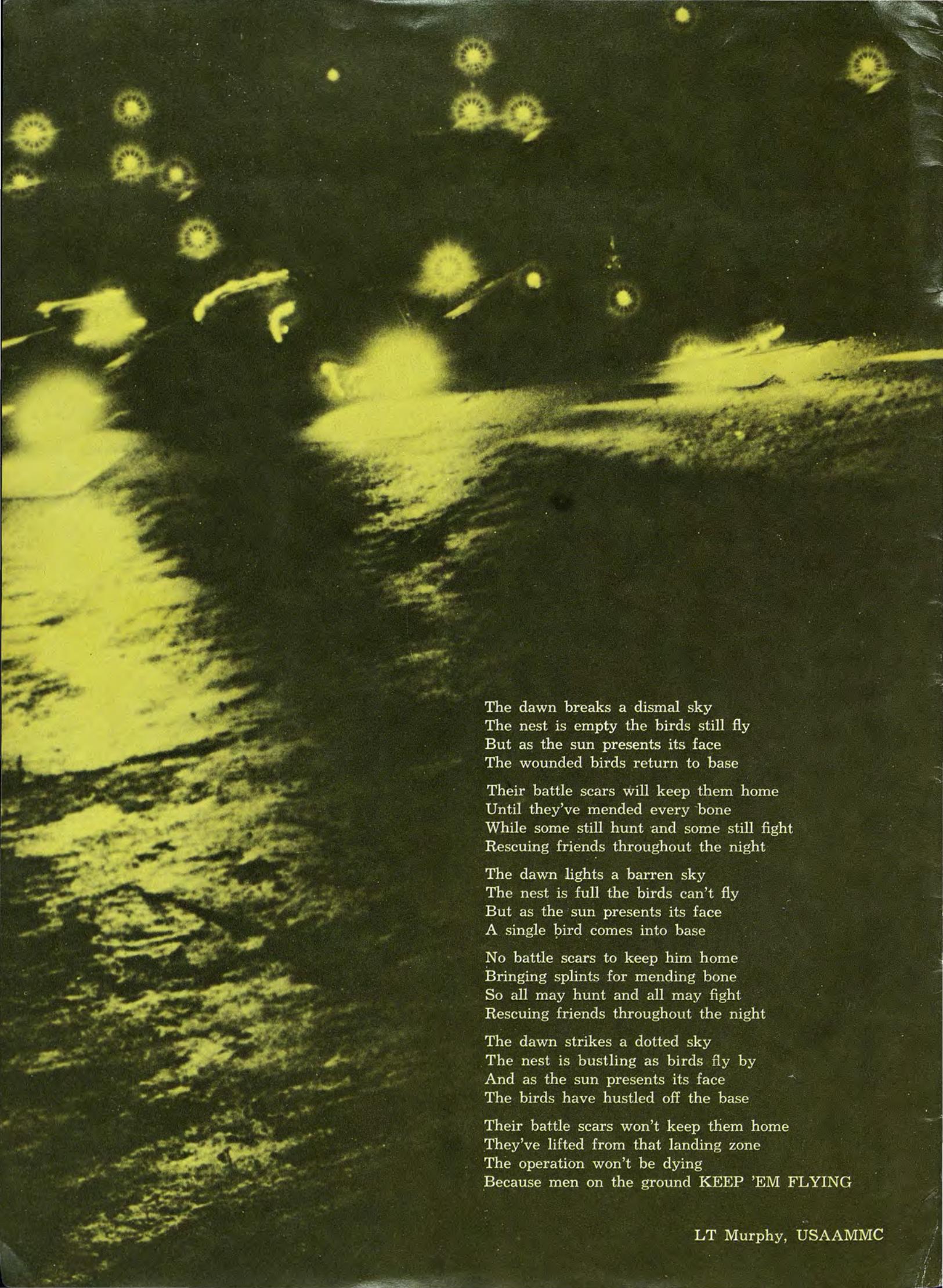


AVIAN 34

AUGUST '69





The dawn breaks a dismal sky
The nest is empty the birds still fly
But as the sun presents its face
The wounded birds return to base

Their battle scars will keep them home
Until they've mended every bone
While some still hunt and some still fight
Rescuing friends throughout the night

The dawn lights a barren sky
The nest is full the birds can't fly
But as the sun presents its face
A single bird comes into base

No battle scars to keep him home
Bringing splints for mending bone
So all may hunt and all may fight
Rescuing friends throughout the night

The dawn strikes a dotted sky
The nest is bustling as birds fly by
And as the sun presents its face
The birds have hustled off the base

Their battle scars won't keep them home
They've lifted from that landing zone
The operation won't be dying
Because men on the ground KEEP 'EM FLYING



AVIAN 34 AUGUST 1969

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No. 2



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AVIAN 34 is an authorized magazine of the 34th General Support Group (Aircraft Maintenance and Supply) a major subordinate unit of USARV. Published semi-annually, the magazine serves as a major command information outlet for Group. Unless otherwise indicated, material printed in AVIAN 34 may be reprinted in other publications provided credit is given to this magazine.

Contributions of articles, photographs and items of general interest to the 34th General Support Group (AM&S) are invited and should be addressed to: AVIAN 34, Information Officer, 34th General Support Group (AM&S), APO SF 96309.

The cover design is composed of organization patches from the military units and civilian firms that carry out the wide-spread operations of the 34th General Support Group in providing complete service and maintenance to Army Aircraft in Vietnam.

Inside front cover photo shows heliport activities at night.

The 34th General Support Group with units as far North as Da Nang and far South as Vinh Long in the Mekong Delta, is the largest aircraft maintenance and supply organization in the US Army. Subordinate units of the Group render parts supply and direct, general and depot maintenance to the more than 4,000 aircraft operated by the United States Army in Vietnam. This support mission is successfully carried out through the skill and dedication of the 5,000 military personnel and 2,000 civilian technicians who make up the members of the Group.

This magazine highlights some of the daily activities that serve to accomplish our overall Army aviation support role. As your Commander, I extend my personal thanks and deep appreciation to all the members of the 34th General Support Group for the superb manner in which you are playing such a vital part in this war, keeping Army aircraft flying. I am confident of our continued success in mission accomplishment.

ALTON G. POST
Colonel TC.
Commanding

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CAYUSE GETS A NEW PAIR OF SHOES

SSG Donald A McCracken of the 1st Transportation Corps Bn.



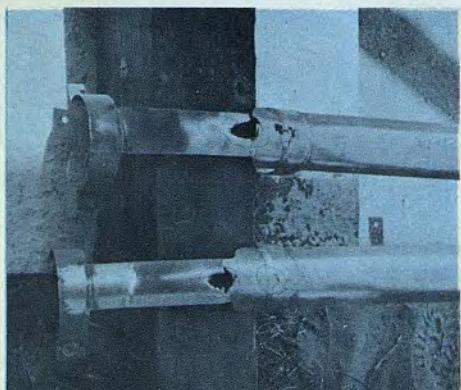
The ingenuity and adaptability of SSG Donald A. McCracken, of Evart, Mich, NCOIC of the metal shop of the 1st Transportation Corps Battalion, (USNS Corpus Christi Bay), has produced a solution to a long standing aircraft maintenance problem. He came up with an excellent idea for skid shoes for the OH-6A Cayuse helicopter which will save the U.S. Army a lot of money, manpower and down time for aircraft.

It all started when the USARV OH-6A Training Team at Vung Tau wanted to get some skid shoes for the five OH-6A's which they are using to train pilots in the techniques of flying the OH-6A. One of the training exercises is an autorotation landing which is very hard on the skids. In fact, the standard OH-6A skid can only withstand about 375 autorotational landings on a smooth surface before it needs to be replaced. Because of the large number of autorotations done by the Training Team, a real need developed for skid shoes to protect the skids. Late last year the training team submitted a design for heat-treated, stainless steel skid shoes to the 34th General Support Group (AM&S).

The 34th General Support Group

forwarded this request to the 1st Transportation Corps Battalion, a Floating Aircraft Maintenance Facility (FAMF) located on the USNS Corpus Christi Bay in Vung Tau harbor. The design could not be fabricated by the FAMF because of the limited heat treating equipment on board. However, modifying the basic design slightly, the sheet metal shop produced a set of .031 inch thick stainless steel skid shoes which were not heat treated and sent them to the OH-6A Training Team where they were tested. After the test period, an evaluation found that the shoes were wearing out as fast as the regular skids.

Fortunately for the Army (and the taxpayer) the men in the sheet metal shop were aware of the great need for the development of the skid shoes. Although their first skid shoe design was inadequate, they felt they could solve the problem. After a lot of thought, SSG McCracken soon came up with a design for a three-quarter length steel skid shoe which was about twice



as thick as the first shoes and covered the back part of the skid. This design was put into test production and a set of shoes was sent to the training team for test and evaluation. This set of shoes did not protect the skids adequately either. But this time there was improvement and the evaluation gave clues as to how to make the next set of shoes a success. The evaluation indicated the part of the skid that was covered was very well protected but that the front of the skid needed protection more than the back. In addition, the report noted that the shoes slid to the rear when the aircraft landed.

Realizing the shortcomings of his first design and having a better idea of exactly what was required, SSG McCracken set to work modifying his design. Assisted by two members of the sheet metal shop, SP5 Douglas E. Sapp from Wauconda, Washington, and SP4 Gerald Stephens from Westfield, Oklahoma, he extended the front of the shoe giving protection to the entire skid includ-



Cutting notches for skid shoe "toe"

SP4 Terry Dack and SP5 Ronald McLaughlin of the 54th Avn. Co. OH-6A T.T. tighten the clamps of a skid shoe just prior to a test flight to further determine the durability of the skid shoe.

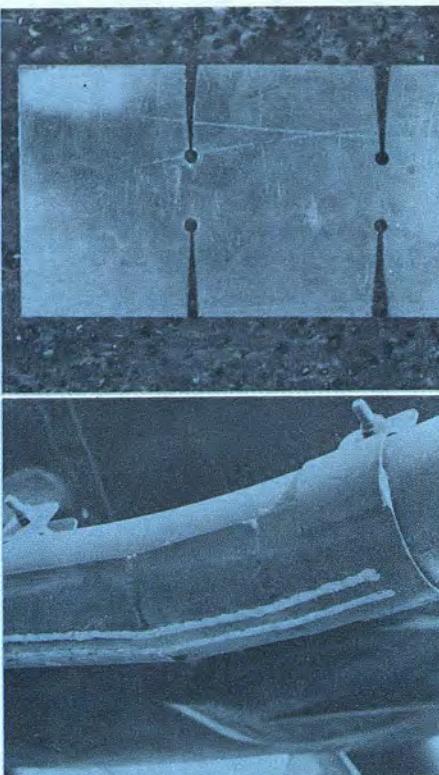


ing the curved part of the skid. The construction and design of the curved part required special skills and knowledge since a perfect fit was required on the compound curve of the skid "toe". To meet this requirement, SSG McCracken took the piece of metal that was to fit the curve and notched it. Notching a piece of metal may sound simple, but it took an expert to know how much, where and how many times to notch the shoe's "toe". Welding beads were then added to the underside of the shoe's "toe" for additional protection.

The next problem was to reduce the slipping of the shoe. To do this the shoe was rounded very carefully to fit the skid snuggly.

The shoe clamps were then modified so they would grip the skid together.

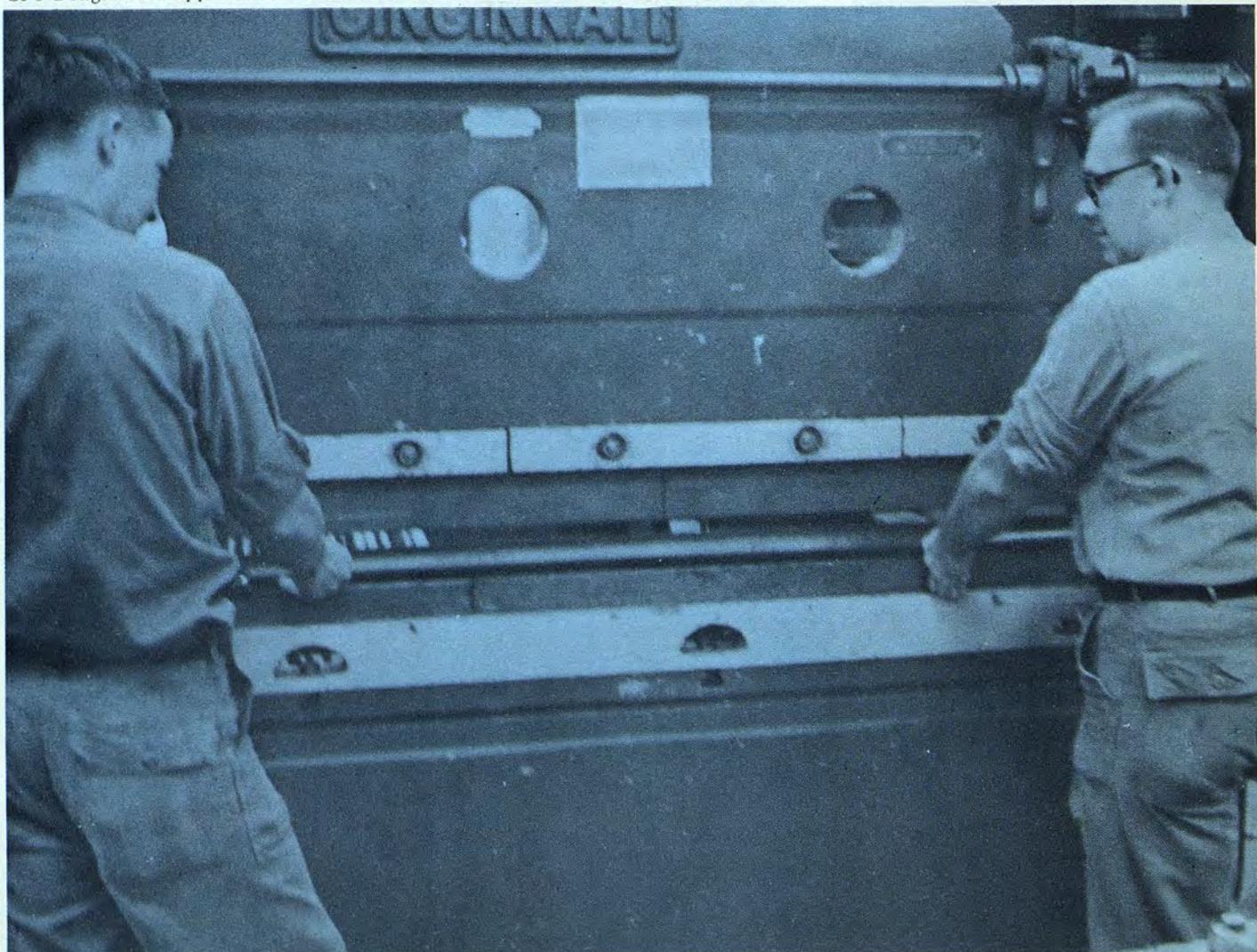
Once completed, the third set of skid shoes were sent to the training



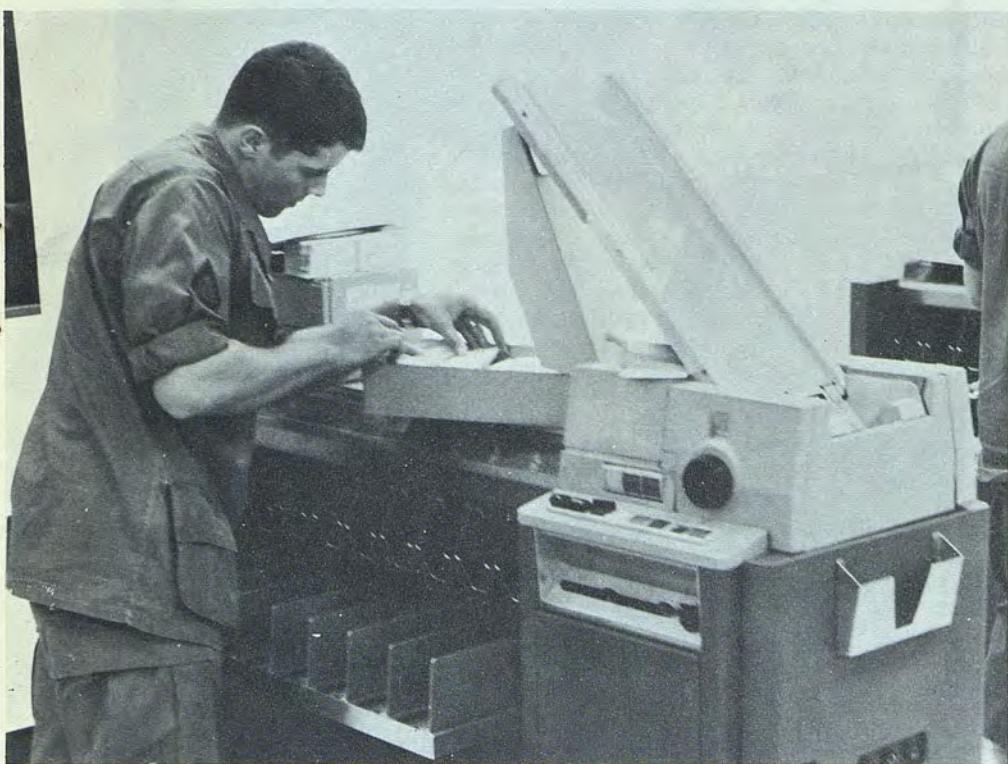
team for test and evaluation. The results were 100 percent satisfactory. In fact, the skid shoes not only passed with flying colors, but provided two unexpected bonuses. It was found that the ships could now slide more easily on the ground with the new shoes and that the shoes added enough strength to the skid so that it didn't bow when towing wheels were clamped to the skids.

At present, the skid shoes have lasted well over three times as long as the average skid and have yet to show any visible wear. The estimated cost of a skid is about \$240 while the cost of the shoe is well under \$50. Thus, the USARV Training Team will save roughly \$1400 worth of skids per aircraft per year. As a further tribute to SSG McCracken's inventiveness, other units operating OH-6A's in Vietnam are now using the new skid shoes.

SP5 Douglas E. Sapp and SP4 Gerald Stephens use press to put curvature in skid shoes.



DATA



PFC Gerald W. Hunter Jr of USAAMMC goes through a box of cards before turning his card sorter loose on them.

The patrol moves cautiously down the narrow trail. Suddenly the jungle quiet erupts into the ear piercing roar of an ambush. The surprised soldiers react quickly to hug the earth and return fire; but surprise and greater numbers gives the enemy too great an advantage. The pressured patrol leader radios for help. Shortly, a flight of Cobras arrives to save the patrol.

Quick reaction to an enemy thrust is one mark of effectiveness in the combat arms. In this instance, the arrival of the Huey Cobra gunships was decisive. However, more is required for quick reacting than running to a waiting helicopter and racing to the scene of battle. The world's greatest pilot cannot fly a helicopter which lacks essential parts; and there is a long line of logistical support required for each Army aviation item. The organization responsible for the management of in country logistical support is the U. S. Army Aviation Materiel Management Center (USAAMMC). In order to handle a large volume of transactions against a proportionately large inventory, the USAAMMC maintains a sophisticated computer complex, the U.S. Army Aviation Materiel Management Data Processing Center (USAAM-MDPC) which can quickly process a wide variety of incoming requests to maintain effective logistical support.

PROCESSING

PFC John A. Dalloroso of USAAMMC operates the delicate tape drives.



The USAAMMDPC was initially organized on 15 August 1968 from personnel of the 3rd, 581st and 589th Composite Services Detachments. It is presently organized by function into four basic branches under the control of the Office of the Director. These branches are the Programming Branch, Computer Operations Branch, Machine Operations Branch and the Production and Quality Control Branch. In addition, there is provision made for the handling of sensitive jobs across branch lines under the auspices of a Special Project Officer.

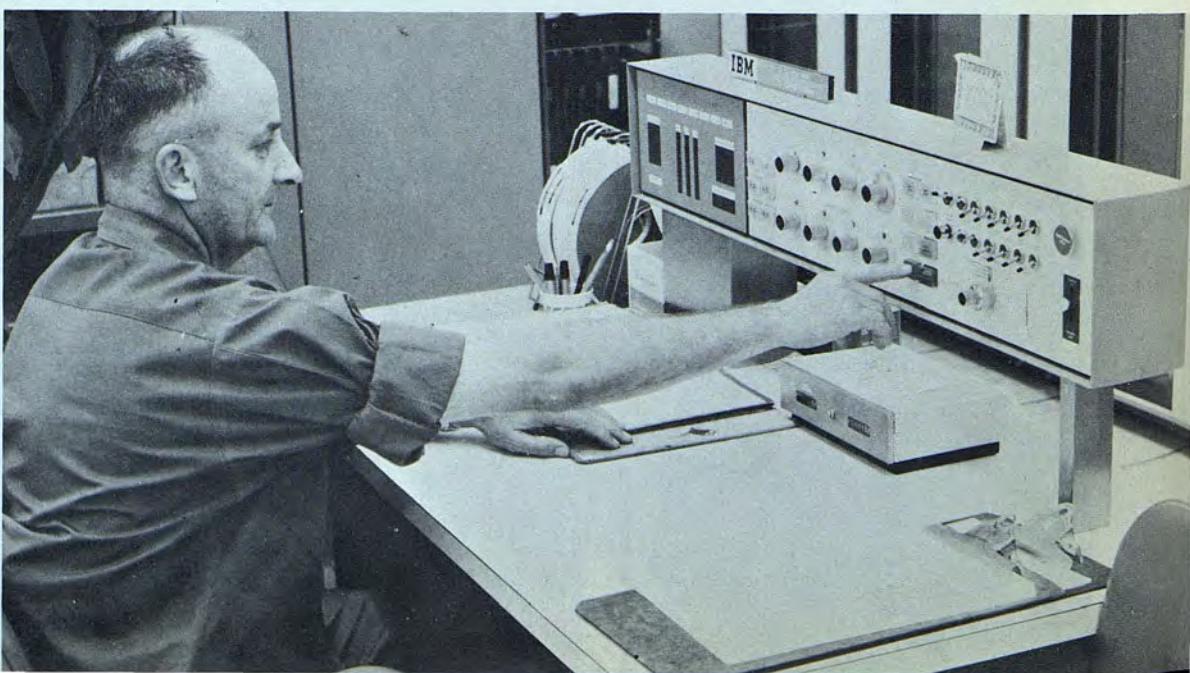
Any computer must be told what to do and how to do it. Instructing the machine is the function of the Programming Branch. Each job is broken down into the most basic logical steps by the programmer. He then must translate every step into language understandable by the computer. This group of instructions for accomplishing a job is called a program. The programmer must then guarantee by testing the program that the computer "understands" the job or, in other words, that it will do exactly what is required by the job statement. Once the programmer is convinced that the program is sufficiently tested, it is then implemented to do the required job. However, the programmer still must be ready to correct any undiscovered errors, (in large programs, it is all but impossible to eliminate all errors), or change the job to meet new requirements. This intellectually demanding job is performed by civilian contract employees and military personnel.

The actual running of a job is



SP6 Donald McLaughlin of USAAMMC finds the problem on a malfunctioning card sorter.

CENTER



SFC George V. Goodnoe keeps a close eye on the IBM 1460 Console.

the responsibility of the Computer Operations Branch. The running of a job first requires the loading of the program which entails entering the instructions that the programmer devised into the machine. The computer operator must also enter the work to be processed by means of either punch cards or magnetic tapes. The computer then follows the instructions to process the job.

Computer Operations is also responsible for DPC's four computers—an IBM 1460 and three UNIVAC 1005's. Computers, like other equipment, require periodic preventive maintenance. In addition, personnel of Computer Operations must see that the atmosphere in the machine room is maintained within very narrow limits of temperature and humidity. If these conditions are not maintained, the computer is prone to error and serious damage.

In addition to the four computers, there are almost sixty other data processing machines. These are under the control of the Machine Operations Branch and are used for card processing. One section, Key-punching, enters punch coded information into the card from source documents. These cards may be sorted into some specified order, duplicated on other punch cards or listed on printing paper, and any number of other operations may be applied to them by the Machine Operations Branch according to specified written procedures.

As in the Computer Operations Branch, the Machine Operations Branch is responsible for the maintenance of the machinery. Though punch card equipment is nowhere near as sensitive as the computers, this is still a very demanding job for skilled personnel of the Machine Operations Branch.

Tying all work of the separate branches together is the Production and Quality Control Branch. This branch is responsible for writing and maintaining the procedures that govern the manual processing of any job. The personnel assigned to this branch are responsible for checking the accuracy of all outputs and then releasing them to the proper organization.

Typically, a direct support unit (DSU) will require an additional supply of some repair parts. The DSU will submit a requisition for this item and this requisition will go through channels to DPC. When it arrives at DPC the Keypunch section of the Machine Operations Branch will convert it to a machine readable card if it is not already in that format. The information contained on the card will then be processed by a variety of computer programs. Depending upon a wide variety of conditions, the computer

programs cause specific actions to occur. For example, a requisition might be made for an available item. In this case, the programs will cause a Material Release Order (MRO) to be produced. This MRO will be sent to the appropriate depot under the auspices of the Production and Quality Control Branch and the depot will then issue the item to the DSU. In addition, a record of this transaction will be maintained for financial accounting purposes, for quarterly calculations of new reorder points and reorder objectives and for various management statistics. If the requisition causes the stock on hand to fall below the reorder point, the program will automatically reorder the part from the United States. Other uses of the programs include checking for excess quantities, high cost items, etc., and diverting these to the particular manager of that item for review. A complete list of all that the automatic processing entails is far too large to be included here.

The U. S. Army Aviation Material Management Data Processing Center quietly but surely aids the combat arms in accomplishing their mission by providing the control necessary to insure the steady stream of logistical support to Army aviation in Vietnam. The efficient management of automation is a real and important contribution to the war effort, saving lives by the timely and accurate processing of logistical support tasks.

Aircraft armament systems are subject to frequent changes. New equipment in the armament field is constantly being introduced. Crew chiefs, gunners and pilots must be aware of these changes. The armament specialists must also recognize these changes in order to perform proper maintenance on the aircraft armament equipment. Armament safety must be emphasized to prevent accidents and equipment damage. The former Commanding General of the 1st Aviation Brigade, Major General Williams, saw a definite need for aircraft armament safety in the field.

Based primarily on a need for safety, an armament refresher school has been organized in South Vietnam. It is located in the Army Aviation Refresher Training School (AARTS) in Vung Tau. The 34th General Support Group Armament Officer, Major Andrew C. Johnson, was in charge of this school when it was constructed. The supplies he procured to build and equip the school include complete armament systems and test stands, gunships and written material on the different systems and sub-systems that are used in the classes.

The school is open to both enlisted personnel and officers. Enlisted students are crew chiefs, gunners and maintenance specialists. Officers attending the classes are given the opportunity to review what they already know as pilots and to learn more about their aircraft's armament equipment. All students are from direct support and gunship companies in South Vietnam. During the seven day course, students spend eight hours a day in the classroom.

Early in April of 1969, a new program was started at the armament school. South Vietnamese and Koreans enrolled in this four week, MOS producing course, are taught the functions and uses of the aircraft armament systems.

The training equipment that is used in the refresher course and the MOS producing course includes two helicopter gunships, UH-1B and UH-1C models with the systems and subsystems mounted; and the Cobra armament system, the XM-28 combination of systems, the X-134 (7.62 mini-gun), or the XM-129 (40mm grenade launcher). The XM-28 can hold two X-134's or two XM-129's or one of each.

This school, offering refresher and MOS producing training, is the only one of its kind in Vietnam that enables pilots, crew-chiefs and maintenance specialists to possess a broader knowledge of aircraft armament necessary for the highest possible degree of equipment efficiency and safety.

AARTS

There is a great demand in the military for trained aircraft armament repairmen. To the pilots and the crews of the gunships in Vietnam, the proper function of the armament on the aircraft is as important as the function of the aircraft itself. As a result of this need for trained repairmen, the United States Army launched an armament training program. After completing twenty-six weeks of training at the United States Army Ordnance School at Aberdeen Proving Ground, Maryland, the student is awarded the MOS of 45J20 (Aircraft Armament Repairman).



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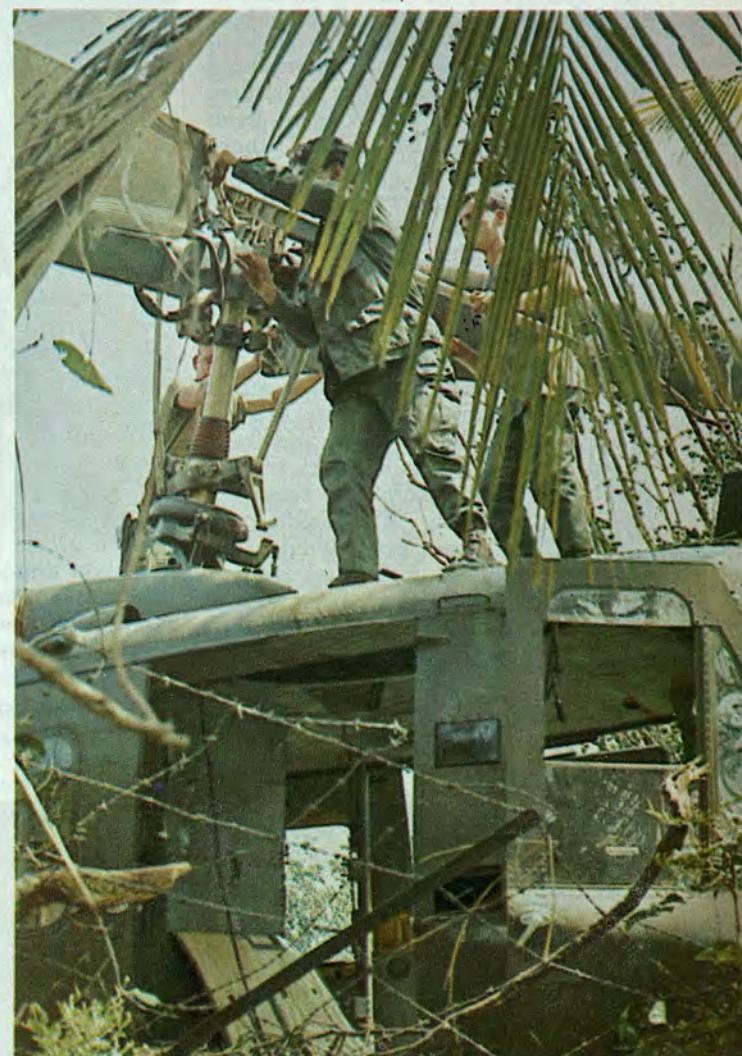


One occupation which has come into its own in the Vietnam war is that of aircraft recovery by aerial extraction teams of the U.S. Army. Recoveries may be routine *maintenance extractions* which involve moving a damaged or "high-time" aircraft by air from one maintenance area to another either for higher echelon maintenance or retrograde back to CONUS; or they may be *field extractions* of aircraft downed outside the safety of a base camp perimeter by either foreign object damage, pilot error, or enemy ground fire.

The number of U. S. aircraft shot down by hostile fire in Vietnam has already passed 1,000 but most of these aircraft have been recovered by Army recovery teams, often under intense enemy fire. But, regardless of whether or not the mission is performed under combat conditions, this method of aircraft recovery is valuable and necessary. It provides, for *maintenance extractions*, an efficient and safe means of transporting aircraft in need of repair or retrograde and, for *field extractions*, a swift and dependable method of removing valuable salvage materials such as communications equipment, weapons systems and maps from the reach of the enemy. Even the wreckage of an aircraft, whether whole or in part, can be used by the enemy for valuable propaganda purposes.

To illustrate these recovery operations, "Avian 34" photographed "Pipesmoke", the recovery team of the 520th Transportation Battalion in Phu Loi. Most recovery operations require the coordinated efforts of a general support and a direct support company, the former to supply the "Chinook" extraction crew while the latter provides the rigging team which prepares the damaged or crashed aircraft for aerial extraction. "Pipesmoke", however, is a product of fortunate circumstances. The relative proximity of the units of the 520th Transportation Battalion made it possible for both the rigging and the extraction elements to be placed under the same operational control. The result is a well trained, highly efficient unit which has earned, over the long months since it first began operations, a reputation as one of the most effective recovery teams in the combat theater.

"Pipesmoke" operates in approximately 80% of III. Corps and has a virtual monopoly on recovery operations in that area. The makeup of the team consists of pilots, both warrant and commissioned officers, assigned directly to the team, and enlisted men from the units of the 520th. One of the things which helps make "Pipesmoke" such an effective team is the fact that every one of these enlisted men are volunteers.



Speed is essential in field recovery operations. Top of page, left; two men secure a tail boom nearly severed when the aircraft crashed. Above; at the same time, three members of the rigging team turn the main rotor blades so that they can be fastened, by means of cargo "tie-down" straps, to the aircraft. Once these men have completed their jobs of securing all parts of the aircraft, the extraction team, aboard a CH-47 "Chinook", is summoned and the crashed aircraft is removed to a maintenance area.

When a unit needs recovery services, a request is made directly to "Pipesmoke" operations. For night missions and any mission occurring within five miles of the Cambodian border, the team must secure permission from battalion headquarters. Once a mission is accepted, the rigging team scrambles to a UH-1H "Huey". The door gunners man their guns; the riggers place their equipment in easily accessible places; the engine starts up and the ship is quickly airborne. Everything occurs with a smooth, almost mechanical efficiency resembling a firehouse responding to an alarm. Everyone knows exactly what is expected of him and all tasks are performed with flawless speed. Within minutes after receiving a request for assistance, the rigging team is at the crash site, preparing the ship for extraction. Shortly thereafter, the extraction team, aboard the recovery CH-47 "Chinook", arrives and lifts the damaged aircraft to a maintenance or salvage area.

Since its first mission in April of 1967, "Pipesmoke" has completed more than 2200 recovery missions, nearly a third of which have been field extractions. Not all of these recoveries followed established patterns. Several required the recovery of aircraft which had become submerged in water and others took place in knee-deep mud. Recently, while on a recovery mission near the Cambodian border, the UH-1H rigging ship, airborne after the rigging of the crash damaged aircraft had been completed, was hit by enemy fire in the fuel cell and forced to land at a fire support base a few miles away from the recovery site. The recovery "Chinook", burdened with its load, proceeded to Phu Loi, deposited its cargo and returned to the fire support base where it recovered its own rigging ship and returned to its home.

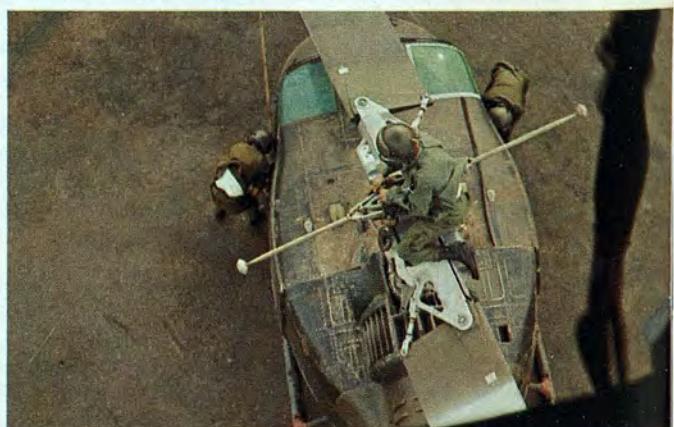


On field recovery missions, the rigging team is often confronted with difficult situations. The aircraft pictured at the top of the page had to be lifted out of this wooded area by a Chinook and set down in a clear field so that the main rotor blades could be secured fore and aft.

In the maintenance recovery mission above, the riggers can work according to a preplanned routine. Prior planning prevents unforeseen problems from arising.



View from the "hell-hole" of a Chinook lifting a UH-1 to a maintenance area.



This second view from a Chinook's "hell-hole" shows another UH-1 being "de-rigged" shortly after being set down in a maintenance area by the recovery aircraft.

Religions of South Vietnam

South Vietnam has a profusion of religions. Though the majority of the people are nominally Buddhist, in practice their religion combines Animism, Buddhism, Confucianism and Taoism. The Christian faith is a late comer to Vietnam having been first introduced by Roman Catholic missionaries about 400 years ago. Protestant missionaries did not come to this land until 1911.

Animism is the oldest religion in Vietnam and has an important influence on the lives of the people. It does not have an organized structure with clergy and churches, but is simply a belief in spirits. The animist believes that the spirits of deceased persons and of many inanimate objects, such as trees, stones, mountains and rivers can have an influence on his life. He is concerned not to make the spirits angry and he seeks to gain their favor by elaborate rituals and ceremonies, sometimes involving blood sacrifices. He also places great stock in omens which may come in dreams or other signs. He believes these are to warn him of future good or evil. A dog sneezing at a wedding is a bad omen and is reason enough to stop the ceremony immediately. Animism is largely the religion of the Montagnards.

Taoism (pronounced dowism) had its beginning in China, and Lao Tse (the old one), who lived about 600 BC, is recognized as its founder. Basically it is an attempt to live in harmony with nature. The Taoist is taught to accept things as they are, never fighting against them. You can see that such an attitude would not lend itself to progress, but would tend to keep one in a stationary position as he accepts his fate.

Taoists believe in a supreme being, the Emperor Jade, whom they worship along with lesser deities. The two principal assistants to the Emperor Jade are Nam Tao and Bas Dau, who keep the register of all beings in the universe. The Taoist worship is involved with magic, witchcraft, fortune telling and astrology. Though Taoism does not have an elaborate formal organiza-

tion in Vietnam today, its concepts have been absorbed by other religions and have an effect upon the lives of the people.

Confucianism also came to Vietnam from China. Confucius was born in Shantung, China in 511 BC. His Chinese name, Kung Fu-Tze was latinized to Confucius by Jesuit missionaries. He was a scholar and teacher and did not attempt to found a religion. His teachings involved politics, ethics and education. When he was 68 years old he set to writing a number of works including the "Analects" or "Sayings of Confucius". These writings became the foundation of Confucianism.

Over 300 years after his death in 140 BC, the Emperor Han Wu-Ti made Confucianism a state religion. Succeeding emperors built temples in his honor.

Confucius was introduced to Vietnam during the Chinese rule. He was basically a humanist and made his contribution chiefly in the field of ethics. He taught a negative version of the Golden Rule, sometimes called the Silver Rule: "Do not do to others what you would not want them to do to you."

Confucius laid great stress on the family as a continuing entity and in this connection promoted ancestor worship. The living person was the connecting link between the past and that which was to come. Rites for ancestors are important to many Vietnamese, and in their homes you may find an altar dedicated to them. Offerings of food and symbolic votive papers are made by a male member of the family on the anniversary of each ancestor's death. They are also honored on other special festival days.

Confucianism declined under French rule and long before the end of the colonial period it had lost its dominant position.

Buddhism is by far the predominant religion of South Vietnam. It is difficult to obtain accurate statistics since many of the people claim more than one religion. One source gave 64% of the population as Buddhist.

Buddhism came to Vietnam from

both India and China. Siddhartha Gautama was an Indian prince born about 560 BC in northern India. Buddhist history relates that one day he was sitting under the Bodhi tree and he saw a great light. The truth he had been searching for, the way to relieve man's suffering was revealed to him. Thus he became the Buddha which means, The Enlightened One.

Buddhism teaches an ethical system under the terms of the Holy Eightfold Path, Buddha's Five Commandments and Five Virtues. The Eightfold Path includes right views, aspirations, speech, behavior, living, effort, thoughts and concentration. The commandments are similar to the last half of the Ten Commandments of Christianity. They include: Do Not Kill, Do Not Steal, Do Not Be Unchaste, Do Not Lie, and Do Not Drink Alcohol. The five virtues are patience, compassion, optimism, serenity, and purity.

To fully understand Buddhism you must grasp the meaning of Karma and Nirvana.

Karma is connected with the Buddhist belief in reincarnation. Life to the Buddhist is not a straight line from birth to death to the eternity beyond, but rather it is a circle. According to their belief, man goes through a series of rebirths. The sum total of one's good and bad deeds, including thoughts and words, determines his destiny in the next life. The totality of a person's actions in one of these lives is called Karma. Since Karma determines destiny, it is thought of as one's fate.

Nirvana is a state of perfect blessedness. This is to be obtained by passing through many reincarnations until the individual is absorbed into the supreme spirit. It is believed that Gautama Buddha achieved the state of Nirvana in his life by the complete extinction of all desires and passions.

This idea of life as a cycle repeating itself over and over again permeates their thinking. It contributes to the general attitude of taking things easy. There is no hurry to accomplish some specific goal. There is always another life after this one. The self immolation of Bud-

hist monks in protest against policies or practices they considered wrong was not looked upon as suicide. Since to them it was a good and selfless act, it could only improve their lot in the next rebirth.

Buddhism is not one great monolithic religion but has two major divisions in Vietnam and more than 200 different sects.

Vietnam has one religion which originated in this country. The Cao Dai was organized in 1919 and is a religion intermingling beliefs of Taoism, Confucianism, Buddhism and Christianity. It has a church organization patterned somewhat after the Roman Catholic Church.

It is their belief that the spirit of Cao Dai appeared in the form of a raven in November, 1926, and wrote these messages in the sand: "I am the Supreme Sovereign; the oldest of the Buddhas—it is I; I am also Cakya-Mouni; I am also Jesus Christ; I now take the name of Cao Dai to teach a new religion." This religion includes the ethical teaching of Confucianism and the belief in successive reincarnations of Buddhism. The ultimate goal is the deliverance of man from the endless cycle of existence. The symbol of Cao Dai is a large human eye in a triangle on a huge globe, which symbolizes the universe and the all-seeing eye of divinity.

The center of Cao Daism is at Tay Ninh City in the Tay Ninh Temple. They claim a membership of about two million.

Roman Catholic missionaries brought Christianity to Vietnam about 400 years ago. Today, approximately 10.5% of the population is Roman Catholic. Under the French in the late 19th Century religious freedom was guaranteed for all Christians and this furthered the growth of the church. The church has encouraged education and, because of their higher degree of training, many of the positions of influence are held by members of the church. The Roman Catholic population was increased by some 650,000 refugees from the North after the Geneva Accords in 1954.

Protestant missionaries of the Christian and Missionary Alliance Church first came to Vietnam in 1911. This was the only Protestant denomination engaged in missionary work in this country until 1956. Since that time a number of other groups including Southern Baptist, Church of Christ, World Vision, Wycliffe Translators and Seventh Day Adventists have established themselves in South Vietnam. Protestant Christians number only about one percent of the population. However, in recent years many new churches have been established.



1913 Military Aviator Badge

The photograph of the Aviator's Badge which is shown is the forerunner of all winged insignia that were worn by commissioned and enlisted men specialists of the Army Air Force. Only fourteen of these badges were ever issued. One went to a vigorous young Second Lieutenant, H.A. Arnold, then of the Infantry but attached to the Signal Corps for flying instructions. We know him now as General Arnold, Chief of the U.S. Army Air Forces of World War II fame. General Arnold always proudly wore these wings along with the present day regulation wings. Another of the original fourteen pilots awarded this emblem was Second Lieutenant Lewis H. Bereton, who eventually became a Major General in command of the Ninth Air Force in the Middle East which devastated the Ploesti oil distilleries and installations in Rumania.

The War Department records show that the original request for authorization of an aviation badge for military aviators in recognition of their "hazardous" duty was made by memorandum to the Chief of Staff by Brigadier General George P. Scriven, Chief Signal Officer, on March 28 1913.

After some discussion the General Staff felt that a suitable badge or award should be made to the military aviators operating then under the Signal Corps. War Department General Order Number 39 dated May 27, 1913 authorized issuance of a suitable badge to two military

aviators with the stipulation that the authority later be granted for twelve additional badges.

Only two badges were to be granted, pending the arrival of the other twelve. While the General Staff was discussing the details connected with the awarding of these badges the Staff decided that a greater number than fourteen would be required. Therefore, a recommendation was made that a total of twenty-five badges be purchased. The General Staff then felt, according to the records, that twenty-five badges would take care of the feeble Air Corps for many months to come. Little did the pioneers of the Air Force dream that some thirty years later more than two million men would be wearing the wings of the Army Air Force.

The first two badges issued by the War Department went to Captain C. DeF. Chandler of the Signal Corps and Second Lieutenant T.D. Milling of the 15th Cavalry, then attached to the Signal Corps.

The remaining twelve Military Aviator Badges were awarded to Captain R.K. Bock of the 17th Infantry who later became Chief of the Air Corps with the rank of Brigadier General; Harold Geiger, Coast Artillery; R.C. Kirkland, 14th Infantry; S.M. McLeary, Coast Artillery; J.D. Park, Cavalry; L.E. Goodier, Jr, Coast Artillery; Second Lieutenants E.L. Ellington, 3rd Cavalry; J. Carberry 6th Infantry; and W. M. Taliaferro of the 21st Infantry.



The Mohawk Surveillance Aircraft

The Mohawk is a completely integrated battlefield surveillance system that supplies the army field commander with information on the strength, disposition, and activity of enemy forces. This two-place twin turboprop aircraft is equipped with the latest cameras and electronic sensory equipment and can perform its mission day or night, in fair or inclement weather. Directly responsive to the field commander and directly under his control, the Mohawk is designed to live in the field with the troops. It is extremely rugged, readily maintained without extensive support equipment, and capable of operating from small unimproved fields and roads. Trucks and trailers carry all ground-based system components.

The Mohawk Surveillance System provides the battlefield commander with a highly responsive and flexible intelligence-gathering and reporting capability. Intelligence in-

formation gathered by the side-looking radar (SLAR) or infrared (IR) sensors is immediately displayed in the cockpit and fed via data transfer links to the system's ground stations.

There are three versions of the Mohawk surveillance aircraft. All three of these versions are actively engaged in Vietnam. They are basically the same airframe, but each has been equipped with different systems for various missions.

All Mohawks have photographic capabilities. The OV-1A is strictly designed for visual surveillance. Its photographic system is located in the fuselage midsection. Although this version is capable of carrying rocket, machine gun and bomb systems, these systems are not used in Vietnam.

The OV-1B has the Sidelooking Airborne Radar (SLAR) system mentioned above. The information that is recorded by this system can

be transmitted from the Mohawk to a ground sensor terminal. The SLAR version is easily distinguished because of the large cigar shaped antenna that is mounted on the belly of the aircraft.

The OV-1C or Infrared (IR) version is an airborne scanning device. The OV-1C's data transfer system is basically the same as the SLAR system on the OV-1B.

The Mohawk has shown its flexibility as a surveillance system in CONUS, Europe, Alaska, Korea, and Southeast Asia under diverse conditions and has proved its effectiveness in jungle, defined-front, and cold war operations in these areas. In all its operations, the Mohawk is flown to optimize the effectiveness of the particular sensor being employed while providing the greatest survivability for both aircraft and crew.

In the type of enemy operations used in Vietnam, the Mohawk mini-

mizes one of his advantages—that of using darkness and weather to cloak his activities to defeat a superior enemy. The Mohawk surveillance system denies the enemy much of the protection once afforded by these conditions. The radar system can detect a wide variety of vehicular movements, land or water borne.

The Mohawk is a relatively slow aircraft by jet-age standards. It is powered by two turbo-prop engines and has a speed range of from 60 to over 350 knots and excellent low-speed flight characteristics. It can carry a payload of over 2600 pounds and weighs approximately 11,000 pounds empty. It is the only Army aircraft that is equipped with ejection seats which are the sole means of escape due to the placement of the propellers. The crew compartment is surrounded by 239 pounds of armor and has a one-inch thick bullet resistant windshield. The design and construction of this aircraft is for maximum protection from ground fire.

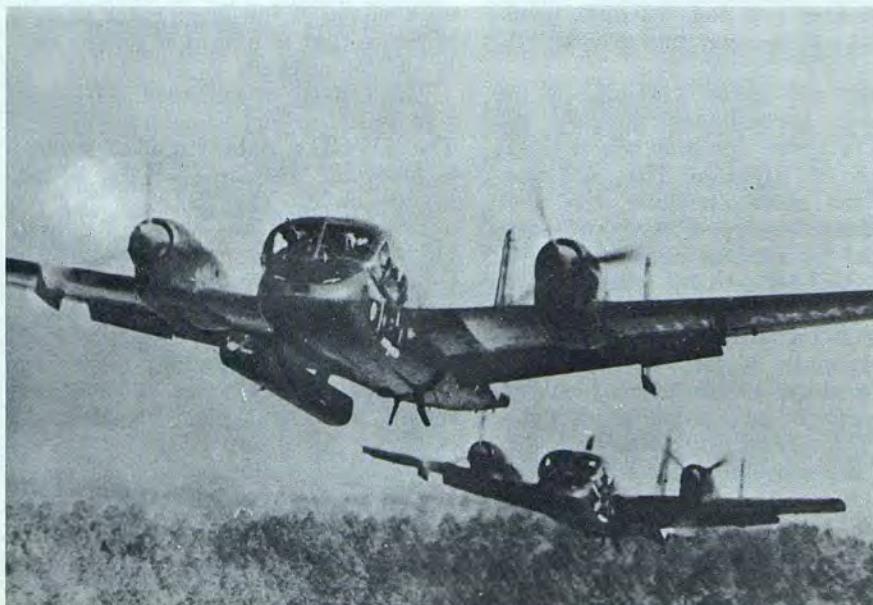
There are five army units in South Vietnam that use the aircraft, and they are located in all four Corps areas. They are assigned the versions of the aircraft that best meet their needs in surveillance missions.

At present there are 51 civilians in country who service the Mohawk through a contract with the 34th General Support Group. These civilians are from the various companies that incorporate their sys-



Right: Mohawks flying in formation.

Below: Mohawk have low level flying capabilities making detection by the enemy difficult.



tems in the aircraft. Companies in the 765th, 58th, and 14th Transportation battalion provide direct and general support maintenance for the Mohawk.

Mr. Paul McDermott, Lead Field Representative for the Mohawk in Vietnam, states: "The Mohawk has suffered in the past. Many army commanders were not familiar with the capabilities of the aircraft sensors. With increased use of the ground sensor terminals, field commanders are able to provide immediate response to a Mohawk target report. The ground sensor terminal is an indispensable tool.

"The Mohawk is bringing home the bacon with the best surveillance intelligence data in Vietnam today."

YOUR CAREER COUNSELOR

**DEDICATED TO
SERVICE
SECURITY
SATISFACTION.**

The American educational system recognized years ago the need to assist students in selecting courses of studies that would provide them with a solid foundation leading to some specific field of endeavor. Today you will find that students in high school and colleges throughout the United States have this help available to them through the offices of the guidance counselor.

The army also has a need for counseling services. The young man in the service is no different than the college student; he too needs assistance in reaching a decision on which course he should follow in planning his future. This service is provided by Army Career Counselors assigned to the various commands. Too often men look upon him only as a reenlistment counselor. This is one of his functions, it is true, but his duties cover a much broader scope. He is available to help a young man reach a sound career decision whether it be to remain in service, go back to school or to seek employment in the civilian market. He is there to supply facts which are essential in determining what path to follow.

Personnel assigned to units of the 34th General Support Group have counselors available at battalion and group level. Their primary concern is to render service to all enlisted personnel. They will help make a comparison between a military career and its civilian counterpart.

Career Counselors are ready to discuss individual goals, aims and fears. They will assist an individual to evaluate his own capabilities and potentials. Among the things they will cover are: security, training and education, job satisfaction, advancement, military family life, travel, medical care, and the complete Army Retirement program.

During interviews a man's MOS is verified and checked against a list of MOS's authorized a Variable Reenlistment Bonus. Perhaps the individual will find himself in the same position as SP5 Franklin E. Shircliff, HHC, USAAMMC and SP5 Roger L. Sexton, HHC,



34th General Support Group. When these men reenlisted they received \$8,364.00 and \$4,460.00 respectively because of their MOS's. Your MOS may be one that is critical to the Army's mission and worth a very substantial amount of money in bonuses just for staying on the job.

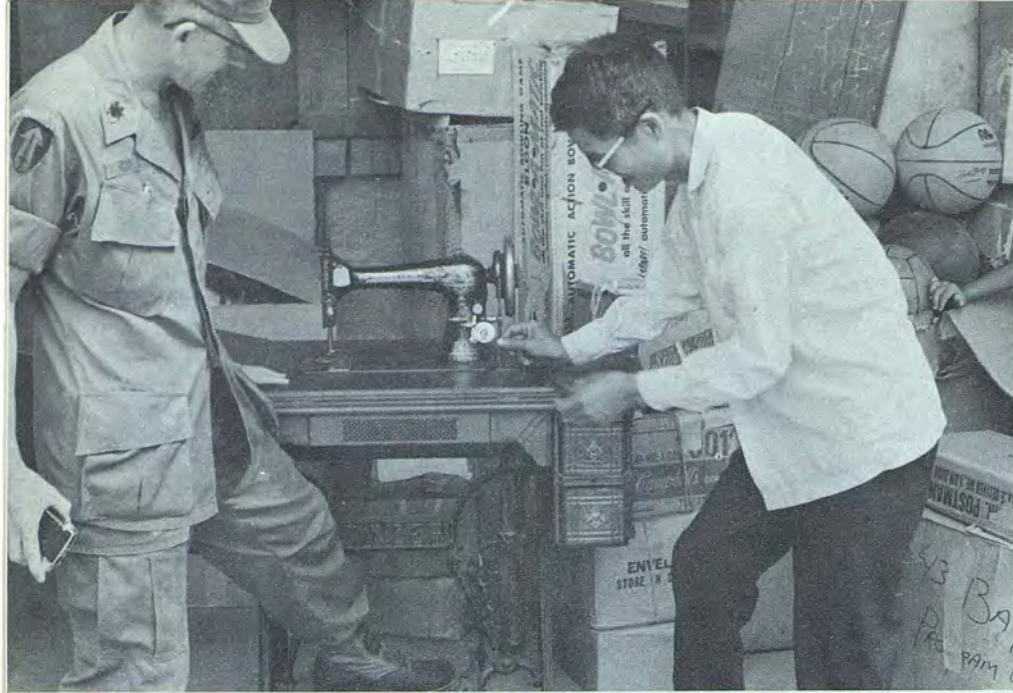
Perhaps you are interested in world travel. If so, let the counselor tell you about tours in Europe, the Caribbean, Alaska, Hawaii, Okinawa or Japan. Yes, if travel is what you want, your counselor is the man to talk to. He can also tell you about a CONUS Station of Choice option which would guarantee you a stabilized tour at a post of your choice. Discuss the Army Technical School System with him; it offers an opportunity to select the type of training he wants in one of the many MOS producing schools operated by the Army. Military courses are taught by highly skilled instructors using the most modern of teaching methods.

Let him explain how you can move up to your full potential through the commissioned ranks. OCS, Officers Candidate School, is a highly accelerated training program that, upon successful completion, results in the individual being commissioned a 2nd Lt. in the Reserves with an immediate call to active duty for a two year period. Your counselor also has all the information necessary to explain the Warrant Officer Flight Training Program. The Army's need for mo-

bility and speed has brought about a great demand for qualified men to train as helicopter and fixed-wing pilots. As such they receive an excellent rate of pay and qualify to receive flight pay. A decision affecting your future should not be made on the spur of the moment. It should be made only after a great deal of careful thought. A man must make an honest, factual evaluation of himself and his capabilities. He must decide what his goals are and what he expects from life. He should seek all the help he can get before he decides on the best path to follow. Some of the things he should consider when planning for the future are prestige, job and family security, and retirement benefits.

The Army Counselor has had special training in counseling and guidance procedures. He has the facts you are seeking to arrive at a sound decision. To him you are much more than an enlistment statistic. Your success is the end product of all his training and endeavors. A right decision by you is his mark of success.

There are many things the Career Counselor can do for you, but unless you stop in to see him you will never know what they are. Get acquainted with him at your first opportunity, and don't hesitate to ask him any questions you may have pertaining to your career development program. Your Career Counselor may be the key to opportunity.



Chaplain Howard T. Cross shows the Hoa Binh Director, Mr. Tang, how to "power" a manually operated sewing machine.

CIVIC ACTIONS

Many of you have heard of civic action, and civic action projects such as "Project Peaceful" run by HHC, 34th Gen Spt Gp. Most units have their own projects, each as distinctly different as the personalities of the men who make up these units.

We have all heard of these projects and know that they exist, but how many of us know what they are for and why we carry them out? Often, since the chaplains are usually associated with projects, we think, "Well, it is part of the chaplain's job," and since some men have little to do with the chaplain, they naturally have little to do with civic action. But this assumption is not valid by the book or in reality.

By the book (USARV Pam No 515-1), "Military civic action is the

use of military personnel and resources to support or implement a National Internal Development Program"....related to pacification and the GVN Revolutionary Development Program. In reality, what this means to the average GI is providing needed help to an orphanage, school or small village.

Civic action projects exist as small parts of an overall program to improve the life of the Vietnamese people. Each project is a small but important step in the total improvement of this nation. Each school that is built, each town that is given stronger economic stability and each orphanage that is given the proper aid in order to better care

for its children gives this nation a stronger foundation for its future growth.

These are the reasons why civic action projects are a part of the Army's mission in Vietnam, and they are reason enough to ask that more men participate in their unit's project. There are other reasons that cause many men to join in the work on civic action projects. Among these reasons is just loving kids and the happiness that being with them for an afternoon can bring to an otherwise dull week; or participating in a project simply because you like to see a job well done and to know that you were a part of that job.

There is also the friendship of the Vietnamese people that makes participation worthwhile. These projects allow the individual a chance to learn about the lives of the people of this land, their culture, language, and history. There is also the pleasure of sharing the story of your project with parents and friends back home; getting them to participate by sending gifts, allowing them to have a closer tie with your life here in a land so far from them.

This adds up to saying that, by participating in civic action, you can add a very meaningful experience to your tour in Vietnam. These projects can make life more real for the man who feels stifled by Army life and the rigors he endures in Vietnam.

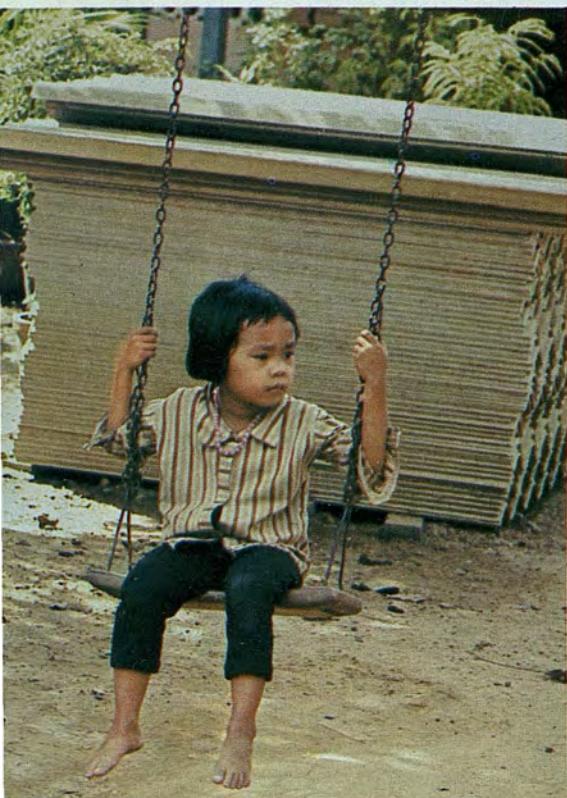
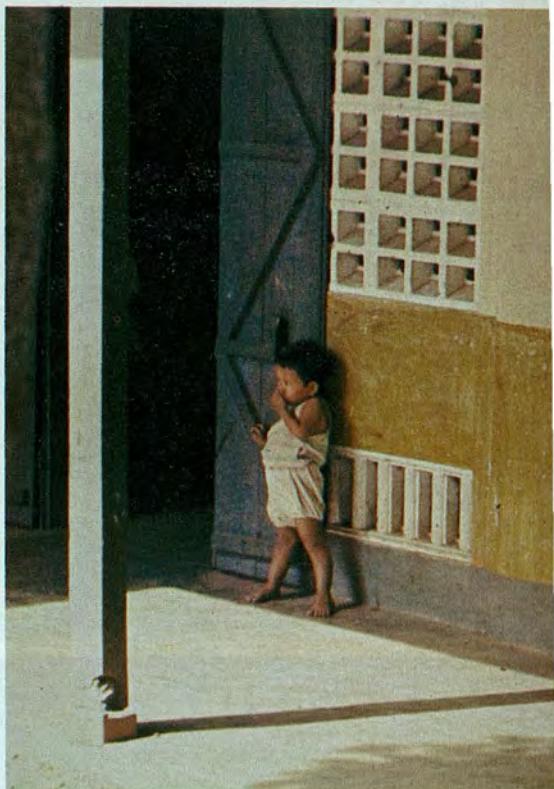
These are just a few reasons why men participate in civic action during their tour. How about yourself? Check into your unit's civic action project and find out how you can help yourself by helping others.



These G.I.'s are having as much fun as the kids.

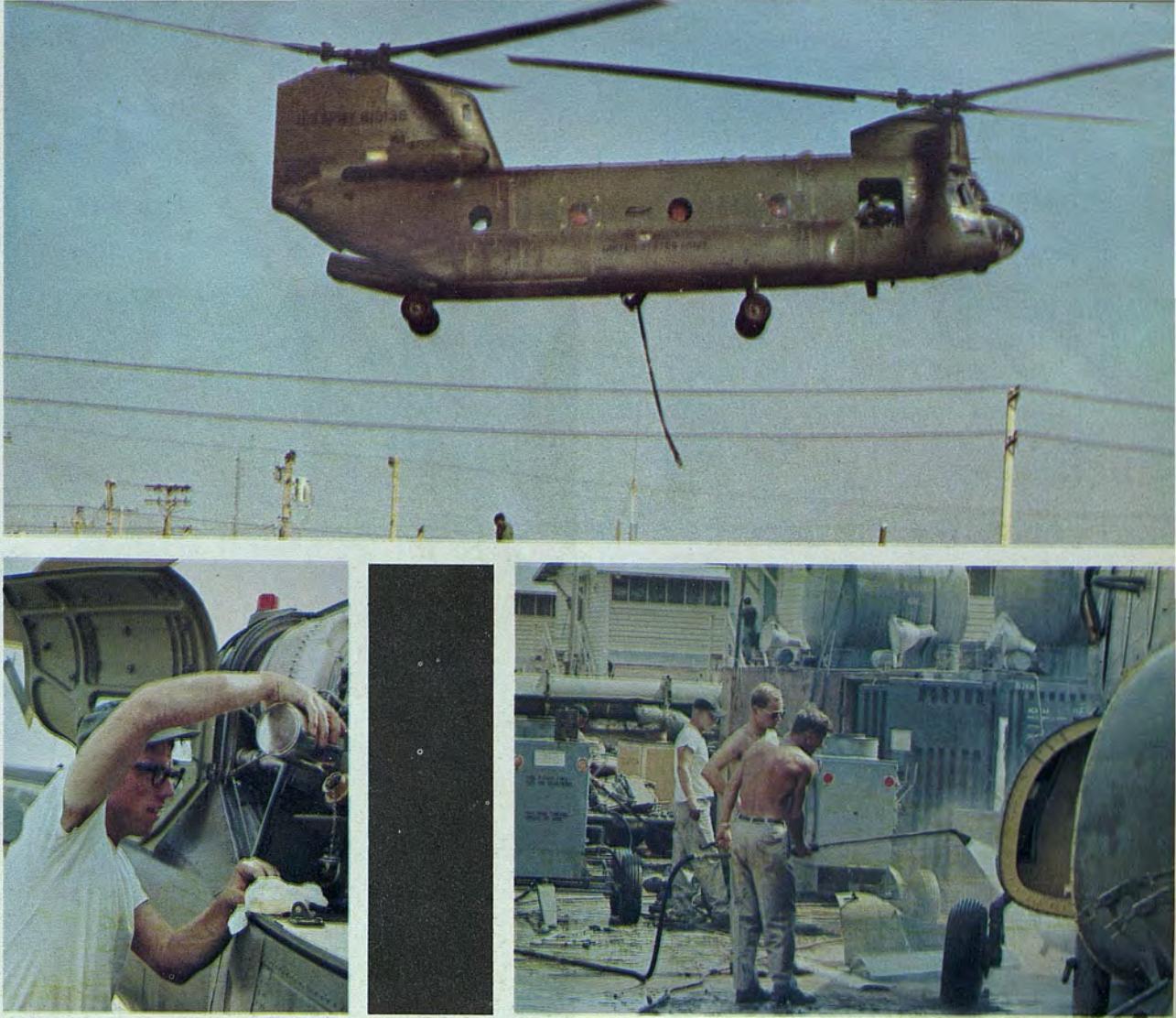


Water pump donated to Hoa Binh Orphanage by 34th Group





THEIR THING



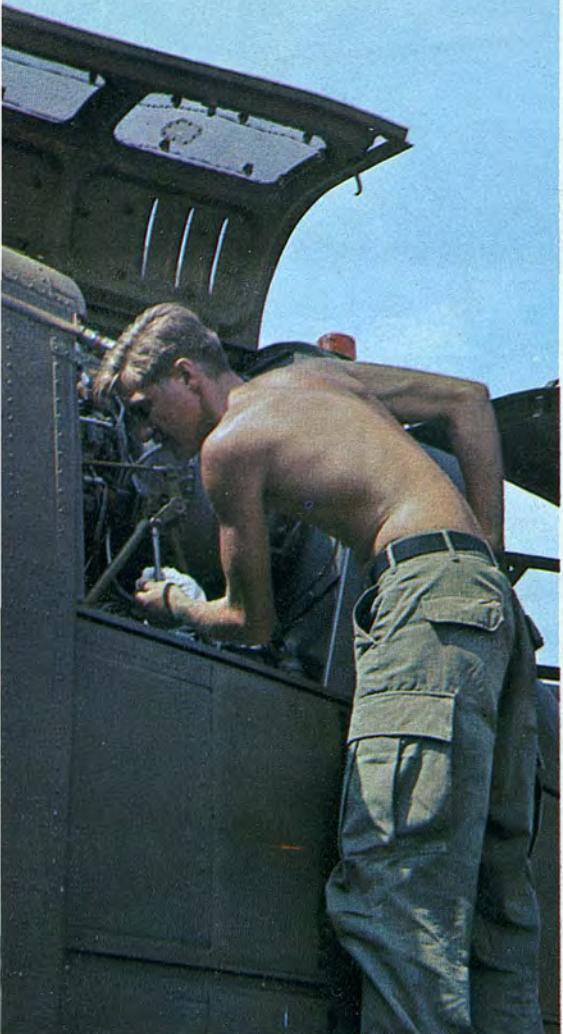
IN VIETNAM



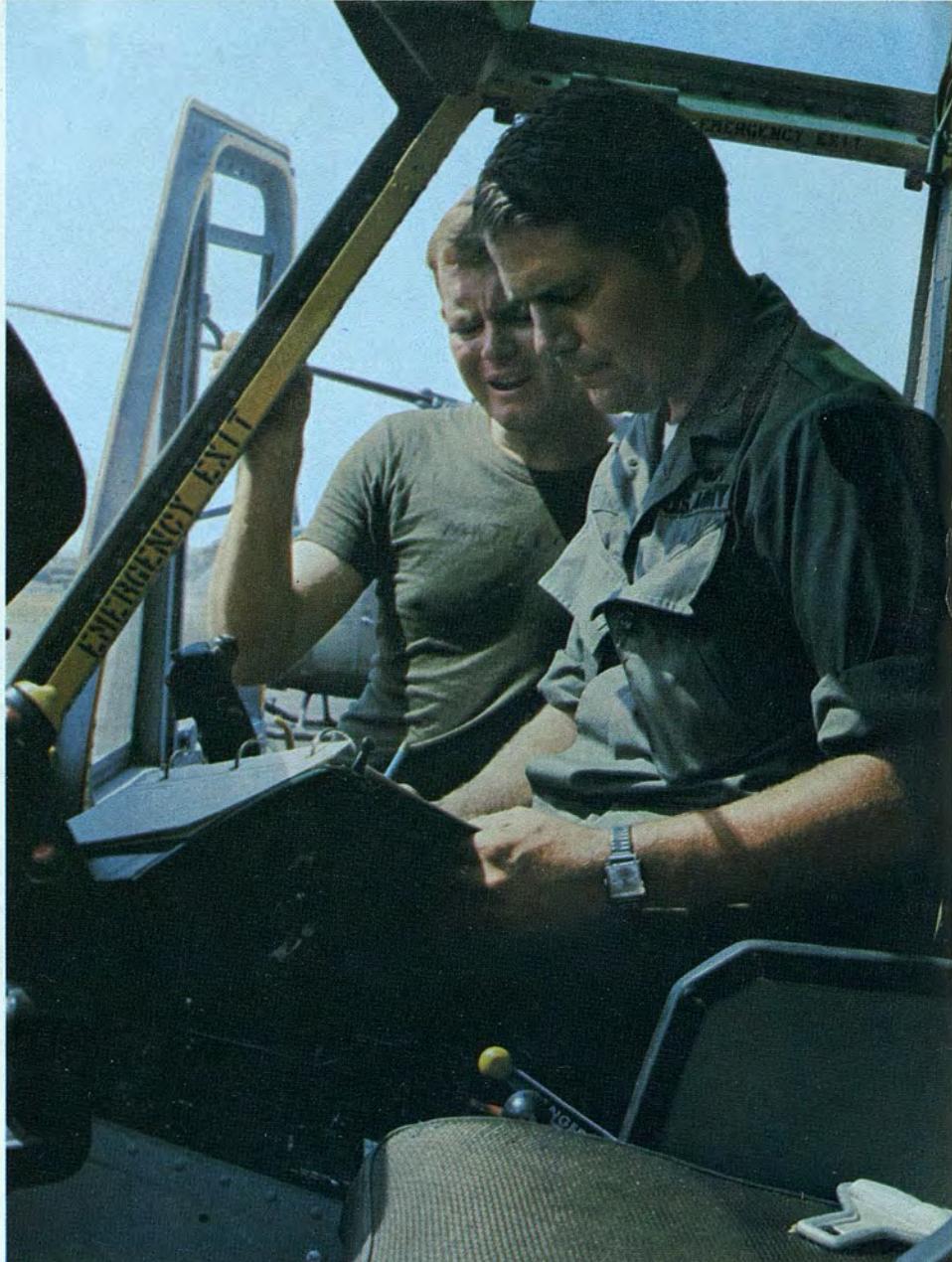
Helicopters are often taken for granted in Vietnam. Seen in the sky daily and in the newspapers often, the swishing whir overhead is a commonplace thing.

Have you ever stopped to ask yourself where the helicopters in Vietnam come from? How they get to Vietnam? How long they can be flown before they wear out? What happens to them when they do wear out?

The 520th APD (Aircraft Processing Detachment), located at Tan Son Nhut Air Base, provides the answer to these and many other questions about helicopters. On an overall basis the detachment processes 50 to 60 percent of all helicopters entering and leaving Vietnam. It also handles small fixed wing aircraft such as the O-1 Bird Dog. It offloads, transports, assembles, test flies, and issues new and rebuilt helicopters arriving in the



The engine is checked before ground run up.



Systems are checked during ground run up.



Engine is rechecked after ground run up.



MAJ Radspinner checks with SP5 Ludwick after test flight.



New Huey UH-1 is hooked to tractor to be pulled to 520th APD

Republic of Vietnam from the United States. It also receives, disassembles, preserves, decontaminates, transports and loads helicopters for shipment to CONUS. The same processing of Army aircraft is performed by the 765th at Vung Tau, 14th at Dong Ba Thin and the 58th at Da Nang.

The 520th, with CW3 David Gu-

thrie serving as OIC, is staffed with both military and civilian personnel. The military personnel are assigned to 520th Transportation Battalion in Phu Loi, while the civilians are on contract from Lear Siegler Inc., Services Division (LSI), which has been contracted by the U.S. Army to supply civilian technicians to handle both the inprocessing and

the retrograding of aircraft.

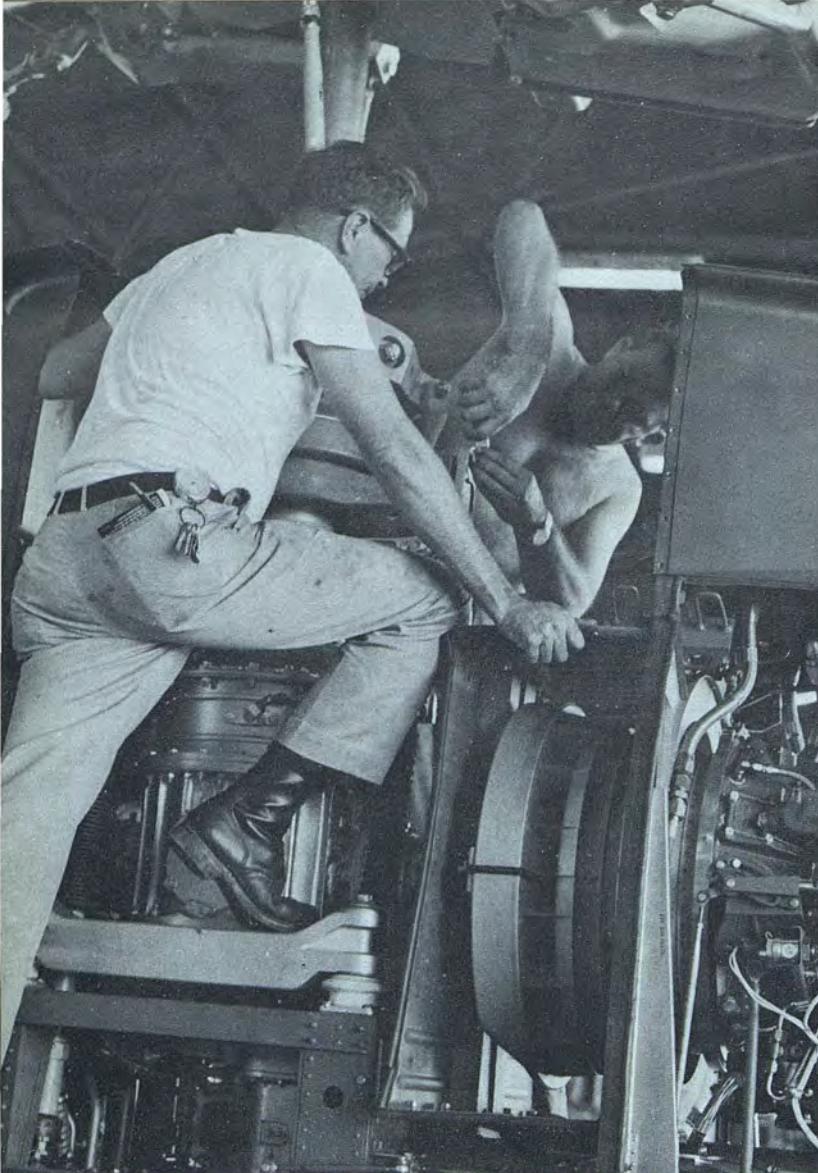
There are approximately 70 civilian personnel working with the 520th. These 70 men are divided into two work shifts which keep the work load moving 24 hours a day, enabling the helicopters to be continually in-processed and retrograded.

Aircraft handled by the APD ar-

New Cobras await assembly.



ASSEMBLE THEM...



LSI crew works on assembly of new Cobra



CW3 Lovering looks on as CW3 Guthrie inspects O-1 BIRD DOG



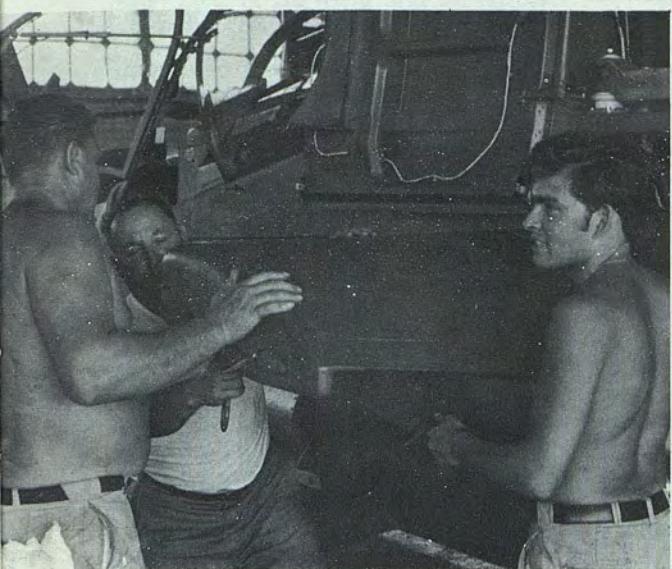
New CH-54 Flying Crane is assembled

rive in country aboard several types of Air Force planes: Those used most often are the C-124, which can carry 3 Hueys (UH-1's); the C-133 can carry 5 UH-1's; the C-141 can carry 6 OH-6A's (Cayuse) and the C-133B can carry 1 CH-47 (Chinook) or 1 CH-54 (Crane). These are typical loads for these aircraft but variations are sometimes made.

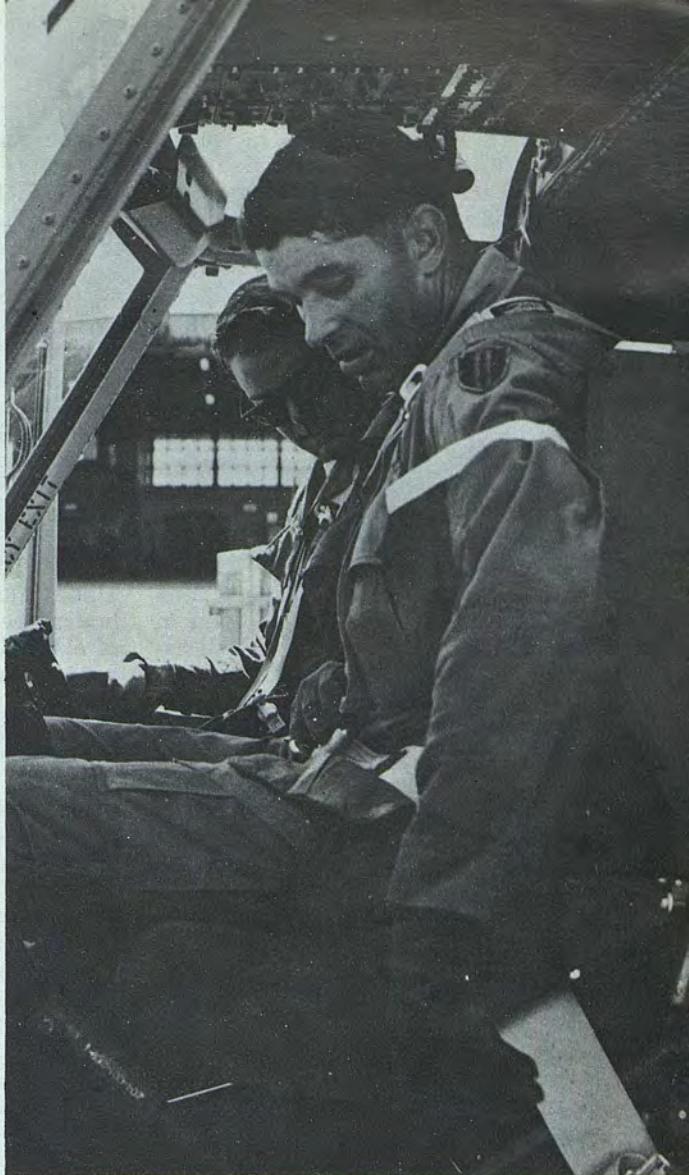
At the beginning of each month the detachment receives a shipping list from the United States Army Aviation Materiel Management Center (USAAMMC) in Saigon showing the type and quantity of aircraft that will be arriving in country during that month. They are also given the dates and mission number of the transport aircraft that will be carrying the load. This information is then confirmed by the 616th Military Airlift Support Squadron at Tan Son Nhut Air Base.

Offloading of aircraft takes place at the Tan Son Nhut Air Base flightline. To save time, a special crew of LSI personnel unload the helicopters from the Air Force transport. Wheels are attached to the skids and with a safety chain attached, the helicopter is pushed out of the transport. Time is important and the crew's job is to get the helicopters safely off the transport as quickly as possible.

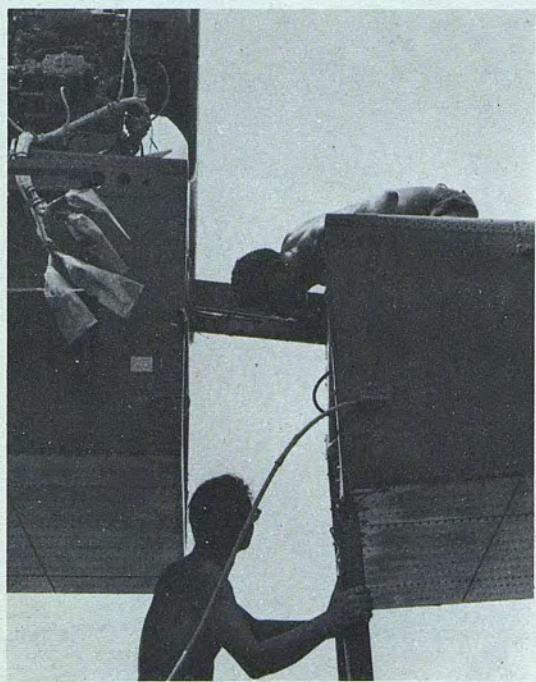
Helicopters are shipped in various ways to save space. Each type of helicopter is shipped partially assembled to facilitate storage enroute. Huey's, for instance, arrive with the main rotor blades removed



Crew men work on assembly of Cobra



CW3 Guthrie and CW2 Zervas prepare to test fly a new Huey UH-1



Crew men work on assembly of a new Crane CH-54

**TEST
THEM...**



A new Chinook CH-47 awaits a final inspection before test flight.

and the tail boom secured in "piggy back" fashion on a special frame fastened to the helicopter. The main rotor blades are wrapped in padding and stored separate from the helicopter in the air transport. The CH-47 "Chinook" is also shipped with its main rotor blades removed and stored separately. However the Chinook, because of its height is shipped with its transmission removed as well. The methods of shipping depend, of course, on the aircraft being shipped. Certain aircraft, such as the OH-23 "Raven" can be shipped with everything but the rotor blades in their proper place. Others, like the huge CH-54 "Flying Crane" must be shipped in an even greater degree of disassembly than the 'Chinook.'

After offloading, the helicopters are transported to the 520th's flight-line hanger. If the aircraft arrive during the day, they are usually brought to the hanger and transported to the heliport facilities at night. Wheels are attached to the skids of UH-1's and the helicopters are towed one at a time by a small tractor down one of the main streets of Tan Son Nhut Air Base to the 520th facilities at the Saigon Heliport (HOTEL 3). Cayuses (OH-6A's) are normally loaded on a flat bed truck and transported from the flightline hanger to the heliport day or night.

Upon arrival at the heliport, an inventory of the new aircraft is made to insure that nothing essential to the assembly of the aircraft is missing. Paperwork on the aircraft is then made up by Production Control and assembly of the aircraft can then be started.

LSI's crew begins the work on the ship, assembling it in accordance with the manual applicable to the type aircraft being assembled. A crane is used to take the tail boom off the top of a UH-1 and suspend it while the crew attaches it to the main body of the craft. The crane is later used to lift the main rotor blades into place. Normally 38 man-hours are involved in the assembly of a UH-1, 180 man-hours are needed to assemble a Chinook CH-47, and 150 man-hours to assemble a Crane CH-54.

Step by step assembly check lists are kept on each aircraft. Aircraft being assembled go through three phases, each telling the percentage of work completed on the aircraft. When an aircraft reaches step B it is approximately 60 percent completed. When it is at step C, it is at least 90 percent completed. Charts are kept on each aircraft to illustrate its progress through the production line.

When assembly is completed, the 520th Quality Control Section performs a final technical inspection,

which includes a safety-of-flight inspection. Following this, the helicopter is moved to the ground run-up area.

Ground run-up consists of a complete pre-flight operational engine run-up and systems check. A visual inspection is conducted after shutdown to check for possible fuel, oil, and hydraulic line seepage.

After ground run-up, a test flight is conducted to verify the airworthiness of the aircraft and its systems. A test flight includes a thorough inspection of the aircraft before, during, and upon completion of the flight. CW3 David Guthrie and CW2 James Zervas perform the test flight. Any deficiencies noted by either of the test pilots are corrected and a final log book inspection is performed by Quality Control.

Production Control then notifies the USAAMMC Inventory Control office that the aircraft is "Ready for Issue." Upon receipt of notification, USAAMMC informs a unit requesting an aircraft that there is one ready for issue from the 520th.

Personnel from a unit reporting to Production Control to accept delivery on a new aircraft are given the log book and are shown the location of the aircraft. After inspecting the helicopter and completing necessary forms, the craft is signed for and flown to its new unit.

New Cobra leaves the 520th APD on a test flight.



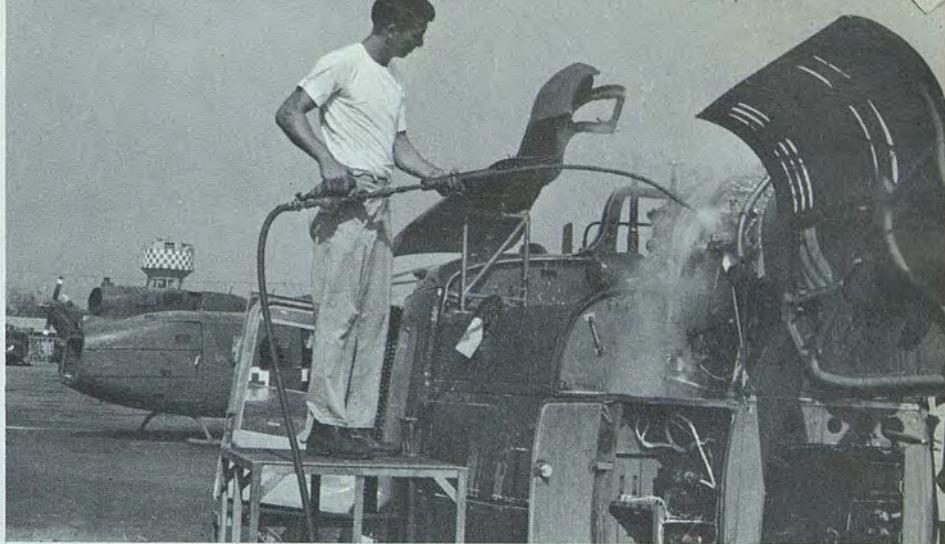
The retrograding of aircraft (returning them to CONUS) is the other side of the coin and an equally demanding part of the 520th's operation. There are two types of aircraft retrograded: crash damaged aircraft and "high time" aircraft.

Crash damaged aircraft are brought by sling load to the 520th. A representative from the owning unit arrives with the aircraft to effect the proper turn-in to the detachment.

"High time" aircraft are ships that have accumulated a maximum number of flight hours requiring them to be returned to the United States for a complete overhaul.

USAAMMC keeps a record of the flight time of all Army helicopters in Vietnam. Thus, when a UH-1, with a "high time" of 2200 flight-hours (roughly 2 to 2½ years of service) reaches 1900 hours of flight time, USAAMMC notifies the owning unit that the aircraft should be turned in to the 520th within a certain period of time.

"High time" helicopters are normally flown to the 520th APD by a pilot of the using unit. In addition to the pilot, another representative of the unit, one who is authorized to make supply transactions, is present when a high time

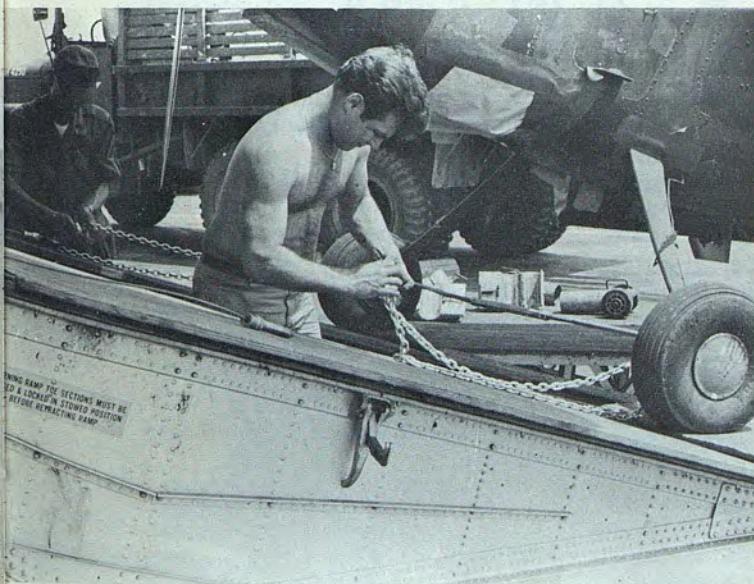


UH-1 Huey is steam cleaned for retrograding to CONUS

Retrograde Them



A new pair of skids is put on Huey to make retrograding easier.



A chain is fastened to O-1 to help pull it into C-133



Huey is pushed into a transport plane.





O-1 Bird Dog is loaded on transport for shipment to CONUS

aircraft is turned in for retrograde. This unit representative makes a joint inventory of the aircraft with the 520th Technical Inspector upon arrival of the aircraft at the heliport.

After the helicopter is accepted by the 520th's Quality Control Section, the Production Control office issues a work order to the maintenance platoon to disassemble and prepare the aircraft for shipment to CONUS. Quality Control insures that proper procedures are used when cleaning, disassembling, preserving, packing, loading, blocking and bracing retrograde aircraft.

After removing the main rotor blades and the tail boom, the aircraft is moved to the cleaning area. The U.S. Health Department requires caked dirt, mud, trash, and any accumulation of grease and oil that may collect larva, insects, etc., be removed prior to entry of the aircraft into the United States. To meet this requirement, the helicopter is steam cleaned by the 520th in order to remove all foreign matter from the aircraft. The cleaning is so thorough that as Mr. Robert Johnson, head of Production Control said, "When the LSI crew finishes cleaning the aircraft, it's clean enough to eat off of."

Units preparing to turn in non-flyable CH-47's contact the Process-

ing Detachment for specialized shipping gear prior to disassembling the aircraft for shipment to the Heliport. By utilizing the special shipping gear, component damage is minimized, less man hours are needed for disassembly and reassembly and the CH-47 can be transported more expeditiously. Main rotor blades are placed in special shipping cradles and secured with cargo straps or chains in the cargo department.

All helicopters are packaged so that they will not become a fire hazard. Fuel cells are drained and plumbing is capped to prevent fluid leaks from the engine and control lines. Components removed from the aircraft by the LSI crew, such as main rotor blades, rotor heads, mast, drive shaft, tail rotor and gear boxes, are cleaned, preserved and secured in the cabin area to avoid damage. Engines are cleaned and preserved by the 520th and a tag is affixed denoting preservation.

After disassembly and steam cleaning of an aircraft such as a Huey UH-1, component parts (except for the main rotor) are placed in the cabin of the aircraft and all openings in the aircraft are completely sealed. When the aircraft is ready for shipment it is moved to the 520th's flightline hangar.

Backloading aircraft to CONUS takes place every day that new air-

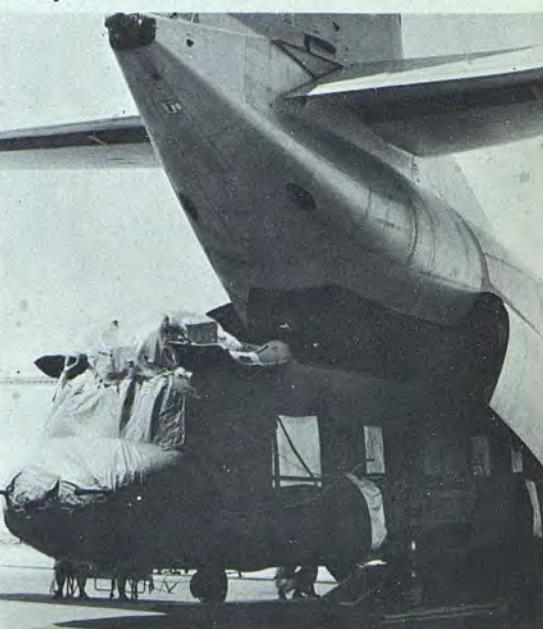
craft are off-loading from Air Force transport planes. The 520th notifies the 616th Military Airlift Support Squadron how many aircraft are ready for shipment. The LSI crew responsible for off-loading new aircraft is also responsible for loading the retrograde aircraft on the same airplane. In fact, it is actually considered one operation. The whole operation of unloading new aircraft and loading the retrograde aircraft on the airplane takes a maximum of four hours.

Aircraft retrograded to the United States are completely overhauled in the States. Component parts and systems on the aircraft are checked and missing parts are replaced; the aircraft is checked thoroughly for any deficiencies and it may even receive a new engine. It is also completely repainted. The end result is an aircraft that looks and runs like new. When completely overhauled the aircraft is again loaded on an Air Force transport and returned to Vietnam and the 520th starts the cycle all over again.

The 520th APD plays a major role in the operation of the 34th General Support Group and the war in Vietnam. In the month of March 1969 the 520th assembled 105 aircraft and retrograded 84 aircraft. This is no small number. Thousands of men's lives depend on the aircraft processed by the 520th. Within a few days after the arrival of a new aircraft in Vietnam, it is assembled and on its way to a using unit.

The next time you see a new aircraft parked in a revetment at a helipad or one flying through the sky; or a Chinook CH-47 carrying a smaller helicopter by sling load, remember the 520th APD and its vital mission.

CH-47 Chinook is pulled into a C-133B transport



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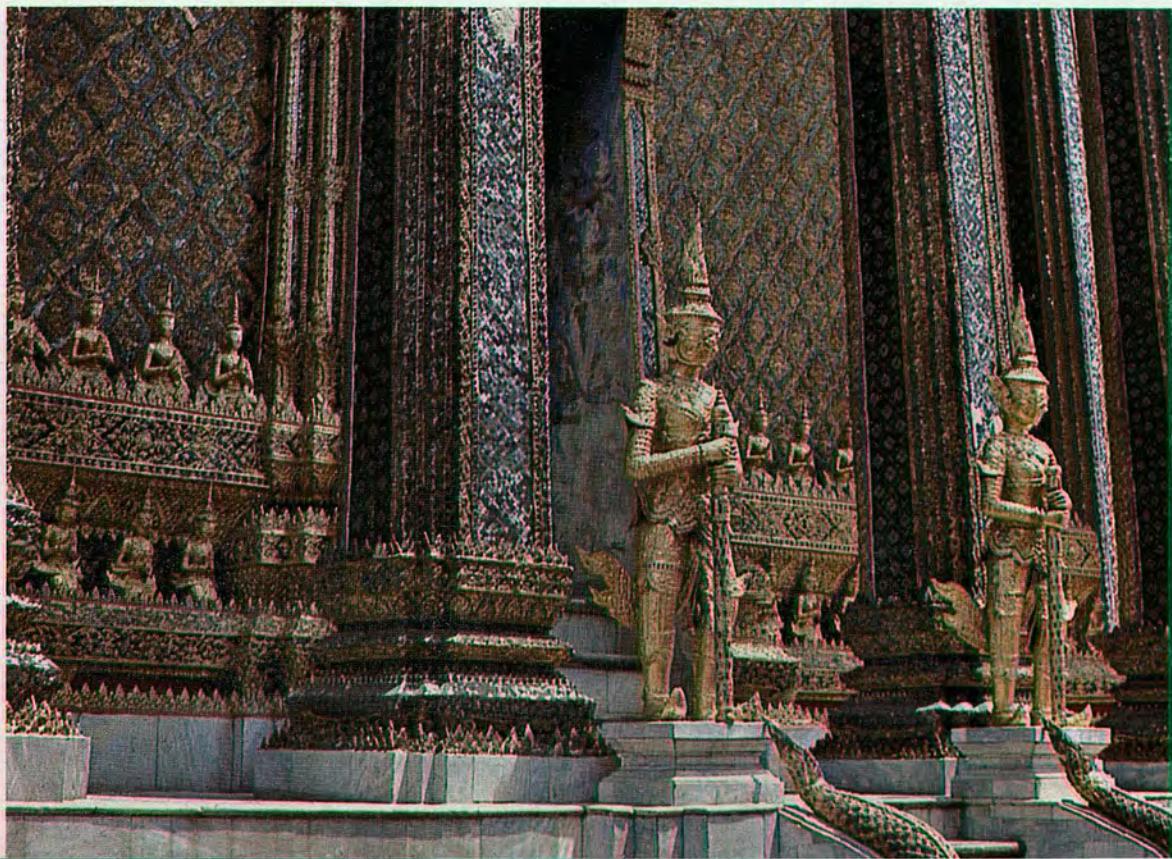
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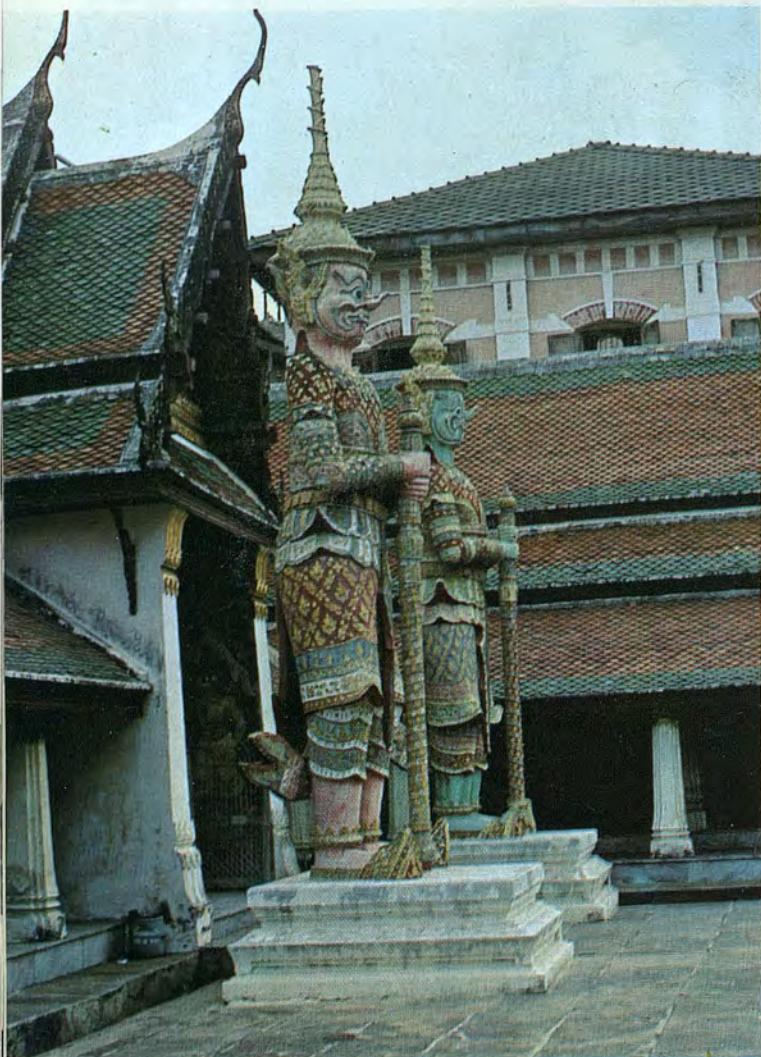
The Royal Temple where the King comes to meditate

BANGKOK

Guards at the Temple of the Emerald Buddha

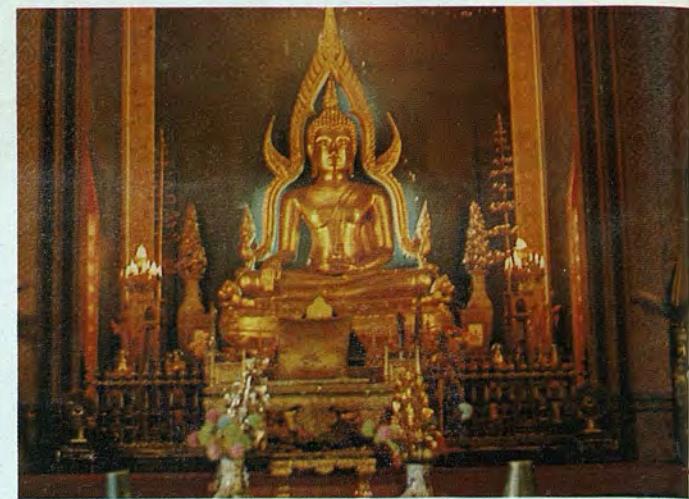


GRANDEUR



Protectors at the Temple of the Emerald Buddha

These spirals are like family burial plots. When a member of the family dies he is cremated and his ashes are placed in his family spiral. Some of them have the ashes of people who lived thousands of years ago.



Royal Buddha inside Royal Temple

OF THE IMPERIAL CAPITAL



"THE LAND OF SMILES.

Thailand, "the land of smiles", awaits you on your Far East R&R and Bangkok, the old imperial capital of Siam, is the site. The meeting of cultures, the pomp and grandeur of the ancient capital, the contrast of the ancient and the unique tropical climate combine to make your visit one excursion you will remember for years to come.

"Culture vultures" can find the splendor possessed by the ancient Court of Siam reflected in the Amarintha Vinitchai Hall, Dusit Maha Prasad and the Chakri Palace. Thai dances, performed in authentic dress, are shown at the National Museum, Cultural Auditorium, Sanam Suapah and numerous other locations. The old Bangkok is again seen in the floating market. The locally produced materials and products offer the best buys for the bargain hunter. Thai silk, bronzeware, jade, and teakwood carvings are but a few items available at below wholesale prices.

Bangkok, with a population of 2 million is the largest city in Thailand and possesses all the points of interest a visitor could desire. Bangkok proper lies on the east bank of the Menam Cao River about 22 miles from the mouth which empties into the Gulf of Siam. The city is constructed on a flat delta plain dissected by numerous canals. The terrain surrounding the city is likewise dissected by canals.

Bangkok can be divided into two distinct sections. The old section, characterized by typically Oriental streets, crowded market places, throngs of people dressed in timeless garb, offers a glimpse of a by-gone era, of a place where time has frozen; the modern section is a stark contrast to this with its wide thoroughfares, parking lots and western style homes displaying a more flexible aspect of Thai life. There is also a small Chinese section but, unless accompanied by a Thai interpreter, a tour would be of little interest since little English is spoken there. Tourist accomodations are situated in the new section near the Royal Palace which is actually an island in the river.

When you first arrive in Bangkok you will be greeted by a representative of the R&R Center who will escort you to the city by bus while pointing out the sights. During a

short briefing in Bangkok, a female representative of a tourist agency will explain the tours available to you, the customs of the country and tips for a pleasurable stay. Beer is served during the briefing and hotels are made available for your convenience. The Southeast Hotel and the President Hotel both offer first class accomodations, having restaurants, pools, chauffeur service, rooms with either single or double beds, room and laundry service for about \$12 a day. You can choose a hotel not recommended by the R&R Center, but service is the same and costs about 3 times as much. The R&R rooms without extras will run about \$6-\$8 a day.

Following the briefing, civilian clothing and accessories will be made available to those who need them. Again it is recommended that you patronize those places approved by the R&R Center. Ready-made or custom-tailored clothing can be bought at either *Sam The Tailor* or *John Fowler-Man's Shop*.

Since you are not allowed to operate any form of motor vehicle, the tours play an important part in your sight-seeing. Tours range in length of time and include most of the points of interest, beauty, and culture of the country. Two suggested tours are The Bridge on the River Kwai and the Timland Tour. Timland is a national cultural center with a game preserve type of zoo and various other exhibitions. This is about a four hour tour. The Bridge tour is an all-day tour and purchase price of your ticket includes meals.

Bars and night clubs vary in prices, but the entertainment is always good and usually in English. The Bamboo Bar and the Golden Dragon have bands which play current stateside hits. Although they use local talent the music is enjoyable for the teeny-bopper at heart. A bottle of Thai beer costs about \$1 for 24 ounces and mixed drinks are about \$2. Night clubs, like the Cafe de Pari and Lolita, import entertainment from other countries. They usually have a cover charge and beer and mixed drinks cost about double the price in the bar.

Those interested in bargain hunting will have a field day in Bangkok since everything except hotel rates, meal expenses and entertain-

ment fees is up for bargaining. The best buys are on locally manufactured and produced goods. When you enter a shop, the proprietor usually will offer you a bottle of beer preparatory to haggling over prices. Bargains are everywhere.

Thai silk and cotton are available in both small shops and shopping centers. Thai silk, world famous for its luxurious texture and beautiful colors, is sold by the yard or as ready made items. Cotton in both handwoven and printed patterns is available by the yard or in ready-made skirts, dresses, blouses, shirts and neckties.

The array of jewelry for sale in Bangkok includes rubies, sapphires (notably the black-star sapphire), semi-precious stones, rings, necklaces and pearls. Silver inlaid with a black alloy is known as Nielloware and is used to make jewelry and small articles like powder compacts or key chains. Thai Celadon is a type of jade stoneware made in Chiengmai northern Thailand. This stoneware has two glazes, a cool sea-green known as Emerald Green and a lustrous brown-black known as Jungle Jade. Workmen fashion superb lamps and dinnerware from the sheer richness of beauty inherent in this stone. High finished laquerware in black and gold designs is also available.

Bronzeware with its unique design can be bought for table services of 8-12 including sugar tongs and letter openers. The handles will be made of anything from buffalo-horn to ivory. Teakwood carvings of elephant figurines and teakwood boxes of all descriptions are found in shops throughout the city. This wood is also used to make the unique Thor Masks. The House of Siam, Patumavau Jewelry and the Rajprasong Shopping Center offer fair deals and a chance for you to haggle over the price.

Sports enthusiasts can witness new as well as the usual sporting events. Almost every hotel has a swimming pool and you can always take the 22 mile trip to the beach if you are a scuba fan, fisherman, or just feel like taking a dip in the "ocean". Along the line of new sports is Thai boxing, pole and sword games and kite flying. Returning to the usual sports activities you can test your golf form, sharpen your hunting eye with duck hunting or big game hunting, or try a quick set of tennis or a game of bowling.

Whether you are looking for superb cuisine, great bars, sports activities, bargain hunting, sight seeing, places of photographic interest or an exotic and diverse culture, Bangkok will make your R&R an exciting and memorable one.

DID YOU KNOW?

Ever feel a little frustrated when dealing with the Vietnamese? Have you ever felt as if you weren't getting your message or thoughts across to them?

Take a few minutes to evaluate your attitudes and actions towards your Vietnamese friends. Then continue from there and broaden your knowledge with a few of these cultural "do's" and "don't's":

1. BE COURTEOUS. Remember that you are in a foreign land and "your way" is not necessarily the accepted means by which an individual leads a good life. However, if you are sincere and courteous in your dealings with the Vietnamese people, many inadvertant mistakes will be forgiven.

2. SPEAK SLOWLY. When speaking English to the Vietnamese, think clearly and carefully about what you want to say and then say it slowly and distinctly. Above all, avoid hometown expressions and slang words.

3. USE THE VIETNAMESE LANGUAGE. Make every effort to attempt, from time to time, to speak Vietnamese, if only the words "please" and "thank you". This will show the people that you are interested in learning their language.

4. SHAKE HANDS. While one cannot be certain whether the gesture will be understood and accepted, the rule of thumb seems to be that it can't hurt to offer to shake hands upon being introduced.

5. SHOW RESPECT FOR RANK AND AGE. People in the United States generally glorify youth while the Vietnamese venerate age. Always address a Vietnamese using his title (Mr., Sergeant, Chief or whatever title he has) unless you have established a relationship with him which allows you to do otherwise.

6. USE OF GESTURES. A gesture to be avoided is the summoning of a Vietnamese by a wave of the hand. This gesture is used for the summoning of inferiors and generally will be considered a slight by Vietnamese adults. Some gestures commonly used in Vietnam are:

a. Respectful Greeting: Palms of hands together at about chest level accompanied by a bow.

- b. Friendly Greeting: For men—shaking hands. For women—bowing of the head.
- c. Respect: Folding the arms on the chest.
- d. Scorn: Spitting.
- e. Pride: Chest out, arms folded, head back, eyes looking up.
- f. Joy: Striking the hands together.

- g. Anger: Standing with legs spread, hands on hips.
- h. Devotion: Kneeling position with forehead to ground, arms slightly outstretched.

- i. Approval: Shaking head once slightly.

- j. Friendship or Encouragement: Clasping hands in front of lower chest.

- k. Submission: Kneeling, hands together, bowed; or standing behind someone with head slightly in a bow.

- l. Polite Laugh: Any laugh broader than a smile is covered by a hand in front of the face

Impolite gestures and stances to be avoided include: putting hands in pockets while talking with an individual or group; hooking one's thumbs in one's belt; standing with feet far apart.

7. ATTITUDE TOWARD TIME. Vietnamese have a more flexible attitude toward time than you do. If a Vietnamese says he will be over "soon" he may be there in an hour, 2 hours or 2 days.

8. VISITING A VIETNAMESE. Be sure to accept refreshments if they are offered. To do otherwise would offend your host. It is not likely that you will become ill from eating or drinking anything you are offered in a Vietnamese home.

9. RELIGIOUS TEMPLES AND SHRINES. Be careful to show respect for any religious shrine or building. No matter how strange the building or the objects within it may appear to you, remember that this religion is as meaningful to these people as yours is to you; it is entitled to the kind of respect that you would expect a stranger to pay in your house of worship.

10. RELIGION. Do not comment on religious matters. Try to show proper respect toward all religions. Do not flaunt your own religious beliefs.

11. PAYING FOR MEALS. "Going Dutch", in spite of its name, is an American custom. Most Vietnamese are not familiar with this custom; therefore, it is preferable for one or the other of a group eating together in a restaurant to pay the bill. Do not try to share it.

12. DO NOT ENTER A HOME UNLESS INVITED IN. Talk to people in the doorway, but make no effort to enter.

13. BE EVEN TEMPERED. It is

hot; things move slowly; it is difficult to make yourself understood. Any number of circumstances make it hard to keep your temper, but raising your voice or otherwise exhibiting bad temper will only make things worse. Bad temper, like the public display of any emotion, is offensive in Vietnam.

Now that you have considered a few of these "do's" and "don't's", try to apply them wherever you can.

EDUCATION

We are never too old to learn. As a matter of fact, when we reach the point where we stop learning, we might as well sit back in the old rocking chair and just let the world go by.

Military personnel, regardless of where they are assigned, are offered a number of opportunities to continue their education.

The 4 major sources available for study are: the United States Armed Forces Institute (USAFI), the University of Maryland, cooperating colleges, and the Army Extension Program.

USAFI offers courses at basic, high school and college level. It also has vocational-technical type courses. Enrollment fee is fixed at \$5.00 and once paid there is no limit on the number of courses we can take.

The University of Maryland offers group study classes in academic subjects at many installations. The cost of each course is minimal. Price is based on semester hours and the cost of books.

Forty-eight major American universities and colleges, through contract with the government, offer extension type courses in subjects reaching into almost every field of endeavor. The cost varies with different subjects and institutions but the cost to military personnel is approximately one-third the cost to civilians.

If you are interested in continuing your education, whether to improve your present position or to prepare for your return to school after your tour of service is completed, you owe it to yourself to see the unit education officer for complete details.

Army Extension courses give a man the chance to study entire career fields or to select certain courses within a career field. Completion of this type of study is an excellent means of preparing for proficiency tests or promotion. Army extension courses are free of charge. Another benefit that can be realized from this type course is that, by completing the basic series and certain specified series of courses, one can earn a reserve commission.

330TH'S TAILBOOM REBUILD FACILITY

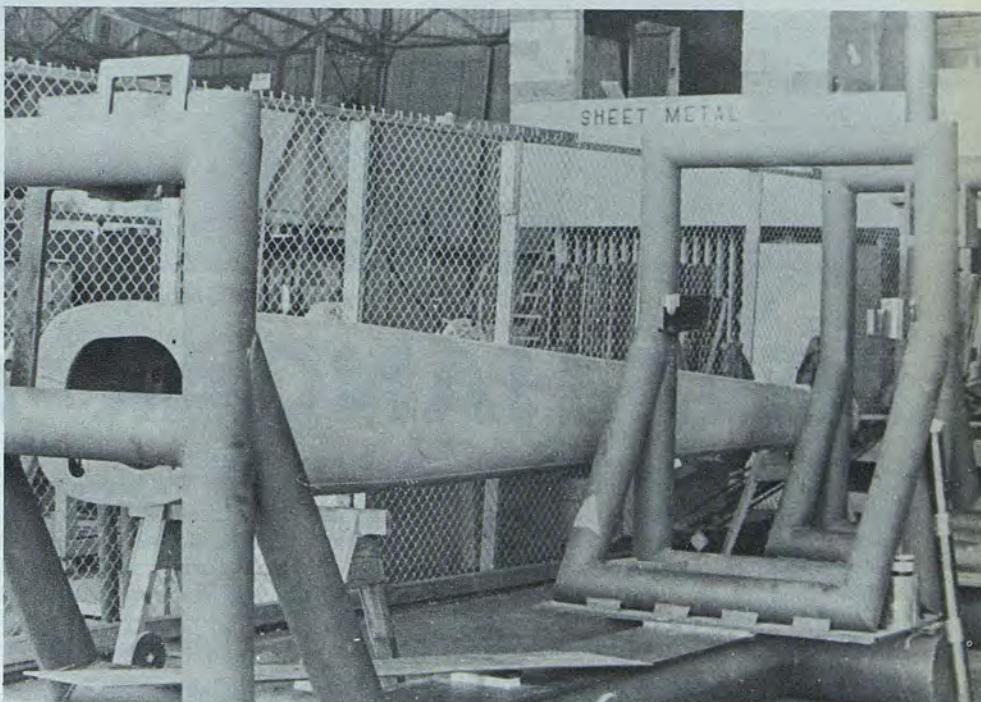
The 330th Transportation Company (Aircraft General Support), better known by its tactical call sign, CHECKMATE has initiated another first in-country aircraft repair program.

The 330th Trans Co, based at Vung Tau, Vietnam, is already renowned throughout RVN for its contribution to the Theater Aircraft Reparable Program (TARP). The 330th's aircraft repair capability has flexed its wings again and expanded its already elaborate sheetmetal facilities to incorporate a UH-1 and AH-1G Tailboom Rebuild Shop that is designed to reduce the cost of the war effort in excess of \$800,000 annually.

This sum includes shipping expenses saved when retrograding tail booms to CONUS, the cost of repairing a percentage of tail booms that are normally salvaged, and reducing the number of replacement tail booms required in the CONUS pipeline. Prior to the 330th opening its Tail Boom Rebuild Shop, all crash and combat damaged UH-1 and AH-1G helicopter tail booms were retrograded to CONUS via the operational unit's direct support

unit or salvaged by the general support companies. Retrograde or salvage is determined by the extent of damage.

This unique operation originated when CWO Telford M. Morton 330th's Maintenance Officer, received a UH-1 Tailboom Alignment Fixture (commonly called a jig) from CONUS in December 1968. CWO Morton drafted and submitted a



Jigs used to rebuild tail booms.

proposal through channels for in-country rebuild of UH-1 tailbooms in support of the TARP program. This proposal was approved at all levels immediately and on or about 1 April 1969, the 330th was directed by the 34th General Support Group (AM&S) to develop a capability to overhaul tailbooms.

At the monthly TARP conference held at 34th General Support Group Headquarters, the 330th was assigned the requirement of overhauling and returning to the supply system, twelve serviceable UH-1 tailbooms per month with an effective production date of 20 April.

The 330th started rebuilding its first tailboom on the 17th of April. The shop incorporates five tailboom work stands, one alignment fixture, and several locally manufactured templates and special tools.

At the present time there are civilian contract employees from Dynalectron and GI's assigned to the shop. Plans to increase the total strength are in the works. Working full time, it is estimated that eighteen tailbooms per month will be overhauled and returned to the supply system. In the near future, CWO Morton expects the 330th to have the capability to rebuild every crash and combat damaged UH-1 tailboom in RVN.



Riveting the fragile metal skin to the tail of a Huey.



All tailboom repair must be precise and complete.

NEW HANGAR AT 604TH

In October 1968 the construction of a new metal maintenance hangar was started for the 604th Transportation Company (ADS), 14th Transportation Battalion (AM&S) (GS), located at Pleiku, which will replace the old Brooks and Perkins canvas hangar which has been used since the company arrived in August 1966. "C" Company of the 815th Engineer Battalion was given the task of constructing the 175 by 190 foot metal hangar.

In order to ascertain what effect the new hangar would have on maintenance at the 604th, this writer went to two persons who could well adjudge its value. CW3 Ralph L. Hill and CW2 Jesse M. Redfoot are the direct support platoon leaders and therefore are directly involved with the maintenance done within that unit.

According to Mr. Redfoot, the advantages of this new structure will be numerous. The most obvious of these is the increase in floor space from nine thousand to thirty-three thousand square feet. Due to the limited space in the old hangar, the majority of all maintenance must be performed in the open. Any outdoor maintenance program is prey to the weather and, in Pleiku, this presents quite a strain on operations. During the monsoon season when rains fall almost without stop from July through October, aircraft maintenance operations cannot, for the most part, be performed in uncovered areas; moreover, during the dry season the prevailing winds stir up the dusty soil around Pleiku imposing strict and time consuming procedures to prevent Foreign Object Damage during even routine

maintenance operations.

Poor lighting in the existing hangar reduced significantly the volume of work which could be accomplished at night. Priority maintenance, such as that on Medevac ships will be completed with increased swiftness in the newer, better-lighted facility.

Once the hangar's exterior is constructed, plans call for the construction of offices and shops along each side. Under present conditions, office space is extremely limited. Production and Quality Control will be the principal beneficiaries of such increased space. The Shop Platoon, Direct Support Platoons, and the Dynalectron Corporation will be allotted office space in the new facility as well.

According to 1LT James R. Kerl, Production Control Officer, the Allied Shop Platoon will benefit more than any other platoon once the new

The operational cycle of the program begins when a damaged tailboom is turned in to a control direct support unit. These units have been assigned a requirement by the 34th General Support Group TARP Officer to ship a specific amount of unserviceable tailbooms to the 330th on a monthly basis. The tailboom is processed through the 330th's receiving point where it is cleaned, inspected, and classified as to extent of damage. After classification, the tailboom is checked on the alignment jig. A work determination is then made and a crew is assigned. The tailboom is repaired, again checked on the alignment jig, and finally prepared for shipment. The 388th Trans Co, control unit for the 330th, takes over and places the tailboom into the supply channels again.

hangar is operational. Currently, the Allied Shop Platoon is housed in semitrailer vans. Plans call for the construction of individual facilities for each of the shops: hydraulic, sheet metal, machine, electrical, prop and rotor, and paint. All shops will benefit from an increase in available space after the new hangar is completed.

Improved and expanded production is expected from these shops once they are relocated. The Prop and Rotor shop is now located in the maintenance tent. All painting is performed outside. Current capabilities allow the balancing of only the main rotor-head of rotary wing aircraft. Once relocated in the new hangar, it will have the capacity of balancing the entire main rotor system. The new Paint Shop will perform all the painting inside the new hangar.



THE SWORD SHARPENERS

FROM RESERVE STATUS IN GREENCASTLE, PENNSYLVANIA, TO VIETNAM DUTY AT BIEN HOA AS PART OF THE 520TH TRANSPORTATION BATTALION THE 357TH TRANSPORTATION COMPANY HAS PROVED ITSELF A "REGULAR" OUTFIT.

One day in early April 1968, when the earth was warming and the skies were clearing from a long, cold Eastern Pennsylvania winter, Bob Barnes was driving home from work, enjoying the Spring warmth and humming along with the music on the car radio. As the music stopped and the news came on, Bob listened to hear the latest news. Little did he realize that from that moment on his life was going to make a sudden turn off the course he had carefully plotted.

Bob Barnes, along with some 200 other fellow reservists in the Greencastle, Pennsylvania—Hagerstown, Maryland area, suddenly discovered that his reserve unit, the 357th Transportation Company (AM) (DS) had been ordered to active duty. The very thing that every reservist knows can happen, but says, "Naw, it'll never happen to me," had happened!

Reorganized only a few months earlier from a general support aircraft maintenance company to a direct support company, the men of the 357th faced a difficult transition from civilian life to full time soldiering.

The unit was officially ordered to active duty on 13 May 1968 and shortly thereafter moved from its home in Greencastle, Pennsylvania, to Fort Benning, Georgia, where it became a part of the 10th Aviation Group.

At Fort Benning, training was the name of the game and the men of the 357th worked hard at it. Because of the highly technical skills needed in an aircraft maintenance unit, many members went to Army schools to learn such trades as



Rigging a Huey tail rotor is one of the many maintenance and repair services that the 357th can provide its customers. Specialist Five Dennis L. Mc Dennis puts the finishing touches on this one.





Severe vibrations in rotary wing aircraft necessitate careful assembly procedures. Specialist Five Michael E. Shelbert safety wires the seal on a Cobra cross-tube so that it can't loosen because of vibrations.

engine and airframe repair, while others learned what it took to be Supply Specialists, Helicopter and Airplane Technical Inspectors, Packing and Crating Specialists, and Material Handling Equipment Repairmen. There was a lot to learn and little time to learn it.

In addition to schooling and on-the-job training, basic skills for survival as a soldier had to be learned. Weapons qualification, patrolling, perimeter defense, plus numerous other important areas of training made the men of the 357th wonder if an Army day was more than 24 hours long.

Training days turned into weeks and the weeks into months. Finally, by mid-August, the "Sword Sharpeners" successfully completed their Army Training Test and proved that they could wield a mean stone. Soon they would get a chance to put all their training into use and get a real taste of the action—in Vietnam.

After an all too short leave to their Pennsylvania and Maryland homes in September, the 357th's men sadly left their families and loved ones to begin a journey that would take them half way around the world to a place called Bien Hoa, South Vietnam.

Mid-October 1968 found two plane-loads of apprehensive reservists landing at Bien Hoa Air Base.

All their vehicles and equipment preceded them, arriving in Vietnam on a cargo ship. SP5 Bob Barnes, Supply Supervisor—not Bob Barnes, Time Study Analyst—stepped off the plane into a new world of heat, humidity and dust. But he was not alone. Fully expecting to be immediately surrounded by the harsh jungles and screaming VC, the 357th discovered that Bien Hoa was not quite like that at all—at least they they couldn't see too much jungle and the VC kept their distance.

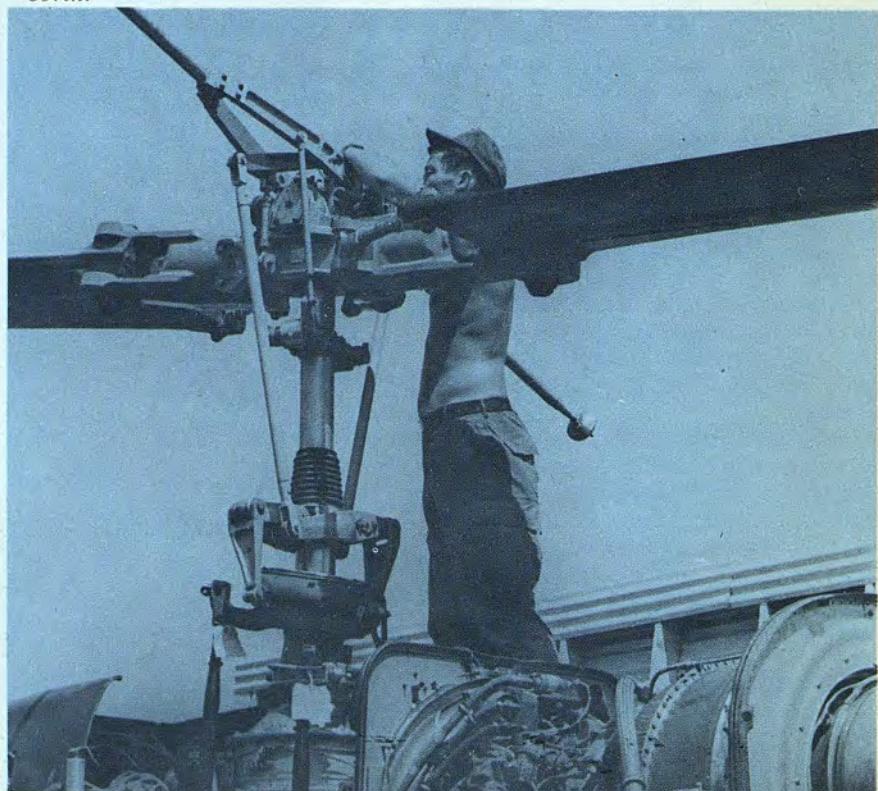
The "regulars" at Bien Hoa soon learned that the 357th reservists were a regular outfit as within two weeks they were operational and had repaired their first helicopter and returned it to service.

Almost before the welcoming was over the 357th was hard at work constructing bunkers and living quarters. Tent living was the order of the day, and still is, although living conditions have been improved considerably through typical GI ingenuity and hard work.

The great majority of the men in the 357th were not "cry-babies" about their call-up. Although most did not like what had happened to them, they nevertheless felt that duty called and they had been chosen.

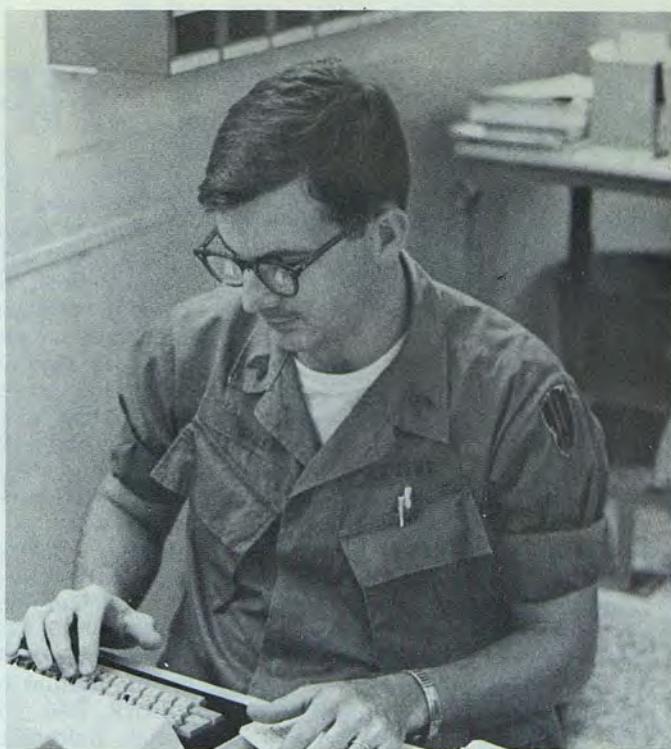
After six months in Vietnam, how do unit members feel about their call to active duty?

Specialist Four Dennis A. Hair works on the rotor head of a Huey. There is nothing that escapes the watchful eye of the aircraft repair specialists in the 357th.





A Cayuse receives expert attention from Private First Class Jimmy L. Nutt.



Besides repairing aircraft, the 357th also has a parts supply section which insures that repair parts are available when needed. To aid the requisitioning and issue of parts, Automatic Data Processing equipment is used extensively. Sergeant Craig S. Bailey keypunches requisitions in the 357th's air conditioned ADP van.

Sergeant First Class Paul W. Grossnickle, formerly a baker in Hagerstown, Maryland, and now the Production Control NCOIC said, "I'm sort of glad I'm here. So far it has been a good experience. I'm glad to help the people of Vietnam, anyway."

"We're over here to do a job and make the best of it," commented Specialist Five Delmos F. Oldman, a repairman in the 357th's Hydraulic Shop. SP5 Oldman's civilian occupation was supervising a welding shop in Waynesboro, Pennsylvania.

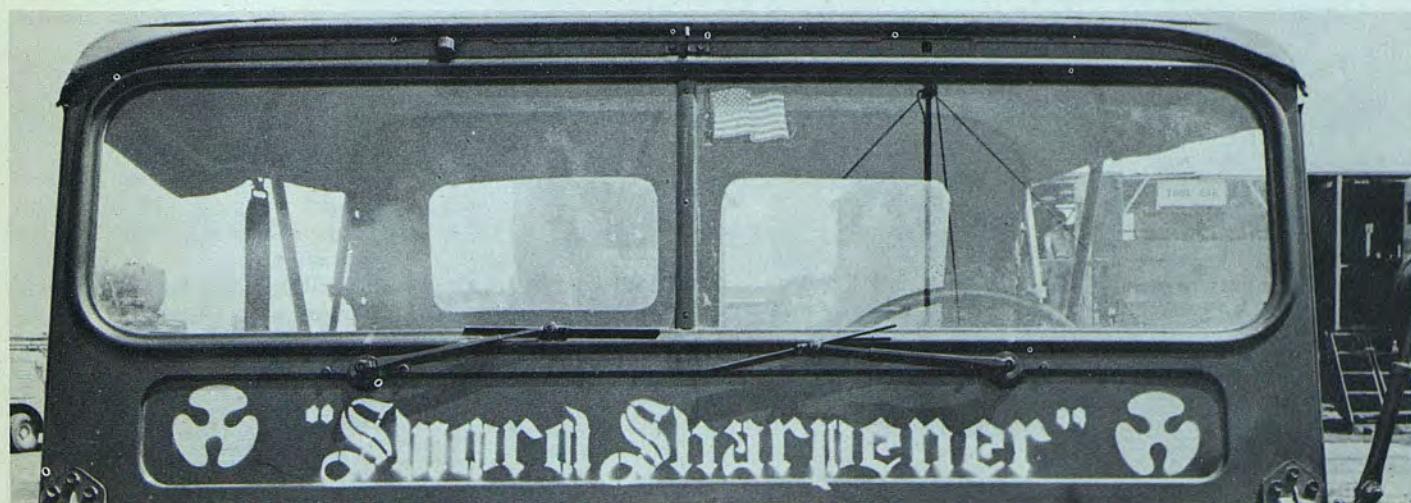
Specialist Four Earl L. Hartsock

worked as a helicopter assembler for Fairchild-Hiller, so being around helicopters was an everyday affair for him. When asked for his reaction to his call to active duty, he said, "I didn't want to believe it."

Armament Shop NCOIC, Staff Sergeant Walter T. Custer, a career reservist with over 26 years to his credit, volunteered to go on active duty with the 357th. As he put it, "I wanted to do my part in Vietnam."

Starting with a grand total of four aircraft repaired in October 1968, the hardworking 357th's out-

put has jumped to a total of 170 aircraft repaired and returned to service in March 1969. According to Major Leslie R. Pyatt, the 357th's commanding officer, the unit is turning out as many or more repaired aircraft and parts than any other 34th Group direct support company, considering the limited facilities available. Himself a reservist who was called to active duty for the Korean conflict, Major Pyatt is quite proud of the job his men are doing. "They are top notch soldiers and they set the example here at Bien Hoa," he said.



MISS AVIAN 34'S PHOTO TIPS

What are filters and why are they used? Most of the filters that are used for photography today are glass sandwich filters and are made of dyed cellulose sheets or dyed gelatin cemented between polished plate glass to protect the actual filter from dust, dirt, moisture and grease.

There are many filters for many different photographic purposes. Some are used for color correction or color compensation. These filters balance the light source to obtain correct color reproduction. Others are used for effect and contrast correction. These filters are used to carry the modification of sky tones beyond correct reproduction to give dark dramatic skies.

There are seven corrective filters that are most commonly used. Their color and color corrections are as follows:

Pale Blue will correct tones on panchromatic films in artificial light

Pale Green will correct tone on panchromatic films when used for outdoor portraits.

Medium Green will correct tone reproduction on red panchromatic film.

Light Yellow will darken the sky and bring out the clouds.

Dark Yellow will give full correction of sky tones.

Yellow Green will darken sky

and darken red when panchromatic films are used.

The main spectrum colors in their natural order are: blue, blue-green, green, yellow, orange, and red. In order to emphasize the brightness of certain colors and bring out or playdown certain tones in copying, photomicrography, etc. contrast and effect filters are used. Some of the contrast and effect filters and their capabilities are as follows:

Blue will darken red and yellow; lighten blue.

Green will darken red and orange, slightly darken blue, lighten green.

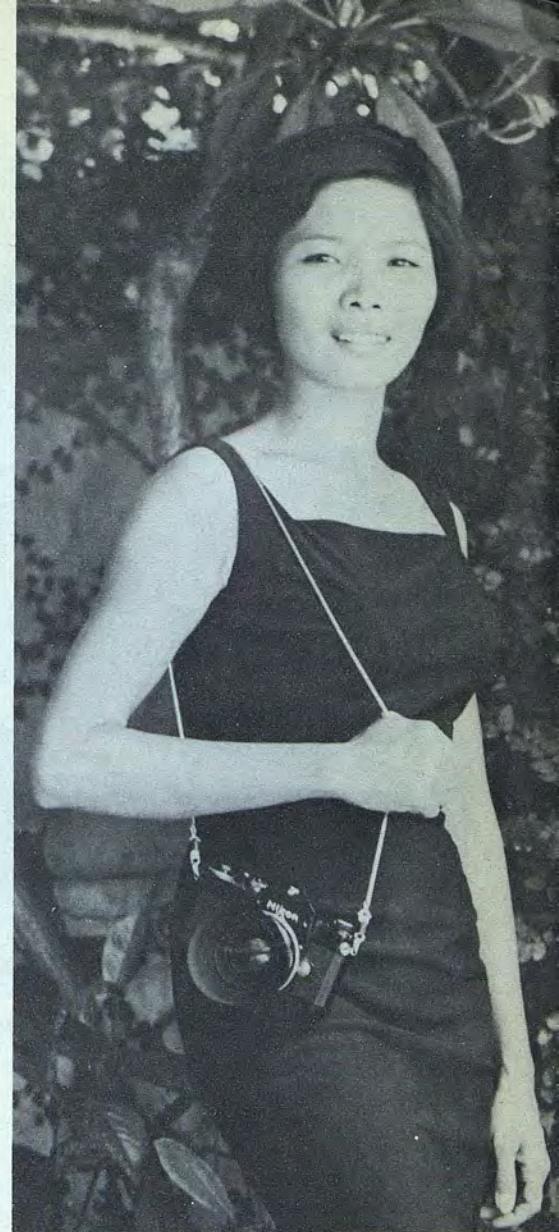
Dark Yellow will darken blue, lighten yellow and orange.

Light Red will darken blue and green; lighten orange and red.

Dark Red will darken blue and green; lighten orange and red with greater effect than the light red filter.

It is now obvious that corrective filters and contrast-effect filters have certain properties that are similar. For example, if a red contrast filter is used on a subject that is red, the result will be a lighter red. Using a green filter, a lighter green will be obtained.

The polarizing filter is capable of reducing or eliminating surface reflections when photographing objects behind glass and under water.



This filter will darken blue skies without effecting the remainder of the scene. The polarizing filter is used frequently in color photography to darken the skies without upsetting the color balance of the film. A polarizing filter is composed of two sheets of polarizing substance mounted between glass. The position of the filter on the lens is important because it is effective only if its polar axis is at right angle to the light it is holding back. The filter is rotated until the reflections are reduced or eliminated.

The action of all filters is basically the same. Filters hold back some of the light reaching them. They pass almost all of their own color but appreciably reduce the intensity of the light rays of the different colors, and, as a result, they call for extra exposure.

Quality filters and filter sets can be obtained at reasonable prices. Using the right filters at the right time will possibly fill that "something missing" gap in your black and white, and color photographs. Possessing a variety of filters and mastering their uses will prove to be a worth-while investment.





Miss Avian 34

