

WWI pt. 2

TRENCHES

- **Western Front stretched from the North Sea to the Swiss-French border**
- **Both sides dug in, believing it to be a quick war**
- **Usually 7 feet deep and 6 feet wide**
- **Smell of rotting bodies, unwashed men, no facilities, creosol (chloride of lime to stave off disease and infection), lingering poison gas, mud, cigarette smoke**
- **Rats, frogs, slugs, horned beetles, nits, and lice were constant companions.**
 - **Rats, who feasted on dead bodies, were the size of cats**





TRENCHES

- **Over 200,000 died in the trenches, most from battle, but some from disease and infection**

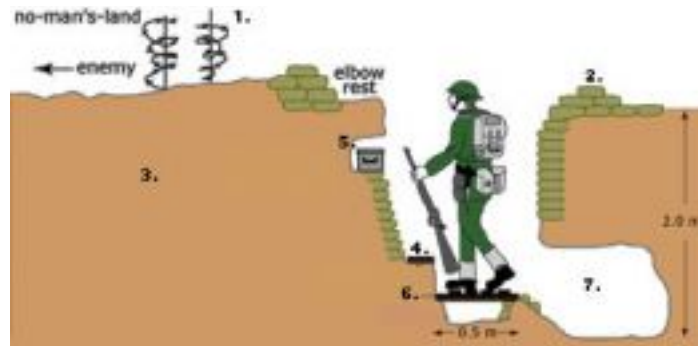
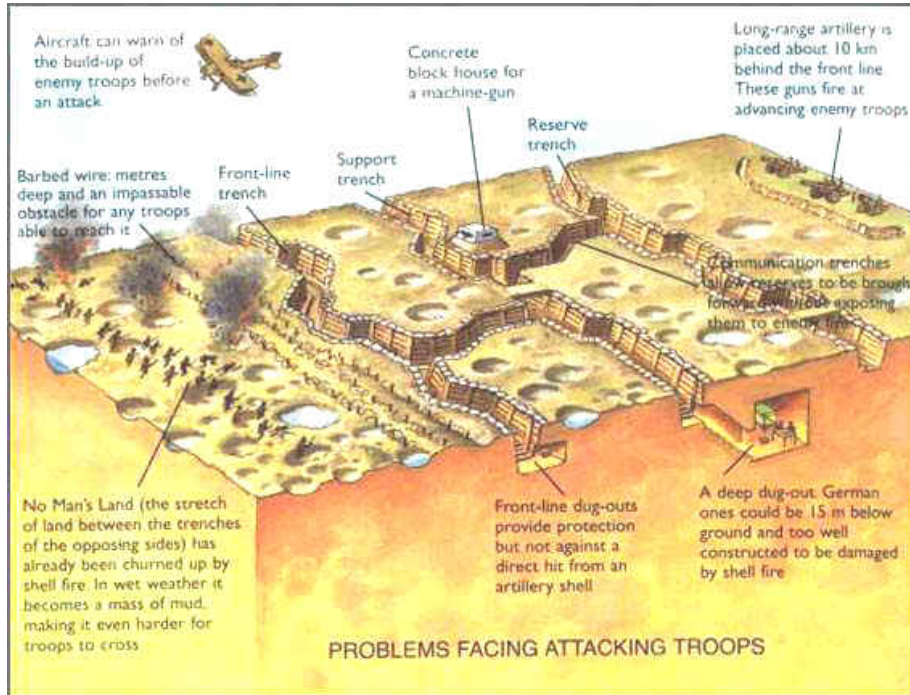
- **Trench Fever was caused by lice, a painful disease that began suddenly with severe pain followed by a high fever. Recovery took up to twelve weeks, once away from the trenches**

- **Fungal infections—called Trench Foot—were caused by the cold, wet and unsanitary conditions. It could turn gangrenous and result in amputation**

- **Shell-shocked started with tiredness, irritability, giddiness, loss of concentration, and headaches. Eventually it led to mental breakdowns, which made it impossible for those men to stay at the front-line**



TRENCHES



MACHINE GUN

Hiram Maxim:



- In 1885 he demonstrated the world's first automatic portable machine-gun
- Used the energy of each bullet's recoil force to eject the spent cartridge and insert the next bullet.

Fire until the entire belt of bullets was used up. Trials showed that the machine-gun could fire 500 rounds per minute had the firepower of about 100 rifles.

The Maxim Machine Gun

MACHINE GUN

- **Machine guns used during World War I took two or three people to shoot and stood on a large tripod.**
- **Problems which remained with machine guns were centered upon weight and thus maneuverability, versatility, and battlefield role**



Developments have focused upon the issues of weight and power. Both became increasingly relevant as wars have shifted from the of swift from relatively static trench warfare to increased movement involving ground-air co-operation

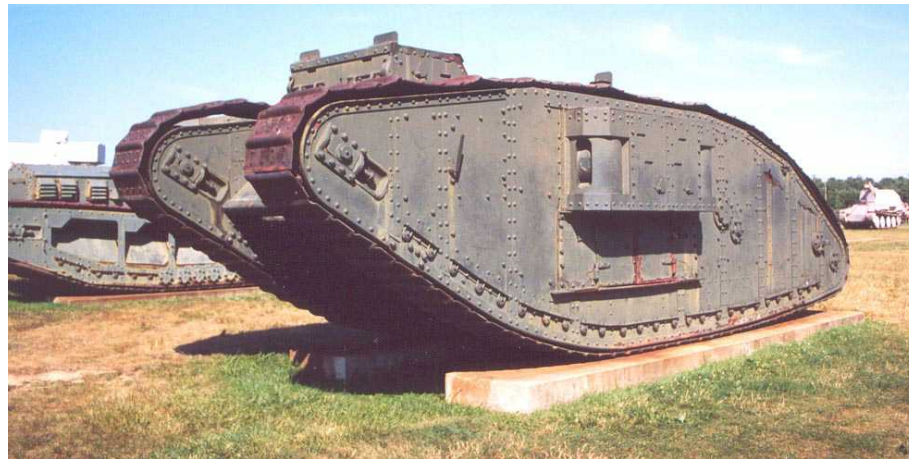
TANKS

- **Need to break the stalemate of the Western Front**
- **William Tritton created the first tank in 1916, called the Mark I.**
 - **Able to grip muddy ground and cross trenches**
 - **It took 3 men to steer and had a total crew of 8**
 - **Only went 4 miles per hour**
 - **Two on the hull sides, two machine guns in the sponsons and two removable guns for the front and back**
 - **Fires were a major concern since the tank took about 230 liters of fuel**

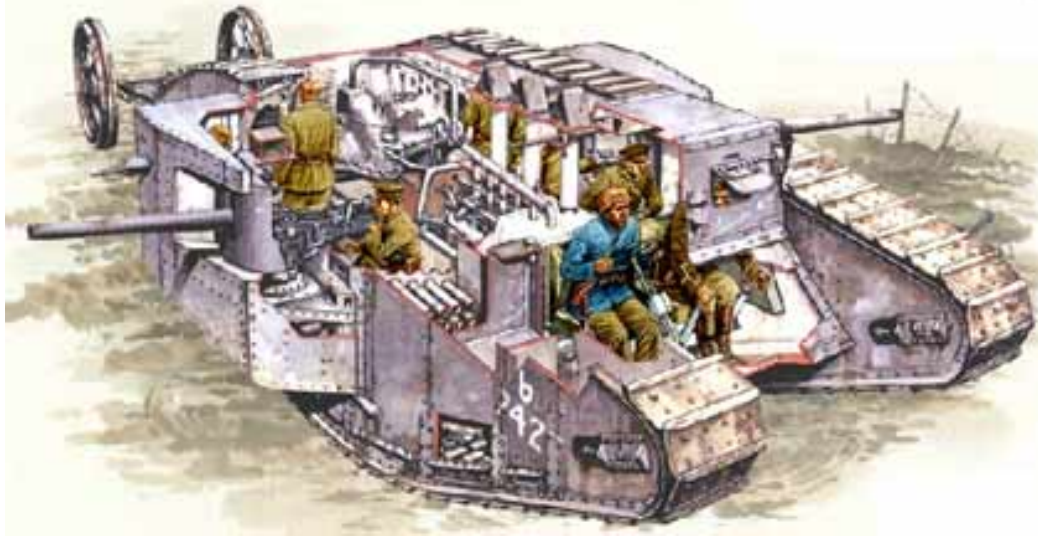


TANKS

- **Inside very unpleasant, crew with the engine, which admitted poisonous carbon monoxide, fuel and oil vapors**
- **Helmets, goggles, chainmail masks and gas masks**
- **Could be penetrated by armor-piercing K-bullets as well as being overrun by enemy infantry or attacked with grenades**
 - **They had a probability of approximately one-third to penetrate armor 12-13 mm thick up to a distance of 100 meters**
- **Next generation of tanks had thicker armor and were immune to the K bullets**

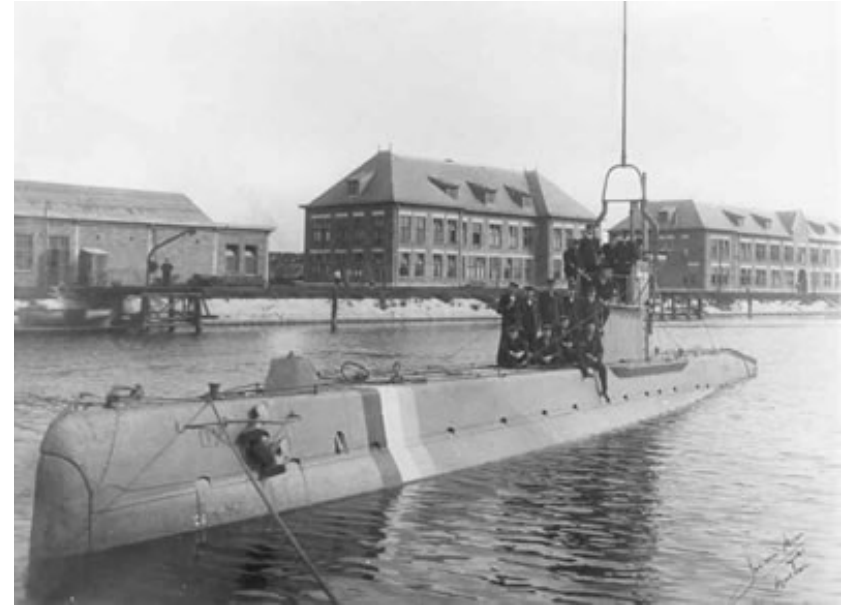
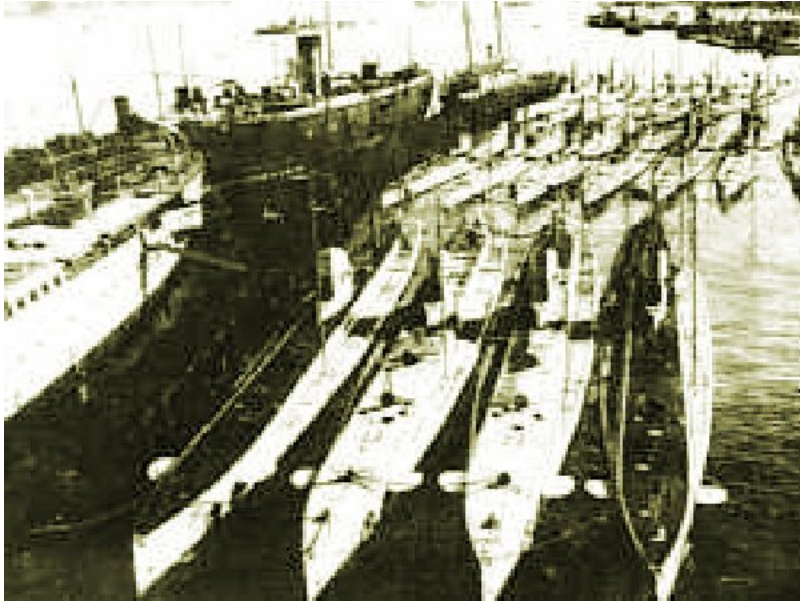


TANKS



SUBMARINES

- **Cornelis Drebbel made the very first submarine in 1620 out of wood and leather.**
- **On the eve of WWI all major navies had submarines but were unimportant and for coastal uses only**
 - **Exception was the German U-Boats, which carried merchant cargo.**
 - **Self-propelled torpedoes and deck guns were added**
- **Propelled by diesel on surface and by electric motors once submerged**
- **Underwater listening equipment was installed and 6 forward torpedo tubes**
- **Important addition: modified to lay mines during covert missions off an enemy's harbor**
- **Tended to operate as scouts for surface warships**
- **Appeared too late to have any major effect on the WWI, but they pioneered a new concept in the development of submarines for later wars**



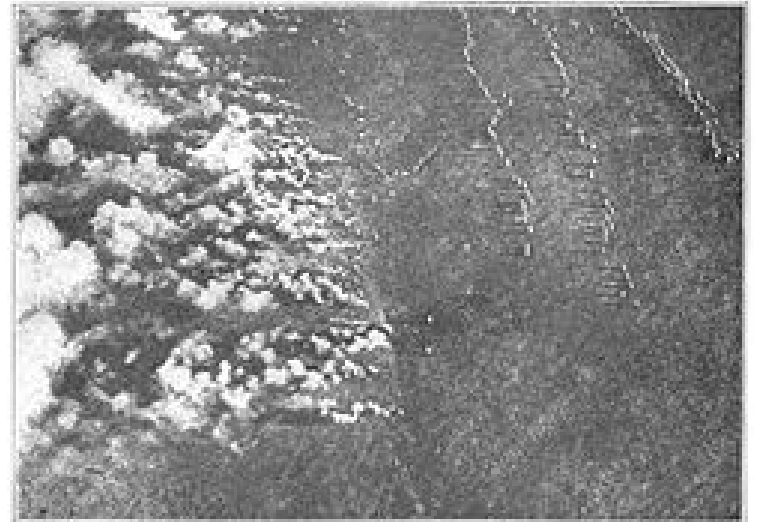
SUBMARINES

POISONOUS GAS

- Tear gas to mustard gas to phosgene and chlorine
- Germans were the first to start large scale usage of gas as a weapon
- Mustard gas: form large blisters on exposed skin
 - Colorless, odorless, and viscous liquids at room temperature.
 - When used in impure form, usually yellow-brown in color and have an odor like garlic



•Delivered in artillery shells and since it was heavier than air, it would settle to the ground where it could remain active for several days to weeks and depending on weather conditions even months



POISONOUS GAS

- **First killing agent used was chlorine—a powerful irritant that can inflict damage to the eyes, nose, throat and lungs.**
 - **High concentrations and prolonged exposure can cause death**
 - **Water-soluble, so a damp cloth was used to cover the mouth and nose**



- **Gas masks were given out as a countermeasure. Generally they were dipped into a chemical to neutralize the poisonous gases**

POISONOUS GAS

- 4% of combat deaths were due to gas
- Effective psychological weapon, sight of an oncoming green cloud of gas
- Non-fatal casualties was high and remained one of the soldiers' greatest fears



Estimated gas casualties:

<u>Nation</u>	<u>Fatal</u>	<u>Non-fatal</u>
Russia	56,000	419,340
Germany	9,000	200,000
France	8,000	190,000
British Empire	8,109	188,706
Austria-Hungary	3,000	100,000
USA	1,462	72,807
Italy	4,627	60,000
<hr/>		
Total	88,498	1,240,853

AIRPLANES

- **Most planes were used for observing the enemy, especially in the beginning, “Scouts”**
- **Made of wood and canvas**
 - **No parachutes or mounted guns**
 - **During the war, a Dutch airplane builder installed an interrupter gear, allowing for a machine gun to shoot through the prop**
- **“Flying Aces” became heroes of the war**
- **“Dogfights” when two planes fought in the air**
 - **Aerial combat was all new, too new for clear rules to have been established**

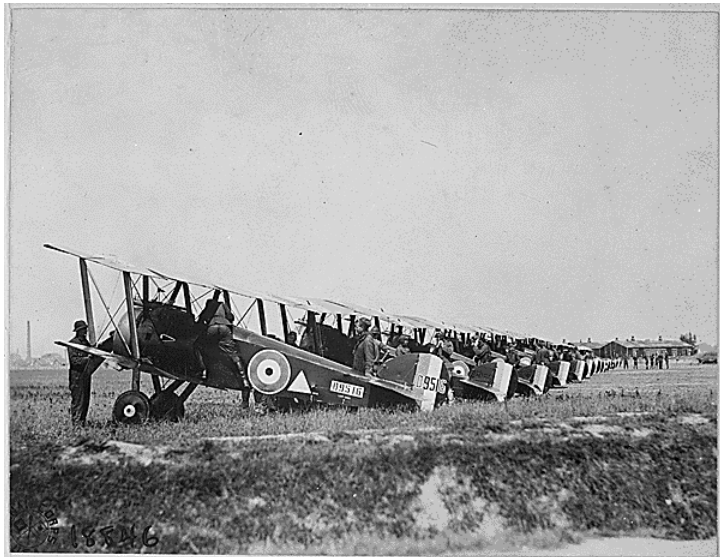


AIRPLANES

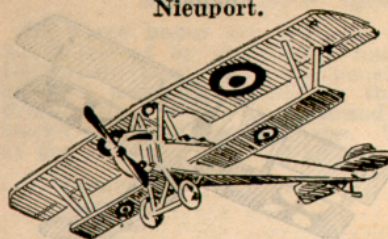
- **On the Western Front, the British and French outnumbered the Germans (approx. 125,000 to 50,000)**
 - **With superior numbers, the Allies were generally able bombing and recon over their lines.**
 - **German pilots usually flew over their own terrain: required less fuel, less flying time, and prevailing west wind.**
 - **Any crippled German plane going home had the wind at its back; any damaged Allied plane faced head winds.**
 - **Thus, the Allies' had greater numbers, but German aces were able to rack up impressive scores**



AIRPLANES

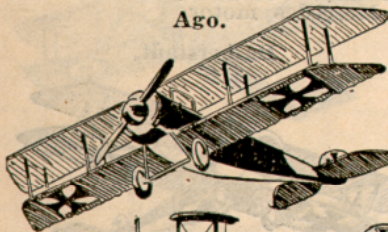


Nieuport.



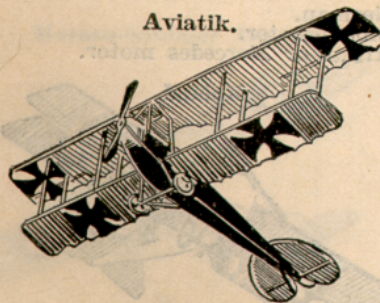
French, English, Belgian, Italian.
Single-seater.
Rotary Rhone or Clerget, or
Hispano-Suiza motor.

Ago.



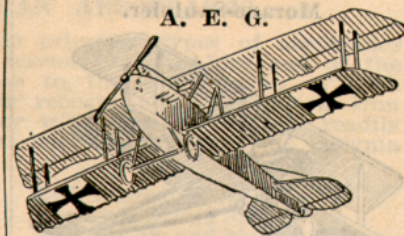
German.
1916 type, single-seater.
Rotary Oberursel motor.

Aviatik.



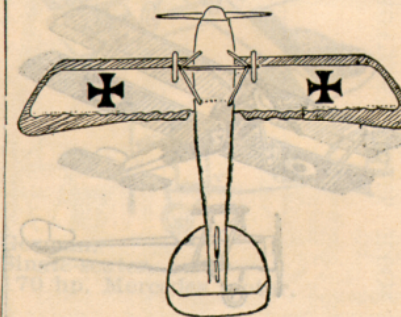
German.
Two-seater.
175 hp. Mercedes motor.

A. E. G.



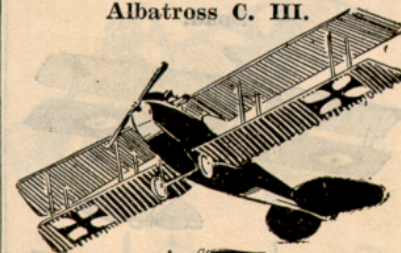
German, made by Allgemeine
Elektrizitäts Gesellschaft.
Two-seater.
175 hp. Mercedes motor.

Albatross D. III.

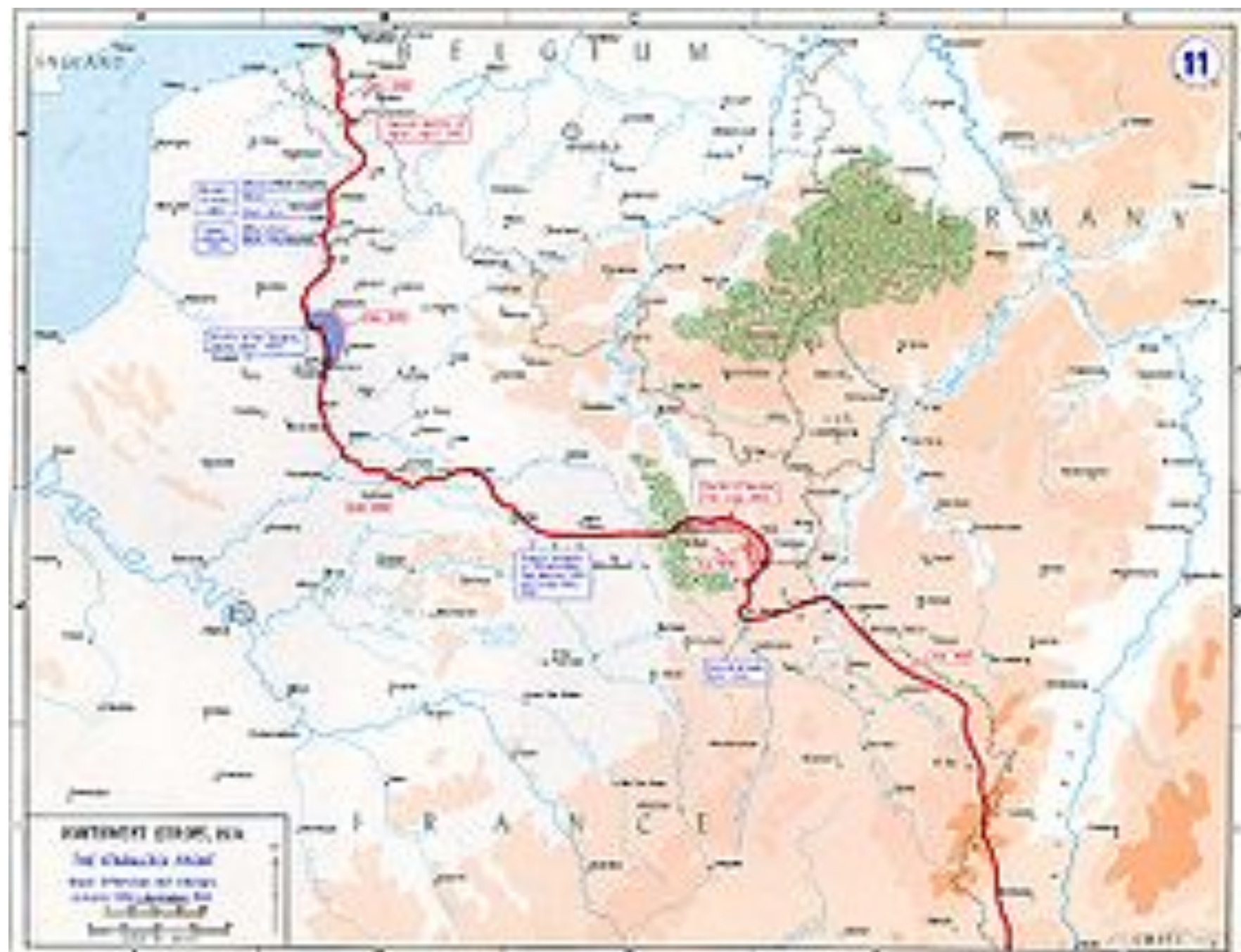


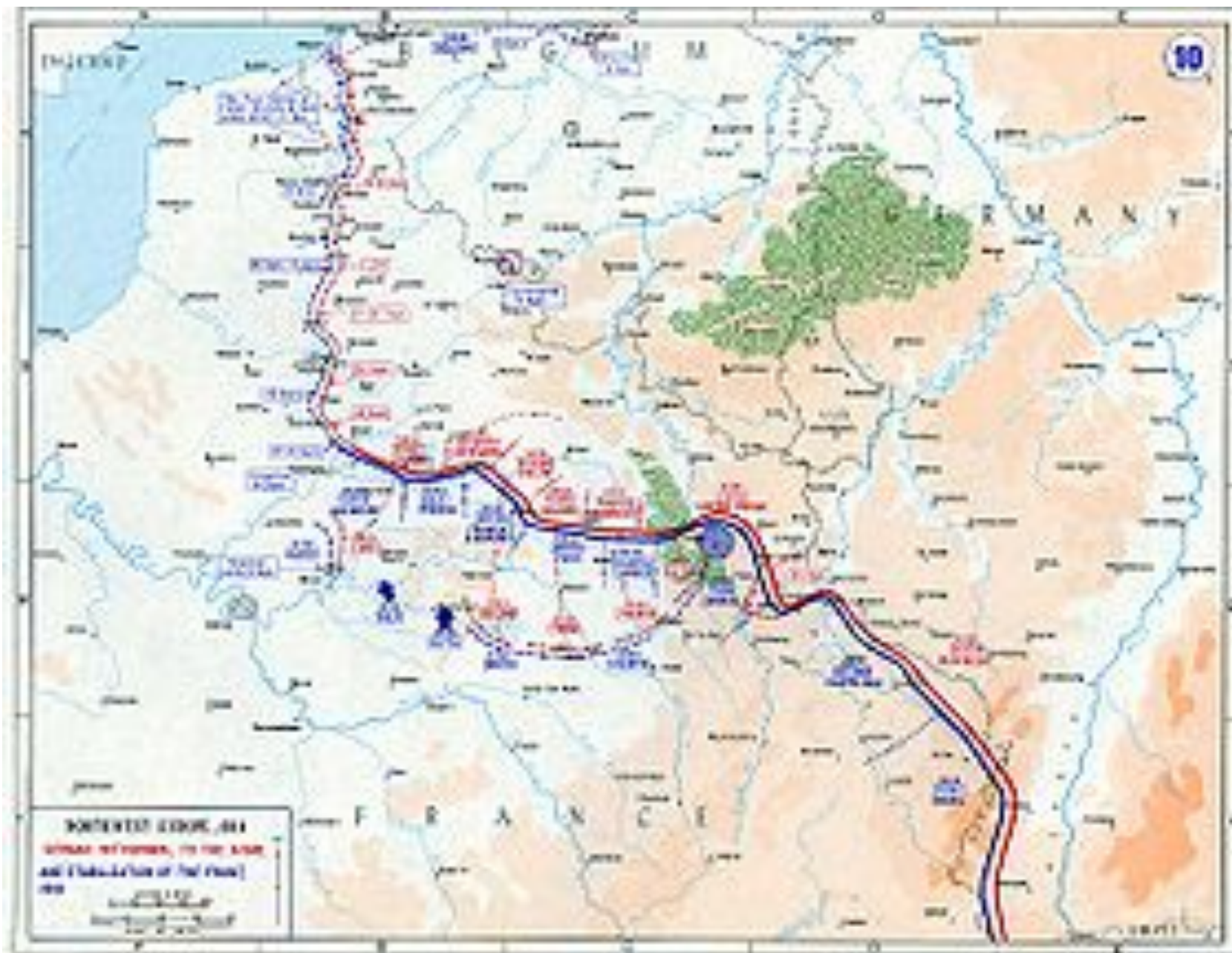
German.
Single-seater.
170 hp. Mercedes motor.

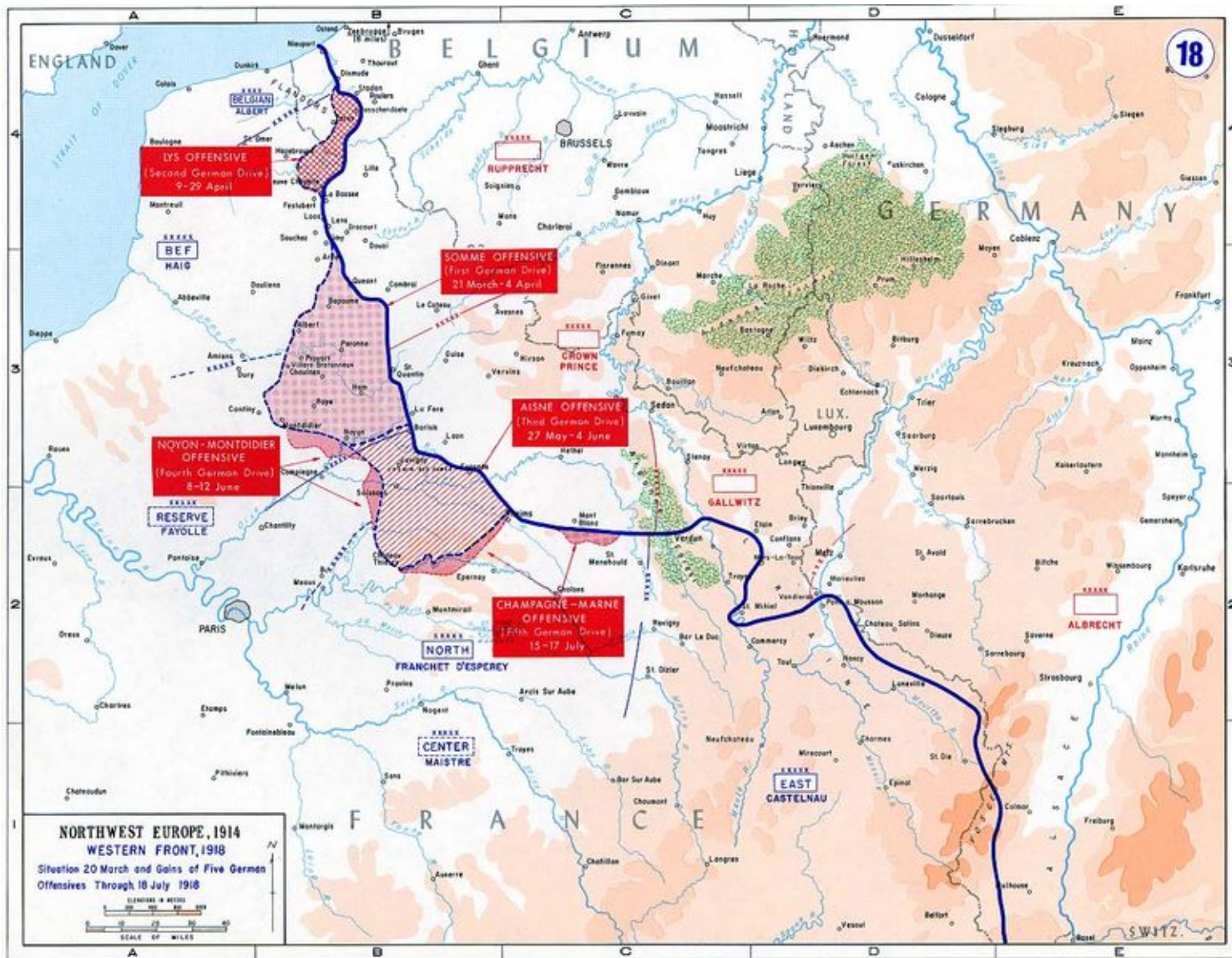
Albatross C. III.



German.
Two-seater.
175 hp. Mercedes motor.







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Trench Warfare

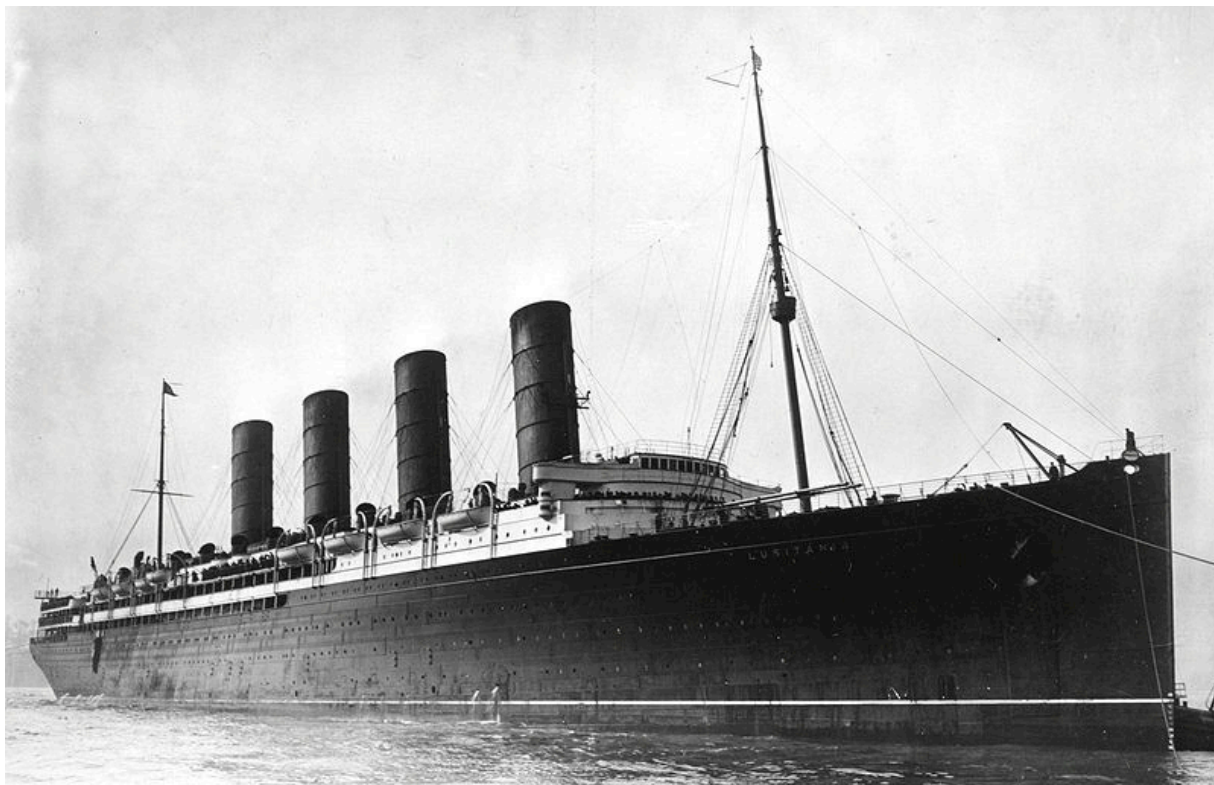
- **By early 1915, war had become a War of Attrition (wearing down the other side)**
- **Trenches were dug for protection**
 - **2 parallel trenches stretching 500 miles were dug**
- **Life in the Trenches**
 - **Cold, muddy, rats, disease**

Battles of Verdun & Somme

- **Verdun**
 - **Bloodiest battle of war**
 - **No gain**
- **Somme**
 - **Another bloody battle, no gain**
 - **Tank was introduced by the British**

Submarine Warfare

- Introduced by Germany to wear down British
- German U-boats
 - At first only attacked war ships
 - In 1915 began attacking anything
 - *Lusitania* was sunk in May 1915 killing 1200 people
- US responses demanding the end of unrestricted warfare- Germany complies for awhile



OCEAN STEAMSHIPS.

CUNARD



EUROPE VIA LIVERPOOL LUSITANIA

Fastest and Largest Steamer
now in Atlantic Service Sails
SATURDAY, MAY 1, 10 A. M.

Transylvania, Fri., May 7, 5 P.M.
Orduna, - - Tues., May 18, 10 A.M.
Tuscania, - - Fri., May 21, 5 P.M.
LUSITANIA, Sat., May 29, 10 A.M.
Transylvania, Fri., June 4, 5 P.M.

Gibraltar-Genoa-Naples-Piraeus
S.S. Carpathia, Thur., May 13, Noon

NOTICE!

TRAVELLERS intending to embark on the Atlantic voyage are reminded that a state of war exists between Germany and her allies and Great Britain and her allies; that the zone of war includes the waters adjacent to the British Isles; that, in accordance with formal notice given by the Imperial German Government, vessels flying the flag of Great Britain, or of any of her allies, are liable to destruction in those waters and that travellers sailing in the war zone on ships of Great Britain or her allies do so at their own risk.

IMPERIAL GERMAN EMBASSY

WASHINGTON, D. C., APRIL 22, 1915.

TAKE UP THE SWORD OF JUSTICE



US enters the War

- **Zimmerman Telegram**
 - **German promise to Mexico---support in regaining New Mexico, Texas, and Arizona in exchange for support during WWI**
- **German U-Boats sank 4 American merchant ships**
- **US declares war on April 2, 1917**

Peace at Last

Terms

- **Convoy- guard for transport vehicles**
- **Armistice- agreement to end fighting**
- **Reparation- payments for damages**
- **Mandate- territories administered by other countries**
- **Cordon Sanitaire- quarantine line**

End of War

- **Germany**
 - **Wilhelm II abdicates, Germany republic formed**
- **Ottoman Empire**
 - **Asked for peace**
- **Austria-Hungary**
 - **Surrendered, monarchy collapses**
- **November 11**
 - **Germans signed an armistice**

Effects of War

- **Shattered monarchies**
- **Increased political & social instability**
- **Boundaries were redrawn**
- **9 million dead, 21 million wounded**
- **13 million civilians dead of disease & starvation**
- **Armenian genocide-Turks rounded up Armenians & sent them into the desert to die or destroyed villages and shot the people**
 - **Est. 1 million dead**

Flu Pandemic

- **1918-1919**
- **Killed 20 million people in less than 2 years**
 - **Did not attack the young, old, or sickly (like flu normally does) instead it attacked healthy young adults**

Restoring Peace

- **Wilson- 14 point plan**
 - **International recognition of freedom of seas and of trade**
 - **Limitations on arms**
 - **End to secret alliances**
 - **Just settlements of colonial claims**
 - **Right of self-rule for all nations**
 - **Establishing the League of Nations**

- **British**
 - **Objected to open seas**
- **France**
 - **Wanted Germany to pay reparations**

Treaty of Versailles

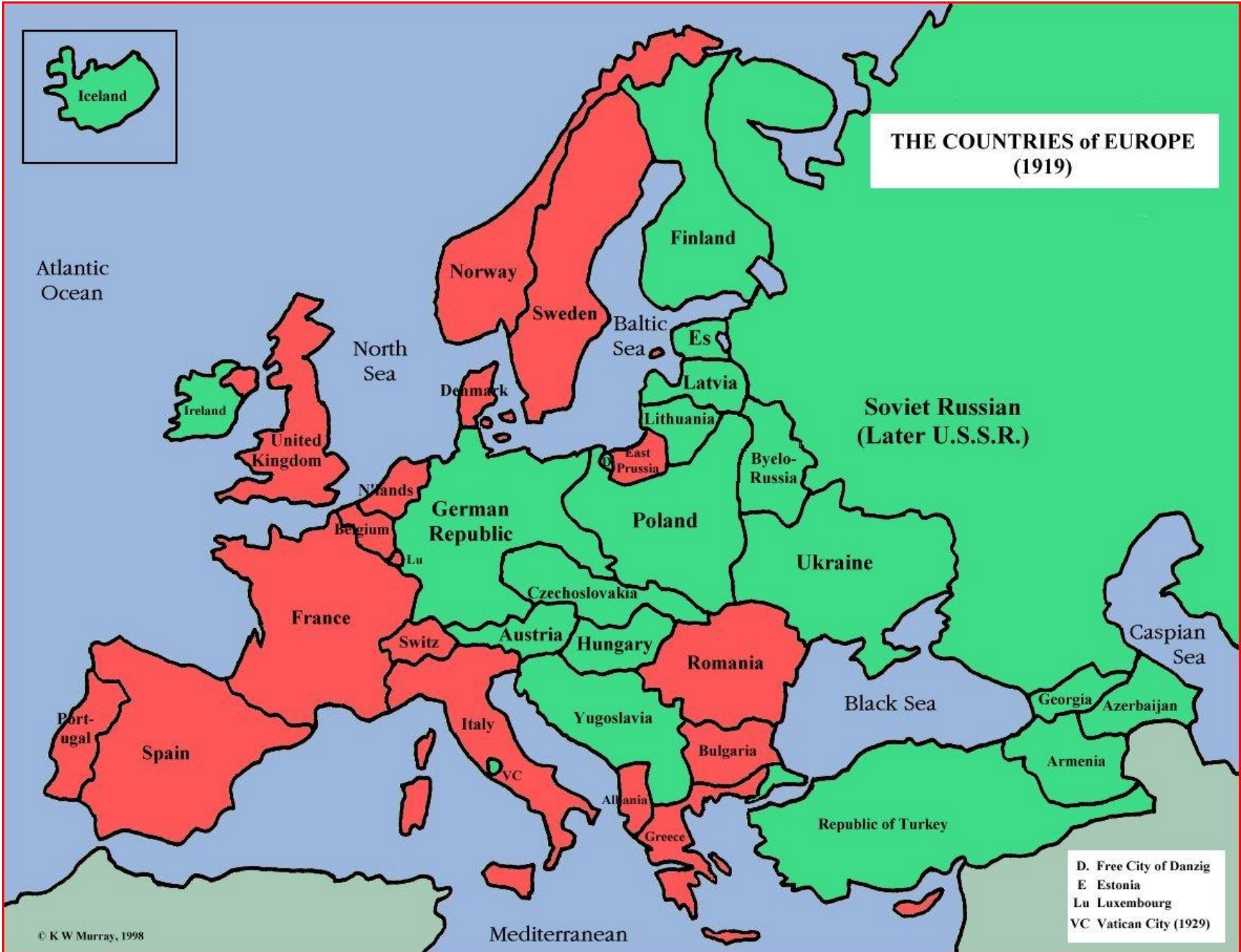
- **Defeated nations were not invited**
- **Germany**
 - **Reduced size, army, banned conscription, and manufacture of major war weapons, had to pay reparations, lost all colonies**
- **Poland was established as independent nation**

New Nations emerge

- **Finland, Estonia, Latvia, Lithuania, Poland, Czechoslovakia, & Yugoslavia**
 - **Called cordon sanitaire, buffer b/w France and Germany & Russia**
- **Middle Eastern nations promised freedom were not granted that freedom**



**THE COUNTRIES of EUROPE
(1919)**



- D. Free City of Danzig
- E. Estonia
- Lu. Luxembourg
- VC. Vatican City (1929)