COLONEL ALBERT J. WETZEL, "MR. TITAN", TO ADDRESS SOCIETY

SPACE AGE LEADER IS TULANE ALUMNUS — M. & E. 1939

Colonel Albert J. Wetzel is the Assistant to the Commander for the Ballistic Systems Division, Air Force Systems Command, at Los Angeles. Colonel Wetzel holds this key position with years of experience in the field of guided missiles. Because of his long service as Director of the Titan guided missile program, he is generally known as "Mr. Titan."

Colonel Wetzel is a native of New Orleans, La. He received his Bachelor of Science degree in electrical and mechanical engineering from Tulane University, La. (1939) and his Master's degree in aeronautical engineering from Johns Hopkins University, Md. He is also a graduate of the Command and General Staff College, Ft. Leavenworth, Kan., and the Armed Forces Staff College, Norfolk, Va.

He began his military career in January 1941 with the Corps of Engineers, transferred to the Army Air Corps and received his pilot wings in February 1943, completing his flight training at Randolph Field, Tex. He is now rated Command Pilot, with over 3,500 flying hours, and is a qualified aircraft commander in the B-47 Stratojet. He has been awarded the Commendation Medal with three Oak Leaf Clusters.

In 1943 he was assigned as a test pilot and project engineer at Wright Field, Ohio. This led him into the field of research and development of guided missiles.

During World War II he served with the 98th Bomb Wing, 344th Bomb Group and 70th Fighter Wing in the European Theater of Operations. While in Germany his engineering interests were given new direction by the advent of the V-2 rockets.

He returned to Wright Field in 1947 and was later assigned at the Air Force Missile Test Center, Holloman AFB, N. Mex. In 1950 he was transferred to the Pentagon in Washington, D. C. and placed in charge of the atomic warheads for guided missiles.

Chrysler Corporation's K. T. Keller, guided missile advisor to President Truman, chose him to serve as his executive officer in 1952. He later wrote to Gen. Nathan F. Twining, then USAF Chief of Staff, commending Colonel Wetzel for "the fine service he has rendered to me and to the National Guided Missile program." Colonel Wetzel also served as executive officer to Frank D. Newbury, Assistant Secretary of Defense, in 1954 and 1955, and was cited both by Secretary Newbury and General Twining for his "outstand-

(Continued on Page 4)
THE TULANE ENGINEER

Published by the Society of Tulane Engineers whose officers are:

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Annual Dues: $2.00

OCTOBER 1961

THE SOCIETY OF TULANE ENGINEERS

The aims and purposes of this organization are as follows:

1. To keep members of this organization informed of the progress, activities, and needs of the School of Engineering.

2. To provide closer contact between former students and faculty by providing information about their whereabouts and activities.

3. To provide employment placement service for prospective graduates and members.

4. To provide a means of raising funds for specific equipment and services.

5. To provide an advisory group whose purpose it is to recommend improvements in curriculum, instruction and classroom procedure.

TEN YEARS OF STE ACCOMPLISHMENT

Lee H. Johnson

This Fall marks the tenth anniversary of the Society of Tulane Engineers and it is most appropriate occasion for reviewing what the Society has done for the School of Engineering. The Engineering alumni can well be proud of these accomplishments and to them we at Tulane express our warmest thanks and deepest sense of appreciation for this loyal devotion to their alma mater.

Shortly after the Society was founded, it embarked upon a long list of projects and actions which have contributed significantly to the School of Engineering. The first of these was a project headed by Mr. Claiborne Perrilliat and James P. Ewin to provide the School of Engineering with a major research facility called the Experimental Research Frame and valued at approximately $25,000. This facility is about 65 feet in length and can be used for research on beams up to approximately 100 feet in length and columns 50 feet in length with vertical loads as much as 200 tons. The STE committee was responsible for raising the funds and securing contributions of services and materials which made possible the construction of this facility.

Another early action of the Society was to inaugurate an annual Engineering Alumni Homecoming meeting which precedes the general alumni homecoming meeting. This has brought together the Engineering alumni each year and given them opportunity to renew acquaintances, to see the Engineering facilities, to hear distinguished alumni speakers, and to transact Society business.

Another early action of the Society was to appoint an Advisory Committee of Alumni which worked for a considerable period of time and presented a lengthy study and review of curricula with many valuable suggestions to the School of Engineering in 1954.

The Society contributed a $50 prize for the best exhibit in the Engineering Review (open house) which was held in 1953 and also a similar prize for the Review in 1954.

The Society assisted in the procurement of equipment on a loan basis in 1953 to enable the Chemical Engineering Department to undertake a research project in cooperation with the Oak Ridge National Laboratory.

In 1956, the Executive Committee of the Society voted to contribute a sum of money to be placed in an unrestricted account to be used by the Dean and the faculty for special purposes and needs in the school which are not covered by the regular budget. These contributions have continued each year to reach a total of $1,700 in 1960.

The Society presented the School of Engineering with a portrait of Dean Emeritus James M. Robert in 1957 which now hangs in the Office of the Dean.

The Society also established in 1957 the James M. Robert Leadership Award to be presented to a senior for outstanding qualities of leadership which he has exhibited during his undergraduate career. The Award consists of a $50 prize and the name (Continued on Page 6)

DR. SULLIVAN JOINS CHEMICAL ENGINEERING FACULTY

Dr. Samuel L. Sullivan, Jr. recently completed the work for the Ph. D. degree at Texas A&M College where he also received his Bachelors and Masters degrees. He comes to Tulane this fall as Assistant Professor of Chemical Engineering with his wife and three daughters. During his career at Texas A&M, he held the Opportunity Award Scholarship, and two Dow Chemical Company Fellowships, a Texas Eastman Fellowship. He was honored by election to Phi Eta Sigma, Tau Beta Pi, Phi Lambda Upsilon, Phi Kappa Phi, and Sigma Xi. He has published six articles on the use of digital computers in multicomponent distillation calculation and on heat exchangers.
CIVIL ENGINEERING AT TULANE

Since World War II, a multitude of new discoveries in science, the problems of defense, and the need for research for the space age have brought startling changes in the civil engineering field. We have moved forward at an accelerated rate with each decade that has passed. This rapid acquisition of knowledge has inevitably brought new ideas in education.

Groups such as the American Society for Engineering Education, the American Society of Civil Engineers Task Committee on Civil Engineering Education and the Opinion Research Council have presented reports with recommendations for civil engineering education. Through the efforts of Cooper Union acting as the coordinating agent, supported by A.S.C.E., a grant was obtained from the National Science Foundation to finance last summer's Conference on Civil Engineering Education at Ann Arbor, Michigan, in which two representatives from Tulane participated.

No satisfactory single program of study has evolved from any of these groups. At the conference there was honest confusion and misunderstanding caused by lack of time to review and analyze all of the reports presented. At the same time there was the feeling that there is an urgent need to decide on the direction civil engineering education is to take in the future.

Through all of these reports, two objectives are evident in the philosophy of civil engineering education today: training for research and training for the practice of civil engineering. Each differs considerably from the other, both in its objectives and in the disciplines required for successful accomplishment.

Two years ago the present department head appointed an advisory staff of outstanding engineers in the various branches of the Civil Engineering profession over the country to advise the civil engineering department on its undergraduate curriculum.

The department, with the advice of the advisory board, has concluded that the vast majority of our students intend to become practicing engineers and that curricula must be adjusted to meet the continuing demand for such engineers. The need for civil engineers to design and build bridges, buildings, harbors, docks, wharves, sewage and water treatment plants, drainage systems, rocket launching sites, offshore drilling structures, pipelines, dams and myriad other structures; to plan the reclamation and development of large land areas; to make economic studies; to plan and design air and land transportation systems; and to control the waterways of this country is vital and growing.

The present objectives of the department are in line with the educational objectives so well outlined by the late Professor Daniel W. Mead, who said "The purpose of technical education is not so much to impart technical knowledge to the student as to furnish the training which will enable him to think clearly and accurately, to understand and investigate the conditions which surround the problem, to determine the fundamental principles upon which its successful solution depends, to ascertain and analyze the elements which influence or modify it, to design the structures and works needed for its successful development, to supervise the proper construction of such structures or work and to carry them to the consummation of a successful and economical completion."

In all civil engineering courses at Tulane, attention is focused on the inescapable fact that engineering is applied science. The earlier the student becomes familiar with some of the applications the sooner that all-important part of the learning process—interest—will be aroused. Nothing is more discouraging to the interest of most engineering students than hour after hour of study of theoretical basic science, with no opportunity to consider possible applications.

This statement of departmental philosophy in no way is intended to underestimate the tremendously significant influence of scientific training and research and it is hoped that we will provide stimulus to those intellectually gifted students who are inclined along those lines. We shall endeavor at all times to conduct research and contribute to the many varied areas of knowledge in civil engineering. Only through exposure to research can the young engineering candidate truly appreciate professional training.

The significant role of a study of the humanities is also recognized in the curriculum by the inclusion of certain humanistic electives.

At present the department offers the B.E. in C.E. and the M.S. in C.E. degrees. It is planned that in the near future a doctorate program will be initiated. It is hoped that a student could undertake either of two programs for the doctor's degree—one (Continued on Page 4)

HELP THY NEIGHBOR

Australia, India, Argentina, Japan, these and other foreign countries seem remote to us and as such, appear to have little influence on our lives. Yet, when you stop to consider the foreign students at Tulane, the full significance of how small this world of ours really is and how much we, yes you and I, can do in our own way to help promote good will and understanding, this picture becomes clearer.

Several years ago the problem of hospitality for foreign students and their families at Tulane was recognized and several groups, including Newcomb Alumnae Association, banded together to provide such help to these students. The job of providing such hospitality is a large one and deserves the support of all Alumni Groups.

Last June 28, all interested Alumni Groups were asked to attend a meeting to discuss this problem. Much interest was displayed to the extent that the following steering committee was appointed:

Stanley Dinkel—Engineering—Chairman.
John Pugh—Law.
Alfred Welley—Graduate School.
The committee was charged with the responsibility to study the situation and recommend a simple workable organization.

The committee will propose an interim organization of the Alumni Groups to parallel the present effective Community Hospitality Groups. It will also be proposed that when the new Hospitality Organization for International Students at Tulane becomes an effective operation it will merge with the present Hospitality Groups, extend the coverage to the National Students and thus form a single Hospitality Organization for Students At Tulane.

Each Alumni Group will be expected to:

a) Provide sponsors for certain students.
b) Arrange visits to local businesses and professional offices.
c) Assist in publicizing this important endeavor.
d) Cooperate in large group social activities.
e) Arrange intra-group social activities.

Who knows, maybe this idea will spread to other Universities and Colleges and that this will become one of the most hospitable nations in the world for students at places of higher learning.

S. G. Dinkel
(Continued from Page 3) would be professionally oriented and the other research oriented.

The department is fortunate to have a staff with exceptional attainments in varied professional fields. The acquisition of additional staff to handle specialized areas of an expanded graduate program is in progress.

A review of the staff and their activities indicates that these men have been engaged in professional practice, research, technical writing, construction, technical committee work and teaching for many years. Their experiences are varied, encompassing the design and construction of bridges, buildings, highways, offshore drilling structures, docks, water and sewage plants, etc. Their backgrounds uniquely qualify them to present a strong professional program.


At the sophomore level, Mr. Jeffrey and Mr. Gandolfo are teaching the mechanics and surveying courses. These are the first contacts the engineering students have with Civil Engineering and it is most appropriate that these first contacts be developed by a man responsible for the design of many of our skyscrapers and by a man whom many consider to be outstanding in the field of surveying.

At the junior level, where professional subjects predominate, Mr. Mayer is handling fluid mechanics, soil mechanics and engineering materials; Mr. McCarthy is teaching theory of structures and the hydraulic laboratory; Mr. Morphy is handling the course in mechanics of materials; Mr. Boh is in charge of the advanced engineering analysis and advanced strength of materials courses. Again the stature of these men in their respective fields is impressive. Mr. Mayer is one of the outstanding soil consultants in the south and in addition has served as a consultant in the fields of fluid mechanics, engineering materials, stress analysis and allied fields. Mr. McCarthy, at 30, is one of our youngest staff members. He has had previous teaching experiences at the University of Florida and professional experience with several top consulting firms. His major interest at the present time is transportation engineering. He is studying in this field at Purdue University in the summer months. Mr. Morphy is an associate in a local consulting firm and as such has been responsible for the design of many major buildings and other important structures. Mr. Boh is vice-president of Boh Brothers Construction Company. He has had previous teaching experience at Tulane and is considered a top engineering mathematician.

At the senior level construction engineering and contracts and specifications are taught by Mr. Ewin with Mr. Sutter assisting; sanitary engineering I and II are handled by Dr. Macdonald; advanced structural theory, reinforced concrete and highway engineering are taught by Mr. McCarthy; and foundation, bridge and structural design are handled by Mr. Blessey. Mr. Ewin has previously had both field and office background as a construction executive and in recent years has been a partner in an active firm of consulting engineers. Mr. Sutter has had broad experience in the various branches of construction contracting as Vice-President of a large company engaged in a wide variety of projects throughout the U.S. and abroad. Dr. Macdonald has attained an enviable reputation in the field of sanitary engineering, having served as a consultant on numerous engineering projects. Dr. Macdonald also holds the rank of Professor of Sanitation in the Public Health Department of the School of Medicine at Tulane University. Mr. Blessey has had extensive experience in graduate and undergraduate teaching with research interests in structural steel, prestressed concrete and reinforced concrete. His varied consulting practice involving the design of bridges, buildings, heavy foundations, offshore drilling structures and river and harbor structures make him a valuable staff member. His membership on national code-making and research committees in the fields of concrete and structural steel enable him to bring into his classroom teaching the latest developments in those areas.

All students are required to attend the camp of surveying practice at Gurley, Louisiana during the summer for a period of two weeks at the end of the sophomore year. The object of this camp is to familiarize the student with the techniques, scientific principles and degrees of accuracy involved in locating and building the

(Continued on Page 5)

DR. O'LOUGHLIN, ASSISTANT PROFESSOR IN MECHANICAL ENGINEERING

Dr. John R. O'Loughlin who recently was awarded the doctorate by Purdue University has been appointed Assistant Professor of Mechanical Engineering this fall. He brings to the university several years of teaching experience as instructor and assistant professor at Youngstown University, where he received the bachelor's degree, and also as teaching assistant at the University of Pittsburgh, where he was awarded the master's degree. His fields of specialization are in combustion and thermodynamics. He has done research on combustion of fuel sprays in ram jet engines mounted on helicopter rotors and also combustion in the hydrazine-diborane system. Dr. O'Loughlin held a Westinghouse scholarship as an undergraduate and also was the recipient of an ASME award.

(Continued from Page 1)

ing contributions to the solution of both operational and technical problems in the fields of aircraft and guided missiles.

Following assignments as B147 Squadron Commander and Director of Operations with the 40th Bomb Wing, Strategic Air Command, of Schilling AFB, Kans., Colonel Wetzel was transferred to the Air Force Ballistic Missile Division in Los Angeles in December 1957.

In April 1958 he was appointed Titan Program Director. His task was to develop a project that was still primarily in the concept stage. He was instrumental in guiding its progress through complex problems and technical break-throughs. On February 6th, 1959, he watched the launch of the big missile from Cape Canaveral on its first test flight. The Titan shot was not only successful but it was the first time an unflown missile had performed 100 per cent the first time off the pad.

Colonel Wetzel continued with the Titan project until he turned over the reins in April of this year. His new assignment will broaden his field of experience to include other missiles, but the name "Mr. Titan" will probably stick with him.

General Thomas D. White, Chief of Staff of the Air Force, before his recent retirement, sent Colonel Wetzel an autographed picture signed "Thanks to 'Red' Wetzel for a 'Titanic Job'!"
SOCIETY OF TULANE ENGINEERS
FINANCIAL STATEMENT
October 1960 - October 1961

Regular Operating Funds
Cash on Hand October 1960.................................................. $ 515.20
Dues Collected During Year................................................... 1172.00
Transfer From A. Lee Dunlap Fund........................................... 3.00
Executive Committee Senior Luncheon Fees.............................. 26.00

Total Cash on Hand and Receipts........................................... $1716.20

Disbursements
Bank Charges ........................................................................... $ 10.23
Mailing Costs—U.S. Post Office................................................ 347.00
Engineers Club of N. O. Participating Society Dues..................... 12.00
Printing Costs ........................................................................... 416.31
Addressograph Costs ................................................................ 18.00
Photograph of Offices ............................................................... 5.15
Senior Luncheon ....................................................................... 198.70
NSF Dues Check Returned by Bank............................................ 5.00
Transfer to Directory Fund......................................................... 2.00
Transfer to J. M. Robert Leadership Award Fund..……………….. 50.00
Tulane University—School of Engineering............................... 200.00

Total Disbursements ................................................................ $1262.39
Cash on Hand, October 1961..................................................... $ 453.81

James M. Robert, Leadership Award Fund
Balance in French Market Homestead, October 1960.................... $1155.26
Dividends Received During Year............................................... 45.97
Transfer From Operating Funds................................................ 50.00

Less 1961 Award to Mr. Roy A. Perrin, Jr.................................... 50.00

Balance as of October 1961...................................................... $1201.23
Funds on Hand for Publication of Directory as of October 1961..... $ 263.00

Roy E. Johnson, Treasurer
September 11, 1961

HONORS PROGRAM
ADOPTED BY ENGINEERING FACULTY

A program leading to the Bachelor of Science in Engineering degree with Honors was approved by the faculty of the School of Engineering last April. Selected students who have attained an overall quality point average of 3.5 at the end of the junior year, exclusive of Physical Training and ROTC, will be invited by the faculty to participate in the program and will be notified prior to the beginning of the senior year.

A faculty committee composed of five members, one from each department and one from the school at large, will guide students in the program, which will consist of (1) maintaining a 3.5 quality point average and (2) undertaking individual work leading to evidence of a creative effort to be done at the discretion of the faculty committee. This program not only recognizes and rewards exceptionally high scholarship, but encourages top students to use their originality and creativity in areas of particular interest to them.
From The Mail Bag

Edward Haspel, M.E., '10 is at present an attorney-at-law with the firm Baldwin, Haspel, Molony, Raimond and Meyer, New Orleans.

William O. Mascaro, M.E., '26 is the supervisor of electrical and instrument design at the Atlantic Refining Company in Philadelphia, Pa. He notes that a classmate, Thomas Broussard, is employed by the Westinghouse Electric Corp. in the Pennsylvania area.

Carroll J. Peirce, M.E., '31 is the coordinator of research and development at Goodyear Aircraft in Akron, Ohio.

Warren L. Jaubert, M.E., '39 is Public Works Engineer for the City of Las Vegas, Nevada.

Leonard H. Hebert, Jr., C.E., '44 is Vice-President of Gurtler, Hebert & Company, Inc., General Contractors, New Orleans.

Roy S. Slovenko, Ch.E., '48 is Assistant Manager of Economic Analysis of Projects in the Coordination and Supply Planning Dept. of American Oil Company in Chicago. W. E. McWhirter Ch.E., '49 also in this dept.

E. R. Gurtler Ch.E., '49 is with the Refining Coordination Dept. of Standard Oil Company. (New Jersey). He resides in Riverside, Conn.

L. A. Smith, Jr. M.E., '51 is engaged with instrumentation work of guided missiles for the U. S. Navy at Pt. Mugu, California.

Joseph Kirschners, Ch.E., '53 is currently teaching in the Irvington, N. J. Public School System.

Sidney C. Hargrett, C.E., '54 is a design engineer with Goodwin Engineers of the South in Birmingham, Alabama.

J. J. R. Reed, Ph.D., Ch.E., '61 is with the Research and Development Division of the Humble Oil and Refining Company in Baytown, Texas.

Frank W. Ebaugh, Ch.E., '23 is a Consulting Engineer in the development of natural resources in the Jacksonville, Texas area.

DR. Hrubecy appointed Professor of Mechanical Engineering

Dr. Henry F. Hrubecy joined the faculty in September as Professor of Mechanical Engineering bringing to the University an established reputation in the field of fluid mechanics. His principal fields of specialization are aerodynamics, boundary layer theory, and gas dynamics. He comes to Tulane from the University of Florida.

Dr. Hrubecy was awarded his B. S. in M. E. degree with high honors at the University of Illinois. He served as instructor at Virginia Polytechnic Institute for one year and studied at Charles University in Prague, Czechoslovakia for another year. He later received the Master of Science degree in Mechanical Engineering from the University of Illinois and the Ph. D. from Iowa State College. He also taught at Iowa State for six years before going to the University of Florida.

During the war he was engaged in the Office of Scientific Research and Development in Washington, D. C., and was awarded the Naval Municions Development Award in 1945. He has served as a consultant to the Worthington Corporation, Pratt and Whitney, Boeing, and the Martin Company.

He has produced some twenty-five publications and patents and has been honored by membership in Tau Beta Pi, Phi Kappa Phi, Sigma Tau, Pi Tau Sigma. He has held an Aeronautical Institute Scholarship and a Ford Foundation Research grant. He is currently a member of ASME, ASEE, the Society for Industrial and Applied Mathematics, and Sigma XI. He speaks French, German, Russian, and Czech fluently. He is married to the former Jean Wise and they bring three children with them to New Orleans.

ALUMNI DIRECTORY READIED FOR PUBLICATION

MORE SUBSCRIPTIONS NEEDED

Before the Executive Committee can go ahead with publication of the Alumni Directory, a total of 350 subscriptions must be received. To date, the total number of subscriptions received stands at 263. We must receive a minimum of 87 additional sub-

JOIN STE TODAY!

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