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## From Captain Anderson: A Look at the Year Ahead



Captain James B. Anderson, Commander NADC.

*'It's very important  
for NADC to maintain  
its Tech Base.'*

Captain James B. Anderson talked to the "Reflector" about his goals for the coming year. Two goals that he is proud of completing since arriving here are the filling of the Technical Director's position, and the Chief Staff Officer's billet. The hiring of Robert S. Buffum as Technical Director delighted Captain Anderson, who contributed significantly to the selection process. Filling the Chief Staff Officer billet promptly was difficult because it was "gapped," meaning the position would not be filled routinely due to a shortage of officers qualified in that area. However, in December Captain James Sheehan was selected as the new Chief Staff Officer, a position presently held by CDR Bart Corgnati. Sheehan will report on board in mid-February. "This will help us, here in the front office, create an environment for Center employees in all phases of the operation to do their best work," Anderson said.

### EEO On Track

"An important goal for me," Anderson explained, "is to get a coherent EEO Affirmative Action Plan. Places I have been before have had Affirmative Action Plans, people talked about EEO, had meetings and training, but the Affirmative Action Plan was not a 'working document.' I think we are now on track here at the Center towards developing an Affirmative Action Plan that will be a working document. The goals of our Senior Executives and Directorate Heads, right on down through the organization, as reflected by the MPS objectives, should contain EEO goals that relate back to the Affirmative Action Plan. We intend to formulate SES and MPS goals around what we think are reasonable objectives based on where we see the Center going business wise. This will be a coordinated plan with PAR, CMG and Personnel so that we can have realistic recruitment objectives. These objectives, expressed in numbers and percentages, will be to increase minority

representation. I think we can make it work."

"Another area I think we need to push is maintaining our technical base," Anderson said. "As we in the Navy proceed along our path in rebuilding our strength on the high seas to an active force of 600 ships and 15 carrier battle groups, we will have to make painful budget decisions. In that process we are likely to see a decrease in total funds available for maintaining our technical base. This means less in the 6.1 research, 6.2 exploratory development and 6.3A advanced development categories. It's very important for NADC to maintain its 'tech base' because it is from there that we have the knowledge to make smart buys for the Navy. That base is also where we derive the systems that wind up in the Fleet. We need to work closely with our Washington sponsors in technology program planning and budgeting to ensure the available tech base money is wisely spent. We also need to take advantage of opportunities to strengthen our tech base indirectly by actively participating in systems development projects at the "cutting edge of technology."

### Get the Word Out

On NADC's image Captain Anderson said we need to let the Fleet know that we are supplying them with a quality product. And NADC needs to maintain a standard of excellence by getting quality products out on time and within budget. "We also need to continue working on our community image. It's my impression that we do have a good image through the involvement of people on-Center who belong to civic organizations. I encourage people to do that type of thing," Anderson added. It's important that employees feel they are part of an organization that's well regarded by the community.

Finally, Anderson said he has a personal goal. "I am looking forward to getting back in the cockpit and participating in flight operations."

## Stress the Air Side, TD says

"We must carve out a niche for ourselves and market our capabilities." Mr. Robert Buffum, NADC's new Technical Director, sees this as one of the main avenues for the Center to work on in 1982. "NADC has long been known for its ASW expertise. It's time that we advertise that we are the Naval 'AIR' Development Center. We have the expertise residing here at NADC," Buffum said. "That expertise should be recognized and used by the Navy. To do this, relationships with our sponsors have to be strengthened." What Buffum sees is the Center having more technical cognizance over the projects that sponsors, such as NAVAIR, give to NADC.

This should save money by engineering out problems before they take a solid form. "Weapons acquisition must be more efficient," Buffum added. "We should supply the needed new technology but not strive for the ultimate at the expense of complexity."

"Laboratories cannot operate as they did in the past. The R&D budget restraints have changed the way we do business from the days when a lab could do all the work. We now only get a piece of the action. We must exercise control over what we will do in terms of project work." In this direction Buffum said that the Directorates are looking ahead and developing a corporate marketing strategy for the future.

Some of the other goals towards which the Center will be directing its efforts include recruiting, retention and EEO. Buffum said that to stay competitive we must be able to recruit talented employees and keep them here. One program Buffum sees as incentive for engineers and



Robert S. Buffum, NADC's Technical Director.

scientists is the IR/IED (Independent Research/Independent Exploratory Development Program). This program allows for funding of "ideas." It lets you work on "your" project. He said he will seek to continue to enlarge the IR/IED program. Buffum says his impression of NADC is one of excellence. An impression he knows the Center will maintain in the future, an impression that he will do everything he can to market in the Washington arena.

## Winners Wanted

**NADC AWARD FOR ENGINEERING/SCIENTIFIC ACHIEVEMENT**—Nominations are requested for the Annual Engineering/Scientific NADC Award. The NADC Award recognizes any employee or former employee, military or civilian, who has made a substantial research or development contribution to the U.S. Navy while employed by NADC. Each nomination must be accompanied by a concise statement of the achievements and contributions being recognized, and any supporting documentation available that attests to the significance of the contribution.

**NADC AWARD FOR PROJECT LEADERSHIP**—Award nominees, civilian or military, may be from DCP or technical departments for command or other level technical projects, or from PAR, Staff or Engineering Support Group for some special project leadership contributions. Although the nominee need not be the most senior leader in a project, he must have had sufficient responsibility to demonstrate outstanding leadership with regard to other project contributors.

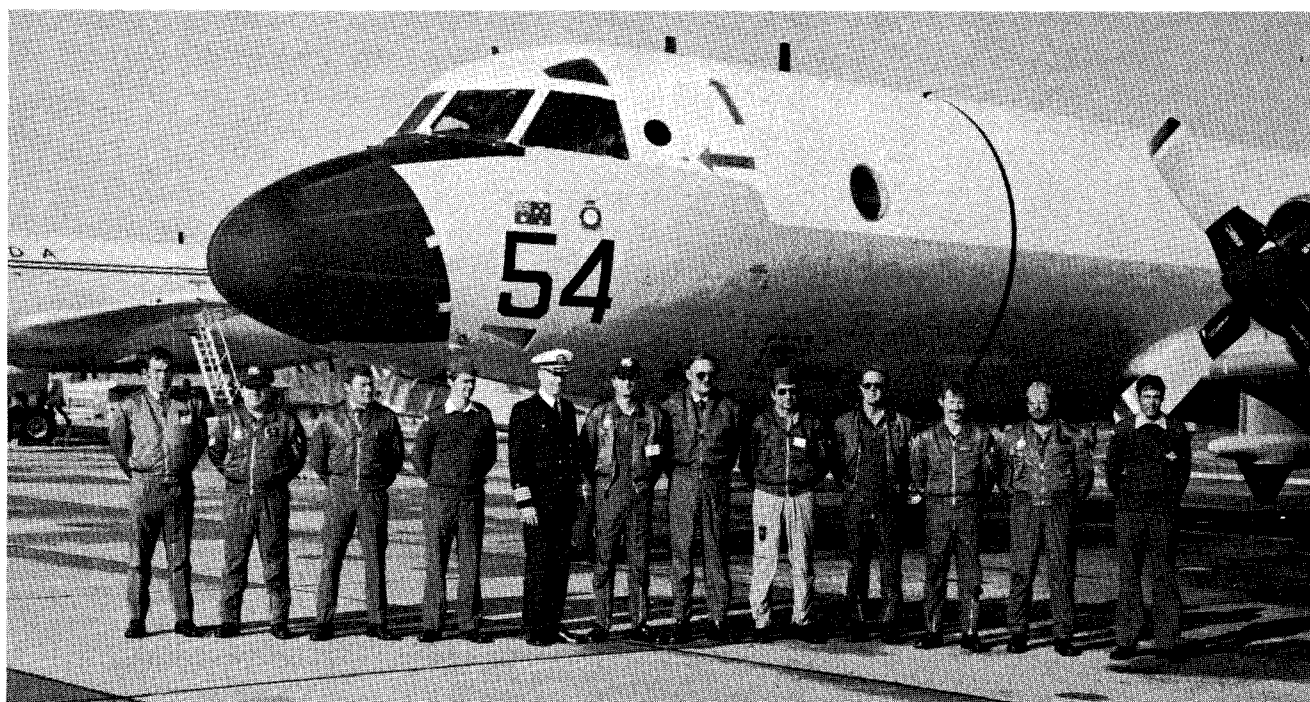
**SUPPORT ACHIEVEMENT AWARD**—This award will recognize an individual from any organizational unit of the Center who, through his or her effort, has made a significant and identifiable contribution to the smooth and efficient operation of the Center. Each nomination must be accompanied by a concise statement of the achievements and contributions being recognized. Please forward nominations to 031 not later than 15 Feb. 1982. For additional information, call x3078.

# Visitors from Down Under, Here

Representatives of the Royal Australian Air Force (RAAF) and two military scientists were invited to attend the 22nd Sonobuoy Working Party meeting which was hosted by NAVAIRDEVCON on the 30 November 1981 to 3 December 1981.

The RAAF decided to transport the members to the meeting by extending an already planned exercise in Barbers Point, Hawaii. The RAAF Orion staged through Fiji, Barbers Point, Moffett Field and arrived in Warminster on Sunday the 29 November. The crew and passengers were rudely awakened by Pennsylvania's early winter weather! When they left Adelaide, Australia the weather was warm and getting warmer, for example 85 to 105 degrees F. Most of the Australians on board experienced freezing rain for the first time in their life!

The P3C Update II Orion that No. 10 Squadron flies were produced by Lockheed Ca. and sold to Australia in 1978. Since delivery to Australia, the Commonwealth Aircraft Corporation installed the British designed and built AQS-901 Acoustic Processor in place of the AQA-7 Acoustic Processor that many of the USN P3 Orions utilize. In this process of modification some of the central computer (CP-901) software had to be changed. NAV-



Members of the Royal Australian Air Force with Captain James Anderson. From left to right: FLTLT Cox, FSGT Morris, SQNLDR Jones, FLTLT Stretch, (RAAF/LONADC) CAPT Anderson, WGCDR Laing, (CO 10 SQN) WGCDR Hartig, WOFF Glover, FLGOFF Rice, LT Bell (USN Exchange), FLTLT Austin.



The Canadian Aurora and the RAAF P3C Update II aircraft at NAVAIRDEVCON, Warminster.

AIRDEVCON played an important part in training our computer programmers to do these modifications themselves. This training was done from June '76 to May '78 here at NAVAIRDEVCON. Many personnel would remember the names FLTLT Chris Stunden and FLTLT Steve Papas. They are still involved with the project in Adelaide. The RAAF continues to have a liaison office at NAVAIRDEVCON.

The Royal Australian Air Force has been so pleased with the performance of the P3C Update II Orion, it plans to replace the existing P3B aircraft with more P3C Update IIs in the 1983-85 time frame.

The Sonobuoy Working Party meeting had representatives from the United Kingdom, Canada, New Zealand, Australia and of course the United States of America. Talking to attendees they found the meeting most informative and productive. New ideas will be taken to various parts of the world.

The RAAF crew returned to Australia via Andrews AFB, Moffett Field, Barbers Pt and Kwajalein. The members were very happy with the support they received from NAVAIRDEVCON and asked me to pass on their thanks for a very pleasant visit.

## Keep It Going to Keep in Winter Shape

By Sylvia Wasylyk

My last article discussed how you should not decrease the amount of activity you pursue during the winter months. Today we'll look into some of the alternatives you have available.

One of the fastest growing "sports" today is Aerobic Dancing. Simply put, aerobic dancing is nothing more than exercising to music, but it is gaining popularity because it is a fun and enjoyable way to exercise. Anyone who would prefer staying indoors during the winter months should seriously look into aerobic dancing. Contact your local "Y", parks and recreation department, or a nearby college/university to enroll in a class. Others may prefer to purchase one of the many books available on the market today and start their own program at home. Be sure to include your spouse and kids for more fun!

Another source of indoor recreation may be as close as your local high school. Many schools today in conjunction with the local recreation department or adult education program will open their gymnasiums for basketball, volleyball, etc. Call the high school and find

out what they have to offer.

I'm sure many of you don't know the benefits of a weight room towards keeping fit. Note what I said—"Keeping Fit". Most people know that weight training will build strength and bulk, but there are programs that are quick (30-45 minutes) and if done three times per week can help you maintain a level of fitness that you find comfortable without pain or exertion. A lot of repetitions of a weight that you feel comfortable with will work the muscle just enough to keep it in good tone without overloading it and effecting a change in mass. If you're interested feel free to give me a call and I'll help you set a program up. Or call any of the organizations I've previously listed for information on their programs.

One of the best all around exercises is swimming, and any facility that offers a pool can be called for information regarding public swimming programs.

I hope that I have opened your eyes to other sources of recreation. Remember, keeping your program fun and varied will keep you interested and therefore keep you fit.

One final item—if you exercise away from home and

especially if you exercise alone—always carry some sort of identification with you. Even if you go down to the local high school for a little B-ball, if you are knocked out in a collision and are seriously injured, how will anyone know to contact your family? I've seen people fasten a dog tag onto a shoelace, carry a laminated card on a chain around their neck or in a pocket, and even purchase or make a "wallet" out of cloth and velcro and wear it around their wrist or ankle. Be sure you at least carry your name, address, any special information such as whether or not you wear contacts, have a special medical problem or allergies, etc., and a telephone number of someone to contact in case of emergency. If you are away from home, it is also advisable to carry a few dimes in case the only telephone available is a pay phone. Carrying ID may seem a little inconvenient, but imagine the inconvenience to you and your family if the scenario I described above came true?

Happy New Year to you all, and to all who have resolved to be fit and trim this year, GOOD LUCK!!



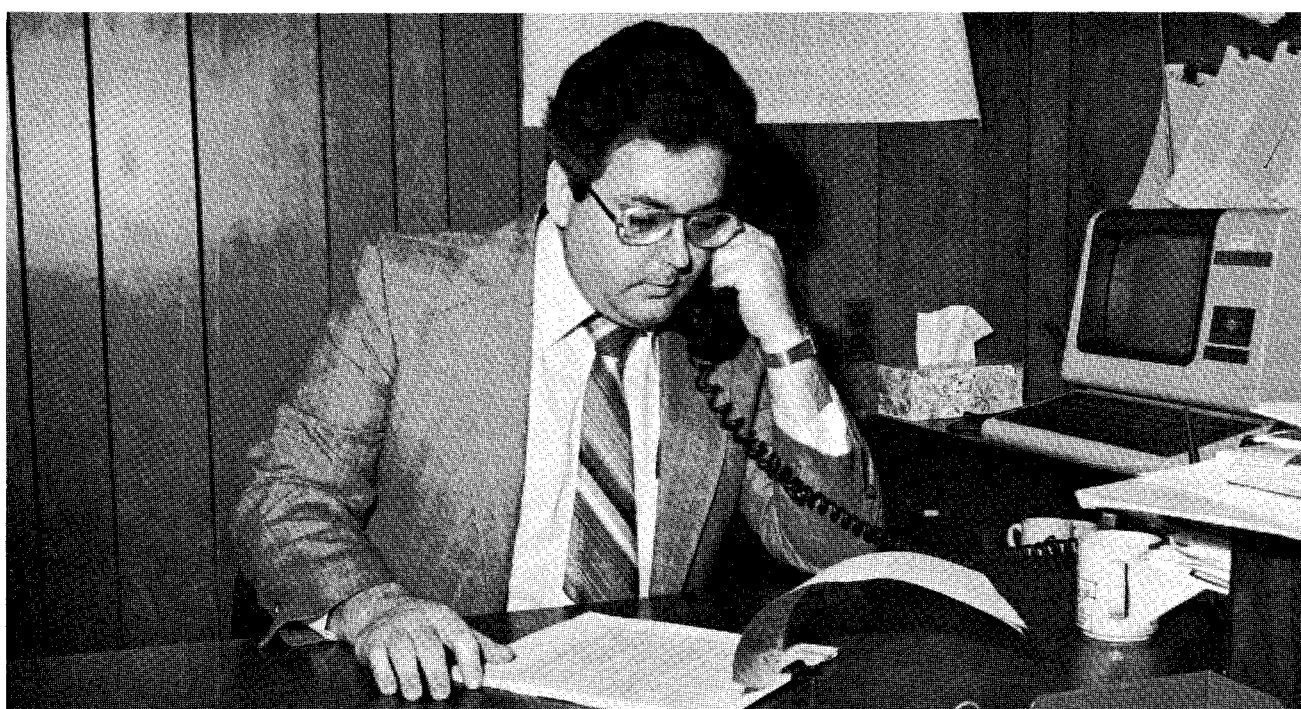
## Finkelman Rated Tops Under New MPS

"I'm very lucky, I enjoy my job so much that it's easy to do extra work. I haven't had a slow or boring day since 1974," Robert Finkelman, Deputy Director of NADC's massive Computer Department, said when he was asked why he received a "1" rating under the new Merit Performance System. It's the performance above and beyond the regular duties that gets people these "bonuses."

Finkelman said that his additional work on the installation of the new Front End Processor and the Naval Laboratory Computer Network helped him get the "1" rating. He also stated that being sensitive to Center goals and making sure the direction he advocated was in line with these goals, helped make him an outstanding performer.

Starting as a summer hire in 1967 Finkelman graduated from Temple University with a Physics degree in 1968. As a member of the ROTC while in school he spent one year in the states upon graduation and then went to Viet Nam for a year. While in Viet Nam, Finkelman was an Ordinance Officer assigned to a Maintenance Battalion near Saigon. There he got his first taste of computers as all inventory in the warehouse he worked in was computerized. Back in the states, Finkelman returned to NADC in 1970 and joined the Sonar Division. The project he worked on required large amounts of data reduction using the CDC 6600 computer.

This gave him more experience with computers so when the position of Operations Manager in the Computer Department opened up in 1974, Finkelman applied and got the job. Some people at that time told him



Starting as a summer hire in 1967, Robert Finkelman is now the Deputy Director of the Computer Department.

not to take the job because it was dead ended, with no chance for advancement. Finkelman did not believe them and felt that he could better himself. As it turned out he was selected as Deputy Director of the Computer Department. Finkelman is currently in charge of planning for future computer needs, security of the

central computer site and serves as the alternate Automatic Data Processing Official.

In addition to his BS in Physics, Finkelman holds a Masters Degree in Engineering Science from Penn State University.



Kids rock around the clock at NADC Day Care Center.

## Lighten the Load, Use Day Care

Wanted: Children of Center employees that need Day Care. NADC's non-profit Day Care Center is open to civilian and military personnel from 0730 to 1700, and is looking to increase enrollment. The Day Care Center, since changing over from its all military policy, has made some major revisions. Plans are now under way to hire a full time teacher. A new stove to help serve hot meals is being installed. Public Works is building a partition for the toddlers, so they have their own play area. And a new paint job is in the works.

LCDR Michael Abrams explained that all these

changes are being made so that the Day Care Center will be better equipped to handle an increased enrollment. Another change he mentioned was experimental hours starting at 0650 and ending at 1700. If enough interest is there, the hours will stay that way.

A Board of Directors, with four military and four civilian members, has control of the Day Care Center. The civilian slots are currently open and interested parties are invited to inquire. NADC's Day Care Center is here to lighten the load. For further details call x2934 or 2185.

## The Fire Was Spectacular and So Were NADC's Firemen

It was spectacular, dangerous and it needed the help of the Navy to bring it under control. It, was a collision between a SEPTA train and an ARCO tank truck that sent 8,000 gallons of gasoline exploding and flaming over the Second Street Pike grade crossing in Southampton. Why the accident occurred is still under investigation. What we do know is that a train hit a fuel truck on the morning of 2 January 1982 causing the biggest disaster in Southampton's history. Because of a meeting scheduled at the Southampton Fire Station that morning, that company was on the scene minutes after the crash. The Assistant Chief of Southampton saw that the fire was more than his department could handle so he called in NADC's people. Our Fire Department has a working agreement with most of the area fire departments to assist them in emergency situations. Responding to a call for assistance on a fire of unknown type, NADC sent a foam truck and the Chief's support vehicle. Acting Assistant Chief, Captain Bill Adams, Captain Kevin Harvey, Fire Fighters Doug S. Seider, Jim Meyers and Kevin Hagarty all went to the fire scene.

Finding their way blocked by the train on Second Street Pike they went around to Knowles Avenue and tried fighting the fire from that point. The smoke and heat in that area made operation difficult so they moved to the south side of the grade crossing to fight the fire head on. Since the the Southampton department was first on the scene they took command and requested that the spill fire be put out. This was done to stem the spreading flames and allow as much of the gas to burn as possible. Foam was applied but some gas poured down the sewers and flames erupted from surrounding grates. Light water was sent down the culverts to stop the fire from spreading. NAS Willow Grove's fire fighters were called in as a back-up for the final assault on the blaze. Now with two foam trucks the order was given to douse the flames. In about a minute it was over. Chief Fuller stated that NADC's firemen conducted themselves professionally in the handling of a potentially dangerous situation.

## Commander Salutes

Carl T. Caliano, ACSTD, Bernard J. McHugh, PAR, Edward J. Emery, SD, and Michael Junod, Albert M. Bales both of SATD, all for their support given to the Source Selection Evaluation Board for the Demonstration and Validation Phase of the ASW Standoff Weapon.

Shirley L. George, Mary Moran and Jerome S. Bortman, PAR, Diane M. Heal and Janet M. Koch, staff, Ross Barcklow, Raymond K. Satterfield and Albert J. Shanks, TSD, all for their contributions to the Technology and Business Opportunities Conference '81.

## Super Safety

By Mike Massington



Mike Mystique, Safety Manager of NAVCOM-RAZLDAZL and former speculator in the rutabaga commodities market, was puzzling over what to include in his list of New Year's resolutions for the Command. After much soul searching, breast beating and a rather horrifying look at last year's accident record, he arrived at the following list.

In 1982 I shall not leave my vehicle idling and unattended lest it slip into gear and run over the Security Officer's foot. Thereby incurring his considerable wrath, and resulting subsequently in my being forced to scrape off my vehicle bumper decal with my teeth.

In 1982 I shall use a ladder or step stool when reaching for items over my head to prevent myself from suddenly becoming shorter when things begin falling down around my ears.

In 1982 I shall not use any damaged or defective electrical outlets, cords or equipment so that my friends and I do not accidentally become crispy critters.

In 1982 I shall clean up or report all spills and other hazards that can cause slips, trips and falls. This will be done to deny others the thrilling experience of riding in the back of an ambulance.

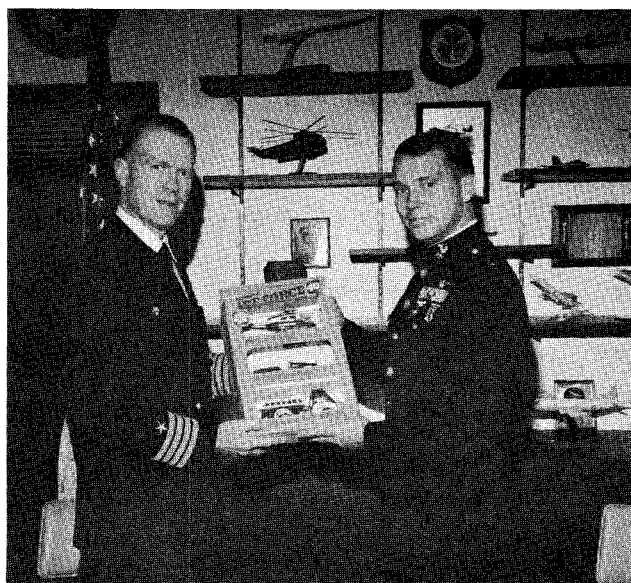
In 1982 I shall exercise extreme caution while driving in ice and snow to prevent myself from imitating a slalom skier, and thus making other drivers irate and desirous of rearranging my face.

In 1982 I shall use the right tool for the right job thereby eliminating the self-inflicted acupuncture I sustained last year when I used the screw driver as a pry bar.

In 1982 I shall faithfully wear all the nifty protective gear that is needed for my job, so that when I retire, I will still be able to see, hear, walk and breathe all at the same time.

In 1982 I shall refrain from wearing rings and other jewelry on the job so that I will not lose any of my precious pinkies to aircraft or machinery, and so that I will not arc weld myself to electrical gear.

In 1982 I shall exercise care in the use, handling, storage and disposal of chemicals so that I will not cause extreme



Center Commander; Captain James B. Anderson looks over the first toy donated to the Marine Corps' "Toys for Tots" Campaign. Program Coordinator; Major Keane, rt., said the drive was very successful this year.

## Beni Suggs

Richard A. Griffith, PW, for suggestion titled "Insulate Hangar Doors, Bldgs. 1, 2 and 4". \$140 award.

Jacob Lee Burkett, TSD, for suggestion titled "Multiple Camera Control Junction Box". \$100 award.

Kenneth Walker, CPD, for suggestion titled "Stairwells—Bldg. 3 to CPD". \$50 award.

Ralph E. Vining, CA, for suggestion titled "Telephone Directory Changes". \$25 award.

Walter C. Beamer, SATD, for suggestion titled "Additional Parking Spaces in Parking Lot #2". \$25 award.

Edward A. Mebus, SATD, for suggestion titled "Elimination of hazard to safe passage thru Parking Lot #1 Guard Rail Opening". \$25 award.

## Unhealthy?

In a 98 page press release sent by the United States Office of Personnel Management details are given on changes to the Federal Employees Health Benefits Program. An effort to hold down premium costs for both the government and the enrollee has resulted in 6.5% cut in benefits. You may think these cuts will lower your payments but you're wrong. The average premiums will increase 31%. Because of these changes, Open Season has not been announced this year, although plans are in the works to hold one soon.

## Energy Saved

It was a nice long vacation for most of us with the Center being shut down from Christmas Eve to the Monday after New Years. The main reason for the closing was energy conservation. With everybody gone, the heat could be lowered and the lights turned off. According to Tom Ames, the Center's Energy Manager, "a total of 249 megawatts of electricity were saved along with 25,923 gallons of oil." "This translates into a savings of \$48,060," said Ames. The overall amount of energy conserved was 2.1% of the total year's energy usage.

pain to my body, harm innocent fish or vaporize my work space.

In 1982 I shall report all accidents, injuries and hazardous situations promptly because this is the correct thing to do, and besides the Safety Manager is lonely and needs to hear a human voice occasionally.

Finally, in 1982 I shall keep all the above promises (unlike last year when although I thought about them a lot, I never really got around to doing anything about them).

## NADC Made Them Happy



The people that made it happen: from left to right, George Gianos, Karl Geist, Ron Schmidt, Norm Ostroff, George Gillespie, Mary Culci, Dottie Kirkpatrick, Doug Crompton, Joe Armento, Santa, Lou Rakzawski and Joe Laska. In front are the clowns and one who sneaked into the picture.

A vocal crowd of 117 children invaded NADC's cafeteria during the Christmas break. The youngsters were from the Christ and Bethanna Homes here in Warminster. Our W&R Association hosted the children for what turned out to be a day of fun and entertainment. A talent show was put together by NADCers. It featured acts with George Gillespie, Norm Ostroff, Karl Geist, Ron Schmidt and Mary Calci.

Also on hand were two professional clowns from the Ringling Bros. Circus. W&R made Sears catalogs available to the Homes before the party so the children could select \$17.00 worth of Christmas gifts for themselves. With lists in hand, W&R personnel set about ordering all the gifts. A lunchtime party was organized for wrapping and tagging to make sure the right present got to the right child.

On top of the gifts, a hamburger and french fry lunch was served by the NADC Cafeteria staff. As usual alot of happy children rode the bus home that day.



Happy faces attest to the party's success.

### Naval Air Development Center

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CAPT James B. Anderson — Commander, NADC  
Robert S. Buffum — Technical Director  
Joseph P. Cody — Public Affairs Officer  
David Polish — Editor



- Dolceamore
- Who
- Ride
- PAO
- Black History

## EEO Award Winners Show Extra Effort

Six employees of the Naval Air Development Center were recently honored for their participation in the Equal Employment Opportunity Program.

Nominations are taken for people who have given outstanding support in furthering the goals of the Center's and the Navy's EEO objectives.

Nancy MacMeekin, an Electronics Engineer from Abington, overhauled the EEO plan for her organization and made sure, as changes in management were made, each new Directorate head was made aware of the EEO goals.

William Graff an Electronics Engineer from Philadelphia has served as a member of the EEO Committee for several years. This past summer he was assigned to supervise a young black co-op from North Carolina A&T State University. Because there were a number of co-ops in the area housing became hard to find. Mr. Graff took it upon himself to bring this co-op into his own home for the summer.

Hatfield resident, Peter Santi, an Electronics Engineer, has supported the EEO program in an outstanding manner by assisting in developing and editing a Senior Management EEO Planning Policy Statement. He has also served on the Center's EEO Committee.

Feasterville citizen, Edward Yannuzzi, Director of the Sensors and Avionics Technology Directorate also assisted the EEO program by housing a young female Hispanic co-op from the University of New Mexico.



Jonathan Harding, Peter Santi, Carmine DeCrescente, William Graff, Chief David T. Duell, Edward Yannuzzi, Nancy MacMeekin, Zinzin King, Capt. James B. Anderson, guest speaker John Broujos and Gilbert Ridley gather for a group photo at EEO Awards Luncheon.

Jonathan Harding, a Physical Science Administrator from Southampton, supported the Center's EEO program by serving as an EEO/Technical representative on high-grade selection panels and community outreach programs.

Freda Larkin, also of Southampton, has provided clerical support and coordination for the EEO program serving as Secretary to NADC's Deputy EEO Officer.

An overall award was given to the Aircraft and Crew Systems Technology Directorate for their outstanding support.

In addition, Chief David T. Duell from Hatfield was recognized for his support. Stationed at the Naval Air Station, Willow Grove, Duell made available bachelors quarters for co-op students to stay in during the summer and fall months.

## System Helps Avoid a Shocking Experience



Ernest Coleman demonstrates video display used to help avoid lightning storms.

In a thunder storm don't stand under a tree. These are old words of wisdom and they make sense, but where do you hide if you're in an airplane? With the help of Ernest Coleman from NADC's Microwave Technology Branch, aircraft and even surface ships can now steer clear of lightning storms. The Severe Storm Avoidance System, a device of Coleman's own design, is now being tested by the Navy for use in detecting the location of electrical disturbances.

Coleman has been interested in lightning for a long time. While he was in Florida he noticed there were many electrical storms. Statistics show that from 1970 to 1978

5.9 million dollars were lost to lightning strikes. This does not include the cost of aborted missions or the cost of lives lost in a 1970 P-3A crash.

Although radar can be used to locate storms it is an active sensor. Active means it must emit signals, signals that can be detected by other aircraft, ships, subs, etc. What Coleman set out to do is build a system that was passive, not sending out any signals. Such a system would be highly effective in Anti-Submarine Warfare Patrol aircraft, making them harder to detect.

An interesting twist to the development story was explained by Coleman. He started at NADC in 1969 as a

co-op from Tennessee Tech. Next he went to Ohio State under the WEPCOSE program. Returning to NADC he worked on adaptive control phased array antennas. While here he developed a method to detect the direction of signal arrivals using adaptive array techniques. Coleman received a patent for his work. In 1975 he left NADC to join Martin Marietta and worked on antennas there. After a short time Coleman decided that the Navy was indeed the place to be, so he went to Patuxent River. While at Pax he studied the lightning problem and later developed the avoidance system. Coleman submitted a patent request to the Office of Naval Research but he said they weren't interested in his system. With no funding available he decided to build the system on his own at home. Meanwhile an opening occurred at NADC and he came back to his first Navy home.

When he returned to NADC, Coleman heard that the Navy was now interested in a system to locate storms. Someone had proposed a system using an old technique known by most aviators. The technique uses the ADF radio. Coleman again submitted his system, this time to Bill Walker of NADC. Walker contacted the Naval Air Systems Command and received funding. Four units are now being built in-house for testing.

Coleman's system uses a video display and has a range of 200 nautical miles. A microprocessor analyzes signals from the antenna and displays the size and location of the storm on the video screen. The display is updated every second. The pilot uses the display to steer clear of the lightning storm.

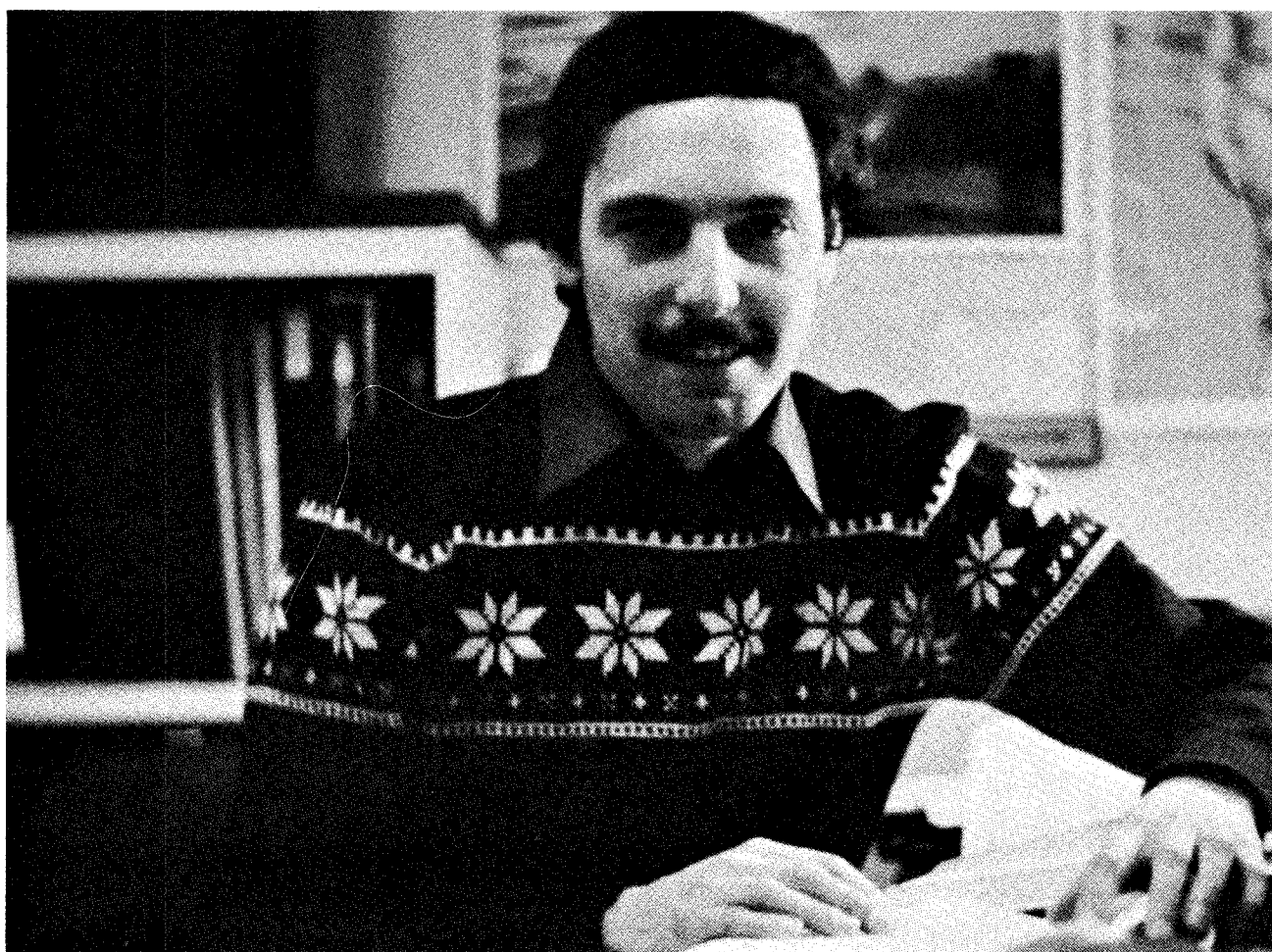
The Severe Storm Avoidance System is now installed in a P-3 aircraft for testing at Pax River. This system has wide appeal both to the military and commercial air carriers. In addition, several oil companies are looking to install the system on oil loading port facilities. This way if a storm is approaching they can stop loading and prevent a fire or explosion resulting from a lightning strike. Coleman explained that the system was designed to keep costs down. Right now the hardware costs around \$6,000. The results of testing this year could mean millions saved in the future.



## Who's on First

Aircraft and Crew Systems Technology Directorate Head, Carmine DeCrescente has retired from NADC. The opening has caused a rotation at the top. Dino Mancinelli, who is currently the Associate Technical Director, will move to fill the slot vacated by DeCrescente. PAR Director, Thomas J. Brennan has been named the new Associate Technical Director. Brennan's billet will be filled by Thomas Willey for 30 days after which a 60 day rotational plan will be used until a new Director of PAR is selected.

## MPS Rewards Dolceamore with Number One Rating



Bob Dolceamore, SATD, is one of the "1" MPS people at NADC.

Bob Dolceamore may look young and he is, but his experience tells a different story. Dolceamore is one of only six of NADC's people who has received a one rating in the MPS program. MPS members do not receive within grade increases, but instead are paid according to their individual performance. What this means is that employees and their supervisors set up certain goals or targets for the employee to strive for. The attainment of these goals form the basis for performance evaluation, and the associated increase in salary.

In setting up his MPS goals, Mr. Dolceamore explained that the Center established various areas which each MPS member is expected to support via his defined goals. Areas typically include technical, business base, organization and operation, EEO and personal. In order to rate a "1", a member must achieve substantially above target in all categories. In highlighting his accomplishments, Bob Dolceamore explained that it was the extra effort that got him his "1" rating. Major accomplishments in critical defined goals included significant technical advances in the development of combat and related software products for the CV-ASWM Command Project program, successfully bringing in new work in new product areas for the Center, and improving organization by increasing productivity and automating where possible, Division

operations. Outside of his job, Bob Dolceamore is involved with Toastmasters International and an Explorer group and teacher for the Math and Computer Science Department at Bucks County Community College.

Bob has been at NADC since 1975 and currently holds the position of Division Team Leader for mission software and related software developments for the CV-ASWM (Carrier Based Anti-Submarine Module) Project. Bob holds both a Bachelors and Masters degree in Electrical Engineering from Drexel and a second masters degree in management. Before NADC he worked at the Frankford Arsenal on microprogramming and software design for fire control and diagnostics systems. Dolceamore started his government employment working for NASA as a student trainee.

To sum up his feelings on the MPS program, Dolceamore approves of the general idea but he sees some changes as inevitable. Goals, he said, must allow for some degree of subjectivity in their evaluation and more critically must be inherently flexible to account for changes in the situation; a characteristic all too common in our work in Research and Development. Overall though, Bob likes the people and enjoys his work at the Center and it appears he'll continue to excel at anything he tries.

## Going for a Ride on NADC's Big Wheel



Captain David Parrish, Deputy Chief of Naval Laboratories gets suited up for a spin in the centrifuge. HM2 Duane Murray, left and PR2 Jack Reed tighten the G suit. Picture at right shows Capt. Parrish in the gondola almost ready to go. Capt. Parrish enjoyed his ride and says he can't wait to come back and try it again.



## PAOs Meet for First Time



Bill Mulley of ACSTD gives a brief on advanced cockpit displays to NAVMAT PAOs.

For the first time a meeting of all the Naval Laboratories Public Affairs Officers was held at NADC. The concept of the conference was so PAOs and their staff could exchange ideas and concerns of mutual interest.

Captain David F. Parrish, Deputy Chief of Naval Material for Laboratory Management gave the keynote address. His main topic was "getting the word out." This means not only telling the public what the Navy Labs do, but also the Navy itself. The Officers Corps needs to recognize that a tour in the Navy Labs is challenging and enhancing. Parrish also stressed the requirement for compiling past accomplishments. Another topic on Parrish's list was fraud, waste and abuse. Part of the public affairs program is to let the internal audience know that these three things will not be tolerated.

Presentations by several Public Affairs Officers

highlighted case studies of problems common to the profession. Captain J. W. Stierman, NAVMAT Public Affairs/Legislative Liaison, talked about the atmosphere at headquarters and how it might change this year. Other speakers included Dr. David K. Allison, Historian of Navy Laboratories; Commander Brent Baker from the Navy Office of Legislative Affairs; Donna Mansfield, Technology Transfer Coordinator from the Naval Undersea Systems Center; Janet St. Amand, Legislative Assistant to Congressman James Coyne; and John Vickers, Public Affairs Officer from Naval Coastal Systems Center.

The entire format allowed for a free flow of ideas and a lively exchange of information that will be helpful in fulfilling the public affairs mission to keep people informed.

## Letter to Editor

Editor:

I would like to comment on an incident that occurred recently on Center. An employee became obviously sick with symptoms of a possible heart attack. His coworkers called the fire department for assistance. It took about 30 seconds, I was told, for them to arrive. Bud Coxhead of TSD's fire department treated the sick employee, taking his pulse, blood pressure and so on. Other employees in the area commented on how authoritatively and competently Bud handled a potentially serious situation.

I'm certain many of you are thinking—so what. That's his job and the fire department's, and that's what they're paid to do.

I don't think that there are many GS-4 or GS-5 employees in Civil Service who are called upon to take such awesome responsibility. I doubt that many of our employees volunteer (without compensation) to exercise their work-related skills for the benefit of their community. I also doubt that many of our employees spend their own time in training for which they might not be reimbursed. Many of our firemen spend significant amounts of their own time in community work and in improving their skills.

At this time we all know that support-related activities are under close scrutiny for possible contract to outside vendors. I'm not suggesting that a contract fire department wouldn't have adequately handled a similar emergency. I am suggesting that if every employee—professional, support or WG—approached his or her job as conscientiously as those who responded to this emergency, then the expression "good enough for government work" might never have been heard on this Center. I'm sure that it would have been little consolation to the stricken employee to hear that he was receiving treatment that was "good enough for government work."

Bob Larr

*I agree with your points and hope that everyone strives to do their best government work. Ed*

## Afro-Americans: after all is said and done...

by Maj. Eddie T. Miles Jr., USAF

WASHINGTON (NES)... It has been said that history is a witness of the times, the torch of truth, the teacher of life and the messenger of antiquity. Without history, people are rootless and, like a plant without roots, cannot grow and stretch forth to their rightful place in the sun. Nor can a rootless people take their place among other people of the world.

Who are Afro-Americans? Leone Bennet, in his book *Before the Mayflower*, tells of 20 Afro-American men and women who arrived in 1619 as indentured servants, not as slaves. He describes the heritage of Afro-Americans as the children of the gentle Mandingo, the spirited Hausus, the creative Yourbas and others too numerous to name. Their civilizations included the wealth and power of Ghana and the scholarly cities of Timbuktu, Mali, Songhay, Egypt and the kingdom of Kush.

The achievements of Afro-

Americans have slowly appeared in history books. The following people received no recognition until the black awareness movement updated history: Dr. Nathan Hale Williams, heart surgeon and founder of Chicago's Providence Hospital; Elijah McCoy, inventor of the self-lubricator which is used in trains, boats and other continually-run machinery; Dr. Charles Drew, developer of blood plasma and first director of the Red Cross Blood Bank; Dr. Ralph Bunche, Nobel Peace Prize recipient and former secretary general of the United Nations; and Matthew Henson, explorer, interpreter and the first man to reach the North Pole in Admiral Perry's expedition.

But what about today's Afro-Americans? Beginning with the leadership of Dr. Martin Luther King, they sat in, rode in and walked throughout this nation to win rights already guaranteed in the Constitution. The results have begun to show somewhat as Afro-A-

mericans begin to hold high positions in federal and local government and in the military. Twenty-two percent of the deaths in Vietnam were of Afro-American service members. A number of unit citations and individual medals were awarded. In essence, Afro-Americans have worked, fought and died to help make this nation great. Yet, somehow, these achievements have been "lost, stolen or strayed."

Young Afro-Americans, the Americans of the future, now have role models who not only live in America but are part of its strength and its future growth. The military, in particular, has provided youth with many significant role models to emulate.

But what of the future? It is the opinion of many that the theme of the Constitution of equality and justice for all has not changed and that we have begun to realize some of the benefits. Nevertheless, we cannot rest on our laurels; there is still work to be done. We must continue to cooperate and im-

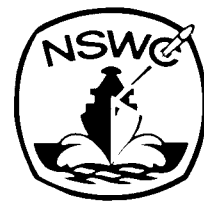
prove interpersonal relationships, awareness and understanding among this nation's diverse ethnic groups. Equal opportunity and treatment are

not only fundamental to the democratic way of life, they are essential to force readiness.

## Logo Ideas



Old NADC Logo



New NSWC Logo

The Public Affairs Office is soliciting ideas for use in designing a new unofficial logo for the Center. The present logo was adopted in early 1950's for use on badges, decals, plaques, displays, and the like. Ideas or themes to be portrayed in the new logo should be representative of the work done at this Center and should be bold, easily recognized and memorable, implying that NADC is as up to date and modern as any progressive corporation. Employees are encouraged to submit ideas as sketches or in narrative form. Material submitted will form the basis of a package which will be presented to the artist or firm commissioned to design the new insignia. Ideas should be submitted to the Public Affairs Office (091) by 12 March 1982.

## Commander Salutes

Thomas J. Shopple, Leslie W. Greenbaum and Joseph M. Spodaryk, all of Comptroller for their assistance given to the Defense Systems Management College on the Center Information System.

Systems Readiness Division for their support in getting backlogged Technical Feedback reports on-track.

Theodore R. Trilling, SATD, for his technical support in the fabrication and assembly of production TARPS (Tactical Air Reconnaissance Pod System).

Zinzinita King, EEO, for her participation as a course manager for the Department of the Navy Training, for Prevention of Sexual Harassment.

LCDR Richard E. Koehler, for his performance as a government acceptance pilot at a major contractor's aircraft overhaul facility.

Jules Lewyckij, ACSTD, for his assistance to the Naval Postgraduate School.

Thomas E. Milhous, ACSTD, for his contributions to the 17th meeting of the NATO Air Armament Working Party meeting.

Edward R. Wright, ACSTD, for his support of the NATO GGS Working Party.

Carl O. Reitz and Edgar A. Reed III, both of ACSTD, for their participation as judges for the AIAA/Bendix Student Design Competition.

Kenneth W. Foulke, SATD, for his contributions to the Executive Short Course on Naval Systems Survivability.

William Murray, SATD, Edward J. Wendell, SCD, and LCDR Raymond M. Umbarger all for their participation as members of the LAMPS MK III Production Readiness Review Team.

Albert J. McGlynn, SD, for his assistance during ECCM tests on the Advanced Medium Range Air to Air Missile (AMRAAM).

Scott M. Cote, ACSTD, for his presentation on Design of Navy Trainers given to the 1981 Aerospace Congress and Exposition.

Michael E. Mocenter and Vincent F. Cutilli, both of SATD, for their assistance to the Special Projects Detachment of Patrol Squadron 26.

LCDR Dennis D. Patton and Paul T. Terpeluk, of DCP, for their support in modifying the VP Special Project Aircraft.

John B. Wrigley, DCP, for his presentation on P-3C Software Development given to the Chief of Naval Material.

## Super Safety

By Mike Masington



Moriah Fitcauzer (developer of the infamous Fitcauzer filing system) reported for work as usual at the admin office of NAVCOMRAZLDZAL. Immediately beginning her duties she pulled out the Thompson file (filed under "J" for Jethro, Thompson's father's first name) and keeping efficiency in mind, left the drawer open planning to return the file momentarily.

She proceeded to type the required information on NAVCOM Form 3710.286 1/2 B/CH1, but noticed that her typewriter was still giving off that funny, tingling sensation whenever it was touched. Undaunted, Moriah pulled a stand-mounted manual into the aisle and continued typing. It was also rather stuffy in the room, so she turned on a small desk fan (the one the folks in the office had "liberated" from the USS Olympia in 1927.) She remembered that the boss had told her six months ago to order a mesh guard for it, but she had never quite gotten around to it.

Suddenly a phone rang on the next desk and Moriah, in a dazzling display of digital dexterity, managed to answer the call, continue typing and sip her coffee at the same time. At this point LCDR Vic Timized walked through the office and promptly tripped over the file drawer. His fall was broken however, when his chin contacted the typewriter in the aisle.

Paul Pane, administrative assistant, rushed to his aid, did a half-gainer on the outstretched phone cord, upset Moriah's precariously-perched coffee cup and scalded himself as he fell down.

Cathy Casualty, the other clerk/typist, began screaming; not because of the preceding events, but because her charm bracelet was being arcwelded to the shorting electric typewriter. Les Careful, another employee, tried to escape the carnage, but in his haste inadvertently put his hand into the spinning blades of the improperly guarded fan, and gave himself a semi-permanent manicure.

Suddenly, out of nowhere appeared that peerless proponent of personal protection, that selfless scion of secretarial security, SUPER SAFETY. Everyone stepped back in awe as the caped and masked safety crusader strode into the room. "Moriah, what have you done?" gasped the officionado of office safety. "This place makes the Battle of the Bulge look like a girl scout picnic." "Me!", seethed the startled secretary, "I didn't do anything."

Before responding, the unparalleled nonpareil of protection unplugged Moriah's typewriter. "Did you know about this short-circuit?" he asked. "Well, yes, but I keep forgetting to have it repaired," murmured Moriah meekly. "And did you leave the file drawer open, block the aisle with the typewriter and stretch the phone cord?" he continued. "Well, I, ah," she stammered.

"And wasn't that your cup of coffee balanced on the edge of the desk, and weren't you told to order a guard for that fan?" he pressed. "Do you realize that one out of every six office personnel are injured annually due to falls, trips, collisions and faulty or misused office equipment, and that most of these accidents are caused by the carelessness of others?" "Well, they'll just have to learn to be as careful as I am," retorted the self-centered secretary as she leaned back in her defective swivel chair. The words had hardly been uttered when the chair finally expired and sent her crashing to the floor.

As he helped her up, the scion of safety said, "Moriah, I hope for our sakes *nobody* is as careful as you are."

## Beni Suggs

Thomas G. Reiter, DCP, for suggestion titled "Expiring Funds Rubber Stamp." \$25 award.

John Richmond, PW, for suggestion titled "Deaerator Maintenance Safety." \$75 award.

Gale Katz and Marty A. Leonardo, Systems, for suggestion titled "Single Access Door in Bldg. 1, Col N19." \$50 award.

Naval Air Development Center

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CAPT James B. Anderson — Commander, NADC

Robert S. Buffum — Technical Director

Joseph P. Cody — Public Affairs Officer

David Polish — Editor

## Flying Safe with the Navy

Navy and Marine Corps aviators made 1981 the safety year in the history of naval aviation, according to recently announced figures. The major accident ("A" category) rate was 4.95 mishaps per 100,000 flight hours, the lowest rate ever recorded in naval aviation. VADM W. L. McDonald, Deputy Chief of Naval Operations for air warfare, lauded "the professionalism of every member of the aviation community." He noted that figures of even this "safest" year represent the loss of irreplaceable flight crew members and valuation aviation assets, and called for further efforts to attain an even lower mishap rate.

There were 28 fewer major mishaps in 1981 than in the previous year. Twenty-five less aircraft were destroyed and, most importantly, fatalities were reduced by eight. The sharp improvement in safe flight comes after a four-year plateau during which the mishap rate ranged from 6.1 to 6.6. The achievement revives a prior trend which reflected a gradually decreasing mishap rate from year to year.

The Navy's flight training command reduced their mishap rate from 2.68 to an all time low of 1.42 per 100,000 flight hours. Aircraft carrier embarked flight operations, the highest mishap rate category, improved slightly, but reductions were greatest in shore-based operations. This category improved from 5.37 in 1980 to 3.52 in 1981. The reductions represent significant dollar savings, since the average replacement cost of a first-line combat aircraft is approximately 30 million dollars each.

## CNM Awards Productivity

Seven commands have won 1981 Chief of Naval Material Command Productivity Excellence Awards.

Admiral John G. Williams, Jr., Chief of Naval Material, named the most exemplary commands from within the respective systems commands and navy laboratories. They are: Naval Air Systems Command; Naval Air Rework Facility, Jacksonville, Florida; Naval Sea Systems Command; Naval Shipyard, Portsmouth, Virginia and Naval Weapons Support Center, Crane, Indiana. Naval Supply Systems Command; Naval Regional Contracting Offices, Philadelphia, Pennsylvania. Naval Facilities Engineering Command; Public Works Center, Subic Bay, Republic of the Philippines. Naval Electronics Systems Command; Naval Electronic Systems Engineering Center, Vallejo, California. *Research and Development Laboratories; Naval Weapons Center, China Lake, California.*

Admiral Williams authorized two awards for the Sea Systems Command so that one could be given to activities engaged in ship repair/overhaul and the other for industrial ordnance activities.

Winning commands will be entitled to fly a specially designed flag during 1982 and will receive a plaque and citation for permanent retention. Every employee will receive a commendatory wallet size card. Additionally each winning command will be authorized to designate recipients of "CNM productivity fellowships" to a very limited number of employees. These fellowships will convey added recognition to the few employees whose contribution to productivity excellence has been most profound. Among the privileges to be extended to CNM productivity fellows, each will receive a specially created lapel pin, the design of which is based on a similar navy award from the World War II era.



# NADC Reflector

Volume 26, Number 3

Naval Air Development Center, Warminster, PA

March 1982

## Inside this issue

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- Health
- Letter
- Vanpool

## Chief Staff Officer, Capt. Sheehan is Impressed

Captain James Sheehan, NADC's new Chief Staff Officer, thinks the Center is one of the "U.S. Navy's best kept secrets." This is by no means a negative statement. Sheehan is extremely enthusiastic about the military and civilian population at NADC. "I've never been at any installation that has as happy and professional a work force as NADC does," he added. "Everybody," referring to both the civilian and military contingent here at the Center, "is well qualified." "I'm really impressed with the caliber of people at NADC, both technically and personally."

A native of Johnstown, Pennsylvania, Sheehan is one of ten children, seven boys and three girls, eight of which served in the armed forces. He graduated from the U.S. Naval Academy in 1958 and received his Masters in Physics (Underwater Acoustics), from the Naval Post-graduate School in 1966.

Captain Sheehan has been involved with maritime patrol aircraft since the early sixties. He started by flying P-5M sea planes out of Bermuda in 1960. He was the Project officer for the OPEVAL of the P-3C aircraft for the VX-1 in Key West during 1969 and 1970. Flying patrol missions in the Caribbean area Sheehan was involved in the Cuban Missile Blockade and surveillance of the Bay of Pigs Invasion. He also flew out of Thailand and the Philippines during the Vietnam War. Capt. Sheehan was the commanding officer of Patrol Squadron Twenty-three based in Brunswick, Maine in 1974-1975.

Washington was the next stop for Sheehan with a tour in the Naval Air Systems Command. As the advanced development Project Officer for Land Based Multi-Mission Aircraft he dealt extensively with NADC and got to know many of the people here. He next went to the Industrial College of the Armed Forces, a senior service school in Washington. From there, Sheehan joined the personal staff of the Chief of Naval Operations. His position was that of Deputy Director of the CNO Executive Panel (OP-00KB). This panel comprised of high level military and civilian advisors, briefed the CNO



Captain Sheehan thinks NADC is one of the Navy's best kept secrets.

on major developments in Soviet naval and military forces, analyzed current and future Navy policies and programs and provided independent assessment of the Navy's capabilities and role in support of national policy.

From his tour with CNO Sheehan requested to come to NADC. He stated that "after Washington, coming here is like joining the real world again." The Chief Staff Officer billet at NADC is a flying position and Sheehan is happy

to get back in the cockpit. He also gets gratification from seeing things happen and would like to become more technically involved.

Sheehan and his wife, Lou, reside in Quarters 'B' aboard the Center. They have three children Cinda, Colleen, and Brad. All three are currently attending college in the Virginia and West Virginia areas.

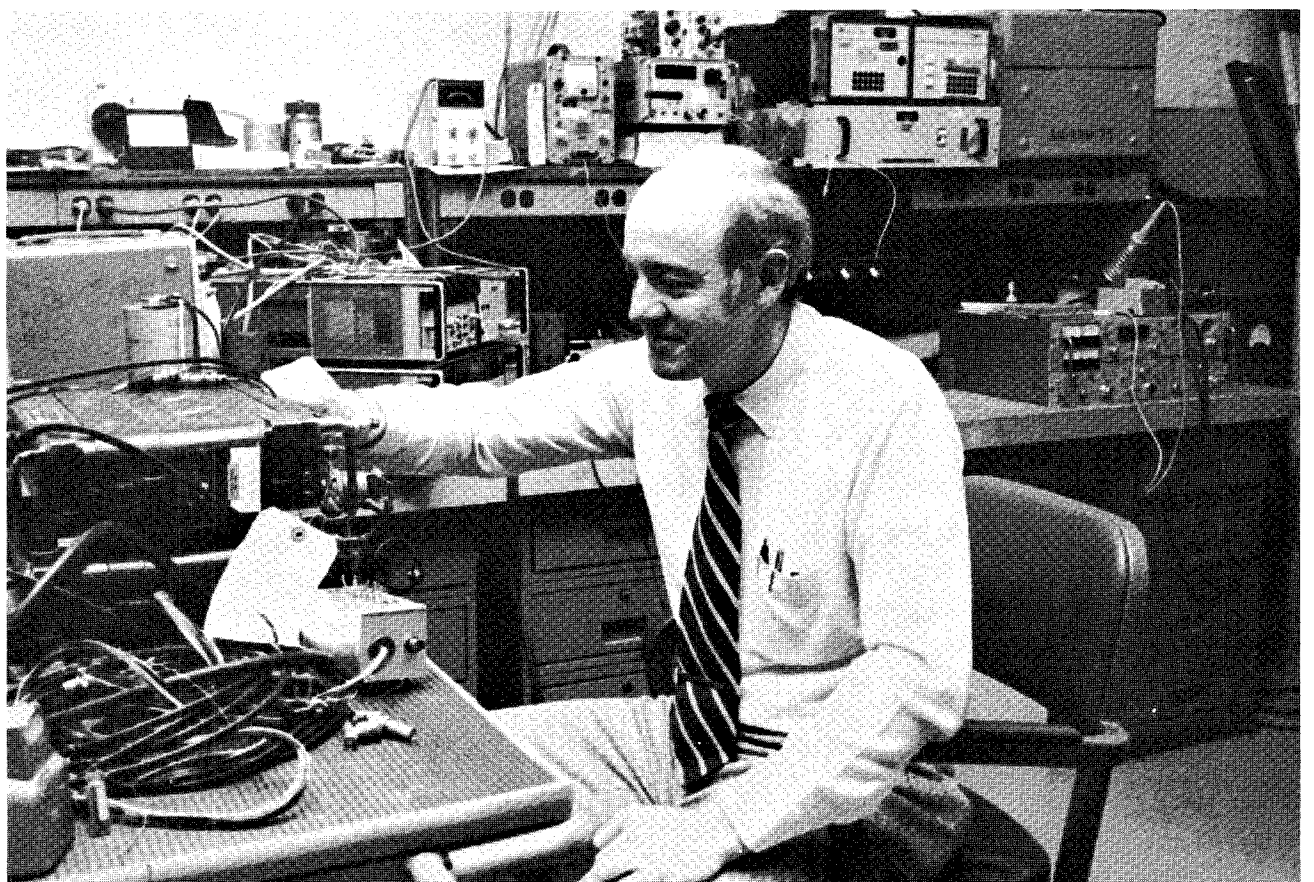
Having a "can-do" attitude and being enthusiastic about his work are two of the things that helped Jack Pye, CNTD, get his merit pay system "I" rating. Pye also attributes his success to a positive outlook and to viewing setbacks as something minor and temporary. As a project engineer in the communication command and control division, Pye is responsible for work on data link equipment for Marine Corps sensor programs and developing new techniques for relay of naval communications.

Pye holds a BS in Physics from St. Joseph's, a Masters in physics from Temple, and completed course work for his doctorate at Temple. He came to NADC in 1965 after co-oping at General Electric and Philco and working on basic research at the Franklin Institute for five years. Pye's first major project was developing sensors for use in Viet Nam. Because of the urgent need for the sensors he learned no problem was insurmountable and a can-do attitude resolved most problems. "These qualities remained with me," Pye said.

When asked about what things got him his "I" rating, Pye mentioned sensitivity to his directorate's objectives and flexibility. He also said bringing in new work and meeting project milestones were equally important. Enthusiasm for the job is the key to Pye's success. He also highlights his knowledge of hardware development. "Understanding the problems of the hardware makes it easier to put setbacks in perspective." He says that it's unfortunate that some new engineers coming into the government won't have the hardware background.

A Doylestown resident, Pye is involved as an umpire in Little League baseball and basketball. He has been a member of the Warminster Symphony Orchestra and enjoys playing the piano and listening to music.

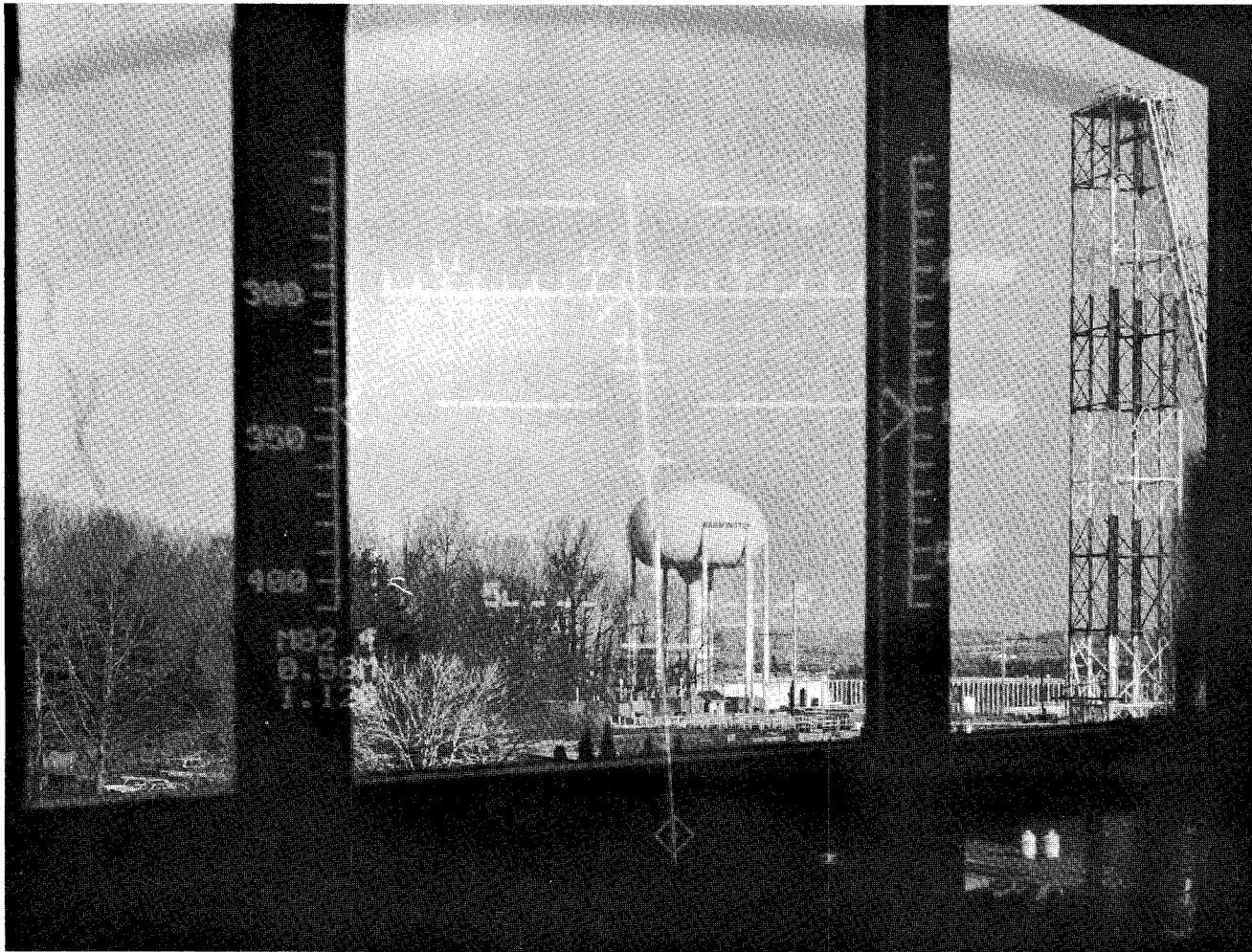
## Jack Pye Says, "Can Do" Did It



Jack Pye says a Can-do attitude can get things done.



# NADC Makes Important Contribution To HUD System



**This is a simulation of what a pilot sees through a HUD.**

by Harold Green

A Head-Up Display (HUD) is an electro-optical instrument that displays both flight and weapon delivery information to the operator of a high performance aircraft. The image is collimated so that the displayed information is superimposed on the outside world and does not require refocusing to see both at the same time. This information is used in modes such as, take-off, navigational, landing, weapons delivery, terrain follow-

ing, approach and landing.

In the early days of the development of this device, NADC played a significant role. Considerable effort in HUD displays during the late 50's and early 60's was directed by the Airborne Instrumentation Laboratory (AIL) of NADC under the capable direction of the late Lou Guarino. This program revolutionized the entire concept of cockpit instrumentation. Its thrust was to

contend with the growing pilot workload and to simplify the presentation of increased information.

The early use of the HUD was for weapon delivery. This was typified by the Naval A-7, A-4 and F-14. Today on the F-18 and AV-8B the HUD is designated the primary flight display and if the HUD is not operational and performing normally, these aircraft are grounded.

In commercial aviation, the HUD is operational in new Douglas DC-9-80 stretched aircraft, and is being considered in Boeing 767 aircraft and other new airliners. HUDs are also being retrofitted into existing 727, 737, and 707 cockpits. The NASA shuttle is also considering the addition of a HUD.

A milestone was achieved during late 1981 in the development of a diffractive optics HUD by Hughes Aircraft under the sponsorship of the Naval Air Systems Command/NADC Advanced Integrated Display Systems program. The improved capability of the new diffractive HUD over the conventional refractive type presently in aircraft use are increased field of view, improved HUD viewability, more reliable operation and lower life cycle cost.

In the realm of display performance, a diffractive HUD permits an extended off boresight coverage enhancing acquisition, target designation, and attack and landing modes.

The capability for simultaneous air-to-air and air-to-ground coverage without switching or adjustment is present.

Additionally, reduced pilot's head movements, reduced display clutter, added peripheral symbology, and minimum visual obstruction in the central field are all advantages of the new HUD.

The HUD is currently being evaluated in the Manual Air Combat Simulator (MACS), McDonnell Douglas, St. Louis. It is planned that the HUD will be installed in an F/A-18 aircraft for preliminary flight test in the Feb/Mar 1982 time period.

Subsequently, the HUD will be returned to the Crew Station Evaluation Facility (CREST) at NADC, for a Human Factors evaluation to develop advanced HUD concepts.

# Healthy Awards

by Sylvia Wasylyk

Today we will look at the Presidential Sports Award. This is a program which is basically an extension of the scholastic physical fitness program used to test the fitness levels of school age children. I guess someone in Washington decided that the kids shouldn't be the only ones to have all the fun so the program was extended to include adults also. There are 43 different sports in which you can qualify, and you can participate in just one or all 43 sports. Following is a quote from the Presidential Sports Award council . . .

“The Presidential Sports Award stands for a commitment to fitness through active and regular participation in sports. Earning this award means that you have put in time and effort to meet the challenge of personal fitness. The award recognizes this achievement and the fact that you are a part of a nationwide effort towards a healthier, more vital America.

“Upon qualifying for the Presidential Sports Award, you will receive a personalized presidential certificate of achievement suitable for framing. In addition, you will get a presidential sports award blazer patch, lapel pin, decal, and membership card, signifying your accomplishment and dedication to personal fitness.”

Below are listed a few examples of qualifying sports and standards.

## GOLF

1. Play a minimum of 30 rounds of 18 hole golf within a four month period.
2. No more than one round a day can be credited towards the total.
3. No motorized carts may be used.

## JOGGING

1. Jog a minimum of 125 miles in a four month period.
2. No more than 2½ miles in any one day may be credited to the total.

## FITNESS WALKING

1. Walk a minimum of 125 miles in a four month period.

**Letter:**  
**Holiday Shutdown Causes Vacation Crisis**

To the Editor:

My comments are made in response to the article "Energy Saved" in January's Reflector. The shut down is not a "nice long vacation." It is a forced vacation or shut out. Unemployment benefits should be available to NADC personnel! Personally, I like to say as to when my vacation is to be taken. A week in the summer sun is more appealing than a week in the cold, snowy, bone chilling winter.

Secondly, if the base wishes to conserve energy at the expense of its employees, why not close completely. The point being, energy used to operate our facilities is put to productive use. No energy, no product. For employees earning two weeks annual a year, a shut

down is not welcome. Apparently, the only people happy with the policy are long time employees with use or lose time to burn up.

Bill Frazier  
Code 6063

I know that some people agree with Mr. Frazier's criticism of the holiday shut down. I like to take my leave when I want to. But I am willing to make a sacrifice during the holiday time to help save energy. For those people who do not want to use their leave during the shutdown, arrangements can be made to work during the holiday. Please note that only four days will be charged to leave this year.

2. Each walk must be continuous, without pauses for rest, and the pace must be at least 4mph (15 minutes per mile).

## SOFTBALL

1. Play or practice softball skills a minimum of 50 hours in a four month period.
2. At least 20 of the 50 hours must be in organized league or tournament play.
3. No more than 1 hour in any one day may be credited towards the total.

Other sports include orienteering, weight training, karate, rifle, sailing, canoeing, fencing, backpacking, and more. For information and a free fitness log, send a stamped self-addressed envelope to:

Presidential Sports Award  
P.O. Box 5214  
FDR Post Office  
New York, New York 10022

Feel free to give me a call (ext. 2618) for information.  
Til next month . . .

Naval Air Development Center

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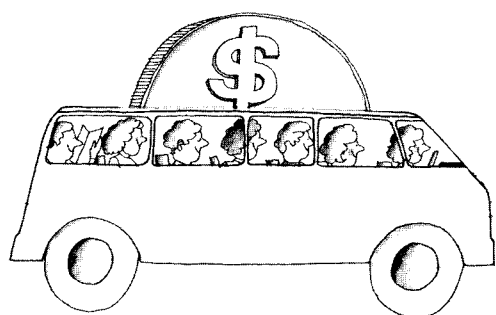
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CAPT James B. Anderson — Commander, NADC  
Robert S. Buffum — Technical Director  
Joseph P. Cody — Public Affairs Officer  
David Polish — Editor



## Share a Ride and Save



by Kathy Gorman

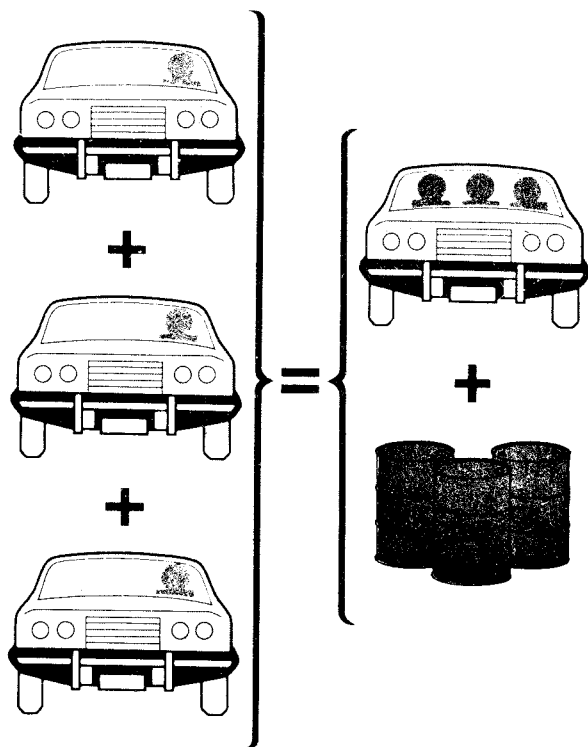
What is the best way to commute to and from work saving time, energy and money? Ridesharing . . . naturally. The definition of ridesharing is when two or more persons travel by any mode of transportation, including but not limited to carpooling, vanpooling or public transportation. Whatever means you choose the ultimate results are a plus for everyone. We all know that by ridesharing we can save gas, improve air quality, alleviate the swell of congestion and cut down on environmental problems and pot holes. That all sounds great, and we as a nation should be concerned with these problems. But when it comes down to an individual devoting himself to the relief of this situation the usual reaction is to let the other guy do something about it.

It is really tough to even consider a ridesharing program right now when fuel is easily accessible and at a price lower than we've seen in a long while. But what about tomorrow . . . or how about the other benefits? With ridesharing you can eliminate a lot of the hassle you now are facing every morning and afternoon. Longer home-to-work distances are more conducive to ridesharing because cost savings increase with travel distance.

During the week of 22 March 1982 Ridesharing Survey Forms will be distributed to all employees. The results of this survey could assist you in either joining or forming a carpool. Take a minute and fill out the form, it could make your daily commute a pleasant experience. All forms should be returned to the Public Affairs Office by 31 March. Consult the Ridesharing Locator Map to indicate your location on the form. The Delaware Valley Regional Planning Commission will return the results by 26 April 1982.

**IS ANYBODY OUT THERE?** Anyone interested in heading up a vanpool using the loaner van from the Delaware Valley Regional Planning Commission should contact the Public Affairs Office at x3067.

1982 RIDESHARING CAMPAIGN.



**Correction:** Bob Dolcemore is a member of SCD, not of SATD as reported last month.

## Parking Pains, We all Have Them!

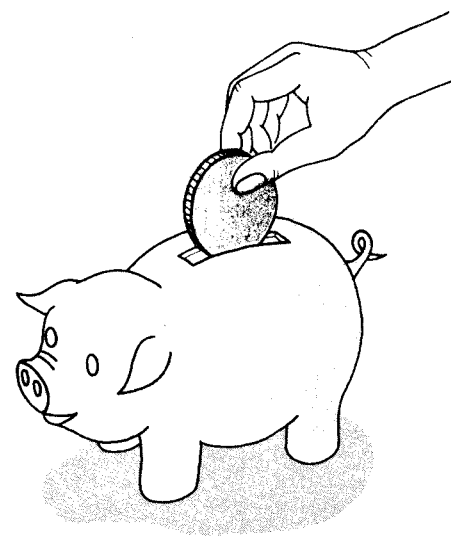
You say everytime it rains your back goes out of whack, and your dog went out to play and returned with the Ringling Brothers Flea Circus in his fur, and your cousin just struck it rich with your last \$10 that your wife lent to him because he cried the blues for five hours straight. Is that what's troubling you Bunky? Well those may be big problems to some people but what's really troubling alot of employees at NADC is parking. It seems as though you have to get up early in the morning to get a good parking space. Part of the problem is people who have cars with no parking stickers or passes. Chief John Kupetz explained that on one recent morning, a check uncovered 60 vehicles that were not cleared for compound parking. The problems seem to be confined to lot #1.

Because people like to park close to their work area more people use lot #1. The rub is that lot #1 can't hold all those cars. When it becomes filled people park illegally in fire lanes and against fence areas causing congestion and hazardous conditions.

Several things, according to Kupetz, are being done to help alleviate the crunch. First, a move is afoot to eliminate all reserved parking from lot #1. All carpools,

special medical and executive spaces will be moved to the inner compound. Next a very close check is being made on the validity of parking stickers and carpool passes. Right now there are about 5,000 vehicles registered with 309 carpools and 90 special medical passes issued. In addition, there are 716 preferred innercompound spaces. The 5,000 number comes from employees who have more than one car and retirees.

Although the number of parking spaces is finite, at this time about 2,300 spaces are available. Unfortunately parking lot #2 has the empty slots. It's a walk if you work in building 1 or 3. Carpools and vanpools can help reduce the crunch. Do you have any ideas on how to ease the problem? Contact the "Reflector" code 091.



## Jump Into a Vanpool

by Kathy Gorman

The latest rage in ridesharing is vanpooling. And why not—one vanpool could possibly take 15 cars off the road. How can a vanpool benefit you? Read on . . .

- Vanpooling is cheaper. Your car is costing you a substantial amount each week. Think about it . . .

Gas  
Oil  
Tires  
Maintenance and Repairs  
Depreciation

Not to mention the possible elimination of the second car.

- Vanpooling can be used as an alternative to public transportation. It can be convenient and cost effective. It can also be a safer mode of commuting to and from work. Plus, you'll always have a reserved seat.

- Vanpooling saves energy. Think of the energy you consume everyday fighting your way to work through the traffic. It seems like the world starts work at 7:30 a.m. and quits at 4:00 p.m. By the time you get to your desk in the morning you feel like you've put in eight hours already. As a member of a vanpool you can sit back and relax. Maybe read the paper, catch a few extra winks, or enjoy the company of the other members.

- Vanpooling saves time. Anyone who comes to work later than 8:00 a.m. knows what it is like to try and find a parking space. Vanpools warrant a reserved parking space. Besides, if getting to work on time is a problem for you, vanpooling could even help that.

- Vanpooling is dependable. On snow days it's easier for a van to make it through the snow with its weight distribution.

- Vanpools are convenient, cheap and clean. If you commute long distances to and from work, vanpools warrant serious consideration.

- Everyone benefits from vanpooling—  
Driver—commute for free and have personal use of the van

- Employers—improve employee morale and punctuality

- Communities—ease traffic congestion

The Delaware Valley Regional Planning Committee is supplying NADC with a loaner van for the month of May. With the results of the survey they will identify a group of 15 that could most benefit by vanpooling. A representative from the Delaware Valley Regional Planning Committee will be on-Center with a demo van on 31 March 1982. The 1982 Dodge Ram Van will be on display outside the cafeteria from 11:00 a.m. to 12:30 p.m. The representative will also be available to answer any of your questions.

Get out of the rush hour rut and switch to vanpooling.

The old adage "cheaper by the dozen," really does apply to vanpooling. Interested? According to the Delaware Valley Regional Planning Commission there are two companies, "Community Vanpools" in Valley Forge and "Vanpools of New Jersey," who organize vanpools. They supply everything needed to start a vanpool. They even assist in finding interested people who want to become a member of a vanpool. The driver is only responsible for driving, and the company takes care of everything else, such as maintenance and insurance. Depending on the mileage to and from work passengers could pay a maximum of \$3.00 a day.

## Open Season

An open enrollment period for Federal workers and retirees in the Federal Employees Health Benefits Program will be held from May 3, 1982 through May 28, 1982. Enrollment changes will be effective on July 1 for annuitants, and on July 11 for most active employees.

The decision to hold an open season in the FEHB Program was made following administrative hearings held by OPM on February 22 and 23, 1982.

OPM had postponed the open season originally set for November 9-December 11, 1981, citing pending litigation which made final benefit and premium levels uncertain; the unavailability of informational literature on benefits and premiums, which could not be printed until the court suits were settled; and serious questions regarding the financial stability of some carriers in the event of an open season under such circumstances.

During the May open season, employees and annuitants will have the opportunity to change from one health plan or option to another, or move from a self-only enrollment status to a family status. Employees who are not presently enrolled in the FEHB Program will have the opportunity to enroll.

OPM has also tentatively scheduled another open season for later this year. It would run from November 22, 1982 through December 10, 1982.

## Commander Salutes

ADCS Robert D. Evans, ADCS Larry Q. Sicher, ADC Daniel F. Hill, AW1 Russell P. Harney, William E. Myers, LT Stanley D. Bozin, LT Raymond B. Bowling, LCDR David T. Cudia, and CDR Leino B. Corgnati all for their support to MAG-49, VP-66 and VP-64 during runway repairs at NAS Willow Grove.

David B. Bailey, ACSTD, for his briefing on Lighter-Than-Air in the Maritime Patrol Mission given to the Operational Research and Analysis Establishment, Ottawa.

Dr. Bruce Steinberg, SATD, for his support of the Council Rock Career Fair.

Alan H. Blumenthal, Joseph B. Lyons and David Davis, all of SATD, for their participation during the First Annual Combat Identification Systems Conference.

Douglas W. Seider, Kevin R. Haggerty, James D. Myers, Calvin Harvey, William J. Adams and John Fuller, all of TSD, for their outstanding performance during the recent train accident in Southampton.

Joseph Tronolone, Thomas E. Sanders, Robert C. Hibbard, Francis A. Karwacki, David R. Morris, Robert A. Leonards, Herman S. Altman, Herbert L. Seligman and Barbara A. McGrath, all of CNTD, also Arthur R. DuHaime, TSD, and CAPT Richard Fidler, DCP, all for their support of the 15th Joint Services Data Exchange Group for Inertial Systems.

Lea A. Joret, Supply, for her completion of the Management of Defense Acquisition Contracts Course.

Frederick C. Weist, Charles W. Olson, Stanley M. Olenick, Dean S. Nathans, Charles A. Henderson, Thomas P. Crodtt, Patrick J. Finnegan, James T. Eck, and Theodore E. Barron all of CNTD, also Wayne E. Phillips, SCD, Thomas F. Long, DCP, Robert C. Larr and Ross R. Barcklow, TSD, and LCDR Chad E. Norton, DCP, all for their contributions during on-site testing of Joint Tactical Information Distribution System Advanced Development Model Terminals in San Diego.

Marion Stahowicz, Tom McLaughlin, Walter Davison, Desmond Preedy, Daniel Schaeffer, John Hannon, Elwood Leibrandt and Harry Davis, all of PW, AE2 Lee Lilley, AE2 Daniel Hammett, AMS3 David Bell, AD3 Michael Lindsey, AMS2 Steven Story, ADAN Wayne Smith, AD2 Jesse Raudenbush, AT2 Richard Gray, and AD3 Kenneth Garbe all of the Aircraft Department, also

J. Rossetti, C. Snyder, R. Guinan, W. Pelletier, E. Byers, John Fellenz, J. Wolfgang, T. Munyan, C. Sanchez, D. Seider, M. Gindele, E. Peterson, T. Adams, A. Keiss, John Fuller, G. Watson, and R. Cox, all of TSD, PR1 Timothy Knowles, Aircraft Department, AW2 Mark McQuilling, DCP, MSC Thomas Hamacher, Command Admin, AK1 Robert Keck, MS3 Bobby Thomas and MS3 Charles Lind, Supply, all for their quick response and effort in minimizing flooding damage caused by a burst water pipe.

Emil S. Bazow and Michael Yuresko, DCP, Thomas J. Green, Harry J. Ubele, Howard D. Sheckman, Bruce C. Burset, James D. McFarland, Thomas H. Odom, Richard W. Black, Robert F. Greenwood and Elaine T. Johnson, SD, Theodore R. Trilling, W. Scott Nissley, John H. Price, Jr., Norbert J. Armstrong, Glenn J. Jadney, David W. Schuck and Walter L. Harriman, SATD, James T. Eck, CNTD, Kenneth G. Mergner, Sebastian W. Nicolo, Anthony M. Panaro and Edwin L. Water, ACSTD, also John Swan, Carl P. Plantarich, William H. Brown, Andrew G. Daymon, Donald A. Allen, Nicholas Tursi, Ralph Tinari, Lawrence J. Miller, Vincent A. Morelli, Richard P. Butkus, Joseph F. Belzer, Frederick L. Wiggs, Vincent J. Misticoni, Dominic E. Zaccaria, John T. Rudolph, Phillip P. Porter, Donald F. Andres and Harry F. Cain, all of TSD, Barney B. Krosnick and John E. Indelicato, Supply, and Aron J. David, TD, all for their outstanding support and efforts in meeting the Tactical Air Reconnaissance Pod System (TARPS).

Steven Stark, SCD, for his program support to AIR-360 and AIR-310 on the PO-84 Information Assessment Program.

Dr. Arno Witt, SATD, and LCDR Gene P. Bender, DCP, for their coordination of a recent visit by CAPT Friichtenicht, AIR-03.

Irving Shaffer, ACSTD, for his presentation on Navy Electronic Hardware given to Honeywell.

Leonard J. Buckley, Thomas M. Donnellan and Ronald E. Trabocco, ACSTD, and Gregory P. Catrambone, SATD, all for their participation in the 1981 Joint USN/USAF Science and Engineering Symposium.

John Shannon, SATD, for his contributions to Project LINEAR CHAIR.

Edward Yannuzzi and Anthony Madera, SATD, for their efforts during a recent visit by RADM F. W. Kelly.

## New Officers For Toastmasters



Renae Davis, Arleen Anderer, Rockne Anderson, Robert Hayes and John Hester from l to r are new officers.

The 1982 NADC Toastmaster Officers were installed at a Jan. 26, 1982 luncheon held at Warminster Manor in Warminster. The installing officer was Area Governor Robert Hayes (50) who thanked and dismissed President Rebecca Gray (04) and her 1981 officers. The 1982 slate of officers installed were the following:

President—Rockne Anderson (30)  
Educational V.P.—Robert Hayes (50)  
Administrative V.P.—John Hester (20)  
Secretary—Renae Davis (20)  
Treasurer—Arleen Anderer (20)  
Sergeant-at-Arms—John Bowser (50)

Three awards were given at the luncheon. The

Toastmaster of the Year and the Most Improved Speaker awards recipient was Robert Hayes (50). Larry Smith (50) was given an Appreciation Award plaque for his long service to Toastmasters. He has been an active member since 1968, serving as President several times and as Area Governor.

The aims of Toastmasters are improving communication skills by public speaking, improving listening, developing management skills and encouraging reading through a reading program. Anyone interested in learning more about Toastmasters, please contact Rockne Anderson (30) on extension 3231.

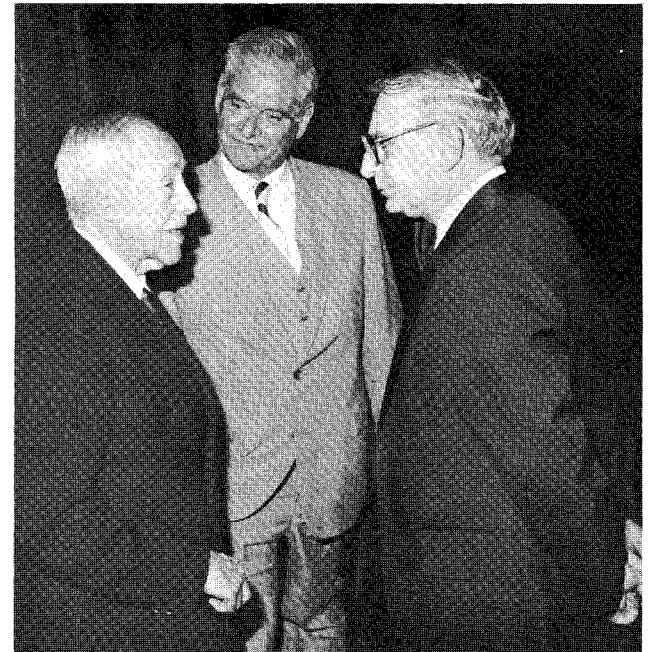
## Computer Information

All personnel are welcome to hear Dr. Ned Wolff, Asst. Prof., Math and Computer Science, Beaver College speak on Computer Science certificate programs and Associate Degree programs for non-degree personnel as well as those with Bachelor degrees who are interested in alternative career opportunities, career growth or a career change.

April 6th, 11:30 A.M., Center Auditorium.

Sponsored by Woman's Advisory Committee. Contact Zinnie King X3061 for details.

## Taussig Talks



Capt. Ralph S. Barnaby USN Retired and NADC's first commanding officer talks to Dr. Taussig and Don Morway.

NADC's chapter of the Naval Civilian Administrators Association (NCAA) hosted Dr. Joseph K. Taussig, Deputy Assistant Secretary of the Navy for Civilian Personnel Programs and Equal Employment Opportunity at a dinner held on Center. Dr. Taussig addressed the need to streamline personnel procedures by cutting down on Headquarters issued instructions and letting the field activities deal with specific policies. Taussig also talked about bringing the military and civilian employees closer together. Outgoing NCAA President Don Morway announced the new NCAA officers for 82-83. They are: Frank Drummond, President; David DeSimone, Vice President; Zinzinita King, Treasurer; and Janet Koch, Secretary. Morway closed the meeting by thanking everyone for the support during his term as president and wished the new officers the best of luck.

## New Titles

Following is a partial list of books recently added to the Technical Information Branch. Visit or call your library at x2541 to inquire about these books.

### COMPUTER SCIENCE

Digital Research TK 7887.D4

Microprocessors Home Study Course: Measurement and Control QA 76.5.M4

Symposium on Logic and Data Bases [edited by] Hervé Gallaire and Jack Minker QA 76.9.D3S97

Very Large Scale Integration (VLSI): Fundamentals and Applications [edited by] D. F. Barbe TK 7874.V4

### ENGINEERING

Engineering Applications of Correlation and Spectral Analysis Julius S. Bendat and Allan G. Peirsol TA 340.B427

Repair and Remodeling Cost Data: Commercial and Residential Rober Snow Means Company TH 3401.R6R4.

### IMAGE PROCESSING

Content-Adressable Memories Teubo Kohonen TK 7895.M4K63

Image Pattern Recognition V.A. Kovalevsky TA 1650.K6813

Image Reconstruction from Projections: Implementation and Applications [edited by] G.T. Herman TA 1632.148

Picture Processing and Digital Filtering [edited by] T.S. Huang TA 1632.P53

Structural Pattern Recognition T. Pavlidis Q327.P39



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## NADC Navy Relief Drive to Start 4 May



Members of the "Topside" Team show their strength by arresting an A-7 aircraft in preparation for the NADC Super Stars competition for Navy Relief.

Spring at NADC brings warmer days, thoughts of "hot dogs, baseball, apple pie, and Chevrolet," and, the annual Navy Relief Fund Raising Campaign. To the many military and civilian employees at the Center, Navy Relief means ice cream and hoagie sales, raffle tickets, and the many traditional events that surround the annual drive. But to many Navy and Marine Corps personnel it means much more. It represents emergency help in times of unanticipated financial crisis, assistance recovering from natural disasters, visiting nurses and medical care programs for housebound wives and widows, and many other worthy endeavors.

The annual drive for funds for Navy Relief is held each

year during the period from 4 May through 6 June to commemorate the Battles of Coral Sea and Midway which occurred on those dates. During this time, all Navy and Marine personnel and their civilian friends and supporters are asked to contribute to the Society so it can continue to provide assistance when needs arise.

Interestingly, the Navy Relief Society was founded in the Philadelphia area by a physician, Dr. William White. Prior to 1903, it was a tradition aboard ship to pass a hat around the wardroom table to obtain funds to assist in caring for widows and children of Navy personnel. Dr. White suggested that instead of "passing the hat" the entire receipts of that year's Army-Navy football game be

made available for the relief of widows and orphans of both the Army and Navy. The idea was accepted and the proceeds, amounting to \$18,000, were divided equally between the two services. The Navy lost the football game (40 to 5!), but instituted one of its most worthwhile organizations when the Navy Relief Society was incorporated two months later in January 1904. During that first year, seven auxiliaries were established. By 1924, branches were located at twenty-four major Naval stations and Marine Corps bases. Today there are over 125 Navy Relief Offices ashore and afloat around the world, with over 3,000 full and part-time volunteers manning the offices.

The Naval Air Development Center has traditionally provided strong support of the Society's annual drive. This year should be no exception. Center Commander, CAPT Anderson, has expressed his full support of the drive, and encourages all Directorates to be enthusiastic and active participants in the campaign.

CDR Gary Smith (603B) will be this year's Campaign Chairman for NADC. CDR Smith has indicated that many of the traditional activities associated with Navy Relief will be conducted. The highlight of the drive will be the raffle with the grand prize of a 1982 Chevette Scotter ("... hot dogs, apple pie and Chevrolet!"), with home computers as second and third prizes. Many other prizes will be raffled off during the course of the drive.

Some of the upcoming events include an NADC Super Star Competition which will consist of teams from the center competing for a prize. There was an exhibition match on April 21st.

The VS program will be holding its annual barbecue lunch featuring its fine cuisine of Viking Burgers and Viking Dogs. It will be held at the Crow and Chevron Club, which will provide the live entertainment every Tuesday from 1100 to 1330, starting May 4th. So, eat, drink, and be merry while supporting your NADC Navy Relief Fund.

Other events in the works include an opening dance on May 6th, a Cavalcade of Corvettes, a flower sale for Mother's Day, bake sales, hoagie sales, ice cream sales and many, many more events. So, why not help support the Navy Relief and have fun doing it.

If you have questions about, or would like to donate to the drive, please contact CDR Smith at 2736/2093, or Deputy Chairman LT Dan Paterson at 2142/2144.

## High School Student Likes Working at Center

Michelle Cho, a senior at William Tennent High School in Warminster, leads a double life. Part of the day she is a normal student attending classes. But for three hours each school day she works in the Electrical and Flight Control Branch of ACSTD. Cho is part of NADC's Research Apprentice Program which allows high school students to get a taste of what it's like to work in a real laboratory.

Having decided to become an Electrical Engineer, Cho, through her school, applied for the Research Apprentice Program here at the Center. Her supervisor, Edward White, explained that the program lets students work on real projects and helps them decide whether their career choice is a good one. Since last summer Cho has worked on schematic drawings, fabrication and wiring of a current driver for solid state power controller and a multiple ejection rack. She has also checked out the wiring of the advanced aircraft electrical simulator. "She's a real asset to the program", White said. "Michelle fits into the team atmosphere and works well with the people in the lab", he added.



Michelle Cho, left, discusses an electrical plan with John Bowes.

"When I decided to get into engineering I saw that NADC had the best program around," stated Cho. She added that, "There are lots of career opportunities in engineering."

Cho graduates this year and plans to CO-OP here while she attends Virginia Polytechnic. Both she and White recommend the Research Apprentice Program for other students that have an interest in the engineering fields.

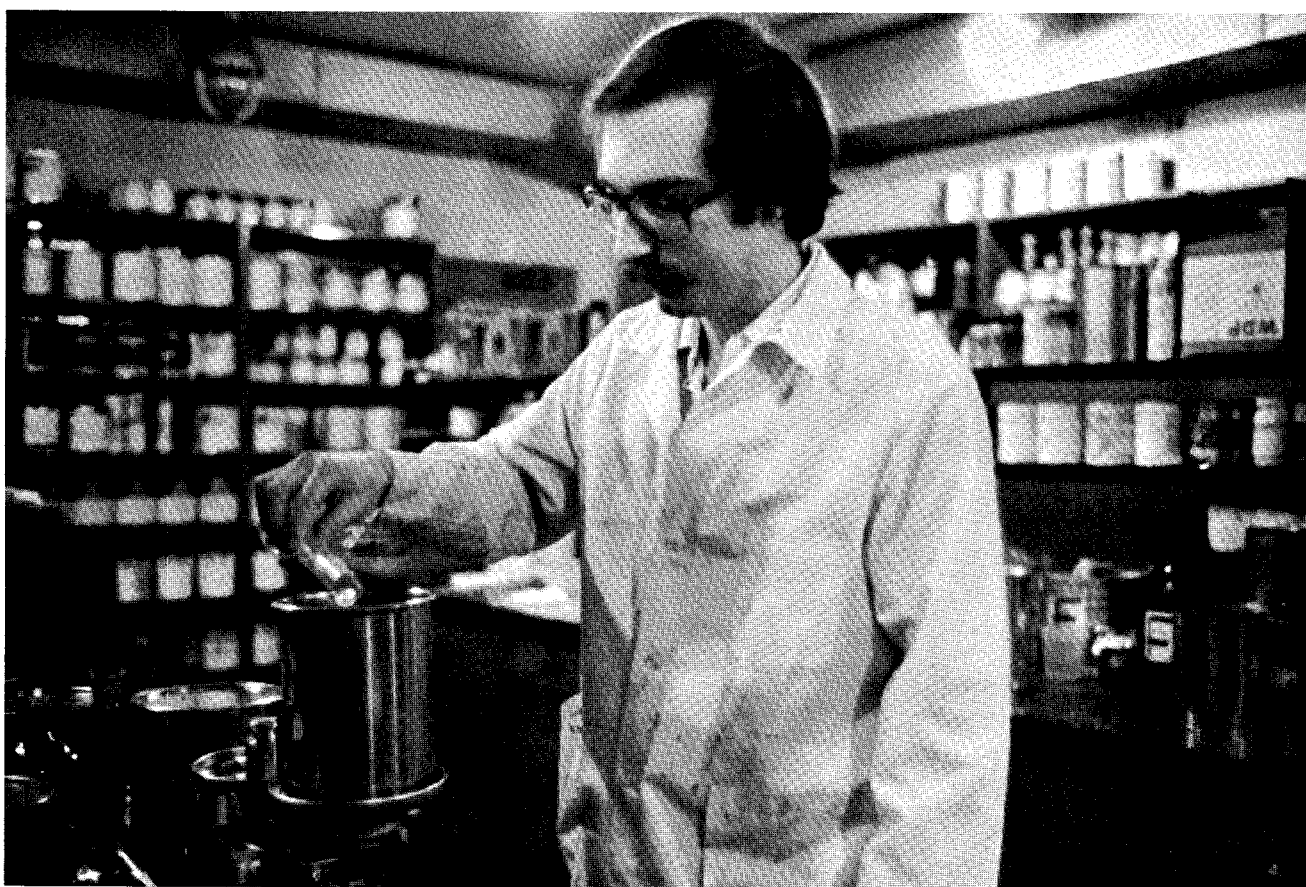
# New Paint Halts Corrosion in Rough Climates

You're on an aircraft carrier. It's damp and there's plenty of salt spray. You have a job to do, making sure aircraft and equipment are protected from corrosion. The environment is pretty rough for making spot repairs to chipped and cracked paint surfaces. To help make the job easier Charles Hegedus of ACSTD's organic coatings team under the Materials Protection Branch has, along with Ken Clark, came up with a new formula for paint that actually displaces water that is on the surface of the material that needs to be protected.

The new paint which is so far called Water Displacing Paint (WDP) is an offspring of AMLGUARD, a product developed here at NADC to temporarily protect exposed metal surfaces. Hegedus started working on the new paint when he was a NADC CO-OP in 1978. He graduated from Drexel University in 1979 with a degree in chemical engineering.

Advantages of the new paint are many. It is a one step coating with no mixing or primer required. Different colors can be obtained by using standard tinting pigments. Also WDP can be packaged in aerosol cans or in bulk quantity for regular spraying. Hegedus explained that both laboratory and shipboard tests have been carried out. The results show WDP to be flexible, durable, resistant to corrosion, and chemical and heat resistant.

A patent is now pending for the paint formula. Hegedus added that the development of WDP was a team effort, "everyone contributes and that makes it successful". The organic coatings team is now working on counter-measures coatings and ways to reduce toxic components in paints and other coatings.



Charles Hegedus measures out the components for a paint formula.

## NSAP: Quick response to fleet problems

### Navy Science Assistance Program

One way that CNM labs and centers keep on top of fleet operational problems is through the Navy Science Assistance Program (NSAP). NSAP is a program through which the R&D community identifies fleet deficiencies and provides fast solutions.

#### VLAP to NSAP

The Director of Navy Laboratories (DNL) established NSAP 11 years ago. Its operating methods and aims grew out of experiences of the Vietnam Laboratory Assistance Program (VLAP, 1967-72). The idea of putting together small teams of civilians under the Commander, Naval Forces Vietnam, and providing funds to support laboratory work to solve fleet problems was an attractive one and, as it turned out, a workable one.

So successful was VLAP that the DNL arranged to expand the concept, offering similar assistance to the major fleet commands, both afloat and ashore. Thus, NSAP was formed and brought to bear the full spectrum of Navy lab and center resources and capabilities on all major areas of naval warfare in a quick-response system.

#### NSAP's Goal

NSAP's goal is to improve both the dialogue between the Navy's RDT&E community and the operational forces, and the responsiveness of the R&D community to the fleet, thereby providing timely solutions to specific technical problems which significantly affect operational readiness. NSAP also forms the principal network through which the Navy R&D labs and centers would organize and apply their specialized expertise in the event of a Navy or national emergency.

#### Team Effort

The NSAP network includes field teams (science advisors and laboratory consultants—formerly called laboratory representatives); a small program office headquartered at the Naval Surface Weapons Center,

White Oak; program coordinators at each lab and center; and points of contact within key Navy RDT&E organizations. Together, this team provides the means for achieving NSAP objectives. In addition, NSAP's budget contains R&D funds which can be rapidly directed toward solutions to specific military technical problems.

#### The Field Team

Field teams of varying sizes are attached to the staffs of major operational Navy and Marine Corps commands. Teams consist of science advisors and laboratory consultants who are competitively selected from among the laboratories and centers of the Naval Material Command.

The senior team members, science advisors rated GS-15 or higher, serve host command senior management in the capacity of technical advisors on R&D matters. They are selected for assignment based on overall knowledge of the Navy RDT&E acquisition process, managerial ability, versatility and adaptability in new situations, breadth of general knowledge and specialized expertise, and the ability to communicate and interact effectively with others.

The length of assignment is generally one year, with an option to extend for a second year if it is mutually advantageous to the individual, the host command, the parent laboratory, and NSAP.

NSAP lab consultants, formerly called NSAP representatives, are assigned at the request of the science advisor and the host command to help solve, on-site, specific problems whose solution requires an extended effort, usually one year or longer. Lab consultants are selected on the basis of expert knowledge in a specialized technology or warfare area.

Both science advisors and consultants represent all Navy labs and centers during the NSAP assignment.

#### Wide Range of Support

In order of priority, and based on available program assets, NSAP supports:

- Commands involved in combat
- Numbered fleets
- Type commands
- Special interest commands

Commands currently eligible for NSAP assistance under these criteria include CINCLANTFLT, CINCUSNAVEUR, COMNAVSURFLANT, COMSUBLANT, COM-

## The NSAP Experience

Dr. Richard Bromberger is one of several NADC scientists who have participated in the Naval Science Assistance Program. Bromberger called NSAP, "The most rewarding two years I have had in my entire Navy career". "I came out a winner", he added. As a science advisor to CINCLANTFLT, Bromberger was in charge of human factors engineering from 1979 to 1980.

"I think NSAP helps the fleet considerably. It enables personnel to make quick fixes that don't involve going back to the labs. I highly recommend NSAP to any engineer who can get into the program". Bromberger said he was sorry that the opportunity came so late in his career, "I wish I had gone out there sooner". "It was an incredible working experience. I got a chance to see weapons systems I had worked on years ago in use today."

NAVAIRLANT, COMSECONDFLT, COMTHIRDFLT, COMSIXTHFLT, COMSEVENTHFLT, COMNAVSURFPAC, COMSUBPAC, COMNAVAIRPAC, COMINSEWARCOM, FMFLANT, FMFPAC, CGM-CDEC, and COMSUBDEVON 12.

#### Program Benefits

In addition to the primary objective of quick-reaction support and on-the-spot technical assistance to improve fleet readiness, NSAP makes many other contributions, both direct and indirect. Some of the most significant include:

- Stimulating the two-way flow of information between fleet operators and R&D personnel;
- Enhancing receptivity in the fleet for new scientific and technical equipment;
- Promoting the development of a cadre of scientists and engineers who have acquired direct and personal "real world" experience with operational problems in the fleet; and,
- Linking the labs and centers, with their tremendous scientific and technological expertise, to the fleet commanders, who best understand the operational problems.

Further information concerning the Navy Science Assistance Program may be obtained from NADC NSAP Coordinator, Robert L. Gallis X2191.



## Comments and Letters:

### Comment:

Mr. Philip Kaufman of ACSTD responded to last month's Reflector's call for ideas to solve the parking problems at NADC. He first stated that parking is a "serious problem", but he had some constructive things to say about solving the congestion in parking lot #1.

Kaufman said that by moving all contractors to parking lot #2 many more spaces would be available for NADC employees. Next, by eliminating all reserved parking in lot #1 more spaces slots would be freed up. He also sees the 33 minute Credit Union spaces as a "ridiculous waste".

Carpools are another problem that irks Kaufman. He would like to see all carpool passes reviewed and cheaters pulled from the files. One last request that he had was for the gate by the "IVB" building be left opened during the lunch break to relieve congestion at the main gate which now is the only means of leaving and entering parking lot #1.

### To the Editor:

Why not partition lot #1 so that areas provided for:

1. Compact cars
2. Sub compact cars
3. Standard

You probably can put 3 sub compacts in the area of 2 standard size cars. The spaces currently are all the same (standard size).

Bob Polaneczky

*Employees will be pleased to know that some of the ideas expressed by Mr. Kaufman and Mr. Polaneczky will be incorporated by security in the near future. Ed.*

### To the Editor:

What is Mr. Frazier complaining about? Every year I've worked for the civil service (eleven years this summer) I've been forced to take four to five days of annual leave for various holidays. These always resulted in a smattering of long weekends, mostly in the fall.

The new system results in one nice vacation costing only four days annual leave, about ten days long. Which does Mr. Frazier prefer? The choice should be obvious.

## Watkins Named CNO

President Reagan has named Admiral James Watkins to succeed Admiral Thomas B. Hayward as Chief of Naval Operations. Adm. Hayward stated that the selection of Watkins was a "Great day for the Navy". Watkins, "is a proven tactician with extensive command at sea, is highly respected in Washington for his unique ability to be objective and flexible while maintaining a tough minded approach to Naval superiority and is a people oriented leader who possesses the finest qualities desired and expected of the CNO", added Hayward. The outgoing CNO also said that, "We are a Navy on the move today. We are assured, through this appointment that our positive momentum will continue on into the future".

I'm puzzled about his annual leave accrual. Can he only be receiving two weeks per year? If he's a co-op student, then he could switch to the summer study cycle and really have it easy.

James Macaulay

*Correction: Only in extreme hardship cases will employees be allowed to work during the Christmas break, not as stated in February's Reflector. Ed.*

## Fraud Waste and Abuse is Everybody's Problem

We can't deny that fraud and waste exist in the Navy. We are an organization made up of people, a very small portion of whom may be dishonest. What is important is what we, the Navy, as an organization, are doing about it.

Rear Admiral Dan McCormick, the Naval Inspector General, stresses three initiatives used by the Navy to deal with the problem.

First to counter the problem of *theft*, all items reported as missing under circumstances indicative of theft are recorded with a Missing-Lost, Stolen or Recovered (M-L-S-R) Government Property Report and are also referred for investigation to the Naval Investigative Service resident agency which services the command. The information on the M-L-S-R report goes into a Navy computer located at the Naval Weapons Center, Crane, Ind., which provides the Navy statistical data on where, when and how Navy property is missing, and a way of tracing such missing property within the Navy should it

ever be recovered. The referral to NIS, even under circumstances where investigative resolution is remote, results in the property being entered into the FBI's National Crime Information Center computer. That entry also results in the property being returned to the Navy if it is recovered.

*Second*, to get at less detectable fraud, waste and misuse, we have the Department of Defense/General Accounting Office Hotline. Admiral McCormick says that "it really works." In fact, 75-80 percent of cases reported are shown to have merit, even if this merit is only a perception—a valid perception that needs to be corrected either through a change of procedures, communication or instructions. The Navy uses the NIS and the chain of command to investigate each charge. This is important as the problem is "ours," not just the inspector general's. And, the calls can reveal trouble on a grand scale. Batteries were being stolen from a Navy facility and sold for their silver content; the silver was

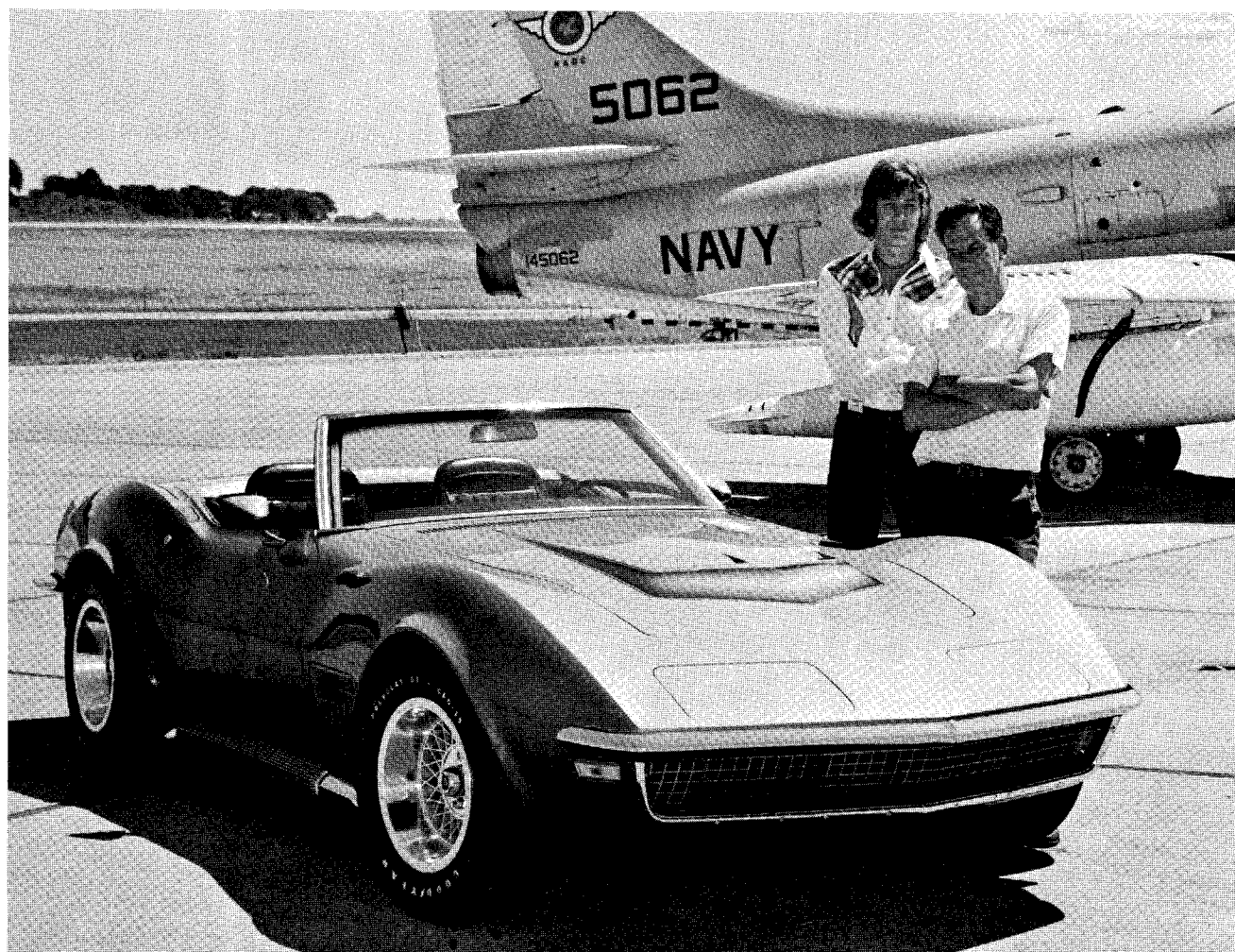
valued at \$1.5 million. New aircraft turbine blades were being secreted to the scrap pile in a scheme which eventually sold the parts to civilian airlines; profit until detected was \$500,000. With savings like these, hotline phone calls can pay off in a big way.

*Third*, the Council for Fraud, Waste and Abuse is active in countering the problem. Besides analyzing data and trends in fraud, waste and misuse of government property, it *looks* for ways to save the taxpayers money. By asking questions and probing the Navy establishment, the council keeps us alert to the problem and ready to react to it.

Responsibility, of course, does not reside exclusively with the inspector general. Each member of the Naval establishment has a part to play and has access to the chain of command.

"By and large, we have done well," says Admiral McCormick. "The system is there; when properly used, it works."

## Cavalcade of Corvettes Here Memorial Day



Robert Langdale and his son show off their award winning 1971 Corvette.

If you love sports cars you'll be looking forward to Memorial Day Weekend when over 75 show Corvettes will be at the Center for the Cavalcade of Corvettes. The show is sponsored by the Custom Corvette Club of the Delaware Valley. The cars on display range from stock models in mint condition to wild custom machines. Being the last true two seat sports car in America the Corvette inspires a rather large following. During the weekend show an estimated 10,000 spectators are expected.

At least one NADC employee plans to display his car during the show. Robert Langdale, of CNTD, has a 1971 Corvette called the Golden Ray. At cost of \$20,000 he and his son have created a machine that has won first place at the New Hope Auto Show in the custom high performance class, first place in the 1974 Cavalcade of Corvettes and first place in the 1975 Custom Car, Cycle and Van Show in Philadelphia. Langdale's "Vet" has a custom paint job with over 80 coats of lacquer, a multi-toned gold shag carpet, custom grill and taillight assemblies and chrome engine accessories.

Part of the admission price will be donated to Navy Relief so come out and see some of the nicest cars around. By the way usually there's more to the show than what's on the inside. Hundreds of enthusiasts bring their cars to the show making NADC's parking lot on those days the most expensive collection of autos around.

## Commander Salutes

Dr. John J. Deluccia, ACSTD, for his participation in the recent review of the ONR/Lehigh program on corrosion control by organic coatings.

Robert F. Swierczynski, PAR, for his assistance to Captain D.F. Parrish Assistant Deputy Chief of Naval Material, in various assignments of center real property management and corporate plan inputs.

Richard J. Crosbie, ACSTD, for his briefing to George Swiggum on the centrifuge improvement program.

Robert C. Bello, ACSTD, for his participation during the first AIAA Flight Testing Conference.

Thomas E. Willey, PAR, for his contributions to the production of the FY 82-86 corporate plan.

Paul M. Linton, LCDR Wade R. Helm, CDR Joseph F. Funaro and LT Dennis McBride, all of ACSTD, for their support to the Human Factors Engineering Technical Advisory Group.

Thomas J. Karr, Supply, for his successful graduation from the management of defense acquisition contracts course.

Robert T. Balitski, SATD, Charles A. Locurto, SD, John L. Felix, Charles Miller, Frederick A. Chase, and Edward J. Emery, all of ACSTD, for their support of the Tactical Air Reconnaissance Pod System (TARPS).

Michael Green, Charles Knott, William Michell and Frank Sherard, all of Public Works, for their emergency response to a burst sprinkler pipe.

## Inventive People

The following received awards based upon issuance of a patent—

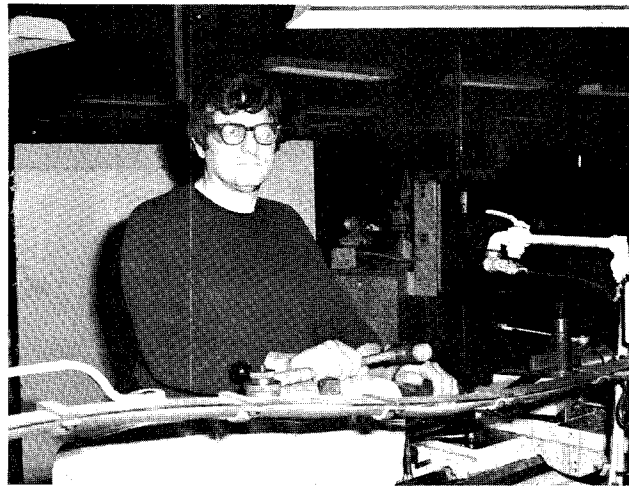
Kenneth T. Koper, ACSTD for invention titled "Arrestment System." Award of \$300.

James F. McEachern and Edward A. Reidinger, SATD, for invention titled, "Sonobuoy for Monitoring Mine Countermeasures." Award of \$150 each.

John J. Horan, retired, for invention titled, "High Acceleration Protective Seat." Award of \$300.

John R. Dale, retired, for invention titled, "Pressure Responsive Clasp." Award of \$300.

(Dale's and Horan's were submitted while they were employed at NAVAIRDEVCON.)



Mel Berg wears the glasses that saved his vision.

## Better Think Twice

by Walt Latosh

Personal Protective Equipment—should I or shouldn't I wear it?

Let me begin by saying, that there are personnel who because of the nature of the work they do here at NADC, *do not* have the option to say to themselves "should I or shouldn't I wear the personal protective equipment (i.e. safety glasses, safety shoes, hearing protection) issued to me". However, there are some personnel who feel they *do* have an option. For those of you who think this way, let me introduce you to Mel Berg. Mel is a machinist in the Technical Support Department, Machine Shop number 1, working under the supervision of Vince Misticoni.

The machine shop is one of many shops on the Center, that is a designated eye hazard area, where the wearing of safety glasses is not optional but necessary. Well, on Wednesday, March 17, 1982, Mel was in the process of removing a live center from the tail-stock of a lathe. To do this he was using a hammer and a drift pin. As he struck the drift pin with the hammer, a metal chip broke off of the drift pin and struck the left lens of his safety glasses shattering the lens. Because Mel was wearing his safety glasses as he is required to do, extensive damage and possibly the loss of sight in his left eye was prevented. For those who accept their personal protective equipment willingly and wear it when necessary we'll see you! For those who don't, will you see us?

## Safety Rescue

by Mike Masington

Jessica Modparent, senior member of the Bert and Ernie fan club and author of the best seller, "How to Raise Your Child Without Resorting to Homicide" was watching "As the Earth Revolves" on TV as her mischievous two year old, Tracy, was performing violence and mayhem throughout the house.

Left to her own devices, Tracy decided to amuse herself with some of mommy's "toys". First there was the pack of matches next to the cigarets. After munching on them for a few minutes and finding that the taste left something to be desired, she tried to light one as she has seen mommy do many times. Luckily however, saliva soaked matches not only taste terrible, but they don't burn so well either.

Failing in that endeavor, the undaunted Tracy decided to do some ironing just like mommy. Since the iron was already plugged in and on the board, a simple flick of the switch was enough to start the game. The little urchin soon tired of this chore and went off. Unfortunately the iron didn't and daddy's one, only and favorite chartreuse bowling shirt suddenly had a large black mark where the pocket used to be.

The half-pint housewife then wanted to try a little cooking and placed a pot on a burner of the electric range. Much to her chagrin however, the pot was a plastic one from her Homely Heidi Homemaker kit, and it created quite a blaze.

The thick smoke together with a well timed station break finally alerted Tracy's mother to the problem. Super Safety who happened to be flying over the neighborhood, noticed the smoke at the same instant and both adults arrived in time to prevent Tracy's attempt to arc weld the front door key (and herself) by inserting it in an open electrical outlet.

"Tracy what have you been doing?" scolded the frantic mother. "The question Mrs. Modparent is what have you been doing?", responded the hooded hazard hater.

"Every child Tracy's age will imitate and explore. You must assume that this is going to happen and prepare for it. Never leave matches, lighters etc. around where children might treat them like any other play toy. Heat producing electrical appliances should not only be shut off, but also be placed out of reach. Kids are very observant and will easily figure out how to operate a simple item like an iron or toaster."

"Stove tops and ovens present a different problem. They cannot normally be put out of sight, so we must either try to explain the dangers to the child to the best of your and their capabilities, or try to develop some method to seal off the control buttons and knobs from curious little fingers."

"As far as outlets go, you can purchase inexpensive caps to cover open receptacles and prevent your kids and your housekeys from lighting up like a Chinese New Year. Basically then, no one is asking you to follow a two year old all day long, but you should try to eliminate as many hazards as possible before the child can get to them."

The pompous Mrs. Modparent was anything but pleased with Super's observations. "Just who do you think you are," she screamed. "I'll have you know that I am always aware of exactly what my children are doing." With that the angry woman turned to walk away. Unfortunately, during the altercation, Tracy had taken a tube of Crazy Glue and permanently cemented the soles of her mother's shoes to the kitchen floor.

The quick reflexes of Super Safety saved Jessica from falling to the floor. "Well Mrs. Modparent," he chuckled, "I've got to admit you sure jumped into the problem with both feet."

Naval Air Development Center

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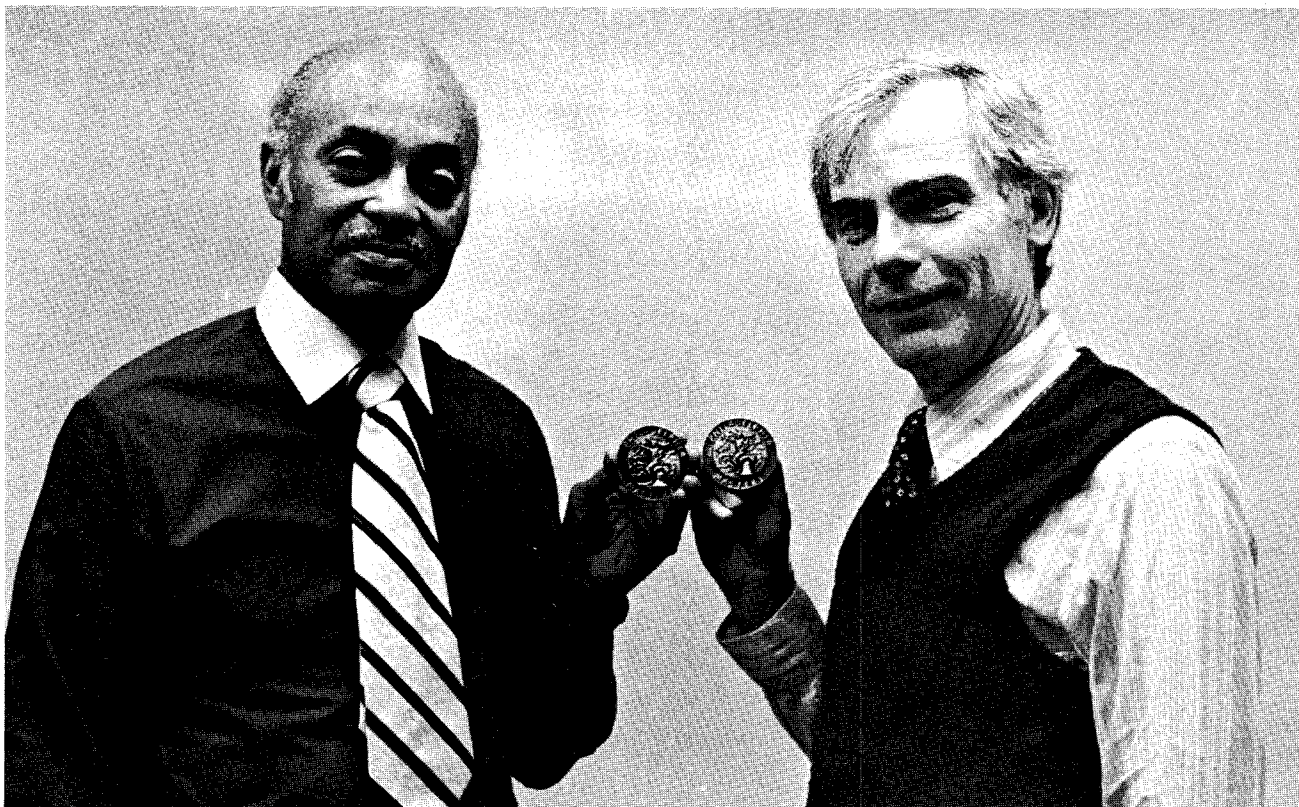
CAPT James B. Anderson — Commander, NADC

Robert S. Buffum — Technical Director

Joseph P. Cody — Public Affairs Officer

David Polish — Editor

## Masters of Track and Field



Gene Wood, left, and Ed Lucas display their medals.

They call themselves Masters and that they are. They come to compete for the gold, silver and bronze. What they're part of is the Masters Track and Field Competition. Edward Lucas, Comptroller, and Gene Wood from TSD, are two of the hundreds of competitors that run, jump and throw for fun and glory.

The track meets are held at various locations from Boston to Philadelphia and other sites around the

country. During a recent meet at Swathmore College Wood took a gold medal in the shot put and Lucas won a silver medal in the mile run. There are different age brackets to accommodate all the participants and make the competition even. Other than that the meets are run just like any normal track and field competition.

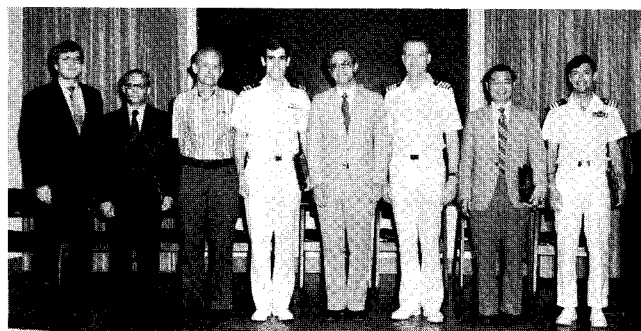
Both men will continue to compete in up coming events. If you're interested in finding out about the program contact either of these men for information.



## Inside this issue

- New Jacket
- Update
- Editorial
- NSAP
- AFD
- Coast Guard

## NADC Honors Five Outstanding People



From l. to r.: Robert S. Buffum, TD, Dominic A. Ottaviano, Howard D. Krumboltz, LCDR Raymond M. Umbarger, Robert Hillyer, Capt. James B. Anderson, Commander NADC, Dr. Shih L. Huang and CDR Raymond S. Tyler show their Honors Day smiles.

And the winners are. What winners? The winners of the Engineering, Scientific and Support Achievement Awards and Project Leadership and Support Achievement Awards, of course. The annual Honors Day held on 21 May highlighted five outstanding NADC employees. There were two people who won in the Project leadership category; LCDR Raymond M. Umbarger and Dominic A. Ottaviano. For Support Achievement CDR Raymond S. Tyler took the honor. Dr. Shih L. Huang was awarded the Engineering Achievement honor and Howard D. Krumboltz won the Scientific Achievement Award.

Public Works Officer Raymond S. Tyler has served at the Center since 1980. In his capacity as Public Works Officer he has been responsible for a 16.1% reduction in energy consumption. This translates to a savings of \$488,000. Tyler also increased the value of locally awarded architect/engineer contracts from \$80,000 in FY81 to \$700,000 in FY82. His preparation of a Center Facilities Master Plan has resulted in a tentative programming of \$18.8 million for new construction during the years FY85 through FY91. In addition Tyler has given administration of Family Housing his personal attention by solving problems with parking and dwelling improvements.

Dr. Shih L. Huang of the Aircraft and Crew Systems Technology Directorate received his award for accomplishments in the area of material engineering. Huang has a record of transitioning advanced state of the art structural technology into the real world. He invented the design of "Cross Reinforcement in a Graphite-Epoxy Laminate." His contributions in the area of composite material are

many. Weight saving structures for wings, flaps and airframes are all results of Huang's research and testing. Adding to his record of superior work are many papers, projects and presentations to professional groups.

The first Project Leadership Award winner, Dominic A. Ottaviano, also from ACSTD, has been a key person in the Navy Aerial Target Program. Ottaviano has worked on targets for over 27 years at NADC. For 17 years he has been involved in program management. Ottaviano serves as Branch Head of the Vehicle Subsystems Integration Branch. The Aerial Target Program is one of his responsibilities. He keeps a close touch on the NAVAIR sponsors and has a national reputation in the target community.

Howard D. Krumboltz from SATD has a list of accomplishments that would probably fill several lifetimes. This year's Scientific Achievement Award winner has been working at NADC since 1951. Krumboltz's area of expertise is electronic sensors. Throughout his entire career he has used his inventiveness to create original solutions to complex problems. Krumboltz was instrumental in designing microwave radar improvements for locating missile launchings. One of the most demanding jobs he undertook was that of Senior Electronics Engineer on the Staff of the Military Assistance Command Science Advisor in South Vietnam. The six month tour subjected him to extreme danger in the form of enemy fire. LASER innovations are another technology that Krumboltz has made many contributions to. His concepts of using LAS-

Continued on Page 2

## CNM Message

Admiral John G., Williams, Jr., Chief of Naval Material, has launched a campaign to eliminate potential problems of fraud, waste and abuse at activities under his command.

"While I realize that nearly all our employees are honest and conscientious workers," Admiral Williams said, "I cannot tolerate waste of taxpayer dollars by the few who are not. I take instances of fraud, waste and abuse very seriously; and I expect all employees of the Naval Material Command to take them equally seriously. Let's let everyone know that we mean business when it comes to stamping out any instance of fraud, waste and abuse which might occur."

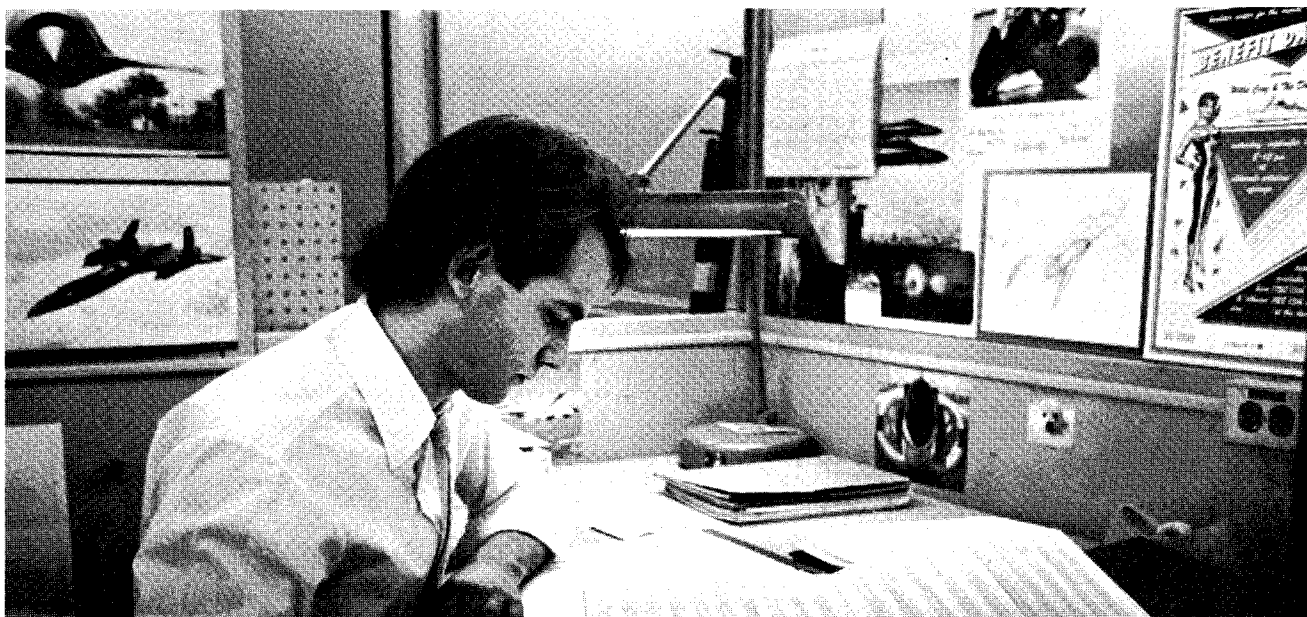
In the past year, efforts to eliminate fraud, waste and abuse (FWA) have intensified in Navy Research and Development Centers. Each Center has an FWA point of contact whose functions include advising local commanders, coordinating efforts of investigative agencies such as the FBI and the Naval Investigative Service in local cases, and providing advice to managers and employees who have spotted FWA problems.

Further R&D Center initiatives include improved reporting procedures in the case of missing equipment and the establishment of a data base on pending investigations. Improved plant property controls are being instituted, and a seminar for R&D Centers on FWA problems is planned in the near future. Procedures to preclude FWA are being studied, and prompt disciplinary action is being taken against FWA offenders.

Disciplinary actions at R&D Centers in the past year include two removals for theft of government property, a removal for fabrication of articles for personal use, and a removal for embezzlement. Suspensions of 5-30 days have been imposed for a variety of infractions such as private use of long distance telephone service and travel fraud. In addition to such administrative actions, particularly serious cases are being prosecuted under appropriate criminal statutes.

Every employee is requested to help eliminate fraud against the government, waste of taxpayer money, and abuse of our responsibility as custodians of public funds. Anyone having knowledge of fraud, waste, or abuse taking place should report such activity via the chain of command. Alternately, an employee may anonymously notify the local FWA point of contact, who is Robert Fisher, X2298. The Inspector General of the Naval Material Command is also available to assist at (202) 692-3054, autovon 222-3054. The DoD Hotline for reporting instances of FWA is (800) 424-9098, autovon 223-5080.

## Co-op Does An Amazing Job



Kevin Goldstein looks over test data.

Carmen Mazza calls him amazing, but he is a little more modest. He, is Kevin Goldstein from the Flight Dynamics Branch in ACSTD. Goldstein is currently an Aerospace Engineer working on helicopter flight dynamics. The reason he's so amazing is that the first paper he ever submitted for publication was awarded a prize for best paper. The award was held in high regard by people in the helicopter field. Goldstein explained that the subject of the paper was the current status of helicopter and VSTOL flying qualities. Another version of the paper was submitted to a NATO AGARD meeting and a symposium held by the American Helicopter Society.

Goldstein is no stranger to NADC because he spent three Co-op tours here while he was a student at Rensselaer Polytechnic Institute. He started by debugging computer programs and later worked on data analysis for VSTOL hover and transition flight characteristics. Upon graduation in 1981 he came to Center full time.

Goldstein has been working on helicopter and VSTOL flight dynamics. Because of his outstanding ability he was selected for the WEPCOSE program. This program allows Goldstein to go to Princeton University and pursue his Masters degree. The topic of his thesis is "Forward Flight Handling Qualities of the Circulation Controlled Rotor."

The Co-op program is something that Goldstein speaks of highly. "When I was in school", he said, "most students wanted to be engineers but they didn't know what engineers did on the job." He first tried industry but found that there were no openings. NADC was his choice and he was accepted. Goldstein found that the government offered a challenge and responsibility. His friends who got jobs in industry were just checking computer printouts for errors. The responsibility and challenge are the reasons Goldstein came back to NADC after graduation and NADC is glad he did.

# New Jacket Keeps Crewpeople Warm

Helicopter crews have a unique working environment. They have to move around in cramped quarters, sometimes with the doors open and frequently have to fly over water. The current flight gear that the crew member wears leaves something to be desired when it comes to cold weather operations. According to Jules Lewyckyj of ACSTD, the helicopter crew member needed a garment that would provide insulation, fire resistance, an integral life preserver, a lifting harness and a seal against water.

NADC had been involved with designing a jacket for the Coast Guard back in 1974. This garment had a automatic device that inflated a life preserver if a person fell overboard. When it was recognized that the Navy needed a jacket for cold weather protection, Lewyckyj said, NADC already had the experience from its Coast Guard work.

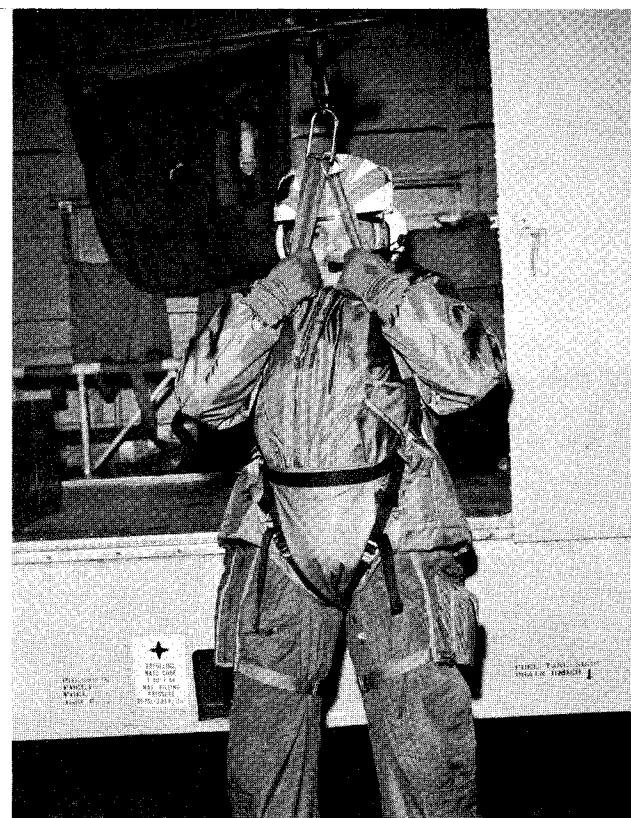
Several new technologies were used to provide a complete life saving piece of equipment for the crew member. The construction of the jacket is unique. It is basically made up of three layers of material. The inner and outer layers are composed of flame resistant NOMEX fiber. In the middle layer a film of GORTEX is used. This material has thousands of pores per square inch. Because of its small pores GORTEX resists the penetration of water molecules which are too large to fit through the material. Around the collar and the cuffs one quarter inch thick neoprene is used with a covering of NOMEX. The neoprene forms a tight seal against water. If water does get in

the idea is to trap it in the jacket so the wearers' body heat can warm it up. A layer of THINSULATE is sewn into the inner surface of the jacket to provide excellent protection in cold weather. THINSULATE has more insulation capability than down feathers and is extremely compact.

A variety of things have been built into the jacket making it an all in one piece of equipment. An inflatable bladder is designed to keep a person floating face up in the water. The bladder can be inflated by manually pulling an inflation device or using an oral tube to blow the bladder up in case the CO<sub>2</sub> device is inoperative. Lewyckyj explained that a lifting harness is sewn into the jacket for rescue purposes. Older flight gear had the harness as a separate piece of equipment. There is a large pocket on the lower back of the jacket that is used to hold a one man mini boat. Pockets are also provided for the storage of inflatable gloves and hood.

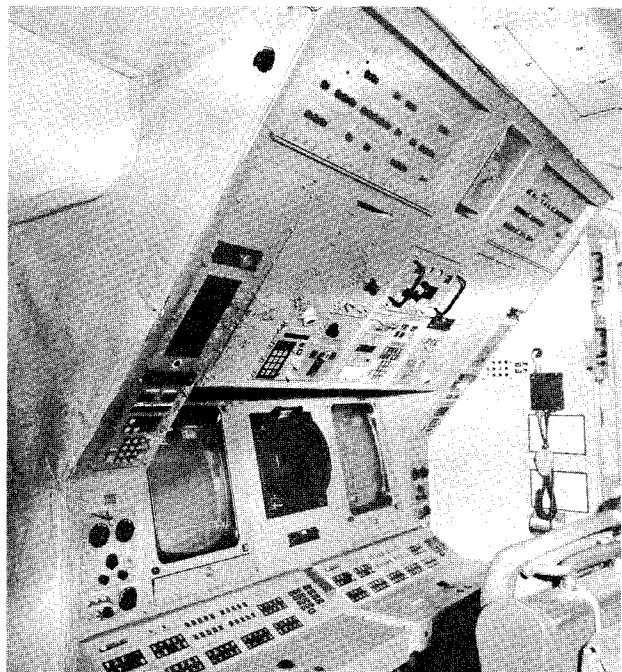
Because of the unique qualities of the new jacket other uses can be envisioned. Workers on oil rigs would be ideal candidates for such a garment. Sailors working on open decks could wear the jacket in case they were swept overboard.

The jacket has passed the TECHEVAL portion of testing and is scheduled to enter OPEVAL in September. If all goes well we will see another NADC development in the Fleet very soon.



New jacket during tests.

## Update III Receives Go Ahead



Update III console.

The P-3C Update III ASW avionics suite is expected to receive Approval for Service Use (ASU) in May 1982. The most significant improvement over the Update II System is the replacement of the AQA-7 acoustic processor with the Advanced Signal Processor which provides both acoustic operators with CRT displays and a manual entry panel for operator/machine interface. Other key subsystem improvements include the Advanced Sonobuoy Communications Link (ASCL) receiver, the Adaptive Controlled Phased Array (ACPA) antenna, the Acoustic Test Signal Generator (ATSG) and the Digital Magnetic Tape System (DMTS).

### Outstanding

ERs for submarine detection are novel and recognized as precedent setting.

LCDR Raymond Umbarger was singled out for his project leadership ability. As Director of the Light Airborne Multi-Purpose System (LAMPS) Program in the Command Projects Directorate, he has shown outstanding leadership in overseeing the Center's effort in software and hardware development for the LAMPS program. The success of NADC's LAMPS program is due in large part to Umbarger's relationship with the people he works with here on Center and in the Washington area.

The keynote speaker was Robert Hillyer who is currently the Technical Director at the Naval Weapons Center, China Lake, CA. and who will be the new Director for Laboratory Management. As his first "official" duty Hillyer addressed the audience on the importance of recognizing

The ASCL receiver is a 99 channel computer tunable acoustic receiver system and replaces the ARR-72 Sonobuoy Receiver. Update III uses an ACPA antenna system which provides directional and omnidirectional RF reception for either increased RF sensitivity or antijamming capabilities. Simulated RF signals for acoustic end-to-end tests are provided by the ATSG. The four Update III peculiar software products are loaded with DMTS with compact tape cassettes.

The Update III avionics suite was developed, integrated and tested by the Naval Air Development Center (NAVAIRDEVCCEN) Update III Projects Directorate under the sponsorship and direction of the Naval Air Systems Command (PMA-240). After extensive facility and flight testing at NAVAIRDEVCCEN, the Update III aircraft and related software programs were transferred to the Naval Air Test Center (NAVAIRTESTCEN) for technical evaluation in March 1981. Subsequently, the Update III system successfully completed NAVAIRTESTCEN test and evaluation in September 1981 and VX-1 operational test and evaluation in January 1982. The introduction of the Update III operational capability to a fleet squadron is presently scheduled for 1984.

Current tasks of the Update III Project Office include: 1) transitional support to Update III production, 2) the improvement of software products prior to Follow-on Test and Evaluation (FOT&E) and IOC, 3) the integration and testing of advanced technology Logic Units, 4) the evaluation of a 64K RAM Advanced Signal Processor (expected to replace the present 16K configuration in production), 5) the integration and testing of a 99 channel Sonobuoy Reference System (SRS), 6) the development, integration and testing of a Computer Controlled Acoustic Distribution Box (CCADB), and 7) the implementation and testing of Major System Mode 11 (MSM-11) operational software for the Advanced Signal Processor.

By LCDR Dave Seckinger & Franz Bohn

ing the people who make the laboratories important to the Navy.

"Recognition is not offered often enough, but it is deserved and proper to honor people as we do here today," he said. "These awards motivate people, not only those who receive them but those around the winners who also strive to win," he added. Hillyer praised NADC's IR/IED program saying that he wished the public could see the important work being done in the independent research and exploratory development fields. He closed by stressing the Navy Labs' role as one of getting the products to the fleet in a timely and effective manner and to be smart buyers of systems in development.

All the award winners this year represent the core of NADC's outstanding talent, talent that makes this Center one of the best laboratories in the NAVY.

## Retired Affairs

Captain R. M. Witmer, USN (Ret.), director of the newly established Retired Affairs Office (RAO) at the Philadelphia Naval Base, announced the RAO will be open from 10 a.m. to 3 p.m., Monday thru Friday in Building 600, room 210, to assist more than 20,000 retired military personnel in the Delaware Valley.

The RAO, staffed by volunteers, was created to provide retired Navy and Marine personnel, as well as retirees from the other branches, with current and accurate information concerning resources available to the retired service member. Areas covered by the RAO include pay and financial benefits, retiree seminars, health care, survivor's benefits, commissaries and exchanges, death benefits, and information about many other problems affecting retired members.

"The basic purpose of the Retired Affairs Office is to serve as a link between retirees (and their dependents) and the active duty military community," the RAO's first newsletter explained.

"Two things are needed to insure a first rate Retired Affairs Program and a really useful Retired Affairs Office," Captain Witmer stated. "Number One is business. We know that lots of retirees have lots of questions. So call us (215) 755-3733 or, if you're on the base . . . come and see us in Building 600, room 210."

"Second, additional volunteers to staff the RAO. We would like to limit the 'watch' to one half day every two weeks and have a few supernumeraries to fill in during vacations and illnesses," he continued.

The Commander Naval Base Philadelphia, Rear Admiral C.A.E. Johnson, Jr., and the Commanding Officer, Naval Station Philadelphia, Captain B. L. Fish, are both giving their enthusiastic support to the RAO and both have expressed their intentions to strengthen and enhance the links between active and retired Navy-Marine communities.

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CAPT James B. Anderson — Commander, NADC  
Robert S. Buffum — Technical Director  
Joseph P. Cody — Public Affairs Officer  
David Polish — Editor



## Editorial

### Are You Surviving?

How do you feel? What's it like where you are? How is life treating you? What I'm trying to get at is how today's economy is effecting the way we live. High interest rates and tight money have made luxuries out of houses, steaks, cars, entertainment, vacations and new clothing. Inflation has been eating away at our paychecks and we all suffer. Everyone is bargain hunting, something that was only a pastime for people who had little money, now is a national preoccupation. I find it very disheartening to think about a future that holds little promise of getting ahead. Second jobs have become a way of life for many government employees.

How does one cope with economy? I really don't have any solutions, but maybe you have some thoughts on the subject. Let the rest of the readers hear from you. Send your comments to the Public Affairs Office, Code 091.



At the controls. Joseph Cody shows Armed Forces Week guest new cockpit display. John Ryan, rt. explains features to the group.

## Armed Forces Day Messages

"Each armed forces day our nation pauses to give special honor and recognition to the men and women of our armed services. This fitting tribute conveys Americas great pride in those of you who serve with that spirit of selfless sacrifice so that freedom can be preserved. For over two centuries, our uniformed personnel have willingly stepped forward, each in their turn, to pay the patriots price for maintaining Americas unique dream. In both peace and war, Americans in uniform—and their families—have given whatever was required to keep our nation strong.

"Thank God for these many fine people. You are certainly among the most magnificent of our national assets—absolutely dedicated, selflessly loyal, exceptionally skilled—strong and ready. Americans everywhere join with me today in a salute to you, our uniformed men and women—and in acknowledging the immense debt our country owes to our soldiers, sailors, airmen, and marines. Thankfully, America has now begun to give much-increased recognition of the vital sacrifices and contributions you make to our society.

"To each of you wonderful people in the Navy-Marine Corps team—and to the members of your families—I send my best wishes and hearty congratulations for a job well done." John Lehman, Secretary of the Navy.

"Armed Forces Day 1982 finds all of us in the Naval Material Command as full partners in the Navy's program to build a fleet second to none. It is important that no one doubt our ability to accomplish this national goal with assurance and efficiency.

"On Armed Forces Day, as we report to the American public what we are doing as part of the defense team, let them know that we are building a navy which can assure peace through strength." Admiral J. G. Williams, Jr., USN, Chief of Naval Material.



Erwin Roeser (right) confers with Robert S. Buffum, NADC's TD.

## NSAP Experience Gives Big Picture

During a recent visit to NADC Erwin Roeser met with Robert Buffum, Technical Director, to discuss his experiences in the Navy Science Advisor Program (NSAP). Erwin has been assigned to the Commander, Naval Surface Forces Atlantic in Norfolk since August 1981. Roeser said, "It is extremely important for laboratory people with responsibility for design and development of combat systems to see first-hand how Navy ships and aircraft are used in everyday operation."

"There is no better way to understand the importance of the Navy's R&D Center task in supporting the fleet. The daily exposure to a variety of technical problems forces you to broaden your outlook. You find yourself in a "learn mode" every day. You rapidly become aware of the importance of good communications between the operating Navy and the shore establishment. Being an NSAP team member provides an excellent means to see the "big picture."

## When The Earth Moves Again, NADC Ready

Recently the earth in the local area moved to the tune of 2.9 on the Richter scale. Because of the sensitive navigation work done here at NADC seismic shocks like this one are monitored to make sure the testing of equipment is accurate. Any shock can throw off the instrument readings and thus invalidate the test. Some earthquakes are so slight we can't feel them, but there are machines that are so sensitive they can detect quakes thousands of miles away.

Mounted in the Inertial Navigation Laboratory is a seismograph that records movements of the earth. In addition

to the equipment NADC has, Temple University and Penn State University have installed a device that also records earth tremors. An agreement had to be worked out between NADC and the schools because the machine needs daily maintenance that requires someone to change the recording drum each day. Since the center has granite piers cemented directly to bedrock the location is ideal for the recording of earthquakes.

With the installation of this equipment NADC will have an unique capability to monitor the ground we stand on. If the earth moves again we'll be the first to know.

## McLaughlin is Named Coast Guard Sailor of the Year

Tom McLaughlin of NADC's Public Works department has been named Coast Guardsman of the Year from Reserve Unit Four, Captain of the Port Philadelphia, Gloucester, NJ. McLaughlin has been a member of the unit for 12 years. He also has 5 years of active service. As a Chief Electrician, McLaughlin teaches from four to five weeks each summer at the Reserve Training Center in Yorktown, VA. He also is Chief of the Operations Division in his unit and is responsible for training deck division boat crews.

McLaughlin's unit is charged with surveillance and search and rescue operations around the Port of Philadelphia. The award was made possible by the Naval Enlisted Reserve Association of the Greater New York area.



## Commander Salutes

Carol A. Greenwood, Daniel C. Probert and Robert J. Orr all from NADC's Key West Field Station, for their assistance in recovering a capsized boat for NAS Key West.

David C. Hammond, SATD and John J. O'Donnell, SCD both for their briefings to the Naval Postgraduate School.

Edward Yannuzzi, SATD, for his contributions to the NAVMAT Review Team.

## Science Fair

It's always good to encourage young people especially when they're interested in science. The Delaware Valley Science Fair is held every year to feature the best science students from area schools. NADC participates by lending its expertise in the form of judges. Several employees from the Center and a couple retirees spent the day at the Philadelphia College of Pharmacy and Science looking over the efforts of budding scientists. William Hazlett from SATD served as Chairman of the judging committee. Dr. Alan Blumenthal from SATD, Aaron Davidson of the Technical Directorates Office, Carmen Mazza from ACSTD, Thomas J. Murray SATD, John Rawley SD, and Harry Koper SATD all helped in judging the competition. Retirees Frank Boriello and William Lee also pitched in. From this Fair come the scientists of tomorrow and maybe even a NADC employee.

## New Titles

Following is a partial list recently added to the Technical Information Branch. Visit or call your library at x2541 to inquire about these books.

### DATA PROCESSING

"Data Center Operations: A Guide to Effective Planning, Processing, and Performance" H. Schaeffer HD9696 .C62S3 1981

"Design and Strategy for Distributed Data Processing" J. Martin QA76.9.D5M386 1981

"Fundamentals of Systems Analysis" J. FitzGerald HF5548.2.F476 1981

"A General Theory of Optimal Algorithms" J. F. Traub QA297.T68 1980

### MATERIALS SCIENCE

"Aluminum-Lithium Alloys: Proceedings of the First International Aluminum-Lithium Conference" TN775.I56 1980

"Corrosion Fatigue of Metals in Marine Environments" C.E. Jaske TA462.J32 1981

"Creep-Fatigue-Environment Interactions: Proceedings of a Symposium" TA460.C73 1980

"Electrochemical Corrosion Testing: A Symposium" TA462.E53 1981

"Methods and Models for Predicting Fatigue Crack Growth Under Random Loading" TA18.38.M47 1981

### NAVAL SCIENCE

"Carrier Based Air Logistics Study: Integrated Summary" VG93.C35 1982

"Naval Surface Combatants in the 1990s: Prospects and Possibilities" T. Tarpgaard V765.T37 1981

### PATTERN RECOGNITION

"Digital Signal Processing" W.D. Stanley TK5102.5.S69 1975

"Digital Waveform Processing and Recognition" TK-5102.5.D45 1982

"Proceedings" IEEE Computer Society Conference on Pattern Recognition and Image Processing TK7882.P3118 1981

### TELECOMMUNICATION

"Telecommunication System Engineering: Analog and Digital Network Design" R.L. Freeman TK5101.F66 1981

"Telecommunication Transmission Handbook" R.L. Freeman TK5101.F66 1981



Dr. De Luccia (right) gets a handshake from ASM Chapter President.

## De Luccia Honored

The American Society of Metals has honored Dr. John De Luccia, Head of NADC's Aero Materials Division, with the Albert Saureur Award. The award is given annually for outstanding achievement in the science of metals. De Luccia received the honor for his work in the area of environmental embrittlement of metals.

The award is named after the "Dean" of American Metallurgical Science, Albert Sauveur, who pioneered the study of microscopic analysis in metal fatigue detection.

## Remember the Old Days

Do you know about the history of NADC? If you have any documents, photos or personal memories about the past that would be of interest for a general history of the Center, please contact the Public Affairs Office at X3067. Two graduate students from the University of Pennsylvania are on-board gathering information that will be incorporated into a comprehensive Command History. Detailed project records may be a little too much but overall information about major programs and organizational changes would be of use to the history program.

## Exercise Time

Summer is here. Time to get outside and enjoy the fresh air, sunshine, and blossoming flora and fauna. Here are a few tips to remember as you get out and enjoy the coming of Summer.

1. Unless you have been exercising regularly or stayed active all winter start out slowly. Don't forget, walking can be as beneficial as running, and allows you more time to "stop and smell the flowers."

2. Remember to include a good warmup and cool down period to decrease the risk of injury. Be sure to include stretching as well as exercises that elevate your heart rate.

3. If you hit the roads, beware of traffic hazards such as motor vehicles and potholes. If at all possible avoid exercising on heavily travelled roads.

4. If you find yourself one of those hard to motivate individuals, try a new activity. Decide on a tennis lesson instead of running shoes! Buy yourself a bike! Sign up for an aerobics class! Be good to yourself! (You're worth it!)

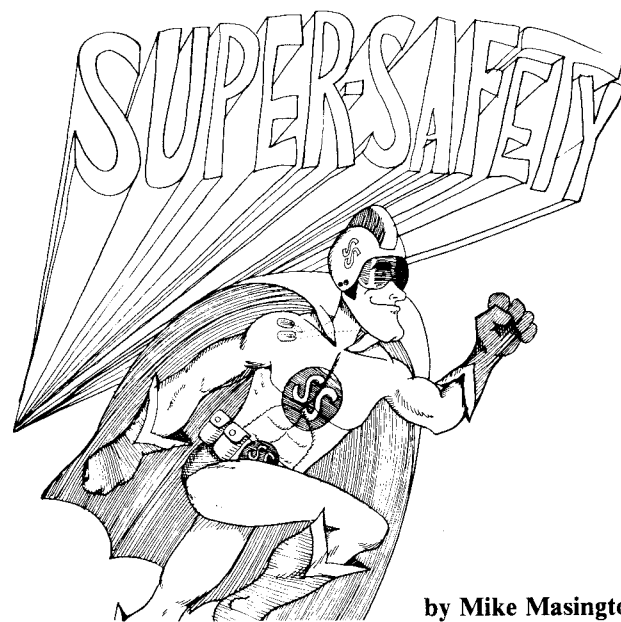
5. Get yourself a partner. Although the saying "Misery loves company" is true, I prefer the old saying "Double your pleasure, double your fun!"

Till next time . . .

by LTJG Sylvia Wasyluk

## Leave Update

If you're a member of the reserves you may have military leave that you are unaware of. As of fiscal year 1981 any portion of the 15 days leave may be carried over into the next fiscal year. The total carried over may not exceed 15 days. More details can be found in Public Law 96-431 section 6323(a) of Title 5 in the U.S. code.



by Mike Masington

It was a beautiful spring morning in the suburban splendor of Warminster and Clyde Zoysia, owner of the neighborhood's best manicured lawn and past president of the Stamp Out Crabgrass in Our Lifetime Society, decided to get an early start on his grass cutting chores. In spite of the dew covered grass and early morning chill, Clyde was wearing his standard "uniform" (cut-off designer jeans, a T-shirt, reflective Foster Grants, and a pair of chartreuse Kedsos). He went to his garage, wheeled out his trusty 37½ horsepower Tornado mower and yanked the start cord. After the engine sputtered to life, the maharaja of marginal mowing filled the gas tank and roared off to attack the offensive grass. The bisector of the bluegrass hadn't gone far when a sickening whang, thunk and zink were heard and the rotating blades suddenly stopped. Puzzled but undaunted, Clyde turned his mower over on its side and began untangling a long piece of heavy wire that had wrapped itself around the motor shaft.

As he was removing the last strand he was tackled from behind just as the mower blades suddenly started whirling again. Looking around at his savior, Clyde discovered none other than that master of mower maintenance, Super Safety. "Hey thanks, Mr. Safety, if you hadn't stopped me in time I might have been in real trouble."

"Well those blades definitely would have given you a cleaner, closer shave, Clyde," answered the popular proponent of protection, "but that's not the only problem you could have gotten into." "What do you mean?" queried the incredulous Clyde.

"Well first of all look at your outfit," answered the scion of safety. "Anytime you mow the lawn you should wear long slacks, substantial shoes preferably with steel toes, and some form of safety glasses or other eye protection. The slacks and glasses will protect you from flying junk, and the shoes may save your feet if they accidentally slip under the mower. Also, never mow when the grass is wet. This may cause the mower to slide out of control or get clogged with grass clippings. If the mower should clog or stall, always remember to turn off the start switch and disconnect the spark plug wire before attempting to make any repairs. A hot mower has the potential to restart itself if these precautions aren't taken. Speaking of hot mowers, never refuel a hot or running mower. Contact with the manifold or muffler could ignite the fuel vapors and transform you into a jumbo sized Post-Toastee."

"Well Mr. Safety," said Zoysia, "I just want to thank y . . ."

Suddenly their attention was distracted by a horrible grinding sound. While they were talking, Clyde's powerful mower had righted itself and attacked his award-winning azealeas, ground up his gorgeous gladiolas, pulverized his prized pansies and battered his beautiful begonias before finally being stopped after a tough battle with his parked Pontiac. "Oh, that's one other thing I forgot to mention Clyde," said Safety. "Never leave your mower running and unattended." Zoysia no longer was paying attention, but just stared at the wreckage, and stared, and stared . . .



# Tests Explore the Unknown

Described as perhaps the most significant series of tests to be run in NADC's centrifuge in the last several years, the recent loss of consciousness (LOC) studies explored a little-known area of flight physiology and human performance psychology. LT Dennis McBride, a Naval Aerospace Experimental Psychologist, and the Project's Associate Investigator, explained that the tests were designed to evaluate how pilots react to LOC as they approach it, go through it and recover. The study will hopefully answer many questions about acceleration-induced loss of consciousness and its effects on skilled performance in flying high-performance aircraft, which today, can out-perform their pilots and crew. According to the Project Officer, CAPT James Houghton, "Our lack of useful knowledge about LOC effects is and has been a continuous and severe problem for Naval Air, especially with the acceleration stresses imposed by air combat maneuvering."

McBride said that these tests were in the planning stages for about a year. As in any project where human subjects are used, a lengthy approval process was undertaken to ensure that all safety procedures would be covered. These studies were the first to be done where LOC was intentionally induced. An extensive set of medical and physiological stress tests were given to the eight military and civilian volunteers. The test subjects then went through a two-phase preparation program to familiarize them with and to train them to become highly skilled at the tasks they

were to perform. The total program of training and tests took about four weeks.

"It took some daring on the part of the test subjects," McBride said, there were a lot of unknowns before the experiment started."

When the subjects began the LOC portion of the study, they were simultaneously performing the three different psychomotor tasks that were used to evaluate their recovery from an LOC state. The tasks included a hand-eye coordination task, a tracking task, a vigilance task, which required subjects to accurately and quickly activate two foot switches on cue, and a computation task—solving continually presented, simple arithmetic problems. Each was designed to simulate tasks actually done by a pilot.

The entire test program was developed and funded as an independent research project, McBride explained. At present, the data is being analyzed and the results will be presented at the upcoming "International Congress of Aviation and Aerospace Medicine."

"The coordination of the logistics and daily management of this study by Flight Director Woodrow Miller, and his highly competent team of hospital corpsmen and technicians, as well as the software support provided by LT Ken Howard were remarkable," McBride said.

Tests such as these help the Navy and NADC stay at the forefront of aviation science and technology, and give pilots invaluable knowledge to use in their demanding environment.

## Commander's Message, Conserve

The Reagan Administration has recently stressed the continuing importance of energy conservation by the Department of Defense. A memorandum from Deputy Secretary of Defense Frank C. Carlucci to the Secretaries of the Military Departments urges efficient management of energy resources which will result in more efficient use of public funds. I fully support the DOD energy conservation program. Funding for NAVAIRDEVCON's utility bills comes from Center overhead funds. Reducing energy costs will reduce our overhead rate which will allow us to provide our sponsors with more product for the same amount of dollars.

Over the past two and one half years, we have reduced our energy consumption on an energy-to-floor area basis by 30 percent. This impressive gain, still leaves NAVAIRDEVCON shy of the Navy-wide goal for FY-82. To meet this goal we must reduce energy consumption by another two percent between now and the end of the fiscal year.

This doesn't mean that we accept any decrease in our ability to accomplish our mission. On the contrary, our job remains the same—the development of aircraft systems that work. But we can become more energy efficient in the process, if we all get behind the program. Let's try.



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Naval Air Development Center, Warminster, PA

June 1982

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## New Visor Protects Pilots Eyes From Lasers



Demonstration picture of how visor reflects laser.

Hughes Photo

by Carolyn Riemer

A visor to protect a pilot's eyes from lasers during flight is currently being developed at NADC by the Vision Laboratory under the direction of Dr. Gloria T. Chisum.

With lasers being used more frequently in military situations, development of a device that could protect air crew member's eyes against lasers was undertaken. The diffi-

culty in designing such a device has been in constructing it to protect a pilot's eyes without impairing normal vision to any significant degree.

Lasers used for ranging and detection, for example, are of such an intensity that they can damage the eye. In fact, exposure to any high intensity light source—including a

search light or weapons flash, but especially a laser—poses the threat of causing permanent or temporary damage to a pilot's or crew member's eyes.

The new visor is designed to deflect lasers and protect against other potentially damaging light sources. The visor would use non-imaging holograms in a dichromated gelatin film, which is similar to a photographic film, to deflect these high intensity light sources. Multiple holograms could be used in the visor to diffract various damaging light wavelengths.

In addition, the use of a holographic diffraction protection visor, unlike visors already developed, will not greatly reduce an air crewman's normal vision or color perception. Development of a visor to protect against lasers has been hindered because of these types of difficulties. Besides the problem of constructing a visor to maintain a pilot's normal vision, there is also difficulty in configuring a visor that can be worn in the flight environment.

An efficient visor must be designed to reflect a narrow constant wavelength band of light and to protect against light entry at a wide variety of angles. The visor must also be constructed so it can be worn by crew members under actual flight conditions. This holographic device is being designed to meet all these criteria.

Visors already developed are only marginally acceptable for flight situations since they do greatly reduce pilot vision. In some circumstances, this type of visor, which absorbs light rather than deflecting it, reduces the nonintense light that passes through the visor to such an extent that it is not usable during actual flights.

The use of a holographic diffraction protection device is more suitable to flight situations because it can deflect lasers and other light without significantly reducing normal light. Thus, the visor is able to reject some wavelengths while allowing others to pass through.

The first model of the visor, which is being built under a contract to the Hughes Radar Systems Group, is expected to be ready in about a year. Initial feasibility studies were conducted two years ago and a feasibility model built. Once the prototype is constructed, the visor will undergo further testing.

# Chips Cashed In

by Carolyn Riemer

Three NADC employees have received a \$3,200 award for their invention of a process that will save the Navy an estimated \$15,000 a year.

John E. Horning, SD, Roy R. Radzai, TSD, and John R. Hagstrom (retired) received the award in February for their work in improving the process for making the film chips used to project images on the reverse side of P3 console keysets. Images projected from these film chips, which are about one inch by half an inch, are distorted because of magnification and keystoneing (projecting the image from and off-center point).

Consequently, this distortion caused by keystoneing can be corrected by distorting the images on the film. Originally, for each film chip, which has 12 separate images to be projected, an individual photograph for each of the 12 images had to be taken to produce the correct distortion.

Under the process developed by Horning, Radzai and Hagstrom, however, a photograph of the 12 images may be taken in one shot. After testing, they found that the distortion could be corrected by placing the 12 images on a linear surface under a several inch thick convex lens and taking a single photograph of it. The distorted images on the film chips appear undistorted when projected onto the keyset.

These film chips are used to project messages, such as "radar search," on the back of keysets in aircraft. These messages are coordinated with the aircraft's computer program. Thus, whenever the program is changed the corresponding messages for the keyset must also be changed and new film chips produced.

In addition to providing these film chips to the Navy, NADC also provides them for British, Australian, Japanese and Norwegian P3s.

This is a process, that besides saving the Navy money, decreases the amount of time it takes to replace a film chip. While it took a contractor six to eight months to produce a new film chip, once the new process was developed it could be done in-house in a period of less than three weeks.

Since NADC is able to provide the film chips to the fleet in less time than was possible before, a large portion of the additional award received by the three was in recognition for the process' intangible benefits to the Navy.

Development of this improved process for producing keyset film chips began in 1976 and was completed by Horning, Radzai and Hagstrom in about six months. Although the actual development took only six months, a patent on the process was not issued until 1979.

As a result of developing this process, the three employees received three awards. They received one when the patent application was filed and another when the patent was issued. The additional award of \$3,200 was given after the Navy had evaluated the tangible and intangible benefits of the invention.

Seldom are these additional awards given, according to Henry Hansen, head of the Patent Counsel, because few inventions generate large savings for the Navy.

In addition to there being few additional awards granted, he said, the number of patent applications has been declining in recent years. This is probably due to the change in the nature of the technical effort at NADC, he continued, since less in-house work is being done and more emphasis is being placed on software development.

Last year the Patent Counsel of the Office of Naval Research handled about 35 patent applications, a decline of about 50 percent in recent years.

Often the number of patent applications, Hansen said, may be used by management as a measurement of the amount of research and development going on at an installation.

"The number of patents is used as a barometer to help determine how much creativity and R&D is going on at an activity," he said.

Any NADC employee may submit an application for a patent to the Patent Counsel. Once the counsel receives the application, it is generally forwarded to the Office of Naval Research. At this stage, it is determined whether the Navy has sufficient interest in the invention to warrant the expense of the Navy making a patent application.

## They Keep NADC Moving



From left to right. Top row: Don Laderer, Ed Linke, Rich Capaldi and Tom Ryan. Standing, Joe Tarvin, Bill Zarr, William DeBoar, Eladio Colon and Don Satangelo.

Kneeling, Joe Maio. All these gentlemen make Transportation tick.

Everything that has wheels and a motor, we service. That is the motto of NADC's Transportation Branch of the Public Works Department. Supervisor Edward Linke explained that the Transportation Branch is responsible for maintaining vehicles, 158 various pieces of equipment, from tractor trailers to forklifts, sedans to fire trucks. To do all the service work three mechanics are used. They have the ability to do anything from engine overhauls to routine maintenance. The only thing they don't do is body work, which is contracted out. Joe Maio, Don Laderer and Rich Capaldi handle the work and Don Satangelo inspects the repairs and regulates the work flow.

The Transportation Branch is very responsive to the needs of Center employees. They can supply a sedan for a Washington trip or move tons of snow on short notice. There are four drivers who can handle any vehicle from a

earth mover to a huge snow blower. Bill Zarr, William DeBoar, Mike Bessler, Tom Ryan, Eladio Colon and Joe Tarvin take such assignments as driving patients to the Naval Hospital in Philadelphia, picking up or dropping off important equipment for the Supply Department and making long distance runs to places such as Maine to support project work.

When the snow falls Transportation is on 24-hour call. Their job is to clear all runways, taxiways and parking lots of snow before 0600 in the morning.

Some of the other jobs the Transportation Branch does range from VIP runs, support to local Boy and Girl Scout Troops, emergency snow blowing for PennDOT and support of the NJROTC. Without people like these at NADC the Center would come to a halt. Thanks for keeping it rolling.

## Ex Trenton Employees Receive Citation

Nine Center employees have received a Meritorious Unit Citation for their work at their former duty station, the Naval Air Propulsion Center, Trenton, New Jersey. The Secretary of the Navy, John Lehman, cited NAPC personnel for their outstanding contributions to the research, development, test and evaluation of aircraft propulsion systems during the period from 1 October 1979 to 1 April 1981. The citation states, "During this period, the personnel of Naval Air Propulsion Center achieved myriad significant developments associated with air breathing propulsion systems which advanced the capability of naval and other armed services aviation, and greatly enhanced the posture of national defense."

If it is determined that the Navy has enough interest, the Patent Counsel staff then researches patents to see if the same idea has already been patented.

Should an invention pass these two hurdles, Hansen said, the chances are good to excellent that a patent will be issued.

The people who were recognized are Kenneth J. Peers, Joseph T. Perrine, Lynne Prugh, Cathleen L. Dudek, Michael Vardaro, Jr., Joseph E. Laska, Robert W. Connison, Andrew Atkinson and George M. Rossi. All these people and the entire group from NAPC are to be congratulated for job well done.

### Naval Air Development Center

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CAPT James B. Anderson — Commander, NADC  
Robert S. Buffum — Technical Director  
Joseph P. Cody — Public Affairs Officer  
David Polish — Editor  
Carolyn Riemer — Assistant Editor



## Dr. Gloria Chisum is Outstanding in MPS

Dr. Gloria T. Chisum, as a result of her research work, management ability and professional involvement, has been awarded the merit pay system's rating of one.

A MPS rating of one indicates that an employee has achieved above and beyond target goals for their job's critical elements.

During the period for which Chisum received her one rating, she served as head of the Center's Vision Laboratory. Still under her direction, the laboratory is involved in researching solutions to the visual problems faced by Navy and Marine personnel during aircraft operations.

The project the Vision Lab is currently working on is the development of a holographic diffraction protection visor. This visor will be used to protect crew members' eyes from lasers.

In addition to heading the Vision Laboratory, Chisum, who has been at NADC for 21 years, is also responsible for managing the Life Sciences Research Group.

This group is broken down into areas of study, such as biochemistry research, acceleration research and environmental physiology.

A biochemistry research team is studying PGBX, a hormone that holds great promise for saving lives and improving the healing process, Chisum said.

The environmental physiology team studies biophysiology, the effects of exposure to high temperatures, and thermal physiology, the effects of exposure to low temperatures.

Acceleration physiology is the study of the effects of acceleration, or G-forces, on air crew member performance.

The function of these groups is basically to develop the



**Dr. Gloria Chisum holds many honors, among which is a number "1" MPS Rating.**

knowledge to be used by engineers in equipment development, rather than the development of actual equipment, Chisum said.

Professionally, Chisum serves as treasurer of the Eastern Psychological Association, the most research-oriented of the psychological associations. She is also the chairman of the program committee for the Aerospace Medical

Association, and a winner of that association's Longaker award. She is also a member of the American Psychological Association.

Though it was not during the rating period for which she received her MPS one rating, Chisum has been named a fellow of the American Psychological Association and a fellow of the Aerospace Medical Association.

Chisum also serves as a technical advisor to the Navy's Laser Safety Review Board, which reviews the safety of laser projects. As a member of the Army's Technical Review Board, she helps evaluate research proposals and makes recommendations to the Army on which proposals to support.

Besides professional involvements, Chisum is also involved in various civic activities. For the past seven years, she has been a member of the University of Pennsylvania Board of Trustees. She is also chairman of Penn's Board of Overseers at the School of Social Work.

In addition, she is a member of the boards of the Free Library of Philadelphia, the Philadelphia Orchestra Association and the Arthritis Foundation. Her civic commitments also include serving as chairman of an advisory committee to the World Affairs Council and as a member of the Philadelphia Foreign Relations Committee.

On Center, she has been on the Technical Qualifications Review Panel and the Federal Women's Program Advisory Committee.

Chisum came to NADC 21 years ago after receiving her doctoral degree in psychology from the University of Pennsylvania. She also received her bachelor's and master's degrees in psychology from Howard University.

A number of honorary degrees have also been granted to Chisum. She has received honorary doctoral degrees from the Medical College of Pennsylvania, Ursinus and York College.

## Pax River, See the Future Flying

On a peninsula that juts out into the Chesapeake Bay the Navy maintains one of the most advanced aircraft test facilities in the world. Called the Naval Air Test Center, Patauxet River, Maryland, it is tasked with wringing out the latest aircraft and systems. You can see on any given day F-18's (the Navy's newest aircraft) and AV8-Bs (the latest version of the Harrier) zipping through the skies.

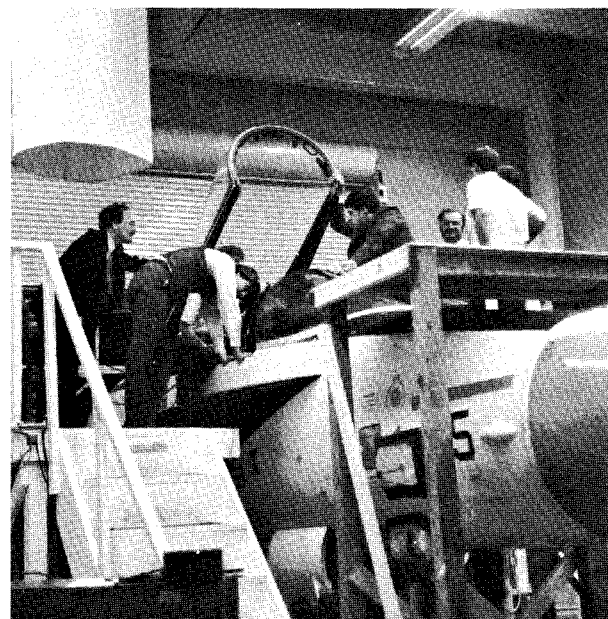
On a recent exchange tour, 31 employees from NADC got to tour the facilities at NATC and take a look at the immediate future of Naval Aviation. In the exchange a group from the Naval Test Pilots School visited NADC to become familiar with the work we do here.

About 9,825 people, military, civilian and contractors are working to make sure the Navy gets the best for its dollars. There are scientists, engineers, pilots, administrative and maintenance people who all work toward making the Navy's aircraft the best in the world. Of the 9,825 people at PAX, 5,025 are members of tenant organizations. The total working budget of \$320 million is distributed between Operations and Support, and Payroll.

With 6,898 acres of land and the Chesapeake Bay at the door step, NATC has one of the best flight test facilities in the world. There are 518 acres of paved runways, taxiways and aprons. The longest runway measures 12,000 ft. and the shortest is 6,000 ft.

This huge complex supports an average of 100 aircraft, representing over 30 different types in 50 differing configurations. In addition to these test and evaluation aircraft, over 50 Fleet, Army and contractor aircraft are onboard the Center. NATC has an extremely sophisticated computerized flight test facility that records and displays in "real-time" the flight characteristics of an aircraft undergoing tests. There are plans to expand this system to allow telemetry transmitted from an aircraft to be relayed by satellite back to the Center. With this type of system an aircraft could be half way around the world and still be monitored by the engineers at PAX.

Some of the other facilities at NATC include the Tactical Avionics and Software Test and Evaluation Facility, the Electronic Warfare Integrated Test Laboratory and the Acoustic Test Facility. All of these labs along with several others combine to serve the Navy with the facilities and people needed to fully test any aircraft against any probable flight environment. At NATC you can see the shape of the future right out the flight line or in the air.



**NADC personnel look over F-18 during recent visit to NATC.**



## CA Studies Continue

The Commercial Activities studies are continuing here at NADC. These detailed studies involve determining whether activities could be contracted out at a savings to the government. These savings must be significant or else the functions will remain in-house. In the latest series of studies approximately 185 civilians could be effected.

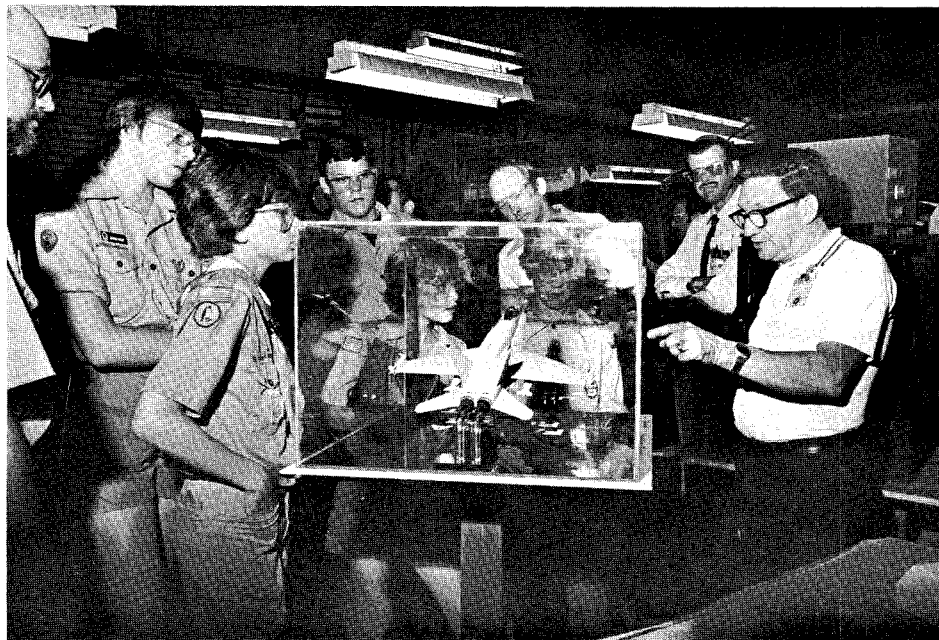
The areas that will be studied are Electronic and Communications Equipment, Test Equipment, Office Equipment, Electrical Plants and Systems, Heating Plants, Water Plants Sewage and Waste Treatment, Air Conditioning and Refrigeration Plants, Utilities and Installation Services, Storage and Warehousing, Fueling Services, Communications Center, Administrative Support and Buildings and Structures.

Each group has been briefed by personnel from Planning Assessment and Resources and Civilian Personnel. They told the group about how their jobs may be affected and how the studies would be conducted. Some of the studies may be finished in less than a year but most are expected to take a year to complete. If the function is identified as a possible candidate for contracting, an announcement will be made asking for contractors to bid. If the bid is 10% lower than the in-house cost then the contract will be awarded to that bidder. If the contractor has any openings, the displaced employees have the first right of refusal. All procedures that are part of the RIF process apply to the CA studies. More information will be forthcoming as the studies near completion.

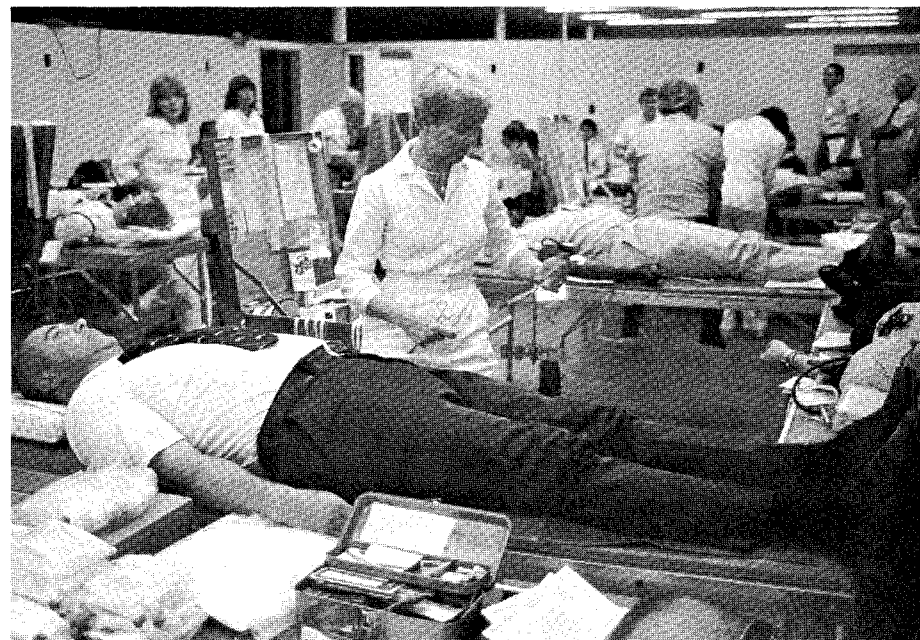


# Center Scenes

## *NADC Supports the Local Community*



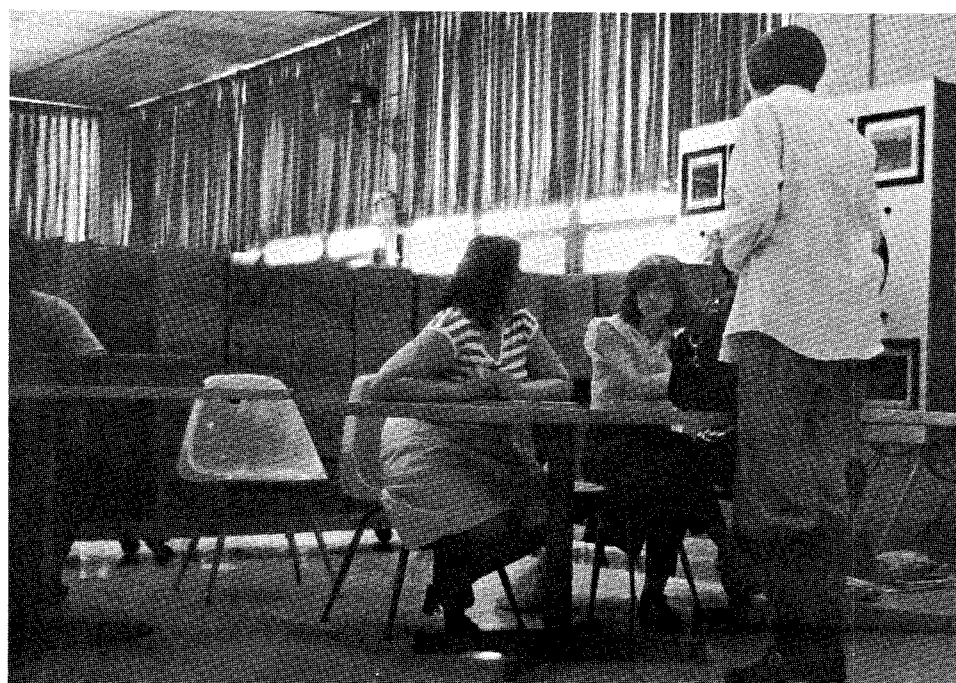
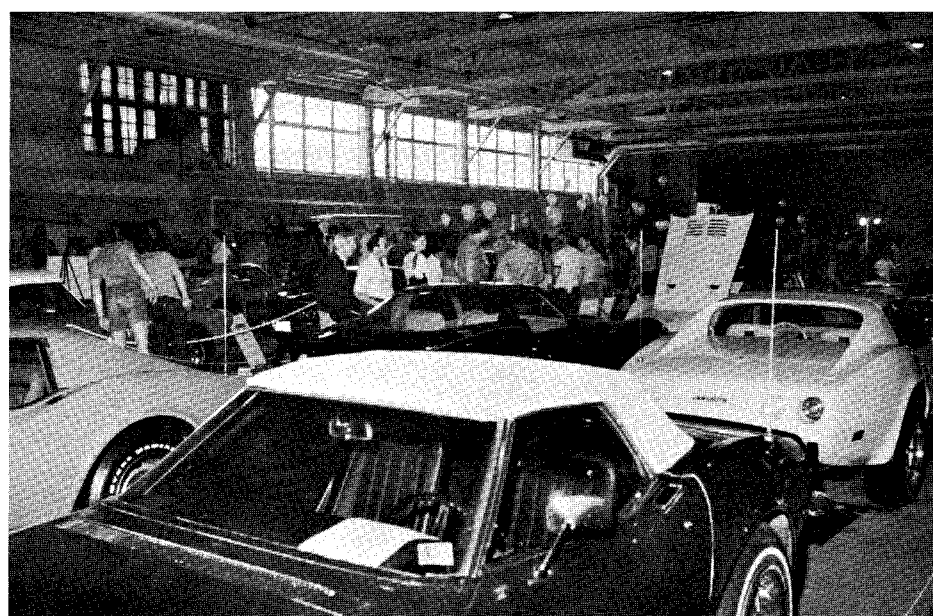
A group of scouts get a lecture on shop safety.



Bill Becker gives blood during recent Red Cross Bloodmobile visit.



Rows of Corvettes brought over 6000 people to NADC during the Cavalcade of Corvettes. The Corvette Club of Delaware Valley donated \$3000 to Navy Relief.



NADC helped distribute surplus cheese to needy Bucks and Montgomery County residents.



Captain Sheehan, local dignitaries and crowd wait for the Flag Day fireworks.



# Saving Energy is Still Important

by Carolyn Riemer

Center conservation efforts to this point in FY-82 have reduced energy consumption 13.68 percent below the usage in FY-75, the Navy's baseline year for energy usage comparisons.

This decrease is just short of the Navy's prescribed goal of a 14 percent reduction in energy usage for FY-82.

Annual expenditures in the Department of Defense for energy are \$11 billion. For every one percent reduction in fuel consumption, the DOD saves enough money to purchase three AH64 helicopters, two F-14s and two F-16s, according to Frank C. Carlucci, Deputy Secretary of Defense.

Over the past three years, NADC has had an overall drop of 30 percent in energy usage, according to Public Works Officer Raymond S. Tyler.

At the beginning of this fiscal year in October and November, the reduction in energy consumption stood at 26 percent. Since that time, however, Tyler said, the percentage of the reductions in energy use have been declining.

One factor in the great decrease in energy use in October and November is the moderate weather. During this time, non-freezing temperatures allowed the boilers to be shut down during off hours.

Because energy consumption has been rising compared to the beginning of the fiscal year, a high priority of the energy conservation program is to reverse this trend, Tyler, who is also Energy Conservation Officer, said. This is especially true, he said, since the summer months, when there is an increased demand for electricity because of air conditioning needs, are approaching.

Overall energy consumption has decreased but reductions in electricity usage is not as great as in oil usage. While electricity consumption is down 4.3 percent over last year in spite of an increased load, it is still 8.8 percent above the FY-75 level.

The greatest energy reductions at NADC have been in oil consumption. The Center has reduced oil consumption by 230,000 gallons this year. This is after a reduction of 65,000 the previous year.

The Center experienced a large drop in energy use just before the Navy's energy guidelines were set based on FY-75 levels. This has made it more difficult for NADC to meet energy reductions than activities that did not experience the drop off, Tyler said.

After this drop in FY-73, there was a steady increase in energy used until FY-79. Then there was a turnaround with the resulting three year drop of 30 percent in energy consumption.

Guidelines for reductions in energy usage have been set by the Department of the Navy; by FY-85, levels of energy use are to be 20 percent below FY-75 levels. Additional Navy Energy Conservation Goals call for further reductions of 25 percent by FY-90, 30 percent by FY-90 and 35 percent by FY-2000.

These energy guidelines can be met, Tyler said "if we continue to get top level support and if we pursue the program aggressively. It will require an enormous amount of hard work and it will get harder and harder."

Top level commitment to the energy conservation program is the most important ingredient to the success of the program, Tyler said.

Reductions in energy usage have come about as a result of employee conservation and facility renovation, with a number of energy conservation projects being instituted.

These projects are intended to provide employees with greater comfort and to generate energy savings, Tyler said.

"It is not intended that energy conservation programs disrupt work," he said.

One project will be to improve the heating condensate system in Building 3, which will allow heating at a more constant temperature. Currently, the heating system requires that areas be heated to 68° or 69° and then allowed to cool to the 65° temperature mandated by executive order. This process is repeated throughout the day.

Another project currently underway is to make the aircraft maintenance hangar more energy efficient. Drydit, a stucco-like substance, is being placed on the walls of the hangar. The application of this material not only will improve the appearance of the building, it will also provide extra insulating value, Tyler said.

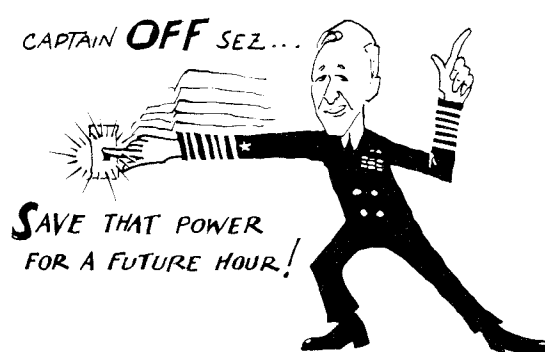
The roof of the hangar is also being replaced. Roof insulation will be installed, since, at present, the roof is not insulated.

In addition, a propane gas boiler is being installed in the cafeteria to supply that area's hot water needs. The installation of this boiler will allow the Center's main boilers to be turned on three hours later than they are now being turned on, saving 100 to 200 gallons of fuel oil an hour.

Another project is the installation of diesel generators to supply electricity to the computer area. It is also intended that heat from the generators be used to supplement NADC's heating needs.

A number of other energy conservation projects have been underway for some time. These include such projects as weekend and holiday shutdowns and the installation of more energy efficient dual glazed windows.

The Center also adheres to federal temperature guidelines, where areas are not to be heated above 65° F. or not cooled below 78° F.



Tyler also suggested that civilian employees who are on duty during the weekend work in areas not affected by the shutdown, which would include areas such as the computer facility. Although he knew it was a controversial proposal, Tyler also said overtime work could be done on weeknights instead of Saturdays.

# Suggestion Award

by Carolyn Riemer

Adoption of a Beneficial Suggestion for a design modification in the Expendable Reliable Acoustic Path Sonobuoy (ERAPS) has won David M. Furlong, SATD, a \$2,225 Beneficial Suggestion Award.

Furlong suggested that the AN/SSQ-75 ERAPS, currently in the Engineering Development Model (EDM) stage, be modified from its planned four projection ring element array to a three element array. Such a modification would save the Navy the cost of the fourth array on each development model constructed.

By reducing the number of these ring-like elements from four to three, the Navy will save \$124,000 on the construction on the ERAPS in the EDM stage alone.

Once the ERAPS is incorporated into the fleet in several years time, the sonobuoy, which is currently the most complicated sonobuoy system, would be able to detect submarines from a greater distance. One ERAPS will be able to detect submarines in an area that it now takes several sonobuoys to cover.

All the testing of the ERAPS with the modified three element design was conducted at NADC and at the Center's Oreland Quarry facility over a period of several months last year, Furlong said.

Evaluation by Furlong, Robert DeChico, Robert Bolard, Charles Fay and other members of the Hydromechanical Branch, SATD, showed that the three element array sonobuoy could withstand the additional mechanical and electrical stress the design created. Each element of the three element array had to withstand one-third the power generated, whereas the element in the four element array only had to withstand one-quarter the power. The new design was able to successfully withstand the new stress.

Since the AN/SSQ-75 ERAPS is in the EDM stage, it still must undergo technical evaluation and operational evaluation before it can go into production. Furlong will be able to receive awards based on Navy savings during the two remaining evaluation stages and during the first year of production.

In the first year of production, it is expected that 2,000 ERAPS will be produced with the Navy saving \$200,000.

# NSAP Representatives Meet



Sal Piccard, left and Izzy Zaslow, right, tell Robert S. Buffum, NADC TD, about their NSAP experiences.

Two NADC employees returned to the Center to brief the Technical Director, Robert S. Buffum, about their recent experiences in the Navy Science Assistance Program (NSAP). Izzy Zaslow and Sal Piccard are currently representing the Navy Labs as the interface with the Fleet. Each deals with a different part of the Navy. Zaslow works out of Hawaii and Piccard resides in Italy.

Both Piccard and Zaslow have very strong feelings about the NSAP experience. Zaslow said that NSAP provides an important coupling between the Fleet and the Labs. "It's hard to understand Fleet problems without being there," Zaslow said. "You get to know all the key people and how to deal with them." "It's a tremendous experience," he added. Getting involved in NSAP requires some thought, said Zaslow. You have to weigh being away from home for an extended period and how a tour like this could enhance your career.

"NSAP gives the opportunity for a lab person to combine analytical and technical disciplines with operational

thinkers and apply these disciplines to real-time fleet problems," said Zaslow.

Sal Piccard, whose assignment to the office of the Commander Area ASW Forces, Sixth Fleet, said that, "the Mediterranean is a unique area to be in." "NATO, US and Russian Forces are in daily contact, not only with each other but with Third World Countries like Libya as witnessed by the recent confrontation with the Sixth Fleet."

"It has been a very professionally rewarding experience for me to have the opportunity to participate in fleet operations at all levels. I highly recommend these assignments to anyone who desires to observe and assess the ultimate use of their personal efforts and the Center's products. It is this type of assignment that provides the opportunity to assess the capabilities and deficiencies of our products, to guide and direct our R&D programs and produce systems improvements and define the requirements for future systems developments."

## Commander Salutes

Ronald E. Kabin, Comptroller; Elizabeth Ann Mauger, DCP; Mary Ann Brett, Chief Staff Officer; and Doris Reilly, TD, all for their support during the recent Command Inspection.

Robert G. Mahorter, ACSTD, for his participation in the Preliminary Design Review for the Full Scale Development of the F107-WR-14A6 cruise missile engine.

Robert G. Peck, SATD, for his work as advisor to the Source Selection Evaluation Board for the Demonstration and Validation Phase of the ASW Standoff Weapon Program.

Michael Magill, SD, for his support to the F/A-18 cost analysis effort.

William Sunday, Supply, for his alertness in recognizing the danger of new regulations that permitted the shipment of sonobuoys containing lithium batteries on passenger carrying aircraft. Through his efforts the regulations were modified to correct the problem.

David J. Volak, Edwin S. Gernant and John J. Keane, all from SATD, and Bernard Pollack, DCP, all for their briefings during a recent visit to ASWWINGPAC.

Kevin W. Goldstein, ACSTD, for his achievement in receiving the American Helicopter Society's Robert L. Lichten Mideast Regional Award.

John G. Ryan, James H. Brindle and Norman W. Warner, ACSTD; CDR Richard E. Koehler and Joseph Colombo, DCP; Robert T. Balitski, SATD; Edward W. Linke, PW and AMSC Sidney Oliver, Aircraft Department, all for their assistance during the special program for community leaders held during Armed Forces Week.

Michael J. Masington, Staff; John T. Rudolph, Richard P. Butkus, Gerald Baker and Albert P. Brown, all of TSD, for their enthusiasm in making a recent Boy Scout Tour a success.

Harold D. Yaffe, SCD, and Paul Terpeluk, DCP, both for their support of the VP Program.

Joseph M. Spodaryk, Comptroller, for his assistance to the Department of the Army Office of the Project Manager for Training Devices.

Edward Linke, PW, for his support and service in providing a Navy Bus to replace one that had broken down, stranding a group from the USS SARATOGA.

Roman Fedorak, SCD, for his efforts in assembling a committee to study standards for MNOS Arrays.

Larry M. Smith, SCD, for his contributions to the CMS-2 User Group Conference.

## Civilians Now Included

The Department of the Navy has reiterated and amplified its policy on the prevention of drug abuse by civilian and contract employees on military installations.

Drug abuse by civilian personnel has a adverse effect on individual performance and the ability of the work force as a whole to fulfill mission to support the operating forces, according to the department.

As a result, the Department of the Navy has expanded its policy regarding drug abuse by civilian personnel.

"It is the policy of the Department of the Navy to deter and detect drug abuses by civilian personnel, on or off duty, and by contract employees on military units and installations."

Consequently, the following measures, the department continued, may be taken to identify drug offenses on military installations:

- routine inspections of government spaces, including the use of dog teams
- random inspection of vehicles entering or leaving the installation
- random inspection of vehicles or personal possessions, on entry or exit, where there is probable cause to believe a civilian employee on duty has illegal drugs or drug paraphernalia

In addition, civilian employees on duty suspected to be under the influence of illegal drugs will be relieved of their duties and referred to medical personnel.

The purpose of these policies is to focus resources and the attention of managers on the aspects of the drug problem that affect military personnel, readiness and mission performance.

## Bang Up Job

Flag Day was celebrated with a bang this year when the Warminster Chamber of Commerce brought their fireworks display here. Although the original date was rained out the show went on on Monday 14 June. Speeches by local politicians and music by a string band and choral group started off the evening. Chief Staff Officer Captain James E. Sheehan gave a talk on what the flag symbolizes to the people of the United States and the world.

A Color Guard unit from the Center which included AC2 Milton Greene, AO2 Curtis Miglionico, AMS2 Scott Price and Vicki Terry, did the flag presentation honors.

The spectacular fireworks display followed with rockets and beautiful ground displays that thrilled the crowd. The show lasted over 45 minutes leaving the people cheering.

## Meet the Writer



**Carolyn Riemer is a Summer Aide working in the Public Affairs Office.**

If you have read this issue of the REFLECTOR you may have noticed a lot of articles were written by Carolyn Riemer. Who is she? She is a student from Temple University majoring in Journalism. Carolyn was an Editor of The Medium, the Temple Ambler Campus newspaper.

This coming year Carolyn will be a senior. After graduation she plans to attend law school. She will only be on Center for the summer but she will make her presence felt by talking to many people here and writing articles for the REFLECTOR.

## Hillyer-MAT-05

The Office of Director of Navy Laboratories has been reorganized. Formerly coded as MAT-08L it is now MAT 05. The Director of Navy Laboratories prior to the change was Captain David Parrish. Upon his retirement at the end of June, Captain Parrish will turn the job over to Robert M. Hillyer, who was appointed to the position in May.

Hillyer will serve as the principal executive for the eight Naval Material Command Research and Development Centers. He will also serve in an advisory capacity to the Assistant Secretary of the Navy for Research, Engineering and Systems.

Hillyer has been the Technical Director of the Naval Weapons Center, China Lake, California since 1977. He holds a bachelor's and a master's degree in mechanical engineering.

## Tell A Friend

Are you the retiring type? If you are, then maybe you want to tell your friends, neighbors and family about it. How can you cover all these people with a single effort? As you retire from NADC you are asked to fill out many forms one of them is a information sheet for use in drafting a press release. This form is used by the Public Affairs Office to draft press releases to be sent to hometown newspapers. It's easy to fill out and the results can be something you can be proud of. All you have to do is fill out the form, PAO does the rest.



## Gregory to Report

*by Carolyn Riemer*

YNCS James W. Gregory, a co-winner of a Navy leadership award this year, will begin his tour of duty at NADC this month as the Center's Military Administration Officer.

As Military Administration Officer, Gregory will be responsible for all matters relative to administering to NADC's 270 military personnel, CDR Ronald Monkres, Command Administration Officer, said. The post Gregory is filling is one normally filled by a Lieutenant or Lieutenant Commander.

Duties that Gregory will oversee, or be responsible for, are the management of enlisted personnel transfers and receipts, officer and enlisted personnel manpower authorizations, the Unaccompanied Enlisted Personnel Housing (UEPH), the military recreation program and the Consolidated Mess Open. In addition, Gregory will serve as Acting Command Administration Officer in Monkres' absence.

Previous to coming to NADC for a three-year tour, Gregory served as Naval Station Administration Officer, also a position normally filled by a Lieutenant or Lieutenant Commander, at the Keflavik, Iceland naval station. Gregory was the first enlisted man in the 30-year history of the naval station to serve as the administrative officer.

It was for his work at Keflavik that he was one of the six Navy men and women to win a Navy League of the United States Leadership Award. Gregory was the co-winner of the Admiral Claude V. Ricketts Award, which is awarded to a Navy enlisted Man who has demonstrated inspirational leadership.

According to the Navy League Award committee, Gregory, who has served in the Navy on active duty for 19 years, was honored, in part, for displaying "superlative leadership and resourcefulness in the servicing of fleet units by his command in managerial deftness and meticulous attention to detail that led to the provision of superior administrative service . . ."

Every year, the Navy League, whose goal it is to maintain public interest in the Navy and its mission, presents awards to Navy personnel who have made specific contributions in their field of endeavor. The Navy League requires that the awards board be limited to six members, where one must be a former Secretary of the Navy and one a former Chief of Naval Operations.

With the type of track record Gregory has established, Monkres said it was clear in his mind that the senior chief was the best person to fill the post of Military Administration Officer at NADC.

"Having worked with Senior Chief Gregory closely when I was in Keflavik, Iceland for two years, I know of his proven managerial abilities," Monkres said. "Everyone, including Admiral Martini (Commander of the Keflavik naval station) was aware of those managerial abilities."

"This caliber of performance directly resulted in him receiving the Admiral Ricketts Award," he said.

Monkres added that Gregory is looking forward to joining the civilian and military team effort at the Center.





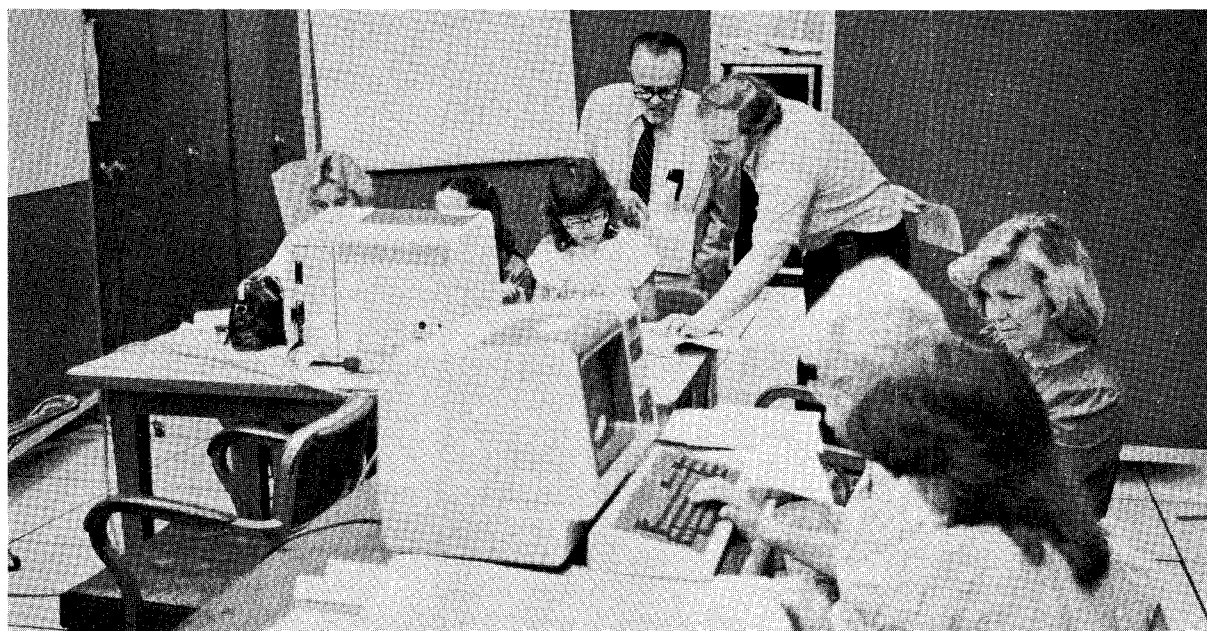
# The Reflector

MR J BARTON 3021

Volume 26, Number 7

Naval Air Development Center, Warminster, PA

July 1982



Hal Tremblay and Al Kaniss, both from the Computer Department, give administrative personnel from the Systems Directorate instruction on how to use the electronic mail system.

## Computerized Mail System Coming

MANY OF US HAVE FOUND OURSELVES IN THE FOLLOWING SITUATION: It's the end of the day and your boss comes to you with a piece of correspondence or a memo that has to get out right away. It has to be distributed so it will be on several people's desks in the morning. What do you do? If you do it the regular way it means typing the information on paper, having it checked, copying it and then hand delivering it to the various offices. By the time you're done you've missed your ride or you're late for dinner. This little story may well become a thing of the past as NADC moves toward the Electronic Mail Age.

With the capabilities of the Front End Processor, a part of the Center's computer complex, a system is now being implemented that will speed the flow of information throughout the Center.

According to Robert Finkelman of the Computer Department, every terminal and computer at NADC can be tied together using two existing channels of the cable television system. Special couplers called TBOXs will enable different types of machines to talk to one another. This means that terminals, which have no computing ability, can talk to other terminals, terminals can talk to computers and computers can talk to other computers even though their transmission speeds may not be compatible. The TBOX matches the characteristics of the terminal or computer you are using to the protocol of the receiving piece of equipment. The Front End Processor has the ability to send, receive, answer with endorsement, store and retrieve information. This is the core of the electronic mail system. Several different offices can receive the same information

at the same time using predetermined distribution lists or the message can be stored for future retrieval. It acts like a mailbox but without the mail person physically carrying the piece of paper. Messages can be directed to a terminal with a record of the transmission being kept in the system. Finkelman explained that this way you can be sure the message was sent. Another positive value is that unlike a phone call the receiver does not have to be at the other end at the time of transmission. A message can be put on the receiver's terminal stating that there is mail in the system for them.

What's nice about the electronic  
*continued on page 2*

## Becker, Guarini Selected to Fill SES Positions

BY CAROLYN RIEMER

Robert N. Becker, currently acting head of Planning and Assessment Resources, and Jerry F. Guarini (20P1) have been selected to fill two senior executive service (SES) positions on Center.

Becker will head PAR and Guarini will serve as the Weapons Systems Technology Manager, a newly created SES position.

Guarini, who serves as deputy program manager in the Systems Directorate (AIR-03P) and head, Advanced Weapons Concepts, said he was "very appreciative for the help of so many people in the 20P1 and the 20P5 organization, who have made the elevation to this position to the SES level possible."

Of his selection, Becker said he felt "super." He also thanked those who had helped him throughout his career.

There are 11 SES positions at NADC, with most of the directors', the Weapons Systems Technology Manager's, the Technical Director's and the Associate Technical Director's positions being SES posts.

One requirement for an employee seeking an SES position is that he have a broad background, Technical Director Robert S. Bufum said. In addition, the employee must have the proper technical qualifications and a knowledge of many of the Center's programs.

A breadth of experience, not only on the Center but outside of the Center is also required, he said.

Likewise, interpersonal skills and knowledge of the personnel system are qualifications required for an SES position.

Those selected to fill SES positions represent less than one percent of all federal employees. Prior to the institution of the SES in 1979, top level government managers were awarded so-called super grades—GS-16, GS-17 and GS-18—rather than entering the SES.

Selectees for SES positions fill their positions once the Naval Material Command and the Office of Personnel Management endorse their selections.

The Naval Material Command reviews the selectee's technical qualifications. After being endorsed by the Civilian Personnel Organization, OP-14, the Office of Personnel Management reviews the selections with the philosophy that anyone who moves into an SES position should be qualified to fill other similar executive posts in the federal government.

Becker received OPM precertification several years ago as a result of his selection to participate in the Federal Executive Development Program. Guarini will be participating in a similar program early next January.

As head of PAR, Becker will assist the Commander and  
*continued on page 3*

## New Laser Radar System Currently Undergoing Testing

BY CAROLYN RIEMER

A laser radar system developed by the Laser/Magnetic Systems Branch (3012) is currently being tested at NADC's Key West Field Station.

For the testing, the system is mounted in the NADC LUC flat bottom boat located in Key West, according to Michael Contarino, who is the project engineer and who designed the system's hardware. The tests are scheduled to run from July to September.

Although the system being tested is mounted in a ship, the radar system is intended to eventually be an aircraft system, Contarino said.

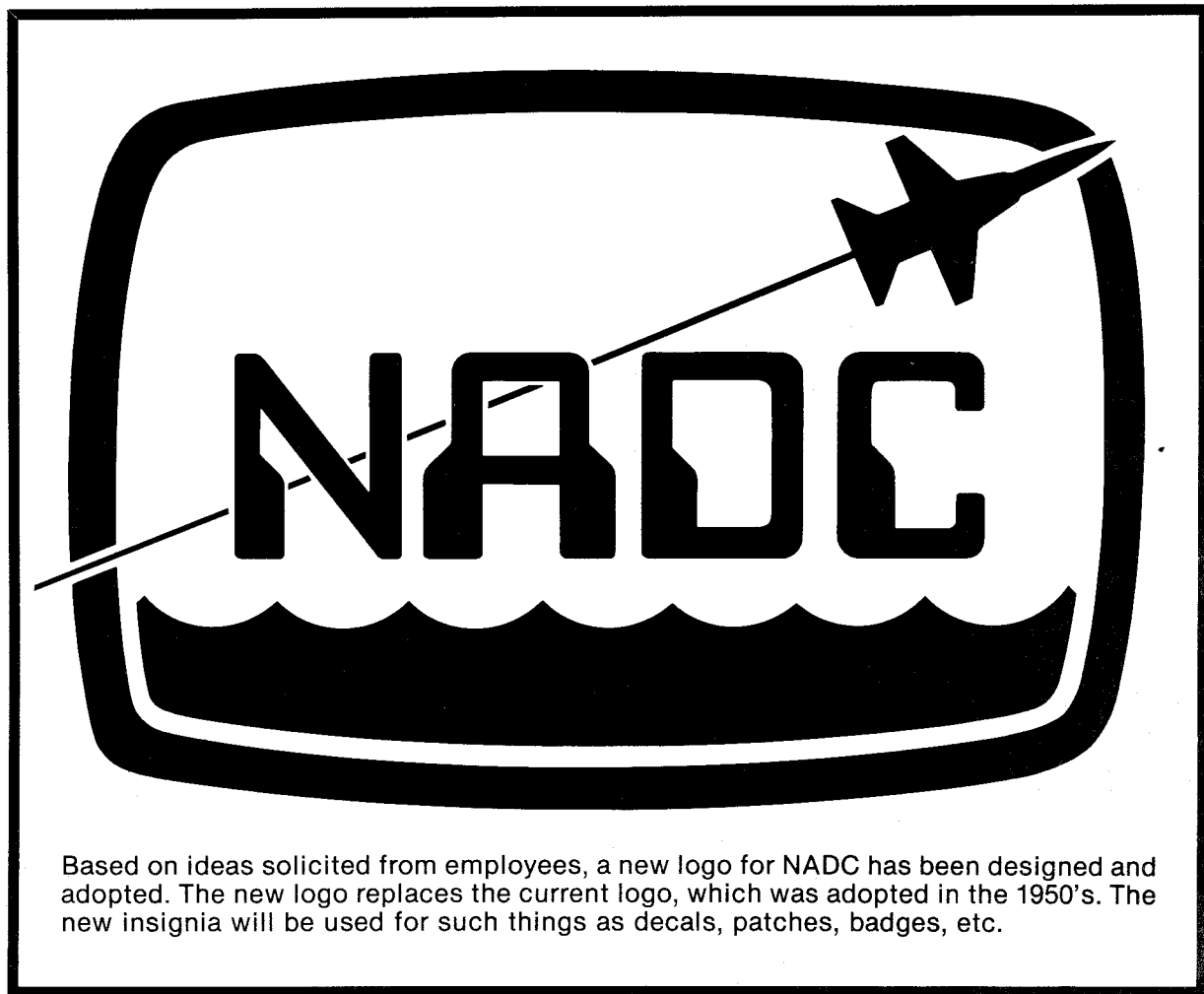
This system, whose development was funded by the Defense

Advance Research Project Agency (DARPA), consists of a laser and a back scatterer receiver. A short laser burst is sent out and the receiver is used to collect the reflected laser beams. The information gathered is then digitalized.

A laser burst travelling through water reflects off of light particles, much the same way headlights reflect off of a fog, Contarino said. It is these reflected beams that the back scatterer receiver will collect.

In addition to Contarino, development of this laser radar system was the result of the work of Howard Krumboltz, Kenneth Petri, Robert Starry and Stewart Boose.

While Contarino was respon-  
*continued on page 3*



Based on ideas solicited from employees, a new logo for NADC has been designed and adopted. The new logo replaces the current logo, which was adopted in the 1950's. The new insignia will be used for such things as decals, patches, badges, etc.

# Postgrad School Officers Study ASW at NADC

BY CAROLYN RIEMER

Three officers from the Naval Postgraduate School in Monterey, Calif. were recently at NADC on a six-week information gathering tour for their master's theses.

The three officers, who are in the Antisubmarine Warfare curriculum at Monterey, are LCDR Michael B. Johnson, LCDR Adrian J. Adams and LT George M. Vermillion. Johnson spent a six-week tour at NADC studying the Rapidly Deployable Surveillance System as it is related to antisubmarine warfare.

Adams, who spent only a two-week tour at NADC in May, researched ambient noise as it is related to antisubmarine warfare. Sound levels vary for different parts of the world and Adams is travelling to several bases to study these sounds and their impact on the monitoring of sonobuoys.

The third officer, LT Vermillion, who was on a six-week tour at NADC, studied computer localization algorithms and their relationship to on-board processing for aircraft.

One of the reasons the officers choose NADC was because other postgraduate students at Monterey had given positive feedback about the Center, Johnson said.

"This facility is the most structured program and most willing and able to accept us," Adams said.

NADC has a reputation of knowing what officers are at the Center for and how to handle their tour, which makes this facility attractive, he added.

While the officers are able to conduct research for their theses, this program also allows NADC the opportunity to educate the school and the fleet about what NADC is, LCDR Richard Bentley, a coordinator of the program, said.

Many officers, after attending

Monterey, are assigned to the fleet or NAVAIR. With better relations between the Center and the school, officers will be more aware of NADC and what it can do, Stuart Simon, who is also a coordinator of the program, said. In addition, the program is also intended to establish better relations with Monterey. Thus, the program enfranchised Center employees on West Coast travel to speak at various Monterey seminars for faculty and students.

Periodically, Center employees may also be sent to take classes at the Postgraduate School as part of the program to educate those at Monterey about the Center and its projects.

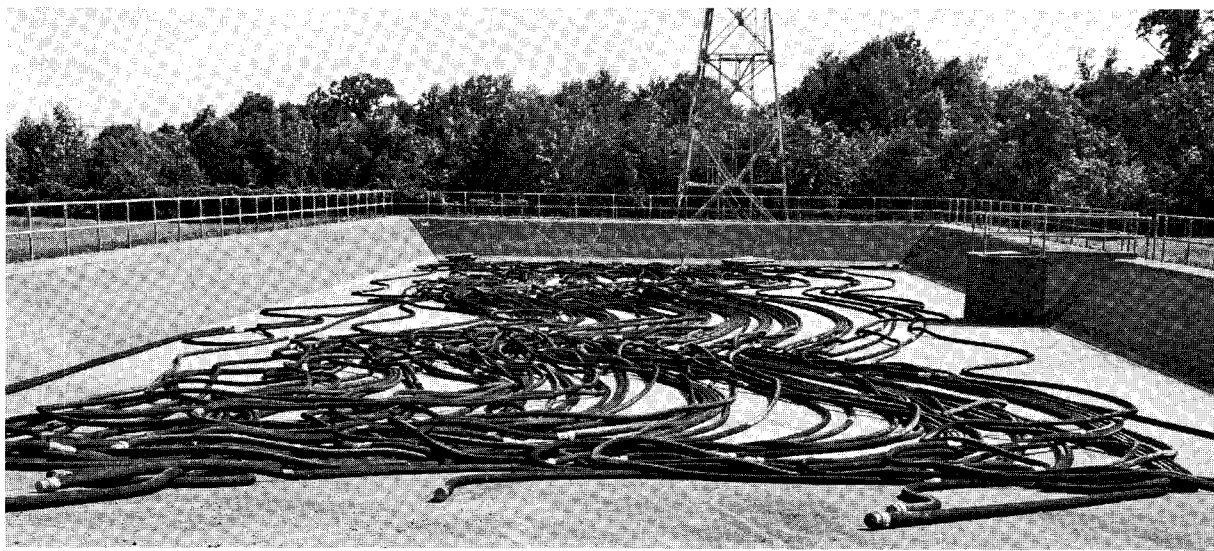
Although the program has been in place for some time, it is only in the past year and a half that the Center has started to actively seek to improve its relationship with Monterey.

Five years ago, the program was strong, but for several of the following years, fewer officers were coming to NADC. This was due to declining enrollments at the Postgraduate School and because many at the school were not aware of NADC, Simon said.

But, a year and a half ago, there was a reemphasis made on improving relations with Monterey. Although there were only three officers on this past tour, now twice a year, five or so officers from Monterey come to NADC to work on their theses.

Once these officers have graduated, they will return to their operational billets, where there may or may not be some direct application of what they studied at Monterey, Johnson said.

Usually, however, somewhere down the line the officers can capitalize on their degree by being assigned to Washington or possibly to a Navy lab, Adams said.



Aviation fuel hoses from the USS Saratoga are being conditioned by NADC fuel farm personnel.

## Computer Mail

continued from page 1

mail system is that it functions just like a typewriter but it has greater flexibility. You can enter text on the system and then go back and edit it before it's made into hard copy. You can change words, add lines or entire paragraphs without having to retype the whole thing over again. If you have misspelled a word throughout a document you can correct it in every instance with a single command. When you want to produce a hard copy you can format the rough information by using formatting commands. Left and right justification, automatic page numbering, paragraph numbering, automatic index and table of contents generation are all possible when you use the formatting program.

All of this may sound a little bit scary to someone who has no computer background and that's why the Center is taking steps to train employees on how the system works. In response to a request from Dr. Rudolph Stampfl, the Computer Department undertook a training program for the administrative people in the Systems Directorate. A hands-on workshop was set up on Center for the employees to see how the system works.

Three terminals were tied

together so the group could communicate with each other. The text editing and formatting commands were taught in a basic form so they could be grasped in a short time. Dr. Stampfl started the program because he saw the need for a more efficient office communications systems and he thought it was time to get his people out of the "Stone Age." As a result of the first training group, some people from the Comptroller's Department took the course. In the near future manuals will be available that will,

in simple easy to understand terms, teach anyone the ins and outs of the Electronic Mail System.

EDITOR'S NOTE: The REFLECTOR, for the past six months, has been entered and edited on the Front End Processor from a terminal in the Public Affairs Office. The flexibility of the system has given me the ability to work quickly with less waste and greater freedom than before. For anyone that does a lot of writing and editing the system does indeed get you out of the "Stone Age."

## Federal Salary Structure Is Not Able to Compete

Letter to the Editor:

I was recently aroused by your thought-provoking editorial of May, 1982. "Are You Surviving" was the title and to this I say "No!" Government cost-of-living raises and the basic salary structure cannot compete with that of the private industry sector of our economy.

Often times we find that even a college degree is an insufficient asset to the government employee. I feel that there would not be so much complaining about the economy, if we could keep up with industry in our cost-of-living raises and if we felt that a good day's work was rewarded by a fair salary.

Many times we see higher grade personnel content to basically do the minimum. Lower GS workers (such as secretaries) swamped with work and management pinching pennies to give them a raise, as if it were coming out of their own

pockets. Why is it so many times that management wants a good job but selfishly doesn't want to reward the good worker, who doesn't complain. Unfortunately, the squeaky wheel always gets the oil. And why is it that certain "pet" employees seem to get everything from management. This is another form of injustice.

I think as employees and managers we ought to examine how fairly we reward our workers and how fully do we earn our paychecks. Perhaps if we could be more fair and let the best man win we would all develop a better attitude about how lucky we are to even have a job.

I also want to express my gratitude for the tremendous job that is done on the Reflector each month. I thoroughly enjoy how you keep us at NADC well-informed of technical accomplishments and non-technical activities.

Name Withheld Upon Request

## The Reflector

Naval Air Development Center

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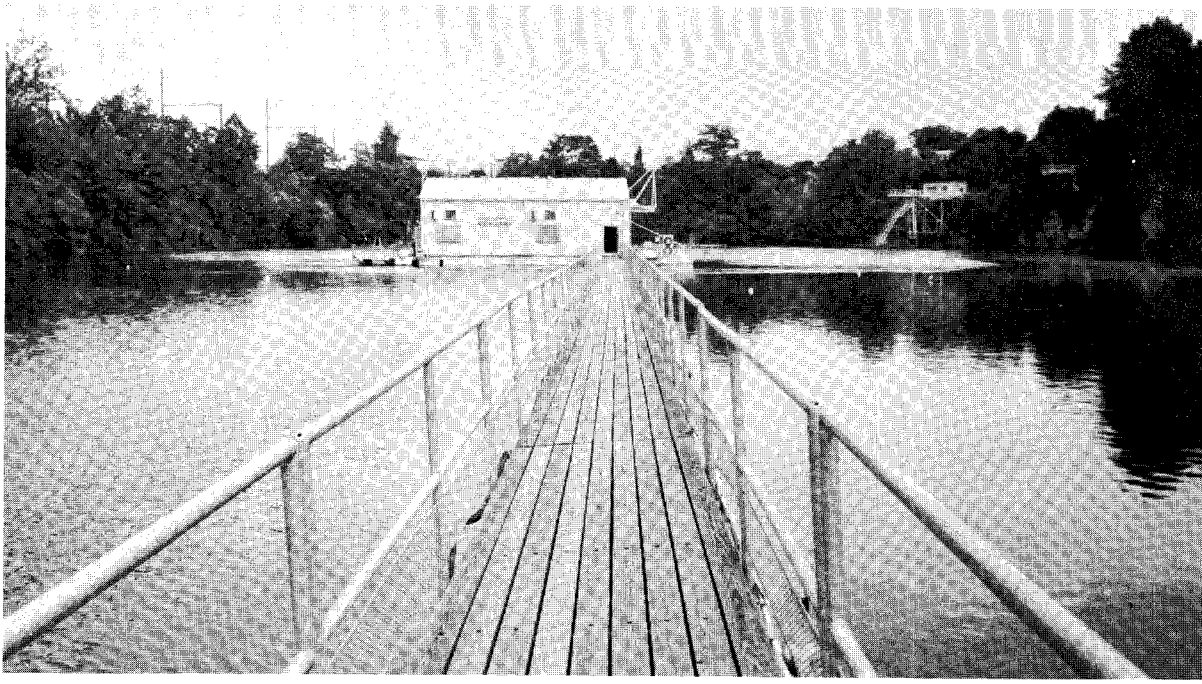
David Polish — Editor

Carolyn Riemer — Assistant Editor



LT Norm Edwards is proud of two things. First he has completed 1000 hours of helicopter flying in CH 53's, and second he has a new license plate that represents the helicopter in the background. The NCH-53A is a special helicopter outfitted for night vision testing.





The open water facility provides NADC with the ability to conduct complete testing of underwater sensors.

## Open Water Facility Equipped for Complete Testing

Just ten miles from NADC there exists a facility that has some of the most capable research and development testing facilities in the world. Floating quietly on a quarry filled with emerald green water, is a laboratory specially designed to test underwater sensors. Located in Oreland, PA, the quarry has extremely accurate measuring devices for the testing of both passive and active sensors.

To get to the lab you must walk out on a long gang plank that leads to the facility. The lab does float but it's secured by guy wires that are anchored to the quarry cliffs. If you were blindfolded until you got to the lab you wouldn't know that you were in the middle of a flooded quarry that was 65 feet deep. The inside of the lab is packed with test gear and office space, just like many of the labs here on Center.

Robert DeChico of SATD, explained that the quarry facility has the capability to provide a full system check on almost any underwater sensor. To do this, DeChico said, a unique set of test set-ups are available to simulate an open ocean environment.

In the lab building there is a well area directly under the floor. Panels can be lifted to widen the opening for large test bodies and arrays. A sea state simulator is part of the well area. It can be used to move the sensors in such a way as to simulate wave motion on the

ocean. A closed circuit television camera, photographic coverage, visual observation and motion induced data are available for analysis.

On the outside of the floating lab is a linear motion simulator that is used to test how various sensor arrays react to motion induced by ocean currents and drag caused by the cables of the array itself. The rate of linear movement can be controlled automatically using the lab's test equipment.

Mounted on the cliff side is a sonobouy launcher. It is used to simulate the forces of an aircraft sonobouy drop. High speed motion picture cameras can record the flight and water impact of the equipment under test.

Anchored next to the floating lab is a tube that extends downward to the bottom of the quarry. This tube is 48 inches in diameter and has viewing ports every ten feet.

You can climb down and watch various sensor arrays as they deploy and function. The ports can be used to film the various actions of the equipment being tested.

Although the quarry is only 65 feet deep, sensors can be tested to a depth of 25,000 feet. A special high pressure chamber is available that can accommodate all present and projected future sensors. It is acoustically transparent which makes it ideal for this type of

work.

With all the unique test equipment at the quarry almost anything that has to do with active and passive ocean sensors can be evaluated by NADC personnel at the facility. The advantages are a location that is close to the Center, a controlled environment and great dollar savings in not having to use expensive aircraft flights.

The Center maintains many high technology laboratories and facilities, all of which contribute to NADC's leadership in sensor, crew systems, avionics, software, structures and navigation developments, to name a few. The open water facility is one lab that is both unique and capable in helping the engineers and scientists here fulfill NADC's mission.

## Testing of New Radar System Underway

*continued from page 1*

sible for the hardware design, Krumboltz generated the main design for the system. Boose was responsible for nearly all the system's programming and Starry was the technician responsible for getting the system together. Petri was originally the project manager, but now serves as the head of the Laser/Magnetic Systems Branch.

Testing of the system this year will be static, while next year's

## Guard Wounds Man Trying to Enter Base

BY CAROLYN RIEMER

Kenneth C. Carter, a 31-year old Doylestown man, was shot on July 5 by a Howard Security guard as Carter attempted to enter NADC through the operations/airfield gate on Jacksonville Road.

Guard Peter Harry Baruso shot Carter in the left side of the head after Carter had made several attempts to enter the Center and after he had run into the car of guard supervisor Sgt. Miguel Lopez, according to reports.

Carter was taken to Warminster General Hospital, and as of 14 July, he was reported in stable condition and out of the intensive care unit.

As a result of the incident, charges may be pending against Carter. A passenger in the car, Bruce J. Herman, 30, of Lansdale, was charged with the possession of a controlled substance. Herman was unharmed in the incident.

The guard, Baruso, was charged with criminal intent to commit homicide, aggravated and simple assault, recklessly endangering another person, possession of an instrument of crime and possession of a prohibited offensive weapon.

Baruso was arraigned by Warminster District Justice James M. Kelly and was bound over for trial on all charges except for the possession of an instrument of crime and possession of an offensive weapon.

Since the shooting, Baruso has been reassigned by Howard Security. He works at another job site and is not required to

carry a firearm.

Charges were reportedly brought against Baruso because the question of the use of deadly force was raised.

Pennsylvania law, Department of Defense instructions, as well as the contract with Howard Security, Inc., have similar guidelines governing the use of deadly force.

Navy instructions define deadly force as force that a person uses "with the purpose of causing—or which he knows, or should know, would create a substantial risk of causing—death or serious bodily harm."

These instructions also outline when the use of deadly force is justified and precautions that should be used.

Deadly force is justified, according to the instructions, only under conditions of extreme necessity and as a last resort.

The circumstances under which deadly force is justified include: as an act of self-defense; for the protection of property involving national security; for the protection of property not involving national security but inherently dangerous to others (such as ammunition); and to prevent serious offenses against other persons.

Precautions that should be taken in the case of deadly force are also enumerated in the instructions and the contract.

An order to halt must be given before firing. In addition, shots should not be fired if they are likely to endanger the safety of innocent bystanders and shots, if possible,

*continued from page 4*

testing will be conducted as the LUC is moving. NADC aircraft, under the supervision of Jack Gibbons, will be used to locate test sites.

These tests are expected to generate a large amount of data, Contarino said. In fact, two contractors have been hired full-time to analyze the data collected.

Data on the ocean's thermocline layers will be one area in which the testing will provide new information. Information on particle density and particle arrangement, for

example, will be collected by the receiver.

Animal and plankton response to lasers is an area in which data will also be collected. In addition, the Naval Ocean Systems Center will be using the tests to collect information on ocean temperatures.

This laser radar system was built entirely in-house—with the assistance of the Center's shops over a period of six or seven months, Contarino said. The project will also continue to be an in-house one for the next two years.

## Becker and Guarini Selected to Fill Senior Executive Service Positions on Center

*continued from page 1*

Technical Director in the strategic planning for the Center. He will also help assess program policy and help determine, according to available resources, how well the Center is doing its job. Another responsibility of the position is to assist in deciding where resources ought to be applied.

In assuming the position as Weapons Systems Technology Manager, Guarini will be responsible for pulling together experts from various directorates to assist in formulating systems concepts. Much of this work will be in conjunction with the Naval Air Systems Command.

Becker, who has been acting head of PAR for the past several weeks, has been working full-time at the Center since 1960. Prior to graduating from the University of Pennsylvania with a bachelor's degree in mechanical engineering, he was a student engineering trainee at the Center.

He has also received his master's degree in aeronautical and astronautical engineering from the Massachusetts Institute of Technology and also received a master's in military science and international affairs from the Naval War College.

Becker has also completed all re-

quirements, except his dissertation, for a doctoral degree in systems engineering and operations research from the University of Pennsylvania.

At the Center, Becker has served as the deputy director of the Software and Computer Directorate (50) and as the deputy director of the Systems Directorate (20). He has also served as a division head and branch head in 20.

In addition, he worked a number of months on special assignments in the Office of Management and Budget and as an action officer in the Office of Scientific Development while par-

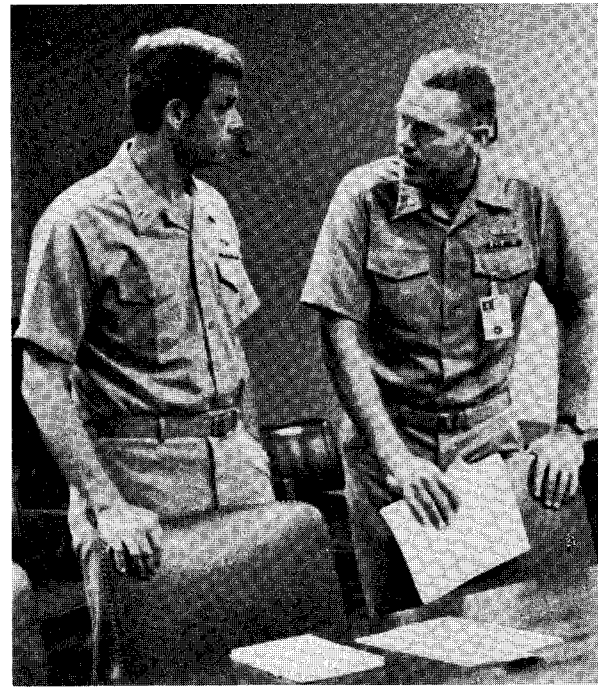
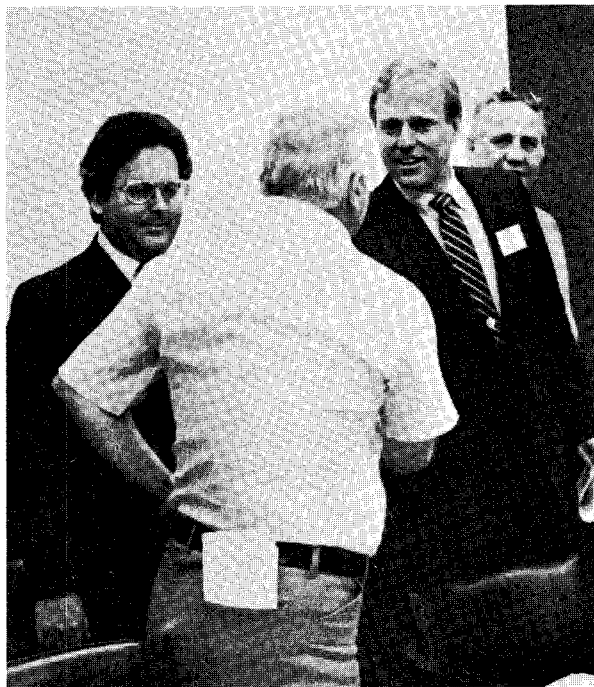
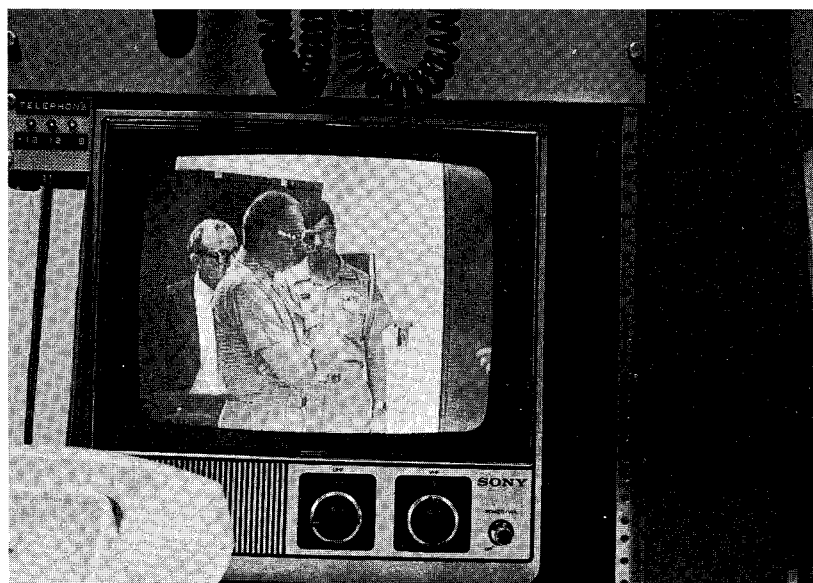
ticipating in the Federal Executive Development Program.

Guarini is currently on a several month tour in the office of Congressman J. Kenneth Robinson (7th district, Virginia) as a part of the Legis Fellows Program. He serves as a consultant to the Congressman, who is a member of the committee on appropriations, the defense subcommittee and the permanent select committee on intelligence. He also responds to constituent requests, which of late have consisted mainly of questions on the Falkland Islands crisis and the fighting in Lebanon.

Besides serving as deputy pro-

gram manager in 20, Guarini has served as the branch head of the Antenna and Radomes Branch, as Avionics Coordinator for the Technical Management Office (the forerunner of PAR) and as the first manager of the F-18 project. He has also worked for the Federal Aviation Administration and in private industry.

Guarini received his bachelor's degree from LaSalle College and began working at the Center in 1954 as a physicist. In addition to his undergraduate degree, Guarini has also completed graduate course work at Drexel University and the University of Pennsylvania.



Clockwise from lower left: VADM Johnson caught on closed circuit TV; RADM Kirksey discusses simulation with Robert Jones; Congressman James K. Coyne meets with employees involved with CA studies; RADM E. A. Wilkinson, Jr., prepares to hear a brief by CO, CAPT Anderson; RADM J. B. Wilkinson talks about lab management with Robert S. Buffum, TD.



## Commander Salutes NADC Employees

George Virgulti (Team Leader), Jerry Miller, Edward Haidel, William Brown, Darrell Kutz, C.S. Powell, Herb Leitsch, C. Phillips and Alvin Claitt for the successful installation and integration of the Aircraft Carrier Anti-Submarine Warfare Module (CV-ASWM) on the USS CARL VINSON (CVN-70) from 28 Feb. through 19 March 1982. This was the fastest installation ever accomplished. It was made possible through extraordinary efforts by NAVAIR-DEVCEEN, ships forces and shipyard personnel who faced difficult and unusual circumstances.

Rudi Virga, Robert Marzzacco and Louis Berman, all from ACSTD for their briefing given to Squadron Leader D.A. Ashton RNZAF.

CDR Richard E. Koehler, DCP, for service as acceptance pilot for the Defense Logistics Agency.

Thomas B. Merkel, DCP, for his support to the foreign military sales program while serving as the Foreign Military Sales Project Engineer during the training and transition period of the P-3C Update II to Japan.

Douglas A. Lundberg, CP, for assistance to the Naval Coastal Systems Center in reviewing and evaluating senior management and scientific positions for establishment under a planned NCSC reorganization.

John J. O'Donnell, SCD, for his accomplishments as Acting Program Manager of the Rapidly Deployable Surveillance System (RDSS).

Lee W. Gause, ACSTD, for assistance to the Villanova University/American Society of Mechanical Engineers Student Paper Competition.

Stanley M. Olenick, CNTD, for his briefing given to the Officers Association of Old Crows, Mugu Club, Santa Barbara Club and Verdugo Roost.

LCDR Mark K. Frye, DCP, Anthony J. Madera, SATD and Mary Ann Brett, Chief Staff, all for their support during a recent visit by RADM F. W. Kelly.

LCDR Chad E. Norton, for his coordination of a visit by CDR R. Marsden and CDR S. Robbins.

## Northwest Forty

As a result of a program started by President Reagan, 40 acres of land owned by NADC has been identified for possible public sale. The program involves finding so-called excess lands and offering them for sale with the revenue targeted to reduce the national debt. NADC's land is currently being leased out to a local farmer for cultivation. The agricultural use of this land establishes a buffer zone between the aircraft operations and the surrounding communities.

NADC has sent a message to the Chief of Naval Material listing reasons why the land should be retained by the Center. The message states that the 40 acres lie within a noise zone and the only remaining clear flight path corridor. It also says that future development projects may change the mix of aircraft at the Center. If the mix is changed, higher powered aircraft would make this piece of land even more important as a clear zone.

## Welcome Aboard

Welcome aboard to those employed at NADC during June: Heidi Rogers, 04; Joseph Cameron, 20; Steven Catrick, 20; William Dudley, Jr., 20; A. Lubick, 20; and Mark Silbert, 20.

Also: L. Bronikowski, 30; Thomas Curran, 30; Jeffrey Miller, 30; Joseph Oriti, 30; Frederick Rineer, 30; Charles King, 40; and

C. Worek, 40.

In addition, welcome aboard to: William Colket, 50; Susan Douris, 50; Bridgette James, 50; Quintin James, 50; William McFarland, 50; and Brian Wynne, 50.

Also: Thomas Chien, 60; Frank Crea, 60; Scott Perry, 60; William Mueller, 60; and Philip St. Pierre, 83.

## Employee Promotions Announced

Congratulations to those NADC employees who have been promoted. Those promoted are: Neil Abramson, 034; Pamela Ball, 20; Bonnie Bockus, 021; Dorothy Farmer, 30; and Catherine Fertner, 402.

Also: William Finkbeiner, 851; John Gambale, 303; Jack Gibbons, 301; Miriam Goldstarch, 601;

Elizabeth Gormley, 845; Charles Harless, 834; Charles Hegedus, 606; and Rita Jones, 702.

Congratulations also to: Joan MacKenzie, 851; Joseph McHugh, 834; Thomas Murray, 204; Carole Preston, 600; Frances Prettyman, 203; Stephen Russo, 503 and David Schuck, 301.

## Force

*continued from page 3*

should be fired only to disable.

The contract specifies that warning shots should not be fired, except under special circumstances, because of the hazard created by firing such shots.

The arming of security guards is an authority that OPNAVINST 5510.45B invests in an installation's commanding officer. The instruction requires that guards who are to be armed not be assigned until they have received guidelines regarding the use of force on duty.

In addition, it is required that guards must qualify with their weapons once a year. Howard Security guards fulfill their requirement at the Philadelphia Law Enforcement Institute, where they receive classroom instruction and training in weapons safety.

The Center's civil service guards also receive such training from Chief John M. Kupetz (0442), who is a qualified rangemaster.

OPNAVINST 5510.45B also states that while the authority to arm is vested in the commanding officer, "any guard post or patrol justified solely on the basis of security tasks performed should be considered sufficiently important to arm the guard."

Currently, most Navy Laboratories arm their guards, Robert J. Fisher, head of the security division (044), said.

Because of this Center's physical layout arming security guards is more necessary than if the layout were different, Fisher said.

Access at the Center's perimeter gates, at which points Howard Security guards are charged with controlling entry and exit, provides almost immediate access to the Center's main building and aircraft, he said. Once access is gained, there is the potential threat of espionage or sabotage.

Since NADC is a research and development facility, the possibility exists that damage to an aircraft by a trespasser, for example, may be damage to an aircraft system that is the only one of its kind.

In determining whether or not guards should be armed there is also the concern of armed robbery, Fisher said, because of the existence of money-handling facilities, such as the Navy Exchange and Credit Union.

As a research facility, from a security outlook, the Center must also be concerned with the possibility of being targeted by a terrorist group, Fisher said.



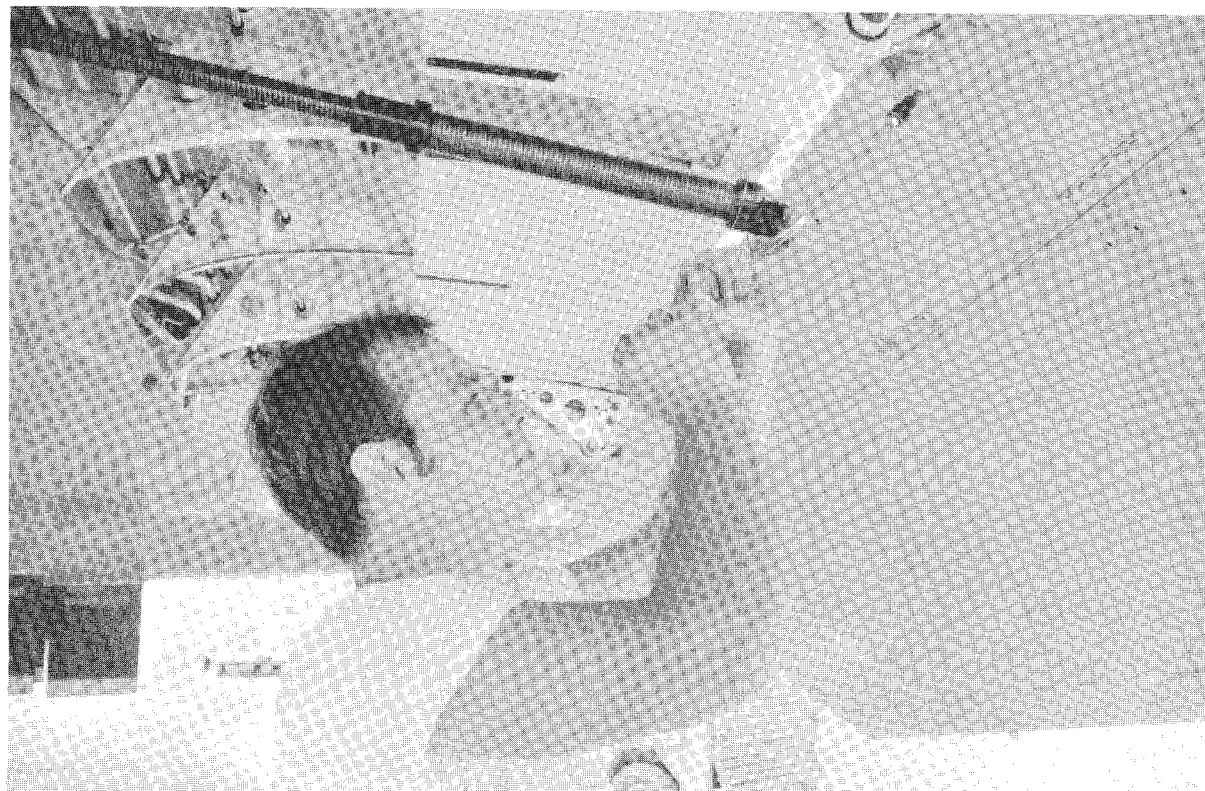


# The Reflector

Volume 26, Number 8

Naval Air Development Center, Warminster, PA

August 1982



AMH3 Charles Beauregard of the airframes division tightens a hinge door on the flap of a P-3.

## NADC Outfits The F/A-18 with a New Set of Eyes

The newest fighter/attack aircraft, the F/A-18, is about to get a new set of eyes courtesy of the Naval Air Development Center. The eyes, in this case, are photographic and infrared sensors. What's unique about the addition of reconnaissance sensors to this particular aircraft is that it does not interfere with its primary mission as a fighter/attack aircraft.

Harry Koper, Project Engineer of the Directorate for Command Projects, said that the reason the prototype work on the Engineering Test Bed (ETB) was being done at the Center is because NADC "has a long history in air-

craft reconnaissance development." This talent created the Tactial Airborne Reconnaissance Pod System (TARPS), which is being used on the F-14. The TARPS serves as an interim solution to the building of a dedicated "recon" aircraft. As funding and philosophies changed, the ground up building of a "recon" aircraft became a dream.

When it was recognized that the F/A-18 was the Navy's and Marines' choice to replace aging aircraft including various types used for reconnaissance missions, ways were studied to add the "recon" capabilities to the F/A-18. An operational

requirement called for a survivable tactical reconnaissance capability to provide timely, accurate, detailed information in all-weather conditions for effective targeting. The TARPS, as an interim solution, did not have the all-weather capabilities so an internal means to carry sensors was the logical solution.

Because space is at a premium in any type of aircraft, a compact equipment package needed to be designed. On top of this requirement the original mission of the aircraft was not to be compromised. A way had to be found to install the sensors without extensive airframe

## Maintenance Department Keeps Aircraft Safe and in the Air

By Carolyn Riemer

The Aircraft Maintenance Department, which employs the vast majority of military personnel on Center, is tasked with keeping NADC aircraft flying.

Once in the air, NADC's aircraft, which include 7 P-3s, 2 CH-53A helicopters, the Navy's only UC-27 and an A-7E, are often used as test beds for NADC projects. Most of the flight time for this craft is used for projects, but pilots cannot meet all of their Navy flight requirements flying only project missions, LT Bruce Bowling, who heads project support in Test and Evaluation (70233), said.

A wide variety of projects, however, are tested in NADC craft. P-3C and P-3A aircraft are used to test sonobuoy acoustic

equipment, systems for the P-3 Update III and navigation systems, Bowling said. The CH-53A helos are used for testing a navigation system and a night vision system.

Currently, the A-7E is not being used for testing, but has been used in the past for stress analysis testing. The UC-27 is basically used for ferrying passengers and the like, although at some point it may be used as a test bed.

If environmental conditions are not appropriate in this area for testing, NADC aircraft are deployed to areas where the testing can be done, Bowling said. This might include deploying a P-3 for sonobuoy drops in Key West or deploying an aircraft to the North Pole for testing of a navigation system.

It is the task of the Aircraft Maintenance Department, under the direction of Maintenance Officer LCDR R. Forays, to repair and maintain these planes—whatever is needed to keep them in the air, LTJG Sylvia

continued on pg. 5

modifications. The answer according to Project Officer LCDR Jack Walters, was to remove the

continued on pg. 3

## New Parking Instruction to Go Into Effect

In an attempt to curb parking abuses and reallocate the number of reserved parking spaces, a new parking instruction will be put into effect this fall.

One new provision in the instruction is that, in addition to ticketing by NADC guards, Warminster Township police at the Center's invitation will be allowed to come on Center and ticket illegally parked cars, Robert J.

Fisher, head of the security division (044), said.

Consequently, those ticketed may have to appear in Warminster municipal court. This change was made so ticketing would be taken more seriously by Center employees, Fisher said.

The definition of executive will be redefined and expanded in the new instruction (NAVAIR-DEVCEININST 5560.5A).

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## Center Employee Aided by New Lens

By Jeannie Beans

Lila Gottlieb is a clerk-typist in the Maintenance Administration Office for the Aircraft Maintenance Department. Like most in her position she types, answers phones, greets visitors and distributes mail.

What distinguishes Lila Gottlieb from other personnel at NADC is the fact that she has been legally blind for 35 years. Recently Lila has acquired "Camera Lens Spectacles" which have eased her life at work and at home. This new invention consists of spectacles made up of a camera lens, coupled with a prism and a high-powered eyepiece. These spectacles are designed to aid those visually handicapped people whose vision with their own glasses is reduced to as little as 2 percent of normal. The Camera Lens Spectacles are 2" in length and extend 1 1/2" from the regular

glasses. The reason for the invention of Camera Lens Spectacles was to enable the doctor to provide his patients with more magnification, a wider field of vision and the possibility of focusing at all required distances. This was accomplished by first producing a small inverted picture of the scene with the camera lens, then erecting the picture with a prism, magnifying the picture with a microscope and then presenting this enlarged picture to the eye. All this work is performed at the William Feinbloom Vision Rehabilitation Center (The Eye Institute), Pennsylvania College of Optometry in Philadelphia.

With her new lens, Lila can now view television, attend movies and baseball games and in general spend more concentrated time on the work she performs, due to less physical strain on her body. She can use public transportation with ease since she doesn't use a cane

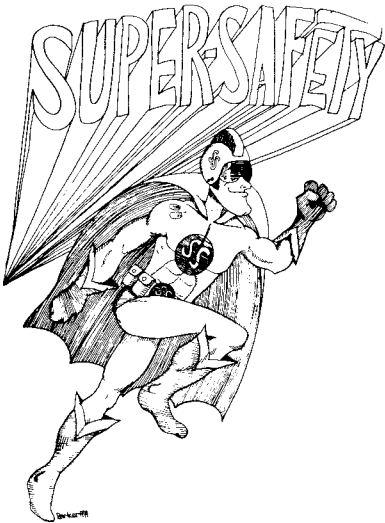
and is now able to read signs. Also, she is able to read dictionary print without eye strain. Before the acquisition of the lens Lila could not read what was in her typewriter nor could she type from a rough draft at typing stand distance. The only disadvantage to this lens is the limitations it places on her peripheral vision. Lila finds she can only wear her glasses for up to four hours because they place considerable strain on her eyes.

Due to the Center's policy in implementing equal employment opportunities for persons with disabilities, Lila has had the chance to work in many positions since she first came to the Center for a trial summer program job in May 1980. The Center employs mostly deaf and the orthopedically impaired persons but constantly strives to identify program barriers so they can place

continued on pg. 4



With her special spectacles, Lila Gottlieb can see more of the world around her.



By Mike Masington

## Von Hazard Tells Tall Tales of Seatbelt Safety

Baron Todt von Hazard, that energetic epitome of everpresent evil, was plotting his next dastardly deed when his shifty eyes spotted a car driven by Farley Gullible, local rutabaga czar and three time owner of the Brooklyn Bridge. Sensing a viable victim, the maniacal master of menace assumed the three piece suited guise of a respectable businessman, and flagged down Farley's flashy '54 Falcon. After gaining a lift with a fabricated auto breakdown story, the Baron first engaged the dupable driver in small talk, and then slyly launched his underhanded scheme.

"I see you're wearing one of those seatbelts," sneered the haughty von Hazard. "Yeah," answered the suddenly uneasy victim meekly, "they say it's supposed to keep you safe."

"Safe," cried the Baron with a

mocking laugh, "friend, seatbelts are a deathtrap! What happens if you're in an accident and the car catches fire or goes into the water? You'll never get out alive. And as far as keeping you in the car is concerned, wouldn't you rather be thrown clear instead of being caught in the twisted, mangled wreckage? Why I've even read where drivers have had their necks broken or been decapitated by shoulder harnesses. Besides it's uncomfortable, and it's wrinkling your lovely Bargain City leisure suit."

The vivid description of horrible carnage coupled with the threat to his sartorial splendor caused Gullible to quietly release his seatbelt. The Baron, who had built a formidable reputation by misleading others, was too busy gloating over his latest triumph to notice a shadow appear overhead.

Super Safety, who had been following the nefarious nobleman's trail of deceit and destruction, overheard the conversation and halted Gullible's car.

"Well Baron, I see you're doing your seatbelt routine again," snarled the scion of safety. "Seatbelt routine?" questioned Farley.

"Yes," replied Super. "Let me explain a few things. First, fire or submersion occur in only 1 percent of all traffic accidents, and even in those your chances of remaining conscious and surviving are 50 percent better if you use a restraint. In addition you are seven times more likely to be hurt or killed in an accident if you are thrown from your vehicle. Seatbelts also prevent or reduce the effect of the 'second collision' (the impact against the car

interior). As far as those stories about injuries being caused by seatbelts, investigations generally reveal that those accidents were so severe that nothing would have helped. Finally, seatbelts maintain your body in a comfortable position while keeping it centered in front of the steering wheel regardless of the car's movements."

With a disdainful look at the Baron, the newly enlightened Gullible offered his thanks, fastened his belt and shoulder harness, and drove off. "I'll get you for this, Safety," fumed the foiled von Hazard as he signaled his chauffeur to bring up the car.

"Anytime Baron," mocked Safety, "Remember drive safely, and buckle up."

"%\*?\*\$?!!" was the Baron's only reply.

## Editorial and Letters

### Question

To the editor:

I have a few questions for the office of Public Affairs.

(1) Why are the men's and ladies' heads behind frame L-4, Bldg. 1 so hot and uncomfortable during the summer?

(2) No air conditioning, no air circulation and the area outside of these heads is absolutely unlivable. At times the heat is on all day.

(3) Why did the people who remodeled the NADC cafeteria not include air conditioning or bigger fans, softer chairs and

more habitable surroundings? The employees who eat in the NADC cafeteria deserve better conditions than they get presently.

(4) But down in the basement near the Public Works Shops there has been built the finest ladies' and men's bathrooms. Tiled walls, lockers, showers, the latest of everything. Alongside these heads exists a beautiful lounge area with soft carpet, air conditioning, soft chairs, new tables, modern facilities, mosaic colored tiles on the walls and all of this is enclosed in clear glass and polished wood.

This area far exceeds the NADC Executive Dining Room. Is this new area for all employees? Is this new area only for contractors or a select few upper grade personnel? Are you going to publish in the log that this area is available? Does this area's (cost) come under the guidelines of OPM (Mr. Stockman) or Reaganomics to save government money? Is this area to be used by visitors as an example of all heads located at NADC? Did tax dollars pay for this area? Please answer.

Mike Keiser Code 2022

Editor's note:

Head #10 (Bldg. 1, 2nd floor, column L-4) has an exhaust fan that should provide a sufficient number of air changes in the heads themselves. The area outside the heads is subject to solar heat loading so this is why the heat seems to be on all day. It is not Center policy to air condition spaces that are not inhabited.

Don Morway of the food services board stated that the Center's cafeteria is scheduled to receive new padded chairs and wood grain topped tables in 6-8 weeks. Morway also said that plans call for construction of an air conditioning system in the latter half of 1983. Also new drapes will be installed this year.

The new heads and lunch room near Public Works Maintenance Shops are open to all employees and were funded with tax money.

### Thank you

To the Editor:

I wanted to take this opportunity to say "Thank You" to the Welfare and Recreation Association for the wonderful microwave oven that I won at the W&R Dorney Park picnic on July 17th. From what I understand from friends who own them, our

cooking habits will never be the same again.

Having organized a few events at my church, I fully understand the amount of time and effort that goes into this picnic. I, for one, offer a sincere "Well done, AGAIN" to the individuals who work so hard to make it all possible.

The annual outing to the park with the base has become a summer event that my entire family looks forward to. As usual we had a terrific time and this year the prize was "icing on the cake" that made it even more fantastic!!

Thanks again.

Sincerely,

Bob Greenwood and family

### Logo

To the Editor:

The Naval Air Development Center is noted, throughout the Navy as an outstanding design laboratory in a broad spectrum of design disciplines. I feel that the new NADC logo falls far short of the Center's standard of excellence. I hope that we will not be judged by our logo design.

The logo lacks creative design and thought, and certainly will not give the viewer any insight into NADC's ability.

Pat Harkin

3042

### EDITORIAL:

### Four Percent Salary Increase is Unfair to Employees

What's four percent mean to you? If you're like most people 4 percent doesn't mean much unless it's being tacked on the prime lending rate or the rate of interest you receive for your savings. As it turns out four percent is what the administration is saying they will give us this year for the annual cost of living adjustment.

According to an article in the 2 August issue of Federal Times, the government's own index shows that private sector salaries rose 9.5 percent in the last reporting period. Meanwhile not only will we get 4 percent this year but a 4 percent cap has been proposed for the next three years. To me it looks like we are going backward, 4 percent subtracted from 9.5 percent equals 5.5 percent on the negative side of inflation. If that's not going backward I don't know what is. Not only that, we've been going on like this for the past several years.

Using Bureau of Labor statistics, a committee, comprised of the President's pay agent, the Labor Secretary and the Office of Personnel Management Chief, develops a recommendation for the fall general schedule pay raise. The recommendation is then

forwarded to the Congress where it is debated during budget hearings. If it's approved the pay raise is then bumped up to the President for his OK.

The only problem with this system is that the pay advisors recommend a practical cost of living raise and the President and or Congress, usually half the recommendation. Rationale for the low raises over the past several years has been one of three things. The first is that government workers should set an example for the rest of the country. It ends up we're setting an example all right, by being lower paid than most. While everyone else gets 7 percent, 8 percent or 9 percent raises we get 4 percent. Some example! The second reason is that benefits for government workers are so much better that our low pay is balanced out by our great benefits. As you know the benefits for government workers have declined.

We are forced to pay more each year to maintain health plan coverage. We have no input to these outrageous fees, they just keep getting higher. Non-government workers get prescriptions, eyeglasses and dental work for free or at extremely low cost. These are just

a few of the many benefits that non-government workers have.

The third argument is that if the government holds down the cost of living adjustment it saves millions of dollars. This statement is true, but what does this philosophy cost in terms of people who get fed up with low pay adjustments and opt to go to private industry? The government loses more than it gains by small raises. Many workers are disenchanted causing lower morale and an exodus to private industry. A vicious cycle results from this thinking. The people in Washington see many professionals leaving and wonder why. All they have to do is look at their own policies for the answer.

Each year the politicians point with pride to the fact that they are keeping federal spending down while their salaries are, in comparison to most government workers, astronomical. If the current trends continue with CA studies, ceiling draw downs, erosion of benefits, lack of high grade promotions and lower pay raises, the politicians may be pointing their fingers at empty government buildings.

## The Reflector

Naval Air Development Center

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CAPT James B. Anderson — Commander, NADC

Robert S. Buffum — Technical Director

Joseph P. Cody — Public Affairs Officer

David Polish — Editor

Carolyn Riener — Assistant Editor



# Parachuting Team Jumps to Second Place

Jumping out of airplanes is nothing new for AW1 Dennis DePriest, he has done it 550 times. DePriest is member of the eight man "Jump Street" Canopy Relative Work (CRW) team that is based at the Burlington County, New Jersey Air Park. The purpose of the "Jump Street" team is to train and compete in the National Parachute Jumping Competition.

This year the group went to Muskogee Oklahoma to take part in the CRW competition at the U.S. Nationals. DePriest said that "Jump Street" took part in two categories; the eight way speed formation and the four way

rotation. In the eight way speed competition all eight "Jump Street" members leave the aircraft at 8000 feet. The object is to get into a stacked formation in the shortest amount of time. During the competition the team broke the World's Record, assembling the formation in 61 seconds. Overall in the eight way contest "Jump Street" came in second. The other category, four way rotation, uses the stacked formation in a different way. Once a stack of four is completed the top jumper moves off to the bottom. The cycle is then repeated as many times as the team could manage in a four minute period.

"Jump Street" completed the maneuver 18 times and took a third place.

To top off the competition "Jump Street" joined up with the first place team and went for a world's record in stacking. Starting at 15,000 feet the two teams got 20 members stacked in 3.5 minutes and held the stack for 45 seconds. Because the team members actually stand on each others rigging, the combined weight of about 4000 pounds causes the rate of descent to be 2000 feet a minute. It takes practice and skill to get in and out of the formation without getting tangled in someone else's rigging, DePriest said, but the thrill of the accomplishment outweighs any fear.

The entire event was filmed for television and we may end up seeing it on "That's Incredible" or some other sports program. DePriest is back down to earth where he works in the P-3 Project Office here at NADC and is involved in the flight test and evaluation of the Update III program.



This photo shows what a stacked formation looks like.

## NADC Provides New Eyes

continued from pg. 1

F/A-18's nose gun and replace it with a pallet containing the "recon" sensors. The reconfiguration, once in fleet use, would take about 8 hours. Servicing of the sensors, such as film changes, is estimated to take 20 minutes.

Probably the most unique aspect of the "recon" conversion is that there is no need to add switches or displays in the F/A-18 cockpit. Because the avionics of the aircraft are driven by a digital computer and there are many multi-function switches and multi-mode displays, all it takes is a reprogramming of the F/A-18's computer for the "recon" package to function.

Choosing the F/A-18 for the Navy and Marine reconnaissance mission was the best of all possible choices. The aircraft already has an APG-65 multimode radar and an AAS-38 Forward Looking Infrared (FLIR). These two sensors provide night and all-weather im-

agery. Data from the radar and the FLIR can be recorded for later analysis or viewed in the cockpit in real-time. The F/A-18's avionics also provide automatic sensor cueing, terrain avoidance and a color moving map for navigation.

Work on the prototype sensor pallet installation should begin in the last quarter of this year. A nose section from the cockpit forward will be shipped to NADC. The section will be used to check the fit of the sensors and the "recon" door. The initial sensor configuration will include a KA-99A panoramic camera, an AN/AAD-5 infrared reconnaissance set and an ASQ-172 sensor control/data display set. Other combinations will be tested to help expand the capabilities of the F/A-18's reconnaissance mission. Flight testing is scheduled to take place in March 1984 with ETB program completion set for November 1984.

## Women's Group Sets October Schedule

The Center's Women's Advisory Committee has planned a busy month of October with something of interest and benefit for all the Center's Women. The month's activities will kick-off on 4 October with a morning session.

A course entitled "Effectively Communicating within the Organization" will be sponsored by the Technical Women's Working Group. The course will be geared for the technical woman working as a member of a project team.

The activities will continue with

individual seminars geared toward the technical, administrative and clerical women. On 7 October the Clerical Women's Working Group will sponsor a "Women's Networking" seminar conducted by Dr. Beth Stearns, PhD, a licensed clinical psychologist. The Administrative Women's Working Group will present a "Stress Management Clinic" on 15 October. This clinic will be given by Mr. Blaine Greenfield of Bucks County Community College.

Doctors from various hospitals

will speak on various health problems affecting women at a "Health Day" session (date to be announced later).

Highlighting the month will be the Awards Luncheon; the date: 21 October; the place: the Center's Executive Dining Room. During the luncheon the Women of the Year Awards will be presented. Also, Bucks County Commissioner Elaine Zettik, as guest speaker, will address current and future legislation affecting women in Bucks County and Pennsylvania.

## Local Rotary Club Sponsors Camp Surefoot Kite Festival

The Warminster Rotary sponsored the Camp Surefoot Kite Festival, which was held on NADC's airfield last month, to benefit local handicapped children.

This year's kite festival, during which there was a nearly successful attempt to fly the world's largest kite, raised enough money to sponsor 40 mentally and physically handicapped children for one week at Camp Surefoot.

The camp, which is held for five weeks at McDonald Elementary School in Warminster, provides almost a one-to-one ratio of counselor to child and also provides activities that are both recreational and therapeutic.

The camp also allows the children to be in a setting in which they feel comfortable and as though people are not staring,

since all who attend are handicapped, Dino Mancinelli, an organizer of the Camp Surefoot festival and Director of the Aircraft and Crew Systems Technology directorate, said.

In addition, it relieves families of the responsibility for full-time monitoring of the child for that week, he said.

Since the Warminster Rotary supports local programs for handicapped children in conjunction with the Easter Seals all year round, they also hold a number of other fund raisers. They include raffles, dinners, and 5,000 and 10,000 meter runs, one of which will be held 14 November at NADC.

From the Camp Surefoot Kite Festival proceeds, the Warminster Rotary also donated \$500 to Navy Relief.



Kids from Camp Surefoot get sprayed with foam during the Warminster Rotary's Kite Festival.





Helen Malone, Theresa Andrews and Susan Klink are available to help Navy personnel with their housing questions.

## “Home of the Month”

Congratulations! To the family of Chief Petty Officer and Mrs. Cecil O. Potter of 1066 Sea King Drive, Shenandoah Woods, recipients of the “Home of the Month” award for June 1982.



## Sposato Retires from NADC, But Remains Union President

Bruno Sposato, NADC Union President for the past eight years, has retired as an NADC employee, although he plans to remain president of the union at least until his term expires in December.

Though Sposato was hired over 31 years ago as a physicist, it has only been in the last eight years that he has served as president of Local 1928 of the American Federation of Government Employees, a union on center since 1955 and the Center's exclusive union since 1969.

During his tenure, a number of things were accomplished, Sposato said. One such accomplishment was the negotiation of the current contract on behalf of AFGE Local 1928. This contract, which covers approximately 975 clerical employees and technicians and has about 300 dues paying members, was negotiated in 1978. This contract is one of the better contracts of a local federal

agency, Sposato said.

Although the union does not negotiate salary it does have the right to negotiate certain policies, practices and procedures. Various procedures were formalized in the negotiated contract and various improvements were also made. Among these procedures were provisions for reviewing Center directives that affect union members, provisions for more input by employees into position descriptions and provisions for union/management meetings.

During Sposato's tenure, a number of grievances were taken to arbitration, including issues that dealt with: allowable time for the union president being spent on union business; compensatory wages for supply clerks; and asbestos exposure protection and compensation. While Sposato was union president the union also won the right of having the Navy pay for the safety shoes of employees who require them for work.

One issue for the union in the future will be commercial activities (CA) studies, Sposato said. What effect the union could have on the local level, however, may be limited, since an impact on CA policy may require a national movement.

The union has had its impact on NADC. A union is intended to look after worker rights and some problems would not come to management's attention were it not for an active union membership.

This center, compared to other activities, has few grievances held against management. A relationship has been established that employees and management can generally discuss and resolve problems before grievances are filed.

In his retirement, Sposato said, he is considering going to law school and entering the field of labor law.

## Housing Office Assists The Military and Civilians

By Jeannie Beans

Located on the outskirts of the Naval Air Development Center at 591 Skyhawk Drive are NADC's Housing Management and Housing Referral offices. Staffed by Susan Klink, Helen Malone and Theresa Andrews, the Housing Office offers valuable service to new military trying to find housing as well as assisting civilians within the Department of Defense leaving the area to rent or sell their apartments/houses and assisting civilians coming into the area from other activities to find a place to live.

In addition, for employees who own an apartment or house and are trying to rent or sell, the Housing Office provides a listing service. These listings cover an extensive radius and are not restricted to NADC. They encompass Yardley/Morrisville, Norristown/Quakertown, Northeast Philadelphia and housing for NAS, Willow Grove, ASO, Philadelphia and the Marine Corps Training Program in Trenton.

The Housing Office offers a relaxed atmosphere to see what is

available without any obligation. Klink also extends counseling to new military and civilians who are not familiar with area interest rates, deposit requirements and rental costs for housing at an affordable price at their income level.

Apartment rental prices begin at \$200.00 monthly and up and include Housing and Urban Development program-sponsored dwellings. These prices include complex and private residences. House rentals start at \$350.00 and if you are in the market to purchase a home the price range begins in the low 40's and up through \$200,000.

In addition to Housing Referral, Housing Management is responsible for the 199 military housing units in Shenandoah Woods and Officers Quarters A and B. Malone is depended upon for the placement of families, the many inspections that take place, the maintenance of these units, and the handling of complaints. She said that it is her desire to make the transition for new families as smooth as possible.

## Social Security Office Institutes Teleservice

The Social Security Administration has instituted a teleservice for Philadelphia area employees. Employees from both the public and private sector can save themselves time, money and frustration by using this innovative service because now almost all social security business can be handled by phone.

Employees who are nearing the social security retirement age of 62, and who are otherwise eligible for social security or medicare benefits, can obtain a checklist from the Employee/Labor Management Relations Division, Civilian Personnel Office, that will assist them to gather the proofs and information needed to support their claims.

Once the required documentation has been gathered, employees should call teleservice at (215)-528-6310 where any questions they may have can be

answered. They will also be given the phone number of the Social Security Administration office that will service their claim.

Employees should then call the servicing SSA office where an experienced claims processor will interview them and complete their application over the phone. The completed application will then be mailed out to the claimant for signature, inclusion of necessary documentary proof, and return mailing to SSA for processing.

Processing of the claim will commence upon receipt by the SSA. It is expected that this procedure will expedite claims and minimize effort and frustration for both the claimant and the SSA. To obtain the checklist, please contact Mrs. Dorothy Kirkpatrick of the Employee/Labor Management Relations Division, Civilian Personnel Office, extension 3079.

## NADC Employee Benefits From New Type of Lens

continued from pg. 1

handicapped persons wherever their talents and skills can accommodate the requirements of a specific job. It is the Center's goal to provide maximum opportunity to handicapped employees so they can enhance their skills and perform at their highest potential.

Lila Gottlieb under the Center's Handicapped Employee Program

is moving in this direction. She has a B.S. degree in Elementary Education from the Charles W. Post College, Long Island University and was previously employed as an assistant teacher for Head Start in Roslyn, New Jersey. In addition to working here at the Center, she takes care of a home, her husband Dave, and son Adam who is eight years old.





Bruce Jones, left, presents a check for \$3000 to Captain Sheehan as the Corvette Club's donation to Navy Relief. John Graham and CDR Gary Smith, Navy Relief Chairman, look on.

## Maintenance Keeps Them Flying

continued from pg. 1

Wasylyk, head of the Plane Captain Branch of the Aircraft Maintenance Department, said.

There are five divisions within the department that work together to maintain the aircraft, she said.

The Maintenance/Material Control Branch, currently under the supervision of Chief Warrant Officer J. Brandon, is responsible for coordinating all efforts to maintain the aircraft.

Before each of the department's two shifts, Maintenance Control assigns the workday's priorities. Maintenance Control will indicate what aircraft will have to be moved in the hangar and what type of repairs must be completed, for example.

This division is also responsible for keeping files on the aircraft. A record of all maintenance problems with a particular aircraft is maintained, where the problems are identified by pilot complaints and inspections. On these records, it is indicated whether the plane is still safe to fly or whether it must remain on the ground.

A log for each of a craft's engines and for the airframe is kept. These logs are a detailed record of the maintenance provided for an engine or an airframe. In addition, if an engine must be sent to be rebuilt, the log of the maintenance on that particular engine is sent along with the engine.

The Material Control section is responsible for ordering supplies as needed. When a part, for example a fuel pump, can be rebuilt, Material Control puts the part back in the system to be rebuilt and makes sure there is a replacement fuel pump available.

Two divisions, the AV/ARM division and the Aircraft Division, are responsible for the actual maintenance of NADC

aircraft. (Maintenance of the helicopters is contracted out to Skikorski. Some of the maintenance work on the UC-27 and the A-7 is done by Dynan-electron.)

Headed by AMCS J. Lamere and Chief B. Arnett, the Aircraft Division is made up of five branches that have separate areas of maintenance they are responsible for. These branches are: Airframes, Power Plants, Life Support, Corrosion Control and the Inspection (phase) Branch.

The Airframes Branch, under the supervision of AMSC S. Hopkins, is responsible for all structural and hydraulic repairs. The branch does any necessary patch work on the airplane skin, as long as it is authorized at the organizational level. ADC J. Barbagallo and other members of the Power Plants branch do any necessary maintenance of the aircraft engines and propeller systems.

The Life Support Branch, headed by AME1 A. Lasure, maintains, inspects and incorporates any changes in aviators' equipment, and maintains the environmental control and oxygen systems aboard aircraft.

The Corrosion Control Branch under AMS2 D. Marchese, performs scheduled corrosion inspections, corrects discrepancies and treats aircraft as a preventative measure.

Every 210 days, there is a major phase inspection of each aircraft. The Inspection (phase) Branch is responsible for conducting the inspection and confirming that all maintenance to be done for the inspection is completed. Inspections are also conducted at 7, 14, 56 and 84 day intervals. These are special inspections, performed on the aircraft even if it is down.

The AV/ARM Division, or Avionics/Armament Division, is composed of three branches under the supervision of ATCS W. Pesek. The Electronics Branch, headed by ATC Moreno, is responsible for maintaining the onboard computer and sensor systems such as radar infrared detecting set and the magnetic anomaly detector (MAD). Likewise, the electrical branch, headed by AEC L. Six, maintains the craft's electrical systems, including their wiring, instrumentation and inertial navigation systems.

A third branch, the armament branch, is responsible for securing any ordnance. Although NADC aircraft are not normally armed, this branch is responsible for sonobuoys in the aircraft and ejection seat CAD (cartridge activated devices). This branch is

headed by AD1 R. Simms.

Navy aircraft maintenance workers undergo special training before they are assigned to an installation. After their training they are assigned a rating, such as AD for aviation machinist's mate.

There is so much to learn during these courses, however, that the courses actually teach how to use Navy manuals that describe every aircraft system and how it should be repaired, LT. A. Manzi, Quality Assurance Division Officer, said.

Support to these maintenance branches is provided by the Line Division, under the direction of LT N. Edwards.

LTJG Wasylyk heads up the Plane Captain Branch, which is responsible for all ground handling and taxiing of assigned and transient aircraft. They are also responsible for securing aircraft

military support for the campaign this year. Likewise, civilian employees also provided support for Navy Relief, including the Fire Department, the Riggers, Security and Public Works, he said.

Among the fund-raising activities this year were bake sales, hoagie and hot dog sales, plant and book sales, car washes and a number of raffles. Among the raffles was a car raffle, which was won by John Manuel (50).

Military personnel, in one of the more creative efforts for Navy Relief this year, raffled off a utility trailer they had rebuilt from spare parts, Smith said.

A number of special events were also held to support Navy Relief. These included a Casino Night, a Superstars Competition, the Cavalcade of Corvettes and the Flag Day Celebration Fire Works.

In addition to Smith, 30 people from the various directorates were directly involved in the fund-raising activities for Navy Relief.

## Navy Relief Results

The Center's Navy Relief Drive, under the direction of chairman CDR Gary Smith, raised just short of \$12,000 this year.

The \$12,000 raised was sent directly to the Navy Relief Headquarters in Philadelphia. From there, the money will be used to assist active duty Navy and Marine Corps personnel and their families whenever an emergency situation arises.

A grouping of the Technical Services, Aircraft, and Public Works Departments raised more funds for Navy Relief, with \$3,300, than any other directorate on Center, according to Smith, who works in the Life Support Engineering Division (603). For the Navy Relief campaign, some departments were grouped together to achieve a balance in the number of employees in each grouping.

As evidenced by the 81, 82 and 83 grouping raising the most money for Navy Relief, Smith said, there was a great deal of

and daily inspections. The GSE branch operates the support gear, such as the equipment needed to tow aircraft to the hangars and wash rack.

ACC G. Bringham directs NADC's Air Traffic Controller Branch, also part of the Line/GSE Division. These controllers coordinate with other local airports to direct air traffic in and out of NADC's airfield.

Working independently from the other four maintenance divisions is the Quality Assurance Division, headed by LT Manzi and ADCSC. Strickler. This division rechecks the work completed by the maintenance divisions. No work is done without being inspected.

The system involves the series of checks and double checks necessary to keep NADC aircraft flying safely, Wasylyk said.

## Midshipmen Study Underwater Sound

A team of midshipmen at the U.S. Naval Academy, led by an academy physics instructor, is conducting research which may enable antisubmarine warfare (ASW) personnel to better distinguish sounds made by submarines from those produced by merchant ships.

The three-year project, funded by the Naval Sea Systems Command, involves the study of sounds made by numerous merchant ships that pass the academy daily on their way to Baltimore, MD. Yard patrol craft from the academy record the sounds made by the ships, record their range and bearing and calculate their course and speed. A fast speedboat then retraces the ships' paths, emitting a known sound which can be "heard" and recorded by computers onboard the yard patrol craft.

The midshipmen and their pro-

fessors then determine transmission loss and calculate the original frequencies and intensity of the sounds emitted by the merchants.

"It's a team effort," said CDR Clif Hill, the officer in charge of the project, "Oceanography majors are studying the currents, the composition and nature of the

bottom and other factors that will affect the sound; ocean engineering majors are designing the devices for deploying the sound sources and listening devices; and physics majors are contributing knowledge of basic acoustics and how sounds are affected by relative motion."

## Commercial Activities News

Two similar bills passed by the House of Representatives and the Senate may have an effect on the Commercial Activities (CA) studies currently being done at NADC. The two bills ask for a halt on contracting out of fire protection services and security guards. Present contracts such as the one with Howard Security would still be in force. In addition a one year moratorium on all CA studies is included in both bills.

Because there are slight

differences in each piece of legislation the bills will go to committee for compromise. Once a compromise is reached a single bill will be forwarded to the President for signature. When the bill is signed it will become law.

As of now all this legislation is proposed. Some answer should come soon as the bill will be tacked on to the Defense Spending bill which must be passed before the end of this fiscal year.



Center Commander, Captain James B. Anderson accepts a proclamation from Warminster Supervisor James A. Forliano. The award is for NADC's service to the community.

## Commander Salutes

Lourdes C. Fuller and Daniel L. Lorch, both of ACSTD, for their aid given to the Pennsylvania State Police during a recent accident investigation.

John Handal, John Satriano, Michael Nastasi, Anthony Geneva, Vincent DiCristofaro, Steven J. Dunham, Frederick M.

Pappalardi, also, George P. Glatzel, Anthony M. Notafrancesco, John R. Kauker and Arthur P. Stevens, all from CNTD, for their outstanding support and professionalism in the refitting of navigation equipment aboard the USNS HESS.

## Beni Suggs

GEORGE M. ROSSI, TSD, for suggestion titled "Dykem Remover Vat". \$45 Award.

JAMES D. MYERS, TSD, for suggestion titled "The Future Standardization of Hand Portable Fire Extinguishers &

## Parking Instruction

continued from pg. 1

Therefore, more Center employees will be assigned reserved parking spaces. This, however, will necessitate a revision of current parking assignments.

Also as a result of this instruction, there will be a crackdown on carpool abuses. Vehicles with carpool passes will not be allowed to enter the inner compound before 1030 unless there are at least two people in the car.

In addition, carpool parking will be reassigned to Lot 3 (inside the inner compound north of IVB Building), Lot 4 (by the Naval Navigation Building) and on the strip between Jacksonville Road and Building 2.

The new instruction will also require that contractors park in the back lot, a practice that has already been put into effect. New procedures, including a more

## Promotions

Promotion List for July 1982: Mary L. Sutter 02, Frank L. Scheetz 20, Ausra K. Bagdonavicius 20, George J. Claussen 20, Mary T. Mahon 20, James Bivin 40, Mary K. Daley 40, Danny Chun 50, John J. Bowes Jr. 60, Audrey C. Read 60, Susan K. Porretta 60, Thaddeus R. Wrublesky Jr. 60.

# Reserves Train for Excellence

"Professional and productive are the only works that can really describe NADC 0193's performance during its Active Duty Training (ACDUTRA) cruise at the Center. It is proof that with proper guidance and support the concept of a Total Force Navy does and will continue to work. The proper combination of regular and reserve personnel not only results in a significant mobilization potential, it also provides meaningful training and work." This statement by Capt. Harry D. Cannon, the unit's Commanding Officer, summarizes the success of NADC 0193 on a task well done.

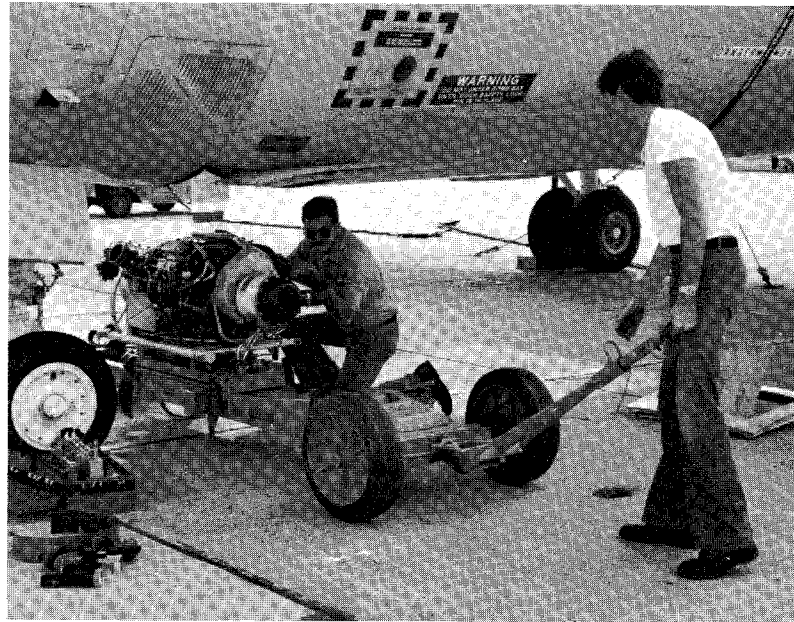
Scheduled over a four week period in June, two groups drilling back-to-back established a record of achievements that will be hard to beat in the future. While drilling in this manner does create some minor problems, the training, which was on an almost one-to-one basis, more than compensated for any difficulties. The qualifications achieved, both personal and for the operation of ground support equipment, show that naval reservists can, with proper training, become qualified to step into their mobilization billet and go immediately to work. Special thanks must be given to the NADC active duty personnel who during this period provided

the assistance and support which made it such a successful ACDUTRA. Senior Chief Joe La Mere in particular was extremely helpful and went out of his way on many occasions to ensure that the enlisted personnel qualified in as many areas as possible. Also deserving of special mention are ASC James Barrere, AMHC Donald Gilbert, AMH1 Robert Hawley and AD1 Virgil Van Horn.

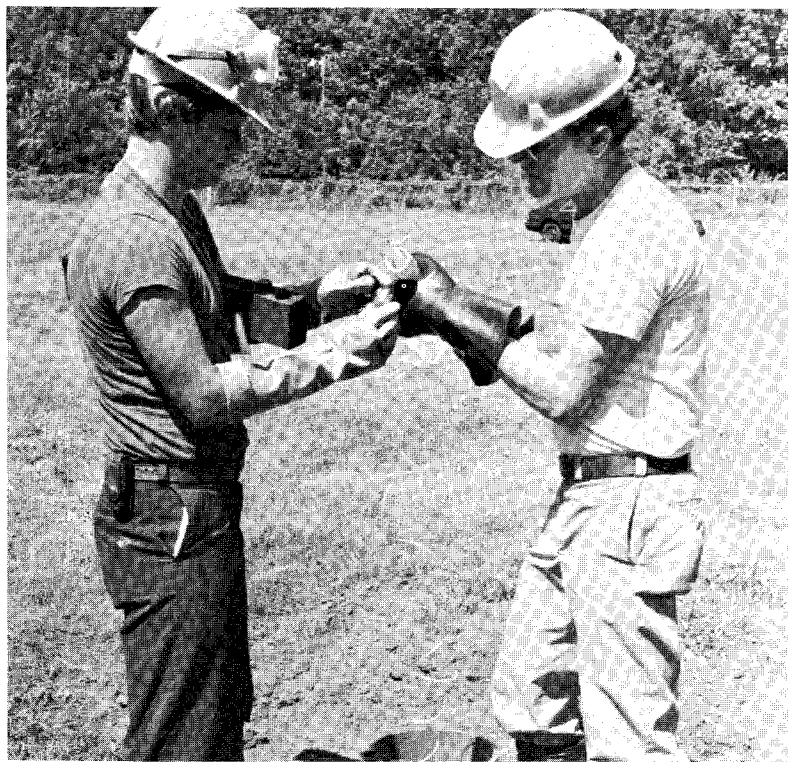
NADC 0193 is rather unique in that its personnel perform both their weekend drills and ACDUTRA at their actual mobilization site and are assigned

directly in work centers. Once qualified for a task an individual may be assigned that task and perform meaningful work. If specific work is not available on a drill weekend, the training cycle continues.

Civilian personnel who are interested in the naval reserve may want to consider affiliation with the naval reserve at NADC 0193. Anyone who is interested is invited to call Al Piranian (X3290) or Jim Duke (X2100). Your civilian skills either in aviation or administration may qualify you for the advanced pay grade program.



## Wells Dug to Test for Contamination



Two engineers from JRB Associates pour a water sample for testing.

Recently several holes have been drilled on NADC's property and an area adjacent to the Center. The purpose of the drilling is to determine the contents of some old disposal sites and analyze the flow patterns of ground water through the area. This highly specialized testing is being done by JRB Associates, which is one of the best environmental testing companies in the world.

A number of borings were made with water samples being taken from each site. The samples are currently being analyzed to determine their content. Results from the tests will be reported in October. If any problem areas are found, actions will be taken to clean out the site.

### DEPARTMENT OF THE NAVY

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## "Leave Note"

The holiday season is approaching faster than you think. It's time to take stock of your leave status. Remember that the Center will be shut down between Christmas and New Year's. You must have at least 32 hours of annual leave to cover the holiday. For further information on leave for the holiday contact Civilian Personnel.





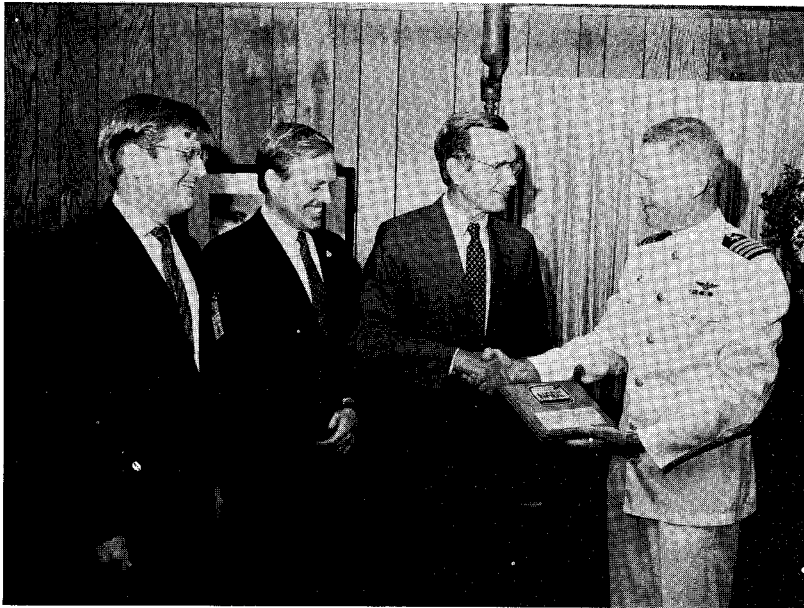
# The Reflector

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September/October 1982

## Vice President Bush Visits Center, Addresses Employees



Captain James B. Anderson presents a plaque to Vice President George Bush during his visit to NADC. Looking on are Congressman James K. Coyne and Robert S. Buffman on the left.

By Carolyn Riemer

During a visit to the Bucks County area on 17 September, Vice President George Bush addressed Center employees on the importance of a strong national defense and the role of NADC in providing that defense.

In his 20 minute speech, Bush noted that America has had the most advanced weapons in the world for the past 40 years. When America has been tested, this preeminence has been demonstrated on a number of occasions, he said.

One such occasion occurred last year when, after being attacked, two Navy pilots shot down two Libyan planes, Bush said. American defensive strength was again demonstrated during the crisis in Lebanon, when Israeli pilots in American-built aircraft consistently defeated the pilots of Soviet-built aircraft, he said.

Although the United States is not looking for confrontations, there is still the necessity of maintaining a strong national defense,

Bush said, and the stronger that defense, the less likely America is to be challenged.

"The United States is not looking for a fight with anybody on earth," he said, "but sometimes, as in that instance (the Libyan incident), fights look for us. And when that happens, we have to have an arsenal second to none; we have to have products of your research and development second to none. Our administration, the administration of President Reagan, is committed to guaranteeing an arsenal second to none, and we intend to stay there."

Despite this preeminence, America has faced the problems of inaction in its foreign policy — at a time when the Soviets are outspending the United States militarily, Bush said. This inaction has been such that several defeats in foreign policy have been suffered by the United States in recent years, he said, including those in Iran, Nicaragua and Afghanistan.

"In Iran, the Shah, who had just been toasted as our strongest ally in the region, was toppled by a coalition of radicals and bigots, and God knows we all remember that our embassy was attacked, diplomats and marines kidnapped and brutalized," Bush said. "And

following that came the Afghanistan invasion, and you might say, why not—because what really had we done to make the Soviet Union think twice? For nearly three years we spoke softly and carried a small stick and saw the decline of our defenses.

*We have to have an arsenal second to none; we have to have the products of your research and development second to none.*

*Bush*

"Now you might say, well what has changed in the last eighteen months? We've let the Soviets and their allies know precisely where we stand."

Referring to the incident in which a Soviet submarine ran aground on Swedish shores, Bush noted the importance of the work in antisubmarine warfare done at the Center.

"Last year, all of you... remember the incident of the Soviet submarine of the Whiskey Class that ran aground off the coast of Sweden," Bush said, "and the Swedes were calling it whiskey on the rocks. But it wasn't any joke. The Soviets had managed to penetrate the most

secret channel leading into Sweden's main naval base without being detected. A reminder, if any are needed, of the usefulness of NADC's antisubmarine work."

And with the growth of Soviet military strength, Bush said, America has an increasing dependency on research and development facilities for the work needed to maintain a strong defense.

"And so in, dangerous world, the bottom line is we've got to have military strength, strength to defend ourselves, strength from which to negotiate with our antagonists," Bush said, "and The United States really is, I'd say, more than ever in our history counting on the products of centers like this. The research, the development, the innovative technological advances that we have all over the Soviet Union if we really apply ourselves."

### Text of Speech Starts on Page 2

Such recognition of the Center's past efforts—and those that the Center will continue to have to make—provides a psychological boost to those who work on the Center, CAPT James B. Anderson, Commanding Officer, said.

While the belief that the work is

Continued on page 2

## Center Employees Win First Round of Commercial Activities Studies

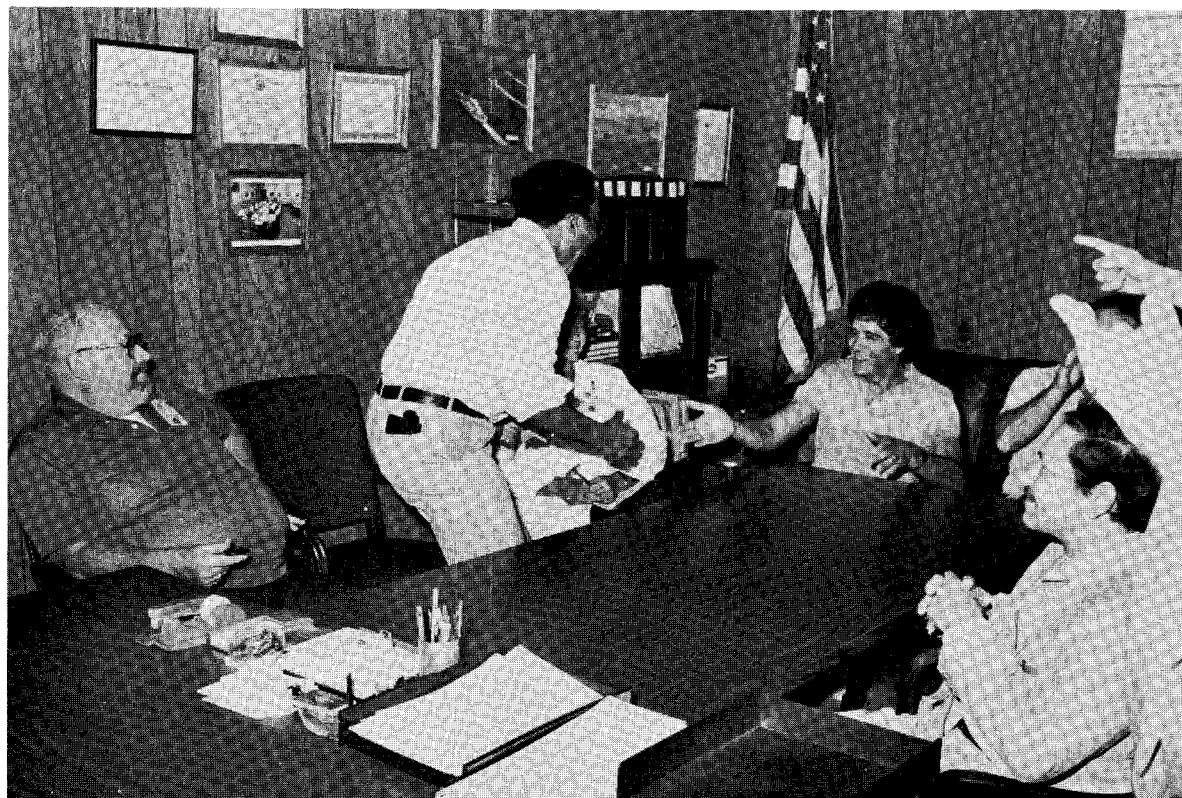
By Carolyn Riemer

Results of the first Commercial Activities (CA) study, released last month, show that the portion of the Center's data processing services can be provided in a more cost effective manner if they are maintained in-house.

As a result, the (eight) computer operators and computer tape librarians who were potentially affected by the study will retain their jobs. In addition, having already undergone the review process and having been maintained in-house, the data processing function will not have to be reviewed again under the CA program for another five years, James Moran, of Planning Assessment Resources, said.

Besides the data processing function, a number of other functions, potentially affecting 260 Center employees, have been earmarked for study as part of the CA program.

Functions to be studied include those involved in: electronics and communications equipment; other test measure and diagnostic equipment; office equipment; electric plants and systems; heating plants and systems; water



Computer Operators react happily to the announcement that they will retain their positions at NADC.

plants and systems; and sewage and waste plants and systems.

Other areas also being studied are: air conditioning and refrigeration plants; other service utilities; other installation services; storage

and warehousing, including the control functions; fueling services; the communications center, including administrative telephone service; building and structures, other than family

housing but including insect and rodent control; and administrative support service, including the technical library; audio visual services; and motor vehicle operations and main-

tenance.

The expected completion date for the studies of these functions, announced in May of this year, is by the end of fiscal year 1983, Moran said.

The guard and firefighter functions have also been announced for study, but are under a congressionally imposed one year moratorium. During this one year period, however, the performance work statements and the most efficient organizations for the two functions must be completed.

When any service or function is studied as part of the CA program, a particular set of steps are followed.

First, the Chief of Naval Operations announces that a particular function is to be cost studied. An activity then determines what is performed in that function, how it is done and what resources are needed to perform the function, Moran said.

Concurrent to developing this performance work statement, which is used as the basis for bidding between the in-house function and contractors, an activity is

Continued on page 4

# Bush's Speech Highlights Defense and Importance of R&D

Ladies and gentlemen, thank you all, Congressman Coyne and Mrs. Coyne, Mr. Buffum, Captain Anderson, and other distinguished guests. Let me just say how deeply I appreciate this opportunity to meet with you, how pleased I am to be here on this beautiful day, and what I thought I would do is to try to give you a little overview of our approach to the defense and foreign policy of this country, trying to do it relatively briefly, and recognizing that many of you here, with your scientific and technological work know far more about the details of a lot of this than I do. My last experience, really active experience with the Navy ended in 1945 when World War II ended. I was a pilot flying torpedo bombers in the Pacific and I wouldn't know how to even start one of these devices that you fool with or one of these airplanes that come in and out of this research facility and, nor would I begin to understand if you tried to explain to me some of the fantastic, scientific breakthroughs that have emanated from this center, as it relates to anti-submarine warfare or whatever other field. But I do appreciate the work, the excellence, and the devotion to duties that this facility epitomizes. For forty years, we have had the most advanced weapons in the

world, and they had to be advanced because there are no trade-ins on the battle field. You only get one try, most of the time, and American weapons have been tested again and again and they have passed every test. Last month, over the Baka Valley in Lebanon, we saw our equipment, (Israeli pilots) using American equipment, decisively defeat the Soviet armed opponents. A year ago two of Colonel Kaddafi's airplanes attacked two of our F-14's which were flying over international waters in international airspace over the Gulf of Syria. The Colonel, Colonel Kaddafi, quickly found himself down two airplanes, and it goes without saying that we would much prefer not to be tested. The United States is not looking for a fight with anybody on earth, but sometimes, as in that instance, fights look for us. And when that happens, we have to have an arsenal second to none, we have to have products of your research and development second to none. Our administration, the administration of President Reagan, is committed to guaranteeing an arsenal second to none and we intend to stay there. We are not going to be dissuaded from this course, we ran on that, we know it's in the national interest and we also know that there are fights for priorities. But we

must not sacrifice our defense and we don't intend to do that. Naturally, we have problems along with our strength, sometimes you might say as a result of our strength. Problems which you experts, as I said, know a great deal more about than I do. It's a moderate matter of common sense, that the more sophisticated a weapon is, the more it's going to cost. And it's also common sense that bold conceptual leaps require a period of preparation of building up industrial speeds, and so there had been times when the gap between generations of weapons has been dismayingly long. There are problems that we can work out. Our incentive for working them out is simple. The stronger America is, the less likely it is that other nations are going to challenge us, and we know where the strongest threats comes from. Over the last decade, the Soviet Union embarked on a military build-up which now takes twelve to fourteen percent of its entire gross national product. Today, according to some estimates, the Soviets are outspending us militarily by fifty percent. And within the last decade their investment in weapons systems, military constructions, R&D has been \$350 billion dollars greater than our own. In 1980, the Soviet Union had 900 thousand full time

scientists and engineers working on military research and development alone. And that's half again, many people here know, that's half again as many as we have in the United States. Last year, all of you I'm sure, remember the incident of the Soviet submarine of the whiskey class ran aground off the coast of Sweden, and the Swedes were calling it whiskey on the rocks. But it wasn't any joke, the Soviets had managed to penetrate the most secret channel leading into Sweden's main naval base without being detected. A reminder, if any are needed, of the usefulness of NADC's anti-submarine work. And meanwhile, during the same decade of unprecedented Soviet build-up defense spending in the United States in constant dollars decreased by 28%. It fell from 8% of the gross national product in 1960 to 5.3% in 1980. In the Carter Administration alone, our predecessors, we canceled the B-1 bomber, we eliminated the neutron weapon, and the United States Navy, which in 1970 as we entered that decade could launch a thousand ships, was reduced to slightly more than five hundred vessels by 1980. And by the time we came into office, the entire Atlantic fleet had barely as many ships as were used in the quarantine of Cuba in 1962. Now those are hard, cold, analytical facts, and the erosion of something else. The erosion of America's willpower was far more serious. Let's survey some of the actions and non-actions of the last few years. In the late 70's, the United States proposed nuclear arms reduction. But when the Soviets said nyet to that, the administration backed off, gave us Salt Two, which the senate and the house, parties that they control wouldn't ratify. Our United Nations ambassador called Cubans in Africa a stabilizing influence. In Central America, we stood by helplessly as a band of Marxist overran Nicaragua, and only last month, Hoza Staban Guanzalas, the founder of the Nicaraguan permanent commission for human rights called the situation under the Sandanistan much, and this is a quote, "much worse than it had been under the Simosa regime. And in the eastern Caribbean, most marxists came to power in the island nation of Grenada and the Caribbean which

used to be called an American lake was beginning to look like Fidal Castro's swimming pool. And in the middle east, South Yemen, a Soviet client attacked North Yemen, a Russian power play on the fringes of Saudi Arabia. And in Iran, the shah, who has just been toasted as our strongest ally in the region was toppled by coalition of radicals and bigots and God knows we all know, we all remember that our embassy was attacked, diplomats, and marines kidnapped and brutalized and following that came the Afghanistan invasion, and you might say why not because what really had we done to make the Soviet union think twice. For nearly three years we spoke softly and carried a small stick and saw the decline of our defenses now you might say well what has changed in the last eighteen months? We've let the Soviets and their allies know precisely where we stand. In Central America we are helping the people of El Salvador to keep themselves from following in Nicaraguan footsteps, and the elections were over about a million people went to the polls, I think have indicated the confidence that our country placed in trying to stop marxist subversion in that country. We've just got to let Castro know that he is going to not, not going to pick up countries that it cut rates, particularly in this hemisphere which is so vital to our own self interest. We've pushed to a radio Martinique a chance to let the Cuban people hear the truth for a change, in Havana and in all across Cuba, we've stood for human rights, where it matters the most, and when the Solidarity movement was suppressed, in Poland crushing the asperation of ten million Polish workers, we properly held the Soviets responsible. And we warned them that if marxist law was not lifted, or it was not modified, they would pay the consequence in dollars. And when it became plain that there would be nothing to ease the situation we turned the tap on the Siberian pipeline, and that has not been a popular move, but if the United States is not willing to stand up for human rights, who is, and I believe the people of Poland understand this. We've let the world know the price for casual harassment. I mentioned those Li-

## Visit continued from page 1

important does already exist, he said, hearing it said by the Vice President reinforces the conviction.

In addition to providing a boost to employees, a vice presidential visit helps the Center's recognition in the community, Anderson said.

"Indirectly, it tells people that what NADC does is important to the (Reagan) Administration," he said.

Besides maintaining a foreign policy committed to a strong defense, Bush also said the United States has also had a foreign policy that has stood up for human rights around the world. In the last 18 months he said, the United States has also stood up to the Soviets and taken a new initiative in seeking peace in the Middle East.

The United States must also discuss nuclear and conventional arms reduction with the Soviets but the nation must do so from a position of strength, he said.

In closing his speech, Bush said the United States' ability to maintain a strong defense would depend on employee efforts at installations such as NADC.

"And so we depend on you, and you can put it more broadly," he said. "The tranquility of the world depends on the United States, and that tranquility would not be possible without the R & D, without the innovation of the people here and all across our country. And so, it is essential that this administration keep our commitment to strengthen our defenses.

It's essential that you continue your work of excellence. We cannot and must not let our country down."

After concluding his speech to approximately 1500 employees and special guests in Hangar 1 of Building 4, Bush was accompanied by Congressman James Coyne, Coyne's wife, Captain James Anderson, Technical Director Robert S. Buffum and Dino Mancinelli, Director of the Aircraft and Crew Systems Technology Directorate.

Dave DeSimone, also of ACSTD, provided the briefing for the Vice President.

The tour began at the centrifuge flight deck, where an experiment to evaluate a pilot restraint activation mechanism was underway. The restraint mechanism is being designed to help combat a spin problem and the resulting pilot difficulties in F-14 aircraft.

The vice president was offered a ride in the centrifuge, DeSimone said, but declined.

From there, DeSimone briefed Bush on the various crew member protective assemblies and protective clothing material technologies. These protective assemblies, such as anti-exposure gear, are designed so as not to hinder crew members in their performance.

Bush was also shown the dynamic flight simulator F-14 cockpit mock-up. In addition, he was also shown the simulated flight system, a projection system that, in response to a computerized throttle and stick, provides a

realistic, three-dimensional visual representation of the environment outside an aircraft.

This F-14 mock-up and visual display is scheduled to be installed in the centrifuge in February. The centrifuge will then be used for further testing of spin problems faced by pilots of F-14 craft.

The direct operational impact of this F-14 spin simulation testing was also explained to Bush, DeSimone said. In addition to saving lives of Navy pilots, testing could also potentially save the government millions of dollars as the likelihood of an accident in an F-14 is reduced.

During his tour, Bush was also briefed on ejection seats, including the Maximum Performance Escape System. Developed by a consortium of Navy laboratories with NADC as the lead lab, the system is an ejection seat that, once activated, has the capability to sense and steer itself to the vertical position.

Bush indicated he was impressed with what he saw of the technology generated at NADC, Anderson said. Additionally, Bush's positive view of this Center could extend to a positive view of the work done at the other Navy laboratories.

Numerous departments were involved in the preparation for Bush's visit, and Anderson said he was impressed with the efforts made by Center employees in preparing for the visit and seeing that everything ran smooth during the visit.

## The Reflector

Naval Air Development Center

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CAPT James B. Anderson — Commander, NADC

Robert S. Buffum — Technical Director

Joseph P. Cody — Public Affairs Officer

David Polish — Editor

Carolyn Riemer — Assistant Editor



# Views of Vice President Bush's Day at NADC

Photos By David Polish



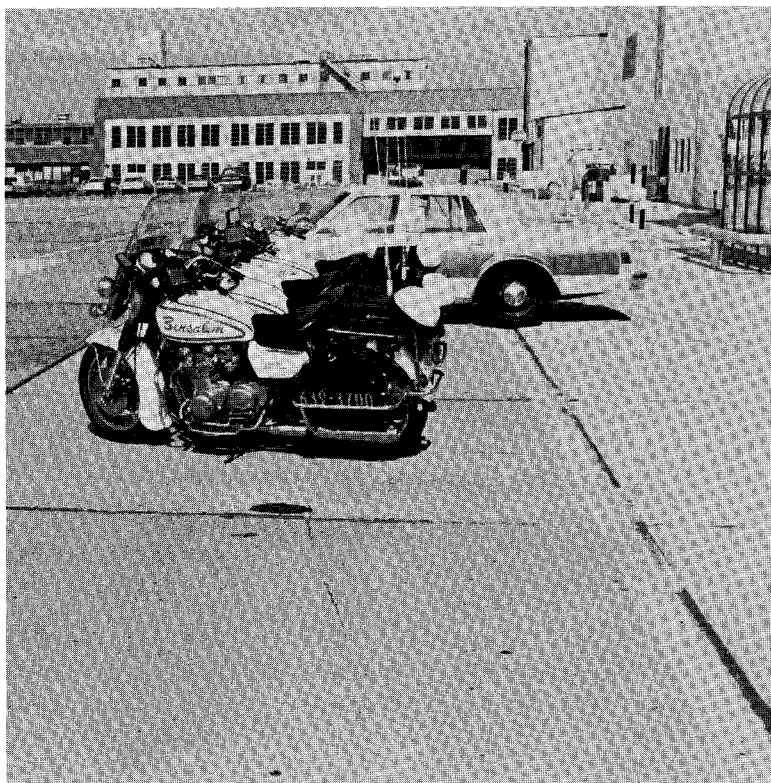
Vice President George Bush is saluted by Captain James B. Anderson and Major James Keane as he steps off of Air Force II. The children of Congressman Coyne rush to greet their father behind the Vice President.



Bush walks past Joseph P. Cody, Public Affairs Officer, and Joseph Griffin, TSD, as he enters the hangar to deliver his speech.



The Vice President gets an explanation about the centrifuge from David DeSimone, rt, and Dino Mancinelli, It.



Just part of the motorcade that escorted Bush from NADC to Treviso for a speaking engagement.



Jack Eyth, ACSTD, demonstrates a computer generated flight simulator.



The limo sweeps through NADC as the Vice President leaves for a political rally.

## (VP Speech continued)

bian airplanes, and some people at the time, wondered why President Reagan wasn't awakened instantly to deal with the crisis. The President was prepared to deal with anything, the reason he wasn't awakened instantly is that it was Kaddafi's crisis, not our crisis. And when a horse flicks a fly off, it's a crisis for the fly not for the horse, and I believe that the world understands that. Now we were not looking for a fight with this mad man, but he sent those airplanes out and the Navy did what it had to do, and I'll tell you something, that may be an insignificant little incident, in terms of the sweep of history, but I see almost every foreign leader, all of them that come into the white house, and friend, and adversary and neutral alike, understand it when the United States acts like the United States. That's all that I'm trying to make out of that incident. We're reinvigorating and reinvigorating our intelligence community. Our eyes and ears throughout the world. We went through an awful period where people with said intelligence were made to feel that there was something wrong with them, we passed legislation recently to protect the identity of those who serve overseas. And the morale is up, and we need intelligence when we're facing adversaries, the likes of which we are facing in the real world. We've made a bold new proposal to put peace in the middle east, which has gotten favorable comments from a lot of domestic organizations, vitally interested, predominately Jewish organizations vitally interested in the future of Israel as we are. The national association of Arab Americans is supported. The Israeli labor party is supported, many Arab leaders all across the world, our allies and others not that everybody is for it but at least it's a bold initiative that can help stop the killing that we all regret so very very much. And we've made realistic proposals to deal with arms reduction. Proposals that we intend to stick with. We do have differences with the Soviet Union some of them are

never going to be resolved as long as they pursue their present political policies, but despite our differences we realize that it is absolutely essential that we sit with the Soviets to discuss and negotiate solutions to the present circumstances that threaten peace. Over a seven month period in 1981 and 1982 President Reagan proposed the following: Canceling the planned deployment of American land-base intermediate range missiles, The Pershing two's in Europe if the Soviets would dismantle the SS-4's, 5's, and 20's. A one-third reduction in strategic ballistic war heads just to warm-up the eventual strategic arms cuts that he proposed. He proposed that right at the beginning, a substantial reduction in Nato and in Warsaw pact, ground forces and airforces, conventional force reduction and new safeguards to reduce the risk of accidental nuclear war. Now these proposals are equitable and they're militarily important. They do call for verification of the reduction, a measure that is in the best interest of both nations. There are no other proposals out there for comprehensive reductions, none as comprehensive as these, no others which stand such a good chance of making the world safer. The simplest solution of a freeze in current levels, we believe, would be harmful to us friends and to our allies. Our allies come in overwhelmingly telling us not to agree to that. Settling for a freeze of current levels would be like taking care of a washed out road by putting up a sign that says "Drive Carefully." Our goal, reduction, is to get off the road entirely. A freeze would prevent us from taking the necessary steps to modify our strategic force and it would reward the Soviets for their massive arms build-up and the inequities that develop therein in the past decade. By locking us in to a position of military disadvantage, a freeze would undermine the strategic arms reduction. Talks that are in Geneva by removing the Soviet incentive to negotiate seriously, got to be incentive. You remember the

battle in the senate in the early 70's regarding the ABM system. We attempted to negotiate an ABM treaty with the Soviet Union but they were adamant they wouldn't do anything about it. It was only after the senate voted to provide the funds to build the ABM system that the Soviet Union entered into meaningful negotiations and then an ABM treaty was reached and ratified by the senate in 1972. That is the way you deal with these people, you deal from strength not weakness, and the Soviet Union is in many ways a weak and dispirited country it's non-military economy today is a failure, it's low on cash, it's low on know-how, it's low on food for it's own people. It's ideological under-pinnings are in disarray. You see much more movement away from the Soviet Union by some of the countries that have been closest to it. Aleksandr Solzhenitsyn has written that there is no one in the Soviet Union who is still a sincere marxist today. The regime is a walking contradiction in one sense. A worker state that is supposedly for the worker but breaks up the Polish labor union. A revolutionary state that engages in Kipling like colonial adventures in Central Asia. However, it does operate and every person here understands this, it operates the largest, military, industrial complex since Hitler's Germany forty years ago, and its rulers are aggressive and they are powerful and they are unscrupulous when it comes to these matters. And so in a dangerous world the bottom line is we've got to have military strength, strength to defend ourselves, strength from which to negotiate with our antagonists and the United States really is, I'd say, more than ever in our history, counting on the products of center's like this. The research, the development, the innovative technological advances that we have all over the Soviet Union if we really apply ourselves. And so we depend on you, and you can put it more broadly, the tranquility of the world depends on the United States and that tran-

## MEMORANDUM FOR ALL FEDERAL EMPLOYEES AND MILITARY PERSONNEL

Each year we have the opportunity to show our concern for those in need through participation in the Combined Federal Campaign. The Campaign combines the annual fund-raising efforts of a number of charitable organizations working in the fields of health and social welfare both in the U.S. and overseas.

Through voluntary giving, we have the opportunity to provide services and programs for our neighbors and countrymen without making them dependent on government. We can help relieve pain and minimize health problems now and support research to help eliminate them in the future. The CFC also makes it possible to help the less fortunate in other countries, extending a helping hand to our friends around the world.

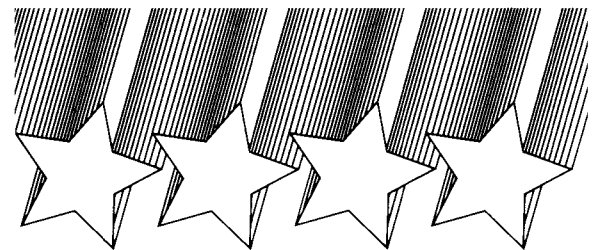
Federal employees and members of the Armed Services have a proud record of generosity and concern for others. I am confident that record can and will be further enhanced this year. While the amount you give is a personal, voluntary decision, I hope that each of you will join me in supporting the fall 1983 Combined Federal Campaign.

*Ronald Reagan*

The 1983 NADC Combined Federal Campaign will kick off on 8 October and end on 19 November.

quility would not be possible without the R&D, without the innovation of the people here and all across our country. And so, it is essential that this administration keep our commitment to strength-

en our defenses. It's essential that you continue your work of excellence. We cannot and we must not let our country down. Thank you all very very much.



## Letters to the Editor

Dear Sir:

Your Editorial on page 2 of the August Reflector on the 4% pay raise was very much to the point. For your information, I enclosed a copy of the testimony which I presented to the Advisory Committee on Federal Pay (Mr. Jerome Rosow, Mr. Frank Zarb, and Ms. Eva Robins) in Washington on August 23. This was on behalf of the NCAA National Office.

I also enclosed a copy of the Federal Executive and Professional Association testimony; the FEPA representatives and I appeared together before the Committee.

Incidentally, I retired from NADC in 1972 as civilian head of the Aero Materials Laboratory after 33 years of Navy Civil Service, and have been active in the Naval Civilian Administrators Association since 1953.

Very truly yours,

J. Hartley Bowen, Jr.  
Executive Secretary, NCAA

Letter to the Editor:

In rebuttal to Mr. Keiser's Letter to the Editor;

It's true Mr. Keiser, the

bathrooms and locker-rooms next to Public Works have been remodeled and we do have a clean place to have lunch, but it's no Executive Dining Room. It wasn't always so nice.

A year ago, Public Works employees at NADC had to clean up and change their clothes in an *unventilated, dimly lit, dirty, cockroach infested* locker-room!

I'm sure this wasn't part of OPM's guidelines or Reaganomics. Only out of a sense of concern by Management and Union officials were these poor working conditions resolved.

NADC was upgrading all bathroom facilities around the center and the one located in PW basement was included but done last. The facilities are used by a wide range of employees throughout the center and has been well advertised since its opening in June.

It's been the target of politicians and pointed newspaper editorials. It's been criticized as a waste of money and investigated. These negative comments serve no useful purpose and only make it difficult for NADC employees to achieve decent working conditions around the center.

William E. Stumpp

## NADC Wins First Round of CA Studies

(continued from page 1)

also studying ways a function can be performed more efficiently.

"A 'most efficient organization' is developed to insure that a function under study is being performed in the most efficient and cost effective manner," Moran said.

Once this most efficient organization is certified by an activity's commanding officer, the cost of performing the task in-house is determined by a cost analyst.

All this data—the performance work statement, the most efficient organization documentation and the in-house cost estimate—is reviewed and certified by the Naval Audit Service, Moran said.

When this part of the process is

completed, bids from outside firms are solicited. And at the end of the bidding process, an activity's contracting officer opens the bids from the outside firms and the sealed in-house cost estimate. The determination of whether a function remains in-house or is contracted out is then made based on these bids.

In the case of smaller functions, such as data processing services, the process takes at least one year, Moran said. At other installations, however, studies of more complex functions have taken as long as three years.

If during the bidding process an outside firm is low bidder, the Chief of Naval Operations is immediately notified and Congress in turn is notified by CNO.

Once the decision is made to

award a contract to an outside firm, an activity is notified and reduction-in-force notices are issued, if necessary.

Should a reduction-in-force be necessary, Center employees would have all the rights, such as bumping rights, in accordance with reduction-in-force procedures.

"This means that because of bumping and retreat rights, a RIF in any function may have repercussions throughout the Center," Moran said.

NADC's Civilian Personnel Department does have various programs to mitigate the impact of a RIF, Moran said. These programs, for employees who are eligible, include early retirement, internal reassignment and out placement services.



# Legis Fellow Program Explained, Buffum and Guarini Praise the Experience

By Jeannie Beans

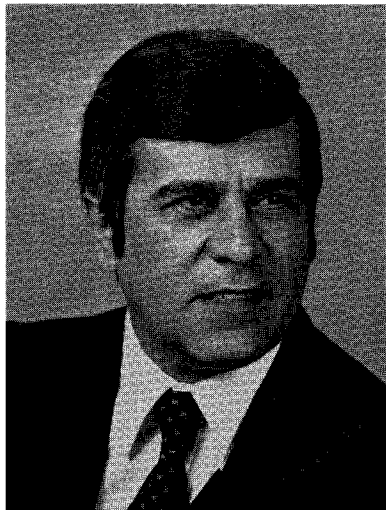
From the beginning of May through the beginning of September, Jerry Guarini worked as a member of the Legis Fellows Program in the office of Honorable J. Kenneth Robinson, congressional representative from the 7th District of Virginia. This program, under the sponsorship of the Office of Personnel Management (OPM), is intended to provide senior federal employees with a working knowledge of the operations of Congress. There are approximately 20-25 individuals from all branches of the federal government who are selected from the many nominations submitted to OPM for each of the three sessions per year. The program is initiated with a three week indoctrination course under the auspices of the Congressional Reference Service (CRS), a branch of the Library of Congress. Indoctrination included visits from Senate & House Staff members, Senators and Representatives, Political Analysts, Lobbyists, newspaper reporters and Federal Executives who deal with Congress.

Guarini said, "I feel that this initial training was one of the highlights of the entire session." The training consisted of a mixture of classroom lectures, visits and tours, discussions with members of Congress and professors from local universities, and training in the use of accessing information from the CRS. Classroom lectures encompassed such topics as House and Senate membership; structure, operation and organization of congressional offices; the budget process; parliamentary procedures in the Congress; committees/caucuses; leadership roles within the Congress; the voting, make-up and amendment process; and operation of the Supreme Court, etc. "During the second week," Guarini said, "there is a classroom simulation which involves writing a bill around an actual case presently before the Congress."

Also within this time period, Guarini was required to prepare a resume and investigate the committee involvement of each of the members in order to determine those offices for prospective employment.

Robert Buffum, Technical Director of NADC, was also a Legis Fellow approximately one year ago. He also worked on the staff of Congressman Robinson. "Finding a job is an experience that most of the Legis Fellows have not had for a long time," said Buffum. The Legis Fellows Program becomes very competitive at the time of placement because not all Congressmen have had or want a Legis Fellow. But Buffum said those who have had one tend to want one again.

"The Legis Fellows are in some instances trying to sell someone on an idea that they have never heard before," Buffum said. "After selling the Legis Program then it becomes the task of the Legis Fellow to convince a Con-



NADC's most recent Legis Fellow, Jerry Guarini.

gressman or Senator that he is the Legis Fellow who could benefit him the most. . . . If he is not successful in this endeavor, there may be three or four other Legis Fellows right behind him."

Guarini said that by far the most frequent turn down is because of the 'space' in most offices. He further said, despite the amount of experience possessed by each of the students and the fact that each sponsoring agency is paying for that individual during his tour, acquiring an assignment is not an easy job. "The long forgotten humility of searching for a job becomes a reality," said Guarini.

Congressman Robinson's present assignments are on the Appropriations Committee, the subcommittee on defense, and he is also a ranking minority member on the Permanent Select Committee on Intelligence. Guarini's DOD background permitted him to be primarily concerned with defense matters. This responsibility ran the gamut from major platforms, systems, components and technologies, to the requirements for military, civilian and reserve manpower. He attended both Senate and House hearings, in addition to a variety of news conferences. Guarini said he became quite involved with the Falklands situation and subsequently the Israeli/Lebanese crisis. Guarini learned a considerable amount about the workings of Congress and feels it will be quite useful to him during the balance of his time in the Department of Defense. Guarini said his personal association with Congressman Robinson during his assignment, has provided him with a gratifying attitude for our representative form of government.

Buffum said the Legis program was an opportunity for him, as a Navy executive, to go out to the

Congress and look back at the Navy and all of the DOD and see from that perspective how well we're doing our job. The information that the Center generates eventually ends up in Congress in the form of documents to support the R&D program. Buffum feels from his experience in Congressman Robinson's office that sometimes this information is inadequate. He realized from his experience there that he could do something about the information gap, and this year with the help of the Planning, Assessment and Resources Directorate, NADC will do a better job with its submittals.

Buffum has already spoken to Ronald Young, Director of the Civilian Personnel, about our participation next year. Buffum feels that the knowledge that is gained from the Legis program can be part of the process in the development of our programs and plans. It is his desire to take a GS-14 candidate, place them in PAR to acquire a general broad perspective of the Center and then send that person to Washington as a Legis Fellow. After four months they would return and work in PAR as the "choke point" for all the planning documents for our R&D program.

"Jerry Guarini has been selected into a position where he will use his Legis knowledge very effectively," said Buffum. "It

will have Center-wide impact."

Buffum feels that another aspect of the Legis program that he profited from was the valuable contacts he made with other agencies.

Out of the group of Legis

## ADM Williams Speaks

As the leader of an organization that has 222,000 employees, spread out over 186 different facilities with a budget of 39 billion dollars, Admiral John G. Williams has his work cut out for him. Williams is the Chief of the Naval Material Command, NADC's parent command, in Washington. Along with Dr. James Colvard, Deputy Chief of Naval Material for Laboratory Management, Williams visited NADC for the first time. He was briefed on some of the Center's programs while touring different facilities. The highpoint of the visit was a statement by Williams and a question and answer session televised throughout the Center. He emphasized the need to "stretch those dollars," referring to R&D money, further if we are to build a "600 ship Navy." Building in Reliability and Maintainability (R&M) is extremely important as Williams sees it. "Over half our dollars," he said "go into maintaining that which we have."

How to balance the mix of people, programs and dollars is another important point that Williams stressed. "Because of ceiling draw downs and contract-



Admiral John G. Williams, CNM, hands a plaque to Captain Anderson during his recent visit to the Center.

ing out the amount of Navy technical expertise is limited. We have to watch the balance between R&D and fleet support, tech base and full scale development and in-house versus contractor activities."

"The labs are a last entity of technical expertise. I guard most jealously that particular fact" Williams said. "You people are extremely valuable to the United States Navy."

Fellows Buffum was with, numbering 25, over fifty percent have had promotions. In his opinion, the promotion rate for Legis Fellows is far above the average for any other group of federal executives.

## Modelers Hold Championships Here



Scale aircraft are prepared for competition. Shown is a Corsair in the foreground and a Thunderbolt.

By Jeannie Beans

The Delaware Valley Federation of Model Airplane Clubs held their Eastern States Championships on Sunday, the 22nd of August 1982 from Noon until 6 p.m. on the main runway of the NADC airfield. Several thousand people turned out for the days activities. The Boy Scouts were there and provided hot dogs, soda and ice cream for the spectators.

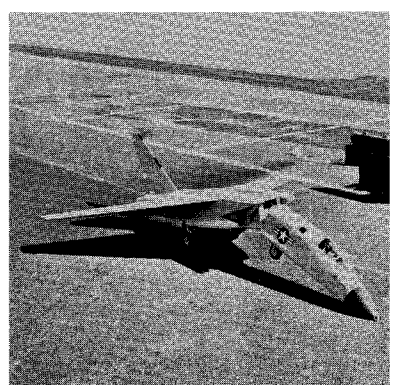
One Hundred and Fifty contestants participated in 350-400 total events. There were 21 categories with 1st 2nd, and 3rd place trophy winners for each

category. Sixty-three awards were presented in addition to a junior award given in the age group up to 14 years old and a senior award given for ages 15-18.

Some of the important categories included radio controlled jet propelled planes and pulse jet in control line scale. A special category for Navy Aircraft carriers from around the world had as its requirements flying at high and low speeds and the pilots were scored on the difference between the speeds and the quality of their arrested landings.

Entrants in the category of Control and Precision Aerobatics were required to fly precise choreographed patterns and were judged on the exact precision of these patterns and their super imposition into alternate patterns.

All planes are judged on their closeness to scale and their authenticity. Scale can be determined by the builder as long as the authenticity can be verified by the judges.



A-5 Vigilante has an untimely end.

Contestants came from a 200-300 mile radius encompassing Pennsylvania, New Jersey, New York and as distant as New England and Ohio.



Bruce Whitman awards the League Championship Trophy to Tom Kearney, rt, Captain of the Misfits.

## Softball Champs Named

by Bruce Whitman

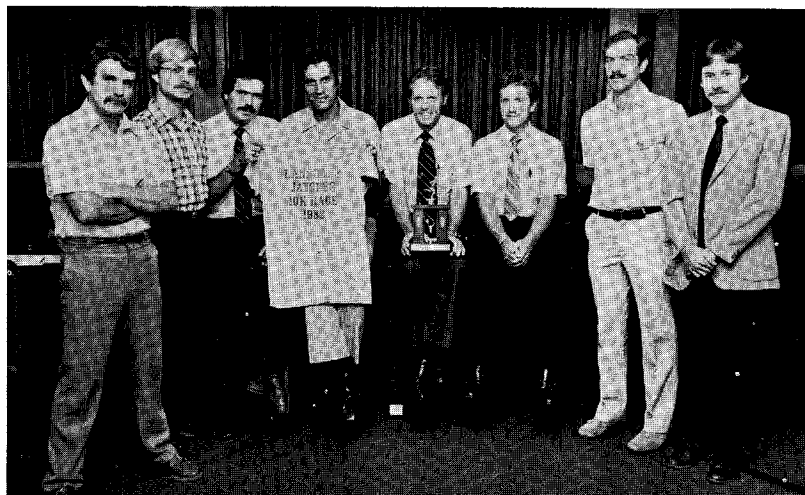
The 1982 NADC Men's Softball League season came to a successful conclusion on August 17th with the 2 games to none championship victory by the Misfits over, last years champions, the Granfalloon. Thirteen teams (Misfits, Granfalloon, Swingers, 8th Inning, Bearcats, Ballbusters, Renegades, Guzzlers, Phantoms, Druids, Debugs, Dealers and Raiders) began league play in May with the top eight teams making the playoffs. Over 200 NADC government and contractor personnel participated in this year's

league play.

This season saw a major milestone accomplished in which a second ball field was added to the inertial area for league play. Also this year, the league played its first mid season All Star game/party in which the personnel from NADC were invited to attend. Over 170 people attended the game and a good time was had by all.

Congratulations should be handed out to Misfits for their championships season and to all the other teams and personnel whose help made this season a successfull one.

## Runners Run for Charity



From left to right Kevin McGinley, Bob Geyer, John Bowes, CDR Joe Funaro, John Auerbach, Bob Berry and Joe Kern were NADC's team.

Some run for fun, some run for records, others, like NADC's Corporate team, run for charity. Nine men ran for the benefit of muscular dystrophy. The 10 kilometer race was sponsored by the Lansdale Jaycees. NADC's team was backed by our Welfare and Recreation Association. Joe Kern finished the race with a time of 34:12. Bob Berry and LCDR Joe Funaro finished the run with a 35:04 and 39:14 respectively. Bob Geyer had a 41:06, Bob Bauder 42:04, John Aveback 44:38, John Bowes 46:02, Kevin McGinley 48:25, Paul Prichard 48:45. Over all the team finished third out of seventeen teams.

## Professional Society Has Benefits

From its initials the IEEE looks like something you would see a comic book character screaming but the "I" triple "E" is not that at all. What the IEEE is, is the Institute of Electrical and Electronics Engineers Incorporated, the world's largest professional engineering society. The reason for IEEE is to advance the theory and practice of electrical, electronics and computer engineering, computer sciences and related arts and sciences. IEEE also serves its members by conducting and publishing surveys, collaborating with public organizations and societies for the benefit

of engineering professions as a whole and the establishment of qualification and ethical standards. By holding meetings to present, publish and circulate professional papers, IEEE strives to enhance the quality of life for all people throughout the world through the constructive application of technology in its field of competence. It endeavors to promote understanding of the influence of such technology on the public welfare.

Several NADCers are members of the IEEE and serve in an official capacity. Dr. Rudolph A. Stampfl is currently Chairman of

the Philadelphia section meetings committee with Jim Bonanno as Vice Chairman. Jim Eck is this year's NADC IEEE membership representative. Vice Chairman of the Aerospace and Electronic Systems Society is Ed Yannuzzi. Walt Schoppe serves as Secretary for the 1982 International Conference on Communications.

The IEEE offers members low cost group insurance, employment information services, an IRA/Keogh plan and a congressional fellow program. If you are interested in becoming an IEEE member contact Jim Eck X3090.

## Coyne Talks at Center



Congressman James K. Coyne from the eighth congressional district visited the Naval Air Development Center to speak to the Federal Women's Advisory Group and NADC employees. Coyne spoke of the changing roles of women in today's economy and the need for more women in politics. Although Pennsylvania is one of the largest states in the country it has no female representatives in Congress according to Coyne. He would like to see more women seeking office because the Congress is often asked to legislate women's issues and

more representation would make the decision fairer. Coyne also touched on the topic of the multiple roles women have and the problems they present.

After his speech Coyne opened the forum up to questions from the audience. A wide variety of topics were covered including, contracting out (CA), abortion, R&D funding, federal hiring practices and retirement. About one hundred and thirty employees attended the meeting that was part of a month of activities sponsored by the Federal Women's Advisory Group.

## Commander Salutes Outstanding Employees

Robert A. Finkelman and Alan M. Kaniss both of the Computer Department, Dr. Lloyd C. Bobb, Gerald D. Ferguson, Theodore R. Trilling, Nelson J. Hall, Craig R. Volker, Stephen R. Bazow, Daniel R. Lorenzetti, Francis J. McMahon, Dr. Edward J. Seibert, and David W. Schuck all of SATD also James A. Dunn of PAR, all for their support given to the Bucks County High School Science Seminar.

Maureen T. Marron, CP and Harry F. Davis, PW, both for their work as union negotiators during the 1982 Labor Negotiations Seminar.

Gilbert Ridley, DEEOO, for his assistance to the Philadelphia Area Navy EEO Council's first Manager's EEO Meeting.

Karl J. Schraut, Danny Chun and Steven McComas, all from SCD, for their support to the S-3 WSIP Detail Specification, Software Development Plan and Statement of Work.

Paul H. Jackson, SD, for his participation on the JTIDS Source Selection Evaluation Board.

Robert J. Gallagher, SD, and Dr. John K. Smith, SATD, both for their efforts supporting the Naval Air Systems Command in evaluating an unsolicited proposal by Lockheed-California Company.

John Rossetti, Richard A. Wilson, Richard Purcell, Joseph K. Perkins, Jack P. Morgen, Jr., Robert H. Hewins, Pierino Ferrara, Jr., Michael B. Quinn,

Kevin R. Haggerty, Vince Crusco, James D. Myers, Richard L. Deuble, John A. Reed, Jr., William J. Adams and Donald H. Meadows, all of TSD, for their assistance during a truck accident in Ivyland.

LCDR John J. Walters, and Harry F. Koper, both of DCP, Thomas J. Murray, SD, William E. Bradley, CNTD, and Charles W. Haney, SATD, all for their support of the F/A-18 RECCE package.

Daniel C. Probert, Carol A. Greenwood and Robert J. Orr, all of PAR, and Joseph W. Zaroff, SATD, all for assistance during shock tests for the USS ARKANSAS.

## Promotions

Joseph Armstrong, Austra Bagdonavicius, Jeanne Canton, Mary DeLay, Thomas Donnellan, David Farina, Octavia Gray, Michael Herskovitz, Lawrence Howarth, Albert Knobloch, Thomas Long, Regina Luce, Eugene Macur, Sheila Mangin, Kevin McGinley, Thomas McLaughlin, Shirley Morris, Jerry Neimark, James Palumbo, Carol Pemrick, Charles Schweizer, Eugene Serba, Irving Shaffer, Chyau Shen, Vincent Sieracki, Thomas Stover, Janice Strozier, Mary Sutter, Dennis Turner, Neil Weinman, Thaddeus Wrublesky, Norman Warner, Thomas Polaneczky.

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# The Reflector

Volume 26, No. 10

Naval Air Development Center, Warminster, PA

October 1982

## IR/IED Awards Garnered By Schmidt and Catrambone

One of the ways NADC helps the Navy is to find better and more accurate ways for detecting submarines. The most common non-acoustic way is to use magnetometers that sense the magnetic signature of a submarine. These sensors are so sensitive that if you waved a dollar bill by one, the magnetometer would register the iron content in the ink used for printing. Being that sensitive though can cause problems.

According to Dr. William A. Schmidt, a leader in Magnetic Signal Processing in the Laser-Magnetics Systems branch of the Electro Optics Division of SATD, when a magnetometer is mounted in an aircraft it reads the magnetic signature of the aircraft as well as the environment. If the aircraft is standing still or flying in a straight line there is no problem because the aircraft's magnetic signature can easily be nulled out. Schmidt said the problems arise when the aircraft changes direction and attitude. These maneuvers cause magnetic noise that masks or resembles the desired ASW signal.

A way to compensate for this noise is currently being used but it requires the aircraft to fly in patterns that cause extreme discomfort to the flightcrew and waste costly air time. As an In-

dependent Research Project, Schmidt assisted by Richard E. Gasser sought to establish an algorithm that when fed into the aircraft's computer, would compensate for the added aircraft magnetic noise. Called the Gasser Model, the set of equations uses information from the aircraft's navigation system and calculates the predicted magnetic changes in the airframe and subtracts the changes from the magnetometer data.

The work that Schmidt did on this project was considered so significant that he was honored by receiving an award for Outstanding Independent Research. His work has resulted in a 30% improvement in the detection range of the magnetic sensors and an elimination of dedicated compensation flights.

Schmidt has been at NADC since 1974. Before coming here he worked at the General Electric Missile and Space Division in Philadelphia. There he was involved in navigation control of re-entry vehicles. After leaving GE Schmidt worked for Analytics as a contractor to NADC. He became involved closely with the Electro-Optical Division and heard of an opening in that organization. He applied and was accepted for the



Dr. William Schmidt (right) and Richard Gasser discuss a computer program.

position where he has become an important asset to the Center. Schmidt holds his degree in

mechanical engineering with a concentration in statistical control theory.

IED Story page 2

## SECNAV Praises NADC: "Innovative Talent Results in R/F-18 Design"



Secretary of the Navy John Lehman gets a briefing on the R/F-18 from Mr. Harry Koper.

Secretary of the Navy John Lehman announced the beginning of the R/F-18 program during a press conference held at NADC on 18 October. Lehman cited NADC as a leader in the areas of reconnaissance development and cost

saving ideas that help further the Navy's goals in a cost effective manner.

The R/F-18 Program was developed at NADC to enable the Navy to fly a sophisticated set of sensors in the F-18 Hornet without

having to build a special dedicated airframe that would cost many millions of extra tax dollars. With the system that was designed here a pallet with all the recon sensors can be adapted to a standard Fleet F-18 in about 8 hours.

During the press conference Lehman praised the role of the career civil service employees in the development of systems such as the R/F-18.

He said, "It (the R/F-18 Program) is a good example of how much innovative talent we have in our career civilian employees." "I am here", Lehman stated, "because we have selected this development center to carry out, what is in many ways a very illustrative example of our new development and contract approach. Warminster has become a center in the U.S. Government for these kinds of money saving ideas." "This is the only way we are ever going to be able to afford these programs within the brutally tight fiscal constraints that Congress is giving us", he added.

"We see a long term growth in the importance of NADC to the Navy and NADC will play an increasingly important role in leading government R & D into an era of much more austere cost effectiveness while staying on the cutting edge of technology. Other labs had argued for a dedicated approach. The choice (of NADC) I think was a very sound one."

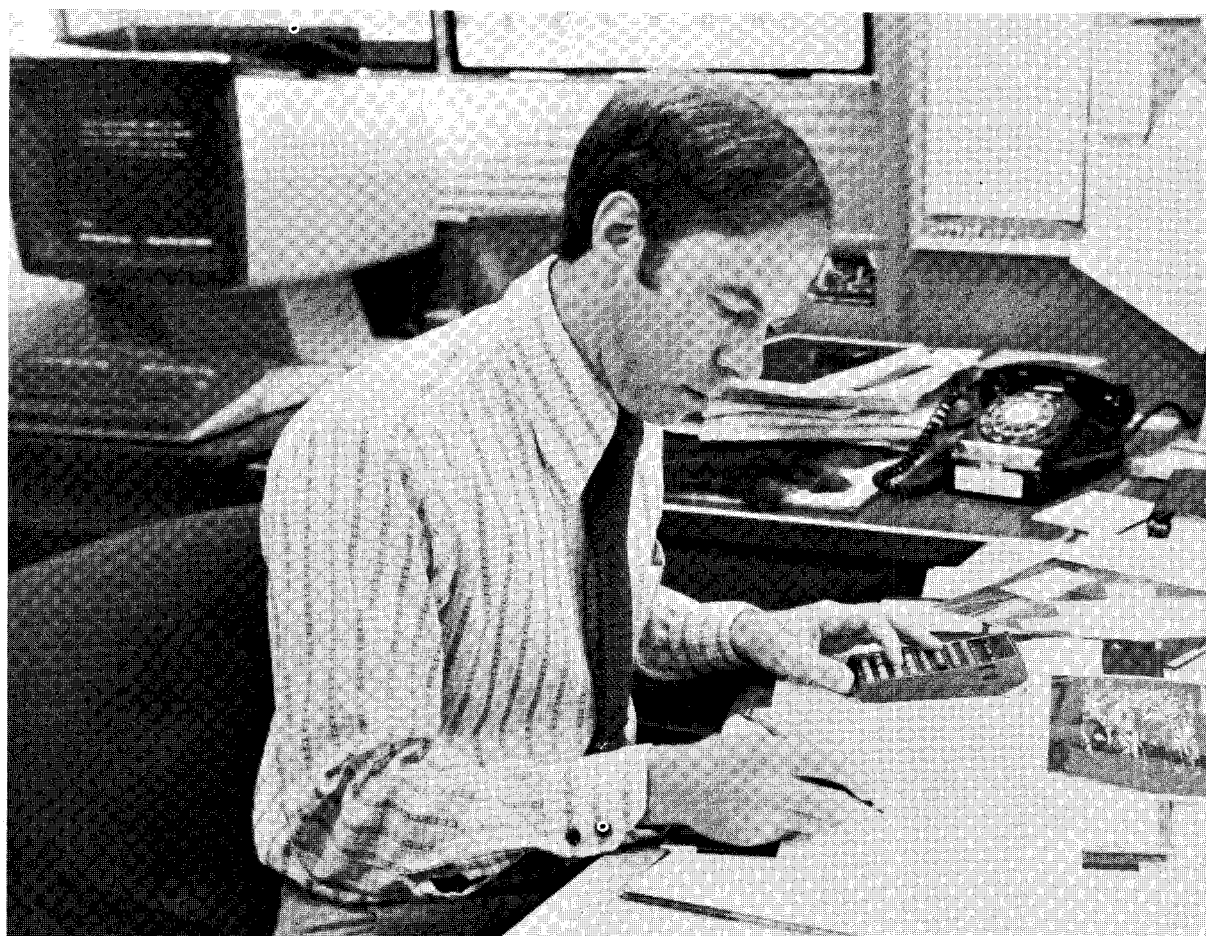
### CNO Energy Award

From: Chief of Naval Operations  
To: Commander, Naval Air Development Center  
Via: (1) Chief of Naval Material  
Subj: Secretary of the Navy Energy Conservation Awards Program

Encl: (1) SECNAV Certificate of Energy Conservation Achievement for Fiscal Year 1981

1. Enclosure (1) is forwarded in recognition of your command's high standing as a finalist in the Secretary of the Navy Energy Conservation Awards Program for Fiscal Year 1981.

2. On behalf of the Secretary of the Navy, I extend my heartiest congratulations and commend you and all members of your command for your outstanding accomplishment. Efficient energy management efforts provide our growing fleet greater flexibility and readiness, heightening our ability to respond wherever needed. Increases in energy productivity and reductions in energy waste should be accomplished in all phases of naval activity. Your strong energy management program resulting in impressive energy and dollar savings will serve as a positive example for all Navy personnel.



Gregory Catrambone works on a radar development problem at his desk.

## Catrambone Receives IED Award

Gregory P. Catrambone, of SATD, received this year's Outstanding Independent Exploratory Development Award for his work in the area of Electronic Counter Counter Measures (ECCM) Techniques for Air-to-Surface Tactical Radars. His efforts will reduce the vulnerability to jamming of air-to-surface tactical radars, especially those of the synthetic aperture type.

The synthetic aperture radar is a relatively new development scheduled to be installed on a number of aircraft platforms. An advantage to this type of radar is its ability to separate closely spaced targets at great ranges. This ability enables aircraft to stand-off at distances where they

cannot be engaged by hostile targets and still carry on the fight.

Jamming of course could negate the effectiveness of the radar. Two types of jamming were addressed by Catrambone. The first was jamming with "noise". "Noise" in this case is a signal that overpowers the radar signal and produces a fuzzy return. The second type of jamming involves producing false targets among which the real target can hide. Catrambone demonstrated that by using state-of-the-art signal processing techniques the noise and false images can be greatly reduced. These techniques now, before the synthetic aperture radar is in use, will reduce add on costs and allow for greater flex-

ibility in system design.

In addition to the work on radar Catrambone found that a side benefit of his exploration was the development of a technique to compensate for aircraft motion without using any on-board motion sensors. This becomes important where trying to differentiate between two or more closely spaced targets.

All through the program Catrambone was assisted by John Lee who developed software for the computer tests. Catrambone has been at NADC since 1970. He graduated from Case Western Reserve University with a BSEE and he has done graduate course work at Penn State.

### Energy Efforts:

## NADC Helps Navy Save

The uncertain availability and high cost of petroleum-based aircraft fuel are critical concerns of the Navy. NADC is conducting, under the sponsorship of the Navy Energy R&D Office, the Navy Aircraft Fuel Conservation RDT&E Program to reduce the fuel consumption per flight hour of current and future Navy and Marine aircraft.

Approximately 22 million barrels of fuel were used by Navy aircraft in fiscal year 1981. The NAVAIRDEVCON program has concentrated on high-fuel-consumption aircraft types which will be in the active inventory for at least 10 to 15 years. This cost-effective approach will result in the payback with fuel-savings dollars of the RDT&E and implementation costs of recommended aircraft modifications. Inputs and support by the fleet and the original aircraft designer/manufacture are emphasized.

The program approach consists of four paths being pursued simultaneously:

1. Identification and development of fuel management aids and procedures which can be applied to achieve fuel savings without adversely affecting aircrew or squadron readiness;
2. Airframe modification RDT&E on selected current inventory Navy aircraft;
3. Identification of energy efficient aircraft design concepts which can be applied to planned Navy aircraft; and
4. Identification and development of energy saving technologies and subsystems.

periments are aimed at achieving near-term fuel savings without adversely affecting aircrew or squadron readiness. Experimental data is currently being collected and analyzed.

A VA/VF Aircraft Ground Refueling Study was performed to identify operational improvements for current refueling methods at the Navy's major jet bases at NAS Miramar, NAS Oceana, and NAS Cecil Field. Results indicated that fuel savings are possible if most hot refueling can be replaced by truck refueling. Recommended changes in refueling procedures have been submitted to the Naval Air Systems Command, and a final report.

Several types of fuel management aids are being developed to make the job of saving fuel easier:

- Computer Assisted Mission Planning System (CAMPS);
- Pocket-Size Aircraft Performance Advisory Computer (P/S APAC); and
- Aircraft integrated Flight Performance Advisory/Management Systems (FPA/MS)

The goal of the CAMPS project is to demonstrate through total mission planning fuel savings which can be achieved using a desk-top computer.

### MODIFICATIONS TO EXISTING AIRCRAFT

Efforts have commenced on identifying aircraft modifications for fuel-efficiency pertaining to the F-4, P-3, A-6, A-7, A-4, F-14, E-2, C-130, S-3 and C-9 aircraft. As part of these efforts, the temporary removal of unused equipment for subsystems which are no longer being utilized is included to reduce weight and drag of these aircraft. The aerodynamic modifications are oriented toward drag clean-up or weight reduction in existing aircraft where typically ½ to 1 percent fuel savings is realized and the R&D investment is minimal.

As a result of preliminary investigations performed under the NADC program, the Naval Air Systems Command is currently pursuing engine improvements (Continued page 3)

### FUEL MANAGEMENT

A VP Fuel Conservation Experiment is being conducted with PATWING ELEVEN at NAS Jacksonville to identify fuel-saving measures which can be applied to the P-3 aircraft. A VS Fuel Conservation Experiment is being conducted with ASWWING ONE at NAS Cecil Field to identify fuel-saving measures which can be applied to the S-3 aircraft. Both ex-



THE VICE PRESIDENT  
WASHINGTON

October 6, 1982

Captain James B. Anderson, USN  
Commander, Naval Air Development Center  
Warminster, Pennsylvania 18974

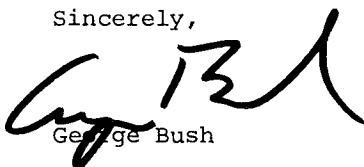
Dear Captain Anderson:

I want to thank you and the fine people of NADC for hosting a very interesting visit for me September 17th.

I appreciated the opportunity to tour some of your facilities and, most importantly, to meet with people who have done so much for their country at NADC. The plaque you kindly gave to me will hang proudly at my home in Maine.

With respect and thanks,

Sincerely,

  
George Bush

## The Reflector

Naval Air Development Center

The REFLECTOR is published monthly by the Public Affairs Office to inform Center personnel about topics of interest, and to promote the morale and general welfare of all concerned.

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CAPT James B. Anderson — Commander, NADC

Robert S. Buffum — Technical Director

Joseph P. Cody — Public Affairs Officer

David Polish — Editor



# New Library Titles

Following is a partial list of books recently added to the Technical Information Branch. Visit or call your library at X2541 to inquire about these books.

## PERIODICALS

D & B Reports, Dun and Bradstreet Publication. Bimonthly, July/August 1982.

Engineering Optimization, Gordon and Breach Science Publishers. 4/yr August 1982 v. 6 no. 1.

Trends & Perspectives in Signal Processing, Signal Processing Resources, Inc. Quarterly, June 1982 Special Issue.

## COMPUTER SCIENCE

"Application development without programmers" J. Martin QA76.6.M3613.

"Microcomputer experimentation with the Motorola MEK6800D2" L.A. Leventhal QA76.5.L488.

"Microcomputer operating systems" M. Dahmke QA76.6.D333.

"Microprocessors and microcomputers: hardware and software" R.J. Tocci QA76.5.T556 1982.

"Programming in ADA" J.G.P. Barnes QA76.73.A35B37.

"Starting FORTH: an introduction to the FORTH language and operating system for beginners and professionals" L. Brodie QA76.73.F24B76.

## INFORMATION PROCESSING

"The economics of information processing" QA76.9.E25E26.

"Fast fourier transform and convolution algorithms" H.J. Nussbaumer QA403.5.N87.

"Space-time information processing" A.A. Winder TK5101.Q5 1981.

## Employee Designs Winning Plane

NADC employee Terry Miller, of the Aircraft and Crew Systems Technology Directorate, has won an international award for his design of a custom-built aircraft.

Miller was awarded the Outstanding New Design for 1982 from the Experimental Aircraft Association, a 100,000 member international organization for aircraft enthusiasts. Four local awards were also given to Miller for the same design.

The aircraft association's award was for Miller's design of a two seat powered aircraft. The design of the plane is similar to Navy aircraft, Miller said, and utilizes modern technology in its construction, such as the use of riveting and bonded aluminum construction. Design plans for the

craft are being marketed by Miller.

A lighter and more streamlined design, is incorporated into the aircraft, which makes it a more efficient and faster craft than a comparable commercial aircraft.

Equipped with high lift and STOL (Short Take-Off and Landing) devices, the plane is also capable of taking off on a 1,000 foot runway. As a comparison, the runway at Doylestown Airport is 3,000 feet and the runway at NADC is over a mile long.

In addition to being more efficient, this design, which is home built, would cost several times less than a commercially bought craft. The building materials for the airframe would cost about \$2,500 and new engine would cost \$6,000

(a used engine would cost \$2,000 to \$3,000).

Thus, the total cost of building Miller's design would be \$6,500 to \$10,000, or about three times less than a comparable commercial craft.

Called the TM-5, a combination of Miller's initials and a 5 denote that the plane is Miller's fifth aircraft design, the plane took over five years to design and build and has been flown for about two years.

The first year of flying was basically test flying, Miller said. During initial flights the Federal Aviation Administration restricts where a newly designed home built craft can be flown in its first 25 hours of flying time.

For example, the craft may not be flown over houses or populated areas, he said. After the 25-hour period is successfully completed, the FAA then lifts these restrictions.

Having successfully flown through this 25-hour period, Miller said he has basically used his second year of flying for pleasure flying.

Besides the TM-5, Miller has also designed four other craft that have been flown. The first three craft were sail planes and the fourth a powered sail plane. His fifth design of the TM-5 is a fully powered airplane.

In addition to designing planes as a hobby, Miller also works in aircraft design at NADC. As a member of the Aero Analysis Division, Miller serves as project manager for the evaluation of the ECX, a large transport aircraft.

His work at the Center aided him in designing his own aircraft, Miller said, but likewise, designing his own aircraft has also aided in his work at the Center.

The work at the Center provided the opportunity to learn specialized technology, such as bonding and high lift devices, Miller said.

But, the designing his own aircraft, also provided him with a better understanding of systems engineering, which Miller said he was able to apply to his work at the Center.

craft, a fundamental analysis of operational mission utilization, design approach, and future technologies is considered to provide an assessment of the optimum fuel efficient configuration.

## ENERGY - SAVING TECHNOLOGIES/SUBSYSTEMS DEVELOPMENT

The aircraft energy-saving technologies/subsystems effort will identify, develop, and evaluate technologies and subsystems needed to support advanced air vehicle designs (year 2000+) and systems which promise significant reduction in the use of petroleum-derived energy. This effort includes definition and application of energy efficient air vehicle configurations, research and development of technologies for advanced systems and subsystems and mathematical methodology to evaluate future air vehicle configurations.

Examples of air vehicle configurations which may show promise for saving petroleum in the year 2000+ include:

- Electric Powered Aircraft
- Nuclear Powered Aircraft
- Advanced Lighter-Than-Air (LTA) Vehicles
- Long-Endurance Reconnaissance Remotely Piloted Vehicles (RPV's)

## (Energy Savings Continued)

for several aircraft. A low-fuel consumption replacement engine is being investigated for the P-3 aircraft. SFC improvements are being pursued for the TF-41 engine in the A-7 aircraft by replacing the turbine blades with improved-design blades to improve the low-pressure turbine efficiency. Improved fuel efficiency of the Pratt-Whitney J-52 engine used in the A-6 and TA-4/A-4 aircraft is being pursued through engine component modification.

## PLANNED AIRCRAFT DESIGN CONCEPTS

The objectives of this effort are finding affordable ways to save fuel for aircraft entering production and defining technology applications that can reduce fuel consumption in future aircraft developments. For example, aircraft such as the F/A-18, AV-8/B and VTX/TS are evaluated based on possible production modifications or Engineering Change Proposals (ECP's) that include high-payoff items to reduce fuel utilization over the life-cycle of the aircraft. These modifications include primarily weight and drag reduction items, subsystem modifications for power and/or weight reduction, and engine modifications for increased fuel efficiency. In the case of projected fleet air-

## MANCINELLI GETS BONUS



Dino Mancinelli (center), gets a SES bonus check from TD, Robert Buffum (left), and Captain James Anderson, Commander (right).

At a surprise gathering Dino Mancinelli, Director of the Aircraft and Crew Systems Technology Directorate, was awarded a Department of the Navy Senior Executive Bonus. Captain James B. Anderson said that the award was to recognize the many significant and long lasting contributions to excellence in management Mancinelli has made to the Naval Air Development during Center the last performance period.

During the time Mancinelli was considered for the award he served as the Associate Technical Director and the Director of ACSTD. He chaired the Center Management Group, the Independent Research and Independent Exploratory Development Advisory Board, and many other ad hoc

study groups. The success of the Center's EEO planning effort between the Deputy EEO Officer and the implementing departments and directorates was due in large part to Mancinelli's persuasive abilities. He brought about changes to the affirmative action planning cycle to make it compatible with the SES, MPS and BPAP goal setting. His contributions to effective resource utilization resulted in a better management environment at NADC.

Captain Anderson summed it up by saying that Mancinelli is the epitome of the federal manager: effective, persuasive, objective and knowledgeable, and deserving of recognition at the highest levels within the Federal Government.

## Super Safety at Home

By Mike Masington

The sounds of home improvement filled Warminster that bright and crisp autumn morning. Preparations for winter were being handled by hundreds of hard-working homeowners, but the otherwise tranquil fall air was frequently pierced by the anguished scream from another injured do-it-yourselfer. It was these cries of distress that attracted the helpful hero of hapless homeowners, Super Safety, to the rescue.

Hap Hazard, self appointed spokesman for the hastily assembled welcoming committee, asked the masked mentor of manual machinations the purpose of his appearance.

"In the last 15 minutes," answered the hooded hazard hater, "I've witnessed enough grossly unsafe acts to give the entire staff of the National Safety Council a massive coronary."

"What do you mean?", murmured the milling mob.

"Well first of all," began Super, "I've seen you people attempt stunts on ladders that would make the Walendas faint. Ladders are designed to help you perform work at heights, not act as launch sites for fledgling kamikazes. Before climbing a ladder make sure it is in good condition, and is resting on a stable footing. In addition, remember the base of your ladder should be away from the wall a distance equal to 1/4 the ladder length. And how many of you have been installing fiberglass insulation?", continued the popular proponent of protection. Several members of the group (clearly distinguishable by red, blotchy skin and incessant

itching) painfully raised their hands. "Anytime you work with insulation you should protect as much of your body as possible especially your eyes and hands. Fiberglass can create thousands of tiny cuts so that unprotected skin takes on the consistency of shredded wheat. Also, a dust mask is necessary to keep the irritating fibers out of your throat." Numerous members of the audience coughed in agreement.

"For those of you working on your heating systems, carefully follow instructions for proper cleaning and maintenance, and if you have problems call in an expert. The money you spend on professional help will be more than returned in safety and efficiency."

"Finally," concluded the purveyor of protection, "those of you who plan to burn the leaves you've raked up should first check local ordinances to see if it is permitted. If it is legal, burn a small amount at a time in an isolated area, and only when there is little wind. It's also a good idea to keep your garden hose ready in case things get out of control, otherwise you might be treated to the thrill of watching your local fire department in action."

Spontaneous applause erupted from the grateful group as Super Safety jauntily waved goodbye (hoping that no one had noticed him inadvertently stick his foot into an open can of housepaint). Trailing a stream of Glidden's Catamaran Blue (shade #107) behind him, the sterling standard of safety flew off to spread his message of safety throughout the land.

# Commander Salutes

Major James Keane, USMC, and Ferdinand Reetz, SATD, both for their presentations on Passive Night Goggles given to Squadron Leader Geoff Peck.

PR1 Jaime Montero, AME2 John F. Harris and PR2 John M. Harpersberger, all from the Aircraft Department, for their assistance during a tour by the NJROTC Perth Amboy High School visit.

CDR Arthur H. Collier, LCDR Thomas C. Alley, ATC William E. Eisenhower, AW1 Richard S. Browne, AW1 John Lips, AW2 Richard Moler, AWCS Christopher T. Kaiser, AW1 Brian Powell, AW1 Dennis DePriest, AW1 Michael McNamara, AW2 Mark McQuilling, Mr. John B. Wrigley, Thomas B. Merkel and Franz Bohn, all of DCP, also James J. Bowdren, SCD, and John R. Rawley, SD, all for their efforts in completing the P-3C Update II Training program for Japan.

Walter J. Schoppe, CNTD, for his support given to the IEEE.

AD1 Virgil A. Vanhorn, for his assistance to the Naval Reserve Training Unit NADC Warminster 0193.

CDR D.G. Smith, for his briefings to the Brooklyn Coast Guard Air Station.

Dorothy J. Kirkpatrick, CP, for her assistance to a former government employee.

Theodore Kopp, DCP, for his assistance to COMPATWING

ELEVEN in solving a software problem.

Public Works, all those who participated in the support of the Evangelical Manor Festival of the Arts.

Thomas G. Jadico, DCP, for his support given to the S-3 project.

Edwin F. McGlynn and John T. McGlone, both of ACSTD, for their engineering support on the Improved Multiple Ejector Rack/Improved Triple Ejector Rack.

Dr. Rudolf A. Stampfl, for performance as Vice Chairman of the 1982 IEEE U.S. Technological Policy Conference.

Michael L. Wolfe, Comp-troller, for his assistance to NAVMAT staff during the NIF budget reviews.

Carl F. Frey, SCD, for his support to the JTIDS Source Selection Evaluation Board.

Michael M. Kijesky, SATD, for his contributions to the PM-4 Special Project.

LCDR Thomas C. Alley, AT1 Robert Cook, AW1 Richard Browne and AW1 Brian Powell, all of DCP, for their briefings on the P-3C Update III Program given at the Naval Air Technical Training Center.

Bernard Goodrich, Computer Department, and Raymond K. Satterfield, TSD, both for their participation as Explorer Post Advisors.

## Girl Scout Leaders Needed

By Jeannie Beans

More and more men and women of all backgrounds are sharing their time with Girl Scouting. However still more are needed to carry on this valuable service to our female youth.

Mrs. Diane Heal of the Small Business Office was a Girl Scout Leader for 8 years in the Bucks County and Philadelphia areas. She supervised Junior and Cadett scouts ranging in age from 9-13 years old. Diane herself had been a scout since she was ten years old and says if you enjoy working with children and would like to spend more time outdoors then being a Girl Scout leader might be for you. She views being a Girl Scout volunteer as an opportunity to help young girls grow into self-sufficient women.

Mrs. Diane Gould in the Accounting Office has been a leader for the past year and is starting her second year as a brownie leader in the Warminster area. She finds working with these 7 and 8 year old girls very rewarding and derives great personal satisfaction from their individual enjoyment. She feels she is teaching them important values such as sisterhood, courtesy and charity and some basic concepts regarding outdoor skills and safety as they learn to get along well with each other and function within the community.

It is not necessary to devote a full year to troop leadership. Adults can act as a consultant to a committee or just share an interest

with a troop. Whether for a few hours or a full year, adult volunteers find the time they contribute both fun and rewarding.

For more information contact the Freedom Valley Girl Scout Council, P.O. Box 814, Valley Forge PA 19482, (215) 666-6141 or the Bucks County Field Office, 56 Richboro Road, Richboro, PA 18954, (215) 322-9190.

## Cruise Planned

NADC Welfare and Recreation Association would like to invite retirees to sail with us to Bermuda on the SS CARNIVALE. We will sail from the Port of Philadelphia on May 10th 1983. It will dock at Hamilton, Bermuda for two days. While in Bermuda, the ship will be our hotel, restaurant (at least 8 feedings per day) and entertainment center. Cabin prices start at \$745.00 per person, double occupancy, less for 3rd and 4th person in room. Call Ida on 441-2451 to make your reservation.

## Subjects Wanted

The centrifuge testing program is now accepting applications from qualified personnel to participate in the newest research project headed by LCDR White. If interested, please contact HMCS Miller or HMC Donnan at ext-2949, 2715.

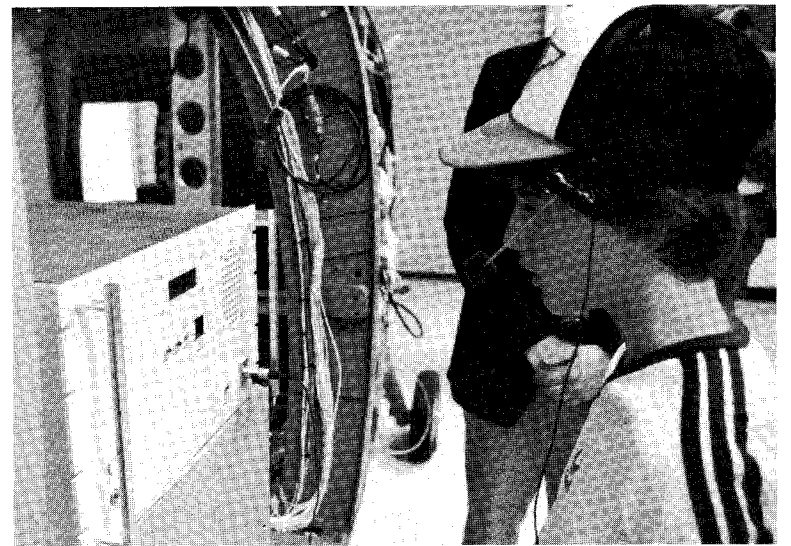
# This System Talks Back to You

Under sponsorship of NAV-AIRSYSCOM the Naval Air Development Center, conducted a program for the development of an Aircraft Speech Interviewer (ASI) which could be utilized to demonstrate the feasibility of applying emerging speech recognition and synthesis technology to avionics systems for purposes of system check-out and the establishment of overall system readiness.

The avionics "Ask and Tell" demonstration was conducted at Aerospatiale Helicopter Corporation, Grand Prairie, Texas, on September 8, 1982. With the cooperation of the U.S. Coast Guard, the HH-65A Short Range Recovery (SRR) Helicopter Avionics System was utilized as a sample test system, representative of contemporary avionics system architecture.

The ASI was developed under contract to Rockwell International, Collins Division, who is also the avionics system integrator of the HH-65A.

The ASI allows the operator to voice command the on-board



Paul DeSipio, son of NADC engineer Richard DeSipio, asks the "Ask and Tell" about it's status.

Built-In-Test (BIT) and diagnostic system to initiate equipment/system routines, which in turn provide response information indicating equipment/system status.

The ASI development and subsequent demonstration was aimed at providing a simple means for avionics system check-out and readiness. The demonstration clearly indicated that we can

exploit existing and emerging technologies in such a manner that we need not be victims of modern avionics complexity, but rather the benefactor. Additionally, avionics system designers can capture the trends of the times by applying imaginative and innovative concepts knowing that the technological youth of today will be the pilots and ground crews of tomorrow.

## R/C Club Flies High

by W. Leyland

You probably know about the Wright Brothers and their contribution to aviation. but have you heard of the Good Brothers? These brothers, Walter and William Good, are credited with flying the first radio controlled model aircraft. Since that time in 1935, radio control model aviation has grown significantly in the number of persons involved in this hobby-sport. NADC is no exception!

The NADC R/C Society, more affectionately known as the Glue Angels, maintains a roster of 30 members. These members build

and fly various types of aircraft including gliders, single or bi-wing airplanes, and helicopters. On most weekends you will find several members boring holes in the sky behind the BEQ.

For this current year club officers include Edward Reidinger, President; LCDR Frank Piazza, Vice President and Walter Leyland, Treasurer. Meetings are held on the third Monday of each month in the Orion Conference Room at 1930. Each meeting includes a presentation involving an aspect of construction, radio or engines. Those of you who are interested, come join us!

## Grey and Eisenhower win: Toastmasters Select Best Speakers

by Robert Hayes

Rebecca Gray (0412) won the Best Speaker Award at the Annual Humorous Speech Contest sponsored by the NADC Toastmasters Club. The title of the speech was "Name that Game" which was a fictional account of great sports figures playing the game of horse racing.

During the contest the Best Table Topic (Impromptu) Speaker Award was given to Bill Eisenhower (SDC). Both Gray and Eisenhower will represent the club at the Toastmasters Area Contest held in October. They will be competing against contestants from three other Toastmaster Clubs for the titles of Best Area

Humorous Speaker and Best Area Table Topic Speaker.

Anyone interested in improving their public speaking and general communications skills can contact the Club's President, Rockne Anderson X3231. Bi-monthly meeting announcements are published in the Daily Log.

### DEPARTMENT OF THE NAVY

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# The Reflector

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November 1982

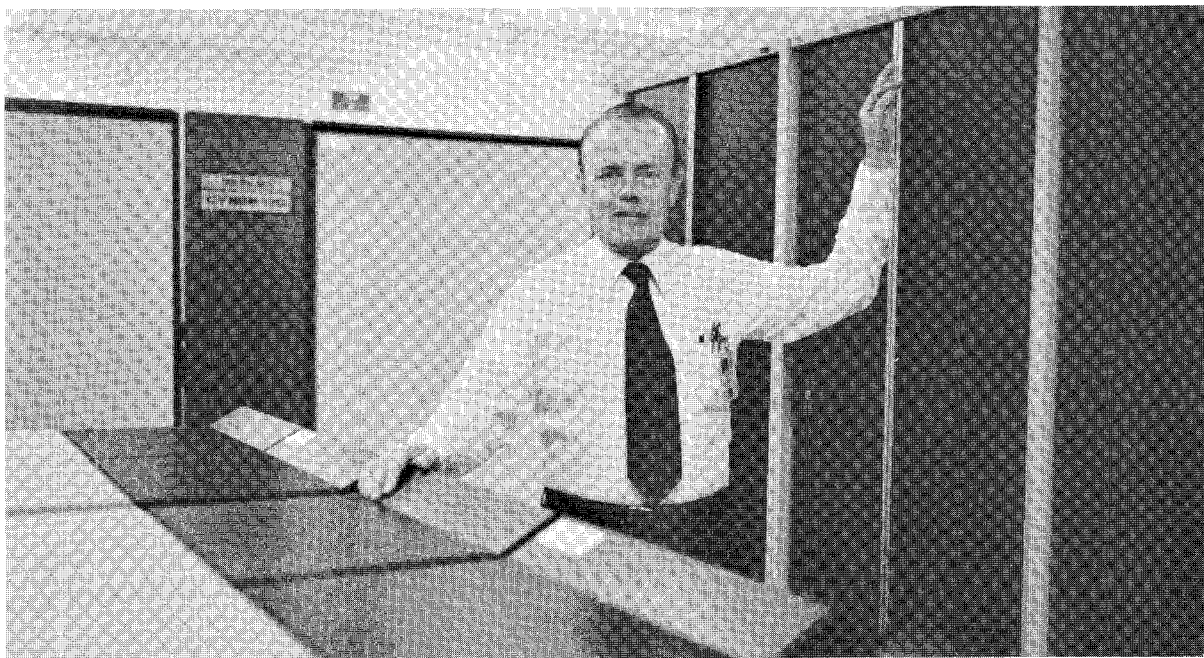
## *Tremblay Receives 1982 NCAA Ralph S. Barnaby Award*

Harold G. Tremblay, Head of the Computer Department, has been honored with the 1982 Barnaby Award for his outstanding managerial and technical accomplishments. The Barnaby Award is given each year by the NADC chapter of the Naval Civilian Administrators Association.

Tremblay has guided the evolution of the Naval Air Development Center Central Computer System from an analogue computer laboratory in the 1950's and 1960's to one of, if not the, finest and most powerful scientific and engineering computer facilities in the country, servicing the Navy nationwide. So advanced are the Central Computer System's scientific, engineering, real-time simulations and life cycle support capabilities that over 30 Navy and Government activities and over 50 Navy contractors use this Center's Central Computer System for work that is beyond the capabilities of their own computers.

His outstanding contributions have not been limited to the Naval Air Development Center environment. As a senior member of the Navy Laboratory Computing Committee, and through membership on the Department of Defense Automatic Data Processing (ADP) Career Development Panel, Navy Laboratory Computer Network and other interlaboratory committees, he has played a major role in shaping ADP policy and instructions for the benefit of the Navy Laboratory Community.

During his years of representing the Center and the Navy Laboratory Committee in Washington on ADP matters, he has earned a reputation as a man of vision tempered with realism. So respected in his managerial and technical expertise that many of the ADP procedures, instructions and techniques developed under his guidance are used as standards for the rest of the laboratories.



Hal Tremblay stands with part of NADC's Central Processing Unit.

## **New Travel Regulations Speed the Process**

Travel is a word that we have been hearing a lot about lately. Recent guidelines have been issued to help speed up the process of cutting orders and getting claims processed. According to Jim White, Deputy Comptroller, the new guidelines are designed to make the whole process equitable.

White stated that, the procedures for auditing travel claims

have been tightened up to give the Disbursing Office the tools they need to administer the travel program. The elimination of fraud, waste and mis-management are the goals of the new guidelines. NADC processes over 13,000 travel claims per year. Each claim goes through four steps; cutting the orders, arranging for an advance, processing the claim after the travel takes place and paying

the traveler for any out of pocket expenses or paying back the government any monies that are left over. With each claim being turned over four times that's a mountain of paperwork.

The two major changes in the travel system involve the amount of advance money a traveler gets and how that money is to be spent

*(Continued on page 2)*



## **Center Employee Assistance Program Recognized**

NADC has been honored by the Bucks County Council on Alcoholism as an outstanding example of how an employee assistance program can benefit not only the employees and their employer but the families as well. According to Maureen Marron, NADC's Employee Assistance Program Administrator, the Center saw that an in-house program was not entirely effective. Because of a perceived possibility that an in-house program lacked the needed confidentiality and the workers family could not be included in the counseling, an outside service was viewed as the best solution to the Employee Assistance Program.

BEACON which is a multi-faceted counseling and referral service group with offices in Doylestown and Bristol was selected to participate in the NADC program.

"BEACON can help employees not only with alcohol problems but also with emotional, legal, financial, marital, drug and family problems. BEACON has the contacts to refer employees for professional

help in areas that range from divorce and single parenting to stress, burnout and mid-life crisis," Marron said.

All this is done on a confidential basis, Marron stressed. In addition BEACON has set up training courses for management people so they can help guide their employees in resolving their problems.

This year the military was brought under the terms of the BEACON contract. Marron explained that NADC is one of the first government organizations to have this kind of employee assistance contract and other agencies are looking to the Center as a leader in the field. It is for the entire program of employee assistance that NADC received the Distinguished Service Award from the Council on Alcoholism but the real rewards go to the NADC employees and their families.

If any employees have any further questions about the services provided feel free to call Maureen Marron ext. 3079 or Beacon 345-857 or 757-1561



Maureen Marron, LT, and Captain James Sheehan accept the Bucks County Council on Alcoholism Award

## Editorial: Dining Pleasures

Noticed any changes lately? If you have been frequenting the cafeteria changes are abounding. Take for instance the new tables and chairs. Pretty nice! How about those free donuts and the free coffee given to employees recently. Great! The new drapes sure change the atmosphere. There's more in the works, more to make the cafeteria a pleasant place to eat. Things like new trays and air conditioning. The people of the Food Services Board are

doing a terrific job of improving the quality of the way the cafeteria looks and the contractor, Macke, is doing a great job on the variety and quality of the food being served.

This Thanksgiving a special meal was served. The cost to Center employees was only \$2.00, half what the meal really costs. The Food Services Board covered the other half and Macke is paying the tax. A great deal from a great group of people.

## Outstanding Women Cited



Thomas Brennan, Deputy TD, left, stands with Barbara Kempf, Mickie DiPasquo and Capt. James Sheehan, Chief Staff, at the Awards Luncheon.

For the first time NADC's Federal Womens Program has established an award for the Outstanding Women of the Year. Honors were given to Barbara Kempf and Mickie DiPasquo. The awards were based on how they best promoted and demonstrated the goals of Today's Women in the work force and in the community.

Barbara Kempf, a Management Assistant, became very active in expanding the training program for administrative and clerical personnel at NADC. She

started classes in correspondence policy and held quarterly meetings for Directorate, Staff and Department Head Secretaries.

Kempf is also Chairperson of the Administrative Womens Working Group and a member of the Womens Advisory Group of Federally Employed Women. Several seminars on Stress Management and Secretarial Skills have been organized by Kempf. Currently she is a Business Major at Bucks County

(Continued on page 3)

## Letter to the Editor: Bikers Need Space

Dear Editor,

During "Energy Conservation Week" I read with interest the many things the Center is doing to conserve fuel. Along with these direct savings the Center can also help indirectly to conserve additional energy by supporting alternative means for commuting to and from work. For the past eight years I have been using my bicycle for about 85 percent of my commuting. Several other employees do the same. Bicycling to and from work saves me about five gallons of gas per week. Over a period of a year it is possible for me to save at least 210 gallons of gas. Depending on the distance ridden by others, commensurate amounts of fuel could be saved. However, pedaling to work represents only a small part of the challenge. Once you are here, the challenge is to wash up in a suitable facility and park the bicycle in a safe secure area. In this

regard, I feel the Center could help. For the past five years I have been on a waiting list for a locker in the Public Works washroom. It was recently announced that no new lockers will be issued to those employees outside the Public Works Department, so much for the five years waiting for a locker. Also, a bike rack is provided in Building 1 near COL H-24 for bike parking. Unfortunately this space is also used for truck parking, scrap metal dumping, and stowage of abandoned floor washing equipment. On several occasions I have found my bike, as well as others, carelessly pushed aside and hanging only by the chain used to secure it to the rack. It appeared that this was done to allow for the passage of a dumpster or truck. Also, components have been stolen from many of the bikes parked in this area. This year I lost a pump, tool kit, water bottle and bungee straps. The loss

## Corkscrew King

Don Morway and some of the antique corkscrews that he has collected. Several are worth hundreds of dollars.



Don Morway of CNTD has a real "corker" of a hobby, he collects corkscrews. OK, so he collects corkscrews. Everybody is entitled to a little eccentricity in their lives, right! Well Morway isn't the only one who participates in such a hobby. In a recent article published on the front page of the Wall Street Journal a description of a world-wide group of corkscrew collectors was printed. The

International Correspondence of Corkscrew Addicts (ICCA) has as its members, lawyers, doctors, educators, executives and even a monk.

These guys are really serious about their obsession. Recently a member paid \$4,600 for a corkscrew at an auction held in London. They comb antique stores, flea markets and garage sales looking for that rare or unusual

corkscrew.

The 50 member ICCA chose Morway as its new chief officer this year. He will preside over meetings where addicts swap stories and auction corkscrews amongst themselves. If you think this story is a little screwy just hold on, there is a waiting list with 10 people just chomping at the bit to join.

## CHAMPUS Implements New Policy

Deputy Secretary of Defense Frank C. Carlucci announced on 10 November that the Department of Defense has instituted several cost reduction initiatives in the civilian health and medical program of the uniformed services (CHAMPUS) to provide better use of the department's health care dollars.

He said the overall thrust of the new initiatives will be to reduce the use of civilian medical facilities by military families who reside within 40 miles of a military hospital and preserve CHAMPUS benefits for those families who live too far away to use military hospitals.

Certain cost-saving measures such as tightening up on the non-availability statements have

already gone into effect. These statements are required before families, who live within 40 miles of military hospitals, can get non-emergency inpatient care in civilian hospitals, and will only be issued when the needed care cannot be provided by the military hospital.

The following new initiatives

will be implemented, with some starting January 1, 1983 and others being phased in over the next two years:

ZIP CODES TO DETERMINE NON-AVAILABILITY STATEMENT REQUIREMENT. The zones around all military hospitals, within which residents must get non-avail-

(Continued on page 3)

(Travel from page 1)

on meals. Now a person on travel will get 80% of the per diem money allowed for the area they are visiting. This payment will cause people to think twice about how that money is to be spent during travel. It will also help the Disbursing people process all orders because there are no exceptions to the rule. More than not the 80% guidelines will result in a payment by Uncle Sam to the traveler after the claim has been filed, but the out of pocket expenses should be lower because people will be less likely to dig into their own pocket for extra money. The amounts spent on meals will be looked at closely. Of the total advance given to a traveler 39% is to be spent on meals. That breaks

down as follows; 8% for breakfast, 10% for lunches and 21% for dinners. The Disbursing has a list of what the average cost of meals are in the areas NADC people travel to so they can check the claims for accuracy.

It should be stressed that these guidelines are not designed to hurt the person on travel. They were instituted to streamline the system and make it equitable, White stressed. A visible result of this is that the turn around time to process claims has been reduced from six weeks to two weeks. These changes may mean a little more work for someone who travels but it should reduce the waiting for payments and the headaches that used to be involved with traveling.

## The Reflector

Naval Air Development Center

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Robert S. Buffum — Technical Director

Joseph P. Cody — Public Affairs Officer

David Polish — Editor

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ALVIN SPECTOR



# Wright Letter Read

Captain Ralph S. Barnaby the Commander of the Naval Air Development Center revealed a piece of aviation history to the crowd recently gathered at the annual NCAA Barnaby Luncheon. A letter that had been written by Bishop Milton Wright had come to his attention. This letter chronicled the flights of Bishop Wright's sons, the now popular Wright Brothers, Orville and Wilbur.

The letter written by the elder Wright to a friend in New Jersey states that "Their experiments have been in circular flights in a large level field (that of Torrence Huffman) eight miles north-east of this city. They start on the level field, and rise by engine power alone, driven by screw-propellers. With no gas bag attachment, their flight is like that of a soaring bird, and at a speed of nearly forty miles per hour". What makes this quote important, according to Captain Barnaby, is that a Frenchman named Henri Farman is commonly recognized as the first to fly in a circle on January 13, 1908. There does exist other accounts of the Wright's circular feats but this was the first time this letter was

ever read in public. During the early tests conducted by the Brothers they became skeptical of the press and shunned their presences and as a result their accomplishments were not widely known. Although they did publish patents in Europe their work was not recognized until 1908. For that reason the feat of flying in a circle was attributed to the French. The letter that Captain Barnaby read clearly seems to contradict the popular belief that the French flew the circle first.

Captain Barnaby, who is retired, knew the Wright Brothers personally and holds the first glider pilots license ever issued, a license that was signed by Orville Wright. He is currently serving as curator to the Wright Brothers Collection at the Franklin Institute in Philadelphia.

(Women continued)

Community College and is taking courses in computer programming at a private school.

The other award winner, Mickie DiPasquo, has been very active in the Center's EEO program. She has served as a member of the Communication and Navigation Technology Directorate's EEO Committee, chaired that committee for two and a half years and she has participated on the Center's EEO Committee for two years. In addition DiPasquo has been a member of the Womens' Advisory Group and helped get the Technical Womens' Organization off the ground. Recently DiPasquo has assisted in teaching Sexual Harassment Prevention courses on Center. As an Electronics Engineer she has lectured on working women and travelled to recruit students from various colleges.

Details on this initiative will be released at a later date.

STUDY OF CAPS ON CHAMPUS USE IN FOUR CITIES. The cost saving implications of limiting the use of CHAMPUS funds will be studied in the zones around the military hospitals in Denver, Seattle, San Francisco, and San Antonio. Under this study, limits will be set on the number of non-availability statements for which CHAMPUS funds would be used. It is important to note that the study will not limit the availability of necessary civilian or military care to beneficiaries, rather it will examine alternative ways to pay for the civilian care.

NATIONAL GOALS SET TO REDUCE NON-AVAILABILITY STATEMENTS. Each military service will set goals for reducing the number of non-availability statements issued by military hospitals in fiscal year 1983.



Runners get ready for the Warminster Rotary 10,000 meter race

# Super Safety Averts Battery Blast

by Mike Masington

Leo Lowbrow, collector of erotic hood ornaments and former senior QA inspector for Skylab space suits, was late for his new job at the tuna cannery. Shivering in the wintery cold, Leo jumped into his faithful '59 Nash, turned the key, and waited anxiously for the seething stamina of the sizzling six cylinders to roar to life. Unfortunately, the potent pulsation of power he expected had been replaced by ominous silence. Continued tries at starting revealed that the battery had quietly passed away during the night.

Maintaining his usual serene demeanor, Leo calmly exited the vehicle, kicked in the left front fender, bit off the aerial, punched in the grill and uttered some colorful phrases that made two passing longshoremen faint. To add to his frothing frustration, the literally livid Lowbrow now had the pleasure of pushing his cantankerous tank 347 feet to the highway before he could even think about using his jumper cables.

After completing this Herculean task, Leo employed some techniques from the Attila the Hun School of Charm to convince his reluctant neighbor, Marvin Muchclutch, to aid him.

As he lit a cigarette to ward off the morning chill, Leo lined up his friend's car with his own and opened the hoods. He then proceeded to attach one end of each cable to his dead battery, and then went to Marvin's car to complete the connection. Though he peered at Muchclutch's battery as closely as his cigarette would allow. Leo couldn't determine which terminal was which.

"Hey Marv, what side's your positive terminal on?" asked Lowbrow.

"Ah, I think it's the one nearest the fender," answered the unsure Muchclutch.

Acting on this dubious data, Leo was about to attach the cable clamps when an authoritative voice called out, "Stop, you idiot." The voice of course belonged to none other than that majestic master of automotive maintenance, Super Safety.

"What are you trying to do?" snapped the safety scion as he snatched the cigarette from Leo's lips. "Don't you know that an auto battery produces highly explosive hydrogen gas? The light from this cigarette or a stray spark could guarantee you simultaneous arrivals in Minneapolis, Cleveland and

downtown Camden. Anytime you jump a battery, remove the vent caps of both batteries and while standing well away blow gently across them to disperse the gas. After that, make sure which is the positive and which is the negative terminal on each battery, and then hook up the positive terminals. Once these are connected, carefully attach one end of the second jumper to the negative terminal of the booster battery and the other end to the engine block or frame of the stalled car. Check to make sure the connections are correct, start the stalled car, remove the cables in the reverse order, and replace the caps."

Under Super's watchful eye, the procedure continued with no further problems, and the Nash cranked over without hesitation. "By the way Leo," concluded the popular proponent of protection, "from now on park your car with the front end toward the street so you can jump it in place and you won't have to push it next time." Due to a combination of the cold and his recent exertions, Lowbrow's back had assumed the configuration of an enormous pretzel, allowing him to only groan in agreement.

# How C-C-C-Cold Is It...?

| Wind Chill Table     |    |   |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |     |     |
|----------------------|----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|-----|-----|
| Degrees (Fahrenheit) |    | Source: National Oceanic and Atmospheric Administration   |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |     |     |
|                      |    | Wind Chill Index: (Equivalent temperature) Equivalent in cooling power on exposed flesh under calm conditions |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |     |     |
| Wind MPH             |    | 0   | 35  | 30  | 25  | 20  | 15  | 10  | 5   | 0   | -5  | -10 | -15 | -20  | -25  | -30  | -35  | -40 | -45 |
| 5                    | 33 | 27  | 21  | 16  | 12  | 7   | 1   | -6  | -11 | -15 | -20 | -26 | -31 | -35  | -41  | -47  | -54  |     |     |
| 10                   | 21 | 16  | 9   | 2   | -2  | -9  | -15 | -22 | -27 | -31 | -38 | -45 | -52 | -58  | -64  | -70  | -77  |     |     |
| 15                   | 16 | 11  | 1   | -6  | -11 | -18 | -25 | -33 | -40 | -45 | -51 | -60 | -65 | -70  | -78  | -85  | -90  |     |     |
| 20                   | 12 | 3   | -4  | -9  | -17 | -24 | -32 | -40 | -46 | -52 | -60 | -68 | -76 | -81  | -88  | -96  | -103 |     |     |
| 25                   | 7  | 0   | -7  | -15 | -22 | -29 | -37 | -45 | -52 | -58 | -67 | -75 | -83 | -89  | -96  | -104 | -112 |     |     |
| 30                   | 5  | -2  | -11 | -18 | -26 | -33 | -41 | -49 | -56 | -63 | -70 | -78 | -87 | -94  | -101 | -109 | -117 |     |     |
| 35                   | 3  | -4  | -13 | -20 | -27 | -35 | -43 | -52 | -60 | -67 | -72 | -83 | -90 | -98  | -105 | -113 | -123 |     |     |
| 40                   | 1  | -4  | -15 | -22 | -29 | -36 | -45 | -54 | -62 | -69 | -76 | -87 | -94 | -101 | -107 | -116 | -128 |     |     |
| 45                   | 1  | -6  | -17 | -24 | -31 | -38 | -46 | -54 | -63 | -70 | -78 | -87 | -94 | -101 | -108 | -118 | -128 |     |     |
| 50                   | 0  | -7  | -17 | -24 | -31 | -38 | -47 | -56 | -63 | -70 | -79 | -88 | -96 | -103 | -110 | -120 | -128 |     |     |

(Wind speeds greater than 40 mph have little additional chilling effect.)

How Cold is Cold? Both temperature and wind affect the heat loss from the surface of the body. The effect of these two factors is expressed as an "equivalent temperature," which approximates the still-air temperature which would have the same cooling effect as the wind and temperature combination. For example, from the table above, with a temperature of 20°F. and a wind of 20 mph the effect on exposed flesh is the same as -9°F. with no wind.

## Commander Salutes

LCDR Mark K. Frye, DCP, for his service as the Casualty Assistance Calls Officer.

Michael J. Caddy, ACSTD, for his assistance to the Naval Air Systems Command in generating software for the Tactical Manual Project.

Alfreda Larkin, EEO, for her administrative support given to the Naval Civilian Personnel Command, Northern Field Division, during a recent investigation.

LCDR John J. Walters, DCP, for his support to the Chief of Naval Operations Executive Board for the tactical air reconnaissance system program.

Henry Stuebing, SCD, for his

efforts as member of the Naval Material Command's Software Engineering Environment Working Group.

William L. Hicklin, SATD, for his briefings given to senior Canadian officers on Aircraft Combat Survivability.

Aron J. Davidson, TD, LT Robert B. Bowling, DCP, and Joseph P. Cody, Jr. all for their assistance during a visit by the U.S. Naval Test Pilot School.

Jacqueline Benner, TSD, and James Dunn, PAR, both for their efforts in making Energy Awareness Week a success.

All Center employees who participated in the preparation and arrangements for the visit of Vice President George Bush.

### Tuition Assistance for Military

WASHINGTON (NES) . . . Tuition assistance was reinstated Oct. 1, 1982. Commencing fiscal year 1983, the Navy resumed the authorized tuition assistance program level of 90 percent for enlisted members E-5 or above with less than 14 years of service; 75 percent for other enlisted and all officers for post-secondary studies; and 100 percent for personnel enrolled in high school completion courses.

In May 1982, Navy tuition assistance funding was reduced to 50 percent for all hands because of a significant increase in the number of people participating in the program and because of an increase in tuition charges. This restores the tuition assistance program to its former level.

—USN—

## Close Look

With more than \$200 billion in Defense contracts coming up this year, a special unit has been set up to investigate and prosecute major fraud and corruption cases affecting procurement, Secretary of Defense Caspar W. Weinberger announced September 24.

The unit will initially be staffed by attorneys and investigators from the Department of Justice who will work with their counterparts from the Department of Defense. It will focus on those Defense cases which represent significant dollar losses or involve wide-scale procurement abuses. Officials will seek to expedite the filing of both criminal indictments and civil complaints in difficult procurement cases which often have not received priority attention in the past.

Secretary Weinberger noted that creation of the unit is a clear indication of the Administration's serious intention to eliminate fraud and waste within the Department.

### Promotions

Gregory Askew, Nancy Ballew, Mary Borkowski, Regina Beans, Jaime Clavell, Robert Geyer, Thomas Gould, William Hensy, Anthony Lee, Elizabeth Mauger, Beverly Neidert, Stephen Pfeiffer, John Porter, Kathleen Quinn, Jeremy Robinson, Geoffrey Robson, Doris Schieber, William Spinelle, Bettie Simpson, Kathleen Smith, Rosemary Watts.

### Check Your Check

Medicare is on the way. As federal employees we will be included in the Medicare program as of 1 January 1983. At that time 1.3% of our paychecks up to \$32,400 will be taxed for Medicare coverage. Federal employees will be credited with up to 10 years of coverage depending on the amount of service they already have. Retirements in the month of January should not be affected by this coverage but a determination on how much one needs to work in the calendar year 1983 has not been firmed up. For further information call the employee Relations Branch of Civilian Personnel X3079.

## Sing Out

If you're interested in singing in a choral group then NADC has something for you. A group of dedicated singers are now practicing for a holiday music program to be presented during the week of 13 December. Anyone be they contractors, military or civilians can become part of this program. They practice in the basement of building #2 at column 2P11 starting at 1130 on Monday and Wednesday. If you're in the holiday spirit contact Joe Kaszupski X2401 or John Hunt X2377 for further details.

## Clean Cool, Save Fuel

According to a University of Georgia study, if everyone in the U.S. washed clothes in warm or cold water, the national fuel sav-

ings would equal about 100,000 barrels of oil a day. That's 2 1/2 percent of the total demand for oil used in residential heating.



Nashville here they come. This group of travelers went down to the World's Fair on a W&R sponsored trip.

## Library Has These Titles and More

### NEW TITLES

Following is a partial list of books recently added to the Technical Information Branch. Visit or call your library at x2541 to inquire about these books.

### PERIODICALS

Computer Security Journal, Computer Security Institute. Published twice each year, Winter 1982.

### COMPUTER SCIENCE

"Computer graphics primer" M. Waite TK85.W33.

"How to make displays legible" D. A. Shurtleff TK782.16S58x.

"HP-85/83 basic statement summary" N.R. Dotti QA76.5.D674.

"International microcomputer software directory" QA76.6.15.

"Microcomputer dictionary" C. J. Sippl TK7885.A2S56 1981.

"Commodore software encyclopedia" QA76.C6.

"Data base management systems" L. J. Cohen QA76.C534 1978.

"Digital computer basics" U.S. Naval Education and Training Command QA76.5.U6.

"Introduction to computers and data processing" G. B. Shelly QA76.S512.

"Magnetic bubble technology" A. H. Eschenfelder TK7872.-M24E83. 1981.

### MATERIALS SCIENCE

"Fracture and failure: analyses, mechanisms, and applications" 1980 Western Metal and Tool Exposition and Conference TA460.FD68.

"EMI control methodology and procedures" D. R. J. White TK153.W22.

"Lectures on computational methods in electromagnetics" QC760.L3.

## NADC Personnel Fly Over the North Pole for Tests

The Inertial Navigation Branch of the Sensors and Avionics Technology Directorate is charged with developing advanced air navigation systems for the Navy. As a part of that mission a group from NADC recently flew up to Alaska for an important series of tests. The program was designed to evaluate the performance of an advanced strap-down ring laser gyro navigation system.

Chyau Shen from SATD explained that the Alaska flight was to test the system in a high latitude environment, as a navigation system approaches the pole area its performance deteriorates, Shen said. A YP3-C aircraft from NADC flew to Eielson Air Force Base in Alaska. Several alignment tests had to be performed on the ground. These tests involved having the aircraft turned to either a true North or True West heading. The data from the ring laser

system was compared with the aircraft's own inertial system. After a series of ground alignments several flights were made in the Eielson area. These flights lasted for about three hours. Each flight program was designed to pass over known navigation points so readings could be compared for accuracy.

The final validation flight involved a ten hour mission over the North Pole. Test results indicated that the ring laser system worked as predicted and that further improvements by the builder, Singer Kearfott, increase the ring laser's reliability and accuracy.

Shen stated that all objectives of the ring laser tests were met and that a special thanks be extended to AD1 G Matthews and the rest of the crew for working under, at times, adverse conditions to get the aircraft ready to fly.

### DEPARTMENT OF THE NAVY

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# The Reflector

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December 1982

## NADC's Handicapped Program Honored by City of Philadelphia

The Mayor of Philadelphia, William Green, announced by proclamation that NADC has made truly outstanding efforts in hiring the handicapped and providing meaningful employment for them. NADC was one of thirty Philadelphia area businesses that were honored by the City.

Gerry Keenan, the Center's coordinator for the Handicapped Program, described how NADC goes about recruiting handicapped people for jobs. An ongoing relationship exists between the Center and the State Bureau of Rehabilitation that helps NADC in the area of handicapped employment. Keenan explained that they supply the Center with a list of applicants and provide advice for improvements in physical facilities. The recommendations can range from adding ramps for wheelchairs to special equipment for the hearing impaired. Also, personnel from the Rehabilitation Bureau provide supervisory training that enables management to better deal with the special requirements that handicapped people have.

In the Civilian Personnel Office Keenan maintains a file of handicapped applicants which is reviewed as jobs become available. When a job matches the qualifications that a person on the list has, the application is forwarded to the supervisor for consideration. Another service that Keenan offers is assistance to supervisors whose employees become handicapped. Being handicapped, Keenan stressed, can range from having a broken wrist to crippling diseases. Also seemingly minor things like poor eyesight and slight speech impairments are considered to affect how a person fits into the work place.

To help handicapped employees the Center has recently purchased a system that enables the hearing impaired to hear better in the auditorium, at training sessions or conferences. The system is an infrared transmitter that beams invisible light waves into the room that are picked up by individual receivers. Normally a person with a hearing aid listens to a great many sounds amplified at the same time. This system allows

have, the process for hiring them is slightly different from that of a non-handicapped person. When they are first hired they may be given a temporary appointment that is both a trial for the person and the Center. Each has to see if they can adapt to the ways of the

a person to hear only that sound being broadcasted from the podium. In addition, special devices for telephones have been installed to help employees with hearing problems use the phones.

Because of the special requirements that handicapped people

other. If, after the trial period, everything goes well, then the handicapped employee gets what is called an excepted appointment that lasts for two years. After that they may become regular competi-

(Continued Page 2)

## Savory Beats Odds to Join Center

by Regina Beans

If you ask Richard Savory, he'll say that he is grateful to have a job where he can contribute and learn new skills. Five years ago, Richard was driving home from work on his motorcycle accompanied by his younger brother, and had a head-on collision with a Volkswagen. Although his brother had no more than a slight concussion, Richard remained in a coma for eight months. Miraculously, he survived and after two brain operations and seven operations on his throat, which included total reconstruction of his throat and vocal cords, he is now working hard in the Systems Department as a result of his courage and determination. He is confined to a wheelchair most of the time and remains in one to work; however, he is able to walk with a walker and has recently begun walking with canes.

Richard attended the Hiram G. Andrew Center in Johnstown, Pa. and received two diplomas; one in Retail Sales and another in General Clerical. It was at this time that he had an interview with Mrs. Jerry Keenan, coordinator for the Handicapped Program on Center. Subsequently, he met with Mr. Jerry Guarini in the Systems



Richard Savory uses his clerical skills in the Systems Directorate.

Department who thought Richard would be a welcome addition to his staff.

Richard types memoranda, does reproduction work, assists with library functions and is learning to operate the computer terminal in his office. He hopes to be able to take a computer course soon. Richard says, "I can do anything that does not have to be completed in a hurry." Richard remarked on the patience of his fellow workers when it comes to explaining and showing him how

to do things. He further comments that he is very thankful to be working and earning some money to support his family.

Richard's employment here is temporary, not to exceed 700 hours; however, he hopes to stay on after that time. With such a cheerful personality and unlimited eagerness, it would be to the Navy's advantage for him to remain. Richard is 25 years old and he is married. He and his wife Lisa are expecting a child in early February.

## FEW Appreciates Huang



Dora Huang, rt, receives FEW honors from Betty Laufer, Buxmont Chapter President.

Dora Huang, Head of the Technical Information Branch, has received a Certificate of Appreciation from the Buxmont Chapter of Federally Employed Women. Huang was honored for her contributions to the local chapter and the national organization of Federally Employed Women. She served as Vice President and Program Chairman for the 1978-79 term and as President during the 1979-80 term. Since retiring as President she has edited the Chapter

newsletter and actively participated in fund-raising activities.

Huang has had a keen interest in legislative matters relating to women and federal service and has kept the chapter members informed on their status. She has lobbied for the Fund for Assuring Independent Retirement with local congressmen.

The award was presented at the Federally Employed Women's Regional Training Conference held in Philadelphia on 16 October.

Merry Christmas and the best holiday wishes from all your countrymen.

We appreciate the sacrifice you are making far from home today. Whether your image of Christmas is the crisp snow of the Northeast or the clean dry wind of the western deserts, for all of us this holiday is a time when our families draw together in faith and love.

Though your place is empty at your family table, you are with us in our hearts and remembered in our prayers. I know this is a particularly difficult time to be far from your loved ones. I know you miss the traditional exchange of gifts and worshipping with your family. But because of you, your families are free to go about the

joyful traditions of Christmas.

We are all grateful for that special gift of security and peace you've made possible for America and so much of the world.

On behalf of Nancy and myself, your families, friends and countrymen, I send you our warmest

holiday wishes. We look forward to the day when you'll be back in your hometown in the arms of your loved ones. Until then, may God bless you and keep you and return you safely home. Happy Holidays to you all.

Ronald Reagan

## Message to NADC Employees

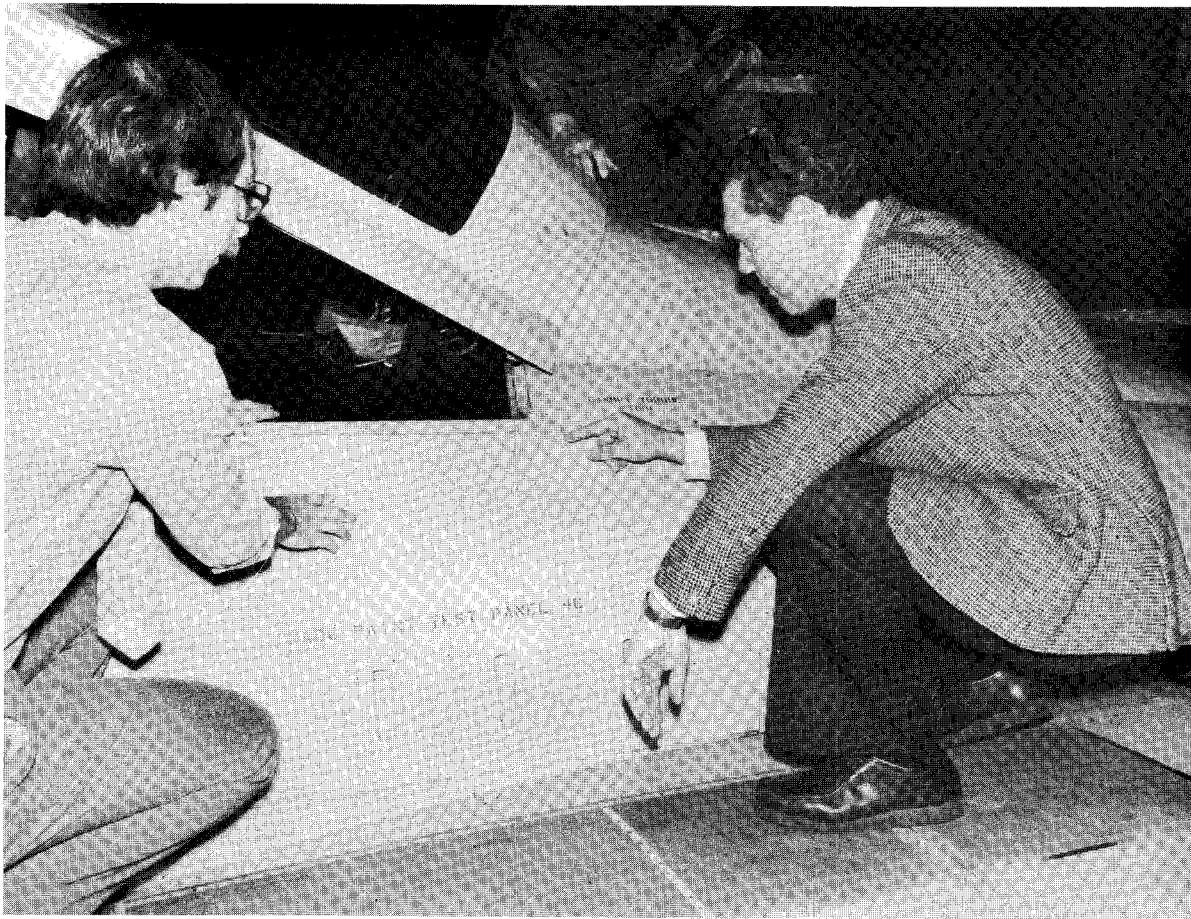
At this time of year we all have thoughts of our family and friends on our minds, thoughts of love and respect, friendship and joy. These thoughts are reinforced by the nature of the holidays, Christmas and Hanukah. We hope that all the good feelings are not confined to just this brief period but spread

throughout the year. If we can make but one resolution for the new year let it be to continue the good spirits of the holidays, continue them in our daily lives, in everything we do and think, for this attitude will make us happier and healthier in the coming year.

James A. Anderson

Robert S. Buffum

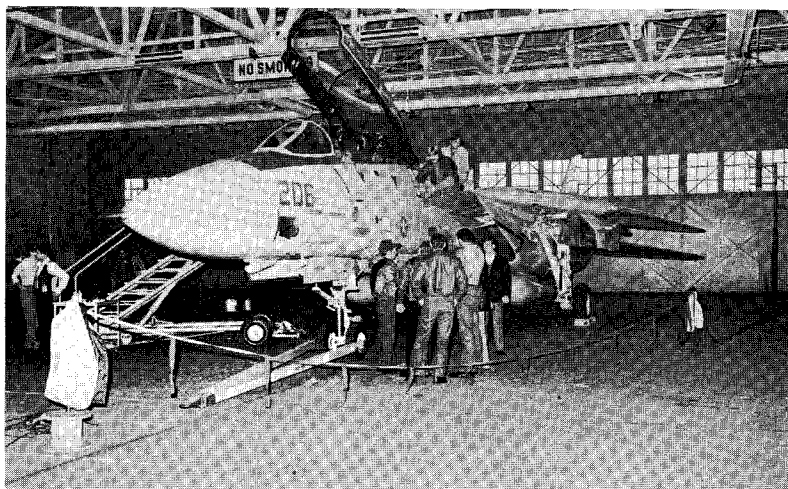
## New Coating and Engine Change Performed



Charles Hegedus, Lt, and Dr. John DeLuccia check coating on test panel.

During the week of 22 November NADC saw an incredible feat of speed and first-rate technical ability being performed. A special project that involved applying an experimental coating was scheduled to take place on 23 November. An F-14 from VF-33 flew into NADC at 1250 and was only to be here for 20 hours. Dr. John DeLuccia, Head of the Aero Materials Division, explained that the aircraft was being used as a test bed for coating research and that it was an active fleet aircraft. A very tight work schedule was drafted so the time on the ground could be used fully.

The test scheduled had several objectives that were accomplished on time. Coatings that were previously applied to four access doors dedicated for test purposes had to be tested using the unique optical, mechanical, and chemical equipment that is in the Materials Division. The doors had to be removed from the aircraft, tested and then stripped of the old coating. After the stripping a new coating



Flight Crew and Center personnel discuss F-14 engine change.

was applied. Because of the time element, accelerated curing at elevated temperatures had to be done overnight. The first set of two doors was completed and installed by 0830 on 24 November. Charles Hegedus, Materials Engineer and Task Leader; Donald Hirst, Materials Engineering Technician; Kenneth Clark, Chemist; Steve Spadafora, Chemical Engineer;

Thomas Chien, Chemical Engineer; Peter Sabatini, Material Engineering Technician; Jerry Lepone, Photographer and William Green, Contract Technician were all responsible for the quick turnaround time.

Although the Center's involvement with the F-14 was complete by 0830 on 24 November a cursory inspection of the aircraft by Dr. DeLuccia uncovered severe damage to the turbine blades of the starboard engine late on 23 November. When brought to the attention of the plane's pilot, Commander Lewis, it was decided to have the engine changed. Since NADC does not operate this type of aircraft, a new engine had to be transported from VF-33's home base in Oceana Virginia. A crew from VF-33 was sent and the engine was installed on Thanksgiving Day, enabling the aircraft to rejoin its squadron on 26 November. NADC personnel, including Senior Chief C. Strickler, who coordinated NADC technical and logistical support and MSC Charles Moody, MS3 Charles Lind and MS3 Donald Quinn from the galley who provided first-rate food service including Thanksgiving Dinner to those working on the engine, all did a tremendous job on getting the aircraft out on time.

is also assistance that can be offered to families that have handicapped children. Recently an employee came to Keenan to inquire about summer employment for a legally blind child. The parents had raised the child with no outside assistance, and through discussions concerning possible employment, they learned of services available to help the student with his college work. The program also includes handicapped veterans and the special programs that apply to them. Keenan summed up the handicapped programs by saying that she was proud of the work that the Center has done and so apparently, is the City of Philadelphia.

(Handicapped from page 1)

tive employees. Of course they may follow normal hiring procedures and receive competitive appointments if they wish.

There is incentive for supervisors and managers to hire the handicapped because accomplishments under the program may be used to meet EEO goal objectives.

During the summer, students that are handicapped have been hired by NADC, Keenan said. Also, children of employees can be helped by the program. They may be employed at the same agency as their parents, thus easing the problems associated with transportation.

Keenan said that besides all the services the Center provides, there

## Jones Gets 501 Job



David Schimsky, Lt, and Lou Naglak look on as Robert Jones is congratulated by Robert S. Buffum, rt.

Robert "Bob" Jones has been selected to succeed Richard "Dick" Mitchell as Head of the 501 Division in the Software and Computer Simulation Directorate. NADC's Technical Director, Robert Buffum said that, "The decision on who to hire for the 501 job was very difficult because there were so many highly qualified candidates."

Jones moves from the Simulation Systems Branch to the Head of the Combat Systems Software Division.

When he came to NADC from RCA in 1964 he said that he only intended to stay "a couple of years" and learn about computers. As it turned out, he liked the people and the work so much that the "couple of years" turned into 18 years.

Almost all the time that he has worked at NADC Jones has been involved with simulation programs. He started by developing simulator computer programs and was later put in charge of the simulation

design and programming group in 1972.

In 1975 Jones became Division Superintendent of the System Simulation Division. He was responsible for the planning and coordination of research, test evaluation and development of naval weapon systems. He and his division worked on such programs as LAMPS, AIDS and AWACS. From 1979 to the time he was picked for his new assignment, Jones was Branch Head of Simulation Systems. In that branch work on the F-14, SH-2F, and LAMPS MK III was done under Jones' supervision.

Goals for his new job are something that Jones already has in mind. He stated that, "It is my intention to make this division achieve a level of excellence on the development of weapons systems software that is the best on Center". He said that he really enjoys his work here and "that makes a difference. I have met a lot of truly nice people here".

## DNL Receives Briefings



Robert Hillyer, Director of Navy Laboratories, center, receives a briefing from Captain James B. Anderson and Robert S. Buffum.

## The Reflector

Naval Air Development Center

The REFLECTOR is published monthly by the Public Affairs Office to inform Center personnel about topics of interest, and to promote the morale and general welfare of all concerned.

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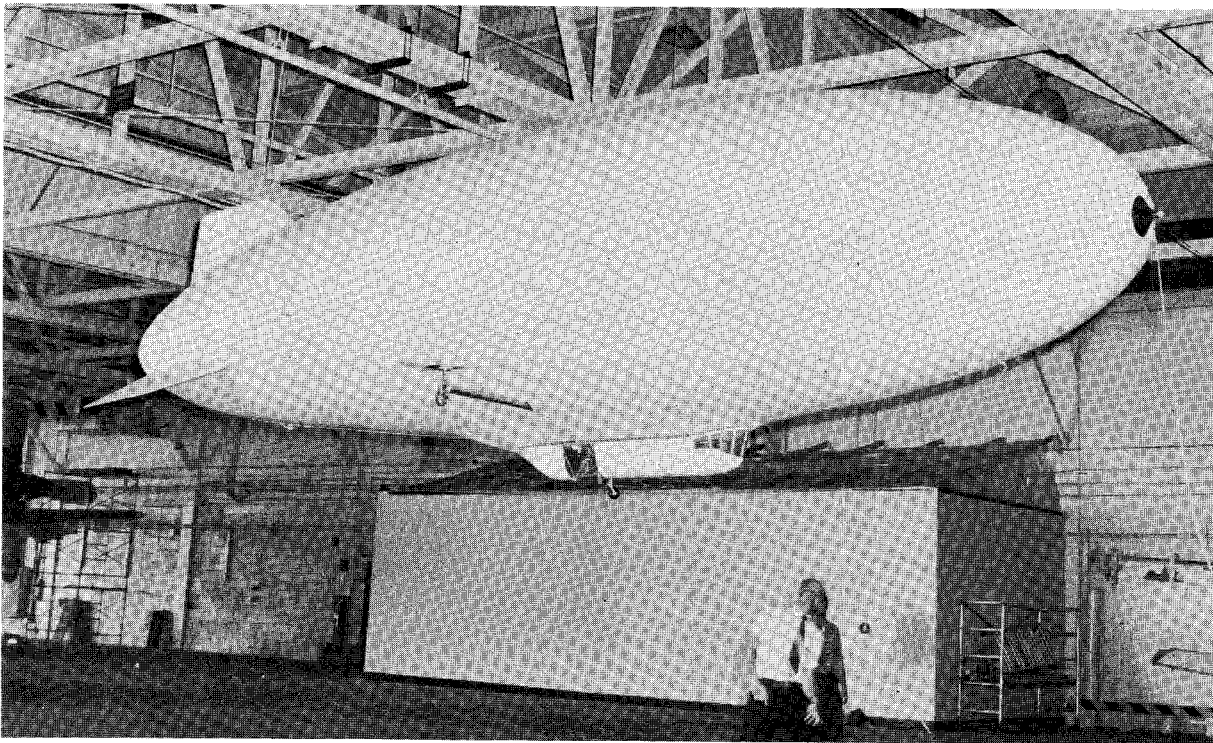
CAPT James B. Anderson — Commander, NADC

Robert S. Buffum — Technical Director

Joseph P. Cody — Public Affairs Officer

David Polish — Editor





John Eney, LTA Project Engineer, follows the flight of NADC's airship model.

## Airship of the Future Tested at Center

If you've been around for forty or fifty years you may remember large silver colored airships gliding across the sky. The Navy in fact flew airships until the early 1960's, but the jet age and advanced technology soon made the airship a thing of the past. Also cheap fuel enabled the Navy to fly a great many missions at a low cost. Energy prices since the 1960's have skyrocketed upwards making fuel saving a top priority. This is where we again pick up the airship story. Motivated by the need to conserve fuel, AIR 03 sponsored an investigation into the use of airships for Anti-submarine Warfare (ASW), maritime and coastal patrol. That was back in 1976. The studies involved research in the areas of materials, propulsion systems and Vertical Take Off and Landing (VTOL) capabilities. Out of this study has come a 1/10th scale airship and a test program that features a full size British built vehicle.

The Head of NADC's effort in Lighter Than Air, John Eney, explained that, "The Navy and the Coast Guard are looking at ways to increase their endurance in over-water missions. An airship fits the bill because they can stay up for long periods of time, in excess of three days, and burn very little fuel while they do the job." To test the new technological advances in materials and propulsion systems NADC designed and had constructed, under contract, a scale radio con-

trolled airship. This model incorporated the latest in propulsion design to give the vehicle the ability to take off and land vertically. The ship is 35 feet long, 8 feet in diameter and is powered by a one horsepower model airplane engine. Two rotors are located amidships and drive the model through the air. These rotors, however, are no ordinary propeller system.

The design for the rotor system was copied from the Bell XV-15 VTOL aircraft. This aircraft, which was introduced last year, has two large propellers that enable the craft to fly like a helicopter and a regular airplane. To do this the engines driving the rotors can be swung in a 90° arc from horizontal to vertical. The same system is on NADC's airship except in miniature. It has cyclic and collective control capability letting the airship fly sideways and backwards in addition to vertically. Eney said that the rotor and propulsion system was built entirely by one man, Faye Peoples of Warminster. Peoples has a one man company that specializes in designing and building model helicopter components. He was also the U.S. National Champion Model Helicopter flyer. NADC came to Peoples because of his reputation as an expert tool and die maker and his model helicopter experience.

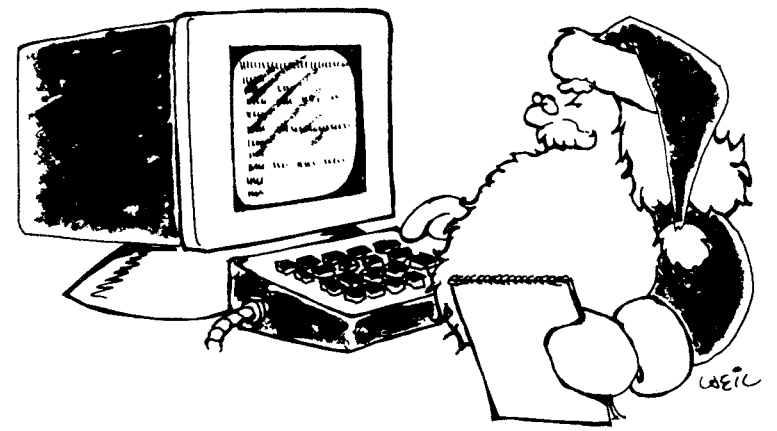
The system Peoples designed and built is comprised of radio con-

trolled servos, the rotors, two clutches, the motor and three transmissions. Together, the drive system can move the model at up to 60 knots.

A company by the name of ILC in Dover, Delaware built the inflatable hull. This same company made the space suits for all of America's space flights. NASA Ames in California built the gondola and the fins for the airship. Lancaster Analytics Inc., a small three-person company did all the detail design and drawings for the project. When everything arrived, Eney said, "That he was mildly surprised that everything fit and worked perfectly."

The model is now scheduled for flight tests in NADC's hangar and outdoors when the weather conditions are good. All together the project has cost about \$60,000, half of original estimates by big contracting companies.

Next, Eney said, is to see a full size ship in action. To do that, Airship Industries of London will bring its Skyship 500 to NADC in the spring of 1983. About the size of the Goodyear Blimp, the Skyship also has VTOL ability. Powered by two Porsche Carrera supercharged engines, the Skyship uses two ducted fans that swivel to achieve vertical flight. The Skyship will be here for about four days and then will go to Patuxent River and Elizabeth City via Washington for technical evaluation.



## Health Plan Changes

### Proposed

Representative Mary Rose Oakar (D., Ohio), Chairperson of the Subcommittee on Compensation and Employee Benefits has introduced sweeping legislation to reform the Federal Employee Health Benefits Program (FEHBP). Over 10 million American federal workers, annuitants and dependents are covered by the FEHBP. Oakar spoke about the proposed changes at a meeting of the Federal Executive and Professional Association. She stated, "Since its inception over 22 years ago, FEHBP has been considered a model health program because of its multiplicity of choice and its financial and administrative integrity. Regrettably, last year a series of unanticipated and numerous lawsuits were filed challenging the authority of the Office of Personnel Management (OPM) to make fundamental, arbitrary changes in the program."

"When the dust finally settled on the litigation", Oakar said, "FEHBP was in shambles. The traditional Open Season had been cancelled, benefits were reduced drastically, premiums increased substantially and hundreds of thousands of enrollees in over 140 health plans ended up locked into health plans that they no longer wanted nor could afford", added Oakar.

As Chairperson of the Subcommittee with principal jurisdiction over FEHBP, Oakar stated that she has held extensive hearings on what went wrong last year and what ought to restore FEHBP to its former status. After listening to hundreds of witnesses, including numerous health insurance experts, Oakar introduced the following legislation to help stabilize the program:

1. The legislation mandates by law an annual Open Season to provide all enrollees a predictable time-frame in which to evaluate the various health

plans and then have an opportunity to make an informed choice as to what enrollment is most appropriate.

2. It prevents OPM or any health carrier from arbitrarily reducing or increasing benefit levels, except by mutual consent.
3. It increases the government's share of the premium contribution from 60% of the average subscription charge of the Big Six health plans to 75%. This will be the first increase in the government contribution formula in almost 10 years and is more in line with what most private employers pay to provide health insurance for their employees. Despite this increase in the government formula, enrollees in FEHBP will still be paying a larger share of the health insurance premium than many private sector employees.
4. The legislation will allow rified employees and certain others an opportunity to continue health coverage until such time as they become eligible for another health plan, provided they pay the entire premium costs. I believe this is the least we can do for our federal workers who suddenly lose their jobs or entitlement to health insurance.
5. It establishes a fair, standardized alcoholism, drug rehabilitation, and mental health benefit level throughout the government-wide plans. Last year's benefit reduction was particularly destructive to these health services, and it is important to protect this benefit from further attack.

Additional proposed changes involve financial solvency requirements for participating health plans and five percent increase in the government contribution for annuitants over 65 who are not entitled to Medicare.

Jean Varner, a representative from the office of the Subcommittee on Compensation and Employee Benefits chaired by Representative Oakar told the Reflector that "no action is anticipated on the bill during the lame duck session, however the Chairman does plan to reintroduce the bill in the 98th Congress." The bill currently has 27 co-signers, none of whom are from Pennsylvania.

## Conflict of Interest: Don't Let it Ruin Your Career

A recent case on conflict of interest brings to mind just how careful employees must be in their daily business dealings. A contracting officer at the Naval Electronic Systems Command was removed from his job, indicted and charged with violating provisions of the U.S. Code and sued by the Securities and Exchange Commission. What did this person do to bring down a wrath such as this? He purchased stock in a company whose subsidiary he knew would be receiving a contract from the Naval Electronic Systems Command.

The employee was aware that NAVELEX was negotiating a major contract with the contractor and of the projected date for the contract award. Relying on this information, the employee purchased stock in the parent company of the contractor on two separate occasions. Notification was not given by him to his supervisor of his financial interest in the company nor did he take any action that indicated that he should have been disqualified from the negotiating process. The employee also signed several procurement related documents

during the time he owned the stock although no evidence was uncovered that the employee's actions influenced the process in favor of the contractor.

Upon learning of the employee's financial interest in the company, NAVELEX requested that the Naval Investigative Service (NIS) conduct an investigation. As a result the employee was fired, made to pay back the profit from the stock transaction, which amounted to \$9,500 and pay a fine of \$5,000.

The three things that this employee did wrong were that he

engaged in activities that were in conflict between private interests and the public interests of the United States; he did not make notification that he should have been disqualified from the procurement process; and he used information gained through his job to obtain personal profit.

The lesson to be learned is that if you even think there may be a conflict of interest, report it to your supervisor and don't use your job for personal gain.

## Commander Salutes

AT2 Michael S. Sosebee, for his superior performance, outstanding leadership and superb attention to detail during his service with Fighter Squadron FORTY-ONE which engaged and shot down two Libyan fighters.

AMS3 Perry J. Garvin, for his assistance in transferring medical records to the social security number system and other administrative duties performed for the Navy Regional Medical Center.

Jerome S. Bortman, PAR, for his participation during the Pennsylvania Small Business Procurement Opportunity Conference.

Alvin J. Claitt, Gerald P. Miller and Charles S. Powell, all from SD, also Charles C. Phillips, CNTD, Herbert F. Leitsch, Darrell L. Kutz, William H. Brown, Edward Haidal and George N. Virgulti, from TSD, and William R. Wentz, George P. Lange and LCDR Frank Piazza, DCP, all for their contributions to the successful installation of the CV-ASW Systems aboard the USS CARL VINSON.

Edward H. Beals, CNTD, for his assistance to the Navstar Global Positioning System Joint Program Office.

Donald P. Gleiter, ACSTD, for his support to the Joint Services Advanced Vertical Lift Aircraft technology assessment.

Harry F. Koper, DCP, for his briefings to Third Annual World

Famous Open Class Photo Symposium.

John R. Kauker, CNTD, for his support of Oceanographic Unit One during their Sponsor FY82 Shipyard Overhaul.

David B. Bailey, ACSTD, for his assistance to NASA on a recent Lighter-than-Air Project.

## Job Offer

**TRANSPORTATION MANAGER:** Large school district in Bucks County, Pennsylvania seeks applicants for position involving the management of all pupil transportation services for 10,000+ students to 70 public and non-public schools located in an area encompassing more than 1,000 square miles. Experience in school transportation management preferred; Bachelor's degree or quality experience in personnel administration, budget development and control, or planning required. Salary \$18,000-\$21,000, plus comprehensive fringe benefit program. Send letter of application (including salary requirements) and resume to:

Norman D. Cluley  
Director of Personnel  
Central Bucks School District  
315 West State Street  
Doylestown, PA 18901

## Super Safety Sends Memo

by Mike Masington

From: S. Safety,  
NAVCOMRAZLDAZL  
To: Mr. S. Claus, COMXMAS,  
Code HOHOHO

Subj: Christmas report

Well Santa, it wasn't a bad year here at NAVCOMRAZLDAZL, of course it wasn't a good year either. One of the guys in the shop removed the blade guard from a table saw because he said it was too much trouble to use. After the accident, Doc said he won't lose any of his fingers, but he does have the ultimate manicure.

Back injuries were up again this year, I'm sorry to say. Just the other day Biff Macho improperly lifted a heavy carton. He didn't check the weight first, keep his back straight, lift with his legs or ask for any help. He's back to work now, but his back is still giving him trouble, and it's a little disconcerting to watch him walk around with his knuckles scraping the ground.

Sweet, little, old Granny Frikert is recovering nicely from the broken ankle she suffered when she slipped on the coffee someone spilled in the hallway and thoughtlessly didn't bother to clean up. Granny plans to resume her Kung Fu and Rugby classes as soon as the cast comes off.

Flash Koboomchek, though, isn't faring quite as well I'm afraid. He was mixing chemicals without eye protection again, and this time the stuff erupted in his face. Thanks to quick action by the other guys in the lab and a nearby eyewash he won't

suffer any permanent damage, but Doc says his eyes looked like he'd been hypnotized with a blowtorch.

Fires have been kind of a problem, too. Folks have been a little more careful since Smokey Mycroft fell asleep while smoking in bed and burned up his picture of the U.S.S. Constitution. Unfortunately, the picture was tattooed on his chest at the time. But people still smoke in the wrong places, store too many flammables, block fire exits, etc. I guess they'll never learn.

There is one bright spot though, Santa. The number of motor vehicle accidents is down some, only 954 this year. Of course the captain is still a little upset about the forklift ramming his car last month. But the walking seems to be good for him, and besides the car was already a year old and probably needed a new engine, transmission and complete front end anyway. We were a little concerned about the forklift operator, but he seems to be enjoying the one man weather station in Adak, so what the heck.

Well Santa, that's about it. We've all tried to be good, but sometimes we just get a little careless and forgetful. So if you can just bring us one thing for Christmas, please let it be a little reminder to everyone to remember safety in everything they do in the new year. Have a Merry Christmas and a Happy and Safe New Year.

Your friend,  
Super Safety



Symphony's Winter Home: Warminster Symphony is holding its practices in NADC's Cafeteria on Sunday evenings.

## Agnew Nominated

As they say in Hollywood, just being nominated is an honor, and so it was for Dennis Agnew, ACSTD. Agnew was among three people from the Naval Material Command's ranks that were singled out to be considered for the GEICO Public Service Award.

As Supervisor in the Aero Materials Division, Agnew has managed programs involving the development and application of lightweight high-strength plastics for sonobouys. Since 1977 he has been an active counselor in NADC's Employee Assistance Program. It is for this work, as a counselor that Agnew was honored.

As primary NADC alcoholism counselor under the Employee Assistance Program, he personally provided assistance in 15 cases per year. Agnew received formal training from the Office of Personnel Management and the Department of the Navy. He has given both his spare time and money to help with, transportation to treatment centers, lodging in his own home, and arrangements for appointments at rehabilitation facilities. Over 200 employees and members of the community have been helped by Agnew and they are continuing to in a treatment program. Agnew also suggested that all military members of the NADC Community should



NADC's Color Guard, AD2 Curt Miglionico, AD3 Jeffrey Johnson, AC3 Vicki Terry and AD2 Thomas Anderson march in Christmas Parade in Doylestown.

## New Titles in the Library

### PERIODICALS

Compute!, Small Systems Services, Inc. Monthly, December 1982—

MIS Strategies—Information Systems News, CMP Publications, Inc. 1982 v. 1—

Speech Technology—Man-machine voice communications, Media Dimensions Inc. Quarterly, Fall 1981 v. 1—

### ELECTRONICS

"Advances in switched-mode power conversion". R. D. Middlebrook

TK7881.15.M53

"Digital electronics: an introduction to theory and practice" W. H. Gothmann

TK7868.D5G67 1982

"EMI control in aerospace systems". B. Keiser TL693.K44

"Electronics engineers' handbook". TK7825.E34 1982

be under the Alcoholism program and he has given lectures on the recognition of alcoholism and drug problems in children.

Although Agnew did not win the

top award in the GEICO Public Service Award Program, we all know that a person like him is indeed an asset to the Center, an asset that we cannot do without.

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