



## International Security News

International Security Programs  
Dori Ellis, Director

# Focus on the Middle East

### *From the Director*

As home to the world's largest deposits of oil and natural gas, the Middle East is a region whose stability is critical to US and global security. However, the region is also faced with daunting social, political, environmental, and economic problems aggravated by deep-rooted historical, religious, and ethnic differences.

Territorial disputes aggravate these problems. War, terrorism, and concern about potential proliferation of weapons of mass destruction (WMD) plague the region. Demand for WMD in the Middle East is driven by a number of factors, including the Arab/Israeli conflict, regional rivalries, concerns over US dominance, and the rise of extraregional powers, such as India and Pakistan.

Although civilian nuclear energy infrastructure is limited in the Middle East, sources of nuclear material that could be used for radiological dispersal devices are numerous. Theft of nuclear technology from the remnants of weapons programs in Iraq and Libya is also a possibility. Security and physical protection capabilities are still limited in most of the region.

Weak borders and limited capabilities to consistently enforce stringent export control regulations aid actors seeking to acquire material, technology, or expertise directly or through black market networks. Limited civilian employment for former WMD scientists, engineers, and technicians in Iraq and Libya poses an additional risk. The active presence of numerous terrorist groups further exacerbates the situation.

This issue of the *International Security News* newsletter highlights a number of ongoing activities at Sandia National Laboratories that aim to reduce the motivation for countries to acquire WMD; to control the supply of material, technology, and expertise that could enable countries or terrorists to develop such weapons; and to develop effective regional partnerships for countering proliferation and terrorism.

In October 2003, Sandia’s Cooperative Monitoring Center (CMC) cooperated with Jordan’s Royal Scientific Society to open a sister center in Amman. The CMC-Amman now provides a regional forum for exploring how technology can be used to solve common security problems. The CMC-Amman also provides a venue for regional training on export control, radiological materials management, border security, disease monitoring, and a range of other security issues in the region. The center has become an invaluable resource supporting a broad set of National Nuclear Security Administration (NNSA) and other US government initiatives in the region. The International Security Center is especially pleased that His Royal Highness Prince El Hassan bin Talal of Jordan has provided the guest editorial for this newsletter focusing on the Middle East.

*Dori*

## Focus on the Middle East

<b>From the Director: Focus on the Middle East</b> .....	1
<b>Guest Editorial: A Regional Perspective on Middle East Security</b> .....	4
<b>CMC at Amman Fulfilling Its Mission</b> .....	7
<b>Iraq Science and Technology Engagement</b> .....	9
<b>Assistance to Iraq on Radioactive Source Security</b> .....	9
<b>IRTR Training Program for Iraq a Success</b> .....	12
<b>International Radiological Threat Reduction in Egypt</b> .....	14
<b>Israel and Sandia Collaborate on Contraband Detection Portal</b> .....	16
<b>RMCC Workshop Held in Qatar</b> .....	18
<b>Global Initiative for Proliferation Prevention Begins Cooperation with Libya</b> .....	20

## International Business Infrastructure

<b>IPT Supports Middle East Collaborations</b> .....	22
--	----

## General Interest

<b>Acronyms</b> .....	3
<b>Calendar: Visits, Workshops, and Conferences</b> .....	13

## Acronyms

AAAIID	Arab Authority for Agriculture Investment Development	MCC	Mining Chemical Combine (Russia)
ACSAD	Arab Center for Studies of Arid Zones and Dry Lands	MECIDS	Middle East Consortium on Infectious Disease Surveillance
ALECSO	Arab League Education, Cultural, and Scientific Organization	MEMS	Middle East Meteorological System
AOAD	Arab Organization for Agricultural Development	MOD	Ministry of Defense (Russia)
ASTF	Arab Science and Technology Foundation	MOHP	Ministry of Health and Population (Egypt)
BfS	Federal Office for Radiation Protection (Germany)	NA-10	Deputy Administrator for Defense Programs (NNSA)
CMC	Cooperative Monitoring Center	NA-21	Office of Global Threat Reduction (NNSA)
CRDF	Civilian Research and Development Foundation (US nonprofit organization)	NA-241	Office of Dismantlement and Transparency (NNSA)
DOD	Department of Defense (US)	NA-242	Office of Global Security Engagement and Cooperation (NNSA)
DOE	Department of Energy (US)	NA-243	Office of International Regimes and Agreements (NNSA)
DOS	Department of State (US)	NNSA	National Nuclear Security Administration (US)
DTRA	Defense Threat Reduction Agency (US)	NRC	Nuclear Regulatory Commission (US)
EAEA	Egyptian Atomic Energy Authority	PI-31	Office of International Science and Technology Cooperation (DOE)
EORP	Executive Office for Radiation Protection (Egyptian Ministry of Health and Population)	REWDRC	Renewable Energy and Water Desalination Research Center (Libya)
EU	European Union	RMCC	Radiation Measurements Cross Calibration
FCPA	Foreign Corrupt Practices Act (US)	SCENR	Supreme Council for the Environment and Natural Reserves (Qatar)
GCC	Gulf Cooperation Council (Cooperation Council for the Arab States of the Gulf)	SCR	Sandia Contracting Representative
GIPP	Global Initiative for Proliferation Prevention (NNSA)	SLD	Second line of Defense
IAEA	International Atomic Energy Agency	SNL	Sandia National Laboratories (US)
ICARDA	International Center for Agriculture Research in Dry Areas	TOBOS	Safety and Security Technologies for Russian Warheads (Russian acronym)
IEEE	Institute of Electrical and Electronics Engineers, Inc.	TRINITI	Troitsk Institute of Innovative and Thermonuclear Investigations (Russia)
INCOTERMS	International Commercial Terms (International Chamber of Commerce)	UAE	United Arab Emirates
IPP	Initiatives for Proliferation Prevention	UNESCO	United Nations Educational, Scientific, and Cultural Organization
IPT	International Procurement Team (SNL)	USAID	US Agency for International Development
IRSRA	Iraqi Radioactive Source Regulatory Authority	VNIIA	All-Russian Scientific Research Institute of Automatics
IRTR	International Radiological Threat Reduction (NA-21)	VNIIEF	All-Russian Scientific Research Institute of Experimental Physics
ISO	International Organization for Standardization	VNIITF	All-Russian Scientific Research Institute of Technical Physics
ISTC	International Science and Technology Center (Moscow, Russia)	WHO	World Health Organization
LANL	Los Alamos National Laboratory (US)	WMD	weapons of mass destruction
LLNL	Lawrence Livermore National Laboratory (US)	WSSX	Warhead Safety and Security Exchange (US-Russian agreement)
MAPEP	Mixed Analyte Proficiency Evaluation Program (DOE)		

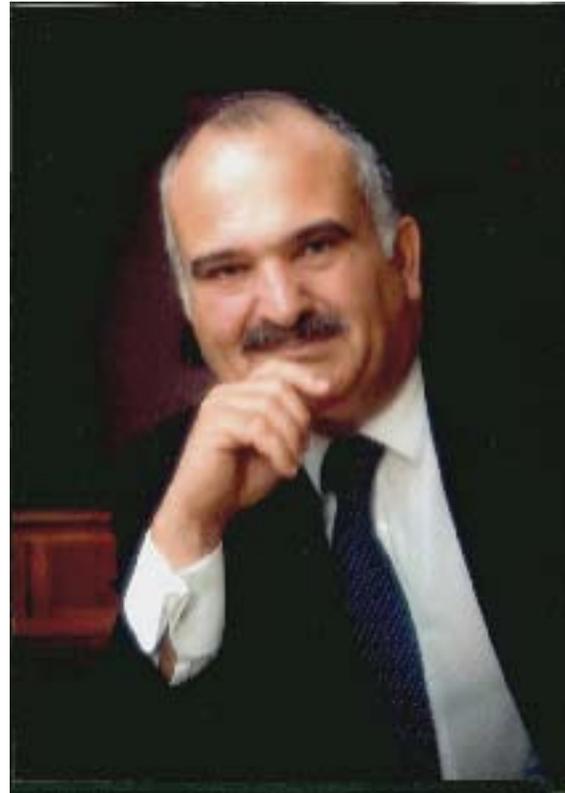
### A Regional Perspective on Middle East Security

*HRH Prince El Hassan Bin Talal  
Hashemite Kingdom of Jordan*

The brutal terrorist attacks of 9 November 2005 have caused anguish and uproar throughout Jordan. As a Jordanian, a father, and a husband, it was a painful blow to all that I hold dear, and I went on record immediately afterwards to express my grief at such unspeakable cruelty. The appearance of terrorism in Jordan will, we all hope, prove to be nothing more than a dreadful, but isolated, event. However, if we learn anything from this tragedy, perhaps it should be to focus our efforts more clearly and cohesively to do all we can to prevent the unthinkable: WMD terrorism.

The arms race and the proliferation of weapons of mass destruction have been a major source of concern for many decades. Weakening of central control, along with site security problems at WMD installations and storage of funds to ensure gainful employment of scientists, engineers, and technicians, has contributed to persistent concerns about the flow of materials and expertise into the wrong hands. Other potential sources of inadvertent leakage, and the major sources of concern with respect to deliberate leakage, are found in or near the broader Middle East, a region faced with a number of security threats whether external, state, or nonstate in nature.

Fear, uncertainties, and threats to security in the Middle East should not be underestimated, and unresolved conflicts over territories and resources must be addressed effectively. Traditional Cold War export control regimes are no longer the most effective or efficient means for ensuring national and global security. Reconciling the complex issues of treaty regime compliance, national security interests, and development concerns require new policies built upon a common political understanding between developed and



developing countries. Actions and resources need to be devoted to tighter security in government, commercial, university and medical facilities where WMD or dual-use precursors or components are handled. As a member of the board of the Nuclear Threat Initiative, I urge modern corporations and the key players in the military-industrial complex to effectively address such issues.

Now more than ever, a new regional approach has to take into account not only peace and security issues, but also economic and social matters. Recent events, not only here in the Middle East but in First World countries like the USA and France, have testified once again to the correlations between social, economic, and cultural factors and the resort to violence. The future will bring both demands and opportunities for regional cooperation

---

on issues ranging from weapons proliferation to managing the environment and natural resources. These are indeed the broad objectives of our own Cooperative Monitoring Center–Amman.

Our thanks are due to the United States Department of Energy, which operates Sandia National Laboratories, for their kind assistance, goodwill, and support for making CMC-Amman a reality. The burgeoning partnership between CMC-Amman and CMC-Sandia continues to make a positive contribution to peace and security in the Middle East and beyond through the application of innovative cooperative monitoring concepts and technologies. Such cooperation can help to create a more stable situation and better understanding among regional states, promote trust, minimize suspicion, and enhance confidence.

However, the alarming speed of today’s arms race gives more grounds for hard-nosed realism than idealistic optimism. The lack of synergy between security and global governance issues presents real and urgent challenges to the international community. Furthermore, today’s world economic order is not sustainable. A new order that balances economic demands with human ethics, social and cultural considerations and the pursuit of human dignity for everyone – in short, a new interpretation of the idea of globalization – is a crucial task for global and local leaders alike.

One particular aspect I would like to emphasize here is the need for greater focus on soft security as a complement to the hard variety. The giant leaps forward taken by human civilization will be jeopardised if we fail to take account of all dimensions of human security, from culture and religion to politics and economics. Making the world safer for future generations is an integrated challenge. Among its requirements is an operational framework in which the military security dimension functions not just alongside but in tandem with civil societies. As a networking participant in a number of international organisations that place human rights and security at the heart of the political agenda, it is very

encouraging to hear your shared concern that humanitarian inclusion should be one of the ultimate objectives.

War can be seen as the failure of the human spirit to visualize alternatives. I have always been an advocate of the law of peace, believing that an unjust peace is almost always better than a just war. Redirecting much of the vast funds being spent on weapons and wars towards poverty eradication, health care, and education is clearly a central goal. As far back as 1987, we in the Independent Commission for International Humanitarian Issues said: “Humanitarianism can and must play its role. It is a field in which ideological differences, North-South problems, and East-West rivalries can be transcended. The recognition of the fundamental worth of the human person and the ethical values shared by all societies must be the sustaining force behind common action for common good.”

Jordan stands at the epicentre of the Middle East, affected by turmoil on all sides. As has been cruelly illustrated here, the deteriorating situation in Iraq, where global jihadists appear to have joined forces with local insurgents, is already having enormous repercussions across the entire region. The challenge now is to convince the Iraqi population that they are engaged in the task of building a sovereign, unified, and independent state. Only this can remove doubt as to the allegiance of security forces and militias. To this end, the inclusion and reintegration of Iraqi scientists in postwar reconstruction is a vital step, while developing an integrated counterinsurrection strategy should include offers of amnesty or negotiated surrender to combatants; establishment of elected, empowered, and duly funded local government structures; reconstruction; payments to displaced civilians; and compensation for damages.

The threat we face comes in many different forms. Any use of nuclear weapons, by accident or design, risks human casualties and economic dislocation on a catastrophic scale. Some countries will covertly and illegally develop nuclear weapons, and forty countries already possess the technology

to do so. The erosion and possible collapse of the Nonproliferation Treaty is a real concern. Moreover, the almost six thousand industrial chemical facilities worldwide and the countless medical and research facilities equipped to produce biological agents like anthrax, ricin, and smallpox are potential targets for non-state actors.

Any possession of WMD undermines security. In the event of a crisis, some leaders might be tempted to use such weapons. An abrupt change of government might leave those weapons in less responsible and reliable hands. Further, the feeling of being militarily superior and the possession of WMD could easily influence and even justify decisions to resort to armed conflicts as a means to resolve longstanding regional problems. Last but not least, a nation that possesses such weapons, even if it has no intent to use them, heightens anxiety among its neighbours and adversaries.

All these factors emphasize the need to establish institutionalized mechanisms to restrain the dissemination of and access to weapons technologies. We urgently need to develop

strategies to reduce demand and supply of materials and technologies required for producing WMD. We can also enhance legitimate trade by building confidence between countries that enact strong controls over the transfer of sensitive goods. Such arms control measures would encourage states to resort to peaceful means to resolve or manage conflicts and conserve resources needed for economic and social development.

It is my firm belief, then, that a strong and coherent counterproliferation strategy is required to limit the capacity of both state and non-state actors to acquire weapons. This should include Security Council enforcement activity, underpinned by credible, shared information and analysis, and national and international public health defence. Let us work together not only to achieve conclusive peace in Iraq and Israel-Palestine, but also to establish a regional security framework to prevent tragedies like the Amman bombings from happening on an even bigger scale.



*His Royal Highness Prince El Hassan bin Talal of Jordan graduated from Christ Church, Oxford University with a BA (Hon) in Oriental Studies, followed by an MA, and has been awarded honorary degrees by many universities worldwide as well as various medals and awards. Prince El Hassan initiated, founded, and is actively involved in a number of Jordanian and international institutes and committees, including the Royal Scientific Society, the Jordan Higher Council for Science and Technology, and the Islamic Scientific Academy.*

*His Royal Highness is currently working with American nongovernmental organizations in Partners in Humanity, which was launched in July 2004. The aim of this program is to improve understanding and build positive relationships between the Muslim world and the United States. His Royal Highness is a member of the Board of the Nuclear Threat Initiative, the Independent International Commission on Weapons of Mass Destruction, and the Helsinki Process on Globalisation and Democracy.*

*Prince El Hassan is the author of seven books, including A Study on Jerusalem (1979) (English), Palestinian Self-Determination (1981) (English; Arabic), and Search for Peace (1984) (English; Arabic), and has been a prolific contributor to newspapers, magazines, and periodicals as well as publications on regional and international issues.*

*More information is available at <<http://www.elhassan.org/reg/personal/ebio3.html>>.*

**Opinions expressed by Guest Editors are not necessarily the opinions of Sandia National Laboratories.**

## CMC at Amman Fulfilling Its Mission



The US government and the international community have been chronically concerned about the risk of conflict and proliferation of WMD in the Middle East. To help reduce this risk, scholars from national laboratories in Jordan and Egypt recommended the establishment of a cooperative monitoring center in the Middle East. In the summer of 2002, the US government, represented by NNSA's Office of Global Security Engagement and Cooperation (NA-242), and the Jordanian government approved the establishment of a CMC at the Royal Scientific Society in Amman, Jordan. The goal of the center is to provide an indigenous capability to assess and implement regional nonproliferation and arms control technologies in the Middle East.

The regional CMC at Amman is modeled after the CMC at Sandia National Laboratories and provides a forum for regional training on nonproliferation technologies, development of new monitoring capabilities, monitoring demonstrations, and multidisciplinary interactions among scientists, engineers, and policy-makers. The objectives of the center are:

- To promote the role of science and technology to help resolve nonproliferation, arms control, and other security issues
- To develop a cooperative-monitoring culture within the Middle East through education and training
- To deploy monitoring technology projects that allow multiple countries in the Middle East to test various technologies and to share their experiences
- To help regional security officials bridge the gap between technical and political issues
- To work toward establishing a Middle East WMD-free zone

The CMC-Amman is staffed by engineers and scientists from Jordan's Royal Scientific Society. Depending on the needs of a particular workshop or project, this group will draw upon the technical strengths of the 700-person society on an as-needed basis. The CMC-Amman is focusing on the following areas: border security and counterterrorism, nonproliferation of weapons of mass destruction, public health, and resource management and environmental security.

Unresolved political issues and the lack of trust and confidence among some countries in the region has limited cooperation on border security issues in the



Middle East. The CMC-Amman therefore aims to strengthen regional capabilities for cooperation on securing borders by conducting training workshops and initiating cooperative projects in the region. Israel and Jordan are collaborating on a project to deploy and share data from personnel explosives detection portals to facilitate the movement of people and goods across border crossings between the two countries. (See “Israel and Sandia Collaborate on Contraband Detection Portal,” page 14.) In addition, the threat posed by WMD is closely related to issues such as border security and export control regulations. Thus, the CMC-Amman’s platform of WMD nonproliferation and border security will enable the center and its partners to effectively target myriad threats related to the spread of WMD.

health threat. Toward that goal, the CMC-Amman will serve as a hub for a planned Middle East Consortium on Infectious Disease Surveillance (MECIDS). The MECIDS project aims to reduce the region’s vulnerability to disease outbreaks, whether natural or caused by a biological attack, and to provide ways for health professionals to build trust and confidence across national lines. Another critical area is environmental security: sharing information in this area among neighboring countries can help them to more efficiently manage sustainable land, water, health, and energy. Current projects include the Middle East Meteorological System (MEMS), with the goal of establishing a network of meteorological stations in the region that can be applied to a range of problems, e.g., deforestation, agriculture, emergency response, and cooperation with the US Department of Agriculture on the Sustainable Arid Land Management Information Network.



Prince El Hassan Bin Talal welcomes participants to the workshop on Middle East Border Security and Counterterrorism (April 2004).

The new center has made steady progress toward fulfilling its mission by developing its technology infrastructure, conducting workshops on topics related to its focus areas, and implementing regional projects. Under NA-242’s foresight and leadership, CMC-Amman has become a resource for promoting the broader nonproliferation goals of the US government. In the past year, it has worked with a wide range of agencies to conduct workshops and to host training events. One example is the use of the center to engage Iraqi WMD scientists and officials on a wide range of security issues.

Presently, no effective regional system exists for cooperation and response in the event of a public

Source: Amir Mohagheghi 6924, MS 1373, 505-844-6910, fax 505-284-5055, ahmohag@sandia.gov



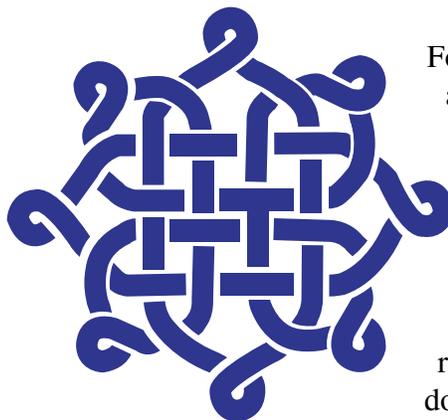
## Iraq Science and Technology Engagement



Sandia National Laboratories' Cooperative Monitoring Center, under the leadership of NNSA's Office of Global Security Engagement and Cooperation (NA-242), has collaborated with the Arab Science and Technology Foundation (ASTF) to identify, contact, and engage members of the Iraqi science and technology community. Goals for the cooperation include developing joint science and technology projects that engage Iraqi scientists in peaceful research and development activities, engaging Iraqi experts to rebuild key elements of the Iraqi infrastructure, and developing new Iraqi business opportunities that provide long-term sustainability to Iraqi science and technology. Funding for this project comes from NA-242 as well.

Work on this project started in January 2004 with an initial survey of the science and technology community in Iraq to determine the priorities of the Iraqi scientific community. The survey effort

contacted approximately 200 scientists across a broad range of expertise. Based on the results of the survey, the project focused on five high-priority areas: water, public health, agriculture, environment, and materials science. Other critical topical areas recommended by the Iraqi scientists were energy and information technology.



Following the initial survey of science and technology in Iraq, the CMC funded pilot projects in water and public health to demonstrate that the project could implement the process of conducting scientific research in Iraq, including putting out calls for proposals to the broad community, reviewing proposals, awarding research dollars, and assessing the quality of results. The pilot projects concluded in January 2005.

In FY05, the CMC-ASTF project focused on better integration of Iraqi scientists into the international community and improving their ability to compete for international science and technology dollars. In addition to developing a Web site to facilitate

### Assistance to Iraq on Radioactive Source Security

The newly formed Iraqi Radioactive Source Regulatory Authority (IRSRA) was established to regulate the safety and security of radioactive sources and all other activities associated with ionizing radiation. Sandia National Laboratories, along with Oak Ridge National Laboratory and Pacific Northwest National Laboratory, is working with IRSRA in support of NA-21 to fulfill its mandate with regard to the security of radioactive sources. Project activities include assisting with development of domestic regulations, training IRSRA staff on assessment of the security of radioactive sources, and providing radiation detection and isotope identification equipment for use in border monitoring. To ensure that these efforts are sustainable, work is being performed in coordination with the International Atomic Energy Agency, which has published the *Code of Conduct on the Safety and Security of Radioactive Sources* and otherwise assists its Member States with guidance on the security of radioactive sources and training on monitoring borders for the illegal movement of radioactive materials.

Source: Mark Soo Hoo 6952, MS 1359, 505-284-4389, fax 505-284-1740, mssoo@sandia.gov

communication among scientists in Iraq and with the international community, the project supported the development of twenty project proposals targeted at specific sources of funding. This process entailed pairing twenty Iraqi principal investigators with collaborators in the international community, identifying specific funding sources as targets for proposals, and conducting a workshop to bring together principal investigators and collaborators to develop detailed proposals.

Participants in the integration process were selected based on the following criteria: an advanced degree in a field associated with one of the topical areas, publications in peer-reviewed journals, successful supervision of masters and PhD candidates, and at least ten years of experience in scientific work. The international collaborators also had to demonstrate extensive experience in writing successful research proposals, participation in ongoing research projects into which Iraqis could be integrated, and willingness to provide assistance to Iraqi scientists.

A workshop to bring Iraqi principal investigators and international collaborators together to develop specific ideas for collaborations and project proposals was held May 15-18, 2005, in Amman, Jordan. Twenty teams of scientists worked with each other through the summer to develop these ideas more fully. Proposals focused on environment, water, agriculture, health, materials science, and business, with goals of reengaging Iraqi scientists with their global colleagues and of reconstructing Iraq. The final proposals were presented at the International Conference to Engage Iraq's Science and Technology Community in Developing its Country.

The International Conference to Engage Iraq's Science and Technology Community in Developing its Country took place in Amman on September 18-20, 2005. Participants included more than

eighty Iraqi vice-ministers, scientists, engineers, and university administrators. UN organizations, Arab League organizations, NGOs, international businesses, and US government personnel representing DOE and multiple offices in the Department of State (Office of the Science Advisor to the Secretary, Nonproliferation, Office of Science, and Jordan and Iraq Embassy personnel) comprised the remainder of the attendance roster of 175.



A variety of Iraqi ministries sent high-level participants to the meeting to identify domestic scientists who can assist with problems confronting those ministries. The Ministries of Planning, Environment, Science and Technology, Water, Oil, Industry, Construction, and Higher Education were represented at the vice minister or secretary general level. Scientists from ministries and universities all over Iraq attended to represent the breadth of expertise in the science and technology community in Iraq, all of whom demonstrated a wealth of practical experience and ability. Universities represented at the conference include Baghdad University, Basra University, Mosul University, the Iraqi Center for Cancer and Medical Genetics Research, the Iraqi Academy of Science, Al-Anbar University, Al-Nahrain University, University of



Kofa, Salahaddin University, the University of Technology, and Al-Mustansiriya University.

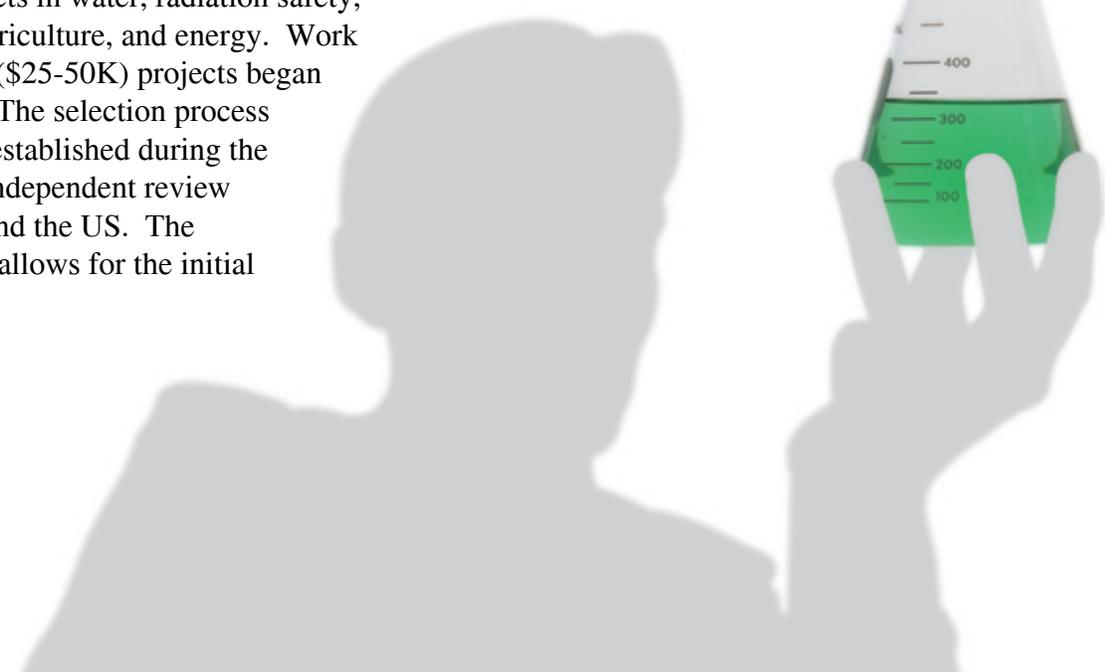
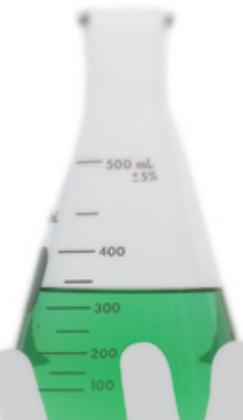
The funding institutions were represented by the WHO; UNESCO; the UN Environment Program; the Arab League Education, Cultural, and Scientific Organization (ALECSO); the Arab Organization for Agricultural Development (AOAD); CRDF; DOS; DOE; the Arab Authority for Agriculture Investment Development (AAID); the European Union (EU); the International Center for Agriculture Research in Dry Areas (ICARDA); the Arab Center for Studies of Arid Zones and Dry Lands (ACSAD); and various universities and research centers in Jordan. Several of the organizations spoke with the Iraqis about their funding requirements, and the Iraqi scientists and their collaborators will be submitting their proposals for funding. Currently Sandia is working with the Office of the Science Advisor to the Secretary of State to distribute the Iraqis' proposals to the relevant US government organizations for funding consideration.

The CMC-ASTF collaboration is entering its third year. In the current fiscal year, the priority will be to fund projects in water, radiation safety, materials science, agriculture, and energy. Work on these small scale (\$25-50K) projects began in November 2005. The selection process followed the model established during the pilot projects, with independent review committees in Iraq and the US. The current funding also allows for the initial

funding (phase 1) of a few larger scale projects presented at the September workshop.

To date, the project's network of Iraqi scientists has grown to more than 800, many of whom are actively seeking new opportunities for utilizing their skills to rebuild their country. The project has connected scientists to reconstruction efforts funded by USAID and ongoing projects funded by the WHO. Many of the proposals presented at the September conference are under consideration for funding by the relevant ministries in Iraq. These successes are tempered by the continued instability in Iraq and a lack of improvement in the security situation. The safety of Iraqi scientists remains an area of concern, particularly as they begin field work associated with the currently funded research. The courage and determination demonstrated by the science and technology community in Iraq has been humbling for the project's personnel.

Source: Adriane Littlefield 6924,  
MS 1373, 505-284-5067,  
fax 505-284-5055, aclittl@sandia.gov



## IRTR Training Program for Iraq a Success



The mission of the NA-21 International Radiological Threat Reduction Program (IRTR) is to identify, secure, recover, and facilitate the disposition of high-risk radioactive materials around the world that pose a threat to the United States and to the international community. The objective of IRTR in Iraq is to ensure that radioactive materials typically used in medical, industrial, and agricultural applications are adequately secured, either on an interim basis until such time that the material is removed to a more secure environment or on a long-term basis for materials that warrant securing in place (e.g., high-risk radioactive materials).

The current reorganization of Iraq's governmental structure includes the establishment of ministries to handle responsibilities of the executive branch. The Iraq Radioactive Source Regulatory Authority (IRSRA) is charged with responsibility for the safety and security of radioactive sources. IRSRA is relying on international support to assist in its training and start-up activities. Additionally, IRSRA and ministries that possess large radioactive sources need assistance in assessing the security of the sources, identifying necessary physical protection upgrades, and implementing the upgrades. (See "Assistance to Iraq on Radioactive Source Security," page 9.)

The IRTR program at Sandia National Laboratories, under the direction of DOE and at the request of the IAEA, is providing technical assistance to support the newly developing IRSRA by supplying radiation detection equipment to Iraq. This assistance is a cooperative effort between the IAEA, DOE, and SNL.

Additionally, Doug Tynan, IRTR-Iraq Federal Program Manager, directed Oak Ridge National Laboratory staff members Ian Gross and Jaigne Christman and Sandians Kimberly Asbury (International Borders Technologies Department), Paul Ebel (Consultant), and Keith Young (International Physical Protection Program Department) to conduct a one-week training course

for selected officials and technical personnel from Iraqi Ministries. A training workshop for the Iraqis was conducted at the CMC in Amman, Jordan, on January 15-19, 2006.

The IRTR workshop focused on the IRTR mission, physical protection of radioactive sources, by creating an awareness of the need to protect and control sources and to apply adequate physical protection measures to sources throughout their life cycle. Additional topics covered by the course include IAEA international recommendations and physical protection principles and methods and guidance for conducting site surveys regarding physical protection systems for radioactive sources. The course also provided practical opportunities for the participants to apply these principles, methods, and guidance during a prearranged site visit to a typical facility that uses and stores radioactive sources.



Course participants prepare site PPS upgrade design.

Feedback provided by course participants indicates the course was very well received. This success continues to build on the foundation and commitment of the DOE for ensuring the protection of high-risk radioactive sources around the world that pose a threat to the United States and to the international community.

Source: Keith Young 6952, MS 1359, 505-844-3508, fax 505-284-1740, kayoung@sandia.gov

## Calendar: Visits, Workshops, and Conferences

**February 7-9 Amman, Jordan:** CMC-Amman hosts the American Biological Safety Association (ABSA) and Sandia National Laboratories for Train the Trainers Biosafety Workshop to train Iraqi scientists in modern laboratory biosafety concepts and procedures. (NA-242) Jennifer Gaudio 6928, 505-284-9489

**February 13-14 Albuquerque, NM:** Sandia hosts the Distinguished Advisory Panel on Arms Control and Nonproliferation, a group of prominent experts in nonproliferation, regional security, and arms control that advises the International Security Center on programs and strategic initiatives. Nancy Jackson 6901, 505-845-7191

**February 25 – March 9 Tucson, AZ, and Albuquerque, NM:** Sandia hosts officials of the Egyptian Atomic Energy Authority at the Waste Management '06 conference in Tucson February 25 – March 2. At Sandia, the officials will participate in a semiannual program review of the IMPRSS (Integrated Management Program for Radioactive Sealed Sources in Egypt) project March 2-9. (USAID through DOE/PI-31) John Cochran 6143, 505-844-5256

**March 13-16 Albuquerque, NM:** Sandia hosts DTRA representatives and representatives of Russia's MOD and VNIIA for a WSSX TOBOS Program Review. (DTRA) Dusty Rhoades 6927, 505-284-4319; Lada Osokina 6927, 505-845-0632

**April 3-7 Albuquerque, NM:** Sandia hosts mid-career (under 40 years of age) experts from US national laboratories (SNL, LLNL, LANL) and Russian nuclear institutes (VNIIEF, VNIITF, VNIIA) from across various technical fields for a Next Gen Workshop to examine interdisciplinary issues. (NA-10) Jim Arzigian 6927, 505-844-2747

**April 11-13 Amman, Jordan:** The CMC-Amman, with SNL and the Midwest Research Institute, hosts policy makers and scientists for a Middle East Regional Biosecurity and Biosafety Workshop to foster collaborations that will lay the foundations for improving laboratory biosecurity in the Middle East. Jennifer Gaudio 6928, 505-284-9489

**April 30 – May 19 Albuquerque, NM:** Sandia hosts the 19th International Training Course on Physical Protection with DOE/NNSA, DOS, NRC, and IAEA. (NA-243) John Matter 6923, 505-845-8103

**May 2-4 Pune, India:** India's National Institute of Virology hosts Sandia, DOE, and DOS at a Laboratory Biosecurity and Biosafety Workshop to raise awareness of bioterrorism and ways to manage biological risks through the implementation of laboratory biosecurity and biosafety. (NA-242) Jennifer Gaudio 6928, 505-284-9489

**May 11-18 Albuquerque, NM; Santa Fe, NM; and San Diego, CA:** Sandia hosts Dr. Potanin (Russia) and Dave Rich (representing ISTC, Russia) for the High Temperature Electronics Conference in Santa Fe and a facilities visit to General Atomics Energy Systems in San Diego to plan a newly funded IPP project. (IPP NA-241, General Atomics) Gloria Chavez 6927, 505-845-8737

**May 16 – June 6 Richland, WA, and Albuquerque, NM:** Sandia hosts representatives of MCC (Russia) for an equipment demonstration at Westinghouse Richland Operations and a program review at Sandia. (IPP NA-241) Gloria Chavez 6927, 505-845-8737

**June 12 Albuquerque, NM:** Sandia hosts representatives of the Optical Fiber Technology for Industrial Laser Applications TRINITY (Russia) and of Volius, Inc. (Los Alamos, NM) for an IPP project update. (IPP NA-241) Gloria Chavez 6927, 505-845-8737

**July 16-20 Nashville, TN:** Institute of Nuclear Materials Management, 47th Annual Meeting will be held at the Nashville Convention Center and Renaissance Hotel.  
[www.inmm.org](http://www.inmm.org)  
Sandia contact: John Matter 6923, 505-845-8103

**July and September Albuquerque, NM:** Sandia, with Numotech, Inc., hosts representatives of Spektr (Russia) for IPP project training for the Spektr Oxygen Generator Project. (IPP NA-241) Gloria Chavez 6927, 505-845-8737

**October 16-20 Lexington, KY:** IEEE International Carnahan Conference on Security Technology, 40th Annual Conference will be held at the Radisson Plaza Hotel.  
[www.carnahanconference.com](http://www.carnahanconference.com)  
Sandia Contact: Daniel A.. Pritchard 6428, 505-844-7444

## International Radiological Threat Reduction in Egypt



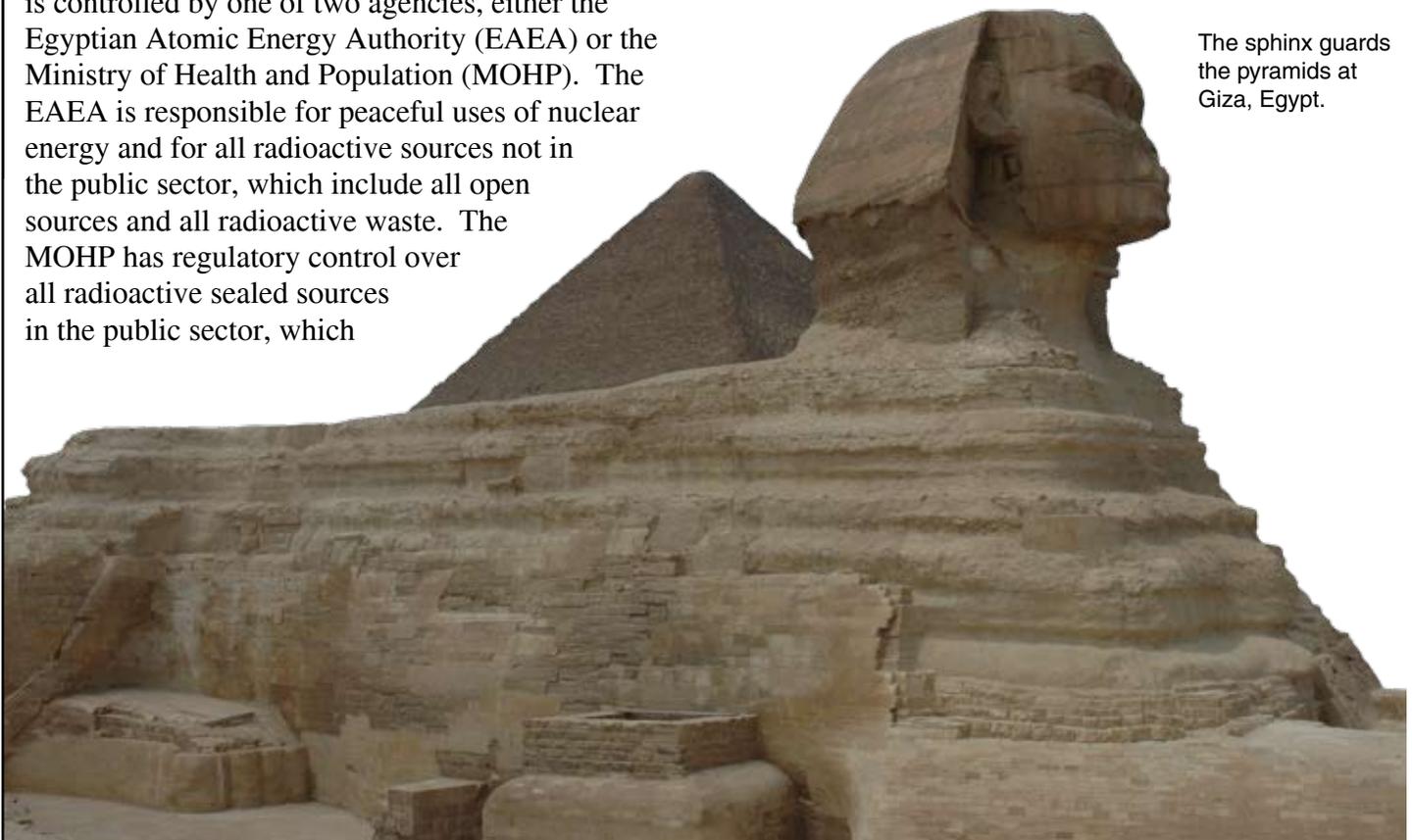
Sandia National Laboratories has been leading NNSA's International Radiological Threat Reduction (IRTR) program in Egypt since August 2004. The IRTR program, within NNSA's Office of Global Threat Reduction (NA-21), is assisting countries throughout the world to secure their radioactive sources and to update their knowledge with respect to managing their radioactive sources in the most secure manner. The overall goal of the Egypt IRTR project is to ensure the lifetime protection of high-risk radioactive sources throughout Egypt by implementing effective and sustainable security systems that will be properly operated and maintained over the long term and by leaving Egypt completely self-sufficient – capable of securing new sites without US assistance.

High-risk radioactive sources are limited to a group of eight radionuclides meeting certain radiation thresholds defined by the IRTR program. Egypt has approximately forty facilities with potentially high-risk radioactive materials meeting the IRTR program's threshold levels. Each of these sites is controlled by one of two agencies, either the Egyptian Atomic Energy Authority (EAEA) or the Ministry of Health and Population (MOHP). The EAEA is responsible for peaceful uses of nuclear energy and for all radioactive sources not in the public sector, which include all open sources and all radioactive waste. The MOHP has regulatory control over all radioactive sealed sources in the public sector, which

includes irradiation facilities, research facilities, several industrial sites, and a large number of hospitals and clinics.

The Sandia project team developed a unique strategy, not only for upgrading the security at facilities of interest but also for ensuring that these upgrades would be accepted, fully utilized, and sustained over the long term. The Sandia team realized early on that the only way to ensure long-term sustainability was to educate Egyptian personnel in all aspects of security and then to assist them in implementing the upgrades at sites of interest themselves.

Establishing an in-country system integrator was a critical first step in implementing the strategy. Egypt Markets, a well-established company based in Cairo, was selected by the US project team to serve as the in-country system integrator. Egypt Markets is responsible for providing training, performing site assessments, developing upgrade



The sphinx guards the pyramids at Giza, Egypt.

designs to be approved by the project team, purchasing and installing the equipment necessary to implement the approved designs, performing acceptance testing, developing procedures, and providing long-term maintenance and repair.

In December 2004, the Sandia project team conducted an initial training seminar in Cairo. The training was tailored toward MOHP regulators, EAEA management, Egypt Markets, and key individuals from three MOHP-controlled facilities. Basic physical protection principles were presented, followed by detailed, hands-on training pertaining specifically to the process of conducting site assessments and developing upgrade plans. Working in small groups, the students performed vulnerability assessments at two actual MOHP sites and developed upgrade plans to correct the identified vulnerabilities. Lively discussion and interaction accompanied the group presentations of the upgrade plans. Using the December training as a model, Egypt Markets has conducted follow-on training for many other MOHP site personnel.



Wafaa Fouzy El Sayed (EAEA), Sohir Saad Abdel Khalek (EORP), and Harissa Mahmoud Kilany (EORP) participate in security training in Cairo, Egypt.

An unexpected result of the December training was that the MOHP regulators in attendance immediately recognized the need to implement regulations mandating minimum security requirements. The regulators asked the Sandia team to provide recommendations for such regulations. The team's recommendations resulted in a ministerial decree that is now being reviewed by the MOHP legal council.

The approach of providing training prior to implementation has proved to be extremely successful for many reasons. The Egyptians feel much more involved in the process, which in turn has led to a greater sense of ownership. The initial training also made US practices very clear, minimizing the usual misunderstandings that are inevitable when challenged with cultural differences. To date, approximately 100 individuals have been trained in various aspects of security.



Security upgrades at Halliburton in Cairo, Egypt

After the initial training had been provided, upgrades were being installed at MOHP facilities in parallel with follow-on training efforts. To date, eighteen site assessments have been completed, and ten sites have been fully upgraded. Extended warranties and long-term maintenance contracts have been put in place for all completed sites.

Work performed in Egypt by Sandia National Laboratories under NNSA leadership has made a significant impact. In a recent, unsolicited e-mail message, the president of Egypt Markets stated, "It is clear that [the Radiological Threat Reduction Project] RTRP has pumped new life in [the Executive Office of Radiation Protection] EORP. The morale and expectations are high."

Source: Dan Lowe 6952, MS 1359, 505-284-0182, fax 505-284-8484, dllowe@sandia.gov

## Israel and Sandia Collaborate on Contraband Detection Portal



Sandia National Laboratories and Israel's Soreq Nuclear Research Center have been working together to develop and test a contraband detection portal under an agreement between the US Department of Energy, represented by NNSA's Office of Global Security Engagement and Cooperation (NA-242), and the Israeli Atomic Energy Commission signed on February 22, 2000. Task III of the agreement specifies that the Cooperative Monitoring Center (CMC) at Sandia will collaborate with Israel on assessment of monitoring technologies for regional security and cooperation. Both hardware elements and regional cooperative elements of this project have been accomplished from concept to implementation.

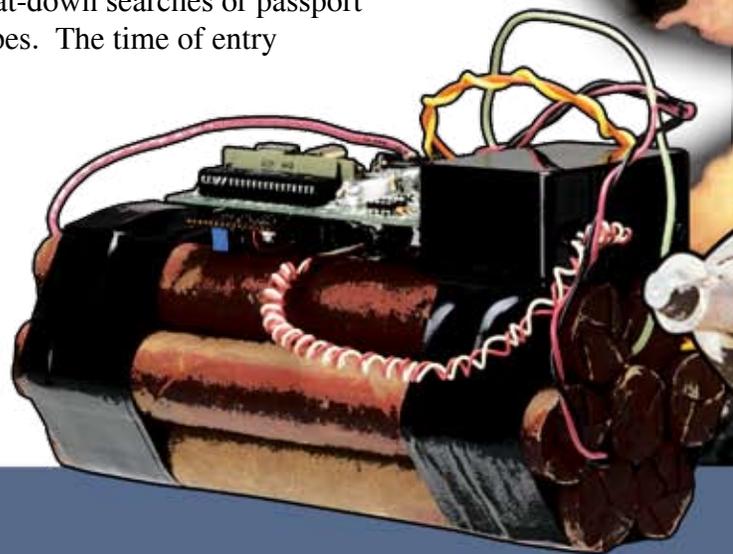
Soreq and the CMC conducted an assessment of commercially available and unclassified monitoring technologies for regional security and cooperation. Following bilateral discussions, a project was initiated to assess procedures and monitoring technologies to detect the passage of small amounts of radioactive material and explosives through monitoring points, specifically portals. This system was expected to be applicable for sensitive facility protection and border crossing security. The project emphasized the detection of explosive and radioactive contraband carried by potential terrorists and smugglers, but the portal could also be configured to detect drugs and chemical weapons.

Sandia's Contraband Detection Department developed the early portal technology and licensed it to Barringer, now part of Smiths Detection

Corporation. The unit is a walk-through portal that collects samples from a subject in a walkway. A person enters the walkway and stops in the center. While jets of air are directed at the subject, a collector samples a large volume of air from the walkway. After the sample has been collected, the sample is transferred to another, smaller concentrator. After secondary concentration, the sample is transferred into an ion mobility spectrometer for analysis. The entire process requires about ten seconds.

Sandia purchased Smiths Detection's second generation unit, the Sentinel II, and tested it during the latter half of 2002. Results from the tests were shared with Israeli partners. The unit was shipped to Israel in April 2004 for further development and testing. Soreq has completed plans to add a radiation detection capability to the portal, and the Israeli Security Agency has tested the resulting portal extensively for several months at the Allenby/King Hussein crossing site. The portal's performance has exceeded expectations, and after an extended approval process, the portal has been certified for operational use.

Between 2000 and 4000 persons per day are screened for explosives using this portal. The unit has been extremely reliable and very acceptable to those crossing the border, who are no longer subjected to pat-down searches or passport swipes. The time of entry



into the West Bank has been cut from three hours to one hour through the use of this technology, which can process over 200 people per hour.

Under NA-242's leadership, the portal project has been the basis for promoting cooperation on border security between Israel and Jordan. Israeli officials have provided Jordan with a complete copy of the portal test report, which is considered Official Use Only in Israel. This ground-breaking transparency is leading to even greater cooperation between Israeli and Jordanian officials. Future plans include testing the portal at an official border crossing point between Jordan and Israel.

Source: Amir Mohagheghi 6924, MS 1373, 505-844-6910, fax 505-284-5055, ahmohag@sandia.gov



## RMCC Workshop Held in Qatar



The second annual workshop for the Radiation Measurements Cross Calibration (RMCC) project, which is funded by NA-242, was held November 13-15, 2005, in Doha, Qatar. The workshop was organized and hosted jointly by the Supreme Council for the Environment and Natural Reserves (SCENR) of Qatar and Sandia National Laboratories. Participants included forty-three officials from Bahrain, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, UAE, and Yemen. In addition, experts from the International Atomic Energy Agency (IAEA), the German Federal Office for Radiation Protection (BfS), the DOE Mixed Analyte Proficiency Evaluation Program (MAPEP), and the US embassy in Doha took part in the workshop and provided briefings.



Dr. Ahmad Al-Khatibeh (SCENR Radiation Protection Head), H.E. Khalid Al-Ali (SCENR Chair), Rob Pyott (US Embassy), and Christina Andersson (NNSA) delivered opening remarks.

The meeting was opened by His Excellency Khalid Ghanim Al-Ali, SCENR Chair, during a well attended official ceremony that also included members of the SCENR council, local media, and other dignitaries. This practical workshop was designed to encourage communication among the Gulf Cooperation Council (GCC) radiological laboratories, to develop internationally recognized laboratory standards, and to provide training on relevant topics such as laboratory management, quality assurance, and gamma spectroscopy. The workshop provided opportunities for the regional participants to exchange insights into the

radiological measurement problems they face in their home countries and to build up the regional capacity to address these issues.



Participants in the Second RMCC Workshop

A key goal of the RMCC project is to develop and maintain a network of laboratories and scientists in the region who can be engaged to address nuclear nonproliferation in the Middle East. The first day of the meeting included introductory presentations on the RMCC project, the DOE/MAPEP proficiency testing program, and collaborative efforts with international organizations, particularly the IAEA. The second day of the workshop began with a briefing on radiological laboratory management and continued for the rest of the day with presentations from each country on their capabilities and the issues they face. One common theme expressed was a great need for training on radiological measurements. This issue was highlighted during a side meeting with Khalid Al-Ali during which he requested further cooperation with the NNSA, with special emphasis on in-depth training for the SCENR staff. The third day of the workshop began with technical lectures on tritium monitoring and gamma spectroscopy techniques and continued with a discussion session in which the participants provided feedback and recommendations.

A common concern among the participants is the safe use of radiological materials and technologies. They all expressed a desire for better understating of the impact of radiological dose from man-made and natural sources on the environment, health, and safety of the people in the region. Representatives from Jordan, Bahrain, UAE, and Oman expressed

interest in cohosting the third RMCC workshop in the region and agreed to discuss the needed support with their respective organizations. In addition, SCENR offered to host the third workshop in Doha as well.

The participants agreed to continue to participate in, or to sign up for, the DOE/MAPEP proficiency testing program as a critical step toward evaluating the quality of their laboratory measurements. The DOE/MAPEP will send samples (soil, water, air filter, and vegetation) spiked with known amounts of radioisotopes to each participating laboratory twice a year. Each laboratory will have three months to analyze the test samples and report their measurements. MAPEP will then compile the data, perform an evaluation with respect to the known activity levels, and publish them on its Web site. Approximately 140 US and foreign laboratories currently participate in the MAPEP, including Sandia National Laboratories.

The Jordanian Royal Scientific Society volunteered to host a server and maintain an e-mail distribution list to facilitate communication among the RMCC participants. The initial goal of this informal network is to provide a mechanism for sharing data on anomalous radiation measurements as an early warning system for a wide range of events involving radiological materials. Examples discussed during the workshop included foodborne radiological contamination in imported foodstuffs and air monitoring stations.

The IAEA will conduct an in-depth proficiency testing for gamma emitting radioisotopes in the Persian Gulf water to reflect the characteristics of the Gulf water. The study is expected to commence by May 2006. The IAEA and the BfS offered opportunities for a wide range of training for the RMCC participants.

In addition, Sandia representatives and the workshop participants collaborated to develop a project concept for installing a krypton-85 monitoring station (a key technique for detecting nuclear reprocessing) in the region, which would be of critical value to enhancing the current network of Kr-85 monitoring stations around the world. Qatar is the logical location for placing the monitoring station, and the University of Qatar is a likely candidate for hosting and maintaining the station.

The workshop was concluded with a dinner hosted by Khalid Al-Ali. Each participant was presented a certificate of completion in a graduation ceremony at the dinner. In general, the workshop made good progress toward the RMCC project's main goal of establishing a network of laboratories and scientists to address nuclear nonproliferation issues in the region.

Source: Amir Mohagheghi 6924, MS 1373, 505-844-6910, fax 505-284-5055, ahmohag@sandia.gov



## Global Initiative for Proliferation Prevention Begins Cooperation with Libya

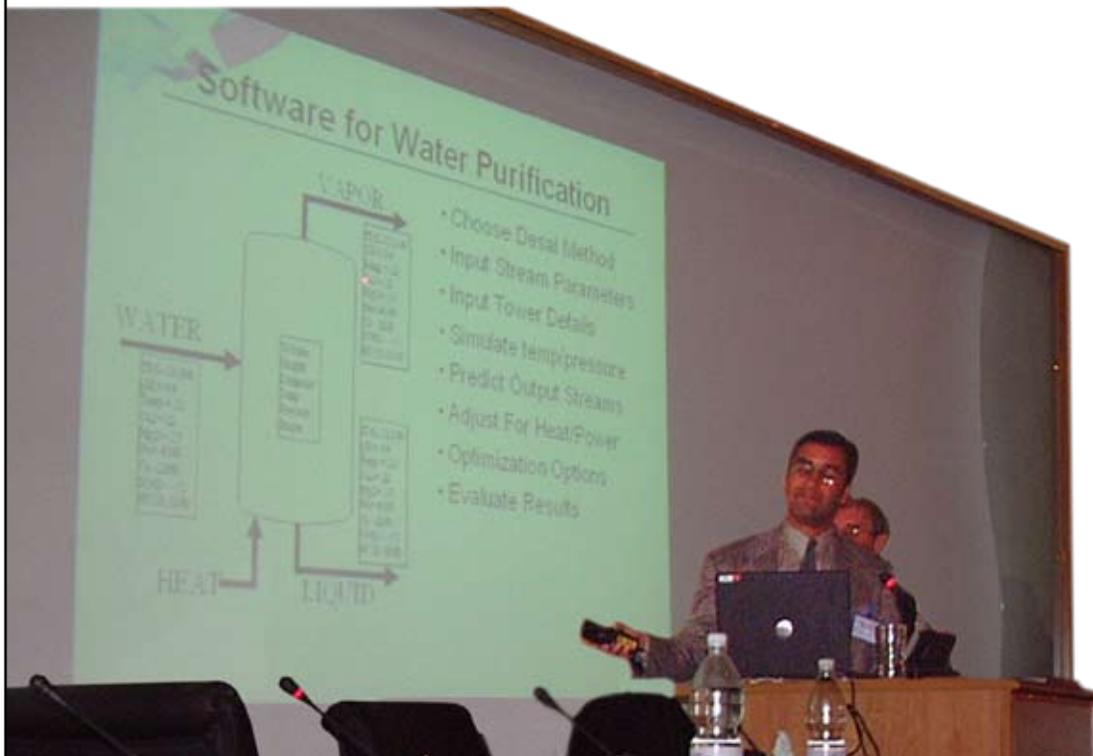


DOE/NNSA's Office of Global Security Engagement and Cooperation (NA-242) has recently begun cooperation with Libya's Renewable Energies and Water Desalination (REWDRC) Research Center and other key Libyan agencies. Sandia is playing a lead role in working with Libyan scientists to address the issues of water desalination and treating contaminated water resulting from oil field operations (also referred to as produced water).

During 2005, Sandian Phillip Pohl, Material Transportation Risk Assessment and Security Department, visited the REWDRC in Tajura, Libya several times to attend workshops on these topics with key personnel from NA-242, the US Department of State, and other key US agencies. Most recently, Phil and fellow Sandian Richard Kottenstette, Geochemistry Department, traveled to Tajura in December 2005 to attend a workshop on Seawater Desalination Technologies organized by Libya's Bureau of Inspector General of Housing and Utilities, National Bureau of Research and Development, Secretariat of Energy, General Electricity Company of Libya, Engineering

Research and Consultations Bureau of Al-Fateh University, and General Water Authority.

Workshop leader Dr. Salem Ghurbal, Director of the Renewable Energies and Water Desalination Research Center at Tajura, hosted the Sandians. Richard Kottenstette presented a paper titled "Desalination Technology," and Phillip Pohl presented "Manufacturing for Desalination in Libya." Both Sandians' talks were well received by workshop participants. Other US participants attending this workshop included Marie Ricciardone from the State Department, Kevin Price from the Bureau of Reclamation, Ali Ben Haj Hamida from General Electric, Shannon McCarthy from the Middle East Desalination Research Center, Omar Ezzet of Biwater Corporation, and Lisa Henthorne and Alistair Monro of CH2M Hill. These participants represent US expertise on large-scale desalination and power and have extensive experience in the development of desalination resource capability and water treatment in Middle East countries.



Phil Pohl, Sandia, presenting desalination development work at the December 2005 workshop in Libya.

These workshops have set the stage for US-Libya project collaboration in the area of water purification and other technical areas of interest to Sandia. Joe Saloio, Manager of Sandia's International Science and Technology Development Department, traveled to Libya with DOE HQ point of contact Margot Mininni in Spring 2006 to kick off Sandia's Libya projects in the areas of desalination and produced water treatment and for the development of supporting analytical laboratory facilities.

Source: Phillip Pohl 6143, MS 0720, 505-844-2992, fax 505-844-2348, pipohl@sandia.gov

Correction: The article is a correction of an earlier version published in April 2006.



## IPT Supports Middle East Collaborations

The International Procurement Team (IPT) was established in 1996 to address the contractual challenges faced by Sandia National Laboratories' International Security Programs. The team's original focus on collaborations with the former Soviet Union has extended in recent years to support of Sandia's operations in the Middle East, Africa, Asia, and South America.

The growth of the IPT prompted its establishment as a department during Sandia Procurement's restructuring earlier this year, when the IPT formally became *The International and Domestic Security Contracts and Import/Export Control Department*. The IPT has expanded from the original two Sandia Contracting Representatives (SCRs) and a part-time manager to a department comprised of eighteen team members – one full-time manager, one office administrative assistant, three import/export control and compliance analysts, twelve SCRs, and one part-time student intern.

Over the past nine years, the IPT has differentiated itself from other Department of Energy (DOE) laboratory procurement departments and other Sandia procurement functions. The IPT was the first organization within the Sandia administrative sector and the first purchasing organization within the DOE complex to earn ISO (International Organization for Standardization) 9001 certification. The IPT SCRs are not only buyers but also international business consultants to both Sandia line customers and international suppliers. Several team members have extensive backgrounds in international procurement or operations, and the majority have worked and/or lived in other countries.

The IPT maintains language proficiency in French, Italian, and Spanish. Team members travel extensively throughout the year and contend daily with issues related to the Foreign Corrupt Practices Act (FCPA), property disposition, obtaining tax exemption in foreign countries, foreign currency exchange, working with suppliers to develop effective supply chains, government-to-government

agreements, complying with international law and US law, counterintelligence, International Commercial Terms (INCOTERMS), and import and export control and compliance. On the leading edge of international procurement within the DOE complex, the Sandia IPT has improved or created many of the current international procurement policies and procedures, including the development of the international boilerplates used in contracts.



(left to right) Mr. Mohammad Ashshi (RSS Financial Officer), Mr. Todd Dunivan (Sandia Contracting Representative), Dr. Ali Ajlouni (RSS scientist), General (Retired) Mohammad Shiyab (CMC-Amman Director), and Dr. Naseem Haddad (RSS Mechanical Design Director) congratulate each other on the contract between Sandia and the Royal Scientific Society to operate the CMC-Amman in February 2002.

The IPT focuses on supporting Sandia's International Security Programs. Some of these programs include: US-Russian Federation Warhead Safety and Security Exchange; Material Protection, Control, and Accounting; Global Initiative for Proliferation Prevention; Second Line of Defense (SLD); SLD-Megaports; Cooperative Monitoring Center at Amman; Integrated Management Program for Radioactive Sealed Sources; International Radiological Threat Reduction; engagement with the Chinese; Science and Technology Cooperation with the Russian Federation; and work in support of the International Atomic Energy Agency.

Currently, the IPT is pioneering efforts in the Middle East and Africa. Sandia National Laboratories sponsors the CMC-Amman in Amman, Jordan, which was established in 2003 to

provide regional confidence-building measures and international cooperation in security issues such as arms control, border control, and nonproliferation; science and technology; resource management; and technical and political issues. The IPT has negotiated several contracts with the CMC-Amman that provide for the CMC-Amman facility expansion, research, and several workshops for scientists throughout the Middle East and North Africa. The IPT has also executed contracts with the Kuwait Institute for Scientific Research, the Egyptian Atomic Energy Authority (EAEA), and the Arab Science and Technology Foundation in the United Arab Emirates.

IPT SCRs have been instrumental in overcoming many of the obstacles that are inherent to international procurement operations in new territories. Through constant communication (via e-mail, teleconferences, and in-person meetings) with their counterparts in the Middle East and Africa, the SCRs have been able to bridge the cultural divide. Working with other Sandia departments, IPT personnel address the constant FCPA issues, property disposition policies, export regulations, and other previously mentioned challenges. The SCRs have developed formal training presentations for CMC-Amman and the EAEA and in turn have learned the procurement practices and procedures of Sandia's international suppliers and their respective governments.

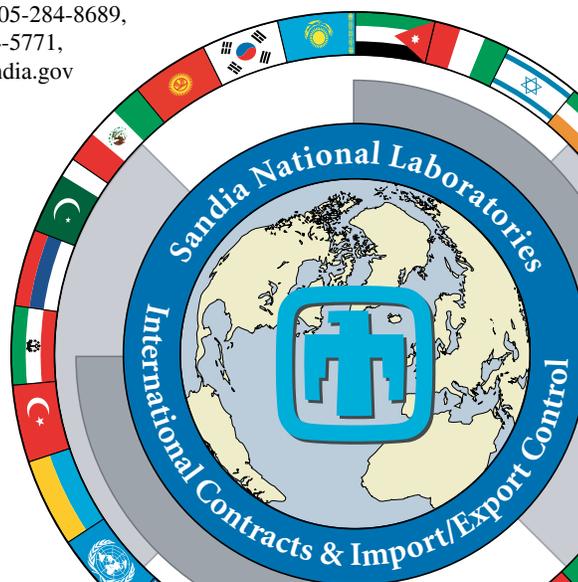
Prior to renegotiating the latest contract with CMC-Amman, IPT SCRs held several teleconferences with their Jordanian colleagues. The SCRs worked with the Sandia line requesters to develop a training presentation that illustrated the US business climate, culture, government oversight and regulations, Sandia's procurement guidelines, and the supply chain critical path. The SCRs were able to instruct CMC-Amman on how to respond to the request for quotation and to impart their expectations. This training facilitated negotiations that occurred in Amman in May 2004 and has facilitated the working relationship between Procurement and line requesters, who now involve the SCRs in the

early stages of acquisition planning. As a result, price justification and contract placement have been streamlined. Similar training was also provided to EAEA in Cairo and has been repeated here at Sandia in subsequent meetings with the suppliers.

The IPT SCRs work closely with their colleagues in import/export control and compliance and Sandia's Property Management and Reapplication Department to handle the frequent government-furnished-property issues that arise, such as moving property through Jordanian customs. SCRs also work closely with Sandia's Legal Department and the International Business Services Department to get FCPA rulings on foreign nationals' attendance at Sandia-sponsored events. Many of the recent contracts have involved Iraqi and other regional participation at biosecurity workshops in Amman and other countries throughout the Middle East.

The IPT SCRs' international expertise enables them to be sensitive to their counterparts' cultures and to establish mutually beneficial working relationships with Sandia's international suppliers. These relationships have been effective in contract negotiation and placement and enable the SCRs to more easily overcome potential problems as Sandia pursues future security endeavors throughout the world. The IPT continues to strive toward a more efficient international procurement process as Sandia expands its overseas operations.

Source: Tim Davis 10245,  
MS 1376, 505-284-8689,  
fax 505-844-5771,  
tldavis@sandia.gov



*International Security News* is on the Web  
<http://www.cmc.sandia.gov/newsletter.htm>

*International Security News* is on the SNL Internal Restricted Network  
<http://isn.sandia.gov>

Sandia is a multiprogram laboratory operated by Sandia Corporation,  
a Lockheed Martin Company, for the United States Department of Energy's  
National Nuclear Security Administration under contract DE-AC04-94AL85000.

**SAND2006-2832P**



**PUBLISHED BY:**  
Sandia National Laboratories  
International Security Programs  
Doris E. Ellis, Director

**EDITOR:**  
Barbara Dry 6902, MS 1376  
location: IPB/2138  
phone: 505-844-9860  
fax: 505-844-5771  
e-mail: [badry@sandia.gov](mailto:badry@sandia.gov)