



Reusing digital cartographic contents online

Rafael Roset, Carme Montaner



ICGC
Institut
Cartogràfic i Geològic
de Catalunya



**Generalitat
de Catalunya**

Summary

The Institut Cartogràfic i Geològic de Catalunya has developed two services to facilitate using and reusing geoinformation online:

- **Cloudifier**, which turns a georeferenced map into a WMS service
- **Instamaps**, an online webgis platform

Geofabrik GmbH from Karlsruhe created **Map Compare**, a tool to combine different mapping services in a single window.

We will demonstrate how this tools can be used in combination to reuse old maps from different sources and combine it with present day geodata.

Easy to use online tools

Recipe to reusing digital cartographic contents online:

- Locate old maps of area of interest
 - Better yet from collections with Georeferencer by Klokantech
 - Else use Mapwarper.net
 - or use Qgis (desktop)
- Once map is georeferenced go to **Cloudifier** by ICGC
- Embed map as a new layer in **Instamaps** by ICGC
 - Combine with other geodata
 - Analyze
 - Publish online
- If needed compare old and new maps in **Map Compare** by Geofabrik

<http://igrek.amzp.pl/>

ICGC
Institut Cartogràfic i Geològic de Catalunya

Mapes geològics Georeferenciació

Cercar

Afegir o eliminar altres col·leccions a la cerca:

- Mapes d'Europa (s. XVI-XX)
- Atles
- Fons Cuykè
- Fons de la guerra civil
- Fons FECSA
- Mostar 23 més

Limitar la cerca per:

- Àrea geogràfica
- Autor

Ha cercat: Mapes d'Europa (s. XVI-XX)

Ordernar per: Any original Opcions de visualització

Visualització: 20 ▾

Miniatures	Títol	Autor	Any original	Àrea geogràfica
	U Palatinati di Hinak, Mscostaw, Polok, e Wittebak. Nella Lituania Tratta dall'Atlante Polacco.	Zatta, Antonio	1781	Letònia; Lituània;
	De la Néva à la Viabule et au Pinet: Péetrograd, Revel, Riga, Vïra, Varsavie, Mohilev, Smolenski / J. Forest	Forest, Jules	1917	Letònia; Lituània;
	Lettonie	Oschin, A.; Martinek, P.; Institut Cartographique Riga; Endzelins, J. (toponima)	1924	Letònia
	Letonia = Latvija = Lettonie (Letònia, Oficina de Turisme?)		1930	Letònia
	Polska za Kazimierza Wielkiego Stan z r. 1370	Wladyslaw Semkowicz	1930	Polònia; Lituània;
	Polska Dziesinnowa okolo r. 1250	Wladyslaw Semkowicz	1930	Polònia; Lituània;
	Polska i Litwa za Jagiellonów (w. XV)	Wladyslaw Semkowicz		Polònia; Lituània;

<http://cartotecadigital.icc.cat/>

<http://www.davidrumsey.com/>

MAPSTER

Home Search Index sheets Map lists About us

Old maps of Poland and Central Europe

Mapster provides links to historical maps of Poland and Central-Eastern Europe, for non-commercial purposes. Scans of maps and plans come from private collections, archives, museums and libraries. Materials are available in an easy-to-download way, in high resolution and in a low .jpg compression level.

Placename search
Database of over 100 000 placenames for quick listing of all maps displaying a placename you are interested in

Index sheets viewer
Graphic index sheets for an overview of available maps and adjoining sheets

Information on MAPSTER project
How, who, why - everything you wanted to know about this site

Lists of maps
Map listings containing the most important informations, edition year, alternative names, scan resolution etc.

Our maps, seoreated into categories:

Polish maps:

WIG - Półwysep Hel 1:5 000 /1930/	7	(0.18 GB)	list
WIG - Mapa Szczecińska Polski 1:25 000 /1929 - 1939/	1981	(28.69 GB)	list
WIG - Mapa Szczecińska Polski 1:25 000 wczesne wydania w ciaciu map zaborczych /1920 - 1929/	96	(1.88 GB)	list
WIG - Mapa Taktyczna Polski 1:100 000 /1924 - 1939/	2164	(25.49 GB)	list
WIG - Mapa Taktyczna Polski 1:100 000 - przedruki map zaborczych w ciaciu rosyjskim	216	(2.23 GB)	list

David Rumsey Map Collection
CARTOGRAPHY ASSOCIATES

Home About View

THE COLLECTION

Georeferencer Help Add Location to Maps

Welcome to the David Rumsey Map Collection Database and Blog. The Map Database has many viewers and the Blog has numerous categories.

The historical map collection has over 66,000 maps and images online. The collection includes rare 16th through 21st century maps of America, North America, South America, Europe, Asia, Africa, Pacific and the World.

Popular collection categories are celestial, antique atlas, globe, school geography, maritime chart, state, county, city, pocket, wall & case, children's, and manuscript maps. Search examples: Pictorial maps, United States maps, Geology maps, California map, Afghanistan map, America map, New York City map, Chicago map, and U.S. Civil War maps. Browse map categories: What, Where, Who, When. The collection is used to study history, art, genealogy, explorations, and family history. Learn more

View Maps Added after Additions of April 4, 2015

A Chart of the Chesapeake And Delaware Bays, Lucia, Fielding Jr., 1840, Chart Map

<http://www.lib.utexas.edu/maps/>

THE UNIVERSITY OF TEXAS AT AUSTIN

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Texas
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Map Sites
Map Dealers
Cartographic Reference
City Map Sites
Country Map Sites
Historical Map Sites
Outline Map Sites
Route Planning Sites
State Map Sites
Weather Map Sites
Topical Map Sites
U.S. Economic Situation
Maps
Oil and Gas Maps
More Topical Maps

Perry-Castañeda Library Map Collection

SUPPORT US
The PCL Map Collection includes more than 250,000 maps, yet less than 30% of the collection is currently online.
A \$5, \$15, or \$25 contribution will help us fund the cost of acquiring and digitizing more maps for free online access.
Click the SUPPORT US button to make your contribution today!

Online Maps of Current Interest

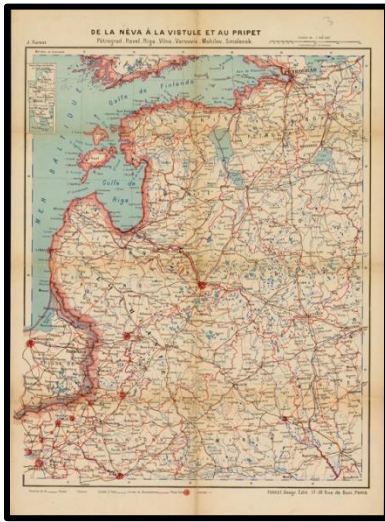
- Zika Virus Transmission Map (Centers for Disease Control)
- Zika Outbreak - Where is the Virus Spreading? (The Telegraph)
- Iraq - The Situation in Iraq [January 18] (Thomas van Linde)
- Libya - Situation Maps (Libya Security Monitor)
- Middle East - Sunnis and Shiites Maps (New York Times)
- Middle East - Oil and Gas Deposits and Shia Majority Areas (Gulf/2000 Project)
- Spratly Islands Maps (PCL Map Collection)
- Syria - The Situation in Syria [January 18] (Thomas van Linde)
- USA - Drought Map (National Drought Mitigation Center)

Online Maps of General Interest

- Maps of **The World**
- Maps of **Africa**
- Maps of **The Americas** including **United States**, **Canada** and **Mexico**
- Maps of **Asia**
- Maps of **Australia and the Pacific**
- Maps of **Europe**
- Maps of **The Middle East**
- Maps of **Polar Regions and Oceans**
- Maps of **Russia and the Former Soviet Republics**
- Maps of **The United States** including **National Parks and Monuments**
- Maps of **Texas**
- Maps of **Texas Counties**
- Maps of **Austin**

MapRank Search
 Google Earth
 Google Maps
 Second Life
 3D GIS
 Insight Java Client
 Ticker

Reproductions



De la Néva à la Vistule et au Pripet;
Forest, Jules; 1:500 000; 1917 (Institut
Cartogràfic i Geològic de Catalunya,
RM.274714)



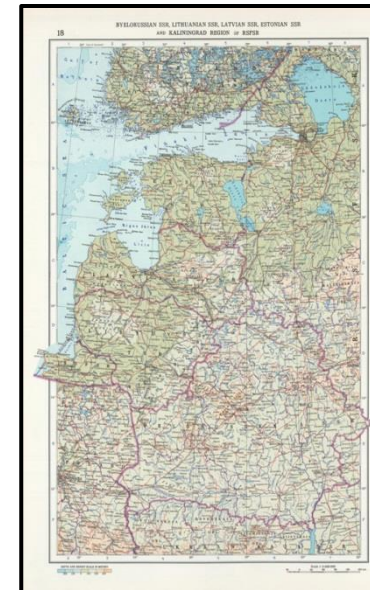
Lettonie; Oschin, A.; 1:420 000; 1924
(Institut Cartogràfic i Geològic de
Catalunya, RM.2580)



BALTOPO; Latvijas dzelzceļu karte; 1:600 000
;1939; Mapster (<http://igrek.amzp.pl/>)



GSGS 4072 Europe (Air) 1:500,000 Series M404
(4072), Great Britain War Office, 1942- ; sheet:
NE 56-20 (Riga); 1st Edition 1944 (Perry-
Castañeda Library Map Collection, University
of Texas)



18. Soviet Republics in North-Central The World Atlas.
Europe. ; USSR; 1:3 000 000; 1967 (David Rumsey Map
Collection, 1603029)

David Rumsey Map Collection

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Media Information

Collection name:
David Rumsey Historical Map Collection

▼ **Record:**

Author:
USSR (Union of Soviet Socialist Republics).

Date:
1967

Short Title:
18. Soviet Republics in North-Central The World Atlas. Europe.

Publisher:
USSR

Publisher Location:
Moscow

Type:
Atlas Map

Obj Height cm:
47

Obj Width cm:
29

Scale 1:
3,000,000

Country:
Belarus

Country:
Estonia

Country:
Latvia

Country:
Lithuania

Subject:
Physical

Full Title:
18. Soviet Republics in North-Central Europe. The World Atlas.

List No:
1603.029

Page No:
18

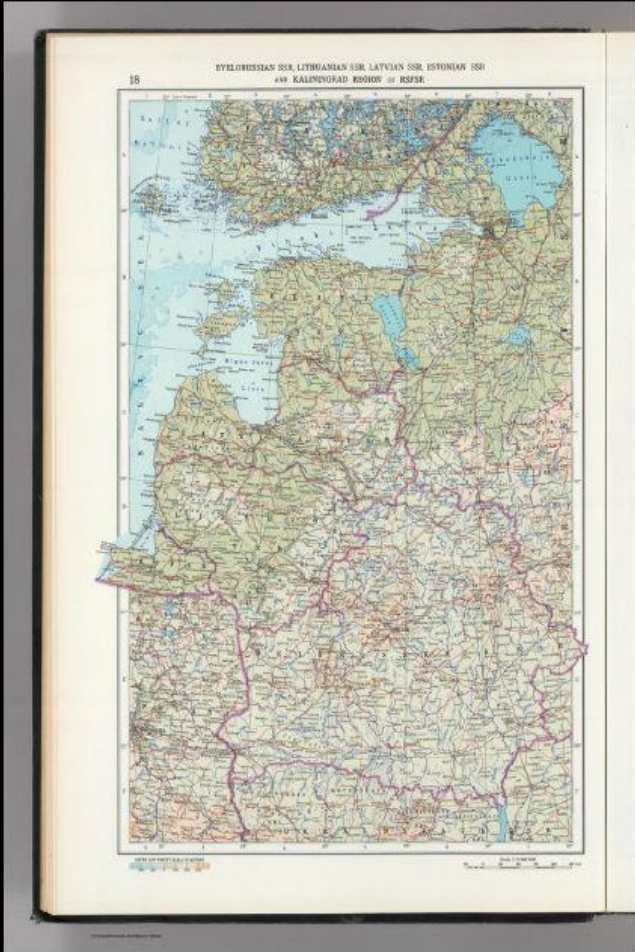
Series No:
29

Publication Author:
USSR (Union of Soviet Socialist Republics).

18. Soviet Republics in North-Central The World Atlas. Europe.

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Large Thumbnail	Up to 384 px
Small	Up to 768 px
Medium	Up to 1536 px
Large	Up to 3072 px
Extra Large	Up to 6144 px

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2D 3D Side-by-side

18. Soviet Republics in North-Central The World Atlas. Europe. Select this slot and then select map from the sidebar (or simply drag the map here).

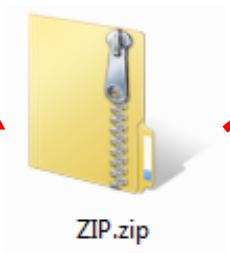
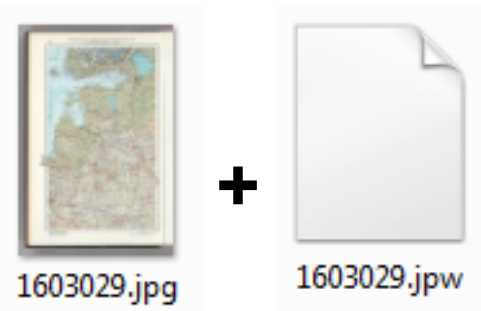
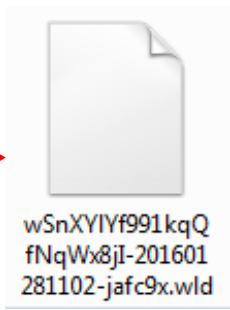
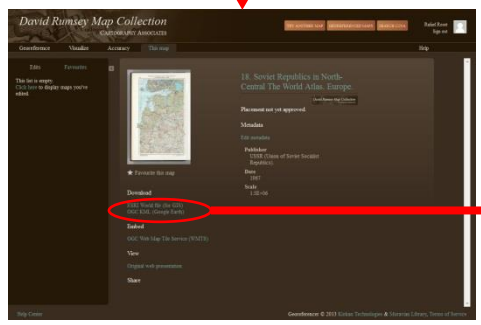
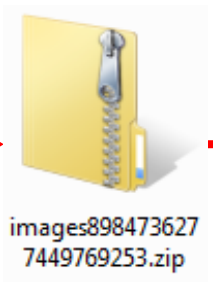
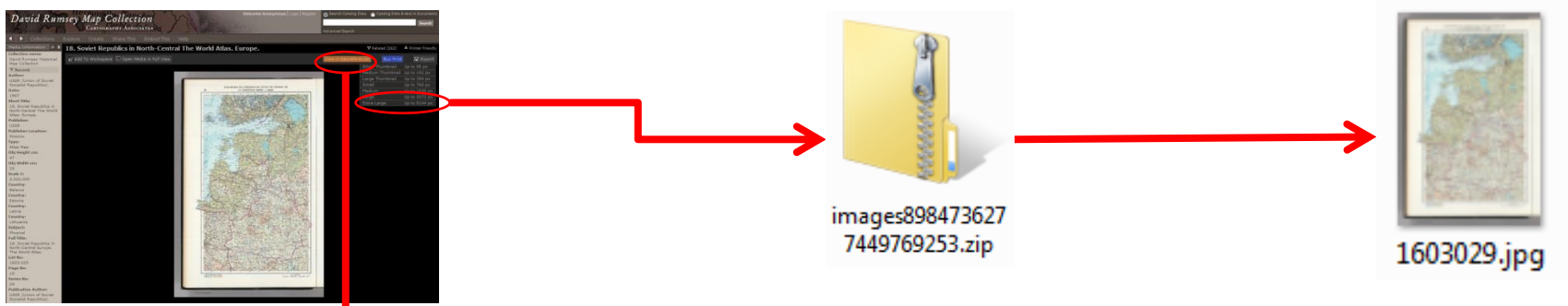
Open KML in Google Earth Embed OGC WMTS tiles

Affine Polynomial TPS Cutline Map Satellite

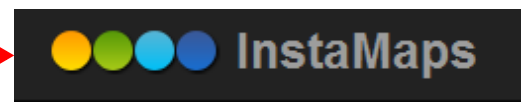
Oslo Stockholm Copenhagen Denmark Hamburg Berlin Prague Frankfurt Czech Republic Moscow Nizhny Novgorod Нижний Новгород Kharkiv Харків

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TMS
WMS



Georeferencer - Strassenkarte_der_Baltischen_Laender_Blatt_3_Lettlan...

Visible	ID	Source X	Source Y	Dest. X	Dest. Y	dX (pixels)
<input checked="" type="checkbox"/>	0	9000,9	-5054,73	24,1787	56,9548	91,1
<input checked="" type="checkbox"/>	1	8105,23	-6347,23	23,7322	56,6512	-81,1
<input checked="" type="checkbox"/>	2	7065,94	-9495,33	23,3117	55,9278	2,3
<input checked="" type="checkbox"/>	3	2750,05	-7870,26	21,5307	56,2705	12,1
<input checked="" type="checkbox"/>	4	1559,59	-6736,49	21,0191	56,5118	18,1
<input checked="" type="checkbox"/>	5	2028,21	-5100,08	21,1709	56,8899	-28,1
<input checked="" type="checkbox"/>	6	3048,61	-2945,91	21,5638	57,3889	-12,1

Transform: Polynomial 2 Mean error: 70.154 13530,-3866 None

Coordinate: 20.84,50.20 Scale: 1:3.453.243 Rotation: 0,0 Render EPSG:4326 (OTF)

DISCLAIMER: coworkers of @geostarters

Rapid prototyping and development group at **ICGC**, with a public showroom of prototypes at <http://betaportal.icgc.cat/>

Both **Cloudfier** and **Instamaps** were developed and are maintained by this group.

At some point Instamaps, which is an easy to use webgis, will have 3D view, vector tiles and other enhanced features.

Left to right: Sergi Anguita (Head of Geotechnologies), Victor Pascual, Montse Ortega, Wladimir Szczerban and Jessica Sena.

Not in the picture: Marc Torres, Rafael Roset.



The screenshot shows the Cloudifier web application interface. At the top, there is a navigation bar with "InstaMaps" and "CLOUDIFIER" logos, and a settings gear icon. The main area is a grayscale map of Mataró, Spain, with various geographical labels like "la Roca del Valles", "Argentona", and "Mataró". A central dark overlay contains the following text:

Cloudifier
 View your maps and geoinformation

Drop file
 Accepted formats: shp, dgn, dxf, jpg, sid, tif and ecw

Cal comprimir els fitxers compostos en un sol .zip. La mida màxima de fitxer és de 150MB

betaportal@icgc.cat [More information](#)

At the bottom right of the map, there is a coordinate display: "ETRS89 UTM 31N 4598146.59 445665.84" and "WGS84 41 533126 2.348671", along with a 1 km scale bar.

InstaMaps CLOUDIFIER

CAT | ESP | ENG

Cloudifier

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Font: Institut Cartogràfic i Geològic de Catalunya - CC-BY - Font: OpenStreetMap ZL:8

WGS84 59.006628 25.708008 100 km

Link to map
<http://bit.ly/1KHbByv> Copy link Add to InstaMaps

TMS service <http://betaserver.icgc.cat/geoservice/2458556063742936727959561699394210>

WMS service <http://betaserver.icgc.cat/geoservice/2458556063742936727959561699394210>

Back

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IGGC Institut Cartogràfic i Geològic de Catalunya

ETRS89 UTM 31N 4598146.59 445665.84 1 km
WGS84 41.533126 2.348671



Map gallery >

Make your map >

EXPLORE



CREATE



VIEW



SHARE



InstaMaps Gallery Blog Contact FAQs Language

Find places or coordinates ...

Explore other data sources

Open data Social networks **WMS services** Instamaps layers External data

- Municipal base
- Cadastral map
- Wind farms
- Historical orthophotos
- Land cover
- guifi.net nodes
- Mapa Cadastral per anys
- Seccions Censals per anys
- Urban planning map
- Atermenament i usos de costes
- Natural environment maps
- Touristic routes
- Environmental maps
- Real time traffic map
- Ortofotos per anys

Cercar catàleg IDEC

http://betaserver.icgc.cat/geoservice/245855606374293672795956169939421022723?

Totes / Cap

- balttopo_NLL225

Font: Catàleg IDEC **Add layers**

1603029
RM274714
RM2580

WGS84 3.427734 59.333189 200 km

Font: Institut Cartogràfic i Geològic de Catalunya - CC-BY - Font: OpenStreetMap ZL: S

Old maps imported to InstaMaps as separate layers

The screenshot displays the InstaMaps web application interface. At the top, there are navigation links for Gallery, Blog, Contact, FAQs, and Language, along with a user profile icon. The main map area shows a current map of Europe with several historical maps overlaid as layers. The layers are listed in the right sidebar under the heading "Old maps of Riga".

Old maps of Riga Layers:

- 1603029_rumsey
- RM274714_icgc
- RM2580_icgc
- GSGS4072_utexas
- NLL225_mapster

The detailed view of the selected layer (1603029) shows the following information:

- 1603029
- RM274714
- RM2580
- GSGS4072_utexas
- balltopo_NLL225

The interface also includes a search bar at the top with the text "Find places or coordinates ...", a left sidebar with various tools (Locate a point, Draw a line or polygon, Load data, Choose map style, Choose the operation, Choose the background map, Publish the map, Share), and a bottom status bar with the text "InstaMaps Beta v.0.9.2" and "Font: Institut Cartogràfic i Geològic de Catalunya - CC-BY - Font: OpenStreetMap ZL:5".

InstaMaps Gallery Blog Contact FAQs Language

Locate a point

Draw a line or polygon

Load data

Choose map style

Choose the operation

Choose the background map

Publish the map

Share

InstaMaps Beta v.0.9.2

Find places or coordinates ...

Old maps of Riga

- Layers
- 1603029_rumsey
- RM274714_icgc
- RM2580_icgc
- GSGS4072_utexas
- NLL225_mapster
- Internets_biblioteka_s_WiFi_geo (802)

LETTONIE

LETONIE

adrese	Medumu pagasta bibliotēka
lng	26.35111
lat	55.78370

RM2580

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Kauno apskritis

Font: Institut Cartogràfic i Geològic de Catalunya - CC-BY - Font: OpenStreetMap ZL:7

Publish the map

To link to this map, copy and paste the following text:

<http://bit.ly/1Qx2sHK>

To insert this map on your website, copy and paste the following text:

```
<iframe width="100%" height="100%" frameborder="0" scrolling="no"
marginheight="0" marginwidth="0" src="http://www.instamaps.cat/geocatweb
/visor.html?businessid=fcc4365996798124b0721b4ed99b337f&id=39759&
emfocid=1" ></iframe>
```

[Veure el mapa](#)

Ok

Fitxer Edita Visualitza Historial Adreces d'interès Eines Ajuda

Instamaps: Old maps of Ri... Riga WiFi on old map

betaportal.icgc.cat/comparador-riga/rigamap.html

Most Visited Readability Georeferencer view passwords veure imatges

Old map of latvian WiFi hotspots

Font: Institut Cartogràfic i Geològic de Catalunya - CC-BY - Font: OpenStreetMap ZL:7

Links to tools

- Cloudifier by ICGC
- Instamaps by ICGC

What am I seeing?

The above map displays concentration of WiFi hotspots on top of a collection of old maps that can be switched on and off. The point layer was downloaded from Open data Latvia (<http://data.opendata.lv>)

Demo constructed for 11th ICA conference

896x889

HTML + CSS

<http://betaportal.icgc.cat/comparador-riga/rigamap.html>

Search

Search

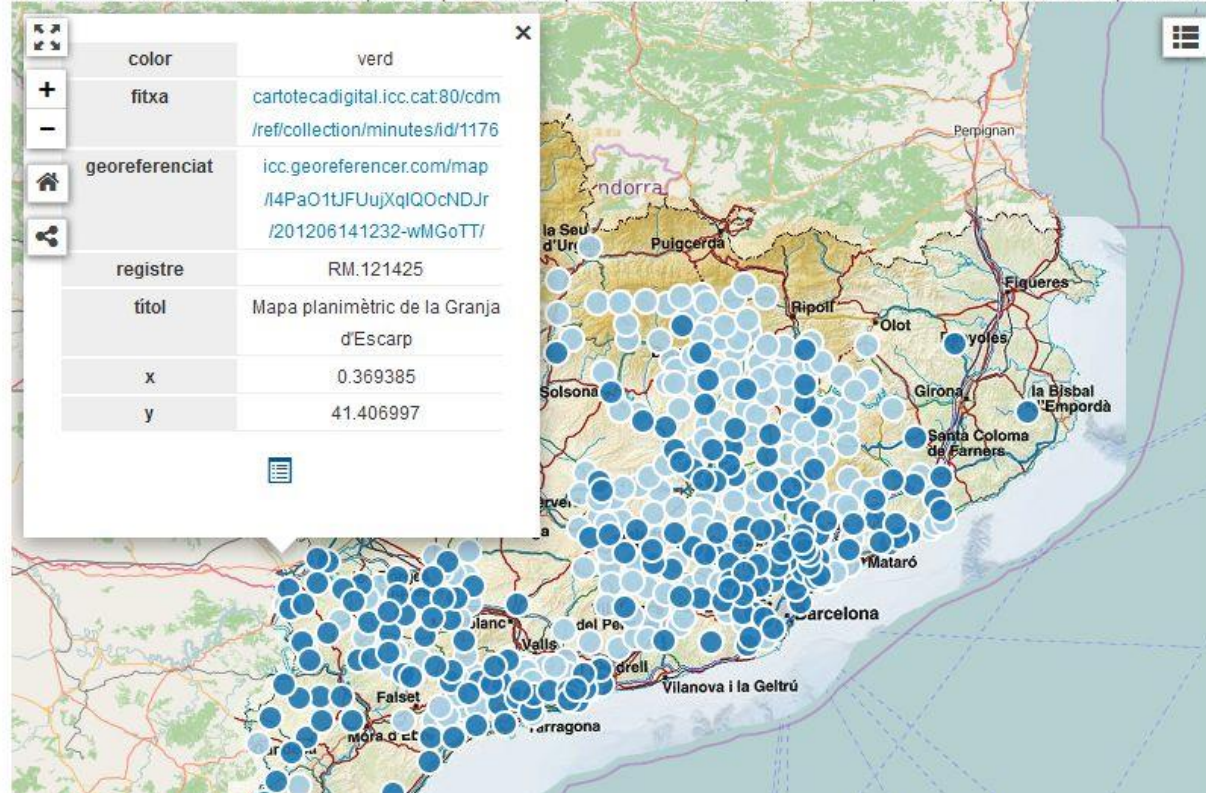
Advanced Search

Catalunya: minutes municipals 1:25 000 (1914-1936)

El mapa d'Espanya 1:50 000 realitzat per l'Institut Geogràfic y Estadístico -actualment Instituto Geográfico Nacional - es va fer en bona part mitjançant aixecaments per municipis a escala 1:25 000.

A Catalunya, les brigades topogràfiques encarregades del treball de camp van estar-hi treballant des de començaments del segle XX. L'any 1914 quan la Mancomunitat de Catalunya decideix confeccionar un mapa geogràfic a escala 1:100 000, encarrega còpies d'aquestes minutes a 1:25 000 per a confeir el seu propi mapa.

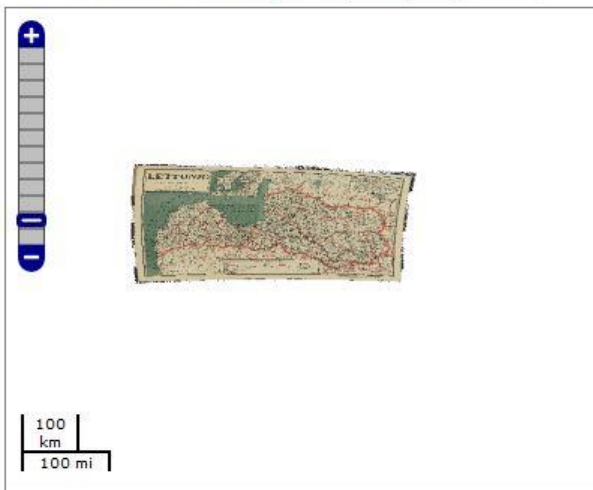
Aquesta col·lecció aplega les còpies -també manuscrites- encarregades pel Servei Geogràfic de la Mancomunitat. Cada municipi consta d'un mapa amb la planimetria i un altre amb l'altimetria. Es van arribar a fer les còpies de poc més de quatre-cents municipis catalans que són els que formen aquesta col·lecció.



Old maps of Riga compared side by side



Trieu servei: Lettonie, Oschin, 1924 [ICGC] ▼



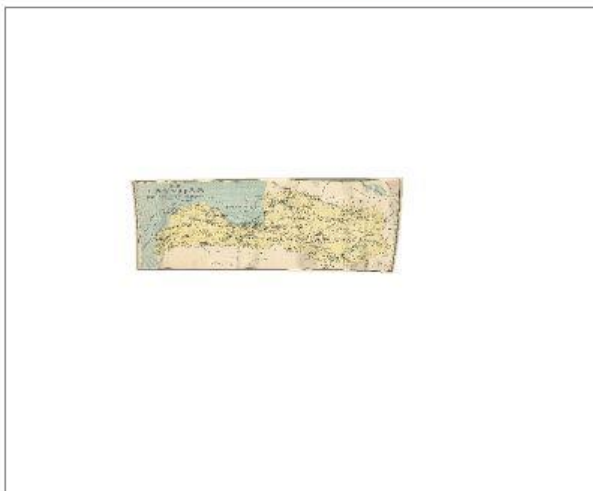
Trieu servei: De la Néva a la Vistule, Forest, 191: ▼



Trieu servei: 18.Soviet Republics, USSR, 1967 [R ▼



Trieu servei: Latvijas dzelzceļu karte, 1939 [Map: ▼



Trieu servei: GSGS 4072 Europe, Great Britain W ▼



Trieu servei: OpenStreetMap by terrestris ▼



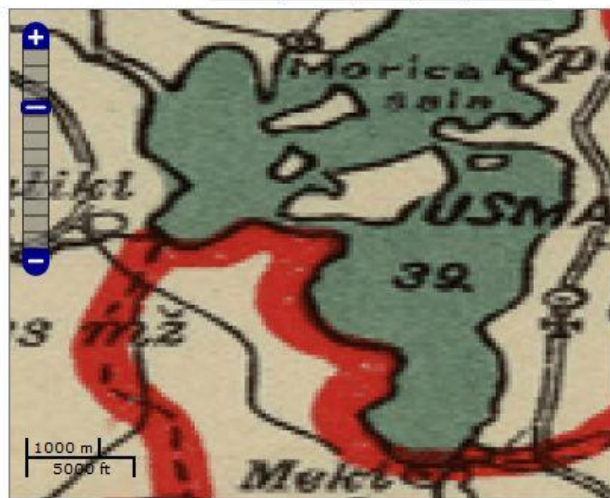
[Afeqir wms](#) zoom=1 nombre de mapes: [1](#) [2](#) [3](#) [4](#) [6](#) [obté l'enllaç](#)

Basat en [geofabrik](#) - v.1.0.1 11/2014 - [pantalla completa](#)

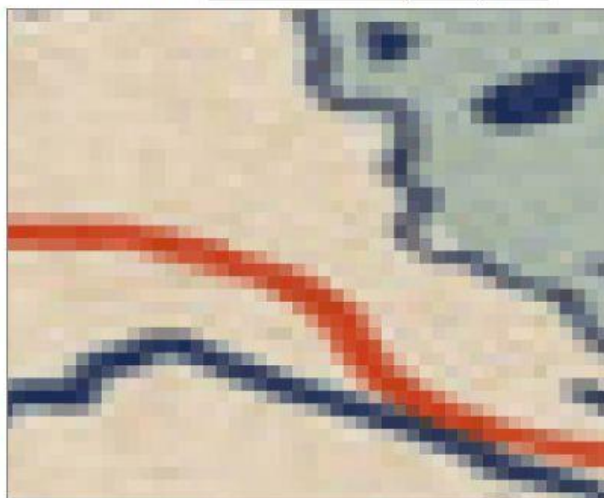
Old maps of Riga compared side by side



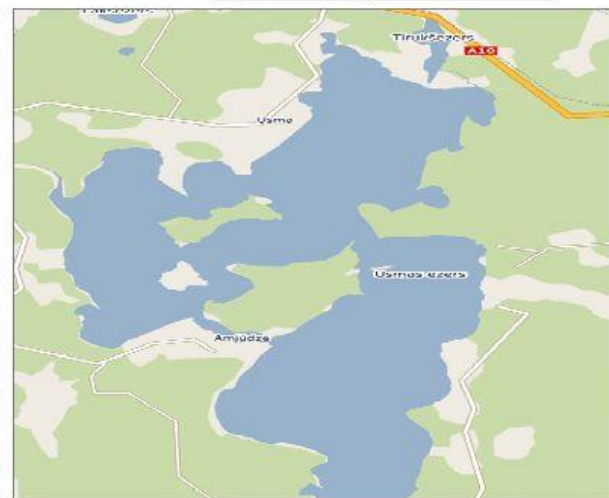
Trieu servei: Lettonie, Oschin, 1924 [ICGC] ▼



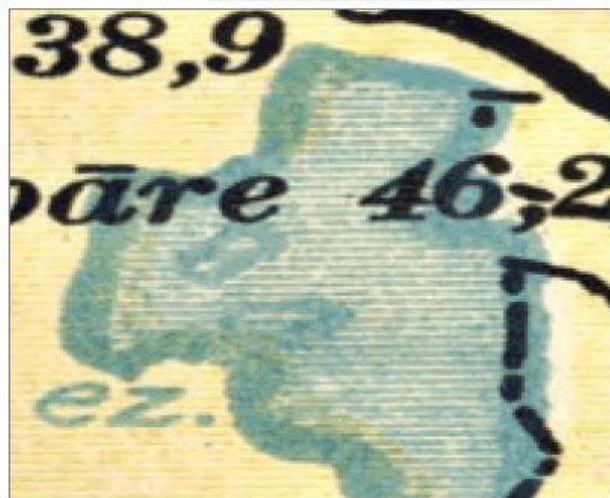
Trieu servei: De la Néva a la Vistule, Forest, 1911 ▼



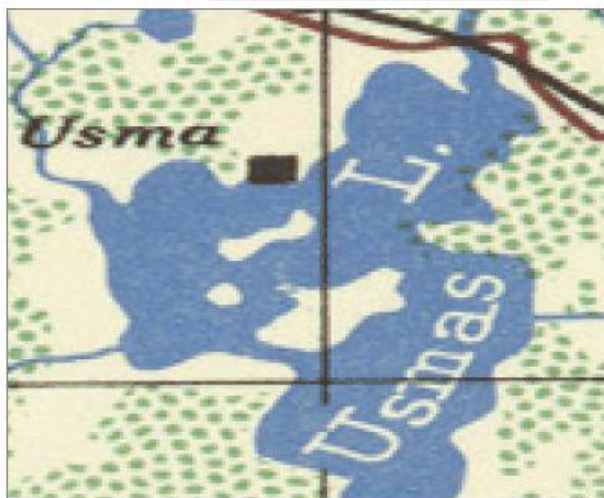
Trieu servei: OpenStreetMap by terrestris ▼



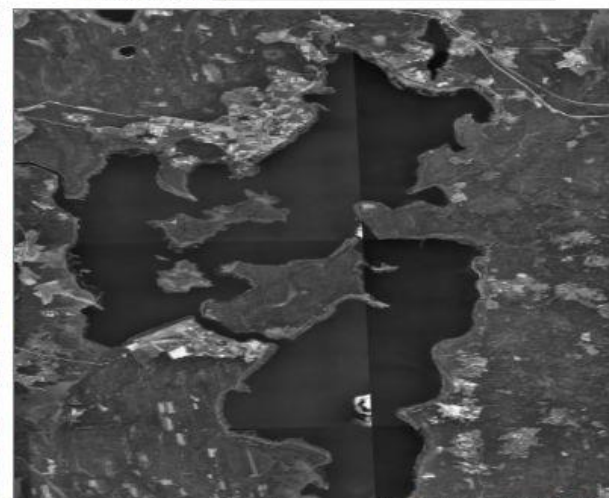
Trieu servei: Latvijas dzelzceļu karte, 1939 [Map] ▼



Trieu servei: GSGS 4072 Europe, Great Britain W ▼

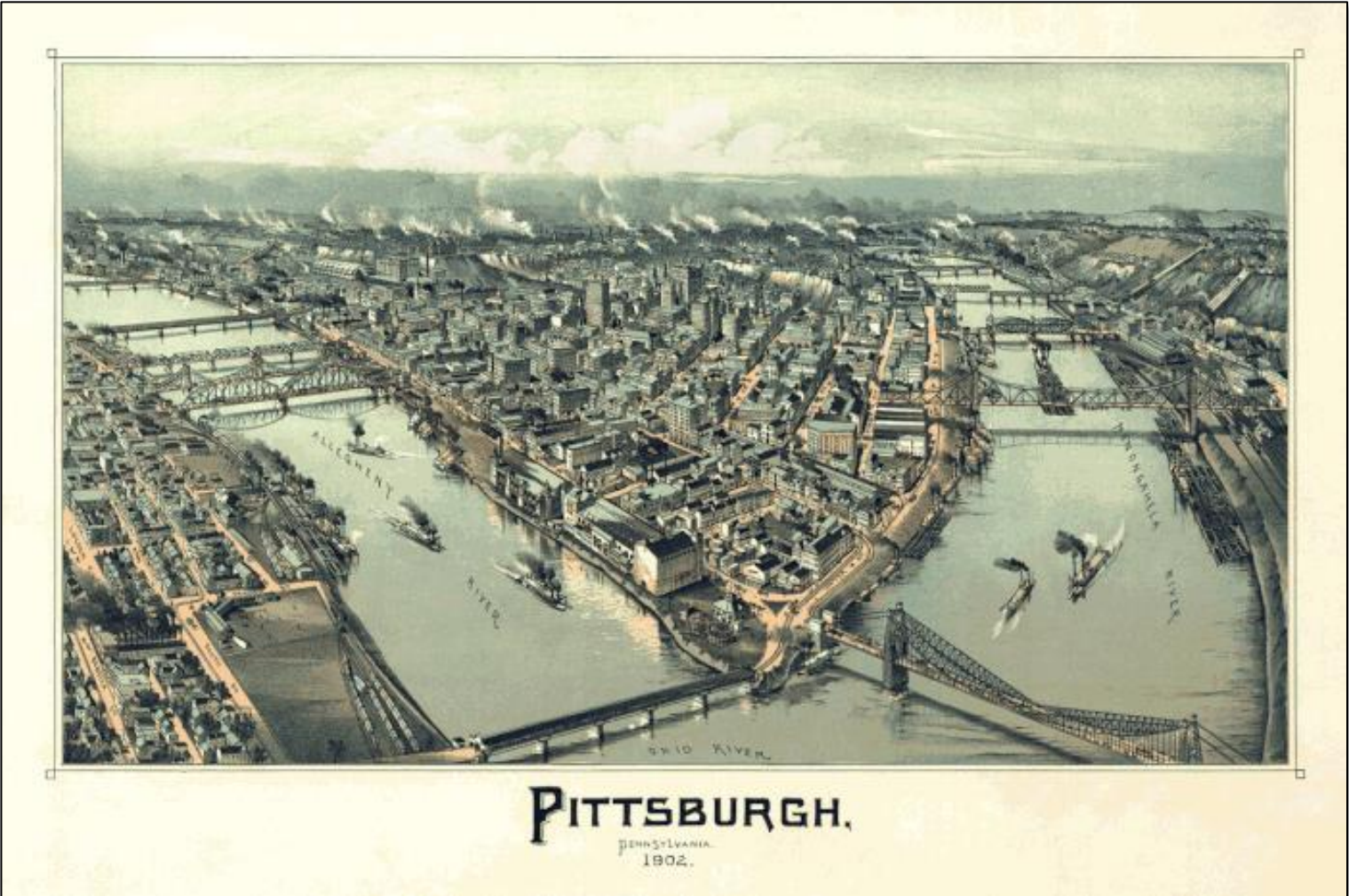


Trieu servei: 0 ▼



[Afegir wms](#) zoom=8 nombre de mapas: [1](#) [2](#) [3](#) [4](#) [6](#) [obté l'enllaç](#)

Basat en [geofabrik](#) - v.1.0.1 11/2014 - [pantalla completa](#)



Reusing digital cartographic
contents online

Ačiū už Jūsų dėmesį

**Institut Cartogràfic i Geològic
de Catalunya**

Parc de Montjuïc,
E-08038 Barcelona

41°22'12" N, 2°09'20" E (ETRS89)

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