05, PM/WRA contributed \$2.3 million more. Examples of clearance operations are reclamation of 180,500 square meters of farmland around Donje Komarevo, and 34,530 square meters of land surrounding an elementary school in Gorice in the Municipality of Dragalic’.

In 2004, CROMAC completed an assessment of landmines and UXO. The report’s findings will update the Center’s database of information on minefields provided by the former parties to the 1991–1995 conflict. The new data will be incorporated into Croatia’s developing national mine action strategy, which previously aimed for “mine free” status (cleared of every landmine) by 2010. In 2004, with U.S. support, national and private donors (such as Adopt-A-Minefield and Roots of Peace), and the contributions of many non-governmental organizations, commercial operators, and Croatian civilian and military deminers, the Government of Croatia declares Bilogorska as mine impact-free, the first of Croatia’s 14 mine-affected counties to achieve this status.



A July 2004 Advanced Survey Mission conducted by the Survey Action Center and funded by the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military

Affairs (PM/WRA) determined that the vast majority of landmines and unexploded ordnance (UXO) in Georgia are in Abkhazia, a region affected by separatist activities since the 1992–1993 civil conflict. Substantial minefields also exist along portions of Georgia's borders and in the Pankisi Gorge, a valley to the north of Tbilisi. Former Soviet military installations are also contaminated by mines, UXO and abandoned ordnance (AO). The absence of a formal resolution to the Abkhaz conflict impedes humanitarian mine action (HMA) activities, while mines, UXO and AO hinder national reconstruction and development efforts.

In FY04, PM/WRA and the U.S. Department of Defense provided \$1,504,000 in HMA funding to address the landmine and UXO problem in Abkhazia. The HALO Trust received \$1,500,000 from PM/WRA to support four additional manual clearance teams (for a total of nine teams), a minefield marking/survey team, an explosive ordnance disposal team, a mine risk education team, and the maintenance of six armored tractors. The HALO Trust continues demining operations in Abkhazia and has undertaken the task of clearing high-priority areas. The U.S. military, in coordination with The HALO Trust, is currently completing field evaluations of SETCO "hard" tires that are used



This SETCO hard tire, used by The HALO Trust in Georgia, Sri Lanka, and other mine-affected countries, has a unique series of openings that help these tires withstand repeated blasts from anti-personnel landmines before they must be replaced. These tough tires are among the many devices that the U.S. Department of Defense's Humanitarian Demining Research and Development Program has either modified from commercial use or prototyped and then offered for no-cost field testing.

*The HALO Trust.*

with mechanical clearance equipment. In FY05, the United States provided \$3,000,000 to The HALO Trust to conduct further mine action in Georgia. The funds enabled HALO's operational capacity to increase from nine to 30 manual demining teams in addition to supporting nine mechanical clearance units.

Since 1997, PM/WRA support for demining, executed by The HALO Trust, has gone far to reopen roads to local commerce and to restore access to lands



Persistent landmines, booby traps, and improvised explosive devices from past conflicts can also be a problem in urban areas, often rendering valuable infrastructure unusable. For example, portions of the Babushara Airport in Georgia were infested with landmines and had to be cleared by The HALO Trust under a PM/WRA grant.

*The HALO Trust.*



**A mobile crushing machine crushes and processes earth contaminated with landmines and then deposits clean soil at the end of the conveyer belt. In the background, an armored tractor travels to a nearby location to scoop more topsoil and have it similarly processed. The HALO Trust operates both pieces of equipment in Georgia.**

*The HALO Trust.*

for farming and grazing. From 2001 to July 2004, The HALO Trust cleared a total of 6,892,235 square meters of land in high-impact areas and offered mine risk education materials to more than 46,000 people. Due in part to comprehensive HMA efforts by The HALO Trust and other organizations, casualties from mine accidents in Abkhazia decreased from an estimated 50 to 60 in 1994 to five in 2003. The U.S. Department of Defense Humanitarian Research and Development Program provided HALO Trust with \$40,000 for



**The HALO Trust uses an armored vehicle with a heavy roller attachment to perform "area reduction" in Georgia. A PMN-2 anti-personnel landmine, visible in the foreground, was destroyed less than a minute after this photo was taken.**

*The HALO Trust.*

the field evaluations of SETCO "hard" tires, used for mechanical clearance equipment. Abkhazia is projected to become free from the humanitarian impact of landmines and UXO ("impact free") in 2007.

KAZAKHSTAN



Kazakhstan inherited a large stockpile of small arms and light weapons (SA/LW) from the Soviet military with the collapse of the Soviet Union. Kazakhstan found that its arsenals were filled with weapons that would never be used for a war that would not be fought. In 2005, the government of Kazakhstan determined several thousand

SA/LW to be in excess of its defense needs and requested assistance, through the NATO Partnership-for-Peace Trust Fund, for destruction of more than 26,000 weapons, from AK-47s to shoulder-fired missiles. The United States agreed to take on lead-nation responsibility and provided \$295,000 in FY05 funds. As of this printing, NATO has accomplished a feasibility study, and the Netherlands has agreed to become a donor nation.



Serbia and Montenegro are affected by unexploded ordnance (UXO) and landmines, which also contaminate key waterways, mostly as a result of the 1991-1995 civil war following the breakup of Yugoslavia. The presence of these deadly remnants of war has markedly hindered the post-conflict reconstruction efforts of Serbia and Montenegro and international agencies, while small arms and light weapons (SA/LW) accumulated during the war may now pose a threat to public safety.

In FY04, the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) contributed \$1,021,000 in humanitarian mine action to Serbia and Montenegro through the Slovenian International Trust Fund (ITF) for Demining and Mine Victims Assistance. This funding focused mainly on UXO clearance operations in Belgrade and on the Montenegrin coast. The Regional Center for Underwater Demining (RCUD) (see page 47) in Bijela, Herceg Novi, Montenegro, plays a critical role in reducing the UXO threat to commercial fishing, tourism, and maritime commerce. The State Department has also provided \$1,792,000 since FY01 in assistance to help Serbia and Montenegro reduce excess SA/LW stockpiles remaining from the conflict. In FY05, PM/WRA provided \$1,000,000 more to continue the implementation of these programs.

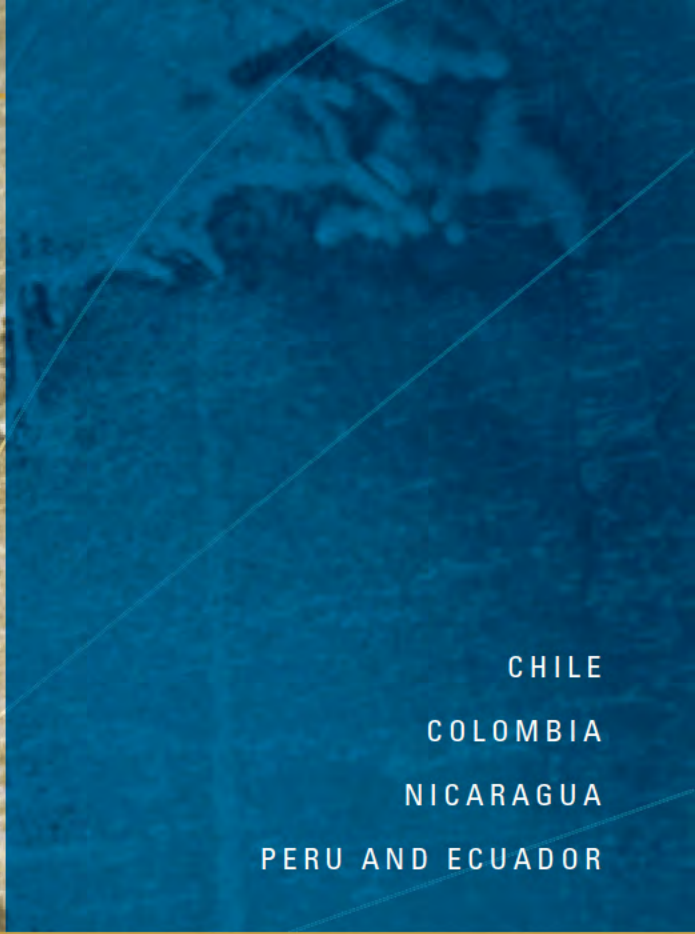
Neither the Mine Action Center for Serbia and Montenegro (SMAC) nor the RCUD has conducted a general survey or a formal Landmine Impact Survey, but they envision removing most UXO and landmines from the country by 2014. The recent establishment of SMAC and a draft multi-year mine action plan should lead to increased synchronization, management, and oversight of clearance



**This sea (anti-ship) mine from a past conflict, discovered off the coast of Montenegro by special divers from the RCUD, is carefully brought to the surface for safe disposal. Humanitarian mine action normally focuses on persistent landmines and other explosive remnants of war found on land. However, sea mines and UXO, such as bombs that remain in rivers, lakes and littoral zones, also pose a threat to commercial shipping, fishing, yachting, and recreational use, and must be removed and rendered safe or destroyed as well.**

*Regional Center for Underwater Demining.*

operations. The RCUD has rapidly developed into not only an underwater demining training center for Serbia and Montenegro, but also a source of expertise and training for the entire Balkans region. It is estimated that mine action efforts will be completed in Montenegro by 2010 and in Serbia by 2014.



CHILE  
COLOMBIA  
NICARAGUA  
PERU AND ECUADOR



# LATIN AMERICA

## CHILE

### L A T I N A M E R I C A



Chile's military government planted over 300 minefields in the 1970s and 1980s with more than 125,000 anti-personnel and a similar number of anti-vehicle mines along its borders with Argentina, Bolivia and Peru. A democratic Chilean government requested U.S. demining assistance in 2001.

Chile was admitted to the U.S. Department of Defense's Humanitarian Demining Program in December 2003. The U.S. Southern Command conducted the first humanitarian mine action training mission in Chile in May-June 2005, using U.S. Army Special Forces and Civil Affairs personnel augmented by medical specialists. They conducted training in basic humanitarian

demining tasks, high-altitude medicine (presented by senior U.S. Air Force and U.S. Army medical officers) and medical evacuation topics, and mine action management (including the Integrated Management System for Mine Action).

Approximately \$735,000 in Overseas Humanitarian, Disaster and Civic Aid funds were expended on the mission, including about \$200,000 for equipment (demining and medical) and infrastructure upgrades to the Chilean demining classroom, which were left behind.

## COLOMBIA

### L A T I N A M E R I C A



Colombia suffers one of the highest annual number of mine casualties in the world, and is the only country in Latin America where mines are still being emplaced (by illegal armed groups, not by the Colombian government). The Colombian government is beginning the process of conducting humanitarian demining operations of 32 minefields located around military installations.

In conjunction with the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs, personnel

from the U.S. Southern Command conducted a Program Assessment Visit (PAV) to Colombia in April 2005. Subsequently, the inter-agency Policy Coordinating Committee Subcommittee on Humanitarian Mine Action (HMA) agreed to admit Colombia into the U.S. HMA program. A small quantity of Overseas Humanitarian, Disaster and Civic Aid funds was expended to support the DoD personnel who participated in the PAV. A follow-up visit to precisely determine Colombia's HMA requirements is scheduled for this year.

## NICARAGUA

### L A T I N A M E R I C A



Twelve years of conflict between the Nicaraguan Government and rebel forces following the 1979 downfall of the Somoza regime saw the extensive use of landmines by both sides. In addition, post-conflict demobilization left a surplus of small arms and light weapons, including man-portable air-defense systems (MANPADS), in the country. After more than a decade of substantial humanitarian mine action (HMA) efforts, the landmine threat to the Nicaraguan people has been significantly reduced. Unfortunately, civilians continued to discover some mined areas in 2004, and the Government has dedicated a demining platoon to respond to these discoveries.

Nicaragua receives mine action assistance from the United States through the Organization of American States (OAS)/Inter-American Defense Board. U.S. HMA aid in FY04 amounted to \$1,536,000 to train, equip, and maintain demining teams, including mine detecting dogs, in the Northern Atlantic Autonomous Region of Nicaragua. In FY05, the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) also provided a \$227,850 mine survivors assistance grant to the OAS for medical assistance and vocational training. Future PM/WRA funding for survivors assistance is a possibility. In FY05, the United States allocated \$1,776,000 towards HMA in Central America.

Of this amount, \$1,274,000 funded a 100-man demining unit and a survivors assistance and rehabilitation program in Nicaragua.

Due to the high risk of unsecured stocks of MANPADS leading to possible theft and future use by terrorists against civil aviation, PM/WRA provided more than \$300,000 to the Government of Nicaragua in a bilateral partnership program to destroy or better secure these systems.

U.S. financial and technical assistance has helped to improve public safety and health in post-conflict Nicaragua, and the Nicaraguan HMA program is becoming one of the best in the Western Hemisphere. The U.S. plans to end mine action assistance to Nicaragua in 2006, when the country is expected to become free from the humanitarian impact of landmines ("mine impact-free"), although landmine survivors assistance may continue through the U.S. Agency for International Development's Leahy War Victims Fund, in partnership with the Pan-American Health Organization.



The Polus Center for Social and Economic Development, a Massachusetts-based non-profit organization that participates in the PM/WRA-managed Public-Private Partnership Program, provides physical access, technology, health care, and community services to landmine survivors and others with disabilities, so that they may lead normal, productive lives. Here, the Polus Center's Walking Unidos prosthetic outreach program and clinic is opened in Managua. It is based on the successful Polus Center Walking Unidos center that has operated in Leon, Nicaragua since 1997. The Polus Center offers an array of services for the disabled in Honduras as well.

*Polus Center for Social and Economic Development.*



The emergence in 1980 of two terrorist organizations, the Shining Path and the Tupac Amaru Revolutionary

Movement, led to more than a decade of internal conflict in which landmines were placed throughout Peru. The landmine problem worsened when border disputes between Peru and Ecuador escalated into a brief war in 1995, during which time the 79-kilometer frontier between the two countries was mined. The region's steep, difficult terrain, combined with frequent flooding, pose significant challenges to deminers on both sides.

The Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) provides humanitarian mine action (HMA) assistance to both Peru and Ecuador through the Organization of American States (OAS)/Inter-American Defense Board (IADB). In FY04, Peru received \$500,000 in assistance from PM/WRA to help continue its demining operations along the border with Ecuador, provide refresher training, replace equipment, and maintain two units of engineer technicians. The Peruvian Army duly completed impact surveys of the most heavily populated areas, and successfully cleared the departments of Tumbes and Piura. Ecuador was also given \$500,000 for impact surveys and demining operations, resulting in complete recovery of the coastal provinces of El Oro and Loja. In 2005, PM/WRA contributed \$263,985 more to support humanitarian demining in Ecuador.

As demining teams begin working through less populated but more heavily-mined and forested terrain, mine clearance is expected to proceed at a slower pace.

In 2004, Ecuador began planning for humanitarian demining operations in the difficult terrain of the Cordillera del Condor, on their southeastern border with Peru. This area presented major challenges in terms of logistics, soil type, and terrain. Working with the OAS and IADB missions to Ecuador (funded in great part by PM/WRA), the U.S. Southern Command (USSOUTHCOM) HMA program planned, coordinated and conducted the first regularly-scheduled conventional force HMA training mission, using Army engineers from the Puerto Rico Army National Guard as the principal forces, augmented by U.S. Army Reserve Civil Affairs personnel. The training mission focused on basic humanitarian demining skills and included the introduction of new mine detectors selected to compensate for the high metallic content of the soil in the area. Considerable emphasis was placed on reviewing operational procedures, medical support to the deminers, and quality of life improvements at the remote border outpost that still serves as their working base camp.

Approximately \$507,000 in Overseas Humanitarian, Disaster and Civic Aid (OHDACA) funds were expended on the mission, including \$150,000 for equipment (including mine detectors and customized deminers' tool bags)



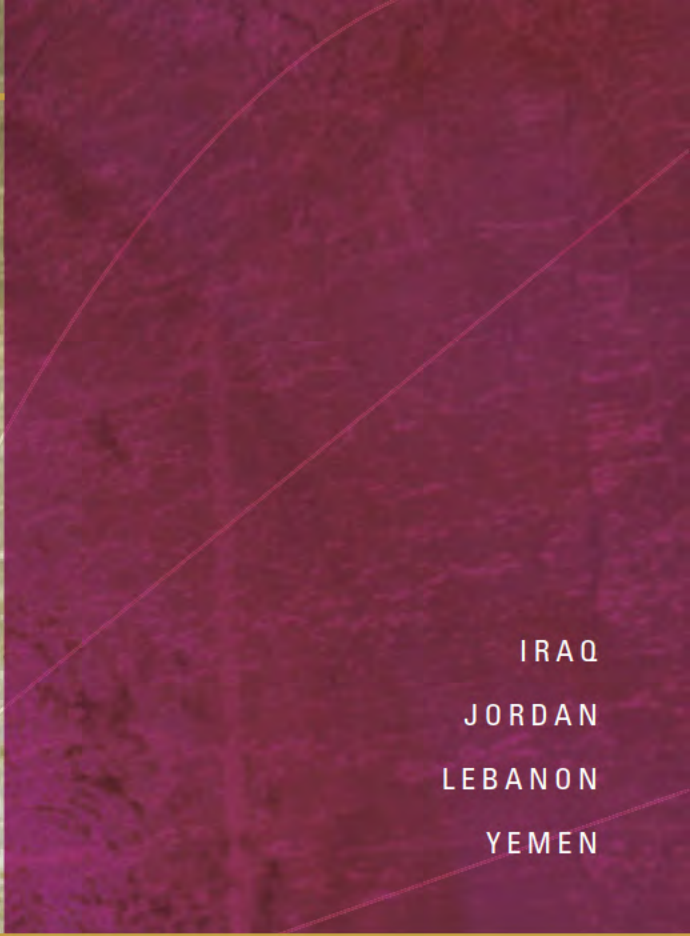
**The terrain along the border between Ecuador and Peru presents a formidable challenge for deminers. It is an area that is tough to clear and poses impediments to equipping and resupplying these personnel, and medically evacuating anyone injured by a landmine.**

*Ed Trimakas, Office of Weapons Removal and Abatement.*

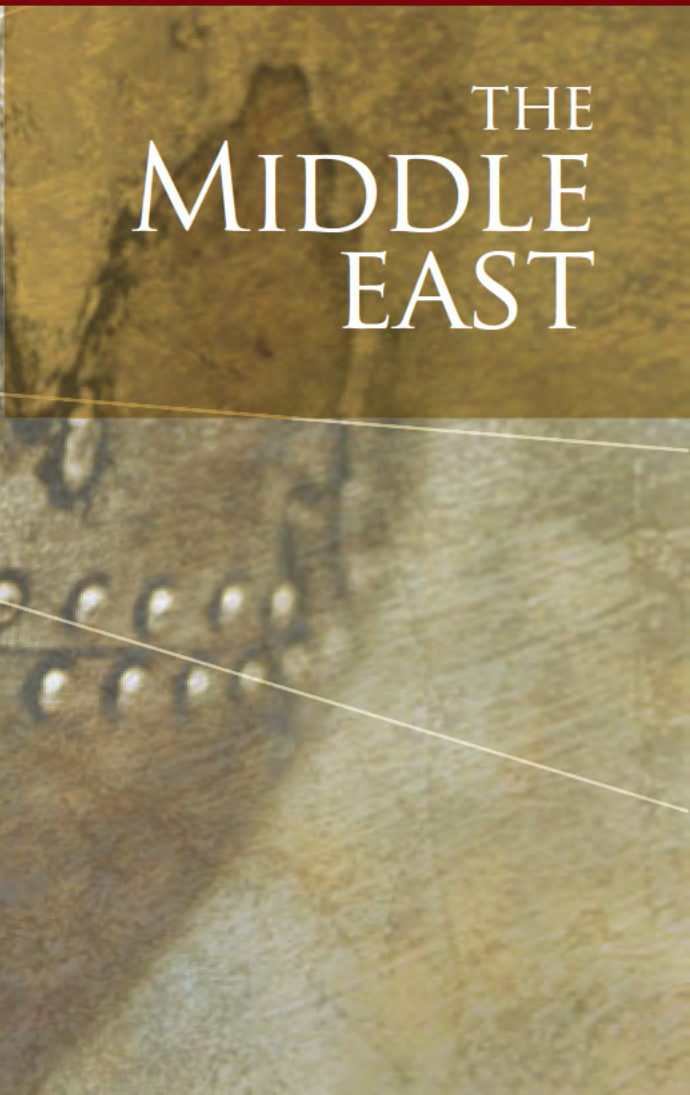
and infrastructure upgrades (renovation and equipping of four classrooms, including generator power plants) that were left behind at the conclusion of USSOUTHCOM's efforts there.

PM/WRA mine action support to Peru and Ecuador ended in FY04 and FY05, respectively, in accordance with the 2001 OAS Agreement that established the mine action programs in these countries, although other U.S. HMA programs such as survivors assistance may continue. Both Peru and Ecuador plan to become free from the humanitarian impact of landmines ("mine impact-free") by 2010.





IRAQ  
JORDAN  
LEBANON  
YEMEN



# THE MIDDLE EAST



World War II and three decades of conflict have left Iraq with a significant landmine, unexploded ordnance (UXO), and abandoned ordnance (AO) problem.

Following the initial military phase of Operation Iraqi Freedom, the U.S. Department of State's Quick Reaction Demining Force (QRDF), RONCO Consulting Corporation (a U.S. contractor), and a number of non-governmental organizations (NGOs), such as Mines Advisory Group (MAG), Norwegian People's Aid, and others rapidly began clearing landmines and UXO throughout Iraq.



**This is just part of the collection of some of the types of UXO littering Iraq that has been rendered safe. These assorted munitions are on display in the PM/WRA compound. RONCO Consulting Corporation, one of PM/WRA's prime contractors, carries out the Office's program activities in Iraq.**

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In FY04, the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) allocated \$61,164,852 to Iraq in humanitarian mine action (HMA) assistance: \$44 million funded RONCO explosive ordnance disposal (EOD) operations supporting the former Coalition Provision Authority, and \$10,769,380 went to Mines Advisory Group (MAG) for mine clearance in northern and southern Iraq. In addition, PM/WRA granted \$3,064,627 for a joint project by the Vietnam Veterans of America Foundation and MAG to undertake a mine impact survey and assess the effects of landmines on the lives of the Iraqi people. In order to enhance an indigenous demining capability, another grant of \$345,812 went to Cranfield University (U.K.) to provide mid-level management training for Iraqi Explosive Ordnance Disposal (EOD) officers. Finally, PM/WRA provided 47 technical advisors to the newly established Iraq National Mine Action Agency and the Iraq Mine/UXO Clearance Organization (IMCO), a local demining, non-governmental organization (NGO) that has cleared mines and UXO around Baghdad, Najaf, and Basra. In FY05, the United States allocated



**Richard Kidd, Director, PM/WRA, inspects mine detecting dog kennels operated by IMCO, the first Iraqi non-governmental mine action organization in that country's history. IMCO was established with PM/WRA funding and continues to receive significant U.S. support, training, and equipment.**

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another \$2,840,000 to fund continuing programs in HMA. To date, the U.S. Department of Defense has supplemented PM/WRA funding with more than \$1.6 million for EOD training of Iraqi National Guard personnel.

The aforementioned projects followed similar, previous U.S. efforts to help Iraq overcome its legacy of landmines, UXO and AO. The QRDF cleared land surrounding downed power lines, enabling Iraqi crews to repair the electrical grid and restore power to more than three million Iraqis living in Baghdad. These urgent reconstruction projects were paired with longer-term capacity-building programs that trained Iraqi EOD teams with a full complement of demining equipment and mine detecting dogs; established the first National Mine Action Authority and Regional Mine Action Centers in Iraq's history; and helped establish IMCO, Iraq's first mine action NGO. Iraqi capacity was further enhanced with the complete transfer of UN mine action assets in northern Iraq to Iraqi control in November 2003. The Government of Iraq faces further challenges in dealing with mines and UXO, particularly with insurgent use of improvised explosive devices against its own forces and civilians, and Coalition personnel. The U.S. remains committed to provide the requisite assistance to eliminate the humanitarian impact of landmines and UXO on the lives of the people of Iraq.



According to Jordanian Armed Forces (JAF) engineers, nearly 310,000 landmines, most dating from the Arab-Israeli war of 1967, were emplaced in an area of 100 square kilometers.

Although the landmine problem is not as extensive in Jordan as it is in some other countries in the Middle East, the landmine threat has been exacerbated by 30 years of erosion, shifting sands, and other environmental factors. After creating a national demining program on its own initiative in 1993, Jordan cleared and destroyed more than 99,800 landmines and reclaimed nearly 12.4 square kilometers of arable land. JAF engineers have focused much of their energy and attention on the fertile Jordan River valley so that farmers can safely return to their fields.

In FY04, Jordan received \$1,350,000 from the United States, including \$950,000 from the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) for the purchase of demining equipment provided by RONCO Consulting Corporation, a PM/WRA U.S. contractor, and \$400,000 from the U.S. Centers for Disease



**In the formative period of Jordan's mine action program, a Jordanian Armed Forces deminer receives "hands-on" training from a U.S. soldier who has undergone special training to teach others this exacting discipline. The Jordanian Army has since developed extensive mine action expertise, and has cleared a significant quantity of valuable agricultural land that can now be safely and productively farmed again.**

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**This minefield in Jordan illustrates some of the difficulties in conducting mine clearance. Brush and other natural growth must first be laboriously and safely cleared before deminers can use their metal detectors and probes.**

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Control and Prevention for mine survivors assistance, such as the peer support activities of the Landmine Survivors Network (LSN). LSN, a non-governmental organization co-sponsored by Queen Noor, is a PM/WRA Public-Private Partner in mine action. The U.S. believes that Jordan can achieve the goal of becoming free from the humanitarian impact of landmines ("mine impact-free") by 2010. Given Jordan's proven effectiveness and its rate of progress in mine action, the U.S. completed its mine action capacity building aid there at the end of 2005.



The threat of improvised explosive devices, as well as persistent landmines and unexploded ordnance (UXO), has left Lebanon with an unusually diverse and complex problem. Moreover, dangerous areas continue to be discovered and tasked for clearance, as demining progresses throughout the country. In FY04, the U.S. Department of State, U.S. Department of Defense, and the U.S. Agency for International Development's Leahy War Victims Fund (USAID/LWVF) provided a total of \$2,816,000 for humanitarian mine action (HMA) in Lebanon.

In addition to purchasing equipment and spare parts for mechanized demining, the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) supported the Lebanese Armed Forces (LAF) in clearing 161,810 square meters of land and restoring access to roads, water, power lines, and farms. Furthermore, PM/WRA gave a \$61,300 grant to the Vietnam Veterans of America Foundation to assist Lebanon's National Demining Office in establishing a planning and prioritization process for its humanitarian mine action program. In FY05, the United States funded \$2,300,000 more in mine action aid. Of this amount, \$700,000 went towards the purchase of vehicles for the Lebanese program. In addition, \$800,000 was allocated to conduct a technical survey of the entire country and properly mark minefields.

The U.S. Department of Defense's U.S. European Command (USEUCOM) also contributed to HMA in Lebanon by deploying U.S. Army personnel to train and equip 50 LAF manual deminers. The U.S. provided the demining unit with personal protective equipment, mine detectors, and communications gear. Furthermore, U.S. Navy Explosive Ordnance Technicians trained nearly 60 LAF UXO disposal specialists, while the U.S. Army 4<sup>th</sup> Psychological Operations Group trained 300 Lebanese public school teachers in mine risk education. The U.S. Central Command (USCENTCOM) assumed the Lebanon HMA mission in March 2005; U.S. Navy SCUBA trainers and EOD technicians established a \$520,000 program for the LAF, training 23 personnel in basic SCUBA, advanced dive medicine, dive supervisor, and underwater UXO disposal during the summer and fall. The underwater UXO program included the purchase of \$300,000 worth of new basic SCUBA equipment which was procured for the LAF trainers.

Finally, with USAID support, the World Rehabilitation Fund (WRF) manages the "Expanding Economic Opportunities for Survivors of Landmines in the District of Jizzine in South Lebanon" program, designed to foster economic inclusion of war-affected individuals. Through this initiative, landmine survivors engage in income-generating activities such as egg production, bee keeping, honey processing, and other competitive agricultural enterprises. Beneficiaries are involved as stakeholders in a legal resource cooperative that provides employment opportunities and management, marketing, and product processing services. In FY05, USAID provided the WRF with \$830,000 in additional assistance.

The Lebanese government has further developed its HMA strategy, and has successfully obtained international assistance from more than 20 donors,



**A Lebanese Armed Forces dog handler and his mine detecting dog (MDD) prepare to enter a live minefield. Provision of MDDs, training of handlers, and furnishing the requisite support to ensure that the dogs are healthy and well cared for, have been a part of the United States' multi-faceted humanitarian mine action assistance to Lebanon throughout the years.**

*Office of Weapons Removal and Abatement.*

in addition to UN agencies and non-governmental organizations. With sustained U.S. and international support, it is estimated that Lebanon will soon have its own independent demining capability.



**The United States provided this ARMTRAC 100 armored tractor with a flail attachment to the Lebanese Armed Forces to clear persistent landmines in areas where the type of mine threat and the terrain are ideally suited for mechanical clearance. The logo of the U.S. Humanitarian Mine Action Program is visible on the tractor's cab.**

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Armed factions in Yemen's three civil wars between 1962 and 1994 mined large tracts of borderland and city outskirts. Landmines and unexploded ordnance (UXO) have caused more than 5,000 casualties in the past decade and have significantly impacted the country's agricultural industry, the primary source of income for more than half the population. UXO could be a double threat, if terrorists recover and reuse them.

In FY04, Yemen received approximately \$773,000 from the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) to purchase demining equipment, \$550,000 of which was used to purchase locally-manufactured equipment. PM/WRA is also supporting the country's humanitarian demining efforts by procuring equipment and vehicles for eight companies of Yemeni deminers. In addition, PM/WRA and the U.S. Navy have planned the renovation of a regional mine action branch office in Mukallah. As demining teams move east



Yemeni deminers practice rendering first aid and preparing a comrade for medical evacuation in order to be able to effectively respond to real accidents that may occur during actual demining operations. First aid training, quick medical evacuation to a surgical facility, and the provision of medical equipment and supplies are integral components of all full-service U.S. Humanitarian Mine Action programs. Naturally, strict adherence to proper demining procedures minimizes the chances that deminers will be killed or injured on the job.

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along the coastline and farther from Aden, the Mukallah branch office will be able to keep the deminers continuously equipped and supplied. In FY05, PM/WRA provided \$750,000 to purchase additional equipment and supplies for Yemen's mine action program. U.S. Central Command's Yemen HMA program is managed by U.S. Navy personnel. In FY05 U.S. Navy medics provided mine survivor assistance medical upgrade training to 20 members of Yemen's 8<sup>th</sup> Demining Company.

The Yemeni mine action program has been enormously successful since its inception in 2001, removing more than 182,000 UXO and landmines, and reclaiming more than two million square meters of land. Yemen's National Mine Action Center has cleared all the communities considered "high impact," and one-third of the medium-impact areas, having removed landmines that significantly altered daily activities. Given the Yemeni program's clear and realistic vision, which was enabled by a landmark national Landmine Impact Survey supported in part by the United States, the U.S. believes that the country may become free from the humanitarian impact of landmines ("mine impact-free") by 2009.



Assorted artillery shells, mortar shells, and other remnants of war are readied for demolition at a Yemeni demining site. Humanitarian demining often entails clearing more than just persistent landmines. Deminers must also deal with other war detritus that may be encountered on former battlefields, such as unexploded hand grenades, aerial bombs that failed to detonate, and even large rockets.

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OFFICE OF WEAPONS  
REMOVAL AND ABATEMENT


HUMANITARIAN DEMINING  
TRAINING CENTER

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VISION & ELECTRONIC  
SENSORS DIRECTORATE

MINE ACTION  
INFORMATION CENTER

MINE DETECTION DOG  
CENTER FOR SOUTH  
EAST EUROPE

TO WALK THE EARTH IN SAFETY



REGIONAL CENTER FOR  
UNDERWATER DEMINING

PAST RECIPIENTS OF U.S.  
HUMANITARIAN MINE  
ACTION ASSISTANCE

U.S. HUMANITARIAN  
MINE ACTION PROGRAM  
FUNDING HISTORY



Bureau of Political-Military Affairs  
U.S. Department of State

The Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs (PM/WRA) creates local, regional and international conditions conducive to peace, stability, and prosperity by curbing the illicit proliferation of conventional weapons of war such as light automatic weapons and rocket-propelled grenades, and by clearing other weapons of war, such as persistent landmines

and abandoned stocks of munitions that remain after armed conflict has ended. PM/WRA also works to limit the proliferation of and better secure man-portable air-defense systems (MANPADS).

PM/WRA develops, implements, and monitors policy, programs, and public engagement efforts that contribute to the prevention and mitigation of conflict, as well as to post-conflict social and economic recovery. The goals are to curb the illicit trafficking, availability and indiscriminate use of conventional weapons of war that fuel regional and internal instability; pursue and help manage post-conflict cleanup of such weapons in areas needed for civilian use; and engage civil society through Public-Private Partnerships and other forms of outreach to broaden support for these efforts and enhance U.S. influence.

Conventional weapons and munitions addressed by PM/WRA include, but are not limited to, landmines, unexploded ordnance, abandoned ordnance, MANPADS, and other small arms and light weapons. By addressing acute humanitarian needs, this office also demonstrates the United States commitment to a set of values that respects human life. PM/WRA works closely with other U.S. Government agencies, non-governmental organizations, international organizations, and private enterprises.

## **U.S. Department of State**

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# HUMANITARIAN DEMINING TRAINING CENTER



The U.S. Department of Defense's Humanitarian Demining Training Center (HDTC) is the U.S. Government focal point for humanitarian mine action training. The Center, located at Fort Leonard Wood, Missouri, provides training and subject-matter expertise for the U.S. Humanitarian Mine Action (HMA) Program. The HDTC's primary mission is to train U.S. military personnel in accordance with International Mine Action Standards in order to assist mine-affected countries in establishing and building a self-sustained, indigenous HMA capacity. Training covers both HMA and explosive ordnance disposal, with special emphasis on mine clearance, mine risk education, management of mine action, and the U.N.-approved Information Management System for Mine Action (IMSMA).

The HDTC has extensive training areas, a vast collection of inert landmines, mine detectors, personal protective equipment, and educational displays. The facility maintains a fully-equipped, state-of-the-art computer classroom for in-depth IMSMA instruction using software populated with geographic information and infrastructure data from the local Fort Leonard Wood area, including simulated hazard areas. Real-time application allows students to conduct realistic, practical landmine surveys and input this information into the IMSMA system. The HDTC conducts field exercises on the installation using built-up and rural areas that emphasize lesson-specific instruction. Surveys are conducted using simulated landmine-hazard areas in housing blocks, on school grounds, and around other nearby infrastructures. The Center also conducts extensive hands-on training with on-site demining training lanes, metal-free detector lanes, mine and UXO identification lanes, a full-scale mine clearance demonstration area, and a functioning Regional Mine Action Center that directly supports mine action situational training exercises.

Since its inception in 1996, the HDTC has trained more than 1,500 U.S. Special Operations Forces personnel who have deployed to 33 mine-affected countries in support of U.S. HMA program goals. The HDTC also trains thousands of other U.S. military, civilian, and non-governmental organization personnel in mine risk education and mine awareness.



**Jim Lawrence, Deputy Director, PM/WRA, prepares to search for an inert landmine during an orientation in one of the training lanes at the HDTC.**

*John Stevens, Office of Weapons Removal and Abatement.*

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The U.S. Army Night Vision & Electronic Sensors Directorate (NVESD) executes the Humanitarian Demining Research and Development (HD R&D) Program with funding and oversight from the U.S. Department of Defense. The Program develops, tests, demonstrates, and validates technologies that increase the efficiency and enhance the overall safety of humanitarian demining operations. This is accomplished through the adaptation of commercial, off-the-shelf equipment, the application of mature technologies, and leveraging current technology developments from the U.S. Army's Countermine mission area. The Program's primary goal is to field as many prototype technologies as possible for the demining community's use in combating the global landmine problem.

Every year, the HD R&D Program invites representatives from international mine action centers and non-governmental organizations to its requirements workshop. Based on the needs identified, and on ensuing in-country site assessments, decisions are made regarding the next year's R&D efforts, followed by design and development of the required prototype technologies. All prototype technologies undergo extensive testing to ensure that design requirements are met, and that the equipment is ready for immediate use.

The real test of a system is an operational field evaluation in a host nation where the equipment undergoes testing in minefields or mined areas. The evaluation allows host-country personnel to operate the equipment and determine if the prototype is useful, suitable, cost-effective, and efficient. This process is extremely beneficial to all participants. Of prime importance, the host nation has the potential to increase the safety of deminers, and to improve the efficiency of demining operations by using and evaluating the prototype equipment. Simultaneously, the Directorate acquires invaluable feedback, experience, and knowledge, enabling it to be a more productive technology R&D entity.



**Sean Burke, Program Manager for the NVESD's Humanitarian Demining Program, demonstrates a state-of-the-art detector to humanitarian deminers from around the world during a day-long field demonstration of demining technology at Fort A.P. Hill, Virginia. The NVESD hosts an annual requirements workshop for all interested foreign government and non-governmental organization deminers. One of the high points of the workshop is the field day when NVESD technologies being adapted or prototyped are displayed in action.**

*John Stevens, Office of Weapons Removal and Abatement.*

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The Mine Action Information Center (MAIC) on the campus of James Madison University is a public policy center that acts as a clearinghouse for information relevant to humanitarian mine action. Established as a center of excellence in 1996, the MAIC has been a major player in international efforts to ameliorate the effects of persistent landmines.

The MAIC supports many clients, including the U.S. Department of State, the United Nations, the governments of Canada and Switzerland, and regional organizations, such as the International Trust Fund for Demining and Mine Victims Assistance in Slovenia, and the Organization of American States. It manages information topics that span the diverse functions of mine action, such as current mine action news; key organization contact information; studies and surveys; databases (such as IMAS); technological advances; conference events; partnering and employment opportunities; and geographic information system software. These measures are often accomplished through the outreach of the MAIC's *Journal of Mine Action* published twice each year, the MAIC website and MAIC-hosted seminars, workshops and conferences.

The MAIC conducts the UN Development Program Senior Mine Action Manager's Course, and other related mine action management courses. Additionally, MAIC has planned and conducted mine risk education training in Vietnam.



To help build national mine action capacity, the MAIC offers advanced management training courses to senior mine action officials from around the world. The United Nations Development Program funds these courses, with additional support from PM/WRA. Foreign officials from 17 countries attended the Fall 2004 MAIC Senior Manager's Course. Some, seen here in the left-hand photo, are enjoying an ice cream break on the campus.

*Mine Action Information Center.*

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# MINE DETECTION DOG CENTER FOR SOUTH EAST EUROPE



The Mine Detection Dog Center (MDDC) for South East Europe was officially opened on October 14, 2003. The Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs funds the MDDC through the International Trust Fund for Demining and Mine Victims Assistance. The Center, located in Bosnia and Herzegovina, is recognized by the South East Europe Mine Action Coordination Council.

The Center's principal goal is to develop a local capacity to train the next generation of mine detecting dogs (MDDs) in South East Europe. The first accomplishments in this process were the successful training of two local mine detecting dog trainers and the first six of 12 MDDs and their handlers. The first set of six MDD teams completed training in August 2004, and the MDDC commenced training the second set of six MDDs shortly thereafter. When training of these MDD teams is completed, the MDDC will commence training MDDs for local non-governmental organizations.

The MDDC, in coordination with the Bosnia and Herzegovina Mine Action Center, United Nations Children's Fund (UNICEF), the Marshall Legacy Institute (MLI), and other partners, developed "Project Brenda," a mine risk education (MRE) program that combines an MDD team demonstration with MRE lectures to warn children in Bosnia and Herzegovina about the dangers of landmines. The MDDC also organizes workshops for MDD users in Bosnia and Herzegovina in an effort to improve standards and operational procedures, as well as exchange experience, knowledge, and expertise. Additionally, the MDDC is developing seminars for mine dog evaluators, trainers and handlers, and quality-control inspectors.



The MDDC also uses its expertise to teach MRE to children (ages 7–13), so that they will understand signs of danger if they approach a minefield or a former battlefield, and know how to avoid risky behavior, should they encounter potentially dangerous objects. Here, a group of Boy Scouts from Bosnia and Herzegovina, and friends from Italy, gather around "Brenda," a veteran MDD during an MDDC-sponsored MRE session. Now retired, Brenda works with MLI to inspire American school children to support MLI's efforts to provide more mine detecting dogs for the Balkans and for other mine-affected areas of the world. Although she is a trained working dog, Brenda is gentle and inspires great interest and support—including in-flight announcements from pilots—as she travels around the United States.

*MDDC for South East Europe.*

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The Regional Center for Divers Training in Underwater EOD, also known as the Regional Center for Underwater Demining (RCUD), is located in Bijela, Herceg Novi, in Montenegro. Established on September 24, 2002, it is the first such center in south east Europe to clear and train others to clear landmines, sea mines, and unexploded ordnance in the coastal zone of the Adriatic Sea and in the rivers and other bodies of

water in the region affected by the explosive remnants of war from several conflicts dating from as early as World War I.

The RCUD's priorities are to train divers for underwater demining, protect explorers and other professional and recreational divers from being harmed, conduct specialized research, and coordinate their efforts with other demining organizations in the region.

The RCUD receives support from Montenegro, the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political-Military Affairs, the European Union, the International Trust Fund for Demining and Mine Victims Assistance, and the South East Europe Mine Action Coordination Council.



**This represents a very small portion of the RCUD's haul of UXO found in shallow waters and even farther out to sea that will eventually be safely destroyed. The RCUD also collects unexploded aerial bombs, artillery shells, and other UXO from rivers and lakes in the region.**

*Regional Center for Underwater Demining.*

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**Two RCUD divers prepare to clear an anti-ship underwater mine discovered off the coast of Montenegro. Sea mines left from past conflicts in littoral zones pose a threat to shipping, commercial fishermen, yachters, and recreational divers.**

*Regional Center for Underwater Demining.*

## PAST RECIPIENTS OF U.S. HUMANITARIAN MINE ACTION ASSISTANCE

The U.S. Humanitarian Mine Action Program has provided all manner of mine action assistance—mine clearance; mine risk education; mine survivors assistance; training of national program managers and deminers; training of medical personnel to render aid to injured deminers; personal protective equipment; robust 4x4 vehicles, specialized tractors and mine-resistant demining machines; mine detecting dogs; metal detectors; ambulances for injured deminers and others harmed in a mine incident; aerial medevac capability; and much more—to a greater number of mine-affected countries around the world than those profiled in this edition of *To Walk the Earth in Safety*.

The United States has provided humanitarian mine action assistance to nearly 50 countries since the inter-agency program's formal inception in 1993. The following 24 countries and 1 province have received U.S. mine action assistance in the recent past. U.S. mine action assistance normally ceases when the country is able to achieve an adequate indigenous mine action capacity at the conclusion of a specific program, or when the country is rendered free from the humanitarian impact of landmines and unexploded ordnance ("mine impact-free"). Countries and regions in green denote that they are now "mine impact-free."

### PREVIOUS RECIPIENTS OF U.S. MINE ACTION ASSISTANCE

Argentina	Armenia	Costa Rica	Djibouti
Egypt	El Salvador	Estonia	Ethiopia
Guatemala	Guinea-Bissau	Honduras*	Kosovo*
Macedonia	Mauritania	Moldova	Namibia
Nigeria	Oman	Peru	Rwanda
Somalia	Swaziland	Thailand	Zambia
Zimbabwe			

**NOTE:** Although Suriname was never in the U.S. Humanitarian Mine Action Program, in 2005 the United States Southern Command (USSOUTHCOM) airlifted a platoon of Honduran deminers there where, under an OAS program, they cleared landmines from Suriname's last known minefield that year. USSOUTHCOM then flew them home.

\*Although rendered free from the humanitarian impact of landmines and UXO ("mine impact-free"), episodic U.S. mine action assistance has continued or may continue in order to help sustain indigenous capacity to deal with those remaining landmines or UXO that are discovered from time to time. This recognizes the fact that no country that has been affected by persistent landmines and other explosive remnants of war during a conflict can ever be guaranteed to be 100% "mine free."

# U.S. HUMANITARIAN MINE ACTION PROGRAM FUNDING HISTORY

FISCAL YEARS 1993 - 2006 (Dollars in Thousands)

Country	Sources	1993 - 1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006 (Est.)	Total (Est.)
Afghanistan	DOS NADR	-	-	1,000	2,200	2,615	3,000	2,800	4,000	5,300	12,519	13,700	13,500	60,634
	DoD OHDACA	-	-	-	-	-	-	-	1,800	-	-	0	-	1,800
	USAID Leahy	-	-	-	-	-	-	-	1,000	-	1,000	700	-	2,700
	ERF (State)	-	-	-	-	-	-	-	3,000	3,000	-	-	-	6,000
	DoD ARCENT	-	-	-	-	-	-	-	2,464	-	-	-	-	2,464
	DOS FMF	2,000	1,000	-	-	-	-	-	-	-	-	-	-	3,000
	DOS PRM	4,000	1,000	2,000	-	-	-	-	-	-	-	-	-	7,000
	DOS IO	1,000	-	-	-	-	-	-	-	-	-	-	-	1,000
	USAID	5,200	-	-	-	-	-	-	-	-	13,925	28,875	-	48,000
	CDC	-	-	-	-	-	-	-	600	700	400	-	-	1,700
<b>Country Total</b>		<b>12,200</b>	<b>2,000</b>	<b>3,000</b>	<b>2,200</b>	<b>2,615</b>	<b>3,000</b>	<b>2,800</b>	<b>12,864</b>	<b>22,925</b>	<b>42,794</b>	<b>14,400</b>	<b>13,500</b>	<b>134,298</b>
Albania	DOS NADR-ITF	-	-	-	-	-	-	684	326	1,417	1,750	1,000	-	5,177
	USAID Leahy	-	-	-	-	-	-	-	-	-	340	-	-	340
	SEED	-	-	-	-	-	1,049	-	-	-	-	-	-	1,049
	<b>Country Total</b>						<b>1,049</b>	<b>684</b>	<b>326</b>	<b>1,417</b>	<b>2,090</b>	<b>1,000</b>		<b>6,566</b>
Angola	DOS NADR	-	-	1,000	2,400	-	3,096	2,844	2,800	3,500	5,300	6,172	5,876	32,988
	DoD OHDACA	3,900	-	100	-	-	-	-	-	-	-	-	84	4,084
	USAID Leahy	-	2,500	768	732	-	-	1,000	900	-	800	651	-	7,351
	DOS FMF	1,170	2,000	-	-	-	-	-	-	-	-	-	-	3,170
	<b>Country Total</b>	<b>5,070</b>	<b>4,500</b>	<b>1,868</b>	<b>3,132</b>		<b>3,096</b>	<b>3,844</b>	<b>3,700</b>	<b>3,500</b>	<b>6,100</b>	<b>6,823</b>	<b>5,960</b>	<b>47,593</b>
Argentina	DoD OHDACA	-	-	-	-	-	-	-	550	-	-	-	200	750
	<b>Country Total</b>								<b>550</b>					<b>750</b>
Armenia	DOS NADR	-	-	-	-	-	300	850	1,200	250	-	-	-	2,600
	DoD OHDACA	-	-	-	-	-	1,110	-	1,441	-	67	-	-	2,618
	USAID Leahy	1,148	-	-	-	-	-	-	-	-	-	-	-	1,148
	DOS FSA	-	-	-	-	-	-	-	1,800	-	1,200	-	-	3,000
	<b>Country Total</b>	<b>1,148</b>					<b>1,410</b>	<b>850</b>	<b>4,441</b>	<b>250</b>	<b>1,267</b>			<b>9,366</b>
Azerbaijan	DOS NADR	-	-	-	-	-	500	1,100	1,380	1,600	2,468	3,500	2,800	13,348
	DoD OHDACA	-	-	-	-	140	1,110	-	1,690	1,600	304	483	-	5,327
	DOS FSA	-	-	-	-	-	-	-	1,100	-	-	-	-	1,100
	<b>Country Total</b>					<b>140</b>	<b>1,610</b>	<b>1,100</b>	<b>4,170</b>	<b>3,200</b>	<b>2,772</b>	<b>3,983</b>	<b>2,800</b>	<b>19,775</b>
Bosnia	DOS NADR	-	-	-	300	2,305	-	-	-	-	-	-	-	2,605
	DoD OHDACA	-	1,238	375	2,100	-	-	-	-	-	-	-	-	3,713
	ITF	-	-	-	-	6,175	5,500	5,161	5,150	2,960	3,000	3,373	-	31,319
	DoD HAP/EP	-	550	-	-	-	-	-	-	-	-	-	-	550
	DOS PKO	-	1,000	-	-	-	-	-	-	-	-	-	-	1,000
	SEED	-	8,500	5,000	7,000	-	-	-	-	-	-	-	-	20,500
	CDC	-	-	-	-	-	-	300	500	500	500	500	-	2,300
<b>Country Total</b>		<b>11,288</b>	<b>5,375</b>	<b>9,400</b>	<b>8,480</b>	<b>5,500</b>	<b>5,461</b>	<b>5,650</b>	<b>3,460</b>	<b>3,500</b>	<b>3,873</b>		<b>61,987</b>	
Cambodia	DOS NADR	-	-	1,000	2,000	1,500	2,580	2,468	2,290	2,765	3,466	3,920	4,900	26,889
	DoD OHDACA	1,985	420	1,584	-	-	90	207	319	158	300	180	-	5,243
	USAID Leahy	777	-	-	750	1,300	390	1,904	1,600	1,187	865	2,825	-	11,598
	DOS FMF	2,050	1,000	-	-	-	-	-	-	-	-	-	-	3,050
	DOS PKO	-	250	-	-	-	-	-	-	-	-	-	-	250
	DOS PRM	1,643	-	-	-	-	-	-	-	-	-	-	-	1,643
	<b>Country Total</b>	<b>6,455</b>	<b>1,670</b>	<b>2,584</b>	<b>2,750</b>	<b>2,800</b>	<b>3,060</b>	<b>4,579</b>	<b>4,209</b>	<b>4,110</b>	<b>4,631</b>	<b>6,925</b>	<b>4,900</b>	<b>48,673</b>
Chad	DOS NADR	-	-	-	400	732	622	300	350	500	950	1,000	2,200	7,054
	DoD OHDACA	-	-	-	1,500	1,000	17	-	-	161	256	169	-	3,103
	<b>Country Total</b>				<b>1,900</b>	<b>1,732</b>	<b>639</b>	<b>300</b>	<b>350</b>	<b>661</b>	<b>1,206</b>	<b>1,169</b>	<b>2,200</b>	<b>10,157</b>

# U.S. HUMANITARIAN MINE ACTION PROGRAM FUNDING HISTORY

FISCAL YEARS 1993 - 2006 (Dollars in Thousands)

Country	Sources	1993 - 1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006 (Est.)	Total (Est.)
Chile	DoD OHDACA	-	-	-	-	-	-	-	-	-	-	735	1,100	1,835
	Country Total	-	-	-	-	-	-	-	-	-	-	735	1,100	1,835
Colombia	DOS NADR	-	-	-	-	-	-	-	-	-	-	-	300	300
	DoD OHDACA	-	-	-	-	-	-	-	-	-	-	-	300	300
	Country Total	-	-	-	-	-	-	-	-	-	-	-	600	600
Croatia	DOS NADR	-	-	-	-	600	-	-	-	-	-	-	-	600
	ITF	-	-	-	-	-	2,975	2,658	4,570	1,779	1,500	2,300	-	15,782
	Country Total	-	-	-	-	600	2,975	2,658	4,570	1,779	1,500	2,300	-	16,382
Djibouti	DOS NADR	-	-	-	-	-	746	400	404	350	-	-	-	1,900
	DoD OHDACA	-	-	-	-	-	227	723	-	150	-	-	-	1,100
	Country Total	-	-	-	-	-	973	1,123	404	500	-	-	-	3,000
DR of Congo	USAID Leahy	-	-	-	-	-	-	-	800	-	-	-	-	800
	Country Total	-	-	-	-	-	-	-	800	-	-	-	-	800
Ecuador	DOS NADR	-	-	-	-	1,000	1,000	963	360	-	-	-	-	3,323
	DoD OHDACA	-	-	-	-	-	412	700	650	-	-	507	900	3,169
	Country Total	-	-	-	-	1,000	1,412	1,663	1,010	-	-	507	900	6,492
Egypt	DoD OHDACA	-	-	-	-	-	10	708	-	-	-	-	-	718
	Country Total	-	-	-	-	-	10	708	-	-	-	-	-	718
El Salvador	USAID Leahy	1,000	500	-	-	-	-	-	-	-	-	-	-	1,500
	CDC	-	-	-	-	-	150	300	300	450	450	400	-	2,050
	Country Total	1,000	500	-	-	-	150	300	300	450	450	400	-	3,550
Eritrea	DOS NADR	-	-	500	919	-	500	1,050	1,602	2,400	1,452	2,800	400	11,623
	DoD OHDACA	3,190	537	218	525	10	-	5	-	-	-	-	-	4,485
	DOS FMF	660	613	-	-	-	-	-	-	-	-	-	-	1,273
	DOS PKO	-	287	-	-	-	-	-	-	-	-	-	-	287
	CDC	-	-	-	-	-	150	150	150	-	-	-	-	450
	Country Total	3,850	1,437	718	1,444	10	650	1,205	1,752	2,400	1,452	2,800	400	18,118
Estonia	DOS NADR	-	-	-	-	335	300	-	200	235	-	-	-	1,070
	DoD OHDACA	-	-	-	-	-	698	853	-	-	-	-	19	1,570
	Country Total	-	-	-	-	335	998	853	200	235	-	-	19	2,640
Ethiopia	DOS NADR	-	-	500	1,220	-	250	-	1,275	300	-	-	-	3,545
	DoD OHDACA	2,532	537	290	610	10	-	5	-	-	-	-	-	3,984
	USAID Leahy	730	-	-	-	-	-	-	500	-	-	-	-	1,230
	DOS FMF	600	400	-	-	-	-	-	-	-	-	-	-	1,000
	DOS PKO	-	500	-	-	-	-	-	-	-	-	-	-	500
	CDC	-	-	-	-	-	200	350	350	400	400	400	-	2,100
Country Total	3,862	1,437	790	1,830	10	450	355	2,125	700	400	400	-	12,359	
Georgia	DOS NADR	-	-	-	39	-	27	1,000	1,100	1,050	1,500	3,000	1,838	9,554
	DoD OHDACA	-	-	-	-	-	1,110	-	-	-	4	-	-	1,114
	Country Total	-	-	-	39	-	1,137	1,000	1,100	1,050	1,504	3,000	1,838	10,668
Guinea Bissau	DOS NADR	-	-	-	-	-	99	489	-	225	-	-	-	813
	DoD OHDACA	-	-	-	-	-	-	-	-	-	-	-	2,420	2,420
	Country Total	-	-	-	-	-	99	489	-	225	-	-	2,420	3,233
Honduras	DoD OHDACA	-	-	-	-	-	-	-	-	-	-	-	200	200
	Country Total	-	-	-	-	-	-	-	-	-	-	-	200	200
Iraq	DOS NADR	-	-	-	-	-	-	-	-	2,950	-	2,840	-	5,790
	DOS IRRF	-	-	-	-	-	-	-	-	12,268	61,000	18,839	-	92,107
	CDC	-	-	-	-	-	-	-	-	350	-	-	-	350
	Country Total	-	-	-	-	-	-	-	-	15,568	61,000	21,679	-	98,247

# U.S. HUMANITARIAN MINE ACTION PROGRAM FUNDING HISTORY

FISCAL YEARS 1993 - 2006 (Dollars in Thousands)

Country	Sources	1993 - 1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006 (Est.)	Total (Est.)
Jordan	DOS NADR	-	-	400	500	1,900	1,511	947	850	893	950	-	-	7,951
	DoD OHDACA	-	-	-	-	859	1,555	4	-	-	-	-	90	2,508
	DOS FMF	-	300	-	-	-	-	-	-	-	-	-	-	300
	CDC	-	-	-	-	-	200	300	300	400	400	400	-	2,000
	<b>Country Total</b>	-	300	400	500	2,759	3,266	1,251	1,150	1,293	1,350	400	90	12,759
Kenya	USAID Leahy	-	-	-	-	-	-	-	400	-	-	-	-	400
	<b>Country Total</b>	-	-	-	-	-	-	-	400	-	-	-	-	400
Kosovo	DOS NADR	-	-	-	-	500	-	-	-	-	-	-	-	500
	DoD OHDACA	-	-	-	-	500	3,800	-	-	-	-	-	-	4,300
	ITF	-	-	-	-	-	899	1,945	1,681	-	-	-	-	4,525
	SEED	-	-	-	-	1,636	4,628	-	-	-	-	-	-	6,264
	USAID	-	2,307	1,816	2,378	2,537	1,062	1,108	-	-	-	-	-	11,207
	<b>Country Total</b>	-	2,307	1,816	2,378	5,173	10,388	3,053	1,681	-	-	-	-	26,796
Laos	DOS NADR	-	-	1,000	1,700	1,800	1,486	993	1,328	1,200	1,412	2,500	3,300	16,719
	DoD OHDACA	59	1,800	3,737	864	396	-	-	-	-	-	-	-	6,856
	USAID Leahy	750	-	800	1,000	1,800	-	-	500	500	500	700	-	6,550
	DOS FMF	-	500	-	-	-	-	-	-	-	-	-	-	500
	DOS PKO	-	250	-	-	-	-	-	-	-	-	-	-	250
	<b>Country Total</b>	809	2,550	5,537	3,564	3,996	1,486	993	1,828	1,700	1,912	3,200	3,300	30,875
Lebanon	DOS NADR	-	-	-	291	530	1,282	1,000	1,200	1,475	900	2,300	1,000	9,978
	DoD OHDACA	-	-	-	-	-	15	-	-	489	1,155	1,470	900	4,029
	USAID Leahy	-	-	-	300	500	-	600	-	600	700	500	-	3,200
	<b>Country Total</b>	-	-	-	591	1,030	1,297	1,600	1,200	2,564	2,755	4,270	1,900	17,207
Liberia	USAID Leahy	1,115	225	-	500	1,000	-	-	-	416	173	-	-	3,429
	<b>Country Total</b>	1,115	225	-	500	1,000	-	-	-	416	173	-	-	3,429
Macedonia	ITF	-	-	-	-	-	-	1,000	505	97	-	-	-	1,602
	<b>Country Total</b>	-	-	-	-	-	-	1,000	505	97	-	-	-	1,602
Mauritania	DOS NADR	-	-	-	-	534	461	400	-	-	-	-	-	1,395
	DoD OHDACA	-	-	-	-	450	1,123	1,123	661	595	-	-	-	3,952
	<b>Country Total</b>	-	-	-	-	984	1,584	1,523	661	595	-	-	-	5,347
Moldova	DOS NADR	-	-	-	-	-	-	-	-	-	-	-	-	-
	DoD OHDACA	-	-	-	-	71	-	-	-	-	-	-	-	71
	<b>Country Total</b>	-	-	-	-	71	-	-	-	-	-	-	-	71
Mozambique	DOS NADR	-	-	200	1,000	1,900	3,840	2,180	2,110	2,632	1,492	2,336	1,835	19,525
	DoD OHDACA	6,165	100	2,484	1,600	1,100	-	-	-	-	-	-	-	11,449
	USAID Leahy	2,900	-	633	1,000	-	-	-	-	-	-	-	-	4,533
	DOS FMF	400	200	-	-	-	-	-	-	-	-	-	-	600
	DOS PRM	1,000	-	-	-	-	-	-	-	-	-	-	-	1,000
	CDC	-	-	-	-	-	200	300	300	400	350	400	-	1,950
	<b>Country Total</b>	10,465	300	3,317	3,600	3,000	4,040	2,480	2,410	3,032	1,842	2,736	1,835	39,057
Namibia	DOS NADR	-	-	400	708	1,053	485	40	65	600	-	-	-	3,351
	DoD OHDACA	1,165	100	1,485	1,650	-	-	-	-	-	-	-	-	4,400
	DOS FMF	270	400	-	-	-	-	-	-	-	-	-	-	670
	<b>Country Total</b>	1,435	500	1,885	2,358	1,053	485	40	65	600	-	-	-	8,421
Nigeria	DOS NADR	-	-	-	-	-	-	-	1,449	-	-	-	-	1,449
	<b>Country Total</b>	-	-	-	-	-	-	-	1,449	-	-	-	-	1,449
OAS** (Honduras, Costa Rica, Guatemala & Nicaragua)	DOS NADR	-	-	500	1,400	2,242	1,903	1,350	1,695	1,511	2,611	1,776	1,740	16,728
	DoD OHDACA	310	200	1,480	1,720	600	460	1,170	550	200	-	-	-	6,690
	USAID Leahy	-	-	-	-	500	-	-	100	478	1,000	-	-	2,078
	DOS FMF	1,050	400	-	-	-	-	-	-	-	-	-	-	1,450
	USAID "MITCH"	-	-	-	-	-	2,000	-	-	-	-	-	-	2,000
<b>Country Total</b>	1,360	600	1,980	3,120	3,342	4,363	2,520	2,345	2,189	3,611	1,776	1,740	28,946	



# U.S. HUMANITARIAN MINE ACTION PROGRAM FUNDING HISTORY

FISCAL YEARS 1993 - 2006 (Dollars in Thousands)

Country	Sources	1993 - 1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006 (Est.)	Total (Est.)
Oman	DOS NADR	-	-	-	-	-	1,017	273	495	-	-	-	-	1,785
	DoD OHDACA	-	-	-	-	4	179	870	-	-	-	-	105	1,158
	Country Total	-	-	-	-	4	1,196	1,143	495	-	-	-	105	2,943
Peru	DOS NADR	-	-	-	-	1,000	1,000	861	225	-	-	-	-	3,086
	DoD OHDACA	-	-	-	-	-	411	750	650	422	-	-	-	2,233
	Country Total	-	-	-	-	1,000	1,411	1,611	875	422	-	-	-	5,319
Philippines	USAID Leahy	-	-	-	-	-	-	-	-	-	750	-	-	750
	Country Total	-	-	-	-	-	-	-	-	-	750	-	-	750
Rwanda	DOS NADR	-	-	500	625	750	285	400	350	375	-	-	-	3,285
	DoD OHDACA	4,580	100	1,610	1,500	-	-	-	-	-	-	-	-	7,790
	DOS FMF	300	400	-	-	-	-	-	-	-	-	-	-	700
	Country Total	4,880	500	2,110	2,125	750	285	400	350	375	-	-	-	11,775
Senegal	DOS NADR	-	-	-	-	-	-	-	-	-	112	-	400	512
	DoD OHDACA	-	-	-	-	-	-	-	-	-	-	-	18	18
	USAID Leahy	-	-	-	-	-	-	-	-	500	-	500	-	1,000
	Country Total	-	-	-	-	-	-	-	-	500	112	500	418	1,530
	DOS ITF	-	-	-	-	-	-	-	-	833	1,021	1,000	-	1,854
	Country Total	-	-	-	-	-	-	-	-	833	1,021	1,000	-	1,854
Sierra Leone	USAID Leahy	-	-	-	-	-	61	32	1,000	-	-	-	-	1,093
	Country Total	-	-	-	-	-	61	32	1,000	-	-	-	-	1,093
Somalia	DOS NADR	-	-	-	343	1,150	1,400	1,400	1,200	450	-	-	-	5,943
	Country Total	-	-	-	343	1,150	1,400	1,400	1,200	450	-	-	-	5,943
Sri Lanka	DOS NADR	-	-	-	-	-	-	-	-	2,400	1,775	2,700	2,800	9,675
	DoD OHDACA	-	-	-	183	-	-	-	40	24	-	-	-	247
	USAID Leahy	100	200	200	200	300	400	400	400	400	900	500	-	4,000
	ESF	-	-	-	-	-	-	-	122	-	-	-	-	122
	CDC	-	-	-	-	-	-	50	50	-	25	-	-	125
	Country Total	100	200	200	383	300	400	450	612	2,824	2,700	3,200	2,800	14,169
Sudan	DOS NADR	-	-	-	-	-	-	-	-	896	2,858	2,500	2,400	8,654
	Country Total	-	-	-	-	-	-	-	-	896	2,858	2,500	2,400	8,654
Swaziland	DOS NADR	-	-	-	210	-	-	-	-	-	-	-	-	210
	DoD OHDACA	-	-	-	-	828	8	-	-	-	-	-	-	836
	Country Total	-	-	-	210	828	8	-	-	-	-	-	-	1,046
Tajikistan	DoD OHDACA	-	-	-	-	-	-	-	-	-	7	-	100	107
	Country Total	-	-	-	-	-	-	-	-	-	7	-	100	107
Tanzania	USAID Leahy	-	-	300	-	-	-	300	600	-	-	-	-	1,200
	Country Total	-	-	300	-	-	-	300	600	-	-	-	-	1,200
Thailand	DOS NADR	-	-	-	-	1,050	1,220	1,270	650	-	-	-	-	4,190
	DoD OHDACA	-	-	-	77	1,773	932	229	68	-	-	8	-	3,079
	Country Total	-	-	-	77	2,823	2,152	1,499	718	-	-	8	-	7,277
Tunisia	DoD OHDACA	-	-	-	-	-	-	-	-	-	-	-	1,247	1,247
	Country Total	-	-	-	-	-	-	-	-	-	-	-	1,247	1,247
Uganda	USAID Leahy	1,000	-	-	-	-	-	-	-	-	-	500	-	1,500
	Country Total	1,000	-	-	-	-	-	-	-	-	-	500	-	1,500
Vietnam	DOS NADR	-	-	-	139	1,096	1,000	1,650	1,500	2,427	2,714	2,850	3,300	16,676
	DoD OHDACA	-	-	-	-	-	454	96	118	93	-	-	-	761
	USAID Leahy	4,730	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,300	1,000	750	-	18,280
	CDC	-	-	-	-	-	-	-	100	400	400	400	-	1,300
	Country Total	4,730	1,500	1,500	1,639	2,596	2,954	3,246	3,218	4,220	4,114	4,000	3,300	37,017

# U.S. HUMANITARIAN MINE ACTION PROGRAM FUNDING HISTORY

FISCAL YEARS 1993 - 2006 (Dollars in Thousands)

Country	Sources	1993 - 1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006 (Est.)	Total (Est.)
Yemen	DOS NADR	-	-	-	270	1,462	1,236	1,023	750	750	773	750	700	7,714
	DoD OHDACA	-	-	78	3,622	216	710	5	-	-	-	4	100	4,735
	Country Total	-	-	78	3,892	1,678	1,946	1,028	750	750	773	754	800	12,449
Zambia	DOS NADR	-	-	-	-	-	12	772	816	450	-	-	-	2,050
	DoD OHDACA	-	-	-	-	-	-	-	424	-	-	-	-	424
	Country Total	-	-	-	-	-	12	772	1,240	450	-	-	-	2,474
Zimbabwe	DOS NADR	-	-	-	680	743	1,140	523	-	-	-	-	-	3,086
	DoD OHDACA	-	-	-	1,500	1,000	765	-	-	-	-	-	-	3,265
	Country Total	-	-	-	2,180	1,743	1,905	523	-	-	-	-	-	6,351
Multi-country or Unallocated	DOS NADR	-	-	-	865	7,524	7,202	10,061	7,678	7,841	4,735	3,691	-	49,597
	DoD OHDACA	1,200	1,200	6,172	6,108	1,377	7,424	3,441	7,839	2	841	1,720	-	37,324
	USAID Leahy	985	115	925	1,200	3,100	7,649	4,264	700	6,519	3,902	6,774	-	36,133
	ITF	-	-	-	-	-	768	1,236	1,768	2,914	2,670	2,247	-	11,603
	CDC	-	-	-	-	-	-	2,550	2,450	1,300	1,500	1,625	-	9,425
Account Totals (recapitulation of above figures)														
	DOS NADR*	-	-	7,000	18,210	34,320	39,499	39,407	39,322	45,325	47,987	55,495	49,289	375,854
	All Other DOS	16,143	19,000	7,000	7,000	1,636	5,677	-	6,022	15,268	62,200	18,839	-	158,785
	DoD OHDACA	25,086	6,232	19,613	23,559	10,334	22,620	10,889	16,800	3,894	2,093	5,276	7,783	154,179
	USAID Leahy	15,235	5,040	5,126	7,182	10,000	10,000	10,000	10,000	11,900	11,930	14,400	-	110,813
	ITF	-	-	-	-	6,175	10,141	12,684	14,000	10,000	9,941	9,920	-	72,861
	DoD RDT&E	10,000	3,000	14,746	16,663	17,234	18,847	12,728	13,220	12,893	12,812	13,154	-	145,297
	CDC	-	-	-	-	-	900	4,300	5,100	4,900	4,425	4,125	-	23,400
	All Other DoD/USAID	5,200	2,857	1,816	2,378	2,537	3,062	1,108	2,464	13,925	28,875	1,072	-	64,221
<b>GRAND TOTAL</b> (all accounts)		<b>\$71,664</b>	<b>\$36,129</b>	<b>\$55,301</b>	<b>\$74,992</b>	<b>\$82,236</b>	<b>\$110,746</b>	<b>\$91,116</b>	<b>\$106,929</b>	<b>\$118,104</b>	<b>\$180,263</b>	<b>\$122,281</b>	<b>\$57,072</b>	<b>\$1,105,410</b>

\* Does not include NADR admin. funds.

\*\* DoD Assistance Mission for Mine Clearance in Central America (MARMINCA) figures are included in Central America/OAS.

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Termites built a nest, now hardened to the consistency of concrete, around a persistent anti-personnel landmine emplaced at the base of a tree on Sri Lanka's Jaffna peninsula. The tree subsequently grew around the mine, further adding to the difficulty to clear it. This scene, observed at a HALO Trust demining site adjacent to an inhabited village, illustrates how natural conditions can complicate an already delicate task if persistent landmines are not immediately cleared after conflict has ceased.

*John Stevens, Office of Weapons Removal and Abatement.*

Challenge coin of the U.S. Humanitarian Mine Action Program (formerly the U.S. Humanitarian Demining Program) that is given to foreign recipients of U.S. mine action aid and whose logo also appears on vehicles and other specialized mine clearance equipment that is donated by the United States. The U.S. Humanitarian Mine Action Program is an inter-agency initiative whose various programs in the field—mine clearance, mine survivors assistance, mine risk education and research and development—are operated by the U.S. Department of State, U.S. Department of Defense, U.S. Agency for International Development's Patrick J. Leahy War Victims Fund and the U.S. Centers for Disease Control and Prevention.



BUREAU OF POLITICAL-MILITARY AFFAIRS

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