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VOLUME 1 * NUMBER 3

INTELLIGENCE BULLETIN

November 1942

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WAR DEPARTMENT**

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MILITARY INTELLIGENCE
SERVICE

WAR DEPARTMENT
Washington, November 1942

INTELLIGENCE
BULLETIN

No. 3
MIS 461

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There is no little enemy.

—Benjamin Franklin.

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PART ONE: GERMANY

Section I. THE INDIVIDUAL SOLDIER

1. WHAT HE IS LIKE

The German soldier is a grimly determined fighter who has scarcely known what it is like to live as an independent human being, and whose religion may be summed up in a single word: Nazism.

In his parent's home, in school, in the many subdivisions of the Hitler Youth Movement, in the shop, and in the Reich Labor Service, the army recruit has been bred as a National Socialist. The official point of view regarding national and international matters has been the only point of view he has ever known. All his newspapers, books, magazines, and every other source of information available to him have been "doctored." He knows what the Nazi Party permits him to know, and nothing more. Above everything in the world, he is aware of his allegiance to the National Socialist State and of his life work of being a German. It is his proudest belief that he belongs to "the German race," and that as a result he is something he calls an "Aryan."

Nothing is easier to explode than this theory, and the fact that the Germans cling to it shows how far state control has corrupted the common sense of a whole nation. Actually, the Germans are not a separate race. They are Caucasians (as are nearly all European peoples), and since Germany has been the melting pot of all the invading groups which have crossed that territory for the past 3,000 years, German blood is a mixture of many strains. It is heavily Polish, for example.

The truth about the word "Aryan" is that it does not pertain to physical characteristics, but to the science of words, and means a member of one of the peoples who speak what is called an "Indo-European" language; hence Portuguese, Armenians, Greeks, Italians, and dozens of other peoples are as Aryan as the Germans. Contrary to all modern science, however, the Nazis use the term in a racial sense, and identify the German people with it.

The German superiority myth is not an invention of the Nazis, who merely give great publicity to a theory that was popular back in the 19th century. The Kingdom of Prussia and her sympathizers, at that time struggling to combine numerous German states into a united nation, found the doctrine of racial superiority a powerful political weapon. It must be remembered that the German soldier is a product of 1,500 unhappy years of German history, and that the inability of his people to form a united and lasting state has given him a private sense of national inferiority. In "Aryanism," with the Nazi trimmings, the German people have hit upon a kind of national religion, and one which helps them to forget that as a nation

they have always been a political failure. In this religion the leaders are the state, and the state is god.

In teaching German superiority, the soldier's army training more or less picks up where the Youth Movement leaves off. His mind is filled with continuous propaganda which exalts war and makes it seem unavoidable, humane, and heroic. The present war is presented to him as a struggle for national existence forced on Germany by a degenerate, crafty, and ruthless enemy. The soldier is taught this kind of thing hand in hand with his really excellent training in purely military matters—not that he is receiving military training for the first time. It must be remembered that in the activities of Youth Movement societies he learned rifle marksmanship, close-order drill, combat scouting, and many other aspects of warfare. All along the way, these societies were preparing him for a soldier's life.

As soon as he is called up for service, he is tested for his special abilities and qualifications so that the Army can decide in which branch he is to be trained. He is then sent to a training center, where he remains for about six months, unless the need for troops in the field is so great that his training period must be shortened. At the present time, German training centers take advantage of as many short cuts as possible. Normally, during the soldier's first 4 months at the training center, emphasis is placed on his development as an individual fighter. During the fifth month he works on platoon and company problems, and during the sixth month he takes part in battalion and regimental exercises. After the sixth month

his class ordinarily would join in divisional maneuvers, but in wartime such large-scale maneuvers often are omitted. If the recruit displays marked ability while at the training center, he may be allowed to attend a specialists school—for example, a Communications School.

The German soldier's recreation is designed to build up his sense of mental and physical superiority. German sports have been geared to assist the nation-wide program of military training. Their chief function is to toughen the body and encourage combativeness. In most games, as in military training, the emphasis is on the importance of winning—not on sports for their own sake.

Plenty of books and motion pictures are made available to the troops, but, as is so often the case with Nazi generosity, there is a catch. The books are selected, and the films designed, with one fundamental purpose in mind: propaganda. Even when the soldier is relaxing, the doctrine of German superiority is being drummed into him.

The German Army pay scale is lower than ours. A German private receives \$6 a month; a lance corporal, \$30.80; a corporal, \$47.48; a sergeant, \$67.20; a first sergeant, \$74.72. A lieutenant may receive from \$960 to \$1,680 annually; a first lieutenant, from \$1,360 to \$1,680. A private at the front gets an extra 40 cents a day, or 80 cents a day if he is sent to Africa. Officers and noncommissioned officers receive double this amount. Only soldier's dependents who can show evidence that they need assistance are granted financial aid, and even then the matter is in the hands of a district administrative

authority. When the families of officers or noncommissioned officers include children, the following monthly allowances are made: \$4 when there is one child, \$8 if there are two, \$10 if there are three or four. Unfortunately for the soldier's family, this does not insure a decent living standard, partly because such basic necessities as food, clothing, and fuel are not only very expensive in the Reich, but dangerously scarce.

Despite the internal conditions in Germany, the average German soldier seldom feels that he is being pushed around by his leaders. His morale is good. He takes pride in the unit to which he belongs, and fights without a word of question or reproach. On the whole, he is convinced that although World War II is unfortunate, it is necessary if his people, the master race, are to rule the world.

2. HOW TO IDENTIFY HIM

a. Standard Field Service Uniform (see fig. 1b)

Privates and noncommissioned officers in the field wear a steel helmet painted with a gray, rust-resistant paint, or a field service cap made of greenish-gray cloth. This cap may be worn under the helmet. The blouse is also greenish-gray; it has a standing collar of a darker shade. The waist belt is of soft black leather and has a dull white metal buckle. Cartridge pouches are attached to the belt. The gray cloth trousers are tucked into the top of black calf-length boots. The overcoat is gray, with a dark green collar, and is double-breasted. The

soldier carries a pack (haversack in the case of mounted troops), a shelter-half with ropes, a canteen, a gas mask and protective gas cape, an entrenching tool, and side arms. Officers' field uniforms are similar to those of line soldiers.

b. Field Uniforms of Special Units

(1) *Armored force troops*.—Tank and armored-car personnel wear a loose-fitting black uniform with a black field service cap or a steel helmet. Armored-car personnel may also wear a protective camouflage uniform of greenish cloth, cut like the black uniform. Medium armored troop-carrier personnel wear the black uniform with a black beret. The crews of medium self-propelled antitank guns wear a gray uniform, cut like the black uniform, and a gray field service cap or steel helmet.

(2) *Parachute troops*¹ (see fig. 1 a).—Parachutists wear a brimless steel helmet with chin and neck straps, loose-fitting gray-green coveralls with very short legs, gauntlet gloves, and ankle-length boots laced at the sides. Loose gray trousers (like extra-long knickers) and a gray blouse are worn under the coveralls. The leather belt is supported by two front straps fastened to a ring and a single strap at the back. To the belt are attached a revolver, two haversacks, a canteen, and a gas mask. A rolled bivouac cape may be hung from the shoulders down the back.

(3) *Mountain troops*.—These troops wear a special cap (similar to the field service cap, but with the addition of a

¹ Parachute troops are members of the Air Force.

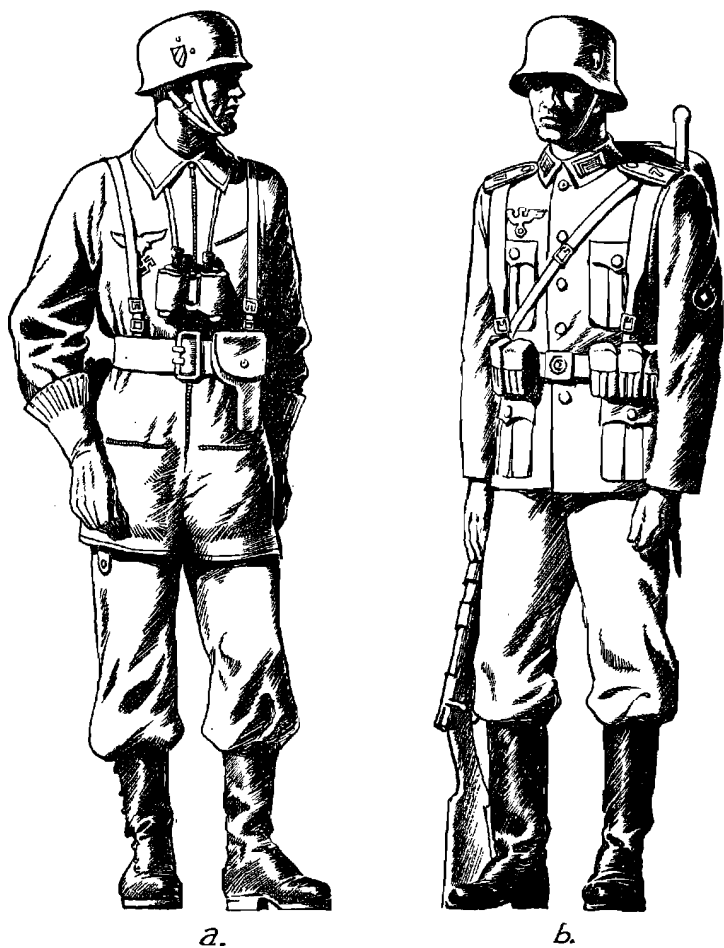


Figure 1.—(a) German Parachutist's uniform (standard); (b) German Field Service uniform (standard).

cloth visor), the ordinary type of service blouse, gray trousers fastened around the ankles by puttees, and ankle boots. They carry a loose knapsack (*rucksack*) and a large canteen. In snow, they may be equipped with snowshoes or skis, and white coveralls.

c. Insignia of Grade

Sergeants wear distinctive shoulder straps (no chevrons). The gray-green background of the strap is bordered by a silver strip, around which is a narrow braid in the distinctive color of the wearer's arm or service. Certain grades of sergeants also wear silver stars on their straps. Corporals', lance corporals', and privates' straps are gray-green, with a braid in the distinctive color. The regimental number may appear on the background of the strap; the strap button may show the number of the wearer's company or equivalent unit. Corporals and lance corporals wear chevrons on the sleeves of their blouses. Collar patches, showing the color of the arm or service, are worn by all grades.

d. Other Distinguishing Marks

(1) *Distinctive colors of arms and services.*—Each of the arms and services has a distinctive color. The more important are as follows:

Red.....	Artillery.
Black.....	Engineers.
Dark green.....	Officials.
Dark blue.....	Medical.
Light blue.....	Motor transport.

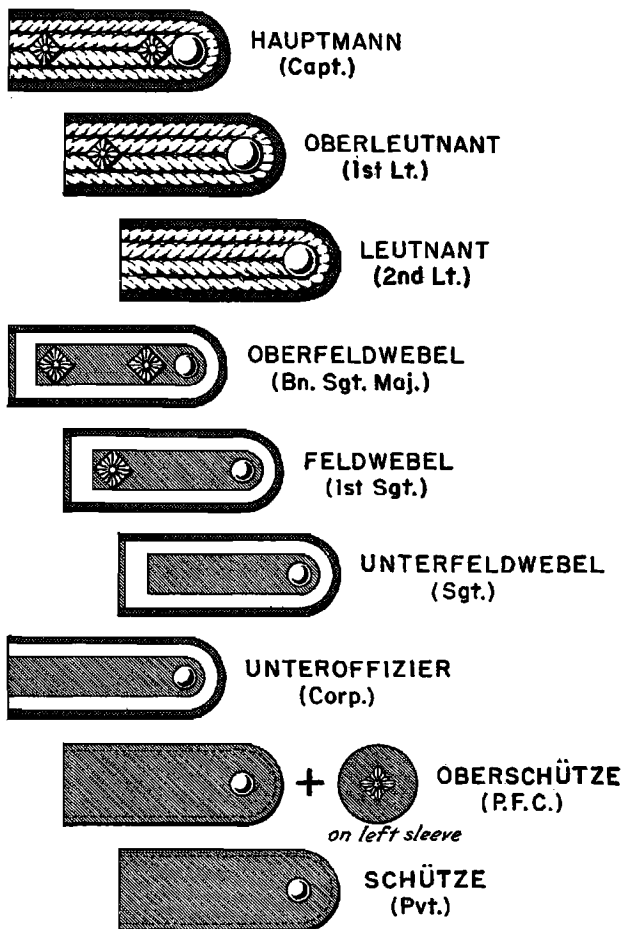


Figure 2.—German insignia: Shoulder straps. Numerals denoting company, battery, or troop may appear on the end buttons; numerals denoting regiment may appear on the center of the straps.

Crimson.....	General Staff officers.
Violet.....	Smoke troops.
Light yellow.....	Signal.
Deep yellow.....	Cavalry regiments, mounted or partly mounted. Cyclist battalions (+ letter R).
Pink.....	Tank regiments. Antitank battalions (+ letter P).
Grass green.....	Motorcycle battalions (+ letter K).
Copper brown.....	Reconnaissance units (+ letter A).
White.....	Infantry regiments (normal and motorized). Motorized machine-gun battalions (+ letter M).
Light green.....	Mountain rifle regiments. Rifle battalions.

On the field uniform, the appropriate color appears in the background or small braid of the shoulder strap and in the background of the collar patch.

(2) *Paybooks*.—Although paybooks are not supposed to be carried into battle, United Nations troops may capture them in the course of offensive operations. The paybook will show the unit in which the holder is serving, and in addition, the units of the field army in which he has served previously, the depot unit in which he was first trained (unless he was already serving in the army on mobilization in 1939), and the depot units which supply replacements for various field army units. All such entries should be noted.

(3) *National insignia*.—The national insignia (a spread eagle over a swastika) is worn above the right breast pocket of the field blouse, on the front of the cap and beret, and on the left side of the steel helmet.

(4) *National rosette*.—This is a small circular insignia in black, white, and red. It is worn below the national

insignia on all headdress except the steel helmet. On the black beret, and on all visored caps except the mountain cap, it is flanked by oak leaves.

(5) *National colors*.—The national colors—black, white, and red—are worn in the form of a shield painted on the right side of the steel helmet.

(6) *Identification tags*.—German identification tags seldom show the unit in which a man is currently serving (unless he has lost the original tag which was issued him when he was assigned to a depot unit, and his present unit has issued a replacement). However, these tags may record the existence of a previously unidentified unit, and a report should always be made of the information stamped on them.

Section II. RECONNAISSANCE UNITS

1. INTRODUCTION

That the German army—like our own—attaches great importance to thorough reconnaissance is borne out by a recently captured German manual dealing with reconnaissance units. For example, only exceptionally well qualified personnel is chosen for such duty, as revealed in the following quotation from the manual:

“Cunning, versatility, ability to grasp orders rapidly, skill at driving vehicles across any type of terrain, the offensive spirit, resourcefulness under all circumstances and especially at night, cold bloodedness, and the ability to act quickly and independently should be characteristics of men selected.”

2. EXTRACTS FROM THE CAPTURED MANUAL

a. Tasks of Reconnaissance Units

By taking advantage of * * * mobility, the reconnaissance unit may even engage superior enemy forces successfully. Mobility often enables it to attack the flanks and rear of the enemy and achieve surprise, to deliver repeated attacks at different points, to concentrate its forces quickly, to destroy small, isolated

enemy detachments, and to employ part of its strength as a mobile reserve or for counterattacks in defense.

In the attack, a distinction must be drawn between an enemy defense area and an enemy defense line. Against the defense area, the aim of the reconnaissance unit is to use its speed to surround and destroy the enemy. Against a defense line, the aim is to concentrate all available forces and achieve a break-through at one point. It may not be wise to reconnoiter points suitable for a break-through, if this action is likely to give the enemy a hint regarding our plans. The reconnaissance unit generally will have to be reinforced if it is to achieve a break-through in a strongly held defensive line.

When an attack is in preparation, orders as a rule will be issued first to the heavy weapons, so that the attack will not be delayed while the heavy weapons are getting ready to come into action. Otherwise, the element of surprise may be lost. If an attack is held up, it may be a good idea to cancel the plans and strike at another point. Reconnaissance units are especially well suited to pursue an enemy who has been forced by our major units to withdraw. If pursuit from any of our flanks would mean loss of contact with the enemy because of the distance being too great, the enemy should be pursued directly through the break-through itself.

A reconnaissance unit may be forced by the task allotted to it, or by enemy action, to adopt the defensive temporarily. It can defend itself successfully only on ground which forces the enemy to attack on a narrow front; under any other circumstances, the unit's flanks must be protected by other troops. It is usually best to keep a mobile reserve to forestall enemy outflanking movements or for counterattacks.

The reconnaissance unit is better suited for delaying action than for lengthy defense.

b. Motorized Reconnaissance Units

The reconnaissance unit commander must make his own decisions about sending out patrols. It is required, however, that each patrol consist of at least two cars (including the radio car).

Before the patrol commanders start out, they receive verbal information from the reconnaissance unit commander on the general situation—for example, where contact with the enemy may be expected, the strength and composition of enemy forces, the nature of the terrain allotted to the patrols, the results of air and other reconnaissances, the mission of the reconnaissance unit, and how it will seek to fulfill its mission.

The unit commander then issues verbal orders to the patrol commanders. Particular points about which reports are needed should be given out in the order of their importance, under the heading "I want to know." The patrol leaders will be told to report, by radio or messenger, on crossing a designated line—even if they have not been in contact with the enemy.

Usually a patrol should not be given more than one task. If demolitions are required, combat engineers should be assigned to the patrol and move with it.

Reconnaissance at night is mostly a question of watching roads and keeping the enemy under observation from such concealment as woods and farms. Reconnaissance units should be relieved before dawn.

Reconnaissance units and patrols must be able to effect river crossings rapidly. Attacks on bridges on main roads often are likely to fail. A feint attack may be made on such bridges, however, while preparations are being made to cross at other points which are undefended, or less strongly defended.

The commander of the reconnaissance unit decides whether to send the whole unit across or merely the patrols. In the latter case the friendly shore usually must be defended until the patrols return.

The engineers in a reconnaissance unit must be able to carry out the following work:

- (1) Build a 5-ton bridge, 36 feet long.
- (2) Build and man two 2-ton rafts or one 4-ton raft.
- (3) Build a footbridge for bicyclists.¹

c. Partly Motorized Reconnaissance Units

The partly motorized reconnaissance unit carries out tactical reconnaissance for an infantry division.

In country where immediate contact with the enemy is to be expected, the reconnaissance unit commander will designate the area to be reconnoitered. The patrol will be told by which route the reconnaissance unit will advance. As a rule, the bounds for the mounted and bicycle patrols should be not more than 10 miles ahead of the main body of the reconnaissance unit (unless radio communication facilities are available).

Mounted patrols do not depend on roads, and can swim their horses across stream. They can search a sector independently. Ground, weather, and the matter of supplies do not affect them seriously. However, their rate of march and extent of performance are limited.

In districts with good road systems, and in favorable weather, bicycle patrols can get around better than mounted patrols. However, their rate of march is reduced on paths, especially in bad weather. Across country, their rate of advance may often be less than that of a man on foot. At night, if there is a good road system, bicycle patrols are excellent because they make little noise.

The armored-car patrol has a high rate of advance and performance. Since it is allotted a radio car, it can pass information back more quickly than other patrols. It is suitable for use on roads and to cover great distances. It can carry out a task quickly, and be available shortly afterwards to undertake another.

¹ Against a major opponent, German reconnaissance units seldom use bicycles unless the terrain makes this absolutely necessary.

d. Conclusion

The strength of patrols of all types depends on their tasks, the ground, enemy dispositions, and the attitude of the civilian population. The strength of a mounted patrol varies from a platoon to a company. As a rule, bicycle patrols should be of company strength, since they are mainly confined to roads and are therefore required to fight more often than mounted patrols. The strength of an armored-car patrol, even if the reconnaissance unit is only partly motorized, must consist of at least two cars (including a radio car), just as in the case of the fully motorized units. Also, portable radio communication sets may be allotted to the patrols. It must be remembered, however, that the less radio communication is used, the more difficult it will be for the enemy listening posts to discover the presence and movements of the reconnaissance unit.

In most cases patrols can work only by day. At night their activities will generally be limited to gaining and maintaining contact with the enemy and locating his outposts.

Section III. DEFENSE AGAINST AIRCRAFT

1. GENERAL

German antiaircraft units are an organic part of the Luftwaffe (air force), and aircraft, especially fighter planes, cooperate with the antiaircraft defenses. The Germans make a distinction between searchlight units, light and heavy antiaircraft artillery units, and barrage balloon units.

2. USE OF SEARCHLIGHTS

In addition to seeking out our planes so that antiaircraft fire can be placed on them, German searchlights recently have been producing "dazzle" and "glare" in efforts to blind and confuse our pilots, bombardiers, and gunners. These tactics are proving a big help to the Germans in protecting cities and strategic centers.

Dazzle is the blinding of persons in a plane caught in the direct light rays of one or more searchlights. Glare means obscuring the target from the plane crew by a light beam played between the plane and the target.

The extent of dazzle is determined by the height of the plane, the number of searchlights concentrated on it,

weather conditions, the direction of the light beams, and, to some degree, by the reactions of persons in the plane.

Dazzle is most effective when a plane is flying at a height between 2,000 and 4,000 feet. A single beam will not produce dazzle except at a fairly short range. At a given height, the dazzle increases in direct proportion to the number of beams centered on the plane. It also increases in proportion to the amount of haze, mist, rain, or dust in the air. Far more dazzle is produced if the plane is traveling in the general direction of the beam or beams. The British find that when a bomber pilot gets into one of these areas, he must keep his head down and fly by instruments, so as not to allow the light to blind and confuse him.

Dazzle or glare created by anti-aircraft searchlights greatly lowers the ability of a person to adapt his eyes to seeing at night—in fact, looking at any fairly strong light will do this. Either dazzle or glare makes the location of targets difficult and lessens the accuracy of bombing. Also, keeping beams directly on a plane helps defending fighter craft to approach the plane unobserved and to attack it more effectively.

German searchlight crews are reported to have been dipping their light beams to indicate to their fighter planes the direction in which hostile bombers are flying.

Sound-locator apparatus are used by the searchlight units to determine the general direction and distance of our aircraft from the searchlight positions. Having obtained these data, the searchlight crews seek to place their lights on the planes. When searchlights are not present in an area, or are present but unable to function, sound-

locator apparatus often are employed in close cooperation with antiaircraft artillery in estimating firing data.

3. USE OF ANTI-AIRCRAFT ARTILLERY

Antiaircraft guns are the backbone of the entire anti-aircraft defense. The battery, usually consisting of four or six guns, is the fire unit. Experience has shown the Germans that it is best not to break up this unit, even when a need arises elsewhere for only one of the guns. It should be noted, incidentally, that the Germans often employ flashless propelling charges to avoid giving away the location of antiaircraft weapons.

a. Heavy Batteries

The heavy battery is responsible for the antiaircraft defense of the combat zone. The heavy antiaircraft guns (usually 88-mm) have the mission of protecting German ground forces at all times against air reconnaissance and high-altitude attacks.

These weapons are moved by mechanized transport. Their average marching speed is from 5 to 20 miles per hour. Horse-drawn antiaircraft cannon are employed only by commands which must cope with fuel shortages and unsatisfactory roads. Antiaircraft units provided with mechanical transport have the following characteristics: ability to open fire quickly, great mobility, and capabilities for employment within the effective range of hostile artillery.

The heavy batteries are employed against hostile planes, especially attack units, flying at altitudes up to

about 27,000 feet. Heavy antiaircraft artillery cannot be used against planes flying at altitudes of less than 1,200 feet directly over the battery. Requiring special fire-control equipment and special ammunition, these weapons are used against ground targets only in the event of close-in tank attacks. Each heavy battery is protected by two 20-mm cannon, which are an organic part of the battery itself.

b. Light Cannon

Light antiaircraft cannon are especially suited for defense against planes flying at short ranges and at low altitudes. The mission of the light antiaircraft battery is to protect installations and troops against ground-strafting and dive-bombing attacks. The cannon (usually 20-mm) are moved either on trucks or on self-propelled mounts. These weapons are characterized by their great mobility and by their success in tracking air targets which have a high angular rate of travel and which demand change of ranges. Tracers are used to make this tracking easier. The average marching speed of units equipped with these weapons is from 15 to 25 miles per hour.

c. Machine Guns

In heavily populated areas, especially the strategic manufacturing centers, machine guns often are mounted on the roofs of buildings to operate against aircraft flying at relatively low altitudes. It is known that in many instances machine guns are manned by well-trained factory personnel.

4. USE OF BARRAGE BALLOONS

The Germans make considerable use of captive balloon barrages around strategic manufacturing centers and other areas containing important installations. The barrage usually forms an irregular belt about $\frac{5}{8}$ of a mile wide and about $1\frac{1}{4}$ miles from the outer edge of the strategic area. The plan for a barrage is coordinated with light- and medium-caliber antiaircraft gun defense, which protects the larger gaps in the belt.

The balloons, resembling the fan-tailed goldfish sometimes seen in a home aquarium, have fan-like tails as long as the balloons themselves. They are reported to be moored at altitudes ranging as high as 15,000 feet, and at an average altitude of 4,500 feet. A well-planned barrage, with its dangling net of steel cables, can prevent precision bombing, and can keep hostile aircraft at an altitude favorable for the use of antiaircraft artillery and fighter planes. Also, a barrage reduces the efficiency of hostile combat aviation by forcing it to operate at unfavorable altitudes.

On the other hand, the Germans have learned from experience that balloon barrages are not well suited to protect small, isolated targets. They have also found that such a barrage is vulnerable to hostile fighter planes, and serves its purpose only in areas where it can be protected by antiaircraft guns and friendly fighters.

Section IV. FIFTH COLUMN

1. HISTORICAL BACKGROUND

Fifth Columnists have taken part in nearly every war in history, but the term "Fifth Column" originated in 1936 during the Spanish Civil War. The Rebel forces were converging at Madrid when General Mola, one of their leaders, remarked: "We have four columns here, but more important than any of these is our fifth column, which is in the city itself."

Although Germany and Italy had Fifth Columnists at work in probably every European country prior to the Spanish Civil War, it was during this conflict that the two nations used them for the first time on a major scale.

The Axis not only tested Fifth Column procedures during the Spanish war but also tested new ground and air force tactics. It is generally believed that Hitler and Mussolini purposely allowed the war to drag along for three years so that they could complete their tests.

The term "Fifth Column" has been defined to include all the forces, in a given country, acting on behalf of the enemy and waiting to cooperate with an armed invading force in conquering that country. Fifth Columnists aid

the enemy's cause by every practical means. To this end, they employ all forms of corruption, treachery, and propaganda, as well as military weapons. Their organization usually is not a haphazard one but functions as part of a well-ordered military plan.

2. TACTICS USED

Intelligence Bulletin No. 1 carried a list of Fifth Columnist practices in behalf of the Japanese. The list below consists of additional Fifth Columnist tactics in behalf of all Axis powers. The agents engaged in—

a. Direct Aid to Enemy Operations

(1) Lied to the British about the proper trails to follow in the Malayan jungles;

(2) Prevented destruction of bridges in Holland by tampering with demolition charges;

(3) Neutralized electric mines in the Oslo (Norway) Sound by cutting wires or removing fuses—thus allowing German transports easy access to the harbor;

(4) Posed as the Norwegian Defense Minister and ordered three Norwegian warships not to fight the Germans;

(5) Caused the commander of Fort Horten, Norway, to surrender, although nearly all invading German ships had been stopped before reaching the area;

(6) Purchased homes and farms—with German money—on both sides of boundary lines separating Germany from Denmark, Holland, and Belgium in order to aid movement across the frontiers of spies, other Fifth Columnists, matériel, and finally troops;

(7) Started street riots in Rotterdam and The Hague to confuse the Dutch when the Germans crossed into Holland;

(8) Laid mines under Dutch military establishments when that country was invaded;

(9) Stole cars to assist Germans when they invaded Holland;

(10) Posed as French refugees during the battle for France in 1940;

(11) Made chalk or paint marks in front of their homes in Holland so that parachutists could recognize them;

(12) Dressed as French, British, and Belgian officers and gave faked orders to United Nations forces;

(13) Spread rumors during the Western Front Campaign of 1940 that German parachutists were landing or about to land at different places;

(14) Posed as tourists in Spain, and in Spanish and French possessions in Africa, so they could work to help the Axis powers;

(15) Carried food and water from the Liberian coast (West Africa) to German submarines anchored off the coast;

(16) Gave out false reports that German parachutists were dropping behind the lines in France, disguising themselves as nuns;

(17) Caused riots by German minorities in Poland and Czechoslovakia and killed army officers in those countries;

(18) Guided airborne troops to landing fields in Poland;

(19) Used radio or signals from behind Polish lines to give German forces the exact locations of Polish positions and installations;

(20) Shot sentries in Belgium when the Germans invaded the country;

(21) Concealed orders and directions for German troops on advertising billboards in Norway;

b. Furnishing Information to the Enemy

(1) Removed tiles from a roof in order to flash concealed light signals to Axis fliers;

(2) Sent information to Axis air forces on the exact location of dispersed and concealed planes at several airdromes;

(3) Used identity papers of prisoners in order to get behind United Nations lines;

(4) Peered through windows with field glasses to study United Nations equipment as troops marched by;

(5) Collected and sent to Axis forces accurate data for military maps;

(6) Entered the Norwegian Army in order to cause disturbances in the ranks and to collect intelligence information;

c. Sabotage

(1) Placed open cans of gasoline under parked trucks and attached slow fuses to explode the fuel;

(2) Mixed sand with grease in the journal-box of freight cars in order to create "hot boxes" by friction of the sand in the axle mechanism;

(3) Sabotaged railway engines in Iraq;

(4) Removed the steel plates, and nuts and bolts, which fasten railroad rails together;

(5) Laid bombs under rails to explode when the locomotive passed over them;

(6) Sabotaged a large quantity of gasoline by adding soap flakes to it;

(7) Placed obstacles in gas tanks of vehicles to stop the gas line, or to dissolve in part and then block the carburetor;

(8) Cut wires leading to spark plugs in truck motors;

(9) Short-circuited electric power lines by throwing ropes over two or more lines and pulling them together;

(10) Cut and sometimes removed large sections of telephone and telegraph lines;

(11) Derailed ammunition train at Alexandria, Egypt;

(12) Cut vital parts of life belts to render them useless;

d. Subversive Activities

- (1) Spread rumors of big ship losses and other battle disasters;
- (2) Spread rumors that General Wavell had died in India early in 1942;
- (3) Reported false scarcities of food supplies;
- (4) Tried to produce quarrels among various religious groups;
- (5) Spread false stories of disorderly conduct of soldiers, including tales of rape, murder, and drunkenness—all of which were designed to cause unrest among the civilian population;
- (6) Distributed phonograph records critical of the British in South Africa;
- (7) Printed and distributed propaganda newspapers and pamphlets with money obtained from the Axis governments;
- (8) Spread reports that British soldiers were stealing household goods from French homes as they retreated on the Western Front;
- (9) Placed a bomb in a public gathering place used by American soldiers in Ireland—the bomb was found before it exploded;
- (10) Helped to conceal German parachutists in Ireland;
- (11) Stole arms and ammunition from military stores in Ireland;
- (12) Attempted to blow up a war memorial in Cork, Ireland;
- (13) Caused an epidemic of fires in Ireland;
- (14) Promoted pacifism in France before start of the war and encouraged quarrels between political groups.

Section V. GERMAN SUB-STRATOSPHERE PLANES

The German Air Force has devoted considerable attention to specialized high-altitude aircraft. Several years ago a two-engined monoplane built by Junkers broke the world's altitude record. Since then the Junkers people have continued their experiments, taking out a number of patents on devices in connection with sub-stratospheric flying.

Development of the German high-altitude plane is exemplified by the Ju 86, P1 and P2 types. Both planes, the former a bomber and the latter a reconnaissance plane, follow the proved Junkers, Ju 86, design. They are two-engined, low-wing, all-metal monoplanes fitted with the typical "double wing" flaps and ailerons, but having twin fins and rudders.

Both types have a transparent, short-nosed cabin. In appearance they are somewhat similar to the Ju 88, and at high altitudes have been mistaken for this plane.

The Ju 86 P types are powered with two Junkers Diesel Jumo 207 A/1 liquid-cooled engines of approximately 1,000 horsepower each. The structure of these planes is quite light, especially the wings. For this reason, pilots are

prohibited from stunting them or pulling quickly out of dives.

These planes are fitted with pressurized cabins housing the pilot and one observer or bomber. Within the heated and oxygen-equipped cabin, the air pressure is controlled automatically to maintain inside pressure conditions equivalent to those at an altitude range of 10,000 to 11,500 feet.

If, owing to leaks or other causes, the cabin pressure falls or rises beyond either of the above limits, the pilot is warned by means of a light signal and the sounding of a horn.

The pilot and his observer or bomber wear extra-heavy flying suits and gloves. For bailing out at high altitudes, parachutes are generally provided with oxygen-breathing apparatus. If, however, this equipment is lacking, the crew are instructed to make a "free fall" and not to open their parachutes until reaching an altitude of about 13,000 feet.

The maximum speed of the Ju 86 P types is estimated to be from 260 to 290 mph at 30,000 feet, and normal cruising speed at the same altitude is estimated at 230 to 250 mph. Ranges of 1,400 to 1,750 miles are believed possible.

While no definite ceiling has been established, it is thought that the Ju P1 is able to attain an altitude of approximately 39,300 feet with full bomb load, and that the Ju P2 can reach a considerably higher altitude. Very recently an aircraft believed to be a Ju 86 P2 was observed at approximately 43,000 feet.

PART TWO: JAPAN

Section I. THE BURMA CAMPAIGN

1. TACTICS

a. The Individual

The Japanese soldier and junior officer were excellently trained for their tasks. Assisted by native Burmese, they showed great initiative and ability to move fast, even over difficult terrain.

The Japanese soldier believes that it would be a disgrace to his family for him to be captured in battle. His religion—which is based on ancestor worship—teaches that it is a high honor and privilege for him to die for his emperor. These beliefs were vividly demonstrated during the Burma Campaign. Japanese, wounded to the point where they could not offer effective resistance, dropped to the ground to be killed rather than surrender—often they begged to be killed. Wounded men were sometimes killed by their comrades in order to escape capture.

The Japanese were unusually fearful of mortar and artillery shells. Although the Japanese 4-inch mortar had a greater range than the British 3-inch mortar, the

Japanese mortar crews time and again fled or sought new positions when fired at by the British.

b. Shock Troops

These troops are carefully selected and usually are noticeably superior to the troops which follow them. The Japanese soldiers selected to infiltrate around the British flanks and to the rear were drawn from the ranks of the shock troops, and, in actuality, performed shock-troop missions. They were well educated, many being able to speak foreign languages.

The equipment of the shock troops included light machine guns, 2-inch mortars, grenades, compasses, and maps.

These troops used tracer bullets to indicate British positions, especially mortars and machine guns, to the heavier Japanese supporting arms. They were very successful in infiltrating into villages and quickly losing themselves in the mass of cover available. These Japs often knocked small holes in the roofs of houses, and—supporting themselves on the rafters of the roofs—shot at opposing troops. They also fired from slit trenches under houses, as well as from culverts, bridges, bamboo clumps, rice dumps, and other hiding places.

c. Use of Weapons

(1) *Machine guns*.—Medium machine guns were used in pairs, with only one gun firing at a time. The second gun took up the firing while the first was replacing its cartridge strip, thus maintaining continuous fire.

(2) *Mortars*.—Besides the 2-inch mortar carried by shock troops, the Japanese used a 4-inch mortar effectively. This weapon was quickly brought up to the firing line after first contacts were made, and its accurate fire caused major casualties in several instances to the opposing troops. The Japanese avoided placing the mortar on the edge of woods or jungle, but put it some distance into these areas—sometimes as far as 600 yards. The observation post for the mortar was usually well forward. The fire probably was controlled by radio or telephone.

(3) *Artillery*.—Japanese artillery was not very efficient in searching out new positions of defending troops. Gunners were usually content to shell old and empty positions, not bothering to search for alternative ones.

d. Observation

Japanese observation posts were able to spot movements of opposing infantry at distances of 4 to 6 miles. This suggests that they are equipped with the scissors-type rangefinder, which is considered superior, when used as field glasses, to the rangefinder employed by defending troops in Burma.

Japanese planes usually were not in the air after 1700 hours (5 p. m.); therefore British forces were able to move about without detection from the air until about 0700 hours (7 a. m. the next day).

e. Road Blocks

The Japanese always located their road blocks at points where the roads pass through dense jungle or embank-

ments. The actual blocks or barricades were almost always placed in bends of the roads and thus concealed from frontal observation except for short distances. These positions were strongly covered by well-placed mortars, antitank guns, and machine guns. Sometimes the positions were multiple affairs—at Shwedaung, five barricades blocked one road. In country made difficult by jungle, the areas defended on either side of the road blocks usually did not extend very far back from the roads.

f. Night Operations

Japanese night attacks generally were started at about 1900 hours (just before or after dark). They used very few scouts in their night movements, and they were careless with motor transports—for instance, the normal headlights of trucks were on as they moved.

During the latter stages of the campaign, the Japanese moved almost entirely at night and rested during the day. During these rest periods their local protection was poor, and they were easily surprised.

g. Fifth Column

Fifth Columnists probably were more numerous and active in Burma than in any other country involved in the present war. They sometimes were used by the Japanese as a screen for advancing troops, sending back information on defending forces as they moved from place to place. Any ambush set to trap the Japanese usually was given away by these Fifth Columnists.

2. COMMENTS BY AMERICAN OBSERVERS

a. General

The Japanese in most instances had a larger number of troops than the British. With the exception of tanks, they also usually had more equipment.

b. Specific

(1) *Patrols*.—Lack of cavalry forced the British to use infantry troops almost exclusively for reconnaissance and security. Sometimes these troops had to go as far as 15 miles ahead of the main forces. As a result, they often were too exhausted to fight effectively, and their loss greatly lowered the capabilities of the infantry combat units.

(2) *Cavalry*.—Most of the terrain in Burma is ideally suited for the use of mounted cavalry. Small local ponies are better than our American cavalry horses. The cavalry equipment should include a high proportion of light machine guns and Tommy guns.

(3) *Transportation*.—The British had severe transport problems, particularly because of a shortage of ferry boats and railroad personnel (nearly all native railroad personnel fled from their jobs when the Japanese entered Burma).

The American jeeps proved ideal vehicles for commanders, liaison officers, and persons carrying orders, and for transporting machine guns and mortars.

Destruction of abandoned vehicles by the defending forces was not carried out on a thorough scale.

(4) *Artillery*.—Some British units found that four guns to a battery were better than six because they are easier handled.

(5) *Slit trenches*.—These proved very effective except for direct hits or when bombs hit tree tops near the trenches.

Section II. THE SOLOMON ISLANDS CAMPAIGN

1. INTRODUCTION

The information in this section includes reports given by Marine Corps personnel who took part in the Solomon Islands fighting. A study of the tactics and matériel used by the Japanese should benefit our troops who may face them in the future.

2. THE JAPANESE SOLDIER

Individually, the Japanese soldier proved to be a tough and excellent fighter in the Solomon Islands operations. "They very, very seldom give up, but will fight until killed, even after being badly wounded," according to a Marine officer. "Of a force of well over 700 that we wiped out, we were able to take only 34 prisoners, and 33 of these were so badly wounded that they couldn't do anything." Each of the prisoners said he had expected to be killed by the Americans after capture—however, each said he had not been so warned by his superiors. All insisted that they would never be able to return to Japan, because they would be disgraced for surrendering.

Upwards of 300 Japanese trapped along a beach chose to swim out to sea rather than surrender. Marine gunfire "picked them off like rabbits," according to the officer previously quoted. "After it was all over, we saw a single Jap swimming well out at sea so we sent a boat to get him. As the boat came alongside, he made a dive and never came up. In other words, they kill or get killed. Within 3 days over 200 bodies were washed ashore."

Apparently a great deal of propaganda has been spread among Japanese soldiers about horrible things that would happen to them if taken prisoner. Repeated chances were afforded Japs to surrender in the Solomons fighting but only two men attempted it. They threw down their rifles and ran toward our lines with their hands in the air. The Marines ceased fire but a Japanese machine gun shot down the would-be prisoners before they reached our lines.

One Japanese unit, carrying all of its heavy equipment, marched 40 miles in two nights, through jungle country part of the time. The distance was covered in less than 22 hours hiking time and with very little food on which to subsist.

3. SNIPING

Cleverly hidden Japanese snipers proved very troublesome to the U. S. Marines. A Marine sergeant reported that "our biggest problem was in locating and destroying snipers. They were well concealed in trees, bushes, and buildings. Time and again, our forces passed through an area and were shot at from the rear."

A second Marine officer said that the Japanese used a large number of snipers, well camouflaged. "They shot at us from the tops of coconut trees, slit trenches, garden hedgerows, from under buildings, from under their shelter halves, and from under fallen palm leaves," he explained. "One sniper, shot down from a tree, had coconuts strung around his neck to help conceal him. Another in a palm tree had protected himself with armor plate. Our Browning automatics proved to be excellent weapons for dealing with snipers hidden in trees."

The snipers sought especially to pick off officers and noncommissioned officers who wore insignia or markings indicating their rank.

The Japanese placed snipers on the flanks of their positions and weapon emplacements.

4. DECEPTION

The Japanese will do anything he can to deceive you. "Never underestimate the Jap in any respect, and never think you've got him whipped until you've killed him," says a Marine officer. "Wounded Japs have shot our men in the back after our men have passed them."

One night a Japanese soldier struck a match about 75 yards in front of our sentries to get them to shoot and thus reveal their positions.

5. CAMOUFLAGE

A large number of the Japanese wore green uniforms and painted their faces and hands green so they would be hard to see among the green vegetation on the islands.

They also wore camouflage nets with wood fiber strands and garnished with vegetation. Japs wearing these were hard to see, even at 50 yards, if they were still.

Camouflage was cleverly used over numerous pit traps, most of which were mined.

A radio transmitter located near a beach was extremely well camouflaged by palm trees.

Their concealment was made easier by the fact that no flash, smoke, or muzzle blast was visible from their weapons.

6. INFILTRATION

The Japanese tried out their old tricks of infiltrating around our flanks and through gaps in our lines, especially at nights. Alert Marine outpost troops, however, broke up the infiltrations. The Marines held their fire until they were sure of their targets—several Japs were killed while only 10 or 15 feet away from our posts.

7. NIGHT TACTICS

The Japanese offered comparatively little resistance during the day, often fleeing before the fire of our machine gunners and riflemen. Considerably greater resistance was offered at night. The Japs fired tracer ammunition in machine guns. The fire was not well aimed, and probably was intended to draw our fire and thus locate our positions.

8. DEFENSIVE TACTICS

The Japanese defenses included slit trenches, foxholes, dugouts, houses, sheds, hedgerows, heavy brush, caves, and cut-and-cover shelters. The cut-and-cover shelters were 20 feet long and 14 feet wide, and their tops were about 4 feet above the ground level. Each shelter had firing posts, which were well camouflaged. They consisted of rocks piled haphazardly on the ground surface at the edge of the shelter. Entrances to the shelters—located at each end—were protected by sandbag walls on the outside. The surplus dirt from the slit trenches had been carefully removed, leaving no protection above the surface of the ground. Machine guns were set up in some of the caves used by the Japanese. At one cave, the enemy made two unsuccessful bayonet and sword charges in an effort to drive our troops away. Reserve troops were kept in some of the caves and were used to replace casualties at guns nearby.

Dugouts were prepared close to the edge of the sea. They extended underground into the hills, and were protected on the front and flanks with sandbags and steel plates. The passageways into the dugouts curved sharply a short distance beyond the entrance, making it impossible to use hand grenades effectively. Each dugout housed about eight men. They fired from the entrance as the Marines approached, but retreated into the dugouts just before the latter got within grenade-throwing range.

9. WEAPONS

The Japanese were well equipped with mortars, 70-mm cannons (infantry battalion guns), light and heavy machine guns, rifles, pistols, and flame-throwers.

Section III. JUNGLE WARFARE

1. INTRODUCTION

In the first phases of the present war, the Japanese were highly successful in jungle fighting. A captured Japanese manual reveals the instructions given to Japanese troops prior to these attacks; some of the important passages are translated below.

2. THE MANUAL

a. Object

The main object is to crush the British and Chinese forces, especially the latter. A failure to achieve these ends may likely have a serious effect on the Great East Asia War.

Before a general engagement takes place, an effort must be made to destroy the British and Chinese in their respective areas. Held frontally, the main enemy forces are to be cut off and destroyed by a big encircling movement.

Friendliness of the inhabitants, absence of roads, and the difficult nature of the country outside the areas chosen for encirclement are an advantage for us.

b. Plans (concealment)

Carefully chosen troops are to be used for infiltration and encirclement before the main general encircling offensive starts.

To avoid enemy air or ground observation, they should choose terrain where there is natural concealment and also utilize periods of darkness. When the enemy is met, he should be denied information of our plans, encircled, and attacked immediately.

c. Mobility

It is essential that encircling units have extreme mobility. They must be capable of overcoming all difficulties and reach their objectives at a given time. If necessary, all local means of transport must be used. Transport should be arranged in advance so that the troops can be moved at short notice. When these troops are moving to an objective they should keep contact with troops in the rear. (Editor's note: This was not done in many cases.)

The enemy usually constructs strong points on roads but neglects his flanks.

British and Indian troops do not destroy roads, so a motorized thrust is of value. Even the Chinese do not destroy roads properly in Burma because the local inhabitants—whose help is needed—are hostile to them.

Encircling troops must consolidate the positions they occupy—strong points and antitank obstacles are to be built.

In mopping up, every encircled enemy is to be killed.

Complete cooperation must exist for all units, both in the air and on the ground.

Encirclement may extend several hundred kilometers (1 kilometer equals about $\frac{5}{8}$ mile) so close cooperation with air is necessary in mopping up. Prearranged signals should always be given to the planes.

d. Administrative

Waiting for supplies from the rear impairs mobility; therefore troops must be prepared to live off the country, and guard and conserve their ammunition.

e. Local Inhabitants

The attitude of the local inhabitants affects the outcome of the campaign; therefore always be nice to them. Respect and protect all Burmese temples so that the monks may be of assistance.

Section IV. NIGHT OPERATIONS

1. INTRODUCTION

Japanese military leaders consider night attacks one of their specialties. In these they were very successful in the Russo-Japanese war, the Manchuria "Incident," the China "Incident," and during the present war in Malaya, Borneo, and the Philippines. They have experimented extensively with various night tactics, over a period of many years, and have adopted certain specific techniques—with which this section is primarily concerned.

As a rule, the Japanese have only limited objectives at night and do not attack very deeply. Once these objectives have been accomplished, the Japs usually effect a slight withdrawal, and reorganize for rest during the next day (except for reconnaissance or infiltration activities).

Although the Japanese admit that night operations result in more confusion and less control, they feel these disadvantages are more than offset by the advantages of greater mobility, secrecy of movement, and therefore greater surprise.

A Dutch officer who escaped from Japanese confinement in Borneo attributed the following statement to a Japanese officer:

“You Europeans march all day, prepare all night, and at dawn launch an attack with tired troops. We Japanese allow our troops to rest all day while we reconnoiter your positions exactly. Then that night we attack with fresh troops.”

The information which follows in this section is based on Japanese manuals captured in the South Pacific theater:

2. METHODS OF PROCEDURE

a. Objectives

The objectives of Japanese night attacks usually are to locate and attack the front lines of the opposition with only limited or shallow objectives. “However, there will be times when it is necessary to attack the enemy’s position in considerable depth,” their manual explains.

Before the attack each subordinate unit is given a clearly defined terrain objective. Objectives can be clearly defined only by thorough daytime reconnaissance, or by drawing hostile fire. Villages are avoided because they are difficult to attack at night.

b. Reconnaissance

Japanese regulations emphasize the importance of thoroughly reconnoitering terrain over which night operations are to take place, and of obtaining detailed information as to the location of opposing centers of resistance, machine-

gun positions, obstacles, and searchlights. The reconnaissances are made in daytime. Japanese patrols, frequently moving for long distances on their stomachs at a snail-like pace, get as close as possible to opposition positions without being observed. If they are unable to locate these positions exactly, they sometimes deliberately expose men to draw fire from the opposing forces so the latter will give their locations away.

The patrols also select the points where the opposition's wires will be cut.

Sometimes the Japanese make a second reconnaissance just before dark to satisfy themselves as to opposition positions, or to determine whether new positions have been occupied.

c. Formation of Plans

Japanese military leaders go into great detail in mapping plans for attack. This is doubly true for night operations. Particularly emphasized are march directions, methods of identifying friendly troops, liaison with adjacent units, the necessity for silence in order to achieve surprise, and flank protection.

Obstacles which would interfere with the attacks are removed by destruction squads—usually engineers—about an hour beforehand. This phase includes the cutting of lanes through barbed wire.

d. Approach Movements

In approaching, the Japanese select routes over which the troops will make the least noise. They generally

move by column rather than in a line in order to maintain as much control as possible up to the point of assault.

To maintain direction, the Japanese may use any or all of the following: Compass, flares, rear lights—which give direction by alignments; searchlights or disappearing lanterns; markers, white stakes, strips of paper; lines of chalk, flour, or tape; and artillery shells fired for direction.

e. The Assault

Japanese techniques in the assault are quoted from their own manual, as follows:

“(1) *With limited objectives.*—When the attacking unit gets close to the enemy's position (the assault position), the commander orders a front-line group to assault. The remainder of the troops will quickly observe the general situation. For instance, if it is necessary to strengthen the front line with reserves, these should either attack the flank of the enemy, or enemy counterattacking troops. The commander watches for these opportunities, and leads the battle with firm determination. Placing reserves in the front lines thoughtlessly and unnecessarily will bring about confusion. This must be avoided.¹

“At the start of combat, the commander of the reserves will send out liaison men to inform him regarding the movements of our assault echelons and the enemy situation, to connect the reserves with the front-line unit, and to secure our flanks, rear, and front.

¹ Although the Japanese manual emphasizes the importance of holding troops in reserve during night attacks, in the present war the Japs have often thrown their full strength into the battle at the beginning.

“When the assault has captured the enemy position, quickly organize your attacking forces. For example, the machine-gun and infantry-gun units take up their firing positions, security measures are taken, order is quickly restored, and preparations are made to repel any enemy attack to recover the position just lost. The reserve commander will send out patrols as quickly as possible to the rear, flank, and front to determine the condition of the enemy, and he will be prepared for action with the remainder of his troops.

“The machine gun takes part in the night attack by occupying a secure position. Thus, it ordinarily cooperates with reserve troops in action, and may at times participate in the direct night attack, according to the opportunities for firing.

“When attacking by sheer strength, the machine gun is used to cut off enemy communication with other adjacent areas. Furthermore, it opposes the counter-attack from other areas, concentrating its fire at the proper time. For this reason, the machine-gun plan must consider the cooperating fire plan of the artillery. The use of fire arms will expose our plans, and it may bring hostile fire on our troops. There is also the danger of hitting friendly troops. Therefore, make thorough arrangements beforehand.

“(2) *Attack in depth.*—When attacking deeply in depth with two assault echelons, the front-line unit will capture the predetermined hostile position and take security and reconnaissance measures, restore order, and make arrangements for the enemy’s return attack. It must quickly

prepare to be leap-frogged by the second echelon of attack and must always make local conditions clear to this unit. If the first-line unit receives a counterattack by the enemy, do not fire, because it would endanger the leap-frogging unit.

“The second attack echelon takes up the attack formation at the beginning, as a security measure. Before leap-frogging it will put out security reconnaissance. Maintenance of direction will be considered after leap-frogging. In order not to get intermingled with the first-echelon unit at the time of leap-frogging, the distance and intervals before and during the attack are controlled accordingly.

“The second assault unit of attack must definitely keep in contact with the first-line unit, and keep itself informed of the enemy situation and the progress of the first echelon. It will be prepared to advance by leap-frogging as soon as the order arrives. At this point, do not come too close to the first-line unit because of the danger of getting into the lines of fire.

“The commander will determine the time when the second echelon must first advance to the attack from the place of departure. The time of advance will depend upon when the first echelon, leading out, has passed the second-line unit * * *

“When the second assault unit captures the designated hostile position, the commander must quickly get control of the unit and then have the first assault unit advance to secure completely the occupied position. The remainder (the reserve) prepare for action.”

f. Pursuit

The Japanese nearly always seek to capitalize to the fullest on pursuit. Even before combat begins, they have detailed plans for maintaining close contact with retreating forces. The following data on pursuit is quoted from their manual:

“The enemy will take advantage of darkness to conceal his retreat. It is important to gain early knowledge of this retreat by keeping a close contact with him. The battalion commander must make close reconnaissance, observe various signs, and always be careful not to lose the enemy. In order to clear up the possibility of an enemy retreat, do not hesitate to make a night attack with any necessary part of your strength.

“If the enemy’s retreat is found out, the battalion commander quickly sends out a part of his strength for quick pursuit—the main force follows soon thereafter * * *

g. Machine Guns In Defense

“Because the development of battle during the night is very quick, it is necessary to put machine guns in positions where they will be able to concentrate their fire power on important areas to the front of the battalion’s positions. The guns should be sited to have enfilade fire against the line of advance of the enemy, or in such a way as to be able to fire on a small, specific sector through which the enemy must pass. To obtain the most effective fire, machine guns are sometimes placed in the front line. Avoid placing guns separately at night * * *.

“Depending on the amount of natural light available, machine guns vary the firing method, using night firing lights when necessary * * *.”

h. Retirement

“When you are retreating during the night, hinder the enemy’s reconnaissance, and do not make any movements before darkness. According to the situation, make night attacks with small units, or have patrols to move about. These will help to deceive the enemy as to the true action you intend to take.

“Make full use of the road as quickly as possible with the main force, concentrating your strength as close behind the battle as possible. Make sure that control will be well in hand by retreating in a column without confusion * * *”

Section V. MISCELLANEOUS

1. PROTECTION AGAINST GAS

a. Introduction

The latest type of Japanese gas mask tested in the United States was described in *Intelligence Bulletin* No. 2. In the present issue, various other Japanese methods dealing with gas are considered.

b. Antigas Clothing

This includes a two-piece rubber suit and rubber antigas boots and gloves. The suit will resist liquid mustard gas for 30 minutes.

c. Antigas Preparations

All personnel in the Japanese Army carry a box of anti-gas powder (bleaching powder) and a container of anti-sneezing liquid. The liquid in each container consists of the following: alcohol (40 percent), ehloroform (20 percent), ether (20 precent), ammonia (50 drops), and inert ingredients.

d. Neutralizing Gassed Areas

To allow immediate passage of troops, the Japanese cover the gassed areas with dirt, twigs, or wooden boards. Sometimes used are mats soaked with linseed oil and glycerine, or glycerine and peanut or soybean oil.

After use of these temporary neutralizing measures, bleaching powder is applied. It is transported in trucks or push-carts. The trucks, designed especially for the job, have a 1,100-pound capacity. The vehicles cover a 6-yard-wide strip of ground when the powder is applied.

e. Rescuing Victims

The victim is rescued by personnel wearing rubber suits, gloves, and boots, and he is placed in an antigas bath-truck, which is said to be similar to the type used by our forces.

2. FESTIVALS AND HOLIDAYS

Frequently Japanese military leaders choose festival or holiday dates to launch important attacks. For this reason, the more significant of these dates are listed below:

January 1—A special date for ancestor worship (the holiday in reality lasts for 3 days and means as much to the Japanese as Christmas does to us); also observed as the anniversary of the fall of Port Arthur (Russo-Japanese War);

February 11—Empire Day, anniversary of the date when the first emperor, Jimmu Tenno, assumed power (the nation's greatest observance); it is also observed as Constitution Day;

March 10—Army Day (in celebration of the capture of 203-Meter Hill, surrender of Mukden in Russo-Japanese War, 1905);

March 21—The Vernal Equinox Festival for the Imperial Ancestors;

April 3—Anniversary of the death of Emperor Jimmu Tenno;

April 29—The Emperor's birthday;

April 30—Memorial Day, for soldiers and sailors;

May 27—Navy Day (in celebration of the battle of the Sea of Japan);

September 18—Anniversary of Manchuria "Incident";

September 20—Aviation Day;

September 23—Autumnal Equinox Festival for the Imperial Ancestors;

November 3—Birthday of Emperor Meiji Tenno (considered Japan's greatest ruler);

November 23—Japanese Thanksgiving Day.

PART THREE: ITALY

Section I. WEAPONS MOST FREQUENTLY USED

1. BY THE INFANTRY

a. Pistols

Standard weapons in the Italian infantry include a revolver and two self-loading pistols. Certain noncommissioned officers, such as members of machine-gun detachments, are armed with the revolver, while officers and warrant officers carry one of the two self-loading pistols.

(1) *Revolver*.—Bodeo, model 89: caliber, 10.35 mm (.41 in); cylinder capacity, 6 rounds.

(2) *Automatic pistol*.—Glisenti, model 1910: caliber, 9 mm (.35 in); feed, 7-round magazine in butt.

(3) *Automatic pistol*.—Beretta, model 34: caliber, 9 mm; feed, removable 7-round magazine in butt.

b. Rifles and Carbines

Shortly before the present war, the Italians decided to increase the caliber of their rifles and light machine guns

from 6.5 mm (.256 in) to 7.35 mm (.289 in), and a new rifle and carbine of this caliber actually were introduced. See (2) and (5) below. However, the change-over does not seem to have progressed very far, and may even have been postponed, since rifles of the 1938 pattern fitted with a 6.5-mm barrel have been found.

(1) *Rifle*.—Mannlicher-Carcano, model 91, with bayonet: caliber, 6.5 mm; feed, vertical box magazine holding one 6-round clip.

(2) *Rifle*.—model 38: caliber, 7.35 mm. This is similar to the model 91 rifle. The main differences are that the model 38 has a larger caliber, is shorter, weighs less, and has a light folding bayonet which normally is attached to the barrel, but which can be removed and used as a dagger.

(3) *Automatic rifle*.—Revelli: caliber, 6.5 mm; maximum rate of fire, 120 rpm (rounds per minute); effective rate of fire, 40 rpm.

(4) *Carbine*.—Moschetto, model 91: caliber, 6.5 mm. This is similar to the model 91 rifle, but has a shorter barrel, a bent-down bolt lever, and a folding bayonet.

(5) *Carbine*.—Moschetto, model 38: caliber, 7.35. This compares with the model 91 carbine much as the model 38 rifle compares with the model 91 rifle.

c. Light Machine Guns

Three different models of the same light machine gun are in service.

(1) *Light machine gun*.—Breda, model 30 and Breda, model C. These are basically the same weapon. Caliber,

6.5 mm; feed, permanent box magazine (charger-loaded), holding 20 rounds; weight (with magazine and bipod), 25½ lbs; maximum rate of fire, 450–500 rpm; practical rate of fire, 150 rpm.

(2) *Light machine gun*.—Breda, model 38. This differs from the others only in its caliber, which is 7.35 mm.

d. Medium Machine Guns

(1) *Medium machine gun*.—Fiat, model 35: caliber, 8 mm; feed, nondisintegrating metal belt which normally holds 50 rounds but which can be assembled in various lengths; maximum rate of fire, 600 rpm.

(2) *Medium machine gun*.—Breda, model 37: caliber, 8 mm; feed, 20-round plate charger; maximum rate of fire, 450 rpm. This gun fires the same ammunition as the Fiat model 35.

(3) *Medium machine gun*.—Breda, model 38: caliber, 8 mm; feed, 24-round vertical box magazine; maximum rate of fire, 600 rpm. The Italians use this gun both as an infantry machine gun and as a tank weapon. It is standard in the following tanks: the 6½-ton Light (1940), the 11-ton Medium (1939), and the 13-ton Medium (1940).

e. Machine Carbine

The principal Italian machine carbine, which operates like the American Thompson submachine gun and fires pistol ammunition, is the Beretta, model 38: caliber, 9 mm; feed, box magazine fitted underneath the body. There are 3 different sizes of magazine, holding 10, 20,

and 40 rounds, respectively. Maximum rate of fire, 570 rpm.

f. Antitank Rifle

A widely used Italian antitank rifle is the Swiss Solothurn: caliber, 20 mm (0.79 in); feed, magazine capacity of 10 rounds, but normally loaded with 8 rounds only. The entire magazine is ejected automatically when the last round has been fired.

g. Mortars

(1) *Light mortar*.—Brixia, model 35: caliber, 45 mm (1.77 in); weight (with mounting), 34 lbs; magazine capacity, 10 cartridges; maximum range (with ports closed), 586 yds; maximum range (with ports open), 352 yds; rate of fire (without re-aiming between rounds), 25–30 rpm.

(2) *Mortar*.—Model 35: caliber, 81 mm (3 in); total weight, 129 lbs; weight of light bomb, $7\frac{1}{4}$ lbs; weight of heavy bomb, 15 lbs; number of charges (light bomb), 7; number of charges (heavy bomb), 5; maximum range (light bomb), 4,429 yds; maximum range (heavy bomb), 1,640 yds.

h. Hand Grenades

(1) *Hand grenade*.—S. R. C. M., model 35: weight, 7 oz; weight of explosive, 1.5 oz.

(2) *Hand grenade*.—Breda, model 35: weight, 7 oz; weight of explosive, 2.1 oz.

(3) *Hand grenade*.—O. T. O., model 35: weight, 7.4 oz; weight of explosive, 2.5 oz.

2. BY THE ARTILLERY

a. Antiaircraft Gun

The 20-mm Scotti is the Italian Army's standard light antiaircraft gun. Muzzle velocity, 2,720 fs (feet per second); maximum horizontal range, 5,900 yds; maximum effective ceiling, 7,000 ft; theoretical rate of fire, 250 rpm; practical rate of fire, 120 rpm.

b. Antiaircraft-Antitank Gun

The 20-mm Breda gun is used as a dual-purpose anti-aircraft and antitank weapon. Muzzle velocity, 2,750 fs; maximum range, 6,000 yds; maximum effective ceiling, 8,200 ft; practical rate of fire, 120 rpm.

c. Antitank Gun

The Italian Army has a 47-mm antitank gun which it also uses as an infantry-support gun. Muzzle velocity, 2,050 fs; maximum range, 7,000 yds; rate of fire, 12-14 rpm.

d. Field Gun

The 75-mm field gun—manufactured in models 06, 11, and 12—is the standard light field piece. The British, who have captured and used many of these weapons, report that they stand up very well under constant use.

	<i>Model 06</i>	<i>Models 11 and 12</i>
Muzzle velocity	1,730 fs.	1,675 fs.
Maximum range	11,200 yds.	9,075 yds.
Rate of fire (theoretical)	8 rpm.	8 rpm.
Rate of fire (practical)	4 rpm.	4 rpm.

e. Gun-howitzer

In Libya the Italians have been making considerable use of a new 75-mm self-propelled gun-howitzer, which has a muzzle velocity of 1,430 fs and a maximum range of 10,300 yds.

Section II. RADIO TRANSMISSION

A captured Italian Intelligence Report states that in communications during field operations the British have made "abundant use of abbreviations, conventional words, names, and agreed phrases." The Italians admit that these methods have proved effective. "In particular," the report says, "key words for deciphering messages giving fresh positions have been well thought out. It has been observed that, by way of a change from past practice, two different codes have been used in a single message, one code in numbers and the other in words. For example, 'Position of Pura is Jsy. A5N.' Such messages take our cipher expert so long to unravel that the information they contain is useless to us."

This is good news—for our side. Nevertheless, from the same source the American soldier can pick up a few tips about how *not* to send radio messages in the field. The British used to rely heavily on frequent changes of names, frequencies, and key words or numbers. Instead of confusing Axis listeners, this kind of thing tended to make them more alert. The British soon learned that instead of changing codes frequently, it was better to

change them cleverly. For example, certain units, whose code names had been changed had been including references to earlier messages transmitted under their former names; these references specifically mentioned the old names and dates. In these cases identification of the unit by the Axis was a simple matter. Also, apparently unimportant messages helped in identifying certain infantry battalions about which the Axis had very little information.

It is interesting and useful to know what communication methods make field operations easier for the enemy and what methods make them more difficult. The captured Italian report reveals that the British often have puzzled the enemy by using cockeyed slang and double-talk. It must be stressed, however, that this method does not guarantee safety. For example, the American expression "Keep your shirt on" might mean nothing to the enemy, but on the other hand it might mean a great deal—because the Axis armies include many men who have lived in the United States.

PART FOUR: UNITED NATIONS

Section I. CAMOUFLAGE

1. INTRODUCTION

The *Intelligence Bulletin* for October discussed various types of terrain patterns as an air observer sees them. Methods of camouflaging men and matériel so that they will fit into these patterns and thus escape detection by enemy air reconnaissance are dealt with in this issue.

2. HOW CAN A UNIT MATCH AN EXISTING PATTERN?

When a military unit moves into an area, it is adding itself to an established terrain pattern with which enemy air observers may already be familiar. In its effort to gain as much concealment as possible, the unit must decide what kind of pattern the terrain has presented to air observers in the past, and then work out its camouflage plan accordingly. As was demonstrated in the October *Bulletin*, the airman flying at some thousands of feet is more conscious of the lightness or darkness of objects than he is of their color; therefore the terrain's shadow-casting capabilities will suggest the specific type of pattern which should be matched.

a. Desert Pattern

Any black mark is highly conspicuous on a plain light background. For that matter, all strong contrasts of light against dark, or dark against light, are conspicuous. A natural shadow is just about the blackest thing on earth. Almost anything we add to a light, smooth desert pattern will cast a shadow. For example, when we add vehicles to a desert pattern, it is not so much the vehicles themselves but the inky blackness of their shadows which attracts the air observer's attention.

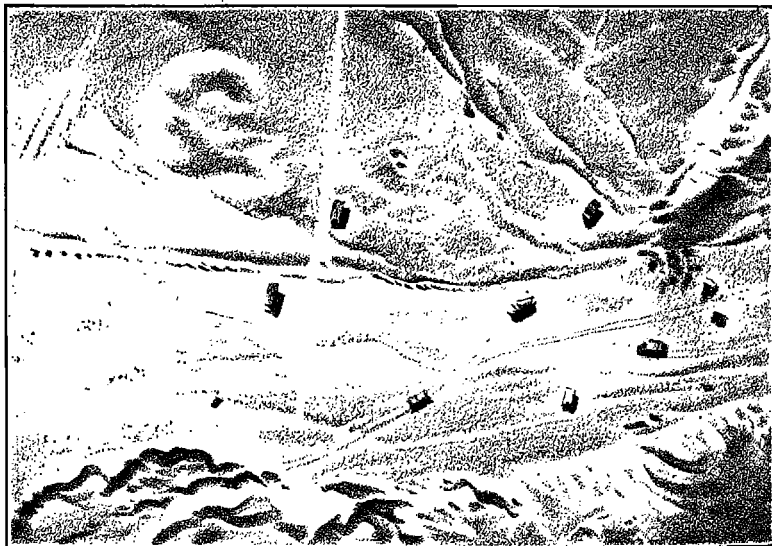


Figure 3.

This shows the exact nature of the problem we face when we want to camouflage or conceal anything in a bare desert pattern. First, vehicles should be dispersed

to lessen the effect of any bombing. The biggest task is to kill the shadows. Properly garnished nets intelligently used will do this effectively, as we shall see later. Incidentally, if tents are well dug in, and are pitched with the long sides facing north and south, the shadow problem will be reduced.

b. Rougher Desert Pattern

In those parts of a desert which contain sandhills there will be both shadowed and sunlit ground. To the air observer the shadows of vehicles parked in the smooth, sunlit areas near the hills are bold black dots. Since they do not belong there, they catch his eye at once. If these same black dots occur at the foot of the hills, where the ground is somewhat broken, or along the dividing line between shadowed and sunlit ground, the enemy air observer will have trouble locating them and may miss some of them altogether.

The point to remember is that objects placed on, or close beside, strongly marked features of any terrain pattern attract the eye less than the same objects farther removed from these features.

c. Woolen, or Carpet, Pattern

The pieces of a broken dish lying on a household carpet are conspicuous—first, because they do not belong there, and second, because the smooth surface of china contrasts with the rough texture of carpeting. Similarly, the smooth and often glossy surfaces of military huts, vehicles, and other equipment are conspicuous on ground

carpeted with low, scrubby vegetation. From the air, such vegetation looks like coarsely woven cloth, or homespun wool. In terrain of this type, shadows are still important, of course, but the regular shapes and shiny surfaces are the important things to remedy if we want to avoid attention.

What can be done? A well-garnished net, cleverly spread, will break up the shape and kill the shine, thereby losing an object in its surroundings. So will local vegetation, plucked and placed to advantage. Whatever is used should be made to kill the shadows as well as the shine. If nets are wrapped close around the object they are supposed to hide, they lose half their effect.

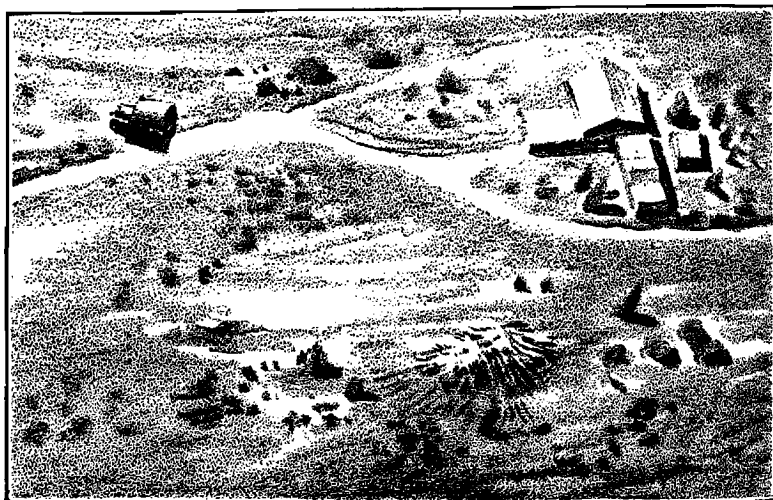


Figure 4.

Figure 4 illustrates how, even in circumstances that look unpromising and lacking in natural concealment, a properly garnished net can render a fairly large piece of military equipment much less conspicuous to enemy airmen.

d. Polka-Dot Pattern

Terrain with scattered trees or clumps of bushes looks like an immense polka-dotted cloth to an air observer. It is easy to camouflage matériel and personnel so that they will fit in with this pattern. Get under the trees if they are tall enough; in any case, keep on the shadowed side. If they are not tall, get close alongside. Use nets, where practicable, to make what you are hiding look as much as possible like the other dots.

e. Patchwork-Quilt Pattern

Fields in farming country are necessarily much used by military units. From the air, the pattern of a field most frequently appears to be a smooth area bounded by a distinct, dark line. This line may be caused by a ditch, a hedge, a combination of fence and wild vegetation, or a natural dividing line between different kinds of crops.

Suppose you have to put eight vehicles into a small field. You can either disperse them all over the field, or you can park them close to the boundary (see fig. 5).

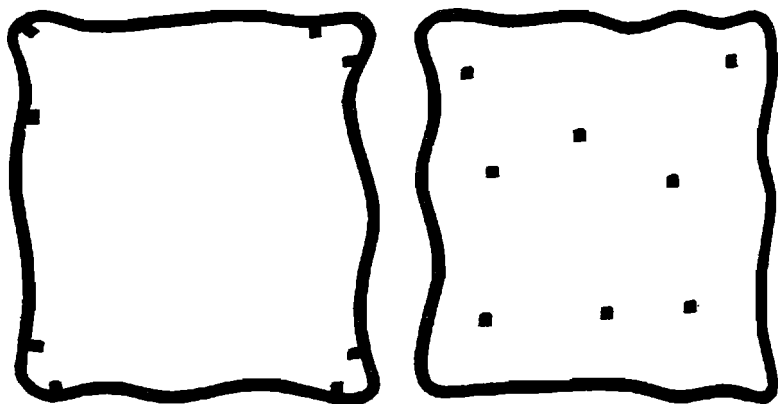


Figure 5.

If you disperse, you will most certainly be seen by the enemy, but you may gain a certain immunity from the effect of bomb bursts. On the other hand, if you distribute your vehicles close alongside the boundary, you may be slightly more vulnerable, but what outweighs this is the good chance that you will not be seen at all.

f. Geometric Pattern (a)

Wherever there are groups of houses, whether in the country or in a town, they almost always present a geometrical pattern to the airman—a pattern of rectangles and

straight lines. Suppose there are a few circular shapes among the rectangles? Their rarity makes them conspicuous and significant.

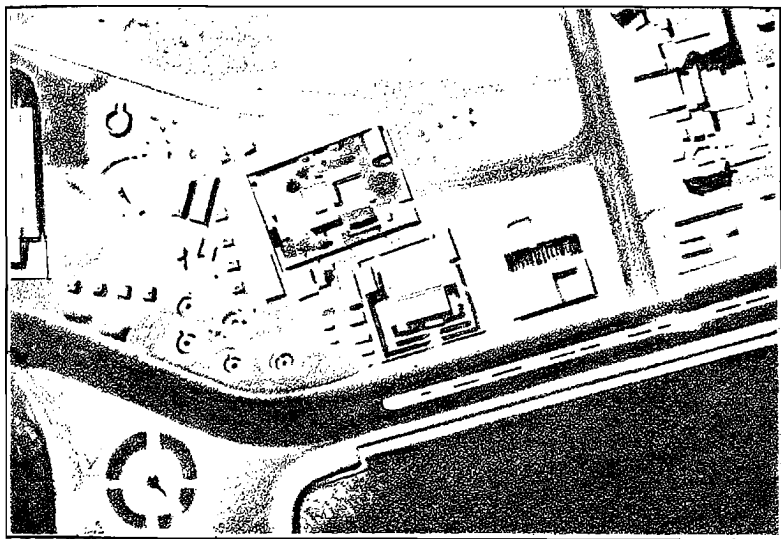


Figure 6.

What does figure 6 prove? That an enemy air observer can easily pick out the antiaircraft and similar positions because of their roundness among the many rectangular shapes. In other words, it is poor camouflage to build round emplacements when everything else in the neighborhood is rectangular. Likewise, it would be against common sense to permit rectangular installations if everything else in sight were round.

g. Geometric Pattern (b)

The collection of civilian buildings at the top of figure 7 is arranged in a neat, orderly formation.

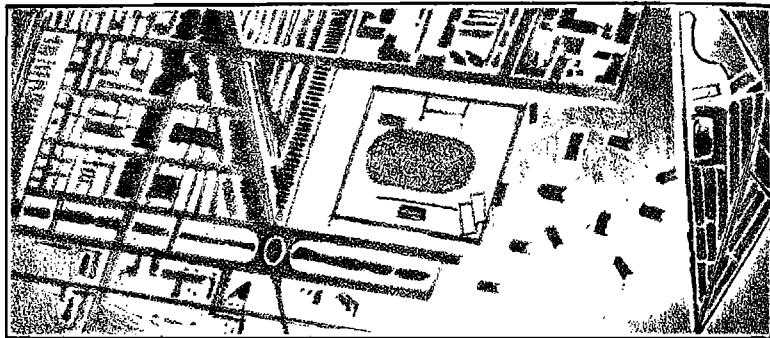


Figure 7.

As you look at the picture, what catches your eye? The military huts that are dotted about, evidently for purposes of dispersal. An enemy pilot sent to bomb them would have no trouble recognizing his objective. From the concealment point of view, it would have been better, in siting the huts, to imitate the orderly arrangement of the other buildings, and even to make neat paths up to the doors. In this way the huts could have been made an inconspicuous extension of the original geometrical pattern.

h. Tracks across Fields

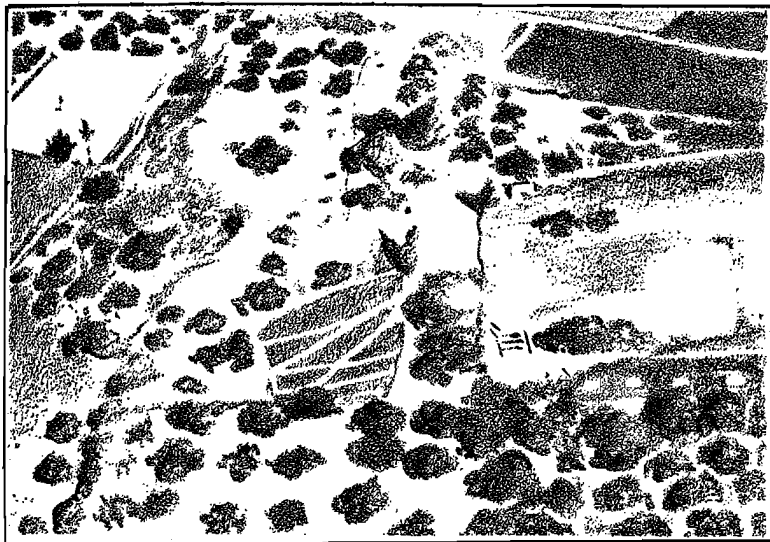


Figure 8.

Tracks across fields are conspicuous and dangerous. Figure 8 illustrates how tracks across the middle of a field can give away a story of military movement.

Never cut the corner of a field with a vehicle or foot tracks. Keep to existing tracks. If there are none, keep close to any existing line, such as a belt of trees, a wall, or a ditch.

3. WHY DO TRACKS SHOW CLEARLY ON GRASS?

Standing grass or other low vegetation looks dark to the airman because he sees millions of shadows, each cast by

a separate blade. When some of these blades are flattened by the foot of man, by rolling wheels, or by any other cause, they cease to throw shadows and become smooth reflecting surfaces facing the sky. Thus they look and photograph light.

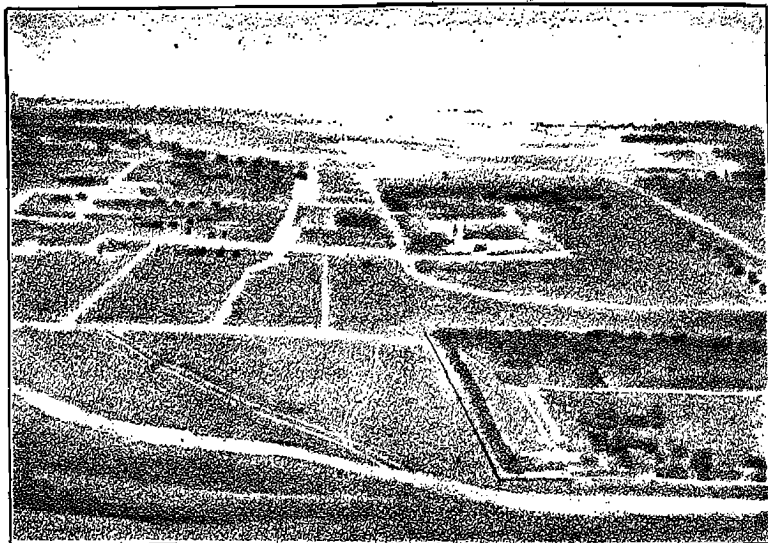


Figure 9.

Some people believe that one or two journeys across grass on foot or with a truck will not make much difference. Toward the center of figure 9 a distinct double-track can be seen, curving off the broad road in the foreground and running up to join another track. This represents a mark made by a single vehicle driving only once over grass about 6 inches tall.

4. WHAT ABOUT TRACKS IN THE DESERT?

In bare desert—sandy or rocky and with little vegetation—the track left by the ordinary vehicle is so slight that the airman hardly notices it at 1,500 feet. But where the surface is a mixture of pebbles and light sand, motor transport vehicles push the pebbles down out of sight and leave two ribbons of light sand exposed. The heavier the vehicle, the more conspicuous the track. But so long as these tracks are dispersed and seem to wander in all directions, they will not give away the sites of important installations. When several vehicles follow the same track, danger arises.

5. WHY ARE TRENCHES CONSPICUOUS?

When we dig a trench in ground that is covered with grass or any growth of a singular texture, the enemy air observer sees a bold black band sandwiched between two light bands (see fig. 10).

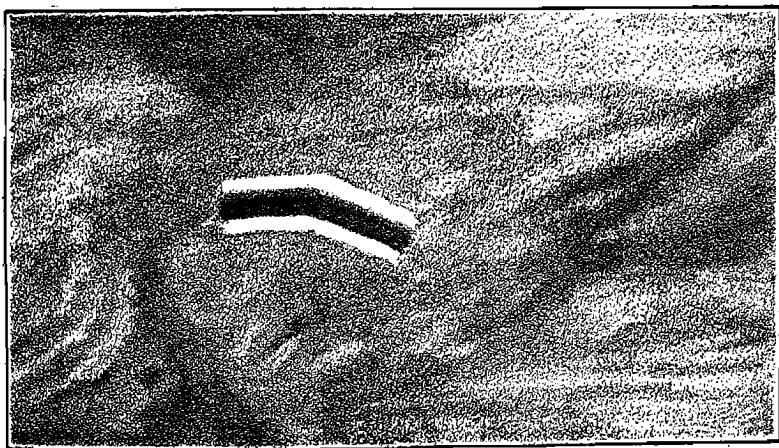


Figure 10.

Since the front mound (parapet) and the rear mound (parados) of a trench are of earth which has lost its shadow-producing vegetation, they seem very light. Between them is the internal shadow of the trench itself—the blackest mark that can be made.

What can be done about trenches? The ideal procedure is to restore the original surface of the “spoil,” or disturbed earth—sloping it off gradually so that it throws no shadow—and to cover the excavation itself with a garnished net. However, since it generally is very hard to restore the original texture of the spoil, the next best move is to fake it by whatever means are available.

Slit trenches usually are easier to conceal, since their siting is not so much of a tactical problem, and since a good deal can be done to fit them in naturally with the terrain pattern.

6. HOW CAN WE DISTORT SHADOWS?

Shadows can be distorted, so that they are confusing and hard to identify, if they are thrown against rock piles, broken ground, clusters of bushes, or any other uneven formation.

Remember that as the sun moves around, your shadow will, too. Also, the deeper an object is sunk below the level of the ground, the smaller its shadow will be.

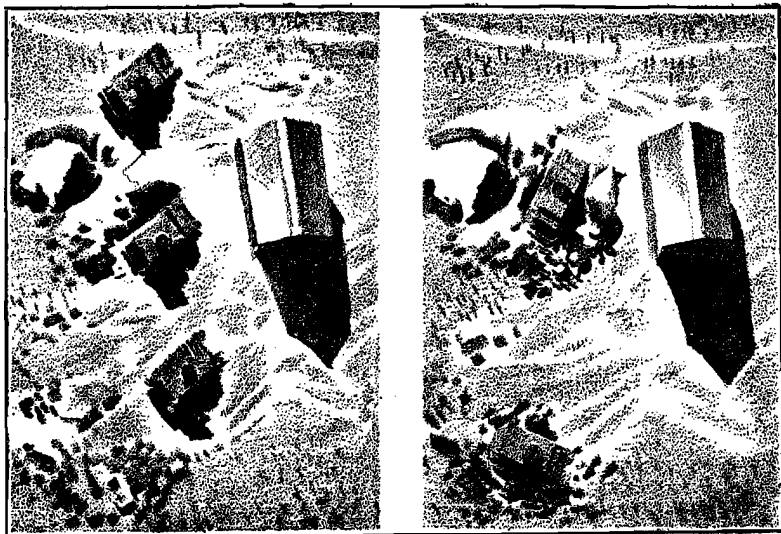


Figure 11.

Figure 11 illustrates how three vehicles might be parked before and after use is made of opportunities to distort their shadows. The effect will be more apparent if the drawing is held at arm's length. It will be noted that one vehicle has been able to secure complete concealment in a large existing shadow.

7. IS A LARGE MESH NET EFFECTIVE BY ITSELF?

A large mesh net is merely a framework on which to weave strips of burlap, rags, twigs, branches, or clumps of vegetation. It is the garnish, not the net, that conceals. This holds true whether one is netting a vehicle, a trench, or anything else.

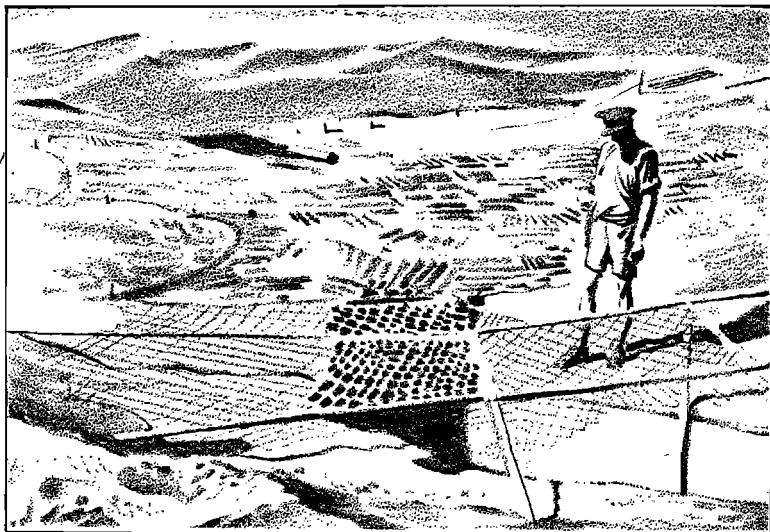


Figure 12.

Figure 12 shows how much garnish is needed to kill the shadow of a trench. Note that the large-mesh net alone affords practically no camouflage.

On the other hand, small-mesh nets without garnish afford a certain amount of concealment, but even these benefit by the addition of local vegetation and other available material.

8. IS THERE ANY MAGIC IN DAZZLE-PAINTING AS SUCH?

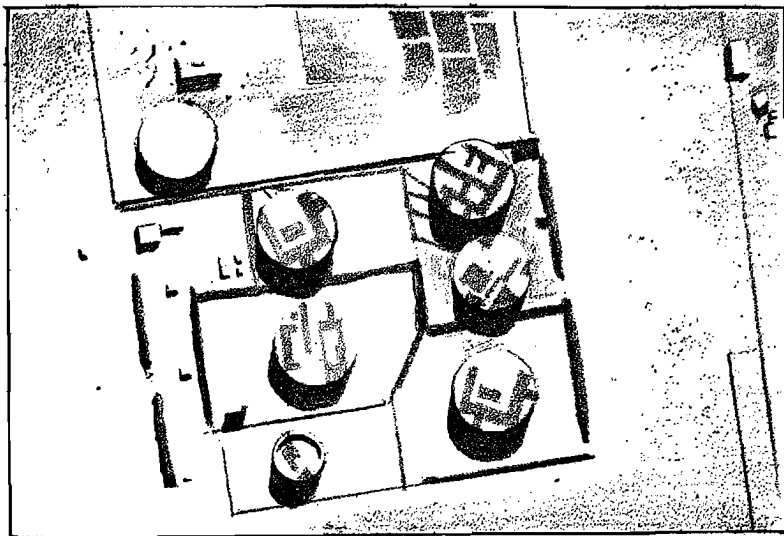


Figure 13.

Dazzle-painting does not in itself assure concealment. The designs painted on the fuel tanks in figure 13 may be good camouflage at ground level. They may merge the tanks into a background not readily apparent from the air. But in this particular setting, they certainly are not good camouflage against air operations.

Does this mean that this kind of painting is always bad? By no means. In certain settings it may be excellent. It is wise to consult specialists before deciding on important paint schemes.

9. HOW IMPORTANT IS PAINT?

In static camouflage, paint is very important indeed. In field camouflage the importance of paint is usually overrated. As this study already has demonstrated, texture is the chief point to keep in mind.

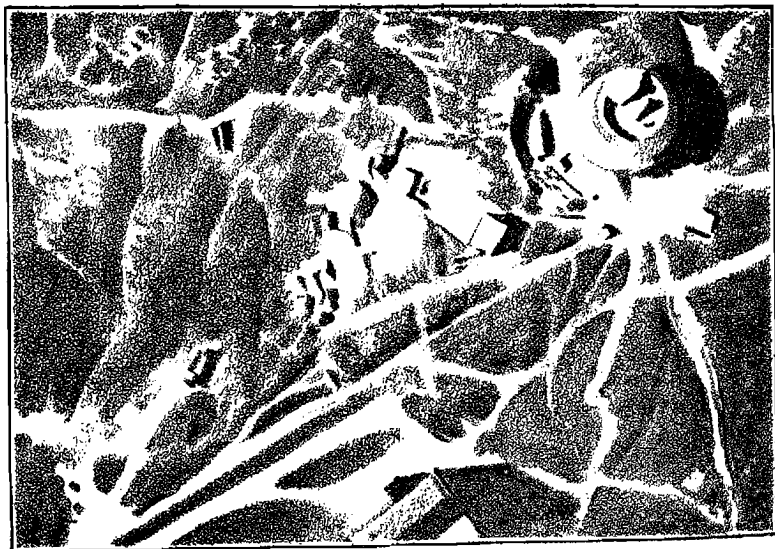


Figure 14.

Figure 14 demonstrates how easy it is to exaggerate the importance of paint in seeking concealment. Here a gun has been camouflaged with paint. But the size and significance of the gun are nothing compared with the trampled and disturbed earth, the cable and searchlight trenches, the huts, the tracks, the ammunition pits and dumps, and all the other signs of military work. Before the gun was installed, the general texture of the ground

was as you see it outside the disturbed area. This texture should have been preserved, or else imitations provided, during all activity on the site.

On the other hand, if a unit intends to make a dummy site, just the opposite is true. It is not enough merely to install the weapon or equipment by itself. Convincing signs of military activity must be faked—disturbed ground, scattered buildings, dumps, latrines, tracks—in fact, all the mess that is so clearly indicated in figure 14.

10. CONCLUSION

a. Remember that even if you halt for only a very short time, it is worth-while taking all possible measures for concealment.

b. An advance party can be of the greatest value in planning measures for concealment. In preparing to take up a position, here is the ideal order of events:

(1) Reconnoiter the site and decide how best you may use any existing pattern to assist concealment.

(2) Plan the tracks by which you will reach those positions, without leaving clues for the enemy to follow.

(3) Plan how to reduce to a minimum the mess caused by digging, building, and so on, and plan how to hide whatever mess is unavoidable.

(4) Hide or disguise the shadows. Cover the shiny surfaces. Make colors match the surroundings as well as you can. But remember that it is much more important to have the correct texture than the correct color.

(5) Remember that the lower an object, the smaller its shadow.

(6) See that your camouflage plan is understood and followed by all in the unit.

(7) Remember that unless you keep strict discipline with regard to making tracks, and maintain your camouflage properly, your position will soon become conspicuous again.

c. If a camouflage idea prevents the effective tactical use of a weapon or a position, change the idea.

d. If an effective camouflage idea interferes with an administrative lay-out, change the lay-out.

e. If you can follow the principles contained in this study, the positions you occupy will look less like ground occupied by the enemy. They will therefore look less important to the enemy—less worth photographing, less worth attacking. Finally, remember that concealment is not hiding for hiding's sake. It is hiding so as to attack the enemy with deadly effect. This is the beginning and the end of camouflage of armies in the field.

Section II. RUSSIAN USE OF THE ANTI-TANK RIFLE

In destroying German tanks, Russian antitank riflemen follow a set of directions, which are given here in condensed form as a matter of information:

“1. Show daring. Let the enemy tanks come within 200 yards or closer. The best range is 100 to 200 yards. Don't let the enemy fire lead you to open your own fire too soon.

“2. The antitank rifle can fire 8 to 10 rounds per minute, if the gunner and his assistant use teamwork. The gunner opens and closes the breech, aims, and fires; the assistant, lying on his right, cleans and oils the shell and places it in the chamber.

“3. Remember that for a distance of as much as 400 yards, the effect of the wind need not be considered.

“4. Remember the deflection correction for the movement of the tank. At a speed of 22.5 miles per hour, a lead of 1 yard is required for every 100 yards of range.

“5. Aim for the rear of the turret—the gunner and ammunition are there. If you hit the ammunition, you can blow up the tank.

“6. Fire at the center of the rear half of the tank—the motor and the fuel containers are there. If you hit either one, you will put the tank out of action.

“7. A well-camouflaged gun crew can put any tank out of action with well-aimed shots, and can block a road to a whole column of tanks.”

It isn't the size of the dog in the fight that counts; it's the size of the fight in the dog.

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