Scanning and Georeferencing Historical USGS Quadrangles, By G.J. Allord and W.J. Carswell, Jr.

http://viewer.nationalmap.gov/viewer/

http://pubs.usgs.gov/fs/2011/3009/

Cartographers in the Field   This Depression-era oil painting, created by Hal Shelton in 1940, depicts mapping techniques used in the early days of cartography, including an alidade and stadia rod for determining distances and elevations and a plane-table for sketching contour lines. This 4-by-6 foot painting is on display in the USGS library in Menlo Park, California.

Humboldt Bay and Eel River Atlas

1948

http://datagateway.nrcs.usda.gov/

The USGS's crowd-sourced Community Internet Intensity Maps, popularly known as "Did-You-Feel-It" maps, have been collecting online surveys of seismic shaking intensity since 1997. There've been plenty of quakes in that time, and in 2012 researchers put together all the results into these compilation maps that show all the data together.

http://blogs.agu.org/tremblingearth/2014/02/18/how-hard-has-your-zip-code-shaken/
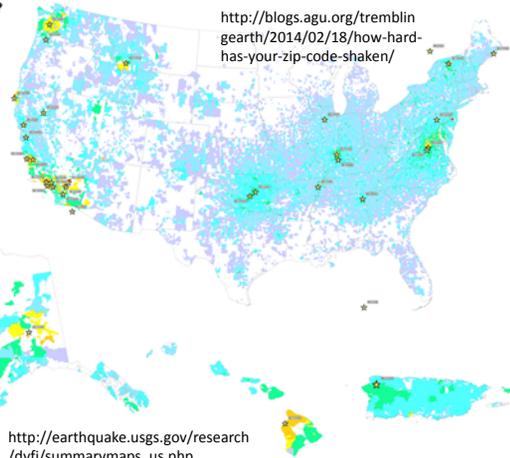
http://earthquake.usgs.gov/research/dyfi/summarymaps_us.php

Emergency assessment of wildfire debris flow potential

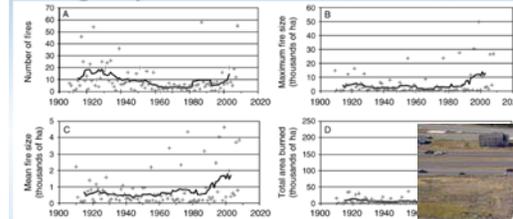http://blogs.agu.org/landslideblog/2014/02/21/wildfire-debris-flow-potential/

FIG. 3.   (A) Number of fires, (B) maximum fire size, (C) mean fire size, and (D) annual total burned area, 1910–2008 period within the study region (indicated by crosses). Fire sizes are for area within forest. The moving averages (solid line) are only for display purposes. The four years (1987, 1999, 2006, and 2008) of per year were years with widespread lightning events.

One of the consequences of wildfires is that the incidence of landslides, and in particular of debris flows, can dramatically increase. The USGS has a good primer on this topic, and this report provides an interesting summary of debris flow potential after a wildfire in Fort Collins in Colorado. The image on the right, from the Utah Geological Survey, shows the aftermath of a debris flow in Santaquin after a wildfire in 2002:

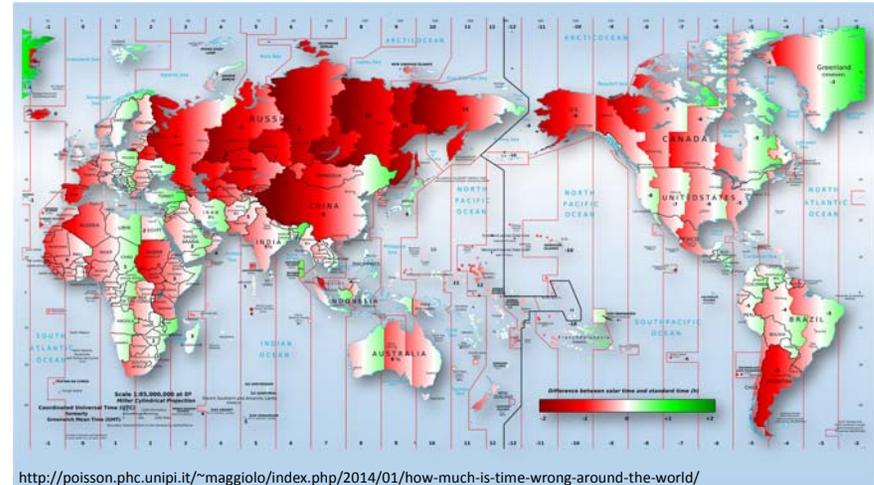http://landslides.usgs.gov/current/postfire_debrisflow/

At present the only data online is for the Colby Fire, which occurred in mid-January this year in Angeles National Forest in California in mid-January. The assessment suggests that the debris flow potential is some of the sub-catchments is rather high:
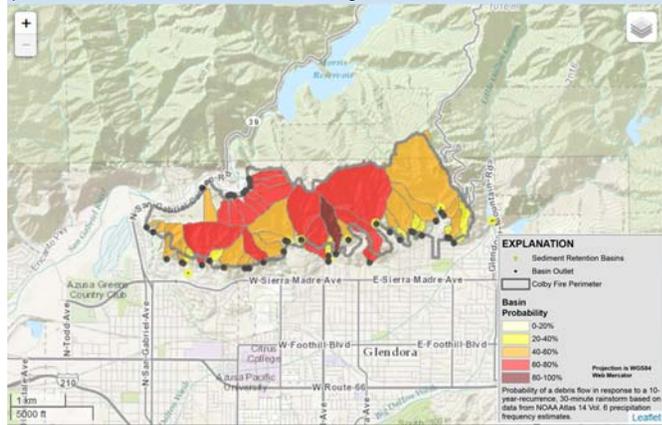

Clearly such debris flows represent a very substantial hazard for those living in upland areas that have been affected by wildfires.

The assessments use "geospatial data related to **basin morphometry, burn severity, soil properties, and rainfall characteristics to estimate the probability and volume of debris flows that may occur in response to a design storm**".

http://poisson.phc.unipi.it/~maggiolo/index.php/2014/01/how-much-is-time-wrong-around-the-world/

http://www.eurekalert.org/pub_releases/2014-02/uoh-whh022014.php

What has happened to the tsunami debris from Japan?
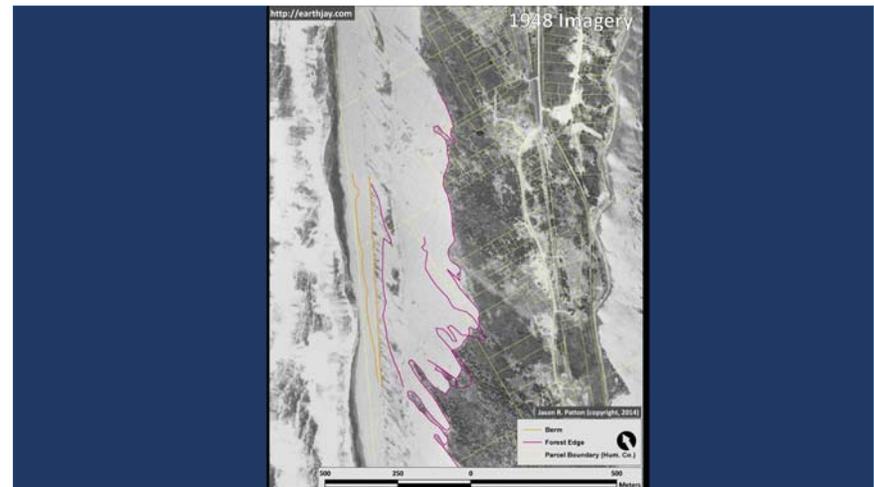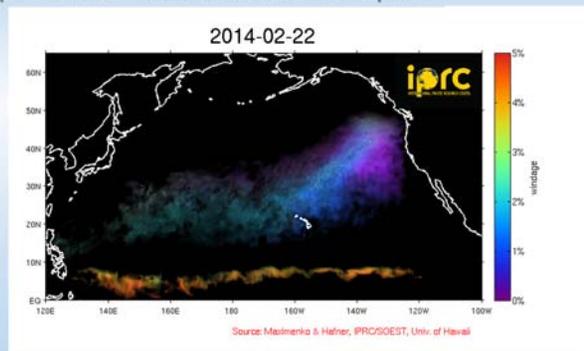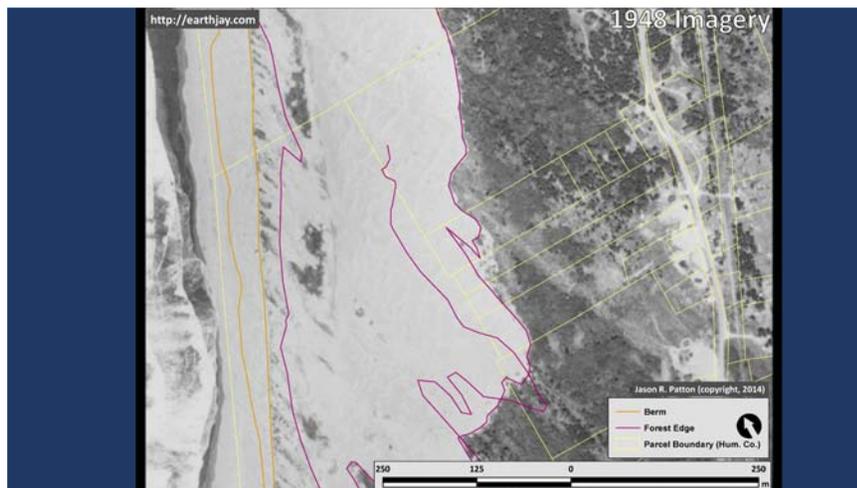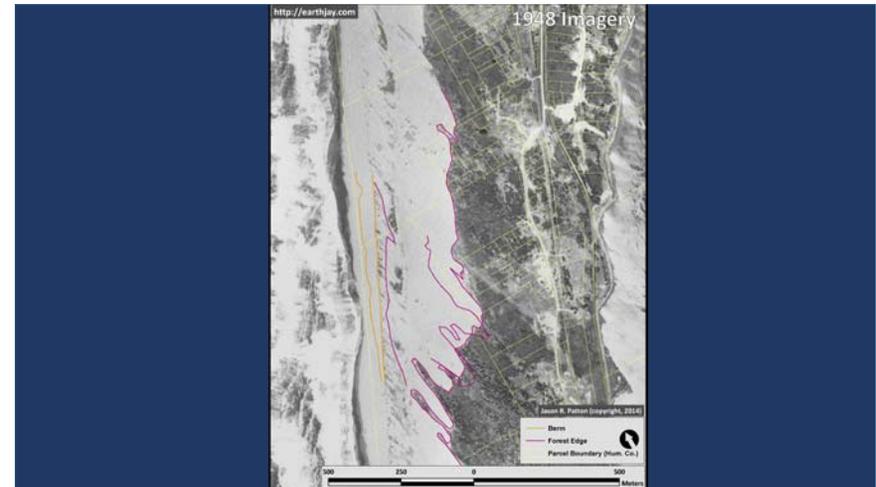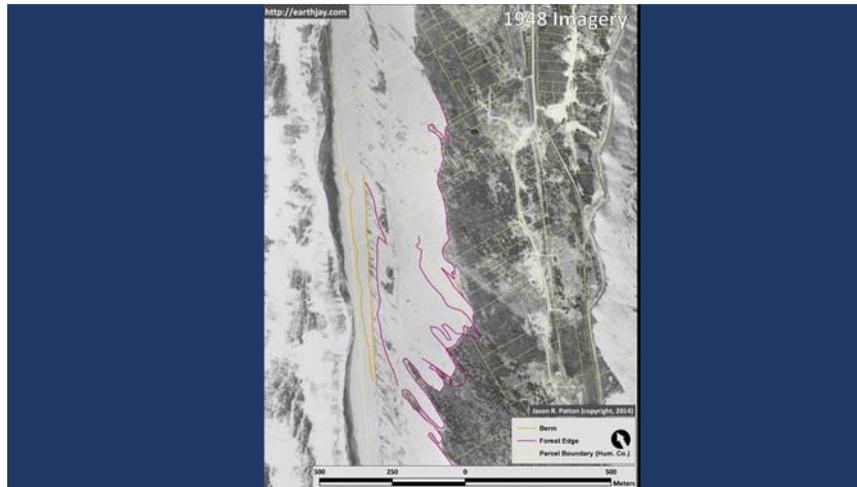
Geostatistical Analyst Tutorial

Place a copy of the geodatabase into your working directory (D drive).

Dataset	Description
ca_outline	Outline of California
O3_Sep06_3pm	Ozone point sample values (ppm)
ca_cities	Major California cities
ca_hillshade	A hillshade map of California

- Use "geostatistical_analyst_overview.pdf" as a guide to the features of the geostatistical analyst.
- Open "geostatistical_analyst_tutorial.pdf" and follow the directions for all 5 exercises. These will comprise 2 labs and take 2 weeks.
- We will go through these exercises in class.