

◆ NATIONAL TECHNICAL NEWS ◆

Volume 10, Number 3

Summer 2004

Dr. Linda Hayden Honored for Excellence in Science, Mathematics, and Engineering Mentoring



NTA National Secretary Dr. Linda B. Hayden, professor of computer science at Elizabeth City State University, was one of 9 individuals and 8 institutions to be awarded, by President George Bush, the 2003 Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring (PAESMEM).

This award recognizes the people and institutions that have provided broad opportunities for participation by women, minorities, and people with disabilities in science, mathematics, and engineering in elementary, secondary, undergraduate, and graduate education. Each award includes a \$10,000 grant for continued mentoring work.

Dr. Hayden is a tenured professor of computer science with 30 years of college experience in teaching and nurturing student researchers. Her science programs include Nurturing ECSU Research Talent (NERT), several efforts funded by NASA, and the Celebration of Women in Mathematics program. She works with undergraduate students, middle- and high-school-aged

(Continued on page 2)



MEMBERSHIP NEWSLETTER
A Publication of The National Technical Association
Incorporated 1926

2003-2004 NTA BOARD OFFICERS

President
Frank Robinson, Jr.

President Elect
Dr. William Lupton

Treasurer
Philomena Johnson

Secretary
Dr. Linda B. Hayden

Historical Publicist
John H. Thompson

Registered Agent
Rupert F. Graham, Jr.

NTA Dayton Chapter Re-Established as Wright Patterson AFB / Dayton Chapter



Chapter members, from left: Sandra Fields, Keith Jones, Samuel Brown, and Ronnie Pope

This spring, the NTA welcomed back the Dayton chapter, newly titled the Wright Patterson AFB/Dayton chapter.

The Chapter Chairperson is Ronnie L. Pope, Sr. (acting, until first elections); he is Engineer, Aeronautical Systems Center, Training Systems Product Group [Air Traffic Control] Technical Lead, Towers Simulation System Program, at Wright-Patterson Air Force Base, OH.

Chapter Secretary is Samuel Brown, Jr. (acting, until first elections); he is a Major (USAF) Retired, Aeronautical Systems Center, Training Systems Product Group, Distributed Mission

(Continued on page 2)

Also In This Issue:

HTS Smart Academy	p. 2
Venus Transit	p. 4
NTA Board Meeting, Chicago	p. 4
Cleveland Robotics Competition	p. 5
NTA Conference Workshops	p. 6
Dr. Willie Mackey	p. 6
NTA 2004 Conference	p. 7,8

(Hayden Award, Continued from page 1)

girls and K-12 teachers, and extends her reach to a number of historically Black colleges and universities around the country, revealing a deep commitment to increasing the number of minorities in scientific and technical careers.

Our congratulations to Dr. Linda Hayden!

(Renewed NTA Chapter, Continued from page 1)

Operations Division, at Wright Patterson AFB.

Other chapter members are: Ms. Sandra Fields, Security Manager at Aeronautical Systems Center, Training Systems Product Group, Distributed Mission Operations Division at Wright Patterson; and Dr. Keith Jones, Systems Engineer and Scientist at Avionics, Avionics Integration, Electronic Warfare, Air Vehicle Training System Standards; Training Systems Product Group, Distributed Mission Operations Division, Wright Patterson AFB.

Keith Jones works as the Lead Standards Engineer, Combat Air Force (CAF) Distributed Mission Operations (DMO), Training Systems Product Group, Aeronautical Systems Center at Wright-Patterson AFB, OH. During his career, he has worked as an electronic warfare engineer, avionics systems engineer, researcher, and educator. Keith's current research interest includes electronics, systems, systems science, systems engineering, biomimetics, and history of science & technology. Keith was awarded a BS in Engineering (Electrical Option), Wright State University, Dayton, OH; MS in Management Science, University of Dayton, Dayton, OH; MS in Engineering, University of Dayton, Dayton, OH; and PhD in Applied Science & Technology and History of Science & Technology from The Union Institute & University, Cincinnati, OH.

Quotation:

"Nothing is wrong with innovation. Being an innovator allows you stand apart from everyone else. You create a style, a device, a function that is original. Your approach, its look, your effort is different and novel. You will be criticized and dismissed because of such difference. Likewise, criticism will occur because of your new creation. Such are the challenges that great innovators experience. Such are the challenges that an innovator must be willing to accept as part of the innovative experience: from basic to applied research and from development prototype to product usability. The "true" innovator does not desire to be like or create a device or function that resembles

everyone else's creation. He or she desires to use creativity to inspire self and others." --Keith Jones

Our congratulations and best wishes for the resurrection of the NTA Dayton Chapter!

Garry Harris, HTS Enterprise, Spearheads Smart Academy for Georgia Students

Atlanta, GA – July 12, 2004: It could be said that the kids at Toney Elementary School, don't have lot of things. Predominately African-American, the neighborhood surrounding Toney Elementary is considered poor and neglected; yet luckily the school is rich in the spirit of learning and exposure to science and technology. This school, you see, is blessed with driven administration and teachers, as well as the Smart Academy, an innovative, Saturday program to created to enrich the young minds of students with additional instruction and exposure to scientific, artistic and other academic endeavors.

Toney Elementary sits directly behind a Piggly Wiggly in Decatur, GA. The school, nestled in a struggling area 10 miles from Atlanta, quietly educates neighborhood children without the amenities that are routinely found in richer school districts. The school, 100 percent African-American, has experienced segregation first driven by economics, then by race. Most of the students are from families featuring one parent, and 40 percent are being raised by a relative or guardian who is not their parent. The surrounding neighborhood is a place where children grow up entirely too fast, plagued with the survival concerns not experienced by other more economically-advantaged kids whose only worries are the 3Rs, the latest video game, and the sweet reckless dreams of youth. Here, it is common for very young children, to have responsibilities for taking care of themselves, including getting ready for school. Generally, it is an environment in which the future is at best cloudy and where learning takes a backseat to existing.

Enter the Smart Academy, a Saturday program designed originally to give these kids a leg up, but, thanks to a unique collaborative, became a new momentum in learning to challenge students to learn and dream their way to an enriching academic future. The Smart Academy, sponsored by Omega Psi Phi Fraternity's Kappa Alpha Alpha chapter, is co-directed by Garry A. Harris, and Jackie Richardson, Assistant Principal of Toney Elementary. Harris, CEO/President of HTS Enterprise LLC and the Omega fraternity's

(Continued on page 3)

(Continued from page 2)

chair for the Assault on Literacy committee, has made community service one of the tenets of his life and that of his company. Their efforts were not the first time a tutoring program was enacted. The roots of the Smart Academy sprouted from a multi-year tutoring program, created and sponsored by the Omega fraternity. brotherhood. However as Garry and Jackie began to review the program, a new challenge loomed for the children. The school and its students needed a means to improve performance on the state standardized test. So as the Smart Academy team and program were retooled in December 2003, significant changes were made to improve both the learning experience and motivate attendance with fun yet insightful exploits.

The first session started with 12 children. In addition to two hours of basic tutoring in math and science, the students were treated to breakfast and an hour of activities featuring the arts, drama, theatre, sports and science & technology. To round out these learning encounters, special events and trips were added to incite interest and meet some of the challenges. Children attend Smart Academy sessions twice a month and participated in special events such as a Small Business Day to acquaint them with entrepreneurship, and a Black College Day to visit the campuses of local Historically Black Colleges (HBC). The principles of Omega Psi Phi, Fraternity, Inc.-- Manhood, Scholarship, Perseverance and to Uplift --were consistently incorporated in the program to inspire responsibility and growth. To meet the distinct needs of young women, the Smart Academy provided a Woman's Day, complete with a forum and speakers who addressed the special challenges of being female.

Those facets of the academy were wonderful. Where the Smart Academy delivered a definitively unique experiences for its students, however, was through an emphasis on science. With presentations from local engineering, environmental, and manufacturing firms -- entities usually foreign to inner city minorities -- a technology day was envisioned, then crafted in order to provide rare opportunities for the bright-eyed students to learn about real-life scientific applications and to explore hands-on science experiments. The children at Toney Elementary also got a rare chance to meet Dr. Larry Foulke, President of the American Nuclear Society. Known as the "traveling president" in nuclear industry circles and world-renown for his technical prowess, Dr. Foulke spoke to 70 to 80 fifth graders about the benefits of nuclear science and technology. Afterwards, he said, *"The young audience was delightful. I began by asking how many wanted to grow*

up to be engineers and scientists (about 20 percent) and how many wanted to be lawyers (about 50 percent). I then spoke about the benefits of nuclear science and technology and the difference it makes in our lives. After my remarks, the students asked a number of questions, such a show much money does a nuclear engineer make, who are some famous engineers, do nuclear engineers make bombs, do we use animals for testing, do I like my job, and how much do I travel."

At the end of his visit, two-thirds of the student audience raised their hands when asked, who wanted to grow up to be a nuclear engineer. Since Dr. Foulke's visit, interest and enrollment in the Smart Academy dramatically increased. Harris, who is also the Chairman of the Atlanta Chapter of American Nuclear Society, is considering additional outreach projects to children, in hopes of creating more future engineers and technologists.

Numerous accolades have been received by the Smart Academy and its supporters since it's inception. Garry Harris and brothers of Kappa Alpha Alpha chapter, were honored by their Omega Psi Phi brotherhood by being nominated for the Chapter of the Year Award. The Smart Academy team has received congressional recognition from US Representative Denise Majette and locally government entities. The press has featured Toney Elementary in *USA Today*. The most telling success is that the program has grown to 250 children, eager to learn and experience that which regular school cannot afford to grant them and the children passed the Georgia state standardized test with over a 98% success rate.

More than the assistance given to the children of Toney Elementary, the good works done by Omega Psi Phi, HTS Enterprise and American Nuclear Society through the Smart Academy, have definitively created a new paradigm of social organizations, business and professional scientific societies working together to create the next generation of engineers, scientists and technical leaders. Perhaps planted in these small academic and scientific seeds, the next George Washington Carver, Ben Carson, or Granville Woods of this nuclear age will arise to take his or her place in the annuals of science.

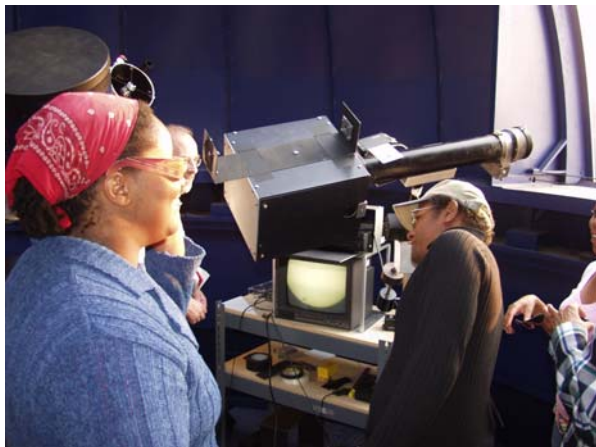
REMINDER!
NTA 2004 Conference Sept. 15-18
Tuskegee, AL
Make your Hotel and Travel Reservations
Soon!

Venus Transit Public Viewing Held at Howard University Observatory

On June 8, 2004 occurred one of the rarest of astronomical events; a transit of the planet Venus in front of the Sun. The last such transit was in 1882, or 122 years ago! This event was viewable in total in Europe and Africa, but only the last 1/3 or less of the event could be viewed from the eastern United States.

Science, Mathematics, Aerospace, Research, and Technology (S.M.A.R.T.), Inc. and the Department of Physics and Astronomy at Howard University co-sponsored public viewing of this event at the university's on-campus (Locke Hall) observatory. The NTA DC Chapter also participated.

In addition to and prior to the actual viewing, which began shortly after sunrise (about 6:00 AM EDT), viewing of a web-cast (via Internet) view from Europe, beginning at 1:00 AM on June 8, was made available in the Locke Hall astronomy classroom.



Dr. Demetrius Venable (right), head of Howard U.'s Dept. of Physics & Astronomy, with some of the many visitors who came to view the transit of Venus, live, using the solar telescope and video camera.



Venus (black dot) shown transiting the Sun in the video image (north is to upper right).

NTA Board of Directors Meeting Held in Chicago, IL July 17, 2004



NTA Board of Directors members following their meeting at the Chicago Conference and Learning Center (from left): Frank Robinson, Allan Harris, Quelina Jordan, Linda Hayden, Kathleen Prestwidge, William Lupton, Philomena Johnson, Dexter Johnson, Darrell Thomas, and Rupert Graham. (Photo taken by George Carruthers)

The NTA Board of Directors met on July 17, 2004 in the Conference and Learning Center, at U.S. Cellular Field in Chicago, IL. Mr. Jerry D. Blakemore of the Illinois Sports Facilities Authority welcomed the board. NTA president Frank Robinson expressed thanks to Registered Agent Rupert Graham for facilitating the meeting location.

The First Annual NTA Career Day was conducted on May 12, 2004 with excellent participation by chapters and members. The National Career Day concept was a goal of the Joint Leadership Team. The NTA Executive Committee is investigating the concept of having a National NTA Robotics Competition at the 2005 Conference.

Other items addressed during the board meeting include the following:

- Selection of the NTA 2004 Conference slogan:

(Continued on page 5)

(Continued from page 4)

Nurturing Technical Achievers

- Selections for the Technical Achievers Awards were approved
 - Agreement that the NTA mission statement should be revised to reflect current goals and activities
 - Agreement to continue the current contract with our operations management firm, Centralian Systems.
- Other meeting attendees included George Carruthers (Publications), Patrice Thomas (Secretary, NTA Space Coast Chapter), Constance Bradford (Houston Chapter), and Shannon Walton (NW Member-at-Large).

NTA Cleveland Chapter Partners for Robotics Competition

NTA's Cleveland Chapter entered into a collaboration with the YMCA of Greater Cleveland Black Achiever program to sponsor a robotics team. The robotics team competed in the Engineers and Technicians of the Future (ETF) 2004 Summer Robotics Competition.

The team consisted of six students from throughout the greater Cleveland school district. There were three boys and three girls. Cameron, Karion, James, Chare, Maya, and Ashley ranged from 13 to 17 years of age. These students attended schools in South Euclid, Hawken, Maple Heights, Streetsboro, St. Thomas Aquinas, and Shaker Heights Ohio. Cameron was the robot operator.

The robotics team selected the name B-unit. This name follows the story line of the story the team submitted in the competition. The "B" stands for bear. The name of the B-unit robot is D-Bear.

The Robot

In our story, D-Bear is a Trojan horse - a robot that looks like a Russian bear. D-Bear's operator is Billy Bob Joe. D-Bear is sent to the Soviet Union Aerospace warehouse as a gift. While in the Soviet Union, Billy Bob completes his mission while getting in and out of a variety of predicaments.

D-Bear is constructed from a remote control car chassis, ½ inch aluminum angle and channel, a plastic bin, and a comb. The comb is used to snare the documents as the robot drives by the documents. The bin captures the falling documents. The bin has a door on the bottom, which is opened once the robot reaches the goal.

The Competition

On Friday August 6, 2004, the team competed for prizes. During competition, two teams go head to head. The objective was to remove five documents

at a time without dropping any and placing them in a goal. The documents are 1 ¾ inch plastic cylinders hanging 22 inches off the ground located in one corner of a 32 foot x 32 foot playing field. The goal is 18 inches high and is located in the center of the field. Each team has their own pick-up location and goal. The competition theme was a Secret Spy. The documents were top-secret designs of the Soviet Union new Jet Aircraft. Each team works for the Central Intelligence Agency. Their mission is to retrieve these documents.

The Results

Competing against six teams, B-unit gave a valiant effort. B-unit walked away with greater understanding and appreciation about robotics and captured the following awards: 2nd place overall, Best Looking Robot, and Best Team Art Display. Congratulations B-unit!

Thanks go out to YMCA of Greater Cleveland, and NTA members and volunteers Mark Sorrells, Khary Parker, Roland Gregg, Terri Rodgers, Quelina Jordan, Frank Robinson, Al Johns, and Eric Kleckley.



B-Unit Team, just before robotics competition



B-Unit Team Accepting 2nd Place Prize

Business Coach Franne McNeal to Conduct Professional Development Workshops at NTA 2004 Conference



Bring your work-out mind and get your game face ready! The following two workshops will be held on Thursday, September 16, 2004.

Good Networking

Networking is more than chatting with a few people, when you are about to lose your job. Learn how to both give and get from networking. Make your networking “good” so that it enhances your career planning. Use the techniques of generating, optimizing, organizing, and delivering to leverage your skills.

Mind Your Business

Whether you are an intrapreneur or an entrepreneur, it is critical to know the business! The business of business connects with strategy, products, services, management, employees, clients, customers, stakeholders, and the community. Showcase the wealth within yourself and connect to your goals.

Franne McNeal - Resume

Franne facilitates Significant Business Results™ with effective communication, commitment and creativity, and brings high energy and professionalism drawing from her 20+ years as a leader, entrepreneur and technologist. Franne has successfully worked globally and locally with organizations to implement Significant Business Results™. She is the author of the book: "Tie it Up: Marketing on a Shoestring: Ideas to Get Your Business Walking, Working and Worthy". She has published several articles including “Manage Your Business Virtually” and “Build Your Business Today”. She is a contributing writer to *The New Pittsburgh Courier*, *The Resource*, and the *Black Suburban Journal*. She hosts two internet radio shows: The BDPA Internet Radio Show, and WOW!: Wisdom, Opportunity Within, on the Streaming Radio Network of AAWIT.

Franne has presented at international, national and local conferences. She has been a guest on local, regional and national radio and TV shows, including

The Bev Smith Show.

Franne has B.A. from Princeton University. She also has certificates in human resources, middle management, organization development and project management.

In Memoriam:

Dr. Willie R. Mackey, 1953-2004

Adapted from: The Cleveland Plain Dealer,
August 8, 2004

NTA lost a special person Friday, August 6, 2004, in Dr. Willie Ray Mackey (Osagyefo Karimi Salmone Faye), who passed away suddenly in his sleep.

Dr. Mackey was a renowned scientist and African dancer. Born in Memphis, TN and raised in St. Louis, MO, he received a Bachelor of Arts in Physics and Mathematics, with a concentration in African American Cultural Arts, from Oberlin College. He then went on to earn a Ph.D. in Astrophysics from MIT.

He was founder of the Cooper Community Science Center in Roxbury, MA; the Institute of Rational Analysis in Boston, MA; the Amiraka Afrique, in Dayton, OH; the Po Tolo Studio Complex, Cincinnati, OH; and the McNair-Diop Astrophysical Institute.

He also performed extensively throughout New England with the Art of Black Dance and Music, and completed a 7-year apprenticeship under Raymond Sylla of Senegal, West Africa. He also served on the Ohio Arts Council Dance Panel.

He was Assistant Professor of Mathematics and Physics at Wilberforce University, and at the time of his death, was a Spacecraft Plasma Physicist at the NASA Glenn Research Center in Cleveland, and Director of Modern Africa Tama Tama.



Shown (left to right) in this recent photograph:
Top Row: Dr. Felix Miranda, Dr. David Kankam, Dr. Willie Mackey, Dr. Dexter Johnson; Bottom Row: Dr. Marla Perez-Davis; Dr. Woodrow Whitlow.

2004 NTA Conference & Opportunity Fair

Registration Form

- Registration fees include admittance to the conference technical sessions, career development workshops and seminars, and the Technical Career & Opportunity Fair. Note that only plans A, B, C, E and F include admittance to all meal functions. Refer to chart below for additional ticket prices.
- Early Bird registration rates ended May 31, 2004. Regular registration rates apply on June 1, 2004.
- Make fees payable to the National Technical Association.
- All refund requests must be received in writing prior to August 1, 2004.

By Mail: NTA Conference, 1761 East 30th St., 100A, Cleveland, OH 44114

By Fax: (216) 289-3015

Credit Card Payments: **Only MasterCard or Visa Accepted**

Three easy ways to register:

By the Web: www.NTAonline.org

By Mail or FAX:

Name: _____ Title: _____

Company: _____ Department: _____

Address: _____

City/State: _____ Zip Code: _____

Telephone: _____ Fax: _____

Email Address: _____

Preferred Name on Badge: _____

NTA Member: _____ Chapter: _____

- [] **Plan A: Member \$350**
- [] **Plan B: Non-Member \$425**
- [] **Plan C: Auxiliary/Spouse \$225**
- [] **Plan D: Professional One Day \$200**
- [] **Plan E: Student Member \$150**
- [] **Plan F: Student Non-Member \$175**
- [] **Plan G: High School Student \$50**

TOTAL REMITTANCE \$ _____

Additional Lunch Tickets Only \$40

Additional Banquet Tickets Only \$50

Check Number _____ **PO Number** _____ **Invoice Number** _____

Date Received _____ **Date Cleared** _____ **Amount Received** _____

FOR OFFICIAL USE ONLY

- [] **Check**
- [] **Purchase Order**
- [] **Other**
- [] **MasterCard**
- [] **Visa**

Company Purchase Order Number _____

Credit Card Number _____ **Expiration Date** _____ / _____

Signature _____

**National Technical Association
74th Annual Conference and Technical Career Opportunity Fair
Schedule**

WEDNESDAY

8:00 AM	9:00 AM	Continental Breakfast
9:00 AM	11:30 AM	School Visitation
12:00 PM	1:30 PM	Lunch on YOUR OWN
2:00 PM	3:30 PM	Opening Plenary: Bill Magwood, US Dept of Energy
3:30 PM	3:30 PM	Tuskegee University Tour
7:00 PM	9:00 PM	Discussion & Dessert: Tuskegee Game Night

THURSDAY

8:00 AM	9:00 AM	Continental Breakfast
9:00 AM	10:00 AM	Science Session GOOD Networking Workshop Past National Presidents Meeting
9:30 AM	11:00 AM	The HBCU/MI Role in the Sci-Tech Pipeline Panel
10:00 AM	11:00 AM	Information Science & Systems Session
10:30 AM	11:30 AM	Chapter Workshop - Operations
12:00 PM	1:30 PM	Membership Luncheon - Dr. N. Joyce Payne, National Association of State Universities & Land Grant Colleges
2:00 PM	3:00 PM	Auxiliary Meeting
2:00 PM	3:30 PM	State of Technology in Our Communities Panel
2:00 PM	5:00 PM	Engineering Session Mind Your Business Workshop
3:30 PM	3:30 PM	Delegates Meeting
7:00 PM	7:00 PM	President's Reception & Jazz Concert

FRIDAY

8:00 AM	9:00 AM	Continental Breakfast
9:00 AM	10:00 AM	Technology Session Chapter Presidents Meeting Awards & Recognition Planning Workshop
9:00 AM	11:30 AM	Six Sigma Boot Camp
9:30 AM	11:00 AM	HBCUs & Black Tech Orgs Panel
10:00 AM	11:00 AM	Computer Science Session
10:30 AM	11:30 AM	Chapter Workshop - Programs
11:00 AM	12:00 AM	Architecture Session
12:00 PM	1:30 PM	Student Luncheon - Dr. Karen Butler-Purry Texas A & M University
2:00 PM	3:00 PM	Community Technology Awareness Workshop
2:00 PM	3:30 PM	AA/Diversity Impact on Science & Technology Panel
2:00 PM	5:00 PM	Education Session
3:30 PM	3:30 PM	NTA Business Meeting
3:30 PM	5:00 PM	Open Forum: Students & Professional Network
7:00 PM	7:00 PM	Awards Banquet - Dr. Frederick Humphries, Florida A & M University

SATURDAY

8:00 AM	9:30 AM	Southern-Style Breakfast
10:00 AM	11:00 AM	NCPC Meeting

Subject to Change