

# College Group Studies Clouds From Outside

Meteorologists have long dreamed of being able to look at the clouds from the "outside-in" to learn more about the weather.

Today, A&M research meteorologists are doing just that, thanks to thousands of photos from TIROS—the Television InfraRed Observation Satellites.

Because of the wealth of information being made available by the satellite transmitting pictures from some 450 miles in space, Dr. A. H. Thompson, associate professor of meteorology, is heading up a \$28,000 research project for the Air Force's Office of Aerospace Research.

#### As Satellite Orbits

After a Thor-Delta rocket boosts a weather-watching TIROS satel-

lite to its orbit in space, the two cameras go to work and photograph — on command from earth stations — an area some 800 miles wide and several thousand miles long. They store the series of pictures on magnetic tape and then send them to earth to a television receiver. Long strips of 35 mm film record the images on the TV screen. These are what Thompson receives to analyze for weather phenomena.

Using photo data from the "far-out weather eye," Thompson and his colleagues are making a three-phase study of the weather clouds over the Gulf regions.

#### Recent Shortcomings

Until recently, meteorologists could report weather conditions

on only some 10 per cent of the earth's surface because of the lack of observation stations. This was especially true of the Gulf of Mexico.

Now the A&M researchers can take a regional view — an area stretching from Louisiana to Mexico's Yucatan peninsula and northwest to New Mexico — as they study hundreds of photos.

They are interested in learning more about (1) vertical motions and related cloud patterns, (2) Gulf storm and hurricane development, (3) Gulf fog and stratus clouds along the Texas-Louisiana coast.

#### Research Task Stated

It is the task of the research meteorologists to correlate all this new visual information with the weather data that is on record from other ground observations.

"We are looking for interesting weather situations but not necessarily uncommon ones," Dr. Thompson says. Pointing to an enlargement of a 35 mm photograph, he said, "We look for a particular cloud pattern and ask ourselves: why is it there? why is it lined up as it is? what does it tell us about what will happen?"

In other words, meteorologists do not yet completely know what TIROS is showing them. By relating the TIROS view of the weather to what is actually observed from the ground, more knowledge of weather phenomena is being recorded for future use.

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## MSC Hikes Room Rates

Rates for guest rooms in the Memorial Student Center have been increased for the coming year, according to an announcement by Charles E. Cosper, assistant director and business manager of the MSC.

New rates will be \$6 for a standard single room, \$9 for a standard twin bedroom, \$6.50 for a large standard single room, \$9.50 for a large standard twin room and \$11 for a deluxe twin bedroom.

According to Cosper, the change was necessary "to provide our guests with the type of accommodations they expect and deserve when they are on campus."

## System Asks Budget Hike

A staggering 41 per cent increase from the Texas general revenue funds is being asked by the A&M System for operational funds for the year 1963-64, and if it is granted the additional amount will mean almost eight million more for the college complex.

Total amount sought is \$25,294,042 as compared with the \$17,915,430 already granted for this fiscal year. The proposed budget was submitted by members of the A&M Board of Directors and administrators at a meeting with state officials here.

Representing the state at the annual meeting is the Legislative Budget Board, Executive Budget Office and the Texas Commission on Higher Education. The requests are for A&M, Arlington State, Prairie View A&M and Tarleton State, all members of the A&M complex.

A&M's individual request for funds represented an increase of \$2,296,632 from the general revenue fund for 1963-64. This increase would give A&M a total of \$8,200,777 from the state.

A forecast decrease in revenues from "other sources" such as grants, federal funds and interest on time deposits was one of the major reasons in asking for the large increase, A&M is expecting a large increase in enrollment in the coming years, another major reason for the increased budget request.

These projected "other revenue sources" is expected to yield \$2,006,732 in 1963-64, down from the projected revenue for this fiscal year.

## AT FALL PRESENTATION

# Great Issues Features Best-Selling Author!

William L. Shirer, author of several best-sellers, will be on campus this fall as student-sponsored Great Issues program.

Shirer, whose radio voice from Berlin became familiar to millions during the Hitler regime, will be one of several outstanding programs for the 1962-63 Great Issues.

Slated to speak Oct. 16, Shirer has lived and worked in Europe and Asia for two decades. He has received many honors, including the George Foster Peabody Award, radio's coveted prize, with Wendell Willkie One World Award for his outstanding achievement in journalism, and the Legion of

Honor from France.

His best-known works include The Rise and Fall of the Third Reich, Berlin Dairies, End of a Berlin Dairy, The Traitor, MidCentury Journey and the Challenge of Scandinavia.

His subject during his A&M visit will involve "Russia and Germany—Keys to the Future."

Although plans are still not complete, the Great Issues Committee plans to hold a two or three-day space fiesta in early February. The program is to feature space officials of national importance, along with exhibits of equipment and methods used in space flight.

The Great Issues Committee is

another Memorial Student Center based committee, whose goal is to bring to the campus speakers who will broaden the student's horizons.

Featured in previous years have been authors, statesmen, diplomats and people in other fields who give the student knowledge he never receives from books.

## Jack V. Walker Receives Grant For More Study

Jack V. Walker, an instance of nuclear engineering, is one of recipients of Southern Fellowship awards for advanced study during 1962-63. He will study

These dissertation year fellowships have been made to those who, having completed all degree requirements except dissertation research, writing and defense, expect to complete requirements during the year 1963.

The Southern Fellowship is announcing its eighth annual awards, also announced the fellowships for 1962-63 and final awards in programs begun in 1954 through funds granted the Council of Southern Universities, Inc., by the General Education Board.

## 3 Vet Graduates Take Exam Honors

Two of the A&M graduates in veterinary medicine won national honors and a third student won regional honors in the National Board Examination, officials of the School of Veterinary Medicine here have been advised.

The three students received their degrees late in May. They and 24 other A&M students completing their studies in veterinary medicine voluntarily took the examinations in April on the Oklahoma State University campus. All passed.

Harry P. Dodge, son of Wilson T. Dodge of 2209 Oldham Street, Austin, tied with another student in the group for the top score in the entire examination. He also was top scorer in the Bacteriology-Parasitology and Surgery fields, two of the eight subject matter areas included in the examination. A 1955 graduate of Stephen F. Austin High School in Austin, he plans to accept a U. S. Army commission as first lieutenant.

Barry S. Phillip, son of George L. Phillip of Route 2, Richmond, was the top scorer in this region in Anatomy and tied for top score in the nation. He graduated from Lamar Consolidated High School at Rosenberg in 1948. He plans to enter private practice in Rosenberg.

Steven S. Nicholson was the top scorer in Medicine and tied for national high in that area of subject matter. He is the son of W. C. Nicholson of Rt. 4, Robstown, and

a 1956 graduate of the College Academy in Corpus Christi. His plans have not been announced.

A veterinarian to practice in Texas is not required to take the National Board Examination, but 27 members of the graduating class at A&M wanted to do so and made the trip to the Oklahoma State campus in April.

The National Board Examination is compiled by a professional examining service and is administered by the official licensing board of the state.

## NSF Grant Will Assist Study Of Math Models

A National Science Foundation grant to develop mathematical models that describe the operation of actual distillation columns in petrochemical plants has been made to Dr. C. D. Holland, professor of chemical engineering.

Made through the A&M Research Foundation, the \$14,000 NSF grant is for research on "Convergence Methods for Distillation Calculations."

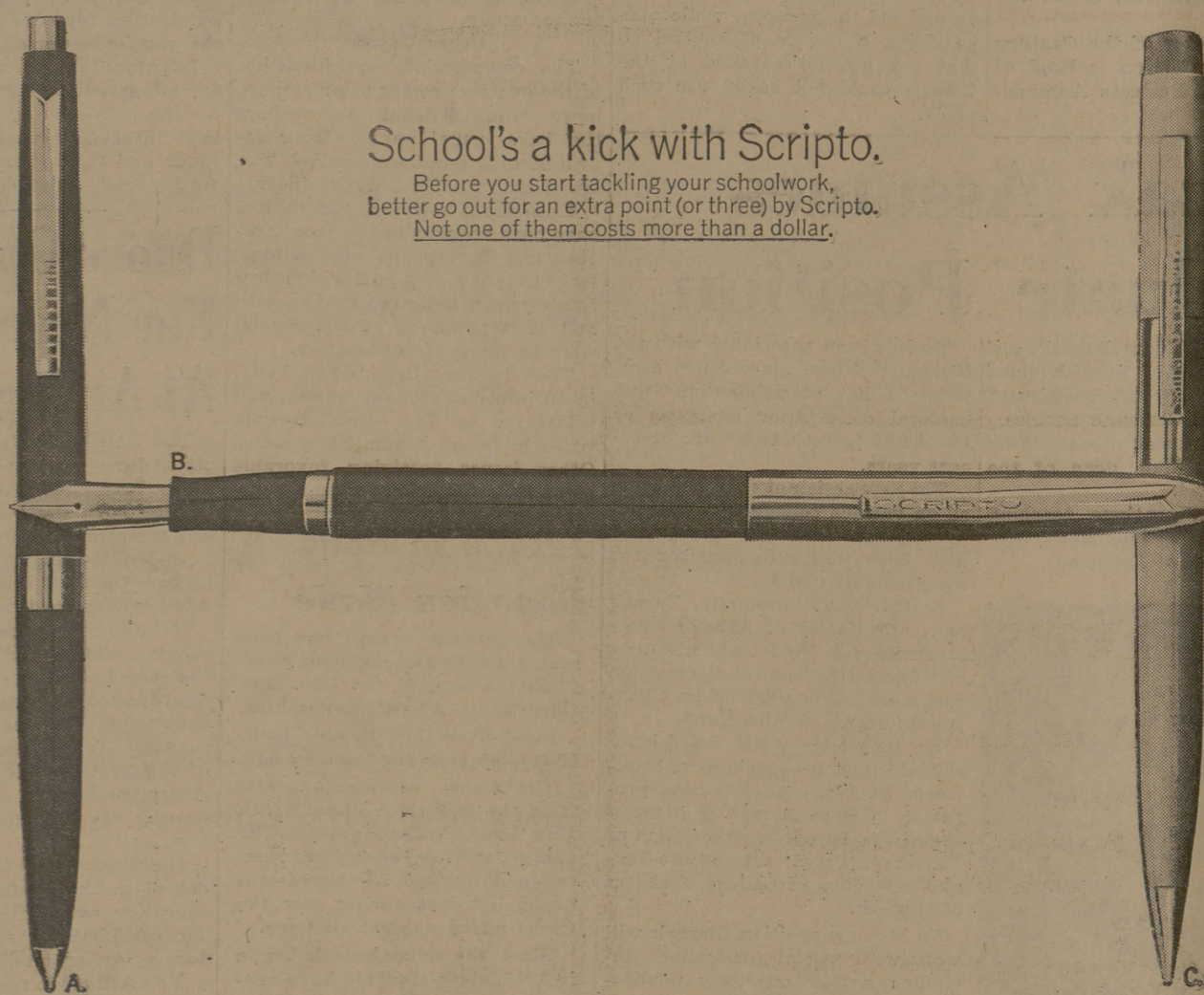
The project is a continuation of research supported by the Humble Oil & Refining Co. and Esso Research and Engineering Co. to seek the best mathematical models possible using the best data available.

Long range applications of this type of research include making

of more exotic rocket fuels, line and other chemicals throughout the petroleum and chemical industries.

Other NSF projects directed by Holland include development of convergence methods for distillation units containing streams (under a \$6,300 grant) and studying the fundamentals involved in rate of transfer of materials between vapor and liquid phases (under a \$27,700 grant).

Graduate students working on these research projects include L. Taylor, R. C. Waggoner, Davis II, J. M. Strygley, Stiles and B. W. Hardy of College Station.



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