

## Key Quotes on “The Day After Tomorrow”

Spiegel Online (posted April 26, 2004) [translated from German]

"Film-makers have to choose a horror scenario and not an educationally valuable piece of enlightenment...

...How different would the world be today if the democratic eco-politician Al Gore had won the presidency?

For me as a German, all of this is very difficult to tolerate. I never want to become an American."

Roland Emmerich  
Director of The Day after Tomorrow

CNSNews.com , May 12, 2004

Gregg Easterbrook, a senior editor at New Republic Online and one who believes that human-caused climate change is real, said Gore is doing a disservice to the environmental cause by affiliating himself with a Hollywood disaster film.

“Once Gore was a serious thinker on environmental issues and diligently sought out top-notch advice ... Now Gore appears ready to affiliate his reputation with a cheapo, third-rate disaster movie that makes Fantastic Voyage seem like a peer-reviewed technical paper,” Easterbrook wrote.

Easterbrook assailed the movie’s “imbecile-caliber” science: “By presenting global warming in a laughably unrealistic way, the movie will only succeed in making audiences think that climate change is a big joke, when in fact the real science case for greenhouse-gas reform gets stronger all the time.”

Easterbrook fears the greenhouse effect will be trivialized through its connection to a disaster movie, which he believes is “scientifically illiterate.” And ultimately, The Day After Tomorrow may convince audiences that the global warming threat is just another Hollywood gimmick, Easterbrook stated. "Unfortunately it may not be," he added.

Gore called a 'sock puppet' for MoveOn.org

Easterbrook also criticized Gore for his close affiliation with MoveOn.org, the liberal group propped up by huge donations from billionaire financier George Soros for the express purpose of defeating President Bush.

“It’s easy to see why MoveOn.org wants the reflection of the new movie’s limelight; wild exaggeration is a good fundraising tool. But if Gore associates himself with this mindless film, he will have completed his descent from serious thinker and national leader to MoveOn.org’s sock puppet,” Easterbrook wrote.

“Why would Al Gore do this to himself?” he asked.

Correspondence Nature 428, 601 (April 8, 2004)

Gulf Stream safe if wind blows and Earth turns

Sir - Your News story “Gulf Stream probed for early warnings of system failure” (Nature 427, 769 (2004)) discusses what the climate in the south of England would be like “without the Gulf Stream.” Sadly, this phrase has been seen far too often, usually in newspapers concerned with the unlikely possibility of a new ice age in Britain triggered by the loss of the Gulf Stream.

European readers should be reassured that the Gulf Stream’s existence is a consequence of the large-scale wind system over the North Atlantic Ocean, and of the nature of fluid motion on a rotating planet. The only way to produce an ocean circulation without a Gulf Stream is either to turn off the wind system, or to stop the Earth’s rotation, or both.

Real questions exist about conceivable changes in the ocean circulation and its climate consequences. However, such discussions are not helped by hyperbole and alarmism. The occurrence of a climate state without the Gulf Stream any time soon - within tens of millions of years - has a probability of little more than zero.

Carl Wunsch  
Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of  
Technology

Alex Kirby, BBC News Online environment correspondent  
The blockbuster climate disaster movie The Day After Tomorrow contains badly flawed science and ignores the laws of physics, leading UK scientists believe...

Dr David Viner, of the Climatic Research Unit at the University of East Anglia, told BBC News Online: "The film got a lot of the detail wrong, and the direction of change as well - cooling of this sort is very unlikely with global warming.

The Sunday Telegraph, May 9, 2004

... No, this extremely enjoyable film has been let down by the simple fact that it has got its science all wrong. None of it could happen...

The film's website provides links to news stories published in February about "a secret report prepared by the Pentagon" which warned that climate change would "lead to global catastrophe costing millions of lives". What this publicity does not reveal is that the Pentagon report was merely a hypothetical worst-case scenario - and one that has already been thoroughly debunked. In fact, the respected magazine Science has reviewed this Pentagon report and the alleged scientific support for The Day After Tomorrow and concludes that "it is highly unlikely that global warming will lead to a widespread collapse" of the Gulf Stream, and "it is safe to say that global warming will not lead to the onset of a new Ice Age"...

Implementing the Kyoto agreement on climate change would cost at least \$150 billion each year, yet would do no more than postpone global warming for six years by 2100... Even if the film's creators are right - and the scientists are wrong - and the Gulf Stream current does collapse within a decade, then Kyoto would have made no difference.

There is another reason why it is wrong - I would even say amoral - to overplay the case for combatting climate change... We must ask ourselves if spending \$150 billion every year for the rest of the century to postpone warming for six years is really the best use of that money...

...Because we cannot do everything, we need sound reasoning and high quality information to defeat the hysteria of Hollywood. I believe there is more hope in truth than in hype.

Bjorn Lomborg, director of Copenhagen Consensus and Denmark's Environmental Assessment Institute

Letters, Science 304, 388 (April 16, 2004)

## Future Global Warming Scenarios

“In a study commissioned by the Pentagon, Peter Schwartz and Doug Randall present a very alarming scenario regarding the short-term consequences of global warming. This scenario, which predicts a shutdown of the Atlantic Ocean’s conveyor circulation in the next 10 to 15 years, is based upon analogies to two large and abrupt climate changes, which occurred 12,700 and 8200 years ago. Both are thought to have been triggered by catastrophic releases of meltwater stored in lakes that formed along the southern margin of the retreating Canadian ice sheet. These floods appear to have squelched deep water formation in the North Atlantic and, by as yet unknown mechanisms, caused Earth’s climate to plunge back toward its glacial condition. Clearly, if global warming were to cause a repeat of such an abrupt change, the consequences would be akin to those alluded to in the warning to the Pentagon, namely a large cooling of northern Europe. But, there is no reason to believe that the impacts could occur in a mere decade, nor would they be so awesome.

As the one who first pointed out the link between the Atlantic’s conveyor circulation and abrupt climate changes, I take serious issue with both the timing and severity of the changes proposed in the Pentagon scenario...”

Wallace S. Broecker  
Lamont-Doherty Earth Observatory, Columbia University

News of the Week, Science, 304, 372 (April 16, 2004)

### A Slowing Cog in the North Atlantic Ocean’s Climate Machine

Oceanographers, who have begun to watch the slow churning of the ocean much the way meteorologists observe the daily weather in the atmosphere, believe they have seen a new shift in ocean “climate.” The giant vortex of an ocean current, or gyre, tucked into the northwestern North Atlantic appears to have slowed.

The weakening of this subpolar gyre in the 1990s may have been just a random fluctuation in one part of the complex ocean currents that carries warm waters into the high North Atlantic. If so, this single cog in the Atlantic “conveyor belt” of north-south currents could soon recover...

Even if the subpolar gyre were to continue to slow [as a consequence of global

warming], there's no agreement that it would make much difference to the [thermohaline circulation] or the climate around the Atlantic... Ocean modelers Andrew Weaver of the University of Victoria, British Columbia, and Claude Hillaire-Marcel of the University of Quebec in Montreal argue from published modeling and paleoclimate records that global warming might in fact shut down the sinking of the surface waters in the gyre's Labrador Sea, as happened in 1995. But that needn't slow the [thermohaline circulation] as a whole, they say, and would have a minor climate effect downwind in Europe. That scenario is less dramatic than an inundated New York City freezing up one summer's night, as Hollywood has it in *The Day After Tomorrow*, but likely closer to the truth.

Richard A. Kerr  
Staff writer, *Science*

*Science*, 304, 400-402 (April 16, 2004)

### Global Warming and the Next Ice Age

“A popular idea in the media, exemplified by the soon-to-be-released movie *The Day After Tomorrow*, is that human-induced global warming will cause another ice age. But where did this idea come from?”

“In light of the paleoclimate record and our understanding of the contemporary climate system, it is safe to say that global warming will not lead to the onset of a new ice age. These same records suggest that it is highly unlikely that global warming will lead to a widespread collapse of the [Atlantic thermohaline circulation]—despite the appealing possibility raised by to recent studies.—although it is possible that deep convection in the Labrador Sea will cease. Such an event would have much more minor consequences on the climate downstream over Europe.”

Andrew J. Weaver, School of Earth and Ocean Sciences, University of Victoria  
Claude Hillaire-Marcel, University of Quebec

George Taylor, State Climatologist of Oregon

“They took a bunch of pieces of bad climate science and made a movie [*The Day After Tomorrow*] out of them. A lot of people will see this movie and mistake science fiction for science fact. Hollywood should not be the source for

information on climate science.”

Associated Press Story, May 4, 2004

No one is pretending the forthcoming film *The Day After Tomorrow* ([www.thedayaftertomorrow.com](http://www.thedayaftertomorrow.com)) is anything but implausible: In the \$125 million movie, global warming triggers a cascade of events that practically flash freeze the planet.

It's an abruptness no one believes possible, least of all the filmmakers behind the 20th Century Fox release. "It's very cinematic to choose the worst-case scenario, which we did," said co-screenwriter Jeffrey Nachmanoff."

"My first reaction was, 'Oh my God, this is a disaster because it is such a distortion of the science. It will certainly create a backlash,'" said Dan Schrag, a Harvard University paleoclimatologist. "I have sobered up somewhat, because the public is probably smart enough to distinguish between Hollywood and the real world."

Greenwire, May 4, 2004

Disaster movie's focus on rapid change expected to set off renewed debate

Kevin Trenberth, a researcher at the National Center for Atmospheric Research, said "a lot of the stuff on abrupt climate change is totally off the wall."

He said the film's plotline "is disappointing that it procreates a rather wrong scientific impression."

Washington Post, May 16, 2004

Apocalypse Soon?

"...these observations prove either that "The Day After Tomorrow" is full of high-tech distortion, or that the movie's makers live in a reality-free environment."

Patrick J. Michaels

Department of Environmental Sciences, University of Virginia and Virginia State  
Climatologist

#### Article Links

Bjorn Lomborg, Sunday Telegraph

<http://www.opinion.telegraph.co.uk/opinion/main.jhtml?xml=%2Fopinion%2F2004%2F05%2F09%2Fdo0903.xml>

Patrick Michaels, Washington Post

<http://www.washingtonpost.com/wp-dyn/articles/A28338-2004May14.html>

Robert C. Balling

<http://www.techcentralstation.com/051904G.html>

<http://www.techcentralstation.com/030104E.html>

James Pinkerton

<http://www.techcentralstation.com/042104B.html>

Willie Soon

<http://www.techcentralstation.com/022404D.html>