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Monthly News Review is prepared by the Oklahoma Climatological Survey. Its purpose is to provide a summary of weather and climate news or related issues that may help guide policy-makers in the Oklahoma Weather Center. Along with weather, climate, environmental, and science issues, the review includes issues on the national and state agendas and events that affect major businesses in Oklahoma that bear some relation to demands for weather-related information. The summaries and any opinions expressed herein are those of the author, and in no way reflect positions of the Oklahoma Climatological Survey or the University of Oklahoma.

NATIONAL

Democrats gain majority of governorships (National Governors Association 11/7/2002) – Democrats moved into a slight 28-27 majority of governorships in the 2002 elections. Democrats had a net gain of three seats on election night, including key wins in Illinois, Pennsylvania, Michigan, and Wisconsin. Despite getting a majority, Republicans still retain a 26-24 edge of the state seats (Democrats hold four of the five territorial seats). The three-seat change belies the fact that 19 of the 38 total seats up for election changed parties in this election. Democrats gained in 11 states, including picking up Maine from an Independent, while Republicans gained eight seats, including picking up Minnesota from Independent Jesse Ventura, who retired. Democrats gained in Arizona, Illinois, Kansas, Maine, Michigan, New Mexico, Oklahoma, Pennsylvania, Tennessee, Wisconsin, and Wyoming. Republicans picked up Alabama, Alaska, Georgia, Hawaii, Maryland, Minnesota, New Hampshire, and Vermont.
<http://www.nga.org/Election2002/1,2031,,00.html>

Nickles to lead Senate Budget Committee (Oklahoman 11/14/2002) – Senator Don Nickles of Oklahoma will be leaving his post as what would be Assistant Majority Leader to chair the powerful Budget Committee. Sen. Pete Domenici (R-NM) will leave the Budget Committee to chair the Energy Committee. Nickles, long known for being a budget hawk, will play a key role in determining federal spending and future tax legislation. Oklahoma's other Senator, Jim Inhofe, will chair the Environment and Public Works Committee. This will mark the first time since 1936 that Oklahomans have chaired two committees.

Energy policy may be likely next year (Oklahoman 11/17/2002) – with Republicans in control of both chambers and the White House, some observers are optimistic about the chances of an energy bill next year. Industry analysts believe that many of the disagreements that hung up the bill this year will be resolved with the new leadership in the Senate, leaving a bill more favorable to oil and gas producers. Others caution that even though the leadership of the Senate changed, the same lobbyists will be at work in Washington, and they tend to be very persuasive. Dennis O'Brien, former deputy secretary of the U.S. Department of Energy, notes that Congress has been grappling with an energy policy for more than 20 years. The energy bill this year has been officially scrapped, as Conference Committee negotiators failed to resolve some key differences, even with a scaled-back version of the original bill.

States facing \$40 billion deficit (New York Times 11/25/2002) – The National Governors Association characterized state budget shortfalls as the worst since World War II, necessitating tax increases and/or service cuts. Among actions taken to decrease the deficits are increasing tuition, cutting Medicaid eligibility and benefits, increasing income taxes, and laying off state employees. Medicaid and employee health benefits combine for about 30 percent of state spending, and grew by 13 percent last year. Compounding the problem is the nature of the crisis. Short-term economic problems are only part of the cause; soaring health care costs are taking a larger portion of many budgets. Overall, states saw a 6.3% decline in revenue for the fiscal year that ended June 30, but spending increased by 1.3%. Personal income taxes, the single largest source of revenue at \$187.7 billion, declined 12.8%, while sales taxes (\$147.6 billion) declined 3.2%. Corporate tax receipts (\$21.6 billion) were down a whopping 21.5%.

Status of Legislation (newly added to report; action noted; legislation passed; legislation failed):

House and Senate are both adjourned until the new session begins (January 7, 2003). All bills will have to be re-introduced (or not) and start the process from scratch. The list below shows the latest status each bill achieved.

- Appropriations Bills: appropriations bills were passed only for Defense and Military Construction. Appropriations Bills passed in the House for Interior, Legislative Branch, and Treasury/Postal. The Senate has passed an Appropriations Bill for Legislative Branch. All other agencies are operating under Continuing Resolutions (HJR 124) until January 11, 2003.
- HR 3908: “North American Wetlands Conservation Reauthorization Act” – Introduced 3/7/2002; passed by House (5/7/2002), passed by Senate (11/14/2002), signed by President (12/2/2002); reauthorizes the North American Wetlands Conservation Act.
- HR 4: “Energy Policy Act of 2002” – In Conference; Conference sessions held on 6/27, 7/25, 9/12, 9/19, 9/25, 9/26, 10/2, and 10/3. Compromise could not be reached.
- HR 4754 / S 2528: “National Drought Preparedness Act of 2002” – Introduced 5/13/2002; Referred to House Transportation and Infrastructure, Agriculture, and Resources committees and Senate Committee on Environment and Public Works (5/16)
*** *The Western Governors Association has asked for help in passing this legislation*
- H.R. 5310: “Emergency Farmer and Rancher Assistance Act of 2002” – Introduced 7/26/2002; Referred to House Committee on Agriculture (7/26); provides emergency livestock and crop loss assistance to agricultural producers.
- S. 2830: “Emergency Agricultural Disaster Assistance Act of 2002” – Introduced 7/31/2002; Referred to Committee on Agriculture, Nutrition, and Forestry (7/31); provides emergency disaster assistance to agricultural producers.
- HR 4900: “Weather Safety Act” – Introduced 6/6/2002; Referred to the House Committee on Science (6/6); establishes a National Climate Change Vulnerability and Resilience Program.
- HR 64: “Strengthening Science at the Environmental Protection Agency Act” – Introduced 1/3/2001; passed by House (4/30/2002), now in Senate Committee on Environment and Public Works (5/1/2002); establishes the position of Deputy Administrator for Science and Technology and assigns a research mission to EPA: “Conducting, sponsoring, and evaluating environmental science and technology research shall be a central mission of the Agency.”
- HR 5486: “Geologic Research Enhancement Act” – Introduced 9/26/2002; Referred to House Committee on Resources; Referred to Subcommittee on Water and Power on 10/2/2002; authorizes the Secretary of the Interior to cooperate with the High Plains Aquifer States to conduct a hydrogeologic characterization, mapping, modeling and monitoring program for the aquifer.

AGENCY NEWS

NOAA, University of Oklahoma break ground on Weather Center (NOAA 11/15/2002) – Senior officials from NOAA and the state of Oklahoma participated in groundbreaking for the new National Weather Center, a 244,000-square-foot building in Norman that will house both NOAA and university entities. The Weather Center is being constructed at a cost of \$67 million, and completion is expected in 2006. NOAA organizations to be housed in the Weather Center include the National Severe Storms Laboratory, the Storm Prediction Center, the Norman Weather Forecast Office, the Warning Decision Training Branch, and the Radar Operations Center's Application Branch. University organizations include the School of Meteorology, the Cooperative Institute for Mesoscale Meteorological Studies (CIMMS), the Oklahoma Climatological Survey, and the Center for Analysis and Prediction of Storms (CAPS). James Mahoney, NOAA deputy Administrator, OU President David Boren, Governor Frank Keating, Sen. Don Nickles, and Rep. Earnest Istook Jr. were on hand for the dedication.

<http://www.noaanews.noaa.gov/magazine/stories/mag64.htm>

Oklahoma Water Board celebrates \$1 billion in improvements (Oklahoman 11/14/2002) – With a \$720,000 loan to Lexington, officials at the Oklahoma Water Resources Board noted that the state has now provided more than one billion dollars in loans and grants to communities to improve water and sewage systems. The program, established in 1982, has provided 425 long-term, low-interest loans for \$944,220,024 and 830 grants for \$57,650,965. Funding for the program comes from a revolving fund established by state law and a state question.

NOAA hosts climate science workshop (NOAA 11/9/2002) – More than 1,000 people will attend the U.S. Climate Change Science program's Planning Workshop for Scientists and Stakeholders on December 3-5 in Washington, D.C. The Climate Change Science Program is designed to provide scientific information to be used the Bush Administration in making policy related to global climate change issues. The workshop will focus on strategies for addressing scientific uncertainties, as outlined by the National Academy of Sciences in 2001.

<http://www.noaanews.noaa.gov/stories/s1064.htm>

Unified hazard warning proposed (AP/Oklahoman 11/26/2002) – A unified, national system to warn the public of terrorism threats and natural disasters is needed to help save lives, reduce disaster losses and speed recovery, according to a new study by the Partnership for Public Warning. The study claims that government agencies that issue warnings are inconsistent in their terminology, leading to confusion and inadequate response. The report, "Developing a Unified All-Hazard Public Warning System," encourages the federal government to develop a national system with agencies, state and local governments, universities and other groups.

STATE / LOCAL

Brad Henry wins governor race (Oklahoman 11/7/2002) – Votes were counted late into the night to determine who would become the next governor of Oklahoma. In the end, Democrat Brad Henry narrowly edged Republican Steve Largent, by a vote of 448,143 to 441,227 – a seven-tenths of a point margin for Henry. Independent Gary Richardson picked up 146,200 votes, 14.1% of the total. Analysts point to a ban on cockfighting on the ballot, which boosted turnout in traditionally-Democratic rural Oklahoma, which may have provided Henry's margin of victory. Henry takes over the reigns of a state beset by revenue shortfalls. His top priority is to establish a state lottery, whose revenues would be directed to education.

Democrats retain state House control (Oklahoman 11/6/2002) – Democrats defeated three incumbent Republican legislators, offsetting the two open seats gained by the Republicans, to increase their margin in the House to 53-48. Representative Mike Ervin (R-Wewoka) lost to Dan Boren (D-Seminole), son of OU President and former Governor and U.S. Senator David Boren. Ken Friskup (R-Chandler) lost to perennial opponent Danny Morgan (D-Prague). Roy McClain (D-Tulsa) defeated Chad Sites (R-Tulsa), who had won a special election a year ago to fill John Sullivan's seat when Sullivan was elected to the U.S. House. Republicans gained seats formerly held by Jack Begley and Lloyd Benson. In the Senate, Republicans picked up two open seats and each party defeated an incumbent in the other to edge the Senate balance to 28-20 in favor of the Democrats. Republicans have not held the Oklahoma House since 1922.

House Majority leadership picked (Oklahoman 11/8/2002) – Representative Larry Adair (D-Stilwell) was elected to a second two-year term as Speaker of the House. Other Democratic legislative leaders will be Danny Hilliard (D-Sulphur) as House Speaker Pro Tempore, Larry Rice (D-Pryor) for House Majority Leader, and David Braddock (D-Altus) for Caucus Chairman.

Hiett picked to lead House Republicans (Oklahoman 11/15/2002) – Representative Todd Hiatt (R-Kellyville) was selected the new House Minority Leader, following the departure of Fred Morgan (R-Oklahoma City). Susan Winthrop (R-Chickasha), John Wright (R-Broken Arrow), Kevin Calvey (R-Del City), and Hopper Smith (R-Tulsa) will serve as assistant Minority Leaders. Tad Jones (R-Claremore), Stuart Ericson (R-Muskogee), Thad Balkman (R-Norman), and Chris Benge (R-Tulsa) will be party whips. Mark Liotta (R-Tulsa) will serve as caucus Chairman with John Smaligo (R-Owasso) as Vice-Chairman. Analysts view the new leadership as taking a more moderate approach than under Hiatt's predecessor.

Hobson set to lead Senate (Oklahoman 11/9/2002) – State Senator Cal Hobson (D-Lexington) has prepared his leadership team for the upcoming session. Hobson, President Pro Tempore-elect, announced several changes in leadership positions. Ted Fisher (D-Sapulpa) will be Senate Majority Leader, with Angela Monson (D-Oklahoma City), Gilmer Caps (D-Snyder), and Herb Rozell (D-Tahlequah) as assistant Majority Leaders. Majority whips will be Keith Leftwich (D-Oklahoma City) and Sam Helton (D-Lawton). Maxine Horner (D-Tulsa) will serve as chairwoman of the Senate's Democratic caucus. Other key posts include Mike Morgan (D-Stillwater), the new chair of the Appropriations Committee, and Stratton Taylor (D-Claremore), President Pro Tempore Emeritus.

Republicans pick Senate minority leader (Oklahoman 11/13/2002) – Tulsa Senator James Williamson was selected to lead the Republican party in the state Senate. Williamson had been assistant minority leader since 1998. He will lead the largest-ever contingent of Republicans in the State Senate – 20 of 48 seats. Senators Glen Coffee of Oklahoma City and Scott Pruitt of Broken Arrow will serve as assistant leaders.

Governor-Elect Henry seeks to reign in government spending (Oklahoman 11/16/2002) – Governor-Elect Brad Henry announced state Treasurer Robert Butkin will head his transition team. Henry addressed Oklahoma's economic situation, saying that Butkin would help Henry and his new cabinet develop appropriate fiscal policies. Toward that end, the Governor-elect said he will begin by eliminating duplication in Cabinet positions and cutting unneeded staff. He will ask agencies to adopt zero-base budgeting, a process whereby budgets are built from scratch each year, requiring justification of expenditures, rather than incremental budgeting which starts with the previous years budget as a reference.

State agencies trim budgets again (Oklahoman 11/13/2002) – Like the first three months of the fiscal year, October revenues came in below estimates, triggering a new round of budget cuts. Revenues for October were 8.5% below estimates, 2.3% below revenues from October 2001. The total state revenue shortfall stands at \$291.7 million. In response to the lethargic revenues, state officials ordered 9.02% budget cuts for December 2002 – June 2003, three percent more than previous cuts. This is the fourth budget adjustment in the last eleven months. Revenues are down across the board, including income taxes, sales taxes, interest, and investments. Additional cuts could be necessary before the fiscal year ends.

Next year may be worse (AP/Oklahoman 11/25/2002) – Recent estimates point toward a budget shortfall of \$800 million next year. While this is partially due to the economic recession, past decisions are catching up with legislators. In previous years, legislators appropriated \$300 million from reserve funds to pay for recurring costs, expenses that must now come out of the regular revenue stream. In addition, the state faces \$100 million to pay debt service on bond issues. Unlike the last time Oklahoma faced similar shortfalls, related to the 1980s oil bust, this time could be more challenging. State Question 640 limits the ability to raise taxes, which the legislature did four times in response to the earlier economic problems.

Regents select new Chancellor (Oklahoman 11/12/2002) – Paul Risser has been selected to be the next Chancellor of Higher Education in Oklahoma. Riser, currently President of Oregon State University, is a native of Blackwell, Oklahoma. He previously served on the faculty of the University of Oklahoma from 1967-1981, including a five-year stint as chair of the Botany and Microbiology department. He will take charge of an agency overseeing 25 colleges and universities, with a \$1 billion annual budget, \$860 million of which comes from the state Legislature. He will begin as Chancellor on January 6, 2003, upon the retirement of current Chancellor Hans Brisch.

Chancellor not afraid to tweak system (Oklahoman 11/17/2002) – The new Chancellor of higher education, Paul Risser, plans to look at the states colleges and programs to enhance those that are effective and eliminating others. Risser will look at enrollment in programs as a measure of effective allocation of resources. He wants to make sure that schools do not try to be all things to all students; instead he wants each to find a mission. Risser, who was previously President of Oregon State University, comes from a system in many ways similar to Oklahoma, but with far fewer regional universities – four compared to Oklahoma’s eleven.

OSU taps Texas Tech for new president (Oklahoman 11/26/2002) – Texas Tech President David Schmidly has become the new leader of Oklahoma State University. Schmidly, who has been Tech’s president for two years, will take the helm at OSU next February. Prior to becoming Tech’s president, Schmidly was dean of their graduate school and vice president for research. He received his doctorate in zoology from the University of Illinois and bachelor’s and master’s degrees from Texas Tech. He is a native of Levelland, Texas.

Settlement of land dispute reached (Oklahoman 11/22/2002) – The U.S. Senate approved a \$40 million settlement between the federal government and the Cherokee, Choctaw, and Chickasaw tribes that provides compensation for land along the Arkansas River. The dispute dates to statehood, when Oklahoma claimed land along the Arkansas River, that under treaty belonged to the tribes. The compensation covers lost royalties from natural resources in the 7,500 acres under dispute. The resolution provides funds to tribes for use in land acquisition and general improvements in exchange for dropping claims on disputed lands.

Gary England marks 30 years at KWTW (Oklahoman 10/15/2002) – Oklahoma television weather icon Gary England celebrated thirty years in front of the camera. England’s brand of folksy humor and an ability to reach an audience helped gain market share at the network, and helped to establish himself as an Oklahoma fixture. England served in the Navy, where he attended weather school for nearly three years, and completed a degree from the University of Oklahoma in 1965. Although he is remembered for his imaginative creations, such as the Thunder Lizard and Spike the weather pig, he also has brought technology to the forefront of the local television market. England was the first to use commercial Doppler radar, the warning box in the corner of the television, and Storm Tracker, which shows projected paths of storms. Gary England won an award from the American Meteorological Society for his coverage of the deadly May 3, 1999 tornado, in which he advised people to get underground in order to survive.

BUSINESS / ECONOMY

Economy looks stronger (AP/Oklahoman 11/8/2002) – Several signs from October point to an improved national economic picture. Retail sales were up, when compared to October 2001. Discounters and moderate-priced stores did well again, including Wal-Mart, Kohl's, and J.C. Penny's, but some others that had been lagging showed improvement as well. Gap, AnnTaylor, Talbots, and Federate Department Stores all upgraded earnings projections for the quarter. Elsewhere, productivity gains drove economic growth without leading to inflationary pressures. The 5.3% productivity increase for the year ending in September was the greatest gain since 1983. Consumer credit increased at an annual rate of 6.9% for the third quarter, indicating consumers are comfortable with their personal economic outlooks.

Continued slow growth seen for Oklahoma in 2003 (Oklahoman 11/12/2002) – Oklahoma did not experience as severe an economic downturn as compared to the rest of the nation, but experts expect that the recovery will be slower than the national pace. Much of the national downturn was related to the technology sector, which is not as advanced in Oklahoma as it is on the coasts or in Texas. The energy industry and construction continued strong in Oklahoma from October 2001 – September 2002, contributing to a 0.6% growth rate in jobs, contrasted against a 1.0% national decline. Analysts predict that the coming year for Oklahoma will have a similar growth rate, while the U.S. economy overall should have a one percent increase. The analysis also shows that Tulsa fared well, despite losses related to WorldCom and WilTel failures.

States consider Internet tax (Washington Post 11/11/2002) – Officials from 30 states entered into a voluntary pact to simplify state tax laws and collect online sales taxes. The program would take effect when at least 10 states representing 20 percent of the U.S. population have amended their laws to implement the program. Advocates expect to reach this goal by June 2003. They would then seek approval in the U.S. Congress to create a nationwide online sales tax. States lose an estimated \$13 billion each year on untaxed Internet transactions, a figure expected to rise to \$45 billion by 2006. A uniform tax system would be easier for online merchants than the current patchwork of laws that varies state-by-state, and in some cases town-by-town.

U.S. looking at tariffs on Canadian wheat (AP/Oklahoman 11/20/2002) – The U.S. International Trade Commission concluded, by a 4-1 ruling, that Canadian wheat imports were being undervalued, clearing the way for the Commerce Department to examine whether tariffs should be imposed. The charge pertains to hard red spring wheat and durum wheat, used to make bakery flour and pasta. The North Dakota Wheat Commission, which led the group requesting the review, contends that the Canadian Wheat Board undercuts prices in order to gain market share. The Canadian Wheat Board contends that the lower prices result from efficiency, and that the actual sale price to the U.S. is higher than that in Canada.

WEATHER

El Nino development matching projections (NOAA 11/7/2002) – Projected impacts of El Nino are still on track, according to NOAA forecasters. The winter season outlook, first issued on September 12, called for drier-than-average conditions in the Ohio Valley and northern Rockies, above-average precipitation and increased storm activity in the South, and warmer-than-average conditions across the northern states, including parts of Alaska. Forecasters expect El Nino conditions to prevail through February 2003, but do not expect substantial strengthening.

<http://www.noaanews.noaa.gov/stories/s1060.htm>

Hurricane season matched expectations (NOAA 11/25/2002) – The 2002 Atlantic hurricane season will go down in the books as below average. The season produced 12 named storms, four of which became hurricanes. Predictions earlier in the season called for 7-10 named storms and four to six hurricanes, one to three of which would become major. Although the season was below average in number, it had significant impacts on the United States, especially Louisiana which was hit by four of the storms. Max Mayfield, director of the National Hurricane Center noted “It’s not the number of storms that counts – it’s where they go.” Forecasters attribute the below-average number of hurricanes to the effects of a developing El Nino (*see OCS News Summary September 2002*).

<http://www.publicaffairs.noaa.gov/releases2002/nov02/noaa02157.html>

Cool, wet October reduces drought (NOAA 11/14/2002) – October 2002 was the coldest October in the contiguous U.S. since 1976 according to the National Climatic Data Center. The month was the 14th coldest and 7th wettest October since 1895. Thirty-one states were categorized as significantly cooler than average and 12 other states as much below average, the most widespread outbreak of cool weather since December 2000. The cool, wet weather helped reduce the expanse and severity of drought, especially in the Southeast. The region of the country in moderate to extreme drought fell from 47 percent to 37%. Hurricane Lili brought heavy rains in Louisiana and Tropical Storm Kyle made landfall in South Carolina. The first heavy snowfalls of the year hit the upper Midwest, including 8-10 inches of snow in parts of Minnesota and North Dakota.

<http://www.noaanews.noaa.gov/stories/s1063.htm>

CLIMATE

Administration releases plan on global warming (New York Times 11/13/2002) – The Bush administration announced a draft plan for studying global warming. The plan seeks to 1) clarify how much of the post-1950 warming is due to human activity, 2) examine the difference in temperature trends between the upper and lower atmosphere, and 3) improve computer simulations of climate change. The proposal has been met well by industry officials and some scientists who have been critical of earlier conclusions, but has been met with skepticism from environmentalists and other climate scientists. Alabama State Climatologist John Christy views the proposal as beneficial to improving observations and understanding of the climate system. Assistant Secretary of Commerce James Mahoney says the program will organize research efforts on climate in more than a dozen government agencies. The strategic plan is posted on the Department of Commerce web site, <http://www.climatescience.org/>.

NOAA seeks comprehensive climate observation network (NOAA 11/19/2002) – NOAA Administrator Conrad Lautenbacher, Jr., on a recent visit to New Zealand and Australia, emphasized the need to better coordinate climate observing activities. Presently, the global climate observing system is a loose configuration of buoys and satellites. The visit is part of a partnership between the United States and Australia to address climate change, aimed at improving climate change science, technology, and monitoring. A similar agreement was recently reached between the U.S. and New Zealand. In addition to climate change issues, Vice Admiral Lautenbacher addressed environmental issues, including preservation of coral reefs, eliminating destructive fishing practices, and management of the ocean environment. <http://www.publicaffairs.noaa.gov/releases2002/nov02/noaa02155.html>

Pacific Ocean temperature changes show natural climate variability (EurekAlert! 11/12/2002) – Climate models at Texas A&M University indicate that as much as one half of global surface warming since the 1970s may be part of a natural climate variation, independent of the effects of greenhouse gasses. The study, appearing in the October 8 issue of Geophysical Research Letters, shows that warming of Pacific Ocean waters precede global surface air temperature changes by about four years. The study also finds that warming surface waters are preceded by an increase in subsurface water temperatures by about seven years. The implications are surface temperatures are driven to a large extent by tropical Pacific decadal variability. It also suggests that subsurface temperature anomalies may provide an indicator of global surface air temperature. The cycle occurs on about a 25-year period, with changes occurring very abruptly. Their data suggest that the ocean temperatures are on the verge of an abrupt shift back to cooler temperatures, similar to conditions that existed prior to the last shift in 1976. This would decrease the rate of global warming, or potentially even reverse, to some extent, the trend. http://www.eurekalert.org/pub_releases/2002-11/tau-pot111202.php

Global warming threatens West's water supplies (EurekAlert! 11/21/2002) – Even the most conservative global climate change models indicate big problems may be looming on the Western United States' horizons. A study, released by DOE's Pacific Northwest National Laboratory, shows a drastic reduction of snowpack and changes in timing of spring melt. The study shows up to a 50% reduction in the Cascades, affecting already-short water supplies. http://www.eurekalert.org/pub_releases/2002-11/dnnl-wsi112102.php

NASA study suggests crop loss due to rain events (NASA 10/28/2002) – Global climate models predict that the frequency of extreme precipitation events will increase over the coming decades. Combining the computer model with crop model simulations, researchers suggest that U.S. crop production losses may double in the next thirty years, resulting in an estimated \$3 billion in annual damages. Drought losses are well-known, but the researchers argue that flood and excess soil moisture may produce comparable damages. A single event, the 1993 Midwest floods, caused \$6 to 8 billion in damages to farmers.

<http://www.gsfc.nasa.gov/news-release/releases/2002/02-151.htm>

10,000 years of El Nino (Nature 11/14/2002) – (EurekAlert! 11/13/2002) – Scientists at Syracuse University and the NOAA Paleoclimatology Program have discovered a 2,000 year cycle for El Nino. The study, which appears in the November 14 issue of Nature, reconstructs events from sediment samples from a lake in Ecuador, dating back 10,000 years. The samples reveal bands of light-colored sediment, consistent with the type of debris that would flow into the lake during periods of intense precipitation. Their findings show that El Nino frequencies last peaked about 1,200 years ago, suggesting the next peak will occur in the early 22nd century.

http://www.eurekalert.org/pub_releases/2002-11/su-net111102.php

Vegetation patterns mirror El Nino (NASA 11/4/2002) – Satellite data reveal that vegetation patterns in Africa are strongly related to El-Nino-influenced precipitation patterns. During the 1997-1998 El Nino, NASA researchers noted above-normal “greenness” over east Africa and below-normal over south Africa. The pattern reversed in 2000 during the La Nina event. Satellite mapping and knowledge of climate variability can be useful in anticipating agricultural production and development of disease outbreaks. The study appears in the November 1 issue of the Journal of Climate.

<http://www.gsfc.nasa.gov/news-release/releases/2002/02-154.htm>

ENVIRONMENT

Water quality standards discussion broken off (Oklahoman 11/2/2002) – Arkansas and Oklahoma officials reached an impasse in their discussions of water quality standards in Eastern Oklahoma rivers. Following a rejection of a proposed agreement, Oklahoma officials submitted new standards of 0.037 milligrams per liter of phosphorus to the EPA. The EPA's review of the standard will take up to 60 days. Oklahoma had offered legal immunity for ten years if the two sides could agree on a plan to clean up poultry litter from the watershed.

Smithfield Foods purchases Oklahoma hog production facilities (Oklahoman 11/14/2002) – Smithfield Foods, the nation's largest pork producer, is purchasing 49 hog farms in Cimarron and Texas counties from Vall Inc. The farms produce 350,000 hogs per year, most of which are sold to Seaboard for processing. Smithfield does not plan on expanding current farms due to an oversupply of hogs

Disease outbreaks increase from poor drinking water (AP/Oklahoman 11/22/2002) – The Center for Disease Control and Prevention reported that insufficient regulation of private wells contributes to an increase in outbreaks of disease from drinking water and swimming pools. The number of outbreaks increased from 17 in 1997-98 to 39 in 1999-2000, even though the number of individuals affected remained steady near 2,000. During the same period, the occurrence of outbreaks from regulated water systems declined. The leading cause of well contamination is storm runoff. The wells are usually not deep enough to prevent infiltration during heavy rains.

Missouri rejects flood control plan (St. Louis Post-Dispatch 11/19/2002) – Amid disagreements between the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service, the state of Missouri rejected a Corps plan for a large flood control project in the state's Bootheel. The project would affect about 18,000 acres of wetlands near East Prairie, an area prone to flooding. Flood control has been under consideration since the 1950s and would carry a price tag of more than \$20 million. The Corps proposed to purchase low-lying farmlands and plant hardwood trees in order to compensate for land affected by the project, but the Wildlife Service called the plan "completely infeasible." The state was also concerned about possible effects on a nearby state park. The Bootheel region contains some of the last wetlands in Missouri, making it a prime focus area for environmental preservation groups.

Bacteria may help clean up toxic substances (National Geographic 11/4/2002) – A strain of bacteria discovered at the bottom of New York's Hudson River transforms a common chemical into a cleaner substance. The microbe "breathes" a chemical known as TCS, used as a solvent in glue, paint, industrial degreasers, and aerosol sprays, and produces a substance that is more easily degraded by aerobic microbes in the soil. TCA is present at more than half the priority Superfund sites and may be present in landfills. The substance can leech into groundwater and soil and break down into ozone-depleting chemicals when exposed to the atmosphere. The researchers, at Michigan State University, are looking into performing a field test using the bacterium for bio-remediation.

http://news.nationalgeographic.com/news/2002/11/1104_021104_Bacteria.html

SCIENCE & TECHNOLOGY

National Research Council report urges better science education (National Academies 11/13/2002) – A new National Research Council report stresses the need for improved evaluation of teaching, especially at the undergraduate level, commensurate with the evaluation techniques used to judge university faculty research. The review finds that evaluations often do not include student learning as a measure in evaluation. Learning can be gauged with exams, portfolios, presentations of research, student journals, long-term changes in enrollment, percent of students who drop certain courses, and the number of students who take additional courses in a discipline or related areas. Informal input, such as colleagues evaluation and observations and student assessments, also merits inclusion. To implement these changes, the panel urges university leaders to emphasize undergraduate education in science, technology, engineering, and mathematics and provide support centers for teaching to provide formal training on instruction techniques. Awards, with financial benefits, should be given to recognize those faculty who excel in the classroom. External certification boards should also emphasize student learning as an important criterion for program accreditation.

<http://www4.nationalacademies.org/news.nsf/isbn/0309072778?OpenDocument>

National Academies receives gift for sustainability science (National Academies 11/7/2002) – The National Academy of Sciences, the National Academy of Engineering, the Institute of Medicine, and the National Research Council will benefit from a \$10 million gift from the George and Cynthia Mitchell Foundation to promote sustainability science. The endowment will support the Academies' work with academia, government, business, and public organizations on sustainable growth. Matching funds are being sought through 2006.

<http://www4.nationalacademies.org/news.nsf/isbn/11072002?OpenDocument>

Phased array radar potential tremendous (Oklahoman 11/19/2002) – The first weather-related adaptation of the U.S. Navy's phased array radar technology is underway in Norman. Construction has begun on the new \$26 million radar near the National Severe Storms Laboratory in Norman. The radar can do a complete volume scan in one rotation, rather than the sequential tilts necessary with current Doppler technology. Scientists point to tremendous applications of the new technology, including detecting the location of hail, snow and rain, and tracking tornadoes, hurricanes, blizzards, and severe thunderstorms. Scientists point to advances in communication technology that will assist in alerting the public: "weather radios, warning beeps in wristwatches, pop-up maps in vehicles, and better trained meteorologists will extend the warning far enough ahead of the event that deaths could become rare." The radar will be installed by May 2003 and will undergo testing next spring with comparisons to data from a T-28 aircraft. [Comment: Beware of oversell – even if the technology makes it theoretically possible for deaths to become rare, it does not mean people will act on the information. Several years ago, a weak tornado struck a mobile home in Oklahoma. The occupant said that the tornado hit right at the exact time the TV weatherman said it would ... yet he was still in the trailer!].

Stanford announces energy project (AP/Oklahoman 11/21/2002) – Stanford University announced a 10-year, \$175 million, industry-financed program aimed at developing technologies for sustainable energy use. The program would match energy demands with projected climate impacts of energy use. ExxonMobil contributed \$100 million toward the project.

SPECIAL SUPPLEMENT: NOW WHERE WAS THAT AGAIN?

U.S. young people get ‘D’ in geography (AP 11/21/2002) – Americans between the ages of 18 and 24 were able, on average, to answer correctly only 23 of 56 questions about geography and current events. That compares to 40 questions by Swedes, 38 by Germans and Italians, 34 by the French, 31 by the Japanese, 28 by the English, and 27 by Canadians. Only Mexicans fared worse, answering only 21 of the 56 questions correctly. Questions included locating on a blank map their home country and other countries featured prominently in the news. One in ten Americans were not able to locate the United States, and only 13% could locate Iraq and 17% Afghanistan. Most could not identify the U.S. population from a multiple-choice list. Americans were asked to identify ten states; of these only California and Texas could be located by a majority of those surveyed. John Fahey, president of the National Geographic Society, said that this generation is highly skilled at blocking out what they do not want to know, and that unfortunately, information about the world in which we live is one of those things for which this generation shows little interest. Fahey said it may take a generation in order to correct the problem. He also commented: “Someone once said that war is God’s way of teaching geography, but apparently today neither the war nor the threat of war can adequately teach geography.”

High school students demand wars in easier-to-find countries (SatireWire.com January 2002) – “A delegation of American high school students demanded that the United States stop waging war in obscure nations such as Afghanistan, Kuwait, and Bosnia-Herzegovina, and instead attack places they’ve actually hear of, such as France, Australia, and Austria, unless, they said, those last two are the same country.” Their concerns were supported by teachers as well. Richard Gerber, from Rhymony High School in Atlanta, said “I think we need to cut back on our activities overseas and take care of business at home, and if that means invading Tallahassee (Fla.) or Trenton (N.J.) so that students learn where they are, so be it.”

<http://www.satirewire.com/news/jan02/geography.shtml>