

Gen. Breedlove to Panama; Gen. Jacobson New Deputy

Maj. Gen. James M. Breedlove, USAF, has been selected by the Air Force to become Commander, United States Air Forces Southern Command, effective November 1.

The general has been serving as Deputy Director of DMA since August 1973. He is a native of Franklin, Kentucky and a 1947 graduate of the U. S. Military Academy at West Point.

During the Korean War, he served with the 616th Aircraft Control and Warning Squadron at Kimpo, South Korea, where he flew a total of 39 combat missions. In June 1969 the general was assigned to Thailand as Vice Commander of the 388th Tactical Fighter Wing, Korat Royal Thai Air Base, and assumed command of the wing in December 1969. He flew 162 combat missions with a total of 378 flying hours in the F-4E Phantom II aircraft.

In addition to his flying combat tours General Breedlove has held command and staff assignments in both the United States and overseas areas.

The general and Mrs. Breedlove will depart the latter part of this month for their Panamanian assignment.

Air Force Maj. Gen. Hilding Leonard Jacobson, Jr., has been named as the new DMA Deputy Director replacing Maj. Gen. Breedlove.

General Jacobson is a native of Omaha, Neb. with a bachelor's degree from the University of Nebraska and a master's from George Washington University.

He began his military career in June 1941 as a platoon leader with the 63rd Infantry at Ft. Leonard Wood, Mo. In 1942 he entered student pilot training at Ellington AFB, Texas.

During World War II he flew the B-25 with the 345 Bomb Wing, New Guinea.

Throughout his career he has held a variety of assignments from Inspector General to Research and Development. Most recently the general served as ACS/J-2, 7AF/USSAG, Nakhon Phanom Airport, Thailand.

Rated a command pilot, the general has held positions with the staff of the Joint Chiefs of Staff, at headquarters Air Force and with headquarters SAC.

Some of his decorations include the Legion of Merit with two Oak Leaf Clusters, the Distinguished Flying Cross with one cluster, the Air Medal with 4 clusters, and the Air Force Commendation Medal with one Oak Leaf Cluster.

Orienteer

DEFENSE MAPPING AGENCY AEROSPACE CENTER

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Explorer's Begin New Scout Year



October 1 was kick-off night for the two DMAAC sponsored Explorer Posts as Col. W. W. Keehr, deputy director for PR, addressed the post members on behalf of the Center.

The joint meeting provided prospective members with an idea of future post activities and a look at some of the equipment used by the Center in the production of charts.

Ray Massie is the advisor for Post 9-240 (cartographic) and Stuart Popp is advisor for Post 9-241 (aviation).

All high school age students, both male and female, are invited

Assistant Air Force Secretary Tours Center

Assistant Secretary of the Air Force (Research and Development), Dr. Walter B. LaBerge, steps up the ramp of building 36 as he prepares for a day of briefings and orientation at the Center. Dr. LaBerge and his party visited DMAAC on October 10th to better acquaint themselves with the agency operations and its vital support to present and future weapons systems of the Air Force.



Employment of Handicapped Is Good Business

During the recent national... He entered on duty as a GS A



CTS Personnel Aid In Search For Youth

Forty-one volunteers from the Cartographic Technical Squadron at March AFB, Calif. assisted in a search recently for a 3-1/2 year old boy.

The child had been reported missing from a community in the San Jacinto mountains during a 17,000 acre brush fire.

The CTS personnel, along with other volunteers, formed a human

chain to search every square foot of space within eight miles of the youth's home. The search lasted well into the night as searchers used flashlights to explore fields, buildings and streambeds.

The boy's body was found two days later in a small camping ice chest within 100 feet of the youth's home. The ice chest had a self-locking lid.

Joint Society Meeting To Hear Technical Director

Three technical societies will join together Tuesday night for their first technical dinner meeting. Speaker for the joint ASP, ACSM, and ION meeting will be DMAAC Technical Director Lawrence Ayers.

Ayers will speak on the Direction of Military Mapping Technology.

The joint meeting will be held in

the DMAAC dining hall beginning with a cash bar at 4:30 p.m. Tuesday afternoon followed by dinner at 6:00 p.m. Ticket price is \$3.75.

For additional information and tickets contact Bob Greenstein or Don Marohl on extension 4161.

both male and female, are invited to join one of the posts. Adult leaders are also needed to assist with the Posts' activities. Anyone wishing to volunteer should call either Massie on extension 4778 or Popp at 8253.

The meeting was held in the S. Annex auditorium. Displays of last year's post activities were available for prospective members to view.

CFC Award

DMAAC was recognized by the United Fund during the first week of October for having exceeded the Center's achievement award goal.

Total contributions at the Center amounted to \$63,048 in the Combined Federal Campaign, a 19 per cent increase of the last year.

Glenn Burgdorf, CFC project officer, said the increase was due primarily to an increase from 34% to 42% participation in the payroll deduction method of contributing and to the excellent work of the project officers and keyworkers throughout the Center and the generous hearts of all employees.

Special recognition within the Center went to those areas exceeding their Fair Share Award goals. These included: D/CO, PO, CM, PR, PP, AA, RD, IG/OI. Research Department also exceeded \$26 per capita and was the first to complete their campaign.

Exceeding their achievement award goals were AD, CD and MD.

A total of 85% of the Center workforce contributed during the Combined Federal Campaign.

During the recent national Employ the Handicapped Week, Federal agencies and private industries were urged to employ the handicapped as a matter of good business practice.

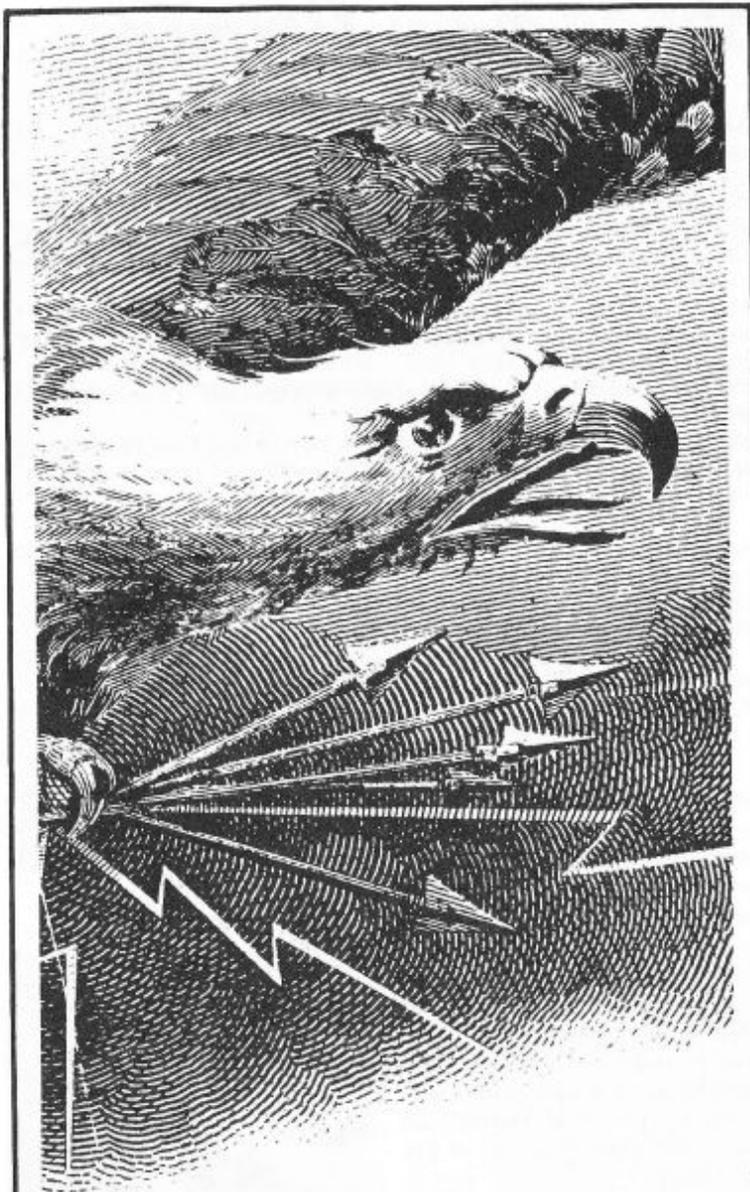
DMAAC has a prime example of why that reasoning is sound. Clyde J. Briley, who is employed in the Equipment Engineering Division of LO, has been confined to a wheel chair since his entrance on duty in June 1955. His handicap has not prevented him from doing efficient and productive service for the Center.

He entered on duty as a GS-4 Voucher Examiner and since that time has progressed to a GS-11 Production Controller. During his service he has accumulated numerous awards for service and suggestions.

One of the most important facts concerning Clyde Briley's employment is that he has managed to accrue more than 2,000 hours of sick leave, an accomplishment that few employees who are not handicapped can surpass.



Clyde Briley, LO, a 19 year veteran of DMAAC service has accrued over 2,000 hours sick leave despite a physical handicap which has confined him to a wheelchair.



VETERANS DAY Oct. 28

Bits And Pieces

From the Black book:

The night of ghosts, goblins and things that go bump in the night approaches. We've already gathered in a supply of goodies for the neighborhood ghosties. Halloween is always kind of a fun time of the year. Usually it's not too cold and the Indian Summer weather begins to prepare us for the snowy times to come. For those of you who can, reflect a few years ago when Halloween was the time to dismantle the neighbors wagon and reconstruct it on top of the barn; or move the old outhouse to the courthouse lawn; or whitewash grumpy Mr. Jones' black cow; or transplant the "it's better to give than receive" sign from the church yard to the bank president's yard. Of course I can't remember that far back and must rely on what I've heard about the good old days.

-O-

Whatever you used to do on Halloween, remember that the ones who get the most enjoyment from the evening are the little ones. So treat them with a smile for a Happy Halloween.

dlb...

Community Service

CTS personnel and their wives manned telephones during the critical final shift of the Jerry Lewis Muscular Dystrophy Telethon on Labor Day. The nineteen person group drove sixteen miles to work in the local headquarters at Colton, California, which serves the River-

Suggestions Bring Awards



Kurtak



Edwards



Breville



Beierle



Wildberger



Stephens



Hester



Kowalski



Haire



Ragan



Kania



Barnhart



Ball



Rosenberger



Larson



Dersch

Suggestion awards were received by all above pictured DMAACers.

Joseph E. Kurtak, PDA, was awarded \$160.00 for suggesting the reuse of green JN & ONC plates, saving the cost involved in preparing new ones. Gary V. Edwards, ADDP, received \$25.00 for a suggestion to perform HAA/HAT compilations in Aeronautical Information Department rather than at FIO, Pacific Command, Reno, NV.

publications, photo copiers, etc. William B. Hester, RDP, was awarded \$30.00 for suggesting eliminating foreign aeronautical charts from the DoD Aeronautical Chart Library. Walter V. Kowalski, Jr., RDSE, submitted a suggestion to refine CHUM notice validation procedures which earned a \$90.00 award.

Kenneth R. Haire, RDSL was awarded \$75.00 for a suggestion to improve product quality, economy

Veterans Day is a day for all Americans.

It is a day to pause and acknowledge with respect and admiration those men and women who have served with the military forces in preserving our freedom.

Fifty-six years ago, the guns were stilled along the Western Front. The Great War to save democracy—the war to end all wars—was over. The job was finished and Johnny would soon come marching home.

Johnny did come marching home. He marched home again after World War Two, after Korea and after Vietnam. But this holiday, originally known as Armistice Day, was not set aside to honor those who marched home; it was for those who were left behind.

Veterans Day, observed each year on the fourth Monday in October, is a day to reaffirm our faith in this Nation and to pay respect to the men and women who served our Nation in the past, as well as those who are in uniform today. This year the date is 28 October.

One out of seven Americans is a veteran of wartime military service. That figures to about 29.2 million living American veterans. There are more than 14 million now dead and over a million who had their lives cut short while in service.

CAP Squadron Joins In Practice Rescue

The Civil Air Patrol Falcon Composite Squadron, which holds its weekly meetings at DMAAC, recently participated in a joint practice rescue exercise.

The exercise was conducted by senior and cadet members of South County Falcon Composite Squadron and Twin Cities Squadron (Festus-Crystal City). The purpose of the joint venture was to conduct a simulated search and rescue mission with cadets running the operations under senior supervision.

Three aircraft were involved in

grid searches covering a 25 mile radius over the pilot's last known position, (in the Bismark, Mo. area). Two targets were used. One represented the downed aircraft and the other was marked as an old find. As the mission progressed, ground and air teams correlated their information on grid searches and ground investigations.

Anyone interested in the work of the Civil Air Patrol is invited to attend one of the Tuesday night meetings at the South Annex training school area.

ma, which serves the Riverside/San Bernardino area.

During the campaign, a total of \$39,000 was pledged by people of Riverside and San Bernardino. Nearly 70% of that total was phoned in during the final eight hours that CTS personnel were on the phones.

Mr. James E. Park of the Junior Chamber of Commerce in Riverside, California, originated the idea of squadron participation in the telethon. Mr. Park is an outstanding local businessman who serves as "Co-Commander" of the CTS or in other words, is a very effective liaison between the military unit and the local community. It was he who coordinated between CTS and the local Telethon Committee to arrange the first participation by an organized military group in the area.

Telethon officials praised the professionalism shown by the CTS personnel and their dependents. They were especially pleased with the dedication and courtesy of the volunteers during the particularly heavy calling period.

The ORIENTOR is an official newspaper, published bi-weekly on Friday by and for the personnel of the Defense Mapping Agency Aerospace Center, at St. Louis, Missouri. Opinions expressed herein do not necessarily represent those of the DOD.

Col. Donald D. Hawkins
Director

David L. Black
Chief, Office of Information
Editor

Pacific. Gerald L. Breville, RDNC, received \$55.00 for his suggestion to provide enlarged punch card transcripts for instructional and demonstration purposes, and \$12.50 for a suggestion to use a template keyed to AF Form 1530 to code WANG Programs. Charles W. Beierle, RDNC, received a \$90.00 award for suggestion to develop an improved UNIVAC 1108 GRAVCORR computer program.

Lester F. Wildberger, RDSLSD, received \$37.50 for a suggestion to make available certificate type photo cards to serve as personal mementos for departing DMAACers. Helen H. Stephens, RDSLL, earned \$25.00 for her suggestion to expedite the procurement of AIAA publications by establishing Deposit Account with AIAA's Technical Information Service for the purchase of AIAA meeting papers,

improve product quality, economy and timeliness through a more positive and consistent compiler — RAS/SAS working relationship. James M. Ragan, RDSE, received \$35.00 for a suggestion to preassign blocks of AMIF accession numbers down to the SAS level. Anthony R. Kania, RDSP, was awarded \$25.00 for his suggestion to reformat a chart evaluation form. Harold C. Barnhart, ADPA, received \$25.00 for his suggestion to improve the procedure for obtaining Air Facility Data on U.S. Army Airfields located in the USA.

Solomon E. Ball, MDR, received \$25.00 for suggesting raising electrical wall outlets four feet above the floor in Room 20, Area 3D, Bldg. 36, eliminating a safety hazard. Graham Rosenberger, RDSLS, Thurn T. Larson, RDSLSA and John H. Dersch, RDNL, received Notification of Adoption letters.

Credit Union Contest Draws To a Close

You still have a chance to earn a 4-day trip for two to Las Vegas if you are the Arsenal Credit Union member with the greatest number of new-member referrals by the annual meeting November 1.

The trip involves four exciting days of sightseeing, starseeing, casino visits, food and relaxing. The trip is valued at over \$550 and includes round-trip, non-stop air transportation via TWA from St. Louis, accommodations in the

fabulous Hacienda Hotel for three nights and four days, baggage handling and transfers to and from the airport to the hotel.

The credit union's Great Las Vegas Get-Away Give-Away campaign encourages members of Arsenal Credit Union to use its many financial services by offering a designated number of markers that are redeemable for gifts from Arsenal Credit Union's gift catalog.

“Professional and Dedicated Work Force” Says New DMA Director About Center

“During my visit here I have been pleased to see a highly professional and dedicated workforce,” Vice Admiral S.D. Cramer told the DMAAC staff during his final session of a two-day tour of the organization.

The Admiral, newly appointed as the DMA Director, was making his first visit to the St. Louis Center. His tour was designed to give him a brief overview of the organization’s operations and the importance of DMAAC products to the military and civilian user.

Admiral Cramer was accompanied on the visit by Colonel Lund, U. S. Army, the Director’s executive officer.



In the Cartography Department Jack Bathe, department chief, explains the new LIS System to the new director.

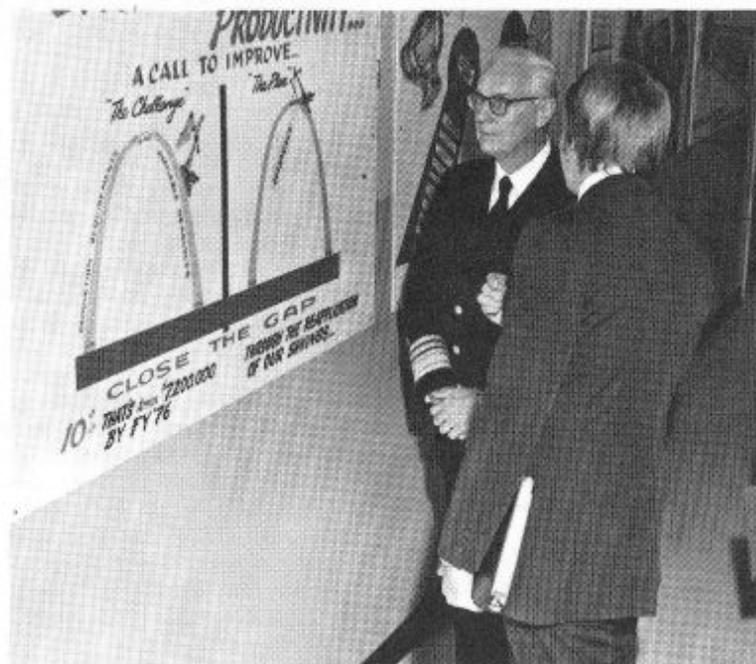
16 Honored at Center



McCormick Anderson Fenton Sigler



Arriving at the Center is new DMA Director, Vice Admiral Shannon D. Cramer.



William Hogan, CM, explains the DMAAC Effectiveness/Productivity Program to Admiral Cramer using the award winning display located in building 36.

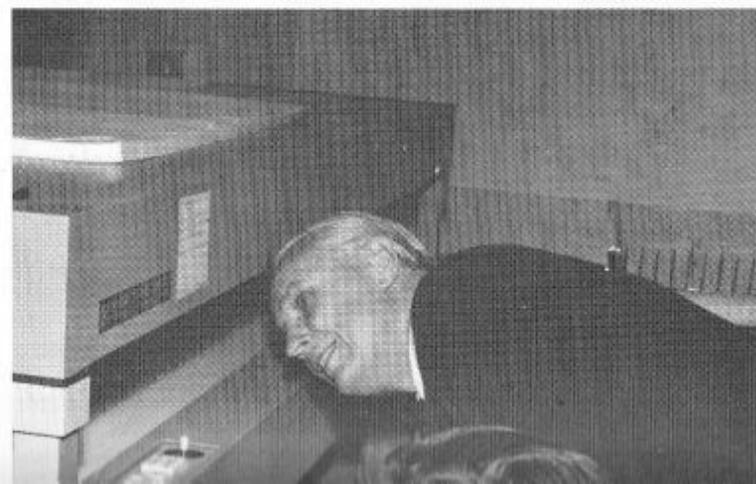
Photos by
Earl Reed &
Ed Mullen

Assisting Scouts Brings Thanks

Several members of the DMAAC work force have been recognized by the St. Louis Area Boy Scouts Council for their contributions to the summer camping program.

In special letters to the DMAAC, Director Russell Hart, Scout Executive, expressed his appreciation for the voluntary work.

Those assisting the scouting program included: John Mallow, assistant scoutmaster of troop 981 sponsored by the Westchester School PTA; Lloyd Sanborn, adult leader of troop 879 sponsored by City of St. Louis; Charles Piller, assistant scoutmaster of troop 817 sponsored by Immanuel Lutheran





Johnson



Doyle



Ziegler



Willis



Kienbusch



Riehl



Lydon



Spors



Hudgens



Dumont



Brueggeman



Jenkins

Performance, service and suggestion awards were received by the above, (top row, left to right): Willard J. McCormick, SOCB, and Shirley Anderson, MDZ, received an Outstanding Performance Rating and Quality Salary Increase. John S. Fenton, Jr., ADPP and Sharon L. Sigler, CDAB, received Outstanding Performance Ratings and Sustained Superior Performance Awards. Kent T. Johnson, ADFD, received a Quality Salary Increase and Sharon A. Doyle, ADPF, received a Sustained Superior Performance Award.

Pins and certificates for 20 years Federal service were received by: Russell P. Ziegler, ADDE; John M. Willis, RDSL; William R. Kienbusch, Jr., CDIN; Rowland K. Riehl, CDCC and Robert H. Lydon, CDCB.

Cash awards were received for

suggestions by Robert F. Spors, MDA, who received two awards, \$90.00 for a suggestion, subject which is of restricted nature, and \$25.00 for his suggestion to incorporate the general adjustment and coordinate conversion programs into a coordinate program.

Leonard W. Hudgens, MDA, \$25.00, for installation of a switch on the telephones to facilitate second shift operations.

Richard E. Dumont, MDA, was awarded \$25.00 for a suggestion to reformat the input record card on the Herget Program.

John E. Brueggeman, MDC, received \$50.00 for suggestion to improve talk-a-phone communications in the UNIVAC 1108 Computer Room.

Lohris G. Jenkins, MDM, \$95.00 for suggestion, subject of restricted nature.



Equipment operation was of major interest to the Director as he carefully watched this plotter during operation.

Outstanding Jr. Officer At March AFB

Captain Jerry D. Cornwell, of the Cartographic Technical Squadron, has been chosen as March Air Force Base Outstanding Junior Officer, Non-rated, for the period 1 January 1974 through 30 June 1974. Captain Cornwell, Chief of the Logistics Office at the Cartographic Technical Squadron, is also responsible for the unit's \$650,000 operating budget. He handles all real property within the squadron and is tasked with vehicle maintenance and the utilities conservation programs as well.

Captain Cornwell prepares the Program Objectives Memorandum (POM) and the FY74 Financial Plan for the Cartographic Technical Squadron.

An active, civic-minded officer, Captain Cornwell is involved in numerous base and off-base activities. He is a member of Squadron Basketball, Volleyball, and Golf Teams. He actively participates in programs in his local church, where he is a member of the choir and Recreation Chairman for the Master Men's Group. Before coming to March and the Cartographic Technical Squadron, Captain Cornwell was Supplies and Management Officer in Base Supply at Sheppard AFB, Texas. He has also attended Squadron Officers' School in residence.



trees

... don't grow on the moon.
No shade, no wildlife,
no forest groves.
But there are trees on earth!
Let's keep it that way.

Brown Leads Jr. Achievers

William J. Brown, CD, has been selected as the new Junior Achievement coordinator for the Center. Brown replaces Sol Tyler, CM, who recently accepted a position with the DMA headquarters in Washington, D.C.

The Junior Achievement Program helps high school students learn about the free enterprise system through actual business operation. They design, manufacture, and sell their products as well as handle all the financial and administrative aspects of the company.

Last year the Center sponsored five companies in the Junior Achievement Program of St. Louis.

Advisors to work with the companies are needed. Anyone wishing to assist in the program should call William Brown.

Safety Training

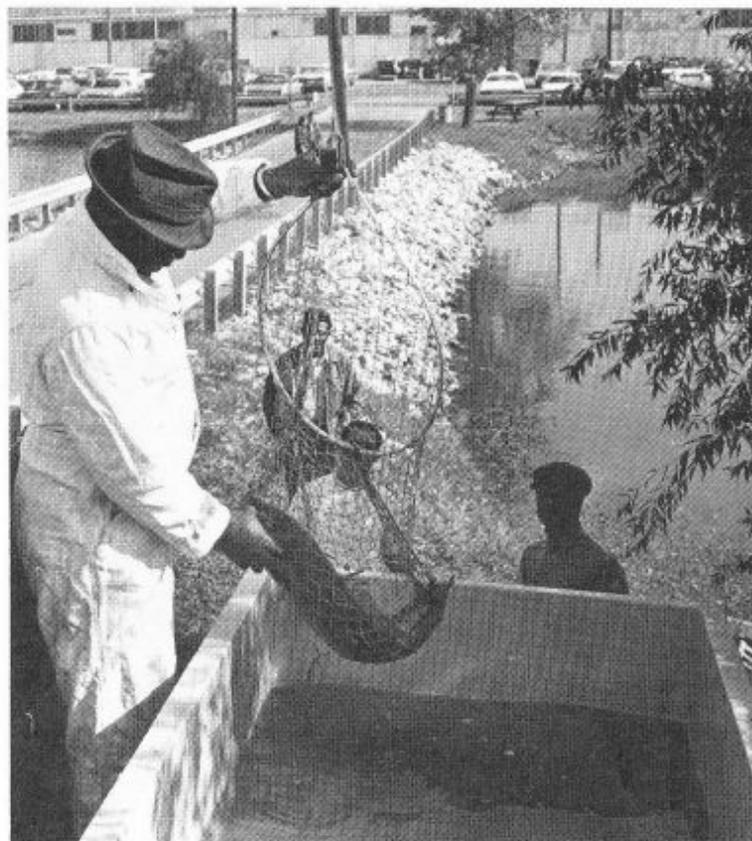
A special training course for additional duty safety personnel was held October 8th and 9th at the South Annex Training School.

The course, presented by a team of instructors from Lowry AFB Technical Training Center, covered 28 hours of material. Subjects ranged from Philosophy of Accident Prevention to Accident Investigation and Reporting.

Twenty personnel from the Center participated in the course.

The new DMAAC Accident and Prevention Instruction requires at least one additional duty safety monitor from each department and directorate.

The training program was arranged through the DMAAC Safety Managers Office in Facilities Engineering.



New Fish For Ponds

A tank load of new fish were delivered to the South Annex ponds October 8th as part of the restocking program undertaken by the Civilian Welfare Council.

A total of 125 pounds of channel catfish and 150 pounds of carp were placed in the ponds.

The East pond was stocked with both channel catfish and carp ranging in size from one to ten pounds. The West pond was stocked with channel catfish averaging one pound with several tipping the scales at five pounds.

The ponds will be closed to fishing until April 1 1975 to allow the fish to acclimate themselves to the ponds and to spawn in the spring.

The recent bluegill fishing tournament held at the Annex was the first phase of the restocking program.

Wilcox Addresses AGU Meet



Dr. Luman Wilcox discusses mapping plate boundaries with reference to mean gravity anomalies during a recent meeting of the American Geophysical Union in St. Louis.

AGU

Mapping Plate Boundaries with Reference to Mean Gravity Anomalies was the topic of Dr. Luman Wilcox's lecture to the Metropolitan St. Louis Branch AGU meeting this month.

Using a global chart showing plate boundaries as defined by the $1^{\circ} \times 1^{\circ}$ mean free air gravity anomaly holdings of the DoD Gravity Library, Wilcox pointed out how the chart confirms and, in some cases, redefines the plate boundaries as now delineated from seismic and magnetic evidence.

Wilcox is chief of the Gravity Correlation Branch of the DMAAC Research Department.

The next meeting of the AGU will be held November 18 as a joint meeting with the American Meteorological Society.

Attending the recent meeting were DMAAC Deputy Director Col. J.H. St. Clair and Technical Director Lawrence Ayers.

Halloween Help

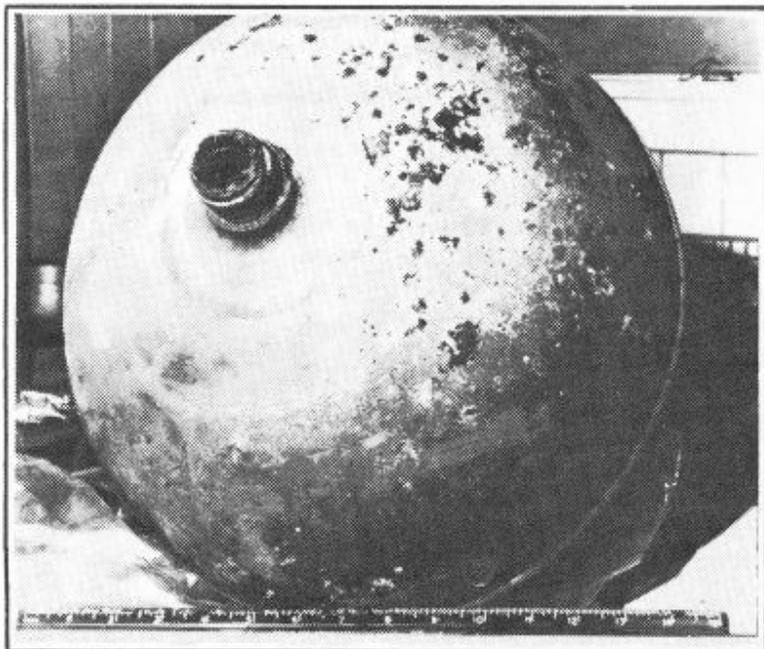
Margaret Ryan, MDCC, is assisting the local Kidney Foundation Halloween Candy sales. Donations received for the trick-or-treat candy helps to fight kidney disease. Margaret can be reached on extension 4630.

ARSENAL
CREDIT UNION
ANNUAL MEETING
DINNER-DANCE
Marriott Motor Hotel
November 1, 1974



Computer Keeps Tabs On Falling Space Debris

By Capt. David M. Wallace, USAF



Space Debris

This 16-inch sphere withstood the extreme heat of re-entry into the earth's atmosphere and impacted in New Zealand in 1972. It was later identified as a piece of support equipment from a Soviet space launch. The North American Air Defense Command's Space Defense Center says that decaying space debris is falling from the skies at the rate of one per day. (NORAD photo.)

Space age "debris" claimed its first and only victim nearly 13 years ago, according to news reports, when a 20-pound chunk of white-hot metal slammed to earth near a sleepy Cuban village and snuffed out the life of a cow grazing peacefully at the point of impact. The fragment was from a U.S. launched space probe.

The North American Air Defense Command's (NORAD) Space Defense Center knows of no further incidents of fatality, human or otherwise, although "decaying" space debris is now falling from the skies at the rate of "one per day."

Since Sputnik I opened the door to space exploration in 1957, man has placed 6,866 objects into orbit. Of these, 2,891 have decayed already with only isolated reports of minor property damage.

With space object decay a daily occurrence, why hasn't there been more damage? Space Defense Center technicians, working around the clock deep within the confines of NORAD's granite stronghold in Cheyenne Mountain, say that the chances of one of these objects actually hitting someone are "very slight—a one-in-a-billion shot."

Only a small percentage of returning satellites ever impact on

the earth's surface since most disintegrate due to atmospheric friction. Of those that do survive re-entry, the majority impact in the oceans and seas which comprise three-fourths of the earth's surface. Only a few find their way to land areas.

The international scientific community generally agrees that little can be done to prevent these chance occurrences as long as nations continue to place satellites into orbit. In adopting the next best measure, however, NORAD's Space Defense Center conducts 24-hour surveillance and computer analysis on decaying space objects and issues warning of potential re-entry object damage in much the same way the U.S. Weather Bureau issues hazardous weather warnings. Advance information is provided to a host of users, such as scientific agencies and commercial airlines, on the predicted time and impact area.

In order to provide these warnings, the Space Defense Center must first keep "book" on all man-made objects launched into space. Using a world-wide network of radars and optical sensors, the Space Defense Center processes approximately 20,000 incoming observations per day to arrive at accurate mathematical

descriptions of satellites in orbit.

These descriptions identify a satellite's plane and its relative position to other satellites. It is akin to assigning each object a street address and zip code. Once an object is identified, it is given a catalogue number used as a reference for the duration of the satellite's orbit.

How long does a satellite remain in space? The Space Defense Center explains that a few of the objects orbiting the earth will stay aloft for thousands of years. Others may "live" but a few months or days. Russia's Sputnik I, launched on Oct. 4, 1957, remained in space until January 1958, less than four months. Explorer I, the United States' first satellite, was launched in February 1958 and circled the globe more than 58,000 times during its 12-year life span, which ended in a fiery re-entry on March 31, 1970.

Many satellites on the Space Defense Center's decay prediction sheet are expected to orbit for much longer periods: Explorer 16, launched in December 1962, is "go" until the year 4207; Alouette I, also a 1962 product, is good for another 1,823 years; and Telstar I, in space since 1961, will orbit for 56 centuries, or until 7561.