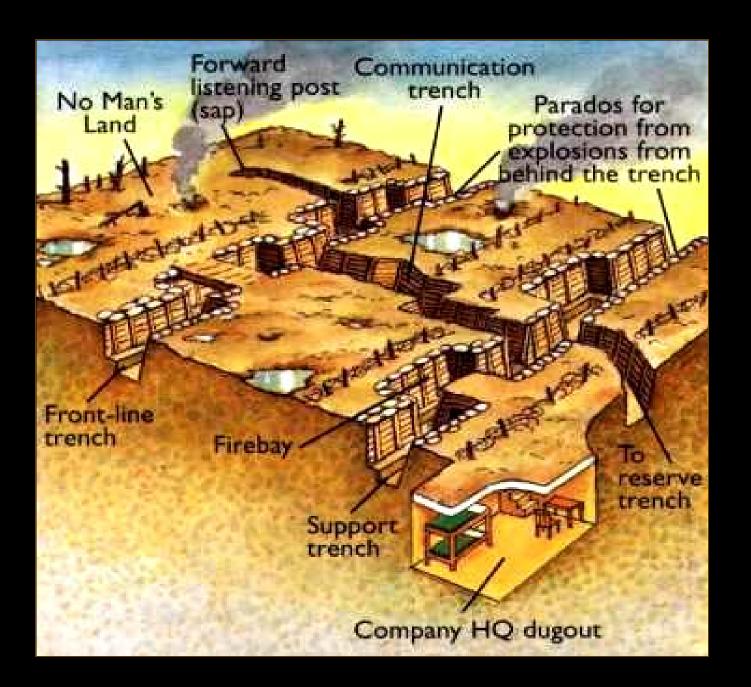
## World War I Technology



## **Trenches**

- Built to protect against constant attack
- War from the ditches
- Space between opposing trenches – "no man's land"
- Small space, lice, rats, smell of dead











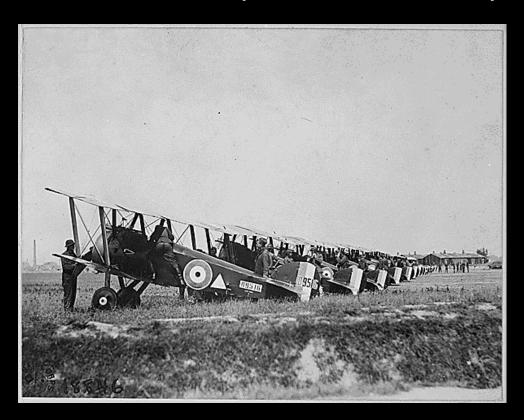
Flame
Throwers

Grenade Launchers



## Aviation

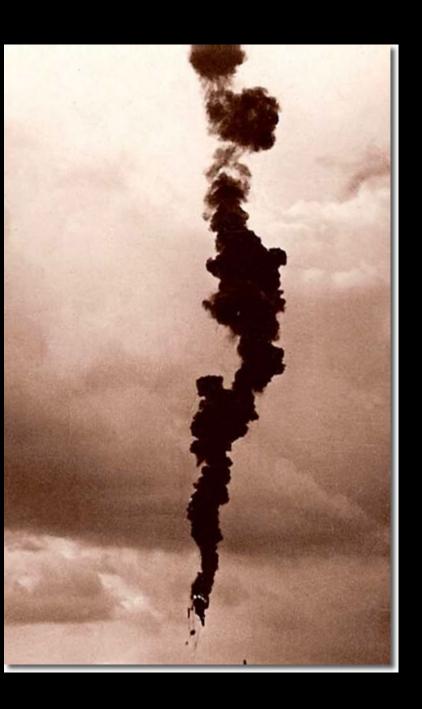
- 1<sup>st</sup> time planes were used in a combat role
- Drop bombs and take pictures of enemy lines



## Safety

- Royal Flying Crews (RFC) were not given parachutes.
   Why?
  - British high command believed that if a pilot was attacked they would be too quick to bail out of the plane if it was damaged.
  - More likely to try and land and save the airplane.
- What were they given instead of parachutes?
  - Pistol to commit suicide.
  - Fires were largest fear for pilots. (tendency to catch fire when shot)





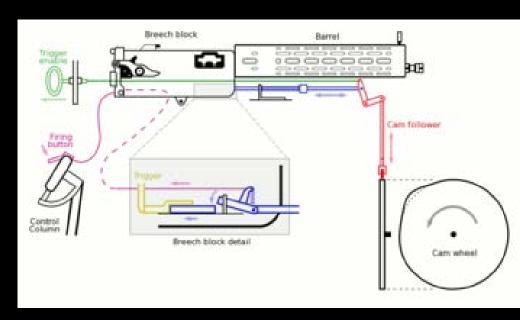
## Dangers

- Planes made out of wood and canvas
  - Tendency to break apart in midair during dogfights from stress
- Disintegration or jamming of machine gun

# WWI Airplane Weapons

- Pilots first used small arms weapons to fight during observation missions at beginning of the war
  - Extremely inaccurate
- Eventually led to machine guns mounted on fuselage and fired through the propeller.
  - Much more accurate

#### Interrupter Design







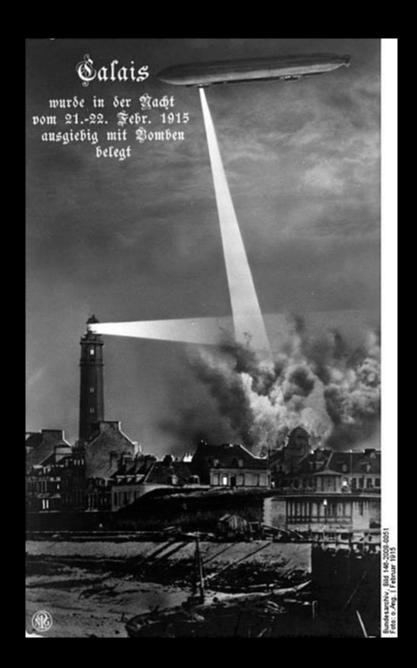


#### **Bomber Machine Gunner**

 Initially bombs were dropped by hand and aimed by the naked eye, but by the end of the war bombsights had been developed.



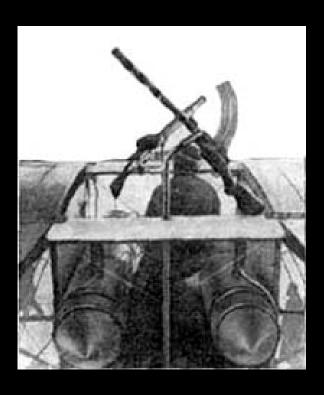
## Germans used Airships as well for bombing



#### Russian Aviation

#### **Sikorsky Ilya Muromets**







## Submarines

- Warships
- Primary weapon torpedoes (self-propelled underwater missiles)







Mystery of missing WW1 German submarines uncovered after explorers find remains of 41 U-boats off UK coast (July 22<sup>nd</sup>, 2013)



U-boat stranded on the south coast of England in 1917











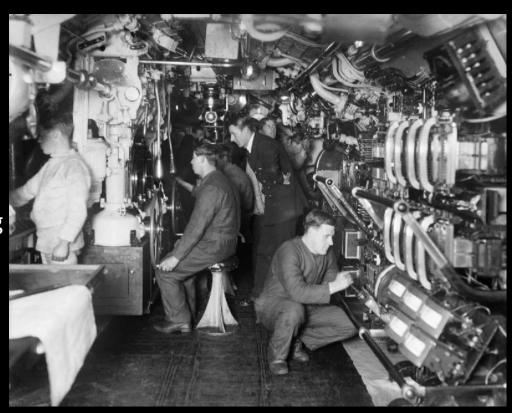
GERMAN SUBMARINE HASTINGS. 1.

© ExclusivePix

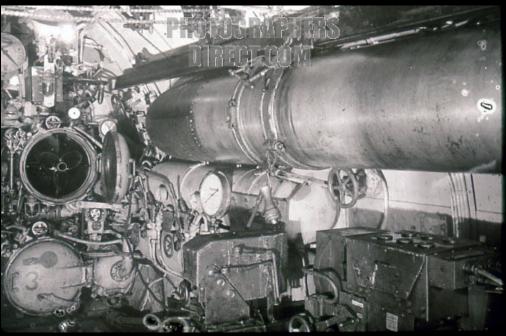
## Extremely dangerous

- Risks to the crew were enormous.
  - Torpedoes often misfired killing the crew, and aiming them was a difficult and uncertain process.
  - If they missed, the slow-moving vessels were easy prey for warships, which would ram them or use depth charges.

Nearly half of the 380 U-boats used by the German navy in World War I were lost.







## Tanks

Armored combat vehicles that moved on chain tracks





## Poison Gas

- Chlorine, mustard
- Blinded enemy
- Destroyed respiratory organs, vomiting, blisters, internal and external bleeding, slow death





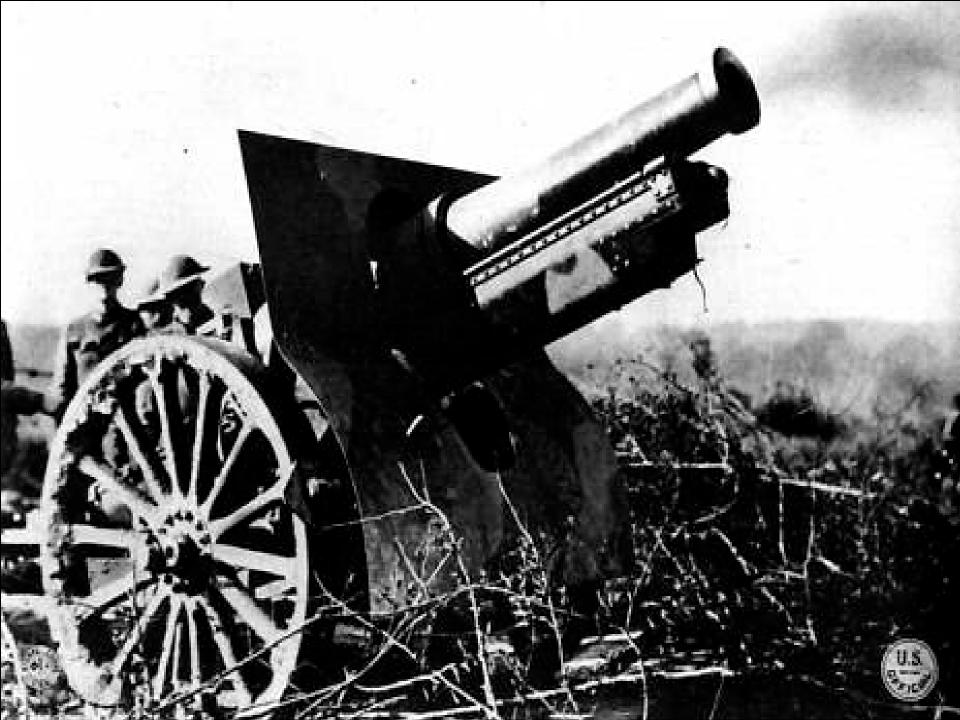


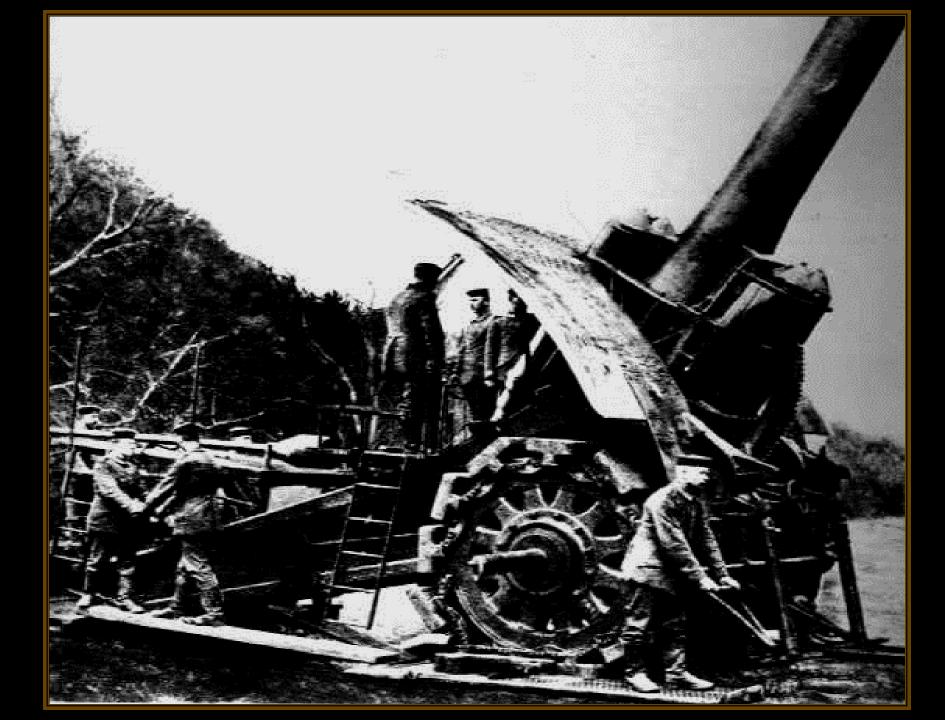
## Machine Guns & Cannons

- Fires ammunition automatically
- Could wipe out waves of attackers and made it difficult for forces to advance



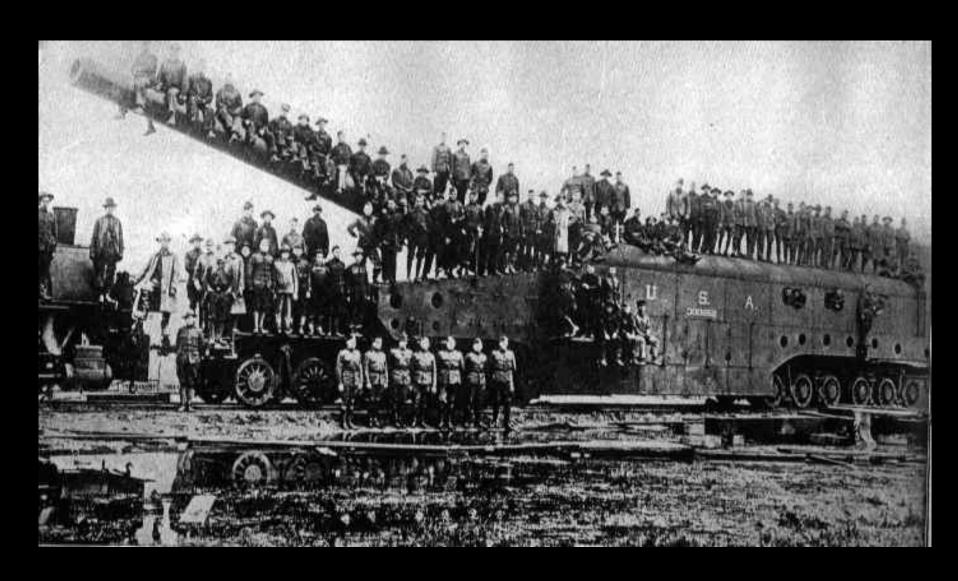


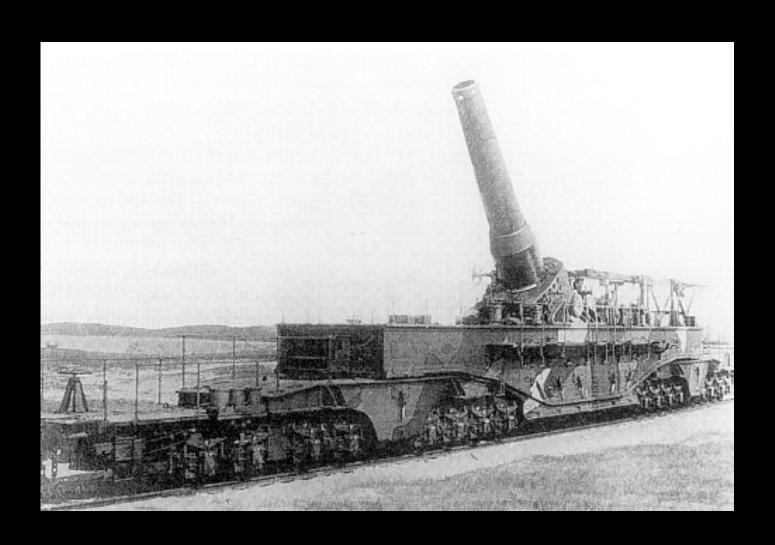






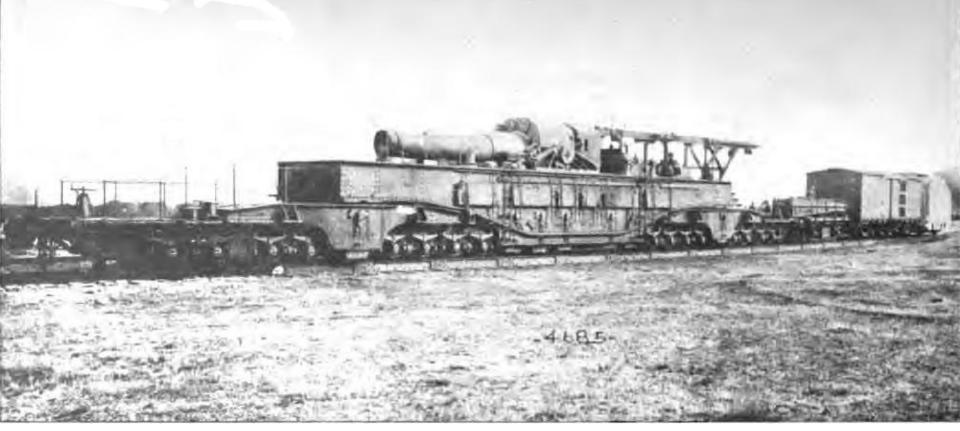
## 14 Inch Railroad Gun







## French Schneider 520mm howitzer



CRADLE SLIDING RECOIL MOUNT FOR FRENCH 520-MM, HOWITZER

- Shells weighed 3,646 lb and were 24 inches in diameter
- Range: 30 miles

## Paris Gun

- Supergun
- Used as psychological terror on Parisians
  - Extremely loud as it screamed over the city
- Fired 236 lb shells
- Range: 75-81 miles

