

# ◆ NATIONAL TECHNICAL NEWS ◆

Volume 6, Number 4

Fall 2000

## NTA 2000 Conference is Highly Successful

Hello NTA,

I want to express my appreciation for all the support provided for this year's conference! Your involvement through presentations, manning registration, moderating sessions, providing program ads for the conference booklets, and the phone calls and e-mails for good wishes really set the tone for the conference, and boosted the overall morale of the membership. This year's participation level was certainly up over last year's, and we are looking forward to doubling the attendance next year. It will happen, if each one brings one!

The Past President's Council is to be commended for their work and contributions. They have submitted to the Board of Directors a recommendation for next year's theme, and are eager to begin working with the conference planner.

The NTA 2001 Conference will be held in Atlanta, GA. More information will be forthcoming!

Katherine W. Coleman, NTA President

## NTA 2000 Conference Awards

As in previous NTA conferences, awards were presented in three major categories: Membership Awards (presented at the Membership Luncheon on Friday, October 20), also Technical Achiever Awards and Student Awards (presented at the Technical Achiever Awards Dinner on Saturday, October 21). An Awards Program booklet was given to all Conference registrants. The following is a listing of the awards and awardees.

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**MEMBERSHIP  
NEWSLETTER**  
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## Pam Denkins Selected as NASA Administrator's Fellow



Pamela Denkins, a member of the NTA-Houston Chapter and a former Regional Director, has been selected to participate in the NASA Administrator's Fellowship Program (NAFP) 2000. Ms. Denkins, a Radiation Specialist at the NASA/JSC, has chosen to work with Texas Southern University's Dr. Joseph Jones, Dean of the Graduate Research, and several other universities in the Texas-Louisiana area on increasing research partnerships between the universities, NASA, other governmental agencies, and industry.

Texas Southern University, one of many HBCUs and other minority serving institutions (MSI) participating in the NASA Administrator's Fellowship  
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(Awards Program, Continued from page 1)

## NTA Membership Awards

### **Samuel Cheevers Award**

Mr. Michael A. Chapman (Hampton Roads Chapter)  
Dr. George R. Carruthers (Washington DC Chapter)

### **A. T. Weathers Technical Achiever Award**

Mr. Guy King, P.E. (Houston Chapter)

### **Augustus Watson Chapter Award**

NTA Space Coast Chapter (Eric Green, President)  
Titusville, FL

### **James C. Jones Humanitarian Award**

Ms. Hattie Carwell (At Large, Oakland, CA)

## Technical Achiever of the Year Image Awards

### **Technical Achiever in Science**

Dr. Jocelyn S. Harrison (NASA Langley Research  
Center)

### **Technical Achiever in Engineering**

Dr. Eugene DeLoatch (Dean of Engineering, Morgan  
State University)

### **Technical Achiever in Architecture**

Mr. Henry Livas, Jr. (NASA Langley Research  
Center)

### **Technical Achiever in Education**

Dr. Sonya T. Smith (Department of Mechanical En-  
gineering, Howard University)

### **Technical Achiever in Mathematics**

Dr. Sandra J. DeLoatch (Department of Computer  
Science, Norfolk State University)

### **Technical Achiever in Government**

Dr. Donald J. Campbell (Director, NASA Glenn Re-  
search Center)

### **Technical Achiever in Business**

Mr. Charles Burkett (Enterprise Development, Inc.)

## Student Symposium Presentation Awards

### **Pre-College**

#### **First Place:**

Alexander Hawley (St. Andrews Episcopal School)  
“Fuzzy Logic: The Origins and Its Uses”

#### **Second Place:**

Bryan Bemley (Naylor Road School)  
“MicroAnts: A Genetic Algorithms Program”

#### **Third Place:**

Kevin Kenneybrew (Anacostia High School)  
“From Nintendo to Web Development”

#### **Honorable Mention:**

Ke’Anna Brown (Heritage High School)  
“Purification of Recombinant GST/IJK/D5 Protein”

### **Undergraduate**

#### **First Place:**

Aisha Reed (Jackson State University)  
“Diagnosing and Predicting Extreme Precipitation  
Events in Southeast Brazil” (See Page 5)

#### **Second Place:**

Jon L. White (Morgan State University)  
“The Bear Parallel Supercomputer”

#### **Third Place:**

Vaughery Ammons (Hampton University)  
“Evaluation of the Effect of Water Vapor on the Per-  
formance of NASA’s NMRO Catalysts for Carbon  
Monoxide Oxidation”

### **Graduate**

#### **First Place:**

Rachel Bonas (Howard University)  
“When and How Personality Types Affect User Satis-  
faction and Usability”

#### **Second Place:**

Keisha Johnson (Morgan State University)  
“Image Registration Using Mutual Information”

#### **Third Place:**

Gail Harriott (Howard University)  
“Toward a Fault-Tolerant Distributed Jini Environ-  
ment”

### History of the National Technical Achiever of the Year Image Awards

The first Annual National Technical Achiever of the Year Awards Program, also known as the Academy Awards of Science, Engineering, and Technology, was held on April 6, 1991 at the Four Seasons Hotel in Houston, Texas. This event was sponsored by the National and Greater Houston Area Technical Achievers Academy, a National project of the NTA Houston Chapter.

Eighteen awards were established and given the first year. Recipients received National Technical Achiever of the Year awards in four categories. These categories were: 1) Student – Mr. Robert Orphre VI, of Oak Village Middle School, Houston, Texas; 2) Humanitarian – IBM Corporation, for its long term support of the Houston area NACME Affiliate, Gulf Coast Alliance for Minorities in Engineering; 3) Organization – Houston Independent School District’s Booker T. Washington High School for the Engineering Professions; and 4) Individual – Ms. Madolyn J. Reed, retired chairperson of the Houston Independent School District’s Department of Mathematics.

The Technical Achiever of the Year awards program was adopted by the Executive board of the National Technical Association in 1993. The name was modified from Technical Achiever of the Year Awards to Technical Achiever of the Year Image Awards. Awards are presented only in categories where nominations are received. This year, seven awards were made to achievers in the following areas – business, science, architecture, mathematics, engineering, education, and government.

The NTA goal is to publicly recognize the many contributions of minority technical professionals, as a means of stimulating African American and other minority youth to seek like levels of achievement.

*(Pam Denkins, Continued from page 1)*

Program (NAFP), is now in its second year of involvement with the program.

The NAFP is designed to enhance the professional development of NASA employees and the Mathematics, Science, Engineering, and Technology (MSET) faculty of minority-serving institutions. The program also aims at increasing the capability of minority-serving institutions to respond to NASA's over-all research and development mission.

### Pam Denkins Presents in Greece

Pamela Denkins, a member of the NTA-Houston Chapter, a NASA/JSC employee, and a Ph.D. Candidate in the Environmental Toxicology Program at Texas Southern University, presented in Santorini, Greece at the 13<sup>th</sup> Humans in Space Symposium, May 20-25, 2000. The conference was sponsored by the Greek Aerospace Medical Association, the International Academy of Aeronautics, and the Universities Space Research Association Center for Advanced Studies.

Ms. Denkins spoke on “Radiation Transport Modeling and Assessment to Better Predict Radiation Exposure, Dose, and Toxicological Effects to Human Organs on Long Duration Space Flights”. Her paper was well received. In addition to presenting, Ms. Denkins served as a Rapporteur for the Radiation Physics Section of the conference. According to Ms. Denkins, “It was a very rewarding experience to be included among such outstanding persons in radiation research. The conference was also an opportunity to meet with world-renown radiation researchers and assess the kind and quality of research underway in the field.”

### NTA Technical Achievers Awards Program NTA 2000 Conference



Dr. Jocelyn Harrison (Technical Achiever in Science) receives award from Katherine Coleman.



Dr. Eugene DeLoatch (Technical Achiever in Engineering) receives award from Guy King and Katherine Coleman.

## NTA Albuquerque Chapter 2000 Annual Report

Members of the NTA Greater Albuquerque have been involved in several community service activities in which science and technology were promoted.

Throughout the year, they have shared information on scholarships and programs in science and engineering to many individuals. In addition to this, the chapter sponsored an ACT Preparatory course for high school students at a local high school in Albuquerque. Listed below are various activities in which NTA members participated.

### Department of Energy Science Bowl

Members served as volunteers at the New Mexico state DOE Science Bowl Competition on February 19, 2000 at Albuquerque Academy.

### Support to the Albuquerque NSBE chapter

Volunteer and equipment support were provided by a member to the local Albuquerque National Society of Black Engineers (NSBE) chapter during a Regional NSBE conference in Albuquerque, New Mexico from February 4-6, 2000.

### Mathcounts

An individual from the chapter served as a grader and proctor for the Mathcounts program on February 26, 2000.

### Sandia National Laboratories Youth Conference on Environmental Issues

A chapter member participated in the Sandia National Laboratories Youth Conference on Environmental Issues on February 29, 2000.

### Northwestern New Mexico Regional Science and Engineering Fair

Members were judges at the Northwestern New Mexico Regional Science and Engineering Fair on March 17, 2000. One member was a judge in the Junior Chemistry category and another member was a judge in the Junior Engineering category.

Members continue to support this program and participated in planning and mentoring students in this program throughout the year. One of the mentoring activity occurred when a member assisted students from Sandia High School in selecting subjects and in planning for science fair projects at a Science Fair Mentoring Meeting on October 18, 2000.

### NAACP ACT-SO

Jaci Hernandez was the NAACP New Mexico state Academic, Cultural, Technological, and Scientific Olympics (ACT-SO) coordinator for the year 2000. Also, she was the coordinator for the ACT-SO program for the NAACP Santa Fe branch and assisted in organizing and recruiting participants for the ACT-SO program for the NAACP Rio Rancho branch.

Jaci Hernandez and Corliss Johnson were mentors to ACT-SO students in Science and Humanities categories. They are assisted in the planning and coordination of the local NAACP ACT-SO competition and fundraising events for the NAACP ACT-SO programs of the Santa Fe, New Mexico and Rio Rancho, New Mexico NAACP branches.

### ACT Prep Course

Greater Albuquerque chapter members conducted the NTA and Highland High School American College Test (ACT) Preparatory course at Highland High School in Albuquerque, New Mexico. Members taught and provided information to students about the ACT. The course took place on Saturday mornings from 10:00 a.m. to 12:00 noon from September 30 to October 21, 2000.

### NTA PERC and Web Site Committee Meeting

On the first day (Oct. 18) of the NTA 2000 Conference, a joint meeting of representatives of NTA's Publications and Editorial Review Committee (PERC) and NTA World Wide Web Site Committee was held.

Among the objectives of the meeting was to discuss, plan, and implement the most appropriate means for communication (via printed publications, or via the Internet and World Wide Web) for the various information (including advertisements) we wish to distribute to the NTA membership and others with similar interests.

One impediment to our publications (particularly the *NTA Journal*) in recent years has been the lack of adequate advertising support to allow potential publishers to "break even". This, in turn, has been largely due to the limited circulation of our publications, which reduces their appeal to advertisers. In the case of recruitment advertisements, the typically long times between ad submission and publication distribution has also been a problem.

Means for correcting these problems, which have been suggested, include (1) joining forces with other

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## A Student Presenter's Research and Experience at the NTA 2000 Conference

Aisha Reed  
Jackson State University  
Junior/ Meteorology major

From the dates of October 20-21, 2000, I attended the National Technical Association's 72<sup>nd</sup> Annual Conference, entitled "The Black Engineer in the New Millennium." It was a very insightful meeting; I was able to meet African American professionals in a variety of scientific and technical fields.

I was also able to attend a career fair, where I learned about different summer opportunities in the scientific field, and I attended presentations where other students presented their research. I also presented my own research, which is entitled "Diagnosing and Predicting Extreme Prediction Events in Southeast Brazil." This research was performed over the summer as a part of my participation in Significant Opportunities in Atmospheric Research and Sciences (SOARS) in Boulder, Colorado. I did my research at the National Oceanic and Atmospheric Administration's Climate Diagnostics Center, where I worked with Brant Liebmann.

In doing my research, I looked at atmospheric circulation patterns that are associated with extreme precipitation events. I also observed the development and dissipation of the South Atlantic Convergence Zone (SACZ) as the events progressed. My research was dealing specifically with the state of Sao Paulo during the years of 1979-1995. It was observed from this research that convection develops at most two days before an event and dissipates about two days after the event has occurred. There were also troughs located in the area as the events are occurring. Also, from this research, my mentor and I observed a phenomenon that had not been observed before. It appeared that convection from the SACZ was feeding convection into the Intertropical Convergence Zone.

Attending the conference was an enlightening experience, and I was ecstatic about sharing my research with fellow scientists. As a result of the undergraduate research presentations, I received first place (beautiful plaque and a cash award of \$1,000) for undergraduate college students' presentations.

## MAAT Science Village Opening

Hattie Carwell  
US Department of Energy, Berkeley Site Office  
Oakland, CA

Oakland is home to the Museum of African American Technology (MAAT) Science Village, one of the first science museums with an African American focus to open its doors. It is located at 630 20th St., Oakland, CA. It serves a leading force in promoting science education and awareness for the underrepresented.

Soon after the premier exhibition sponsored by MAAT Science Village at Defremery Park in Oakland, a well known Oakland businessman, Raymon Dones, who is an associate of the Strategic Urban Development Alliance (SUDA), a joint venture between Bank of America and several local business enterprises, stepped forward and gave the much needed home the science museum desperately needed.

One of the museum science village's objectives is to establish links in the community with technology as the need arises. SUDA was seeking technical assistance with several of its development projects, and MAAT Science Village needed a supporter and a way to generate revenues. SUDA is providing space and collaborative opportunities centered around energy efficiency in residential and commercial buildings. MAAT Science Village will muster the technical talent required by SUDA projects.

This alliance mirrors the underlying principles of Ma'at, the ancient Egyptian principle of Ma'at which represents justice, truth, righteousness, accuracy, honesty, fairness, faithfulness, integrity, harmony, reciprocity, or how things relate. Ma'at easily explains that science is a cultural experience, which reveals the secrets of nature and the order of everyday life.

MAAT Science Village chronicles the technical achievements of people of African descent from ancient times to the present, and provides science education and awareness activities for students and adults. Computer classes at the Internet Cafe, science education activities and seminars are the main services offered. Also, there is a resource library, which is a one-of-a-kind that collects the written works of African American scientists and engineers, and publications about them. Scholars and teachers will find this library to be the best and most comprehensive collection of books, periodicals, and video tapes in the US on the subject.

The grand opening was on December 2. The facility is designed for the whole family to have fun with

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 science. For more information, call (510) 893-6426, or visit the website: [www.ncalifblackengineers.org](http://www.ncalifblackengineers.org).

**NTA International Presence**

Hattie Carwell (NTA International Liaison)

So as the nation goes global, so does the National Technical Association. There has always been an NTA interest in technical development outside of the United States. The careers of many members have led to work abroad. Other have pursued independent consulting and volunteer activities in various countries in Africa, the Caribbean, South America, and Europe. In the late 1970s, two NTA members were selected to participate in an invitational visit to Jamaica to confer with the Jamaican government on technology development in that country. Individual members of NTA have participated in the African /African American Summits sponsored by Reverend Leon Sullivan, and have taken the leadership in the development of the technical sessions.

To continue to foster this interest, NTA has joined forces with the Northern California Council of Black Professional Engineers (NCCBPE), a sister organization (which has an active solar energy project in Ghana and will soon initiate a wireless communications project in Nigeria), to keep the NTA membership informed about opportunities and to create links abroad which facilitate the development of projects.

(PERC / Web Site, Continued from page 4)  
 Black technical organizations (in a jointly-produced *Journal*), which would provide a much-increased circulation; and (2) seeking product- and service-ads, in addition to recruitment ads. The short turn-around time requirements of recruitment ads, in particular, could best be addressed by use of the World Wide Web, rather than printed media, for their dissemination.

The committee members also discussed the best ways to coordinate the efforts of the Publications and Web Site committees. The most comprehensive action, which was agreed to by all members present, was to combine the two committees into a single committee. This, it was felt, would improve communications between those members working primarily in one or the other communications medium. In particular, it was pointed out that Conference announcement information, including requirements for abstract submission, must be consistent between the Web site and the Newsletter versions.

Means suggested for enhancing our Web site offerings included publication of abstracts (and papers, in .PDF format), and adding links to other Black technical organization web pages, and to other resources of interest to African American professionals and students. It was also agreed that we should solicit suggestions from the NTA membership, for Web site and publications enhancements.

**NTA Web Site:** <http://www.ntaonline.org>  
*Please send us your comments / suggestions.*

George Carruthers, NTA PERC Chairman  
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**Holiday Mixer for the Atlanta Chapter of the National Technical Association**

On December 14, the Georgia Space Grant Consortium hosted a holiday mixer for the Atlanta Chapter of the National Technical Association. Founded in 1926, the National Technical Association is the oldest organization for African-Americans in technical careers.

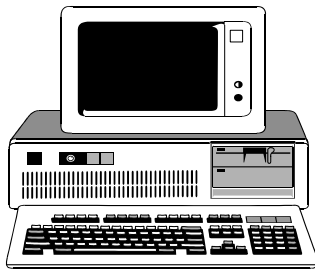
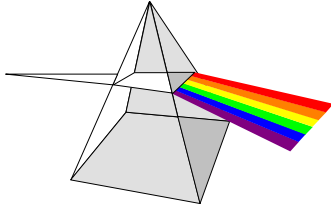
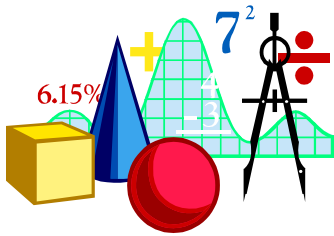
This event was to encourage networking, new programs, and comraderie between present members, potential members, and guests. The occasion was festive, with tasty hors d'oeuvres, holiday decorations, music, and door prizes.

The event was held at Georgia Tech's Wardlaw Center in the Gordy Room from 6 pm to 9 pm. For further information, contact Shannon Burroughs, Georgia Space Grant Consortium, at 404-894-1793.



NTA past president Larry King was Plenary Luncheon Speaker at the NTA 2000 Conference. At the table, from left, are Katherine Coleman, James Jennings, and James Harris.





## PLEASE SEND US YOUR NEWS!

We are hoping to enhance the frequency and timeliness of the National Technical Association (NTA) Newsletter. Please send news items you feel would be of interest to professionals, students, and educators involved in science/technology fields and/or of interest to the NTA Membership (ELECTRONIC SUBMISSION PREFERRED).

Please include with your submission your name, telephone number, e-mail and snail mail address. Please also send an information copy of whatever you send us to your Chapter President and/or Regional Director.

In our attempt to be faster and cheaper, and eventually better, we format the Newsletter in Microsoft Publisher 98. Therefore, submissions in MS Word 95/97 or Powerpoint 95/97 are preferred (although Word Perfect and .TXT submissions can be converted). Any photographs or drawings should be black and white or color in .JPG or .BMP format.

**Please submit to EACH of the following:**

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**In This Issue...**

***NTA 2000 Conference Report—Member Honors & Awards—Programs***

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