

DEFENSE MAPPING AGENCY

LINK

September 9, 1996



*DMA boards USS Kearsarge for exercise
see page 7*

DEFENSE MAPPING AGENCY
LINK

September 9, 1996

Clock ticks on computer glitch	4
Value engineering has its rewards	6
JWID sees advances in GGI&S	7
Adventures abound on and under water	10
Accolades	14

On the covers

Front cover: USS Kearsarge employs DMA's Remote Replication System during JWID '96. See related story on Page 7. Photo courtesy U.S. Navy. **Back cover:** Navy Petty Officer 3rd Class Chris Smithers updates geospatial information at an RRS workstation aboard the USS Kearsarge. Photo by Jeff Hunter.

Volume 1, Issue 25

Published by
Defense Mapping Agency
Office of Command Information
Director, Command Information
Terence S. Meenan
Managing Editor - Carl Goodman
Acting Editor - Murdith Winder
Associate Editors - Don Kusturin
Paul Hurburt, Wells Huff, Jennifer Latley, John Iler
Designer - Rhonda M. Lee
Circulation - Debra Kusturin

Defense Mapping Agency Link is an authorized command information publication published semi-monthly in the interest of Defense Mapping Agency personnel. Contents of this publication are not necessarily the official view of, or endorsed by the U.S. Government, the Department of Defense, or the Defense Mapping Agency. Copy deadlines are the first and third Thursday of the month. Articles are edited for style, content, and length. Correspondence should be addressed to: DMA Link, Defense Mapping Agency, Command Information, 4600 Sengamore Road, Mail Stop D-39, Bethesda, MD 20816-5003. Telephone: (301) 227-3089, DSN 287-3089; or in St. Louis, (314) 263-4142 or DSN 693-4142

As I see it

Navy Rear Adm. Jack Dantone



I've changed the name. Bits and Bytes wasn't a good description of what this column should be. I will continue to try to convey to you my perspective of what's going on in DMA, where we're headed and goals and "others."

Speaking of goals, I had a wonderful time last week when I recognized the good work several DMA people have done with schools. While I'd like to take credit for DMA, it's really the folks involved that should and do get a sense of satisfaction for really enriching the lives of young people. These activities are important. DMA will continue to support and encourage them.

I'm sure that most of you are aware that we're examining the transfer of many of our warehousing and distribution functions to the Defense Logistics Agency. This is an important (and complex) issue that demands our complete understanding before we proceed. There are many human and customer support issues that demand our attention before we proceed.

HR stuff: JOB + and ACE continue to evolve. If they don't support you, we'll back away from them. These systems should serve you so that you can do your job better.

I'm writing this on a Navy C-9 returning from a visit to Ft. Bragg and the USS KEARSARGE in Norfolk. We had a look at the technology demonstration of JWID '96. It was a great trip. I must tell you that the underpinning of every demo was a map. Usually digital, but always a map. What we do in DMA is absolutely indispensable to our soldiers, sailors, marines and airmen. We must figure out a way to produce our information more quickly. Help me with this so we can help them.

Thanks for your work. People notice and are grateful. Old fighter pilot saying: "Lose sight, lose the fight."

DMA studies transfer of functions to DLA

A recent Joint Chiefs of Staff review of DMA's combat support agency role recommended DMA provide a cost/benefit assessment of DLA performing DMA's warehousing and distribution functions.

The initial analysis said the transfer would be feasible, with potential savings over and above those already forecast from the consolidation of printing and distribution to Arnold, Mo. This

transfer would also enable DMA to accelerate the implementation of its strategic goal of a geospatial information on-demand environment.

The director of DMA has approved a recommendation to proceed with detailed implementation planning for a possible transfer of DMA's hardcopy distribution responsibilities to the Defense Logistics Agency. This includes work performed by Philadelphia, St. Louis, Bethesda and

combat support element warehouse operations; work performed by the Bethesda hardcopy catalog operations; and inventory management and requisition processing.

This announcement does not reflect a final decision to transfer these functions and work to DLA. Detailed planning will include further evaluation of specific operational and personnel issues and impacts. The results of this detailed

study and planning will be a final decision briefing currently planned for Sept. 30, 1996.

Should the final decision be made to proceed with the transfer, an effective date would be Oct. 1, 1997, according to the proposal.

DMA leaders briefed those DMA employees most directly affected by this proposal, providing as much specific information and answering as many questions as possible. ■



Photo by Ed Gieff

DMA's director Rear Adm. Jack Dantone, center, endorsed the Agency's School Partnership Program at a ceremony recognizing 1995-96 Washington-area program coordinators. They are, from left, Charlotte Faehn, Air Force Lt. Col. John Aifler and Lisa Miller, DMA Defense Mapping School; Mitch Lewis, Acquisition and Technology; Trish Beavers, Comptroller; Linda Tsagos, Installation Management; Phil McConnell, Morris Solomon and JoAnn Brewer, Procurement and Contracts.

This \$600 billion problem has no easy fix

Let's been much in the news. Programs running on today's computers and commands embedded in microchips will have big problems with the year 2000 if they are not changed in time.

The source of the problems is the two-digit identification of years past, present and future.

During the mid-century, when computers were being invented and computing power was limited and expensive, it was important to write programs as concisely as possible.

But as these programs now begin to address the year 2000, some will assume they are back at the turn of this century. Others will simply stop. If not fixed, the problem can and will result in countless incorrect reports, garbled and missing information and system failures.

The dilemma is real, massive and world wide. Estimates are that it will cost as much as \$600 billion to fix.

"It's a big challenge for us; it's a big challenge for everybody throughout the world, and throughout DoD," said Steve Moore, Moore, an Acquisition and Technology employee, heads a special DMA Year 2000 task force.

"We're talking about looking at every system throughout DMA that uses information technology, from our production systems to elevator and building control. We just need to look at anything and everything that has a microchip in it."

Since the problem first surfaced, there has been general concern within



Moore



Wever

DoD that corrective action be taken in a timely manner, that these actions do not affect our ability to make good business decisions and—most importantly—that they do not affect our defense readiness.

As part of DoD, DMA will undertake a five-phase process mandated by the DoD, beginning with an awareness campaign and concluding with implementation of solutions

involving hundreds of information systems and thousands of programs.

Assistant Secretary of Defense, Emmett Paige Jr., told Congress that the Year 2000 computer problem could seriously degrade DoD's readiness if it is not addressed aggressively and quickly. (See related story on page 5.)

Kathy Wever, an AT Information Technology employee in St. Louis, heads the phase one operation on awareness.

"That's exactly the message we're trying to convey through our awareness phase," she said of Paige's report.

Among the myths to be debunked are the views of those in denial, who say there is no problem, and others looking for a quick, universal fix which doesn't and won't ever exist.

"It's going to be a big task from a program management standpoint," Moore said. "The technical solutions are fairly simplistic; but the job of looking at all the code we've written over the years is going to be a big task. But I think the group we've put together is equal to the challenge." ■

by Wells Huff

DoD and the year 2000 problem

The year 2000 computer problem could degrade DoD readiness if it is not addressed aggressively and quickly, a top DoD official told Congress recently.

Emmett Paige Jr., assistant secretary of defense for command, control, communications and intelligence, told the House Government Reform and Oversight Committee that DoD set in motion a campaign to find and fix the problem in weapon systems and automated business information systems. He said DoD is treating the problem "as we would a computer virus."

The year 2000 problem is the inability of most computers to tell dates after Dec. 31, 1999. It comes about because they use only the last two digits when computing years. Unless DoD takes action now, on Jan. 1, 2000, many computer systems and software applications will interpret '00' as the year 1900. Paige said identifying the applications where this is a problem will be a long and arduous process.

"The department has an inventory of thousands of systems and hundreds of millions of lines of computer code," he said. "Finding, fixing and testing date-related processing in our systems will require significant resources — resources that generally have not been planned or programmed for this purpose."

Paige said the first emphasis within the department is on weapon systems.

"Fortunately, weapon systems are, for the most part, much less date-intensive than most business information systems, so there are far fewer year 2000 fixes which need to be made in them," he said. "Nevertheless, we still have to check all weapon systems for the problem. When we are dealing with

weapons and their delivery systems, we must leave nothing to chance."

Paige said the Defense Finance and Accounting Service started combating the year 2000 problem in 1991. He said DoD will be able to pay its military members, civilian employees and annuitants when 2000 comes.

DoD and the military services are assessing the extent of the problem and looking to share information within and without. Many DoD elements use the Internet to post such things as lessons learned, best practices and the status of activities.

"We must avoid duplication of effort as much as possible," he said.

DoD has some unusual year 2000 problems. One is DoD has a wider variety of software languages than most organizations.

"This means we will need a wider variety of software tools to help reduce the time to find and fix year 2000 problems and to validate the solutions through testing," Paige said.

DoD must depend on the private hardware and software industries to fix year 2000 problems in personal computers and workstations. Then, too, solutions found for the private sector may not work on some DoD systems built to military specifications, Paige said.

The fact most systems are tied together further complicates the problem, according to Paige. He said DoD must communicate within and without the department because a fix in one system may cause another system to crash.

"If a system fails to properly process information, the result could be the corruption of other data bases, extending perhaps to data bases in other government agencies or countries," Paige said.



Paige said DoD is working with other agencies through the Federal Interagency Year 2000 Committee. ■

*by Jim Garamone
American Forces Press Service*

Value engineering has its rewards — \$3.7 million



Sharing award are Craig Robillard, Army Corps of Engineers, Kansas City District Office, left, Mary Ellen Seale and DMA deputy director W. Douglas (Doug) Smith.

 Timing on the first try is the best.

Just ask the folks in the Program and Analysis Directorate. They've just won a Value Engineering Award for cutting costs in evaluating the plans and design for the consolidated printing and distribution facility in Jefferson County, Mo.

The team received an award for saving \$3.7 million on the design of the new building in Jefferson County and on an elevator project in Roberdeau Hall, Bethesda.

DMA competed with more than 62 other applicants for the award.

"We have been using the value engineering techniques for some time, but this is first time we applied for the award," said Mary Ellen Seale, program manager for the

project. The Army Corps of Engineers' Kansas City District Office facilitated the application process, Seale said.

Value engineering is a systematic process of reevaluating a project and making recommendations for changes on how to do it better — for less money. In the case of the CPDF, the process started from the ground up — literally.

"We sat around a conference table and reworked the whole process from the grass to the roof," Seale said.

In looking for cost-savings, maintenance was a big factor, according to Seale.

"We didn't want to do something cheaper and risk maintenance problems later," she said.

Members of the value engineering team included the architects from

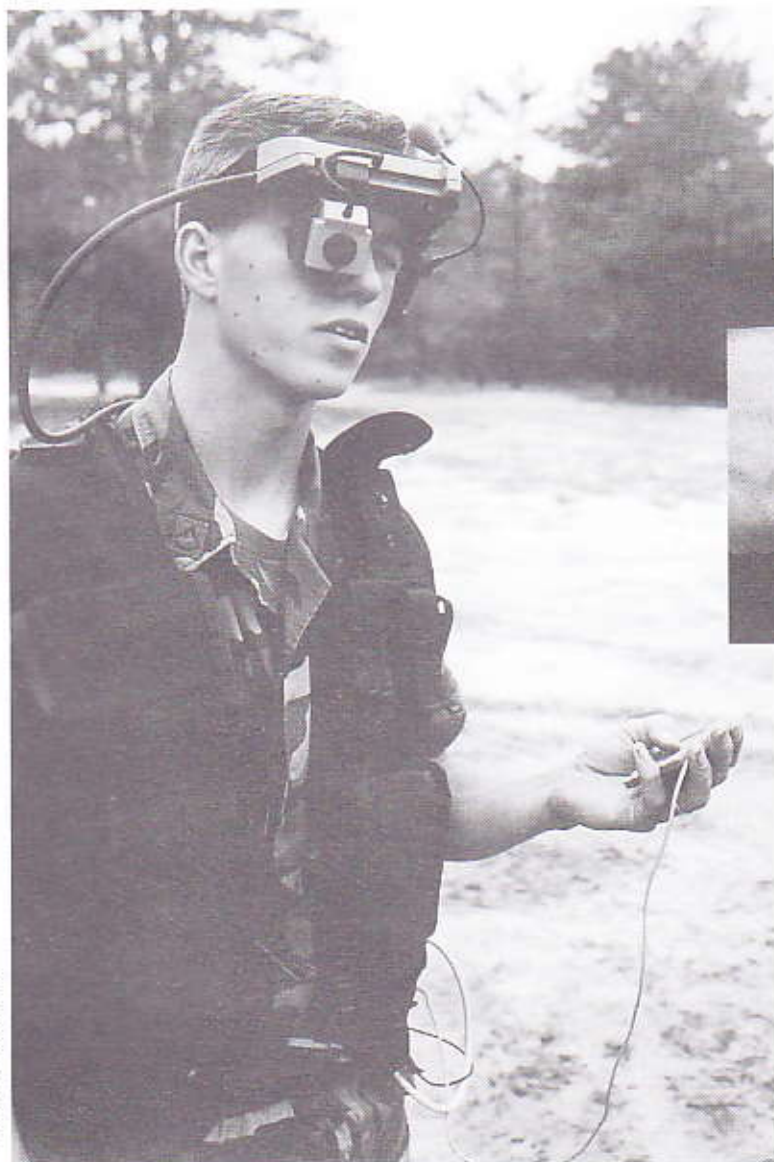
the firm Parson's Main of Boston; Seale; Edwin Lawless, project engineer; Wayne Bruce, mechanical engineer; Joe Radakovich, fire protection engineer; a landscape architect and a facilitator who kept them on task. Using a special computer program, the architect, provided cost analyses instantly as changes were discussed.

"There has to be a lot of give-and-take in this atmosphere, but at times we would get a bit territorial," Seale said.

Seale also said the team's reevaluating process has added benefits. "People on the team come in with fresh ideas and new ways to look at cost savings," she said.

"The value engineering process is just good business and should be applied to all facets of business," said Rick Stidsen, quality specialist, Planning and Analysis. ■

JWID '96 demonstrates advances in GGI&S



Photos by Larry Franklin

Army Private 1st Class Benjamin Borges uses a touchpad to extract Global Positioning System coordinates to store in his computer belt.

It was not vacation time for DMA's participants in the Joint Warrior

Interoperability Demonstration, held at multiple sites in the eastern United States and the Caribbean throughout August.

Giving their professional expertise a workout, the DMA team successfully demonstrated new concepts that seem sure to enhance



the timeliness and quality of geospatial information available to the nation's defenders.

JWID, sponsored by the Joint Staff, annually spotlights new technologies with potential to strengthen operations in C4I: command and control, computers, communications and intelligence. Participation is competitive: DMA led one of 44 demonstrations with support from future NIMA partners, U.S. forces, Canada's Mapping and Charting Establishment and participants from industry.

DMA's demonstration, "Collaborative Geospatial Data Production and Battlespace Analysis," involved sharing current geospatial information and updating battlespace maps at operational sites in near real time.

As part of the demonstration, the Remote Replication System was used aboard the amphibious assault ship USS *Kearsarge* in the Caribbean to incorporate information transmitted from shore into new maps.

rescuing Air Force Capt. Scott O'Grady from hostile ground forces in Bosnia.

training exercise," Hoskins said. "I told him, 'no problem!'"

"Everytime the *Kearsarge* deploys, DMA has a requirement to provide 52 pallets of maps," Hoskins continued. "In practice, the Marines cut out, say, a 6- by 8-inch area of the map they're using, shove it into their hip pockets and throw the rest away. Many pallets are never opened."

With the RRS, the Marines could reduce the number of pallets provided – four pallets equal the space required for a HMMWV (high mobility multipurpose wheeled vehicle, pronounced humvee), according to Hoskins.

"They could print maps on the RRS from CD-ROMs or data transmitted from shore and add special information needed for their mission. They like to be able to plot all their landings and ships at sea on a hard copy, called a 'battlespace snapshot,'" Hoskins said.

The RRS prints from digital files and scanned hard copy – whatever is available as source material. For JWID, the RRS incorporated data collected hours before on a beach at Camp Lejeune and an airstrip at Fort Bragg.



PHOTO BY LARRY FRANKLIN

Army Sgt. Melvin Lomax of XVIII Airborne Corps pulls coordinates off a topo map to locate the general area of interest for field data collection.

Concurrently, military personnel in North Carolina at Fort Bragg and Camp Lejeune collected geospatial data in the field using a wearable computer aligned to a Global Positioning System receiver. The new data – vectorized and merged with existing map products – gave members of the Joint Task Force and warriors on location a current view of their battlespace.

DMA's JWID team also supported the Central Imagery Office in another demonstration and provided geospatial information for all of the demonstrations. Besides the United States and Canada, three other countries, the United Kingdom, Australia and New Zealand, participated in JWID '96.

On a historical note, DMA also supported *Kearsarge's* role in

Remote replication attracts customers

Non-JWID participants aboard *Kearsarge* quickly recognized the potential of DMA's Remote Replication System for shipboard production, said Bill Hoskins, a member of the DMA JWID team. Hoskins, technical liaison officer to the U.S. Atlantic Command, was among 30 JWID players aboard the ship.

While receiving data via DoD's Global Broadcast System to update maps for JWID, Hoskins handled a special request from the commodore in charge of a marine amphibious group.

"He wanted to know if I could combine areas from two hydro charts to show beach approaches for a

Gathering hot data

Terrain analysts at Fort Bragg collected parameters of a notional minefield, while soldiers in an unrelated exercise nearby exploded ammunition. Giant C-17 cargo jets from nearby Pope Air Force Base soared overhead.

Ignoring the distractions, Private 1st Class Benjamin Borges of the XVIII Airborne Corps squinted intently at a miniature computer screen hanging from a visor. With a touchpad in his left hand, he manipulated the controls of a model 486 computer in his belt.

"It says 'no usable SV (satellite vehicle).'" Borges told Bud Higgins, physical scientist from St. Louis on DMA's JWID team, as he read the

message from the tiny screen with standard computer windows. Borges also wore an earphone to receive audio cues.

"Just wait a minute; it'll pick one up," Higgins replied. "Hopefully you're not getting shot at," he joked.

In minutes, Borges tracked the four Global Positioning System satellites needed to determine his whereabouts with the cup-shaped antenna of a GPS receiver on his back. A face on the computer screen frowns when there are too few satellites for accurate triangulation; it smiles when there are enough.

"This is definitely something to write home about!" Borges exclaimed. "All I do is lean, and the GPS control tells me I moved!"

After zooming in on each selected point, Borges collected them in ARC/VIEW software, which functions as a soft copy digitizing tablet that automatically draws vectors between points. In a similar exercise the day before, another terrain analyst stored the points in a spread sheet.

GPS points collected with the wearable computer can also be laid directly on maps and imagery. In another exercise, Higgins, riding in a utility vehicle with the GPS antenna on the roof, collected points in ARC/VIEW laid over a Controlled Image Base of Fort Bragg.

An optional keyboard inputs the data and commands.

"This is a lot better than the old days when they would have had to have had a surveying crew out with tripods," Higgins observed.

After collecting four points marking the parameters of the minefield, Borges was done.

"Now save it as a project," Higgins instructed.

Finishing up, Borges remarked softly, "Pretty cool."

"He's a good operator; the guy knows his stuff," Higgins said of

Borges as the JWID team prepared to transmit the data.

The team had a cellular telephone to relay the data to Joint Task Force headquarters. An Army tactical radio network, accessible from a transmitter in the group's hummer, was also available.

At the JTF, the DMA JWID team merged the ARC/VIEW data with Controlled Image Base and downloaded the file onto the military SIPRnet. In St. Louis, team members at DMA's Enhanced Product Prototyping Environment retrieved the file and merged it with additional geospatial data for instant distribution to all the JWID players.

Canada's Mapping and Charting Establishment and DMA each did a tile, or section, of the area over Camp Lejeune in Vector Smart Map Level 2 for JWID 96. The Canadians also produced anaglyphs of the VMap products. Anaglyphs, which provide



Mobile communications equipment at Joint Task Force headquarters supports the JWID demonstrations.

slightly different perspectives in contrasting red and blue, are viewed through stereoglasses to validate the accuracy of a map. The VMap products were combined with CIB for JWID.

For more information about DMA participation in JWID 96, see "What's New" on the DMA Home Page of the World Wide Web at <http://www.dma.gov>. ■

by Paul Hurlburt

These first-time adventurers are all wet and love it!



The Cook family approaches "The Widowmaker."

White water rafting may not seem like a family affair, but it is for one DMA family.

"You're excited and scared at the same time," said C.H. Cook of his family's first-ever white water rafting trip on the Arkansas River.

Although Cook has been a long-time canoe paddler, he had never tried any other water sports until relocating to Colorado as a technical support liaison with the Global Positioning System master control system. The move to Falcon Air Force Base, near Colorado Springs prompted a long-held desire to try white water rafting.

"This is the place to try new things," said Cook, who has worked

for DMA in St. Louis, Reston and Fairfax.

Accompanied by his wife and three children, Cook began the day with a half-hour lesson on how to stay in the raft and what to do after you fall out.

"At this point, my wife was getting worried, especially about our 10-year-old daughter," Cook said.

But there was no need to worry. The only person who fell out of the raft on the three-hour, 11-mile journey was the guide.

Riding rapids named the "Widow Maker" and "The Drop," the Cooks quickly understood the waters' names.

"Just when you think everything is in hand, the water changes and catches you by surprise," he said.

Although they stopped for lunch and one other break, Cook was exhausted by the time the ride was over, but surprised that three hours had passed.

"The ride is so exhilarating, you have no concept of time," he said.

As soon as they floated to land, the whole family agreed to do it again – soon.

The Cooks' next trip is planned for this month. Their next white water adventure will be on an even more challenging set of rapids.

"There's no stopping us now," Cook said. ■

by Jennifer Lafley

Taking the **plunge** **plunge** **plunge** **plunge**

It's dark and cold 80 feet down in the Atlantic Ocean in June.

But for Richard Westlake of Operations Group, it was the perfect summer adventure. He was trying scuba diving for the first time.

Westlake's venture started at the Indian River Inlet (south of Rehoboth Beach, Del.) for a dive on the wrecked schooner, *Elizabeth Palmer*, that sank after a collision with the steamship *Washingtonian* in 1911.

Westlake was surprised when he realized how heavy the equipment was and spent over an hour getting "dressed" for the dive.

"Squirring into the thick neoprene-rubber wet suit was an adventure of its own," he said.

His gear included a tank, a regulator, a buoyancy-compensating inflatable backpack, a full wetsuit and heavy lead weights to counterweight the foam neoprene of the wetsuit. Once geared up, he had added 90 pounds of equipment.

"The most strenuous part of the dive was getting in and out of the water," he said.

Once in the water, he felt weightless. As he and his diving buddy, a slightly more experienced diver, descended into the water, they followed the anchor line through murky green top layers of the ocean down to the relatively clear, but cold waters of the ocean floor.

As they approached the remains of the wrecked schooner, Westlake was overwhelmed by the beauty underwater.

"The schooner looked like the ruins of a cathedral," he said.

White sponges and bright patches of soft coral covered the old ship with strange plant-like creations all around it.

He also saw a wide variety of fish swimming around. Although he is not a fisherman, many of the divers caught black bass and lobster swimming around.

diving excursions and is training for his advanced scuba diving certificate.

"I look forward to spending decades exploring underwater. Think of all the places I can go," he said. ■

by Jennifer Lafley



Richard Westlake pauses during his first dive in the Atlantic Ocean.

After 20 minutes, he and his buddy gently followed the anchor line to the surface.

By the time he surfaced, he knew he had found a new sport. Since June, Westlake has been on nine more



How does her garden grow? Very well, thank you!



Photo by Kristy Miller

Miller

*E*arly Saturdays find most of us catching up on our sleep.

Not this gardener!

"It's quiet, cool and relaxing," said green-thumbed Linda Miller, visual information specialist in Installation Management, who sees gardening as an extension of her real love, art.

Hobbies consume most of her free time. Evenings, Miller does

colored-pencil sketches, watercolors of landscapes and homes and caricatures of fellow co-workers.

But it's her gardening that co-workers most appreciate. She frequently shares her bouquets of colorful roses, peonies, daisies and lilies with colleagues, adding an outdoor touch to an indoor office setting.

"It's all color and form," Miller said.

How does she find time to develop so many hobbies? Simple. She doesn't watch television.

"You would be amazed at what you can get done," she said.

Although her father raised vegetables, her own knowledge of plants and design is self-taught.

"I try new plants, and if they don't work, I just try something else. All forms of art require patience," she said.



A watercolor by Miller

Miller put her patience to the test when she and her husband Harry first bought their home in Bowie 17 years ago. Her first project was to landscape their front and back

yards. They pulled shrubs and trees, and she designed flower beds.

"I learn by trial and error. Each year I try something new. This year's newcomers are a vine called 'mandevilla' and a new rose 'bonica.' My biggest problem is with edibles — the only time I tried to grow tomatoes, I didn't get a decent one," Miller said.

Mid-summer brings on the doldrums and during hot summers she sometimes has to force herself to get outside and work. "It happens every year, but when spring comes, I really get excited."

But a gardener's work is never finished. "I never sit back and think — now it is perfect," Miller said. Besides, she's already making plans for her next garden when she retires to the Maryland shore. ■

by Jennifer Lafley

115 buyouts approved

DMA recently offered buyouts to meet the Agency's downsizing targets. The offer was made to employees with specific skills in specific locations. To prepare for the buyout offer, the business units identified overages in skills and grades based on function.

One hundred fifteen buyouts have been approved. Since 1993, when buyouts were first offered, about 500 DMA employees have received buyouts.

The DoD Buyout Program, according to HR officials, has contributed to the Agency's ability to downsize with the least disruption to employees' lives. By targeting reductions in only certain skills, buyouts allow the Agency to maintain productivity while simultaneously downsizing.

Specific questions regarding this latest buyout offering should be directed to Rose Scaturro, employee relations specialist, St. Louis, (314) 263-4594; Sharon Kennedy-Endicott, employee relations specialist, Bethesda, (301) 227-5800; or your HR business unit adviser.

President authorizes decoration for Guard, Reserves

President Clinton recently authorized a bronze "M" mobilization device for qualified reserve component members. The device will

be worn on the Armed Forces Reserve Medal.

The device goes to any Reserve or National Guard member deployed to support contingency operations on or after Aug. 1, 1990. Nearly 282,000 Reserve and National Guard members are now eligible to wear the device, including troops currently supporting Operation Joint Endeavor in the Balkans.

Other eligible troops include veterans of the Persian Gulf War, Operation Restore Hope in Somalia and Operation Uphold Democracy in Haiti.

"This device recognizes the sacrifice of our National Guard and Reserve people who are mobilized as part of the total force," said Defense Secretary William J. Perry.

Clinton's order recognizes service for longevity and mobilization. Bronze, silver and gold hour-glass devices represent 10, 20 and 30 years of reserve component service. The "M" device indicates service during a mobilization or contingency designated by the Secretary of Defense, while an Arabic numeral indicates the number of "M" devices awarded.

Tickets to go on sale for Navy-Duke game

The DMA Bethesda Civilian Welfare Council is sponsoring the sale of group rate tickets to attend the Navy

vs. Duke, homecoming game scheduled Oct. 5 at noon in Annapolis, Md.

Tickets cost \$16 and go on sale every Wednesday during September. They will be sold from 11:30 a.m. to 12:30 p.m. at the CWC Store in the Erskine Hall Cafeteria. Parking is an additional \$4 per car at the stadium parking lot.

Council members have secured a footprint in the NAVYFEST Tailgate Party Area adjacent to the Navy / Marine Memorial Stadium.

Highlights of the event include the pre-game Midshipmen's Brigade March through the NAVYFEST site, a Navy parachute jump team demonstration and a flyover.

More information will be available at the time of ticket purchase. ■





Air Force Col. Cesar D. Sharper was named deputy director of the Acquisition and Technology Group. He was recently stationed at Wright-Patterson Air Force Base, Ohio. **Navy Capt. Bernardino J. Jaramillo** is serving as the Special Operations Program Manager in the Customer Support Division for the Operations Group. He comes from the Pentagon. **Navy Capt. John E. Odegaard** arrived at OG in St. Louis from Newport, R.I. He's serving as the Pacific Command Program Manager in the Customer Support Division.

Navy Cmdr. Michael C. O'Loughlin is a joint plans officer in the Navy Customer Support Office at AT. He comes from Ft. McNair, Washington D.C. **Army Lt. Col. Thomas G. Wills** is serving as a joint land combat systems officer in the Army Customer Support Office at AT. He also comes from Ft. McNair. **Air Force Lt. Col. Leslye J. Elbert** is the supply operations officer in the Logistics Office of Installations Management West. He was stationed at Scott Air Force Base, Ill. ■



The following information is provided by the Human Resources Office.

Special Act or Service

Abel, Gerianne M.
Ackermann, Stacy C.
Acklin, Alonzo O.
Adams, Roe Edwin
Ademi, Nusret
Ahlers, Scott A.
Ahn, Dong Won
Akers, James L.
Albers, John J.
Albert, Janice M.
Aldred, Thomas K.
Alexander, Clara J.
Allen, Robert
Alphin, Kevin E.
Anderson, Raymond W.
Anderson, Sheldon L.
Aniello, Peter J.
Arl James, M.
Armocida, John P.
Armstrong, Phyllis R.
Arterburn, Andrew J.
Auth, Barry E.
Bainbridge, Terry C.
Baker, Patricia S.
Ballard, Thomas L.
Bamford, David A.
Barforth, Kristen M.
Barnes Jr., Richard P.
Barnes, Robert W.
Barnes, Suzanne F.
Barnhart, Earl C.
Barr, Edward W.
Barron, Carrol G.
Bartell, Ross S.
Basgall, Paul L.
Bauer, Bruce A.
Bauer, Paul A.
Baugh, William E.
Bayless, Michael L.
Bazan, Eugene J.
Becker, Kenneth J.
Bednar, Timothy G.
Bell, Felix C.
Bell, Michael P.

Benedix, Jr. Frank J.
Berge, Rick D.
Bermel, Kelly J.
Berry, Guy W.
Berry, Robert G.
Berrymán, Eric J.
Bersett, Ronald A.
Bick, Alfred R.
Biere, Debra S.
Bircher, James T.
Birdsong, Orville D.
Birkett, Tracy Lee
Birkhead, Harold D.
Biscan, James C.
Bloomfield, Terri K.
Bobbitt, Charles A.
Bode, John P.
Bodenstein, James W.
Boehm, Michael J.
Boerner, John J.
Boever, James J.
Bonnot, Rickey A.
Bonucchi, Marion G.
Borror, David J.
Botts, James A.
Bramstedt, Timothy P.
Breckner, William L.
Bronson, Vance A.
Brown, Billy G.
Brucker, Armand P.
Buckridge, James R.
Burley, Lisa R.
Burlingame, Roger L.
Burrose, Bernhard W.
Burrows, Paul D.
Barton, Andrey D.
Busch, Jeffrey A.
Buschbacher, Kurt A.
Bussen, Donald K.
Butler, Phillip R.
Callahan, Cynthia A.
Calvin, Scott P.
Carlson, William F.
Carly, John G.
Casetta, Lee J.
Casetta, Linda Ann

Cavagnaro, Gweneth B.
Cejka, Edward D.
Chamberlain, Harold I.
Chiodo III, Philip
Chropkowski, Gene J.
Clark, William G.
Coleman, Johnny Lee
Connell, Michael S.
Connor, Jack W.
Conroy, Kevin K.
Cooper, Charles R.
Copeland, Barrows Julie A.
Corsa, Patricia L.
Crawford, Paul H.
Cressman, John D.
Crouch, James K.
Crowell, Robert H.
Crumpton, Darryl E.
Daniels, Clifton E.
Davies, David W.
Deen, Lisa M.
Defino, Stephen J.
Delaplain, Jeffrey B.
Densmore, Patrick C.
Devault, Darrell D.
Deweese, Trent A.
Dickerson, Jane E.
Dills, Kay D.
Dobberstein, Jessica A.
Dulaway, Robert L.
Domek, Donald P.
Donner, James A.
Dougherty, Thomas A.
Draschil, Robin A.
Drew, Bradford W.
Druen, Gilbert L.
Dufford, Thomas F.
Duhn, William W.
Duncan, Donald R.
Dunn, Stephen A.
Dyson III, William E.
Edgerton, Daniel J.
Egan, Richard A.
Egler, Gerald E.
Ekstrom, John R.
Eller, John A.
Elmore, Jeffrey A.

Engebretson, David L.
Erpenbach, Dean P.
Esker, Evelyn L.
Esneault, Roger P.
Etherton, Michael D.
Ewing II, Richard D.
Fahrner, Leonard L.
Farmer, Ralph K.
Ferguson, Craig A.
Ferguson, Lori J.
Ferrell, Gary D.
Ferrell, Willie L.
Fiedler, William J.
Fields, Meredith B.
Figura, Paul C.
Fincannon, Paul J.
Finger, Todd K.
Fleming, Robert R.
Fogarty, Gayle E.
Foster, Phillip N.
Fowler, Marjory J.
Framstedt, Scott B.
Frater, James B.
Freitag, Marc C.
Gardner, Jay S.
Gassen, Daniel M.
Gettings, Rick H.
Glamiretti, Michael L.
Gibson, Mark M.
Gillespie, William R.
Gilman, Sally A.
Glauber, Mary F.
Godar, Leslie J.
Godar, Stephen M.
Goldman, Terry A.
Goodman, Carl W.
Goodrich, Robin N.
Grassman, Charles L.
Gray, William J.
Green, Katherine Hengen
Greenland, Roger D.
Grider Eddie, T.
Grieve Michele, L.
Grohman, Gregory J.
Gross, Diane L.
Gross, Mark H.
Gruchot, Paul A.

Gwinn, Dan E.
Hagstrom, Mark B.
Hall, Kerry J.
Hallowell, Richard S.
Halstead, Mary T.
Hansen, Lawrence N.
Harris, William C.
Hartje, Lacey E.
Hartnagel, Mark A.
Harvey, Linda J.
Hawk, Sharon H.
Healey, Neil D.
Held, Timothy
Henry, Jeffrey J.
Hickner Jr., James R.
Hilferbrand, Jimmie R.
Hines, Randall M.
Hines, Susan A.
Hinesman, Julie Ann
Hinterleitner, Bruce E.
Hirschfield, Scott M.
Hodge, David
Holland, Gary G.
Holm, Mona R.
Holman, Linda L.
Holmes, Lee N.
Holz, Debra L.
Honaker, Ronald R.
Hosfeld, Rosalie A.
Howland, Lee A.
Hubbard, Charles E.
Huddle, John P.
Hudgens, Leonard W.
Hudson, Stephen P.
Huelsebusch, Keith A.
Huff, M. Wells
Huffman, Richard C.
Hunter, Elizabeth B.
Hurlburt Jr., Paul R.
Hutson Jr., Edward W.
Igou, Colleen B.
Janisch, Pamela E.
Jasper, Robert K.
Jennrich, Brian J.
Johnson, Doyle H.
Johnson, Eliza
Johnson, James R.

Jordan, Debora A.
 Jordan, Dwayne J.
 Juliana, Aughtie A.
 Jungewelter, Katherine R.
 Kahlö, Jon R.
 Kalmes, Dean E.
 Kaul, Kendall B.
 Kawaler, Michael J.
 Kenyon, Maryjane
 Kerins, John M.
 Ketterling, Larry E.
 King, Keith H.
 King, Steven L.
 Kinsley, Emanuel S.
 Kleemann, Donald E.
 Klinge, David W.
 Klipp, Thomas E.
 Knirr, Karl B.
 Koberg, John L.
 Koch, Joseph G.
 Koenig, Patricia S.
 Koepf, Vincent L.
 Korzym, Kenneth D.
 Kostka, Del C.
 Kreis Jr., Thomas N.
 Kritis, Lawrence A.
 Kroll, Ira S.
 Kruempel, Daniel T.
 Kuhnline, Michael J.
 Kumar, Muneendra
 Kusturin, Debra J.
 Kusturin, Donald R.
 Lachance Jr, Robert S.
 Lackey, Diane R.
 Lawson, Joyce M.
 Layton, Harold V.
 Leach, David J.
 Leach, Kenneth R.
 Leath, Stephen I.
 Leaver, Joan M.
 Lefarth, Rochelle D.
 Lemay, Paul A.
 Lembke, Kenneth G.
 Lenchert Jr., Zygmund
 Less, Patricia A.
 Levetzow, Brian T.
 Levy, Michael Wayne
 Lewis, Cornell J.
 Lewis, Margaret L.
 Lockhart, Rose Y.
 Lofgren, Ronald M.
 Logterman, Robert L.
 Lohman, Bruce J.
 Lopez, Felix F.
 Lorbert, Scott C.
 Luebbert, Francis L.
 Luig, Mary Lou
 Lutsky, Edmund
 Lutz, Patrick B.
 Lynch, Douglas A.
 Lynch, Timothy M.
 Mahoney, Deborah Ann
 Makley, James J.
 Malone, James P.
 Maneikis, Steven T.
 Manfred, Eric G.
 Manson, Rubbie L.
 Mantinband, William L.
 Mara, Shawn K.
 Marineau, Patrick E.
 Mark, Thomas P.
 Marlinghaus, Karl P.
 Massa, David G.
 Massey, Josephine E.
 Matzko, James
 Maxwell, Randal C.
 Maxwell, Susan M.
 Mayhew, Russell L.
 Maynard, Stephen K.
 Mcadfrey, Linda A.
 Mcatee, Laura E.
 McBride, Clinton L.
 McCallum, Latracey
 McCleary, Dennis J.
 McKiernan, Terence J.
 McKinney, Beverly B.
 McMillon, Ronald S.
 McSpadden, Rex A.
 McVeigh, William T.
 Mears, Joan L.
 Meier, Kathy A.
 Messer, Michael P.
 Messick, Brian K.
 Meyer, Stephen J.
 Michaels, Anthony J.
 Michaels, Sandra L.
 Miller, Allen D.
 Miller, Carroll L.
 Miller, Karen C.
 Miner, Richard J.
 Minks, Zachary D.
 Minnick Jr., John K.
 Mobley, Clayton W.
 Mohan, James G.
 Mohesky, Norma J.
 Mooney, Cleveland R.
 Moore, Bonita J.
 Moore, Mark A.
 Morgan, Leah M.
 Morquecho, Evelyn M. P.
 Morris Jr., Malford W.
 Morris, Marion F.
 Morrison, Tim A.
 Mosby, Arlene R.
 Moses, Stephanie R.
 Moss, John A.
 Muchleisen, Mark G.
 Mueller, Dale R.
 Mueller, William J.
 Mumm, Donald E.
 Murphy, Marilyn A.
 Murray, James M.
 Murray, Timothy K.
 Neal, Kathy M.
 Neary, Kathleen
 Nelstead, Kevin T.
 Nettles, James M.
 Neubacher, Donald J.
 Newell, Dorothy C.
 Newman, Linda F.
 Nichols, Bruce E.
 Nixon, Ralph C.
 Noga, Michael E.
 Nolan Jr., Michael J.
 Novak, Joseph G.
 Nowlcki, Patricia J.
 Oeser, Linda L.
 Oleson, Roger K.
 Orr, John M.
 Osborne, Sanford A.
 Otoole, Geoffrey J.
 Page, Dennis W.
 Papcun, Gregory A.
 Park, William A.
 Patt, Raymond E.
 Pedersen, Brian W.
 Perrone, John L.
 Perry, Jane F.
 Perry, Stanley J.
 Peshek, Daniel L.
 Peterson, Charles G.
 Petrie, George J.
 Petty Savoy, Nora A.
 Pezold, Denise E.
 Phillips, Mary A.
 Picchiottino, Donna M.
 Pittman, William L.
 Pleasant, Mahlon E.
 Poff, Donald E.
 Pollman, Virginia B.
 Poropat, Richard K.
 Porter, Ronald D.
 Poucher, Shirley R.
 Powers, Wayne D.
 Powley, James C.
 Price, Ralph E.
 Prince, David B.
 Puhan, Oscar W.
 Quagliata, Michael G.
 Rado, John W.
 Rasmussen, Jane
 Ratermann, Virginia C.
 Rawlins, William F.
 Rebman, John W.
 Redinger, Jeffrey S.
 Reece, Patsy Z.
 Reher, Robert A.
 Reid, Cynthia A.
 Reid, Dane H.
 Remmler, Richard A.
 Rensing, Doris A.
 Reynolds, David S.
 Reynolds, Jerone
 Reynolds II, Leigh V.
 Reynolds, Thomas A.
 Richardson, Lewis C.
 Riis, Edwin R.
 Riley, George L.
 Ritzheimer, Thomas R.
 Roberts, Dianne B.
 Roberts, L. J.
 Robertson, Keith
 Robinson, Brandon R.
 Robinson, Raymond B.
 Rohn, Walter L.
 Rolf, Christine E.
 Rothove, James R.
 Roush, Eric D.
 Ryan, Nathan D.
 Rynski, Steven E.
 Sakaguchi, Bettye L.
 Sande, Kermit A.
 Schaaf, Edward K.
 Schafer, Kit A.
 Schlitzer, Frederick D.
 Schmidt, Ronald H.
 Schmitt, Robert E.
 Schmitt, Shirley M.
 Schoenborn, Eugene E.
 Schroeck, Wolfgang F.
 Schulz, Kurt J.
 Schwab, Lynda L.
 Schwartzbart, Stanley A.
 Scott, Jeb S.
 Sellmeyer, Charles T.
 Shannon, Joyce A.
 Sharick, Darrell A.
 Shaughnessy, Patrick J.
 Shaw, Robert W.
 Sheffield, Bruce A.
 Shelton, Todd E.
 Shepard, Edwin R.
 Shepherd, Gregory B.
 Shewmaker, Sherman N.
 Shipp, Tyler C.
 Simpher, Dolores T.
 Sindel, John A.
 Siudzinski, Jeffrey A.
 Skinner, Shirley J.
 Smart, Barbara J.
 Smith, Robert C.
 Smith, Sharon M.
 Smith, Wayne E.
 Snedaker, Marshall G.
 Sorum, Mark W.
 Speth, Charles E.
 Spindler, Kurt A.
 Springer, Kevin R.
 Squires, Charles E.
 Staebel, Terry L.
 Stallworth, James H.
 Stark, Kenneth W.
 Starkey, David S.
 Statum Jr., Joseph E.
 Statun, Kottabi D.
 Stecher, Rodney A.
 Stefaniv, Paul J.
 Stegmann, David H.
 Stein, David T.
 Stewart, Jay D.
 Stewart, Malcolm M.
 Stohl, Kelly J.
 Stone, Milda R.
 Stragliati, Sandra L.
 Strahm, Mark D.
 Strande, James L.
 Street, Kendall D.
 Stringer, Ada L.
 Strobel, Dewey E.
 Stuart, Jayne R.
 Stuckstede, Robert F.
 Stucky, Thomas C.
 Sugg Jr., William W.
 Sullivan, Mary E.
 Sutton, Oliver L.
 Szlauko, Elnora M.
 Takach, James R.
 Takmajian, Richard B.
 Talbot, Sheryl L.
 Tangeman, Kirk A.
 Taylor, Matthew J.
 Thomas, Brigitte L.
 Thomas, John
 Thomas, John E.
 Thomas, Margaret L.
 Thornton, Patricia A.
 Tierney, Caroline V.
 Tobin, Sabrina R.
 Tolefree, Patricia A.
 Toolen, Stephen P.
 Tracy, Christopher S.
 Tretter, Donna M.
 Triggs, Curtis W.
 Truka-Weisz, Christine L.
 Tuley, John B.
 Tuthill Jr., Joseph E.
 Tynal, Robert J.
 Tyus, Robert L.
 Updegraff, Richard A.
 Van Cleave, Brad K.
 Van Meter, Richard L.
 Vandermeulen, Maryann A.
 Vandermeulen, Neil R.
 Vanvickie, Melton E.
 Vanvoorst, Frans T.
 Vanwinkle, Robert C.
 Velez, Louis R.
 Vento, Paul V.
 Vieth, Susan K.
 Votrubá, Donna M.
 Waites, Scott E.
 Walsh, Dianne C.
 Ward, Thomas B.
 Washington, Marie L.
 Wayne, Mark A.
 Webb, Charles R.
 Wells, Danny S.
 Werner, Eric A.
 Werner, Richard W.
 West, Phyllis J.
 Whitecomb, Bruce D.
 Whitmore Jr., Edward F.
 Whittington, Barbara A.
 Wickam, Earl W.
 Wielgos, Les
 Willeford, Dale E.
 Williams, Scott K.
 Wilson, Michael S.
 Wilson, Robert C.
 Winder, Muriel W.
 Wingfield, Constance P.
 Wishom, Reginald
 Wolf, Judith A.
 Wolf, Mark F.
 Wolf, Robert L.
 Wood, Diane C.
 Wooten, Patrick R.
 Wyckoff, Richard L.
 Wynn, James F.
 Yambot, Cesar E.
 Yarborough Jr., Len
 Yaw, Gregory J.
 Yrjanson, Gary D.
 Zabitchuck, John
 Zweifel, Cheryl R.



DMA Link

CI, Mail Stop D-39
 Defense Mapping Agency
 4600 Sangamore Road
 Bethesda, MD 20816-5003
 Official Business
 Penalty for Private Use: \$300



Bulk Rate
 Postage & Fees Paid
 DMA
 Permit No. G-2

St Louis, MO 63128-2824

