

In class exercise Ocean 423
Abrupt climate change
April 7, 2009

You will be watching the first 45 minutes of the movie “The Day After Tomorrow” and I want you pay attention to the points made in the movie as notes below. For each of these points in the movie, I want you to write down your answers to these two questions

1. What do you need to know to evaluate whether the science that is backing up some of the statements in the movie are correct or not?
2. Do you think that the scientific basis of each of the scientific mechanism or observations is plausible or not? Why or why not?

The cause of the climate shift in the movie is polar melting that disrupts the North Atlantic current. The change in the salinity of the North Atlantic Current is what instigates the climate shift. Parallels are drawn with prehistoric climate shifts.

There was a 13 degree drop at 4 buoys in the matter of minutes across the North Atlantic.

Two of 4 buoys fail simultaneously.

There are hurricane type storms at mid and high latitudes, both in Australia and in the Arctic. These storms look like hurricanes, but hurricanes don't form over land.

Climate shifts occur in just days, although the model predicts that such a change would occur over months.