

Working with Georeferenced Air Photos

Tiff imagery

If you are interested in using Tiff imagery with other georeferenced files, such as streets or forests, or if you would like to display several tiles together to create a larger image, you will need to download both the Tiff image and the associated .tfw world file.

The world file is a simple text file with coordinate information that tells the image where to display itself on the earth's surface. A GIS program will read the world file and will display the image correctly. You can then display other georeferenced files in the same map to create overlays.

For those with access to ESRI GIS software products, any ESRI GIS program will open the images. For those without access to these products, there are several free GIS viewers available for download. The following software programs have been specifically tested for the ability to open Tiffs with accompanying world files as well as vector shapefiles (such as streets) simultaneously in the same view.

- ForestryGIS : <http://www.forestpal.com/fgis.html>
- TatukGIS : <http://www.tatukgis.com>
- QGIS : <http://www.qgis.org>
- MapWindow GIS : <http://www.mapwindow.org>
- Christine GIS : <http://www.christine-gis.com>
- ArcExplorer (a free ESRI product) : <http://www.esri.com>

To add overlays to your map, simply choose from the list of features available from the Map Library's Online Historical Air Photo [Webpage](#) and download the shapefiles of your choice. To access a greater variety of themes, please visit the University Map Library's [webpage](#) for a listing of online resources or a description of the Map Library's geospatial data collection. More information on the Library datasets and licensing agreements are available online.



Waterloo, 1930 with street and forest overlay. The overlays are current as of 2005.

KML Files

KML (Keyhole Markup Language) is a file format used to display geographic data in an Earth browser such as Google Earth and Google Maps. The beauty of KML is that it can be used by anybody with access to the internet. The user needs to have access to Google Earth – an online browser which requires an easy, free installation. No other GIS software programs are necessary to view this georeferenced file. KML is simply one file that encodes the elements and attributes that is associated with a raster (an image) or vector file (i.e. streets). Users can download the KML file from the Map Library’s webpage, and simply open the file (File – Open) in Google Earth. Google Earth offers a large variety of overlays that the user can use to assist in navigating with the photos. Since today’s landscape looks much different than 70 years ago, the familiar streets of today will aide the user in locating specific features of the historical air photo.

