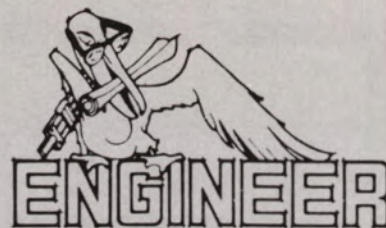




FEBRUARY, 1988
LOUISIANA



FEBRUARY 21-27, 1988

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National Engineers Week is February 21-27, 1988 with the theme of "Turning Ideas Into Reality."

LOUISIANA ENGINEER

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Parking on the Other Fella's Nickel

How many of us are quite pleased when we pull our automobile into a parking space with time still remaining on the parking meter? Someone else had the privilege and obligation of inserting money in the meter, giving us a **free ride** in the parking space. In fact, if we do not get too involved in our activities, we may leave the parking space with time still remaining, thereby eliminating any obligations that we may have. Some are thankful that someone else paid for their privilege of parking. Some care less about the entire situation, and others accept the obligation of taking care of those who refuse to help themselves.

What does "parking on another fella's nickel" have to do with the Louisiana Engineering Society? Are there fellow engineers who are taking a **free ride** by allowing other engineers to pay membership dues to the Louisiana Engineering Society or to the National Society of Professional Engineers to provide funds for those organizations to conduct their important functions? Are they letting someone else pay for their privileges and obligations?

Some engineers do not consider membership in LES or NSPE as being beneficial **to** them and that those organizations are not doing anything **for** them. In reality, engineers should be doing something **for** and **within** these organizations. This writer finds it hard to accept the premise that LES and NSPE are not doing things to help the profession or the professional. LES and NSPE support and monitor legislation to better the profession and society, promote a positive image to the public, promote registration of qualified engineers, encourage high ethical standards, support engineering education, provide career guidance and scholarship programs, conduct MATHCOUNTS to encourage students to become interested in math, science and engineering, etc. The list can go on and on.

Membership has its privileges

Members of LES and NSPE have the



Bobby E. Price, Ph.D., P.E.
President
Louisiana Engineering Society

distinction of proclaiming membership in the only active, established state and national organizations devoting their entire efforts to the professional, ethical, economic and social aspects of engineering. Membership affords greater opportunities for having valuable personal contacts and exchange of ideas with engineers from all engineering disciplines, of serving on important committees, of speaking in a strong unified voice on things affecting the profession, and participating in other activities that make a definite contribution to professional engineering. Other privileges include participating in an appropriate practice division, receiving the LES publication, the *Louisiana Engineer*, and if the person is a member of NSPE, also receiving the *Professional Engineer* and the "Engineering Times." Reduced insurance and rental car programs are available.

And, oh yes, **membership also has its obligations.** Each of us as engineers has received benefits from those who have gone on before us to lay the ground

work for the successful profession in which we operate. We have the obligation to actively continue the efforts of our predecessors to be supportive of the profession, to promote engineering and to safeguard the general public.

Please consider the subject of membership privileges and obligations as you read the following poem:

SOMETHING TO THINK ABOUT

Are you an active member,
The kind that would be missed?
Or are you just contented
That your name is on the list?
Do you attend the meetings
And mingle with the flock?
Or do you stay at home
And criticize and knock?
Do you take an active part
To help the work along?
Or are you just satisfied to be
The kind that "just belongs?"
Do you ever go to visit
A member who is sick?
Or leave the work to just a few
And talk about the "clique?"
There's quite a program scheduled
That I'm sure you've heard about.
And we'll appreciate it if you
Will come and help us out;
So come to meetings often,
And help with hand and heart;
Don't be "just a member,"
But take an active part.
Think this over, member—
You know right from wrong:
Are you an active member,
Or do you "just belong?"

Copied

Are we "parking on the other fella's nickel," or are we accepting our responsibilities of supporting the engineering profession with our membership in the Louisiana Engineering Society and the National Society of Professional Engineers?



Are You Taking A Free Ride Or Are You An Active Member Of Your Professional Organization?

LOUISIANA ENGINEERING SOCIETY APPLICATION FOR MEMBERSHIP

Return to LES, P.O. Box 2683
Baton Rouge, LA 70821

I hereby apply for admission into the Louisiana Engineering Society and agree to comply with the Constitution and Bylaws and the Code of Ethics of the Society. I also apply for admission into the National Society of Professional Engineers, if qualified and if I have indicated 'yes' to question No. 8 opposite.

Please assign me to the Chapter checked below:

Alexandria ☐ Baton Rouge ☐ Bayou ☐
Lafayette ☐ Lake Charles ☐ Monroe ☐
New Orleans ☐ North Lake ☐ Shreveport ☐
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NOTE: If you are a PE, EIT or PLS only one LES Member Sponsor is needed, otherwise please list the names of three LES members as your references. A brief professional experience record must be attached if you are not a PE, EIT or PLS.

1. _____
2. _____
3. _____

Why Is Sea Level Not Level?

By Waldemar S. Nelson, P.E.

In an earlier article (Cairo Datum and Whence It Came, "CONSULTANT", June 1986), we commented on the convenience of having a Datum Plane from which vertical measurements, or elevations, may be measured. We noted the unusual Cairo Datum used in much of the older New Orleans engineering work, and gave its relation to Mean Sea Level. The article concluded by noting that sea level is not always level, and we now discuss this point.

It is an important point, because geographers and topographers have for hundreds of years referred the elevation of hills and mountains, plateaus and passes, buildings and bridges, harbor works and highways, to mean sea level. In fact, the titles to lands themselves, running into billions of dollars in value on oil-rich coasts, are determined by the coast line which, in turn, is determined by the mean level of the sea. In a gently shelving coast, such as that of Louisiana, where the land may have a slope of as little as one foot to the mile or less, a difference of one foot in sea level may make a difference in thousands of acres of land or sea bottoms.

Determination of Mean Sea Level

To determine the mean of a series of values, they are all added together and the sum is divided by the number of values to get the mean value. In the case of sea level, it turns out that the values must be observed over a considerable period of time, to determine the mean.

Oceans, bays and estuaries are influenced by tides, as any coastal dweller knows. Tides may be small, as in the Gulf of Mexico, or large, as in the Bay of Fundy. They are influenced by latitude, by coastal configuration, by earth's rotation, by the seasons (or earth's positioning in its orbit of the sun), and by the gravitational effect of the sun and the moon. The orbit and relative position of the sun and moon go through different cycles such that it is approximately nineteen years before they have gone through all possible relationships and are back at the point of beginning. Thus, to determine mean sea level at any point on a coastline, it is necessary to take tide readings over a nineteen-year period and then determine the mean of the values taken.

Wind Effects

To complicate matters, sea level at any given point of shoreline may be influenced more by wind than by tidal effect. Thus, in the nearby Mississippi Sound, where typical tidal range may be of the

order of one to two feet, wind effects may vary the sea level by as much as five or six feet. A strong north wind for several days may blow much of the water out of the sound, revealing bottoms normally covered by three or more feet of water; and a strong east wind for several days may pile water into the sound two or three feet above ordinary high tide. Of course, hurricanes may raise the level locally as much as twenty to twenty-five feet.

Since most regions have prevailing winds in some seasons, and many areas have prevailing winds throughout the year, the thought occurs that certain bays or coasts may be seasonally or permanently affected by wind set-up of the sea surface, giving an artificial sea level.

Current Effects

The movement of large ocean currents may also affect sea level. Thus, sea level in the Bahamas is reported to be two or three feet higher than sea level at Miami, due to the effect of the Gulf Stream piling up against the Bahamas Islands and the adjacent shoals, which rise from the ocean floor and impede the flow of the Gulf Stream. The outflow of large rivers, such as the Amazon or the Mississippi during flood stage affects the level of the ocean, sea, sound or bay into which the river discharges. Such effects may be continuous, as in the case of the Gulf Stream, or seasonal, as in the case of winter or spring floods of the rivers.

Sea Level Rising

There are persistent indications that sea levels are rising all over the world. These indications are generally attributed to one or more of three causes. The first of these has to do with the continents themselves, which were formerly thought of as being solid masses of rock and soil firmly set on the face of the globe. In 1928, a German meteorologist, Alfred Wegener, published a theory that the continents are actually plates of solid rock floating on an underlying viscous fluid magma or molten rock, the plates being in motion from flow of the magma, much as patches of foam move on a slowly boiling kettle of jelly. The theory was ridiculed at first. My children's 1948 copyright World Book does not mention "continental drift", nor does my 1966 copyright Webster's College Edition Dictionary. My 1979 copyright Webster's New Collegiate Dictionary defines "continental drift: a hypothetical slow movement of the continents on a deep-seated viscous zone within the earth", so it at least recognizes the existence of the theory.

Although Wegener's theory was considered absurd at the time, it is generally accepted by scientists now, and measurements are being made showing that continents are actually in motion, both horizontally and vertically, with continental plates being pushed up to form mountain ranges, such as the Rockies and the Alps, and with the edges of continental plates in some cases being forced down under adjacent plates with which they are colliding, with the land surface of the underlying plate sinking. There is also a theory that parts of some continents that were under the weight of thousands of feet of ice during the last glaciation, only some 12,000 to 15,000 years ago, are rising due to the melting away of the ice and the subsequent reduction of the overburden. Such sinking and rising, occurring on a coastline, can be interpreted as a rising or falling of sea level.

The second possible cause of sea level rising has to do with the warming of the oceans, continuing from the last glaciation up until the present day. Water expands as it is heated, and the presumption is that average ocean temperatures are rising sufficiently to cause expansion accounting for at least part of the postulated rising in ocean levels.

Greenhouse Effect

The third possible or probable cause of the sea level rising is the melting of glaciers in many areas of the world. There is direct evidence that glaciers entering the sea have melted back and shortened by great distances in recent historical times, and this process is continuing today. Melting of the glaciers and of the vast amount of ice frozen over Greenland and Antarctica has been attributed to a "greenhouse effect" created by the burning of fossil fuels and vegetable matter. The world's developing civilization and increasing population have, in the last hundred years, burned tremendous amounts of coal, oil and natural gas to generate electricity for industrial processes and for comfort heating and cooling, and thousands to hear of tropical forest have been burned to provide fields for cultivation and pastures for grazing. This burning of carbonaceous matter has released millions of tons of carbon dioxide into the atmosphere. There is speculation that this blanket of carbon dioxide is creating a greenhouse effect, admitting heat to the earth but impeding heat from leaving, and causing a gradual rise in the temperatures of the ambient atmosphere and the surface of the earth.

It has been calculated that, if all the ice bound up over Greenland and Antarctica and in the glaciers were to melt, the ocean's level would rise by some hundreds of feet!

Ozone Layer

In addition to the problem caused by the burning of carbonaceous matter and the release of carbon dioxide into the atmosphere, there is speculation among scientists and others that we are depleting the ozone layer of this earth's atmosphere. Those innocent spray cans of hair net and bug spray people use are pressurized with Freon, a volatile chemical that is released into the atmosphere in spraying the product for its intended use. The theory is that this Freon rising into the stratosphere reacts with a naturally occurring ozone layer to decompose the ozone resulting in a net depletion of the ozone layer. This ozone layer is said to have a shielding effect on the sun's rays so that thinning or depleting the ozone layer allows more intense sunshine to reach the surface of the earth. This, in turn, is theorized to cause a warming effect, further increasing the ocean temperature, accelerating the melting of glaciers and arctic and antarctic ice and, incidentally, giving rise to more skin cancers among the millions of sunbathers on the beaches and around the swimming pools of the world. The United States has banned the use of such spray propellants but, in many other nations, they are still being used.

Gauging Sea Level

With all of the factors and influences affecting sea level, it would seem all the more important to gauge sea level accurately, so as to arrive at a true mean sea level to satisfy the property owners, the lawyers, the cartographers and the government. The question immediately arises, however, as to where may a gauge be placed that will remain stable during the minimum nineteen years period necessary to achieve one cycle of observations from which mean sea level may be determined. It would be desirable to have a gauge placed at a location that would be stable for hundreds of years, so as to measure the postulated rising sea levels. Finding such a location for a gauge is not so easy.

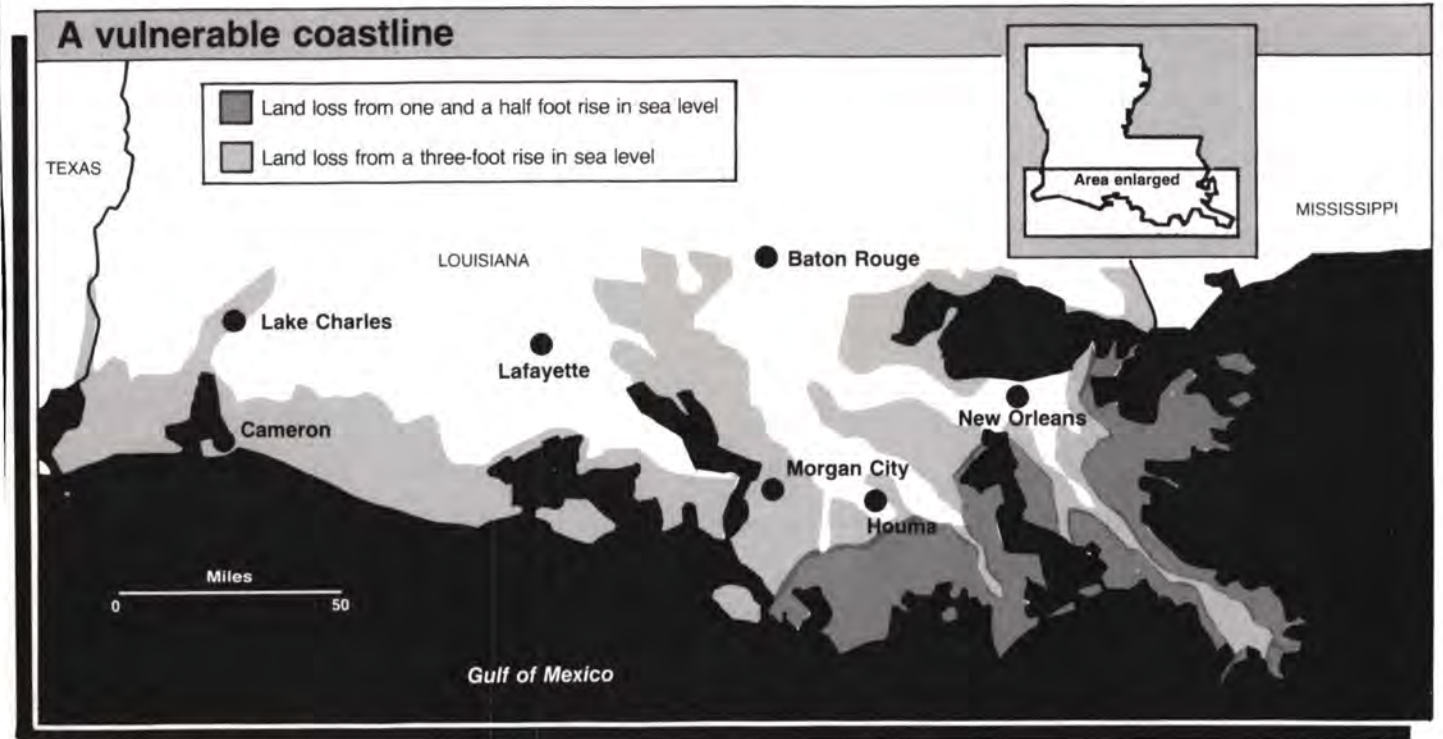
Engineers and surveyors, in seeking a reference from which vertical distances, or elevations, may be measured, try to find and place bench marks in as stable a location as possible. A railroad spike driven in a tree may make a temporary bench mark but, if driven in the exposed root of a tree, may rise as the root grows in diameter. If driven in the trunk, a few inches above ground, it is supposed to be more stable. The steps or doorsill of a public building have in the past been favorite locations for bench marks, but the U.S. Customs House in New Orleans, one of the oldest and largest public buildings there, has settled some two-and-a-half to three feet since its construction more than a hundred thirty-five years ago. It would have made a poor bench

mark. Bridge abutments and navigation lock walls are other favorite locations for bench marks, but these structures are known to settle, sometime unevenly, so that one abutment is not even with the other.

It would seem that a deepwell casing going several hundred feet into the ground would make a good bench mark, but the author has seen such a well casing founded in gravel expand and rise several inches, raising pump motor, base and foundation off the ground when the water pump was first turned on! A concrete or steel pile, not carrying load, and of sufficient length to suffer little "drag" from subsequent landfill would appear to make a good bench mark. For a plant designed by the company some years ago, the client had us specify such a pile to be driven as part of the construction contract, to furnish a reasonably stable reference.

Local Subsidence

Further complicating the question of determining mean sea level is the factor of local subsidence along coast lines of industrial waterways, due to manmade activities. Long Beach, California, is the site of a productive oil field and the pumping of oil from beneath the area has caused the coast line and sea bottom to subside several feet over the course of a generation. Along the Houston Ship Channel, in the vicinity of Pasadena, Texas, heavy pumping of groundwater by industrial plants and communities has caused the ground to subside by one



to seven feet such that some waterfront storage areas, parking lots and roads are awash at high tide. In other heavily industrialized areas, depending on groundwater supply, heavy pumping has caused the ground surface to subside, but the effect is less noticeable where the areas are not adjacent to tide water. Such local subsidence may impair local drainage and cause flooding during heavy rainfall. Bench marks in such subsiding areas are unreliable.

In the mining of sulphur, the mineral is found in elemental state one thousand to three thousand feet underground and is mined by melting the sulphur with superheated water and pumping it to the surface. In areas of heavy mineralization, the mining removes the equivalent of several feet of sulphur from underground with the consequence that the ground surface or sea bottom subsides as much as ten, twenty or thirty feet in the mining area. The determination of true elevations with respect to mean sea level becomes a matter of considerable engineering skill and judgment in such areas.

If tide gauges within a subsiding area are taken into account in adjusting level surveys or averaging tidal datums over a moderate sized region, the excessive variations in areas of heavy subsidence may throw the average tidal datum badly off. Considerable engineering judgment must be used, therefore, in evaluating and using datum planes determined from bench marks in subsiding areas.

New Orleans Sea Level Gauge

The problem of finding a stable vertical reference for gauging sea level is accentuated in New Orleans, with its unique location. Constructed on the banks of the Mississippi River, at the strategic intersection of the Mississippi River System and coastwise water transportation, the city is founded on recent alluvial deposits which are still consolidating.

Each year, the Mississippi River brings down millions of tons of silt and sediment washed off the western slopes of the Appalachians, the eastern slopes of the Rocky Mountains and all the plains between. These millions of tons have been deposited for tens of thousands of years and are still being deposited on the floor of the Gulf of Mexico to a depth of thousands of feet. This load of sediment is depressing the bed of the Gulf and consolidating within itself to the extent that the entire Mississippi River delta is sinking at a rate estimated to be one foot in twenty years in an area midway between New Orleans and the mouth of the

river. Thus, a tidal gauge placed on the shore anywhere in this broad delta would be sinking with the general subsidence of the land so as to render suspect long term tidal level measurements.

Further, New Orleans itself is protected by levees some fifteen to twenty-five feet high along the banks of the Mississippi River and some twelve to fifteen feet high along the shores of Lake Pontchartrain to protect the city from spring floods of the river and hurricane surges of the lake. The city is drained by a system of canals and pumps which have lowered the water level within the levees to the extent that land has subsided in some areas to as much as five feet below sea level and is still subsiding. In addition, the construction of the levees themselves has placed a surcharge on the underlying soils such that the levee foundations are consolidating and the levees themselves are sinking. For instance, the original seawalls constructed along Lake Pontchartrain to create the Lakeshore subdivisions were built to elevation plus 10 MSL in the 1920's and on a resurvey some thirty years later, were found to have subsided approximately one and a half foot to elevation 8.5 MSL.

The problem of finding a satisfactory location for a tidal gauge in the vicinity of New Orleans was apparently solved many years ago by locating a tidal gauge at Biloxi, Mississippi, where a ridge of Pleistocene clay formation some half million years old extends down to the sea and is presumably relatively stable. Readings from the Biloxi gauge are referred to in discussions of mean sea level determinations in New Orleans.

Historic Example

The fact that elevations are of legal importance is well illustrated by excerpts from a court case of July 28, 1879, State of Louisiana versus Succession of Rich Taylor, No. 10048 kindly sent to me by the eminent local surveyor, John E. Walker. It reads as follows:

"To the Hon. Judge of the Sup. District Court of the Parish of Orleans—Sir - We the undersigned appointed experts by the court to determine what difference exists between what is known as Bell's 'Ocean Level', as indicated in the city guages (sic) or 5.67 ft. below the Metairie Ridge Mark, and this 'lowest tide water' in the new canal, have agreed upon the following: "1st. To adopt the data contained in Humphrey's and Abbot's U.S. En-

gineers Report upon the Physics and Hydraulics of the Miss. River.

"2nd. That the range between highest and lowest tides in Lake Pontchartrain; according to said authority, is 0.40 of a foot or 4.8 inches, and that half of this difference 0.20 of a foot, should be deducted from the elevation of mean tide in the Lake to determine what is 'lowest tide' water in the canal.

"3rd. By State Engineers Levels, taken in 1869 and verified this day, connecting the 'Hampson Bench Mark' at Carrollton, with the Metairie Ridge Bench Mark' we decide that 'mean tide' in Lake Pontchartrain is 4.61 ft. below the Metairie Ridge Bench Mark.

"4th. We agree that lowest tide water in the canal, therefore, is 4.61 ft. plus 0.20 of a foot, or half the 'tidal range' according to the authority adopted, or 4.81 feet below Metairie Ridge B.M.; and that the 'Ocean Level' of the city is 0.86 of a foot or 10- $\frac{1}{3}$ inches lower than said, 'lowest tide water'.

"5th. Therefore, that the soundings shown on the chart or map made by Messrs. Bayley, Forshey Blanchard, as reduced to said Ocean Level, should each and all be increased for the reasons stated above 0.86 of a foot, or 10- $\frac{1}{3}$ inches to bring them to the adopted standard of 'lowest tide water'. Respectfully submitted

Signed:

Louis H. Pilie	M. Jeff Thompson
Thomas S. Hardee	Albert G. Blanchard
J. A. D'Hemecourt	G. W. R. Bayley"

Government Use

Since mean sea level is referred to so often in various legal contexts, different government agencies at various times have attempted to define mean sea level, with varying results. United States Geological Survey quadrangle maps used to refer elevations to mean sea level and state the tidal fluctuations in some areas in relations thereto. Recognizing the need for a uniform vertical datum, the United States Government in the 1920's undertook a precise leveling survey throughout the continental United States, basing its datum on twenty-one tide gauges in the United States and five in Canada. This resulted in the establishment of "sea level datum of 1929", which was supposed to be uniform throughout the continent. Considering the variation in local tidal datums, the United States Government, in 1973, changed the name of this nationwide datum to "National Geodetic Vertical Datum of 1929" (NGVD). The technical report of the National Oceanic and Atmospheric Administration (NOAA) states:

"Mean sea level at any point may be defined simply as the mean level of the sea at that point; it is the arithmetic mean of hourly water elevations observed over a specific 19-year metonic cycle (the National Tidal Datum Epoch). Mean sea level is the primary tidal datum, and all the other tidal datums are derived with reference to it. As it is a local tidal datum and may be valid only at that locality, local mean sea level should not be confused with the National Geodetic Vertical Datum of 1929 (previously called 'Mean Sea Level 1929') which is a geodetic vertical datum most often used in conjunction with engineering projects and which is the vertical reference datum for Geological Survey

maps."

The NGVD is fixed and does not take into account the everchanging stands of sea level. Because of the many variables affecting sea level, the relationship between NGVD and local mean sea level is not consistent from one location to another in either time or space. Comparisons of NGVD with mean sea level in various parts of the country show that, for nearly every situation reported, recent mean tide levels are higher than NGVD. This would seem to corroborate the theory that sea levels have risen in the period from 1929 to the present.

Datum In The Sky

With the development of orbiting survey satellites which can take photo-

graphs and measure physical constants of the earth from space, engineers, scientists, cartographers, topographers and oceanographers have been able to develop a vast store of knowledge about the earth, its continents and its oceans. Specifically, means have been developed to measure the distance from the satellite's orbit to the surface of the ocean with remarkable precision, within a few centimeters. From such measurements, it has been determined that the surface of the sea, under totally calm conditions, is far from level. In fact, variations of some scores of feet have been found.

This condition arises from forces we have previously mentioned, such as

Continued on page 19

Louisiana Engineering Society is 90 Years Old!



On February 3, 1898, the Charter of the Louisiana Engineering Society, bearing the signatures of twenty-nine members, was recorded in compliance with Louisiana law. At that time the Society selected its first home on the second floor of 712 Union Street in New Orleans. Shortly thereafter, on February 14, the Society held its first regular meeting in its new home. Then on March 5, thirty-one new members were admitted. Three of these resided outside of New Orleans, thus establishing L.E.S. as a statewide organization.

One of the Society's first projects was "toward securing passage of a law to regulate the practice of engineering" in the state. Such a law was enacted in 1908 thus making Louisiana the second state (after Wyoming's act of 1907) to enact such legislation. Other developments soon followed including the publishing of our first periodical "Proceedings of the Louisiana Engineering Society" (1915), becoming a charter member of the American Council of Federated Engineering Societies (1920), establishment of our Women's Auxiliary (1932), first meeting outside of New Orleans (1938), establishment of Baton Rouge and other chapters, plus securing additional laws pertaining to the practice of professional engineering in Louisiana. In 1967, the

official domicile of the Society was transferred to Baton Rouge.

A complete history of the Society was compiled by John P. Fernandez, P.E. and was published in the *Louisiana Engineer* magazine in 1982.

Lists of the original officers, and of the dates that the various chapters were initiated follow below.

Sidney F. Lewis	President
C. H. Chamberlin	Vice President
J. F. Coleman	Secretary
A. F. Theard	Treasurer
T. L. Raymond	Director for 3 years
A. C. Bell	Director for 2 years
F. T. Llewellyn	Director for 1 year

Date Each Chapter Established

Baton Rouge	November 20, 1939
Lake Charles	November 3, 1947
Shreveport	July 3, 1949
Monroe	October 3, 1949
Lafayette	October 19, 1950
Alexandria	February 15, 1951
New Orleans	October 12, 1964
Bayou	April 29, 1969
North Lake	December 17, 1982

The 90th Anniversary of the Louisiana Engineering Society will be recognized with appropriate ceremonies at its Spring meeting in Houma on April 27 - 30, 1988.

LES Awards Meeting Registration

Best Western Benedict House — Houma, LA

April 27-30, 1988

Name _____ P.E. YES _____ NO _____

Spouse's Name _____

Chapter: _____

**CLIP OR
REPRODUCE &
MAIL TO:**

**LES
P.O. Box 2683
Baton Rouge,
LA 70821**

		No. Tickets	Amount
*PREPAID Discount Registration Fee	\$25.00	_____	_____
Registration Without Prepayment	\$40.00	_____	_____
**Daily Registration Fee	\$ 8.00	_____	_____
Wednesday Charter Fishing	\$50.00	_____	_____
Wednesday Golf	\$25.00	_____	_____
Wednesday Tennis	\$10.00	_____	_____
Wednesday - Tour of Wildlife Museum	FREE	_____	_____
Thursday Seminar - "Qualification Based Selection of Consultants"	FREE	_____	_____
Thursday Seminar - "Construction Claims"	FREE	_____	_____
Thursday Seafood Blowout	\$ 9.00	_____	_____
Friday Seminar - "Rules of Professional Conduct/Code of Ethics"	FREE	_____	_____
Friday Luncheon	\$ 7.00	_____	_____
Friday Awards Banquet	\$15.00	_____	_____
Saturday Race	\$ 8.00	_____	_____
Saturday Breakfast	\$ 7.25	_____	_____
Spouses			
Thursday - Julianna's Cajun Cruise	\$16.50	_____	_____
Friday - Tour & Lunch at Oak Alley Plantation	\$15.25	_____	_____
TOTAL		=====	=====

*Prepaid Discount applies only if Registration and Payment is received one week prior to convention

**Daily Registration Fee is applicable for one day attendees only

☐ Payment Enclosed ☐ Will Pay at Registration Desk

MAKE CHECK PAYABLE TO LES

PLEASE NOTE: A PARTIAL REFUND WILL BE MADE IF CANCELLATION IS RECEIVED
FOUR DAYS PRIOR TO CONVENTION

**CLIP OR
REPRODUCE &
MAIL TO:**

**Best Western
1381 West Tunnel Blvd.
Houma, LA 70363
Attn: Group
Reservations**

Hotel Reservation Card
Louisiana Engineering Society
Best Western Benedict House - Houma, LA
April 27-30, 1988

THIS FORM MUST BE RECEIVED BY APRIL 22, 1988

Name _____ (Last) _____ (First)

Address _____

City, State _____ Zip _____ Tel. _____

***NOTE: Check-in time is 10:00 A.M.**

☐ Double ☐ Queen ☐ King

Single Occupancy - \$25.95 Double Occupancy - \$29.95

Arrival Date _____ Departure Date _____

All major credit cards accepted.

Credit Card & Number _____ Expiration Date _____

Signature _____

**Toll Free
Number:
1-800-222-3805**

General Program

LES Awards Meeting, April 27-30, 1988, Houma, Louisiana

Wednesday, April 27, 1988

11:00 a.m. - 5:00 p.m. Registration
11:30 a.m. - 5:00 p.m. Charter Fishing - Cocodrie, LA
11:30 a.m. - 5:00 p.m. Golf Tournament, Ellendale Country Club
2:00 p.m. - 5:00 p.m. Tennis Tournament, Ellendale Country Club
5:30 p.m. - 6:30 p.m. Cocktail Hour - Hosted by Partek Labs
6:30 p.m. - 7:30 p.m. Tour of Wildlife Museum - Compliments of Partek Labs
Dinner - On Your Own

Thursday, April 28, 1988

8:00 a.m. - 5:00 p.m. Registration
8:30 a.m. - 10:00 a.m. Seminar: "Qualification Based Selection of Consultants" - Sponsored by PEG & PEPP
10:00 a.m. - 10:30 a.m. Break
10:30 a.m. - 12:00 Noon Seminar: "Construction Claims" Dr. Gui Ponce de Leon, P.E. Project Management Associates, Inc.
12:00 Noon - 1:30 p.m. Lunch - On Your Own
1:30 p.m. - 3:00 p.m. COMMITTEE MEETINGS
Engineering Education
Career Guidance
Inter-Society Relations
Membership
Scholarship
LES/State Board of Registration Liaison
Long Range Planning
3:00 p.m. - 3:30 p.m. Break
3:30 p.m. - 5:30 p.m. Practice Division Meetings
7:00 p.m. SEAFOOD BLOWOUT - Sheriff's Camp
The LES 90th Anniversary Committee is planning a skit for your entertainment.

Friday, April 29, 1988

8:00 a.m. - 12:00 Noon Registration
8:30 a.m. - 10:00 a.m. Seminar: "Rules of Professional Conduct/ Code of Ethics—How Does It Affect Your Practice?"
Paul Landry, P.E. & St. Board of Registration Panel
10:00 a.m. - 10:30 a.m. Break
10:30 a.m. - 3:00 p.m. Council of Deans Meeting
10:30 a.m. - 12:00 Noon COMMITTEE MEETINGS
Young Engineers
Legislative
Public Relations
Ethics and Professional Conduct
Constitution and Bylaws
12:00 Noon - 1:30 p.m. Luncheon - Speaker: Dr. Don Boesch
Director of the Louisiana Universities Marine Center, Chauvin, LA
2:00 p.m. - 4:00 p.m. Student Paper Presentations
2:00 p.m. - 4:00 p.m. Louisiana Engineering Foundation
2:00 p.m. - 4:00 p.m. LES Political Action Committee
6:30 p.m. - 7:30 p.m. Cocktail Hour (Cash Bar)
7:30 p.m. Awards Banquet - The awards program will include recognition of the LES 90th Anniversary and presentations by the State Board of Registration.

Saturday, April 30, 1988

8:00 a.m. - 8:30 a.m. LES / Sea Level Striders 5K and 1 Mile Run
8:30 a.m. - 10:00 a.m. Breakfast and General Membership Meeting
10:00 a.m. LES Board of Direction Meeting

Spouses' Program

Wednesday, April 27, 1988

11:00 a.m. - 5:00 p.m. Registration
11:30 a.m. - 5:00 p.m. Charter Fishing, Cocodrie, LA
11:30 a.m. - 5:00 p.m. Golf Tournament, Ellendale Country Club
2:00 p.m. - 5:00 p.m. Tennis Tournament, Ellendale Country Club
5:30 p.m. - 6:30 p.m. Cocktail Hour - Hosted by Partek Labs
6:30 p.m. - 7:30 p.m. Tour of Wildlife Museum - Compliments of Partek Labs

Thursday, April 28, 1988

8:00 a.m. - 5:00 p.m. Registration
8:00 a.m. - 9:30 a.m. Hospitality Suite Open
9:30 a.m. - 2:00 p.m. Julianna's Cajun Cruise
7:00 p.m. SEAFOOD BLOWOUT

Friday, April 29, 1988

8:00 a.m. - 12:00 Noon Registration
8:00 a.m. - 10:00 a.m. Hospitality Suite Open
10:00 a.m. - 3:00 p.m. Tour & Lunch at Oak Alley Plantation
6:30 p.m. - 7:30 p.m. Cocktail Hour
7:30 p.m. Awards Banquet

Saturday, April 30, 1988

8:00 a.m. - 8:30 a.m. LES / Sea Level Striders 5K and 1 Mile Run
8:00 a.m. - 12:00 Noon Hospitality Suite Open - Cajun at Heart
indoor arts and crafts bazaar
8:30 a.m. - 10:00 a.m. Breakfast and General Membership Meeting

LES Sponsored Seminars for 1988

"Qualification Based Selection of Consultants"

Overview of state and federal requirements and procedures used by the Louisiana DOTD. Panel discussion leaders will be: Ken Perret, P.E., Jerry Lazenby, P.E. and a representative of the Louisiana Department of Transportation and Development.

Sponsored by PEG & PEPP

"Construction Claims"

Claims by contractors on construction projects for increased compensation have increased dramatically in the last several years. The large dollar value of the claims has led to increased arbitration and legal proceedings which involve Owners and Engineers. The basis of claims are broadly classified as delayed access, differing site conditions, defective plans and specifications, excessive inspection requirements, unreasonable review times, project modifications after bids, regulatory change, and schedule changes. Contractors have been awarded large damages for impact claims, extended home

office overhead, acceleration and deceleration as a result of CPM schedules.

Dr. Ponce de Leon will talk on claim causes, how claims are prepared and presented along with what steps can be taken to minimize claims. This will be a topic of interest for engineers in all practice divisions.

"Rules of Professional Conduct/Code of Ethics—How Does It Affect Your Practice?"

How familiar are you with this issue?

Do you wonder what is right, what is legal or what obligations you have?

Specific cases will be presented and discussed by current and former Board members who have had decisions to make.

Mr. Paul Landry and members of the State Board of Registration will serve as a panel to discuss the Code of Conduct, Professional Ethics and Registration Board activities.

90th Anniversary

February 3, 1988 marked the 90th Anniversary of the recording of the Charter of the Louisiana Engineering Society. A brief ceremony will be observed at the Awards Banquet on Friday night to honor this momentous occasion. An ad hoc committee consisting of Waldemar S. Nelson, Chairman, Leo Odom, and James S. Janssen is handling arrangements to celebrate the milestone.

There will be an added attraction to the famous Big Seafood Party at the Sheriff's Camp on Thursday evening. There will be fun and games that night in honor of the Society's 90th Anniversary.

The Bayou Chapter's Ladies Auxillary has an exciting program planned for spouses in Houma in April for the LES State Convention. We have four fun filled days planned for you.

Charter fishing, a golf tournament and a tennis tournament are offered on Wednesday. That night we take you to an extraordinary collection of 750 mounted animals

from all over the world at the Wildlife Museum. This is a personal collection and the owner has interesting stories for all.

A fun filled relaxed day is planned for Thursday as we go on a Julianna's Cajun Cruise Tour (jeans or shorts, weather permitting, and tennis shoes for this day).

On Friday we tour beautiful Oak Alley Plantation (no jeans please). After touring the home, we will be served a delicious Southern-style lunch at the lovely restaurant on the grounds.

On Saturday, another relaxed day as we go to "Cajun at Heart" an indoor arts and crafts bazaar. All transportation to and from activities will be provided by members of our Ladies Auxillary.

Door prizes will be given away each day at the hospitality suite. Babysitting service is available. Contact Emily Pope for arrangements. Looking forward to seeing all of you in April.

Emily Pope, 108 Bellingrath St., Thibodaux, LA 70301, 504-447-6629

IN MEMORIAM Easton Stewart, P.E.



Easton Stewart, P.E., FACEC
9/11/22 - 1/4/88

The CEC/L and the engineering community were deeply saddened to learn that Easton Stewart, P.E., partner in the member firm of Stewart, Kuyrkendall & Associates, Inc., Baton Rouge, Louisiana, passed away suddenly on January 4, 1988.

Easton was inducted into CEC/L in March, 1971. He served for several years on the Board of Governors and rose to become President in 1977 and National Director in 1978. He was appointed in 1977 to the American Consulting Engineers Council's Professional Ethical Conduct Committee, a position he held for several years. He also served on the CEC/L Ethics and Legislative Committees for a number of years. Prior to that, he served in 1975 as the chairman of the CEC/L Membership Development Committee. He later was inducted as an ACEC Fellow and served on the ACEC Committee of Fellows, a position he held at the time of his passing.

Easton was the recipient of the coveted A. E. Wilder, Jr. Award, an honor presented by this organization to an individual for continued outstanding

service to the organization. It is significant in that this award was bestowed upon him by his peers.

Easton was active in the legislative arenas at both the state and national levels. He kept in touch with the Louisiana delegation in Washington expressing his opinions on issues that affected the profession. He appeared at a number of state legislative committee hearings on behalf of the Council and the profession. He represented the Council at a series of meetings with the Louisiana Department of Transportation and Development to discuss selection criteria and procedures.

He remained active after his service on the board by continuing to serve on various committees at the request of the presidents. He always called the staff or visited the CEC/L office to keep in touch with operations of the Council. Easton was one of the flames that lit the way for the continued development of the Council. CEC/L's strength and well being were utmost in his mind. He will be missed. The entire membership joins the Board of Governors in expressing sincere condolences to his wife, Maralynn, and his family.

Contributions are being received and placed into the CEC/L Scholarship Fund to honor the memory of Easton Stewart. If you wish to make a contribution, please send your check made payable to "CEC/L Scholarship Fund" to CEC/L, P.O. Box 1549, Baton Rouge, LA 70821. Notification will be made to the family and at the CEC/L Annual Convention.

Defensive Documentation In Arbitration By Philip Harris, Ph.D.

A return to basics is occasionally warranted because even knowledgeable, successful companies in the construction industry may take the path of least resistance, sometimes to their detriment, when it comes to the routines of documentation. The sense of well-being is euphoric, and when everything is going smoothly on a project, verbal authorizations and informal pieces of paper are utilized as shortcuts which replace burdensome, formal paperwork. But when relationships turn sour and the parties become adversaries, it is too late for backtracking to complete the files.

Let us suppose that a laboratory is being constructed and calls for special lighting in particular areas. Upon com-

pletion, the owner claims that the illumination is inadequate and he authorizes the general contractor to make the necessary changes, which are then back-charged to the designer of the lighting system. (Assume that the builder had performed as per plans and specifications.) Depending on the severity of the problem, the changes may have an impact on other aspects of construction. Let us hypothesize that additional lighting had to be provided, and this in turn necessitated the running of new lines, which first required another panel box to be installed. In this "worst-case" scenario let us further speculate that the new lighting reduced the effectiveness of the air conditioning which then had to be

augmented.

The costs involved are substantial, the parties do not agree to a resolution of their differences, and the matter comes to the American Arbitration Association.

What is it that makes for persuasive documentation? Obviously, each party has the initial challenge of establishing the merits of its claim concerning the original design. Evidence and testimony, such as engineering textbooks, manufacturers' literature, published industry standards and expert witnesses, are produced for this purpose. A site inspection may prove valuable and warrant the presence of a court reporter, if one is used at the hearings. (Interestingly, the inspection is sometimes greatly encouraged by one side while simultaneously downplayed as unnecessary by the other.) If the preponderance of the evidence favors the designer, the added costs are not assessed against him. But should the arbitrator find otherwise, then the soundness of the records submitted will certainly aid in getting them approved in full for reimbursement.

At the arbitration hearing the parties usually are well fortified with copies of the contract, plans and specifications, change orders, correspondence, inspection reports, invoices, and cancelled checks. (Sometimes records "can't be found" by a party. Negative inferences are drawn from such a development.) Even if the owner establishes the inadequacy of the original lighting, he will also have to prove the need to have gone further and undertaken the subsequent modifications. In any case, the back-charges must have at least face validity and not appear to be "Mickey Mouse" contrivances, or created exclusively for the hearing, (unless they are summary statements needed for arbitration of normally maintained records). The arbitrator has to evaluate these records and the contradictory testimony of the advocates, making his task difficult. Assisting in this decision-making process would be other records that are less frequently maintained.

One such helpful document, in a question of credibility, is a permanent log of incoming and outgoing telephone calls. This is obviously burdensome to maintain, especially if a written note for the in-house file is made of the substance of the conversation. But the painstaking effort can be highly productive in establishing the justification for reimbursement.

A record of appointments helps to de-



**Consulting Engineers Section
Warren J. Wilder
CEC/L Executive Director**



**Reassuring Employees
Re: Potential Liability**

Several times in recent months, ACEC has been asked whether employees of member firms could be held liable in case of a lawsuit. A typical question: Does liability for a firm's work apply only to the company or can it extend to the professional employees who actually prepare the plans or inspect the work during construction?

To help members and members' employees answer this question, ACEC's Director of Liability Issues, Bob Fogle, consulted with several experts in the field and found the answer to be "Yes, but . . ."

The fact is that anyone can file suit against anyone else at any time. For example, police officers assigned to a video-taped drug raid were among several entities sued for \$30 million by a woman accompanying the alleged drug dealer when she was referred to by a TV commentator as "a pimp and her prostitute." Even though the charges against the policemen were eventually dropped, the legal and lost-work costs were significant.

As a general rule, most states will recognize a professional engineer's potential liability for personally provided services regardless of his or her rank in a company. Furthermore, employees are not completely relieved of liability even if drawings or reports are signed and sealed by the firm's chief executive. In the case of an on-site injury of a contractor's employee, a design professional, as well as his or her firm, can be served with a negligence suit.

This happened several years ago in a case involving an employee of the Massachusetts Dept. of Public Works. During his absence from the site during a lunch break, a beam fell and a man was killed. Both he and the state were subsequently named in a lawsuit.

As a practical matter, however, attorneys and plaintiffs, looking for big damages awards, know there is little to be gained from suing an employee. But the possibility of such suits led NSPE and ASCE, in 1981-82, to establish an "Individual Employee Liability Insurance Program." This plan, however, was cancelled three years later, when insurers (1) were reluctant to cover risks which

had virtually no loss experience making it difficult to base rates and (2) the knowledge that lack of insurance was probably a better shield against being sued than having such protection. Less than 1,000 individual members signed up for the ASCE-NSPE package.

ACEC is aware of no cases where an employee faced with a liability claim has been "left to twist slowly in the wind" by his or her consulting engineering firm. Either the firm's liability insurer (if there is one) defended both the employee and the company or the firm's attorney provided the necessary legal services for all parties to the suit.

For those who would like a bit more protection, there is another way to lessen employee exposure. Some firms have been successful in getting clients to accept contracts which stipulate that any claim arising out of any act or omission must be made against the firm and not against any individual officer or employee. Such language insulates employees from claims made by clients, but doesn't apply to cases of third-party suits.

Language to affect this objective has been drafted by Paul Lurie, a member of ACEC's Professional Liability Committee and a lawyer who specializes in construction related disputes.

**DEQ SECRETARY SPEAKS
TO CEC/L CHAPTER**

The Consulting Engineers Council of Louisiana, Baton Rouge Chapter, had its monthly meeting on January 12, 1988. Guest speaker at the luncheon was Secretary Martha Madden, Department of Environmental Quality for the State of Louisiana.

The Baton Rouge Chapter has a membership of more than 65 engineering firms. "It is always a pleasure to share with this professional group the very successful work that is happening at DEQ. Many of the proposed environmental changes that are being discussed will have impact **ONLY** if \$10 million of State monies will be obtained from the 1988 Legislature," states Madden. Madden discussed in depth the rules and regulations of the Office of Solid & Hazardous Waste.

Darryl Miller, president of the Baton Rouge Chapter, has indicated a sincere interest in helping Louisiana expand its industrial base within the framework of environmental regulations.

mine chronologically when particular decisions were taken and who was present. This would further enhance the claimant's assertions in the eyes of the arbitrator.

Notes taken at meetings are another essential in making a case. Being able to produce such records is a plus in attesting to the accuracy of statements made.

Written acknowledgments will eliminate much of the doubt that may arise involving the foregoing. The ideal is a faultless, jointly signed letter containing the understandings arrived at. It is starting to find violations of such rudimentary matters as dating the documents, using letterheads, having them signed (and countersigned where appropriate), and avoiding unidentified crawled pencil notes.

Submitting detailed, accounting-type data showing the derivation of the extra costs incurred by subcontractors and the general contractor also make the record credible. Such data include job diaries, types of equipment used, bills of materials, names of each direct-labor employee, job classification, hourly rates, number of hours worked, tasks performed and overhead rates. This is more acceptable to the arbitrator than some rough estimate of the total which has a greater prospect for being incorrect and probably on the high side. The owner should require this back-up information to accompany the invoice; ditto the general contractor in relation to the subs.

If this is cost-plus work, it is not intended as an opportunity to ride a "grave train." Detailed, accurate records help the general contractor avoid the appearance of attempting to do so. And, with the owner demanding such documentation, the parties will reduce the areas of disagreement, while positioning themselves for potential third-party dispute resolution.

Phillip Harris is a management professor at Baruch College of The City University of New York. Early in his working career, he did take-offs from plans and specifications, and prepared subcontractor bids. He has arbitrated many major construction disputes.

Reprint permission granted when cited to: *The Punch List*, Vol. 10, No. 3 (1987), published by the American Arbitration Association.

ANNUAL REPORT

Louisiana State Board of Registration For Professional Engineers and Land Surveyors For 1987

Regular meetings of the Board were held in January, March, June, July, September and November.

The tabulation that follows indicates actions taken by the Board on applications for the registration of Professional Engineers and Land Surveyors and for the certification of Engineers-In-Training and Land Surveyors-In-Training.

Professional Engineers

Applications approved.....	390
Applications disapproved.....	201
Applications withdrawn.....	2

Land Surveyors

Applications approved.....	15
Applications disapproved.....	25
Applications withdrawn.....	0

Engineers-In-Training

Applications approved for certification.....	642
Applications disapproved.....	216

Land Surveyors-In-Training

Applications approved for certification.....	16
Applications disapproved.....	12

The following is a tabulation of the total number of Professional Engineers, Land Surveyors and Professional Engineers (Public Employees), Engineers-in-Training and Land Surveyors-in-Training holding registration and certification as of December 31, 1987:

Professional Engineers.....	14,854
Land Surveyors.....	2,551
Engineers-In-Training.....	3,860
Public Employees.....	3
Land Surveyors-In-Training.....	45

Below is a tabulation of the number of Professional Engineers registered in the various branches as of December 31, 1987. (Some persons are registered in more than one branch.)

Agricultural.....	306
Chemical.....	1,197
Civil.....	6,057
Electrical.....	2,290
Industrial.....	138
Mechanical.....	3,904
Metallurgical.....	38
Mining.....	37
Petroleum.....	1,370

A total of 1288 written examinations were administered in 1987. Of these, there were 859 examinations in the fundamentals of engineering, 33 in the fundamentals of land surveying, 345 in the principles and practice of engineering, 21 in the principles and practice of land surveying and 30 in the laws and procedures of land surveying in Louisiana. Engineering examinations were administered at examination centers in Baton Rouge, Lafayette, New Orleans and Ruston in April and October. On the same dates, land surveying examinations were administered in New Orleans.

Annual Report to the Governor

Dear Governor Edwards:

Pursuant to the provisions of Louisiana Revised Statute 37:691 B, I submit the report of the transactions of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors for the fiscal year 1987. A duly certified audit and financial statement showing the receipts and disbursements for the fiscal year ending June 30, 1987 will be sent to you at a later date.

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors was created by Act 73 of the Legislature of the State of Louisiana at the regular sessions of 1950. The Act delegates to the Board the duty of registering qualified persons as Professional Engineers and Land Surveyors, and charges the Board with the responsibility of enforcing the provisions concerning violations.

The members of the Board and the expiration dates of their appointment are as follows:

Verdi Adam, February 7, 1988; Arthur R. Theis, July 29, 1988; H. L. Henry, Jr., July 31, 1988; Francis C. Roy, August 24, 1989; Marion J. Chaney, November 21, 1989; Rodger D. Phelps, September 14, 1990; Sam L. Sullivan, August 2, 1991; Robert D. Fenner, July 31, 1992; Ara Arman, January 24, 1993; Malcolm L. Hurstell, July 31, 1993.

At the annual meeting of the Board held on January 27, 1988, the following officers were elected:

Rodger D. Phelps, Chairman,
Robert D. Fenner, Vice Chairman,
Ara Arman, Secretary.

Very truly yours,

Marion J. Chaney
Chairman of the Board, 1987



Paul L. Landry, P.E.
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers & Land Surveyors.



Members of the Board

Louisiana Revised Statute 37:683 A specifies areas of professional practice for members of the Board. With reference to that section and in accordance with the Bylaws of the Board, the following list is presented:

Private Practice of Engineering:

Marion J. Chaney and
Robert D. Fenner

Engineers in Government

Employment:

Verdi Adam and
Arthur R. Theis

Engineers Employed in Industry:

Malcolm J. Hurstall and
Francis C. Roy

Engineers Employed in Education:

Ara Arman, H. L. Henry, Jr. and
Sam L. Sullivan

Professional Engineer and Land Surveyor Engaged in Land Surveying:

Robert D. Fenner

Professional Land Surveyor:

Rodger D. Phelps

Mr. James W. Reeves' term expired on January 24, 1987 and you appointed Mr. Ara Arman as his replacement.

Mr. Edward J. McNamara's term expired on July 31, 1987, and you appointed Malcolm L. Hurstall as his replacement.

Mr. Verdi Adam's term expires on February 7, 1988, and the President of the Louisiana Engineering Society has submitted five nominations to you for your consideration.

In July, 1988, Messrs. Arthur R. Theis and H. L. Henry, Jr.'s term will expire. At least thirty (30) days prior to the expiration of their terms the President of the Louisiana Engineering Society will submit nominations to you for your consideration.

BOARD MEETING NOTICE

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors will hold its regular meetings at 1055 St. Charles Avenue - Suite 415, New Orleans, La. 70130 on the following dates:

1988

Mar. 22	July 26
June 7	Sept. 27
	Nov. 15

EXAMINATION SCHEDULE and APPLICATION DEADLINE DATES

EXAMINATION	SPRING		FALL	
	Application Deadline Date	Examination Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	Jan. 15, 1988	Apr. 16, 1988	Aug. 1, 1988	Oct. 29, 1988
Principles and Practice Engineering (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical, & Electrical	Jan. 15, 1988	Apr. 16, 1988	Aug. 1, 1988	Oct. 29, 1988
Agricultural, Industrial, Metallurgical, Mining & Petroleum	NOT AVAILABLE		Aug. 1, 1988	Oct. 29, 1988
Fundamentals of Land Surveying Examination (8 hrs.)	Oct. 23, 1987	Apr. 16, 1988	May 8, 1988	Oct. 29, 1988
Principles and Practices of Land Surveying (4 hrs.)	Oct. 23, 1987	Apr. 16, 1988	May 8, 1988	Oct. 29, 1988
Laws and Procedures of Land Surveying (4 hrs.)	Oct. 23, 1987	Apr. 16, 1988	NOT AVAILABLE	

Apply at least six to eight months prior to an examination. Board approval must be given for anyone to be scheduled for an examination.

The applicant and the Board depend upon information provided by third parties in the processing of an application, therefore no assurance can be given that one will be scheduled for a specific examination.

Application Deadline date means that an application **must** be postmarked prior to or on the date specified so as to be given **consideration** for the examination. The Board may schedule an applicant for an examination later than that requested by the applicant. The Board cannot guarantee that the applicant will be scheduled for the examination initially requested.



POTPOURRI



Leta Bueto
Executive Director
Louisiana Engineering Society

GROUP MEDICAL INSURANCE NOW AVAILABLE TO NSPE MEMBERS AND THEIR EMPLOYEES

NSPE is now offering a \$1,000,000 Group Major Medical Insurance Plan. The plan offers outstanding benefits, features and options that make it an excellent value for you and employees of your firm.

This protection plan helps pay the cost of hospitalization, surgery, doctor's visits and many other medical services and procedures. In addition, you automatically receive \$10,000 in life insurance protection when you enroll. Better yet, Owners, Partners, Officers and Principals of your firm are covered for \$25,000 of life and AD&D protection. You get all of this in one plan, all at one low group rate!

As an added bonus, you have flexible benefit options that allow you to custom tailor a comprehensive life/health plan that's right for your needs and budget.

North American Life and Casualty Company underwrites the plan and has received an A+ (Superior) rating from A. M. Best. A. M. Best is a widely respected firm, specializing in insurance company evaluation. Its ratings are based on the operating performance and financial condition of each company in relation to others within the industry.

Excellent benefits, quality service, and low rates are what make this plan NSPE's choice for its members. NSPE recommends you compare the benefits, features and low cost of this comprehensive plan.

For a complete information kit call the NSPE Insurance Plan Administrator at 1-800-255-8215.

LES/PEPP SOLICITS NOMINATIONS FOR 1989 PRIVATE PRACTICE DEVELOPMENT AWARD

The Private Practice Division of the Louisiana Engineering Society is soliciting nominations for firms for the NSPE Private Practice Development Award. The Private Practice Development

Award is presented annually to the nominated private practice firm employing engineering personnel which has made the most outstanding contribution to the advancement and improvement of the engineering profession through its employment policies and practices. Its purpose is to recognize those firms with the best records of engineering employment practices, and to encourage all employees to adopt progressive policies and practices in accord with established professional practices as outlined in *Guidelines to Professional Employment for Engineers and Scientists*.

The award is presented by the president of NSPE at the Winter Annual Meeting of NSPE.

Nominations should be submitted no later than April 1 to:

James C. Wernicke, P.E.
Chairman, LES-PEPP
6600 Schouest Street
Metairie, LA 70003

The LES-PEPP nominee will be selected at the general membership meeting of LES-PEPP to be held in Houma at the Awards Meeting, April 27-30, 1988.

Copies of nomination forms and "Guidelines" can be obtained from the above address as well as the local chapter PEPP chairman.

TEXAS REGISTRATION FEES

Excerpted from the *Texas Professional Engineer*:

In part of a sweeping effort to garner enough revenues to cover the state's financial problems, the 70th Texas Legislature increased fees for registration of professional engineers in Texas to \$135. That increase will be in effect for a minimum of two years.

"It is apparent that in their desperate search to quietly find more sources of revenue for the general fund, the fees for registering professional engineers with the State Board seemed like an easy target," Gerhardt Schulle, Jr., TSPE executive director said.

He said that legislative representatives of TSPE and the Consulting Engineers

Council were taken completely by surprise by the enactment of lawmakers. All State Board revenues not used in the administration for the agency are remanded back to the state's general fund.

"Obviously, we are unhappy about this registration fee increase. But it was almost inevitable after our people were able to stymie a handful of legislators who were bound and determined to hit professionals in business through a sales tax.

"When that route was cut off, those legislators started seeking other means of taxing business professionals. This huge registration fee hike must have seemed like an ideal way to hit us. It is a terrible thing to happen to a sector of the economy that is suffering so much from these hard economic times. But it is only in effect for two years and we have to be ready to fight its continuation at the next legislative session," Schulle said.

TSPE President George Kistenmacher urged all members of TSPE and other professional engineers to maintain their registration despite the cost. "If many Texas engineers drop their professional registration because of these unfair fee hikes, the profession itself will have less clout with which to fight for a rollback in two years. In fact, this move is the best indicator of how much more emphasis we must have in our profession about how politics affects our ability to do our job and earn a living."

Schulle added, "This whopping fee increase is the kind of treatment we can expect from a legislature that cannot feel the strength of the profession."

PINCH TECHNOLOGY SEMINAR TO BE HELD

A one day Pinch Technology Seminar on the pinch concept in heat recovery network design is planned for the last week of April in Baton Rouge and Lake Charles. For information on this seminar, contact Gloria Peterson at the L.S.U. Center for Energy Studies, East Fraternity Circle, Baton Rouge, LA 70803, (504) 388-4559.

LES Board of Direction Meeting Highlights

October Meeting

The October meeting was held in Shreveport with 22 board members, three guests and the LES staff present.

1. The September financial statement concluding the 15-month transition period was accepted subject to the annual audit.

2. The Louisiana Engineering Foundation agreed to loan the Society up to \$3,500 interest free on a promissory note to be paid within 90 days.

3. The 1986-87 audit was received just prior to the LES staff departing for the meeting. A quick review indicated some discrepancies and the audit was withheld pending a meeting with the Certified Public Accountant.

4. The 1987-88 budget of \$164,193 was unanimously approved.

5. The Membership Chairman presented the results of the 1986-87 Membership Contest. The Alexandria Chapter won with 158% of its quota of LES and NSPE members. The New Orleans Chapter requested that the Membership Committee investigate the present membership contest formula as it is felt the formula may be unfair to the larger chapters.

6. The State MATHCOUNTS competition will be held on March 19, 1988 at the Baton Rouge Hilton Hotel.

7. The Constitution and Bylaws Committee has requested copies of all chapter and practice division bylaws to review for conformity with the state bylaws. Several other articles were discussed at the meeting and additional charges were given to the committee.

8. The practice divisions presented ideas on seminars for the Awards Meeting in April to the Bayou Chapter. A number of divisions set their legislative priorities for 1988.

9. The Board took action to support creation of a Louisiana Highway Trust Fund and an active role in moving the Louisiana road building program forward.

10. The Board approved a request by PEPP to increase its annual dues to \$5.00

per year.

11. The Ethics and Professional Conduct Committee is continuing its investigation of allegations against a member of the Society.

12. The NSPE recruitment letter was mailed to prospective LES members on September 15.

13. The Chairman of the Advertising Committee outlined the charges of the committee. A representative from each chapter will be named to the committee.

14. The Society has contributed annually to the NSPE Scholarship Fund. Action on this item was deferred until the members of the Scholarship Committee can be consulted.

15. An invitation has been extended to and accepted by the State Board of Registration to make presentation of their annual awards in conjunction with the annual Awards Meeting of LES.

16. Terms for three State Board of Registration members will expire within ten months. Two of the members will be appointments from the PEG division.

December Meeting

The December meeting was held in the Baton Rouge state headquarters with 21 board members, four guest, and the LES staff present.

1. The October and November financial statements were accepted subject to the annual audit.

2. After consulting with the CPA, a second audit for 1986-87 was prepared and accepted by the Board.

3. The Constitution and Bylaws Committee advised that a constitutional amendment is needed to include officer ballots in a newsletter. The committee will present proposed wording to the Board at a future meeting.

4. The Board supported a recommendation from the Legislative Committee to support Governor-Elect Roemer's effort to reform the Political Campaign Contribution Laws.

5. The Board voted to sponsor, or

jointly sponsor, legislation advocated by the Louisiana Good Roads and Transportation Association to adopt a Constitutional Amendment to place all highway user taxes and charges in a trust fund dedicated to building and maintenance of highways.

6. The Advertising Committee is still collecting data from the chapters and the magazine consultant.

7. The MATHCOUNTS Steering Committee has requested that each chapter president submit a method of operation for the new regional competition rounds.

8. The Board approved a letter from the Scholarship Committee to solicit funds from engineering consultant for the scholarship program. The Society will contribute \$500 to the NSPE Educational Foundation.

9. Recipients of the 1988 LES Awards were named. The awards will be presented at the Annual Awards meeting in April.

10. The Board unanimously accepted the Liaison Committee with the State Board of Registration's list of candidates to replace Verdi Adam, P.E., on the State Board of Registration.

11. The ASCE Manual of Professional Practice was distributed with a request that each practice division review the Manual and submit comments to ASCE.

12. LES will submit the name of a candidate to serve on the NSPE Nominating Committee. Each region is representative on the committee by one member. The member will be selected at the regional breakfast meeting to be held in conjunction with the NSPE Winter Meeting in Mobile.

13. The President will notify the NSPE Southwest Regional Vice President of the LES Board's recommendation to discontinue the Southwest Regional Meetings.

14. A LES representative will attend the NSPE Scholarship Selection Meeting to be held March 10-12, 1988 in Washington, D.C.

15. A letter from the NSPE Membership Committee Chairman was distributed to the Board.

Lloyd G. Hoover, P.E. Promoted

Lloyd G. Hoover, P.E., a member of the Louisiana Engineering Society, has been promoted along with five other engineers of Southwestern Laboratories to Vice President of the corporation. Mr. Hoover is Manager of the Shreveport Office.

Warren N. Lacey, P.E., President, emphasized that all these promotions are in recognition of the dedicated hard work and enthusiasm exhibited by all who have helped keep Southwestern Laboratories in the forefront of professional firms in the materials engineering field. The firm has grown to almost 600 service oriented professionals and technicians, and these additions to the Corporate staff will increase responsiveness to the business needs of our clients in the Southwest.

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IN MEMORIAM Ronald A. Muller, P.E.

Ronald A. Muller, P.E., a member of the Louisiana Engineering Society since 1967, expired on September 23, 1987.

Mr. Muller received his bachelor of science degree in electrical engineering in 1962 from Louisiana State University. He was president of Westgate Inc. and a U. S. Navy veteran of the Korean conflict.

Mr. Muller was a member of Nicholson Post No. 38 and past president of the Associated Builders and Contractors.

The Board of Direction and members of the Louisiana Engineering Society express our deepest sympathy to his wife, Deborah, and daughters, Judy, Monica Lee, and Kathy.

IN MEMORIAM Edmund F. Hughes, P.E.

Edmund F. Hughes, P.E., a life member of the Louisiana Engineering Society, expired on November 5, 1988, after a brief illness.

Mr. Hughes was General Superintendent of the Sewerage & Water Board from 1956 to 1971. He was a native of New Orleans and received his bachelor

of science degree in civil engineering from Tulane University. He worked for the Sewerage & Water Board for 44 years, including 15 years as General Superintendent.

Mr. Hughes was a project engineer on the construction of some of the first reinforced concrete canals in New Orleans. As General Superintendent, he promoted the drainage for the development of eastern New Orleans.

He was a member of the Board of Directors of Globe Homestead Associates, the American Society of Civil Engineers and past president of the American Public Works Association. Mr. Hughes was awarded the American Public Works Association's Samuel A. Greely Service Award in 1963, a national honor.

The Board of Direction and members of the Louisiana Engineering Society express our deepest sympathy to his wife, Agatha, his three daughters and one son.

IN MEMORIAM Charles E. Turrentine, P.E.

Charles E. Turrentine, P.E., a member of the Louisiana Engineering Society since 1956, expired recently.

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Mr. Turrentine attended Georgia Tech University and graduated from Louisiana Tech University. He was a registered professional mechanical engineer and was owner of Turrentine Air Conditioning Company, which he established in 1956.

He was a member of the First United Methodist Church, where he served as chairman of the administrative board on two different occasions. He was president of the Board of Directors of the YMCA at Louisiana Tech University and was twice elected to Who's Who in American Universities and Colleges. He was a World War II veteran.

The Board of Direction and members of the Louisiana Engineering Society express our deepest sympathy to his wife, Harri, and daughter, Mary Beth.

IN MEMORIAM
George Jambor, P.E.

George Jambor, P.E. a member of the Louisiana Engineering Society since 1966, expired in November, 1988.

A native of Hungary, he had been a resident of Shreveport since 1950. He was a consulting engineer and partner of Harris, Jambor & Associates. He was a member of the American Society of Heating and Refrigeration, American Consulting Engineers Council, the American Contract Bridge League, and Who's Who in America.

The Board of Direction and members of the Louisiana Engineering Society express our deepest sympathy of his wife, Klara, son, Roy, and daughter, Barbara.

SEA LEVEL
Continued from page 9

ocean currents, stream discharges and prevailing winds, but also arises from local variations in the earth's gravity.

It has long been known that the force of gravity at the surface of the earth is not constant but varies from point to point, depending upon the density of the soil and rock underlying any particular point on the earth's surface. The force of gravity may be measured by a very sensitive instrument known as gravimeter or gravity meter, and regional surveys with such meters have been very useful to petroleum engineers and geologists in seeking and defining subterranean structures such as salt domes and fault lines that may have formed traps to concentrate petroleum or gas occurrences.

Variations in soil and rock formations beneath the ocean likewise cause variation in the force of gravity at the ocean surface, and these variations evidently cause variations in sea level at different points of the ocean surface.

The thought immediately occurs as to whether the orbit of the satellite is similarly affected when passing over areas of varying gravity and whether the orbit is truly circular or actually elliptical. The earth is not a true sphere, but is slightly flattened at the poles into an oblate spheroid due to the earth's rotation and, presumably, this shape affects and is taken into account in calculating the orbit of the satellite. Satellite measurements have shown pronounced variations in sea level over fairly short dis-

tances as well as in broad reaches of the ocean.

Since the engineer is called upon to determine points and facts with respect to mean sea level, the question of what to do in any particular situation requires consideration. The Manual of Surveying Instructions issued by the government states:

Vertical control in the United States is referred to an arbitrary level for the entire nation which was based on mean sea level as determined by observations made over a period of years at tidal stations on the Atlantic, Pacific, and Gulf Coasts. Several adjustments have been made of the basic network, the most recent in 1929."

It, therefore, appears that an engineer or surveyor called upon to determine or testify as to mean sea level at any point of coast line or tidal-influenced waters would seek the nearest tide gauge or sea level reference founded upon land believed to be stable over a period of 19 years and would determine mean sea level at that point, transferring the mean sea level datum by precise leveling to the particular point in question.

Various agencies of federal, state and local government have datum planes which they use in their records and prefer to have used in any work done for them. Where the project involves waterfront property, the engineer must carefully examine the issues involved and the basic data on which determination is to be made.

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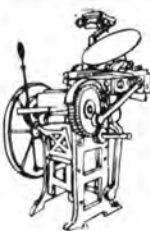
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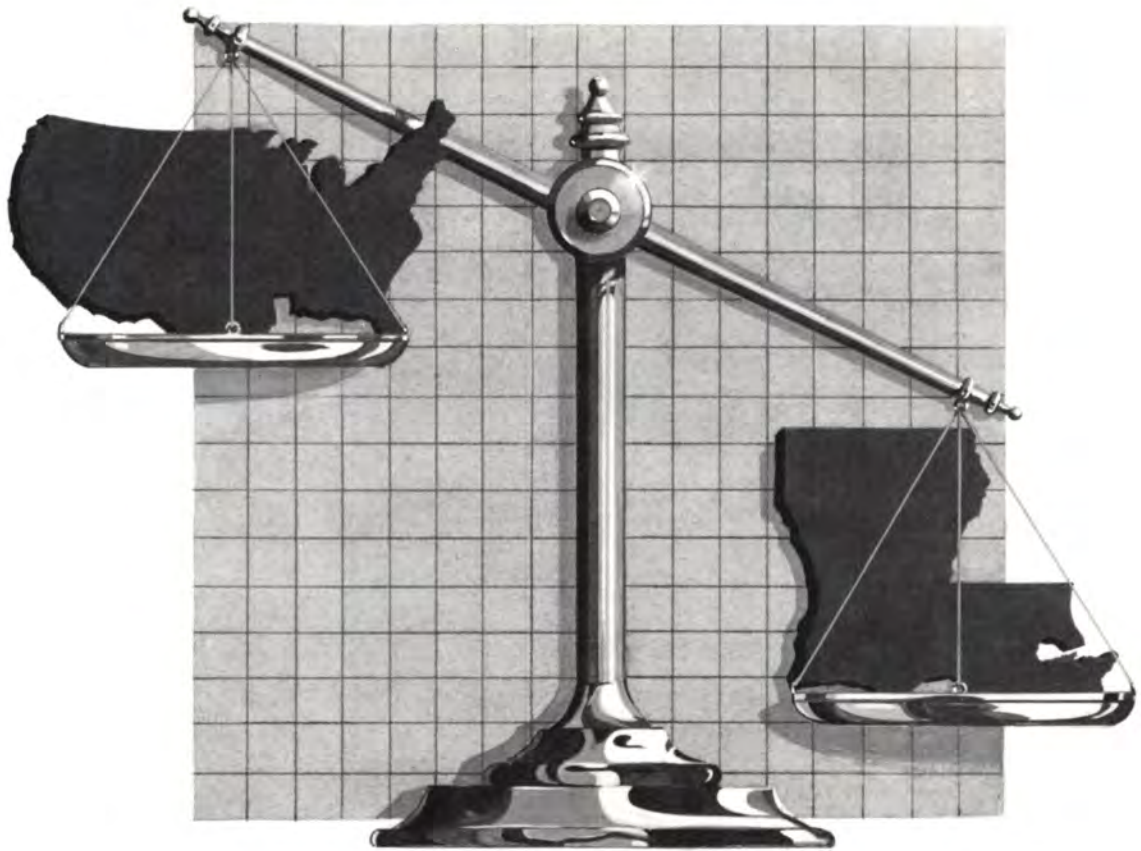
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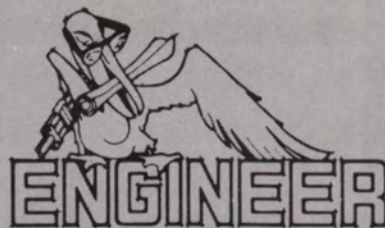
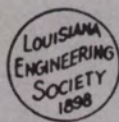
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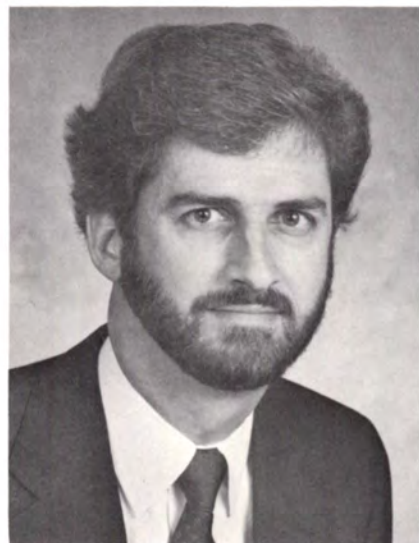
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Six Outstanding Engineers Receive Awards



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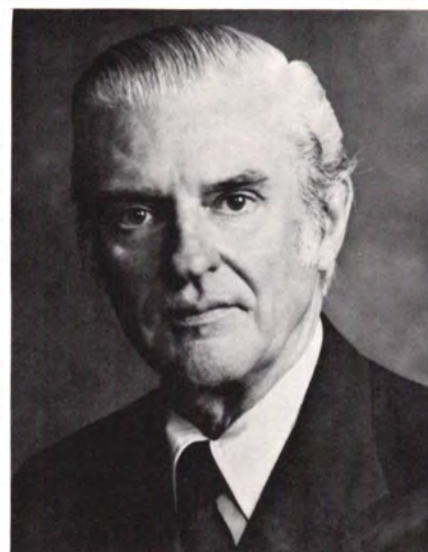
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ABOUT THE COVER

The Louisiana Engineering Society honors six outstanding engineers. Story begins on page 6.



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When in Doubt, Run Around in Circles. . .

scream and shout. And cry out that the Louisiana Engineering Society has no direction nor role in the engineering community. That there are absolutely no benefits to be gained by membership in the organization. That no planning is being done to set a direction for LES. And I say, please read on!

Thank goodness there are those within LES who are working diligently to develop a plan of action for LES to pursue at both the chapter and state levels in the coming years. I am happy to see so many individuals show such a strong interest in moving the Society forward. I wish even others had that same sense of urgency. I have long advocated that we need long-range planning for the organization in order to provide a vibrant, active organization for our membership. We must overcome a blend of inertia and apathy within LES.

The membership wants a different direction than what the Society has been taking in recent years. I agree with that need for change. Although some of the decline in membership is definitely due to economic circumstances, there are members dropping their membership because they perceive that LES is not providing enough benefits for them. Our membership needs to recognize that they should be doing something **for** and **within** LES in order to gain benefits—be a giver as well as a receiver.

The Alexandria Chapter has initiated a long range plan called LES Plan-90. Several other chapters are also looking at this plan. Likewise, the state level Long Range Planning Committee is looking at this plan and other ideas to implement goals for the Society. LES is not sitting still as some would believe.

I fully support the concept of LES Plan-90 which emphasizes three main objectives: Professional Education, Professional Involvement and Professional Recognition. All three of these items already exist at the state level but, perhaps, not to the extent that they should.

Under Professional Education we started having excellent seminars conducted at both of the statewide LES meetings held each year. Beginning with the Spring Awards Meeting held in Monroe in 1987, seminars were held on "Better Oral and Written Communication Skills for Engineers," and on "Personal Computer Applications for Professional Engineers." Seminars on "Getting What You Ask For—The Engineer and Specifications," on "Computer-Aided Design,"



Bobby E. Price, Ph.D., P.E.
President
Louisiana Engineering Society

and on "Stamp This For Me (Proper Use of the P.E. Seal)" were held at the Annual Meeting in Shreveport in 1987. Seminars on "Qualification Based Selection of Consultants," on "Construction Claims," and on "Rules of Professional Conduct/Code of Ethics—How Does It Affect Your Practice" are planned for the Spring Awards Meeting in Houma in April 1988. (Have you made arrangements to attend this well planned meeting?) Similar type learning-experience seminars will continue to be planned for future meetings. More one day, two day, etc., seminars are needed on specific topics. Would someone like to volunteer to help plan, coordinate and conduct these seminars?? Yes, we have a professional education program at the state level.

The second item, Professional Involvement, carries with it involvement both at the chapter level and at the state level in either standing committees, practice divisions or ad hoc committees. This involvement includes work on MATH-COUNTS, scholarships, public relations, legislation, career guidance, education, ethics and professionalism, and many others. **Professional involvement is the single most important item to implement any long range plan.** We must somehow convince members to get involved in LES activities. We need more "heart tugging" projects like MATH-COUNTS. Even so, we **cannot** and **must not** forget the other very important projects of LES dealing with the day-to-day work of promoting, guarding and ex-

panding our profession. Yes, we have a professional involvement program at the state level.

The third item, Professional Recognition, is extremely important. We need to recognize those engineers and non-engineers who do so much for the engineering profession. A "pat on the back" never hurt anyone. The state level awards program and the NSPE Outstanding Achievement awards program are indicative of the type of professional recognition needed. At the Spring Awards Meeting to be held in Houma in April (registration form in this issue of the *Louisiana Engineer* if you do not have your February issue), six very outstanding members will receive the prestigious LES awards, two of our long time members will receive Honorary Member status for their many years of faithful, continuous service to LES and the engineering profession, members of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors will be recognized, and the 90th Anniversary of LES will be celebrated. Yes, we have a professional recognition program at the state level.

I do believe that it is time to implement a positive plan of action and to stop the rhetoric about LES having an "unhealthy disease" in its ranks. It is time to put aside adverse comments. Enough has been said by both me and others about the adverse conditions within the Society. The "proof of the pudding" is to now put either LES Plan-90 or some other progressive plan into action. I do hope that those individuals who are crying for a change will now jump in and provide the **continuous leadership** that is necessary to make LES reach its "Quest for Progress." It is time to quit talking and get busy. Talking will not get the job done. Concrete, well-thought-out plans and a commitment of time and energy to carry out those plans are a necessity. **If we aim at nothing, I assure you we will hit it!** It is time to go to work!! We need volunteers. We need workers. We need people committed for the long haul. Can we count on you??

I close with a quote from President Theodore Roosevelt:

"Far better it is to dare mighty things, to win glorious triumphs, even though checkered with failure, than to take rank with those poor spirits who neither enjoy much nor suffer much, because they live in the grey twilight that knows not victory nor defeat."

When you have the responsibility of providing enough water for over a million people in Tarrant County (Fort Worth, Arlington, and suburbs), you must reach out and plan way ahead. That is why the Tarrant County Water Control and Improvement District No. One is building the Richland Project – preparing for the 21st Century.

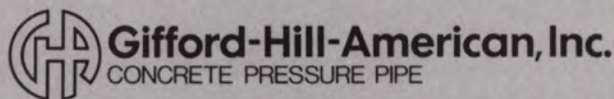
The new Richland Reservoir will supply an additional 187 million gallons per day, almost doubling the amount presently available from Cedar Creek Reservoir and several other smaller lakes.

Water impounded in the Richland Reservoir will be pumped 73 miles through a 90-inch diameter pipeline to a balancing reservoir at a high point along the route.

From there a 108-inch diameter pipeline will carry the water by gravity the remaining six miles to delivery points for the various customers.

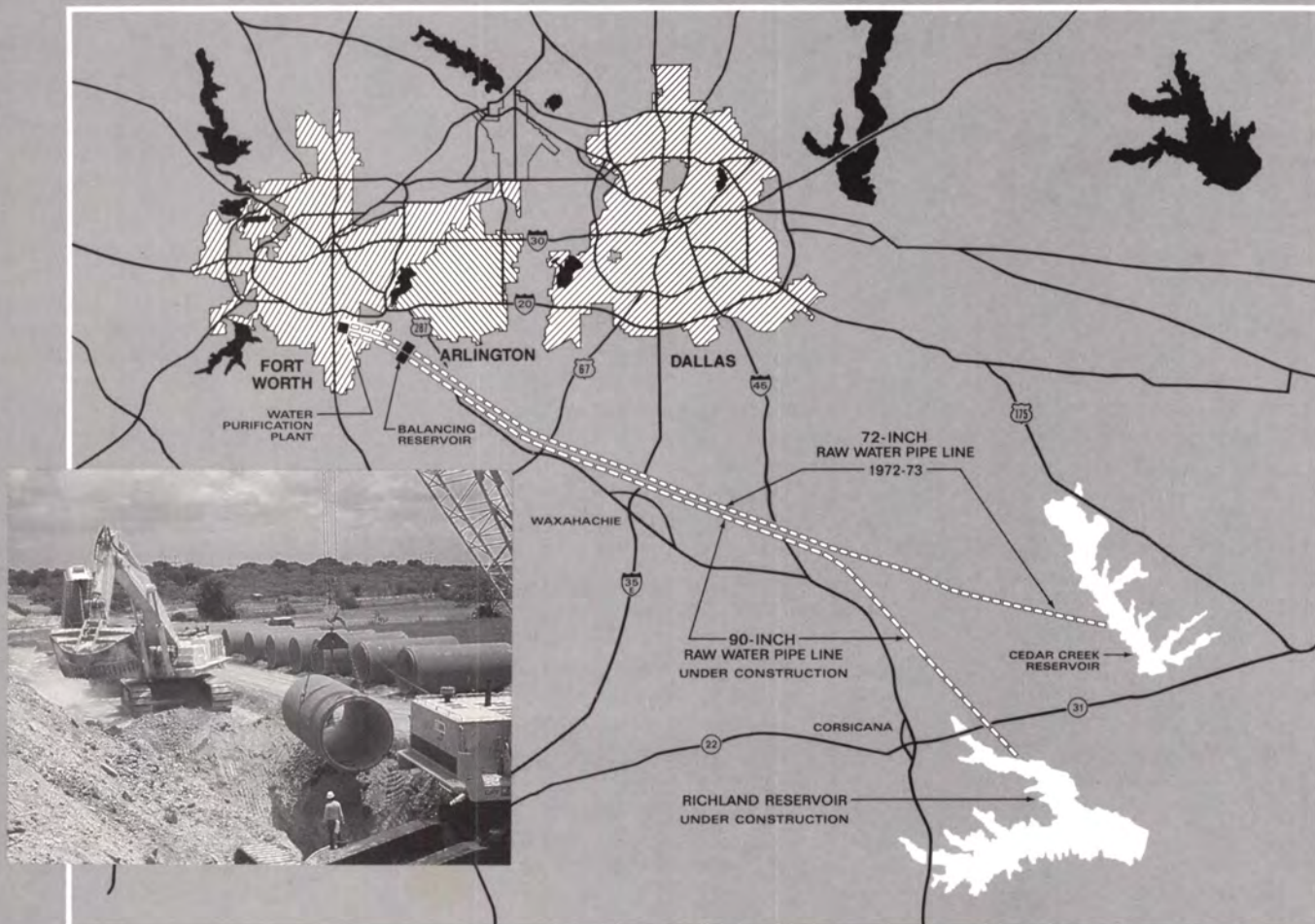
Prestressed Concrete Embedded Cylinder Pipe (AWWA C-301) is being furnished by G-H-A for the entire pipeline project.

G-H-A manufactures Concrete Pressure Pipe in diameters from 10-inches through 144-inches, all in accordance with AWWA Standards.



CORPORATE OFFICE P.O. BOX 569470 / DALLAS, TEXAS 75356-9470 / PHONE (214) 262-3600
PLANTS: GRAND PRAIRIE / HOUSTON / LUBBOCK / VICTORIA

WATER DISTRICT PREPARES FOR NEXT CENTURY WITH CONCRETE PRESSURE PIPE



LES Presents Awards to Six Outstanding Engineers

CHARLES M. KERR PUBLIC RELATIONS AWARD

The Charles M. Kerr Public Relations Award is given to an engineer for distinguished service in the promotion of public relations for the engineering profession in Louisiana. It was first presented in 1965 and was named to pay tribute to Charles M. Kerr, LES President in 1954. Kerr was very active in the business world in promoting his chosen profession, engineering.



Wilfred B. Barry, P.E.

Wilfred B. Barry, P.E., is President of Simmons J. Barry & Associates, Consulting Engineers, of Baton Rouge, Louisiana. He holds a Bachelor of Science Degree in Civil Engineering from Louisiana State University and is a Registered Professional Engineer in Louisiana. Wilfred is married to the former Lane Voltz of Alexandria, Louisiana.

Upon graduation from Louisiana State University, Mr. Barry took brief positions with the International Paper Company as a field engineer in the Woodlands Divisions, and with Professional Engineering Services, performing structural design for offshore compressor modules. In 1975, he joined the firm of Simmons J. Barry & Associates, a firm originally

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F. HUGH COUGHLIN YOUNG ENGINEER AWARD

This award is given to an engineer not over 35 years of age who has demonstrated to a high degree capabilities in his chosen field. F. Hugh Coughlin was a member from 1944 until his death in 1979. His interest in, and support of, young engineers was very instrumental in the establishing of this award. His name was added to the award in 1975.



Leslie K. Guice, P.E.

Leslie K. Guice, Ph.D., P.E., is an Associate Professor of Civil Engineering at Louisiana Tech University. He was awarded the Bachelor of Arts degree in Architecture and the Master of Science degree in Civil Engineering at Tech, and the Ph.D. in Civil Engineering at Texas A&M University.

Dr. Guice became a faculty member in Tech's College of Engineering as Assistant Professor of Civil Engineering in 1978. In 1981, he was promoted to Associate Professor. Over a four year period, beginning in 1983, he served as Research Engineer with the U.S. Army Engineer Waterways Experiment Station.

Dr. Guice's additional professional experience includes working as a consul-

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JAMES M. TODD TECHNOLOGICAL ACCOMPLISHMENT MEDAL

The James M. Todd Technological Accomplishment Medal is given for distinguished services by an engineer for technological advancement or discoveries as contributions to the advancement of engineering.



Robert S. Jones, P.E.

Robert S. Jones, P.E., is an engineer with the Terrebonne Parish Consolidated Government in Houma, Louisiana. He received a Bachelor of Science Degree in Civil Engineering from the Georgia Institute of Technology. He is a Registered Professional Engineer in Louisiana.

After graduation from the Georgia Institute of Technology, Mr. Jones served three years as an engineer with Ebasco Services. From March 1976 to May 1982 he worked with Hooker Chemical Corporation as a Field Engineering Supervisor and Project Engineer. In October of 1982, he joined the Terrebonne Parish Consolidated Government.

Bob is a member of the Louisiana Engineering Society, the National Society of

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LEO M. ODOM AWARD FOR SERVICES TO THE PROFESSION

The Leo M. Odom Award, named after its first recipient in 1972, is given for distinguished service to the engineering profession in Louisiana by a Registered Professional Engineer member of the Society who, over a period of long duration, has demonstrated leadership in technical societies and other professional engineering groups.



Edward J. McNamara, P.E./P.L.S.

Edward J. McNamara, P.E./P.L.S. is President of Consulting Engineer, Inc., of New Orleans, Louisiana. Mr. McNamara received his Bachelor of Science Degree in Civil Engineering from Tulane University in 1939. He completed the Advanced Management Program at Harvard Graduate School of Business in 1966. He is a Registered Professional Engineer in Louisiana, Massachusetts, and West Virginia and a Registered Land Surveyor in Louisiana. He is married to the former Eda L. Vergez of New Orleans, Louisiana, and they have one son, one daughter and two grandchildren.

Mr. McNamara's professional experience spans fifty years in civil, structural and mining engineering. His career with Freeport-McMoRan started as a field

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A.B. PATERSON MEDAL FOR AN ENGINEER IN MANAGEMENT

The Louisiana Engineering Society has a special award for an engineer who distinguishes himself in management. This is the A.B. Paterson Medal, which was first given in 1965. Albert B. Paterson, an active member of the Society from 1923 until his death in 1952, was an engineer, administrator, executive, banker, civic leader and humanitarian.



Daniel D. Reneau, Jr., P.E.

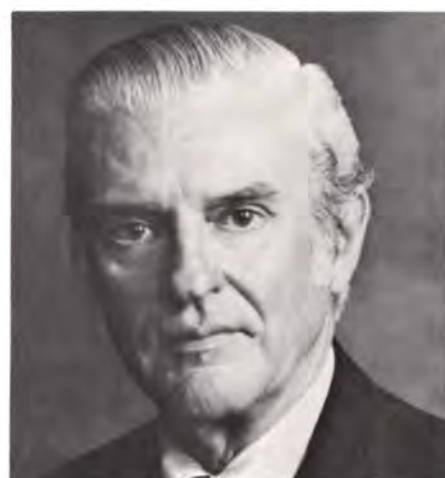
Daniel D. Reneau, Jr., Ph.D., P.E., was named President of Louisiana Tech University in July, 1987. The Woodville, Miss., native received his Bachelor and Master of Science degrees from Louisiana Tech University, and his Ph.D. from Clemson (S.C.) University, all in Chemical Engineering. He is a Registered Professional Engineer in Louisiana.

Dr. Reneau joined the Louisiana Tech College of Engineering faculty full time in 1967 as Assistant Professor of Chemical Engineering. He was promoted to Associate Professor in 1969 and, in 1972, also was named Head of the university's Biomedical Engineering Department. During that year, he was honored with the Alexander-von-Humboldt Stiftung

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ANDREW M. LOCKETT MEDAL FOR CIVIC ACTIVITIES

The Andrew M. Lockett Medal is the Society's civic activities award and was first given in 1951. It is named to honor Andrew M. Lockett, a member of the LES from 1900 until his death in 1945.



John T. Roberts, P.E.

John T. Roberts, P.E. retired from his position as Head of the Safety and Training Department of Exxon Chemicals Americas, Baton Rouge Chemical Plant, in March of 1986 with 40 years of service. A native of New Orleans, Louisiana, he received his Bachelor of Science Degree in Chemical Engineering in 1943 from Tulane University. Post graduate studies in Chemical Engineering were completed at Tulane University and he is a graduate of the Mid-South Executive Development Program conducted at Louisiana State University. He is a Registered Professional Engineer in Louisiana. Mr. Roberts is married to the former Murray Patricia Dillon of New Orleans, Louisiana, and they have five daughters and eight grandchildren.

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WILFRED B. BARRY

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started by his father in 1952. The scope of services offered by the firm at the time of his employment was utility design for water, sewer and natural gas utilities, and utility management consulting. Since then, the firm has added highway and subdivision design and land surveying as complimentary services to utility work. Mr. Barry has led and participated in that limited diversification of services offered.

Wilfred has been very active in the legislative programs of the Society. He has served twice as Legislative Committee Chairman and has personally lobbied the state legislators on numerous occasions. In 1983, he established a Minuteman Committee within the Louisiana Engineering Society to assist the Legislative Committee in identifying engineers who personally knew legislators well enough to contact them. The system was developed by sending out a questionnaire to all LES members for their acquaintances with legislators. The information was subsequently entered into a data base by the LES state office personnel in order to retrieve the Minuteman names when a legislator was needed to support important legislation. Included with that program, Wilfred coordinated a joint Louisiana Engineering Society/Consulting Engineers Council of Louisiana cocktail function for legislators at the beginning of the legislative session to impress upon them the significance of the Society.

Mr. Barry is very active in the Baton Rouge Chamber of Commerce. In 1985, he attended the Goals Conference for the Chamber, a planning session for all Chamber objectives and activities for the coming year. He served three years on the Transportation Task Force, one year as Chairman, a committee dedicated to analyzing Baton Rouge's transportation problems and working with appropriate agencies to resolve them. Currently, Wilfred is a member of the Chamber's Leadership Class Program, a series of symposiums designed to expose carefully selected young, interested citizens to the challenges facing the Baton Rouge community and instilling them with leadership skills to face them.

In 1985, Mr. Barry served as the Louisiana Engineering Society representative and assisted in creating Impact of Baton Rouge an organization dedicated to exploring fundamental Baton Rouge community problems via a series of forums. Impact of Baton Rouge, sever-

al times a year, identifies an important issue about to be decided upon by local government, arranges speakers to talk authoritatively on methods to solve it in an unbiased manner; usually panel speakers are used to present various aspects of the issue including pro and con comments. Since its creation, Impact has conducted forums on "Sewerage Improvements - How Do We Pay For Them?," "Education System - How Do We Improve It?," and "The Need for a New Plan of Government," as well as others.

Wilfred is a member of the Consulting Engineers Council of Louisiana, Inc., the National Society of Professional Engineers, the American Society of Civil Engineers, the American Congress on Surveying and Mapping, the American Water Works Association, the Louisiana Engineering Society, the Louisiana Professional Land Surveyors Association, Rotary Club of Baton Rouge, and St. Jude Catholic Church.

Mr. Barry has given freely of his time and resources to improving the image and identity of the professional engineer through public relations. His outstanding contributions to LES and the profession are in keeping with the ideals of the Charles M. Kerr Public Relations Award.

LESLIE K. GUICE, P.E.

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tant to JAYCOR, Inc., of Vicksburg, Miss., in the design of high-pressure sensor housings; Tremco, Inc., of Minden, in the design of aluminum awnings and walkway covers; serving as Vice-President, Lincoln Engineering Services, Inc., of Ruston; U.S. Army Engineer Waterways Experiment Station's Automatic Data Processing Center in Vicksburg, Miss. in the development of computer codes for slope stability analysis; Rimcor, Inc., of Bastrop, in the design of cylindrical reinforced concrete tanks for paper mulch; and Project Designer, Wells & Parker, AIA, of Monroe.

The young engineer award recipient has been active in funded research contracted through the Louisiana Transportation Research Center and the Federal Highway Administration dealing with traffic accident simulation and animation, and the U.S. Army Engineers investigating the response of structures to weapons effects. He was also a co-recipient of a grant from Halliburton Foundation for developing a proposal for "The Louisiana Tech University Engineering Film Research Center."

A member of the Louisiana Engineer-

ing Society, Dr. Guice serves as Vice Chairman of the organization's Monroe Chapter Scholarship Committee. His other professional and technical society memberships include the American Concrete Institute, the American Society of Civil Engineers, the American Society for Engineering Education and the National Society of Professional Engineers.

Dr. Guice was honored at Louisiana Tech with the American Society of Civil Engineers' 1979-80 Outstanding Teacher Award and with the Louisiana Tech University Engineering Foundation Awards for Outstanding Engineering Service, Outstanding Achievement in Instruction and Outstanding Achievement in Research.

He holds membership in Chi Epsilon, national civil engineering honor society; Phi Kappa Phi, national honor society; Tau Alpha Pi, national engineering technology honor society; and Tau Beta Pi, national engineering honor society.

Dr. Guice is the author of several published articles and technical reports. He has also made several conference paper presentations.

Dr. Guice is a Registered Professional Engineer in Louisiana. The Bastrop native is married to the former Kathy May. They have three children, Chad, 8, Kyle, 5, and Bret, 10 months.

The Louisiana Engineering Society recognizes Dr. Guice for his capabilities as a civil engineer and his potential for further advancement and leadership as a professional engineer. His qualifications made him an ideal candidate for the F. Hugh Coughlin Young Engineer Award.

ROBERT S. JONES, P.E.

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Professional Engineers, the Louisiana Shore and Beach Preservation Association and the American Shore and Beach Preservation Association. He is also a member of Chi Epsilon, the Honorary Civil Engineering Fraternity.

Over a twenty-three year period from 1955 to 1978, Terrebonne Parish lost 15% of its wetlands and 42% of its barrier islands to the sea. The parish realized that intermediate measures to retard the loss of its marsh would have to be undertaken before any long term solution to sea level rise and subsidence could be implemented. Terrebonne's barrier islands are considered to be a key element in the short term survival of Terrebonne's wetlands. If the islands are lost, it is estimated that Terrebonne's land loss would accelerate geometrically. With the disappearance of its islands and its severe land loss problems, Terre-

bonne began to seek ways to stabilize its coastline. If not stabilize, then at least extend the life of its islands and wetlands. The parish, therefore, recognized its barrier islands were going to have to be stabilized and preserved if any effort at combating shore erosion and land subsidence was going to be successful.

With this in mind, Mr. Jones combined common materials, sand, silt, sand fence and vegetation, in a unique manner to erect a protection structure on one of Terrebonne Parish's eroding barrier islands. The blend of common materials and construction methods has survived surges from three different hurricanes; Danny, Elana and Juan.

The method shows great promise in helping to protect Louisiana's eroding coastline. While not nearly as physically monumental as a bridge or building, the social significance for Louisiana's coastal citizens of the protection technology and construction methods developed by Mr. Jones should be immense.

Mr. Jones departed from past practices for such a coastal protection project in fill site selection, dredge site selection, fill site construction and contract risk sharing.

Mr. Jones has continued to be active in the areas of barrier island restoration and marsh preservation. He has completed two additional projects on Terrebonne's barrier islands. He is the owner's representative for the construction of the Montegut Marsh Management Projects.

Mr. Jones shares the techniques and methods he has developed during the course of these projects at local and national conferences and has published several papers on the subject.

Mr. Jones' outstanding achievements in the area of "coastal erosion" make him a worthy recipient of the James M. Todd Technological Accomplishment Medal. The Louisiana Engineering Society is proud to honor Mr. Jones for his outstanding engineering achievement.

EDWARD J. McNAMARA, P.E./P.L.S.
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engineer in sulphur mining, and upon his retirement in 1981 as Vice President for Engineering and Research and Development activities world-wide. He has had responsible charge for major mining projects in three foreign countries, and was in responsible charge of feasibility studies for other major projects in seven other countries. Upon his retirement, he was an officer and director in several of Freeport-McMoRan subsidiary companies. His service with the U. S. Navy Civil Engineer Corps in World War II

LOUISIANA ENGINEER/APRIL 1988

and the Korean War gave him broad world-wide construction experience of naval facilities. From 1962-64, he served as a consultant to Sulphur Export Corporation's molten sulphur program to Europe and the United Kingdom.

Mr. McNamara is a member of the Louisiana Engineering Society, having served as its President in 1967-68, the American Society of Civil Engineers, the National Society of Professional Engineers, the Society of American Military Engineers, and Tau Beta Pi.

In 1945, Mr. McNamara received the U. S. Navy Commendation Medal (with Combat "V") for outstanding military service in the construction of naval facilities during the Okinawa invasion and occupation. He was recipient of the 1978 Louisiana Engineering Society's A. B. Paterson Medal for an Engineer in Management. As a past member of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, he has served on committees within the National Council of Engineering Examiners and received Presidential Certificates of Service and Appreciation.

In 1980, he received the Eminent Engineer Award for outstanding attainments in engineering and technical knowledge from Tau Beta Pi, Beta Chapter, of Tulane University. He has served on the Board of Advisors to the School of Engineering at Tulane University and received a Certificate of Service for five years on the Board.

Mr. McNamara has been very active in the Louisiana Engineering Society spanning fifty years of service in chapter and state activities. He has served in all offices of the Society and has chaired a number of state committees. He is presently serving on the Liaison Committee with the Louisiana State Board of Registration for Professional Engineers and Land Surveyors.

Mr. McNamara has just completed a nine-year term as a member on the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. He has served as the Board's observer on five of the ABET accreditation teams reviewing Louisiana engineering schools for accreditation. He has conducted seminars for senior engineering students in preparation for their engineer-in-training examination at Tulane University, the University of New Orleans, and Southern University. He has appeared before legislative committees to present the Board's views on amendments to the engineering registration laws, particularly as it affected operations of the Board.

Mr. McNamara is an author in his own right in the publishing of engineering and technical articles. His articles on the design and construction of offshore structures, pipelines, etc., have been published in "Civil Engineering," "Pipeline and Industry," and the "Louisiana Engineer". His articles on the design and operating problems on slurry pipelines have appeared in the transactions and journals of the British Hydrotransport Research Association. His slurry pipeline articles have also been published in the American Society of Civil Engineer's "Pipelines in Adverse Environments-A State of the Art." In his career, he has addressed over thirty technical and civic groups on various technical items.

Mr. McNamara is listed in "Who's Who in Engineering" and "Who's Who in the South and Southwest."

Mr. McNamara, by his distinguished record and high standard of conduct in the profession of engineering, has been an active inspiration to young engineers and to the members of the Louisiana Engineering Society, the American Society of Civil Engineers, and other engineering societies. His services to the profession in his military service, his business career, his professional society participation and his civic activities make him a worthy recipient of the Leo M. Odom Award for Services to the Profession.

DANIEL D. RENEAU, JR., P.E.
Continued from page 7

Visiting Professorship at Johannes Gutenberg University in Mainz, West Germany.

In the summer of 1977, he was a Visiting Professor in Research to the universities of Cambridge and Bristol in England. Dr. Reneau has served as an Adjunct Professor in Research at Tulane University's School of Medicine in New Orleans since 1979. He became Professor and Head of Tech's Biomedical Engineering Department in 1973, and, in 1980, he assumed the post of Vice President for Academic Affairs, which he held until he was selected to fill the university's top position.

As President of Louisiana Tech University, which has more than 1,000 employees, Dr. Reneau is first in command, serving as adviser/supervisor for all of the university's six colleges. He also is responsible for maintaining the high standards of excellence for both personnel and curriculum.

Dr. Reneau's management responsibilities include fiscal planning, curriculum planning, and firstline personnel selection. He acts as the official university spokesman for all academic matters with

Tech's governing boards — the Board of Trustees and the Board of Regents — which often involves special assignments at the request of the governing boards, such as Chairman of the Selective Admissions Committee for developing an overall plan for quality enhancement through admissions at Louisiana institutions of higher learning, Formula Revision Committee and Louisiana Stimulus for Excellence in Research.

Dr. Reneau has accomplished much in the field of management. Through his efforts, the Biomedical Engineering Department was established in 1972. He developed a faculty and program that has brought both national and international recognition to Louisiana Tech University. In 1976, the academic program received a full six-year accreditation and became the fifth accredited Bachelor of Science program in the nation. In 1978, the doctoral program received a Commendation of Excellence from the Board of Regents. Under his leadership, accomplishments have been made in the study of various disabling conditions and the application of technology to assist the disabled. In 1984 and 1985, he led in the inception and formulation of a proposal for securing funding and eventual approval for the Center for Rehabilitation Science and Biomedical Engineering at Louisiana Tech. Dr. Reneau assumed a leadership role in the development of Louisiana Tech's participation in the Consent Decree.

Married to the former Linda Digby, Dr. Reneau is the father of two children, a son, John, and a daughter, Dana.

Dr. Reneau's active participation in the engineering profession and major management accomplishments have truly qualified him for the distinguished A.B. Paterson Medal for an Engineer in Management.

JOHN T. ROBERTS

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Mr. Roberts' involvement in civic organizations include the Kiwanis Club at the club, district and international levels, having served as President of Kiwanis International in 1982-83, Key Club International, Circle K International, Boys Club of Greater Baton Rouge, Boys Club of America, Junior Achieve-

ment, United Way, Goodwood Property Owners Association, International Special Olympics Games, Greater Baton Rouge Safety Council, and the Public Affairs Research Council.

When Mr. Roberts was elected to the Board of Directors of the Boys Clubs of Greater Baton Rouge, the single unit had been in operation for just over a year. Membership was under 200 boys and the club was in debt. Following the resignation of the club's Executive Director, Mr. Roberts assumed the presidency of the Board of Directors at a highly critical time, when the future of the Boys Club, even its survival, was in doubt. Under his leadership, the Board of Directors hired a new Executive Director, a new Program Director, and increased the membership of the Boys Club to over 550 boys.

New programs have encouraged other organizations to make grants to the Boys Club to further their project of keeping these disadvantaged youth in school. Nearly a third of the \$43,000 indebtedness has been retired, and new sources of financing are being developed so that the future of the Boys Club seems more assured.

The possibility of opening a second unit in the Public Housing Complex on East Boulevard is developing and may be a reality in another year. Altogether, the community has benefitted greatly because over 550 boys, mostly minorities and mostly from single-parent homes where the parent works, are not left to roam the streets, but rather, are given positive reinforcement and constructive alternatives. Mr. Roberts' enthusiastic leadership has not only kept the Boys Club doors open, but has kept the program growing, and has made the Boys Club a financially viable organization.

In 1977, Mr. Roberts was awarded the "Key of Honor" by the Key Club International Board of Trustees, the highest award given by Key Club International and is for outstanding service to the organization. He was also awarded the "Circle of Service" Award in 1986 by the Circle K International Board of Officers, the highest award given by Circle K International and is for outstanding service to the organization. Mr. Roberts is the only person to receive both awards in the 60

year history of these organizations. This, along with being elected to the Presidency of Kiwanis International, makes him unique in having received the highest recognition given by these three organizations. Mr. Roberts also received the Order of the Purple Heart on June 6, 1944; the Order of Meritorious Service from the Republic of China (Taiwan), presented by President Chiang Ching-Kuo, 1982; the Great Seals of the cities of Vichy, France; Munich, West Germany; Bogota, Colombia; Taipei, Taiwan; and Innsbruck, Austria; and the Silver Medal of Service from the General Philemon Thomas Chapter (Baton Rouge) of the Sons of the American Revolution on October 2, 1984.

Mr. Roberts is an active member of the First Presbyterian Church of Baton Rouge. He is an Ordained Deacon and Ordained Ruling Elder and serves as a member of the Vacation Pulpit Supply. Members of the Vacation Pulpit Supply conduct Sunday Worship Services during minister's absence in small Presbyterian Churches in Southeast Louisiana.

He is a member of the Tulane Alumni Association and President of the Baton Rouge Chapter of the Tulane Alumni Association. He has served as Chairman of the Arrangements Committee and Finance Committee of the Tulane University Educational Conferences in Baton Rouge and is Past President of the Green Wave Club in Baton Rouge. Mr. Roberts is a former member of the Parent Teacher Associations of Goodwood Elementary, Westdale Junior High, Baton Rouge Senior High, and Episcopal Middle and Episcopal High Schools. He is a member of the Volunteers in Public Schools.

Mr. Roberts is a member of the Louisiana Engineering Society, the National Society of Professional Engineers, and the American Institute of Chemical Engineers.

Mr. Roberts' service to his community and profession have truly qualified him for the Andrew M. Lockett Award. His involvement is an inspiration to the engineering profession and the Louisiana Engineering Society is proud to honor this distinguished engineer.

MOVING?

Please notify us of your new address.

Louisiana Engineering Society
P.O. Box 2683
Baton Rouge, LA 70821

Do you know an attorney

who is not a member of the Bar Association?

Do you know any engineers who are

(1) not registered?

(2) registered but not members of LES?

Highlights of NSPE's 1988 Winter Meeting

NSPE's Winter Meeting held in January in Mobile, Ala., provided a forum for practice divisions, committees, and affiliated groups to exchange ideas, present information, and attend to the Society's business. The Board of Directors, convening in the latter half of the week-long meeting, acted on several recommendations. Following is an overview of the primary events from the Mobile meeting.

ASCE Manual

The NSPE Board of Directors voted not to endorse the American Society of Civil Engineers' *Manual of Professional Practice for Quality in the Constructed Project*. PEPP brought the issue before NSPE in the form of a resolution opposing the manual's content and its liability implications. The resolution declares that NSPE "does not endorse, agree, or accept in any way that the ASCE *Manual of Professional Practice for Quality in the Constructed Project* represents the standards of quality in the constructed project."

NSPE/PEPP also raised concerns that the document, which is about to be published in trial form, should include specific wording to prevent its being interpreted as guidelines or a standard of the profession or a standard of care. NSPE strongly recommends that the manual be redefined as an educational journal on project development, specifically to be used for training engineers. NSPE and PEPP plan to maintain close contact with ASCE and provide constructive comment during the trial stage of the manual.

Campaign Finance Reform

A close vote on the floor during the Board of Directors' meeting resulted in the approval of a four-part package of recommendations for inclusion in the Society's ongoing investigation of political contribution policy. Presented by Louis Guy, Jr., the package was actually a substitute motion for recommendations submitted by a special task force appointed last July by President Chuck Samson to study the issue. In approving the substitute motion, the board accepted the PEPP "Political Contributions Discussion Paper," including two of its recommendations. As part of the latter, NSPE plans to encourage state society participation in campaign finance reform.

Specific action will involve lobbying state legislatures to pass laws requiring public disclosure of political contributions above a set limit. The board also adopted a position of support to limit election campaign spending at the state and local levels by forming or joining existing coalitions established for that purpose.

The board opted not to place limits on campaign contributions only from engineers, noting that such action could prove counterproductive to the need for greater political involvement by engineers. Also set aside was a proposed involvement by the National Council of Engineering Examiners and state registration boards in forcing political contribution limits. A new approach to the problem, contained in the substitute motion, involves a proposal to break any linkage between the award of design professional contracts and campaign contributions from those competing for work. The NSPE task force, chaired by former NSPE President Herb Koogler, will continue its investigation of political contribution policy and develop plans for implementation of the board actions in time for the Senate meeting in July.

Membership

The board approved a new grade of membership for retired members by amending NSPE bylaw 11, section F, to the effect that: "A member shall become eligible for Retired Membership if the member has retired from full-time employment and/or active practice of engineering, and is at least 55 years of age. One-half dues shall be paid annually until life membership requirements are met. Application for Retired Membership may be made personally, by the member's chapter, or by the member's state society."

Administrative Committee

A new Administrative Committee was established with an amendment to NSPE bylaw 8.G. The board voted that the committee shall consist of the NSPE president, president-elect, immediate past president, and treasurer. Duties of the Administrative Committee will include reviewing and recommending to the Budget Committee changes to all staff employee benefit programs; reviewing

total staff salary allocations, and recommending adjustments to the Budget Committee; annually reviewing the performance of the executive director with recommendations to the Executive Committee concerning reappointment and annual compensation; and considering other administrative matters as appropriate.

Federal Research and Development

The board voted in favor of a resolution supporting federal research and development programs incorporating basic scientific and fundamental engineering research as vital to global economic competitiveness. The resolution calls for emphasis on a "broad range of research initiatives including those associated with new and as yet untested concepts."

A/E Registration Law

President Chuck Samson, responding to a SSAC resolution, agreed to appoint an ad hoc group to review the need for a national-level strategy on state legislative issues, including a definition of engineering and a definition of practice laws. SSAC first relayed its concerns to the Legislative and Government Affairs Committee, which endorsed the resolution and presented it to the NSPE Executive Committee.

NSPE Policy Revisions

Following discussion in various forums during the Mobile meeting, the Legislative and Government Affairs Committee was called on to revise and rewrite the Society's infrastructure and energy policies, which are several years old. The committee plans to make a status report at the Seattle meeting in July, and may have final policy recommendations at that time.

Society Initiatives

President Samson, in his State of the Society address, highlighted new ideas for future NSPE activities. One is the Engineering Explorer Scout program for young men and women, sponsored by Boy Scouts of America. Although NSPE has endorsed this program for years, Samson reported that the process has now begun to expand the Society's base

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Land Surveying Law Compendium

A "Compendium of Louisiana and Federal Laws relating to Land Surveying" was published by the Board in January 1988. Copies are available to you at no cost. Either write or call the Board office for your copy:

1055 St. Charles Avenue
Suite #415
New Orleans, LA 71030
Telephone: (504) 568-8450

Roster of Board Registrants

A Biennial Report, dated 1988, has been published by the Board and is also available on request at no cost to you.

The Biennial Report includes a list of all active registrants of the Board, which includes engineering firms, land surveying firms, professional engineers, professional land surveyors, land surveyors-in-training, and engineers-in-training. The Board has approximately 20,000 active registrants.

The Biennial Report is a good reference document but like any other listing of names and addresses, it is outdated by

the time it is published because of constant changes of addresses and inherent errors in the publication of any roster. Call or write the Board office for your copy.

Rules Of The Board Under Consideration

Two notices of intent were published in the March 20, 1988, *Louisiana Register*.

The Board proposed to add Chapter 25 to the Louisiana Administrative Code 46:LXI — "Minimum Standards of Practice for Land Surveying." This notice of intent has been mailed directly to all registrants of the Board who are active land surveyors. It is not printed herein because of its length. If you would like to receive a copy of this notice of intent, please call or write the Board office.

Interested persons may submit written comments or offer amendments to the proposed rules to the Board office at 1055 St. Charles Avenue, Suite #415, New Orleans, Louisiana 71030, at any time prior to May 15, 1988. The Board proposes to consider and take action on the adoption of these rules at a meeting in its office at 11:00 a.m. on June, 7 1988.

The following notice of intent of a rule change is published in its entirety.

Notice of Intent

In accordance with the Louisiana Revised Statutes 49:951, et seq, notice is hereby given that the Louisiana State Board of Registration for Professional Engineers and Land Surveyors intends to revise Louisiana Administrative Code 46-LXI as follows:

Title 46

Professional and Occupational Standards

Part LXI: Professional Engineers and Land Surveyors

Subpart 1. Rules

Chapter 1. General Provisions (Amend)

§105.B. changes to 105.B.1 (formerly 19:3.2.2). The last paragraph is deleted.

§105.B.2. (Adopt)

Teaching of engineering design and the responsible charge of the teaching of engineering design shall be considered as the practice of professional engineering. Associate professors and those of higher rank teaching engineering design courses who become employed by a college or university in the State of Louisiana on January 1, 1991, and thereafter, shall be registered professional engineers of the Louisiana Board. Such professors who become employed on or after January 1, 1991, shall have a period of two



Louisiana State Board of Registration for Professional Engineers & Land Surveyors 1988 Board Members, Officers and Staff. Back row, Board members: Verdi Adam, Sam L. Sullivan, Jr., Francis C. Roy, H. L. Henry, Marion J. Chaney, Arthur R. Theis, Malcolm L. Hurstell. Front row, left to right: Benjamin S. Harrison, Investigator; Paul L. Landry, Executive Secretary; Robert D. Fenner, Vice-Chairman; Julie D. Livaudais, Attorney; Rodger D. Phelps, Chairman; Ara Arman, Secretary.



Paul L. Landry, P.E.,
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers & Land Surveyors.



years in which to become registered. The associate professors and those of higher rank teaching engineering design courses in the employ of a college or university in the State of Louisiana prior to January 1, 1991, are exempt from professional engineering registration as long as they remain in continuous employment by a college or university in the State of Louisiana. Those persons who are exempt from professional engineering registration are exempt only for the purpose of the teaching of engineering design and they may not present themselves to the public as engineers or professional engineers or provide or offer to provide engineering services as defined by R.S. 37:682 (8).

Chapter 15. Examinations (add) §1503.F (Adopt)

Until January 1, 1991, the Board may allow the substitution of the qualifying examination for the Fundamentals of Engineering Examination for any applicant who has an earned doctorate from a college or university having an undergraduate curriculum accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

Interested persons may submit written comments or offer amendments to the proposed rules to the Board Office at 1055 St. Charles Avenue, Suite 415, New Orleans, Louisiana 70130, at any time prior to May 15, 1988. The Board proposes to consider and take action on the adoption of these rules at a meeting in its office at 11:00 a.m. on June 7, 1988.

By order of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors.

Paul L. Landry, P.E.
Executive Secretary

BOARD MEETING NOTICE

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors will hold its regular meetings at 1055 St. Charles Avenue - Suite 415, New Orleans, La. 70130 on the following dates:

1988

June 7	Sept. 27
July 26	Nov. 15

EXAMINATION SCHEDULE and APPLICATION DEADLINE DATES

EXAMINATION	SPRING		FALL	
	Application Deadline Date	Examination Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	Jan. 15, 1989	Apr. 15, 1989	Aug. 1, 1988	Oct. 29, 1988
Principles and Practice Engineering (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical, & Electrical	Jan. 15, 1989	Apr. 15, 1989	Aug. 1, 1988	Oct. 29, 1988
Agricultural, Industrial, Metallurgical, Mining & Petroleum	NOT AVAILABLE		Aug. 1, 1988	Oct. 29, 1988
Fundamentals of Land Surveying Examination (8 hrs.)	Oct. 15, 1988	Apr. 15, 1989	May 8, 1988	Oct. 29, 1988
Principles and Practices of Land Surveying (4 hrs.)	Oct. 15, 1988	Apr. 15, 1989	May 8, 1988	Oct. 29, 1988
Laws and Procedures of Land Surveying (4 hrs.)	Oct. 15, 1988	Apr. 15, 1989	NOT AVAILABLE	

Apply at least six to eight months prior to an examination. Board approval must be given for anyone to be scheduled for an examination.

The applicant and the Board depend upon information provided by third parties in the processing of an application, therefore no assurance can be given that one will be scheduled for a specific examination.

Application Deadline date means that an application **must** be postmarked prior to or on the date specified so as to be given **consideration** for the examination. The Board may schedule an applicant for an examination later than that requested by the applicant. The Board cannot guarantee that the applicant will be scheduled for the examination initially requested.

LES Awards Meeting Houma — April 27-30, 1988



We have planned what we hope will be both an enjoyable and informative LES Awards Meeting for our members and families at the Best Western Benedict House in Houma, Louisiana. Remember, our Awards Meeting is not just for our officers and committeemen — it is for all our members.

Our recreation and social calendar begins Wednesday with golf, tennis, and deep sea fishing. The hosted cocktail hour will be followed by a tour of the Wildlife Museum with an extraordinary collection of 750 mounted animals from all over the world. This is a personal collection and the owner has interesting stories for all.

On Thursday, in addition to committee meetings and practice divisions meetings, we have two excellent seminars planned: (1) "Qualification Based Selection of Consultants" sponsored by the PEG and PEPP practice divisions of LES, and (2) "Construction Claims" with Dr. Gui Ponce de Leon, P.E. Both seminars will be of interest for engineers in all practice divisions. Then at 7:00 p.m., join us for a Seafood Blowout at the Sheriff's Camp. If you have not attended a seafood function at meetings held previously in the Bayou Chapter area, don't let this one pass you by! You're in for a real treat! And, of course, there will be fun and games that night in honor of the Society's 90th Anniversary. You won't want to miss this!

The seminar on Friday will be educational and informative and every en-

gineer should participate. Paul Landry and members of the State Board of Registration will serve as a panel to discuss Code of Conduct, Professional Ethics and Registration Board activities. In addition to the seminar, committee meetings will be held. On Friday afternoon, join us as student representatives of our Colleges of Engineering present technical papers. The Awards Banquet on Friday night is the time we set aside to recognize distinguished engineers in Louisiana for their civic and professional involvement in the Society and the state. The awards program will also include recognition of the LES 90th Anniversary and presentations by the State Board of Registration.

On Saturday if you're a runner don't miss the LES/Sea Level Striders 5K and 1 Mile Run. The General Membership and Board of Direction meetings are scheduled to begin at 8:30.

And, for the ladies, the Bayou Chapter has planned an excellent program. A fun filled relaxed day is planned for Thursday with Julianna's Cajun Cruise Tour. On Friday, the ladies will tour beautiful Oak Alley Plantation. After touring the home, the ladies will be served a delicious Southern-style lunch at the lovely restaurant on the grounds.

So you see, there must be something planned that will be of interest to each and every member of the Society. Come and join us in the Bayou country!

A complete program appeared in the February issue of the *Louisiana Engineer*.

Registration

Best Western Benedict House — Houma, LA

Name _____ P.E. YES _____ NO _____

Spouse's Name _____

Chapter: _____

		No. Tickets	Amount
*PREPAID Discount Registration Fee	\$25.00	_____	_____
Registration Without Prepayment	\$40.00	_____	_____
**Daily Registration Fee	\$ 8.00	_____	_____
Wednesday Charter Fishing	\$50.00	_____	_____
Wednesday Golf	\$25.00	_____	_____
Wednesday Tennis	\$10.00	_____	_____
Wednesday - Tour of Wildlife Museum	FREE	_____	_____
Thursday Seminar - "Qualification Based Selection of Consultants"	FREE	_____	_____
Thursday Seminar - "Construction Claims"	FREE	_____	_____
Thursday Seafood Blowout	\$ 9.00	_____	_____
Friday Seminar - "Rules of Professional Conduct/Code of Ethics"	FREE	_____	_____
Friday Luncheon	\$ 7.00	_____	_____
Friday Awards Banquet	\$15.00	_____	_____
Saturday Race	\$ 8.00	_____	_____
Saturday Breakfast	\$ 7.25	_____	_____

Spouses

Thursday - Julianna's Cajun Cruise	\$16.50	_____	_____
Friday - Tour & Lunch at Oak Alley Plantation	\$15.25	_____	_____
TOTAL		=====	=====

*Prepaid Discount applies only if Registration and Payment is received one week prior to convention

**Daily Registration Fee is applicable for one day attendees only

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April 27-30, 1988**

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***NOTE: Check-in time is 10:00 A.M.**

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Arrival Date _____ Departure Date _____

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Signature _____

IN MEMORIAM H. Nash Ogden, P.E. 1909 - 1988



Consulting Engineers Council of Louisiana was greatly saddened to learn of the passing of one of its pioneer members, Mr. H. Nash Ogden, P.E., Baton Rouge. Mr. Ogden died on Friday, March 11, 1988, in Frederick, Maryland, while visiting relatives.

He was born on June 22, 1909 in New Orleans, Louisiana and lived there until 1940 when he moved to Baton Rouge. He received his preliminary education at New Orleans Academy where he was graduated in 1925 as number one in his class, and was awarded the Scholarship Medal for excellence as well as a four year scholarship to Tulane University. He was President of the Senior Class, held the cadet rank of Captain and Adjutant, and participated in athletics.

In 1933, he received the degree of Bachelor of Engineering in Civil Engineering from Tulane University, where he graduated at the head of his class. While working for his degree, he received the American Society of Civil Engineers award for scholarship, was elected president of the engineering student body, was secretary of the Student Council, and was elected to the honorary fraternities of Tau Beta Pi and Omicron Delta Kappa. He also participated in athletics during this time.

While at Tulane, he worked during the summers of 1925-1927 as a draftsman for the New Orleans Public Service, Inc. and also did part time work with the Corps of Engineers, U.S. Army. After graduation, he continued to work with the Corps of Engineers until 1935, then spent eleven years with industry. During this period he spent a three year tour of duty as an officer of the Civil Engineer Corps of the Navy during World War II.

He entered private engineering practice in 1946 and retired on January 1, 1971. Mr. Ogden was a member of the American Institute of Consulting Engineers; a Fellow in the American Society of Civil Engineers, and a member of the Society of Military Engineers, the American Public Works Association and the Louisiana Engineering Society.

His civic activities included Chairman of the Public Works Committee for the Baton Rouge Chamber of Commerce; Chairman of the Safety Committee with Kiwanis International; a member of the Public Affairs Research Council; a member of Junior Achievement; Board Member for the Greater Baton Rouge Safety Council; Chairman of the Baton Rouge Fire Prevention Committee; and Campaign worker in various fund raising drives for United Givers, hospitals, etc. In 1968, he was awarded the Louisiana Engineers Society's Andrew M. Lockett medal for his civic activities.

Mr. Ogden was a charter member of the Gulf Institute of Consulting Engineers, predecessor of

the Consulting Engineers Council of Louisiana. He was that organization's Secretary in 1953 and its third President in 1954. He served on the Board of Governors for several terms. He also served as Chairman of the Legislative Committee and the Ethics and Professional Conduct Committee.

While serving as Legislative Committee Chairman, he proposed and was successful in having the following bills enacted: (1) A Statute of Limitations for engineering work; (2) An amendment to the Licensing Law for Engineers of Louisiana which assured that engineers in private practice would always have at least two representatives on the Registration Board. There were none on the board at the time this amendment was enacted.

Mr. Ogden also served as CEC/L National Director during the years 1965-1966. He served on several national committees of CEC/USA (predecessor to the American Consulting Engineers Council) including Nominating, Engineering Achievement, Office Practices, Policy and Resolutions, and was Chairman of the Ad Hoc Resolutions Committee while serving as National Director. He started the publication of "The Pipeline," CEC/L's monthly newsletter. He was also instrumental in establishing the Baton Rouge Engineers Round Table, a monthly luncheon to which all engineers in private practice were invited.

In 1971, Nash Ogden was inducted as CEC/L's first Honorary Member. Later he was honorably granted the status of Life Fellow of the American Consulting Engineers Council. He was ultimately honored by his peers when he was chosen, in 1976, to receive the first A. E. Wilder, Jr. Award, acknowledging his outstanding continual contributions to the Council and the engineering profession. He served the State of Louisiana by accepting the chairmanship of the then newly established Louisiana Engineers Selection Board.

Consulting Engineers Council of Louisiana, Inc. extends its heartfelt condolences to his wife, Katherine, and two daughters, Mary and Kitty. Nash was one of CEC/L's forefathers in every sense of the word. He will be sorely missed, but his many positive attributes as a gentleman and a professional engineer and his innumerable contributions to the Council will always serve as a lamp illuminating the path of effective leadership.

Contributions are being received and placed into the CEC/L Scholarship Fund to honor the memory of H. Nash Ogden. If you wish to make a contribution, please send your check made payable to "CEC/L Scholarship Fund" to CEC/L, P.O. Box 1549, Baton Rouge, LA 70821. Notification will be made to the family at the CEC/L Annual Convention.

DCAA Rescinds 1986 Guidance on Allocability of A/E Liability Insurance

The Defense Contract Audit Agency (DCAA), the premiere audit arm for federal contracts, announced Feb. 22 that it has reevaluated its guidance on professional liability insurance. The new directive resulted from "numerous inquiries and meetings with the American Consulting Engineers Council," DCAA stated. Council President Lester Smith, with the support of Victor O. Schinnerer Co., DPIC, and the Committee on Federal Procurement of A/E Services, led the effort that resulted in DCAA's decision to reverse the 1986 Guidance Memorandum, which challenged the general allocation of insurance premiums to government contracts.

"The design industry commends DCAA for taking the time to listen and respond to our concerns," Smith said. "We are very pleased that a few months of communications have led to new understandings between the government and private sector design professionals."

The new guidance states that the "cost of professional liability insurance is allowable" and that when determining allocability, policy coverage is "the first and most important" factor. Under the new directive, premiums of insurance policies that provide coverage for an A/E's general practice, are generally allowed to be allocated to all contracts through overhead or general and administrative expense. The guidance also states that if the services provided to government and commercial clients are essentially similar, "a broad-based allocation is acceptable."

If the type of service an A/E provides varies greatly with commercial and governmental clients, a review of claims and loss experience will be performed. However, such experience should not be used to challenge the broad-based allocation of premium cost, according to DCAA, unless it is determined that the services provided are dissimilar and present a different level of risk for government contracts.

"Professional liability insurance premiums have risen dramatically over the last several years, gradually eating up more and more of design firms' profits. ACEC represents the business interests of consulting engineering firms, so naturally it was of great concern to us when



Consulting Engineers Section
Warren J. Wilder
CEC/L Executive Director



DCAA challenged the general allocation of these costs to government contracts," ACEC General Counsel Mark Casso remarked.

ACEC has estimated that \$71 million in insurance costs were generated in 1987 by federal contracts activities, based on an estimated \$1.4 billion dollars in A/E billings and ACEC's 1987 Liability Report indicating insurance costs are 5.07% of billings. A California engineer estimates that the change could save him \$20,000 on one federal contract alone. ACEC's Executive Vice President, Howard Messner, noted, "Even if only a small part of the insurance costs were disallowed under the former DCAA guideline, that still represents a truly significant impact on the profitability and desirability of doing business with the federal government. We view the DCAA revision as an important event for the design community."

ACEC, headquartered in Washington, D.C., is a national association of 5,000 independent private practice firms that employ some 150,000 engineers, scientists, technical and support staff. Council firms' annual design and feasibility studies result in over \$100 billion in constructed public and private industry projects.

For more information, contact Mark Casso or Sally Hanlon at (202) 347-7474.

Innovative Financing Method Could Lead To More Energy Efficient Government

By pursuing new and innovative methods and technologies to reduce energy consumption, the federal government could be two-to-three times more energy efficient than it is today, testified George Jackins, representing the American Consulting Engineers Council before the House Energy and Commerce Subcommittee on Energy and Power. Jackins maintained that performance-based contracting (shared savings) is a proven way of deferring the federal government's cost and risk of implementation to the private sector.

Performance contracting is a legitimate

LOUISIANA ENGINEER/APRIL 1988

mate and useful tool for financing energy conservation measures, according to Jackins, but the current and proposed legislation does not go far enough to make this new financing vehicle work effectively. Jackins explained the provision in the National Energy Conservation Policy Act which allows federal agency heads to enter into shared savings contracts is marred by a glaring disincentive for private sector firms. Under the law, no federal agency may obligate funds beyond a single fiscal year. "It's extremely difficult for private sector firms to commit capital to projects that may not be reauthorized," Jackins said.

Jackins added that the federal government has spent more than \$30 million over the past 10 years for consulting engineers to identify energy conservation methods, but rarely has the money to fund even the most cost-effective measures. He stressed that unlike energy service companies, consulting engineers have no profit interest in the recommendations made. "We have no interest in selling or leasing equipment," he added.

He proposed that the long-established relationship between the federal government and private-sector design professionals continue. "The utilization of consulting engineers, knowledgeable of the concerns and needs of the federal government, coupled with a sensitivity to the requirements of performance-financing contractors, will provide the 'missing link' to structure successful projects," Jackins said.

Jackins, chairman of ACEC's Energy Committee is president of Energy Management Consultants, a consulting engineering firm with offices in Birmingham, Ala. and Jackson, Miss.

For more information, contact Sally Hanlon at (202) 347-7474.

Engineers Applaud New Infrastructure Initiatives

Members of the American Consulting Engineers announced their support for recommendations in the National Council on Public Works Improvement's

report *Fragile Foundations*. The report calls for up to 100 percent increases in funding for public works improvement, claiming that today's infrastructure is "barely adequate" to meet current needs and support economic growth.

Engineers are responsible for the refurbishment of much of our nation's infrastructure. Some of the most notable buildings and monuments remain intact because of consulting engineers. The Statue of Liberty, Golden Gate Bridge and U.S. Capitol, for example, all were renovated by consulting engineering firms for future generations.

The report also recommends quicker spending of the federal highway, transit, airport and waterways trust funds to achieve their intended purposes. User fees charge the users of our infrastructure to ensure its construction and maintenance. ACEC has argued that billions of dollars should not be allowed to lie dormant while our infrastructure wastes away. Currently, there is \$13.6 billion in the highway and transit trust funds and \$5.7 billion in the airport trust fund.

The report calls for a rational capital budgeting process, more research and development and removal of "unwarranted" limits on the availability of tax-exempt financing for state and local self-help efforts. The 1986 tax reform act severely curtailed the ability of state and local governments to issue tax-exempt bonds for infrastructure improvements. "The federal government appears to be making it more and more difficult for states and localities to finance public projects," ACEC President Lester Smith remarked.

The Rebuild America coalition, a public and private sector group dedicated to investment in the nation's infrastructure, also welcomes the Council's report. ACEC is a founding member of Rebuild America. Other members include the National Conference of State Legislatures, National League of Cities and the National Association of Counties.

NCPWI is a bi-partisan task force created by Congress and the Administration to study the nation's infrastructure.

For more information, contact Sally Hanlon at (202) 347-7474.

Les Board of Direction Meetings Highlights

February Meeting

The February meeting was held in Lafayette with 20 Board members, three guests, and the LES staff present.

1. The December and January financial statements were accepted subject to the annual audit.

2. The Society repaid the \$3,000 loaned to LES by LEF.

3. The Alexandria and Baton Rouge Chapters are co-hosting the state MATH-COUNTS competition on March 19th at the Baton Rouge Hilton Hotel.

4. With one-third of the membership contest year completed, the Society has only reached 22% of the quota established.

5. The Legislative Committee received approval from the Board for the LES attorney to draft a form of "mini-Brooks" Law for the selection of design

professionals by all state departments and agencies, except the existing Engineers Selection Board as administered by the Louisiana Division of Administration.

6. The Scholarship Committee has submitted twelve scholarship applications to NSPE.

7. The Ethics and Professional Conduct Committee submitted its recommendations on alleged ethical violations by an LES member. The committee found the allegations to be unsubstantiated.

8. After a request from the State Board of Registration on an official position from LES on "competitive bidding of professional services," the LES Board of Direction's position is it "supports qualification based selection and not competitive bidding for professional services."

9. Reports of the NSPE Winter Meeting in Mobile were submitted by the Executive Director, the National Director, and the President-Elect of the Society.

10. An ad-hoc committee was appointed to review a resolution on "fixed terms for Registration Board Members" by the Baton Rouge Chapter.

11. The 1988-89 LES Nominating Committee was appointed.

12. James S. Janssen, P.E., and Leo M. Odom, P.E., were unanimously accepted as Honorary Members of the Society.

13. The Chapter Presidents were encouraged to participate in the NSPE Chapter Excellence Award Competition.

14. A committee was appointed to review candidates for NSPE office.

15. Recommendations from LES will be presented to the Louisiana Highway Users Federation 2020 at a Public Forum on March 24.

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Calendar of Events

We invite all technical and professional organizations to submit their meeting dates for publication in the *Louisiana Engineer* to: Editor, P.O. Box 2683, Baton Rouge, LA 70821

April 21, 1988

CEC/L Board of Governors Meeting, LEF Building, Baton Rouge, LA

April 20-22, 1988

Louisiana Society of Professional Surveyors Annual Convention, New Orleans, LA

April 27-30, 1988

Louisiana Engineering Society Annual Awards Meeting, Best Western Benedict House, Houma, LA

April 29, 1988

Louisiana Engineering Foundation Meeting, Best Western Benedict House, Houma, LA

April 30, 1988

LES Board of Direction Meeting, Houma, LA

May 8-12, 1988

ACEC Annual Convention, New York, NY

May 13, 1988

National MATHCOUNTS Competition, Washington, D.C.

May 19, 1988

CEC/L Board of Governors Meeting, LEF Building, Baton Rouge, LA

June 2-4, 1988

CEC/L Convention '88, Bentley Hotel, Alexandria, LA

June 16, 1988

CEC/L Board of Governors Meeting, LEF Building, Baton Rouge, LA

June 17, 1988

LES Board of Direction Meeting, Ruston, LA

July 17-23, 1988

NSPE Annual Meeting, Seattle Sheraton Hotel, Seattle, WA

NSPE Education Foundation Continuing Professional Development Calendar

Construction Claims, Disputes, Changes and Beyond

April 21-22, 1988 - Chapel Hill, NC

May 16-17, 1988 - Phoenix, AZ

June 6-7, 1988 - Columbus, OH

Marketing Your Engineering Services

April 20, 21, 22, 1988 - Philadelphia, PA

April 25, 26, 27, 1988 - Cincinnati, OH

Making Invention Pay

April 29-30, 1988 - Los Angeles, CA

June 17-18, 1988 - Bridgeport, CT

Design Professionals Liability Course

April 26, 1988 - Baltimore, MD

April 27, 1988 - Minneapolis, MN

May 11, 1988 - New York, NY

May 26, 1988 - Boston, MA

Risk Management Seminar

April 19, 1988 - San Francisco, CA

July 20, 1988 - Seattle, WA

For information on the NSPE seminars contact Patricia Kutt (703) 684-2854.

NSPE

Continued from page 11

of chapter sponsors for the explorer scout posts.

A second emerging idea involves an NSPE-sponsored management institute. Samson has called a meeting in March to explore the process through which engineers acquire management skill and determine what opportunities NSPE might have to enhance this process with new products and services. Another opportunity for the Society exists in a new effort called Project XL, initiated by the U.S. Patent and Trademark Office to coordinate all national programs intended to stimulate creativity in young people. NSPE's leadership in MATHCOUNTS and JETS makes the Society an excellent candidate for the project.

Education Plenary Session

NSPE's five practice division Boards of Governors participated in a plenary session on engineering education issues. The session was held to generate discussion on a series of resolutions and positions on curriculum content and faculty qualifications for engineering bachelor's degree programs. The session, moderated by Walter LeFevre, NSPE President-elect nominee, included several speakers: ABET President Russel Jones, NSPE Education Foundation Chairman Ken Rigsbee, NSPE ABET Director Louis Guy, and Don Rathbone, dean of the College of Engineering at Kansas State University. NSPE's Education Council will publish opinions gathered from a practice-division member survey on curriculum and faculty issues.

Student Career Awareness Seminar

Forty-five engineering undergraduates received a glimpse of the day-to-day work of practicing professional engineers during a special student conference held in conjunction with NSPE's Winter Meeting. Representatives from each NSPE practice division outlined career paths available to the future engineers. The conference also included the premiere of an NSPE-sponsored videotape, "Effective Technical Communications." Dr. Wayne Bennett, professor and head of Electrical and Computer Engineering at Clemson University, led the video seminar.

Awards and Honors

Various awards were presented during the Mobile meeting. The categories were: Professional Development, New Product Awards, Outstanding Engineering Achievements, Chapter Excellence Awards, and the Koerper College Award.

NEW REGISTRANTS Of State Board

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Billings, MT
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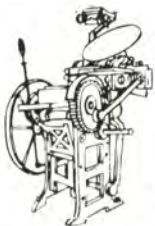
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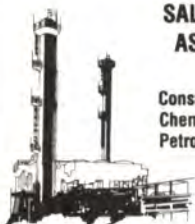
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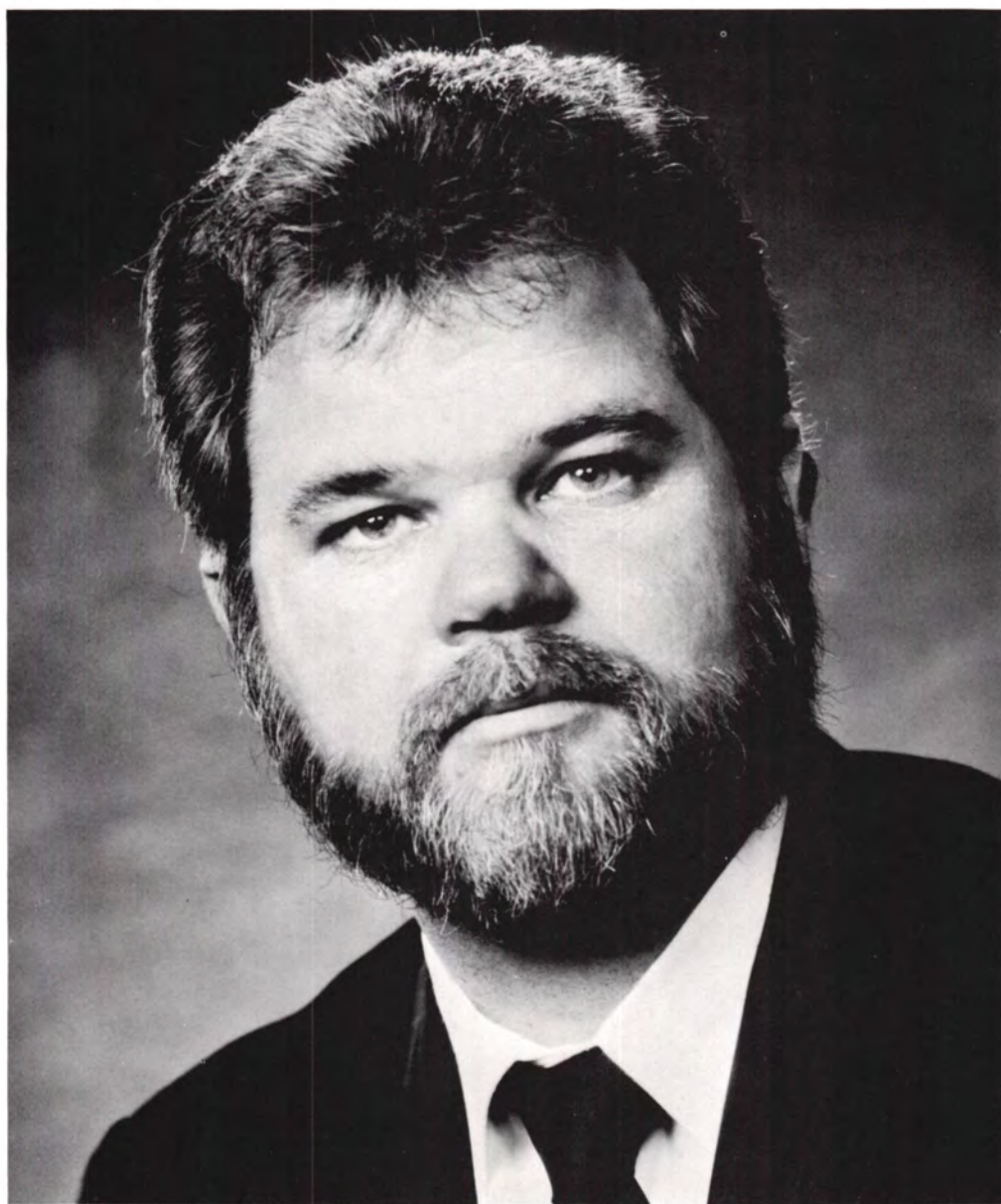
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(Please note: Receipt of Louisiana Engineer Magazine does not necessarily mean that you are registered with the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, or that you are a member of the Louisiana Engineering Society.)



LOUISIANA ENGINEERING SOCIETY

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Are We Letting Our Light Shine?

In the October 1987 issue of the *Louisiana Engineer* magazine I stated that the theme of the 1987-88 Administrative Year would be a QUEST FOR PROGRESS. Two of the major goals that were stated were improved communication/public relations and improved Society visibility. We have a tendency as engineers to be very conservative. We spend more of our time studying ways to do our job and fail to properly communicate or publicize the good things that we are doing to help promote society's health, welfare and safety. We have a tendency to "hide our light under a basket" without properly communicating our ideas or using good common public relations to inform people that engineers are indeed seeking better ways to improve our way of living through technological means. We are a "legend in our own minds."

Do we communicate properly among ourselves, with other professional organizations and with the general public? What is communication? Of the many definitions of the word communication, there are three which help to express this writer's opinion on the subject. One definition states that communication is a **technique** for expressing ideas effectively in speech or writing or through graphical representation. Another holds that communication is a **technology** of the transfer of information, whereas a third holds that it is the **exchange** of intelligence.

The question those of us in engineering must ask is "Are we doing an adequate job of getting our information, our knowledge, transferred to those who need it?" We do reasonably well in presenting information to our colleagues through letters, reports, professional journals, specifications, and by giving talks at engineering meetings. But, are we less than adequate in reaching another important segment of the users of our work—the entity that is paying for the work, that is, the public at large? Many people can define what a doctor does, what a lawyer does, what a pastor does, etc., but they have no earthly (nor



Bobby E. Price, Ph.D., P.E.
President
Louisiana Engineering Society

heavenly) idea what an engineer really does. They assume that we work a lot with mathematics, the sciences and environmental concerns.

We do need to develop programs within LES to communicate better with the public and to increase our public relations and Society visibility. As examples, we may consider developing video tapes about engineering projects to show on television programs, to sponsor informative programs on the Louisiana Public Broadcasting System, to request permission to have panel discussions on television, answering calls from the general public and to schedule personal interviews with reporters. There is an excellent video tape promoting MATH-COUNTS. We need other similar projects to promote other activities, such as the legislative program, the scholarship program, education program, etc.

Most of us in one way or another are responsible to the State Legislature, to private enterprise, to federal, state and local governments and to the direct users of our work. We must be responsive to the questions that they ask; even those questions that are not asked simply be-

cause of the scope, the meaning and/or the application of our work not being known. By all means, we must communicate in terms that are familiar to the audience or the person with whom we are in contact. Communication is a two-way vehicle—there has to be both giving and receiving. Too many times communication breaks down because the giver uses terms or expressions that are foreign to the receiver.

Just as we need to transfer information and to educate people about the work of engineers, we also need to have proper coordination. We need to coordinate our efforts within LES and with other professional organizations who are pursuing goals that range from being similar to being greatly different than our own. I hope you noticed that a "Calendar of Events" was started in the April issue of the *Louisiana Engineer*. The Calendar of Events is an effort to inform and promote meetings of LES and other professional organizations who provide information to our State Office for inclusion in the magazine.

Coordination is a laudable objective but is sometimes very difficult to achieve. Coordination is communication, but it is also something more. To coordinate is to harmonize. Pulling diverse factions together and molding them into a common objective requires a sense of direction, a lot of patience, understanding and an ability to work with people.

A story is told of a Chinese scholar who was lecturing when all of the lights in the room went out. In the dark he asked those present to raise their hands. As soon as they had all complied with his request, the lights came on again. The Chinese scholar said, "Proves the wisdom of old Chinese saying—'Many hands make light work'." Working together we can communicate better with those around us and provide proper public relations with the general public, thus increasing the visibility of the Louisiana Engineering Society.

Looking Ahead

I appreciate the opportunity to serve as Chairman of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. It is an honor and a challenge.

Having served on the Board for three years, I know first hand the important role it plays in safeguarding the life, health and property of the people of Louisiana and in promoting their public welfare by regulating the practice of Professional Engineers and Professional Land Surveyors. For years the Board has established and promulgated rules and conditions warranted to achieve these goals. It is my intent to work closely with members of the Board and continue the aggressive registration program to insure the professionalism and integrity of the registered Engineers and Land Surveyors in our state.

Special emphasis will be placed on the continued use of the Board's questionnaire on registration laws and Board rules designed to evaluate the applicants' knowledge of laws and rules prior to their registration. Such a procedure will continue to strengthen the registration programs for engineers and land surveyors.

As we look ahead, I pledge to dedicate time and effort to enhance the stature of engineering and land surveying in Louisiana so that the professionalism

and competence of those who practice these professions will be the catalyst which will turn our sagging economy around and become the cornerstone for future growth and prosperity in Louisiana.

I strongly urge all engineers and land surveyors registered in Louisiana to join their respective professional societies and participate actively in their activities and programs. It is an excellent vehicle for all engineers and land surveyors to keep abreast of current professional trends and to exchange ideas.

Remember, the Louisiana Board of Registration for Professional Engineers and Land Surveyors certifies only that at the time of registration, applicants met the minimum standards to practice their profession. It is only the beginning of professional growth which can be greatly enhanced by membership and participation in professional societies.

Rodger D. Phelps, P.L.S., is President of Vernon F. Meyer and Associates, Inc. of Sulphur and New Orleans, Louisiana. He has a B.S. degree in Engineering from McNeese State University. He is the surveyor member of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, Chairman of the ACSM-ASPRS Joint Government Affairs Committee, and a member of the Board of Directors of the Management Association for Private Photogrammetric Surveyors (MAPPS).



Rodger D. Phelps, P.L.S.
Chairman
Board of Registration
for Professional Engineers
and Land Surveyors

Engineers Galore!

Engineers wear many hats. Here are a few:

Military
Civil*
Mechanical*
Electrical*
Chemical*
Petroleum*
Industrial*
Mining*
Agricultural*
Metallurgical*
Managing
Power
Welding
Biomedical
Aeronautical
Television
Planning
Corrosion
Space Simulation
Nuclear
Project
Heating
Manufacturing
Professional
Cost
Plant
Environmental
Sprinkler
Refrigeration
Marine
Sanitary
Circuit
Ocean
Radio
Irrigation
Design
Value
Plumbing
Safety
Energy
Electronics
Forensic
System
Telecommunication
Transportation
Fire Control
Ventilation

Fire Safety
Quality Control
Fire Protection
Aerospace
Consulting
Maintenance
Production

These are a few of the titles engineers use. I'm sure you can think of many others I've omitted. Your calling card may show one I have overlooked — forgive me.

The following letter is a response to an inquiry received by the Board:

Dear Mr. "xyz" Engineer:

Thank you for your letter concerning whether or not you would be in violation of the Board registration law in calling yourself a "xyz" Engineer in Louisiana. The Board discussed this question at its meeting on March 22, 1988 and has asked me to advise you that there is no Board rule or law which would prohibit your calling yourself a "xyz" Engineer. Because you are a registrant of this Board, you are legally qualified to refer to yourself as an engineer in Louisiana. Secondly, Board Rule 911 provides that "The board will not add branches to correspond to job titles or job functions, such as . . . "xyz" engineer . . ." In other words, the Board has determined that it will not provide for professional engineering registration in the branch of "xyz" engineering in this state.

However, you should also be aware that Board rules require that registrants may only perform, and represent themselves as able to perform, services in their area of competence. Thus, in calling yourself a "xyz" engineer, you are making the determination that you are qualified to practice that discipline. The Board makes no decision as to whether or not you are so qualified. For your information, Board rule 2105 provides as follows:

A. Registrants shall perform services

only in the area of their competence.

B. Registrants shall undertake assignments only when qualified by education or experience in the specific technical fields of engineering or land surveying involved.

C. Registrants shall not affix their signatures or seals to any plans or documents dealing with subject matter in which they lack competence, nor to any such plan or document not prepared under their direction and control.

D. Registrants may accept an assignment outside of their fields of competence to the extent that their services are restricted to those phases of the project in which they are qualified and to the extent that they are satisfied that all other phases of such project will be performed or supervised by registered, qualified associates, consultants, or employees, in which case they may then sign and seal the documents for the total project.

E. In the event a question arises as to the competence of a registrant in a specific technical field which cannot be otherwise resolved to the state board's satisfaction; the state board, either upon request of the registrant or on its own volition, shall admit the registrant to an appropriate examination.

Should you need any further information, please do not hesitate to contact me.

Very truly yours,
Paul L. Landry, P.E.
Executive Secretary

The Board by registering a Professional Engineer or Professional Land Surveyor makes the initial determination of an individual's competency. The Board makes this determination by reviewing



**Paul L. Landry, P.E.,
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers & Land Surveyors.**



and accepting one's education, experience, recommendations by peer professionals, and the passing of oral and/or written examinations. At the point in time one is initially registered by the Board the registrant has met the minimum requirements to legally practice engineering of land surveying, which ever is the case. Following initial registration the ball is placed in your court — from then on in your professional career YOU become totally responsible for what you do or what you say you are able to do.

As a registrant of the Louisiana Board YOU make the decision as to what "hat" you wear. Two conditions are required:

1. You are a current registrant of the Louisiana Board (your fees are paid up).
2. You are competent in what you say you can do and what you do.

The Rules of Professional Conduct Chapter 21 of the Board Rules and specifically 2105 addressed in the letter above) were approved by the Board only after long deliberations having given consideration to all facets of this problem. The conclusion was that only YOU can be held responsible for presenting yourself to the public in such a way that you perform services only in the area in which YOU are competent. Your peers, associates, the public, and the Board expects and demands that of you as a PROFESSIONAL.

The Board registers engineers only in these nine (9) branches — see rule 901.

BOARD MEETING NOTICE

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors will hold its regular meetings at 1055 St. Charles Avenue - Suite 415, New Orleans, La. 70130 on the following dates:

1988

July 26

Sept. 27

Nov. 15

**EXAMINATION SCHEDULE
and
APPLICATION DEADLINE DATES**

EXAMINATION	SPRING		FALL	
	Application Deadline Date	Examination Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	Jan. 15, 1989	Apr. 15, 1989	Aug. 1, 1988	Oct. 29, 1988
Principles and Practice Engineering (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical, & Electrical	Jan. 15, 1989	Apr. 15, 1989	Aug. 1, 1988	Oct. 29, 1988
Agricultural, Industrial, Metallurgical, Mining & Petroleum	NOT AVAILABLE		Aug. 1, 1988	Oct. 29, 1988
Fundamentals of Land Surveying Examination (8 hrs.)	Oct. 15, 1988	Apr. 15, 1989	May 8, 1988	Oct. 29, 1988
Principles and Practices of Land Surveying (4 hrs.)	Oct. 15, 1988	Apr. 15, 1989	May 8, 1988	Oct. 29, 1988
Laws and Procedures of Land Surveying (4 hrs.)	Oct. 15, 1988	Apr. 15, 1989	NOT AVAILABLE	

Apply at least six to eight months prior to an examination. Board approval must be given for anyone to be scheduled for an examination.

The applicant and the Board depend upon information provided by third parties in the processing of an application, therefore no assurance can be given that one will be scheduled for a specific examination.

Application Deadline date means that an application **must** be postmarked prior to or on the date specified so as to be given **consideration** for the examination. The Board may schedule an applicant for an examination later than that requested by the applicant. The Board cannot guarantee that the applicant will be scheduled for the examination initially requested.

MATHCOUNTS

The National Experience

By Kerry LaBauve, P.E.



Jeff Gordon
Yoree Drive Middle School



Art Tontiplaphol
Jesuit High School



Mona Bonar
Coach



Robert Tsai
Paul Breaux Middle School



Jay Bienvenu
Paul Breaux Middle School

1988 Louisiana National MATHCOUNTS TEAM

MATHCOUNTS Experiencing Growth Problems

After five years of intense and dedicated effort by thousands of men, women, and children across America, MATHCOUNTS has evolved into a successful partnership of education-conscious citizens. This year, 500 coordinators distributed 35,000 School Registration Kits to eligible schools. A total of 7,480 of those schools registered with NSPE to participate in the competitions during the 1987-88 school year.

The road to Washington began with over 250,000 seventh and eighth graders trying out for school teams, with only 224 Mathletes representing 56 teams from the 50 United States, the District of Columbia, Puerto Rico, the Virgin Islands, the Department of Defense Dependent Schools, and the State Department School System competing at the national level.

The top ten teams in America named at the National MATHCOUNTS Competition held on Friday, April 13, 1988 are:

1. New York
2. North Carolina
3. Illinois
4. Nebraska
5. Massachusetts
6. Pennsylvania
7. Alabama
8. Kentucky
9. California
10. Maryland
20. Louisiana

The top individual winners at the National Competition are:

1. Andrew Schultz, Illinois
2. Robert Kleinberg, New York
3. Daniel Hanish, Nebraska

The number of schools registering with the National Headquarters has declined this year in spite of stepped-up efforts by NSPE to increase the visibility of MATHCOUNTS through direct communications with all eligible schools in America. The total number of schools participating is lower, as well as decreased retention of veteran schools. NSPE is faced with the fact that in 1985-86 the official enrollment in MATHCOUNTS was 7,413 schools; compared to 7,668 in 1986-87; and 7,480 this year. National and state surveys continue to reveal that the primary reason for the sagging participation in MATHCOUNTS is the ever-increasing complexity of the subject matter and test questions. Local statistics show that the majority of the students attempting to move up to the state level competitions solve only a few problems correctly, with many unable to solve any questions at all.

The time has come for the administrators of MATHCOUNTS to decide if the program objective is to influence the technical education systems of America by effectively involving massive numbers of students, or to challenge the elite students in search of the "Super Brain" whiz kids.

The engineers in Louisiana who have developed and nurtured the programs to fruition believe that in order for MATHCOUNTS to grow, several basic steps must be taken by:

- Evaluation and confirmation of the program objective.

- Evaluation of the administrative and advisory functions of the program.
- Maintenance of existing sponsorships and cultivating new supporters by showing them positive growth and positive results in the program.
- Stepped-up communications between the engineering groups and the public.

NSPE Lands New Sponsors

The MATHCOUNTS Foundation has been very busy promoting our program to secure major corporate sponsorship. This year, the Coca-Cola Foundation and Champion International Corporation joined the growing list of MATHCOUNTS supporters. Coca-Cola's \$5,000 contribution will be used to help produce a videotape describing MATHCOUNTS as an aid to Coordinators to attract non-participating schools into the program. Champion International's \$14,000 contribution will be ear-marked with \$9,000 for four Chapter Programs, and the remaining \$5,000 for the national activities. An estimate of total expenditures for the 1987-88 MATHCOUNTS program was \$1.4 million with at least \$500,000 being spent on the state and chapter level competitions.

New Energy for MATHCOUNTS

The need for visibility of the MATHCOUNTS Program, as well as the engineering profession prompted the development of an exciting new element of the MATHCOUNTS competitions. The intelligence, talent, and "lack of fear" that our Mathletes possess needed to be brought to the attention of moms, dads,

teachers, principals, school boards, and politicians across our country. True to form, the engineers practicing "the motherhood of invention" rule came up with:

Buzzers + Cameras + Action = Countdown Round

In 1989, all regional, chapter, and state competitions will include the new Countdown Round. The traditional individual and team testing rounds are conducted to determine the top ten individual rankings of the Mathletes participating in the competition. Those top ten individuals will compete for the "Top Gun" position in a one-on-one "dogfight" answering rapid fire questions under the pressure of limited time. The number ten Mathlete challenges number nine position, the successful number nine Mathlete challenges number eight, and so on, to the top spot.

A great deal of concern was expressed by a majority of the state engineering societies regarding the implementation of this new round. Coordinators were concerned about placing the top ranked Mathletes into a high intensity question-and-answer situation which could completely eliminate the first ranked student from the competition due to eye-hand coordination or other physical handicaps. The effort the Mathletes make to get to National and rank in the top 10 group is tremendous. Therefore, a new format was needed which would weigh those efforts and protect the students from obstacles not related to their mathematical ability. The collective voice of the men and women in the trenches prompted cancellation of the regional and state level Countdown Rounds in 1988, and forced the development of new procedures for the program. Now the Mathletes will compete in the Countdown Round with only the possibility of moving down one notch in the rankings, but possibly moving from number 10 to number 1. Case in point: The number 5 Mathlete moved all the way up to "Top Gun" in the 1988 National Competition.

A gold star is in order for David Servis, P.E., and the MATHCOUNTS Volunteer Committee for re-formatting the Countdown Round.

Louisiana News

Louisiana's MATHCOUNTS Steering Committee and Task Force has also been active developing new twists for the state programs. Traditionally, the state competition has been in Alexandria, to take advantage of its geographic centralization. The Steering Committee has de-



Team with Congressman Richard Baker.



With Coach at Award Banquet.



With State Coordinators Jim Ragland and Warren Paul Boudreaux at State Competition in Baton Rouge.



Coaches at State Competition Friday night pizza party.



Team and Coach with Coordinator Jim Ragland at National Competition.



Overview of Washington competition.

veloped an experimental plan to rotate the state competition site around the state on a two-year cycle coincident with the State Coordinator assignments.

The 1988 competition was sponsored by the L.E.S. Baton Rouge Chapter and held at the Hilton Inn. State Coordinator Warren Boudreaux, P.E., and Co-Coordinator Jim Ragland, P.E., organized and conducted a successful program transition in partnership with the Alexandria Chapter veterans and the State Office staff. The Baton Rouge Auxiliary provided assistance in conducting the Friday night "pizza blitz" at the U.S.S. Kidd Museum, as well as the competitions on Saturday. The tour of the U.S.S. Kidd and the museum was sponsored by contributions from the Baton Rouge Chapter engineers and businesses. Many thanks to the Baton Rouge Chapter, the Auxiliary members, and the LSU students for their fine efforts to make the 1988 State Competition a success.

The State Competition hosted 27 teams and five individual Mathletes from our nine regional chapters. The competitions were rigorous, and efficiently conducted. The new Countdown Round was also conducted and well-received by the contestants, coaches, and the audience.

The Louisiana team standings for 1988 are:

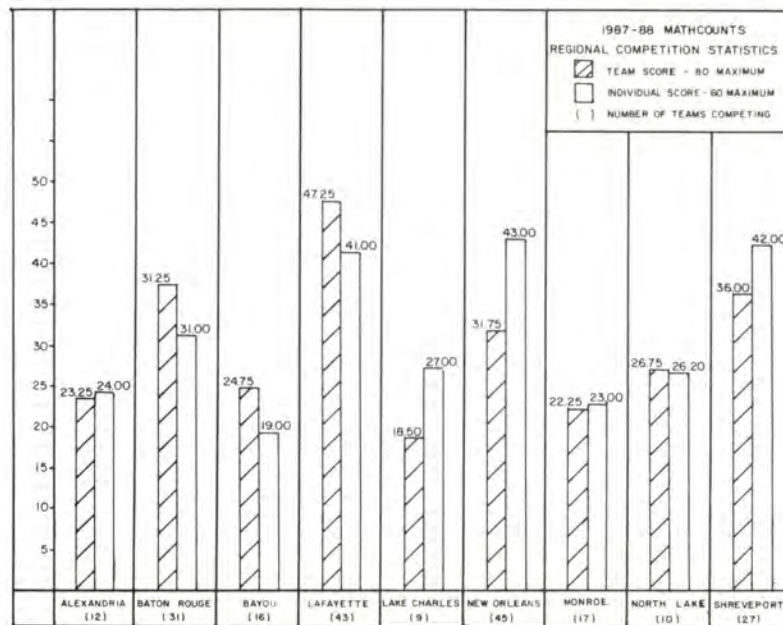
1. Paul Breaux Middle, Coach: Mona Bonar, Lafayette;
2. McKinley Middle Magnet, Coach: Claudia Allums, Baton Rouge;
3. Youree Drive Middle, Coach: Mary Agnes Rambin, Shreveport;
4. Caddo Middle Magnet, Coach: Carol McKneely, Shreveport;
5. Jesuit High, Coach: John Brumfield, New Orleans;
6. Trinity Episcopal, Coach: Jane Ferguson, New Orleans.

The top ten individuals are:

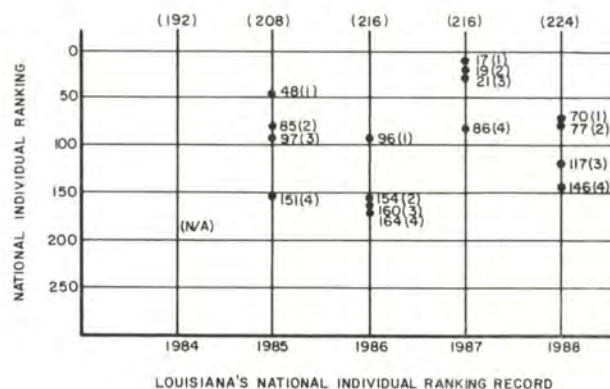
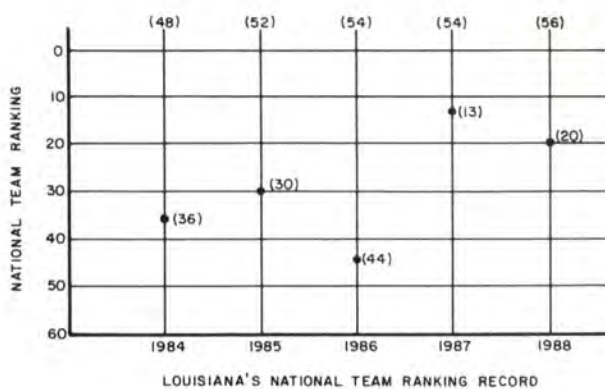
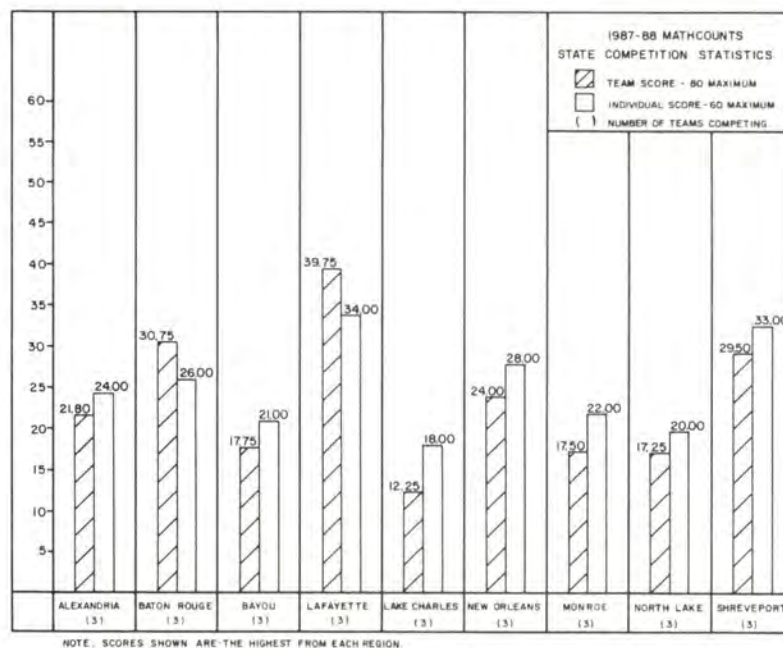
- *1. Robert Tsai
Paul Breaux Middle
Lafayette
- *2. Jeff Gordon
Youree Drive Middle
Shreveport
- *3. Jay Bienvenu
Paul Breaux Middle
Lafayette
- *4. Art Tontiplaphol
Jesuit High
New Orleans
5. Kristen Provenza
St. Catherine of Siena
New Orleans
6. Tan Trinh
Paul Breaux Middle
Lafayette

Continued on page 18

Louisiana's Regional Team and Individual Statistics



Louisiana's Regional Team and Individual Statistics



Ballot To Elect Louisiana Engineering Society Members To Engineers Selection Board

Act 721 passed in the 1975 Legislature amended Chapter 10 to Title 38 of the Louisiana Revised Statutes of 1950 by adding thereto a new Part VII, Selection of Professional Services for Public Contracts. Three Boards - Architect, Engineer and Landscape Architect Selection - are authorized under this Act. Each Board selects persons or firms to perform certain professional services for public contracts.

The Act refers to the Louisiana Engineering Society, specifying the following: The Louisiana Engineers Selection Board shall be composed of seven members. Two members shall be named in an election conducted by the Louisiana Engineering Society at which all properly licensed engineers residing in the state of Louisiana may vote for positions to be filled. LES has two positions to fill this year, one with term ending June 30, 1989 and one ending December 31, 1989.

The LES Board of Direction nominates Raymond E. Pillow, P.E., Baton Rouge, for the June 30 position and Edgar P. Benoit, P.E., Houma, for the December 31 position.

Each Louisiana Registered Professional Engineer working and living in the state is eligible and urged to vote. Space on the ballot is provided for write-in candidates. A write-in candidate must be a Louisiana Registered Professional Engineer and must have agreed to serve if elected. No member or firm of which a member is an associate, employee, or stockholder shall be eligible to receive agency contracts during the term of his service, and for a period of two years thereafter.

LES ENGINEER SELECTION BOARD

1. Mark and return to LES, P. O. Box 2683, Baton Rouge, LA 70821, by July 15, 1988. LES is not responsible for late delivery of mail.
2. Make sure your name and address is on the envelope that forwards the ballot to LES. Ballot signature is not required.

Vote for One Candidate in Each Position

POSITION ONE (Term July 1, 1988 - June 30, 1989)

☐ Raymond E. Pillow, P.E., Baton Rouge, LA

☐ _____

For write-in

POSITION TWO (Term January 1, 1989 - December 31, 1989)

☐ Edgar P. Benoit, P.E., Houma, LA

☐ _____

For write-in

PLEASE VOTE. RETURN TO LES, P. O. Box 2683, Baton Rouge 70821 prior to July 15, 1988.

.....
PLEASE CUT ALONG THIS LINE

Ballot To Elect Consulting Engineers Council Of Louisiana Members To Engineers Selection Board

INDIVIDUAL PRINCIPAL'S BALLOT

Qualifications of voting eligibility.

Act 721, A (2) "The Louisiana Engineers Selection Board. It shall be composed of seven members. Two members shall be named in an election conducted by the Consulting Engineers Council of Louisiana, Inc. at which all properly licensed engineers, who are principals of firms with offices in Louisiana, may vote for the same number of candidates as there are positions to be filled." . . .

One nominee will be elected to fill the position whose term begins July 1, 1988 and ends June 30, 1989.

One nominee will be elected to fill the position whose term begins January 1, 1989 and ends December 31, 1989.

The CEC/L Board of Governors has nominated the following engineers who have expressed a willingness to serve during the stated terms below.

Vote for One Candidate in Each Position

Mark this ballot and return to CEC/L, P. O. Box 1549, Baton Rouge, LA 70821. Replies must be received by noon, July 15, 1988 to be counted.

POSITION ONE (Term beginning July 1, 1988 and ending June 30, 1989)

☐ Ralph Crosby, P.E., Baton Rouge, LA

☐ _____

For write-in

POSITION TWO (Term beginning January 1, 1989 and ending December 31, 1989)

☐ Fred H. Vanderbrook, Jr., P.E., Mandeville, LA

☐ _____

For write-in

Increasing Infrastructure Investment: Making America's Economy Competitive Again

The following article is a summary of a report of the Rebuild America Coalition. The coalition is composed of private and public sector organizations that have recognized the need to protect the nation's investment in its entire range of public facilities . . . America's infrastructure. The members of the coalition are listed at the end of the executive summary.

EXECUTIVE SUMMARY

The facts are shocking: many U.S. industries have lost the competitive advantage which made this nation the world's economic leader. The U.S. trade deficit hit record levels in the third quarter of 1987, setting a new high in a lengthening string of trade deficits, and each year the interest payment that Americans must send overseas to finance the deficits rises.

What can be done about the trade deficit? First and foremost, the U.S. manufacturing sector must rebuild its share of world trade. Many possible remedies have been proposed: management techniques, flexible manufacturing, education, research and development. Much attention has been given to the role that modernizing factories plays in spurring economic growth. More attention needs to be given to the role infrastructure plays in enhancing the quality of everyday life, by providing the support network for our neighborhoods and communities. Greater attention needs to be given to the vital role that *public facilities — our nation's infrastructure of highways, ports, airports, public buildings, water supply and wastewater treatment facilities — play in the nation's economic competitiveness.*

The necessity of providing adequate public works to ensure a solid foundation for economic development is not a new or untested theory. The Greek scholar Xenophon stressed the importance of public works in 400 B.C. in a work titled *On the Means of Improving the Revenues of the State of Athens*. In 1776 Adam Smith, in *The Wealth of Nations*, wrote that the provision of necessary public

works is one of the three critical functions of government.

American history has attested to the successes of public works in fostering economic growth. From the Erie and Panama canals to the first urban water and sewer systems to the Interstate highway program, public works undertakings have launched economic development and growth. But an examination of recent history shows a dramatic reversal.

Although *net* investment in public works by federal, state and local governments — the share of output devoted to adding to the nation's public capital stock *after* accounting for physical depreciation — averaged 2.3 percent of gross national product in the late 1960's, it dropped to a mere *0.4 percent of GNP in 1980-1984*. This decline is having a tremendous, but largely unseen, impact on the nation's economy:

- Urban traffic congestion has increased by 50 percent over the last 10 years. If a worker is delayed 20 minutes each day by rush hour traffic congestion, by the end of his or her career, two working years will have been wasted.
- In 1984, 1.4 billion gallons of gasoline was wasted due to congestion; by 2005, waste could soar to 7.3 billion gallons.
- In 1986, schedule delays on the nation's airlines exceeded 2,000 hours per day — the equivalent of grounding 200 aircraft daily.
- Half of all communities in the country cannot expand because their wastewater treatment plants are operating at or near capacity.
- Leaky pipes cause some major cities to lose as much as 30 percent of their fresh water supply each day.
- Transportation costs represent about 15-30 percent of the landed price of agricultural exports. Clearly, the inadequacy of many rural roads and bridges is a concern for the future of America's agricultural exports.

The evidence is clear — a great deal of harm has been done to the American economy from a lack of public works investment, and this damage is continuing largely unchecked. Rapidly-growing megacounties are straining to meet infrastructure challenges, while central cities are similarly pressed without an expanding tax base. Added to this is the recent withdrawal of certain federal assistance programs, such as revenue-sharing, and restrictions on tax-exempt bond financing passed by Congress in the Tax Reform Act of 1986.

Several recent economic studies have started to quantify the economic impact of years of neglect of America's infrastructure. A study done in October, 1987 at the Federal Reserve Bank of Chicago by senior economist David Alan Aschauer indicates that infrastructure investment increases the private sector capital stock by influencing the rate of return to private investment. Aschauer concludes that if the U.S. had held infrastructure investment steady at 2.1 percent of GNP, its 1953-to-1969 average, throughout the 1970's and early 1980's, then the downward trend in the rate of return to private capital would have been eliminated, increasing the private capital stock by \$39 billion over its actual 1984 level.

Studies at the Federal Reserve Bank of Philadelphia by Gerald Carlino and at the Federal Reserve Bank of Cleveland by Randall Eberts add to the evidence. By reorienting priorities for public spending to upgrade and expand the public infrastructure, the U.S. can increase the productivity of the workforce by relieving congestion which is choking off growth, and improve the nation's competitive position in an increasingly competitive international marketplace.

Other nations have attacked these problems: Germany and Japan each use a five-year plan to ensure continuous infrastructure funding. Japan is clearly going the extra mile; under an ambitious "Technopolis" plan, Japan will create nineteen high-technology industrial



Consulting Engineers Section
Warren J. Wilder
CEC/L Executive Director



complexes, complete with infrastructure, by 1990.

In searching for solutions to the nation's trade problems, we cannot afford to ignore the one solution — infrastructure investment — that will enable this country to become competitive once again. As the National Council on Public Works Improvement recently concluded in its final report, "the quality of America's infrastructure today is barely adequate to meet current requirements and insufficient to meet the demands of future economic growth." Unless we, as a nation, heed the Council's warning, instead of increased productivity, we will only spend more and more due to inefficiency and congestion, and risk tying up our nation's economic future in one vast, unproductive, traffic jam.

Members

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1301 Pennsylvania Ave., N.W.

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Rebuild America Coalition,
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1957 E St. N.W.
Washington, D.C. 20006
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The National Council on Public Works Improvement has outlined a strategy for improving America's public works. The elements of that strategy are:

- A national commitment, shared by all levels of government and the private sector, to increase capital spending by as much as 100 percent above current levels;
- Clarification of the respective roles of the federal, state, and local governments in infrastructure construction and management to focus responsibility and increase accountability;
- More flexible administration of federal and state mandates to allow cost effective methods of compliance;
- Accelerated spending of the federal highway, transit, aviation, and waterways trust funds;
- Financing of a larger share of the cost of public works by those who benefit from services;
- Removal of unwarranted limits on the ability of state and local governments to help themselves through tax-exempt financing;
- Strong incentives for maintenance of capital assets and the use of low-capital techniques such as demand management, coordinated land-use planning, and waste reduction and recycling;
- Additional support for research and development to accelerate technological innovation and for training of public works professionals; and
- A rational capital budgeting process at all levels of government.

The National Council on Public Works Improvement acknowledges that none of these steps will be easy or unopposed. Meanwhile, unanimity exists that America's infrastructure suffers from neglect. Thus, the National Council on Public Works Improvement recommends that capital investment be raised by at least 100 percent.

1988 NSPE Annual Meeting July 16-23, 1988 Seattle Sheraton Hotel Seattle, Washington

The Washington Society of Professional Engineers will host the 1988 NSPE Annual Meeting, July 16-23, at the Seattle Sheraton Hotel, Seattle, Washington.

In addition to a full program of meetings, a wide selection of organized tours, dinners, and sports activities have been arranged. Many other options for entertainment and recreation are available for you and your family to explore the Great Pacific Northwest.

For more information on the meeting contact the Louisiana Engineering Society (504) 344-4318. To make reservations contact the Seattle Sheraton Hotel and Towers (206) 621-9000.

Engineers Consider Specialty Certification at First National Conference

Representatives from twenty-three engineering societies met recently in Atlanta to discuss, for the first time, developing professionwide specialty certification. And, by the end of the first National Conference on Engineering Specialty Certification, attendees seemed to agree the time is right for engineers to consider following in the footsteps of doctors, lawyers, and accountants, all of whom maintain specialty certification programs.

Specialty certification would grant recognition to an engineer in a specialized discipline or area of practice. Certification would be voluntary and might be administered by a private organization. Proponents of the concept say with specialty certification often comes an improved professional image and increased attention to quality service and the public welfare, including emphasis on lifelong maintenance of professional competence.

George Knecht, P.E., represented the National Society of Professional Engineers (NSPE) and chaired the conference. According to Knecht the conference was a success in reviewing current fragmented efforts, outlining the issues and planning for the future. "The specialty

certification concept is gaining momentum in the engineering profession. This type of cooperative conference is important to keep us on track in our assessment of future possibilities and pitfalls."

While the engineers supported further investigation and discussion of the issue, most stopped short of embracing an initiative endorsing professionwide specialty certification. They voted down a resolution, offered by a group of environmental engineers, which would put the conference on record as favoring specialty certification and would support the development of an organizing committee to form an American Board of Engineering Specialties. The resolution was called "premature" by some.

The attendees did, nonetheless, offer unanimous support for a resolution instructing individual engineering societies to analyze the pros and cons of certification, and for the conference's 23 supporting societies to act as a liaison committee to investigate the future development of a national specialty certification organization.

For the engineering profession at large, a number of sticky issues must be resolved before it will consider endorsing specialty certification. Among them: qualifications, advantages and disadvantages, legal issues and costs.

As a result of the conference the National Council of Engineering Examiners (NCEE) will mail a questionnaire on the topic to registered and non-registered engineers in July. The results will go to the conference steering committee, then on to the participating organizations.

The national conference was organized by NSPE and cosponsored by the American Academy of Environmental Engineers, American Association of Cost Engineers, American Association of Engineering Societies, American Institute of Chemical Engineers, American Institute of Plant Engineers, American Society for Engineering Education, American Society of Civil Engineers, American Society of Heating, Refrigerating and Air-Conditioning Engineers, American Society of Mechanical Engineers, American Society of Plumbing Engineers, American Society of Safety Engineers, Association of Energy Engineers, Board of Certi-

fied Safety Professionals, Institute of Electrical and Electronics Engineers, National Academy of Engineering, National Academy of Forensic Engineers, National Association of Radio and Telecommunications Engineers, NCEE, Society of American Military Engineers, Society of Manufacturing Engineers and the Systems Safety Society.

Tulane Dedicates Room In Honor of Nelsons

A laboratory and classroom in Tulane University's new Lindy Claiborne Boggs Center for Energy and Biotechnology has been dedicated in honor of New Orleans business executive Waldemar S. Nelson and his late father, Bernard S. Nelson.

Support from Nelson and his corporation, Waldemar S. Nelson and Company, Inc., funded an energy conversion laboratory and an 80-seat lecture hall.

The Boggs Center, a \$12 million facility to support research and teaching in energy, biotechnology, hazardous wastes management and biomedical engineering, was dedicated March 25. The building is headquarters for the chemical and biomedical engineering departments.

Both Nelson and his father graduated from Tulane's School of Engineering.

Nelson serves as chairman of the board of his engineering and architectural firm, which was formerly known as Beldell and Nelson Engineers, Inc. His firm prepared the initial architectural plans for the Boggs Center.

Among Nelson's professional awards are the 1983 Man of the Year award from the Construction Industry Association of New Orleans. Tulane's School of Engineering named him an Outstanding Alumnus in 1976, and he has served on the school's board of advisers since 1970.

Nelson has been a director of the Chamber of Commerce, New Orleans and the River Region, and has served as a trustee on the board of the New Orleans Museum of Art.

Bernard Nelson, who died in 1955, was chief engineer for A.M. Lockett and Company, Ltd. from 1907 until he retired in 1953. While there, he was a recognized authority on irrigation and drainage pumping plants, particularly rice



Leta Bueto
Executive Director
Louisiana Engineering Society



irrigation. He designed several such pumping plants in Louisiana, Texas and Mexico. He also designed and built some of the earliest large oil and gas engine electric generating plants in the Southwest.

An inventor, Nelson is credited with designs for an oil burner, oil heater, spray nozzle, creosote plant condenser, and high-pressure grease gun still in common use in automotive and machinery industries. He also invented a vapor thermo compressor for use in sugar mills. In his practice, he designed and constructed the first diesel-powered electric generating plant for Central Louisiana Electric Company.

Arthur A. DeFraités, Jr., P.E.
Named Recipient of
1988 PEPP Award

Arthur A. DeFraités, Jr., P.E., a resident of Houma, LA and a member of the Louisiana Engineering Society, has been named recipient of the prestigious 1988 NSPE/PEPP Award. Art has served as President of Gulf South Engineers, Inc. since 1972 and President of DeFraités Associates, Inc., since 1981. He is married to the former Mary Helen Starnes of Hammond, LA, and they have five children.

DeFraités received his Bachelor and Master of Science Degrees in Civil Engineering from Tulane University. He is a Registered Professional Engineer in Louisiana, Mississippi and Florida, and a Registered Land Surveyor in Louisiana.

Within the Louisiana Engineering Society, he has been elected to all officer positions of the State PEPP Practice Division, and served as State PEPP Chairman in 1976. He served on the LES Executive Board as a State Director from 1977-79 and as a National Director from 1985-87. He was the Louisiana Governor's appointee to the first Engineers Selection Board created under the Governor's Executive Order in 1975. He served as chairman of the original board, and personally wrote the "Rules of Operations" and the "Rules of Selection," which for the most part, are still in use today.

The National PEPP Division elected him to the position of Southwest Regional

Vice-Chairman in 1979-80 and he served as National PEPP Chairman in 1981-82. During his term as Chairman he, together with the NSPE leadership, devoted considerable time attempting to merge the American Consulting Engineers Council with the National Society of Professional Engineers.

He served as an NSPE Vice-President and member of the NSPE Executive Committee during the year he was National PEPP Chairman.

The NSPE/PEPP award is presented to an individual who has favorably influenced the practice of consulting engineers; has advanced the recognition of the role of private practice in serving the public interest with special emphasis on health, safety and welfare; and, has influenced and made contributions in the areas of business practices, ethical practices, technical design and/or studies,

professional image, and legislative influence such that the private practice of engineering has benefitted.

The PEPP Award will be presented during the PEPP Installations Banquet to be held in conjunction with the NSPE Annual Meeting, July 17-23, 1988, in Seattle, Washington.

To a very worthy recipient, the Louisiana Engineering Society offers its congratulations!

Louisiana Water Resources
Information Center

The Louisiana Water Resources Information Center, or LAWRIC, is operational and the First Edition of the *Louisiana Water Data Referral Directory* is now available from the Department of Transportation and Development.

LAWRIC was created by the Legislature in 1983 "to implement an indexing

Meet the Executive Director - Leta Green Bueto

Leta was born and reared in Franklin Parish, Louisiana, one of eleven children. She has been married for 24 years to Carson Bueto, a Captain with the East Baton Rouge Parish Sheriff's Department, and they have a married daughter, Debra Bueto Harrell.

Leta began her professional career in 1962 handling confidential credit records and accounts receivable in the local office of a national chain store. In 1965, she was employed in the Baton Rouge office of a national consulting engineering firm as Secretary to the Manager. She assisted the accountant in maintaining financial records including project costs control, and typed engineering specifications and general correspondence.

In 1971, Leta was employed as secretary/bookkeeper for the Consulting Engineers Council of Louisiana where she assisted the Executive Director in maintaining records for a membership of 80 consulting engineering firms.

Leta came to the Louisiana Engineer-

ing Society on October 1, 1975 as Office Manager and Assistant to then - Executive Director, R. C. Spears. She was named Executive Director on October 1, 1982, seven years to the day she became associated with LES.

As Director, Leta manages the state office and is responsible for public relations and publications of the Society, including the *Louisiana Engineer* magazine. When designated by the Board of Direction, Leta represents the Society in meetings with public bodies and boards, and legislative committees, as required to administer the affairs of the Society. She plans the state meetings for the membership and the Board of Direction and assists the local chapters when requested.

The Society is headquartered in Baton Rouge with a present membership of approximately 2,700 members and nine geographic chapters. The Director and staff of the Louisiana Engineering Society stand ready to assist its members and the engineering profession.

and data accessing system which will contain, in part, all information past, present and future for water and water related resource data so collected by federal, state and local agencies in the state of Louisiana . . . so as to serve as a central access point for all Louisiana water data, making said data more available, thereby reducing duplication of collection of said water data and increasing its use."

LAWRIC is a central computerized information system designed to index Louisiana water data and water related data. It is an indexing and referral service. LAWRIC does not collect or store the data, but refers callers to the appropriate agency. It is administered and housed in the Office of Public Works at the DOTD Headquarters Building.

The directory is available for \$10.00. The directory will come punched with three holes for easy use and updating. The directory will be updated annually by providing you with only the pages that are affected. The updates will be available for \$2.00. The directory contains information on two computer files created by LAWRIC, the Water Data File and the Projects in Progress File.

If you are interested in obtaining a copy of the *Louisiana Water Data Referral Directory*, call (504) 379-1478.

Mathcounts Honored

The Lafayette Chapter of the Louisiana Engineering Society has recently received the "Friends to Public Education Award" given by the Phi Delta Kappa Fraternity.

Phi Delta Kappa, which is comprised of educators and administrators with a minimum requirement of a masters degree, gives the award annually to a deserving organization which has displayed direct participation and help to the education community. The LES Lafayette Chapter's participation in the MATHCOUNTS program over the past five years served as the basis for recognition.

Barry Bleichner, P.E., the Lafayette Chapter MATHCOUNTS Coordinator, said "the program is obviously working due to the chapter being recognized for its efforts with such a prestigious award."

Warren Paul Boudreaux, PE, Louisiana MATHCOUNTS Coordinator, indicated that the Lafayette region, which is made up of the surrounding eight parishes, has had over 50 schools participate in the program in each of the past three years. He also added that this year's Louisiana State Team Coach is Mona Bonar, member of the Lafayette Phi Delta Kappa fraternity, and that two Lafayette region students are on the state team. Robert Isai and Jay Bienvenu.

Calendar of Events

We invite all technical and professional organizations to submit their meeting dates for publication in the *Louisiana Engineer* to: Editor, P.O. Box 2683, Baton Rouge, LA 70821

June 16, 1988

CEC/L Board of Governors Meeting, Baton Rouge, LA

June 17, 1988

LES Board of Direction Meeting, Ruston, LA

July 17-23, 1988

NSPE Annual Meeting, Seattle Sheraton Hotel, Seattle, WA

July 21, 1988

CEC/L Board of Governors Meeting, Baton Rouge, LA

July 28, 1988

LES Board of Direction Meeting, New Orleans, LA

August 18, 1988

CEC/L Board of Governors Meeting, Baton Rouge, LA

September 15, 1988

CEC/L Board of Governors Meeting, Baton Rouge, LA

September 16, 1988

LES Planning Conference, Sheraton Hotel, Alexandria, LA

September 17, 1988

LES Board of Direction Meeting, Sheraton Hotel, Alexandria, LA

October 19-22, 1988

LES Annual Meeting, Sheraton Hotel, Alexandria, LA

October 22, 1988

LES Board of Direction Meeting, Sheraton Hotel, Alexandria, LA

October 20, 1988

CEC/L Board of Governors Meeting, Baton Rouge, LA

October 27-29, 1988

ACEC Fall Conference, Cincinnati, OH

November 17, 1988

CEC/L Board of Governors Meeting, Baton Rouge, LA

December 15, 1988

CEC/L Board of Governors Meeting, Baton Rouge, LA

January 8-14, 1988

NSPE Winter Meeting, Atlanta, GA



Nick Marianos

Louisiana Engineering Foundation Presents Annual Scholarship Awards



David Hahn

The Louisiana Engineering Foundation is very pleased to present two 1988 Graduate School Fellowship awards this year.

Ward Nicholas Marianos, Jr., a graduate student at Tulane University, and David W. Hahn, a graduate student at Louisiana State University, have been named recipients. The Foundation's \$1,500 fellowship is presented annually to a graduate student of engineering who expresses a sincere desire to enter the teaching profession at the university level.

Nick graduated from Benjamin Franklin High School, New Orleans, in 1977 and received his Bachelor of Science Degree in Civil Engineering from Tulane University in 1981. He graduated summa cum laude and received the William F. Tompkins Award as outstanding civil engineering senior. After graduation, he worked several years in subdivision design before entering graduate school at the University of California, Berkeley, where he received his Master of Science Degree in Structural Engineering in 1985. He returned to New Orleans in 1985 where he joined the firm of Modjeski and Masters.

Nick and his wife, Celeste, have been married five years. Celeste is a free-lance writer specializing in senior citizen's issues, and a New Orleans native.

David graduated from Robert E. Lee High School, Baton Rouge, in 1982. He received his Bachelor of Science Degree in Mechanical Engineer from Louisiana State University in 1986 and is presently pursuing graduate studies in mechanical engineering at LSU. His goal is to complete his PhD in 1990 and to continue to work in an educational and research oriented environment.

David was married in 1986 and his wife, Allison, is currently a graduate student in history at Louisiana State University.

The Louisiana Engineering Foundation is a tax exempt organization founded in 1978 by the Louisiana Engineering Society. Its goals are to provide opportunities to practicing engineering professionals for development programs; to provide fellowships to serve the educational needs of young men and women pursuing a career in engineering; and to maintain a center to serve all engineers.

The Foundation is headquartered at 1213 Nicholson Drive, Baton Rouge.

LOUISIANA ENGINEER/JUNE 1988

Louisiana Engineering Foundation

The Louisiana Engineering Foundation was incorporated in 1978 exclusively for charitable, educational and scientific purposes including:

- (1) The granting of Fellowships.
- (2) To provide guidance and information to high school and college students who are interested in an engineering career.
- (3) To provide opportunities in the form of seminars, workshops and the like for practicing engineers to continue their education and professional development.
- (4) To disseminate engineering information beneficial to the interested public.
- (5) To establish and maintain an engineering Center.

LEF presents an annual fellowship of \$1500 to a full time graduate student who expresses a sincere desire to enter the teaching profession at the university level.

Contributions are vital if LEF is to accomplish its goals. You as an engineer should support your Foundation and the profession. All contributions are tax

deductible. The following categories have been established for contributors:

Honor Roll

Contributions over \$500

Founders

Contributions of \$100 to \$499

Patriots

Contributions of \$50 to \$99

Sponsors

Contributions up to \$50

In Memoriam

Any amount

Contributions of \$500 or more establishes an organization or individual as a member of the Honor Roll.

The 1988 LEF Honor Roll:

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The Foundation owes \$10,000 on its present mortgage for the headquarters building and \$26,500 to Plan "A" participants. The Plan "A" program launched in 1982 to help retire the mortgage. Individuals and organizations are requested to lend LEF \$1,000 at no interest with a guaranteed payback within five years.

Your involvement in LEF is urgently needed. Send all correspondence and contributions to LEF, P.O. Box 2683, Baton Rouge, La. 70821.

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MATHCOUNTS

Continued from page 9

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8. Eric Juban
Trinity Episcopal
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9. Lars Kestner
McKinley Middle Magnet
Baton Rouge
10. Leslie Heard
Pineville, Junior High
Alexandra

*Members of the 1988 Louisiana National Team.

The 1988 MATHCOUNTS Task Force is to be commended for maintaining the 260 school level of participation, equal to the 1987 competition, when the national enrollment is declining. Special thanks to the staff and coordinators for a job well done.

Debbie Noel, MATHCOUNTS Secretary; Warren P. Boudreaux, P.E., State Coordinator; James Ragland, P.E., State Co-Coordinator; Keith Hillman, P.E., Alexandria Coordinator; Lamy Chopin, P.E., Baton Rouge Coordinator; Edgar Benoit, P.E., Bayou Coordinator; Barry Bleichner, P.E., Lafayette Coordinator; Curtis Dyle, P.E., Lake Charles Coordinator; Foy Gadberry, P.E., Monroe Coordinator; Fred Brown, P.E., New Orleans Coordinator; Gerald Nuss, E.I.T., North Lake Coordinator; Ronnie Poole, P.E., Shreveport Coordinator.

Special thanks to all the LES members, Auxiliary Members, husbands, wives, and friends who support our Task Force and our program.

Without the financial support of the MATHCOUNTS Sponsors in Louisiana, our program would not be successful and the opportunities which have been

created for our children would not exist. Sincere thanks to our standing sponsors:

- Louisiana Investor-Owned Electric Companies:
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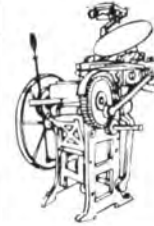
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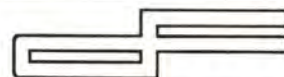
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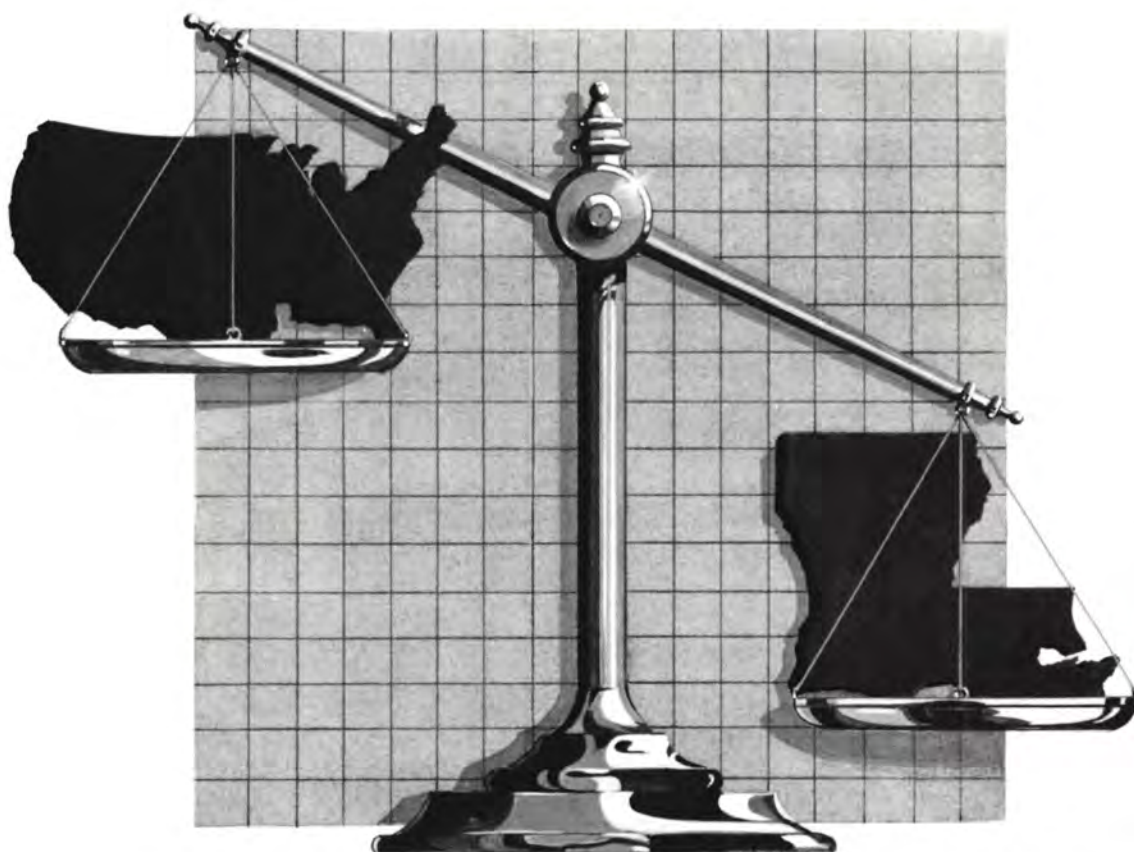
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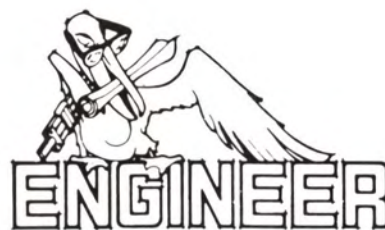
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Our cover this month features 1988-1989 CEC/L President, Charles S. Hedges, P.E.



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Is Our Halo Tilted and Tarnished?

Ethics is the foundation on which the engineering profession operates. Engineers strive to live by rules considered to be common to the good of the public welfare and to a viable working condition for all engineers in the profession. Webster's Dictionary defines ethics to be "the discipline dealing with what is good and bad and with moral duty and obligation, a set of moral principles or values, and the principles of conduct governing an individual or a group (professional)."

Ethics is our moral code of conduct. The Louisiana Engineering Society has a Code of Ethics patterned after that used by the National Society of Professional Engineers as a guideline for professional conduct. The Louisiana State Board of Registration for Professional Engineers and Land Surveyors has Rules of Professional Conduct for those engineers and companies registered with the State Board of Registration. In addition to these, we have the Engineers' Creed which states:

"As a Professional Engineer, I dedicate my professional knowledge and skill to the advancement and betterment of human welfare.

I pledge:

*To give the utmost of performance;
To participate in none but honest enterprise;*

To live and work according to the laws of man and the highest standards of professional conduct;

To place service before profit, the honor and standing of the profession before personal advantage, and the public welfare above all other considerations.

In humility and with need for Divine Guidance, I make this pledge."

In the Engineers' Creed, I call your attention to the paragraph which reads "to place service before profit, the honor and standing of the profession before personal advantage, and the public welfare above all other considerations." With the definition of ethics, with the LES Code of Ethics, with the Louisiana State Board of Registration Rules of Professional Conduct and the Engineers' Creed, should not our engineering halo be properly placed and shiny to represent true professionals?



Bobby E. Price, Ph.D., P.E.
President
Louisiana Engineering Society

But, . . . apparently, some engineers believe in the adage that when all else fails, lower your standards. In recent weeks and months, news releases have reported alleged bribes paid by engineering firms to government officials to deliver highway consulting contracts to the engineering firms, possible "insider trading information" for engineering firms which have hired former state highway engineers to obtain lucrative highway contracts and reports of large contributions to political campaigns (albeit legal) with the implication that these contributions helped the engineering firms obtain state contracts. All of these are **strictly allegations** at this time, although a former aide to the previous governor has pleaded guilty to extorting more than \$100,000 to deliver highway consulting contracts to engineering firms.

What image of engineers does all this portray to the general public, to engineering students and to young engineers? Are these allegations considered by engineers to be strictly a part of the way of doing business, and does the general public say "What else is new in Louisiana?" Are we gaining the reputation of being placed in the same category as shyster lawyers, crooked politicians and questionable used car salesmen? Are these numerous reports and allegations of unethical acts causing our so-called "halo of professionalism" to be tilted and tarnished?

Are we to sit idly by, wringing our hands and wondering why somebody doesn't do something? Thank goodness, those engineers reportedly participating in questionable acts do not represent the majority of those within the profession. Many of our engineers are spending their own finances and considerable time to teach ethics and professionalism classes in our universities, to travel both statewide and nationally to push for limitations on political campaign contributions and to exhibit by example high standards of ethical and professional conduct.

In recent weeks, I requested the LES Ethics and Professional Conduct Committee to investigate some of these allegations with regards to violations of the LES Code of Ethics and also requested the Louisiana State Board of Registration for Professional Engineers and Land Surveyors to determine if any of the engineers or engineering firms mentioned in the news releases have violated their Rules of Professional Conduct or corporation registration laws. Letters to the Editor have been sent to all of the major newspapers in the state, emphasizing that the Louisiana Engineering Society abhors unethical conduct by engineers and that by no means is such conduct indicative of the vast majority of our membership. These letters are to inform the general public that our Society is not sitting idly by, but that we are attempting to police our own profession.

Each engineer makes his own decision as to what is ethical or unethical. As the following poem by Ella Wheeler Wilcox points out " 'Tis the set of the sails and not the gales that decides the way we go."

"One ship drives east, and another west

*With the self-same winds that blow;
'Tis the set of the sails
And not the gales,
That decides the way we go.*

*Like the winds of the sea are the ways of fate,
As they voyage along through life;
'Tis the will of the soul
That decides its goal,
And not the calm or the strife."*

Are we to let a few cause our halo to be tilted and tarnished, or are we to uphold the integrity upon which our profession was founded?

LES Board of Direction Meeting Highlights

April Meeting

The April meeting was held in Houma, LA with 21 Board members, seven guests, and the LES staff present.

1. The February and March financial statements were accepted subject to the annual audit.

2. A report on the regional and state MATHCOUNTS competitions was presented to the Board.

3. The Membership Committee recommended that the Society actively pursue an incentive program for rewarding membership recruitment and retention through recognition and financial incentives. The committee will outline a program for the Board's review.

4. The Nominating Committee submitted the 1988-89 slate of officers: 1st Vice President, Blaize M. Carriere, P.E.; 2nd Vice President, Kerry J. LaBauve, P.E.; Secretary-Treasurer, Glynn P. Gautreau, P.E.; State Directors, Robert A. Brossette, Jr., P.E., and Carl A. Jakob, P.E. The slate was unanimously endorsed by the Board of Direction.

5. The Board of Direction supported the following recommendations from the Legislative Committee: (a) to postpone filing "mini-Brooks" legislation this session; (b) to oppose HB #112 - a constitutional amendment to take funds from professional and trade licensing boards into the state treasury; (c) to support a concurrent resolution regarding preference of state resident engineers not having advantage over non-resident engineers; (d) to support campaign reform legislation which, in the opinion of the Legislative Committee, best represents the position of LES; (e) to support legislation reducing the number of the Governor's appointments to the Engineers Selection Board; and (f) to support the repeal of the Louisiana Prevailing Wage Law.

6. The Ethics and Professional Conduct Committee is postponing its investigation of allegations involving members of the Society in recent news articles until the federal and state authorities complete their investigations.

7. The ad-hoc committee appointed to review a resolution on "fixed terms for Registration Board Members" submitted its report. The committee recommended and the Board approved that legislation be undertaken at some future legislative session (not 1988) which would estab-

lish an expiration date for the terms of service for all Registration Board members as August 31 of the year that is six (6) years from the date upon which they each began serving; and thereafter, that all appointments expire on August 31 of the sixth (6th) year, provided, however, that a transition period be included in the legislation which would result in the expiration of at least one (1) and not more than two (2) standard six (6) year terms annually after the transition period.

8. The following rules were approved by the Board of Direction and are to be incorporated into LES's policy on "Filling Vacancies on the State Board of Registration": (a) a nominee shall be actively employed (not retired) at the time of his or her nomination and appointment; (b) Board members who retire from active practice shall continue to represent the division of engineering practice represented at the time of retirement (this will also be the same division of engineering practice in which the member practiced when appointed); (c) a Board member shall not be required to resign his or her Board membership because of a change in the orientation of his or her career; and (d) when the Board is, and will continue to be, constituted by eight (8) engineering members who represent (2 each) government, education, industry, and private practice (and have, at all times since their respective appointments, represented these defined fields of practice), the nominees for the ninth vacancy occurring may come from any of the functional divisions.

9. Raymond E. Pillow, P.E. and Edgar P. Benoit, P.E. were selected as nominees to the Engineers Selection Board. Ballots will appear in the June issue of the LOUISIANA ENGINEER.

10. The LOUISIANA ENGINEER Advertising Committee recommended that advertising rates be raised to be closer to the same level of similar publications in the state and that a direct mail advertising campaign begin immediately in the state. The advertising campaign will be coordinated with Norman Ferachi, the magazine consultant. President Price will request Norman Ferachi and Printing, Inc., to submit contracts to LES outlining the scope and services provided for publishing and printing the LOUISIANA ENGINEER magazine.

11. A motion was made at the General Membership Meeting and approved to disband the Career Guidance Subcommittee and place its responsibilities under the Engineering Education Committee. This recommendation will be considered at the June meeting of the Board of Direction.

12. President Price reminded the chapter presidents and practice division chairmen that all newly elected officers must be either members or associate members and hold an appropriate grade of membership in the NSPE.

June Meeting

The June meeting was held in Ruston, LA with 18 Board members, two guests, and the Executive Director in attendance.

1. The May financial statement was accepted subject to the annual audit.

2. The Membership Committee will present recommendations to the Board at a future meeting for the recruitment and retention incentive program.

3. The Long-Range Planning Committee submitted a report calling for reorganization and consolidation of a number of LES standing committees. The Long-Range Planning Committee was directed to present implementation procedures to the July Board of Direction meeting.

4. The September Planning Conference will be held on September 9, 1988 and the LES Board of Direction Meeting on September 10, 1988, at the Sheraton Hotel in Alexandria, LA. These dates were changed from September 16 and 17, respectively.

5. The LES Auxiliary Task Force has studied the overall operations of auxiliaries at both the chapter and state level. The Task Force's findings, suggestions, and recommendations were distributed to the Board. A number of the Task Force's recommendations have been referred to appropriate committees.

6. The Board of Direction adopted a resolution stating that "LES will continue to strongly encourage that its current eligible membership obtain comparable NSPE membership as soon as possible, so that there is a positive NSPE membership improvement per year until 100% NSPE membership is achieved."

Continued on page 19

A Suggestion for Handling Freight on Interior Waterways

By H. L. Hutson

(Read before the Society, October 12, 1914.)

EDITORIAL NOTE: CONTAINERIZED CARGO IN 1914! Containerization of cargo is a practice which has revolutionized the shipping industry, reducing the labor required to handle cargo, expediting movement of freight by reducing handling time, permitting the direct delivery of container loads of goods to specific destinations and greatly reducing the losses from pilferage and damage by weather and rough handling.

In researching the early records of the Louisiana Engineering Society to develop a program for celebrating its 90th Anniversary, the committee discovered

this remarkable article presented to the Society in 1914, describing a complete concept for containerized handling of cargo, and points out many of the advantages to be realized by this practice.

The author, H. L. Hutson, a member of the Society, seems to have conceived and antedated by fifty years the practice of containerized handling of freight which did not come into general use until after World War II. He saw the need for, and proposed use of, forklift trucks, container cranes, and other cargo-handling equipment. We believe our readers will find the article interesting.

The low cost of transporting freight by water is well known. The chief expense comes at the two ends of the haul in the cost of loading and unloading, and often the cost of transporting the freight a few miles by wagon will exceed the freight charges.

To reduce the cost of loading and unloading from barges and ships is a problem which has had a great deal of study by engineers better able to design machinery for the work than I and therefore I do not intend to advocate any novel system of handling freight but to call attention to a scheme to adopt devices in

Loading steamers on the Mississippi River, 1906.



common use to handling a variety of freight.

If we study the means for loading freight, we can divide them into two general classes: first, those in which the load rests on the carriers; second, those in which the load is hoisted and hangs from the carriers.

As example of the first, we have loads carried on hand trucks and various carriers (such as belt conveyors) suited for special classes of freight. Although the hand truck is suited for and used on a great variety of freight, as soon as an attempt is made to design a conveyor of this first class to carry large tonnage, it at once becomes either excessively heavy and expensive, or else is suited only for one class of freight.

In the second class, we have the cargo derricks of sea-going ships and all classes of dock cranes, mono-rail systems, cableways, dipper dredges, etc.

It would seem that the chance of developing a system suited to all freights is best if we consider that the freight is to be hoisted to and from the vessel.

Let us see some points to be borne in mind in selecting equipment for this purpose:

1st. The container in which freight is shipped must suit the freight: Thus, liquids in barrels or tanks; vegetables in open ventilated crates; grain in sacks or closed boxes; perishable food in iced boxes.

2nd. The method of attachment between hoist and load must suit the container or the load: Thus, rope slings, chain slings, timber hoods, electro magnets, etc.

3rd. The type of vessel must be such that the load can be lowered either into her hold, or onto the deck.

4th. The type of hoisting and handling machine must be suited to the location and service: Thus, in one place a stiff legged derrick with hand power; in another, a locomotive crane; in another, a very complicated overhead mono-rail system.

Note—That for all the classes of freight and all locations, there is but one thing which must remain the same and that is that the load is hoisted from above and so landed where it is wanted.

Let us now look around for certain classes of freight which are cheaply handled and try to adopt the same methods for other classes or for miscellaneous freight. On the New Basin, we find sand and shell brought in as deck loads on barges and unloaded by

locomotive cranes or special derricks equipped with clam shell buckets. On the Lake Borgne Canal coal is brought in from Alabama as deck loads on the decks of Mr. Bernhard's self-propelled steel barges and unloaded by clam shell buckets operated from special coal handling towers.

On Bayou Lafourche and the Teche, we find the sugar planter handling cane at a very small cost per ton. This cane is loaded in the field into carts across which chains have been laid and thus carried to the Bayou, where the cane is hoisted a wagon load at a time, into barges from which it is again hoisted upon arrival at the sugar house or the point where it is transferred to cars.

If we come back to the New Basin, we find another case of freight being handled in wagon load lots. Brick are brought in on barges or schooners, the bricks being crated in rough crates holding, I suppose, a thousand bricks. Each crate is picked up by a derrick and set on the ground or stacked on top of other crates ready to be lifted again when the time comes to load it on the wagon.

I believe we should adopt this scheme of the Salmen Brick and Lumber Company with slight modifications to form a standard system for handling local freight at least.

There are several reasons why it would cost very little to try this out on certain local water routes. Anyone familiar with the river will tell us that the part of the river front which was formerly used by river steamers is now mostly used only by gas boats of one sort or another. These boats operate very cheaply as the crews are small and if they could load and unload their freight by mechanical means, a crew of the same size could manage a barge of many times the size.

Again, there are a great number of barges throughout the sugar district which lie idle a great part of the year and could be used in connection with steam or gas tow boats.

Throughout the sugar district, every landing has a derrick even when it has no wharf. The only thing needed therefore to put such a system into use between New Orleans and points on Bayou Teche would be:

1st. For the Dock Board to install a locomotive crane, derrick, or some other type of hoist on the docks for the use of these local freight carriers.

2nd. For some company to own and supply for use when needed various kinds of boxes, crates, tanks and other receptacles, each designed to hold one wagon load—say two tons maximum.

The first of these conditions will no doubt be met when the demand is great enough.

The chief obstacle in the way of the second is that what is anybody's business is nobody's business.

Before going farther, let us look back and consider some of the causes of the decline of water-borne freight in favor of rail freight.

The principal reason is undoubtedly that the railroads can serve the country at large better than the waterways, but there are certain places where it is possible for the water transportation companies to carry freight cheaper and quicker and generally give better service than the railroads. Yet, even in these cases, the railroads get the bulk of the freight due to a better selling organization.

Every railroad agent in each small town is a selling agent not only for his own line, but for connecting lines. In addition to this, the railroads have well organized soliciting departments. In spite of this, the railroads themselves have not given the best service possible, and the higher class of business open to them, the cream of the business has gone to other companies organized to do business over their lines. I refer to the Express Companies, the Pullman Company and the Refrigerator Car and Tank Car lines.

The fact that these companies have found it both possible and profitable to furnish special equipment and special service for carrying on business over the lines of another company make me believe that a successful concern could be organized to furnish the boxes or other special containers to permit handling of freight in wagon load lots.

The chief need, therefore, is for someone who is a monopolist and organizer by nature to take the thing in hand. Let us look ahead a few years and suppose that Armour or someone else has organized such a corporation and that it is in full working order. This company, we will say, owns equipment for holding every class of freight and in addition has a pick-up and delivery service in the larger towns, with auto trucks of standard design—each equipped to load on to itself a box weighing two tons. The company will also have a large freight shed with sorting conveyors and overhead cranes. We will call it—

THE PEOPLE'S DESPATCH.

We will suppose a wholesale merchant gets a hurry order from a country customer for an assorted list of groceries. We will phone the Despatch Company

for an empty which will be dropped at his store early in the morning. The merchant, instead of spending a lot of time boxing and crating this stuff in separate crates, will merely load it securely in the wagon box which in this case must be weather proof, and when the Despatch Company's truck returns later, it will be sealed and hoisted on to the truck and carried to the dock.

Here it will be picked up by locomotive crane and placed on the dock of the first freight boat leaving the landing to which it is consigned. This boat may have a crew of pilot and engineer only and yet they will be able to unload this wagon box load—of we will say one ton—provided the landing is equipped with a derrick. If the landing were a private one, it would be expected that the consignee would bring his own wagon and haul to his store. If it was a town of some size, the Despatch Company would undoubtedly maintain a delivery service.

If such a company were organized, I would not want to see it a subsidiary of water transportation lines necessarily as one of its chief functions would be to co-ordinate the rail and water transportation as well as the road and water transportation.

At present, the cheapest and quickest way of unloading material from rail to water is the way coal and ore are handled, by tipping the car over into a bin.

With this wagon load system, the boxes or crates of merchandise would be lifted from a flat car and deposited on the deck of a barge or vice versa.

Thus, a farmer could load watermelons (we will say) in his field into a "wagon-crate," seal and lock this and carry it by wagon to his private landing. The barge line would stop alongside long enough to lift these on deck and carry them to the nearest through railroad switch where they would be lifted either directly from barge to flat cars or in more frequent cases the transfer would be made from barge to auto trucks and from these to cars.

With the increased mileage of good roads and the use of auto trucks in the country which is sure to follow, it will be possible for districts 30 to 50 miles from a river to utilize the waterway provided the freight can be cheaply transported by wagon train and loaded without rehandling.

Let us take the rice crop for instance. Most of this crop is raised on land watered from a navigable stream, yet a very small part of the crop moves by water. I know of one canal in which part of the crop is barged to the pumping plant in small canal boats and transferred by hand to tide water boats, but this is an exception. With such a system of wagon boxes as I advocate, it would be possible to load the rice in the field into boxes which would protect it from the weather at once. These boxes could be carried on mule-drawn wagon while in the field, but when they reached a paved roadway, a number of boxes would be placed on heavy wagons to form a wagon train of perhaps ten wagons, which would be pulled by traction engine to the nearest river landing.

Again, let us take a case where two waterways are near together, but do not connect for some reason, such as difference in water level, or expense of making the connection. As an illustration, we will take the Mississippi river and the two navigation basins in New Orleans, or the Lafourche at Donaldsonville. If freight were brought down the river say from Minneapolis and one or two of the boxes were consigned to a merchant at Slidell, it would be an easy matter to pick up these particular wagon loads and carry them to the New Basin, where they could be picked up by Mr. Salmen's derrick and placed on one of the barges which bring over the crates of bricks. In the same way, a crate of bricks could be carried across town and delivered by Harvey's Canal to a shell road leading into the newly reclaimed plant of the Plaquemine and Jefferson Drainage District.

Heretofore, I have advocated that the wagon be picked up by being hoisted from above and the objection may be made that one of these boxes would be too cumbersome to move about a warehouse, where there were no overhead facilities. This worried me at one time, but I find there are several elevating hand trucks on the market which can pick up a load of this size, provided there is six or eight inches under the load so that the trucks may be run under the load. These hand trucks could be used to shift loads about the deck of a barge to trim the vessel or when the derrick could not place load properly.



**LOUISIANA ENGINEERING SOCIETY
ONE-DAY PLANNING CONFERENCE
SEPTEMBER 9, 1988
SHERATON INN, ALEXANDRIA, LA**

PROGRAM

Friday, September 9

9:00 a.m. - 10:00 a.m.
10:00 a.m. - 10:10 a.m.

REGISTRATION

OPENING SESSION

James W. Reeves, P.E.

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Scholarship

Long Range Planning

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Charles L. Eustis, P.E.

Mark W. Snow, EIT

Dale T. Hunn, P.E.

James L. Meyer, P.E.

Arthur R. Theis, P.E.

12:00 Noon - 1:15 p.m.

LUNCH (On your own)

1:30 p.m. - 3:00 p.m.

PRACTICE DIVISION MEETINGS

Construction

Education

Government

Industry

Private Practice

Richard A. Dupuis, P.E.

Henry E. Markel, Jr., P.E.

Jerry G. Lazenby, P.E.

3:10 p.m. - 4:30 p.m.

GENERAL SESSION

Each Committee and Practice Division Chairman is requested to give a three to five minute presentation on his goals and objectives for the 1988-89 administrative year.

4:45 p.m. - 5:30 p.m.

1988-89 CHAPTER PRESIDENTS' CONFERENCE

Honors and Awards Meeting

Robert P. Blanche, P.E.

Saturday, September 10

7:45 a.m. - 8:15 a.m.

BREAKFAST

8:30 a.m.

LES BOARD OF DIRECTION MEETING

**REGISTRATION COUPON - ONE-DAY PLANNING CONFERENCE
SHERATON INN / ALEXANDRIA / SEPTEMBER 9, 1988**

**CLIP OR
REPRODUCE &
MAIL TO:**

Registration Fee - \$10.00

Name _____ **P.E. YES** _____ **NO** _____

**LES
P.O. Box 2683
Baton Rouge,
LA 70821**

Chapter: _____

MAKE CHECKS PAYABLE TO LES

CONSULTING ENGINEERS COUNCIL OF LOUISIANA, INC. PROUDLY PRESENTS THE 1988-1989 BOARD OF GOVERNORS



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Charles S. Hedges, P.E.
Soil Testing Engineers, Inc.
Baton Rouge, La.



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Ralph W. Junius, Jr., P.E.
Linfield, Hunter & Junius, Inc.
New Orleans, La.



Vice President
Charles G. Coyle, P.E.
Coyle Engineering Co., Inc.
Bossier City, La.



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MEL, Inc.
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Meyer, Meyer, LaCroix
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Terry Gaudet & Associates, Inc.
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Lake Charles Chapter President
W. J. Lechtenberg, Jr., P.E.
Lechtenberg Engineers, Inc.
Lake Charles, La.



Alexandria Chapter President
Thomas C. David, Jr., P.E.
Pan American Engineers-Alexandria
Alexandria, La.



Monroe-West Monroe Chapter President
Jerry Madden, P.E.
S. E. Huey Co.
Monroe, La.



Consulting Engineers Section Warren J. Wilder CEC/L Executive Director



Charles S. Hedges, P.E. - A Profile

Charles S. Hedges, P.E., Baton Rouge, was installed as the 1988-1989 president of Consulting Engineers Council of Louisiana, Inc. (CEC/L) at the organization's recent Annual Meeting in Alexandria.

Hedges is Chief Engineer of Soil Testing Engineers, Inc., Baton Rouge, Louisiana, a multi-discipline consulting firm specializing in geotechnical engineering, groundwater engineering, and waste engineering. He was a graduate from Georgia Institute of Technology in 1956 with a Bachelor of Civil Engineering and in 1961 with a Master of Science in Civil Engineering. He specializes in geotechnical engineering. Hedges has served on the Board of Governors as President-Elect, Vice President, Treasurer, Secretary, Member-at-Large, and as president of the New Orleans Chapter. He is a member of the Louisiana Engineering Society, the American Society of Testing and Materials, International Society for Soil Mechanics and Foundation Engineering, American Society of Civil Engineers and the American Society for Quality Control. He is

also a member of Sigma Xi, honorary research fraternity. He and his wife, Patricia, a practicing attorney, have three children. Hedges is a licensed engineer in Louisiana, Mississippi, Illinois, Georgia and Florida.

Hedges became a member of CEC/L in late 1982 when he operated his own firm, Geotechnical Associates Corporation, in Slidell. He immediately assumed an active posture in the Council by serving as New Orleans Chapter President and has remained on the board ever since. Two years ago he accepted his present position with Soil Testing Engineers, Inc.

After accepting the presidential responsibilities, Hedges quickly ascertained and prioritized the activities of the Council for the coming year. He sees membership development as a top priority and has appointed a membership committee, charging it with developing a specific strategy to seek out "new blood." Hedges reappointed the Long Range Planning Committee and has asked it to develop a five-year plan. He feels that CEC/L must have a general

plan focusing on needs and strengths in order to continue moving forward. Hedges has also set a goal of finalizing and publishing a revised set of Articles of Incorporation and Bylaws this year for distribution to the membership. He continues to place emphasis on the CEC/L Engineering Excellence Exhibit as a method of promoting the engineering profession and the organization.

"Charles Hedges is a man with ideas," says Warren Wilder, Executive Director of the Council, "and he is methodically setting out in a positive manner to turn these ideas into reality. In comparison to other board members, past and present, Charles is basically a quiet person; however, he is very knowledgeable and his input has been most thought provoking. He has gained the respect of his comrades on the board. I believe the phrase, 'Walk softly and carry a big stick,' would be appropriate when describing our president. Charles is concerned about the well being of the Council and the profession and has stepped in to ensure that the well being will be maintained."

Biographical Sketches of the Board Members

RALPH W. JUNIUS, JR., P.E., has been elected to serve as President-Elect of CEC/L. He has served on the Board of Governors as Treasurer, Secretary, and Member-at-Large. Junius has been Chairman of the Legislative Committee for the past four years and is a past president of the New Orleans Chapter. He is a partner in the New Orleans firm of Linfield, Hunter and Junius, Inc. The firm provides a wide range of engineering and architectural services to industry, government, and commercial businesses and forensic services to attorneys and insurance companies. Junius graduated from Tulane University in 1970, University of Illinois in 1972, and Louisiana State University in 1974 with degrees of Bachelor of Science in Civil Engineering, Master of Science in Engineering, and Juris Doctor respectively. He is a member of the Louisiana Engineering Society, National Society of Professional Engineers, American Society of Civil Engineers, American Society of Testing and Materials, and Tau Beta Pi Association. He is also a member of the Louisiana Bar Association, the American Arbitration Association, and the Southern Yacht Club. He and his wife, the former Sandra Perrone, have five children.

CHARLES G. COYLE, P.E., has been elected Vice President of CEC/L. He served two terms on the Board as Member-at-Large and was last year's Secretary. Coyle is president of Coyle Engineering Co., Inc., Bossier City, Louisiana. He was graduated from Louisiana Tech University in 1968 with a Bachelor of Science degree in Civil Engineering and is licensed to practice in Louisiana. He is a member of the Louisiana Engineering Society, National Society of Professional Engineers, and the Society of American Military Engineers. He and his wife, Sheila, have two children, Charlie and Maggie. Coyle serves on the Board of Directors of the Greater Bossier Economic Development Foundation and is

president of the Central Bossier Water System, Inc. He is an elder in the Cottage Grove Memorial Presbyterian Church and serves on the Administrative Council of the Presbytery of the Pines. Coyle's firm specializes in the design of streets, roads, drainage, water distribution systems, and sewage treatment and collection, foundation and structural design and surveying.

RICHARD A. VAN WOOTTEN, P.E., is Senior Vice President - Engineering Operations of Walk, Haydel & Associates, Inc., New Orleans, Louisiana, a multi-discipline consulting engineering firm specializing in industrial plant designs, and the design of deep water terminals, fertilizer facilities, docks, paper and pulp mills, and petroleum and gas producing facilities. Walk, Haydel & Associates, Inc. maintains branch offices in Baton Rouge, Louisiana and Mobile, Alabama. A registered Louisiana civil engineer, Van Wootten was graduated in 1957 from Rensselaer Polytechnic Institute, Troy, New York, with a Bachelor's degree in Civil Engineering. He holds membership in the Louisiana Engineering Society, National Society of Professional Engineers, and the American Society of Civil Engineers. Van Wootten is married to the former Linda McIlvain and they have a son, Peter, and a daughter, Wendy. Van Wootten has been elected to serve the Council as Treasurer, having previously served as New Orleans Chapter president, and two years as Member-at-Large.

MORGAN M. WATSON, P.E., was born in St. Joseph, Louisiana in 1943, and attended public schools in Tensas Parish, graduating from Tensas Rosenwald High School as Valedictorian in 1961. He attended Southern University on an academic scholarship, graduating in 1966 with a Bachelor of

Science degree in Mechanical Engineering. While in college, he participated in various activities including a full year as co-op student at Marshall Space Flight Center, Huntsville, Alabama, honor student, and was selected for *Who's Who Among Students in American Colleges and Universities*. After passing his E.I.T. in 1966, Watson became a P.E. in 1971, and organized MEL, Inc. in 1972 after realizing that absolutely no opportunities existed for blacks and minorities as engineers in private practice. Presently, MEL, Inc. is among the four largest minority-owned consulting engineering firms in the country, and among the largest in the state of Louisiana. Watson is married to the former Helen Johnson of Newellton, Louisiana, and is the father of their three children. He has served on the CEC/L Board of Governors as Baton Rouge Chapter President for two consecutive years and two years as Member-at-Large. He has been elected this year as Secretary.

ARTHUR E. MEYER, JR., P.E., is serving his last year on the board as National Director. He was president of CEC/L last year. Meyer is Secretary-Treasurer and Civil Division Director of Meyer, Meyer, LaCroix & Hixson, Inc., Consulting Engineers and Land Surveyors, Alexandria, Louisiana. He received his Bachelor of Science degree in Civil Engineering from Louisiana Polytechnic Institute in 1956 and served as a Civil Engineering Officer in the United States Air Force in the latter 1950s. Meyer is a Registered Professional Civil Engineer in Louisiana and Texas and is a Louisiana Registered Land Surveyor. He is also a certified fallout shelter analyst. He has served on the CEC/L Board of Governors for several years as president of the Alexandria Chapter, Member-at-Large, Secretary, Treasurer, Vice President, President-Elect and as President and has participated on

several important committees. Meyer is active in the Louisiana Engineering Society, National Society of Professional Engineers, Construction Specifications Institute, Society of American Military Engineers where he has served on a number of committees. He is certified to perform value analyses of engineering projects. Meyer is a licensed active private pilot and is a member of the Louisiana Airport Manager's Association. He remains active in the Central Louisiana Chamber of Commerce, the Alexandria Exchange Club, and the Alexandria Golf and Country Club. He and his wife, the former Karen K. Burnaman, have five children.

JAMES M. POCHÉ, P.E., has been reelected as a Member-at-Large after having served on the board as the Lafayette Chapter president for two consecutive years and another term several years ago. He received his Bachelor of Science in Mechanical En-

gineering from the University of Southwest Louisiana, Lafayette, Louisiana, in 1970. Poché is president of Poché Associates, Ltd., a Lafayette engineering firm which offers services in energy management and mechanical and electrical engineering for private and public residential, commercial, educational, institutional and industrial buildings and complexes. He is also affiliated with ASHRAE, AEE, the Louisiana Engineering Society, National Society of Professional Engineers, and the Louisiana Architects Association. Poché is on the Board of Directors of the Lafayette Chamber of Commerce, was United Givers Fund Section Chairman, and is an active member of the American Consulting Engineers Council's Energy Committee. Three years ago, he served as chairman of the Louisiana Engineers Selection Board, a board empowered to award state agency contracts to engineering firms. Poché is married to the former

Linda DeRouselle and they have two teenage children.

JOE E. ROACH, P.E., is Vice President of BaLaR Associates, Inc., a Shreveport, Louisiana based consulting engineering firm offering general civil engineering including structural and sanitary engineering. He is serving this year as Member-at-Large on the CEC/L board after having completed a two-year stint as Shreveport Chapter President. Roach is a graduate of Louisiana State University with a B.S. degree in Civil Engineering. He is a Registered Professional Civil Engineer in Louisiana, Arkansas, and Texas and has been practicing civil engineering since 1960. After graduation, his experience background included the United States Corps of Engineers and the American Oil Company prior to joining J.S. Boyd and Associates, Consulting Engineers in 1962. J.S. Boyd and Associates was later reorganized as BaLaR Associates, Inc. in 1968, and at that time he became a partner in the firm. His specialties include structural design, water and sanitary sewerage facilities design, and paving and drainage designs. He is a Registered Land Surveyor in the state of Louisiana and is a member of the American Society of Civil Engineers, Louisiana Engineering Society, National Society of Professional Engineers, Professional Engineers in Private Practice, American Water Works Association, Water Pollution Control Federation, Construction Specifications Institute, and the Louisiana Conference on Water Supply and Sewerage and Industrial Waste. Roach and his wife, Bea, have three children.

WALLACE C. SMITH, P.E., is Vice President of Ballard & Associates, Inc., an Alexandria, Louisiana consulting engineering firm offering civil engineering, mechanical engineering, surveying, construction management, laboratory analysis, structural engineering, and building design. He has been elected to serve as Member-at-Large on the CEC/L board. Smith was graduated from the University of Cincinnati with a Master of Science degree in Civil Engineering in 1968. He is licensed to practice in Louisiana, Texas, Tennessee, and Ohio. He is a member of the National Society of Professional Engineers, Louisiana Engineering Society, American Society of Civil Engineers, and the ASME. He has served on the board as Alexandria Chapter president. Smith was chairman of the 1988 CEC/L Annual Meeting Planning Committee. He and his wife, the former Rebecca E. Ferrell, have three children.

H. DARRYL MILLER, P.E., has been reelected to serve on the Board of Governors as Baton Rouge Chapter president. He is president of Ecotech, Inc., a Baton Rouge based consulting firm specializing in geohydrology, groundwater monitoring, environmental engineering and design and preparation of permit applications. Areas of expertise are solid and hazardous waste. Miller was graduated from Youngstown State University and West Coast University with a Bachelor of Engineering in 1962 and a Master of Science degree in 1970 respectively. He is a member of several other professional organizations including the American Society of Civil Engineers, Water Pollution Control Federation, and the American Society of Military Engineers. Miller is licensed to practice engineering in Louisiana, Texas, Mississippi, Ohio, and New Jersey. He and his wife, Molly, have two children.

J. TERRY GAUDET, P.E., Lafayette, Louisiana, was reelected president of the Lafayette Chapter and is that chapter's representative on the Board of

KEY ENGINEERING POSITIONS AVAILABLE

THE DESIGNER'S NETWORK is a recruiting management and consulting firm, bridging the gap between the staffing needs of design and consulting firms and the work/career needs of engineers. We facilitate the recruiting and search process . . . helping design and consulting firms find the right talent to satisfy staffing needs . . . and . . . helping individual engineers find the right company and position to satisfy their work related needs.

THE DESIGNER'S NETWORK currently represents engineering firms in Georgia and Florida offering significant opportunities with long-term potential.

GEORGIA - Progressive and expanding Atlanta-area A/E firm is creating two new departments requiring:

- HVAC DEPARTMENT HEAD - BSME, PE, senior level, project management experience, 8-10 years.
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- OPERATIONS MANAGER - Manage GEOTECHNICAL AND MATERIALS LABORATORY. BS/MS Geotechnical Engineering, PE, senior level with laboratory management experience. Equity potential.
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- HYDRAULIC/HYDROLOGICAL ENGINEER - BSCE, PE, minimum 4 years experience land development, roadways, control structures.

For confidential consideration, contact:

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Paul L. Landry, P.E.,
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers & Land Surveyors.



Attention Phd's

The following rule changes were adopted by the Board at its June 7, 1988 meeting and may be most important to you:

"TITLE 46

Professional and Occupation Standards
Part LXI: Professional Engineers and
Land Surveyors

Subpart 1. Rules

Chapter 1. General Provisions (Amend)
§015.B. changes to 105.B.1 (formerly
19:3.2.2).

The last paragraph is deleted.

§105.B.2. (Adopt)

Teaching of engineering design and the responsible charge of the teaching of engineering design shall be considered as the practice of professional engineering. Associate professors and those higher rank teaching engineering design courses who become employed by a college or university in the State of Louisiana on January 1, 1991, and thereafter, shall be Registered Professional Engineers of the Louisiana Board. Such professors who become employed on or after January 1, 1991, shall have a period of two years in which to become registered. The associate professors and those of higher rank teaching engineering design courses in the employ of a college or university in the State of Louisiana prior to January 1, 1991, are exempt from professional engineering registration as long as they remain in continuous employment by a college or university in the State of Louisiana. Those persons who are exempt from professional engineering registration are exempt only for the purpose of the teaching of engineering

design and they may not present themselves to the public as engineers or professional engineers or provide or offer to provide engineering services as defined by R.S. 37:682 (8).

Chapter 15. Examinations (add)
§1503.F (Adopt)

Until January 1, 1991, the Board may allow the substitution of the qualifying examination for the Fundamentals of Engineering Examination for any applicant who has an earned doctorate from a college or university having an undergraduate curriculum accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology."

A word of caution — the substitution of the qualifying examination for the Fundamentals of Engineering Examination as provided above **will not** be accepted by most other states when applying for reciprocity registration at a later date. Younger candidates should recognize that their career mobility may be limited if they do not take and pass the Fundamentals of Engineering Examination.

Disciplinary Action

A hearing was held on June 6, 1988, at the office of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors in New Orleans, Louisiana, concerning charges filed by the Board against Mr. Thomas Patrick Reed, Sr. Mr. Reed is a Registered Professional Engineer and a Registered Professional Land Surveyor, registration numbers 07076 and 03168, respectively. Mr. Reed attended the hearing and was rep-

resented by counsel.

The United States Attorney charged that Mr. Reed was guilty of misprision of a felony, a violation of Title 18 of the United States Code, Section 4, in that he, an employee and agent of St. Bernard Parish, Louisiana, having knowledge of the commission of violations of Title 18, United States Code, Section 371 (conspiracy to commit mail fraud), in connection with the awarding of St. Bernard Parish contracts, between August of 1984 and July of 1986, did willfully conceal the same and did not, as soon as possible, make known the commission of such felonies to any judge or other person in civil or military authority of the United States. Mr. Reed entered a plea of guilty to misprision of a felony in the United States District Court for the Eastern District of Louisiana in Criminal Action number 87-065(G). The essence of the charge was that bids were fabricated and submitted in three-bid packages to the St. Bernard Parish Police Jury in order to facilitate a scheme to preselect the winner of contracts for parish work. He was sentenced by the federal court to two years imprisonment, with all but four months of that sentence suspended. The four months are to be spent at the Volunteers of America Community Residential Center in New Orleans. The court also ordered that Mr. Reed be placed on active probation for five years, to commence upon his release from confinement.

Mr. Reed testified that he had been unaware that his actions regarding the handling of contract awards for certain work in St. Bernard Parish constituted a violation of any law. He reported acting at all times in good faith and totally at the

direction of his superiors. He also pointed out that his failure to question the method of awarding contracts was not due to a desire for self gain, but was solely because of concern over his continued employment with St. Bernard Parish. Mr. Reed also provided a letter from the United States Department of Justice to the Judge in his case, confirming Mr. Reed's cooperation, candor and truthfulness to the Justice Department regarding the St. Bernard Parish bid rigging scheme and the fact that Mr. Reed did not receive anything of value in connection with his actions. Several other letters from individuals and public officials, attesting to Mr. Reed's faithful and honest service, were made part of the record at the Board hearing.

The Board took notice of the facts that Mr. Reed was convicted of misprision, a minor felony offense, and that he had fully cooperated with the Justice Department. Following consideration of the evidence and the law, the Board, by a majority vote at its meeting on June 7, 1988, ordered that:

- (a) Mr. Reed's professional engineer and land surveyor registrations be suspended for a period of four months, to commence at the expiration of the statutory appeal period.
- (b) The findings and results of the hearing, including reference to Mr. Reed by name, be published in the *Louisiana Engineer* magazine, the official publication of the Board.

BOARD MEETING NOTICE

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors will hold its regular meetings at 1055 St. Charles Avenue - Suite 415, New Orleans, La. 70130 on the following dates:

1988

Sept. 27
Nov. 15

1989

Jan 24-25 July 25
Mar. 28 Sept. 26
June 6 Nov. 14

EXAMINATION SCHEDULE and APPLICATION DEADLINE DATES

EXAMINATION	SPRING		FALL	
	Application Deadline Date	Examination Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	Jan. 15, 1989	Apr. 15, 1989	Aug. 1, 1988	Oct. 29, 1988
Principles and Practice Engineering (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical, & Electrical	Jan. 15, 1989	Apr. 15, 1989	Aug. 1, 1988	Oct. 29, 1988
Agricultural, Industrial, Metallurgical, Mining & Petroleum	NOT AVAILABLE		Aug. 1, 1988	Oct. 29, 1988
Fundamentals of Land Surveying Examination (8 hrs.)	Oct. 15, 1988	Apr. 15, 1989	May 8, 1988	Oct. 29, 1988
Principles and Practices of Land Surveying (4 hrs.)	Oct. 15, 1988	Apr. 15, 1989	May 8, 1988	Oct. 29, 1988
Laws and Procedures of Land Surveying (4 hrs.)	Oct. 15, 1988	Apr. 15, 1989	NOT AVAILABLE	

Apply at least six to eight months prior to an examination. Board approval must be given for anyone to be scheduled for an examination.

The applicant and the Board depend upon information provided by third parties in the processing of an application, therefore no assurance can be given that one will be scheduled for a specific examination.

Application Deadline date means that an application **must** be postmarked prior to or on the date specified so as to be given **consideration** for the examination. The Board may schedule an applicant for an examination later than that requested by the applicant. The Board cannot guarantee that the applicant will be scheduled for the examination initially requested.

Do you know an attorney
who is not a member of the Bar Association?

Do you know any engineers who are
(1) not registered?
(2) registered but not members of LES?

MOVING?

Please notify us of your new address.

Louisiana Engineering Society
P.O. Box 2683
Baton Rouge, LA 70821

SPEC SHEET

Continued from page 12

Governors. He is president of Terry Gaudet & Associates, Inc., a firm offering mechanical and electrical engineering services. Gaudet was graduated from Louisiana State University in 1959 with a Bachelor of Science degree in Mechanical Engineering. He is licensed to practice engineering in Louisiana, Mississippi, Texas, and Oklahoma. Gaudet is a member of the National Society of Professional Engineers, ASHRAE, Louisiana Engineering Society, American Hospital Association, American Jail Association, and the American Institute of Architects. He is a member of the Rotary South Club, Fatima Knights of Columbus, City of Lafayette Air Conditioning Board, and the Dioceses of Lafayette Building Review Board. From the latter 1960s to the mid 1970s, Gaudet served several consecutive years on the board as Lafayette Chapter president. He and his wife, Beverly, have two children.

KENNETH H. McLAUGHLIN, P.E., was elected to serve on the CEC/L Board of Governors as New Orleans Chapter president. He is Vice President of Leo Weil & Walter Moses, Inc., New Orleans. The firm offers design of commercial, industrial, and institutional mechanical and electrical systems, including air conditioning, electrical lighting and power, plumbing, feasibility studies and corrective measures. McLaughlin was graduated from Louisiana State University in Baton Rouge in 1973 with a Bachelor of Science degree in Electrical Engineering. Registered to practice in the state of Louisiana, he is a member of the I.E.E.E. and is Treasurer of the Illuminating Engineering Society. He and his wife, the former Mary Sue Stipe, have two children.

W. J. LECHTENBERG, JR., P.E., is President of Lechtenberg Engineering, Inc., and a partner in D L & L Computer Drafting Service, both in Lake Charles, Louisiana. He was graduated from McNeese State University with a Bachelor of Science degree in Electrical Engineering. Since graduation he has worked with four engineering firms in private practice serving industrial, commercial, and institutional clients. He worked as Area Manager for an Electrical Construction company for three years prior to going into private practice in 1981. Lechtenberg's professional affiliations include the National Society of Professional Engineers, Louisiana Engineering Society (Past Chapter President), ISA, IES, and is currently serving on the Board of Directors for the Chamber/Southwest and has held many committee assignments. He is currently Chairman of the Examining Board for Electrical Contractors for the City of Lake Charles. Lechtenberg has worked with community industrial development serving on facility committees for the Navy Homeport Project and the reactivation of the Chennault Industrial Airpark/Boeing Project. He is married to the former Donna Myers of Sulphur and they have three children. Lechtenberg is serving a second year as Lake Charles Chapter President.

THOMAS C. DAVID, JR., P.E., is serving on the CEC/L Board of Governors as president of the Alexandria Chapter. He is president of Pan American Engineers, Inc. - Alexandria, a multi-discipline consulting engineering firm offering design services for waterworks, sewerage, gas electric, telephone systems, drainage, paving, highways solid waste, and air conditioning for buildings, industrial plants, hangars, and warehouses. David was graduated from Louisiana State University in 1976 with a Bachelor of Science in Civil Engineering. He is

licensed to practice in Louisiana, Mississippi, and Alabama. He is a member of the Louisiana Engineering Society. David is also active in the American Society of Civil Engineers, the National Society of Professional Engineers, ACSM, and the Louisiana Society of Professional Surveyors. He is past president of the Alexandria Chapter of LES and is vice president of the Alexandria Serra Club. He is a member of the Rapides Parish Subdivision Review Committee since 1977. In 1976, he received recognition from ASCE by being named Outstanding Civil Engineering Student in that year. He is a member of Chi Epsilon Honorary Fraternity and Tau Beta Pi Honorary Fraternity. David is married to the former Debby Kennington and they have three children.

JERRY M. MADDEN, P.E., is an Associate and Senior Civil Engineer and Architect in the firm of S.E. Huey Co., Monroe, Louisiana, an established consulting engineering firm offering route and property surveys, commercial and industrial buildings, bridges, highways, industrial and municipal water and waste treatment, and land development. He has been reelected by the Monroe-West Monroe Chapter to serve as its president, a position he held several years ago. Madden was graduated from Louisiana Tech University in 1966 with a Bachelor of Science degree in Civil Engineering. He is licensed to practice engineering in Louisiana, Texas, Mississippi, Oklahoma, and Arkansas, and is a licensed architect in Louisiana. He is also a Registered Land Surveyor in Louisiana, Texas, and Arkansas. He is a member of the Louisiana Engineering Society, American Society of Civil Engineers, ACI, Construction Specifications Institute, and the American Institute of Architects. He holds membership in Tau Beta Pi. Madden is married to the former Gloria Camp and they have one child.

Fall 1988 Engineering Management Courses

FACULTY

The courses will be taught by regular faculty members of the LSU College of Business Administration and Engineering or by able, qualified professors from other universities in the state.

CERTIFICATE

Upon completion of four acceptable courses and a certificate application form, the participant will be awarded a Certificate in Engineering Management by the Division of Continuing Education. An Advanced Certificate will be awarded to students who take a total of six courses.

COST

The fee per participant is \$300 for each course and includes the cost of textbooks.

REGISTRATION

To insure that each student will have an opportunity to participate in discussion, enrollment in each section will be limited to 30 students.

Classes will be organized Tues., Aug. 9, 1988 in Room 503, LSU Medical Center, New Orleans - 7:30 PM, on Wed., Aug. 10, 1988, in Room 3133 CEBA Bldg., LSU, Baton Rouge - 7:30 PM.

Class sessions will be held in the University Medical Center at New Orleans, on the Baton Rouge campus, and in other cities throughout the state where there is adequate demand. To preregister for the classes complete the attached form and return.

AVAILABLE COURSES

- Course A — Modern Management
- Course B — Project Management with CPM/PERT
- Course C — Engineering Economy
- Course D — Financial Decision Making
- Course E — Automation and Computer Aided Manufacturing
- Course F — Basic Engineering Statistics
- Course G — Human Relations
- Course H — Cost Estimating
- Course I — Statistical Quality Control

I wish to preregister for the course indicated. (Please show your first choice with a 1, second with a 2, etc. Show a single location choice only.)

COURSES OFFERED

- () Management
- () Project Management
- () Engineering Economy
- () Finance
- () Automation
- () Statistics
- () Human Relations
- () Cost Estimating
- () Quality Control

LOCATIONS

- () Baton Rouge
- () New Orleans
- () Monroe
- () Alexandria
- () Shreveport

I cannot attend on the following nights:

M ___ T ___ W ___ Th ___

Please complete the following form and return it to the address below if you are interested in the program. (Classes will begin during the week of Aug. 24, 1988).

Name _____

Address _____ Phone _____

City & State _____ Zip _____

MAIL FORM TO:

Dr. L. Mann
Industrial Engineering Dept., CEBA Bldg.
Louisiana State University
Baton Rouge, Louisiana 70803-6409
Phone: 388-5112

General Program

Wednesday, October 19, 1988

11:00 a.m. - 5:00 p.m. Registration
 11:30 a.m. - 5:00 p.m. Golf Tournament, Alexandria Golf & Country Club
 2:00 p.m. - 5:00 p.m. Tennis Tournament, Courtyard Health & Racquet Club
 Dinner on your own

Thursday, October 20, 1988

8:00 a.m. - 5:00 p.m. Registration
 8:30 a.m. - 10:00 a.m. Seminar: "Board of Registration Enforcement Program"
 Speaker: Paul L. Landry, P.E., Executive Secretary, Louisiana State Board of Registration for Professional Engineers and Land Surveyors
 10:00 a.m. - 10:30 a.m. Coffee Break
 10:30 a.m. - 12:00 Noon Seminar: "Continuing Education for Professional Registration in the State of Arkansas"
 Speaker: Kirby Smith, III, Secretary-Treasurer, Arkansas State Board of Registration for Professional Engineers and Land Surveyors
 10:30 a.m. - 3:00 p.m. Council of Deans Meeting
 12:00 Noon - 1:30 p.m. Lunch - On Your Own
 1:30 p.m. - 3:00 p.m. COMMITTEE MEETINGS
 Membership
 Engineering Education
 Constitution and Bylaws
 Ethics and Professional Conduct
 3:00 p.m. - 3:30 p.m. Coffee Break
 3:30 p.m. - 5:00 p.m. COMMITTEE MEETINGS
 Liaison State Board of Registration
 Long Range Planning Committee
 Public Relations
 Political Action Committee
 7:00 p.m. Cocktails & Turkey Fry at Central Louisiana Electric Company

Friday, October 21, 1988

8:00 a.m. - 12:00 Noon Registration
 8:30 a.m. - 10:00 a.m. Seminar: "Requiring NSPE Membership for Eligible LES Members"
 NSPE and LES representatives Panel Discussion (including NSPE President, Robert C. Gibson, P.E.)
 10:00 a.m. - 10:30 a.m. Coffee Break
 10:30 a.m. - 12:00 Noon COMMITTEE MEETINGS
 Legislative
 Inter-Society Relations
 Young Engineers
 Scholarship
 12:15 Noon - 2:00 p.m. Luncheon - Speaker: Robert C. Gibson, P.E., NSPE President
 2:15 p.m. - 4:30 p.m. PRACTICE DIVISION MEETINGS
 Construction
 Education
 Government
 Industry
 Private Practice
 4:00 p.m. - 5:00 p.m. Louisiana Engineering Foundation
 6:30 p.m. - 7:30 p.m. Cocktails
 7:30 p.m. Installation Banquet
 Speaker: "The Wonderful World of Engineering"
 Jack T. Painter, P.E.,
 Professor of Civil Engineering
 Louisiana Tech University
 A narrated slide program on the many varied and challenging areas of engineering, presented in the invigorating and light-hearted style of a showman.

Saturday, October 22, 1988

8:00 a.m. - 9:30 a.m. Breakfast (Ladies & Men)
 9:30 a.m. LES Board of Direction Meeting

Spouses' Program

Wednesday, October 19, 1988

11:00 a.m. - 5:00 p.m. Registration
 11:30 a.m. - 5:00 p.m. Golf Tournament, Alexandria Golf & Country Club
 2:00 p.m. - 5:00 p.m. Tennis Tournament, Courtyard Health & Racquet Club
 1:00 p.m. - 4:00 p.m. Hospitality Suite Open
 Dinner on your own

Thursday, October 20, 1988

8:00 a.m. - 5:00 p.m. Registration
 8:00 a.m. - 10:00 a.m. Hospitality Suite Open
 9:00 a.m. - 10:00 a.m. Tips on Buying Antiques
 10:00 a.m. - 4:00 p.m. Historic Southern Tour and Lunch at Loyd Hall Plantation*
 7:00 p.m. Cocktails and Turkey Fry at Central Louisiana Electric Company

* Historic Southern Rouge/Cheneyville Tour with refreshments at Walnut Grove Plantation; Shop two antique shops; Tour Trinity Episcopal Church and lunch at Loyd Hall Plantation.

** Early Bird Christmas Shopping Tour with shopping at Gus Kaplan; Scarf and Accessories Demonstrations by Nancy Young; Lunch at Janohn's Restaurant and dessert at Word of Mouth, a unique confectionaire. Alexandria Mall Shopping with samplings of coffee and tea at The Kitchen Place and make-overs at Dillard's.

*** Experienced Travel Agent - How to Pack a Suitcase Demonstration.

Friday, October 21, 1988

8:00 a.m. - 12:00 Noon Registration
 8:00 a.m. - 10:00 a.m. Hospitality Suite Open
 9:00 a.m. - 10:00 a.m. Dillard's Make-up Demonstration
 10:00 a.m. - 4:30 p.m. Early Bird Christmas Shopping and Lunch at Janohn's**
 6:30 p.m. - 7:30 p.m. Cocktails
 7:30 p.m. Installation Banquet

Saturday, October 22, 1988

8:00 a.m. - 12:00 Noon Hospitality Suite Open
 9:00 a.m. Experienced Travel Agent***
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LES Sponsored Seminars for 1988

"Board of Registration Enforcement Program"

Speaker: Paul L. Landry, P.E., Executive Secretary, Louisiana State Board of Registration for Professional Engineers and Land Surveyors

A synopsis of actual case examples of State Registration Laws violation investigations and corresponding Board actions will be presented. The seminar will enlighten the Professional Engineer on the realities of registration laws as they apply to the responsibilities and privileges of license to practice engineering.

"Continuing Education for Professional Registration in the State of Arkansas"

Speaker: Mr. Kirby Smith, III, Secretary-Treasurer, Arkansas State Board of Registration for Professional Engineers and Land Surveyors

An overview of the requirement for continuing education to maintain an active registration in the State of Arkansas will be presented, including the history of the program, requirements of the laws, and the administration of the program. The State of

Arkansas has rules requiring continuing education to maintain an active registration status for surveyors and has come very close to having the same requirement for engineers. The laws are modeled after Iowa registration laws. The surveyor and engineer will become better informed about the program, which many states and professionals presently require for active licensing.

"Requiring NSPE Membership for Eligible LES Members"

Panel Discussion: LES and NSPE Representatives

LES is one of two states that does not require NSPE membership for eligible LES members. This apparently is in violation of the Constitution and Bylaws of the National Society of Professional Engineers for the Louisiana Engineering Society to be an official State Chapter. With the recent attention that has been given to this matter, LES and NSPE are both facing a serious decision as to the proper course of action on this matter. This cooperative forum will inform the LES and NSPE members on the issue, and will allow an exchange of ideas on how to resolve the issue.

Highlights

Friday Luncheon - Speaker: Robert C. Gibson, P.E., President of the National Society of Professional Engineers. Mr. Gibson will present an informative overview on NSPE's direction for 1989 and how it relates to the NSPE member. A status report of NSPE Plan 2000 will be given. The LES and NSPE member will become more aware of the National Society of Professional Engineers organization, its programs, and its

relationship to the Louisiana Engineering Society, through this unique opportunity to meet the President of NSPE.

Sports Facilities - "Courtyard on Jackson Street" - Fee \$5.00 per person per day. Racquetball courts, tennis courts, sauna, weight room, swimming pool, etc.

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Thursday Seminars	FREE***	_____	_____
Thursday Turkey Fry	\$10.00	_____	_____
Friday Seminar	FREE***	_____	_____
Friday Luncheon	\$ 8.00	_____	_____
Friday Installation Banquet	\$12.50	_____	_____
Saturday Breakfast	\$ 7.00	_____	_____

Spouses

Thursday - Historic Southern Tour and Lunch at Loyd Hall Plantation	\$20.00	_____	_____
Friday - Early Bird Christmas Shopping and Lunch at Janohn's	\$17.00	_____	_____
Saturday Breakfast	\$ 7.00	_____	_____
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USL Engineering Students Take Honors

The University of Southwestern Louisiana's student chapter of the American Society of Mechanical Engineers took home first and third place honors from the ASME regional student conference and leadership training seminar in Ruston.

USL students took top honors in the Allied Signal Contest. In this contest, chapters are judged on membership and planned activities during the school year. Thirty-one universities from Arkansas, Louisiana, Oklahoma, Texas and Mexico were represented in the competition. Second and third places went to the University of Oklahoma, and Texas A & M, respectively.

USL team members Miles Frank of Crowley and John Rutledge of Lafayette were awarded third-place honors in the design competition. For this event, student teams entered small-scale, electrically-powered amphibious vehicles which were designed and constructed during the semester. Frank and Rutledge had six weeks to design their entry.

The vehicles were judged on the basis of design and the vehicle's ability to successfully navigate a land and waterborne obstacle course.

Thomas L. Jackson Nominated for Vice President of ASCE

Thomas L. Jackson, P.E., a member of the Louisiana Engineering Society, was nominated for Vice President, District 14, of the American Society of Civil Engineers (ASCE) at the Society's Spring Convention in Nashville, TN. Jackson is Executive Vice President and a member of the Board of Directors at Burk and Associates, Inc. a consulting engineering, planning and environmental firm located in New Orleans, LA.

Since October 1986, Jackson has served on ASCE's Board of Direction representing ASCE's District 14, consisting of Alabama, Arkansas, Louisiana, and Mississippi.

A Fellow of ASCE, Jackson served as President of the Louisiana Section from 1981-1982 and also held the positions of Vice President, Secretary-Treasurer, and Director. Jackson was Chairman of District 14 Council from 1984-1985 and served as Chairman of the Society's 1982 National Convention held in New Orleans.

A resident of Metairie, Louisiana, Jackson graduated from Tulane University with bachelor's and master's degrees in civil engineering.

Calendar of Events

We invite all technical and professional organizations to submit their meeting dates for publication in the *Louisiana Engineer* to: Editor, P.O. Box 2683, Baton Rouge, LA 70821

August 18, 1988

CEC/L Board of Governors Meeting,
Baton Rouge, LA

September 9, 1988

LES Planning Conference, Sheraton Hotel,
Alexandria, LA

September 10, 1988

LES Board of Direction Meeting, Sheraton Hotel,
Alexandria, LA

September 15, 1988

CEC/L Board of Governors Meeting,
Baton Rouge, LA

October 19-22, 1988

LES Annual Meeting, Sheraton Hotel,
Alexandria, LA

October 20, 1988

CEC/L Board of Governors Meeting,
Baton Rouge, LA

October 22, 1988

LES General Membership and Board of Direction Meetings, Sheraton Hotel, Alexandria, LA

October 27-29, 1988

ACEC Fall Conference, Cincinnati, OH

November 17, 1988

CEC/L Board of Governors Meeting,
Baton Rouge, LA

December 15, 1988

CEC/L Board of Governors Meeting,
Baton Rouge, LA

January 8-14, 1989

NSPE Winter Meeting, Atlanta, GA

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IN MEMORIAM Albert P. Levy, P.E.

Albert P. Levy, P.E., a retired mechanical engineer, expired earlier this year after a brief illness.

Mr. Levy was a member of the Louisiana Engineering Society and very active in the New Orleans Chapter. He was a lifelong resident of New Orleans and recently retired from the Board of Commissioners of the Port of New Orleans. He was a 1942 graduate of Louisiana State University.

The Board of Direction and members of the Louisiana Engineering Society express our deepest sympathy to his wife, Irma.

BOARD

Continued from page 5

7. The Liaison Committee recommended that the following engineers' names be submitted to the Governor for final selection to serve on the State Board of Registration to replace Arthur R. Theis, P.E., whose term expires on July 29, 1988: Coan J. Bueche, P.E., William E. Howe, P.E., Donald F. Hull, Sr., P.E., Kenneth A. Perret, P.E., and Merlin A. Pistorius, P.E. The nominees were unanimously endorsed by the Board of Direction.

8. The Liaison Committee recommended that the following engineers' names be submitted to the Governor for final selection to serve on the State Board of Registration to replace H. L. Henry, P.E., whose term expires on July 31, 1988; James R. Ballard, P.E., Randall F. Barron, P.E., Robert P. Blanche, P.E.,

John J. Guth, Jr., P.E., and William J. Thevenote, P.E.

9. The Board of Direction has endorsed the Louisiana Council for Fiscal Reform, a group of concerned citizens in Louisiana committed to making our state government fiscally sound and responsible.

10. The Board approved a proposal to increase the LES voluntary scholarship contribution to \$2.00 beginning with the 1989 dues billing cycle.

11. A committee was appointed to determine the cost and feasibility of acquiring the first LES headquarters located at 712 Union Street, New Orleans, for a Museum and/or Hall of Fame.

12. The bylaw amendment to disband the Career Guidance Subcommittee will be voted on at the July Board of Direction meeting.



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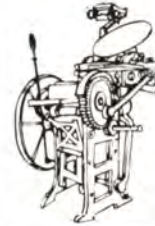
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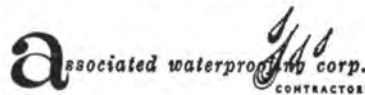
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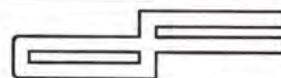
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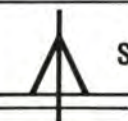
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The Louisiana Investor-Owned Electric Companies enthusiastically support the Special Olympics program. The courage shown by the competitors in overcoming personal adversities serves as a model for us all in today's difficult economic times. These plucky athletes convincingly demonstrate how to draw on other strengths when one facility is diminished.

The LIOEC applauds the contenders, the staff, and the volunteers of the Louisiana Special Olympics for setting an example of triumph against the odds.

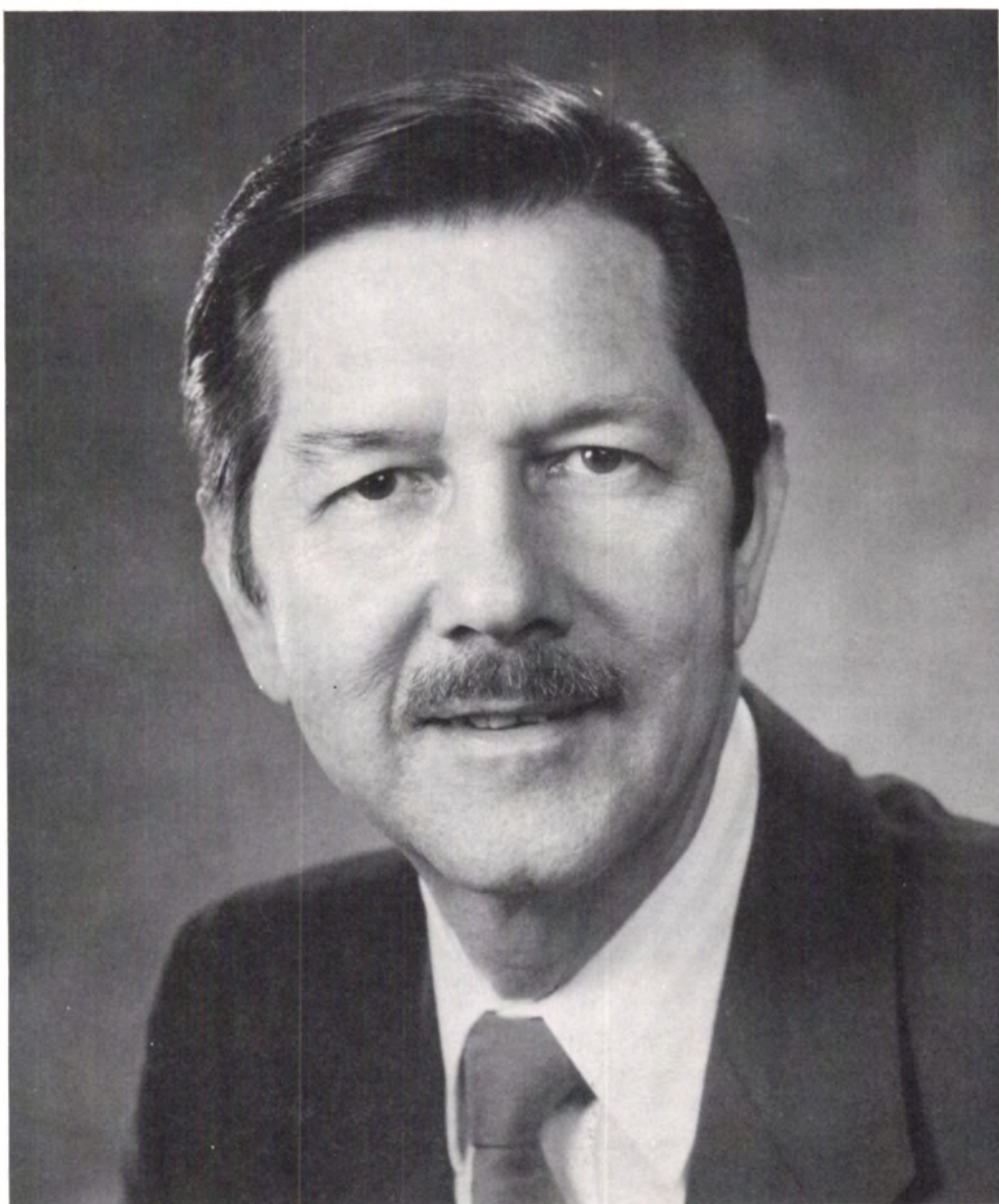
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SANITARY/ENVIRONMENTAL PROCESS

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GEOTECHNICAL

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ENVIRONMENTAL

BS and MSCE, Chemistry or Environmental Engineering with 0-15+ years' experience on RCRA/CERCLA site investigations, feasibility studies, remediation designs, and hazardous waste. Experience in consulting engineering a strong plus.

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CIVIL

Traditional BS/MS CE with minimum of 6 years' experience including earthwork, drainage, site development, landfill, highway (geometric systems), airport, bridges, and design. Project management and a working knowledge of construction essential.

ELECTRICAL

BSEE with 3-15+ years' experience in design of electrical support of utilities and industrial systems for water and wastewater treatment facilities, industrial plants and commercial buildings. Consulting experience preferred.

MECHANICAL

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ABOUT THE COVER

James W. Reeves, Ph.D., P.E., Dean, College of Engineering at University of Southwestern Louisiana, is the new President of the Louisiana Engineering Society.



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Continuity In LES

The Louisiana Engineering Society just celebrated its 90th birthday. Our founders established our Society in 1898 and gave us a strong foundation on which to build, including in 1908 the second State professional engineering law in the nation. We all owe a great deal to these founders and to all who followed them in establishing the rich traditions of our Society and in promoting and enhancing the engineering profession. There is not much that one engineer can do by himself or herself in continuing this effort in the public interest. As a united group, we see the tremendous positive influence that the Louisiana Engineering Society (LES) exerts in the state legislature and at the state level and that the National Society of Professional Engineers (NSPE) exerts in Congress and at the national level.

The officers and working groups of LES and NSPE spend many volunteer hours determining the desires of the membership and converting these into appropriate action. If you are a registered professional engineer, you receive this magazine; however, that does not mean you are a member of LES—and doing your part to repay your profession which has done so much for you. I invite you to write to me at the LES office and I will explain the many programs our Society sponsors and all information about joining with your fellow professionals in making this state and this country a better place to live for our children and grandchildren. The work needs to be done. Don't leave it up to others to do your fair share. Join with us in LES and NSPE to make the engineering profession the best it can be.

Goals for 1988-89

The goals of LES for next year remain much the same as in recent years and so well stated by President Bobby Price for last year. These are membership growth and development, continued long range planning and the implementation of new good ideas, and the continued improvement of our communications and public relations. Most of our committees have responsibilities which bear heavily on our success in improving all three areas. We are fortunate to have some excellent leaders as chairmen and vice-chairmen. I am optimistic that we will continue to improve in all these areas.

Membership Growth and Development

Membership is the lifeblood of most organizations. The drop in LES mem-



James W. Reeves, Ph.D., P.E.
President

Louisiana Engineering Society

bership in the last four to five years has resulted in budgetary constraints and cutbacks and has caused major concern. The economic downturn in Louisiana has been an obvious cause; however, our Society is continuing to conduct a self-evaluation to ensure that we are maximizing the effectiveness and service to our members. This is a healthy approach and will result in a stronger and more responsive organization as economic conditions improve and membership growth resumes. The seminars on various professional matters which are held at our state meetings have been very popular. We will continue to offer these seminars for the interest and development of our members.

Remember This: We can't depend on a committee or a particular group to handle all membership activities if we are to be successful. All of us who believe in professionalism and our profession must be salesmen for our Society. Interest someone in LES today.

Long Range Planning

In the last two years LES has made some significant changes to improve its operation and provide better service to the members. The fiscal year was changed to October 1, September 30. The annual meeting was changed from summer to fall and moved to in-state sites. Both major state meetings, fall and spring, are now held in all nine chapter areas on a rotating basis, and very in-

teresting and instructive seminars have become an established part of both meetings. The Auxiliary is being reorganized and reactivated at the state level, a development which should provide a boost to all chapter auxiliaries. In an attempt to improve the administration and operation of the state committees, a restructuring of those committees is being tried on an experimental basis this year. Finally, an *ad hoc* task force has been established to examine the relationship between LES and NSPE and to make appropriate recommendations. The Long Range Planning Committee should monitor these changes, particularly the experimental changes in state committees, and should continue to provide a plan to guide the Society in the years ahead and to evaluate the effectiveness in serving the members and the profession.

It should be obvious from the above that there is a great deal of vigor and energy in our Society. It is exciting to see the young engineers and the more experienced members combining to offer fresh and challenging ideas for improvements, particularly in the various chapters. Plan 90, a planning document originating in the Alexandria Chapter, is being incorporated at the state level. The New Orleans Chapter completed an application and is competing in the NSPE national contest for outstanding chapter recognition. I believe with their many activities they deserve to win. The Lake Charles Chapter is making a determined come-back after suffering with the depressed economy in that important area of our State. I call on all professional engineers in the Lake Charles area to offer your help and support to this Chapter during this critical stage. The Lafayette Chapter has challenged all chapters this year in the statewide membership contest. These are examples of the energy emanating from all chapter areas, which is where the Society touches the membership. I commend them for their efforts and will continue to offer my support in every way.

Improved Communications/ Public Relations

It is always a major challenge to our communication and public relations efforts to inform our members, other engineers and the public of our outstanding

Continued on page 19

LOUISIANA ENGINEER/OCTOBER 1988

Past President's Message

Bobby E. Price, P.E.



In the October 1987 issue of the *Louisiana Engineer* I stated that the theme of the 1987-88 Administrative Year would be "A Quest for Progress". Major goals were set as: Long Range Planning, Membership Development and Growth, Improved Society Visibility, Improved Communications/Public Relations and Positive Attitude/Image Promotion. Much progress was made in each of these goals. Much more still needs to be done. I am quite pleased that our new LES President, James Reeves, P.E., has selected most of these same goals to pursue during his administration.

Activities for the year have been varied with some tough decisions having to be made by your President, Executive Committee, Board of Direction and Executive Director. The strength of LES has been proven by the fact that the organization has weathered each adverse situation to emerge even stronger in its resolve to represent the membership and the entire engineering profession. Some situations almost became problems, but each proved to be no more than opportunities for LES to move forward.

The Long Range Planning Committee recommended a major change in the organization structure by reducing the number of committees from eighteen to nine with programs/activities being placed under the appropriate committee. The four state directors on the Board will monitor the various committees and provide liaison between the committees and the Board. This should make the committees more functional.

Membership growth has evaded us one more year. There has been an approximate 12% drop in net membership even though there appears to be an increasing interest in membership in LES. The seminars held at both the

Annual Meeting and the Spring Awards Meeting have proven to be successful, with excellent attendance. Required dual membership in LES and NSPE has returned as a topic of discussion. To get the latest information on this subject, attend the Annual Meeting this month in Alexandria.

To improve the Society's visibility, articles were placed in some of the state newspapers regarding Board meetings to be held in chapter areas. Your President attempted to get into each chapter area to attend a general membership meeting of each chapter. All but one were attended. Your President also attended some meetings of other engineering organizations as an official LES representative.

Under improved communications/public relations, an article was sent to twenty-four newspapers in the state emphasizing that LES does not condone the unethical conduct alleged to have occurred by some engineers in political payoffs and influence peddling. Emphasis was made that those who participate in such acts are not representative of the engineering community. Our Ethics and Professional Conduct Committee is reviewing these allegations and will report to the Board in due course. Also, an Auxiliary Task Force brought recommendations to the Board on how the statewide and chapter auxiliaries can be of assistance in promoting good public relations, membership growth and support of overall LES goals.

The Liaison Committee with the State Board of Registration has been involved in recommending nominees to replace three State Board members whose terms expired, tackling an unprecedented situation where an LES nominee was placed on the State Board by the previous governor and whose name was then not submitted to the Senate for confirmation as required by law, and working on clarifying what makes the State Board legally constituted.

The Legislative Committee was heavily involved in monitoring over 3500 bills submitted in the last legislative session and either supporting or opposing certain bills affecting the engineering profession. A major effort was put forth on safeguarding the integrity of the State Board of Registration operation and on limiting political campaign contributions.

MATHCOUNTS is undergoing some changes to help restore the vigor that program needs. MATHCOUNTS still represents one of the most member intensive programs in LES and helps the young people of the state. The LES schol-

arship program remains in good shape because of the excellent direction given to that program by its chairman over several years. That program needs more scholarship funds.

The chapters and practice divisions will always represent the grass-roots operation of LES. LES has been fortunate this year to have had some excellent chapter presidents. Almost without exception, the chapter presidents have carried out their responsibilities with dispatch. These individuals not only serve their constituency in their chapter operation, but also are vital members of the Board of Direction. Most of the practice divisions have been active this year with definite goals and activities. Likewise, these chairmen have much responsibility in the representation of their division members to the best of their ability.

The *Louisiana Engineer* magazine continues to receive very favorable comments from many of those who receive it. Because of budgetary restraints, preparation and publication of the magazine is undergoing some changes. The quality of the magazine will not be diminished, and perhaps, even improved. A major effort is underway to obtain more advertising for the magazine to help with adverse budget conditions.

I could go on and on about the many activities of LES and the positive programs that are available for the benefit of the membership. One only needs to make a definite commitment to working within LES to gain the benefits one expects. Sitting on the sideline leaves a good many talents that could be used to further the engineering profession.

I thank each Board member, each committee chairperson and each LES member who put forth the effort to make LES a viable and productive organization. A special thanks goes to Leta Bueto, Executive Director, and Debbie Noel, LES Secretary, for their excellent work, dedication and total commitment to LES. We are most fortunate to have these ladies to watch after the day-to-day operation of LES. I also want to thank my secretary, Dovie Belmont, who did a tremendous job of carrying part of my load during the year and for providing me with her excellent secretarial services on short notices. I thank the administration at Louisiana Tech for giving me the support necessary to carry out the duties of LES President.

Above all, I thank the LES membership for giving me the opportunity to serve you and the engineering profession. Let's now get behind James Reeves and give him the support that he needs. You are first in line—after me! **LE**

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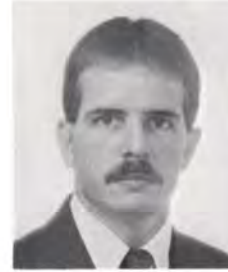
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High and Dry or Flat and Wet

By James S. Janssen, P.E.

Early settlers in New Orleans and in other low lands of Louisiana learned the hard way that very few locations hereabouts are entirely immune to the flooding that results from heavier than normal rainfall. It may be a once in 10 year or 20 year or even once in a century downpour, but the chances are that at least once in the lifetime of any local building, the premises will be inundated. Flooding has occurred on land much higher than any found in south Louisiana, even in mile-high Colorado, for example. The question of whether structures on any site will be above or below high water is frequently a matter of how high the floor level is above the ground level.

The first buildings, residential, commercial and governmental that arose shortly after Bienville established New Orleans were built directly at ground level. Even though they were on relatively high land close to the Mississippi River 10 or 12 feet above sea level, they flooded after any heavy rain. These mostly wooden structures did not last long and were replaced by more permanent ones several feet off the ground. Of course, many have since sunk in our unstable soil. The ditches that ran from the Vieux Carre' to the swamps and marshes back of town were adequate to keep the rain runoff below the raised floor levels.

As the city developed farther away from the river, canals were dug, underground drainage was installed and huge pumping stations were built. But local flooding still occurred on occasion. So following the example of their predecessors, the inhabitants built their buildings up off the ground. Some built them up high enough to even provide headroom below the main floor, thus creating a usable ground level basement as in the popular raised bungalow of a generation or so back. Of course, after long periods of no flooding, residents would get reckless and build rooms in the basement area. Many came to regret this when the floods did come and saturated the rugs, furniture and equipment that had been installed down below.

But we were smart enough not to build any number of subterranean basements

or cellars. Many of the few that were built in New Orleans have been inundated especially during the famous heavy rains and street flooding of Good Friday, 1927. Even a few of the "waterproof" basements built for boiler rooms, bank vaults and storage cellars under commercial buildings ended up with flooding.

Then came the era when we began to ignore these examples based on our local conditions and to pattern some of our buildings after those of other locales. We found that a home built on a concrete slab poured directly on the earth could be built for less money than one raised up on pillars. Of course, many of these built on our relatively unstable humus-bearing soil sank unevenly and sometimes the slab even cracked. This occurs most frequently during a sustained dry spell when both organic soils or humus as well as clay decrease in volume allow-

ing the slab to drop. Without a covering of groundwater, the organic soil is unprotected, it oxidizes or decays and additional, permanent subsidence occurs. This settling phenomenon does not occur on slabs based on alluvial soils (sand, silt, gravel). Unfortunately, areas of such sturdier materials are very limited in the New Orleans area. So we learned to drive piling even beneath single story residences. Of course, the slab had been made thicker and stronger and this, plus the piling, ate up much of the saving in construction cost. And such original savings as were realized in ground level slabs were lost in cleanup, repair, replacement and restoration costs with the first and succeeding floods. If it is decided to erect a home on a ground level slab, the ground should be built up with fill as high as is practical to reduce the chances of inundations.

Actually there are other advantages of having a home raised up above ground



Builders of these old homes in the Carrollton section of New Orleans, whether mansion or cottage, appreciated the wisdom of building the first floor high enough to avoid flooding.



level. Window heights are thus automatically raised a similar distance, thus providing better privacy and security. And it is much easier and less expensive to repair the sewerage, drain, water and other pipelines under the building if there is adequate crawl space.

There is less chance of gases that originate in soil entering the house if there is adequate ventilation between the ground and the first floor. Such gases include so-called swamp gas (methane) that is generated by underground vegetation. Fortunately, radio-active radon, usually connected with granite, does not occur in this vicinity in any great degree.

With all the improvements that have been made in building construction, it is unfortunate that in this respect we have apparently regressed. The summation is that serious consideration of all factors should be given to the decision of whether to build at or above ground level. **LE**

Finishing the basement of a raised dwelling is an invitation to flooding and damage to the furniture, carpets and other contents.



EDITORIAL NOTE: The onslaught of Hurricanes Florence and Gilbert last month and the consequent flooding of lowlands by coastal tides, hurricane waves, prospective hurricane surges and the flooding inland from torrential rainstorms accompanying the hurricanes after they came ashore brought to mind the prospect of flooding which threatens many areas of our country.

In this connection, we believe our readers may be interested in an article "High and Dry or Flat and Wet" prepared by James S. Janssen and published in a local newsletter. The article applies particularly to New Orleans and its surrounding metropolitan area, but the comments apply to any coastal area where low-lying lands may be subject to storm-driven waters and to any inland areas where valleys or flatlands with little gradient may be subject to flooding by heavy rains.

Mr. Janssen, a Consulting Engineer in his 82nd year, has practiced engineering for more than sixty years with agencies as varied as the U.S. Army Corps of Engineers, the Orleans Levee Board and New Orleans Public Service Inc. In his early career, he worked on levees and revetting of the Mississippi River banks and, in his later active practice, was in charge of engineering for the Gas Distribution System of New Orleans Public Service Inc. He, thus, has an intimate knowledge of the effects of river, lake,

bayou waters and rainfall in urban areas on the homes and businesses of our citizens and on the utilities which serve them.

He is also an accomplished amateur historian and has researched and reported on many aspects of the building of New Orleans and of the early settlement and development of the lower Mississippi Valley. In this connection, he has noted the foresight and prudence of our early settlers and engineers in building their homes and critical installations such as the operating floors of sugar factories, cotton gins and sawmills well off the ground and above potential flood level.

Mr. Janssen notes the advent of the slab house in which a concrete floor is poured on the ground or shallow fill, such that the floor level is generally not much above the surrounding ground level. The first such house in Louisiana, of which this writer has knowledge, was built in Alexandria, Louisiana about 1940. This type of construction came much in vogue following World War II, and now the construction of homes on concrete slabs slightly above grade has become common practice even in some areas near sea level. The risks inherent in such construction are evident, but are not generally appreciated until incidents such as Hurricane Florence and Hurricane Gilbert, together with local flooding due to heavy rains, bring the matter sharply to everyone's attention.



Mr. Janssen, a member of the Louisiana Engineering Society since 1933, was named an Honorary Member of the Society on February 12, 1988, the most prestigious membership classification awarded by the Society. Honorary members are chosen from persons of acknowledged eminence in engineering or the sciences related thereto.

It is hoped that publication of Mr. Janssen's article will lead many persons to consider the advantages of a house or business raised on piers or bearing walls well off the ground and above projected flood levels in planning construction. It is easy to design a house or building for wind pressure, but it is difficult to design such structures for flooding. In fact, some slab houses have been known to float off location during sudden high water.



Consulting Engineers Section Warren J. Wilder CEC/L Executive Director



Professional Liability and Your Accounts Receivable

What do accounts receivable have to do with professional liability? At first glance, the answer would seem to be, "nothing at all." But, a closer look may convince you otherwise, for it turns out that careful control of your accounts receivable is not only a sound business practice, but an effective loss prevention technique, as well.

An aging account can be one of those early warnings that something is not as it should be. Where this is the case, prompt attention may be the only appropriate response. The alternative at any rate, a suit to collect fees, turns out to be no alternative at all: too many architects and engineers have found their complaint answered by a countersuit alleging professional negligence. They learned, much to their chagrin, that it would have been far less problematic had they recognized the warning in the first place.

The Question of Professionalism

Part of the problem may be that architects and engineers tend to be less than enthusiastic about spending their time on administrative tasks. This is understandable. By training, experience, and personal inclination, their interests lie in other directions. Yet, the business aspects of professional practice have to be dealt with, and there are some compelling reasons, both professional and financial, for seeing to it that they are dealt with effectively.

Few would question the fact that the personal goals that motivate most professionals have served society well for hundreds of years. Nevertheless, it does not seem unreasonable to suggest that these goals are best advanced in a professional environment unmarred by conflict and supported by a condition of financial health.

Although it may seem surprising, this is not inconsistent with your clients' point of view. Most are either successful business people or high level administrators. They did not achieve their positions of responsibility by being casual about business matters, and they expect that the people they deal with will behave just as prudently as they do. They operate on the assumption that you will take reasonable steps to keep your costs under control.

Financial Considerations

With the prime rate still as high as it is, it makes little economic sense for you to extend any more interest-free credit to your clients than is absolutely necessary. Yet, if the figures cited for 1981 by Birnberg & Associates are correct, it is clear that architects and engineers are financing a healthy portion of the front-end costs of construction in the United States. Birnberg reports that the typical A/E firm carries receivables for an average period of 69 days.*

This explains why some professionals have chosen to work only against a retainer for their services. It also explains why others take great care to see that work in progress is billed promptly and that client invoices are paid within a very short period after they are submitted. If this strikes you as somewhat curious behavior, you might want to take a hard look at your own billing and collection practices. If your invoices are not out by the fifth working day of the month, or if your receivables are outstanding for more than an average of 45 days, they may need your attention.

Precautionary Measures That Make Sense

You can implement steps to reduce both your costs and your exposure to claims, without detracting from the reputation for professionalism you have worked so hard to achieve. The following suggestions, drawn from the successful experiences of other firms, may give you some ideas on how to get started:

1. Recognize that accounts receivable are part of a process that needs to be managed carefully from beginning to end. Start by checking the credit and payment history of any client you are not personally familiar with. Ask for financial statements, and have your accountant or your banker assist you in evaluating them. Remember, unless your clients have the financial wherewithal to complete the project they have so enthusiastically embarked upon, they may wind up enlisting you as an unwilling partner in their venture. Some clients are simply not worth the risk.
2. Take time with the payment provisions of your contracts. Review them

carefully with your clients, and make certain you have a common understanding of how and when your invoices are to be submitted and paid. Seek monthly billings, and specify a period (such as 30 days) within which payment will be made. You may also want to work with your attorney to draft language which would give you the right to stop work, without liability to your client, if your invoices are not paid within the specified period.

3. Send your billings out promptly, using temporary help or overtime, if necessary. The cost will be insignificant compared with the cost of delay. Consider adding late payment interest to your invoice, to take effect if payment is not received on time (you may not collect it, but it will communicate to your clients that you are serious about the payment provisions of your agreement).
4. Consider making the professional who is in charge of the work responsible for prompt and continuing follow-up until the invoice is paid. Many firms make this process easier and more personal by requiring that clients be contacted before the invoice is submitted. This gives the project manager an opportunity to explain work that is included on the invoice and to make certain that no unresolved problems exist which may need immediate attention.
5. Recognize the tendency of some clients to delay final payment, and take steps to head off the problem in advance. When the job is complete, there is often a period of euphoria that surrounds the participants. This may be an appropriate time to ask your client for a letter expressing satisfaction with a job well done. Such a letter can not only help in the development of new business, but it will also be difficult to ignore should reluctance to make the final payment later set in.

(From: *The Professional Liability Prospective*, Vol. 4, No. 6, August, 1988)

*Birnberg & Associates, 1982 *Financial Statistics Survey for Professional Services Firms* (Chicago: Birnberg & Associates, 1982), p. 12.

Continued on page 12

When you have the responsibility of providing enough water for over a million people in Tarrant County (Fort Worth, Arlington, and suburbs), you must reach out and plan way ahead. That is why the Tarrant County Water Control and Improvement District No. One is building the Richland Project - preparing for the 21st Century.

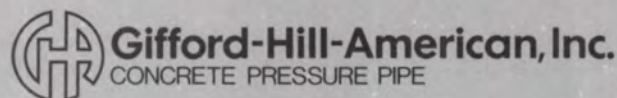
The new Richland Reservoir will supply an additional 187 million gallons per day, almost doubling the amount presently available from Cedar Creek Reservoir and several other smaller lakes.

Water impounded in the Richland Reservoir will be pumped 73 miles through a 90-inch diameter pipeline to a balancing reservoir at a high point along the route.

From there a 108-inch diameter pipeline will carry the water by gravity the remaining six miles to delivery points for the various customers.

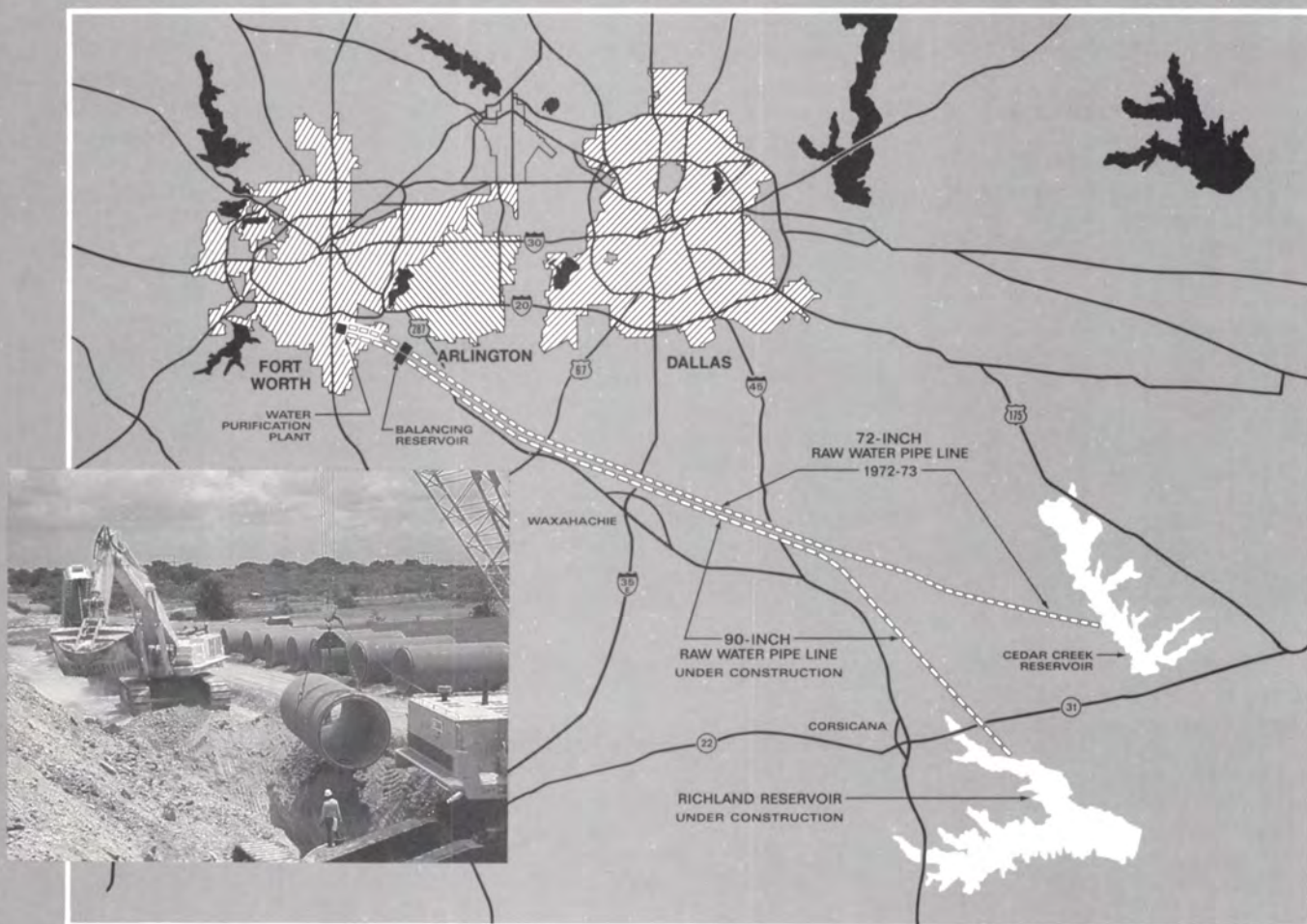
Prestressed Concrete Embedded Cylinder Pipe (AWWA C-301) is being furnished by G-H-A for the entire pipeline project.

G-H-A manufactures Concrete Pressure Pipe in diameters from 10-inches through 144-inches, all in accordance with AWWA Standards.



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WATER DISTRICT PREPARES FOR NEXT CENTURY WITH CONCRETE PRESSURE PIPE



The Spec Sheet

Continued from page 10

Senator Proposes Expansion of E-A's Responsibilities

It happened June 15. A U.S. Senator, frustrated and disturbed by a series of deadly structural collapses in his small state, decided to do something about it. Lowell Weicker, Jr., Republican from the State of Connecticut, and up for reelection this year, is the sponsor of S. 2518, the Construction Safety and Health Improvement Act of 1988.

If enacted, S. 2518 will apply to all construction projects nationwide. As now written, it directs that such projects "shall be under the supervision of a professional Engineer-Architect who is registered in the State where the project is located." The bill goes on to say that "work on a construction project shall be performed only when the E-A (or his certified representative) is present at the site . . . and . . . the E-A shall be liable to the same extent that the supervisor is liable for violations of the applicable provisions of this Act." In short, the E-A will be responsible not only to see to it that the project is built in accord with the plans and specs, but for *all job-site safety* as well.

Reactions of several ACEC members who have examined S. 2518 have ranged from "Impossible to live with!" to "With a few modifications, the Senator's proposal would not only be acceptable, but a breakthrough for better, safer buildings and construction practices."

Sen. Weicker's bill has been referred to the Senate Committee on Labor and Human Resources. It has yet to be scheduled for hearings but the Senator's staff has met informally with representatives of the design professions regarding their concerns and suggestions.

For a copy of S. 2518, send \$2.00 and a return label to ACEC, 1015 15th St., N.W., Suite 802, Washington, D.C. 20005. Ask for "Weicker Bill."

ACEC Committee of Fellows Names Ralph Peck 1988 Award of Merit Recipient

The American Consulting Engineers Council Committee of Fellows has voted to give Professor Ralph Peck its 1988 Award of Merit in recognition of his many contributions to the field of civil engineering. Peck has improved public

safety by advancing engineers' knowledge of earth and rock behavior when stressed by construction - a key factor in the stability of buildings and public works.

Each year's Award of Merit recipient is chosen by the American Consulting Engineers Council Committee of Fellows, an honorary society recognizing professional engineers of outstanding accomplishment. The American Consulting Engineers Council is a national professional association representing over 5,000 private-practice consulting engineering firms.

Past president of the International Society for Soil Mechanics and Foundation Engineering, Peck has already been honored with an American Academy of Arts and Sciences fellowship and by President Ford with the 1975 National Medal of Science and has worked in both private industry and academia. As a consulting engineer, Peck has worked on many large municipal projects, co-authored two books, *Soil Mechanics in Engineering Practice* and *Foundations Engineering*, and written numerous technical papers.

Peck earned the degrees of Civil Engineer and Doctor of Civil Engineering from Rensselaer Polytechnic Institute. In the late 1930's, Peck oversaw the soil testing and field observations necessary to design and construct the initial system of Chicago Subways. After the work was closed down during World War II, he became chief engineer of testing on the construction of an Ohio ordinance plant. And in December 1942, he joined the Civil Engineering Department of the University of Illinois at Urbana, from which he retired in June 1974 as Professor of Foundation Engineering, Emeritus. However, Peck still holds an appointment there as Visiting Lecturer and Research Consultant.

Throughout his university years, Peck acted as a consulting engineer on a wide range of projects, including: foundations for buildings, ore docks and other heavily loaded structures; tunnels and open cuts for the Bay Area Rapid Transit System in San Francisco, the Washington Metropolitan Area Rapid Transit Authority in Washington, D.C., the New York Second Avenue Subway and the Baltimore Rapid Transit System; and dams such as the Mica Dam, Bennett Dam and the Churchill Falls Project.

The Award of Merit will be presented to Peck at the American Consulting Engineers Council's Fall Membership Conference on Oct. 29, 1988 in Cincinnati, OH. LE

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Louisiana Board Members Do It Again!

Last year, I stated in the *Louisiana Engineer* page 10 that "Louisiana was the only state with two (2) recipients" of the National Council of Engineering Examiners Distinguished Service Award.

I was pleasantly shocked this year when I was informed that we *again* had two (2) recipients. Mr. Mac [McNamara], Jim [Dean Reeves], I take my hat off for both of you.

When both of you were submitted for consideration of the award, I had very mixed feelings. I knew that the Board's decision to submit both of you for consideration was most appropriate; however, I had fears that the National Awards Committee would look at two (2) submittals again this year as a negative factor. I was wrong . . . two (2) again this year . . . impossible! Both of you are most deserving of the award which of course was recognized by the NCEE Awards Committee. I, your fellow Board Members, and members of the National Council of Engineering Examiners, want all of our registrants to know that your contribution has been, is, and will continue to be appreciated.

Mr. Mac, Jim . . . thanks for a job well done.

Edward J. McNamara, P.E., L.S.

Edward J. McNamara, P.E., L.S., a recipient of the NCEE Distinguished Service Award, served on the Louisiana Board from August 1978 until July 1987 and, currently, he is serving as an Emeritus Member of the board. During his tenure on the board, he served as secretary, vice chairman and chairman for one-year terms. He represented his board as an ad hoc visitor on engineering accreditation visits to four colleges in Louisiana. He appeared before legislative committees in support of or in opposition to numerous bills relating to registration or licensing for professional engineers. He conducted seminars at three universities to assist candidates in preparing for the Fundamentals of Engineering Examination. He served as a member of the Council's Foreign Educa-

tion, International Relations, Legal Recognition of Engineers, Finance, and Examination Policy Committees.



Edward J. McNamara, P.E., L.S.

He promoted registration and assisted young engineers in preparing to take the Fundamentals of Engineering Examination.

James W. Reeves, P.E., L.S.

James W. Reeves, P.E., L.S., also a recipient of the NCEE Distinguished Service Award, was appointed to serve on the Louisiana State Board of Registration for Professional Engineers and Land Surveyors in January 1978. Currently, he



James W. Reeves, P.E., L.S.

He advocated higher minimum standards of practice to include a code of professional conduct.

is serving as an Emeritus Member of the board. He served as board observer on engineering and engineering technology

accreditation visits to several schools and made career day presentations promoting careers in engineering to high school students. He appeared before legislative committees in support of revisions to the registration law which raised the minimum standards for registration and included a code of professional conduct. He served on the Council's Law Enforcement, Constitution and Bylaws, Foreign Education, International Relations, and Engineering Technology and Registration Committees.

Board Enforcement— Do You Know

The State of Louisiana's first Engineering Registration Act was passed by the legislature in 1908. The initial act itself contained little direction for enforcement of its provisions. Since that time, the registration statutes have been amended for minor changes on several occasions and for major rewrites on two (2) occasions, once in 1950 and once in 1980. All of these changes were to better protect the public through the upgrading of registration requirements and addition of stronger enforcement provisions.

The Board is authorized and empowered to make and enforce rules necessary to perform its duties and to establish standards of conduct for engineers and land surveyors, insuring strict compliance with and enforcement of the enabling law. It is authorized to investigate alleged violations of the law and its rules for compliance purposes; however, it does *not* have the capacity to "police" the engineering and land surveying professions and the industries affected by their practices. Reliance in this regard is placed on the professions, public officials and concerned citizens.

The Board hired its first full-time investigator in December, 1983 and inquiries of law and rule infractions have been pursued primarily to obtain voluntary compliance, with litigation and administrative hearings reserved as a last resort for more serious situations.

The majority of violations complained of and investigated involve misrepresentations rather than outright unlicensed practice although unlicensed



**Paul L. Landry, P.E.,
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers & Land Surveyors.**



practice violations especially in the land surveying area are not uncommon.

The Board has made significant improvement and progress in the enforcement area since 1983; however, there is still much to be done. The Board intends to be fair and reasonable in the application and enforcement of the registration statutes and Board rules, with the gravity of a situation dictating the type of disposition and severity of actions. Investigations are pursued on sufficient and probable cause, based upon sworn written complaints from knowledgeable persons or based upon information developed by the Board Investigator. Although anonymity on the part of a complainant is possible, it is rare. This is due to either the relationship of the knowledgeable complainant to the involved engineer or land surveyor or the need for continued cooperation of the complainant to bring about successful disposition of the complaint.

Complainants are not expected to investigate, per se, any violative situation, but they are expected to be sincere, cooperative and familiar enough with the "who, what, where, when, why and how" of the matter before they register a complaint. Requests for Board action should not be considered completely in lieu of any other legal remedy available and the Board will not be used as a collection agency or to intervene in fee disputes or other disputes which should properly be resolved through civil litigation.

The Board appreciates the assistance and information that has been provided in the past by registered engineers and land surveyors, public officials, and the public in general. It encourages and requests that same type of support for the future, for only through the efforts of everyone can the Board's enforcement efforts be reasonably successful.

BOARD MEETING NOTICE

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors will hold its regular meetings at 1055 St. Charles Avenue - Suite 415, New Orleans, La. 70130 on the following dates:

1988	1989
Nov. 15	Jan. 24-25
	Mar. 28
	Sept. 26
	June 6
	Nov. 14

EXAMINATION SCHEDULE and APPLICATION DEADLINE DATES

EXAMINATION	SPRING		FALL	
	Application Deadline Date	Examination Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	Jan. 15, 1989	Apr. 15, 1989	Aug. 1, 1989	Oct. 28, 1989
Principles and Practice Engineering (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical, & Electrical	Jan. 15, 1989	Apr. 15, 1989	Aug. 1, 1989	Oct. 28, 1989
Agricultural, Industrial, Metallurgical, Mining & Petroleum	NOT AVAILABLE		Aug. 1, 1989	Oct. 28, 1989
Fundamentals of Land Surveying Examination (8 hrs.)	Oct. 15, 1988	Apr. 15, 1989	May 8, 1989	Oct. 28, 1989
Principles and Practices of Land Surveying (4 hrs.)	Oct. 15, 1988	Apr. 15, 1989	May 8, 1989	Oct. 28, 1989
Laws and Procedures of Land Surveying (4 hrs.)	Oct. 15, 1988	Apr. 15, 1989	NOT AVAILABLE	

Apply at least six to eight months prior to an examination. Board approval must be given for anyone to be scheduled for an examination.

The applicant and the Board depend upon information provided by third parties in the processing of an application, therefore no assurance can be given that one will be scheduled for a specific examination.

Application Deadline date means that an application **must** be postmarked prior to or on the date specified so as to be given **consideration** for the examination. The Board may schedule an applicant for an examination later than that requested by the applicant. The Board cannot guarantee that the applicant will be scheduled for the examination initially requested.

Calendar of Events

We invite all technical and professional organizations to submit their meeting dates for publication in the *Louisiana Engineer* to: Editor, P.O. Box 2683, Baton Rouge, LA 70821

October 19-22, 1988

LES Annual Meeting, Sheraton Hotel, Alexandria, LA

October 20, 1988

CEC/L Board of Governors Meeting, Baton Rouge, LA

October 22, 1988

LES General Membership and Board of Direction Meetings, Sheraton Hotel, Alexandria, LA

October 27-29, 1988

ACEC Fall Conference, Cincinnati, OH

October 29, 1988

NCEE Exams (PEs, EITs, LSs)

November 4, 1988

Deadline for Submitting LES's Six Award Nominees to State Office

November 17, 1988

CEC/L Board of Governors Meeting, Baton Rouge, LA

December 15, 1988

CEC/L Board of Governors Meeting, Baton Rouge, LA

December 16, 1988

LES Board of Direction Meeting, Baton Rouge, LA

January 8-14, 1989

NSPE Winter Meeting, Atlanta, GA

April 26-29, 1989

LES Awards Meeting, Holiday Inn, Covington, LA

A Report From Your PAC

The Political Action Committee of LES was formed in 1982. It has struggled to maintain its status and to become effective. This article is to report to the engineering community on the efforts of the PAC last year.

In the general election of November 21, 1987 the LES/PAC sought information from Chapters around the state with recommendations on candidates to support in the run-off election for the State Legislature. Based on the information received, which was sparse, input from the Legislative Committee and review of L.A.B.I. recommendations, support was proposed and given in the form of: (a) letters of endorsement, and (b) cash contributions.

In the total of 33 District elections, including four in the Senate and 29 in the House of Representatives, the LES/PAC sent letters of endorsement to 15 candidates. Our percentage of winners supported in the Senate was one out of three (or 33%) and six out of 14 in the House (43%).

In the way of cash contributions to the campaigns, we participated in 11 District races, one in the Senate and ten in the

House. The Senate seat was won by the candidate supported. In the House six supported candidates lost and four won. Our overall percentage of winners was 45% of those to whom we contributed funds.

Total funds contributed to candidates in 1987 was \$2,500. This was accumulated over several years, with about \$760 being received in the election year. Just \$5.00 per year from just 500 engineers for four years would give us \$10,000 to support favored candidates. If all LES members participate, and a goodly number give at least \$25 in order to be voting members, that sum could be doubled or tripled. Then the effectiveness of the PAC could be greatly increased.

In order to be more effective, it will require more participation by local Chapter officers and Legislative Committee Members keeping the PAC advised on worthy candidates to support from each District. Participation in candidate support as PAC members and cash contributors by many engineers are needed.

In order to build a significant fund to assist worthy candidates in the 1991 elections, each LES member is encouraged to

make a contribution to the PAC. Each contributor will become a member of the LES/PAC. This can be done on the annual LES dues "check off" list, or by separate checks payable to LES/PAC and sent to the office at P.O. Box 2683, Baton Rouge, LA 70821.

Those who contribute \$25 or more per year become voting members and are eligible to be selected as Trustees and to hold office in the LES/Political Action Committee.

Money and participation! Just like everything else worthwhile. Will you be one who does both - contributes funds and contributes input in selecting candidates? **LE**

1991

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Phil O. Nelson, III	PE	CE	Camp Dresser & McKee
Eric C. Jackson	PE	EE	Brooks Harbour & Assoc.
Benny E. Lenoix, Jr.	PE	CE	Stone & Webster Eng.
H. Mille Delacroix, III	PE	CE	HNTB
J. Glynn Aluzin			Insituform Gulf South, Inc.
Charles W. Handrich	PE	CHE	Hall-Kimbrell
Husam M. Yaghi	STU		
Newell H. Schindler, Jr.	PE	CE	LA DOTD
George W. Carpenter, Jr.	PE	CE	LTRC
James A. Little	PE	CE	LA DOTD
Kenneth L. Kinlaw	EIT	EE	Southwest Engineers
Thomas P. Poole	PE	CE	Poole Engineers
Zahid Ahmad	STU		
RAYOU			
Kim A. Thibodeaux	PE	CE	Tennessee Gas Pipeline
John P. McKee	PE	PE	Union Oil Co. of CA
LAFAYETTE			
Daleon J. Primeaux	LSIT	EE	South Central Bell
James D. Collier	PE	PE	Petroleum Properties Mgmt. Corp.
Larry Foley, Jr.	EIT	ME	
Philip J. Andrus	EIT	EE	South Central Bell

Kevin J. Seilhan	EIT	CE	LA DOTD
William J. Moran	EIT	ME	William Clark
Eric A. Gesualoi	EIT	EE	Gearhart Inc. "Oil Service"
LAKE CHARLES			
Mark G. Nixon	EIT	ME	Austin Industrial
Timothy D. Hogue	EIT	CE	Meyer and Assoc., Inc.
MONROE			
Paul D. Baldwin	EIT	ME	Ford, Bacon & Davis
Frederick C. Berry		EE	La. Tech University
Charles K. Bridges	PE	ME	Williams Brothers
Sidney S. Conner	STU		
NEW ORLEANS			
Deirdre M. Rafferty	EIT	EE	LP&L
Albert Steele	EIT	ME	E.I. Dupont De Nemours & Co.
Michael R. Price	PE	CE	US Army Corps of Engineers
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NEW REGISTRATIONS

Continued from page 12

Gregory S. McDuffie	Jesse A. Brothers
Lafayette, LA	Houston, TX
Daniel V. Norman	Lee Burford
Thibodaux, LA	St. Rose, LA
Bernard C. Friel	Daniel F. Craver
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Strother G. Johnson, Jr.	Rich D. Eschman
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Raymond E. Putman	Herbert D. Gloede
Greenville, SC	Bellerose, L.L., NY
Kenneth D. Sudduth	Andrew C. Griffith
Little Rock, AR	Belleville, TX
Michael D. Todd	Edward C. Manthel
Baton Rouge, LA	Clearwater, FL
Su-Seng Pang	Richard L. Ward
Baton Rouge, LA	Buena Park, CA
Barry C. Abramson	Thomas H. Wimbrow
Atlanta, GA	Houston, TX
Bala P. Asawa	
Sugar Land, TX	
Michael Best	
Skokie, IL	
	MINING
	James M. Mattern
	Steamboat Springs, CO

PRESIDENTIAL PRIVILEGE

Continued from page 4

programs and activities, but it is important to our success to do so. We will continue to try to cooperate with other engineering organizations and to generate public support for the important work and high ideals of our Society.

Thanks

One of the greatest honors an individual can experience is to be placed in a position of trust by his peers. I am grateful to the membership for the opportunity to serve as President of the Louisiana Engineering Society. We have a dedicated staff at our state office and some strong leaders in the other officers, the chapter presidents and the committee and practice division chairmen, so I am optimistic that we will have a very successful year. I am committed to giving my best effort. I will need their help, and we will all need your help to further the goals of our Society and to enhance and promote our profession. **LE**

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LES Awards Program

Robert P. Blanche, P.E. Chairman
Honors and Awards Committee

Recognition of fellow engineers has always been an important program of the Louisiana Engineering Society. It is the Society's feeling that honors and awards should be given deserving members so that public recognition of their attainments will inspire others.

The Society has six basic awards:

- The Andrew M. Lockett Medal for Civic Activities
- The A. B. Paterson Medal for an Engineer in Management
- The Charles M. Kerr Public Relations Award
- The James M. Todd Technological Accomplishment Medal
- The F. Hugh Coughlin Young Engineer Award
- The Leo M. Odom Award for Services to the Profession

Nominations may be submitted to a member of the Honors and Awards Committee, or to the Honors and Awards Committee in care of the State Office, no later than November 4, 1988. Nominations for the awards must be submitted on the appropriate form. These forms were delivered or mailed to each Chapter on September 9. The nomination forms should be supported by:

1. A full statement of the formal academic training, experience, progress, and notable technical or engineering contributions made by the nominee.
2. A statement of the basic reasons for submitting the nomination, and for believing that the nominee is eligible for the honor.
3. Such other information and references as may be of assistance to the Board of Direction in considering and acting upon the case.
4. It is essential that such documentation carry the present title and company connection of the nominee, and set forth clearly and concisely why he should be named for the award recommended.
5. A photograph of the nominee.

It is time for the Chapters to screen and select worthy candidates. Nominations for the awards must be in the hands of the Executive Director by November 4, 1988.

Awards will be presented during the Society's spring meeting on April 28, 1989 in Covington.

Nominations for recipients of the awards may be made by:

- Any elected officer of the State Society or one of the Chapters.
- The Board of Direction of the Society.
- The Executive Committee or equivalent body of the Chapter.
- Three or more members of the Society.
- The individual Chapter Honors and Awards Committee.

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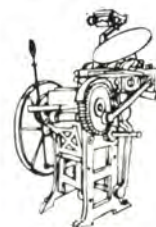
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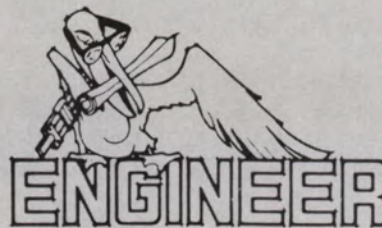
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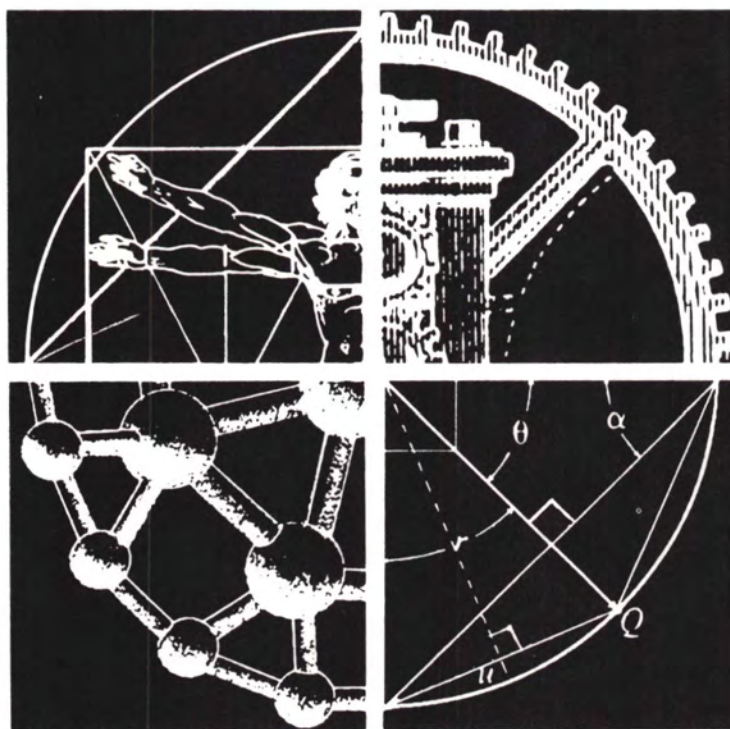


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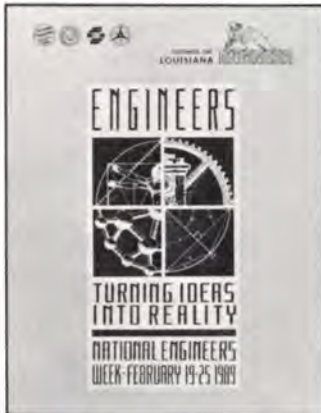
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LES - Off & Running Engineering Education - On the Hot Seat

Following a successful state Planning Conference held on September 9 in Alexandria and the Annual Convention held on October 20-22 also in Alexandria, I am pleased to report that our Society is off to an excellent start in this administrative year. I have been very impressed with chapter officers, who are providing energetic leadership in participating in the Society's Honors and Awards Program, the Scholarship program, the MATHCOUNTS Program and in the chapters' other business. Early evidence indicates that the various chapters are working very hard in increasing membership recruitment and retention which I have established as the main objective for our Society this year.

The five practice divisions, which allow engineers with common practice areas and interest to deal with common problems, have begun defining their agenda for the year. Some of these concerns may eventually be presented to the Board of Direction for action and some may go to the Legislative Committee for consideration as possible law changes.

As with most organizations, much of the work is done by committees, and our committees have established goals for the year and are busy carrying out their work. The committee structure at the state level is complemented by the same structure at the chapter level to assure that we have local response on matters of importance.

For your information and convenience, all officers and chairmen are listed in the front of each issue of this magazine. Please contact any of us if you have ideas or comments to present. We would appreciate hearing from you.

At the October L.E.S. Annual Convention the Education Committee and the Professional Engineers in Education Practice Division discussed at length the possible effects of the federal court action on engineering education. The three-judge panel and the resulting Higher Education Task Force appointed by Governor Roemer have created considerable uncertainty in higher education in Louisiana. While their objective is to develop a plan to integrate state universities, the Task Force has been reminded that



James W. Reeves, Ph.D., P.E.
President
Louisiana Engineering Society

duplication of educational programs, specifically the professional areas of agriculture, architecture and engineering, still represents unresolved problems for the State.

L.E.S. established an *ad hoc* committee to monitor the Task Force subcommittee meetings held around the State and the full Task Force meetings. This Committee consists of Kam Movassaghi, P.E., Chairman; Fred Brown, P.E.; Earl Council, P.E.; and Richard Dupuis, P.E. Some interesting and important data on the funding of higher education in 15 southern states have been presented to the Task Force and, through our *ad hoc* committee, to L.E.S. On a per capita basis, Louisiana is last among these states in 1988-89 appropriations for higher education, providing about one-half as much as North Carolina. In the last two-year period, Louisiana was the only State to reduce university appropriations (-3%). Mississippi increased appropriations by 30%, Alabama by 21%, Georgia by 14% and Texas by 14%. Louisiana funds universities this year at about 63% of the average funding in these 15 states.

Our Society's official position on engineering education remains the same as presented in December, 1986, to the Board of Regents by Bob Blanche, P.E., L.E.S. President. This position which has

been given to the Higher Education Task Force stresses the importance of excellence in engineering education to future economic development in Louisiana and as the means of increasing the productivity and competitiveness of the state's existing industries. Specific comments are included such as the following:

- In order to obtain engineering excellence, engineering education must be properly funded.
- In light of declining student enrollments, declining pool of high school graduates, and a diminishing source of funding for higher education, consolidation or elimination of duplicative or non-productive programs is in the best interest of achieving excellence in engineering education in the State.
- If consolidation is undertaken, the mechanics of implementing this program should be the responsibility of the Louisiana State Board of Regents.
- Admission standards for universities and for colleges of engineering should be increased.
- Universities should try to attract native-born students into engineering and encourage them to pursue advanced degrees and to enter the teaching profession.
- The percentage of international faculty and students in engineering should be reduced.
- Engineering faculty salaries, facilities and support should be improved.
- The teaching faculty in engineering should be registered professional engineers.

Regardless of the ultimate decisions from the federal court, unless universities get funding relief soon, the resulting damage will likely take many years to overcome. L.E.S. has taken a public position in support of fiscal reform for our State. I urge everyone to be active in encouraging and assisting our political leaders to resolve these fiscal problems and to make Louisiana a desirable State for industrial expansion and economic development.

Finally, on behalf of the entire Board of Direction and the Staff, I want to wish each of you and your families a very Merry Christmas and Happy New Year. **LE**

Adrien de Pauger

First City Engineer of New Orleans

By James S. Janssen, P.E.

The Louisiana Engineering Society is promoting the idea of naming the proposed mini-park in the triangle between Decatur, North Peters and Conti Streets in the Vieux Carre or old French Quarter of New Orleans after Adrien de Pauger, our first City Engineer. Monsieur de Pauger arrived here in 1718 with Bienville and immediately began laying out the streets of the new city in the vicinity of the proposed park.

An article about Monsieur de Pauger, written by James S. Janssen, appeared in the December 1983 issue of Waldemar S. Nelson and Company's newsletter, the "Consultant". It was later included in the recently published book, "Building New Orleans, the Engineer's Role," and is being reproduced here as part of our effort to have de Pauger's early work in New Orleans recognized. Individuals and local chapters are urged to join in and assist in our campaign.

Jean Baptiste Le Moyne, Sieur de Bienville, could not have picked a better man than Adrien de Pauger to help him build the Ville de la Nouvelle Orleans. Bienville, having succeeded his brother Iberville as governor of Louisiana, selected the site for New Orleans, which was destined to become the capitol of the French colony in the New World. He came here in 1718 to finalize the location and to establish the city, which he did by ceremoniously cutting the first cane of the thick growth which had to be cleared for the development of the town site.

Le Blond de la Tour Lieutenant-General and Engineer-in-Chief of Louisiana, appointed his assistant, Adrien de Pauger, to do the field work of actually laying out the city. Plans for the city had apparently been drawn by others who could have included Jacques Barbizon de Pailloux, one M. Perrier, and de la Tour himself, and were probably refined by Pauger. Pauger had arrived at Biloxi, then the colony's capital, from France on August 11, 1720 with workmen of various skills. Shortly thereafter, de la Tour sent him to New Orleans where he arrived on March 29, 1721. Here he found only a few scattered buildings, "little more than thatched huts among the bushes and trees," that had ignored the line Bienville had laid out earlier as the base of the city. The area was overgrown with roseau cane and

brush and no civilian laborers were available to clear the land. He prevailed on M. Pailloux, local commandant, to lend him some soldiers so he could start his surveying. Pauger soon began to display his initiative by first moving Bienville's building line closer to better drained land near the Mississippi River and securing the assistance of the local authorities to help him select the more responsible settlers who should be given the choicest lots facing the river. He persuaded the council to require buildings to conform to the city plan and thus halted the helter-skelter development that had taken place.

The city was well laid out with a central square or place d'armes and provision for church and government buildings facing the square and the river. Streets were of standard width with drainage ditches and were at right angles. When the basic plan had been staked out, Pauger was called on to design the parish church on the site of the present St. Louis Cathedral. This was to replace the temporary one which had been destroyed in the hurricane of September 11, 1722. Pauger's church served until it was destroyed in the fire of March 21, 1788, which leveled a large portion of the city. Actually, the hurricane was a blessing because it destroyed most of the flimsy, older buildings, many of which did not conform to the new proposed alignment of the city streets. It also pointed out the necessity for sturdier storm-proof construction raised above ground level.

Even though the land close to the river was the highest in the city, some ten or twelve feet above gulf level, the first high water or spring flood on the Mississippi River showed that the town was subject to inundation. So, again the versatile engineer was called upon for help. By now

Pauger had become Engineer-in-Chief following the death of de la Tour in October of 1723. He directed his assistant, M. de Chaville, to build a levee along the riverfront. This was recorded as being 500 toises (3,000 French feet) long and was constructed under the supervision of Claude Dubreuil, contractor. Its original height was not given but it had to be raised and widened as the flow of the river became more and more confined above and below the city.

Another assignment given to this man of many talents was the construction of a tower to support a light at the Balize. The Balize, which is a French word for beacon, was a garrisoned outpost near the Head of Passes above the various mouths of the Mississippi. Still another accomplishment of Pauger's was the town's windmill which stood on the riverfront near the riverside of today's U.S. Custom House. This was referred to as a "horse-and-windmill," presumably to be operated by equine power when the wind failed. And, of course, though a civil engineer, Pauger participated in the military design of what few fortifications were erected to protect the struggling settlement. He is also credited with maintaining the city at its present site when others proposed moving it down the river closer to the Gulf.

Pauger died in New Orleans on June 10, 1726 and is believed to have been buried in the church that he designed. He gained very little from all his efforts. Even the street that he named after his patron saint (and himself), St. Adrien, has become Ursulines. The twenty-two squares of land in Algiers that he had parcelled out for himself, he lost to Bienville. But, finally, long after his death, a grateful city named Pauger Street in his honor. **LE**



LOCATION OF PROPOSED ADRIEN de PAUGER MINI PARK

LES Board of Direction Meeting Highlights

July Meeting

The July meeting was held in New Orleans, LA with seventeen Board members, three guests, and the Executive Director present.

1. The June financial statement was accepted subject to the annual audit.

2. LaBauve reported on a MATHCOUNTS Steering Committee meeting held on June 28, 1988. The group unanimously agreed to continue the MATHCOUNTS Program in Louisiana.

3. Klock presented the Membership Report. With only two months remaining in the contest year, only one chapter is still ahead of schedule. Statewide, we are only 26% of the quota, but 71% are new members of both LES and NSPE. Meyer indicated that NSPE will be mailing dues renewal notices on September 15. A bylaw change in NSPE will make an unpaid member delinquent on January 1, but they will continue to receive publications through March 31. Unpaid members on March 31 will be dropped from the rolls, three months earlier than last year.

4. Meyer indicated that NSPE has contracted with a management firm to conduct a survey of its membership to determine the needs of engineers and what the engineer expects from his professional society. It was strongly recommended that LES conduct a similar survey of its members or possibly all Louisiana registrants.

5. A new committee structure was presented by the Long Range Planning Committee and approved by the LES Board of Direction for implementation at the September Training Conference.

6. Moody gave a verbal legislative report to the Board. A second Legislative Newsletter will be mailed the first week in July to all members.

7. Ritter reported on the PEI meeting held in conjunction with the NSPE Annual Meeting in Seattle. NSPE/PEI has mailed letters to all delinquent members with good results.

8. Wernicke reported on the PEPP meeting held in conjunction with the NSPE Annual Meeting in Seattle. Arthur DeFraithe, Jr., P.E., was awarded the NSPE/PEPP Award at the PEPP banquet in Seattle.

9. President Price distributed a copy of a letter he sent to the editor of all major

newspapers in the State expressing the Society's displeasure will all the reports of unethical conduct by various engineers and engineering firms.

10. The New Orleans Chapter was submitted as a nominee for the NSPE Chapter Excellence Award.

11. A Tellers Committee Report was given on the election of LES officers for 1988-89 and the election of members to the Engineers Selection Board.

12. The LES Board of Direction accepted the proposal Price presented to the NSPE Membership Committee concerning mandatory membership in the National Society of Professional Engineers.

13. The Career Guidance Subcommittee was disbanded with responsibilities placed under the Engineering Education Committee.

14. The Board approved a one-year printing contract for the *Louisiana Engineer* magazine with Job Printing, Inc.

15. The Board rejected a contract submitted by the Publishing Consultant and gave authorization to the LES staff to prepare the October issue of the *Louisiana Engineer*.

16. The Board adopted new rates for advertising in the *Louisiana Engineer* magazine and approved a contract for a direct mail advertising campaign.

17. The Board reviewed recommendations submitted by the Auxiliary. Three of the recommendations were referred to appropriate committees within LES for discussion.

18. Bueto and Meyer reported on their attendance at the NSPE Annual Meeting in Seattle.

September Meeting

The September meeting was held in Alexandria, LA with twenty Board members, five guests, and the LES staff present.

1. The July and August financial statements were accepted subject to the annual audit.

2. The MATHCOUNTS Task Force has met and all chapters have mailed their registration packets except one. The Louisiana Investor-Owned Electric Companies will make their annual contribution. NSPE is reviewing the complexity of the testing at the regional and state levels.

3. Klock reported that there is less than one month left in this administrative year which represents 92% of the recruiting time elapsed. Statewide, the Society has achieved only 30% of the recruiting quota, but 71% are new members of both LES and NSPE. Labels for potential members in each chapter area were distributed at the Membership Committee meeting. Quotas were established for 1988-89.

4. The Long Range Planning Committee will make recommendations on a method of conducting a membership survey to the next Board of Direction meeting.

5. The Ethics and Professional Conduct Committee is making an investigation on alleged ethical violations by engineers and engineering firms.

6. The Board approved a recommendation from the PEE division to appoint a task force composed of members of the Professional Engineers in Education and the Engineering Education Committee to monitor and observe all developments of higher education and how it effects engineering education in Louisiana.

7. President Price indicated that he had received a letter from the Publishing Consultant advising him that the contract he had presented on the direct mail advertising campaign was contingent upon him serving as the Consultant to the magazine. The Board did not take any action to sign a contract with the Consultant for the magazine or for the direct mail advertising campaign.

8. The Board approved recommendations submitted by the Auxiliary Task Force. The recommendations: (a) designate an auxiliary member to sit on the LES Scholarship Committee; (b) Chapter auxiliaries participate in or assume sales of advertising for the LES magazine in return for a percentage of commissions; and (c) Chapter auxiliaries be given authority to offer Affiliate Memberships (non-voting and non-office holding) to spouses of registered engineers and engineers-in-training for purposes of involving spouses for future possible recruitment of engineers into LES.

9. Meyer reviewed the appointments of two members to the State Board of Registration. Both members appointed by Governor Edwards were submitted to

the Senate for confirmation, but only one was confirmed. The President has written a letter to the Attorney General seeking an opinion since both legal and constitutional issues have been raised. The LES Board is prepared to submit five additional names to the Governor to fill the position on the State Board of Registration which was not confirmed, but will not do so until the legal questions are resolved.

10. Due to a vacancy of a State Director on the LES Board of Direction, Michael W. Flores, P.E., was elected to a one-year term.

11. The LES Board of Direction voted unanimously to endorse the Oklahoma Society of Professional Engineers' nomination of Charles L. Kimberling, P.E., for a 1989 NSPE Distinguished Service Award.

12. The LES Board of Direction voted unanimously to support the members of the New Orleans Chapter to establish a park and that it be dedicated to Mr. Pauger, the first city engineer for New Orleans. **LE**

Calendar of Events

We invite all technical and professional organizations to submit their meeting dates for publication in the *Louisiana Engineer* to: Editor, P.O. Box 2683, Baton Rouge, LA 70821

December 15, 1988

CEC/L Board of Governors Meeting,
Baton Rouge, LA

December 16, 1988

LES Board of Direction Meeting,
Baton Rouge, LA

January 8-14, 1989

NSPE Winter Meeting,
Atlanta, GA

January 24-25, 1989

State Board of Registration Meeting,
New Orleans, LA

February 3, 1989

LES Board of Direction Meeting,
Lafayette, LA

February 19-25, 1989

"Engineers Week"-Theme:
"Engineers: Turning Ideas into Reality"

March 11, 1989

State MATHCOUNTS Competition,
Baton Rouge, LA

March 17, 1989

LES Board of Direction Meeting,
Monroe, LA

March 27-28, 1989

State Board of Registration Meeting,
New Orleans, LA

April 15, 1989

NCEE Exams (PEs, EITs, & LSs)

April 19-22, 1989

Louisiana Society of Professional Surveyors Annual
Convention, Baton Rouge, LA

April 26-29, 1989

LES Awards Meeting, Holiday Inn,
Covington, LA

April 29, 1989

LES Board of Direction Meeting,
Covington, LA

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Roster of Engineering And Surveying Societies

The Inter-Society Relations Committee of the Louisiana Engineering Society is responsible for compiling a roster of chief executive officers for other engineering societies in the state on an annual basis for publication in the *Louisiana Engineer*. The purpose of this effort is to improve communications among the entire engineering community in Louisiana and identify contacts for such inter-society activities as Engineers' Week programs, technical seminars, and coordination of legislative efforts. If your engineering organization is not listed and you wish to be included in next year's roster, please make that request through the LES headquarters at P. O. Box 2683, Baton Rouge, LA 70821.

Charles L. Eustis, P.E., Chairman, Inter-Society Relations Committee

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Consulting Engineers Paid Over \$250 Million in 1988 for Professional Liability Insurance

Consulting engineering firms nationwide spent over \$250 million on professional liability insurance in 1988, according to the Tenth Annual Professional Liability Survey of the American Consulting Engineers Council. Overall, firms paid 4.5 percent of their annual gross billings for professional liability insurance this year.

One-third of the claims brought against consulting engineering firms were settled without any payment to the claimant. However, these suits cost consulting engineers an average of \$12,447 and 125 hours of billable time per claim to defend. "This is one of the most significant findings in the survey," said ACEC President Robert E. Hogan. "Regardless of whether the claim is frivolous or not, the cost to defend it is exorbitant. If you calculate money lost in wasted billable hours plus the defense costs, these suits cost our firms over \$20,000 per claim."

By discipline, structural engineering firms suffered the most in 1988, paying over eight percent of their gross annual billings for professional liability insurance. Mechanical/electrical, civil, geotechnical and architectural/engineering firms paid between three and four percent. Overall, small engineering firms, with one-to-five employees, fared worse, paying over seven percent of their gross billings for insurance. Larger firms paid between two and five percent.

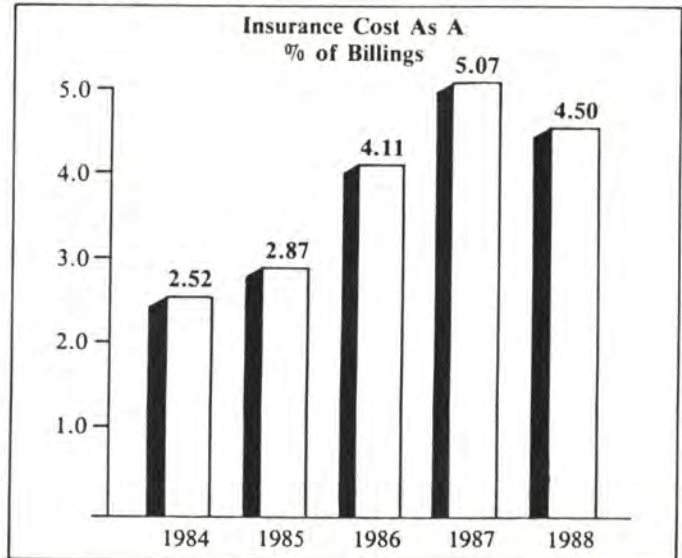
"This illustrates the glaring injustice of our judicial system," Hogan said. "Small businesses, the very basis of the American capitalism, are being preyed upon by litigious opportunists."

Twenty-one percent of firms nationwide are operating without any professional liability insurance. And, 44 percent

of smaller firms (one-to-five employees) are currently "going bare," up from 41 percent last year.

Another trend, higher deductibles coupled with decreasing limits of insurance, continues this year. "Firms are still getting less insurance for their premium dollar," said ACEC Director of Liability Issues Bob Fogle. "And what's worse, smaller firms are being forced to operate at tremendous risk because many can no longer afford professional liability insurance."

ACEC is a Washington, D.C.-based national professional association that represents some 5,000 private practice consulting engineering firms. For more information, contact Sally Hanlon at 202-347-7474.



(from *Liability Report*, October 1988, a monthly news bulletin of the American Consulting Engineers Council).

Table 1: Insurance Trends

All Firms: 1984-1988

Year	Insurance Cost As A % Of Billings	Percent Of Firms Uninsured	Percent Of Firms Insured By:		
			DPIC	CNA	Other
1988	4.50%	21.2%	35%	27%	17%
1987	5.07	23.5	33	28	15
1986	4.11	19.1	34	27	20
1985	2.87	13.0	37	19	31
1984	2.52	11.7	34	16	38

Firm Size By Number Of Employees

1988

Firm Size By Number Of Employees	Insurance Cost As A % Of Billings	Percent Of Firms Uninsured	DPIC	CNA	Other
1-5	7.23%	44.2%	24%	23%	9%
6-10	5.25	20.1	39	23	18
11-25	4.08	15.9	39	28	17
26-100	3.16	6.3	40	32	22
101-500	2.55	5.8	32	37	25
Over 500	1.63	4.8	5	52	38

Firm Discipline

Firm Discipline	Insurance Cost As A % Of Billings	Percent Of Firms Uninsured	DPIC	CNA	Other
Structural	8.31%	16.7%	52%	13%	18%
Mech/Elec	3.91	11.8	38	34	16
Civil	3.89	25.6	32	30	12
Arch/Eng	3.52	11.3	32	37	20
Geotech	3.36	24.4	0	3	73
Other	3.81	49.6	19	19	13



Consulting Engineers Section
Warren J. Wilder
CEC/L Executive Director



Table 2: Deductibles

Number Of Employees	By Size Of Firm 1988				
	\$5,000 Or Less	\$5,001-\$10,000	\$10,001-\$25,000	\$25,001-\$100,000	OVER \$100,000
1-5	71%	23%	4%	2%	0%
6-10	35	43	20	2	0
11-25	13	33	45	8	1
26-100	2	9	40	45	4
101-500	0	5	9	56	30
Over 500	0	0	0	10	90
All Firms: 1984-1988					
Year					
1988	24%	25%	28%	18%	5%
1987	27	25	28	17	3
1986	28	31	23	15	3
1985	30	36	21	11	2
1984	33	38	19	9	1

Table 3: Limits of Coverage

By Size Of Firm 1988						
Number Of Employees	Under \$250,000	\$250,000-\$499,999	\$500,000-\$999,999	\$1,000,000-\$2,499,999	\$2,500,000-\$9,999,999	Over \$10M
1-5	14%	46%	22%	17%	1%	0%
6-10	7	33	32	26	2	0
11-25	4	28	27	40	1	0
26-100	3	6	19	70	2	0
101-500	1	0	3	70	24	2
Over 500	0	0	0	10	75	15
All Firms: 1984-1988						
Year						
1988	7%	26%	22%	41%	4%	0%
1987	8	25	23	40	3	1
1986	7	23	24	41	4	1
1985	8	20	22	42	6	2
1984	9	17	23	43	6	2

Table 4: Claims

Year	Claims Made Per 100 Firms	Claims Pending Per 100 Firms	Methods of Resolution: 1988	
			Method	Percent
1988	47	84	Negotiation	41.8%
1987	46	75	ADR: Mediation	6.7
1986	33	71	Arbitration	5.0
1985	39	64	Other ADR	1.3
1984	43	74	Litigation:	
			- Settled Prior To Court Award	19.2
			- Settled By Court Award	26.0
				100.0%

Table 5: Source And Nature of Claims

% Of Claims Brought By:

Owner:	
Local Govt	11.8%
State Govt	1.8
Federal Govt	5.2
Comm./Industrial	13.5
Other Type Owner	16.2
Total, Owner	48.5%

Other Party:	
Contractor	10.9%
Subcontractor	3.0
Equip. Supplier	0.8
A/E	3.6
Other Third Party	33.2
Grand Total	100.0%

% Of Claims Occurring In Disciplines:

Foundation	8.7%
Structural	12.4
Mechanical	14.1
Electrical	5.9
Architectural	6.8
Civil	32.5
Environmental	8.3
Other	11.2
	100.0%

% Of Claims Attributed To Error By:

Your Firm	17.7%
Owner	14.6
Other Design Pro	9.4
Contractor	28.6
Subcontractor	7.0
Equipment Supplier	4.4
Other	18.2
	100.0%

Table 6: Cost Of Claims Settled

Average Defense Costs Paid Per Claim:		Firms' Personnel Hours Expended Per Claim In Preparation Of Defense:	
By Firm	\$12,447	125	Hours/Claim
By Insurer	\$15,725		

Percentage of Claims Settled Without Any Payment To Claimant: 33%

Structurals Organize to Reduce Insurance Costs

Even before the release of the 1986 and 1987 ACEC Professional Liability Survey results, U.S. structural engineers were painfully aware of the need to jointly promote better quality work and encourage a reduction in out-of-sight liability insurance premiums. (Structural firms, in 1987, paid an average of 9.31% of their gross annual billings for liability insurance premiums. This was over twice the average 4.36% of billings paid by civil, electrical, geotechnical, mechanical and other engineering disciplines.)

However, with the exception of structural engineer groups in California, Illinois and two or three other states, little or no cooperation was evident until early 1986, when several "structurals-only" meetings were held. Despite some overlap of attendees at a variety of locations, the subjects of better quality, national practice guidelines and reduction of liability exposure dominated discussions.

Typically, not everyone saw eye to eye on how best to address these issues, but all recognized something had to be done. The result: not one, but three different organizations came into existence, each meeting a particular need.

CASE

The Coalition of American Structural Engineers (CASE) was organized in May, 1987 as a semi-independent affiliate of the American Consulting Engineers Council. In little more than a year, this fledgling group has (1) grown from 40 to nearly 200 firms, (2) produced a draft of recommended "National Practice Guidelines," and (3) established a technical peer review program. The latter differs significantly from ACEC's Organizational Peer Review (OPR) and from the joint ASCE/ACEC Project Peer Review (PPR).

The National Practice Guidelines, written for structural firms as well as their clients, are intended to define the duties, obligations and limitations of the "structural engineer of record" regardless of where in the U.S. he or she prac-

Continued on page 12

The Spec Sheet

Continued from page 11

tices. At present, structural firms in some states delegate responsibility for determining certain measurements or detailing to fabricators or contractors. In other states, consultants include such work as part of their normal service. When finalized, the Practice Guidelines will define these and other services and will standardize procedures normally associated with performance of structural projects.

The CASE Technical Peer Review (TPR) program has been formally launched following six pilot TPRs, and a 72-page manual is being finalized and is expected to be distributed to CASE members beginning in November. TPR, like ACEC's Organizational Peer Review, will neither rate nor grade reviewed firms. Rather it will submit recommendations for specific improvements, following a one-day review and analysis of a firm's contracts, design criteria, design procedures, quality assurance procedures, intra-office and interdisciplinary coordination, and project specifications.

CASE currently represents about 200 U.S. structural engineering firms. Its chairman is Richard "Dick" Williams of Richard L. Williams Consulting Engineers, Roanoke, Va. For additional information regarding CASE and its activities, write or call Ed Bajer, Director of Interprofessional Programs at ACEC's national office.

SERMC

Even as CASE was becoming a reality, other groups of structural engineers were discussing virtually the same issues. One such group, established in October 1987, is the Structural Engineers Risk Management Council (SERMC). Design Professionals Insurance Company, (DPIC) assisted in organizing this group. With a membership of approximately 400 firms (all DPIC insureds), SERMC's principal objective is a risk reduction program aimed at lowering liability insurance costs.

One of the major elements in the SERMC program is the distribution of

underwriting profits, if any, to its members. DPIC has just announced that SERMC members will be receiving a profit distribution for the first program year, 1987-88. The other principal element of SERMC's program is the requirement that all members participate in SERMC's Technical Practice Review. These reviews will be coordinated and managed by CASE and ACEC as part of its TPR program. Cost of each review will be assumed by DPIC as part of its loss prevention program for SERMC members.

Already in progress is an in-depth study of large claims (\$50,000 or more) made against structural engineers. Results will be furnished to all firms covered by DPIC policies.

President of SERMC is Gerald Lehmer, of Gerald Lehmer and Associates, Pasadena, California. Persons wishing to learn more about SERMC may do so by calling Florence Whitmire at DPIC's California headquarters, (800) 227-4284.

SEIL

In May, 1986 several large structural engineering firms decided to organize and self-fund their own captive insurance company. The result is Structural Engineers Insurance, Ltd. (SEIL).

Participation in SEIL is restricted to stockholder firms with gross annual receipts of \$1.5 million, or more. Management is by a Bermuda-based company that oversees several other offshore captive insurance groups. Maximum coverage per policy is \$1 million over and above each insured's deductible. Deductibles range from \$50,000 to \$150,000 dependent upon billing and prior loss experience.

As of Sept. 1, sixteen distinguished structural engineering firms comprised SEIL's total insureds. During the initial subscription period (still in process), SEIL's Board of Directors intends to limit participation to no more than 25 qualified firms. All firms will be required at regular intervals to undergo an ACEC Organizational Peer Review, as well as a SEIL, incompany, peer review, preferably within the first year of participation.

The capital investment levied upon SEIL stockholders is the equivalent of one-half the interested firm's first year

premium. Cost per share is determined by adding 15% to the book value of shares. Initial capital may be subscribed half cash and half by letter of credit. New firms must be sponsored by an existing policy holder.

The sole source for information regarding SEIL, or possible sponsors, is: David Ezekiel, Structural Engineer Insurance, Ltd., P.O. Box HM1760, Hamilton HM HX, Bermuda. Phone: (809) 295-3688.

Reprinted from *Liability & Litigation Report*

Guidelines for Engineer Expert Witnesses Available

One of the spin-offs of the current litigation explosion has been the increased demand for expert testimony in the resolution of legal disputes. While consulting forensic engineers specialize in providing technical or scientific information to judges and juries, most design professionals have had little experience in such settings.

For the neophyte as well as the veteran, ten national (and one state) organizations of design professionals have collaborated in the development and publication of "Recommended Practices for Design Professionals Engaged as Experts in the Resolution of Construction Industry Disputes." Contents consist of a checklist of thirteen major points dealing with such subjects as: conflicts of interest, consideration of the practitioners' opinions, integrity of tests and investigations, professional standards of care, confidentiality, and more.

While individuals are not required to follow the new brochure's specific recommendations, the latter represents an excellent resource in preparing for testimony. Unlike similar brochures used by lawyers in preparing witnesses for court interrogation, "Recommended Practices" is intended for use by firms and persons involved in design, construction, ownership or use of buildings, public works or land.

Concise written in layman's terms, "Recommended Practices" is available from ACEC at a cost of \$5.00 per copy, prepaid. Ask for document #RPDP/88 and enclose a return mailing label. LE

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COST

The fee per participant is \$300 for each course and includes the cost of textbooks.

REGISTRATION

To insure that each student will have an opportunity to participate in discussion, enrollment in each section will be limited to 30 students.

Please complete the following form and return it to the address below if you are interested in the program. (Classes will begin during the week of Jan. 16, 1989).

Name _____
Address _____ Phone _____
City & State _____ Zip _____

MAIL FORM TO:

Dr. L. Mann
Industrial Engineering Dept., CEBA Bldg.
Louisiana State University
Baton Rouge, Louisiana 70803-6409
Phone: 388-5112

Classes will be organized Wed., Jan. 4, 1989 in Room 503, LSU Medical Center, New Orleans - 7:30 PM, on Thurs., Jan. 5, 1989, in Room 3133 CEBA Bldg., LSU, Baton Rouge - 7:30 PM.

Class sessions will be held in the University Medical Center at New Orleans, on the Baton Rouge campus, and in other cities throughout the state where there is adequate demand. To preregister for the classes complete the attached form and return.

AVAILABLE COURSES

- Course A — Modern Management
- Course B — Project Management with CPM/PERT
- Course C — Engineering Economy
- Course D — Financial Decision Making
- Course E — Automation and Computer Aided Manufacturing
- Course F — Basic Engineering Statistics
- Course G — Human Relations
- Course H — Cost Estimating
- Course I — Statistical Quality Control

I wish to preregister for the course indicated. (Please show your first choice with a 1, second with a 2, etc. Show a single location choice only.

COURSES OFFERED

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- ☐ Engineering Economy
- ☐ Finance
- ☐ Automation
- ☐ Statistics
- ☐ Human Relations
- ☐ Cost Estimating
- ☐ Quality Control

LOCATIONS

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 - ☐ Alexandria
 - ☐ Shreveport
- I cannot attend on the following nights:

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Coan J. Bueche, P.E./P.L.S. Appointed to State Board of Registration



Coan J. Bueche, P.E./P.L.S.

Coan J. Bueche, P.E./P.L.S., Assistant Traffic and Planning Administrator, Department of Transportation and Development, State of Louisiana, has been appointed by Governor Roemer to the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. The appointment became effective August 25 and is for a period of six years.

Bueche replaces Arthur R. Theis, P.E./P.L.S., of Baton Rouge, LA, who has been a member of the Board for the past nine years.

Bueche has spent 22 years of his professional career with the State of Louisiana, having received his Bachelor of Science Degree in Civil Engineering from Louisiana State University. He is a registered professional engineer and a registered land surveyor.

Bueche is a member of the Louisiana Engineering Society and the Louisiana Society of Professional Engineers in Civil Service.

His duties as Assistant Traffic and Planning Administrator are to assist in the management of the Traffic and Planning Section based on policies and goals identified by the Traffic and Planning Administrator and the Secretary's Policy and Procedure Memoranda for the efficient development of transportation plans and programs.

James C. Webb, P.E., P.L.S., Named President of Louisiana Section of American Society of Civil Engineers

James C. Webb, P.E., P.L.S., of The RBA Group was recently installed as the President of the Louisiana Section of the American Society of Civil Engineers.

Mr. Webb is Director of The RBA Group's Baton Rouge office and an Associate with the firm. He received a Bachelor of Civil Engineer degree from the University of Southwestern Louisiana, and is a registered professional engineer and registered professional land surveyor in Louisiana.

Prior to joining RBA, Mr. Webb was with the Louisiana Department of Transportation and Development and the Louisiana Department of Public Works for 26 years. While with LA DOTD, Mr. Webb was Assistant Director of the Louisiana Offshore Terminal Authority (LOOP). He was also chief of the Flood Control and Reports Section of the DPW, responsible for statewide water resources planning and flood control.

Mr. Webb also represented the Secretary of the Louisiana Department of Transportation and Development on the Governor's Task Force on Deep Draft Vessel Access to the lower Mississippi River.

Mr. Webb is a member of the Louisiana Engineering Society, the

National Society of Professional Engineers, and the Southern Section of the Institute of Transportation Engineers.

Randall F. Barron, Ph.D., P.E. Appointed to State Board of Registration



Randall F. Barron, Ph.D., P.E.

Randall F. Barron, Ph.D., P.E., a Professor in the Mechanical Engineering Department and Director of Engineering Research and Graduate Studies at Louisiana Tech University, has been appointed by Governor Roemer to the State Board of Registration for Professional Engineers and Land Surveyors. The appointment became effective August 25 and is for a period of six years.

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Barron replaces H. L. Henry, Jr., P.E., of Ruston, LA, who has been a member of the Board for the past nine years.

He received his Bachelor of Science Degree in Mechanical Engineering from Louisiana Tech University and his Masters of Science and Doctorate Degree from Ohio State University.

Dr. Barron is teaching at the undergraduate and graduate levels in the areas of thermodynamics, heat transfer, cryogenics, solar energy, acoustics, and heat exchange design; supervision of theses and dissertations in the areas of heat transfer at cryogenic temperatures, materials, and solar energy; research in the areas of cryogenics, heat transfer, and materials.

As Director of the Engineering Research and Graduate Studies, he is responsible for the administration of sponsored research programs in the College of Engineering; administration of graduate programs (M.S., Doctor of Engineering, and Ph.D. in Biomedical Engineering) in the College of Engineering.

He is a member of the Association for the Advancement of Science, the American Society for Engineering Education, the American Society of Mechanical Engineers, and the Cryogenic Society of America.

IN MEMORIAM

John Goodman Blanche, Jr.

John Goodman Blanche, Jr., age 85, a member of the Louisiana Engineering Society since 1949 expired on October 30. Mr. Blanche was a native of St. Joseph, LA.

Mr. Blanche was a graduate of the United States Naval Academy Class of 1925, retired from the Navy in 1947, and became affiliated with the Louisiana State University Mechanical Engineering Department, from which he retired in 1969.

The Board of Direction and members of the Louisiana Engineering Society express our deepest sympathy to his wife, Elise, and sons, John, James and Robert.

Roger W. Richardson, Ph.D., P.E.

The Society was saddened by the death of Roger W. Richardson, age 82, on September 30, 1988 in Baton Rouge. He was retired and LSU Dean Emeritus of the College of Engineering.

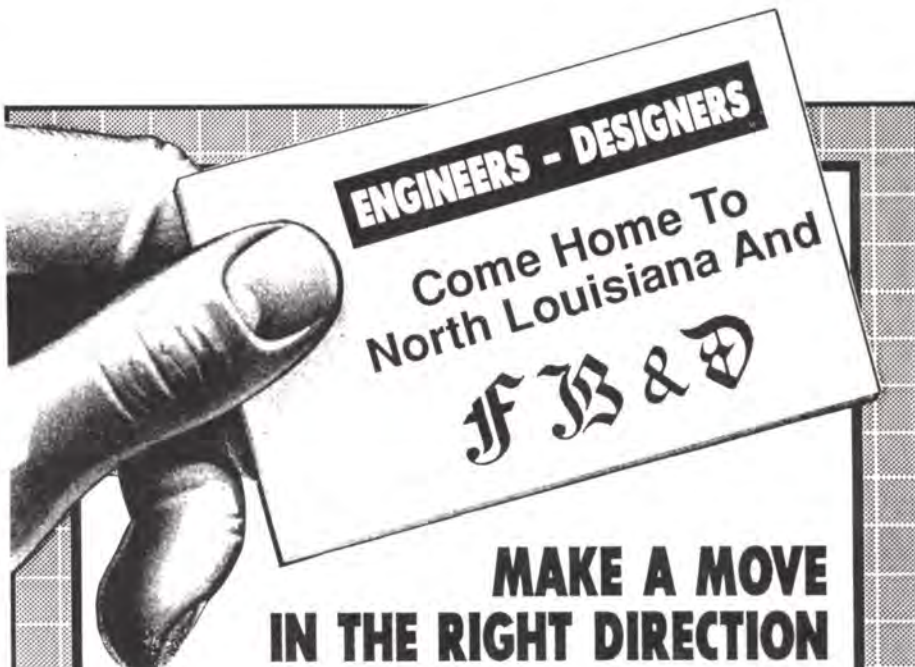
Roger received his BSChE from

Louisiana State University, and his MSChE and Ph.D in Chemical Engineering from Iowa State University. He joined the Louisiana Engineering Society in 1965 and was very active in Society activities especially in the educational field. He received the James M. Todd Technological Accomplishment Medal in 1971 and the Leo M. Odom Services to

the Profession Award in 1973.

The CEBA building on the LSU campus, dedicated in March 1979, was one of Roger's early goals that came to pass through his hard work and dedication.

The Louisiana Engineering Society has sustained a very great loss. The Society extends its deepest sympathy to his family. LE



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Paul L. Landry, P.E.,
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Louisiana State Board of Registration for
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Engineers, Where Are You?

At the recent state annual meeting of the Louisiana Engineering Society in Alexandria, Louisiana, about thirty or forty engineers showed up. The Louisiana Engineering Society has a current membership of about twenty-five hundred.

The Board of Registration for the State of Louisiana had on its active roles on October 4, 1988 a total of twenty thousand six hundred and four registrants. About four hundred of the registrants are Land Surveyors or Land Surveyors-in-Training and not Engineers. That still leaves over twenty thousand registrants of the Board of Registration for Professional Engineers and Land Surveyors who are either Professional Engineers or Engineers-in-Training. About half of that number live in the State of Louisiana, conservatively over nine thousand.

That means that less than one-half of one percent of the Engineers are making the decisions for the remaining ninety-nine point five percent of the registered Engineers who reside in the State of Louisiana.

My simple conclusion is that as Professional Engineers we are "letting Joe do it." We are either satisfied with what "Joe" is doing or we simply don't care.

If you are satisfied with what "Joe" is doing for you then consider helping "Joe". I see "Joe" getting very tired.

If on the other hand you conclude that you don't care then get out of the business of Engineering. Make room for the ones who do care because there is a lot to be done in this world by Engineers especially in the State of Louisiana. Gentlemen, ladies, we don't need "freeloaders".

If we as Engineers continue to be non-participants in our professional society, decisions will be made for us. Critical decisions are about to be made in this state. Be a party to those decisions by participating in your local, state and national professional society. Don't just let "Joe do it" — you may not like what "Joe" is about to do for you.

This expresses the opinion of the Executive Secretary of the Board and not necessarily the State Board of Registrations's formal position.

EXAMINATION SCHEDULE and APPLICATION DEADLINE DATES

EXAMINATION	SPRING		FALL	
	Application Deadline Date	Examination Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	Jan. 15, 1989	Apr. 15, 1989	Aug. 1, 1989	Oct. 28, 1989
Principles and Practice Engineering (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical, & Electrical	Jan. 15, 1989	Apr. 15, 1989	Aug. 1, 1989	Oct. 28, 1989
Agricultural, Industrial, Metallurgical, Mining & Petroleum	NOT AVAILABLE		Aug. 1, 1989	Oct. 28, 1989
Fundamentals of Land Surveying Examination (8 hrs.)	Oct. 15, 1988	Apr. 15, 1989	May 8, 1989	Oct. 28, 1989
Principles and Practices of Land Surveying (4 hrs.)	Oct. 15, 1988	Apr. 15, 1989	May 8, 1989	Oct. 28, 1989
Laws and Procedures of Land Surveying (4 hrs.)	Oct. 15, 1988	Apr. 15, 1989	NOT AVAILABLE	

Apply at least six to eight months prior to an examination. Board approval must be given for anyone to be scheduled for an examination.

The applicant and the Board depend upon information provided by third parties in the processing of an application, therefore no assurance can be given that one will be scheduled for a specific examination.

Application Deadline date means that an application **must** be postmarked prior to or on the date specified so as to be given **consideration** for the examination. The Board may schedule an applicant for an examination later than that requested by the applicant. The Board cannot guarantee that the applicant will be scheduled for the examination initially requested.

Know any attorney
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How about engineers who are:
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 or (2) registered but not members of LES?

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Notify us if you are!!!

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THANKS!

BOARD MEETING NOTICE

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors will hold its regular meetings at 1055 St. Charles Avenue - Suite 415, New Orleans, La. 70130 on the following dates:

1989

Jan. 24-25
 Mar. 28
 June 6

July 25
 Sept. 26
 Nov. 14



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Return to LES, P.O. Box 2683
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I hereby apply for admission into the Louisiana Engineering Society and agree to comply with the Constitution and Bylaws and the Code of Ethics of the Society. I also apply for admission into the National Society of Professional Engineers, if qualified and if I have indicated 'yes' to question No. 8 opposite.

Please assign me to the Chapter checked below:

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NOTE: If you are a PE, EIT or PLS only one LES Member Sponsor is needed, otherwise please list the names of three LES members as your references. A brief professional experience record must be attached if you are not a PE, EIT or PLS.

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Leta Bueto
Executive Director
Louisiana Engineering Society

1989 NSPE Winter Meeting **January 8-14, 1989** **Atlanta Marriott Marquis** **Atlanta, Georgia**

The Georgia Society of Professional Engineers will host the 1989 NSPE Winter Meeting, January 8-14, 1989, at the Atlanta Marriott Marquis, Atlanta, Georgia.

In addition to a full program of meetings, a wide selection of organized tours, dinners, and sports activities have been arranged. Many other options for entertainment and recreation are available for you and your family to explore the historic city of Atlanta.

For more information on the meeting contact the Louisiana Engineering Society (504) 344-4318. To make hotel reservations contact the Atlanta Marriott Marquis (404) 521-0000.

A Message From **The NSPE President**

In a world increasingly dependent on technology, engineers must become leaders—leaders in our society as well as in the workplace. To do that, the profession must acknowledge an expanded scope of practice for the professional engineer of the future.

At work, engineers have evolved from doers to managers of technology. Managing engineers are emerging. They have the "responsibility" to ensure that a project or system fits into the environmental, social, and business context, and they must integrate the project team.

In that setting, the engineer of the future will combine communication and people-management skills with those needed for technical management and marketing, to play a vital socioeconomic role.

We have the responsibility to ensure that the engineers of tomorrow are better prepared to serve the public within this framework. To allow that to take place:

- We must accept the concept of an expanded role for engineering reflecting the shift of emphasis and job function

toward management of technology.

- We must examine the existing discipline structure for engineers. The profession must recognize and promote the "dual ladder" concept of engineering employment—the engineering manager and the technical expert.

The standards for managing engineers should specify the technical, management and humanistic background required to effectively manage technology in the social, cultural, and economic environments. As engineers take on expanded roles, they will also face increased responsibilities as professionals. To legally accommodate those increased responsibilities, the definition of engineering needs to encompass the management and application of technology.

The education and training of the engineers of tomorrow is the single greatest challenge for the profession today. If we are to be successful in meeting the technological challenge of the future, we must ensure that our educational system can produce engineers for a global economy.

To deliver engineers who can effectively fulfill the profession's expanded role and definition, a change to the formative process will be necessary. I believe we must continue to assess the merits of an extended undergraduate program and a life-cycle educational opportunity for engineers.

We must continue to strive for the inclusion of ethics, professionalism, communications, and finance and management in engineering programs. I suggest that we encourage the development of strong communications and leadership skills during the engineer-intern period by formally incorporating and giving recognition to community involvement activities, public speaking, and the development and submission of briefs on public issues in the application process for the P.E. exam.

In the area of professional development programs, I see an expanded effort to offer engineers the opportunity to keep up to date. The opportunities in the management area alone are limitless. We

must promote the interchanges between the practicing engineer and our engineering colleges and universities to improve linkages and responsiveness of the education system.

In the public relations area, it is incumbent upon the profession to promote an improved understanding of the important part engineers play in increasing quality and productivity, and in providing the innovation necessary to remain competitive at home and abroad. The technological sophistication of the 21st century will place ever-increasing demands on engineers.

As managers of technology, we will play an enhanced role in promoting the welfare of society. It's truly an exciting time to be in a leadership position in the engineering profession, and NSPE understands fully the responsibilities and challenges that go with its leadership role.

The Society has many ongoing programs and several exciting new initiatives that address the enhanced role of the engineer in our technological world. With your help, NSPE can make a difference.

Robert C. Gibson, P.E.
NSPE President

Engineers Won't Be Put Out to **Pasture By Sophisticated** **Computer Software**

Advanced computer software data bases—bearing billions of bytes of building codes, site characteristics, materials characteristics, and so on—that in less than a day can generate complete sets of design drawings are no longer a concept for the 21st century, according to an article in a recent issue of *Engineering Times*, the official publication of the National Society of Professional Engineers.

Rather, the future of engineering is now, as a handful of U.S. and Japanese firms have developed software packages capable of converting site-specific design specification into drawings.

But do such advancements spell doom for the engineering profession? "Not at all," Dick Bilden, a project manager at Dewberry & Davis in Fairfax, VA, tells

Continued on page 20



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David C. Ferer Receives LES Scholarship



David C. Ferer, a freshman in Mechanical Engineering at Louisiana State University, was recently named to receive a \$1,000 Louisiana Engineering Scholarship for 1988-89. David is the son of Kenneth and Joan Ferer of Covington, Louisiana, and is a graduate of Mandeville High School.

David is shown receiving his scholarship from Dr. Julius Langlais, Associate Dean in the College of Engineering.

POTPOURRI

Continued from page 18

the *Times*. "This is nothing more than a decision-making tool for the engineer. The engineers, instead of doing busy things, will be using their brainpower to evaluate the results of what the computer produces."

The current state of the art in computerized design is typified by a system for designing Post Office substations, developed by the Everett I. Brown Co. in Indianapolis for the federal government. Brown Co. engineers created a data base loaded with information pertaining to some 97,000 parts of previous substation projects, and today the firm is able to produce substation designs in half a day and drawings one day later at a cost of just \$1,200 — down from several weeks of effort and \$25,000 in cost when conventionally drawn.

Similarly, a bridge software package conceived by Michael Baker Engineers of Beaver, Pa., in conjunction with the

Pennsylvania Dept. of Transportation, has cut the time required to draw a set of plans from a month or longer to about one day, reports the *Times*. Using the second-generation Bridge Automated Drafting and Design (BRADD II) package, Baker engineers plug in the load requirements, width, length, and elevations, and in a day's time they've got a print out, including a complete set of design specifications, drawings, and even material options in concrete or steel. BRADD II is applicable for short-span bridges, which represent about 95% of the nation's spans.

Such advancements will not replace the need for engineers, though, the *Times* article points out. More than likely, what these and future computer advancements mean to the profession is that less time will be spent on the inputting of specifications and drafting. "There's a lot of tedious stuff in engineering, and we ought to let the computer do it," says Kenneth Reinschmidt, Stone & Webster vice president.

And by eliminating much of the "grunt work" engineers will be able to devote more energy to creative problem-solving. "I think design will be better, project management will be better, and the role of the engineer and architect of the future will be more of a design/project manager, not of a drafter," says Frank Stasiowski, publisher of the *Professional Services Management Journal*.

Bilden agrees, noting that computerized design will allow engineers to devote more energy to considering the "what ifs" of a project.

Nonetheless, some engineers add a note of caution regarding such dependence on computers, reminding that software and data bases are only as good as the engineer who inputs the information. "You can't take things for the computer prima facie. It's the job of the engineer to ask questions every step of the way," Lee Martin, president of TeleRobotics International in Knoxville, told *Engineering Times*. **LE**

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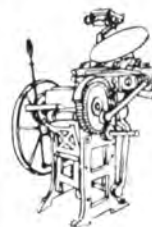
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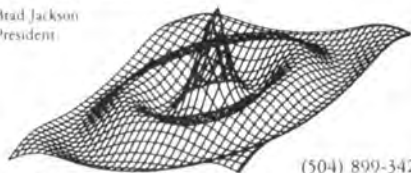
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