

NATIONAL IMAGERY AND MAPPING AGENCY

# EDGE

KNOW THE EARTH...SHOW THE WAY  
SEPTEMBER/OCTOBER 2002



CFC Agency Provides  
'Home Away From Home'

# EDGE

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## On the Cover

Last year the American Cancer Society provided free accommodations for NIMA St. Louis geospatial analyst Darci Hopkins and her husband Steve while he was undergoing treatment for cancer in Minnesota. The gift enabled Darci to be with Steve in what turned out to be the final months of his life. Today Hopkins speaks on behalf of agencies in the Combined Federal Campaign like the American Cancer Society as a volunteer Torchlighter. Combined Federal Campaigns are in full swing in both NIMA East and West. "I know that what happened to us could happen to anyone," says Hopkins. Read her story on page 5. Pam Martin designed the cover.

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Director • Lt. Gen. James R. Clapper, Jr., USAF (Ret.)  
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Chief • Dave Burpee  
Deputy Chief • Tom Cooke  
Chief, Internal Communication/Associate Editor • Sue Meisner  
Editor • Paul Hurlburt  
Staff Writers • Howard Cohen, Wells Huff  
Designer • Pamela Martin  
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Correspondence should be addressed to:

The Edge, Public Affairs Office, 4600 Sangamore Road, Mail Stop D-54, Bethesda, MD 20816-5003.  
Telephone: (301) 227-7388, DSN 287-7388, or in St. Louis: (314) 263-4142, DSN 693-4142.  
E-mail: theedge@nima.mil.

# ON MY MIND...

## NIMA's Heritage

**W**ith our rich and varied heritage, we have many military and civilian anniversaries NIMA can celebrate. But one such occasion stands out because of its meaning for the entire planet—the 40<sup>th</sup> Anniversary of the Cuban Missile Crisis.

In October 1962, the world watched as the United States faced down the then-Soviet Union from sparking World War III over the attempted clandestine insertion of offensive weapon systems in Cuba. At the time, Secretary of State Dean Rusk remarked about the situation, "We're eyeball to eyeball."

In the fall of 1962, unconfirmed reports circulated that the Soviets were installing offensive surface-to-surface missiles in Cuba, weapons that could reach much of the United States. Imagery from high-flying U-2 aircraft on Oct. 14 provided firm evidence that strategic Medium Range Ballistic Missiles (MRBMs) were indeed in Cuba.

Imagery analysts at the newly created National Photographic Interpretation Center (NPIC), one of NIMA's predecessor organizations, received those images around 10 a.m. on Monday, Oct. 15. By 5 p.m. they were sure of what they had seen. The next morning, Arthur Lundahl, the founder and director of the Center, briefed President John F. Kennedy on the presence of those offensive weapons. And so the crisis, the famous "13 days of October," started; the President began his warnings and negotiations with the Soviet Union's premier, Nikita Khrushchev, to remove the missiles. Within days, Intermediate Range Ballistic Missile (IRBM) sites and jet bombers were also identified in Cuba on subsequent U-2 missions.

The President sent representatives, with copies of those photographs, to several allies, including Great Britain and France. He wanted them to see the evidence and then support U.S. efforts, both directly with the Soviet Union and indirectly through the United Nations, to have those missiles removed.

Mobilization, a naval quarantine, warnings of direct action against Cuba and more "over flights" followed. Eventually, diplomacy prevailed. Khrushchev withdrew the missiles and Cold War tensions eased.

Our government's reaction to this threat exemplifies the contributions that all of NIMA's predecessors have made to national security. The Maritime Safety Division, through their Special Warnings, saw to it that the world's merchant marine knew of the naval quarantine of Cuba. The Aeronautical chart and Information Center in St. Louis provided the escape and evasion charts for the U-2's pilots. The Army Map Service worked overtime, in secrecy, to provide maps of Cuba, in preparation for invasion or other hostile action.

This is why all of us at NIMA can take pride in our key legacy organizations, and especially our lineage in imagery analysis. Watch for details announcing NIMA's Oct. 15-16 commemoration of this historic time.

### Employee Council

In other news, I met last summer with the newly expanded Employee Council at their offsite in St. Louis. Established in March 2001, the Council serves as a direct voice between the work force and the Director and senior management of NIMA. The expanded Council, which is composed of 25 non-supervisory employees representing a cross-section of NIMA, wants to improve NIMA's working environment. They will accomplish this goal by bringing employee suggestions and concerns to my attention, acting as a sounding board for new initiatives and researching new programs to better serve the work force. In its first year, the Council established a NIMA-wide peer recognition program, as well as laid the groundwork for other future initiatives. More details about the peer awards program will become available as we begin implementation this fall.

Accountability and Communications, Guiding Precepts No. 1 and No. 10 respectively, are the keys to establishing a work environment in which employees feel that they are both well-served and well-informed by their leadership. By continually interacting with the Employee Council, the Key Components and I will maintain an ongoing dialogue about the concerns and expectations of the work force and how those issues can best be resolved. Everyone should play an active role in and use the Employee Council; bring your concerns, suggestions and solutions to them. Our people are our most important resource; by all of us working together with the Employee Council, we will be able to provide a world-class work environment for our world-class work force.

### External Assignment Support

Also along the lines of improving employee communications is our new Human Resources External Assignment Support Office (HROEA). The new office assists employees processing to and from assignments outside the NIMA footprint. Led by Chief Sally Richmond, the office recently created a CD and Web site to aid employees on the move. In conjunction with HROEA's recent open house, NIMA also kicked off its inaugural Family Advisory Board meeting. The "FAB," as it's known, will ease communications between NIMA and its family members. With a membership of 15, the FAB is open to non-Agency-employed spouses of civilian and military, former and widowed spouses and spouses of retired employees. I encourage all employees and spouses to be aware of and use all of these resources—they're here to serve you.



**JAMES R. CLAPPER, JR.**  
Lieutenant General, USAF (Ret.)  
Director



## Image Quality Conference Focuses on Crisis

The Image Quality and Utility Program (IQ&U) hosted its second annual NIMA Image Quality Users Conference in Chantilly, Va. July 16-18. The focus was current crisis-related activities and how NIMA and users work together to ensure imagery quality at its best.

Over 200 participants from 21 imagery analysis and production organizations attended the three-

Support teams that served in Afghanistan provided a vivid view of their activities, which included aiding in quick reaction forays and other in-country operations, and assisting in the secure transportation of Al-Qaeda detainees; their presentation was a highlight of the afternoon session.

Sue Kalweit, of NIMA's Homeland Security office, presented details on NIMA's expanding role in

day event, along with representatives from contractor and imagery system vendor organizations.

Dennis Miller, Chief of the Analysis and Control Division (AEA), greeted attendees and challenged them "to continue to present their issues and concerns actively, and to vigorously participate in the IQ&U program."

NIMA Director retired Lt. Gen. James R. Clapper Jr. set the conference theme with his opening keynote address. Said Clapper, "image quality is like breathing, something so fundamental and necessary, but easily overlooked."

Laura Snow, Director of the Plans and Programs Development Office of NIMA's InnoVision Directorate, explained how NIMA's strategic vision, which incorporates IQ&U as a fundamental precept, maps directly to the Director of Central Intelligence's strategic imperatives for the intelligence community.

The remainder of the conference focused on the necessity to extend IQ&U to all customers in need of IQ support. Jerry Shourds, IQ&U Program Manager, extended both an invitation and a challenge to users to cooperate in facing the combined challenges of building the new National System for Geospatial Intelligence (NSGI) and preparing for the future.

### Vivid Views of Afghanistan

First-day briefings gave attendees insight into NIMA's ongoing IQ&U projects and the status of NSGI.

homeland security and the mapping of the critical infrastructures of large metropolitan areas of the United States.

### Importance of Intelligence

On day two, keynote speaker Dr. John Stopher, of the House Permanent Select Committee on Intelligence (HPSCI) staff, assured attendees that both houses of Congress are now more aware of the importance of intelligence than they perhaps have ever been. Stopher also alerted the audience that it "needs to be cautious of more than the current terrorism threats." He also encouraged attendees to "look into the future and expect a modernized NIMA."

Day two also included a briefing by the Eagle Vision team on the Air Force's highly mobile commercial imagery exploitation package and its use in Operation Enduring Freedom.

The conference included status briefings from representatives of the Joint Intelligence Center Pacific, U.S. Strategic Command, National Air Intelligence Center, U.S. Southern Command, National Ground Intelligence Center and the U.S. European Command's Joint Analysis Center. The conference also offered several IQ-related training sessions; several vendors were on hand to preview their systems and products. Attendees were able to test the capabilities of current commercial exploitation software and workstations.

—Image Quality and Utility Program

# OUR PROGRAMS

## A Torchlighter's Appeal

By Darci Hopkins

*EDITOR'S NOTE: More than 3,000 organizations can benefit from your donations to the Combined Federal Campaign, under way throughout NIMA this fall. The Edge again this year shares the story of a NIMA employee. As a volunteer Torchlighter in the Gateway CFC, Darci Hopkins speaks throughout the St. Louis region on behalf of CFC agencies.*

Last October my husband Steve and I should have celebrated our second wedding anniversary. Instead, I stood in a cemetery beside freshly turned dirt and a mound of wilting flowers. Ribbons that read "Son," "Brother" and "Uncle Steve" were stretched across some of the arrangements. Two white roses, bound by ribbon inscribed with "Beloved Husband," were buried with the casket as I had requested.

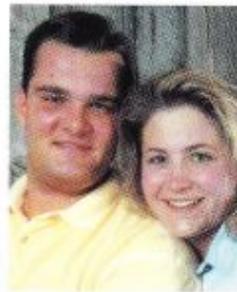
Steve was diagnosed with bile duct cancer just five months prior. We traveled to the Mayo Clinic in Rochester, Minn., where he underwent six weeks of daily radiation and chemotherapy. If anyone was going to beat this deadly form of cancer, it was going to be Steve. He fought the disease with tremendous faith and courage,



and was without a doubt the most positive person I have ever known. True to his nature, he kept that wonderful attitude through the end.

Despite this life-shattering chain of events, Steve and I considered ourselves lucky in so many ways. Blessed with an absolute love-of-a-lifetime, we had the kind of extraordinary relationship that many never get to experience, even after decades together. We had the support of loving families, good friends and generous co-workers. And we were fortunate to have help available to us at a time when we really needed it.

Doctors referred us to the American Cancer Society's Hope Lodge, which provides free lodging to patients and their families undergoing daily treatments for cancer. The Hope Lodge became our "home away from home." There we were, among other cancer patients and their families facing the same day-to-day challenges.



Steve and Darci Hopkins

We made friends and built a network of support. That was especially important for me as a caregiver, because many days Steve was too tired and weak to get out of bed for much more than his treatments. We were all there for each other to celebrate the good days and offer comfort during the rough ones. Dealing with cancer, you often experience things many people will never understand. Yet at the Hope Lodge, we were able to come back each day and not feel out of place. A hotel room would have offered us little more than isolation and a hefty bill.

I truly believe in the Combined Federal Campaign. Organizations that receive CFC funds, like the Hope Lodge, do make a difference. Please realize that tragedy can happen to anyone. Like Steve, each of you may be someone's child...or sibling...or spouse. I wish no one had to suffer the fate of this awful disease, but it will happen to some of you. And when it does, there are organizations out there like the American Cancer Society, and their Hope Lodge, that will be there for you. They won't ask you first if you've ever made a donation, they will simply help you. So please help them, and please support the CFC.



Steve and Darci Hopkins visit Silver Lake in Rochester, Minn., on his 27<sup>th</sup> birthday. With them, from left, are Hopkins' sister Angie and his parents, Karen and Wayne Hopkins. The family often made the long drive from Oklahoma to visit Hopkins while he was being treated at the Mayo Clinic.

The Air France jumbo jet glided past the Sahara Desert's crimson sunset into a dark Bamako International Airport in Mali, West Africa, and rolled to a stop at 9 p.m. The door opened to a 104-degree blast of air. Minutes later, we were hotfooting across concrete to a tiny terminal building. There, health officers checked our immunizations, as a wave of locals welcomed the only daily arrival from outside Africa. A driver from the U.S. Embassy met us and we departed for the Hotel Salaam.

Last March, geospatial specialists from the U.S. Special Operations Command Europe (SOCEUR) visited the *Institut Geographique du Mali* (IGM) and reported a potential for co-production. The U.S. European Command (EUCOM) then asked us to come to Bamako to conduct a technical assessment.

The main objective was to investigate Mali's digital geospatial capability and explore other sources of geospatial data to augment NIMA's digital geographic holdings.

### Co-production Potential

The IGM is a civilian organization that also serves the needs of Mali's military; it operates under the authority of the ministry for environment, equipment, urbanism and land management. Until a couple of years ago, IGM produced maps using analog methods; now, it employs an almost completely digital production process.

During a tour of its facilities, we learned that, with the aid of the Japanese International Cooperation Agency (JICA), IGM acquired some workstations and a small geographic information system (GIS).

Through a co-production agreement with JICA, IGM recently digitally produced 48 1:50,000-scale sheets; transportation infor-

mation on the maps was consistent with readings from the Global Positioning System (GPS).

We found the Malians to be very knowledgeable about digital production; the future of a NIMA/IGM co-production agreement looks promising.

ment to build a GIS to predict the occurrence of HIV/AIDS by location. USAID uses ArcInfo software by ESRI Inc. to produce maps showing a correlation between communica-

# NIMA Looks at Digital M

By Marzio Dellagnello and Robert Zebell

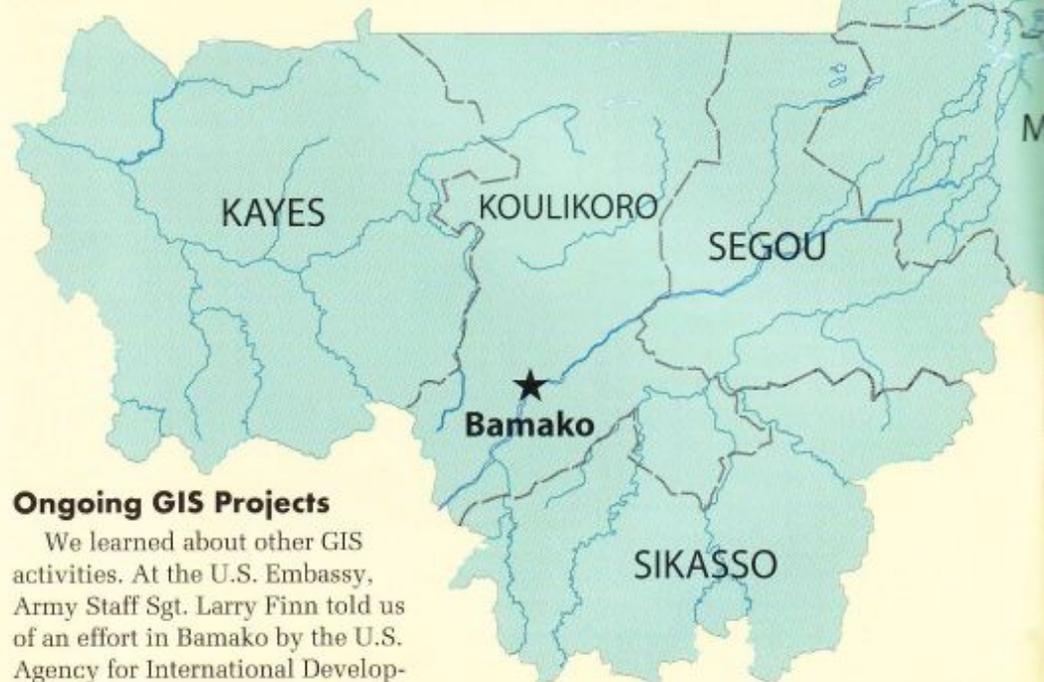
Concluding our visit, we briefed on NIMA and NIMA's digital production.

IGM production closely follows the French mode. If a co-production agreement were signed, IGM would follow NIMA standards so their products could be incorporated into NIMA's database—and used by NIMA's customers as standard products—without costly modifications.

The next step is to develop an agreement and a co-production relationship with Mali, to leverage their capabilities for the mutual benefit of our two countries.

tion routes and higher occurrences of AIDS, said Dennis Bilodeau, USAID Information and Communications Team Leader.

The transportation layer from the project could be useful to NIMA, we noted. The USAID analysts told us of the difficulty establishing a relationship between new pockets of AIDS emerging in the southwest part of the country. But when they overlaid the locations of diamond mines, they concluded that prostitution around the mines was the cause.



### Ongoing GIS Projects

We learned about other GIS activities. At the U.S. Embassy, Army Staff Sgt. Larry Finn told us of an effort in Bamako by the U.S. Agency for International Develop-

Bilodeau told us of another GIS project at the Malaria Research and Training Center. The Center is the regional headquarters in French-speaking West Africa for the international organization Mapping Malaria Risk on Africa (MARA). Its GIS lab uses

and vegetation to the population. Bodies of water are crucial for the reproduction cycle of the *anopheles arabeinsis* mosquito, which carries malaria in the region. Map layers containing population and hydrography information are important to NIMA.

# Mapping in

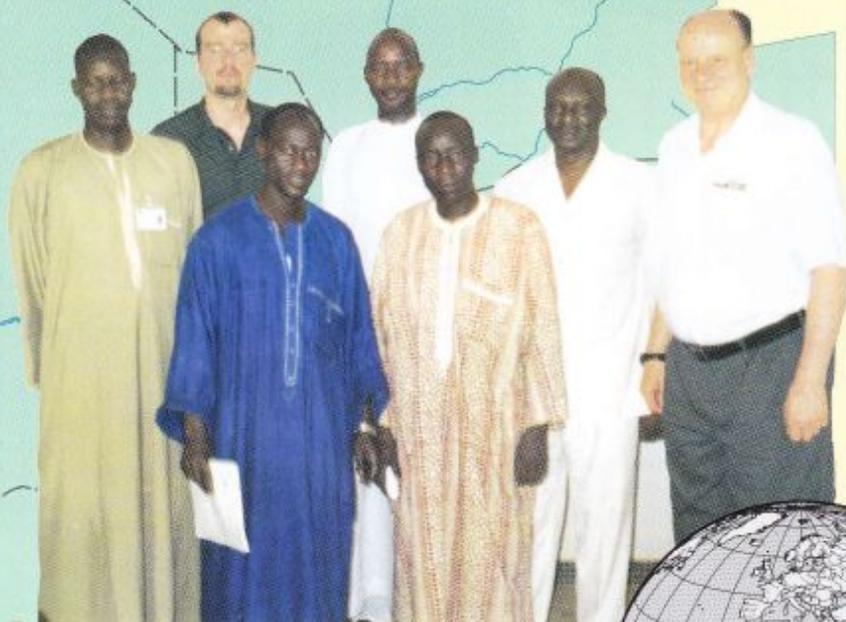
# MALI

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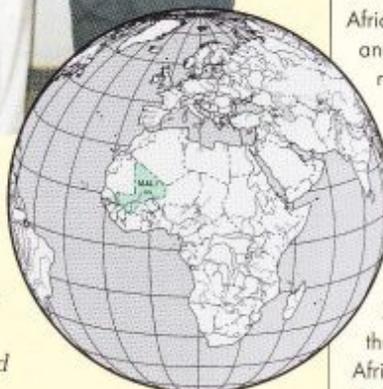
OPTI



Staff of Mali's Institut Geographique du Mali (IGM) and NIMA visitors gather for a group portrait. IGM Director Issa Coulibaly is on the left. Author Marzio Dellagnello, second from left, is a geospatial analyst in the Analysis and Production Directorate's Europe/Africa Geospatial Division. Co-author Bob Zebell, right, is an international policy officer in the International and Policy Office's Africa and Middle East Division.

the GPS to map all endemic and epidemic aspects of the disease. The lab is interested in studying the effects of malaria on local villages by using GIS in mapping the relationship of water bodies

This successful mission is expected to lead to a new co-production agreement with Mali and help fulfill EUCOM's requirements. ■ ■



## What is Co-production? Why NIMA Needs It

1. NIMA's requirements *always* exceed its in-house and contractor capabilities to produce. NIMA's holdings in Africa are limited.
2. Many of our allies and friends have quality production capabilities and existing databases.
3. "Quid pro quo" exchanges or "horse trading" geospatial intelligence products and co-production are ways to leverage the capabilities of NIMA and NIMA's partners for mutually beneficial purposes.
4. One of NIMA's International and Policy Office missions is to negotiate co-production agreements on behalf of the Director.

## The Republic of Mali

About double the size of Texas, the modern Republic of Mali is a landlocked nation on the southern fringe of the Sahara desert. The Niger River flows for 1,000 miles in Mali and most of the 10 million Malians live near its irrigated banks. Over 80 percent of the labor force works in agriculture. Although it is one of the poorest nations, Mali is a democracy and it is the only truly free Muslim nation, according to Freedom House, a non-profit, nonpartisan organization that monitors democracy and freedom around the world.

The ancient Empire of Mali controlled large areas of northwest Africa from A.D. 700 to 1600. The salt and gold trade via overland trade routes through its cities of Timbuktu, Gao and Djenne helped the empire prosper. The acceptance of Islam around 1000, with its rich cosmopolitan social structures such as universities, libraries, central state systems and military forces, led to an empire of 40 to 50 million people stretching from the Atlantic to central sub-Saharan Africa. The empire gradually declined when it lost control of the gold and salt mines and trade routes during internal and external conflicts. A French colony by 1883, Mali became the post-colonial Federation of Mali in 1959. The Federation collapsed in 1960 and splintered into the nations of Benin, Burkina Faso, Mali and Senegal.

# The People With Disabilities Program: It's Here if You Need It

By Gail Cherochak

**I**f you broke your arm or leg, suddenly couldn't communicate without assistance or developed a serious illness, would you be a less valuable NIMA professional? Of course not. But adjusting to a radical new lifestyle would be like going through an obstacle course. That's when the People With Disabilities Program (PWDP) comes in.

The PWDP is designed to identify solutions for accessibility barriers, help procure adaptive equipment, address recruitment goals and enhance the productivity of employees with disabilities. PWDP manager

**Sharon Hankin (NIMA East)** and PWDP coordinator **Helen Alexander (NIMA West)**,



HANKIN

who work in the Office of Equal Employment Opportunity (OEE), assist employees who submit requests under NIMA's reasonable accommodation program.

Approximately 8 percent of NIMA's employees report having disabilities. "Because employees may choose not to report their disabilities, we're never sure that we've accounted for everyone," said Hankin. "We appreciate it when employees report their disabilities, even if they haven't requested reasonable accommodations. Knowing the number and nature of the disabilities enables us to plan for affirmative employment, assess facilities and evaluate our progress in addressing

barriers faced by individuals with disabilities."

Employees with PeopleSoft access should report their disability status using the PeopleSoft EEO Data Validation module.

Other employees may complete Standard Form 256, Self-Identification of Handicap, and

mail it to their Human Resources Directorate consultants.

According to federal government studies, disabilities affect 15 to 20 percent of the U.S. population. "If you do not currently have a disability, you have about a 20 percent chance of becoming disabled at some point during your work life," reports the U.S. Department of Labor. Although many people with disabilities enjoy full working lives, as demonstrated at NIMA, many more are not employed. We cannot afford to lose the talents of people with disabilities when simple solutions might allow these people to work.



ALEXANDER



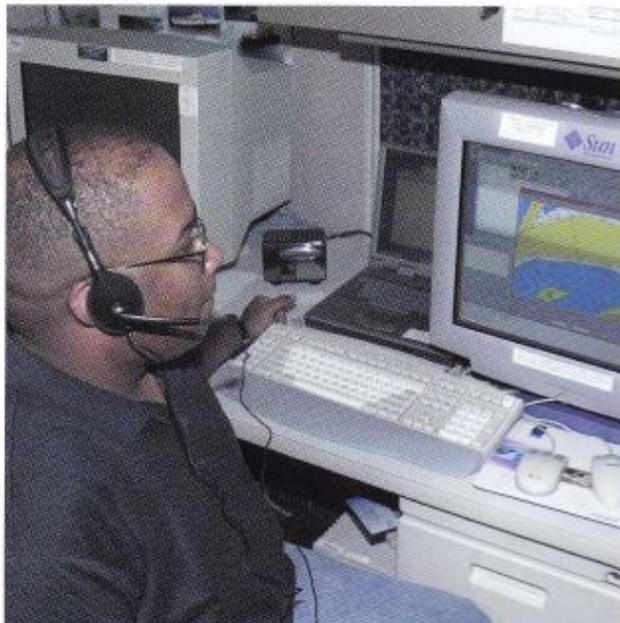
Making a reasonable accommodation means adapting the job site or job functions to fit a qualified person with a disability. Reasonable accommodations are made according to each person's needs and work situation, literally on a case-by-case basis. Reasonable accommodations do not require an employer to lower the standards of work for the position or change the job requirements. There are three categories of reasonable accommodations:

- Modifications to a job application process to permit a person with a disability to be considered for a job (such as providing application forms in alternative formats like large print or Braille);
- Modifications necessary to enable a qualified employee with a disability to perform the essential functions of the job (such

as providing sign language interpreters); and

- Modifications that enable employees with disabilities to enjoy equal benefits and privileges of employment (such as removing physical barriers in an employer's cafeteria).

For reasonable accommodations involving technology, NIMA uses the DoD Computer/Electronic Accommodations Program (CAP). CAP provides free assistive technology, devices and services to accommodate people with hearing, visual, dexterity, cognitive and communication disabilities at federal agencies. In fiscal 2001, CAP filled 158 requests from NIMA, valued at \$72,000, for accommodations. These included text telephones (TTYs), screen-reading software, Nextalk communication software training and upgrades, personal amplification systems, interpreter



*Dennis Walker of the Maritime Safety Information Division updates a Digital Nautical Chart (DNC®) using only his voice. Walker customized PC-based commercial voice recognition software to accept and transmit DNC commands through an adapter to the UNIX-based DNC production system. Originally envisioned as a way to accelerate the revision of DNCs by eliminating the use of a mouse, Walker's solution also holds promise for personnel with limited dexterity who need to use geographic information systems on a variety of platforms.*

services for long-term training, ergonomic keyboards and mice, personal digital assistants/note takers, real-time captioning, computer systems for employees with disabilities who have telework agreements, voice-activated software and a voice synthesizer system.

All medical information submitted through the PWDP to support a reasonable accommodation is kept confidential. NI 1020.2R2, NIMA Instruction for Reasonable Accommodation, describes the policies and procedures.

To involve employees in addressing awareness and workplace issues, the PWDP sponsors several employee groups that are open to all. These include:

- People with Disabilities Awareness Council (NIMA East), Chair Karen Tabor

- People with Disabilities Employment Program Council (NIMA West), Acting Chair Edward E. Anderson II
- Deaf and Hard of Hearing Advisory Committee (NIMA East), Chair Laura Adams
- Committee for the Deaf and Hard of Hearing (NIMA West), Chair Jolanda Allen
- Disabled Veterans Committee (all NIMA), Acting Chair Roy Foeller.

At NIMA, we have access to great benefits for disability prevention, such as health insurance, the fitness centers, medical clinics and wellness seminars. But as we go through life, we never know what will happen with our health. It's good to know that the PWDP is here—just in case.

#### About the Author

*Gail Cherochak is an editor and Web site author for NIMA's internal policy office in the Security and Installation Operations Directorate. During her 22-year federal career, most of it with NIMA and the Defense Mapping Agency (a NIMA predecessor agency), she has also been a satellite geodesist, system manager and cartography instructor. She serves on the People with Disabilities Advisory Committee.*

## FYI...

### PWDP Web Site

The People With Disabilities Program intranet Web sites have tools and resources for handling disabilities at work, including:

- A checklist for use in reorganizations and moves to help supervisors and employees with disabilities plan ahead;
- Reasonable accommodation procedures and a link to the NIMA Instruction for Reasonable Accommodation;
- Standard Form 256, Self-Identification of Handicap;
- Employee Assistance Program articles about coping with a disability in the workplace, supporting a co-worker who has a disability and supervising employees with serious illnesses;
- Information about NexTalk software used for communication between deaf and hard of hearing employees and their supervisors; and
- Links to federal government Web sites describing assistive technology, federal laws and job accommodation ideas.

The PWDP intranet sites are linked to OEE's home pages. The SBU site is at [http://osis.nima.mil/eeo/special\\_emphasis/disability.htm](http://osis.nima.mil/eeo/special_emphasis/disability.htm), and the SCEN site is at [http://intranet.se.nima.smil.mil/eeo/special\\_emphasis/disability.htm](http://intranet.se.nima.smil.mil/eeo/special_emphasis/disability.htm).



### New Freedom for the 21st Century

During **National Disability Employment Awareness Month** in **October**, the People With Disabilities Program and employee groups it sponsors will host a number of disabilities awareness activities. Check the NIMA Connector, Digital Daily Edge, e-mail announcements and local flyers and posters for more information.

# NIMA Reaps Benefits from **CRADAs**

By Kathy Buono

**A** CRADA is an agreement between an industry partner and the government to share research and development knowledge, facilities, resources and/or capabilities for their mutual benefit. CRADAs are used to transfer NIMA's technology, information, processes and expertise to the private sector, and to exploit commercial technology to advance NIMA's vision and enhance operations.

The CRADA program resides in the InnoVision's Directorate's Advanced Research and Development Division (IDR). Anyone in NIMA can be the principal investigator for a CRADA.

## Automated Feature Extraction

Advancements in the development of algorithms support the rapid extraction of feature data, such as roads and population centers, from imagery. These advancements offer the possibility of cheaper and more efficient production of geospatial data.

Through a CRADA, NIMA and BAE Systems established a test bed for the evaluation of automated feature extraction (AFE) technology. The objective was to develop a deeper understanding of each algorithm's strengths and weaknesses.

"For the first time we were able to test various algorithms in the same environment," said principal investigator Mike O'Brien (IDR). O'Brien presented the CRADA results at the annual meeting of the American Society of Photogrammetry and Remote Sensing (ASPRS) in Washington, D.C.

## Local Printing System

While NIMA is moving toward complete softcopy image exploitation, the Agency depends on local hardcopy printing systems as a backup. A CRADA with Raytheon E-Systems, Inc. led to the development of the Commercial Hardcopy Printing System (CHPS™) 8600. This network-based, Web-accessible system prints hardcopy transparencies on film at medium resolution (655 pixels per inch).

The Acquisition Directorate's Systems and Engineering Office conducted an image quality comparison of CHPS products to current hardcopy used for

## Three recent Cooperative Research and Development Agreements (CRADAs) resulted in several benefits to NIMA.

softcopy exploitation and found the difference between the two to be statistically insignificant.

"We have installed CHPS in both field and office locations, and it has performed consistently

well," said principal investigator Art Cobb (IDR). "For those who need some hardcopy, we have a good local solution."

## Gravity and Navigation

In exchange for unclassified gravity disturbance data, Litton Guidance and Control Systems supported NIMA in developing a computer program to model the effect of such data on the accuracy of Inertial Navigation and Global Positioning Systems. "Work accomplished from the CRADA will reinforce, quantitatively, to our military customers how essential NIMA gravity data is for high-accuracy navigation," said Damian Kopcha of the Analysis and Production Directorate's Office of Transnational Issues. One of the technical representatives assigned to the CRADA, Kopcha added, "The program will also be a useful tool for our in-house assessment of gravity data collection and accuracy needs." Randy Smith (IDR) is the principal investigator.

## Got an Idea?

The NIMA CRADA Program is one mechanism for technology transfer in today's NIMA. If you have an idea and a commercial or academic partner for a CRADA, contact NIMA's CRADA program manager, Judi Ignatz, at (703) 262-4343.



IGNATZ

## About the Author

Kathy M. Buono was selected to attend the Naval War College in Newport, R.I. for the 2002-2003 academic year. She was NIMA's CRADA Program Manager in 2001-02.



BUONO

# NES-NACDF Merger: a Major Milestone

By Fred Weller

 **On Sept. 30 the National System for Geospatial Intelligence (NSGI) achieved a major milestone when NIMA completes the merger of an historic database, the National Area Coverage Data File (NACDF), into the National Exploitation System (NES).**

A system for managing the physical location of hardcopy imagery, the NACDF is a database of information on 160 million images collected worldwide by aerial and satellite platforms, starting in the mid-1930s and continuing today.

The NES, activated by NIMA in 1999, replaces imagery exploitation systems formerly maintained by CIA and DIA. The system is comprised of servers and a database of imagery information. NES provides analysts on Integrated Exploitation Capability (IEC) workstations and worldwide users, through Intelink, information used to exploit imagery. The NES also serves as a repository for imagery intelligence reports. (See "Task Force Helps Transition to NES" in the April 2000 *Edge* and "NES to Activate" in the July 1999 *Edge*. For background on the IEC, see "IEC—A Growing Success Story" in the August 2002 *Edge*.)

## National Area Coverage Data File

A tool for gathering data, the NACDF allows users to track the disposition and location of images. Information contained in the database includes the physical location of imagery containers and geographic coordinates of image corners. The NACDF is the only database that documents the disposition of all aerial and satellite holdings of the Intelligence Community.

The NACDF-NES merger provides a virtual one-stop shopping center, where users can find all of the historical references as well as current data.

Besides analysts at NIMA and DIA, customers of the merged NES and NACDF include the Missile and Space Intelligence Center, Armed Forces Medical Intelligence Center, Army National Ground Intelligence Center, Joint Warfare Analysis Center, Air Force Materiel Command and National Archives and Records Administration.

## Transition Training

Current NACDF and NES users should have little problem adjusting to the merged NES. The National Geospatial Intelligence College (NGC) has updated online training and classroom instruction to reflect the changes. For more details on NES training, see the NGC and the NES Home Pages on Intelink. The NGC point of contact for NES training is Mary-Beth Gaddie, who may be reached at (202) 264-3436.

## Development Team

An interagency multidisciplinary development team ensured the successful transition of system requirements from the NACDF and implementation of the NES-NACDF merger. Ava Thomas and Tim Johnson of the Acquisition Directorate's Information Management Office (AIM) served as program manager and contracting officer's technical representative, respectively, and Gerry Hart of the Enterprise Transformation Directorate was the Operations and Maintenance advocate. In addition, Ricci Beasley of Lockheed Martin led system development, Vincent Nguyen of AIM was lead systems engineer and Vernon Hawkins Jr. of AIM led the system engineering support team.

Questions concerning the NES program should be directed to Nguyen at DSN 325-6225 or (202) 264-6625.

## About the Author

*Fred Weller, a systems integrator in the Acquisition Directorate's Information Management Office (AIM), has 20 years' experience in the imagery environment. He worked on DIA's Advanced Imagery Requirements and Exploitation System (AIRES) and follow-on AIRES Life Extension (ALE) system, which he helped integrate into the National Exploitation System (NES). He then led the effort to integrate the mainframe computer-based National Area Coverage Data File (NACDF) into a client-server environment using Web technology. He was instrumental in the merger of the NACDF into NES.*



WELLER

## Intelligence Community Officer Training

# A Framework for Excellence

By Terence Meehan

**S**o you want to distinguish yourself as an intelligence professional with broad experience and knowledge? You'd like to stand out from the crowd at promotion time? Or, you'd like to just learn a lot more about the Intelligence Community to improve your performance?

Earning designation as an Intelligence Community Officer (ICO) is a way to achieve those goals. The ICO program was implemented by Director of Central Intelligence Directive 1/4, two years ago, to develop the future leadership of the Intelligence Community. Department of Defense Directive 1400.36 announced participation in the program in March 2002.

"I read that ICO might be mandatory for promotion to the Senior Intelligence Service after 2005," said Ernie Moten of the InnoVision Directorate, who has completed the training portion of ICO requirements. "But I also wanted to get the



credential. The more I know about IC issues and capabilities, the more effective I can be in my current duties."

Training is one of three areas in which employees must qualify, along with an Intelligence Community assignment (ICAP) and compliance with NIMA's career development programs.

The training piece, or ICOT, requires prospective ICOs to complete at least 10 weeks of training divided across seven categories:

1. National Security and Intelligence Issues (1 week)
2. Leadership and Management (3 weeks)

3. Counter-intelligence, Security, Information Assurance and Denial and Deception (1 week)
4. Production and Analysis of Intelligence (1 week)
5. Collection, Sources and Processing of Intelligence (1 week)
6. Impact of Technology across the Intelligence Community (1 week)
7. Intelligence Community Overview (2 weeks)

More information about each category can be found in the curriculum guide posted on the Training and Doctrine Directorate (TD) Web site on the SBU network at <http://osis.nima.mil/NIMC/icot>.

The seven ICOT categories represent a framework to guide a person's training choices. There is no single ICOT Program in which you can enroll for 10 weeks to get everything. Rather, you could earn ICOT certification over your career by attending training at various locations, getting a few days credit at a time.

For example, to get the required three weeks (15 days) of credit in the "Leadership and Management" category, a person might attend three five-day, creditable classes, or 15 one-day creditable seminars, or some other combination adding up to 15 days or more.

The courses listed in the curriculum guide are not intended to encompass training available across the Community. Many courses taught by NIMA's National Geospatial Intelligence School and School of Leadership and Professional Studies can receive ICOT credit. (See sidebar on "Intelligence Professional Studies" program).

Employees who have had a career in military intelligence or who have attended a civilian career development program might be able to take a shortcut to ICOT. The Defense Leadership and Management Program, senior service schools and staff colleges can be credited toward ICOT. Professional Military Education, including advanced officer and non-commissioned officer courses, correspondence programs and other



Photo by Tony Bocane

With Terry Meehan, Chief, Office of Academic Services (left), NIMA's first employees to complete Intelligence Community Officer Training show their certificates, from left, William Rossiter, Dave Cacner, Peggy Furgerson and Ernest Moten.

functional courses, can also be credited. All you have to do is apply and verify your completion. Service representatives in the ICOT working group, of which NIMA is a member, review credit requests.

There is more good news for those who have completed either the Post-Graduate Intelligence Program or the Master of Science in Strategic Intelligence (MSSI). These are nominative programs managed by the Defense Intelligence Agency's Joint Military Intelligence College. Completion of either earns an employee ICOT credit in all categories except Leadership and Management. For those MSSI graduates who also took the leadership elective as part of the program, all ICOT categories can be credited.

### How to Apply

The system of record for ICOT is the Intelligence Community Officer Database. At the JWICS/Intelink-TS Web address <http://icap.cms.ic.gov> employees can establish an account and enter their applicable course titles, dates and, if an equivalency request, the training objectives. Applications for credit are routed automatically to the NIMA POC for review and approval. In fiscal 2003, the ICO database will be made available on the SIPRNET for those who cannot access JWICS to make applications.

"From day to day, we focus on our own jobs," said Dave Cacner of the Analysis and Production Directorate, a recent ICOT graduate. "This program helps you take a broader view; it helps you approach problems from an all-INT perspective."

### IC Officers Course

The Intelligence Community Officers Course (ICOC) is a two-week program that fulfills the "Community Overview" category—one of seven required categories of training needed to fulfill the training requirement for designation as an Intelligence Community Officer (ICO). (See the accompanying article, "A Framework for Excellence.") Open to Band 5 and highly qualified Band 4 employees, the ICOC meets at various locations within the Washington metropolitan area, including the CIA, NSA and NRO. Employees may self-nominate for the course through their supervisor. An article on the *Digital Daily Edge* Archives on the SBU or SCEN provides general information about the ICOC. More information is at <http://osis.nima.mil/td/icot/>. Regarding the nomination/application process, contact program manager Barbara Laws. (See end of article above.)

## New Program Is Conduit to ICOT

By Dave Akerson

A comprehensive new program ensures that NIMA professionals have the expertise to support interagency, combined and joint operations at every level.

Frances M. Early, Dean of the School of Leadership and Professional Studies (SLPS), recently announced the creation of the Intelligence Professional Studies (IPS) program to "show the way" to the future of Geospatial Intelligence (GI).

"Creation of the program directly supports the Director's Strategic Intent," Early said. "It will facilitate the ongoing paradigm shift combining imagery intelligence and geospatial data disciplines into GI."

The IPS program serves as the conduit to the Intelligence Community Officer Training program (ICOT); all IPS courses may be credited toward ICO training requirements. (See accompanying article, "A Framework for Excellence.")

The IPS strategy creates a dynamic, responsive educational environment that meets the needs of all NIMA occupations. IPS will use the best available operational and training resources and Intelligence Community expertise. It will expand relationships with academics to

provide options for intelligence-related education opportunities.

### IPS now offers four courses:

- Congress and U.S. Intelligence
- Seminar on Analytical Thinking
- U.S. Intelligence—A Primer
- Advanced Seminar on Analytic Thinking

IPS will expand its course offerings during fiscal 2003, as it continues to identify the needs of NIMA professionals. NIMA employees are urged to participate both as students and as adjunct faculty members.

Look for these new initiatives that IPS will roll out during the coming months:

- IPS Guest Speaker Program
- Military Familiarization Course
- Distance Learning through American Military University
- Intelligence Video Program

If you want more information about attending IPS courses, or if you are interested in becoming an Adjunct Faculty member who supports IPS, contact Dave Akerson at (703) 805-0842 or e-mail him at [akersodc@nima.mil](mailto:akersodc@nima.mil). You are also invited to check out the new IPS Web page at <http://osis.nima.mil/td/ips.html>.

*Dave Akerson of Command Technologies, Inc. leads the IPS program initiative.*

For more information, contact the NIMA ICOT Program Manager, Barbara Laws, at [lawsb@nima.mil](mailto:lawsb@nima.mil) or (703) 805-3356 (DSN 655).

### About the Author

*Chief of the Office of Academic Services, Terence Meehan implemented the Intelligence Community Officer Training (ICOT) program in NIMA. He was also a member of the design team that built and implemented the two-week Intelligence Community Officer Course, part of ICOT. He has been selected to participate in the Intelligence Community Assignment Program as Deputy Director of the General Intelligence Training Staff at DIA. Prior to joining NIMA and the Defense Mapping Agency, he was a career Army officer.*

## OUR PROGRAMS

# Purchase Card Program Helps Disabled

By Lynn Strickland  
Purchase Card Coordinator  
NIMA East

The simple act of buying a pen with a government purchase card can help the blind or those with other disabilities lead more independent lives.

For those who already make purchase card buys from the Javitts-Wagner-O'Day (JWOD) Act Program, this may be old news. Unfortunately, recent audits of NIMA cardholders indicate that many buyers are not fully aware of the requirements that govern this program. By law, government agencies are directed to purchase certain products—including routine office and computer needs, cleaning products furniture and picture frames—from certified

nonprofit agencies that employ the blind and severely disabled.

Skilcraft pens and other JWOD products and services meet or exceed performance standards and are reasonable in cost.

JWOD products are available through authorized distributors using Internet-based, telephone or fax ordering or at a JWOD retail location. While customers are encouraged to comparison shop between JWOD distributors for the best value, they cannot substitute commercial items for JWOD items, because JWOD products are mandatory purchases at any dollar amount. The law helps to ensure a competitive price for a line of products manufactured by a group of citizens who might otherwise be unemployed. JWOD is a win-win for the taxpayer and efficient government.



Purchase card coordinator Lynn Strickland says Skilcraft pens, and other products purchased through the Javitts-Wagner-O'Day Act Program with a government purchase card fulfill a legal requirement to help the disabled. In return, purchasers receive quality products at a reasonable cost.

JWOD-qualifying purchases and authorized commercial distributors may be found at [www.jwod.gov](http://www.jwod.gov).

## Advances at EUCOM Boost Geospatial Analyses

A new map server at Headquarters U.S. European Command (EUCOM) gives users the ability to access all standard NIMA digital geospatial information as well as EUCOM-specific geospatial products.

The server allows operators to overlay commercial imagery or NIMA's one-to-five-meter Controlled Image Base® on standard map products. Displays are in familiar Web-based browser format for easy viewing. For example, if an operator wants to view a map overlay option, such as roads, hydrology, slope or vegetation, the desired option may be selected by simply clicking on the appropriate box.

EUCOM Headquarters also recently received a NIMA Sky Media terminal that supports the ordering, receiving and process-

ing of archived commercial satellite imagery from the Commercial Satellite Imagery Library. (For a description of this library, see "NIMA Uses Commercial Satellite Imagery to Support War on Terrorism" in the August *Edge*.)

New server and storage capability enables EUCOM to better host NIMA Foundation Data. This data can be manipulated and used, with appropriate geographic information system tools, to visualize, analyze and fuse information needed to enhance viewers' understanding of their mission area.

EUCOM Headquarters needs a server that provides a single data pull from the NIMA Gateway in St. Louis. Currently, users must reach back to the stateside server for data downloads, which does not satisfactorily meet EUCOM's requirement to support short-fused operational missions. A Gateway Data

Navigator server at EUCOM Headquarters will relieve multiple in-theater users from time-consuming data pulls from the stateside server. It will also allow geospatial data and imagery hosting by Headquarters EUCOM. The goal is to design the architecture to support a profiled, automated data transfer that will push new products to the EUCOM Gateway server autonomously.

Lastly, to reduce loading on the SIPRNET, EUCOM aims to establish the capability to push geospatial data via the Global Broadcast System (GBS). A GBS data server currently is in theater, and the EUCOM Geospatial Information and Services team is working to integrate this communication capability into the EUCOM Gateway architecture.

—Navy Lt. Cmdr. Brian Baldauf  
EUCOM Geospatial Information and Services

# ACCOLADES

## Employee Uses Disability To Enhance Communication

**D**ebra Moose, a cartographer in the Maritime Safety Information Division, has been selected as the 2002 NIMA Outstanding Employee with a Disability. She is an expert in the maintenance of Digital Nautical Chart (DNC®), as well as an excellent instructor, leader and role model for fellow employees, officials said.

Moose, who is deaf, works in an environment where communica-



MOOSE

tion is essential to the timely completion of jobs for customers. "Many people share knowledge just by overhearing someone talking about a problem they are having," said supervisor Pam Troutman. "Debbie is unable to gain working knowledge in this manner, yet she continues to be one of the highest performers on my team." She consults other

experts to resolve problems, and then passes that knowledge on to her deaf co-workers, her supervisor added.

In May, Moose assisted the National Geospatial Intelligence College in teaching a course on the Data Capture and Finishing Environment (DCAFE), enhancing the communication link between the instructor and sign-language interpreter, due to her knowledge of technical terms and processes. She has similarly assisted in teaching DNC processes.

Moose began her federal service with the Defense Mapping Agency in 1984. She will be honored at a Defense Department ceremony in December.

## NIMA Wins Optimas Award

*Workforce* magazine honored NIMA with its Optimas Award, which recognizes human resources initiatives developed in response to the changing business environment.

NIMA's "adroit analysis of occupational needs has enabled the agency to reduce its support staff from 43 percent of the work force in 1998 to 38 percent today, with a corresponding increase in the number of staffers in core occupations," the magazine reports in its August issue. "And after the Sept. 11 attacks, the system's flexibility allowed NIMA to quickly reorganize and shift resources to fight the new war on terrorism."

An article—"Bold HR Changes Put NIMA on the Map" by Patrick J. Kiger—describes how NIMA created a new human resources system to replace systems of the organizations that combined to form NIMA in 1996. It can be read online at [www.workforce.com/section/00/feature/23/27/44/index.html](http://www.workforce.com/section/00/feature/23/27/44/index.html).

Jeri Buchholz, Chief of the Human Resources Corporate Programs and Policy Division, accepted the award on behalf of NIMA during a ceremony in San Francisco last March.

NIMA NATIONAL IMAGERY AND MAPPING AGENCY  
Know the Earth. Show the Way.

Hispanic Heritage Month - 2002  
SEP 15 - OCT 15

Hispanic Americans:  
*Strength in Unity, Faith, and Diversity*

# Spirit of 9/11



Photo by Courtney Sarver

Americans remembered 9/11 in many ways. A simple display in Shanksville, Pa. honors the spirit and sacrifice of Flight 93 passengers and crew, who apparently crashed their plane there to thwart the hijackers. In New York, twin beams reach to the heavens from Ground Zero where the twin towers once stood. On the Potomac, a restored Pentagon bears witness to the resolve of a nation to make right what went so tragically wrong.



Photo by Nicole Martin