

NATIONAL IMAGERY AND MAPPING AGENCY

EDGE

GUARANTEEING THE INFORMATION EDGE
FEBRUARY 1998



WHAT NIMA IS DOING ABOUT
PIRACY
on the
High Seas

FEBRUARY 1998

EDGE

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Director • Laura B. Snow
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Editor: John Iler
Associate Editor: Muriel Winder
Staff Writers: Don Kusturin, Jennifer Laflay
Designer: Richard Hardwick

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Correspondence should be addressed to:
The Edge, Public Liaison Office, 4600 Sangamore Road, Mail Stop D-39, Bethesda, MD 20816-5003
Telephone: (301)227-3089, DSN 287-3089. or in St. Louis: (314) 263-4142 or DSN 693-4142, or e-mail to The Edge.

As I See It



My hospital stay last week was very successful thanks in a large measure to many good wishes and prayers. I must say it's heartening to see how many good activities in NIMA are on automatic. I wish that I could show you all just how good you are. I'll try harder.

Our STRATEGIC PLAN was published last month. Recommend that you get a copy (it's also on our homepage) and have a look. If it raises questions, ask your supervisor what it means to you and your activities.

As I see it, we must work harder at communicating throughout our organization. Once we think we've communicated enough, then we should double our efforts. Perhaps then we'll have done enough.

It's good to be back!

A handwritten signature in black ink, which appears to read "J.J. Dantone, Jr." The signature is fluid and cursive.

J.J. Dantone, Jr.

Kringen Selected Director, Imagery Analysis Office

John Kringen is the new director of the Imagery Analysis Office.

Previously serving as deputy director, Near Eastern and African Analysis Office, CIA, Kringen is a 20-year veteran of the intelligence community. He brings a wealth of experience in analysis of national security issues.

He reported to NIMA in early January.

Andreasen Selected Scientific Advisor

Christian Andreasen is the new Scientific Advisor for Hydrography, Systems and Technology Directorate, replacing James E. Ayres who retired. Prior to joining NIMA, Andreasen served as president of the Directing Committee, International Hydrographic Organization



from 1992 to 1997 (internationally elected) in Monaco. The IHO is an intergovernmental scientific and technical organization consisting of 64 member governments working to support safety of navigation and the protection of the marine environment.

The Illinois native served as a National Oceanic and Atmospheric Administration (NOAA) officer, attaining the rank of rear admiral. At NOAA, he commanded the NOAA vessels *Rude*, *Heck*, *Davidson* and *Fairweather*, and was responsible for hydrographic and oceanographic surveys of the U.S. Atlantic and Pacific Coasts.

Active in a number of technical and professional societies, he is vice president of the International Union for Surveys and Mapping. He has also served as chairman of the Educational Fund Management Committee of The Hydrographic Society and director of the National Association of Uniformed Services.

Dempsey Associate Director, Geospatial Info and Services Office

Teri M. Dempsey is the new associate director of the Process Support Division's Geospatial Information and Services Office, Operations Directorate.

Dempsey previously was acting chief, Requirements Office, Science and Technology Directorate.

Harris Becomes Chief of Networks and Systems

David R. Harris is the new chief, Networks and Enterprise Systems Office, Systems and Technology Directorate.

Prior to joining NIMA, Harris was chief of the Applications Services Group, Agency Technology Services Office, Central Intelligence Agency (CIA).

Tom Caroscio, Harris' predecessor, has become deputy chief, Desktop and Central Computing Group, Agency Technology Services Office, CIA.

Biggs New Military Personnel Chief

Air Force Lt. Col. John Biggs is the new chief, NIMA Military Personnel Division (HRM), replacing Lt. Col. Tony Bland.

Biggs and his staff, located in Fairfax, Va., provide military personnel support and assistance to NIMA managers and supervisors, assigned military members, DoD, Joint and Service headquarters, as well as other offices.

HRM provides guidance, counsel, and assistance to military members of the Air Force, Army, Navy, and Marines on all military personnel programs and issues (i.e., assignments and relocations, promotions, performance reports, personnel security, joint awards and decorations, as well as unique Service programs and requirements).

Facility Plan Examines NIMA's Future Configuration

Rear Adm. J. J. Dantone Jr. approved a facilities consolidation plan for NIMA, Dec. 24.

The plan outlines the Agency's long-term strategy to consolidate NIMA facilities, consistent with the programmed drawdown of our workforce, and to reduce lease and other infrastructure costs. The plan will position NIMA to move toward a two production site configuration, should we continue to reduce in size beyond fiscal 2001.

Key elements in the plan include maximizing contractors' use of their own facilities when collocation is not required and acquiring the balance of the Lockheed Martin Data Center (LMDC) in Reston, Va., which is next to NIMA's Reston Center, to allow for the relocation of NIMA personnel from the National Reconnaissance Office Westfields facility in Chantilly, Va. NIMA will seek a transfer of funds

to cover the costs of leasing and operating the LMDC.

As the Agency reduces during the next three to five years, the strategy calls for phasing out the Washington Navy Yard, and concentrating production sites in Reston, Bethesda and St. Louis. If the Agency continues to reduce in size over the longer term, NIMA will be postured to move out of the Reston facilities, leaving production sites in Bethesda and St. Louis.

This plan will help guide spending decisions for major building repairs and new communication technologies, as well as give direction to the installation of new production systems.

The Mission Support Office is currently setting up a team to develop implementation plans as well as verify the feasibility of the strategy. The target date for completing the implementation plan is June. |

Events Planned for Black History Month

by Jennifer Lafley

According to feedback given to NIMA East's African-American Planning Committee, the breakfast held in Erksine Hall celebrating Dr. Martin Luther King's life, was a resounding success.

A questionnaire that was passed out to employees who filled the cafeteria, revealed that 97 percent of employees who attended reported that they enjoyed the program and felt it was very important to have such a program at work.

The Rev. Dr. David T. P. Perrin was the speaker at the breakfast and at the headquarters commemoration.

"Dr. King caused us to confront unpleasant issues in our society that needed

to be addressed," said Perrin, who described King as a "social engineer."

In St. Louis, the Black Repertory Company entertained employees.

February is Black History Month and programs are planned for most of NIMA's sites. This year's theme, "Education and Entrepreneurship, the key to African-American Success," will be presented with a variety of events such as an art show, video presentation, jazz band, and, at Bethesda, a soul food tasting.

In St. Louis, a program of dance, music and a motivational speaker is in the planning stages at press time.

This year's successful Dr. Martin Luther King's celebration makes way for Black History Month



photo by Tom Barsh

The Rev. Dr. David T. P. Perrin, of the Church of the Great Commission in Camp Springs, Md. was the speaker at Bethesda and Fairfax.

Did You Know ???

Why was February selected as Black History Month?

February is significant because it is when many famous black leaders were born. They include Frederick Douglass, W.E.B. DuBois, Langston Hughes and Eubie Blake. Also, the National Association for the Advancement of Colored People (NAACP) and the first Pan African Congress were officially opened in February. **Name three popular black women writers.**

Toni Morrison, a novelist, teacher and editor, won the 1988 Pulitzer Prize for Literature and the 1993 Nobel Prize in Literature. Maya Angelou is an award-winning poet and author of *I Know Why the Caged Bird Sings* and other works. Alice Walker, writer of *The Color Purple*, is also a winner of the 1982 Pulitzer Prize. |

Synergy Burning Bright as NIMA Implements Future

Editor's Note: After the magazine went to press, we were informed that the production cells will no longer be distinguished by the names—Geospatial Production Cells or Integrated Production Cells. Production cells will now be called NIMA Production Cells (NPC).

by Kathleen Neary

NIMA's founders envisioned that bringing together the functions of imagery analysis and geospatial operations would create a synergy benefiting all customers of imagery, imagery-derived intelligence and geospatial information.

Today, a new workgroup environment—putting imagery analysts and cartographers in a collaborative work setting using commercial-off-the-shelf (COTS) software and hardware—is turning that vision into reality as NIMA begins implementing its production environment of the future.

NIMA's Washington Navy Yard will receive the first integrated production cell (IPC) in April. Likewise, plans call for the placement of four geospatial production cells (GPCs), also by April—two in Bethesda and two in St. Louis. While these cells will be continually assessed, they will be tasked with different projects, each producing real products to satisfy real requirements.

The IPC concept is an outgrowth of the Geospatial Information Infrastructure (GII) master plan and a follow-on to the NIMA Pilot Team and the Operations Vision. The NIMA Pilot Team has been identifying synergies between imagery analysis and geospatial operations since the Agency's standup. The Operations Vision identifies a plan for improving organizational infrastructure and technology, contributing to the NIMA Vision and achieving improved customer support.

"Fundamental to the IPC concept is the introduction of collaborative work environments where imagery analysts and cartographers jointly address intelligence issues and geospatial information needs," said John Westcott, NIMA's integrated production chief.

IA and GI collaboration will extract the information specific to the mission at hand. Rather than analyzing isolated pieces of data, all information can be compiled to fully visualize the mission space.

What officials learn from evaluating the synergies that manifest from the IPC work environment will be incorporated into subsequent process spirals to streamline and improve customer support, Westcott said.

The IPC, teaming imagery analysts and cartographers, will be used to focus on imagery analysis and geospatial

Production Environment

issues related to U.S. national strategic policies. The four geospatial cells will have essentially the same capability as the IPC, but will initially focus on geospatial information, as well as helping to populate the database of global foundation data. This foundation data—elevation data, imagery and feature data—has been called the bedrock of the geospatial framework and will provide the common geospatial base from which information can be processed to create tailored views of the mission space.

"The GPC environment will provide production staff the opportunity to operationally validate and implement the flexible workgroup and information production and maintenance concepts that are central to the Operations Vision for NIMA," Westcott said. As the IPC matures, along with COTS developmental technologies, it is expected that this refined concept will be incorporated into future production cells.

IPC enthusiasm is high and the IPC concept is already successfully at work, Westcott said. Installed at the Navy Yard last February, the Geospatial Gateway provides imagery analysis support by offering access to a standard suite of geospatial data sets. The Geospatial Information technical representative on site, David Russ, collaborates with imagery analysts to help them focus on geospatial information and methodologies available to them.

A prototype IPC also has been in a demonstration mode at NIMA's Prototype Facility (NPF) in Bethesda, since Nov. 21. That demonstration already has received

several hundred visitors and many requests for more demos, according to reports from the NIMA Integrated Production Office.

NPF is essentially the continuation of the Geospatial Prototype Facility (GPF), which originally was created under the Geospatial Information Integrated Product Team initiative. With a sister facility in St. Louis, NPF uses the production cell concept for the assessment and validation of information requirements and COTS tools, potential production processes and technology solutions. Westcott said the NPFs are integral components of a spiral engineering and management process and essential to the insertion of technology in production elements.

"The NIMA Prototype Facility should be the most versatile and risk taking of all our cells," said Bobbi Lenczowski, deputy director for NIMA Operations. "It should be staffed by both ST [Science and Technology Directorate] and DO [Operations Directorate] individuals who relish attempting what others insist is impossible or challenging."

The prototype facilities contain hardware, software and infrastructure representative of the IPC and GPCs. New technologies and techniques for production and maintenance are integrated, assessed and validated through NPF before being moved into the mainstream production and maintenance environment.

"This approach," Westcott said, "allows rapid assessment of new tools and capabilities, as well as new processes for production, without jeopardizing the overall production environment." |



National Imagery and Mapping Agency cartographers and imagery analysts have been prototyping projects using commercial-off-the-shelf hardware and software in NIMA's Prototype Facility (NPF). NIMA's Integrated Production Cell is being modeled after the NPF, creating a collaborative workgroup environment to address intelligence issues and geospatial information needs.

STRATCOM Exercise

proves NIMA Vision

by Paul Hurlburt

Major concepts for supporting NIMA's customers with geospatial information were demonstrated during the U.S. Strategic Command's (STRATCOM) annual exercise Global Guardian '98 (GG'98).

The exercise tested STRATCOM's ability to execute its mission of deterring a military attack on the United States and its allies. This mission includes employing forces to achieve national objectives, should deterrence fail.

NIMA supports STRATCOM's airborne strategic bomber fleet and its arsenal of land- and sea-based ballistic missiles with a variety of targeting and navigational information.

For NIMA, GG'98 provided an opportunity to test new support concepts developed by the NIMA-led Geospatial Information Integrated Product Team (GI IPT).

"NIMA's effort involved close collaboration among several key players," said Robert Jacober, one of four NIMA representatives assigned to STRATCOM headquarters at Offutt Air Force Base, Neb.

Besides GI IPT personnel, the STRATCOM Mapping, Charting and Geodesy Office, NIMA's team at STRATCOM, the NIMA STRATCOM customer support team under Air Force Col. Frank Jones, and NIMA production people led by Paulette Wells all were involved.

"Together, we demonstrated the ability to build specialized (tailored) products through a combination of data pulled from NIMA's web sites and operational information resident within STRATCOM," Jacober said.

Among the GI IPT proofs of concept (PoC) demonstrated during the exercise was the electronic distribution of data. The NIMA team at Offutt pulled Digital Terrain Elevation Data (DTED)®* and Terrain Contour Matching (TERCOM) data from NIMA's St. Louis Gateway and uploaded it to the command's spatial data servers. DTED provides land-based elevation points at varied densities or "levels," and TERCOM is used in cruise missile guidance systems. The data was provided by a team led by Terry Fischer and Jim Corbett. Through electronic distribution, the rapidly acquired digital data was readily available to STRATCOM mission planners for use in GG'98.

In another demonstration, an existing portion of a 1:250,000-scale Joint Operations Graphic (JOG) was digitally updated and placed on the St. Louis gateway by a team led by Susan Allersmeyer-Rosendale. This "patch" was then pulled off the gateway and incorporated into an existing digital JOG by STRATCOM. An updated map, with the new information in a magenta overlay, was then printed on site using a Remote Replication System provided by NIMA.

In a third demonstration, STRATCOM planners pulled patches of imagery for target selection from NIMA's new imagery web site at the Washington Navy Yard.

"The support provided by the new imagery site surpassed the expectations of the exercise planners," Jacober said. "We knew the site was still being tested, so we asked for a demonstration of some of its capabilities during a four-hour window. Instead, we had access to the site for several days. This flexibility allowed additional planners within STRATCOM to access this resource and provide valuable feedback to NIMA on its utility."

In the final demonstration, mission-specific data was merged with digital base chart information to produce a Strategic Recovery Planning Chart (SRPC) for senior battle staff. For demonstration purposes, this chart was used aboard the airborne command post "Looking

Glass" to determine post-strike recovery areas.

The mission-specific data was provided by STRATCOM and the digital base chart information by a NIMA Information Services team led by Rick Acord. The merging process, which produced the finished SRPC, was accomplished by Bob Ubbelohde, NIMA technical representative at STRATCOM, who used NIMA's desktop suite of geospatial manipulation software.

One proof of concept that was tested but not fully demonstrated was customer co-production. In GG'98, STRATCOM produced elevation data using its own in-house systems.

"Although this DTED [Level 2] did not meet NIMA specifications because of the quality of the [source] imagery, STRATCOM successfully

completed the required steps [in the process]," Jacober said. In the future, if commands build their own products that meet NIMA specs, they could be available to other customers, making the commands NIMA co-producers.

"One of the goals of the GI IPT was to demonstrate the ability to update base information on site to meet specific customer needs," said Irv Buck, leader of the GI IPT. "This approach will allow NIMA to concentrate on one of its primary goals, producing global libraries of foundation information that customers can pull from a web-based library. For NIMA, Global Guardian was a milestone in the Agency's evolving strategy for supporting its customers." ■

* DTED® is a registered trademark of NIMA.



Navy Lt. j.g. Tim Roglin (right), U. S. Strategic Command's Geospatial Information and Services Requirements officer, completes the final review of a remote replication system (RRS) tailored product before it is sent to the operations staff. Dennis Wampler (left), STRATCOM's RRS operator, and Bob Ubbelohde, NIMA technical representative to STRATCOM, do the final edit on data for another project being supported by the RRS at Offutt Air Force Base, Neb.

photo courtesy of STRATCOM

QUEST FOR EXCELLENCE

by Rick Stidsen

In December, amid all the holiday preparation, travel and celebration, many individual and team efforts occurred that reflect significant achievements in customer support, outstanding performance, innovation and creativity. Here are a few.

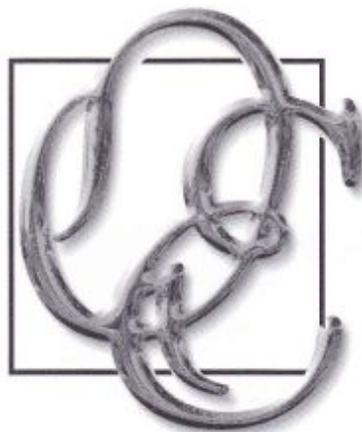
- While performing extraction for Southwest Asia (SWA), David Young of Geospatial Information found a major building discrepancy between his city graphic source and a *National Geographic* article. Per the 1978 article, the building in question was identified as a hotel, but the later-date source had the feature identified as a royal palace.

Todd Hildreth, the job planner for Young's job, contacted Reston librarian Sherry Swehla of Information Services to have an Internet search performed to determine whether the building was a hotel or a palace. After the search, they found that the building is a hotel and extracted it as such.

Hildreth notified the SWA project leader of the error on the city graphic to insure future sources get updated. This is an example of how an unclassified source can be used to verify maps.

- By searching the Internet at home, Jim Drew, GI, acquired a number of images and documents which have proven invaluable in correctly identifying features during data extraction in the SWA production area. Joe Gorski, GI, has had similar success with less technical means. By searching through magazine articles at home, he was able to clearly identify a number of storage areas where grain sacks had been stored in stacks resembling small buildings. The extra efforts of both these cartographers continue to ensure the high quality level of information being generated for the U.S. Central Command in Southwest Asia.

- Robb Blackburn and Rex Tugwell, both GI, were tasked by the Bosnia project lead, Robert McKeown, to devise a method for collecting point feature buildings that would reduce the hours devoted to this phase of feature collection. Their method could reduce the expended hours significantly. Data extraction presently collects all buildings as areas, with those that measure 20 meters or less in length automatically reduced to a point. The new method will involve the actual collection of these buildings as point features in conjunction with the standardization of the attributes.



After the first point building is collected and attributed, the "Retain" tool will be used for the vast majority of point buildings, reducing both the collection time and processing time for each building. This proposal will be implemented immediately on all Bosnia jobs.

- A recent suggestion submitted by David Jones resulted in the setup of an impressive chart display in the main corridor of Reston Center's first floor. As an attendee at September's Directorate of Operations Offsite Conference, Jones examined the External Customer Satisfaction Survey results displayed at the conference. Recognizing the potential value of this

feedback, he asked through channels whether the production workforce might gain access to it. As a result, the charts, which detail NIMA customers' ratings of NIMA products and services, were featured at Reston. The display offers a simplified, graphic representation of customer feedback, and it provides invaluable insights into both the strengths and weaknesses of NIMA processes.

- The Office of the Secretary of Defense has initiated a Secretary of Defense Team Excellence Award. The award recognizes outstanding team performance for completed process improvement efforts after Oct. 1, 1995. PA recently distributed award criteria and guidelines for preparing a nomination package to all NIMA business offices. Submissions will be due every six months. This award presents an excellent opportunity to recognize deserving teams at the OSD level. |

Improvement efforts will continue to be highlighted in upcoming articles. For nominations, contact Rick Stidsen of NIMA's Performance Metrics & Improvement Team, CA/PA, (703) 275-5784.

CA Recognizes Employees' Contributions

Several Corporate Affairs (CA) employees were recognized during an Awards ceremony held recently.

Doug Smith, Deputy Director for CA, presented Superior Civilian Service Awards to **Richard Beck** and **Donnie Holt** of Plans, Programs and Analysis (PA).

Beck was recognized "for the many exemplary contributions he has made to the Agency and its predecessor organizations during his 33 years of federal service," according to the citation. Throughout his career, Beck consistently demonstrated the highest degree of professionalism, leadership and innovation. His expertise and dedication resulted in significant improvements to source collection and digital production systems.

Holt was recognized for "consistently outstanding service to the Defense and Intelligence Communities." During his 34 years of federal service, "his visionary approach and commitment to quality resulted in significant contributions to imagery collection, analysis and exploitation efforts," according to his citation.

Customer Service Awards were presented to **Karen Baer, Ed Greaving, Steve Reichert, Frank Kotula, Jack Luibl and Steve Pollard** from the Comptroller Office's End-of-Year Closeout Team. The team merged numerous new programs with existing

programs to insure that NIMA closed its fiscal 1997 budget books with sufficient funds to meet any unexpected requirements. The team also reprogrammed \$4.4 million in Office of Secretary of Defense money to meet high-priority Agency requirements.

Nicole Pierce, a contracting officer from Procurement and Contracting (PC), also received a Customer Service Award for her management of a NIMA Libraries procurement project. She aggressively took over a former Central Imagery Office procurement effort at the time of NIMA's standup and immediately developed a schedule, overcame enormous obstacles to conduct source selection and awarded a \$200 million contract that met Congressional and program time constraints. Her efforts precluded the potential loss of several million dollars in fiscal 1997 funding and enhanced Congressional confidence in this NIMA program.

A Teamwork Award was presented to the following members of the Network and Enterprise Systems Office (CN) Outsourcing Team: **Jimmy Boyd, John Reiter, James Johnson, Larry Stratton and Stephanie Blackshear** from CN; **Ed Solkowski** and **Vance Cathell**, PC; - **Jack Luibl** from Comptroller (CM); and **Betty Damker, Elaine Schlueter, Nancy Adams, Loyce Lawson and James Brunger**, Human Resources (HR).

This small team successfully outsourced NIMA's computer operations, accomplishing in six months what normally would have taken 18 to 24 months. The personnel and cost savings to NIMA were significant. The team also saved an additional \$1 million by convincing the General Services Administration (GSA) to reduce its normal fees for supporting such activities.

A Teamwork Award was also presented to **Laurie Hempe and Dottie Herchert** of the Mission Support Western Region's JOCAS Tiger Team. They developed "JOCAS For Dummies DOS Version", a manual to train all timekeepers and certifiers. It greatly assisted employees throughout NIMA in understanding the new, complex cost accounting system.

Excellence Awards were presented to the Financial Database Team composed of **Brad Cohick** and **Tom Troy** from CM, and **Claire Paquin** and **Tim Reece** from CF. They developed a single NIMA financial database to account for the requirements and capabilities of each NIMA element and provide all of the reports required under the Intelligence Community's budget process. This database proved invaluable in answering Congressional questions, in preparing for the upcoming budget review, and in providing the foundation for the

Congressional Budget Justification Book.

Army Maj. **Rockie Hayes** of PA also received an Excellence Award for the design and development of a Capability, Strategy and Requirements Analysis Tool (CSTRAT). Hayes' system combines several disparate tools of the imagery and geospatial communities into a single environment to support end-to-end architecture analysis.

CSTRAT is currently supporting decisions affecting multi-million dollar proposals in areas such as the airborne/spaceborne collection mix and various community communications projects.

Ron Lindy of the Network and Enterprise Systems Office's hardware maintenance team received an Excellence Award for an outstanding record of timely response to trouble tickets. Lindy's dedication, hard work and continual striving for excellence has contributed significantly to the success of his maintenance team.

Susan Akard (MS) was presented a certificate of appreciation signed by the Department of Defense Comptroller recognizing her outstanding support to the DoD's travel re-engineering initiative to improve service to customers and reduce government costs. |

NIMA Database Combats Age Old Problem

The attack was sudden. Armed with machine guns and wearing masks, 25-30 pirates boarded and hijacked the Cypriot-flagged cargo ship *Anna Sierra* (below) Sept. 13, 1995, in the Gulf of Thailand. Handcuffing the master and the 22 crew members in pairs, the pirates locked them in the engine room for two days, then set them adrift in small dinghies.



photo courtesy of Office of Naval Intelligence

After *Anna Sierra's* hijacking, NIMA's Marine Navigation Department issued an Anti-Shipping Activity Message alerting mariners of the incident (right). Such messages are available around the clock. The very existence of such messages could make piracy a less profitable venture if target vessels are alerted in advance.

Reference Number: 95-0123
Date of Occurrence: 9/13/95
Geographical Subregion: 93
Aggressor: PIRATES
Victim: ANNA SIERRA

Description:
On 13 Sep 95 approximately 25-30 pirates, armed with machine guns and wearing masks, hijacked the Cypriot-flagged general cargo ship *Anna Sierra* in the Gulf of Thailand, 70 NM southeast of Bangkok. The vessel was on a voyage from Ko Si Chang, Thailand to Manila, Philippines carrying 12,000 tons of bagged sugar (US\$4 million). The master and the 22 crew members were handcuffed in pairs and locked in the engine room for two days before being set adrift in small dinghies. On 16 Sep the crew was rescued in a Vietnamese fishing vessel. Prior to their removal the crew noticed the pirates changed the vessel's name and reprinted hatch covers and other easily accessible areas of the ship. The pirates sailed the vessel to the southern Chinese port of Beihai, where it arrived 20 Sep carrying an assumed identity (ARTIC SEA) and registration (Bonduanan-flagged).

MODERN DAY PIRATES HAUNT the HIGH SEAS

by Howard Cohen

Yes, pirates are alive and well around the world and the threat continues to grow. From January to September of 1997, 142 attacks were reported. And according to the International Maritime Bureau (IMB), the propensity towards violence is increasing.

Thanks to NIMA's Marine Navigation Department (GIMM) and the Navigation Information Network (NAVINFONET), customers can quickly access the latest information concerning acts of piracy and be forewarned of the areas where the risk is greatest.

"The Marine Navigation Department provides a worldwide remote query access capability to their unclassified maritime safety information databases," said Douglas Cabarle, a GIMM marine information specialist. "NAVINFONET has been in existence since 1975 and currently has more than 5,500 users."

Accessible by both civilian and military customers via commercially available computer communications hardware and software, NAVINFONET is operational around-the-clock. And there are no associated costs or fees for this service other than those charged by the customer's communication carrier.

NAVINFONET has extensive user-friendly menu options, allowing customers access to the latest

information on U.S. chart corrections, Broadcast Warnings, lighted aids to navigation, radio navigational aids, offshore drilling units, U.S. Coast Guard navigation information, Anti-Shipping Activity Messages (ASAMs) and other maritime-related data. The ASAM database contains information about acts of piracy and threats to shipping worldwide. The database information comes from multiple sources that include the Office of Naval Intelligence and the Maritime Administration.

It was the increase in hostile activity against shipping that prompted the U.S. Government Interagency Group on Piracy and Maritime Terrorism to request a reporting system. In 1985, ASAM was established as a centralized, one-of-a-kind database. Maintained by GIMM, it is, said Joe Grzymkowski, who updates the database, "an effective and dependable system of logging, storing and disseminating reports concerning attacks on shipping."

Grzymkowski receives information by telex, cable, telephone and mail. Scanning through the casualty report section of "Lloyd's List," a daily publication featuring worldwide shipping, insurance, energy, trade and

finance news, he adds to the database everything that could be of value to commercial mariners.

Although pirates on the high seas evoke images of swashbuckling romanticism in some, Grzymkowski said pirates should be viewed and treated more like terrorists.

"They carry and use fully automatic weapons like terrorists, they kill like terrorists and they're relentless," he said. And according to the IMB, they also use everything from speed boats and grappling hooks to scuba gear to board target vessels. The line separating terrorism and piracy became even more indistinct recently when a strafing attack on a Panama-registered bulk carrier resulted in the deaths of 33 crew members and the wounding of 17. The pirates in this case were the terrorist Liberation Tigers of Tamil Eelam.

Despite the rise in piracy around the world, most governments show little enthusiasm for apprehending well-armed pirates or enforcing piracy laws.

U.S. piracy laws have not been revised since 1847, notes Samuel Menefee of the Center for Ocean Law and Policy at the University of

Virginia. The very word, he said, "conjures up images of Treasure Island," making it difficult to get law enforcers to take today's growing problem seriously.

NIMA's Marine Navigation Department and the Navigation Information Network are currently the most valuable assets for combating piracy.

Even so, Peter Doherty, who manages the ASAM database, said the data can only forewarn—it can't deter.

"The information is used for planning and/or scheduling. It can't deter acts of piracy, but can provide notification of them," he said.

The ASAM system, while only one facet of NAVINFONET, keeps mariners informed of anti-shiping activity.

"The very existence of the file could make piracy a less profitable endeavor for today's buccaneer," said Steve Offenback, a marine information specialist in GIMM. "Supporting governmental responses, as well as warning of hostile activity in all the world's oceans, NIMA's commitment and its joint efforts with the maritime community may help bury piracy at sea." ■

'Ahoy, Matey, We're Still Here!'

by Howard Cohen

Blackbeard, wherever he is, must be smiling.

In 1996, there were 228 reported pirate attacks on shipping worldwide. Acts of piracy occur on the high seas, in coastal waters, on anchored ships and vessels at dock. No vessel is immune.

Of the many attacks reported, crews were routinely threatened by gun wielding groups of 5-10 people. Twenty-six people were murdered.

It can happen almost anywhere. Popular locations include the Far East, Indian Ocean, South America, East and West Africa and the Mediterranean and Black Seas. The London-based International Maritime Bureau estimates that losses from piracy reach \$200 million a year.

Pirates have robbed and plundered for centuries. Julius Caesar was

continued next page

Joe Schruender, a cartographer, Howard Cohen and Steven Offenback, both marine information specialists in the Marine Navigation Department, are part of the team that receives data around-the-clock for reports of piracy worldwide.



photo by John Iler

'Ahoy, Matey, We're Still Here!'

continued from previous page

captured by Mediterranean privateers until ransomed. He then pursued and crucified his captors. On his first sea voyage in 1476, Christopher Columbus barely escaped when his and other cargo ships were attacked by pirates. The 25-year old Columbus swam six miles to shore while more than 500 of his comrades perished.

Piracy became prominent in the New World in early 16th century and was responsible for much of the romanticism later associated with piracy. For nearly 200 years, the Spanish Main around the Caribbean Sea became the rich and bloody area that immortalized characters such as Henry Morgan and Blackbeard (Edward Teach).

The swashbuckling exploits portrayed in movies are a far cry from today's pirates. Using small, high-speed boats and automatic weapons, they maneuver alongside slower vessels. And they don't hoist the "Jolly Roger" to announce their attack.

Retired Merchant Marine Capt. S.P. Anderson had his ship boarded by pirates on three separate occasions within four months. He has a modern day perspective.

"We were anchored in the lower estuary off Guayaquil, Ecuador," Anderson recalled. "It was just after daybreak when the second mate on the bridge told the seaman to go aft to secure the lights and hoist the flag. When he failed to return, the second mate became concerned. We sent some other crew members to look for him. That's when they found him bound and gagged on the fantail."

Anderson said they began searching the ship

and found three pirates, who jumped overboard and swam to safety.

Pirates often use deception and the advantages of modern technology and weapons.

Off the French coast in the Mediterranean, a small speed boat appeared to need assistance. Crew members from a nearby yacht offered to help, according to the ASAM report. Three armed men boarded the yacht, seized the vessel and cash and set the crew adrift in a dinghy.

"Incidents in the South China Sea are not uncommon," said Tom Hunter, NIMA's Marine Navigation Department liaison. Hunter is a facilitator for the National Sealift Training Program, a U.S. Maritime Administration-sponsored program that meets several times a year at the U.S. Merchant Marine Academy in Kings Point, N.Y.

The two-week program is designed to inform class participants of the latest Defense Communication and Maritime Security procedures. Hunter explains the current NIMA procedures that assist in maintaining safety of life at sea, and provides NAVINFONET instruction. Most of his students are merchant marine masters (ships' captains).

"In every class there are usually two or three students who have been attacked by pirates or know someone who has," Hunter said. The typical story involves a speed boat coming alongside the ship. Grappling hooks are

thrown onto the midships area or the stern. Armed men board and begin stealing whatever they can.

A master had pirates that came in his room while docked in port, tied him up, placed a gun to his head and demanded that the second mate open the safe. They got away with the money but, thankfully, the master and second mate were spared.

Pirates even resort to forgery.

Two days after the crew of the *Anna Sierra* were set adrift, they were rescued by a Vietnamese fishing vessel. When the pirates sailed the vessel to the southern Chinese port of Beihai, the vessel had been renamed *Arctic Sea* and was Honduran flagged.

Based on information from the crew, an alert and a reward, the ship was seized by Chinese authorities. Armed guards were placed on board, passports confiscated and the pirates confined pending an investigation. The IMB and its fledgling Piracy Center considered the apprehension a spectacular success. Later events, however, demonstrated the pitfalls of prosecution and recovery in some countries.

More than 18 months after the incident, *Anna Sierra* lies mired in the mud. And the pirates? All 14 were released without any charges being filed. ■



PUNISHABLE BY DEATH:
"Any captain or mariner of any ship or other vessel who shall piratically and feloniously run away with such ship or vessel, or any goods or merchandize to the value of fifty dollars; or yield up such ship or vessel to any pirate...."

**ACT OF CONGRESS
APRIL 30, 1790**

Loudon Receives Awards, CIO Certification

Debbie Loudon, a member of NIMA's Comptroller Office (CM), received two prestigious awards from the Information Resources Management College (IRM) at the National Defense University (NDU).

She received the Distinguished Graduate Chief Information Officer (CIO) Award and Top CIO Award for 1997.

A management analyst with CM, Loudon also received her CIO Certification, which is sponsored by the Department of Defense CIO at NDU.

The IRM College offers certification in the competencies required by the Clinger-Cohen Act of 1996. The act (Public Law 104-106) encourages federal agencies to manage and meet the training needs of employees in information technology reform. The CIO Certificate Program directly addresses this requirement for senior level employees of the Department of Defense and the Services.

The program is based on a list of 10 subject areas relating directly to the federal CIO competencies. They include: policy,

strategic planning, leadership, management, process improvement, capital planning and investment, performance and results-based management, technology assessment, architectures, security and acquisition.

To be awarded a CIO Certificate, the student must complete and successfully pass eight five-day intensive courses. Student completion is recognized in a formal awards ceremony conducted annually.

Pacific Office Earns Appreciation

The National Imagery and Mapping Agency Customer Support Element Pacific Office was recently presented a certificate of appreciation from U.S. Forces Korea. The certificate was presented for meritorious service and support throughout the transition from Tokyo to World Geodetic System 1984 datums. The project spanned six years and reached completion in August 1997 with the destruction of all remaining salvage material.



Help Available in Coping with Transition

Prepared by the Office of Human Resources

Services are available to employees and supervisors coping with transition and other impacts of the reductions-in-force (RIF), according to Human Resources.

Members of NIMA's Priority Placement Program team and representatives from the DoD Civilian Assistance and Re-Employment (CARE) Office briefed employees who received RIF letters. The sessions included RIF and DoD Priority Placement Program (PPP) briefings and registration in PPP to ensure priority placement consideration for DoD positions.

Additional Information on Employee Rights and Benefits

Employment transition can be one of the most stressful situations ever encountered; the more stressful the situation, the greater the need for complete, accurate and timely information.

Employees may have questions about their rights and benefits as a result of receiving a RIF notice or as a result of PPP briefings.

There are no security implications when consulting an EAP counselor during confidential sessions.

EAP counselors also are offering managers, supervisors and team leaders the opportunity to learn more about how to assist employees exposed to these traumatic events.

"We highly encourage employees and family members to see NIMA's EAP counselors," said John Turner, NIMA EAP program manager. "Our counselors will work with individuals or groups on stress reduction techniques. Group sessions can also be arranged with your workgroup."

Locations and phone numbers for EAP offices are:

Washington (NIMA DoD) 301-227-5187

(24-hours 202-628-5100)

Navy Yard (CIA EAP Office) 703-482-4357

(40123 secure) or HRCW 202-314-1084 (61086 secure)

Philadelphia 215-627-9719

St. Louis 314-263-4848

From anywhere else or after hours, call
1-800-247-3054.

Employees are encouraged to contact NIMA's clinics — staffed by medical professionals — who will assist with any medical concerns.

Clinic phone numbers are:

Bethesda 301-227-2193 or 3464

Navy Yard 202-863-3738

Fairfax 703-275-8595,

St. Louis 314-263-4047

Facilitation, Mediation Staff Willing To Listen, Help

Janet Betts heads the Facilitation and Mediation Center for the Office of Human Resources. She's been finding solutions to employees' and supervisors' concerns in the workplace for more than seven years.

"When we meet with a client at one of our Facilitation and Mediation Centers, employees can count on being heard and the information going no further without their permission," Betts said. Her staff works with clients who drop in or arrange an appointment. They will also meet at other locations convenient to employees.

Contact the Facilitation and Mediation Centers at:

Bethesda—Bea Vicks or Melanie Deforth,
301-227-4750, Ruth Building, room 224

Navy Yard—Janet Betts or Bob Shefner,
202-863-3007 or 3008, room 1N365

St. Louis—Margy Spezia or Helen Brown,
314-263-4276, Building 22

CMC Staff Help With Skills Transition

A key career planning service provided by NIMA's Career Management Centers (CMCs) is assistance with job search and skills transition, including help with resume preparation and interviewing skills.

For more information, employees are invited to stop by or call the CMCs from 7 a.m. - 3:30 p.m.:

Bethesda—Selina Pendleton or Laura Jones,
Erskine Hall, Room 545, 301-227-2387

Navy Yard—Cynthia Watson, Building 213,
Room 4N400-09, 202-863-3046

Reston—Alexandra Reidy, Room T134, 703-264-2135

Fairfax—Jim Girardi, Room 1N158, 703-275-8432

St. Louis—Terri Sabo or Judy Wolf,
Room 1A-77, Building 36, 314-263-4177

CTC, Outplacement Counselor Services

To provide comprehensive job search assistance, especially to employees affected by the RIF, the Agency reopened its Career Transition Centers (CTC) in Washington, St. Louis and Philadelphia. The centers are staffed with highly experienced outplacement counselors from Resource Consultants, Inc.

To schedule an appointment with an outplacement counselor, please call or visit a Career Transition Center:

Washington, D.C. Area—James Alexander,
301-227-3400, Room 176 Erskine Hall, Bethesda

St. Louis—Mariam Brown, 314-263-4594,
Bldg 18, 2nd Floor, East End

Philadelphia—Jesse Turner, 215-697-3133, Room 23

For general questions on outplacement transition services contact Donna Simpson at 301-227-1983 (DSN287). |

ICAP – Incoming and Outgoing

by Jim Girardi
Office of Human Resources

The Intelligence Community Assignment Program (ICAP) promotes better integration of the community and improved support to a wide variety of consumers and missions. ICAP is the first ever community-wide employee assignment program designed specifically to promote and encourage two- to three-year rotational assignments across Intelligence Community (IC) functions, positions and geographic locations.

The rotational assignments are non-reimbursable for the parent organization. That means the business office releasing the NIMA employee must retain the billet, maintain time and attendance records and prepare an annual evaluation for the employee during the entire length of the rotational assignment.

ICAP has 12 participating organizations: Community Management Staff, CIA, Defense Intelligence Agency (DIA), NIMA, National Reconnaissance Office, Air Force, Army, Marine Corps, Navy, Defense POW/Missing in Action Office, and the Assistant Secretary of Defense for Command, Control, Communications and Intelligence. Each organization offers an agreed-upon number of vacancies per fiscal year derived from a formula of the total population of their organization.

ICAP is advertised twice each fiscal year, in October and March. The application process generally takes six weeks and is

open to all employees working in the participating organizations.

In October, ICAP organizations identified approximately 120 vacancies announced electronically through the NIMA Web, HR Server, and INTELINK. Paper copies were located in the Career Management Centers and faxed to remote NIMA locations. NIMA received two community employees—John Mrzyglod from the Army, and William Auger from DIA. Eight employees are exiting NIMA for ICAP rotations. They are: Ara Ayrandjian, Kenneth Peterman, James Schrupf, Kathy Dixon Schwab, Gwendolyn Trammell, James Zuber, Ron Bryan and Eli Rutstein.

The next ICAP vacancy announcement is scheduled for March.

Focus '98 Seeks Employees Feedback

A series of focus groups eliciting input from the NIMA workforce is scheduled to be held throughout 1998, according to Agency officials.

The sessions, known as Focus '98, are designed to encourage discussion of issues of general employee interests and concerns, and to encourage suggestions for improvement.

Focus '98 sessions will be set up so that groups will include either supervisory or non-supervisory members, with no more than 20 employees for each session.

Confidentiality of individual participant's comments is guaranteed. Employees' general concerns and resulting Agency

action will be publicized through NIMA's internal communications program.

Business Opportunity Day Set for March

NIMA will host its second annual Business Opportunity Day at the George Mason University Center for the Arts, Fairfax, Va., on March 12 from 8 a.m. to 5 p.m. The program will focus on providing industry with unclassified information about NIMA's future requirements, contract opportunities and funding levels. For additional information, check out NIMA's homepage on the Internet at <http://164.214.2.59/comad/bod198.html>. It is also located on the Intranet at <http://osis.nima.mil/comad/bod198.html>.

Take Note

The move from Fairfax to Bethesda is in full swing. Make a note of the following numbers that have been changed:

Director
(301) 227-7300
Deputy Director
(301) 227-7400
Deputy Director of Operations
(301) 227-7330
General Counsel
(301) 227-9290
Secretariat
(301) 227-7317
**Deputy Director,
Corporate Affairs**
(301) 227-7308
**Deputy Director,
Systems & Technology**
(301) 227-7402
NIMA Operations Center
(301) 227-7336

Saying Good-Bye Is Hard to Do

by Jennifer Lafley

The sound of laden carts being pushed down the halls was a familiar sound around many NIMA sites during the holidays. Then there were the e-mailed good-byes which filled electronic mail boxes, and a marked increase in luncheon posters making the rounds.

But on Dec. 31, the last day of work for many employees, the day was quiet, even slow, as many departing employees found colleagues' offices deserted because of the holiday season.

Some of the departing were smiling, some teary. Some spoke of grand plans, others shrugged and discussed possibilities.

Ralph Mayer of Mission Support wore a tie and dress shirt. "I wore a tie on my first day here, so I will on my last," he said. Mayer, chief of the video section (MSAV) in Bethesda left after 36 years. Also retiring were Larry Mahaney, Jack Harrison, Bob Dunlap, John Norris and Al Cinque, with a combined total of 219 years of experience. And MSAV was just one office to lose this number of years of experience.

"So many of us know the history of the Agency—sort of the way it was," said Dave Rogers of Geospatial Information (GI), who is leaving after 37 years.

Deputy director of Corporate Affairs, Doug Smith, agrees. "These employees leave a legacy of hard work, knowledge and many important contributions to the Agency's success."

Editors note: This article highlights only a few of the many employees who left the Agency over the past several months at all of NIMA's locations. We wish them all good luck in 1998.

NIMA Hydrographer Retires

After more than 50 years of civilian and military service, James E. Ayres, scientific advisor for Hydrography, retired. A native of Pasadena, Calif., he served more than 30 years in the Navy. He joined Hydrography in 1987 and said he enjoyed his career.

"I'll be following the progress of the digital nautical chart (DNC) and may even do a little consulting," Ayres said of his retirement plans. "My wife and I plan to do some traveling. We have a house at Drum Point on Solomon's Island...and may live there awhile. Later, we may move to the west coast, where I grew up—perhaps settle in Santa Barbara."

Down This Road Before

For Tommy Crist (MS), the last day was filled with nostalgia as he drove into the Erskine Hall parking lot in the same car he drove on his first day of work 39 years ago. It was a 1949 Willys Overland Jeepster.

The jeepster provided transportation to work for both Crist and his older sister Teresa, who began working for the then-Army Map Service in 1951. But Crist was still in high school when he began his daily trek to Erskine Hall.

"My mom and I would come to pick her up after work. We listened for three chimes and then people would pour out of the building at 4:30 p.m." Five years later, he joined his sister and began his career in facilities management. "I know every machine in this building."

Crist describes his buy-out as a dream come true, and plans to spend his retirement enjoying the car of his youth. He and his wife plan to take the top down on warm days and go "cruising."

As he took a couple of turns around the circle in front of the building honking his Bermuda bell and waving at friends, Crist's smile was contagious. "It's been great working here," he said, "but I'm looking forward to the next phase of my life."

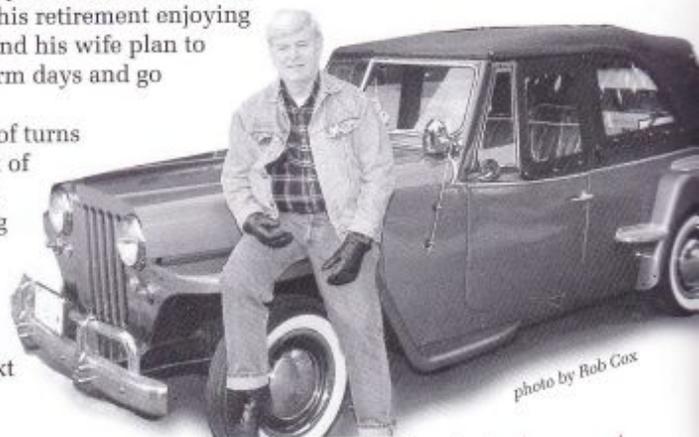


photo by Rob Cox

Tommy Crist drives to work on his last day in the same car he began his federal career.

NATIONAL IMAGERY AND MAPPING AGENCY FY98 DOWNSIZE INITIATIVES

VISP/VERA* NUMBER APPROVED		REDUCTION IN FORCE IDENTIFIED TO BE SEPARATED**	
FIRST VISP/VERA	346	WASHINGTON	34
SECOND VISP/VERA	87	ST. LOUIS	10
THIRD VISP/VERA	252	PHILADELPHIA	66

Jimmy the Driver

Known by everyone at Headquarters as “Jimmy the driver,” Jimmy DeJarnette, a driver for many senior leaders, knows his way around town.

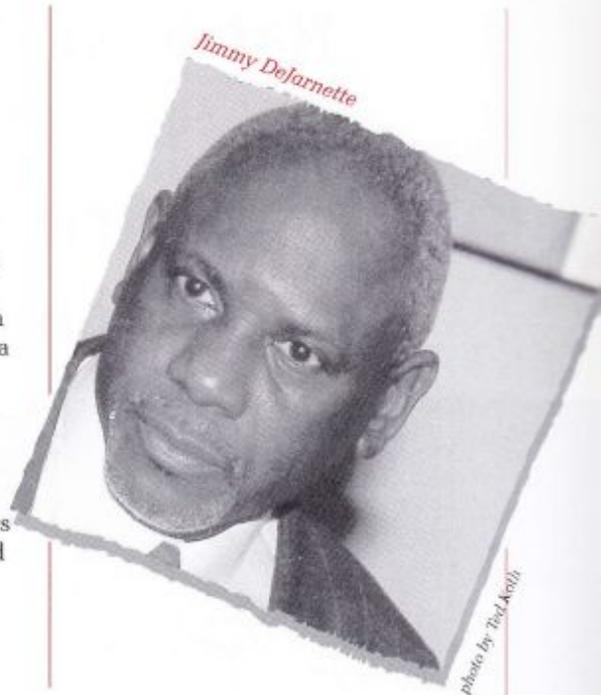
“I know how long it will take to get to the Pentagon from every agency location and weather situation,” said DeJarnette, who left the Agency after 26 years with a total of 31 years of federal service.

DeJarnette has had the opportunity to hear history in the making, through conversations with 12 past directors and deputy directors. “It would take me a couple of weeks to get to know each one’s likes and dislikes, and let me tell you—they were all different,” DeJarnette said.

And amazingly enough, there were no back-seat drivers. “I had a line I would use. I would tell them I would never offer them advice on running an agency or how to make maps.”

DeJarnette, who was honored at a well-attended luncheon in January, says he had fun at work every day. “My wife would get mad at me because I would go to work, even when I was sick. I felt responsible.”

DeJarnette has no immediate plans for his retirement, but already he is busy. “I have 31 years of accumulated ‘honey-do’s’—my wife tells me I am going to be very busy.”



Climbing the ladder

For Reston’s Bea Streitfeld of Administrative Services (MSA), 40 years of government experience were filled with memorable moments.

“I have been writing down the ones that really stand out, and I already have over 70,” Streitfeld said.

Starting as a GS-2 clerk-typist for the Navy Department in Philadelphia, Streitfeld’s career was reminiscent of the times. “There were no women in management back then—I stayed a GS-5 for 15 years.”

When opportunities opened up for women, she was ready. “I was known around NIMA for speaking my mind, but I took one of the first courses for women on assertiveness—it was a new concept for me,” she said.

“Sometimes she speaks her mind when it might be better to be quiet,” teased Steve Earle of Mission Support East, “but Bea was a risk-taker and known for her personal integrity and leadership.”

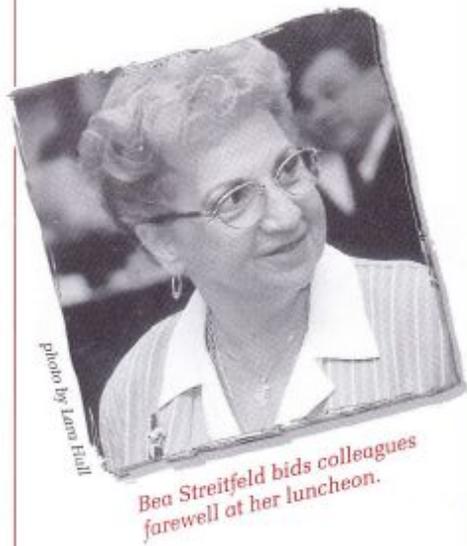
Her first week of retirement was spent attending luncheons of fellow employees who were also leaving the Agency, but she plans to visit family and keep busy.

“I’m like Jerry Seinfeld on television,” she said. “I just knew it was time to go.”

For Annie Morris, Human Resources (HR), retiring is bittersweet. She looks forward to being a full-time mother to her daughter, Kelsey. But she has many good memories of her years with DMA and NIMA in St. Louis. She says the way the Agency’s employees pulled together during the two floods in 1973 and in 1993 are two of the most memorable times of her life.

“The things that always impressed me about the Agency and have made this the best place to work is the people.”

Employees returning from the holidays were saddened to see their lunch partners and co-workers gone. Belinda Rhone, of St. Louis, said, “We have lost many talented people in our office. Aside from their contributions, we were a family, too. I miss that.”



National Media Focus Attention on NIMA

by Lynn Havach

February will see national media attention focused on NIMA as *National Geographic* magazine and the CBS-TV news special "Eye on America" carry features incorporating information about Agency capabilities and activities.

National Geographic senior assistant editor for special projects William T. Douthitt and photographer Bob Sacha visited NIMA sites at Bethesda and Holloman Air Force Base, N.M., during February and May 1997 to photograph NIMA operations for use as part of an article on the history of mapping. The article, titled "Revolutions in Mapping," is published on page 30 of the *Geographic's* February 1998 issue devoted to exploration, one of six such theme issues the magazine has planned over the next two years in its examination of the world as we approach the millennium.

As is its custom, the *National Geographic* shot thousands of photographs to support its article on mapping. And editors chose one showing NIMA activities for inclusion in the published piece. The photograph they selected shows John White of NIMA's Geodesy and Geophysics Department, Geometric Geodesy Branch, using a geodolite at dusk at the White Sands Missile Range. In the photo, a laser beam is clearly visible bouncing back to the geodolite from a retro-reflector down range.

"I paid a price for that photograph," says White, laughing, "because in order to get the laser to show up at that time of day, they made me stand there while they threw dust and dirt up at me. It wasn't much fun, but it's a great picture."

For CBS-TV, NIMA has been working in conjunction with the National Reconnaissance Office since early September 1997, to support the production of a multi-part "Eye on America" feature on the development and operation of a reconnaissance satellite. The "Eye on America" segment involving NIMA airs this month as part of the *CBS Evening News* program.

NIMA's portion of the story focuses on the imagery collected by reconnaissance satellites — how it is analyzed and exploited, and later combined with geospatial data to produce maps and other useful products. To support CBS, the Agency hosted David Martin, the network's Pentagon correspondent, Mary Walsh, producer for "Eye on America", and a three-person camera crew at the Washington Navy Yard, Bethesda and the headquarters in Fairfax during December 1997 and early last month.

At Building 213, CBS filmed interviews with Peter Usowski, executive officer to the Director, Imagery Analysis Office (IA), and Maria T. Murphy, an imagery analyst, who demonstrated how imagery is exploited at both an IDEX workstation and a light table. In Bethesda, Martin interviewed a cartographer, Eli Rutstein, demonstrating the



National Geographic photographer Bob Sacha captures NIMA's Dan Stewart and David Harding at a Product Generation Segment workstation during a May 1997 photo shoot in Bethesda.

capabilities of NIMA's Data Capture and Finishing Environment (DCAFE) equipment. He also saw map products being created using the Remote Replication System (RRS).

The filming at headquarters focused on terrain visualization. With video-like "fly-throughs" of the Bosnian landscape in the background, CBS filmed an interview with Air Force Lt. Col. Steve "Boss" Hogg, a pilot currently assigned to the Pentagon, who explained how he used NIMA's terrain visualization equipment in Aviano, Italy, to prepare himself and his fellow aviators for NATO bombing missions over Bosnia in 1995.

In addition, with support from Air Force Lt. Col. Tom Apollonio, Chief of NIMA's Outreach Office, Martin interviewed Ambassador Richard C. Holbrooke, chief U.S. mediator at the 1995 Bosnia peace negotiations in Dayton, Ohio, concerning the value of the terrain visualization equipment to the negotiating process. Holbrooke had high praise for this capability. He noted that Dayton represented the equipment's first use in support of negotiations and said, "It greatly benefited our efforts to conclude the peace accords for Bosnia." ■

David Martin (left), CBS-TV Pentagon correspondent, and Mary Walsh, CBS "Eye on America" producer, meet with Ambassador Richard C. Holbrooke at Headquarters prior to filming an interview with him concerning the use made of NIMA's terrain visualization equipment (in the background) at the Bosnia peace negotiations in Dayton, Ohio, in late 1995.



photos by Rob Cox

Employees See Big Picture Through Customer's Eyes

by Paul Hurlburt

In the hour before dawn Dec. 3, 1997, a few NIMA personnel were cruising at an altitude of more than 40,000 feet aboard a Navy C-20 corporate jet enroute from Andrews Air Force Base, Md., to South Carolina.

Stumbling out of bed at 3 a.m. to catch the flight was a minor inconvenience. To Darryl Crumpton, associate director for the Geospatial Information Contract Production Division (GIC), and his group, it was a journey to experience the world of their customers—the nation's warfighters.

At Shaw Air Force Base, they were greeted by Air Force Col. Harold J. Beatty, chief of intelligence for 9th Air Force and U.S. Central Command Air Forces (CENTAF); Air Force Col. Chuck Rogers, vice commander, 20th Fighter Wing; Patrick Donovan, the NIMA liaison assigned to Shaw; and Air Force Capt. Dale Bruner, 9th Air Force mapping, charting and geodesy (MC&G) officer.

What followed were three intense days of briefings, interactions, tours and demonstrations at Shaw and nearby McEntire Air National Guard Station, which left participants hungry for more.

"I've met customers before, but never like this," said Dawn Pyle, contracting office technical representative (COTR) for MC&G contracts. "When you're on base, you experience the warfighters' environment; you get their perspective. You see them working with our maps and information, and you see the equipment they deal with."

"The real value of this exchange," said Ken Hutchison, GIC department chief, "was helping each other with the missing pieces [in terms of the support NIMA provides and its utilization by the customer]."

"At the same time, you are interacting with people whose work could put them in harm's way, and it makes you care all the more about the work you do," added Hutchison, a tour leader along with Vic Kuchar, former branch chief in GIC. Kuchar, now team leader for JWID '98, proposed the idea for the exchange and was instrumental in making arrangements.

Intense Interaction

Within hours of their arrival, the group watched A-10 ground attack aircraft and F-16s in practice bombing runs on a small white building at the Poinsett Electronic Combat Range, which trains combat aircrews DoD-wide in a range of electronic warfare scenarios, including simulated surface-to-air missile (SAM) attacks. As the pilots dropped 35-pound smoke bombs, observers in towers on the edge of the field computed the "miss distance."

The NIMA group gained a keener understanding of the Agency's role in supporting 9th Air Force and CENTAF through a series of briefings focusing on intelligence and operations.

The 9th Air Force, said Beatty, is the most actively engaged. "I focus on the possibility of fighting tonight," he said. Pointing to Donovan, he added, "He's my translator—he translates a lot of the capability NIMA brings to the warfighter and makes my job a lot easier." Beatty, as commander of the 609th Air Intelligence Group, and Donovan are immediately deployable.

Beatty, who also supports a Joint Task Force on Southwest Asia, said "the work NIMA does goes to the heart of our ability to keep track of all the military operations and movements taking place in Iraq."

"The key to counter mobility is knowing where a SAM might be hidden. We spend more time agonizing over that part of the puzzle than we do over a hardened operations center."

For example, analysts need to know where lines of communication run.

"NIMA comes into it by making accurate products and providing systems to manipulate that information." Besides detecting SAMs, intelligence analysts focus on all aspects of missile defense. This includes stopping Scud missiles by tracking them with advanced systems using NIMA data. The group later watched as Air Force personnel studied the latest imagery at specially equipped workstations.

The next morning, they attended a "board walk"—daily intelligence briefings on the Area of Interest presented by members of Beatty's



On departure from Shaw Air Force Base, S.C., Darryl Crumpton, associate director for geospatial information contract production (left), thanks Air Force Col. Harold Beatty, 9th Air Force chief of Intelligence, for a "fantastic" tour.

staff. With a backdrop of floor-to-ceiling situation maps, several Air Force intelligence specialists presented the latest information based in large part on NIMA imagery and imagery intelligence.

Later, the group visited radar air traffic control, where they compared one of the analog radar tracking screens with a digital system linked to a computer display monitor. The group learned that NIMA information figures prominently in the air traffic controllers' work: Besides charts and flight information provided by NIMA, a NIMA survey team had recently visited the base to help define airspace boundaries.

At the 79th Fighter Squadron, an F-16 unit, Capt. Rob Balzano, a pilot, demonstrated a mission support system the pilots use to build flight-specific information for the cockpit.

"We can input coordinates and print out color maps; it saves us a lot of time in mission planning," Balzano said. The pilots also use laptops, augmented with data stored on compact disk. Many of the CDs are filed in books and contain NIMA imagery, charts and elevation data, grouped by region.

The pilots generally memorize all relevant imagery and charts before embarking.

During the remaining part of the tour, the group inspected an F-16 cockpit, seeing the fighter and its weaponry up close, and later, Apache helicopters equipped with laser-guided rockets, Blackhawk helicopters and other aircraft at McEntire ANG, home of the 151st Aviation Battalion. Both maintenance crews and aviators of the 151st are deployable, and several recently completed tours in Bosnia.

NIMA flight information publications (FLIPs), planning charts and large-scale maps are staples at McEntire. One instructor even designed his own FLIP exercises.

"They learn more by searching through the publications than they do in a lecture," said Chief Warrant Officer Donald Smith, the battalion operations officer. "There's a ton of information in those publications."

The group toured two hangar-style maintenance shops filled with neat piles of equipment, engines and fully assembled helicopters. Then they witnessed the versatility of the Apache attack helicopter in a flight demonstration by Chief Warrant Officer Peter Prim.

Throughout the tour, the exchange was two-way. Darryl Crumpton briefed more than 100

members of Beatty's staff with an overview of NIMA, while tour group members exchanged practical information.

"As a result of this visit, several actions were taken to improve NIMA's support to the warfighter," wrote Curt Ward, NIMA director of Geospatial Information Services, in a letter to Lt. Gen. Carl E. Franklin, commander of 9th Air Force and CENTAF. "These actions included satisfying training needs on specific software platforms, helping the customer gain access to information such as E-CHUMS [Electronic Chart Updating Manuals] and helping the customer get standard products in a timely fashion."

Crumpton singled out Beatty for his personal commitment and time in support of the visit.

"Sir, the visit has been fantastic. You have exceeded all of our expectations," he said on departure.

Besides Crumpton, tour members included Ken Hutchison, Vic Kuchar, Andy Karl, Benjamin Pope, Dawn Pyle, Christine Caplan, Robert L. Cox, Jay Gardner, Steve Haag, Paul Hurlburt, Greg Johnson, Jill Kieswetter, Alan King, Betty Peterson-Wheeler, John Schmitt, Deborah Sterling, Linda Sullivan and John B. Williams. Carrie Nettles assisted with coordination from NIMA. |



Navy pilots in a C-20 corporate jet, more than 40,000 feet above ground, explain how they use NIMA flight information publications.

photos by Rob Cox

