Extreme Weather Essay.

First Essay Assignment in EI-2014

This has been quite a year for extreme weather. On February 8, 2014, there was a major snowstorm in the city of Tokyo, Japan and other areas that grounded flights and cancelled some train services. On average, Tokyo receives only 4 inches of snow per year; this single snowstorm dumped over 11 inches of snow, the largest snowfall in 45 years. England and Wales were drenched by their wettest January since 1876. More than 5,000 homes and businesses were flooded and nearly 150 square miles of land were submerged. Here in the US, we have just experienced the coldest and harshest winter since 1970’s.

In June of 2013, massive rainfalls in India’s Himalayan Uttarakhand region wiped out entire towns and were considered the cause of the Earth’s fourth largest weather related disaster since the year 2000, and are the worst disaster in India. Uttarakhand received more than 847% of its normal rainfall in one week, causing floods and a massive mudslide that wiped out an important Hindu shrine that had been packed with visitors.

http://www.wunderground.com/blog/JeffMasters/indias-june-2013-flood-earth-4th-deadliest-weather-disaster-since-

In spring of 2011, there had been flooding along the Mississippi River. The Army Corps of Engineers said that levees performed as designed when the swollen Mississippi River threatened, and the worst of the flood threat had passed. Fortunately the catastrophic flooding that was expected was averted.

To keep waters out of Morgan City and surrounding parishes along the river, low levees were shored up and a sunken barge was placed across a critical bayou. This kept one area from needing to rely on its emergency levees and sandbag walls


These incidents are amazing examples of why engineering is important and the impact that engineers can have on public safety, on a company’s financial success, on public health, the environment, small business, and the government! Engineers truly can change the world, but only if they are strong critical thinkers and can react to all sorts of complex problems.

**Essay:** As scientists continue to collect more data about the climate, we are expecting to see predictions for more severe weather. How will engineers prevent catastrophic failure of their structures and minimize disaster? What if the severe weather predictions are incorrect? What is the impact of the predictions being too high? What is the impact of the predictions being too low? Is it possible to have too much protection?

Please write an essay addressing the above questions. Please consider the types of resources that you use carefully and make sure to cite them in your assignment. Newspaper articles in addition to the internet will probably be helpful. Please do not limit yourself to the two articles referenced here. Your assignment should be 2 pages typed, double-spaced and single sided. Font size should be 12 and margins should not exceed 1” in any direction.
ESSAY SCORING

Essays are scored on a basis of 10 possible points. Weighting of essay is applied afterwards.

2 pts  Meeting essay specifications (including bibliographic)

1 pt  Reasonable introduction and conclusion

2 pts  Logical progression/flow of ideas; structuring of information with appropriate level of specificity

2 pts  Grammar, syntax, spelling, paragraph structure

1 pt  Appropriate citations

2 pts  “Readability”

SCORE = Total (out of 10pts) * 1.5