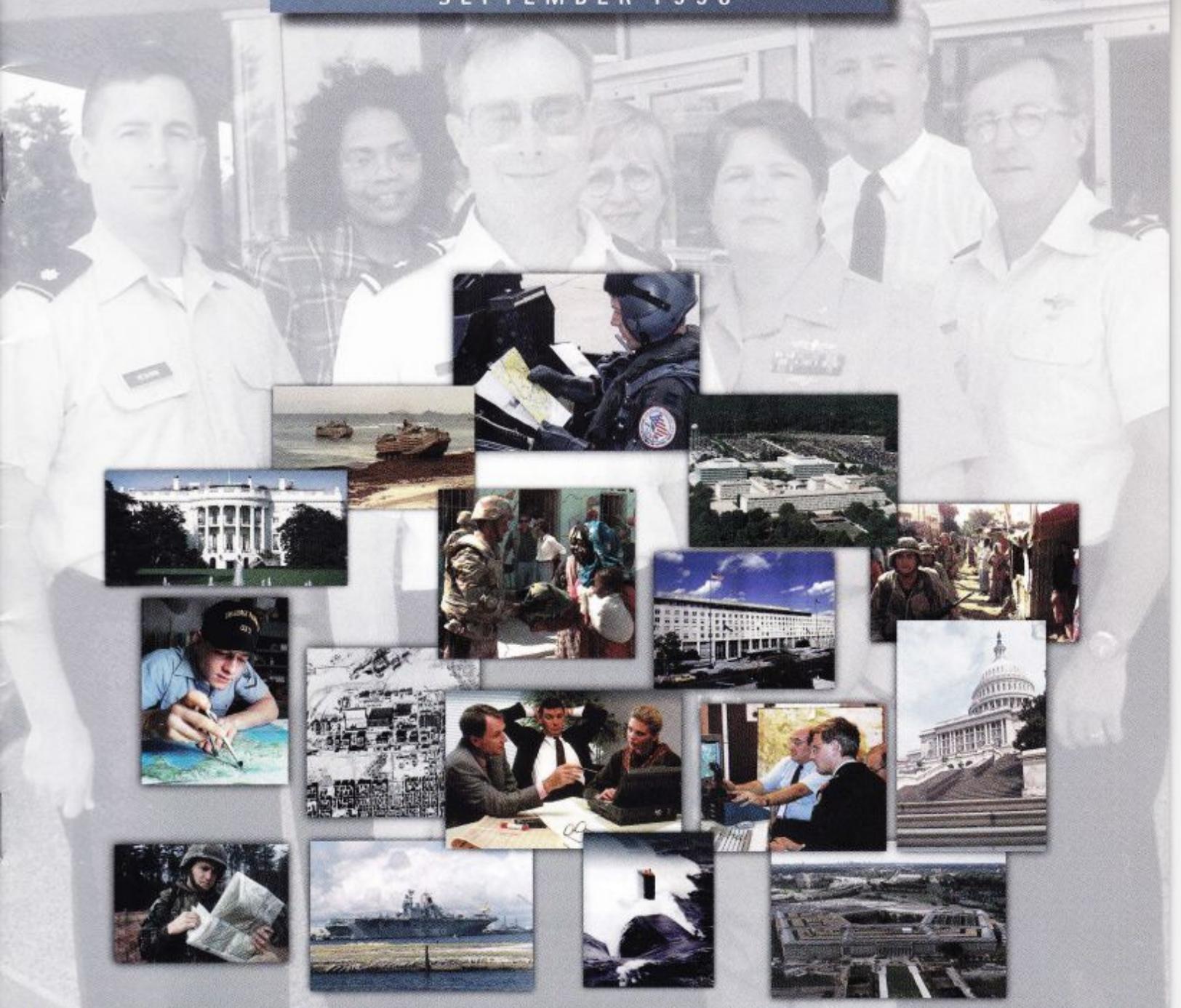


NATIONAL IMAGERY AND MAPPING AGENCY

# EDGA

GUARANTEEING THE INFORMATION EDGE  
SEPTEMBER 1998



SUPPORTING THE CUSTOMER

SEPTEMBER 1998

# EDGE

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Published by National Imagery and Mapping Agency  
Director • Maj. Gen. James C. King  
Office of Congressional and Public Liaison  
Director • Laura B. Snow  
Deputy Director • Terence S. Meehan  
Chief, Public Liaison • Eric Berryman  
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The Edge is an authorized command information publication published monthly in the interest of National Imagery and Mapping Agency personnel. Contents of this publication are not necessarily the official view, or endorsed by the U.S. Government, Department of Defense or the National Imagery and Mapping Agency. Copy deadlines are the second Friday of each month. Articles are edited for style, content, and length.

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# COMMAND POST

**D**irector of Central Intelligence George J. Tenet remarked earlier this year that in the short time NIMA has been established, it has leveraged an “extraordinary imaging capacity and the world’s best mapping programs” to achieve “an unparalleled geospatial capability.”

These are not faint words of praise—they embody the very reason NIMA was created. *Extraordinary...best...unparalleled.* They are commentaries not only on our technological resources, but the abilities of our people to produce quality information tailored to support diverse customer missions.

This month’s *EDGE* focuses on support to our customers. Our customers are many and varied in their needs. Our support is focused on national policymakers and the military forces that defend our nation. But our customer base also includes a wide range of U.S. Government and civil agencies. We have aided the U.S. Forest Service, U.S. Agency for International Development and agencies who provide foreign and domestic humanitarian and disaster assistance.

Our customer support offices are located throughout the world. We pride ourselves in providing the right information at the right time. It is our responsibility to help demonstrate to our customers the capabilities we have and how we can help them improve what they do.

We have a big job to do. We increasingly hear the word “global” in relation to the events of our time and must be prepared to provide our customers with information to make decisions quickly and accurately on a global basis.

We should be eager and proud to serve those who serve us in so many ways. Our goal should always be to consistently provide our customers with quality information and service. NIMA was created to combine the strengths of the geospatial and imagery communities to ensure we are postured for ... “GUARANTEEING THE INFORMATION EDGE.”



*James C. King*

James C. King  
Major General, USA

# Hazlewood To Managers Conference: New Procedures, New Approaches in NIMA's Future

by Wells Huff

“**T**his is a time, in my view and in that of the Director, to be bold as a community. We have no major adversary for the next decade to two decades. We have the opportunity to develop new procedures and approaches to problems, with relatively little negative impact.”

With these words, NIMA Deputy Director Leo Hazlewood urged functional managers from NIMA and throughout the imagery and geospatial community to talk about common problems and to focus on a set of core questions.

The group met in the Reston Auditorium July 30 and 31 for the Functional Managers Conference.

“Over the next two days we want to have an active exchange of information, where we keep a focus on what NIMA Director MG James C. King calls ‘The Clash of the Centuries,’” Hazlewood said. “We must keep asking ourselves, ‘Are we planning well enough and are we executing well enough to move into the future?’”

## Life Beyond Y2K

“In this clash of centuries...life does not stop once we get through the Y2K problem,” he continued. There will be a move from analog to digital; hardcopy products to softcopy; closed, proprietary information systems to open, commercial systems; and long time lines to short cycle times.

How can managers hope to fulfill NIMA's and the Imagery and Geospatial Community's mission with a reduced workforce and multiple potential threats replacing one major adversary? By leveraging technology to the maximum, Hazlewood said.

He told attendees about initiatives NIMA has undertaken, focusing on improving customer service.

One objective, he said, is to reduce the Agency's overhead rate by consolidating its facilities and improving its management of information technology.

“We had a multiplicity of procedures and paths across the eight predecessor organizations,” he said. “We had more than 50 different types of word processing systems and a dozen mail systems. It kind of gave the Tower of Babel a bad name.”

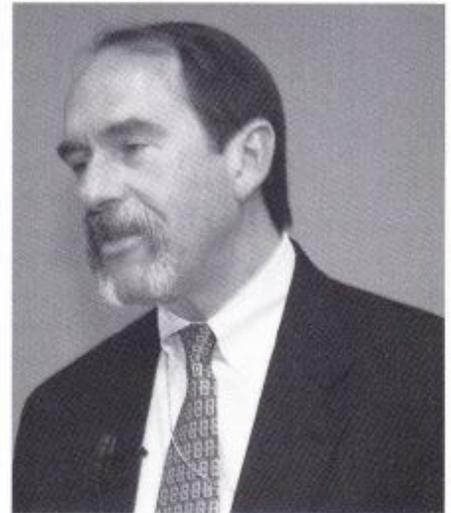
The systems and the multiple networks that connect their users are being slimmed down. “We won't say, ‘You have one choice.’ We will say, ‘You have limited choices.’ The criterion is, everything has to talk to one another.” Y2K, he added, has given NIMA the opportunity to replace outmoded systems that can't be made compliant.

## Connectivity

In improving its internal efficiency, the Agency has stressed connectivity across the organization. The drive toward better connectivity has affected virtually all NIMA's business practices, from the forms used to the way business and technical information is exchanged.

The Agency, Hazlewood said, is in the process of acquiring common production equipment, allowing it to reconstitute workgroups and get away from dedicated special equipment. The data structures used by imagery analysts and cartographers are thus being reviewed to create a common data model.

All of these initiatives will allow NIMA to serve its customers more effectively, he said.



Hazlewood

## Changing the Rules

Finally, the initiatives addressed the rules by which the NIMA workforce works.

“From my perspective,” Hazlewood said, “we are in a 100-plus-year-old straightjacket called Civil Service. We have a set of rules that are restrictive. We need to change those rules to allow employees to grow, and us to move employees more efficiently and effectively.”

The best way of achieving that, he said, is WORKFORCE21.

WORKFORCE21, Hazlewood said, “will move us from a heavily rule-based, stylized personnel system to one that is skills-based, person-based and much more flexible.”

The new personnel system will allow for more rapid creation of teams, more responsiveness to customers, allow employees more movement around the organization and permit them to perform at a higher level.”

*Continued on page 9*

## Quest for Excellence

First NIMA Quality Advocates Forum Meeting Held

by Duval Crist  
*Policy Plans and Analysis*

The first NIMA Quality Advocates Forum was held recently.

The forum is composed of representatives from each business office and has two main goals:

- Identifying problems of mutual interest and offering action programs for solutions, and
- Facilitating idea exchange and cross-business unit and directorate improvement efforts.

The Quality Advocates Forum may assist offices, task forces, and special working groups with benchmarking studies, adopting best practices and more. All NIMA benefits from coordinating and sharing improvement efforts by completing tasks more quickly, eliminating duplicative efforts, and achieving the best possible outcomes, solutions, or products.

The following key areas were identified for forum action:

- Sharing knowledge, management and best practices;
- Sharing benchmarking analysis and experiences;
- Wrapping up plans for administering the NIMA suggestion program;
- Advertising PA's corporate improvement consulting services; and
- Sharing NIMA's corporate improvement successes and achievements with the workforce.

The forum will convene monthly for the next few months. Meeting frequency will be reviewed with possible quarterly meetings following NIMA Performance Measurement Reviews. Participation in and questions concerning the NIMA Quality Advocates Forum may be addressed to Duval Crist, PA Performance Metrics and Improvement Team, mail stop D-137, telephone (301) 227-7557, or email to [cristd@nima.mil](mailto:cristd@nima.mil).

## President Nominates Director for Third Star

The Secretary of Defense recently announced that the President has nominated MG James C. King for appointment to the grade of lieutenant general and assignment as Director, NIMA.

MG King is currently NIMA's acting director.

"I am indeed honored to have been nominated by the President to serve as the first lieutenant general, Director of NIMA," MG King stated in a message to employees. "My selection is a testament to the belief by our nation's leaders of the importance of NIMA and your mission for our nation.

"Two years ago next month, you started NIMA on its path to success. Your hard work and contributions to our nation's objectives and the daily protection of our men and women on land, sea and air are reflected in this nomination. The lieutenant general position belongs to all of NIMA because the President, the Secretary of Defense, the Director of Central Intelligence and the Chairman of the Joint Chiefs of Staff believe in you and in your mission."

He further stated that he was "thankful to have been selected to fill this position and will do everything possible to keep your faith and trust. Thank you for the opportunity to serve with you.

"There is no doubt in my mind that NIMA will always continue to go forth and conquer by GUARANTEEING THE INFORMATION EDGE."

MG King's nomination has been sent to the Senate for confirmation. A promotion date will be announced following confirmation.

At Your Service

# NIMA's Customer Support Office Knows the Customer

by Jennifer Lafley

**W**ith NIMA's vision statement of "guaranteeing the information edge" to its customers, Brig. Gen. Arthur D. Sikes Jr. knows exactly what to do on the job—get the customer the right information.

Sikes is director of the Customer Support Office (CO), which has customers and employees throughout the world. All requests for imagery and geospatial information pass through this office.

"That guarantee is what drives us," Sikes said. "We work hard to provide what the customer needs."

Sikes sees his role in the Agency as the customer's chief advocate, but CO doesn't work alone. It relies heavily on the NIMA infrastructure to provide information to customers. "Whether it's collection and tasking, production or analysis, we are co-dependent on all the directorates for customer support. I can't make a

promise to a customer without the support of the rest of the Agency," he said.

Often that means he's the bearer of both good and bad news to NIMA's directorates. Although feedback from recent customer surveys remains positive, at times Customer Support has to intervene to ensure customer satisfaction. "I have to be candid in representing the customer's best interests," he

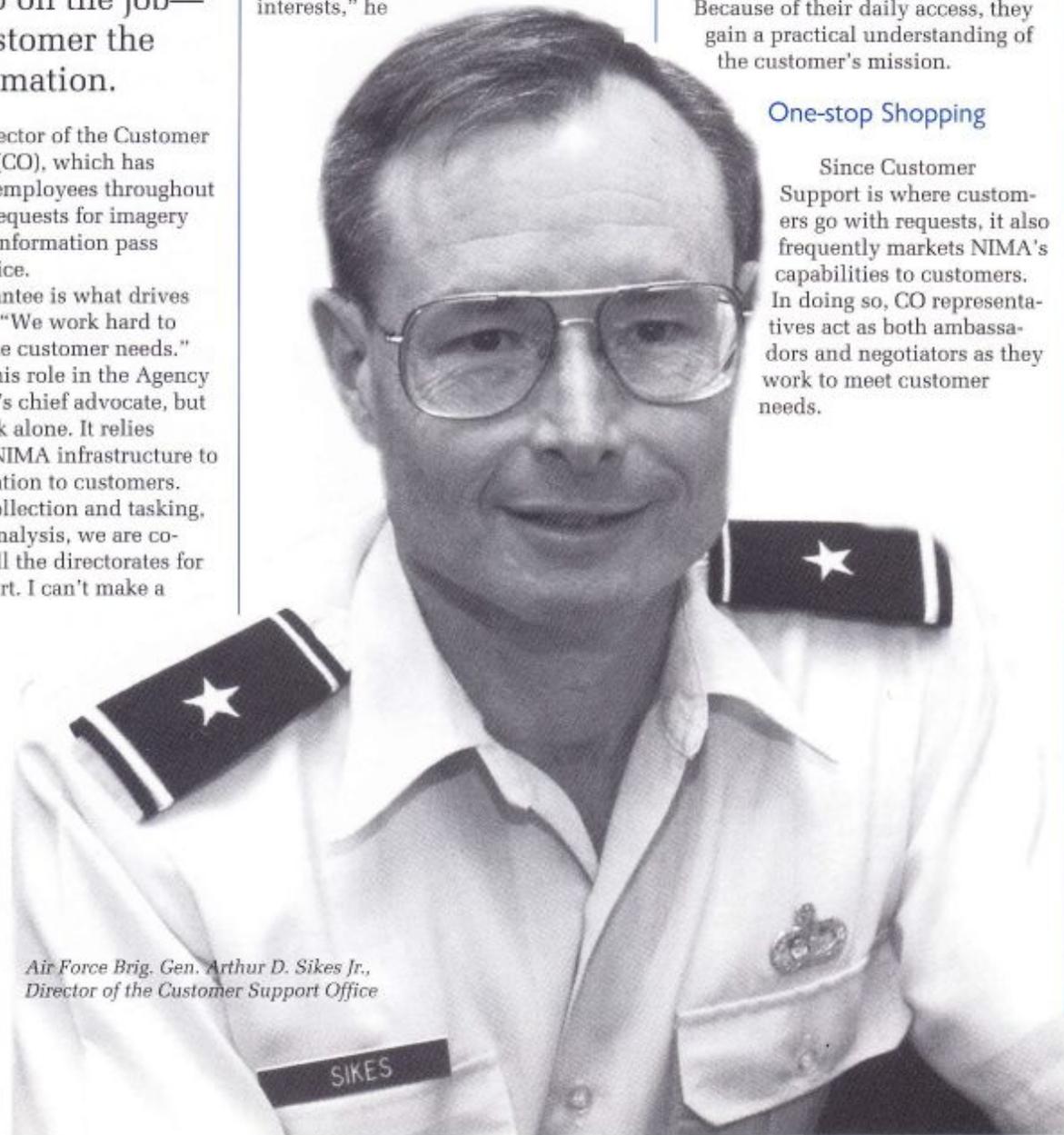
said. "And sometimes that requires me to let people know that the customer's requirements were not met."

The Customer Support Office is divided up into teams that support a wide range of military and national customers [see chart]. Liaisons, imagery analysts and technical representatives (techreps) serve onsite with many of NIMA's customers.

Because of their daily access, they gain a practical understanding of the customer's mission.

## One-stop Shopping

Since Customer Support is where customers go with requests, it also frequently markets NIMA's capabilities to customers. In doing so, CO representatives act as both ambassadors and negotiators as they work to meet customer needs.



Air Force Brig. Gen. Arthur D. Sikes Jr.,  
Director of the Customer Support Office

"As ambassadors we 'sell' the concept of digital information," Sikes said. They're often met with resistance from many customers who still want hard copy products. That's where the negotiation phase of the job comes in.

"We give demonstrations of our products and use examples of the array of tailored products we can provide," he said. As negotiators, they frequently compromise.

"We call that 'resource reality.' That means we figure out the best ways to meet the customer's needs. By tailoring the product, we can often produce exactly what they need, without having to provide a lot of information they won't use."

Sikes said CO is challenged by a variety of customers' requirements varying from extremely sophisticated imagery to hard copy maps.

As customers increase their reliance on NIMA products, the Agency's involvement in exercises and noncombatant evacuations has increased. And as the threat of terrorist activity remains, NIMA's products are even more in demand.

### Reaching Out to the Customer

Quarterly, Sikes holds a video teleconference with customers around the world, where NIMA representatives talk openly about products and customers discuss their needs.

"We know NIMA folks need to spend time with their customers," Sikes said. In response, CO is establishing a new producer/customer information exchange called the "Inreach Program." It is designed to bring the customers to NIMA and employees out to customer sites.

"The program will target customers and employees who normally have no interaction with one another.

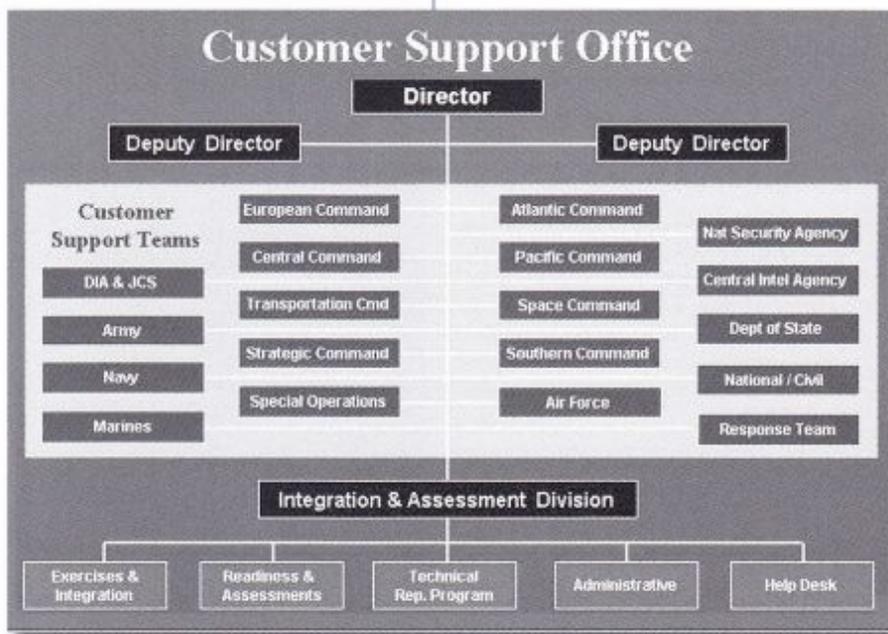
Beginning in fiscal 1999, events planned include tours/site visits, briefings, conferences, demonstrations, field checks and exercises.

On Nov. 4-6, the Customer Support Office will sponsor its annual Customer Conference at NIMA, Westfields.

"Meeting customer needs is the reason NIMA exists," said Sikes.

Not only does CO act as the customer's advocate in NIMA, it also serves as NIMA's advocate to its customers. "Customer Support Teams are especially valued by our external customers," Sikes said. "As NIMA begins its third year, I'm very optimistic about the future. And in the year ahead, I look forward to strengthening our relationship with others in NIMA to achieve our shared vision of 'guaranteeing the information edge.'"

*Editor's Note:* See article on the Help Desk, another function of CO.



# Notice to Mariners Means SAFE NAVIGATION to NIMA Customers

by Howard Cohen

**F**or the mariner, perhaps the most important symbol on a chart happens to look like an exclamation mark. Actually, it's a magenta flare, and it identifies all lighted navigation aids such as lighthouses, lightbuoys and other arranged lights.

"It's important that mariners know detailed information about each lighted navigation aid," said Pete Wyatt, a marine analyst with NIMA's Marine Navigation Department. "The accuracy and reliability of the information guides the mariner along the coastline into harbors, and assures safe navigation."

One of NIMA's jobs, Wyatt said, is to keep those "lights on" by providing timely and accurate information about the characteristics of each lighted navigation aid. This is done in the Marine Navigation Department, where the Notice to Mariners and List of Lights are two of the many navigation safety products produced.

NIMA marine analysts review updated data received from hydrographic offices worldwide. They evaluate potential and necessary changes to be made, including the structure of the light and its color, height, daymarks and light characteristics. "There are many different combinations of size, displays and structural materials that may be attributed to lighthouses and other navigational lights," Wyatt noted.

These changes appear in NIMA's weekly *Notice to Mariners*. There could be as many as several hundred at a time in any given notice. Verification of information found in the List of Lights is performed by the Notice to Mariners Branch. This represents a significant part of the compilation process for cartographers preparing new editions of NIMA charts. The information appears not only in printed form, but can also be obtained via the Marine Navigation Department's computer system-NAVINFONET.

## 'Don't Leave Port Without It'

Not a modern day credit card slogan, but fitting nevertheless. The *Notice to Mariners*, first published in 1869 under the authority of the Bureau of Navigation, Department of the Navy, is now produced under the auspices of NIMA. The single most authoritative navigation tool of the U.S. government, it updates and maintains the U.S.' enviable suite of nautical products. And, said Wyatt, it's mandated by law (U.S. Code Titles 10 and 44.)

"In the early days of the U.S. Navy, prior to 1830, there was no

uniform system for supplying ships with precise charts. All charts were either obtained from foreign sources or printed by private companies." The accuracy of charts produced by the latter was questionable, he said, and printers often reproduced data from old charts on the assumption that "if it's in print, it must be correct."

*Notice to Mariners* informs mariners of the wide range of changes affecting the safety of navigation. It also includes all of the corrections for nautical charts and various navigational publications from NIMA, as well as other federal sources, such as the National Ocean Service and U.S. Coast Guard.

Since 1869, "the *Notice*," as it's referred to, has adapted to the influx of new information gleaned by advancing hydrographic surveys, changes to navigational aids, computer technology and world-events. "During its evolution," Wyatt said, "distribution was handled by special mail, telegraph, cable, wireless communication and direct contact with mariners through the central office or 17 branch offices." Today, he added, although customers still receive printed copies, they can receive selected weekly *Notice* corrections via modem and PC link through satellite, cellular or land line communications by NAVINFONET. All data on NAVINFONET is migrating to the World Wide Web as part of the new Navigation Safety System.

## Growth

According to Chuck Dwyer, the Marine Navigation Department Functional Support Manager, in the early part of the 20<sup>th</sup> century, 5,450 copies of the *Notice to Mariners* were printed weekly, which corrected up to 2,706 charts of foreign waters and 672 charts of U.S. waters and territories. A system of mutually exchanged information began with 24 other countries during this period. Currently, 56 contributing countries and a

host of individual customers provide the vital information that goes into the weekly Notice. This year, up to 13,000 copies of each issue will be printed. These update a portfolio of 4,000 charts of foreign waters and 1,000 domestic charts.

"There are currently 50,000 active corrections in existence for the 5,000 charts that are maintained by the Marine Navigation Department," Dwyer said. The *Notice* also maintains data on 80,000 lighthouses and beacons found in NIMA's seven volumes of *List of Lights*, or the U.S. Coast Guard's seven volumes of the *Light List*.

The *List of Lights* contains expanded information about lighthouses and navigation lights that might not be found on charts. Information such as fog signals, radar reflectors, storm signals, signal stations, sectors of visibility, radio direction finders, daytime markings and other pertinent characteristics are detailed.

Updating this list can be time consuming for a ship's navigator, but it's crucial for the mariner to remain abreast of all changes. Otherwise, incorrect information would be used to determine the ship's position resulting in an inaccurate location. Since almost all navigational hazards occur in coastal waters, the safety of the ship and its crew could be compromised if the navigator was unable to determine the ship's position because the *List of Lights* information was inaccurate or outdated.

### Service to NIMA Customers

The value of these one-of-a-kind publications is immeasurable to the mariner. And, as NIMA approaches the 21st century, mariners can be assured that the Marine Navigation Department will maintain that beacon of light for years to come.

Peter Wyatt

*Continued from page 4*

## New Procedures, New Approaches in NIMA's Future

### Customer Service

Turning to partner and customer relations, Hazlewood praised the results of other NIMA initiatives. He noted that the Agency has shifted delivery of imagery to more than 200 U.S. sites from government couriers to a commercial carrier. This resulted, he said, in "better service and tracking and a 90 percent savings."

NIMA also is starting to forge new partnerships with fellow organizations like the National Reconnaissance Office (the Future Imagery Architecture initiative) and the airborne community "to get a total imagery view."

"We simply cannot continue to produce everything uniquely," he said. Through the U.S. Imagery and Geospatial Information System and common databases and equipment, he added, the community will be able to share its efforts and avoid redundancy.

*Application of WORKFORCE21 processes to bargaining unit employees is subject to fulfillment of the Agency's labor-relations obligations. Bargaining unit employees may refer questions or comments on WORKFORCE21 directly to union officials.*

photo by J. Iler



# Omnibus Solicitation Issued



photo by Rob Cox

by Paul Hurlburt

*Keeping the Omnibus Solicitation on track were Core Team members and technical evaluators. In front, Debbie Grieves; front row, from left, Karen Middleton, Karen Anderson, John Schmitt, Joe Russell and John Simon; second row, Lisa McCormick, Brad Hayek, Glenn Guempel, Greg Johnson and Guy Masters; third row, Tim Hays, John B. Williams, Chuck Squires, Doug Thomas and Howard Pierce; back row, Gerry Walter, Kurt Hoglund and Air Force Capt. Mike Monsees. Not pictured: Dixon Boulware, Kevin Camp, Bob Crosby, Paul Fincannon, Mike Full, Paul Glusto, Kris Grabbi, Glenn Griffiths, Toni Hamel, Susan Janssen, Mary Ann Klaner, Doug Madden, Bill McCord, Greg Peiper, Howard Phifer, David Prince, Pete Rokowsky, Karen Saffron, Sandra Stragliati, Brodie Thompson, Marvin Tyus, Ken Vinar, Linda White and Irene Wilburn.*

**N**IMA officials call it a "totally new approach" to the way the Agency contracts with private industry. The Omnibus Geospatial Information and Imagery Intelligence Solicitation will be used to contract more than \$50 million in fiscal 1999 and even more is planned in the years ahead.

The new solicitation follows NIMA's strategy of consolidating contracts through the use of prime contractors and teaming arrangements, replacing 67 current individual contract vehicles.

"Customer requirements for geospatial information and imagery intelligence continually exceed NIMA's in-house capacity," said Commercial Office (OC) Director A. Clay Ancell. The intent of the Omnibus is "to create a quick and easy mechanism for obtaining contract production services, which are an essential element of our production plan."

Consolidating contracts into single streamlined vehicles "makes good business sense to both NIMA and industry," Ancell added. "It will give NIMA needed flexibility for its changing business strategy."

Putting production in the hands of contractors allows "NIMA to redirect its efforts toward providing value-added information," said Darryl Crumpton (GIC), associate director for contract production.

Current contracts are product-specific, keyed to prescribed product specifications.

"When new or tailored products are required by our customers, they generally do not fit into existing contracts," Crumpton said. "Without the Omnibus, they would fall out of the scope of our contracts, causing a lengthy process to establish a new contract with new specifications."

The Omnibus will cover all production services that fall into three broad functional areas: surveying services, mapping and charting services, and imagery intelligence and photogrammetric services.

Contracts awarded under the Omnibus will cover a one year period and can extend for up to four additional years if the work performed by each contractor is deemed acceptable. The amount that NIMA can award for an individual task order under this contract can range from \$3,000 to \$30 million. Each prime contractor will be guaranteed \$3,000.

### Advantages of the Omnibus

The Omnibus will allow NIMA to be more responsive in meeting changing customer requirements, according to John Schmitt (GIC), Omnibus Core team lead for the Operations Directorate (DO). "It allows us to procure the needed services in a matter of weeks rather than the months required by the old contracting process," he said.

"A key factor about the Omnibus is that it puts imagery intelligence and geospatial information together," said John B. Williams, an Omnibus Core team member. "If the processes and technology are similar, it has the potential for geospatial information

contractors to move into the imagery intelligence area and vice versa."

Another advantage, said Joe Russell, OC's representative on the Core Team, is that "the lowest bid is no longer the dominant factor in choosing a contractor."

With national security issues, statutory requirements for safe navigation, high accuracy requirements supporting military operations, and the imperative to protect military and civilian lives in harm's way, quality is now the primary factor for awarding geospatial information and imagery production, Russell said.

Unlike current production contracts, which were awarded largely on the basis of price, the Omnibus will use a two-phase Qualification Based Selection process. In phase one, offerors will be evaluated on their technical capabilities and only those offerors who are deemed most highly qualified will advance to phase two.

Technical evaluations of the contractor proposals were conducted in softcopy at the National Reconnaissance Office Acquisition Center for Excellence (NRO/ACE). The NIMA Acquisition Center (NAC) makes this support available to NIMA through a NAC/ACE mission partnership agreement, said NAC Chief Steve Carroll. Other NIMA source selection activities conducted at the ACE were the NIMA Systems Engineering Services (NSES) and Integrated Exploitation Capability (IEC) acquisitions.

### Challenges Met

Some 30 technical representatives from DO are winding up technical evaluations of the offerors' proposals this month.

"The evaluation team worked very diligently over the summer months, making personal sacrifices to accommodate the long hours and intense reviews," said Bobbi Lenczowski, deputy director for DO.

"The teamwork between NIMA operations and contracting employees and the Acquisition Center for Excellence support staff during this enormously important task has been absolutely fantastic."

### What's Next?

In Phase Two of the Qualification Based Selection process, pricing information for the most highly qualified proposals will be required.

"Contracts will be awarded to all of the most highly qualified offerors with whom NIMA can negotiate fair and reasonable prices," said Howard Pierce (PC), a Core Team member. "Task orders to satisfy production requirements could start going out as early as January."

Schmitt praised the cooperation among the offices involved in the Omnibus as well as the Core Team members.

"A lot of people worked very hard to keep the Omnibus on track," he said. "And the concept of the Omnibus solicitation is a totally new process that required creative, out-of-the-box thinking by all team members."

More information about the Omnibus is available on NIMA's World Wide Web site at [www.nima.mil/](http://www.nima.mil/).

# IA Training Standards Approved

by Paul Hurlburt

Uniform training standards for intermediate-level imagery analysts throughout the Intelligence Community and Department of Defense have been approved by an inter-agency council led by NIMA.

The Community Imagery Training Council (CITC) approved the new standards May 12 after 18 months of work and negotiation. These standards will add to the basic-level standards issued by NIMA's Director last year in his role as functional manager of IA training. CITC is now working to identify and establish advanced IA training standards.

The standards are designed to improve training and job skills. Their establishment follows years of study and a historic survey of IAs that identified the basis for uniform standards.

Both the basic and intermediate IA training standards have been posted to the National Imagery and Mapping College (NIMC) home page. The college is NIMA's agent for promoting training standards.

Chaired by Raymond Filbey, chief of the NIMC Management and Policy Branch, the CITC is made up of imagery professionals from throughout the Intelligence Community, including representatives of the military commands and services. Members include IA trainers, system developers and users of imagery.

"The new standards are not just NIMA standards, they are corporately derived community standards," said Mike Broker, senior training officer in NIMC's Management and Policy Branch. NIMA was charged with managing IA training in the directives that created the new agency. The role includes developing training programs in imagery analysis, cartography and geospatial analysis.

According to Broker, development of the new training standards grew out of interoperability problems that were identified among IAs who worked together during Operation Desert Storm. Efforts to correct these

problems began under the former Central Imagery Office, a NIMA predecessor organization.

The survey of more than 1,000 analysts showed that IAs work in a strikingly similar way, despite differences in mission and location. It doesn't matter whether their work is performed aboard an aircraft carrier, at the Pentagon, or by a national intelligence agency. About 275 questions were asked during the survey, which was conducted face-to-face at work sites worldwide.

Because the entire IA community was involved in developing the new standards, they have been well-received outside NIMA, Broker said.

The new standards provide "metrics" to enable trainers to evaluate existing training and design programs to meet customer requirements.

"We're already seeing results [from establishment of the basic standards] that tell us that these standards won't be filed away to collect dust," Broker said.

Among the first changes, the services and NIMA's Imagery Analysis Office have begun to change their career paths, making their training more rigorous and fostering the concept of a single Imagery and Geospatial Community.

Besides improving interoperability, the new standards take into account the development of IA systems such as IDEX and emerging commercial versions of the electronic light table.

Trainers will be able to use the standards to identify and anticipate their training needs.

"The standards will give trainers powerful leverage to compete for training resources," Broker predicted.

Although the intermediate-level standards were approved unanimously, they were more difficult to derive than the basic standards, due to the greater diversification and specialization of IAs as they reach the higher status, Broker added.



*Cmdr. Gordon Russell of the Naval Reserve Intelligence Command, Fort Worth, Tex., listens to a presentation during a meeting of the Community Imagery Training Council at Fort Belvoir, Va., last fall.*

The NIMA Future Skills Inventory, conducted last year in conjunction with WORKFORCE 21 Occupational Councils, will be used to refine the IA training standards to ensure they continue to "reflect reality," in Broker's words. Unlike the IA survey, which went to working-level analysts and their supervisors, the Future Skills Inventory was completed by senior managers in NIMA.

IAs are not the only ones who will benefit from the development of training standards. Recently, a Community Geospatial Information Training Council (CGITC) began work in developing training standards for cartographers, geodesists and physical scientists. The council is chaired by NIMC Technical Director Gary Hacker.

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“The new standards are not just NIMA standards, they are corporately derived community standards”

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*Marine Corps Capt. Tony Dominguez and Air Force Lt. Col. Anneke Abma listen to deliberations of the Community Imagery Training Council, which unanimously adopted new intermediate-level training standards for imagery analysts throughout the Intelligence Community and Department of Defense. Behind them are MSgt. Ted Isaacson and Mike Broker.*



*Army Lt. Col. Drusilla Grubb of the Joint Intelligence Training Center, San Diego, and Ron Marshall of the U.S. Central Command take part in a meeting of the Community Imagery Training Council.*

photos by Andre Pillar



# Customer Help Desk— That Personal Touch

photos by Don Kusturin

by Don Kusturin

**H**ave you ever called a customer or technical support number only to be greeted with an endless succession of recorded messages and automated options? If so, the NIMA Customer Support Help Desk will be a pleasant surprise.

Even after normal business hours, NIMA representatives are there, ready and willing to help. The personal contact they provide is something they're proud of, not only because of the services they render, but how appreciative customers are each time a problem is solved.

"The customer's enthusiasm on hearing an actual person on the phone and not a machine is overwhelming," said the Help Desk's Diane Bowes. "It's gratifying to answer their questions or put them in touch with the proper point of contact and know that that their needs have been satisfied."

Bowes is a good example of the customer service that led to how the desk was formed and evolved. Under the supervision of Randy Pratt, the Help Desk staff of four is able to offer comprehensive assistance throughout the Agency.

"When hired," Pratt said, "they usually had only localized knowledge pertaining to a small part of the Agency. Initially this presented some challenges, because the people on the desk need to be experts on the Agency as a whole."

Bowes came from the administrative field. "Prior to coming to the Customer Help Desk, I dealt with information limited to my specific area," she said. "Now I deal with information that pertains to all of

*ABOVE—NIMA provides worldwide customer assistance with Randy Pratt and the Customer Help Desk.*

*BELOW—Diane Bowes receives a request from a customer.*





Linda Holcomb pulls a "One Book" to locate an internal point of contact.



Melvin Emerson checks his computer for information.



Debbie Tolcou looks up coverage in a NIMA catalog.

NIMA." This includes a knowledge of topographic, hydrographic, aeronautical and digital products; all NIMA publications; and grids and datums.

"I've also become familiar with NIMA catalogs and how to find where coverage is available," she said.

Even so, just being knowledgeable about NIMA is not enough. Help Desk workers frequently help people in acquiring products from other agencies, such as the United States

Geological Service and even the Library of Congress.

Calls also come in asking for computer assistance.

"Folks try to download our software off of the Internet and run into problems," Pratt explained. "They then call the Help Desk. We'll get online at the same screen they're on and walk them right through it."

In the case of NIMAMUSE, a utility application, there seemed to be a theme of recurring problems. Because they were getting so many calls on the program, Pratt arranged for training with the Enhanced Product Prototyping Environment lab. They were taught how to operate the program, how to download it and how to fix certain problems.

Pratt also arranged for a series of classes by the NIMA College to teach Help Desk members more about various aspects of NIMA's work. This allowed NIMA representatives to provide better support to the Agency's customers by understanding the products or services they are looking for, Pratt said.

Help Desk workers don't just receive calls from NIMA "customers" either—at least not in the classic sense of the word. Sometimes outsiders call in wanting general geographic information, such as, "How high is the St. Louis Arch?" and "What is the latitude and longitude of Washington, D.C.?"

"Many times we can answer such questions," Pratt said. "We try to give as much tier one support as possible."

He explained how he breaks down the support provided by the Help Desk into tiers:

Tier one is answering all of the customers questions during the initial call; tier two is getting an internal point of contact and having that person answer the customer's question or refer the customer to an outside agency.

Of the approximately 600 calls per month that the Help Desk receives, 80 to 90 percent are tier one calls, he said. And the higher that number stays, the more satisfied NIMA's customers are with their experience with the Help Desk.

The help desk can be reached by calling 1-800-455-0899.

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“people on  
the desk  
need to be  
experts on  
the  
Agency”

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# Union President Says WORKFORCE21 Will Benefit NIMA Employees



Merry

**“I think it will mean more opportunities and more training.”**

by John Iler

As WORKFORCE21 prepares to take center stage as NIMA's premier personnel system, some employees remain skeptical. But to Marilyn Merry, a Bethesda cartographer and president of Local 3407, American Federation of Government Employees, WORKFORCE21 is a great deal.

“I really think it's going to be better,” she said. “I think it will mean more opportunities and more training.”

At the time of the interview, union representatives were preparing to go over a 200-page synopsis of WORKFORCE21. They had two weeks to inspect it before negotiations began. WORKFORCE21 will emerge—not suddenly, but carefully and in stages over the rest of the year.

Merry has 32 years of federal service, 24 at NIMA and the Defense Mapping Agency. When the union, which has locals at Bethesda and St. Louis, was informed by management that a new Human Resource system would be designed, a list of design teams was proffered for union participation.

Merry joined the Promotions and Assignments Team in July 1997. Using the foundation material provided, the team began building on it by brainstorming sessions and consulting with other government agencies.

“The thing I liked most about the approach was the involvement of a vast cross section of NIMA employees,” she said. “I think even our

presence as members of the union had an impact.”

As negotiations begin, union representatives will go over aspects of the new system, tweaking it and working out any kinks that may remain. “I still have a few concerns because we don't have a finished product yet,” Merry said. “We also must address the fears of employees about change.” The best way to do that, she added, is to have “excellent communications and education,” including briefings and training.

Because she wants WORKFORCE21 to pursue a “progressive stance,” Merry hopes union involvement will continue as the personnel system is implemented.

“If it's done in stages, then negotiations should continue,” she said. “That will give us the chance to assess the various aspects of the system and why it's working or not working. We're not expecting anything to *not* work, but we believe in taking precautions. I truly believe that WORKFORCE21 is going to be much better for NIMA employees, and part of the reason for that will be the involvement of employees, management and the union.”

*Application of WORKFORCE21 processes to bargaining unit employees is subject to fulfillment of the Agency's labor-relations obligations. Bargaining unit employees may refer questions or comments on WORKFORCE21 directly to union officials.*

# NIMA – CIA Commemorate Quality Service of CIA Communications



*Pictured are some of the people who were honored at the NIMA—CIA awards ceremony*

NIMA and CIA officials met last month to officially applaud the almost four decades of support that the CIA Office of Communications provided to the National Photographic Interpretation Center, a NIMA predecessor organization.

Presiding at the Aug. 18 ceremony, held at CIA Headquarters, Langley, Va., were NIMA Deputy Director Leo Hazlewood; Suzanne Roberts, director of CIA Communications; Michael Bryan, deputy chief, Americas Communications Activity (AMAC); and Carlton Diedrich, Agency Technology Services/CIA. The ceremony recognized the "dedicated mission critical support" the CIA Office of Communications has provided to NIMA (NPIC) and its customers, ending with the implementation of the NIMA operations vision.

The NIMA Operations Vision (previously known as the NPIC Operation Vision) was developed and implemented to merge communication operations and computer and communications operations into a consolidated operational team. In 1992, the vision of a "Lights Out" operation encompassing an integrated computer and communications operations center was viewed by many as a high risk, but necessary, program for achieving what are now NIMA's objectives of service and efficiency.

Two permanent plaques honoring the communications branch and those who served with it from 1960-1998 were presented to Hazlewood for NIMA, and Roberts for OC. In addition, service certificates were presented to all current and former branch personnel in attendance.

As a final note from the outgoing chief of NIMA WNY Communications Branch, "it has been my honor and pleasure to serve not only the Office of Communications and this branch, but also NIMA in our combined efforts to achieve what we are celebrating today. None of this would have been possible were it not for the caliber and dedication of the people on both the Commo team and the NIMA combined OPS team. Through their hard work and achievements, NIMA and the Office of Communications have garnered countless kudos and the admiration and appreciation of a grateful NIMA management."

The team implementing the NIMA Operations Vision has been recognized by the Director of Central Intelligence with the DCI Quality Improvement Award, and by Vice President Al Gore, who on April 1996 presented the team with a Hammer Award. These awards are displayed in the NIMA, Washington Navy Yard, facility.

## NIMA Teams Receive Intelligence Community Awards

*by Tammi Kiser-Sparks*

The Director of Central Intelligence recognized three NIMA teams with the National Intelligence Meritorious Unit Citation at a quarterly Intelligence Community Awards ceremony held Aug. 28.

The awards were given for distinguished meritorious service to the U. S. Intelligence Community mission.

NIMA's 293-member implementation and transition teams received the award for their collective efforts making possible the standup of NIMA within nine months. The teams were cited for providing the legal and organizational framework and concept of operation that not only enabled NIMA to start up without degradation of support to customers, but also to make significant contributions within its first year of operations.

The Commercial Satellite Imagery Library Team, an interagency group from the Defense Intelligence Agency (DIA) and NIMA, received the award for developing, implementing and operating a web-based system that, for the first time, allowed users to obtain commercial satellite imagery and services from a single source. These efforts resulted in an estimated saving to the government of more than \$15 million.

NIMA and DIA members of the SWORD FURY Special Access Program were cited for their special support to the most senior U.S. intelligence consumers including the President, Secretary of State, Secretary of Defense, Director of Central Intelligence, Congress, and the Chairman of the Joint Chiefs of Staff on critical issues.

Names of awardees will be published in the NIMA Connector and the Digital Daily Edge at Uniform Resource Locator <<http://osis.nima.mil/intranet/today/today.html>>.

# DIMES:

## Getting Their Money's Worth

by Air Force Capt. Michael Master  
Customer Support Office

As events in the Persian Gulf began to heat up in November 1997, NIMA's Customer Support Response Team (CSRT) was asked to provide critical imagery and geospatial support to increasing Department of Defense (DoD) operations. Given just a few hours notice, CSRT personnel deployed to the region amid the mounting U.S. military presence.

Their mission was to provide imagery support to the F-117 Nighthawks of the 49<sup>th</sup> Fighter Wing (FW) using the Air Force's Air Combat Command Deployable Imagery Manipulation and Enhancement System (DIMES). DIMES is a deployable imagery "library" which can be used to create national imagery and geospatial products to provide combat planning imagery for the deployed F-117s.

As United States and allied forces in the region continued preparations, additional NIMA support was requested by the U.S. Army, Central Command (ARCENT) and the Special Operations Command, Central Command (SOCCENT). In response, two of NIMA's three Quick Reaction Systems (QRS) were deployed into Kuwait. The QRS gives deployed military forces the capability to create specialized operations support products by merging national systems imagery and geospatial information products in much the same way as the F-117s use DIMES.

The mission of NIMA's CSRT is to provide end-to-end national imagery expertise to DoD and federal users such as the Federal Emergency Management Agency and Bureau of Land Management. The team, part of NIMA's Customer Support Office, specializes in the application of national imagery products to support the planning and execution of military operations as well as environmental applications.

The day-to-day activities of the CSRT consist of on-site training and support, providing users with specialized sensor training, over-the-shoulder exploitation assistance, and collection management/dissemination assistance. The team is frequently requested to participate in exercises as well as real-world contingency operations. Staffed with experienced imagery professionals, the CSRT becomes an integral part of the host unit's mission by augmenting its imagery staff to facilitate collection, dissemination, and exploitation activities and to provide a critical link back to NIMA.

One of the team's primary tools is the QRS. Comprised of commercial off-the-shelf hardware and both commercial and government exploitation utilities, including the Multi-Image Exploitation Tool (MET) and Multi-Source Automatic Target Recognition with Interactive Exploitation (MATRIX) applications, the QRS allows production of custom imagery/geographic information systems products. These imagery-based products include annotated imagery prints, imagery mosaics, 3-D perspective views, image/map blends, contour overlays, and other mission support products.

The QRS deploys with a data archive that includes national imagery of the supported unit's area of responsibility and NIMA geospatial products such as Digital Terrain Elevation Data (DTED), ARC Digitized Raster Graphics (ADRG), or Controlled Image Base (CIB). Once deployed, the system can operate in the "stand-alone" mode by using imagery stored in the internal archive, or it can interface directly through available DoD communications and other deployed imagery support systems to receive imagery updates and distributed products.

First deployed in support of the U.S. European Command and Task Force Eagle in Tuzla, Bosnia-Herzegovina, the QRS has been recognized as a tool that enables the commander to receive image products tailored to specific mission requirements on-site, within the short timelines dictated by the operational environment. By the end of 1997, the Tuzla QRS had become an integral part of their imagery support architecture, filling over 60 percent of Task Force Eagle's requests for imagery products. The QRS has "played a crucial role in supplying custom imagery products to Operation JOINT ENDEAVOR/JOINT GUARD" according to Army Lt Col. Jeffrey Rapp, 1st Infantry Division (Forward) G2.

Growing from the success of the CSRT in providing national imagery support to U.S. forces in Tuzla, the CSRT was asked to support the development of a deployable system to meet the mission planning needs of the 49<sup>th</sup> FW F-117 Nighthawks at Holloman Air Force Base, N.M., and the 480<sup>th</sup> Intelligence Group (480<sup>th</sup> IG) at Langley Air Force Base, Va. From this effort came the Deployable Imagery Manipulation and Enhancement System. This system, including a one terrabyte imagery archive over key areas of responsibility, gives the 480<sup>th</sup> IG and the 49<sup>th</sup> FW the tools needed to produce targeting data to support F-117 mission planning needs.

When the 49<sup>th</sup> FW deploys, DIMES equipment at the 480<sup>th</sup> IG and at the deployed location is linked via DoD communications. The 480<sup>th</sup> produces target folders and sends annotation overlays to the deployed unit. Targeteers at the 49<sup>th</sup> FW apply these overlays to imagery on the unit's identical archive of national imagery, DTED®, ADRG®, and CIB®. Once this is done, targeteers work with the pilots to tailor imagery-based planning



Several F-117 Nighthawks belonging to the 8th Fighter Squadron, 49th Fighter Wing, Holloman Air Force Base, New Mexico, are being prepared for a mission on March 15, 1998. The 8th FS is deployed to Al Jaber Air Base, Kuwait, in support of the SWA buildup.

photo courtesy U.S. Air Force

products to meet their mission requirements.

During initial DIMES testing at the 49<sup>th</sup> FW, the unit was required to deploy to the Persian Gulf in support of Operation DESERT THUNDER. With only a few hours notice, NIMA CSRT personnel deployed with members of the 49<sup>th</sup> FW to support the first operational use of the DIMES. Within two hours of receiving power at the deployed location, DIMES was producing imagery products for mission commanders. Connectivity was established with the 480<sup>th</sup> IG through the Secret Internet Protocol Router Network (SIPRNet), and analysts at the 480<sup>th</sup> IG, deployed CSRT personnel, and 49<sup>th</sup> FW targeteers began preparation of mission-planning materials for high priority targets in the region. By the end of February, DIMES operators had produced over 500 target folders.

Commanders have deemed DIMES a success by naming the system their primary means of target package production. Lt. Gen. Thomas Keck, Air Combat Command's vice commander, stated "from the start, NIMA support has been absolutely outstanding.... The mission planners and intelligence personnel that worked with DIMES in the field rated the imagery products provided by the system as outstanding."

While DIMES was supporting the Air Force, ground commanders in ARCENT requested support from NIMA's QRS. Landing in Kuwait on Feb. 6, NIMA QRS and CSRT personnel began providing support to Marine, Air Force, and Army components. Using national imagery and GI products, the CSRT began production to forecast potential choke points and convoy routes for Non-Combatant Evacuation Operations (NEOs), to gain target area familiarization and terrain typing for potential offensive and defensive operations, and provided NIMA standard geospatial products to the local Army terrain analysis team. To support the rapidly increasing workload, a second QRS was deployed to support USSOCCENT in a forward location in Kuwait.

The NIMA QRS was an equal success with DIMES. U.S. Army Lt. Gen. Tommy R. Franks, Commander, Coalition Joint Task Force-Kuwait, cited the NIMA support there as a major benefit to him for operations planning. Franks termed the support "forward thinking and responsive" and asked for the CSRT back for "the next time."

While supporting deployed operations in the Gulf, the CSRT provided crisis support in the States as well by working closely with USCENCOM personnel, the NIMA Operations Center-Pentagon (NOC-P),

NIMA Operations Center-Imagery (NOC-I), and DIA photo labs. At USCENCOM, the CSRT supplied collection management augmentation during a peak period early in the conflict. At NOC-P, the CSRT provided the equipment and technical support necessary for the production of Imagery Derived Products (IDP)—unclassified national imagery products. NOC-P and CSRT personnel in the Pentagon now have the capability to produce IDPs to support analysis and decision makers during crises.

The accomplishments of NIMA's CSRT during Operation DESERT THUNDER graphically illustrate the mission of the team—to provide end-to-end imagery expertise to DoD and federal users. Through its specialized training and contingency support capabilities, the CSRT promotes the effective application of current and emerging imagery and GI capabilities to the military intelligence and operational environments.

\* DTED is a registered trademark of the National Imagery and Mapping Agency.

\* CIB is a registered trademark of the National Imagery and Mapping Agency.

# CFC Seeks Donations



Carla Lunsford

by Muridith Winder and Wells Huff

**T**he annual Combined Federal Campaign kicks off for NIMA in October with different themes for the Washington and St. Louis areas.

"It All Comes Back To You" is the theme for the National Capital Region campaign. NIMA's Washington drive runs from Oct. 1 to Dec. 4. The East-West Gateway theme, which covers the St. Louis area, is "Together We Make A Difference." The St. Louis campaign runs from Oct. 5 through Nov. 15.

Secretary of Transportation Rodney E. Slater, the government-wide CFC chairman, set this year's goal at \$39 million. However, NIMA officials would like to see 100 percent of the workforce contacted.

Do donations to the CFC really help? Just ask Carla Lunsford of Geospatial Information and Services or Ben Cumbo of the Office of Imagery Analysis.

Ten years ago Lunsford, who was a temporary worker at the Defense Mapping Agency, learned that her brother Derek would need a kidney transplant.

"I couldn't imagine life without my youngest brother. We had been through a lot together as a family," she said.

After undergoing tests to confirm her match as a donor and to diagnose her post-donation prospects, she underwent surgery. That was the easy part, she said. The prospect of a six-week recuperation with no income or benefits was more daunting.

Fortunately, a CFC agency was there to help. A nurse at the hospital contacted the National Kidney Foundation. The foundation sent her a check to help with recuperation and going back to work.

"I can't thank them enough," she said. She feels fortunate to have rejoined the federal workforce, and adds that she's been a regular contributor to the Kidney Foundation since then.

And, her brother?

"If my brother walked through that door right now, you would have no indication that he is the recipient of a transplant," Lunsford said. "He's just as healthy as you and I."

Ben Cumbo and his family had a different experience. When their son Benjamin was nearly 4 years old, they learned he had Muscular Dystrophy, a progressive disease. Doctors said that without a cure, young Benjamin wouldn't last much beyond his mid-20s.

"When we heard the diagnosis, we were devastated," Cumbo recalls. "It had a tremendous impact on our lives and dreams."

But shortly after that, there was a knock at their door, and there were representatives from the Muscular Dystrophy Association.

"They showed up without our asking," Cumbo said. "They knew what we needed to have explained to us. They knew we were going to experience certain anxieties in our lives."

# IN MEMORIAM



*Ben Cumbo*

And they knew about the support groups.

"We weren't alone in this. There were families just like ours who were there to support us," he said.

How have they fared? Thanks to the bonding of the family, their faith and the support of the association, not as badly as many might think.

Benjamin celebrated his 11th birthday in July. For three years he was the National Good Will Ambassador for the Muscular Dystrophy Association and has appeared on the Jerry Lewis Telethon for the last three years.

"What we have today is a young man who's just like any 11 year old," Cumbo said. "He has the dreams and aspirations of a future life. He wants to go to the Naval Academy. I think that's going to happen. We will have a cure for this disease."



**Harold Madison**, 56, the first director of NIMA's Mission Support Office (MS), died of colon cancer Sept. 12, at his home in Rehobeth Beach, Del.

Madison served 36 years with NIMA and its legacy agency the Defense Mapping Agency before retiring in 1997. A member of the Senior Executive Service, he received the Department of Defense Distinguished Civilian Service Award in 1990. Following numerous career accomplishments in advancing DMA production efforts, he led the planning for the establishment of the NIMA Mission Support Office, and became the first Director of MS at the standup of NIMA.

The Alexandria, Va. native was a cartography graduate of George Washington University. He also studied at the Federal Executive Institute and attended the National Security Program at Harvard University's Kennedy School of Government. He was a member of the National Society of Photogrammetry and the Association of Mapping Seniors.



*Madison*

According to Gerald H. Dunbar, director of MS, Madison "will be remembered for his enthusiasm about work and life. Those of us who had the opportunity to work with Harold will be influenced forever by his positive outlook, and his drive to do what is right for people and the Agency."

His wife, Patricia Bayliss Madison, a son David, a daughter Donna, and other relatives survive him.



*Vasquez*

**Desi Vasquez**, a cartographer in the Contract Support Division (GICB), died Aug. 17 after a brief illness. He had more than 44 years of government service, all of which were with NIMA and the Defense Mapping Agency, a predecessor organization. He is survived by three sisters, Mary Brown, Hilda Ceron and Rita Cantu, and one brother, Oscar Vasquez.

**Pat Greytak**, a computer specialist with the NIMA St. Louis Operations Team, recently passed away after a long illness. She had 30 years of federal service. She is survived by two daughters, Alisa Greytak and Stephanie Knirsch.

# Who Dares to be Called Ironman?

Only the fittest of athletes have what it takes to earn the coveted title. But a St. Louis employee is seeking to earn it for the fourth time.

by Don Kusturin

**T**wenty years ago, a group of men engaged in an enthusiastic discussion about who the fittest athletes were. It soon escalated into a challenge. They agreed to sponsor a test comprised of an open water swim in the Pacific, a grueling bicycle race, topped off with a Honolulu marathon.

The one who covered the distance—a little more than 140 miles—would earn the moniker “Ironman.”

Fifteen men turned out for the first Ironman triathlon on a February morning in 1978. Twelve of them made it to the finish line.

A 13-year-old New Yorker had no idea that such an event was even taking place, but when he learned of it, it would change his life.

“I began hearing about the Ironman when I was in high school,” said Louis Di Guiseppe, a space planner at NIMA St. Louis. “Then, in 1983, a friend participated in the triathlon and came back and told me about it. That’s when I said, ‘I’ve got to do that race.’”

Throughout high school, Di Guiseppe was on the varsity swim team and ran cross-country races, but never considered himself outstanding in either event. Nor had he ever ridden a bicycle competitively. However, he was convinced he needed to prove to himself he could compete in a triathlon.

“I did a mini-triathlon during my senior year. And I realized that when I combined the sports I was able to excel.”

Since then, he has completed the Ironman Triathlon World Championships three times. The 34-year-old, now living in St. Louis, will soon travel to Hawaii to make it four. But unlike those early days, he will be not one of 15, but one of 1,500. Since the first race, the event has grown each year. And each year the competition is tougher. Now, said Di Guiseppe, an athlete has to earn a position in the world championship race.

“There are 20 domestic qualifying races and seven or eight international races,” he noted. “To qualify you have to place first or second in your age group.”

Di Guiseppe’s age group, 30-34, is the most competitive. During his qualifying race at the Keauhou-Kona Triathlon in Hawaii, the group had 64 competitors. Di Guiseppe came in second, covering 70.3 miles in 4 hours, 21 minutes, 34 seconds. These results can be monitored on a link from the Ironman’s official website <<http://www.ironmantri.com>>. His time is recorded at <<http://home1.gte.net/aesoft/results/keauhou/98/i-div-m.html>>.

Di Guiseppe

Di Guiseppe first qualified for the Ironman in 1988, again in 1990 and again in 1994. He feels this year could be his best yet.

“I see in myself that my endurance capabilities are getting better,” he said.

He also says St. Louis is a great place to train because of the climate.

“The advantage that we have here is that the heat and humidity in the summer are similar to that in Hawaii. They’re very high,” he said.

Heat, humidity and 1,499 people, however, are not his only competitors, though. He also must battle himself.

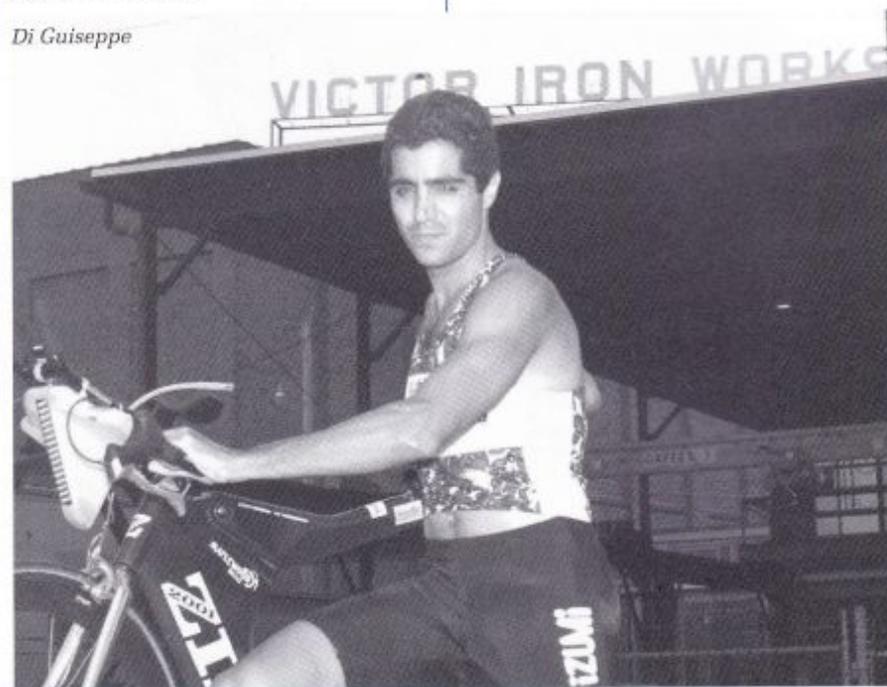
“The conditions are just ghastly,” he said. “You’re on this bleak, lava landscape, so it’s mentally fatiguing.”

In fact, the scenery has been described as something out of *Dante’s Inferno*. There are also the winds of *mumuku*—a legendary name given for the wind gusts that reach up to 60 mph.

In all, the racers complete a 2.4-mile ocean swim, a 112-mile bike race and a 26.2-mile run.

“It all adds to the challenge of the race,” said Di Guiseppe.

This year’s Ironman World Championship will be held Oct. 3.



by Don Kusturin

# After Hours Swimming With Sharks and Avoiding 'Jaws'

by John Iler

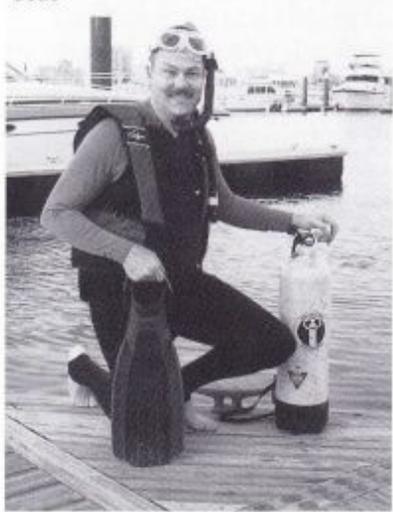
Chris Gede was a young student at the Florida School of Technology when he first saw the blockbuster "Jaws." The image of a rampaging Great White shark striking beach resorts at will was enough to keep many people out of the water. But not Gede.

Gede was studying oceanography at the time and part of his curriculum including scuba diving. But, like most Americans, it didn't keep him from thinking about sharks while in the water. Or out of it for that matter.

"I dived for more than 20 years without seeing one," he says now. "So I decided if they weren't where I was, then I'd go looking for them."

Deputy program manager of NIMA's Hydrographic Source Assessment System (HYSAS), Gede is still in love with the ocean and diving. Today he laughs at "Jaws," and though he considers it great entertainment, it's "just Hollywood."

Gede



But when he went on a dive in 1993 in the Bahamas just to see sharks first-hand, it didn't stop the butterflies in the stomach or the heart palpitations. "I was nervous," he recalled. "Everyone was. We could tell later when we watched the video. Divers are trained to breathe slowly and evenly to conserve air. But you could just see the streams of bubbles rising above us!"

Gede first saw the ad for the shark dive in *Skin Diver* magazine. It wasn't a spontaneous thing, he said. "I was looking for it." Within a few short months, he was gearing up on dock, preparing to join some real-life sharks for lunch, without becoming part of it.

"I was with 10 other guys, none of whom had their wives with them," he recalled. Even though many of their wives also were avid divers, when it came to sharks, it was no dice.

"Some of their comments were to the effect that they had no desire to die early and quite a few joked about how they would spend the money they collected on insurance!"

Moments later, they hit the water, and though Gede kept a watchful eye on the way down, there was nothing to indicate sharks were near. Once situated on the ocean floor, the divers folded their arms over their chests, remained motionless and waited for what seemed to them forever.

"It must have been a good five minutes, but because of the situation it seemed much longer," he said. Then the fish server jumped into the water, drawing a cage of freshly butchered fish about 20 feet behind him by rope. "The sharks," Gede recounted, "showed up immediately."

In fact, he added, they were everywhere, whipping around the

divers as though they were nothing more than natural formations on the ocean bottom. And to the sharks, that's exactly what the divers were. "We were told beforehand everything that would happen and warned to remain motionless. And above all, we were told to not attempt any physical contact with the sharks at all," Gede said. "That's because sharks interpret any kind of physical contact as an attack."

Even so, one diver, caught up in the excitement of it all, impulsively reached out and touched a passing shark. Almost immediately one of the guides grabbed the diver and physically hauled him to the surface.

"The guide was right to do it, because what that guy did could have provoked an attack on the rest of us. If the shark had turned suddenly and attacked him, that, in turn, could have resulted in what's known as a feeding frenzy. In that state, sharks will attack anything, including each other. Sharks aren't circus performers — they're more like wild animals."

Even so, Gede believes people would learn more about sharks by reading educational books and watching documentaries, rather than novels and movies by scaremongers. "What you see in movies is mostly myth," he said. "Most shark attacks on humans result when people are in the wrong place at the wrong time and do the wrong thing. Either they're spear fishing or have dead fish around, or they're splashing around on the surface"—something Gede said sounds like a seal to a shark. The best thing scuba divers can do when encountering a shark is to not move and sink to the bottom. For swimmers—out of the water. "Swim," he said. "Don't splash. Get out quickly and quietly."

Gede will continue diving and even plans to go on another shark dive in the near future. "I'm going to do it because I don't think there's anything that's gotten me as excited in my whole life as that shark dive," he said. "Some people ski down steep, fast hills, jump from airplanes or drag race. I think it's a way of facing your own mortality."

*Gede is presently attending the Naval War College, where for the next year he'll be studying Strategic Planning and Policy.*

# Status of Congressional Marks on NIMA's Fiscal 1999 Budget

By Cathy Bayliss  
Congressional Liaison Division

The Appropriations, Defense, and Intelligence Committees of the House and Senate began their conferences this month on the fiscal 1999 Department of Defense, Intelligence, and Appropriations Bills.

NIMA's outlook is better than in fiscal 1998, at least in terms of direct marks against our programs. (NIMA will also receive a share of across-the-board Congressional reductions.) As we approach conference, NIMA's senior leaders and congressional liaison staff are actively briefing committee staffs on issues of major concern to the Agency and its workforce. We are working with Congress to ensure an improved financial management system and a budget structure that provides the desired level of detail. NIMA's Director and Deputy Director have been actively engaged in the development of the Future Imagery Architecture, as a joint initiative with NIMA's collection partners.

Last year's congressional actions caused serious cutbacks in customer support and slippage in fielding elements of the U.S. Imagery and Geospatial Information System (USIGS) architecture. Although the net total direct reductions against NIMA appear modest for fiscal 1999 in comparison with last year's cuts, the House and Senate intelligence committees' recommendations would continue to affect some of NIMA's programs that received congressional hits the previous year. Areas of top concern for fiscal 1999 are NIMA's operations and maintenance accounts, and research, development, test, and evaluation (RDT&E) programs. If sustained, it's anticipated that congressional budget recommendations would affect NIMA business functions in the following areas:

- Reducing facilities operations, preventive maintenance, and renovations below minimal operating levels and potentially causing permanent structural damage at the Agency's production facilities.
- Cutting funds for Requirements Management Systems (RMS) software maintenance and operations, dramatically reducing the expected level of support to both internal and external RMS users.
- Hindering development programs providing modernized production capabilities and improved customer access to imagery and geospatial data.
- Reducing investment in NIMA libraries, digital architecture, and gateway services, software workstations and exploitation tools.

The House version of the Defense Appropriations Bill includes language that restricts NIMA contracting with the private sector for mapping, charting, and geodesy services to Quality Based Selection methods. NIMA requested revisions to the bill's language to provide for an implemen-

tation period and permit NIMA to continue to provide timely support to national and military customers in the following areas requiring "quick reaction" support: military operationally sensitive production (operations and force planning), marine safety of navigation support required by statute, safety of flight, and noncombatant evacuation support.

Fiscal 1999 budget reductions to NIMA core business functions will have significant implications for related programs maintained and operated by NIMA's mission partners. The Directors of NIMA and the National Reconnaissance Office have forwarded a joint letter of appeal to the conference committees outlining the negative impacts proposed budgetary actions could have upon national overhead assets. Continuing budgetary constraints could hinder the capacity, flexibility, and analytical resources necessary to accommodate a rapidly changing overseas threat environment and growing customer demands.

On the balance, the House is seeking to increase NIMA's O&M funding for commercial imagery, RMS training, and Modular Automated Target Recognition for Interactive Exploitation. Funding increases are also proposed for NIMA information production associated with production cells and product outsourcing. The House is offering to further increase RDT&E funding for the National Technology Alliance demonstrations of alternatives to the Defense Dissemination System and Enhanced Processing System with the Navy. The Senate is considering additional funding for commercial imagery in support of the Airfield Information Program and for acceleration of NIMA's Integrated Exploitation Capability Initiative.

As we await the outcome of conferencing, NIMA will endeavor to maintain our standing mission and goal. With the resources available to the Agency, we will strive to provide and maintain quality production and intelligence support to national policymakers and warfighters alike. We are committed to addressing issues critical to our national interests. Our linkage of imagery and geospatial data continues to form the foundation for giving our customers an edge in their missions, be they national or tactical, diplomatic or military, traditional national security or new disaster response efforts.

# NIMA:

## Will It Be Prepared for the Year 2000?

by John Iler

When Jan. 1, 2000 arrives, NIMA will be ready!

According to Tom Earley, special assistant for Y2K, "There's a tremendous amount of work that must be completed," he conceded, "especially when one considers the number of systems and databases NIMA owns." But, he said, the Agency is committed to fixing the Y2K problem—from the director to the lowest tier of management. This commitment, Earley said, is reflected by the hard work and aggressive attitudes displayed by the people in all the organizations working the issue.

"Having the Secretary of Defense declare the Y2K issue a 'crisis' certainly helps us keep focused" he said, "and having NIMA's Director not only declare it one of our top priority issues, but create a special assistant to oversee it, certainly sends the message to the workforce that NIMA cares about this issue."

But how does NIMA fare when compared with other members of the Department of Defense and the Intelligence Community?

"Just about average when you look at our workload associated with the Y2K problem. We have just slightly over 200 systems that we're tracking for Y2K compliance, and just over 50 of them have been identified as critical to NIMA's mission." The Intelligence Community, Earley said, has identified about 31 percent of its 2,278 systems as critical. "However," he added, "'critical' seems to have different meanings depending on whom you talk to."

Critical for the purpose of NIMA means the Agency could not produce geospatial products and information or intelligence information if these systems are down for any length of time. Obviously, there's still room for interpretation in that definition, but Earley's entire team and the POCs from each organization have whittled the number down over the last five

"Y2K affects our customers, operations, system development and corporate support activities."

weeks from a high of 138 to 51, putting us more in line with the rest of the intelligence community.

NIMA is behind the DoD mandated schedule for repairing many of its systems, but in general, we are on track with the rest of the intelligence community and the DoD schedule when it comes to installation of our fixes. All but 12 of our systems will be up and running in their Y2K configuration by Dec. 31, 1998. The other 58 systems will come on line gradually until all systems are operating with Y2K code by August 1999.

In various briefings and as a result of NIMA's written reports, the Office of the Assistant Secretary of Defense and the IC have expressed concern because some of our systems are scheduled to come on line with their Y2K fixes rather late in fiscal 1999. "We may not have the DoD optimum solution on all our charts," Earley conceded, "but we do have realistic schedules that reflect 'ground truth' without too much risk." This, he said, is better than success-oriented schedules that look good on paper, but are heaped with risk. "Overall," he said, "I'm convinced NIMA's program managers and PEOs can manage this

entire effort to a successful conclusion."

On another front, Earley expressed concern about the approach to end-to-end testing now being discussed throughout DoD. And though he's convinced the Agency must test its systems thoroughly and completely, NIMA already is committing more than \$35M to repair, replace and develop systems because of the Y2K problem. "We need to run tests several times," he said, "but excessive testing will only drive more expense into the program. The trick will be to find that fine line where the cost equals the benefit" in executing demos and operational evaluations. "Without question," he added, "we must prove to our national and DoD customers that we *can* do the job on Jan. 1, 2000—but we don't want to spend our entire budget proving it!"

In an upcoming *Edge* issue, Earley promised to provide a statistical look at the more than 200 NIMA systems. "We've started to chart our progress, and I think it will be good for all of NIMA to see how we're doing," he said. In the meantime, he's already plotting on how he can get everyone to come to work early Saturday morning, Jan. 1, 2000, to check their systems.

He's sure the Director will want a full report at the 8 a.m. meeting!



# Scene Visualization: **Not** Half the Fun Being There is

by Maj. Steve Hledik  
Australian Exchange Officer

Scene visualization is a means of digitally combining terrain and surface information to produce three dimensional views that approximate the real world. NIMA's Pathfinder program was recently tasked to assess scene visualization software and hardware aimed at exploiting geospatial information and imagery.

Prominent in the simulation and training environments, scene visualization has proven especially valuable to military aviation. It's also used for ground vehicles and naval vessels. NIMA supports such simulators, as well as certain mission planning systems, with production of unique databases.

"Most of these applications have operated in isolation on special purpose systems and require dedicated support," said Phyllis Corley, Pathfinder team lead. "The scene visualization environment of the near future aims to use open systems architectures, common data interchange routines and standard data formats to provide users in the training, planning and operational communities access to the same data irrespective of their computing environment."

The Pathfinder '99 assessment already has identified software and hardware which can be used in conjunction with existing NIMA systems to give imagery and spatial analysts another set of tools to use in improving the fulfillment of their mission.

## How It Works

Scene visualization tools are considered powerful implements for the exploitation of imagery and geospatial information. The rendered scene presents users with the visual properties of all component data sets at once.

With NIMA data, an image product could be combined with vector data and laid over digital terrain elevation data (DTED®). It would then produce a scene which could be manipulated to demonstrate different properties of terrain, potentially impacting operations on or above the surface. This scene building process, called rendering, can be generated at a simple level to permit an enhanced examination of the terrain itself. "The rendering can be taken to exceedingly comprehensive levels of detail using data of the highest resolutions," said Corley. "Features on the terrain are included as models with their own properties." Land, sea or air vehicles can thus "move" in relation to the terrain, she added, and the effects of weather, smoke or non-optical properties can be factored into the model.

For the Pathfinder '99 assessment, vendors were provided with a common set of geospatial information,

high-resolution imagery and specially prepared surface models. Commercially produced, it was used as a benchmark component database testing the software's and hardware's ability to generate a suitable scene visualization database and allow a rendered scene to be manipulated.

## Powerful Implements

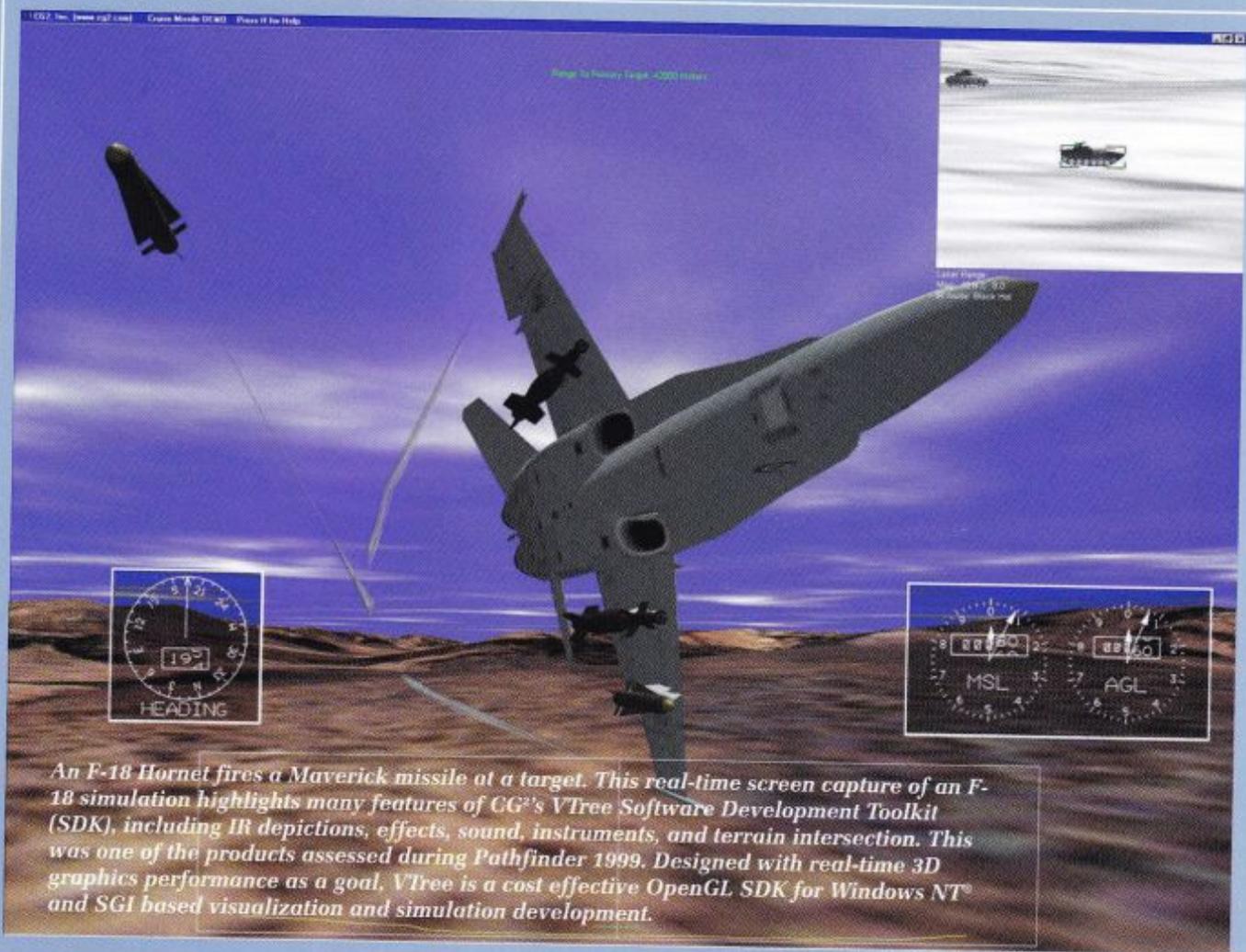
A subject matter expert panel spent one week in March at what is termed the requirements crosswalk, defining the scene visualization process. The subsequent functional crosswalk was conducted over a week in April.

Thirty-seven vendors demonstrated their candidate applications to the panel by way of a 20-minute slide presentation and question-and-answer session.

The panel assessed the products against the criteria determined during the requirements crosswalk. The products were expected to perform the specific functions of database production, scene generation, scene output and customer follow-up. Related tasks of obtaining and preparing information also were examined. Of the applications presented during the crosswalk, 25 were selected for evaluation at the more rigorous technical crosswalk.

Six subject matter experts spent three weeks visiting vendor sites in the Washington, D.C., area, and one week in Salt Lake City. Three experts concentrated on the actual performance of the applications while others evaluated the human-computer interface. "Vendors were given three hours to demonstrate their software or hardware in action, with the experts taking an opportunity to operate the systems themselves," said Corley. "All of the experts were required to complete detailed questionnaires and to engage in candid discussions with the vendors about the operation of the applications."

The Pathfinder '99 executive summary will be released at the Pathfinder wrap-up in October. It will be made available through the Interservice/Industry Training, Simulation and Education Conference in December, and the Spring Exploitation Technology Symposium.



An F-18 Hornet fires a Maverick missile at a target. This real-time screen capture of an F-18 simulation highlights many features of CG²'s VTree Software Development Toolkit (SDK), including IR depictions, effects, sound, instruments, and terrain intersection. This was one of the products assessed during Pathfinder 1999. Designed with real-time 3D graphics performance as a goal, VTree is a cost effective OpenGL SDK for Windows NT® and SGI based visualization and simulation development.

## What is Pathfinder?

The Pathfinder activity runs on a 12-month schedule and aims to rapidly evaluate appropriate commercial and government applications to insert chosen tools into the operational environment. The area of interest selected as the focus of the annual Pathfinder assessment is decided by identification of recognized advances in types of applications which can provide significant enhancement to the daily activities of NIMA and its customers.

The strength of Pathfinder lies in bringing to the table the considerable experience of subject matter experts from diverse organizations at critical points in the cycle to conduct reviews and to participate in critical assessments of equipment and applications presented by the candidate vendors.

This year's panel of 24 experts was drawn from within NIMA, other Department of Defense and federal activities, and a representative from the United Kingdom. All had experience in either the development or implementation of scene visualization applications.

The Pathfinder Office is located at NIMA Washington Navy Yard in the Technology Directorate, Technology Assessment Division (TAT). This year's effort was led by Phyllis Corley and supported by a contractor team headed by Rob Alcaparras, of Booz - Allen and Hamilton.

Vendors who present at a Pathfinder assessment were selected through their responses to an open request for information. As the process goes through its cycle and the intensity of the assessments increases, the number of applications assessed reduces and the panel of subject matter experts is correspondingly thinned to suit an ultimate at-the-machine examination.

The final product of the Pathfinder process is the publication of an executive summary that details the results of the assessment phases. The executive summary is designed to present potential customers with a starting point for their investigation into which applications are best suited to their individual needs and operating environment. (The executive summaries are a sought-after item: the Pathfinder '98 report had three print runs and requests for it are still being received.)

# NINJA

Hispanic Heritage Month



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*Mayra  
Brousseau*



*Carmen  
Gaddy*

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*Anna  
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*Alicia  
Soto*

# Women *in* Leadership

September 15th - October 15th