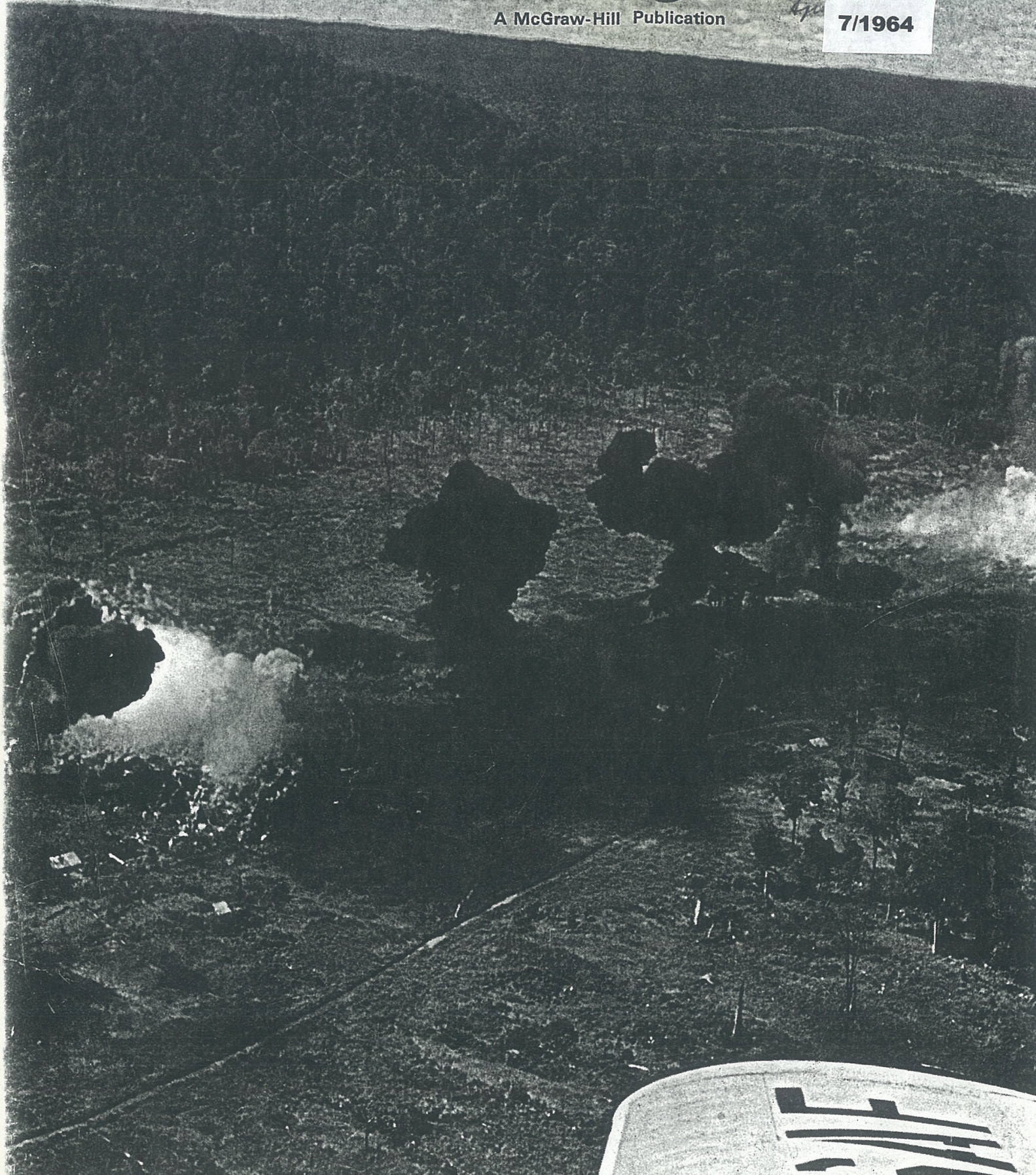


Aviation Week & Space Technology

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Special Reports:
The War In
VIETNAM

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during the year, 10 of them fatally.

The damaged helicopters that go down either are repaired on the spot or retrieved and ferried out by a Sikorsky CH-37 (AW&ST May 10, p. 108). The wounded are flown out in the UH-1Bs participating in the lift or by helicopters from a special medical evacuation detachment with units at Soc Trang in the delta and Tan Son Nhut air base near Saigon.

When flying into an area under fire, the medical evacuation UH-1Bs normally are accompanied by armed helicopters, sometimes as many as six. If it is a night mission, a helicopter equipped to drop flares also is dispatched. At night, the evacuation helicopters are guided down by the winking signals of a flashlight—and sometimes the flashlight is in the hands of the Viet Cong. The helicopters are painted with a large red cross on a white background on either side of the fuselage, but it has little effect on the general reception. "We really get peppered when we go in," says one pilot.

Over-all, the Army has about 500 aircraft in South Vietnam distributed among five battalions and a provisional company.

Here's the breakdown:

- **13th Aviation Btn.** headquartered at Can Tho in the delta to support the 4th Corps. The 13th has two air mobile companies at Vinh Long and another at Soc Trang. The battalion commander, is the senior American Aviation advisor to the commander of the 4th Corps.
- **145th Aviation Btn.** Headquartered at Tan Son Nhut for the support of the 3rd Corps. The 145th has two helicopter companies at Tan Son Nhut plus another two at nearby Bien Hoa. The 120th Aviation Co., at Tan Son Nhut is a general support unit with three platoons of "Slicks" and one "Cobra" platoon. It participates in large helicopter troop lifts but also has the mission of flying officials around the country. The 197th Co. at Tan Son Nhut until recently had only armed helicopters and was used exclusively to provide additional firepower for other companies. Because of the need for additional troop-carrying helicopters, however, some of its UH-1Bs recently have been converted to "Slicks."
- **52nd Aviation Btn.** At Pleiku to support the 2nd Corps. The battalion has an air mobile company and an air lift platoon at Pleiku, a company at Qui Nhon and an air lift platoon at Nha Trang.
- **Provisional aviation company** at Da Nang composed of approximately 12 armed UH-1Bs for the escort of a Marine Corps Sikorsky UH-34 squadron that supplies the 1st Corps with its troop-lift capability. Marines currently

have no armed helicopters of their own. Some may be converted to this configuration, however.

- **14th Aviation Btn.** located at Nha Trang equipped with de Havilland CV-2 Caribou transport aircraft (see story, p. 78), a company of de Havilland U-1A Otter utility aircraft used in the logistics support network for the resupply of U. S. Army Special Forces' camps in Vietnam, a platoon of Cessna O-1 observation aircraft and a direct support maintenance company. The aircraft of the 14th are used primarily in support of 1st and 2nd Corps.

- **765th Transportation Btn.** At Vung Tau east of Saigon with Caribous and an O-1 company plus the 73rd Aviation Co. equipped with the Grumman OV-1 Mohawk reconnaissance aircraft. The Mohawk, which also could be used in a close-support role, is used here primarily for surveillance to avoid a roles-and-missions conflict with the Air Force. It does carry 12 2.75-in. rockets under each wing to provide counterfire if attacked from the ground. The 765th also has responsibility for the major maintenance of the Army aircraft located in Vietnam.

For pre-planned helicopter troop lift missions, the original planning normally begins at regimental level. Formal re-

quest for approval of the mission and the assignment of the necessary helicopters is forwarded through South Vietnamese army channels to division. At this point, it is reviewed by the liaison officer from the aviation battalion assigned to the area, where its feasibility and priority are reviewed.

If approved here, the written request is sent to the battalion operations officer, providing as much advance notice as possible plus the approximate number of helicopters that will be required and the area of operation.

The battalion operations officer, a forward air controller and the responsible South Vietnamese ground commander plus his American advisor conduct a coordinating conference and make a reconnaissance of the possible landing zones plus others in hopes of confusing the Viet Cong. The O-1 pilot, whose aircraft will precede the helicopters to the landing zone and then vector them onto the target, also may be called upon to accompany the reconnaissance party.

After the reconnaissance, a firm operational plan is drafted by the battalion and sent in written form to the ground units concerned, advising them of the time the helicopters will be available for the mission and the staging area where they will pick up their troop loads.

Peacetime Procedures Cause Complaints

Saigon—Need for additional close-support aircraft, an improved air-request network and better means of communications between Air Force and ground units (see story, p. 48) are among the major complaints listed by U. S. officials here. Although generally satisfied with the logistics backup they are receiving, they have other complaints. These include:

- **Reliance on peacetime procedures** that bog down under wartime conditions. "The big problem is trying to make peacetime procedures work over here," says one official. "We can't get what we need using peacetime programming procedures. The requests [for equipment] have to go back to the U. S. through channels for processing, and then it may come over here from anywhere."
- **Another harassed commander** complains, "If I need a certain type of technician over here, by the time my request works its way through the channels and gets approved, I'll either be gone or I won't need him any more."
- **Related problem of receiving equipment** taken from other operational units outside South Vietnam—one that stems from a shortage of some items in the U. S. inventory plus Defense Dept.'s attempt to keep its forces in South Vietnam fully equipped. "When you get a piece of electronics gear from another outfit, you know they are going to give you the worst piece they have," according to one top-ranking officer here, who adds: "and, sometimes they will have cannabilized that. . . . If they don't, somebody else will before it reaches us."
- **Appearance of some obsolete ground-support equipment** for which no spares can be readily found. One officer, who says he is pleased with most of the equipment received by his unit, adds: "There is obsolete equipment here. When I couldn't get spares any other way, I have taken the mod numbers and written back to the company. Sometimes, the equipment is so old, they can't trace the mod numbers. They've thrown the catalogue away."
- **Shortage of tracer ammunition.** Pilots of armed Bell UH-1B "Cobra" helicopters would like to use only tracers in their machine guns in order to obtain a continuous visual fix on the accuracy of their fire. Because of the shortage, present machine gun belts for the helicopters contain one tracer for every four conventional shells.

made to establish contact between Bangkok and the population in remote areas of the country before it is too late. With U. S. aid and encouragement, new roads are being built, and mobile propaganda units are taking to the field.

This is one way, but it is a slow way, and a number of American officials believe that light aircraft with a relatively high payload capability such as Navy's North American OV-10A counter-insurgency (COIN) aircraft now under prototype development or General Dynamics' Model 48 Charger could provide a better, cheaper answer to the problem.

Capable of carrying a number of combat-equipped troops, an aircraft such as the OV-10A or the Charger could ferry government medical teams, agricultural experts and other officials into remote areas, relying upon its STOL capability to get into and out of small, unimproved strips. Its armament also could provide some protection if the aircraft came under sniper fire from the ground, although Air Force officials do not believe that it would be capable of maintaining an acceptable rate of survivability in a limited war on the scale of Vietnam.

Other areas where answers are needed include:

- **More effective ordnance** or delivery techniques for jet fighter aircraft attacking major rail heads and bridges built of steel or reinforced concrete. Although in some cases results have been ex-

cellent, Air Force officials here have been disappointed with some USAF strikes against major North Vietnam bridges over the past few weeks. Repeated strikes against some have been required to complete the job.

- **Better ordnance** for use in air attacks against enemy positions hidden beneath the rain forest. Napalm, excellent in the mangrove regions of the delta to the south of Saigon, has proved to be relatively ineffective in the forested regions to the north. The napalm canister generally is punctured when it strikes the top of the trees, and the napalm is then absorbed as it passes through the layers of foliage.

- **Improved defoliation techniques** with which large tracts of forest suspected of harboring enemy troops, such as the three Viet Cong "safe" areas, can be stripped bare.

- **Major improvements** in reconnaissance techniques in order to locate the Viet Cong beneath the jungle canopy. The Viet Cong have become masters of camouflage, and the forest is their ally. Visual or standard photographic reconnaissance often is an impossibility, and the sophisticated sensors of aircraft such as the McDonnell RF-101 were not developed with such a role in mind. A field unit of Defense Dept.'s Advanced Research Projects Agency located in Bangkok is working on the problem, studying infrared and other possible reconnaissance techniques, but thus far no effective answer appears to be in

sight. For the moment, one of the most effective—and hazardous—means of locating the Viet Cong in the forest is to place a Cessna O-1A light observation aircraft above the tree tops flying a random, loiter pattern.

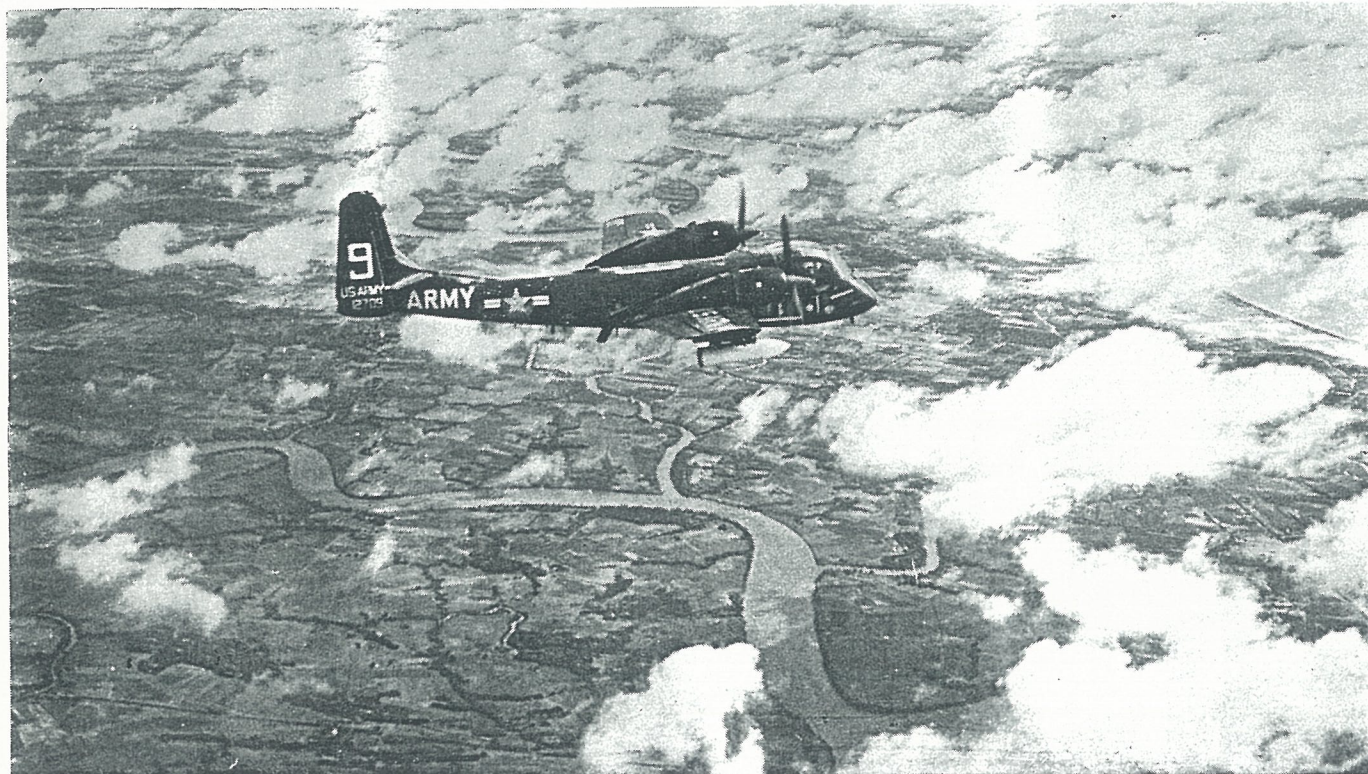
If the aircraft is fired upon, and if the pilot or observer can then locate the source, a potential target has been found.

- **Better means of target marking** once a Viet Cong position has been identified. Smoke rockets fired from the O-1A often disappear into the jungle. The smoke is either dissipated or obscured by the trees, making it difficult for the fighter-bomber pilots to obtain a definite fix on the target.

- **Lighter-weight ground-to-air communications units** for use by the forward air controllers.

Despite the problems, the increased use of air power is having its effect. In March, the first full month of unrestrained USAF activity in South Vietnam, about 87% of the counted Viet Cong dead were killed by air strikes.

Brig. Gen. Nguyen Cao Ky, commander of the Vietnamese Air Force whose 89 Douglas A-1Hs have been under no restrictions in the past, told AVIATION WEEK & SPACE TECHNOLOGY that "last year statistics showed that a total of about 12,000 Viet Cong were killed, 8,000 of them by air." And, Ky added, "I know the figure isn't high, because it was given to me by the Army."



Army/Grumman OV-1 Flies Vietnam Surveillance Mission

U. S. Army/Grumman OV-1 Mohawk flies a surveillance mission over the Mekong Delta region of South Vietnam, in one of the few photos showing use of this aircraft in the Vietnam conflict. In addition to photo equipment, this OV-1 carries rocket pod as external stores.

Army Presses Viet Helicopter Buildup

Tan Son Nhut, Vietnam—Army is continuing its rapid buildup in aviation equipment begun last summer and now has over 1,200 helicopters in South Vietnam. About 1,000 of these are Bell UH-1Bs and Ds, split about evenly between the two models.

The UH-1 is now the most widely used tactical vehicle in the air over Vietnam. Army is well pleased with the UH-1 and, for transporting combat troops, considers the -D version as an optimum size for a utility helicopter. It has a low silhouette offering a smaller target and is capable of operating into smaller landing zones than larger helicopters such as the Vertol CH-47 and Sikorsky CH-54.

All Army UH-1s are outfitted with a movable M-60 7.62-mm. machine gun at each side door manned by a crew chief and a gunner. Most are fitted with standard seat kit armor plating providing protection behind, under and on the side of pilot and copilot.

Steel chest plates for crewmen are coming into wider use, but Army officials would like to see more armor plating installed in the chin of the helicopter since hits frequently are taken during the nose-high flare coming into a landing zone. Additional armor, however, would further reduce the payload which already is under the design goal because of high density altitudes.

Total weight of armor protection for 1st Cavalry Div. UH-1D, for example, is about 500 lb., including 169 lb. per seat kit for pilot and copilot, 28 lb. per steel plate under crew chief and gunner seats, 17 lb. per steel breast plate and 10 lb. per flack jacket.

Other types of Army helicopters in Vietnam include the Bell OH-13 utility vehicle, the Boeing-Vertol CH-47A for troops and logistics support, the Sikorsky CH-37B for recovery missions and the Sikorsky CH-54A Skycrane.

Army also has over 300 transport, utility and reconnaissance aircraft of the following types:

- Cessna O-1A and F fixed-pitch propeller light observation aircraft. Over 40% of Army aircraft in Vietnam are O-1s, mostly O-1Fs. These aircraft are used for reconnaissance, radio relay, providing directions to ground troops which become disoriented, artillery spotting, controlling air strikes and, "in a pinch," even as bombers. In the latter role, O-1s were used to carry two 125-lb. bombs, but the practice was dropped because of a severe change in pitch attitude of the heavily overweight aircraft after the bombs were dropped.
- De Havilland U-6A Beaver utility aircraft.
- De Havilland U-1A Otter utility, cargo and passenger aircraft.
- De Havilland CV-2B Caribou medium transport aircraft.
- Grumman OV-1 Mohawks.
- Beechcraft U-8D and F utility and command transports.

Top command level of Army aviation in Vietnam under the Military Assistance Command, Vietnam, (MACV) is the 12th Aviation Group located at Tan Son Nhut Air Base near Saigon. This unit oversees all Army aviation activity with the exception of the 1st Cavalry Div., including an aviation battalion in each of the four principal corps sectors.

Operational control of aircraft in each corps area, however, is delegated to the corps senior adviser, and during large maneuvers control is normally transferred to battlefield commanders.

Army's old organizational concept of assigning 99 aircraft to a battalion has not proved to be feasible in Vietnam, and almost all Army aviation units are organized into company size groups in the same way as Air Force and Marine Corps squadrons are organized. Army operates from 15 main airfields and numerous smaller fields.

direction," one pilot said. The best visual reconnaissance altitude is between 800 and 1,500 ft., a zone where small arms as well as automatic weapons are a hazard. The deterrent factor of armament for retaliation has cut down the incidence of ground fire over the past year.

• **Night photo capability** is highly limited because of the difficulty in navigating to pinpoint targets in darkness. Since good night photos have to be shot from altitudes of less than 1,500 ft. precise positioning capability, which the Mohawk does not have, is a necessity. A strobe device for night photography being developed by the Army was tested by the unit but was found unacceptable because of problems in the regeneration unit. A flashbulb-type arrangement, consisting of a synchronized flare ejector mounted on the upper inboard wing, is used for most night photo work now.

• **Mix of infrared, SLAR photo and visual reconnaissance** is indispensable in providing full information on enemy activity on a 24-hr. basis, although the most useful contributors have been radar and infrared surveillance. The photo equipment of the Mohawks is seldom used during visual reconnaissance except to take a picture of an un-

usual target for further study. Most photo missions are planned to obtain coverage of areas for future operations or check out targets detected by radar or infrared gear.

• **Cruise speed** of 180-190 kt. indicated air speed is twice as fast as Cessna O-1 aircraft, which cruise at about 90 kt. indicated air speed, permitting twice as much area to be covered. Army and Air Force both still fly O-1s for visual reconnaissance.

• **Twin-engine reliability** has resulted in lower combat losses than there would have been of a comparable single engine aircraft. Numerous cases occurred where one engine was shut down in flight, but no aircraft have been lost so far due to engine failure. In two examples where losses could have occurred, a fuel line was shot out by enemy fire and one engine caught on fire in flight requiring that it be shut down. In both cases the aircraft returned safely to base.

• **Crewmen are well protected** by armor plate under and behind the seat and up the side of the fuselage to the hatch. The aircraft also has a heavy bullet-proof glass windshield. No armor is used around the engines.

• **Maintenance of infrared equipment** has been a big problem because of lack

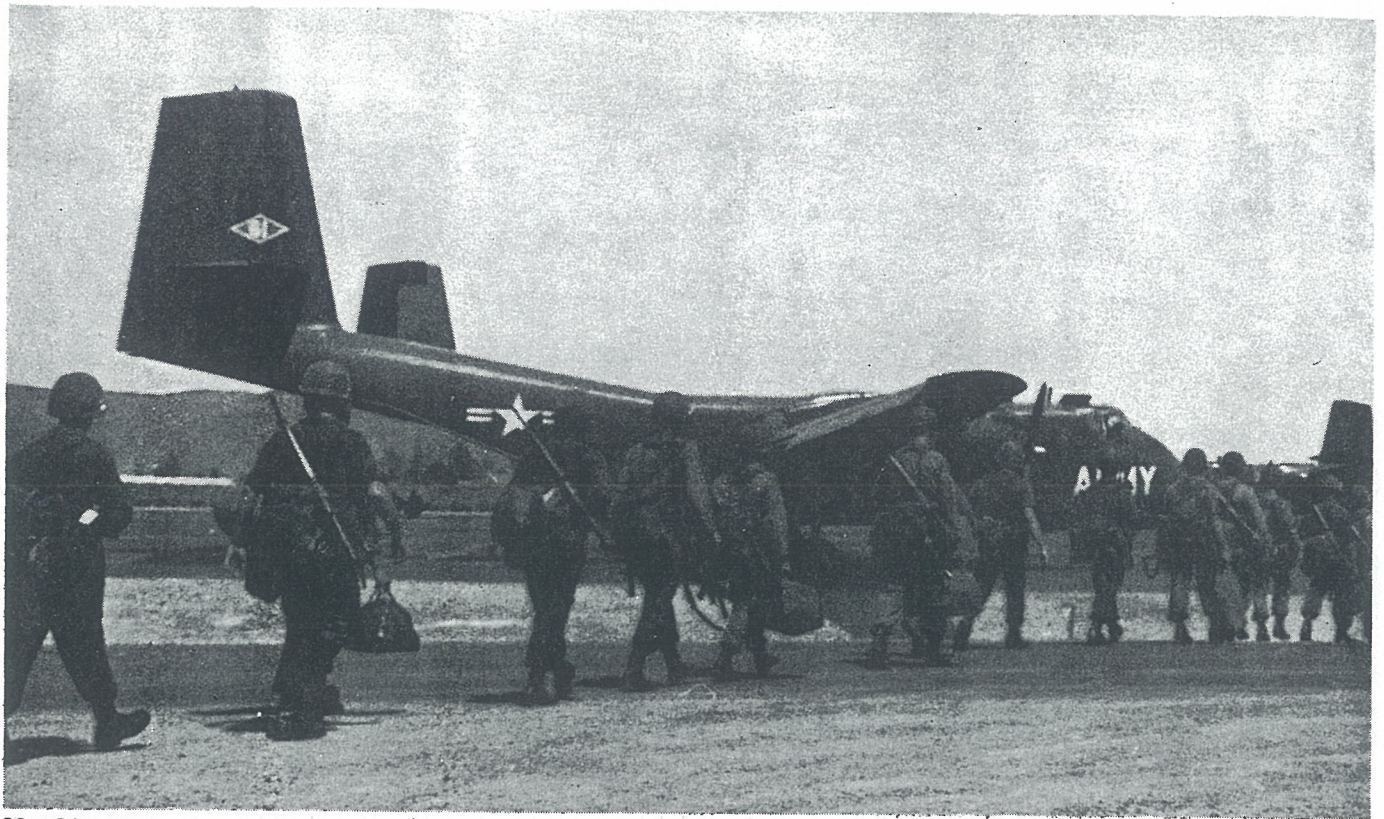
of spare parts, although a top priority is assigned.

• **Side-by-side ejection** is undesirable at low altitudes because after the first crewman ejects, the aircraft tends to cock to one side limiting apogee attainable during the second ejection sequence. Although the Martin-Baker seats have functioned properly, several crewmen have been killed during low-level ejections when they were last to leave the airplane as it tilted to one side.

• **In-commission rate** has averaged about 84%, but utilization over the past year has been less than desired. Number of hours flown/aircraft/month during last year was about 60, which is less than the 72 hr. desired by the Army. But the monthly average late last year had climbed to 82 hr./aircraft/month. A large amount of the down time was due to repair damage from small arms fire.

The 73rd is one of the only company-sized units in the Army having complete third level and partial fourth level maintenance with complete shops for hydraulics, metal repairs, paraloft, engines and electrical systems. Company personnel feel this concept has worked to the advantage of the unit by providing greater efficiency and speedier repair.

Army recently flew a third group of



1ST CAVALRY DIV. TROOPS board de Havilland of Canada CV-2B Caribou transports which airlifted them from Qui Nhon to An Khe. Caribous are proving valuable supplements to USAF's Fairchild C-123s and Lockheed C-130s, operating into shorter fields.

known as the rice bowl of Southeast Asia. At the present time no large U. S. units are stationed there, and officials are closely monitoring the Viet Cong activity in this key sector.

For surveillance and reconnaissance, the Mohawks have proved to be an excellent intelligence gathering tool, according to the pilots. Reports from other commanders confirm this.

Even the Viet Cong are said to be well aware of the value of the Mohawk and reportedly have a standing offer of 50,000 piasters (current U. S. exchange rate is 118 piasters for \$1) to any Viet Cong gunner who brings down a Mohawk.

In Viet Cong training areas, full-scale replicas of Mohawks and other U. S. aircraft have been built to familiarize troops with characteristics of the aircraft and improve marksmanship.

Elsewhere, U. S. commanders report that the Mohawk has been especially valuable in providing target information for USAF/Boeing B-52 raids. One of the primary tools for this is infrared surveillance.

Army and Air Force both use the capability of the SLAR aircraft to detect sampan and vehicle traffic moving at night during curfew hours in Project Snipe Hunt and Lightning Bug (AW & ST Jan. 31, p. 44) as a means of interdicting movement of troops and supplies.

The SLAR aircraft have worked with Navy coastal surveillance forces occa-

sionally to provide information on moving targets in specific sectors.

Marine Corps also has called on the Mohawks for surveillance, and they were used during the highly successful Operation Starlight last August to provide intelligence information.

Pilots of the Army's 73rd Aviation Co. here cite the following highlights

and deficiencies of the Mohawk operations in Vietnam:

- **Armament** has proved useful as a deterrent to ground fire. In situations where low ceilings exist, there have been cases where small arms fire could have denied access to certain areas, but "one of the quickest ways to make them quit firing is to cut off a rocket in their

Caribou Fills Valuable Role in Vietnam

Saigon—Army de Havilland CV-2B Caribou has been a valuable addition to the intratheater military airlift capability, which at times has run a full week behind in the scheduled movement of personnel.

There now are over 50 Caribous in Vietnam including a detachment of six belonging to the Royal Australian Air Force, stationed at Vung Tao, and three companies of Army Caribous.

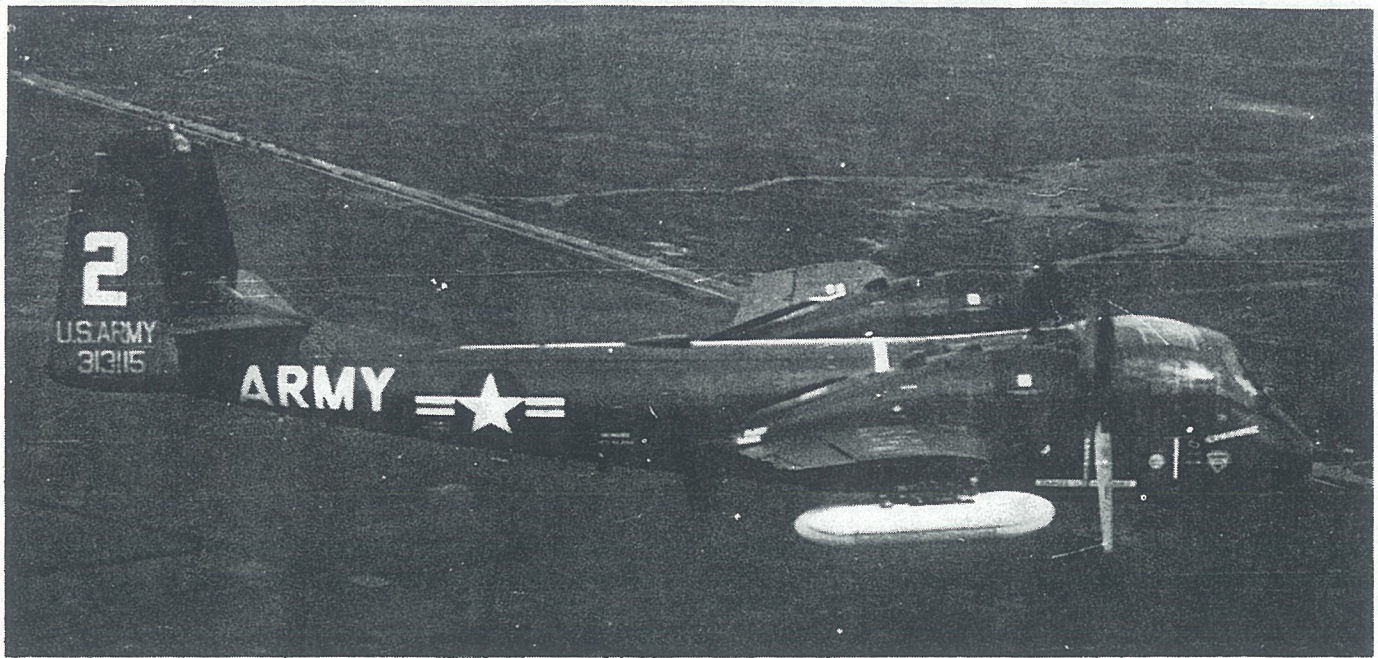
The excellent STOL characteristics of the Caribou permit operation into 1,250-ft. airstrips. Air Force has designated 30 fields in Vietnam as safe for CV-2B operation which are marginal for Fairchild C-123s, making the Caribous a valuable adjunct to the over-all airlift capability.

Air Force has designated 105 airfields as safe for C-123 operations, but only 31 airfields as safe for the heavier Lockheed C-130s, which has limited STOL capabilities.

About two-thirds of the several hundred outlying strips in South Vietnam are dirt or laterite (red clay-like soil which resists moisture), while the remainder are mainly pierced-steel planking and asphalt. Many of the fields are 2,000 ft. or less in length.

The Caribou carries a normal maximum payload of 6,000 lb. in South Vietnam, compared with about 10,000 lb. for the C-123. However, 1st Cavalry Div. Caribou are overloaded by 1,000 lb., bringing gross takeoff weight to 29,500 lb. when carrying two 500-gal. bags of fuel. Australian pilots report taking off with 4,000 lb. over normal gross takeoff weight when emergency conditions warrant.

Internal dimensions of the Caribou of 6x6x28 ft. are relatively small, however, limiting the size of payload packages. Low-level extraction (LOLEX) has been used only rarely.



JOV-1A FLYING OVER MEKONG DELTA of South Vietnam was photographed from another Mohawk during a visual and photographic search for Viet Cong targets in the area. The aircraft were armed with 2.75-in. rockets. Aviation Week & Space Technology's C. M. Plattner was at the controls of the aircraft shown in this photo. The Mohawks are based at Vung Tao.

equipped with a KA-30 camera. It has the following basic airframe changes from the OV-1A: a 3-ft. extension on each wing, speed brakes removed from each side of the fuselage, and leading edge slots removed. An autopilot also is installed. The 1,180-shp. Lycoming T-53-L7 turboprop engine is used in place of the original 960-shp. T-53-L3 engine on all other Mohawk models here. But the Mohawk still is underpowered in cruise and falls far short of the 300-kt. maximum cruise design speed Army would like to attain. The OV-1B has single controls on the pilot side. A SLAR operator sits on the right. • OV-1C equipped with an HRB-Singer infrared surveillance sensor for detection of enemy concentrations in tactical-size areas. Infrared, sometimes

called red haze, basically augments visual reconnaissance, permitting reconnaissance around the clock. It provides information on concentrations of Viet Cong, camp sites and other targets detectable from infrared energy emissions. The OV-1C is physically the same aircraft as the OV-1A and has a KA-30 camera. The only way to distinguish the two models is a small door located on the underside of the fuselage, which opens in flight to expose the infrared sensor. The OV-1C has single pilot controls and the systems operator sits in the right seat.

Mohawks have been in Vietnam since July, 1962, but until about 15 months ago only the visual and photo reconnaissance version was there with the 23rd Special Warfare Aviation De-

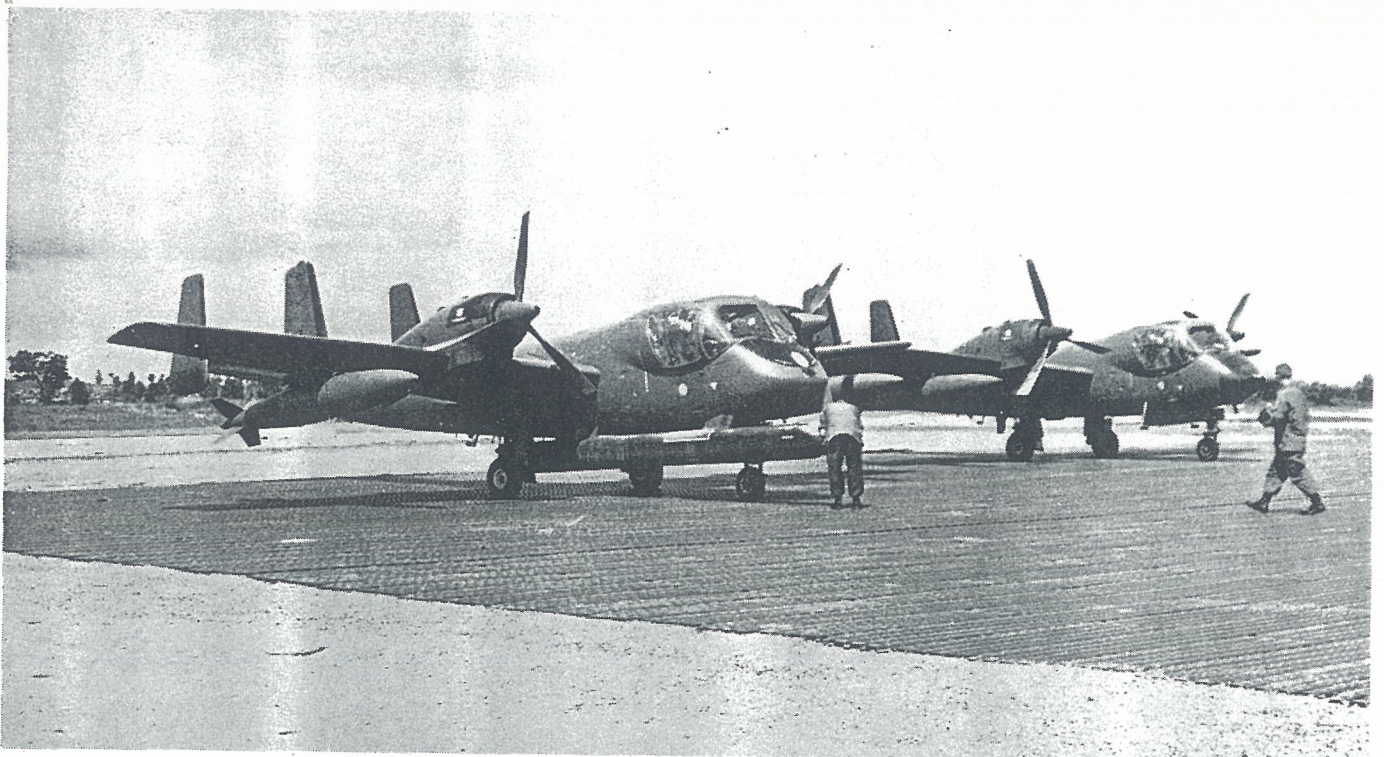
tachment. The 4th Aerial Surveillance and Target Acquisition Detachment arrived with B and C models in the fall of 1964. These two units were combined to form the 73rd Aerial Surveillance company in January, 1965.

The 73rd is under operational control of Military Assistance Command, Vietnam's (MACV) J-2 intelligence gathering unit, and missions flown are in response to requests by both the Army of the Republic of Vietnam (ARVN) and U. S. forces. Mohawks of the 73rd have operated in all four corps areas in support of large battles, but the bulk of the missions are flown in the fourth corps area in the Mekong Delta.

The Delta is a flat, lowland area with some 5,200 mi. of inland waterways, generally south and west of Saigon,



MOHAWK PARKED ON RAMP in South Vietnam is surrounded by barbed wire as a security measure. Other precautions include the use of expended rockets pods, stacked with sandbags piled on top. Note drop tanks on the ground nearby for quick attachment.



1ST CAVALRY DIV. MOHAWKS—OV-1B electronic surveillance aircraft at left and OV-1A photo and visual reconnaissance airplane at right—are shown parked on pierced steel planking ramp at An Khe. Ground crewman is finishing his checkout of Motorola side-looking airborne radar antenna on OV-1B, while pilot approaches from far right to begin his preflight checklist.

for special modification. The JOV-1As are the last remnant of the Army's excursion into the field of armed aircraft, which was terminated by the Defense Dept. last spring when the armed Mohawks of the experimental 11th Air Assault Div. were eliminated from the table of equipment for the 1st Cavalry Div. (Airmobile).

The models of Mohawks currently in use are:

- **JOV-1A** for visual and photographic reconnaissance. The aircraft is equipped with a Chicago Aerial Industries KA-30 internally mounted camera for oblique or vertical photography. The camera may be pointed either to the left or right of the aircraft at deflections of 15 and 30 deg., as well as straight down. The KA-30 is mounted in mid-fuselage. Some models also are equipped with the Fairchild KA-60 panoramic camera with a 180-deg. forward view mounted in the nose. The OV-1A has three pylons under each wing outboard of the propeller arc, a gunsight and wiring for conventional ordnance delivery. Normally, 150- or 300-gal. fuel tanks are slung under the inboard pylons for endurance and range. The outboard pylons carry a mix of rocket and machine gun pods. Dual controls are installed.

- **OV-1B** used for electronic surveillance of large areas. The B model is fitted with a Motorola side-looking airborne radar with in-flight processing and moving target information readout. The SLAR antenna is enclosed in a long glass-fiber pod slung under the right fuselage. The OV-1B also is



MOBILE SWITCHBOARD UNIT for telephone communications is set up on Special Forces airstrip during battle codenamed "Operation Masher." In background is Vertol Chinook.



ARMY/GRUMMAN OV-1 MOHAWK, in flight over Mckong Delta region, provides intelligence data for Army and USAF.

The War in Vietnam:

Mohawk Helps Confirm Army Air Concept

By C. M. Plattner

Vung Tao, Vietnam—War in Vietnam has enhanced the stature of Army aviation more than that of any other U.S. military aviation branch. It has won final approval for its concept of using helicopters in strength for increased troop mobility and established the usefulness of its specialized support aircraft for surveillance, close air support and STOL transport capability.

The characteristics of this guerrilla war have forced a heavy reliance on helicopters to provide an edge over the Viet Cong in mobility and surprise. The number of Army helicopters now in South Vietnam has climbed from approximately 400 last spring to over 1,200 (see box, p. 77) with a buildup to still higher levels in the offing.

While the helicopter always has been an accepted part of the Army aviation inventory, development of advanced aircraft by that service for specialized supporting roles has been questioned repeatedly in the past by Air Force and Defense Dept.

In the roles and missions battle with the Air Force, the Army has for at least the present established the usefulness and necessity of specialized aircraft and helicopters in the following areas:

- **Surveillance and target acquisition.** This role is handled by the Grumman OV-1 Mohawk and includes capabilities in armed reconnaissance and infrared and radar surveillance. Usefulness of the Mohawk in Vietnam is borne out

by the widespread use of the intelligence it provides by both the Air Force and Army. An advanced surveillance and target acquisition aircraft is one of the Army's long-range goals. Numerous studies and proposals have been elicited from industry for the past several years on such an aircraft. A program definition phase has not yet begun, however.

- **Medium transport aircraft with STOL capability.** The de Havilland CV-2B Caribou has proved to be a useful supplement to USAF's heavily worked logistics fleet of Fairchild C-123s and Lockheed C-130s and is capable of operating into shorter fields than either of these aircraft. Experience has shown that the lighter CV-2B also does not tear up the runways as quickly as the heavier Air Force aircraft (see box p. 75 and AW&ST May 31, 1965, p. 78).

- **Armed helicopters** for close support and interdiction. The once-hot debate over the need for specialized armed helicopters supporting ground troops,

a concept pioneered by Army, has been settled in favor of the armed helicopter. In reality, it was decided when the Defense Dept. determined the mix for Army air mobility divisions (AW&ST Jan. 10, p. 29). The armed Bell UH-1Bs now in Vietnam, although slow and overweight due to the armament, have filled the gap between higher speed and less agile close-support aircraft. The UH-1s operate in about the same speed range as troop-lift helicopters, at lower altitudes in poorer weather than aircraft and where targets can be acquired and immediate counterfire returned (AW&ST Apr. 26, 1965, p. 28 and May 31, 1965, p. 68). An advanced aerial fire support system (AAFSS) is being developed as a replacement for the armed UH-1 helicopter (AW&ST Nov. 15, 1965, p. 34).

Principal site of the Army's Mohawk operation is Vung Tao airfield located 35 mi. southeast of Saigon at a former seaside resort area. The 73rd Aerial Surveillance Co. here, flying all three basic models of the Mohawk, helped refine and confirm the reconnaissance and surveillance techniques now used. This includes the valuable capability of real-time readout of moving targets on sidelooking airborne radar (SLAR).

The 73rd also conducts armed reconnaissance missions with one model of the Mohawk, the JOV-1A, J standing