Do you know of a colleague and/or student who would be interested in receiving these Bulletin Board listings? Please forward to them. A quick email to Geosciences-BBoard@att.net with the word “subscribe” in the subject line and the email address will be added to the distribution.

**Geosciences Bulletin Board – 12 October 2015 - compiled by Elaine J. Hanford**

**Movie review:** “The Martian” and questions of science

**Book review:** *Alfred Wegener: Science, Exploration, and the Theory of Continental Drift*
- [http://www.nature.com/nature/journal/v526/n7572/full/526192a.html](http://www.nature.com/nature/journal/v526/n7572/full/526192a.html)

**Mapping 100 years of earthquake activity in 3-D**
- Interactive globe: [http://richiecarmichael.github.io/quake/index.html](http://richiecarmichael.github.io/quake/index.html)

**4.4M EQ followed by shallow, 4.5MEQ near Cushing, Oklahoma**

These photos illustrate some of the diverse geology of Britain, birthplace of the science

USGS now monitoring tweets to help detect earthquakes
**Whale songs as sheet music? Yes!! (visualization video)**

**Study of sedimentary sequence in Yellow River in China reveals climate history & topography**

**Mammoth of a find and excavation in Michigan (video)**

**New images of Charon, moon of Pluto, reveal interesting geologic features**

**Charting the rise and imminent fall of the Age of Petroleum in the North Sea region**

**USGS releases estimates of millions of barrels of oil and billions of cubic feet of natural gas in the Monterey Formation in the San Joaquin Basin in California**

**Volcanic eruptions can alter precipitation patterns and change regional stream flows**

**Photo-essay of the spectacular geology of the American Southwest**

**Rocks from South Africa yield earliest known evidence of oxygen & photosynthesis**

**The topography of the Alps**
- [http://www.earthmagazine.org/article/sculpting-alps](http://www.earthmagazine.org/article/sculpting-alps)

**Colima erupts yet again (video) – ash, smoke and pyroclastic flows**

*Desmostylia* has a brief and geographically limited existence between 33 and 10 mya
- [http://www.sciencedaily.com/releases/2015/10/151006102733.htm](http://www.sciencedaily.com/releases/2015/10/151006102733.htm)

**The drawing that proved the Earth has a solid core**
New study suggests inner core of Earth formed 1 to 1.5 billion years ago


Planetary geology: the lunar North Pole


Ejecta, not from volcanoes, but from potholes....where does it go?


Beautiful at any time of year, but now autumn colors abound in Kettle Moraine area of Wisconsin (photos)

- [http://www.star-telegram.com/living/travel/article38072274.html](http://www.star-telegram.com/living/travel/article38072274.html)

Collapse of eastern slope of Fogo volcano about 73,000 years ago caused mega-tsunami

- [http://www.huffingtonpost.com/entry/ancient-mega-tsunami_56129c03e4b0dd85030c9b85](http://www.huffingtonpost.com/entry/ancient-mega-tsunami_56129c03e4b0dd85030c9b85)

New fracturing fluid may lead to cost-effective, non-polluting enhanced geothermal systems

- [http://www.sciencedaily.com/releases/2015/10/151007084534.htm](http://www.sciencedaily.com/releases/2015/10/151007084534.htm)

Holographic detector used to study interactions between clouds and surrounding air

- [http://www.npr.org/2015/10/02/444877155/whats-at-the-edge-of-a-cloud](http://www.npr.org/2015/10/02/444877155/whats-at-the-edge-of-a-cloud)

New NASA study says Antarctica has had a net gain in ice...challenging IPCC report


Predicting the impacts of El Nino on Australia...drought & wildfires


NOAA has nominated two old ship graveyards, one in Chesapeake Bay and one in Mallows Bay in Lake Michigan, as marine sanctuary sites


Largest dinosaur population growth study ever shows how *Maiasaura* lived and died

- [http://www.sciencedaily.com/releases/2015/10/151002191729.htm](http://www.sciencedaily.com/releases/2015/10/151002191729.htm)

Glass skywalk on Yuntai Mountain that opened just two weeks ago in September just cracked and is now closed to tourists (video & pics)
What is in samples of sea water from the Arctic? GEOTRACES program to study trace components

Developing a framework to detect damage in dams from seismic shaking

Simulating the path of magma mush inside an active volcano

Death toll continues to climb as recovery operations continue in landslide in Guatemala

Flood waters in South Carolina, dams breached, death toll rises, damages continue
After the floods in South Carolina, there are risks for five major health concerns...and concerns about drinking water supplies


Without intervention & management by US cavalry, Yellowstone National Park might not have survived 14 years of corrupt or incompetent management by political appointees


Starting a dialog on antibiotic use in livestock for food production


Newly discovered tablet reveals lines of epic poem Gilgamesh that confirm human recognition of the consequences of wrecking environmental damage


Mega-cities continue to grow...3.7B now living in cities, with 1 billion living in urban slums (video) causing urban problems, health care epidemics, pollution ...

- https://www.yahoo.com/katiecouric/urbanization-explained-211051229.html

20-50X higher cancer rates in children living near Fukushima nuclear meltdown


Pneumonia killing bighorn sheep in Joshua Tree National Park likely came from contact with carrier domesticated sheep or goats (video)

Genetically pure bison to be released in Soapstone Prairie Natural Area in Colorado


After tequila…then comes biofuel?


Initiative 1401 may help to prevent extinction of many species


Photo-essay of the Svalbard Global Seed Vault in Norway


Cacti are declining in numbers – not due to drought – but due to illegal plant trade


Butterflies in Greenland are evolving: getting smaller in response to climate warming


The good, bad and ugly of past industrialization in these five towns – all great places to visit


Almost 30 years since the Chernobyl disaster, but animals are thriving in the exclusion zone without human impacts

- [http://www.huffingtonpost.com/entry/chernobyl-wildlife-study_5612c8b4e4b076812702dbe0](http://www.huffington.com/entry/chernobyl-wildlife-study_5612c8b4e4b076812702dbe0)

How close is too close when protecting wilderness areas from impacts of mining?

- [http://www.npr.org/2015/10/03/444194345/for-environmentalists-mines-near-wilderness-are-too-close-for-comfort](http://www.npr.org/2015/10/03/444194345/for-environmentalists-mines-near-wilderness-are-too-close-for-comfort)

What to do if a grizzly bear attacks???


Humans are still trying to re-design the Mississippi River – Hint: it’s a delta and naturally changes, sometimes increasing & sometimes eroding away

North Texas Integrated Pipeline water system still under construction – Phase I will be operational in 2018 & final phase by 2030


Obama administration will not include sustainability in new dietary guidelines

- http://www.npr.org/sections/thesalt/2015/10/06/446369955/new-dietary-guidelines-will-not.include-sustainability-goal

This gigantic desalination plant is in Fresno county, not near the ocean, will be solar powered and will treat irrigation waters in the Central Valley of California


Six-year dredging project to “clean up” PCBs in Hudson River has now ended


Can the industrial pollution in the Duwamish watershed in Washington be remediated and the river restored?

- http://crosscut.com/2015/10/can-we-really-restore-seattles-industrial-river/

Trans-Pacific Partnership is a “good thing” if one only considers economics...but from an environmental perspective it needs to be reconsidered


Herring gulls may be sentinel species for new stain repellant and fire retardant chemical impacts around the Great Lakes


“Settlement” with Duke Energy over coal ash pollution at 14 power plants in North Carolina grants amnesty and reduces fines


Impact of dairy farming on surface waters across Europe is not good

- http://www.theguardian.com/environment/2015/oct/05/think-dairy-farming-is-benign-our-rivers-tell-a-different-story

Final legal settlement announced against BP for 2010 Deepwater Horizon spill in Gulf of Mexico... and most of $20.8B penalty may be tax deductible

Lead exposure during pregnancy may have teratogenic impacts on grandchildren

Newly developed test detects virus infections in humans & other animals

A tale of deadly floods in two locales on opposite sides of the pond

Poplar Island, Maryland, rebuild with dredge material, wins ASCE Sustainability Award

The adaptability of mammals (killer whales, polar bears and humans) can disrupt the ecosystem

Understanding of food webs is critical to predict what communities look like before, during, and after a mass extinction

Global incidences of more than 100 strains of human papillomavirus (HPV) and cytomegalovirus (CMV) (member of Herpesviridae family) are driving research

Concern over atmospheric levels of diesel exhaust pollutant: 70 times higher than expected