

32 World War



Sailors load machine-gun cartridge belts for dive bombers at Norfolk, Virginia.

Billy Mitchell was right: air power changed war. In World War II more people were killed by bombs or pieces of shells (called “shrapnel”) than by bullets. In World War II cities were bombed; huge civilian populations were massacred.

There was something else about air war: it made killing a mechanical act. Imagine being in the infantry. You see the enemy eye to eye; it makes you realize the enemy is just like you—human. Officers know that some soldiers are never able to pull their triggers. They are never

able to murder—even to save themselves. But a bomber pilot doesn’t see his victims. A bomb can’t tell the difference between an enemy soldier and a child on her way to school. It will kill them both.

An enormous number of bombs were dropped—by both sides—during World War II. Billy Mitchell thought air power would eliminate the need for foot soldiers. He was wrong about that. There was still plenty of old-fashioned infantry fighting.

Look at the world map on page 137. World War II was truly a world war. Here are just a few of the places where American troops fought; see if you can find them in an atlas.

France, Germany, Tunisia, Sicily, Italy, Morocco, Burma, Guam, Malaysia, Philippine Islands, Wake Island

Now imagine you are a general and you are



One officer mans the periscope in the control room of a U.S. submarine, about 1942.

The United States drafted black men, but segregated them—and often assigned them to service jobs instead of combat units. These Negro Seabees were members of the Navy’s construction battalions, volunteers chosen for their skill in building or engineering. They are shown here in training near Norfolk, Virginia, practicing landing tactics, around 1942.



A HISTORY OF US



Above left: parachutes fill the sky as waves of paratroopers land in Holland during operations by the 1st Allied Airborne in September 1944. **Right:** one method of getting soldiers—along with their trucks and all their ammunition and supplies—across a river is with a kind of barge. This one in Burma is powered by ordinary out-board motors.

U-boat is the abbreviation for the German word *Unterseeboot*—“undersea boat.”

A **torpedo** is like a giant bullet with a propeller that travels through water and can sink a ship.

planning a battle on a Pacific island. Suppose you want to get 15,000 men onto the island and surprise the enemy. How are you going to do it?

A parachute drop?

Maybe, but remember, parachutes make great targets. You'd be better off bringing them in by boat. Many of those islands don't have deep harbors, though. Big ships can't come in close.

Can the soldiers swim in?

Not with their guns and artillery and trucks and tanks and food and ammunition and medical supplies.

We're going to have to invent and develop new kinds of landing equipment and war gear. And we're going to have to do it very fast. We'll design huge landing craft that have big rooms—called “holds”—that can be flooded to form miniature lakes so that boats can zoom out. We'll design other landing ships that will carry tanks and trucks as well as men. We'll design *amphibious* (am-FIB-ee-us) vehicles that will go on land or water. One of the most useful—a truck that swims—will be called a “duck.” Another new, tough vehicle—which can handle rough roads, mountain passes, and rutted fields—we'll call a “jeep.”

We'll design superb submarines that can stay under water for months at a time. Then we'll design torpedoes and depth charges to destroy submarines. The Axis nations will be doing the same thing. Submarine warfare will be very important in this war. German subs are called “U-boats,” and the Atlantic Ocean is full of them.

We're going to do amazing things in medical science so that disease and infection will no longer be the major causes of wartime deaths. The lives of many badly wounded men will be saved.

All through the war we will keep improving our weapons, planes, tanks, and armored vehicles. The Germans and Japanese have a head

WAR, PEACE, AND ALL THAT JAZZ



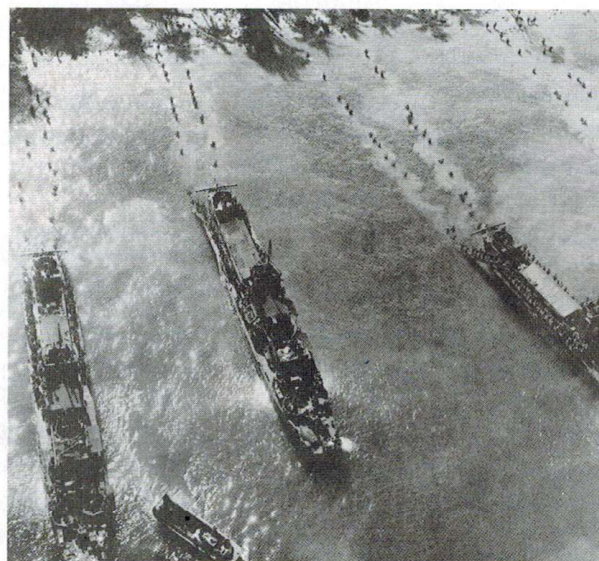
start on us. They have fine scientists and technicians. This war will become a race to see who can produce the best weapons fastest. The Germans are working on rockets—called V-1s and V-2s—that are devastating. Luckily, it will take most of the war to get them perfected. When they start shooting rockets at England there will be many, many deaths. (The V-2 rockets are being designed to hit the United States.) We are behind on rocket development. After the war, German rocket engineers will tell us they got many of their ideas by studying the work of our rocket expert Robert Goddard.

We know something that they don't suspect we know. They think they are smarter than we are. They are wrong. We have learned to read their most difficult codes. That will prove more valuable than almost anything else we do.

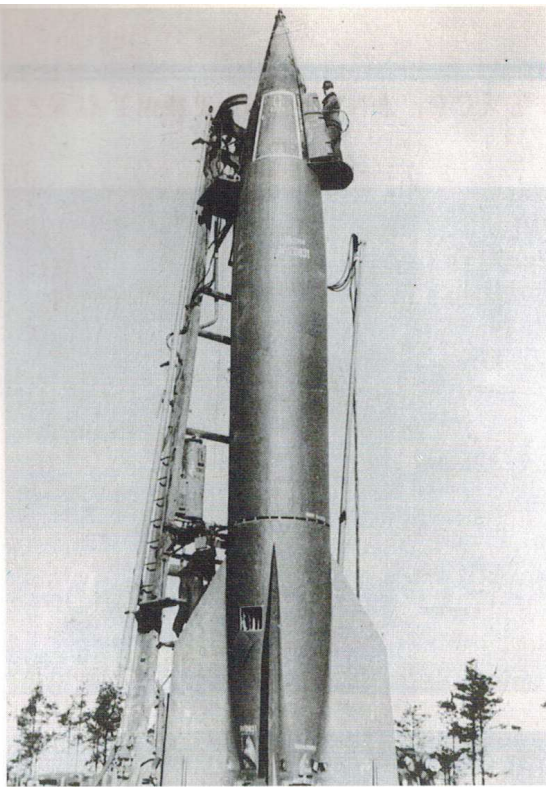
Have you ever tried writing in code? It's easy. Just put numbers in place of letters and you have a code. Armies have always needed codes. Suppose a general wants to tell a faraway commander to attack. He sends a messenger. But he wants his orders in code in case the messenger is caught. He certainly doesn't want the enemy to know his plans.

In George Washington's day, a screen was sometimes put over a piece of paper. There were holes in the screen. The secret message was the words that showed through the holes. Everything else was there to fool you.

During World War II, both sides moved huge armies and navies and tried to do it secretly. Most orders were sent by telegraph.



Getting from A to B. Top left: lowering a jeep from a Coast Guard assault transport into a landing craft. **Top right:** each of these tiny cars carries a real bomb. **Above:** an aerial photo of U.S. troops wading ashore from landing craft onto Morotai Island, between New Guinea and the Philippines.



A V-2 rocket prepared for launching. Nazi Germany's V-1 and V-2 rockets were the first long-range missiles—deadly and terrifying.

Germany's racial policies have caused many of its best scientists to flee the country. That helps the Allies and slows Germany's progress.

When American naval forces capture a German submarine off the coast of West Africa, they find a newly developed torpedo and a secret radio code on board. They pretend they have sunk the sub, so the Germans won't change the code.

Anyone could listen. So codes were vital. They became very complicated. The Germans and Japanese thought no one could possibly figure out their complex codes.

We cracked the Japanese secret code even before the war began. Solving the German military code was much harder. German coded messages were sent and received on special machines. Then a German tank was captured in Poland. It had a code machine inside. The machine was smuggled out of Poland to England. When it got to England no one could figure out how to work it. The English called the code machine "Enigma." An *enigma* is a puzzle. They put some of their best scientific and mathematical minds on the job of solving the puzzle. It was incredibly difficult. How they did it is a fascinating story. Several books have been written about it. You can find them in the library.

Once the code was broken, we knew almost everything the Axis powers were planning to do. Now we Allies had to pretend that we didn't know some things. We didn't want the codes to be changed.

Cryptography Means Code Making

In World War II, code makers (who all seemed to be geniuses) created extraordinary code machines in order to write secret languages that would baffle the enemy. But code breakers were, if anything, even smarter than the code makers. Just about all the codes did get broken—except for one that stumped all the geniuses. No one could figure it out. Maybe that's because it happened to be a real language, spoken by real people, who were faster than any of the fancy machines.

The language was Navajo, and it was spoken by 420 marines who called themselves *Dineh*—the People. In western movies, Indians are usually known for their silence. These Native Americans did plenty of talking. They made up their own code using their own words: Hitler was *Daghailchiih* (mustache smeller), bombers were *jaysho* (buzzards), and bombs, *ayeshi* (eggs). Navajos landed on every major island in the Pacific. Major Howard Conner said, "Without the Navajos the marines would never have taken Iwo Jima." They were a secret weapon in the Pacific.

Two Navajo code breakers at work.



PUBLIC WARNING

The public are advised to familiarise themselves with the appearance of British and German aeroplanes so that they may not be alarmed by British aircraft and may take shelter if German aircraft appear. **Should hostile aircraft be seen, take shelter immediately** in the nearest available shelter. Remain there until the aircraft have left the vicinity: do not stand about in crowds **and do not touch unexploded bombs.**

In the event of **HOSTILE** aircraft being seen in country districts the nearest Naval, Military or Police authorities should, if possible, be advised immediately by telephone of the **time of appearance, the direction of flight and number of aircraft.**

GERMAN

FIGHTERS



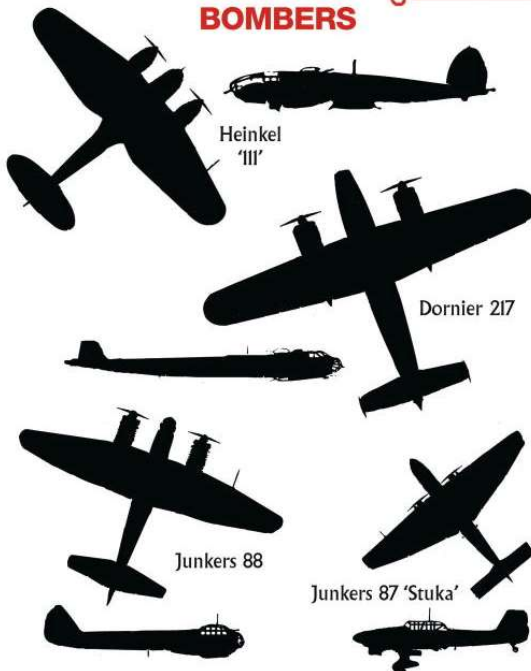
BRITISH

FIGHTERS



Note specially the shape of the wing tips and position of engines.

BOMBERS



BOMBERS



During World War II, Britain wanted all men and women to help win the war. Like the armed services, the people at home were asked to do their bit to help the war effort. The government used information propaganda posters, leaflets, film and radio broadcasts to get its message over to the public. Posters were put up in shops and shop windows, council buildings, train stations and village halls.