War Develops Multitude Of Camouflage Materials

The rapid development of aviation has caused CAMOUFLAGE to become an increasingly important factor in all military construction and field operations. The effectiveness of CAMOUFLAGE must be judged from the viewpoint of the enemy observers or intelligence personnel whose task it is to discover our military installations.

Therefore the ability to make intelligent inspection of camouflaged installations from this viewpoint is required of officers supervising construction in the theater of operations and those assigned to specific camouflage duties in the division and corps headquarters or in the special camouflage organizations of the field army and GHQ special troops.

CAMOUFLAGE is any and every means of hiding or disguising yourself from the enemy; misleading him as to your position, strength, and intention; confusing him so that he wastes his blows and falls into your ambush. It is work done to provide concealment of materiel, troops, or military works from enemy observation. The purpose of the concealment is to protect the troops, materiel and military works from artillery or aerial bombardment, and to protect the force as a whole from having its commander's plan revealed to the enemy through observation of his dispositions.

The latter purpose is the harder to impress on small units but in a war of movement it is of vital importance. Observation is of two kinds: 1. DIRECT OBSERVATION is observation by direct vision which may be aided by field glasses or telescopes. 2. INDIRECT OBSERVATION is observation by the study of photographs. This type of observation is by far the most effective.

Camouflage can be accomplished by any one or more of the following methods: 1. HIDING—Completely concealing an object by constructing overhead cover of lateral screening. 2. BLENDING—Making an object indistinguishable from its surroundings by breaking up its form and shadow. This method is particularly valuable when the terrain pattern is intricate. 3. DECEIVING—Making an object appear to be something else. This method included making important installations appear unimportant and constructing dummies to draw the enemy's attention away from actual positions.

The method of camouflage employed depends on a number of factors, including size, location and layout of the object to be concealed, the nature of the surrounding terrain, the type of materials available, the type of observation guarded against, and whether or not the area has been photographed by the enemy. If an area has not been photographed any method can be used. If it has been photographed that method which offers least disturbance to the existing pattern should be used.

FUNDAMENTAL REQUIREMENTS — The requirements for successful camouflage, listed in order of importance, are: 1. Proper choice of position. 2. Good camouflage discipline. 3. Proper erection of camouflage materials. 4. Proper choice of camouflage materials.

CHOICE OF POSITION — In choosing a position the points to be considered include: 1. The location of the position so that the troops can accomplish their mission; 2. provision for access to the position both prior to and during occupation; 3. natural concealment available or ease of securing artificial concealment; 4. defilade from ground or oblique aerial observation; and 5. suitable location for auxiliaries to the main position.

The layout of the position should be planned in detail, using, if possible, an aerial photograph of the area to supplement ground reconnaissance, before the position is occupied. Positions offering natural concealment are to be preferred over those requiring camouflage construction. Where camouflage construction is necessary a position should be located, if possible, in a terrain pattern which is intricate and confusing rather than regular.

CAMOUFLAGE DISCIPLINE — Camouflage discipline has two objectives; 1. The prevention of any change in the appearance of visible terrain such as results from making paths or tracks and cutting trees or sod. 2. The maintenance of camouflage materiel if any is used, by repairing it when damaged and keeping it in conformance with seasonal changes in the terrain.

ERECTION—Camouflage materiel should be so erected that—1. It does not have a regular form or cast a regular or well-defined shadow. 2. It conceals the form and shadow of the object camouflaged and the tracks of the constructing and operating personnel.

MATERIALS — Materials should match the surrounding terrain in color and texture and be easy to maintain considering the length of time the position will be occupied. In planning camouflage work, the position from which the work is to be observed by the enemy must be estimated and the work planned on a scale in proportion to that distance.

Camouflage materials may be natural, such as grass or dry vegetation or debris normally expected on a shell torn battlefield; or artificial, such as garnished fishnets or chicken wire.

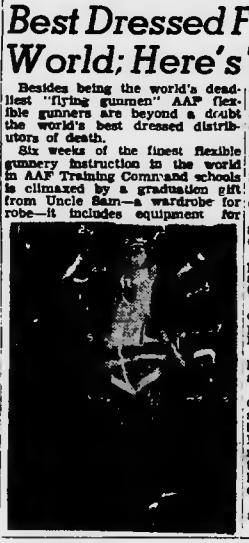
NATURAL MATERIALS — have the advantage of usually being available close at hand, of matching the color and texture of the surrounding terrain when properly used, and of greater effectiveness against all types of aerial photographs, particularly infra-red and color photographs. They have the disadvantages that they cannot be prepared in advance for quick erection and require frequent renewal and strict discipline. In general, natural materials give the best results. Vegetation can either be placed directly on or around an object, or can be supported over the object by other means to form an overhead cover. It must be placed in its natural position in order to get a natural light reflection.

have the advantage that they can be secured in advance and prepared for rapid erection in places where natural materials are difficult or impossible to obtain. Artificial materials also require less maintenance than natural materials. They have the disadvantage of requiring the hauling of material from rear and also of being difficult to conceal from inspection by infra-red or color photographs. The standard artificial material is Osnaburg — a cotton cloth somewhat like unbleached muslin; or burlap, which is hung on wire or fishnet supports and painted to correspond with the natural color of the terrain.

AAF Gunners Undoubtedly Best Dressed Fighters In World; Here's Their Outfit

Besides being the world's deadliest "flying gunmen" AAF flexible gunners are beyond a doubt the world's best dressed distributors of death.

Two weeks of the finest flexible gunnery instruction in the world in AAF Training Command schools is climaxed by a graduation gift from Uncle Sam—a wardrobe for robe—it includes equipment for destruction as well as clothes for protection. In this picture Sgt. Andrew J. Gamburdella of Hamden, Conn., already with a bomber combat crew, models the complete ensemble. It includes:



1. The finest combat aircraft, background.

2. Twin caliber-50 machine guns, deadly and efficient weapons.

3. Fleece-lined helmet and goggles for warmth and protection of eyes and head.

4. Oxygen mask, which makes possible the performance of missions at altitudes ranging from 10,000 to 30,000 feet.

5. 9, 10 11. Jacket gloves trousers and shoes, all fleece-lined to provide warmth and comfort at high altitudes.

6. "Mae West" life-preserver to keep gunner afloat if forced down at sea.

7. Jungle kit, attached to parachute which contains every possible aid to survival should a flier be forced down in wild terrain. In it is everything from a 12-inch machete, flares, matches, "D" ration (chocolate bars) and fish hooks to sulfa drugs, quinine and every available first-aid item.

9. Parachute.

air war.

In fact it's more than a ward-

AAF Marksmen Get Training In One Of These Gunnery Schools

For the benefit of our new readers, and, also, to bring our old readers up to date we want to present some inside dope which should help prospective gunners do a little guessing as to which gunnery school they're likely to attend upon completion of basic or technical training.

In the first place you've got to find out whether you're qualified for air crew training. We discussed this several weeks ago when we summarized the provisions of AAF regulation 50-23. If you're not sure check with your first sergeant. He can tell by looking at your service record, WD AGO Form 24.

If the answer is "Yes" the chances are you'll go to gunnery school. If the classification officers find that you haven't any particular aptitude for technical work you're likely to go to gunnery school direct from basic training center to become a "career" gunner. In this case it's pretty easy to figure where you're going. You'll go to the gunnery school located the shortest distance from the field at which you are taking your basic training. There are seven gunnery schools. Further down in this column, we list them. Look at the list. Look at the map. The one closest to your basic training center will be your destination. The only exception is Yuma, Arizona. You won't go there because it's exclusively for heavy bombardment Radio Operator Mechanics.

If you have been classified for training as an armorer, mechanic, or radio operator mechanic it's not quite so easy to determine where you'll get your gunnery training.

It's not hard for an ROM. If you're learning to be an ROM in a B-17 or B-24 you're almost bound to go to Yuma Arizona. If you're scheduled as an ROM in a medium bomber your railroad ticket will read, "Ft. Myers, Florida."

Armorers and mechanics have to do some guessing. Ring Sight Seats latest guide to gunnery schools is presented below. B-17 Flying Fortress Gunners (armorers, mechanics, and career gunners)

Kingman, Arizona, Las Vegas, Nevada.

B-24 Liberator Gunners (armorers, mechanics, career gunners,

Laredo, Texas

Harlingen, Texas

Panama City, Florida (Tyndall Field)

Medium Bomber Gunners (armorers, mechanics, career gunners, and ROM's for medium bombers)

Ft. Myers, Florida (Buckingham Army Air Field).

B-17 Flying Fortress and B-24 Liberator ROM gunners Yuma, Arizona.

Raft Stocks Everything Except A Kitchen Sink

No one item on the endless list of superb equipment the AAF gives its air crewmen is more impressive than the latest edition of the A-3 life raft.

This miniature "luxury liner" is standard equipment on all heavy and medium bombers operating over water, in every heavy bomber flexible gunnery school where air to air firing missions are conducted over water.

Fourteen feet long and five feet wide when inflated, the raft accommodates five men comfortably, can sustain a total weight of 1000 pounds over and above its 60 pounds of equipment, and fits compactly into a carrying bag weighing only 100 pounds.

Designed for use after a crash landing on water the raft had more gadgets than a Fuller brush salesman's sample case. Its snap buttoned bag can be ripped open with one jerk. Another jerk on the oxygen container inflates the raft in one and a half seconds.

It has a sail for navigation and a canopy for protection against sun, wind and rain. Both are painted blue on one side for camouflage, yellow on the other to attract attention of search parties. Two wooden oars can be used to mount the sail. One metal oar serves as a rudder or becomes a gig for spearing fish when a line and prong are attached.

Signal devices include a pyrotechnic pistol and cartridge flares; cans of powder which when dumped into the sea, spreads a huge blob of brilliant color; fleating flash light; emergency radio with hydrogen balloon antennae; a high-pitched, shrill whistle for use when shouts can not penetrate to yell.

Repair kit contains wooden plugs for bullet holes; patching and cement; pliers, sand paper and knife.

Navigation Aid Is Latest AAF Weapon

The AAF has come up with another new secret weapon, the use of which makes possible the accurate bombing of targets obscured by as much as 25,000 feet of thick cloud overcast.

Described by Major General F. L. Anderson, Jr., commander of the Eighth Bomber Command as of tremendous importance in the United Nations' aerial assault on Germany, the new weapon is probably the most minutely developed navigational aid in the history of air war-fare. Already it has been used in bombing missions involving a total of more than 8,000 bombers and fighters.

Gen. Anderson, who disclosed information on the navigational aid at a press conference held in Washington shortly before his return from Britain, said that his Britain-based command with the aid of the new device, dropped more than 9,000 tons of bombs on Adolf Hitler's Fortress Europe in one month.

Another disclosure made recently by the AAF was that a brand new German Junkers 88 bomber has been installed at a well-guarded hangar at Wright Field, Ohio, where it is being studied by engineers.

The USAAF C-47 'Skytrain'

Transportation workhorse of the Army Air Forces, the twin-engine low wing C-47 monoplane is making aviation history as it performs all types of heavily-necessary duties on every battlefront in this global war. Parachute infantry, jeeps, small artillery pieces, supplies, airborne troops, the sick and wounded, all are carried from the flak-ridden skies of Italy to the malaria-jungles of New Guinea. All over the world, the Douglas Skytrain is doing a momentous job in hurrying the day of ultimate victory.

Average observers will find it fairly easy to recognize the trim lines of this large aircraft. In general it has the graceful outlines of the regular commercial and passenger transports of pre-war days, what with sharply-rounded wingtips, long-haired taffrail and aggressive jutting nose.

The savage struggles waged between the Japs and the Australian-American Army in Papua saw the initial use of the Skytrain as a train may not rank with the powerful, slugging Fortress or the destructive Thunderbolt, out in the daily prosaic task of being a cargo or troop plane, this airplane certainly merits the reputation of being the best.

major factor in determining the outcome of entire campaigns. High-flying C-47's easily conquered the formidable Owen Stanley Mountain range as they hugged badly-needed infantry to the front at Buna and returned with the unlucky wounded. Without these ships, the Japanese threat to Australia might have become a reality.

However, the United States is not the only United Nation to be fortunate enough to enjoy the services of the Skytrain. RAF pilots know it as the Douglas Dakota and report memorable performances by it in the defense of their farflung empire. The C-47 is a standard transport for the Chinese and Red Air Forces, although it possesses no armor protection or weapons. Tiny, rugged landing strips are no obstacle to the Skytrain, and as bellwether for single-engine jobs it regularly spans the oceans.

As far as glamour goes, the Skytrain may not rank with the pow-