

NATIONAL IMAGERY AND MAPPING AGENCY

# EDGE

GUARANTEERING THE INFORMATION EDGE  
MAY/JUNE



## *NIMA Celebrates 1st Founders Day*



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## On The Cover

Six founders who paved the way for the creation of NIMA were honored in a ceremony held on the ellipse of the Agency's headquarters in Bethesda, Md. The first to be inducted into the NIMA Hall of Fame are from top left row, retired Army Lt. Gen. Howard Penney, Leo Hazlewood, Dr. Charles Martin, Arthur Lundahl, Thomas Finnie and Dr. Annette Krygiel.

The unveiling of the Hall of Fame exhibit. From bottom left are, LTG James C. King, Ann Lundahl, accepting honors in behalf of her father the late Arthur Lundahl, Thomas Finnie, Dr. Annette Krygiel, Dr. Charles Martin and retired Army Lt. Gen. Howard Penney. Photo by Larry Franklin. Story begins on page 12.

Published by National Imagery and Mapping Agency  
 Director • LTG James C. King  
 Public Affairs Office  
 Director • Dave Burpee  
 Chief, Internal Communications: Tamara Kiser-Sparks  
 Editor: Paul Hurlburt  
 Designer: Linda M. Miller

The Edge is an authorized command information publication published periodically in the interest of National Imagery and Mapping Agency personnel. Contents of this publication are not necessarily the official view of, or endorsed by, the U.S. Government, Department of Defense or the National Imagery and Mapping Agency. Copy deadlines are the first Friday of each month. Articles are edited for style, content and length.

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# COMMAND POST

**A**s Jeneane and I walked through Arlington Cemetery the night before Memorial Day, with its endless rows of white crosses and Stars of David, I was reminded that Memorial Day is a unique national holiday. If not the most important national day of patriotic observance, it is arguably the most solemn day set aside for recognition.

This is a day of mixed emotions. It is a day for honoring the soldiers, Marines, sailors, airmen and Coast Guardsmen who made ultimate sacrifices throughout history. The number is staggering. More than one million full-time professional and Reserve Component warriors have fallen in battle.

A few weeks before the Normandy landing, Supreme Allied Commander, General Dwight D. Eisenhower, wrote to his wife about great war losses he witnessed. He wrote, "It is a terribly sad business to total up the casualties each day...and to realize how many youngsters are gone forever. A man must develop a veneer of callousness that lets him consider such things dispassionately, but he can never escape a recognition of the fact that back home the news brings anguish and suffering to families all over the country. War demands real toughness of fiber, not only in the soldiers who must endure, but in the homes that must sacrifice their best."

Renowned jurist and Civil War veteran Oliver Wendell Holmes Jr., asked people not to conclude the holiday with sad thoughts of fallen heroes, but rather with thoughts of their legacy and life made possible by their commitment and pain.

Memorial Day reconnects Americans with their values and history by honoring the million American service members who gave their lives for the ideals cherished since the first colonial soldiers took up arms in 1775 to fight for independence. Established in 1868 to honor slain Civil War heroes, "Decoration Day" as it was known, was first proclaimed by General John Logan. His timeless words echo with reverence even now. "We should," he wrote, "cherish tenderly the memory of our heroic dead."

It remains a mystery to many what inspires and enables ordinary citizens to rise to the challenge of battle, to willingly make the ultimate sacrifice of their lives in service to their country. How do we find such citizens? Those who are willing to be on call 24 hours a day? Those who lead troops into

deadly combat? Those who train rigorously in highly lethal, cutting-edge technology?

Those who are constantly relocated and restricted in lifestyle? Those who manage complex political and ethnic divisions with the skills of a diplomat and warrior? We find them where we always have, among America's great mosaic of people whose love of liberty keeps our nation strong and free.

We owe a great debt of gratitude to those who sacrificed their lives so we could live free. We can start to pay that debt by not forgetting. By remembering what they did, what they stood for, and what our forefathers were able to endure on our behalf, knowing that on the hinge of history swung the future of civilization.

More than two hundred years ago, Thomas Jefferson wrote, "How little do my countrymen know what precious blessings they are in possession of, and which no other people on earth enjoy!"

We are reminded by scenes around the world the precious blessings of freedom, opportunity and prosperity. We are reminded that these legacies are not left to us in perpetuity. They will not be gained without sacrifice; they will not be preserved without purpose. Each generation is responsible for the blessings of the next. We are a fortunate nation in that there are men and women who are willing to fight for the heritage all Americans can cherish.

I thank the entire NIMA work force, military, civilians and contractors, for what you do every day to support our National Security Objectives and to protect the lives of those who serve our Nation in the Armed Forces and Intelligence Community. Your information, knowledge, products and services not only are "Guaranteeing the Information Edge" they are ensuring our continued freedom.



*James C. King*

James C. King  
Lieutenant General, USA

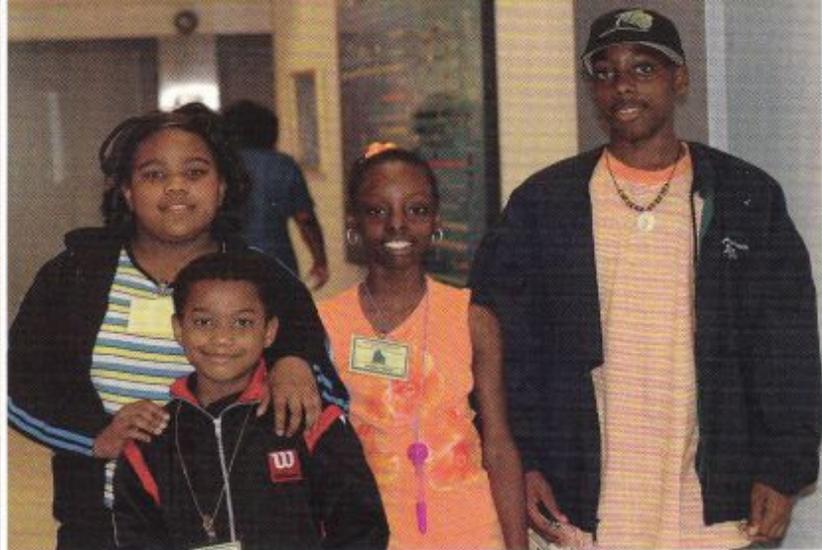


Photo by Gerald Goodlin

Heading back to work, after a lunch break in St. Louis, are children of Audrey Owens and Monique Wooldridge, help desk analysts in the Enterprise Services Office Infrastructure Operations and Support Division (ESIS). "I showed them how to create a [job] ticket, and they answered the phone and processed e-mail," Wooldridge said.

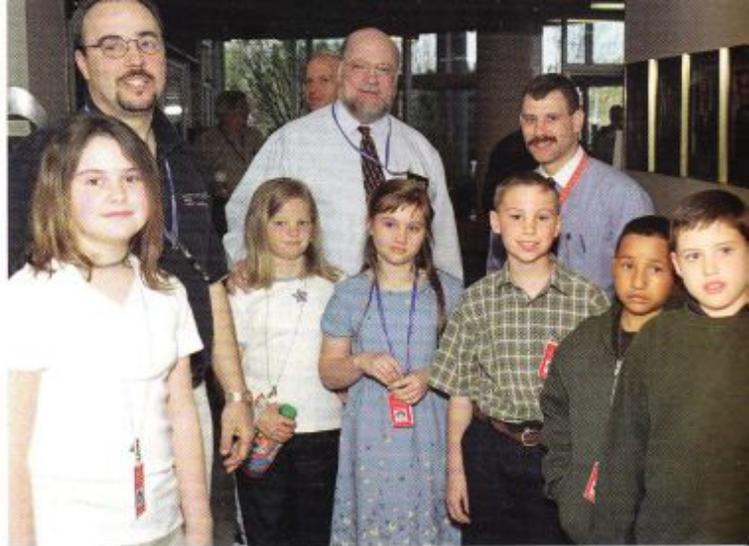


Photo by Kelly Belin

Signing in for Bring Your Child to Work Day in Reston are, from left, Katie James with dad Kevin James, Hayleigh Dray Beckwith with granddad Billy Dray, Madeline Leonard with dad Tom Leonard, Justin Clowser (son of David Clowser), Jonathon Walker (son of Keith Walker) and Justin Fairbank (son of Steve Fairbank).

## Children Visit NIMA

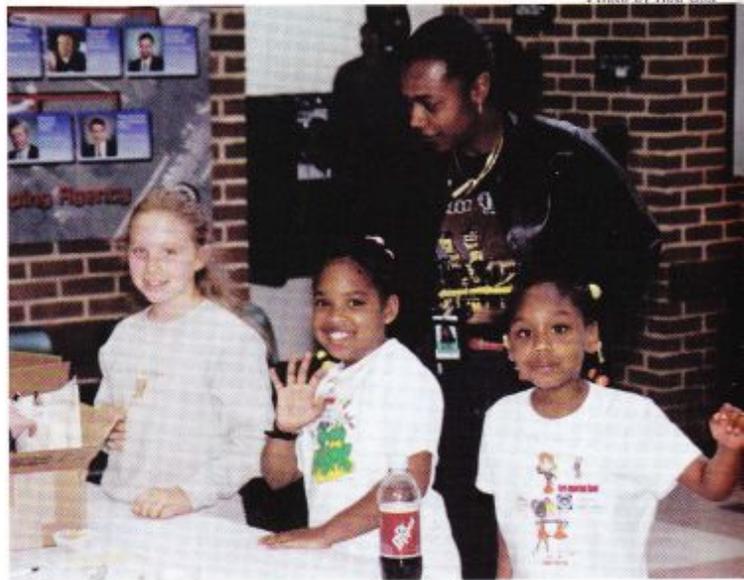
NIMA's second Bring Your Child to Work Day brought young visitors to sites in Bethesda, Md., Reston, Va., St. Louis, Mo., and the Washington Navy Yard, Washington, DC. Parents and guardians shared their work experience with their children, who shadowed them throughout their workday. Some offices also took time to give the children exposure to our business. Among them, the map library in Bethesda provided expendable maps for distribution to the 130 children, and map library personnel Barbara Laws and Bill Lewan set up an Adventures in Maps display. According to event organizer Al Talbot of the Mission Support Resource Integration Division (MSI), the event was patterned after the national Bring Your Daughter to Work Day but expanded to include sons of people who work at NIMA as well. \*

Photo by Larry Franklin



Daughters Christina (left) and Kathryn join dad Joe Corrieri at the computer keyboard at the Washington Navy Yard in the Research and Technology Office's Program Management Division (ATTM).

Photo by Rob Cox



Children in Bethesda sign in for Bring Your Child to Work Day.

# New Americas Office Will Change the Way NIMA Does Business



Photo by Rob Cox

AM staff, from left, are Bill Carruthers, Director; Michele Thompson, Executive Officer; Antoinette Robinson, Administrative Assistant and Steve Davila, Deputy Director.

by THE OFFICE OF AMERICAS

**N**IMA's new Office of the Americas (AM) will change the way the Agency does business.

"As NIMA's issue manager for the Americas, we have end-to-end responsibility for our mission area," said AM Director Bill Carruthers. "That means, unlike any other office, we will bring all relevant NIMA informational, technical and support resources to bear for the customer."

In announcing the establishment of the new office in a message to the work force Mar. 29, NIMA Director LTG James C. King said it "will establish the future organization for NIMA."

AM is responsible for imagery and geospatial activities in an area that spans nine time zones and covers all the territory between Ellesmere Island in the Canadian Arctic to Tierra del Fuego at the tip of South America. AM's mission is to serve as a focused regional issue manager, coordinator, facilitator and information provider for imagery intelligence and geospatial information and services.

But even more, the new office will represent NIMA's future approach to providing integrated imagery, imagery intelligence and geospatial information to its national, military and civil customers.

Combining imagery, geospatial and support elements from across NIMA to accomplish its mission, AM will integrate and fuse imagery and geospatial information to ensure information and decision superiority for the United States. The new office will build on several exploratory efforts that have demon-

strated the benefits of integrated work, including the NIMA Production Cells and the Agency's cadre of deployed geospatial analysts.

"The Office of Americas takes us beyond experiments and exercises through the creation of an integrated office with end-to-end mission responsibility," said Steve Davila, Deputy Director of AM.

According to Carruthers, new analytic methods and production efficiencies will be attained by AM that would not have been realized in a non-integrated setting. "We will build on our significant imagery analysis and geospatial tradecrafts in the pursuit of new tradecraft that will keep us on the information edge in the 21<sup>st</sup> century," he said.

"We are creating a dynamic intelligence environment that will involve the creation and implementation of new techniques, processes and methodologies that will enhance our customers' situational awareness and understanding," he added. "With fused imagery and geospatial intelligence data, customers will have NIMA information needed to support ever-decreasing decision-making timelines."

The integrated information and services provided by AM will support national intelligence issues, force protection, command planning, exercises, demonstrations and training, counter-narcotics operations, and humanitarian assistance and disaster relief.

AM personnel are located in Bethesda, Md., Reston, Va., St. Louis, Mo., and the Washington Navy Yard, Washington, DC. \*

# Consolidation Means Strengthening NIMA's Performance

by BOB WEBSTER

**R**eports to the NIMA work force about the proposed facilities consolidation effort cover aspects of the topic that may not be obvious to most employees. Included are exploration of behind-the-scenes aspects of space, design, site, communication infrastructure, and construction planning, as well as some terms such as "fit-out."

In this topic, let's examine what consolidation means to NIMA employees. Webster's New World Dictionary defines *consolidation* as: a merger; union; a stabilization; strengthening; or a solidification. NIMA employees will most likely have a variety of views on the proposed consolidation. But what exactly is consolidation for NIMA?

## Strengthening Performance

Consolidation for NIMA means strengthening its performance by collocating the imagery analysis and geospatial information functions. The resulting synergies should be a step toward achieving the advantages envisioned when NIMA was created. The evolution of NIMA's mission and organization indicates mission success will be enhanced if imagery and geospatial personnel working similar regional and functional accounts can be colocated. It will pave the way for the transition to complete soft-copy imagery workstations, supporting libraries and other equipment.

NIMA hopes to gain strength and synergy by closing Building 213 in the Washington Navy Yard in 2005. This will be a step in getting more of our employees into DoD-owned space. Actually, the proposal to close Building 213 is not new, nor does it stand alone. NIMA began the first phase of a larger consolidation effort with the closure of the headquarters facility in Fairfax, Va., in 1998. Later phases will examine our use of buildings at the DaleCarlia site in Bethesda, Md.

## Benefits to Employees

But what does all this mean to the NIMA employee? One major benefit is that employees get personal and component workspace that is well designed, well lit, suitable to their needs, and

outfitted with state-of-the-art equipment. Modifications will be made to several NIMA buildings, including Maury, Roberdeau and Erskine Halls in Bethesda, Md., as well as Reston, Va.

Production employees benefit from the enhancements of being colocated, which will improve collaboration among them. The Bethesda complex has the space to allow the entire NIMA East Coast production workforce to operate in one location.

There are personal concerns of course. What happens to employees' commuting patterns for example? And what about the differences in access to public transportation among the NIMA sites: the Washington Navy Yard, Bethesda and Reston? Will there be a parking problem?

Public transportation is available in Bethesda for employees at both the Sumner and DaleCarlia sites. The Montgomery County "Ride On" bus #23 stops in front of the Sumner complex and runs every 30 minutes. This bus connects with the Friendship Heights Metrorail Station, the closest subway stop for NIMA employees.

At Reston, employees can use the Dulles Toll Road to commute from the Beltway or the Fairfax and/or Reston Parkways.

## Transportation and Parking

More detailed information on transportation services to NIMA is available on the Mission Support (MS) Web site.

As for parking, the NIMA population shifts between now and 2005 are not expected to have a major impact. The number of personnel proposed for moving into Bethesda is similar to the number moving out. The Bethesda site has 1800 parking spaces. Parking surveys conducted in January and February reflected about 200 to 250 empty yellow hang tag parking spaces when surveyed between 9 and 10 a.m.

A consolidation of this scope involves numerous, complicated, interrelated sub-projects that must be synchronized precisely to execute the program. The public comment period for the Environmental Assessment is underway as of this writing, and the Director of NIMA will make a decision on the proposed approach to consolidation once he has reviewed the Environmental Assessment report. Watch for additional information in the weeks and months ahead. \*

# Imagery Analysts Learn About Global Hawk

by LIZ SHERMAN

Details of the Global Hawk unmanned aerial vehicle were briefed to imagery analysts at the UAV Washington Navy Yard Mar. 16. The UAV may eventually replace the tried and true, but manned, U-2 reconnaissance aircraft.

NIMA Director LTG James C. King and the Director of Air Force Intelligence Surveillance and Reconnaissance Programs, Maj. Gen. Glenn D. Shaffer, were two of several intelligence community leaders attending the event.

A contingent from Langley Air Force Base, Va., led by 1<sup>st</sup> Lt. John Seeber of the Aerospace Command and Control Intelligence Surveillance and Reconnaissance Center and Kevin West, Air Force Imagery and Geospatial Functional Manager, explained the capabilities of the Global Hawk's imagery exploitation system, while 1<sup>st</sup> Lt. David Dengler of the 30<sup>th</sup> Intelligence Squadron displayed examples of real-time images from Global Hawk sensors.

"Using a Deployable Transit-cased System (DTS), imagery analysts are able to exploit electro-optical and Synthetic Aperture Radar (SAR) images," Dengler said. The DTSes provide the exploitation piece and complement the ground control segment that provides mission control, launch and recovery.

While design engineers continue to tweak the Global Hawk, its performance looks promising, said Mike Harper of Northrop Grumman. In a yearlong evaluation by Joint Forces Command, the U-2-sized aircraft demonstrated it could fly 1,200 nautical miles, orbit an area of interest at 60,000 feet for 24 hours, and return to base in a single 32-hour mission. In addition, the Global Hawk took up to 40 images an hour with remarkable resolution.

"A target could potentially be covered 24-7," said Navy Commander Dennis Sorensen, deputy director

of the Air Force Global Hawk program. "In the ideal scenario, I envision four Global Hawk vehicles: one loitering over the target, one returning from the target, one in-bound to the target; and one in maintenance." Analysts would be able to watch troops leave a garrison, convoy for days to their destination, arrive and set up.

Louise Noyes, Imagery Analysis Office Division Chief for Middle East/Africa, organized the presentation

after a chance meeting with representatives of Northrop Grumman, who were displaying a scaled-down model of the UAV on the National Mall last fall. "Since then, I've wanted to bring the Global Hawk display to the Navy Yard, so our imagery analysts could see the program's capabilities," she said.

Videos of the unclassified

briefing may be borrowed from the Reference Libraries located in room 410 of Abert Hall in Bethesda, Md., room T148 of Building 1 in Reston, Va., room 93 in the basement of E Wing in St. Louis, Mo., or room 6C685 of Building 213 at the Washington Navy Yard, Washington DC. \*



Mike Harper of Northrop Grumman points out features of the Global Hawk to Louise Noyes, Imagery Analysis Office division chief.

Photo by Rob Cox

## About the Author

An Imagery Analyst, Liz Sherman covered military issues as a newspaper reporter before coming to NIMA. She earned her bachelor's in journalism from Texas A&M.



# The Future Is Now

## NIMA to Revise Strategic Plan and Create Business Plan

by MARK A. AGLIO

**N**IMA senior leaders recently agreed to revise the NIMA Strategic Plan. They also agreed to create a business plan to guide NIMA as the Agency undertakes the challenges of implementing the United States Imagery and Geospatial Information Service (USIGS).

"Our leaders have two responsibilities: Taking care of our people and planning for the future," NIMA Director LTG James C. King said at one of two recent Leadership Days devoted to strategic and business planning at NIMA.

The senior leaders met to discuss and evaluate the approach NIMA should use to document and communicate its future program thrusts. Since the NIMA Strategic Plan was issued in fiscal 1999 there was a consensus that real world changes affecting NIMA's customers and programs needed to be reflected in its planning documents.

### Attention on USIGS

On the subject of updating the Strategic Plan, the Director said, "NIMA is a world-class agency and our Strategic Plan enables transition, transformation and change." He went on to state, "The current Strategic Plan has served NIMA well, but requires some refinement to reflect new strategic issues facing the Agency." The leaders agreed that the present NIMA Mission, Vision and Core Value statement are still valid and consistent with future direction. Discussion centered on updating the goals, objectives and strategies to reflect NIMA's efforts to meet the challenges of USIGS.

Paul Mich of the Analysis and Plans Office (AP) pointed out that, when originally issued, the current NIMA Strategic Plan was widely acclaimed. The Chairman of the Joint Chiefs of Staff, General Henry H. Shelton, wrote, "The carefully developed (NIMA Strategic Plan)...provides a roadmap to the future and confirms NIMA's commitment to its vision."

NIMA Deputy Director John Helgerson observed, "I have read the Strategic Plan and, quite frankly, I thirsted for more." Partly in response to the Deputy Director's comment, and to the general feeling of the members, the Leadership Day participants concurred with a joint proposal made by AP and the Director's Initiatives Group (DI) to supplement the NIMA

Strategic Plan with a separate NIMA Business Plan. The Business Plan will focus on the necessary implementation actions from the Strategic Plan scheduled to occur during fiscals 2002-2003. The shorter timeframe contained in the Business Plan will allow NIMA to phase its implementation strategy and better define the planned outcomes and key milestones. Performance metrics will be included throughout the documents that tie to NIMA's Corporate Measurement System.

### Agency-Wide Effort

Actions emerging from the Leadership Day included forming an Agency-wide team to revise the Strategic Plan and build a derived Business Plan. Senior Leaders from all of the NIMA21 directorates and offices have identified key members of their organizations to participate. In addition, AP and DI have provided additional expert support. Goal leads and their committee members have been building the final draft of the Strategic Plan since the beginning of April. Significant time has been spent in developing realistic strategies and milestones for accomplishing the major initiatives in the face of potential resource constraints.

Distribution of the completed Strategic Plan is planned this summer. Business Plan development is fully underway with a July/August delivery planned. Look for both on a NIMA server near you! \*

### About the Author

*Mark Aglio is a NIMA Staff Officer in the Analysis and Plans Office. He is part of the team developing the strategic and business plans. Aglio came to the Defense Mapping Agency in 1986 after serving as the Comptroller for the Federal Labor Relations Authority and Deputy Comptroller for the Federal Mediation and Conciliation Service.*



# Achieving NIMA's Vision

## Conference Highlights Commercial Imagery Program

by KARL TAMMARO

The NIMA Commercial Imagery Program (CIP) recently hosted a conference in Portsmouth, Va., that drew 200 people from 65 organizations.

The Commercial Imagery Conference was held to familiarize users with CIP, present initiatives developed to assist NIMA customers in purchasing and exploiting commercial imagery, and provide an open forum to discuss lessons learned and unique applications of commercial imagery.

Created in 1998, CIP is the primary purchaser of commercial remotely sensed data for DoD and the intelligence community. The CIP office is located within the Commercial Partnerships Group headed by Paul Weise. Barbara McGrath is the Program Manager.

NIMA relies on many tools to carry out its vision of *Guaranteeing the Information Edge* and commercial imagery is becoming a more common method to achieve that vision. The use of commercial imagery supports Objective 1.1 of the NIMA Strategic Plan, which states "NIMA will expeditiously acquire readily procurable commodities ... through best-quality commercial contracts."

The conference was held Feb. 27-Mar. 1.

After welcoming the enthusiastic conference crowd, McGrath presented an overview of CIP and the NIMA commercial imagery Spend Plan. This provided customers information on how CIP is structured as well as how funds have been spent in previous years and a look into the future budget.

Briefings were presented by representatives of National Aeronautic and Space Administration, the National Oceanic and Atmospheric Association, Marine Corps Intelligence Activity, Naval Space Command, Pacific Command, U.S. Air Force in Europe and Army Space Command, as well as vendors. Attendees were able to pose questions and discuss their applications.

The vendors, who displayed exhibits in an adjoining room, included EarthWatch Inc., Orbital Imaging Corp., Space Imaging, Core Software Technology,

RadarSat International and SPOT Image Corp.

The final day of the conference was a classified session at Joint Forces Intelligence Command, where presenters from the CIA and NIMA's Imagery Analysis Office discussed their applications and lessons learned.

The unclassified briefing is available on the CIP home page at <http://osis.nima.mil/CIP/> from inside NIMA or

<https://cip.nima.mil/> from outside NIMA.

Feedback from attendees indicated tremendous support for future opportunities to exchange information on commercial remotely sensed data. As McGrath explained, "I have been approached by many different people, from across the spectrum of our customer base, praising the conference's application and utility to the quickly developing commercial imagery industry. It is our obligation and commitment to assist our customers and keep them informed and educated." \*



Photo by Lyn Walker

Chris Gilliam of Space Imaging meets with Vicki Zanoni from NASA in the vendor exhibit room at the NIMA Commercial Imagery Conference in Portsmouth, Va.

### About the Author

Karl Tamaro is a Contracting Officer's Representative for the CIP in Bethesda. He began his federal career in 1986 with the Defense Mapping Agency and recently served as Project Lead for NIMA's LandCover Program. He has held various positions in support of both in-house and contract geospatial production.



## A NIMA SUCCESS STORY

# Language and Area Studies Training for Analysts

## 11 Languages Offered at The National Imagery And Mapping Agency College in four locations

by KELLEY DUNKELBERG

"Sabah il-Khir!" "Dobroye Utro!" "Zao!" "Buenos Dias!" These phrases can be heard echoing in classrooms at four NIMA locations, as part of the Language and Area Studies Training for Analysts (LASTRA) program.

One need identified in the wake of the Kosovo crisis was how NIMA could improve operational readiness through a program that could provide basic language and area studies training for analysts assigned to different geographic areas. This program would need to be available to a large cross-section of the NIMA workforce, to create a broad base of individuals with basic language skills in a variety of critical languages.

After six months of consultations with experts at the NSA, CIA, State Department Foreign Service Institute, the Defense Language Institute (DLI), and the DCI's Foreign Language Committee, NIMA launched its pilot semester of LASTRA at Bethesda, Md., and St. Louis, Mo., in January 2000. Organized and directed by Kelley Dunkelberg, the program served more than 100 students in nine languages including Arabic, Chinese, Persian/Farsi, French, Portuguese, Russian, Serbo-Croatian, Spanish and Turkish. The St. Louis, Mo., program was coordinated by the late Evelyn Sanders.

Classes are tailored to the professional needs of NIMA analysts and meet once a week. "It's a wonderful opportunity to have the exposure to this type of training," says Miriam Salsbury, an Arabic student at the Navy Yard. Unlike traditional college or immersion classes, LASTRA classes are taught at a modest pace and do not require as much homework. Students study language and area studies in the same course. The curriculum is designed to be as accommodating as possible to those with heavy demands on their time, including crisis support.

With financial support and cooperation from the NIMA College School of Leadership and Professional Studies and the NIMA Library, the program flourished. In July, plans were made to incorporate imagery analyst training requirements, tripling the size of the program. The LASTRA Management Team expanded to include Rosalind Hawkins as Program Manager for Navy Yard/Langley, Debbie

Jackson in St. Louis, and Jodi Stiefvater as Program Assistant at Bethesda. In October, Korean was added to the program, and more than 400 students, from Band II to Senior Executive Service/Senior Intelligence Service, enrolled in LASTRA at four NIMA locations.

In January 2001, the LASTRA program was turned over to the National Imagery and Mapping College (NIMC), and Rick Garfola took over as Program Director. Hindi became the 11<sup>th</sup> language offered. The program is now diversifying to include area familiarization trips and inclusion of the Urdu language later this year.

NIMA employees are encouraged to enroll, although reminded that learning a language is not something that will happen overnight. Erno Horvath, a regional analyst currently in his second year of Serbo-Croatian training, said "learning a language takes discipline, commitment and perseverance. I believe that what I have learned in this class has increased my self-confidence and value as an analyst."

LASTRA classes are now available to NIMA employees via Peoplesoft. For more information or to enroll in LASTRA, contact your training coordinator or NIMC. \*

### About the Author

*Kelley Grady Dunkelberg is a Staff Officer in the Geospatial Information Office's Business Integration Group and NIMA's representative to the DCI's Foreign Language Committee. Before coming to NIMA, she served in the Navy at several assignments in Europe and the Middle East, and as a language instructor at the U.S. Naval Academy. She speaks seven languages.*



# Surveying Chile from Tip to Toe

**N**IMA surveyors traveled between St. Louis, Mo. and Chile during the last two years for a project that covered the length of that long country. Involving airfield surveys, absolute gravity observations, and other data collection efforts, the project took the surveyors from Iquique, just shy of the Peruvian border, to Punta Arenas, 2,350 miles south at the very bottom of South America.

According to Angus Jones of NIMA's Geospatial Sciences Center, the project met requirements for the Ron Brown Airfield Initiative, which aims to bring airfields worldwide up to the standards of the International Civil Aviation Association. Data was also gathered for other projects including the NIMA/NASA-sponsored Shuttle Radar Topography Mission (SRTM), said Jones, who negotiated the project with Chilean authorities.

## International Partners

Jones, who provided the information for this report, negotiates work proposals in geodesy and geophysics for NIMA with foreign governments. Cooperative projects he negotiated have included GPS collection arrangements with Russia, GPS ground validation surveys for the SRTM, and airfield surveys in Latin America. A veteran surveyor of Latin America, Jones was the Defense

Mapping Agency's liaison officer in Brazil.

For the Chile project, Mark Freidel, Keith Krauterbluth and Chad Lewis were the NIMA team leaders. NIMA's team members were Romeo Biasbas, Dan Determan, Paul Fitzpatrick, Jim Friederich, Army Sgt. 1<sup>st</sup> Class



*Photo by Paul Fitzpatrick*  
Surveying in Chile, from left, are Oscar Cifuentes Lambrano, Hector Parra Bravo, Jim Friederich, Lautauro Diaz Salazar and Paul Fitzpatrick. Behind them is Mount Torres de Pines.

Timothy Penton, John Seaman, Jerry Trehearne and Mike White.

Members of Chile's Directoria General de Aviacion Civil (DGAC) and Instituto Geografico Militar (IGM) worked alongside their NIMA counterparts and continued with follow-up work after the Americans left. From IGM, they were Geodesy Department Chief Oscar Cifuentes Lambrano, Lautauro Diaz Salazar, Patricio Gallardo Lopex, Carlos Iturrieta Ponce, Hector Parra Bravo and

Victor Zurita Palacios. From DGAC, they were Pedro Aguayo Diaz and Jorge Ramirez Zumelzu.

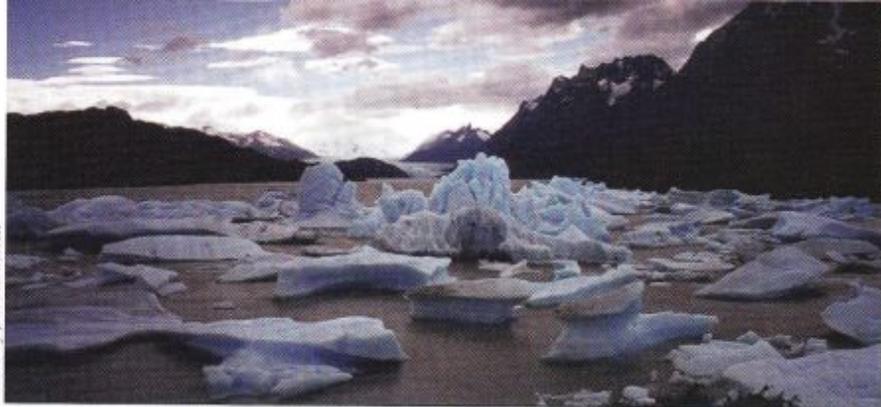
## Southern Exposure

The trip to Punta Arenas took three days over rough seas by ferry. To reach the ferry, the team traveled

to the end of the southern road at Puerto Montt, where they completed some absolute gravity observations and finished an airfield survey before catching the ferry. In Punta Arenas, they finished another airfield survey in high winds and cold weather. Then it was back to Santiago's Arturo Benitez International Airport, which they also surveyed. Over the yearlong span of the project, the teams collected data for eight

airfields and several other locations.

Since the NIMA group returned, IGM has been making gravity connections between the Chilean and Argentine gravity networks. NIMA loaned three relative gravity meters for that project and to collect gravity data during a Chilean expedition to Antarctica. \*



*Photo by Jim Friederich*  
A gray glacier ice flow greets NIMA surveyors off the south end of Chile.

# NIMA Hall of Fame Unveiled at First Founders' Day; 6 Inducted

by PAUL HURLBURT

“Our founders not only witnessed history, they made it,” said NIMA Director LTG James C. King, as he addressed employees and guests at NIMA’s first Founders’ Day and Hall of Fame Induction Ceremony. The event was held at the Agency’s Bethesda headquarters May 4.

The guests included nine founders, who paved the way for the creation of NIMA and led the Agency during its early years.

“[Our founders] contributed directly to the end of the Cold War and the promise of a safer world,” King said. They oversaw “the birth of satellite technology and the art of space-based surveillance.”

Quoting the Bible’s Book of Proverbs, “When there is no vision, the people perish,” King said, “Our Founders had a vision that enables us to accomplish our mission today.”

The event included demonstrations and briefings on the mission and unclassified programs of NIMA.



Allen Anderson, former Defense Mapping Agency deputy director for programs, production and operations at right, congratulates Thomas Finnie on his induction into the NIMA Hall of Fame. In the foreground is retired Army Lt. Gen. Howard Penney, who was also inducted.

Photo by Larry Franklin

The Director’s address was part of a ceremony that included the unveiling of the NIMA Hall of Fame display. The first six to be inducted were cited for their “insightful leadership and action, which enabled NIMA to accomplish its mission and implement its vision” of guaranteeing the information edge:

**Arthur Lundahl**, was the first Director of the National Photographic Interpretation Center (NPIC), established in 1961 to consolidate the nation’s photo reconnaissance analysis assets. Comprised of analysts from CIA, DIA and the armed forces, NPIC was one of four organizations that formed NIMA, along with elements from several others. “He quietly built a formidable organization that was without peer, anyplace in the world,” King said. “He is generally recognized to be the father of modern imagery analysis and imagery intelligence.” Lundahl’s award was presented posthumously and accepted by his daughter Ann Lundahl.

**Thomas Finnie** was the senior civilian of the Defense Mapping Agency (DMA) when it was activated in 1972. As Deputy Director for Management and Technology, he led the consolidation of all military mapping, charting and geodesy into a single



Photo by Rob Cox

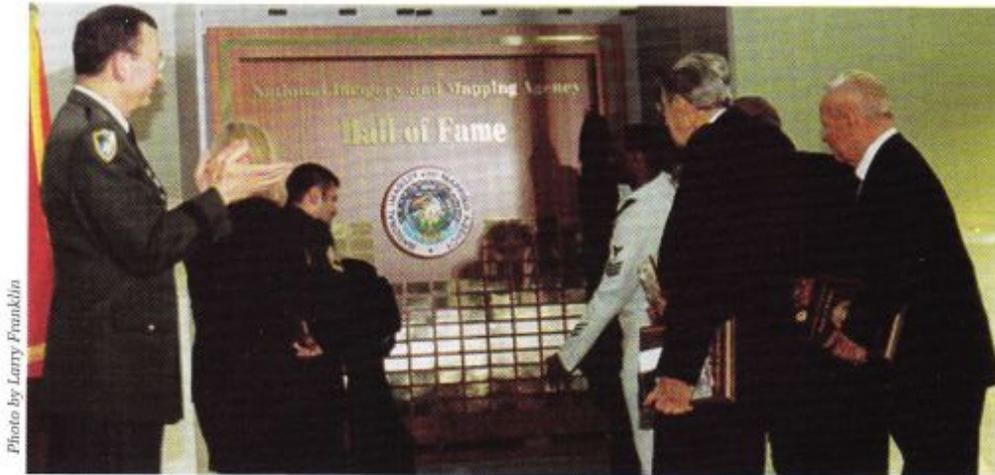
Dr. Annette Krygiel examines an imagery sample during a Founders’ Day briefing. She and retired Army Lt. Gen. Howard Penney, center, and Dr. Charles Martin were among those inducted into the NIMA Hall of Fame.

agency. "Senior staff who served with Tom describe him as the most innovative, insightful organizational theorist and management practitioner DMA ever had," King said. DMA was one of the four organizations that formed NIMA.

**Retired Army Lt. Gen. Howard Penney**, the first Director of the Defense Mapping Agency, overcame doubts of the military services about whether DMA could meet their individual and unique needs. "He met the test by quickly establishing a cohesive, user-friendly organization that was proud of its expanded responsibilities," King said. "The soundness of General Penney's legacy is reflected in the fact that the operating philosophy never was changed."

**Dr. Charles Martin**, the Defense Mapping Agency's Deputy Director for Science and Technology, was cited for his insights into developing and refining geodetic and geophysical applications. "He contributed to the development of the first published World Geodetic System – in 1960 – and to follow-on improvements for almost 20 years," King said. "He also made major contributions to the science of direct positioning from space."

**Dr. Annette Krygiel**, was the last Director of the Central Imagery Office, one of the four organizations



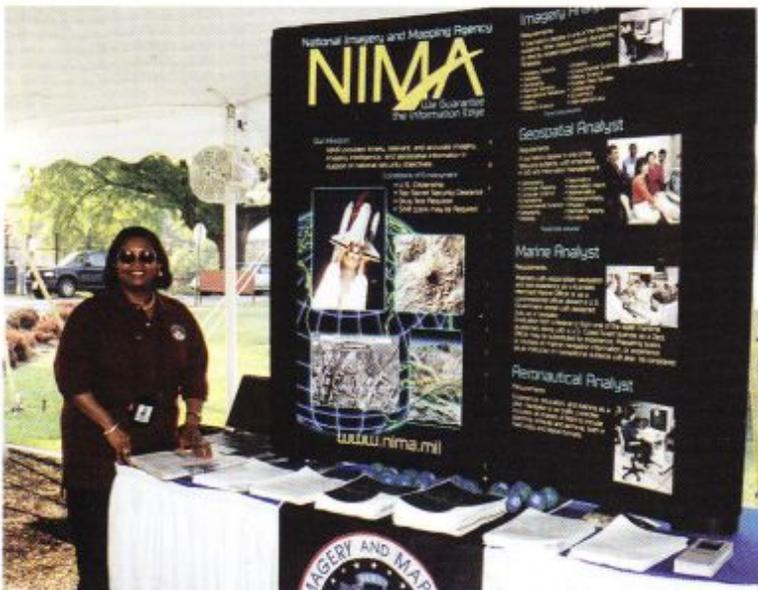
*NIMA Director LTG James C. King joins the first group inducted into the NIMA Hall of Fame, from left, Ann Lundahl, who accepted in behalf of her father the late Arthur Lundahl, Thomas Finnie, Dr. Annette Krygiel, Dr. Charles Martin and retired Army Lt. Gen. Howard Penney.*

that formed NIMA. "She designed and guided through Congress the United States Imagery Service, which is the precursor of our work today with the United States Imagery and Geospatial Service," King said. "She was in the forefront of efforts to develop an Imagery Functional Manager and along the way set the imagery technical and compliance standards for imagery products."

**Leo Hazlewood**, who was not present, was NIMA's first Director of Operations and subsequently the first Deputy Director of NIMA. He served earlier as Director of the National Photographic Interpretation Center. "He was the lynchpin in the difficult organizational details that established the transition of all or parts of eight elements into NIMA," King said. "His emphasis on quality, better business practices, and the importance of analytical rigor was the hallmark of his leadership."

Founders attending Founders Day included retired Air Force Lt. Gen. Abner B. Martin, retired Air Force Maj. Gen. William K. James, retired Air Force Maj. Gen. Raymond E. O'Mara, retired Army Brig. Gen. Rutledge P. Hazzard and Robert M. Huffstutler.

The nomination process for the 2002 Hall of Fame inductees will begin this summer. Details will be announced by the Human Development Directorate. \*



*The four types of NIMA analysts are described in one of several exhibits on the ellipse during NIMA Founders' Day.*

# AT and IS Focus on Process Improvement

by FAYE GRUBBS

The Systems Engineering Process Group (SEPG) is now in its second year of leading Process Improvement (PI) in the Directorates of Acquisition and Technology (AT) and Information Services (IS).

The Deputy Director for Acquisition and Technology and sponsor of the PI initiative, William R. Allder Jr., has included PI in his major thrusts, as he seeks consistent and predictable results through structured, documented and repeatable processes. At the February US Imagery and Geospatial Information Service (USIGS) Quarterly Program Review, he addressed the SEPG PI initiative as a significant and imperative strategic investment, critical to NIMA's future accomplishments.

"The real objective of this initiative is to become capable of consistently delivering higher quality systems for our internal and external customers," Allder said. "There is substantial industry data supporting this view, and I fully expect that the high investment in resources will pay dividends with an improved acquisition program."

Dr. Robert Laurine, co-chair of the PI Steering Committee and Deputy Director for Technology, cited the PI objectives as "one of the greatest and most important leadership challenges facing AT and IS."

The 13-member SEPG is chaired by Dr. Thomas Holzer, Deputy Chief of the USIGS Systems Engineering Division (ATSE).

The primary objective of the SEPG is to lead AT and IS toward achieving maturity levels defined by the Federal Aviation Administration's Integrated Capability Maturity Model (FAA-iCMM).

AT and IS have set the long-term goal of achieving Maturity Level 3 with an interim goal of attaining Maturity Level 2 in late 2002. [See diagram.]

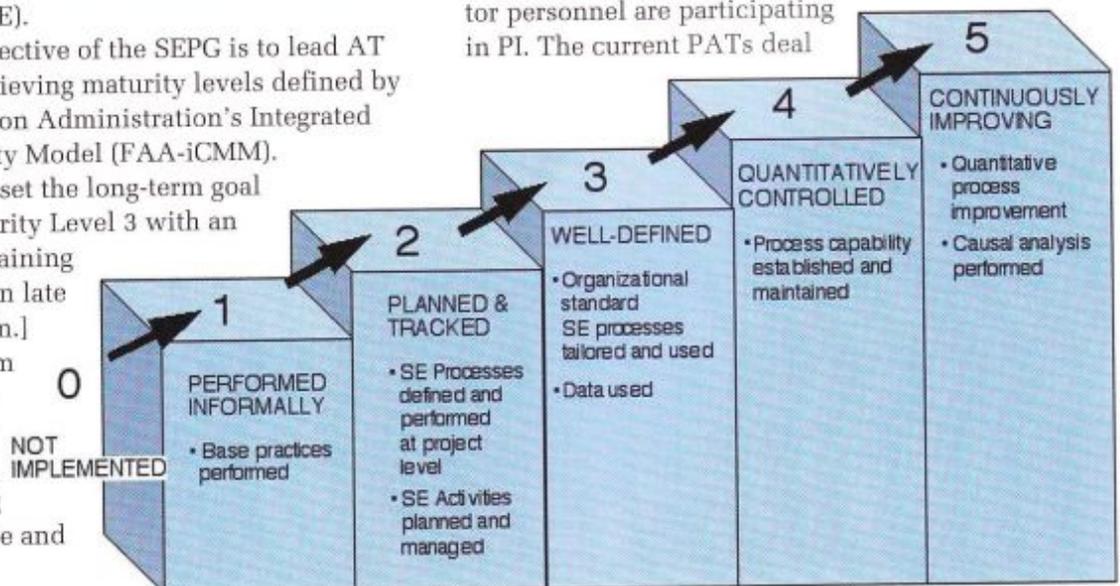
Consultants from the Software Productivity Consortium of Herndon, Va., are providing technical expertise and guidance. The Consortium's Senior Systems Engineer, Sarah Sheard, worked with the FAA in developing and

implementing the FAA-iCMM. This model was recognized as promising because, in the words of Holzer, "Three years ago, the FAA was in a place similar to NIMA's with its processes; now the FAA has demonstrated measurable improvements using this model."

Consortium consultants teamed up with the SEPG last year to appraise six representative NIMA projects to baseline their maturity level with respect to the iCMM. More than 40 program managers, systems engineers and program support practitioners (contract and budget personnel) participated. Project representatives completed a 465-item survey, followed by interviews with other practitioners concerning their processes. The results indicated that there is an "experienced, dedicated and resilient workforce" that is "highly responsive to customers in crisis or wartime." The appraisal also pointed to a "widespread awareness of the need to improve processes" and determined that two years would be required to achieve Maturity Level 2.

The SEPG subsequently identified 18 process areas for improvement and called for the creation of Process Action Teams (PATs), made up of NIMA practitioners, NIMA Systems Integrators (SI) and Consortium process experts. Seven PATs stood up last August and five more in April.

Today, more than 100 NIMA and support contractor personnel are participating in PI. The current PATs deal



The primary objective of the Systems Engineering Process Group is to lead the Directorates of Acquisition and Technology (AT) and Information Systems (IS) toward achieving higher capability levels for process areas identified for improvement.



Photo by Tony Boone

*Cyndy Isibel (with finger pointed) trains a targeted implementation team on an on-line risk database used to implement an improved risk management process. Team members from left are Lynn McGraw, John Sims, Bob Norris, Dan Ward and John Placanica.*

with the process areas of risk management, system requirements, configuration management, project management, architecture, transition, production evolution (technology insertion), quality assurance, contract management/outsourcing, and system integration/testing and evaluation. Members are led by an expert in their field (usually a division chief or SI contractor) and are tasked to define an improved "to-be" process for their area(s). After examining the "as-is" process or in some cases an altogether non-existent process, the PATs are uncovering the inadequacies of the existing process and responding with an improved and documented "to-be" process. The "to-be" process will be tested, refined, then implemented across AT/IS once approved by the NIMA Configuration Control Board (NCCB).

An Organizational Process Definition PAT provides guidance for the other PATs in areas such as process definition, tailoring guidelines, process engineering terminology and tools utilization. The Senior Management PAT, led by Alder and composed of AT Office Chiefs and IS leaders, is also developing and providing valuable project management guidance.

A major PI milestone was reached in December when the improved risk management process became the first to receive NCCB approval. Approval mandates process control and compliance across AT and IS. A pilot implementation of the new process is progressing with targeted participants receiving training in the new process. From the pilot implementation, resulting refinements will then be fully institutionalized across all of AT and IS.

Cyndy Isibel leads the Risk Management PAT. Other members are David Benjamin, Lynn McGraw,

Bob Norris, John Placanica, Franz Probst and Gail Stark.

Some process areas are scheduled to achieve Capability Level 2 as early as this fall. In light of the immensity of the effort, the initial capabilities will reflect an 80 percent solution to the processes. The 100 percent solution will be attained through process reviews and continuous process improvement following initial implementation.

Based on PAT resource requirements over the last year, and looking at what ramifications future PAT stand-ups will have on resource requirements, the SEPG has dedicated additional resources to this effort.

Much has been achieved so far, from performing the appraisal, to standing up 12 PATs, to achieving the first process improvement approval. The SEPG hopes to keep sight of these feats and lessons learned as the group continues to broaden its horizons with additional PATs and moves toward fulfilling its goal of improving processes within AT and IS, and eventually across all of NIMA. \*

### **About the Author**



*Faye Grubbs is the Deputy Chair of the Systems Engineering Process Group (SEPG). She returned to the USIGS Systems Engineering Division last year after earning her master's in information systems and technology at George Washington University through the Long-Term, Full-Time Training program. She is also SEPG liaison to the Integration/Test and Quality Assurance PATs.*

## InReach Program Holds Appreciation Days

by PENNY THORNTON

The InReach Program sponsored its first InReach Appreciation Days with two days of presentations from NIMA employees to the St. Louis, Mo., work force. The first day was dedicated to evening shift personnel and the second to day shift personnel.

John Devero and Gary Lorenz kicked off the presentations with a briefing on their trip to Pacific Command (PACOM). They had an open dialogue with the customers and came away with a better understanding of the use of NIMA products, they said. They felt that InReach provided a "partnership" opportunity for them and the PACOM customers.

Art McCluer briefed a trip to US Forces Korea. He spoke of the customer capabilities, their use of NIMA products and typical projects that NIMA data is used to support. The audience was particularly interested in his explanations and descriptions of the Demilitarized Zone, infiltration tunnels and other Korean border hot spots.

Dave Chase briefed a trip to Schriever Air Force Base, Colo., where he and Dennis Manning took part in Master Control Station Operations Floor Indoctrination. They learned how this customer uses NIMA GPS tracking data and analysis. Chase also explained the importance of NIMA's GPS stations.

Kent Faughander and John Szczepanski wowed the audience with takes of their experiences aboard the USNS Pathfinder in the Caribbean. They briefed on how the survey data was collected and processed and on the challenges of life aboard a survey ship for three weeks. (See *Analysts Put to Sea in Shiprider Program* article on page 17.)

Air Force Brig. Gen. Andrew Smoak, Deputy Director for Plans and Customer Operations Directorate, presented each briefer with an InReach Award and Certificate of Appreciation. He also recognized John Rado for his support to the InReach Program with a Special Act Award. Rado was detailed to assist the InReach Program manager with activities in St. Louis, Mo., Marjorie Hall was also recognized with a Customer Support Coin presented by Smoak for her support as the new InReach coordinator for NIMA St. Louis. InReach Appreciation Days were a real success. The work force was enlightened on what the InReach Program is achieving, and it sparked more interest for the Program. \*

### What's InReach?

The InReach Program provides NIMA employees who would normally not have any interaction with customers an opportunity to spend time with them to express opinions, share ideas and become partners as they better understand how each other performs their duties. It has been a win-win situation for all the participants. Customers have visited NIMA to brief and interact with employees and NIMA employees have visited customer sites. These opportunities have allowed employees to actually see how NIMA products and data are used, which gives them a sense of the importance of providing timely, relevant and accurate data to the customer as well as knowledge of how important NIMA's role is to national security. When employees see firsthand that somebody's life depends on what they do day in and day out, they know their work counts. The InReach Program has definitely boosted the morale of those who have participated. \*

## GI Group Tours Cold War Era Sub

Navy Lt. Cmdr. Cal Astrin, a submarine officer in the Navy Customer Support Division, provided an InReach tour of "Fast Attacks and Boomers: Submarines in the Cold War," an exhibit at the Smithsonian's National Museum of American History. This exhibit houses equipment from decommissioned submarines.

The control room and damage control displays provided an excellent backdrop to a briefing by Astrin on NIMA's essential support role to submarine operations. Tour attendees included employees of the Geospatial Information Office involved in related NIMA data production and navigation safety services.

This tour was a successful example of using available resources for great effect. "I have been working on submarine charts for 15 years, and this is the first time I've really understood how important my job is," commented one enthusiastic cartographer. A return InReach tour to this exhibit is planned for June. \*



Photo by Kent Faughander

Off the coast of Venezuela a Naval Oceanographic Office employee tests the water temperature and salinity from the fly bridge of the USNS Pathfinder. Leaning over the back of the ship was an impromptu way of keeping the computerized sensor clear of the ship in the 13-foot swells. Water temperature and salinity affect the accuracy of soundings.

## Analysts Put to Sea in Shiprider Program

by CARL NELIUS

**N**IMA's InReach Program is offering Maritime Safety Information Center employees an opportunity to experience data collection at sea.

Through the Shiprider Program sponsored by the Naval Oceanographic Office and NIMA, marine analysts John Szczepanski and Kent Faughander were part of a survey team collecting hydrographic and bathymetric (sounding) data aboard the *USNS Pathfinder*. Both have extensive experience in the analysis and compilation of nautical charts portraying sounding data.

Albert Theberge Jr. of the National Oceanic and Atmospheric Administration has described the evolution of the scientific methods to determine the character of the sea floor. The Egyptians used sounding poles and sinker sounding methods dating back to 1800 BC. By the first century this method was sufficiently developed that a depth over one mile was measured in the Mediterranean. It was not until the 19<sup>th</sup> century that the advent of mechanical sounding systems made deep-sea soundings feasible on a systematic basis. The electronic echo-sounder was developed in the early 1920s and multi-beam swath

sounding systems like the one aboard the *Pathfinder* in the 1960s.

By taking part in an actual deep ocean survey, Szczepanski and Faughander were able to collect data that would ultimately appear on NIMA's Digital Nautical Chart (DNC®) and reside in the Hydrographic Source Assessment System Master Seafloor Digital Data Base.

The two met the *USNS Pathfinder* in January in Willemstad, Curacao, Netherlands West Indies. The ship was engaged in survey operations (SURVOPS)

off the coasts of Colombia and Panama, collecting bathymetric and environmental oceanographic data in support of fleet requirements 24 hours a day, seven days a week. Their day at sea consisted of standing a 10-hour watch, seven days a week, with meals being the social event of the day. This was supplemented with an evening movie. The weather was generally clear, with temperatures in the 80s during the day and 70s at night, and seas averaging 3 - 15 feet. Although this does not constitute rough seas, Szczepanski found it enough to give him that miserable feeling known as seasickness. After three weeks of SURVOPS, the ship arrived at Port Canaveral, Fla.

Participation in the Shiprider Program gave Szczepanski and Faughander a new understanding of the sounding data portrayed on NIMA charts and residing in our databases. This insight will be useful in evaluating the reliability and accuracy of data. Both men were truly energized by this experience and are taking steps to share this knowledge with the work force. \*

### About the Author

*A former oceanographer, Carl Nelius worked for the Naval Oceanographic Office collecting oceanographic, bathymetric and acoustical data aboard deep ocean survey vessels. He later worked at the Defense Mapping Agency in the Hydrographic area as a branch chief, program manager, and plans and requirements officer. He now works in the Maritime Safety Information Center's Digital Nautical Chart (DNC®) program.*

# NIMA Hosts Intelligence Community Diversity Offsite



Photos courtesy of the Defense Intelligence Agency

Debbie Ridley, left, addresses the Offsite. At right, Dr. Lenora Peters Gant responds to questions.

by DORIS J. JACKSON

More than 70 employees from the Intelligence Community (IC) attended the third annual Intelligence Community Diversity Offsite, hosted by NIMA's Diversity Management Office (DM) Mar. 27-28 at the Defense Intelligence Analysis Center, Bolling Air Force Base, Washington, DC.

Participants had an opportunity to share best practices, get new ideas and foster collaborative partnerships. They gained valuable information and insight from speakers who were experts in the fields of diversity, organizational development and equal employment opportunity (EEO).

In welcoming participants, NIMA Deputy Director for Human Development Marcus J. Boyle said, "People determine organizational success. When leaders pay attention and tend to their people, good things happen. When they don't, organizations suffer."

Boyle said the Intelligence Community's success depends on the competence, quality and competitiveness of its people. "You are their representatives," he told the EEO and Diversity professionals. "Your role is to elevate to leadership the issues and concerns of the people in your organization." This critical role involves apprising leaders of the barriers impacting activities like recruiting, training, awards, career development and promotions – "all the things that impact competitiveness and quality of the people in your organization," Boyle said.

"There's nothing more powerful than an idea whose time has come," Boyle said. "And in the IC today focusing on organizational culture, the systems and processes that make people more competitive, are ideas whose time has come."

The sponsor of the Offsite, Dr. Lenora Peters Gant, Special Assistant to the Deputy Director of Central Intelligence for Community Management, discussed the state of diversity in the community and the demographic profiles of each of the agencies. Intelligence Community Diversity and EEO Office representatives discussed their agencies' diversity accomplishments and plans. NIMA DM Director Debbie Ridley presented NIMA's diversity accomplishments, including the Agency's exit interview process; the separation of the Diversity and EEO Offices; and the Agency's new Diversity and EEO Critical Performance Element.

In closing, Gant thanked NIMA for hosting this year's Offsite and presented recognition awards to Ridley and Jackson for their "dedication, diligence and devotion to duty" in bringing the Offsite to fruition. \*

## About the Author

A Staff Officer and Diversity Management Specialist in the Diversity Management Office (DM), Doris Jackson was responsible for the overall planning, coordination and execution of the Intelligence Community Diversity Offsite, working closely with Debbie Ridley and Dr. Lenora Peters Gant. Before coming to DM, she worked as a Paralegal Specialist in the Office of the General Counsel and later as an Equal Employment Opportunity Specialist and Special Emphasis Program Manager in the Equal Employment Opportunity Office. She was also the facilitator of the NIMA Deputy Director's Ad Hoc Council on Minority Issues and Concerns, East.



# Work and School Go Together at NIMA

by GEOSPATIAL INFORMATION OFFICE,  
BUSINESS INTEGRATION GROUP,  
WORKFORCE DEVELOPMENT BRANCH

On Wednesday afternoons in St. Louis, Mo., at the end of her workday, Suzanne Cain gathers her belongings and heads for the door like other NIMA employees, but not for the parking lot. Kit Schafer in St. Louis and Pete Wyatt in Bethesda, Md., do the same. But they don't leave the NIMA facility. They may stop for a quick snack, but they are really in search of food for thought. They are among 98 employees taking part in the NIMA Higher Education Program that brings graduate-level education right to NIMA.

One of the goals of the Higher Education Program is to make the education process as convenient as possible. That means more than just paying for the courses; it means on-site classes. Dr. Ron Kreienkamp in St. Louis, along with Bethesda, Md., program coordinator Dick Hubbard, searched for graduate university departments willing to teach at our Bethesda and St. Louis facilities. The program started in 1999 with geography classes from George Mason University and Southern Illinois University. Joining these two institutions in January 2000 was Washington University at NIMA-St. Louis, offering a program in international affairs. And last February the University of Maryland began a graduate program in geography at NIMA-Bethesda.

Classes are held at the work site after business hours and tailored to NIMA's strategic goals. While it takes three or four years of part-time study to meet the academic requirements for a graduate degree, NIMA employees enjoy greater opportunity to participate in higher education.

NIMA-St. Louis student Donna Pekarek stated, "My family and personal obligations would make it too difficult for me to commute to a university for evening classes before going home. This program is perfect; I can further my education and still be with my family."

Since January the Geospatial Information Office has partnered with NIMA College to take the Higher Education Program Agency-wide and make it avail-

able to all employees. Kreienkamp and Hubbard have been closely working with Mary Dierker, NIMA College Campus Manager-St. Louis, and Bella Brown, NIMA College-St. Louis Education Program Manager, over the previous months to make it happen. It has been a great success.

"This is a win-win situation," said Kreienkamp. "The College provides funding and administrative support while we in the business units maintain program direction and course content control. Our employees receive courses that not only meet university degree and certificate requirements, but they receive coursework that is relevant to NIMA now."

While the Higher Education Program is still in its infancy, it shows great promise. It will significantly lower higher education costs while equipping NIMA employees for the future. Participants will acquire the skills to analyze, evaluate and communicate more effectively, thereby providing better service to NIMA's customers. Finally, their professional growth, in addition to formal education, will help prepare them to become future NIMA leaders. \*



Tanya Allison, adjunct professor of geography at George Mason University, teaches a graduate-level course in thematic cartography to students on the Bethesda campus of NIMA College.

Photo by Larry Franklin

# WORKFORCE21 Central Secretariat Supports Occupation Councils

by SUSAN H. MEISNER

Your input matters at NIMA! A question from the floor at last fall's Promotion Process Focus Day led to hiring a full-time administrative staff to support our occupation councils. The *WORKFORCE21* Central Secretariat, with branches in both East and West, fills the bill.

According to Terri Higgins, Information Services Directorate (IS) Chief of Staff and the Secretariat's initial planner and organizer, "setting up the promo-

support that process next year," said Higgins, who also serves as IS' *WORKFORCE21* Communication Team lead.

Secretariat members include both government and contract workers. "I like to be in on the start of something new and have the opportunity to set policy and procedures," said Amber Beall, East Secretariat Lead. Beall, who is serving on a two-year rotational assignment from the NIMA College, sees an

additional advantage to her duties. "By providing rotational assignments, we develop a core of employees who really understand *WORKFORCE21* and can share that information with their directorates and offices when they return to their home organization."

Mike Morgan, Secretariat Lead in the West and on rotation from the GI Scientific Applications Branch in Aeronautical Analysis, agrees. "We will develop a core group of Band II and III employees with a good background in *WORKFORCE21* for when they become our next managers and supervisors."

"We're a small occupation, so having the support of the Central Secretariat really helps," said Geodesy and Geophysics Council Chair Randy Smith. "The Secretariat did a great job putting our Occupation Guide together, helping

us with formatting and catching items we missed."

"We're looking forward to having administrative support do the promotion process number crunching this year, so the decision-makers can make decisions," said Dave Pierce of the Plans and Customer Operations Directorate. "We're also glad there's going to be more structure for providing information to panel members, looking at performance evaluations and screening and distributing promotion packages."

After three years of doing the administrative work themselves, the occupation councils are glad to have the *WORKFORCE21* Central Secretariat on-board to help. \*



Photo by Rob Cox

Members of the *WORKFORCE21* Central Secretariat sort through name tags occupation representatives taking part in Occupation Day in Bethesda, from left, Sherri Duffy, JoAnn Heady and the Secretariat lead for the East, Amber Beall.

tion panels was so time-consuming and involved so much paperwork we overwhelmed the promotion panels."

This year, the Secretariat helped the councils prepare and review their Occupation Guides. They also helped plan and execute NIMA Occupations Days, which are similar to a career fair, in St. Louis, Mo., Bethesda, Md., Reston, Va., and NIMA's Washington Navy Yard, Washington, DC.

"For the current promotion process," said Higgins, "we will have two staff members assigned to help each council. They will track and screen promotion applications, schedule rooms and provide other assistance as needed."

"Secretariat members will also review the performance pay process and determine how they can



*Protocol Officers listen to a briefer at an inter-department interagency Protocol Conference hosted by NIMA. Gary Biggs, NIMA Chief of Protocol, is at left.*

## NIMA Hosts Interdepartmental Protocol Conference

by GARY BIGGS

The Director's Protocol Team recently hosted the first interdepartmental interagency Protocol Conference at NIMA headquarters in Bethesda, Md. Directors and chiefs of protocol and other protocol officers attended from the Departments of Defense, Commerce and State, and the CIA, DIA, FBI and NRO.

The conference was part of a larger effort to improve communication between various executive department and agency protocol offices and to establish a periodic forum for continuing education within the profession.

Members of the State Department Protocol Office briefed on diplomatic aspects of protocol. Air Force Col. Walter Sasser, Director of Protocol in the Office of the Chairman of the Joint Chiefs of Staff, and Mark Murray, of the Military District of Washington Ceremonies and Special Events Office, also provided a perspective on their work. Other protocol offices represented at the conference briefed on their operations and methods during the daylong event held Mar. 22.

State Department Protocol volunteered to host the next Conference. \*

## NIMA Employee Council To Address Work Force Issues

by MARGARET HAGER

With only a few working sessions to date, NIMA's new Employee Council has acted quickly to develop a charter and mission statement, identify its goals and formulate a method of operation.

NIMA Director LTG James C. King directed the establishment of the Council to assist in identifying and researching corporate issues that have a significant impact on the NIMA work force. Council members – representing a cross-section of the NIMA work force – are volunteers who were chosen for their desire and motivation to partner with the NIMA work force to resolve issues and make work force and work/life improvement recommendations.

The Council was scheduled to brief senior leaders as the *Edge* went to press and has been introducing itself to the work force at Work/Life Fairs throughout NIMA. Keep an eye out for the Council tables at the

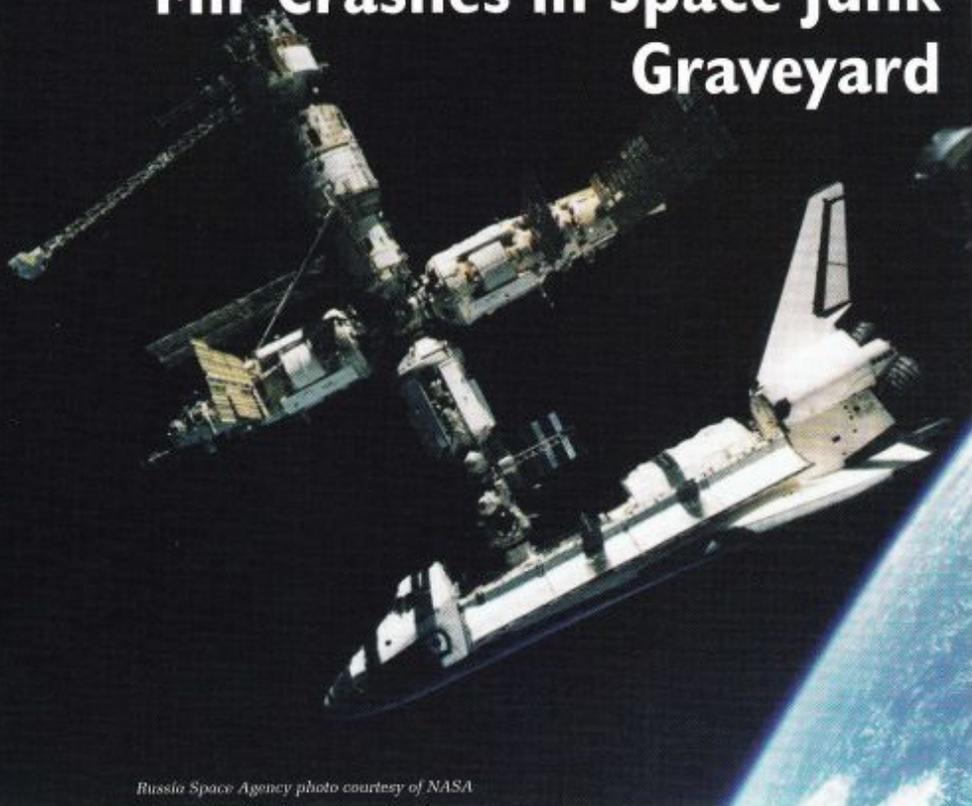


*Council members, in front from left, are Margaret Hager, La'Trita Westfall, Darlene Scott, Kelli Burnell, Marilyn Merry, Gloria Boyd and Barbara Ritter. In back, from left: Patricia Stewart, Joe Goines, Elaine Schlueter, John Heard, Patricia Cribb, LTG King, Fitzgerald Walton, Anita Davis, Dan Harbacevich and Alice Allen. Not pictured: Margaret Ellett and Pam Kancijan.*

upcoming Work/Life Fairs in Arnold, Mo., and NIMA's Washington Navy Yard, Washington, DC.

The Council continues to solicit suggestions from the work force and looks forward to championing good ideas and maintaining NIMA's world-class workplace. \*

# NIMA Alerts Customers as Mir Crashes in Space Junk Graveyard



Russia Space Agency photo courtesy of NASA

The Mir space station is connected to the Space Shuttle Atlantis in a photo taken by cosmonauts aboard the Soyuz spacecraft in 1995.

by HOWARD COHEN

After a 15-year, 2.2 billion-mile journey of 86,000 orbits around the Earth, the Russian-launched space station Mir crashed in the space junk graveyard of the South Pacific Ocean March 23. The 143-ton space station, whose name means peace came to a successful controlled reentry into the Earth's atmosphere between New Zealand and Chile about 2,000 miles southeast of Fiji.

Mir served as a platform for more than 20,000 scientific experiments destined to improve life on Earth while exceeding its planned mission life cycle three-fold.

CNN correspondent Hugh Williams on the island of Fiji spotted streaking debris and heard resulting sonic booms soon after Mir began its descent. The fallout

"is making a huge golden trail through the sky. We're just in awe," he said. "Perhaps five large fragments fell apart into several more fragments in front of my eyes," he added.

"One if by land, two if by sea" was the warning Paul Revere was to receive by lantern from Boston's Old North Church on how the British were coming that fateful night of Apr. 18, 1775. NIMA's nautical and aeronautical customers were warned of Mir's arrival not by lanterns but by modern communication messages: *HYDROPACs* and *NOTAMs*.

A *HYDROPAC* is a hydrographic warning for the Pacific and Indian Oceans. It is just one of four geographic warning areas that NIMA's around-the-clock World-Wide Navigational Warning Service (WWNWS) covers. (See

the December *Edge* for an article about the Service.)

Located in Bethesda, Md., the WWNWS promulgates, by radio and satellite broadcast, information on hazards to navigation that might endanger international shipping and are of concern to the ocean-going navigator.

Starting March 2 and culminating on March 22 with *HYDROPAC* 439/01, NIMA's WWNWS Broadcast Desk Team promulgated six *HYDROPAC* messages of "Hazardous Operations" to keep mariners informed of the latest changes in the impact area and dates for the splash down of Mir. Team members were senior watch officers Keith Levin and Keith Dominic, and watchstander Dave Wacht, all of the Maritime Safety Information Center (GIH).

"The U.S. Navy requires worldwide warning coverage from NIMA as a trusted provider of safety of navigation information," said Wacht. "And that's exactly what we give them."

NIMA's aeronautical customers were not flying in the dark about Mir either.

Team Chief Tom Gayer, Rocky Essenpreis and Jim Sell of NIMA's Aeronautical Safety Center (GIX) in St. Louis provided aeronautical support by entering Notices to Airmen, or *NOTAMs*, as they are called.

"A *NOTAM* is information concerning the establishment of, condition of, or change in any aeronautical facility, service, procedure or hazard," Gayer explained. "Without a doubt, Mir's entry and debris fallout constituted a hazard to NIMA's aero customers."

Countries around the world can access the *NOTAM* system and enter information pertinent to air navigation system users.

Essenpreis, a standardization officer, said, "Pilots are required to check for NOTAMs affecting their flight route as part of their flight planning process." In general, the Federal Aviation Administration (FAA) handles NOTAMs that apply to the civil community, he said. The Air Force Flight Standards Agency represents the services to the FAA, provides overall management of the DoD NOTAM process and maintains the Defense Internet NOTAM Service (DINS). Users with Internet access may view the NOTAM Web site at <http://www.notams.jcs.mil>.

"Every major airport and base operations at all military airports have access to the NOTAM system," Essenpreis said. "GIX is primed to serve its customers."

Sell, a geographic area analyst said, "As the producer of all DoD Flight Information Publications (FLIP), NIMA St. Louis is the NOTAM authority for DoD FLIP and has access to enter information into the NOTAM system."



Photo by Gerald Goodin

Sending warnings about Mir fallout to aeronautical customers was the work of, from left, Rocky Essenpreis, Jim Sell and team chief Tom Gayer. Messages were sent via the DoD Internet NOTAM Service.

Navigation safety messages to ships at sea and NOTAMs to airplanes have been promulgated for years. "With the Mir reentry, what made the warnings to our nautical and aeronautical customers significant was the collaborative effort between GIH and GIX," Levin said.

"The Radio Broadcast Watch Desk Team provided the Mir HYDROPAC messages to us. We then formatted the message to suit our aero customers and forwarded it for inclusion within the NOTAM system," Gayer said.

Tracking information was gleaned from a network of radar and optical sensors operated by the Space Command in Colorado.

Space Command's Space Control Center tracked Mir from deep inside Cheyenne Mountain. From there, the Mir tracking data was sent to the WWNWS.

"Toward the final hours," Dominic said, "we were in constant communi-

cation with them and receiving up-to-the-minute 'burn times.'"

Mir's de-orbit went as planned until the very end when it plunged into the ocean a minute or two earlier than expected.

"This caused Mir to enter the ocean further north than predicted," Dominic said. "Mir's weight, size and shape made it difficult to exactly predict the re-entry."

Mir was the largest man-made object ever to plummet from orbit. As much as 30 tons of the space station survived reentry temperatures of more than 2,500 degrees Fahrenheit as it sped toward Earth at 650 to 1,000 feet per second.

Moscow took out a \$200 million insurance policy in case Mir went off course. Russian firms reinsured the space perils with Lloyd's of London, the world's biggest insurance market, where underwriters said the risks were unique.

Thankfully, nothing hit a ship or plane and there was no loss of life, in part due to NIMA's around-the-clock World-Wide Navigational Warning Service and Notices to Airmen. \*

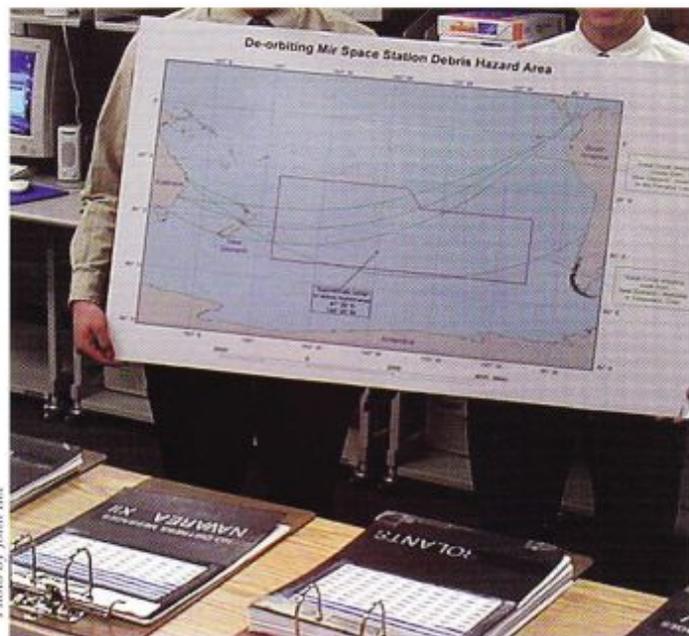


Photo by John Rice

GIH watchstanders Keith Dominic, left, and David Wacht display the De-orbiting Mir Space Station Debris Hazard Area, "the space junkyard."

# NIMA participates in Public Service Recognition Week



Photo by John Iler

One of the Air Force Academy's eight mascot falcons joins Second Class Peter Mauro, a junior, in getting a bird's-eye view of Washington, DC., at a NIMA exhibit featuring a fly-over of the city. The fly-over was created to aid military and law enforcement agencies during January's presidential inauguration using various sources of commercial imagery and showcased at the Public Service Recognition Week festivities in Washington, DC.

Public Service Recognition Week honors government employees at all levels, federal, state and local, and is endorsed by the president's Interagency Council on Administrative Management. Sponsored by the Public Employees Roundtable, this is the 12th year the Department of Defense has participated in the event, held during the first full week of May.