Salomon Brothers, and Donaldson Lufkin & Jenrette. The AGA has taken great pains to deny "the myth that organized crime owns, operates, or even influences casinos," and to insist that not only is there no link between gambling and crime, but that gambling actually benefits the country.

In March 1997, the AGA released a study by the accounting firm Coopers & Lybrand, conducted to show the economic benefits of gambling. According to the study, employment in the "gaming industry" grew by 46,000 jobs, or 16%, during 1996, while non-agricultural jobs grew only 2.2%, and service-sector jobs grew 3.5%. Of the 178,000 casino employees surveyed, more than 8.5% said they had left the welfare rolls as a result of their casino employment, and some 16% said they had used their casino jobs to replace unemployment benefits

#### The dark side

Not everyone agrees with this rose-colored view of gambling. According to a study by University of Illinois at Urbana Prof. John Warren Kindt, for every \$1 in revenue a state receives from gambling, it must spend \$3 for social services and criminal justice agencies to cover the damage done by gambling. Other studies have shown that about 5% of all gamblers become compulsive gamblers, and that 90% of compulsive gamblers eventually turn to crime to support their addiction. Twenty percent of compulsive gamblers have filed for bankruptcy as a result of their gambling losses, and statistics indicate that some 10% of all bankruptcies are linked to gambling losses. The American Insurance Institute has estimated that 40% of all white-collar crime in the United States has its roots in gambling.

Dope, Inc. as a whole, including its gambling and other subsidiaries, is by far *the* major crime problem in the United States today. Many of the arguments used to push gambling, also apply to drugs. *International Gaming and Wagering Business*, in a press release announcing its 1996 Gross Annual Wager study, asserts that, "given the growth of gaming and its complete integration with the U.S. economy, a workable national gaming policy is necessary. The fact that consumers like commercial games, says the study, raises an important question: How workable are public policies that use state power to repress consumer demand?" This is the same argument used by the drug legalization lobby: If people want crime, let them have it.

In December 1997, the AGA released another study, "Casinos and Crime: An Analysis of the Evidence," by the Chicago law firm Altheimer & Gray, to refute studies which suggest links between gambling and crime; it asserts that "communities with casinos are just as safe as communities that do not have casinos." Such an approach brings the vision of Sherlock Holmes to mind, prowling the sidewalks around the casinos, searching for crimes with his magnifying glass, completely oblivious to the larger picture.

# El Niño does what? Surely, sir, you jest!

by Dr. Robert E. Stevenson

Oceanographer Stevenson is executive director of the Vega Society, and a consultant based in Del Mar, California, who trains NASA astronauts in oceanography and marine meteorology. He was secretary general of the International Association for the Physical Science of the Oceans during 1987-95, and worked as an oceanographer for the U.S. Office of Naval Research for 20 years. Interviews on El Niño with Dr. Stevenson and other experts were in the Sept. 19 and 26, 1997 issues of EIR.

Someone in August 1997 started the rumor that a great, perhaps even the greatest of all El Niños was growing in the equatorial waters of the eastern tropical Pacific Ocean. From the national, controlled news media there began to come dire warnings, startling in their severity, that this El Niño would create weather catastrophes, not only across the United States, but around the world as well.

To 99% of the population, the news was rather intriguing, but to most the response was, "Huh! What's an El Niño?" The answer was not readily forthcoming, because few in the news media knew anything about this "thing." Even so, the national television 6 o'clock news teams soon began to show images on the screen purported to be derived from satellites showing the growth and extent of this expanding, natural ocean menace. No one in the viewing audiences knew what they were seeing, but by putting violent reds, yellows, and blues in the images, the network "anchors" were able to build fear of a coming, uncontrollable calamity through their nightly "El Niño Reports."

Some scientific institutions began to provide information, to give news briefings, and to permit their "scientists" to appear as experts in television news programs. And, in the midst of the growing hoopla, the famous cable Weather Channel, normally a conservative group of professionals who offer excellent weather information to the country, began to offer a twice-daily "El Niño Status."

(Interestingly, no scientists in the United States, or in other countries, who had worked on the growth and dissipation of El Niños, the possible manners of origin, and the difficult task of determining their influence on weather, were involved in any way in the hoax-like cries of potential growing catastrophe.)

Concern grew by leaps and bounds amongst the citizens, and city, county, and state officials in the regions predicted to take the brunt of this El Niño ("Whatever it is," responded the perplexed Mayor of Solana Beach, California). El Niño "summit meetings" were held by governors, by U.S. Senators, with even the Vice President of the United States in attendance. None of these summits was quite productive, mainly because no one was really sure what might happen in the way of rains, storms, floods, snow, or ice. As one state climatologist said to the Governor, "Well, sir, we are really not sure where, when, or if." The Governor was not happy; an understatement of the day!

#### Rational scientists step forward

It wasn't long before the "voices of reason" tried to be heard. These were scientists who had worked on the intriguing natural phenomenon: the aperiodic warming of the surface waters in the eastern tropical Pacific Ocean we call El Niño.

Some of them were veterans of the ten-year program called "Tropical Ocean/Global Atmosphere," during which oceanographers, meteorologists, climatologists, physicists, chemists, and biologists from 51 countries around the world cooperated to investigate the manner by which tropical ocean and atmospheric features and their interactions contributed to global weather, climate, and the variations in the qualities and the movements of the vast equatorial oceans. It was the greatest scientific effort ever attempted to study the mechanism by which the tropical climate/weather evolved and was modified.

All of men and women involved in this decade-long program knew well the El Niño phenomenon: the warming of the waters off Peru and Ecuador, usually taking place in the winter months, and how those warmer-than-normal temperatures can, and sometimes do, extend beyond those coastal waters.

These competent, many of them renowned scientists, knew of the tropical rains in Chile to Peru during the onset of an El Niño, the apparent relationship to drought conditions in the outback of Australia, the delay in the summer monsoon rains in Indonesia, Malaysia, and India, and other probably non-related weather conditions in Africa that have been, without cause, attributed to an El Niño. None of these strident claims of calamity were unknown to the science of marine meteorology.

In September 1997, in an effort to bring some sense to the wildly growing propaganda, *EIR* published interviews with Dr. James J. O'Brien, director, Center for Ocean and Atmosphere Prediction Studies, Florida State University, and with this writer. Dr. O'Brien is, without question, the number-one El Niño "guru" in the world today.

Together, we pointed out the usual consequences of a warming of the sea-surface waters in the eastern tropical Pacific, none of which fit the catastrophic claims being made by

the media, certain offices of the U.S. government, and some scientists who have an agenda other than scientific truth and dedication to the well-being of the U.S. population.

We noted that it's clear that there is something else, at a longer time scale than any prevailing El Niño, modulating the oscillation between the warmest and the coolest sea-surface temperatures in the Pacific Ocean. And, that nobody has a clue what that really is.

There are periods, as in the 1940s, when no tropical warming events took place for 12 years, or so. Then, there are other decades, such as the 1970s and early 1980s, when the oscillation is in a nearly regular four-year mode. Interspersed, as in the early 1970s and 1990s, are "flat" periods, when the tropics are mainly cold. There are not even hypotheses on the table of what might be the modulating function(s).

Furthermore, we noted that El Niños change the location of the major convection over the tropical Pacific which, in turn, changes the jet streams that dominate the weather over the United States in the winter. When the sub-tropical jet becomes more dominant than usual over North America, it typically enters the continent across Mexico. As a result, the most consistent impact during an El Niño is that northern Mexico and southern Texas are rained on, and the southeast United States has a little extra rain with slightly cooler temperatures because of the persistent cloud cover.

We said that to call for catastrophic floods in California is really an iffy prediction. Southern California is not usually an El Niño impact region. If the sub-tropical jet stream stays in its normal pattern, down in Mexico, California will be dry. If, on the other hand, the jet should wiggle northward, southern California will get wet. It should be made clear, though, that there is no way to forecast those jet-stream wiggles.

In October, we reported: There is no question, the surface waters have cooled from their high in July; to an even greater extent than they did in August. Overall, the eastern tropical Pacific has cooled by an average of  $2 \square C$  (3.6 $\square F$ ) by Oct. 2, in the entire area where sea-surface temperatures (SSTs) had been noted to be warmer than the long-term mean. The highest temperature anomalies are now at  $+2 \square C$ , rather than  $3-5 \square C$ , above normal.

At that time, I wrote, in the *New Federalist* and to NASA, that, "It is clear that the 'greatest El Niño of them all,' ain't gonna produce any unusual weather! It seems logical, therefore, to consider that the winter of 1997-98 in the United States, Canada, and Mexico will be close to normal; not even what it was in Grandpa's Day."

#### Then came the winter of 1997-98

Through the last week of January 1998, the winter weather had been about as benign as one could desire. Nearly every vestige of any El Niño claims disappeared from the airways, the TV-ways, and the written news media. The television

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networks, and CNN, had to rely on Saddam Hussein, White House female interns, and the approaching Super Bowl football game to bring their idea of significance to the nightly news. Even the newspapers got caught up in the demise of the Asian stock markets and banks in place of the "greatest of all El Niño catastrophes" that seemed no longer viable.

Then, yes then, the rains came to California, the snow to the mid-Atlantic States (Beckley, West Virginia received 32 inches of snow in one night), vicious storms to Florida, the southeast, and some howling nor'easters to the East Coast. And, the El Niño doomsayers came back out of the woodwork. "You see," they chortled gleefully, as they watched videotapes of houses sliding down hills, towns flooded up to the roof tops, and the electricity off for hundreds of thousands of customers, "we told you it was coming. We warned you El Niño was returning!"

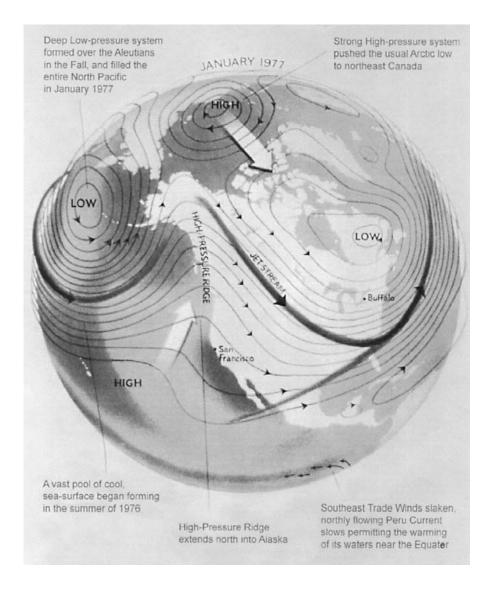
Ah, but once again, the media "town criers," none of whom have a clue as to what an El Niño really is, and their supporting "scientific fellow travellers," were dead wrong. Oh yes, there were storms, there was rain, and there still is rain coming down, and there was, and will be, snow. But none, other than that in

the Gulf of Mexico, originated, or was created, by the warm waters of the eastern, or central, or western tropical Pacific Ocean. That is, the warm-water event in the eastern tropical Pacific Ocean that took place in 1997, and was diminishing in the early months of 1998, had no impact on the winter weather in North America this season.

# Well, what did produce our weather this winter?

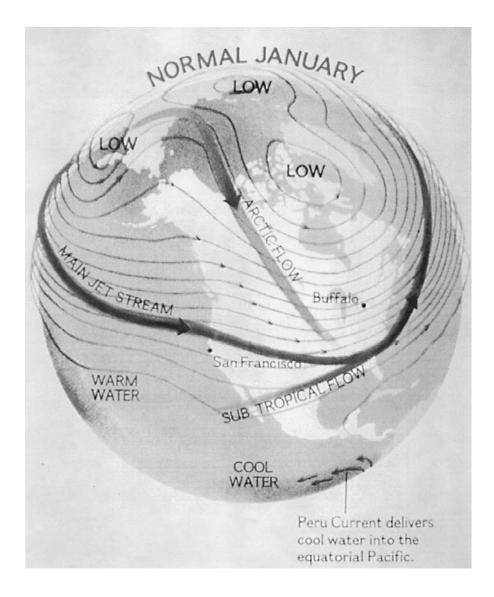
We must have a little bit of history in order to bring sanity out of the chaos we've been hearing.

In early 1980, Dr. Jerome Namais, Scripps Institution of Oceanography, former director, Long-Range Weather Forecasting, U.S. Weather Bureau, was finishing his report following the completion of the great, international, ten-year-long North Pacific Experiment (NorPax). The work, funded by the U.S. National Science Foundation, Office of Naval Research,



National Oceanic and Atmospheric Administration, and similar groups from Japan, Australia, New Caledonia, Canada, and the U.S.S.R., had provided scientists and members of national forecasting centers, a vastly greater understanding of the interactions between the ocean, the land, and the atmosphere than had ever been available. For the first time, it seemed logical to Dr. Namais that enough has been learned to permit suitable winter-weather forecasts.

The decade of the 1970s had provided all of the oceanographic and atmospheric variations the scientists could want, including the strong El Niño of 1976-77. As a result, Dr. Namais, with early help from the late Dr. Jacob Bjerknes, and from Dr. Klaus Wyrtki, Prof. John Isaacs, and Dr. Warren Wooster, was able to put together a set of basic, winter jetstream patterns. It seemed his analyses covered all types of ocean/atmosphere conditions possible during a North American winter.



Left: The jet-stream pattern over North America in January during the occurrence of a strong El Niño. Right: The average jet-stream locations over North America during a normal winter.

### The jet streams during an El Niño winter

The most extreme winter jet-stream patterns that Dr. Namais and his colleagues considered possible were observed during January 1977, a time of absolute drought along the entire West Coast of North America. Although this was the extreme, it was pointed out that every El Niño winter would have similar, yet probably more subdued, jet-stream patterns than had taken place in the 1976-77 winter.

There would be high-pressure over the western United States, maybe Canada. There would be an arm of the jet stream driving south into the eastern United States from the very polar regions, and there would be a strong component of the tropical jet stream crossing Mexico, the Gulf of Mexico, and meeting the southerly flow of the main jet, east of the southeast coast of the United States.

Under El Niño conditions in the eastern equatorial Pacific, the only chance for any tropical impact on the United

States would be in the southern and southeast states. It was considered unlikely that the sub-tropical jet stream would wiggle far enough north to impact the southwestern United States.

#### The jet streams during a normal winter

From a vast array of data, from the Pacific, Indian, and Atlantic ocean regions, Dr. Namais and his mates were able also to describe the average jet-stream pattern for a normal winter. It would be the winter when there was the usual distribution of warm and cold surface waters in the Pacific Ocean, along with a typical arrangement of high- and low-pressure systems in the mid- and high-latitude atmosphere of the Northern Hemisphere.

The normal winter jet streams flow across the Pacific Ocean and the United States in a meridional fashion; that is, basically from west to east, with but small excursions to the

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north and south. All cyclonic, low-pressure storms that form over the North Pacific Ocean, move eastward to the United States, entering the West Coast mainly between San Francisco and Seattle. These cold cyclones then continue across the United States toward the southeast, with a southeasterly push by a rather mild jet from Canada. The sub-tropical jet usually meets the main jet over Atlanta, Georgia and/or Montgomery, Alabama.

In contrast to the El Niño pattern, once the normalwinter main jet reaches the southeast states, it turns northeast, moving directly along the East Coast until it finally turns into the North Atlantic off Newfoundland. Consequently, when a nice little low-pressure system forms over Georgia, where the two jets meet, that storm, rotating counter-clockwise, travels up the East Coast, becoming a "nor'easter," so familiar to all who live in the Carolinas and northward to southeast Canada. If the nor'easter moves far enough north to interact with frigid Canadian air, an "ice storm" is the obvious result.

### So, how was your winter of 1997-98?

Now, my question to all of you reading this article is: What kind of winter storms have you experienced this year? Just think about them for a few minutes. Snow storms? Yes. Ice storms? Yes. Rains? Yes. Has any such weather ever happened before in the United States, in this century, or even in this half-century? Yes!

Then, you might ask, "Why do those folks on the Weather Channel, who are seemingly knowledgeable about meteorology, continually claim that the meridional flow of the winter jet streams are 'typical of an El Niño year?' "

The bottom lines about the storms of the winter 1997-98 are 1) only the Gulf Coast and the southeastern states have received rain originating from the tropical eastern Pacific; 2) the rains drenching the West Coast of the United States and Canada have all originated in the North Pacific, some in the Gulf of Alaska; 3) the relatively mild winter temperatures are typical of a normal winter in the United States and Canada, because the entering storms are all from the mildly cool North Pacific, and although the flow from northern Canada has its usual frigid temperatures, its southerly flow is greatly diminished; 4) the damaging ice storm that hit the northeast states and southeast Canada was certainly not borne of any forcing from the sunny, warm tropical Pacific, but was a strong nor'easter, moving up the East Coast until it encountered frigid air from Canada (it was a weather condition that has happened many times in the past); 5) there is not a shred of evidence in the files, or out of them, that a warm tropical Pacific Ocean and a cold North Pacific/ Atlantic enhances the strength of the west-east flow of the jet streams; 6) even were that an issue, the north-south seasurface temperature gradients were less in 1997-98 than in other years of the 1990s; and finally, 7) the greatest rains, and floods, both in the west and the east of the United States

during the 20th century, have all occurred during years when there was no El Niño!

#### Flooding in non-El Niño years

Such major floods took place in 1902-03, 1915-16, January 1934 (southern California), January 1937 (the famous flooding of the Ohio and Mississippi river valleys), March 1938 (the greatest flood of the century in southern California), January 1955, Jan. 18-26, 1969 (major devastation in southern California), July 19-20, 1977 (Johnstown, Pennsylvania), Feb. 13-22, 1980 (widespread flooding in southern California and Arizona), Dec. 18-26, 1991 (Texas), Feb. 9-15, 1992 (southern California), and not to forget the powerful flooding of northern and central California March 8-15, 1995.

There are more than these that I've listed. This is sufficient, however, to give you the certain appreciation that the claims of devastation by El Niño in 1997-98 has been pure hype by the popular media. The hoopla has garnered a few money-hungry fellow travellers, and even drawn in some scientists who should know better than to fall for such a patently false, high-pressure promotion.

On the other hand, the pervasive "El Niño hype" has been useful, on occasion. Whenever we speak an irrational phrase, or make a stupid move, it has been helpful to say, "Oh, El Niño made me do it."

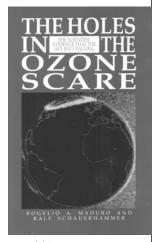
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