

# NEW MEXICO NETWORK for Women in Science & Engineering

## 2007 NMNWSE Technical Symposium and Annual Meeting, 26-28 October Clayton, NM

The 2007 Annual meeting webpage has been updated to include the registration form and call for papers. The registration form includes a space to apply for a meeting scholarship. Scholarships are based on need and whether presenting a paper.

Please note that hotel reservations should be made directly with the hotel, and we recommend making your reservations as soon as possible as space in the conference hotel is limited.

We are actively soliciting presentations for the technical sessions at the meeting. The presentations are 30 minutes long including questions.

You can submit your abstract on the registration form or by emailing Melissa Burk ([mellburk@yahoo.com](mailto:mellburk@yahoo.com)) by October 1.

### Registration Form:

<http://nmnwse.org/AM/2007/register>

Registration notes including scholarship policy:

<http://nmnwse.org/AM/2007/register/notes.php>

### Call for Papers:

<http://nmnwse.org/AM/2007/flyers.php>

### Conf. hotel:

<http://nmnwse.org/AM/2007/hotel.php>

### Contacts:

<http://nmnwse.org/AM/2007/contacts.php>



## Contents

### Special Interest Articles

2007 Annual Meeting 1

Board Elections 2

Southwest Night Sky Conference  
2

The Science Fair 3

Individual Highlights 4

Updates to Careers Book 5

## NMNWSE Board Elections

It's time again to set up the slate of candidates for next year's NMNWSE Board. For the last two years, we have done electronic voting in advance, with final in-person votes at the Annual Meeting. Georgia Pedicini would like to have a final slate by mid-September, and open the voting shortly thereafter.

Board membership is either in identified positions with specific duties, or one of several "at large" positions who attend meetings and contribute to decision-making consensus. Then there are a number of committees, usually consisting of one (1) board member and/or other responsibility to report progress.

The slate will list as many at-large volunteers as respond, with the expectation to elect at least 3 new members. All positions are 2-year terms, with the exception of the 3-year progression of VP / President / Past President. Note: this means the VP volunteer has 2 built-in mentors. We can use a fundraising chair or helper immediately!

Our continuing board members are:

**President:** Charlene Bausinger

**Vice-President:** Elizabeth Kallman

**Treasurer** (not up for election this year): Yolanda King

**5 continuing Members-At-Large:**  
(elected for 2007-2008)

Barbara Torres

Claudia Barreto

Dana Roberson

Emily Schultz

Mary Stinecipher Campbell

Positions requiring candidates are:

**Vice President (President Elect)**

**Secretary**

**Members-At-Large**

Please contact Georgia at [gap@LANL.GOV](mailto:gap@LANL.GOV) if you would like to stand for any of these positions, or if you would like more information.

---

*We received six outstanding nominations for new IMPACT! award to be given at the annual meeting - details at <http://nmnwse.org/ImpactAward/>. Please consider nominating someone next year!*

---

## Southwest Night Sky Conference to be held in Taos

NMNWSE's recently adopted Dark Sky Resolution, <http://nmnwse.org/darksky/>, states "...NMNWSE further encourages its members to help make others aware of the importance of preserving dark night skies...".

Thus we encourage NMNWSE members to consider attending the upcoming 1st Annual Southwest Night Sky Conference to be held 13-15 Sep 2007 at the Taos Convention Center in Taos, NM. The conference is hosted by the New Mexico Heritage Preservation Alliance (<http://www.nmheritage.org/>) and co-sponsored by the International Dark Sky Association (<http://www.darksky.org/>).

A conference brochure and registration information can be found online at <http://www.nmheritage.org/>. A representative from the board (Tinka Gammel) will be attending the conference - watch for her summary in the winter issue of the NMNWSE newsletter.

## The Science Fair: A Key Ingredient in the Recipe for Science Success

Claudia Barreto, UNMVC

The best way to learn science is to *do science*. An effective way to engage young women in science is to offer them student-centered, active learning activities which allow them to make the connections between science and its impacts on their lives and their world. A science fair project supports a student's aspiration to participate in scientific research, provides a stimulating and thought-provoking educational venture, and as a result can be one of the best learning experiences they undertake. Moreover, competing in a science fair is an excellent way to earn prizes, qualify for scholarships, and distinguish a college application.

Completing a science fair project is an exceptional learning experience because it involves much more than science. Projects typically require math applications and students get an opportunity to enhance their presentation skills when they prepare their display and discuss the project with judges. Personally, I am always extremely impressed with both the written and verbal communication skills of most students at fairs I have judged. Dissemination of information is a critical part of being a professional scientist and students get the opportunity to hone skills such as keeping journals, writing reports (that including graphics and bibliographies), preparing posters, and explaining their projects to judges. Given that the process involves the integration of concepts and skills from across the curriculum, students better appreciate why they need to have a broad based education.

***The Intel International Science and Engineering Fair (Intel ISEF) is the "world's largest pre-college celebration of science." Intel ISEF 2007 was held May 13-19, 2007 in Albuquerque, New Mexico. 1,492 students (646 or 43% female) from 47 countries competed for nearly \$4 million in scholarships and prizes. The fair required nearly 1,000 judges and a number of NMNWE members volunteered. Our participation in science fairs promotes our visibility and demonstrates our commitment "to encourage the entry into and career development of women in science and engineering professions." The following are insightful reflections by NMNSWE members on INTEL ISEF***

***"I served as a Grand Awards Judge for the ENGINEERING: Materials and Bioengineering projects. I judged 10 projects; the young scientists/engineers were from the USA, Russia, and Turkey. I now have hope for our nation's - and the world's - future because these young scientists/engineers were phenomenal: brilliant, poised, enthusiastic, motivated, and well-mannered. It was a lot of work to serve as a judge, but I'm so glad I volunteered. It was a humbling experience- these kids are brilliant!"***

***-- Diane Albert,  
Ph.D., J.D.***

## Individual Highlights

**Judy Hohmann** had a busy summer working on my pursuit of speaking and writing French and Spanish well.

Judy is a Veteran and will participate in the tenth anniversary of the opening of the Women's Memorial in Arlington, Virginia in November.

**Yolanda King** was recently named to the National Board for the Military Sensing Symposia or MSS. This is a first for someone from KAFB. For more info on MSS: [SENSIAC.gatech.edu](http://SENSIAC.gatech.edu)

*"I judged in the physics and astronomy category. Overall it was a good experience. The students participating were not only extremely bright, but extremely accomplished and poised as well, very different from myself and my friends when we were that age. The projects were amazing, several resulting in refereed journal papers or patent applications. The students built experimental apparatus in their garage or taught themselves FORTRAN for their projects. The students were very diverse, with lots of females, minorities and foreign nationals participating. Two women placed very high in the physics division. I did have a minor concern about the small number of female judges in this division and felt the female judges were not taken as seriously as their male counterparts, and that some of the comments made by male judges about the female students were inappropriate. I have included those concerns in my evaluation that I returned to the ISEF organizers."*

-- Wendee M. Brunish

*"I was a judge for the Environmental Science section. I was assigned 12 projects to judge and each judge was allotted 15 minutes of interview time with the student(s). I found the project to be very interesting and that at the end of my allotted 15 minutes I still had lots that I wanted to ask and talk about with the students. I found a couple of students who were invigorated by their projects - they wanted to make things happen with them. One student from Puerto Rico fervently said he would take his results to the government and make them enforce their own laws. Disappointingly, at the other end of the spectrum, there were students who did not seem to have thought any further than completing their project and did not have a desire to do something with what they had accomplished. The judging process was well organized. I felt like I was a small part of a great thing and happy to have done it."*

-- Kelly Collins

*"I judged in the engineering category. There were some fantastic entries. Most memorable are the discussions with the students, some of whom were from overseas. Perhaps the most engaging part of the judging was the debates that we judges had amongst ourselves after the general judging was completed, deciding the ranking of the finalists. I had such a good time that I am going to try to attend next year as a judge as well."*

-- Elizabeth Kallman

*"I judged in the chemistry section. I was assigned projects in my field (organic chemistry) and found the projects and the exhibitors well prepared and a pleasure to talk with. I thought that the arrangements and the logistics were very well planned and worked well. It was an uplifting experience and I hope that I will get a chance to judge at an International Fair again."*

-- Judith Mead

*"I was a Mechanical & Electrical Engineering CoChair for ISEF. This required a couple weekends of training and, most importantly, recruitment of judges. Because I was a CoChair I was not able to judge. I just had to help the Engineering Judges come to a mutually agreed upon decision of which projects ranked where. In typical Engineering fashion, we were getting calls to tell us to wrap it up, as we were the last group to get our results turned in!*

*I still remember one morning walking down through the stairs where a group of foreign students were sitting. I swear I could just feel the energy and excitement in the air as I passed through, even though I couldn't understand a thing they were saying!*

*This was a fantastic event to have come to New Mexico. With the technology developed in this state, our kids should have some of the best science and engineering opportunities available to them, and we should be developing this passion from the elementary age. Unfortunately, as I see it, overall, science and math interest and excitement seems to be decreasing in students in this state. I would hope that ISEF could be used as a catalyst to get whatever is needed to happen in New Mexico to grow our children's curiosity and abilities."*

-- Kim Linder

Science fairs offer an outstanding venue to students to showcase their achievements in scientific research. NMNWSE has long been involved in judging and sponsoring special awards for the New Mexico Science & Engineering Fair and the National American Indian Science & Engineering Fair. The latter has demonstrated that this educational experience promotes participation and boosts retention of other under-represented groups in the sciences.

*"It has been very eye opening to me to see how the cultural differences influence the approach to science, as well as the amazing efforts the American Indian Science & Engineering Society staff and the local communities have made to help students overcome barriers to doing science, especially when parental support was lacking. The main difference I have seen between this fair and other fairs I have judged is the percent of students whose projects are motivated by understanding or solving a problem in the community."*

-- Tinka Gammel

Involvement in the judging and presentation of awards at science fairs invariably proves to be rewarding and interacting with the students is an enriching experience. NMNWSE is interested in **conferring special awards at more local fairs. If you would like to see us give an award at a science fair or similar competition in your area, you may contact the board (NMNWSE\_Board-l@list.unm.).**

**For more information on Intel ISEF please see:  
<http://www.sciserv.org/isef/about/index.asp>.**

For a spreadsheet with overall gender demographic data for recent participants of the Intel ISEF and a detailed breakdown of gender participation by project area for the Intel ISEF 2007, please contact me at: [barr@unm.edu](mailto:barr@unm.edu)

## New chapters added to Careers book

Please check out the draft new chapters of the NMNWSE Careers book on "Paths to Success" by Lena Hakim (with companion article for parents), "Women as Leaders" by Barbara Torres, and "Histology" by Sally Breeden. While these drafts are close to final, we welcome suggestions to improve. A "box" expanding on working toward financial independence is also anticipated shortly. Our thanks to the authors, and all who provide or provided input!

The Careers book home page is <http://nmnwse.org/careers/>. All NMNWSE Expanding Your Horizons (EYH, <http://nmnwse.org/eyh>) conference attendees are given the Careers book in hardcopy or CD form. We also give copies of the CD to our science fair award winners and distribute copies of the CD at targeted events, such as the teacher orientation for the Supercomputing Challenge (<http://www.challenge.nm.org/>), to hopefully maximize the number of students it reaches.

We welcome additions and updates to the Careers book, as well as suggestions to improve and suggestions for publications from other organizations we might be able to get permission to add to the CD version, which last year included the New Mexico Careers Cluster Guidebook from the state Office of Workforce Training and Development, Physics in Your Future from the American Physical Society, and PC's in Space, a suite a science games, from author Tom Devlin of NASA.

We are actively seeking a volunteer familiar with Pagemaker software to incorporate the new chapters into the printed version of the Careers Book in time to be ready for our spring 2008 EYH conferences.

If you would like to contribute material or help with updates, please contact the NMNWSE board at [NMNWSE\\_Board-l@list.unm.edu](mailto:NMNWSE_Board-l@list.unm.edu).

NMNWSE

PO Box 1360  
Los Alamos, New Mexico, 87544 USA

