Earth Science Web Sites and Related Information For Yellowstone-Teton area Compiled by Robert B. Smith University of Utah January 2010

Note that this document is by no means an exhaustive list of web sites on the above subject, but provides useful sites as a guide to acquire additional information

I. Documents

Smith, R.B., and L. Siegel, 2000, Windows into the Earth: The geologic story of Yellowstone and Grand Teton National Parks, Oxford Univ. Press, New York.

Christiansen, R.L., 2001, The Quaternary and Pliocene Yellowstone Plateau volcanic field of Wyoming, Idaho, and Montana: U.S. Geological Survey Professional Paper: 729-G, 145 p., 3 plates, scale 1:125,000.

II. General Geology and Geophysics

Yellowstone Volcano Observatory (contains extensive list of topics and links for geologic maps, hazard and educational information, etc.): <u>http://volcanoes.usgs.gov/yvo/</u>

<u>University of Utah Seismology and Active Tectonics Research Group (Yellowstone, Teton</u> <u>and Wasatch fault studies)</u> <u>http://www.uusatrg.utah.edu/</u>

University of Utah Yellowstone-Teton Geologic Geographic Information System site http://www.yellowstonegis.utah.edu/

NPS geology website for Yellowstone National Park: http://www.nps.gov/yell/naturescience/index.htm

NPS geology website for Grand Teton National Park:

http://www.nps.gov/grte/naturescience/geology.htm

Digital geologic map (ID I-2031) of the Teton region: http://store.usgs.gov/mod/wy.html

Geologic Map Yellowstone Plateau Volcanic Field

http://pubs.usgs.gov/pp/pp729g/plate3.pdf

Montana Bureau of Mines and Geology:

http://www.mbmg.mtech.edu/

Wyoming State Geological Survey http://www.wsgs.uwyo.edu/default.aspx

Idaho State Geological Survey

http://www.idahogeology.org/

II. Real-time earthquake information

University of Utah Yellowstone real-time earthquake locations http://www.seis.utah.edu/reg2webdir/recenteqs/Maps/Yellowstone.html

Intermountain region real-time earthquakes http://www.seis.utah.edu/req2webdir/recenteqs/Maps/anss_imw.html

USGS National Earthquake Information Center:

http://earthquake.usgs.gov/

Report If You Feel An Earthquake Internet Public Reporting of Felt Earthquakes and Maps of Felt Reports. Please fill out the US Geological Survey's Community Internet Intensity Survey: <u>http://pasadena.wr.usgs.gov/shake/imw/</u>

Global earthquake monitor: http://www.iris.edu/seismon/

III. Crustal Deformation from GPS, InSAR and LiDAR

GPS measured ground movements of Yellowstone, Teton and Snake River Plain http://www.uusatrg.utah.edu/ts_ysrp.html

EarthScope GPS data for the western U.S.

http://pboweb.unavco.org/?pageid=88

LiDAR maps for Intermountain region (Yellowstone volcanic field, WY, Teton fault, WY, and Wasatch fault, UT). http://www.opentopography.org/index.php

IV. EarthScope Science Program

NSF EarthScope Program with GPS and seismic measurements of the entire US (with links to the focused research project on the Yellowstone hotspot and motions of the Teton and Hebgen Lake faults). http://www.earthscope.org

Plate Boundary Observatory: Data: Network of GPS, strainmeters, LIDAR etc. http://pboweb.unavco.org/

USArray (United States array of seismographs): Data from transportable seismograph array

http://www.earthscope.org/observatories/usarray

V. **Earthquake Hazard Information**

Report If You Feel An Earthquake Internet Public Reporting of Felt Earthquakes and Maps of Felt Reports. http://earthquake.usgs.gov/eqcenter/dyfi/

Earthquake Notification Service (anyone can subscribe to a real-time Internet earthquake alert system with earthquake maps, ground shaking) http://earthquake.usgs.gov/eqcenter/ens/

U.S. Earthquake Hazard Maps http://earthquake.usgs.gov/research/hazmaps/

Teton County Earthquake Information from Project Impact: http://members.tripod.com/teton projectimpact/id49.htm

The Teton fault, Wyoming: Topographic signature, neotectonics, and mechanisms of deformation: http://www.agu.org/pubs/crossref/1994/94JB00281.shtml

Putting down roots in earthquake country: (for Utah and Idaho but has good applications to any active earthquake area, particularly like the Teton fault):

http://ussc.utah.gov/putting down roots.html http://www.idahogeology.org/uploads/Earthquake-9-10-09.pdf

Wyoming and Teton Landslide Hazard Maps:

http://www.wrds.uwvo.edu/wrds/wsgs/hazards/landslides/landslides.html

VI. **Volcano Hazard Information**

Yellowstone Volcano Observatory (contains extensive list of topics and links for geologic maps, hazard and educational information, etc.): http://volcanoes.usgs.gov/yvo/

USGS Volcano Hazards Program http://volcanoes.usgs.gov/

Smithsonian Global Volcanism Program http://www.volcano.si.edu/

Volcano World http://volcano.oregonstate.edu/

VII. **Educational Web Sites on Plate Tectonics, Earthquakes and Volcanoes:**

National Geographic 2009 Yellowstone article http://ngm.nationalgeographic.com/2009/08/yellowstone/achenbach-text

Animated Yellowstone Seismicity Maps

http://www.yellowstonegis.utah.edu/maps/yellowstoneQuakes/index.html

Teton County GIS interactive map server:

http://www2.tetonwyo.org/mapserver/

What's Under Yellowstone?

http://dsc.discovery.com/convergence/supervolcano/under/under.html

Yellowstone Supervolcano

http://dsc.discovery.com/convergence/supervolcano/

American Museum of Natural History Yellowstone science bulletin

http://www.amnh.org/sciencebulletins/index.php?sid=e.f.yellowstone.20060601

Plate tectonics:

http://pubs.usgs.gov/publications/text/dynamic.html

The Savage Earth: http://www.pbs.org/wnet/savageearth/,

Earthquakes, plate tectonics and space methods in Earth Sciences: http://scign.jpl.nasa.gov/learn/

Investigating earthquakes: http://www.scecdc.scec.org/Module/module.html

VIII. National Park Service homepages:

Yellowstone National Park: http://www.nps.gov/yell/

Grand Teton National Park: <u>http://www.nps.gov/grte/</u>

Natural Resources Bibliography for National Parks. http://science.nature.nps.gov/im/apps/nrbib/

IX. Outreach and educational organizations

Teton Science Schools http://www.tetonscience.org

Grand Teton National Park Foundation http://www.gtnpf.org/

Grand Teton Association

http://www.grandtetonpark.org/

Yellowstone Association http://www.yellowstoneassociation.org/

Yellowstone National Park Foundation http://www.ypf.org/

Yellowstone Science, quarterly magazine http://www.nps.gov/yell/planyourvisit/yellsciweb.htm

X. Bob Smith's web sites and contact information

Bob Smith University of Utah web site <u>http://www.earth.utah.edu/people/faculty/rsmith</u>

Bob Smith's Seismology and Active Tectonics Research Group: Yellowstone Plume, Hotspot, Teton and Wasatch Front Earthquake Research <u>http://www.uusatrg.utah.edu/</u>

Email address for Bob Smith, University of Utah: <u>robert.b.smith@utah.edu</u>

XI. Links to Everything

All My Faves http://www.allmyfaves.com/