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Carter, J. Franklin
Jan. 1945

PSF J. F. Carter folder 3-45

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January 2, 1945.

REPORT ON MILITARY INTELLIGENCE, G-2, U.S.ARMY.

In view of the fact that the recent German offensive effected surprise, and in view of the criticism of our military intelligence on this score, I feel justified in submitting the attached report, which notes three specific points in which General Bissell seems to be subject to criticism. If there is any review made of the status, responsibilities and record of G-2, this report might be of some value.

Yours,

J.F.C.

December 27, 1944

MILITARY INTELLIGENCE, G-2, U.S. ARMY

Reliable reports indicate that the present policies of Major General Clayton Bissell are resulting in the shrinkage of military intelligence activity necessary to the conduct of the war.

One case in point, it is stated, is the disbanding some months ago of a valuable team of competent Japanese translators, including American citizens, from the New York office of the Military Intelligence Service. This action was taken despite the fact that the past and present backlog of captured Japanese documents plus the continual influx of such material would require many months of translation work. It is now reported that the New York office will be completely closed on December 31, 1944.

It is further reported that General Bissell's policies have resulted in bringing geographical research and cartography on Central and South America (desirable in itself and especially valuable for intelligence reasons) to a virtual standstill.

It is also stated that under General Bissell's orders several tons of maps, documents, and records were destroyed by burning in New York and Miami.

In view of the prominent position which must necessarily be assumed by the United States in war and

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peace, it is recommended that immediate steps be taken by the Chief of Staff to reorganize the military intelligence to meet future needs. In this connection it is recommended that special steps be taken to bring about better coördination of the intelligence activities of G-2, Office of Naval Intelligence, and Air Intelligence.

It is suggested also that consideration be given to a personnel policy of selection on the basis of useful background and aptitude (without regard for regular or reserve status) and promotions on the basis of merit.

It is also recommended that OSS intelligence personnel be utilized chiefly in contact with Allied intelligence operations in order that demobilization may deprive foreign intelligence of knowledge of our basic military intelligence methods and personnel.

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January 2, 1945.

MEMORANDUM FOR MISS TULLY: REPORT ON NAZI PENETRATION IN ARGENTINA.

Dear Miss Tully:

The attached Technical Series Report No. 31, on "Nazi Penetration in Argentina", probably contains nothing which is not already known to the State Department and F.E.A. However, it seems best to pass it along on the chance that it may have some confirmatory data of interest to ~~th~~ the State Department.

J.F.C.

Technical Series Report No. 31

December 29, 1944

NAZI PENETRATION IN ARGENTINA

It is reported that Fritz Mandel, former Zaharoff associate, has matched $25,000,000 with the Hermann Goering group to build a $50,000,000 Argentine munitions industry. It is further reported that Thyssen, the German steel magnate, is in Argentina and operating with this group.

Further, it is stated that these men and other associates are the direct backers of the Farrell regime in Argentina and are paralleling the political and economic strategy of that country with that adopted by the Nazis in Austria through Prince Starhemberg.

It is stated that arms are flowing into Argentina through Venezuelan intermediaries.

It is also reported that an export operation utilizing bromides manufactured in the United States through Sterling Products or a subsidiary thereof is connected with the above group. These bromides are exported to Argentina, thence to Lisbon, with prices marked up successively from $4.00 to $6.00, with a $24.00 market in Lisbon.

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January 2, 1945.

INTERIM REPORT ON TREASURY POLICY REGARDING ARMY PAY IN FRANCE.

Yesterday afternoon I had a short talk with Secretary Morgenthau and showed him my recent report on the alleged relationship between recent supply problems in France and the policy of restricting the amount of French exchange available to American troops in France. The attempt to protect the French economy by paying American troops in currency available for return to the United States but not for the traditional purposes of wine, women and souvenirs in leave-areas is believed to have caused much of the Black Market sales of American Army supplies.

Mr. Morgenthau said that the Treasury policy had been jointly arrived at in cooperation with the War Department and the State Department and that, if it was creating difficulties, he felt that it should be reconsidered on the representation of Secretary Stimson.

My suggestion is that Mr. Stimson might appropriately be given a brief report on the alleged problem involved and, if he finds it to be substantially correct and if the problem constitutes a military difficulty, should consider taking it up with Mr. Stettinius and Mr. Morgenthau.

My guess--and it is only a guess--is that the Army personnel recently convicted of black market sales in Paris have been using Army goods to get francs at Black Market values and then have been reselling the francs for "occupation dollars" to American army personnel on leave in Paris and seeking diversions less austere than those supplied by the U.S.O. and trips through the Louvre.

J.F.C.

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January 2, 1945.

INTERIM REPORT ON V-WEAPON COORDINATION.

As instructed, I saw Dr. Vannevar Bush about the question of coordinating the V-weapon program. My net impression is that, under the present policies of the OSRD, this program and other technical projects will continue to operate on a competitive basis between government bureaus and industrial pressure groups. It is not so much a question of lack of authority for OSRD as it is reluctance to run the risk of inhibiting private initiative, service rivalries etc. In this situation, the OSRD operates as a safety valve rather than as a positive coordinating agency for technical development.

J.F.C.

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January 2, 1945.

REPORT ON INDUSTRIAL INTELLIGENCE SERVICE PROBLEMS.

Donald Keyes, director of WPB Research and Development, tells me that the present plans for developing Industrial Intelligence operations in liberated and Axis territory, are progressing well so far as personnel is concerned but are stalled in other particulars.

He recommends that the Office of Strategic Services be authorized by the Joint Chiefs of Staff to undertake the job, with centralized authority, accounting and overhead management, which are now lacking in what amounts to an interdepartmental intelligence committee under G2.

I understand that Bill Donovan is quite willing to undertake the job but does not wish to stick his neck out and ask for it.

My recommendation is that you call Donovan and Keyes in and get them to work out the sort of overall authorization which is required to do this highly specialized job. The estimated cost of the European end of the operation is less than $5,000,000.

J.F.C.

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~~CARTER~~

January 2, 1944.

REPORT ON THE B-3 ENGINE.

Here is another of these engine-problems.

This one is the B-3 heavy-duty engine developed experimentally by the War Production Board Research and Development for use in submarines, trucks, transport planes.

Its chief merit is that it sharply reduces fuel consumption, having an estimated fuel efficiency of 38-40% according to the Army Air Forces, upward of 45% according to other independent engineers, as against maximum present gasoline engine efficiency of 31%. This means a reduction in fuel consumption or increased range of between 25 and 50%.

I understand that Commander Kleinschmidt of the Navy Bureau of Ships is fully convinced of its desirability and that Mr. E.J.Early, Special Assistant to WP.B.Chairman Krug,is best qualified to give all available data. Development work on the B-3, conducted by the Research Corporation of New York at Bound Brook, New Jersey, was discontinued last August. What is needed is an endorsement by either Army or Navy which would permit the work to be completed. Estimated time is six months and estimated costs are $50,000. Under present directives, the WPB does not feel justified in completing the engine with government funds unless Army or Navy state that they wish it done.

J.F.C.

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January 2, 1945.

MEMORANDUM FOR MISS TULLY: INTERIM REPORT ON "SKYHOOK" AERIAL DELIVERY CONTAINER.

Dear Miss Tully:

This report (Technical Series No. 14) on "Skyhook" Aerial Delivery Container raises an issue of possible interest to the Army Air Forces. This type of container can be used to drop packages up to a weight of 50 lbs, without parachutes, and has the advantage of being unobtrusive and also of being more accurate. Procurement, except on an experimental basis, has been nil, because they can be used only with planes which have a bomb bay release. Well, why not use them in bomb bay releases? If they are otherwise satisfactory, I would assume that it would be possible to deliver supplies to isolated units by bombers rather than deprive ourselves entirely of the device. The favorite Army gambit it to assert that any new device would require a complete redesign and reequipment of the entire army. This seems to be a case in point.

J.F.C.

Technical Series Report No. 14

January 1, 1945

"SKYHOOK" AERIAL DELIVERY CONTAINER

Previous reports under similar title dated August 17, 1944, and October 10, 1944, respectively, advised that a "free-falling" aerial delivery container capable of delivering about fifty pounds of supplies without the use of a parachute attachment had been developed.

It is now reported that after six months or more of effort to secure the utilization of this device only 100 such containers have been manufactured and these only for "additional testing."

It is now stated that the delay is due to the Air Forces attitude that, unless a launching chute can be devised so that the container can be easily launched from aircraft having no bomb bay doors in the under part of the fuselage, procurement should not be initiated. This attitude, it is stated, completely overlooks the urgent need of such free-falling devices for the aerial delivery of supplies from military aircraft equipped with bomb bay doors.

In order, therefore, to expedite the availability of a type of free-falling container allowing unobtrusive aerial delivery to troops, isolated partisans, or natives it is recommended that the Office of the Chief of Staff review the status of this device and make recommendations as to its usefulness and the desirability of procurement.

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Told him to take up with State Secy Grew in about it Jan 8

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January 4, 1945.

CABLE FROM PUTZI HANFSTAENGL.

The attached cable from Putzi doubtless refers to his hope that his former wife may be permitted to send him the $100 requested. His earlier request was for funds based on the sale of the piano at Bush Hill. At the time, I was advised by the Army that the suggestion was contrary to the Alien Property Act. Please advise me as to what action, if any, you desire me to take.

In this connection, the British Embassy has steadily refused to accept Putzi's clothing and papers, in the absence of instructions from the Foreign Office. I was informally told that probably the official British position would be that this Government ought to make itself responsible for any charges etc. involved in returning Putzi's ~~property~~ personal effects. In light of current political tension and criticism I have not made any issue over this attitude, except to repeat that I am instructed to turn the things over to the Embassy and to divest myself of any further responsibility or expense in connection with the effects of a British civilian prisoner of war.

J.F.C.

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3-45

THE WHITE HOUSE
WASHINGTON

January 11, 1945.

MEMORANDUM FOR

GENERAL WATSON:

Let the Army see this report and then return for my files.

F.D.R.

To Col. Davenport -- Memo 1-3-45 to President from J.F.C. re Soviet use of tanks. Suggests photostats of articles on this subject be made available to Gen. Devers, in case he has not seen them.

AUDREY:

For your files?

ld

THE WHITE HOUSE
WASHINGTON

January 11, 1945.

MEMORANDUM FOR

GENERAL WATSON:

Let the Army see this report and then return for my files.

F.D.R.

Ret Army Adj Gen's

J. F. Carter file
3-45

WAR DEPARTMENT
OFFICE OF THE CHIEF OF STAFF
WASHINGTON 25, D. C.

January 13, 1945

MEMORANDUM FOR GENERAL WATSON:

In accordance with the President's memorandum of January 11 to you regarding the attached papers sent by Mr. John Franklin Carter to the President, I have referred them to the Training Division of the War Department General Staff. G-3 was asked for its comments on Mr. Carter's proposal that the article on Soviet Army experiences in coordinating tank and anti-tank tactics be forwarded to General Devers for his study and be disseminated to commissioned and non-commissioned officers throughout the Army.

It seems that the article which Mr. Carter has had photostated appeared in the April 1944 issue of the Military Review, a publication of the Command and General Staff School at Fort Leavenworth, Kansas. Thirty-two thousand copies of this Review are published each month and 10,500 are given free distribution by The Adjutant General to the headquarters of all armies, corps and divisions for their use and for study and discussion by all ranks. The remaining 21,500 copies are sent to subscribers, one of whom happens to be General Devers.

In view of the above fact, the Training Division feels that no further action should be taken with respect to Mr. Carter's recommendation.

B. W. Davenport

B. W. DAVENPORT
Lt. Col., G.S.C.
Asst. Sec., Gen. Staff

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January 3, 1945.

MEMORANDUM FOR MISS TULLY: RED ARMY TANK TACTICS.

Dear Miss Tully:

The attached photostats of experiences of the Red Army in coordinating tank and anti-tank tactics appeared in the Military Review of the Command and General Staff School of Fort Leavenworth, Kansas. It occurred to me that, if he has not already seen them, Lieutenant General Jacob L. Devers, now in the European Theater, might be interested in having his staff examine them and report on their applicability to American tactical problems on the Western Front.

J.F.C.

(Copy sent to Gen. Marshall)

Technical Series
Report No. 32

January 4, 1944

REPRINTS OF RUSSIAN MILITARY ARTICLES

Experiences of the Red Army in the coördination of arms against Nazi strategy appears particularly pertinent and worthy of study by all ranks of U. S. and Allied forces on the European Theatre.

The attached photostats of articles appearing in the Military Review of the Command and General Staff School at Fort Leavenworth, Kansas, are suggested as useful for wide distribution to commissioned line officers as well as non-commissioned officers of U. S. forces for purposes of study and discussion.

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receives only the call sign of the unit with which it has to cooperate, and the location of the sector where the enemy batteries are active. The crew must, therefore, know perfectly the region and the target numbers against which our fire is directed.

Upon receiving the order to send an observation plane, the commander of the air observation unit should provide the plane with a fighter escort. Experience suggests that the commander of the air observation unit should have his own fighter planes. When the fighters have to be drawn from another unit, the conference with the commander of the fighter unit and the organization of the meeting place for the fighters with the observation plane consume, under most favorable conditions, thirty to forty minutes. It is sufficient to say that an air observation unit having its own fighter escort can conduct three flights a day (in winter) without too much difficulty. However, when the fighters have to be drawn from another unit, only one or two flights a day can be made. When there is a great amount of enemy aircraft on the front, the fighter protection should be particularly effective (four to six fighters for each observation plane).

Night adjustment of artillery fire is a new field. It is not covered by regulations and was not practiced in peace time. Fire adjustment on a bright night, when the visibility is good and when the sector has landmarks for reference points (highways, railroads, rivers, populated places, etc.), does not differ from fire adjustment by daylight. Illuminated reference points can always be found, particularly after an artillery preparation. While the crew making daytime flights may only familiarize itself generally with the sector, flying at night it must know by heart the sector and the coordinates of enemy batteries plotted previously.

Many examples illustrate the practicability of adjustment of artillery fire at night and the necessity for perfecting it further. Thus, at the time when the blockade was being broken, during a single night flight Pilot 2d Lieutenant Petrov and Navigator Lieutenant Gilin found two enemy batteries whose fire had been particularly active, and as a result these were silenced. Altogether, during this operation, up to twelve enemy batteries were silenced with the help of night adjustment of artillery fire.

Night adjustment also has other characteristics. While in daytime we can conduct a reconnaissance and locate the artillery positions of the enemy by certain indications, we cannot do so at night. An enemy battery can be detected at night only during firing. Night crews should thoroughly study the entire region, be perfectly familiar with the minutest details of operation of a radio station, and know by heart previously plotted locations of enemy batteries.

Role of Reconnaissance in Determining Location of Limiting Points and Flanks

[Translated for the Command and General Staff School, Fort Leavenworth, Kansas, from a Russian article by Lieutenant Colonel I. Kryznanovsky, Soviet Army, in *Krasnaya Zvezda* 25 Jul. 1943.]

DETERMINING the location of limiting points [the Russian term "styk" is almost equivalent to "limiting point"; it may mean "boundary" or the area between the flanks of two adjacent units] and flanks of enemy battle formations is a complicated problem, and its solution uncovers the entire disposition of the enemy forces. No advance of any importance can be undertaken without first solving this problem, i.e., determining which enemy units are deployed along the front and where their boundaries are located. The disposition of enemy forces, their limiting points, and flanks must be known not only during the period of preparation for an attack but during the entire battle as well. Even after the enemy's defenses are penetrated and he is forced to retreat it is still important to observe the movements of the withdrawing units without losing sight of their boundaries and flanks.

Reconnaissance has the all-important part in this complex problem.

On one sector of the front it was necessary to break through the German defenses, reach a railroad line, and take possession of an important railroad junction. The enemy had been on the defensive at this point for several months and had fortified it strongly. He established a number of centers of resistance as a basis for a fire system, built two or three rows of wire entanglements, spread a net of hardly noticeable obstacles, and laid extensive mine fields. Reconnaissance had to do a great deal of detailed work in order to uncover the German defenses and find their most vulnerable spot.

Numerous day and night reconnaissance missions, as well as continuous observations, added more and more to our knowledge of the enemy. Interrogation of prisoners, captured documents, interpretation of air reconnaissance data, and daily observations revealed to a still greater extent the pattern of the outer defenses and of the system, organization, and schedules of fires in the various sectors. This in turn helped to determine the location of some units. As a result of this increasingly intensive and persistent study it was finally possible to determine enemy division, regiment, and in some cases even battalion boundaries. It was now apparent that the most favorable spot for a breakthrough was the boundary between two divisions. It was located between two rivers and on an extremely broken terrain. Now it was necessary to investigate both the forward edges and the entire depth of this sector.

Information obtained from aerial and artillery reconnaissance, when combined with the statements of prisoners and the study of documents, presented

a detailed picture of this sector. It was defended by seven full-strength and fully equipped German battalions. Four strongpoints were built to form a main line of resistance, one to three kilometers in depth. Data obtained from flash and sound units showed that four artillery battalions, a few separately located guns, and twelve six-barreled mortars were active in this sector.

In order to undertake the breakthrough with confidence, it was necessary to determine the exact location of the second and possibly third German defense line, whether or not there were any additional natural defensive positions, and the strength and location of the reserves. For this reason a reconnaissance in depth was undertaken at the sector where the breakthrough was contemplated. Information obtained from this reconnaissance further strengthened the conviction that this sector was the most vulnerable spot of the enemy. It was definitely determined that there were no second or intermediate lines of defense, except for the defenses of some populated points. There was, however, a suitable natural line of defense in the rear that could be turned into a serious obstacle for tanks. Once prepared as a firing position it could act as the intervening line of defense. This line, however, was not utilized by the enemy. It was also discovered that the area at the limiting point was not defended by local reserves and that the nearest tactical reserves were not strong enough to stop the onslaught of our forces.

It was believed for a long time that the boundary line between the German divisions ran along the river, but the scouts suddenly discovered that it was not so. Some substantial changes had taken place in the German disposition. Then a number of strong patrols were immediately engaged in reconnaissance missions, hoping that if one patrol was unsuccessful the second or third might have better luck. Reconnaissance in force was carried out at the same time, whereby it became possible again to feel out the gap between the German formations. The knowledge of the organization of fire, of the differences in the firepower of the two divisions, and of the peculiarities of its utilization helped determine definitely that the division boundary ran over the hill. The six-barreled mortars, by offering resistance to the reconnaissance in force, revealed that the division to which they belonged was located to the right of the hill. Prisoners captured there confirmed the supposed disposition of German troops and reported that the division originally located to the left of the hill had been withdrawn, but that two of its regiments had just returned.

All this information, after repeated checks, enabled our command to work out a daring plan of attack with complete confidence in its success. It was decided to break through the gap between the German formations, which were weakly organized in depth, by means of a sudden, swift blow and then widen the breakthrough by attacking the exposed enemy flanks while the remainder of our forces continued the advance toward the railroad junction. The scouts once again captured prisoners on the eve of the breakthrough, and their interrogation confirmed the previously obtained data regarding the German deployment. The reconnaissance unit operating to the left of the breakthrough area reported that the enemy was preparing for an attack in the vicinity of one of our strongpoints. This was also taken into consideration in the disposition of our own forces.

At last the German defense line was penetrated. Units attacking on the left were already deep within the German lines and beginning to attack enemy communications. Now the problem of determining the limiting points and flanks of the retreating enemy formations presented itself as acutely as before.

Our left flank units overcame the German defense and continued to advance. On the right flank, however, the enemy continued to defend his positions. When this stubbornly resisting enemy regiment was dislodged, it was necessary to find out whether it was dispersed or retreating in formation. Having felt out the enemy flanks, the reconnaissance unit determined that the enemy was withdrawing by battalions. At the same time our scouts discovered that two German battalions were concentrating in a populated area on our right flank for a flank counterattack. Then our command started intensive operations with fresh forces against this populated point. Thus the German battalions intended for a counterattack were diverted and later almost entirely wiped out.

During an advance, reconnaissance must be extremely mobile. Its mission is to maintain a constant contact with the battle formations of the retreating enemy at his flanks and limiting points. This is done so that he may not be able to reorganize his forces for a counterattack when our advancing troops are far behind. It is also very important to possess special mobile reconnaissance which works in the rear of the enemy and makes timely reports of the advance of the enemy reserves. With the aid of such reports, the commander will be able to concentrate his forces at the appropriate time for repulsing the enemy. This is exactly what happened during the operation described. A tank reconnaissance unit working in the enemy rear suddenly met with new enemy units. After scouting their limiting points and flanks, the reconnaissance unit determined that the enemy had hoped to hold the railroad junction with forces withdrawn from the neighboring sector. One of our units had already approached the railroad junction from the left. In view of the situation, our commander ordered another advancing unit to turn the front of its attack also to the left. By a combined blow, our forces annihilated the remaining units of the enemy which had been transferred here from the neighboring sector.

the sixteen-ton bridge, which showed itself to be fully able to stand up under this heavy traffic. After it had served without trouble several months, it was almost completely destroyed about 1 September by an unusually high rise of twelve meters which covered the roadway of the bridge with almost eight meters of water. It is not at all surprising that in spite of careful attention to all precautionary measures the bridge was not able to hold out against this unusual pressure and strain. Rather, the fact shows in an exemplary manner what powerful natural forces the army construction troops had to overcome in the construction of their emergency bridges in the Soviet theater of operations.

Later on in their victorious advance, the German fighting forces of the south wing fought their way across the Bug, the Ingul, the Ingulets, and finally the lower course of the Dnieper at Kherson. Then after the situation had been cleared up it was possible to turn some of the German forces toward the south in order to take possession of the Crimean peninsula. An important railroad junction was regarded as the best place for the necessary crossing of the Army of the Crimea over the Dnieper, which at this point was from five to seven hundred meters in width. The ponton bridge which was first built during the course of the fighting, and which for the time being constituted the only connection of the Army of the Crimea with the rear, had to be replaced quickly by a sixteen-ton emergency bridge in order that the engineers and their equipment might be moved farther toward the front. Two bridge battalions were made available for its construction. At the point of the crossing the river was divided by an island into two channels. Since the northern channel was two hundred meters in width and from eight to ten meters in depth and very muddy, it was planned to build a ponton bridge here, while the southern channel, more than five hundred meters in width but not over eight meters in depth, was to be crossed by a pile-driven bridge. It helped greatly in expediting the construction that the boats necessary for the ponton bridge had been seized at Kherson during the fighting. Those that had been sunk were again raised, caulked, and made ready for the construction of the bridge sections. Joined together, they were gradually towed to the place where they were to be used. In this way it was possible to complete the ponton bridge in the course of a single day. Also, the piling bridge over the south channel, for whose construction it had been necessary to bring timbers by railroad from a distance of two hundred kilometers, and also the two approaches, each of them a kilometer in length, were finished on the same day. It was possible, therefore, to open the bridge for traffic in the afternoon of 9 October.

In the middle course of the Dnieper, where our fighting forces by about 1 September had also forced a passage across the stream, the construction of a 1,160-meter 24-ton emergency bridge with a width of 6.6 meters, whose central portion was a ponton bridge on account of the water depth of sixteen meters in the main portion of the channel, is especially noteworthy from the technical point of view. It was built by two bridge battalions and ten bridge construction detachments of the Todt Organization (German construction organization). The driving of the piling for the land approach was begun on 12 October, the work on the 300-meter ponton section was started on 24 October. Wood girders thirteen meters in length were used for longitudinal supports. The bridge was completed on 28 October and opened for traffic the following day. By the construction of the bridge, over which the heavy supply traffic for the German fighting forces could move, a firm crossing was established in the middle course of the stream.

These examples show plainly the varied and difficult technical problems that have confronted bridge battalions in crossing Soviet streams in a steady battle with the unbridled forces of nature, and also in what an amazingly short time they mastered their problems.

Use of Tanks in Battle for Mountain Valleys

[Translated at the Command and General Staff School, Fort Leavenworth, Kansas, from a Russian article by Lieutenant Colonel K. Guschin, Soviet Army, in *Zhurnal Avtobronetankovikh Voysk* (Armored Force Journal) May-June 1943.]

DURING the summer of 1942, the German command undertook, along with the main blow against Stalingrad, an auxiliary thrust towards the south. In that direction the Germans threw a tank army consisting of several tank and motorized divisions whose success was to have been consolidated by the infantry divisions following behind them.

For the operation of so great a mass of tanks a suitable terrain was necessary, but the character of the terrain of the Northern Caucasus did not quite meet the requirements. Furthermore, the skilful use of the terrain by our defending units aggravated the error of the Germans, upset their plans, and later contributed to a severe defeat.

Various mountain ranges and the northern spurs of the main Caucasian range, though not exceeding 1,000 meters, are dissected by deep ravines and most are covered with a dense growth of stunted hardwood. The most suitable approaches for the massed operation of tanks are the wide mountain valleys, for the control of which a fierce battle of several months' duration was waged, disclosing a series of singularities in the uses of tanks. These singularities are of definite interest.

Large groups of forty to seventy tanks with tank-borne landing parties and guns towed by transport vehicles which were advancing with columns in two or three echelons, attempted to break into the valley by frontal thrusts and to acquire control of the mountain passes. Failing in this, these tank groups, with the infantry and artillery reinforced by small groups of tanks, established rigid strongholds and centers of resistance along the lines reached by them.

After the infantry organized the defense, the remaining tanks were moved back to the rear of the infantry's combat formations and an extensive tank reconnaissance was organized to feel out the boundaries of our units. Having regrouped, large groups of tanks again attacked frontally attempting to break through at a different place.

Thus, for instance, on 9 September 1942 a group of hostile tanks plunged into attack in one of the sectors, but, having lost thirty tanks, withdrew. Two days later, this same group, numbering sixty tanks, again attempted to break through, but this time in a different place. Losing up to thirty-five tanks, this group again rolled back.

After suffering great losses in tanks and failing to achieve their goal, the Germans change their tactics. They bring up artillery and mortars, make use of tanks for conducting fire from stationary position and from within the combat formation of the infantry, open a withering fire, and direct their aircraft over the combat formations of our defense. Under cover of this mass of fire they throw their infantry into the attack. When this method of attack fails to bring results, the enemy, having replaced his tank losses, again shifts to the first method of operations.

Let us see how the enemy operated during the breakthrough on the move by his tank units into a valley in one of the sectors. Mixed columns of tanks with a tank-borne landing party of tommy gunners,

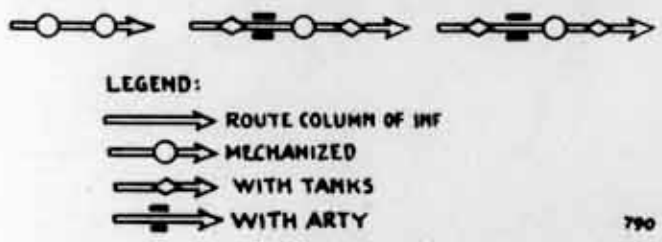


FIGURE 1.

artillery, and motorized infantry, with the direct uninterrupted accompaniment of aircraft (in groups of seven to nine planes) attack in two to three echelons, the distance between the echelons being from one to three kilometers (Figure 1).

Finding themselves under the fire of our artillery, the enemy tanks continue to move in columns. The artillery moves out from the column, deploys on the flanks of the tanks, and opens fire on our defense positions (Figure 2). The tank-borne landing party and the motorized infantry dismount and run behind the tanks in open formations in order to avoid loss from our artillery which is firing on the tanks. The enemy columns moving from the rear continue in the

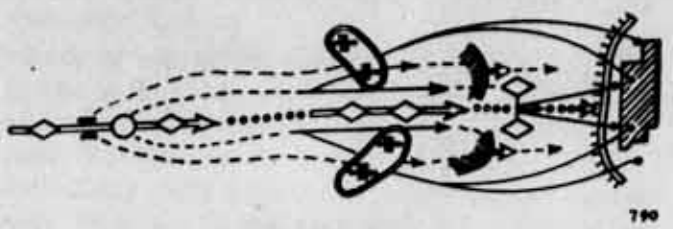


FIGURE 2.

former combat formations. The main column, now in an open formation, hurries forward without losing its rate of movement. Its deployed artillery continues to fire upon the antitank defense firing points.

Under cover of artillery fire the tanks go into an open formation and open fire with all weapons, moving forward slowly, and attempting together with the infantry to break into the depth of the defense.

The tank-borne landing party and the motorized infantry, firing while on the move, try not to lag behind the tanks. However, at the very first losses in tanks the Germans change their method of attack. The tanks stop behind concealments and intensify their fire from stationary position on the objective of the attack. The tank-borne landing party and the motorized infantry overtake the tanks and under the cover of artillery and tank fire try to reach the objective of attack by bounds. During this period various small groups attempt to make use of the folds of the terrain, penetrate to the flanks, interior, and rear of the defense, and bring about a disorganization.

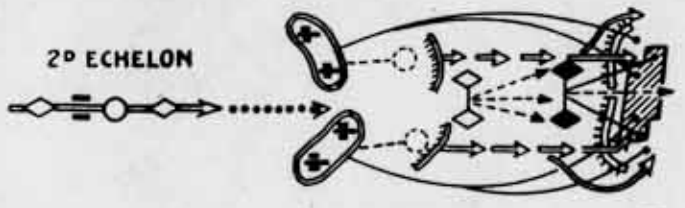


FIGURE 3.

As soon as the infantry approaches the objective of the attack, the tanks rush forward, overtake the infantry, and, firing while on the move, try to penetrate into the depth of the defense (Figure 3).

If the defense withstands this method of the Germans and inflicts heavy losses with its own fire, the enemy infantry immediately consolidates on the line which they have reached.

When places of concealment are available, the tanks, with fire from stationary position, cover the infantry which is consolidating on the attained line; in the absence of concealment, they retreat behind the combat formations of the infantry. Part of the tanks firing from stationary position cover the infantry in its work of consolidating the line, while another part of the tanks, maneuvering on the broken terrain, searches for passages in the system of de-

fense through which it will be possible to infiltrate into the depth of the defense.

The second echelon, covered by the first echelon's fire and operating by the same methods, either inflicts a blow in the same direction, trying to smash

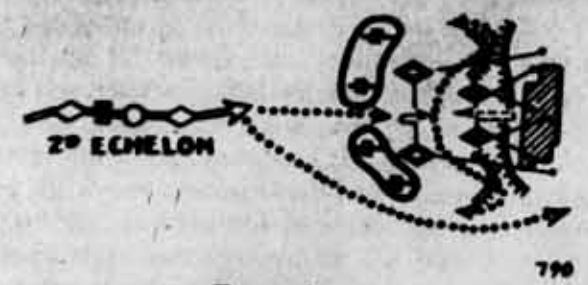


FIGURE 4.

the defense and break through into the valley, or, operating from behind the flank of the first echelon, inflicts a blow in a new direction (Figure 4).

Failing to break into the valley on the move, the Germans withdraw their tank units, repair and replace their matériel, and choose a direction so they can drive a wedge into the defense by attacking from an immediate contact with the defense [exact translation].

Such are the characteristic peculiarities of the use of tanks by the Germans when attempting to break into mountain valleys.

Methods of employing tanks in the defense of outlets to the valley may be studied in the example of the organization of the defense by one of our tank brigades. Having captured a certain town and having forced our units into the hills, the enemy turned his tank divisions to the east with the intention of breaking out into the valleys and moving along them to certain vital centers of our country.

For the liquidation of a breakthrough into the region "Ch" (Figure 5) by enemy tanks, a tank brigade was sent out reinforced with tank-destroyer artillery, with means of antiaircraft defense, and with infantry. The task was to cooperate with the units operating frontally and with a tank-destroyer detachment which was organizing an antitank strongpoint in the region "F" so as not to allow a breakthrough of enemy tanks in the southeastern direction.

Having been unable to come out into the narrowest part of the valley, the brigade organized in region "D" an antitank center of resistance, which consisted of three antitank strongpoints and a reserve. The fire

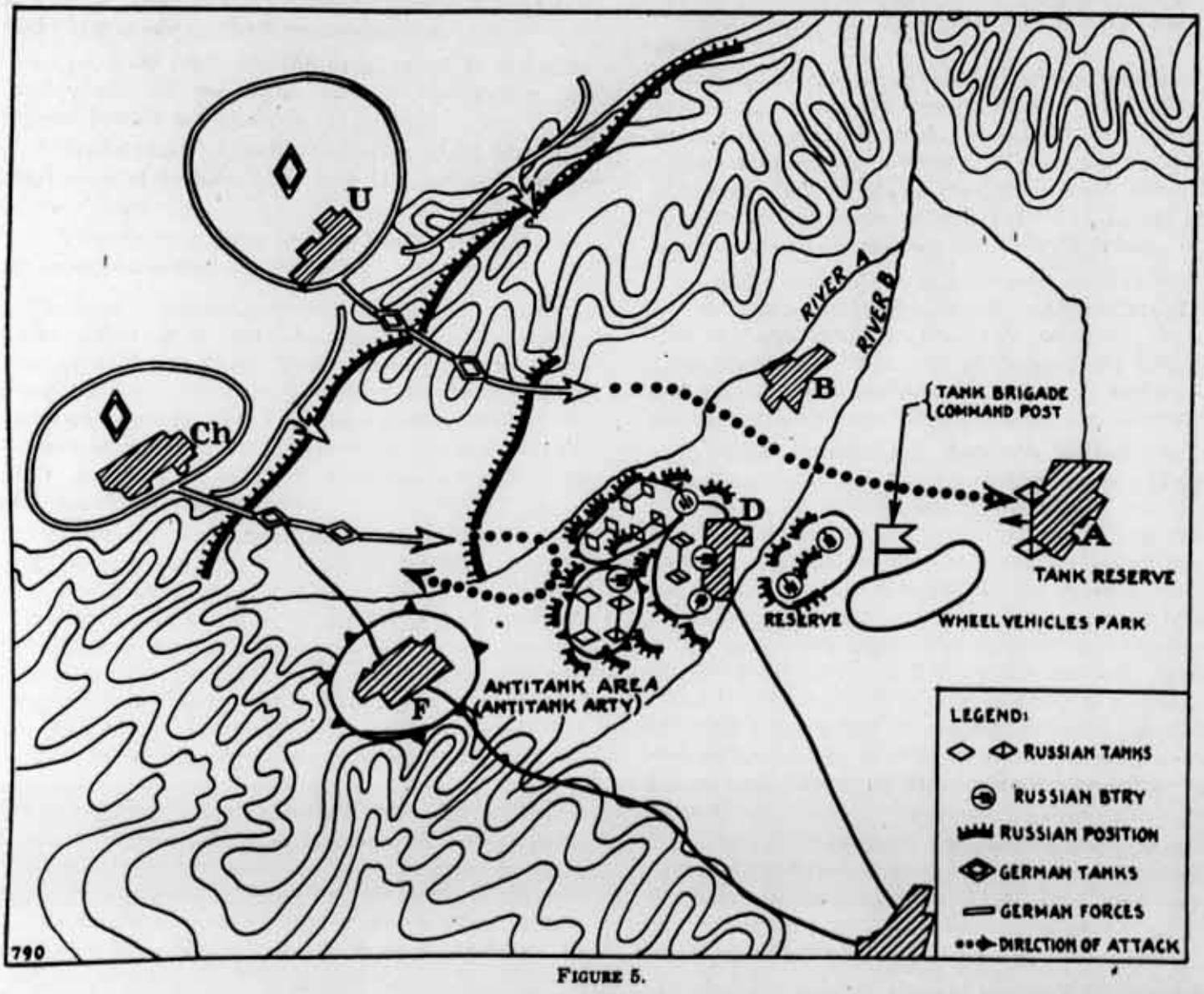


FIGURE 5.

of the antitank strongpoints was organized into a powerful system of fire. The strongpoints had well coordinated observation, and consisted of: the first—eleven medium tanks, eight light tanks, three captured German tanks, one battery, and one infantry company; the second—two MK-3 tanks, fourteen M-3 tanks, one battery, and one infantry battalion; the third—eight KV tanks, two batteries, and some infantry; the reserves—fifteen medium tanks, two batteries, and one infantry company. It is necessary to note that since the tanks and the artillery were situated at different places, their fire was not combined into a system, and the places where the tank reserves were kept were not covered by the infantry. To the deficiencies of this defense it is also necessary to add that the fire of the antitank center of resistance did not reach the terrain to the north which was accessible to tanks, and that the infantry units engaged in battles with the enemy's superior tank forces did not get a chance to organize an antitank strongpoint in region "B."

The tank-destroyer artillery was placed in position in antitank strongpoints, and its task was:

1. By means of concentrated fire on the assembly of hostile tanks in their starting positions to defeat them and break up their massed attack.

2. To cover with fire the approaches to the antitank center of resistance and to disorganize the massed hostile tank attack.

3. To destroy the hostile tanks by direct fire when they attempt to break through the antitank center of resistance.

4. To prevent a movement by hostile tanks around the antitank center of resistance.

The tanks of each antitank strongpoint were disposed scattered in two echelons, having the lighter type of tanks in front. Their task consisted in the complete destruction, by a massed fire from a close distance, of enemy tanks that had broken through the defense of our infantry units. With this purpose, the tanks disposed in antitank strongpoints had to be dug in and well camouflaged.

The infantry with its antitank means filled in with small groups the area in front of the tanks as well as that within their combat formations. Entrenched, it provided combat security for tanks and artillery, prevented tommy gunners and tank-borne landing parties of the enemy from reaching the antitank strongpoints, killed the crews trying to abandon the wrecked tanks, and destroyed their tanks at that moment when they were busy fighting our tanks and artillery.

The reserve was confronted with the following problem: to prevent small hostile tank groups from flowing around the antitank strongpoints; to reinforce, in the process of battle, any antitank strongpoint; to destroy hostile tanks which have broken through the principal antitank strongpoints; to finish off the scattered enemy by a counterattack; and to support the infantry counterattacks on the flanks of the antitank center of resistance.

The antiaircraft weapons were disposed in position on the outside of the antitank strongpoints so as to cover them with a dense fire and exclude the possibility of hits by enemy aircraft during its combat with the antiaircraft weapons.

The command was accomplished from the joint artillery and tank command post which was situated in the rear of the antitank center of resistance, and also from advanced observation posts within the antitank strongpoints. Communication was organized by telephone, radio, and mobile means. This antitank center of resistance repulsed three attacks by hostile tanks and prevented their breakthrough to the southeast, while the tank reserve for ten hours held back in the region "A" the hostile tank column which was going around.

Such use of tanks in battles for the Northern Caucasus repeatedly broke up the hostile massed tank attacks when attempting to break through into the wide valley accessible to tanks, and thus prepared their complete defeat.

From this the following conclusions may be drawn:

1. In mountain conditions of the theater of combat operations, when the possibilities of maneuvers by hostile tanks are limited, the use of tank units for establishing antitank centers of resistance and antitank strongpoints within the depths of the defense of friendly troops in places where there is danger from hostile tanks, is expedient and fully justified.

2. When making use of large and small tank units for the organization of antitank centers of resistance and antitank strongpoints, it is necessary to reinforce them with infantry, tank-destroyer artillery, and antitank and antiaircraft weapons, and to support them with long-range artillery and aircraft.

3. When establishing antitank centers of resistance and antitank strongpoints by large and small tank units, an exceptional role is played by proper estimate of the terrain, precisely organized reconnaissance of the enemy, continuous observation of the field of battle, preparation of reserve strongpoints along all probable directions of attack by the enemy tanks, and timely maneuver by the reserve for repulsing the attack. Not all of this was fully carried out in the above example. The presence of a prepared antitank strongpoint in region "B" and its timely occupation by the reserve might have held up and broken the success of the enemy's encircling tank columns.

4. The joint command and observation post of the tanks and artillery and the continuous communication between the artillery and the tanks is the necessary condition for the precise control of an antitank center of resistance.

his will, his resoluteness, and his tenacity in his subordinates. If, at times, circumstances require personal risk, then he must bravely meet the requirement, for war is war.

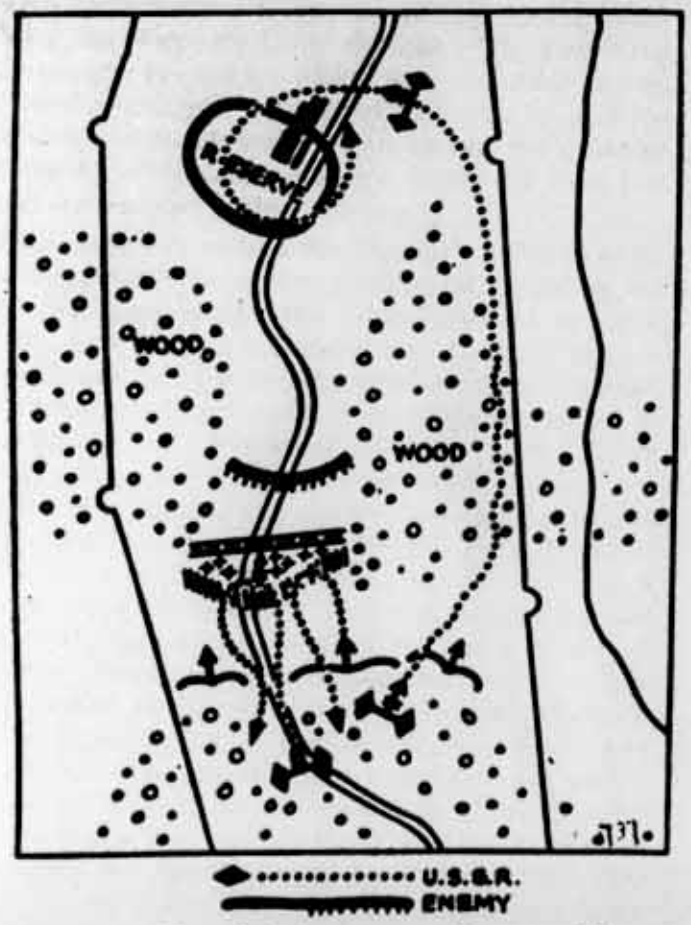
The attention of higher commanders must be directed towards insuring reliability of control in regiment, battalion, and company. It must always be remembered that loss of control in these basic units of the fighting body will immediately be reflected on the course of the whole operation.

The methods and means of control in battle are manifold. The goal is one: to direct the efforts of the troops along the paths leading to success. Commanders of all ranks, and all our military staffs, can and must under all circumstances insure firm and uninterrupted control in battle!

An Example of Correct Use of Ground by Tanks

[Translation of an article in *Red Army Tank Journal* No. 1, 1943, published in Canadian Army Training Memorandum No. 30, September 1943.]

A TANK battalion while advancing in support of our infantry division bumped into a series of anti-tank obstacles consisting of mine fields, ditches, etc., that completely blocked the only road along the line



of advance. The obstacles were well covered by enemy fire. Repeated efforts by the infantry and tanks to clear the route failed. To the right and left of the road the country was thickly wooded and seemed impassable for tanks. After a careful reconnaissance of the ground it was established that, while with great difficulty, the tanks would be able to move through the woods. The tank commander decided to push through the woods with a squadron of medium tanks, coming out on the flank and rear of the enemy positions (see sketch).

This movement was carried out by troops. The leading tank of each troop blazed a trail with the help of dismounted guides who picked out the easiest route. The squadron advanced through the woods without meeting any resistance and unnoticed; it seemed that the enemy was certain of the woods being impassable.

In coming out of the woods the squadron at once attacked the enemy reserves situated in a village. The enemy was completely surprised and put up very little resistance.

In the above example a successful maneuver of a single tank squadron insured the success of the tank battalion and with it the objective of the division. The correct use of ground was the main single reason for success. The defeat of the enemy force was due to the incorrect appreciation of ground by its commander, for the ground that seemed unfavorable for tanks at first, proved to be the main factor in a successful flanking movement and a small number of casualties in the whole operation.

Frequently, preliminary plans prepared from maps by higher commands have to be altered and even entirely canceled after a closer reconnaissance of the actual ground. Winter fighting particularly calls for detailed and careful study of ground as the snow obliterates detail and often gives a false impression of the ground, especially as far as tanks are concerned.

Commanders, before solving a battle problem and deciding on a plan of action, must study the ground thoroughly as deep into the enemy territory as possible. The methods at their disposal are numerous: maps, photographs, personal reconnaissance, party reconnaissance, information received from prisoners, etc. It is not sufficient just to get the information; the commanders must be able to analyze it correctly and be able to apply it. The factor of ground in a commander's appreciation is of primary importance and should be borne in mind at all times.

The Work of the German Women's Labor Service

[Translated at the Command and General Staff School, Fort Leavenworth, Kansas, from a German article in *Münchner Neueste Nachrichten*, Munich, 14 September 1943.]

FOR THE second time during this war the tasks of the Women's Labor Service have been extended. It was just two years ago that the newly founded Auxiliary Military Service proved its worth in the labor

tasks of our nation, and now, as we gather from the National Socialist Party Bulletin, direct tasks for the defense of the Reich are being given to the Women's Labor Service. Part of the women have already been called or will shortly be called into service with the communications department of the Air Force. This new sphere of activity in the Women's Labor Service results from the intensification of the Air Force for home defense.

To worried parents who can already see their girls located far from home at dangerous focal points of the war, let us say they will be employed only within the confines of the Reich, that care has been taken and every danger eliminated in the matter of safety and good shelter for the girls. For two months, as has been the case in the past, the girls of the Women's Labor Service are familiarized with the inside and outside duties in a rural camp and then, as a complete camp unit [*geschlossene Lagergemeinschaft*], dressed in the service clothes of the Reich's Labor Service, they are sent for the remaining months of their labor and auxiliary military service to the air force station where they are to be employed. They are prepared by means of short courses of instruction for their unusual tasks, in order that they may attain complete confidence and thoroughness in their work. The service in such a camp belonging to the Reich Labor Service is similar to that in the usual camp of the Women's Labor Service. The girls have their parade ground on which they assemble mornings and evenings. They meet for singing and instruction, for darning and mending, and for a happy evening together, and they are bound by firm ties of comradeship with their leaders.

With these new duties, the Women's Labor Service does not forget the native population. Now as before, the girls assist the over-burdened country women, and are indispensable and faithful helpers in whom one can confide and who, with their youthful freshness and strength, make the daily round of tasks lighter for the peasant women. The Auxiliary Military Service, whether in factories or hospitals, in children's nurseries or public conveyances, is also maintained in a state of full efficiency. This requires an increase in the Women's Labor Service and a greater need for leaders. For this reason special leaders are now being installed for the duration of the war. Usually beginning as the helper of the camp leader, the special leader grows into the new task and, according to her fitness, her work, and her preparation, she will find a responsible, varied field of activity in the camps of the Reich's Labor Service, in the Auxiliary Military Service, in employment with the Air Force on the staffs of the camp group or the Reich's Labor Service schools. Also girls and women with academic preparation, or who have been engaged in the liberal professions, may be given corresponding employment for the duration of the war in the Women's Labor Service. Young women and mothers who on account of war conditions have been placed in a new environment—whether it be in a city or in the country—and see no fitting field of activity to engage in, could hardly find any task more suited to their feminine type than in the leadership or education of these young women. The employment is made as flexible as possible, even including half-day occupation, and young married women have been provided in advance for taking care of the children. But under no circumstances is the Reich's Labor Service to be regarded as a chance of escape for women who would like to get out of other war duties. Serious educational tasks of decisive importance require character and intelligence on the part of the leaders.

Self-Propelled Artillery In Offensive Combat

[Translated at the Command and General Staff School, Fort Leavenworth, Kansas, from a Russian article by Lieutenant C. Bykov, Soviet Army, in *Krasnaya Zvezda* 21 August 1943.]

THE APPEARANCE of self-propelled artillery removed a gap which existed a long while between the tactical mobility of tanks and that of accompanying guns in offensive combat. Guns more powerful in destructive fire power than the guns of tanks were placed on treads and covered with armor. They now posses the same mobility as tanks, the same high power of terrain penetration and low vulnerability to machine-gun and mortar fire. The new combat qualities gained by accompanying artillery have radically changed not only the forms of its cooperation with tanks, but also its tactics and methods of conduct of fire. We wish to pause on this last question and share some experience acquired in fighting at the Orel battlegrounds and in the present struggle in the Bryansk sector.

In the attack, the self-propelled guns, cooperating with tanks, first fight against the self-propelled guns, antitank guns, and tanks of the enemy. Crushing these targets, they can shift fire to dugouts, mortar batteries, etc. In the period of the tank attack in the direction of the main effort, the variety of targets demands various methods in the solution of fire problems. Successful fighting against hostile self-propelled guns, tanks, and antitank guns is possible only if the methods of this fighting are organized in accordance with enemy tactics, separately for each type of his weapons.

Against our tanks the Germans widely employ self-propelled guns, among them the "Ferdinand," concentrating them in directions dangerous to them because of our tanks. The fighting tactics of German self-propelled artillery against our tanks depends on the terrain. If the terrain is cut up or wooded, the enemy practices the organization of ambush; one, or more often two, self-propelled guns deploy on the

edge of the wood, in folds of the terrain, on the rear slopes of hills. While in ambush, the Germans try to let our tanks come up close and suddenly come down on them with fire. In inhabited places, and sometimes even in the field, if the terrain permits concealed movement, German self-propelled guns patrol parallel to the line of the front on the forward edge or even in front of it. In open terrain they concentrate usually in inhabited places, taking cover behind walls of buildings.

German self-propelled guns open fire from a distance of one-and-a-half kilometers, "Ferdinands" from two or more kilometers. Disclosing themselves by their fire, they quickly change their firing positions. Depending on the quantity of targets, the Germans conduct point-blank fire either separately or in concentration. Maneuver by fire and movement, sudden fire from concealment—those are the principles on which the tactics of German self-propelled artillery are founded, and for this reason fighting against hostile self-propelled artillery represents a fairly complex matter.

The task of our self-propelled artillery consists in skilfully and promptly discovering the enemy and quickly rendering him harmless. Reconnaissance has great importance in the course of the battle. The entire personnel of self-propelled guns must conduct unweakening observation, turning special attention to the places where the German self-propelled guns may be in hiding. As soon as they are discovered, they must be at once destroyed by point-blank fire.

Practice teaches that in fighting German self-propelled artillery, especially if it is discovered by the flash of discharge, it is profitable to use concentrated fire of several of our vehicles. Let us show this by an example.

Moving toward a village, our tanks encountered strong fire coming from two "Ferdinands." By observation conducted by the infantry it was established that these self-propelled guns moved along a valley parallel to the front. The conditions of the terrain were extremely disadvantageous for us. In order to open fire, our self-propelled guns had to come out on a ridge, while the enemy was still little vulnerable, as the valley covered him well.

At first we decided to go around the valley to the left with part of the self-propelled guns and strike the flank of the Germans, but this decision was not realized. Soon it was clear that the "Ferdinands" were moving along the valley from left to right, steering for a projecting angle of woods. Another decision matured: to wait until they entered the woods, and suddenly come down on them with concentrated fire of several vehicles. This was done. Hardly had the "Ferdinands" moved into the corner of the woods, when our guns ran out on the ridge and came down on them with massed fire. This blow was very effective. Both "Ferdinands" were put out of action and fell into our hands.

Sometimes fierce battles ensue between self-propelled guns of both sides. This is usually in counter-attacks undertaken by the Germans against our tanks, or upon withdrawal of hostile troops often covered by self-propelled guns. In the first case the fight develops as an encounter combat and resembles a fire duel. The main thing here is the tempo of fire, its accuracy, and the ability to turn away in time from the blows of the enemy and inflict on him in turn a blow that cannot be parried. Of course, in these conditions time decides everything.

On the approaches to a populated place the Germans engaged six self-propelled guns against our tanks. To take cover from their fire, the tanks changed their course. The blow against the enemy was taken by our self-propelled guns, which quickly succeeded in setting fire to one German gun. The Germans answered this with dense, concentrated fire. Then our tank crews undertook a maneuver. Moving back and to one side, they suddenly came out from another direction and smashed one more German gun. Having lost two guns, the Germans rapidly left the field of battle, despite their numerical superiority.

In this encounter, the superiority of our tank crews consisted in this, that they anticipated the Germans in opening fire, their fire was more accurate, and finally, they successfully and promptly dodged the blow of the Germans by the aid of a maneuver and change of firing positions. Acting on such a principle at another time, we destroyed two hostile tanks and one self-propelled mount, suffering no losses.

In the attack, as in encounter combat, flexible maneuver of fire and movement, and high tempo and accuracy of fire are essential. On this primarily depends the result of the battle. Fire must not be conducted from one and the same position longer than one or two minutes. Otherwise the gun will be "shot up." Moving to the field of battle, it is necessary to try not to expose the vulnerable places of the vehicle to the fire of the enemy. Movement to the firing position must be concealed as much as possible, and fire must be sudden. In changing position, under no circumstances should one come out on the crest of a hill or needlessly stay in open places.

Thus far we have spoken mainly of targets which, due to the conditions of the situation, are destroyed by point-blank fire. But there are cases when it is necessary to conduct fire for effect from concealed positions. Thus, for example, in the accompaniment of tanks into the depth of the hostile defense it is often necessary to encounter solid defense lines having an organized system of antitank fire. It is well known that in this case hostile guns are well dug in and camouflaged, with their fire previously ad-

justed on the approaches to their positions. To approach these guns from the front—that is, to fire on them from open positions—will be disadvantageous, and at times completely senseless. Here it is necessary first to scout the enemy carefully and then to silence his guns with fire from a concealed position. Without this, any tank attack will cost serious losses, and its success will be threatened.

In fighting us the Germans widely employ self-propelled artillery. Using its strong fire, high mobility, and traveling ability, the enemy tries to hinder the attack of our troops, especially on those sectors where success of the attackers is noticed. Our problem is to use more fully and correctly the combat qualities of our self-propelled mounts, and to oppose the enemy tactics with the offensive tactics of Soviet self-propelled artillery.

Combat Formation of an Antiaircraft Regiment While Protecting Troops

[Translated for the Command and General Staff School, Fort Leavenworth, Kansas, from a Russian article by Captain V. C. Tocarsky in *Artilleriiskii Zhurnal* (*The Artillery Journal*) No. 4, April 1943.]

WHEN we are on the defensive, the enemy usually not only subjects our forward lines to artillery and mortar fire but also to bombing from the air, as well as conducting aerial reconnaissance. Thus the problem of antiaircraft protection arises. Small caliber antiaircraft artillery and antiaircraft machine guns can furnish sufficient protection if they are placed directly on the first lines of defense.

In battle, the following pattern is employed for the disposition of an antiaircraft regiment. Motorized antiaircraft artillery batteries are usually arranged in line formation; less often in group formation. Machine-gun platoons are placed with the batteries (in effect, are attached). One antiaircraft machine-gun platoon protects the regimental command post. Command posts of antiaircraft machine-gun companies are usually located with those of the battery commanders.

Such a battle formation results in concentrated firepower at single points. On the other hand, such concentration of antiaircraft weapons at one firing position entails great losses of matériel and personnel since it provides a tempting target for enemy artillery and mortar fire. Moreover, the possibility of independent action by the commander of the antiaircraft machine-gun company is lost, since direction and control of fire from that position pass entirely into the hands of the battery commander.

There is no reason to attach antiaircraft machine-gun platoons to motorized antiaircraft batteries. These batteries can protect themselves against any enemy aviation. Moreover, concentration of firepower at a few points lessens antiaircraft protection of front-line troops, who need as much protection as possible, especially those in the more exposed positions.

The following scheme for the disposition of an antiaircraft artillery regiment is recommended on the basis of actual combat experience and because of the above objections. The batteries of the regiment are, as a rule, to be arranged in line formation. The antiaircraft machine-gun companies are deployed by platoons, also usually in line formation. They should be brought up to within 500 meters of the forward defense line. Behind them at a distance of 800 to 1,000 meters the batteries are located (about 1,300 to 1,500 meters in rear of the front lines), and provisions are made for cooperation of fire between artillery batteries and machine-gun companies.

Thus the positions appear as two lines: first, machine guns; second, batteries. In addition, they may be echeloned to the right or left. Sometimes it is desirable to place separate antiaircraft machine-gun emplacements, and even platoons, between the lines. In no case, however, should batteries be strengthened by antiaircraft machine-gun platoons, as this is absolutely inconsistent.

The command post of the regiment should be placed in the second line of antiaircraft defense, or slightly behind it. As much as one antiaircraft machine-gun platoon may be employed for its protection. The company command post is placed with one of its platoons (the middle one) or separately, but preferably at an equal distance from the platoons.

The battle disposition here recommended has the following advantages: the largest possible area is protected by the available antiaircraft defenses; fire coordination between artillery batteries and machine-gun companies provides two layers of fire for medium ranges; the machine-gun company commander can direct his fire independently; and decentralization of antiaircraft units insures continued effectiveness, since fewer losses are suffered.

The proposed battle disposition remains equally effective in the attack. During offensive operations, even more than in the defense, antiaircraft units need to be deployed in a line formation along the front, as the attacking troops will be even less echeloned in depth.

It must be remembered that the battle disposition here advocated is not the only possible solution. It can be varied in accordance with the type of terrain, the mission to be accomplished, the means of communication, and other changeable factors.

Utilization of Ground in a Tank Battle

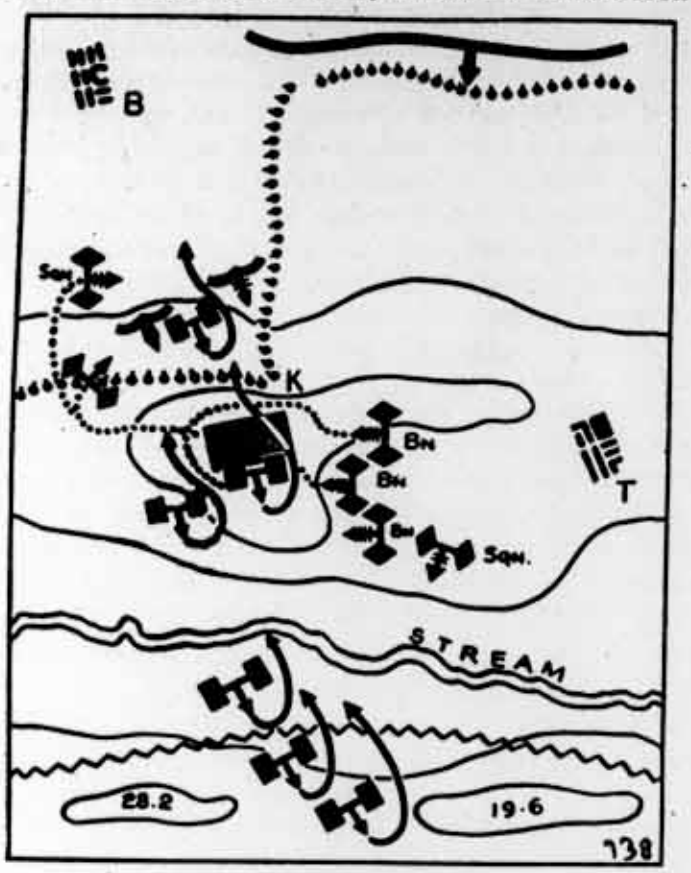
[A translation of an article in *Red Army Tank Journal* No. 1, 1943, published in Canadian Army Training Memorandum No. 30, September 1943.]

"GROUND" plays a tremendous role in battle operations of any arm of service. In some cases ground

is a great help, in others it hinders the operation or renders it quite impossible.

Modern war with its mechanization and saturation with fire power in every imaginable form changes the old conception of "ground." Ground previously unsuitable for battle and considered impassable has proved otherwise in the present war. For example, modern tanks can go through rather thick woods, climb steep slopes, and cross swamps, quite often unassisted.

The development in other technical equipment and its mobility has also greatly improved; nevertheless, the importance of ground cannot be overstressed and in most cases it is the ground that limits the action of the army (infantry not excluded). That is the reason for a thorough ground reconnaissance before any battle. The ground reconnaissance must be complete in every detail, not only on the immediate front



but as much as possible in depth of the enemy defenses. In choosing the place for a main thrust and operation of tank formations in general, the ground factor is of primary importance. Examples of tank operations in the past have shown that the correct appreciation of ground results in successful action even against numerically superior enemy forces. The example given below will illustrate this point.

Our tank brigade was ordered to rally northeast of point "T" and warned to expect an enemy tank attack from area "B." The unit occupied the position as ordered and approximately two hours later our observers reported the presence of enemy tanks in the vicinity of "B." It was decided for the start line to occupy the depression (see sketch) which is covered by a height from village "K." The counterattack was to be launched from this position. Our reconnaissance established that the direction of the enemy attack would be through village "K" to height 28.2, their final objective being to encircle the height 19.6 from the west.

The commanding officer appreciated the situation and decided to let the greatest number of enemy tanks through as far as the stream just in front of the antitank obstacle and by so doing place himself on the enemy's flank. He planned to engage the enemy by tank fire from stationary positions and with the guns of the antitank locality to disorganize the enemy battle formations. Following this the enemy would be counterattacked and then isolated sub-units would be dealt with separately.

By 1400 hours, approximately 120 enemy tanks and two battalions of motorized infantry, in battle order, formed up in depth to two kilometers, reached the height 28.2 with its forward elements. The main body was moving through village "K." At this moment the guns of the antitank locality and the tanks from ambush opened fire that was very effective and immediately disorganized the battle order of the Germans. A portion of the enemy tanks turned back and the tanks that had already crossed the stream, observing the disorganization, also started back in the direction of village "K." On a prearranged signal our tank formation attacked, detailing one squadron to protect its left flank. This action surrounded at least seventy enemy tanks and destroyed most of them. The remaining enemy tanks were pursued by our tanks back to their antitank locality.

At the beginning of the battle, the squadrons of flame-throwing tanks surrounded the enemy's motorized infantry from the opposite flank, and by the end of the action had destroyed them completely by machine-gun fire and flame. Eight enemy tanks that were retiring from the height 28.2 got stuck in the stream. The crews of these tanks attempted to get away but all were killed by fire from the squadron protecting the flank. The tanks that were stuck were pulled out intact and used by us in subsequent battles against the Germans.

The result of the battle: fifty-six tanks captured or destroyed, two motorized infantry battalions completely routed.

In the above example the decision of giving battle to the enemy tanks was taken because of the advantageous position occupied by our formation, and the ground was favorable to our tanks. The stream divided the battle field into two parts. When one group of the enemy had crossed the stream, that group was isolated from the second group. Therefore, when our tanks attacked the second group, the first group had to recross the stream to be of any assistance. As the crossing was under fire of the

antitank locality and later under fire of our "flank protection" squadron, the movements of the enemy tanks were slow, giving us plenty of time to deal with the second group separately. In this manner the correct appreciation of ground and time factors allowed for a conclusion that the situation was favorable for battle even against superior enemy tank forces. Had the ground not been properly utilized, the above battle would not have been a success. Therefore, this example should not be accepted and followed blindly as a governing rule for tank action.

Problems of Mountain Warfare

[Translated at the Command and General Staff School, Fort Leavenworth, Kansas, from a Spanish article by Colonel Fernando Redondo, Mexican Army, in *Defensa* (Mexico) July 1943.]

FOOD.—The problem of food supplies is a transportation problem very easily solved in the level terrain but difficult to solve in the mountains where resources are more limited. Frequently the amount of land under cultivation will be limited to a few patches in the bottom of the valleys. Stock is relatively more abundant but it is not sufficient for the needs of a long campaign. It is more difficult, therefore, to live off the country than it is in level terrain. And if one depends entirely on the natives, there arises the problem of caring for the civilian population.

Bread, the basic food of the forces, should be baked as close to the front as possible, as it changes rapidly when carried on pack animals. All the ovens in the region will be used for baking bread; and if there are not enough of them, knock-down field ovens which can be carried on pack animals will be used. There are models which can be carried on six mules and which will bake 1600 rations of bread daily.

Meat should be kept in a live state as long as possible. The meat of the animals killed after a hard march is no worse than that carried by pack animals.

The transportation of the other articles of food presents no special problem.

For the transportation of the food, water, and forage for the stock, a battalion of one thousand men and 200 head of stock requires thirty-six pack animals daily as a minimum, for as soon as the battalion is broken up it is necessary to divide up the equipment. A mountain battery of 200 men and 100 mules would require twelve pack animals. We can count on two kilograms of food per day for each man and eight per head of stock.

Ammunition.—In modern warfare, the amount of ammunition employed has increased on account of the increased rate of fire and the diversity of the weapons. On a stabilized front the ordinary ammunition supply service is sufficient for replacing the ammunition. But in a war of maneuver it is necessary, when we are advancing, to avoid having to stop on account of a lack of ammunition, and in order that this may not occur, the ammunition supply trains, in addition to the vehicles necessary for use on roads, must have at their disposal enough pack animals for carrying the ammunition on their backs.

During the battle, each pack animal must leave as quickly as he has been unloaded (unless the opposite is expressly ordered) in order to replace the load.

Since the convoys of food, ammunition, wounded men being taken to the rear, etc., collect on the highways at every road junction, there should be some one to regulate traffic in accordance with the instructions given by a service officer. Unless there are other instructions, that which is traveling toward the fighting front has the right of way over that which is returning. Ammunition has the right of way over food, and wounded men over the sick.

We may accept seven as the number of pack animals required by an infantry company and sixty-two as the number required by a machine-gun company. In addition, the battalion (three companies of rifle troops and one of machine-gun troops) will require seven additional pack animals, a total of ninety pack animals per battalion.

A mountain battery requires sixteen pack animals for the four guns, and twenty-four for the ammunition supply train, a total of forty loads.

Health.—To the greater fatigue occasioned by marches in the mountains must be added that which comes from the differences of altitude; that is, from atmospheric pressure and temperature. Although, as we have already seen, mountain forces must be selected from the most vigorous types, the measures for the preservation of their health have to be most rigorous. Since detachments will be more isolated, there must be a man with each of them who, in accordance with the general instructions transmitted to him by a medical officer of the battalion or other unit, is able to give first aid treatment to men suffering from mountain sickness, dizziness, etc., and to those who have been injured by falls, twisted ankles, etc.

The sudden changes of temperature, especially when one climbs a sunny slope and arrives at the summit where an icy wind is blowing, can cause the men to take cold. It is well, if the men are perspiring hard and if military considerations are not opposed to it, to permit a somewhat prolonged halt a short time before reaching the summit and, if it is possible, the soldier should be permitted to dry his body and rub it with a towel, putting on his jersey while his shirt dries.

When one is badly out of breath, cold water should not be drunk, but one can rinse his mouth with water (which will cause the sensation of thirst to disappear) without swallowing any of it, unless its temperature is raised by holding it in the mouth for quite a while, in this way chilling of the stomach is avoided.

One must watch out that the troops do not drink

from whatever stream or pool they may come across. Very often the streams have been crossed farther up by men or animals and the water has been made dirty from soil or even discharges from the body, or has been used up-stream by the natives to wash their clothes. Drinking water must come from the canteens, which may be replenished at springs, wells, or cisterns, but only with the authorization of the commander of the unit or detachment and with the approval of the medical officer or his representative.

The reduced atmospheric pressure of high altitudes causes less oxygen per unit volume. The blood needs to remain in the lungs for a greater length of time, the heart has to work harder to overcome the slowness of the circulation, and on this account many persons feel disturbances, and sometimes serious ones. The medical personnel should receive instructions for the care of victims of mountain sickness, as well as of nervous persons who suffer from high-altitude dizziness—the sensation of a lack of equilibrium, or instability in space.

The medical officers will also give their personnel instructions on the treatment of victims of sunstroke, cerebral congestion, etc. (how to administer artificial respiration, how to give injection, etc.).

Evacuation of wounded and sick.—The greater extension of the fronts and the greater depth of rear positions render necessary an echelonment of the medical services. The scarcity of roads, and their total absence on the summits (where there are more men injured by accident than are wounded in combat), makes it necessary to move wounded men at first by means of human transportation or on the backs of mules.

In every rifle company there should be a medical man, eight stretcher bearers, one or two of whom should be nurses, and one mule to carry the medicine chest. During combat the wounded men will be concentrated at the dressing station where they are given first aid treatment, and afterwards those who are not in condition to continue in combat and consequently cannot return to their combat post should be immediately evacuated.

The battalion medical officer establishes his dressing station at a road intersection and, if possible, close to the highway or road where the motor ambulances can pick up the wounded and carry them back to the rear as soon as they have been given a very thorough treatment at the dressing station.

Evacuation by human transportation, whether the wounded man is carried in a stretcher or led by one or two of his comrades until a stretcher is met, will be effected as far as the company dressing station, and from this point the stretcher bearers will return in search of other wounded men. If the wounded man has to be evacuated to the rear, the stretcher bearers will carry him from the dressing station.

Although landing fields are scarce in the mountains, planes may be used for the evacuation of some wounded men who are in very urgent need of surgical attention. For this purpose, the divisional evacuation echelon to which the motor ambulances bring the wounded will be stationed close to a landing field from which special medical planes, for example autogyros, can take off.

Switzerland is the most mountainous country in Europe, and practically all her troops can be considered as mountain troops. The study of the Swiss Army provides us with the best basis for learning about this type of troops.

Cooperation of Various Arms In Development of Attack

[Translated at the Command and General Staff School, Fort Leavenworth, Kansas, from a Russian article in *Krasnaya Zvezda* 28 August 1943.]

THE BATTLES of the present summer are distinguished by unparalleled quantities of equipment, both German and Soviet. Both sides are committing to battle large masses of tanks. This has involved an abrupt increase in the quantity of antitank elements, primarily artillery. Covered by the fire shield of his batteries, the enemy tries to hasten the organization of antitank defense on intermediate lines in those cases when our units successfully break through his main defense zone. Antitank guns and mine obstacles are now encountered by our troops on the entire path of attack. Under these conditions, to secure successful advance it is more necessary than ever that there be the closest and the most constant cooperation of tanks with other types of troops, and especially with infantry, artillery, and sapper units.

Combat experience teaches that tank attack of an undisturbed antitank defense of the enemy as a rule ends in defeat, leading only to large losses. To undertake such attacks is consciously to run an absolutely unjustified risk of failure; it is like a man trying to drive nails with his fist instead of a hammer. The main problem of tanks is the destruction of hostile infantry and of its gun and mortar personnel, thereby protecting the movement of friendly infantry units. Tanks must be committed to battle only after an adequate fire preparation, and must be supported by artillery, mortars, and aviation during the whole battle. This rule of present day fighting is obligatory in initial attacks, and is also just as obligatory in the course of the whole later development of the offensive operation.

After breakthrough of the German defense in the whole tactical depth, our tanks, having reached operative space, engaged the enemy who was caught unawares or who was hurriedly occupying new positions. At this stage of the battle the tanks could advance quickly, taking care only that the area seized by them was promptly consolidated by our infantry,

and that in needful cases they received fire support from ground and air. Now the offensive is developing under different conditions. Our tanks are forced to overcome strengthened German antitank defense, organized by them in literally every position, however little advantage this position may possess.

Actions of tanks against these positions require fire protection no less than do the initial attacks on the forward edge of German defense. Further, the time for organization of fire and for the solution of the enemy's system of defense is very limited in such conditions. Attack must not be delayed, for then the enemy brings up supplementary means and reinforces his defense while the attacker loses the advantage of surprise. The quicker and the more organized is each blow inflicted on the enemy resisting on intermediate lines, the sooner will our attacking troops advance, and the fewer will be the losses. It is possible to attain the best results only when each advance of tanks is combined with artillery fire support, when sapper reconnaissance is conducted uninterruptedly, when upon any need our planes appear without delay ready to strike the enemy and help our tanks to advance and, finally, when tanks unremittingly maintain firm contact with the infantry which in case of extreme necessity is able to take promptly upon its shoulders the whole weight of combat.

Upon encountering intermediate enemy defensive lines protected by strong antitank obstacles, sappers first search for passages through them, and then help the tanks in overcoming these barriers. If the obstacles are insurmountable for tanks and a long time is needed to destroy them or to clear passages, and if it is impossible to by-pass these obstructions, the tanks at once proceed into concealment. Relying on the fire of its own fire elements and on artillery, the infantry must capture the zone of antitank obstacles and secure the deployment of the tanks and their commitment in the further advance. The infantry then establishes once more its cooperation with the tanks.

Our tanks must also follow such tactics in those cases when they meet dense fire of hostile antitank guns or considerably larger tank forces. The only difference is that the main weight of combat is assumed by artillery and aviation, not by infantry. They direct their fire on the hostile antitank elements and armored vehicles, thus protecting our tanks until the German defense is broken to a sufficient degree. When the tanks attack, their fire protection must not decrease. On the other hand, in precisely this period it is necessary to try to attain the greatest effectiveness of fire both on the part of the tank weapons and the guns following them, and on the part of artillery and mortars engaged in the support of the infantry. Thus the efforts of the infantry, tanks, and artillery in the attack do not have to be the same at all stages of the battle. Depending on the situation, the leading role may shift from one type of troops to another, but all their joint actions are harmonized to secure the swiftest advance of infantry and tanks.

Officers of all arms, at all stages of attack, must aim at harmonized blows on the hostile combat formations striving for maintenance of solid cooperation between infantry, tanks, artillery, engineer units, and aviation. At the same time the use of every type of weapon must be planned with exact evaluation of its tactical and technical qualities and the conditions of the situation. To learn to maintain cooperation of the different arms in the process of the attack, quickly changing the tactical methods of employment and of mutual support of infantry by tanks and of tanks by infantry and the support of both by the artillery, sappers, and aviation, is to know how to re-distribute efforts in practice among the various arms and how to use them most prudently.

In each battle, close cooperation among all types of weapons must be attained in the endeavor to assure the successful action of that arm and those means of fighting which, in the conditions of the situation, accomplish the main task.

Joint Actions of Motorized Infantry and Tanks

[Translated at the Command and General Staff School, Fort Leavenworth, Kansas, from a Russian article by Lieutenant Colonel V. Nemirov, Soviet Army, in *Krasnaya Zvezda* 17 August 1943.]

OFFENSIVE battles of our troops in the Kharkov and Bryansk sectors are characterized by the wide employment of joint operations of tanks and motorized infantry. Such joint operations usually give good results.

Tanks and motorized infantry have high mobility and great striking power. It is important only that these qualities be utilized promptly and fully at the decisive moment of the offensive operation. In one sector of the front, hostile defense was quickly broken, and into the breaches which formed were sent groups of motorized infantry and tanks. One such mobile group, breaking the resistance of the enemy in the main zone of defense, quickly reached an inhabited place which was a forepost [exact translation] of the enemy defense on the opposite bank of a river. Seizing the crossing by a bold night battle, the tanks and motorized infantry reached this bank. The enemy, failing to create a strong, striking force and to stop our movement, was beaten and forced to withdraw hastily.

The experience of such battles affirms that best results are obtained when tanks and motorized infantry act together in close contact, reinforcing each other when necessary. To observe the given principle, neither of these types of troops should be di-

verted to fulfil the tasks of, let us say, infantry units. Practice has shown that this lowers the striking force of tanks and motorized infantry and cramps their maneuver; that is, in the final result it delays the solution of the main problem.

In one sector of the front a pause in the operations took place. Our units quickly regrouped, preparing for battle for an important railway line. The strength of our units, which had been fighting uninterruptedly until now, naturally had become exhausted, while the reserves were still on the way. To beat off the enemy, who had succeeded in concentrating in the direction of the main effort, a powerful force had been gathered by us at the expense of neighboring sectors.

Early in the morning, after a half-hour artillery preparation against three main centers of hostile resistance, the infantry units began to attack. At first their actions developed successfully. Infantry, after covering a distance of five to six kilometers, captured two inhabited places and a tactically important hill. But later the situation changed in favor of the enemy. The left flank of the attackers, defended by a small screening force, was broken through by a massed tank counterattack undertaken by the enemy at the moment when our units had just started to consolidate the occupied terrain. To be sure, antitank riflemen succeeded in knocking out some German tanks, but this did not stop the rest.

To parry the impending threat, the commander of the force of combined arms brought into action tanks which were standing in reserve, and which were intended for later exploitation. While two tank companies fought the hostile tanks, motorized infantry was ordered to attack the inhabited place from which the counterattacking hostile tanks came. Some accompanying guns and mortars, interspersed in the combat formations of motorized infantry, did not create fire of such density that the infantry could take the village without stopping to reorganize. Here was needed artillery of heavier caliber and in greater quantity. As a result, the motorized infantry was pinned down under strong enemy fire, and the tanks rushing up, having just repulsed the hostile tank counterattack, were not able to help the infantry to move forward.

The course of this battle shows that serious tactical mistakes were allowed to take place. It was not at all necessary in the given case to throw in the tanks which constituted the basis of the mobile reserve for exploitation. It was also undesirable to commit to the battle the motorized infantry without sufficient artillery and tank support. In the hands of the commander were units of tank-destroyer artillery. If the attacked flank had been protected by them, the enemy tank blow surely would not have had success. And this would have permitted our tanks and motorized infantry to act in cooperation in the direction of the main effort, to seize the fourth and last enemy strongpoint, and to emerge in an area adapted to further operations.

Joint and prudent use of closely cooperating motorized infantry and tanks makes it possible first of all to conserve their combat ability to the end. It is not profitable, for example, to keep these types of troops in battle a long while, both during the period of breakthrough and in new positions in the rear of the hostile defense, if the progress of events is slow. Here it is necessary to bring into action ordinary infantry which wears down the enemy, while tanks and motorized infantry, after regrouping, inflict on him a new crushing blow.

It must be remembered that the suddenness of the blow of tanks and motorized infantry largely depends on the nature of the terrain. There was a case like this: A mobile group brought into the breakthrough, having moved about twenty kilometers, encountered very irregular terrain. Reaching steep ravines, the tanks stopped. It was necessary to send out some additional sapper units for the reconstruction of roads and the construction of temporary bridges. The element of surprise was lost, and the enemy was able to prepare for resistance. Consequently, choosing the direction of the main blow, it is necessary to provide for the uninterrupted movement of tanks in great depth. Especially, if natural obstacles cannot be by-passed the tank commander must have previously decided how he will overcome them and exactly where he will inflict the blow on the enemy. When a precise plan of action is made, based on accurate reconnaissance data, success will be assured.

One of our mobile groups consisting of motorized infantry and tanks, entering a breakthrough at the end of the first day of fighting, rushed forward. It traveled about fifty kilometers and encountered a powerful center of resistance at the crossing of two dirt roads. To find a detour anywhere near was impossible because the terrain was cut up by ravines and gullies, and besides, a wide river valley precluded the maneuver of auto transport. But the tank commander had previously foreseen this situation and made a corresponding plan of attack.

Tanks of the first echelon and attached tank destroyer artillery began to rake with their fire only the left flank of the center of resistance, where the terrain was especially rough. Soon the heavy artillery delivered its blow in the same direction. At this time the other tanks and motorized infantry were secretly concentrated in gullies opposite the center and right flank of the enemy. Seeing that our efforts were directed against their left flank, the Germans quickly moved there a large part of the organic infantry antitank guns from the neighboring sectors of the defense. This did not escape the attention of our reconnaissance.

At the appointed hour, the central part and especially the right flank of the center of resistance were

suddenly subjected to intensive air bombardment. After this, into the attack rushed tanks carrying atop them parties of tommy gunners who not only engaged the enemy, but also skilfully pointed out targets. When the leading tanks started fighting in the inhabited place, our main forces also attacked. They quickly seized the village, and, what was more important, the bridge and the river crossing. The important hostile center of resistance found itself in a semicircle of fire. To escape complete encirclement the enemy quickly retired, losing many men and much equipment.

We note that this battle produced good results not merely because it was carefully prepared and the commander organizing the battle succeeded in upsetting the enemy as to the main blow. The main thing was that tanks and the motorized infantry were not scattered, but were jointly and suddenly committed to action at the decisive moment.

The experience of many offensive operations teaches the following: the farther we penetrate into the depth of the enemy disposition, the larger will be his tank forces that will be thrown against the attackers. Supported by self-propelled artillery, the enemy tanks undertake counterattacks from the flanks, trying to cut off the communication lines of the attackers and isolate the attacking columns from the rear. Of course our tanks alone, breaking through far forward, will not be able to hold a definite sector of the terrain behind themselves. But by observing the principle of close cooperation between tanks and motorized infantry, it is possible to engage boldly in battle the counterattacking enemy forces.

In one sector of the front, our tanks commanded by Major Sergeyev were forced to go over to the defensive in order to protect the bringing up of our main forces. At first, the tanks acted alone and deployed for all-around defense in a populated place where several roads came together. Motorized infantry lagged behind, and could take part in the battle only the next day. Meanwhile the enemy, having felt out our tank wedge, undertook an encircling thrust against its right flank, committing in this place fifty tanks and up to a regiment of infantry. Superiority was on his side. Screening himself with three batteries of tank-destroyer artillery, Major Sergeyev formed a mobile group of ten tanks. The task of this group was to destroy the enemy infantry in case it broke through to the populated place.

During the first half day our artillerymen smashed eighteen German tanks. But the situation, improved only a little, remained, as before, extremely tense. The enemy chose as his method of action simultaneous blows from several directions in order to scatter our fire. To a certain degree the enemy succeeded in attaining this, and after a while his infantry, protected by armor, moved into one of the streets of the populated place.

But the situation abruptly changed at night, when our motorized infantry moved up. It quickly cleaned the populated place of the Germans who had penetrated, organized its outskirts for all-around defense, and then seized advantageous heights lying beyond the inhabited place. This ended the threat of a flank blow.

The main conclusion from the experience of this battle is that the decision of the commander to seize objectives in the rear of the enemy defense must always be based on the rapid shifting of motorized infantry to the area of action. If the situation arises that the motorized infantry cannot move with the tanks, then it is necessary to take all measures so that the gap between them (in space and time) be as small as possible. Skilful agreement of actions of tanks and motorized infantry, and maximum suddenness of their blows, always assures the success of operation of our mobile groups in depth of the hostile disposition.

Battle for a Hill

[Translated at the Command and General Staff School, Fort Leavenworth, Kansas, from a Russian article by Captain K. Andreyev, Soviet Army, in *Krasnaya Zvezda* 4 November 1943.]

IN ONE sector on the right bank of the Dnieper a battle took place, the experience of which deserves attention for a number of reasons. Characteristic are those enemy positions which had to be overcome here. They are extremely typical of German defense of a river line. Not without interest are the tactics of the defending local enemy garrison when it found itself under the threat of encirclement. Finally, of greatest interest are the operations of our advance detachments which forced the river in this place.

A reinforced German battalion occupied the height whose northern slopes descended steeply into the waters of the Dnieper. The eastern slopes of this height were also washed by the Dnieper. At the very edge of the bank a grove was situated. The most suitable place for forcing was here in the region of two islands directly east of the height. The other sector suitable for the crossing was situated to the north of the height. Thus the height dominated this entire Dnieper region. From the south the height was adjoined by a large village situated in the ravine behind which runs a ridge of small knolls. Westward is a smaller village separated from the height by a narrow dell. Such was the terrain upon which the Germans established a powerful strongpoint. The hostile artillery on the peak could employ direct fire upon the entire opposite bank, and naturally upon the river itself. Besides that, the enemy had artillery on the southern hills which covered the approaches to the hill from the south. It stands to reason that all the slopes of this height were defended by a system of machine-gun fire. Thus, on just one of the southeastern slopes of the height the scouts registered ten

heavy machine guns. In each of the villages the enemy kept a strong group of tommy gunners. Apart from all this, the enemy positions were defended by minefields.

Our advanced detachments, in spite of strong counteraction, were able to force the river in the sector of the two islands and landed near the height. In order to secure fully the crossing in that sector, it was necessary to liquidate the German strongpoint, and this before the approach of the main forces. The task of immediate seizure of the height was placed

on two detachments, commanded by comrades Tkachev and Vatyanov. An attack of the height straight ahead would have cost unnecessary sacrifices and promised a doubtful success. Therefore, it was decided to go through along its southern and northern slopes so as to encircle the German garrison.

According to the plan of battle the detachment of Tkachev was supposed to advance along the bank, i.e., the northern slope of the height. This appeared extremely risky. The enemy had created here the most powerful positions. However, the steepest of the slopes could not be covered by fire as intensively as the opposite bank. It was decided to make use of this circumstance. Tkachev's detachment was to proceed to the smaller village, capture it, and advance along the road on the south to the large village [road not shown on sketch]. Having concentrated on the outskirts of the grove he began to advance at the stipulated time, selecting one company for diverting operations on the side of the peak. This company at the same time covered the detachment from the flank. Vatyanov's detachment had to go around the height through the large village (from the south), capture it from the western outskirts and join the units of comrade Tkachev. In this manner it was planned to complete the encirclement of the German garrison. The detachment began to advance from the eastern outskirts of the large village, mainly along its central street. Here also, a distracting blow was delivered by one company which covered the right flank of Vatyanov's detachment.

The artillery elements of the advance detachments were already transferred to the right bank and placed in firing positions. Guns were firing on the southern slopes of the height. With this fire it was intended to forestall any possible counterattacks from the side of the height. A portion of the artillery conducted fire on the hostile positions on the hill, and on the western outskirts of the large village. Later on, the artillery was to transfer the fire to the road which lay behind the height and which connected the two villages. It was supposed to set up an interdiction fire in case the Germans began a retreat.

In the plan of battle not a small role was played by the third detachment. True, it had its own special mission, but its successful accomplishment also promoted the seizure of the height. This detachment operated from the left, advancing to the south and engaging the attention of the hostile artillery which was situated on the ridge of small knolls.

In the beginning, the enveloping maneuver proceeded swiftly. Both detachments almost simultaneously reached the indicated points: the smaller village and the western outskirts of the larger village. It was necessary for Vatyanov's detachment to conduct a stubborn street fight which acquired an especially violent character on the very outskirts of the large village. Here the sub-unit of Ivannikov endured several counterattacks. This sub-unit actually conducted a battle for an outlet to the road on which the detachment had to unite with the neighbor who operated on the north.

On the north the sub-unit of comrade Kuchenko first went around the height and then broke into the smaller village. Here also took place a violent battle in the course of which it was possible to seize the entire smaller village and thereby capture a group of German soldiers. However, the effort to unite with the southern detachment and to complete the encirclement failed.

The Germans, having found themselves in pincers, began hastily to retreat from the height. The two companies that had been selected for operations toward the peak pressed on them. The enemy had considerably intensified his resistance on both flanks to the rear of the height to prevent our detachments from uniting. It was in this place that the enemy undertook a series of counterattacks. This is the essence of German tactics when they attempt to slip out of a ring which is beginning to close.

In such cases the entire matter is decided by the tempo. But the tempo, in the vast number of cases, is secured by the skilful use of fire. If the enemy succeeds by a series of counterattacks in holding back our units that are trying to close the ring even for only a few hours, they might withdraw, if not the entire main forces, then a considerable part of them. It is necessary to have this in mind when

setting up a plan of encirclement of a strongpoint. Correspondingly, it is necessary to organize cooperation, paying special attention to the proper utilization of the fire elements.

Falling into difficult situations, the enemy will be more stubborn in defense of those positions under whose cover it is possible to retire from the blow. It is necessary to foresee the development of the battle and attempt to determine such positions in order to concentrate here in time the main mass of fire. It is very likely that it will be expedient to expose these positions to a concentrated artillery fire long before our attacking units break through to them. In any case, it is necessary to have this in mind in order that the enemy should not be able to jump out of the bag.

Besides this, it is necessary in the process of the battle to distinguish the more important areas in which it is necessary to develop success. At times, it is much more expedient to seize a section of a road, a dell, or even a bare field than a large village. Coming out on the eastern outskirts of the village, Tkachev's detachment was extremely swift in the battle for the final capture of the village, but was not sufficiently active in his advance to the south. Here the detachment lingered, which to a great extent permitted the enemy to play for time. Part of the German garrison succeeded in escaping through a narrow corridor (less than a kilometer) which remained for a certain time behind the height. Such is the lesson which must be derived from this altogether successful battle.

Employment of Assault Guns On the Eastern Front

[Translated at the Command and General Staff School, Fort Leavenworth, Kansas, from a German article by Lieutenant Giese, German Army, in *Artilleristische Rundschau* August 1943.]

FOR THE last ten days the two companies of Silesian grenadiers, two platoons of antitank troops, and the assault-gun battery platoon consisting of three assault guns have been lying at the advanced strongpoint at G.

The blizzard howls about the miserable huts of this village of some twenty to thirty dwellings situated on the important highway to M. The snow is heaped high about the houses and it requires a great amount of exertion to beat one's way through the stinging flakes from one end of the village to the other. The village is situated in the midst of a clearing some three kilometers across, surrounded by dense, seemingly impenetrable forest.

For ten days now the village has been the central point of the defense in this sector. The Bolshevist is doing everything in his power to wrest this strongpoint from the German defense, for it lies like a barricade along the highway that leads far into the rear German areas. He hurls his masses of men supported by artillery and tanks day and night against the firm German defensive wall. His attacks continue almost without interruption. The Russian woods continue to spew out new masses of men, but the attacks collapse time after time in front of our lines.

On the fifth day of these desperate defensive battles, the connections of the strongpoint with the rear are cut by Bolshevists who have infiltrated and, on the right and left of G, have broken through our lines. The little group of German grenadiers, antitank troops, and assault artillerymen hold like a wall of steel in the bitter snow storm against the assaults of the Bolshevists, in spite of a shortage of ammunition and food. Finally, on the evening of the tenth day the little group is relieved by portions of a grenadier regiment of soldiers from Lower Silesia who break their way from the west through the ring of hostile forces around G.

In the following paragraphs we give the day by day report of the artillerymen of the assault platoon during the last five days in the encircled village of G.

First day: We have now taken up quarters in the center of the village in order, when necessary, to be able to get to any point of our position in the shortest possible time. Since early this morning, when the last antitank cannon was knocked out by a direct hit of a mortar shell, we have been the only heavy weapons in G. For the first time this morning, we also heard the sound of Soviet motors and tanks from the west. But "Ivan" remains suspiciously quiet except for occasional mortar fire and a few heavy shells from his artillery.

We should never brag about the day till evening has come! The quiet of the forenoon has given place now, in the afternoon, to a raging barrage from the enemy (7.62 and 17.2-cm salvo guns). A few hours later the Bolshevists charge in several waves with the strength of about a battalion, from the southwest. As if on parade, five T-34's [type of Russian tank] came up to the edge of the woods to provide fire protection for their infantry. Inside of four minutes' time, the assault guns are ready for action. Fire is immediately opened on the tanks. After one of them has been hit and is burning on the edge of the woods, the other four turn around and disappear in the forest. In the meantime, the enemy infantry has arrived within 200 meters of the village. But we do not dare to fire. We have only eighty rounds of ammunition left for each assault gun, and who can tell how long we will have to hold out. Suddenly our infantry opens fire with machine guns and carbines. First the enemy stops; they begin to rush back. The attack has been repulsed.

The breech block of the second assault gun is so affected by the cold that it will not close. After it has been thawed out it is rubbed with glycerine (brake fluid) which has proven excellent as a protection against the effects of cold. During the evening the enemy fires constantly on the village. Strong groups

T-L[illegible]

PSF J. F. Carter Frederick 3-45

THE WHITE HOUSE

WASHINGTON

January 11, 1945.

MEMORANDUM FOR

ADMIRAL LAND

In your own discretion go ahead with whatever you think is necessary.

F. D. R.

Copy of Adm. Land's letter to J. Franklin Carter, 1-8-45, accompanied this memo.

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

"We, the People"
"The Week in Washington"

Metropolitan 4112
Metropolitan 4113

January 10, 1945.

MEMORANDUM FOR MISS TULLY: INTERIM REPORT ON HICKMAN SEA-SLED.

Dear Miss Tully:

Some time ago, you may remember, I was instructed to take up the matter of the Hickman Sea Sled with Admiral Land. His letter (herewith attached) is neither pro nor con, but suggests that the proper procedure is for the Maritime Commission to conduct exhaustive tests, without reference to any possible war needs for this type of light craft -- PT boats, crash-boats, etc.

Since I somehow seem to lack authority to direct Jerry Land to proceed with the indicated tests, his letter is referred back to you for any further action which the President may desire to take in this matter.

J.F.C.

UNITED STATES MARITIME COMMISSION
WASHINGTON

OFFICE OF THE CHAIRMAN

January 8, 1945

Mr. John Franklin Carter
1210 National Press Building
Washington, D.C.

Dear Mr. Carter:

The Maritime Commission has no specific use to which it could put the Hickman sea sled or any other type of planing boat. Therefore, the comment submitted below can only be regarded as suggestive.

The data applicable to the sea sled problem indicate that there have been over a period of years differences of opinion as to the merits of the sea sled as a type of planing boat. Apparently the planing boat, whether of the sea sled or the normal V bottom type, cannot be regarded as more than a minor auxiliary in the general war effort. Therefore, it would appear that even if Mr. Hickman's claims for the sea sled could be substantiated and a number of sea sleds added to the military establishment, the war effort could not be measurably affected.

In spite of the foregoing, Mr. Hickman has been before the public in the high speed motorboat industry for many years. In this field his opinion should have similar weight to that accorded to others of similar experience. It can, therefore, be argued that an investigation of the relative merits of different types of planing boats might be desirable if it could be carried out without interference with the prosecution of the war. No such investigation would be of value unless it could be sufficiently comprehensive to exhaust the possibilities of both types. Should such an investigation be undertaken it would be desirable to disassociate the problem of military value from the study and concentrate attention entirely on the relative merits of the Hickman sea sled and the normal type of V bottom boat from the standpoint only of their performance under sea-going conditions.

Sincerely yours,

E Land

E. S. Land
Chairman

UNITED STATES MARITIME COMMISSION
WASHINGTON, D. C.

OFFICIAL BUSINESS
RETURN AFTER FIVE DAYS

WASHINGTON, D.C.
JAN 9
9-PM
1945

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

Mr. Maurice C. Latta
Executive Clerk
The White House
Washington, D.C.

Miss Turner

Cindy, Please make a copy of Admiral Lands letter to Carter & send it to Land with original of this top memo - file the rest

done 1/11/45 GST

PSF: J. F. Carter [illegible]
3-45

JOHN FRANKLIN CARTER
(Jay Franklin)
1210 NATIONAL PRESS BUILDING
WASHINGTON 4, D. C.

file personal

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January 15, 1945.

MEMORANDUM FOR MISS TULLY: COPY OF LETTER TO PUTZI HANFSTAENGL.

Dear Miss Tully:

Here is a copy of a letter I am mailing to Putzi Hanfstaengl, after discussing his request for $100 with Mr. Grew, as directed.

In a letter written subsequent to his radio, Putzi says that he is advised that such a transaction is entirely legal, since other prisoners are in receipt of funds.

My own judgment is that we should not interest ourselves further in his case, if only to prevent the British from taking it out on him, but wait until after the war to capitalize on any advantages which might result from our having attempted to utilize him. I also think that we have some sort of a moral obligation where he is concerned, since he actually did try to help us and since his judgment on Germany's ability to hold out in 1944 was quite accurate.

J.F.C.

PSF
Carter
Box 125

January 15, 1945

Dear Hanfy:

Regarding your radiogram and letter requesting $100, I promptly took up the matter de novo with the most competent authorities. They handled the request with the most complete understanding of all the circumstances but advised me that it was contrary to the war-time laws of this country to authorize the despatch of these funds.

Without pretending to be a lawyer, I assume that the decisive fact is your present status with the British authorities, namely an enemy alien who is interned under the Defense of the Realm Act. If the British authorities should decide to alter your status in such a manner as to meet the legal argument raised here, I assume that the obstacles would be removed and that any private funds which could be sent to you would be available.

Your personal effects, clothes and papers were today turned over to the British authorities to be shipped to you.

With warm personal regards and real regret that the authorities here are unable to comply with your request.

Sincerely yours,

John F. Carter, Jr.

Dr. Hanfstaengl
No 69973
"P" Camp - Peveril T.C.M.
c/o Chief Postal Censor
Liverpool, England

PSF J. F. Carter folder 3-45

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January 16, 1945.

REPORT ON WINSTON CHURCHILL'S PUBLISHING CONTRACTS.

Following reports that Winston Churchill had sold the American rights to his memoirs to three New York publishers and had obtained cash-advances from two of them, I asked my friend Timmy Coward of Coward-McCann to verify the real facts. Here is his preliminary report:

"Up until now, I do not discover that Winston Churchill is involved with his memoirs with several American publishers. However, this does not mean that it may not be so, and I have some lines out to see what we can find out. The rumor may have started, however, with the rumor that Churchill had two books on the fire, one a history of Europe since 1915 which Harcourt Brace is eventually to publish and one a history of England which will include probably chapters on the present war to be published by Dodd Mead. This latter manuscript caused some scandal. It was commissioned by Cassels in England who paid a very, very fancy price for it. Churchill then, characteristically, did nothing and Cassels, after waiting with reasonable patriotic patience for a number of years, threatened to sue. Churchill then got to work and finished the manuscript up to the time before the present war. Dodd Mead has a copy of the manuscript so that all ~~it~~ that Churchill has to do is to write the final chapters when the war is over...

"There have always been many rumors going about Churchill's books. No one except Putnam has ever done anything but lose very substantial sums of money on Churchill's publications."

J.F.C.

PSF J. F. Carter folder 3-45

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January 18, 1945.

MEMORANDUM FOR MISS TULLY: REPORT ON ARMY SHOES.

Dear Miss Tully:

In checking on the facts concerning Army shoes, as directed, I find that the chief problem is clumsy and overlapping organization in the Army Quartermaster Corp. Three separate Army organizations are involved, where the Navy has a single centralized organization. This system, which is general in the Army Service Forces, leads to situations in which the highest military authority is invoked to back up the snap-judgments of minor officers.

The attached report shows how this has worked out in the matter of heavy leather, in which supplies are limited.

The overall remedy indicated by these facts involves simplification of the Army procurement organization and centralization of authority in the various procurement division. In the case of shoes, for instance, there is a Shoe Research and Development unit, Shoe Procurement Unit and Show Storage and Distribution Unit, each of which is administratively independent of the others and "coordinated" only on a high level.

J.F.C.

Technical Series No. 32

January 17, 1945

~~SECRET~~

CONSERVATION OF HEAVY LEATHER

It is reported that the preponderance of "light" hides in the U. S. leather market makes necessary the strictest conservation of heavy leather.[1]

It is further reported that this shortage recently made necessary a change in allotment of leather for military shoes by the War Production Board.

It is stated that while this change was readily agreed to by shoe procurement personnel acting for the Navy, the Quartermaster Corps, for a period of more than two weeks, firmly reiterated that no change in specifications for Army shoes would be agreeable.

It is also stated that this recent disagreement is the culmination of many months of effort on the part of the War Production Board by decreasing the weight of "mid-soles," (a thinner sole between the upper and the main lower sole), to conserve the stocks of heavy leather. In this connection, it is reported that Army shoes having main lower soles of rubber base or synthetic rubber material, do not require in addition a thick, heavy mid-sole. It is stated that this policy is due, among other things,[2] to the inefficient organization of the various sections dealing with shoes in the Military Planning Division of the Quartermaster Corps.

---

1. Reported connected with OPA rationing policy as well as the disappearance of Argentine hides from U.S. leather market.
2. See Technical Series Report No. 27, Canvas Shelters for U. S. Troops.

It is stated that this organization is such that incompetent personnel are improperly supported and without review, in far reaching and important decisions by the highest authority, i.e., the Quartermaster General and the staff of Army Service Forces.

It is recommended that the Chief of Staff confer with Lieutenant General Somervell for the purpose of initiating a thorough investigation of the organization and procedures regarding specifications and procurement, as well as storage and distribution in the Quartermaster Corps.

PSF J. F. Carter folder 3-45 - Told him to take up with State

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January 18, 1945.

MEMORANDUM FOR MISS TULLY: FINAL REPORT ON COLUMBIUM IN BRITISH GUIANA.

Dear Miss Tully:

After thorough investigations, as authorized, of the Government's present policy in procuring Columbium from British Guiana, it appears that this has no chance whatsoever, since WPB has directed that procurement of rare and strategic metals shall be entrusted to private industry. This compels us to rely on Nigeria for Columbium and to ignore deposits closer to our borders, which might save time and tonnage if developed.

If anything further is done on this one, I suggest that the Chairman of the War Production Board be asked to investigate and, if he deems it advisable, to reverse the directive involved in the present policy.

J.F.C.

Technical Series Report No. 30.
January 16, 1945.

filed 9 F. Carter Foreman
ar. 3-44

COLUMBIUM DEPOSIT IN BRITISH GUIANA

With reference to previous report under date of December 26, 1944, additional information indicates that no steps are being taken nor are anticipated by the War Production Board directly or through Foreign Economic Administration to acquire for use by the United States the columbium deposit in British Guiana.

It is further stated that the Metals Reserve Company, the governmental corporation created for the acquisition of strategic metals, has been instructed by the War Production Board to dispose of stocks. It is further reported that the attitude of personnel, both in WPB and in FEA reflects the policy that industry is doing a good job on the acquisition of strategic materials. In this connection, the stocks of columbium allocated to government as of January 1, 1945, are zero gross tons.[1]

It is recommended that immediate action be taken to effect the investigation as outlined in recommendation in the conclusion of report dated December 26.

---

1. Detailed information regarding consumption and stocks of columbium through 1943-1944 can be furnished if desired.

~~SECRET~~

PSF J. F. Carter forces 3-45-

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January 18, 1945.

REPORT ON SOURCES OF TANNING MATERIAL.

The Shoe and Leather people in the War Production Board, speaking in strict confidence, are extremely disturbed over the shortage of tanning material. Our political relations with the Argentine, which is the source of Quebracho used for tanning, cause them deep uneasiness and they state that without Quebracho we simply could not make shoes for the Army. Reserves are not great in this country.

A chemical substitute has been developed but is not available in quantity.

My suggestion is that prompt Intelligence measures be taken in Switzerland and Sweden to ascertain how the Germans have solved this problem, as they have been shut off from Quebracho for five years. My off-hand guess is that the I.G.Farben-industrie has developed a process which ~~minin~~ eliminates the need for Quebracho. There is also the possibility of developing Quebracho in other parts of South America, if we desire to risk an Argentine embargo as a possible result of our present political differences with the Buenos Aires government.

J.F.C.

Technical Series Report No. 31

January 16, 1945

SOURCES OF TANNING MATERIAL

It is reported that with very minor exceptions the only tanning agent in use by the hide and leather industry in the United States is obtained from the Quebracho tree found in greatest quantity in Argentina.

It is further reported that the War Production Board, anticipating by the trend of events, more difficult trade relations with Argentina, made serious efforts to secure several full cargoes (about 10,000 tons each) of Quebracho. In one instance, it is stated efforts were made to ferry Quebracho across to the Uraguayan port of Montevideo for export to the United States. This ruse is stated to have been completely unsuccessful.

It is reported further that the shortage of this strategic tanning material is necessarily given the most serious consideration by the War Production Board when questions of policy concerning the utilization of tanned leather for military and civilian use are discussed.

It is recommended that immediate steps be taken to initiate thorough investigations of Swedish and Swiss intelligence sources on tanning materials. It is further recommended that an immediate investigation be conducted to determine the tanning methods and the tanning materials in

use by the German leather industry with a view to securing a synthetic chemical tanning material equal to or better than Quebracho. In this connection, it is suggested that a thorough review and investigation be made of the possibilities of utilizing pine needles as a primary source of a tanning agent.

PSF J. F. Carter folder 9-45

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January 18, 1945.

REPORT ON ARMY PARACHUTE EQUIPMENT.

There is still some dynamite in the Army Parachute equipment, despite large orders for the so-called "single-point, quick-release" parachutes which were the subject of earlier reports and publicity.

The latest is an airborne troop parachute which is a modification of the British system (modification alleged to be so as to avoid patents), which has the characteristic of a leg-loop which gives the paratrooper a jerk in the groin that results in near-castration when the parachute opens. This is said to impair his combat-efficiency on landing.

The indicated remedy is to specify that the American Type Quick Release Training Harnass be specified as standard.

It is said that the responsible officer at Wright Field, in this connection, is Col. Turner A. Sims (nephew of the late Admiral Sims), who is executive officer for General Meyers, commanding Wright Field.

J.F.C.

Technical Series Report No. 33

January 17, 1945

Army Parachute Equipment

It is reported that to date approximately 300,000 single point release parachutes have been purchased by the Army Air Forces. An additional 130,000 are stated to be scheduled for delivery in March and April.

The above procurements are reported to have been made by Army Air Forces Contract Division on higher Authority and without the concurrence of Lt. Colonel Verne Stewart, Parachute Officer at Wright Field. It is further reported that Stewart's opinion that no necessity exists for QUICK RELEASE PARACHUTE HARNESSES is actively supported by Colonel Turner A. Sims, Executive Officer for Major General Meyers, commanding Wright Field.

It is further reported that, within the last few days, an initial procurement of 85,000 airborne troop chutes embodying a U.S. modification of British type paratroop quick release harness has been arranged.

This U.S. version, known as type T-7, is stated to include a "leg loop" as a modification (devised, it is stated, to avoid patent royalties) which has the dangerous quality of effecting near castration when impact of chute opening snaps the harness taut.

It is recommended that the American Type Quick Release Training Harness (which is similar to the British Paratroop Harness (BUT NEVER ADOPTED) be immediately specified as standard. It is further recommended that all modifications of existing parachute harnesses to T-7 type cease and that an immediate shift be made to the superior type.

(1. See previous reports on single point release parachutes.)

BF J. F. Carter folder 3-45

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January 22, 1945.

MEMORANDUM FOR MISS TULLY: PROTECTION OF AIRCRAFT FROM FIRE (TECHNICAL NO. 34)

Dear Miss Tully:

Here is Technical Series Report No. 34, "Protection of Aircraft from Fire", calling attention to alleged remediable deficiencies in fire protection on Army and Navy Aircraft.

The burden of the report is that, since the adopting of the self-sealing gas tanks on aircraft, the services have not kept up with the problem of fire-protection, and that there are now many devices tested by wartime experience which could reduce fire-losses, estimated to account for 70% of all aircraft losses.

J.F.C.

~~SECRET~~

Technical Series Report No. 34

January 18th, 1945

PROTECTION OF AIRCRAFT FROM FIRE

It is reported that approximately seventy per cent of all losses of U.S. military aircraft are caused by fire.

In spite of this high fire loss ratio it is stated that only the most halting steps are being taken by either Army Air Force or Bureau of Aeronautics to provide adequate extinguishment systems or the incorporation of improved arrangements of fuel tanks and accessory devices as modifications in existing planes and comprehensive requirements in new aircraft.

It is further reported that there exists a wealth of technical data on aircraft fire protection all of which is based on actual experience in the maintenance and operation of military aircraft including exhaustive studies and resulting recommendations representing the combined efforts of American and British aircraft designers and engineers. This material, it is stated, has been accumulating for the past eighteen months or more and contains the potential and practical basis for the more adequate protection of all U.S. aircraft against fire loss. The recommendations, it is stated, include not only matters pertaining to more effective and adequate extinguishing systems but also, and more fundamental, they are said to include new concepts of the design and arrangement of fuel tanks and systems with particular application to all types of high altitude "pressurized cabin" aircraft such as the B-29.

It is reported that the agitation at the outbreak of the war, for so-called "self sealing tanks," to match those found in enemy craft, has resulted in a type of complacency and misplaced dependence on a single phase of protection which is furthermore only useful against 30 caliber weapons. In this connection it is reported that such self-sealing tanks are wholly useless against incendiary and explosive shells of higher calibers with which the vast majority of enemy aircraft are armed. Fuel tanks in the wing or fuselage of the aircraft when struck by incendiary or explosive 20 millimeter shells from the cannon with which German aircraft are armed explode and catch fire immediately, it is stated. Further, it is reported that ordinary flak of any size will so damage these self-sealing tanks as to allow the gasoline to drain into the wing or fuselage spaces with resulting fire from exhaust manifolds, ignition or impact of enemy shells.

It is stated that until a comprehensive program to improve the extinguishment systems and to provide "bulkheading" and inert gas blankets around fuel tanks is adopted, U.S. planes will be easy prey for more heavily armed and faster enemy craft. It also is stated in connection with extinguishment that U.S. military aircraft are inadequately equipped not only in AMOUNT of extinguishing agent but also in the CHARACTER of the agent used. Naval aircraft are said to have extinguishment systems extremely limited in capacity and which far from providing FULL protection (based on tests and recognized ratings by Bureau of

Standards, Civil Aeronautics Authority, etc.) can actually only be said to provide another lever on the control board.

It is recommended that immediate steps be taken by the Chief of Staff to effect rapid practical application of all sound fire protection principles based on three years of war-time flying. It is further recommended that such principles be immediately effected as modifications on existing aircraft where at all feasible, and definitely and rapidly included as changes in design in aircraft under construction.

Hold till we hear from the Director of the Budget ——

PSF Carter folder 3-45

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January 23, 1945.

MEMORANDUM FOR MISS TULLY: ALLOCATION FOR THIS UNIT.

Dear Miss Tully:

I probably should have written this earlier, in order to avoid troubling the President with details which he had already handled.

Last December, after my inquiry as to whether the President wished my work continued through the end of the fiscal year, Mr. Lawton of the Budget Bureau told me that the papers had come over from the White House. Later, he informed me that they had been signed by the President and sent to the General Accounting Office. Early this month, Mr. Young of the State Department Bureau of Accounts told me that the authorization had reached his desk and that he had prepared the necessary vouchers. The only remaining bit of routine was the signature of the usual letter of agreement by Assistant Secretary of State Dean Acheson. This, I am told, has been delayed because Dean Acheson knew none of the details involved in this allocation from the President's Special Fund to the Office of the Secretary of State.

I really hope that I may have some word before the end of this week, as otherwise I shall be forced to miss meeting a payroll for the first time in my life. I have been carrying on my assigned duties since December 13, 1944, using my own funds which are now exhausted.

J.F.C.

J.F.C.

THE WHITE HOUSE

WASHINGTON

January 18, 1945

MEMO FOR GRACE:

The Secretary of State called regarding J. Franklin Carter and his request that the Secretary sign a contract between him and the State Dept. to give him $24,000 to carry on his project. The Secretary says he will not do this unless he has authorization from the President because he does not know what work he is doing.

Then Carter called to say would you tell Dean Acheson it is O.K. to sign the letters of agreement on his operations.

The above for your information on account of the Secy. of State is coming in at 11:45.

PSF J. F. Carter folder 3-45
Will bring to
talk to Jay
about this
done 3/8/45

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January 24, 1945.

MEMORANDUM FOR MISS TULLY: MECHANT VESSEL LIFE RAFTS ("T" Series No. 35)

Dear Miss Tully:

This is the old, old story of the life-raft situation on merchant vessels, in which the U.S.Coast Guard is in the center of the picture. The latest develop-ment is that tests with machine-guns show that hollow metal life-rafts of the kind previously approved by the Coast Guard are punctured by gun-fire and then proceed to sink.

This startling discovery, however, has not led to any change in procurement policy, with the result that our merchant seamen subject to attack by planes and submarines are needlessly jeopardized.

My belief is that Admiral Land could, if he so desired, order a less vulnerable type of life-raft for the vessels under the War Shipping Administration.

J.F.C.

SECRET

Technical Series Report No. 35

January 22, 1945

MERCHANT VESSEL LIFE RAFTS

It is reported that the Merchant Marine Council U.S. Coast Guard has taken no steps to insure the replacement of "Slat Box" type life rafts, placed on U.S. merchantmen at the outbreak of the war, (having buoyancy solely dependent on air filled tanks) with IMPROVED TYPE RAFTS of balsa or cork not vulnerable to damage by puncture.

It is stated further that such "slat box" type rafts placed (four on each merchant ship) high above the weather deck are completely exposed to puncture by bullets and shells from straf-ing planes as well as by bomb and shell fragments, or other flying debris thrown by torpedo or bomb explosion. It is reported, in this connection, that a more recent type of metal raft construc-ted of split culvert pipe and filled with nothing but air for buoyancy, has been supplied in number (over five thousand) to U.S. vessels after approval early in 1943 by U.S. Coast Guard. Such rafts, solely dependent on air tanks for flotation and the last resort of merchant seamen abandoning their vessels after enemy action, are said to be as vulnerable to puncture as "four tomato cans sitting around an anvil being shot at by cowpunchers."

It is said the Coast Guard has excused the lack of definite action on the basis of the low percentage of losses by strafing and bombing. Hearings on the subject before the House Committee on Naval Appropriations in 1944 are said to have brought out the

need for improved rafts but with no practical results.

Exhaustive tests conducted at the insistence of the Committee chairman are said to have finally proved late in October 1945 that metal tanks are punctured by machine gun and cannon fire with the consequent result that the raft loses all effective buoyancy and sinks. Even these convincing demonstrations have had, it is stated, no actual effect in expediting the procurement and installation of rafts which can be depended on to stay afloat after enemy action. In this connection, latest reports in the press (New York Times 1/20/45) are the best indication of the enemy's continued activities in shelling and machine gunning merchant crews adrift in boats and rafts. Earlier survival reports at Coast Guard Headquarters are said to contain voluminous material regarding heavy losses by bombing and strafing on the North Atlantic convoy runs early in 1943. In many cases the rafts are reported to have sunk because of damage to air tanks after being launched into the water.

It is recommended that steps be taken by Admiral Land to secure definite and rapid action looking toward the replacement of all inferior rafts with approved types having permanent "built in" buoyancy, giving priority to making the change on merchant ships engaged in the more hazardous voyages in active war zones.

SUBMARINE SHOOTS FREIGHTER'S MEN

Survivors Tell of an Japanese Attack After Torpedoing in Eastern Pacific

SAN FRANCISCO, (Wan...) The Japanese submarine that torpedoed the Liberty freighter John A. Johnson cruised three times through the area of destruction while its crew machine gunned groups of survivors and shouted unprintable taunts at the Americans in the water, it was made known today.

"Their tones were gleeful," said Lieut. (j.g.) Wynn D. Yates of Salt Lake City, a 32-year-old naval reservist, who commanded the armed guard crew aboard the merchantman.

The strafing attack was believed by survivors to be responsible for more than half of the deaths that followed the Johnson's sinking. Not a single fatality was attributed to the torpedo explosion. Six men, suffering from bullet wounds, five of whom required hospitalization, were brought to San Francisco by a rescue vessel.

Officers Tell of Attack

Captain H. Becker, 41, who has spent twenty years in the merchant marine, shared an interview with Lieutenant Yates during which they told of the submarine's striking without warning, of the seventy survivors taking to boats and rafts and of the enemy sailors, with victory cries and gibes, firing scores of shots at the helpless victims.

The torpedo struck midship and Captain Becker ordered the vessel abandoned when the fore and aft sections began to part. Lieutenant Yates sent seventeen of his men overboard to a raft while he and two companions manned the aft gun until the rising water made it useless.

Eventually Captain Becker, Lieutenant Yates and six other survivors found a damaged lifeboat and bailed out the water.

"Then, a few yards distant, the bulk loomed out of the water," the captain said. "Hatches opened, we heard footsteps along the deck and the heavy engines idled. It was the Jap submarine."

As the eight men in the lifeboat bailed over the side and pulled floating sacks of flour about their heads the submarine began moving forward, its machine guns firing bursts of thirty to forty shots at least five times.

"Red tracers showed the direction of the fire," Lieutenant Yates recounted. "We knew they were shooting at a boatload of survivors beyond us."

After the submarine had disappeared the men found their lifeboat and began to bail. Their work was interrupted by the submarine's reappearance and one of his companions murmured to Lieutenant Yates: "We're goners."

The frightened man threw his arms around the lieutenant's neck and they recited the Lord's Prayer together. A few moments later the submarine plunged again into the darkness.

The survivors underwent the same ordeal for the third time when the submarine finally left the scene after its deck gun had fired four rounds at the floating sections of the Johnson, setting them afire.

Sunk Last November

The John A. Johnson was sunk between California and Hawaii last November, according to the United Press.

PSF Carter folder - 3-45

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January 24, 1945.

MEMORANDUM FOR MISS TULLY: CONSTRUCTION OF PASSENGER SHIPS.

Dear Miss Tully:

The attached Technical Series Report No. 36 refers to an alleged condition in which some 25,000 workers are employed in the construction of at least twelve large luxury passenger ships for post-war use, at a time when the Army and Navy are arguing in favor of a "work or fight" law.

The report points out that all criticism of the program is met by the statement on the part of the builders that the program was ordered by the President. This in turn might expose the President to criticism, in Congress and in circles opposed to the current "work-or-fight" proposals.

I am forwarding it simply because it represents a condition which might later cause some embarrassment to the White House.

J.F.C.

SECRET

Technical Series Report No. 36

January 22, 1945

CONSTRUCTION OF U. S. PASSENGER VESSELS

It is reported that the U.S. Maritime Commission has under construction at least 12 passenger vessels for delivery to private shipping companies at a total contract cost of about sixty million dollars.

It is stated that reliable estimates indicate that at least 25,000 skilled workmen and technicians are continuously employed on the construction of these vessels which are to be delivered to their new owners late in 1945. It is reported that four of these luxury liners are for the Grace Line, five for the American President lines and the remaining three for the Mississippi Shipping Company of New Orleans.

It is further reported that the explanation offered in response to any adverse comment on the diversion of critical materials and manpower for such purposes at this stage of the war is that the construction of these passenger vessels was undertaken by orders of the PRESIDENT. Belief that this has basis in fact is said to be accepted widely among shipyard personnel, technicians and design engineers having knowledge of the character of the construction.

It is further reported that the consistency of this procedure is causing more than a little comment in the face of such recent statements by military and naval authorities on manpower requirements and the prediction that the war in the Pacific will last

four more years at a cost of 2,000,000 men. The knowledge that draft deferred designers and technicians spend days, weeks and months perfecting interior decoration and arrangements of the most luxurious sort, necessitating the construction of sample staterooms and incidental travel from Washington to ports on the east and west coasts adds basis in actual fact and is continuing to furnish fuel for a real "blast" at government shipbuilding policy.

It is recommended that the War Manpower Commission take steps to establish a more consistent policy in regard to employment of skilled mechanics such as those in the shipbuilding trades. It is further recommended that the War Production Board be instructed to establish a system to make certain that critical materials are not allocated to construction programs having only a remote bearing on the conduct of the war.

PSF J. F. Carter folder 3-45

WAR DEPARTMENT
OFFICE OF THE CHIEF OF STAFF
WASHINGTON 25, D. C.

January 25, 1945

File
Telephoned Gist
of this message
1/26/45

MEMORANDUM FOR MRS. BRADY:

I refer to the attached memorandum from John Franklin Carter regarding an important invention in Portland, Oregon with which a Mrs. Honeyman and Mr. M. P. Riis are connected.

I have checked with the New Developments Division, War Department Special Staff and have been advised that the Army is not the party of primary interest in connection with such an invention. It has been suggested that Mr. Carter's memorandum be referred to Dr. Vannevar Bush, Office of Scientific Research and Development.

B. W. Davenport

B. W. DAVENPORT
Lt. Col., G.S.C.
Asst. Sec., Gen. Staff

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Davenport

"We, the People"
"The Week in Washington"

Metropolitan 4112
Metropolitan 4113

VERY IMPORTANT (PERHAPS)

January 19, 1945.

REPORT ON IMPORTANT INVENTION IN PORTLAND, OREGON.

This may be just another one of those things, but Mrs. Honeyman swears that it is so and that several Army engineers have checked on it: the discovery of a simple practical still which can convert wood-waste, weeds, saw-dust, etc. into a variety of products including gasoline.

The inventor of this device, which is protected by patents, is a certain M.P.P.Riis, of Danish extraction, who lives in Portland on the income from investments in Alaska trading-stores. He has, according to Mrs. Honeyman, refused an offer from a major oil company for fear that the invention would be bottled up. He wants to give it to the government and is said to need between $5,000 and $25,000 for a pilot-plant.

If you approve, I shall send Earle Hiscock, who is thoroughly qualified in technical matters (M.I.T. graduate) and is working for this unit, to Portland and have him see what there is to this development. On the basis of his report, it will then be possible to judge what, if anything, can or should be done to set up a pilot operation, using either private or Federal funds under proper terms as to priority and secrecy.

J.F.C.