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Ideas & Trends; The Sky is Falling! Say Hollywood and, Yes, the Pentagon

By ANDREW C. REVKIN

AFTER nearly two decades in which global warming seemed about as exciting as the national debt, the subject is getting noticed again -- even by Hollywood and the Pentagon.

Since the late 1990's, there has been growing interest in one particularly catastrophic climatic event. It envisions an abrupt fall in global temperatures, caused by incremental warming from rising emissions of heat-trapping gases. What better fodder for movie makers or military strategists?

In the coming movie "The Day After Tomorrow," directed by Roland Emmerich, who last threatened Earth with alien warships in "Independence Day," "super storms" destroy Western Europe, and Manhattan is covered in a sheet of ice.

"An Abrupt Climate Change Scenario and Its Implications for United States National Security," on the other hand, was written recently by two consultants for Andrew W. Marshall, the Pentagon's legendary guru of long-term threat assessment.

Mr. Marshall said he commissioned the unclassified study after reading a 2002 report from the the National Academies of Science, the country's top scientific advisory group, which pointed to risks of future climate shocks.

The report suggests that slow warming of the planet, caused by melting ice that floods the North Atlantic with fresh water, could disrupt the ocean currents that keep Europe and easternmost North America far warmer than they would otherwise be.

Scientists say this actually occurred twice, 11,500 and 8,200 years ago, after the last ice age, when, within a decade or two, temperatures plunged after melting ice sheets fed fresh water into the Atlantic.

Right now, the thinking goes, there is an awful lot of Arctic and glacial ice melting, and that, along with shifts in precipitation patterns, is once again raising freshwater levels in parts of the Atlantic.

The Pentagon study (available at: www.ems.org/climate/pentagon-climate-change.pdf) is not as dramatic as Mr. Emmerich's film, but it was alarming enough that a British newspaper, The Observer, proclaimed: "The Pentagon tells Bush: climate change will destroy us. Secret report warns of rioting and nuclear war. "

Most experts caution that the data on past changes and current trends are spotty and that computer simulations a pale shadow of the real world. Still, some environmental groups and scientists have suggested the Pentagon study could prompt nations to curb smokestack and car emissions.

But many climatologists and other experts doubt this. Some argue that focusing on worst-case, least-certain events could lead people to play down the better understood risks posed by steady global warming. This skepticism may be especially true within the Bush administration, whose stated view (the Pentagon study notwithstanding) is that the entire matter of global warming requires more study, not action.

Peter Schwartz, one of the consultants who conducted the study for Mr. Marshall under a \$100,000 grant, said his

analysis was intentionally extreme and aimed at forcing military strategists to "imagine the unthinkable." Most scientists he and his co-author, Douglas Randall, consulted said it was extreme both in magnitude and its global geographic reach.

"The Day After Tomorrow," on the other hand, goes beyond the extreme, depicting global warming as a force that will rapidly overwhelm modern civilization. Mr. Emmerich said during filming last year that he wanted to wake people up to the perils of greenhouse gases.

"It's a popcorn movie that's actually a little subversive," he said.

But just as a movie's impact usually ends when the credits roll, so too could the impact of the Pentagon study. Indeed, Pentagon spokesmen said it had not been passed on to Mr. Marshall's superiors in the Defense Department or the Bush administration.

All of this makes some environmental researchers exceedingly frustrated. The science remains murky, they say, while the public and the politicians increasingly want hard predictions. This makes it nearly impossible to discuss the issue in ways that are both accurate and productive.

Dr. Stefan Rahmstorf, a scientist at the Potsdam Institute for Climate Impact Research, pointed to the outcome of a recent news conference he held on ocean currents, which he said could set off sudden shifts.

"Two different newspapers wrote articles," he said. "One wrote a highly dramatic article like The Observer, confusing a risk analysis with a prediction. The other one wrote there is nothing to worry about, because I said this is unlikely to happen."