

Orienteer

DEFENSE MAPPING AGENCY AEROSPACE CENTER

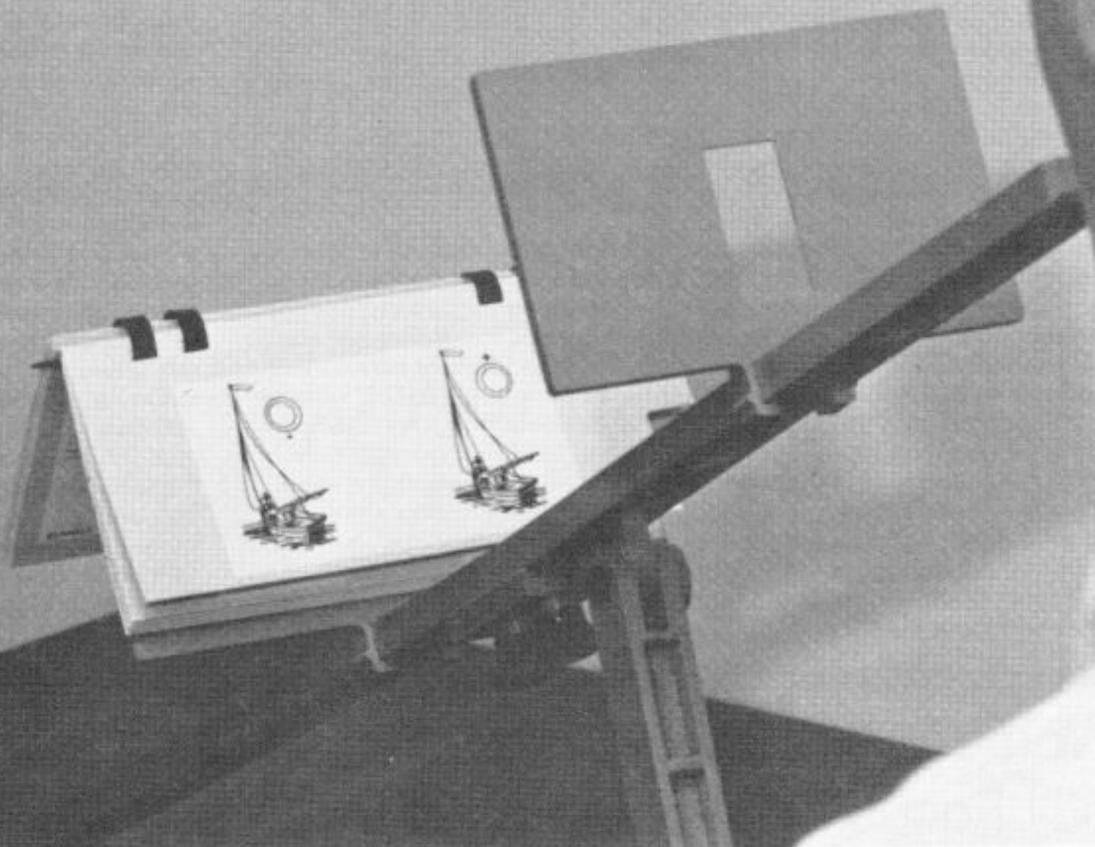


Photo by Jim Stepanik

Mike Connell trains his stereoscopic vision in one of the exercises used in AC's Vision Program.

Seeing Is Believing

For Cartographers in AC Vision Program

Eyesight evaluations are underway for all cartographers who use stereoscopic vision in their work. Like approximately one-sixth of the cartographers who receive an eyesight evaluation through the Aerospace Center's unique Vision Program, cartographer Michael Connell (SDAAA) was one of those assigned to vision training, based on the results of his evaluation. Vision training is provided for cartographers whose stereoscopic vision is found to be in need of improvement.

"I wasn't too excited about going to the training," Connell recalled. "Like a lot of people, I just assumed I could see stereo, so I kind of

Continued on page 4.

Inside

Vol. XXX, No. 5
March 3, 1989

Managers learn about hiring the visually impaired—page 3.

Know how to fight breast cancer—page 6.



DoD Expands Anti-Sexual Harassment Program

Prevention Training will Focus on Co-Workers as Well as Managers

By Evelyn D. Harris

American Forces Information Service

A survey conducted by the U.S. Merit Systems Protection Board last year has led to a stronger anti-sexual harassment program in DoD. The reason: There was little improvement in the Department of Defense's prevention of sexual harassment in its civilian work force since 1981.

Some 42 percent of female and 14 percent of male respondents to the 1988 survey from all federal agencies believed they experienced some form of sexual harassment during a two-year period. In a 1980 survey, 42 percent of the females and 15 percent of the males reported harassment. DoD statistics were in line with the rest of the government. For both surveys, the board defined sexual harassment as various forms of uninvited and unwanted sexual attention.

The report summary noted that federal workers are more aware of behaviors that may be considered harassment than they were in 1980.

The survey also showed that women are more likely than men to

"Sexual Harassment is not a personal problem. It is a management and personnel problem."

David O. Cooke, Director
Department of Defense
Administration and Management

consider sexual remarks and suggestive looks to be harassment.

Because co-workers were specified most often as the persons responsible for incidents of sexual harassment, prevention training in DoD will now include co-workers. (Previous training had focused on managers and supervisors.) A co-worker or other employee without supervisory authority over the victim was cited as the source of harassment by 69 percent of the female and 77 percent of the male respondents who believed

they experienced harassment.

For the 1988 survey, the Merit System Protection Board surveyed a random sample of 13,000 federal employees, of whom 8,523 completed and returned the questionnaire.

Besides training for all civilian employees as well as managers of civilian employees at all levels, DoD policy provides avenues for filing complaints and seeking redress. The equal employment opportunity counselor or Federal Women's Program manager is the point of contact at the base level. Employees can also use the DoD Hotline for Fraud, Waste and Abuse, 1-800-424-9098.

Penalties range from a letter of reprimand to dismissal. Violations of the sexual harassment policy are also to be reflected in annual performance ratings and considered in granting and revoking security clearances.

Coping techniques to enable an employee to head off harassment are included in some training programs. Such training does not mean that the harassment is the victim's fault.

As DoD's Director of Administration and Management, David O. Cooke,
Continued on page 6.

Women's History Month Program Will Focus on Women at DMAAC

An exhibit featuring 10 female employees and famous women who inspired them, plus a panel discussion featuring four women and their personal DMAAC histories, will highlight Women's History Month at the Center.

The exhibit, using the 1989 theme--"Heritage of Strength and Vision"--features these employees: electronics control mechanic Wanda Coleman, secretary Mary Ann Glosecki, occupational safety and health specialist Debra Mays, quality control specialist Martha Norman, acting supervisory cartographer Cynthia Reid, personnel staffing specialist Marie Simmons, protocol assistant Sharon Smith,

translator Christ Snowden, visual information specialist Lucille Sutter, and cartographer Laura Thompson.

The exhibit, conceived by the EEO Office and designed by visual information specialist Jane Wilkinson, can be seen in Buildings 36 and 89004.

The panel discussion will be held March 24 in the 2nd Street dining hall. The women who are scheduled to speak are electronics control mechanic Wanda Coleman, Lillian McKeever, division chief in the Directorate of Contracting; Kate Smith, chief of the Digital Products Dept.; and Vonnae Weir, chief of the Mark 85/90 Production Segements Branch (PPMP).

FWP Training Seminar *Positioning For the Future*

Participants in the 16th annual training seminar of the St. Louis Metropolitan Federal Women's Program Council will "learn how well they are positioned to attain the increasingly higher levels of education and skills which will be required by jobs of the future," according to Grace Corbin, president. DMAAC's Training and Development Division has allocated spaces for 50 employees to attend. The seminar will be at the St. Louis Airport Hilton Hotel on March 15. For those who wish to attend at their own expense, the fee is \$18. Information is available from the EEO Office/4276.

Caverly Named Chief of Special Project Office

In Mapping and Charting

The Aerospace Center Executive Resources Board has approved the reassignment of David A. Caverly as chief of the Mapping and Charting Department Special Project Office (MCX). He had been chief of the Digital Products Department Production Support Office (DPP).

The mission of MCX is to organize the start-up effort to produce Compact Disks with Read-Only Memory (CD-ROMs) as a new medium for maps and charts produced by MC. The effort supports the Agency's ARC Digitized Raster Graphics (ADRG) program, aimed at providing the Air Force, Army and Navy with DMA products in a digital format.

Among the products to be digitized are Operational Navigation Charts (ONCs), which will be provided on CD-ROM, with a single ONC per disk. Users will be provided the same map presently listed in the DMA catalog except that it will be in digital format. Production of ONCs in paper chart form will continue.

The *Orienter* is a funded, authorized publication for personnel of the Defense Mapping Agency Aerospace Center. Contents are not necessarily the official views of, or endorsed by, the U.S. Government, the Department of Defense, the Defense Mapping Agency or the DMA Aerospace Center. The editorial content is edited, prepared and provided by the Public Affairs Office of the DMA Aerospace Center. Address all communications to:

DMA Aerospace Center
Editor, *Orienter* (PA)
3200 South 2nd Street
St. Louis, MO 63118-3399

Col. Stephen F. Burrell, USAF
Director
James G. Mohan
Chief, Public Affairs Office
Paul Huriburt
Editor



Photo by Jim Stepanik

Gregory Mark demonstrates his proficiency with sophisticated computer equipment for DMAAC staff members.

Blind Employees Prove They Are Willing and Able

DMAAC staff saw for themselves that visually impaired employees can function fully in today's automated workplace in a presentation arranged by Marie Simmons of the Recruitment and Examining Division (POR). The highlight of the hour-long briefing Feb. 15 was a demonstration of a talking PC with tactile screen interfaces and a

braille printer by Gregory Mark of Alternatives for the Blind in Living and Employment (ABLE). Mark is blind. The demonstration showed that the visually impaired are capable of interfacing with the nonvisually impaired in performing the same work on mainframes and PCs. Other presenters were Doris Westfall, Bureau of the Blind, and Keith Sofka of Mechanical Advantage.

With special equipment, the visually impaired can be fully productive in the workplace, Doris Westfall tells staff members at DMAAC.



Seeing Is Believing in Vision Program

Continued from page 1.

went with the attitude that it was going to be a waste of time."

The first week of exercises, designed to strengthen the eye muscles, Connell found boring, he said. It wasn't until the third or fourth week of the eight-week program, he said, when "Pow! I was seeing stereo! My reaction was that I wanted to see more, and I started going out of my way to come to class."

Testing confirmed a marked improvement in Connell's ability to use his stereoscopic ability. His test scores increased from below average ability in distinguishing stereoscopic differences among objects to well above average.

"By the last week, I was seeing things that I never would have seen without the training," he said. "To me, that's an achievement, that's exciting."

Simply put, Connell said, "I have to work at bringing my eyes together to see stereo, and I learned to do that in vision training. It was like learning to ride a bike. Everybody has the ability to ride a bike, but you've got to learn balance and whatnot."

The first of its kind, AC's vision evaluation and enhancement program was designed especially for the Center by Dr. J. James Saladin, professor of optometry at Ferris State College, Big Rapids, Mich. Dr. Saladin is one of the country's foremost experts in binocular vision.

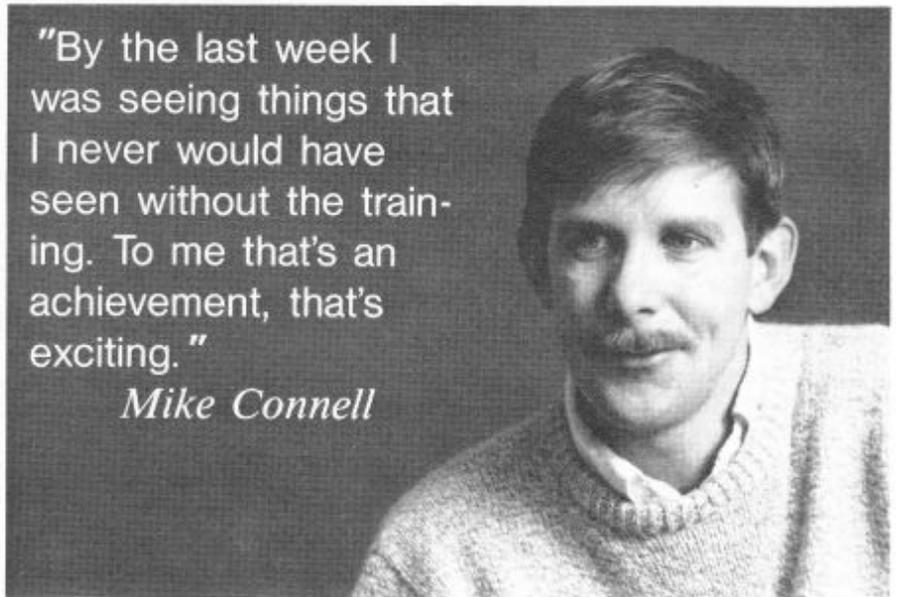
The program has two parts. The first part is an eyesight evaluation, which is done on a periodic basis in order to detect any changes in a cartographer's eyesight that may have occurred.

The second part consists of vision training, which is designed to enhance the cartographers' stereoscopic vision. The training lasts one half to one hour per day for a total of eight weeks. During this time the students complete a series of exercises at their own pace, with a re-evaluation of their stereoscopic vision at the end of the training.

The training will eventually be given to all cartographers who use stereoscopic vision in their work,

"By the last week I was seeing things that I never would have seen without the training. To me that's an achievement, that's exciting."

Mike Connell



although some cartographers will receive more training than others, depending on their individual diagnosis resulting from their evaluation.

Why does the Aerospace Center have a Vision Program?



By observing an enlarged video display of the patient's eye and manipulating the joystick, a clinician at UM-St. Louis positions an instrument that will measure the shape of her cornea. A printout provides prescription data.

"To be most useful, maps of areas on or near the earth's surface must be a faithfully scaled and projected replica of the earth's surface, in addition to being a symbolic abstraction," explained Dr. David H. Alspaugh, Deputy Director for Research and Engineering. "It is this metricity of map products (graphic or digital) that we are concerned with."

"Photogrammetry has substantially replaced ground surveys for the acquisition of cartographic information. Photogrammetry has also become a very precise measuring science that depends on highly developed instrumentation and human vision," Dr. Alspaugh noted.

"So while imagery and supplementary data are acquired from very complex optics and electronics aboard aerial platforms and ground stations, they have no value to mapping without consistent measurements of the images." Even with the most advanced measuring instrumentation, "we depend on the human observer to have both monocular visual acuities and binocular stereoscopic acuities that are equal to or above reasonable thresholds. We seriously need stability and uniformity within the single observer, working over time, and among all of the observers working on a given project."

Dr. Alspaugh cited three visual abilities that are important for

cartographers involved in the metric exploitation of imagery: acuity, stereoscopic ability, and stability.

"High visual acuity is a sensitivity to fine detail, obviously necessary in search and detection tasks," he said.

"Excellent stereoscopic ability permits the recognition and evaluation of small changes in parallax, which are critical to three-dimensional mapping. And a low offset, or constant error, provides greater consistency among the many observers whose measurements must be combined to produce a product. Stability over time is also necessary to equalize quality throughout large mapping projects."

How the Vision Program Helps Cartographers

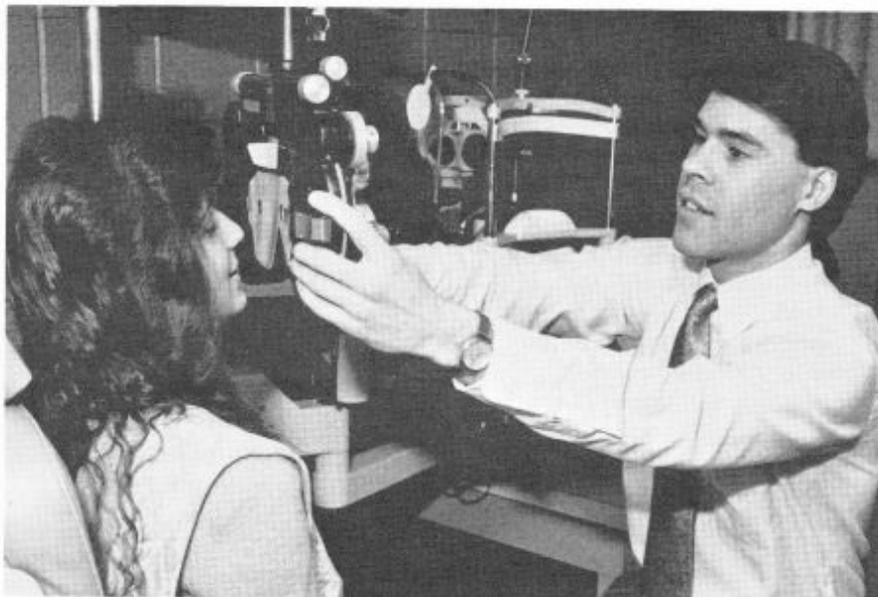
Designed to assure and enhance stereoscopic ability, the AC Vision Program rests on a simple premise, according to Dr. Saladin: "The visual system can be TAUGHT to maintain good alignment, resist variation with time, and also to resist fatigue."

The evaluation part of the program is aimed at assuring that all employees have normal visual abilities. It includes a test of visual acuity at far and near working distances.

"For good stereoscopic vision, the ability of your eyes to work together is especially important," said Dr. Saladin. "Accordingly, there are tests designed to evaluate your tendency to use only one eye, to maintain binocular vision in visually sparse surroundings, to investigate eye alignment, and to push your stereoscopic ability to its limit."

Records show that about two-thirds of those tested perform within normal ranges on the tests. Of the remaining one-third, about half can be brought up to normal with vision enhancement training. The rest need further evaluation either with their private vision-care practitioners or at the University of Missouri School of Optometry. The cost of the examination on the campus of UM-St. Louis is borne by the Aerospace Center.

"Most of those referred for care outside DMAAC have normal visual capabilities if appropriate glasses or contact lenses are prescribed and worn," said Dr. Saladin. More than 100 have received prescriptions



Jo-An Jasinski has her vision tested at the University of Missouri -- St. Louis by optometry intern Kyle Maygines. The instrument being used is called a "phoropter."

Photos by Jim Stepanik

through UM-St. Louis since the program's inception in 1983, while many others have been referred to their private vision-care practitioner.

The goal of the vision-enhancement part of the program is to help cartographers "detect finer stereoscopic differences and to do so with more ease and less fatigue, even when the viewing conditions are less than ideal," said Dr. Saladin. Exercises are centered on training the aiming mechanism of the eyes.

In a nutshell, "the Vision Program is designed to help cartographers get the most out of their vision system," Dr. Saladin said. "They will profit by being able to perform stereoscopic tasks with more ease and less fatigue and will have additional satisfaction in knowing that the final link in the chain needed to interpret photogrammetric information is of comparable

strength to the other links."

Optometric technician Carl McDowell (RE) is responsible for initial evaluations and follow-up training.

"I've seen enough tests of people and results after they've completed training to make a believer out of me," McDowell said. "I've also seen a lot of attitude change among the cartographers who receive the training. Of course 'no pain - no gain' applies here. By the fifth week, some will complain of headaches. This means things are happening. The headaches always clear up. By the end of the eighth week, they're more positive because of the results they've achieved. 'I can fuse that, no problem,' they'll say."

"This is one program that is only a positive program because the only thing it can do is help you. It's totally beneficial."

Text by Paul Hurlburt

Health and Safety

SHARE Teaches How To Fight Breast Cancer

One of 11 women will develop breast cancer. About 95 percent of all breast cancers are first found by women themselves.

Unfortunately any delay that may occur plays a decisive role in the success or failure of treatment. Delays give breast cancer the opportunity to spread and account for the five-year survival rate for localized cancer of 84 percent, compared with 56 percent when there is regional spread.

Medicine is making progress every day to save lives. Early detection of breast cancer has saved lives, pre-

Mammography Mobile Returns March 23 Sign up today!

Call the Mallinckrodt Institute
of Radiology at 362-7111.

vented extensive surgery, and alleviated many worries. You can learn to help yourself by learning about breast cancer and self-examination.

S.H.A.R.E. (Support Has a Reinforcing Effect) is a breast cancer support group affiliated with Barnes Hospital. They present a program that helps to educate women and men about early detection of breast cancer, benign breast diseases, fibrocystic changes, mammography, treatment methods, and any related concerns.

Their presentation on self-examination explains what to look for and who is at risk. It also dispels myths and helps to alleviate fears.

The S.H.A.R.E. group will be giving presentations at DMAAC during

March. On March 15, they will be at 3200 S. 2nd St. in the 6B conference room of Building 36, with presentations from 11 a.m. to 12:30 p.m. and 6:30 p.m. to 8 p.m. On March 29 they will be at 8900 S. Broadway in conference room 3 of Building 89004 from 11 a.m. to 12:30 p.m.

With supervisor's permission, the combination of 30 minutes lunch break and one hour excused absence has been afforded to those who wish to participate in this program. Lunch may be eaten during this time. Signatures will be required for proof of participation.

Information may be obtained by calling Geri Winans, R.N., of the Medical Care Division (SED) at 4047.

Hail and Farewell

Col. Robert J. Lemon retired from the Air Force Jan. 27.

MSgt. David P. Krause departed Jan. 9 on a permanent change of station to Scott AFB, Ill.

Options for the Care Of Elderly Parents

Employees with elderly parents, who may be concerned that 80 percent of nursing homes residents become impoverished within one year, are encouraged to see the 30-minute video "Life After 60." Options for the care of elderly parents will be presented.

Showings will be at 11:30 and 12 March 17 in conference room 1 in Building 89004 and March 31 in training room 1A-1 in Building 36.

Sexual Harassment

Continued from page 2.

put it: "Individuals who are sexually harassed are encouraged to confront the offender, making it clear that such behavior is offensive, and should fully use the established procedures to report all cases of repeated sexual harassment. Sexual harassment is not a personal problem. It is a management and personnel problem."

Reservations Due For ACS Luncheon

The bi-monthly luncheon of the Aerospace Charting Seniors will be April 12 at Grant's Cabin. Social hour at 11:30, lunch—choice of baked chicken quarter or tenderloin tips with egg noodles—at 12:30. The program will be wine tasting by Montelle

Winery, Augusta, Mo. Call for reservations Grace Riechmann/832-5066, Harley Jennings/428-3356, or Pat Cronin/846-8567, or mail reservations including entree choice NLT April 7 to ACS, P.O. Box 6942, St. Louis, MO 63123. Cost is \$7.50 per person.

Honor Roll

SPECIAL ACT AWARDS

Kimzey, Charles G. -
\$3,580

Mercado, Paul - \$525

Brummett, Tony L. - \$300

Brown, Michael D. - \$250

Gruettmeyer, Edward G. -
\$250

Lushbough, Julie M. - \$250

Smith, Halbert V. - \$250

Wheeler, Gael A. - \$250

Bodfield, David W. - \$230

Craven, Richard D. - \$230

Anderson, Claire A. - \$208

Devero, John M. - \$208

Wagner, Leland A. - \$143

Ade, Stephen F. - \$125

Bodkins, Stephen C. - \$125

Bratten, Jacqueline E. -

\$125

Burns, Nancy J. - \$125

Covington, William R. -

\$125

Culler, Robert L. - \$125

Horvath, Joseph C. Jr. -

\$125

Kleinkemper, Lawrence B.

- \$125

Koch, Creighton L. - \$125

Koenen, John J. - \$125

Lovelady, William M. - \$125

Reid, Cynthia A. - \$125

Schneeberger, Michele V. -

\$125

Squires, Charles E. - \$125

Stragliati, Sandra L. - \$125

Strehlow, Scott A. - \$125

White, Joseph L. - \$125

Brown, Frederick P. - \$40

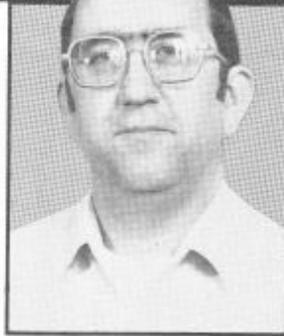
Colbert, James H. - \$40

Harper, Marva B. - \$40

FE Civilian Of the Quarter

James Novotny, Non-supervisory Civilian of the Quarter in the Directorate of Facilities Engineering, was cited for "resourcefulness in solving problems." An apprentice electrician in the Electrical Section (FEMFE), he solved a safety problem concerning emergency lighting in stairwells of Building 36.

After surveying the stairwells, he developed a proposal to improve the lighting and make it more accessible. He planned the work, ordered materials and estimated labor hours



James Novotny

'Problem Solver'

to perform the work. "This type of planning activity is typically done by a senior journeyman, not an apprentice. Nonetheless, Mr. Novotny did it, and the results were excellent," officials said.

Man with Good Vibes

Visual information specialist Gordon Lawrence (SDRG) was the subject of a rave review in the Feb. 2 St. Louis Post-Dispatch. He has formed a



new band, Upstream II, that plays Fridays and Saturdays from 9 to 1 at Bandera's in Warson Woods, Mo.

Gordon started out playing vibraphone with bands in Gaslight Square. His last group, Con Alma, was one of the best jazz ensembles in St. Louis, according to reviewer Terry Perkins.

Lawrence said he quit playing for several years because he needed "to step back and think about what I wanted to do.... Over the last couple of years, I've spent a lot of time in my basement really learning to understand what I want to do musically. Now when I'm onstage, I'm a lot more relaxed and the music seems to really satisfy me." Describing the audience reaction, Perkins concludes, Lawrence "seems to satisfy his listeners, too."

Retirements

Meredith L. (Buz) Morris, branch chief in the Mapping and Charting Dept. Production Support Office (MCP), retired Feb. 3 with more than 33 years of federal service. He was a navigator in the Strategic Air Command and later served in the Air Force Reserve. He came to the Aerospace Center in February 1960.

"I am proud of my career at DMAAC and will miss all of the fine, professional people I have been associated with in the Aeronautical Information Dept., Mapping and Charting Dept., and throughout DMAAC," he said. He and his wife will fish for bass at Table Rock Lake, travel, and perform volunteer work.

Chester O. Smith Jr. (MCACB), aeronautical information specialist, retired Feb. 3 with more than 24 years of federal service. He joined the Navy in April 1941 and served six years, including 42 months in the South Pacific. As a member of the Air Force from 1949-53, he flew missions between Europe and Korea as a C-54 pilot. He came to the Aerospace Center in 1974. In retirement, he said, "I will continue flying."

Clarabelle O. Storms (DSMA), secretary, retired Jan. 25 with more than 11 years of federal service. She came to the Aerospace Center in July

1977. She worked for Ed Leonard, Don Scheibe and Dr. Luman E. Wilcox before her last position as "secretary to Mr. Jerry Jackson and his crew of 47. I wish to thank all my friends, working and retired," she said. "I will miss you. My retirement plans are to stay as healthy as possible and be active in my church."

Looking Back

TEN YEARS AGO... Leonard E. Brauer has been named Aerospace Center Security Policeman of the Year. He has "consistently displayed the ability to blend courtesy with professionalism in the performance of his duties," reports Security Police Chief Ed Kendrick. A Marine Corps veteran, Brauer works on the third shift. He is studying law enforcement at St. Louis Community College.... William P. Durbin from HQ DMA will discuss alternate forms of energy at the March 8 meeting of the St. Louis branch of the American Geophysical Union. Durbin was a founder of the local branch of the AGU in 1969 and served as its first chairman. (Orientor, March 2, 1979)

TWENTY YEARS AGO... "Stars and Garters" was the title of the Aero Chart Women's Club fashion show Feb. 10 at the Loretto-Hilton Center. Modeling fur and evening wear was club first vice president Mrs. Gwen Murphy. Mrs. Earl Underhill modeled the all-American play suit and Mrs. Robert Ripple appeared in a daytime knit with quilted nylon coat. Diane White, local TV weather girl, served as moderator. More than \$1,500 was raised for charity.... Charles F. Martin, chief of the Space Science Studies Section, has been awarded the Meritorious Civilian Service Award for his direction of lunar geodetic control studies. (Orientor, March 14, 1969)

Sports

Tennis, Racquetball Tournaments Start Tue.

Tournaments in racquetball and indoor tennis are set to start at the Price Support Center in Granite City, Ill., next Tuesday.

The tournaments are open to DoD civilians, active duty military personnel, and members of their families. There is no entry fee, but you must sign up by 10 p.m. Monday. Call Jane or Rob at 452-4209.

Both tournaments will be self-scheduled events in which the players are responsible for arranging their own times to play: evenings, weekends, or daytime.

Trophies will be awarded to the winners.

Hot Shots Set Mark For Each Other

At Shrewsbury Lanes

Pat Tolefree bowled a 190, 213 and 268 for a 671 series. Anne Konecnick bowled a 641 series.

Frank Holba bowled 156 pins over his series average with a high game of 238. Ray Sovar was 74 pins over his series average with a 241 game. Shirley Amsler was 93 pins over series average and Joe Rausch 81 pins over series average.

Janice Lindsey bowled a 235 and Pat Wiese a 234. Marie Morango bowled a 186 *all-spares* game.

Cliff Daniels picked the 2/8/7 and the 5/7 split, Alice Stanford the 6/7 split, and Sherman Moore the 5/10 split.

There is only a span of nine pins difference in the Hot Shots' averages. Chris Snowden has a 160 average, John Terrana a 165, Earl Stephens a 166, and Barb Speiser a 169. The Hot Shots are in second place.

--Ginny Woehrle

835 Series 3rd Highest in City

Ed Fank's 835 series ranks as the third highest to be recorded in the city of St. Louis during the current season, according to the *Bowling Review* of Hazelwood, Mo. In scoring his first series over 700, Ed surpassed the 800 mark as well, in a series he bowled in the Arsenal Mixed League, as reported in the Feb. 17 *Orienteer*. His previous high series had been 696.



Return to Sender

Photo by Melissa Perucca

Herb Baker of the Knetknockers (right) sends the ball back where it came from in the Co-ed Power League.

DEFENSE MAPPING AGENCY
AEROSPACE CENTER
3200 South 2nd Street
St. Louis, MO 63118-3399

OFFICIAL BUSINESS

BULK MAIL
Postage & Fees Paid
DMA
PERMIT NO. G-2