



Mapping the Second World War: GIS and its practicality with military history

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Project Vision

- ▶ Faculty Collaboration : their maps + our expertise = a joint interdisciplinary project
- ▶ Teaching a historian GIS skills : benefiting from georeferencing and online exposure
- ▶ Dusting off the maps and making them accessible to all

Project Vision

- ▶ To create an online geospatial project on Canadian actions in NW Europe
- ▶ With over 150 Defence Overprints*, the maps would need to be scanned, georeferenced, converted into KML, and then uploaded to an online map for viewing and download.
- ▶ Google Earth would be used to view the images over a basemap. Google Maps and/or ArcGIS Online would be used to organize the images.
- ▶ This project is still in pilot mode

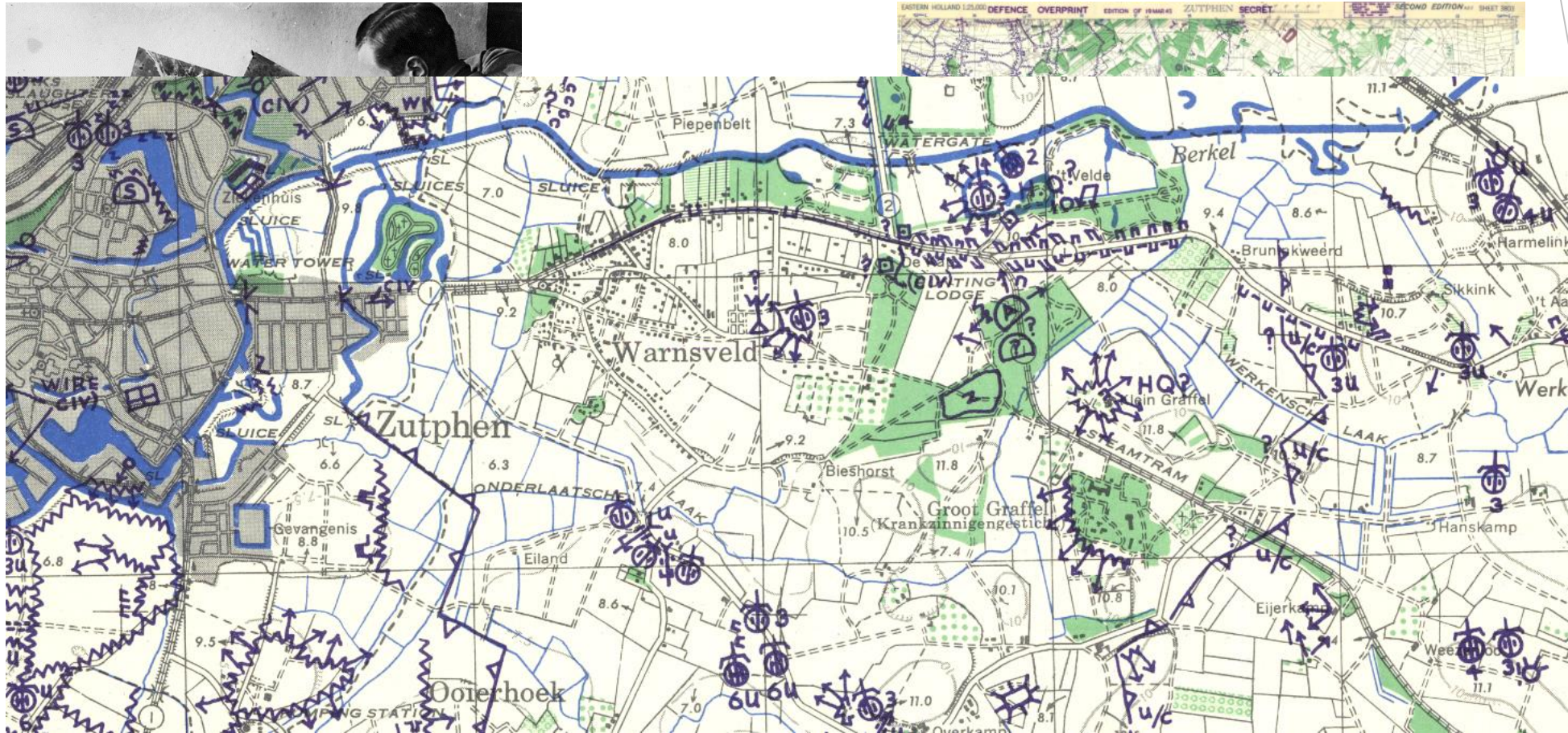
(*) Information printed or stamped upon a map or chart, in addition to that originally printed, to show data of importance or special use

What is LCMSDS?

LAURIER CENTRE
for MILITARY
STRATEGIC and
DISARMAMENT
STUDIES
WILFRID LAURIER UNIVERSITY



What are Defence Overprints?





Area indicated on relative
brightness derived from Air
Photographs Dec 84 by
21 A. 02 A. 50 A.



Area indicated on relative
brightness derived from Air
Photographs Dec 84 by
21 A. 02 A. 50 A.

PLANNING HORIZON

DPR

Map Digitization

- ▶ Trevor and his Military Centre team scanned the maps at 600 dpi for archival preservation
- ▶ The Geospatial Centre team decreased the image size; georeferenced in ArcGIS, and created KML files.
- ▶ The intent was to have them available for viewing in Google Earth, files accessible from Google Maps. Once completed, the project would be placed in Google's Map Gallery

☰

1944-1945 Military Def...

🔍

⋮

162 views

☆

SHARE

EDIT

✓

Military Defense Maps' Extent

⌵

📍 Calcar Defense Map

📍 Bernieres-sur-Mer Defense Map

📍 Courseulles-sur-Mer-East Defense Map

📍 Courseulles-sur-Mer-West Defense Map

📍 Nijmegen Defense Map

📍 Roosendaal Defense Map

📍 Saint-Aubin-sur-Mer Defense Map

📍 Falaise Defense Map

📍 Cleves Defense Map

📍 Xanten Defense Map

📍 Oldenburg Defense Map

📍 Zutphen Defense Map

📍 Emmerich Defense Map

📍 Calais Defense Map

📍 Caen Defense Map

✓


Military Front

📍 Paths: Military Front

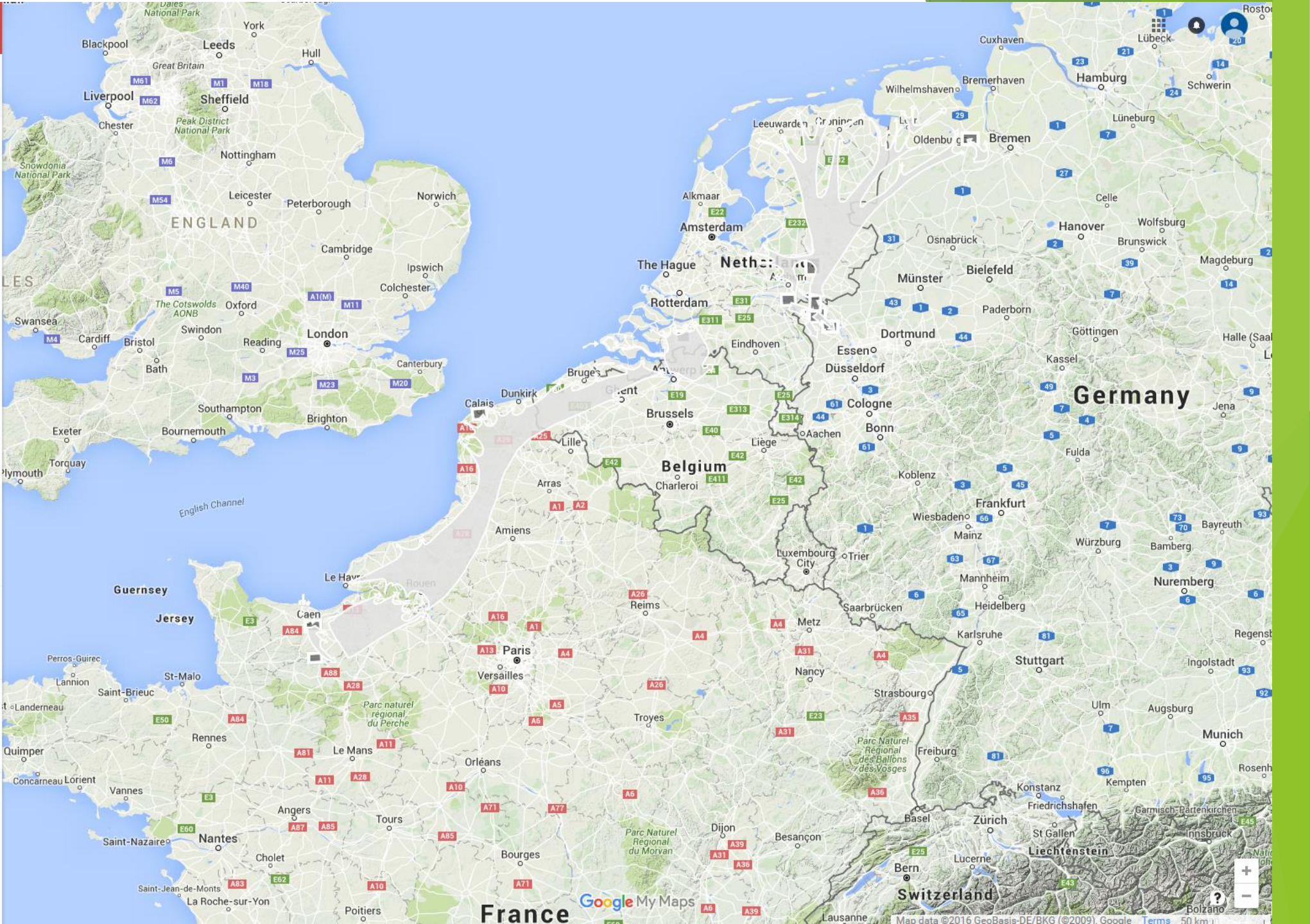
✓

Military End

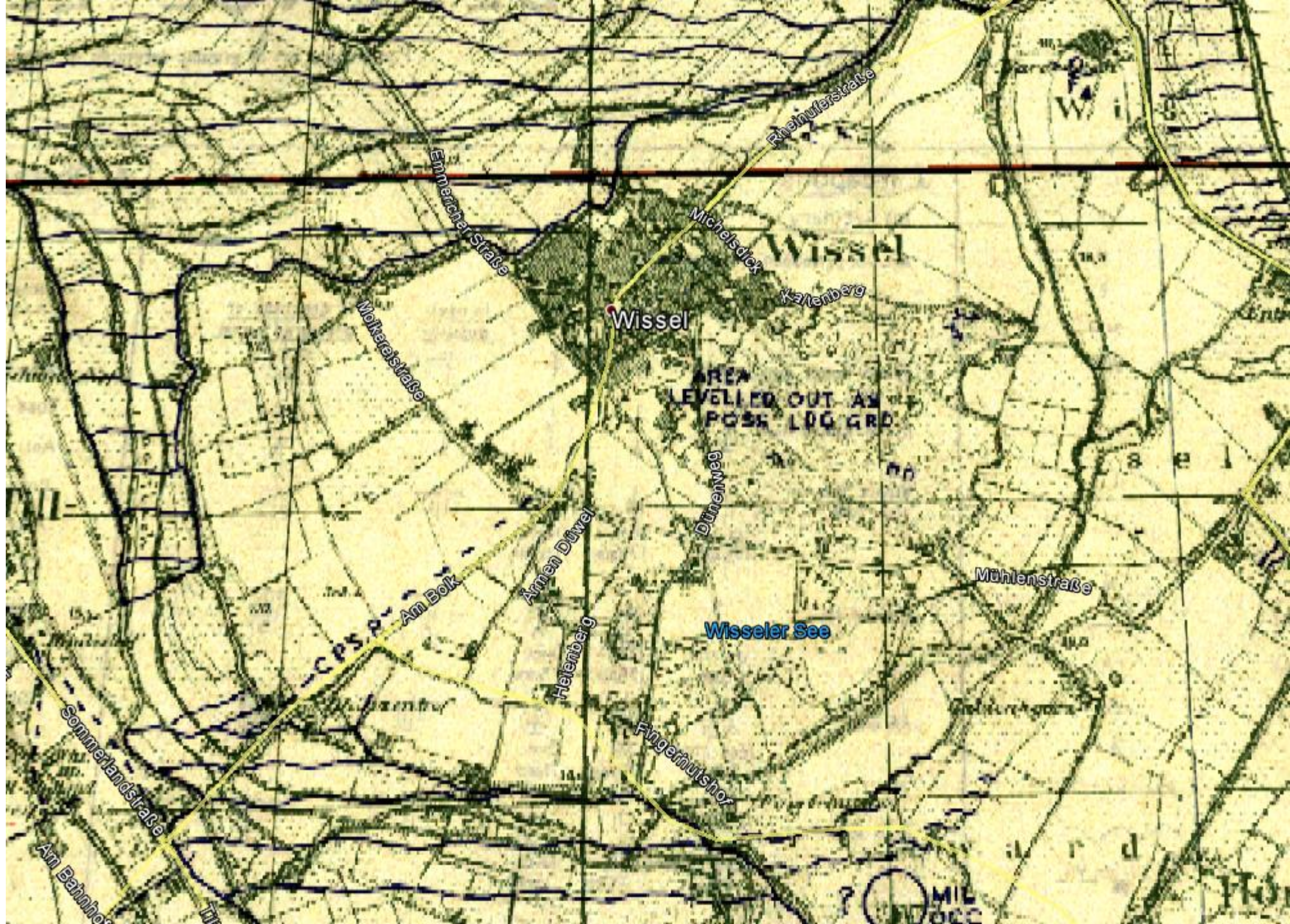
📍 Paths: Military End



Made with Google My Maps







ArcGIS Online Alternative : Story Map Journal

A story map



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No issues detected *

1944-1945 Military Story Map Journal

1944-1945 Military Defense Maps during WWII

Caen Defense Map (May 1944)

Caen (France)

From June to August, the Canadians fought a series of desperate actions against the I SS Panzer Corps station in and around Caen. The South Saskatchewan Regiment, with support from The Queen's Own Cameron Highlanders of Canada and the 27th Armored Regiment (The Sherbrooke Fusiliers Regiment) were the first to advance into Caen where they repulsed successive counter-attacks from two German SS Panzer divisions forcing the Canadians back past their start-lines. Eventually the 3rd Canadian Infantry Division defeated further counter-attacks by the two SS Panzer divisions in costly defensive fighting allowing the Canadian and British to continue their slow advance into and beyond Caen.

Click on the following link to download the map and view it on Google Earth:

<http://www.lib.uwaterloo.ca/locations/umd/digital/historicalvegetationsoilmaps/CaenKMLFinal.kmz>

Falaise Defense Map (August 1944)

Falaise (France)

The First Canadian Army was ordered to capture high ground north of Falaise to trap German Army Group B. By August 9, 1944, leading Canadian infantry captured Verrières Ridge and Cintheaux were captured. By 10 August, Canadian forces had reached Hill 195, north of Falaise closing the gap, unfortunately most of Army Group B had escaped.

Click on the following link to download the map and view it on Google Earth:

<http://www.lib.uwaterloo.ca/locations/umd/digital/historicalvegetationsoilmaps/FalaiseKMLFinal.kmz>

Calais Defense Map (September 1944)



ArcGIS Online Alternative : Story Map

1944-1945 Military Map Story

Switch to builder mode

A story map

GEOSPATIAL CENTRE

Calais Defense Map (September 12 1944)

Calaise (France) Calaise represents one of the several port cities taken by the advancing First Canadian Army during the early push through Northern France. Little resistance was given but casualties were still incurred by the Canadians. [Download the map and view it on Google Earth](#)

Calais Defense Map (September 12 1944)

1

Courseulles-sur-Mer-West Defense Map (May 17 1944)

2

Courseulles-sur-Mer-East Defense Map (May 17 1944)

3

Bernieres-sur-Mer Defense Map (May 17 1944)

4

Saint-Aubin-sur-Mer Defense Map (May 17 1944)

5

Caen Defense Map (May 1944)

6

Falaise Defense Map (August 6 1944)

7

Calais Defense Map (September 12 1944)

8

Roosendaal Defense Map (October 1944)

9

Xanten Defense Map (December 1944)

10

Calcar Defense Map (December 16 1944)

11

Emmerich Defense Map (December 1944)

12

Nijmegen Di (Januar

Status

- ▶ Still in the testing phase - which product is ideal for our purpose?
- ▶ ArcGIS Online is a quick learn - A historian with no previous GIS experience can create a map project and continuously add maps to it.
- ▶ With a link to it from our website, users world-wide can access it
- ▶ Not seamless however, because users still need to use Google Earth to view the map as a georeferenced entity, draped over an air photo.

Moving Forward

- ▶ It would be ideal to also have these images available on the Scholar's GeoPortal, open to all.
- ▶ With easy online access, these images can be used as a research and teaching tool in history classes worldwide, promoting not only military history but geospatial tools and technology.

Practical Uses of This System

