

REF: 06-08-07-90

## AN ENDURING OBLIGATION

By James R. Reckner, Ph.D.

(EDITOR'S NOTE: Aug. 15, 1990, is the 45th anniversary of VJ Day, the date marking the surrender of Japan and the end of the fighting in World War II.)

LUBBOCK -- Recently I visited with a World War II veteran, a man in his 70s. The contours of his face were deeply etched: a legacy, I supposed, of more than seven decades of the uncompromising sun and harsh weather of West Texas. His health is no longer what it used to be, and as we talked, he at times had some difficulty with his words.

Slowly, he shared with me a series of photographs that are the principal surviving mementoes of his service in World War II. They were photos of a young man, first at Fort Bliss, later in France and Germany. One series showed my acquaintance enjoying a brief respite from the war on a French Riviera beach; others recorded bodies stacked like cords of wood in recently liberated German concentration camps. As we viewed the latter, I sensed the outrage of 45 years ago welling up again in this old soldier. Some of the lines so prominent across his brow doubtless came not from the West Texas sun.

As I prepared to leave, I thanked the old gentleman for sharing his photos and memories with me. I was surprised to receive in response a warmer thanks from him.

"Its been many years," he told me, "since anyone expressed any interest."

I would like to apologize to him, and to all of the men and women, veterans of World War II, for my generation's seeming lack of continuing interest in their sacrifices in World War II.

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During that war, many millions of American men and women, serving in the Army, Navy, Marine Corps, Army Air Force, Coast Guard, Merchant Marine, Red Cross and other organizations, set aside their personal ambitions and willingly served for the common good of all Americans.

There were a few Audie Murphys, but by and large, those who served were quite ordinary men and women quietly performing extraordinary deeds; nothing less was expected of them. And I believe they expected it of themselves. Modern minutemen, they served and after VJ day they returned home and resumed their private lives. They were a striking mid-century reaffirmation of the citizen-soldier concept that is as old as our country itself.

But those who returned, and far too many did not, were forever altered. They had been tested in the uncompromising forge of combat, had proved equal to the greatest challenge. In the process, their actions on a thousand distant battlefields permanently inscribed a long list of new names in America's role of honor: Bataan, Corregidor, Coral Sea, Midway, North Africa, Anzio, Normandy, Bastogne are but a few.

I confess that at times America's present-day problems command my attention. That is human nature.

Though I might not say it often -- although we might not say it often -- your selfless efforts during World War II made it possible for the people of my generation, and our children too, to grow to maturity in an America free and prosperous. We honor you for that.

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As for the many who never returned from those distant battlefields, Adm. Chester Nimitz best summed up our responsibility in a radio broadcast on the day Japan formally surrendered:

"On Guam is a military cemetery in a green valley not far from my headquarters. The ordered rows of white crosses stand as reminders of the heavy cost we have paid for victory. On these crosses are the names of American soldiers -- names that are a cross-section of democracy. They fought together as brothers in arms, they died together, and now they sleep side by side. To them we have a solemn obligation -- the obligation to insure that their sacrifice will help to make this a better and safer world in which to live."

The passage of 45 years has not altered that obligation. Nor should the passage of time dim our gratitude to the real heroes of the Second World War: the ordinary sailor-airman-soldier; Nimitz's "cross-section of democracy." I salute you all. And we thank you profoundly.

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James R. Reckner, Ph.D., is an assistant professor of history at Texas Tech University in Lubbock, Texas. A retired naval officer and veteran of two tours of duty with Vietnamese navy riverine forces, Reckner is the director of Texas Tech's Center for the Study of the Vietnam Conflict.

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**FALL SEASON FORECASTS POTENTIAL KNEE INJURIES FOR STUDENT ATHLETES**

LUBBOCK -- The boys and girls of summer will soon become the athletes of fall with the start of practice for high school football and volleyball.

Unfortunately, some of these young athletes will fall victim to knee injuries. For some, it may mark the end of their sports career, but thanks to sports medicine, most are able to return to normal activities, according to Robert Yost, M.D., director of the TTHSC sports medicine clinic.

The knee is possibly the most susceptible to injury, he explained, because of the tremendous amount of leverage applied to the ligaments. The two longest bones in the body -- the femur and the tibia -- can sometimes place enough tension on the knee joint to cause tearing of the ligaments. If this happens, the journey back to full recovery can be a long one.

The key to solving the problem, Yost said, is prevention. A thorough physical exam before starting a sport can help both the athlete and the coach recognize individual needs. By identifying deficiencies in athletes before the season begins, such information can help reduce the risk of injuries later on.

Sometimes, however, accidents do occur. But with the advances of orthoscopic surgery and physical therapy, Yost said, many injured athletes still can look forward to a productive sports career.

**SOURCE:**

**Robert Yost, M.D., (806) 743-2475**  
director of sports medicine and chairman of the orthopedic surgery department at the Texas Tech University Health Sciences Center

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**BACK-TO-SCHOOL WITH A HEALTHY LUNCH**

LUBBOCK -- When millions of American youngsters go back to school this September, many will be carrying lunch boxes and brown paper bags filled with high fat, high calorie foods.

These foods can lead many children to the same dramatic weight gains and elevated cholesterol levels found in adults. But parents can take a positive step toward protecting their children against future health risks by making simple substitutions in their youngster's lunch box, according to Steffany Brich, a nutritionist for TRIM, a weight-loss program in the Texas Tech Health Sciences Center department of family medicine.

By substituting mustard for mayonnaise, popcorn for potato chips and skim milk for whole milk, a child can save enough calories to equal more than 20 pounds when eaten during the course of a school year.

Given the choice, kids will most likely opt for one of the more popular junk foods including donuts, cookies and hot dogs. The parents' job, she said, is to help their children get into the habit of eating healthy foods. The health habits children learn early will become their same habits as adults.

**SOURCE:**

**Steffany Brich, (806) 743-2767**  
nutritionist for the TRIM Program at the Texas Tech University Health Sciences Center

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**VACCINATIONS: A BACK-TO-SCHOOL REQUIREMENT**

LUBBOCK -- Most children will agree that being stuck with a needle is a least enjoyable experience.

But, most parents will agree that immunization against infectious organisms is an important public health measure. The development of immunizations has been successful in controlling certain diseases that once wiped out a large portion of the world's population, according to Wallace Marsh, M.D., of the Texas Tech Health Sciences Center department of pediatrics.

However, it has become increasingly apparent that large segments of the pediatric population have failed to complete the recommended course of vaccinations. Unfortunately, a number of preschool children don't receive the prescribed vaccinations because parents fear their child will suffer from adverse reactions.

Although there are no guarantees that vaccines will not cause adverse side effects in some children, families across the country are protected to a certain extent by the National Vaccine Injury Compensation Program -- a federally funded group dedicated to reviewing immunization complaints and compensating legitimate vaccination victims.

But the fear of adverse reactions is not cornered by parents. Many health officials refuse to inoculate children who are brought into the clinic with minor illnesses. Despite the Center for Disease Control's advice that inoculations can be safely administered in the case of a minor illness -- such as an ear infection -- many health officials are afraid of adverse reactions and resulting litigations.

Emphasis, Marsh explained, must be placed on educating parents and health professionals about the importance of immunization. Self-motivation of the public can best be achieved by better health education and better health services that make immunization feasible and possible in terms of cost, time and availability.

**SOURCE:**

**Wallace Marsh, M.D.,** (806) 743-2332  
associate professor in the department of pediatrics at the Texas Tech University Health Sciences Center

**Dan Hurst, M.D.,** (806) 743-2758  
expert witness for the National Vaccination Compensation Program and associate professor in the department of neurology at the Texas Tech Health Sciences Center

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**BACK-TO-SCHOOL WITH A NEW CAR  
A TEEN'S DREAM; PARENT'S NIGHTMARE**

LUBBOCK -- This year alone, more than 4,000 teens will die and another 110,000 will be seriously injured in car crashes involving alcohol.

Unfortunately, not all teens injured or killed in car crashes have been drinking. Many are passengers or other innocent victims of people who drink and drive. According to James Griggs, a counselor at the TTHSC Southwest Institute for Addictive Diseases, these statistics mean that from a high school class of 475, two students are likely to be killed or injured in drunk driving accidents. Drunk driving, he said, is the number one killer of teenagers.

Texas state law defines "drunk" as having an alcohol concentration of .10 or more, but most individuals experience serious impairment of their driving skills at significantly lower levels. People react to alcohol differently, Griggs said, depending on how recently they have eaten, their metabolism, how tired they are, the medication they take, their emotional state and their weight.

Most teenagers are under the impression that serious accidents only happen to others. In time, this feeling of invincibility leads many teenagers down a path to life-threatening accidents.

**SOURCE:**

**James Griggs, (806) 796-3600**  
certified drug and alcohol counselor at the Southwest Institute for Addictive Diseases, department of psychiatry at the Texas Tech Health Sciences Center

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**LEARNING DIFFICULTIES: A BACK-TO-SCHOOL CONCERN**

LUBBOCK -- A variety of medical problems often manifest themselves in learning difficulties for young school children. Each year, more than 15 percent of the student population will have trouble with learning in school.

That's why parental monitoring of potential problems is a must as children head back to the classroom this year, according to John Turnbow, M.D., of the TTHSC pediatrics department.

Turnbow, director of the TTHSC developmental medicine program, said he recommends a pediatrician's school readiness assessment before children start school. Difficulties, he said, generally fall into three categories: 1) psycho-social problems in relating with adults or other children; 2) cognitive processing differences, frequently diagnosed as dyslexia or dysgraphia; and 3) attention deficiencies brought on by chemical disturbances in the brain and usually identified as hyperactivity.

If these problems can be identified soon enough, treatments can be prescribed that will make it easier on both the children and their parents. However, the longer these medical problems go unchecked, the more blurred the distinctions between them become and the greater the likelihood a child may be identified as a behavior problem.

**SOURCE:**

**John Turnbow, M.D., (806) 743-2332**  
director, developmental medicine program at the Texas Tech Health Sciences Center, department of pediatrics

**INTERSTATE AMERICA**  
By James R. Reckner

LUBBOCK -- I barely mention the Eisenhower Administration's Highway Act of 1956 in my freshmen history classes. Discussion of that law, which authorized \$31 billion to build 41,000 miles of interstate highways over 13 years, is too often overshadowed by the end of the Korean War and the beginnings of American involvement in Vietnam.

But the 1956 Highway Act had far-reaching effects upon American society. The interstate highway system was intended principally to provide an efficient network for military use. But in the process, it strengthened the tourist industry, contributed to the further decline of the railway system, and caused an expansion of suburbia. It also reconfirmed America's enduring love affair with the automobile.

As a young sailor recently discharged from a ship home-ported in Boston, I hitchhiked across America in 1961, on my way to join the Pacific Fleet. Construction was only then beginning on the Interstate System. This summer I drove east along the complete system. Travelling alone, I had time to reflect on some of the changes the new highways have wrought in the three decades since that earlier trip.

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I headed east on I-40, one of the system's great East-West thoroughfares. It stretches about 2,500 miles from California to North Carolina. It is about 800 miles from my entry point at the Amarillo on-ramp to the Mississippi River, which I crossed at noon the next day.

By then, though, I was experiencing some misgivings. I had travelled nearly 1,000 miles but had seen very little of the countryside. Thanks to the special skills of the interstate highway designers, we travel along highways scientifically isolated from the population centers along the route. Yes, the city traffic is avoided that way. But we also miss the sights and sounds, the "feel" of the cities and towns. "Limited Access Highway" takes on new meaning on an interstate highway.

Determined to break out of this self-imposed restriction, I drove off onto a parallel road in Tennessee. Its two lanes were well paved. I would recapture some of the feelings of my much earlier trip. I would use the older service stations where you still meet human beings at the gas pump, rather than through the protective glass of a cashier's booth. And I would avoid fast-food "restaurants."

It took me only a few hours to discover that the good old days of passing through every town, with 25 mile-per-hour speed limits, no longer suited me. The small gas station I stopped at sold gas at about 15 cents a gallon more than the big stations along I-40. And the family-operated roadside restaurants, particularly those silver-sided ones reminiscent of railway cars, are just about things of the past.

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Chastened, I returned to I-40; but now I re-examined my surroundings. It struck me that entirely new communities have sprung up along the interstates. They might be 2,000 miles long and only one mile wide. They might transcend hundreds of local jurisdictions. But they are communities nevertheless, sharing the common bond of the highway, and the common employment of service to the highway's users.

Recognizing that connection, the I-40 Country News caters to this exceptional community. "If It's on I-40 It's News" its banner proclaims. Reporting is heavily country- and western-oriented, and directed to the highway's most frequent users, the professional truck drivers. Advertizing spans the entire length of the highway from California to North Carolina. And nowhere else, I suspect, could you learn the itinerary of Miss Truck Stop America.

Like that young sailor of 30 years ago, the users of today's highways have changed considerably. Hitchhikers are few and far between these days, and few seem to be the clean-cut type that I would pick up. A sign just west of Oklahoma City warned, "Hitchhikers May Be Escaping Inmates." Now there's food for thought. So I continued my trip alone with my car doors locked.

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Here's something I discovered about myself along I-40: I actually enjoyed driving long distances -- distances that would have been impossible in the pre-interstate days. Six hundred miles in a single day seemed a short run. I was getting a "highway high" from the trip. "Getting there," to use the tired phrase, "had become half the fun." Although I nostalgically remembered the casual pace of travel before the interstates, I could no longer be satisfied with it.

And so, I joined the mainstream of Interstate America: cadillacs from California with prestige plates; yuppies in BMWs from New York (one of which had plates that pronounced itself "MARVLUS"); truckers from all points; and the great bulk of travellers in unremarkable cars like mine, making unremarkable trips.

On my return trip I became convinced I had done the right thing by rejoining the interstate crowd when I discovered a sign near Shamrock, Texas, directing me to exit there to see "Historic Route 66." The highway that had been the stuff of the dreams of my generation was now "historic!" I didn't take the detour.

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James Reckner, Ph.D., is an assistant professor of history at Texas Tech University in Lubbock, Texas. A retired naval officer and veteran of two tours of duty with Vietnamese navy riverine forces, Reckner is the director of Texas Tech's Center for the Study of the Vietnam Conflict.

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LUBBOCK -- Brightly lit supermarkets with aisles of prepackaged foods have numbed many consumers to the agricultural processes involved in getting those foods to the shelves.

But the development of a new center at Texas Tech University is aimed at enhancing the dissemination of agricultural information to the public.

The Center for Agricultural Technology Transfer (CATT), recently approved by the university's Board of Regents, will focus on the development of instructional media and educational tools to deliver agricultural information to farm and non-farm audiences.

A 1988 National Academy of Sciences study reported that few Americans today know much about agriculture -- that they are agriculturally illiterate. Paul Vaughn, director of CATT, said Texas Tech's new center will try to overcome this ignorance through the development of curriculum plans for public school teachers, interactive video programs and an agricultural reference service.

The center will be structured through the agricultural communications program offered in the College of Agricultural Sciences. According to Vaughn, Texas Tech has more than 80 students enrolled in the agricultural communications program making it the largest program of its kind in the country.

"In addition to informing the public about agriculture, CATT will function as a research and training center for students and professionals at various levels within the field of agricultural communications," said Vaughn. "Students will learn how to produce agricultural newsletters, brochures, videos and other promotional materials. Graduate students and faculty will try to determine the most effective methods to use in informing people about agriculture."

Vaughn said immediate plans call for updating and expanding the scope of an existing computer laboratory which will be part of CATT. The lab will be used by students for the production of print materials and for the development of an agricultural database system, he said. An existing video production laboratory also will be expanded.

"The broadcast system will be utilized initially to produce agricultural videos but eventually will have uplink capabilities for teleconferencing purposes," said Vaughn. "The broadcast classroom will be used to develop in-service courses for farmers, agribusiness and extension personnel, public school teachers and university students and faculty."

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CATT/PAGE 2

Vaughn said the public needs to realize that agriculture involves more than farming and ranching. Agriculture today encompasses sciences such as genetics and biotechnology.

"People just aren't exposed to agriculture anymore," he said. "Or if they hear something about agriculture, it's the bad news -- farm foreclosures, crop losses and subsidy programs."

Vaughn said people should be informed about agriculture because it affects legislative matters and offers job opportunities. Agriculture also is related closely to many environmental issues, he said.

"The CATT will help us to train people in agricultural communications and get the public interested in agriculture. The continuing advancement of agriculture relies considerably on the public's understanding, interest and attraction to agriculture," he said.

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## OIL-EATING MICROBES REDUCE OIL SPILL CONTAMINANTS

By Jennifer LeNoir

LUBBOCK -- Despite a society that is becoming increasingly environmentally conscious, oil spill disasters continue to plague oceans and their delicate ecosystems.

Recently, the Galveston Bay area has been hit by two consecutive oil spills. The first spill in June involved the Norwegian tanker Mega Borg. Another spill this month resulted from a collision between the Greek tanker Shinoussa and two barges towed in the Houston Ship Channel.

The two disasters share a common method of clean-up -- "bioremediation" -- a unique experimental technology that uses oil-eating bacteria to degrade petroleum contaminants.

When the Mega Borg spilled its cargo of oil 50 miles off the coast of Galveston, Coast Guard authorities accurately predicted that most of the spilled light crude would evaporate, burn or disperse. The petroleum contaminants that remained were cleaned through the use of bioremediation.

Texas Tech University researchers in biology and engineering are studying a similar method -- biodegradation -- used to decompose petroleum contaminants in underground soil and water. The toxins often originate from underground leaking storage tanks, according to Ken Rainwater, Ph.D., assistant professor of civil engineering.

Rainwater and two other researchers, Caryl Heintz, Ph.D., associate professor of biological sciences, and Bill Claborn, Ph.D., professor of civil engineering, are researching the oil-eating micro-organisms.

A \$117,000 Environmental Protection Agency (EPA) Research and Demonstration Grant is supporting the two-year laboratory study of the process.

In biodegradation, "bugs" or micro-organisms, which occur naturally in the environment, have been genetically engineered to consume crude oil.

Ultimately, scientists would like to have the ability to enhance the genetic crude-consuming capabilities of naturally occurring bacteria and lessen the negative environmental effects of oil spills at sea, Heintz said.

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## OIL SPILLS/PAGE 2

The type of micro-organisms being studied by Texas Tech engineering and biology researchers are similar to the organisms that were used for the first time on ocean waters during the clean-up of the Galveston oil spill.

The Texas Tech researchers specifically are focusing on microbes that eat petroleum or crude products, which are composed of aliphatic hydrocarbons or straight chain structures, Heintz said.

"Both forms of microbes (those used underground and those used at sea) degrade components of crude oil. We are primarily interested in the diesel fractions, or petroleum parts, of the possible contaminants," Heintz said. "Microbes only have the ability to consume the diesel fractions of the possible contaminants."

The Texas Tech research involves stimulating the hydrocarbon-degrading activity of the organisms that naturally occur in the soil, she said.

"Because the ocean normally doesn't contain oil-degrading organisms, the microbes often disappear in a brief period of time because they are not adapted to that environment," Heintz explained.

Future research may focus on isolating an organism that eats a specific type of hydrocarbon that other organisms are unable to biologically breakdown, she said.

"The concept is particularly important when the contaminants involve tar balls, which are difficult to biologically degrade and tend to persist in the environment," she said.

Tanker transportation expert John J. Day said the best method of reducing oil spills is to reduce the United State's dependence on foreign oil.

"All clean-up crews can really do is to contain, disperse and collect spilled oil. Beyond these measures, nothing can be done. The only way to limit the chance of oil spills occurring is to not ship oil on the high seas -- an unrealistic option," said Day, chairman of the Texas Tech department of petroleum engineering.

The short-term effects of oil spills often prove to be the most harmful to the environment as opposed to the long-term effects, he said.

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### OIL SPILLS/PAGE 3

"Although an oil slick looks environmentally unsafe from above the water, in reality, as long as it doesn't reach shore, the floating substance is basically harmless," Day said. "In the case of the Mega Borg spill, keeping the oil slick off shore was important. As long as the oil remains at sea, the possibility for weathering and oil breakdown exists, and subsequently, less harm results to the environment."

Another method of cleaning up oil spills involves dispersants or chemicals that break-up petroleum contaminants, Day explained. The most common of the five forms of dispersants contain low toxicity detergents or "emulsifiers" that aide in distributing the oil below the water's surface.

The problem with dispersants, according to Day, is that by dissolving the crude oil, the dangerous toxins distribute themselves deeper into the water, eventually affecting marine life.

"Although oysters and shrimp probably ingest the oil's remnants, they are able to cleanse themselves of most toxins within a few hours to days. Birds, however, are the hardest hit. If they become completely covered in oil, they almost always die," said Day.

Because the short-term effects of oil spills are the most harmful, corporations involved in tanker transportation must take additional steps to minimize spills, Day said. He advocates better training for tanker crews and more thorough maintenance and inspection of vessels. Additional modern navigational aides also are needed.

The option of requiring "double bottoms" or "double hulls" on tankers also would help, he said, although the concept and its potential expense is controversial within the shipping industry.

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### WORLD'S OIL RESERVES AT STAKE

LUBBOCK -- Iraq's control of Kuwait and possible control of Saudi Arabia would result in the control of the world's oil reserves and the dictation of oil prices by Iraq's President Saddam Hussein, said John J. Day, Ph.D., chairman of the department of petroleum engineering at Texas Tech University.

"Regardless of the Middle East uprisings, the United States is not energy efficient and never will be. Sixty-one percent of our oil imports come from the Middle East and OPEC countries," Day said.

He predicts that with Iraq's invasion of Kuwait, the world market could experience a 4 to 5 million barrel crude oil shortage per day. An invasion of Saudi Arabia could result in a potential shortage of 10 million barrels of crude oil per day.

Currently, the United States produces about 7 million barrels of crude daily. The country also imports 9 million barrels per day and uses 17 1/2 million barrels of crude per day nationwide, Day said.

"Current gasoline price increases are not the result of greedy oil companies," he said.

"Although initial gas increases might reflect greed among individual service station owners, the gasoline increases primarily are attributed to market forces. Oil prices are dictated by futures traders on the New York Mercantile Exchange. Oil companies purchase crude at spot market prices, which run almost parallel to the futures market prices," he said.

SOURCE:

John J. Day, Ph.D., (806) 742-3573

Chairman of Texas Tech's department of petroleum engineering and an expert on tanker transportation and the world's petroleum economy

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MEDIA ADVISORY

REF: 12-8-9-90

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or Jennifer LeNoir

**SOURCES AVAILABLE FOR COMMENT ON IRAQ AND RELATED ISSUES**

(MEDIA ADVISORY: The following Texas Tech University faculty members are available at work or at home for interviews. Areas of expertise are included for convenience. Interested media may contact these sources directly.)

John J. Day, Ph.D., (w) (806) 742-3573 (he cannot be reached at home)

Chairman of the department of petroleum engineering, Day can discuss the blame for rising gasoline costs and the potential effects on world crude oil prices resulting from Iraq's invasion of Kuwait and possible invasion of Saudi Arabia.

Day says current gasoline price increases are not the result of greedy oil companies. Although initial gas increases might reflect greed among individual service station owners, the gasoline increases primarily are attributed to market forces. Oil prices are dictated by futures traders on the New York Mercantile Exchange. Oil companies purchase crude at spot market prices, which run almost parallel to the futures market prices.

Day predicts that with Iraq's invasion of Kuwait, the world market could experience a 4- to 5-million barrel-per-day crude oil shortage. An invasion of Saudi Arabia could result in a potential shortage of 10 million barrels per day of crude oil.

The U.S. is not energy efficient and never will be. Sixty-one percent of our oil imports come from the Middle East and OPEC countries. Currently, the United States produces about 7 million barrels of crude per day and imports about 9 million barrels per day to meet its consumption of 17 1/2 barrels of crude per day nationwide.

James R. Reckner, Ph.D., (w) (806) 742-3742 or (h) (806) 792-3441

An assistant professor of history, Reckner is an expert in military and naval affairs and in military intelligence. He is the director of the Center for the Study of the Vietnam Conflict at Texas Tech. He is a retired naval officer and veteran of two tours of duty with Vietnamese navy riverine forces.

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TEXAS TECH SOURCES/PAGE 2

Lawrence Clark Mayer, Ph.D., (w) (806) 742-2987 or (h) (806) 795-8046

A political science professor, Mayer can discuss Arab-Israeli problems and American foreign policy.

Mayer says Saddam Hussein may be at a disadvantage because he miscalculated such an aggressive response by the United States. Now, the U.S. Administration has to decide whether to wait the situation out or strike. Hussain has time on his side. It could take six months to a year before international economic sanctions could impact Kuwait's economy and recent military invasion.

An extended standoff also would require funding just as Capitol Hill is getting ready to slash the budget -- with a large focus on cutting military spending. Mayer also says America, the most powerful nation in the world, doesn't have the transportation necessary to get its army where it needs to be. This says something about our willingness to spend the money to be prepared for conflict in other parts of the world.

Metin Tamkoc, Ph.D., Currently in Cesme, Turkey, telephone 0-11-90-549-27651 (there Aug. 8 through Aug. 10, when he leaves for Bodrum); in Bodrum, Turkey, telephone 0-11-90-6141-4624

A professor of political science, Tamkoc is an expert in Middle Eastern politics, international relations and international law.

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CONTACT: Myrna Whitehead

LUBBOCK -- J.R. Goodin, dean of the College of Arts and Sciences at Texas Tech University, has been invited to lecture Aug. 13-17 at various higher education institutions in Taiwan.

Goodin, named a Distinguished Visiting Scholar by the National Science Council of the Republic of China, will present his lecture, "The In Vitro Production of Cotton Fibers," and will discuss other related topics on his research.

Goodin will present seminars at Academia Sinica, the national research center; National Taiwan University and Taichung of the Taiwan Agricultural Research Institute. His visit is being arranged and coordinated by the Institute of Botany, Academia Sinica.

Goodin, a professor of biological sciences, also will lead various discussion groups with Taiwan scientists.

Since 1985, Goodin has experimented with laboratory-grown cotton fibers. His experiments develop unspecialized cotton cells into fibers through an elongation process.

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**HEALTH TIPSHEET**  
from  
**TEXAS TECH HEALTH SCIENCES CENTER**  
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**SLEEPING SICKNESS** -- Already one person has died in the Houston area and several more could fall victim this summer to encephalitis, an arthropod-borne disease so serious that just one or two cases are enough to be considered an outbreak. Commonly called sleeping sickness, encephalitis is an inflammation of the brain that can damage an individual's intellectual and/or motor skills, according to Jack Hayes, Ph.D., a mosquito authority in the TTHSC preventive medicine and community health department. St. Louis encephalitis and western equine encephalitis are transmitted to humans from infected birds by two well-known vectors. These vectors -- *Culex tarsalis* and *Culex quinquefasciatus* -- have been identified among the 65-plus mosquito species found in Texas. The western equine variety can be especially dangerous to young children, causing deterioration of the central nervous system, while the St. Louis variety generally strikes older people. Symptoms usually appear within five to 15 days after an infected bite and often resemble a mild case of the flu. The disease is difficult to diagnose and many times cannot be positively identified by blood/serum studies until the patient has already begun to recover. For more on this dangerous disease and the mosquitos that carry it, contact Hayes, at (806) 743-3091.

**DEBT BY DEGREE** -- By the time a typical student received a medical degree this year, he or she had an average debt of \$42,374, according to a report to be released Wednesday in the Journal of the American Medical Association. That average, up more than \$4,000 in just the last year, raises questions about medical education being priced out of the reach of most and particularly minority students. At TTHSC 77 of 96 M.D. recipients this past spring had debts ranging from \$4,000 to \$108,257. That averages out to \$47,839 per person. This has implications not only for the individual doctors but also for the profession as a whole because of the narrowing socio-economic pool of candidates who can afford to enter the field. For more on the fiscal reality of graduation for today's medical students and the implications for tomorrow's, contact Earl Hudgins, TTHSC Director of Student Financial Aid, at (806) 743-3025.

For assistance on these or other stories, contact Kim Davis or Preston Lewis at TTHSC News and Publications, (806) 743-2143.

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