Not everyone in the Army is as air minded as the members of the Howze Board. The high cost of air-assault divisions must be weighed against other weapon systems that could be bought with the airborne dollar. Here's a good rundown on the conflicting concepts involved—in which the Air Force has a big stake . . .

AIR CONCEPTS ON A COLLISION COURSE?

By Sheridan Stuart

LTHOUGH aviation offers the only feasible solution to the Army's problems of mobility in the battle area, the Army is reluctant to adopt it wholeheartedly as a substitute for conventional transportation methods." This sentence was one of the many similar ones in a stinging memorandum prepared in the Office of the Department of Defense, Comptroller, and sent to then-Secretary of the Army Elvis Stahr, Jr., on January 24, 1962.

Whether it was the power of the words or the power of office that the newcomers found so heady in the early years of the New Frontier, the memorandum set off a series of events that is still in motion, most noticeably at this time at Eglin AFB, Fla., where Tactical Air Command is conducting a series of tests with an Army infantry division, and in Georgia and South Carolina, where the Army is experimenting with a radically new type of fighting unit built around helicopters used for transportation and close-in fire support.

At Eglin the Tactical Air Command has formed a Tactical Air Warfare Center (TAWC) and has assigned to it fighter, reconnaissance, and assault airlift elements, plus communications and control units. Working with TAWC is the Army's 1st Infantry Division, moved onto the Florida air base from its home station, Fort Riley, Kan.

In the Great Pee Dee River valley of South Carolina, the Army's experimental 11th Air Assault Divi-

sion, stationed at Fort Benning, Ga., has been engaged in field-testing the advanced concepts proposed in 1962 by the Army's Howze Board.

The basic concepts underlying these two test organizations involve significant differences. The way the tests come out and the decisions made on them by the two services and the Department of Defense may well have a lasting influence on the Army and Air Force and the progress of unification.

The TAWC tests at Eglin, known as "Indian River," are based on the concept that a combination of the standard infantry division and Air Force fighters, reconnaissance, and airlift units, teamed together in a cohesive command, can exert greater firepower, provide more mobility, and have greater staying power in battle than any other grouping of ground and air units. The concept envisages full use of the 100-odd aircraft, mostly helicopters, now organic to the standard infantry division, and it acknowledges that improvements in command-and-control methods, tactics, and organization are possible. That, in short, is the purpose of the tests—to determine where improvements are needed and what they should be.

The Howze Board concept is based on the belief that the massive increments of firepower, both conventional and nuclear, that have come along since the end of the second World War have created a dangerous imbalance between firepower and mobility and that ground armies today face somewhat the same Sheridan Stuart is the nom de plume of a veteran commentator on military affairs. He tells us his first airplane flight was from Mitchel Field, Long Island, to Langley Field, Va., in an Army Air Corps trimotor Fokker. That was in 1932, and both he and his pilot wore brown suits. Exactly twenty-two years later he rode his first jet at Eglin AFB, Fla. He describes himself as open minded but a little prejudiced—in favor of the "old Army."

situation as did those on the Western Front in the first World War when artillery and machine-gun fire forced the armies into the trenches. As the Howze Board saw it, this imbalance could be righted only by substituting air vehicles for many of the Army's trucks and carriers, airborne gun and rocket platforms for some of its artillery, and resupply through the air rather than over the ground. The concept holds that these air vehicles must be immediately responsive to subordinate commanders on the ground and must therefore be organic to the Army. The concept acknowledges that the land battle will be fought under an umbrella of tactical air command interceptor aircraft that will keep the enemy's air off the back of the ground army and that the ground army will depend upon the USAF for air logistical support up to the field army's rear bases. It expects the USAF to provide deep" reconnaissance but wants its own organic air vehicles (manned and drones) for surveillance of enemy activities in the battle area.

(It is helpful in this regard to remember that the Army thinks it highly unlikely that future ground battles will be fought with divisions stretched out along a line as in the second World War and in Korea. Rather, it expects deep penetrations of separated and isolated units of battalion size or smaller, set up in defended pockets or perimeters with the intervening ground covered by artillery fire or armed aircraft.)

In addition to the differing concepts of the two tests, there are interesting differences in the way they are being conducted. The TAWC series of tests now going on at Eglin AFB are preparatory to later tests, to be conducted this fall under the code name of "Gold Fire I." These tests will be measured and

tests, to be conducted this fall under the code name of "Gold Fire I." These tests will be measured and

Cessna O-1E liaison and observation plane has been widely used by Army. It's a direct development from the artility spotters used during World War II. The O-1E now is seing replaced by the new light observation helicopters.

evaluated by Strike Command which will report the results to the Joint Chiefs of Staff and the Department of Defense.

The present and scheduled future series of tests of the 11th Air Assault Division are unilateral tests by the Army and will not be evaluated by Strike Command. The Army has set up its own Test, Evaluation, and Control Group which will report to the Army Chief of Staff. This is because the Army says it does not know at this time whether the concepts are sound, how far it may want to go with them, or the form of organization and types of air vehicles it may need. That the Army should take this stance is understandable. The air-assault concept is much more radical than the concepts being tested by TAWC, which have been more or less standard doctrine since the early 1940s.

Within the Army there is much debate about the feasibility of many of the Howze Board concepts. A look at the background of the Howze Board, how it came about, what it recommended, and some events since is revealing, but first it should be said that no one in the Army questions the kind or amount of support the 11th Air Assault Division has received. "The Army staff, from General Wheeler down, and whatever the individual opinions of the members, have given the division everything it needs to conduct a fair and unbiased test," an officer in a position to know has said.

The Howze Board owes its genesis to the DoD experts, who got, so the story goes, moral suasion from some rather junior Army officers who knew what they wanted and where the power was. Up until the winter of 1961-62 the Army had thought it was doing pretty well in what it calls Army Aviation. From the Piper Cubs it used as artillery spotting aircraft in the second World War to the H-13 helicopters it found so valuable as command and reconnaissance vehicles and to evacuate the wounded out of the mountains of Korea, Army Aviation had grown until by 1960 it had some 6,000 rated officers.

A year or two before that the Rogers Board (for Lt. Gen. Gordon B. Rogers, then Deputy Commanding General, Continental Army Command) had been (Continued on following page)



One of the Army's earlier helicopters was the Bell H-13. This machine was a workhorse during the Korean War, serving both as an observation and command vehicle and for the evacuation of wounded. Photo shows the "H" model.

convened to determine what types and kinds of aircraft the Army should concentrate on. This was considered necessary because of the growing number of types of rotary- and fixed-winged aircraft it was looking at. This Board recommended concentration on four kinds of helicopters and three fixed-wing aircraft, and these today constitute the Army aircraft program. They are:

Light observation helicopter. A new LOH is to be chosen from a competition now going on among the Bell OH-4A, the Hiller OH-5A, and the Hughes OH-6A. The chosen vehicle will replace the Bell OH-13, the Hiller OH-23, and the Cessna O-1E.

Utility/tactical transport helicopter. The standard vehicle is the Bell UH-1D Iroquois, now in wide use in Vietnam and elsewhere. It is replacing the U-6A, UH-19, CH-34, and CH-21.

Transport helicopter. The standard is Vertol's CH-47A Chinook, a twin-turbine transport that is designed to handle the same three-ton loads (or thirty-two armed soldiers) as the de Havilland CV-2 Caribou (see below).

Aerial crane. A vehicle remains to be chosen. One now being tested is the Sikorsky CH-54A. An air vehicle that is capable of lifting ten to twelve tons is desired.

Combat surveillance aircraft. The Grumman OV-1C Mohawk, a rugged STOL aircraft, carries a variety of cameras and sensor equipment. One version of this carries rockets and bombs and can be used as a close-support weapon.

Transport aircraft. The de Havilland CV-2 Caribou is a short-take-off-and-landing aircraft that can handle the same loads as the Chinook helicopter mentioned above.

Utility transport aircraft. This is the Beech U-8F, an off-the-shelf commercial job.

When in the winter of 1961-62 the newcomers in the office of the DoD Comptroller saw the Army's shopping list based on these aircraft, and the justification for them, they shot off the memorandum to then-Secretary Stahr.

The memorandum noted a lack of "qualitative or quantitative justification" for the requirements set forth. It observed that the Army "appears plagued by reticence to substitute new equipment and concepts for those types which have proven reliable in former years, despite the fact that it pays lip-service to principles that are feasible only if it departs from existing equipment and concepts."

The "ambivalence"—it used the word—in the Army's approach to organic aviation had to be met head on, the memorandum stated. The problem of substituting new weapons or equipment for old is not new, it said. It recalled that in 1936, when the Army increased the number of motor vehicles in the infantry division to 250, many senior officers thought it was being overdone. And yet, "in less than ten years the US increased tenfold the number of motor vehicles in its infantry division."

Finally the memorandum stated that "the entire airlift picture must be reviewed with regard to those requirements that can be met by organic Army aircraft, and those requirements that can be met by Air Force aircraft operated in support of the US Army."

The memorandum established these criteria:

- "1. The Army should have full-time use for the aircraft.
- "2. The aircraft should be suitable, performancewise, for inclusion in Army units and be compatible with Army support capabilities.

"3. The mission the aircraft performs must require close coordination with Army activities."

The memorandum went on to specify that USAF aircraft would support the Army when these conditions exist:

"1. The Army requirement is a part-time or variable requirement, and the aircraft can be used to meet other service requirements when not supporting the Army or to render a strategic airlift role.

"2. The aircraft has characteristics that require special or extensive support facilities not normally found in the Army."

The Army staff's response to this memorandum was predictable. It didn't like it. The Army was doing all right in its aviation program. There were other things of equal or of more importance—a new main battle tank, improved armored carriers, and self-propelled artillery, for instance—and the Army's answer wasn't at all satisfactory to DoD.

Just exactly what happened at this point isn't really clear. But it appears that a few of the Army's pro-air officers (colonels and younger generals) on duty in Washington made contact with the right people in DoD and persuaded them of the need for a thorough study of the whole subject of air mobility as it affected the Army.

The result was a lengthy directive to the Army to set up a Tactical Mobility Requirements Board that would seek answers to the many questions the directive then asked. The essence of the questions added up to this one: "To what extent may aircraft be properly substituted for ground vehicles to provide combat and logistical mobility for the Army?" This was in early spring, and a deadline of September 1 was set for the report to be received.

The directive contained one unusual paragraph. To make certain the Board wasn't loaded with nonenthusiasts who would find everything fine as it was, there was a paragraph to the effect that the personnel of the Board should consist of forward-facing officers, capable of looking a new idea in the face without blanching. The directive then listed the names of a half dozen or so general officers who, it was suggested, would make excellent members. Among the names was that of Lt. Gen. Hamilton H. Howze, then Commanding General of the Strategic Army Corps at Fort Bragg, N. C. A rated pilot, General Howze had served a hitch as Director of Army Aviation on the Army General Staff.

This was the kind of action, of course, that earned for the New Frontiersmen the reputation of being meddlers in military affairs of no concern to them. There was muted anger in the General Staff at this affront but no open rebellion. Whatever his private thoughts,

(Continued on page 38)

-ARMY'S LIGHT OBSERVATION HELICOPTERS-





Hughes OH-6A

Hiller OH-5A

UTILITY/TACTICAL TRANSPORT HELICOPTERS-







Sikorsky UH-19



Vertol CH-21



Sikorsky CH-34

TRANSPORT HELICOPTER AND AERIAL CRANE-



Vertol CH-47A Chinook



Sikorsky CH-54A Skycrane



Skycrane unloaded

COMBAT SURVEILLANCE AND TRANSPORT AIRCRAFT-



Grumman OV-1C Mohawk and armament



De Havilland CV-2 Caribou

the Chief of Staff, Gen. George H. Decker, a calm and tolerant man, insisted on compliance with the directive in spirit and letter, and the officers detailed to what became known as the Howze Board were by general agreement the best the Army had available. Interestingly enough, only four of the fourteen senior members were rated pilots.

The three months the Howze Board had to do its work were hardly enough, but its performance was, nevertheless, adequate if not tremendous. The Board's final report has never been made public, but the essentials have been. The involvement of USAF was minimal, although the directive had specified that the Board would take into consideration the contributions the Air Force could make to Army mobility.

The principal recommendations were for the forma-

tion of two types of units:

1. An air-assault division that would substitute so far as possible aircraft for motor transportation and aerial firepower for artillery. The recommended division would have 459 fixed- and rotary-winged aircraft. There would be a decrease in motor vehicles from the 3,200 of the standard infantry division to 1,150.

2. An air-transport brigade that would resupply the assault forces. The aircraft would consist principally of some 160 Caribou fixed-wing aircraft and Chinook helicopters. It would be able to pick up a daily tonnage of 800 tons from USAF cargo planes at rear bases and deliver it to forward elements of the airassault division.

The Board acknowledged that there were difficult questions of air-traffic control of so many aircraft (plus USAF aircraft) in a division area; of fuel requirements for such an air fleet (estimated by the airassault division at 440 tons for each day of combat); of operations in nonflyable weather and at night; and of survivability of helicopters in a combat environment.

It fielded these problems as best it could and suggested that further testing and experimentation was in order.

The high cost of an air-assault division in comparison with other types of divisions was also a factor considered by the Board. Only recently Brig. Gen.

Army Gen. Hamilton Howze, now UN Commander in Korea, headed Army air studies that bear his name and which were spurred by Department of Defense for new Army ideas.





Above, left, Gen. Gabriel P. Disosway, USAF, who, as Air Staff Director of Programs and Requirements, studied Howze Board proposals. Above, right, Gen. Earle G. Wheeler, USA, now Chairman of the Joint Chiefs of Staff, who has insisted that air mobility be kept in ground combat context.

John J. Tolson, the current Director of Army Aviation, estimated the cost of initial equipment and five years of operations of an air-assault division would be \$1.05 billion. He said the comparable figure for an infantry division was \$806 million, and for an armored division about \$970 million.

It wasn't until after the Howze Board report had been delivered to the Department of Defense that the Air Force was able to inject its knowledge of air warfare into the picture. Gen. Gabriel P. Disosway, then Director of Programs and Requirements of the Air Staff, who made a study of the proposals, summarized for the press what can be assumed to be the Air Force view of the Howze Board report:

"We think that the Howze Board has some very good ideas in it. Certainly we are not opposed to the Army being more mobile. . . . We think that the Howze Board did not take into consideration the full capabilities of the Air Force. Certainly in the close-support role, the reconnaissance role, the assault-landing phase, and the research-and-development phase, we think it needs more looking into."

This statement brings out the essential differences dividing the two services. The several elements mentioned by General Disosway deserve a little further development:

Close support. The Air Force believes the present system, which was developed during the second World War, is effective though improvements can be made. and this is what it is looking for in the Indian River tests. The Army, on the other hand, has never been completely happy with the lack of direct control of air by the ground commander being supported. And it is also skeptical of the ability of high-performance jet fighter aircraft to throttle down sufficiently to see and hit fleeting ground targets. The Air Force for its part is highly skeptical of the ability of piston-powered fighter aircraft and armed rotary-winged aircraft to survive in a modern hostile air environment. The arming of the Mohawk OV-1C with bombs and rockets for close support is considered by the Air Force to be a direct intrusion into its close-support role.

Reconnaissance role. The theory behind the devel-

opment of the Mohawk OV-1C is that its STOL capabilities would provide a reconnaissance aircraft that could land and take off in combat areas and thus be able to deliver timely intelligence to battle groups and battalions in far less time than it takes to transmit the information from the improved strips in rear areas that fast-flying Air Force reconnaissance aircraft require. Eventually this problem may be solved by effective and reliable drones, but until then it is likely to remain a bone of contention.

Assault landing. Here the Air Force position seems be have been somewhat modified. For example, Maj. Gen. Gilbert L. Meyers, the Commander of the Eglin AFB tests, recently stated that "carrying the fight to the enemy through utilization of helicopter-borne forces" is a concept that "has merit" in the opinion of the Air Force. There remain acute differences of opinion over the capabilities of the helicopter armed with rockets and machine guns as a close-support weapon. The USAF is skeptical of its survivability and believes that its fighter-bombers can do a better job. General Disosway has said that "all that you have to do is see it, and then you can hit it." He was speaking of the use of the F-4C as a close-in support craft. General Meyers has said: "We believe that helicopters will prove effective for forward and lateral force movements within the area controlled by friendv forces, though helicopter assault into enemy territory poses vastly different problems."

An Army program for the development of an aerial fire-support system has lagged because of the inability to develop helicopters with cruising speeds of 190 knots and dash speeds of about 225 knots. This has been a state-of-the-art limitation but recent progress in compound helicopters has revived interest in the possibilities, and the Army now has several development contracts looking toward the eventual procurement of a weapons helicopter that will be able to provide troop-carrying helicopters with close-in

fire support.

Logistical support. As the Howze Board saw the problem, the Army Caribou CV-2 STOL transports would pick up supplies from C-141 or C-130 aircraft at rear bases and fly them as far forward as possible. Here they would be transshipped if necessary in the Chinook CH-47A helicopter which would land them far forward combat areas. The Air Force on its part questions the need for the Caribou. It believes that rugged C-130 can do the job just as well. The ndian River tests will seek to prove this. In these tests, General Meyers has said, "The C-130 will be utilized to make long- and short-haul deliveries of beavy and light loads, utilizing primitive and short irfields throughout the combat zone. . . . The C-130 will be used to the full extent of its capabilities and dditional distribution by helicopters will be over atremely short-haul distances in the most forward

The air of sweet reasonableness in the current Air Force view of the Army's efforts in air mobility is satisfied. The differences between the two services can be reconciled to the advantage of both. This will not be easy, given the years of neglect when the

problem was debated, but nothing like the present testing and experimentation has previously been attempted.

A more pressing concern is the attitude of the Army itself. The Army is anything but monolithic in its position on air mobility. There is stubborn opposition to the whole concept by men who believe that soldiers are made to walk and carry rifles and bayonets and anything else is so much froth. There are those who see in the growth of Army aviation a threat to other weapon systems. A few veteran paratroopers, who would rather jump from a C-130 than ride in a helicopter, are disdainful, but most of this kind of opposition comes from those who see a threat to armor. What frets these men most is the suggestion in the Howze Board report that the proper balance of a sixteen-division Army (the present force) would provide for five air-assault divisions. Two of these five would be the present airborne divisions, but the other three represented a threat to the four armored divisions. Allied impetus to this kind of thinking is the insistence of the Defense Department that if the Army decides to go air assault it will have to reduce some of its other programs. And where better, some air enthusiasts say, than in the expensive tank and armored personnel carrier programs? Gen. Earle G. Wheeler, then-Army Chief of Staff, and recently named Chairman of the Joint Chiefs of Staff, countered this point of view in a speech before the US Armor Asso-

". . . I insist that the doctrinal and field tests keep air mobility in a ground combat context. As I see it the decision in any combat action still depends upon exploiting firepower and mobility in proper combination and relationship. Mobility, as such, can make only a minor contribution to the decision if its relationship to firepower is unbalanced.

"My point is that as the Army develops in this decade, I am anxious to keep practical aspects foremost. The demands upon us are many. Our resources, as generous as they may appear to be, are in fact limited. . . . This is why I insist that combat effectiveness and our mission of prompt and sustained combat

on land receive our priority attention."

In the view of some insiders, this was considered a slap at air assault and a pat on the back for armor. Some of General Wheeler's closest advisers on the Army Staff seem to hold a similar view. This has disturbed supporters of air assault, possibly needlessly because they are unable, as they acknowledge, to pinpoint any reluctance to deprive the experimental air-assault division of any necessary resources.

To estimate this situation is to border on psychological analysis, and perhaps it is best to drop it with a repetition of the statement that the Army's present views on the Howze Board proposals are not monolithic. Perhaps the breakthrough will come, if it comes, when the new Chief of Staff, Gen. Harold K. Johnson, becomes convinced that the air-assault tests have indeed proven the Howze Board assertions. One of General Johnson's favorite expressions, we are told, is a challenging, "prove the assertion." In air assault this remains to be done.—End