



## DEFINITION

A **map** shows a portion of the earth's surface that has been systematically plotted on a two-dimensional surface. During the First World War, **maps** depicted geographic features and objects of military significance such as roads, railway lines, trenches, artillery emplacements and military headquarters. Soldiers relied on **maps** to form mental pictures of the terrain, to navigate and to perform specialist tasks, such as directing artillery fire.

## HISTORICAL CONTEXT

Having accurate maps of your own terrain and enemy terrain is very valuable in order to plan and execute military strategy. Throughout military history, commanders have used maps and charts to plan their strategies and operations. The quality of these maps has varied widely. Upon the outbreak of the First World War, commanders often relied on maps that were less than ideal. Throughout the war, however, the art and science of mapping evolved significantly.

### DID YOU KNOW?

While early British **maps** showed German trenches, they did not include British or Allied trenches, for fear that the map would fall into enemy hands. This was an understandable security precaution, but it made the **maps** useless for Allied soldiers navigating through their own trench systems. The practice of omitting Allied trenches on maps remained common until 1916–1917.

## EVOLUTION/DEVELOPMENT

Mapmakers draw **maps** to different scales, depending on their purpose. The scale is what determines the relationship between the map as drawn and the actual features being represented. During the early, highly mobile stages of the First World War (until November 1914), existing pre-war **maps** of the battle region, at a scale of around 1:100,000 (1 cm = 1 km) were used. The maps provided enough detail to plan troop movement.

As the conflict entered its static phase (trench warfare) in late 1914 and early 1915, the need for new, more detailed **maps** became apparent. Commanders required highly detailed information about the terrain and other physical features when planning their operations. For example, a slight rise or fold in the ground at a vital spot could mean the difference between success and failure in an attack. As well, the accuracy of artillery fire, an essential component in trench warfare, depended on accurate, detailed maps. Surveys were completed to create new **maps** with scales of 1:20,000 (1 cm = 200 m) or even 1:10,000 (1 cm = 100 m).

As early as the middle of 1915, the British produced detailed trench maps using information gathered from aerial photographs. As the war progressed, cameras mounted on reconnaissance aircraft came to play increasingly important roles in gathering up-to-date information about the enemy's defences. This led to a notable improvement in the quality and reliability of **maps**. In 1917, the entire British front was represented in 1:10,000 and 1:20,000 detailed maps.

During the first part of the war, **maps** were relatively scarce, usually seen only in senior headquarters. By 1917, however, it was increasingly common to supply maps directly to the troops participating in offensives with a goal of improving the infantry's chance of reaching the correct objectives; soldiers who had formed mental pictures of the terrain before going into battle were less likely to get lost. During the planning of the Battle of Arras (which included Vimy Ridge) in early 1917, for example, approximately 40,000 **maps** were issued to personnel in the Canadian Corps.

# VOCABULARY LIST

**Infantry:**

Soldiers who fight on foot, with various types of hand-held weapons, and often face to face with the enemy in direct combat. During the First World War, infantry soldiers suffered the highest rate of losses of any branch of service, as they were immediately responsible for seizing ground from the enemy, and protecting ground from enemy attacks.

**Reconnaissance aircraft:**

An airplane or lighter-than-air balloon used as a platform for observing enemy activity from the sky.