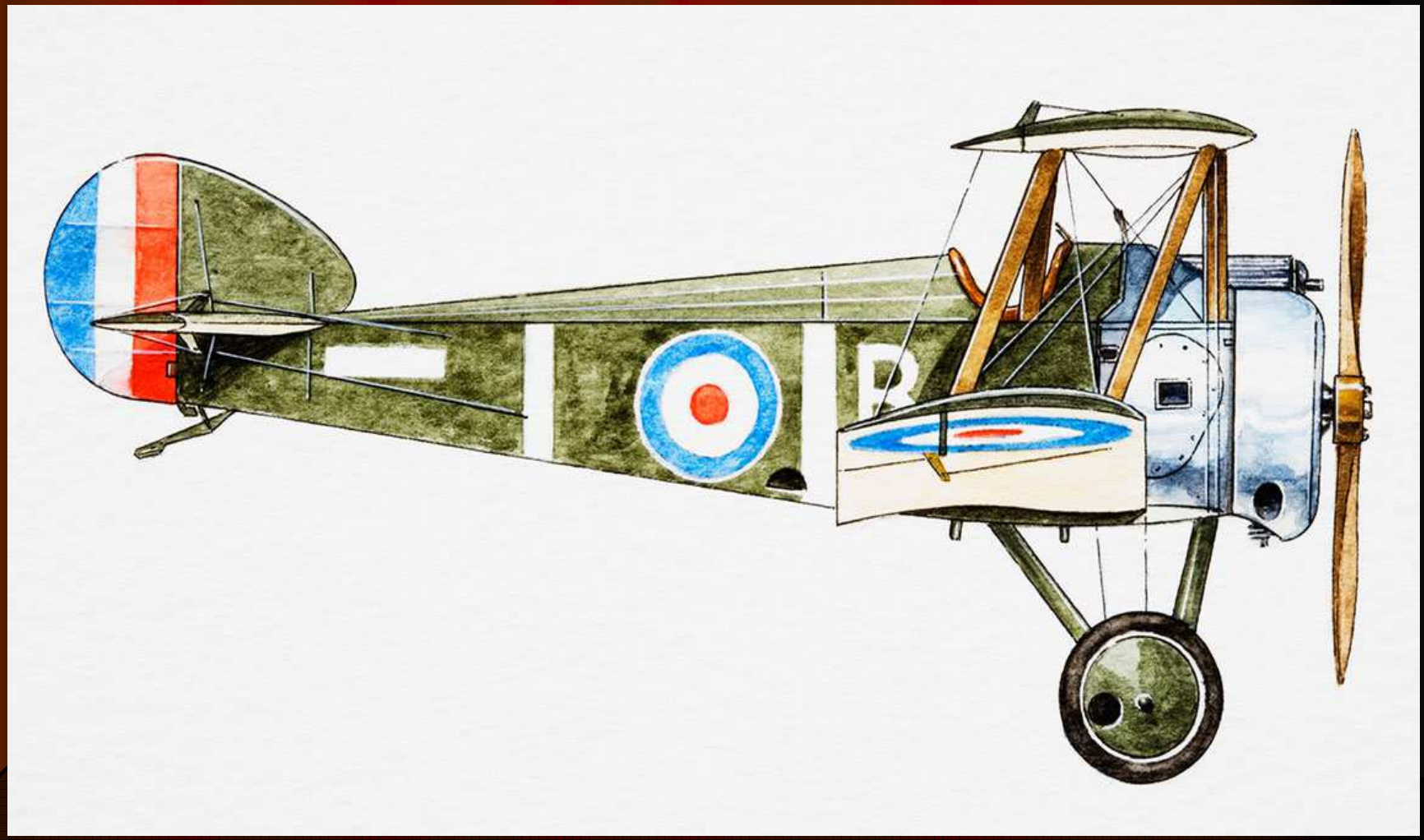
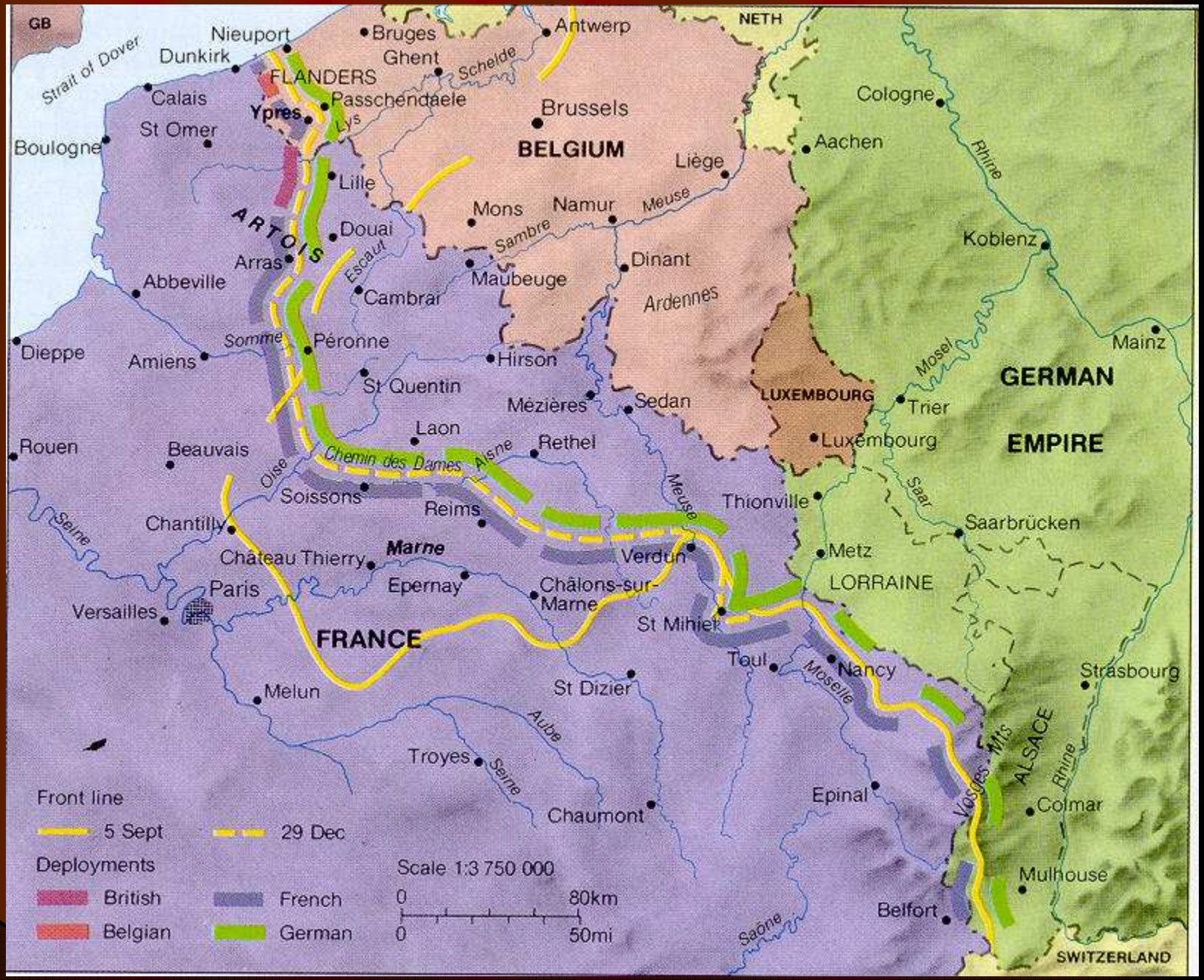
I Can…

- Identify and explain the challenges of the 3 Theatres of war
- Identify different technological advancements that occurred before/during World War I

Theatres of War and Technology in WWI




GB
Strait of Dover
Nieuport
Dunkirk
Calais
Boulogne
St Omer
Bruges
Ghent
Antwerp
NETH
Schelde
FLANDERS
Passchendaele
Ypres
Lys
Brussels
BELGIUM
Cologne
Aachen
Liège
Rhine
Lille
Mons
Namur
Meuse
Sambre
ARTOIS
Douai
Arras
Escaut
Maubeuge
Dinant
Ardennes
Koblenz
Abbeville
Cambrai
Somme
Péronne
Dieppe
Amiens
Hirson
Mainz
Mosel
GERMAN
St Quentin
Mézières
Sedan
LUXEMBOURG
Trier
EMPIRE
Laon
Luxembourg
Rouen
Beauvais
Rethel
Chemin des Dames
Aisne
Oise
Soissons
Reims
Meuse
Thionville
Saar
Saarbrücken
Seine
Chantilly
Marne
Château Thierry
Verdun
Metz
Paris
Epernay
Châlons-sur-Marne
LORRAINE
Versailles
St Mihiel
FRANCE
Toul
Nancy
Strasbourg
Moselle
Melun
St Dizier
Aube
Vosges Mts
ALSACE
Rhine
Troyes
Seine
Epinal
Colmar
Chaumont
Mulhouse
Belfort
Saône
SWITZERLAND
Front line
5 Sept
29 Dec
Deployments
British
Belgian
French
German
Scale 1:3 750 000
0
80km
0
50mi

A. The War on Land – The Trenches

- Cold, damp, flooded, muddy
- Rats, lice, rotting corpses
- Many were injured in "no man's land"
  - (the area between opposing lines of trenches, from metres to about 1.5km)
- Injured were left to die as rescue was too dangerous

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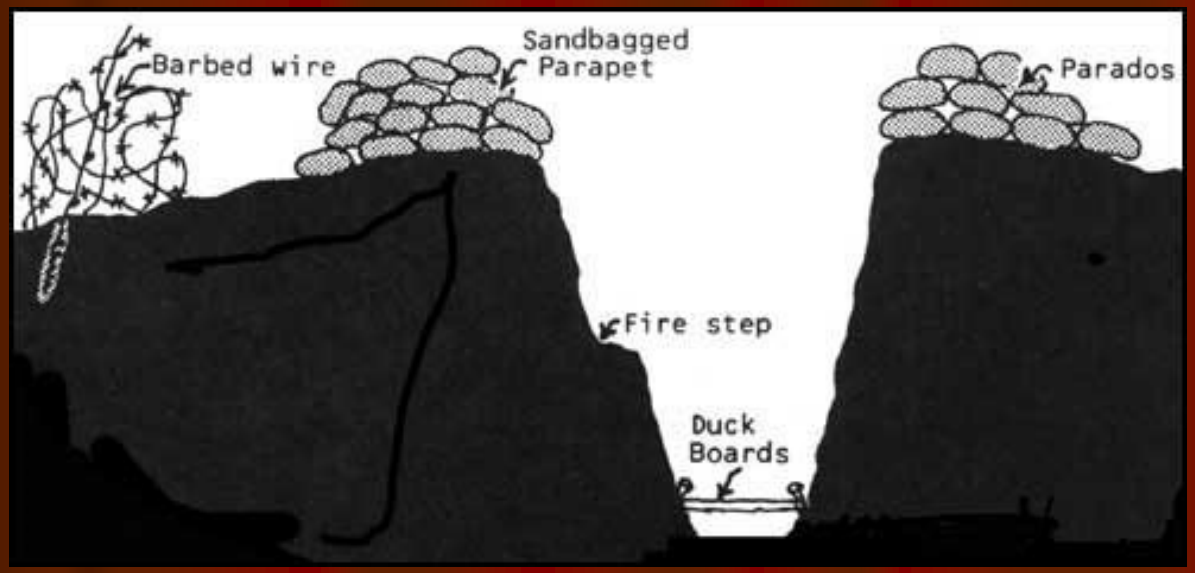
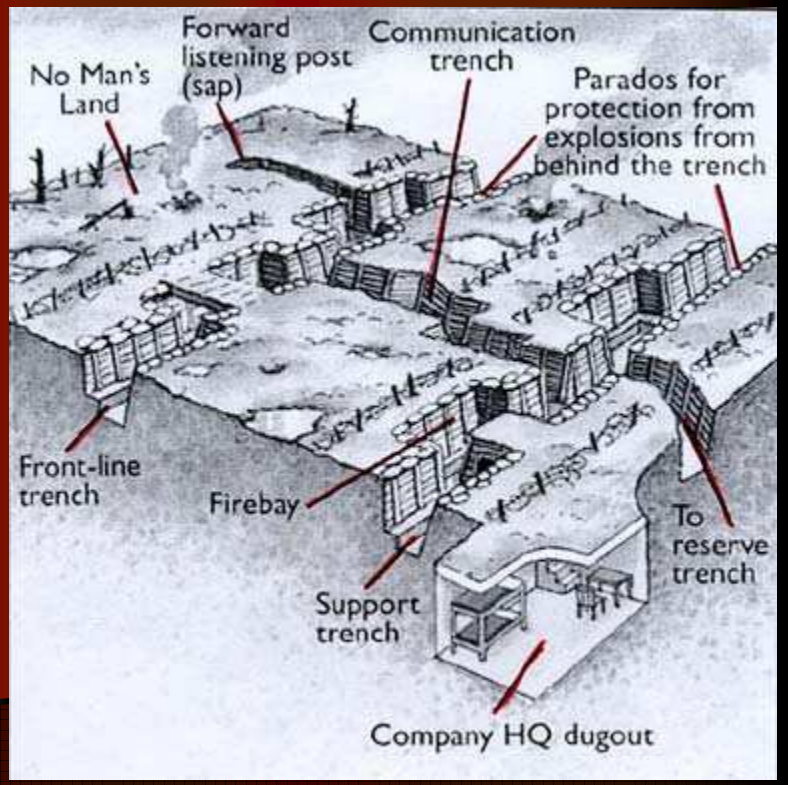

Barbed wire
Sandbagged Parapet
Parados
Fire step
Duck Boards


No Man's Land
Forward listening post (sap)
Communication trench
Parados for protection from explosions from behind the trench
Front-line trench
Firebay
To reserve trench
Support trench
Company HQ dugout


© Alamy

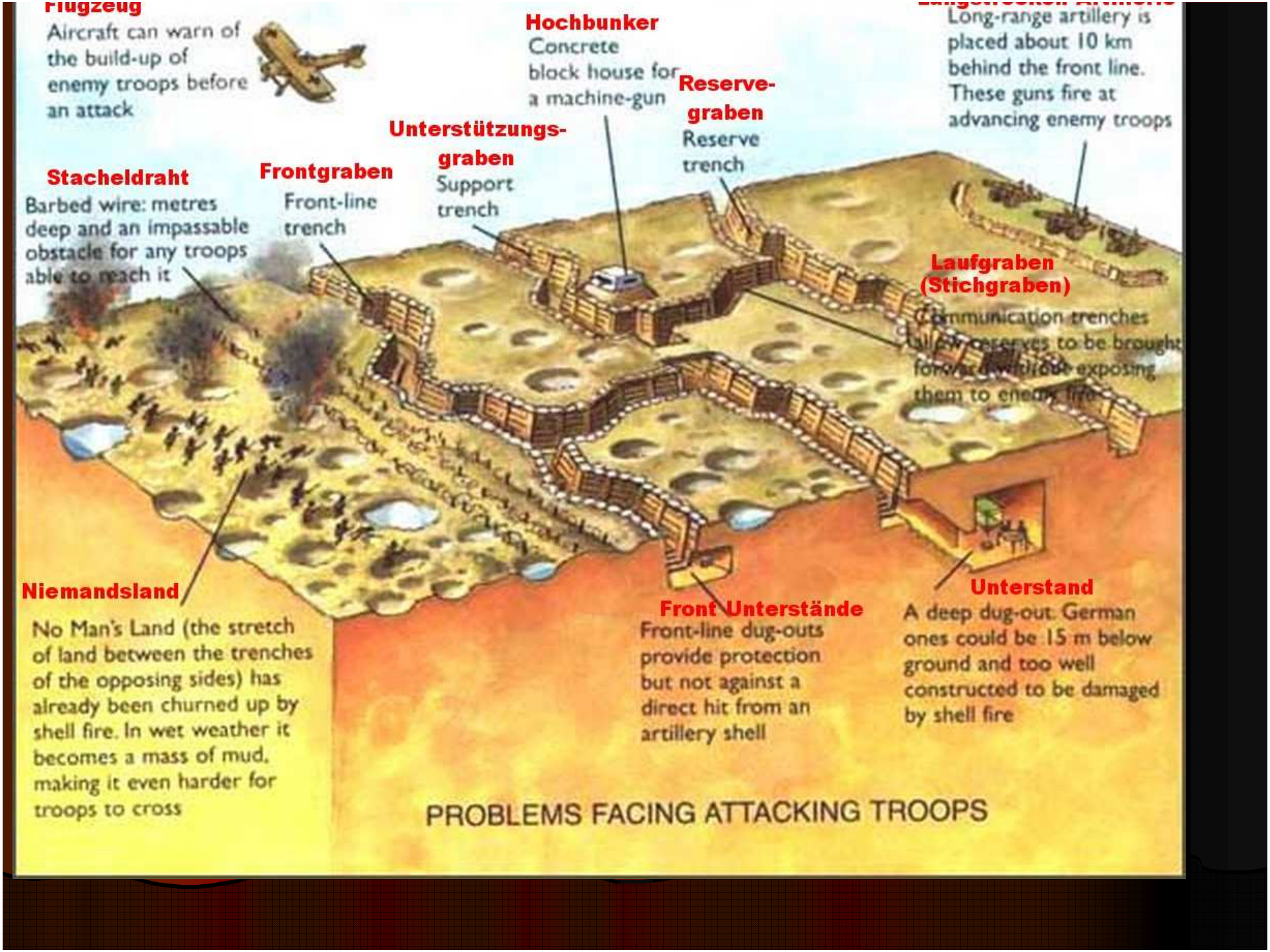
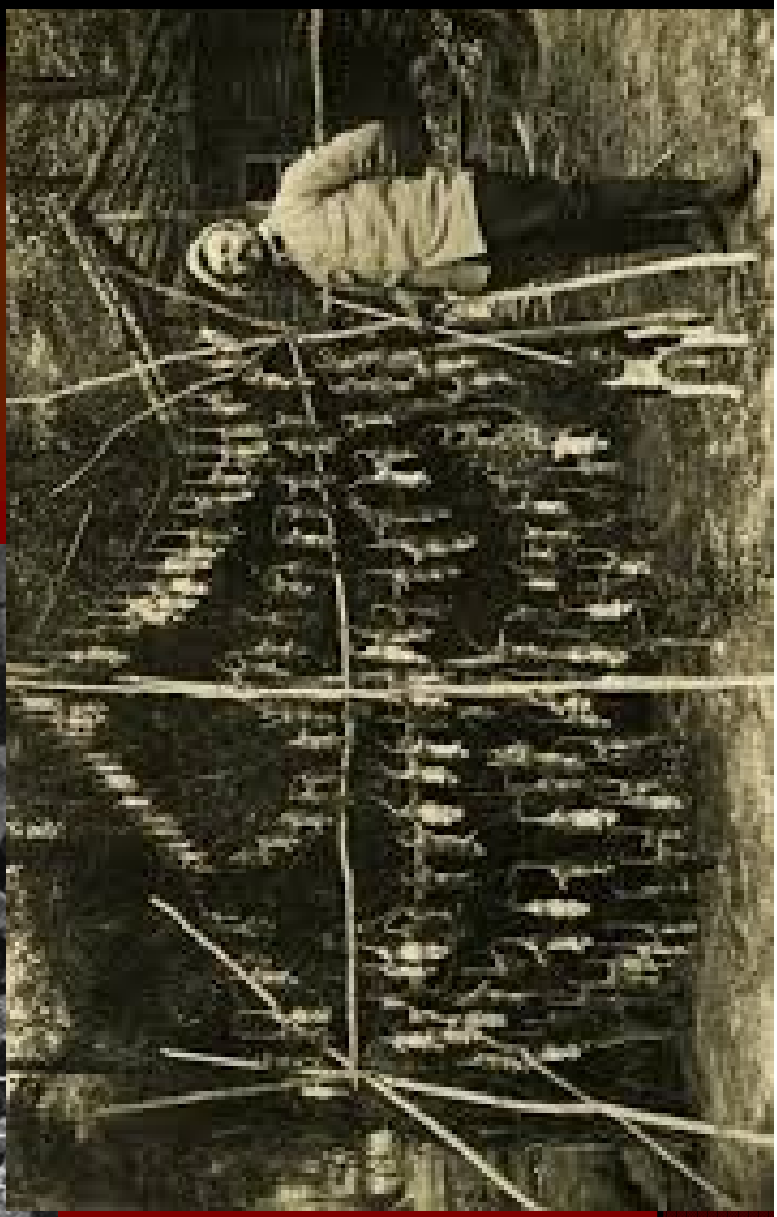

Flugzeug
Aircraft can warn of the build-up of enemy troops before an attack
Hochbunker
Concrete block house for a machine-gun
Reserve-graben
Reserve trench
Long-range artillery is placed about 10 km behind the front line. These guns fire at advancing enemy troops
Unterstützungs-graben
Support trench
Frontgraben
Front-line trench
Stacheldraht
Barbed wire: metres deep and an impassable obstacle for any troops able to reach it
Laufgraben (Stichgraben)
Communication trenches
them to enemy fire
Niemandsland
No Man's Land (the stretch of land between the trenches of the opposing sides) has already been churned up by shell fire. In wet weather it becomes a mass of mud, making it even harder for troops to cross
Front Unterstände
Front-line dug-outs provide protection but not against a direct hit from an artillery shell
Unterstand
A deep dug-out. German ones could be 15 m below ground and too well constructed to be damaged by shell fire
PROBLEMS FACING ATTACKING TROOPS


Photo #: NH 2954 Crowded recompressed sleeping area in Drill Hall at Naval Training Station, San Francisco

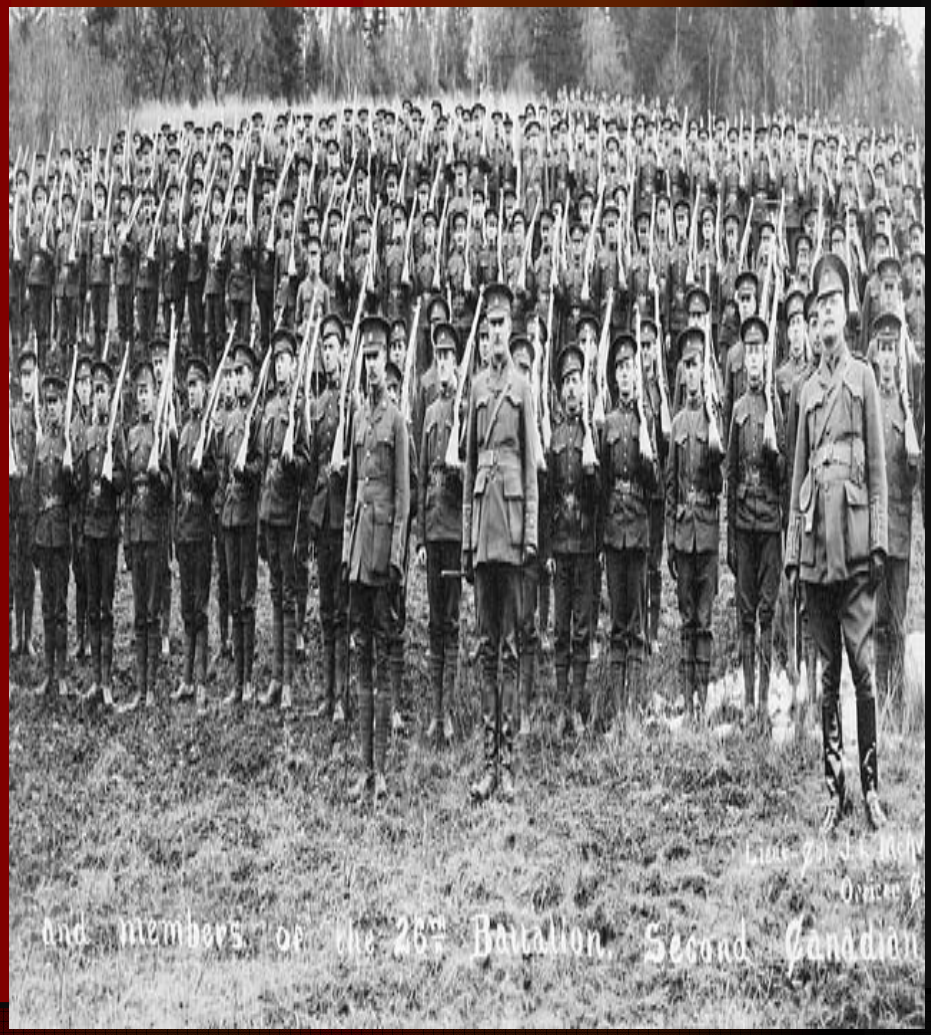


A view of the battlefield at Beaumont Hamel. *Q1523: Photograph courtesy of the Imperial War Museum, London.*

http://www.youtube.com/watch?v=xEFPMbkYspo&feature=PlayList&p=486A5AF00BD30626&playnext=1&playnext_from=PL&index=1

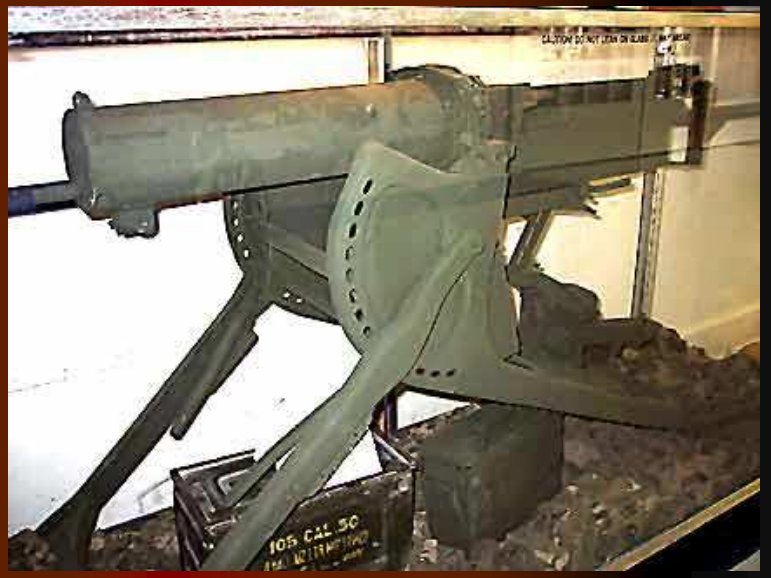
Infantry Weapons

- Standard infantry man equipped with a rifle and bayonet
- What were technological advances of a standard rifle?



- Soldiers equipped with grenades

- Machine Guns
  - Gave an advantage to the defenders during a battle
  - Used to repel troops advancing across no-man's land

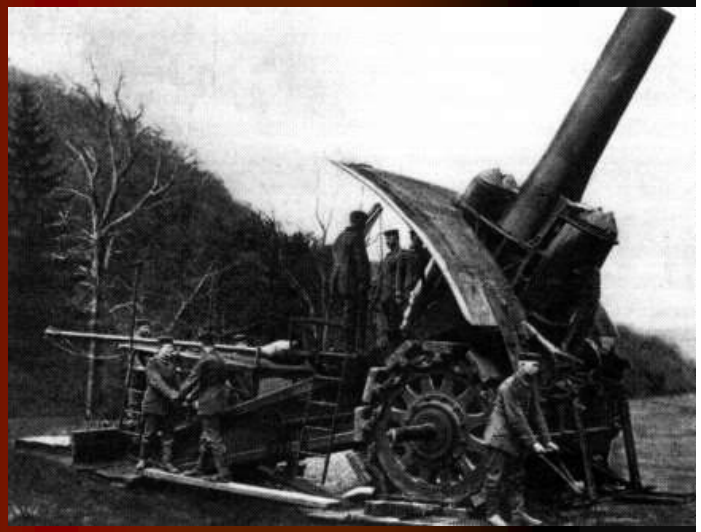


Artillery

- Used to counter trench warfare
- Barrage may last days or weeks
- Caused more casualties than any other weapon
- Caused building of underground bunkers

R.E. 21

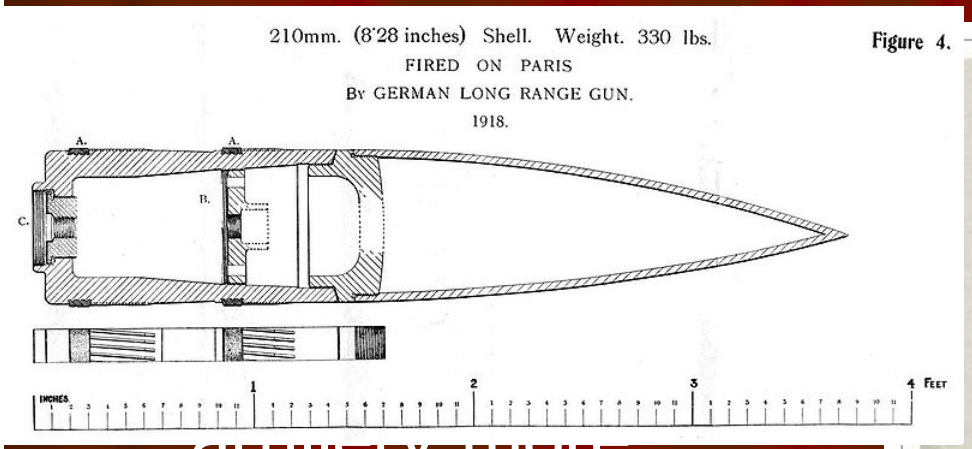
Big Bertha



re: 420mm (16.5 in)

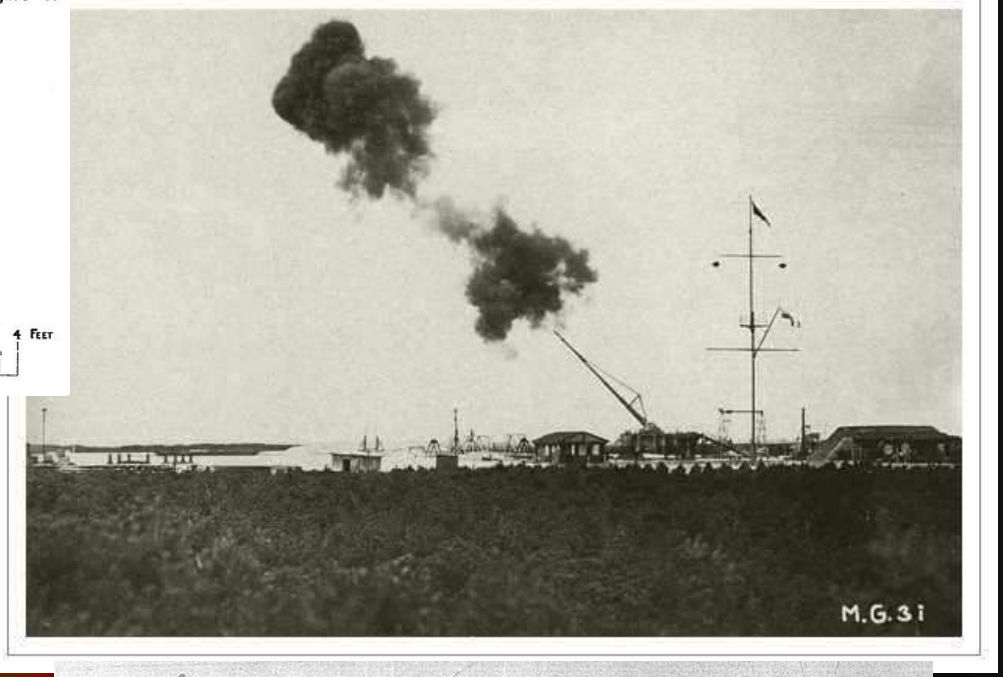
e: 12.5Km (7.7 miles)

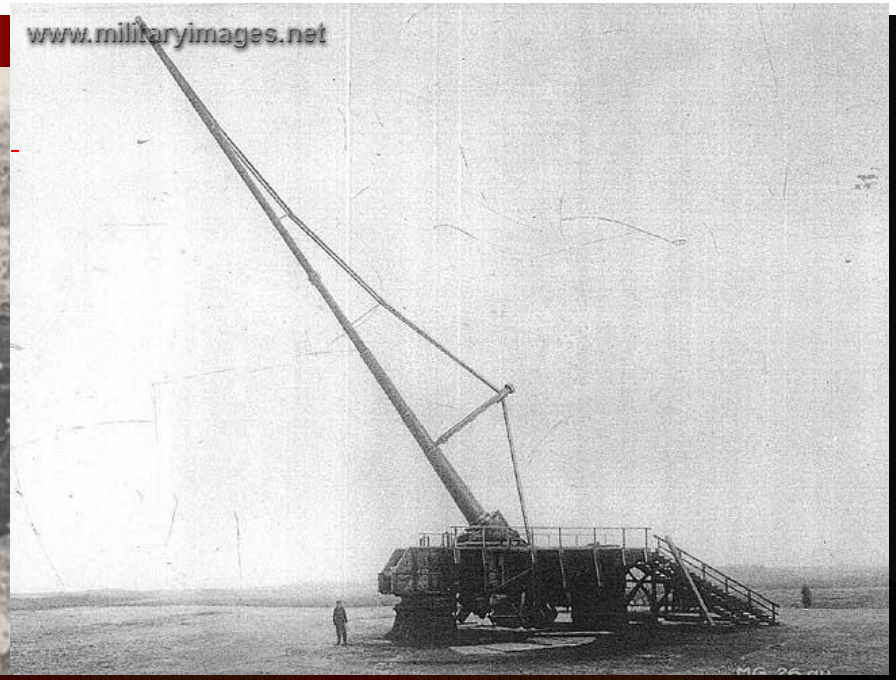
- Projectile Weight: 1763 lbs
- Muzzle Velocity: 400 meters/second
- Length: 6.72 meters
- Fire speed: 8 rounds per hour



artillery more developed

- "Paris Gun" could send shells 120km
- Shells were filled with shrapnel, metal balls and fragments to cause maximum trauma

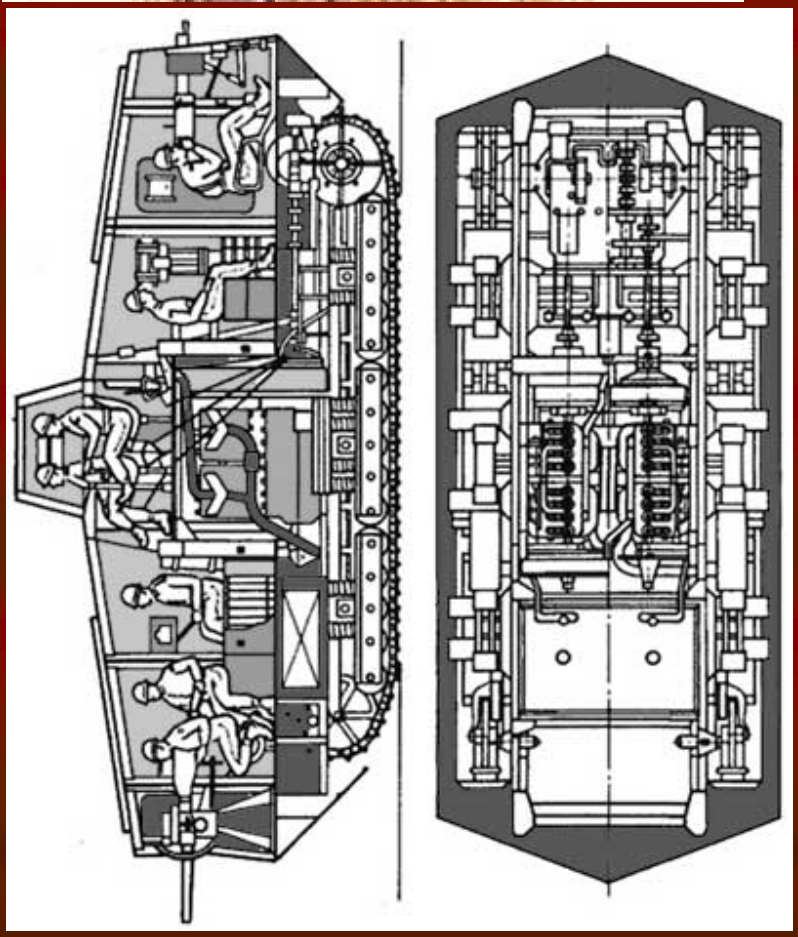





359
330

- First used at the Battle of the Somme
- Devlopped to clear barbed wire and cross no-man's land
- They often got stuck in the mud but there was an indication of their future value
- https://www.youtube.com/watch?v=z5vdLarcfwY


Lotte
Ally



- 4. Poison Gas
  - Chemical warfare
  - Indiscriminate and deadly
  - Chlorine gas and mustard gas were most common
  - High mortality rate

B. The War in the Air

- Planes were first used for aerial reconnaissance
- After a year, small fighters were built with machine guns
- The first plane capable of "dogfighting" was a German Fokker that had a synchronization device allowing machine guns to shoot without hitting the propeller

The first true fighter, the Fokker E.I with a synchronized machine gun

Sopwith 1½ Strutter carrying Britain's first synchronized gun

A DH9 flown by Lieutenant W J Dalziel of Walpella Saskatchewan from 27 Squadron RAF bombing a German airfield at Cambrai France , 13 October 1918.

- Most pilots lasted only 3 weeks before being killed –there were no parachutes
- When a pilot had 5 confirmed kills, he was labeled an **ace.**
- aces often were toured at home to promote fund-raising and recruitment
- Canada produced four of the top seven World War I aces of the RAF!
    - FYI: Canada's Billy Bishop flew 170 air battles, shooting down 72 enemy planes

Portrait of Honorary Air Marshal Bishop
by Alphone Jongers,oil on canvas, CWM 19680068-001

"Billy" Bishop is Canada's most famous military figure. He went overseas as an officer with the Canadian Mounted Rifles, transferred to the Royal Flying Corps, and served as an observer in reconnaissance aircraft before training as a pilot. He gained fame in 1917 flying the Nieuport 17 with No. 60 Squadron; in 1918 he commanded No. 85 Squadron, RAF, flying SE.5A aircraft. Recipient of the Victoria Cross above.

Raymond Collishaw

World War I Fighter Ace

He finished World War One with 62 victories to his credi

COLLISHAW, Major Raymond - Distinguished Flying Cross
- awarded as per London Gazette dated 3 August 1918.

William George "Will" Barker

World War I Fighter Ace

On Jan 5, 1918 he received word that he had been awarded the Distinguished Service Order, Britain's second highest award for valour on the battle field.
He is officially credited with one captured, two (and seven shared) balloons destroyed, 33 (and two shared) aircraft destroyed, and five aircraft "out of control;" the highest "destroyed" ratio for any RAF, RFC or RNAS pilot during the conflict

On November 20, 1918 he was awarded the Victoria Cross

Wilfrid R. "Wop" May

His exploits as a civilian pilot were in many ways as harrowing and as courageous as his war time involvement. In 1928 when diphtheria broke out in the community of Little Red River, 80 kilometres from Fort Vermilion in Northern Alberta, Wop May answered the call of 150 residents in Little Red River and 550 in Fort Vermilion by flying in 20 pounds of serum required to vaccinate the residents against diphtheria in an open cockpit bi-plane at 100 miles an hour in minus 40 degree temperatures. When May arrived with the life saving serum, his grateful hosts found his fingers frozen to the controls of the aircraft..

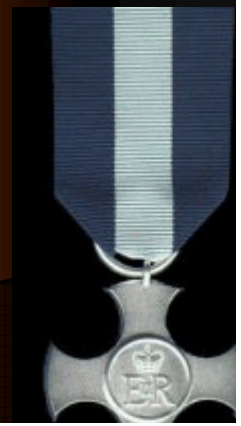
By the time World War I ended, he had shot down 13 planes and won the Distinguished Flying Cross.

http://www.histori.ca/minutes/minute.do;jsessionid=4DE1B0EF32E42593DD8773F776B3877E.tomcat1?id=13578

Arthur Roy Brown

World War I Fighter Ace

The Royal Air Force officially credited Brown with shooting down Manfred von Richthofen, the "Red Baron",
Although this was debated and some believe that Billy Bishop should be credited. What is less well known, but perhaps much more impressive, is that Brown never lost a pilot in his flight in combat. This was due largely to his demands for a "breaking in" period in which new pilots flew over the fights just to see how they worked.



Manfred von Richthofen

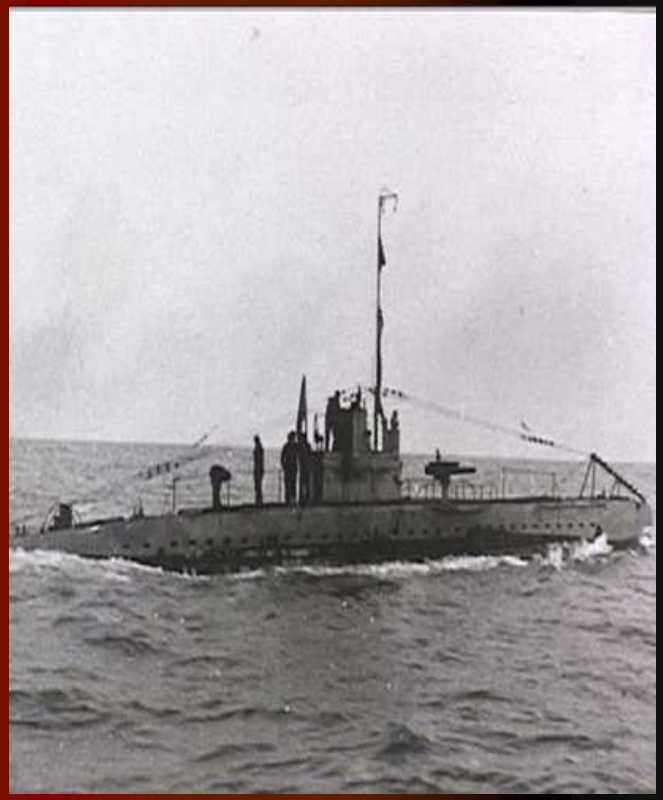
Manfred Albrecht Freiherr von Richthofen (2 May 1892–21 April 1918) was a German fighter pilot known as **"The Red Baron"**. He was the most successful flying ace of World War I, being officially credited with 80 confirmed air combat victories.

http://www.youtube.com/watch?v=HxWHdFAW2jI

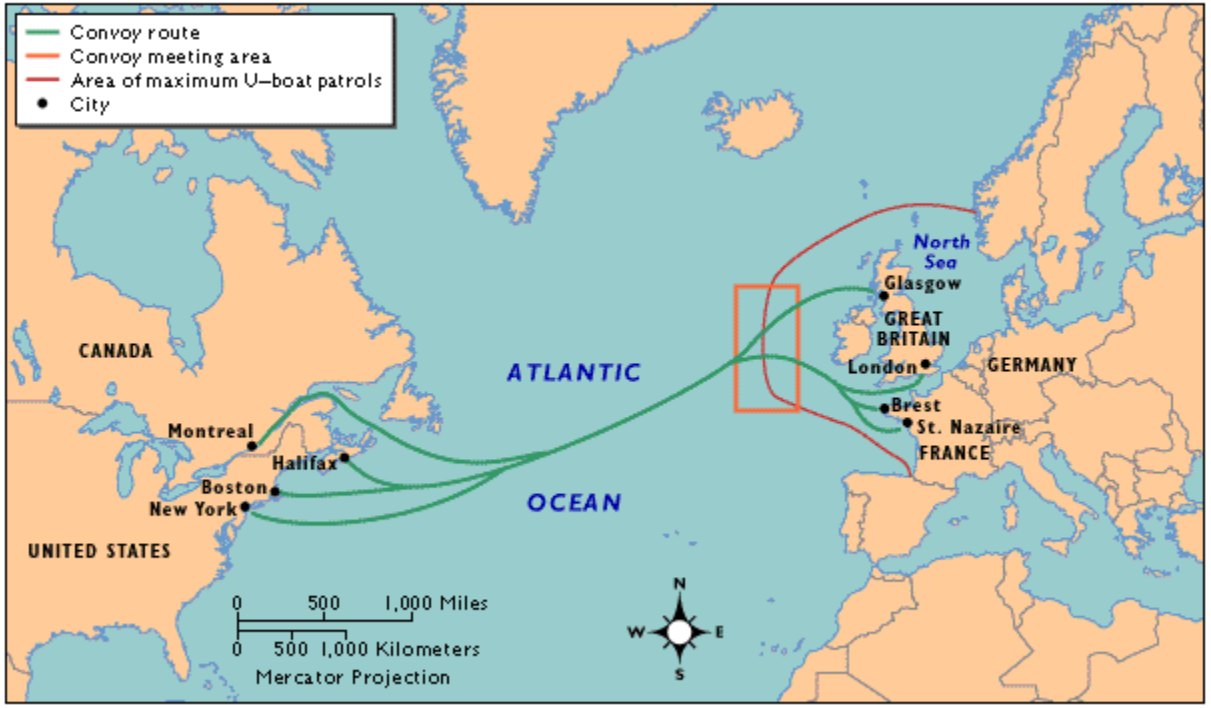
- 1. Dirigibles – Airships
  - Designed by Ferdinand von Zeppelin
  - Used by Germany for scouting and bombing
    - Bombed London
  - Filled with hydrogen, very dangerous!

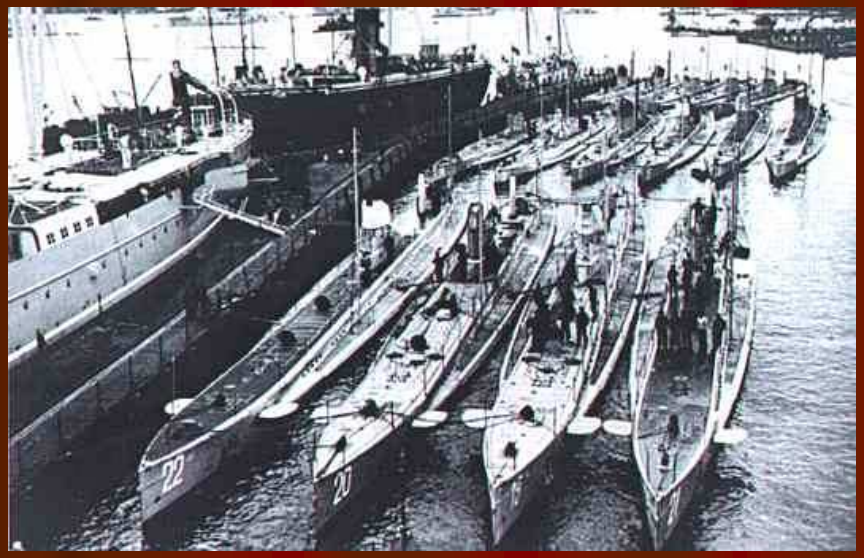
C. The War at Sea

- Germany could not match the size of the Royal Navy but it had the U-boat (sub)
- **U-boats were used to disrupt shipping and resupply lines in the Atlantic**
  - **Starve enemy of resources**
- Torpedoes were also developed at this time



Convoy System



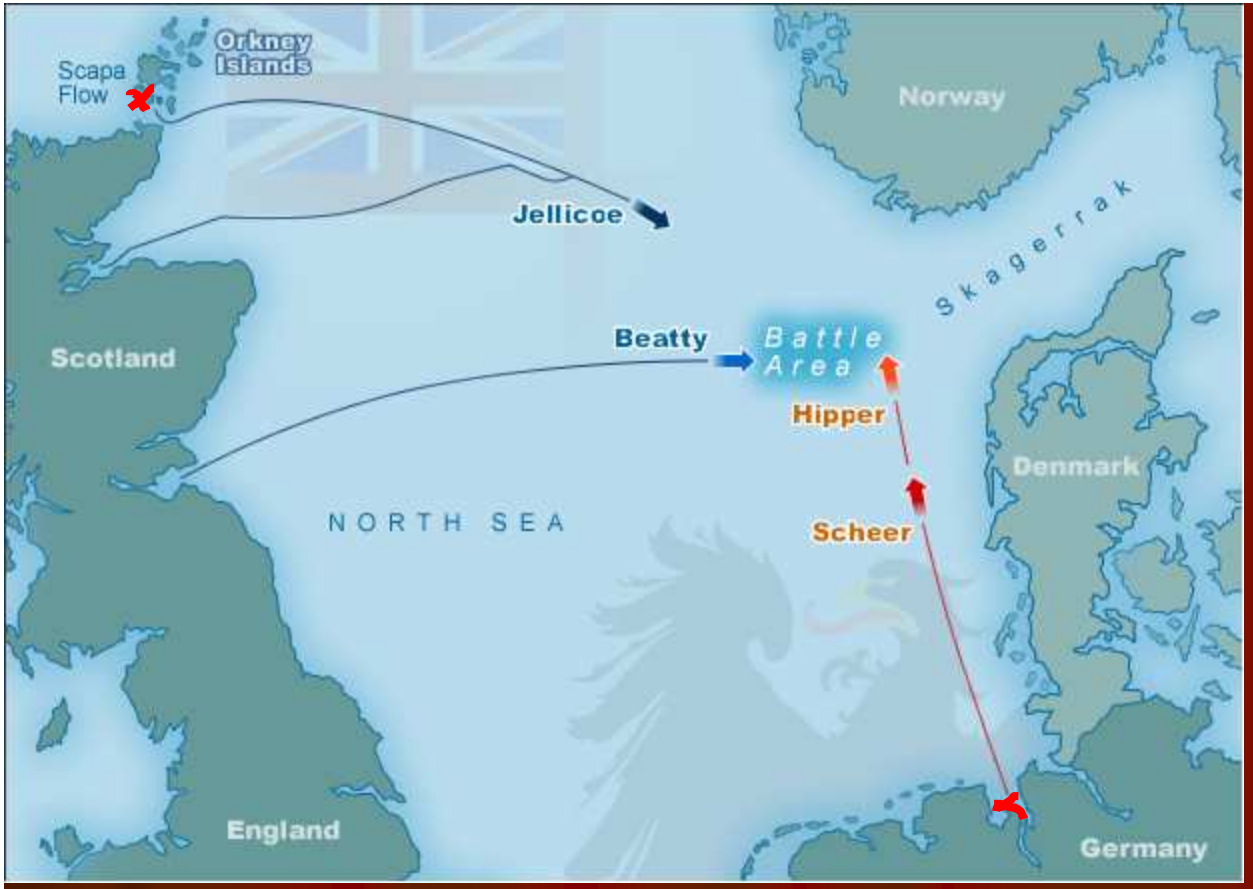


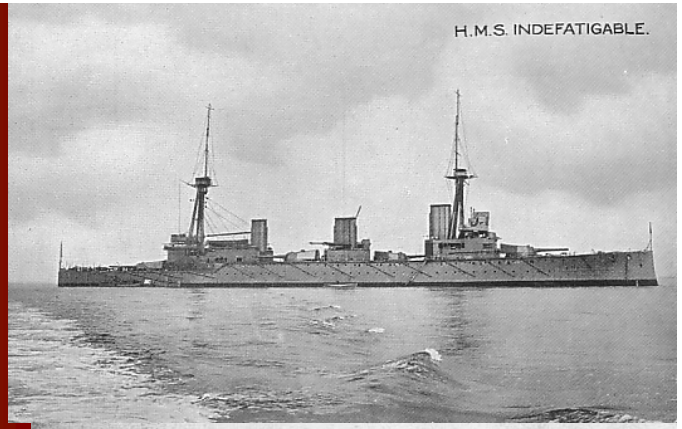
The German U-boats in Kiel in May 1914 – (Unterseebooten)

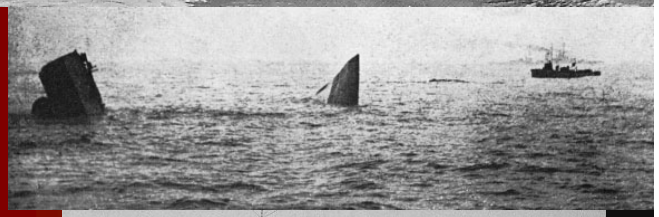
Dreadnought

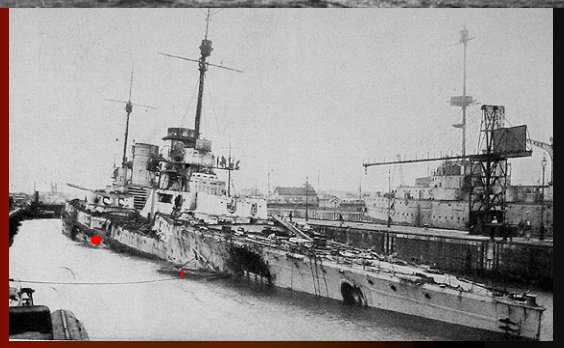
The Battle of Jutland

- 1916, German High Seas fleet attempts to break out into the North Sea (run the British Naval Blockade)
- This is one of the world's largest naval battles in history
- The British lose more ships and men because of superior German gunnery and ships but at a cost of crippling the German fleet which is now incapable of mountain another break-out attack again.









The Battle of Jutland (known as the Battle of Skagerrak in Germany), fought between the British Grand Fleet and the German High Seas Fleet in 1916, was the largest surface naval battle of the metal ship era, the only major fleet action of World War 1, and the last major fleet action that the participants will ever fight. It also played a key role in the demise of the reputation of battlecruiser, saw the first use of a carrier based aircraft in battle and is one of the most controversial naval actions in the Royal Navy's long history.