Persuasive Cartography in the Era of the Internet

Mark Monmonier
Maxwell School of Citizenship and
Public Affairs,
Syracuse University

Electronic Cartography

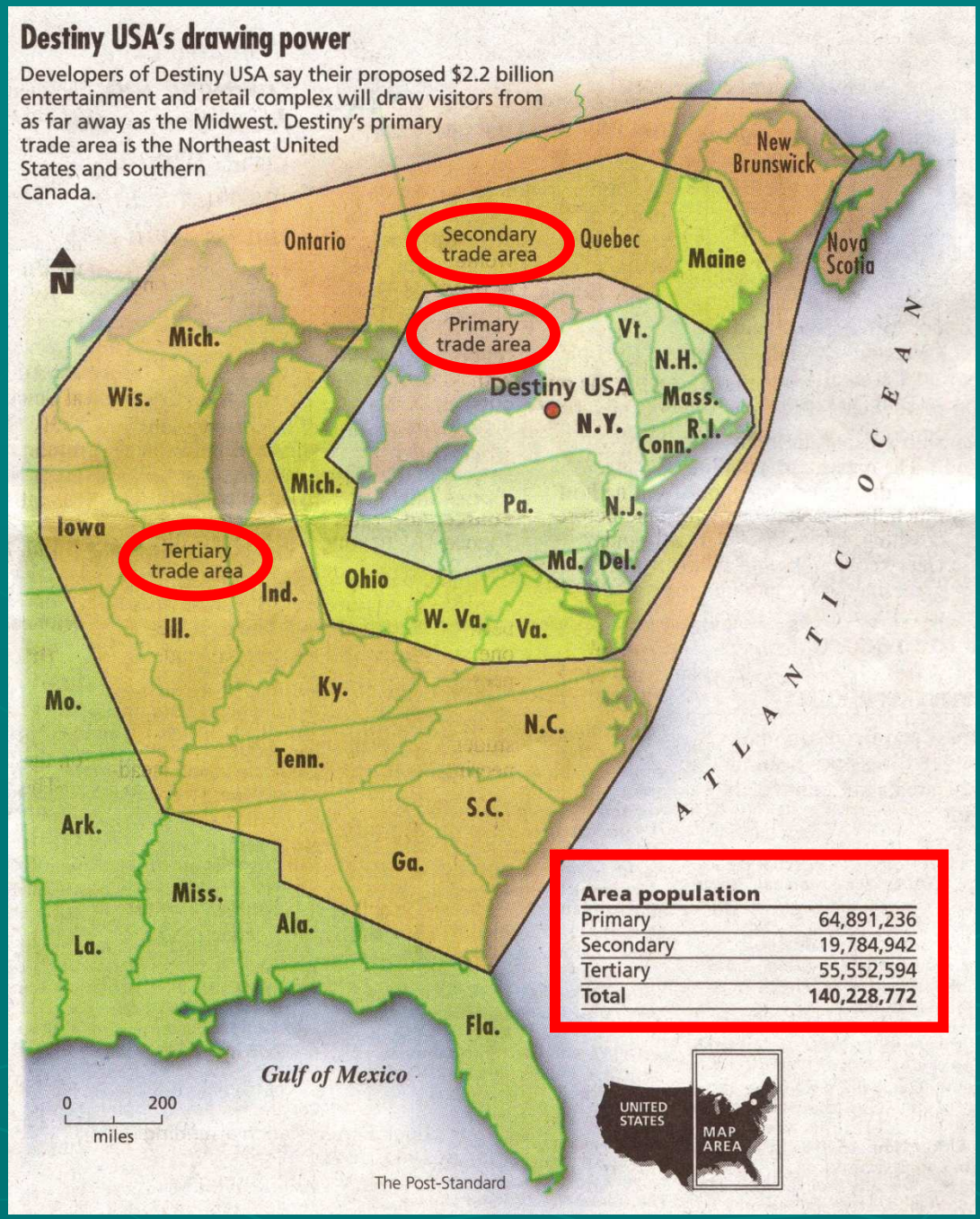
- Static or dynamic (closed scripts or "open" interactive displays)
- Experimental forms: 3-dimensional holography and "virtual reality"
- Ease of distribution over the Internet
- A challenge to archivists and map collectors
- Ultimate scarcity of late 20th and early 21st century electronic maps?

Persuasive Cartography

- "Persuasive" is less pejorative (and more appropriate) a word than "propaganda," which has negative connotations.
- Persuasive maps communicate a "point of view," and are thus rhetorical.
- Their authors intend them to be persuasive, or at least to be noticed.
- Getting people to look at them, and at the underlying argument, is important.

"Destiny USA's drawing power"

3 December 2002,
Syracuse Post-Standard



From the akakurdistan.com Website, "a borderless space [that] provides the opportunity to build a collective memory with a people who have no national archive."

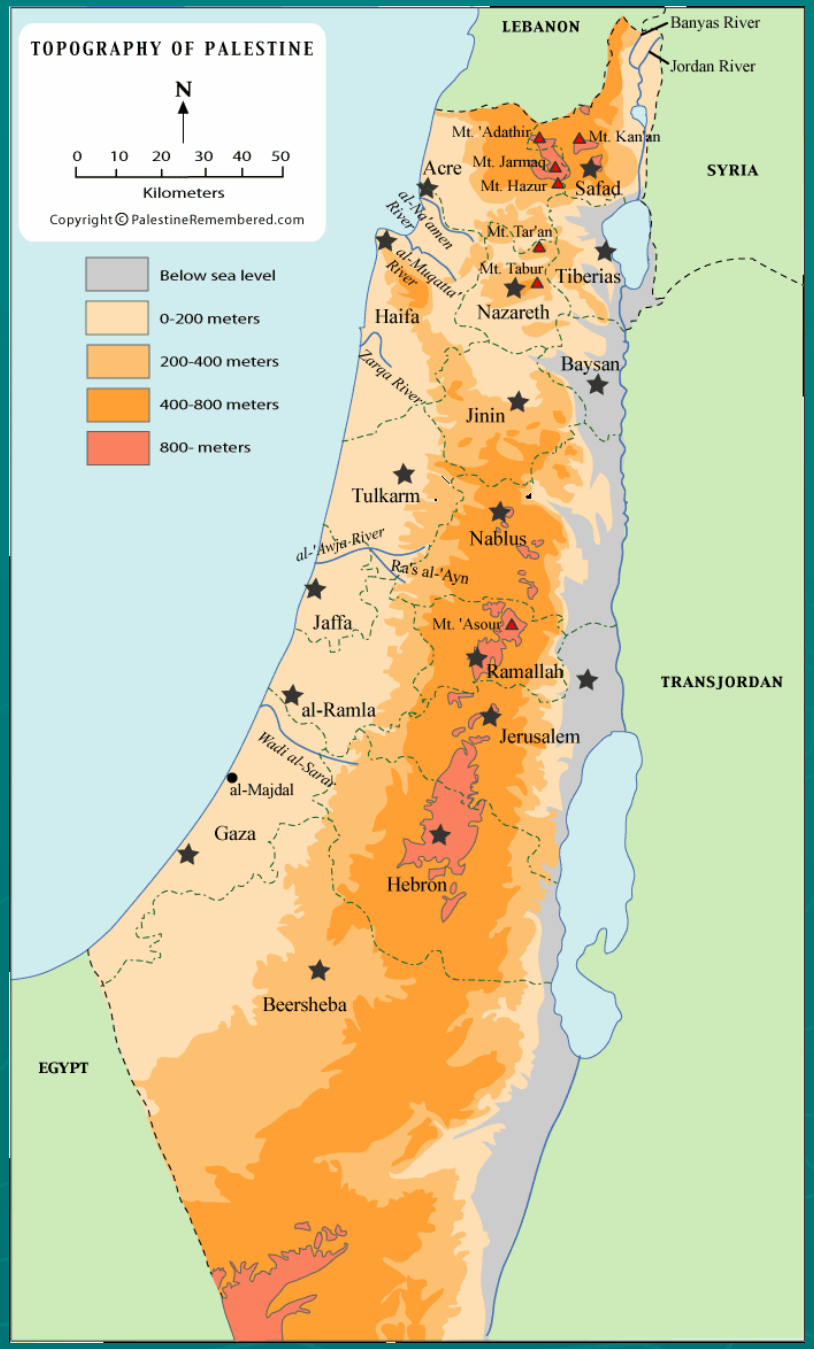
TOPOGRAPHY OF PALESTINE

N

0 10 20 30 40 50

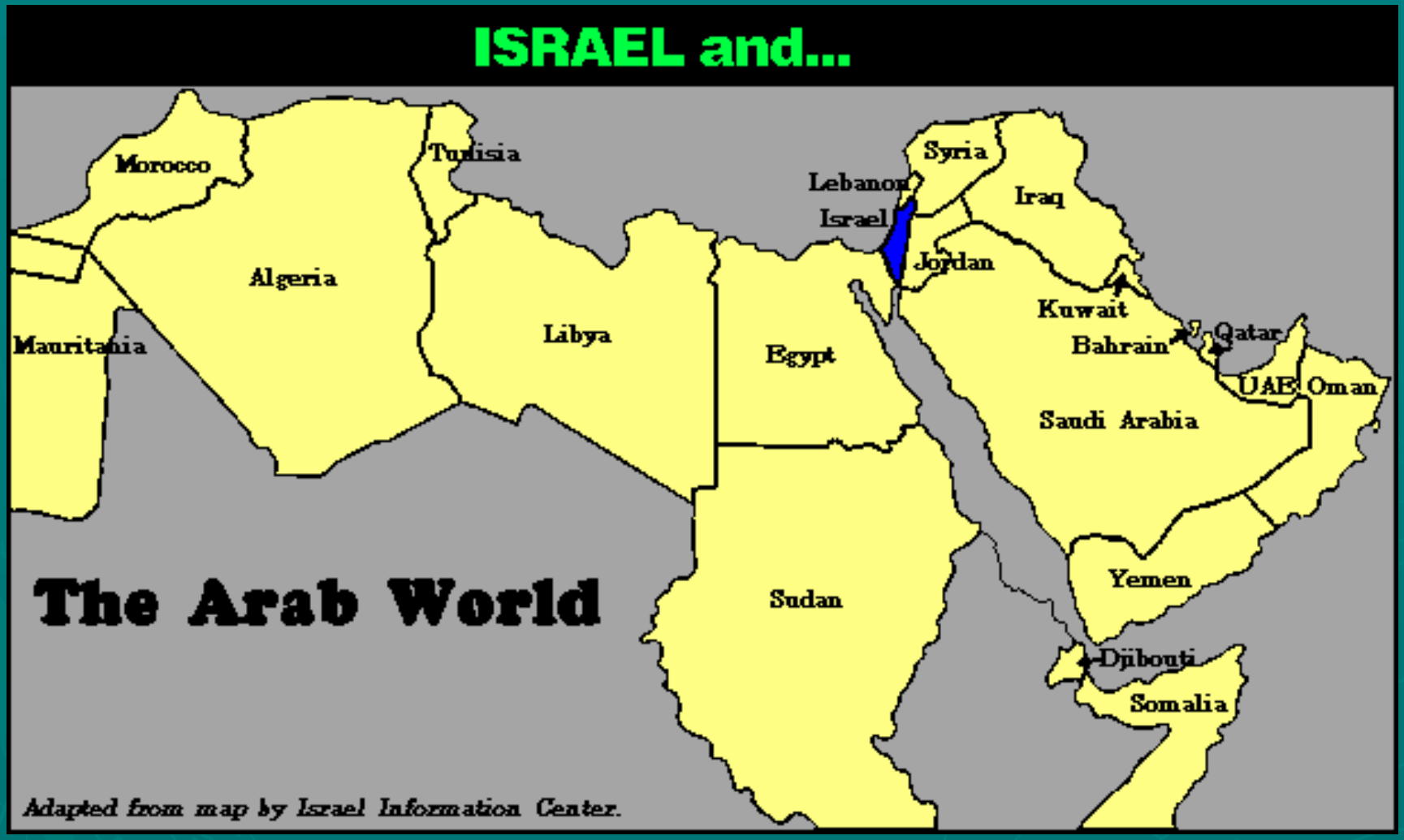
Kilometers

Copyright © PalestineRemembered.com



"Invalid Palestinian Arab Maps," from www.palestinefacts.org, maintained by the Jewish Agency for Israel

"Anti-Israel forces have made an industry out of producing invalid maps that either deny the existence of Israel altogether or distort the history and modern situation."



From www.landofisrael.info

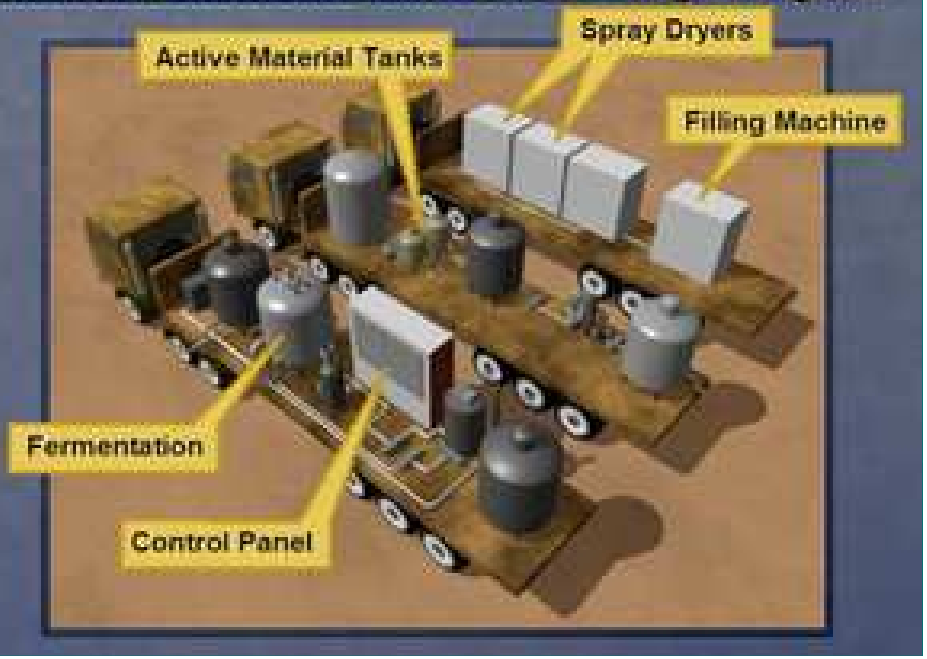
UNITED STATES

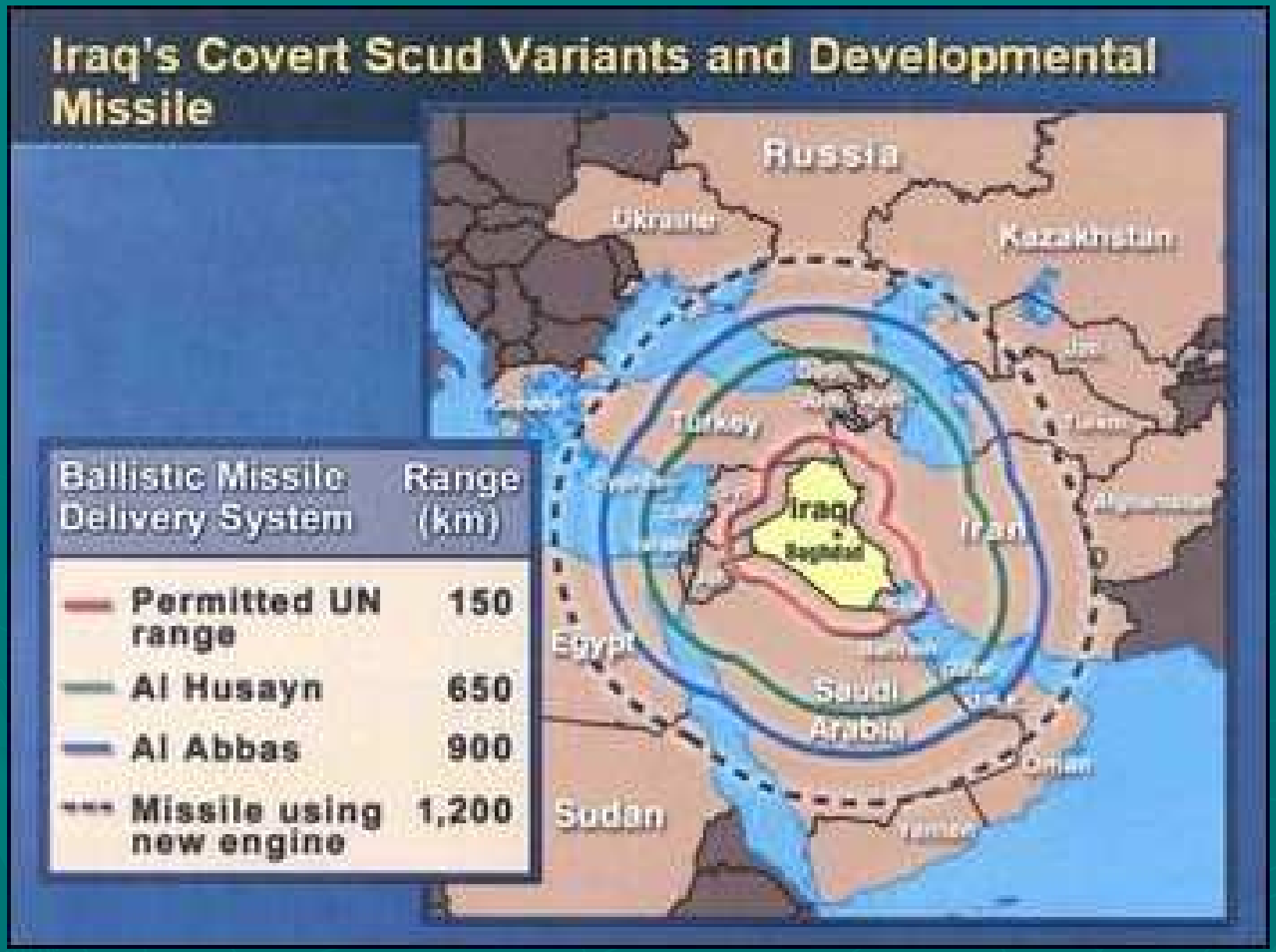
Pre-Inspection Al Fatah Missile Removal
Al-Musayyib Rocket Test Facility

Terrorist Poison and Explosives Factory, Khurmal

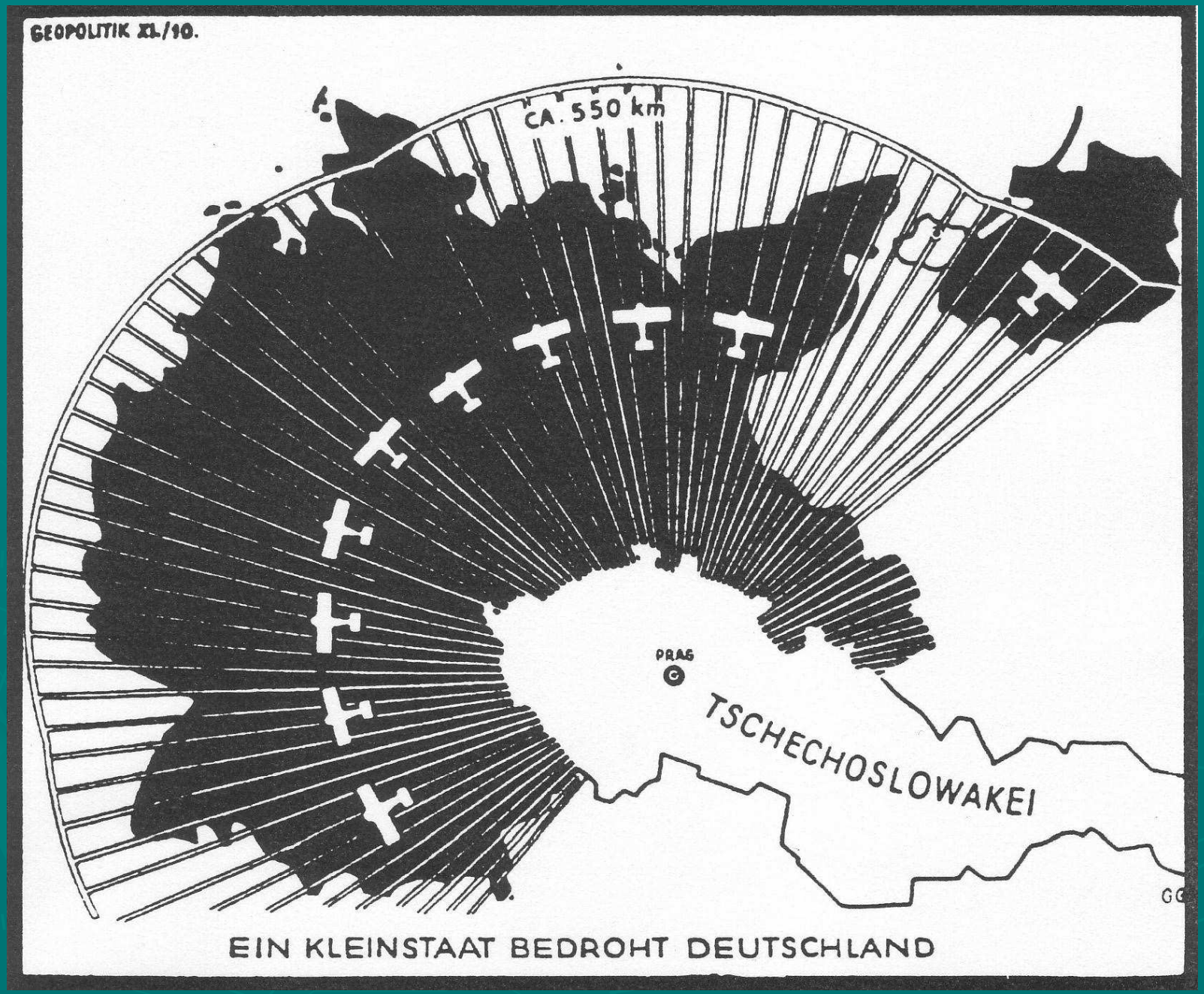
Sanitization of Ammunition Depot at Taji

Mobile Production Facilities For Biological Agents

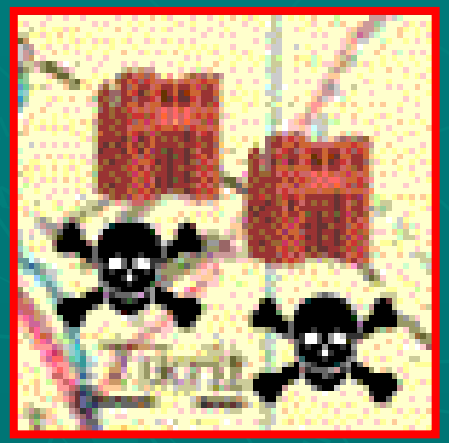


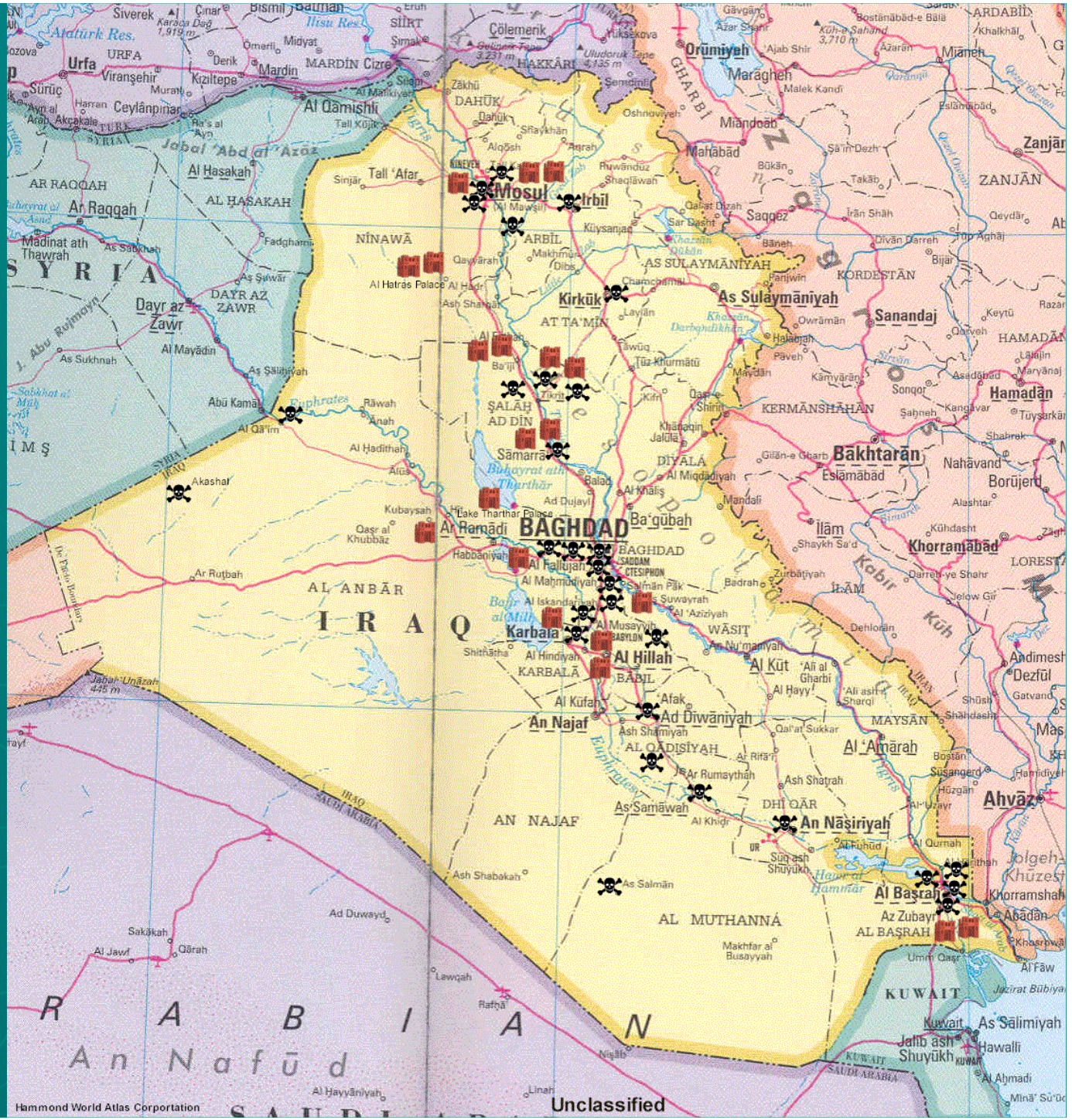


http://www.whitehouse.gov/news/releases/2003/02/20030205-1.html#34


GEOPOLITIK XI./10.
CA. 550 km
PRAG
TSCHECHOSLOWAKEI
EIN KLEINSTAAT BEDROHT DEUTSCHLAND

Website of Congressman Adam H. Putnam (Republican, 12th district, Florida)





aramchek.net/archives/ 2003/11/20/dodleak.html

obleek. portfolio of tim klimowicz. - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.obleek.com/

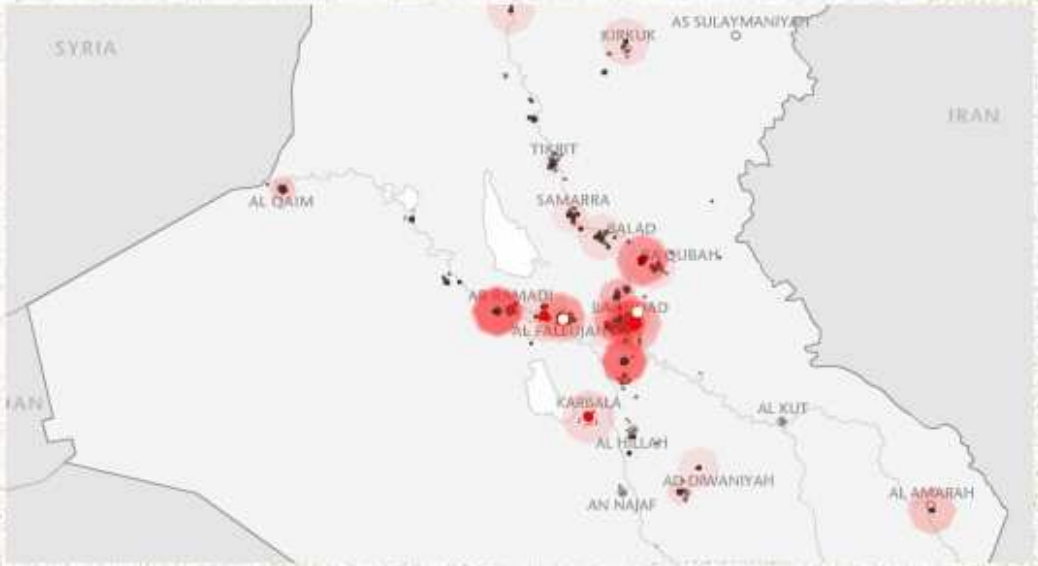
Syracuse Weather For... SU Catalog & Databases Oxford English Diction... Wikipedia, the free en... Time Warner Cable

Empire Zones, Tax and Financia... Google Image Result for http://... obleek. portfolio of tim klimo...

TIM KLIMOWICZ
graphic designer

PRINT
INTERACTIVE 1 2 3 4
MISC
PHOTO

RESUME
CONTACT



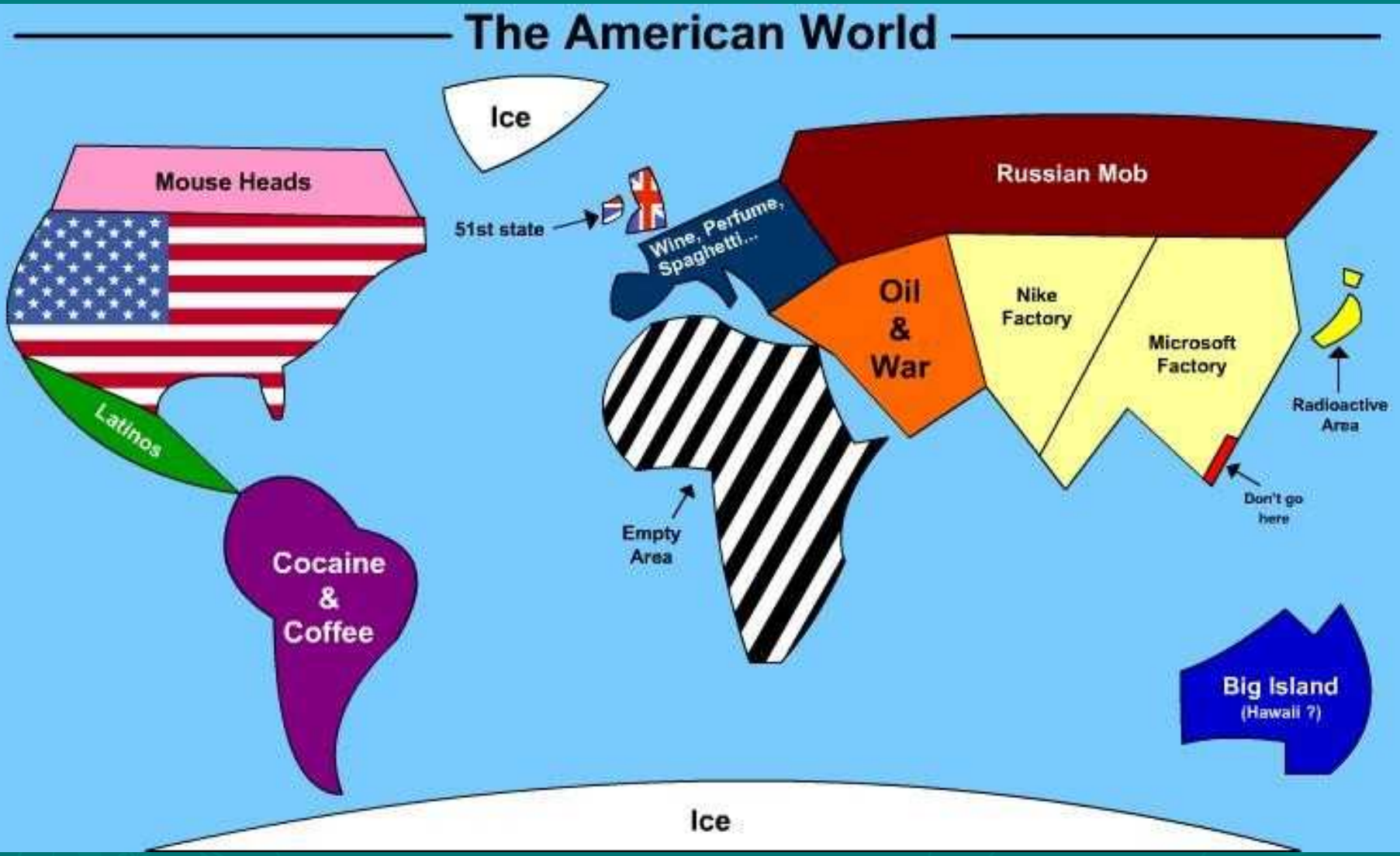
Iraq War Fatalities
interactive Flash site

LAUNCH

Find: Iraq Next Previous Highlight all Match case

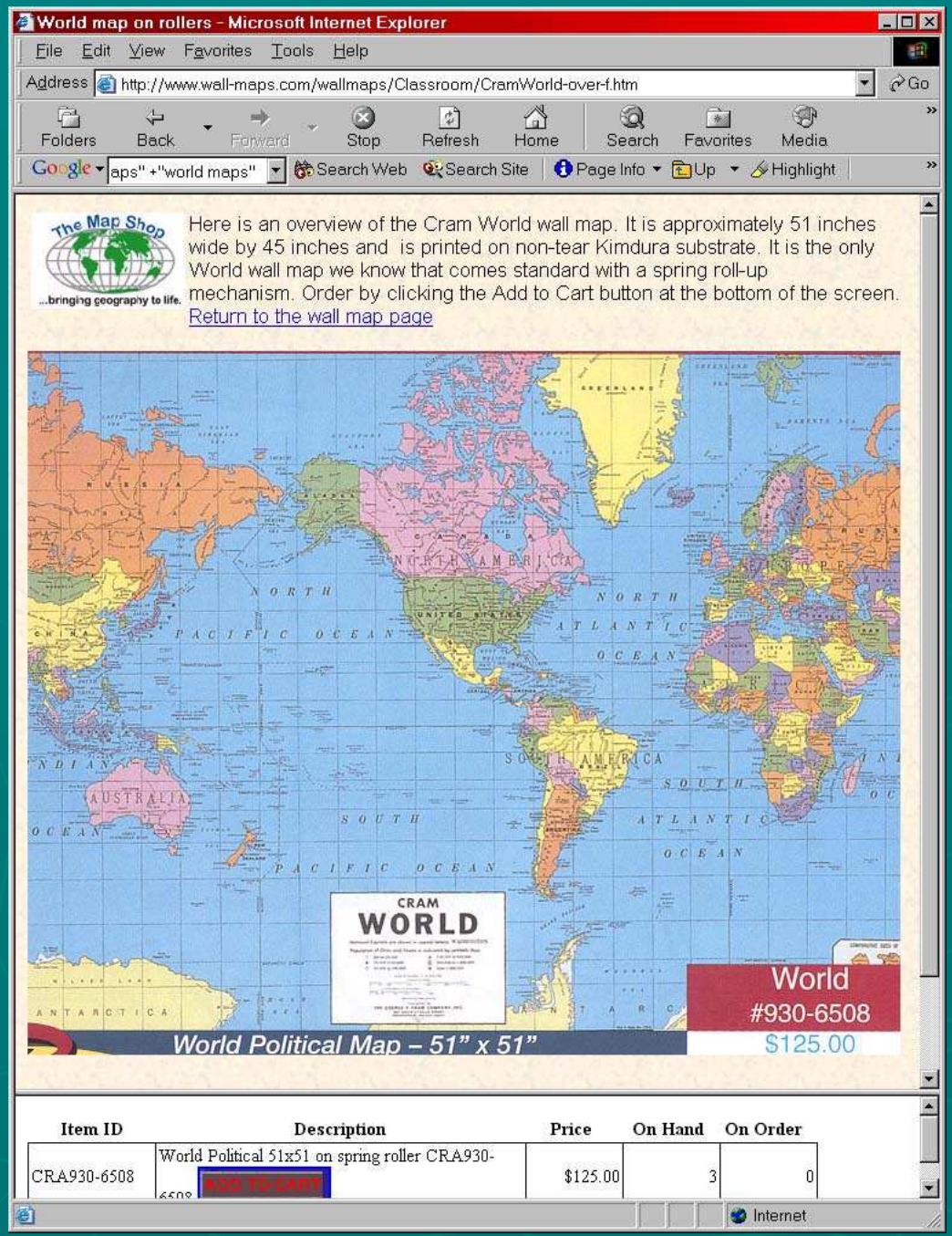
Transferring data from www.obleek.com...

Now: Cloudy and 51°F Today: 55°F Mon: 51°F



Sources include:
www.omogenia.com/.../31800/an//page/6/vc/1

From
www.wall-maps.com



Peters Map Corporate Seminar Pack

Part No	Description	List Price	Qty to Order
MAP149	Peters Map Corporate Seminar Pack	$149.00	0

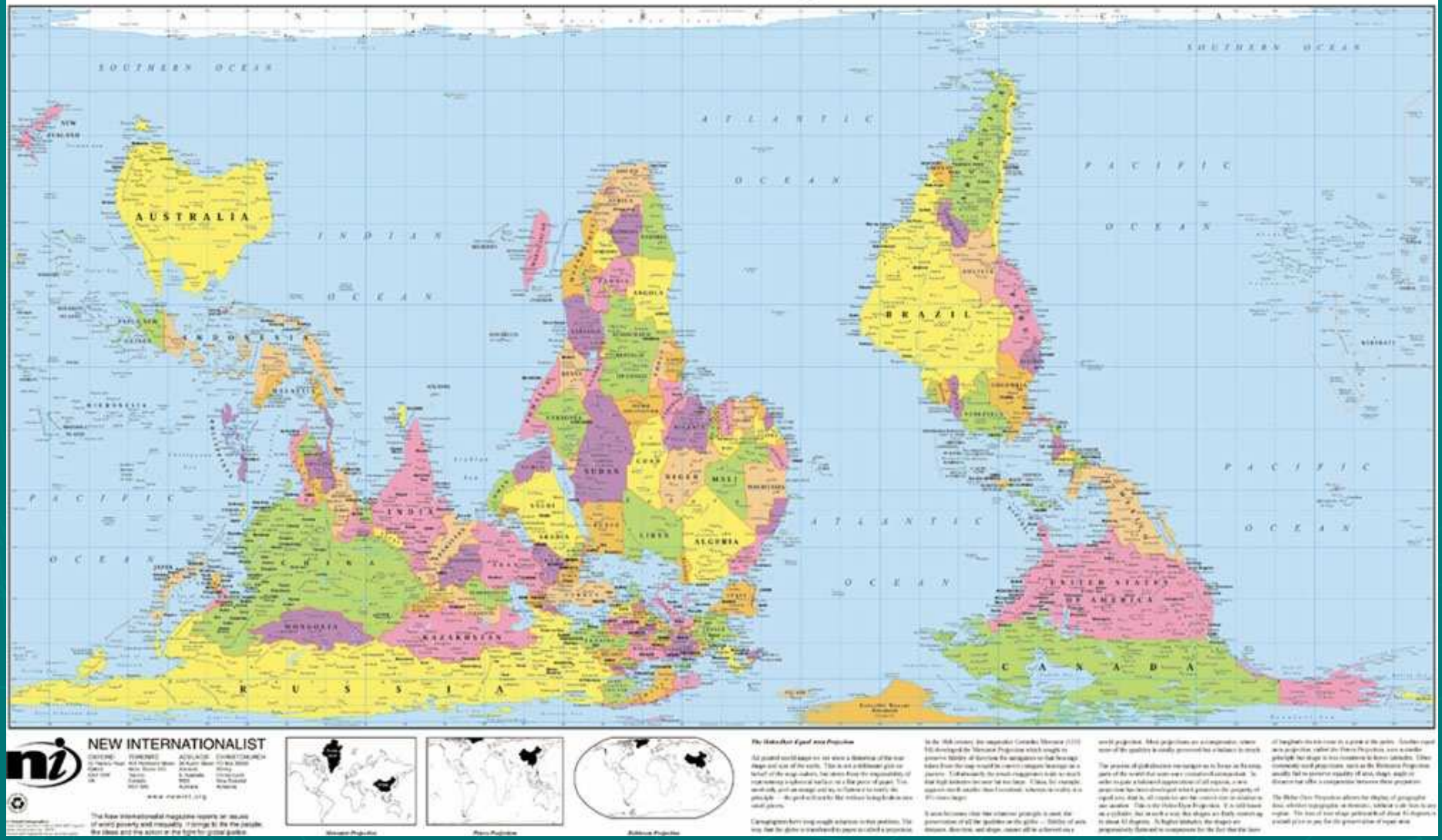
Order This Item

Main

From www.odt.com

If you want to conduct training sessions with the Peters map, here is our recommended collection of resources that will enable you to deliver a high impact presentation. The "Corporate Seminar Pack" includes copyright permission to reproduce two key handouts on an unlimited basis at the location for which you are purchasing this product. Consultants or companies who wish to service multiple clients or multiple locations should contact **ODT** at **800-736-1293** for special pricing plans. In addition to the $149 Corporate Seminar Pack below, **ODT** also provides a complete set of overhead transparencies or 35 mm slides for increased visual impact of your presentation. The slide/overhead package is $250.00 additional.

The World turned Upside Down

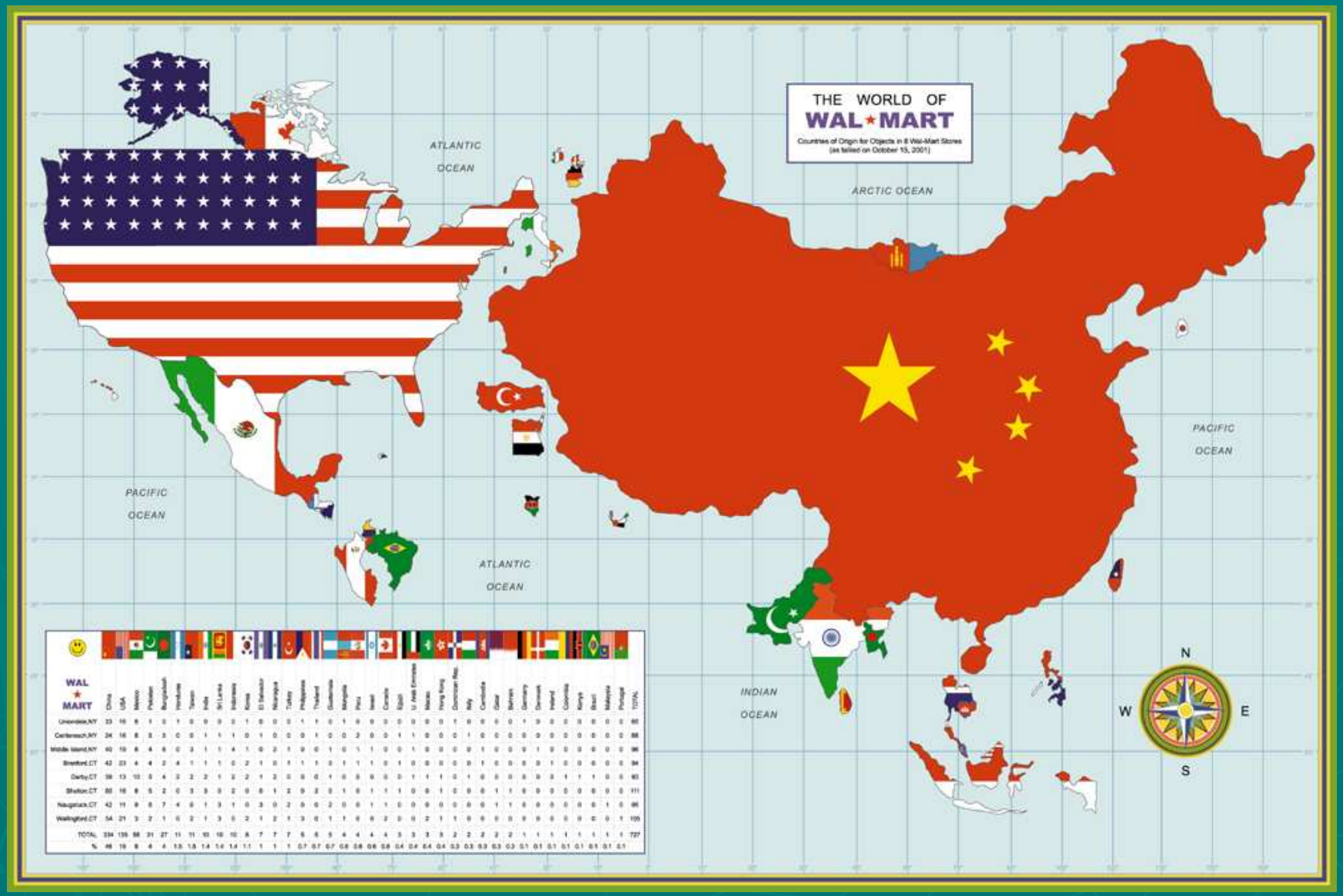


Also from http://www.odt.org/

The Population Map: Each country is shown proportional to its population.
Each square of the grid on the map represents a million people.

From the perspective of population, China is the biggest country in the world!
India is not far behind. The USA is the third largest. Can you guess number four?

Also from http://www.odt.org/



Sources include:
picasaweb.google.com/.../dSTIPPDiDf0kTs5ZZGDhMA

Worldmapper: The world as you've never seen it before - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.worldmapper.org/

worldmapper

Syracuse Weather For... SU Catalog & Databases Oxford English Diction... Wikipedia, the free en... Time Warner Cable

Google worldmapper Search Bookmarks Check AutoLink Settings

Empire Zon... Google Ima... obleek. port... obleek. port... Iraq War Co... Google Ima... Worldm...

WORLDMAPPER

The world as you've never seen it before

Search for a map: Go

Home | Map Categories | Thumbnail Index | A-Z Map Index | About Worldmapper | Help

Worldmapper is a collection of world maps, where territories are re-sized on each map according to the subject of interest.
There are now nearly 600 maps. Maps 1-366 are also available as PDF posters. Use the menu above to find a map of interest.

Reference maps ...

Total Population

Land Area

Labelled Map

Appendix A (Areas included)

Newest maps ...

Religious

Morphing animation

Christians

Muslims

A bit more about Worldmapper ...

- Use 'Map Categories' or 'Thumbnail Index' to choose a map
- A large PDF poster is provided with each map for printing
- Maps by Mark Newman, data by Danny Dorling, text by Anna Barford, quality control by Ben Wheeler, website by John Pritchard and poster design by Graham Allsopp.

Latest News ...

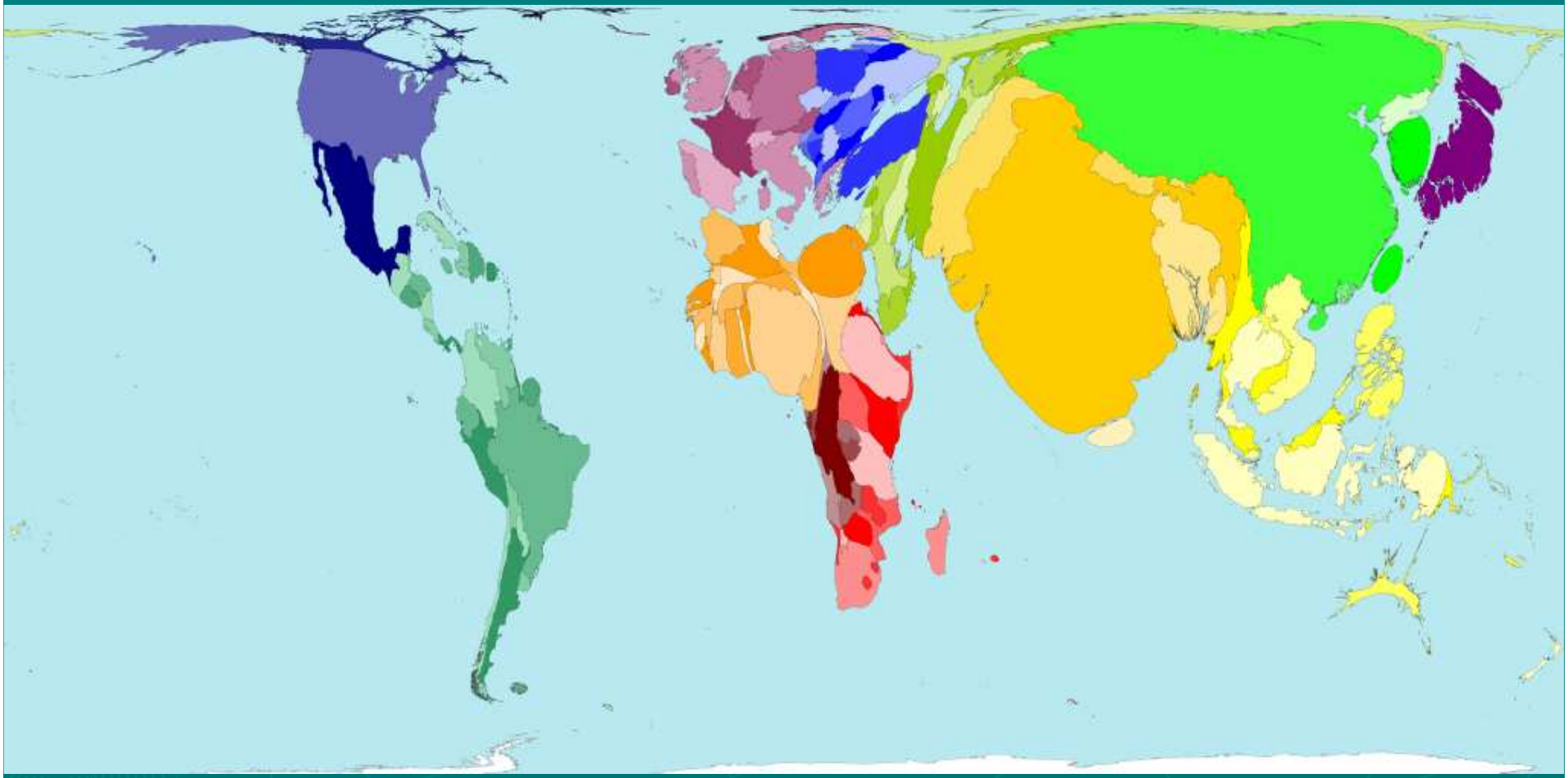
- 26th March 2008: A new series of maps on the subject of Religion is available. View religion map index...
- 19th January 2008: Worldmapper animation displayed at mapping exhibition. View animation (note 14MB!)
- More news ...

URL: www.worldmapper.org

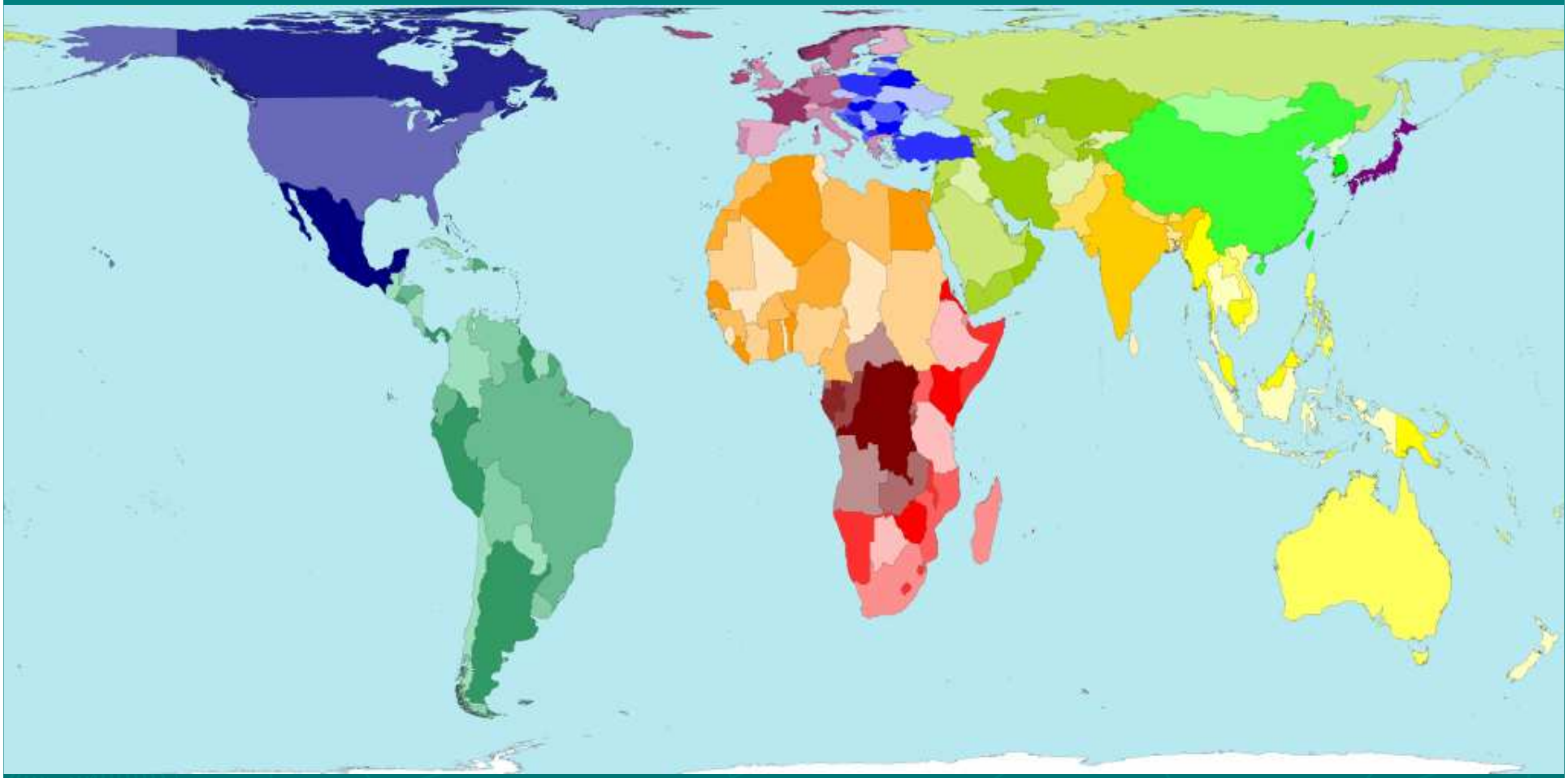
The University Of Sheffield. | University of Michigan | The Leverhulme Trust | Geographical Association

Done Now: Cloudy and 51°F Tonight: 41°F Mon: 51°F

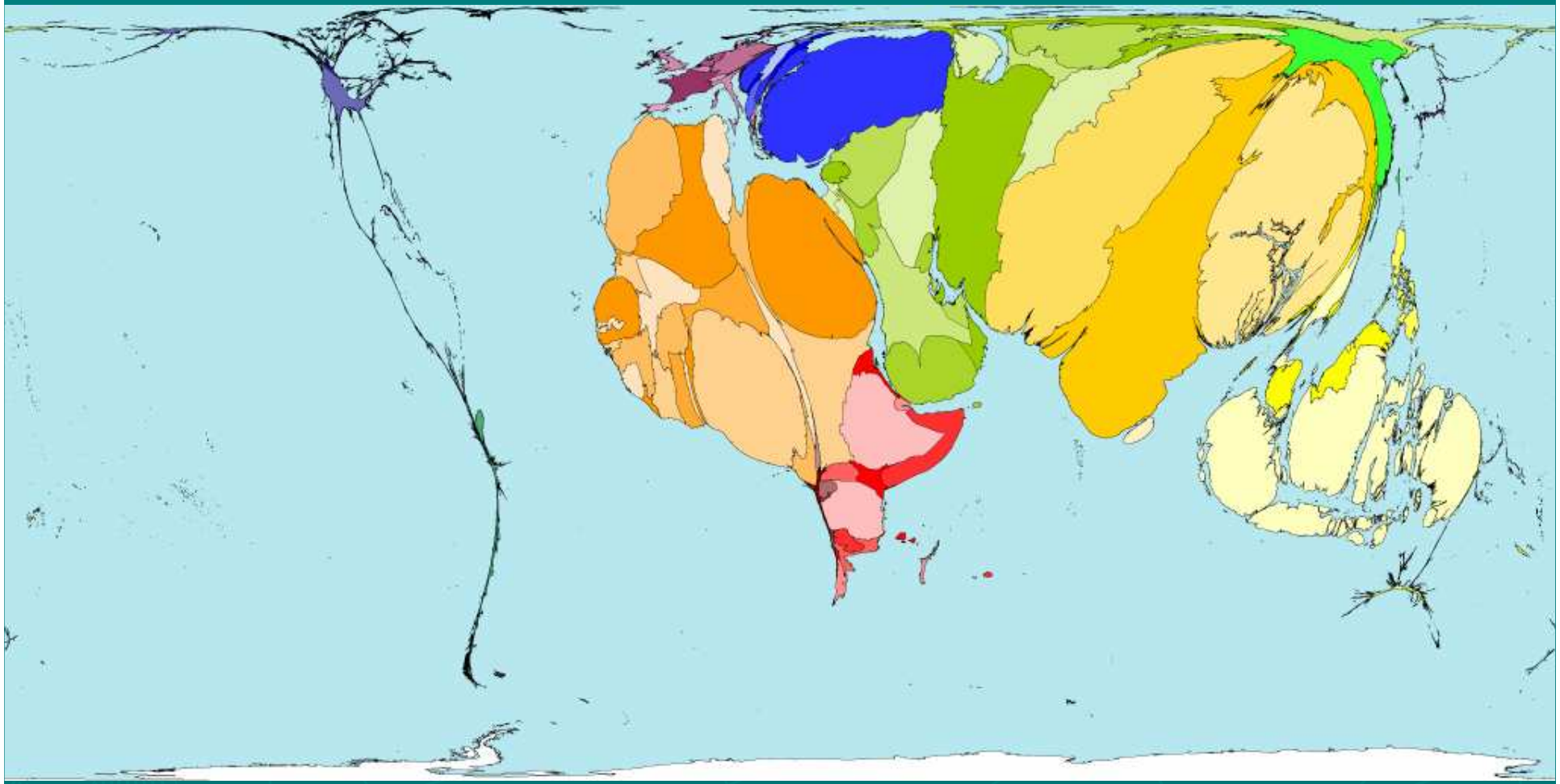
Worldmapper: Total Population



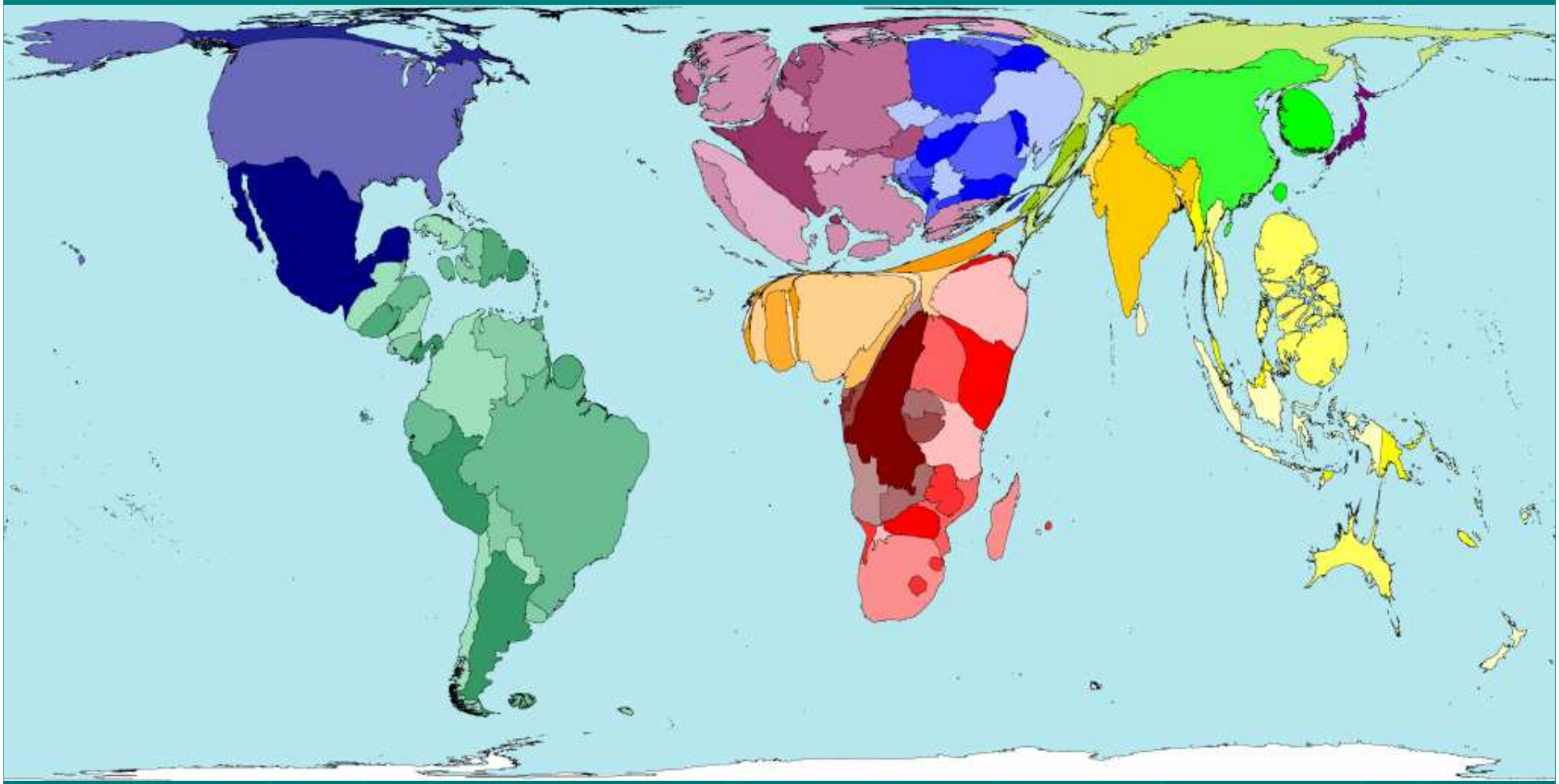
Worldmapper: Land Area



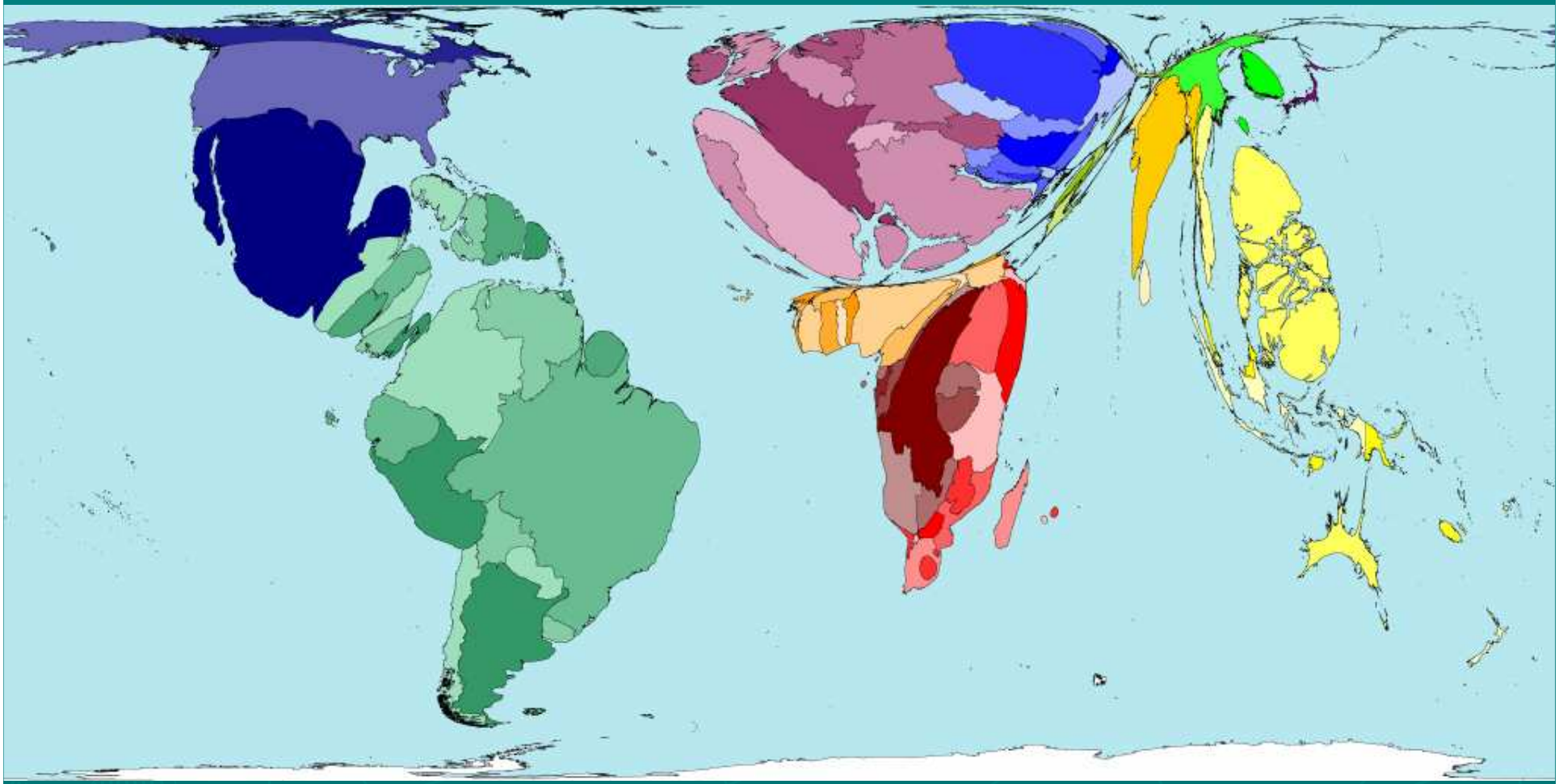
Worldmapper: Muslims



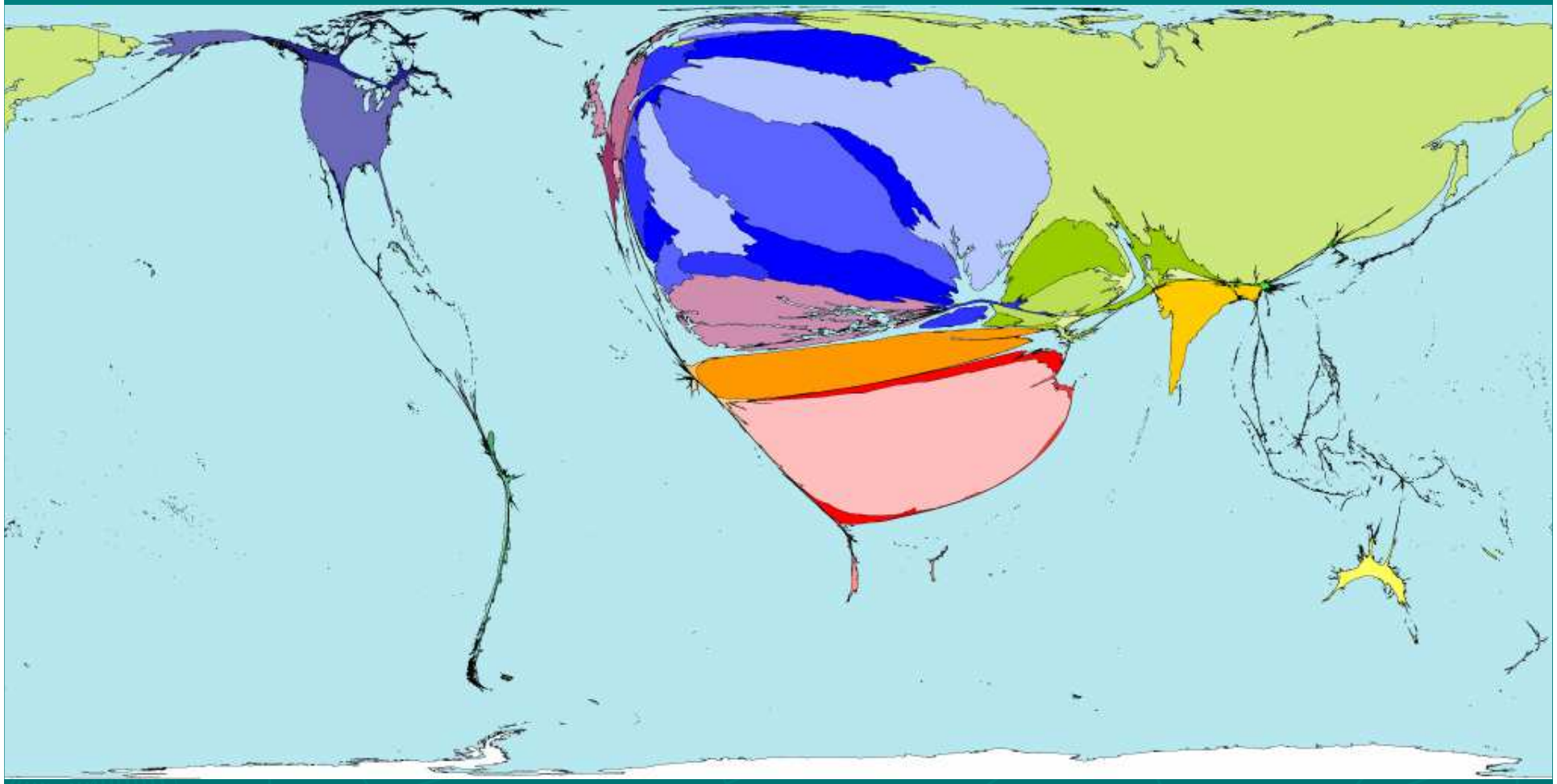
Worldmapper: Christians



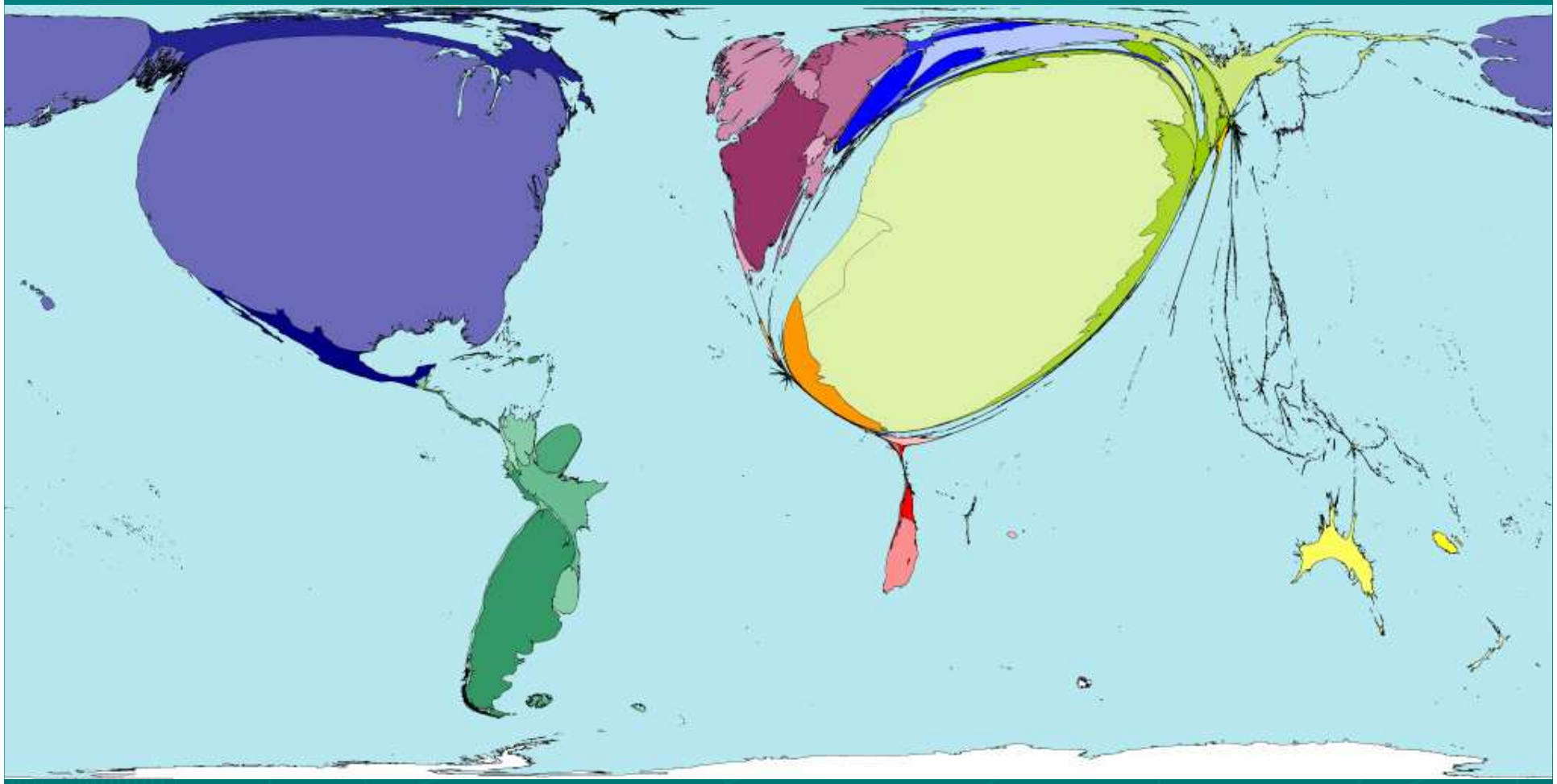
Worldmapper: Roman Catholics



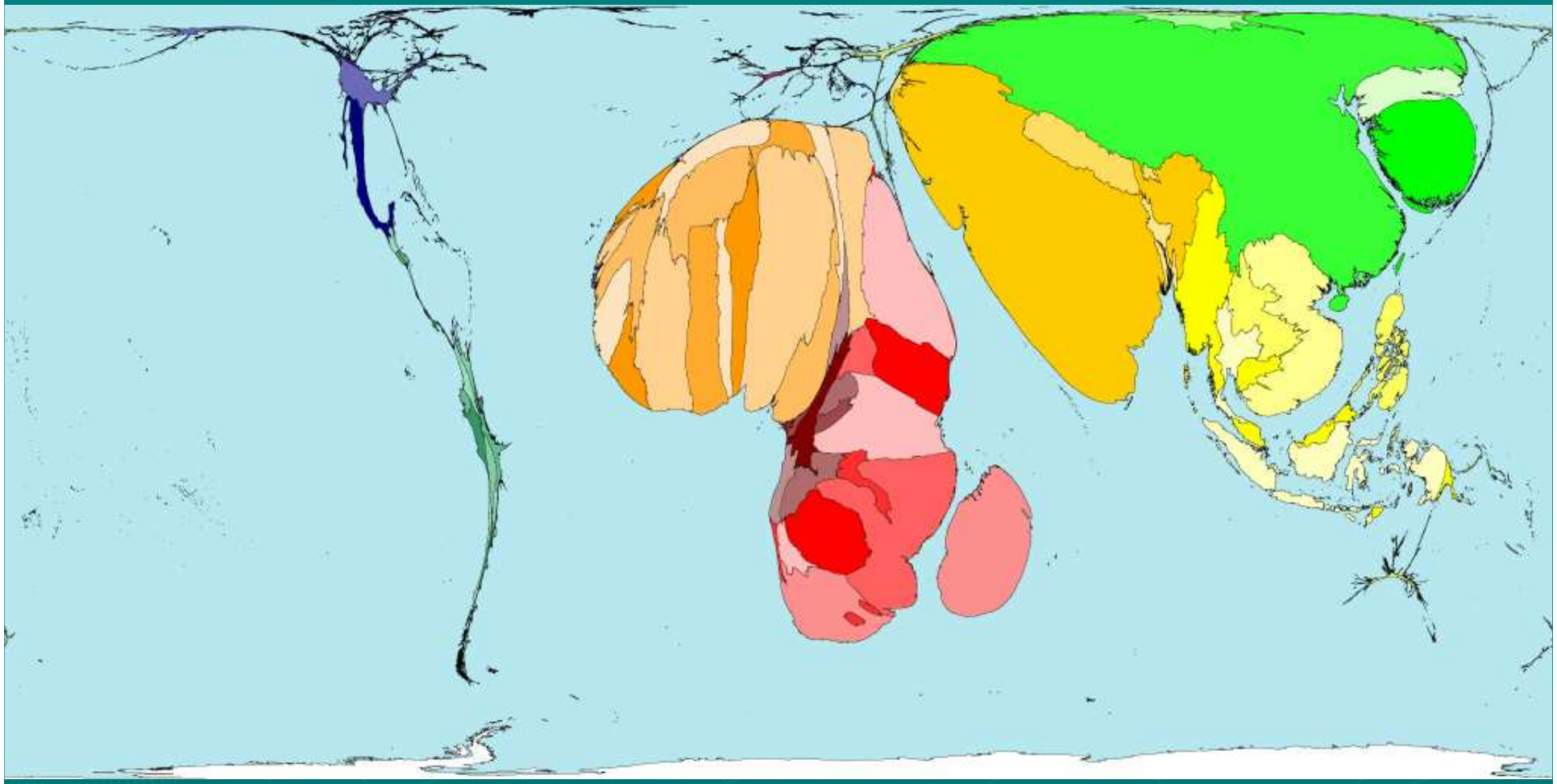
Worldmapper: Orthodox Christians



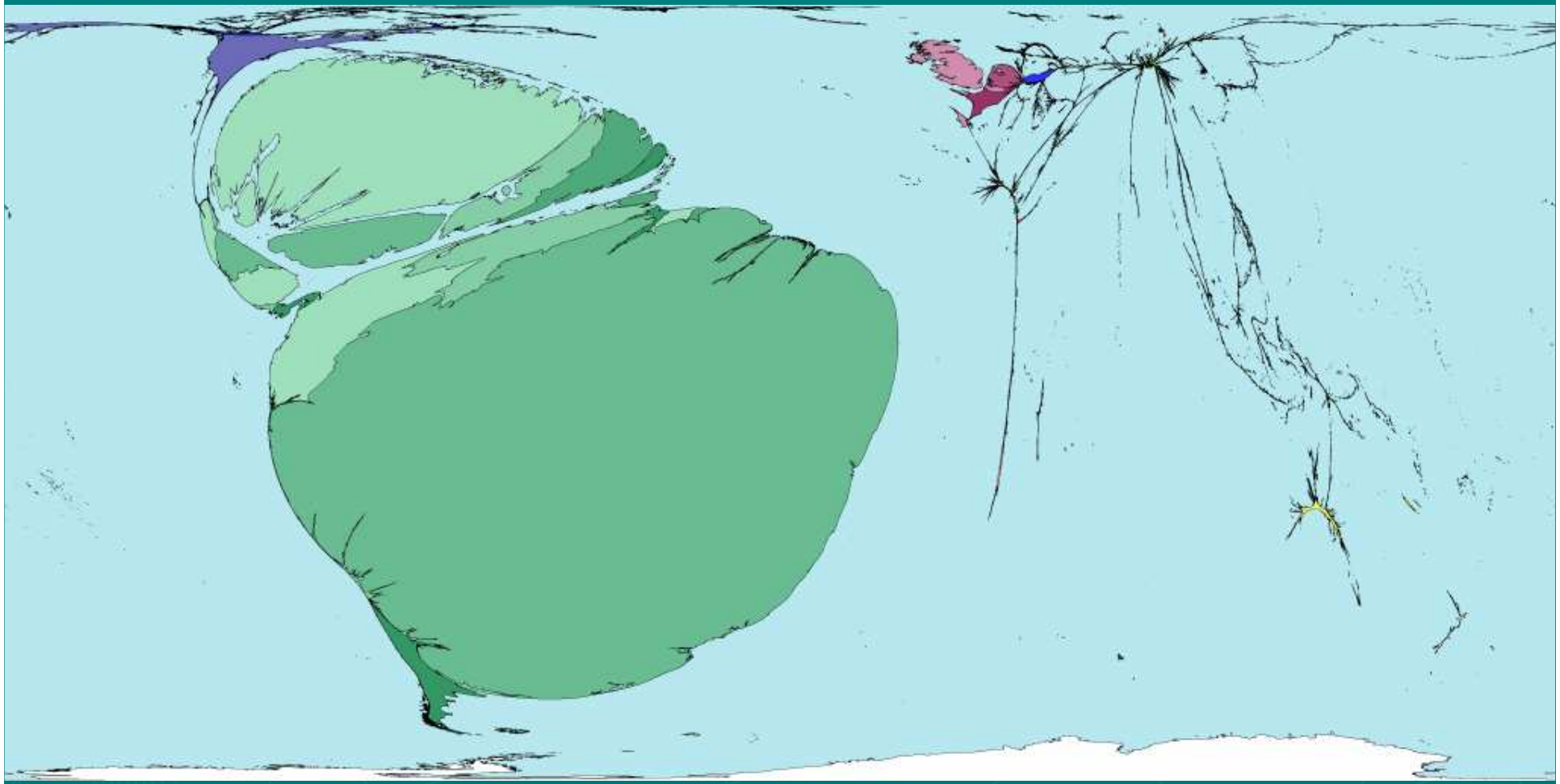
Worldmapper: Jews



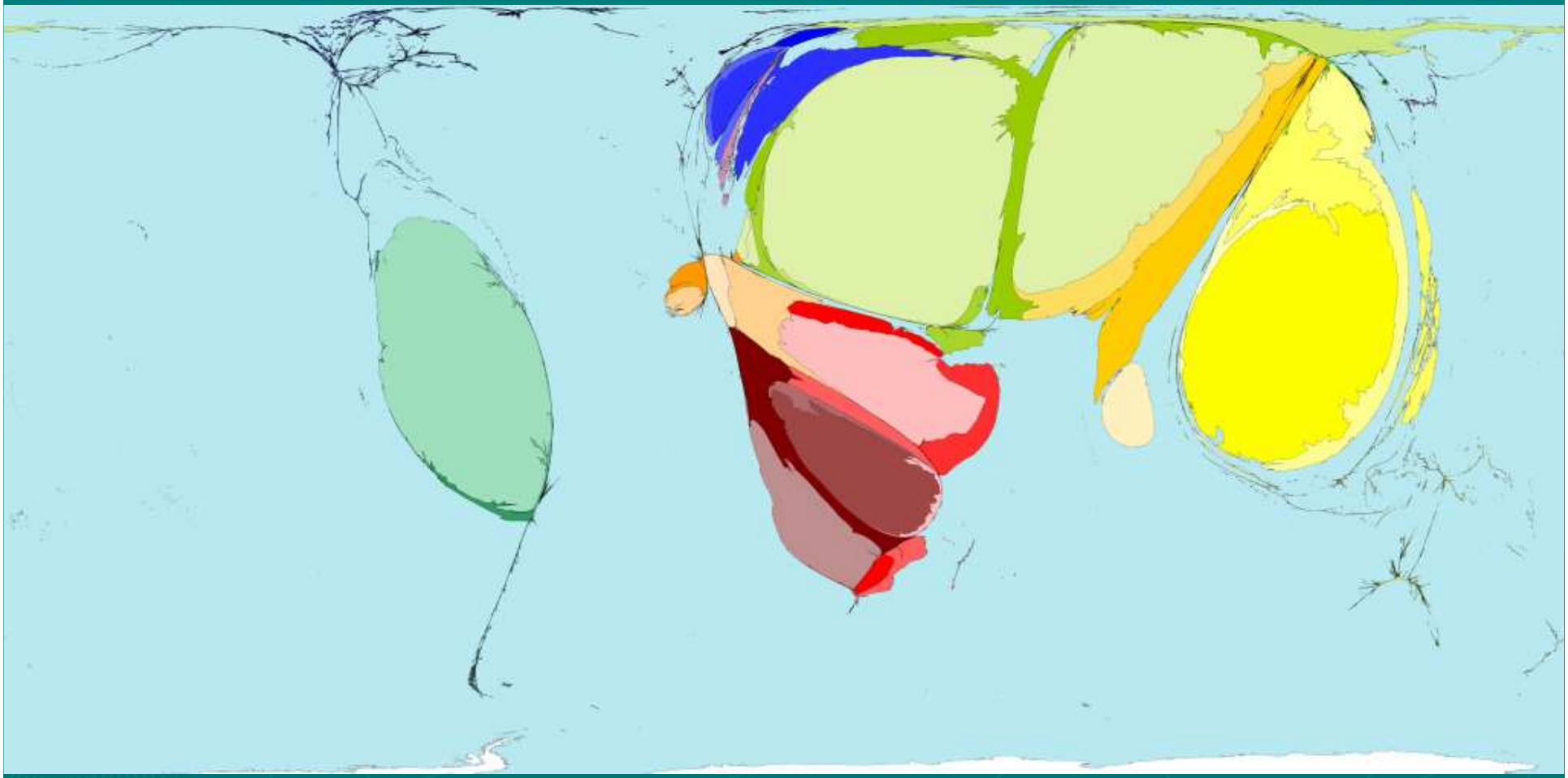
Worldmapper: Pagans



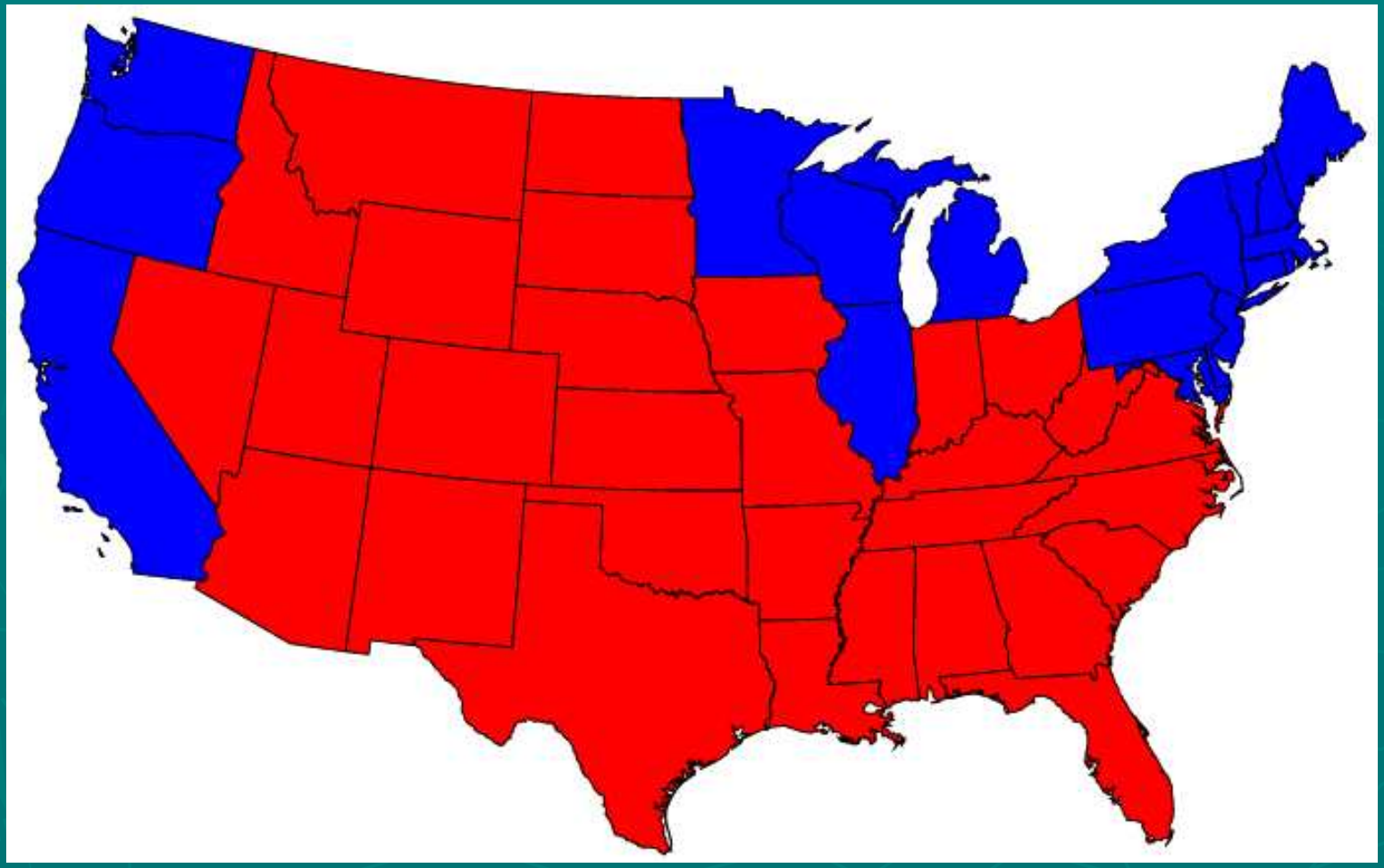
Worldmapper: Spiritualists



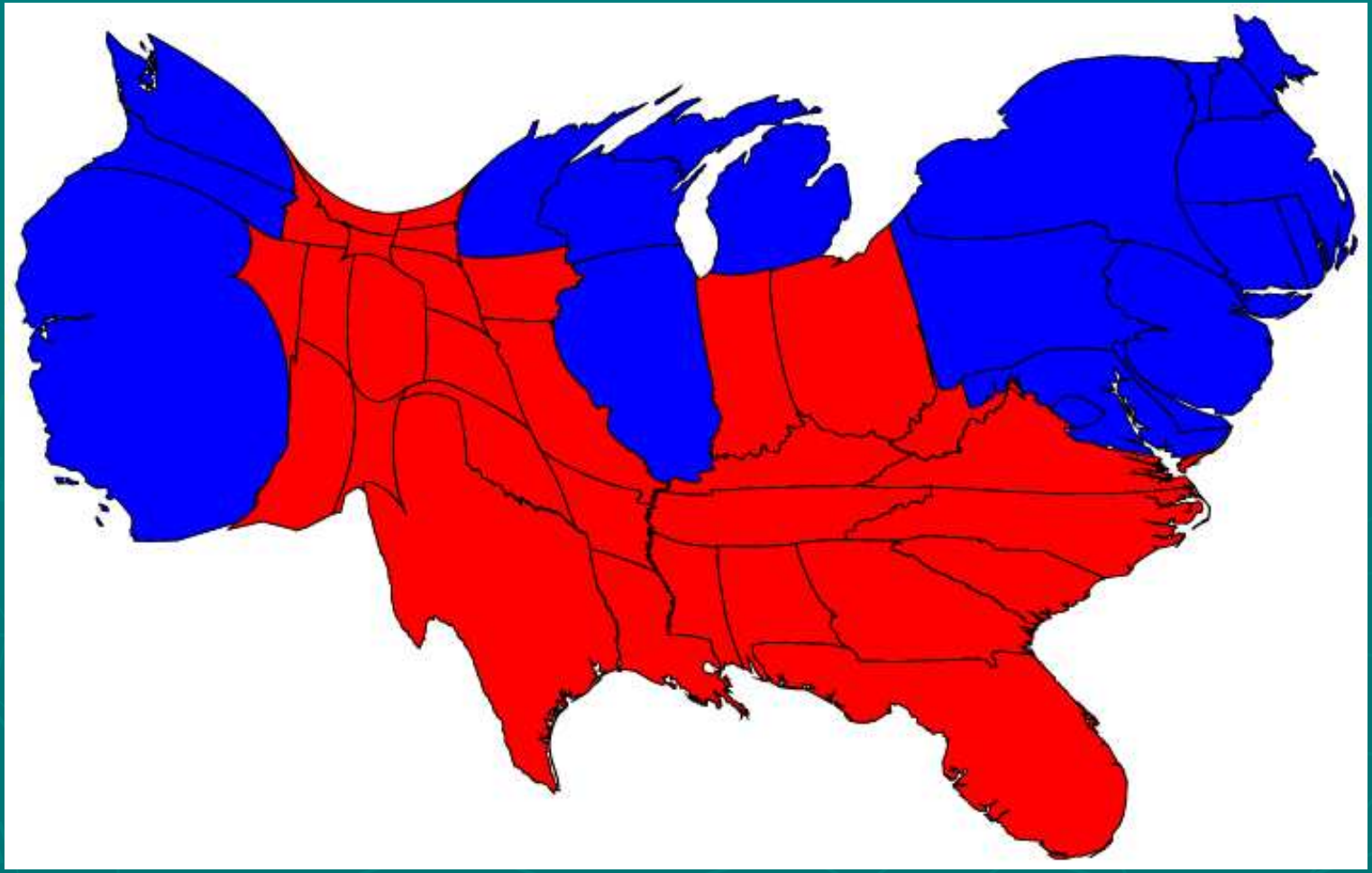
Worldmapper: Landmine Casualties



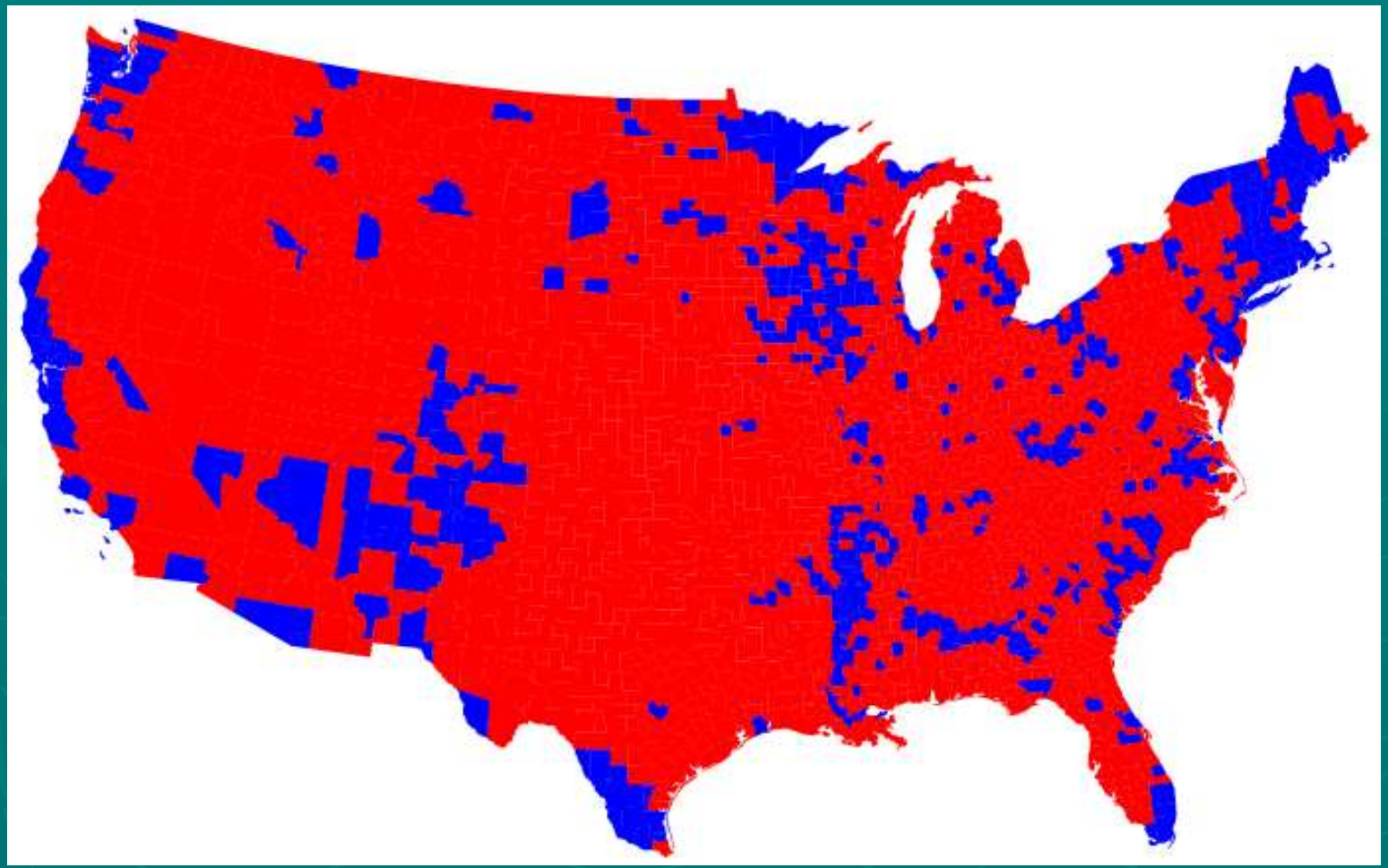
Election 2004: by land area, winner take all



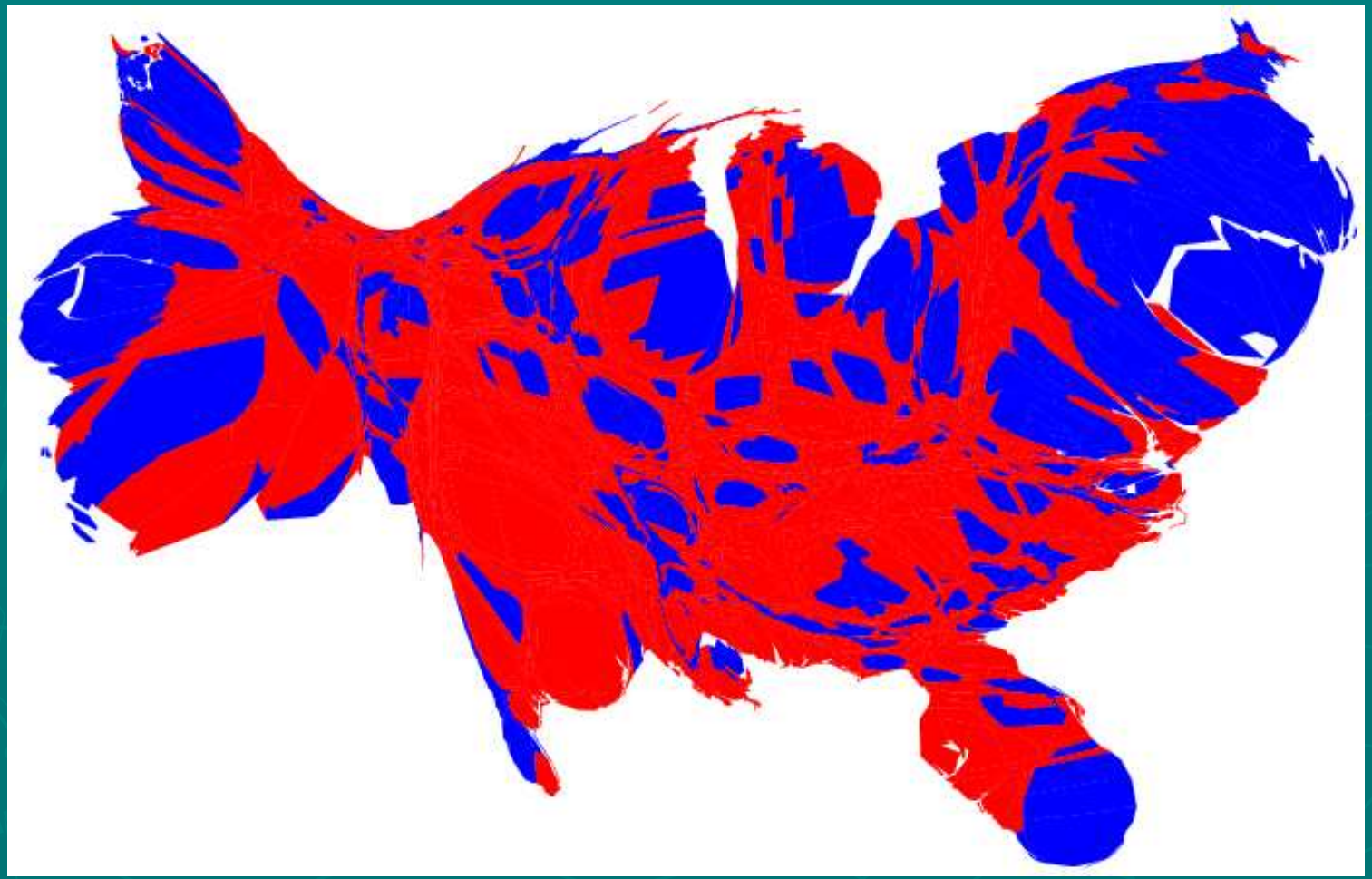
Election 2004: by population, winner take all



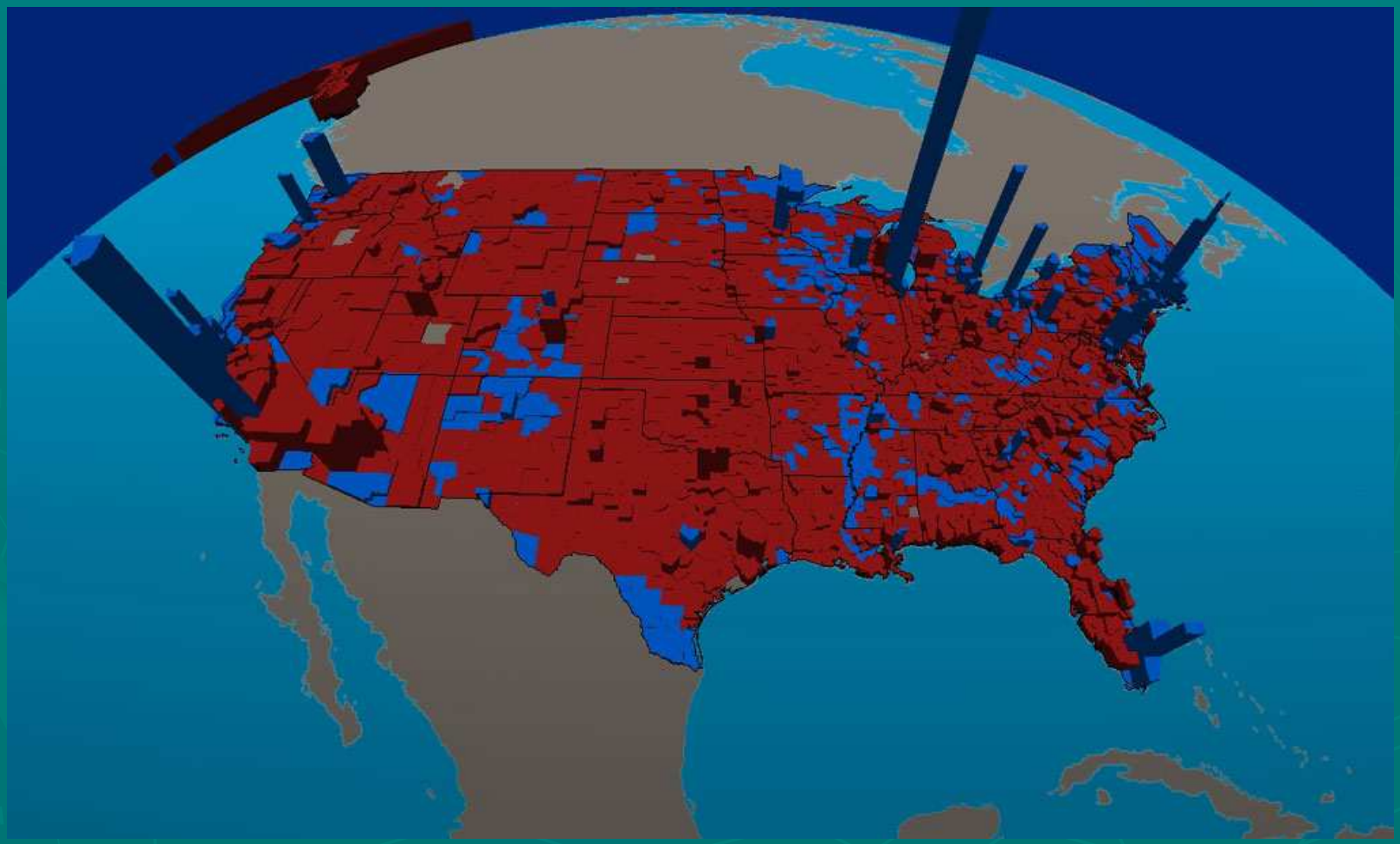
Election 2004: by county and land area



Election 2004: by county with population

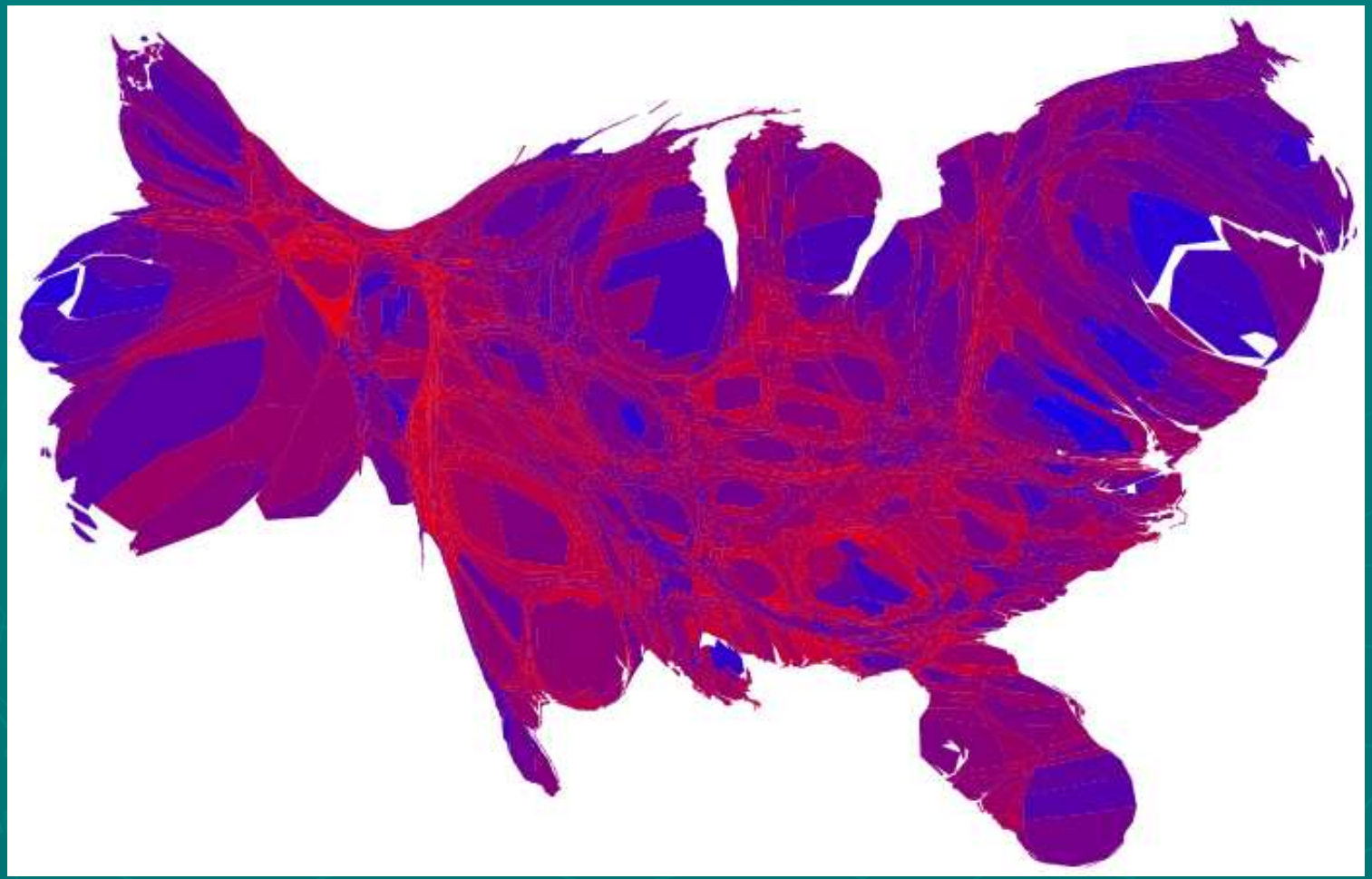


Election 2004: by county, with population by prism



Election 2004: by state, purple haze

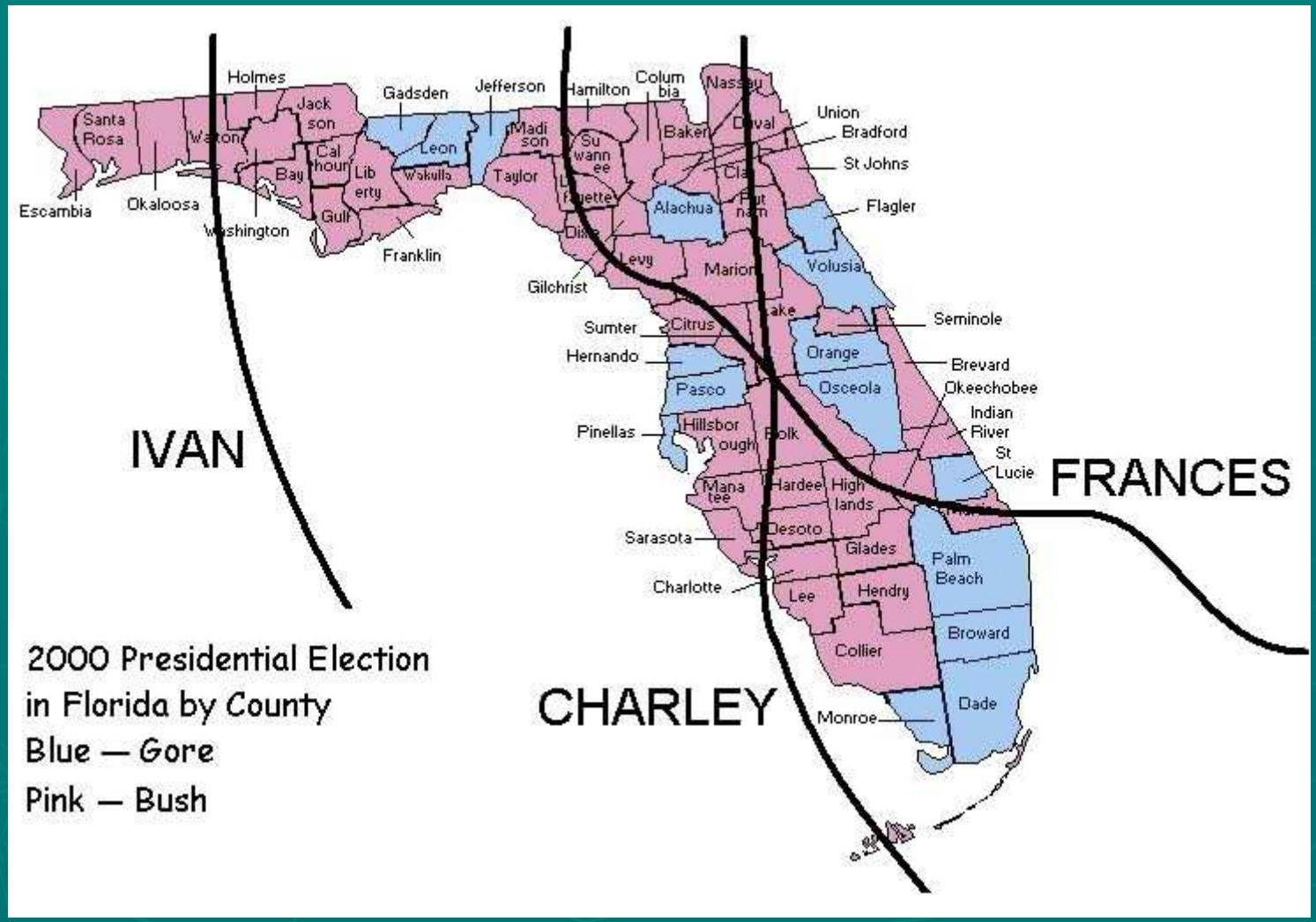
Election 2004: by county, purple haze



Designed by Sarah Fabrikant

Election 2004: reaction to the "religious right"

Election 2004: "serves 'em right"

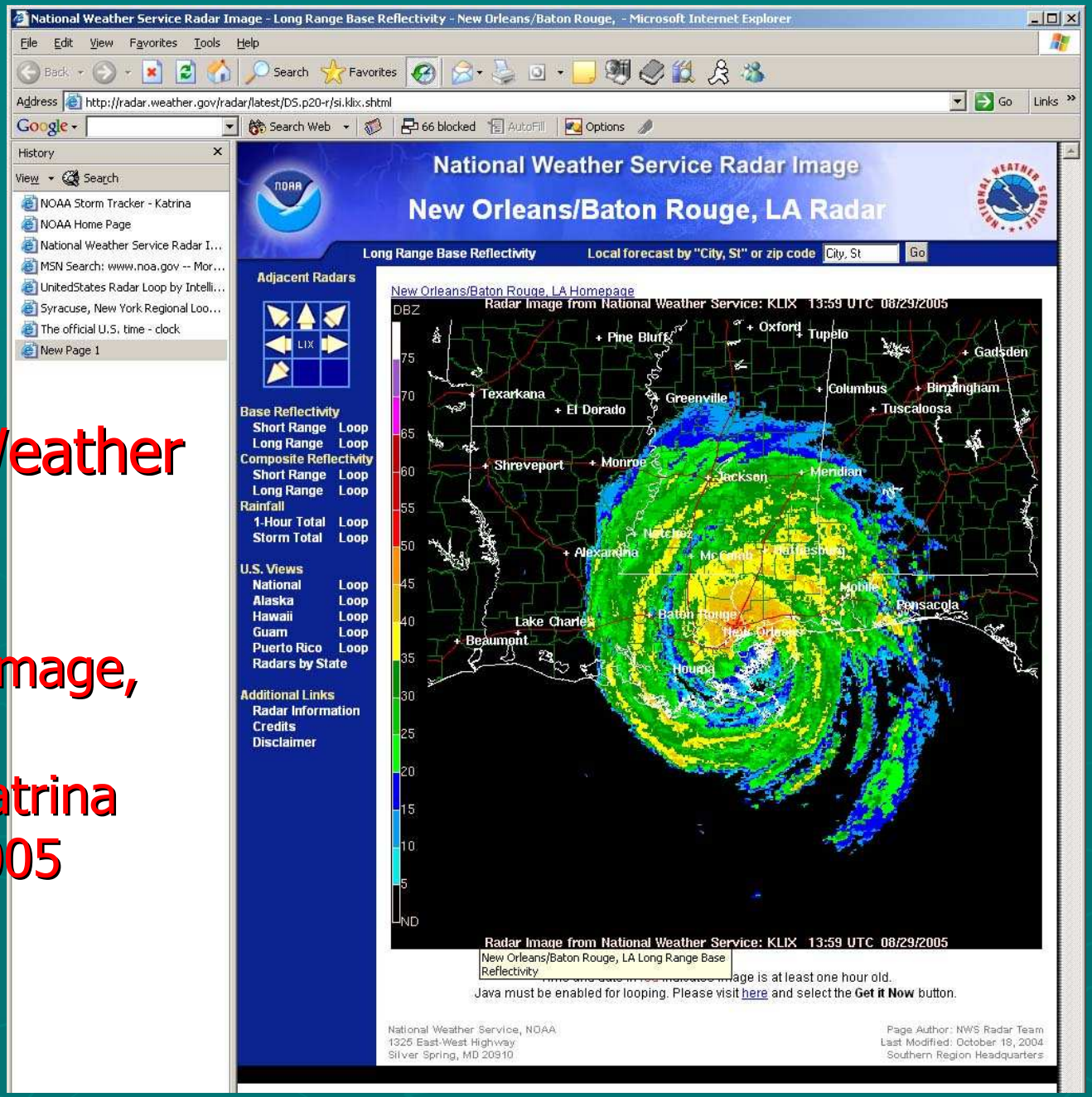


Putin's Land Grab

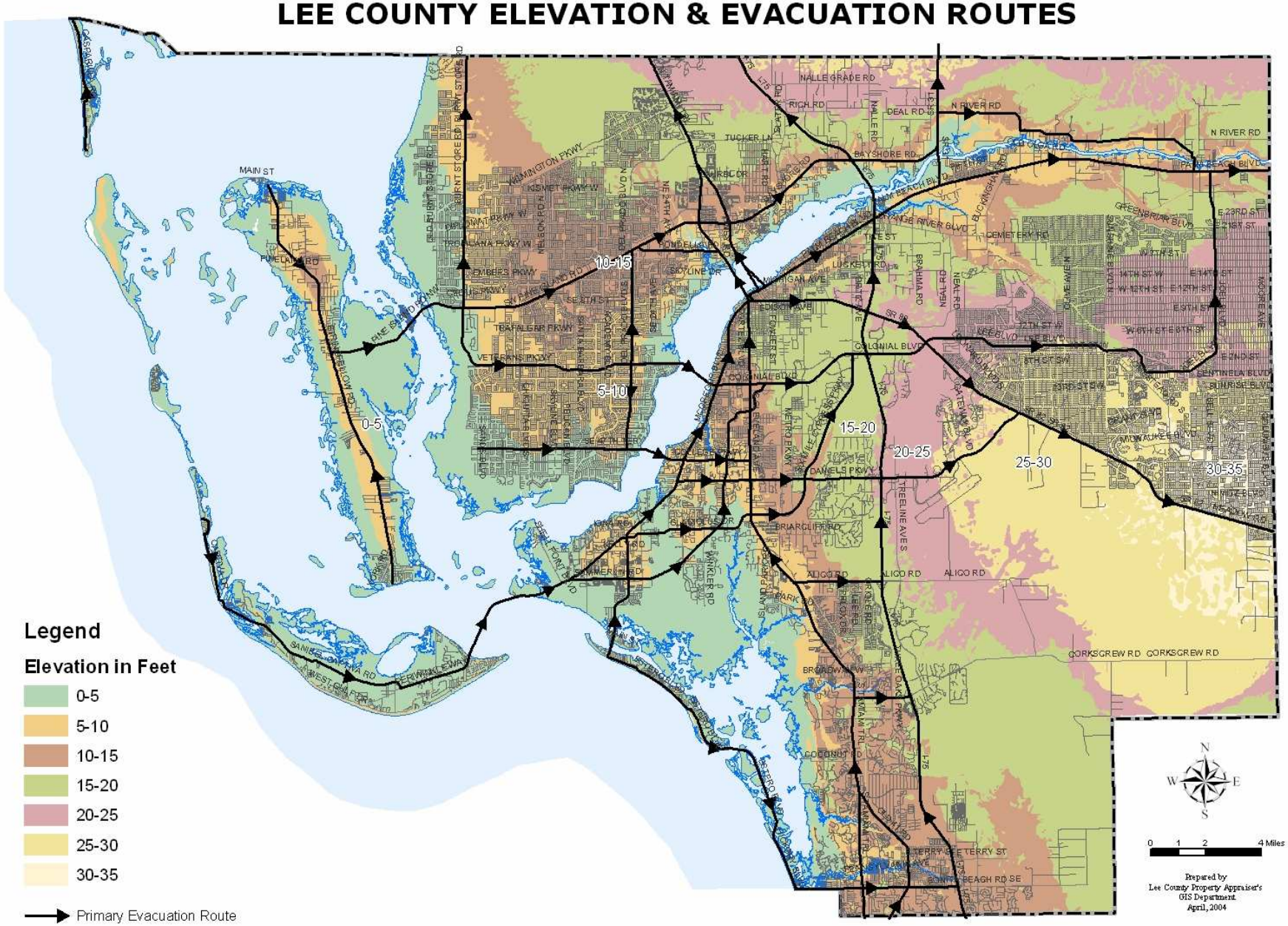
EYC

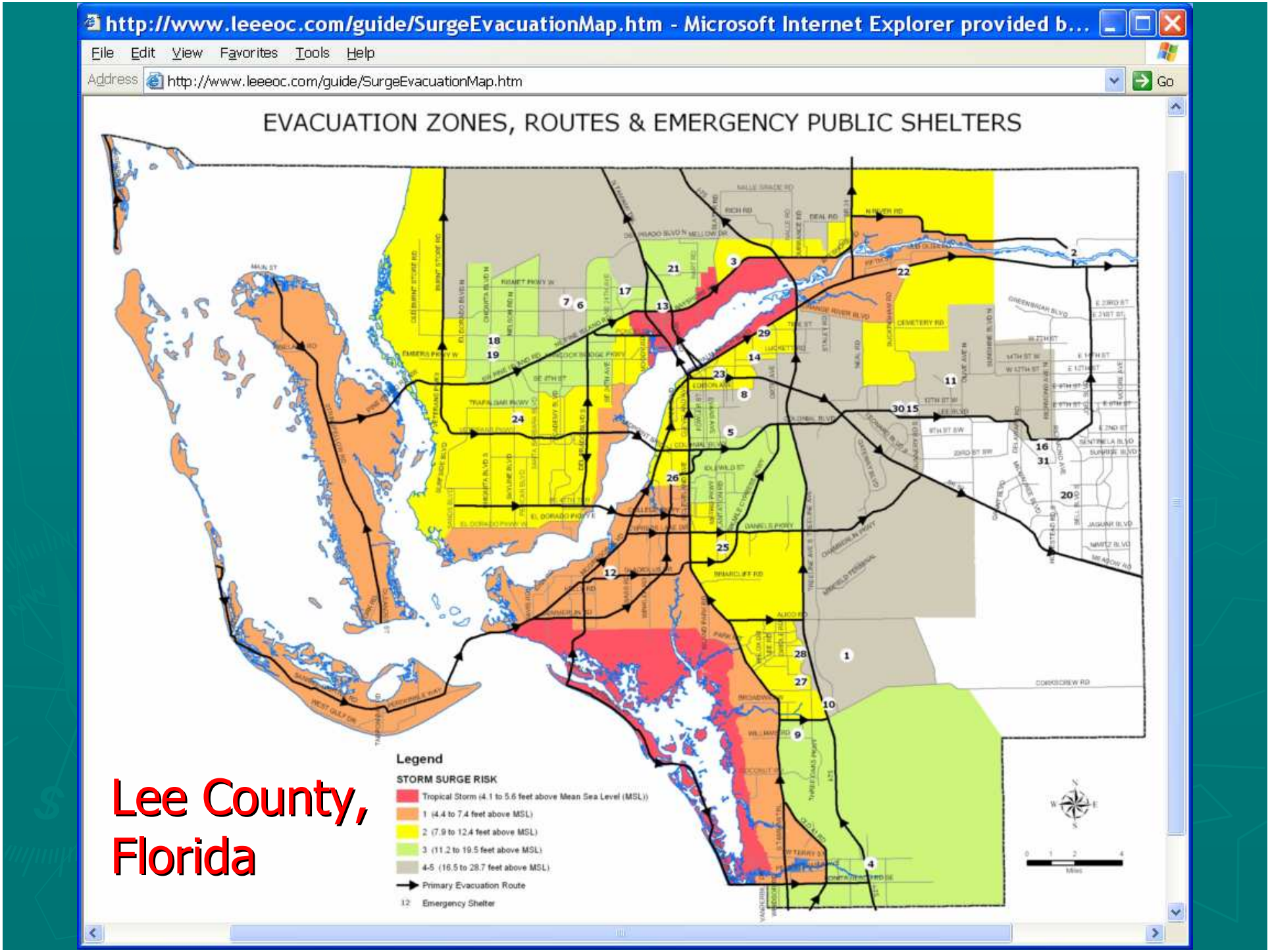
National Weather Service:

Radar map image, following Hurricane Katrina in August 2005



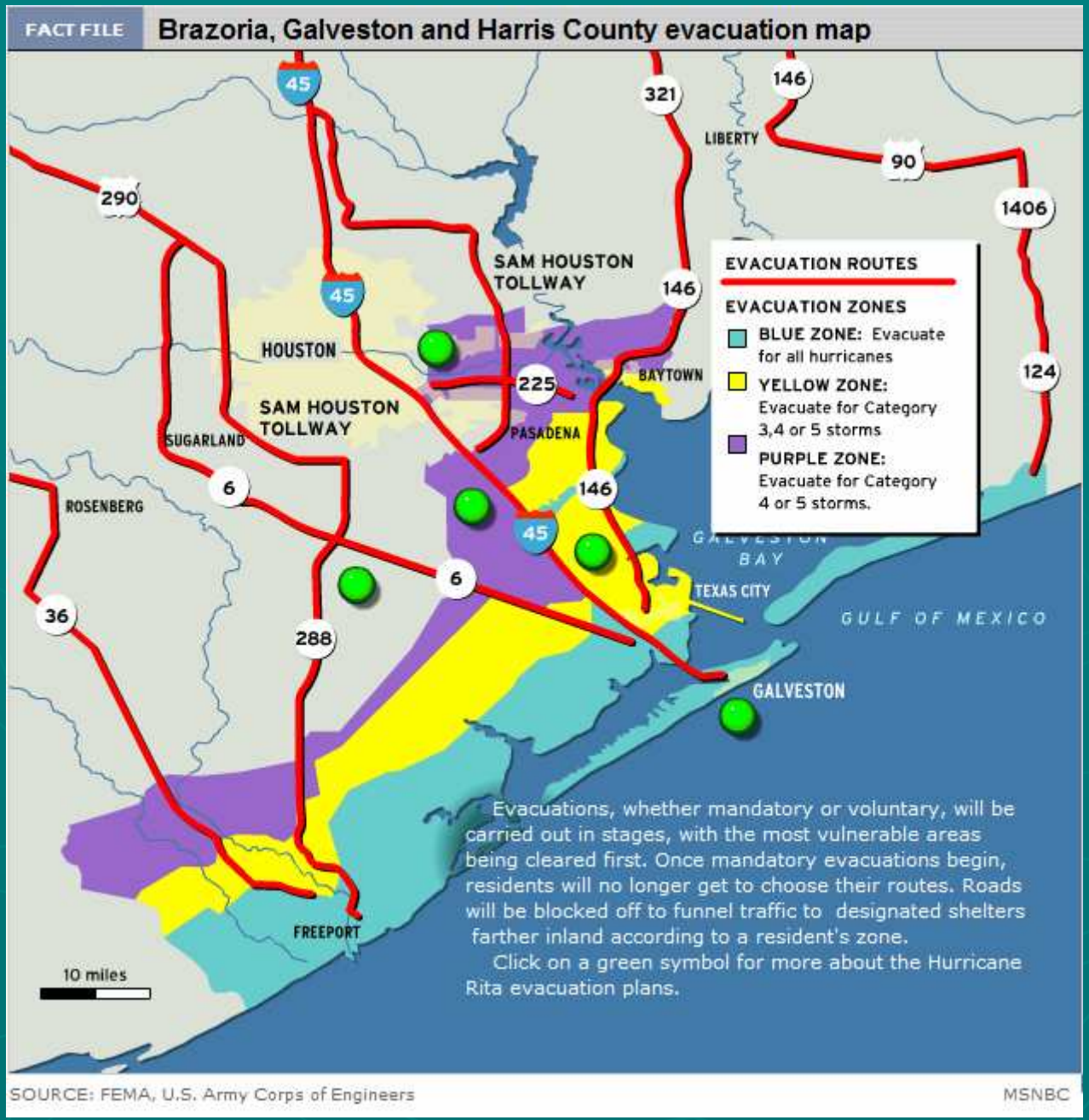
LEE COUNTY ELEVATION & EVACUATION ROUTES




http://www.leeeoc.com/guide/SurgeEvacuationMap.htm - Microsoft Internet Explorer provided b...
File Edit View Favorites Tools Help
Address http://www.leeeoc.com/guide/SurgeEvacuationMap.htm
Go
EVACUATION ZONES, ROUTES & EMERGENCY PUBLIC SHELTERS
Lee County, Florida
Legend
STORM SURGE RISK
Tropical Storm (4.1 to 5.6 feet above Mean Sea Level (MSL))
1 (4.4 to 7.4 feet above MSL)
2 (7.9 to 12.4 feet above MSL)
3 (11.2 to 19.5 feet above MSL)
4-5 (16.5 to 28.7 feet above MSL)
Primary Evacuation Route
12 Emergency Shelter

On a cable television website (MSNBC)

Galveston, Texas was devastated in a 1906 Hurricane.



Hurricane Information Maps - Windows Internet Explorer

http://www.scipionus.com/

Live Search

Hurricane Information Maps

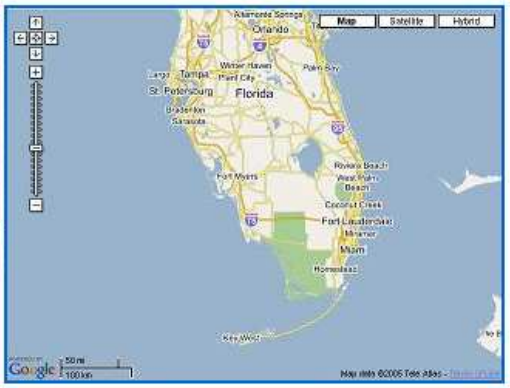
Page Tools

Hurricane Information Maps

These maps are intended for the use by people affected by Hurricanes Katrina or Rita who have or are trying to find information about the status of specific locations affected by the storm and its aftermath. If you have information about the status of an area that is not yet on the map, please select the proper map below and contribute by following the instructions on that page, so that others may get that much needed information.

Katrina Information Map

Rita Information Map



Wilma Information Map

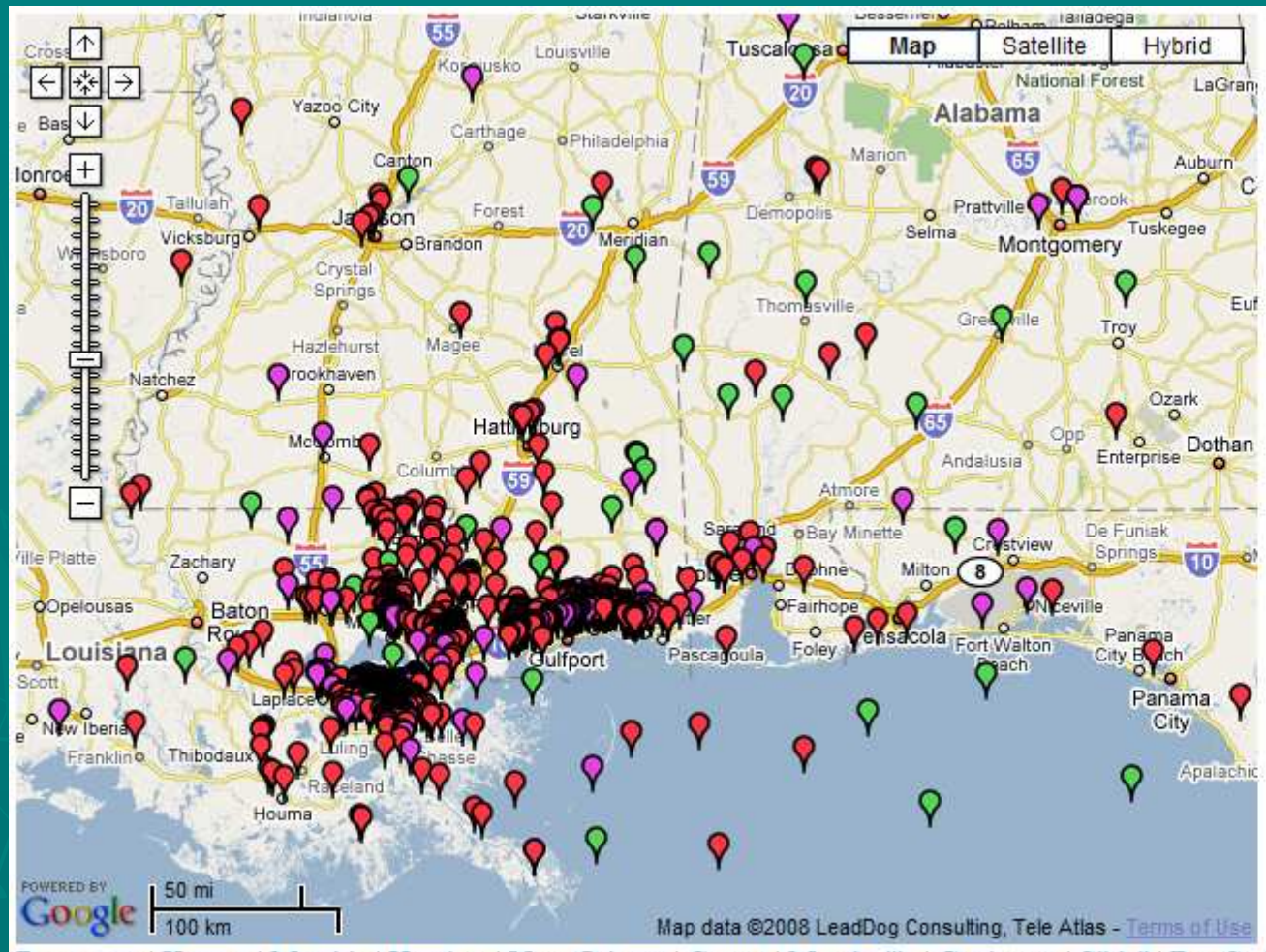
Contact Me

Hurricane Information Maps based on interactive Google Maps for Hurricanes Katrina, Rita, and Wilma

Internet | Protected Mode: On

100%

Information Map for Hurricane Katrina

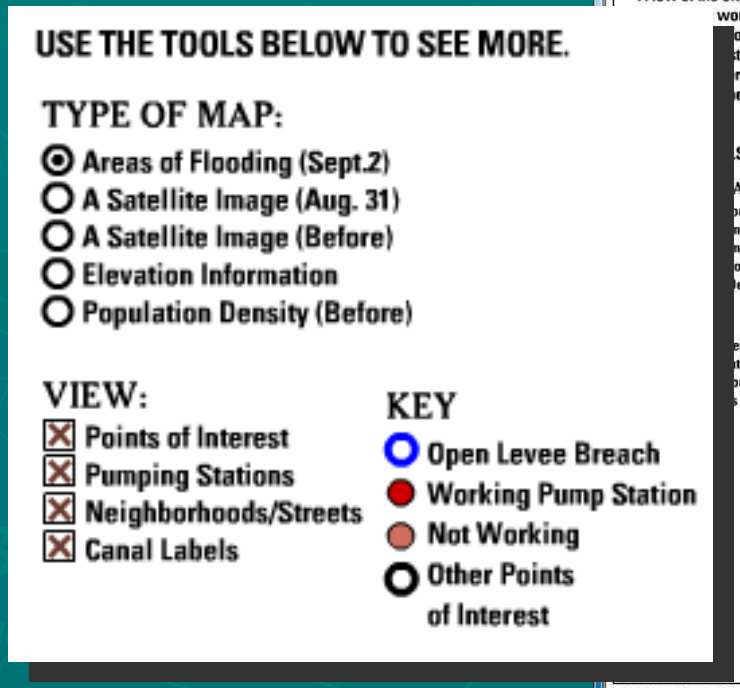


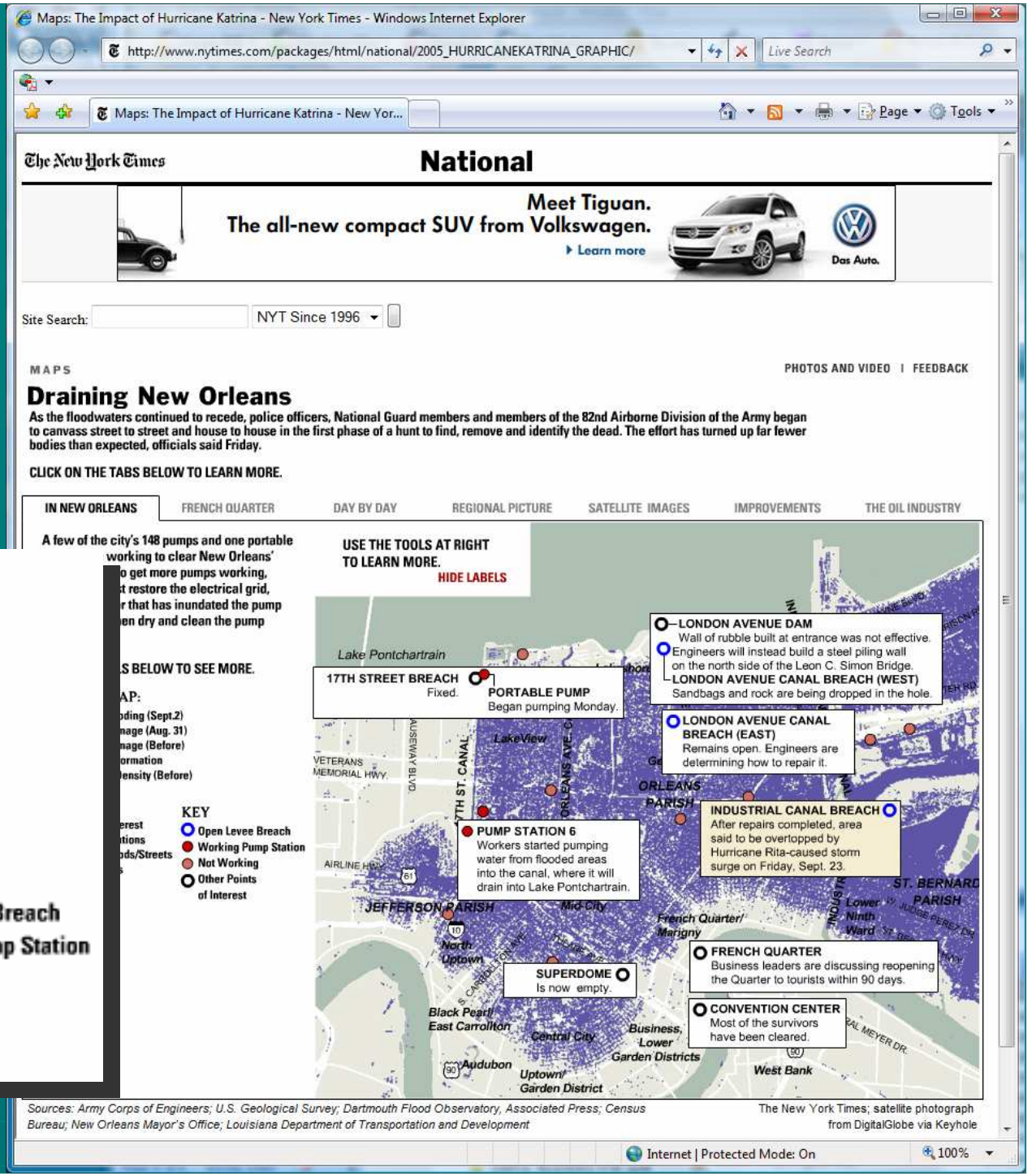
Red where a viewer has contributed information about the area.

Green for the most recent 50 push-pins.

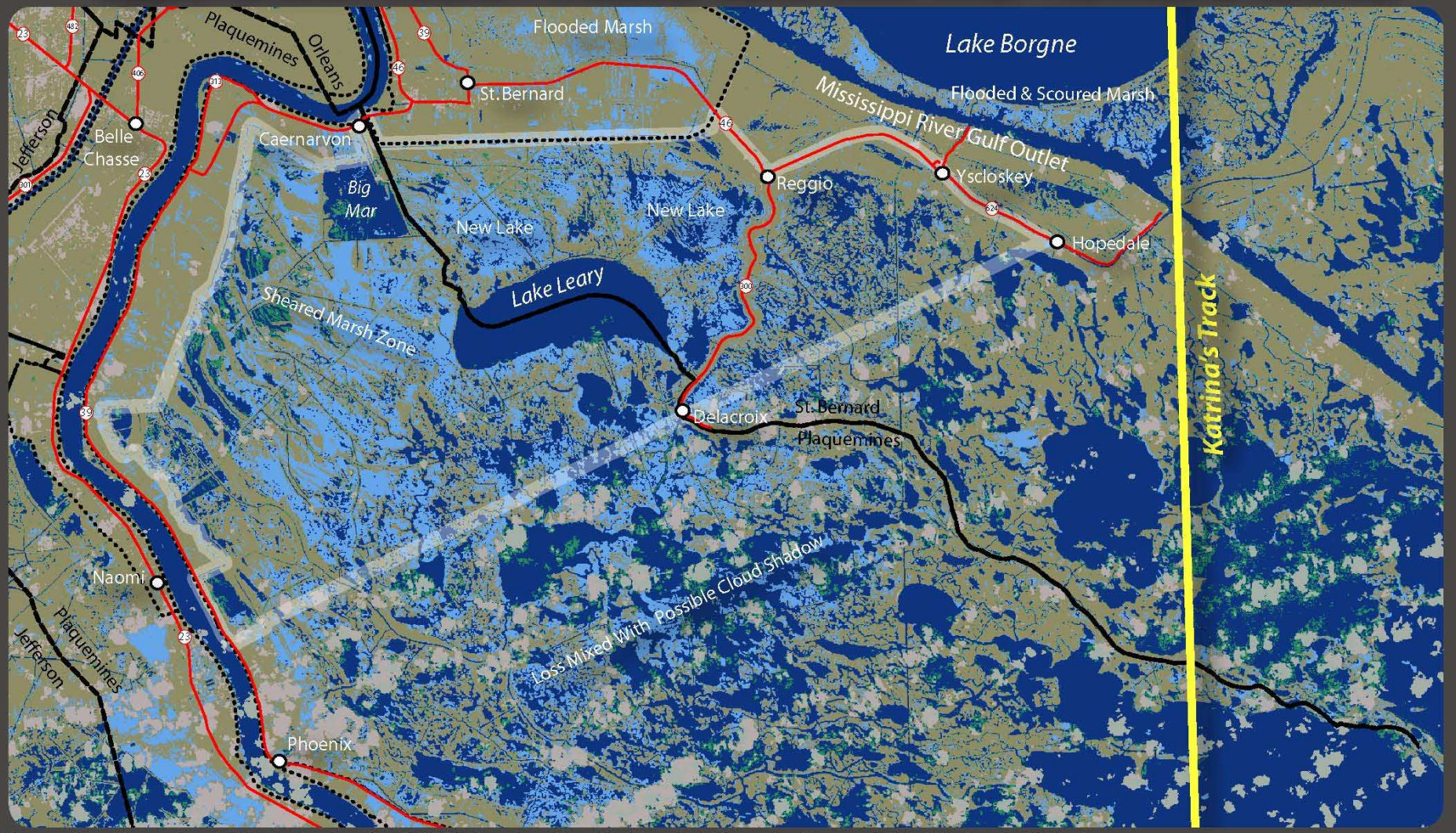
Purple where information has been added.

Interactive map on New York Times website examines the problems of draining flooded parts of the city.





Upper Breton Sound Potential Land Loss After Hurricane Katrina



Change Map November 7, 2004 to September 7, 2005 Based on Classified Landsat Thematic Mapper 5 Satellite Land - Water Images

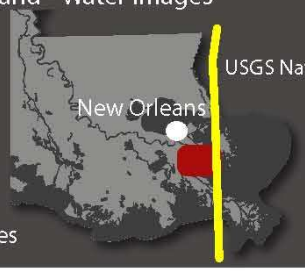
- Trend Area
- Land
- Water
- Potential Land Loss - Includes flooded marsh, sheared/eroded marsh, and scoured marsh
- Land Gain or Clouds
- Unvegetated Area and Clouds

- Main Levees
- Parish Boundary
- Towns
- State Highways

N

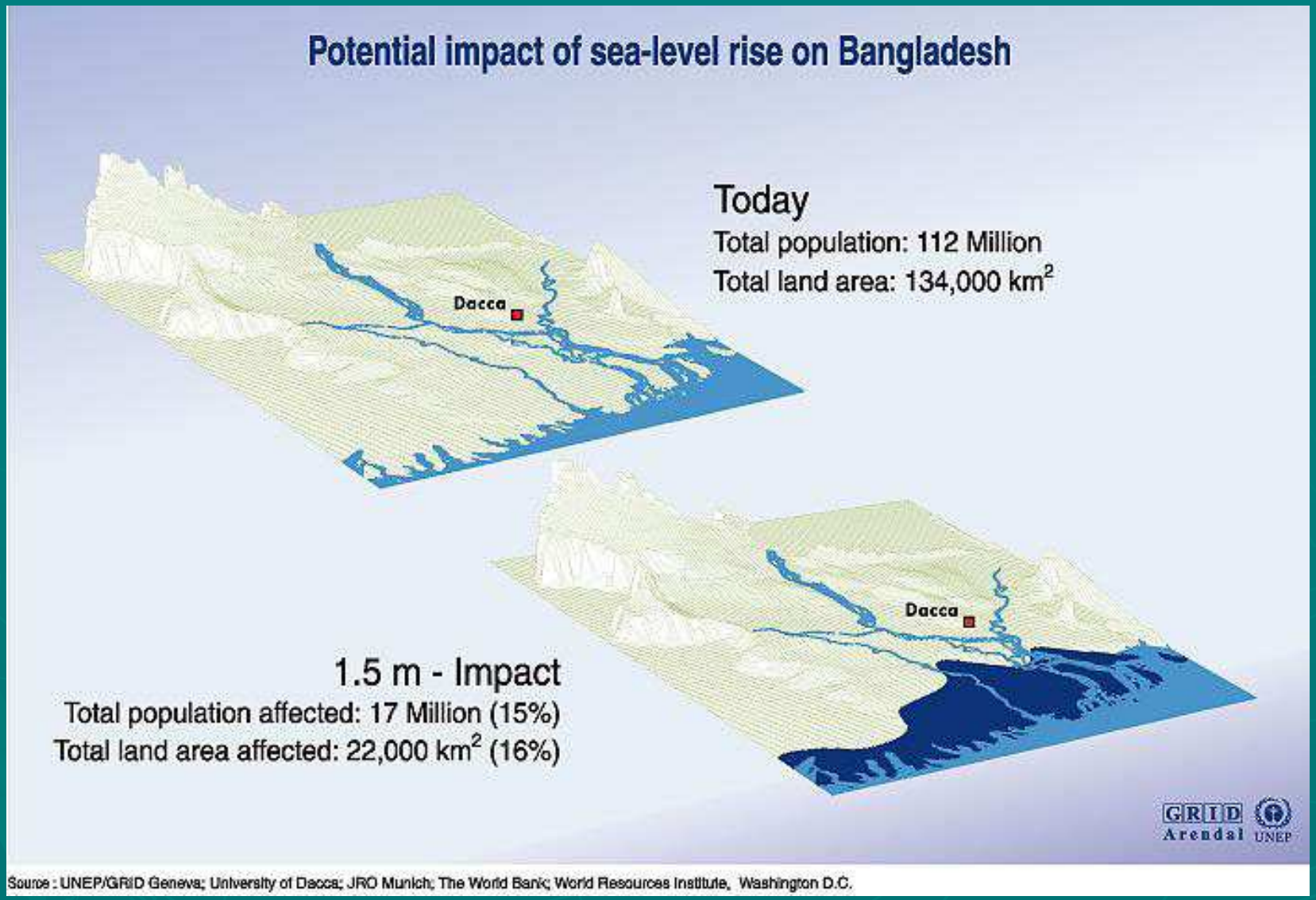
Scale 1:200,000

0 1 2 3 Miles



USGS National Wetlands Research Center
Coastal Restoration Field Station
Draft: September 13, 2005

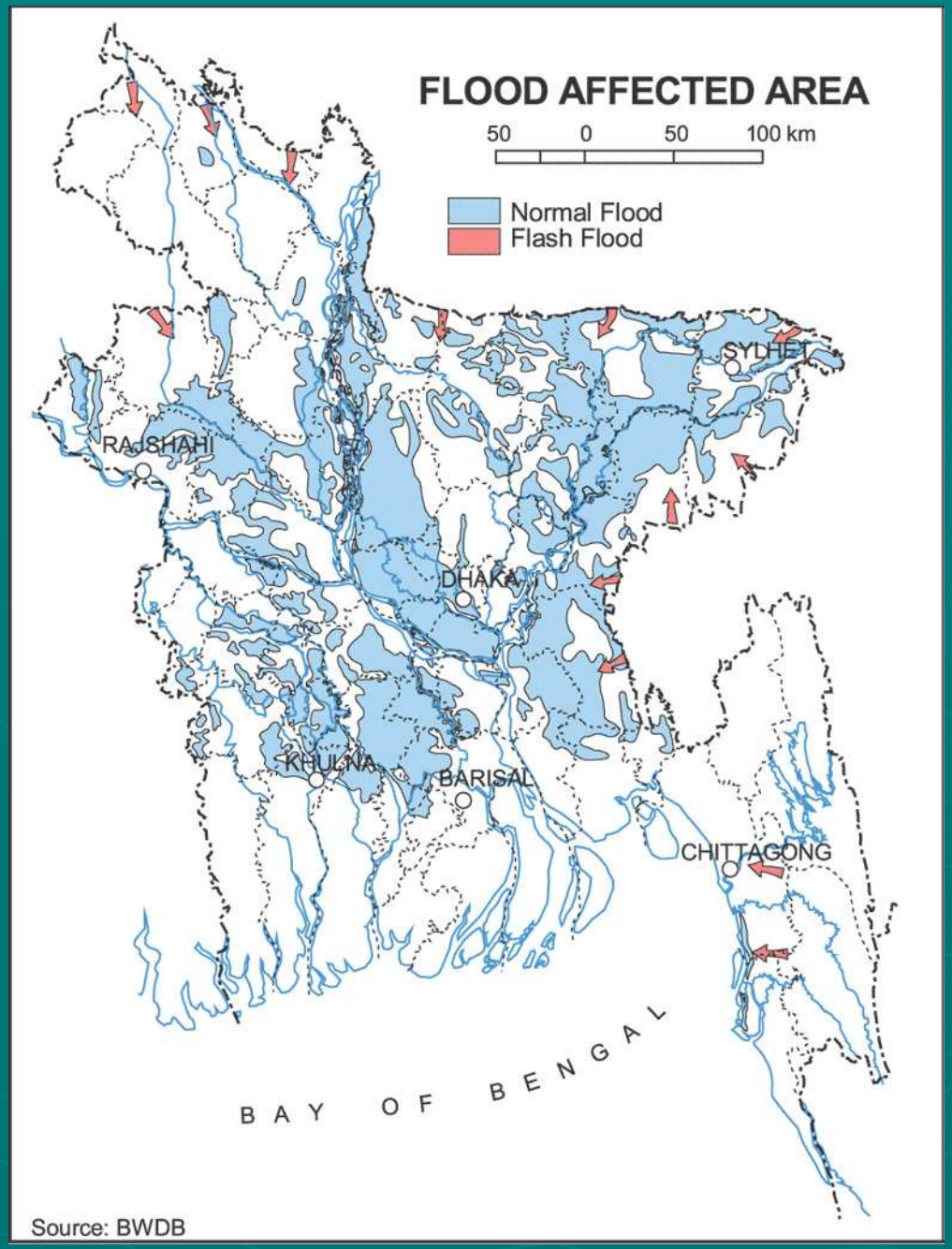
USGS science for a changing world



From a United Nations website

Bangladesh:

Flood map on the official government website



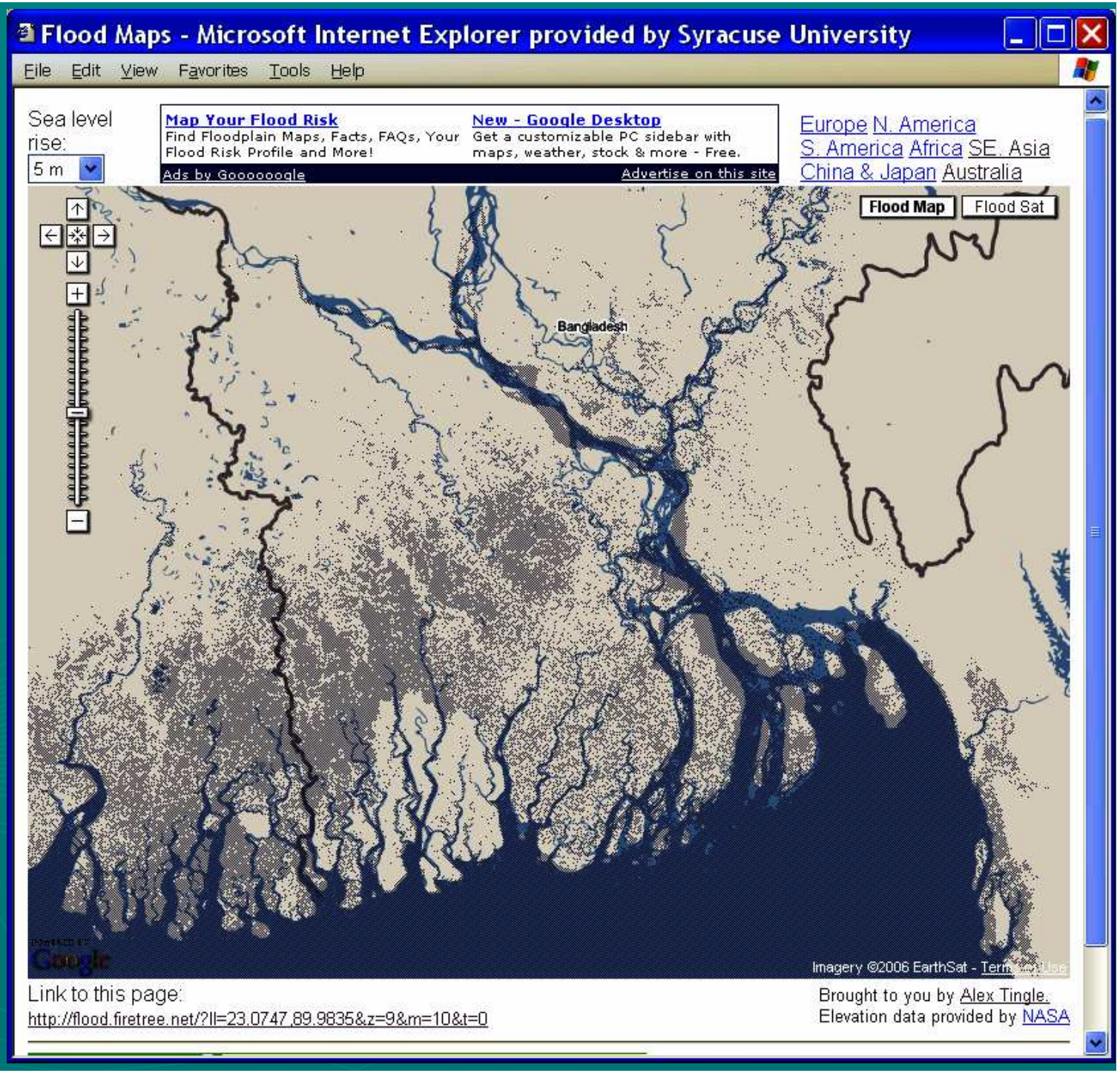
Google Earth

+

NASA elevation data

+

Alex Tingle's mash-up



EPA : Global Warming : Resource Center : Publications : Sea Level Rise : Sea Level Rise Reports - Windows Internet Explorer
http://yosemite.epa.gov/OAR/globalwarming.nsf/content/ResourceCenterPub
Live Search
EPA : Global Warming : Re...
EPA : Global Warming :...
Page
Tools
U.S. ENVIRONMENTAL PROTECTION AGENCY
Global Warming - Publications
Contact Us | Print Version
Search Area:
GO
EPA Home > Global Warming > Resource Center > Publications > Sea Level Rise Reports
Waste Management
Sea Level Rise
Reference
Position Papers
Outreach Material
International
Greenhouse Gas Emissions
US Climate Action Report
Please see EPA's Climate Change site for current information on climate change and global warming. EPA no longer updates EPA's Global Warming Site, but is maintaining this archive for historical purposes. Thank you for visiting the archive of EPA's Global Warming Site.
Sea Level Rise Reports
These reports were each written with the assumption that the reader had not read the other reports. As a result, some of the material is redundant. Moreover, because the science of climate change continues to evolve, the portions of the older reports that explain how much the sea will rise are somewhat obsolete. Yet even the older reports discuss issues that have not been analyzed elsewhere. Depending on your interest and how much time you have, here is our advice on what to read (and what to read first) by topic:
Nationwide Impacts
Beach Erosion and Barrier Islands
Saltwater Intrusion
Floods
Impacts on Other Nations
Maps
All Reports
Maps of Lands Vulnerable to Sea Level Rise: Modeled Elevations along the U.S. Atlantic and Gulf Coasts. – Climate Research, CR 18:205-228 (2001). You can go directly to the maps page. Also see our list of forthcoming mapping products.
Rising Seas, Coastal Erosion, and the Takings Clause: How to Save Wetlands and Beaches Without Hurting Property Owners – Maryland Law Review, Volume 57, 1279-1399 (1998).
Greenhouse Effect and Sea Level Rise: The Cost
Done
Internet | Protected Mode: On
100%

EPA : Global Warming : Resource Center : Publications : Sea Level Rise : Maps of Lands Vulnerab - Windows Internet Explorer

http://yosemite.epa.gov/OAR/globalwarming.nsf/content/ResourceCenterPublicat

Live Search

EPA : Global Warming : Resource Center : Publica...

Page Tools

U.S. ENVIRONMENTAL PROTECTION AGENCY

Global Warming - Publications

Contact Us | Print Version Search Area: GO

EPA Home > Global Warming > Resource Center > Publications > Sea Level Rise > Maps of Lands Vulnerable to Sea Level Rise

- Waste Management
- Sea Level Rise
- Reference
- Position Papers
- Outreach Material
- International
- Greenhouse Gas Emissions
- US Climate Action Report

Please see EPA's Climate Change site for current information on climate change and global warming. EPA no longer updates EPA's Global Warming Site, but is maintaining this archive for historical purposes. Thank you for visiting the archive of EPA's Global Warming Site.

Maps of Lands Vulnerable to Sea Level Rise

The maps that follow in this section were produced in conjunction with the report, "Maps of Lands Vulnerable to Sea Level Rise: Modeled Elevations along the U.S. Atlantic and Gulf Coasts," was originally published in *Climate Research*, (2001).

The maps illustrate lands close to sea level along the Atlantic and Gulf coasts. The maps are presented in a thumbnail format; click the thumbnails for a full screen (html) view or follow the accompanying links for high-resolution, full-page (pdf) color and black & white versions of the map.

Select the region you would like to explore from the following menu.

Northeast Coast
Mid-Atlantic Coast
South Atlantic Coast
Gulf Coast

Go to Full Report

Maps of Lands Vulnerable to Sea Level Rise: Modeled Elevations along the U.S. Atlantic and Gulf Coasts was originally published in Climate Research , 18:205-228 (2001). You can download the underlying geographical information system (GIS) data for an example quadrangle and learn how to obtain the entire dataset underlying this study.

Internet | Protected Mode: On 100%

EPA : Global Warming : Resource Center : Publications : Sea Level Rise : Maps of Lands Vulnerab - Windows Internet Explorer

http://yosemite.epa.gov/OAR/globalwarming.nsf/content/ResourceCenterPub

Live Search

EPA : Global Warming : Re... | EPA : Global Warming :...

Page | Tools

U.S. ENVIRONMENTAL PROTECTION AGENCY

Global Warming - Publications

Contact Us | Print Version Search Area: GO

EPA Home > Global Warming > Resource Center > Publications > Sea Level Rise > Maps of Lands Vulnerable to Sea Level Rise -- On the Gulf Coast

- Waste Management
- Sea Level Rise
- Reference
- Position Papers
- Outreach Material
- International
- Greenhouse Gas Emissions
- US Climate Action Report

Please see EPA's Climate Change site for current information on climate change and global warming. EPA no longer updates EPA's Global Warming Site, but is maintaining this archive for historical purposes. Thank you for visiting the archive of EPA's Global Warming Site.

Maps of Lands Vulnerable to Sea Level Rise -- On the Gulf Coast

Gulf Coast and Florida

Download B&W Map (336 KB)
Download Color Map (338 KB)

Gulf Coast

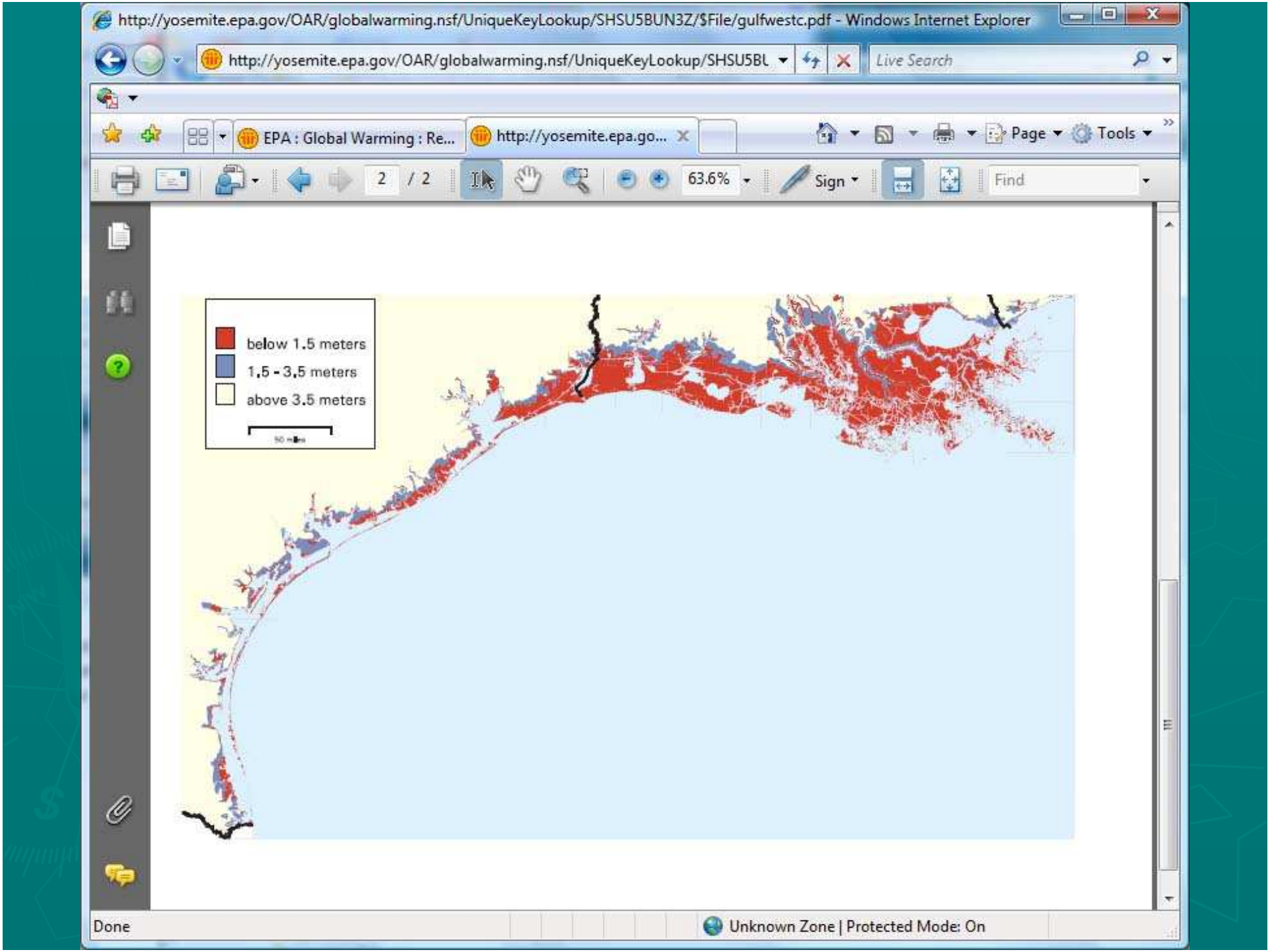
Download B&W Map (301 KB)
Download Color Map (302 KB)

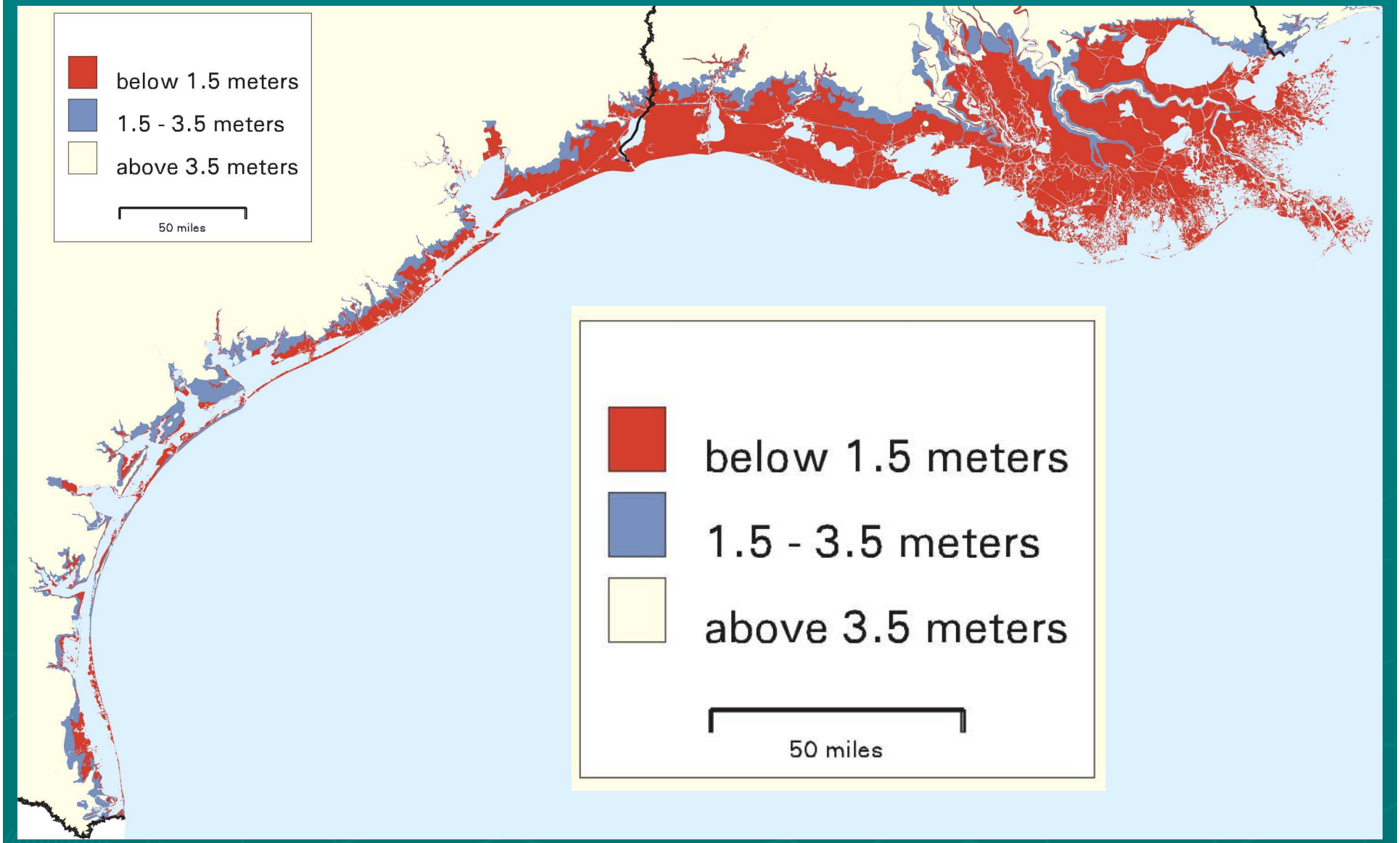
(Click on maps to see a larger image.)

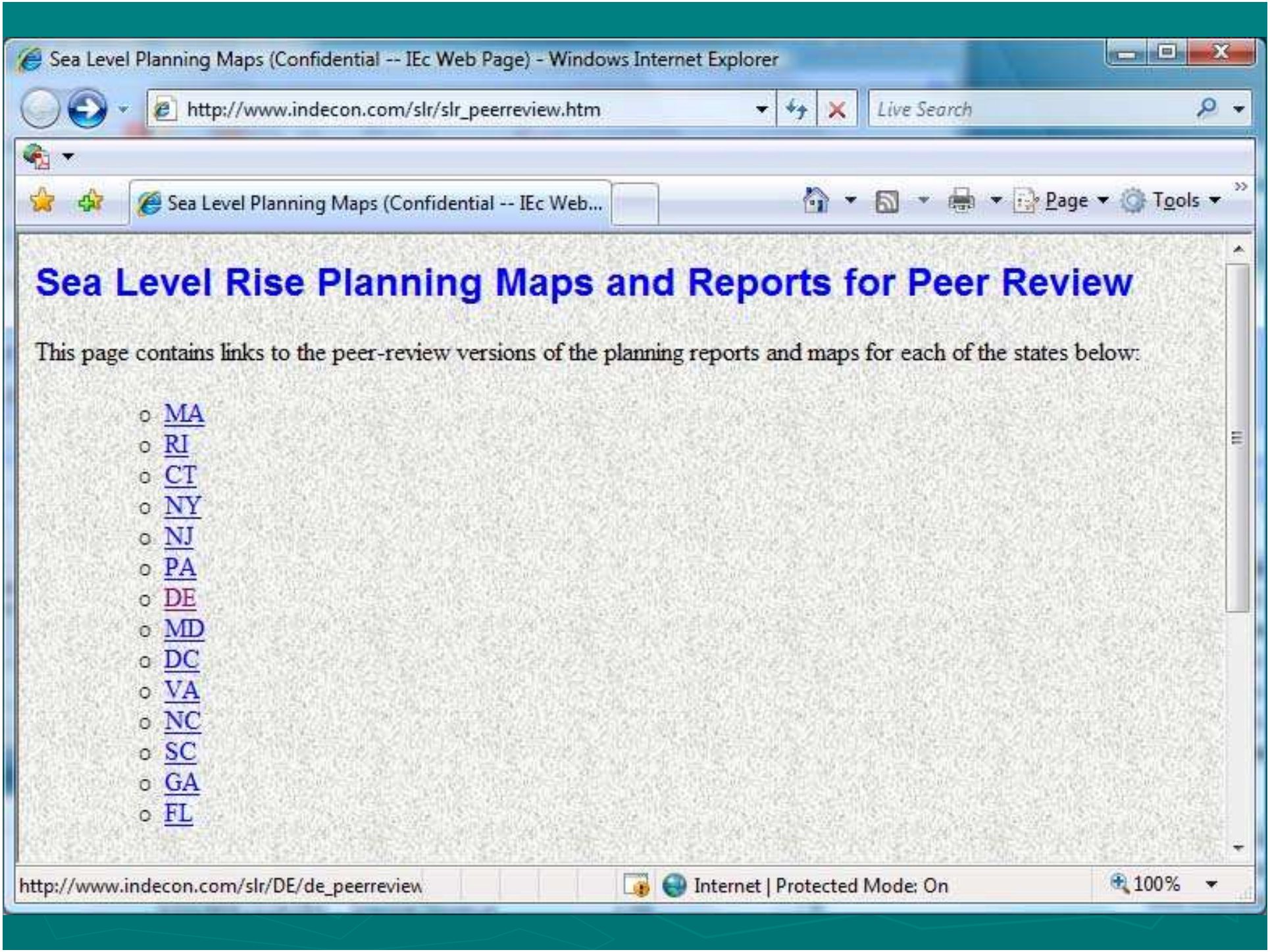
West Gulf Coast

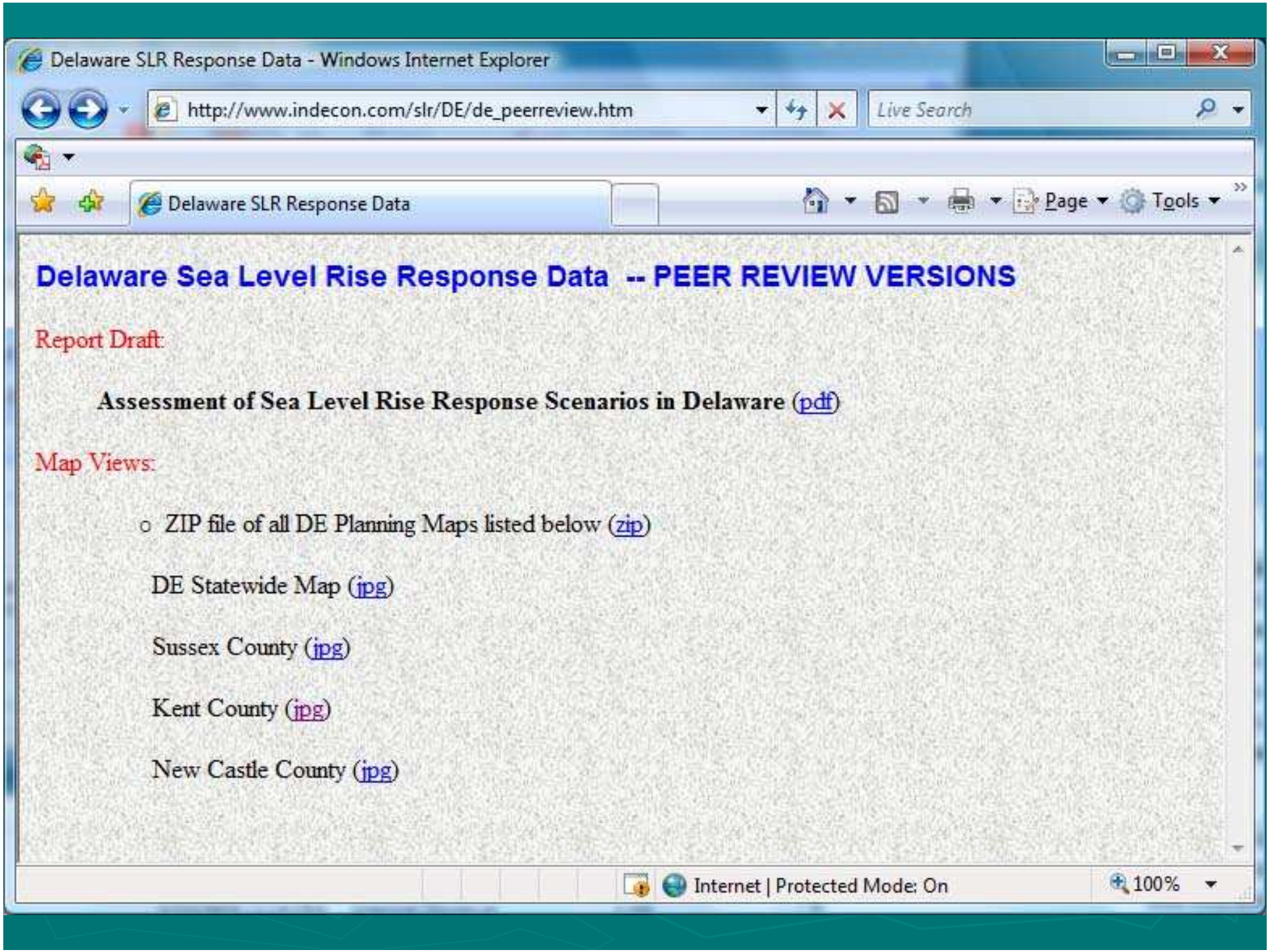
East Gulf Coast

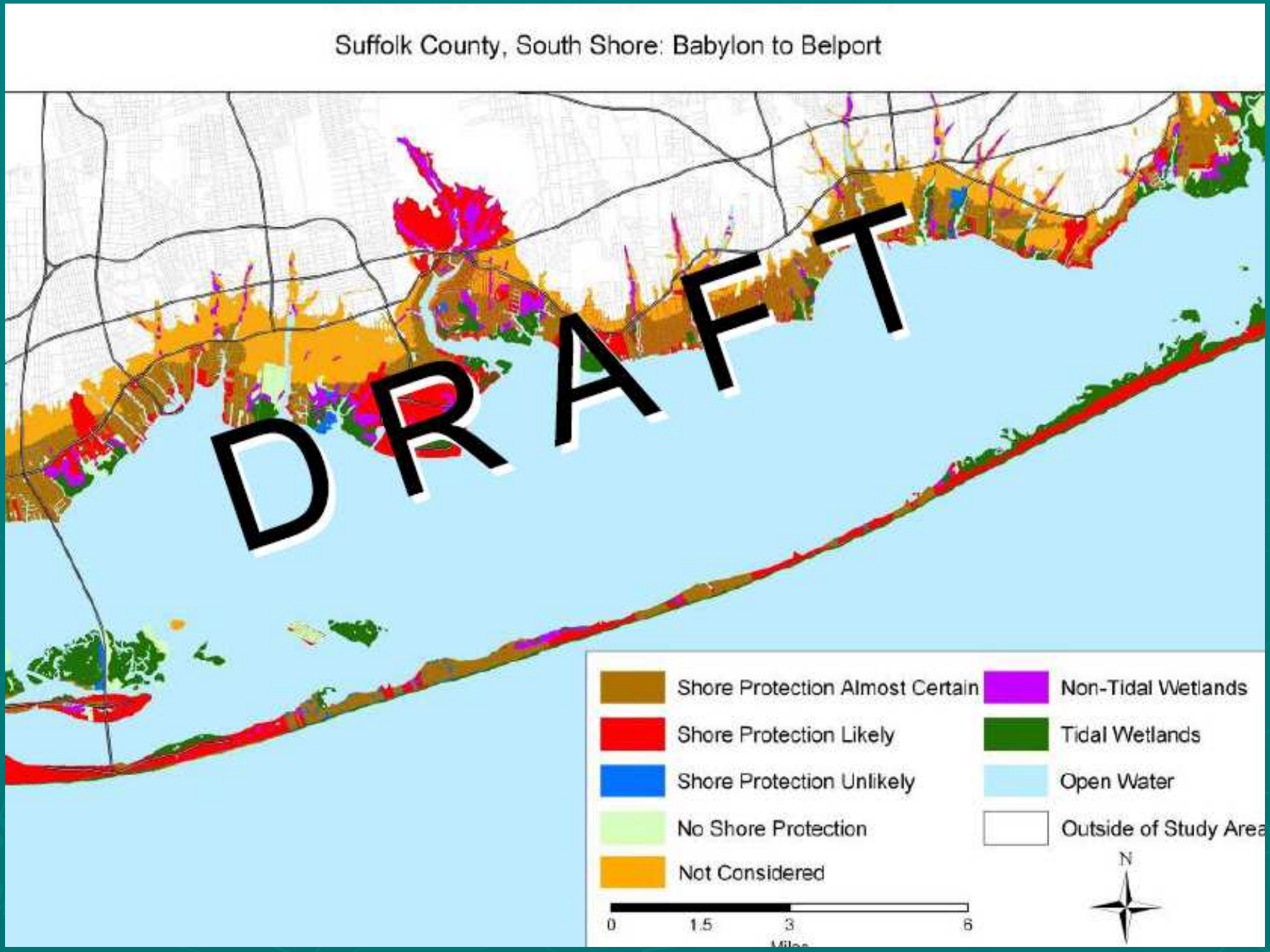
Done | Internet | Protected Mode: On | 100%


http://yosemite.epa.gov/OAR/globalwarming.nsf/UniqueKeyLookup/SHSU5BUN3Z/$File/gulfwestc.pdf - Windows Internet Explorer
http://yosemite.epa.gov/OAR/globalwarming.nsf/UniqueKeyLookup/SHSU5BL
Live Search
EPA : Global Warming : Re...
http://yosemite.epa.go...
Page
Tools
2 / 2
63.6%
Sign
Find
below 1.5 meters
1.5 - 3.5 meters
above 3.5 meters
Done
Unknown Zone | Protected Mode: On


below 1.5 meters
1.5 - 3.5 meters
above 3.5 meters
50 miles
below 1.5 meters
1.5 - 3.5 meters
above 3.5 meters
50 miles


Sea Level Planning Maps (Confidential -- IEc Web Page) - Windows Internet Explorer
http://www.indecon.com/slr/slr_peerreview.htm
Live Search
Sea Level Planning Maps (Confidential -- IEc Web...
Page
Tools
Sea Level Rise Planning Maps and Reports for Peer Review
This page contains links to the peer-review versions of the planning reports and maps for each of the states below:
MA
RI
CT
NY
NJ
PA
DE
MD
DC
VA
NC
SC
GA
FL
http://www.indecon.com/slr/DE/de_peerreview
Internet | Protected Mode: On
100%

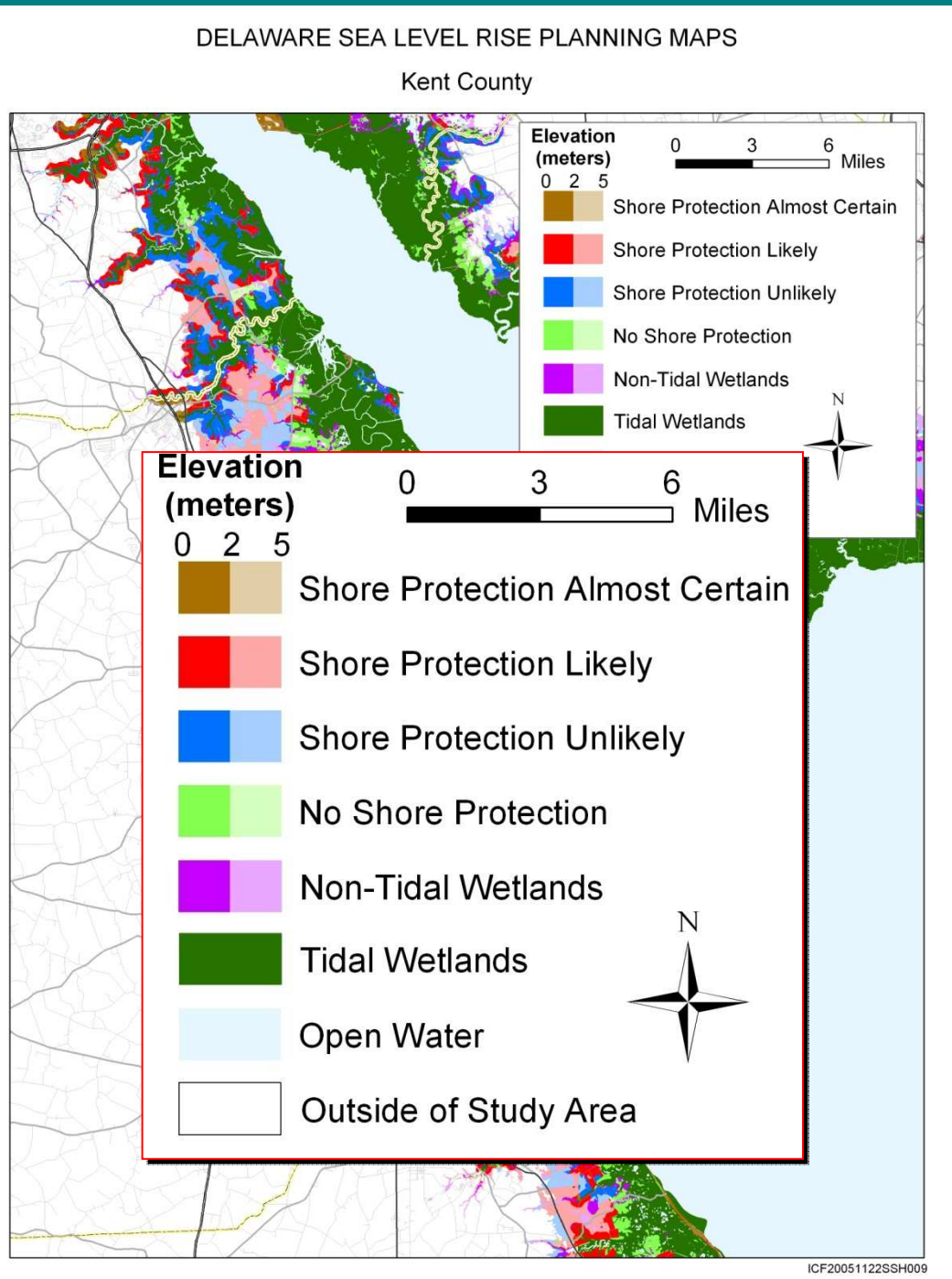

Delaware SLR Response Data - Windows Internet Explorer
http://www.indecon.com/slr/DE/de_peerreview.htm
Live Search
Delaware SLR Response Data
Page
Tools
Delaware Sea Level Rise Response Data -- PEER REVIEW VERSIONS
Report Draft:
Assessment of Sea Level Rise Response Scenarios in Delaware (pdf)
Map Views:
ZIP file of all DE Planning Maps listed below (zip)
DE Statewide Map (jpg)
Sussex County (jpg)
Kent County (jpg)
New Castle County (jpg)
Internet | Protected Mode: On
100%


Suffolk County, South Shore: Babylon to Belport
DRAFT
Shore Protection Almost Certain
Shore Protection Likely
Shore Protection Unlikely
No Shore Protection
Not Considered
Non-Tidal Wetlands
Tidal Wetlands
Open Water
Outside of Study Area
0
1.5
3
6
N

U.S. Environmental Protection Agency:

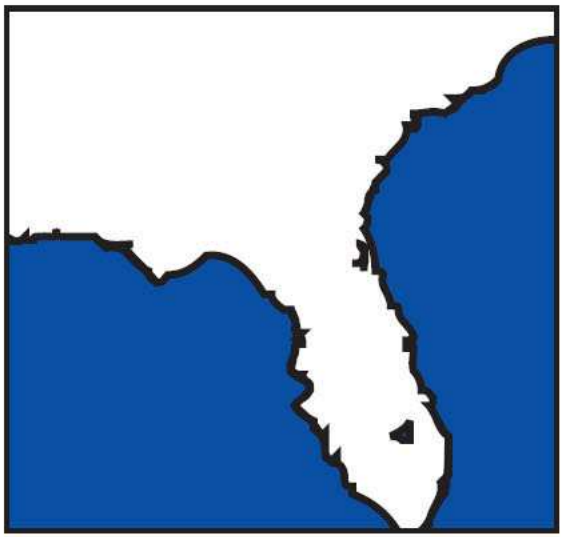
Example of a sea level rise planning map, focusing on elevation and likelihood of shoreline protection

Kent County, Delaware

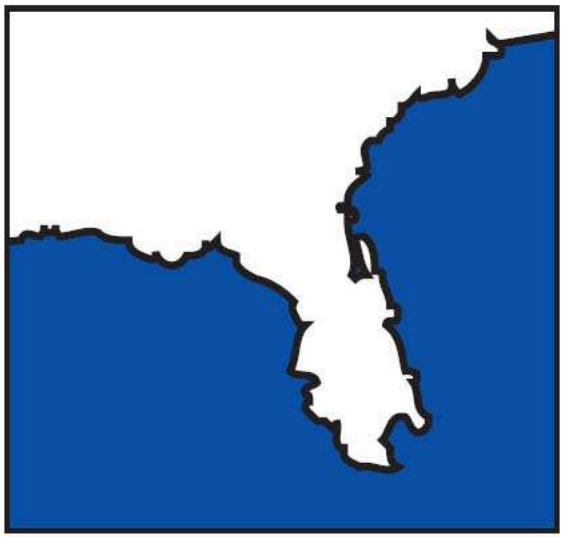


Bryron Parizek's maps of plausible effects of melting ice sheets

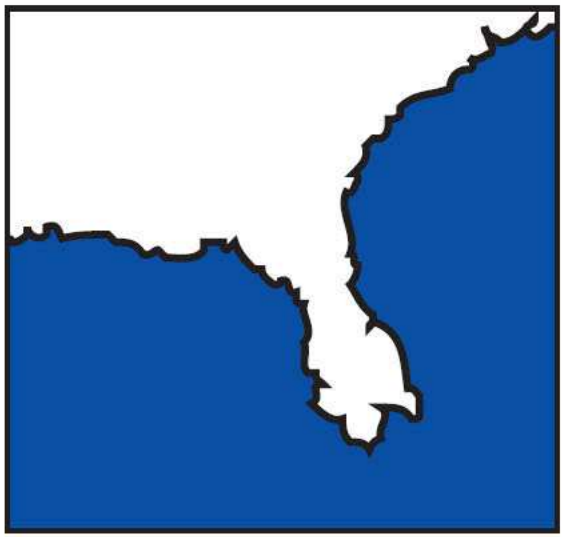
Potential coastline retreat as a result of ice sheets melting Florida



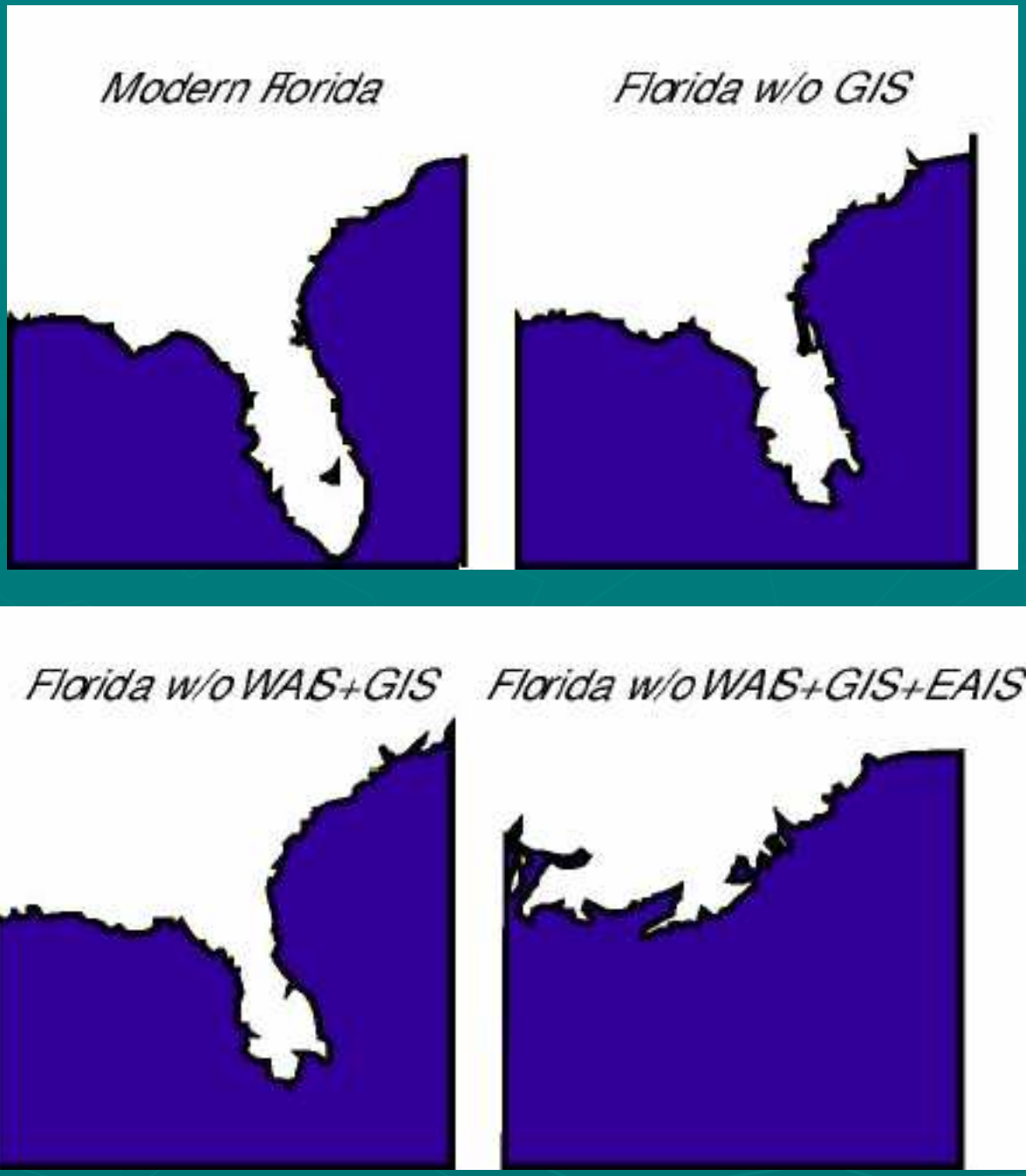
The shoreline of Florida today



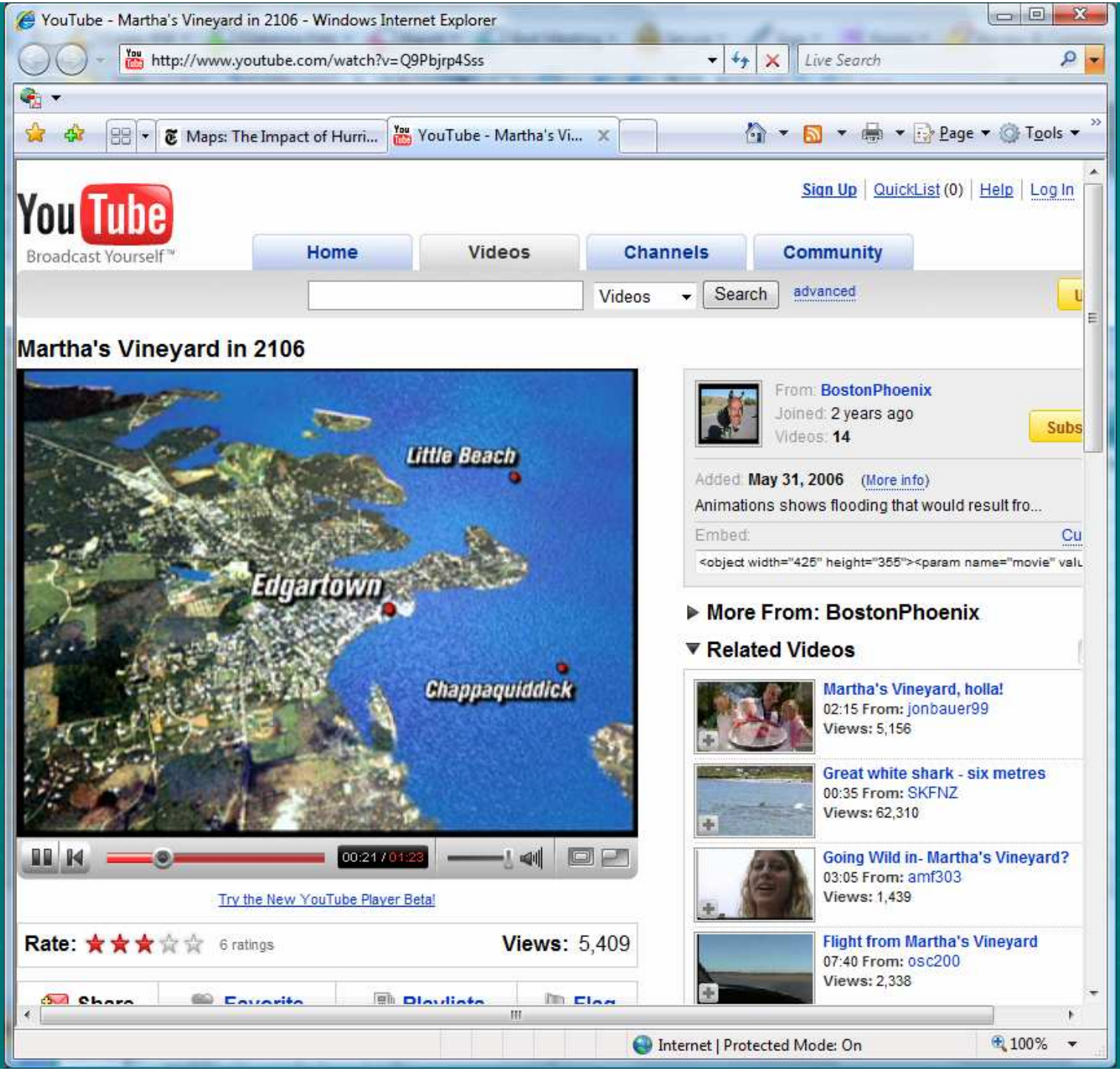
Florida in the event of a Greenland ice sheet melting



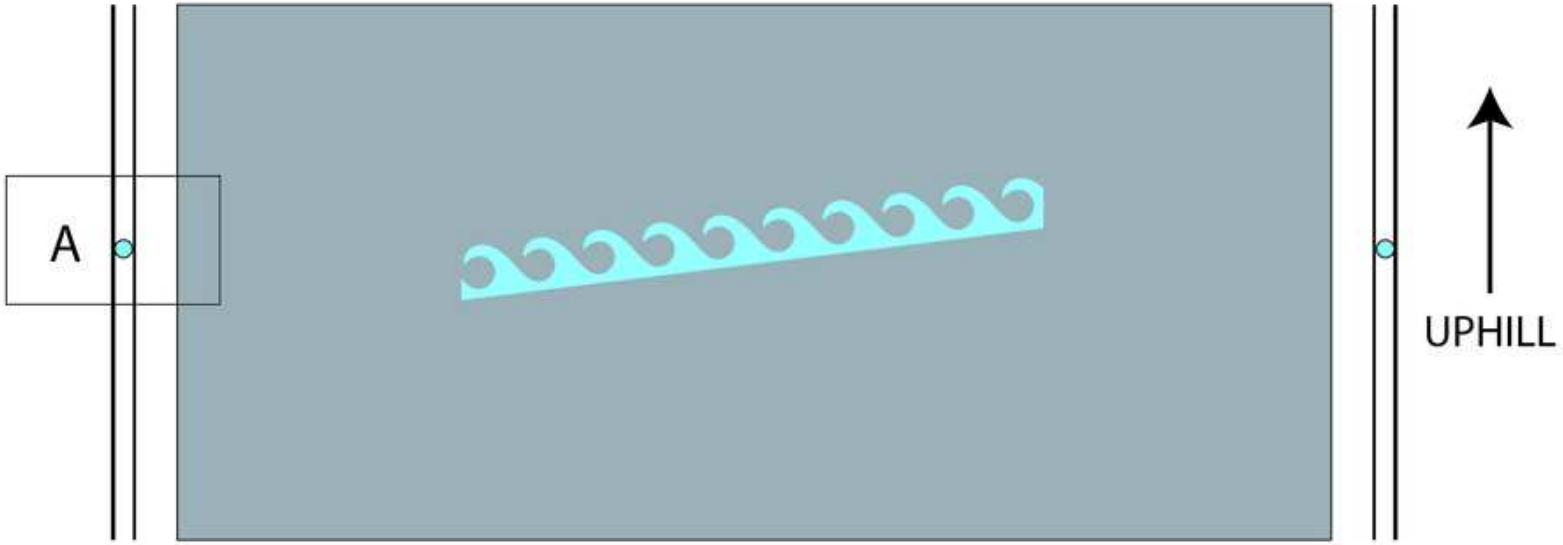
Florida in the event of both the Greenland and West Antarctica ice sheets melting


Modern Florida
Florida w/o GIS
Florida w/o WAIS+GIS
Florida w/o WAIS+GIS+EAIS

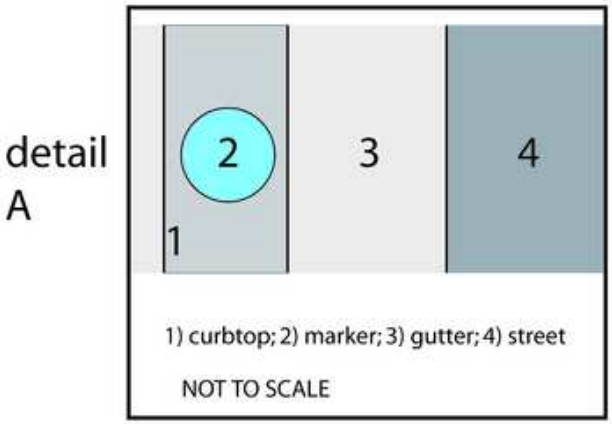
Animated Inundation of Edgartown


YouTube - Martha's Vineyard in 2106 - Windows Internet Explorer
http://www.youtube.com/watch?v=Q9Pbjrp4Sss
Live Search
Maps: The Impact of Hurri...
YouTube - Martha's Vi...
Page
Tools
Sign Up | QuickList (0) | Help | Log In
YouTube
Broadcast Yourself™
Home
Videos
Channels
Community
Videos
Search
advanced
Martha's Vineyard in 2106
Little Beach
Edgartown
Chappaquiddick
00:21 / 01:23
Try the New YouTube Player Beta!
Rate:
6 ratings
Views: 5,409
From: BostonPhoenix
Joined: 2 years ago
Videos: 14
Subs
Added: May 31, 2006 (More info)
Animations shows flooding that would result fro...
Embed:
Cu
<object width="425" height="355"><param name="movie" valu
More From: BostonPhoenix
Related Videos
Martha's Vineyard, holla!
02:15 From: jonbauer99
Views: 5,156
Great white shark - six metres
00:35 From: SKFNZ
Views: 62,310
Going Wild in- Martha's Vineyard?
03:05 From: amf303
Views: 1,439
Flight from Martha's Vineyard
07:40 From: osc200
Views: 2,338
Internet | Protected Mode: On
100%

Typical lightblueline Installation Schematic for Side Street (e.g., Spring Street)



Scale=1 foot



Typical lightblueline installation on a Side Street:

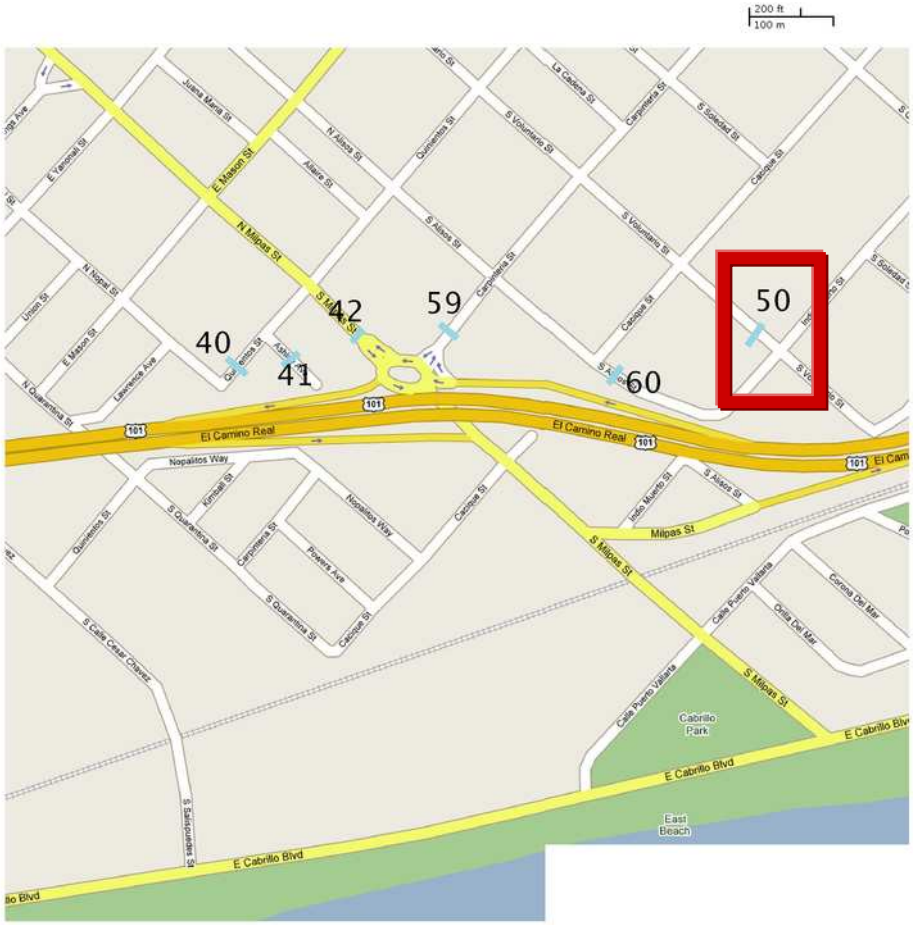
1. Stencil is 7 feet long, two X= 14 linear feet
2. Line is laid down approximately seven degrees from perpendicular (to symbolize a geographical contour, in contrast to a human marker).
3. Wave tops are on the uphill side of the line.
4. Curb markers are epoxied to curb tops with text readable from the sidewalk.

March 9, 2007, Bruce Caron, lightblueline.org Contact: bruce@lbline.org

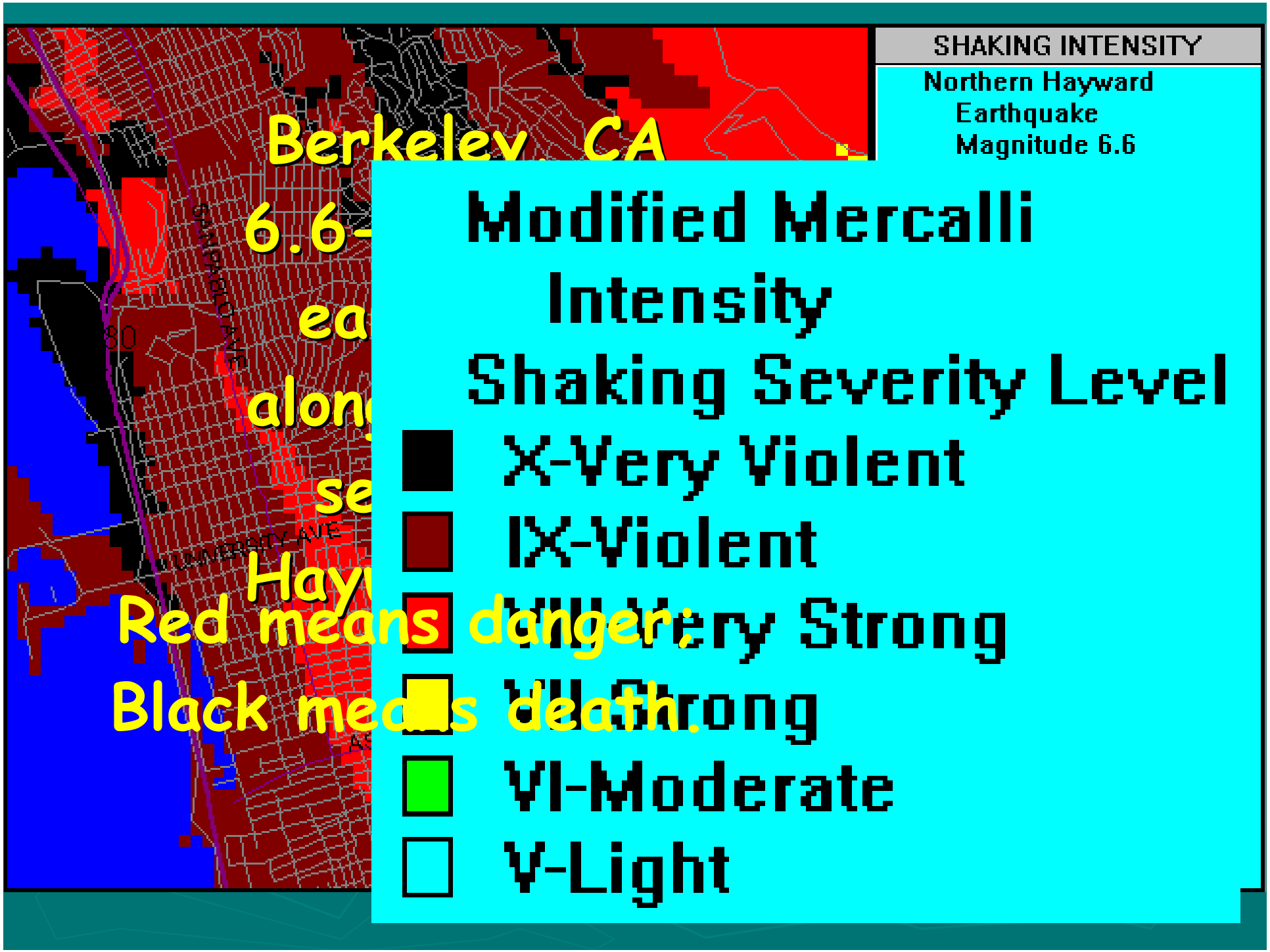
Lightblueline Street Maps: SANTA BARBARA MAP #6

DATE: January 30, 2007

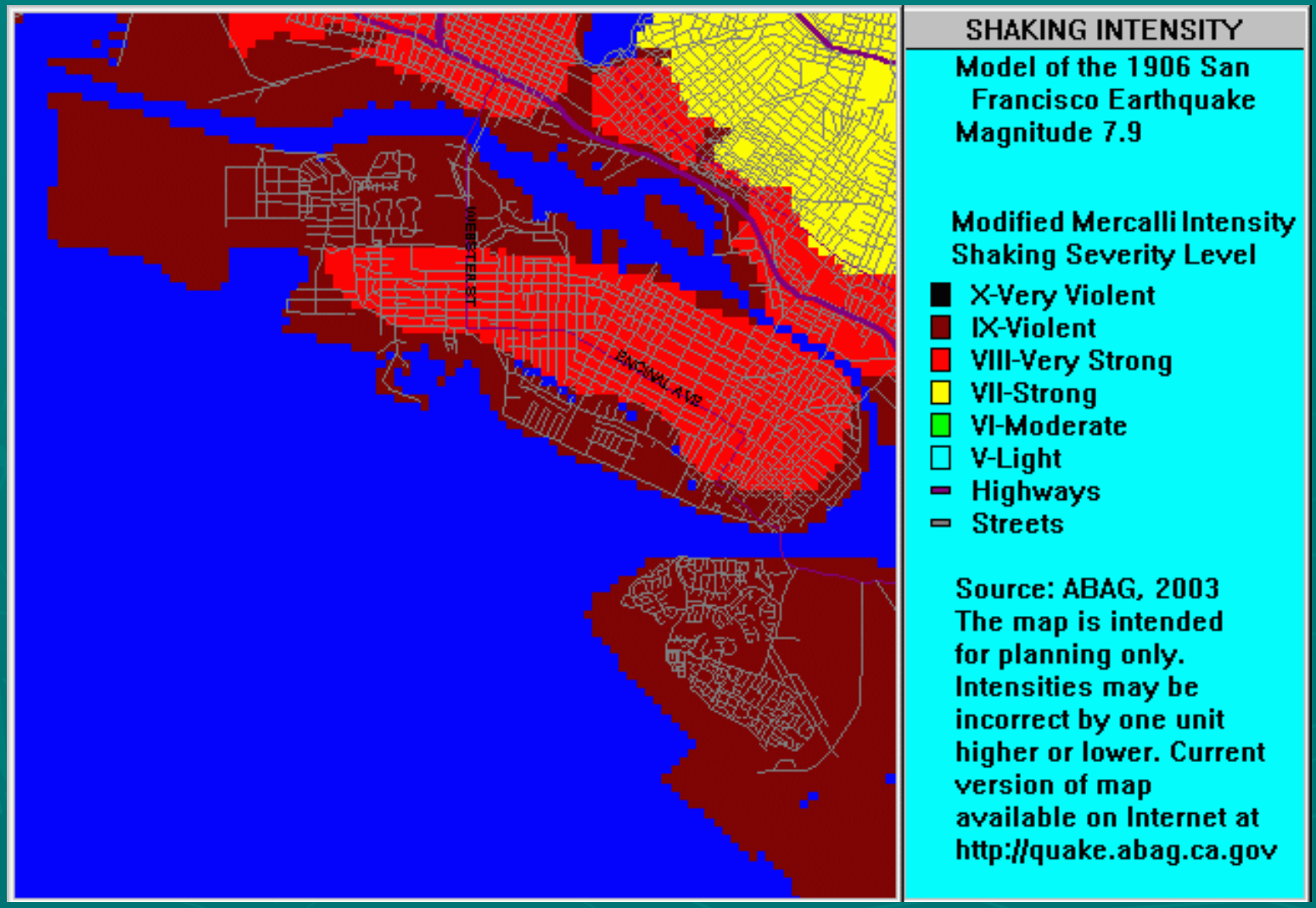
Usage: Normalized* positions for the lightblue lines are indicted on the map. The line position may be adjusted as needed by installers to avoid existing street markings.
Data are from a 3 meter DEM donated by UCSB, Basemap is Google Map™
Map by: Bruce Caron, bruce@lbline.org; Elevation data layer by Darren Hardy.



*Normalized to match the closest point of the actual data, but avoiding intersections, and simplifying lines that touch only part of the street or run parallel along a street.

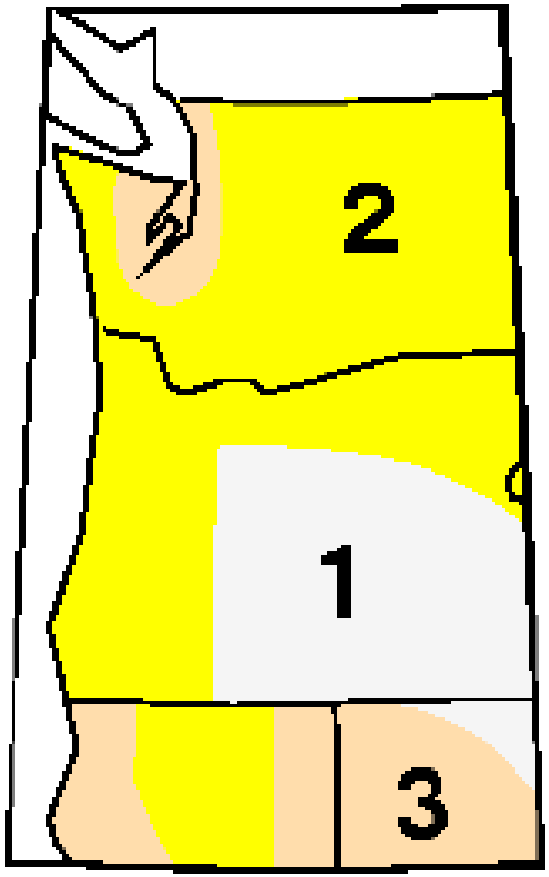

SHAKING INTENSITY
Northern Hayward
Earthquake
Magnitude 6.6
Berkeley, CA
6.6-
ea
along
se
Hayw
Red means danger.
Black means death.
Modified Mercalli
Intensity
Shaking Severity Level
X-Very Violent
IX-Violent
VIII-Very Strong
VII-Strong
VI-Moderate
V-Light
80
SHATTUCK AVE
UNIVERSITY AVE

Model of 1906 San Francisco 7.9 Earthquake Shaking Intensity: Entire Bay Area

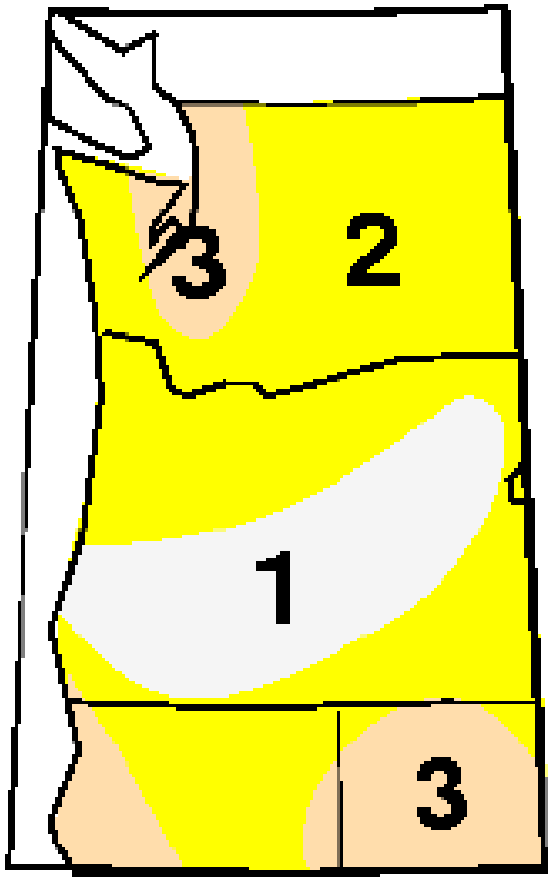


Map content is subject to change.

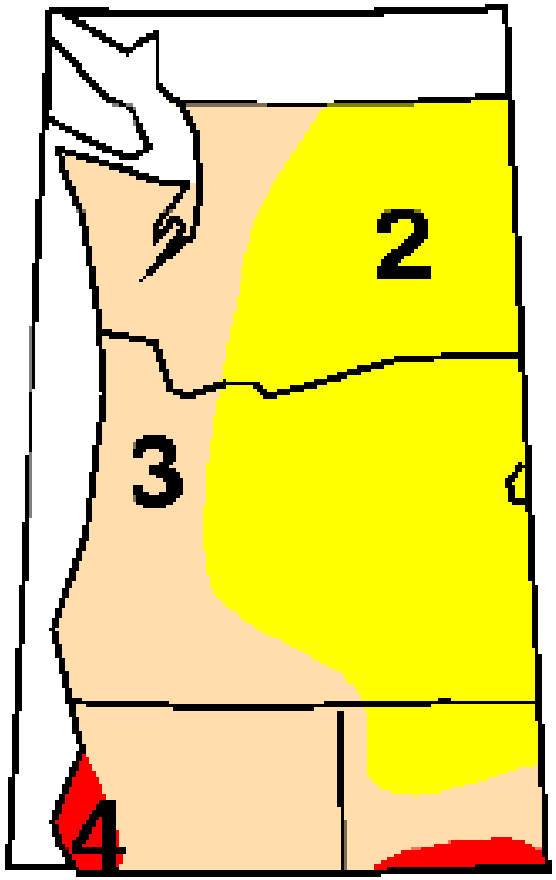
UBC Seismic Zone Maps



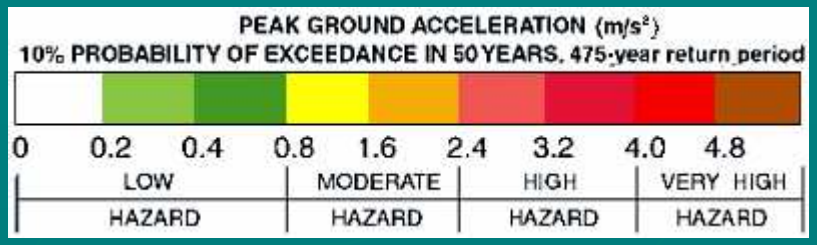
1949

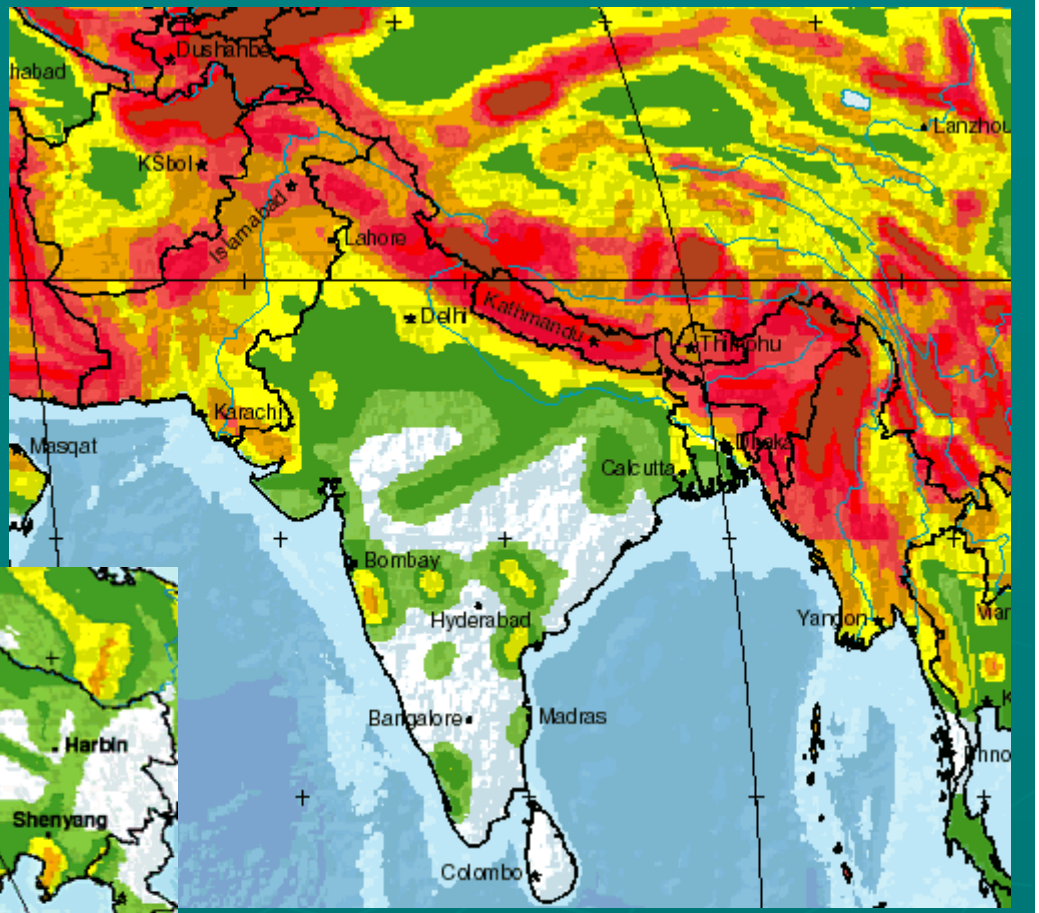


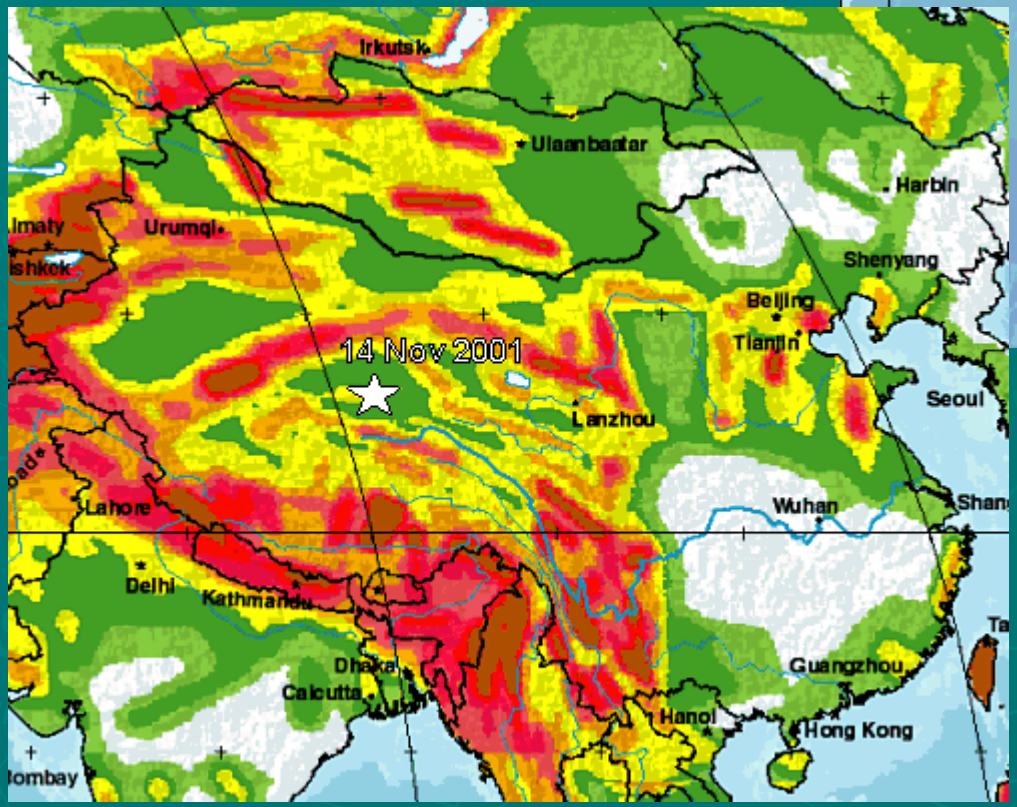
1969



1997

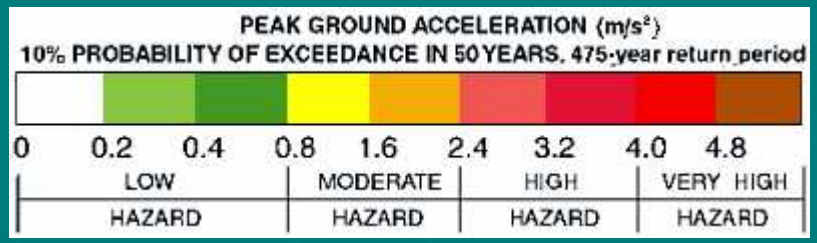


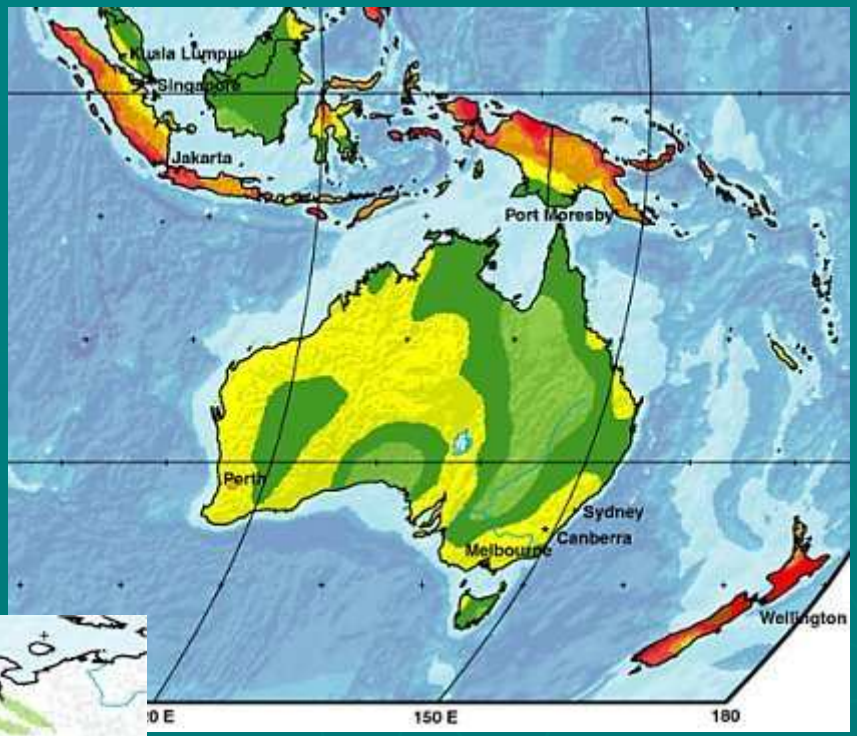


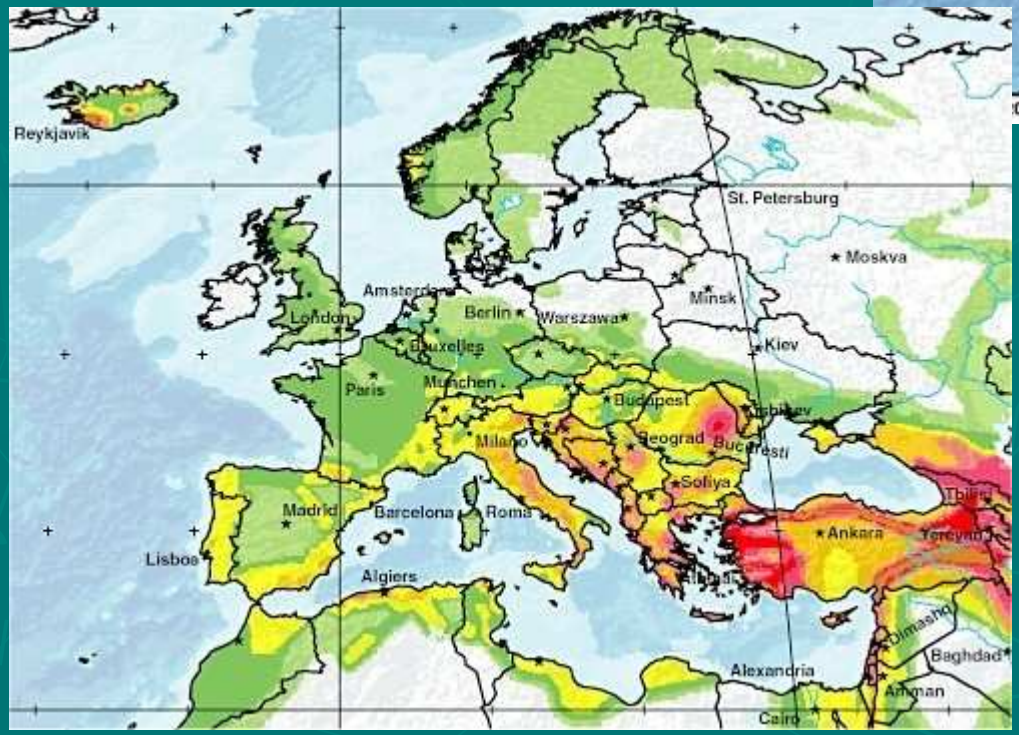


China and India—
fairly well mapped

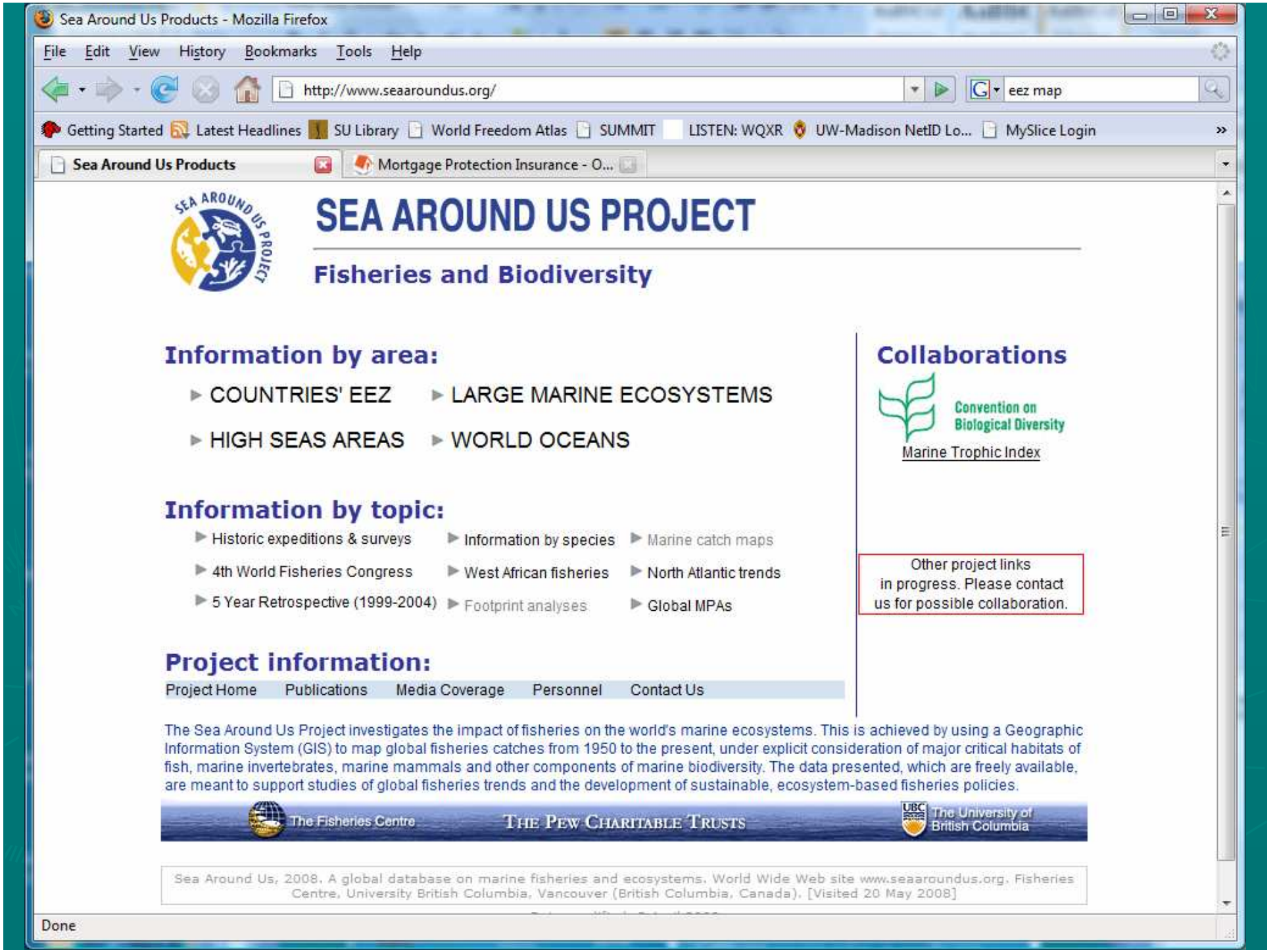
Australia and Europe—
well mapped but
comparatively stable







Well off by
UN standards


Sea Around Us Products - Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://www.seaaroundus.org/
eez map
Getting Started Latest Headlines SU Library World Freedom Atlas SUMMIT LISTEN: WQXR UW-Madison NetID Lo... MySlice Login
Sea Around Us Products
Mortgage Protection Insurance - O...
SEA AROUND US PROJECT
Fisheries and Biodiversity
Information by area:
COUNTRIES' EEZ
LARGE MARINE ECOSYSTEMS
HIGH SEAS AREAS
WORLD OCEANS
Information by topic:
Historic expeditions & surveys
Information by species
Marine catch maps
4th World Fisheries Congress
West African fisheries
North Atlantic trends
5 Year Retrospective (1999-2004)
Footprint analyses
Global MPAs
Project information:
Project Home Publications Media Coverage Personnel Contact Us
Collaborations
Convention on Biological Diversity
Marine Trophic Index
Other project links in progress. Please contact us for possible collaboration.
The Sea Around Us Project investigates the impact of fisheries on the world's marine ecosystems. This is achieved by using a Geographic Information System (GIS) to map global fisheries catches from 1950 to the present, under explicit consideration of major critical habitats of fish, marine invertebrates, marine mammals and other components of marine biodiversity. The data presented, which are freely available, are meant to support studies of global fisheries trends and the development of sustainable, ecosystem-based fisheries policies.
The Fisheries Centre
THE PEW CHARITABLE TRUSTS
The University of British Columbia
Sea Around Us, 2008. A global database on marine fisheries and ecosystems. World Wide Web site www.seaaroundus.org. Fisheries Centre, University British Columbia, Vancouver (British Columbia, Canada). [Visited 20 May 2008]
Done

Country Data - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.seaaroundus.org/eez/eez.aspx

eez map

Getting Started Latest Headlines SU Library World Freedom Atlas SUMMIT LISTEN: WQXR UW-Madison NetID Lo... MySlice Login

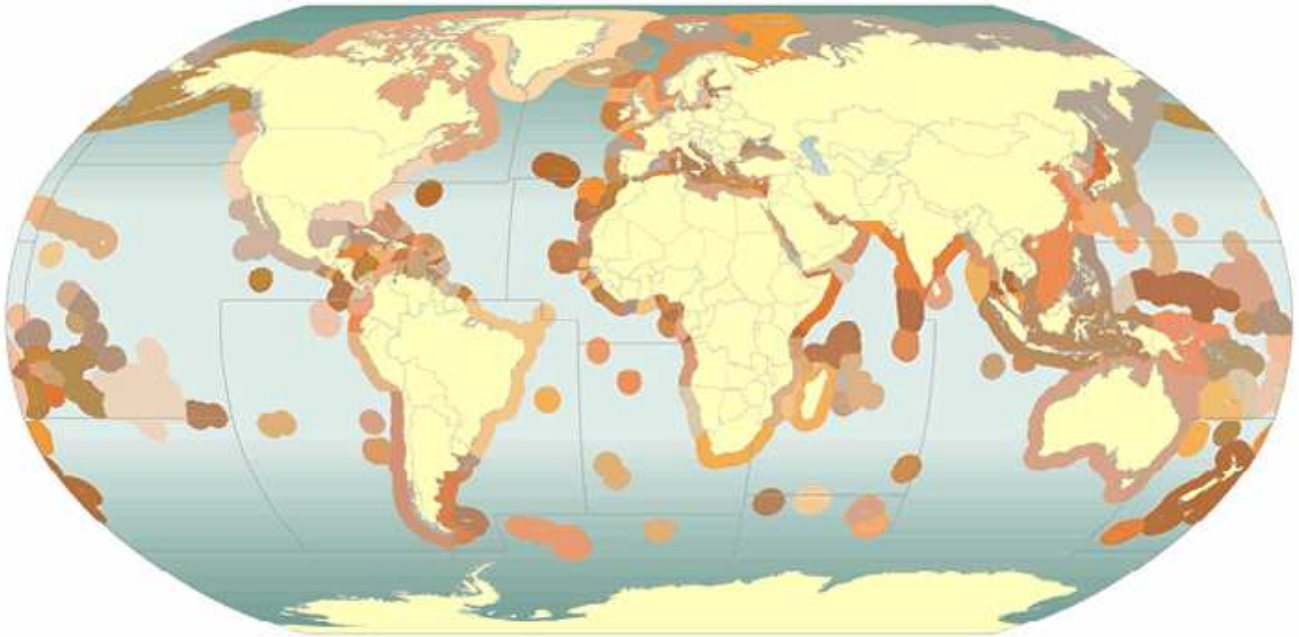
Country Data

Mortgage Protection Insurance - O...

Web Products: Countries' EEZ

FAQ Project page Web products

-- Please select --



The Fisheries Centre THE PEW CHARITABLE TRUSTS The University of British Columbia

Sea Around Us, 2008. A global database on marine fisheries and ecosystems. World Wide Web site www.seaaroundus.org. Fisheries Centre, University British Columbia, Vancouver (British Columbia, Canada). [Visited 20 May 2008]

Done

Country Information - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.seaaroundus.org/eez/SummaryInfo.aspx?EEZ=724

eez map

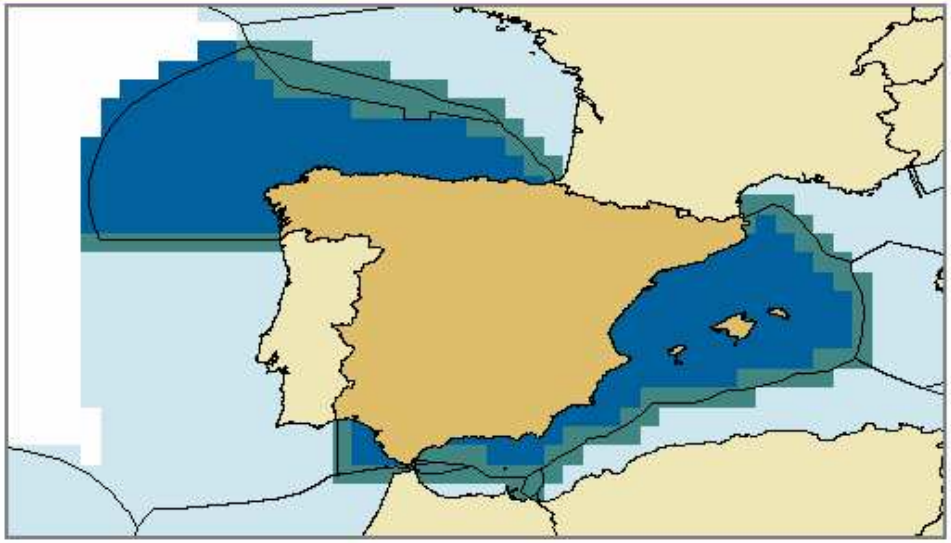
Getting Started Latest Headlines SU Library World Freedom Atlas SUMMIT LISTEN: WQXR UW-Madison NetID Lo... MySlice Login

Country Information | Mortgage Protection Insurance - O...

Web Products: Countries' EEZ

Main page

Spain



Legend FAO areas

Select FAO area:

All
E Central Atlantic
Med & Black Sea

Catches by:

Values by:

Biodiversity

Ecosystems

Governance

Feedback

EEZ area (shelf):	589,349 (71,702) km²
Coral Reefs:	0 % of world
Sea Mounts:	0.0900 % of world
Primary Production:	539 $mgC \cdot m^{-2} \cdot day^{-1}$

Done

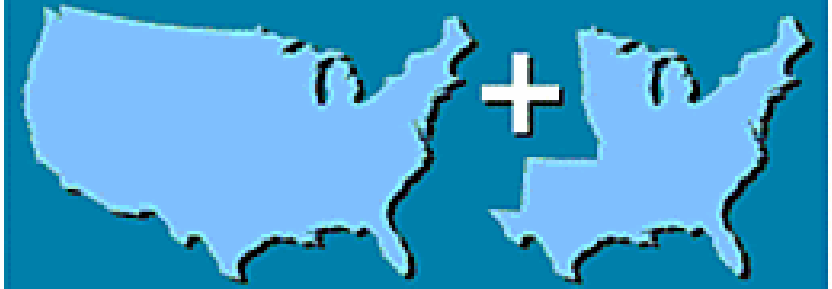
America's Ocean Frontier

United States Exclusive Economic Zone (U.S. EEZ)

ASIA
Alaska
CANADA
UNITED STATES
PACIFIC OCEAN
MEXICO
North Mariana Islands
Midway Islands
Hawaiian Islands
Puerto Rico & U.S. Virgin Islands
Guam
Wake Island
Johnston Atoll
Palmyra Atoll
Kingman Reef
Howland Island
Baker Island
Jarvis Island
American Samoa
AUSTRALIA

How big is the U.S. EEZ?

The U.S. Exclusive Economic Zone, at 4,453,068 square miles, is nearly one and one-half the size of the landmass of the lower 48 states.



LUCIDITY INFORMATION DESIGN, LLC

Country Information - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.seaaroundus.org/eez/SummaryInfo.aspx?EEZ=644

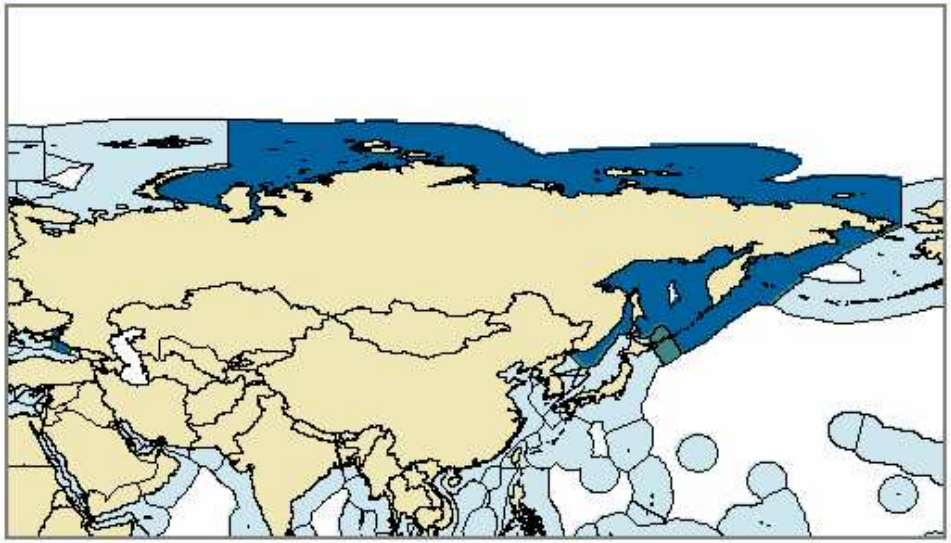
eez map Arctic

Getting Started Latest Headlines SU Library World Freedom Atlas SUMMIT LISTEN: WQXR UW-Madison NetID Lo... MySlice Login

Web Products: Countries' EEZ

Main page

Russian Federation (Asia)



Legend FAO areas

Select FAO area:

All
Arctic Sea
Med & Black Sea

Catches by:

Values by:

Biodiversity

Ecosystems

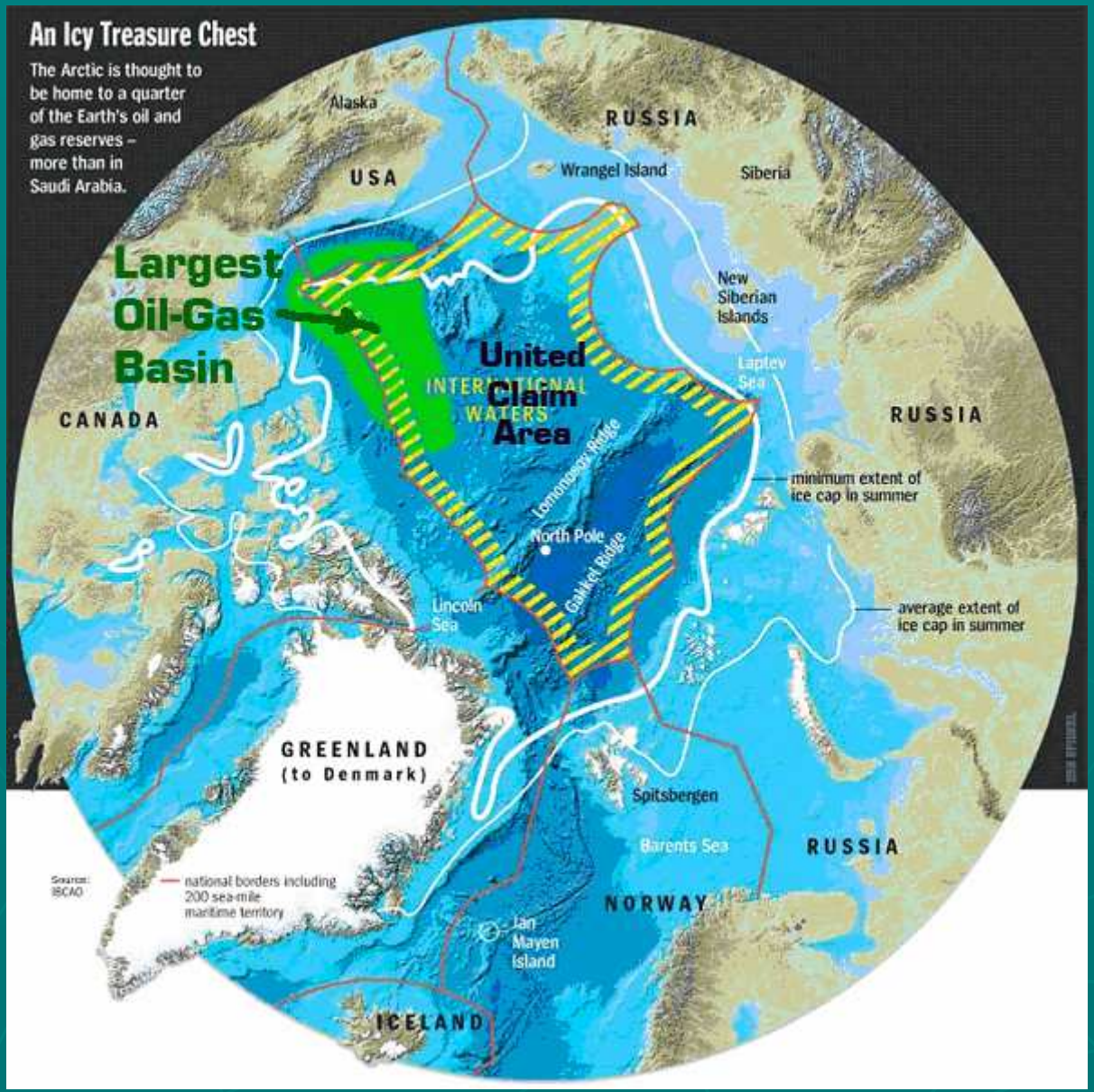
Governance

Feedback

EEZ area (shelf):	6,382,530 (3,183,150) km²
Coral Reefs:	0 % of world
Sea Mounts:	0.2700 % of world
Primary Production:	429 $mgC \cdot m^{-2} \cdot day^{-1}$

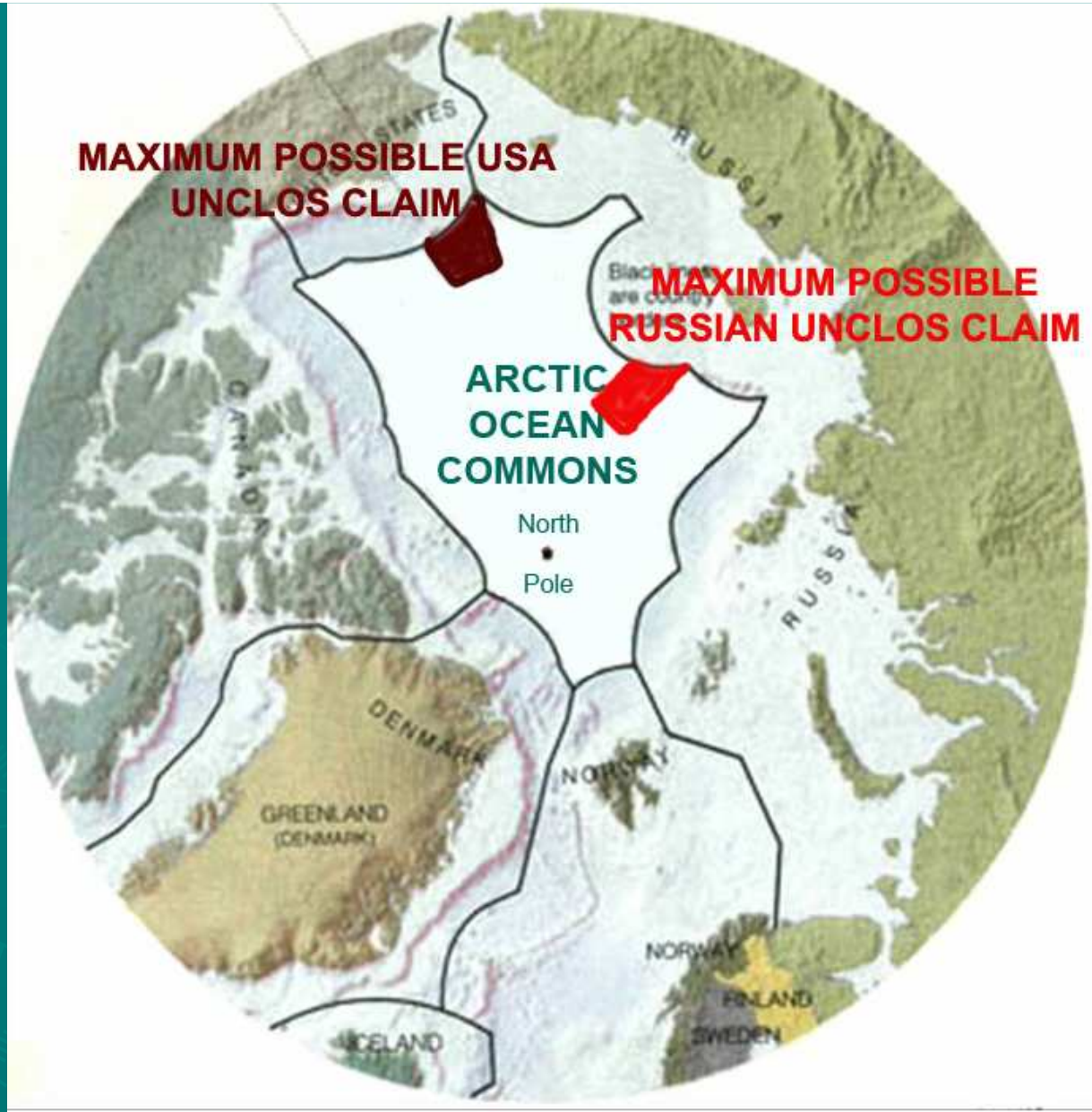
Done

The "United Claim Area" delineated by the United Oil and Gas Consortium Management Company, which would like to "manage" the resource.



www.unoilgas.com/arctic-claim-map-07.jpg

Agreed borders
Equidistant border
200-mile line
Russian-claimed territory
Lomonosov Ridge
USA
CANADA
RUSSIA
GREENLAND
NORWAY
Deepest Oil Filled Basin
Arctic Ocean
200-mile line
Lomonosov Ridge
North Pole
FRANZ JOSEF LAND
Disputed area
1
2
3
4
4
See www.unoilgas.com
All locations approximate
SOURCE: University of Durham, UN, Marum



UNCLOS Claims are limited to a maximum of 350 miles from shore on gentle extentions of continental shelf areas, only.

Putin's Land Grab

Maps make good ~~propaganda~~ persuasive graphics:

- Maps are easy to manipulate
- People tend to see maps as 'objective reality'—that is, as facts.
- Maps can shock, and as "startling reminders" they do get noticed.
- Dynamic maps readily engage viewers.