

INMM Communicator

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Editor's Note

Welcome to the April 2010 issue of the INMM Communicator



By Brian Boyer
INMM Communicator Editor
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Welcome to the Spring 2010 issue of the INMM Communicator!

I am writing this piece while in Portland at the Pacific Northwest International Conference (PNIC) on Global Nuclear Security—the Decade Ahead. The conference is sponsored by the Pacific Northwest Chapter of the Institute of Nuclear Materials Management and the Eastern Washington Section of the American Nuclear Society. I tip my hat to our local section in the Pacific Northwest as they put on a fine conference.

PNIC was organized by PNNL's Carrie Mathews one of our very active INMM members. She managed to get Richard Rhodes, the Pulitzer Prize winner for the *Making of the Atomic Bomb*, who opened our conference with a talk titled "Twilight of the Bombs," which will be the title of his fourth book on the nuclear arms race. The photo below shows Carrie getting Richard Rhodes autographing one of his books for the meeting organizer. She also got Charles Ferguson the new president of the Federation of American Scientists (FAS) as our dinner speaker. Ferguson was an enthusiastic speaker and great addition to a great program.



Richard Rhodes and Carrie Mathews at
PNIC in Portland, Ore. April 12, 2010



INMM Secretary Chris Pickett and NAC Division Chair
Steve Mladineo at the PNIC Banquet

This was not the only INMM sponsored conference I attended this year. I was part of the University of Missouri Chapter of INMM sponsored workshop, [A Multidisciplinary Workshop to Train the Next Generation Safeguards Advocate](#), Feb. 9-12, 2010, which also had support and assistance from the U.S. Department of Energy, NA-243, ORNL staff and the INMM Central Chapter. We have a report from this conference from grad student James Cole.

I also attended the [International Workshop for Users of Proliferation Assessment Tools -- Workshop I: Users in Regulatory Roles](#) in College Station, Texas. The INMM Standing Committee on Proliferation Assessments and Methodologies organized the workshop and the Texas A&M University Student Chapter of INMM ably hosted the workshop. Support also came from Canberra Albuquerque, the INMM Southwest Chapter, Los Alamos National Laboratory and Sandia National Laboratories. TAMU grad student Adrienne LaFleur has written us a report on this workshop.

Speaking of students, we have two new student chapters. We welcome the University of Washington in Seattle in the Northwest Chapter and the University of New Mexico in Albuquerque in the Southwest Chapter.

As in every issue of the *Communicator*, we have news about the Institute's internal operations in a column by INMM Vice President Scott Vance, [Inside Insights](#). Another regular feature is the piece [Member News](#), by Al Garrett, our Membership Committee chair.

Nonproliferation Still an Important Topic in U.S., World

From the Nonproliferation & Arms Control Division

By Steve Mladineo

Nonproliferation and Arms Control Technical Division Chair

The business of the Nonproliferation and Arms Control Technical Division remains very topical. Presidents Obama and Medvedev signed the new Strategic Arms Reduction Treaty (START) in Prague on April 8. A few days later, the Nuclear Summit took place in Washington. This event included heads of state or their representatives from 44 countries, and could be the largest gathering of heads of state since the end of World War II.

It was aimed at preventing the proliferation of nuclear weapons or materials to terrorists. In May the Review Meeting for the NPT will take place in New York. There is talk of submission of the Comprehensive Test Ban Treaty (CTBT) to the U.S. Senate for ratification. Discussion of a Fissile Material Cutoff Treaty (FMCT) is reportedly being held up at the Conference for Disarmament by Pakistan.

Workshops

2010 has been a busy year so far for the Nonproliferation and Arms Control Division. For the first time we have sponsored two workshops in one year. The first was the **4th Annual Workshop on Reducing the Risk from Radioactive and Nuclear Materials**, organized by Ruth Duggan's Standing Committee on International Nuclear and Radiological Security, with the help of the Northeast Chapter. The workshop successfully explored four topical areas, including transportation security, nuclear trafficking, industry leadership and U.N. Security Council Resolution 1540, and verification of the Nuclear Nonproliferation Treaty (NPT) Article VI. This two-day event featured luncheon addresses by Tom D'Agostino, the Administrator of the National Nuclear Security Administration, and Laura Holgate, Senior Director for Weapons of Mass Destruction Terrorism and Threat Reduction at the National Security Council.

The second workshop was organized by Mike Zentner's Standing Committee on Proliferation Assessments and Methodologies, with the help of the Texas A&M Student Chapter. This workshop, **International Workshop for Users of Proliferation Assessment Tools Workshop I: Users in Regulatory Roles**, is described in a separate article in this issue by Adrienne LaFleur, president of the Texas A&M Student Chapter. Both workshops were very successful. We will see more detailed reports on each workshop at the annual meeting later this year in Baltimore.

Annual Meeting

Nonproliferation and Arms Control topics will be explored at the 51st INMM Annual Meeting at the Baltimore Marriott Waterfront Hotel, July 11-15, 2010. To kick off the INMM Annual Meeting, the Nonproliferation and Arms Control Division will hold its annual meeting on Sunday, July 11, from 2-5 p.m. at the hotel. All are welcome. We usually have a lively discussion of a number of topics, and identify opportunities for volunteer participation in the activities of the Division.

After the Strategic Offensive Reductions Treaty (SORT), also known as the Moscow Treaty was signed in 2002, our Division organized a workshop in Washington in early 2003 called **The Implications of a New Era in Arms Control on Regional Nonproliferation and Nuclear Materials Management**. With the signing of the New START in early April, another new era of arms control is on the horizon.

The nuclear materials management community has had limited opportunity in the past few years to develop new approaches and technologies to support verification and transparency. To address some of the challenges created by new policy directions, our Division has planned three sessions on Future Arms Control Verification Technologies at the Annual meeting. Future agreements with Russia could call for more creative means of verifying compliance as our countries commit to lower numbers of warheads.

Additional Nonproliferation and Arms Control Division sessions at the annual meeting will include discussion of Proliferation Resistance and Assessment Methodologies, Long Range Detection of Nuclear Threats, the Global Threat Reduction Initiative, Prospects for a Fissile Material Cutoff Treaty, and Infrastructure to support Material Protection, Control, and Accounting (MPC&A) in Russia. We will also have a combined session with the International Safeguards Division addressing the results of the 2010 NPT Review Conference. We encourage your participation.

Getting Involved

The Nonproliferation and Arms Control Division has three standing committees in which your participation is welcome. The standing committees offer a good opportunity for affiliation with your colleagues who have similar interests. If you would like more information, contact the appropriate standing committee chair, or any of the officers of the Division: Steve Mladineo at 202-646-7868, Larry Satkowiak at 865-576-5650, or Karyn Durbin at 202-586-1430.

The standing committees are:

Regional Nonproliferation and Arms Control led by Mona Dreicer 925-422-7588
International Nuclear and Radiological Security led by Ruth Duggan 505-844-9320
Proliferation Assessment and Analysis led by Mike Zentner 509-372-4988

Annual Meeting Notes

[**INMM 51st Annual Meeting**](#)
July 11-15, 2010

Baltimore Marriott Waterfront Hotel
Baltimore, MD USA

Register Now

Use our secure [online registration](#) form or [download a printable registration](#) form to register today.

Early registration discounts end June 10, 2010.

Record Abstract Submission!

We thank everyone who submitted an abstract for the 2010 Annual Meeting. The [Technical Program Committee](#) will meet on March 2 to develop the meeting program. More than 540 abstracts have been submitted for consideration for this year's technical program. This is the largest number of abstracts ever submitted for an INMM Annual Meeting and significantly higher than last year's total of 467 abstracts submitted. The 51st Annual Meeting is shaping up to be another record-breaker for INMM.

Read the Manual

Download copies of the [2010 Speakers' Manual](#), [Speaker Change Request Form](#), and the [Session Organizers Guide](#).

Submit Your Papers to *JNMM*

Are you looking for an additional outlet for your articles? Consider submitting your paper to the *Journal of Nuclear Materials Management*.

INMM's *Journal of Nuclear Materials Management* is a quarterly peer-reviewed technical journal. Each paper that is submitted to the Journal is assigned to an associate editor and reviewed by three reviewers. Most often, the reviewers make recommendations and offer constructive criticisms to improve the paper. These comments are forwarded to the author through the *JNMM* Technical Editor. The initial review generally takes 90 days.

The author then implements the recommendations and resubmits the paper for additional review. This second review generally takes less time. Once a paper is accepted for publication, the author is notified via e-mail and the paper is published in the next available issue.

It is a simple but important process that ensures that the *JNMM* is a high-quality journal.

JNMM imposes no deadlines for submitting an article. Simply submit your paper whenever it is ready. Send your paper as a Word document by e-mail to Managing Editor Patricia Sullivan (psullivan@inmm.org). Images and photographs should be sent as high-resolution image files, preferably in TIFF format.

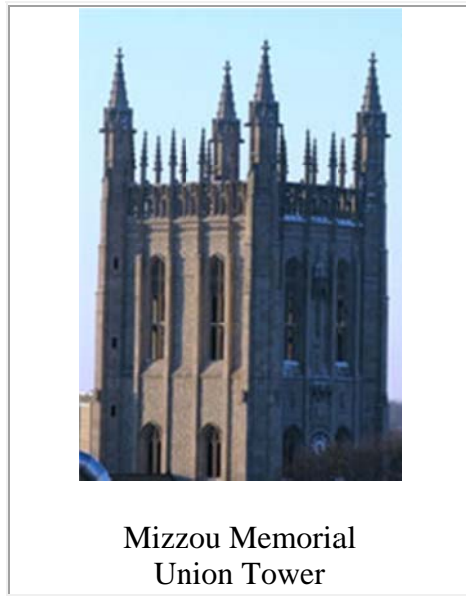
Note: *JNMM* only publishes original work. Papers that were published in the Annual Meeting Proceedings before they were submitted to the *Journal* will not be considered for publication in

JNMM except the opening and closing plenary speeches, the *JNMM* Roundtable, and the winning papers in the J. D. Willams Student Paper Award program.

University of Missouri Student Chapter Safeguards Education Workshop

By James Cole, Chapter President

The University Of Missouri Chapter of INMM held a workshop called, “A Multidisciplinary Workshop to Train the Next Generation Safeguards Advocate,” Feb. 9-12, 2010, with support and assistance from the U.S. Department of Energy, NA-243, ORNL staff and the INMM Central Chapter.



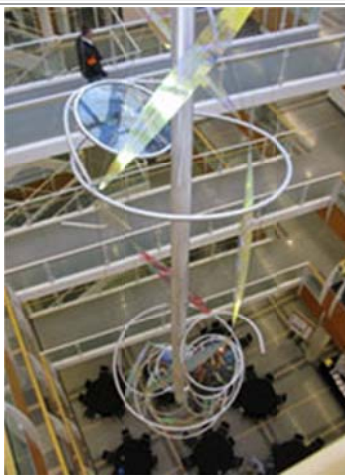
The workshop focused on utilizing interdisciplinary resources inherent in a university setting to accomplish the goal of addressing the many facets of international nuclear safeguards, nonproliferation and security education. Professors and students from the Universities of Michigan, Missouri, Missouri Science and Technology, Penn State, Tennessee-Knoxville, Texas A&M, and the Monterey Institute of International Studies attended and representatives from Brookhaven National Laboratory, Idaho National Laboratory, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, Oak Ridge National Laboratory, Pacific Northwest National Laboratory, Sandia National Laboratories, and Savannah River National Laboratory were on hand for a total of 77 participants.



Les Fishbone, Brookhaven National Laboratory (left)
and James Cole, president of the University of Missouri
Student Chapter (right)

Because new courses, certificates and degree options can be logistically challenging to develop, one goal was to evaluate the existing educational infrastructure at universities to explore how current programs and courses can contribute to the education of safeguards/nonproliferation practitioners.

This workshop incorporated faculty and students from universities where nuclear-related programs or research exist and whose core discipline lies outside of nuclear engineering because expertise in a great variety of disciplines is needed to address complex 21st century challenges and are crucial for developing a robust workforce. We included individuals from areas as diverse as communications, policy, intelligence, geospatial technology and a variety of engineering disciplines.



Life Sciences Center:
site of the workshop

Expert practitioners from the national laboratories offered presentations on international nonproliferation and security subject areas to students. University faculty described their disciplines to students and other faculty to assist in uncovering these multidisciplinary safeguards education pathways and collaborative opportunities.

Students then participated in an activity to suggest ways to integrate the knowledge, skills and functional proficiencies needed to produce a competent safeguards professional into existing coursework within universities. This *crosswalk* from multidisciplinary educational collaboration to necessary practitioner skill set can be used as a basis for developing this type of educational framework at other universities and national labs.



INMM Secretary Chris Pickett (far right) presents a gift to the University of Missouri Student Chapter organizers.

The workshop was a great success. A career fair was held to provide students information about laboratory opportunities, networking opportunities fostered communication between previously unaffiliated faculty and practitioners, and many students were introduced to safeguards science for the first time. Encouraging such interdisciplinary recruitment to the field will help to ensure successful development of the next generation of nuclear safeguards practitioners.

International Workshop for Users of Proliferation Assessment Tools Workshop I: Users in Regulatory Roles

By Adrienne M. LaFleur, President, Texas A&M Student Chapter
(*Photos by James Miller*)

A large number of approaches to proliferation assessment have been developed or are currently under development. These tools are used by a number of different types of users for a range of purposes. Continued dialogue about these tools and approaches is a valuable way to help prevent inconsistent application or misuse of the technologies as well as provide a venue for the development of new approaches. To provide a venue for developers and users to explore these assessment methodologies, a workshop was held at Texas A&M University from Feb. 23-25, 2010. The goal of this workshop was to develop a research agenda that is responsive to the specific needs of users in regulatory roles.



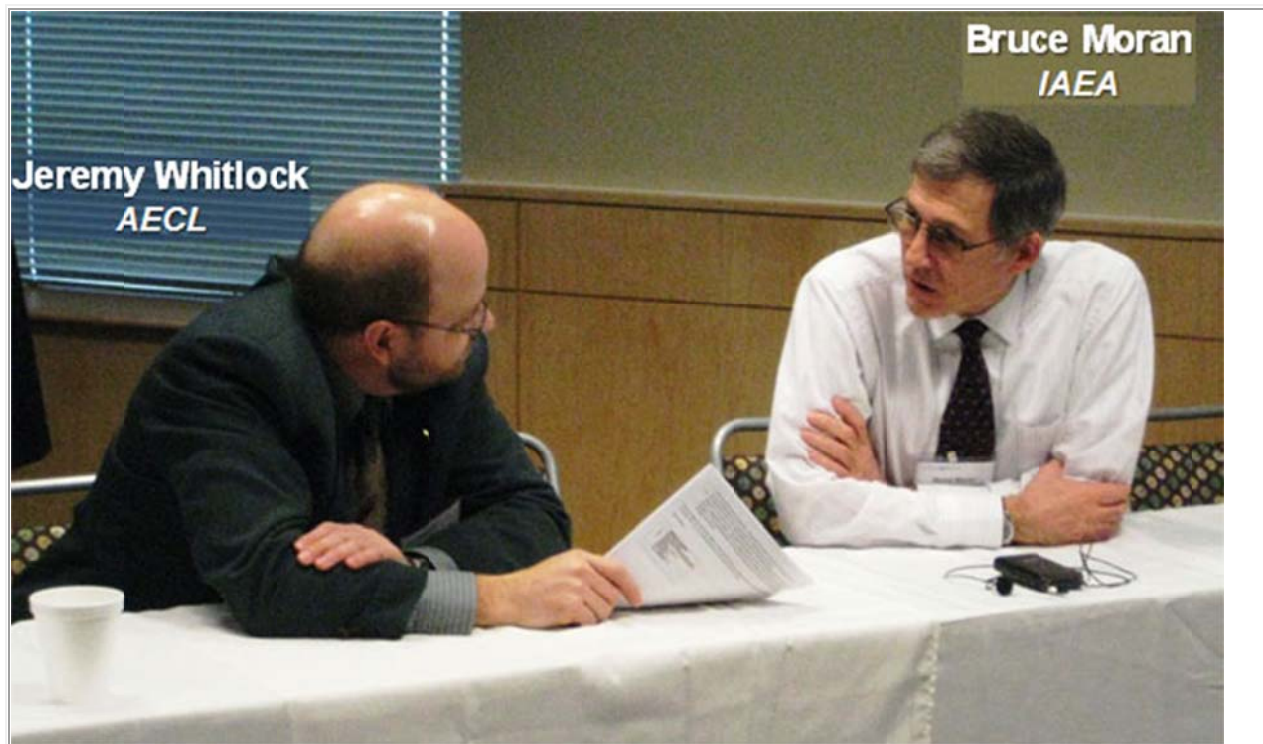
This workshop was organized by the INMM Standing Committee on Proliferation Assessments and Methodologies and hosted by the Texas A&M University Student Chapter of INMM. This workshop was organized by the INMM Standing Committee on Proliferation Assessments and Methodologies and hosted by the Texas A&M University Student Chapter of INMM. The workshop had 65 participants from a broad range of organizations including academia, national laboratories, industry, government, and the International Atomic Energy Agency.



During the workshop, developers discussed the status of the field and current research. Users discussed the current and anticipated needs to which assessment and methodology approaches could contribute. The workshop focused heavily on proliferation resistance methodologies; however, proliferation risk analysis, material attractiveness assessment, statistical analyses to assess proliferation determinants, and quantitative analysis to estimate the likelihood a State will proliferate were also discussed. Panel sessions were held to discuss the utility of current tools and future needs for a path forward for these approaches.

The results from this workshop identified numerous questions that need to be answered by current and developing proliferation resistance methodologies. This is important to ensuring that the methods developed produce results that meet the needs of the of the intended user group. In addition, this also helps to focus research efforts to improve these approaches by identifying areas that need more work. The workshop results also identified several areas for future work for proliferation resistance tools which included:

- Effectively communicate results to different audiences via outreach to other communities to bridge communication gap and provide a forum for informed information
- Develop test cases and “benchmark” standards that can be tested against (prototypic cases and small systems studies) to help facilitate verification of these methodologies
- Perform systems study on expert elicitation
- Obtain a better understanding of how proliferation resistance and risk relate to export control



This workshop was the first in a series of workshops that will attempt to improve the user group’s understanding of available tools and perspectives of other user groups, identify specific needs of user groups, and develop a research agenda and path forward to address those needs.



**On PATRAM and JNMM:
From the Packaging & Transportation Division**

PATRAM

PATRAM 2010, the *16th International Symposium on the Packaging and Transportation of Radioactive Materials*, is scheduled for Oct. 3-8, 2010. PATRAM takes place every three years alternately in the United States and a non-U.S. location. This year the location is London. As always, PATRAM is an exciting time for professionals around the world involved in radioactive material packaging and transportation.

PATRAM brings together worldwide experts from government, industry and research organizations to exchange information on all aspects of packaging and transportation of radioactive materials. It is the premier forum on these issues and the only meeting in the world devoted entirely to this subject.

The PATRAM 2010 Paper Selection Committee met March 16-17, 2010, in London to review and organize more than 400 abstracts. The number of abstracts is the highest ever for PATRAM. The overall quality of the abstracts promises to make for an outstanding PATRAM 2010 program.

PATRAM is hosted by the Department for Transport of the United Kingdom, in cooperation with the International Atomic Energy Agency, the International Maritime Organization (IMO) and the World Nuclear Transport Institute. PATRAM 2010 will be held in the IMO Headquarters Building on Albert Embankment. For more information, visit www.patram2010.org.

JNMM Special Issues

In other news, the winter and spring 2010 issues of the *Journal of Nuclear Materials Management (JNMM)* are dedicated predominately to packaging and transportation topics. These consecutive *JNMM* issues include 20 articles in the theme of “Supporting Safe Storage of Plutonium-bearing Materials through Science, Engineering, and Surveillance.” The winter 2010 issue is out and is clearly an excellent resource for those of this interest. The spring issue will be mailed to members and subscribers soon.

Also note that major regulatory changes occurred within the radioactive material packaging and transportation industry during 2008. On Oct.1, 2008, the widely used DOT Specification Packagings were removed, by law, from service. Along with elimination of, and new restrictions placed on other packages designed to older standards, these changes have added significant challenges to the shipment of radioactive materials.

These regulatory changes come at a time when new nuclear missions in industry and government are evolving that will depend upon safe, secure and efficient shipment of these materials. The objective of the INMM Packaging and Transportation Division is to be the international forum for meeting these evolving worldwide needs and welcomes your involvement toward these ends.

Inside Insights



By Scott Vance
INMM Vice President
E-mail: savance@tva.gov

My task each issue of the Communicator is to give the membership an “insider’s update” of what is going on with the Executive Committee (EC) of your Institute. While I intend to do that this issue as well, I feel compelled to begin this month’s column with a brief statement regarding the mission of INMM. Contrary to the message you may be getting if you regularly read this column, the sole function of INMM is NOT the Annual Meeting. My column often focuses on activities related to the Annual Meeting, because that is, in fact, a significant focus of the EC’s activities. However, the INMM’s work is much, much broader.

These broader activities generally take place within the regional chapters, and individual activities often focus on one or two of our technical divisions. If this is all sounding strange to

you, then I would strongly encourage you to find out about the activities of the technical divisions that you are interested in and attend the next meeting scheduled at your regional chapter, if that is possible.

You will find that there are many activities that take place throughout the year, and these local events are often the times when you can become engaged first-hand in the promotion of nuclear materials management. If you will do that, I know that you will find both the regional chapters and technical divisions anxious to have your input.

In regards to the EC, we in fact spent a good deal of time at our last meeting, held March 2-3 in Seattle, Washington, discussing this year's Annual Meeting. On March 2 the Technical Program Committee met to develop the technical program for the Annual Meeting. This involves a review of the abstracts received in order to place each paper in an appropriate session to ensure that the information presented is put in the context of similar presentations.

This process takes a great deal of time and effort, and I hope that everyone appreciates that the excellent programs that we enjoy at each Annual Meeting do not occur happenstance. Rather, it is the concerted effort of our Technical Program Committee Chair Charles Pietri, and his entire Technical Program Committee. Incidentally, this year's meeting looks like it will be another record-breaker, with yet again a new record number of abstract submissions.

In addition to discussing the preparations for the Annual Meeting, the EC also discussed several other items. The EC received a "final report" from Ken Sorenson on the outcome of the Strategic Planning Working Group that he has chaired. Sorenson presented a strategy for proceeding with implementation of the reorganization that this group recommends. There were numerous recommendations associated with the very comprehensive report that he provided, and the EC decided to take a little more time to review the plan before initiating implementation. However, the overall strategy and recommended reorganization was strongly supported.

The EC also considered several suggestions regarding activities that INMM should be supporting and opportunities to improve INMM's visibility. Reports were also given regarding the possible formation of new regional chapters and additional opportunities to assist our existing chapters.

Reports were taken from Standing Committees and Technical Divisions as well. As indicated above, this is where the real "work of the Institute" takes place, and it is always good to hear what the chapters and divisions are accomplishing. One very encouraging piece of information is that the Vienna Chapter, located at the IAEA, is once again fully functional, and the Institute has committed to supporting this Chapter with both their Vienna Science Fair, scheduled for 2011, and the Safeguards Symposium to be held in November.

Despite my introduction to this Column, I cannot end without encouraging you to make arrangements to attend this year's Annual Meeting in Baltimore. While it is not "all that we do," it is your best opportunity to meet with like-minded professionals from around the globe in one comprehensive and yet comfortable week. I am very confident that you will find attendance to be time well spent. I sincerely hope to see you there.

Member News



By Albert G. Garrett
Chair, Membership Committee
Member at Large, INMM
E-mail: albert.garrett@pnl.gov

I hope you've marked your calendars for the next Annual Meeting scheduled for July 11-15, 2010, in Baltimore, Maryland. Last year's INMM Annual Meeting in Tucson was a resounding success and judging by the number and quality of the abstracts submitted this year, this year's meeting appears to be just as good, if not better. Hope to see you at the Annual Meeting!

The Membership Committee has been hard at work reviewing new member and student member applications. Kudos go to Jill Cooley and the Vienna Chapter, as they provided a lot of work for the Committee, but it is welcomed. They have successfully re-invigorated involvement of IAEA personnel, with numerous applicants. In addition, we have also seen a large number of student applicants. Since the last Communicator in December 2009, the Membership Committee has reviewed and recommended approval of 77 [Regular Member](#) and 16 [Student Member](#) applications; they are listed below. No new sustaining member applications were approved.

As always, if you find the name of a colleague on the list below, be sure to welcome them and let them know of the ways that you find your INMM membership valuable. And, remember to keep your own contact information up to date in the online directory. Modifying the database to reflect your most recent contact information takes only a few minutes and your changes will be reflected in the online directory automatically. If you haven't yet established your member account, it's easy and fast; just go to INMM.org and login to the 'Member's Only' section.

I welcome news (and photographs, if you wish) to keep your colleagues informed about any INMM member, including you. Send any items of interest to me at albert.garrett@pnl.gov or *Communicator* Editor, Brian Boyer, at bboyer@lanl.gov.

New Members (Since the last edition of the *Communicator*):

Goeran Af Ekenstam
Violet Alexandrian
B. Syed Ali Syed Azmi
Jeremy Banks
Phil Bennett
Norman Bird
Domnica Cristina Breban, PhD

Jacob Brecheen
Renaud Chatelus
Sunil Sunny Chirayath, PhD
Thomas B. Cochran
Jean Maurice Crete
Sharon Deland
Lucius Delice
Petar Demerdzhiev
Al Aaziz Eddebarh
Paul Sunday Esseyin, MSc
William Geist
Kimberly Gilligan
Birgit Grzelke
Christine Hadden
Ivo Perez Herrera
Randa Higgy
John Hockert
Ronda Huffines
Huan-Jen Hung
Plamen Iontchev
Natraj Iyer
Thomas Jeffrey
Audy Jones
Junmin Kang
Ronald Knief
Simon Labov
David Lacey
Rollin Lakis
Melinda Lane
Erin Mark
Elizabeth Anne Meek
Maria de Jesus Diaz Menendez
Luis Paulo Melo Moitta
Thomas Messer
Kelly Michel
Vera Miljanovic
Chantell Murphy
Traci Newton
Baftjar Novruzaj
Claude Norman
Natacha Peter-Stein
Jull Phan
Ameer Pichan
Andrzej Pietruszewski, MSc
James Placke
Pamela Plunkett

Justin Reed
Perpetua Rodriguez
Catherine Romano, PhD
Diego Russo
Peter Santi
Heikki Saukkonen
Robert E. Schultz
David R. Smith
Ross Snare, III, PhD
Zdravko Starovich
Cheryl Steverson
Pavel Titov
Adrian Mendez Torres
Youcef Touil
Igor Tsvetkov
Luc Van Den Durpel
Klaas van der Meer
Marietta Vitkova
Gabriele Voigt
Zoran Vukadin
Harold Wheat
Carol Wormington
Shao Zhang
Jill Zubarev

New Student Members (since the last edition of the *Communicator*)

Tom Bielefeld
Russell Chazell
Alex Cutler
Ernest Gitau
Tyler Guzzardo
Evan Harms
Jeff Katalenich
Sheldon Mattice
Ryan McDermott
Andres Moreno
Cody Peeples, MS
Jessica Sandusky
Eric Schwarz
Scott Stewart
Jordan Swarthout
Jamie Warburton

