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New on the Web

Earth Day 2003--- A Satire

Tuesday, April 22, was Earth Day, and I missed it. And I had such wonderful plans to mark the occasion, too.

I was going to rearrange the solar panels on my roof in the shape of a peace symbol, and make everyone in our household bathe in the same tub full of water, then scoop out a big pot and boil it for soup -- reduce, reuse, regurgitate, I always say.

I was going to implant microchip transmitters in the squirrels in our spruce trees to harness the energy from their scampering to power the grow lamps over my organic sprout garden. And I was going to while away the afternoon listening to world music on my hand-cranked CD player. (If you don't know what world music is, think Peruvian herdsman playing the recorder superimposed over sperm whale mating calls.)

I was going to read an ode to Gaia, the Earth spirit, while our children danced around holding candles they had formed themselves from the honeycombs of free-range bees. And I was going to collect the sparrow guano from underneath our winter bird feeders to use as fertilizer in our Victory garden -- victory over red-meat consumption, genetically modified foods and corporate agribusiness, that is!

Drat, now all that is going to have to wait until next Earth Day. I only hope my wife -- sorry, co-equal life partner -- will forgive me for not buying her those woolen tights and Birkenstock sandals she's been wanting.

Thank God -- sorry -- thank goddess, Edmonton's main celebrations won't take place until May 4. That'll give me time to handcraft all my presents and wrap them (in recycled newspapers I'll decorate myself with native-berry paints, of course).

Actually, I did commemorate Earth Day the best way possible -- by reading yet another scholarly study that debunks the notion our current climate is unusually hot, and getting hotter due to manmade greenhouse emissions.

The latest study, from the Harvard-Smithsonian Center for Astrophysics, carries the vernacular title 20th-Century Climate Not So Hot. Co-authored

by Smithsonian astrophysicists Sallie Baliunas and Willie Soon, Craig Idso and Sherwood Idso of the Center for the Study of Carbon Dioxide and Global Change, and David Legates of the Center for Climate Research at the University of Delaware, it notes: "20th Century temperatures were generally cooler than during the medieval warmth."

The 20th century, contrary to the alarmism of environmentalists, was neither the warmest century in the past millennium, nor the one marked by the most severe weather. Belief that the globe is warming faster than ever before, and so fast that the rise threatens the environment, is the result of examining variations in temperature over too short a time span.

The Medieval Warm Period, from approximately 800 to 1300 AD, was as much as 4 C warmer on average than today, worldwide, nearly as warm as the upper extreme of U.N. climate projections for the coming century. And the natural world did not implode, far from it. Greenland sustained agricultural colonies through much of this period. The seas teemed with fish. Wars were less common in Europe than during the later Middle Ages, in part, because harvests were plentiful and less pressure existed for campaigns of conquest to acquire new lands and resources. Cathedral construction on a grand scale (a sign of relative affluence) boomed across Europe. Mesoamerica also flourished.

Remarkable in the Harvard-Smithsonian study is the depth of analysis it contains of the historical temperature record and its finding that the Medieval Warm Period was global, not merely confined to the North Atlantic region, as some have argued.

The study, funded in part by NASA and the National (U.S.) Oceanic and Atmospheric Administration -- two organizations known for their enthusiastic support of the manmade warming theory -- examined the results from more than 240 scientific reports on temperature "proxies," biological, cultural and geological fingerprints that indirectly reveal temperatures centuries, millennia or even eons, ago.

"For example, tree-ring studies can yield yearly records of temperature and precipitation trends, while glacier ice cores record those variables over longer time scales ... Borehole data, cultural data, glacier advances or retreats, geomorphology, isotopic analysis from lake sediments, ice cores, peat moss, corals, stalagmites and fossils, even dust and pollen, can provide clues to past climate, even sometimes, very detailed indicators."

No study to date has been as thorough or wide-ranging as the Harvard-Smithsonian study, and few have taken as much advantage of the "research advances in reconstructing ancient climates" that has occurred in recent years.

Why then, do other scientists and environmentalists claim temperature records of the past century-and-a-half show such potentially catastrophic warming? Because the Little Ice Age followed the end of the Medieval Warm Period. This nearly 600-year-period of abnormally cold climate was ending just as modern, reasonably scientific weather records were beginning.

If 1850 is used as year zero -- as the baseline against which current temperatures are compared -- it is going to look dramatically warmer today than a century ago, because the Little Ice Age was just ending in 1850. But if 1850 is seen for the anomaly it is, and the past 1,000 or more years are placed in context, then today's heat is hardly that striking, and certainly not cause for alarm.

This article appeared in the Edmonton Journal, April 23, and is reprinted with permission from Lorne Gunter, who is a Columnist for the Edmonton Journal, and an Editorial Board Member of the National Post.

Prime time fiction about Alaska Warming

The urban legends of global warming are providing lively fodder not only for NBC's The West Wing, but also David Suzuki
By Ross McKitrick
Financial Post (Canada), April 16, 2003

One of the current sub-plots in NBC's The West Wing concerns a glacier in Alaska, which melted and deluged a downstream village. The White House suddenly found itself dealing with the "first casualties of global warming." Chief of Staff Leo McGarry sat enthralled as a "hydroclimatologist" from the U.S. Geological Survey told him that mean temperatures in Alaska have soared seven degrees (Fahrenheit) in the past 30 years, creating unstable lakes that are prone to overflowing, wiping out downstream villages.

Last week's show ended with the administration calling for massive cuts in so-called greenhouse gas emissions. This would, we're to suppose, somehow help drowning Alaskans. West Wing is a political drama that relishes high-stakes battles of good-versus-evil, so maybe tonight we'll see some obnoxious, cigar-chomping oil executive (or Republican senator) derail President Jed Bartlett's idea. Then cut to an SUV commercial.

It is a fictional show, of course, so it's only appropriate that it relies on fictional issues to captivate the audience. Nor should it surprise us that the whole scenario is fictional. If some "hydroclimatologist" from the Geological Survey stood in the Chief of Staff's office and claimed Alaska had warmed seven degrees in 30 years, the response would not be to upend the nation's energy policy. The response would be to pick up a phone and call the Alaska State Climatologist for confirmation, who would have quickly put the story on ice.

It is an urban legend that Alaska has warmed so much, so fast. No matter how much the Alaskans try to debunk it, it lives on, most recently in the fevered imagination of West Wing scriptwriters.

Last summer, The New York Times ran a story quoting unnamed "federal sources" that said Alaska had warmed seven degrees in 30 years. Then it ran an editorial denouncing the U.S. government's apparent indifference to this calamity.

The Alaskan Climate Research Center (ACRC) contacted the paper and gave it data showing no such warming had taken place. The mean temperature rose about 2.4F (about 0.4C per decade) in the 1971-2000 period. The entire increase occurred in one jump in 1976-77, probably due to a circulation realignment in the Pacific Ocean. A temperature index formed using data from Fairbanks, Anchorage, Nome, and Barrow (the "FANB" index) shows, if anything, a slight cooling trend since 1979.

The Times was never able to identify a source for its claim, and it printed a retraction, sort of. It did find a scientist who figured that if you look in the right places and pick an earlier start and end date you could get a

mean increase of maybe 5.4 degrees over a 30 year span. In its retraction, the Times' fudged the point a bit, saying Alaska's mean temperature went up 5.4 degrees, rather than seven, over the past 30 years.

The ACRC responded again saying that no, this is still wrong. It posted a map (http://climate.gi.alaska.edu/change) showing the record of all their weather stations for the 1971-2000 interval. In the accompanying text it states: "There is not a single first-class weather station in all of Alaska, which reported 5F temperature increase for the last three decades." The highest increase, 4.2 degrees, was at Barrow. One of the lowest (1.7F) was at nearby Kotzebue.

The Times dropped the story, but it has now resurfaced on the West Wing, where earnest White House staffers will no doubt run with it for a few weeks, hoping to bludgeon the oil industry and kill a few thousand jobs in oil-producing states like, say, Alaska. Once they've moved past this plot line, the seven-degree-warming-in-30-years claim will surely pop up again somewhere, but hopefully not in the real West Wing.

That wasn't the only bit of global warming fiction on TV recently. The same night as the fictional glacier melted, TVOntario interviewed David Suzuki on its current affairs show, Studio 2. Apparently some scientists, sponsored in part by the David Suzuki Foundation, have put out a report arguing that global warming will cause the Great Lakes to boil dry, or overflow, or do something or other a few decades from now. Ho-hum yet another apocalyptic enviro-scare: It's starting to drag on like a secular Left Behind series.

I didn't watch much of the interview, but what caught my attention was Mr. Suzuki's claim that when he was a boy growing up in London, Ontario, winter used to set in at the end of October, but now it's warmed up so much winter arrives a lot later. Global warming, you see. It's not the ups and downs but these rapid warming trends we need to worry about.

So the next day I looked up the temperature records for the weather station at London's airport. The data are spotty prior to the Second World War, but there's a continuous record after 1940, ending at 1990. I'm guessing at Dr. S's vintage but I figure this is early enough.

I don't think much of running trend lines through averaged temperature data as a way of measuring "climate," but this is how the debate often gets framed. And it shows the October-November average temperature in London fell from 1940 to 1990 at a rate of -0.2 degrees Celsius per decade. "Fell," as in cooling. As in, October and November are now colder, on average, than when Mr. Suzuki was a lad awaiting winter in London. The annual average also shows cooling, at about 0.1 degrees C per decade.

Unfortunately the temperature data are not posted after 1990, at least not at the NASA collection where I was looking (http://www.giss.nasa.gov/data/update/gistemp/station_data/). But across the lake at Erie, Penn., there is a weather station that continues to post its data. The October-November temperature average there fell by 0.26 degrees C per decade from 1940 to 2001 (see chart). The annual average fell by about 0.13 degrees C per decade from 1940 to 2001. In other words the area has gotten colder, not warmer.

Incidentally, it is a real annoyance that Environment Canada no longer gives its temperature data away. Almost all the Canadian weather stations reporting into the NASA database stopped releasing the post-1990 numbers for free use by the public. You are expected to pay for it now. This is a

government that brags about spending billions of dollars on climate change initiatives, including $350-million in the most recent budget for its so-called "Sustainable Development Technology" slush fund, not to mention tens of millions for the Climate Change Action Fund, and however many hundreds of thousands to put those asinine commercials on TV telling people that sealing their windows and turning down the heat will stop global warming. Yet it won't spend the money to make available the basic data that would allow people to see long term, up-to-date records of local temperatures. Makes you wonder what it doesn't want people to know.

Global warming and Kyoto have, mercifully, been out of the public eye for a while. Some commentators who never grasped the issue in the first place have triumphantly used this as evidence that the anti-Kyoto concerns were all overblown. In reality, the story is quiet here in Canada because the feds have all but abandoned any intention of implementing Kyoto. How that came about is a story for another day. Stateside, the global warmers are still sore about Bush's decision to reject Kyoto, and are laying the groundwork for a new political push to bring it back. Since the idea that Kyoto would somehow benefit the global climate was always a fiction, it is only fitting that the entertainment industry is taking the lead.

Ross McKitrick is an associate professor of economics at the University of Guelph, and coauthor of Taken By Storm: The Troubled Science, Policy and Politics of Global Warming (www.takenbystorm.info). A big seller in Canada and up for a Donner Prize, it is also short listed for the Canadian Science Writers Association award.

The Week That Was (May 3, 2003) brought to you by SEPP

1. New on the Web: A DOUBLE FEATURE ABOUT GLOBAL WARMING FROM CANADA: Lorne Gunter's satire of Earth Day and Ross McKitrick's skewering of the NY Times, "West Wing," and David Suzuki.
http://www.sepp.org/NewSEPP/EarthDay-Gunter.html
http://www.sepp.org/NewSEPP/PrimeTimeAlaska-McKitrick.html

2. CANADA'S OIL SANDS RESERVES APPRAISED AT 180 BILLION BARRELS: That's sufficient to cover all US oil imports for 45 years.

3. DEBATE ABOUT NATURAL GAS RESERVES: NEW STUDY CLAIMS AT LEAST 65-YEAR SUPPLY

4. DEBATE ABOUT NATURAL GAS RESERVES: GAS WON'T BE CHEAP

5. DEBATE ABOUT PLUTONIUM: CANCER RISK HIGHER AT ROCKY FLATS PLANT?

6. DEBATE ABOUT PLUTONIUM -- CONTINUED

7. SWEDEN PREFERS NOT TO FREEZE IN THE DARK: Won't close nuclear reactor
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2. Canada's Oil sands reserves appraised at 180 billion barrels by Oil and Gas Journal.

Estimates of Canada's oil reserves jumped from 4.9 to 180 billion barrels this year, making it the second-largest oil reserve in the world, acc. to an annual survey by the authoritative O&GJ. While the resource had been known for some time, it has now become economically recoverable and therefore included as "reserves."

The Alberta oil sands contain tar-like bitumen mixed with sand and clay. Hot water is used to separate the bitumen. Thanks to technology

advances that lower the transportation cost of the sands, production costs are now estimated at around $8 a barrel.

But because of Canada's adherence to the Kyoto Protocol, the outlook is cloudy. Koch Industries has withdrawn from a C$3.5-billion investment and Petro-Canada is reconsidering its C$5.2-billion plan. [Financial Post 4/29/03]. There is great concern about what Ottawa plans to do after 2012 in follow-ups to Kyoto. The federal government has offered no guarantees, so uncertainty is discouraging investments and adding to costs.

A May 02, 2003 National Post article titled, "Oilsands' promise may evaporate: This fabled lode of wealth is becoming too expensive to produce" described how many companies are dropping or holding off on their oilsands developments. Most are citing Kyoto-related uncertainties, some are citing increasing costs from numerous competing projects, but either way, the number of active oilsands projects is dwindling.

On the other hand, there are technological prospects for lowering production costs. Atomic Energy Canada Limited (AECL), the developer of the highly successful CANDU nuclear reactor, has long espoused the "Slowpoke" concept, a 10 MW (thermal) reactor that supplies hot water rather than steam for electric power generation. The Advanced CANDU (using enriched uranium, heavy water moderation, but light water cooling) can be built with a cost saving of 40%, being physically smaller. It might be the ideal energy source for the hot water needed for producing oil from Canadian tar sands.

With US oil imports now at 4 billion barrels per year, much of it from unstable sources, there should be considerable interest in seeing to it that the Canadian oil reserves can be developed. If the US goes along with Canada in supporting the single pipeline for Alaskan natural gas through the MacKenzie Delta, a deal could be made that will save billions for US taxpayers and make Canadians richer - a win-win situation. It may have to wait until the Chretien government departs from Ottawa - perhaps in 2004.

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3. A new survey by the Potential Gas Committee says that the levels of natural gas are larger than previously thought.

The committee, made up of representatives from the natural gas industry, government agencies and academic institutions, says that 1,311 trillion cubic feet (Tcf) in natural gas resources existed as of the end of 2002 in the United States. That's the equivalent of a 65-year supply of natural gas at current rates of consumption. The size of the base actually increased since the committee's last report in 2000, even though 39 Tcf of natural gas has been withdrawn.

"It makes no sense for laws and regulations to promote greater use of natural gas for increased national energy independence and environmental reasons, while at the same time conflicting regulations hamper the ability of natural gas producers to bring enough supply to market to meet this growing demand," says David Parker, CEO of the American Gas Association.

The mismatch between supply and demand creates price volatility, he adds. That hurts all users from apartment dwellers to industrial operations to electric generators. The time is right for lawmakers to adopt an energy bill that considers the projected demand and environmental benefits of natural gas, as well as the new technologies that make drilling less invasive, Parker says.

Opponents of new exploration, however, contend that such studies are generally industry financed and the results are therefore suspect. Resource levels are exaggerated, which means that added drilling would be environmentally harmful. Supplies are adequate through 2025, they say-enough time to develop alternative energy sources.

The debate rages in Congress. The House has passed a measure to allow drilling in the Alaska National Wildlife Refuge (ANWR) but the Senate has voted nay, although the item could get pushed through in any Conference Committee bill that reconciles the two versions. Republican lawmakers have said that they might agree to support government mandates to promote renewable energy if Senate Democrats would give in on ANWR. The Administration estimates natural-gas reserves from ANWR at 35 Tcf (and perhaps up to 100 Tcf from the North Slope).

(From Issue Alert by Ken Silverstein)

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4. Gas won't be cheap

We have turned as a country to natural gas in a big way because it is perceived as clean, cheap, and ample. Now, as we become dependent upon it, it is neither inexpensive nor abundant. It will become especially noticeable the next time there is a shortage of power in this country, as we try to turn on more gas-power generation at the same time there exist a shortage of gas to store away for winter season. At that point, $5 gas will become a very cheap memory. We are also headed for a potential major shortage this coming winter, if the weather patterns merely approximate historical trends.

However, as you might expect, I take issue with your attempt to be balanced in your approach to the subject. First, some housekeeping: You refer to depletion rates of 29% for existing supplies. I am quite sure you meant decline rates. Depletion refers to the amount by which reserves are reduced through a given amount of production, and we are not losing reserves at anywhere near that rate. Decline rates refer to the amount by which periodic production from a given well or set of wells decreases from one period to the next. New wells are declining by about 29%, and the rate is heading north of 30% quickly.

Second, the ANWR debate has very little to do with the natural gas. The decision to bring natural gas down from Alaska and/or Canada's MacKenzie Delta is a separate issue with opening ANWR. We could pipe natural gas from Alaska for years without having to even consider ANWR as a possible source. ANWR is mostly about oil.

You mentioned that Canada has made up the difference in our shortfall of natural gas production until now, but you failed (probably for lack of space) to mention that Canadian production is starting to fall off also. Coming at a time when our own production has fallen, this is doubly bad. You might also have mentioned that Mexico is starting to import more natural gas from the U.S., a trend that should continue unless the U.S. is opened up to more exploration.

You also neglected to mention that these studies showing a 65+ year supply do virtually nothing to consider commercial viability for much of those estimates. You and I may have some deposits in our back yard, and deposits such as those are figured into these estimates of gross availability. But they are no more accessible under today's environment than gas deposits off

the coast of Florida. And to include them into reserve estimates is to do a great disservice to the debate over making restricted areas accessible.

People who continue to claim that drilling is environmentally evil have watched the movie "Giant" one too many times. Such efficient advances as directional drilling have greatly improved the productivity along with the clean activity of newer wells, a fact that is inconvenient for the "greens". It will take a lot of effort to get the environmentalists to accept this, and many of the current generation never will, since reality threatens their raison d'etre.

You say some environmentalists are supportive of our need to expand exploration and drilling efforts. The fact is it only takes one group to close down, or greatly impede, any effort to expand our hydrocarbon asset base. Various groups have successfully blocked numerous efforts to expand drilling into areas that should be producing now.

We have already lost a huge amount of industry in the US because of higher gas prices, as evidenced by the fact that industrial use of natural gas has dropped from 17.2 Bcf/day in 2000 to an estimated 7.2 Bcf/day in 2003. Even with that decline, we run a very real risk of entering this next winter without enough gas to last the heating season at any cost.

James R. Halloran
Energy Analyst, National City Bank

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5. Cancer Risk Higher At Rocky Flats Plant (By THE ASSOCIATED PRESS (AP) -

Rocky Flats employees who assembled nuclear weapons components and inhaled radioactive particles had an increased risk of lung cancer, a new study found. The $2.5 million study found that workers who dealt with plutonium were about two times more likely to develop lung cancer than workers who were not exposed. The study was done by the University of Colorado Health Sciences Center and the Colorado Department of Public Health and Environment.

Researchers compared 180 former workers who died of lung cancer with 720 other workers who were considered healthy. Those who died of lung cancer had higher levels of radiation exposure on average. Dr. James Ruttenber, who led the study, said the research offers the first concrete information in the United States that lung cancer is linked to plutonium ingestion. ``We have supporting evidence from other studies that, along with our findings, support the hypothesis that plutonium exposure causes lung cancer,'' Ruttenber said. He said researchers will study the data to determine if standards for handling plutonium should be changed. ``One case study is not enough,'' he said. ``We need to make sure that we > have robust findings before we make sweeping changes.''

Doug Benevento, director of the state health department, said other factors have been shown to cause more of a risk of cancer. ``You have to put it into context: If you smoke, you're seven times as likely to develop lung cancer,'' he said. He also said the study did not definitively link worker's cancers to their employment at the plant, noting other factors, such as exposure to chemicals at home, lifestyle differences or pure chance could explain the elevated risk results.

Arvada resident Wally Gulden, 65, who worked at Rocky Flats for 26 years, said he wasn't surprised by the findings or satisfied with the study. ``There are more of us out there with cancers not related to the

ones that were studied,'' said Gulden, who has non-Hodgkin's lymphoma. ``I worked in a hot spot and I know I ingested plutonium, and I want to know if it's related to my work.'' Gulden has filed a claim under the Radiation Exposure Compensation Act program, which compensates people suffering from cancer and other illnesses as a result of their work on Cold War-era weapons projects. ``I hoped for more answers, but there aren't any,'' Gulden said.

The lung cancer findings were part of a broader study that tracked 16,303 people who worked at the plant between 1952 and 1989. The study also found that Rocky Flats workers were 2.5 times more likely to develop brain tumors than other people. Researches plan to examine those findings further.

Rocky Flats manufactured plutonium triggers for nuclear warheads for almost 40 years. It closed in 1989 because of safety and environmental problems. The site is being cleaned up and will become a wildlife refuge. The study was funded by the National Institute for Occupational Safety and Health

On the Net: Rocky Flats workers study:
http://www.cdphe.state.co.us/rf/rfpworkerstudy/index.html

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6. Myth: Plutonium is one of the most dangerous poisons known -- But

Reality: Three studies in report, "Toxicological Profile for Plutonium," prepared for and issued by Agency for Toxic Substances and Disease Registry, Centers for Disease Control, Atlanta, Georgia, in collaboration with U.S. Environmental Protection Agency, December 1990, show just the opposite:

**A 37-year study(as of 1990, the year of this report) of 26 plutonium workers at Los Alamos laboratory during World War II with plutonium deposition ranging from 2,000 to 95,000 picocuries plutonium with a mean of 26,000 picocuries showed mortality of 2.0 vs. 6.6 in a comparable number of the general population. In addition, no malignant neoplasms have occurred in this group during this extensive follow-up.

**Study begun in 1974 of an additional 224 Los Alamos workers with average whole body deposition of 19,000 picocuries plutonium showed 43 deaths compared to 77 in a comparable number of the general population. The number of deaths due to malignant neoplasms was 8 vs. 15 in the general population, including only one lung cancer vs. five in the general population.

**Study of 7,112 workers employed at the Rocky Flats plutonium facility during 1952-1979 showed comparable results. Observed deaths of workers were significantly less than those in comparable numbers of general populations (452 vs. 831). Malignant neoplasms were also less (107 vs. 167).

By Clinton Bastin <clintonbastin@email.msn.com>
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7. Sweden changes its mind: Won't close nuclear reactor

7. The socialist-democratic government (with support from the Left and

from Center parties) has decided not to close B„rsebeck 2 in 2003, as originally planned. It could not guarantee adequacy of supply during extreme cold weather. Sweden obtains half its electric power from nuclear reactors.

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Drat, now all that is going to have to wait until next Earth Day. I only hope my wife -- sorry, co-equal life partner -- will forgive me for not buying her those woolen tights and Birkenstock sandals she's been wanting.

Thank God -- sorry -- thank goddess, Edmonton's main celebrations won't take place until May 4. That'll give me time to handcraft all my presents and wrap them (in recycled newspapers I'll decorate myself with native-berry paints, of course).

Actually, I did commemorate Earth Day the best way possible -- by reading yet another scholarly study that debunks the notion our current climate is unusually hot, and getting hotter due to manmade greenhouse emissions.

The latest study, from the Harvard-Smithsonian Center for Astrophysics,

carries the vernacular title 20th-Century Climate Not So Hot. Co-authored by Smithsonian astrophysicists Sallie Baliunas and Willie Soon, Craig Idso and Sherwood Idso of the Center for the Study of Carbon Dioxide and Global Change, and David Legates of the Center for Climate Research at the University of Delaware, it notes: "20th Century temperatures were generally cooler than during the medieval warmth."

The 20th century, contrary to the alarmism of environmentalists, was neither the warmest century in the past millennium, nor the one marked by the most severe weather. Belief that the globe is warming faster than ever before, and so fast that the rise threatens the environment, is the result of examining variations in temperature over too short a time span.

The Medieval Warm Period, from approximately 800 to 1300 AD, was as much as 4 C warmer on average than today, worldwide, nearly as warm as the upper extreme of U.N. climate projections for the coming century. And the natural world did not implode, far from it. Greenland sustained agricultural colonies through much of this period. The seas teemed with fish. Wars were less common in Europe than during the later Middle Ages, in part, because harvests were plentiful and less pressure existed for campaigns of conquest to acquire new lands and resources. Cathedral construction on a grand scale (a sign of relative affluence) boomed across Europe. Mesoamerica also flourished.

Remarkable in the Harvard-Smithsonian study is the depth of analysis it contains of the historical temperature record and its finding that the Medieval Warm Period was global, not merely confined to the North Atlantic region, as some have argued.

The study, funded in part by NASA and the National (U.S.) Oceanic and Atmospheric Administration -- two organizations known for their enthusiastic support of the manmade warming theory -- examined the results from more than 240 scientific reports on temperature "proxies," biological, cultural and geological fingerprints that indirectly reveal temperatures centuries, millennia or even eons, ago.

"For example, tree-ring studies can yield yearly records of temperature and precipitation trends, while glacier ice cores record those variables over longer time scales ... Borehole data, cultural data, glacier advances or retreats, geomorphology, isotopic analysis from lake sediments, ice cores, peat moss, corals, stalagmites and fossils, even dust and pollen, can provide clues to past climate, even sometimes, very detailed indicators."

No study to date has been as thorough or wide-ranging as the Harvard-Smithsonian study, and few have taken as much advantage of the "research

advances in reconstructing ancient climates" that has occurred in recent years.

Why then, do other scientists and environmentalists claim temperature records of the past century-and-a-half show such potentially catastrophic warming? Because the Little Ice Age followed the end of the Medieval Warm Period. This nearly 600-year-period of abnormally cold climate was ending just as modern, reasonably scientific weather records were beginning.

If 1850 is used as year zero -- as the baseline against which current temperatures are compared -- it is going to look dramatically warmer today than a century ago, because the Little Ice Age was just ending in 1850. But if 1850 is seen for the anomaly it is, and the past 1,000 or more years are placed in context, then today's heat is hardly that striking, and certainly not cause for alarm.

This article appeared in the Edmonton Journal, April 23, and is reprinted with permission from Lorne Gunter, who is a Columnist for the Edmonton Journal, and an Editorial Board Member of the National Post.

Prime time fiction about Alaska Warming

The urban legends of global warming are providing lively fodder not only for NBC's The West Wing, but also David Suzuki
By Ross McKitrick
Financial Post (Canada), April 16, 2003

One of the current sub-plots in NBC's The West Wing concerns a glacier in Alaska, which melted and deluged a downstream village. The White House suddenly found itself dealing with the "first casualties of global warming." Chief of Staff Leo McGarry sat enthralled as a "hydroclimatologist" from the U.S. Geological Survey told him that mean temperatures in Alaska have soared seven degrees (Fahrenheit) in the past 30 years, creating unstable lakes that are prone to overflowing, wiping out downstream villages.

Last week's show ended with the administration calling for massive cuts in so-called greenhouse gas emissions. This would, we're to suppose, somehow help drowning Alaskans. West Wing is a political drama that relishes high-stakes battles of good-versus-evil, so maybe tonight we'll see some obnoxious, cigar-chomping oil executive (or Republican senator) derail President Jed Bartlett's idea. Then cut to an SUV commercial.

It is a fictional show, of course, so it's only appropriate that it relies on fictional issues to captivate the audience. Nor should it surprise us that the whole scenario is fictional. If some "hydroclimatologist" from the Geological Survey stood in the Chief of Staff's office and claimed Alaska had warmed seven degrees in 30 years, the response would not be to upend the nation's energy policy. The response would be to pick up a phone and call the Alaska State Climatologist for confirmation, who would have quickly put the story on ice.

It is an urban legend that Alaska has warmed so much, so fast. No matter how much the Alaskans try to debunk it, it lives on, most recently in the fevered imagination of West Wing scriptwriters.

Last summer, The New York Times ran a story quoting unnamed "federal sources" that said Alaska had warmed seven degrees in 30 years. Then it ran an editorial denouncing the U.S. government's apparent indifference to this calamity.

The Alaskan Climate Research Center (ACRC) contacted the paper and gave it data showing no such warming had taken place. The mean temperature rose about 2.4F (about 0.4C per decade) in the 1971-2000 period. The entire increase occurred in one jump in 1976-77, probably due to a circulation realignment in the Pacific Ocean. A temperature index formed using data from Fairbanks, Anchorage, Nome, and Barrow (the "FANB" index) shows, if anything, a slight cooling trend since 1979.

The Times was never able to identify a source for its claim, and it printed a retraction, sort of. It did find a scientist who figured that if you look in the right places and pick an earlier start and end date you could get a mean increase of maybe 5.4 degrees over a 30 year span. In its retraction, the Times' fudged the point a bit, saying Alaska's mean temperature went up 5.4 degrees, rather than seven, over the past 30 years.

The ACRC responded again saying that no, this is still wrong. It posted a map (http://climate.gi.alaska.edu/change) showing the record of all their weather stations for the 1971-2000 interval. In the accompanying text it states: "There is not a single first-class weather station in all of Alaska, which reported 5F temperature increase for the last three decades." The highest increase, 4.2 degrees, was at Barrow. One of the lowest (1.7F) was at nearby Kotzebue.

The Times dropped the story, but it has now resurfaced on the West Wing, where earnest White House staffers will no doubt run with it for a few weeks, hoping to bludgeon the oil industry and kill a few thousand jobs in oil-producing states like, say, Alaska. Once they've moved past this plot line, the seven-degree-warming-in-30-years claim will surely pop up again

somewhere, but hopefully not in the real West Wing.

That wasn't the only bit of global warming fiction on TV recently. The same night as the fictional glacier melted, TVOntario interviewed David Suzuki on its current affairs show, Studio 2. Apparently some scientists, sponsored in part by the David Suzuki Foundation, have put out a report arguing that global warming will cause the Great Lakes to boil dry, or overflow, or do something or other a few decades from now. Ho-hum yet another apocalyptic enviro-scare: It's starting to drag on like a secular Left Behind series.

I didn't watch much of the interview, but what caught my attention was Mr. Suzuki's claim that when he was a boy growing up in London, Ontario, winter used to set in at the end of October, but now it's warmed up so much winter arrives a lot later. Global warming, you see. It's not the ups and downs but these rapid warming trends we need to worry about.

So the next day I looked up the temperature records for the weather station at London's airport. The data are spotty prior to the Second World War, but there's a continuous record after 1940, ending at 1990. I'm guessing at Dr. S's vintage but I figure this is early enough.

I don't think much of running trend lines through averaged temperature data as a way of measuring "climate," but this is how the debate often gets framed. And it shows the October-November average temperature in London fell from 1940 to 1990 at a rate of -0.2 degrees Celsius per decade. "Fell," as in cooling. As in, October and November are now colder, on average, than when Mr. Suzuki was a lad awaiting winter in London. The annual average also shows cooling, at about 0.1 degrees C per decade.

Unfortunately the temperature data are not posted after 1990, at least not at the NASA collection where I was looking (http://www.giss.nasa.gov/data/update/gistemp/station_data/). But across the lake at Erie, Penn., there is a weather station that continues to post its data. The October-November temperature average there fell by 0.26 degrees C per decade from 1940 to 2001 (see chart). The annual average fell by about 0.13 degrees C per decade from 1940 to 2001. In other words the area has gotten colder, not warmer.

Incidentally, it is a real annoyance that Environment Canada no longer gives its temperature data away. Almost all the Canadian weather stations reporting into the NASA database stopped releasing the post-1990 numbers for free use by the public. You are expected to pay for it now. This is a government that brags about spending billions of dollars on climate change initiatives, including $350-million in the most recent budget for its so-called

"Sustainable Development Technology" slush fund, not to mention tens of millions for the Climate Change Action Fund, and however many hundreds of thousands to put those asinine commercials on TV telling people that sealing their windows and turning down the heat will stop global warming. Yet it won't spend the money to make available the basic data that would allow people to see long term, up-to-date records of local temperatures. Makes you wonder what it doesn't want people to know.

Global warming and Kyoto have, mercifully, been out of the public eye for a while. Some commentators who never grasped the issue in the first place have triumphantly used this as evidence that the anti-Kyoto concerns were all overblown. In reality, the story is quiet here in Canada because the feds have all but abandoned any intention of implementing Kyoto. How that came about is a story for another day. Stateside, the global warmers are still sore about Bush's decision to reject Kyoto, and are laying the groundwork for a new political push to bring it back. Since the idea that Kyoto would somehow benefit the global climate was always a fiction, it is only fitting that the entertainment industry is taking the lead.

Ross McKitrick is an associate professor of economics at the University of Guelph, and coauthor of Taken By Storm: The Troubled Science, Policy and Politics of Global Warming (www.takenbystorm.info). A big seller in Canada and up for a Donner Prize, it is also short listed for the Canadian Science Writers Association award.

The Week That Was (May 3, 2003) brought to you by SEPP

1. New on the Web: A DOUBLE FEATURE ABOUT GLOBAL WARMING FROM CANADA: Lorne Gunter's satire of Earth Day and Ross McKitrick's skewering of the NY Times, "West Wing," and David Suzuki.
http://www.sepp.org/NewSEPP/EarthDay-Gunter.html
http://www.sepp.org/NewSEPP/PrimeTimeAlaska-McKitrick.html

2. CANADA'S OIL SANDS RESERVES APPRAISED AT 180 BILLION BARRELS: That's sufficient to cover all US oil imports for 45 years.

3. DEBATE ABOUT NATURAL GAS RESERVES: NEW STUDY CLAIMS AT LEAST 65-YEAR SUPPLY

4. DEBATE ABOUT NATURAL GAS RESERVES: GAS WON'T BE CHEAP

5. DEBATE ABOUT PLUTONIUM: CANCER RISK HIGHER AT ROCKY FLATS PLANT?

6. DEBATE ABOUT PLUTONIUM -- CONTINUED

7. SWEDEN PREFERS NOT TO FREEZE IN THE DARK: Won't close nuclear reactor

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2. Canada's Oil sands reserves appraised at 180 billion barrels by Oil and Gas Journal.

Estimates of Canada's oil reserves jumped from 4.9 to 180 billion barrels this year, making it the second-largest oil reserve in the world, acc. to an annual survey by the authoritative O&GJ. While the resource had been known for some time, it has now become economically recoverable and therefore included as "reserves."

The Alberta oil sands contain tar-like bitumen mixed with sand and clay. Hot water is used to separate the bitumen. Thanks to technology advances that lower the transportation cost of the sands, production costs are now estimated at around $8 a barrel.

But because of Canada's adherence to the Kyoto Protocol, the outlook is cloudy. Koch Industries has withdrawn from a C$3.5-billion investment and

Petro-Canada is reconsidering its C$5.2-billion plan. [Financial Post 4/29/03]. There is great concern about what Ottawa plans to do after 2012 in follow-ups to Kyoto. The federal government has offered no guarantees, so uncertainty is discouraging investments and adding to costs.

A May 02, 2003 National Post article titled, "Oilsands' promise may evaporate: This fabled lode of wealth is becoming too expensive to produce" described how many companies are dropping or holding off on their oilsands developments. Most are citing Kyoto-related uncertainties, some are citing increasing costs from numerous competing projects, but either way, the number of active oilsands projects is dwindling.

On the other hand, there are technological prospects for lowering production costs. Atomic Energy Canada Limited (AECL), the developer of the highly successful CANDU nuclear reactor, has long espoused the "Slowpoke" concept, a 10 MW (thermal) reactor that supplies hot water rather than steam for electric power generation. The Advanced CANDU (using enriched uranium, heavy water moderation, but light water cooling) can be built with a cost saving of 40%, being physically smaller. It might be the ideal energy source for the hot water needed for producing oil from Canadian tar sands.

With US oil imports now at 4 billion barrels per year, much of it from unstable sources, there should be considerable interest in seeing to it that the Canadian oil reserves can be developed. If the US goes along with Canada in supporting the single pipeline for Alaskan natural gas through the MacKenzie Delta, a deal could be made that will save billions for US taxpayers and make Canadians richer – a win-win situation. It may have to wait until the Chretien government departs from Ottawa – perhaps in 2004.

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3. A new survey by the Potential Gas Committee says that the levels of natural gas are larger than previously thought.

The committee, made up of representatives from the natural gas industry, government agencies and academic institutions, says that 1,311 trillion cubic feet (Tcf) in natural gas resources existed as of the end of 2002 in the United States. That's the equivalent of a 65-year supply of natural gas at current rates of consumption. The size of the base actually increased since the committee's last report in 2000, even though 39 Tcf of natural gas has been withdrawn.

"It makes no sense for laws and regulations to promote greater use of natural gas for increased national energy independence and environmental reasons, while at the same time conflicting regulations hamper the ability of natural gas producers to bring enough supply to market to meet this growing

demand," says David Parker, CEO of the American Gas Association.

The mismatch between supply and demand creates price volatility, he adds. That hurts all users from apartment dwellers to industrial operations to electric generators. The time is right for lawmakers to adopt an energy bill that considers the projected demand and environmental benefits of natural gas, as well as the new technologies that make drilling less invasive, Parker says.

Opponents of new exploration, however, contend that such studies are generally industry financed and the results are therefore suspect. Resource levels are exaggerated, which means that added drilling would be environmentally harmful. Supplies are adequate through 2025, they say—enough time to develop alternative energy sources.

The debate rages in Congress. The House has passed a measure to allow drilling in the Alaska National Wildlife Refuge (ANWR) but the Senate has voted nay, although the item could get pushed through in any Conference Committee bill that reconciles the two versions. Republican lawmakers have said that they might agree to support government mandates to promote renewable energy if Senate Democrats would give in on ANWR. The Administration estimates natural-gas reserves from ANWR at 35 Tcf (and perhaps up to 100 Tcf from the North Slope).

(From Issue Alert by Ken Silverstein)

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4. Gas won't be cheap

We have turned as a country to natural gas in a big way because it is perceived as clean, cheap, and ample. Now, as we become dependent upon it, it is neither inexpensive nor abundant. It will become especially noticeable the next time there is a shortage of power in this country, as we try to turn on more gas-power generation at the same time there exist a shortage of gas to store away for winter season. At that point, $5 gas will become a very cheap memory. We are also headed for a potential major shortage this coming winter, if the weather patterns merely approximate historical trends.

However, as you might expect, I take issue with your attempt to be balanced in your approach to the subject. First, some housekeeping: You refer to depletion rates of 29% for existing supplies. I am quite sure you meant decline rates. Depletion refers to the amount by which reserves are reduced through a given amount of production, and we are not losing reserves at anywhere near that rate. Decline rates refer to the amount by which periodic production from a

given well or set of wells decreases from one period to the next. New wells are declining by about 29%, and the rate is heading north of 30% quickly.

Second, the ANWR debate has very little to do with the natural gas. The decision to bring natural gas down from Alaska and/or Canada's MacKenzie Delta is a separate issue with opening ANWR. We could pipe natural gas from Alaska for years without having to even consider ANWR as a possible source. ANWR is mostly about oil.

You mentioned that Canada has made up the difference in our shortfall of natural gas production until now, but you failed (probably for lack of space) to mention that Canadian production is starting to fall off also. Coming at a time when our own production has fallen, this is doubly bad. You might also have mentioned that Mexico is starting to import more natural gas from the U.S., a trend that should continue unless the U.S. is opened up to more exploration.

You also neglected to mention that these studies showing a 65+ year supply do virtually nothing to consider commercial viability for much of those estimates. You and I may have some deposits in our back yard, and deposits such as those are figured into these estimates of gross availability. But they are no more accessible under today's environment than gas deposits off the coast of Florida. And to include them into reserve estimates is to do a great disservice to the debate over making restricted areas accessible.

People who continue to claim that drilling is environmentally evil have watched the movie "Giant" one too many times. Such efficient advances as directional drilling have greatly improved the productivity along with the clean activity of newer wells, a fact that is inconvenient for the "greens". It will take a lot of effort to get the environmentalists to accept this, and many of the current generation never will, since reality threatens their raison d'etre.

You say some environmentalists are supportive of our need to expand exploration and drilling efforts. The fact is it only takes one group to close down, or greatly impede, any effort to expand our hydrocarbon asset base. Various groups have successfully blocked numerous efforts to expand drilling into areas that should be producing now.

We have already lost a huge amount of industry in the US because of higher gas prices, as evidenced by the fact that industrial use of natural gas has dropped from 17.2 Bcf/day in 2000 to an estimated 7.2 Bcf/day in 2003. Even with that decline, we run a very real risk of entering this next winter without enough gas to last the heating season at any cost.

James R. Halloran
Energy Analyst, National City Bank

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5. Cancer Risk Higher At Rocky Flats Plant (By THE ASSOCIATED PRESS (AP) –

Rocky Flats employees who assembled nuclear weapons components and inhaled radioactive particles had an increased risk of lung cancer, a new study found. The $2.5 million study found that workers who dealt with plutonium were about two times more likely to develop lung cancer than workers who were not exposed. The study was done by the University of Colorado Health Sciences Center and the Colorado Department of Public Health and Environment.

Researchers compared 180 former workers who died of lung cancer with 720 other workers who were considered healthy. Those who died of lung cancer had higher levels of radiation exposure on average. Dr. James Ruttenber, who led the study, said the research offers the first concrete information in the United States that lung cancer is linked to plutonium ingestion. ``We have supporting evidence from other studies that, along with our findings, support the hypothesis that plutonium exposure causes lung cancer," Ruttenber said. He said researchers will study the data to determine if standards for handling plutonium should be changed. ``One case study is not enough," he said. ``We need to make sure that we > have robust findings before we make sweeping changes."

Doug Benevento, director of the state health department, said other factors have been shown to cause more of a risk of cancer. ``You have to put it into context: If you smoke, you're seven times as likely to develop lung cancer," he said. He also said the study did not definitively link worker's cancers to their employment at the plant, noting other factors, such as exposure to chemicals at home, lifestyle differences or pure chance could explain the elevated risk results.

Arvada resident Wally Gulden, 65, who worked at Rocky Flats for 26 years, said he wasn't surprised by the findings or satisfied with the study. ``There are more of us out there with cancers not related to the ones that were studied," said Gulden, who has non-Hodgkin's lymphoma. ``I worked in a hot spot and I know I ingested plutonium, and I want to know if it's related to my work." Gulden has filed a claim under the Radiation Exposure Compensation Act program, which compensates people suffering from cancer and other illnesses as a result of their work on Cold War-era weapons projects. ``I hoped for more answers, but there aren't any," Gulden said.

The lung cancer findings were part of a broader study that tracked 16,303 people who worked at the plant between 1952 and 1989. The study also

found that Rocky Flats workers were 2.5 times more likely to develop brain tumors than other people. Researches plan to examine those findings further.

Rocky Flats manufactured plutonium triggers for nuclear warheads for almost 40 years. It closed in 1989 because of safety and environmental problems. The site is being cleaned up and will become a wildlife refuge. The study was funded by the National Institute for Occupational Safety and Health

On the Net: Rocky Flats workers study: http://www.cdphe.state.co.us/rf/rfpworkerstudy/index.html

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6. Myth: Plutonium is one of the most dangerous poisons known -- But

Reality: Three studies in report, "Toxicological Profile for Plutonium," prepared for and issued by Agency for Toxic Substances and Disease Registry, Centers for Disease Control, Atlanta, Georgia, in collaboration with U.S. Environmental Protection Agency, December 1990, show just the opposite:

**A 37-year study(as of 1990, the year of this report) of 26 plutonium workers at Los Alamos laboratory during World War II with plutonium deposition ranging from 2,000 to 95,000 picocuries plutonium with a mean of 26,000 picocuries showed mortality of 2.0 vs. 6.6 in a comparable number of the general population. In addition, no malignant neoplasms have occurred in this group during this extensive follow-up.

**Study begun in 1974 of an additional 224 Los Alamos workers with average whole body deposition of 19,000 picocuries plutonium showed 43 deaths compared to 77 in a comparable number of the general population. The number of deaths due to malignant neoplasms was 8 vs. 15 in the general population, including only one lung cancer vs. five in the general population.

**Study of 7,112 workers employed at the Rocky Flats plutonium facility during 1952-1979 showed comparable results. Observed deaths of workers were significantly less than those in comparable numbers of general populations (452 vs. 831). Malignant neoplasms were also less (107 vs. 167).

By Clinton Bastin <clintonbastin@email.msn.com>
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7. Sweden changes its mind: Won't close nuclear reactor

7. The socialist-democratic government (with support from the Left and from Center parties) has decided not to close **Bärsebeck 2** in 2003, as originally planned. It could not guarantee adequacy of supply during extreme cold weather. Sweden obtains half its electric power from nuclear reactors.

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