

Global Climate Change and Warming, Summer 2004

Contributed by Tapia Martinez-Russ

Heads Up!

Residents of Atlantic and Gulf Coast on High-Alert

HOUSTON , TeResidents Of Atlantic and Gulf Coast on High-Alert.xas (ENS) — As a result hurricane projections by the National Oceanic and Atmospheric Administration (NOAA), emergency agencies are urging coastal residents along the Atlantic and Gulf of Mexico to prepare for an active hurricane season, starting June 1 and continuing through November 30. Its annual forecast predicts 50% probability that, as many as four major hurricanes and 15 tropical storms could rise out of the Atlantic Ocean in 2004 to threaten the United States, the Caribbean and Central American nations, a significant increase to the historical yearly average of 9.7. Said Director of the NOAA National Weather Service David Johnson, "NOAA's 2004 Atlantic hurricane season outlook indicates a 50 percent probability of an above-normal season, a 40 percent probability of a near-normal season and only a 10 percent chance of a below-normal season," said Director (ENS, 5/20/2004).

According to images gathered by the Advanced Very High Resolution Radiometer (AVHRR), flying aboard the NOAA series of polar-orbiting satellites, the Earth's land “skin” temperature has been gradually rising since 1981. According to AVHRR, average global air temperatures measured between 2 and 3 meters (6 to 9 feet) above the surface, have risen steadily from 1982 to 1998.. According to Menglin Jin, visiting scientist at NASA's Goddard Space Flight Center and researcher at the University of Maryland-College Park, the Earth's average land temperature increased at a rate of 0.43°C (0.77°F) per decade during this time. The data agree with ground station measurements averaged over the entire globe, which show a rise of 0.34°C (0.61°F) per decade.

Global Warming Endangers Alps Mountain Climbers

GENEVA (AFP)- A rise in global temperatures has made mountain climbing in the Swiss Alps even more deadly as a result of the melting glaciers. At least nine people in the month of August have plummeted to their deaths is climbing accidents. Average temperatures are rising at an ever-increasing rate, causing glaciers to melt and the icy soil that holds rocks in place on mountain tops -- known as permafrost -- to thaw, said climatologist Martin Beniston, who works for the UN's Intergovernmental Panel on Climate Change. Temperatures rose by one degree Celsius from the start of the 1900s to about 1980 and jumped by another degree Celsius in the next 20 years alone, he said. "If temperatures are going to warm as we expect them to do, then what is certainly likely to happen is that permafrost and glaciers will melt even more rapidly than before," Beniston told AFP, resulting in "enhanced slope instability and risks of people hiking or climbing." (Agence France Presse, 8/12/04)

San Francisco's Cool Climate Could Be Just a Memory

WASHINGTON, DC (ENS) -A new report by the Union of Concerned Scientists (UCS) warns that, unless measures are taken to reduce emissions of heat-trapping gases worldwide, San Francisco's cool coastal climate could be a distant memory by 2090. According to UCS, the city could experience 80 to 150 heat wave days per year, compared to the present 10-15. "It is expected that heat waves will occur more frequently and last longer during the second half of the century," said Norman Miller, a climate scientist at the Lawrence Berkeley National Laboratory. "Even by mid-century, well within the lifetimes of our children, heat wave days in San Francisco could increase two to four times. By the end of the century, a summer day in San Francisco could feel like a summer day in Tijuana Mexico today." This is an important finding because, while the greatest increase in the number of extreme heat days and in temperature is projected for inland locations that are already hot, impacts on human health will be most profound in places like San Francisco where people are not used to extreme heat and are less able to adapt. Hardest hit will be the most vulnerable members of the community - children, the elderly, the poor and the sick ."This study brings home to San Francisco the real benefits of reducing our emissions," said Peter Frumhoff, senior scientist at UCS's Global Environment Program. "The most severe consequences can be avoided if California leads the nation and the world by demanding cleaner vehicles, increasing energy efficiency and switching to renewable energy sources such as wind and solar." (ENS, 9/15/04)

Melting Antarctic Glaciers Tied to Rising Seas

Studies find 150 miles of coastline changed in 15 years

WASHINGTON - Glaciers, once held up by a floating ice shelf off Antarctica, are now sliding off into the sea. Two separate studies from climate researchers and NASA show the glaciers are flowing into Antarctica's Weddell Sea. This is being attributed to the 2002 breakup of the Larsen B ice shelf. Both studies substantiate environmentalists' and researchers' warnings the breakup of ice shelves would lead to a rise in sea level. Glaciers rest on land, and are prevented from sliding in ocean waters by the ice shelves that surround them. Once these shelves break away, there are no barriers to hold them back, and their slide into the oceans immediately displaces water, raising the sea level. "If anyone was waiting to find out whether Antarctica would respond quickly to climate warming, I think the answer is yes," said Theodore Scambos, a University of Colorado glacier expert who worked on one study. "We've seen 150 miles of coastline change drastically in just 15 years." The affected area is at the far northern tip of the Antarctic, just south of Chile and Argentina. Temperatures there have risen by up to 4.5 degrees Fahrenheit in the past 60 years - faster than almost any region in the world. (Reuters, 9/20/2004)

Mussels Found Near North Pole in Global Warming Sign

(Oslo)Mussels have been found growing on the seabed just 800 miles from the North Pole in a likely sign of global warming, scientists said on Friday. The blue mussels, which normally favor warmer waters like off France or the eastern United States, were discovered last month off Norway's Svalbard archipelago in waters that are covered with ice most of the year. "The climate is changing fast," said Geir Johnsen, a professor at the Norwegian University for Science and Technology, who added the mussels were a "very good indicator that the climate is warming," he said. "It seems like the mussels we found are two to three years old," he told Reuters. Such shellfish have not been recorded off the islands since Viking times 1,000 years ago during another warm period.

UN scientists say the Arctic is now warming faster than any other region because of human emissions of carbon dioxide and other greenhouse gases released from burning fossil fuels in cars, factories and power plants. As the white ice and snow melts, it exposes darker ground or water that soaks up heat and so accelerates warming compared to regions further south. By comparison, ice in Antarctica is thicker and acts as a deep freeze resisting global warming. (Alister Doyle, Reuters, 9/18/2004)

Semi-Tropical Fish Surfacing in North Sea and Thames

A variety of rainbow wrasse typically found in the Mediterranean, are being caught with regularity in the Thames Estuary, not usually known for these catches. Conversely, traditional cold-water catches of cod and plaice are becoming dissipating. Stocks of young cod are at their lowest for 20 years and the numbers of wild salmon returning to British rivers to spawn have also fallen to a record low. The trend is indicative of warming waters in The North Sea and the Thames, supported by scientists who are recording water temperatures up to 3C higher than a few decades ago.

"The catch is becoming totally different. Where cod and plaice were once plentiful, we are now catching vast numbers of warm water fish. Our whole mode of fishing has changed", said Paul Gilson, vice-chairman of the Kent and Essex sea fisheries committee. "There are weird things being caught. Over the past five years we have been seeing a real change" said Ronan Roche, an Essex local government fisheries officer. "Some previously rare fish species are becoming established and new ones are coming in. It seems that as the climate changes the fish are moving north."

Royal Society for the Protection of Birds (RSPB) scientists agree climate change may be partly responsible. "One explanation for shortages of sand eels is that changes in climate have affected sea temperatures and currents. This may have affected the plankton on which the sand eels feed, forcing these small fish to move out of reach for many of our seabirds," a spokesman said (John Vidal, The Guardian, 8/23/2004).