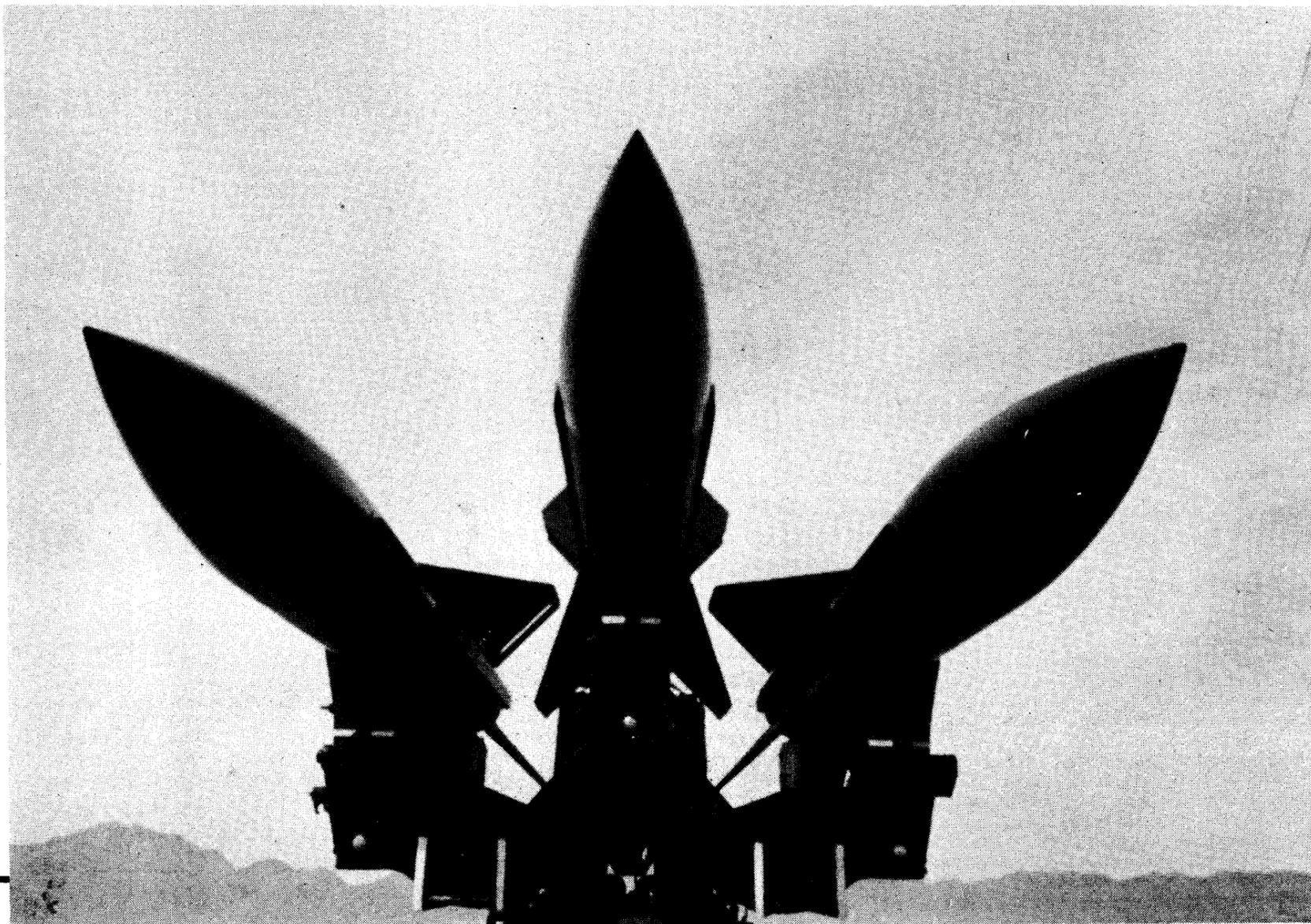


The Rocket

VOL. XXV; NO. 4
JUNE 16, 1976

Hawk Anniversary Issue



Hawk: 'T' Plus Twenty And Counting

The sun had climbed directly overhead at White Sand's Launch Complex 33, the Army blockhouse with the four-foot-thick-walls used for the original V2 firings.

On a small pad on the east side of the

See Hawk Stories Inside

building, the Army's new Hawk missile, dubbed the "bullet with a brain", was about to make its first guided flight.

Poised on a single boom launcher, the 16-foot long missile was painted white, unlike earlier unguided flights when it sported a bright red coat for tracking purposes.

It wouldn't be long now.

The Army-Raytheon team was about ready.

The last few days for the team had been especially hectic. They had sweated, cursed, gone over every piece of equipment, pulled wires, run pre-flight tests, then had done the whole thing again, and again! There was no fancy

loader or pallet, no mobile Hawk equipment. They loaded and unloaded with a crane.

And when something went wrong, or didn't check out, like the guidance package, they would transport the equipment from the launch site to the assembly building on the back of a truck, a distance of several miles, often with a guy standing beside it holding it.

The crew was confident. They believed in themselves, each other, and what they were doing. But nobody knew what might happen. They'd never done this before. But they had said Hawk would do the job. Now was the time to prove it.

The blockhouse was cleared of all but a handful of people. Many who had done all they could do, gathered outside and stood on the tops of cars, around a security fence guarding the blockhouse. Nerves were on edge, not only the people who massaged the missile, but people watching people massage it.

When Earl Koester, Raytheon's test conductor pushed the button that sent

Hawk skyward, about 1 O'clock, there was a heart rending moment when everyone gulped, caught his breath and thought the team had failed.

"I saw the smoke trail, blown and distorted by the wind, and thought the missile had lost control," said J. D. Kirkland, who represented the Hawk Project Office.

But instead of nosing over, the missile swooped down on the F-80 drone flying at approximately 11,000 feet and blasted it from the sky.

"It went right down the scoop and I'll never forget that," said Raytheon's Dick Jones. "I couldn't describe the feeling."

"It was like having a baby," Kirkland said. "After two years on the program, all that we had done was worthwhile after we saw it happen. It was the best feeling you could imagine."

There would be other days, other accomplishments to point to with pride. Hawk would soar again and again and number among its victims fighter planes, bombers, even missiles. Yet, never again would the feeling be quite the same, not like it was that day, June 22, 1956.

Hawk Celebrates

The Hawk Project Office will host an open house 3:30 Tuesday in the cafeteria, Bldg. 4488 celebrating the 20th anniversary of the first successful fully guided flight of Hawk against a target drone.

All MICOM personnel are invited. Officials of the Hawk Project Office said they especially hope individuals now involved with the system, and those who have been in the past, will be able to attend.

Among the guests receiving special recognition will be former Project Managers and deputies.

Awards are planned for persons who have had 20 years service with Hawk. Raytheon, prime contractor for the system, will also be recognized.

Maj. Gen. George E. Turnmeyer, MICOM Commander, will attend, and participate in honoring those who have contributed to the success of Hawk through the years.

Spot Bid Sale

There will be a Local Spot Bid Sale of Government surplus property on June 24 in the Rocket Auditorium.

Registration starts at 8 a.m. with the sale beginning at 9.

Some of the items for sale include display cases, air con-

ditioners, clothes line posts, furnaces, office machines, sedans and trucks.

The property for sale is located in building 7426 and the Property Disposal Vehicle Yard located on Warehouse Road. It may be inspected each day between 8 and 3.

Letter To The Editor

June 10, 1976

Editor, Redstone Rocket:

Your article labeled "Dropped Stomachs" on page 16 of the June 19th Rocket misinforms those people who may be contemplating a physical training program of jogging or running. It does not misinform the dedicated runner who has performed his daily regimen for months or years; that individual will know how preposterous the statements of Doctor J. E. Schmidt are.

Dr. Schmidt says that jogging can cause dropped stomachs, loose spleens, floating kidneys, fallen arches, spine and sacroiliac problems and phlebitis. This syndrome characterized a large number of people I saw yesterday waddling around the halls and puffing to the parking lot. It certainly does not characterize the hundreds of runners against whom I continue to compete.

It would be in the cause of government and public interest (also, individual interest) if you would feature an article on those people who have started and remained with the "Run for Your Life" program at Redstone and/or those people who have been running for years.

Wayne L. Smith

The Rocket

The Rocket is published weekly, on Wednesday. The publisher will receive editorial content for publication in the Rocket through the Information Office, Army Missile Command, Redstone Arsenal, Ala., 35809, Bldg. 5250, Room A-134. Extension 876-1400 or 876-1500.

All advertising copy and payments therefor are received by Mrs. Vergie Robinson, P. O. Box 5351, Huntsville, Ala., 35805, telephone 533-2703, as representative of the publisher. The advertising office of The Rocket is located at 410 Jordan Lane. Advertising deadline—both display and wanted—is 10 a.m. Monday before publication.

The Rocket is distributed free of cost to personnel at Redstone Arsenal. Mailing rates off post for the Rocket are \$9.54 a year, or \$6.36 for six months, tax included. Mailing arrangements may be made with the publisher, P. O. Box 930, Hartselle, Ala. 35640.

Everything advertised in this publication must be made available for purchase, use, or patronage without regard to the race, creed, color, sex or national origin of the purchaser, user, or patron. A confirmed violation or rejection of this policy of equal opportunity by an advertiser will result in the refusal to print advertising from that source.

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WASHINGTON (ANF) — Free courses on computer use and management of ADP resources are available for qualified Army and DA civilian personnel.

DOD's Computer Institute (DODCI), located at the Washington Navy Yard, offers three user-oriented introductory classes for junior, middle and senior managers (E-6 to O-9 and GS-9 to 18).

Lower ranking enlisted persons may also attend. Written requests for waiver will be considered on a case to case basis. The individual's background, experience and present assignment are looked at.

The two week basic course, Introduction to Computer Technology, is offered monthly. It is designed for persons with no

training or experience in computers, according to institute officials.

For the more experienced intermediate and senior level executives, DODCI officials say, technical level classes in computer specifications and selection system design and analysis, or computer security systems are offered. Courses last from two days to two weeks.

Since its inception, over 30,000 students have received computer institute instruction. The majority attended class in Washington but, according to DODCI personnel, instructors will travel worldwide to bring classroom instruction to your organization.

And if someone can't find something useful in the courses

offered, institute officials say they may be able to tailor special courses to meet specific needs.

In addition to instruction, DODCI offers management advisory services on computer and information systems design, operations and management. "We won't run your system for you," institute officials say, "but we can take a look at what you want to do and tell you if you're headed in the right direction." If something looks wrong, DODCI can refer you to the proper authority for assistance.

Write the Registrar, DOD Computer Institute, Building 175, Washington Navy Yard, Washington, D. C. 20374 or call AUTOVON 288-3391 or (202) 433-3391 for more information.

Joseph Kirshtein

Joseph E. Kirshtein, 61, A general engineer in the Redstone Scientific Information died June 7, 1976, in a local hospital after a brief illness.

A veteran of 23 years of government service, Mr. Kirshtein was selected in 1967 as Engineer of the Year by the National Society of Professional Engineers and the Society of American Military Engineers. Mr. Kirshtein was a member of both societies, and was registered professional engineer.

He was an active member for approximately 30 years in various capacities with the Boy Scouts of America. His youngest son Phillip, an Assistant Scoutmaster achieved the rank of Eagle Scout three years ago. Mr. Kirshtein



KIRSHEIN

was previously active with Troop 72, where his elder son, David, received Eagle Scout recognition earlier.

Other survivors are his wife, Doris, and a brother, Bernard Kirshtein of Pennsauken, New Jersey.

Pediatric Clinic Sets Examinations

Physical examinations required by area schools, camps, organizations, or other activities for children age 6-16, will be done on a first call, first serve basis on Wednesday, June 23.

Examinations will be scheduled through the Central Appointment Desk (876-3247) 8:00 to 4:30. Since the number of exam slots is limited, you must call as soon as possible to receive an appointment time.

At the time of the exam it will be necessary to present a form or letter from the camp, school, etc., indicating requirements for the extent of the examination.

Examinations will not be performed without a form or letter stating the requirement.

Downtown Bus Schedule Change

Post officials met Monday with a Chamber of Commerce and Merchants group to discuss a schedule change for the downtown bus.

While details were not available at press time, the change is expected to limit the bus run to Saturdays only, effective this coming Saturday.

After a five-week trial period, it has been found that not

enough soldiers ride the bus on Fridays and paydays to continue running it on those days.

Troop units will receive details of the schedule change sometime this week.



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Covert, LaHatte Knew It Before It Was Hawk

It was 1950. The Army had moved Dr. Wernher von Braun and the German research team from Fort Bliss to Redstone.

On the other side of the globe, North Korean communists swooped down on their southern neighbors igniting what a war-weary world called a "conflict."

Meanwhile, back at home, the Army took a hard look at its air defense weapons, including conventional guns, rockets, and guided missiles, and didn't like what it saw.

There was nothing in the arsenal suitable for the field Army to handle low flying enemy aircraft!

Thus the search for a weapon to fill that role began, a search that was to touch the lives of hundreds of people and, six years later, evolved into the bullet shaped missile, with fins, that knocked down an F-80 drone in its first guided flight on June 22, 1956.

They called it Hawk.

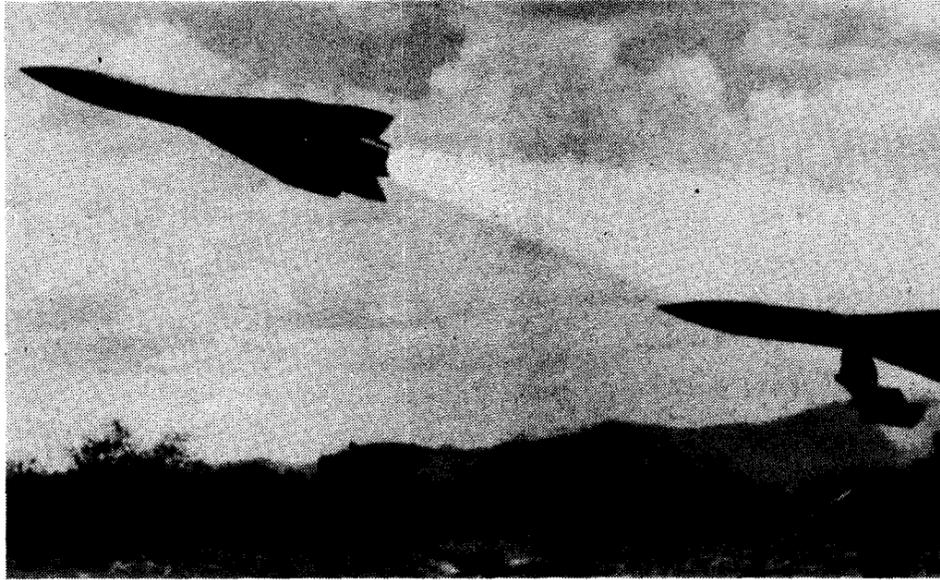
Before Hawk became reality, however, there was much to do, many questions to answer, a myriad of studies to make, and countless people to become involved.

Colonel John R. M. Covert, later to become Hawk Project Manager and Colonel W. F. LaHatte, both retired and living in Huntsville, were two of those people. "I suppose we were involved with the study program about as early as anybody," both agreed.

Covert in 1950 was assigned to the Office, Chief of Army Field Forces at Fort Monroe, Va., while LaHatte was assigned to Army Field Forces, Board 4, at Fort Bliss, Texas.

"I was liaison officer to Sperry Gyroscope CO. when Joe D'Arazzo, then a Lieutenant Colonel with Army Field Forces, asked me to do a study on the Sperry Sparrow system as a low altitude missile," Covert said. "Sperry had a beamrider system."

"Well, I ginned up about a ten-page study with the conclusion that a beamrider just wouldn't do the job as a low altitude missile. I concluded that all the Army would get out of Sperry Sparrow was the



Hawk Leaves Launcher

expertise of the Sperry engineers, that there was practically nothing that was readily transferrable to an Army missile."

LaHatte, meanwhile, was working at the Air Defense Board 4, which represented the user, making his own independent study, evaluating what systems were available and their potential as a low altitude candidate.

"I didn't even know about his study," LaHatte said pointing to Covert. "Everything was so hush hush in those days and nobody had told me about that study."

At about that point, Board 4 was asked to draw up military characteristics for a low altitude, surface to air missile.

"We began preparing, putting on paper, requirements for a low altitude missile," LaHatte said. "We didn't call it Hawk then, we called it low altitude SAM."

In about 1952, Covert recalls he came to Redstone Arsenal, his first trip here, for a tri-service, low altitude symposium. Rocket Auditorium was practically new.

"I had transferred to Army Field Forces and I came down with my boss, Colonel

John H. Madison, known as Smiling Jack, because he never did. He actually was a nice guy, he just didn't know how to smile."

"We presented the Army's idea of what we wanted to the whole guided missile community at Redstone Arsenal," Covert said.

"At about this time, a lot of people were getting the idea that the way to go was some kind of semi active, continuous wave homing all-the-way system so that fixed echo problems could be avoided.

"In fact, in the presentation I gave at Redstone, Colonel Madison allowed me to say that the Army believed at that time that a CW homing-all-the-way missile could best meet the requirement."

LaHatte and Covert remember that there were many heated discussions, however, on the best approach, whether to go CW or use some kind of pulse seeker.

Colonel C. W. Eifler, then in the Office, Chief of Ordnance and later to become

Commanding General of the Army Missile Command, had the responsibility for resolving this delicate and complex problem and making the final recommendation to Department of the Army and to the Guided Missile Committee of the Research and Development Board.

"Back in those days we didn't know a lot about missiles," Covert said. "We had to consider not only development but what our capability was to produce a system. Those were the days when systems were Kellarized, which meant they crashed into production.

"The Kellar committee was established to figure out which systems would go into production, which ones were dropped, and many systems dropped by the wayside. Both Nike and Corporal had already been Kellarized."

LaHatte remembers that Hawk, as originally conceived, "... was to be a low altitude man carryable weapon, lightweight, not over 300 pounds, that the guy in the field could haul up to the front, set up and shoot, against low flying aircraft. That was the original concept."

From 1952-1954 the Army evaluated a lot of contractor proposals, submitted by Westinghouse, Raytheon, Bell Telephone Laboratories, among other, before selecting Raytheon in 1954 as prime contractor, with complete system responsibility.

LaHatte had moved to Washington in 1953 where he coordinated requirements among various staff agencies. Later, in 1957 his final association with Hawk included, while at the Army Maintenance Board, working with the Field Service Division at Redstone where he dealt with Lt. Col. Frank Napper and Lt. Col. Matthew Collins.

Covert commanded a group of six Hawk battalions in 1964 and was Hawk Project Manager for about a year and a half starting in 1969.

Both men have a simple answer for Hawk's success.

"Hawk is the only missile there is to do that particular job," they said.

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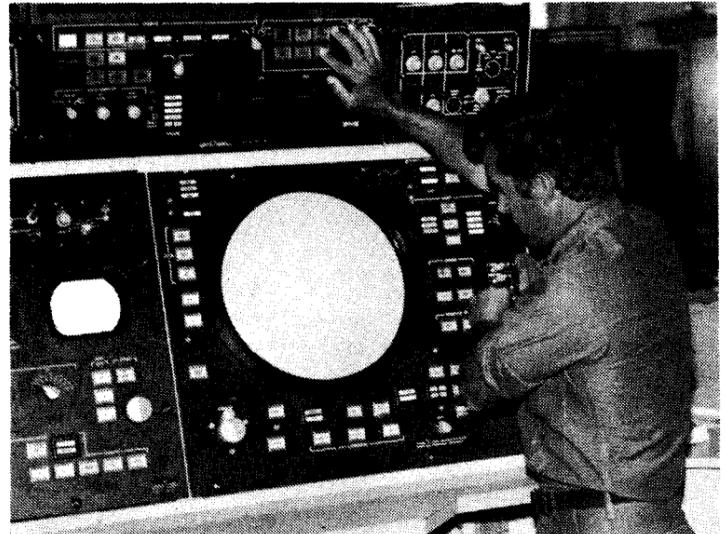
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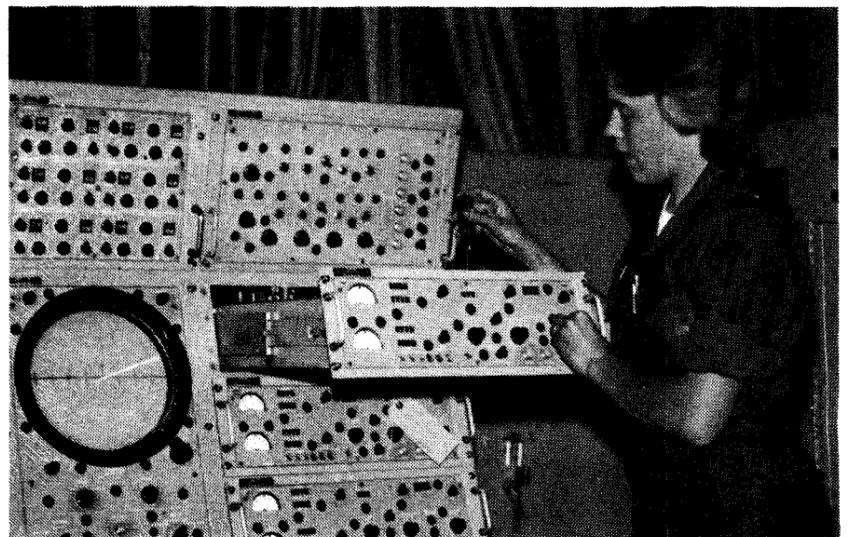
Corporal Gary Armstrong, 7th Student Company, MMCS, directs the placement of a HAWK Missile. Armstrong is studying the basic HAWK Missile and Launcher.



Specialist Six Jerry D. Mathes, 6th Student Company at MMCS, operates a piece of equipment in the Improved Platoon Command Post (IPCP) in the HAWK Division. This is the newest piece of equipment in the HAWK. "This is the most difficult part of the Improved Hawk Repair Course," said Mathes.



Privates Ricky Odom, left, and Mike Hollman work on the Moving Target Indicator (MTI) in the HAWK Division. Both are assigned to the 4th Student Company at MMCS. "This is a great course," said Odom.



HAWK SIMULATOR — "I really like it," said Corporal Julie Gerhardt of the 7th Student Company of MMCS., as she makes an adjustment in the target position generator on the HAWK Improved Simulator.

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- Glasgow AFB, Glasgow, Mont., 12
- Roswell Housing Authority, Roswell, N. M., 144
- White Sands Missile Range, White Sands, N.M., 12
- Niagara Falls International, Niagara Falls, N.Y., 41—Airport
- Former Clinton-Sherman AFB, Burns Flat, Okla., 332
- Kingsley Field, Klamath Falls, Ore., 20
- U.S. Army Support Det., Oakdale, Penn., 32
- Dugway Proving Ground, Dugway, Utah, 35
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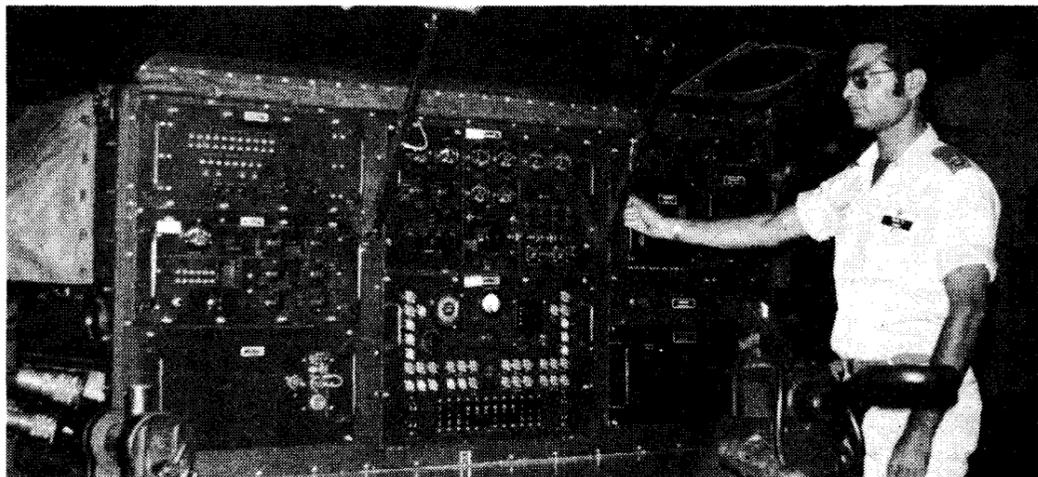
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CW RADAR — Lieutenant Daniel Jacobi from Israel checks out the signal processor on a Continuous Wave Radar. Jacobi is one of the many foreign students taught at the Missile and Munitions Center and School. "I think the training on the HAWK System is very good," he said.



I DON'T MIND WORKING WITH FIFTY MEN — Privates Mary Rivard, and Paula Lindsey, from Company A at MMCS work together to repair a Range Only Radar (ROR). Both women are repairmen in the HAWK Division. "There are three women and approximately 50 men in this branch of HAWK," said Rivard. "But I enjoy my work."



HAWK OLDIES — Master Sergeant Roy L. Henderson (left) and Chief Warrant Officer Homer Daniel are currently two of the oldest men in the Hawk Division at MMCS.

Two MMCS Originals Still With Hawk

Master Sergeant Roy L. Henderson, NCOIC, and Chief Warrant Officer Homer Daniel are two of many persons that started with the Hawk training in 1959 at the Missile and Munitions Center and School.

Both soldiers, two of the oldest in the field, are currently assigned to the Hawk division in the Missile and Electronics Department under Deputy Commandant for Training and Education. "I started my training in Hawk in 1959," said Henderson. "This is my third tour."

From 1960 to 1962, Henderson was involved with acquiring manuals for teaching Hawk

classes. The sergeant, who's overseas tours include Germany, Taiwan and Korea, said, "I have always worked in the Hawk field even during my overseas assignments."

Daniel, an Air Defense Missile Maintenance technician at Hawk, says, "The biggest change that has occurred in the division is the self-pace concept."

"With self-pace," he added, "they will be using the latest innovations in teaching methods."

Although, both men agree many changes have taken place at MMCS one thing they both agree on is that the Hawk building has remained the same.

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PFC Catherine Johnston is a Wheeled Vehicle Mechanic at Fort Ord, California.

"Just like everybody else, I was looking for a job. I'm a high school graduate with a year of college. I thought about what the Army had to offer. The opportunities. The steady income. And all the other benefits.

"It's difficult getting into the Army. The standards are so much higher today, and more young people should realize that. The Army won't take just anybody. They look for people who want to benefit themselves as well as the Army.

"I personally enjoy the Army. The first time you get to put your class A's on for retreat, you know, it's one of those things you remember. It's something I'm proud of. And so is the fact that I plan to reenlist."

**Today's Army gets better
every time a good woman reenlists.**

10,000 Students Graduate from Hawk Course

Since January 5, 1959, the Hawk Division at the Missile and Munitions Center and School has graduated more than 10,100 students.

The missile school started the nation's first classes in the Hawk system in 1959 in a new \$2,100,000 academic building and training shop specially constructed for instruction in the complex missile system. The first class included two Canadian Army officers and 10 U.S. enlisted specialists.

Today, 17 years later, that training is still going on.

Currently, the Hawk is aligned into five branches: missile launcher, pulse-radar, continuous wave radar, fire control and maintenance supervisor. Each branch produces enlisted MOS's and one branch, maintenance supervisor, produces a Warrant Officer MOS. Civilian and military personnel instruct over 1,000 U.S. Army, US Marine Corps, foreign nationals and civilians each year.

On August 1, 1964, the Hawk Missile Branch was redesignated as the Hawk Division with each of the five sections being elevated to branches.

The Missile Branch and Mechanical Branch were combined as the Missile and Launcher Branch in June 1966 after elimination of the mechanical MOS.

In August, 1967, the Pulse Radar-BBC Branch split into the Pulse Radar Branch and Fire Control Branch.

Hawk training is now being conducted on a three-shift schedule involving more than 31 classes per day with students being instructed by a corps of 148 instructors.

The Hawk gets its name from the "Homing All the Way Killer"

mechanism that gives it great killer capability to intercept and destroy supersonic aircraft at low levels. It complements the Army Nike air defense missiles now deployed throughout the world to protect against the highest-flying aircraft.

The Hawk is 17 feet long and 14 inches in diameter and is a thin, graceful weapon designed and developed under the direction of the Army Rocket and Guided Missile Agency. It uses a solid fuel engine developed by the Aerojet-General Corporation. The missile is being mass-produced by Raytheon Manufacturing Corporation.

Northrop Aircraft Company is a major sub-contractor.

The missile is highly mobile and can be transported by truck, tracked vehicles, helicopter and aircraft.

The Hawk is designed to shoot

down low-flying aircraft and is effective at tree-top level.

The first foreign class for Hawk training started with the arrival of nine Swedish students on September 25, 1961.

The present mission of the Hawk Division include conducting resident training for Hawk related courses; preparing instructional material required to support resident training; reviewing and or assisting in the preparation of technical documents pertaining to the Hawk Air Defense Missile System; reviewing MOS test materials related to Hawk; and evaluating student training.

The Hawk Division directed by Maj. Leand W. Bryan currently has an enrollment of 441 students. The division is part of the Missile and Electronics Department under Deputy Commandant for Training and Education.

Get the facts about staying in.

If you're considering staying in, talk to an Army Career Counselor about the reenlistment bonuses, benefits and options open to you. The Career Counselors in your area are:

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330 Support Hawk at MICOM

Over 330 MICOM employees support the Hawk Missile System in the United States and overseas. The largest Hawk support employer at MICOM is the Directorate of Maintenance which is involved in the logistic operation of the system.

In Maintenance, the Tech Assistance Division employees thirty-six Missile Maintenance Technicians to provide logistic assistance on a world-wide basis to

both U.S. Forces and to Foreign Military Sales.

Normally, the MMT's are assigned to direct support platoons in the field, however, several of the MMT's are on special training assignments in support of Improved Hawk deployments.

Overall, the average MMT has 10-15 years experience on Hawk.

Seven currently working on the Army's Product Improvement Program and conduct the New

Equipment Training for the Marine Corps.

Thirty-six employees of Hawk Maintenance Engineering Branch of the Air Defense Maintenance Engineering are responsible for the maintenance engineering functions of the system. Technical accuracy of test procedures and replies to field trouble reports are included in their support.

Joseph Barbin, section chief in the Hawk branch was an instructor in the original personnel school for the Basic Hawk System, a school that trained the men who became the first instructors at Redstone and Fort Bliss. Fred Cole, Chief of the Hawk Branch, has worked with HAWK since 1958 when he worked with the Hawk Acceptance tests at Eglin Air Force Base and Aberdeen Proving Ground.

New Equipment Training NET, has 11 employees working on the training of Hawk personnel. Most of the NET members have served in a variety of capacities with both Basic and Improved Hawk field units throughout the world including Germany, Korea, Taiwan and the United States. Major Al Harvard has worked for the system for 17 years throughout the world and Johnnie L. Smith of NET has been with it since 1961.

Five New Equipment Training employees are working with Project Peace Shield to prove Improved Hawk training and logistics to the Iranian Air Force.

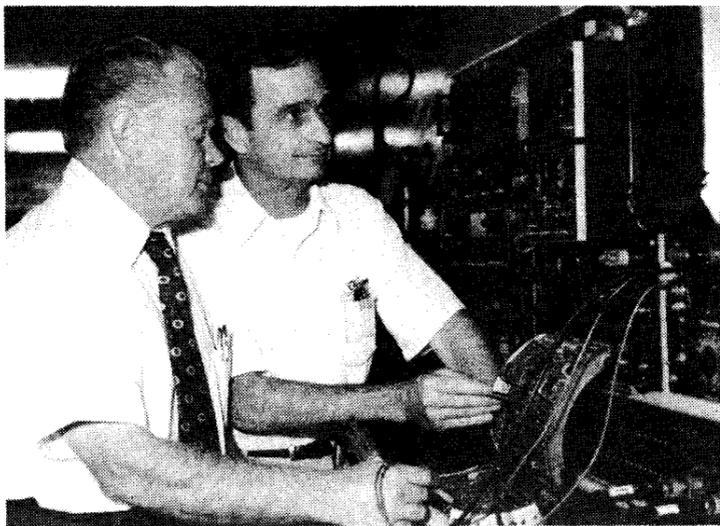
Depot Maintenance Engineering has three employees—Ed Davis, Jesse Johnson and Jewell House who have been with the system since the early sixties. Davis, an equipment specialist in Foreign Military Sales was a Missile Maintenance Technician in Korea and Germany and has written "Air Defense Guided Missile Lore" for an Air Defense magazine.

Procurement and Production has 103 employees working 75 per cent or more of their time with the "buying" of major items and parts of the Hawk. Wallace Jeffrey of Procurement and Acquisition Division has the most time with system; 13 years followed by Peggy Thompson of Contract Cost Division who has worked with Hawk since 1964.

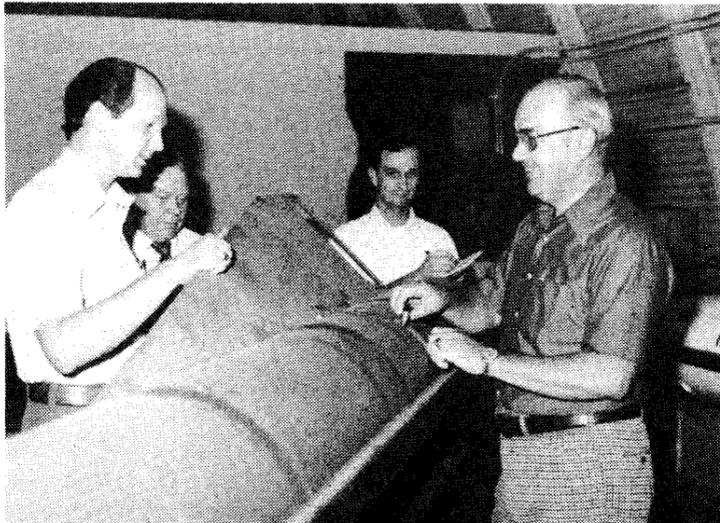
Sixty-four employees with 480 years of Hawk experience support the air defense system in Materiel Management. The directorate is responsible for the world wide management of repair parts and major items of Hawk equipment for the Army and Marine Corps. They procure parts, store and issue over 40,000 repair parts throughout the world. Janice Roland and Della Brandford, inventory management specialists have worked for the system since 1958.

International Logistics has 11 Hawk support personnel and the Kuwait Missile Systems Project Office employees 29 people who spend 75 per cent or more of their time on the air defense missile.

Redstone Arsenal Support Activity reports 31 Hawk employees in Equipment Management and four more in Facilities Engineering supporting the 20 year old missile. Known as the "fix it people" the Hawk Missile Maintenance Section of Equipment Management has 284 years of experience repairing Hawk items that breakdown at Redstone. Two employees, Frank Copeland and Tom Slinkard, have worked with Hawk since 1957. Four Facilities Engineering employees are involved in advising foreign countries on the construction of Hawk sites and related Hawk main-



Robert Martin (left) and Ralph Kershner Of Maintenance Directorate review the Hawk High Frequency Console procedures. Both have been with Hawk since the early sixties.



From left, Joe McDonald, Robert Martin, Ralph Martin and Jim Palmer assemble Hawk at the MOP SHOP. The four Maintenance Directorate employees have a total of 64 years with Hawk.

tenance facilities throughout the world; two are in Iran.

Product Assurance has 11 employees working on reliability, quality assurance, life cycle tests and calibration procedures representing 61 years in Hawk. William Wright of Systems Performance Assessment Division has worked with Hawk systems since 1961.

Missile Research Development and Engineering Lab supports the system with twenty full-time Hawk employees in four directorates. Those currently working on the system with the most experience

include Robert Wong of Systems and Engineering Directorate and Loyd Root of Advanced Sensors.

MRDEL's Hawk work includes measuring system effectiveness and modernizing Hawk radar system. Ground Equipment and Material Directorate is conducting and material analysis test as well as working with dummy missiles for training. All of the labs research and system support efforts are coordinated by the Systems and Engineering Directorate in conjunction with project office.

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"One Heck of a Trip," Gammon Recalls

(Editor's note: Sid Gammon is employed by the Hawk Field Office at Raytheon's Andover facility. He has been with Hawk nearly 20 years.)

In the fall of 1960, an inspector at Red River Arsenal examining an ammunition igloo found that a radome in the Hawk missile had pushed through the end of a missile container.

A few days later, another missile at the Air Defense School at Fort Bliss had the same thing happen.

Sid Gammon recalls the incidents with a chuckle today although it wasn't funny at the time.

"That was one of the first technical problems experienced with Hawk," he said, "and touched off a cooperative effort that was to become typical of the closeness, and competence of the Army-industry development team."

"It was kind of an informal committee established to identify and resolve the

problem," Gammon remembered, "and included Justin Margolskee, Al Walden, Dan Fisher, Gail Weston, Vincent Simone, Herman Friedman, Herb Halgren, Robert Kellner, and Tom Phillips, of Raytheon; Gammon and Charles McIntosh, Hawk Field Office; Dr. Frank Larsen, Dr. Eric Kula, and Bill Hatch, of Watertown Arsenal.

The team later found that the problem was caused by corrosion fatigue to one of the Hawk parts but before that happened, Gammon experienced a trip he'll never forget.

"About two weeks after the second episode at Fort Bliss, I was working late in my Andover office when the phone rang about six o'clock. The caller was Colonel John Zierdt, who was then, I think, Chief of the Army Rocket and Guided Missile Agency at Redstone Arsenal."

Without any preamble, he told me: "Mr. Gammon, I want you down here (Redstone) first thing tomorrow morning."

"Yes Sir," I replied. And he hung up.

"Well, I checked the airline schedule at once and found the last flight had already departed Logan for Washington. I also found to my horror that I had no more than two dollars change in my pocket and a couple of blank checks.

"I also had with me another man from the engineering directorate—I don't remember his name—who was also investigating the problem. He was blind.

"I called down to Raytheon's Bedford Laboratories, and luckily, contacted Tom Phillips, former Hawk project engineer, who was newly named Vice President of Raytheon Company. Phillips told me to make tracks for Bedford where his plane was kept at Hanscom Air Force Base.

"We jumped in my car and rushed to Bedford where Phillips had his pilot and Beechcraft waiting to fly us into Washington. We arrived there just a few minutes before the last Capital Airlines

red carpet service to Huntsville departed. "There was only one seat on the aircraft, so I put my blind associate on the flight and began to look for ways to get to Redstone.

"I soon discovered that Eastern had a two o'clock flight to Atlanta the next morning, wrote a check which I didn't have money in the bank to cover, took the flight and arrived in Atlanta about four. I spent all but a nickel of my two dollars in change for a razor, shaved in the men's room at the airport, and caught the morning flight into Huntsville.

"I arrived at Redstone about eight and reported directly to Colonel Zierdt."

At this point Gammon began to laugh. "You know, he asked me a couple of questions and said: 'Thank you very much Mr. Gammon'."

And that was that. "It was one heck of a trip for me, and do you know, I don't even remember what the questions were."

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Hanline, Smith Get New Posts

Colonel Donald S. Hanline, former Director of Organizational Development at the Army Logistics Center, Ft. Lee, has assumed the position of assistant Commandant for the Missile and Munitions Center and School.

Hanline replaced Colonel David C. Smith who was named project officer for the Patriot Project. Smith has been with the school for six years and has served in the capacity of acting commandant twice during this time.

Hanline is no stranger to Redstone Arsenal. His previous tours here have included three assignments with MMCS. From 1961 to 1964, he was assigned to the Missile Command as liaison officer at Ft. Bliss.

"MMCS has been and will continue to be in my judgement the logistical community's finest technical school and I am very pleased to be associated with it," Hanline said.

"We are very fortunate to have the highest caliber of personnel as both cadre and instructors here," he continued. "With the extremely technical subjects taught here, the necessity of well trained personnel is ever present."

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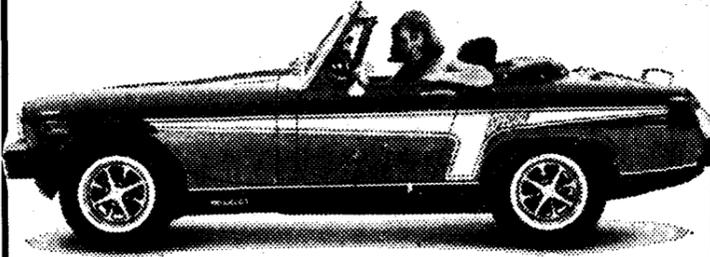
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Discharge Data

WASHINGTON (ANF) — Soldiers receiving "other than honorable" discharges may be denied veterans benefits, face social stigma, and a host of economic handicaps in the civilian community, DA officials caution.

A discharge certificate can be viewed as a kind of military report card; the final grade is based on the soldier's overall service and conduct during his current hitch. The type of discharge depends on the type of performance.

Some soldiers still believe discharges come in two flavors — honorable and dishonorable. Actually, there are five: honorable, general, undesirable, bad conduct and dishonorable.

Honorable discharges are awarded for honest and faithful service—general discharges for satisfactory service and undesirable discharges for unsatisfactory service; these three are classified as administrative discharges.

Bad conduct and dishonorable discharges are punitive—given as punishment following court-martial conviction for certain offenses.

Every soldier leaving the Army does not earn an honorable discharge. The standards are fair and reasonable. Soldiers who do their best and obey lawful orders of their officers and NCOs and unit regs can receive honorable discharges—as most soldiers do.

Army Reg 635-200 governs enlisted separations and gives reasons why a soldier may be discharged. The reg also gives guidelines for labeling military service as honorable, under honorable conditions, or other-than-honorable conditions.

Soldiers who are ineffective, have little potential for satisfactory service, and detract from their unit's combat readiness may get administrative discharge. However, decisions concerning the reason for discharge and type of discharge are made separately, DA staffers say.

Individual rights are safeguarded by the admin discharge system. A discharge under other-than-honorable conditions, according to Army officials, is largely due to misconduct or for security reasons. In this case, the soldier has the right to a hearing before an administrative board of officers.

The most recent actions concerning the admin discharge system have been directed to early identification and rapid elimination of those who cannot or will not adapt or contribute. Experience has shown that the good soldier welcomes the early separation of troopers who aren't pulling their share of the load.

Early discharge programs are the Army's Trainee Discharge Program (ATDP) and the Expeditious Discharge (EDP) program. The ATDP allows a trainee to serve up to 179 days and still receive an honorable discharge. Under the EDP program, troops with from 6 to 36 months service may be separated with an honorable or general discharge. These programs have helped reduce AWOL and desertion and caused a decline in other personnel losses for adverse reasons, DA staffers say.

Those who serve less than 180 days are not eligible for most VA benefits. Persons discharged under either program must wait two years to re-up in the active Army or Reserves.

The Army discharge system dates back to the Revolutionary War. By 1840, the process was

developed much as it is today. A man honorably discharged had his service characterized as honest and faithful. He also received a discharge certificate and a pay statement noting the character of his service and the reason for discharge.

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Eifler Key Booster of Homing All The Way

A missile that would home all the way to the target with something called terminal guidance was new, different, and . . . in the early 1950's too far out for many people whose opinions counted.

It took perseverance to sell the concept for the weapon that came to be known as Hawk.

That job went to a Colonel in the Office, Chief of Ordnance named Charles W. Eifler. Eifler, later a Lieutenant General, now retired, was then and is now a hard man to turn aside once he decides on a way to go.

The need for a low altitude system was there from the beginning, Eifler recalled in a recent interview. The technical feasibility of a missile fired from the ground and capable of homing all the way to its target was the real decision.

"Although at that time, homing

elements were being worked on, homing all the way was a very questionable thing. It had been done in air launched missiles but they flew in a clutter-free atmosphere. Hawk would be coming up off the ground, it's radars operating in all that ground clutter. There were quite a few technical people who didn't think it could be done successfully," he said.

"It took perseverance to look at and solve the problems and to overcome the arguments of those who said it couldn't be done."

Original directives called for a missile that could get to 20,000 feet, be light weight, mobile, and have four missiles per launcher.

"Somewhere along the way the Army realized Hawk could be just a little heavier, reach 40,000 feet and mount three missiles to a launcher. That turned out to

be just the right combination for many defense missions. It gave the Hawk greater potential, wider use," Eifler said.

So did the homing all the way concept which gave the system the desired low altitude capability and, incidentally, it's name. Just who first came up with the happy thought of adding a K for "Killer" to Homing All the Way concept is unknown, but his tag, HAWK, for the system stuck.

"Basically the decision to go with Hawk came out of a number of conferences among civilian-military teams. It was really the Navy Bureau of Air and Army Ordnance that cooperated in developing Hawk. With Navy support we were able to get Hawk to the Guided Missile Committee—Lt. Gen. Stanley R. Mickelsen, Army; Admiral J. H. Sides, Navy; Maj. Gen. Don Yates, Air Force; and Dr. Donald A. Quarles, OSD," Eifler recalled.

"When they put their sanction on it, it then took the approval of K. T. Keller, the Director of Guided Missiles in DOD.

"Fortunately there weren't as many people and channels to cover in those days to have a project approved.

"The concept that was approved embodied the expertise of the Navy Sparrow program at Raytheon," the general said, "and the great names in continuous wave techniques were tied in solidly with the Navy program.

"However, an excellent servomechanisms and guidance system engineer could be made available by Raytheon to head the project and became the project manager for Hawk. He is now Chairman of the Board at Raytheon. I'm sure he didn't get that far because of Hawk, but it was one of his first important assignments."

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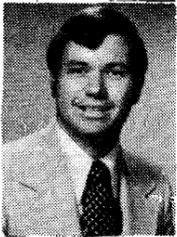
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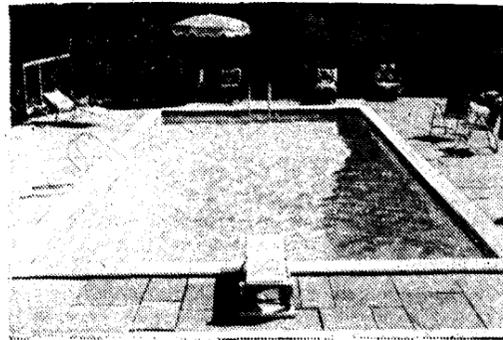
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Hundreds Started, Only Three Remain

Of the hundreds of people who are, and were part of the Hawk story, there are just three at the Missile Command who started with the program in the early days and are still with it today.

They are J. D. Kirkland, Tommy Stramiello and Clay Morgan.

Kirkland today is Chief of the System Engineering Division, Stramiello is Chief of the Fire Control and Ground Support Equipment Branch, and Morgan is Chief of the Missile System Integration Branch.

They got together recently to reminisce about where they had been, how they got there, and what they saw along the way.

Kirkland: "Clay and I joined the program when the first development contract was let in 1954. There was no Hawk branch prior to that, only a two or three man

operation, headed by Leo Smock and a Captain Otis Doty who worked for him. They had done some preliminary work that led to contract study awards to Westinghouse, Raytheon and Bell Telephone Labs.

When the development contract was let to Raytheon in 1954, that's when the Hawk office was expanded. Leo Smock was the project director and other key people included Harry Vincent, Martin Schilling and Russ Bailey.

Four men who played a critical role in getting the original development contract rolling were Smock, Tom Phillips of Raytheon, Schilling and Colonel Charles Eifler, ORDTU.

When we came into the project in '54, I was in the launching and handling unit of the Mechanical Branch which was

headed by Olie Waites.

Morgan: I was in the Electronics branch. I was the man whose job was electron tubes, which at that time were a big deal but have since gone the way of the dodo bird.

Stramiello: I came to the program in 1955 from the Tennessee Valley Authority. When I got here, there was Smock, Doty, Morgan, Kirkland and right after me came Bill Davis.

When I arrived here, Redstone was a big mystery. In fact, I had known a fellow, John French, who went to school with me and who worked at that time with Clay in the Electronics Branch. When I came to work, I asked him: "What do you do?" He wouldn't tell me anything, said it was all classified.

I told him I was going to work for a fellow called Smock on something called Hawk and asked him what he knew about that. He wouldn't tell me anything.

I really worried for a while about what kind of place I was getting into at Redstone.

My first job was writing the annual history report of Hawk. I remember complaining to Smock that I didn't know any-

thing about the Hawk system and I was the wrong guy to write it. I remember his comment was: 'Well, you'll have an open mind.'

I dug through all the old records and managed to get the history out. It turned out that I learned more about Hawk by doing that than I would have in weeks of just staying there.

Kirkland: We had a major reorganization in the research and development directorate in 1958. Leo went to Brussels and the Army made a decision they would have military project directors instead of civilian project directors. Capt. Jim Hilborn came in as the military project director.

In 1959, they reverted back to the civilian, I've forgotten just why, so Jim went somewhere else and I became the research and development project director.

They had just started the Army Ordnance Missile Command about that time. Then in 1960 the Army set up a small project office called NATO Hawk and Harry Murray was the NATO Project Director. I moved over to become his deputy and Clay moved up to become the R&D Hawk Project Branch Chief.

In 1962, the Army made the

change establishing the big project offices as we know them today. Murray became the first project manager.

Morgan: We started out as small R&D groups in 1954 but as the system moved through the development cycle, we kept adding key people from the major support areas until we ended up with about 250 people in Hawk, in 1962.

Kirkland: Nike, Corporal, Honest John, Lacrosse, missile targets, Talos, were about the only programs going in the mid 50's.

It took about six years from the start of development until the basic Hawk was deployed.

Morgan: That was significant considering that we didn't have that many missile systems in front of us and we were doing a lot of pioneering.

Kirkland: But we didn't have all those regulations telling us what to do. We kinda went out and did it the way we thought the job should be done.

One of the unique things in 1956 came about when the Marine Corps joined us, putting in their development money. Major Tom McGraw was assigned to the pro-

(Concluded Next Page)

The Thinker



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20 YEARS LATER

Above, as they appeared 20 years ago, and below, as they appear today. From left, Bill Davis, now BMDATC Director, Leo Smock, Retired; J. D. Kirkland and Clay Morgan, both still with Hawk.



Three Remain

(From Preceding Page)

ject office just like Clay, Tommy and me. But the Marine officer that was assigned to the Office, Chief of Ordnance in Washington was such an outstanding individual that the Army put him in charge of Army programs in the

Chief of Ordnance Office. His name was Lt. Col. Bob Moore. He ran all of the Army's defense Missiles while he was on loan from the Marine Corps.

Morgan: Through the years, there has always been some

spokesman, somewhere, who appeared on the scene for Hawk when he was needed to carry the ball. There was Bob Moore, Colonel Charles Eifler and Tom Phillips who was the first Raytheon project director, Dr. Schilling, and Smock.

And Eric Levi, a brilliant engineer and excellent manager who has been a backbone of the program at Raytheon.

Kirkland: Many of those guys weren't born with talent, they worked at it. I'll never forget I made a trip to Washington once with Phillips for a briefing and we wound up sharing the same room. I was awakened about 3 in the morning when I heard him, mumbling and talking in the bathroom.

After it had gone on for some time, I got alarmed and asked if he were sick, was he okay! It turned out he was practicing his speech for the next day.

Morgan: Basic Hawk development went smoothly. We ran into problems after the missile got in the field and troops started maintaining it, and operating it day after day.

Kirkland: I think one of the real keys to the whole program is we've had a lot of people with the Army and industry who have been there since the beginning, know the background, who is in the program, who to talk and coordinate with.

There is that trust, confidence and knowledge among all the working people.

The R&D program was oriented toward performance. We didn't worry about reliability and maintainability until we got into Improved Hawk, when guys began improper soldering, working with it in the mud, after being up all night on KP, etc.

Those were lessons learned from basic Hawk.

I don't believe any program had more excursions than Hawk. Among requirements in addition to basic Hawk, we had one for development of a fixed site, for continental air defense, underground launchers and radars on 200 foot towers.

Hawk PM's	
COL Harry M. Murray 1 Aug 62 - 31 May 63	COL John C. Redmon 23 Feb 67 - 31 Jul 69
COL Charles R. Graham 1 Jun 63 - 15 Jul 64	COL John R. M. Covert 14 Jul 69 - Dec 70
Mr. Lonnie N. Hightower 16 Jul 64 - 9 Aug 64	COL Harry A. Buzzett 15 Dec 70 - 30 Apr 73
COL George H. McBride 10 Aug 64 - 2 Jan 67	Mr. E. K. Charlton 30 Apr 73 - 18 Jun 73
Mr. Lonnie N. Hightower 6 Jan 67 - 22 Feb 67	COL Ernest W. Deadwyler 18 Jun 73 - Present

One program involved putting Hawk on Texas towers off shore in the ocean. Another was Super Hawk which contemplated putting the acquisition radar in tethered balloons, as high as 5000 feet, so we could see over the map of the earth. That prompted one Army man in Washington to make the comment:

"I may not be a balloonatic, but I kinda like the idea."

One day we got a call from Washington and somebody asked Leo what it would take to make the Hawk air droppable. Said he needed the answer within the hour.

Without a moment's hesitation, Leo replied:

"Well, it's air droppable now but I won't guarantee the conditions when it hits the ground."

But the most fun we had back

in the old days was when planes didn't fly so fast and we'd go from Boston to Huntsville. To pass the time, we'd race lobsters up and down the aisles. Can you imagine anybody doing that now? They'd think you had lost your mind.

Individuals who are now or have in the past been involved in Hawk activities are invited to participate in a picture-taking session in front of Bldg. 4488 on Jun. 22. Pictures will be taken promptly at 3:10 p.m., just prior to an award ceremony in the cafeteria.

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Old Days More Exciting

WHITE SANDS MISSILE RANGE — The four men sitting around the small table in the old Hawk hangar at White Sands Missile Range had flecks of grey in their hair and their faces were lined, revealing that they had spent many hours under the torrid New Mexico sun.

There is nothing to distinguish the four men from other employees working in the hangar, yet these men are special. They are all veterans of the first guided flight of a Hawk missile. The firing took place from the range's Launch Complex 33 at 1 p.m. on June 22, 1956.

The men sitting around the table, which is used at noon by the Hawk "brown baggers" of Raytheon's Missile Systems Division, no longer hold knuckle-busting, sand-in-your-face jobs, but are now test engineers, administrators and staff engineers.

On the day of that initial flight, when the Hawk successfully downed a QF-80 drone flying at approximately 11,000 feet (mean sea level), Jimmy Lenoir was an expeditor. He now rides a desk in Room 126 of the huge hangar, with a neat nameplate centered on the leading edge of his desk. He is the Hawk administrator.

Lanky Ken Dean was a ground checkout technician 20 years ago. Today he is chief of Hawk telemetry. Ernest Holmes, then a missile assembly technician, today is a staff engineer for operations. Mike Madrid was a missile technician 20 years ago. Today he is a test engineer.

What do the oldtimers remember best about that June launch 20 years ago when the first guided Hawk, minus a warhead, slammed into a drone over the sprawling missile range?

"That's a easy question," Ernie Holmes smiles. "We had a victory celebration at Ardivino's (a southern New Mexico restaurant) after that first flight and I remember the throbbing headache the next morning."

When the laughter subsided Holmes continued. "Seriously, I remember a senior engineer was supposed to call the home office (Bedford, Mass.) and give a report on the first firing. A special line was to be kept open for the call," he said.

"The engineer placed the call and calmly told the home office the first firing was highly successful with the Hawk hitting the drone. The engineer then pulled the phone away from his ear and we could hear the man hollering to others in the Massachusetts office, 'THEY GOT A HIT THEY GOT A HIT.'"

Twenty-year-old memories surfaced slowly at first, then came with a rush as each jogged the other's memory with stories of "the old days."

The second Hawk firing still burns bright in the memory of Ken Dean. The second shot, just one month and four days after the initial guided launch, was directed against a radio-controlled World

War II B-17 bomber. Dean remembers the Hawk scored a direct hit and the huge bomber spun to earth in a blaze.

"A sergeant, who ironically was eventually going to be assigned to the Hawk Project, was approaching the range for the first time when he saw this bomber going down in flames," Dean recalls.

"The sergeant called the fire department, notified the law and stirred up a lot of commotion before finding out it was a Hawk test and the bomber was unmanned."

All four Hawk veterans agree there was more excitement in the old days when rules were more lax and missilery was the wave of the future.

"Seat-of-the-pants missilery is long gone now," laments Jimmy LeNoir, who first went to work on Hawk in August 1955.

"Today everything, including the firing, is down-pat-procedure."

Holmes recalled when the launcher was used to haul Hawk missiles from the assembly building to the launch complex, a distance of five miles.

"Since some components would be installed just before firing, the missile would be out of balance for the ride to the LC," Holmes said. "We would jerry-rig the load, tying it with rope and sometimes have a man ride the missile to help balance it. Can you imagine something like that happening today?"

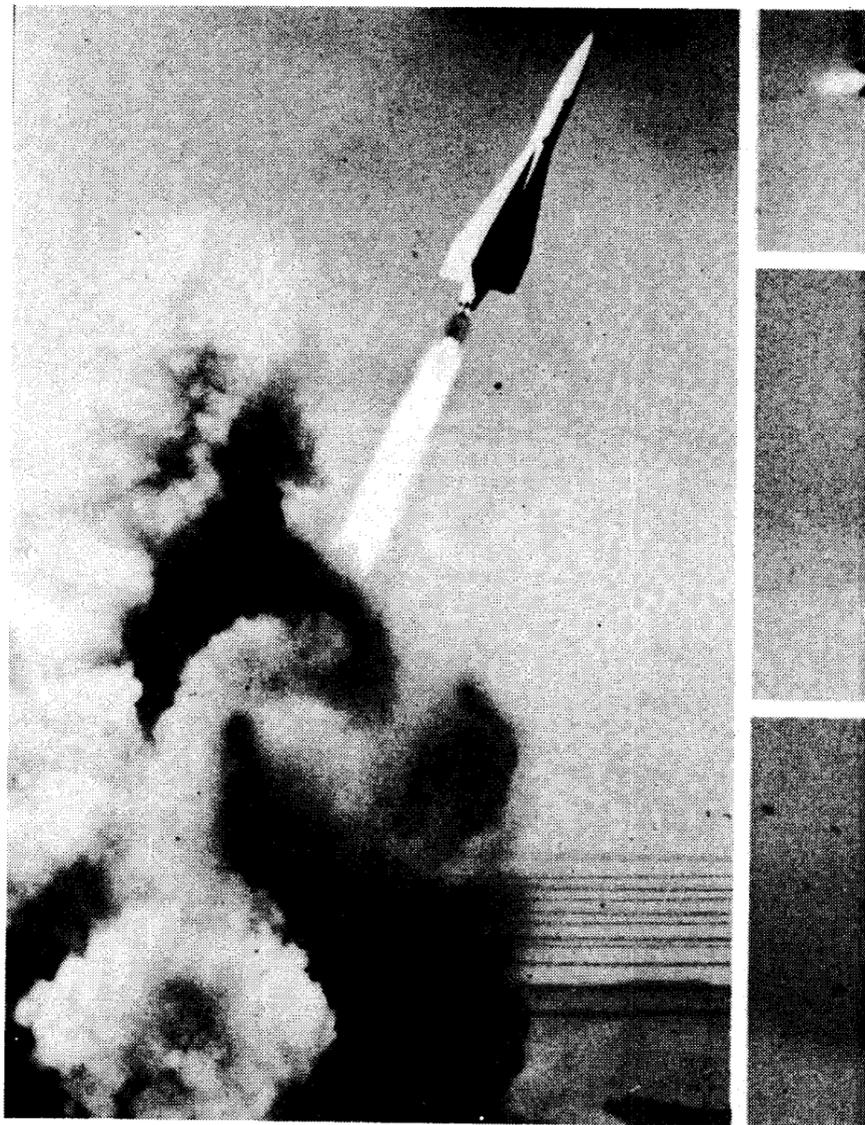
Ernie Holmes recalled when Hawk and Nike missilemen were sharing the same pad near the Army blockhouse. He said Nike workers would announce on a loudspeaker when they were set to fire and wanted the Hawk people to clear the area. This allowed Hawk employees to work until the last few minutes, thereby saving valuable time.

"For some unknown reason the speaker system failed one day just before a launch and some Nike people pulled us into the blockhouse with the count under 60 seconds," Holmes recalls. "And wouldn't you know it, there were a number of 'holds' and we wasted three hours sitting in the blockhouse."

Sweating out Nike firings in an Army blockhouse while working on a tight Hawk schedule was just one of the dilemmas of 20 years ago. Helping to calibrate radars before a Hawk mission also ranked high.

"At times we would walk a half-mile or some other known distance from the radar and throw rocks up into the air until they (radar technicians) could get a reading," Holmes said. "I didn't mind it at first, but when people in cars and trucks stopped to watch and scratch their heads in wonderment, it was sort of embarrassing."

Madrid noted that from rocks, radar technicians advanced to pellet guns, then to a special cannon which fired different sized ball bearings into the air. Now a Firebee drone drops a sphere to calibrate radars.



Hawk Slams F-80 Drone In

As an illustration of seat-of-the-pants missilery in the early Hawk days, LeNoir recalled how different crews would build model missiles during lulls and fire them with chunks of solid propellant that fell to the pad during regular launches.

"The model missiles began to get very sophisticated and the crews began to challenge each other for distance and altitude records," LeNoir smiles. "It started out as something to do while waiting for 'holds' and other delays, but had to be stopped when it began to take up too much time."

All four men agreed time was something to conserve in the early Hawk days at White Sands.

"Since the road (Highway 70) to Las Cruces was only two lanes back in those days and as many as 40 Army buses made daily round trips, it could take hours to reach home," Mike Madrid recalls.

"After working late, many Hawkmen would make a hammock from canvas truck tops and spend the night here in the hangar."

LeNoir nods his head in agreement.

"Many a morning I'd arrive here and find notes on my desk to wake Joe in truck number 18 at 7:30 (a.m.) or Carl who would be sleeping on the canvas top of another truck. After working until midnight or so, it was easier to sleep here than to battle the morning traffic."

Even with the hard work and extra hours, not all Hawk missiles lifted gracefully from their launch pads and zeroed in on their assigned targets.

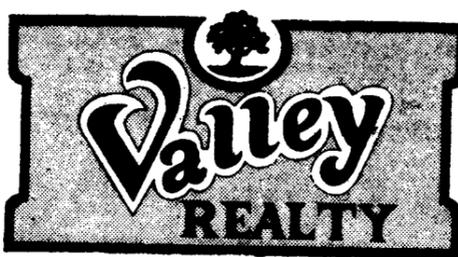
Holmes remembers straining and re-straining contaminated hydraulic fluid after unsuccessful firings. "The early Hawks were built to such close tolerance that the most minute fluid contamination would gum up the entire hydraulic works," he said.

"Opening up the tolerances a little helped solve the problem," he added.

And when a Hawk failed and crashed within walking distance of the pad, it meant extra work for the firing crews.

"We had some kind of agreement with recovery people that any Hawk going down within sight or short walking distance from the pad, we would do the

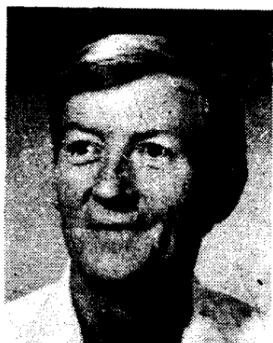
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Never A Dull Moment

Thomas Collins remembers Hawk as "... a challenging job and an interesting place to work."

"I never had a job with such a multitude of problems," recalls Collins who is a civilian now employed by the MICOM Comptroller's Office.

As a lieutenant colonel, Collins was Chief of the Hawk System Support Division from Aug. 1963 to Dec. 1964.

"I succeeded Joe Thompson, a civilian, who died in the office with a heart attack," Collins said. "I hadn't been on the job more than a couple of months before I understood how it could happen."

"I found myself coming and going, here, there, overseas, sometimes for hours, sometimes days. It was really hectic."

"Don't get me wrong. I'm not knocking Hawk. I don't mean to imply that Hawk was a lousy system, or had more problems than any other weapon system. But supporting Hawk in those days, keeping it operational, and satisfying combat commanders was a demanding job."

"My office had about 62 people and there just weren't enough hours in the day."

Hawk was a sophisticated system, filled with complex components and equipment, he said.

"Until we ironed out some of the bugs, it was difficult to operate and maintain. Then, too, we made a vast number of modifications to the system, and constantly put out new items and equipment which added to the workload."

Collins helped develop and establish a Department of Army Hawk Supply and Maintenance Evaluation Team in 1964 composed of people from DA, the Missile Command, Pueblo and Letterkenny Army Depots.

"The team went all over the world, looking into and solving Hawk problems. That was one of my last accomplishments in Hawk and I believe it was highly successful."

Since those days, the Army has gone to more advanced versions, like Self-Propelled and Improved Hawk which eliminated many of the problems.

"Such improvements as the certified round, which needs no servicing or maintenance once they leave the factory, solved many of the problems. Troops don't have to tear into the equipment."

"I had many critical jobs in the Army," said Collins who retired from active service in 1965, "but I never had one like that before—or since."

Some Ideas Made It

It's a perspective that only people who have lived close to the system for a number of years have, but Hawk has been in almost constant evolution for almost 20 years.

Some of the bright ideas and hopes worked, some didn't, but they produced three variants of the system and a slew of others, all built around the same basic concept of homing all the way guidance.

There was, and is, for example, basic Hawk, the original system evolved by R&D engineers, production engineers, soldiers and all the others who take the bright dreams of designers and turn them into the olive drab reality of tactical equipment.

They have been changing it almost constantly ever since.

SP or Self-Propelled Hawk was, and is a variant mounted on its own full-tracked prime mover, unlike the basic system which was designed and mounted to be towed by standard Army trucks.

Later, beginning in the mid-60's, there was and is Improved Hawk — basic Hawk with a major transfusion of new technology that vastly improved effectiveness.

And there was, but no longer is, Super Hawk, a second generation system, originally proposed about the time that basic Hawk went into production in the

late 50's. Part of Super Hawk can be traced into Improved Hawk, part into the anti-missile Hawk of the 60's, one of the bright ideas that never made it.

In the raging national debate that centered on the Army's attempt to win a production decision for its Nike Zeus, anti-missile missile, the bottom line for opponents in 1959 was the flat assertion: "You can't hit a bullet with a bullet," meaning more or less, there was no way to shoot down a missile.

On January 27, 1960, the Army tried to answer that one by announcing that a Hawk missile had successfully intercepted and shot down an Honest John free rocket in a test at White Sands.

The test was repeated with the same result in July. That time the Hawk engaged and hit a Little John. In January 1961, Hawk intercepted a Corporal. All of which did little to sway opponents of Nike Zeus, but the belief was strengthened that Hawk might provide some defense against tactical missiles and rockets that could be fired at soldiers in battle.

The requirement for what became Improved Hawk included anti-tactical missile capability. It became part of the original development effort but was terminated in May 1967 with a decision to stick to defense against aircraft with Improved Hawk.



Early Firing

...ry work. We spent a lot of time g Hawk parts out of the sand."

contaminated fluid and close ces were just two of the problems itered at White Sands 20 years ago. roo mice and other desert rodents, ts and coyotes contributed to early problems, too.

ngaroo mice developed a liking for bber covering on cables that con- l power and communications to bl vans," Madrid said. He noted the em was solved by burying the cables. n Ernie Holmes recounted a problem erved when electric lights failed to on early one morning. An outside tion, after the sun had crept over the mento Mountains, revealed a dead at strung across the wires atop a pole. At the foot of the pole were rous coyote tracks, showing the pack reed" the cat and sent it to its death. nty years ago rattlesnakes did not missilemen problems, and they do day. Mike Madrid recalls seeing "... v rattlers snuggled up along electric d cables for warmth on cold summer

mornings, but they didn't give us any problems."

Hawk firings at White Sands Missile Range are now primarily restricted to launching quality assurance rounds from the Andover, Mass., production lines. Excitement has waned over the past 20 years.

"The lot-acceptance Hawks arrive here in huge crates practically assembled," LeNoir notes. "The men here install the wings and elevons and fire 'em. It's not as exciting as the research and development rounds of 20 years ago."

Holmes chips in by recalling when one or two secretaries would be left in the offices to man the telephones before a Hawk firing, with everyone else watching from the roadways and rooftops, many with their fingers crossed.

After hesitating for a few seconds, veteran Hawk missilemen Ernest Holmes continued, "I'm glad those days of long hours and apprehension are behind us. I don't think I could go through it again."

The three other veterans of that first guided Hawk flight nodded their heads in agreement.

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Secret To Hawk Sales? It Works

"It works."

That's the answer that comes almost invariably from MICOM people when they are asked why so many friendly foreign nations prefer the Hawk air defense guided missile system.

There are others: U.S. support to the system, relatively short time to delivery, desirable military characteristics. All are valid reasons. The belief here is that combat proven effectiveness is the main reason why 17 nations including the U.S. rely in whole or part for their ground based air defense, as well as why others want it.

TOW is used by more foreign nations. Nike Hercules has recorded the greatest number of foreign sales cases, but in total dollar volume, Hawk stands alone among Army missiles and among the first rank of all American weapons now being sold abroad.

Overseas use of Hawk is nothing new. A system that met the needs of American soldiers and marines looked just as good to soldiers everywhere with the same potential problem: keeping high performance aircraft off their backs.

Shortly after the system went into production for the U.S. Army in the late 50's, the North Atlantic Treaty Organization made plans for co-production. A NATO consortium later began producing basic Hawk for use by West Germany, Belgium, France, the Netherlands and Italy. Today the consortium runs co-production of Improved Hawk.

Japan is also a co-producer. Greece and Saudi Arabia have made direct buys from Raytheon Company, the U.S. prime contractor, and the system is also used by Iran, Israel, Kuwait, Korea, Taiwan, Spain and Denmark.

Most of the latter got it through the foreign military sales route, each case approved by the U.S. government, then managed by the Army. There have been a few instances where Hawk was provided as grant military aid.

A sale for cash between governments was a relatively new way of business in September 1962 when the Kennedy Administration decided to respond to the Israeli request for Hawk. That was the first of many policy decisions made by the U.S. government that have involved Hawk in major international news stories.

Until the decision to sell by the Kennedy administration, France had been Israel's major weapons supplier. Israel had bought about \$1.5 million in U.S. small arms, but the Soviets by 1962 had begun large scale deliveries of modern weapons to Israel's neighbors.

One result of the sale was the first combat use of Hawk. The weapons began arriving in Israel in the spring of 1965, about the same time that Hawk first went to war. That war was Vietnam. U.S. Marines deployed two battalions in February 1965, the Army moved in two more before the end of the year. As it turned the Israelis, rather than the Americans, fired the first and—to date—only Hawks in combat. First firings came in the Six Day war of June 1967.

Occasionally in the following years as Israel and Egypt duelled across the Suez Canal, additional brief announcements would be released by the Israeli government reporting a Hawk kill. Others were fired during the October 1973 war between Israel, Egypt, and Syria, according to press reports.

The Israelis have never said much publically about how the Hawk performed. They just bought more.

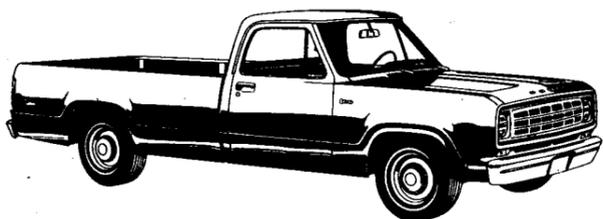
So have a lot of other people, enough to run Hawk foreign sales well up in multi-billion dollar figures. Saudi Arabia within the past few weeks signed a letter of intent with Raytheon for a single direct sale of more than one billion following up on earlier buys. Today MICOM manages 148 active Hawk FMS cases with a total value of \$1.2 billion, roughly 45 percent of the command's current FMS business. Hawk orders by Iran alone run higher than half a billion.

Managing that kind of business takes a great many people at MICOM. In addition to the Hawk Project Office, an FMS sale which often includes separate cases for training and support services in addition to hardware, involves International Logistics, Materiel Management, Procurement and Production, Maintenance, Product Assurance, Comptroller, and Legal Office and sometimes Research and Development people as well.

Putting a hardware package together includes many DARCOM commands in addition to MICOM, most often the Electronics Command, Tank Automotive Command, and Troop Support Command.

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The 1976 Intramural Slow-Pitch Softball league—delayed a week because of rain—got a full 16-game schedule in with two lettered companies taking the early lead.

In several ways, it was a picturesque start for this year's bulging intramural league. Each team was decked out in colorful uniforms with brilliant rays of sun reflecting from them as the umpire hollered: "Play Ball."

After one week's action, Company A took a 3-0 advantage in the Eastern Conference, while Company B held the same lead in the Western Conference. In the East, the 6th SC and Meddac had 2-0 and 1-0 records, respectively, with Company C rounding out the top four with a 1-1 slate. The 291st MP's and 4th SC shared second place in the West with 2-0 records, while the Marines—off to their best start in years—had a 1-1 slate.

Monday

On opening night, Company A edged the 5th SC, 9-8; the 291st MP's walloped the German Air Force, 35-0; the 4th SC trimmed the 7th 13-7; and Company B defeated MICOM 10-3.

Roger Tenley socked a home run and a triple to help lead the A's to a win over the 5th. The A's held a 5-4 advantage after four innings, but had to come up with three more runs in the sixth to post a victory.

Joe Prusaitis led the A's with three hits, while R. Collier and L. Kahalekai had two hits apiece for the 5th. Collier cracked a homer in the 6th inning as the students came up with four runs, but fell one short in a losing effort.

The German Air Force in their first encounter with the game of softball, took a severe beating from the 291st MP's and went down at the hands of the cops, 35-0.

Stephen Donnelly and Bob Cooke paced the MP's 21-hit barrage with four hits each. During the contest, Donnelly belted two home runs, while Cooke grabbed one four-bagger.

Hurler Frank Chrisman chalked up the win for the cops with GAF's Kuerschner suffering the loss. For the Germans, Fischer, Buschdorf, Datan, Hoff and Becker had one hit each.

The 4th students came up with seven runs in the fourth inning to upend the 7th, 13-7, for their first win. Pitcher Jim Ryan went the distance for the 4th, while Mike Chandler and Jim Niepotter contributed a homer each in the hit department.

For the 6th, Terence Mahoney cracked a double—the only extra-base hit off Ryan of the 4th.

Hurler Terry Back scattered eight hits as Company B gained their first win of the season with a 10-3 win over MICOM. Bill Beckwith and Nicky Brandon led the B's 16-hit attack with a homer each,

while Bill Nichols and Steve Barrett whacked a double each.

The missilemen collected eight hits—all singles, except for two doubles by Ron Batson and Steve Edminston.

Tuesday

Company C edged the 5th SC, 5-2; the 6th SC whipped the 8th, 25-23; Company A downed the 95th Svc. Co., 14-4; and MICOM beat the 7th SC, 23-3, in Tuesday's four-game roundup.

Tim Neiwierowski drove in three runs with an inside-the-park homer to help lift Company C to a 5-2 win over the 5th SC. Niewierowski's four-bagger came in the second inning, after Tony Difiore and Gary Morris reached base on base hits.

In a strictly defensive matchup, the C's held a 3-2 lead through five innings until Charlie Bennett unloaded a homer with one man on to give the permanent company their win.

For the 5th Caruthers had two base hits, while JI Filbey rapped a two-bagger. Caruthers was tagged with the loss, while Ralph Boothe picked up the win for the C's.

In an old-fashioned slugfest, the 6th students pounded out 24 hits in romping to a 25-12 win over the 8th SC. The 6th barrage included five homers, two by Jim Whitfield, two three-baggers and three doubles. In the home-run derby, Charlie Scott, Nick Manning and Roger Hill added one each for the 6th.

In a losing effort, John Antalosky rapped a homer for the 8th.

Company A, behind the 10-hit pitching of Keith Marshall, chalked up their second win with a 14-4 shellacking over the 95th Svc. Co. Joe Prusaitis led the A's with five RBI's, including a home run and double. Other A's hits included two doubles each by Murdock Maciver and Al Standiford.

For the 95th, Roger Beaver smashed a double and single, while Ed Trdina followed with another two-bagger.

Revenge on an earlier loss, the missilemen hammered the 7th SC in posting a 23-3 victory in the finale. MICOM's McDonald did the most destruction. He reached base five times and scored on each opportunity; collecting four hits during the game, including a home run and a double.

The 7th SC collected only four hits off missileman Isaacson. Only one went for an extra-base hit; a double by Bill Haller.

Wednesday

In Wednesday night's action, the 4th SC defeated the German Air Force, 19-3; Company A nipped Company C, 14-13; Company B pounded the Marines, 13-1; and the 6th SC trimmed the 95th Svc. Co., 29-13.

The 4th students scored 15 runs in the third and fourth innings to post

a 19-3 win over the fledgling Germans. The students hammered out 15 hits, including four solo homers by Mike Chandler, Nich Snyder, Jim Ryan and Marv Satterwhite.

Freyer, Renn and Pomaska rapped two hits each for an improved hitting German club. Ponaska's one hit went for a double.

The A's came up with two runs on two hits and one error in the final inning to edge Company C, 14-13 in a wild and woolly contest that saw the lead exchange hands three times in as many innings.

The A's jumped off to a 6-0 lead; increasing their margin by 8-0 in the second when left fielder Dave Cowan misjudged Al Standiford's fly, which went for a two-run homer. The C's comeback in the third to notched the game at eight—all of three doubles by Tom Ferrell, Charlie Bennett and John Morris.

Dave Swain slashed a double in the fourth inning to give the C's a 11-10 advantage. The A's jumped back into the lead with two runs in the fifth; the C's tied the game in sixth and then it was the A's finally on top in the final inning for the win on hits by Howard Fu and Keith Marshall.

Five runs in the first inning was all Company B needed as they posted a 13-1 victory over the Marines for their second straight win. Terry Back picked up his second win for the lettered company, while A.W. Waldo took the loss for the Leathernecks.

For the B's, Steve Barrett walloped a home run, while Jay Johnson and Jules Goudeau each had a three-bagger. The Marines collected three hits—all singles by T. D. Zoller, Dan Skelton and M. A. Bahr.

It was a merry-go-round per-

formance for the 6th students as they repeatedly batted around and around in dispensing of the 95th, 29-13. Jim Whitfield paced the students with four RBI's; hitting for the circuit, while Charlie Scott and Ralph Teppe nabbed a home run each with Nick Manning grabbing two homers.

Dave Merrick scored three RBI's, including two homers in a losing effort for the 95th.

Thursday

The Medics beat the 5th SC, 17-3; Company B outlasted the 7th SC, 18-12; the Marines whipped the Germans, 19-6; and the 291st MP's slammed MICOM, 15-5, in Thursday's games.

After two rained out games, Meddac finally got a chance to play and made good use of it; downing the 5th SC, 17-3. The medics banged out 18 hits during their lopsided win with Randy Hoerth leading the way with two four-baggers. Other pillpushers in on the act were Roger Crossen, home run; triples by Bob Fourroughs and Charlie Hardin; doubles by Bruce Highberger and Bob Lobodzinski.

The 5th was checked to six hits, including a double by M. Caruthers.

Company B, maintaining they have the best team in the league this year, looked impressive again as they chalked up their third win against no losses with a 18-12 victory over the 7th SC.

Leading 13-10, the B's wrapped up the game in the sixth inning when they exploded for five runs; led by Steve Barrett's and Jose Perez's doubles. In the final tally, Nicky Brandon, Jay Johnson and Perez had two doubles each. For the 7th, Derrick Simmons cracked a home run, while Mike Karney and Noel Beaver had two base hits

apiece.

The Marines produced nine runs in the first inning with 12 consecutive hits in romping to a 19-6 win over the German Air Force. E. L. Hodges led the folies with four hits—all singles—while M.A. Bahr, T. E. Jones and T. D. Zoller had three each. Leatherneck G. D. Bieber socked the game's only home run in the fourth inning to give the Marines a 15-0 advantage.

For the Germans, Adamek blasted a triple and single; followed by Buschdorf with two singles.

The 291st MP's staked hurler Frank Chrisman to eight runs in the second and third innings as they went on to defeat MICOM, 15-5. Larry Day blasted two triples and a single; driving in five RBI's in leading the cops to their win.

Steve Edminston, in a losing effort, slammed three hits, including a homer while driving in four runs for the missilemen.

Standings

Eastern				
	W	L	Pct.	GB
Company A	3	0	1.000	
6th SC	2	0	1.000	1/2
Meddac	1	0	1.000	1
Company C	1	1	.500	1 1/2
8th SC	0	1	.000	2
95th Svc. Co.	0	2	.000	2 1/2
5th SC	0	3	.000	3

Western				
	W	L	Pct.	GB
Company B	3	0	1.000	
291st MP's	2	0	1.000	1/2
4th SC	2	0	1.000	1/2
Marines	1	1	.500	1 1/2
MICOM	1	2	.333	2
7th SC	0	3	.000	3
GAF	0	3	.000	3

Tonight 6:30 p.m.
 Meddac vs Company C, Field 1
 5th SC vs 6th SC, Field 2
8 p.m.
 MICOM vs Marines, Field 1
 291st MP's vs 7th SC, Field 2
Thursday 6:30 p.m.
 Company B vs 4th SC, Field 1
 Meddac vs 8th SC, Field 2
8 p.m.
 Company C vs 95th Svc. Co., Field 1
 MICOM vs GAF, Field 2



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World of Sports

Has Mayhem Over-run the Game of Hockey?

By Dave Cowan

Why is it when it comes to American sports that people become shockingly upset when rubarbs occur in athletic competition? Is it because we are more righteous than other persons who make up this vast world of ours?

That hardly seems the correct answer. For example, hundreds of spectators have died from scrimmages in soccer contests, however, the game hasn't been abandoned.

During the past two years, two episodes of rubarbs have occurred in hockey, which have brought civil and political intervention into the game.

Fighting has been part of hockey for years, but now it seems the world "violence" has become a taboo for the game. No other word has provoked such emotional, deep-seated, or widespread concern from those associated with the professional game.

Is the sport too violent? If it is, how should the violence be curbed? Is it a task for leagues and teams, or should civil authorities intervene? Everyone associated with the game, be they players, managers, or spectators, has an opinion.

Although the Stanley Cup finals have just ended with the Montreal Canadiens

sweeping the Philadelphia Flyers in four games, the controversy over the mayhem in the sport continues.

Where does a person start? There are no simple solutions. However, one must admit hockey is a game which generates much of its popularity through physical contact. It's definitely a rough game, but like most other sports, the players play to win and sometimes it comes to a point of violence.

There's nothing wrong with a clean hip-check or a board check. But then again, many fans howl unnecessary roughness and demand a penalty. During one game, Detroit's Dan Maloney pounded Toronto's Brian Glennie to the ice, leaving the Maple Leaf player dazed and suffering a mild concussion.

Violence of that sort, everyone does agree, is one aspect of the game which must be corrected.

Ejections from games are becoming more common each year and it is taking the thrill out of the sport. What's wrong with two players going at each other one-on-one? In particular, using the fists. Many players admit it helps them work their frustrations out.

It's certainly the lesser of two evils when you consider more objectionable fouls

committed with sticks. What would you prefer: The guy who drops his gloves and has a scrap out in the open, or the guy who's sneaky with his stick.

One-on-one bosing bouts and shoving matches in front of the goal are not the big problems. The big problems occur when one player attacks another and the attack escalates beyond the limits of the traditional hockey fight. The Maloney-Glennie episode, which took place in Toronto earlier this season, and the celebrated Dave Forbes-Henry Boucha incident, which took place last season in Minnesota, are the big problems.

After the Maloney-Glennie fight, a politician (an Ontario attorney general) got involved. In both cases, the aggressors, Boston's Forbes and Detroit's Maloney, were arraigned on assault charges.

These episodes have created great concern among respective coaches. Flyer coach Fred Shero in a recent interview stated, "My guys have been reading the papers. They are not dumb. They start wondering how far they can go, and as a result it throws them off their game."

Shero made his comments against the Ontario attorney general, Roy McMurtrie. "McMurtrie's foolish ruling puts every

guy in the frame of mind where he doesn't know whether to check. Is this what people are paying to see?" quipped Shero.

A former Detroit coach, Dough Barkley, said "The National Hockey League is the best-run league of any major sport. The league has done an excellent job of running itself."

Oddly enough, some believe in the rough tactics, including Harold Ballard, president of the Toronto Maple Leafs and a member of the National Hockey League's Board of Governors.

"We've got to mold a lineup that can take on a bunch of goons. I'm looking for guys who'll go wild when you toss raw meat to them," said Ballard.

Atlanta Flames defenseman Pat Quinn said, "It's the way we were brought up. We were taught that if you take shots without giving anything back, you'll be run out of the game."

There will always be fights and scuffles in hockey. They are, as Pat Quinn said, very much a "part of the game." When a man with a two-pound stick in his hand attempts to shove another man away from the puck and into a section of glass paneling, hard feelings are bound to result.

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Materiel Management Wins Three More In CWF Slow-Pitch

Materiel Management added three more notches to their unbeaten string of CWF slo-pitch victories last week but R&D duplicated to stay two and a half lengths back and MISD won its only encounter for a share of second place.

The leaders handed PAD 10-3 and 27-5 defeats and blaster P&P, 27-4, to keep their slate clean after eleven games. R&D picked on ASC for 22-2, and 22-3 decisions before making the week a complete loss for PAD, 15-5.

MISD turned in a near perfect defensive performance in blanking ASC, 19-0.

Finance and Accounting made a big jump with three straight wins, two of them at the expense of the T&E Lab, 8-1 and 21-7, sandwiched around a come from behind 8-7 decision over the Comptrollers. The Comptrollers were victorious in the other two games on the weekly card with P&P the loser in each 13-3 and 10-6.

Mel Waters drove in five runs with his three hits in pacing MM to their first win over PAD while Gary Belue homered twice and Randy Sumner once in the second win. Lindon Calvert was the winner both times over Ray Wernle.

Sumner accounted for six RBIs and Bill Hart went 4 for 4 in the win over P&P. Greg Kremler doubled twice for the losers.

Jim English, Jay Loomis and Jerry Arszman collected 15 hits between them to get R&D past ASC in one game and George Thurlow's perfect 4 for 4 set the pace for the

other triumph.

Lloyd Brooks blasted a pair of homers with Arszman and Dean Reese contributing one apiece in the R&D win over PAD. Ray Whiddon hurled all three wins including a 6-hit job against ASC. Bruce Coker blanked ASC in the

MISD victory as Mel Betts, Theo Horn and Buddy Lewis provided home run support.

The Accountants grabbed an 8-1 lead after two innings and then matched goose eggs with T&E over the last five frames for one of their wins. Lumis Culver won the

decision from Bill Rupert as Tom Johnson set the offensive pace with three hits.

Johnson stroked a three run homer in the bottom of the sixth to provide the Accountants with their win over the Comptrollers. It was the second four baser for Johnson and made Emmet Mathis the

winner.

Another Johnson round triper along with singletons by Hal Jacobs and Bill Cannon provided Pee Wee Culver with a working margin in hurling the Accountants to their second win of the week over T&E. Allen Cochrane hit a grand slammer in the losing cause.

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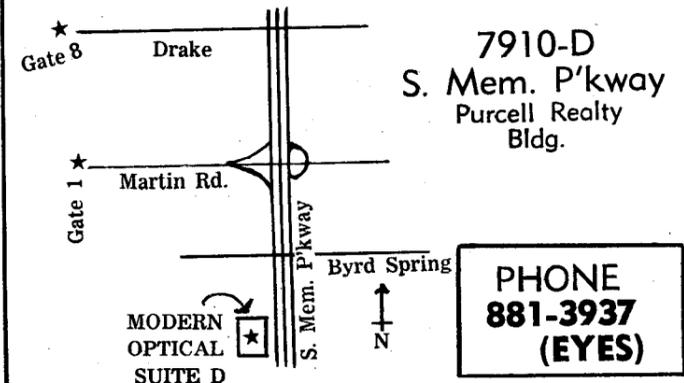
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DA Officials Approve Slot Cutback

Messages approving reductions in enlisted and civilian slots and downgrading of additional enlisted positions were dispatched in late May, according to DA officials.

Major Army commands have been told by DA to cut 1040 enlisted and 169 civilian slots. They must also downgrade another 3944 enlisted positions.

These actions, DA staffers say, only affect positions in authorization documents and are not a reduction-in force. They are aimed at reducing the staff and grade structure of Army Support Activities.

The requested slot cutbacks and downgradings, according to DA officials, resulting from a DA-directed review conducted by major Army commands. The review—tabbed SASTAR—looked at Support Activities TDAs.

These enlisted actions will wrap-up the enlisted phase of SASTAR.

However, commands are still looking at selected civilian positions—GS 12-15 non-supervisory—in TDA units.

Possible reclassification or downgrade of positions is expected in the field by early Fall, DA staffers say.

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The American Red Cross Bloodmobile will visit Redstone Arsenal today from 9 to 3 p.m. at Bldg. 3711 (Recreation Center).

Each organization is assigned two quotas—one civilian and one military.

The Bloodmobile visit in May resulted in 435 pints of blood being accepted from 485 participants. This represents 87 per cent fulfillment of the Red Cross goal for Redstone Arsenal.

The 7th Student Company at the missile school won the American Red Cross best unit participation trophy with 51 donors (41.46 per cent).

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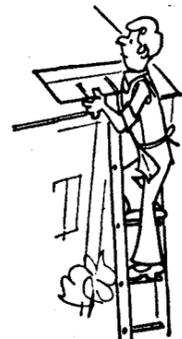
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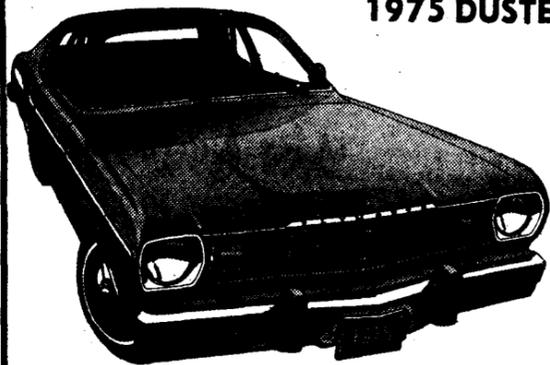
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Secretary of Defense Donald Rumsfeld has signed a Department of Defense Directive broadening the scope of the department's equal opportunity program to include all activities.

In signing DOD Directive 1100.15, Rumsfeld said, "Equal employment can not, in my judgement be viewed as relating only to employment. People are affected, directly or indirectly, by all of our activities. Each must be performed in accordance with the

principle of equal opportunity. Adherence to this principle is an important part of our responsibility in defending America's Freedoms."

Rumsfeld emphasized fair and equal treatment as a basic freedom that every individual has

a right to expect. "I'm determined," he said, "that this department's daily business be conducted in a manner that assures there is no discrimination based on race, color, religion, sex or national origin.

"Freedom is a very precious

thing and certainly it's appropriate in our bicentennial year to appreciate that and to see that each of us is sensitive to this meaning for all our citizens."

"Equal opportunity is also the law of our land. The signing of this

revised directive is an indication of our determination to assure that discrimination does not exist in the Department of Defense, a department which has been historically in the forefront of national progress towards equal opportunity.

Redstone Judo Club Triumphs

A group of Arsenal youths made a trip to Memphis earlier this month and then almost had to hire a truck to haul their hardware back.

They were 38 members of the Redstone Judo Club, who went to the capital of the mid-south to participate in the Frayser Judo Club's annual invitational tournament.

Nine of the dependent youths captured first place trophies, five more finished second on the respective divisions and ten won third place honors. And together they captured the team championship.

Division champions from Redstone were, David, Dorothy and Sharon Brown, Robert and Steve Richmond, Sammy Morris, Nels Benson, Eric Rosmond and Mark Senter.

Cessna Z10 Joins Flying Club Fleet

The Redstone Flying Club has increased its regular rental fleet with the addition of a newly acquired Cessna 210. The 185 mph, retractable gear aircraft seating six, adds a significant capability to the Club's fleet, now numbering 12 aircraft.

The Flying Club is open to all military and civilian employees of the Department of Army and the Marshall Space Flight Center. It is located at the Redstone Army Airfield.

Both in-flight and ground instructions are available for private pilots through commercial licenses. A private pilot ground school began this week.

Persons desiring additional information concerning the Club and its activities may visit or call the Club at 837-4960 daily between the hours of ten and three.

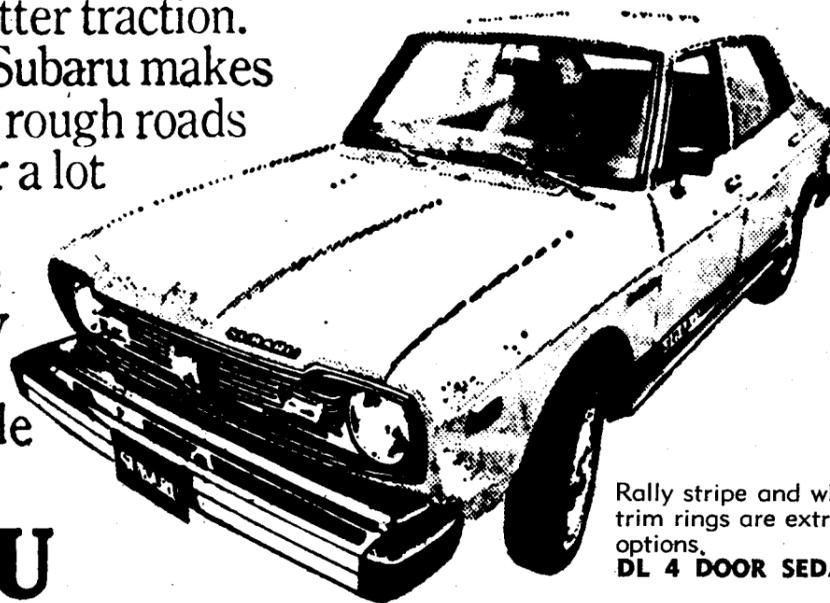
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President Directs Closer Classification Examination

WASHINGTON — President Ford has told heads of Federal agencies to "reexamine internal management and classification systems to insure they are operating effectively and in full compliance with applicable laws and regulations."

In the same recent memo, addressing grade creep in the fed-

eral service, the President reminded agency heads that individual probes by the Civil Service Commission, General Accounting Office and Office of Management and Budget have all found that "classification and position management systems are not functioning as effectively as they should in a number of fed-

eral agencies."

Mr. Ford charged the Civil Service Commission with guiding continuing probes of classification practices and also told agency heads that the commission would be the final appeal.

Federal employees generally fear reexamination of classification practices and decisions

ultimately means downgrades for many of them. The Commission studies, and others as well, have all reported that many federal jobs were overgraded.

"There is evidence," the President said in his latest memo, "of both overgrading and undergrading because positions are either improperly described or

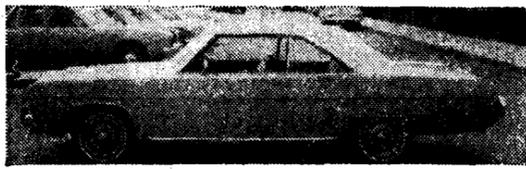
inaccurately classified."

Making the point that federal managers must upgrade jobs when work becomes "substantially more complex or difficult," the President added: "At the same time there is an equally clear responsibility to insure that undue grade increases are not allowed

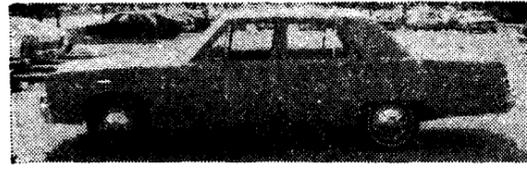
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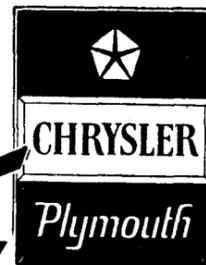
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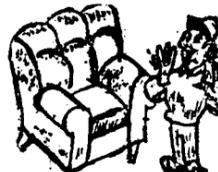
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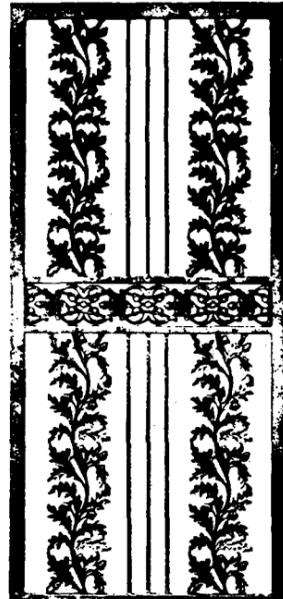
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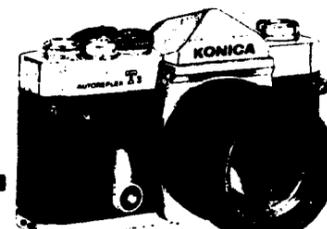
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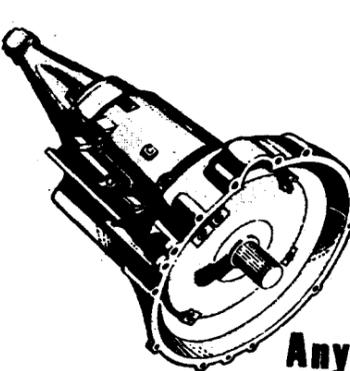
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Officer Chief Is Honor Graduate

The honor graduate in the latest class to complete the Military Personnel Officers Course at Ft. Benjamin Harrison was a member of the first group of Redstone civilians ever to attend the course. Ramona Lindsey, chief of officer records at Military Personnel, finished first in a class of 39 in the five-week course, which is held at

the U.S. Army Institute of Administration.

Other Redstone civilians completing the course were Roberta Anzalone and Betty Lashley of Military Personnel, and Floyd Key, Elizabeth Moorer and Drennen Horsley of Finance and Accounting.



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Beckwith Named School's SOM

A 20-year-old New Berlin, N. Y. native, who has been the first one from his immediate family to venture farther south than New Jersey, has been selected the Missile and Munitions Center and School's Soldier of the Month for June.

Specialist Four William E. Beckwith, who says he comes from a small northern New York town, without a whole lot to do, represented the First Battalion at MMCS in the competition.

A member of Company B, with Beckwith received a \$25 savings bond and a letter of commendation. He is currently an instructor in the Vulcan-Chaparral course taught at the school.

Aside from his latest accomplishment, Beckwith has been a stalwart in sports for his unit in basketball, football and softball.

"I really like sports and I hope to make a career centered around sports when I leave the Army," Beckwith said.

A 1974 graduate of New Berlin Central School, Beckwith plans to go back to college and major in physical education upon completion of military duty in September 1977.



SP 4 William E. Beckwith

Kicker Kicked

The Administration has submitted legislation to eliminate the 1-percent "kicker" added to cost-of-living increases in Federal retirement and survivor annuities.

The bill, H.R. 12921, was introduced in the House of Representatives and referred to the Committee on Post Office and Civil Service. The House and Senate Budget Committees have endorsed the measure.

President Gerald R. Ford submitted a message with the legislation. He said, in part, "under existing law, when annuities under civil service . . . retirement systems are adjusted to reflect changes in the cost of living, an extra 1 percent is added automatically.

"Because the extra 1 percent has been compounded each time the system has been adjusted, retirement payments are running substantially ahead of the actual rise in the cost of living."

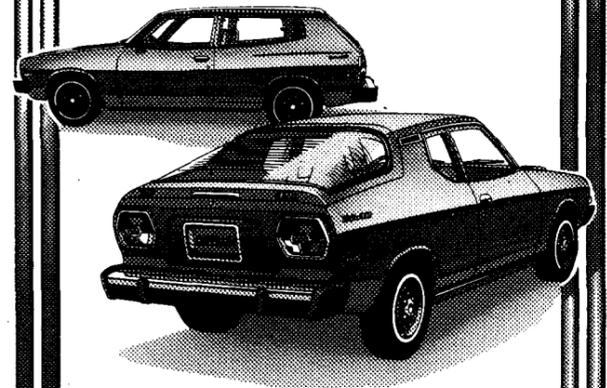
The current formula for computing cost-of-living increases in annuities works like this: Civil Service Retirement System annuities are adjusted on the third day of the third month after the Consumer Price Index (CPI) has

— (1) risen at least 3 percent above the point which triggered the last adjustment and (2) remained at the higher level for 3 consecutive months. The annuity increase equals the highest percentage increase in the CPI during the 3-month period — plus a one-percent kicker.

The one-percent kicker is what the Administration is asking Congress to eliminate. The legislation was introduced by Representative Edward J. Derwinski, Republican, Illinois.

More than 50 percent of Federal retirees receive less than \$500 a month. Ten percent get between \$94 and \$200 a month.

Of the 382,000 persons receiving survivor annuities 226,000 receive from \$94 to \$200 a month. Only 18,000 draw more than \$500 a month.



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"REALTOR MEMBERS OF MULTIPLE LISTING SERVICE"



THIS ONE'S MINE — Son of an Italian officer undergoing training at MMCS enjoys a soft drink with friends.



CONVERSING — And eating, too, at the Commandant's allied officer picnic Saturday. Col. Edwin A. Rudd hosted some 130 officers and wives at his residence, among them these students from Korea.



PLENTY FOR EVERYBODY — Allied officers fill up at the food line during the Commandant's picnic Saturday.

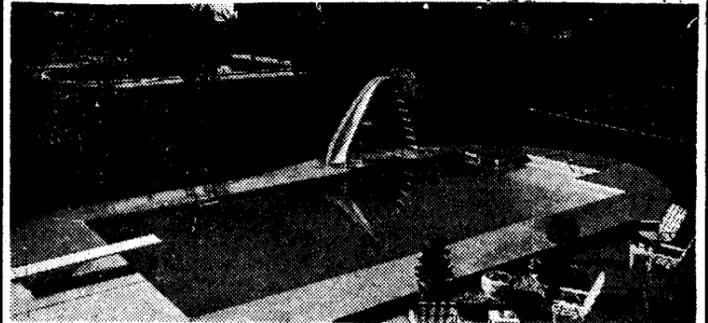
Cookout For Allied Guests

More than 130 allied officers, wives and children were the guest of Col. Edwin A. Rudd, commandant of the Missile and Munitions Center and School, at a picnic last Saturday.

The two-hour cookout was hosted by the commandant at his residence on the Arsenal.

Most of the allied officers attend various missile and ammunition courses at MMCS, while some are assigned to the school as liaison officers and cadre.

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It's a Bum Rap

Federal civil servants are being made scapegoats for what is wrong with the country. Jayne Spain, former vice-chairman of the Civil Service Commission, said in a speech at George Washington University.

She said that Federal civil servants appear to be blamed for the wave of "anti-Washington sentiment" resulting from Vietnam and the Watergate scandals.

Some presidential candidates are perpetuating the myth that Federal civil servants are slothful, pointy-headed bureaucrats Mrs. Spain said.

"As a former vice chairman of the Civil Service Commission, I think it my prerogative to strongly disagree," she added.

Another misapprehension Mrs. Spain sought to dispel involves the cost of the Federal Government. She noted that gasoline, bread, rent, and clothing, too, have increased.

"But in terms of our gross national product, the cost of the Federal Government has remained nearly stationary," she said, "and in terms of payroll in the nation the Federal share has been gradually shrinking."

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SUITE 14 3322 MEMORIAL PKWY. S.W.

ADD-A-ROOM



CARPORT ENCLOSURES



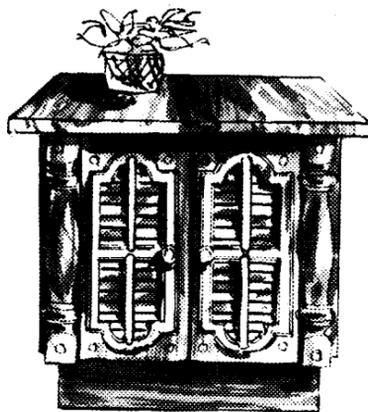
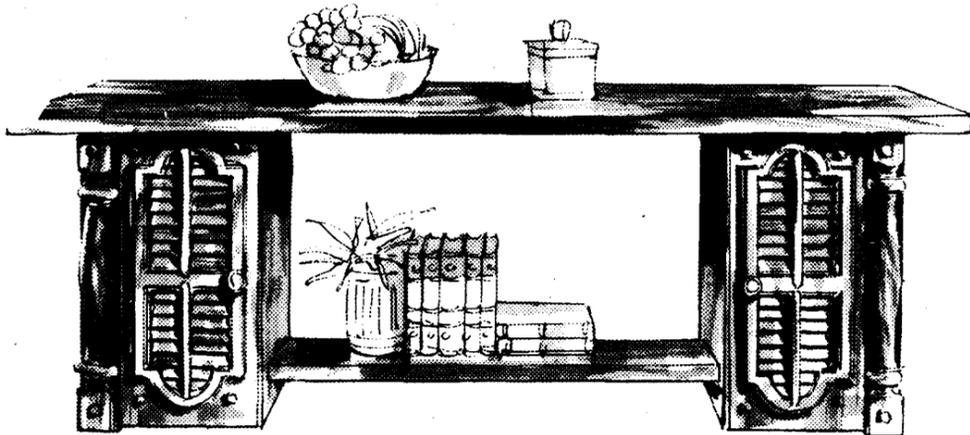
ROOFING



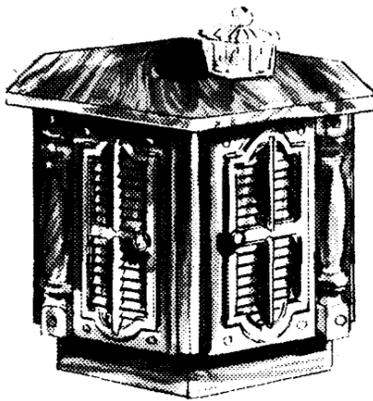
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to Sell**



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TABLE
SQUARE END
TABLE
HEX END
TABLE

39

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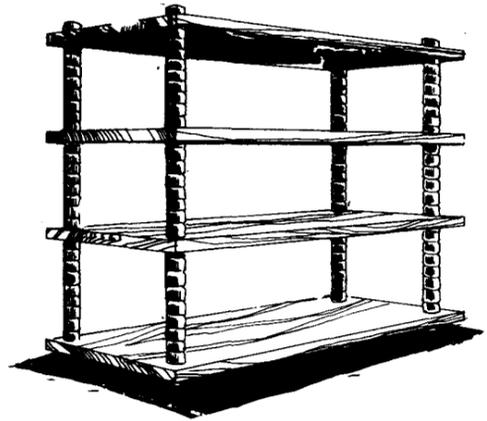
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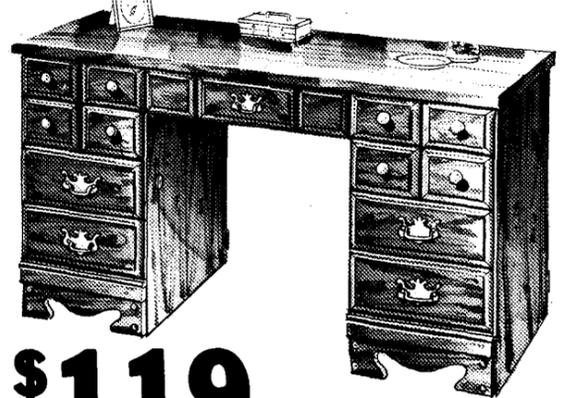
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A great GIFT FOR DAD



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DESK

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Double Pedestal DESK

