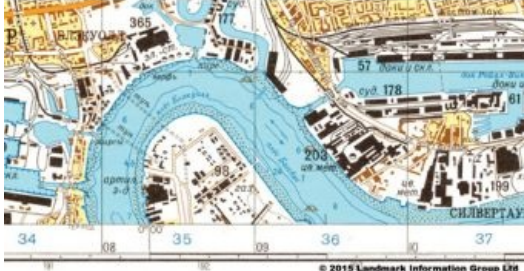


The Mystery of Russia's Cold War Mapping



During the cold war period, the Soviet Union created highly detailed mapping of the UK, often including features omitted from contemporary large scale OS mapping. But why did they do it? This enigmatic mapping remains a useful resource in tracing the history of sites prior to redevelopment. Martyn Lufkin, data team leader at Landmark Information explains.

As every GIS professional will confirm, the basis of any successful project is founded on the quality of the mapping data used. As a nation, we are fortunate to have access to a huge repository of Ordnance Survey maps that range in detail, complexity and age.

Here at Landmark, our geographical information database has become one of the largest of its kind in Europe, holding approximately one billion active features and receiving updates to over four million features every month. One set of historical maps, which Landmark was the first to digitally capture and georeference, stand out from all the others due to an incredible sense of intrigue and mystery that surrounds them: Russian Military Maps of Britain.

Recently profiled as part of a documentary on BBC's Timeshift series, the Russian Maps originally came to light in the late 1980s. Mapped between 1950 and as recently as 1997 during the Cold War by the Soviet Union military, 103 areas were mapped, covering 80 towns and cities. It was during this time that Britain's security was considered to be under potential threat from the Soviet Union.

A Byproduct of Research

Landmark's involvement with the Russian maps started as a byproduct of some research that had originally been undertaken to source and capture Goad Fire Insurance Plans. We discovered that Russian maps existed and so investigated further to identify a source. Initially we were looking for paper maps, but found a supplier who could source high-resolution digital images.

Having obtained the images, we were impressed by the exacting level of detail included. Available in 1:5,000, 1:10,000 and 1:25,000, it begs the question as to not only why the maps were created, but how they were developed. It is the level of exacting detail that really has created the intrigue.

They include many features that are simply not present on Ordnance Survey maps from the same eras. In fact, at the time, Ordnance Survey was not obliged to include over 5,000 'nationally sensitive' features. In obvious contrast, the Soviet maps included such details.

Lookout points, military installations and sensitive industrial sites are all visible. They were plotted with the exact measurement, with specific military buildings clearly on display, through to the inclusion of precise details even down to prominent trees or other landscape features.

The maps also include data related to energy and infrastructure networks, including road width information, road surface materials, loadbearing bridge capacities and even details of underground networks, gasworks and more.

Move offshore and the precision continues with information recorded relating to the depth of channel clearance, speed of flow and whether the river is tidal.

Anecdotes Abound

Whilst we can all speculate as to what the maps would be used for, we are not aware of the original plans for the maps, or how the information was actually gathered. There are anecdotal stories of Russian's being based on the ground to capture information, including stories of them pretending to be fishermen on the coastlines in order to measure sea depths, or having picnics close to military sites pretending to be sightseers, whilst all the while plotting key data. This is, of course, anecdotal and no proof has ever been identified. There are also suggestions that data was taken by the Luftwaffe during World War II, as well as aerial imagery from satellites. This, however, is again speculative and not proven.

The maps are written in the Cyrillic alphabet with town names transcribed phonetically. While the maps are accurate, there has been some translation issues that have come to light over the years. Some 'lost in translation' instances include 'Her Majesty's Theatre' on Haymarket in London being incorrectly listed as the 'residence of the Queen and Prime Minister'!

No Grid so Geo-referencing a Challenge

Looking back, there were some initial obstacles in digitally capturing the full maps. For example, they weren't projected onto National Grid tiles, meaning Landmark had to georeference the maps using a combination of current mapping, and, where this proved difficult, using mapping of a similar age.

Finding points of similarities, such as corners of buildings or road junctions, all helped in positioning the maps accurately and in line with other mapping. Once quality assessed, the more arduous process of capturing all numbered points and coloured polygons took place. This included translating them into English using the key supplied, before they were categorised into broader groups to assess contaminative risks.

The georeferencing process took approximately three months from start to finish, and a further six months to run the contaminative points and polygon capture.

Today, the maps play their part: they help to complement other maps that are available, by providing a wealth of information that land, property, environmental professionals can use to compare or make judgements relating to the history of a site and its impact on current projects. It is possible to cross-analyse all map data together and build a really clear picture of the land's past use in order to determine or manage any risks related to the site, for example.

For map fans like me, the Russian creations really are hugely interesting. Landmark is in a privileged position of having the unique access to the digitised maps, and as such our clients are able to benefit from the exacting details – as well as enjoy sharing the intrigue and swapping stories on exactly how they were made and came to light. For more information go to www.landmark.co.uk

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<https://www.gim-international.com/content/article/the-mystery-of-russia-s-cold-war-mapping>
